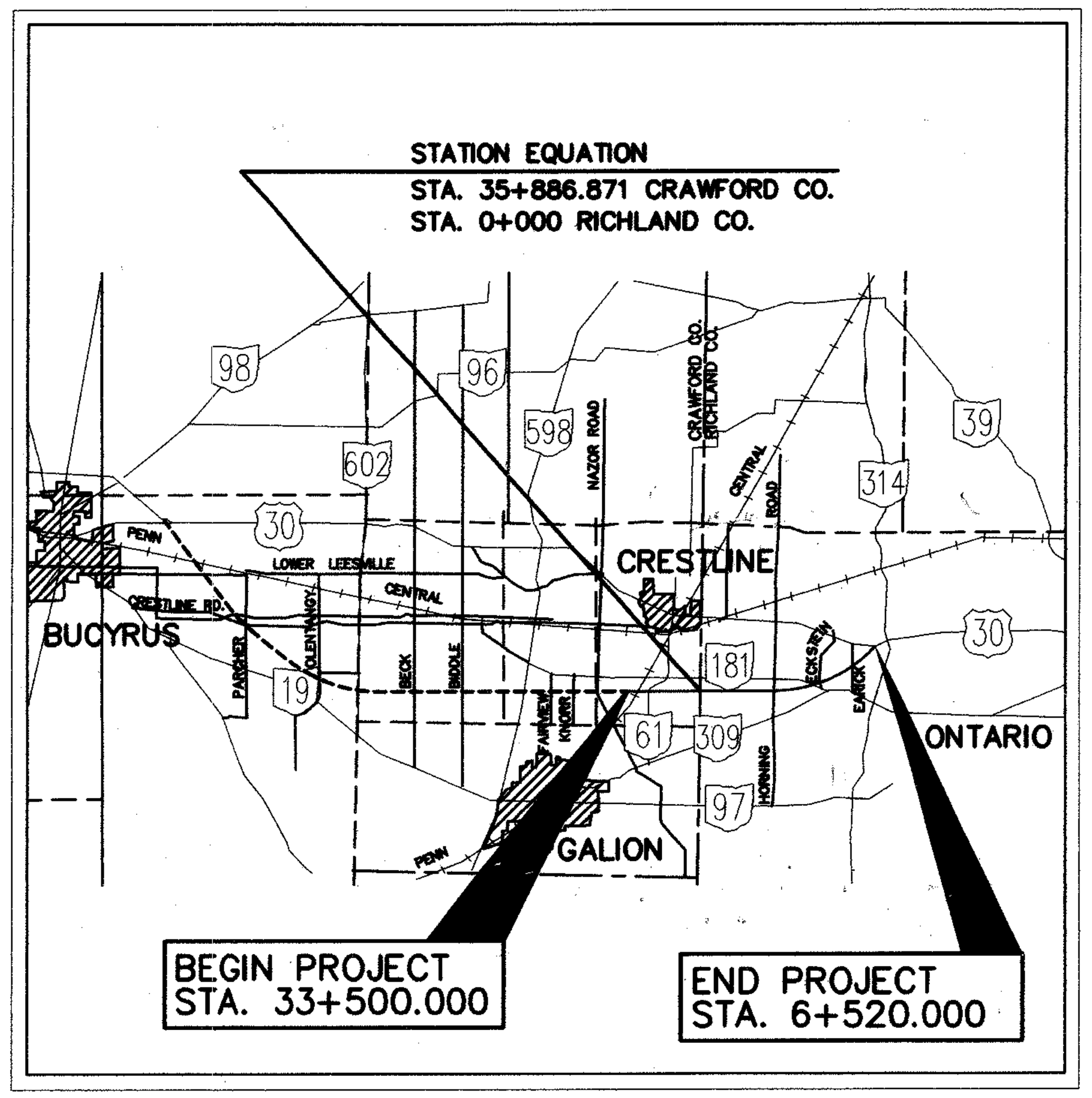

LOCATION MAP

LATITUDE: N 40°46'00" LONGITUDE: W 82°47'30"

SCALE IN KILOMETERS
0 0.5 1 2

PORTION TO BE IMPROVED
STATE & FEDERAL ROUTES (20) (30)
OTHER ROADS

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
CALL 1-800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

DESIGN DESIGNATION
SEE SCHEMATIC

DESIGN EXCEPTION:

DESIGN FEATURE	APPROVED DATES	SHEET NUMBERS
SR 181-HORIZONTAL CURVE RADIUS	3-6-00	352,384
SR 181-SUPERELEVATION RATE	3-6-00	352,384

STATE OF OHIO THOMAS D.Y. FOK 24279 REGISTERED PROFESSIONAL ENGINEER

Thomas D. Y. Fok 12-29-00
THOMAS D.Y. FOK, P.E., P.S. DATE
CHAIRMAN

Bryan E. McCoy 12-29
BRYAN E. McCOY, P.E., P.S. DATE
VICE CHAIRMAN

STATE OF OHIO BRYAN E. McCOY E-27739 REGISTERED PROFESSIONAL ENGINEER

PLAN PREPARED BY:
McCOY/FOK ASSOCIATES, INC.
367 Ghent Rd.
Akron, Ohio 44333

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

CRA/RIC-30-33.500/0.000

JACKSON TOWNSHIP
SANDUSKY TOWNSHIP
SPRINGFIELD TOWNSHIP
CRAWFORD AND RICHLAND COUNTIES

metric units

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NO. 132 OMITTED
NO. 368 OMITTED
NO. 381-383 OMITTED
NO. 576-577 OMITTED
NO. 711 OMITTED

SPECIAL PROVISIONS
INDIVIDUAL PERMIT NO. (B)-96-493-001(3) DATED: 08-23-01

STANDARD CONSTRUCTION DRAWINGS										SUPPLEMENTAL SPECIFICATIONS			
BP-3.1	07-28-00	F-3.1	07-28-00	TC-12.30	01-19-01	LA-1.1	07-28-00	MT-95.30M	04-25-94	806	09-09-97		
BP-4.1	07-28-00	F-3.3	07-28-00	TC-21.20	01-19-01	LA-1.2	07-28-00	MT-95.40M	04-25-94	814	06-02-98	905	04-01-98
BP-5.1	07-28-00	F-3.4	07-28-00	TC-22.10	01-19-01	HL-10.11M	05-01-95					906	05-05-98
BP-6.1	07-28-00			TC-41.10	01-19-01	HL-10.12	07-20-01	MT-99.50M	03-01-96	816	04-21-97	910	07-11-00
BP-9.1	07-29-00	GR-1.1M	10-21-97	TC-41.20	01-19-01	HL-10.13M	05-01-95	MT-99.51M	03-01-96	830	10-21-98	954	09-09-97
		GR-1.2M	01-03-96	TC-41.50	01-19-01	HL-20.11M	03-31-95	MT-101.60M	04-25-94	839	06-14-95		
CB-2.3	07-20-01	GR-1.3M	11-30-94	TC-42.10	01-19-01	HL-30.11	07-20-01	MT-105.10M	04-25-94	842	01-06-99	908	11-07-00
CB-3.1	07-20-01	GR-2.1M	04-14-98	TC-42.20	04-20-01	HL-30.21M	05-01-95	MT-105.11M	04-25-94	844	01-06-99		
CB-3.2	07-20-01	GR-3.1M	10-21-97	TC-52.10	04-20-01	HL-30.22	07-20-01			846	09-09-97		
CB-3.4	07-20-01	GR-4.1M	11-30-94	TC-52.20	04-20-01	HL-40.10	07-20-01	AS-1-81M	10-25-94	863	10-12-99		
		GR-4.2M	10-21-97	TC-61.10	01-19-01	HL-60.11	07-20-01			864	07-11-00		
DM-1.1	07-20-01	GR-4.3M	10-21-97	TC-65.10M	11-01-95	HL-60.31	07-20-01	ICD-1-82M	03-20-95	870	03-27-01		
DM-1.2	07-20-01	GR-4.4M	11-30-94	TC-65.11M	11-01-95			GSD-1-96M	11-21-97	877	04-13-99		
DM-4.2	07-20-01	GR-5.1M	04-21-95	TC-65.12M	11-01-95	MH-1.1	07-20-01			880	11-07-00		
DM-4.3	07-20-01	GR-5.2M	11-30-94	TC-71.10M	09-01-93			SICD-1-96M	02-12-97	887	03-28-00		
DM-4.4	07-20-01	GR-5.3M	11-30-94	TC-72.20	01-19-01	RM-1.1	04-29-99	SBR-1-99M	01-12-99	894	10-12-99		
		GR-6.1M	01-03-96	HW-2.1M	07-12-95	RM-4.2M	10-21-97			899	10-21-98		
F-2.1	07-28-00	GR-6.2M	01-03-96	HW-2.2M	07-12-95	RM-4.5M	10-21-97						

PROJECT DESCRIPTION

RELOCATION OF U.S. ROUTE 30 THROUGH PARTS OF CRAWFORD AND RICHLAND COUNTIES. BEGINNING APPROXIMATELY 0.75 KM WEST OF S.R. 61 AND ENDING AT THE WESTERN TERMINUS OF THE ONTARIO BYPASS. THE TOTAL LENGTH OF THIS PROJECT IS APPROXIMATELY 8.907 KM. THE PROJECT CONSISTS OF CONSTRUCTING A FOUR-LANE DIVIDED, LIMITED ACCESS HIGHWAY ON NEW ALIGNMENT, PARTIAL COMPLETION OF ONE INTERCHANGE, CONSTRUCTION OF ONE FULL DIAMOND INTERCHANGE, CROSSROAD AND RAILROAD GRADE SEPARATIONS AND RELOCATIONS, STRUCTURES OVER VARIOUS ROADS, TRAFFIC CONTROL AND LIGHTING.

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE REVISED CODE OF OHIO

1997 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING OF THE HIGHWAY TO TRAFFIC EXCEPT AS NOTED ON SHEET 25-55e, AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

UNDER AUTHORITY OF SECTION 4511.21, DIVISION (1) OF THE REVISED CODE OF OHIO, THE REVISED PRIMA FACIE SPEED LIMITS AS INDICATED HEREIN ARE DETERMINED TO BE REASONABLE AND SAFE, AND ARE HEREBY ESTABLISHED FOR THE DURATION OF THIS PROJECT. THE PRIMA FACIE SPEED LIMITS OR LIMITS HEREBY ESTABLISHED SHALL BECOME EFFECTIVE WHEN APPROPRIATE SIGNS GIVING NOTICE THEREOF ARE ERECTED.

APPROVED Thomas M. [illegible]
DATE 8-30-01 DISTRICT DEPUTY DIRECTOR

APPROVED Gordon Proctor
DATE 10-25-01 DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO. TE21-G990 (075)
PID NO. 16284
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT CSX
CRA/RIC-30-33.500/0.000

CRA - USR 30 - 33.500/0.000
020033 PID - 16284
Dist 3 1/23/2002

GT001.DWG
12-27-2000 9:21 AM
1:1000M

RAMP CURVE DATA

RAMP "I" CURVE DATA
PI = STA. I 4+005.970
Δ = 18°36'18" LT.
T = 40.950 m
R = 250.000 m
L = 81.180 m
E = 3.332 m
$e_{MAX.}$ = 0.079

RAMP "L" CURVE DATA
PI= STA. L 4+489.098
Δ =15°16'49" LT.
T = 59.022 m
R = 440.000 m
L = 117.344 m
E = 3.941m
$e_{MAX.}$ = 0.072

RAMP "L" CURVE DATA
PI= STA. L 4+636.360
Δ =08°08'22" LT.
T = 88.940 m
R = 1250.000 m
L = 177.580 m
E = 3.160 m
$e_{MAX.}$ = 0.033

RAMP "J" CURVE DATA
PI= STA. J 3+896.629
Δ =07°55'44" RT.
T = 86.629 m
R = 1250.000 m
L = 172.982 m
E = 2.998 m
$e_{MAX.}$ = 0.033

RAMP "J" CURVE DATA
PI= STA. J 4+028.049
Δ =11°41'46" RT.
T = 45.067 m
R = 440.000m
L = 89.820 m
E = 2.302 m
$e_{MAX.}$ = 0.072

RAMP "K" CURVE DATA
PI= STA. K 4+540.710
Δ = 13°16'16" RT.
T = 29.084 m
R = 250.000 m
L = 57.907 m
E = 1.686 m
$e_{MAX.}$ = 0.079

DESIGN CRITERIA: S.R. 61

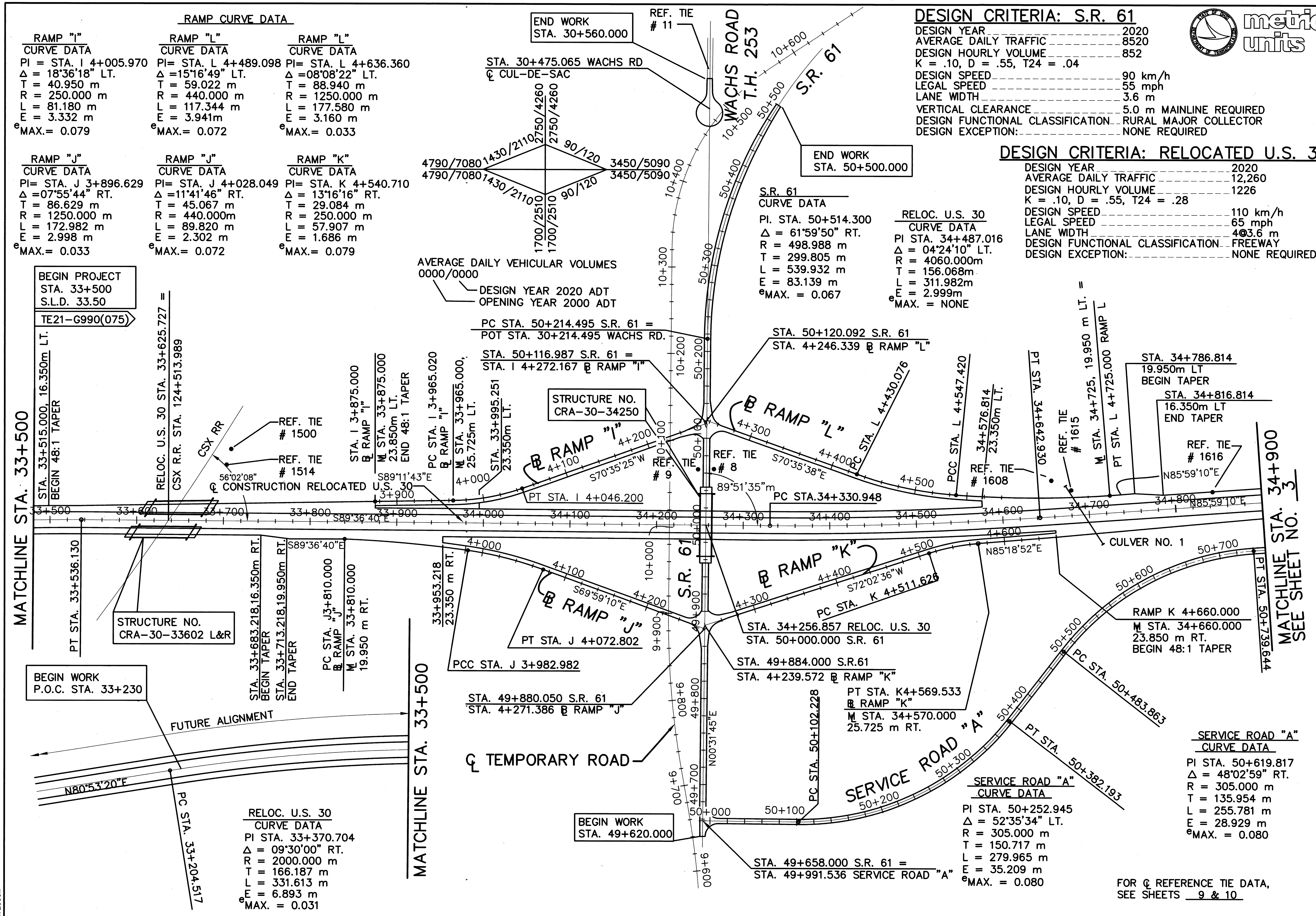
DESIGN YEAR	2020
AVERAGE DAILY TRAFFIC	8520
DESIGN HOURLY VOLUME	852
K = .10, D = .55, T24 = .04	
DESIGN SPEED	90 km/h
LEGAL SPEED	55 mph
LANE WIDTH	3.6 m
VERTICAL CLEARANCE	5.0 m MAINLINE REQUIRED
DESIGN FUNCTIONAL CLASSIFICATION	RURAL MAJOR COLLECTOR
DESIGN EXCEPTION:	NONE REQUIRED

DESIGN CRITERIA: RELOCATED U.S. 30

DESIGN YEAR	2020
AVERAGE DAILY TRAFFIC	12,260
DESIGN HOURLY VOLUME	1226
K = .10, D = .55, T24 = .28	
DESIGN SPEED	110 km/h
LEGAL SPEED	65 mph
LANE WIDTH	4@3.6 m
DESIGN FUNCTIONAL CLASSIFICATION	FREEWAY
DESIGN EXCEPTION:	NONE REQUIRED

S.R. 61 CURVE DATA
PI. STA. 50+514.300
Δ = 61°59'50" RT.
R = 498.988 m
T = 299.805 m
L = 539.932 m
E = 83.139 m
$e_{MAX.}$ = 0.067

RELOC. U.S. 30 CURVE DATA
PI STA. 34+487.016
Δ = 04°24'10" LT.
R = 4060.000m
T = 156.068m
L = 311.982m
E = 2.999m
$e_{MAX.}$ = NONE



RELOC. U.S. 30 CURVE DATA
PI STA. 33+370.704
Δ = 09°30'00" RT.
R = 2000.000 m
T = 166.187 m
L = 331.613 m
E = 6.893 m
$e_{MAX.}$ = 0.031

SERVICE ROAD "A" CURVE DATA
PI STA. 50+252.945
Δ = 52°35'34" LT.
R = 305.000 m
T = 150.717 m
L = 279.965 m
E = 35.209 m
$e_{MAX.}$ = 0.080

SERVICE ROAD "A" CURVE DATA
PI STA. 50+619.817
Δ = 48°02'59" RT.
R = 305.000 m
T = 135.954 m
L = 255.781 m
E = 28.929 m
$e_{MAX.}$ = 0.080

FOR ℄ REFERENCE TIE DATA, SEE SHEETS 9 & 10

metric units

SCALE 1:2000 HORIZONTAL SCALE IN METERS

CALCULATED W.F. CHECKED W.J.S.

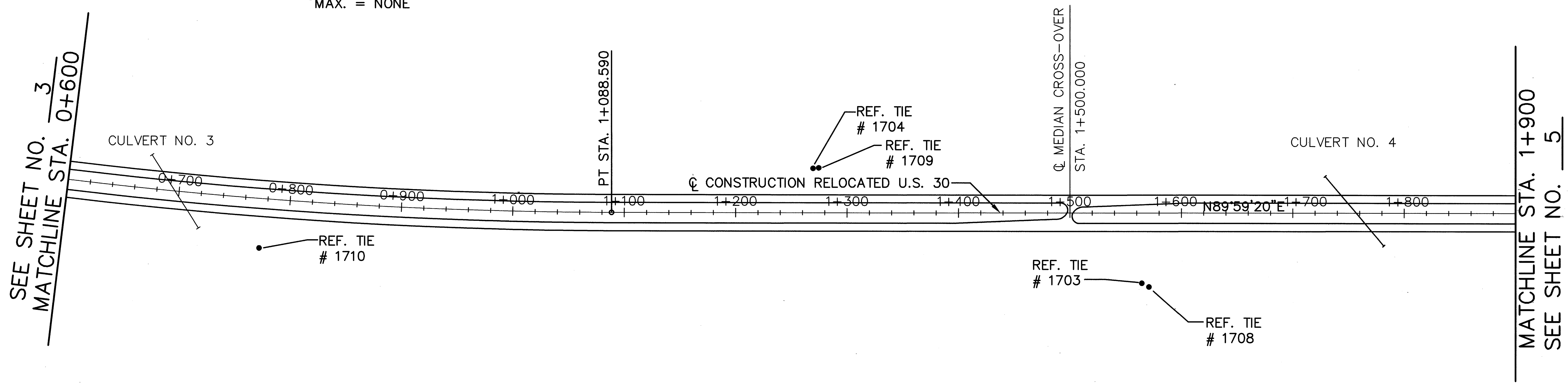
SCHEMATIC PLAN – RELOCATED U.S. 30 STA. 33+500 TO STA. 34+900

CRA/RIC-30-33.500/0.000

GB001.DWG 05-10-2001 8:53 AM 1:2000M

GB002.DWG
08-30-2001 2:55 PM
SCALE: 1:2000M

RELOC. U.S. 30
CURVE DATA
PI STA. 0+794.937
Δ = 08°18'10" LT.
R = 4060.000m
T = 294.685m
L = 588.338m
E = 10.680m
e MAX. = NONE



FOR ℄ REFERENCE TIE DATA, SEE SHEETS 9 & 10

metric units

SCALE 1:2000
0 20 40 80
HORIZONTAL SCALE IN METERS

CALCULATED W.F.
CHECKED W.J.S.

SCHEMATIC PLAN – RELOCATED U.S. 30
STA. 0+600 TO STA. 1+900

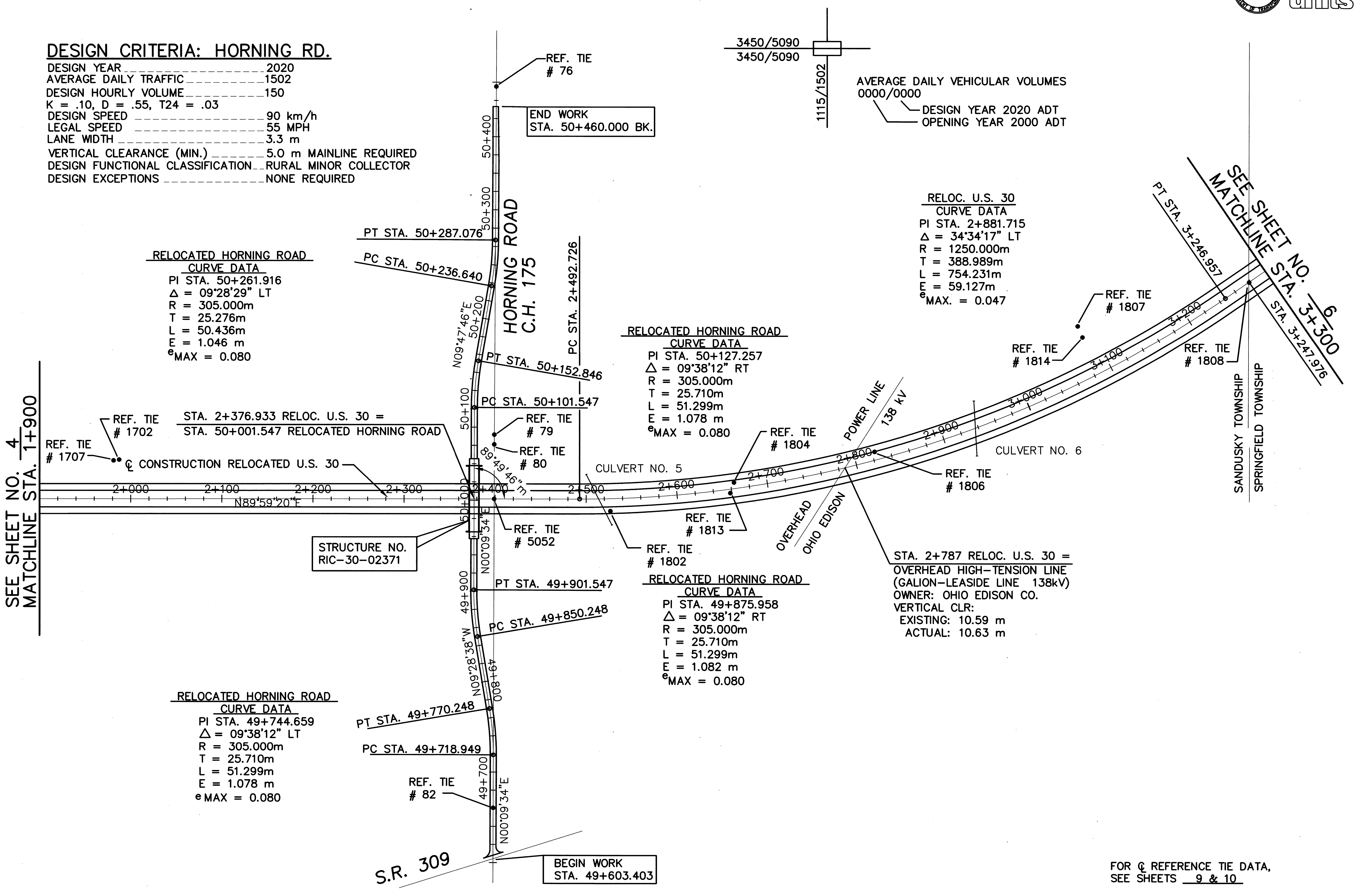
CRA/RIC-30-33.500/0.000

4
712

GB003.DWG
03-19-1999 10:27 AM
1:2000M

DESIGN CRITERIA: HORNING RD.

DESIGN YEAR	2020
AVERAGE DAILY TRAFFIC	1502
DESIGN HOURLY VOLUME	150
K = .10, D = .55, T24 = .03	
DESIGN SPEED	90 km/h
LEGAL SPEED	55 MPH
LANE WIDTH	3.3 m
VERTICAL CLEARANCE (MIN.)	5.0 m MAINLINE REQUIRED
DESIGN FUNCTIONAL CLASSIFICATION	RURAL MINOR COLLECTOR
DESIGN EXCEPTIONS	NONE REQUIRED



FOR ℄ REFERENCE TIE DATA, SEE SHEETS 9 & 10

metric units

scale 1:2000
0 20 40 80
HORIZONTAL SCALE IN METERS

CALCULATED W.F.
CHECKED W.J.S.

SCHEMATIC PLAN – RELOCATED U.S. 30
STA. 1+900 TO STA. 3+300

CRA/RIC-30-33.500/0.000

GB004.DWG
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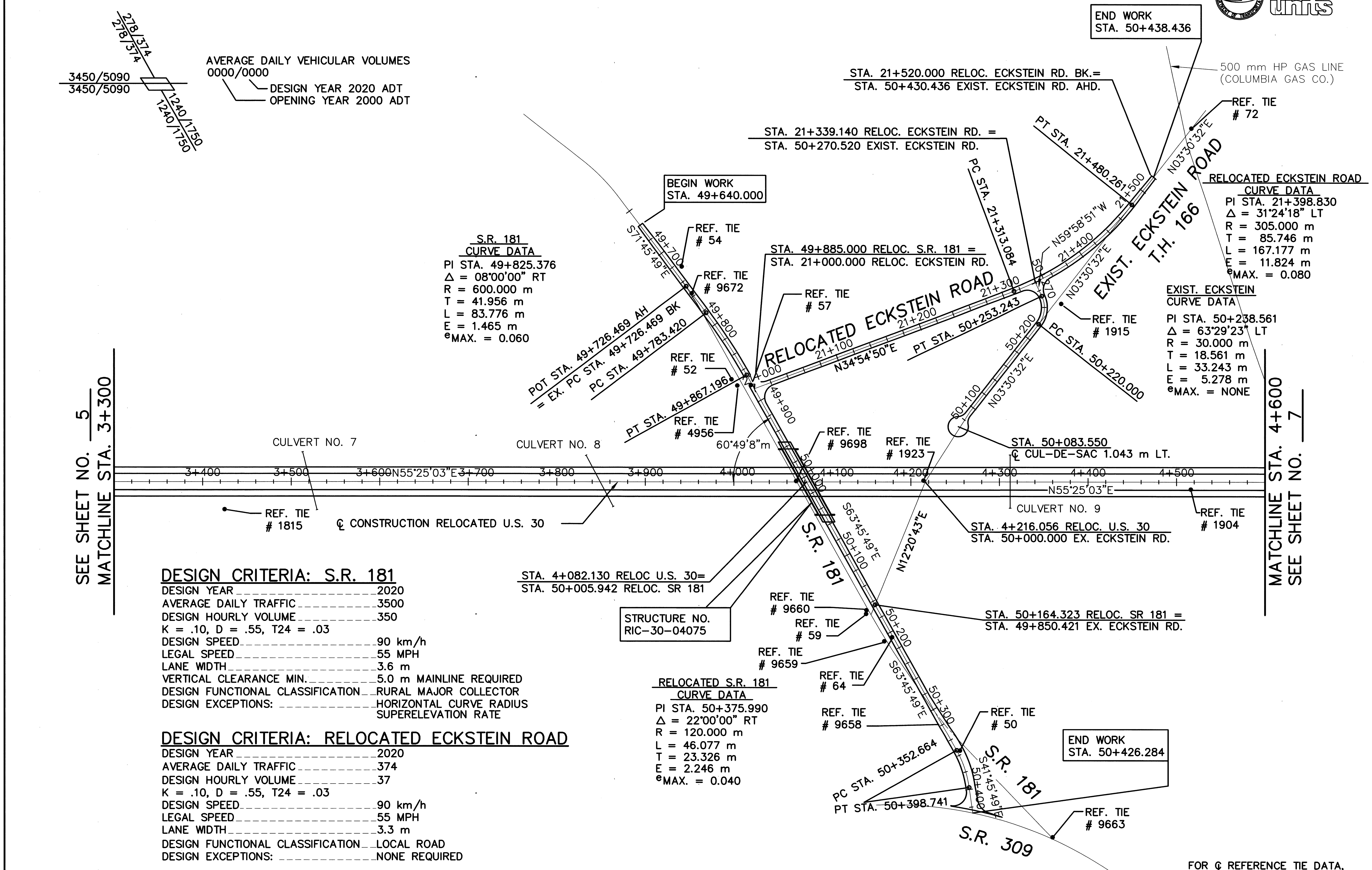
1:2000M



DESIGN CRITERIA: S.R. 181

DESIGN YEAR	2020
AVERAGE DAILY TRAFFIC	3500
DESIGN HOURLY VOLUME	350
K = .10, D = .55, T24 = .03	
DESIGN SPEED	90 km/h
LEGAL SPEED	55 MPH
LANE WIDTH	3.6 m
VERTICAL CLEARANCE MIN.	5.0 m MAINLINE REQUIRED
DESIGN FUNCTIONAL CLASSIFICATION	RURAL MAJOR COLLECTOR
DESIGN EXCEPTIONS:	HORIZONTAL CURVE RADIUS SUPERELEVATION RATE

DESIGN CRITERIA: RELOCATED ECKSTEIN ROAD

DESIGN YEAR	2020
AVERAGE DAILY TRAFFIC	374
DESIGN HOURLY VOLUME	37
K = .10, D = .55, T24 = .03	
DESIGN SPEED	90 km/h
LEGAL SPEED	55 MPH
LANE WIDTH	3.3 m
DESIGN FUNCTIONAL CLASSIFICATION	LOCAL ROAD
DESIGN EXCEPTIONS:	NONE REQUIRED

FOR ℄ REFERENCE TIE DATA, SEE SHEETS 9 & 10

metric units

SCALE 1:2000 HORIZONTAL SCALE IN METERS 0 20 40 80

CALCULATED W.F. CHECKED W.J.S.

SCHEMATIC PLAN – RELOCATED U.S. 30
STA. 3+300 TO STA. 4+600

CRA/RIC-30-33.500/0.000

GB005.DWG
08-22-2000 3:56 PM
1:2000M

AVERAGE DAILY VEHICULAR VOLUMES
0000/0000
DESIGN YEAR 2020 ADT
OPENING YEAR 2000 ADT

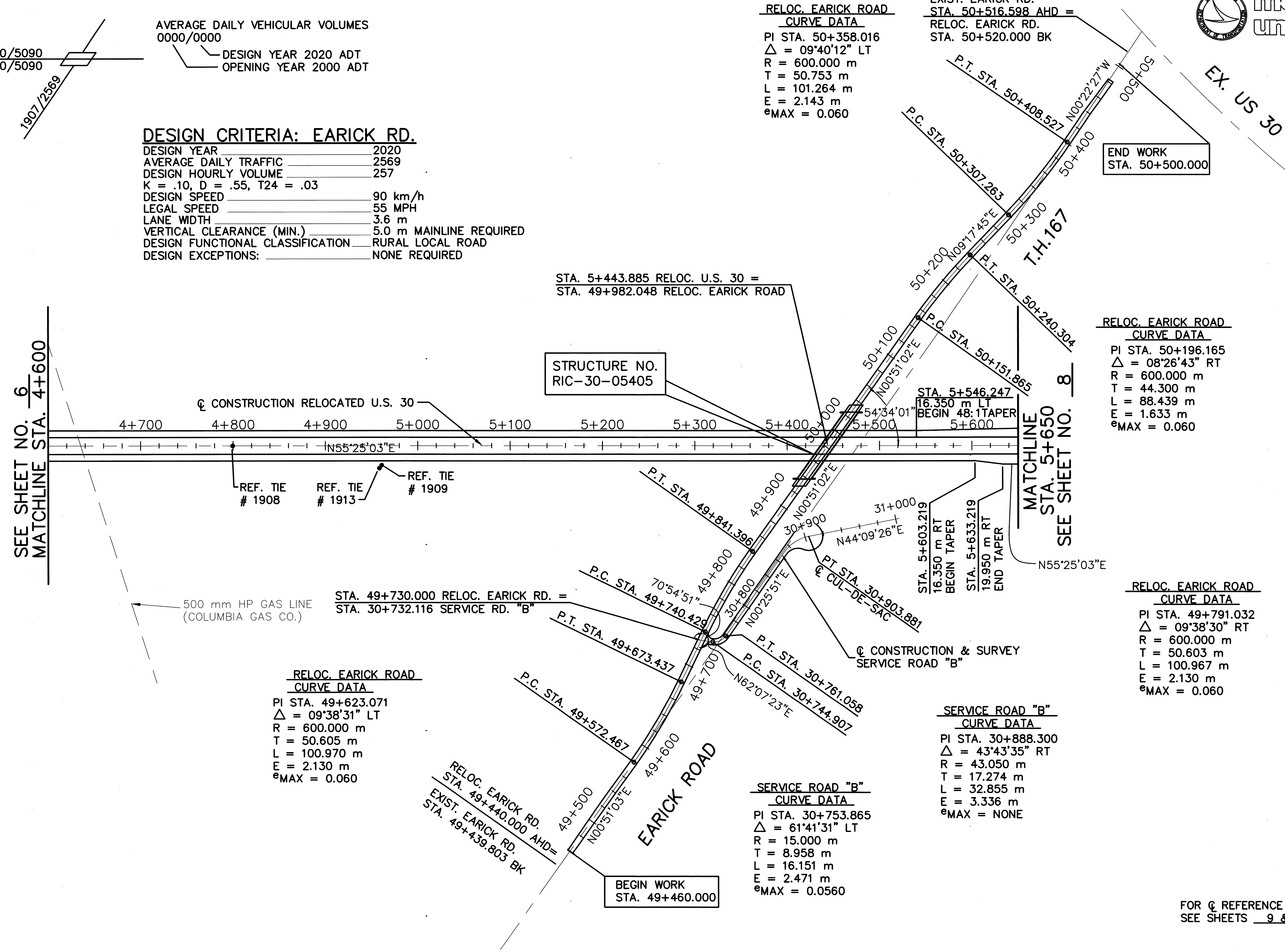
3450/5090
3450/5090
1907/2569

DESIGN CRITERIA: EARICK RD.

DESIGN YEAR	2020
AVERAGE DAILY TRAFFIC	2569
DESIGN HOURLY VOLUME	257
K = .10, D = .55, T24 = .03	
DESIGN SPEED	90 km/h
LEGAL SPEED	55 MPH
LANE WIDTH	3.6 m
VERTICAL CLEARANCE (MIN.)	5.0 m MAINLINE REQUIRED
DESIGN FUNCTIONAL CLASSIFICATION	RURAL LOCAL ROAD
DESIGN EXCEPTIONS:	NONE REQUIRED

RELOC. EARICK ROAD
CURVE DATA
PI STA. 50+358.016
△ = 09°40'12" LT
R = 600.000 m
T = 50.753 m
L = 101.264 m
E = 2.143 m
eMAX = 0.060

EXIST. EARICK RD.
STA. 50+516.598 AHD =
RELOC. EARICK RD.
STA. 50+520.000 BK



RELOC. EARICK ROAD
CURVE DATA
PI STA. 50+196.165
△ = 08°26'43" RT
R = 600.000 m
T = 44.300 m
L = 88.439 m
E = 1.633 m
eMAX = 0.060

RELOC. EARICK ROAD
CURVE DATA
PI STA. 49+791.032
△ = 09°38'30" RT
R = 600.000 m
T = 50.603 m
L = 100.967 m
E = 2.130 m
eMAX = 0.060

RELOC. EARICK ROAD
CURVE DATA
PI STA. 49+623.071
△ = 09°38'31" LT
R = 600.000 m
T = 50.605 m
L = 100.970 m
E = 2.130 m
eMAX = 0.060

SERVICE ROAD "B"
CURVE DATA
PI STA. 30+888.300
△ = 43°43'35" RT
R = 43.050 m
T = 17.274 m
L = 32.855 m
E = 3.336 m
eMAX = NONE

SERVICE ROAD "B"
CURVE DATA
PI STA. 30+753.865
△ = 61°41'31" LT
R = 15.000 m
T = 8.958 m
L = 16.151 m
E = 2.471 m
eMAX = 0.0560

FOR ℄ REFERENCE TIE DATA,
SEE SHEETS 9 & 10

metric units

SCALE 1:2000
0 20 40 80
HORIZONTAL SCALE IN METERS

CALCULATED W.F.
CHECKED W.J.S.

SCHEMATIC PLAN – RELOCATED U.S. 30
STA. 4+600 TO STA. 5+650

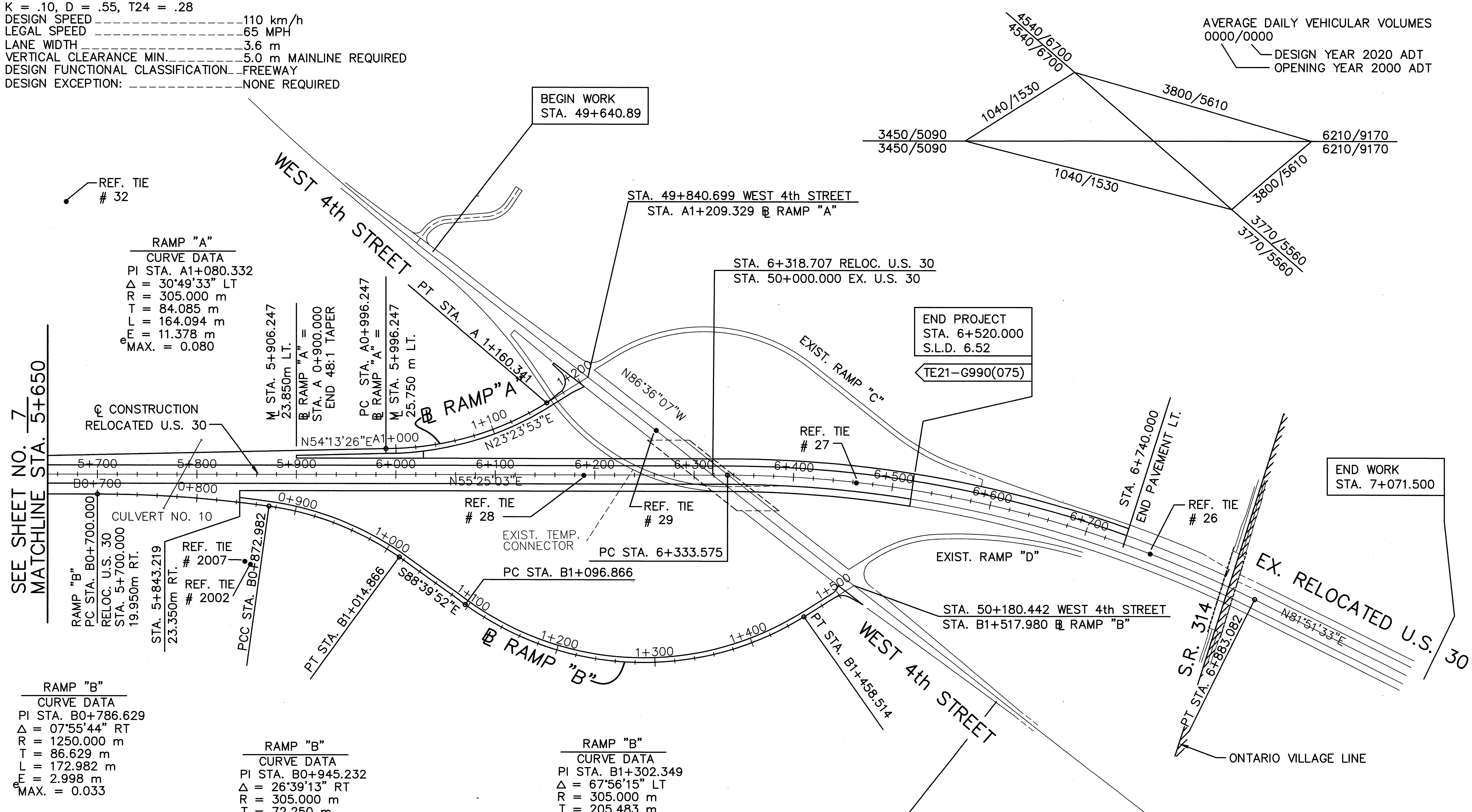
CRA/RIC-30-33.500/0.000

GB006.DWG
03-20-1999 7:43 AM
1:2000M

DESIGN CRITERIA: WEST 4th STREET

DESIGN YEAR ____________ 2020
AVERAGE DAILY TRAFFIC ____________ 18,340
DESIGN HOURLY VOLUME ____________ 1834
K = .10, D = .55, T24 = .28
DESIGN SPEED ____________ 110 km/h
LEGAL SPEED ____________ 65 MPH
LANE WIDTH ____________ 3.6 m
VERTICAL CLEARANCE MIN. ____________ 5.0 m MAINLINE REQUIRED
DESIGN FUNCTIONAL CLASSIFICATION __ FREEWAY
DESIGN EXCEPTION: ____________ NONE REQUIRED

metric units



RAMP "A"
CURVE DATA
PI STA. A1+080.332
Δ = 30°49'33" LT
R = 305.000 m
T = 84.085 m
L = 164.094 m
E = 11.378 m
eMAX. = 0.080

RAMP "B"
CURVE DATA
PI STA. B0+786.629
Δ = 07°55'44" RT
R = 1250.000 m
T = 86.629 m
L = 172.982 m
E = 2.998 m
eMAX. = 0.033

RAMP "B"
CURVE DATA
PI STA. B0+945.232
Δ = 26°39'13" RT
R = 305.000 m
T = 72.250 m
L = 141.884 m
E = 8.441 m
eMAX. = 0.080

RAMP "B"
CURVE DATA
PI STA. B1+302.349
Δ = 67°56'15" LT
R = 305.000 m
T = 205.483 m
L = 361.648 m
E = 62.761 m
eMAX. = 0.080

RELOC. U.S. 30
CURVE DATA
PI STA. 6+613.311
Δ = 26°26'30" RT
R = 1190.710m
T = 279.736m
L = 549.507m
E = 32.418m
eMAX. = 0.049

FOR ℄ REFERENCE TIE DATA,
SEE SHEETS 9 & 10

GB007.DWG
03-23-1999 12:26 PM
1:2000M

SCALE 1:2000
HORIZONTAL SCALE IN METERS
0 20 40 80

CALCULATED W.F.
CHECKED W.J.S.

SCHEMATIC PLAN – RELOCATED U.S. 30
STA. 5+650 TO STA. 7+000

CRA/RIC-30-33.500/0.000

REFERENCE TIES AND ELEVATIONS

	LOCATION					SURFACE COORDINATES			
SHEET	NUMBER	STATION	OFFSET	SIDE	ROAD	NORTHING	EASTING	ELEVATION	DESCRIPTION
2	8	50+064.154	9.1440	RT	S.R. 61	121724.0512	579252.5623	0.000	MON
2	9	50+064.120	9.1423	LT	S.R. 61	121724.1755	579234.2764	358.745	MON
2	10	50+130.475	0.0262	RT	S.R. 61	121790.4433	579243.9791	0.000	RRS
2	11	30+520.366	0.0022	RT	WACHS ROAD	122180.3224	579247.0961	0.000	RRS
2	12	30+649.176	0.0134	RT	WACHS ROAD	122309.1278	579248.1450	0.000	RRS
2	13	30+857.840	0.0000	RT	WACHS ROAD	122517.7851	579249.8126	0.000	RRS
2	14	30+697.139	9.1245	RT	WACHS ROAD	122357.0159	579257.6422	0.000	MON
2	15	49+414.402	9.1975	LT	S.R. 61	121074.4850	579228.2207	360.710	MON
8	21	6+886.548	297.2454	RT	RELOC. U.S. 30	123508.6308	587161.1862	410.642	FENO
8	23	6+884.274	0.0070	LT	RELOC. U.S. 30	123802.5658	587116.8419	0.000	CLM
8	24	7+134.078	0.0071	LT	RELOC. U.S. 30	123837.9394	587364.1285	0.000	CLM
8	26	6+768.285	0.1272	RT	RELOC. U.S. 30	123780.5618	587003.0115	402.280	CLM
8	27	6+463.508	0.5071	RT	RELOC. U.S. 30	123671.3272	586719.4601	399.105	CLM
8	28	6+189.047	0.5628	RT	RELOC. U.S. 30	123521.5054	586489.7647	0.000	CLM
8	29	49+927.803	0.2460	LT	WEST 4th STREET	123600.0877	586524.1401	404.580	CLM
7	32	50+337.240	4.2600	RT	EARICK ROAD	123452.1260	585905.4309	−2.755	RRS
7	33	50+224.497	22.4495	RT	EARICK ROAD	123338.1586	585906.1752	−0.886	RRS
7	34	50+151.523	28.1746	RT	EARICK ROAD	123268.0587	585906.6333	−1.121	RRS
3	41	49+225.687	5.1891	RT	GALION−AIRPORT ROAD	120914.8356	581256.9268	374.102	MON
3	43	50+002.629	0.0000	RT	GALION−AIRPORT ROAD	121691.7914	581259.1545	364.105	PKF
3	45	50+434.257	0.0000	LT	GALION−AIRPORT ROAD	122123.4102	581261.9360	359.725	PKF
3	47	50+550.650	0.0000	RT	GALION−AIRPORT ROAD	122239.8010	581262.6860	0.000	RRS
6	49	49+872.070	13.6622	RT	S.R. 181	122373.0252	584628.6801	392.430	START
6	50	50+356.499	1.0023	LT	S.R. 181	122171.9553	585069.6858	402.502	MON
6	54	49+726.661	8.9208	LT	S.R. 181	122445.3469	584501.7489	390.765	MON
6	66	49+900.368	0.0000	RT	EXIST. ECKSTEIN ROAD	122304.7862	584886.3640	0.000	RRS
6	67	50+094.265	0.0000	RT	EXIST. ECKSTEIN ROAD	122496.3189	584861.6913	0.000	RRS
6	72	50+498.881	0.0000	RT	EXIST. ECKSTEIN ROAD	122900.1761	584886.4547	0.000	IPF
5	76	50+455.163	0.0002	LT	HORNING ROAD	122083.0611	583266.5187	0.000	RRS
5	79	50+071.938	21.9942	RT	HORNING ROAD	121701.5069	583264.3429	0.000	RRS
5	80	50+061.240	21.9999	RT	HORNING ROAD	121690.8089	583264.3188	378.155	RRS
5	82	49+660.521	0.0001	RT	HORNING ROAD	121291.7029	583263.2082	0.000	RRS
2	86	49+267.875	0.0000	LT	S.R. 61	120927.8794	579236.0645	0.000	PKS
2	87	50+064.143	0.0000	LT	S.R. 61	121724.1133	579243.4185	0.000	PKS
2	88	50+214.494	0.0000	RT	S.R. 61	121874.4602	579244.6298	0.000	PKS
2	89	50+754.427	0.0000	RT	S.R. 61	122312.8820	579512.8760	0.000	PKS
3	92	49+606.999	0.6260	RT	GALION−AIRPORT ROAD	121296.1730	581256.0041	100.000	PKS
2	1500	33+708.910	82.7660	LT	RELOC. U.S. 30	121746.4566	578695.4533	358.715	IPF
2	1514	33+700.900	64.2620	LT	RELOC. U.S. 30	121728.0074	578687.3181	359.180	FENO
2	1515	33+412.890	69.4656	LT	RELOC. U.S. 30	121731.2666	578395.1229	353.805	FENO
3	1605	35+629.714	119.6555	RT	RELOC. U.S. 30	121612.3077	580614.9888	363.335	IPS
3	1608	34+658.396	41.6888	LT	RELOC. U.S. 30	121712.0049	579641.1744	0.000	IPS
3	1613	0+352.676	22.6528	LT	RELOC. U.S. 30	121716.9574	581224.5527	365.110	FENO
4	1614	0+006.418	17.1349	RT	RELOC. U.S. 30	121709.8746	580875.9622	361.165	FENO
3	1615	34+680.709	28.9837	LT	RELOC. U.S. 30	121700.8928	579664.3218	355.325	FENO
3	1616	34+843.696	15.9704	LT	RELOC. U.S. 30	121699.3202	579827.8198	359.095	FENO
5	1702	1+987.320	42.7250	LT	RELOC. U.S. 30	121673.8254	582852.5313	373.710	IPS
4	1703	1+564.546	62.8991	RT	RELOC. U.S. 30	121568.1193	582429.7775	368.760	IPS
4	1704	1+269.425	40.1977	LT	RELOC. U.S. 30	121671.1589	582134.6371	369.635	IPS
5	1707	1+981.155	41.8487	LT	RELOC. U.S. 30	121672.9479	582846.3660	373.610	FENO
4	1708	1+570.976	66.1940	RT	RELOC. U.S. 30	121564.8257	582436.2080	369.065	FENO
4	1709	1+274.540	40.6361	LT	RELOC. U.S. 30	121671.5983	582139.7518	370.121	FENO
4	1710	0+775.328	44.4953	RT	RELOC. U.S. 30	121598.5812	581637.4350	361.215	FENO
5	1802	2+526.266	13.8689	RT	RELOC. U.S. 30	121617.7910	583391.8565	381.520	IPS
5	1804	2+663.783	6.5553	LT	RELOC. U.S. 30	121649.4113	583527.5718	384.095	IPS
5	1806	2+822.922	8.9212	LT	RELOC. U.S. 30	121683.2316	583681.9751	385.340	IPS
6	1807	3+088.171	56.9578	LT	RELOC. U.S. 30	121821.0813	583904.9708	387.690	IPS
6	1808	3+278.318	0.3901	RT	RELOC. U.S. 30	121869.5405	584093.2354	389.060	IPF
6	1809	3+646.316	45.3969	RT	RELOC. U.S. 30	122041.3585	584421.7569	391.405	IPS
5	1813	2+658.471	4.2933	RT	RELOC. U.S. 30	121637.9474	583523.7717	384.715	FENO
5	1814	3+087.149	43.6797	LT	RELOC. U.S. 30	121808.8307	583910.1853	387.960	FENO
6	1815	3+424.043	30.2106	RT	RELOC. U.S. 30	121927.7010	584230.1376	390.235	FENO
6	1904	4+515.950	7.8332	RT	RELOC. U.S. 30	122565.8827	585116.4143	395.937	IPS
7	1908	4+799.566	0.1808	RT	RELOC. U.S. 30	122733.1613	585345.5748	401.527	IPS
7	1909	4+960.906	21.0311	RT	RELOC. U.S. 30	122807.5701	585490.2417	401.457	IPS
7	1913	4+958.336	24.2698	RT	RELOC. U.S. 30	122803.4453	585489.9645	401.712	FENO
6	1915	21+354.436	34.2919	RT	RELOC. ECKETEIN ROAD	122656.0587	584877.3243	397.497	IPS
6	1923	50+000.000	0.0000	LT	EXIST. ECKSTEIN ROAD	122402.1142	584865.0624	100.000	PKS
8	2002	5+853.802	90.4755	RT	RELOC. U.S. 30	123257.1968	586264.7878	401.615	IPS
8	2007	5+848.191	87.4636	RT	RELOC. U.S. 30	123256.4918	586258.4587	401.485	FENO
7	2008	49+882.841	24.6164	RT	EARICK ROAD	122999.4592	585899.0870	402.881	IPS
7	2009	50+001.259	27.0000	RT	EARICK ROAD	123117.8289	585903.2282	0.000	PKS
2	5050	34+256.857	0.0000	RT	RELOC. U.S. 30	121659.9734	579242.8261	0.000	PKS
3	5051	0+390.716	0.0000	LT	RELOC. U.S. 30	121689.1626	581259.1294	0.000	PKS
5	5052	2+398.933	0.0000	RT	RELOC. U.S. 30	121631.1802	583264.1529	0.000	PKS
7	5056	50+000.000	0.0000	RT	EARICK ROAD	123595.5629	586596.1957	0.000	IPS
6	9657	3+708.413	0.1944	RT	S.R. 309	122152.0217	585213.2585	0.000	PKS
6	9658	50+319.209	0.7510	LT	S.R. 181	122188.2843	585036.1255	0.000	PKS
6	9659	50+205.669	9.5153	RT	S.R. 181	122229.2689	584929.7441	0.000	PKS
6	9660	50+166.271	9.5154	RT	S.R. 181	122246.6859	584894.4046	0.000	PC
6	9661	49+787.271	4.2376	RT	S.R. 181	122413.8792	584555.1670	0.000	PT
6	9662	50+172.098	9.4960	RT	S.R. 181	122244.1274	584899.6398	0.000	PKS
6	9666	50+176.336	13.7849	RT	S.R. 181	122238.4069	584901.5451	0.000	IPS
6	9668	4+071.231	0.0000	RT	RELOC. U.S. 30	122319.9126	584745.8266	0.000	PKS
6	9672	49+757.005	0.0000	RT	S.R. 181	122427.3785	584527.7767	0.000	PKS
7	11204	50+523.425	6.2190	RT	EARICK ROAD	123638.6853	585910.4312	0.520	IPS
3	20045	49+860.000	0.0000	RT	GALION−AIRPORT ROAD	121549.1689	581257.7930	0.000	PKS
3	20046	50+120.000	0.0000	RT	GALION−AIRPORT ROAD	121809.1600	581259.9108	0.000	PKS
7	20052	49+450.000	0.0000	RT	EARICK ROAD	122568.5107	585896.2430	0.000	PKS
7	20053	50+500.000	0.0000	RT	EARICK ROAD	123615.2197	585904.3654	0.000	PKS

LEGEND
- ● IRON PIN SET
- ⊙ R/W MONUMENT FOUND
- ■ FENO SET *
- ▲ PK SPIKE SET
- △ PK SPIKE FOUND
- ⌀ RAILROAD SPIKE FOUND
- ○ IRON PIN FOUND
- □ CENTERLINE MONUMENT FOUND

* FENO = FENO SURVEY MONUMENT BY BERNTSEN INTERNATIONAL, INC.

STATE OF OHIO DEPARTMENT OF TRANSPORTATION

metric units

PID NO. 16284

REFERENCE TIES

CRA/RIC−30−33.500/0.000

9 / 712

GB008.DWG 03-25-1999 4:00 PM 1:2000M

LEGEND

- ● IRON PIN SET
- ○ R/W MONUMENT FOUND
- ■ FENO SET *
- ▲ PK SPIKE SET
- △ PK SPIKE FOUND
- RAILROAD SPIKE FOUND
- ○ IRON PIN FOUND
- □ CENTERLINE MONUMENT FOUND

* FENO = FENO SURVEY MONUMENT BY BERNTSEN INTERNATIONAL, INC.

metric units

PID NO. 16284

REFERENCE TIES

CRA/RIC-30-33.500/0.000

10 / 712

GB009.DWG 03-22-1999 10:09 AM 1:200M

EXISTING GALION
PT. No. 41
49+300
USGS GALP
℄ EX. GALION– AIRPORT RD.
STA. 49+225.687
5.189 RT.
REFERENCE TIE
PT. No. 92
7.396 m
8.211 m
6.265 m
49+600
℄ EX. GALION AIRPORT RD.
STA. 49+606.999
0.626 RT.
REFERENCE TIE
PT. No. 20045
PKS 200mm MAPLE
9.598 m
49+900
4.060 m
8.138 m
℄ EX. GALION AIRPORT RD.
PKS 300mm OAK
STA. 49+860.000
REFERENCE TIE
PT. No. 5051
PKS 750mm OAK
9.620 m
9.686 m
℄ RELOC.
U.S. 30
9.018 m
℄ EX. GALION AIRPORT RD.
STA. 50+000.000 GAL./AP=
STA. 0+390.716 REL. U.S. 30
REFERENCE TIE
PT. No. 43
50+100
PKS 750mm OAK
8.905 m
7.885 m
10.980 m
℄ EX. GALION– AIRPORT RD.
STA. 50+002.629
REFERENCE TIE
PT. No. 20046
4.505 m
7.885 m
PKS 600mm ELM
17.959 m
50+100
℄ EX. GALION– AIRPORT RD.
STA. 50+120.000
REFERENCE TIE
PT. No. 45
℄ EX.GALION– AIRPORT RD.
50+400
STA. 50+434.257
REFERENCE TIE
PT. No. 47
5.679 m
13.978 m
PKS 750mm OAK
5.679 m
PKS 900mm OAK
50+500
℄ EX. GALION– AIRPORT RD.
STA. 50+550.650
REFERENCE TIE
RELOCATED HORNING RD.
PT. No. 82
7.123 m
20.611 m
12.642 m
49+600
℄ REL. HORNING RD.
STA. 49+660.521
REFERENCE TIE
PT. No. 5052
50+100
9.746 m
℄ REL. U.S. 30
7.148 m
8.822 m
℄ REL. HORNING RD.
STA. 50+001.611,22.000 RT.
REL. HORNING RD. =
STA. 2+398.933 REL. U.S. 30
PT. No. 80
50+100
10.364 m
7.595 m
8.637 m
℄ REL. HORNING RD.
STA. 50+061.240
22.000 RT.
REFERENCE TIE
PT. No. 79
50+100
℄ REL. HORNING RD.
STA. 50+071.938
21.994 RT.
REFERENCE TIE
PT. No. 76
50+500
23.738 m
7.428 m
8.438 m
℄ REL. HORNING RD.
STA. 50+455.163
REFERENCE TIE
RELOCATED S.R. 181
PT. No. 54
℄ REL. S.R. 181
49+700
STA. 49+726.661
8.921 LT.
REFERENCE TIE
PT. No. 9672
7.860 m
7.714 m
7.798 m
49+700
℄ REL. S.R. 181
STA. 49+757.005
REFERENCE TIE
PT. No. 9661
℄ REL. S.R. 181
49+800
STA. 49+787.271
4.238 RT.
REFERENCE TIE
PT. No. 49
℄ REL. S.R. 181
49+900
STA. 49+872.070
13.662 RT.
REFERENCE TIE
PT. No. 9668
7.623 m
℄ REL. U.S. 30
8.683 m
8.568 m
50+100
℄ REL. S.R. 181
STA. 50+000.628,9.515 RT.
REL. S.R. 181 =
STA. 4+071.231 REL. U.S. 30
PT. No. 9660
℄ REL. S.R. 181
50+200
STA. 50+166.271
9.515 RT.
REFERENCE TIE
PT. No. 9662
℄ REL. S.R. 181
℄ EXIST. ECKSTEIN RD.
10.859 m
6.029 m
7.965 m
50+200
STA. 50+172.098,9.496 RT.
REL. S.R. 181 =
STA. 49+838.274 EX. ECKSTEIN RD.
REFERENCE TIE
PT. No. 9666
℄ REL. S.R. 181
50+200
STA. 50+176.336
13.785 RT.
REFERENCE TIE
PT. No. 9659
50+200
10.094 m
8.104 m
℄ REL. S.R. 181
STA. 50+205.669
9.515 RT.
REFERENCE TIE
PT. No. 9658
8.954 m
50+300
9.476 m
7.620 m
℄ REL. S.R. 181
STA. 50+319.209
0.751 LT.
REFERENCE TIE
PT. No. 50
℄ REL. S.R. 181
50+300
STA. 50+356.499
1.002 LT.
REFERENCE TIE
PT. No. 9657
℄ EX. S.R. 181
18.232 m
3+800
7.481 m
℄ S.R. 309
4.407 m
STA. 3+708.413
0.194 RT.
REFERENCE TIE
WEST 4th STREET
PT. No. 29
9.681 m
180°
9.332 m
50+000
STA. 49+927.803
0.246 LT.
REFERENCE TIE
PT. No. 5056
WEST 4th ST
11.996 m
℄ REL. U.S. 30
9.441 m
13.324 m
STA. 50+000.000 EX. U.S. 30 =
STA. 6+318.707 REL. U.S. 30
REFERENCE TIE
RELOCATED EARICK RD.
PT. No. 20052
4.520 m
8.205 m
5.953 m
49+400
℄ REL. EARICK RD.
STA. 49+450.000
REFERENCE TIE
PT. No. 2008
49+900
PKS 600mm WALNUT
16.368 m
10.107 m
PKS 450mm WALNUT
℄ REL. EARICK RD.
STA. 49+882.841
24.616 RT.
REFERENCE TIE
PT. No. 2009
7.179 m
U.S. 30
℄ REL.
5.199 m
8.125 m
℄ REL. EARICK RD.
STA. 50+001.259,27.000 RT.
REL. EARICK RD. =
STA. 5+477.022 REL. U.S. 30
REFERENCE TIE
PT. No. 34
50+200
7.252 m
PKS 300mm HICKORY
8.700 m
10.600 m
℄ REL. EARICK RD.
STA. 50+151.523
28.175 RT.
REFERENCE TIE
PT. No. 33
50+300
℄ REL. EARICK RD.
STA. 50+224.497
22.450 RT.
REFERENCE TIE
PT. No. 32
6.822 m
50+400
7.600 m
5.301 m
℄ REL. EARICK RD.
STA. 50+337.240
4.260 RT.
REFERENCE TIE
PT. No. 20053
4.350 m
24.237 m
4.834 m
50+400
℄ REL. EARICK RD.
STA. 50+500.000
REFERENCE TIE
PT. No. 11204
50+400
℄ REL. EARICK RD.
STA. 50+523.425
6.219 RT.
REFERENCE TIE
EXISTING ECKSTEIN RD.
PT. No. 66
13.630 m
PKS 200mm ELM
9.180 m
7.769 m
49+850
℄ EX. ECKSTEIN RD.
STA. 49+900.368
REFERENCE TIE
PT. No. 1923
PKS 200mm ELM
6.074 m
℄ REL. U.S. 30
PKS
12.763 m
8.344 m
POPLAR
℄ EX. ECKSTEIN RD.
STA. 50+000.000 EX. ECKSTEIN RD.
= STA. 4+216.056 REL. U.S. 30
REFERENCE TIE
PT. No. 67
PKS 600mm ASH
9.512 m
7.880 m
PKS 600mm HICKORY
6.145 m
PKS 750mm HICKORY
50+050
℄ EX. ECKSTEIN RD.
STA. 50+094.265
REFERENCE TIE
PT. No. 72
6.076 m
8.551 m
5.515 m
℄ EX. ECKSTEIN RD.
STA. 50+498.881
REFERENCE TIE
PT. No. 1915
℄ REL. ECKSTEIN RD.
21+400
2.691 m
3.082 m
STA. 21+354.436
34.292 RT.
REFERENCE TIE
metric units
LEGEND
IRON PIN SET
R/W MONUMENT FOUND
FENO SET
PK SPIKE SET
PK SPIKE FOUND
RAILROAD SPIKE FOUND
IRON PIN FOUND
CENTERLINE MONUMENT FOUND
* FENO = FENO SURVEY MONUMENT BY BERNTSEN INTERNATIONAL, INC.
PID NO. 16284
REFERENCE TIES
CRA/RIC-30-33.500/0.000
10A
712
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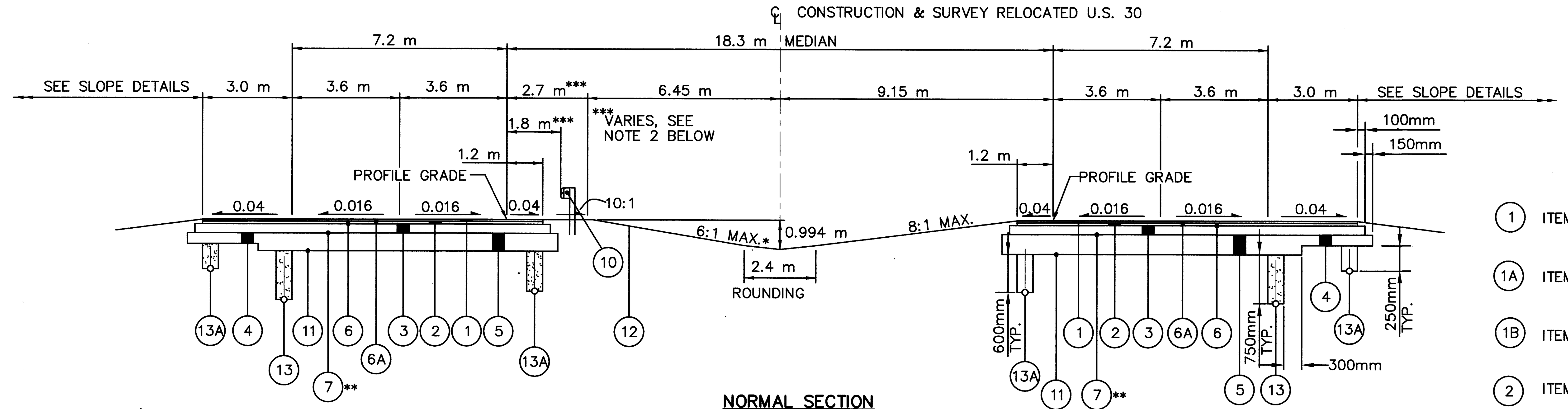
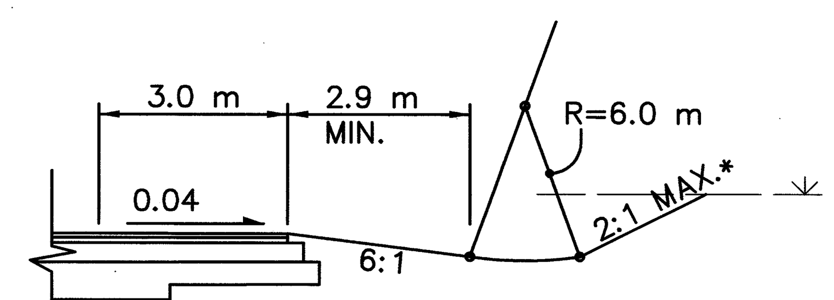
metric units



NORMAL SECTION

STA. 33+590.000	TO	STA. 33+593.338	=	3.338 m
STA. 33+684.862	TO	STA. 35+886.871 BK	=	2202.009 m
STA. 0+000.000	TO	STA. 2+430.000 AH	=	2430.000 m
STA. 3+310.000	TO	STA. 6+270.000	=	2960.000 m
		TOTAL	=	7595.347 m



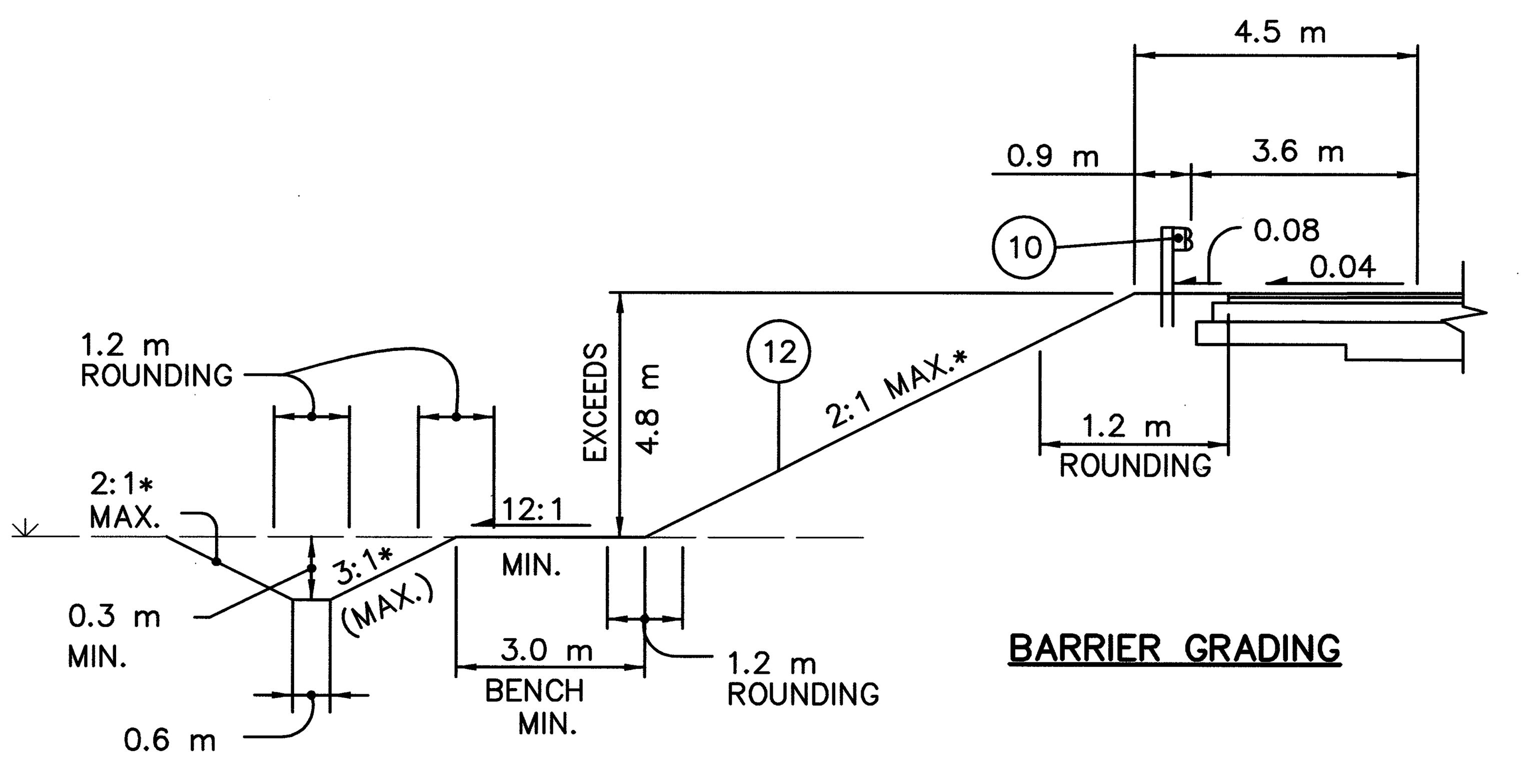
CUT SECTION

* UNLESS OTHERWISE SHOWN ON CROSS SECTION

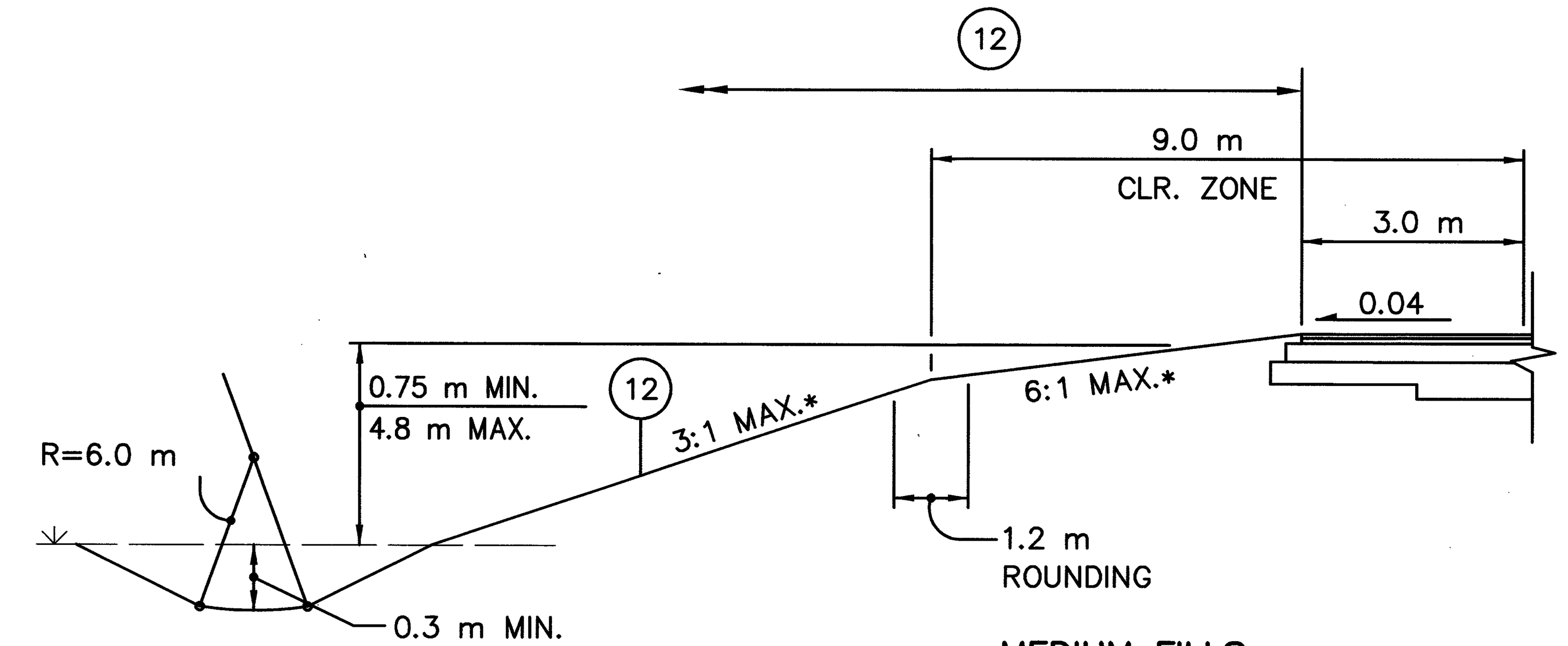
NOTE: THERE SHALL BE NO DEDUCTION FOR ITEM 304 DUE TO THE INSTALLATION OF UNDERDRAINS.

NOTE: MAINLINE U.S. 30 AND RAMPS PAVEMENT WARRANTY
THE MAINLINE ON U.S. 30 AND THE RAMPS PAVEMENT BUILDUP SHOWN ON THE TYPICAL SECTIONS AS REFERENCES 1,2,3,6, AND 6A ARE FOR INFORMATION ONLY. THESE ITEMS ARE TO BE REPLACED BY ITEM 880 ASPHALT CONCRETE (7 YEAR WARRANTY).

** NOT TO BE PLACED WITHIN 300mm OF THE UNDERDRAIN SYSTEM (13A)



BARRIER GRADING

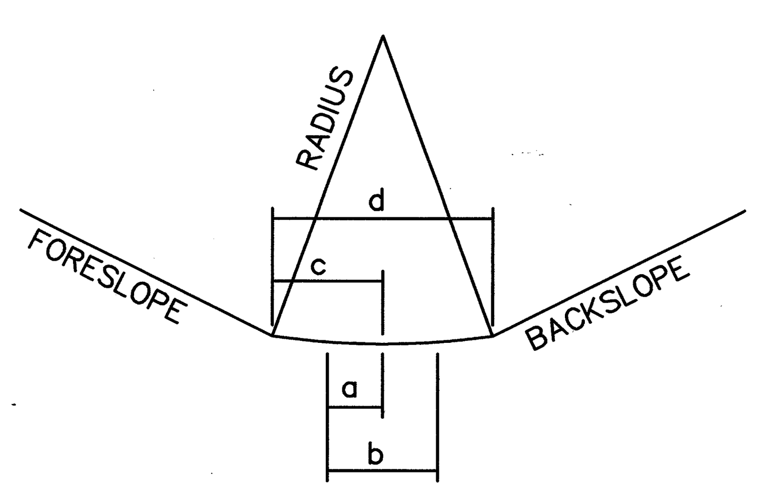


MEDIUM FILLS

SEE BARRIER GRADING DETAIL FILLS OVER 4.8 m

LEGEND

1. ITEM 446 – 38 mm ASPHALT CONCRETE SURFACE COURSE, TYPE 1H
1A. ITEM 448 – 32 mm ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64–22
1B. ITEM 448 – 38mm ASPHALT CONCRETE SURFACE COURSE, TYPE 1H
2. ITEM 446 – 45 mm ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64–28
2A. ITEM 448 – 45 mm ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64–22
2B. ITEM 448 – 45 mm ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64–28
3. ITEM 302 – 205 mm BITUMINOUS AGGREGATE BASE, PG 64–22
3A. ITEM 301 – 150 mm BITUMINOUS AGGREGATE BASE, PG 64–22
3B. ITEM 301 – 100 mm BITUMINOUS AGGREGATE BASE, PG 64–22
4. ITEM 304 – 150mm AGGREGATE BASE
5. ITEM 304 – 250 mm AGGREGATE BASE
5A. ITEM 304 – 200 mm AGGREGATE BASE
6. ITEM 407 – TACK COAT, AS PER PLAN (SEE GENERAL NOTES)
6A. ITEM 407 – TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTES)
7. ITEM 408 – BITUMINOUS PRIME COAT (APPLIED AT THE RATE OF 1.8 L PER m^2)
8. ITEM 409 – SEAL COAT BITUMINOUS MATERIAL (APPLIED AT THE RATE OF 1.36 L PER m^2) AND SEAL COAT COVER AGGREGATE NO. 8 (APPLIED AT THE RATE OF 0.007 m^3 PER m^2)
9. ITEM 605 – AGGREGATE DRAINS
10. ITEM 606 – GUARDRAIL, TYPE 5
11. ITEM 203 – SUBGRADE COMPACTION
12. ITEM 870 – SEEDING AND MULCHING (SEE GENERAL NOTES)
13. ITEM 605 – 150mm SHALLOW PIPE UNDERDRAIN
13A. ITEM 605 – 150 mm SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, AS PER PLAN
14. ITEM 611 – REINFORCED CONCRETE APPROACH SLAB, AS PER PLAN



FORESLOPE	6 m R		BACKSLOPE 6:1		4:1		3:1		2:1	
	a	c	b	d	b	d	b	d	b	d
8:1	0.40	0.75	0.90	1.75	1.15	2.25	1.35	2.70	1.85	3.50
6:1	0.50	1.00	1.00	2.00	1.25	2.50	1.50	2.90	1.95	3.75
4:1	0.75	1.45	1.25	2.50	1.50	2.95	1.75	3.40	2.20	4.20
3:1	1.00	1.95	1.50	2.90	1.75	3.40	2.00	3.85	2.45	4.65

NOTES:

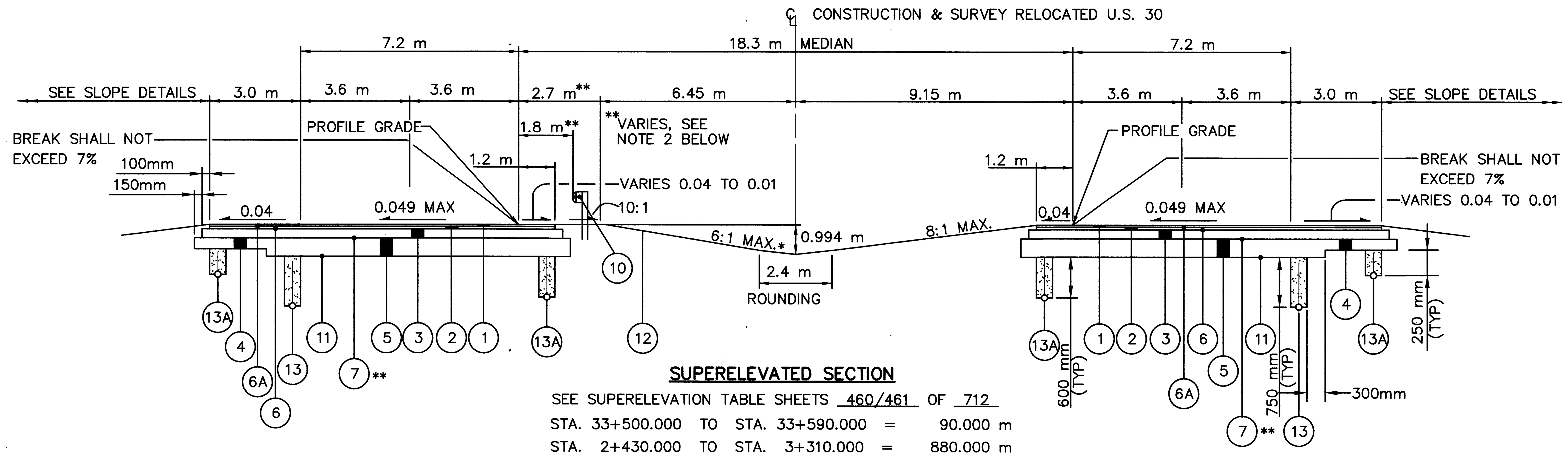
1. ALL SLOPE BREAKS TO HAVE MIN. 1.2 m ROUNDING EXCEPT AS OTHERWISE NOTED.
2. THE GRADING ALONG THE GUARDRAIL SHALL BE AS PER THE CROSS SECTIONS AND THE APPROPRIATE STANDARD CONSTRUCTION DRAWINGS FOR THE CORRESPONDING ANCHOR ASSEMBLY.
3. FOR APPROACH SLAB DETAILS. SEE SHEET 22A .

TYPICAL SECTIONS – MAINLINE

CRA/RIC–30–33.500/0.000

GY100.DWG 11–30–2000 3:56 PM SCALE 1:50M

metric units



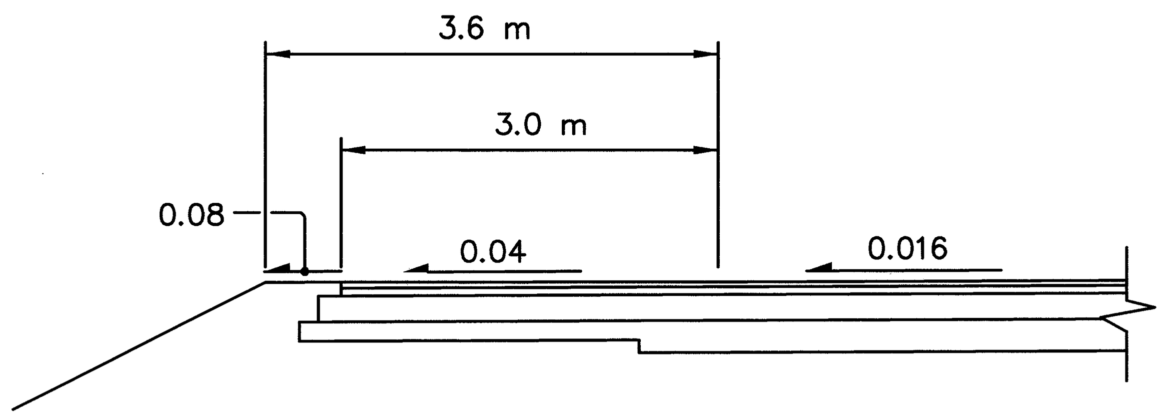
SUPERELEVATED SECTION

SEE SUPERELEVATION TABLE SHEETS 460/461 OF 712

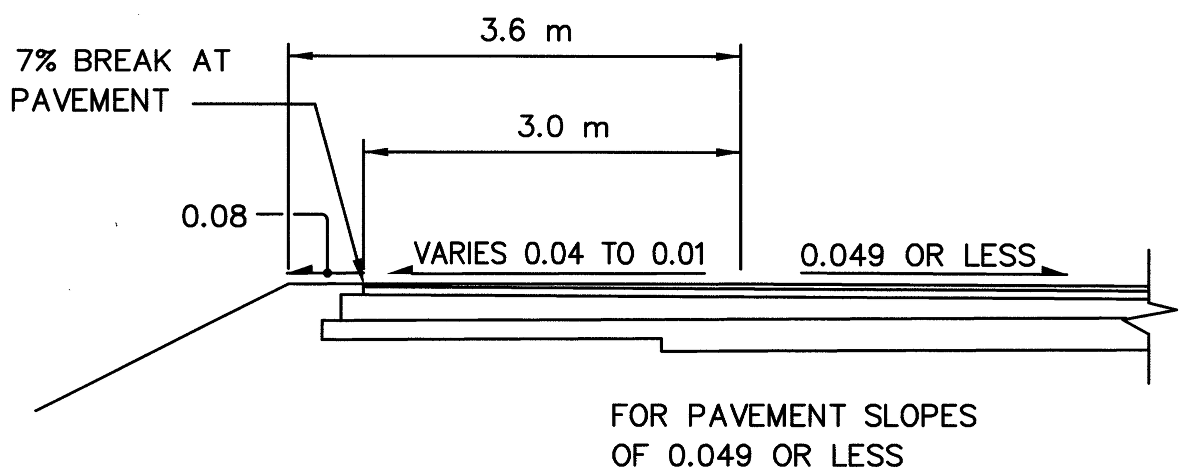
STA. 33+500.000	TO	STA. 33+590.000	=	90.000 m
STA. 2+430.000	TO	STA. 3+310.000	=	880.000 m
STA. 6+270.000	TO	STA. 6+520.000	=	250.000 m
		TOTAL	=	1220.000 m

** NOT TO BE PLACED WITHIN 300mm OF THE UNDERDRAIN SYSTEM

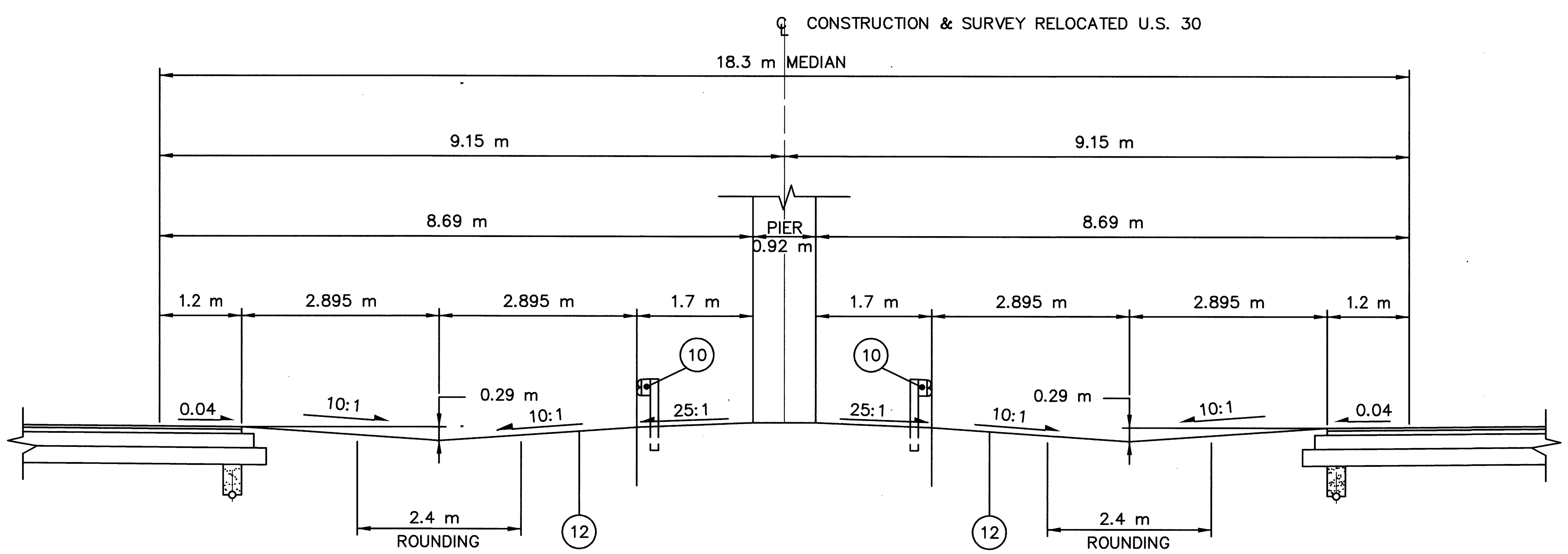
* UNLESS OTHERWISE SHOWN ON CROSS SECTION



NORMAL AND LOW SHOULDER DETAIL



SUPERELEVATED SHOULDER DETAIL



MEDIAN DETAIL AT PIERS

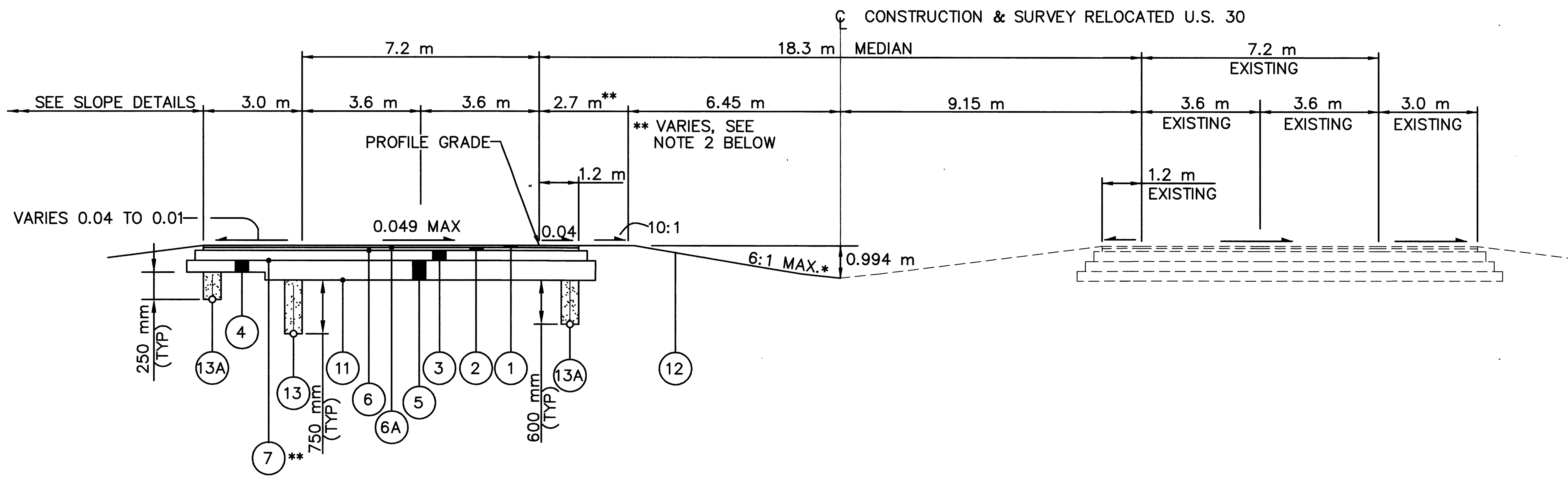
NOTES:

1. FOR LEGEND, SEE SHEET 11 OF 712.
2. ALL SLOPE BREAKS TO HAVE MIN. 1.2 m ROUNDING EXCEPT AS OTHERWISE NOTED.
3. FOR SLOPE DETAILS, SEE SHEET 11 OF 712.
4. THE GRADING ALONG THE GUARDRAIL SHALL BE AS PER THE CROSS SECTIONS AND THE APPROPRIATE STANDARD CONSTRUCTION DRAWINGS FOR THE CORRESPONDING ANCHOR ASSEMBLY

TYPICAL SECTIONS – MAINLINE

CRA/RIC-30-33.500/0.000

GY101.DWG 12-01-2000 8:20 AM SCALE 1:50



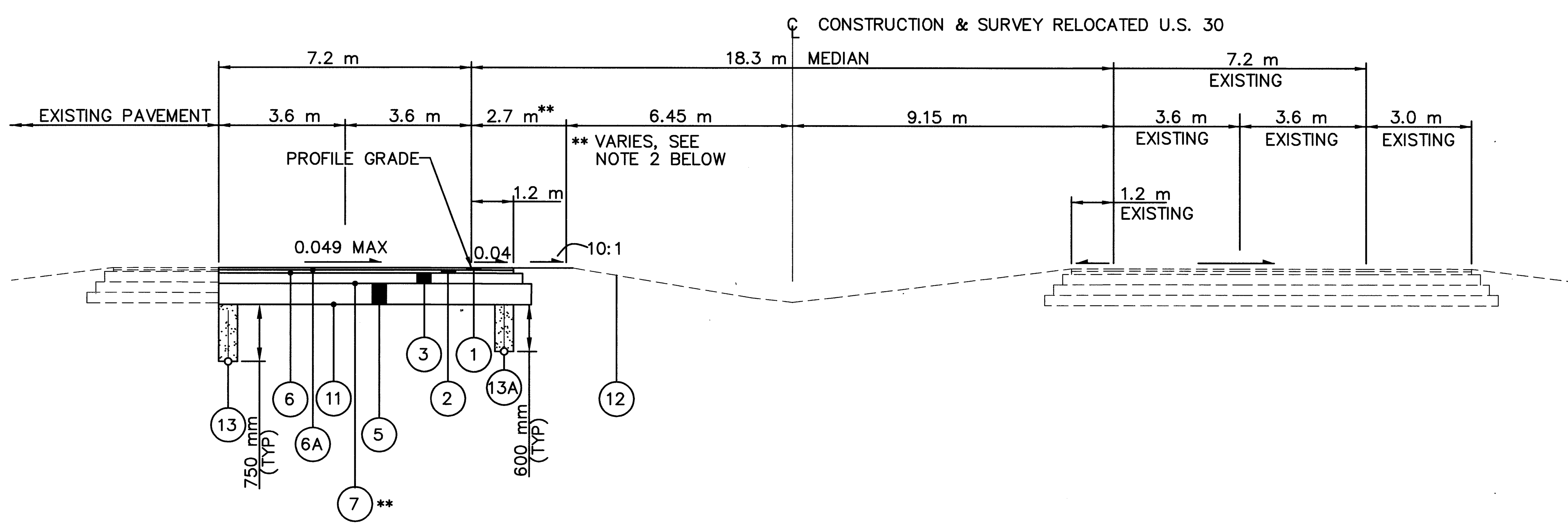
SUPERELEVATED SECTION

SEE SUPERELEVATION TABLE SHEET 461 OF 712 .

STA. 6+520.000 TO STA. 6+586.500 = 66.500 m

* UNLESS OTHERWISE SHOWN ON CROSS SECTION

** NOT TO BE PLACED WITHIN 300mm OF THE UNDERDRAIN SYSTEM



SUPERELEVATED SECTION

SEE SUPERELEVATION TABLE SHEET 461 OF 712 .

STA. 6+586.500 TO STA. 6+740.000 = 153.500 m

NOTES:

1. FOR LEGEND, SEE SHEET 11 OF 712 .
2. ALL SLOPE BREAKS TO HAVE MIN. 1.2 m ROUNDING EXCEPT AS OTHERWISE NOTED.
3. FOR SLOPE DETAILS, SEE SHEET 11 OF 712 .
4. FOR ADDITIONAL SHOULDER DETAILS, SEE SHEET 11 OF 712 .

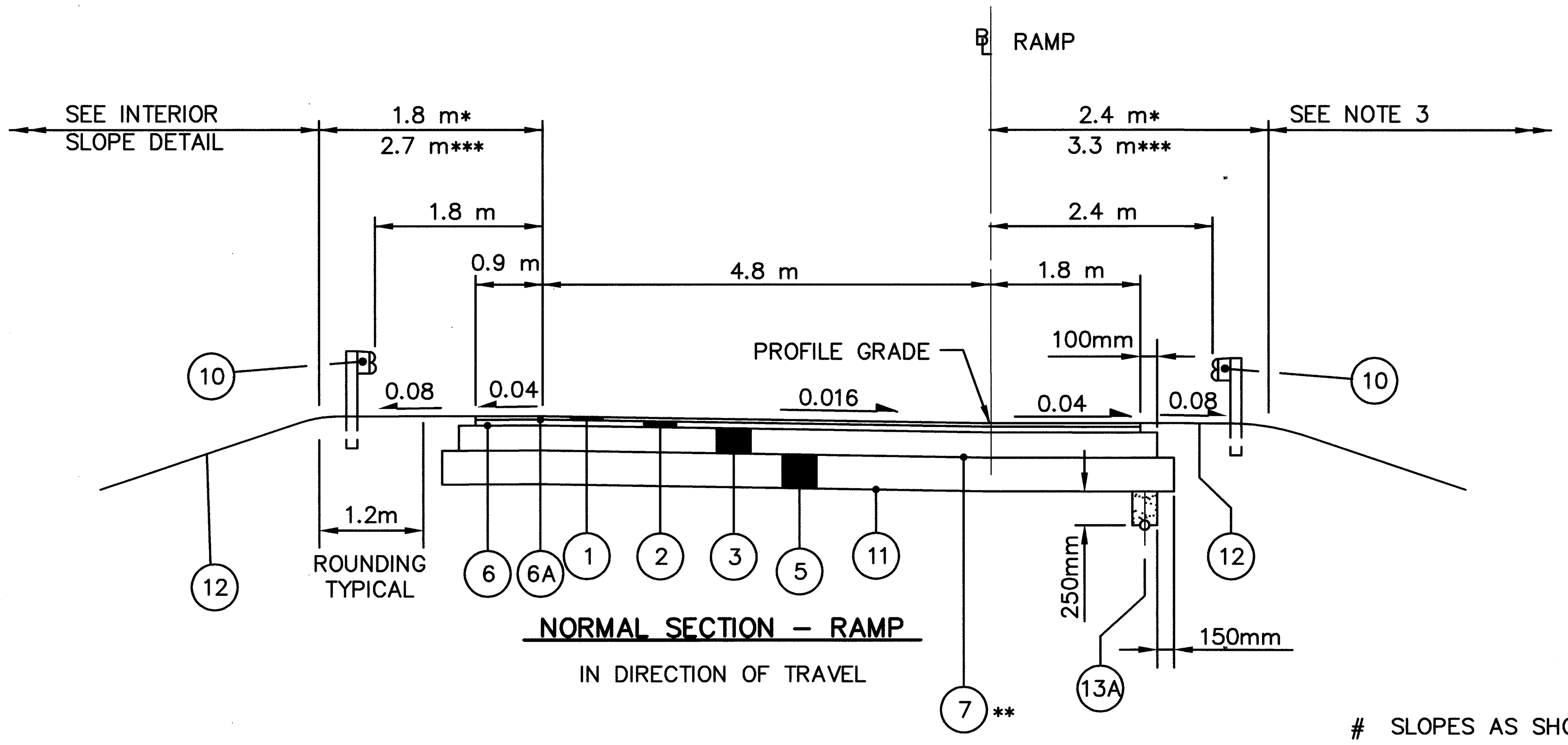
metric units

TYPICAL SECTIONS — MAINLINE

CRA/RIC-30-33.500/0.000

GY102.DWG 12-01-2000 8:50 AM 1:50

metric units



NORMAL SECTION – RAMP

IN DIRECTION OF TRAVEL

RAMP I	STA. I 4+267.279	TO	STA. I 4+080.000 =		187.279 m
RAMP J	STA. J 4+110.000	TO	STA. J 4+267.563 =		157.568 m
RAMP K	STA. K 4+252.999	TO	STA. K 4+470.000 =		217.001 m
RAMP L	STA. L 4+390.000	TO	STA. L 4+255.033 =		134.967 m
RAMP A	STA. L 1+199.397	TO	STA. A 1+198.931 =		0.466 m
			TOTAL	=	697.281 m

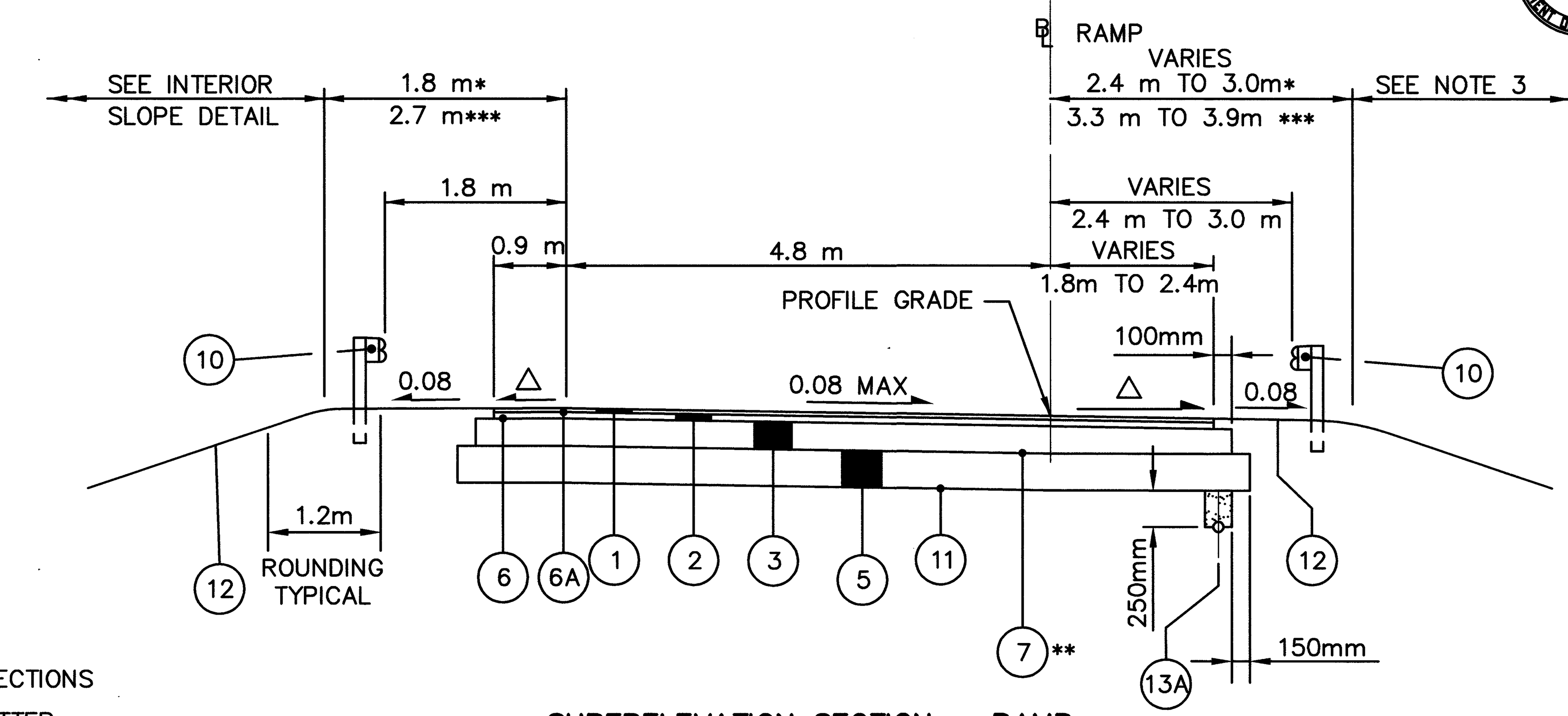
\# SLOPES AS SHOWN ON CROSS SECTIONS

* WHEN FORESLOPE IS 6:1 OR FLATTER

** NOT TO BE PLACED WITHIN 300mm OF THE UNDERDRAIN SYSTEM

*** FOR GUARDRAIL SECTIONS AND NON-GUARDRAIL SECTIONS WITH FORESLOPE STEEPER THAN 6:1

△ SEE DETAILS "A" AND "B"

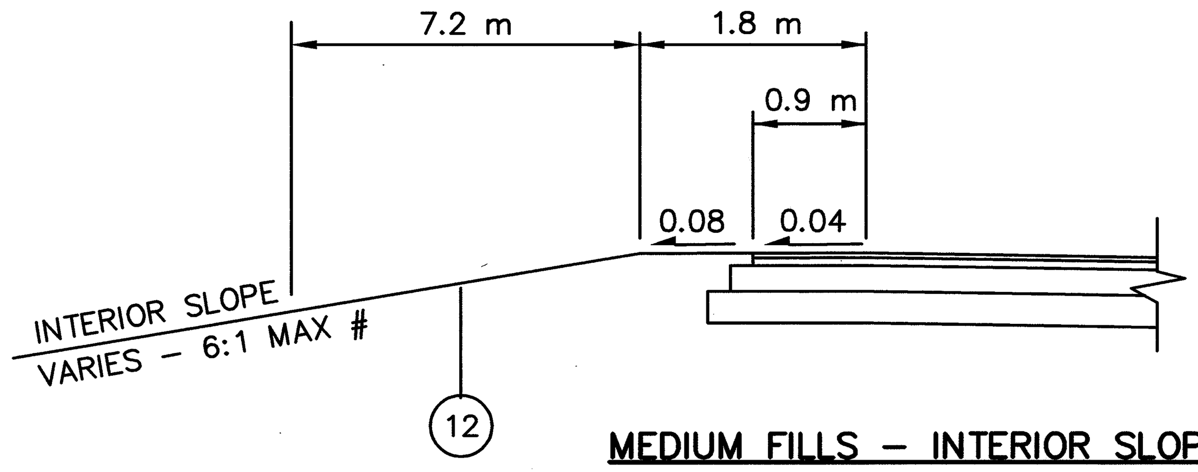


SUPERELEVATION SECTION – RAMP

IN DIRECTION OF TRAVEL

SEE SUPERELEVATION TABLE SHEET 462 & 463 OF 712.

RAMP I	STA. I 4+080.000	TO	STA. I 3+930.000 =		150.000 m
RAMP J	STA. J 3+810.000	TO	STA. J 4+110.000 =		310.00 m
RAMP K	STA. K 4+243.368	TO	STA. K 4+252.999 =		9.631 m
RAMP K	STA. K 4+470.000	TO	STA. K 4+610.000 =		140.000 m
RAMP L	STA. L 4+735.000	TO	STA. L 4+390.000 =		345.000 m
RAMP L	STA. L 4+255.033	TO	STA. L 4+250.145 =		4.888 m
RAMP A	STA. A 1+198.931	TO	STA. A 0+950.000 =		248.931 m
RAMP B	STA. B 0+690.000	TO	STA. B 1+055.866 =		365.866 m
			TOTAL	=	1585.517 m

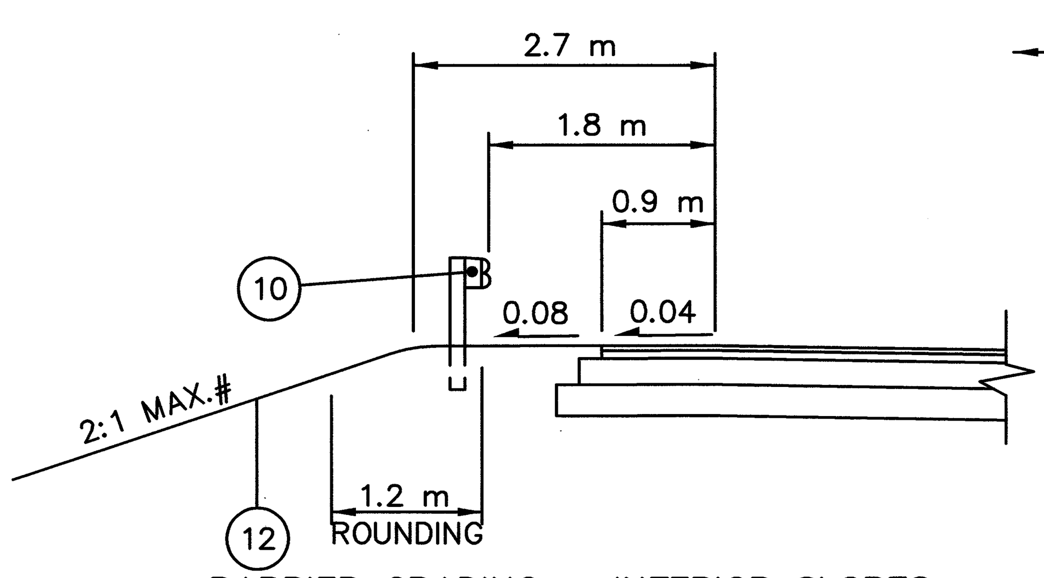


MEDIUM FILLS – INTERIOR SLOPES

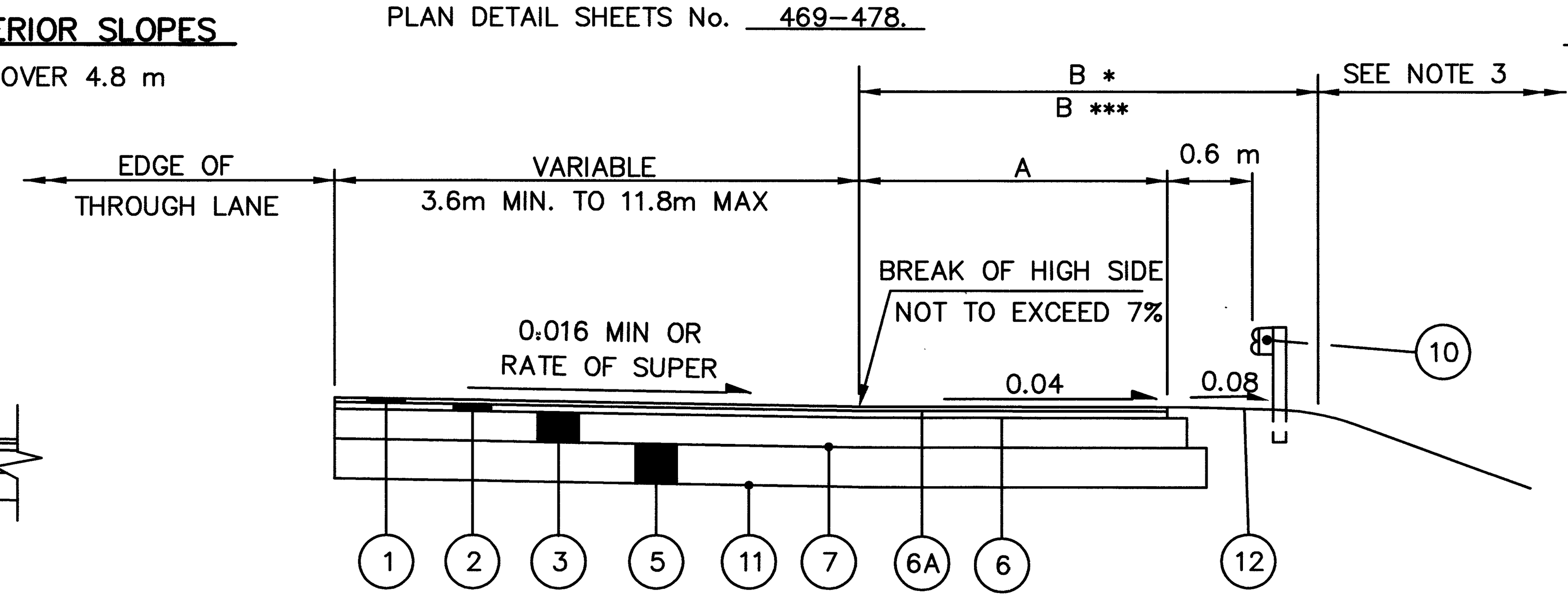
SEE BARRIER GRADING DETAIL FOR FILLS OVER 4.8 m

A	B *	B ***
VARIES 3.0 m – 2.4 m	VARIES 3.6 m – 3.0 m	VARIES 4.5 m – 3.9 m
VARIES 2.4 m – 1.8 m	VARIES 3.0 m – 2.4 m	VARIES 3.9 m – 3.3 m

NOTE: FOR STATION LIMITS, SEE RAMP TERMINAL PLAN DETAIL SHEETS No. 469–478.



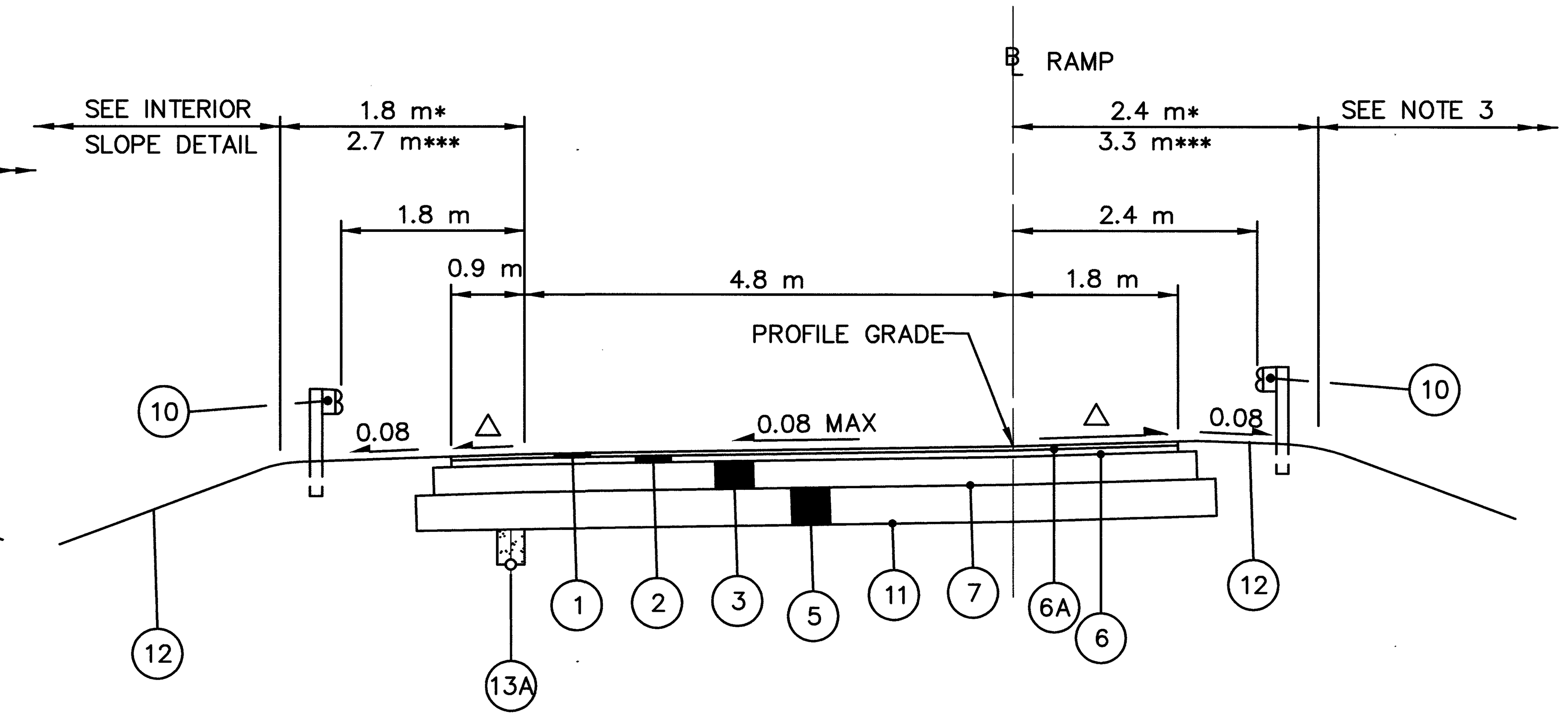
BARRIER GRADING – INTERIOR SLOPES



SPEED CHANGE LANES

IN DIRECTION OF TRAVEL

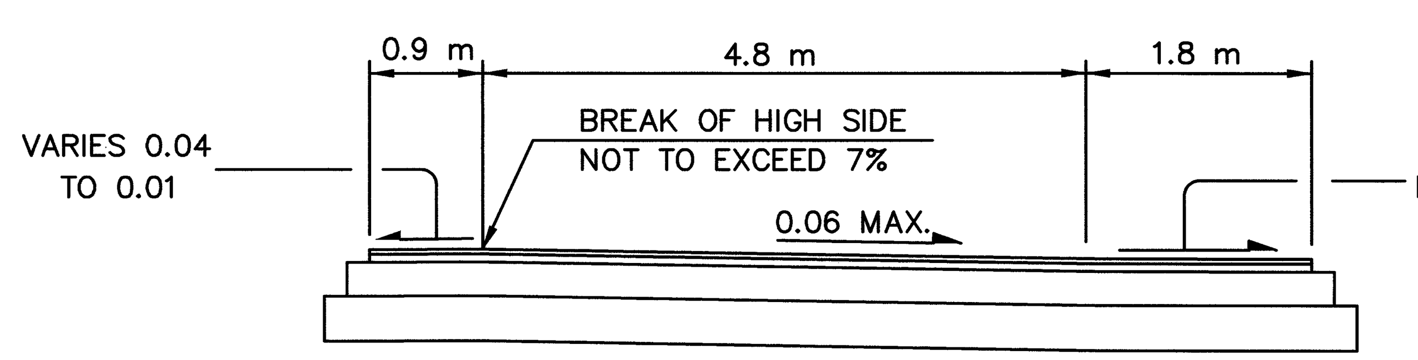
(APPLIES TO ALL INTERCHANGE, ENTRANCE, AND EXIT RAMPS)



SUPERELEVATION SECTION – RAMP

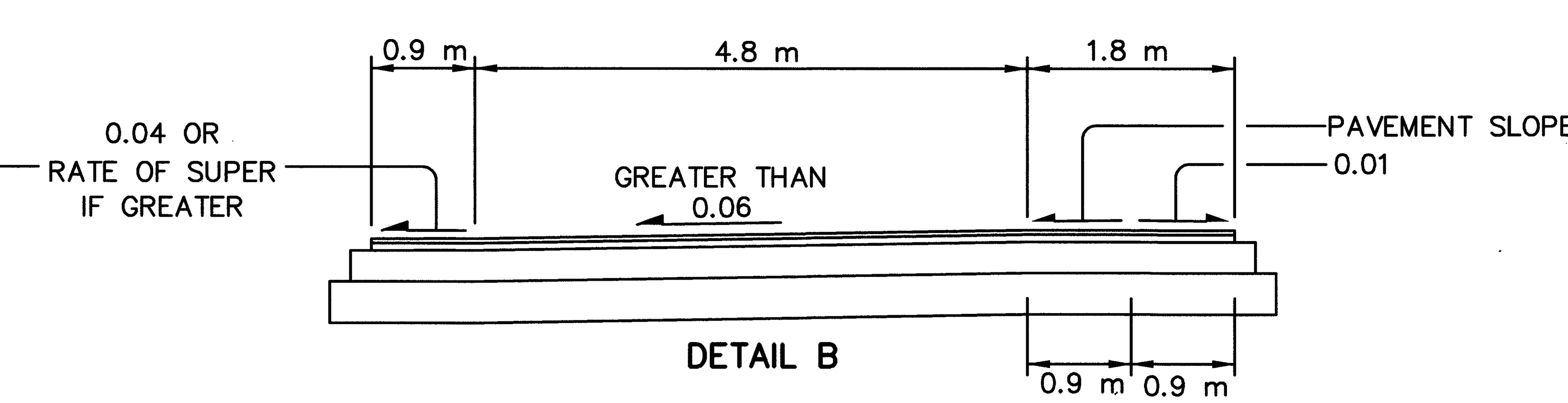
IN DIRECTION OF TRAVEL

RAMP B STA. B 1+055.866 TO STA. B 1+507.836 = 451.970 m



DETAIL A

0.04 OR RATE OF SUPER IF GREATER



DETAIL B

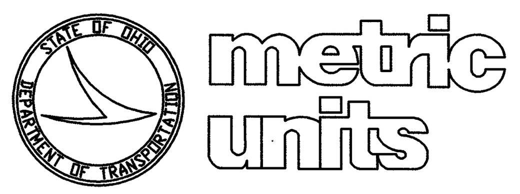
NOTES:

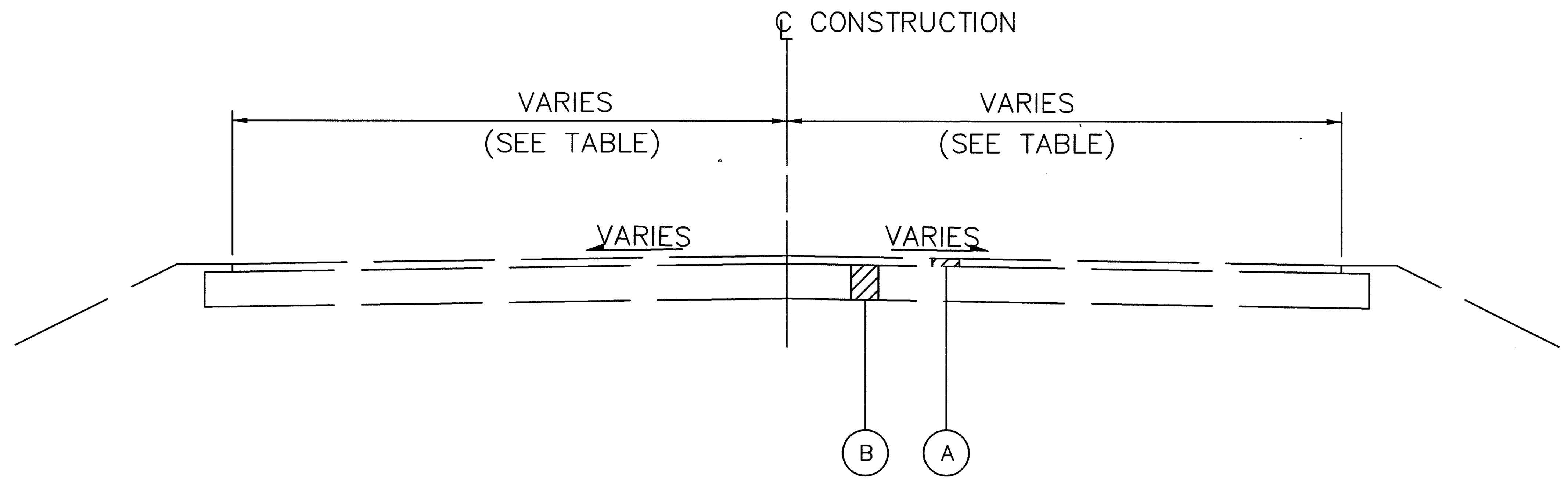
1. FOR LEGEND, SEE SHEET 11 OF 712.
2. ALL SLOPE BREAKS TO HAVE MIN. 1.2 m ROUNDING EXCEPT AS OTHERWISE NOTED.
3. FOR SLOPE DETAILS, SEE SHEET 11 OF 712.
4. THE GRADING ALONG THE GUARDRAIL SHALL BE AS PER THE CROSS SECTIONS AND THE APPROPRIATE STANDARD CONSTRUCTION DRAWINGS FOR THE CORRESPONDING ANCHOR ASSEMBLY

TYPICAL SECTIONS – RAMPS I,J,K,L,A & B

CRA/RIC–30–33.500/0.000

GY103.DWG
12-01-2000 10:20 AM
SCALE 1:50





EXISTING TYPICAL SECTION SIDEROADS
(SEE TABLE)

EXISTING PAVEMENT TABLE									
LOCATION	STATION		SOUTH/WEST WIDTH m		NORTH/EAST WIDTH m		A ± mm	B ± mm	
	FROM	TO	LT.	RT.	LT.	RT.			
S.R. 61	49+640.000	50+480.000	3.05	3.05	3.05	3.05	200	230	
WACHS ROAD (T.R. 253)	30+475.065	30+514.258	--	--	3.00	3.00	130	200	
GALION AIRPORT ROAD (C.R. 47)	49+884.126	50+112.617	2.12	3.00	2.70	2.43	130	200	
HORNING ROAD (C.R. 175)	--	50+433.276	--	--	3.50	2.24	150	100	
S.R. 181	49+648.842	--	3.05	3.05	--	--	230	170	
ECKSTEIN ROAD (T.R. 166)	--	21+520.000	--	--	2.60	2.60	200	110	
EARICK ROAD (T.R.167)	49+480.000	50+481.443	3.40	3.13	3.60	2.55	150	50	

LEGEND

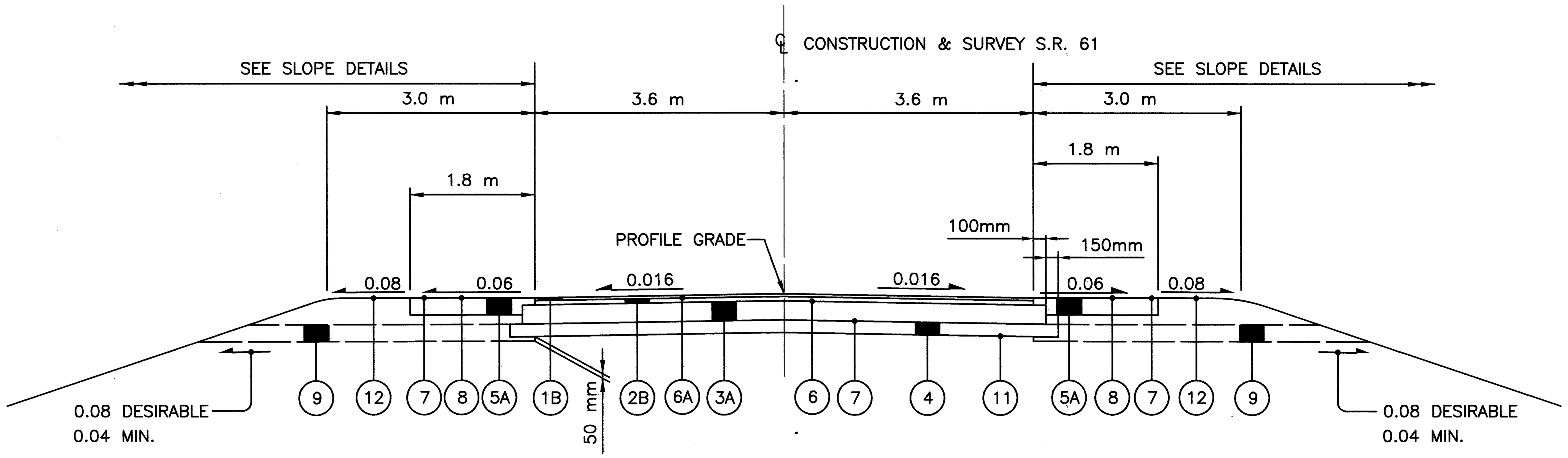
A ASPHALT CONCRETE

B AGGREGATE BASE

EXISTING TYPICAL SECTIONS – SIDE ROADS

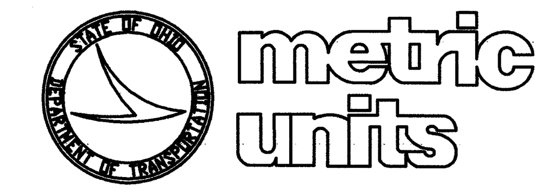
CRA/RIC-30-33.500/0.000

GY104.DWG
02-16-1999 11:23 AM
PLOT: 1=0.05 SCALE 1:50

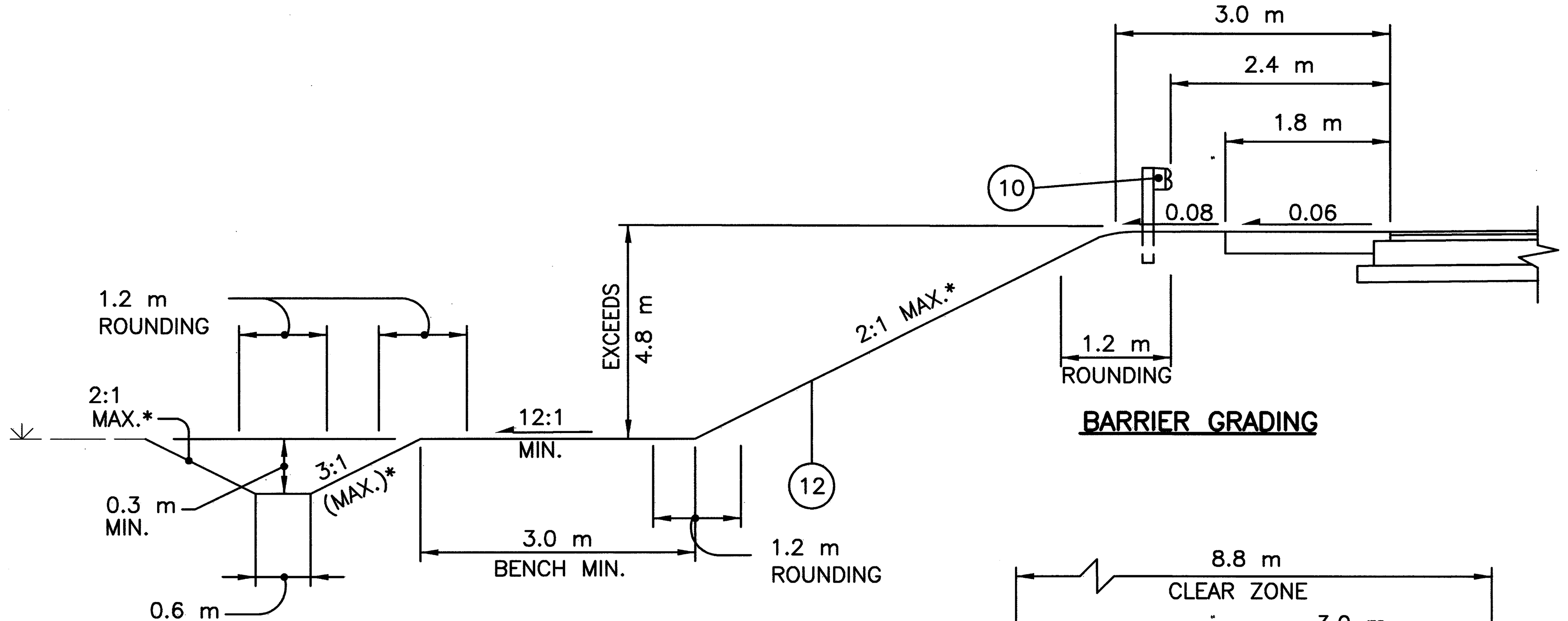


NORMAL SECTION – S.R. 61

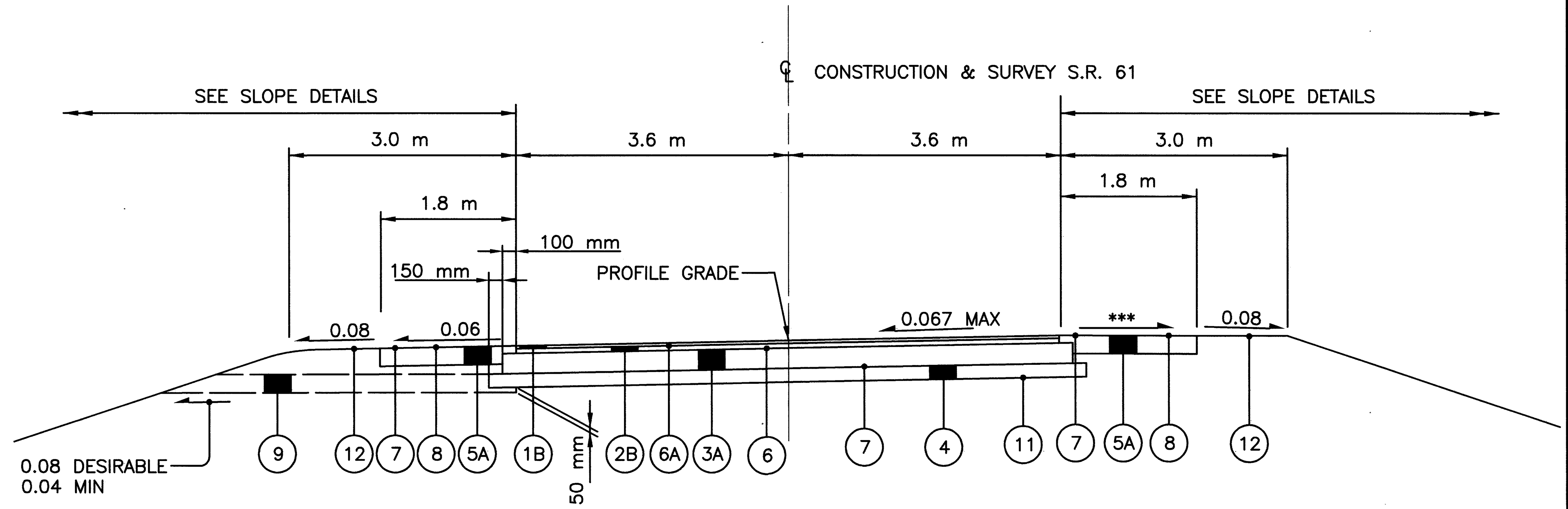
STA. 49+640.000 TO STA. 49+956.100 = 316.100 m
STA. 50+043.900 TO STA. 50+167.315 = 123.415 m
TOTAL = 439.515 m



* SLOPES AS SHOWN ON CROSS SECTIONS
*** FOR HIGH SIDE SHOULDER SLOPES ON SUPERELEVATED SECTIONS SEE SHOULDER DETAILS

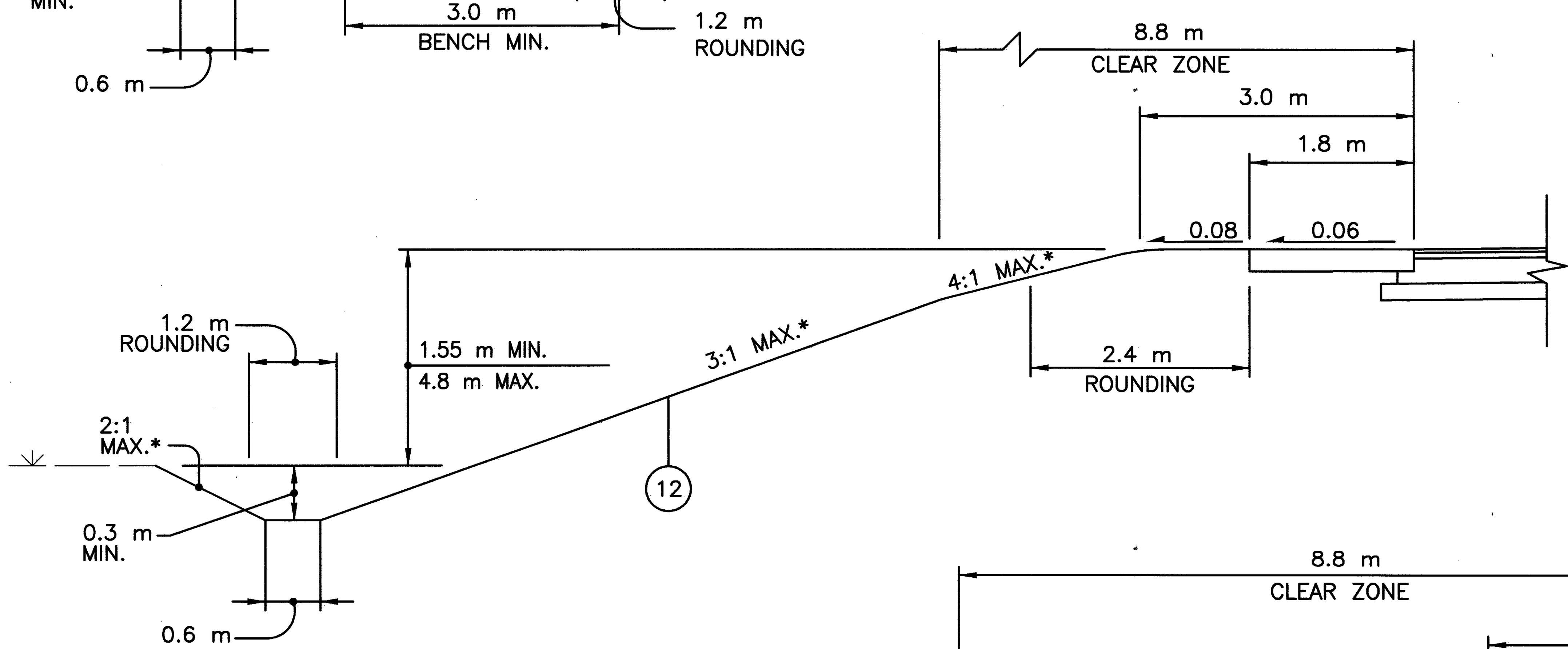


BARRIER GRADING



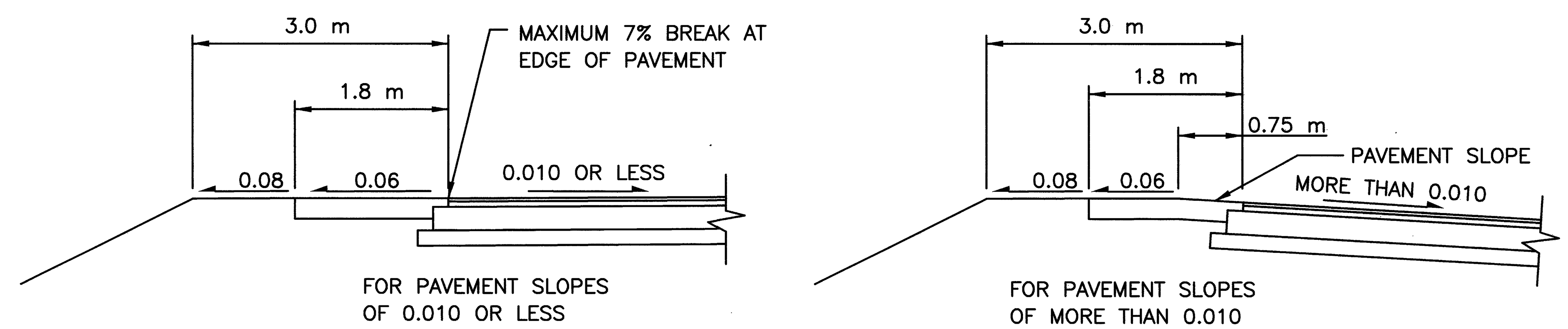
SUPERELEVATION SECTION – S.R. 61
(REVERSE FOR OPPOSITE SUPERELEVATION)
SEE SUPERELEVATION TABLE SHEET 646 OF 712.
STA. 50+167.315 TO STA. 50+480.000 = 312.685 m

*** STA. 50+388.000 TO STA. 50+480.000
LT VARIES FROM 3.6 m TO 1.3 m
RT VARIES FROM 3.6 m TO 4.8 m



MEDIUM FILLS

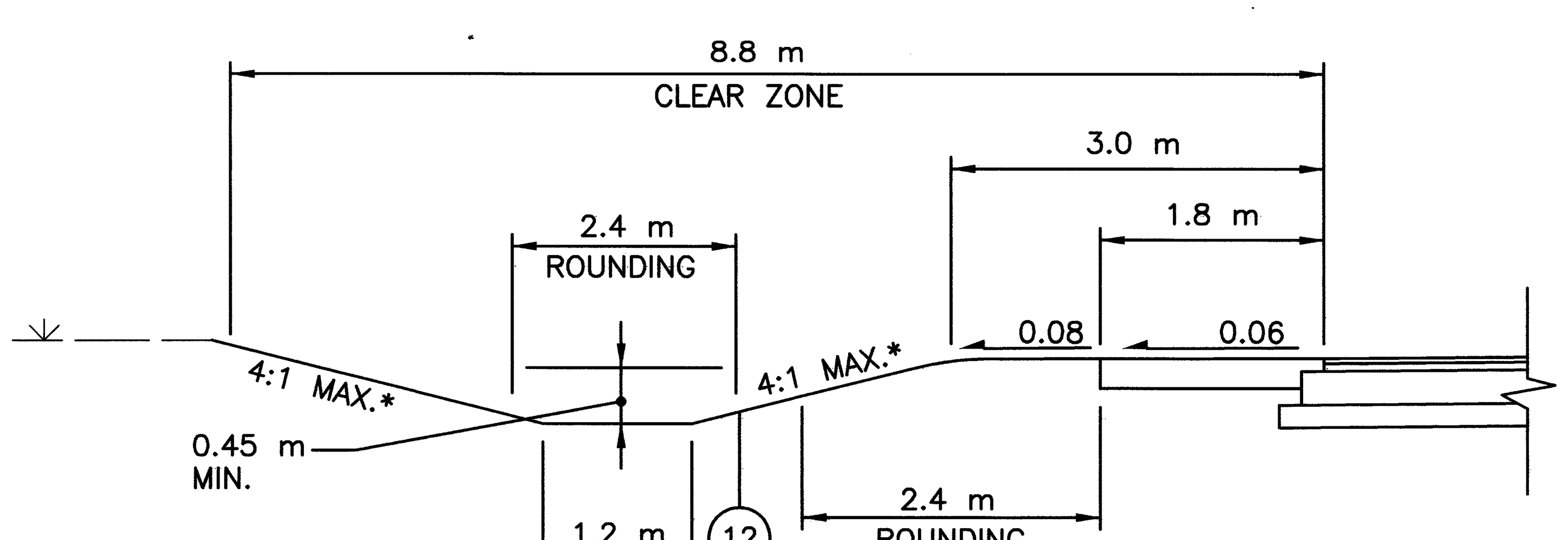
SEE BARRIER GRADING DETAIL FOR FILLS OVER 4.8 m



FOR PAVEMENT SLOPES OF 0.010 OR LESS

FOR PAVEMENT SLOPES OF MORE THAN 0.010

SUPERELEVATED SHOULDER DETAIL



CUT SECTION

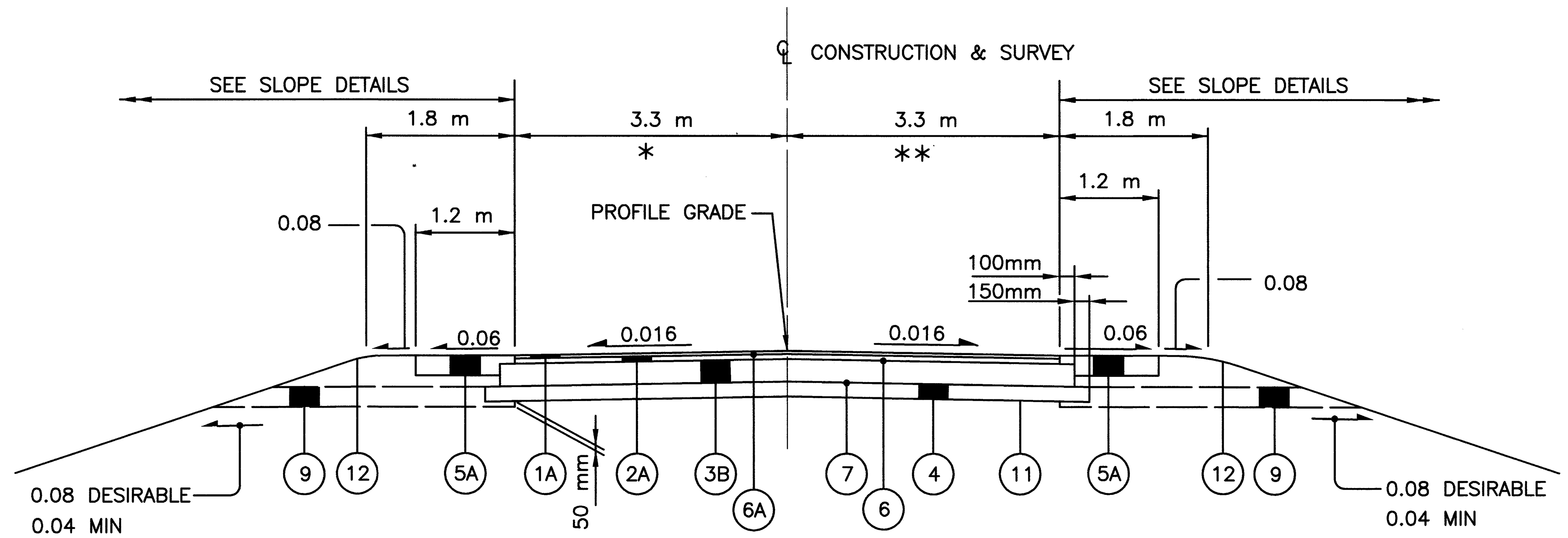
NOTES:

1. FOR LEGEND, SEE SHEET 11 OF 712.
2. ALL SLOPE BREAKS TO HAVE MIN. 1.2 m ROUNDING EXCEPT AS OTHERWISE NOTED.
3. THE GRADING ALONG THE GUARDRAIL SHALL BE AS PER THE CROSS SECTIONS AND THE APPROPRIATE STANDARD CONSTRUCTION DRAWINGS FOR THE CORRESPONDING ANCHOR ASSEMBLY.

TYPICAL SECTIONS – S.R. 61

CRA/RIC-30-33.500/0.000

GY500.DWG 04-25-2001 4:11 PM
SCALE 1:50



GALION-AIRPORT RD. (C.H. 47)

STA. 9+884.126 TO STA. 9+899.126 = 15.000 m
* VARIES 2.12 m TO 3.30 m
** VARIES 3.00 m TO 3.30 m

STA. 10+097.617 TO STA. 10+112.617 = 15.000 m
* VARIES 3.30 m TO 2.70 m
** VARIES 3.30 m TO 2.43 m

TOTAL 30.000 m

STATION EQUATION

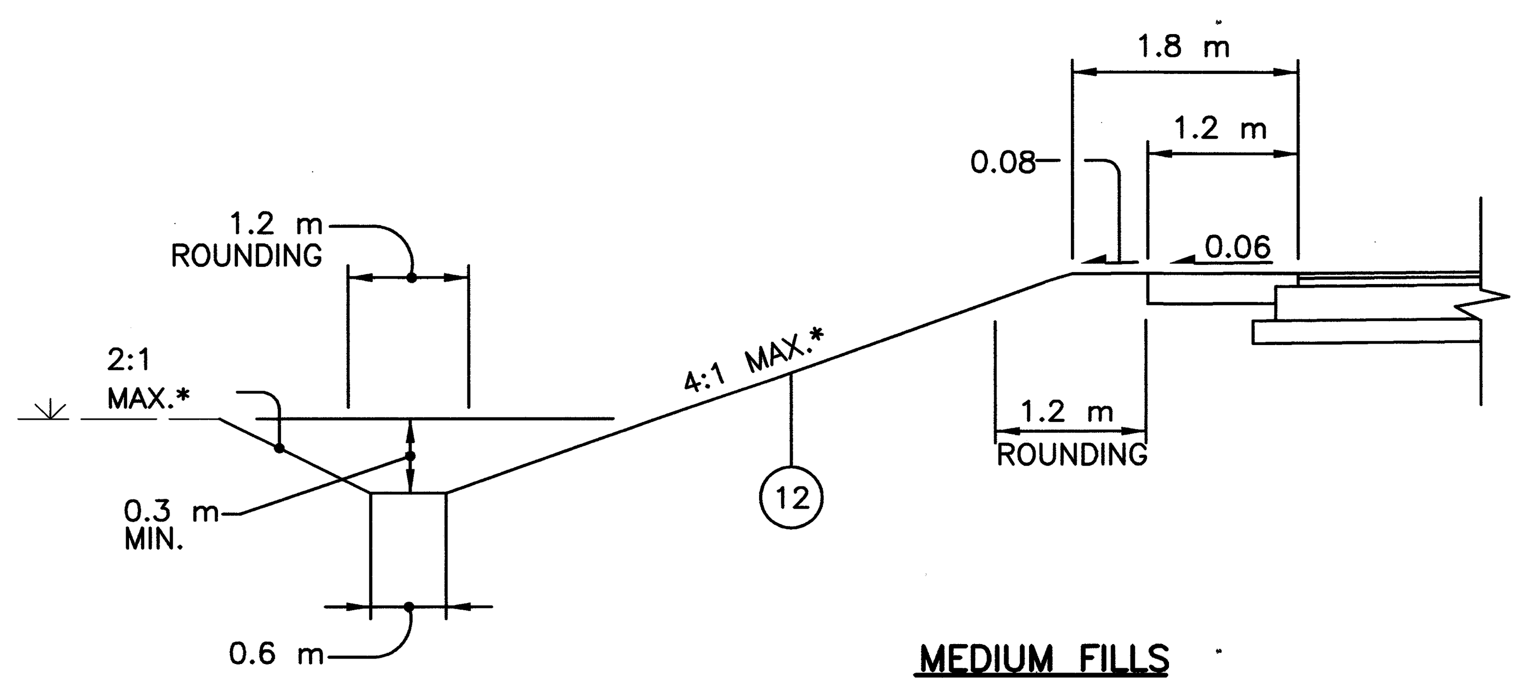
STA. 49+884.126 BACK = STA. 9+884.126 AHEAD
STA. 10+112.617 BACK = STA. 50+112.617 AHEAD

WACHS RD.

STA. 30+504.258 TO STA. 30+514.258 = 10.000 m
* VARIES 3.30 m TO 3.00 m
** VARIES 3.30 m TO 3.00 m

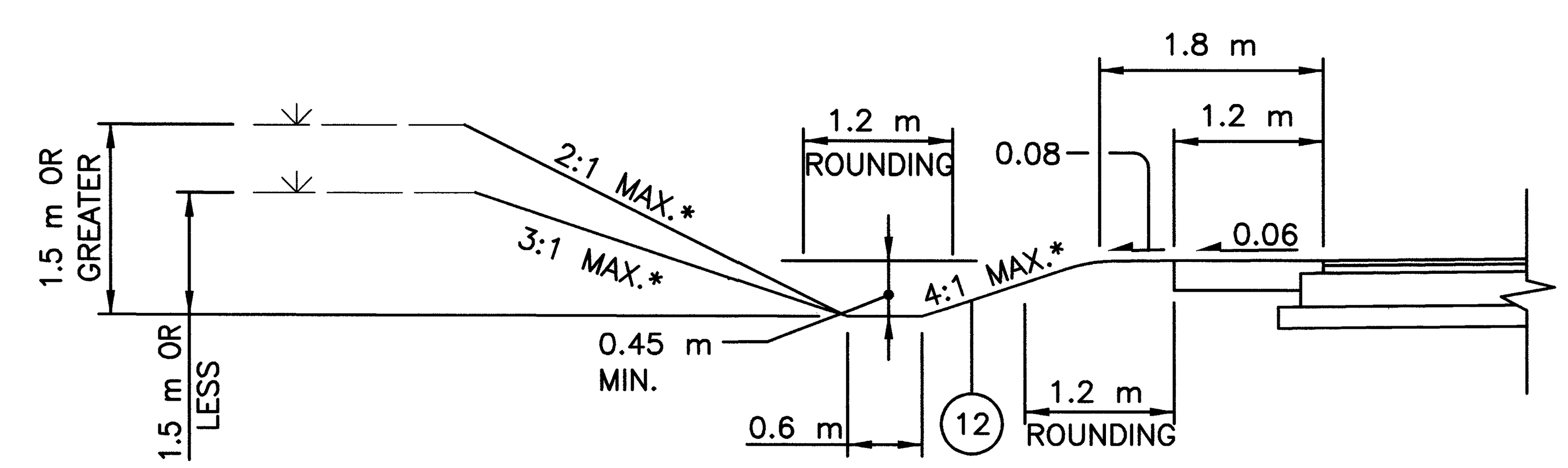
EXIST. ECKSTEIN RD. (T.R. 166)

STA. 50+107.692 TO STA. 50+270.520 = 162.828 m



MEDIUM FILLS

* SLOPE AS SHOWN ON CROSS SECTION



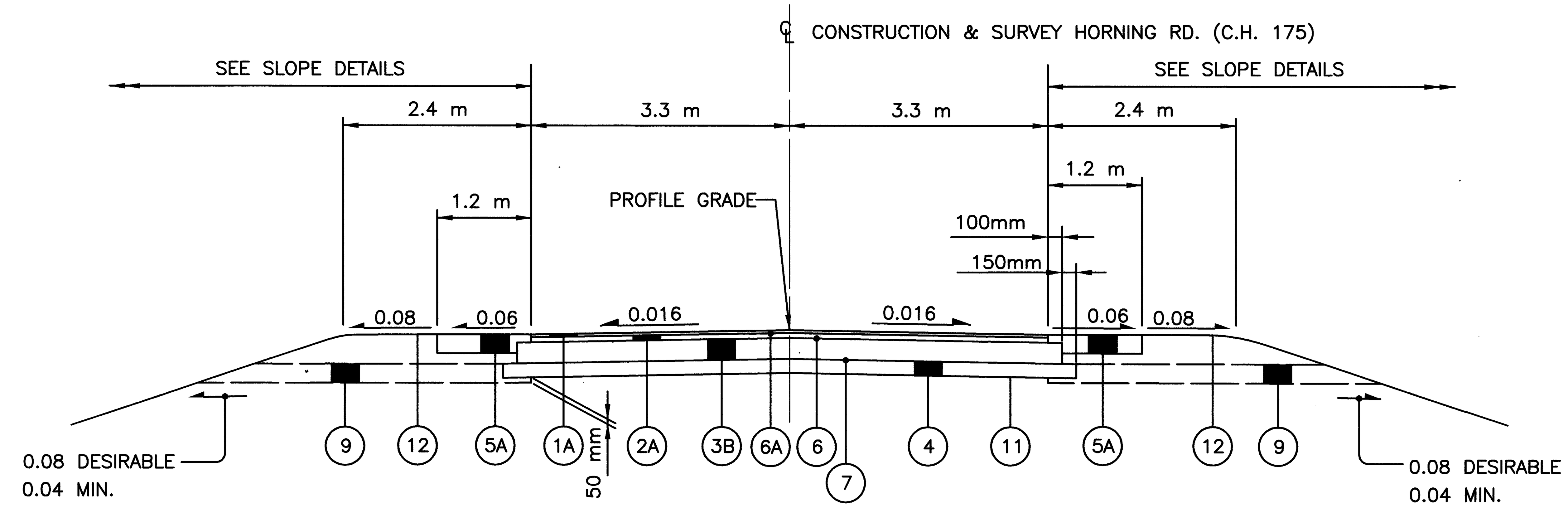
CUT SECTION

TYPICAL SECTIONS – GALION-AIRPORT RD. (C.H. 47), WACHS RD, & ECKSTEIN RD. (T.R. 166)

CRA/RIC-30-33.500/0.000

GY501.DWG
04-25-2001 4:12 PM
SCALE 1:50M

metric units

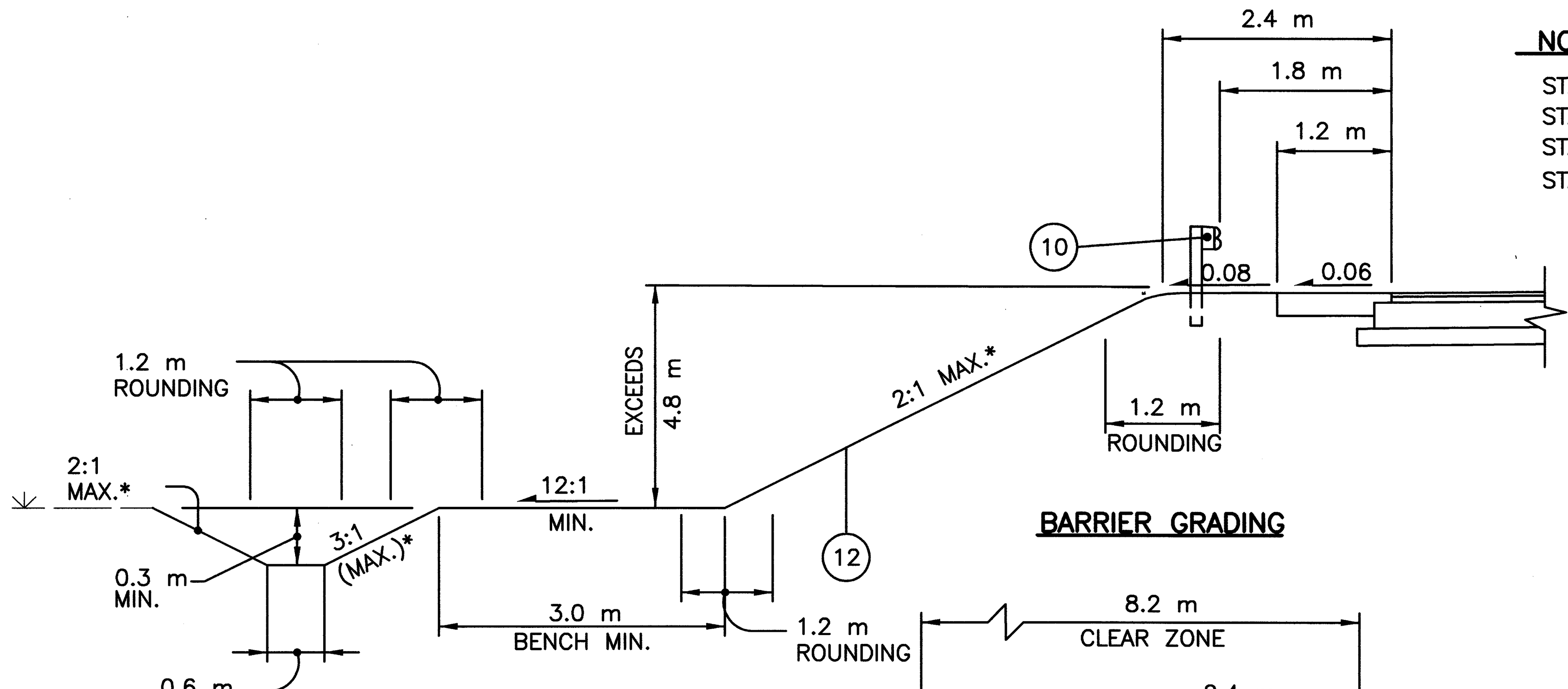


NORMAL SECTION – HORNING RD. (C.R. 175)

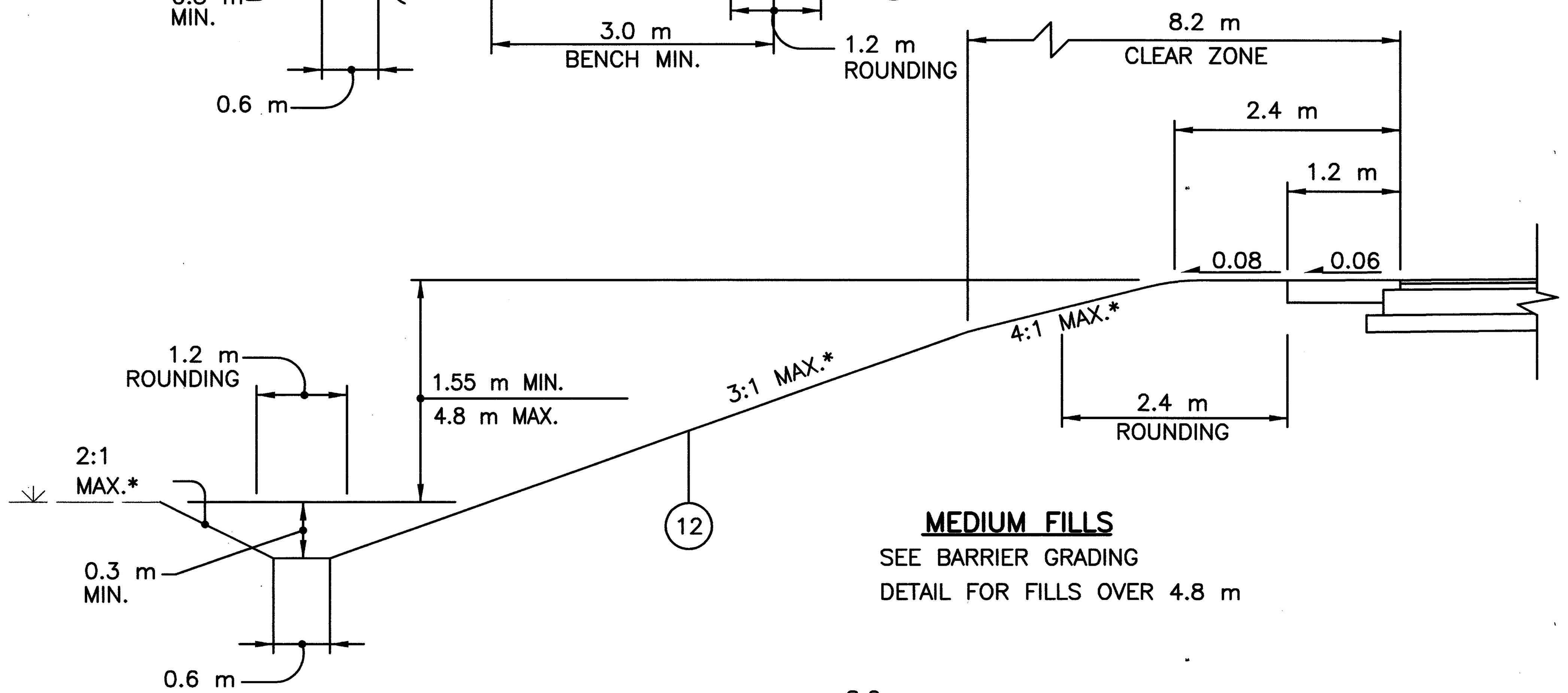
STA. 49+608.067 TO STA. 49+667.449 = 59.382 m
STA. 49+953.047 TO STA. 49+957.847 = 4.800 m
STA. 50+045.247 TO STA. 50+050.047 = 4.800 m
STA. 50+338.576 TO STA. 50+433.276 = 94.700 m
TOTAL = 163.682 m

NOTES:

1. FOR LEGEND, SEE SHEET 11 OF 712.
2. ALL SLOPE BREAKS TO HAVE MIN. 1.2 m ROUNDING EXCEPT AS OTHERWISE NOTED.
3. THE GRADING ALONG THE GUARDRAIL SHALL BE AS PER THE CROSS SECTIONS AND THE APPROPRIATE STANDARD CONSTRUCTION DRAWINGS FOR THE CORRESPONDING ANCHOR ASSEMBLY.
4. FOR PAVEMENT CURVE WIDENING SEE SUPERELEVATION TABLE, SHEET 465 .

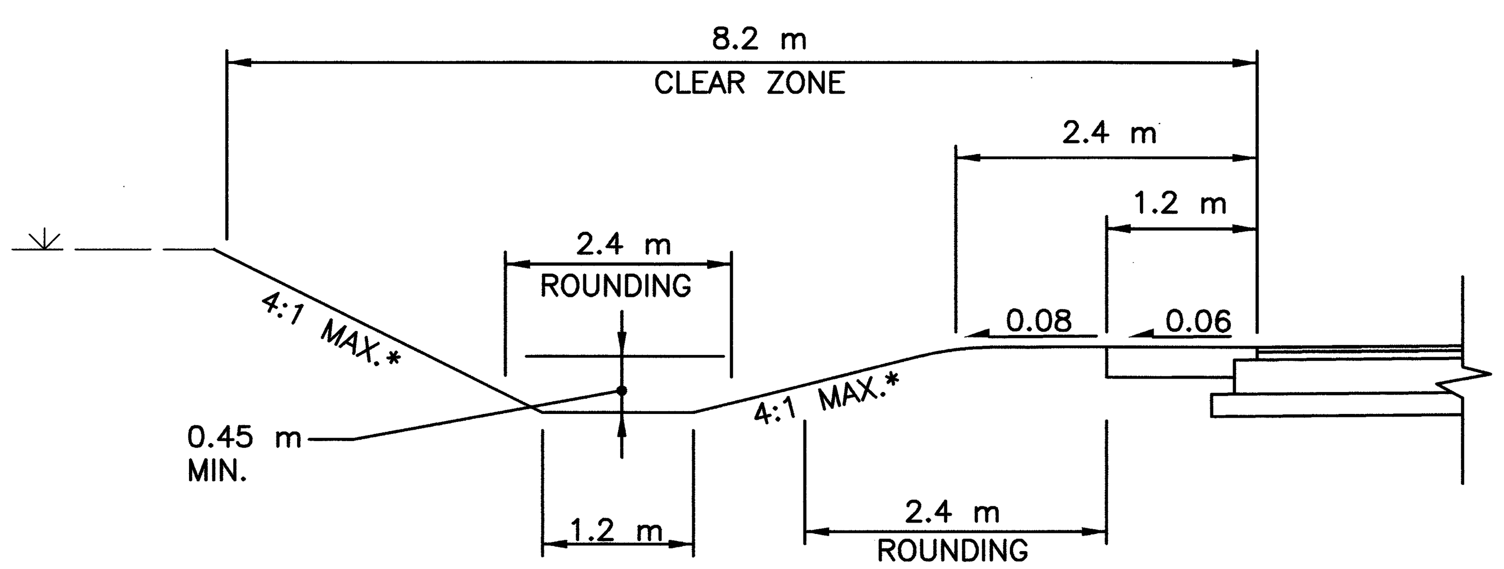


BARRIER GRADING

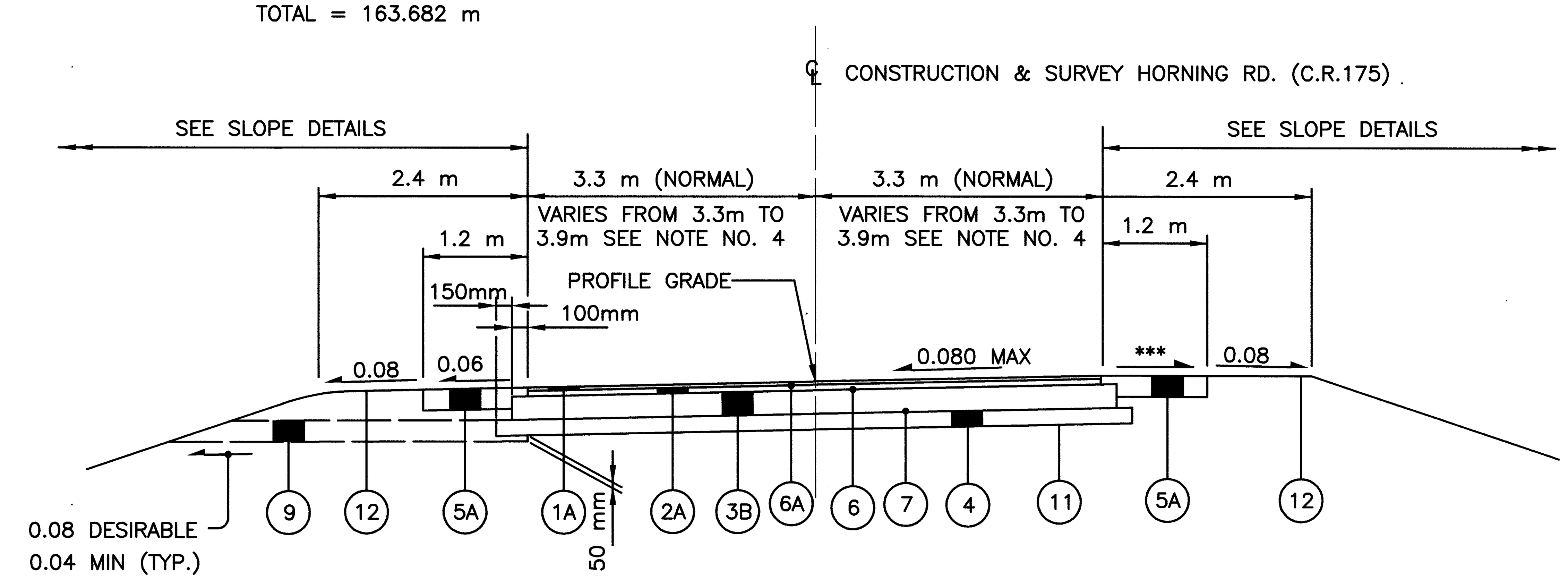


MEDIUM FILLS

SEE BARRIER GRADING DETAIL FOR FILLS OVER 4.8 m



CUT SECTION



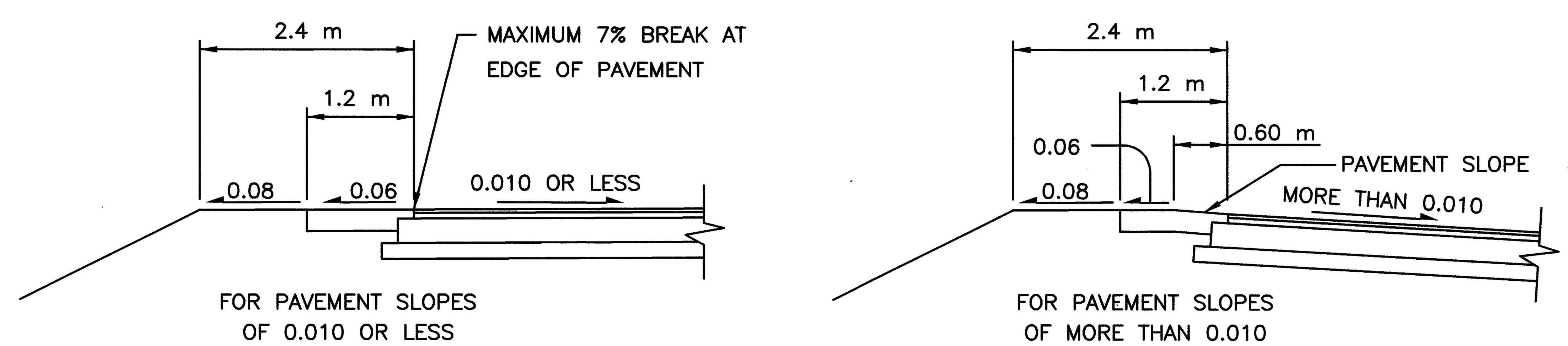
SUPERELEVATION SECTION – HORNING RD. (C.R. 175)

(REVERSE FOR OPPOSITE SUPERELEVATION)
SEE SUPERELEVATION TABLE SHT. 465.

STA. 49+667.449 TO STA. 49+953.047 = 285.598 m
STA. 50+050.047 TO STA. 50+338.576 = 288.529 m
TOTAL = 574.127 m

* SLOPES AS SHOWN ON CROSS SECTIONS

*** FOR HIGH SIDE SHOULDER SLOPES ON SUPERELEVATED SECTIONS SEE SHOULDER DETAILS

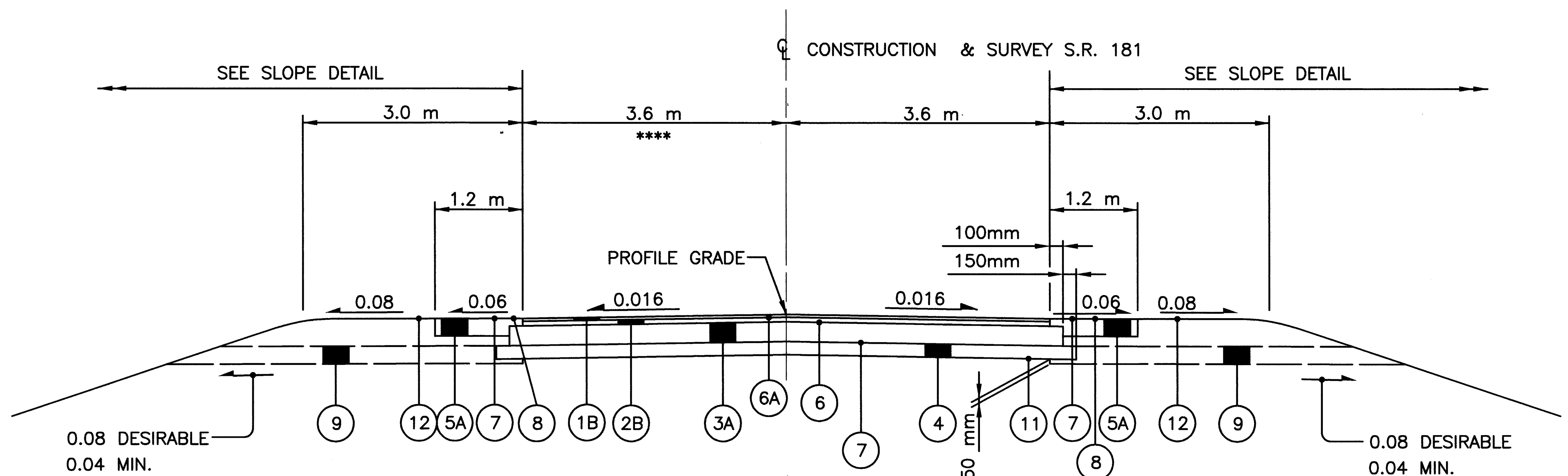


SUPERELEVATED SHOULDER DETAILS

TYPICAL SECTIONS – HORNING RD. (C.H. 175)

CRA/RIC-30-33.500/0.000

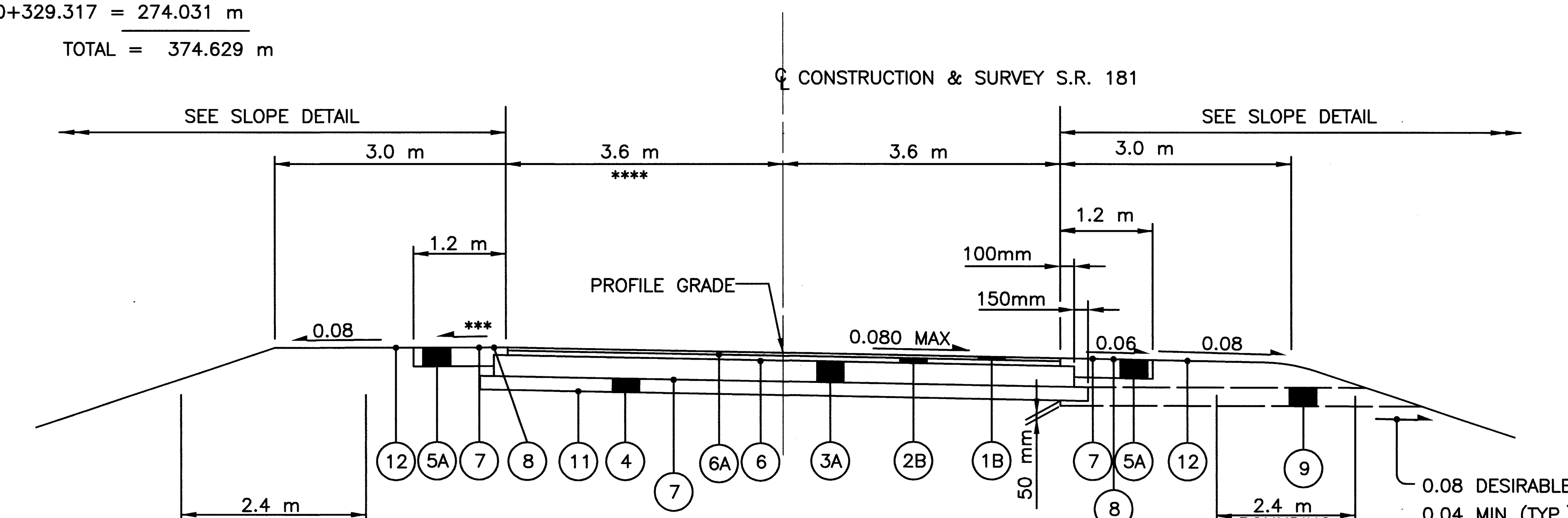
GY502.DWG
04-25-2001 4:14 PM
SCALE 1:50M



NORMAL SECTION – S.R. 181

**** STA. 50+285.000 TO STA. 50+345.000
LEFT SIDE VARIES FROM 3.6 m TO 7.2 m

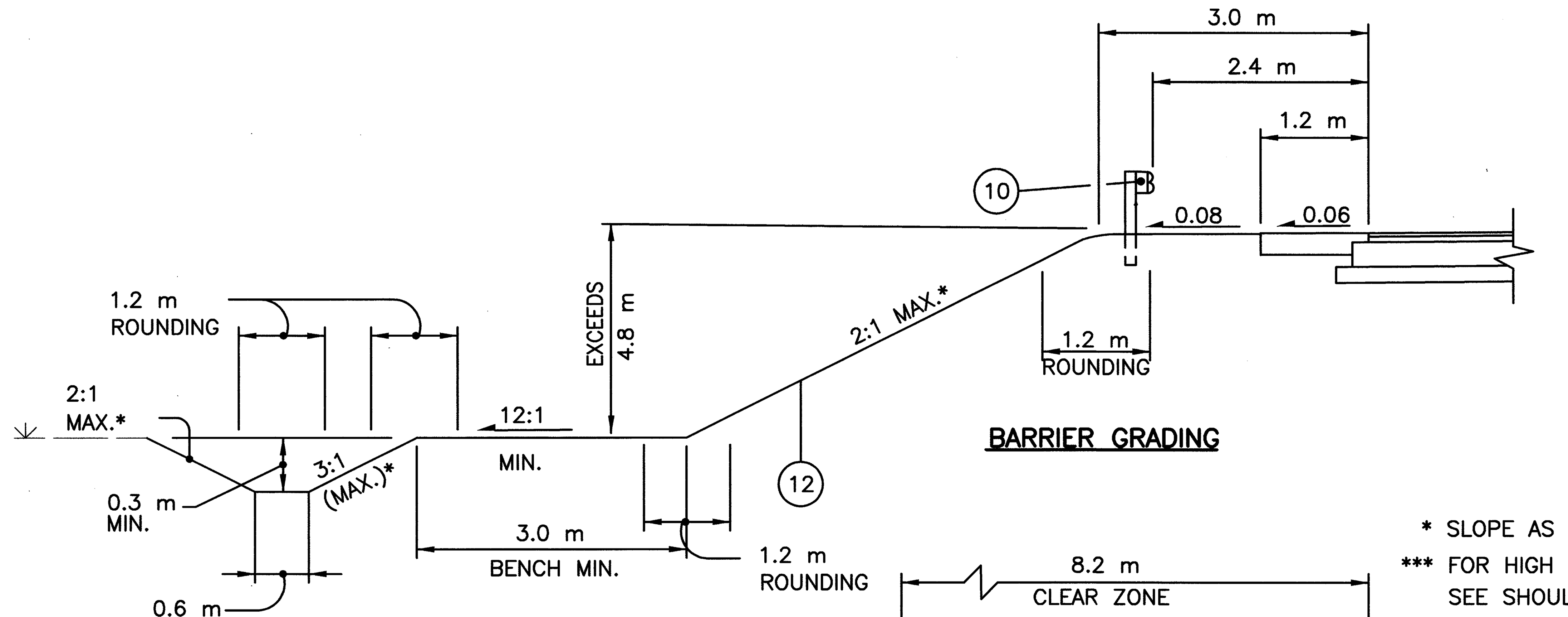
STA. 49+686.342 TO STA. 49+740.479 = 54.137 m
STA. 49+910.137 TO STA. 49+956.598 = 46.461 m
STA. 50+055.286 TO STA. 50+329.317 = 274.031 m
TOTAL = 374.629 m



SUPERELEVATION SECTION – S.R. 181

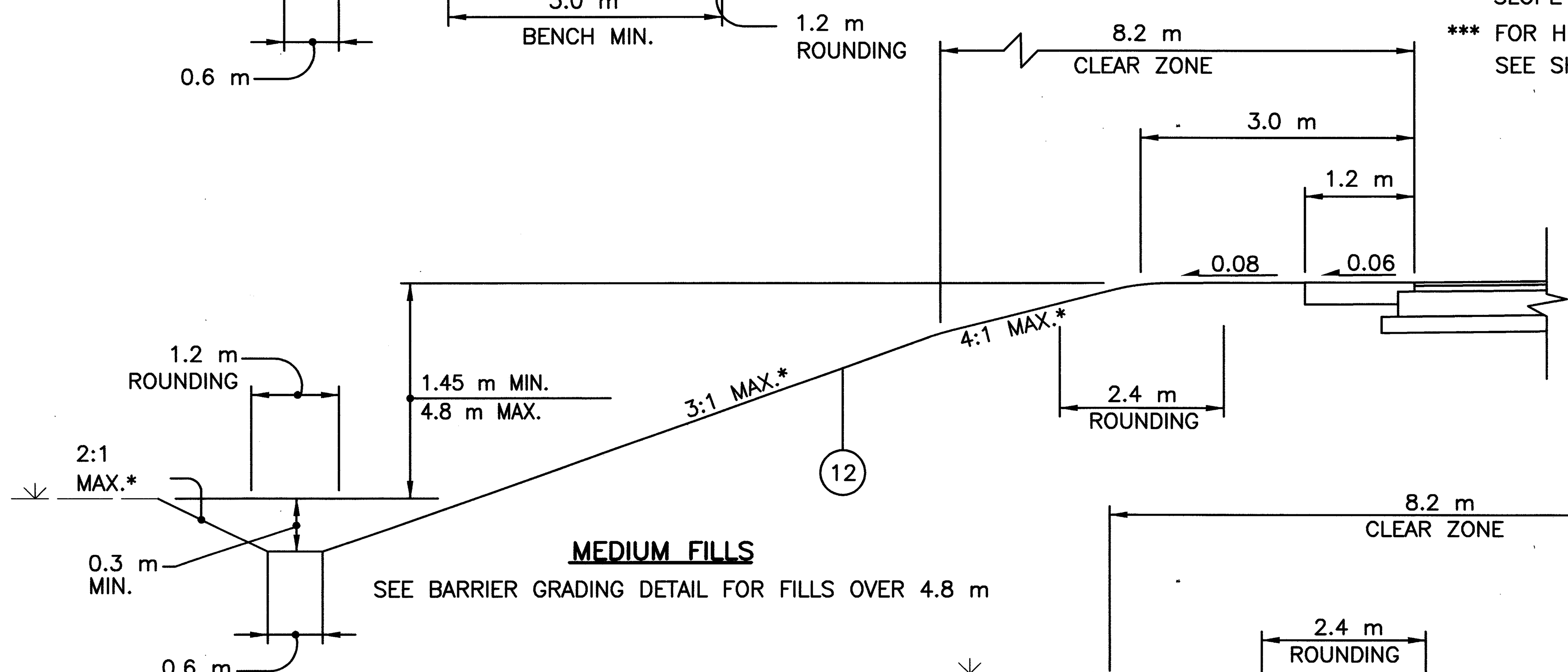
SEE SUPERELEVATION TABLE ON SHT. 466 OF 712.

STA. 49+648.842 TO STA. 49+686.342 = 37.500 m
STA. 49+740.479 TO STA. 49+910.137 = 169.658 m
STA. 50+329.317 TO STA. 50+416.426 = 87.109 m
TOTAL = 294.267 m



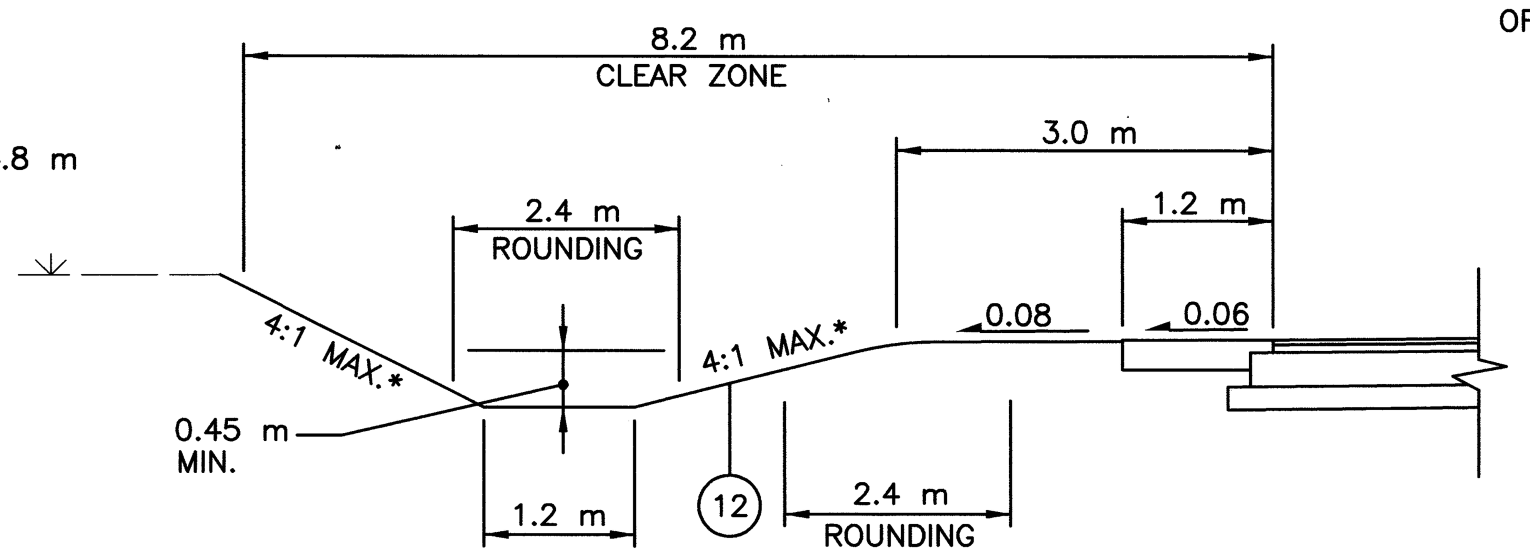
BARRIER GRADING

* SLOPE AS SHOWN ON CROSS SECTIONS
*** FOR HIGH SIDE SHOULDER SLOPES ON SUPERELEVATED SECTIONS SEE SHOULDER DETAILS

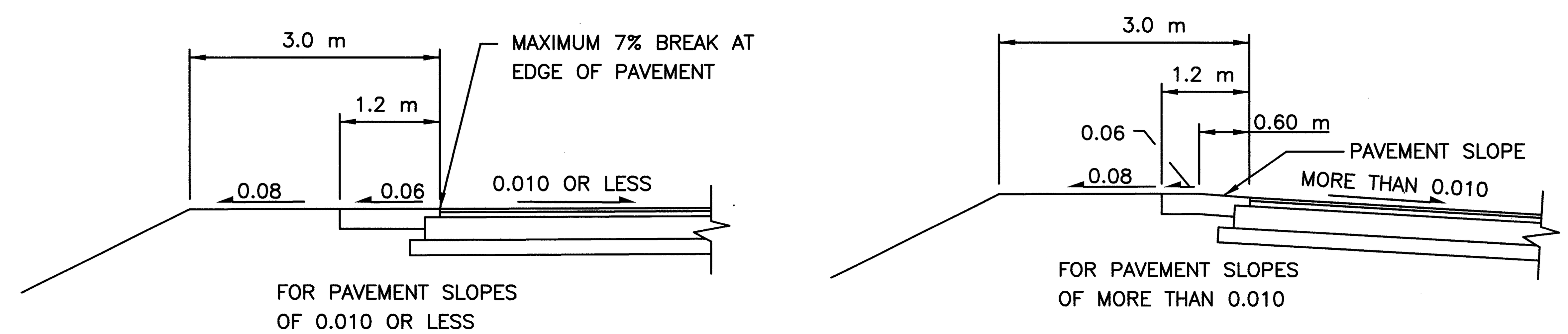


MEDIUM FILLS

SEE BARRIER GRADING DETAIL FOR FILLS OVER 4.8 m



CUT SECTION



SUPERELEVATED SHOULDER DETAILS

NOTES:

1. FOR LEGEND, SEE SHEET 11 OF 712.
2. ALL SLOPE BREAKS TO HAVE MIN. 1.2 m ROUNDING EXCEPT AS OTHERWISE NOTED.
3. THE GRADING ALONG THE GUARDRAIL SHALL BE AS PER THE CROSS SECTIONS AND THE APPROPRIATE STANDARD CONSTRUCTION DRAWINGS FOR THE CORRESPONDING ANCHOR ASSEMBLY.

metric units

TYPICAL SECTIONS – S.R. 181

CRA/RIC-30-33.500/0.000

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04-25-2001
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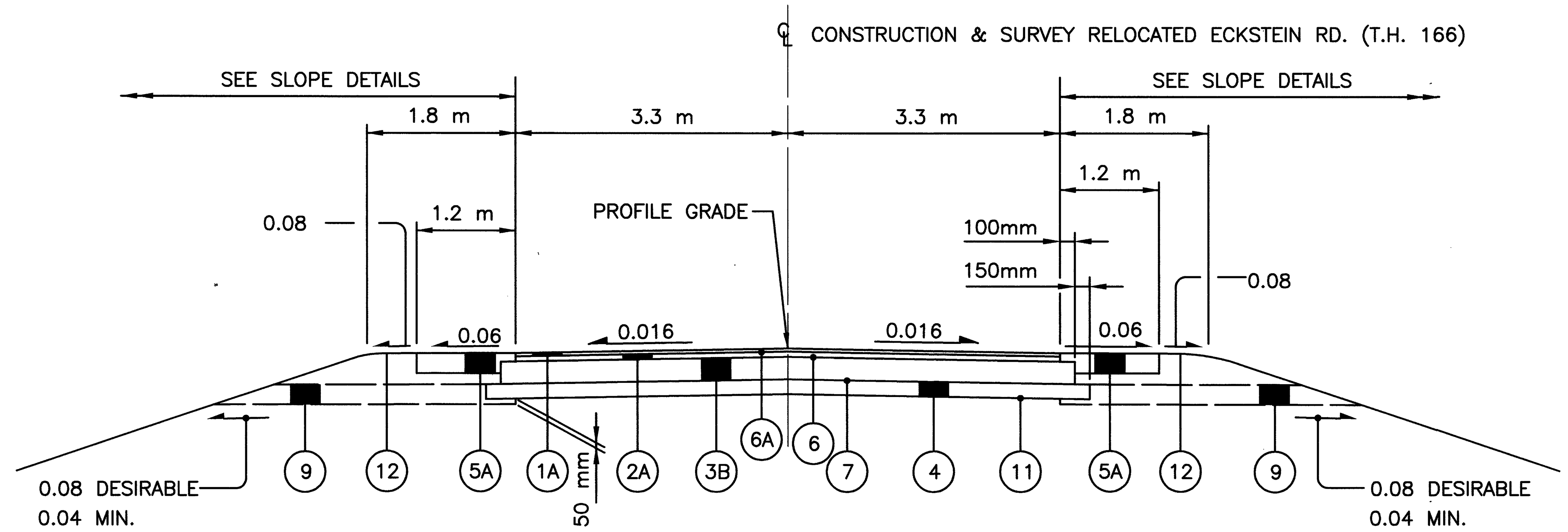
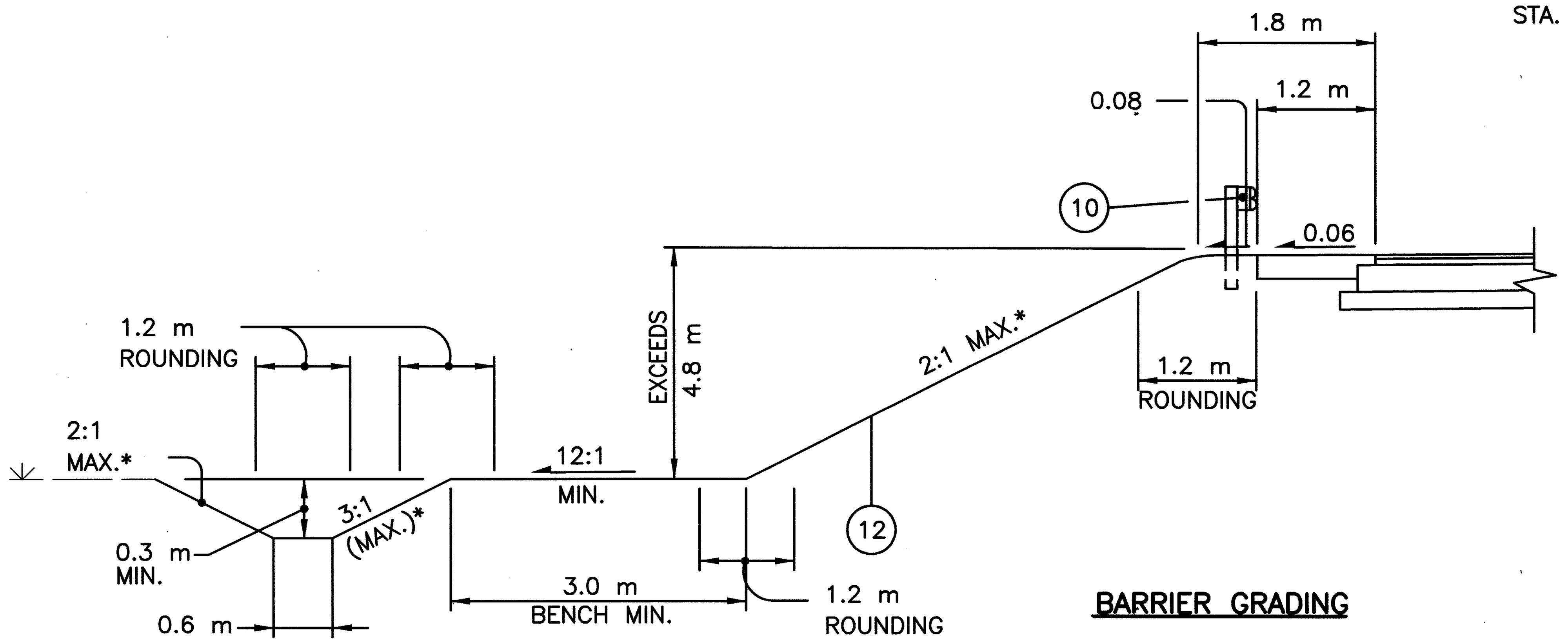
TYPICAL SECTIONS – ECKSTEIN RD. (T.H. 166)

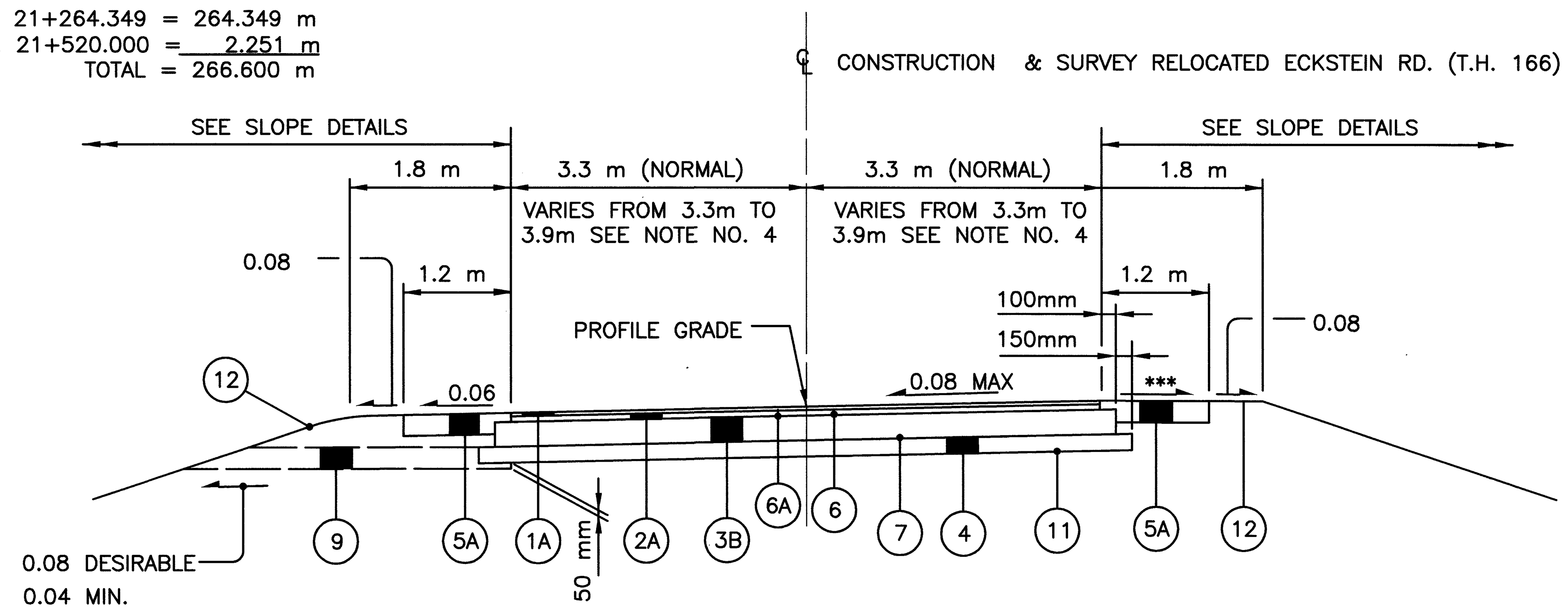


NORMAL SECTION – RELOCATED ECKSTEIN RD. (T.H. 166)

STA. 21+000.000 TO STA. 21+264.349 = 264.349 m
STA. 21+517.749 TO STA. 21+520.000 = 2.251 m
TOTAL = 266.600 m



BARRIER GRADING

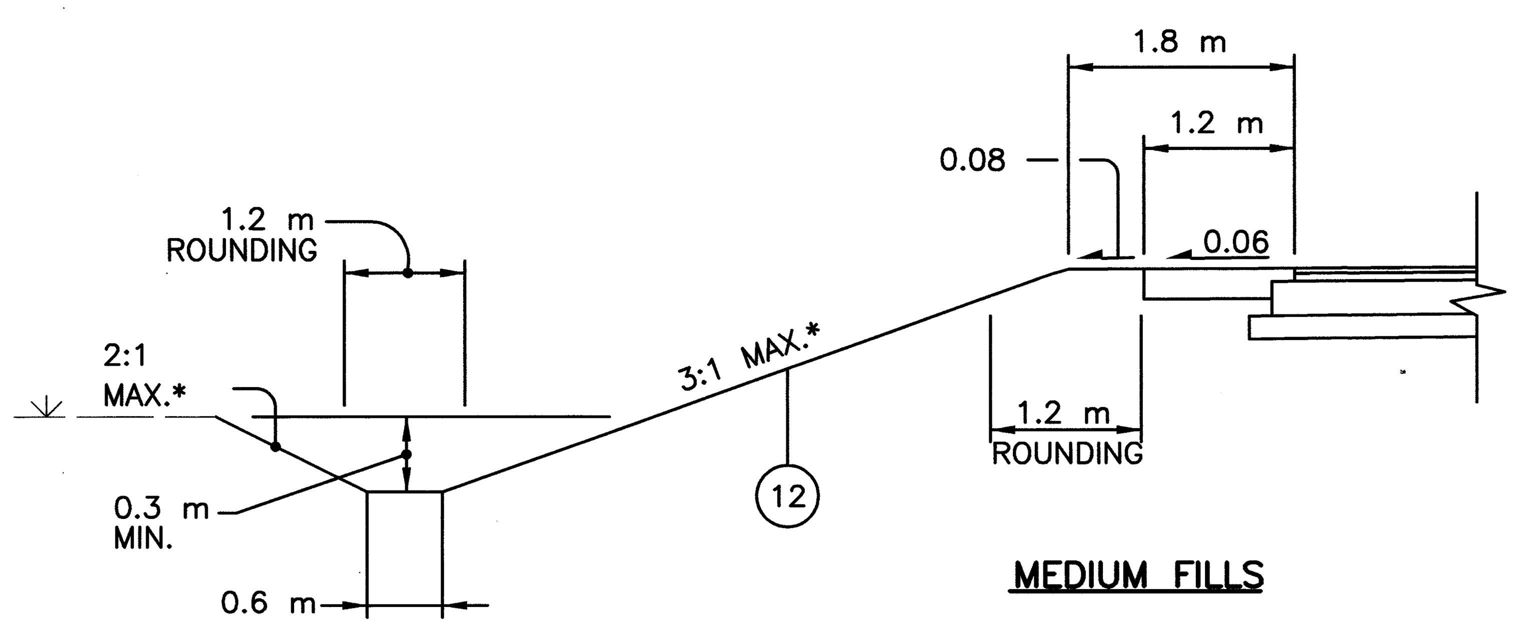


SUPERELEVATION SECTION – RELOCATED ECKSTEIN RD. (T.H. 166)

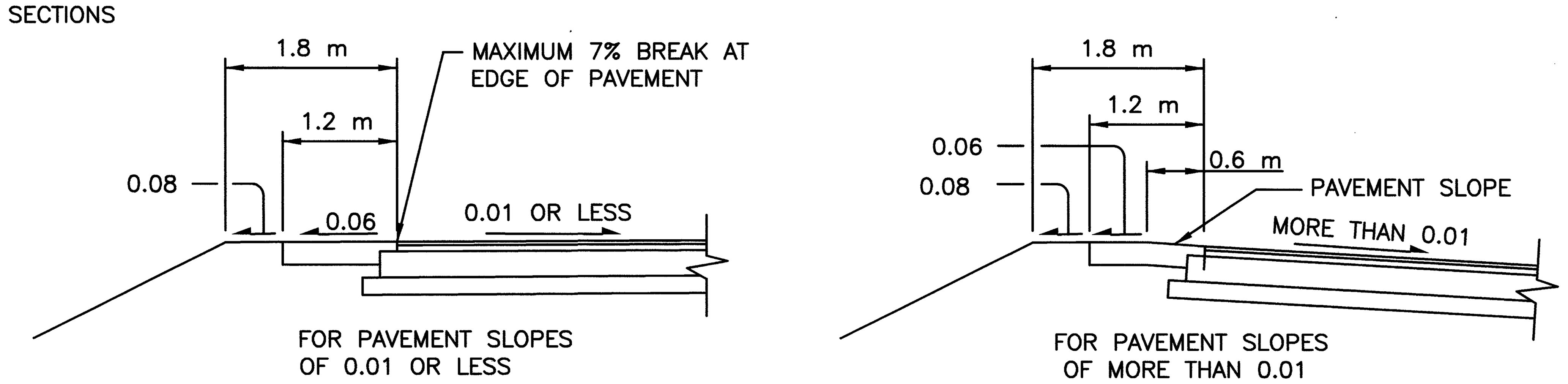
SEE SUPERELEVATION TABLE ON SHT. 466 OF 712.
STA. 21+264.349 TO STA. 21+517.749= 253.400 m

* SLOPE AS SHOWN ON CROSS SECTIONS

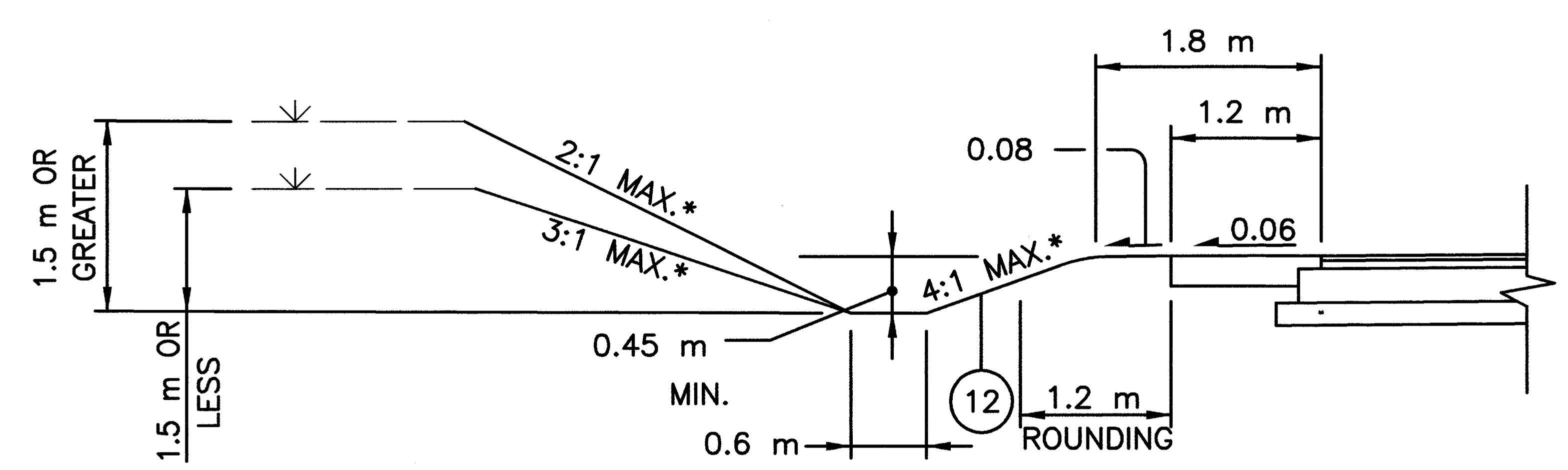
*** FOR HIGH SIDE SHOULDER SLOPES ON SUPERELEVATED SECTIONS SEE SHOULDER DETAILS



MEDIUM FILLS



SUPERELEVATED SHOULDER DETAILS



CUT SECTION

NOTES:

1. FOR LEGEND, SEE SHEET 11 OF 712.
2. ALL SLOPE BREAKS TO HAVE MIN. 1.2 m ROUNDING EXCEPT AS OTHERWISE NOTED.
3. THE GRADING ALONG THE GUARDRAIL SHALL BE AS PER THE CROSS SECTIONS AND THE APPROPRIATE STANDARD CONSTRUCTION DRAWINGS FOR THE CORRESPONDING ANCHOR ASSEMBLY.
4. FOR PAVEMENT CURVE WIDENING SEE SUPERELEVATION TABLE, SHEET 466.

metric units

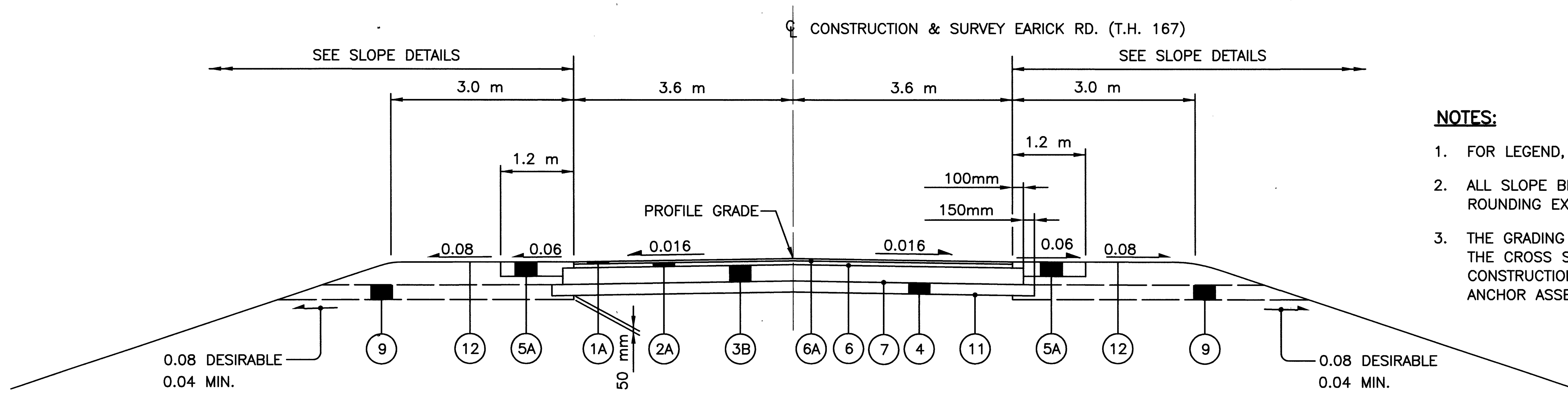
CRA/RIC-30-33.500/0.000

GY504.DWG
04-25-2001 4:18 PM
SCALE 1:50

metric units

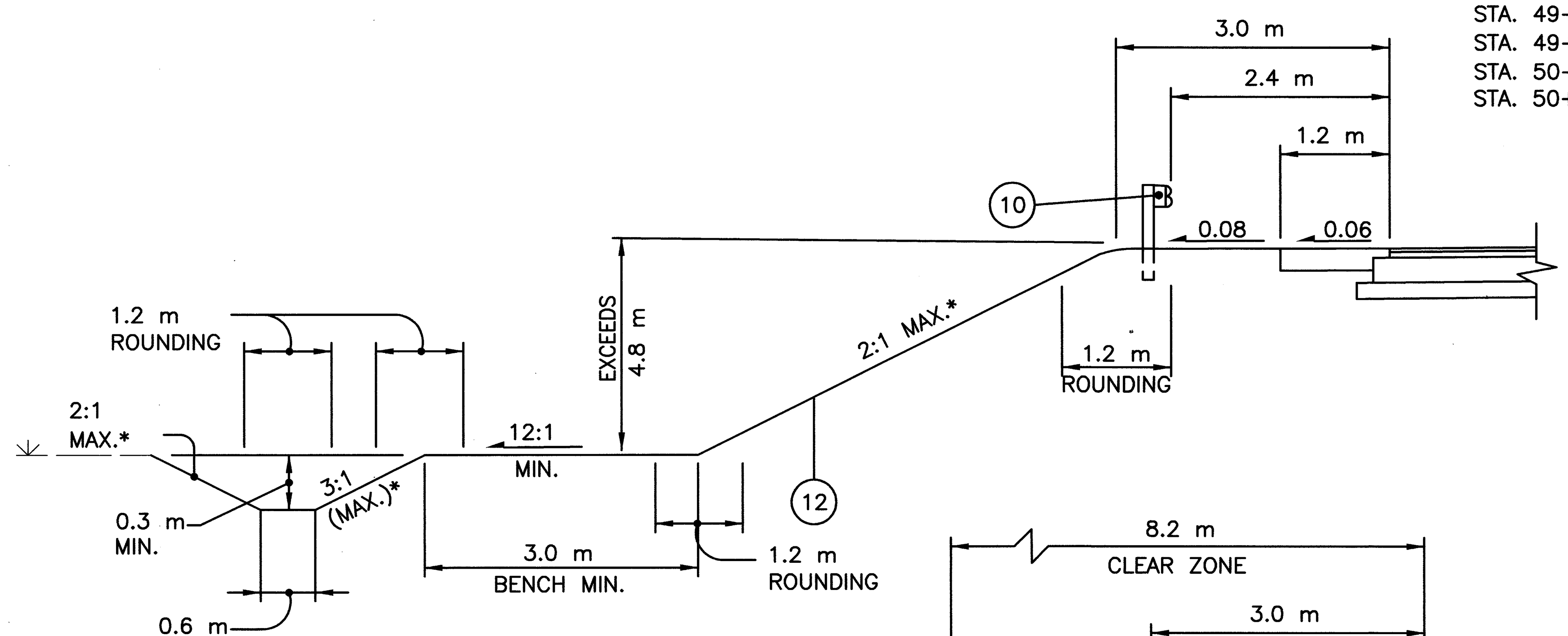
NOTES:

1. FOR LEGEND, SEE SHEET 11 OF 712 .
2. ALL SLOPE BREAKS TO HAVE MIN. 1.2 m ROUNDING EXCEPT AS OTHERWISE NOTED.
3. THE GRADING ALONG THE GUARDRAIL SHALL BE AS PER THE CROSS SECTIONS AND THE APPROPRIATE STANDARD CONSTRUCTION DRAWINGS FOR THE CORRESPONDING ANCHOR ASSEMBLY.

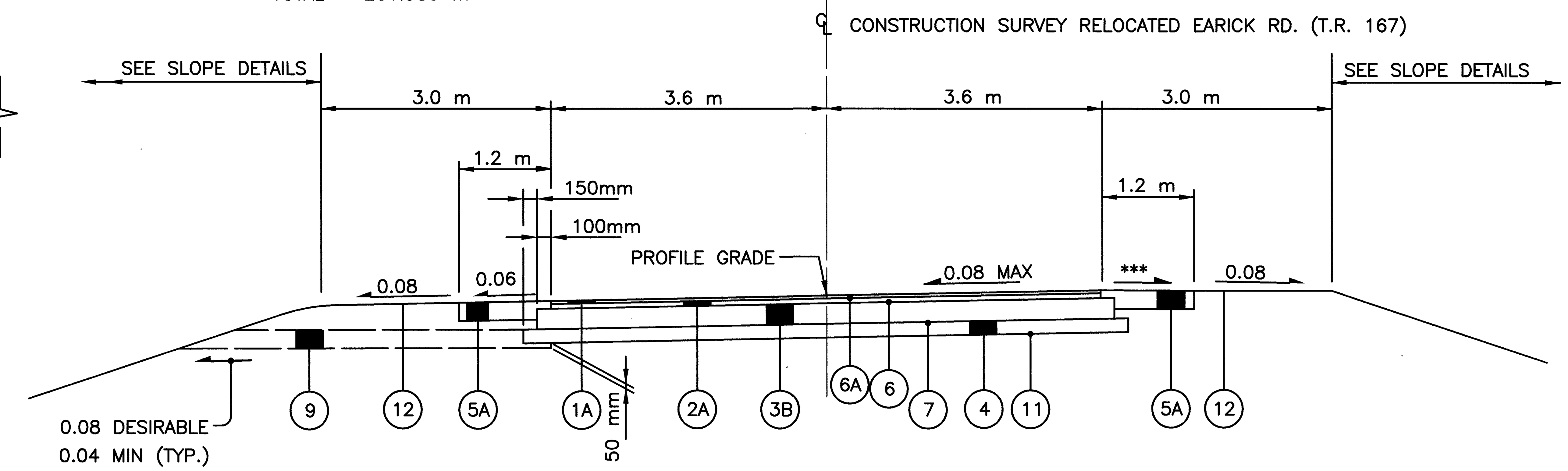


NORMAL SECTION - EARICK RD. (T.H. 167)

STA. 49+480.000	TO	STA. 49+529.525	=	49.525 m
STA. 49+884.337	TO	STA. 49+930.980	=	46.643 m
STA. 50+033.116	TO	STA. 50+108.924	=	75.808 m
STA. 50+451.469	TO	STA. 50+481.443	=	29.974 m
		TOTAL	=	201.950 m



BARRIER GRADING

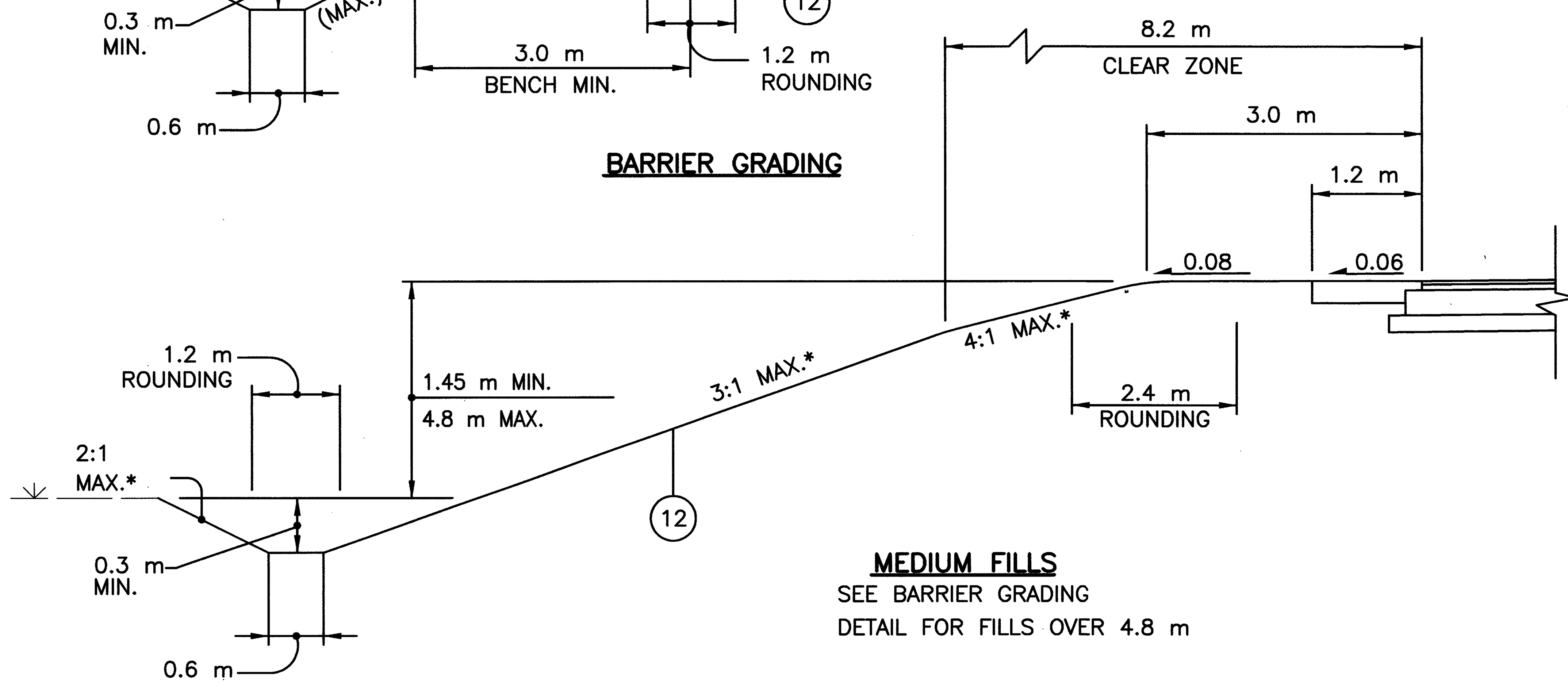


SUPERELEVATION SECTION - RELOCATED EARICK RD. (T.H. 167)

(REVERSE FOR OPPOSITE SUPERELEVATION)

SEE SUPERELEVATION TABLE ON SHT. 467 OF 712.

STA. 49+529.525	TO	STA. 49+884.337	=	354.812 m
STA. 50+108.924	TO	STA. 50+451.469	=	342.545 m
		TOTAL	=	697.357 m

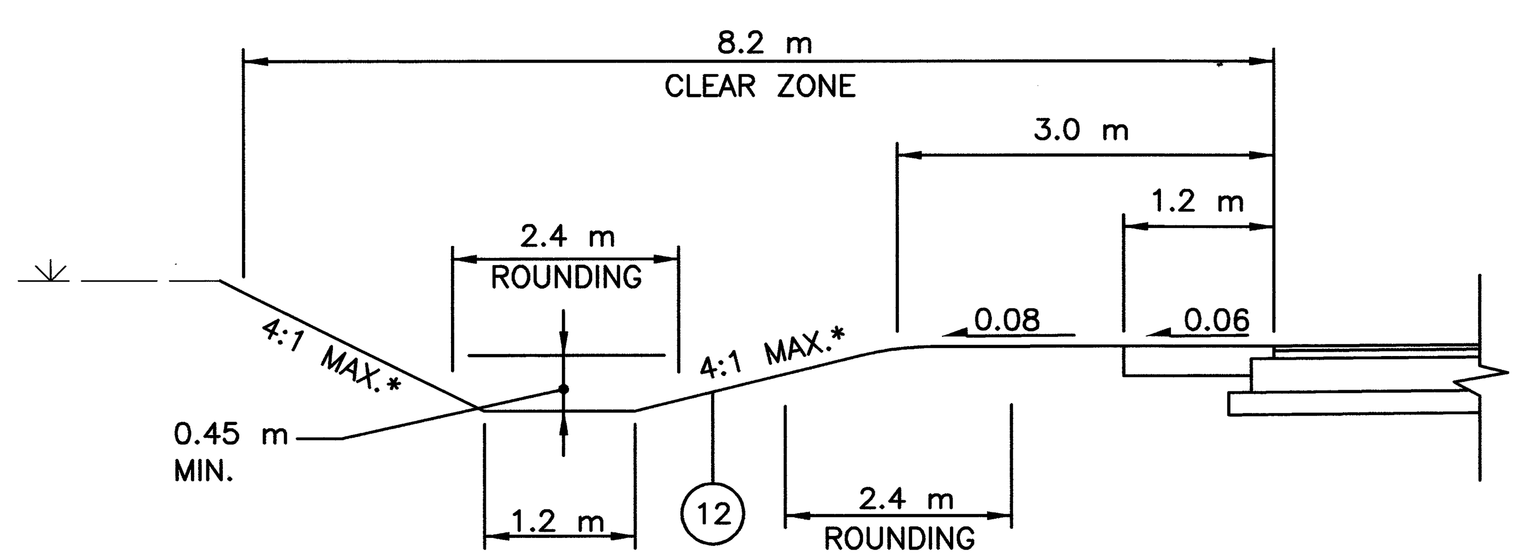


MEDIUM FILLS

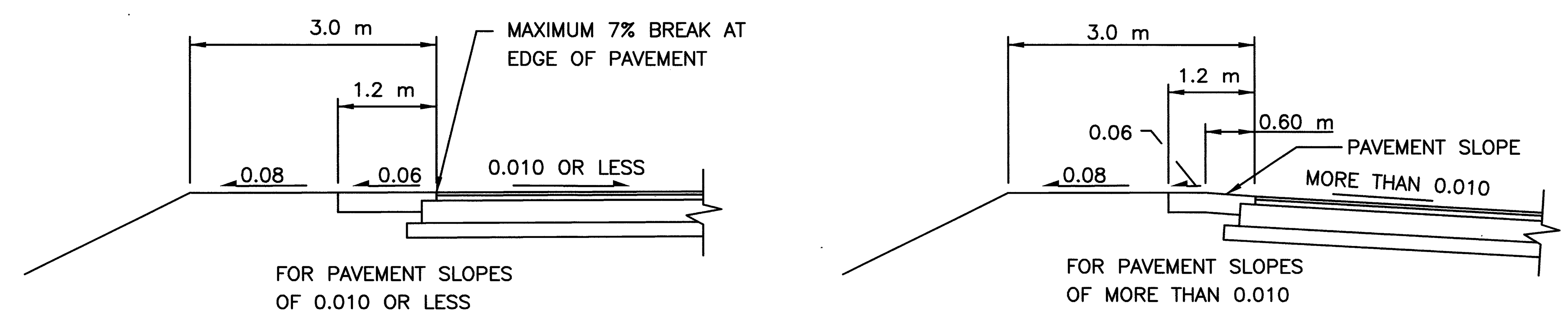
SEE BARRIER GRADING DETAIL FOR FILLS OVER 4.8 m

* SLOPES AS SHOWN ON CROSS SECTIONS

*** FOR HIGH SIDE SHOULDER SLOPES ON SUPERELEVATED SECTIONS SEE SHOULDER DETAILS



CUT SECTION



SUPERELEVATED SHOULDER DETAILS

TYPICAL SECTIONS - EARICK (T.H. 167)

CRA/RIC-30-33.500/0.000

21/712

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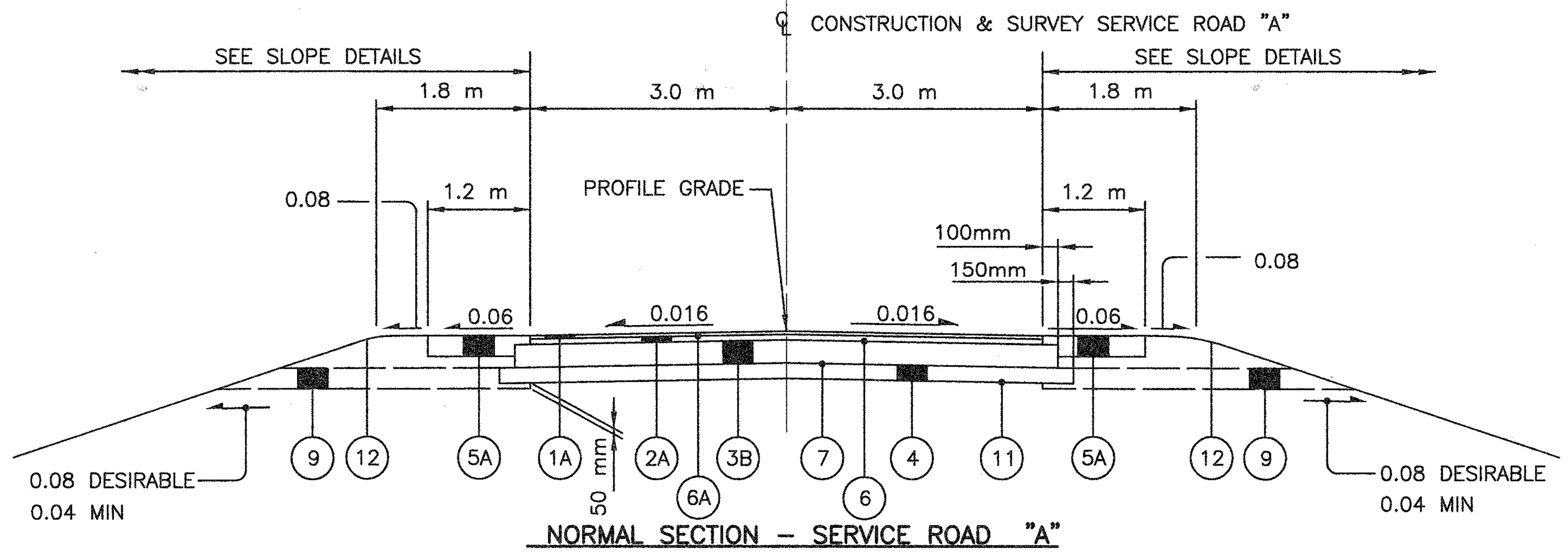
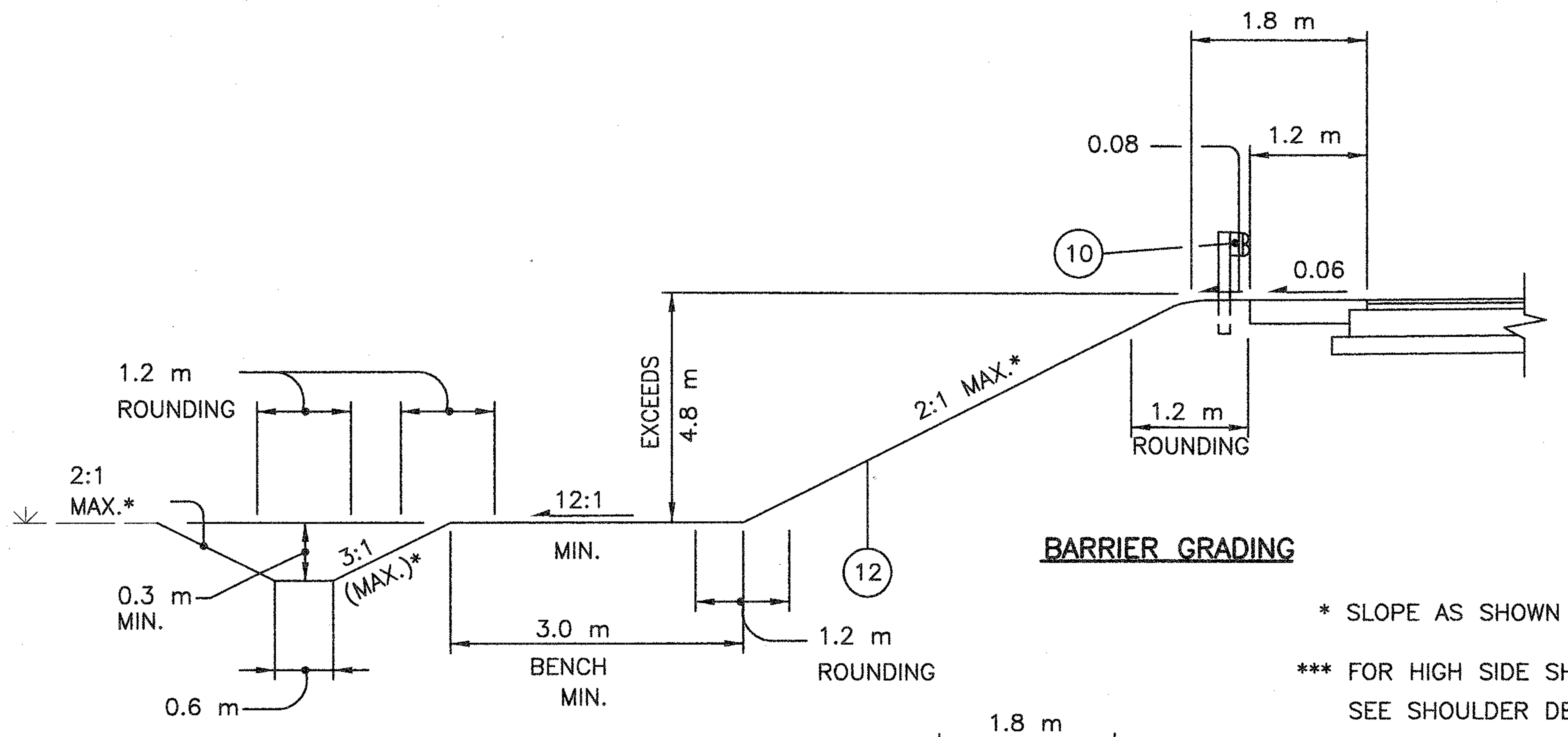
TYPICAL SECTIONS - SERVICE ROAD "A"



NORMAL SECTION - SERVICE ROAD "A"

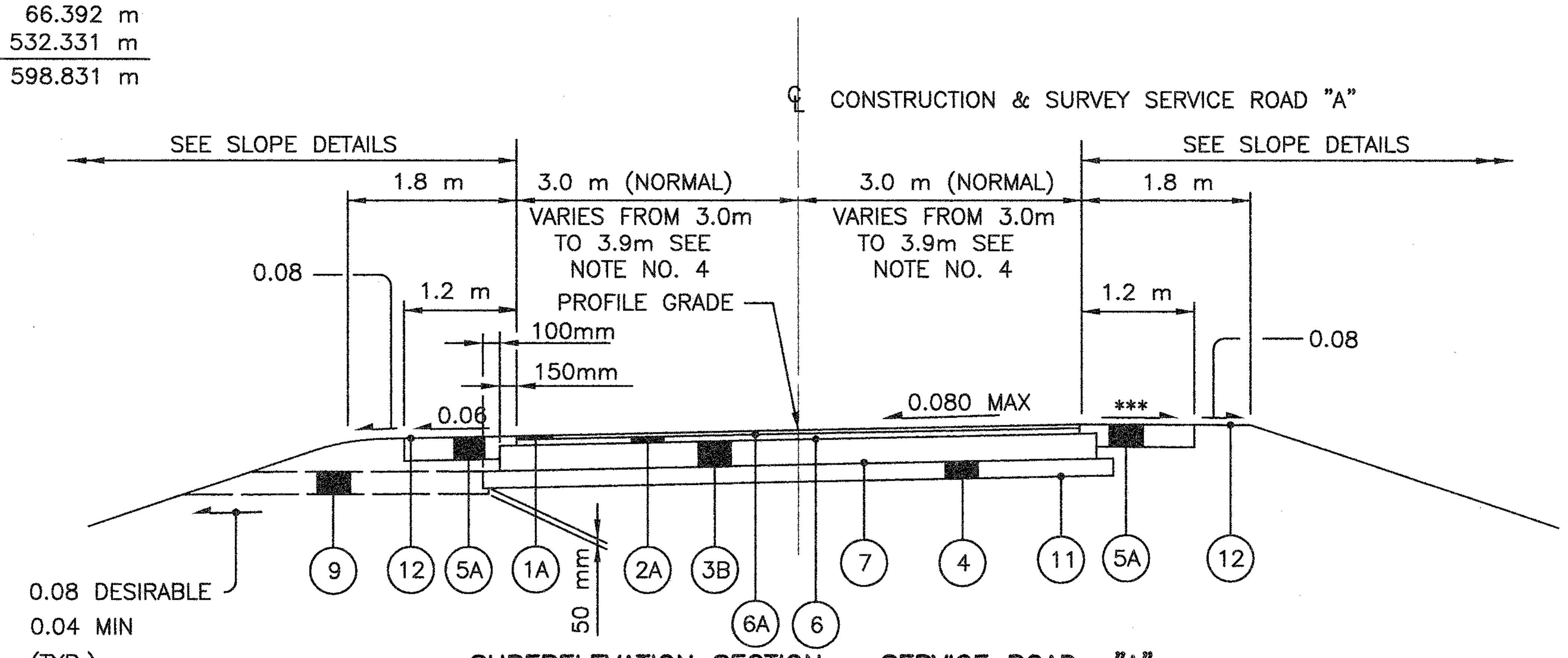
STA. 49+991.536 TO STA. 50+057.928 = 66.392 m
STA. 50+783.964 TO STA. 51+316.295 = 532.331 m
TOTAL = 598.831 m



BARRIER GRADING

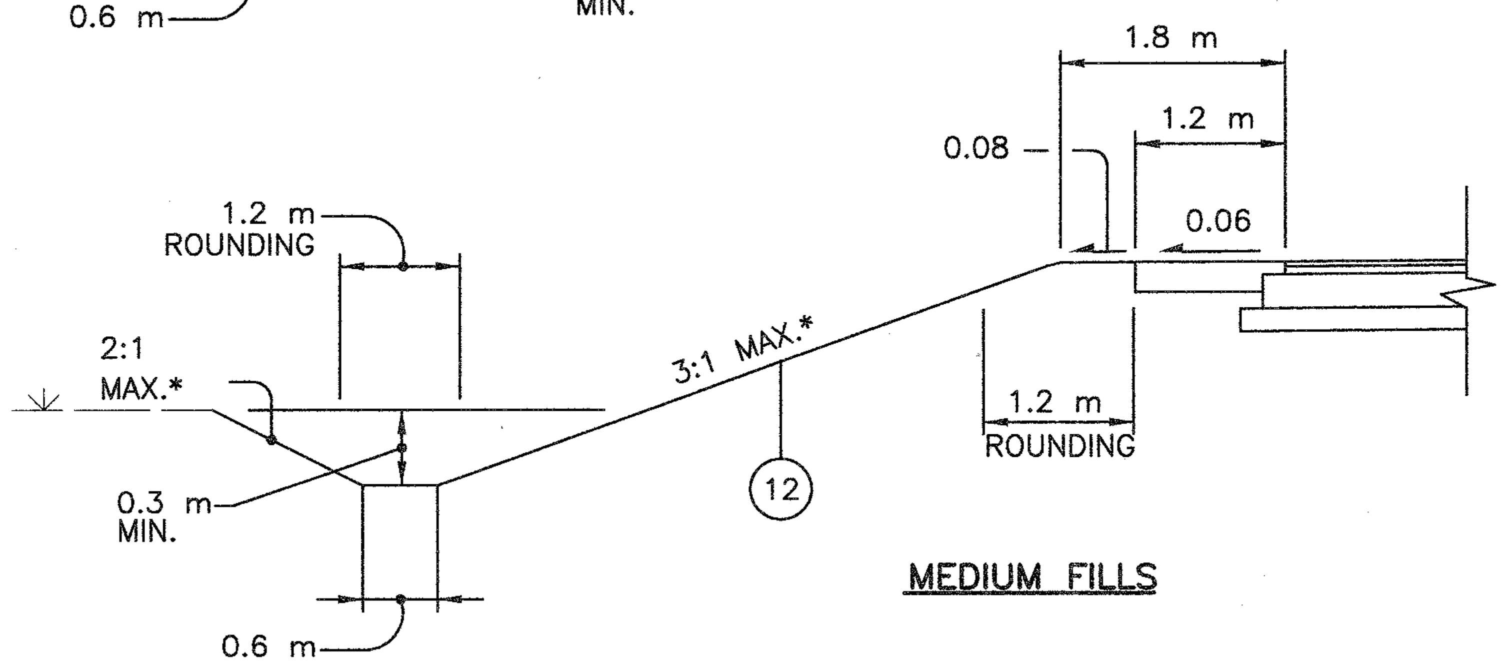
* SLOPE AS SHOWN ON CROSS SECTION

*** FOR HIGH SIDE SHOULDER SLOPES ON SUPERELEVATED SECTIONS
SEE SHOULDER DETAILS

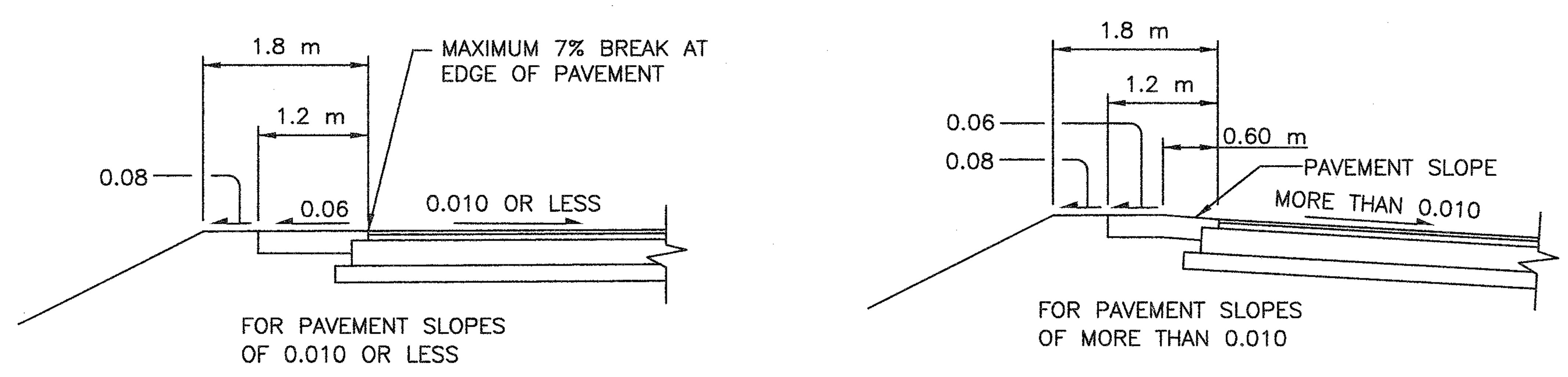


SUPERELEVATION SECTION - SERVICE ROAD "A"

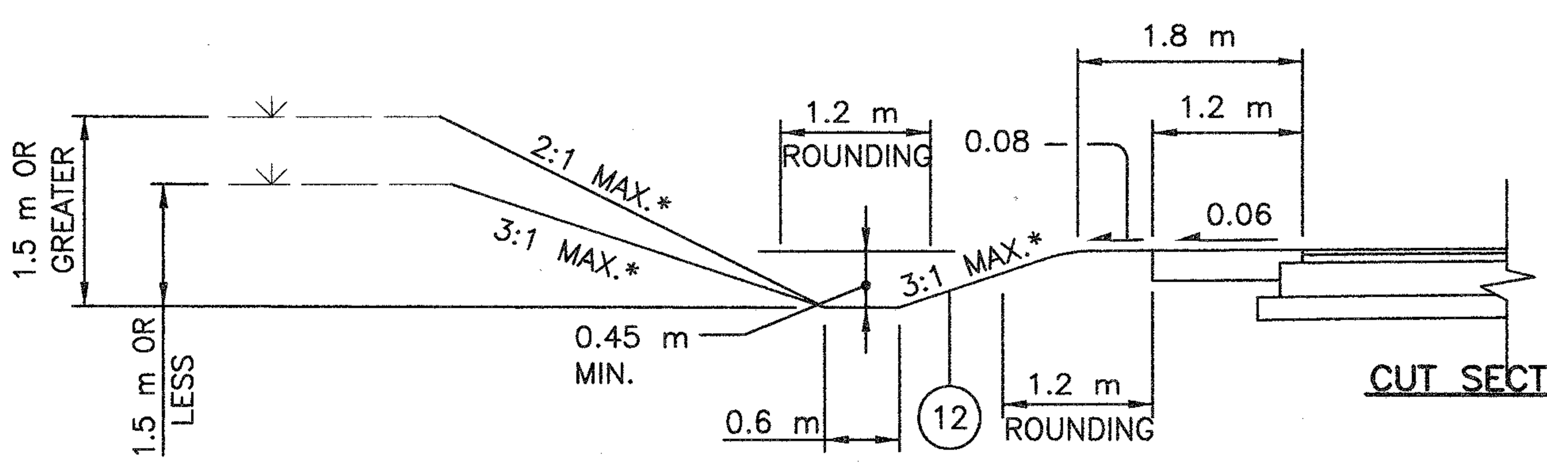
(REVERSE FOR OPPOSITE SUPERELEVATION)
SEE SUPERELEVATION TABLE ON SHT. 464 OF 712.
STA. 50+057.928 TO STA. 50+783.964 = 726.036 m



MEDIUM FILLS



SUPERELEVATED SHOULDER DETAILS



CUT SECTION

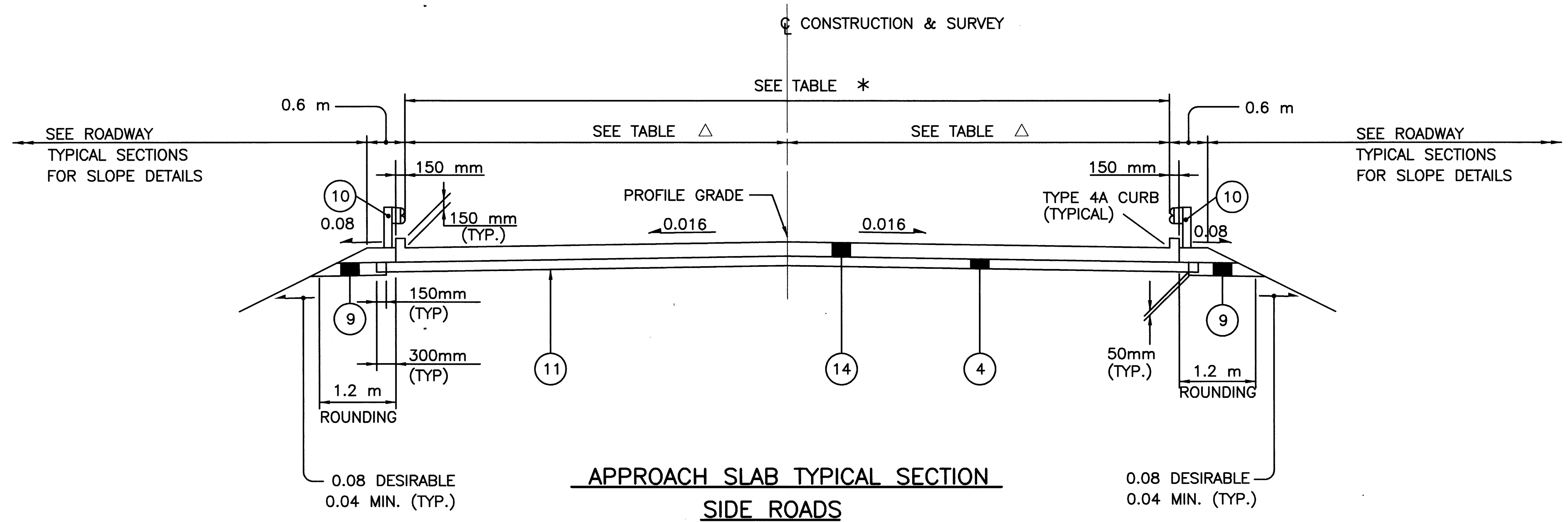
NOTES:

1. FOR LEGEND, SEE SHEET 11 OF 712.
2. ALL SLOPE BREAKS TO HAVE MIN. 1.2 m ROUNDING EXCEPT AS OTHERWISE NOTED.
3. THE GRADING ALONG THE GUARDRAIL SHALL BE AS PER THE CROSS SECTIONS AND THE APPROPRIATE STANDARD CONSTRUCTION DRAWINGS FOR THE CORRESPONDING ANCHOR ASSEMBLY
4. FOR PAVEMENT CURVE WIDENING, SEE SUPERELEVATION TABLE, SHEET 464.

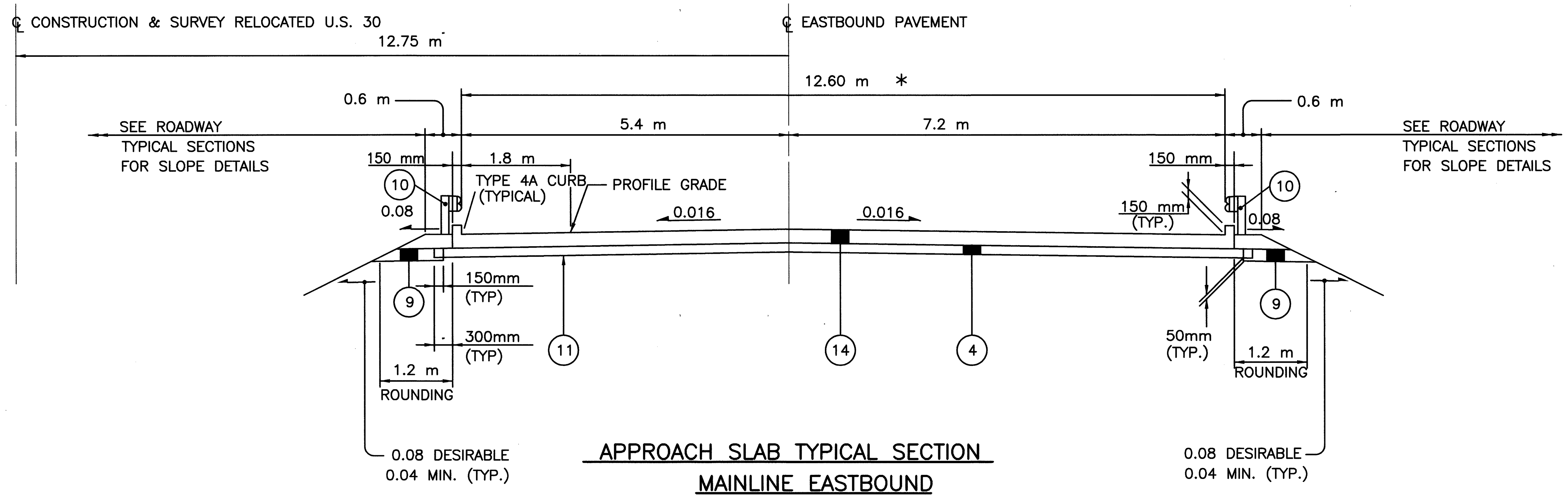
metric units

CRA/RIC-30-33.500/0.000

GYS06.DWG
08-30-2001 12:49 PM



APPROACH SLAB TYPICAL SECTION
SIDE ROADS
(SEE TABLE)



APPROACH SLAB TYPICAL SECTION
MAINLINE EASTBOUND
(WESTBOUND OPPOSITE HAND)
(SEE TABLE)

APPROACH SLAB TABLE

LOCATION		STATION FROM	STATION TO	LENGTH m	WIDTH m △	TOTAL WIDTH m *	T mm	(14) ITEM 611 AREA SQ. m.	(4) ITEM 304 T = 150 mm CU. METER	(11) ITEM 203 SQ. m.
RELOC. U.S. 30	EB	33+593.338	33+600.938	7.6	5.4/7.2	12.60	380	98.04	15.390	95.760
	EB	33+677.262	33+684.862	7.6	5.4/7.2	12.60	380	98.04	15.390	95.760
	WB	33+593.338	33+600.938	7.6	(1)	12.60	380	114.62	17.876	112.335
	WB	33+677.262	33+684.862	7.6	(2)	12.60	380	126.88	19.716	124.602
S.R. 61		49+956.100	49+963.700	7.6	6.00	12.00	380	93.48	14.706	91.200
		50+036.300	50+043.900	7.6	6.00	12.00	380	93.48	14.706	91.200
HORNING RD. (CH 175)		49+957.847	49+965.447	7.6	5.10	10.20	380	79.80	12.654	77.52
		50+037.647	50+045.247	7.6	5.10	10.20	380	79.80	12.654	77.52
S.R. 181		49+956.598	49+964.198	7.6	6.00	12.00	380	93.48	14.706	91.200
		50+047.686	50+055.286	7.6	6.00	12.00	380	93.48	14.706	91.200
EARICK (TH 167)		49+930.980	49+938.580	7.6	6.00	12.00	380	93.48	14.706	91.200
		50+025.516	50+033.116	7.6	6.00	12.00	380	93.48	14.706	91.200
							TOTAL	1158.06	181.916	1130.697

QUANTITIES CARRIED TO GENERAL SUMMARY SHEETS 56 & 61.

(1) VARIES FROM 14.701 TO 14.861
(2) VARIES FROM 16.316 TO 16.474

NOTES:

1. FOR LEGEND, SEE SHEET 11
2. THE GRADING ALONG THE GUARDRAIL SHALL BE AS PER THE CROSS SECTIONS AND THE APPROPRIATE STANDARD CONSTRUCTION DRAWINGS FOR THE CORRESPONDING ANCHOR ASSEMBLY

metric units

TYPICAL SECTIONS — APPROACH SLAB

CRA/RIC-30-33.500/0.000

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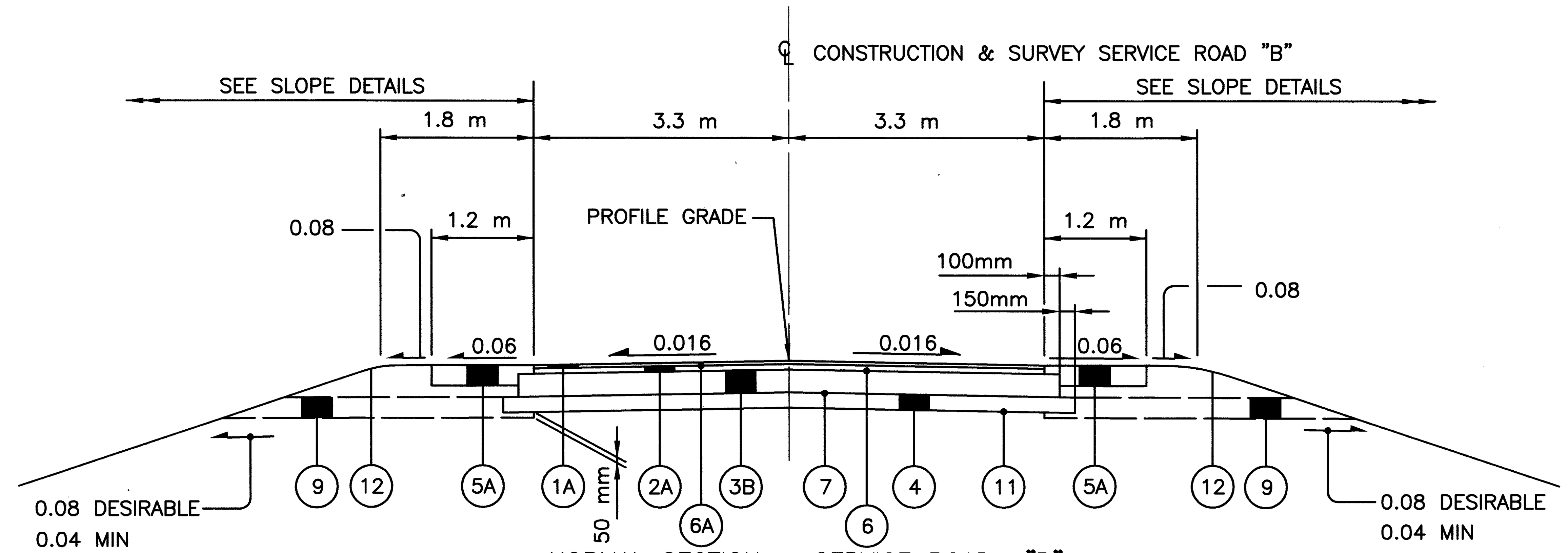
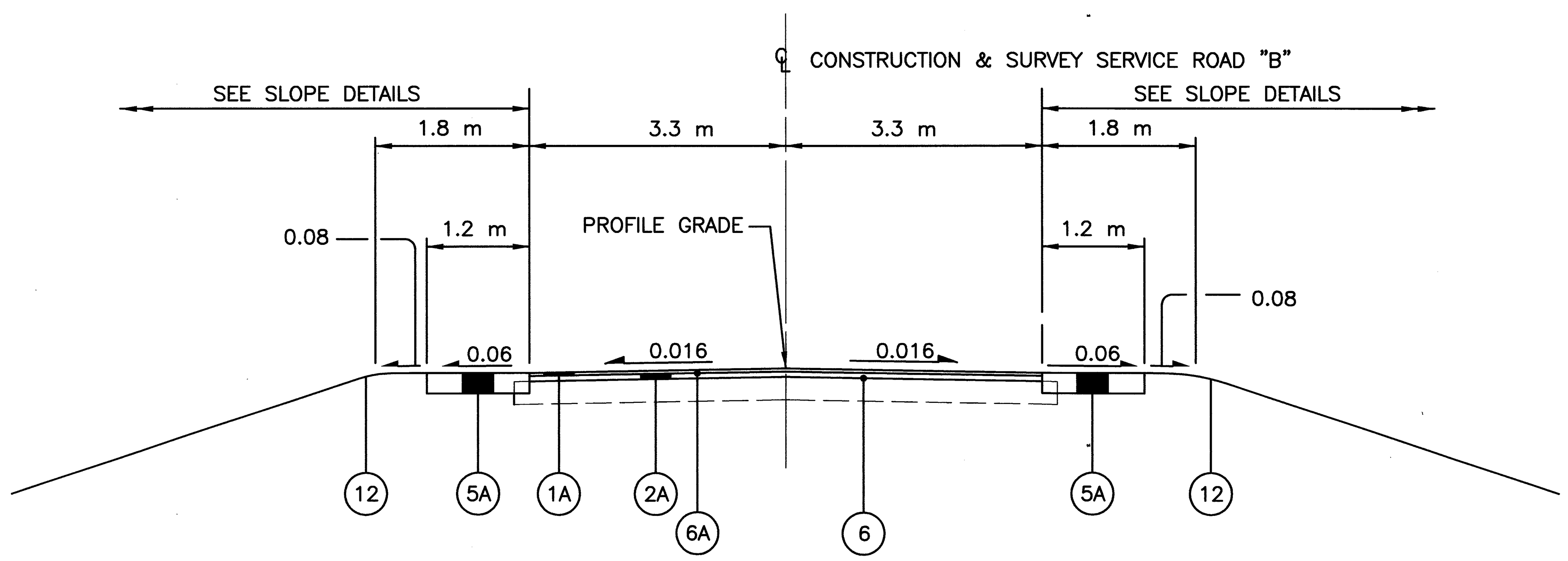
04-25-2001 4:23 PM
SCALE 1:50M



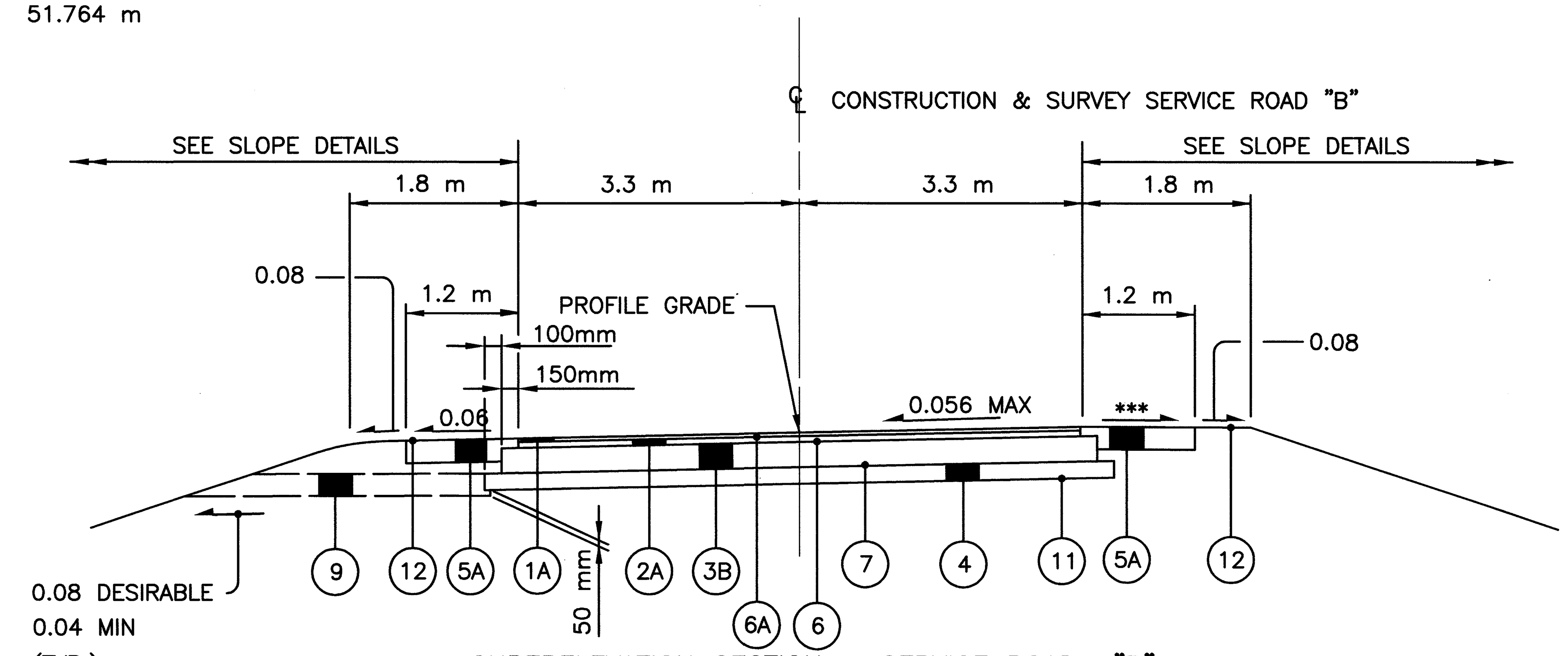
NORMAL SECTION – SERVICE ROAD "B"

STA. 30+768.236 TO STA. 30+820.000 = 51.764 m



SALVAGE SECTION – SERVICE ROAD "B"

STA. 30+820.000 TO STA. 30+871.026 = 51.026 m



SUPERELEVATION SECTION – SERVICE ROAD "B"

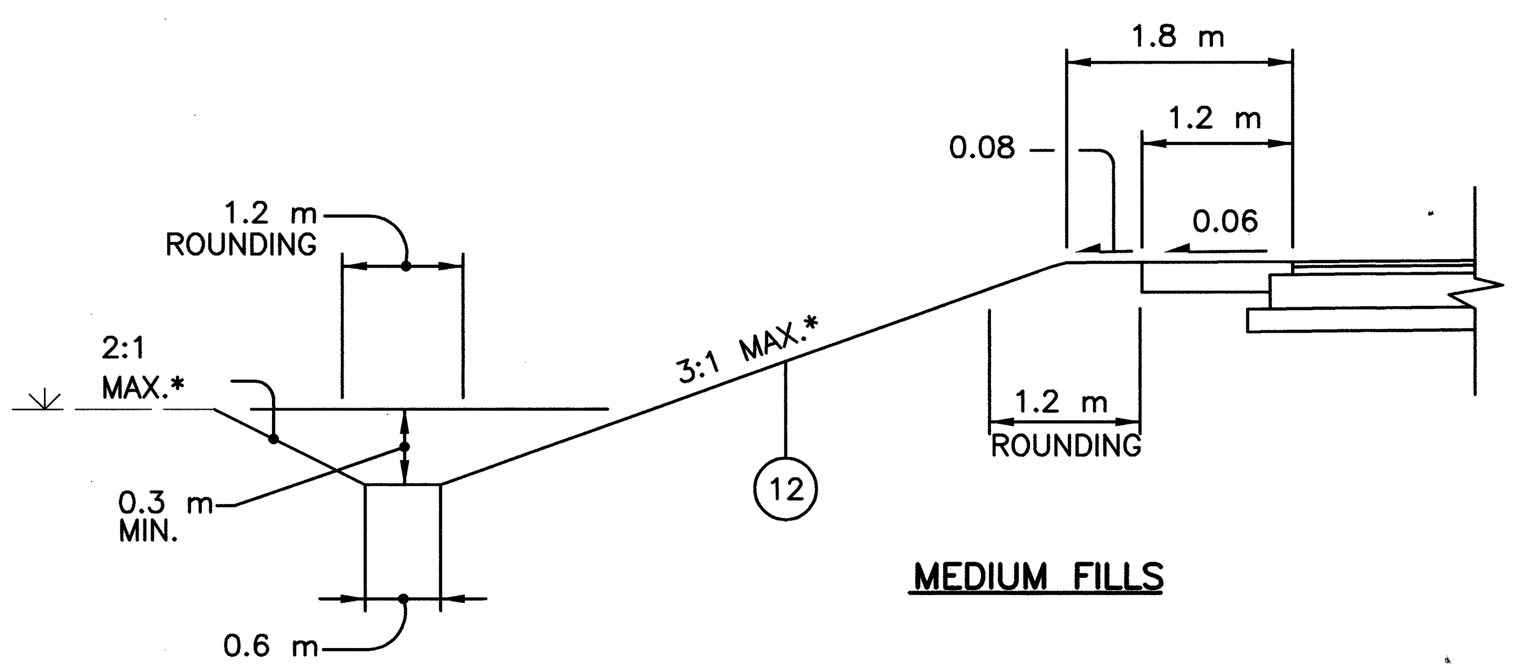
(REVERSE FOR OPPOSITE SUPERELEVATION)

SEE INTERSECTION DETAIL ON SHT. 485A OF 712.

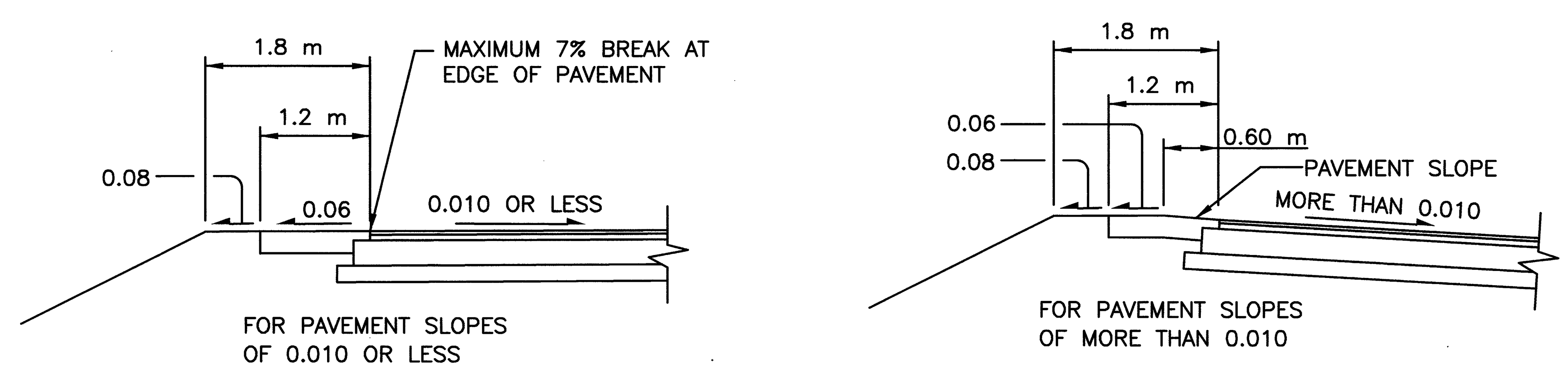
STA. 30+732.116 TO STA. 30+768.236 = 36.120 m

* SLOPE AS SHOWN ON CROSS SECTION

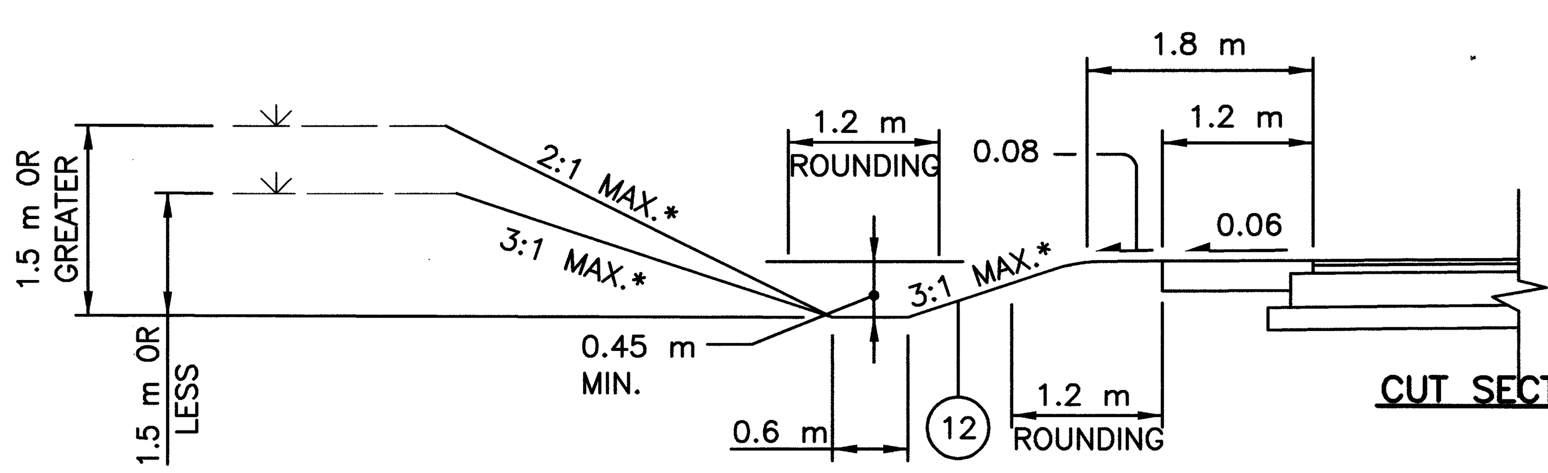
*** FOR HIGH SIDE SHOULDER SLOPES ON SUPERELEVATED SECTIONS SEE SHOULDER DETAILS



MEDIUM FILLS



SUPERELEVATED SHOULDER DETAILS



CUT SECTION

NOTES:

1. FOR LEGEND, SEE SHEET 11 OF 712.
2. ALL SLOPE BREAKS TO HAVE MIN. 1.2 m ROUNDING EXCEPT AS OTHERWISE NOTED.
3. THE GRADING ALONG THE GUARDRAIL SHALL BE AS PER THE CROSS SECTIONS AND THE APPROPRIATE STANDARD CONSTRUCTION DRAWINGS FOR THE CORRESPONDING ANCHOR ASSEMBLY

metric units

TYPICAL SECTIONS – SERVICE ROAD "B"

CRA/RIC-30-33.500/0.000

22B / 712

GY508.DWG
05-10-2001 8:56 AM
SCALE: 1:50

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLY TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

ADELPHIA CABLE
P.O. BOX 576
1575 LEXINGTON AVENUE
MANSFIELD, OHIO 44901
PHONE: 419-342-2709

MEDIA ONE
3157 FERN ROAD
WILLARD, OHIO 44890
PHONE: 419-465-4661

COLUMBIA GAS TRANSMISSION CORP.
REGIONAL DIVISION
589 N. STATE ROAD
MEDINA, OHIO 44256
PHONE: 330-721-4163

OHIO EDISON COMPANY
MANSFIELD DIVISION
1717 ASHLAND ROAD
MANSFIELD, OHIO 44905
PHONE: 419-521-6188

GTE TELEPHONE OPERATIONS
83 TOWNSEND AVENUE
NORWALK, OHIO 33857
PHONE: 419-744-3619

SPRINT COMMUNICATIONS CO.
5600 NORTH RIVER ROAD
ROSEMONT, Ill. 60018
PHONE: 847-362-2764

MCI TELECOMMUNICATIONS
2270 LAKESIDE BLVD.
RICHARDSON, TEXAS 75082
PHONE: 972-498-6075

SPRINT NORTH CENTRAL OPERATIONS
175 ASHLAND ROAD
P.O. BOX 3555
MANSFIELD, OHIO 44902
PHONE: 419-755-7016

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

STREAM CHANNEL EXCAVATION

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT ANY INCIDENTAL DISCHARGES ASSOCIATED WITH THE EXCAVATION AND HAULING OF MATERIAL FROM THE STREAM CHANNEL. THIS PERTAINS TO ANY EXCAVATION OPERATIONS SUCH AS, FOUNDATION PIER OR ABUTMENT EXCAVATION, CHANNEL CLEANOUT, EXCAVATION FOR ROCK CHANNEL PROTECTION AND REMOVAL OF ANY TEMPORARY FILL ASSOCIATED WITH CONSTRUCTION OPERATIONS.

CLEARING AND GRUBBING

ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING. THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED.

SIZES	NO. TREES	NO. STUMPS	TOTAL
0.5 m	1640	170	1810
0.8 m	1128	120	1240
1.2 m	225	50	275
1.5 m	10	2	12

ALL TREES WITH CAVITIES OR EXFOLIATED BARK SHALL NOT BE CUT BETWEEN APRIL 15 AND SEPTEMBER 15 WITHOUT FIRST CONDUCTING A MIST SURVEY (OR OTHER ACCEPTABLE SURVEY) FOR THE INDIANA BAT. TREES WITH CAVITIES OR EXFOLIATING BARK MAY PROVIDE POTENTIAL ROOSTING HABITAT FOR THIS FEDERALLY LISTED ENDANGERED SPECIES. ADDITIONAL INFORMATION MAY BE OBTAINED BY CONTACTING MR. BUDDY FAZIO OF THE U.S. FISH AND WILDLIFE SERVICE AT (614) 469-6923.

BENCHING OF FOUNDATION SLOPES

ALTHOUGH CROSS-SECTIONS INDICATE SPECIFIC DIMENSIONS FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. ALL OTHER SLOPED EMBANKMENT AREAS SHALL BE BENCHED AS SET FORTH IN 203.09. NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF 203.09

MONUMENTS

MONUMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAILS AS SHOWN ON THE STANDARD CONSTRUCTION DRAWINGS AND AT THE LOCATIONS SHOWN ON SHEET NO'S 617 AND 618.

ITEM 202 - TRAFFIC ISLAND REMOVED, AS PER PLAN

ITEM 202 - TRAFFIC ISLAND REMOVED, AS PER PLAN SHALL BE CONSTRUCTED AS PER THE CONSTRUCTION AND MATERIAL SPECIFICATION, LATEST EDITION. INCLUDED WITH THIS ITEM OF WORK SHALL ALSO BE ALL OF THE LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY FOR SAW CUTTING, EXCAVATION OF THE EXISTING MATERIAL AND THE REMOVAL OF THE EXISTING CONCRETE CURB. SEE SHEET 412 FOR ADDITIONAL NOTE AND DETAILS.

ITEM 203 - PROOF ROLLING

AN ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN PROVIDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

ITEM 203 PROOF ROLLING 100 HRS.

NOTE - WHERE CONRAIL APPEARS IN THE PLANS CSX TRANSPORATION, INC. SHALL BE CONSIDERED.

ITEM SPECIAL – DRILLED WATER WELL ABANDONED

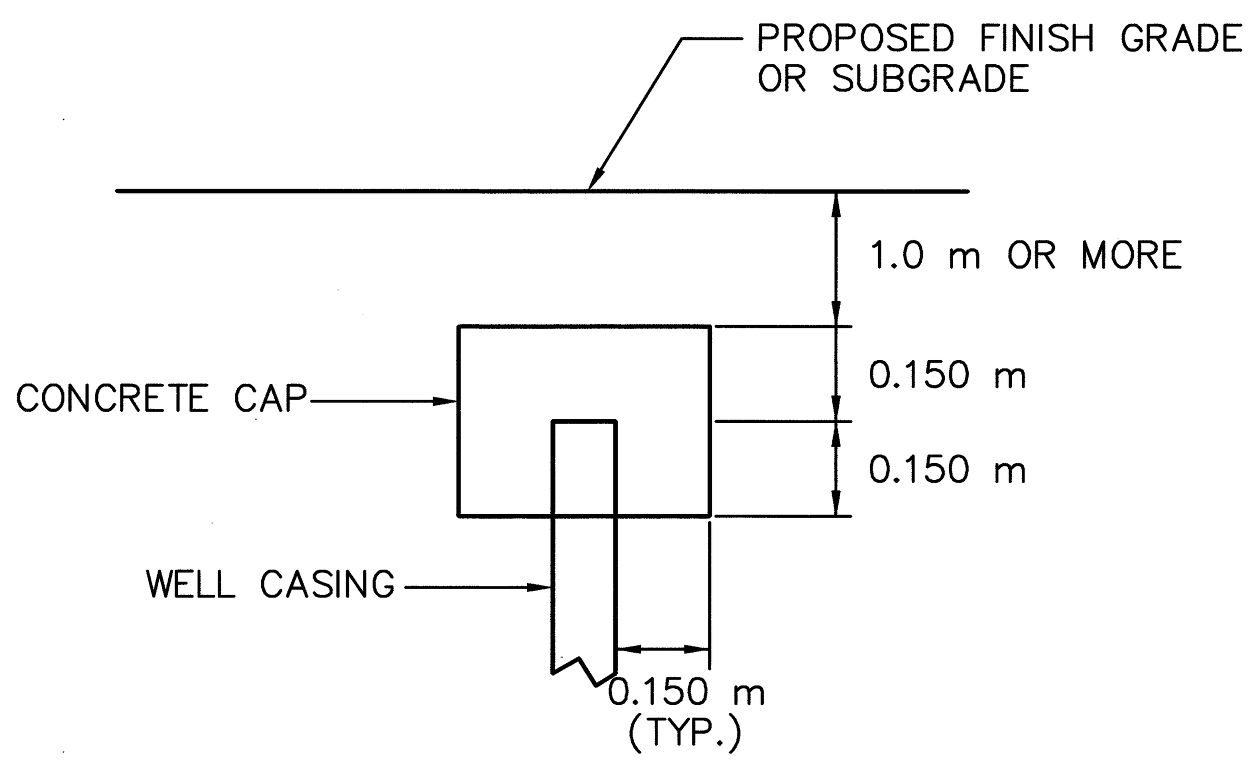
THE EXISTING CONCRETE OR STONE SLAB WELL COVER AND PUMPING EQUIPMENT SHALL BE REMOVED AND DISPOSED. THE CASING SHALL BE CUT OFF AT LEAST 1.15 METERS BELOW THE PROPOSED FINISHED GRADE OUTSIDE PROPOSED PAVEMENT AREAS OR AT LEAST 1.15 METERS BELOW THE PROPOSED SUBGRADE ELEVATION INSIDE PROPOSED PAVEMENT AREAS. THE WELL SHALL BE FILLED FROM BOTTOM TO TOP WITH BENTONITE SLURRY PELLETS, CHIPS OR CONCRETE MEETING ASTM C 150 TYPE 1 PORTLAND CEMENT WITH NO AIR ENTRAINMENT, AND THEN CAPPED IN ACCORDANCE WITH THE DETAIL SHOWN ON THIS SHEET.

THE CONTRACTOR SHALL FILE WELL LOG AND ABANDONMENT FORMS WITH THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR) AS REQUIRED BY THE OHIO REVISED CODE. ANY ADDITIONAL MATERIALS REQUIRED BY ODNR SHALL BE CONSIDERED INCIDENTAL . ODNR'S ADDRESS IS AS FOLLOWS:

Ohio Department of Natural Resources
Division of Water
1939 Fountain Square, Building E
Columbus, Ohio 43224
Telephone (614) 265–6739

A COUNTY ISSUED PLUGGING PERMIT MAY ALSO BE REQUIRED.

THE CONTRACT UNIT PRICE FOR ITEM SPECIAL, DRILLED WATER WELL ABANDONED, SHALL INCLUDE PAYMENT FOR ALL LABOR, TOOLS, MATERIALS, PERMITS AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM.



NOTE: THE CONTRACTOR MAY WELD A CAP ON THE CASING OR OTHER APPROVED METHOD IN LIEU OF USING THE CONCRETE CAP AS SHOWN.

WATER WELL CAP DETAIL

FENCE LENGTHS

THE LENGTHS OF FENCE SHOWN IN THE PLANS ARE HORIZONTAL DIMENSIONS. MEASUREMENTS OF THE FINAL QUANTITIES SHALL BE MADE IN ACCORDANCE WITH ITEM 607.

CURBING ON APPROACH SLABS

THE SHAPE OF THE CURBING ON APPROACH SLABS SHALL BE TRANSITIONED, FROM THE STANDARD SECTION ON THE APPROACHES TO THE SECTION USED ON THE BRIDGE, WITHIN THE LIMITS OF THE APPROACH SLAB.

ITEM SPECIAL – MAILBOX SUPPORT

THIS WORK SHALL CONSIST OF FURNISHING AND ERECTING MAILBOX SUPPORTS AND ANY ASSOCIATED MOUNTING HARDWARE IN ACCORDANCE WITH PLAN DETAILS, AND ATTACHING AN OWNER–SUPPLIED MAILBOX AT LOCATIONS SPECIFIED IN THE PLAN, OR OTHERWISE ESTABLISHED BY THE ENGINEER.

WOOD POSTS SHALL BE NOMINAL 100 mm BY 100 mm (S4S) OR 115 mm DIAMETER ROUND, AND CONFORM TO 710.14.

STEEL POSTS SHALL BE NOMINAL PIPE SIZE 51 mm I.D. , AND CONFORM TO AASHTO M 181.

HARDWARE (PLATES, SCREWS, BOLTS, ETC.) SHALL BE COMMERCIAL–GRADE GALVANIZED STEEL.

POSTS SHALL BE SET PER THE FIRST PARAGRAPH OF 606.03, AND SHALL IN NO INSTANCE BE ENCASED IN CONCRETE.

SUPPORT HARDWARE SHALL ACCOMMODATE EITHER A SINGLE OR A DOUBLE MAILBOX INSTALLATION, AND NO MORE THAN TWO BOXES MAY BE MOUNTED ON A SINGLE POST.

THE MAILBOX SHALL BE SECURELY AND NEATLY ATTACHED BY THE CONTRACTOR TO THE NEW SUPPORT. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ATTACHMENT HARDWARE (NUTS, BOLTS, PLATES, SPACERS, AND WASHERS) AS NECESSARY TO ACCOMMODATE THE COMPLETE INSTALLATION. HARDWARE SHALL BE COMMERCIAL GRADE GALVANIZED STEEL.

IN THE ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER, THE CONTRACTOR SHALL SALVAGE THE EXISTING BOX AND PLACE IT ON THE NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING ON HIS PART, AS JUDGED AND DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL POST MASTER REGARDING THE TIMING OF THE MOVEMENT OF ANY MAILBOX TO A NEW LOCATION AND NOTIFYING THE PROPERTY OWNERS PRIOR TO WORK.

GROUP MAILBOX SUPPORTS SHALL BE PLACED ON 1.0m CENTERS AND THE TURN OUT LENGTHENED TO ACCOMMODATE THE GROUPING.

WHERE GUARDRAIL EXISTS, MAILBOXES AND THEIR SUPPORTS SHALL BE PLACED BEHIND THE GUARDRAIL. SUPPORT MUST STILL MEET THE BREAKAWAY REQUIREMENTS LISTED ABOVE.

PAYMENT UNDER THIS ITEM SHALL BE LIMITED TO FINAL PERMANENT INSTALLATIONS. TEMPORARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH 107.12. HOWEVER, THE SAME MATERIAL AND SIZE LIMITATIONS AS FOR PERMANENT INSTALLATIONS SHALL APPLY.

MAILBOX SUPPORTS, COMPLETE IN PLACE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH, FOR ITEM SPECIAL MAILBOX SUPPORT, SINGLE.

ENVIRONMENTAL SENSITIVE AREAS

ENVIRONMENTAL SENSITIVE AREAS WILL BE FENCED TO ELIMINATE DISTURBANCE BY CONSTRUCTION ACTIVITIES AND EQUIPMENT. THESE AREAS WILL INCLUDE:

A) WETLANDS AND CULTURAL SITES ADJACENT TO THE CONSTRUCTION LIMITS. FOR LOCATIONS, SEE THE RIGHT–OF–WAY PLANS, SHEETS 648 THROUGH 709.

B) POTENTIAL ARCHAEOLOGICAL SITES DEEMED TO REQUIRE FENCING. FOR LOCATIONS, SEE MAPPING AVAILABLE AT THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 3 OFFICES.

TEMPORARY FENCING SHALL BE PLACED WITHIN THE DESIGNATED PROPOSED PLAN LIMITED ACCESS RIGHT OF WAY LIMITS OR THE PROPOSED TEMPORARY OR CHANNEL EASEMENTS LIMITS IN SUCH A MANNER AS TO PROTECT THESE SENSITIVE AREAS. THE FINAL LOCATION AND THE LIMITS OF THIS FENCE SHALL BE APPROVED BY THE ENGINEER.

FENCING SHALL BE A BRIGHT ORANGE PLASTIC/NYLON CONSTRUCTION FENCE. IT SHALL BE SECURELY FASTENED TO WOOD OR METAL POSTS AT NOT MORE THAN 1.8 m SPACING. IT SHALL BE NOMINALLY 1067 MM HIGH AND THE TOP EDGE SHALL NOT SAG BELOW 762 MM (305 MM SAG). HOLES GREATER THAN 305 MM X 305 MM SHALL BE REPAIRED OR REPLACED.

FENCING HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM *607*   FENCE, *SNOW*   670 METER

CALCULATED MJT
CHECKED WS

GENERAL NOTES

CRA/RIC–30–33.500/0.000

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ITEM 407 – TACK COAT, AS PER PLAN AND ITEM 407 – TACK COAT FOR INTERMEDIATE COURSE

THE RATE OF APPLICATION OF THE 407 TACK COAT, AS PER PLAN AND THE TACK COAT FOR INTERMEDIATE COURSE SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. TACK COAT SHALL BE PLACED ON ITEM 302 BITUMINOUS AGGREGATE BASE AND SHALL BE DESIGNATED FOR PAYMENT AS TACK COAT, AS PER PLAN. FOR ESTIMATING PURPOSES ONLY, THE PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF:

407, TACK COAT, AS PER PLAN	0.48 LITER PER SQ. METER
407, TACK COAT, AS PER PLAN	0.2 LITER PER SQ. METER
407, TACK COAT FOR INTERMEDIATE COURSE	0.2 LITER PER SQ. METER

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AND EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OF UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OR THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OF UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEM.

ITEM 880 - ASPHALT CONCRETE WITH WARRANTY
LIFT THICKNESSES AND STEP WIDTHS SHOWN IN THE PLAN ARE FOR QUANTITY ESTIMATION ONLY AND ARE NOT REQUIRED LIFT THICKNESSES FOR ACTUAL CONSTRUCTION.

ITEM 604 – CATCH BASIN NO.4A, AS PER PLAN

CATCH BASIN NO. 4A, AS PER PLAN SHALL BE CONSTRUCTED AT THE LOCATIONS DESIGNATED WITHIN THIS PLAN AND SHALL BE CONSTRUCTED AS PER STANDARD CONSTRUCTION DRAWING CB–3.4 BUT USING THE FOLLOWING DIMENSIONS:

A = 2850	C = 2850
B = 1825	D = 1000

SEE DETAILS AND NOTES ON SHEET 459F FOR ADDITIONAL INFORMATION.

TREATED SEPTIC CONNECTIONS

TREATED SEPTIC FLOW MAY BE DISCHARGED INTO THE HIGHWAY DRAINAGE SYSTEM PROVIDED THE OWNER HAS ACQUIRED AN OFFICIAL PERMIT FROM THE COUNTY OR LOCAL AUTHORITY.

IN EACH CASE WHERE A PERMIT HAS BEEN ISSUED FOR MAKING A TREATED SEPTIC CONNECTION INTO A HIGHWAY DRAINAGE CONDUIT, AN INSPECTION WELL SHALL BE PROVIDED IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING DM–3.1.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER IN MAKING THE ABOVE CONNECTIONS:

603, 150 mm CONDUIT, TYPE C	120 METER
604, INSPECTION WELL	10 EACH

EROSION CONTROL

ITEMS 601 AND 670 ARE PROVIDED IN THE PLANS FOR EROSION CONTROL. ROCK OF A STABLE NATURE SHALL NOT BE REMOVED IN ORDER TO PLACE ANY OF THESE ITEMS. THE ENGINEER SHALL CHECK AND NON–PERFORM QUANTITIES OR ADJUST LOCATIONS AND QUANTITIES OF THESE ITEMS WHERE INDICATED BY FIELD CONDITIONS DURING CONSTRUCTION. IN ADDITION, THESE ITEMS SHALL MEET THE REQUIREMENT OF 108.04.

SPRING DRAINS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR DRAINING ANY SPRINGS SHOWN IN THE PLAN OR ENCOUNTERED DURING CONSTRUCTION. THE FOLLOWING TYPES OF PIPES MAY BE USED: 707.33, 707.41, 707.42 or 707.45 PERFORATED PER 707.31.

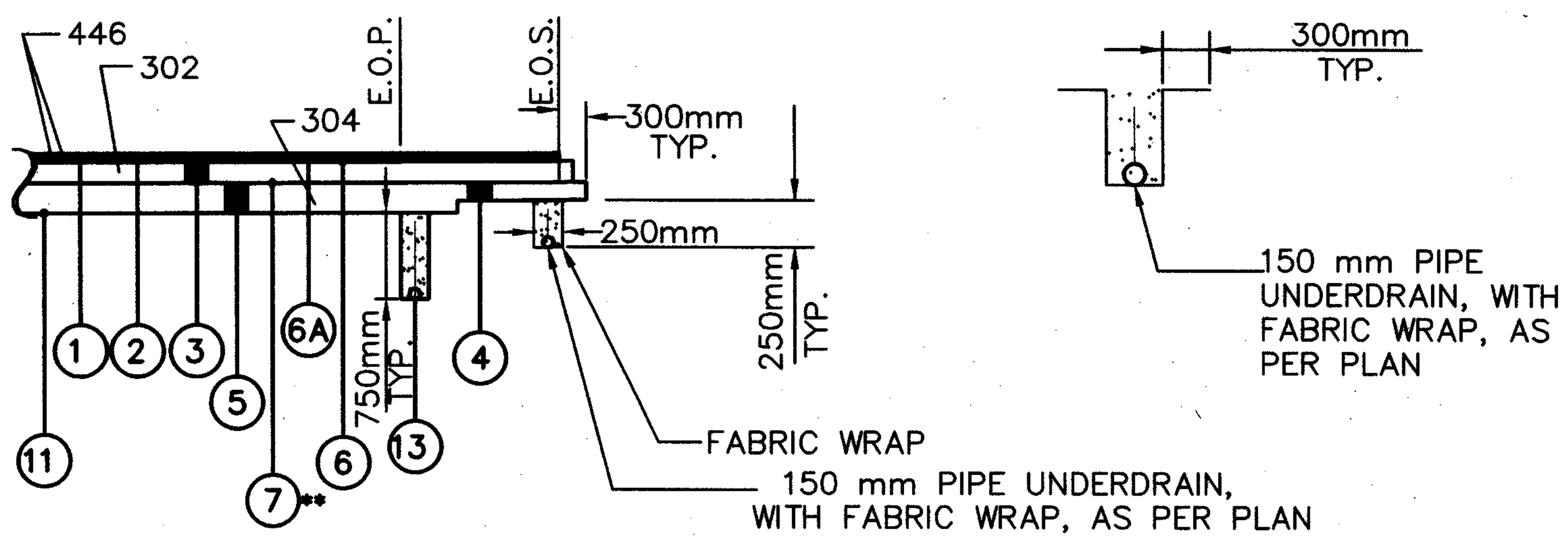
SPRING DRAINS SHALL BE CONSTRUCTED AS SHOWN ON STANDARD CONSTRUCTION DRAWING DM–1.1 AND PAID FOR AT THE CONTRACT PRICE FOR:

605, 150 mm UNCLASSIFIED PIPE UNDERDRAIN, FOR SPRINGS	120 METER
605, AGGREGATE DRAIN, FOR SPRINGS	120 METER

ITEM 605 – 150 mm PIPE UNDERDRAIN, WITH FABRIC WRAP, AS PER PLAN

ITEM 605 – 150 mm PIPE UNDERDRAIN, WITH FABRIC WRAP, AS PER PLAN, SHALL BE CONSTRUCTED AS PER SECTION 605.03 CONSTRUCTION AND MATERIAL SPECIFICATION, LATEST EDITION. THE UNDERDRAIN TRENCH SHALL BE LINED WITH FILTER FABRIC. THE FABRIC SHALL COMPLETELY SURROUND THE GRANULAR FILTER MATERIAL. THE FABRIC SHALL BE OVERLAPPED AT THE TOP OF THE TRENCH. THE OVERLAP SHALL MATCH THE TRENCH WIDTH. AT OTHER SEAMS, THE FABRIC SHALL BE OVERLAPPED A MINIMUM OF 0.3 METERS. FOR ADDITIONAL INFORMATION, SEE DETAIL BELOW.

FOR LEGEND, SEE SHEET 11.



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GENERAL NOTES

CRA/RIC–30–33.500/0.000

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ITEM 877 - TEMPORARY BENCHES, DAMS AND SEDIMENT BASINS

THE SEDIMENT BASIN QUANTITIES LISTED ON THIS STORM WATER POLLUTION PREVENTION PLAN ARE THE STORAGE VOLUMES REQUIRED FOR THE SEDIMENT BASIN.

THE PAY QUANTITY FOR EACH BASIN SHALL BE DETERMINED AS THE ACTUAL AMOUNT OF EXCAVATION OR EMBANKMENT REQUIRED TO PROVIDE THAT STORAGE VOLUME.

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

870, SEEDING AND MULCHING	733,588	SQ. METER
870, SOIL ANALYSIS TEST	10	EACH
870, TOPSOIL	73,359	CU. METER
870, COMMERCIAL FERTILIZER	110,038	KILOGRAM
870, AGRICULTURAL LIME	330,115	KILOGRAM
870, WATER	8,950	CU. METER
870, MOWING	183,397	SQ. METER

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT OF WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT OF WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

<u>ITEM 611, REINFORCED CONCRETE APPROACH SLAB (T=380 mm), AS PER PLAN</u>

TWO SEPARATE THICKNESS OF CLEAR OR OPAQUE POLYETHYLENE FILM, 705.06, SHALL BE PLACED ON THE PREPARED SUBBASE AND WHERE THE APPROACH SLAB IS TO BE CONSTRUCTED. THE POLYETHYLENE FILMS SHALL COMPLETELY COVER THE FULL LENGTH AND WIDTH OF THE SUBBASE BETWEEN THE SIDEWALL FORMS FOR THE APPROACH SLAB. MATERIALS, LABOR AND INSTALLATION SHALL BE INCLUDED FOR PAYMENT IN THIS ITEM 611 REINFORCED CONCRETE APPROACH SLAB (T=380 mm), AS PER PLAN.

<u>UNSUITABLE SOIL CONDITIONS</u>

IF UNSUITABLE FOUNDATION SOILS ARE ENCOUNTERED IN THE AREAS OR THE PROPOSED ROADBED, THEY SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL MEETING THE REQUIREMENTS OF 203.08. THE LOCATIONS AND DIMENSIONS SHALL BE AS DETERMINED BY THE ENGINEER.

THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER:

ITEM 203	500	CUBIC METERS	EMBANKMENT
ITEM 203	500	CUBIC METERS	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION

<u>TEMPORARY SOIL EROSION AND SEDIMENT CONTROL</u>

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY AND ARE TO BE PLACED BY THE CONTRACTOR WITH THE ENGINEER'S CONCURRENCE FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES:

ITEM 877	TEMPORARY SEEDING AND MULCHING	146,718	SQ. METER
ITEM 877	TEMPORARY SLOPE DRAINS	126	SQ. METER
ITEM 877	TEMPORARY SEDIMENT BASINS AND SEDIMENT DAMS	205	CU. METER
ITEM 877	TEMPORARY PERIMETER FILTER FABRIC FENCE	5,017	METER
ITEM 877	TEMPORARY DITCH CHECK FILTER FABRIC FENCE	658	METER
ITEM 877	TEMPORARY INLET PROTECTION FILTER FABRIC FENCE	248	METER
ITEM 877	TEMPORARY DIKES	563	CU. METER
ITEM 877	TEMPORARY DITCH PROTECTION	8,473	SQ. METER
ITEM 877	SEDIMENT REMOVAL	1,027	CU. METER
ITEM 601	ROCK CHANNEL PROTECTION, TYPE C (WITH FILTER)	410	CU. METER
ITEM 601	ROCK CHANNEL PROTECTION, TYPE C (WITHOUT FILTER)	5,157	CU. METER
ITEM 870	COMMERCIAL FERTILIZER	34,480	KILOGRAM
ITEM 870	REPAIR SEEDING AND MULCHING	36,680	SQ. METER
ITEM 870	WATER	1,467	CU. METER
ITEM 870	INTER-SEEDING	36,680	SQ. METER

GENERAL NOTES

CRA/RIC-30-33.500/0.000

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TEMPORARY BENCHES, DAMS, AND SEDIMENT BASINS

THE SEDIMENT BASIN QUANTITIES LISTED ON THE STORM WATER POLLUTION PREVENTION PLAN ARE THE STORAGE VOLUMES REQUIRED FOR THE SEDIMENT BASIN. THE PAY QUANTITY FOR EACH BASIN SHALL BE DETERMINED AS THE ACTUAL AMOUNT OF EXCAVATION OR EMBANKMENT REQUIRED TO PROVIDE THAT STORAGE VOLUME.

ITEM 605 – AGGREGATE DRAINS

AGGREGATE DRAINS SHALL BE PLACED AT 10 METER INTERVALS ON EACH SIDE OF NORMAL CROWNED SECTIONS, STAGGERED SO THAT EACH DRAIN IS 5 METERS FROM THE ADJACENT DRAIN ON THE OPPOSITE SIDE, AND AT 5 METER INTERVALS ON THE LOW SIDE ONLY OF SUPERELEVATED SECTIONS. AN AGGREGATE DRAIN SHALL BE PLACED AT THE LOW POINT OF EACH SAG VERTICAL CURVE.

ITEM 606, ANCHOR ASSEMBLY, TYPE E-98

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS.

1) THE ET-2000 (1997) MANUFACTURED BY SYRO, INC., 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330.545.4373).

THE LENGTH OF THE ET-2000 (1997) SYSTEM IS CONSIDERED TO BE 15.24 M, INCLUSIVE OF TWO 7.62 M LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG.#	DRAWING NAME	DWG./REV.DATE	ODOT APPROVAL DATE
SS265M	ET-2000 (1997)PLAN, ELEVATION & SECTIONS	6/20/97	3/6/98

2) THE SKT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 7631 NEW CASTLE DRIVE, FRANKFORT, IL 60423 (TELEPHONE: 815.464.5917).

THE LENGTH OF THE SKT-350 SYSTEM IS CONSIDERED TO BE 15.24 M, INCLUSIVE OF FOUR 3.81 M LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS.

DWG. #	DRAWING NAME	DWG./REV.DATE	ODOT APPROVAL DATE
SKT-4M	SEQUENTIAL KINKING TERMINAL (SKT-350) ASSEMBLY WITH 4 FOUNDATION TUBES	12/11/97	3/6/98

THE FACE OF THE TYPE E-98 IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19, APPROXIMATELY 450 MM X 450MM.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE E-98, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 202- ANCHOR ASSEMBLY REMOVED

THIS ITEM SHALL INCLUDE THE COST OF REMOVING THE GUARDRAIL, INCLUDING THE POSTS, BLOCKOUTS, ALL HARDWARE AND RAIL ELEMENT, REFLECTORS, AND CONCRETE ANCHORS. ALL ITEMS REMOVED BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF PER 202.

THE EXISTING CONCRETE ANCHORS AND POSTS SHALL BE REMOVED ENTIRELY. BACKFILLING THE RESULTING VOIDS WITH GRANULAR OR OTHER ACCEPTABLE MATERIAL MEETING THE REQUIREMENTS OF 203 SHALL BE INCLUDED IN THIS PAY ITEM. THE CAVITIES SHALL BE FILLED AND COMPACTED UP TO THE SURROUNDING GROUND.

PAYMENT FOR ALL OF THE ABOVE WORK SHALL BE AT THE UNIT BID PRICE PER EACH FOR ITEM 202, ANCHOR ASSEMBLY REMOVED WHICH SHALL INCLUDE ALL LABOR EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THE WORK AS STATED ABOVE.

ITEM 606, ANCHOR ASSEMBLY, TYPE B-98

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS.

1) THE SRT-350, GUARDRAIL END TERMINAL AS MANUFACTURED BY SYRO INC., 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330.545.4373).

THE LENGTH OF THE SRT-350 SYSTEM IS CONSIDERED TO BE 11.43 M, INCLUSIVE OF THREE 3.81 M LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG.#	DRAWING NAME	DWG./REV.DATE	ODOT APPROVAL DATE
SS425M	SLOTTED RAIL TERMINAL SRT-350 POST LAYOUT AND ERECTION DETAILS(12.5,9 POST)	6/21/97	3/6/98

2) THE FLEAT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 7631 NEW CASTLE DRIVE, FRANKFORT, IL 60423 (TELEPHONE: 815.464.5917).

THE LENGTH OF THE FLEAT-350 IS CONSIDERED TO BE 11.43 M, INCLUSIVE OF THREE 3.81 M LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV.DATE	ODOT APPROVAL DATE
FLT-M	FLARED ENERGY ABSORBING TERMINAL (FLEAT-350) ASSEMBLY	4/16/98	7/31/98

GRADING SHALL BE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING GR-4.3M.

THE FACE OF THE TYPE B-98 IMPACT HEAD SHALL BE COVERED WITH TYPE G REFLECTIVE SHEETING, PER CMS 730.19: APPROXIMATELY 915 MM W X 305 MM H FOR THE SRT-350 AND 350 MM W X 500 MM H FOR THE FLEAT.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE B-98, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING REFLECTIVE SHEETING AND ALL RELATED HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

metric units

CALCULATED MJT CHECKED WS

GENERAL NOTES

CRA/RIC-30-33.500/0.000

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REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEMS.

FARM DRAINS

ALL FARM DRAINS, WHICH ARE ENCOUNTERED DURING CONSTRUCTION, SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS. EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS, AND WHICH CROSS THE ROADWAY, SHALL BE REPLACED WITHIN THE RIGHT OF WAY LIMITS BY ITEM 603 CONDUIT, TYPE B, ONE COMMERCIAL SIZE LARGER THAN THE EXISTING CONDUIT.

EXISTING COLLECTORS AND ISOLATED FARM DRAINS, WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF ROADWAY DITCHES, SHALL BE OUTLETTED INTO THE ROADWAY DITCH BY 603 TYPE F CONDUIT. THE OPTIMUM OUTLET ELEVATION SHALL BE 300 mm ABOVE THE FLOWLINE ELEVATION OF THE DITCH. LATERAL FIELD TILES WHICH CROSS THE ROADWAY SHALL BE INTERCEPTED BY 603, TYPE E CONDUIT, AND CARRIED IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING.

THE LOCATION, TYPE, SIZE AND GRADE OF REPLACEMENTS SHALL BE DETERMINED BY THE ENGINEER AND PAYMENT SHALL BE MADE ON FINAL MEASUREMENTS.

EROSION CONTROL PADS AND ANIMAL GUARDS SHALL BE PROVIDED AT THE OUTLET END OF ALL FARM DRAINS AS PER STANDARD CONSTRUCTION DRAWING DM-1.1, EXCEPT WHEN THEY OUTLET INTO A DRAINAGE STRUCTURE. PAYMENT FOR THE EROSION CONTROL PADS AND ANIMAL GUARDS AND ANY NECESSARY BENDS OR BRANCHES SHALL BE INCLUDED FOR PAYMENT IN THE PERTINENT CONDUIT ITEMS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

603	150 mm CONDUIT, TYPE B	100 METER
603	300 mm CONDUIT, TYPE B	200 METER
603	375 mm CONDUIT, TYPE B	100 METER
603	150 mm CONDUIT, TYPE E	200 METER
603	200 mm CONDUIT, TYPE E	200 METER
603	300 mm CONDUIT, TYPE E	200 METER
603	150 mm CONDUIT, TYPE F	200 METER
603	200 mm CONDUIT, TYPE F	200 METER
603	300 mm CONDUIT, TYPE F	200 METER
603	375 mm CONDUIT, TYPE F	200 METER
601	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	30 CU.M.

metric units

CALCULATED CHECKED

GENERAL NOTES

CRA/RIC-30-33.500/0.000

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WORKSTATION: rtrivoli DATE: 08/29/01

ITEM 614 – MAINTAINING TRAFFIC

GENERAL

TRAFFIC SHALL BE MAINTAINED AS PER SPECIFICATIONS, PLAN DETAILS, STANDARD DRAWINGS AND AS OUTLINED IN THE CONSTRUCTION AND MAINTENANCE OPERATIONS SECTION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION WITH THE LATEST REVISIONS.

THROUGH TRAFFIC SHALL BE MAINTAINED IN EACH DIRECTION AT ALL TIMES ON EXISTING U.S. 30 (BYPASS), WEST 4th STREET, AND S.R. 61, WHILE THROUGH TRAFFIC FOR GALION/AIRPORT CH 47, HORNING ROAD CH 175, EXIST. ECKSTEIN ROAD TH 166, S.R. 181 AND EARICK ROAD TH 167 SHALL BE DETOURED AS PER PLAN SHEET 52,53,54,55,55A AND 55B. INTERIM COMPLETION DATES HAVE BEEN ESTABLISHED AND ARE SHOWN ON SPECIFIC DETOURS SHEETS. ACCESS FOR LOCAL TRAFFIC SHALL BE MAINTAINED AT ALL TIMES.

A MINIMUM OF ONE LANE OF THROUGH TRAFFIC ON EXIST. U.S. 30 (BYPASS) SHALL BE MAINTAINED, AS PER PLAN DETAILS AND NOTES, STANDARD DRAWING MT-95.30M AND MT-99.50M WHILE THE MAINLINE ROADWAY PAVEMENT IS BEING REPLACED IN THE AREA OF THE DECELERATION LANE OF RAMP C.

IN ADDITION THE FOLLOWING REQUIREMENTS SHALL APPLY:

THE CONTRACTOR SHALL SUBMIT, IN WRITING, A SCHEDULE OF OPERATIONS TO THE DIRECTOR AND RECEIVE APPROVAL BEFORE WORK IS STARTED ON THE PROJECT. PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL COORDINATE THE MAINTENANCE OF TRAFFIC OPERATIONS WITH THE LOCAL STATE HIGHWAY PATROL.

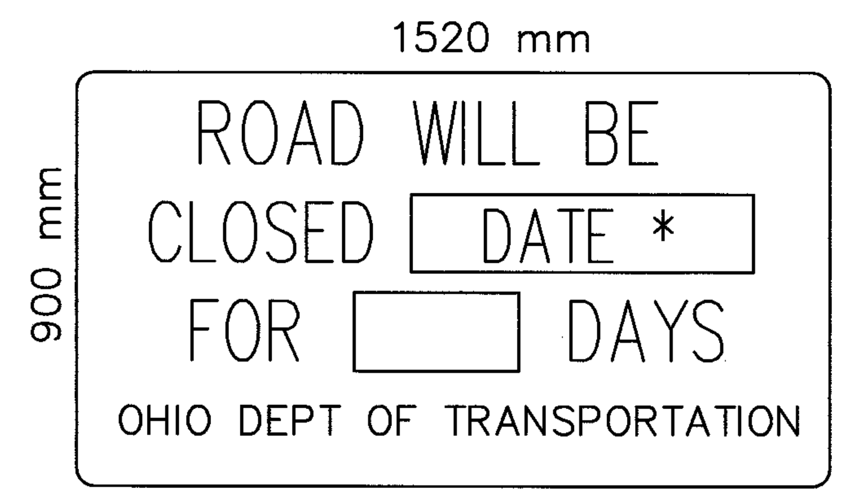
THE CONTRACTOR SHALL DESIGNATE A QUALIFIED INDIVIDUAL, OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE ENGINEER, TO PERIODICALLY INSPECT, DOCUMENT, REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS OF THE PROJECT. THESE REQUIREMENTS APPLY ONLY AT THE EASTERN TERMINUS OF THE PROJECT ON U.S. 30 AND ALL SIDE ROADS. THE DESIGNATED INDIVIDUAL SHALL INSPECT, DOCUMENT, REPAIR AND/OR REPLACE ALL TRAFFIC CONTROL DEVICES AT THE BEGINNING AND END OF EACH WORK DAY, AND AT LEAST ONCE EVERY TWO (2) HOURS WHILE WORK IS BEING CONDUCTED ON THE PROJECT.

THE ABOVE DESIGNATED INDIVIDUAL, OR ANOTHER QUALIFIED INDIVIDUAL SUBJECT ON THE APPROVAL OF THE ENGINEER, SHALL BE AVAILABLE AND ON CALL DURING THE NON-WORKING PERIODS THAT TRAFFIC IS DIVERTED FROM ITS NORMAL PATH. THIS INDIVIDUAL SHALL AT A MINIMUM OF ONCE EVERY CALENDAR DAY INSPECT, DOCUMENT, REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. IN ADDITION, THIS INDIVIDUAL SHALL BE ABLE TO RESPOND AND BE ON THE PROJECT WITHIN SIXTY (60) MINUTES AFTER A CALL AND HAVE SUFFICIENT INVENTORY ON HAND TO REPAIR OR REPLACE THE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. THESE REQUIREMENTS APPLY ONLY AT THE EASTERN TERMINUS OF THE PROJECT ON U.S. 30 AND ALL SIDE ROADS.

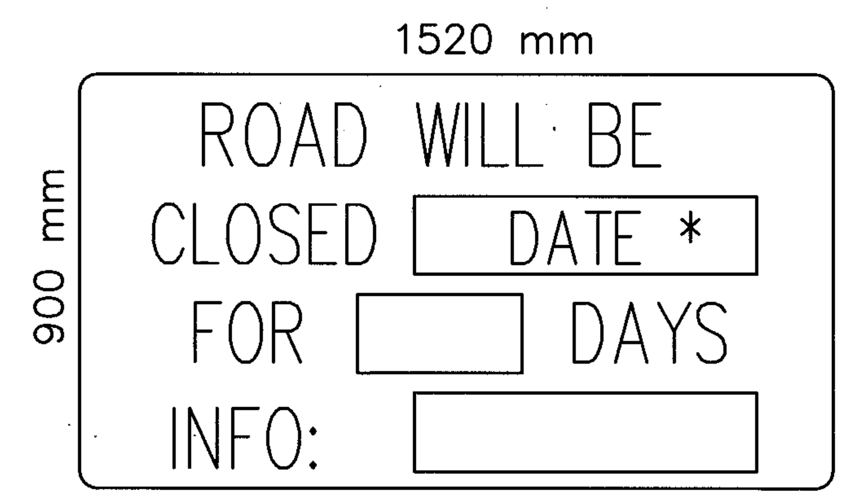
LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

NOTICE OF CLOSURE SIGNS

THESE SIGNS SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD OR RAMP CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT HAND SIDE OF THE ROAD FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT THE POINT OF CLOSURE.



OC-60B



OC-60A

* TO BE SUPPLIED BY CONTRACTOR

THE NOTICE OF CLOSURE SIGNS SHALL BE LOCATED AT THE FOLLOWING POINT OF CLOSURE LOCATIONS:

WACHS T.H 253, GALION/AIRPORT ROAD CH 47, HORNING ROAD CH 175, SR 181, EXIST. ECKSTEIN ROAD TH 166 AND EARICK ROAD TH 167. THE CLOSURE DURATION PORTION OF THE NOTICE OF CLOSURE SIGN SHALL REMAIN BLANK FOR GALION/AIRPORT RD.

ACCESS TO ADJACENT PROPERTY WITHIN THE WORK LIMITS ON THE VARIOUS CROSS-ROADS SHALL BE MAINTAINED BY THE CONTRACTOR AT ALL TIMES AS PER 614.02(a).

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR THE MAINTENANCE OF LOCAL TRAFFIC.

410, TRAFFIC COMPACTED SURFACE, TYPE A OR B	600	CU. METER
614, BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC	115	CU. METER
304, AGGREGATE BASE	900	CU. METER

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

ITEM 614 – WORK ZONE SPEED LIMIT SIGN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, COVER DURING SUSPENSION OF WORK, AND SUBSEQUENTLY REMOVE WORK ZONE SPEED LIMIT SIGNS AND SUPPORTS (R-10) (45 MPH SPEED LIMIT) WITHIN THE WORK LIMITS ON S.R. 61 IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS.

THE CONTRACTOR SHALL COVER OR REMOVE ANY EXISTING SPEED LIMIT OR MINIMUM SPEED SIGNS WITHIN THE REDUCED SPEED ZONE. THESE SIGNS SHALL BE RESTORED DURING SUSPENSION OR TERMINATION OF THE REDUCED SPEED LIMIT. THE EXPENSE OF COVERING OR REMOVAL AND RESTORATION OF EXISTING SPEED LIMIT OR MINIMUM SPEED SIGNS SHALL BE INCLUDED IN THE PAY ITEM FOR THE WORK ZONE SPEED LIMIT SIGNS.

THE WORK ZONE SPEED LIMIT SIGNS MAY BE ERECTED OR UNCOVERED NO MORE THAN 4 HOURS BEFORE THE ACTUAL START OF WORK. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN 4 HOURS FOLLOWING RESTORATION OF ALL LANES TO TRAFFIC WITH NO RESTRICTIONS, OR SOONER AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL ERECT A WORK ZONE SPEED LIMIT SIGN IN ADVANCE OF ANY LANE RESTRICTION EXPECTED TO LAST AT LEAST 30 DAYS, OR AS DIRECTED BY THE ENGINEER. THE SIGN SHALL BE MOUNTED ON BOTH SIDES OF DIVIDED HIGHWAYS, 150 METERS IN ADVANCE OF THE LANE REDUCTION TAPER. THE SIGN SHALL BE MOUNTED ON THE RIGHT SIDE, 75 METERS IN ADVANCE OF THE LANE REDUCTION TAPER ON UNDIVIDED HIGHWAYS. THE SIGN SHALL BE REPEATED, ON THE SIDE NEAREST TRAFFIC, EVERY 1600 METERS FOR 55 MPH ZONES AND EVERY 400 METERS FOR 45 MPH ZONES.

A SIGN(S) TO INDICATE THE RESUMPTION OF THE STATURORY SPEED LIMIT SHALL BE ERECTED AT THE END OF ANY REDUCED SPEED ZONE. R-10 SIGNS (SPEED LIMIT) SHALL BE USED ON UNDIVIDED ROADWAY. R-10 (SPEED LIMIT) AND R-9A SIGNS (SPEED LIMIT) SHALL BE USED ON DIVIDED ROADWAYS. WHEN USED THE R-10 AND R-9A SIGNS SHALL BE MOUNTED SIDE-BY-SIDE ON SEPARATE SUPPORTS.

THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED BUT GOOD CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE REFLECTORIZED WITH TYPE G SHEETING COMPLYING WITH THE REQUIREMENTS OF 730.19 AND U.S. DEPARTMENT OF TRANSPORTATION SUPPLEMENTAL SPECIFICATION FOR TYPE III-C SHEETING, FP-85. WORK ZONE SPEED LIMIT SIGNS SHALL BE MOUNTED ON TWO (2) ITEM 630 GROUND MOUNTED SUPPORTS, NO 3 POSTS.

WORK ZONE SPEED LIMIT SIGNS AND SUPPORTS WILL BE MEASURED AS THE NUMBER OF SIGN INSTALLATIONS, INCLUDING THE SIGNS AND NECESSARY SUPPORTS. IF A SIGN AND SUPPORT COMBINATION IS REMOVED AND REERECTED AT ANOTHER LOCATION WITHIN THE PROJECT DUE TO CHANGES IN THE SPEED ZONE DIRECTED BY THE ENGINEER, IT SHALL BE CONSIDERED ANOTHER UNIT.

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE IN PLACE, WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, COVERING DURING SUSPENSION OF WORK, AND REMOVING THE SIGNS AND SUPPORTS.

THE WORK ZONE SPEED LIMIT SIGN SHALL BE USED ONLY ON S.R. 61.

614, WORK ZONE SPEED LIMIT SIGN	20	EACH

metric units

CALCULATED MJT
CHECKED WS

MAINTENANCE OF TRAFFIC GENERAL NOTES

CRA/RIC-30-33.500/0.000

MN001.DWG
08-18-2000 9:26 AM
1:1M

ITEM 614–TEMPORARY PAVEMENT MARKINGS CROSS–ROADS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY, SHEET 61A.

ITEM 614 – TEMPORARY CENTER LINE, CLASS II

S.R. 61 =	STA. 49+640 – STA. 50+500 = 860 m
WACHS RD. =	STA. 30+475 – STA. 30+560 = 85 m
GALION/AIRPORT RD. =	STA. 10+065 – STA. 10+120 = 55 m x 2 = 110 m
HORNING RD. =	STA. 49+603 – STA. 50+460 = 857 m
S.R. 181 =	STA. 49+640 – STA. 50+426 = 786 m
RELOC. ECKSTEIN RD. =	STA. 21+000 – STA. 21+547 = 547 m
EXIST. ECKSTEIN RD. =	STA. 50+083 – STA. 50+270 = 187 m
EARICK RD. =	STA. 49+460 – STA. 50+500 = 1040 m
	4472 m USE 4.5 Km

ITEM 614 – TEMPORARY CENTER LINE, CLASS II 4.5 KILOMETER

THESE ITEMS MAY BE NON–PERFORMED IF THE FINAL 642 PAVEMENT MARKINGS ARE IN PLACE PRIOR TO THE OPENING OF THE ROAD TO TRAFFIC.

ALTERNATE METHODS

IF THE CONTRACTOR SO ELECTS, HE MAY SUBMIT ALTERNATE METHODS FOR THE MAINTENANCE OF TRAFFIC, PROVIDED THE INTENT OF THE ABOVE PROVISIONS IS FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THEREFROM. NO ALTERNATE PLAN WILL BE PUT INTO EFFECT UNTIL THE APPROVAL HAS BEEN GRANTED, IN WRITING, BY THE DIRECTOR.

OVERNIGHT TRENCH CLOSING

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 70 MILLIMETERS BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (7.5 METER OF LESS) OF A WORK SECTION AT THE END OR THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS. THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

ITEM 614 – BARRIER REFLECTORS & OBJECT MARKERS

BARRIER REFLECTORS SHALL BE INSTALLED ON ALL PORTABLE CONCRETE BARRIER USED FOR TRAFFIC CONTROL AND OBJECT MARKERS. BARRIER REFLECTORS AND THEIR INSTALLATION SHALL CONFORM TO THE APPROPRIATE STANDARD DRAWINGS AND ITEM 626, EXCEPT THE SPACING SHALL BE INDICATED IN THE PLAN, AND ESTIMATED QUANTITY OF 100 EACH OF ITEM 614 BARRIER REFLECTOR, TYPE B AND OBJECT MARKERS, HAS BEEN PROVIDED AND CARRIED TO THE GENERAL SUMMARY.

ITEM 615–TEMPORARY PAVEMENT, CLASS A

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY, SHEET 61A.

ITEM 615 – TEMPORARY PAVEMENT, CLASS A

STATION TO STATION	L	W	AREA
9+488.430–9+602.732	114.302 m	0.6m–6.6m	414.916 SQ.M.
9+602.732–10+675.139	1072.407 m	6.6 m	7077.886 SQ.M.
10+675.139–10+754.704	79.565 m	6.6m–0.6m	286.434 SQ.M.
	TOTAL		7779.236 SQ.M.
	USE		7780 SQ.M.

MAINTENANCE OF TRAFFIC REQUIREMENTS

THE FOLLOWING IS A LIST OF GENERAL REQUIREMENTS AND INTENTS THAT MUST BE COMPLIED WITH DURING THE SEQUENCE OF CONSTRUCTION FOR THIS PROJECT.

1) THE CONTRACTOR SHALL SCHEDULE THE BRIDGE WORK AND ROADWAY WORK IN SUCH A MANNER AS TO MAXIMIZE THE AMOUNT OF WORK THAT CAN BE ACHIEVED TO MINIMIZE THE TIME OF LANE CLOSURES AND THE DISTRUPTION TO TRAFFIC.

2) NO TWO (2) ADJACENT CROSS–ROADS SHALL BE CLOSED AT THE SAME TIME EXCEPT FOR S.R 181 AND ECKSTEIN RD. WHICH MAY BE CLOSED SIMULTANEOUSLY. THE CONTRACTOR SHALL SCHEDULE THE WORK SO THAT LOCAL TRAFFIC IS MAINTAINED ON ALTERNATE CROSS–ROADS AT ALL TIMES.

3) THE CONTRACTOR SHALL PROVIDE, ERECT, MAINTAIN AND SUBSEQUENTLY REMOVE ALL DETOUR SIGNING DURING THE DURATION THAT THE DETOURS ARE IN EFFECT. IN ADDITION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE GATES AND BARRICADES (AT THE APPROXIMATE WORK LIMITS) AND THE ADVANCE WARNING SIGNS AS SHOWN ON STANDARD CONSTRUCTION DRAWING MT–101.60M. PAYMENT SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC, FOR ADITIONAL REQUIREMENTS, SEE SHEET 52–55A.

4) MAINLINE CONSTRUCTION SHALL PROCEED WITH NO INTERFERENCE TO THE PROPOSED MAINTENANCE OF TRAFFIC PHASING OF THE SIDEROAD OVERPASSES.

5) PAVEMENT SHALL BE CONSTRUCTED UP THROUGH THE 302 BITUMINOUS AGGREGATE BASE DURING EACH PHASE. THIS SHOULD APPLY TO ALL OVERPASS SITES THAT ARE CONSTRUCTED IN PHASES.

6) THE TIE–IN PORTIONS OF THE OVERPASS STRUCTURE ASSOCIATED EMBANKMENT SHOULD BE CONSTRUCTED PRIOR TO CONSTRUCTING THE STRUCTURE.

7) THE FORESLOPES ON THE OVERPASS STRUCTURE ROADWAYS MAY BE CONSTRUCTED WITH TEMPORARY 2:1 SLOPES WHEN RESIDENTIAL TRAFFIC IS MAINTAINED VIA TEMPORARY ACCESS DRIVES PARALLEL TO THE PROPOSED ROADWAY AT THE TOE OF SLOPES. THESE SLOPES SHALL THEN BE CONSTRUCTED TO THE ORIGINAL PROPOSED TYPICAL SECTION WHEN COMPLETED. THIS MAY REQUIRE BENCHING AS PER THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATION MANUAL AND MANUAL OF PROCEDURES, CURRENT EDITION.

8) FOR MAINTENANCE OF TRAFFIC DETAILS FOR THE MAINLINE AT THE WEST TERMINI, (S.R. 61 INTERCHANGE), SEE SHEET 55B.

WARNING SIGNS

HEAVY EQUIPMENT CROSSING WARNING SIGNS SHALL BE PROVIDED AT LOCATIONS THROUGHOUT THE PROJECT WHERE REQUIRED, AS DIRECTED BY THE ENGINEER.

PROJECT DETOUR LIMITATION

THE ROADWAY SHALL NOT BE CLOSED TO TRAFFIC FOR THE REMOVAL OR MODIFICATION OF THE EXISTING STRUCTURE OF CONDUIT UNTIL ALL NEW STEEL BEAMS AND\OR PRECAST STRUCTURE MATERIALS (EG.:PRESTRESSED BOX BEAMS, PRECAST BOX CULVERTS, CONDUITS, ETC.) NECESSARY TO PLACE THE ROADWAY BACK INTO SERVICE HAVE BEEN TESTED, APPROVED AND ARE READY FOR DELIVERY TO THE PROJECT SITE.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN ACCORDANCE WITH 108.07 OF THE CMS.

ITEM 622 – PORTABLE CONCRETE BARRIER, 813 mm

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY, SHEET 61A.

STA. 9+760 TO STA. 10+300 = 540 METERS

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR IS ADVISED OF THE PRESENCE OF ANOTHER CONSTRUCTION CONTRACT WITHIN THE WORK LIMITS OF THE VICINITY OR THIS PROJECT. THE CONTRACT, CRA–30–24.000, MAY BE GOING ON CONCURRENTLY WITH THIS PROJECT AND CLOSE COOPERATION BETWEEN CONTRACTORS IS REQUIRED TO ENSURE THAT TRAFFIC MAINTENANCE OPERATIONS FOR EACH PROJECT ARE AT ALL TIMES COMPATIBLE . ANY CONFLICTS SHALL BE RESOLVED BY THE ENGINEERS.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER AND CALCIUM CHLORIDE FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

616, CALCIUM CHLORIDE	580	METRIC TON
616, WATER	23,270	CU. METER

DESIGNATED LOCAL MAINTENANCE ROUTE

A LOCAL MAINTENANCE ROUTE, OTHER THAN THE OFFICIAL SIGNED ODOT DETOUR ROUTE, WILL BE DESIGNATED BY AGREEMENT BETWEEN ODOT AND LOCAL GOVERNMENTAL AGENCIES PRIOR TO THE HIGHWAY CLOSURE.

DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THIS ROUTE IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST AND STANDING WATER. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL MAINTENANCE ROUTE SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PURPOSE. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DIRECTED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER TO MAINTAIN AND SUBSEQUENTLY RESTORE THE DESIGNATED LOCAL MAINTENANCE ROUTE:

ITEM 253 PAVEMENT REPAIR (100mm AVE. THICKNESS)	75	CU.M.
ITEM 614 BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC	100	CU.M.
ITEM 616 WATER	200	CU.M.
ITEM 616 CALCIUM CHLORIDE	15	METRIC TON

metric units

CALCULATED MJT CHECKED WS

MAINTENANCE OF TRAFFIC GENERAL NOTES

CRA/RIC–30–33.500/0.000

MN002.DWG 09–25–2000 8:47 AM 1:1M

PHASE	CONSTRUCTION ACTIVITIES	TRAFFIC MAINTAINED

S.R.61

PHASE 1

PHASE	CONSTRUCTION ACTIVITIES	TRAFFIC MAINTAINED
1	CONSTRUCT TEMPORARY ROAD	CLOSE WACHS ROAD MAINTAIN TWO WAY TRAFFIC ON SR 61 UNTIL THE TEMPORARY ROAD IS COMPLETED. UPON COMPLETION, CLOSE EXIST. S.R. 61 PAVEMENT TO THROUGH TRAFFIC AND SHIFT ALL TRAFFIC TO THE TEMPORARY ROAD.
2	CONSTRUCT SERVICE ROAD "A" STA. 49+991.536 TO STA. 50+150. CONSTRUCT PROP. DRIVEWAY FROM SERVICE ROAD "A" AT STA. 50+125 (LT) TO RESIDENCE # 1521. PROVIDE TEMP. ACCESS FROM TEMP. ROAD TO SERVICE ROAD "A".	CONTINUE AS UNDER 1. UPON COMPLETION, MAINTAIN INGRESS/EGRESS TO RESIDENCE # 1521 VIA PROPOSED DRIVEWAY AND SERVICE ROAD "A" PAVEMENT.
3	PRIOR TO PHASE 2, CONSTRUCT CULVERT AT STA. 50+257.	CONTINUE AS UNDER 1

PHASE 2

PHASE	CONSTRUCTION ACTIVITIES	TRAFFIC MAINTAINED
1	CONSTRUCT A TEMP. ACCESS DRIVE PARALLEL TO THE ROADWAY WITHIN THE R/W LIMITS FOR FOR RESIDENCE #1675 ALONG THE RT. TOE OF SLOPE OF PROPOSED S.R. 61 EMBANKMENT TO CONNECT INTO STA. 50+500 +/-, S.R. 61 EXIST. PAV.'T.	MAINTAIN INGRESS/EGRESS FOR RESIDENCE # 1675 VIA TEMP. ACCESS DRIVE AND EXIST. S.R. 61 PAVEMENT.
2	CONSTRUCT A TEMP. ACCESS DRIVE WITHIN THE R/W LIMITS FROM THE TEMP. ROAD EAST TO EX. DRIVE AT STA. 50+140 (RT) FOR RESIDENCE # 1619.	UPON COMPLETION, MAINTAIN INGRESS/EGRESS FOR RESIDENCE #1619 VIA EX. DRIVEWAY, TEMP. DRIVEWAY AND TEMP. PAV'T.
3	CONSTRUCT SR 61 PROPOSED ROADWAY PAV'T FROM STA 50+280 TO STA. 50+480 WITH SIDESLOPES (RT.) WITH TEMPORARY 2:1 FORESLOPES. COMPLETE FINAL GRADING OF SLOPES, BENCHES, AND DITCHES UNDER PHASE 3, STEP 2. CONSTRUCT SERVICE ROAD "A" PAV.'T FROM STA. 50+150 TO STA. 51+312.403.	CONTINUE AS UNDER 1
4	CONSTRUCT PROPOSED DRIVEWAY FOR RESIDENCE #1619, STA. 50+320 RT.	UPON COMPLETION, MAINTAIN INGRESS/EGRESS FOR RESIDENCE #1619 VIA PROP. DRIVEWAY AND PROP. S.R. 61 PAV.'T. FROM NORTH.
4A	CONSTRUCT PROPOSED DRIVEWAY FOR RESIDENCE #1675.	UPON COMPLETION, MAINTAIN INGRESS/EGRESS FOR RESIDENCE #1675 VIA PROP. DRIVE AND PROP. S.R. 61 PAV.'T. FROM THE NORTH.

S.R.61 (CON'T)

PHASE 3

PHASE	CONSTRUCTION ACTIVITIES	TRAFFIC MAINTAINED
1	CONSTRUCT PROPOSED SR 61 PAV'T AND BRIDGE FROM STA. 49+640 TO STA. 50+280.	CONTINUE AS UNDER 1 AND 2. UPON COMPLETION, SHIFT SR 61 TRAFFIC FROM THE TEMP. PAV'T TO THE COMPLETED SR 61 PAV'T.
2	COMPLETE FINAL CONSTRUCTION OF PROPOSED SR 61 SLOPES, BENCHES AND DITCHES AND ROADWAY ITEMS.	MAINTAIN TWO LANE TRAFFIC ON COMPLETED SR 61 PAV.'T AND COMPLETED DRIVEWAYS.

GALION/AIRPORT ROAD CH 47

PHASE	CONSTRUCTION ACTIVITIES	TRAFFIC MAINTAINED
1	CONSTRUCT PROPOSED PAVEMENT SLOPES, BENCHES AND DITCHES AND ROADWAY ITEMS.	CLOSE EXIST. PAVEMENT TO THROUGH TRAFFIC. MAINTAIN INGRESS/EGRESS TO LOCAL RESIDENTS.

NOTE : THE EMBANKMENT AT THE STATION LIMITS BETWEEN PHASES SHALL BE CONSTRUCTED AT A 2:1 SLOPE AND SUBSEQUENTLY BENCHED UPON THE PLACEMENT OF THE ADJACENT EMBANKMENT IN THE NEXT PHASE. ANY ADDITIONAL COSTS SHALL BE INCLUDED IN ITEM 203 EMBANKMENT.

NOTE : WHEREVER TEMPORARY ACCESS DRIVES ARE TO BE PROVIDED, THEY SHALL BE CONSTRUCTED UNDER THE VARIOUS ITEMS LISTED IN THE NOTE ITEM 614 – MAINTAINING TRAFFIC ON SHEET 25.

metric units
CALCULATED MJT CHECKED WS
MAINTENANCE OF TRAFFIC GENERAL NOTES
CRA/RIC-30-33.500/0.000
27/712
MN003.DWG 03-25-1999 7:51 AM 1:1M

PHASE	CONSTRUCTION ACTIVITIES	TRAFFIC MAINTAINED

HORNING ROAD CH 175

PHASE 1

1	CONSTRUCT PROPOSED ROADWAY PAVEMENT FROM STA. 50+180 TO STA. 50+433. COMPLETE BENCH AND DITCH GRADING (RT) UNDER PHASE 3, STEP 3.	CLOSE THROUGH TRAFFIC. DETOUR PER DETOUR PLANS. SEE SHEETS 53.
2	CONSTRUCT PROPOSED DRIVEWAY AT STA. 50+406.940.	UPON COMPLETION, MAINTAIN INGRESS/EGRESS AT STA. 50+406.940 VIA PROPOSED HORNING RD. PAVEMENT TO THE NORTH.
3	CONSTRUCT TEMPORARY ACCESS DRIVE PARALLEL TO THE ROADWAY WITHIN THE R/W LIMITS ALONG THE RIGHT TOE OF SLOPE OF EMBANKMENT TO CONNECT DRIVES FOR RESIDENCE # 193 TO RESIDENCE # 181.	MAINTAIN INGRESS/EGRESS FOR RESIDENCE # 193 FROM THE SOUTH VIA TEMP. ACCESS DRIVE, EXIST. HORNING ROAD PAV.'T. AND EXIST. RESIDENCE # 181 DRIVEWAY PAV.'T.
4	CONSTRUCT PROPOSED DRIVEWAY AT STA. 50+198.642 FOR RESIDENCE # 193.	MAINTAIN INGRESS/EGRESS FOR RESIDENCE # 181 VIA EXIST. DRIVEWAY AND EXIST. HORNING ROAD PAV.'T FROM THE SOUTH. UPON COMPLETION, MAINTAIN INGRESS/EGRESS TO RESIDENCE # 193 VIA THE PROPOSED DRIVEWAY PAV.'T AND PROPOSED HORNING RD. PAVEMENT TO THE NORTH.

PHASE 2

1	CONSTRUCT PROPOSED ROADWAY PAVEMENT FROM STA. 49+608 TO STA. 49+900. COMPLETE BENCH AND DITCH GRADING UNDER PHASE 3, STEP 3.	MAINTAIN INGRESS/EGRESS TO RESIDENCE #87 AND # 181 VIA EXIST. AND TEMP. ACCESS DRIVE PAV.'T, THE NEW RESIDENCE # 193 DRIVEWAY PAV.'T, AND NEW HORNING ROAD PAV.'T TO THE NORTH.
2	CONSTRUCT PROPOSED RESIDENTIAL DRIVEWAY AT STA. 49+871.036 (RESIDENCE # 87).	UPON COMPLETION, MAINTAIN INGRESS/EGRESS TO RESIDENCE # 87 VIA PROPOSED HORNING ROAD PAV.'T FROM THE SOUTH.
3	CONSTRUCT PROPOSED FIELD DRIVEWAY AT STA. 49+625.000.	UPON COMPLETION, MAINTAIN INGRESS/EGRESS AT STA. 49+625.000 VIA PROPOSED HORNING ROAD PAV.'T FROM THE SOUTH.

PHASE 3

1	CONSTRUCT PROPOSED ROADWAY PAVEMENT AND BRIDGE FROM STA. 49+900 TO STA. 50+180. COMPLETE BENCH AND DITCH GRADING UNDER PHASE 3, STEP 3.	MAINTAIN INGRESS/EGRESS TO RESIDENCE # 181 VIA TEMP. ACCESS DRIVE PAV.'T, PROPOSED RESIDENCE # 193 DRIVEWAY, AND PROPOSED HORNING ROAD PAV.'T FROM THE NORTH.
2	CONSTRUCT PROPOSED DRIVEWAY AT STA. 50+155.802 (RESIDENCE # 181).	UPON COMPLETION, MAINTAIN INGRESS/EGRESS TO RESIDENCE # 181 VIA PROPOSED HORNING ROAD PAV.'T FROM THE NORTH.
3	COMPLETE ALL FINAL GRADING OF SLOPES, BENCHES, DITCHES AND ROADWAY ITEMS WHERE REQUIRED.	MAINTAIN TWO WAY TRAFFIC VIA THE NEW HORNING ROAD PAVEMENT.

NOTE : THE EMBANKMENT AT THE STATION LIMITS BETWEEN PHASES SHALL BE CONSTRUCTED AT A 2:1 SLOPE AND SUBSEQUENTLY BENCHED UPON THE PLACEMENT OF THE ADJACENT EMBANKMENT IN THE NEXT PHASE. ANY ADDITIONAL COSTS SHALL BE INCLUDED IN ITEM 203 EMBANKMENT.

NOTE : WHEREVER TEMPORARY ACCESS DRIVES ARE TO BE PROVIDED, THEY SHALL BE CONSTRUCTED UNDER THE VARIOUS ITEMS LISTED IN THE NOTE ITEM 614 – MAINTAINING TRAFFIC ON SHEET 25.

PHASE	CONSTRUCTION ACTIVITIES	TRAFFIC MAINTAINED

S.R. 181 / RELOC. ECKSTEIN ROAD / EXIST. ECKSTEIN ROAD

S.R. 181

PHASE 1

1	CLOSE EXIST. ECKSTEIN ROAD AND S.R. 181 SIMULTANEOUSLY.	CLOSE THROUGH TRAFFIC. DETOUR PER DETOUR PLANS. SEE SHEETS 54 & 55.
2	CONSTRUCT PROPOSED ROADWAY PAV.'T FROM STA. 50+275 TO STA. 50+426. CONSTRUCT SIDESLOPES WITH TEMPORARY 2:1 FORESLOPES. COMPLETE FINAL GRADING OF SLOPES, BENCHES, AND DITCHES UNDER PHASE 3, STEP 4.	MAINTAIN INGRESS/EGRESS TO ALL RESIDENCES VIA EX. PAV.'T FROM THE WEST.
3	CONSTRUCT TEMP. ACCESS DRIVE PARALLEL TO THE ROADWAY WITHIN THE R/W LIMITS ALONG THE RT. TOE OF SLOPE OF S.R. 181 EMBANKMENT TO CONNECT DRIVES BETWEEN STA. 50+264.446 AND STA. 50+069.385 TO EXIST. S.R. 181, PAV.'T AT STA. 50+020 +/–.	MAINTAIN INGRESS/EGRESS TO RESIDENCES # 4543, 4531, 4493 VIA EXIST. DRIVES, TEMP. ACCESS DRIVES, AND EXIST. S.R. 181 PAV.'T FROM THE WEST.

PHASE 2

1	CONSTRUCT TEMP. ACCESS DRIVE PARALLEL TO THE ROADWAY WITHIN THE R/W LIMITS ALONG THE RT. TOE OF SLOPE OF S.R. 181 EMBANKMENT TO CONNECT DRIVES BETWEEN STA. 49+868 AND STA. 49+739 TO EXIST. S.R. 181 PAV.'T AT STA. 49+630 +/–.	MAINTAIN INGRESS/EGRESS TO RESIDENCES # 4653, 4655, 4639, AND 4629 VIA EXIST. DRIVES, TEMP. ACCESS DRIVES AND EXIST. S.R. 181 PAV.'T. FROM THE WEST.
2	CONSTRUCT TEMP. ACCESS DRIVE PARALLEL TO THE ROADWAY WITHIN THE R/W LIMITS ALONG THE LT. TOE OF SLOPE OF S.R. 181 EMBANKMENT TO CONNECT DRIVES BETWEEN STA. 49+777 AND STA. 49+680 TO EXIST. S.R. 181 PAV.'T AT STA. 49+630 +/–.	MAINTAIN INGRESS/EGRESS TO RESIDENCES # 4666, 4664, 4662 AND 4660 VIA EXIST. DRIVES, TEMP. ACCESS DRIVES, AND EXIST S.R. 181 PAV.'T FROM THE WEST.
3	CONSTRUCT PROPOSED ROADWAY PAVEMENT FROM STA. 49+648 TO STA. 49+920. CONSTRUCT SIDESLOPES WITH TEMPORARY 2:1 FORESLOPES (LT & RT). COMPLETE FINAL GRADING OF SLOPES, BENCHES, AND DITCHES UNDER PHASE 3, STEP 4	CONTINUE AS UNDER STEP 1 AND 2.
4	CONSTRUCT PROPOSED ROADWAY PAVEMENT FROM STA. 50+060 TO STA. 50+275. CONSTRUCT SIDESLOPES WITH TEMPORARY 2:1 FORESLOPES. COMPLETE FINAL GRADING OF SLOPES, BENCHES, AND DITCHES UNDER PHASE 3, STEP 4.	CONTINUE AS UNDER STEP 3.
5	CONSTRUCT THE PROPOSED DRIVEWAY AT STA. 50+264.446 (RESIDENCE # 4493), STA. 50+208.079 (RESIDENCE # 4531), STA. 50+167.386 (RESIDENCE # 4543), AND STA. 50+069.385 (RESIDENCE # 4577).	UPON COMPLETION, MAINTAIN INGRESS/EGRESS VIA PROPOSED DRIVEWAYS AND PROPOSED S.R. 181 PAV.'T TO THE EAST.

metric units

CALCULATED MJT CHECKED WS

MAINTENANCE OF TRAFFIC GENERAL NOTES

CRA/RIC-30-33.500/0.000

MN004.DWG 03-18-1999 5:14 PM 1:1M

metric units

CALCULATED MJT CHECKED WS

PHASE	CONSTRUCTION ACTIVITIES	TRAFFIC MAINTAINED

S.R. 181 / RELOC. ECKSTEIN ROAD / EXIST. ECKSTEIN ROAD

S.R. 181 (CONT'D)

PHASE 2

6	CONSTRUCT PROPOSED DRIVEWAY AT STA. 49+868.076 (RESIDENCE # 4629), STA. 49+849.769 (RESIDENCE # 4639), STA. 49+803.525 (RESIDENCE # 4655), STA. 49+739.140 (RESIDENCE # 4653), STA. 49+777.347 (RESIDENCE # 4660), STA. 49+739.375 (RESIDENCE # 4662), STA. 49+702.894 (RESIDENCE # 4664), AND STA. 49+680.516 (RESIDENCE # 4666).	UPON COMPLETION, MAINTAIN INGRESS/EGRESS VIA PROPOSED DRIVEWAYS AND PROPOSED S.R. 181 PAV.'T TO THE WEST.

PHASE 3

1	CONSTRUCT PROPOSED ROADWAY PAVEMENT RELOC. ECKSTEIN ROAD STA. 21+000 TO STA. 21+520.	MAINTAIN TRAFFIC AS UNDER PHASE 1. UPON COMPLETION, MAINTAIN TWO WAY TRAFFIC VIA PROPOSED RELOC. ECKSTEIN ROAD PAV.'T AND PROPOSED S.R. 181 PAV.'T TO THE WEST.
2	CONSTRUCT PROPOSED ROADWAY PAVEMENT EXIST. ECKSTEIN ROAD STA. 50+083 TO STA. 50+270.520.	UPON COMPLETION, MAINTAIN TWO WAY TRAFFIC AS UNDER STEP 1.
3	CONSTRUCT PROPOSED ROADWAY PAVEMENT AND BRIDGE FROM STA. 49+920 TO STA. 50+060.	MAINTAIN ALL INGRESS/EGRESS VIA TEMP. ACCESS DRIVES, PROPOSED DRIVES, AND PROPOSED S.R. 181 PAV.'T. UPON COMPLETION, MAINTAIN ALL TRAFFIC VIA PROPOSED DRIVEWAYS AND PROPOSED S.R. 181 PAV.'T.
4	COMPLETE ALL FINAL GRADING OF SLOPES, BENCHES, AND DITCHES WHERE REQUIRED.	MAINTAIN ALL TRAFFIC VIA PROPOSED S.R. 181 PAVEMENT.

NOTE : THE EMBANKMENT AT THE STATION LIMITS BETWEEN PHASES SHALL BE CONSTRUCTED AT A 2:1 SLOPE AND SUBSEQUENTLY BENCHED UPON THE PLACEMENT OF THE ADJACENT EMBANKMENT IN THE NEXT PHASE. ANY ADDITIONAL COSTS SHALL BE INCLUDED IN ITEM 203 EMBANKMENT.

NOTE : WHEREVER TEMPORARY ACCESS DRIVES ARE TO BE PROVIDED, THEY SHALL BE CONSTRUCTED UNDER THE VARIOUS ITEMS LISTED IN THE NOTE ITEM 614 – MAINTAINING TRAFFIC ON SHEET 25.

MAINTENANCE OF TRAFFIC GENERAL NOTES

CRA/RIC-30-33.500/0.000

MN005.DWG 03-18-1999 5:11 PM 1:1M

PHASE	CONSTRUCTION ACTIVITIES	TRAFFIC MAINTAINED

EARICK ROAD TH 167

PHASE 1

1	CONSTRUCT PROPOSED ROADWAY PAVEMENT FROM STA. 50+240 TO STA. 50+482. CONSTRUCT SIDESLOPES WITH TEMPORARY 2:1 FORESLOPES RT. COMPLETE BENCHES AND DITCH GRADING (RT) UNDER PHASE 3, STEP 2.	CLOSE THROUGH TRAFFIC. DETOUR PER DETOUR PLAN. SEE SHEET 55A.
1B	CONSTRUCT A TEMP. ACCESS DRIVE WITHIN THE R/W LIMITS FOR RESIDENCE # 920 TO CONNECT INTO EXISTING EARICK ROAD PAV.'T.	MAINTAIN INGRESS/EGRESS FOR RESIDENCE # 920 VIA TEMP. ACCESS DRIVE AND EXIST. EARICK ROAD PAV.'T TO THE SOUTH.
2	CONSTRUCT PROPOSED DRIVEWAY FOR RESIDENCE # 920.	UPON COMPLETION, MAINTAIN INGRESS/EGRESS FOR RESIDENCE # 920 VIA PROP. DRIVEWAY AND PROPOSED EARICK RD. PAV.'T FROM THE NORTH.

PHASE 2

1	CONSTRUCT TEMP. ACCESS DRIVE PARALLEL TO THE ROADWAY WITHIN THE R/W LIMITS FOR RESIDENCE # 750 RT AND DRIVE AT STA. 49+728 LT TO CONNECT TO EXIST. EARICK ROAD PAV.'T AT STA. 49+820 +/-.	MAINTAIN INGRESS/EGRESS VIA EXIST. DRIVES, TEMP. ACCESS DRIVES, EXIST. ROADWAY PAV.'T, TEMP. ACCESS DRIVE TO RESIDENCE DRIVE # 920, AND PROPOSED EARICK ROAD PAV.'T TO THE NORTH. MAINTAIN TEMP. ACCESS DRIVE FROM EXIST. EARICK ROAD PAV.'T TO DRIVE FOR RESIDENCE # 920.
2	CONSTRUCT PROPOSED ROADWAY PAVEMENT FROM STA. 49+480 TO STA. 49+800.	MAINTAIN INGRESS/EGRESS TO RESIDENCE #750 AND DRIVE AT STA. 49+728.527 AS UNDER ABOVE.
2A	CONSTRUCT PROPOSED DRIVEWAY AT STA. 49+728.527 LT AND FOR RESIDENCE # 750 RT.	UPON COMPLETION, MAINTAIN INGRESS/EGRESS VIA PROPOSED DRIVEWAYS AND PROPOSED EARICK ROAD PAV.'T FROM THE SOUTH.

PHASE 3

1	CONSTRUCT PROPOSED ROADWAY AND BRIDGE FROM STA. 49+800 TO STA. 50+240.	MAINTAIN INGRESS/EGRESS TO ALL RESIDENCES VIA ALL PROPOSED DRIVEWAYS AND PROPOSED PAVEMENT FROM THE NORTH AND SOUTH.
2	COMPLETE ALL FINAL GRADING OF SLOPES, BENCHES, DITCHES, AND ROADWAY ITEMS WHERE REQUIRED.	MAINTAIN ALL TRAFFIC VIA PROPOSED EARICK ROAD PAVEMENT.

PHASE	CONSTRUCTION ACTIVITIES	TRAFFIC MAINTAINED

WEST 4th STREET

1	CONSTRUCT RAMP "B" PAVEMENT. RAMP "B" PAVEMENT SHALL BE COMPLETED UP TO ITEM 446-ASPHALT CONCRETE INTERMEDIATE COURES PRIOR TO BEGINNING THE CONSTRUCTION OF RAMP "A" AND THE REMOVAL OF THE EB TEMPORARY CONNECTOR RAMP.	MAINTAIN TWO LANES OF TRAFFIC WESTBOUND USING THE TWO LEFT LANES. MAINTAIN ONE LANE OF TRAFFIC EASTBOUND USING THE RIGHT INSIDE LANE FOR THROUGH TRAFFIC AND ONE LANE ALONG THE MEDIAN CURB FOR LEFT TURNS FOR EB U.S. 30 (RAMP "D") TRAFFIC . CLOSE THE RIGHT OUTSIDE LANE TO TRAFFIC WITH PCB AND DRUMS. FOR DETAILS, SEE SHEET 55E.
2	REMOVE EXIST. U.S. 30 EB TEMPORARY CONNECTOR RAMP PAVEMENT AND ALL RELATED ROADWAY ITEMS. CONSTRUCT SHOULDER AND SLOPES AS PER CONSTRUCTION PLAN DETAILS. STA. 49+660 TO STA. 49+760 RT. CONSTRUCT RAMP "A" PROPOSED PAVEMENT.	CONTINUE AS UNDER 1
3	CONSTRUCT PROPOSED ROADWAY ISLAND IN THE AREA OF RAMP "B".	MAINTAIN ONE LANE OF TRAFFIC WESTBOUND USING THE OUTSIDE LEFT LANE AND ONE LANE OF TRAFFIC EASTBOUND USING THE RIGHT OUTSIDE LANE. CLOSE THE LEFT AND RIGHT INSIDE LANES TO TRAFFIC WITH DRUMS. MAINTAIN ACCESS FOR TRAFFIC TO RAMP "D".

EXIST. U.S. 30 (4-LANE BYPASS)

1	CONSTRUCT PROPOSED RELOC. U.S. 30 ROADWAY MAINLINE PAVEMENT (WESTBOUND) IN THE AREA OF RAMP "C" DECELARATION LANE MAINLINE STA. 6+586.5 TO STA. 6+700 LEFT.	MAINTAIN ONE LANE OF THROUGH TRAFFIC WESTBOUND VIA EXIST. U.S. 30 RAMP "C" PAVEMENT. FOR DETAILS, SEE SHEET 55C-55D.

NOTE : THE EMBANKMENT AT THE STATION LIMITS BETWEEN PHASES SHALL BE CONSTRUCTED AT A 2:1 SLOPE AND SUBSEQUENTLY BENCHED UPON THE PLACEMENT OF THE ADJACENT EMBANKMENT IN THE NEXT PHASE. ANY ADDITIONAL COSTS SHALL BE INCLUDED IN ITEM 203 EMBANKMENT.

NOTE : WHEREVER TEMPORARY ACCESS DRIVES ARE TO BE PROVIDED, THEY SHALL BE CONSTRUCTED UNDER THE VARIOUS ITEMS LISTED IN THE NOTE ITEM 614 - MAINTAINING TRAFFIC ON SHEET 25.

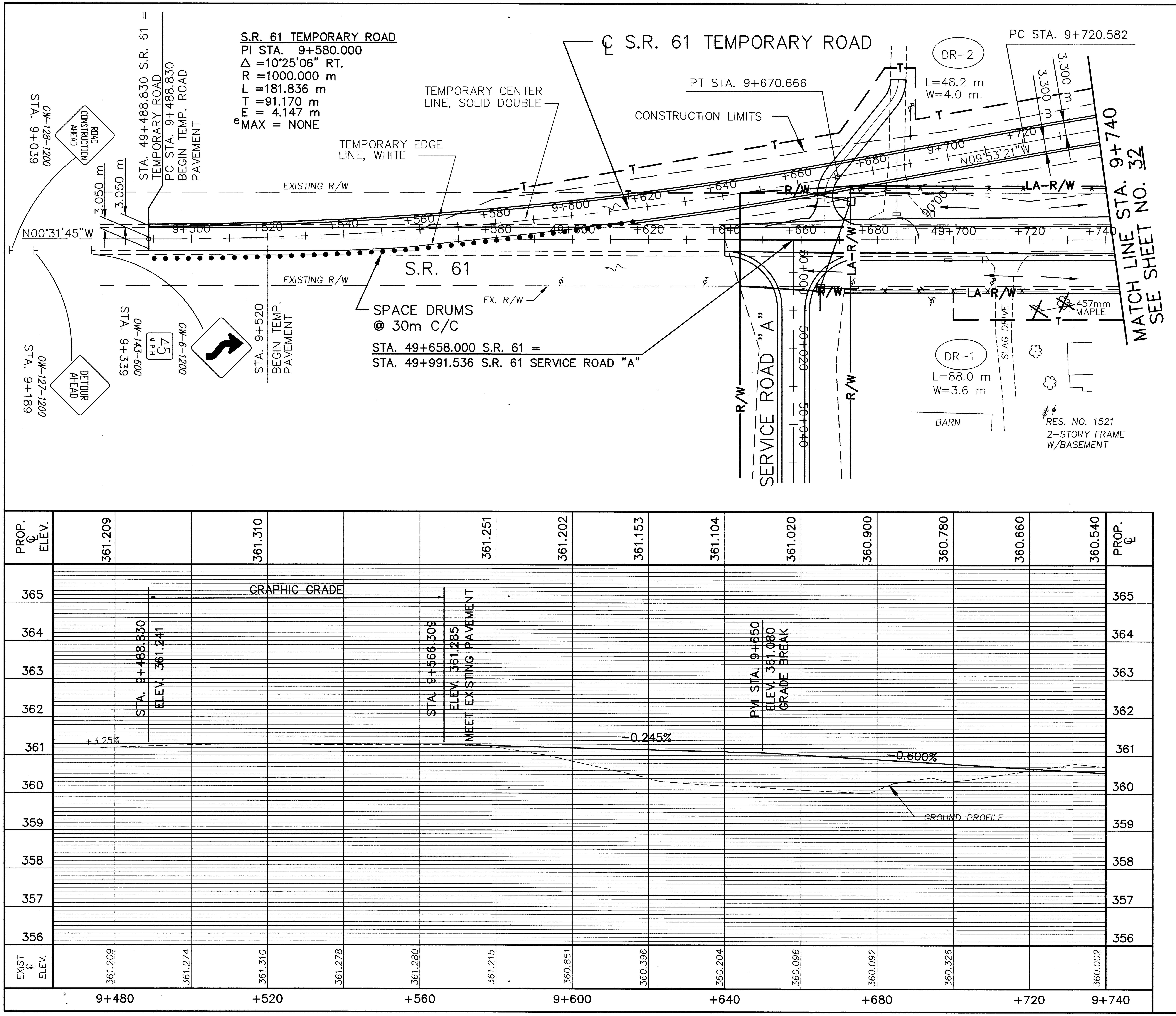
metric units

CALCULATED MJT CHECKED WS

MAINTENANCE OF TRAFFIC GENERAL NOTES

CRA/RIC-30-33.500/0.000

MN006.DWG 03-18-1999 5:10 PM 1:1M



NOTES:

1. FOR TEMPORARY ROAD TYPICAL SECTION SEE SHEETS 36.
2. ERECT 45 MPH SPEED LIMITS SIGNS.

metric units

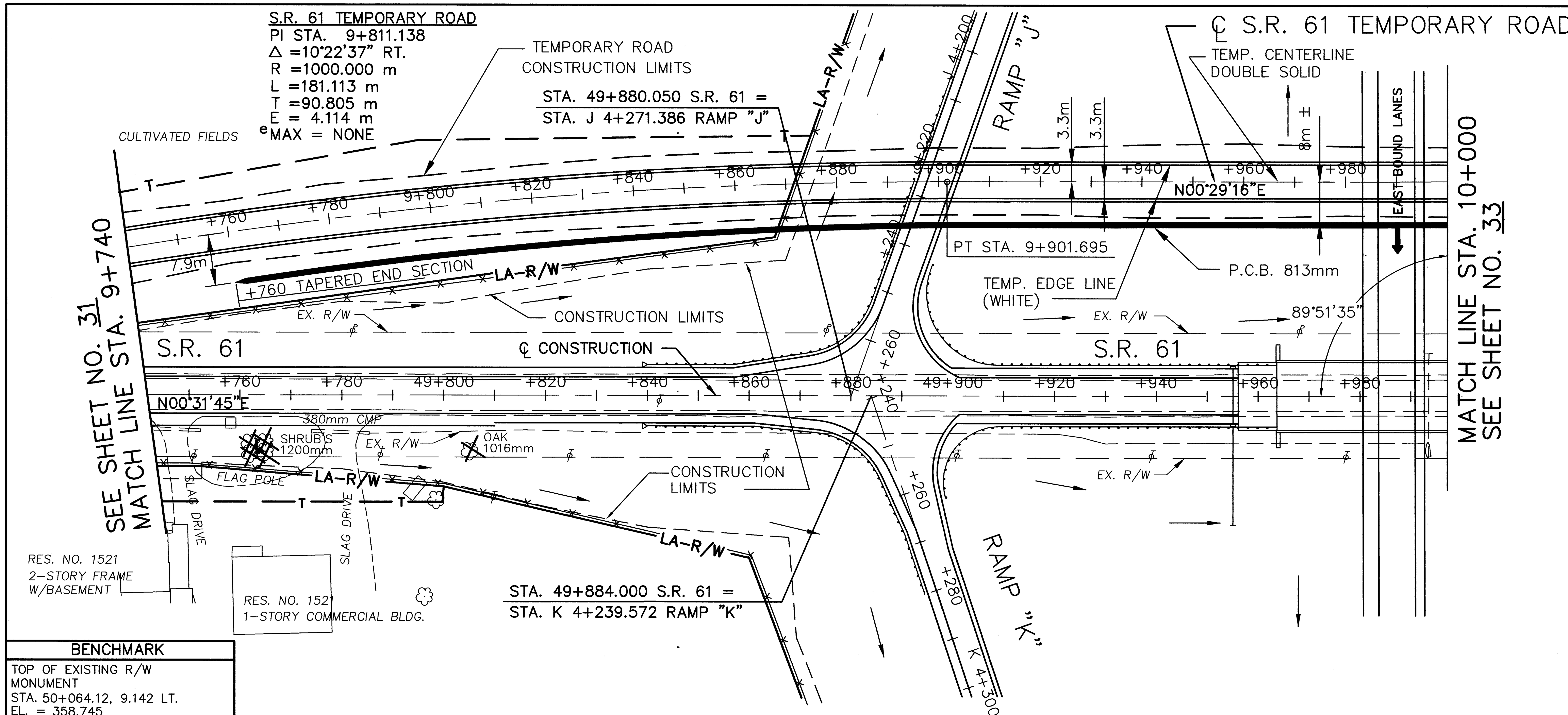
RATIO 1:500
HORIZONTAL SCALE IN METERS

CALCULATED CRM
CHECKED WJS

PLAN AND PROFILE - S.R. 61 TEMPORARY ROAD
STA. 9+488.830 TO STA. 9+740.000

CRA/RIC-30-33.500/0.000

MP001.DWG
03-29-1999 10:11 AM
1:500 M

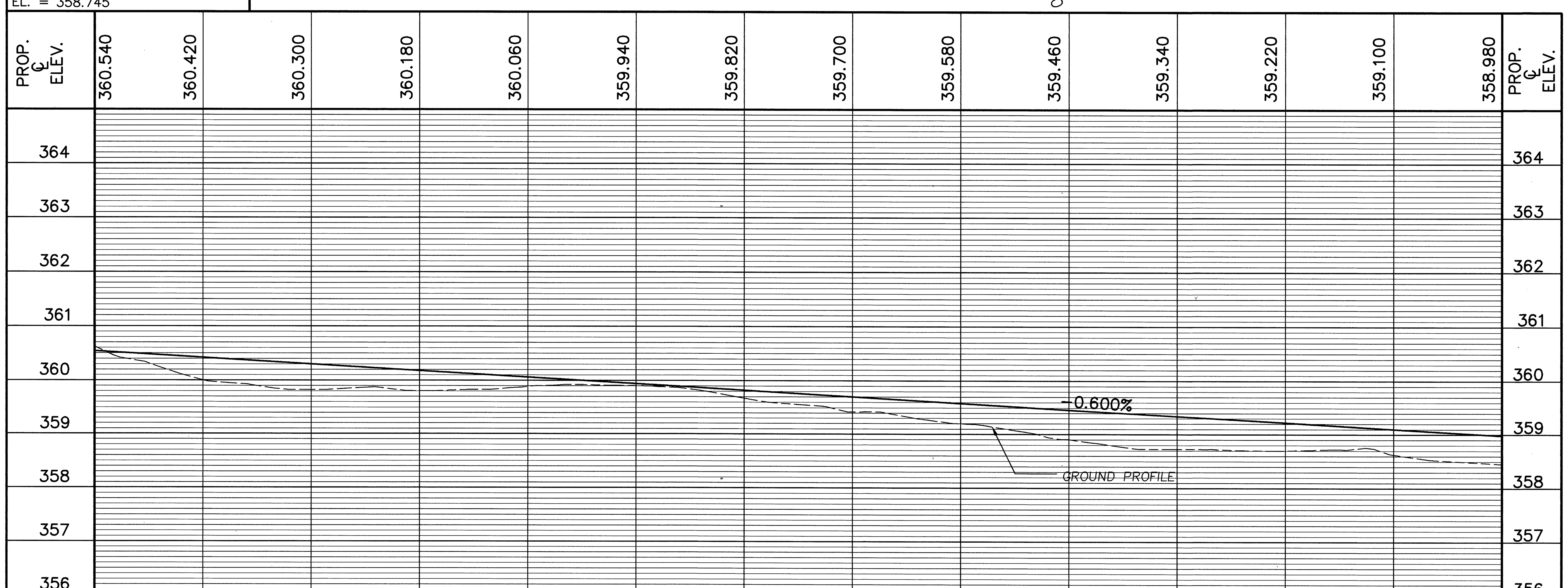


NOTES:

1. FOR TEMPORARY ROAD TYPICAL SECTION SEE SHEETS 36.

BENCHMARK

TOP OF EXISTING R/W MONUMENT
STA. 50+064.12, 9.142 LT.
EL. = 358.745



STATION	PROP. ℄ ELEV.	EXIST ℄ ELEV.
9+740	360.540	360.624
+760	360.420	360.002
+780	360.300	359.827
9+800	360.180	359.805
+820	360.060	359.886
+840	359.940	359.903
+860	359.820	359.673
+880	359.700	359.423
+900	359.580	359.197
+920	359.460	358.903
+940	359.340	358.729
9+960	359.220	358.700
+980	359.100	358.628
10+000	358.980	358.427

RATIO 1:500 HORIZONTAL SCALE IN METERS 0 5 10

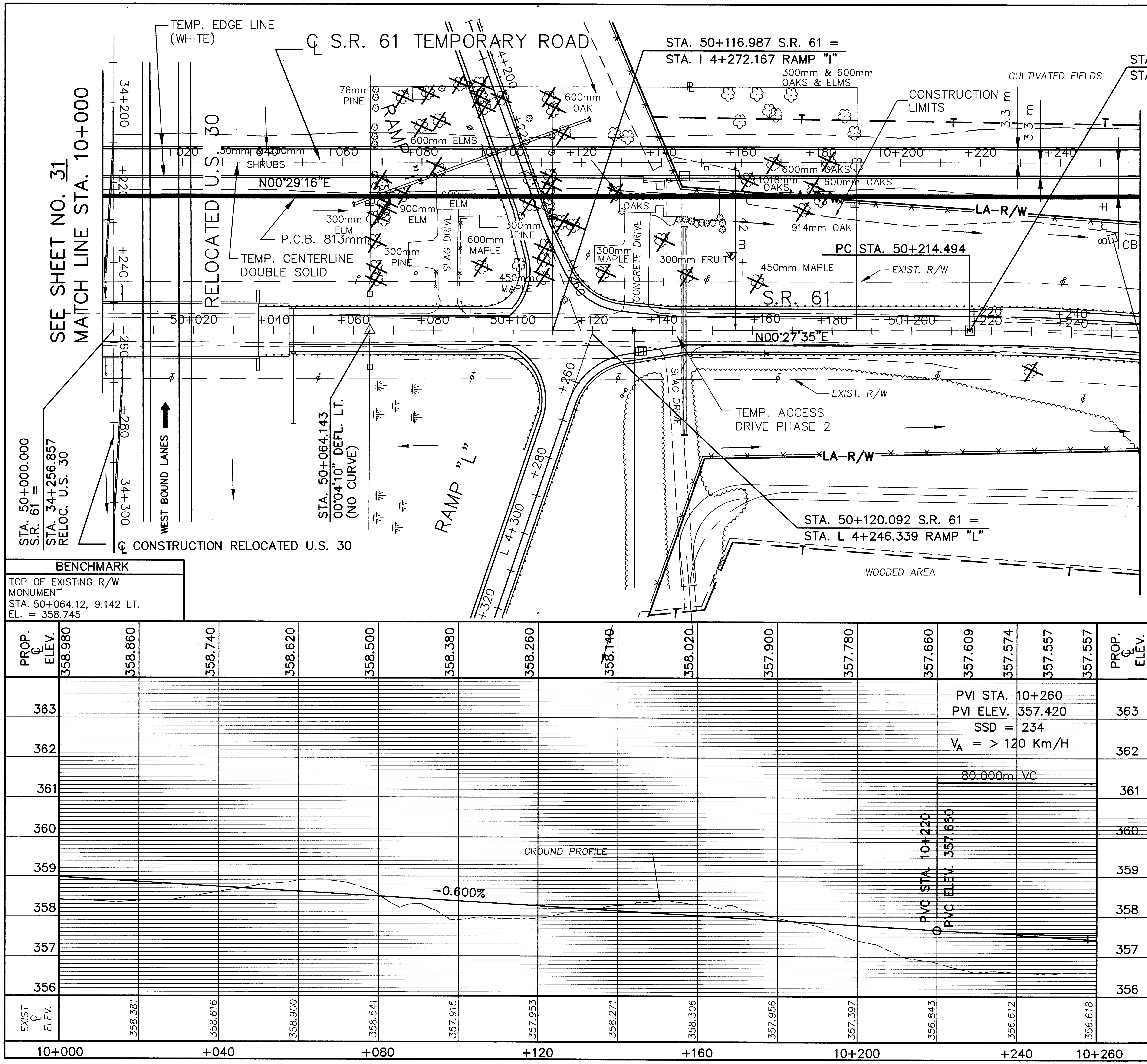
CALCULATED CRM CHECKED WJS

PLAN AND PROFILE – S.R. 61 TEMPORARY ROAD STA. 9+740 TO STA. 10+000

CRA/RIC-30-33.500/0.000

32/712

MP002.DWG 03-17-1999 10:33 AM 1:500 M



NOTES:

1. FOR TEMPORARY ROAD TYPICAL SECTION SEE SHEETS 36.

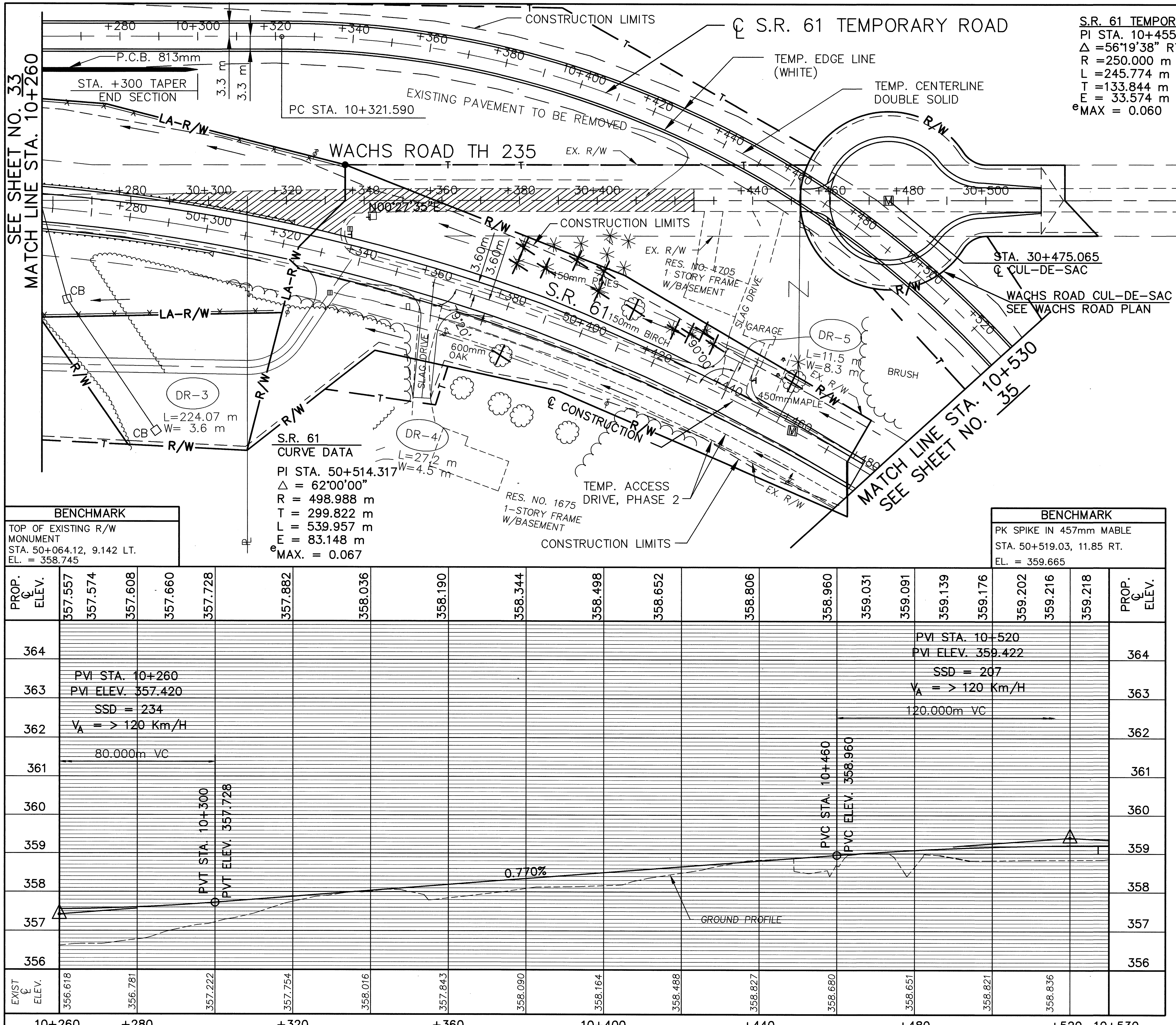
metric units

RATIO 1:500
HORIZONTAL SCALE IN METERS

CALCULATED CRM
CHECKED WJS

PLAN AND PROFILE – S.R. 61 TEMPORARY ROAD STA. 10+000 TO STA. 10+260

CRA/RIC-30-33.500/0.000



S.R. 61 TEMPORARY ROAD
PI STA. 10+455.434
Δ =56°19'38" RT.
R =250.000 m
L =245.774 m
T =133.844 m
E = 33.574 m
e_{MAX} = 0.060

metric units

NOTES:

1. FOR SUPERELEVATION TABLE, SEE SHEETS 36.
2. FOR TEMPORARY ROAD TYPICAL SECTION, SEE SHEETS 36.

N

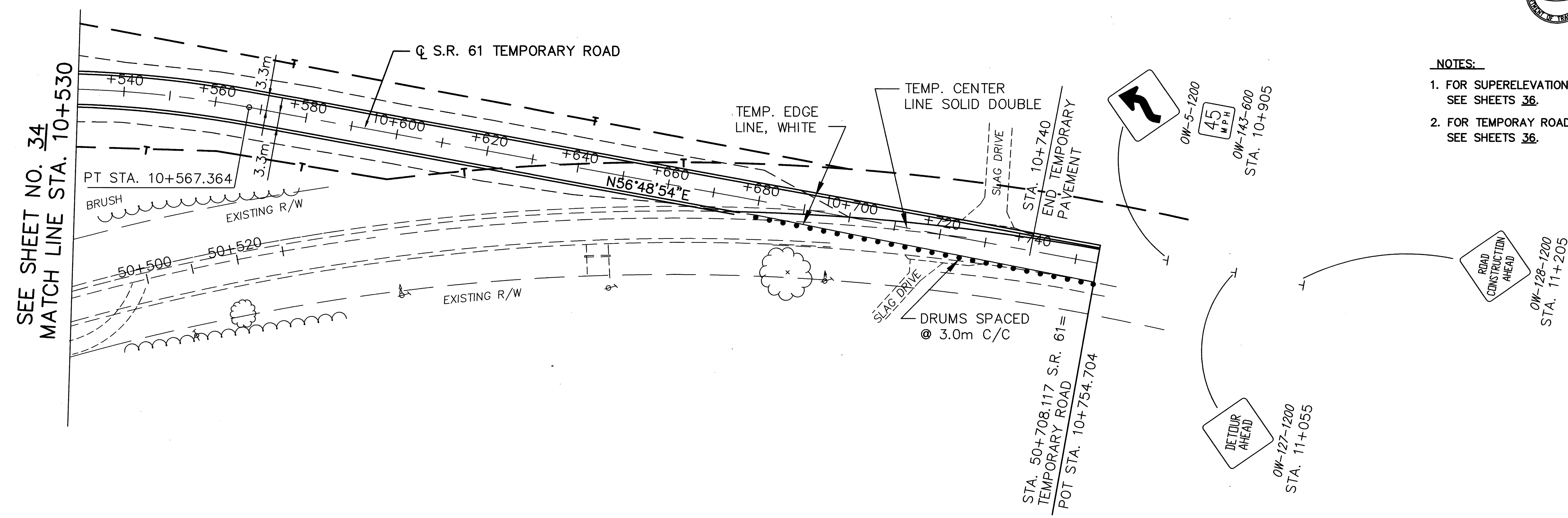
RATIO 1:500
HORIZONTAL SCALE IN METERS

CALCULATED CRM
CHECKED WJS

PLAN AND PROFILE – S.R. 61 TEMPORARY ROAD STA. 10+260 TO STA. 10+530

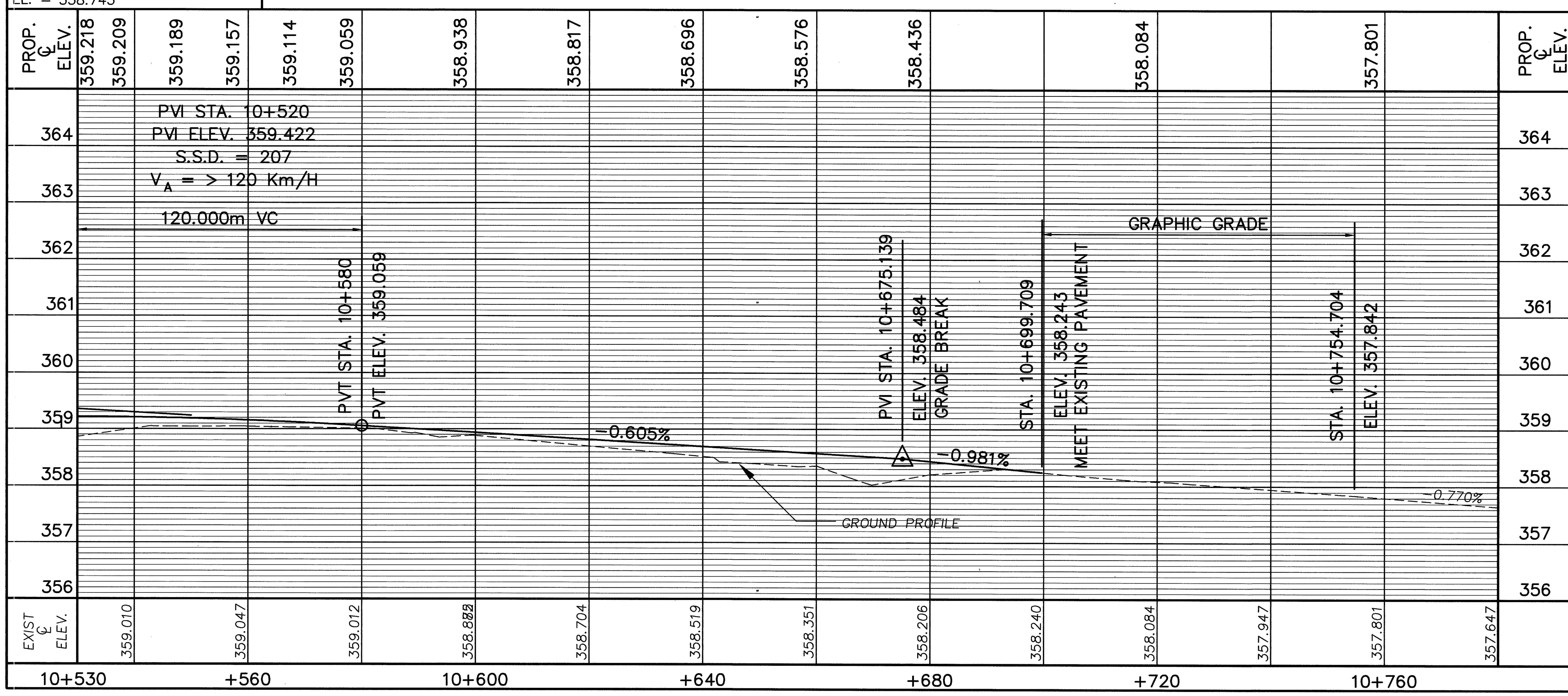
CRA/RIC-30-33.500/0.000

MP004.DWG 03-29-1999 10:44 AM 1:500 M



BENCHMARK

TOP OF EXISTING R/W MONUMENT
STA. 50+064.12, 9.142 LT.
EL. = 358.745



NOTES:

1. FOR SUPERELEVATION TABLE SEE SHEETS 36.
2. FOR TEMPORAY ROAD TYPICAL SECTION SEE SHEETS 36.

metric units

RATIO 1:500
HORIZONTAL SCALE IN METERS

CALCULATED CRM
CHECKED WJS

PLAN AND PROFILE - S.R. 61 TEMPORARY ROAD
STA. 10+530 TO STA. 10+754.704

CRA/RIC-30-33.500/0.000

35/712

MP005.DWG
03-29-1999 10:50 AM
1:500 M

SUPERELEVATION AND TRANSITION TABLE

S.R. 61 TEMPORARY ROAD													
LEFT SIDE					CENTERLINE CONTROL		RIGHT SIDE						REMARKS
EDGE OF PAVEMENT	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	STATION	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE OF PAVEMENT		
361.210		−0.035	*−0.0106	3.300	9+488.830	*361.241	3.000	*−0.0230	−0.069		*361.172		PC ③
361.213		−0.036	*−0.0110	3.300	9+490.000	*361.245	3.037	*−0.0230	−0.070		*361.174		
361.239		−0.036	*−0.0110	3.300	9+500.000	*361.275	3.106	VARIES ACROSS EXISTING CROWN			*361.207		
361.282		−0.017	*−0.0050	3.300	9+510.000	*361.298	3.276				*361.248		
361.303		−0.007	*−0.0020	3.300	9+520.000	*361.310	3.300				*361.259		
361.282		−0.007	*−0.0020	3.300	9+530.000	*361.289	3.300				*361.240		
361.272		−0.007	*−0.0020	3.300	9+540.000	*361.279	3.300				*361.242		
361.263		−0.023	*−0.0070	3.300	9+550.000	*361.286	3.300				*361.266		
361.273	216.45:1	−0.007	*−0.0020	3.300	9+560.000	*361.280	3.300				*361.273		
361.249		−0.036	−0.0110	3.300	9+566.309	*361.285	3.300				*361.291		①
361.235		−0.053	−0.0160	3.300	9+570.000	361.288	3.300				*361.293		
361.198					9+580.000	361.251		* 0.0150	0.050		*361.302		
361.174					9+590.000	361.227		* 0.0140	0.046		361.273		
361.149					9+600.000	361.202		* 0.0120	0.040	213.76:1	*361.241		
361.147					9+600.954	361.200		* 0.0110	0.036		*361.236		②
361.125					9+610.000	361.178		−0.0020	−0.007		361.172		
361.100		−0.053	−0.0160	3.300	9+620.000	361.153	3.300	−0.0160	−0.053		361.100		NC
357.577		−0.053	−0.0160	3.300	10+284.617	357.630	3.300	−0.0160	−0.053		357.577		
357.634		−0.026	−0.0080	3.300	10+290.000	357.660	3.300	−0.0160	−0.053		357.607		
357.693		0.000	0.0000	3.300	10+295.177	357.693	3.300	−0.0160	−0.053		357.640		HL
357.751	200:1	0.023	0.0070	3.300	10+300.000	357.728	3.300	−0.0160	−0.053		357.675		
357.825		0.053	0.0160	3.300	10+305.737	357.772	3.300	−0.0160	−0.053		357.719		CR
357.878		0.073	0.0220	3.300	10+310.000	357.805	3.300	−0.0220	−0.073		357.732		
358.007		0.125	0.0380	3.300	10+320.000	357.882	3.300	−0.0380	−0.198	200:1	357.757		
358.026		0.132	0.0400	3.300	10+321.590	357.894	3.300	−0.0400	−0.132		357.762		PC
358.134		0.175	0.0530	3.300	10+330.000	357.959	3.300	−0.0530	−0.175		357.784		
358.194		0.198	0.0600	3.300	10+334.777	357.996	3.300	−0.0600	−0.198		357.798		FS
359.375		0.198	0.0600	3.300	10+554.177	359.177	3.300	−0.0600	−0.198		358.979		FS
359.325		0.168	0.0510	3.300	10+560.000	359.157	3.300	−0.0510	−0.168		358.989		
359.258	200:1	0.132	0.0400	3.300	10+567.364	359.126	3.300	−0.0400	−0.132	200:1	358.994		PT
359.233		0.119	0.0360	3.300	10+570.000	359.114	3.300	−0.0360	−0.119		358.995		
359.128		0.069	0.0210	3.300	10+580.000	359.059	3.300	−0.0210	−0.069		358.990		
359.093		0.053	0.0160	3.300	10+583.217	359.040	3.300	−0.0160	−0.053		358.987		CR
359.052		0.053	0.0160	3.300	10+590.000	358.999	3.300	−0.0160	−0.053		358.946		
359.029		0.053	0.0160	3.300	10+593.777	358.976	3.300	−0.0160	−0.053		358.923		HL
358.991		0.053	0.0160	3.300	10+600.000	358.938	3.300	−0.0160	−0.053		358.886		
358.965		0.053	0.0160	3.300	10+604.377	358.912	3.300	−0.0160	−0.053	389:1	*358.859		NC
358.568		0.053	0.0160	3.300	10+670.000	358.515	3.300	−0.0160	−0.053		*358.462		
358.537		0.053	0.0160	3.300	10+675.139	358.484	3.300	*−0.0200	−0.066		*358.418		②
358.489		0.053	0.0160	3.300	10+680.000	358.436	3.300	*−0.0200	−0.066		*358.371		
358.391		0.053	0.0160	3.300	10+690.000	358.338	3.300	*−0.0190	−0.063		*358.274		
358.296		0.053	*0.0160	3.300	10+699.709	*358.243	3.300	VARIES ACROSS EXISTING CROWN			*358.193		①
358.290		0.050	*0.0150	3.300	10+700.000	*358.240	3.300				*358.191		
358.196		0.043	*0.0130	3.300	10+710.000	*358.153	3.300				*358.096		
358.114		0.030	*0.0090	3.300	10+720.000	*358.084	3.300	*−0.0200	−0.066		*358.018		
358.084		0.066	*0.0200	3.300	10+730.000	*358.018	3.300	*−0.0220	−0.073		*357.946		
358.023		0.076	*0.0230	3.300	10+740.000	*357.947	3.300	*−0.0250	−0.083		*357.866		
357.949		0.073	*0.0220	3.300	10+750.000	*357.876	3.300	*−0.0350	−0.116		*357.759		
357.914		0.079	*0.0240	3.300	10+754.704	*357.842	3.300	*−0.0370	−0.122		*357.721		③

* = INDICATES EXISTING

LEGEND

- NC = NORMAL CROWN
- HL = HALF LEVEL
- CR = CROWN REMOVAL
- PC = POINT OF CURVE
- PT = POINT OF TANGENT
- FS = FULL SUPERELEVATION

① ℄ AT EDGE OF EXISTING PAVEMENT

② EDGE OF PAVEMENT AT EDGE OF PAVEMENT

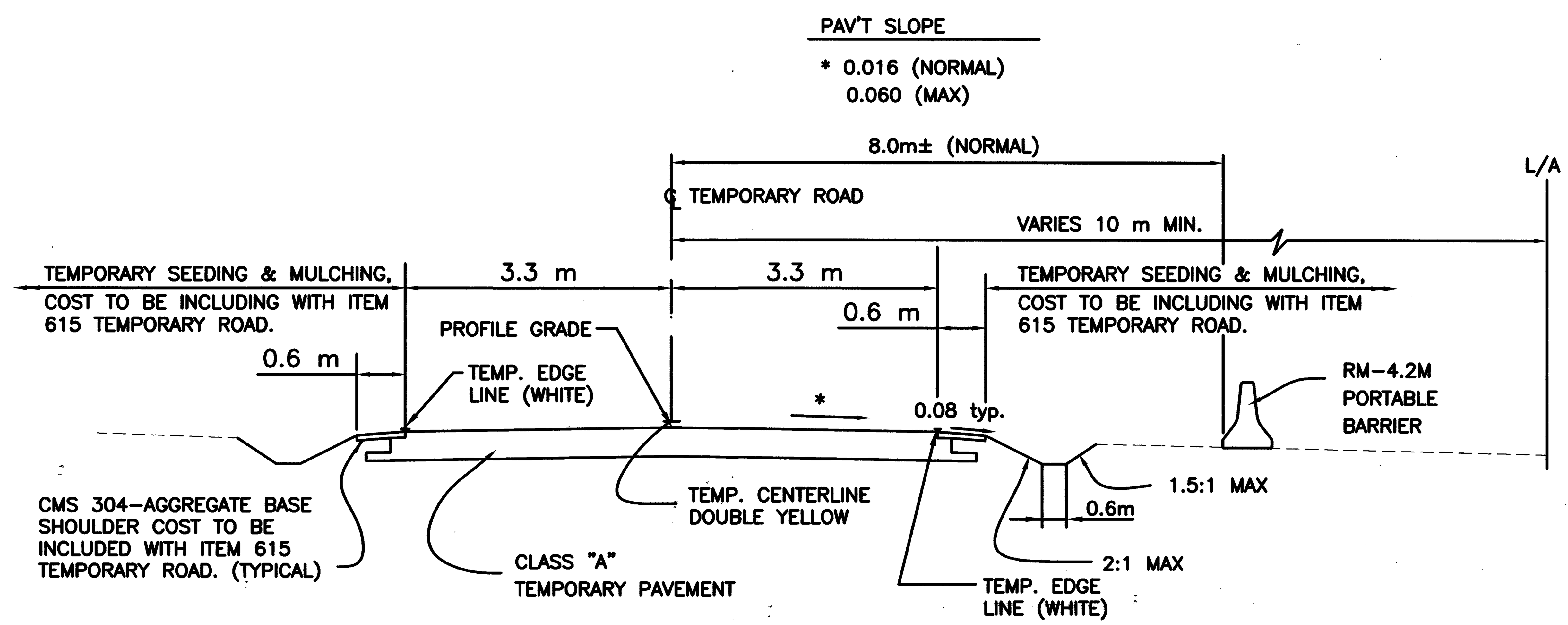
③ ℄ AT ℄

ITEM 614 – TEMPORARY CENTERLINE, CLASS I

STA. 9+488.830 – STA. 10+754.704 = 1265.874 m
= 1.26 Km

ITEM 614 – TEMPORARY EDGE LINE, CLASS I

STA. 9+488.830 – STA. 10+754.704 = 1265.874 m
1265.874 m x 2 = 2531.748 m
= 2.53 Km



TYPICAL SECTION

N.T.S.

metric units

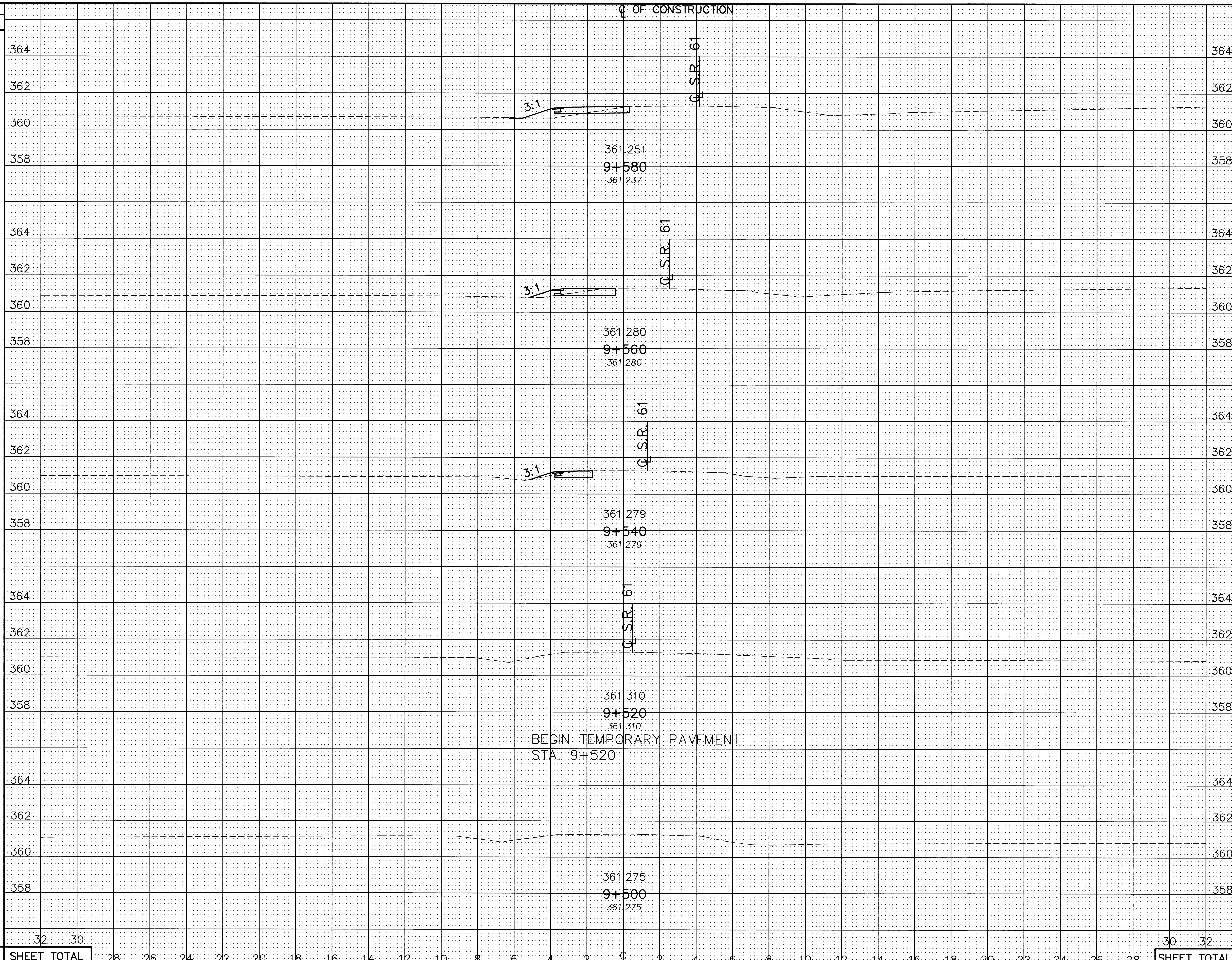
CALCULATED CRM CHECKED WJS

SUPERELEVATION TABLE
S.R. 61 TEMPORARY ROAD

CRA/RIC-30-33.500/0.000

MP006.DWG
09-25-2000 8:44 AM
1:500 M

CROSS-SECTIONS – S.R. 61 TEMPORARY ROAD
STA. 9+500 TO STA. 9+580



SEEDING END WIDTH	SEEDING SQ. METERS	Station	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		9+580	0.6	0.7		
					14	11
		9+560	0.7	0.4		
					13	6
		9+540	0.6	0.2		
					6	2
		9+520	0	0		
					0	0
		9+500	0	0		
SHEET TOTAL					33	19

CALCULATED CRM
CHECKED WJS

CRA/RIC-30-33.500/0.000

MP007.DWG
03-20-1999 10:19 AM
1:100M


SEEDING
END WIDTH
SQ. METERS
℄ OF CONSTRUCTION
END AREA
CUT
FILL
VOLUME
CUT
FILL
CALCULATED CRM
CHECKED WJS
℄ S.R. 61
2:1
3:1
360.900
9+680
360.092
0.1 4.7
3 113
361.020
9+660
360.096
0.2 6.6
5 123
361.104
9+640
360.202
0.3 5.7
5 96
361.153
9+620
360.412
0.2 3.9
10 58
361.202
9+600
360.867
0.8 1.9
14 29
SHEET TOTAL
37 419
CROSS-SECTIONS - S.R. 61 TEMPORARY ROAD
STA. 9+600 TO STA. 9+680
CRA/RIC-30-33.500/0.000
38
712
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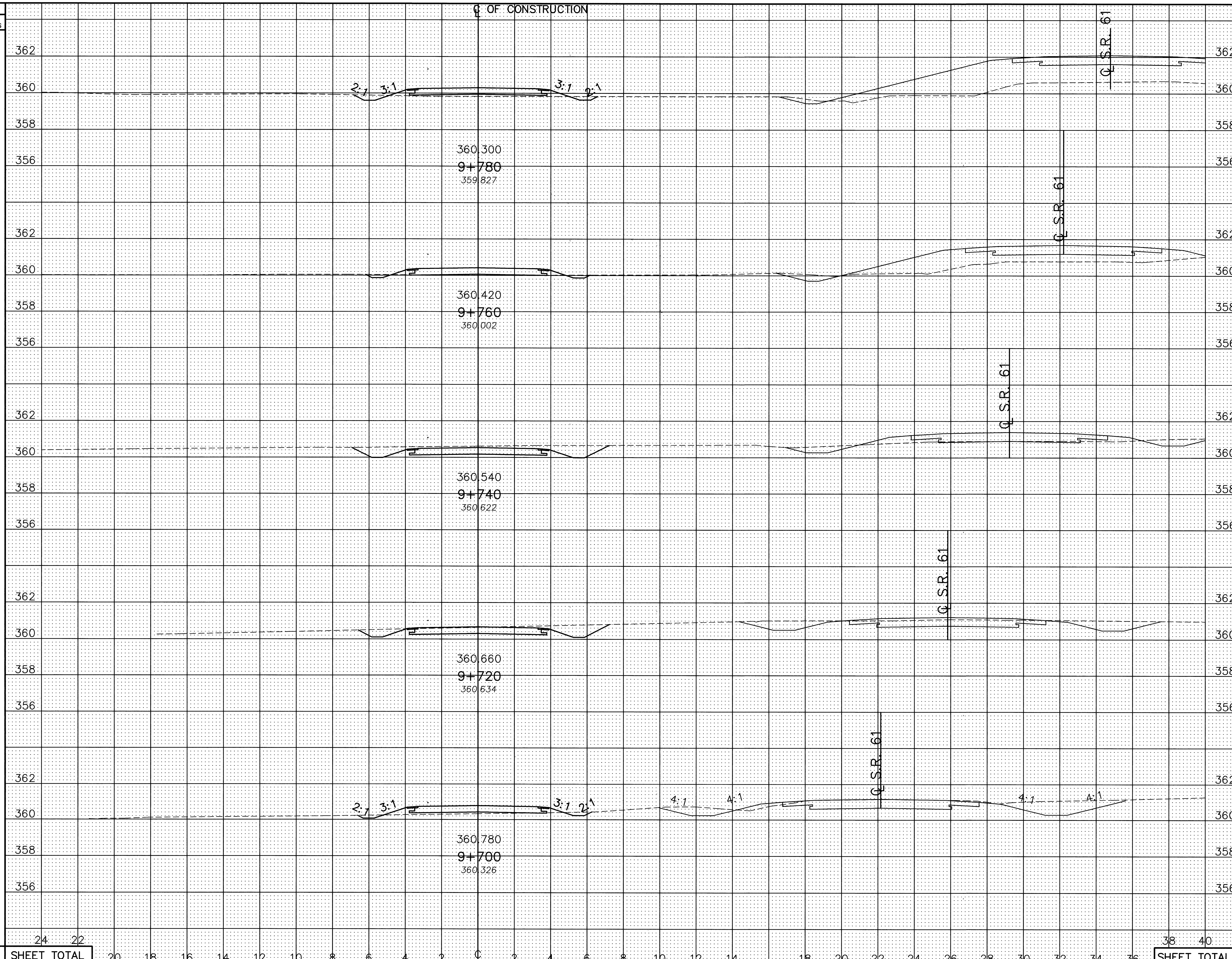

SEEDING END WIDTH	SEEDING SQ. METERS
SHEET TOTAL	

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0.6	1.3		
		9	20
0.3	0.7		
		63	8
6.0	0.1		
		106	2
4.6	0.1		
		50	12
0.4	1.1		
		5	58
SHEET TOTAL		233	100

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – S.R. 61 TEMPORARY ROAD
STA. 9+700 TO STA. 9+780

CRA/RIC-30-33.500/0.000

MP009.DWG
02-16-1999 3:42 PM
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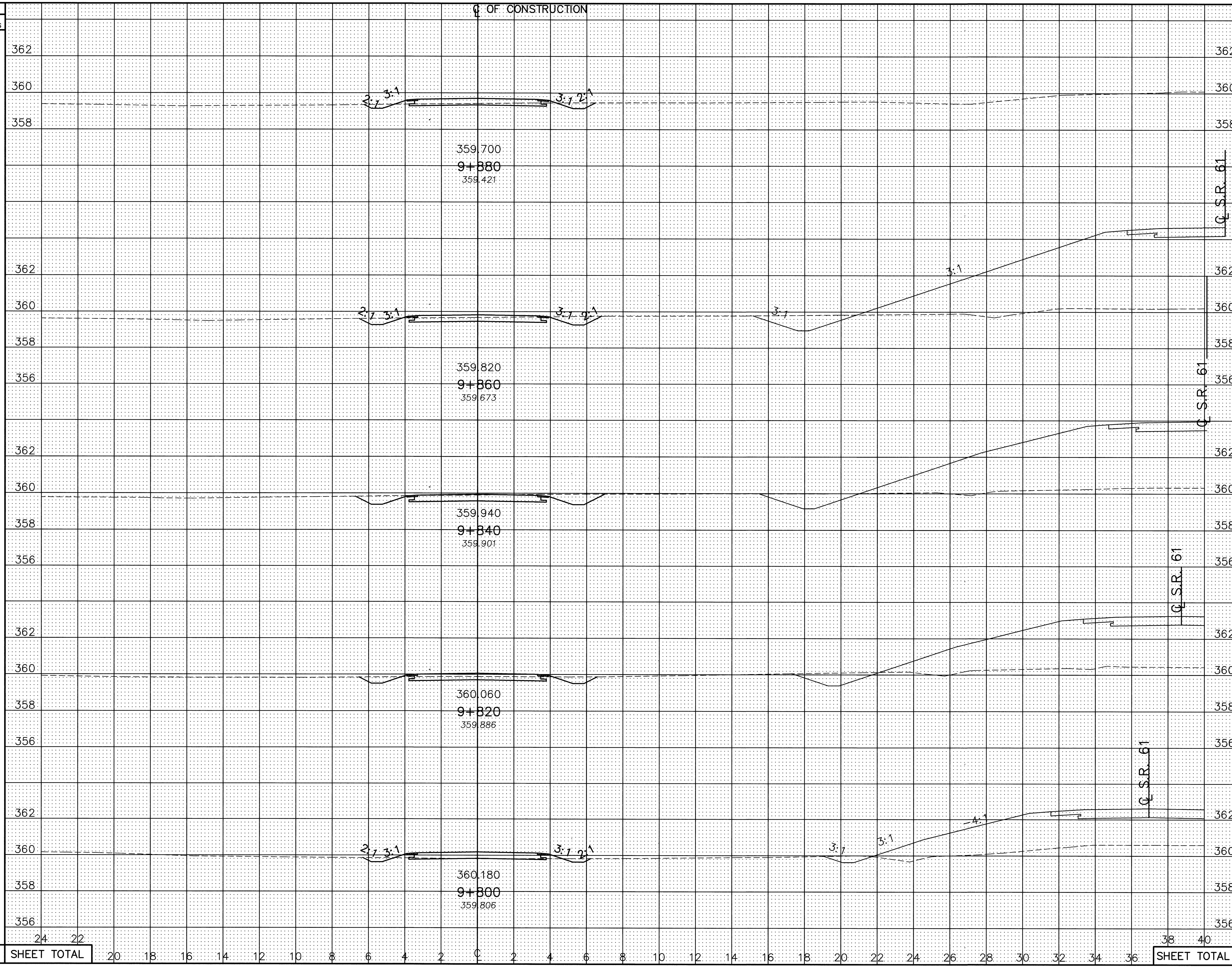

SEEDING	
END WIDTH	SQ. METERS
SHEET TOTAL	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
1.5	0.3		
		46	4
3.1	0.1		
		75	2
4.4	0.1		
		69	2
2.5	0.1		
		31	5
0.6	0.4		
		12	17
SHEET TOTAL		233	30

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – S.R. 61 TEMPORARY ROAD
STA. 9+800 TO STA. 9+880

CRA/RIC-30-33.500/0.000

40/712

MP010.DWG
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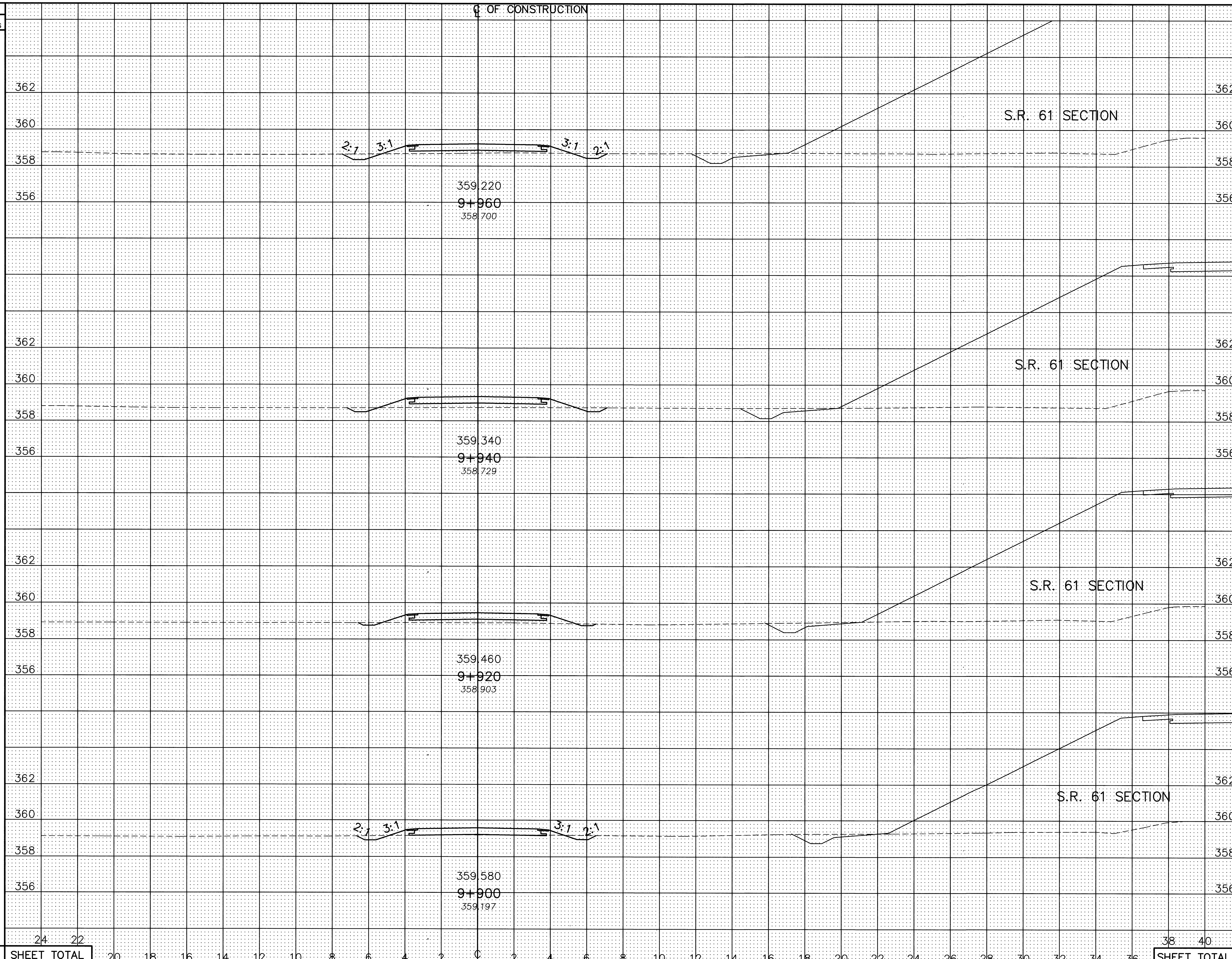

SEEDING	
END WIDTH	SQ. METERS
SHEET TOTAL	

Station	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
9+960	0.8	1.9		
			13	47
9+940	0.5	2.8		
			7	51
9+920	0.2	2.3		
			8	29
9+900	0.6	0.6		
			21	9
SHEET TOTAL			49	136

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – S.R. 61 TEMPORARY ROAD
STA. 9+900 TO STA. 9+960

CRA/RIC-30-33.500/0.000

41/712

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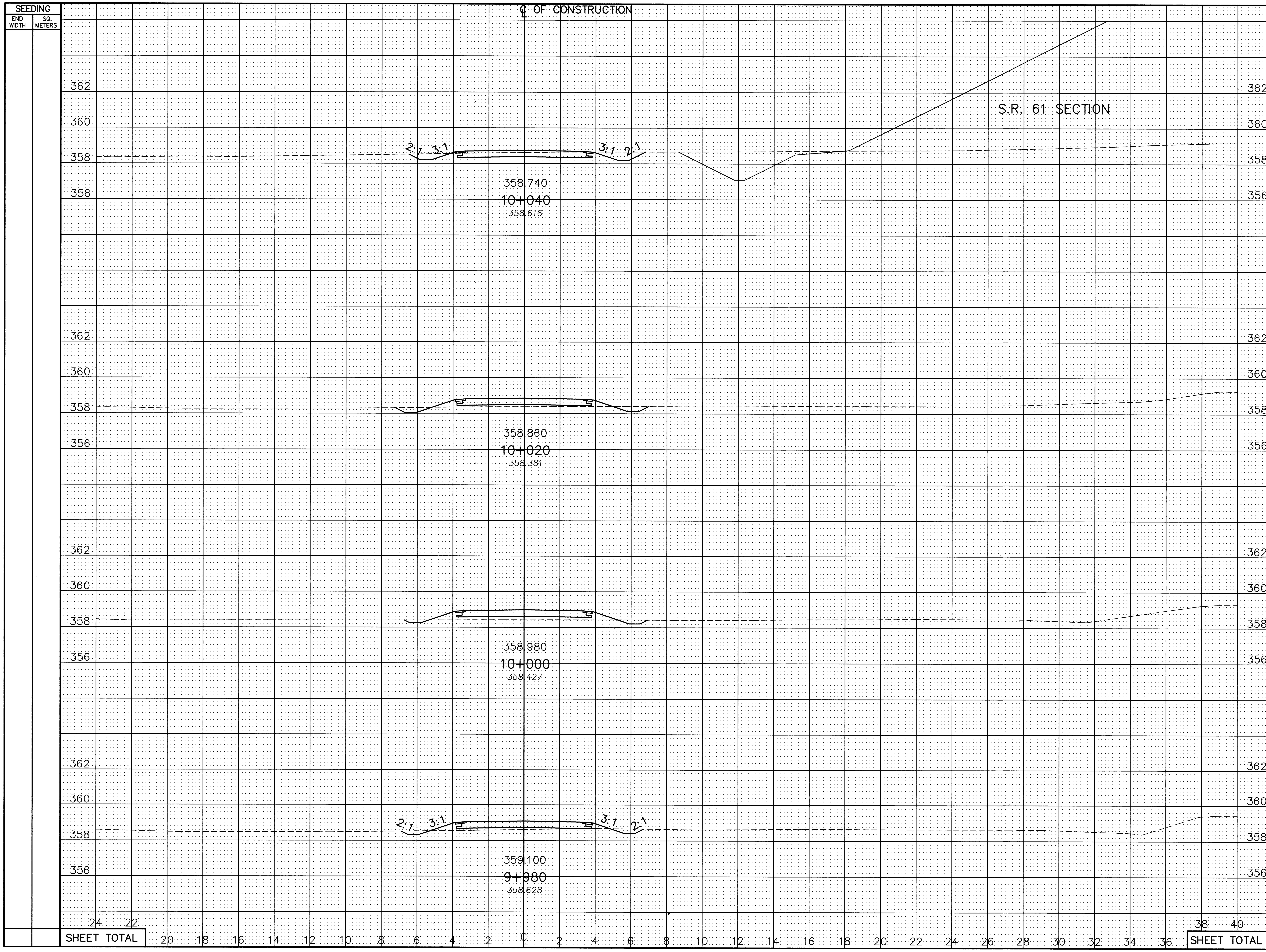

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
3.2	0.1		
		40	15
0.8	1.4		
		12	36
0.4	2.2		
		9	35
0.5	1.3		
		13	32
SHEET TOTAL		74	118

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – S.R. 61 TEMPORARY ROAD
STA. 9+980 TO STA. 10+040

CRA/RIC-30-33.500/0.000

42/712

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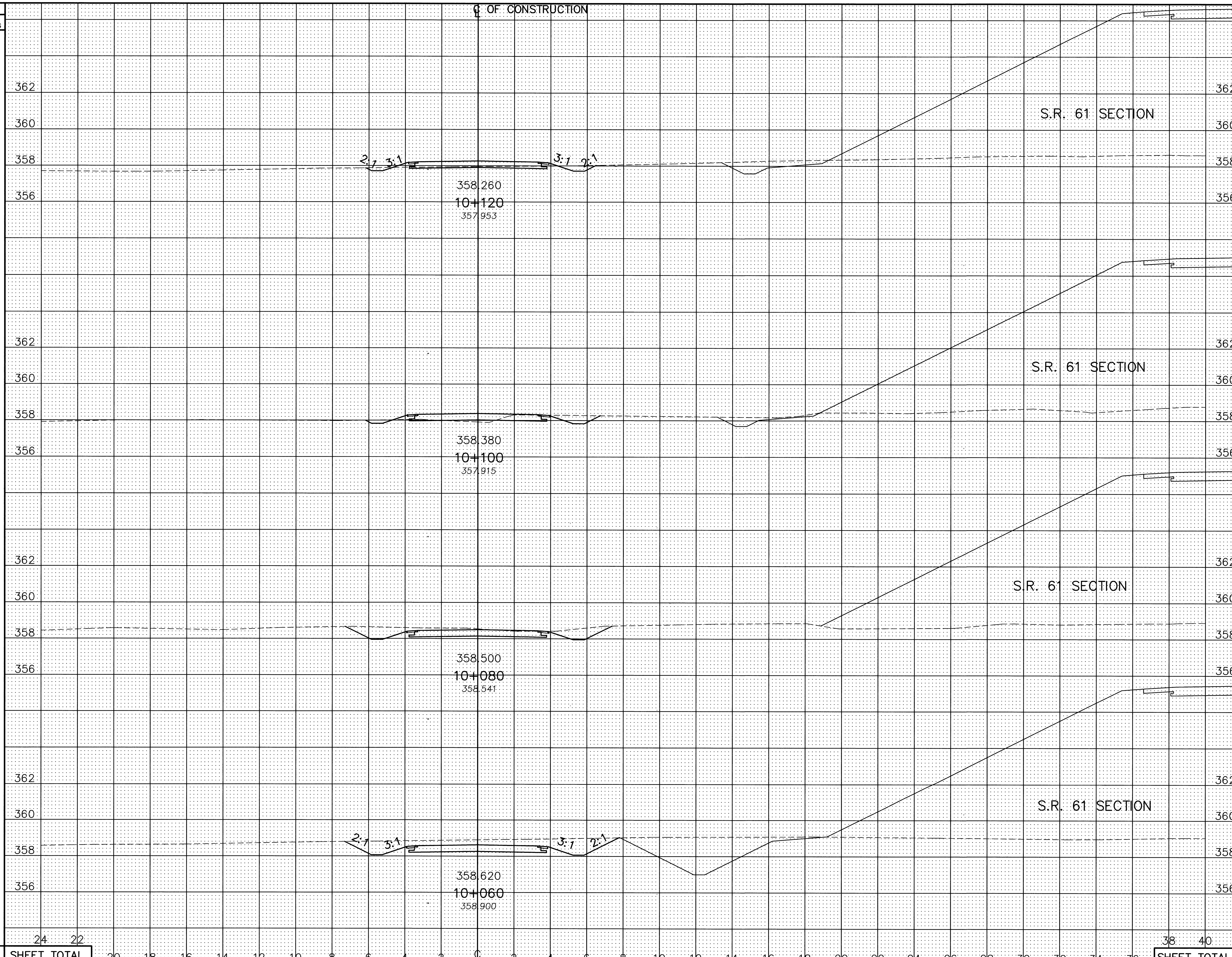
SEEDING	
END WIDTH	SQ. METERS
SHEET TOTAL	



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
1.2	0.4		
		29	8
1.7	0.4		
		74	5
5.7	0.1		
		147	1
9.0	0		
		122	1
SHEET TOTAL		372	15

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS - S.R. 61 TEMPORARY ROAD
STA. 10+060 TO STA. 10+120

CRA/RIC-30-33.500/0.000

43/712

MP013.DWG
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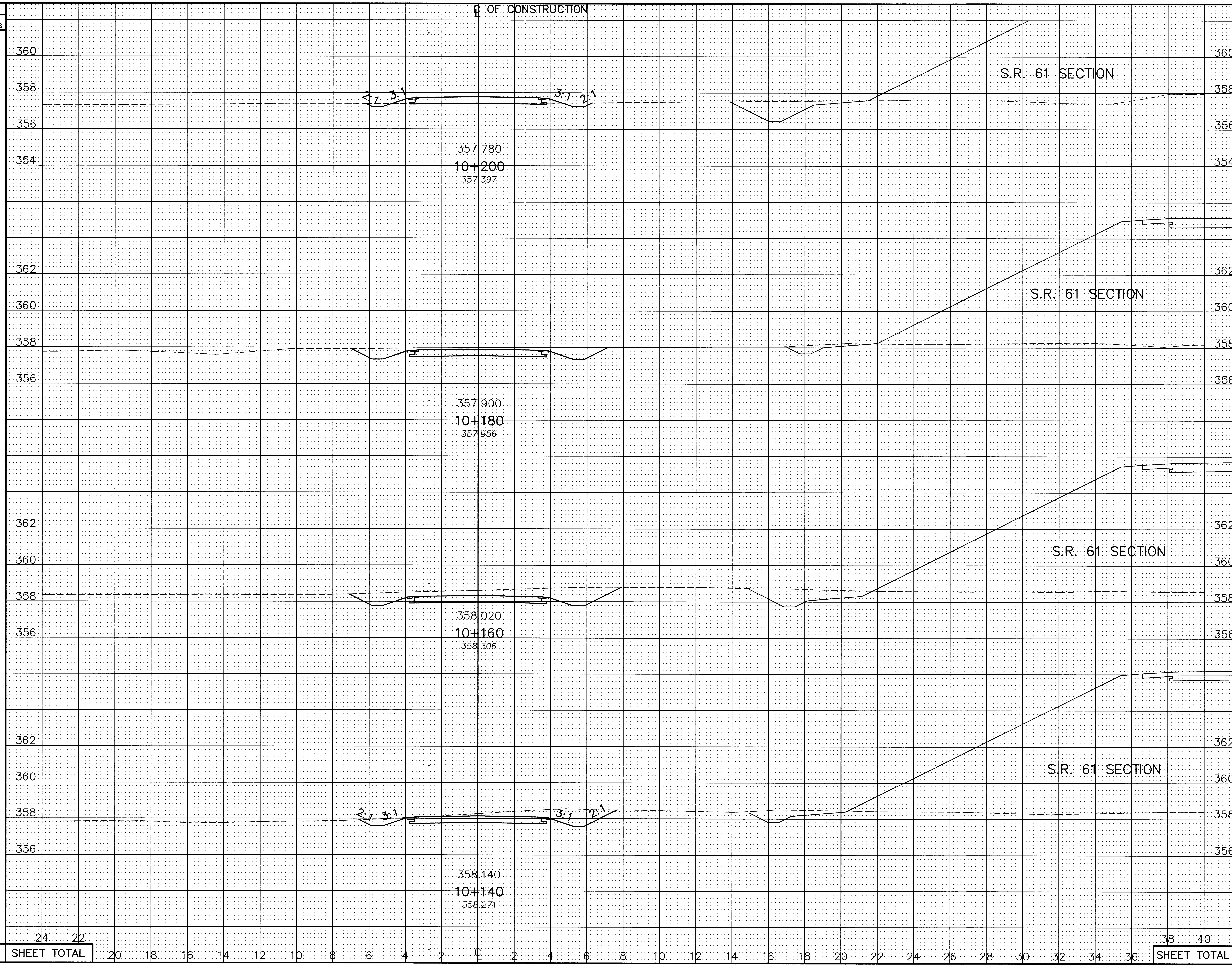

SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		0.5	0.5		
				63	5
		5.8	0		
				150	0
		9.2	0		
				160	1
		6.8	0.1		
				80	5
SHEET TOTAL				453	11

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – S.R. 61 TEMPORARY ROAD
STA. 10+140 TO STA. 10+200

CRA/RIC-30-33.500/0.000

44
712

MP014.DWG
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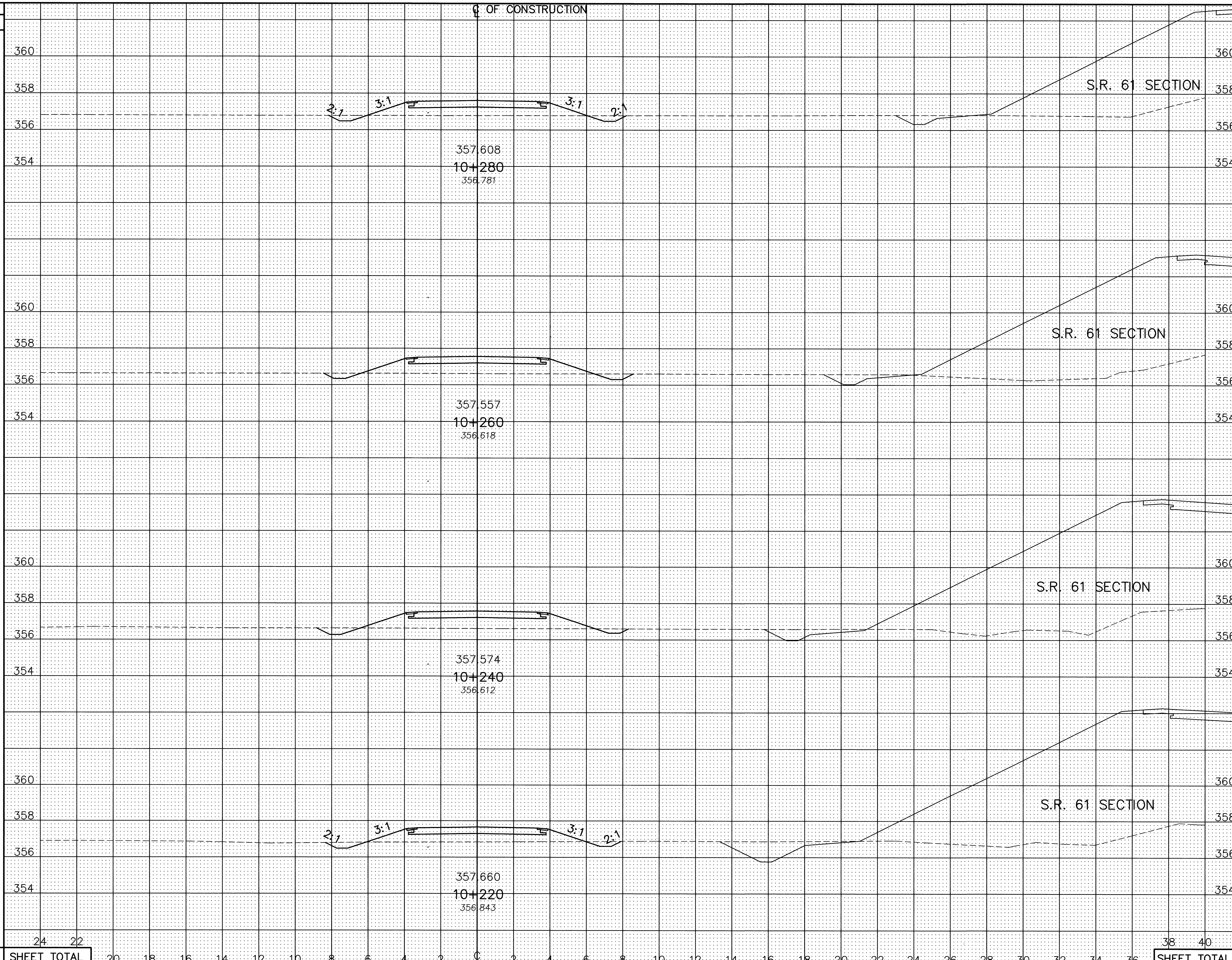
1:100M



SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		0.8	5.3		
				16	120
		0.8	6.7		
				16	136
		0.8	6.9		
				16	120
		0.8	5.1		
				13	56
SHEET TOTAL				61	432

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – S.R. 61 TEMPORARY ROAD
STA. 10+220 TO STA. 10+280

CRA/RIC-30-33.500/0.000

45/712

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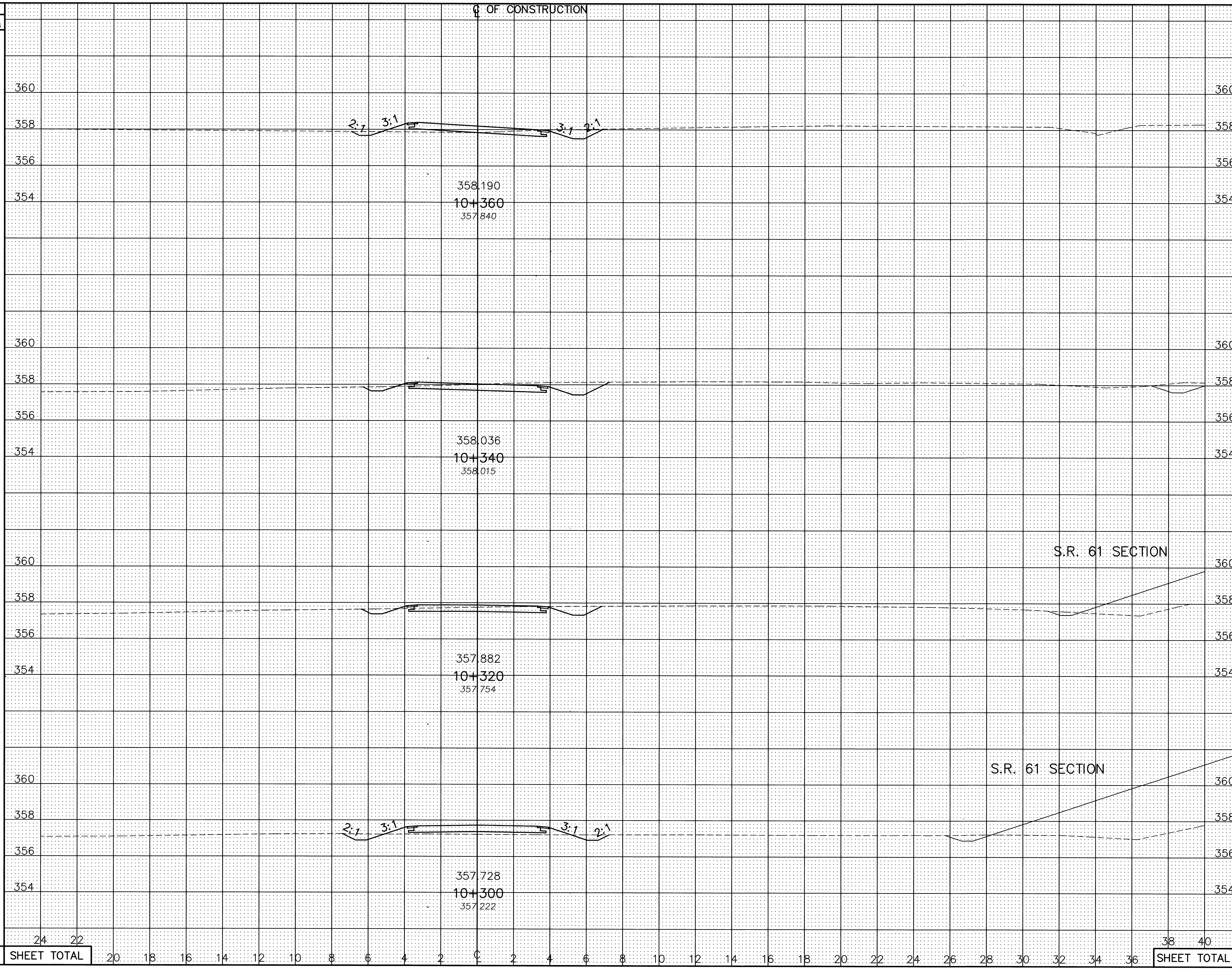

SEEDING END WIDTH	SEEDING SQ. METERS
SHEET TOTAL	

Station	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
10+360	1.8	0.8		
			60	10
10+340	4.2	0.2		
			72	3
10+320	3.0	0.1		
			39	18
10+300	0.9	1.7		
			17	7
SHEET TOTAL			188	38

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – S.R. 61 TEMPORARY ROAD
STA. 10+300 TO STA. 10+360

CRA/RIC-30-33.500/0.000

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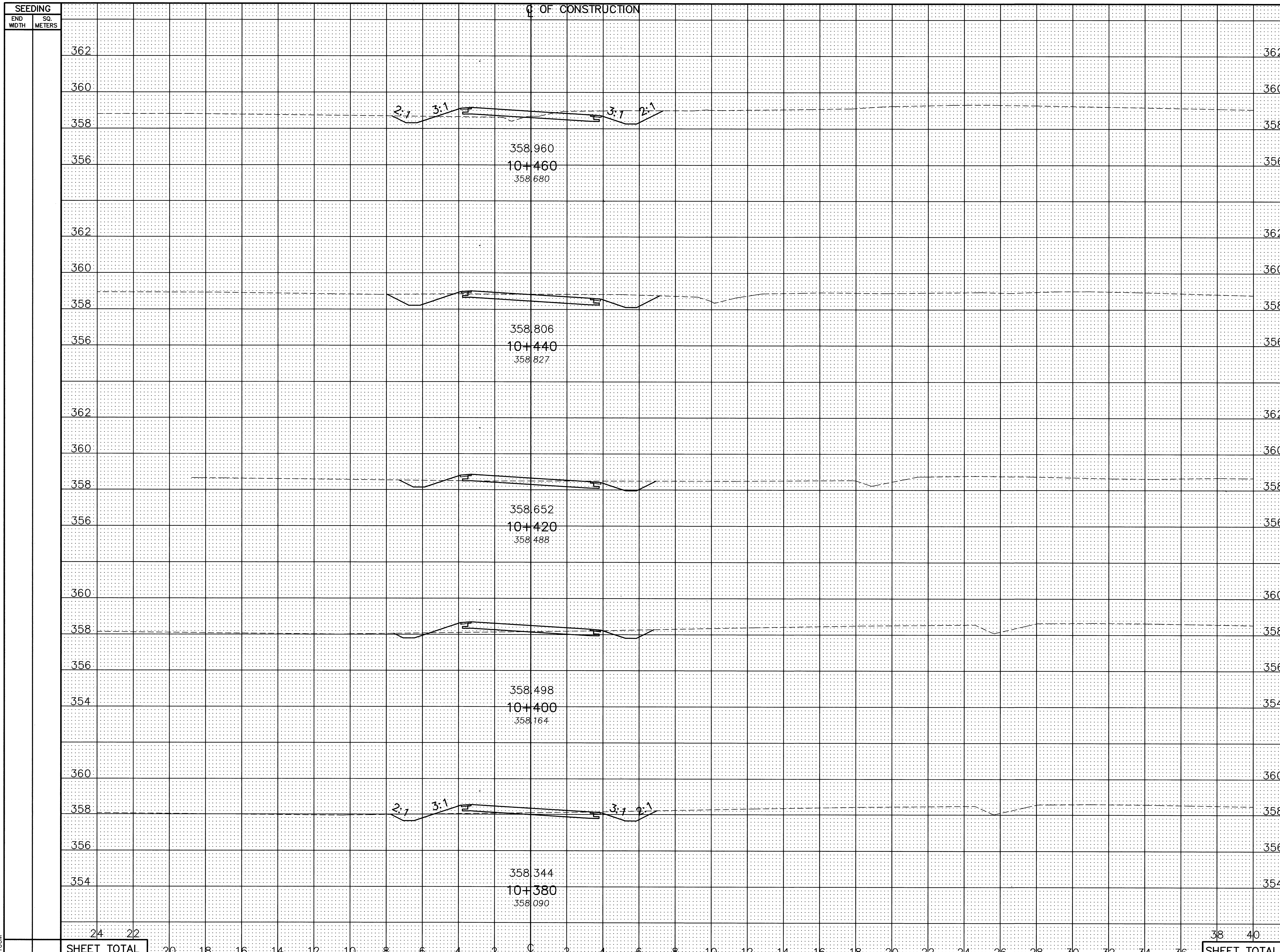
02-22-1999 9:10 AM
1:100M



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
3.7	0.9		
		93	10
5.6	0.1		
		86	4
3.0	0.3		
		47	14
1.7	1.1		
		42	34
2.5	2.3		
		43	31
SHEET TOTAL		311	93

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – S.R. 61 TEMPORARY ROAD
STA. 10+380 TO STA. 10+460

CRA/RIC-30-33.500/0.000

47
712

MP017.DWG
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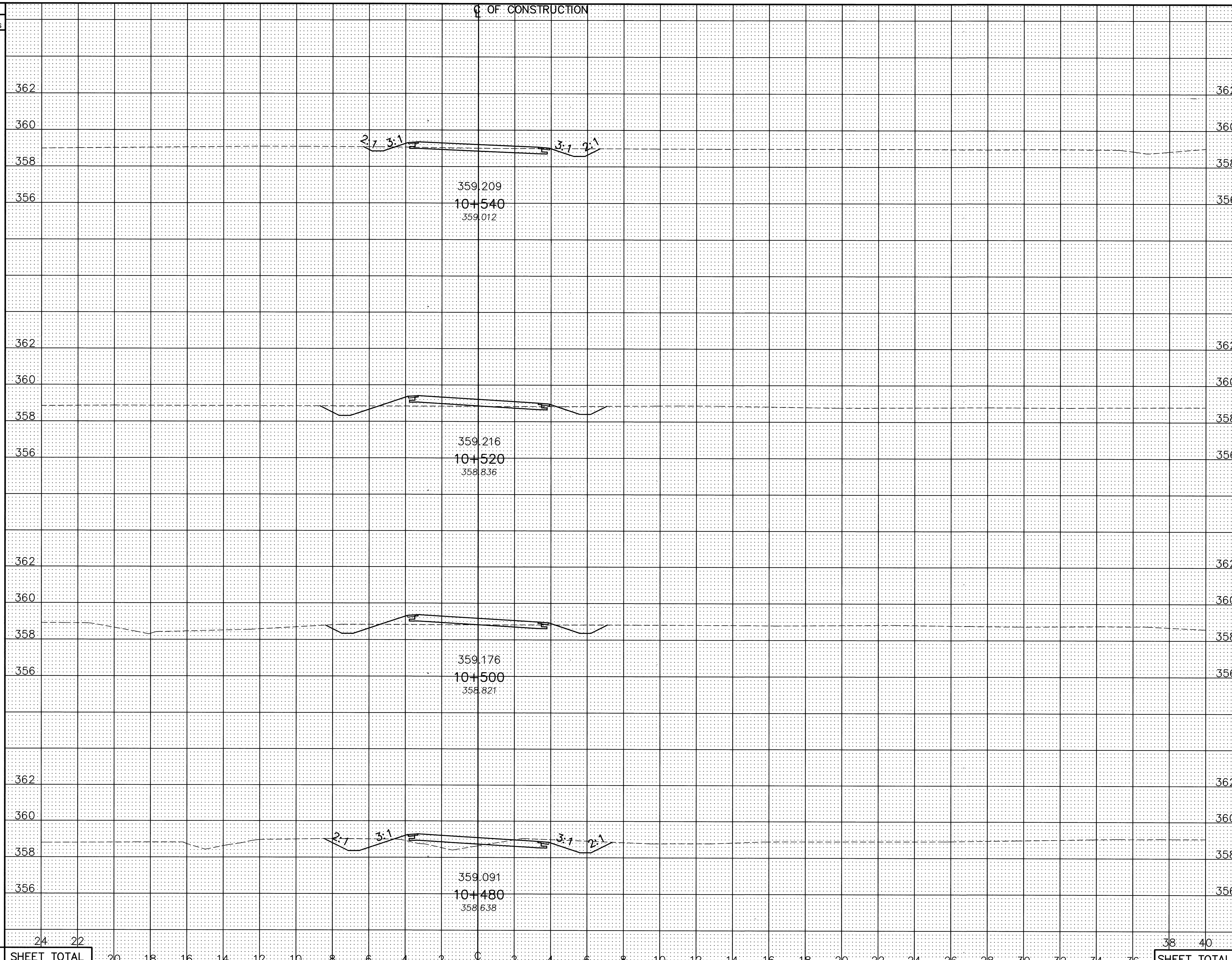
1:100M

CROSS-SECTIONS - S.R. 61 TEMPORARY ROAD
STA. 10+480 TO STA. 10+540



SEEDING END WIDTH	SEEDING SQ. METERS	STATION	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		10+540	2.1	0.2		
					41	14
		10+520	2.0	1.2		
					41	22
		10+500	2.1	1.0		
					60	22
		10+480	3.9	1.2		
					76	21
		SHEET TOTAL			218	79

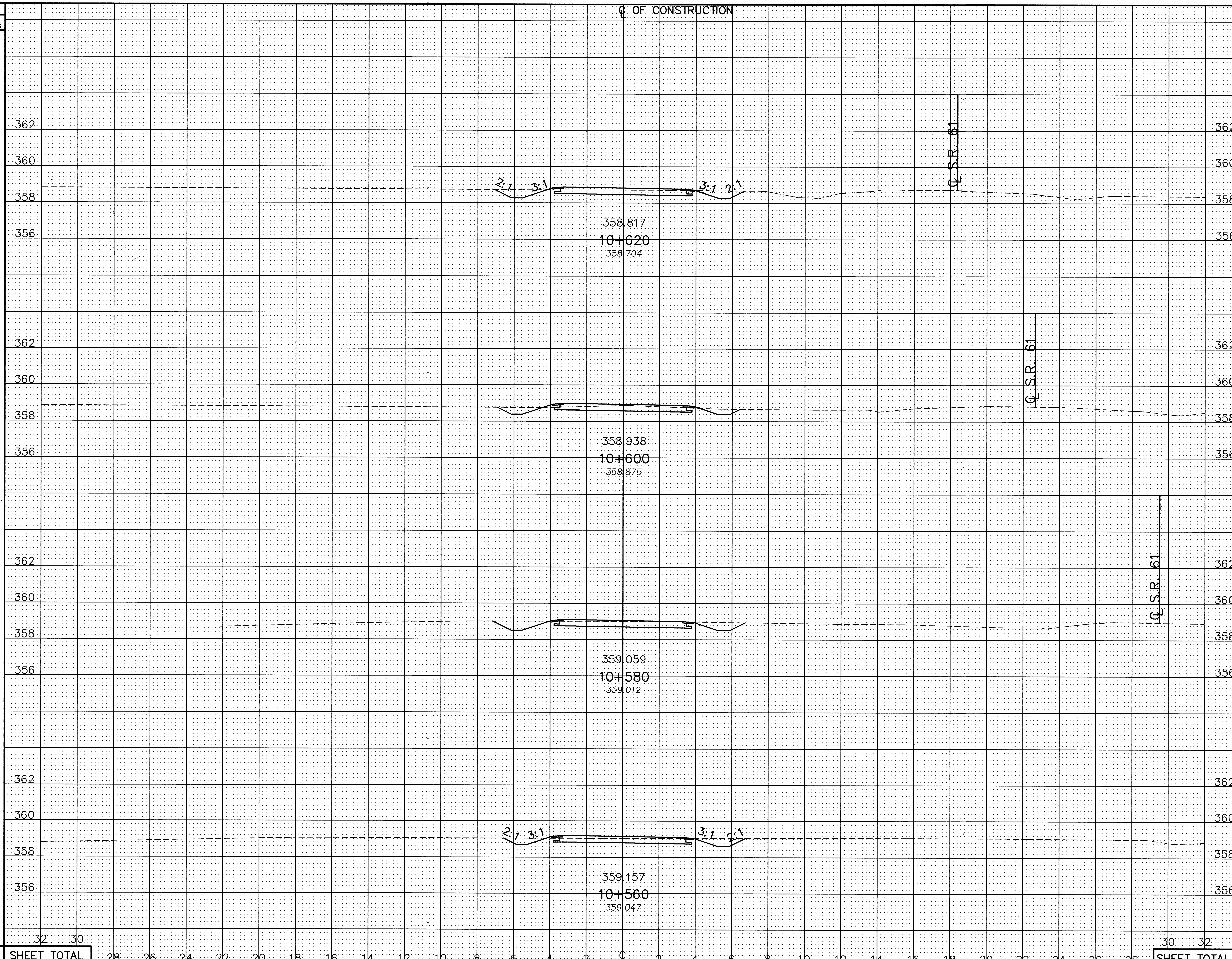
CALCULATED CRM
CHECKED WJS

CRA/RIC-30-33.500/0.000

48/712

MP018.DWG
09-22-1999 9:16 AM
1:100M

SEEDING	
END WIDTH	SQ. METERS
SHEET TOTAL	



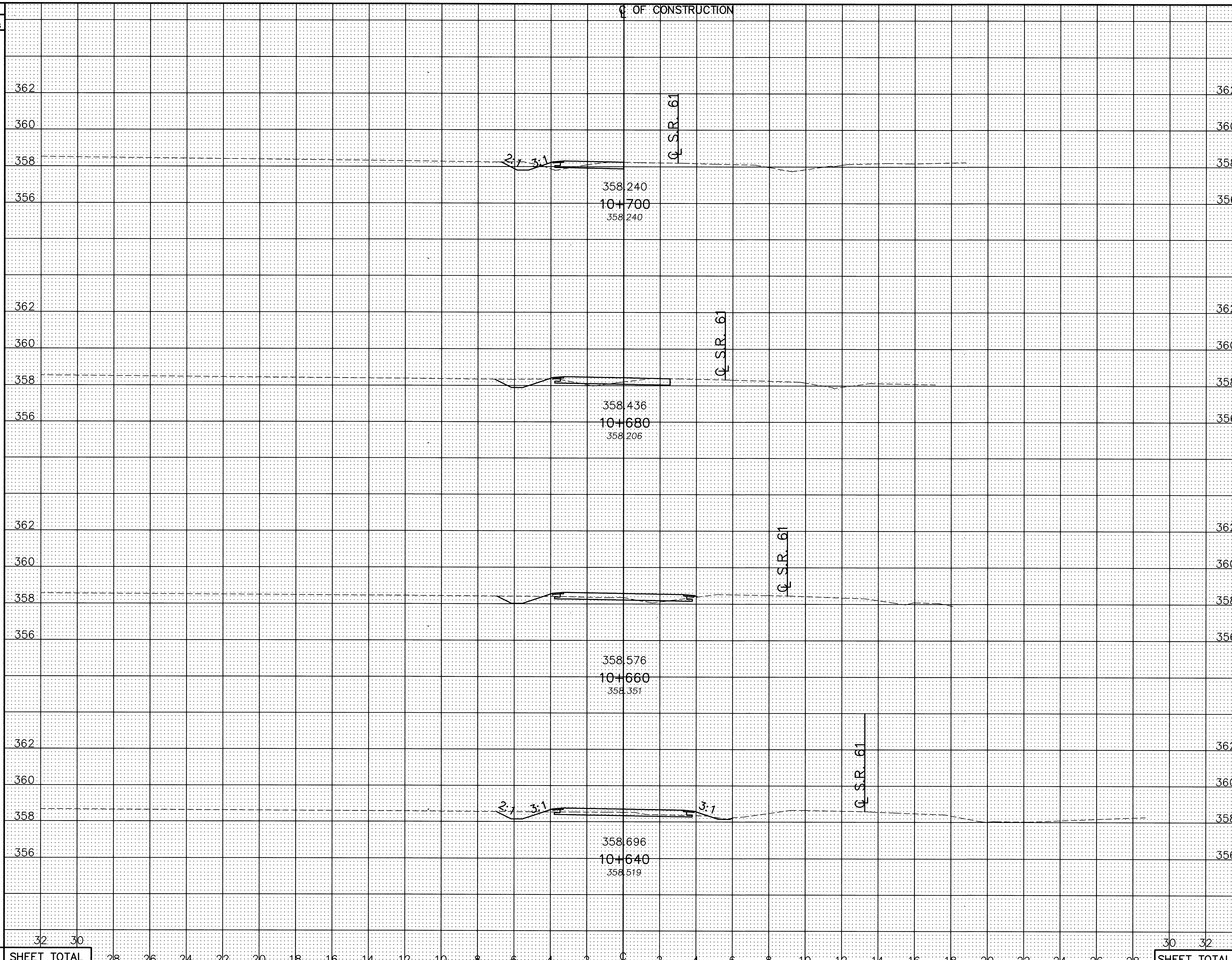
END AREA		VOLUME	
CUT	FILL	CUT	FILL
3.4	0.1		
		63	2
2.9	0.1		
		70	1
4.1	0.0		
		72	1
3.1	0.1		
		52	3
		257	7

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS - S.R. 61 TEMPORARY ROAD
STA. 10+560 TO STA. 10+620

CRA/RIC-30-33.500/0.000

MP019.DWG
03-29-1999 11:10 AM
1:100M



SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		1.3	0.3		
				32	4
		1.9	0.1		
				33	4
		1.4	0.3		
				33	5
		1.9	0.2		
				53	3
SHEET TOTAL				151	16

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – S.R. 61 TEMPORARY ROAD
STA. 10+640 TO STA. 10+700

CRA/RIC-30-33.500/0.000

50
712

MP020.DWG
03-29-1999 11:20 AM
1:100M

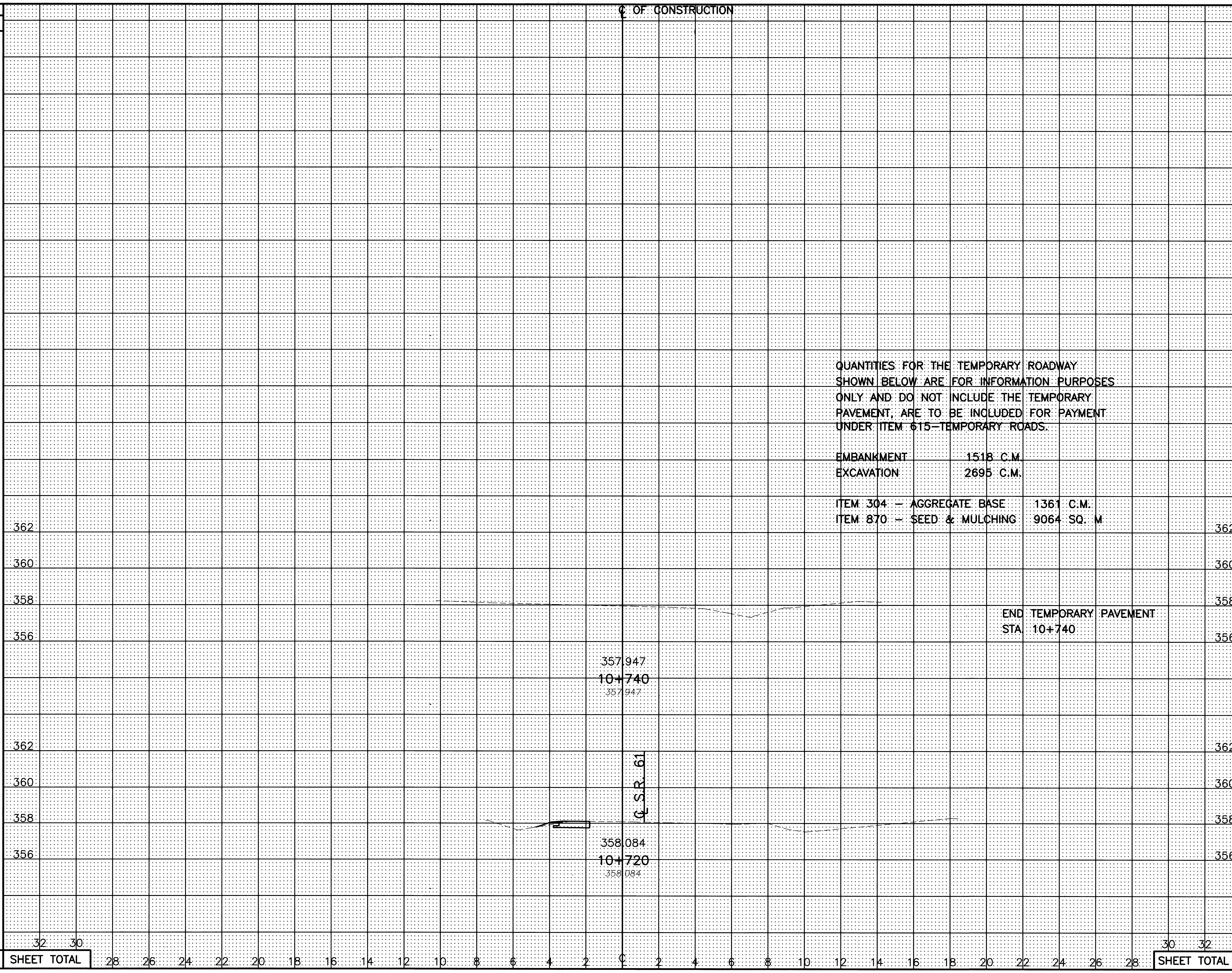
CROSS-SECTIONS – S.R. 61 TEMPORARY ROAD
STA. 10+720 TO STA. 10+740

CRA/RIC-30-33.500/0.000

CALCULATED CRM
CHECKED WJS

QUANTITIES FOR THE TEMPORARY ROADWAY SHOWN BELOW ARE FOR INFORMATION PURPOSES ONLY AND DO NOT INCLUDE THE TEMPORARY PAVEMENT, ARE TO BE INCLUDED FOR PAYMENT UNDER ITEM 615–TEMPORARY ROADS.

EMBANKMENT	1518 C.M.
EXCAVATION	2695 C.M.
ITEM 304 – AGGREGATE BASE	1361 C.M.
ITEM 870 – SEED & MULCHING	9064 SQ. M



SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		0.0	0.0		
				6	1
		0.6	0.1		
				19	4
SHEET TOTAL		SHEET TOTAL		25	5

MP021.DWG
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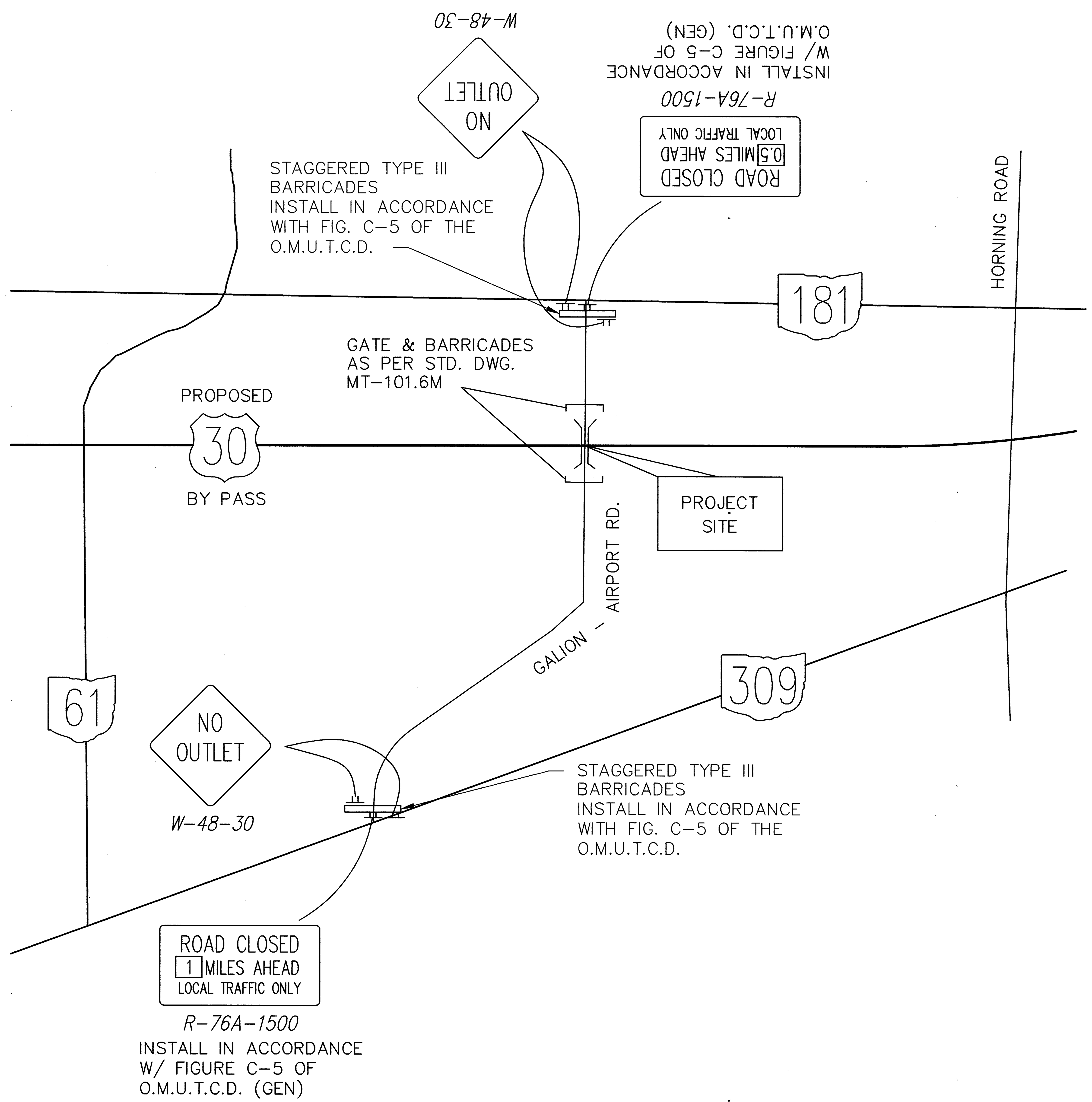
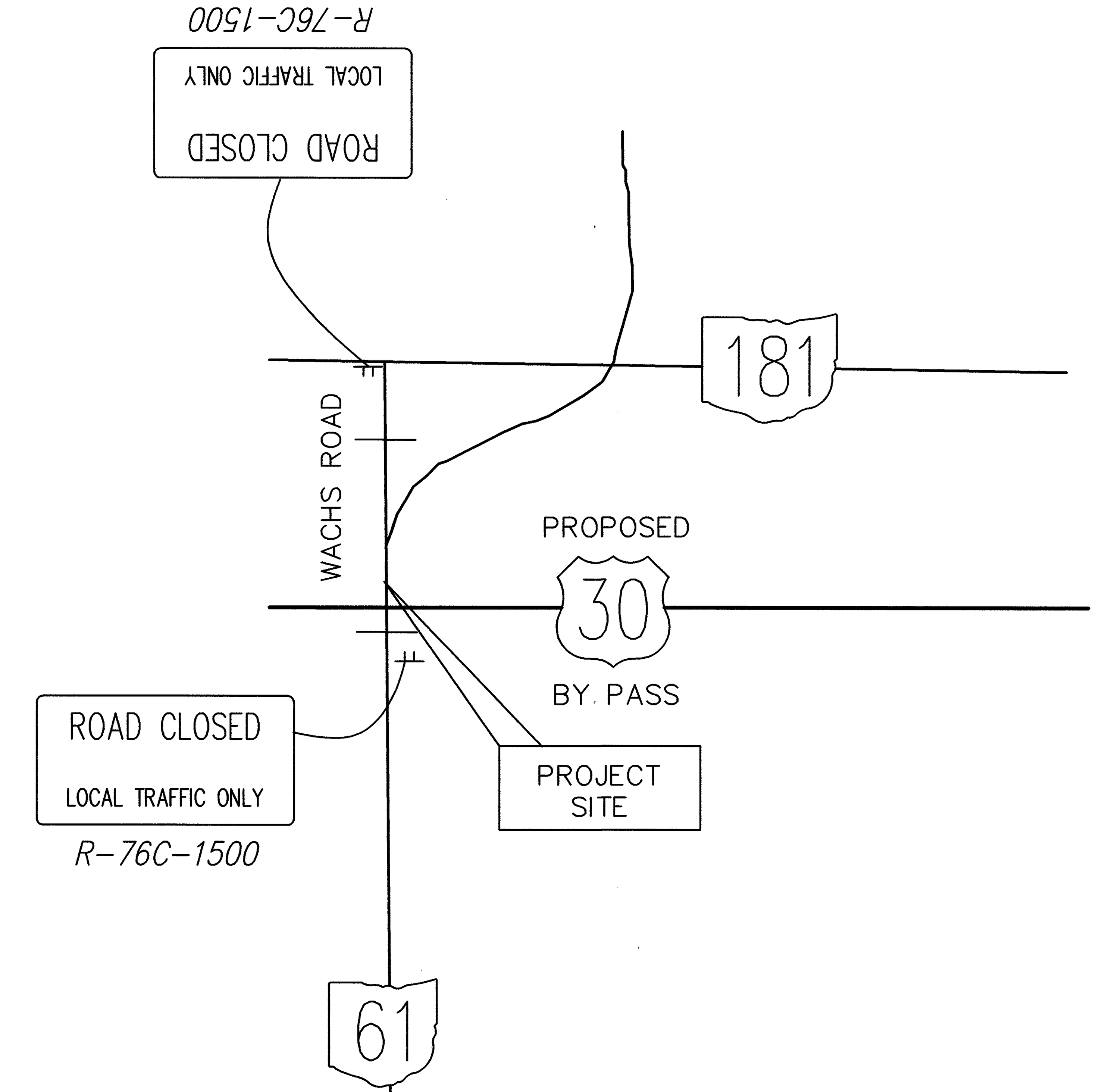
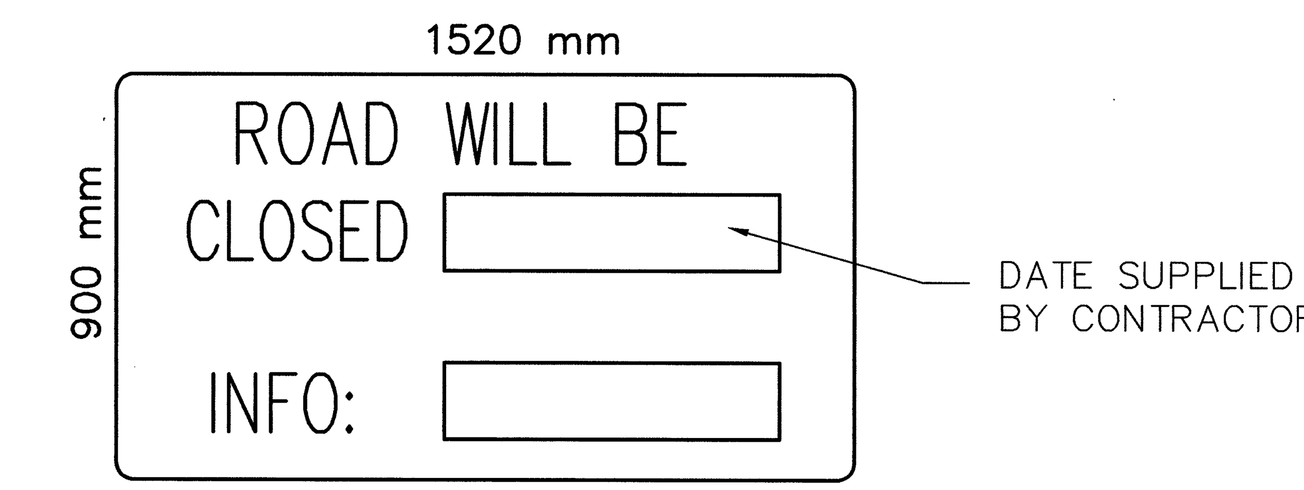




NOTICE OF CLOSURE SIGNS, AS DETAILED IN THESE PLANS, SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD OR RAMP CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT HAND SIDE OF THE ROAD FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS.



OC-60A

THE NOTICE OF CLOSURE SIGNS SHALL BE LOCATED AS SHOWN FOR GALION/AIRPORT ROAD CH 47 AND WACHS ROAD TH 235 WITH STAGGERED TYPE III BARRICADES. AT THE TIME OF ERECTION OF THE PORTABLE TYPE III BARRICADES AND R-76A SIGNS, THE PERMANENT TRAFFIC CONTROL NO OUTLET (W-48-750) SIGNS SHALL ALSO BE INSTALLED. THE CLOSURE DURATION PORTION OF THE NOTICE OF CLOSURE SIGN SHALL REMAIN BLANK.

metric units

CALCULATED MJT
CHECKED WS

MAINTENANCE OF TRAFFIC
CLOSING GALION-AIRPORT ROAD & WACHS ROAD

CRA/RIC-30-33.500/0.000

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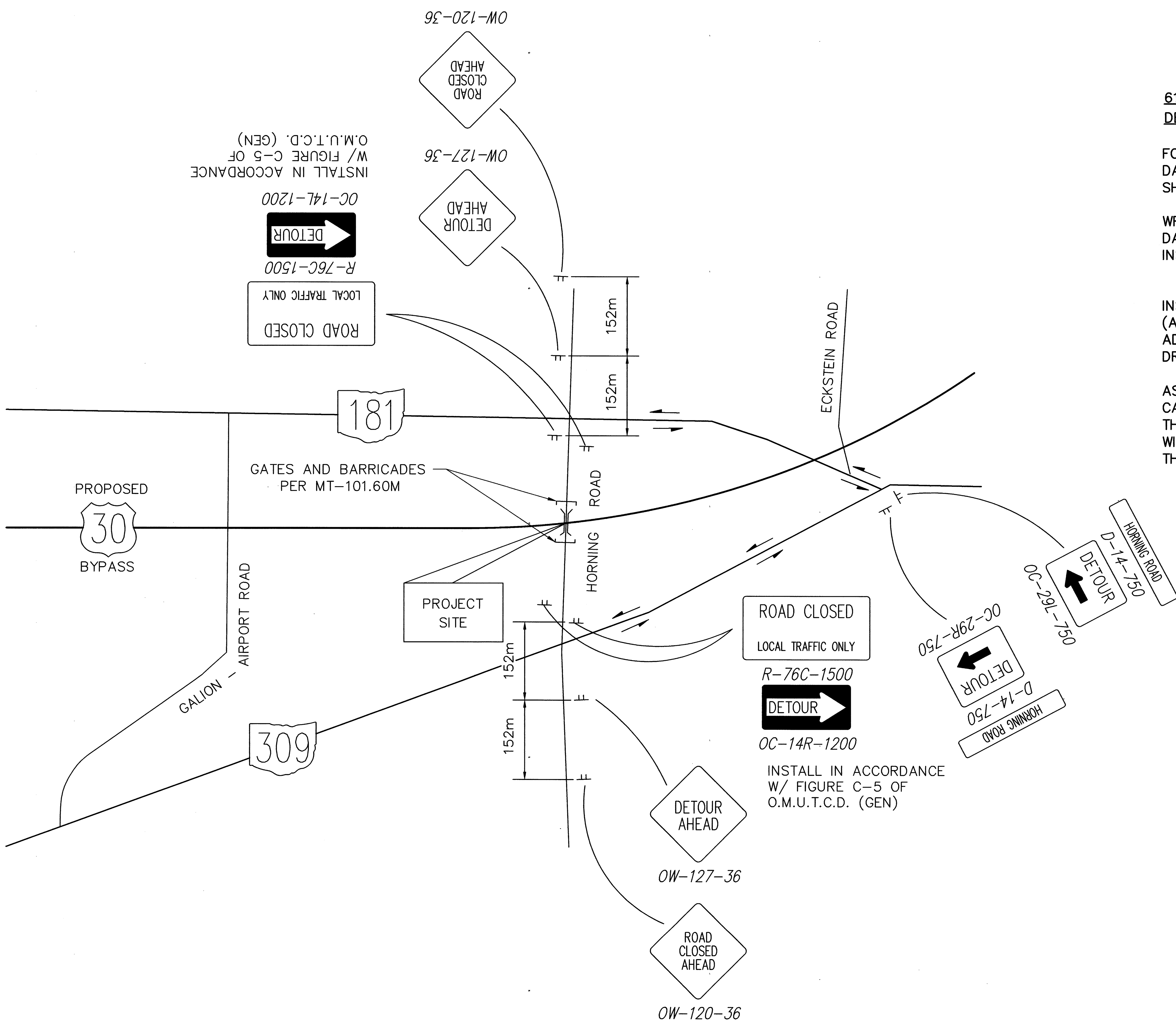
03-29-1999 10:13 AM
1:1000M



metric units

N

CALCULATED MJT
CHECKED WS

MAINTENANCE OF TRAFFIC NOTES

614 MAINTAINING TRAFFIC:

DETOUR LIMITATION AND INTERIM COMPLETION DATE:

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 270 CONSECUTIVE CALENDAR DAYS, THROUGH TRAFFIC WILL BE DETOURED AS SHOWN ON THIS SHEET.

THE CONTRACTOR SHALL NOTIFY THE RICHLAND COUNTY ENGINEER IN WRITING A MINIMUN OF FOURTEEN (14) DAYS IN ADVANCE OF THE DATE THE DETOUR IS ERECTED. THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND SUBSEQUENTLY REMOVE THE DETOUR SIGNING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE GATES AND BARRICADES (AT THE APPROXIMATE WORK LIMITS OF THE PROJECT) AND THE ADVANCE WARNING SIGNS AS SHOWN ON STANDARD CONSTRUCTION DRAWING MT-101.60M.

THE 270 CONSECUTIVE CALENDAR DAYS SHALL BE CONSIDERED AS AN INTERIM COMPLETION DATE (SECTION 108) AND FOR EACH CALENDAR DAY BEYOND THE 270 CONSECUTIVE CALENDAR DAYS THAT THE ROADWAY REMAINS CLOSED TO TRAFFIC, THE CONTRACTOR WILL BE ASSESSED LIQUIDATED DAMAGES, AS PER SECTION 108.07 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

LEGEND

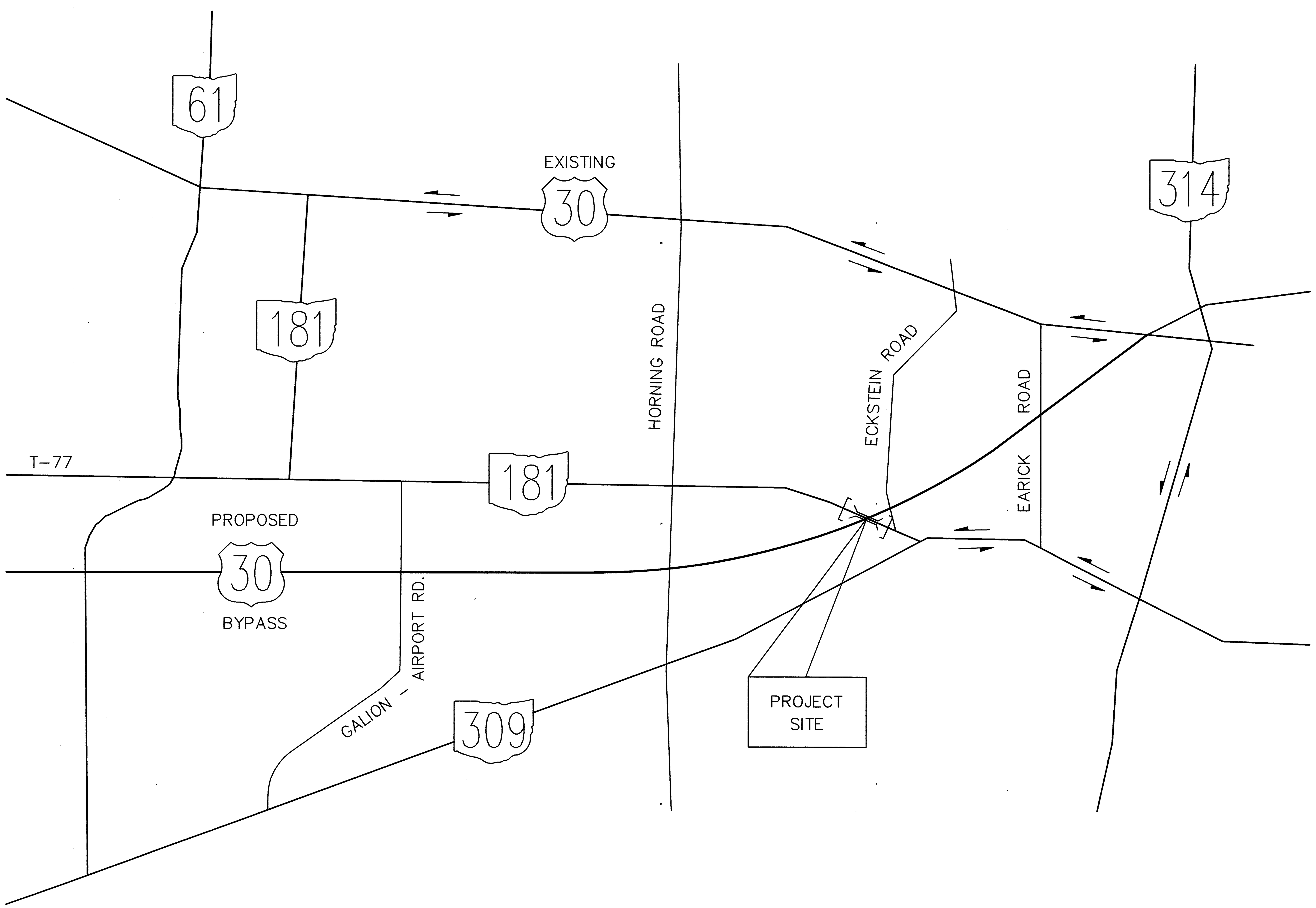
INDICATES DETOUR ROUTE

MAINTENANCE OF TRAFFIC
DETOUR HORNING ROAD

CRA/RIC-30-33.500/0.000

53
712

MM002.DWG
03-17-1999 12:36 PM
1:1000M



MAINTENANCE OF TRAFFIC NOTES

614 MAINTAINING TRAFFIC

DETOUR LIMITATION AND INTERIM COMPLETION DATE:
TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 270 CONSECUTIVE CALENDAR DAYS. THROUGH TRAFFIC WILL BE DETOURED AS SHOWN ON THIS SHEET.

THE CONTRACTOR SHALL NOTIFY THE DISTRICT ROADWAY SERVICES MANAGER (419-281-0513 EXT. 341) IN WRITING A MINIMUM OF FOURTEEN (14) DAYS IN ADVANCE OF THE DATE THE DETOUR IS NEEDED. THE STATE OF OHIO WILL INSTALL, MAINTAIN, AND SUBSEQUENTLY REMOVE THE DETOUR SIGNING.
THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE GATES AND BARRICADES (AT THE APPROXIMATE WORK LIMITS OF THE PROJECT) AND THE ADVANCE WARNING SIGNS AS SHOWN ON STANDARD CONSTRUCTION DRAWING MT-101.60M.
THE 270 CONSECUTIVE CALENDAR DAYS SHALL BE CONSIDERED AS AN INTERIM COMPLETION DATE (SECTION 108) AND FOR EACH CALENDAR DAY BEYOND THE 270 CONSECUTIVE CALENDAR DAYS THAT THE ROADWAY REMAINS CLOSED TO TRAFFIC, THE CONTRACTOR WILL BE ASSESSED LIQUIDATED DAMAGES, AS PER SECTION 108.07 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

LEGEND

INDICATES DETOUR ROUTE

metric units

CALCULATED MJT CHECKED WS

MAINTENANCE OF TRAFFIC DETOUR S.R. 181

CRA/RIC-30-33.500/0.000

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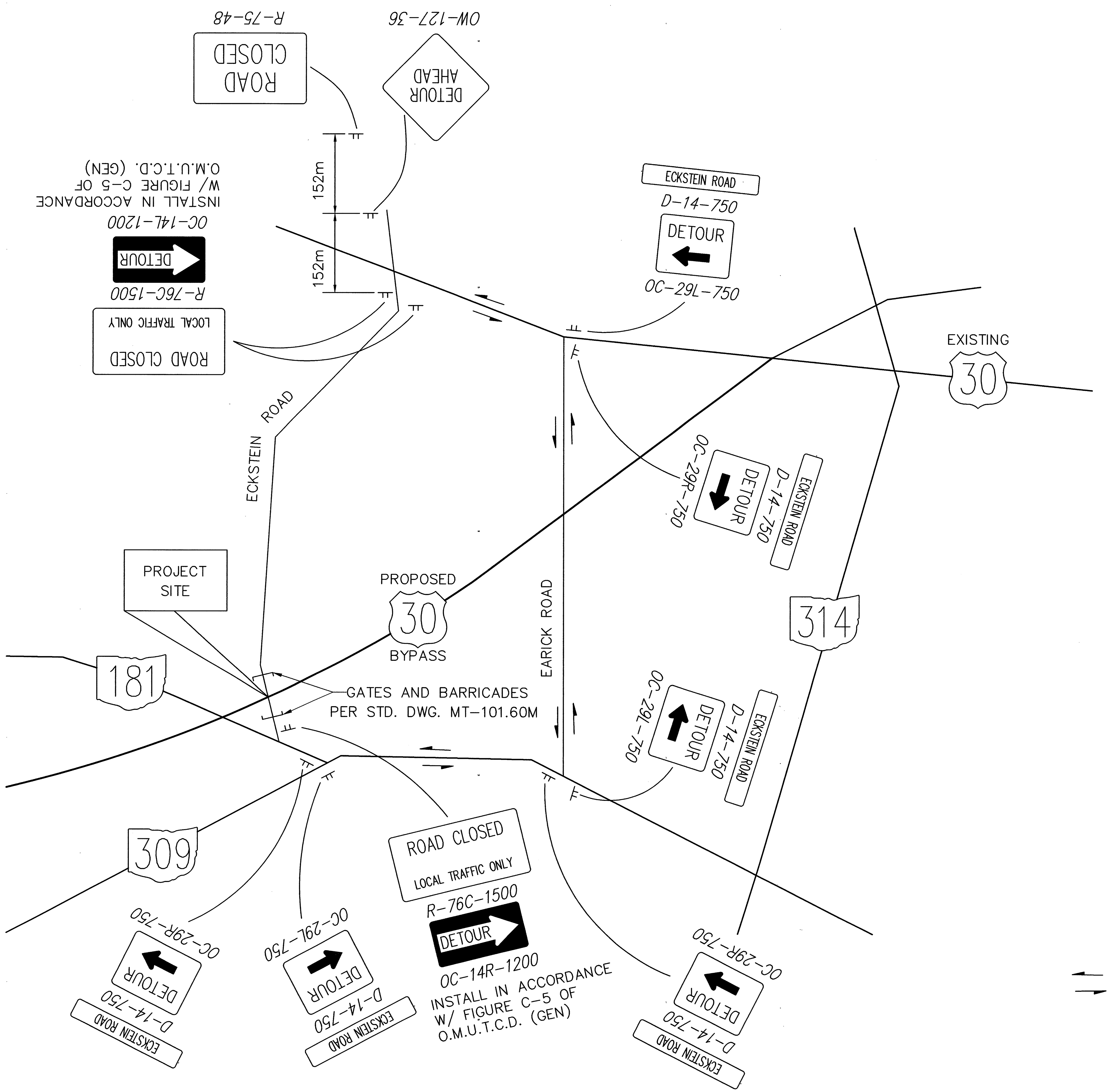


metric units

MAINTENANCE OF TRAFFIC NOTES

614 MAINTAINING TRAFFIC:

DETOUR LIMITATION AND INTERIM COMPLETION DATE:

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 270 CONSECUTIVE CALENDAR DAYS, THROUGH TRAFFIC WILL BE DETOURED AS SHOWN ON THIS SHEET.

THE CONTRACTOR SHALL NOTIFY THE RICHLAND COUNTY ENGINEER IN WRITING A MINIMUN OF FOURTEEN (14) DAYS IN ADVANCE OF THE DATE THE DETOUR IS ERECTED. THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND SUBSEQUENTLY REMOVE THE DETOUR SIGNING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE GATES AND BARRICADES (AT THE APPROXIMATE WORK LIMITS OF THE PROJECT) AND THE ADVANCE WARNING SIGNS AS SHOWN ON STANDARD CONSTRUCTION DRAWING MT-101.60M.

THE 270 CONSECUTIVE CALENDAR DAYS SHALL BE CONSIDERED AS AN INTERIM COMPLETION DATE (SECTION 108) AND FOR EACH CALENDAR DAY BEYOND THE 270 CONSECUTIVE CALENDAR DAYS THAT THE ROADWAY REMAINS CLOSED TO TRAFFIC, THE CONTRACTOR WILL BE ASSESSED LIQUIDATED DAMAGES, AS PER SECTION 108.07 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

LEGEND

INDICATES DETOUR ROUTE

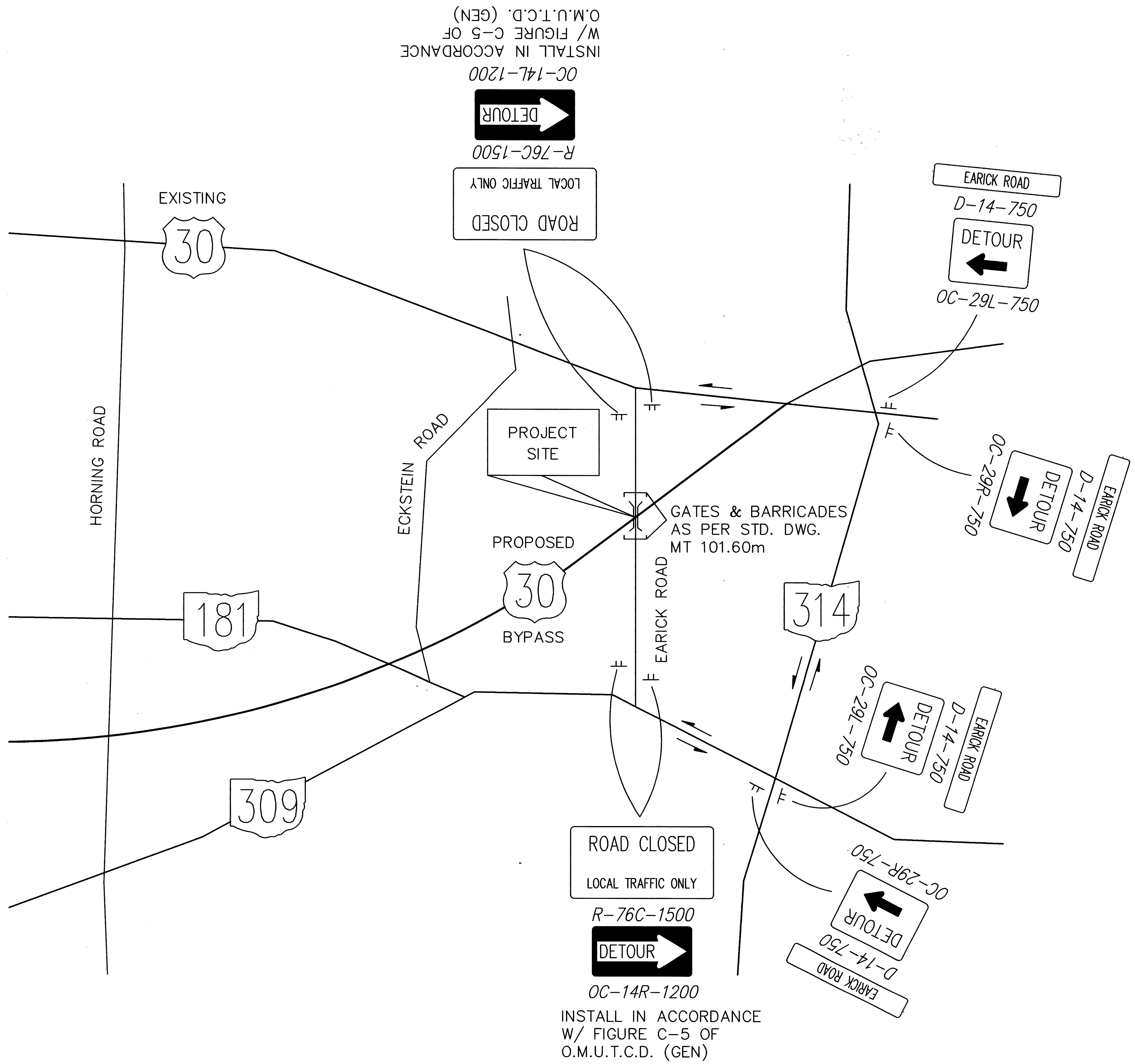
CALCULATED MJT
CHECKED WS

MAINTENANCE OF TRAFFIC
DETOUR ECKSTEIN ROAD

CRA/RIC-30-33.500/0.000

MM004.DWG
03-17-1999 12:46 PM
1:1000M

metric units



MAINTENANCE OF TRAFFIC NOTES

614 MAINTAINING TRAFFIC:

DETOUR LIMITATION AND INTERIM COMPLETION DATE:

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 270 CONSECUTIVE CALENDAR DAYS, THROUGH TRAFFIC WILL BE DETOURED AS SHOWN ON THIS SHEET.

THE CONTRACTOR SHALL NOTIFY THE RICHLAND COUNTY ENGINEER IN WRITING A MINIMUN OF FOURTEEN (14) DAYS IN ADVANCE OF THE DATE THE DETOUR IS ERECTED. THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND SUBSEQUENTLY REMOVE THE DETOUR SIGNING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE GATES AND BARRICADES (AT THE APPROXIMATE WORK LIMITS OF THE PROJECT) AND THE ADVANCE WARNING SIGNS AS SHOWN ON STANDARD CONSTRUCTION DRAWING MT-101.60M.

THE 270 CONSECUTIVE CALENDAR DAYS SHALL BE CONSIDERED AS AN INTERIM COMPLETION DATE (SECTION 108) AND FOR EACH CALENDAR DAY BEYOND THE 270 CONSECUTIVE CALENDAR DAYS THAT THE ROADWAY REMAINS CLOSED TO TRAFFIC, THE CONTRACTOR WILL BE ASSESSED LIQUIDATED DAMAGES, AS PER SECTION 108.07 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

LEGEND

⇄ INDICATES DETOUR ROUTE

N

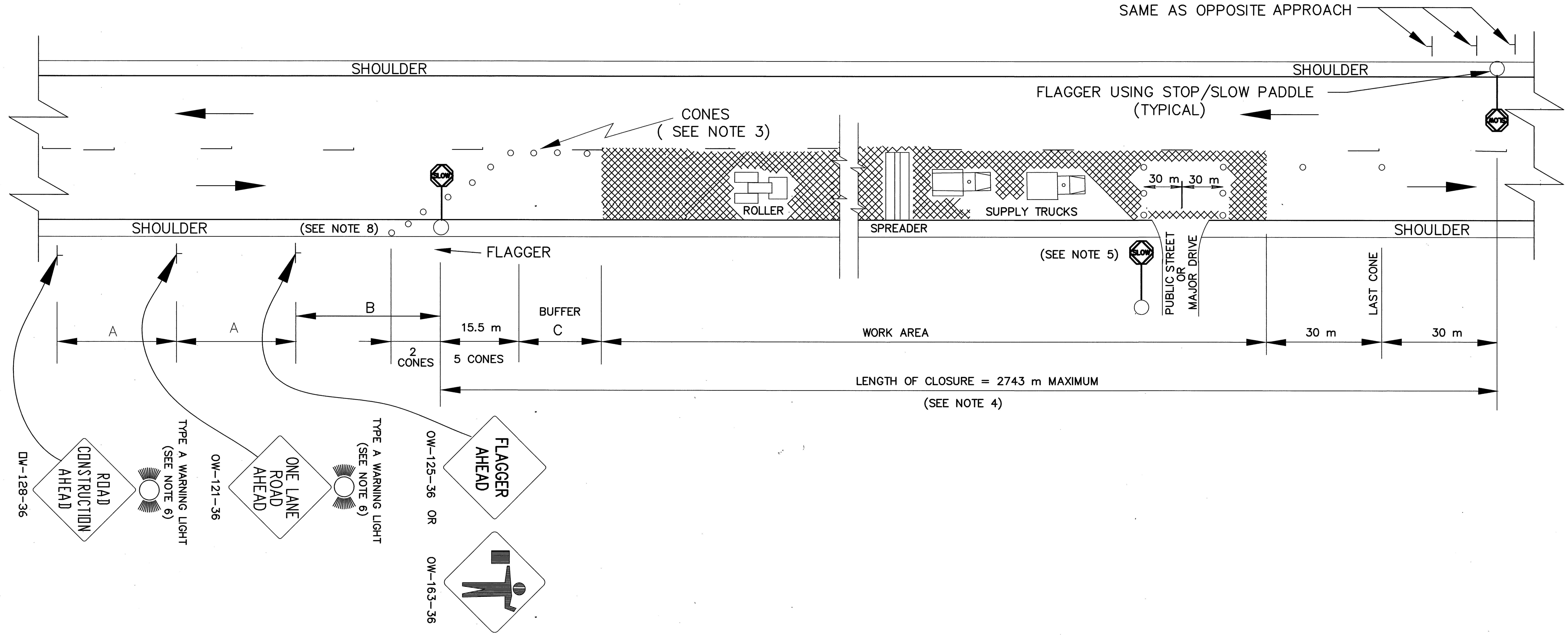
CALCULATED MJT
CHECKED WS

MAINTENANCE OF TRAFFIC
DETOUR EARICK ROAD

CRA/RIC-30-33.500/0.000

55A
712

MM005.DWG
03-29-1999 12:58 PM
1:1000M



GENERAL NOTES:

1. THE LOCATION OF THE ADVANCE WARNING SIGNS SHOULD BE ADJUSTED TO PROVIDE FOR ADEQUATE SIGHT DISTANCE FOR THE EXISTING VERTICAL AND HORIZONTAL ROADWAY ALIGNMENT.

2. FLAGGERS, ONE FOR EACH DIRECTION, SHALL BE USED TO CONTROL TRAFFIC CONTINUOUSLY FOR AS LONG AS A ONE LANE OPERATION IS IN EFFECT. THE FLAGGERS SHALL BE ABLE TO COMMUNICATE WITH EACH OTHER AT ALL TIMES.

3. CONES ON THE TAPERS SHALL BE SPACED AT 3 m CENTER TO CENTER. CONES IN THE BUFFER SHALL BE SPACED AT 12 m CENTER TO CENTER. CONES SHALL HAVE A MINIMUM HEIGHT OF 0.7 m AND SHALL BE SAFELY STABILIZED TO PREVENT THEM FROM BLOWING OVER. CLOSURES AT NIGHT SHALL USE DRUMS RATHER THAN CONES.

4. IT IS REQUIRED THAT THE LENGTH OF CLOSURE BE KEPT TO A MINIMUM AT ALL TIMES, AS DIRECTED BY THE ENGINEER.

   WHEN THE AMBIENT TEMPERATURE EXCEEDS 27 C, THE ENGINEER MAY INCREASE THE MAXIMUM ALLOWABLE LENGTH OF CLOSURE TO ALLOW FOR SUFFICIENT COOLING OF NEW PAVEMENT.

   THE ENGINEER MAY SHORTEN THE MAXIMUM ALLOWABLE LENGTH OF CLOSURE TO RELIEVE EXCESSIVE TRAFFIC BACKUPS OR TO IMPROVE TRAFFIC OPERATION.

4. CONT. ALL TRAFFIC CONTROL SIGNS, CONES (OR DRUMS), AND THE FLAGGER SHALL BE MOVED FORWARD AS A GROUP BEFORE THE CLOSURE REACHES THE MAXIMUM ALLOWABLE LENGTH. ONLY ONE SIDE OF THE ROAD SHALL BE CLOSED AT ANY TIME.

5. WITHIN THE LENGTH OF CLOSURE, PROVISION SHALL BE MADE TO CONTROL TRAFFIC ENTERING FROM INTERSECTING STREETS AND MAJOR DRIVES AS NECESSARY TO PREVENT WRONG WAY MOVEMENTS AND TO KEEP VEHICLES OFF OF NEW PAVEMENT NOT READY FOR TRAFFIC. AS A MINIMUM, THE CONTRACTOR SHALL:

   A) PROVIDE AN ADDITIONAL FLAGGER AT EVERY PUBLIC STREET INTERSECTION AND MAJOR DRIVEWAY OR –
   B) PLACE A ROW OF 3 CONES ACROSS THE CLOSED LANE APPROXIMATELY 30.5 m ON EACH SIDE OF THE INTERSECTION OR DRIVEWAY.
   C) ADDITIONAL ROWS OR 3 CONES EACH SHALL BE PLACED ACROSS THE CLOSED LANE AT A MAXIMUM SPACING OF 305 METERS BETWEEN ROWS OF CONES.

   ROWS OF CONES MAY BE MOVED OFF THE ROAD TO ALLOW PASSAGE OF ROLLERS, PAVING SPREADER OR SUPPLY TRUCKS BUT SHALL BE MOVED BACK ONTO THE ROAD WHEN THE ACTIVITY HAS PASSED.

6. THE TYPE A FLASHING WARNING LIGHTS ARE REQUIRED ON THE "ROAD CONSTRUCTION AHEAD" (OW-128) AND THE "ONE LANE ROAD AHEAD" (OW-121) SIGNS WHENEVER A NIGHT LANE CLOSURE IS NECESSARY.

7. ADEQUATE AREA ILLUMINATION OF EACH FLAGGER STATION SHALL BE PROVIDED AT NIGHT BY USING 150 WATT MINIMUM HIGH PRESSURE SODIUM LUMINAIRES OR 250 WATT MINIMUM MERCURY LUMINAIRES. LUMINAIRES SHALL BE LOCATED ADJACENT TO ONE FLAGGER STATION FOR EACH DIRECTION OF TRAFFIC.

DISTANCE	A	B	C
URBAN	61	106.7	30.5
RURAL	152.4	198.1	61

8. TWO (2) CONES REQUIRED ON PAVED SHOULDER.

9. ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OR THE C & M SPECIFICATIONS AS WELL AS IN ACCORDANCE WITH PART 7 OF OMUTCD. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS TO PROVIDE THIS METHOD OF TRAFFIC CONTROL SHALL BE INCIDENTAL TO THE LUMP SUM BID FOR 614 MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

FLAGGER CLOSING 1 LANE OR A TWO LANE HIGHWAY FOR PAVING OPERATIONS WITH CONES

CRA/RIC-30-33.500/0.000

55B
712

MD001.DWG
03-18-1999 8:28 AM
1:1

NOTES:
1. LOCATE THE PORTABLE CONCRETE BARRIER AS SHOWN. INSTALL REQUIRED TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS ACCORDINGLY.

2. FOR ADDITIONAL DETAILS AND SIGNING, SEE TRAFFIC CONTROL PLAN SHEET NO. 518–519 AND STANDARD CONSTRUCTION DRAWING MT–99.50M EXCEPT AS NOTED ON DHEET NO 55D.

3. CONSTRUCTION OF THE RELOC. U.S. 30 MAINLINE WESTBOUND PAVEMENT BETWEEN STA. 6+586.5 AND STA. 6+740 SHALL OCCUR AT THE END OF THE CONSTRUCTION OF THE REMAINDER OF THE MAINLINE PAVEMENT WEST OF STA. 6+586.5 TO MINIMIZE THE IMPACT ON THE EXISTING WESTBOUND U.S. 30 TRAFFIC CURRENTLY EXISTING ON RAMP "C".

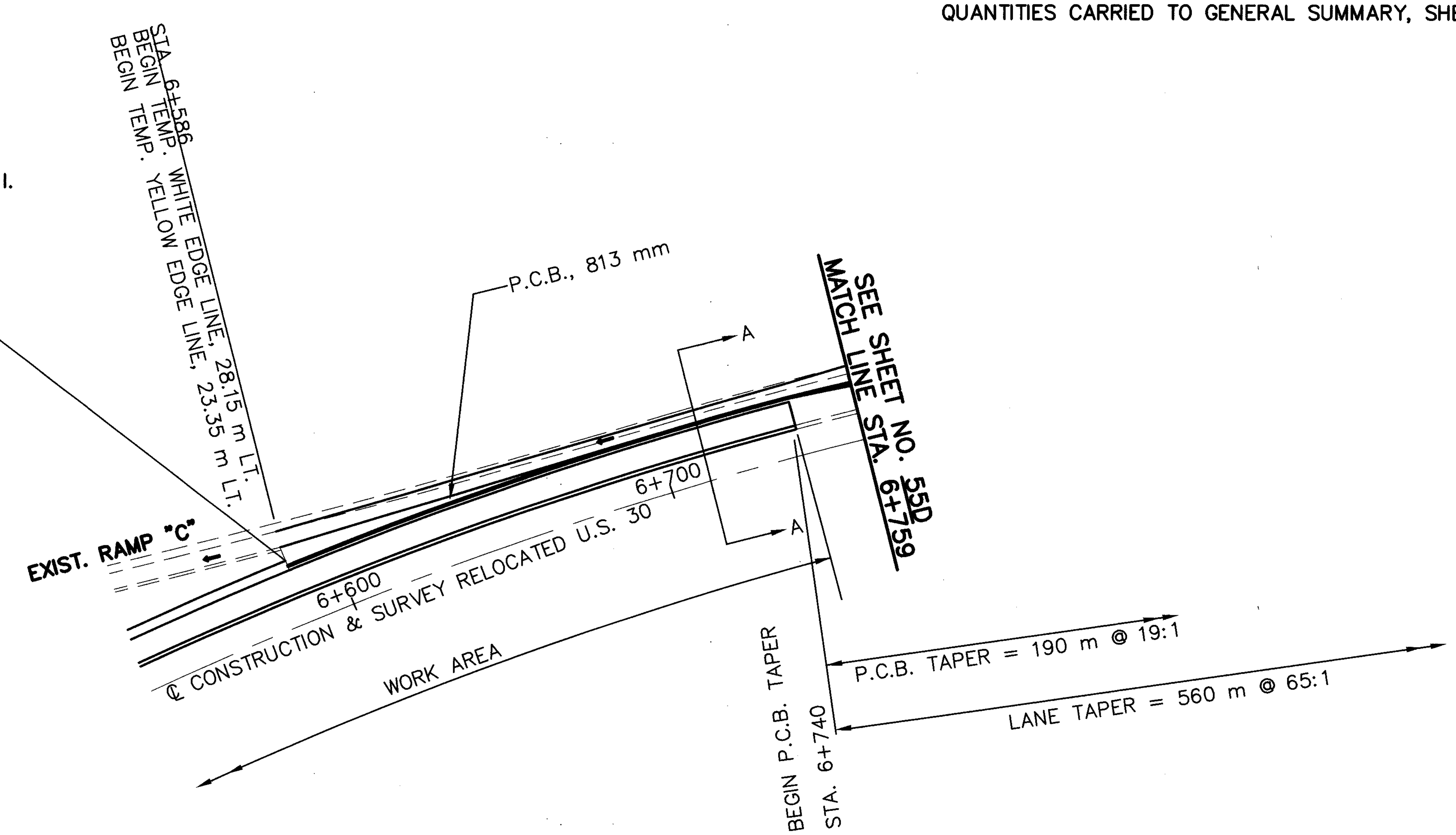
4. ITEM 614 – TEMPORARY EDGE LINE, CLASS I MATERIAL SHALL BE AS PER 740.06, TEMPORARY PREFORMED PAVEMENT MARKING, TYPE I.

ESTIMATED QUANTITIES

ITEM 614 TEMPORARY EDGE LINE, CLASS I 1.27 KILOMETER
ITEM 614 BARRIER REFLECTOR, TYPE B 37 EACH
ITEM 614 OBJECT MARKERS 37 EACH

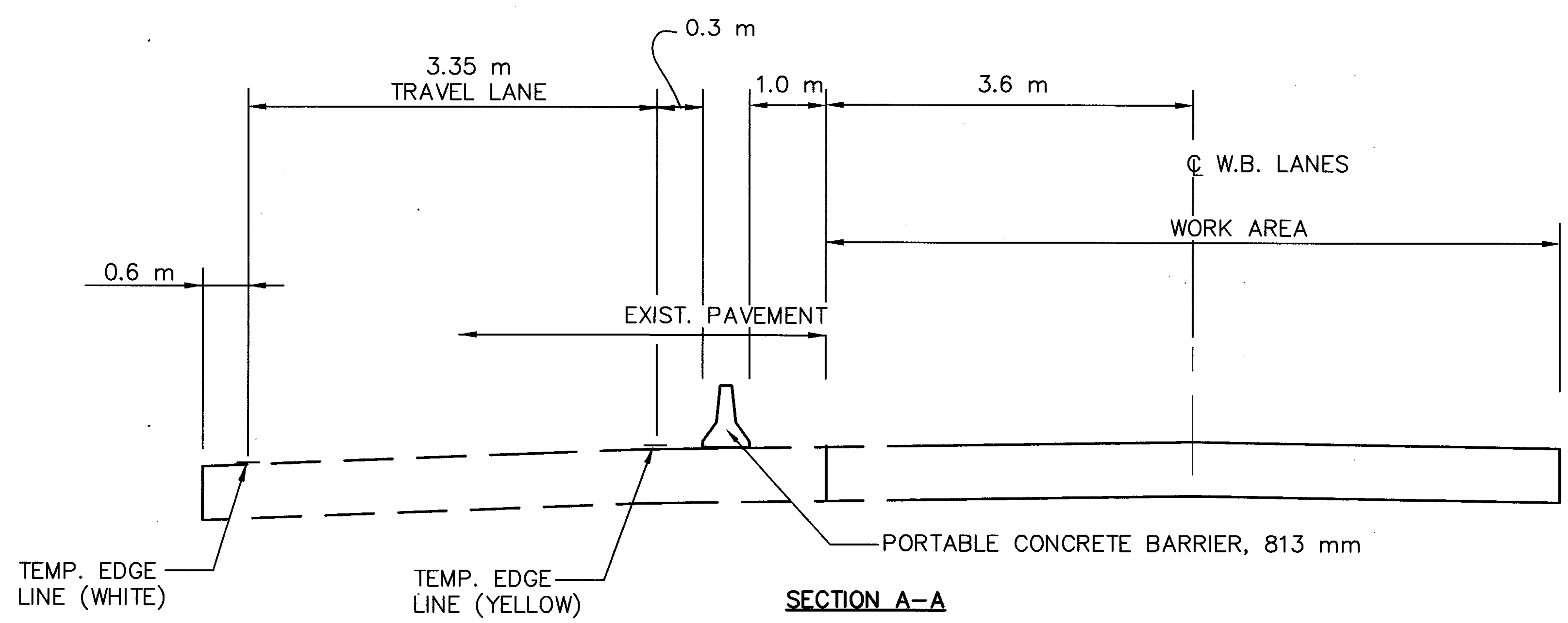
ITEM 622 PORTABLE CONCRETE BARRIER, 813 mm 294 METER

QUANTITIES CARRIED TO GENERAL SUMMARY, SHEET NO. 61A



ITEM 614 – TEMPORARY EDGE LINE, CLASS I

YELLOW – STA. 6+586 – STA. 7+100 = 514 m
STA. 7+250 – STA. 7+490 = 240 m
WHITE – STA. 6+586 – STA. 7+100 = 514 m
TOTAL = 1268 m = 1.27 KILOMETER



SECTION A–A

MD002.DWG 03–27–2001 1:07 PM 1:1000 M

metric units

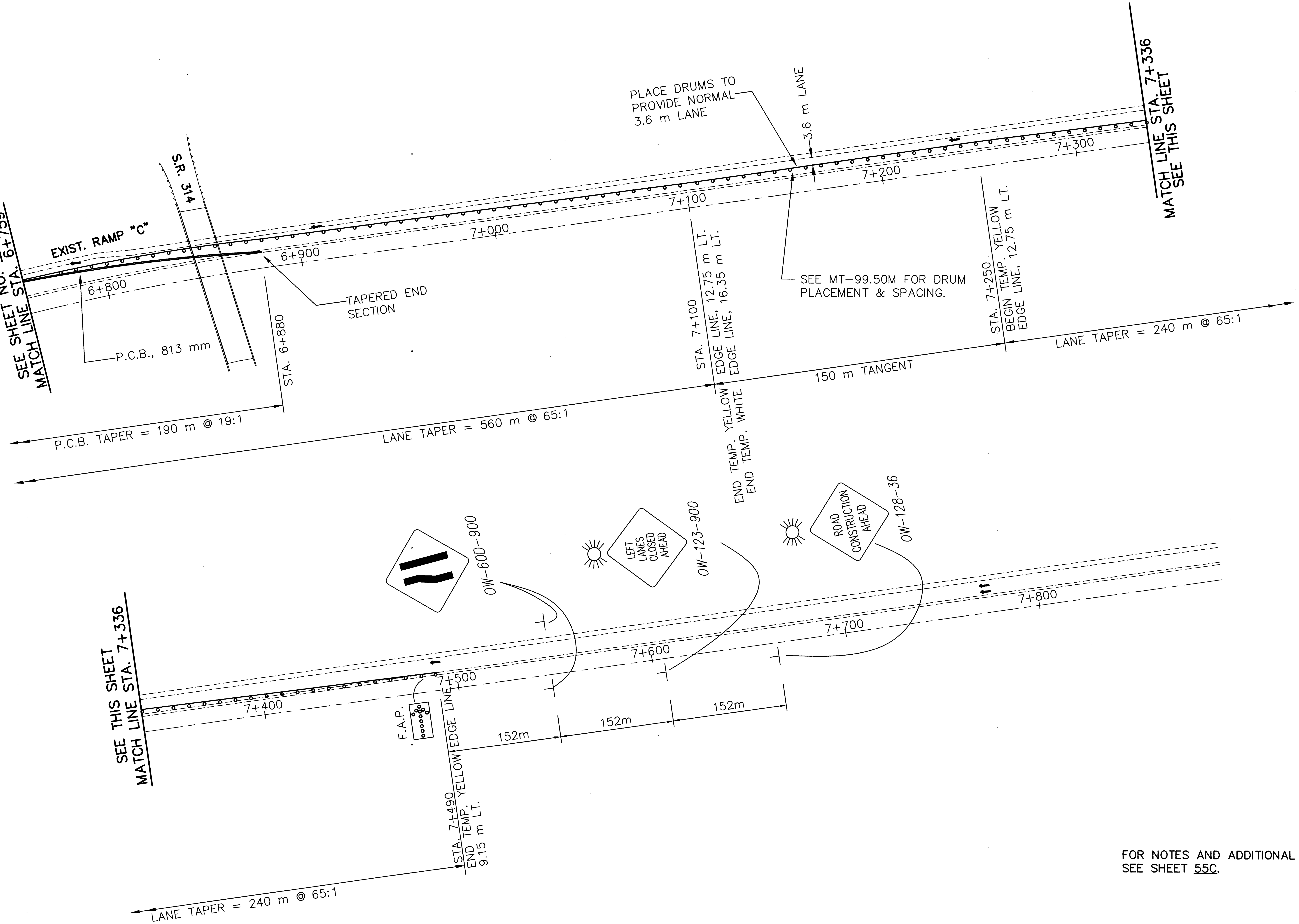
SCALE 1:1000
0 10 20 40
HORIZONTAL
SCALE IN METERS

CALCULATED MJT
CHECKED WS

MAINTENANCE OF TRAFFIC
RELOC. U.S. 30 STA. 6+535 TO STA. 6+759

CRA/RIC–30–33.500/0.000

55C
712



FOR NOTES AND ADDITIONAL DETAILS,
SEE SHEET 55C.

metric units

SCALE 1:1000
0 10 20 40
HORIZONTAL
SCALE IN METERS

CALCULATED MJT
CHECKED WS

MAINTENANCE OF TRAFFIC
RELOC. U.S. 30 STA. 6+759 TO STA. 7+800

CRA/RIC-30-33.500/0.000

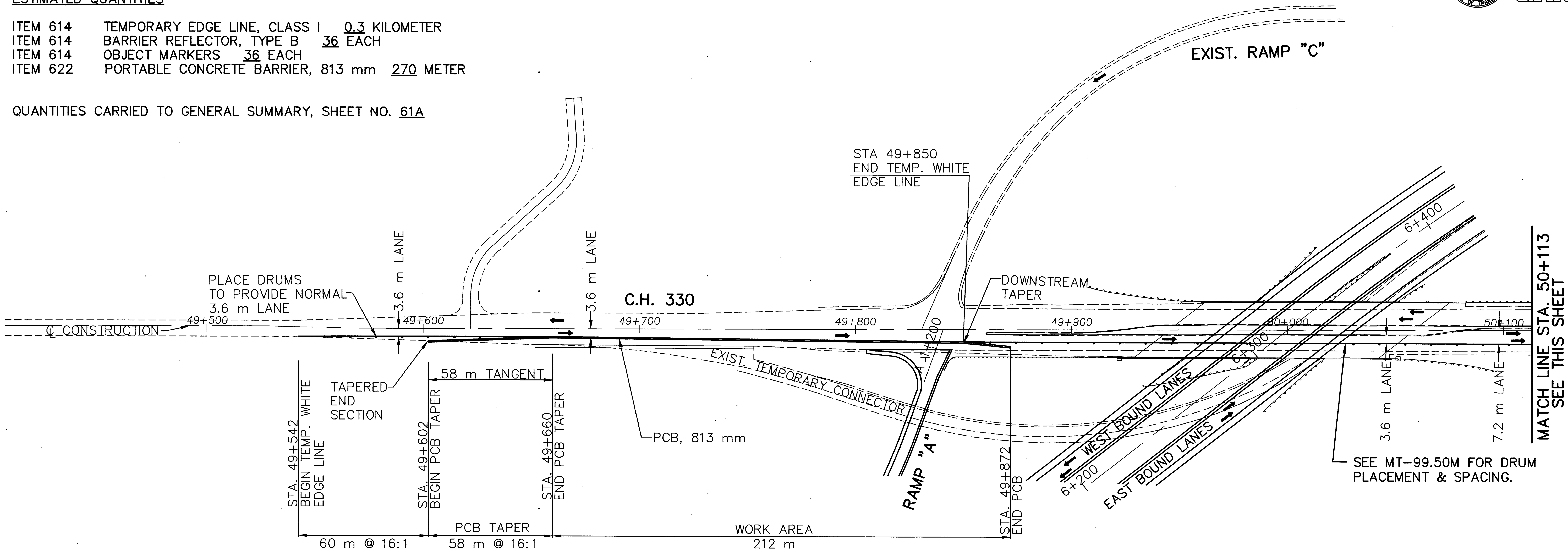
55D
712

MD003.DWG
03-22-1999 6:03 PM
1:1000 M

ESTIMATED QUANTITIES

ITEM 614 TEMPORARY EDGE LINE, CLASS I 0.3 KILOMETER
ITEM 614 BARRIER REFLECTOR, TYPE B 36 EACH
ITEM 614 OBJECT MARKERS 36 EACH
ITEM 622 PORTABLE CONCRETE BARRIER, 813 mm 270 METER

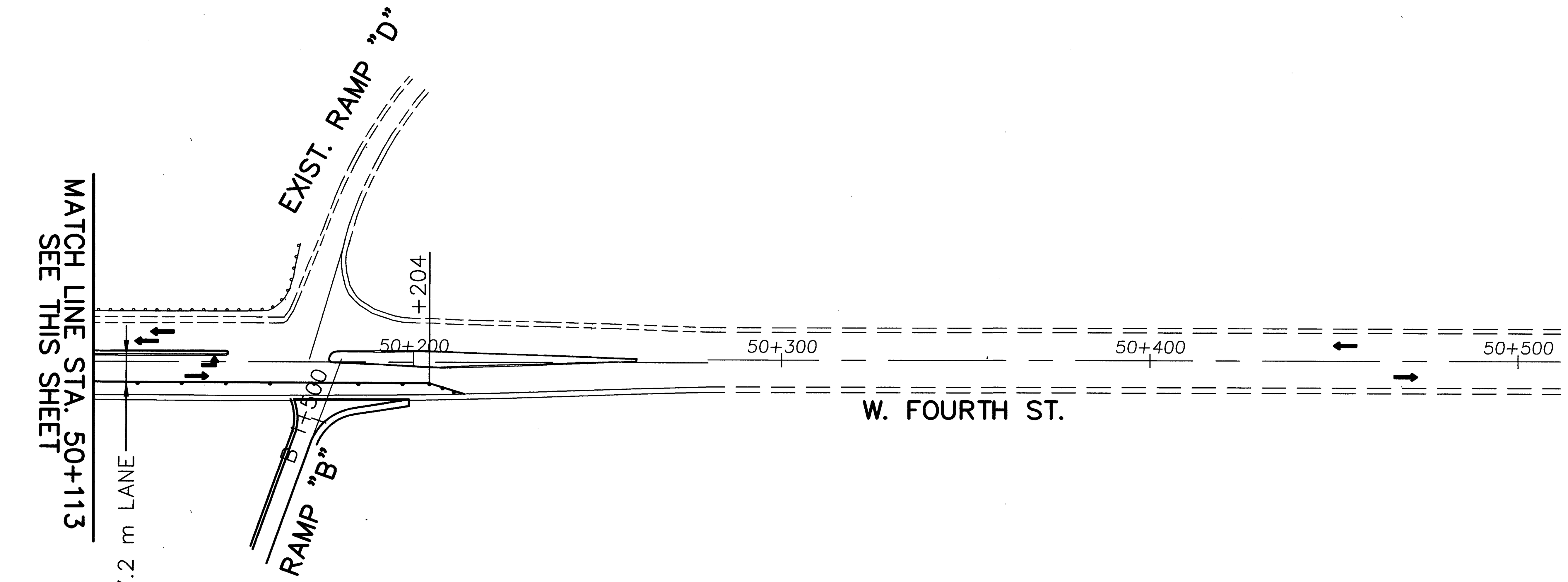
QUANTITIES CARRIED TO GENERAL SUMMARY, SHEET NO. 61A



NOTES:
1. LOCATE THE PORTABLE CONCRETE BARRIER AS SHOWN. INSTALL REQUIRED TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS ACCORDINGLY.

2. FOR ADDITIONAL DETAILS AND SIGNING, SEE TRAFFIC CONTROL PLAN SHEET NO. 517-518 AND STANDARD CONSTRUCTION DRAWING MT-95.41M.

3. THE LENGTH OF TIME THE PCB IS IN PLACE AS SHOWN SHALL BE KEPT TO A MINIMUM. CONSTRUCTION WORK FOR THE REMOVAL OF THE TEMPORARY RAMP CONNECTOR SHALL NOT BEGIN UNTIL RAMP "B" WORK IS COMPLETED UP THROUGH THE 446 INTERMEDIATE COURSE. AT THAT TIME, THE DRUMS MAY BE SHIFTED OVER TO THE ADJACENT EDGE OF PAVEMENT IN THE AREA OF RAMP "B" TO PROVIDE ENOUGH ROOM FOR 2 THROUGH LANES OF TRAFFIC AND WORK ON THE TEMPORARY CONNECTOR MAY BEGIN.



metric units

SCALE 1:1000
0 10 20 40
HORIZONTAL
SCALE IN METERS

CALCULATED MJT
CHECKED WS

MAINTENANCE OF TRAFFIC
EXIST. U.S. 30 STA. 49+500 TO STA. 50+500

CRA/RIC-30-33.500/0.000

55E
712

MD004.DWG
03-17-1999 1:16 PM
1:1000 M

SHEET NUMBER														ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
22A	23	24B	62	63	64	65	66		71K	493									
																		ROADWAY	
														201	11000	LUMP		CLEARING AND GRUBBING	
										221				202	23000	221	SQ. M.	PAVEMENT REMOVED	
									4045					202	23500	4045	SQ. M.	WEARING COURSE REMOVED	
					13									202	30801	13	SQ. M.	TRAFFIC ISLAND REMOVED, AS PER PLAN	23,412
			43	680										202	35100	723	METER	PIPE REMOVED, 600 mm AND UNDER	
					910									202	38000	910	METER	GUARDRAIL REMOVED	
					4									202	42206	4	EACH	ANCHOR ASSEMBLY REMOVED	24C
					26									202	75000	26	METER	FENCE REMOVED	
					1									202	42210	1	EACH	ANCHOR ASSEMBLY REMOVED, BARRIER DESIGN	24C
														202	56100	1	EACH	BUILDING DEMOLISHED, PARCEL No. 25 WL, 1 1/2 STORY FRAME BUILDING	
														202	56100	1	EACH	BUILDING DEMOLISHED, PARCEL No. 25 WL, FRAME GARAGE BUILDING	
														202	56100	1	EACH	BUILDING DEMOLISHED, PARCEL No. 25 WL, FRAME SHED BUILDING	
														202	56100	1	EACH	BUILDING DEMOLISHED, PARCEL No. 50 T, 1 STORY FRAME BUILDING	
														202	56100	1	EACH	BUILDING DEMOLISHED, PARCEL No. 67E, FRAME SHED BUILDING	
														202	56100	1	EACH	BUILDING DEMOLISHED, PARCEL No. 67E, FRAME SHED BUILDING	
														202	56100	1	EACH	BUILDING DEMOLISHED, PARCEL No. 50 WL, FRAME GARAGE BUILDING	
														202	56100	1	EACH	BUILDING DEMOLISHED, PARCEL No. 60 T, 1 STORY FRAME BUILDING	
														202	56100	1	EACH	BUILDING DEMOLISHED, PARCEL No. 70 E, 1 STORY FRAME BUILDING	
														202	56100	1	EACH	BUILDING DEMOLISHED, PARCEL No. 70 E, FRAME SHED BUILDING	
														202	56100	1	EACH	BUILDING DEMOLISHED, PARCEL No. 70 E-1, 2 STORY FRAME BUILDING	
					6									SPEC.	20266000	6	EACH	DRILLED WATER WELL ABANDONED	24
			1	11										202	58100	12	EACH	CATCH BASIN REMOVED	
					9									202	62700	9	EACH	SEPTIC TANK REMOVED	
					1									202	98100	1	EACH	REMOVAL MISC.: FLAG POLE	
					2									202	98100	2	EACH	REMOVAL MISC.: YARD LIGHT	
		500				321,892	53,859							203	12000	376,251	CU.M.	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	
	100													203	45000	100	HOUR	PROOF ROLLING	
		500				856,130	304,394							203	20000	1,161,024	CU.M.	EMBANKMENT	
1,131									268,113					203	50000	269,244	SQ. M.	SUBGRADE COMPACTION	

GENERAL SUMMARY

CALCULATED WJS
CHECKED CRM

CRA/RIC-30-33.500/0.000

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04-30-2001 8:15 AM
SCALE: 1:1M

SHEET NUMBER														ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	24	24B			62	63	64		68		618								
																		ROADWAY CON'T.	
											57			604	38500	57	EACH	MONUMENT ASSEMBLY	
											25			604	40500	25	EACH	REFERENCE MONUMENT	
							4666.96							606	13000	4666.96	METER	GUARDRAIL, TYPE 5	
							304.8							606	15500	304.8	METER	GUARDRAIL, BARRIER DESIGN, TYPE 5	
							4							606	22000	4	EACH	ANCHOR ASSEMBLY, TYPE B-98	24C
							16							606	22010	16	EACH	ANCHOR ASSEMBLY, TYPE E-98	24C
							26							606	26500	26	EACH	ANCHOR ASSEMBLY, TYPE T	
							10							606	60010	10	EACH	IMPACT ATTENUATOR, TYPE 1-98 (BIDIRECTIONAL)	
							23							606	35000	23	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 1	
							2							606	35100	2	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 2	
							106							622	24000	106	METER	CONCRETE BARRIER, TYPE D	
							97							626	00100	97	EACH	BARRIER REFLECTOR, TYPE A	
							20							626	00200	20	EACH	BARRIER REFLECTOR, TYPE B	
							139							626	00300	139	EACH	BARRIER REFLECTOR, TYPE A2	
							28							626	00400	28	EACH	BARRIER REFLECTOR, TYPE B2	
					16979	1859								607	15000	18838	METER	FENCE, TYPE 47	
	670													607	30000	670	METER	FENCE, SNOW	24
									35762					618	40100	35762	METER	RUMBLE STRIPS, TYPE 2 (ASPHALT)	
					12									625	32000	12	EACH	GROUND ROD	
							27							SPEC.	69050100	27	EACH	MAILBOX SUPPORT SYSTEM, SINGLE	24

CALCULATED WJS
CHECKED CRM

GENERAL SUMMARY

CRA/RIC-30-33.500/0.000

GG002.DWG
04-30-2001 8:27 AM
SCALE: 1:1

SHEET NUMBER														ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
24A	24B	62	63	65	66	67	68	91	449A	452A	453A	459B	459D						
																		EROSION CONTROL	
			6			62								601	11000	68	SQ. M.	RIP RAP USING 150 mm CONCRETE SLAB	
							4390							601	20000	4390	SQ. M.	CRUSHED AGGREGATE SLOPE PROTECTION	
									5	17	69		12	601	28001	103	CU. M.	DUMPED ROCK FILL, TYPE D, AS PER PLAN	452A
		289	18			57								601	32100	364	CU. M.	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	
30	410	49	4			16		511				20		601	32200	1040	CU. M.	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	
	5157							1086	5	5	3		2	601	34200	6258	CU. M.	ROCK CHANNEL PROTECTION, TYPE C WITHOUT FILTER	
										82				667	10000	82	SQ. M.	SEEDING AND JUTE MATTING	
		25,745	7,479			669								670	40000	33,893	SQ. M.	DITCH EROSION PROTECTION	
		800				411								839	10000	1211	SQ. M.	SEEDING AND EROSION CONTROL WITH	
																		REVEGATATION MAT	
	10													870	00100	10	EACH	SOIL ANALYSIS TEST	
	73,359													870	00200	73,359	CU. M.	TOPSOIL	
				550,168	183,420									870	10000	733,588	SQ. M.	SEEDING AND MULCHING	
	36,680													870	14000	36,680	SQ. M.	REPAIR SEEDING AND MULCHING	
	36,680													870	15000	36,680	SQ. M.	INTER-SEEDING	
	34,849						110,046							870	20000	144,895	KILOGRAM	COMMERCIAL FERTILIZER	
							330,139							870	30000	330,139	KILOGRAM	AGRICULTURAL LIME	
	1854						17,901							870	35000	19,755	CU. M.	WATER	
	183,397													870	40000	183,397	SQ. M.	MOWING	
	146,718													877	10000	146,718	SQ. M.	TEMPORARY SEEDING AND MULCHING	
	5017							10,033						877	30100	15,050	METER	TEMPORARY PERIMETER FILTER FABRIC FENCE	
	658							1315						877	30200	1973	METER	TEMPORARY DITCH CHECK FILTER FABRIC FENCE	
	248							495						877	30300	743	METER	TEMPORARY INLET PROTECTION FILTER FABRIC FENCE	
	126							1256						877	40000	1382	METER	TEMPORARY SLOPE DRAINS	
	205							1846						877	50000	2051	CU. M.	TEMPORARY SEDIMENT BASINS AND DAMS	
	563							5630						877	55000	6193	CU. M.	TEMPORARY DIKES	
	8473													877	55500	8473	SQ. M.	TEMPORARY DITCH PROTECTION	
	1027													877	60000	1027	CU. M.	SEDIMENT REMOVAL	

CALCULATED WJS
CHECKED CRM

GENERAL SUMMARY

CRA/RIC-30-33.500/0.000

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05-09-2001 4:03 PM
SCALE: 1:1M

					24A	24D	62	63		67		459B	496	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
																		DRAINAGE	
							9.0	14.9		35.2		2.2		602	20000	61.3	CU. M.	CONCRETE MASONRY	
						100								603	00900	100	METER	150 mm CONDUIT, TYPE B, 707.33	
					120									603	01100	120	METER	150 mm CONDUIT, TYPE C	
						200								603	01400	200	METER	150 mm CONDUIT, TYPE E	
						200							1,635	603	01500	1,835	METER	150 mm CONDUIT, TYPE F	
						200								603	02500	200	METER	200 mm CONDUIT, TYPE E	
						200								603	02600	200	METER	200 mm CONDUIT, TYPE F	
								67						603	04200	67	METER	300 mm CONDUIT, TYPE A	
								52						603	04200	52	METER	300 mm CONDUIT, TYPE A, 706.02 (2750 D-LOAD) OR 707.12, 707.13	
								58						603	04400	58	METER	300 mm CONDUIT, TYPE B	
						200								603	04400	200	METER	300 mm CONDUIT, TYPE B, 707.33	
							22	124						603	04600	146	METER	300 mm CONDUIT, TYPE C	
								520						603	04900	520	METER	300 mm CONDUIT, TYPE D	
						200		6						603	05100	206	METER	300 mm CONDUIT, TYPE E	
						200								603	05200	200	METER	300 mm CONDUIT, TYPE F	
							582					123		603	05700	705	METER	375 mm CONDUIT, TYPE A	
						100								603	05900	100	METER	375 mm CONDUIT, TYPE B, 707.33	
							660	36						603	06100	696	METER	375 mm CONDUIT, TYPE C	
						200								603	06700	200	METER	375 mm CONDUIT, TYPE F	
							14					189		603	06700	203	METER	375 mm CONDUIT, TYPE F, 707.05, TYPE C	
							26	54						603	07200	80	METER	450 mm CONDUIT, TYPE A	
							69							603	07200	69	METER	450 mm CONDUIT, TYPE A, 706.02 (2500 D-LOAD), 707.01	
																		ALUMINUM COATED (3.51), 707.04 (3.51), 707.09 AASHTO M190	
							656							603	07600	656	METER	450 mm CONDUIT, TYPE C	
							40	24						603	08700	64	METER	525 mm CONDUIT, TYPE A	
							170							603	09100	170	METER	525 mm CONDUIT, TYPE C	
							31							603	10200	31	METER	600 mm CONDUIT, TYPE A	
							180							603	10600	180	METER	600 mm CONDUIT, TYPE C	
							27							603	11700	27	METER	675 mm CONDUIT, TYPE A	
							80							603	12100	80	METER	675 mm CONDUIT, TYPE C	
										65				603	13200	65	METER	750 mm CONDUIT, TYPE A, 706.02 (1250 D-LOAD) OR 900 mm	
																		707.02 ALUMINUM COATED (3.51), 707.04 (3.51),	
																		707.09 AASHTO M190	
							111							603	13200	111	METER	750 mm CONDUIT, TYPE A, 706.02 (2500 D-LOAD), 707.01	
																		ALUMINUM COATED (3.51), 707.04 (3.51), 707.09 AASHTO M190	
								52						603	13200	52	METER	750 mm CONDUIT, TYPE A, 706.02 (2750 D-LOAD), 707.01	
																		ALUMINUN COATED (3.51), 707.04 (3.51), 707.09 AASHTO M190	
							183							603	13600	183	METER	750 mm CONDUIT, TYPE C	
							64							603	16200	64	METER	900 mm CONDUIT, TYPE A	
								58						603	16200	58	METER	900 mm CONDUIT, TYPE A, 706.02 (2750 D-LOAD), 707.01	
																		ALUMINUM COATED (3.51), 707.04 (3.51), 707.09 AASHTO M190	
										274				603	16200	274	METER	900 mm CONDUIT, TYPE A, 706.02 (1250 D-LOAD) OR 1200 mm	
																		707.02 ALUMINUM COATED (3.51), 707.04 (3.51),	
																		707.09 AASHTO M190	

The "SHEET NUMBER" heading spans the first 14 columns.

CALCULATED WJS
CHECKED CRM

GENERAL SUMMARY

CRA/RIC-30-33.500/0.000

GG004.DWG
04-30-2001 8:57 AM
1:1 M

SHEET NUMBER														ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	24A				62	63		67	68			459B	496						
																		DRAINAGE CON'T.	
						123								603	19200	123	METER	1050 mm CONDUIT, TYPE A	
								60						603	19200	60	METER	1050 mm CONDUIT, TYPE A, 706.02 (1250 D-LOAD) OR	
																		1200 mm 707.02 ALUMINUM COATED (3.51), 707.04 (3.51),	
																		707.09 AASHTO M190	
								82						603	20700	82	METER	1200 mm CONDUIT, TYPE A, 706.02 (1250 D-LOAD) OR	
																		1350 mm 707.02 ALUMINUM COATED (3.51), 707.04 (3.51),	
																		707.09 AASHTO M190	
								121						603	22200	121	METER	1350 mm CONDUIT, TYPE A, 706.02 (1250 D-LOAD) OR	
																		1800 mm 707.02 ALUMINUM COATED (3.51), 707.04 (3.51),	
																		707.09 AASHTO M190	
						34								603	23600	34	METER	1500 mm CONDUIT, TYPE A	
								80						603	25000	80	METER	1650 mm CONDUIT, TYPE A, 706.02 (1250 D-LOAD) OR	
																		1650 mm 707.02 ALUMINUM COATED (3.51), 707.04 (3.51),	
																		707.09 AASHTO M190	
								111						603	29000	111	METER	2250 mm CONDUIT, TYPE A, 706.02	
						30								603	98300	30	METER	CONDUIT, MISC.: 950 mm X 1500 mm CONDUIT, TYPE A, 706.04,	
																		CLASS HE-II	
					40									604	01201	40	EACH	CATCH BASIN, NO. 4, AS PER PLAN	459F
								3						604	01401	3	EACH	CATCH BASIN, NO. 4A, AS PER PLAN A	459F
					1			1						604	01401	2	EACH	CATCH BASIN, NO. 4A, AS PER PLAN B	24A
					4	1								604	01601	5	EACH	CATCH BASIN, NO. 5, AS PER PLAN	459F
					2									604	01801	2	EACH	CATCH BASIN, NO. 5A, AS PER PLAN	459F
												20		604	02000	20	EACH	CATCH BASIN, NO. 6	459B
						1								604	04100	1	EACH	CATCH BASIN, NO. 2-2A	
						7								604	04500	7	EACH	CATCH BASIN, NO. 2-2B	
					7									604	04900	7	EACH	CATCH BASIN, NO. 2-3	
						2								604	06100	2	EACH	CATCH BASIN, NO. 2-6	
					4									604	30100	4	EACH	MANHOLE, NO. 1	
													4	604	36600	4	EACH	PRECAST REINFORCED CONCRETE OUTLET	
	10													604	37000	10	EACH	INSPECTION WELL	
													17,380	605	11100	17380	METER	150 mm SHALLOW PIPE UNDERDRAIN	
													36,289	605	11111	36,289	METER	150 mm SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, AS PER PLAN	24A
	120													605	13402	120	METER	150 mm UNCLASSIFIED PIPE UNDERDRAIN FOR SPRINGS	
									3436					605	31100	3436	METER	AGGREGATE DRAIN	
	120													605	32200	120	METER	AGGREGATE DRAIN, FOR SPRINGS	

CALCULATED WJS
CHECKED CRM

GENERAL SUMMARY

CRA/RIC-30-33.500/0.000

GG005.DWG
05-29-2003 4:02 PM
SCALE: 1:1

SHEET NUMBER														ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
		22A			25	63	64		71K		459B	493							
																		PAVEMENT	
												12		255	20000	12	METER	FULL DEPTH PAVEMENT SAWING	
							3		4688			358		301	46000	5049	CU. M.	BITUMINOUS AGGREGATE BASE, PG64-22	
									105					302	46000	105	CU. M.	BITUMINOUS AGGREGATE BASE, PG64-22	
		182			900				64899			592		304	20000	64899	CU. M.	AGGREGATE BASE	
									2040					407	10000	2040	LITER	TACK COAT	
									8180					407	10001	8180	LITER	TACK COAT, AS PER PLAN	24A
									8245					407	14000	8245	LITER	TACK COAT FOR INTERMEDIATE COURSE	
									414774					408	10000	414774	LITER	BITUMINOUS PRIME COAT	
									4763					409	12000	4763	CU. M.	SEAL COAT COVER AGGREGATE NO. 8	
									25					409	20000	25	LITER	SEAL COAT BITUMINOUS MATERIAL	
									23					446	46040	23	CU. M.	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28	
									19					446	50000	19	CU. M.	ASPHALT CONCRETE SURFACE COURSE, TYPE 1H	
									485					448	46040	485	CU. M.	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28	
									1349					448	46050	1349	CU. M.	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22	
						4			970					448	47020	974	CU. M.	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22	
												108		448	48020	108	CU. M.	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAYS)	
									415					448	50000	415	CU. M.	ASPHALT CONCRETE SURFACE COURSE, TYPE 1H	
												413		452	09990	413	SQ. M.	150 mm PLAIN CONCRETE PAVEMENT	
		1158												611	25001	1158	SQ. M.	REINFORCED CONCRETE APPROACH SLAB (T=380 mm) AS PER PLAN	24B
											82			830	24000	82	METER	CURB, TYPE 4-A	
							5							830	26000	5	METER	CURB, TYPE 6	
											58			830	26001	58	METER	CURB, TYPE 6, AS PER PLAN	459B
							3							830	54000	3	SQ. M.	150 mm CONCRETE TRAFFIC ISLAND	
									66686					880	15000	66686	CU. M.	ASPHALT CONCRETE (7 YEAR WARRANTY)	

CALCULATED WJS
CHECKED CRM

GENERAL SUMMARY

CRA/RIC-30-33.500/0.000

GG006.DWG
08-31-2001 9:06 AM
1:1 M

SHEET NUMBER														ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
		25	26		55C	55E		449A	452A	453A			459D						
																		LANDSCAPING	
									20	9			8	661	99900	37	EACH	PLANTING, MISC.: SALIX NIGRA (BLACK WILLOW TREE), 1 GALLON	
								2	6	139			31	661	99900	178	EACH	PLANTING, MISC.: CORNUS AMOMUM (SILKY DOGWOOD TREE), 1 GALLON	
								3	13	5			9	661	99900	30	EACH	PLANTING, MISC.: LIBIODENDRON TULIPIFERA (TULIP TREE), 1 GALLON	
								5	12	7			9	661	99900	33	EACH	PLANTING, MISC.: ACER RUBRUM (RED MAPLE TREE), 1 GALLON	
								4						661	99900	4	EACH	PLANTING, MISC.: VIBURNUM RECOGNITUM (ARROW WOOD), 1 GALLON	
									82	120				661	99900	202	EACH	PLANTING, MISC.: CORNUS RACEMOSA (GRAY DOGWOOD), 1 GALLON	
										148				661	99900	148	EACH	PLANTING, MISC.: SALIX SERICEA (SILKY DOGWOOD), 1 GALLON	
										120				661	99900	120	EACH	PLANTING, MISC.: VIBURNUM LENTAGO (NANNYBERRY), 1 GALLON	
								2	8	6			9	SPEC	69098000	25	EACH	MISC.: BOULDER	
																		MAINTENANCE OF TRAFFIC	
			75											253	02000	75	CU. M.	PAVEMENT REPAIR	
		600												410	12000	600	CU. M.	TRAFFIC COMPACTED SURFACE, TYPE A OR B	
														614	12350	1	EACH	TEMPORARY IMPACT ATTENUATOR	
		20												614	12470	20	EACH	WORK ZONE SPEED LIMIT SIGN	
														614	12800	134	EACH	TEMPORARY RAISED PAVEMENT MARKER	
		115	100											614	13000	215	CU. M.	BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC	
			100		37	36								614	13300	173	EACH	BARRIER REFLECTOR, TYPE B	
			100		37	36								614	13350	173	EACH	OBJECT MARKER	
			4.5											614	21400	4.5	K. METER	TEMPORARY CENTER LINE, CLASS II	
					1.27	0.3								614	22000	1.57	K. METER	TEMPORARY EDGE LINE, CLASS I	
														615	10000	LUMP		TEMPORARY ROAD	
			7780											615	20000	7780	SQ. M.	TEMPORARY PAVEMENT, CLASS A	
			595											616	20000	595	M. TON	CALCIUM CHLORIDE	
			23,470											616	10000	23,470	CU. M.	WATER	
			540		294	270								622	40020	1104	METER	PORTABLE CONCRETE BARRIER, 813 mm	
																		FOR TRAFFIC CONTROL GENERAL SUMMARY	498
																		FOR LIGHTING GENERAL SUMMARY	528
																		FOR STRUCTURE CRA-30-33602 L/R GENERAL SUMMARY	539/540
																		FOR STRUCTURE CRA-30-34250 GENERAL SUMMARY	566
																		FOR STRUCTURE RIC-30-02371 GENERAL SUMMARY	580
																		FOR STRUCTURE RIC-30-04075 GENERAL SUMMARY	593
																		FOR STRUCTURE RIC-30-05405 GENERAL SUMMARY	606
														614	11000	LUMP		MAINTAINING TRAFFIC	
														623	10000	LUMP		CONSTRUCTION LAYOUT STAKES	
														624	10000	LUMP		MOBILIZATION	
														806	16020	33	MONTH	FIELD OFFICE, TYPE C	

CALCULATED WJS
CHECKED CRM

GENERAL SUMMARY

CRA/RIC-30-33.500/0.000

61A
712

GG007.DWG
12-18-2000 9:18 AM
SCALE: 1:1M

** 706.02 (2500 D-LOAD),
707.01 ALUMINUM COATED (3.51),
707.04 (3.51), 707.09 AASHTO M190 TYPE A

metric units

DRAINAGE – EROSION PROTECTION – FENCE

SHEET No.	601 ROCK CHANNEL PROTECTION, TYPE B W/FILTER	601 ROCK CHANNEL PROTECTION, TYPE C W/FILTER	202 CATCH BASIN REMOVED	602 CONCRETE MASONRY	202 PIPE REMOVED 600 mm AND UNDER	603 300mm CONDUIT TYPE C	603 375mm CONDUIT TYPE A	603 375mm CONDUIT TYPE C	603 375mm CONDUIT TYPE F	603 ** 450mm CONDUIT TYPE A	603 450mm CONDUIT TYPE A	603 450mm CONDUIT TYPE C		603 525mm CONDUIT TYPE A	603 525mm CONDUIT TYPE C	603 600mm CONDUIT TYPE A	603 600mm CONDUIT TYPE C	603 675mm CONDUIT TYPE A	603 675mm CONDUIT TYPEC	603 ** 750mm CONDUIT TYPE A	603 750mm CONDUIT TYPE C	604 CATCH BASIN NO. 4A AS PER PLAN	603 900mm CONDUIT TYPE A	604 MANHOLE NO. 1	604 CATCH BASIN NO. 2-3	604 CATCH BASIN NO. 4, AS PER PLAN	604 CATCH BASIN NO. 5A, AS PER PLAN	604 CATCH BASIN NO. 5, AS PER PLAN	607 FENCE TYPE 47	625 GROUND ROD	670 DITCH EROSION PROTECTION	839 SEEDING AND EROSION CONTROL WITH REVEGATATION MATTING
	C.M.	C.M.	EACH	C.M.	METER	METER	METER	METER	METER	METER	METER	METER		METER	METER	METER	METER	METER	METER	METER	METER	EACH	METER	EACH	EACH	EACH	EACH	EACH	METER	EACH	S.M.	S.M.
MAINLINE																																
92																															801	
94				0.22				12																				1	513.469		240	
96		1.92		0.22			29.371		14.494																	1			480.027		100	
98		2.1		0.22			35.086																			1					100	
99												45														1					100	
100	21.65							41.187				218.813										1				3			463.530		649	
101								240																		3			520.047		1026	
102																													520		484	
103				0.22			29																			1			520.226		100	
104	7.956	2.1		0.22			32																			1			523.397		1260.4	
105	13.69							4.2																		1			537.963		1003.4	
106	9.36	1.5		0.22			30.4																			1			533.968	2	180	
107	22.111	2.1		0.22			35.7																			1			528.463		924	
108	11.818	14						4.2																		1			522.295		1700	800
109				0.22			33.21																			1			522.624		580	
110		2.28		0.22			27.42																			1			519.997		100	
111		1.5		0.22			30.56																			1			532.464		232	
112	20.36	3.12		0.22			31.57																			1			530.616		2540	
113		2.22		0.22			29.06																			1			524.955		1220	
114	30.6			0.22			28.47																			1			488.236		542	
115	10.14							216.253																		4			550.875	2	1128	
116	16.26	3.12		0.22			29.56																			1			547.474	4	727.6	
117		2.1		0.22			29.08																			1			500.051		570	
118																													481.625		84	
119	18.24																												528.992		436	
120	18.02			0.39								50				31.202	100									3			498.098		1082	
121	22.69							142.5				20												2		1			479.845	2	220	
122	20.47	1.80		1.06			33.401								60				30		100				3	1			537.427		1652	
123		1.98		0.22			28.425								110		80		50						4	1			520		1756	
124																													520		24	
125																													520		19	
126	30.13	1.98		0.55			30.717							40.2												1			478.353	2	81	
127	15.68			0.22			29.618																			1			820.917		286	
128												155														2			176.600		214	
129												167						27.368			46			1		2	1	1			186	
130			1	0.67	42.8	21.555															37		64.323	1		1	1					
131																																
RAMPS	I,J,K,L																															
257																													60.000			
258		1.32		0.78																63.201									229.945		129	
259																													51.690		160	
260		1.20		0.78																47.4									203.911		1049	
261		1.20		0.56							26.3																		235.648		1000	
262																													5.883		1060	
263		0.90		0.28						69.1																		1	234.758			
264		0.90		0.22			29																					1	14.697			
TOTAL	289.175	49.34	1	9.03	42.8	21.555	581.648	660.340	14.494	69.1	26.3	655.813		40.2	170	31.202	180	27.368	80	110.601	183	1	64.323	4	7	40	2	4	16979.068	12	25745.4	800

TOTALS CARRIED TO GENERAL SUMMARY SHEET

CALCULATED C.R.M. CHECKED W.J.S.

DRAINAGE – EROSION PROTECTION – FENCE SUB-SUMARY

CRA/RIC-30-33.500/0.000

GS001.DWG 03-27-2001 1:34 PM 1:1 M

* 706.02 (2750 D-LOAD) OR 707.12, 707.13

** 706.02 (2750 D-LOAD),
707.01 ALUMINUM COATED (3.51), 704.04 (3.51),
707.09 AASHTO M190 TYPE A

metric units

DRAINAGE – EROSION PROTECTION – FENCE

	202	202	448	601	601	601	602	603	603	603	603	603	603	603	603	603		603	603	603		603		603	604	604	604	604		607	670
SHEET No.	PIPE REMOVED 600mm AND UNDER	CATCH BASIN REMOVED	ASPHALT CONCRETE SURFACE COURSE TYPE 1, PG 64-22	ROCK CHANNEL PROTECTION, TYPE B W/FILTER	ROCK CHANNEL PROTECTION, TYPE C W/FILTER	RIPRAP USING 150mm REINFORCED CONCRETE SLAB	CONCRETE MASONRY	300mm CONDUIT TYPE A	300mm CONDUIT TYPE A *	300mm CONDUIT TYPE B	300mm CONDUIT TYPE C	300mm CONDUIT TYPE D	300mm CONDUIT TYPE E	450mm CONDUIT TYPE A	375mm CONDUIT TYPE C	525mm CONDUIT TYPE A		750mm CONDUIT TYPE A **	900 mm CONDUIT TYPE A **	1050mm CONDUIT TYPE A		1500mm CONDUIT TYPE A		CONDUIT MISC. 950 x 1500 mm CONDUIT TYPE A, 706.04 HE-II	CATCH BASIN 2-2A	CATCH BASIN 2-2B	CATCH BASIN NO. 5, AS PER PLAN	CATCH BASIN NO. 2-6		FENCE TYPE 47	DITCH EROSION PROTECTION
	METER	EACH	C.M.	C.M.	C.M.	SQ. M	C.M.	METER	METER	METER	METER	METER	METER	METER	METER	METER		METER	METER	METER		METER		METER	EACH	EACH	EACH	EACH		METER	S.M.
RAMP A & B																															
286																														112.4	
288							0.28							21.80													1			154	60
289																														275.20	480
290																														248	
S.R. 61																															
303	37.1	1					0.34	24.068		13.277	10															2				274.97	
304	17.3																													107.85	
305	69.5	2					1.04		52.205		42.841							52.3								3				291.40	
306	320	2										66																		75.63	
HORNING ROAD																															
332					0.90		0.98	42.5								23.6															126
333				1.2		6.3	1.72					24.5								52											582.62
334												51																			193.08
335	18.5											10																			261
GALION-AIRPORT ROAD																															
327												22																			
S.R. 181																															
349	17											79.5																			
350	26											72.3																			154
351	24											54																			676
352	59	6					0.34			45.000	3.000	31														1					
RELOCATED ECKSTEIN ROAD																															
369																															140
370				5.51			1.64													39.491											780
371																															300
EXISTING ECKSTEIN ROAD																															
384	9.8						1.64													31.758											571
EARICK ROAD																															
388	45.0						0.89				63.5		5.8											30.44		1		2			475.64
389	12											24																			639.12
390																															192
391	12.208				3		1.86					30.0		32.5					58.4												160.84
EXISTING U.S. 30																															
410																														121.71	
411																														25.23	
412			3.99																											172.157	
SERVICE ROAD A																															
418							0.17				5	22																			
419																															480
420				11.64			3.75															33.5									899
422												13																			
SERVICE ROAD B																															
438A	13						0.22					21			35.7										1						309.10
TOTAL	680.408	11	3.99	18.35	3.9	6.3	14.87	66.568	52.205	58.277	124.341	520.3	5.8	54.3	35.7	23.6		52.3	58.4	123.249		33.5		30.44	1	7	1	2		1858.547	7479.40

TOTALS CARRIED TO GENERAL SUMMARY SHEET

CALCULATED C.R.M.
CHECKED W.J.S.

DRAINAGE – EROSION PROTECTION – FENCE
SUB-SUMARY

CRA/RIC-30-33.500/0.000

GS002.DWG
04-26-2001 8:22 AM
1:1 M

metric units

GUARDRAIL AND MISCELLANEOUS ITEMS

	606	606	606	606	606	606	606		606	622	626	626	626	626	202	202	202	202		202	202	202	SPEC	202	202	301	SPEC	830	830	
SHEET No.	GUARDRAIL, TYPE 5	BRIDGE TERMINAL ASSEMBLY, TYPE 1	BRIDGE TERMINAL ASSEMBLY, TYPE 2	IMPACT ATTENUATOR, TYPE 1-98 (BIDIRECTIONAL)	ANCHOR ASSEMBLY, TYPE B-98	ANCHOR ASSEMBLY, TYPE E-98	ANCHOR ASSEMBLY, TYPE T		GUARDRAIL BARRIER DESIGN, TYPE 5	CONCRETE BARRIER, TYPE D	BARRIER REFLECTOR TYPE A	BARRIER REFLECTOR TYPE A2	BARRIER REFLECTOR TYPE B	BARRIER REFLECTOR TYPE B2	REMOVAL MISC. YARD LIGHT	GUARDRAIL, REMOVED	ANCHOR ASSEMBLY REMOVED BARRIER DESIGNED	ANCHOR ASSEMBLY, REMOVED		TRAFFIC ISLAND REMOVED, AS PER PLAN	REMOVAL MISC. FLAG POLE	BUILDING DEMOLISHED	DRILLED WATER WELL ABANDONED	SEPTIC TANK REMOVED	FENCE REMOVED	BITUMINOUS AGGREGATE BASE PG 64-22	MAILBOX SUPPORT SYSTEM, SINGLE	CURB TYPE 6	150 mm CONCRETE TRAFFIC ISLAND	SHEET No.
	METER	EACH	EACH	EACH	EACH	EACH	EACH		METER	METER	EACH	EACH	EACH	EACH	EACH	METER	EACH	EACH		SQ. M.	EACH	EACH	EACH	EACH	METER	CU .M.	EACH	METER	SQ. M.	
MAINLINE																														
94	432.477	4	2		2						19		16																	94
96	479.479										18																			96
99	45.720			2			2		60.960		6																			99
106																						3	1	1						106
114	38.100			2			2		60.960		6																			114
118																									26					118
120																						2	1	1						120
121	45.720			2			2		60.960		6																			121
126	45.720			2			2		60.960																					126
129	121.920	2		2	2	2	2		60.960	106	10		4			283.552	1	2												129
130																88.808		1												130
131																461.490		1												131
RAMP I,J,K&L																														
258	304.276										11																			258
260	304.662					1					11																			260
263	127.894					1					6																			263
S.R. 61																														
303	407.760	4				3	3														1						1			303
304	297.341					1						19		6																304
305	16.021					1						12											2	2						305
306												2															3			306
GALION/AIRPORT																														
327																														
																											1			327
HORNING ROAD																														
333	287.916	4				1	1																							
334	203.574					1	3					17		6													1			333
												14															2			334
S.R. 181																														
349	4.600					1						1			2												6			349
350	339.797	4				2	2					16		8										3			2			350
351	169.953					1	2					8										2	1	1			4			351
352																						3	1	1			2			352
EARICK ROAD																														
389	269.212						3					16															1			389
390	347.952	4										14		8																390
391	296.85					1	1					20															1			391
EX. U.S. 30																														
410																38.1														410
411	80.010	1					1				4					38.1														411
412																				12.52						3.339		5.228	3.058	412
SERVICE ROAD "A"																														
418																											1			418
SERVICE ROAD "B"																														
438A																											2			
TOTAL	4666.956	23	2	10	4	16	26		304.8	106	97	139	20	28	2	910.05	1	4		12.52	1	10	6	9	26	3.339	27	5.228	3.058	

TOTAL CARRIED TO GENERAL SUMMARY SHEET

CALCULATED
CHECKED

GUARDRAIL AND MISCELLANEOUS ITEMS SUBSUMARY

CRA/RIC-30-33.500/0.000

GS003.DWG
04-26-2001 8:45 AM
1:1 M

metric units

SHEET No.	203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTR. CU. M.	203 EMBANKMENT CU. M.	870 SEEDING & MULCHING S.M.
MAINLINE			
133			203
134	51	0	
135			810
136	194	0	
137			7482
138	324	33937	
139			1891
140	37	13083	
141			7320
142	180	63060	
143			1527
144	93	14441	
145			532
146	76	3566	
147			4559
148	1191	27064	
149			7950
150	2211	49319	
151			8127
152	1002	61715	
153			3485
154	14	40570	
155			7070
156	340	28264	
157			6790
158	466	6510	
159			4392
160	296	7271	
161			8226
162	686	20813	
163			7584
164	2460	5340	
165			8700
166	9570	156	
167			7890
168	922	8802	
169			7870
170	1268	8838	
171			7600
172	1048	5600	
173			8260
174	1040	14016	
175			8900
176	1092	17006	
177			6926
178	1957	6592	
179			7900
180	2002	4036	
SUB TOTAL ABOVE	28,520	439,999	141,994

SHEET No.	203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTR. CU. M.	203 EMBANKMENT CU. M.	870 SEEDING & MULCHING S.M.
MAINLINE			
181			7090
182	6376	1412	
183			8950
184	876	20164	
185			11080
186	1308	29952	
187			11780
188	1942	23488	
189			11630
190	13816	1540	
191			13460
192	31746	0	
193			11430
194	9550	5050	
195			10560
196	1616	16262	
197			8740
198	750	19610	
199			7378
200	1960	3908	
201			7470
202	2578	3146	
203			6880
204	9258	668	
205			8210
206	4528	1412	
207			7760
208	9372	18	
209			6890
210	5014	182	
211			8900
212	1400	16260	
212A			8030
212B	1588	7444	
212C			6120
212D	1804	3726	
213			7920
214	982	14620	
215			9140
216	1140	16904	
217			7930
218	3054	4904	
219			8630
220	10652	2818	
221			9100
222	26453	226	
223			8150
224	5330	8360	
SUB TOTAL ABOVE	153,093	202,074	213,228

SHEET No.	203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTR. CU. M.	203 EMBANKMENT CU. M.	870 SEEDING & MULCHING S.M.
MAINLINE			
225			8520
226	1696	16052	
227			8010
228	672	10772	
229			8410
230	7402	2696	
231			8570
232	4348	6312	
233			7760
234	1744	6198	
235			8310
236	3054	4144	
237			8530
238	2194	6884	
239			8050
240	2430	10788	
241			7960
242	9432	5060	
243			6958
244	5607	3151	
245			7194
246	5935	1214	
247			7380
248	15364	194	
249			5570
250	6294	54	
251			5880
252	4454	8	
253			1577
254	688	13	
255			240
256	349	0	
SUB TOTAL ABOVE	71,663	73,540	108,919

SHEET No.	203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTR. CU. M.	203 EMBANKMENT CU. M.	870 SEEDING & MULCHING S.M.
RAMP I			
265	2	543	101
266	79	7932	1680
267	141	9546	2440
268	478	11029	3765
269	576	9421	3186
270	371	6624	1605
RAMP J			
271	71	3781	765
272	75	8577	1750
273	119	8549	2160
274	239	8084	3060
275	462	8889	4450
276	110	4717	1715
RAMP K			
277	839	3733	1960
278	2962	1926	4240
279	2565	525	3951
280	1562	662	2830
RAMP L			
281	268	2584	553
282	1385	12973	4745
283	1302	7693	4000
284	2275	13016	3560
285	478	3442	2521
RAMP A			
291	78	642	984
292	1152	1064	2425
293	1577	1074	2830
RAMP B			
294	2600	0	1456
295	5860	0	2220
296	5989	0	2485
297	9487	0	3595
298	9436	0	3400
299	7789	0	3240
300	2603	0	2800
301	3244	0	2690
302	3751	2	2865
SUB TOTAL ABOVE	69,925	137,028	86,027

SHEET No.	203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTR. CU. M.	203 EMBANKMENT CU. M.	870 SEEDING & MULCHING S.M.
SUB TOTAL ABOVE			

SHEET No.	203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTR. CU. M.	203 EMBANKMENT CU. M.	870 SEEDING & MULCHING S.M.
SUB TOTAL ABOVE			

TOTAL	203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTR. 323,201(TOTAL ABOVE) −1309 (DEDUCT) * = 321,892 THIS SHEET	203 EMBANKMENT = 852,641(TOTAL ABOVE) +3489* = 856,130 THIS SHEET	870 SEEDING & MULCHING = 550,168 ⱡ

* EARTHWORK ADJUSTED FOR THE ELIMINATION OF THE FREE-DRAINING BASE.

ⱡ SUBTOTAL CARRIED TO SHEET 24 B

SUBTOTALS CARRIED TO GENERAL SUMMARY SHEET NO 56

CALCULATED WJS CHECKED CRM

EARTHWORK AND SEEDING SUBSUMMARY

CRA/RIC-30-33.500/0.000

GS004.DWG 03-27-2001 1:42 PM 1:1m

metric units

SHEET No.	203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTR. CU. M.	203 EMBANKMENT CU. M.	870 SEEDING & MULCHING S.M.
S.R. 61			
307	226	54	963
308	681	549	2470
309	638	4940	3200
310	148	4635	937
311	13	9331	1280
312	44	6960	1170
313	84	1870	338
314	329	13214	2173
315	384	10432	1075
316	575	7657	2494
317	158	8331	2770
318	119	8291	2880
319	99	6949	2770
320	49	4913	2380
321	–	–	–
322	266	2092	2435
323	341	90	1585
WACHS ROAD			
325	140	140	840
326	344	1	432
326A	376	21	1137
GALION–AIRPORT ROAD CH 47			
328	268	16	578
329	280	127	665
330	261	62	385
331	571	86	944
HORNING ROAD			
336	596	32	1017
337	538	253	1900
338	426	1162	2250
339	246	2977	1770
340	356	6046	2700
341	370	7048	2079
342	14	1797	395
342A	144	13306	2974
343	92	8878	2276
344	290	5650	2529
345	128	1859	1858
346	456	574	2080
347	711	51	1470
348	599	42	1122
SUB TOTAL ABOVE	11,360	140,436	62,321

SHEET No.	203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTR. CU. M.	203 EMBANKMENT CU. M.	870 SEEDING & MULCHING S.M.
S.R. 181			
353	544	105	1434
354	37	6	1067
355	448	354	1220
356	199	1332	1793
357	204	3092	1676
358	0	1200	404
359	171	7454	2247
360	75	3140	897
361	293	2200	1146
362	328	5356	2776
363	220	5224	2477
364	356	2351	2162
365	1466	151	1636
366	2338	0	1238
367	2456	0	1362
S.R. 309			
367A	91	1	308
367B	135	0	350
367C	50	3	187
RELOCATED ECKSTEIN RD.			
372	112	3982	1470
373	506	2055	2000
374	767	787	1770
375	200	2603	1845
376	129	5765	2105
377	1291	2342	1722
378	2749	85	2345
379	588	2238	2270
380	144	73	464
EXISTING ECKSTEIN ROAD			
385	1021	102	1452
386	227	1816	2245
387	2008	209	1593
CHANNEL WORK			
447	16	0	406
448	64	0	602
449	6	0	47
452	49	0	213
453	573	0	1340
454	1244	0	1774
SUB TOTAL ABOVE	21,105	54,026	50,043

SHEET No.	203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTR. CU. M.	203 EMBANKMENT CU. M.	870 SEEDING & MULCHING S.M.
EARICK ROAD			
393	22	13	280
394	927	212	2600
395	447	1163	2620
396	133	3086	1658
397	81	3241	1130
398	106	6410	2190
399	188	6131	2280
400	145	6029	1830
401	64	5473	963
402	83	1421	403
403	156	5785	1502
404	167	15707	3460
405	161	16991	3420
406	177	10823	2930
407	98	7664	2233
408	214	6680	3020
409	176	2275	2190
409A	140	97	1167
EXISTING U.S. 30			
413	217	26	790
414	1460	38	1940
415	1367	505	1320
416	411	205	790
417	75	3	35
SUB TOTAL ABOVE	7,015	99,978	40,751

SHEET No.	203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTR. CU. M.	203 EMBANKMENT CU. M.	870 SEEDING & MULCHING S.M.
SERVICE ROAD "A"			
423	1454	105	1526
424	2283	0	1127
425	2368	0	3205
426	1211	38	1850
427	449	126	1390
428	194	480	1500
429	126	2585	2080
430	97	2891	2140
431	323	530	1400
432	1447	0	1490
433	1671	0	1570
434	229	152	1290
435	182	335	1390
436	104	713	1440
437	565	228	1900
438	722	2	1478
GRADING DETAILS			
459C	152	0	416
459E	254	254	1467
SUB TOTAL ABOVE	13,831	8,439	28,659

SHEET No.	203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTR. CU. M.	203 EMBANKMENT CU. M.	870 SEEDING & MULCHING S.M.
SERVICE ROAD "B"			
438B	6	762	235
438C	17	527	360
438D	160	117	639
438E	311	94	376
438F	54	15	90
SUB TOTAL ABOVE	548	1,515	1,700

SHEET No.	203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTR. CU. M.	203 EMBANKMENT CU. M.	870 SEEDING & MULCHING S.M.
SUB TOTAL ABOVE			

TOTAL	
	203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTR. = 53,859
	203 EMBANKMENT = 304,394
	870 SEEDING & MULCHING = 183,474

SUBTOTALS CARRIED TO GENERAL SUMMARY SHEET NO 56.

CALCULATED WJS CHECKED CRM

EARTHWORK AND SEEDING SUBSUMMARY

CRA/RIC-30-33.500/0.000

GS005.DWG 08-30-2001 1:12 PM 1:1 M

① 1350 mm CONDUIT TYPE A 706.02 (1250 D-LOAD) OR 1800 mm 707.02 ALUMINUM COATED (3.51), 707.04 (3.51), 707.09 AASHTO M 190.

② 1650 mm CONDUIT TYPE A 706.02 (1250 D-LOAD) OR 1650 mm 707.02 ALUMINUM COATED (3.51), 707.04 (3.51), 707.09 AASHTO M 190.

③ 1200 mm CONDUIT TYPE A 706.02 (1250 D-LOAD) OR 1350 mm 707.02 ALUMINUM COATED (3.51), 707.04 (3.51), 707.09 AASHTO M 190.

④ 750 mm CONDUIT TYPE A 706.02 (1250 D-LOAD) OR 900 mm 707.02 ALUMINUM COATED (3.51), 707.04 (3.51), 707.09 AASHTO M 190.

⑤ 900 mm CONDUIT TYPE A 706.02 (1250 D-LOAD) OR 1200 mm 707.02 ALUMINUM COATED (3.51), 707.04 (3.51), 707.09 AASHTO M 190.

⑥ 1050 mm CONDUIT TYPE A 706.02 (1250 D-LOAD) OR 1200 mm 707.02 ALUMINUM COATED (3.51), 707.04 (3.51), 707.09 AASHTO M 190.

metric units

DRAINAGE AND EROSION PROTECTION

SHEET No.		601 ROCK CHANNEL PROTECTION, TYPE B W/FILTER	601 RIP-RAP USING 150mm CONC. SLAB	601 ROCK CHANNEL PROTECTION, TYPE C W/FILTER	602 CONCRETE MASONRY	603 2250mm CONDUIT TYPE A, 706.02	603 ① 1350mm CONDUIT TYPE A	603 ② 1650mm CONDUIT TYPE A	603 ③ 1200mm CONDUIT TYPE A	603 ④ 750mm CONDUIT TYPE A	603 ⑤ 900mm CONDUIT TYPE A	603 ⑥ 1050mm CONDUIT TYPE A	670 DITCH EROSION PROTECTION	839 SEEDING AND EROSION CONTROL WITH REVEGITATION MAT	604 CATCH BASIN NO. 4A, AS PER PLAN	604 CATCH BASIN NO. 4A, A.P.P.
		C.M.	S.M.	C.M.	C.M.	METER	METER	METER	METER	METER	METER	METER	METER	METER	EACH	EACH
CULVERT DETAILS AND OUTLET DRAINAGE																
442		12.1			7.90	74.972										1
443		8.845	13.04		2.88		121.02								1	
444		14.69	2.501		5.11			80.207							1	
445		8.10	8.40		2.37				82.450							
446			5.85	1.87	1.18					64.991						
447			6.80	2.52	1.53						60.824					
448			5.76	2.70	1.49						67.824					
449			4.50	2.70	1.53						66.164					
450			9.24	3.68	1.84							60.342				
451			6.30	2.52	1.49						78.931				1	
451A		13.05			7.90	35.587										
452													58			
453														411		
454													515			
459C													95.6			
TOTAL		56.785	62.391	15.99	35.22	110.559	121.02	80.207	82.450	64.991	273.743	60.342	668.6	411	3	1

TOTALS CARRIED TO GENERAL SUMMARY SHEET

CALCULATED C.R.M. CHECKED W.J.S.

DRAINAGE AND EROSION PROTECTION SUBSUMARY

CRA/RIC-30-33.500/0.000

GS006.DWG 05-30-2003 9:27 AM 1:1

ITEM 870 – WATER

733,588 SQ.M. x 12.2 CU.M./1000 SQ.M. = 8949.774
USE 8950 CU. METER

ITEM 870 – COMMERCIAL FERTILIZER

733,588 SQ.M. x 0.15 KG/SQ.M. =110,038.200
USE 110,038 KILOGRAMS

ITEM 870 – AGRICULTURAL LIME

733,588 SQ.M. x 0.45 KG/SQ.M. =330,114.600
USE 330,115 KILOGRAMS

ITEM 601 – CRUSHED AGGREGATE SLOPE PROTECTION

STRUCTURE	REAR AND FORWARD ABUTMENT TOTAL	
CONRAIL-EB (CRA-30-3602)	650 SQ. M. + 570 SQ. M. =	1220 SQ. METERS
CONRAIL-WB (CRA-30-3602)	630 SQ. M. + 750 SQ. M. =	1380 SQ. METERS
S.R. 61 (CRA-30-34250)	188 SQ. M. + 186 SQ. M. =	374 SQ. METERS
HORNING RD. (RIC-30-02371)	170 SQ. M. + 170 SQ. M. =	340 SQ. METERS
S.R. 181 (RIC-30-04075)	270 SQ. M. + 270 SQ. M. =	540 SQ. METERS
EARICK RD. (RIC-30-05405)	268 SQ. M. + 268 SQ. M. =	536 SQ. METERS
	TOTAL =	4,390 SQ. METERS

ITEM 618– RUMBLE STRIPS, TYPE 2 (ASPHALT)

STA. LIMITS		
33+500.000 – 33+593.338 =	93.338 m x 4 =	373.352 m
33+684.862 – 35+886.871 (BK) =	2202.009 m x 4 =	8808.036 m
0+000 (AH) – 6+520.000 =	6520.000 m x 4 =	26080.000 m
6+520.000 – 6+770.000 =	250.000 m x 2 =	500.000 m
	TOTAL =	35,761.388 m
		USE 35,762 m

TOTALS CARRIED TO GENERAL SUMMARY

ITEM 601 – CRUSHED AGGREGATE SLOPE PROTECTION =	4,390 SQ. METERS
ITEM 605 – AGGREGATE DRAINS =	3,436 METERS
ITEM 618 – RUMBLE STRIPS, TYPE 2 (ASPHALT) =	35,762 METERS
ITEM 870 – WATER =	8950 CU. METERS*
ITEM 870 – COMMERCIAL FERTILIZER =	110,038 KILOGRAMS*
ITEM 870 – AGRICULTURAL LIME =	330,115 KILOGRAMS*

* CARRIED TO SHEET 248.

ITEM 605– AGGREGATE DRAINS

S.R. 61
AGGREGATE DRAIN LENGTH PER LOCATION = 3.4 m

STA. LIMITS	SIDE	SPACING (m.)	
49+640.000 – 49+956.100	L/R	10	64 x 3.4 m = 217.6 m
50+043.900 – 50+167.315	L/R	5	48 x 3.4 m = 163.2 m
50+167.315 – 50+480.000	R	5	63 x 3.4 m = 214.2 m
			TOTAL = 595.0 m

WACHS RD.
AGGREGATE DRAIN LENGTH PER LOCATION = 2.4 m

STA. LIMITS	SIDE	SPACING (m.)	
30+504.258 – 30+514.258	L/R	10	2 x 2.4 = 4.8 m
			TOTAL = 4.8 m

HORNING RD.
AGGREGATE DRAIN LENGTH PER LOCATION = 3.0 m

STA. LIMITS	SIDE	SPACING (m.)	
49+608.067 – 49+667.449	L/R	10	12 x 3.0 m = 36.0 m
49+667.449 – 49+810.248	L	5	29 x 3.0 m = 87.0 m
49+810.248 – 49+953.047	R	5	29 x 3.0 m = 87.0 m
49+953.047 – 49+957.847	L/R	10	2 x 3.0 m = 6.0 m
50+045.247 – 50+050.047	L/R	10	2 x 3.0 m = 6.0 m
50+050.047 – 50+194.743	R	5	29 x 3.0 m = 87.0 m
50+194.743 – 50+338.576	L	5	29 x 3.0 m = 87.0 m
50+338.576 – 50+433.276	L/R	10	20 x 3.0 m = 60.0 m
			TOTAL = 456.0 m

SERVICE RD. "A"
AGGREGATE DRAIN LENGTH PER LOCATION = 3.4 m

STA. LIMITS	SIDE	SPACING (m.)	
49+994.916 – 50+057.928	L/R	10	12 x 3.4 m = 40.8 m
50+057.928 – 50+433.028	L	5	75 x 3.4 m = 255.0 m
50+433.028 – 50+783.964	R	5	70 x 3.4 m = 238.0 m
50+783.964 – 51+312.403	L/R	10	106 x 3.4 m = 360.4 m
			TOTAL = 894.2 m

EARICK RD.
AGGREGATE DRAIN LENGTH PER LOCATION = 3.4 m

STA. LIMITS	SIDE	SPACING (m.)	
49+480.000 – 49+529.525	L/R	10	10 x 3.4 m = 34.0 m
49+529.525 – 49+706.934	L	5	36 x 3.4 m = 122.4 m
49+706.934 – 49+884.337	R	5	36 x 3.4 m = 122.4 m
49+884.337 – 49+930.980	L/R	10	10 x 3.4 m = 34.0 m
50+033.116 – 50+108.924	L/R	10	16 x 3.4 m = 54.4 m
50+108.924 – 50+273.783	R	5	33 x 3.4 m = 112.2 m
50+273.783 – 50+451.469	L	5	36 x 3.4 m = 122.4 m
50+451.469 – 50+475.000	L/R	10	5 x 3.4 m = 17.0 m
			TOTAL = 618.8 m

RELOC. ECKSTEIN RD.
AGGREGATE DRAIN LENGTH PER LOCATION = 2.4 m

STA. LIMITS	SIDE	SPACING (m.)	
21+003.642 – 21+264.349	L/R	10	52 x 2.4 m = 124.8 m
21+264.349 – 21+517.749	L	5	51 x 2.4 m = 122.4 m
21+517.749 – 21+520.000	L/R	10	2 x 2.4 m = 4.8 m
			TOTAL = 252.0 m

EXIST. ECKSTEIN RD.
AGGREGATE DRAIN LENGTH PER LOCATION = 2.4 m

STA. LIMITS	SIDE	SPACING (m.)	
50+107.692 – 50+267.220	L/R	10	32 x 2.4 m = 76.8 m
			TOTAL = 76.8 m

S.R. 181
AGGREGATE DRAIN LENGTH PER LOCATION = 3.4 m

STA. LIMITS	SIDE	SPACING (m.)	
49+648.842 – 49+686.342	R	5	8 x 3.4 m = 27.2 m
49+686.342 – 49+740.479	L/R	10	11 x 3.4 m = 37.4 m
49+740.479 – 49+910.137	R	5	34 x 3.4 m = 115.6 m
49+910.137 – 49+956.598	L/R	10	10 x 3.4 m = 34.0 m
50+055.286 – 50+329.317	L/R	10	54 x 3.4 m = 183.6 m
50+329.317 – 50+416.426	R	5	17 x 3.4 m = 57.8 m
			TOTAL = 455.4 m

SERVICE ROAD "B"
AGGREGATE DRAIN LENGTH PER LOCATION = 3.2 m

STA. LIMITS	SIDE	SPACING (m.)	
30+735.925 – 30+754.402	R	5	4 x 3.2 m = 12.8 m
30+754.402 – 30+820.000	L/R	10	14 x 3.2 m = 44.8 m
30+871.026 – 30+910.000	L/R	10	8 x 3.2 m = 25.6 m
			TOTAL = 83.2 m

GRAND TOTAL = 595 + 4.8 + 456.0 + 894.2 + 618.8 + 252.0 + 76.8 + 455.4 + 83.2 = 3436.2 m
USE 3436 METERS

metric units

CALCULATED MJT
CHECKED WS

CALCULATIONS

CRA/RIC-30-33.500/0.000

GC001.DWG
05-10-2001 7:46 AM
SCALE: 1:1M

NOTE–FOR LEGEND, SEE SHEET NO. 11

CALCULATED MJT CHECKED WS

FROM STATION	TO STATION	SIDE	DISTANCE D	AVERAGE WIDTH W	SURFACE AREA A A=DxW	(11) 203 SUBGRADE COMPACTION	(3) 302 (205 mm) 0.205A	(5) 304 (250 mm) 0.250A	(4) 304 (150 mm) 0.150A	(6) 407 0.2A	(6A) 407 0.2A	(7) 408 1.8A*	(1) 446 (38 mm) 0.038A	(2) 446 (45 mm) 0.045A		REMARKS * WIDTH–U.D. WRAP
			METER	METER	SQ. METER	SQ. METER	CU. METER	CU. METER	CU. METER	LITER	LITER	LITER	CU. METER	CU. METER		
RELOC. U.S. 30, WB		WB														
33+500.000	33+515.000		15.000	11.4	171.000	171.000				34.200	34.200		6.498	7.695		
33+500.000	33+515.000		15.000	11.6	174.000		35.670					244.350				
33+500.000	33+515.000		15.000	2.7	40.500				6.075							
33+500.000	33+515.000		15.000	9.2	138.000			34.500								
33+515.000	33+543.800		28.800	11.4	328.320	328.320				65.664	65.664		12.476	14.774		
33+515.000	33+543.800		28.800	11.6	334.080		68.486					469.152				
33+515.000	33+543.800		28.800	2.7–2.1	69.120				10.368							
33+515.000	33+543.800		28.800	9.2–9.8	273.600			68.400								
33+543.800	33+601.657		57.857	11.4–12.561	693.156	693.156				138.631	138.631		26.340	31.192		
33+543.800	33+601.657		57.857	11.6–12.761	704.727		144.469					1002.945				
33+543.800	33+601.657		57.857	2.1	121.500				18.225							
33+543.800	33+601.657		57.857	9.8–10.361	583.228			145.807								
33+693.181	33+875.000		181.819	14.468–18.3	2978.922	2978.922				595.784	595.784		113.199	134.052		
33+693.181	33+875.000		181.819	14.668–18.5	3015.286		618.134					4592.966				
33+693.181	33+875.000		181.819	2.1	381.820				57.273							
33+693.181	33+875.000		181.819	12.868–16.7	2688.012			672.003								
33+875.000	33+965.000		90.000	18.3–20.175	1731.375	1731.375				346.275	346.275		65.792	77.912		
33+875.000	33+965.000		90.000	18.5–20.375	1749.375		358.622					2735.775				
33+875.000	33+965.000		90.000	18.8–20.675	1776.375			444.094								
33+965.000	33+995.251		30.251	12.975–15.4	429.186	429.186				85.837	85.837		16.309	19.313		
33+965.000	33+995.251		30.251	13.075–15.5	432.211		88.603					639.128				
33+965.000	33+995.251		30.251	13.225–15.65	437.505			109.376								
33+995.251	34+576.814		581.563	11.4	6629.818	6629.818				1325.964	1325.964		251.933	298.342		
33+995.251	34+576.814		581.563	11.6	6746.131		1382.957					9473.662				
33+995.251	34+576.814		581.563	2.7	1570.220				235.533							
33+995.251	34+576.814		581.563	9.2	5350.380			1337.595								
34+576.814	34+657.336		80.522	7.0–0.6	281.415	281.415	84.987	70.354	281.415	56.283	56.283	506.547	10.694	12.664		TOTAL AREA BY CADD
34+576.814	34+657.336		80.522	15.6	1256.143	1256.143				251.229	251.229		47.733	56.526		
34+576.814	34+657.336		80.522	15.8	1272.248		260.811					1920.450				
34+576.814	34+657.336		80.522	16.4	1320.561			330.140								
34+657.336	34+725.000		67.664	16.2–14.4	1035.259	1035.259				207.052	207.052		39.340	46.587		
34+657.336	34+725.000		67.664	16.4–14.6	1048.792		215.002					1577.248				
34+657.336	34+725.000		67.664	16.7–14.9	1069.091			267.273								
34+725.000	34+786.814		61.814	14.4	890.122	890.122				178.024	178.024		33.825	40.055		
34+725.000	34+786.814		61.814	14.6	902.484		185.009					1340.745				
34+725.000	34+786.814		61.814	14.9	921.029			230.257								
34+786.814	34+816.814		30.000	14.4–11.4	387.000	387.000				77.400	77.400		14.706	17.415		
34+786.814	34+816.814		30.000	14.6–11.6	393.000		80.565					569.700				
34+786.814	34+816.814		30.000	14.9–11.9	402.000			100.500								
34+816.814	35+886.871		1070.057	11.4	12198.650	12198.650				2439.730	2439.730		463.549	548.939		
34+816.814	35+886.871		1070.057	11.6	12412.661		2544.596					17431.228				
34+816.814	35+886.871		1070.057	2.7	2889.154				433.373							
34+816.814	35+886.871		1070.057	9.2	9844.524			2461.131								
35+886.871BK=0+000AHD																
0+000.000	1+487.874		1487.874	11.4	16961.764	16961.764				3392.353	3392.353		644.547	763.279		
0+000.000	1+487.874		1487.874	11.6	17259.338		3538.164					24237.467				
0+000.000	1+487.874		1487.874	2.7	4017.260				602.589							
0+000.000	1+487.874		1487.874	9.2	13688.441			3422.110								
1+487.874	1+572.126		84.252	10.2	859.370	859.370				171.874	171.874		32.656	38.672		
1+487.874	1+572.126		84.252	10.4	876.221		179.625					1190.481				
1+487.874	1+572.126		84.252	2.7	227.480				34.122							
1+487.874	1+572.126		84.252	7.75	652.953			163.238								
TOTALS						46831.500	9785.710	9856.778	1678.973	9366.300	9366.300	67931.844	1779.597	2107.418		
TOTALS CARRIED TO SUB–SUMMARY, SHEET NO. 71K						46832	9786	9857	1679	9367	9367	67932	1780	2108		

PAVEMENT CALCULATIONS

CRA/RIC–30–33.500/0.000

GC002.DWG 05-10-2001 7:54 AM 1:1M

NOTE-FOR LEGEND, SEE SHEET NO. 11

FROM STATION	TO STATION	SIDE	DISTANCE D	AVERAGE WIDTH W	SURFACE AREA A A=DxW	(11) 203 SUBGRADE COMPACTION	(3) 302 (205 mm) 0.205A	(5) 304 (250 mm) 0.250A	(4) 304 (150 mm) 0.150A	(6) 407 0.2A	(6A) 407 0.2A	(7) 408 1.8A*	(1) 446 (38 mm) 0.038A	(2) 446 (45 mm) 0.045A	202 WEARING COURSE REMOVED	407 TACK COAT 0.48A	REMARKS * WIDTH-U.D. WRAP
			METER	METER	SQ. METER	SQ. METER	CU. METER	CU. METER	CU. METER	LITER	LITER	LITER	CU. METER	CU. METER	SQ. METER	LITER	
RELOC. U.S. 30, WB																	
1+572.126	5+546.247	WB	3974.121	11.4	45304.979	45304.979				9060.996	9060.996		1721.589	2038.724			
1+572.126	5+546.247		3974.121	11.6	46099.804		9450.460					64738.432					
1+572.126	5+546.247		3974.121	2.7	10730.127				1609.519								
1+572.126	5+546.247		3974.121	9.2	36561.913			9140.478									
5+546.247	5+575.047		28.800	11.4	328.320	328.320				65.664	65.664		12.476	14.774			
5+546.247	5+575.047		28.800	11.6	334.080		68.486					469.152					
5+546.247	5+575.047		28.800	2.7-2.1	69.120				10.368								
5+546.247	5+575.047		28.800	9.2-9.8	273.600			68.400									
5+575.047	5+906.247		331.200	11.4-18.3	4918.320	4918.320				983.664	983.664		186.896	221.324			
5+575.047	5+906.247		331.200	11.5-18.4	4951.440		1015.045					7392.384					
5+575.047	5+906.247		331.200	2.1	695.520				104.328								
5+575.047	5+906.247		331.200	9.8-16.7	4388.400			1097.100									
5+906.247	6+029.103		122.856	11.1-15.4	1627.842	1627.842				325.568	325.568		61.858	73.253			
5+906.247	6+029.103		122.856	11.2-15.5	1640.128		336.226					2388.321					
5+906.247	6+029.103		122.856	11.35-15.65	1658.556			414.639									
6+029.103	6+586.500		557.397	11.4	6354.326	6354.326				1270.865	1270.865		241.464	285.945			
6+029.103	6+586.500		557.397	11.6	6465.805		1325.490					9079.997					
6+029.103	6+586.500		557.397	2.7	1504.972				225.746								
6+029.103	6+586.500		557.397	9.2	5128.052			1282.013									
6+586.500	6+740.000		153.500	8.4	1289.400	1289.400				257.880	257.880		48.997	58.023			
6+586.500	6+740.000		153.500	8.5	1304.750		267.474					1878.840					
6+586.500	6+740.000		153.500	8.65	1327.775			331.944									
6+580.000	6+770.000		190.000	CADDAREA	1492.741						37.649		56.724		1492.741	716.516	
RELOC. U.S. 30, EB		EB															
33+500.000	33+584.750		84.750	11.4	966.150	966.150				193.230	193.230		36.714	43.477			
33+500.000	33+584.750		84.750	11.6	983.100		201.536					1380.578					
33+500.000	33+584.750		84.750	2.7	228.825				34.324								
33+500.000	33+584.750		84.750	9.2	779.700			194.925									
33+676.274	33+683.218		6.944	11.4	79.162	79.162				15.832	15.832		3.008	3.562			
33+676.274	33+683.218		6.944	11.6	80.550		16.513					113.117					
33+676.274	33+683.218		6.944	2.7	18.749				2.812								
33+676.274	33+683.218		6.944	9.2	63.885			15.971									
33+683.218	33+713.218		30.000	11.4-14.4	387.000	387.000				77.400	77.400		14.706	17.415			
33+683.218	33+713.218		30.000	11.6-14.6	393.000		80.565					569.700					
33+683.218	33+713.218		30.000	11.9-14.9	402.000			100.500									
33+713.218	33+810.000		96.782	14.4	1393.661	1393.661				278.732	278.732		52.959	62.715			
33+713.218	33+810.000		96.782	14.6	1413.017		289.669					2099.201					
33+713.218	33+810.000		96.782	14.9	1442.052			360.513									
33+810.000	33+877.187		67.187	14.4-16.2	1027.961	1027.961				205.592	205.592		39.063	46.258			
33+810.000	33+877.187		67.187	14.6-16.4	1041.398		213.487					1566.128					
33+810.000	33+877.187		67.187	14.9-16.7	1061.555			265.389									
33+877.187	33+953.218		76.031	15.6	1186.084	1186.084				237.217	237.217		45.071	53.374			
33+877.187	33+953.218		76.031	15.8	1201.290		246.264					1813.340					
33+877.187	33+953.218		76.031	16.1	1224.099			306.025									
33+877.187	33+953.218		76.031	0.6-7.0	259.413	259.413	53.180	64.853		51.883	51.883	466.943	9.858	11.674			TOTAL AREA BY CADD
33+953.218	34+542.395		589.177	11.4	6716.618	6716.618				1343.324	1343.324		255.231	302.248			
33+953.218	34+542.395		589.177	11.6	6834.453		1401.063					9597.693					
33+953.218	34+542.395		589.177	2.7	1590.778				238.617								
33+953.218	34+542.395		589.177	9.2	5420.428			1355.107									
34+542.395	34+570.000		27.605	15.4-12.975	391.646	231.882				46.376	46.376		14.883	17.624			
34+542.395	34+570.000		27.605	15.5-13.075	394.406		80.853					583.224					
34+542.395	34+570.000		27.605	15.65-13.225	398.547			99.637									
TOTALS						72071.118	15046.311	15097.494	2225.714	14414.223	14451.872	104137.050	2801.497	3250.390	1492.741	716.516	
TOTALS CARRIED TO SUB-SUMMARY, SHEET NO. 71K						72071	15047	15097	2226	14415	14452	104137	2802	3251	1493	717	

CALCULATED MJT CHECKED WS

PAVEMENT CALCULATIONS

CRA/RIC-30-33.500/0.000

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04-10-2001 7:59 AM
1:1M

FROM STATION	TO STATION	SIDE	DISTANCE D	AVERAGE WIDTH W	SURFACE AREA A A=DXW	(11) 203 SUBGRADE COMPACTION	(3) 302 (205 mm) 0.205A	(5) 304 (250 mm) 0.250A	(4) 304 (150 mm) 0.150A	(6) 407 0.2A	(6A) 407 0.2A	(7) 408 1.8A*	(1) 446 (38 mm) 0.038A	(2) 446 (45 mm) 0.045A	202 WEARING COURSE REMOVED	407 TACK COAT 0.48A	NOTE-FOR LEGEND, SEE SHEET NO. 11 REMARKS * WIDTH-U.D. WRAP
			METER	METER	SQ. METER	SQ. METER	CU. METER	CU. METER	CU. METER	LITER	LITER	LITER	CU. METER	CU. METER	SQ. METER	LITER	
RELOC. U.S. 30, EB		EB															
34+570.000	34+660.000		90.000	20.175–18.3	1731.375	1404.000				280.800	280.800		65.792	77.912			
34+570.000	34+660.000		90.000	20.375–18.5	1749.375		358.622					2735.775					
34+570.000	34+660.000		90.000	20.675–18.8	1776.375			683.944									
34+660.000	34+991.200		331.200	18.3–11.4	4918.320	4918.320				983.664	983.664		186.896	221.324			
34+660.000	34+991.200		331.200	18.5–11.6	4984.560		1021.835					7452.000					
34+660.000	34+991.200		331.200	2.1	695.520				104.328								
34+660.000	34+991.200		331.200	16.7–9.8	4388.400			1097.100									
34+991.200	35+020.000		28.800	11.4	328.320	328.320				65.664	65.664		12.476	14.774			
34+991.200	35+020.000		28.800	11.6	334.080		68.486					469.152					
34+991.200	35+020.000		28.800	2.1–2.7	69.120				10.368								
34+991.200	35+020.000		28.800	9.8–9.2	273.600			68.400									
35+020.000	35+886.871		866.871	11.4	9882.329	9882.329				1976.466	1976.466		375.529	444.705			
35+020.000	35+886.871		866.871	11.6	10055.704		2061.419					14121.329					
35+020.000	35+886.871		866.871	2.7	2340.552				351.083								
35+020.000	35+886.871		866.871	9.2	7975.213			1993.803									
35+886.871 BK=0+000 AHD																	
0+000.000	1+427.874		1427.874	11.4	16277.764	16277.764				3255.553	3255.553		618.555	732.499			
0+000.000	1+427.874		1427.874	11.6	16563.338		3395.484					23260.067					
0+000.000	1+427.874		1427.874	2.7	3855.260				578.289								
0+000.000	1+427.874		1427.874	9.2	13136.441			3284.110									
1+427.874	1+512.126		84.252	10.2	859.370	859.370				171.874	171.874		32.656	38.672			
1+427.874	1+512.126		84.252	10.4	876.221		179.625					1190.481					
1+427.874	1+512.126		84.252	2.7	227.480				34.122								
1+427.874	1+512.126		84.252	7.75	652.953			163.238									
1+512.126	5+603.219		4091.093	11.4	46638.460	46638.460				9327.692	9327.692		1772.261	2098.731			
1+512.126	5+603.219		4091.093	11.6	47456.679		9728.619					66643.905					
1+512.126	5+603.219		4091.093	2.7	11045.951				1656.893								
1+512.126	5+603.219		4091.093	9.2	37638.056			9409.514									
5+603.219	5+633.219		30.000	11.4–14.4	387.000	387.000				77.400	77.400		14.706	17.415			
5+603.219	5+633.219		30.000	11.6–14.6	393.000		80.565					569.700					
5+603.219	5+633.219		30.000	11.9–14.9	402.000			100.500									
5+633.219	5+700.000		66.781	14.4	961.646	961.646				192.329	192.329		36.543	43.274			
5+633.219	5+700.000		66.781	14.6	975.003		199.876					1448.481					
5+633.219	5+700.000		66.781	14.9	995.037			248.759									
5+700.000	5+767.189		67.189	14.4–16.2	1027.992	1027.992				205.598	205.598		39.064	46.260			
5+700.000	5+767.189		67.189	14.6–16.4	1041.430		213.493					1566.177					
5+700.000	5+767.189		67.189	14.9–16.7	1061.586			265.397									
5+767.189	5+843.219		76.030	15.6	1186.068	1186.068				237.214	237.214		45.071	53.373			
5+767.189	5+843.219		76.030	15.8	1201.274		246.261					1813.316					
5+767.189	5+843.219		76.030	16.1	1224.083			306.021									
5+767.189	5+843.219		76.030	0.6–7.0	259.370	259.370	53.171	64.843	259.370	51.874	51.874	466.866	9.856	11.672			TOTAL AREA BY CADD
5+843.219	6+520.000		676.781	11.4	7715.303	7715.303				1543.061	1543.061		293.182	347.189			
5+843.219	6+520.000		676.781	11.6	7850.660		1609.385					11024.763					
5+843.219	6+520.000		676.781	2.7	1827.309				274.096								
5+843.219	6+520.000		676.781	9.2	6226.385			1556.596									
6+520.000	6+560.000		40.000	11.4	456.000						91.200		17.328		456.000	218.880	
TOTALS						91845.942	19216.841	19242.225	3268.549	18369.189	18460.389	132762.012	3519.915	4147.800	456.000	218.880	
TOTALS CARRIED TO SUB-SUMMARY, SHEET NO. 71K						91846	19217	19242	3269	18369	18461	132762	3520	4148	456	219	

CALCULATED MJT CHECKED WS

PAVEMENT CALCULATIONS

CRA/RIC-30-33.500/0.000

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PAVEMENT CALCULATIONS

NOTE–FOR LEGEND, SEE SHEET NO. 11

FROM STATION	TO STATION	SIDE	DISTANCE D	AVERAGE WIDTH W	SURFACE AREA A A=DXW	(11) 203 SUBGRADE COMPACTION	(3) 302 (205 mm) 0.205A	(5) 304 (250 mm) 0.250A	(4) 304 (150 mm) 0.150A	(6) 407 0.2A	(6A) 407 0.2A	(7) 408 1.8A*	(1) 446 (38 mm) 0.038A	(2) 446 (45 mm) 0.045A	202 WEARING COURSE REMOVED	407 TACK COAT 0.48A	REMARKS * WIDTH–U.D. WRAP
			METER	METER	SQ. METER	SQ. METER	CU. METER	CU. METER	CU. METER	LITER	LITER	LITER	CU. METER	CU. METER	SQ. METER	LITER	
RELOC. U.S. 30, EB		EB															
34+570.000	34+660.000		90.000	20.175–18.3	1731.375	1404.000				280.800	280.800		65.792	77.912			
34+570.000	34+660.000		90.000	20.375–18.5	1749.375		358.622					2735.775					
34+570.000	34+660.000		90.000	20.675–18.8	1776.375			683.944									
34+660.000	34+991.200		331.200	18.3–11.4	4918.320	4918.320				983.664	983.664		186.896	221.324			
34+660.000	34+991.200		331.200	18.5–11.6	4984.560		1021.835					7452.000					
34+660.000	34+991.200		331.200	2.1	695.520				104.328								
34+660.000	34+991.200		331.200	16.7–9.8	4388.400			1097.100									
34+991.200	35+020.000		28.800	11.4	328.320	328.320				65.664	65.664		12.476	14.774			
34+991.200	35+020.000		28.800	11.6	334.080		68.486					469.152					
34+991.200	35+020.000		28.800	2.1–2.7	69.120				10.368								
34+991.200	35+020.000		28.800	9.8–9.2	273.600			68.400									
35+020.000	35+886.871		866.871	11.4	9882.329	9882.329				1976.466	1976.466		375.529	444.705			
35+020.000	35+886.871		866.871	11.6	10055.704		2061.419					14121.329					
35+020.000	35+886.871		866.871	2.7	2340.552				351.083								
35+020.000	35+886.871		866.871	9.2	7975.213			1993.803									
35+886.871 BK=0+000 AHD																	
0+000.000	1+427.874		1427.874	11.4	16277.764	16277.764				3255.553	3255.553		618.555	732.499			
0+000.000	1+427.874		1427.874	11.6	16563.338		3395.484					23260.067					
0+000.000	1+427.874		1427.874	2.7	3855.260				578.289								
0+000.000	1+427.874		1427.874	9.2	13136.441			3284.110									
1+427.874	1+512.126		84.252	10.2	859.370	859.370				171.874	171.874		32.656	38.672			
1+427.874	1+512.126		84.252	10.4	876.221		179.625					1190.481					
1+427.874	1+512.126		84.252	2.7	227.480				34.122								
1+427.874	1+512.126		84.252	7.75	652.953			163.238									
1+512.126	5+603.219		4091.093	11.4	46638.460	46638.460				9327.692	9327.692		1772.261	2098.731			
1+512.126	5+603.219		4091.093	11.6	47456.679		9728.619					66643.905					
1+512.126	5+603.219		4091.093	2.7	11045.951				1656.893								
1+512.126	5+603.219		4091.093	9.2	37638.056			9409.514									
5+603.219	5+633.219		30.000	11.4–14.4	387.000	387.000				77.400	77.400		14.706	17.415			
5+603.219	5+633.219		30.000	11.6–14.6	393.000		80.565					569.700					
5+603.219	5+633.219		30.000	11.9–14.9	402.000			100.500									
5+633.219	5+700.000		66.781	14.4	961.646	961.646				192.329	192.329		36.543	43.274			
5+633.219	5+700.000		66.781	14.6	975.003		199.876					1448.481					
5+633.219	5+700.000		66.781	14.9	995.037			248.759									
5+700.000	5+767.189		67.189	14.4–16.2	1027.992	1027.992				205.598	205.598		39.064	46.260			
5+700.000	5+767.189		67.189	14.6–16.4	1041.430		213.493					1566.177					
5+700.000	5+767.189		67.189	14.9–16.7	1061.586			265.397									
5+767.189	5+843.219		76.030	15.6	1186.068	1186.068				237.214	237.214		45.071	53.373			
5+767.189	5+843.219		76.030	15.8	1201.274		246.261					1813.316					
5+767.189	5+843.219		76.030	16.1	1224.083			306.021									
5+767.189	5+843.219		76.030	0.6–7.0	259.370	259.370	53.171	64.843	259.370	51.874	51.874	466.866	9.856	11.672			TOTAL AREA BY CADD
5+843.219	6+520.000		676.781	11.4	7715.303	7715.303				1543.061	1543.061		293.182	347.189			
5+843.219	6+520.000		676.781	11.6	7850.660		1609.385					11024.763					
5+843.219	6+520.000		676.781	2.7	1827.309				274.096								
5+843.219	6+520.000		676.781	9.2	6226.385			1556.596									
6+520.000	6+560.000		40.000	11.4	456.000						91.200		17.328		456.000	218.880	
TOTALS						91845.942	19216.841	19242.225	3268.549	18369.189	18460.389	132762.012	3519.915	4147.800	456.000	218.880	
TOTALS CARRIED TO SUB-SUMMARY, SHEET NO. 71K						91846	19217	19242	3269	18369	18461	132762	3520	4148	456	219	

CALCULATED MJT
CHECKED WS

CRA/RIC-30-33.500/0.000

GC004.DWG
05-10-2001 8:01 AM
1:1M

NOTE–FOR LEGEND, SEE SHEET NO. 11

FROM STATION	TO STATION	SIDE	DISTANCE D	AVERAGE WIDTH W	SURFACE AREA A A=DxW	(11) 203 SUBGRADE COMPACTION	(3) 302 (205 mm) 0.205A	(5) 304 (250 mm) 0.250A	(6) 407 0.2A	(6A) 407 0.2A	(7) 408 1.8A*	(1) 446 (38 mm) 0.038A	(2) 446 (45 mm) 0.045A	202 WEARING COURSE REMOVED	407 TACK COAT 0.48A		REMARKS * WIDTH–U.D. WRAP
			METER	METER	SQ. METER	SQ. METER	CU. METER	CU. METER	LITER	LITER	LITER	CU. METER	CU. METER	SQ. METER	LITER		
RAMP L																	
4+250.145	4+271.532		21.387	CADDAREA	346.639	346.639			69.328	69.328		13.172	15.599				TOTAL AREA BY CADD
4+250.145	4+271.532		21.387	CADDAREA	353.395		72.446				603.389						TOTAL AREA BY CADD
4+250.145	4+271.532		21.387	CADDAREA	363.628			90.907									TOTAL AREA BY CADD
																	TOTAL AREA BY CADD
4+271.532	4+562.420		290.888	7.5	2181.660	2181.660			436.332	436.332		82.903	98.175				
4+271.532	4+562.420		290.888	7.7	2239.838		459.167				3586.650						
4+271.532	4+562.420		290.888	8.0	2327.104			581.776									
4+562.420	4+577.420		15.000	7.5–8.1	117.000	117.000			23.400	23.400		4.446	5.265				
4+562.420	4+577.420		15.000	7.7–8.3	120.000		24.600				193.050						
4+562.420	4+577.420		15.000	8.0–8.6	124.500			31.125									
RAMP A																	
0+996.247	1+011.247		15.000	7.2–6.6	103.500	103.500			20.700	20.700		3.933	4.658				
0+996.247	1+011.247		15.000	7.3–6.7	105.000		21.525				166.050						
0+996.247	1+011.247		15.000	7.45–6.85	107.250			26.813									
1+011.247	1+028.599		17.352	6.6	114.523	114.523			22.905	22.905		4.352	5.154				
1+011.247	1+028.599		17.352	6.7	116.258		23.833				182.716						
1+011.247	1+028.599		17.352	6.85	118.861			29.715									
1+028.599	1+176.311		147.712	7.5	1107.840	1107.840			221.568	221.568		42.098	49.853				
1+028.599	1+176.311		147.712	7.7	1137.382		233.163				1821.288						
1+028.599	1+176.311		147.712	8.0	1181.696			295.424									
1+176.311	1+199.397		23.086	CADDAREA	344.712	344.712			68.942	68.942		13.099	15.512				TOTAL AREA BY CADD
1+176.311	1+199.397		23.086	CADDAREA	351.012		71.957				596.500						TOTAL AREA BY CADD
1+176.311	1+199.397		23.086	CADDAREA	366.486			91.622									TOTAL AREA BY CADD
																	TOTAL AREA BY CADD
RAMP B																	
0+842.982	0+857.982		15.000	8.1–7.5	117.000	117.000			23.400	23.400		4.446	5.265				
0+842.982	0+857.982		15.000	8.3–7.7	120.000		24.600				193.050						
0+842.982	0+857.982		15.000	8.6–8.0	124.500			31.125									
0+857.982	1+492.264		634.282	7.5	4757.115	4757.115			951.423	951.423		180.770	214.070				
0+857.982	1+492.264		634.282	7.7	4883.971		1001.214				7820.696						
0+857.982	1+492.264		634.282	8.0	5074.256			1268.564									
1+492.264	1+507.836		15.572	CADDAREA	189.218	189.218			37.844	37.844		7.190	8.515				TOTAL AREA BY CADD
1+492.264	1+507.836		15.572	CADDAREA	193.325		39.632				324.160						TOTAL AREA BY CADD
1+492.264	1+507.836		15.572	CADDAREA	199.492			49.873									TOTAL AREA BY CADD
																	TOTAL AREA BY CADD
RAMP C																	
6+580.000	6+770.000		190.000	CADDAREA	1491.741							56.686		1491.741	716.036		
TOTALS						9379.207	1972.137	2496.944	1875.842	1875.842	15487.549	413.095	422.066	1491.741	716.036		
TOTALS CARRIED TO SUB–SUMMARY, SHEET NO. 71K						9380	1972	2497	1876	1876	15488	413	423	1492	716		

CALCULATED MJT
CHECKED WS

PAVEMENT CALCULATIONS

CRA/RIC–30–33.500/0.000

71B
712

GC006.DWG
04–26–2001 9:53 AM
1:1M

NOTE–FOR LEGEND, SEE SHEET 11

FROM STATION	TO STATION	SIDE	DISTANCE D	AVERAGE WIDTH W	SURFACE AREA A A=DxW	(11) 203 SUBGRADE COMPACTION	(3A) 301 (150 mm) 0.150A	(4) 304 (150 mm) 0.150A	(5A) 304 (200 mm) 0.200A	(6) 407 0.2A	(6A) 407 0.2A	(7) 408 1.8A	(8) 409 1.36A	(8) 409 0.007A	(1B) 448 (38 mm) 0.038A	(2B) 448 (45 mm) 0.045A	202 WEARING COURSE REMOVED	407 TACK COAT 0.48A	REMARKS
			METER	METER	SQ. METER	SQ. METER	CU. METER	CU. METER	CU. METER	LITER	LITER	LITER	LITER	CU. METER	CU. METER	CU. METER	SQ. METER	LITER	
S.R 181																			
ROADWAY																			
49+640.842	49+648.842	L/R	8.000	6.1	48.800										1.854		48.800	23.424	
49+648.842	49+680.000	L/R	31.158	6.1–7.2	207.201	207.201				41.440	41.440				7.874	9.324			
49+648.842	49+680.000	L/R	31.158	6.3–7.4	213.432		32.015					384.178							
49+648.842	49+680.000	L/R	31.158	6.6–7.7	222.780			33.417											
49+680.000	49+869.327	L/R	189.327	7.2	1363.154	1363.154				272.631	272.631				51.800	61.342			
49+680.000	49+869.327	L/R	189.327	7.4	1401.020		210.153					2521.836							
49+680.000	49+869.327	L/R	189.327	7.7	1457.818			218.673											
49+869.327	49+906.351	L/R	37.024	7.2	266.573	266.573				53.315	53.315				10.130	11.996			
49+869.327	49+906.351	L/R	37.024	7.4	273.978		41.097					493.160							
49+869.327	49+906.351	L/R	37.024	7.7	285.085			42.763											
49+906.351	49+956.598	L/R	50.247	7.2	361.778	361.778				72.356	72.356				13.748	16.280			
49+906.351	49+956.598	L/R	50.247	7.4	371.828		55.774					669.290							
49+906.351	49+956.598	L/R	276.598	7.7	386.902			58.035											
50+055.286	50+285.000	L/R	229.714	7.2	1653.941	1653.941				330.788	330.788				62.850	74.427			
50+055.286	50+285.000	L/R	229.714	7.4	1699.884		254.983					3059.791							
50+055.286	50+285.000	L/R	229.714	7.7	1768.798			265.320											
50+285.000	50+345.000	L/R	60.000	7.2–10.8	540.000	540.000				108.000	108.000				20.520	24.300			
50+285.000	50+345.000	L/R	60.000	7.4–11.0	552.000		82.800					993.600							
50+285.000	50+345.000	L/R	60.000	7.7–11.3	570.000			85.500											
50+345.000	50+423.060	L/R	78.060	CADDAREA	1016.774	1016.774				203.355	203.355				38.637	45.755			TOTAL AREA BY CADD
50+345.000	50+423.060	L/R	78.060	CADDAREA	1043.287		156.493					1877.917							TOTAL AREA BY CADD
50+345.000	50+423.060	L/R	78.060	CADDAREA	1082.137			162.321											TOTAL AREA BY CADD
SHOULDER																			
49+648.842	49+869.327	L/R	220.485	2.4	529.164				105.833			952.495	719.663	3.704					
49+648.842	49+869.327	L/R	123.968	0.1	12.397				−1.450										DEDUCT BASE OVERLAP
49+648.842	49+869.327	L/R	127.485	0.1	12.749				−1.492										DEDUCT BASE OVERLAP
49+869.327	49+906.351	R	37.024	1.2	44.429				8.886			79.972	60.423	0.311					
49+869.327	49+906.351	R	37.024	0.1	3.702				−0.433										DEDUCT BASE OVERLAP
49+906.351	49+956.598	L/R	50.247	2.4	120.593				24.119			217.067	164.006	0.844					
49+906.351	49+956.598	L/R	50.247	0.1	5.025				−0.588										DEDUCT BASE OVERLAP
49+906.351	49+956.598	L/R	50.247	0.1	5.025				−0.588										DEDUCT BASE OVERLAP
50+055.286	50+285.000	L/R	229.714	2.4	551.314				110.263			992.365	749.787	3.859					
50+055.286	50+285.000	L/R	229.714	0.1	22.971				−4.594										DEDUCT BASE OVERLAP
50+055.286	50+285.000	L/R	229.714	0.1	22.971				−4.594										DEDUCT BASE OVERLAP
50+285.000	50+401.547	L/R	116.547	2.4	279.713				55.943			503.483	380.410	1.958					
50+285.000	50+401.547	L/R	116.547	0.1	11.655				−2.331										DEDUCT BASE OVERLAP
50+285.000	50+401.547	L/R	116.547	0.1	11.655				−2.331										DEDUCT BASE OVERLAP
50+401.547	3+771.027	L	46.067	1.2	55.280				11.056			99.504	75.181	0.387					
50+401.547	3+771.027	L	46.067	0.1	5.528				−1.106										DEDUCT BASE OVERLAP
50+401.547	3+829.769	R	27.695	1.2	33.234				6.647			59.821	45.198	0.233					
50+401.547	3+829.769	R	27.695	0.1	2.770				−0.324										DEDUCT BASE OVERLAP
DRIVES																			
DR–13 THRU DR–26					329.332				−65.866			−592.798	−447.892	−2.305					DEDUCT FOR DRIVES
TOTALS						5409.421	833.315	866.029	237.05	1081.885	1081.885	12311.681	1746.776	8.991	207.413	243.424	48.800	23.424	
TOTALS CARRIED TO SUB–SUMMARY, SHEET NO. 71K						5410	.834	866	237	1082	1082	12312	1747	9	208	244	49	24	

CALCULATED MJT CHECKED WS

PAVEMENT CALCULATIONS

CRA/RIC–30–33.500/0.000

71C
712

GC007.DWG 04–26–2001 9:57 AM 1:1M

FROM STATION	TO STATION	SIDE	DISTANCE D	AVERAGE WIDTH W	SURFACE AREA A A=DxW	(11) 203 SUBGRADE COMPACTION	(3A) 301 (150 mm) 0.150A	(4) 304 (150 mm) 0.150A	(5A) 304 (200 mm) 0.200A	(6) 407 0.2A	(6A) 407 0.2A	(7) 408 1.8A	(8) 409 1.36A	(8) 409 0.007A	(1B) 448 (38 mm) 0.038A	(2B) 448 (45 mm) 0.045A	202 WEARING COURSE REMOVED	407 TACK COAT 0.48A	REMARKS
			METER	METER	SQ. METER	SQ. METER	CU. METER	CU. METER	CU. METER	LITER	LITER	LITER	LITER	CU. METER	CU. METER	CU. METER	SQ. METER	LITER	
S.R 61																			
ROADWAY																			
49+632.000	49+640.000	L/R	8.000	6.1	48.800										1.854		48.800	23.424	
49+640.000	49+676.000	L/R	36.000	6.1−7.2	239.400	239.400				47.880	47.880				9.097	10.773			
49+640.000	49+676.000	L/R	36.000	6.2−7.3	243.000		36.450					437.400							
49+640.000	49+676.000	L/R	36.000	6.35−7.45	248.400			37.530											
49+676.000	49+859.224	L/R	183.224	7.2	1319.213	1319.213				263.843	263.843				50.130	59.365			
49+676.000	49+859.224	L/R	183.224	7.4	1355.858		203.379					2440.544							
49+676.000	49+859.224	L/R	183.224	7.7	1410.825			211.624											
49+859.224	49+901.330	L/R	42.106	7.2	303.163	303.163				60.633	60.633				11.520	13.642			
49+859.224	49+901.330	L/R	42.106	7.4	311.584		46.738					560.852							
49+859.224	49+901.330	L/R	42.106	7.7	324.216			48.632											
49+901.330	49+956.100	L/R	54.770	7.2	394.344	394.344				78.869	78.869				14.985	17.745			
49+901.330	49+956.100	L/R	54.770	7.4	405.298		60.795					729.536							
49+901.330	49+956.100	L/R	54.770	7.7	421.729			63.259											
50+043.900	50+099.064	L/R	55.164	7.2	397.181	397.181				79.436	79.436				15.093	17.873			
50+043.900	50+099.064	L/R	55.164	7.4	408.214		61.232					734.784							
50+043.900	50+099.064	L/R	55.164	7.7	424.763			63.714											
50+099.064	50+141.990	L/R	42.926	7.2	309.067	309.067				61.813	61.813				11.745	13.908			
50+099.064	50+141.990	L/R	42.926	7.4	317.652		47.648					571.774							
50+099.064	50+141.990	L/R	42.926	7.7	330.530			49.580											
50+141.990	50+388.000	L/R	246.010	7.2	1771.272	1771.272				354.254	354.254				67.308	79.707			
50+141.990	50+388.000	L/R	246.010	7.4	1820.474		273.071					3276.853							
50+141.990	50+388.000	L/R	246.010	7.7	1894.277			284.142											
50+388.000	50+480.000	L/R	92.000	7.2−6.1	611.800	611.800				122.360	122.360				23.248	27.531			
50+388.000	50+480.000	L/R	92.000	7.4−6.3	630.200		94.530					1134.360							
50+388.000	50+480.000	L/R	92.000	7.7−6.6	657.800			98.670											
50+480.000	50+488.000	L/R	8.000	6.1	48.800										1.854		48.800	23.424	
S.R 61																			
SHOULDER																			
49+640.000	49+857.212	L	217.212	1.8	390.982				78.196			703.767	531.735	2.737					
49+640.000	49+857.212	L	202.565	0.1	20.257				−2.370										DEDUCT BASE OVERLAP
49+901.330	49+956.100	L	54.770	1.8	98.586				19.717			177.455	134.077	0.690					
49+901.330	49+956.100	L	54.770	0.1	5.477				−0.641										DEDUCT BASE OVERLAP
50+043.900	50+099.064	L	55.164	1.8	99.295				19.859			178.731	135.041	0.695					
50+043.900	50+099.064	L	55.164	0.1	5.516				−0.645										DEDUCT BASE OVERLAP
50+139.308	50+480.000	L	340.692	1.8	613.246				122.649			1103.842	834.014	4.293					
50+139.308	50+480.000	L	312.830	0.1	31.283				−3.660										DEDUCT BASE OVERLAP
49+676.000	49+861.233	R	185.233	1.8	333.419				66.684			600.155	453.450	2.334					
49+676.000	49+861.233	R	185.233	0.1	18.523				−2.167										DEDUCT BASE OVERLAP
49+901.330	49+956.100	R	54.770	1.8	98.586				19.717			177.455	134.077	0.690					
49+901.330	49+956.100	R	54.770	0.1	5.477				−0.641										DEDUCT BASE OVERLAP
50+043.900	50+099.064	R	55.164	1.8	99.295				19.859			178.731	135.041	0.695					
50+043.900	50+099.064	R	55.164	0.1	5.516				−0.645										DEDUCT BASE OVERLAP
50+143.116	50+480.000	R	336.884	1.8	606.391				121.278			1091.504	824.692	4.245					
50+143.116	50+480.000	R	284.078	0.1	28.408				−3.324										DEDUCT BASE OVERLAP
DRIVES																			
DR−2 THRU DR−5					122.718				−24.544			−220.892	−166.896	−0.859					DEDUCT FOR DRIVES
TOTALS						5345.440	823.842	857.151	429.322	1069.088	1069.088	13876.852	3015.231	15.529	206.834	240.545	97.600	46.848	
TOTALS CARRIED TO SUB−SUMMARY, SHEET NO. 71K						5346	824	857	430	1069	1069	13877	3016	16	207	241	98	47	

NOTE−FOR LEGEND, SEE SHEET NO. 11

CALCULATED MJT CHECKED WS

PAVEMENT CALCULATIONS

CRA/RIC−30−33.500/0.000

GC008.DWG 05−10−2001 8:05 AM 1:1M

NOTE–FOR LEGEND, SEE SHEET NO. 11

FROM STATION	TO STATION	SIDE	DISTANCE D	AVERAGE WIDTH W	SURFACE AREA A A=DxW	(11) 203 SUBGRADE COMPACTION	(3B) 301 (100 mm) 0.100A	(4) 304 (150 mm) 0.150A	(5A) 304 (200 mm) 0.200A	(6) 407 0.2A	(6A) 407 0.2A	(7) 408 1.8A	(1A) 448 (32 mm) 0.032A	(2A) 448 (45 mm) 0.045A	202 WEARING COURSE REMOVED	407 TACKL COAT 0.48A	REMARKS
			METER	METER	SQ. METER	SQ. METER	CU. METER	CU. METER	CU. METER	LITER	LITER	LITER	CU. METER	CU. METER	SQ. METER	LITER	
SERVICE	RD. "A"																
ROADWAY																	
49+994.916	50+010.136	L/R	15.220	CADDAREA	188.221	188.221				37.644	37.644		6.023	8.470			TOTAL AREA BY CADD
49+994.916	50+010.136	L/R	15.220	CADDAREA	192.974							347.353					TOTAL AREA BY CADD
49+994.916	50+010.136	L/R	15.220	CADDAREA	200.043			30.006									TOTAL AREA BY CADD
50+010.136	50+057.928	L/R	47.792	6.0	286.752	286.752				57.350	57.350		9.176	12.904			
50+010.136	50+057.928	L/R	47.792	6.2	296.310		29.631					533.359					
50+010.136	50+057.928	L/R	47.792	6.5	310.648			46.597									
50+057.928	50+119.272	L/R	61.344	6.6–6.9	414.072	414.072				82.814	82.814		13.250	18.633			
50+057.928	50+119.272	L/R	61.344	6.8–7.1	426.341		42.634					767.413					
50+057.928	50+119.272	L/R	61.344	7.1–7.4	438.610			65.791									
50+119.272	50+365.248	L/R	245.976	6.9	1697.234	1697.234				339.447	339.447		54.312	76.376			
50+119.272	50+365.248	L/R	245.976	7.1	1746.430		174.643					3143.573					
50+119.272	50+365.248	L/R	245.976	7.4	1820.222			273.033									
50+365.248	50+419.459	L/R	54.211	6.9–6.3	357.793	357.793				71.559	71.559		11.449	16.101			
50+365.248	50+419.459	L/R	54.211	7.1–6.5	368.635		36.863					663.543					
50+365.248	50+419.459	L/R	54.211	7.4–6.8	384.898			57.735									
50+419.459	50+446.597	L/R	27.138	6.3	170.969	170.969				34.194	34.194		5.471	7.694			
50+419.459	50+446.597	L/R	27.138	6.5	176.397		17.640					317.515					
50+419.459	50+446.597	L/R	27.138	6.8	184.538			27.681									
50+446.597	50+500.808	L/R	54.211	6.3–6.9	357.793	357.793				71.559	71.559		11.449	16.101			
50+446.597	50+500.808	L/R	54.211	6.5–7.1	368.635		36.863					663.543					
50+446.597	50+500.808	L/R	54.211	6.8–7.4	384.898			57.735									
50+500.808	50+722.620	L/R	221.812	6.9	1530.503	1530.503				306.101	306.101		48.976	68.873			
50+500.808	50+722.620	L/R	221.812	7.1	1574.865		157.487					2834.757					
50+500.808	50+722.620	L/R	221.812	7.4	1641.409			246.211									
50+722.620	50+783.964	L/R	61.344	6.9–6.0	395.669	395.669				79.134	79.134		12.661	17.805			
50+722.620	50+783.964	L/R	61.344	7.1–6.2	407.938		40.794					734.288					
50+722.620	50+783.964	L/R	61.344	7.4–6.5	426.341			63.951									
50+783.964	51+316.295	L/R	532.331	6.0	3193.986	3193.986				638.797	638.797		102.208	143.729			
50+783.964	51+316.295	L/R	532.331	6.2	3300.452		330.045					5940.814					
50+783.964	51+316.295	L/R	532.331	6.5	3460.152			519.023									
SHOULDER																	
48+676.000	50+010.136	L	23.562	1.8–1.2	35.343				7.069								
48+676.000	50+010.136	L	23.562	0.1	2.356				−0.276								DEDUCT FOR BASE OVERLAP W=100 mm T=117 mm
49+640.000	50+010.136	R	24.112	1.8–1.2	36.168				7.234								
49+640.000	50+010.136	R	24.112	0.1	2.411				−0.282								DEDUCT FOR BASE OVERLAP W=100 mm T=117 mm
50+010.136	51+316.295	L/R	1306.159	2.4	3134.782				626.956								
50+010.136	51+316.295	L	1268.690	0.1	126.869				−14.844								DEDUCT FOR BASE OVERLAP W=100 mm T=117 mm
50+010.136	51+316.295	R	1306.159	0.1	130.616				−15.282								DEDUCT FOR BASE OVERLAP W=100 mm T=117 mm
DRIVES																	
DR–1,1A					37.239				−7.448								DEDUCT FOR DRIVES
GALION/AIRPORT RD. (SOUTH)																	
ROADWAY																	
49+876.126	9+884.126	L/R	8.000	5.1	40.800								1.306		40.800	19.584	
9+884.126	9+899.126	L/R	15.000	5.1–6.6	87.750	87.750				17.550	17.550		2.808	3.949			
9+884.126	9+899.126	L/R	15.000	5.3–6.8	90.750		9.075					163.350					
9+884.126	9+899.126	L/R	15.000	5.6–7.1	95.250			14.288									
9+899.126	9+947.220	L/R	48.094	CADDAREA	916.521	916.521				183.304	183.304		29.329	41.243			TOTAL AREA BY CADD
9+899.126	9+947.220	L/R	48.094	CADDAREA	928.423		92.842					1671.161					TOTAL AREA BY CADD
9+899.126	9+947.220	L/R	48.094	CADDAREA	946.335			141.950									TOTAL AREA BY CADD
SHOULDER																	
9+884.126	9+899.126	L/R	15.000	0.6–2.4	22.500				4.500								
9+884.126	9+899.126	L	15.000	0.1	1.500				−0.176								DEDUCT BASE OVERLAP W=100 mm T=117 mm
9+884.126	9+899.126	R	15.000	0.1	1.500				−0.176								DEDUCT BASE OVERLAP W=100 mm T=117 mm
9+899.126	9+947.220	L/R	118.861	1.2	142.632				28.526								
9+899.126	9+947.220	L	35.735	0.1	3.574				−0.418								DEDUCT BASE OVERLAP W=100 mm T=117 mm
9+899.126	9+947.220	R	48.094	0.1	4.809				−0.563								DEDUCT BASE OVERLAP W=100 mm T=117 mm
DRIVES																	
DR–7					21.335				−4.267								DEDUCT FOR DR–7
TOTALS						9597.263	968.517	1544.002	630.835	1919.452	1919.452	17780.669	308.419	431.876	40.800	19.584	
TOTALS CARRIED TO SUB-SUMMARY, SHEET NO. 71K						9597	969	1544	631	1919	1919	17781	308	432	41	20	

CALCULATED MJT
CHECKED WS

PAVEMENT CALCULATIONS

CRA/RIC-30-33.500/0.000

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SCALE: 1:1M

NOTE–FOR LEGEND, SEE SHEET NO. 11

CALCULATED MJT CHECKED WS

FROM STATION	TO STATION	SIDE	DISTANCE D	AVERAGE WIDTH W	SURFACE AREA A A=DxW	(11) 203 SUBGRADE COMPACTION	(3B) 301 (100 mm) 0.100A	(4) 304 (150 mm) 0.150A	(5A) 304 (200 mm) 0.200A	(6) 407 0.2A	(6A) 407 0.2A	(7) 408 1.8A	(1A) 448 (32 mm) 0.032A	(2A) 448 (45 mm) 0.045A	202 WEARING COURSE REMOVED	407 TACK COAT 0.48A	REMARKS
			METER	METER	SQ. METER	SQ. METER	CU. METER	CU. METER	CU. METER	LITER	LITER	LITER	CU. METER	CU. METER	SQ. METER	LITER	
GALION/AIRPORT RD. (NORTH)																	
ROADWAY																	
10+049.523	10+097.617	L/R	48.094	CADDAREA	916.521	916.521				183.304	183.304		29.329	41.243			TOTAL AREA BY CADD
10+049.523	10+097.617	L/R	48.094	CADDAREA	928.423		92.842					1671.161					TOTAL AREA BY CADD
10+049.523	10+097.617	L/R	48.094	CADDAREA	946.335			141.950									TOTAL AREA BY CADD
10+097.617	10+112.617	L/R	15.000	6.6–5.13	87.975	87.975				17.595	17.595		2.815	3.959			
10+097.617	10+112.617	L/R	15.000	6.8–5.33	90.975		9.098					163.755					
10+097.617	10+112.617	L/R	15.000	7.1–5.63	95.475			14.344									
50+112.617	50+120.617	L/R	8.000	5.13	41.040								1.313		41.040	19.699	
SHOULDER																	
10+049.523	10+097.617	L/R	118.861	1.2	142.632				28.526								
10+049.523	10+097.617	L	22.360	0.1	2.236				–0.262								DEDUCT BASE OVERLAP W=100 mm T=117 mm
10+049.523	10+097.617	R	48.094	0.1	4.809				–0.563								DEDUCT BASE OVERLAP W=100 mm T=117 mm
10+097.617	10+112.617	L/R	15.000	2.4–0.6	22.500				4.500								
10+097.617	10+112.617	L	15.000	0.1	1.500				–0.176								DEDUCT BASE OVERLAP W=100 mm T=117 mm
10+097.617	10+112.617	R	15.000	0.1	1.500				–0.176								DEDUCT BASE OVERLAP W=100 mm T=117 mm
DRIVES																	
DR–8					25.734				–5.147								DEDUCT FOR DR–8
WACHS RD.																	
ROADWAY																	
30+459.825	30+499.258	L/R	39.433	CADDAREA	813.367	813.367				162.673	162.673		26.028	36.602			TOTAL AREA BY CADD
30+459.825	30+499.258	L/R	39.433	CADDAREA	823.760		82.376					1482.768					TOTAL AREA BY CADD
30+459.825	30+499.258	L/R	39.433	CADDAREA	839.408			125.911									TOTAL AREA BY CADD
30+499.258	30+504.258	L/R	5.000	6.6	33.000	33.000				6.600	6.600		1.056	1.485			
30+499.258	30+504.258	L/R	5.000	6.8	34.000		3.400					61.200					
30+499.258	30+504.258	L/R	5.000	7.1	35.500			5.325									
30+504.258	30+514.258	L/R	10.000	6.6–6.0	63.000	63.000				12.600	12.600		2.016	2.835			
30+504.258	30+514.258	L/R	10.000	6.8–6.2	65.000		6.500					117.000					
30+504.258	30+514.258	L/R	10.000	7.1–6.5	68.000			10.200									
30+514.258	30+522.258	L/R	8.000	6.0	48.000								1.536		48.000	23.040	
SHOULDER																	
30+460.000	30+499.258	L/R	51.887	2.4	124.529				24.906								
30+460.000	30+499.258	L	32.276	0.1	3.228				–0.378								DEDUCT BASE OVERLAP W=100 mm T=117 mm
30+460.000	30+499.258	R	32.276	0.1	3.228				–0.378								DEDUCT BASE OVERLAP W=100 mm T=117 mm
30+499.258	30+504.258	L/R	5.000	2.4	12.000				2.400								
30+499.258	30+504.258	L	5.000	0.1	0.500				–0.059								DEDUCT BASE OVERLAP W=100 mm T=117 mm
30+499.258	30+504.258	R	5.000	0.1	0.500				–0.059								DEDUCT BASE OVERLAP W=100 mm T=117 mm
30+504.258	30+514.258	L/R	10.000	2.4–0.6	15.000				3.000								
30+504.258	30+514.258	L	10.000	0.1	1.000				–0.117								DEDUCT BASE OVERLAP W=100 mm T=117 mm
30+504.258	30+514.258	R	10.000	0.1	1.000				–0.117								DEDUCT BASE OVERLAP W=100 mm T=117 mm
DRIVES																	
DR–6					26.144				–5.229								DEDUCT FOR DR–6
TOTALS						1913.863	194.216	297.730	50.671	382.772	382.772	3495.884	64.093	86.124	89.040	42.739	
TOTALS CARRIED TO SUB-SUMMARY, SHEET NO. 71K						1914	195	298	51	383	383	3496	64	86	89	43	

PAVEMENT CALCULATIONS

CRA/RIC–30–33.500/0.000

71F
712

GC010.DWG 05–10–2001 8:14 AM 1:1M

NOTE-FOR LEGEND, SEE SHEET NO. 11

FROM STATION	TO STATION	SIDE	DISTANCE D (METER)	AVERAGE WIDTH W (METER)	SURFACE AREA A A=DxW (SQ. METER)	(11) 203 SUBGRADE COMPACTION (SQ. METER)	(3B) 301 (100 mm) 0.100A (CU. METER)	(4) 304 (150 mm) 0.150A (CU. METER)	(6) 407 0.2A (LITER)	(6A) 407 0.2A (LITER)	(7) 408 1.8A (LITER)	(1A) 448 (32 mm) 0.032A (CU. METER)	(2A) 448 (45 mm) 0.045A (CU. METER)	202 WEARING COURSE REMOVED (SQ. METER)	407 TACK COAT 0.48A (LITER)	REMARKS
HORNING RD.																
ROADWAY																
49+608.067	49+629.590	L/R	21.523	CADDAREA	260.601	260.601			52.120	52.120		8.339	11.727			TOTAL AREA BY CADD
49+608.067	49+629.590	L/R	21.523	CADDAREA	266.455		26.646				479.619					TOTAL AREA BY CADD
49+608.067	49+629.590	L/R	21.523	CADDAREA	275.178			41.277								TOTAL AREA BY CADD
49+629.590	49+667.449	L/R	37.859	6.6	249.869	249.869			49.974	49.974		7.996	11.244			
49+629.590	49+667.449	L/R	37.859	6.8	257.441		25.744				463.394					
49+629.590	49+667.449	L/R	37.859	7.1	268.799			40.320								
49+667.449	49+736.449	L/R	69.000	6.6–7.2	476.100	476.100			95.220	95.220		15.235	21.425			
49+667.449	49+736.449	L/R	69.000	6.8–7.4	489.900		48.990				881.820					
49+667.449	49+736.449	L/R	69.000	7.1–7.7	510.600			76.590								
49+736.449	49+752.748	L/R	16.299	7.2	117.353	117.353			23.471	23.471		3.755	5.281			
49+736.449	49+752.748	L/R	16.299	7.4	120.613		12.061				217.103					
49+736.449	49+752.748	L/R	16.299	7.7	125.502			18.825								
49+752.748	49+810.248	L/R	57.500	7.2–6.8	402.500	402.500			80.500	80.500		12.880	18.113			
49+752.748	49+810.248	L/R	57.500	7.4–7.0	414.000		41.400				745.200					
49+752.748	49+810.248	L/R	57.500	7.7–7.2	431.250			64.688								
49+810.248	49+867.748	L/R	57.500	6.8–7.2	402.500	402.500			80.500	80.500		12.880	18.113			
49+810.248	49+867.748	L/R	57.500	7.0–7.4	414.000		41.400				745.200					
49+810.248	49+867.748	L/R	57.500	7.3–7.7	431.250			64.688								
49+867.748	49+884.047	L/R	16.299	7.2	117.353	117.353			23.471	23.471		3.755	5.281			
49+867.748	49+884.047	L/R	16.299	7.4	120.613		12.061				217.103					
49+867.748	49+884.047	L/R	16.299	7.7	125.502			18.825								
49+884.047	49+953.047	L/R	69.000	7.2–6.6	476.100	476.100			95.220	95.220		15.235	21.425			
49+884.047	49+953.047	L/R	69.000	7.4–6.8	489.900		48.990				881.820					
49+884.047	49+953.047	L/R	69.000	7.7–7.1	510.600			76.590								
49+953.047	49+957.847	L/R	4.800	6.6	31.680	31.680			6.336	6.336		1.014	1.426			
49+953.047	49+957.847	L/R	4.800	6.8	32.640		3.264				58.752					
49+953.047	49+957.847	L/R	4.800	7.1	34.080			5.112								
50+045.247	50+050.047	L/R	4.800	6.6	31.680	31.680			6.336	6.336		1.014	1.426			
50+045.247	50+050.047	L/R	4.800	6.8	32.640		3.264				58.752					
50+045.247	50+050.047	L/R	4.800	7.1	34.080			5.112								
50+050.047	50+119.047	L/R	69.000	6.6–7.2	476.100	476.100			95.220	95.220		15.235	21.425			
50+050.047	50+119.047	L/R	69.000	6.8–7.4	489.900		48.990				881.820					
50+050.047	50+119.047	L/R	69.000	7.1–7.7	510.600			76.590								
50+119.047	50+134.891	L/R	15.844	7.2	114.077	114.077			22.815	22.815		3.650	5.133			
50+119.047	50+134.891	L/R	15.844	7.4	117.246		11.725				211.042					
50+119.047	50+134.891	L/R	15.844	7.7	121.999			18.300								
50+134.891	50+194.743	L/R	59.852	7.2–6.8	418.964	418.964			83.793	83.793		13.407	18.853			
50+134.891	50+194.743	L/R	59.852	7.4–7.0	430.934		43.093				775.682					
50+134.891	50+194.743	L/R	59.852	7.7–7.8	448.890			67.333								
50+194.743	50+254.594	L/R	59.851	6.8–7.2	418.957	418.957			83.791	83.791		13.407	18.853			
50+194.743	50+254.594	L/R	59.851	7.0–7.4	430.927		43.093				775.669					
50+194.743	50+254.594	L/R	59.851	7.3–7.7	448.882			67.332								
50+254.594	50+269.576	L/R	14.982	7.2	107.870	107.870			21.574	21.574		3.452	4.854			
50+254.594	50+269.576	L/R	14.982	7.4	110.867		11.087				199.560					
50+254.594	50+269.576	L/R	14.982	7.7	115.361			17.304								
50+269.576	50+338.576	L/R	69.000	7.2–6.6	476.100	476.100			95.220	95.220		15.235	21.425			
50+269.576	50+338.576	L/R	69.000	7.4–6.8	489.900		48.990				881.820					
50+269.576	50+338.576	L/R	69.000	7.7–7.1	510.600			76.590								
50+338.576	50+373.276	L/R	34.700	6.6	229.020	229.020			45.804	45.804		7.329	10.306			
50+338.576	50+373.276	L/R	34.700	6.8	235.960		23.596				424.728					
50+338.576	50+373.276	L/R	34.700	7.1	246.370			36.955								
50+373.276	50+433.276	L/R	60.000	6.6–5.74	370.200	370.200			74.040	74.040		11.846	16.659			
50+373.276	50+433.276	L/R	60.000	6.8–5.94	382.200		38.220				687.960					
50+373.276	50+433.276	L/R	60.000	7.1–6.24	400.200			60.030								
50+433.276	50+441.276	L/R	8.000	5.74	45.920					9.180		1.469		45.920	22.042	
TOTALS						5177.024	532.614	832.461	1035.405	1035.405	9587.044	167.133	232.966	45.920	22.042	
TOTALS CARRIED TO SUB-SUMMARY, SHEET NO. 71K						5177	533	833	1036	1036	9587	167	233	46	22	

CALCULATED MJT
CHECKED WS

PAVEMENT CALCULATIONS

CRA/RIC-30-33.500/0.000

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712

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NOTE–FOR LEGEND, SEE SHEET NO. 11

FROM STATION	TO STATION	SIDE	DISTANCE D	AVERAGE WIDTH W	SURFACE AREA A A=DxW	(11) 203 SUBGRADE COMPACTION	(3B) 301 (100 mm) 0.100A	(4) 304 (150 mm) 0.150A	(5A) 304 (200 mm) 0.200A	(6) 407 0.2A	(6A) 407 0.2A	(7) 408 1.8A	(1A) 448 (32 mm) 0.032A	(2A) 448 (45 mm) 0.045A	202 WEARING COURSE REMOVED	407 TACK COAT 0.48A	REMARKS
			METER	METER	SQ. METER	SQ. METER	CU. METER	CU. METER	CU. METER	LITER	LITER	LITER	CU. METER	CU. METER	SQ. METER	LITER	
HORNING RD.																	
SHOULDER																	
49+603.709	49+629.590	L	30.546	1.2	36.655				7.331								
49+603.709	49+629.590	L	5.319	0.1	0.532				−0.062								DEDUCT BASE OVERLAP W=100 mm T= 117 mm
49+615.288	49+629.590	R	28.158	1.2	33.790				6.758								
49+615.288	49+629.590	R	28.158	0.1	2.816				−0.329								DEDUCT BASE OVERLAP W=100 mm T= 117 mm
49+629.590	49+957.847	L/R	328.257	2.4	787.817				157.563								
49+629.590	49+957.847	L	328.257	0.1	32.826				−3.841								DEDUCT BASE OVERLAP W=100 mm T= 117 mm
49+629.590	49+957.847	R	304.290	0.1	30.429				−3.560								DEDUCT BASE OVERLAP W=100 mm T= 117 mm
50+045.247	50+373.276	L/R	328.029	2.4	787.270				157.454								
50+045.247	50+373.276	L	328.029	0.1	32.803				−3.838								DEDUCT BASE OVERLAP W=100 mm T= 117 mm
50+045.247	50+373.276	R	280.832	0.1	28.083				−3.286								DEDUCT BASE OVERLAP W=100 mm T= 117 mm
50+373.276	50+433.276	L/R	60.000	2.4−0.6	90.000				18.000								
50+373.276	50+433.276	L	60.000	0.1	6.000				−0.702								DEDUCT BASE OVERLAP W=100 mm T= 117 mm
50+373.276	50+433.276	R	33.519	0.1	3.352				−0.392								DEDUCT BASE OVERLAP W=100 mm T= 117 mm
DRIVES																	
DR−9A,9,10,11,12					110.323				−22.065								DEDUCT FOR DRIVES
RELOC. ECKSTEIN RD.																	
ROADWAY																	
21+003.642	21+021.608	L/R	17.966	CADDAREA	220.362	220.362				44.072	44.072		7.052	9.916			
21+003.642	21+021.608	L/R	17.966	CADDAREA	230.841		23.084					415.514					
21+003.642	21+021.608	L/R	17.966	CADDAREA	246.324			36.949									
21+021.608	21+264.349	L/R	242.741	6.6	1602.091	1620.091				320.418	320.418		51.267	72.094			
21+021.608	21+264.349	L/R	242.741	6.8	1650.639		165.064					2971.150					
21+021.608	21+264.349	L/R	242.741	7.1	1723.461			258.519									
21+264.349	21+331.827	L/R	67.478	6.6−7.2	465.598	465.598				93.120	93.120		14.899	20.952			
21+264.349	21+331.827	L/R	67.478	6.8−7.4	479.094		47.909					862.369					
21+264.349	21+331.827	L/R	67.478	7.1−7.7	499.337			74.901									
21+331.827	21+450.271	L/R	118.444	7.2	852.797	852.797				170.559	170.559		27.289	38.376			
21+331.827	21+450.271	L/R	118.444	7.4	876.486		87.649					1577.674					
21+331.827	21+450.271	L/R	118.444	7.7	912.019			136.803									
21+450.271	21+517.749	L/R	67.478	7.2−5.33	422.750	422.750				84.550	84.550		13.539	19.024			
21+450.271	21+517.749	L/R	67.478	7.4−5.53	436.245		43.625					785.241					
21+450.271	21+517.749	L/R	67.478	7.7−5.83	456.489			68.473									
21+517.749	21+520.000	L/R	2.250	5.83−5.2	12.409	12.409				2.482							
21+517.749	21+520.000	L/R	2.250	6.03−5.4	12.859		1.286					23.146	0.397	0.558			
21+517.749	21+520.000	L/R	2.250	6.33−5.7	13.534			2.030									
50+430.436	50+438.436	L/R	8.000	5.2	41.600								1.331		41.600	19.968	
SHOULDER																	
49+869.327	21+021.608	L	26.876	1.2	32.251				6.450								
49+869.327	21+021.608	L	26.876	0.1	2.688				−0.314								DEDUCT BASE OVERLAP W=100 mm T=117 mm
49+906.351	21+021.608	R	25.834	1.2	31.001				6.200								
49+906.351	21+021.608	R	25.834	0.1	2.583				−0.302								DEDUCT BASE OVERLAP W=100 mm T=117 mm
21+021.608	21+321.875	L/R	300.267	2.4	720.641				144.128								
21+021.608	21+321.875	L	300.267	0.1	30.027				−3.513								DEDUCT BASE OVERLAP W=100 mm T=117 mm
21+021.608	21+321.875	R	300.267	0.1	30.027				−3.513								DEDUCT BASE OVERLAP W=100 mm T=117 mm
21+321.875	21+355.411	L	33.536	1.2	40.243				8.049								
21+321.875	21+355.411	L	33.536	0.1	3.354				−0.392								DEDUCT BASE OVERLAP W=100 mm T=117 mm
21+335.411	21+517.749	L/R	182.338	2.4	437.611				87.522								
21+335.411	21+517.749	L	182.338	0.1	18.234				−2.133								DEDUCT BASE OVERLAP W=100 mm T=117 mm
21+335.411	21+517.749	R	182.338	0.1	18.234				−2.133								DEDUCT BASE OVERLAP W=100 mm T=117 mm
TOTALS						3594.007	368.617	557.675	549.080	715.201	712.719	6635.121	115.774	160.920	41.600	19.968	
TOTALS CARRIED TO SUB-SUMMARY, SHEET NO. 71K						3594	369	558	549	716	713	6635	116	161	42	20	

CALCULATED MJT
CHECKED WS

PAVEMENT CALCULATIONS

CRA/RIC-30-33.500/0.000

GC012.DWG 05-10-2001 8:19 AM 1:1M

NOTE–FOR LEGEND, SEE SHEET NO. 11

CALCULATED MJT | CHECKED WS

PAVEMENT CALCULATIONS

FROM STATION	TO STATION	SIDE	DISTANCE D	AVERAGE WIDTH W	SURFACE AREA A A=DxW	(11) 203 SUBGRADE COMPACTION	(3B) 301 (100 mm) 0.100A	(4) 304 (150 mm) 0.150A	(5A) 304 (200 mm) 0.200A	(6) 407 0.2A	(6A) 407 0.2A	(7) 408 1.8A	(1A) 448 (32 mm) 0.032A	(2A) 448 (45 mm) 0.045A	202 WEARING COURSE REMOVED	407 TACK COAT 0.48A	REMARKS
			METER	METER	SQ. METER	SQ. METER	CU. METER	CU. METER	CU. METER	LITER	LITER	LITER	CU. METER	CU. METER	SQ. METER	LITER	
EXIST. ECKSTEIN RD.																	
ROADWAY																	
50+068.310	50+107.692	L/R	39.382	CADDAREA	814.762	814.762				162.952	162.952		26.072	36.664			
50+068.310	50+107.692	L/R	39.382	CADDAREA	825.198		82.520					1485.356					
50+068.310	50+107.692	L/R	39.382	CADDAREA	840.910			126.136									
50+107.692	50+251.950	L/R	144.258	6.6	952.103	952.103				190.421	190.421		30.467	42.845			
50+107.692	50+251.950	L/R	144.258	6.8	980.954		98.095					1765.718					
50+107.692	50+251.950	L/R	144.258	7.1	1024.232			153.635									
50+251.950	50+267.220	L/R	15.270	CADDAREA	188.456	188.456				37.691	37.691		6.031	8.481			
50+251.950	50+267.220	L/R	15.270	CADDAREA	193.146		19.315					347.663					
50+251.950	50+267.220	L/R	15.270	CADDAREA	200.195			30.029									
SHOULDER																	
50+068.310	50+107.692	L/R	51.887	2.4	124.529				24.906								
50+068.310	50+107.692	L	51.887	0.1	5.189				−0.607								DEDUCT BASE OVERLAP W=100 mm T=117 mm
50+068.310	50+107.692	R	51.887	0.1	5.189				−0.607								DEDUCT BASE OVERLAP W=100 mm T=117 mm
50+107.692	50+251.950	L/R	144.258	2.4	346.219				69.244								
50+107.692	50+251.950	L	144.258	0.1	14.426				−1.688								DEDUCT BASE OVERLAP W=100 mm T=117 mm
50+107.692	50+251.950	R	144.258	0.1	14.426				−1.688								DEDUCT BASE OVERLAP W=100 mm T=117 mm
50+251.950	21+321.875	L	23.350	1.2	28.020				5.604								
50+251.950	21+321.875	L	23.350	0.1	2.335				−0.273								DEDUCT BASE OVERLAP W=100 mm T=117 mm
50+251.950	21+356.411	R	24.330	1.2	29.196				5.839								
50+251.950	21+356.411	R	24.330	0.1	2.433				−0.285								DEDUCT BASE OVERLAP W=100 mm T=117 mm
EARICK RD.																	
ROADWAY																	
49+472.000	49+480.000	L/R	8.000	6.53	52.240								1.672		52.240	25.075	
49+480.000	49+495.000	L/R	15.000	6.53−6.6	98.475	98.475				19.695	19.695		3.151	4.431			
49+480.000	49+495.000	L/R	15.000	6.73−6.8	101.475		10.148					182.655					
49+480.000	49+495.000	L/R	15.000	7.03−7.1	105.975			15.896									
49+495.000	49+930.980	L/R	435.980	6.6	2877.468	2877.468				575.494	575.494		92.079	129.486			
49+495.000	49+930.980	L/R	435.980	6.8	2964.664		296.466					5336.395					
49+495.000	49+930.980	L/R	435.980	7.2	3139.056			470.858									
50+033.116	50+475.000	L/R	441.884	6.6	2916.434	2916.434				583.287	583.287		93.326	131.240			
50+033.116	50+475.000	L/R	441.884	6.8	3004.811		300.481					5408.660					
50+033.116	50+475.000	L/R	441.884	7.2	3181.565			477.235									
50+475.000	50+481.443	L/R	6.443	6.6−6.39	41.847	41.847				8.369	8.369		1.339	1.883			
50+475.000	50+481.443	L/R	6.443	6.8−6.59	43.136		4.314					77.645					
50+475.000	50+481.443	L/R	6.443	7.1−6.89	45.069			6.760									
50+481.443	50+489.443	L/R	8.000	6.39	51.120								1.636		51.120	24.538	
SHOULDER																	
49+480.000	49+495.000	L/R	15.000	0.6−2.4	22.500				4.500								
49+480.000	49+495.000	L	15.000	0.1	1.500				−0.176								DEDUCT BASE OVERLAP W=100 mm T=117 mm
49+480.000	49+495.000	R	15.000	0.1	1.500				−0.176								DEDUCT BASE OVERLAP W=100 mm T=117 mm
49+495.000	49+930.980	L/R	435.980	2.4	1046.352				209.270								
49+495.000	49+930.980	L	412.311	0.1	41.231				−4.824								DEDUCT BASE OVERLAP W=100 mm T=117 mm
49+495.000	49+930.980	R	407.576	0.1	40.758				−4.769								DEDUCT BASE OVERLAP W=100 mm T=117 mm
50+033.116	50+475.000	L/R	441.884	2.4	1060.522				212.104								
50+033.116	50+475.000	L	441.884	0.1	44.188				−5.170								DEDUCT BASE OVERLAP W=100 mm T=117 mm
50+033.116	50+475.000	R	418.453	0.1	41.845				−4.896								DEDUCT BASE OVERLAP W=100 mm T=117 mm
50+475.000	50+481.443	L/R	6.443	2.4−0.6	9.664				1.933								
50+475.000	50+481.443	L	6.443	0.1	0.644				−0.075								DEDUCT BASE OVERLAP W=100 mm T=117 mm
50+475.000	50+481.443	R	6.443	0.1	0.644				−0.075								DEDUCT BASE OVERLAP W=100 mm T=117 mm
DRIVES																	
DR−27,28,30									−16.218								DEDUCT FOR DRIVES
TOTALS						7888.546	811.339	1280.551	491.873	1577.909	1577.909	14604.092	255.773	355.029	103.360	49.613	
TOTALS CARRIED TO SUB-SUMMARY, SHEET NO. 71K						7889	811	1281	492	1578	1598	14605	256	355	104	50	

CRA/RIC−30−33.500/0.000

GC013.DWG 04-26-2001 10:16 AM 1:1M

NOTE–FOR LEGEND, SEE SHEET NO. 11

FROM STATION	TO STATION	SIDE	DISTANCE D	AVERAGE WIDTH W	SURFACE AREA A A=DxW	(11) 203 SUBGRADE COMPACTION	(3B) 301 (100 mm) 0.100A	(4) 304 (150 mm) 0.150A	(5A) 304 (200 mm) 0.200A	(6) 407 0.2A	(6A) 407 0.2A	(7) 408 1.8A	(1A) 448 (32 mm) 0.032A	(2A) 448 (45 mm) 0.045A	202 WEARING COURSE REMOVED	407 TACK COAT 0.48A	REMARKS
			METER	METER	SQ. METER	SQ. METER	CU. METER	CU. METER	CU. METER	LITER	LITER	LITER	CU. METER	CU. METER	SQ. METER	LITER	
SERVICE ROAD "B"																	
ROADWAY																	
30+732.116	30+744.090	L/R	11.974	CADDAREA	74.531	74.531				14.906	14.906		2.385	3.354			TOTAL AREA BY CADD
30+732.116	30+744.090	L/R	11.974	CADDAREA	76.925		7.693					138.465					TOTAL AREA BY CADD
30+732.116	30+744.090	L/R	11.974	CADDAREA	80.456			12.068									TOTAL AREA BY CADD
30+744.090	30+820.000	L/R	75.910	6.6	501.006	501.006				100.201	100.201		16.032	22.545			
30+744.090	30+820.000	L/R	75.910	6.8	516.188		51.619					929.138					
30+744.090	30+820.000	L/R	75.910	7.1	538.961			80.844									
30+820.000	30+871.026	L/R	51.026	6.6	336.772						67.354		10.777	15.155		161.650	
30+850.000	30+871.026	L/R	21.026	6.4	134.566										134.566		
30+871.026	30+919.121	L/R	48.095	CADDAREA	916.525	916.525				183.305	183.305		29.329	41.244			TOTAL AREA BY CADD
30+871.026	30+919.121	L/R	48.095	CADDAREA	928.183		92.818					1670.729					TOTAL AREA BY CADD
30+871.026	30+919.121	L/R	48.095	CADDAREA	946.342			141.951									TOTAL AREA BY CADD
SHOULDER																	
30+732.116	30+820.000	L	84.297	1.2	101.156				20.231								
30+732.116	30+820.000	L	84.297	0.1	8.430				−0.986								DEDUCT BASE OVERLAP W=100 mm T=117 mm
30+732.116	30+820.000	R	89.730	1.2	107.676				21.535								
30+732.116	30+820.000	R	89.730	0.1	8.973				−1.050								DEDUCT BASE OVERLAP W=100 mm T=117 mm
30+820.000	30+871.026	L/R	51.026	2.4	122.462				24.493								
30+871.026	30+919.121	L/R	120.751	1.2	144.901				28.980								
30+871.026	30+919.121	L	59.886	0.1	5.989				−0.701								DEDUCT BASE OVERLAP W=100 mm T=117 mm
30+871.026	30+919.121	R	54.017	0.1	5.402				−0.632								DEDUCT BASE OVERLAP W=100 mm T=117 mm
DRIVES																	
DR–28					28.188				−5.638								DEDUCT FOR DR–28
DR–29					8.218				−1.644								DEDUCT FOR DR–29
DR–31					17.991				−3.598								DEDUCT FOR DR–31
TOTALS						1492.062	152.130	234.863	80.990	298.412	365.766	2738.332	58.523	82.298	134.566	161.650	
TOTALS CARRIED TO SUB-SUMMARY, SHEET NO. 71K						1492	152	235	81	298	366	2738	59	82	135	162	

CALCULATED TJM
CHECKED WS

PAVEMENT CALCULATIONS

CRA/RIC–30–33.500/0.000

GC015.DWG
05-10-2001 8:22 AM
SCALE: 1:1

NOTE– FOR LEGEND, SEE SHEET NO. 11

TOTALS CARRIED FROM PAVEMENT CALCULATIONS	① 446 (38 mm)	①A 448 (32 mm)	①B 448 (38 mm)	② 446 (45 mm)	②A 448 (45 mm)	②B 448 (45 mm)	③ 302 (205 mm)	③A 301 (150 mm)	③B 301 (100 mm)	④ 304 (150 mm)	⑤ 304 (250 mm)	⑤A 304 (200 mm)	⑥ 407 (0.2L/SQ.M)	⑥A 407 (0.2L/SQ.M)	⑦ 408 (1.8L/SQ.M)	⑧ 409 (1.36L/SQ.M.)	⑧ 409 (0.007CU.M./SQ.M.)	⑪ 203 SUBGRADE COMPACT.	202 WEARING COURSE REMOVED	407 TACK COAT (0.48L/SQ.M)
	CU. M.	CU. M.	CU. M.	CU. M.	CU. M.	CU. M.	CU. M.	CU. M.	CU. M.	CU. M.	CU. M.	CU. M.	LITER	LITER	LITER	LITER	CU. M.	SQ. M.	SQ. M.	LITER
TOTALS CARRIED FROM SHT. 69	1780 ⊛			2108 ⊛			9786 ⊛			1679	9857		9367 ⊛	9367 ⊛	67932			46832		
TOTALS CARRIED FROM SHT. 70	2802 ⊛			3251 ⊛			15047 ⊛			2226	15097		14415 ⊛	14452 ⊛	104137			72071	1493	717
TOTALS CARRIED FROM SHT. 71	3520 ⊛			4148 ⊛			19217 ⊛			3269	19242		18369 ⊛	18461 ⊛	132762			91846	456	219
TOTALS CARRIED FROM SHT. 71A	288 ⊛			341 ⊛			1590 ⊛				2009		1513 ⊛	1513 ⊛	12507			7565		
TOTALS CARRIED FROM SHT. 71B	413 ⊛			423 ⊛			1972 ⊛				2497		1876 ⊛	1876 ⊛	15488			9380	1492	716
TOTALS CARRIED FROM SHT. 71C			208			244		834		866		237	1082	1082	12312	1747	9	5410	49	24
TOTALS CARRIED FROM SHT. 71D			207			241		824		857		430	1069	1069	13877	3016	16	5346	98	47
TOTALS CARRIED FROM SHT. 71E		308			432				969	1544		631	1919	1919	17781			9597	41	20
TOTALS CARRIED FROM SHT. 71F		64			86				195	298		51	383	383	3496			1914	89	43
TOTALS CARRIED FROM SHT. 71G		167			233				533	833			1036	1036	9587			5177	46	22
TOTALS CARRIED FROM SHT. 71H		116			161				369	558		549	716	713	6635			3594	42	20
TOTALS CARRIED FROM SHT. 71I		256			355				812	1281		492	1578	1578	14605			7889	104	50
TOTALS CARRIED FROM SHT. 71J		59			82				152	235		81	298	366	2738			1492	135	162
TOTALS CARRIED FROM SHT. 468	19			23			105			80			99	99	917					
⊛ FOR INFORMATION ONLY. REPLACED WITH ITEM 880 ASPHALT CONCRETE (7 YEAR WARRANTY), WHICH ADDS UP TO 66,686 CU. M.																				
								1658	3030	13726	48702	2471								
TOTALS CARRIED TO GENERAL SUMMARY	19	970	415	23	1349	485	105	4688		64899			8180	8245	414774	4763	25	268113	4045	2040

CALCULATED MJT
CHECKED WS

PAVEMENT SUB-SUMMARY

CRA/RIC-30-33.500/0.000

GS007.DWG
08-30-2001 3:24 PM
SCALE: 1:1M

TOTALS CARRIED TO SUBSUMMARY SHEET 91

STORM WATER POLLUTION PREVENTION PLAN

THE CONDITIONS OF THE NPDES CONSTRUCTION STORM WATER GENERAL PERMIT (SEE PROPOSAL) SHALL BE MET DURING ALL STAGES OF CONSTRUCTION. THE LOCATION AND TIMING OF ALL EROSION AND SEDIMENT CONTROL ITEMS SHALL BE FIELD ADJUSTED TO PREVENT SIGNIFICANT IMPACTS ON RECEIVING WATERS. IMPLEMENTATION OF THIS STORM WATER POLLUTION PREVENTION PLAN SHALL CONTINUE THROUGHOUT THE DURATION OF THE PROJECT OR UNTIL SUCH TIME THAT THE UPSLOPE DISTURBED AREAS ARE STABILIZED.

INSTALLATION OF SEDIMENT BASINS/DAMS, PERIMETER FILTER FABRIC FENCE, AND DITCH CHECKS SHALL BE CONCURRENT WITH CLEARING AND GRUBBING AND/OR GRADING OPERATIONS.

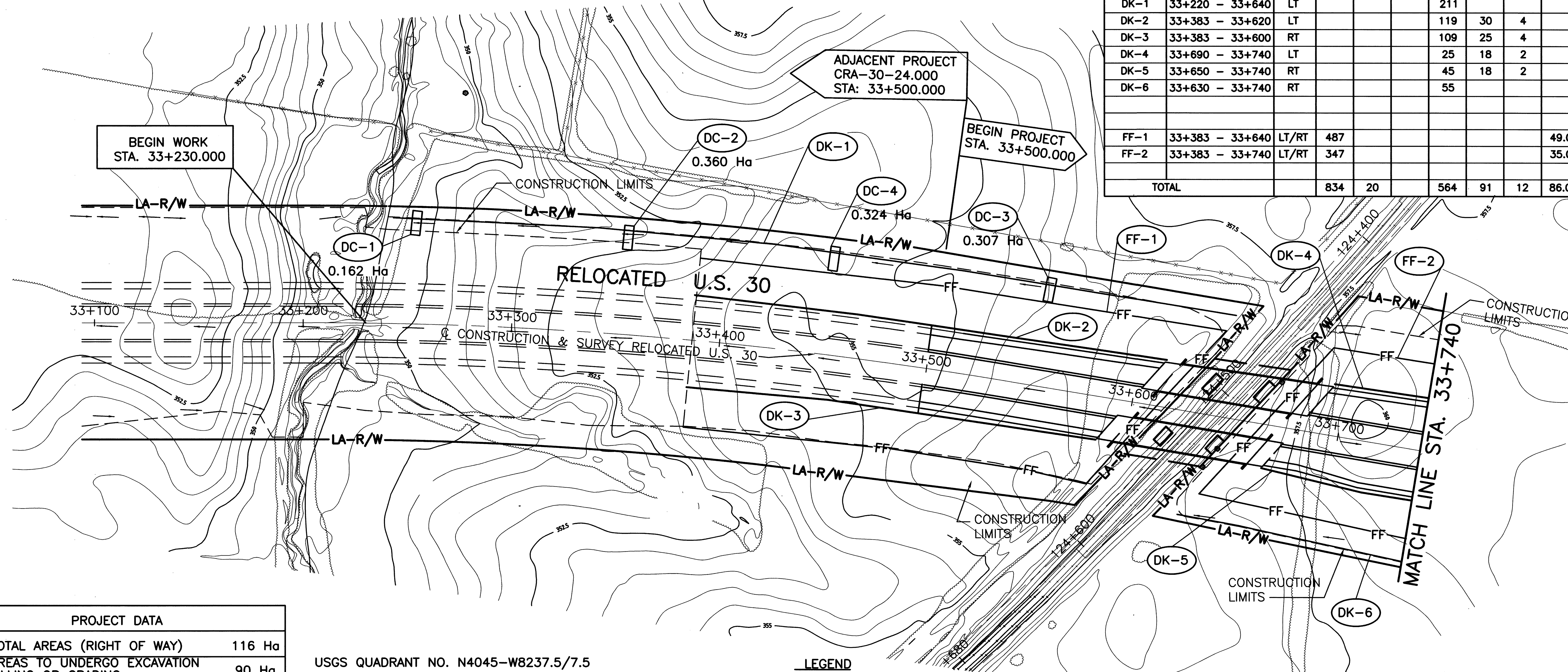
ALL REASONABLE ATTEMPTS SHOULD BE MADE TO MINIMIZE THE TOTAL AREA OF DISTURBED LAND.

AREAS TO REMAIN DORMANT FOR MORE THAN 45 DAYS SHOULD BE IMMEDIATELY STABILIZED WITH TEMPORARY SEEDING AND MULCHING,EROSION CONTROL MATTING OR OTHER APPROPRIATE EROSION CONTROL MEASURES.

ADDITIONAL QUANTITIES OF TEMPORARY SOIL EROSION AND SEDIMENT CONTROL ITEMS ARE GIVEN IN THE GENERAL NOTES.

ESTIMATED QUANTITIES

REF. NO.	LOCATION	SIDE	877 TEMP. PERIMETER FILTER FABRIC FENCE	877 TEMP. DITCH CHECK FILTER FABRIC FENCE	877	877 TEMPORARY DIKES	877 TEMPORARY SLOPE DRAINS	601 ROCK CHANNEL PROTECT TYPE C W/FILTER	601 ROCK CHANNEL PROTECT TYPE C WITHOUT FILTER
			METER	METER		C.M.	METER	C.M.	C.M.
DC-1	33+250	LT		5					0.5
DC-2	33+350	LT		5					0.5
DC-3	33+550	LT		5					0.5
DC-4	33+500	RT		5					0.5
DK-1	33+220 - 33+640	LT				211			
DK-2	33+383 - 33+620	LT				119	30	4	
DK-3	33+383 - 33+600	RT				109	25	4	
DK-4	33+690 - 33+740	LT				25	18	2	
DK-5	33+650 - 33+740	RT				45	18	2	
DK-6	33+630 - 33+740	RT				55			
FF-1	33+383 - 33+640	LT/RT	487						49.0
FF-2	33+383 - 33+740	LT/RT	347						35.0
TOTAL			834	20		564	91	12	86.0



PROJECT DATA	
TOTAL AREAS (RIGHT OF WAY)	116 Ha
AREAS TO UNDERGO EXCAVATION FILLING OR GRADING	90 Ha
RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE	0.55 AVG.
RUNOFF COEFFICIENT FOR POST CONSTRUCTION SITE	0.65 AVG.
SOIL DATA	SEE SOIL PROFILE
IMMEDIATE RECEIVING WATERS	PARAMOUR CREEK
SUBSEQUENT RECEIVING WATERS	OHIO RIVER
PROJECT LOCATION	LATITUDE 40°-46'-00" LONGITUDE 82°-47'-30"

USGS QUADRANT NO. N4045-W8237.5/7.5
CRESTLINE, OHIO

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF CONSTRUCTING OF A 8.907 KM. FOUR-LANE DIVIDED, LIMITED ACCESS HIGHWAY ON NEW ALIGNMENT, PARTIAL COMPLETION OF ONE INTERCHANGE, CONSTRUCTION OF ONE FULL DIAMOND INTERCHANGE, CROSSROAD AND RAILROAD GRADE SEPARATIONS AND RELOCATIONS, WITH STRUCTURES OVER VARIOUS ROADS.

LEGEND

IP = INLET PROTECTION

DC = DITCH CHECK

DK = TEMPORARY DIKE

SB = SEDIMENT BASIN

— FF — FF = FILTER FABRIC FENCE

ITEM 877 - TEMPORARY BENCHES, DAMS AND SEDIMENT BASINS

THE SEDIMENT BASIN QUANTITIES LISTED ON THIS STORM WATER POLLUTION PREVENTION PLAN ARE THE STORAGE VOLUMES REQUIRED FOR THE SEDIMENT BASIN. THE PAY QUANTITY FOR EACH BASIN SHALL BE DETERMINED AS THE ACTUAL AMOUNT OF EXCAVATION OR EMBANKMENT REQUIRED TO PROVIDE THAT STORAGE VOLUME.

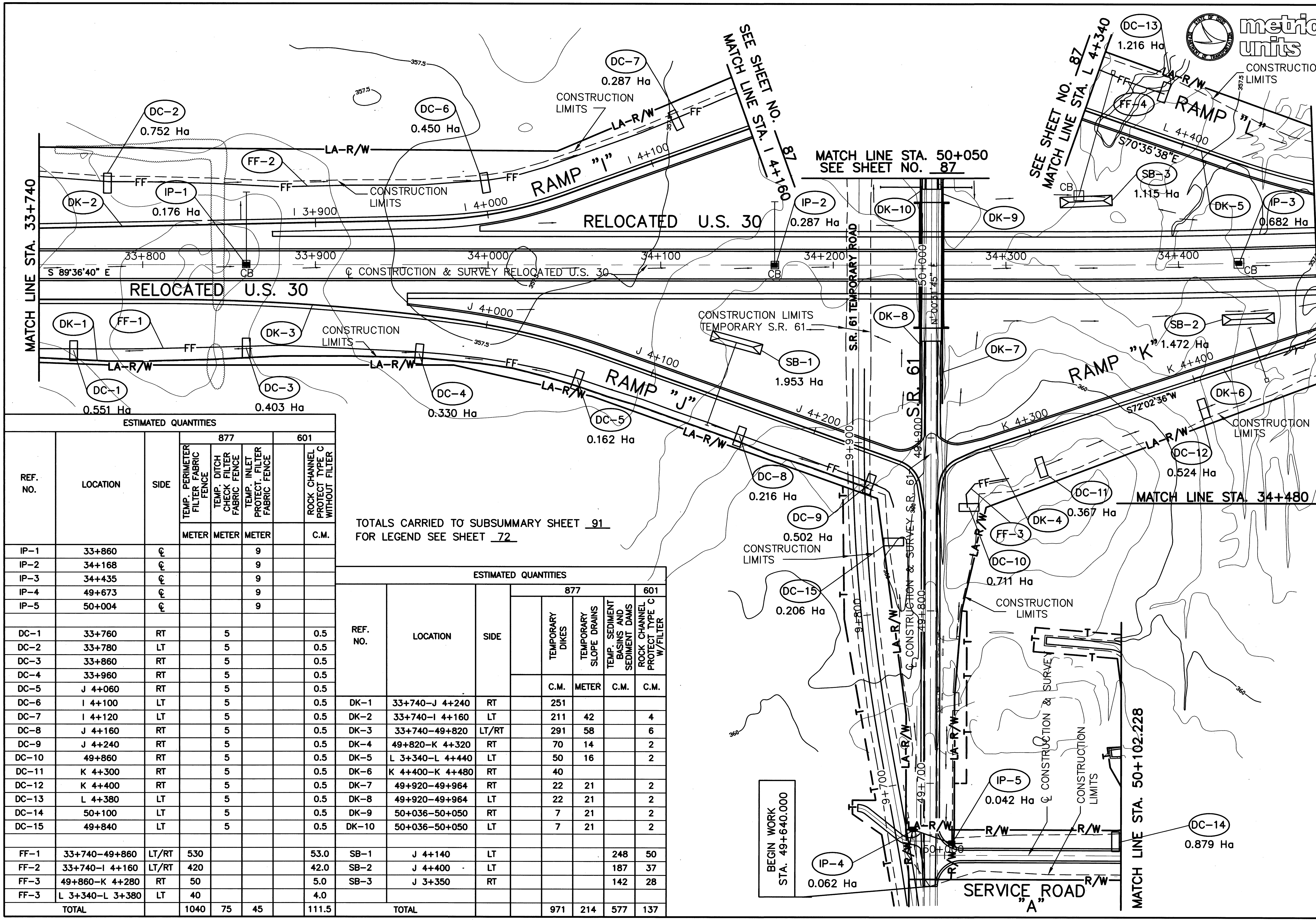
DE001.DWG
03-27-2001 8:15 AM
SCALE: 1:1000M

RATIO 1:1000
0 25 50
HORIZONTAL SCALE IN METERS

CALCULATED TJM
CHECKED WJS

STORM WATER POLLUTION PREVENTION PLAN
STA. 33+100 TO STA. 33+740

CRA/RIC-30-33.500/0.000



TOTALS CARRIED TO SUBSUMMARY SHEET 91
FOR LEGEND SEE SHEET 72

ESTIMATED QUANTITIES

REF. NO.	LOCATION	SIDE	877 TEMP. PERIMETER FILTER FABRIC FENCE	877 TEMP. DITCH CHECK FILTER FABRIC FENCE	877 TEMP. INLET PROTECT. FILTER FABRIC FENCE		601 ROCK CHANNEL PROTECT TYPE C WITHOUT FILTER
			METER	METER	METER		C.M.
IP-1	33+860	℄			9		
IP-2	34+168	℄			9		
IP-3	34+435	℄			9		
IP-4	49+673	℄			9		
IP-5	50+004	℄			9		
DC-1	33+760	RT		5			0.5
DC-2	33+780	LT		5			0.5
DC-3	33+860	RT		5			0.5
DC-4	33+960	RT		5			0.5
DC-5	J 4+060	RT		5			0.5
DC-6	I 4+100	LT		5			0.5
DC-7	I 4+120	LT		5			0.5
DC-8	J 4+160	RT		5			0.5
DC-9	J 4+240	RT		5			0.5
DC-10	49+860	RT		5			0.5
DC-11	K 4+300	RT		5			0.5
DC-12	K 4+400	RT		5			0.5
DC-13	L 4+380	LT		5			0.5
DC-14	50+100	LT		5			0.5
DC-15	49+840	LT		5			0.5
FF-1	33+740-49+860	LT/RT	530				53.0
FF-2	33+740-I 4+160	LT/RT	420				42.0
FF-3	49+860-K 4+280	RT	50				5.0
FF-3	L 3+340-L 3+380	LT	40				4.0
TOTAL			1040	75	45		111.5

ESTIMATED QUANTITIES

REF. NO.	LOCATION	SIDE	877	877 TEMPORARY DIKES	877 TEMPORARY SLOPE DRAINS	877 TEMP. SEDIMENT BASINS AND SEDIMENT DAMS	601 ROCK CHANNEL PROTECT TYPE C W/FILTER
				C.M.	METER	C.M.	C.M.
DK-1	33+740-J 4+240	RT		251			
DK-2	33+740-I 4+160	LT		211	42		4
DK-3	33+740-49+820	LT/RT		291	58		6
DK-4	49+820-K 4+320	RT		70	14		2
DK-5	L 3+340-L 4+440	LT		50	16		2
DK-6	K 4+400-K 4+480	RT		40			
DK-7	49+920-49+964	RT		22	21		2
DK-8	49+920-49+964	LT		22	21		2
DK-9	50+036-50+050	RT		7	21		2
DK-10	50+036-50+050	LT		7	21		2
SB-1	J 4+140	LT				248	50
SB-2	J 4+400	LT				187	37
SB-3	J 3+350	RT				142	28
TOTAL				971	214	577	137

DE002.DWG
08-31-2000 3:54 PM
SCALE: 1:1000M

metric units

RATIO 1:1000
HORIZONTAL SCALE IN METERS

CALCULATED TJM
CHECKED WJS

STORM WATER POLLUTION PREVENTION PLAN
STA. 33+740 TO STA. 34+480

CRA/RIC-30-33.500/0.000

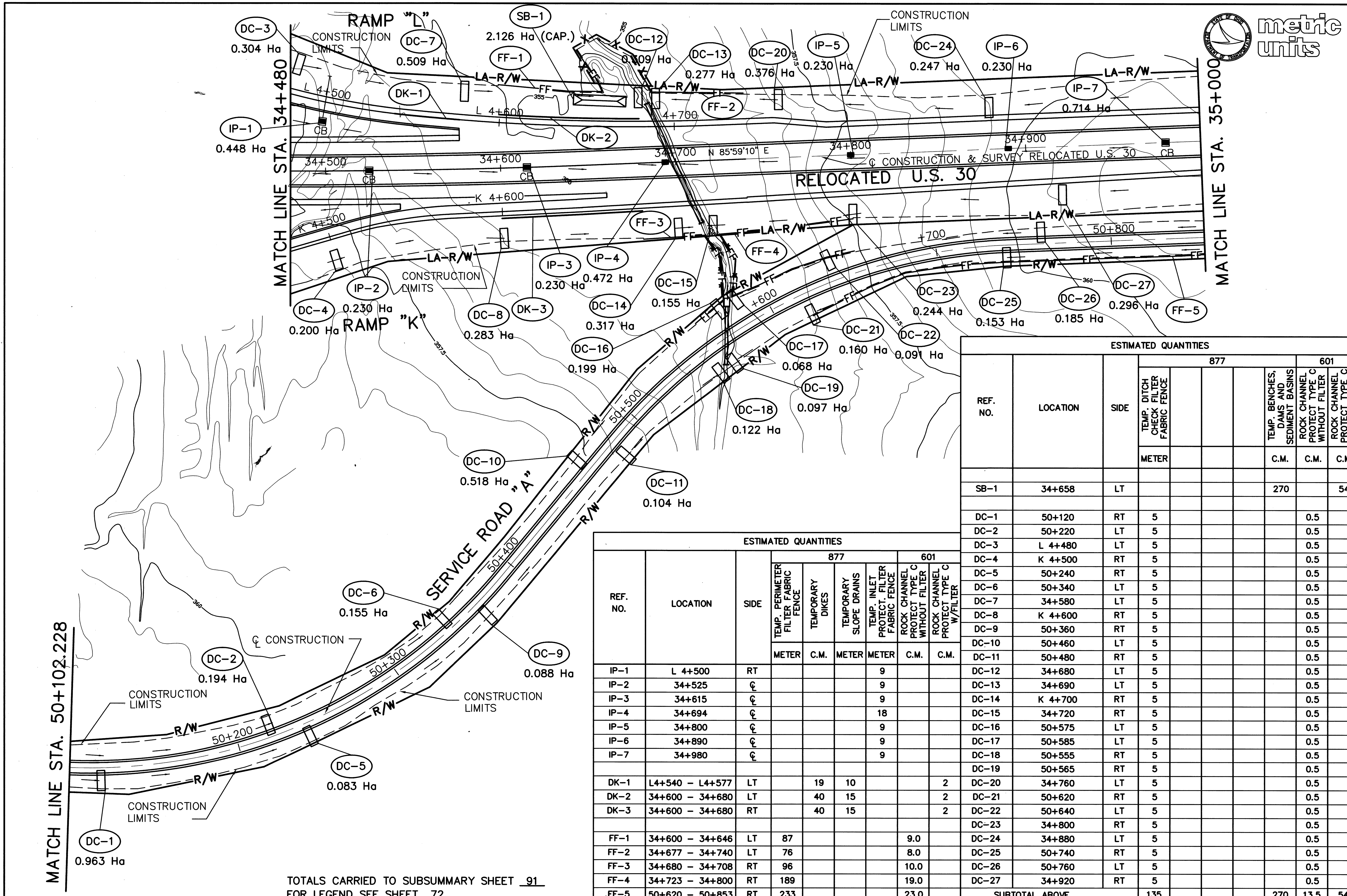
STORM WATER POLLUTION PREVENTION PLAN
STA. 34+480 TO STA. 35+000

CRA/RIC-30-33.500/0.000

CALCULATED TJM CHECKED WJS

RATIO 1:1000 HORIZONTAL SCALE IN METERS

metric units



ESTIMATED QUANTITIES

REF. NO.	LOCATION	SIDE	877 TEMP. PERIMETER FILTER FABRIC FENCE (METER)	877 TEMPORARY DIKES (C.M.)	877 TEMPORARY SLOPE DRAINS (METER)	877 TEMP. INLET PROTECT. FILTER FABRIC FENCE (METER)	601 ROCK CHANNEL PROTECT TYPE C WITHOUT FILTER (C.M.)	601 ROCK CHANNEL PROTECT TYPE C W/FILTER (C.M.)
IP-1	L 4+500	RT				9		
IP-2	34+525	℄				9		
IP-3	34+615	℄				9		
IP-4	34+694	℄				18		
IP-5	34+800	℄				9		
IP-6	34+890	℄				9		
IP-7	34+980	℄				9		
DK-1	L4+540 – L4+577	LT		19	10			2
DK-2	34+600 – 34+680	LT		40	15			2
DK-3	34+600 – 34+680	RT		40	15			2
FF-1	34+600 – 34+646	LT	87				9.0	
FF-2	34+677 – 34+740	LT	76				8.0	
FF-3	34+680 – 34+708	RT	96				10.0	
FF-4	34+723 – 34+800	RT	189				19.0	
FF-5	50+620 – 50+853	RT	233				23.0	
TOTAL			671	99	40	27	69	6

ESTIMATED QUANTITIES

REF. NO.	LOCATION	SIDE	877 TEMP. DITCH CHECK FILTER FABRIC FENCE (METER)	877	877	877	877 TEMP. BENCHES, DAMS AND SEDIMENT BASINS (C.M.)	601 ROCK CHANNEL PROTECT TYPE C WITHOUT FILTER (C.M.)	601 ROCK CHANNEL PROTECT TYPE C W/FILTER (C.M.)
SB-1	34+658	LT					270		54
DC-1	50+120	RT	5					0.5	
DC-2	50+220	LT	5					0.5	
DC-3	L 4+480	LT	5					0.5	
DC-4	K 4+500	RT	5					0.5	
DC-5	50+240	RT	5					0.5	
DC-6	50+340	LT	5					0.5	
DC-7	34+580	LT	5					0.5	
DC-8	K 4+600	RT	5					0.5	
DC-9	50+360	RT	5					0.5	
DC-10	50+460	LT	5					0.5	
DC-11	50+480	RT	5					0.5	
DC-12	34+680	LT	5					0.5	
DC-13	34+690	LT	5					0.5	
DC-14	K 4+700	RT	5					0.5	
DC-15	34+720	RT	5					0.5	
DC-16	50+575	LT	5					0.5	
DC-17	50+585	LT	5					0.5	
DC-18	50+555	RT	5					0.5	
DC-19	50+565	RT	5					0.5	
DC-20	34+760	LT	5					0.5	
DC-21	50+620	RT	5					0.5	
DC-22	50+640	LT	5					0.5	
DC-23	34+800	RT	5					0.5	
DC-24	34+880	LT	5					0.5	
DC-25	50+740	RT	5					0.5	
DC-26	50+760	LT	5					0.5	
DC-27	34+920	RT	5					0.5	
SUBTOTAL ABOVE			135				270	13.5	54
SUBTOTAL LEFT								69	6
TOTAL THIS SHEET			135				270	82.5	60

TOTALS CARRIED TO SUBSUMMARY SHEET 91
FOR LEGEND SEE SHEET 72

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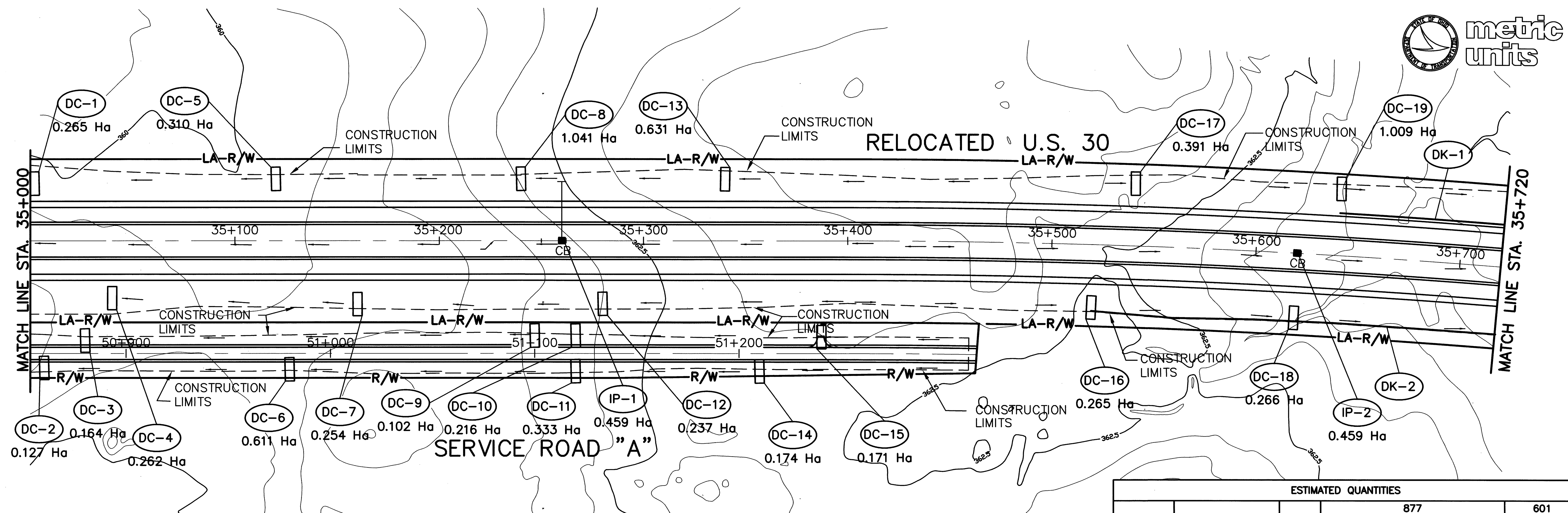


metric units

RATIO 1:1000
HORIZONTAL SCALE IN METERS

CALCULATED TJM
CHECKED WJS

STORM WATER POLLUTION PREVENTION PLAN STA. 35+000 TO STA. 35+720

CRA/RIC-30-33.500/0.000

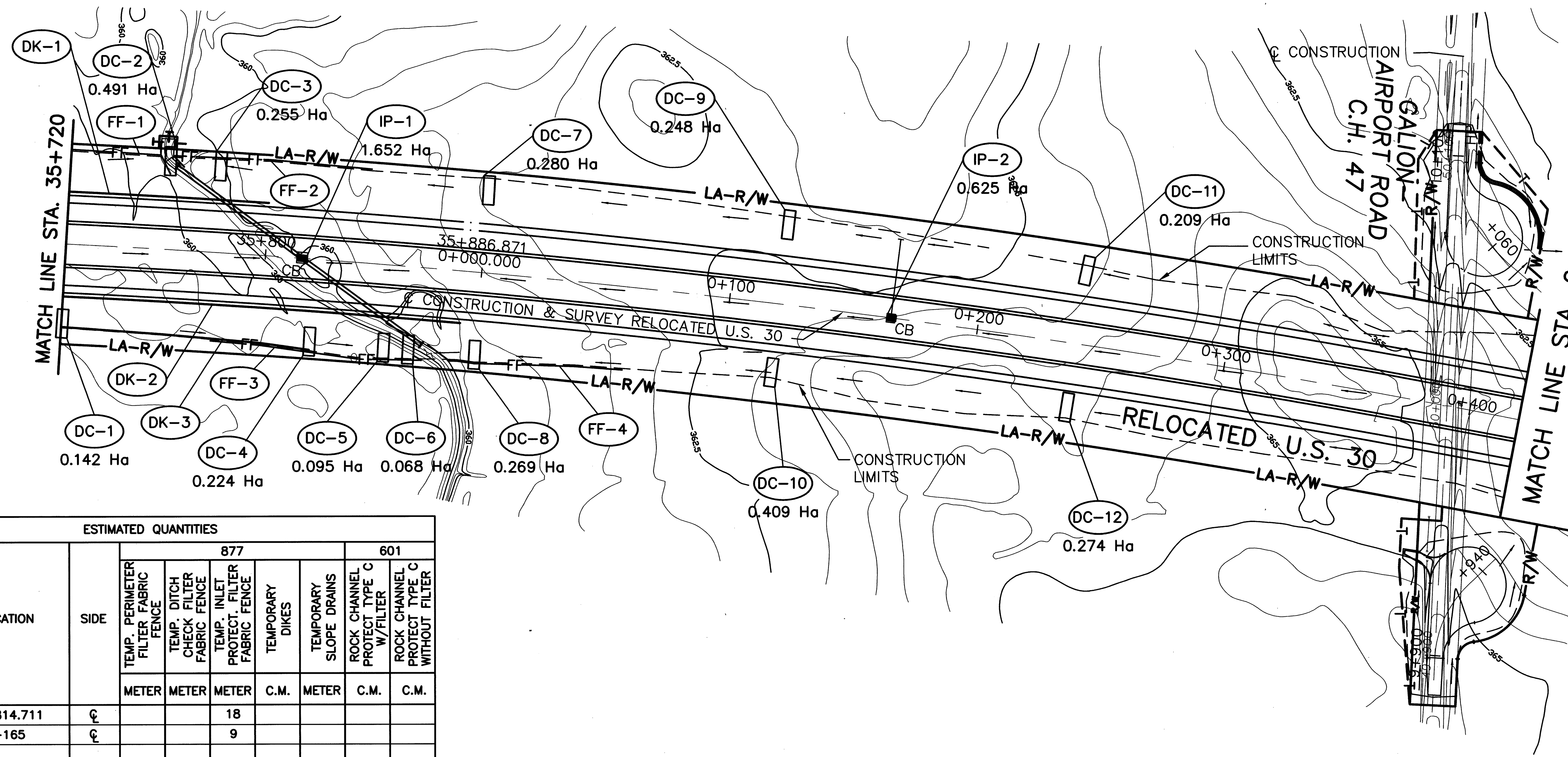
ESTIMATED QUANTITIES

REF. NO.	LOCATION	SIDE	877					601	
			TEMP. DITCH CHECK FILTER FABRIC FENCE	TEMP. INLET PROTECT. FILTER FABRIC FENCE	TEMPORARY DIKES	TEMPORARY SLOPE DRAINS		ROCK CHANNEL PROTECT TYPE C W/FILTER	ROCK CHANNEL PROTECT TYPE C WITHOUT FILTER
			METER	METER	C.M.	METER		C.M.	C.M.
IP-1	35+260	℄		9					
IP-2	35+620	℄		9					
DC-1	35+000	LT	5						0.5
DC-2	50+860	RT	5						0.5
DC-3	50+880	LT	5						0.5
DC-4	35+040	RT	5						0.5
DC-5	35+120	LT	5						0.5
DC-6	50+980	RT	5						0.5
DC-7	35+160	RT	5						0.5
DC-8	35+240	LT	5						0.5
DC-9	51+100	LT	5						0.5
DC-10	51+120	LT	5						0.5
DC-11	51+120	RT	5						0.5
DC-12	35+280	RT	5						0.5
DC-13	35+340	LT	5						0.5
DC-14	51+210	RT	5						0.5
DC-15	51+240	LT	5						0.5
DC-16	35+520	RT	5						0.5
DC-17	35+540	LT	5						0.5
DC-18	35+620	RT	5						0.5
DC-19	35+640	LT	5						0.5
DK-1	35+640 - 35+720	LT			40	15		2	
DK-2	35+620 - 35+720	RT			50	15		2	
DK-3	35+520 - 35+720	RT			100				
TOTAL			95	18	190	30		4	9.5

TOTALS CARRIED TO SUBSUMMARY SHEET 91
FOR LEGEND SEE SHEET 72

DE004.DWG
09-01-2000 7:55 AM
SCALE: 1:1000M

metric units



ESTIMATED QUANTITIES

REF. NO.	LOCATION	SIDE	877 TEMP. PERIMETER FILTER FABRIC FENCE	877 TEMP. DITCH CHECK FILTER FABRIC FENCE	877 TEMP. INLET PROTECT. FILTER FABRIC FENCE	877 TEMPORARY DIKES	877 TEMPORARY SLOPE DRAINS	601 ROCK CHANNEL PROTECT TYPE C W/FILTER	601 ROCK CHANNEL PROTECT TYPE C WITHOUT FILTER
			METER	METER	METER	C.M.	METER	C.M.	C.M.
IP-1	35+814.711	℄			18				
IP-2	0+165	℄			9				
DC-1	35+720	RT		5					0.5
DC-2	35+760	LT		5					0.5
DC-3	35+780	LT		5					0.5
DC-4	35+820	RT		5					0.5
DC-5	35+850	RT		5					0.5
DC-6	35+860	RT		5					0.5
DC-7	0+000	LT		5					0.5
DC-8	0+000	RT		5					0.5
DC-9	0+120	LT		5					0.5
DC-10	0+120	RT		5					0.5
DC-11	0+240	LT		5					0.5
DC-12	0+240	RT		5					0.5
DK-1	35+720 – 35+800	LT				40	17	2	
DK-2	35+720 – 35+880	RT				80	30	4	
DK-3	35+720 – 35+820	RT				50			
FF-1	35+720 – 35+760	LT	44						4.5
FF-2	35+761 – 35+840	LT	90						9.0
FF-3	35+780 – 35+862	RT	89						9.0
FF-4	35+868 – 0+060	RT	80						8.0
	TOTAL		303	60	27	170	47	6	36.5

TOTALS CARRIED TO SUBSUMMARY SHEET 91
FOR LEGEND SEE SHEET 72

DE005.DWG
09-01-2000 8:05 AM
SCALE: 1:1000M

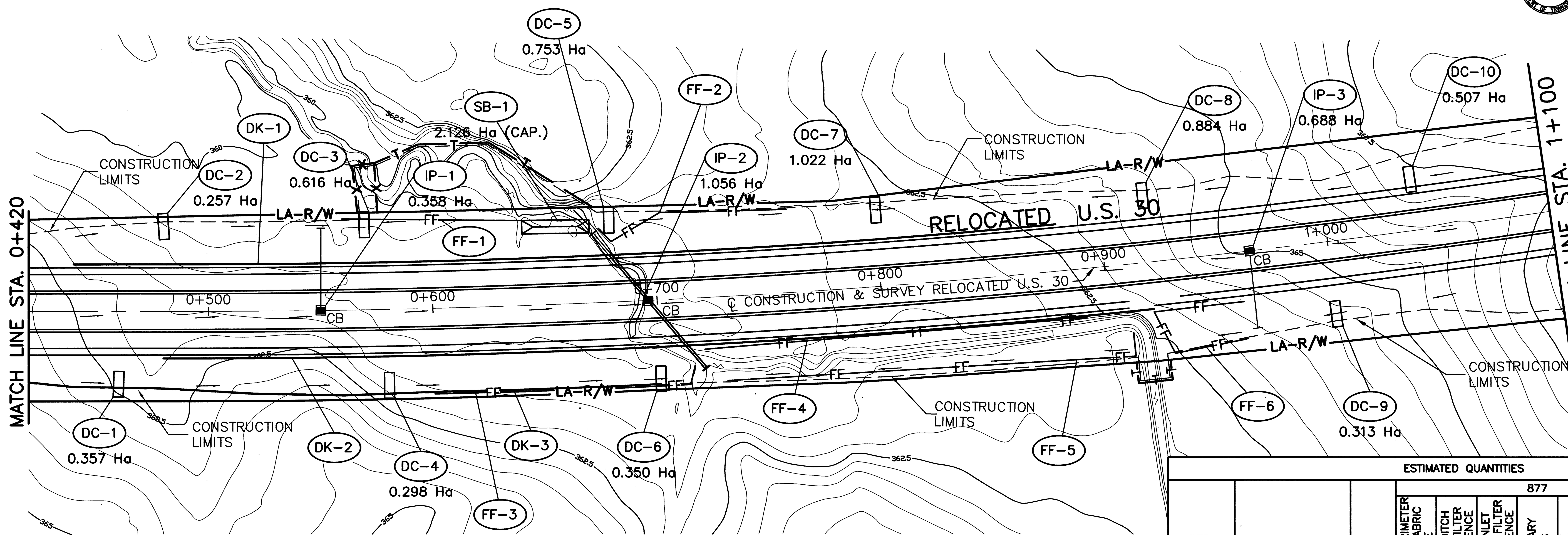
RATIO 1:1000
HORIZONTAL SCALE IN METERS

CALCULATED TJM
CHECKED WJS

STORM WATER POLLUTION PREVENTION PLAN STA. 35+720 TO STA. 0+420

CRA/RIC-30-33.500/0.000

metric units



ESTIMATED QUANTITIES

REF. NO.	LOCATION	SIDE	877 TEMP. PERIMETER FILTER FABRIC FENCE (METER)	TEMP. DITCH CHECK FILTER FABRIC FENCE (METER)	TEMP. INLET PROTECT. FILTER FABRIC FENCE (METER)	TEMPORARY DIKES (C.M.)	TEMPORARY SLOPE DRAINS (METER)	TEMP. BENCHES, DAMS AND SEDIMENT BASINS (METER)	601 ROCK CHANNEL PROTECT TYPE C W/FILTER (C.M.)	ROCK CHANNEL PROTECT TYPE C WITHOUT FILTER (C.M.)
IP-1	0+550	℄			9					
IP-2	0+696.300	℄			18					
IP-3	0+965	℄			9					
SB-1	0+650	LT						270	54	
DC-1	0+460	RT		5						0.5
DC-2	0+480	LT		5						0.5
DC-3	0+570	LT		5						0.5
DC-4	0+580	RT		5						0.5
DC-5	0+680	LT		5						0.5
DC-6	0+700	RT		5						0.5
DC-7	0+800	LT		5						0.5
DC-8	0+920	LT		5						0.5
DC-9	1+000	RT		5						0.5
DC-10	1+040	LT		5						0.5
DK-1	0+440 - 0+880	LT				221	72		8	
DK-2	0+480 - 0+920	RT				221	72		8	
DK-3	0+420 - 0+700	RT				141				
FF-1	0+560 - 0+641	LT	80							8.0
FF-2	0+675 - 0+760	LT	90							9.0
FF-3	0+600 - 0+715	RT	123							12.5
FF-4	0+720 - 0+890	RT	171							17.0
FF-5	0+730 - 0+910	RT	193							19.5
FF-6	0+920 - 0+960	RT	94							9.5
	TOTAL		751	50	36	583	144	270	70	80.5

TOTALS CARRIED TO SUBSUMMARY SHEET 91
FOR LEGEND SEE SHEET 72

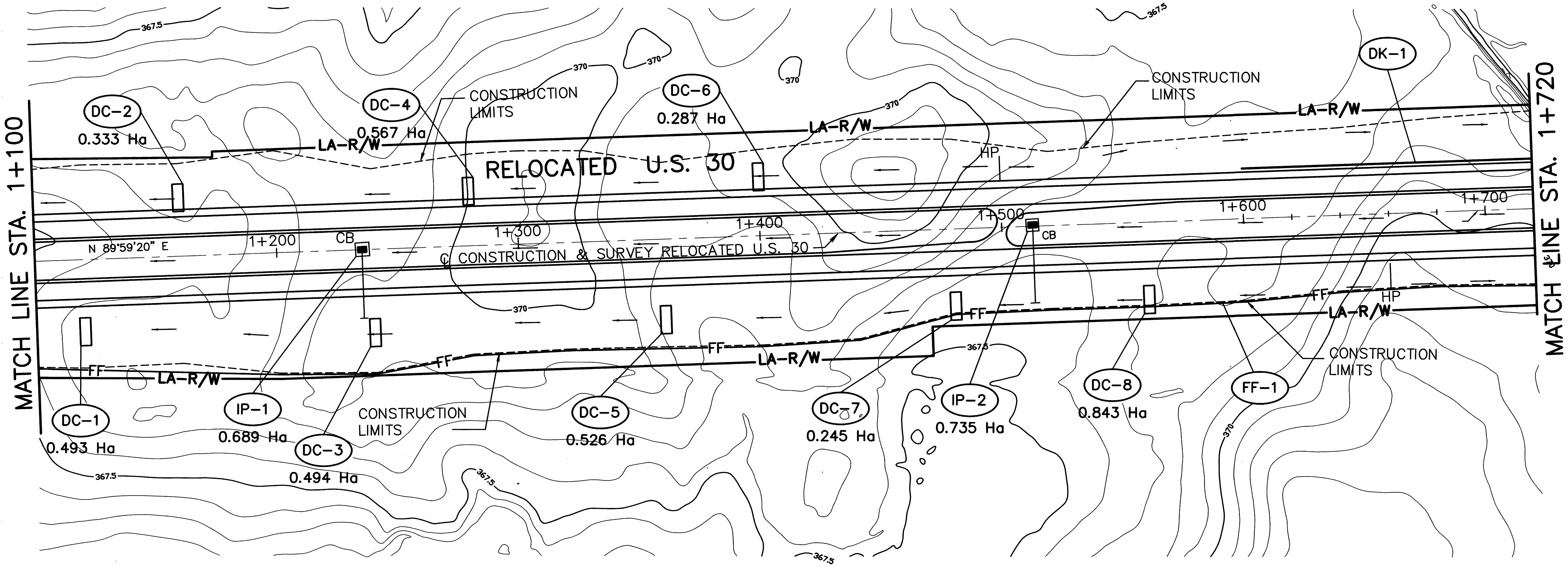
DE006.DWG
09-01-2000 8:30 AM
SCALE: 1:1000

RATIO 1:1000
0 25 50
HORIZONTAL SCALE IN METERS

CALCULATED TJM
CHECKED WJS

STORM WATER POLLUTION PREVENTION PLAN
STA. 0+420 TO STA. 1+100

CRA/RIC-30-33.500/0.000



metric units

RATIO 1:1000
HORIZONTAL SCALE IN METERS

CALCULATED TJM
CHECKED WJS

STORM WATER POLLUTION PREVENTION PLAN
STA. 1+100 TO STA. 1+720

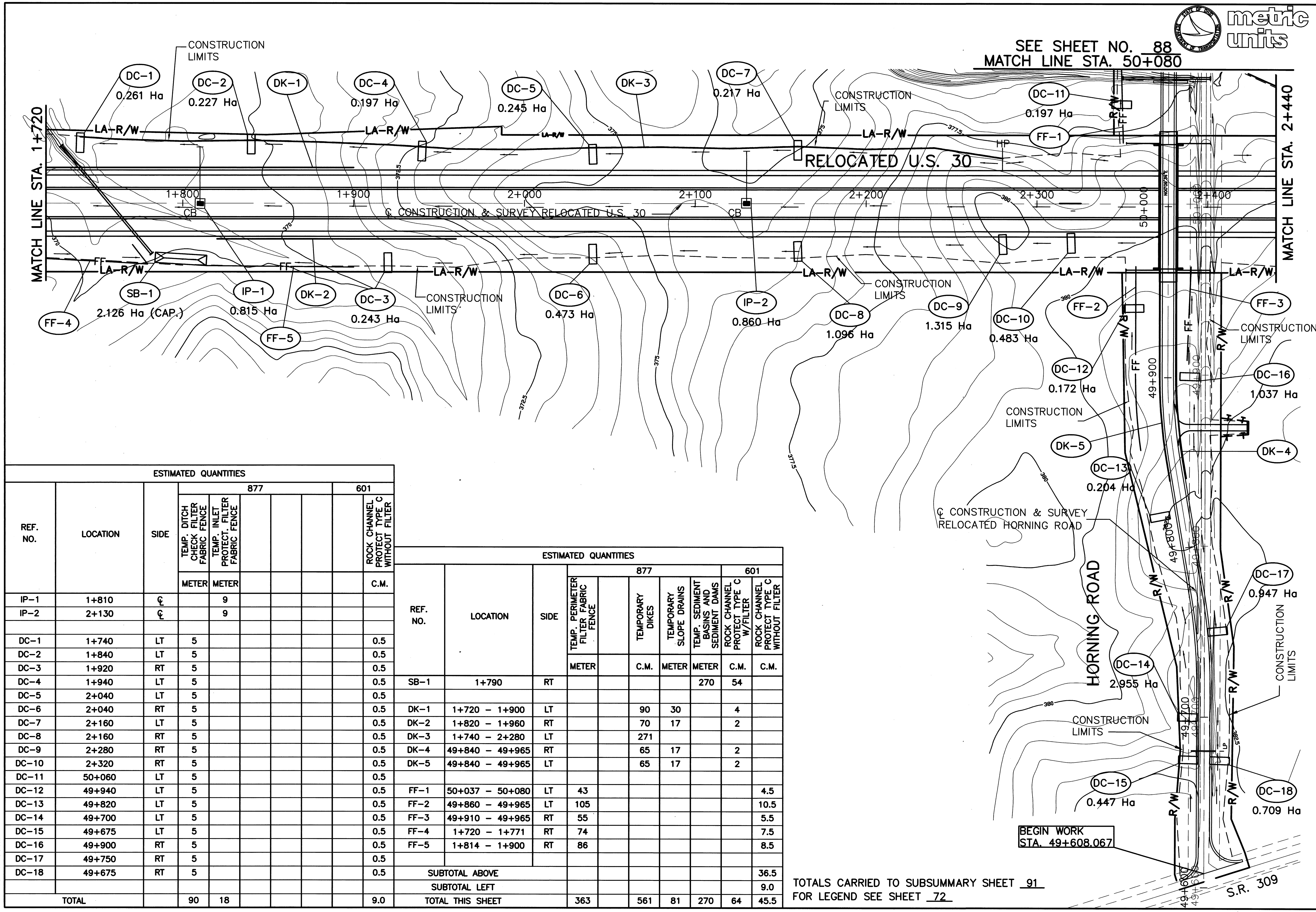
ESTIMATED QUANTITIES

REF. NO.	LOCATION	SIDE	877 TEMP. PERIMETER FILTER FABRIC FENCE (METER)	877 TEMP. DITCH CHECK FILTER FABRIC FENCE (METER)	877 TEMP. INLET PROTECT. FILTER FABRIC FENCE (METER)	877 TEMPORARY DIKES (C.M.)	877 TEMPORARY SLOPE DRAINS (METER)	601 ROCK CHANNEL PROTECT TYPE C W/FILTER (C.M.)	601 ROCK CHANNEL PROTECT TYPE C WITHOUT FILTER (C.M.)
IP-1	1+235	℄			9				
IP-2	1+512.600	℄			9				
DC-1	1+120	RT		5					0.5
DC-2	1+160	LT		5					0.5
DC-3	1+240	RT		5					0.5
DC-4	1+280	LT		5					0.5
DC-5	1+360	RT		5					0.5
DC-6	1+400	LT		5					0.5
DC-7	1+480	RT		5					0.5
DC-8	1+560	RT		5					0.5
DK-1	1+600 - 1+720	LT				60	20	2	
FF-1	1+100 - 1+720	RT	622						62.0
	TOTAL		622	35	18	60	20	2	66.0

TOTALS CARRIED TO SUBSUMMARY SHEET 91
FOR LEGEND SEE SHEET 72

DE007.DWG
09-01-2000 8:37 AM
SCALE: 1:1000M

CRA/RIC-30-33.500/0.000



ESTIMATED QUANTITIES

REF. NO.	LOCATION	SIDE	877 TEMP. DITCH CHECK FILTER FABRIC FENCE (METER)	877 TEMP. INLET PROTECT. FILTER FABRIC FENCE (METER)				601 ROCK CHANNEL PROTECT TYPE C WITHOUT FILTER (C.M.)
IP-1	1+810	℄		9				
IP-2	2+130	℄		9				
DC-1	1+740	LT	5					0.5
DC-2	1+840	LT	5					0.5
DC-3	1+920	RT	5					0.5
DC-4	1+940	LT	5					0.5
DC-5	2+040	LT	5					0.5
DC-6	2+040	RT	5					0.5
DC-7	2+160	LT	5					0.5
DC-8	2+160	RT	5					0.5
DC-9	2+280	RT	5					0.5
DC-10	2+320	RT	5					0.5
DC-11	50+060	LT	5					0.5
DC-12	49+940	LT	5					0.5
DC-13	49+820	LT	5					0.5
DC-14	49+700	LT	5					0.5
DC-15	49+675	LT	5					0.5
DC-16	49+900	RT	5					0.5
DC-17	49+750	RT	5					0.5
DC-18	49+675	RT	5					0.5
TOTAL			90	18				9.0

ESTIMATED QUANTITIES

REF. NO.	LOCATION	SIDE	877 TEMP. PERIMETER FILTER FABRIC FENCE (METER)		877 TEMPORARY DIKES (C.M.)	877 TEMPORARY SLOPE DRAINS (METER)	877 TEMP. SEDIMENT BASINS AND SEDIMENT DAMS (METER)	601 ROCK CHANNEL PROTECT TYPE C W/FILTER (C.M.)	601 ROCK CHANNEL PROTECT TYPE C WITHOUT FILTER (C.M.)
SB-1	1+790	RT					270	54	
DK-1	1+720 – 1+900	LT			90	30		4	
DK-2	1+820 – 1+960	RT			70	17		2	
DK-3	1+740 – 2+280	LT			271				
DK-4	49+840 – 49+965	RT			65	17		2	
DK-5	49+840 – 49+965	LT			65	17		2	
FF-1	50+037 – 50+080	LT	43						4.5
FF-2	49+860 – 49+965	LT	105						10.5
FF-3	49+910 – 49+965	RT	55						5.5
FF-4	1+720 – 1+771	RT	74						7.5
FF-5	1+814 – 1+900	RT	86						8.5
SUBTOTAL ABOVE									36.5
SUBTOTAL LEFT									9.0
TOTAL THIS SHEET			363		561	81	270	64	45.5

TOTALS CARRIED TO SUBSUMMARY SHEET 91
FOR LEGEND SEE SHEET 72

RATIO 1:1000 HORIZONTAL SCALE IN METERS

CALCULATED TJM CHECKED WJS

STORM WATER POLLUTION PREVENTION PLAN
STA. 1+720 TO STA. 2+440

CRA/RIC-30-33.500/0.000

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09-01-2000 9:13 AM
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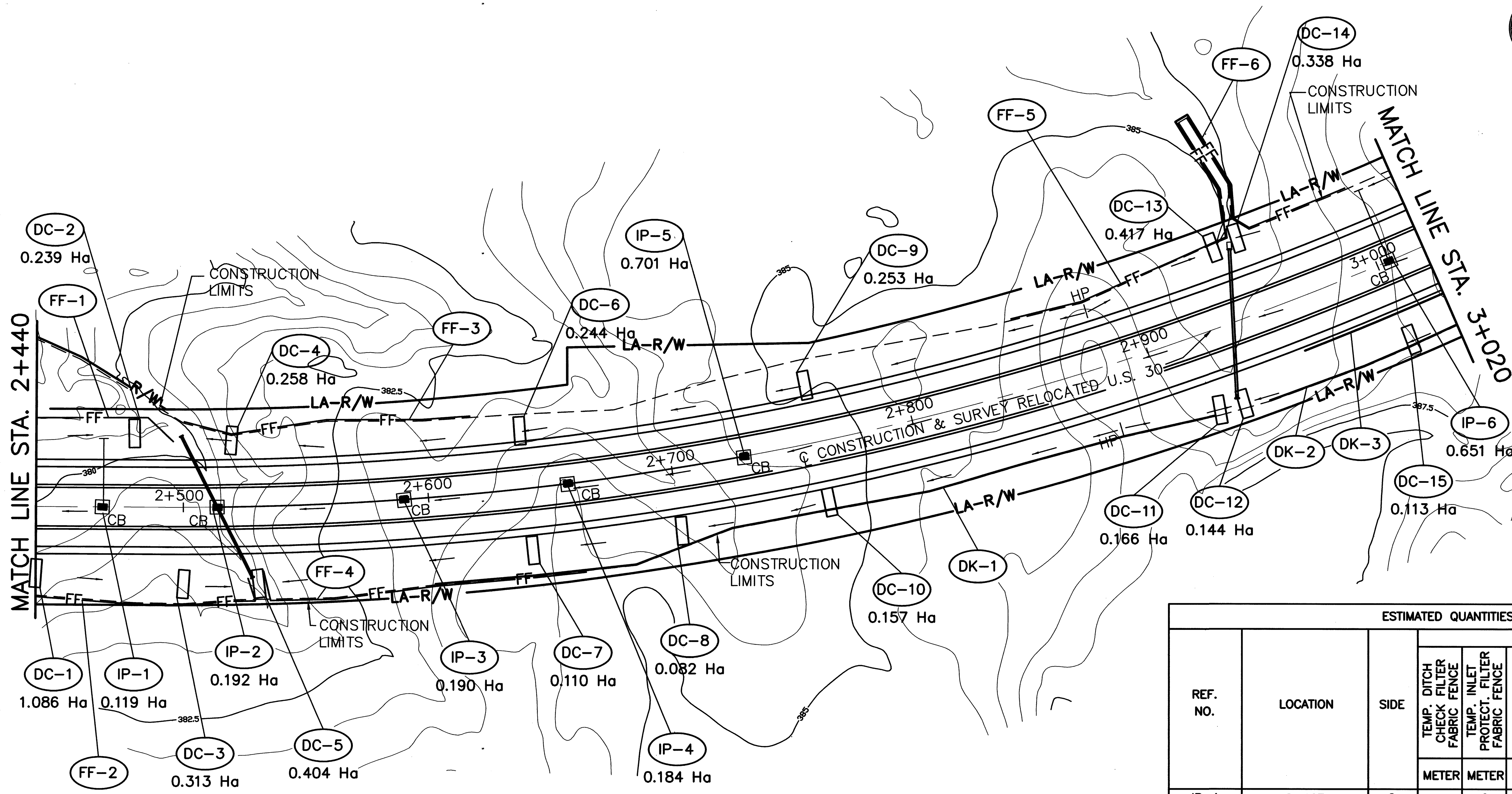


ESTIMATED QUANTITIES									
			877					601	
REF. NO.	LOCATION	SIDE	TEMP. PERIMETER FILTER FABRIC FENCE		TEMPORARY DIKES	TEMPORARY SLOPE DRAINS		ROCK CHANNEL PROTECT TYPE C W/FILTER	ROCK CHANNEL PROTECT TYPE C WITHOUT FILTER
			METER		C.M.	METER		C.M.	C.M.
DK-1	2+600 - 2+918	RT			164				
DK-2	2+940 - 3+020	RT			40				
DK-3	2+960 - 3+020	RT			30	16		2	
FF-1	2+440 - 2+496	LT	60						6.0
FF-2	2+440 - 2+526	RT	99						10.0
FF-3	2+500 - 2+620	LT	118						12.0
FF-4	2+532 - 2+660	RT	142						14.0
FF-5	2+850 - 2+944	LT	145						14.5
FF-6	2+949 - 3+000	LT	96						10.0
TOTAL			660		234	16		2	66.5

ESTIMATED QUANTITIES									
			877					601	
REF. NO.	LOCATION	SIDE	TEMP. DITCH CHECK FILTER FABRIC FENCE	TEMP. INLET PROTECT. FILTER FABRIC FENCE					ROCK CHANNEL PROTECT TYPE C WITHOUT FILTER
			METER	METER					C.M.
IP-1	2+467	℄		9					
IP-2	2+513.747	℄		9					
IP-3	5+587	℄		9					
IP-4	2+660	℄		9					
IP-5	2+732	℄		9					
IP-6	3+007	℄		9					
DC-1	2+440	RT	5						0.5
DC-2	2+480	LT	5						0.5
DC-3	2+500	RT	5						0.5
DC-4	2+520	LT	5						0.5
DC-5	2+530	RT	5						0.5
DC-6	2+640	LT	5						0.5
DC-7	2+640	RT	5						0.5
DC-8	2+700	RT	5						0.5
DC-9	2+760	LT	5						0.5
DC-10	2+760	RT	5						0.5
DC-11	2+920	RT	5						0.5
DC-12	2+930	RT	5						0.5
DC-13	2+940	LT	5						0.5
DC-14	2+950	LT	5						0.5
DC-15	3+000	RT	5						0.5
SUBTOTAL ABOVE									7.5
SUBTOTAL LEFT									66.5
TOTAL THIS SHEET			75	54					74.0

TOTALS CARRIED TO SUBSUMMARY SHEET 91
FOR LEGEND SEE SHEET 72

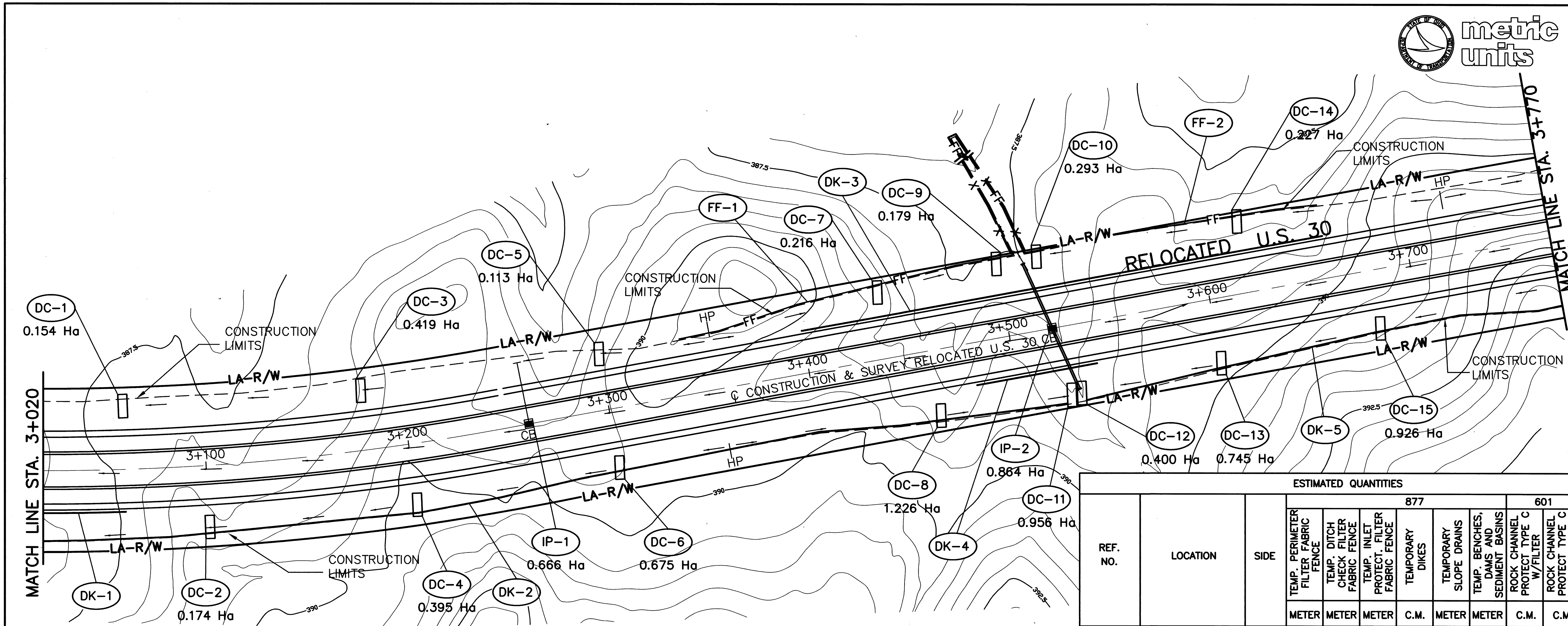
DE009.DWG
09-01-2000 9:34 AM
SCALE: 1:1000M

RATIO 1:1000
HORIZONTAL SCALE IN METERS
0 25 50

CALCULATED TJM
CHECKED WJS

STORM WATER POLLUTION PREVENTION PLAN STA. 2+440 TO STA. 3+020

CRA/RIC-30-33.500/0.000



ESTIMATED QUANTITIES										
			877						601	
REF. NO.	LOCATION	SIDE	TEMP. PERIMETER FILTER FABRIC FENCE	TEMP. DITCH CHECK FILTER FABRIC FENCE	TEMP. INLET PROTECT. FILTER FABRIC FENCE	TEMPORARY DIKES	TEMPORARY SLOPE DRAINS	TEMP. BENCHES, DAMS AND SEDIMENT BASINS	ROCK CHANNEL PROTECT TYPE C W/FILTER	ROCK CHANNEL PROTECT TYPE C WITHOUT FILTER
			METER	METER	METER	C.M.	METER	METER	C.M.	C.M.
IP-1	3+260	℄			9					
IP-2	3+521.289	℄			9					
DC-1	3+060	LT		5						0.5
DC-2	3+100	RT		5						0.5
DC-3	3+180	LT		5						0.5
DC-4	3+200	RT		5						0.5
DC-5	3+300	LT		5						0.5
DC-6	3+300	RT		5						0.5
DC-7	3+440	LT		5						0.5
DC-8	3+460	RT		5						0.5
DC-9	3+500	LT		5						0.5
DC-10	3+520	LT		5						0.5
DC-11	3+525	RT		5						0.5
DC-12	3+530	RT		5						0.5
DC-13	3+600	RT		5						0.5
DC-14	3+620	LT		5						0.5
DC-15	3+680	RT		5						0.5
DK-1	3+020 - 3+060	RT				20	16		2	
DK-2	3+020 - 3+522	RT				256				
DK-3	3+400 - 3+660	LT				131	30		4	
DK-4	3+480 - 3+540	RT				30	12		2	
DK-5	3+532 - 3+770	RT				120				
FF-1	3+340 - 3+488	LT	235							23.5
FF-2	3+492 - 3+660	LT	213							21.5
TOTAL			448	75	18	557	58		8	52.5

TOTALS CARRIED TO SUBSUMMARY SHEET 91
FOR LEGEND SEE SHEET 72

DE010.DWG
09-01-2000 10:10 AM
SCALE: 1:1000M

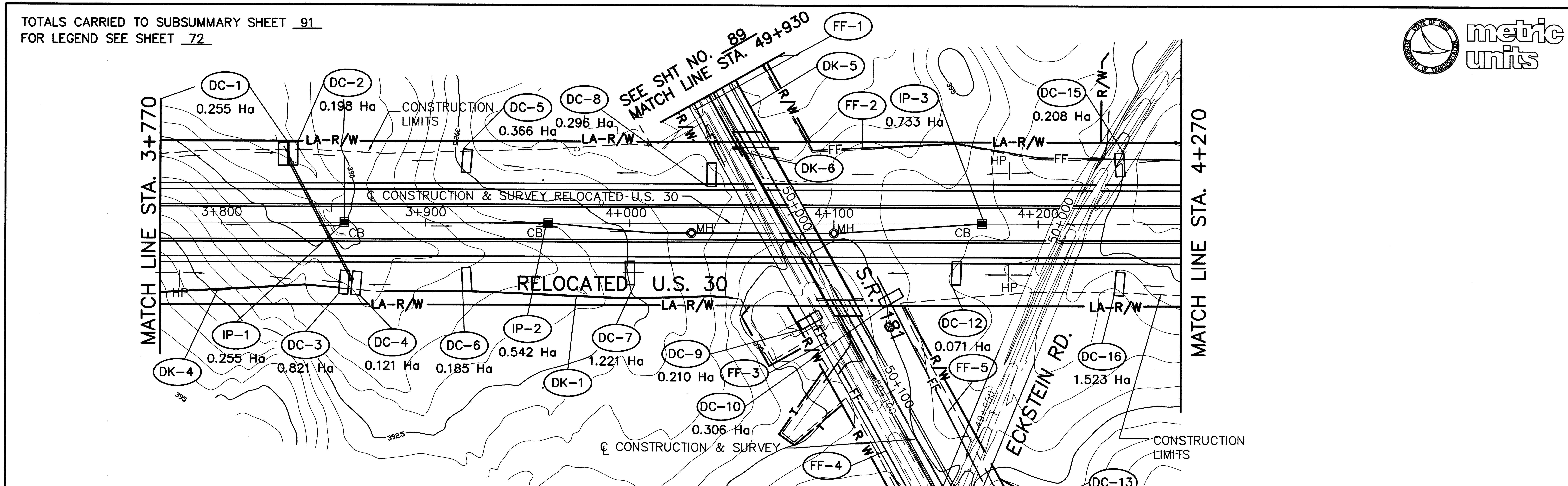
RATIO 1:1000
HORIZONTAL SCALE IN METERS
0 25 50

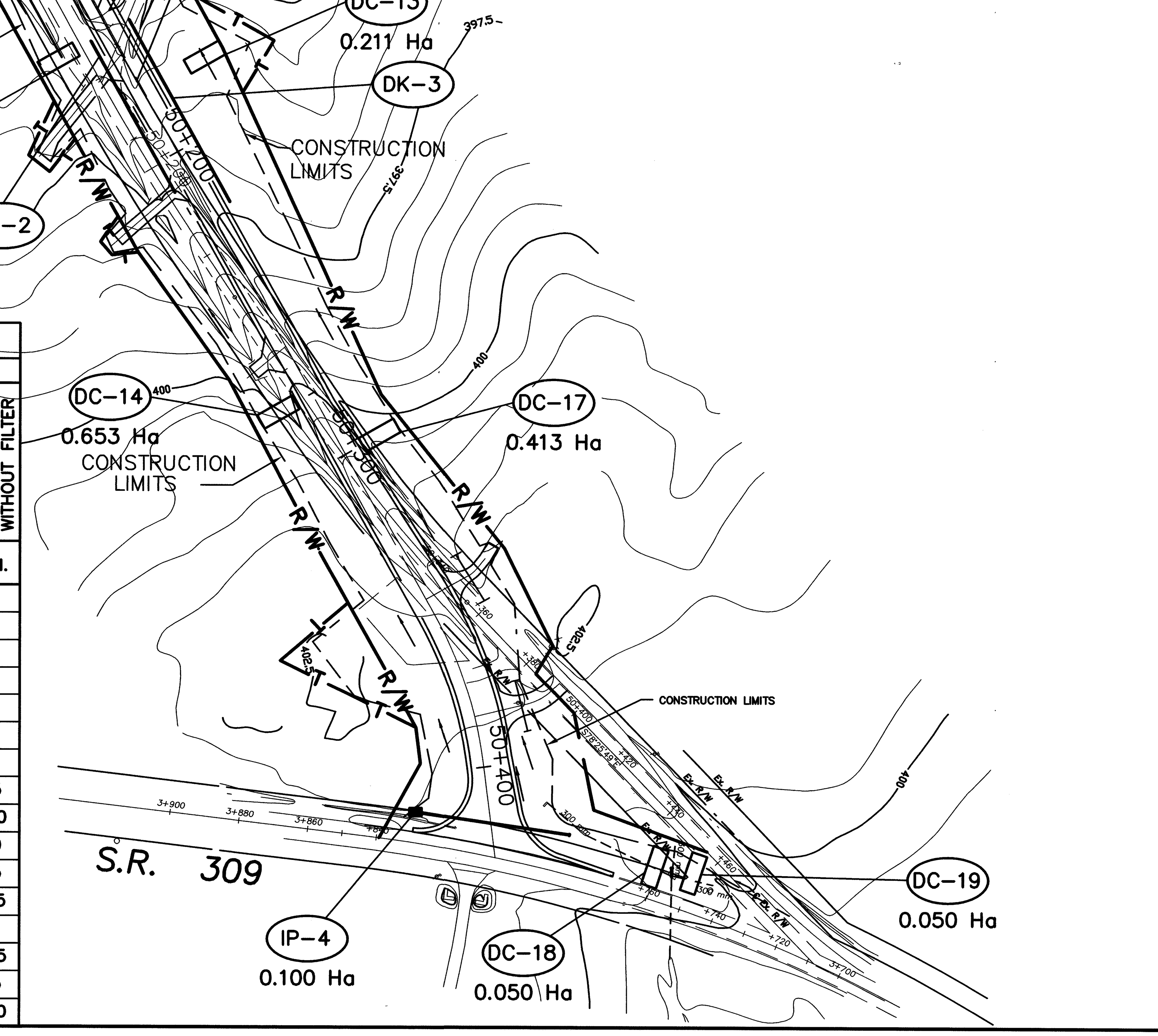
CALCULATED TJM
CHECKED WJS

STORM WATER POLLUTION PREVENTION PLAN
STA. 3+020 TO STA. 3+770

CRA/RIC-30-33.500/0.000

TOTALS CARRIED TO SUBSUMMARY SHEET 91
FOR LEGEND SEE SHEET 72





ESTIMATED QUANTITIES

REF. NO.	LOCATION	SIDE	877 TEMP. DITCH CHECK FILTER FABRIC FENCE (METER)	877 TEMP. INLET PROTECT. FILTER FABRIC FENCE (METER)				601 ROCK CHANNEL PROTECT TYPE C WITHOUT FILTER (C.M.)
IP-1	3+860	℄		9				
IP-2	3+960	℄		18				
IP-3	4+172.500	℄		9				
IP-4	50+410.503	RT		9				
DC-1	3+830	LT	5					0.5
DC-2	3+835	LT	5					0.5
DC-3	3+860	RT	5					0.5
DC-4	3+866	RT	5					0.5
DC-5	3+920	LT	5					0.5
DC-6	3+920	RT	5					0.5
DC-7	4+000	RT	5					0.5
DC-8	4+040	LT	5					0.5
DC-9	50+050	RT	5					0.5
DC-10	50+060	LT	5					0.5
DC-11	50+160	RT	5					0.5
DC-12	4+160	RT	5					0.5
DC-13	50+180	LT	5					0.5
DC-14	50+280	RT	5					0.5
DC-15	4+240	LT	5					0.5
DC-16	4+240	RT	5					0.5
DC-17	50+300	LT	5					0.5
DC-18	3+760	RT	5					0.5
DC-19	3+760	RT	5					0.5
TOTAL			95	45				9.5

ESTIMATED QUANTITIES

REF. NO.	LOCATION	SIDE	877 TEMP. PERIMETER FILTER FABRIC FENCE (METER)		877 TEMPORARY DIKES (C.M.)	877 TEMPORARY SLOPE DRAINS (METER)	601 ROCK CHANNEL PROTECT TYPE C W/FILTER (C.M.)	601 ROCK CHANNEL PROTECT TYPE C WITHOUT FILTER (C.M.)
DK-1	3+880 - 4+050	LT			85			
DK-2	50+160 - 50+210	LT			25	14	2	
DK-3	50+160 - 50+220	RT			30	14	2	
DK-4	3+770 - 3+856	RT			44			
DK-5	49+930 - 49+964	LT				14	2	
DK-6	49+930 - 49+964	RT				14	2	
FF-1	49+930 - 49+964	RT	34					3.5
FF-2	49+930 - 4+270	LT	229					23.0
FF-3	50+047 - 50+065	RT	18					2.0
FF-4	50+075 - 50+160	RT	85					8.5
FF-5	50+047 - 50+160	LT	113					11.5
SUBTOTAL ABOVE								48.5
SUBTOTAL LEFT								9.5
TOTAL THIS SHEET			479		218	56	8	58.0

metric units

RATIO 1:1000
HORIZONTAL SCALE IN METERS 0 25 50

CALCULATED TJM
CHECKED WJS

STORM WATER POLLUTION PREVENTION PLAN STA. 3+770 TO STA. 4+270

CRA/RIC-30-33.500/0.000

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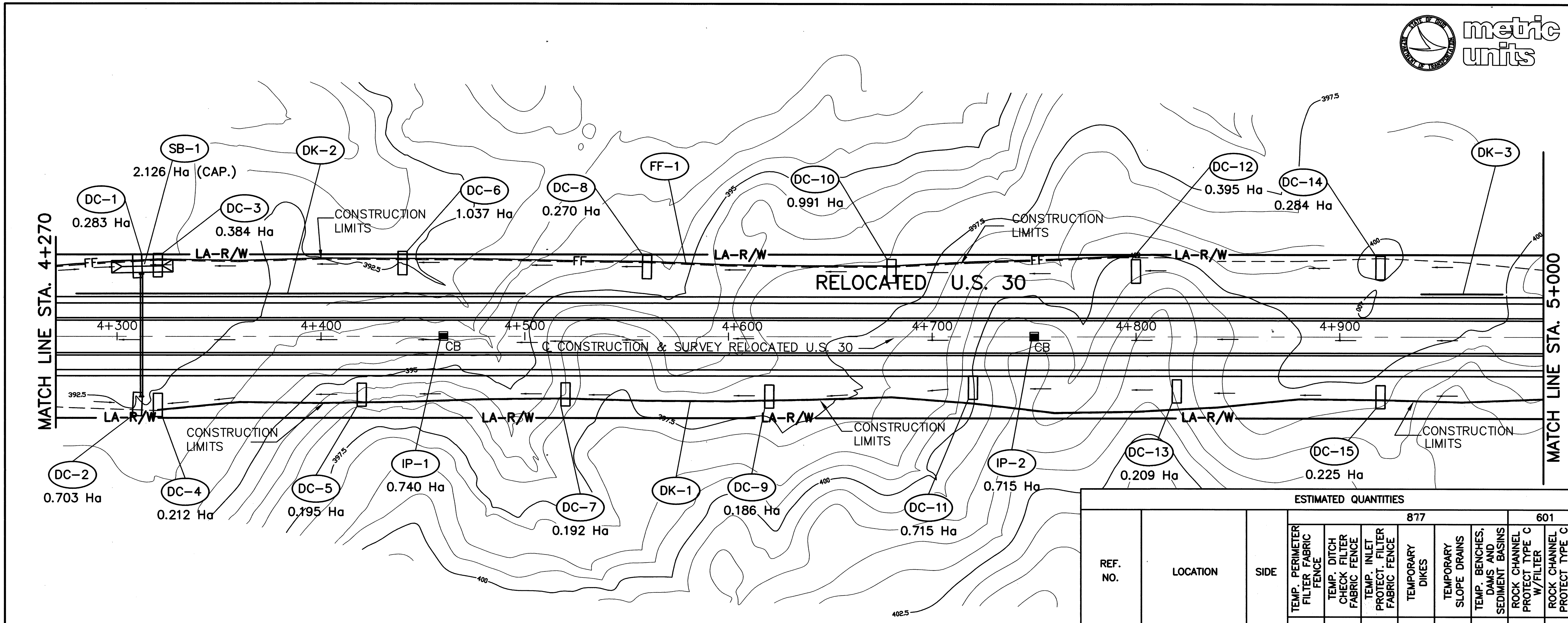
09-01-2000 1:07 PM
SCALE: 1:1000M



ESTIMATED QUANTITIES

REF. NO.	LOCATION	SIDE	TEMP. PERIMETER FILTER FABRIC FENCE (877)	TEMP. DITCH CHECK FILTER FABRIC FENCE (877)	TEMP. INLET PROTECT. FILTER FABRIC FENCE (877)	TEMPORARY DIKES (877)	TEMPORARY SLOPE DRAINS (877)	TEMP. BENCHES, DAMS AND SEDIMENT BASINS (877)	ROCK CHANNEL PROTECT TYPE C W/FILTER (601)	ROCK CHANNEL PROTECT TYPE C WITHOUT FILTER (601)
			METER	METER	METER	C.M.	METER	METER	C.M.	C.M.
IP-1	4+460	℄			9					
IP-2	4+750	℄			9					
DC-1	4+310	LT		5						0.5
DC-2	4+310	RT		5						0.5
DC-3	4+320	LT		5						0.5
DC-4	4+320	RT		5						0.5
DC-5	4+420	RT		5						0.5
DC-6	4+440	LT		5						0.5
DC-7	4+520	RT		5						0.5
DC-8	4+560	LT		5						0.5
DC-9	4+620	RT		5						0.5
DC-10	4+680	LT		5						0.5
DC-11	4+720	RT		5						0.5
DC-12	4+800	LT		5						0.5
DC-13	4+820	RT		5						0.5
DC-14	4+920	LT		5						0.5
DC-15	4+920	RT		5						0.5
SB-1	4+312	LT						270	54	
DK-1	4+320 – 5+000	RT				341				
DK-2	4+280 – 4+500	LT				110	34		4	
DK-3	4+940 – 4+980	LT				20	16		2	
FF-1	4+270 – 4+800	LT	532							
	TOTAL		532	95	18	471	50	270	60	7.5

TOTALS CARRIED TO SUBSUMMARY SHEET 91

FOR LEGEND SEE SHEET 72

DE012.DWG
09-01-2000 1:26 PM
SCALE: 1:1000M

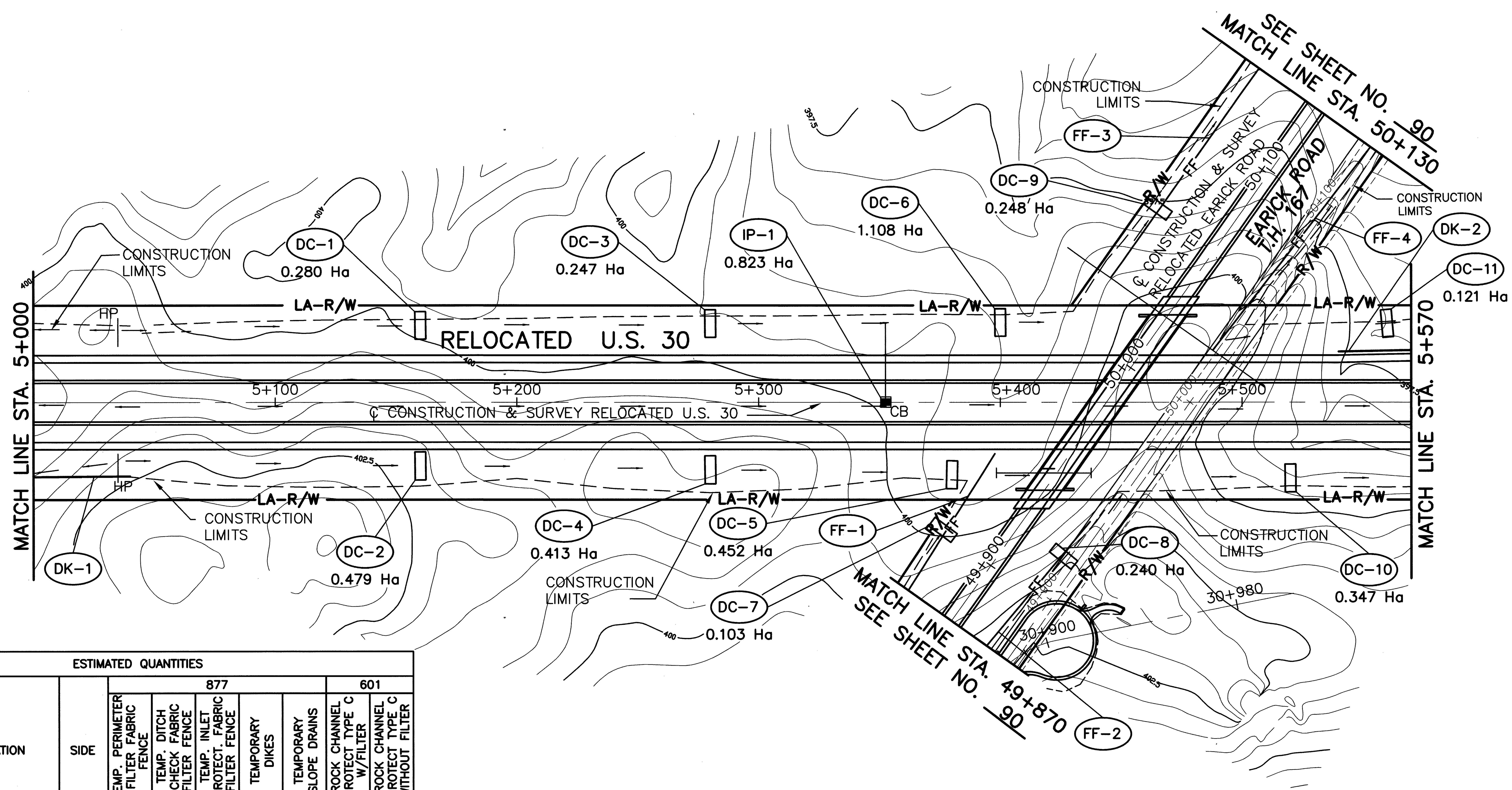
metric units

RATIO 1:1000
HORIZONTAL SCALE IN METERS

CALCULATED TJM
CHECKED WJS

STORM WATER POLLUTION PREVENTION PLAN
STA. 4+270 TO STA. 5+000

CRA/RIC-30-33.500/0.000



ESTIMATED QUANTITIES

REF. NO.	LOCATION	SIDE	877 TEMP. PERIMETER FILTER FABRIC FENCE (METER)	TEMP. DITCH CHECK FABRIC FILTER FENCE (METER)	TEMP. INLET PROTECT. FABRIC FILTER FENCE (METER)	TEMPORARY DIKES (C.M.)	TEMPORARY SLOPE DRAINS (METER)	601 ROCK CHANNEL PROTECT TYPE C W/FILTER (C.M.)	ROCK CHANNEL PROTECT TYPE C WITHOUT FILTER (C.M.)
IP-1	5+352.500	℄			9				
DC-1	5+160	LT		5					0.5
DC-2	5+160	RT		5					0.5
DC-3	5+280	LT		5					0.5
DC-4	5+280	RT		5					0.5
DC-5	5+380	RT		5					0.5
DC-6	5+400	LT		5					0.5
DC-7	49+900	LT		5					0.5
DC-8	49+920	RT		5					0.5
DC-9	50+060	LT		5					0.5
DC-10	5+520	RT		5					0.5
DC-11	5+560	LT		5					0.5
DK-1	5+000 - 5+040	RT				20			
DK-2	5+540 - 5+570	LT				15	17	2	
FF-1	49+870 - 49+938	LT	68						7.0
FF-2	49+870 - 49+938	RT	68						7.0
FF-3	50+025 - 50+130	LT	105						10.5
FF-4	50+025 - 50+130	RT	105						10.5
TOTAL			346	55	9	35	17	2	40.5

TOTALS CARRIED TO SUBSUMMARY SHEET 91
FOR LEGEND SEE SHEET 72

metric units

RATIO 1:1000
HORIZONTAL SCALE IN METERS
0 25 50

CALCULATED TJM
CHECKED WJS

STORM WATER POLLUTION PREVENTION PLAN
STA. 5+000 TO STA. 5+570

CRA/RIC-30-33.500/0.000

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04-26-2001 1:37 PM
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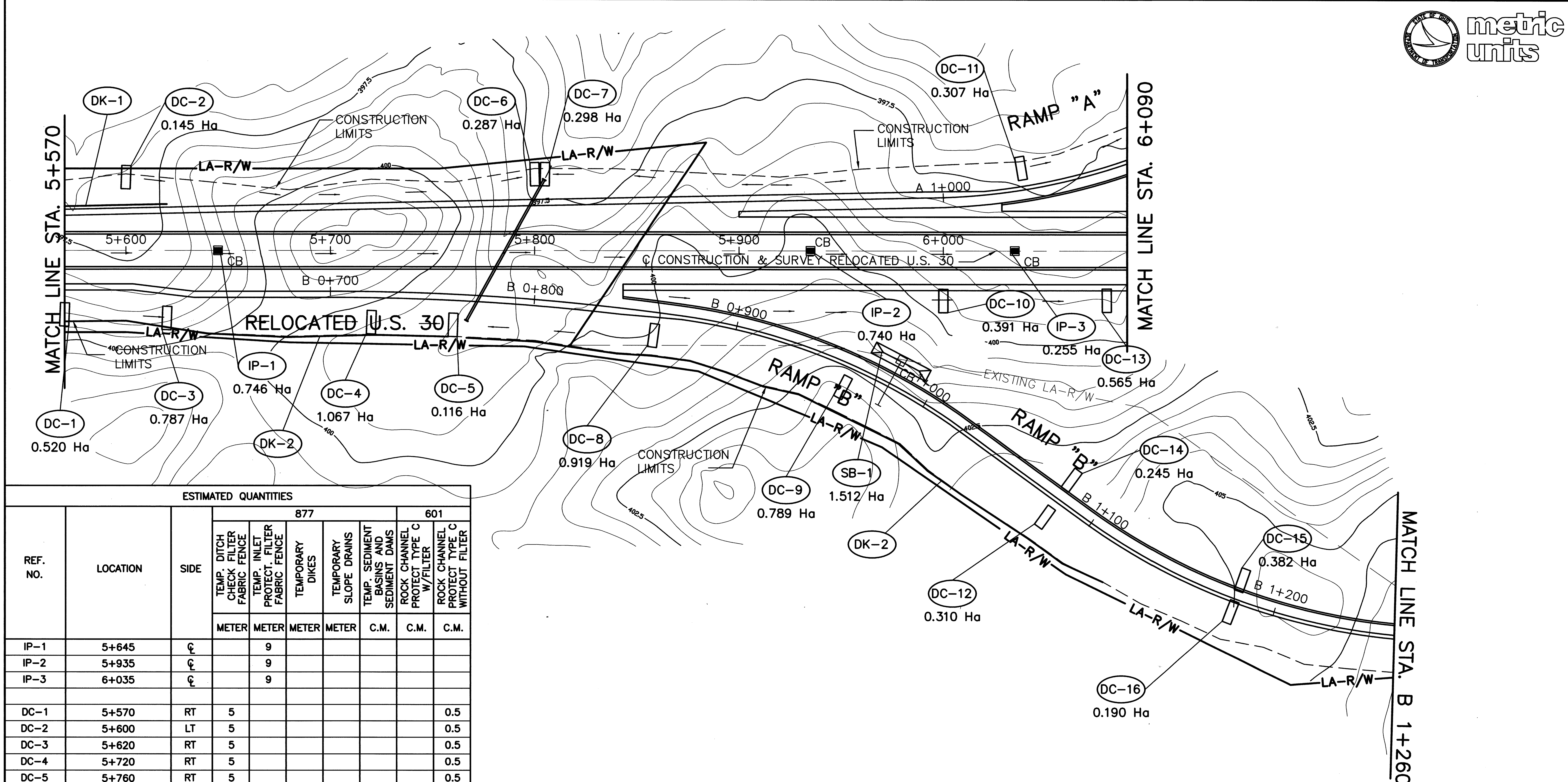

RATIO 1:1000
HORIZONTAL SCALE IN METERS

CALCULATED TJM
CHECKED WJS

STORM WATER POLLUTION PREVENTION PLAN STA. 5+570 TO STA. 6+090

ESTIMATED QUANTITIES

REF. NO.	LOCATION	SIDE	877 TEMP. DITCH CHECK FILTER FABRIC FENCE	877 TEMP. INLET PROTECT. FILTER FABRIC FENCE	877 TEMPORARY DIKES	877 TEMPORARY SLOPE DRAINS	877 TEMP. SEDIMENT BASINS AND SEDIMENT DAMS	601 ROCK CHANNEL PROTECT TYPE C W/FILTER	601 ROCK CHANNEL PROTECT TYPE C WITHOUT FILTER
			METER	METER	METER	METER	C.M.	C.M.	C.M.
IP-1	5+645	℄		9					
IP-2	5+935	℄		9					
IP-3	6+035	℄		9					
DC-1	5+570	RT	5						0.5
DC-2	5+600	LT	5						0.5
DC-3	5+620	RT	5						0.5
DC-4	5+720	RT	5						0.5
DC-5	5+760	RT	5						0.5
DC-6	5+800	LT	5						0.5
DC-7	5+805	LT	5						0.5
DC-8	B0+860	RT	5						0.5
DC-9	B0+960	RT	5						0.5
DC-10	6+000	RT	5						0.5
DC-11	A1+040	LT	5						0.5
DC-12	B1+080	RT	5						0.5
DC-13	6+080	RT	5						0.5
DC-14	B1+080	LT	5						0.5
DC-15	B1+180	LT	5						0.5
DC-16	B1+180	RT	5						0.5
SB-1	B0+980	LT					189	38.0	
DK-1	5+570 – 5+620	LT			25	17		2	
DK-2	5+570 – 5+756	RT			94				
DK-3	B0+768 – B1+100	RT			172				
TOTAL			80	27	291	17	189	40	8.0

TOTALS CARRIED TO SUBSUMMARY SHEET 91
FOR LEGEND SEE SHEET 72

CRA/RIC-30-33.500/0.000

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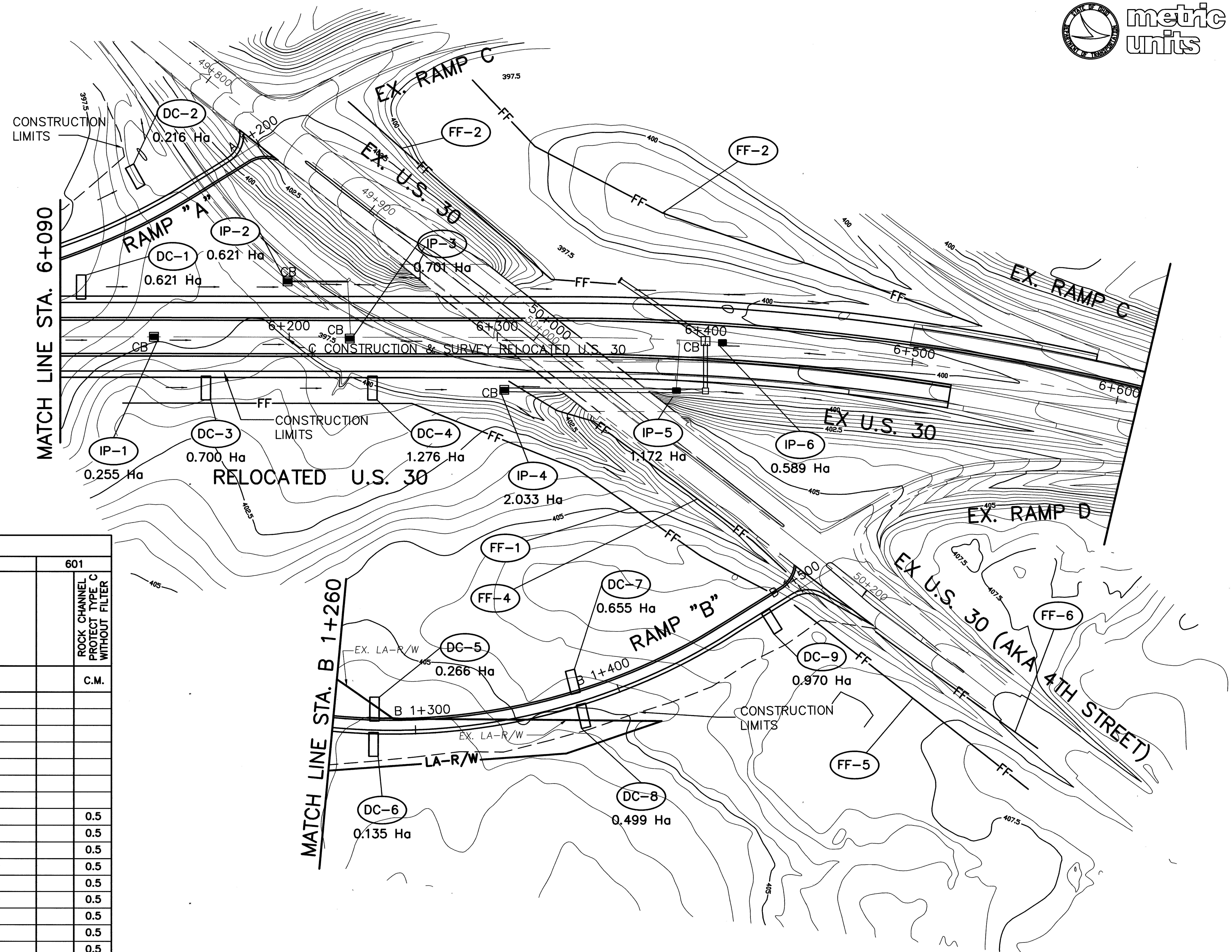
09-01-2000 2:16 PM
SCALE: 1:1000M



ESTIMATED QUANTITIES									
			877					601	
REF. NO.	LOCATION	SIDE	TEMP. PERIMETER FILTER FABRIC FENCE	TEMP. DITCH CHECK FILTER FABRIC FENCE	TEMP. INLET PROTECT. FILTER FABRIC FENCE				ROCK CHANNEL PROTECT TYPE C WITHOUT FILTER
			METER	METER	METER				C.M.
IP-1	6+135	℄			9				
IP-2	6+200	LT			9				
IP-3	6+228	℄			9				
IP-4	6+304	RT			9				
IP-5	6+387	RT			9				
IP-6	6+408	℄			9				
DC-1	6+100	LT		5					0.5
DC-2	A1+140	LT		5					0.5
DC-3	6+160	RT		5					0.5
DC-4	6+240	RT		5					0.5
DC-5	B1+280	LT		5					0.5
DC-6	B1+280	RT		5					0.5
DC-7	B1+380	LT		5					0.5
DC-8	B1+380	RT		5					0.5
DC-9	B1+480	RT		5					0.5
FF-1	6+120 – 6+440	RT	333						33.5
FF-2	6+228 – 6+356	LT	161						16.0
FF-3	6+288 – 6+530	LT	275						27.5
FF-4	6+306 – 6+449	RT	163						16.5
FF-5	6+455 – 6+600	RT	143						14.5
FF-6	6+501 – 6+600	RT	96						10.0
TOTAL			1171	45	54				122.5

TOTALS CARRIED TO SUBSUMMARY SHEET 91
FOR LEGEND SEE SHEET 72

DE015.DWG
09-01-2000 2:29 PM
SCALE: 1:1000M

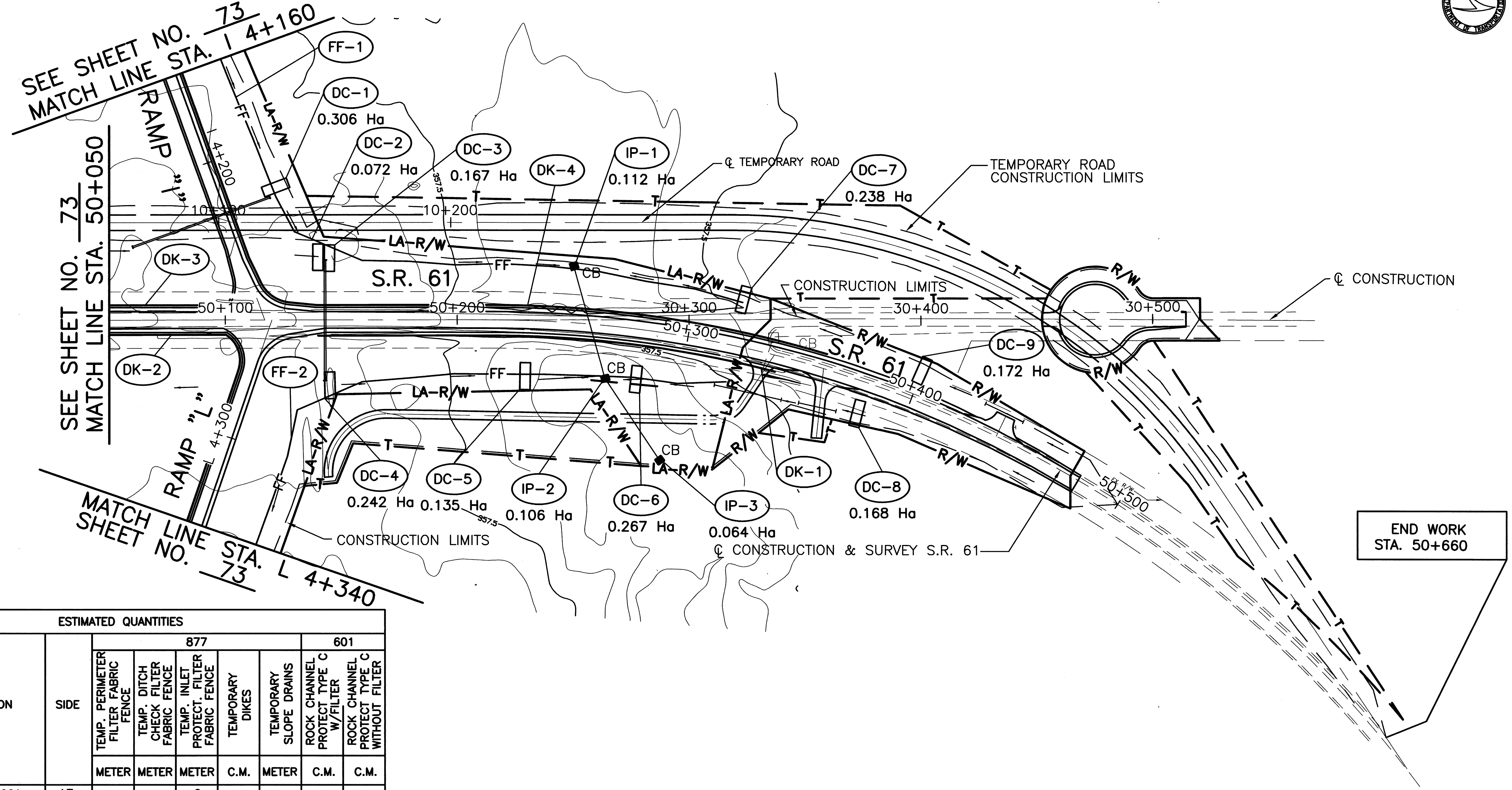
RATIO 1:1000
0 25 50
HORIZONTAL SCALE IN METERS

CALCULATED TJM
CHECKED WJS

STORM WATER POLLUTION PREVENTION PLAN STA. 6+090 TO STA. B1-517.980

CRA/RIC-30-33.500/0.000

metric units



ESTIMATED QUANTITIES									
			877					601	
REF. NO.	LOCATION	SIDE	TEMP. PERIMETER FILTER FABRIC FENCE	TEMP. DITCH CHECK FILTER FABRIC FENCE	TEMP. INLET PROTECT. FILTER FABRIC FENCE	TEMPORARY DIKES	TEMPORARY SLOPE DRAINS	ROCK CHANNEL PROTECT TYPE C W/FILTER	ROCK CHANNEL PROTECT TYPE C WITHOUT FILTER
			METER	METER	METER	C.M.	METER	C.M.	C.M.
IP-1	50+248.661	LT			9				
IP-2	50+266.065	RT			9				
IP-3	50+295.365	RT			9				
DC-1	I4+220	LT		5					0.5
DC-2	50+140	LT		5					0.5
DC-3	50+145	LT		5					0.5
DC-4	50+145	RT		5					0.5
DC-5	50+230	RT		5					0.5
DC-6	50+280	RT		5					0.5
DC-7	50+320	LT		5					0.5
DC-8	50+380	RT		5					0.5
DC-9	50+400	LT		5					0.5
DK-1	50+140 – 50+340	RT				100	40	4	
DK-2	50+050 – L4+340	LT/RT				70	37	4	
DK-3	50+050 – 50+100	LT				50	20	2	
DK-4	I4+160 – 50+340	LT				165	54	6	
FF-1	I4+160 – 50+320	LT	271						27.0
FF-2	L4+340 – 50+320	LT/RT	250						25.0
TOTAL			521	45	27	385	151	16	56.5

TOTALS CARRIED TO SUBSUMMARY SHEET 91
FOR LEGEND SEE SHEET 72

DE001S61.DWG
09-05-2000 4:20 PM
SCALE: 1:1000M

RATIO 1:1000
HORIZONTAL SCALE IN METERS
0 25 50

CALCULATED TJM
CHECKED WJS

STORM WATER POLLUTION PREVENTION PLAN
STA. 50+050 TO STA. 50+660

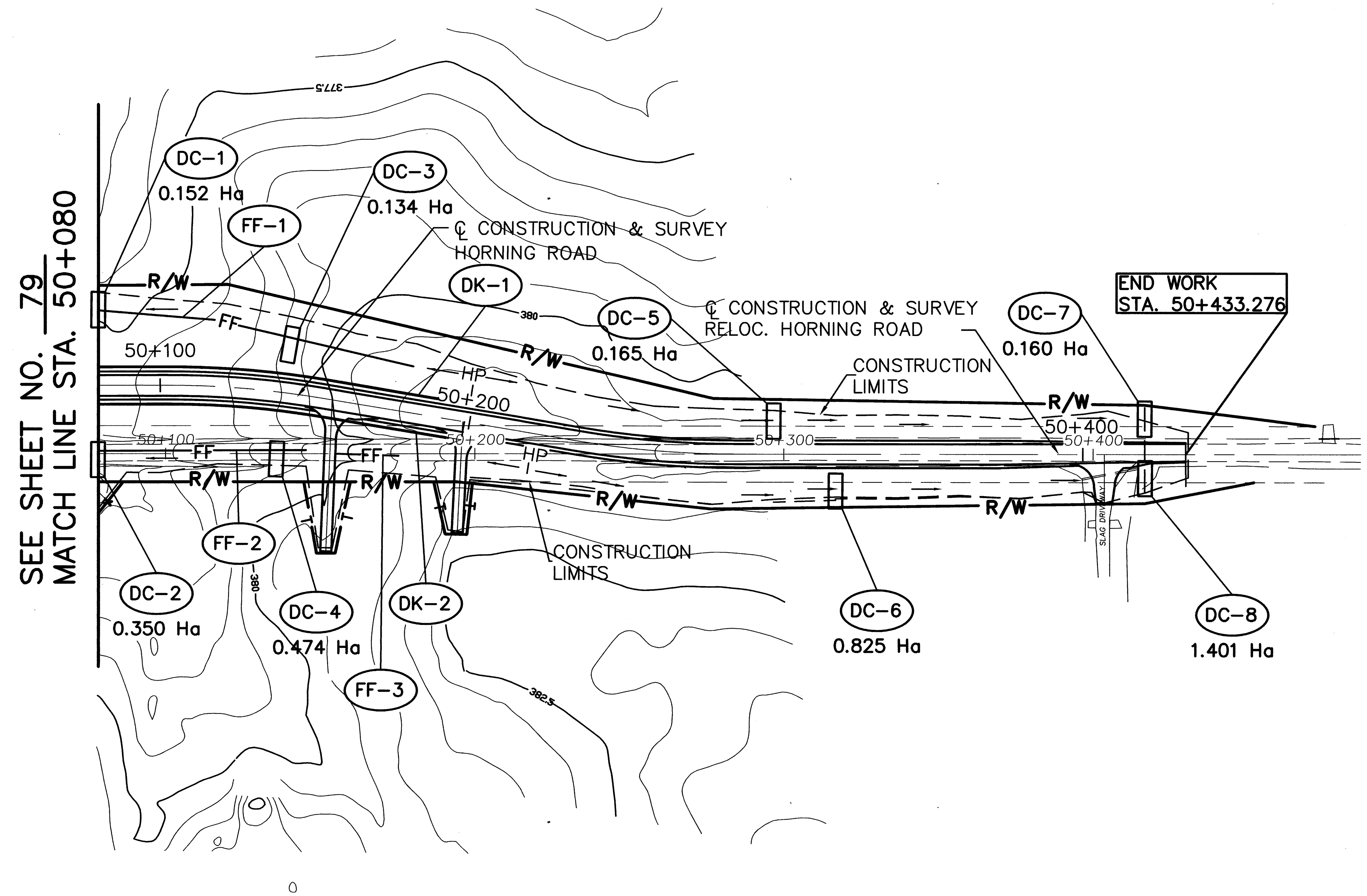
CRA/RIC-30-33.500/0.000

STORM WATER POLLUTION PREVENTION PLAN
STA. 50+080 TO STA. 50+433.276

metric units

RATIO 1:1000 — HORIZONTAL SCALE IN METERS

CALCULATED TJM — CHECKED WJS



ESTIMATED QUANTITIES									
			877					601	
REF. NO.	LOCATION	SIDE	TEMP. PERIMETER FILTER FABRIC FENCE	TEMP. DITCH CHECK FILTER FABRIC FENCE	TEMPORARY DIKES	TEMPORARY SLOPE DRAINS		ROCK CHANNEL PROTECT TYPE C W/FILTER	ROCK CHANNEL PROTECT TYPE C WITHOUT FILTER
			METER	METER	C.M.	METER		C.M.	C.M.
DC–1	50+080	LT		5					0.5
DC–2	50+080	RT		5					0.5
DC–3	50+140	LT		5					0.5
DC–4	50+140	RT		5					0.5
DC–5	50+300	LT		5					0.5
DC–6	50+320	RT		5					0.5
DC–7	50+420	LT		5					0.5
DC–8	50+420	RT		5					0.5
DK–1	50+080 – 50+200	LT			60	42		4	
DK–2	50+080 – 50+200	RT			60	42		4	
FF–1	50+080 – 50+180	LT	100						10.0
FF–2	50+080 – 50+150	RT	70						7.0
FF–3	50+160 – 50+180	RT	20						2.0
	TOTAL		190	40	120	84		8	23.0

TOTALS CARRIED TO SUBSUMMARY SHEET 91
FOR LEGEND SEE SHEET 72

CRA/RIC–30–33.500/0.000

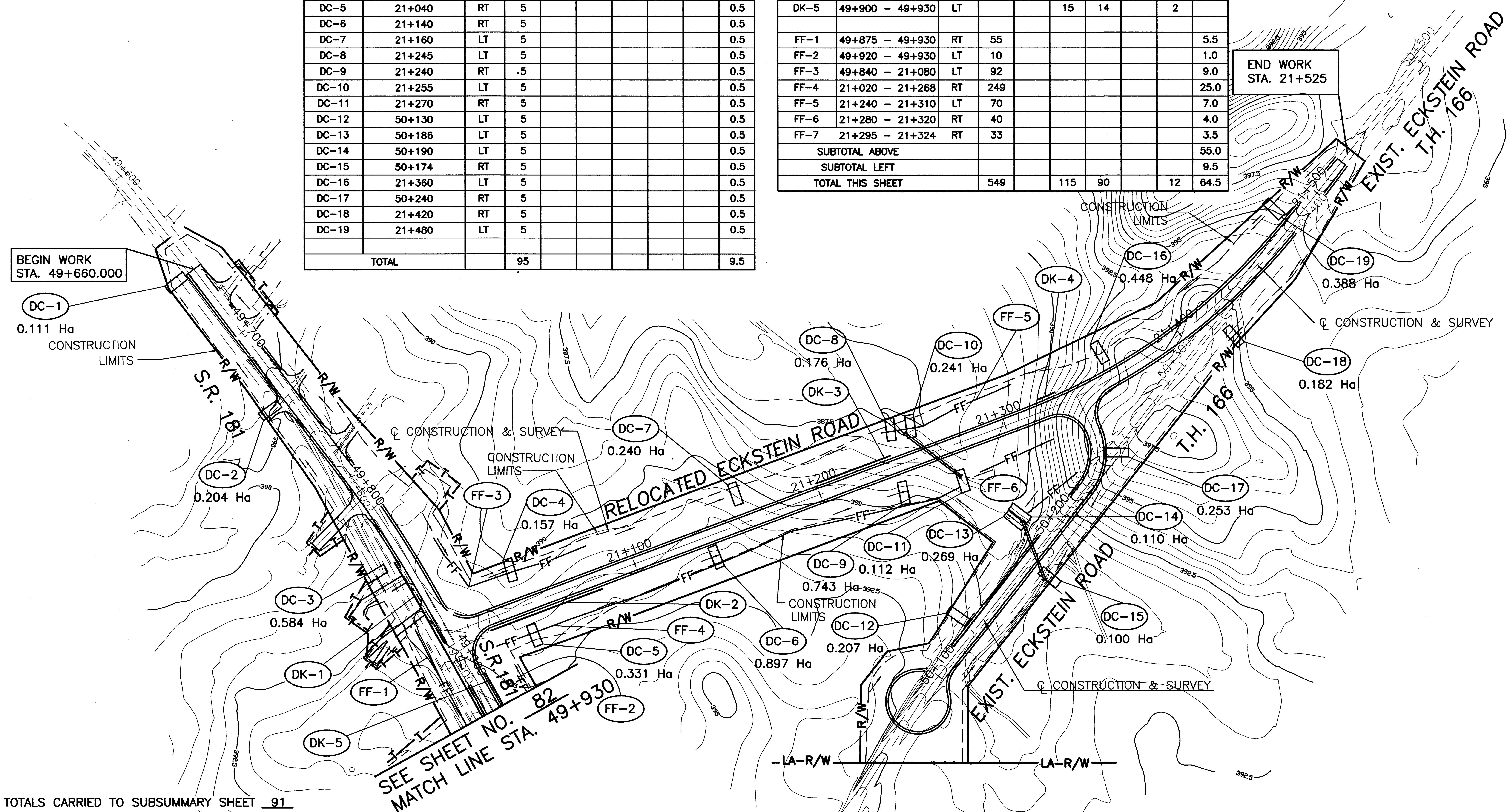
DE001HRN.DWG
09–06–2000 8:00 AM
SCALE: 1:1000M

ESTIMATED QUANTITIES

REF. NO.	LOCATION	SIDE	877 TEMP. DITCH CHECK FILTER FABRIC FENCE					601	ROCK CHANNEL PROTECT TYPE C WITHOUT FILTER
			METER						C.M.
DC-1	49+660	RT	5						0.5
DC-2	49+740	RT	5						0.5
DC-3	49+840	RT	5						0.5
DC-4	21+040	LT	5						0.5
DC-5	21+040	RT	5						0.5
DC-6	21+140	RT	5						0.5
DC-7	21+160	LT	5						0.5
DC-8	21+245	LT	5						0.5
DC-9	21+240	RT	5						0.5
DC-10	21+255	LT	5						0.5
DC-11	21+270	RT	5						0.5
DC-12	50+130	LT	5						0.5
DC-13	50+186	LT	5						0.5
DC-14	50+190	LT	5						0.5
DC-15	50+174	RT	5						0.5
DC-16	21+360	LT	5						0.5
DC-17	50+240	RT	5						0.5
DC-18	21+420	RT	5						0.5
DC-19	21+480	LT	5						0.5
TOTAL			95						9.5

ESTIMATED QUANTITIES

REF. NO.	LOCATION	SIDE	877 TEMP. PERIMETER FILTER FABRIC FENCE		TEMPORARY DIKES	TEMPORARY SLOPE DRAINS		601 ROCK CHANNEL PROTECT TYPE C W/FILTER	ROCK CHANNEL PROTECT TYPE C WITHOUT FILTER
			METER		C.M.	METER		C.M.	C.M.
DK-1	49+840 - 49+930	RT			45	28		4	
DK-2	21+020 - 21+080	RT			30	14		2	
DK-3	21+200 - 21+240	LT			20	16		2	
DK-4	21+320 - 21+330	LT			5	18		2	
DK-5	49+900 - 49+930	LT			15	14		2	
FF-1	49+875 - 49+930	RT	55						5.5
FF-2	49+920 - 49+930	LT	10						1.0
FF-3	49+840 - 21+080	LT	92						9.0
FF-4	21+020 - 21+268	RT	249						25.0
FF-5	21+240 - 21+310	LT	70						7.0
FF-6	21+280 - 21+320	RT	40						4.0
FF-7	21+295 - 21+324	RT	33						3.5
SUBTOTAL ABOVE									55.0
SUBTOTAL LEFT									9.5
TOTAL THIS SHEET			549		115	90		12	64.5



TOTALS CARRIED TO SUBSUMMARY SHEET 91
FOR LEGEND SEE SHEET 72

DE001181.DWG
09-06-2000 8:43 AM
SCALE: 1:1000M

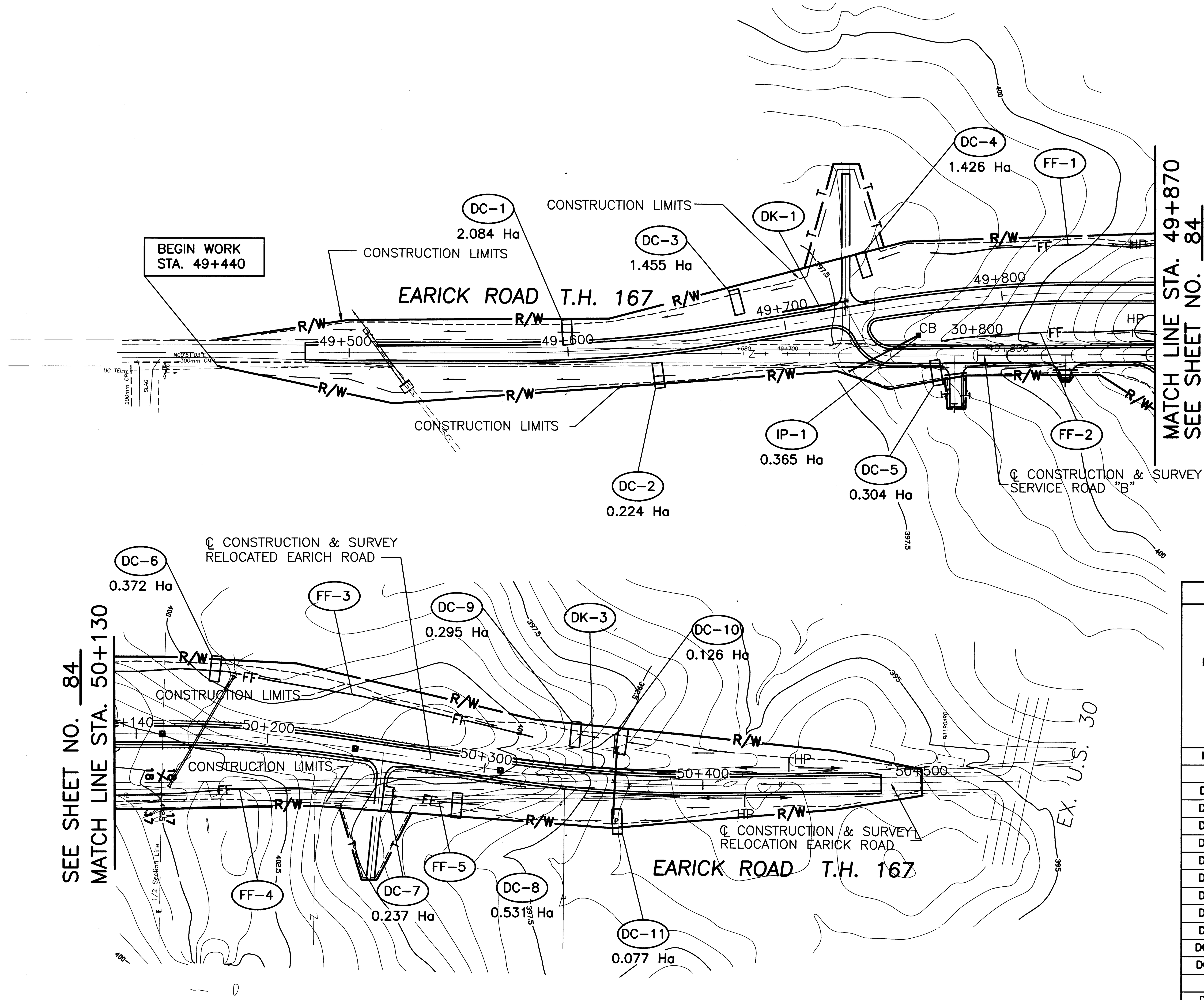
metric units

RATIO 1:1000
HORIZONTAL SCALE IN METERS
0 25 50

CALCULATED TJM
CHECKED WJS

STORM WATER POLLUTION PREVENTION PLAN
STA. 49+660 TO STA. 49+930

CRA/RIC-30-33.500/0.000



metric units

RATIO 1:1000
HORIZONTAL SCALE IN METERS

CALCULATED TJM
CHECKED WJS

ESTIMATED QUANTITIES									
REF. NO.	LOCATION	SIDE	877					601	
			TEMP. PERIMETER FILTER FABRIC FENCE	TEMP. DITCH CHECK FILTER FABRIC FENCE	TEMPORARY DIKES	TEMPORARY SLOPE DRAINS	TEMP. INLET PROTECT. FILTER FABRIC FENCE	ROCK CHANNEL PROTECT TYPE C W/FILTER	ROCK CHANNEL PROTECT TYPE C WITHOUT FILTER
			METER	METER	C.M.	METER	METER	C.M.	C.M.
IP–1	30+773	LT					9		
DC–1	49+600	LT		5					0.5
DC–2	49+640	RT		5					0.5
DC–3	49+680	LT		5					0.5
DC–4	49+740	LT		5					0.5
DC–5	30+750	RT		5					0.5
DC–6	50+175	LT		5					0.5
DC–7	50+258	RT		5					0.5
DC–8	50+290	RT		5					0.5
DC–9	50+340	LT		5					0.5
DC–10	50+362	LT		5					0.5
DC–11	50+362	RT		5					0.5
DK–1	49+700 – 49+730	LT			15	17		2	
DK–2	50+300 – 50+390	LT			45	34		4	
FF–1	49+770 – 49+870	LT	100						10.0
FF–2	49+770 – 49+870	RT	100						10.0
FF–3	50+130 – 50+320	LT	190						19.0
FF–4	50+130 – 50+250	RT	120						12.0
FF–5	50+257 – 50+300	RT	43						4.5
TOTAL			553	55	60	51	9	6	61.0

TOTALS CARRIED TO SUBSUMMARY SHEET 91
FOR LEGEND SEE SHEET 72

STORM WATER POLLUTION PREVENTION PLAN
STA. 49+440 TO STA. 49+870

CRA/RIC–30–33.500/0.000

DE001ERK.DWG
04-26-2001 3:27 PM
SCALE: 1:1000M

SHEET No.	877 TEMPORARY PERMETER FILTER FABRIC FENCE METER	877 TEMPORARY DITCH CHECK FILTER FABRIC FENCE METER	877 TEMPORARY INLET PROTECTION FILTER FABRIC FENCE METER	877 TEMPORARY DIKES C.M.	877 TEMPORARY SLOPE DRAINS METER	877 TEMPORARY SEDIMENT BASINS AND SEDIMENT DAMS C.M.	601 ROCK CHANNEL PROTECTION, TYPE C WITHOUT FILTER C.M.	601 ROCK CHANNEL PROTECTION, TYPE C W/FILTER C.M.	
72	834	20		564	91		86.0	12	
73	1040	75	45	917	214	577	111.5	137	
74	671	135	72	99	40	270	82.5	60	
75		95	18	190	30		9.5	4	
76	303	60	27	170	47		36.5	6	
77	751	50	36	583	144	270	80.5	70	
78	622	35	18	60	20		66.0	2	
79	363	90	18	561	81	270	45.5	64	
80	660	75	54	234	16		74.0	2	
81	448	75	18	557	58		52.5	8	
82	479	95	45	218	56		58.0	8	
83	532	95	18	471	50	270	7.5	60	
84	346	55	9	35	17		40.5	2	
85		80	27	291	17	189	8.0	40	
86	1171	45	54				122.5		
87	521	45	27	385	151		56.5	16	
88	190	40		120	84		23.0	2	
89	549	95		115	90		64.5	12	
90	553	55	9	60	51		61.0	6	
SUB TOTAL	10033	1315	495	5630	1256	1846	1086.0	511	

SUBTOTALS CARRIED TO GENERAL SUMMARY SHEET NO 58

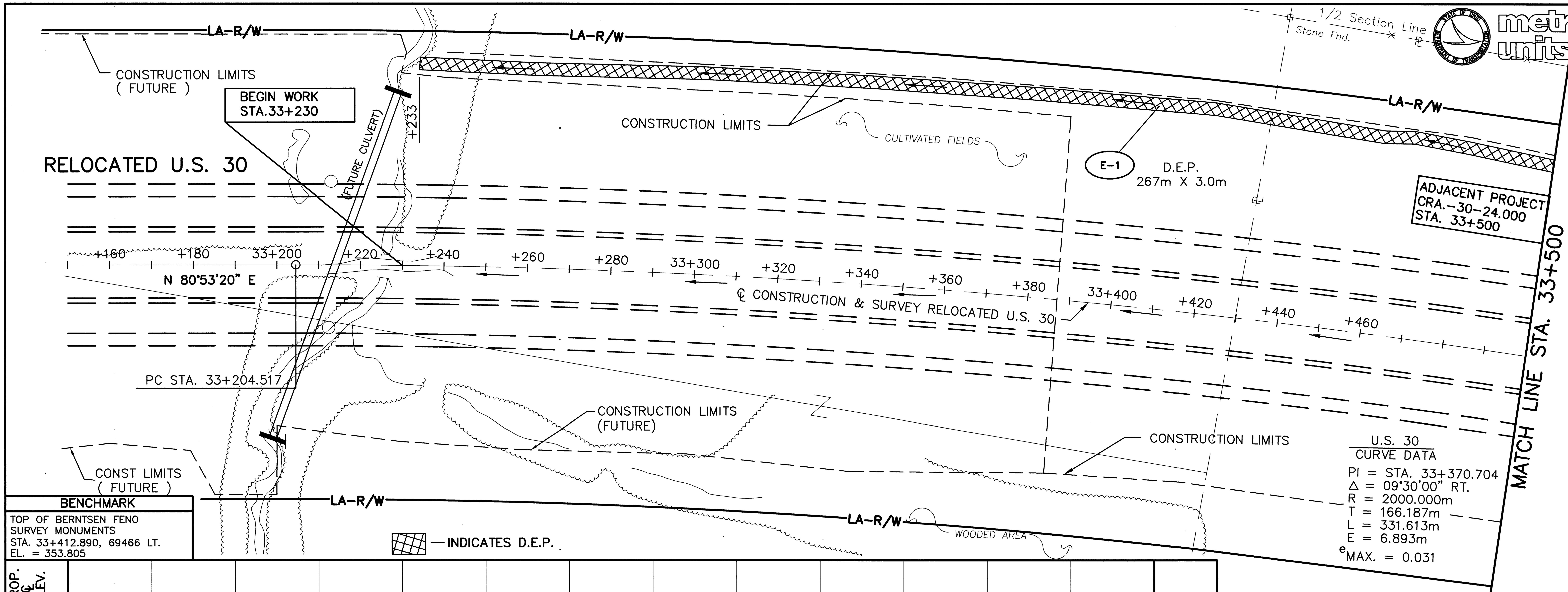
metric units

CALCULATED TJM CHECKED WJS

EROSION PROTECTION SUBSUMMARY

CRA/RIC-30-33.500/0.000

GS008.DWG 05-10-2001 8:34 AM SCALE: 1:1M



BENCHMARK

TOP OF BERNTSEN FENO SURVEY MONUMENTS
STA. 33+412.890, 69466 LT.
EL. = 353.805

PROP. ℄ ELEV.

FOR PROFILE SEE SHEET 93

EXIST ℄ ELEV.

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	670 DITCH EROSION PROTECTION S.M.
E-1	LT	33+233	33+500	801
TOTALS CARRIED TO SUB SUMMARY				801

RATIO 1:500
HORIZONTAL SCALE IN METERS 0 5 10 20

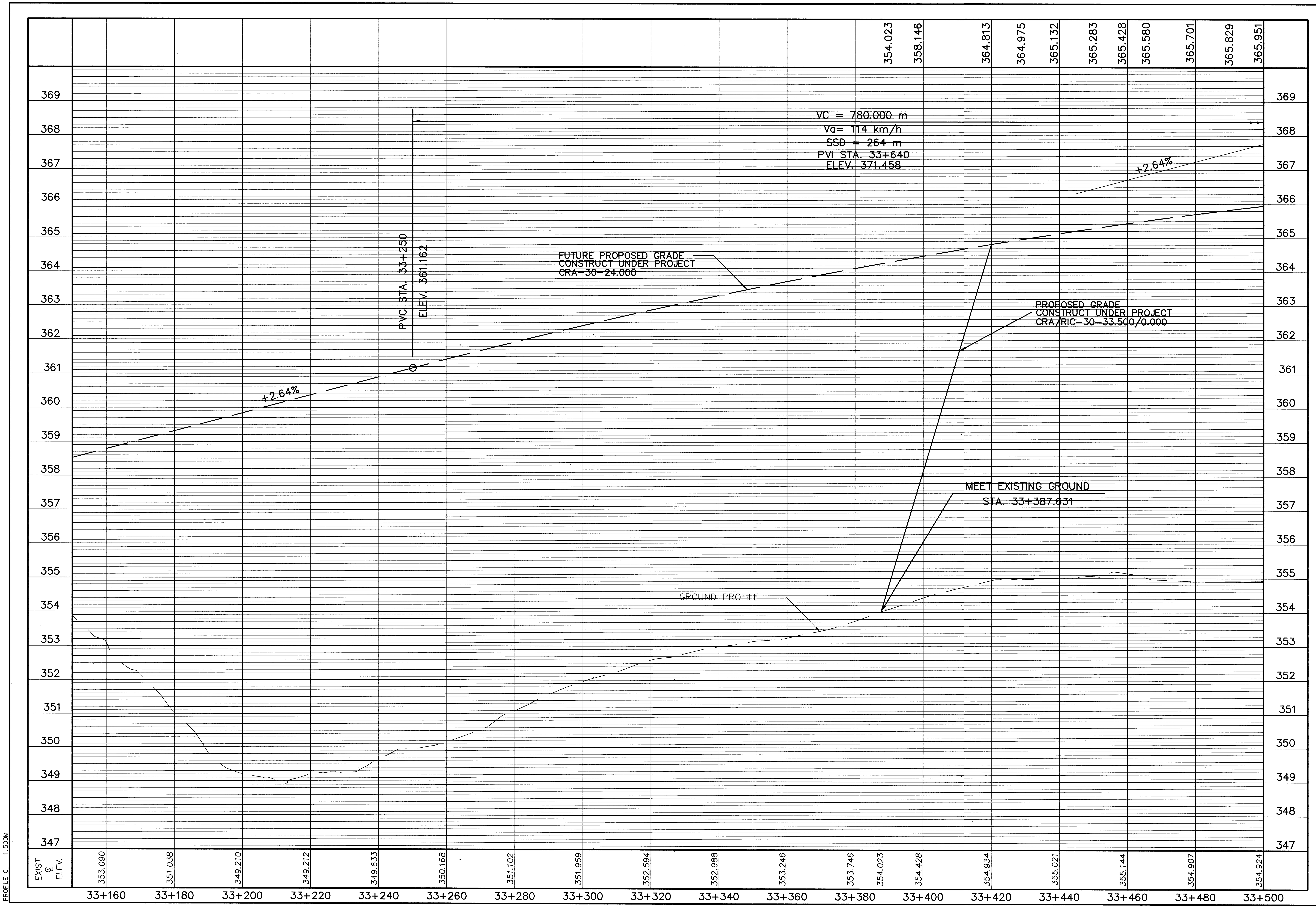
CALCULATED W.J.S. CHECKED C.R.M.

PLAN AND PROFILE - RELOCATED U.S. 30
STA. 33+150 TO STA. 33+500

CRA/RIC-30-33.500/0.000

92/712

GP100.DWG 03-26-2001 3:45 PM 1:500M



RATIO 1:500
0 5 10 20
HORIZONTAL
SCALE IN METERS

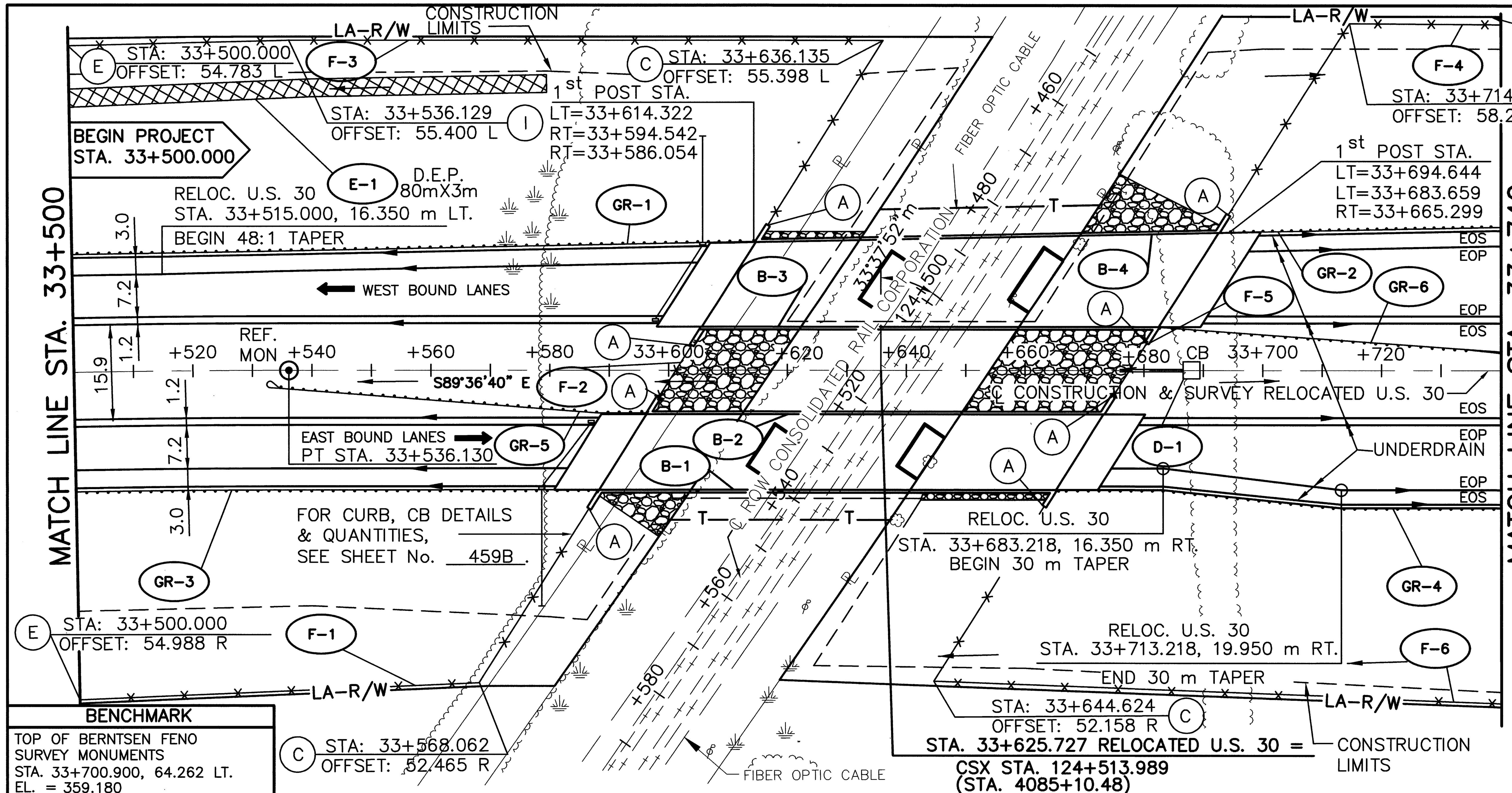
CALCULATED W.J.S.
CHECKED C.R.M.

PROFILE - RELOCATED U.S. 30
STA. 33+150 TO STA. 33+500

CRA/RIC-30-33.500/0.000

93/712

GP101.DWG
03-2-1999 1:26 PM
PROFILE 0 1:500M



NOTE:
LA–R/W AND FENCE OFFSET AS SHOWN IS NOT TO SCALE

NOTES:
1. FOR ℄ MON. LOCATION SEE SHEETS 617,618.
2. FOR SUPER ELEVATION TABLES SEE SHEET 460.
3. FOR UNDERDRAINS AND QUANTITIES SEE SHEET 496.

metric units

— INDICATES D.E.P.

BENCHMARK
TOP OF BERNTSEN FENO SURVEY MONUMENTS
STA. 33+700.900, 64.262 LT.
EL. = 359.180

U.S. 30
CURVE DATA
PI = STA. 33+370.704
Δ = 09°30'00" RT.
R = 2000.000m
T = 166.187m
L = 331.613m
E = 6.893m
eMAX. = 0.031

PROP. ℄ ELEV.

FENCE LEGEND
- (A) ABUTMENT CONNECTION
- (C) CORNER POST ASSEMBLY
- (E) END POST ASSEMBLY
- (I) INTERMEDIATE ANCHOR POST ASSEMBLY
- (T3) CROSSING, TYPE 3
- (FT–B) FENCE TERMINAL, TYPE B
- (FT–D) FENCE TERMINAL, TYPE D

FOR PROFILE SEE SHEET NO. 95.

PROPOSED STRUCTURE
TYPE: DUAL–3 SPAN CONTINUOUS A572M PAINTED STEEL GIRDER BRIDGE W/COMPOSITE REINFORCE CONC. DECK ON T–TYPE PIERS AND SEMI–INTEGRAL ABUTMENTS
SPANS: 25 200, 25 200 , 25 200 c/c BEARINGS
ROADWAY: W.B. VARIES T/T PARAPETS
E.B. 12 600 T/T PARAPETS
DESIGN LOADING: MS18 CASE I & ALTERNATE MILITARY LOADING
SKEW: 033°–57'–52" L.F.
ALIGNMENT: TANGENT
WEARING SURFACE: MONOLITHIC CONCRETE
APPROACH SLABS: 7600 (AS–1–81M)
CROWN: 0.016
LATITUDE: N40°–45'–45"
LONGITUDE: W82°–44'–45"
STRUCTURE FILE NO. L–1701851, R–1701878

EXIST ℄ ELEV.

GP102.DWG
03–27–2001 8:05 AM
1:500M

ESTIMATED QUANTITIES

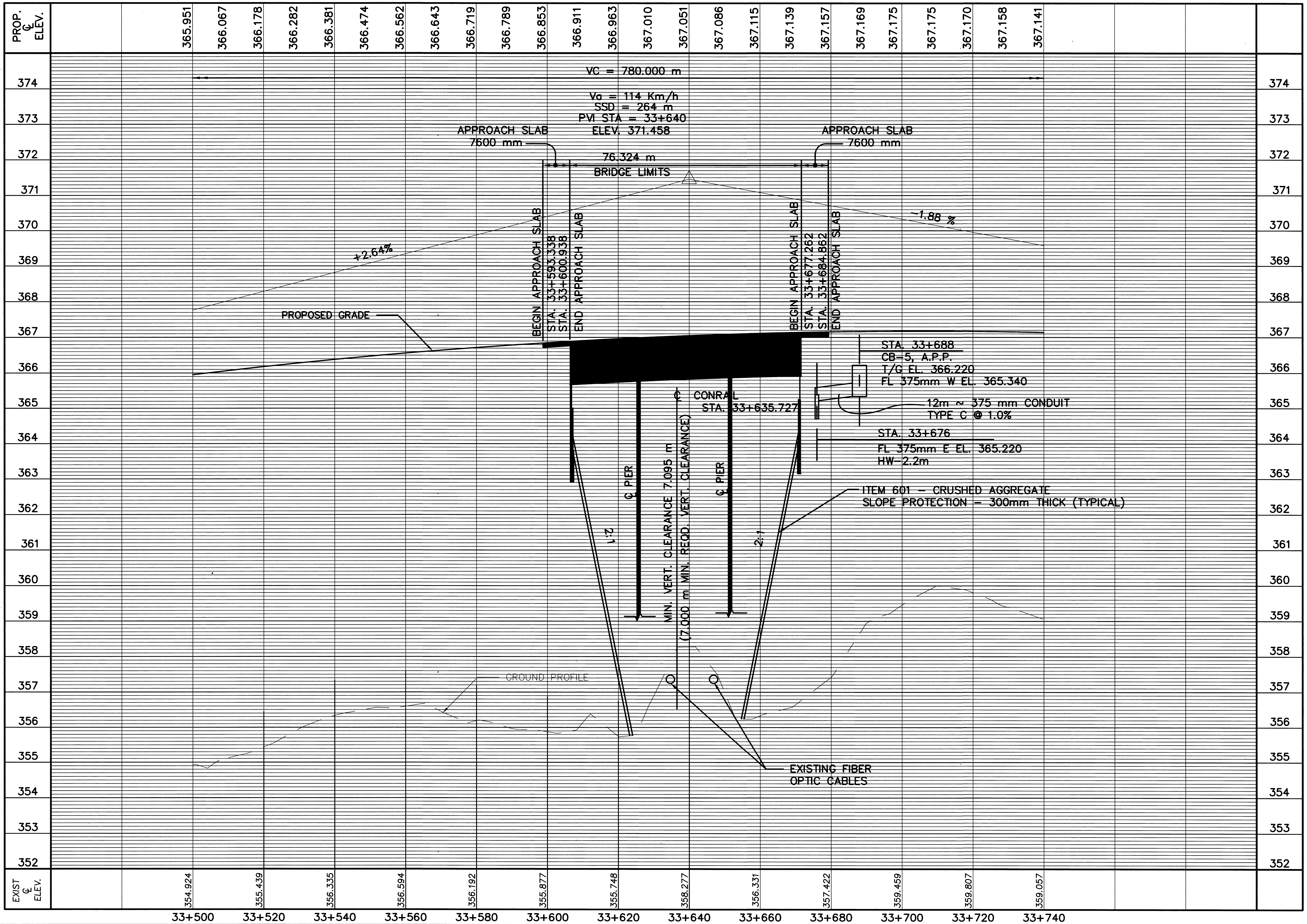
REF. No.	SIDE	STATION FROM	STATION TO	606 GUARDRAIL TYPE 5 (METER)	606 BRIDGE TERMINAL ASSEMBLY TYPE 1 (EACH)	606 ANCHOR ASSEMBLY TYPE B–98 (EACH)	606 BRIDGE TERMINAL ASSEMBLY TYPE 2 (EACH)	607 FENCE TYPE 47 (METER)	670 DITCH EROSION PROTECTION (S.M.)	626 BARRIER REFLECTOR TYPE A (EACH)	604 CATCH BASIN NO. 5, A.P.P. (EACH)	603 375mm CONDUIT TYPE C (EACH)	602 CONCRETE MASONRY (C.M.)	626 BARRIER REFLECTOR TYPE B (EACH)
GR–1	LT	33+501.927	33+616.227	114.300			1			4				
GR–2	LT	33+692.739	33+740	47.261	1					2				
GR–3	RT	33+500.329	33+587.959	87.630	1					4				
GR–4	RT	33+663.394	33+740	76.606			1			3				
GR–5	RT	33+531.677	33+596.447	53.340	1	1				3				
GR–6	LT	33+681.754	33+746.524	53.340	1	1				3				
F–1	RT	33+500	33+586.570					107.223						
F–2	LT/RT	33+598.294	33+603.892					10.486						
F–3	LT	33+500	33+616.675					179.051						
F–4	LT	33+694.220	33+740					69.633						
F–5	LT/RT	33+674.898	33+680.494					10.486						
F–6	RT	33+663.198	33+740					136.590						
E–1	LT	33+500	33+580						240					
D–1	℄	33+676	33+688								1	12	0.22	
B–1	RT	33+587.959	33+663.394											4
B–2	RT	33+531.727	33+607.162											4
B–3	LT	33+606.319	33+681.754											4
B–4	LT	33+616.227	33+692.739											4
TOTALS CARRIED TO SUB SUMMARY				432.477	4	2	2	513.469	240	19	1	12	0.22	16

RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

CALCULATED W.J.S.
C.R.M.

PLAN AND PROFILE – RELOCATED U.S. 30
STA. 33+500 TO STA. 33+740

CRA/RIC–30–33.500/0.000



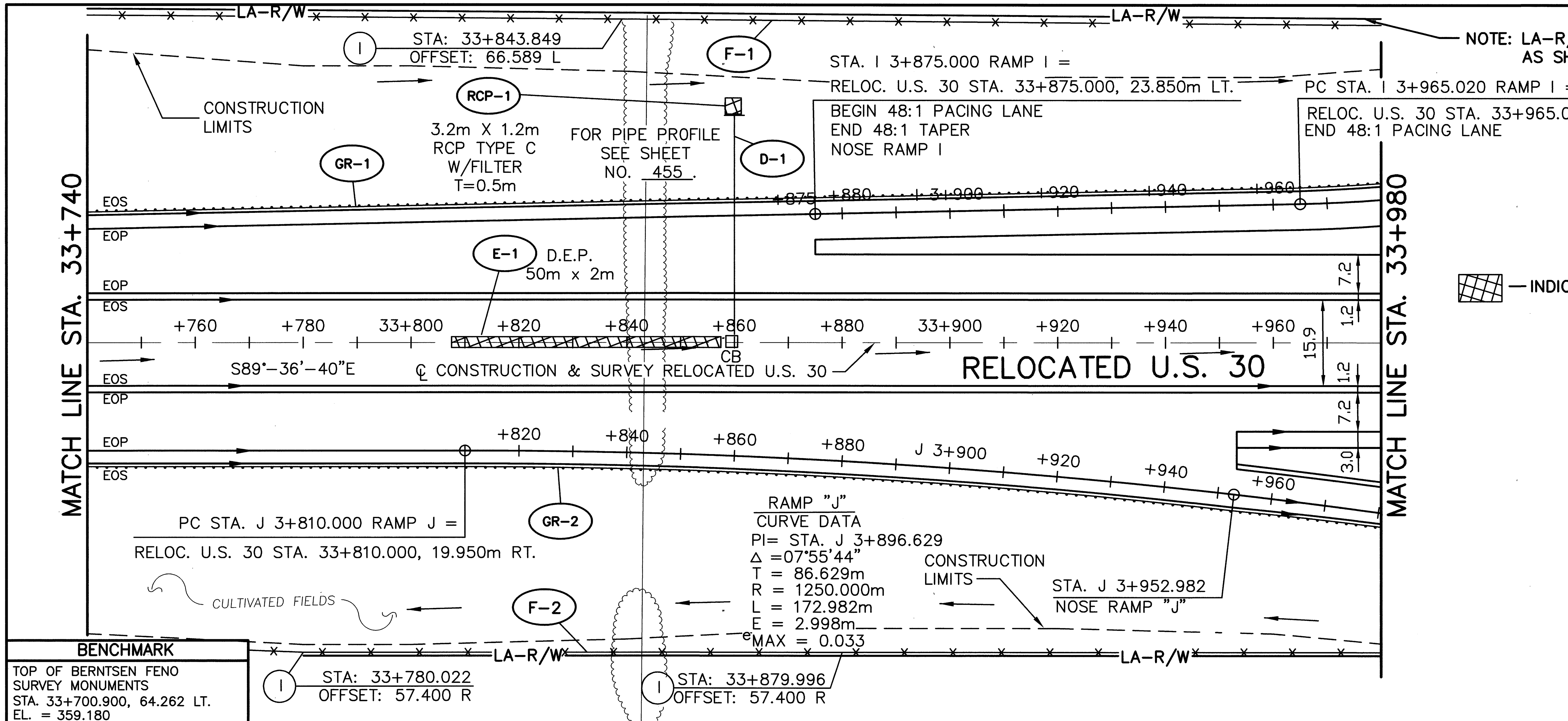
RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

CALCULATED W.J.S.
CHECKED C.R.M.

PROFILE - RELOCATED U.S. 30
STA. 33+500 TO STA. 33+740

CRA/RIC-30-33.500/0.000

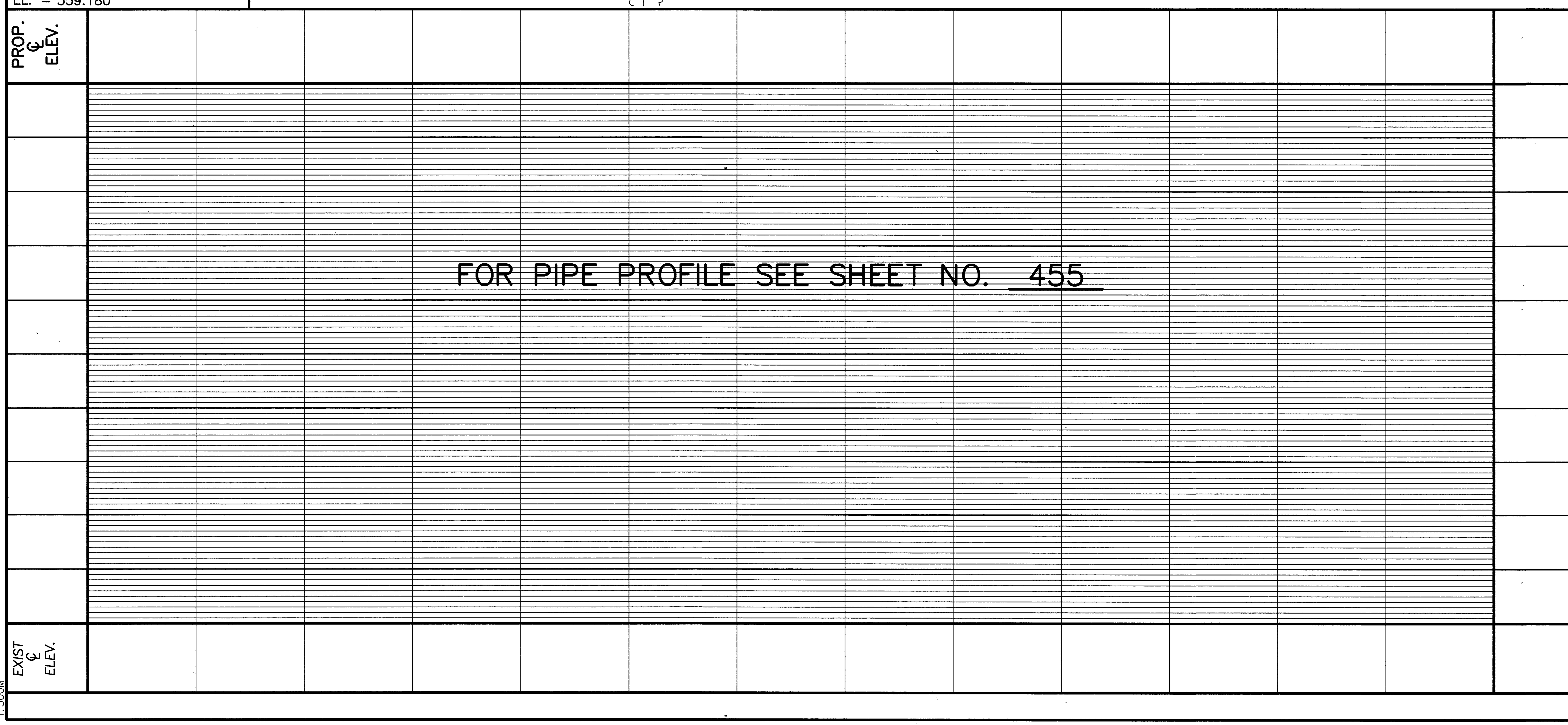
GP103.DWG
08-15-2000 3:41 PM
1:500M



INDICATES D.E.P.

NOTE:

1. FOR UNDERDRAIN QUANTITIES SEE SHEET 496.
2. FOR FENCE LEGEND SEE SHEET 94.
3. FOR TERMINAL DETAILS FOR:
   RAMP I - SEE SHEET 469-470
   RAMP J - SEE SHEET 471-472



ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	606 GUARDRAIL TYPE 5 (METER)	603 375mm CONDUIT TYPE A (METER)	603 375mm CONDUIT 707.05 TYPE C (METER)	604 CATCH BASIN NO. 4 A.P.P. (EACH)	602 CONCRETE MASONRY (C.M.)	607 FENCE TYPE 47 (METER)	670 DITCH EROSION PROTECTION (S.M.)	601 ROCK CHANNEL PROTECTION TYPE C W/FILTER (C.M.)	626 BARRIER REFLECTOR TYPE A (EACH)
GR-1	LT	33+740	3+980	239.717								9
GR-2	RT	33+740	3+980	239.762								9
D-1	LT	33+860			29.371	14.494	1	0.22				
E-1	℄	33+808	33+858							100		
F-1	LT	33+740	33+980						240.010			
F-2	RT	33+740	33+980						240.017			
RCP-1	LT	33+860									1.92	
TOTALS CARRIED TO SUB SUMMARY				479.479	29.371	14.494	1	0.22	480.027	100	1.92	18

metric units

RATIO 1:500
HORIZONTAL SCALE IN METERS 0 5 10 20

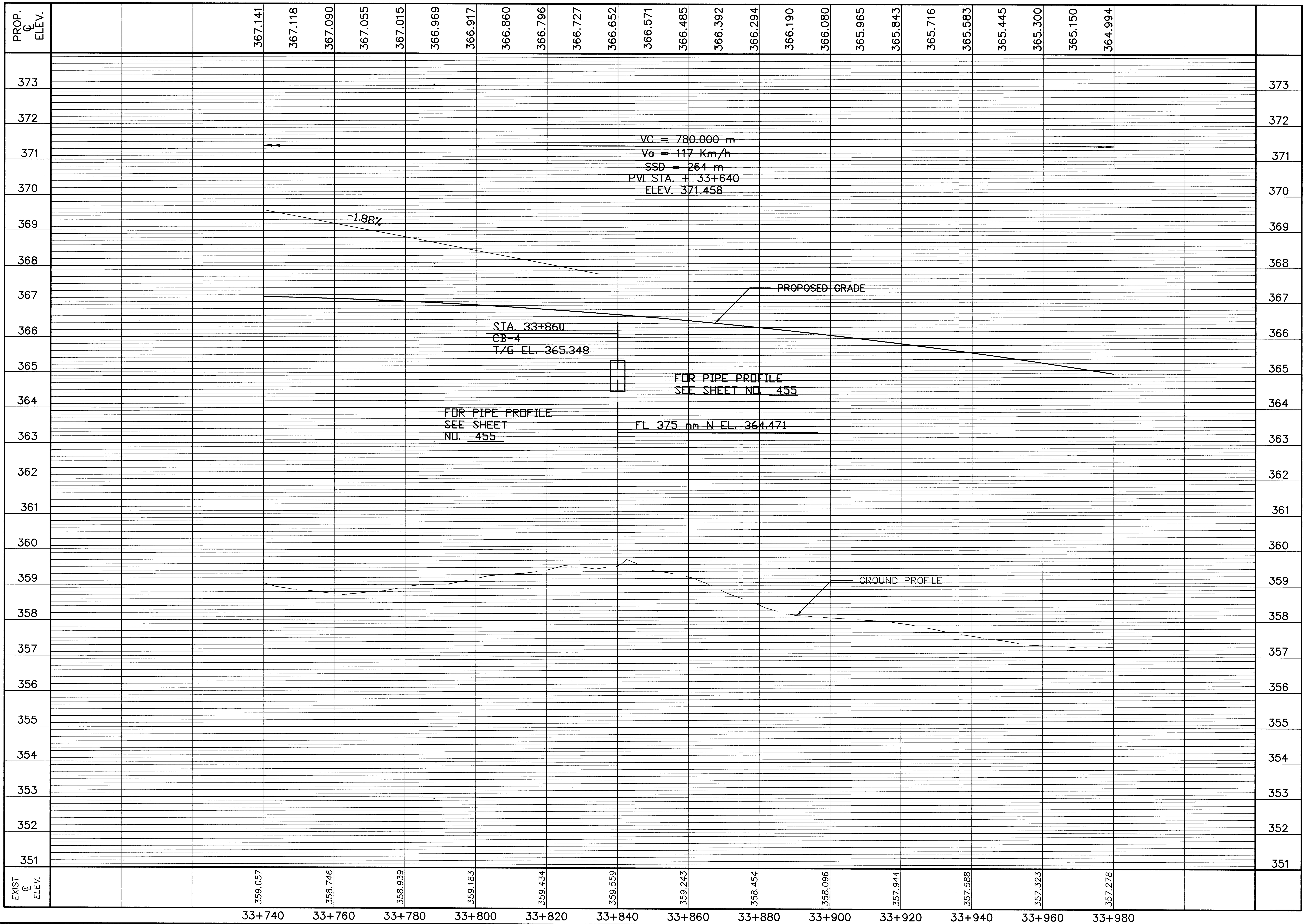
CALCULATED W.J.S. CHECKED C.R.M.

PLAN AND PROFILE - RELOCATED U.S. 30
STA. 33+740 TO STA. 33+980

CRA/RIC-30-33.500/0.000

96
712

GP104.DWG 08-15-2000 3:15 PM 1:500M



RATIO 1:500
0 5 10 20
HORIZONTAL
SCALE IN METERS

CALCULATED W.J.S.
CHECKED C.R.M.

PROFILE – RELOCATED U.S. 30
STA. 33+740 TO STA. 33+980

CRA/RIC-30-33.500/0.000

97
712

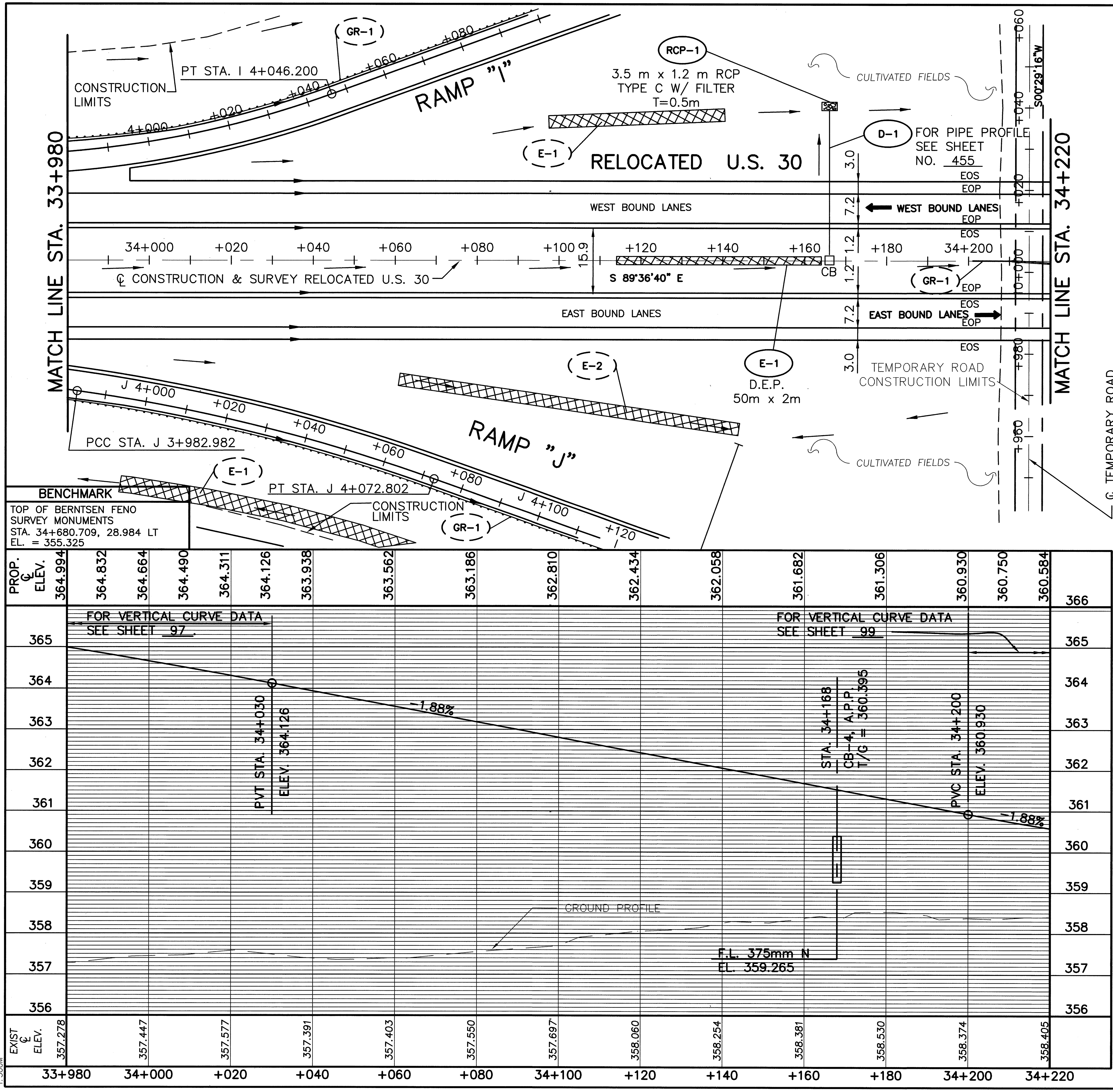
GP105.DWG
03-2-1999 1:31 PM
1:500M

NOTES:

1. FOR TEMPORARY ROAD P & P SEE SHEETS 31-35 .
2. FOR UNDERDRAIN QUANTITIES SEE SHEET 496 .
3. FOR FENCE LEGEND SEE SHEET 94 .

metric units

— INDICATES D.E.P.



ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	604 CATCH BASIN NO. 4, A.P.P. (EACH)	603 375mm CONDUIT TYPE A (METER)	602 CONCRETE MASONRY (C.M.)	670 DITCH EROSION PROTECTION (S.M.)	601 ROCK CHANNEL PROTECTION TYPE C W/FILTER (C.M.)
D-1	LT	34+168		1	35.086	0.22		
E-1	℄	34+116	34+166				100	
RCP-1	LT	34+168						2.1
TOTALS CARRIED TO SUB SUMMARY				1	35.086	0.22	100	2.1

RATIO 1:500
HORIZONTAL SCALE IN METERS

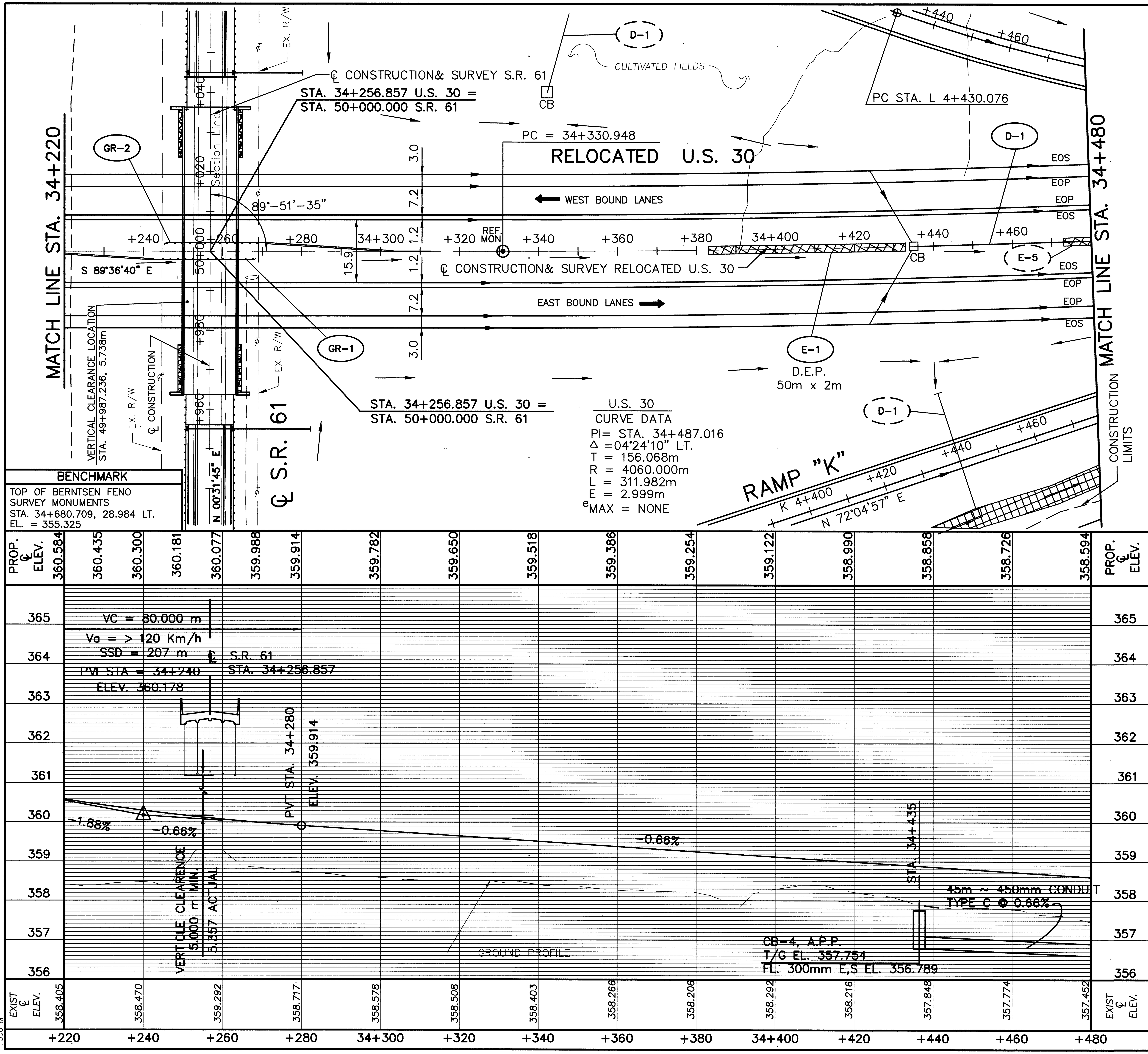
CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE - RELOCATED U.S. 30
STA. 33+980 TO STA. 34+220

CRA/RIC-30-33.500/0.000

98
712

GP106.DWG
08-15-2000 3:42 PM
1:500M



NOTES:

1. ℄ MON. LOCATION SEE SHEETS 617,618 .
2. FOR UNDERDRAINS QUANTITIES SEE SHEET 496 .
3. FOR FENCE LEGEND SEE SHEET 94 .
4. FOR S.R. 61 P & P SEE SHEETS 303,306 .

— INDICATES D.E.P.

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	606 GUARDRAIL TYPE 5 (METER)	606 IMPACT ATTENUATOR BIDIRECTIONAL (EACH)	606 ANCHOR ASSEMBLY TYPE T (EACH)	604 CATCH BASIN NO. 4, A.P.P. (EACH)	603 450mm CONDUIT TYPE C (METER)	670 DITCH EROSION PROTECTION (S.M.)	626 BARRIER REFLECTOR TYPE A (EACH)	606 GUARDRAIL BARRIER DESIGN TYPE 5 (METER)
GR-1	RT	34+200.970	34+267.720	22.860	1	1				3	30.480
GR-2	RT	34+245.995	34+312.745	22.860	1	1				3	30.480
D-1	℄	34+435	34+480				1	45			
E-1	℄	34+383	34+433						100		
TOTALS CARRIED TO SUB SUMMARY				45.720	2	2	1	45	100	6	60.960

RATIO 1:500
HORIZONTAL SCALE IN METERS

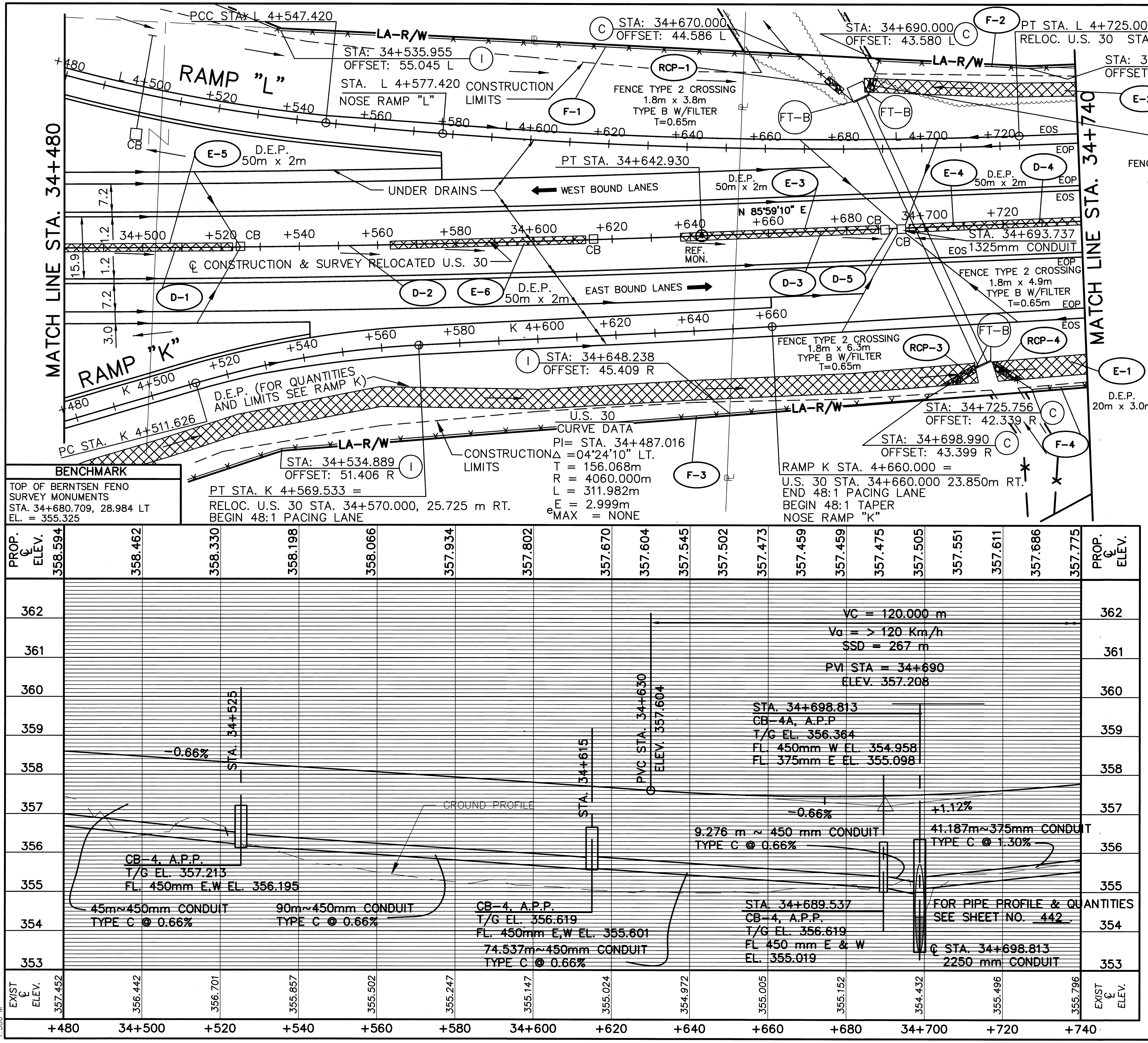
CALCULATED W.J.S. CHECKED C.R.M.

PLAN AND PROFILE – RELOCATED U.S. 30 STA. 34+220 TO STA. 34+480

CRA/RIC-30-33.500/0.000

99
712

GP107.DWG
08-15-2000 3:44 PM
1:500 M



metric units

NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617,618.
2. FOR UNDERDRAINS QUANTITIES SEE SHEET 496.
3. FOR FENCE LEGEND SEE SHEET 94.

— INDICATES D.E.P.

RATIO 1:500
HORIZONTAL SCALE IN METERS

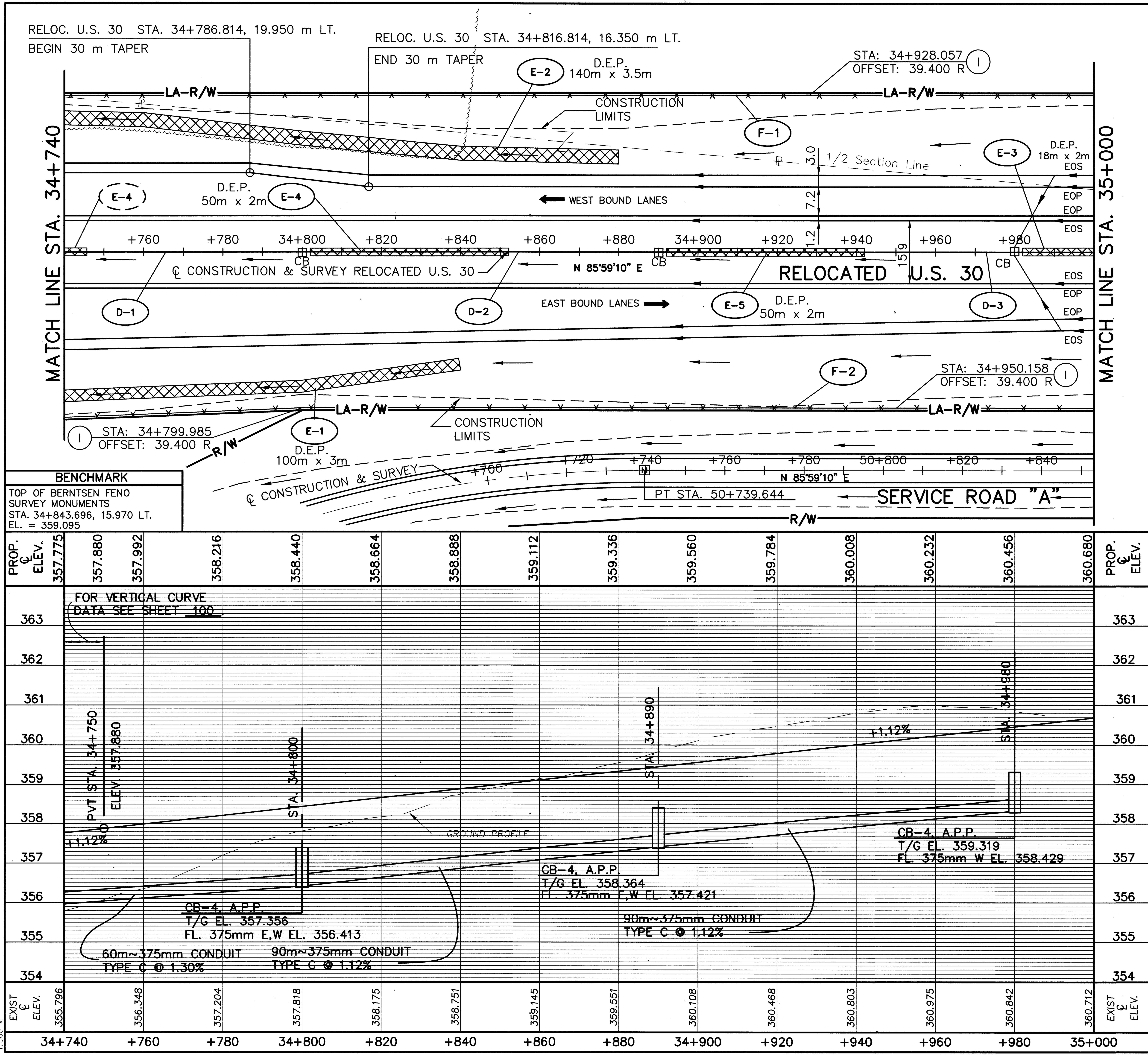
CALCULATED W.J.S. | CHECKED C.R.M.

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	670 DITCH EROSION PROTECTION (S.M.)	604 CATCH BASIN NO. 4A AS PER PLAN (EACH)	604 CATCH BASIN NO. 4, A.P.P. (EACH)	603 450mm CONDUIT TYPE C (METER)	603 375mm CONDUIT TYPE C (METER)	607 FENCE TYPE 47 (METER)	601 ROCK CHANNEL PROTECTION TYPE B W/FILTER (C.M.)
E-1	RT	34+720	34+740	60						
E-2	LT	34+686	34+740	189						
E-3	℄	34+637.5	34+687.5	100						
E-4	℄	34+695.7	34+745.7	100						
E-5	℄	34+473	34+523	100						
E-6	℄	34+563	34+613	100						
D-1	℄	34+480	34+525				45			
D-2	℄	34+525	34+615			1	90			
D-3	℄	34+615	34+689.537			1	74.537			
D-4	℄	34+698.813	34+740		1			41.187		
D-5	℄	34+689.537	34+698.813			1	9.276			
F-1	LT	34+517.968	34+682.943						169.194	
F-2	LT	34+686.965	34+740						59.030	
F-3	RT	34+509.850	34+713.489						207.633	
F-4	RT	34+716.184	34+740						27.673	
RCP-1	LT	34+678.288								4.45
RCP-2	LT	34+687.780								4.1
RCP-3	RT	34+708.248								7.37
RCP-4	RT	34+719.255								5.73
TOTALS CARRIED TO SUB SUMMARY				649	1	3	218.813	41.187	463.530	21.65

PLAN AND PROFILE – RELOCATED U.S. 30
STA. 34+480 TO STA. 34+740

CRA/RIC-30-33.500/0.000



metric units

NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617,618.
2. FOR UNDERDRAIN QUANTITIES SEE SHEET 496.
3. FOR FENCE LEGEND SEE SHEET 94.

— INDICATES D.E.P.

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	670 DITCH EROSION PROTECTION S.M.	604 CATCH BASIN NO.4, A.P.P. EACH	603 375mm CONDUIT TYPE C METER	607 FENCE TYPE 47 METER
E-1	RT	34+740	34+840	300			
E-2	LT	34+740	34+880	490			
E-3	℄	34+982	35+000	36			
E-4	℄	34+802	34+852	100			
E-5	℄	34+892	34+942	100			
D-1	℄	34+740	34+800			60	
D-2	℄	34+800	34+890		1	90	
D-3	℄	34+890	34+980		2	90	
F-1	LT	34+740	35+000				260.000
F-2	RT	34+740	35+000				260.047
TOTALS CARRIED TO SUB SUMMARY				1026	3	240	520.047

RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

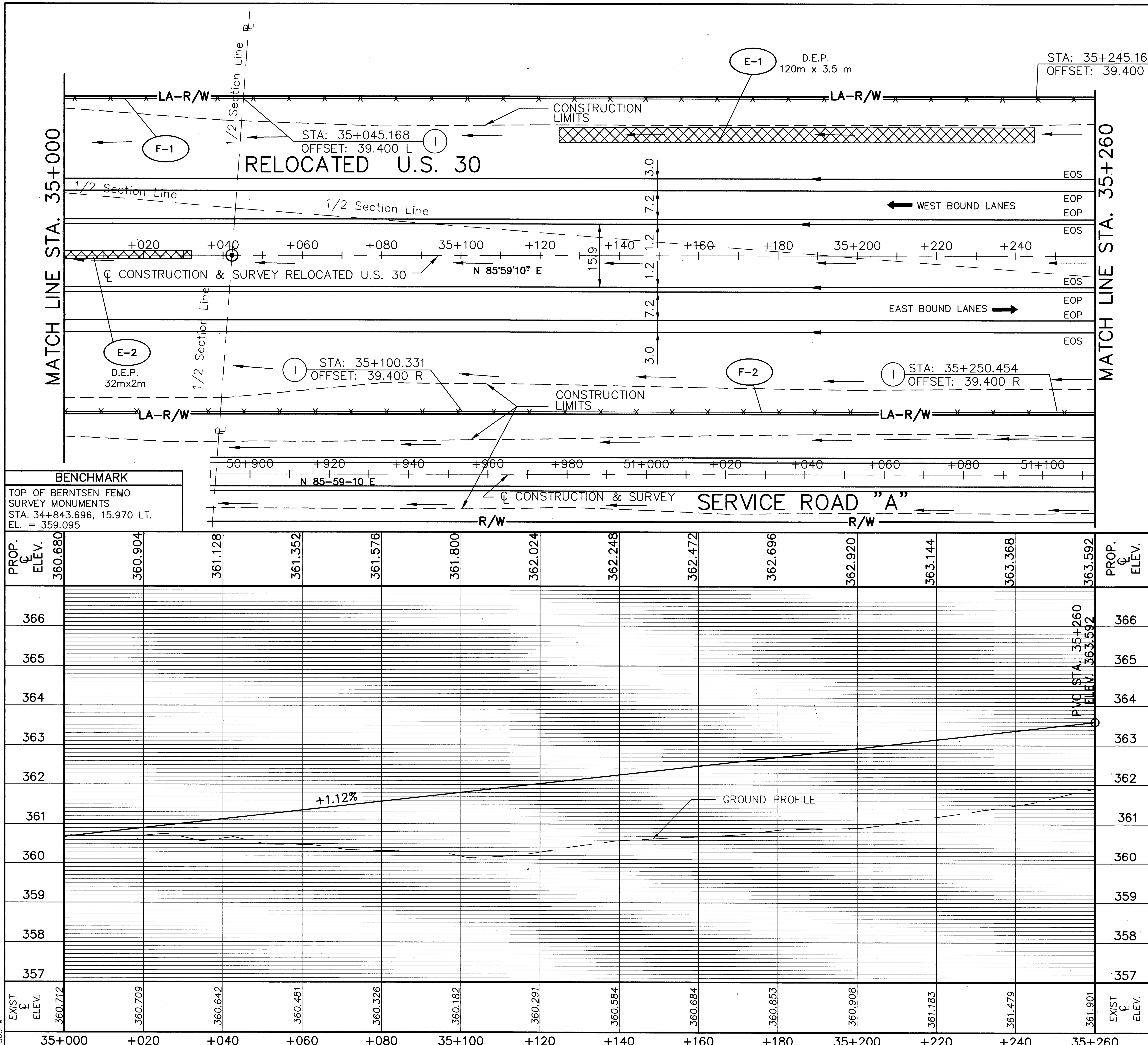
CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE – RELOCATED U.S. 30 STA. 34+740 TO STA. 35+000

CRA/RIC-30-33.500/0.000

101/712

GP109.DWG 11-21-2000 1:14 PM 1:500 M



metric units

NOTES:

1. FOR UNDERDRAIN QUANTITIES SEE SHEETS 496.
2. FOR FENCE LEGEND SEE SHEET 94.

— INDICATES D.E.P.

RATIO 1:500
HORIZONTAL SCALE IN METERS

CALCULATED W.J.S.
CHECKED C.R.M.

ESTIMATED QUANTITIES

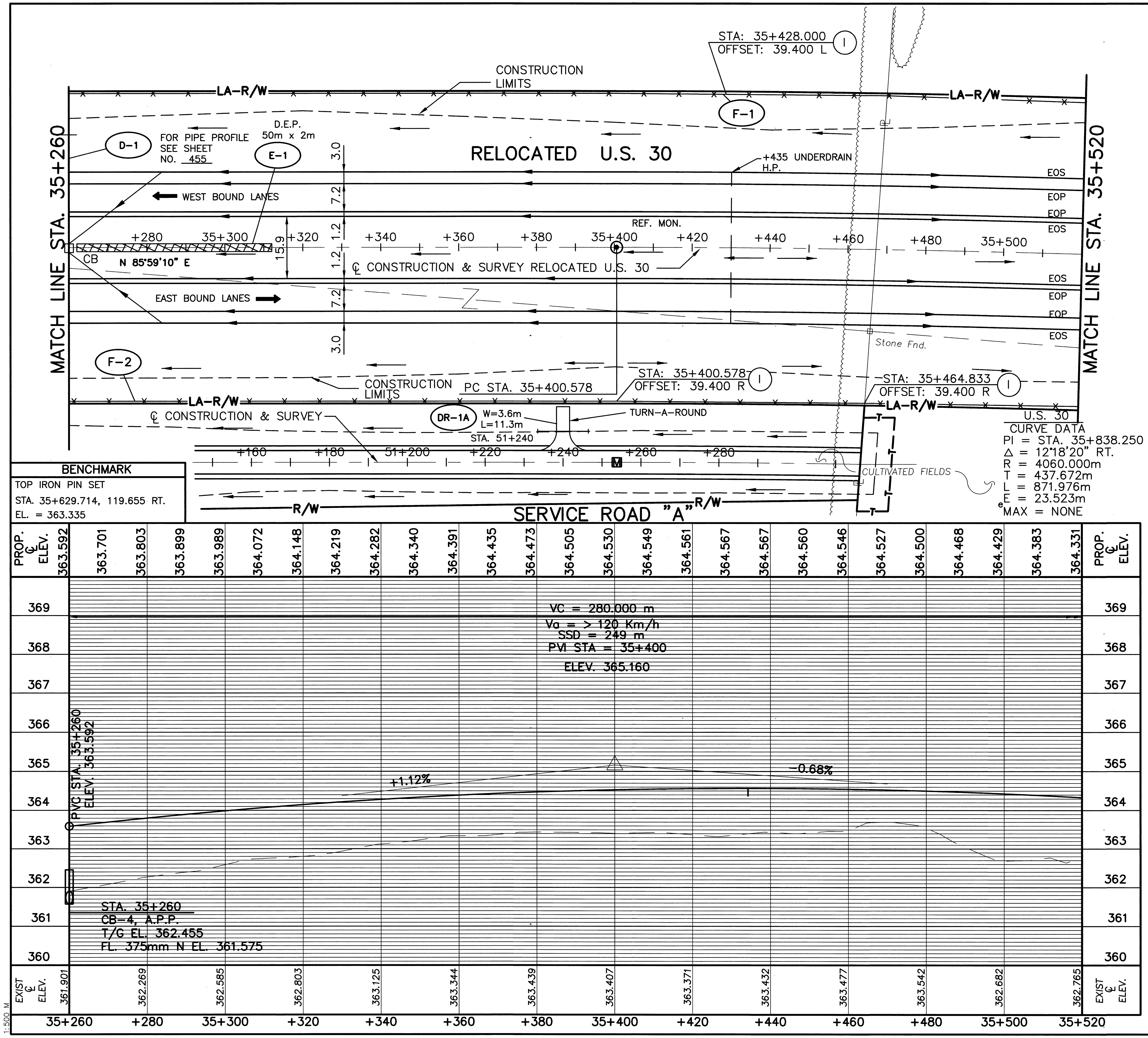
REF. No.	SIDE	STATION FROM	STATION TO	670 DITCH EROSION PROTECTION (S.M.)	607 FENCE TYPE 47 (METER)
E-1	LT	35+120	35+240	420	
E-2	℄	35+000	35+032	64	
F-1	LT	35+000	35+260		260.000
F-2	RT	35+000	35+260		260.000
TOTALS CARRIED TO SUB SUMMARY				484	520.000

PLAN AND PROFILE – RELOCATED U.S. 30
STA. 35+000 TO STA. 35+260

CRA/RIC-30-33.500/0.000

102
712

GP110.DWG
02-11-1999 10:55 AM
1:500 M



metric units

NOTES:

1. FOR UNDERDRAIN QUANTITIES SEE SHEET 496.
2. FOR FENCE LEGEND SEE SHEET 94.
3. FOR DRIVEWAY DETAILS AND QUANTITIES, SEE SHEETS 493-495.

— INDICATES D.E.P.

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	670 DITCH EROSION PROTECTION S.M.	602 CONCRETE MASONRY C.M.	603 375mm CONDUIT TYPE A METER	604 CATCH BASIN NO.4, A.P.P. EACH	607 FENCE TYPE 47 METER
E-1	℄	35+262	35+312	100				
D-1	LT	35+260			0.22	29	1	
F-1	LT	35+260	35+520					261.144
F-2	RT	35+260	35+520					259.082
TOTALS CARRIED TO SUB SUMMARY				100	0.22	29	1	520.226

RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

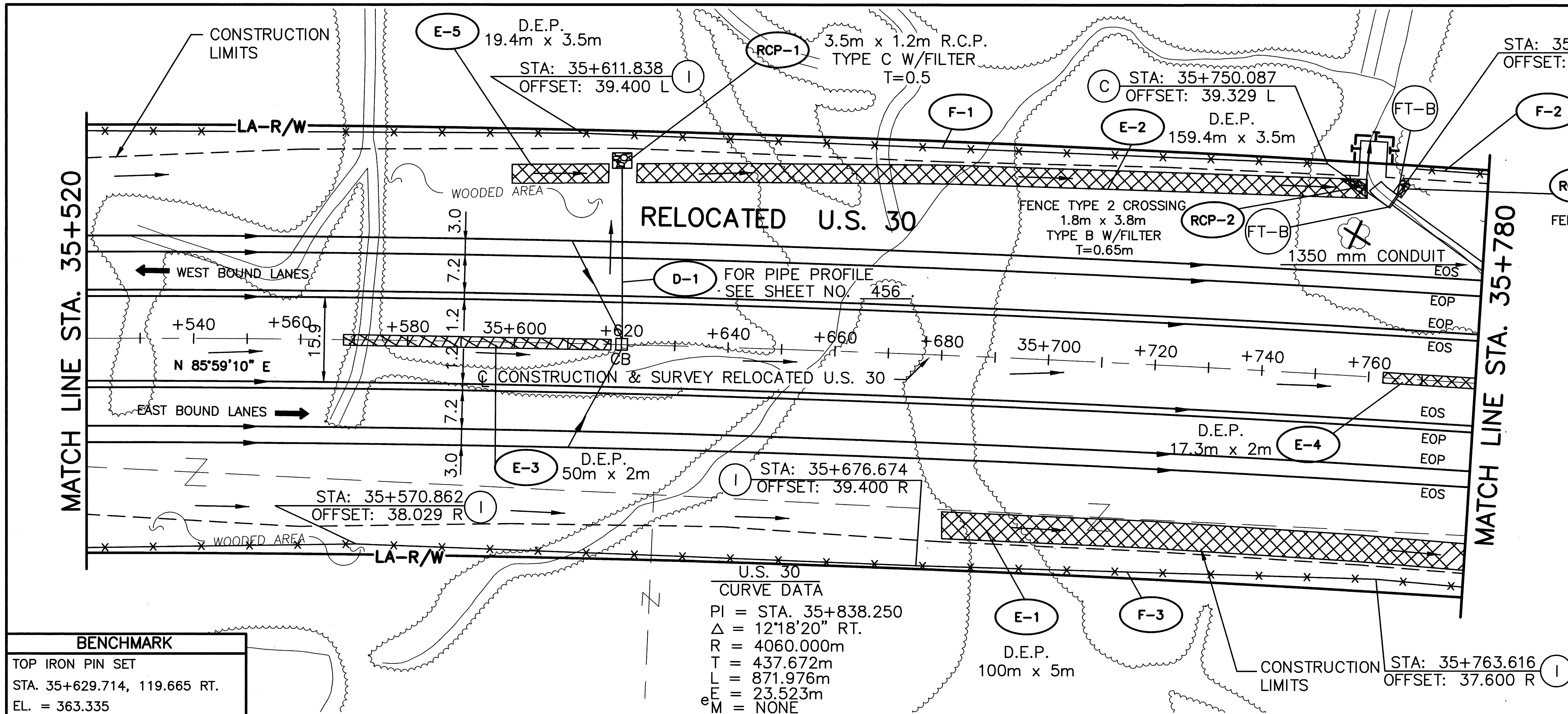
CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE – RELOCATED U.S. 30
STA. 35+260 TO STA. 35+520

CRA/RIC-30-33.500/0.000

103
712

GP111.DWG
08-15-2000 3:50 PM
1:500 M

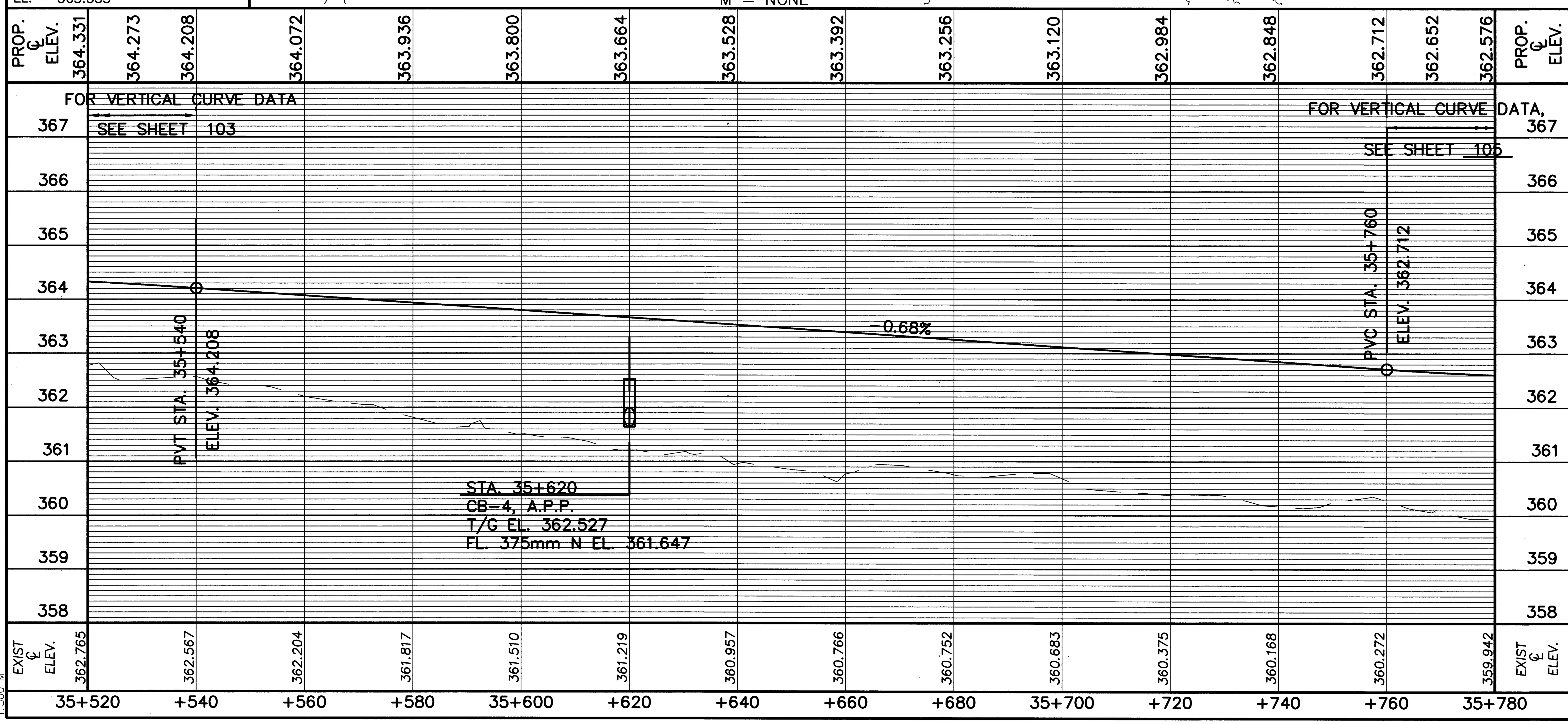


FENCE TYPE 2 CROSSING
1.8m x 3.0m
TYPE B W/FILTER
T=0.65m

NOTES:

1. FOR UNDERDRAINS QUANTITIES SEE SHEET 496
2. FOR FENCE LEGEND SEE SHEET 94

— INDICATES D.E.P.



ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	602 CONCRETE MASONRY C.M.	603 375mm CONDUIT TYPE A METER	604 CATCH BASIN NO.4, A.P.P. EACH	607 FENCE TYPE 47 METER	670 DITCH EROSION PROTECTION S.M.	601 ROCK CHANNEL PROTECTION TYPE C W/FILTER C.M.	601 ROCK CHANNEL PROTECTION TYPE B W/FILTER C.M.
E-1	RT	35+680	35+780					500		
E-2	LT	35+620.6	35+780					557.9		
E-3	℄	35+568	35+618					100		
E-4	℄	35+762.7	35+780					34.6		
E-5	LT	35+600	35+619.4					67.9		
D-1	LT	35+620		0.22	32	1				
F-1	LT	35+520	35+763.840				246.220			
F-2	LT	35+765.449	35+780				19.606			
F-3	RT	35+520	35+780				257.571			
RCP-1	LT	35+620							2.1	
RCP-2	LT	35+756								4.446
RCP-3	LT	35+764								3.510
TOTALS CARRIED TO SUB SUMMARY				0.22	32	1	523.397	1260.4	2.1	7.956

metric units

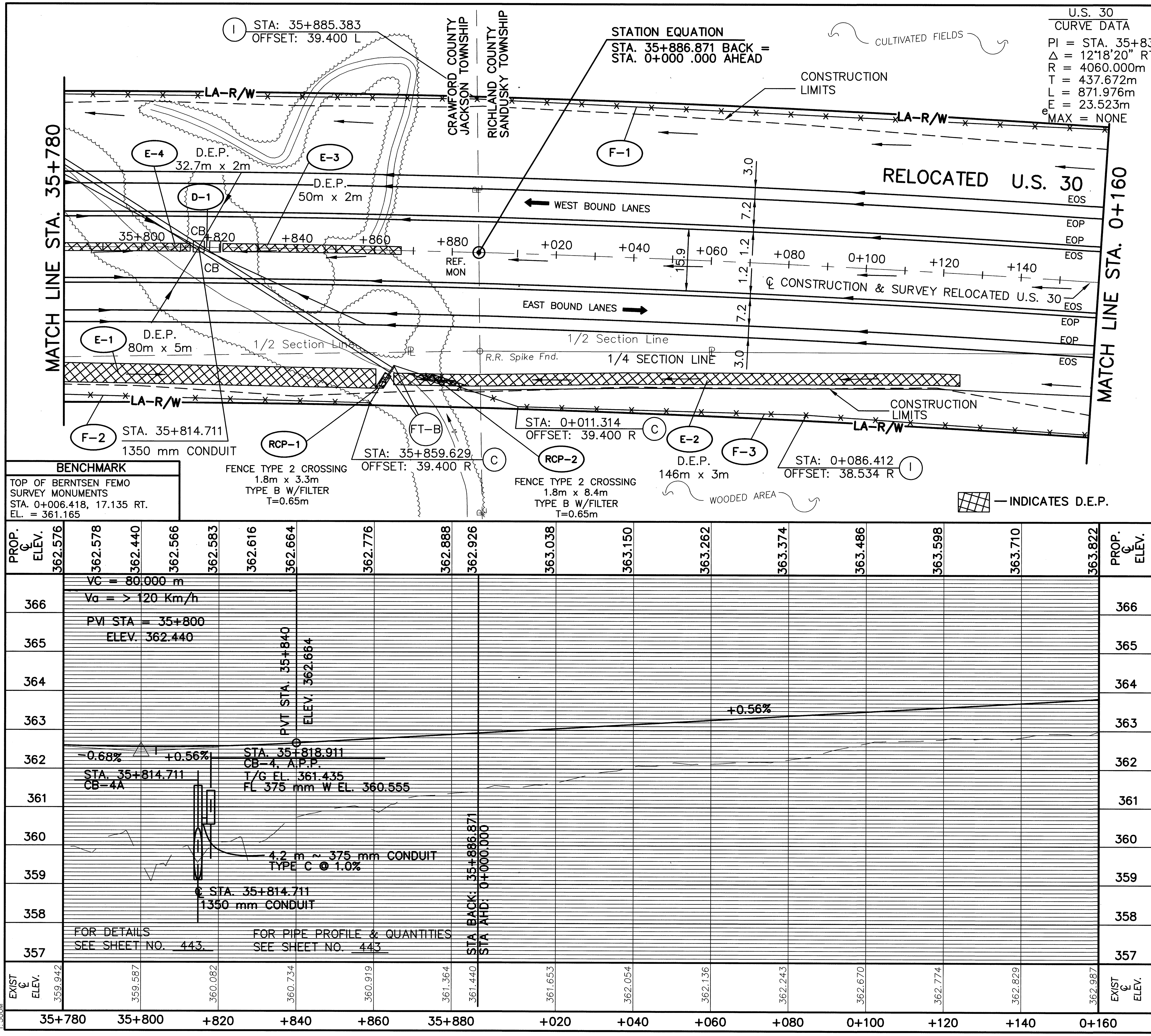
RATIO 1:500
HORIZONTAL SCALE IN METERS

CALCULATED W.J.S. CHECKED C.R.M.

PLAN AND PROFILE – RELOCATED U.S. 30
STA. 35+520 TO STA. 35+780

CRA/RIC-30-33.500/0.000

GP112.DWG 08-15-2000 3:53 PM 1:500 M



NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617,618 .
2. FOR UNDERDRAIN QUANTITIES SEE SHEET 496 .
3. FOR FENCE LEGEND SEE SHEET 94 .
4. FOR CULVERT SEE SHEET 443

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	670 DITCH EROSION PROTECTION S.M.	607 FENCE TYPE 47 METER	604 CATCH BASIN NO. 4, A.P.P. EACH	603 375mm CONDUIT TYPE C METER	601 ROCK CHANNEL PROTECTION TYPE B W/FILTER C.M.
E-1	RT	35+780	35+860	400				
E-2	RT	35+860	0+120	438				
E-3	℄	35+821.611	35+868.911	100				
E-4	℄	35+780	35+812.711	65.4				
F-1	LT	35+780	0+160		269.444			
F-2	RT	35+780	35+863.524		87.524			
F-3	RT	35+864.991	0+160		180.995			
D-1	℄	35+814.711	35+818.911			1	4.2	
RCP-1	RT	35+863						3.86
RCP-2	RT	35+878						9.83
TOTALS CARRIED TO SUB SUMMARY				1003.4	537.963	1	4.2	13.69

metric units

N

RATIO 1:500
HORIZONTAL SCALE IN METERS

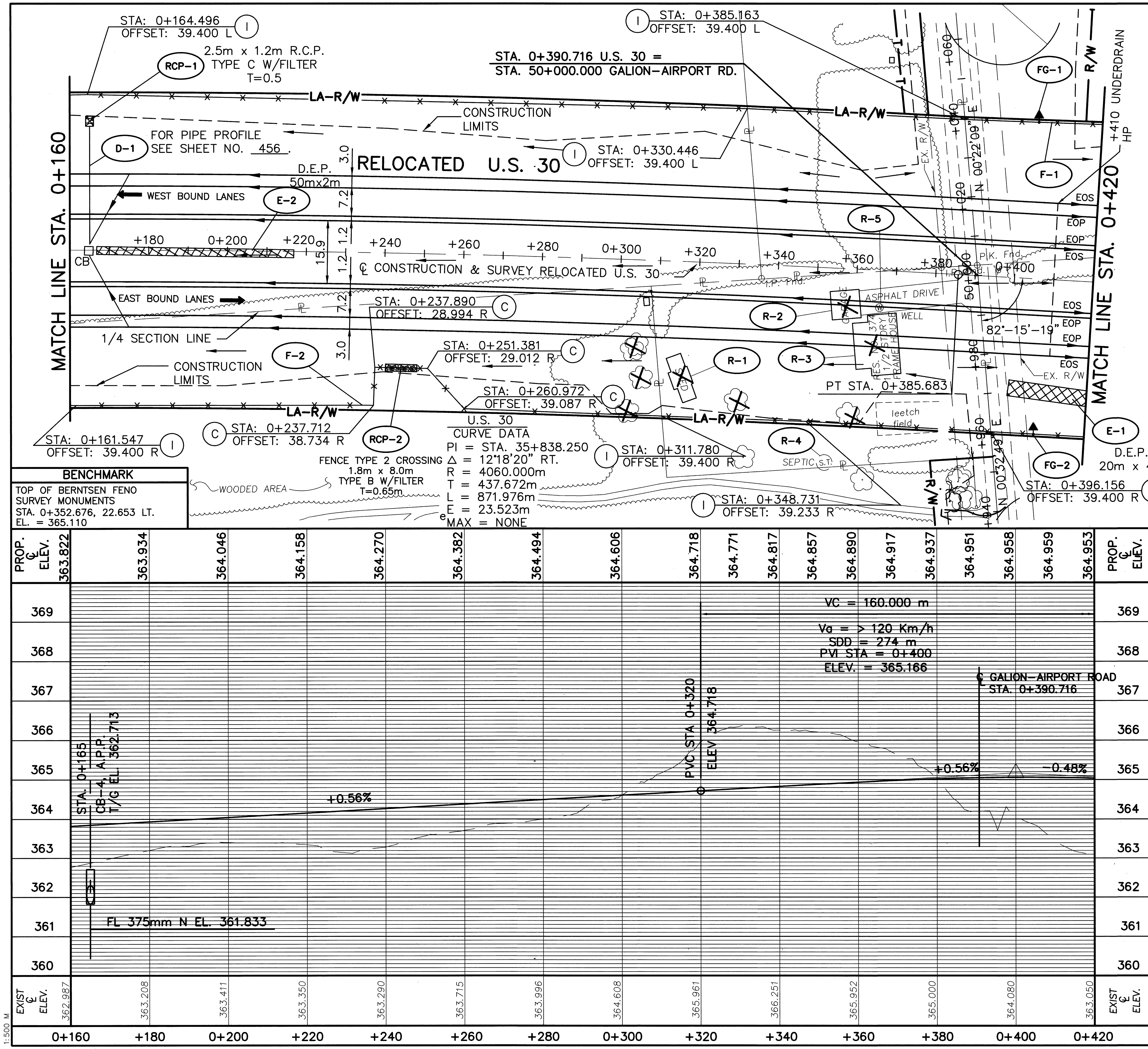
CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE - RELOCATED U.S. 30
STA. 35+780 TO STA. 0+160

CRA/RIC-30-33.500/0.000

105
712

GP113.DWG
08-15-2000 3:54 PM
1:500M



BENCHMARK

TOP OF BERNTSEN FENO SURVEY MONUMENTS
STA. 0+352.676, 22.653 LT.
EL. = 365.110

NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617,618.
2. FOR UNDERDRAIN QUANTITIES SEE SHEET 496.
3. FOR FENCE LEGEND SEE SHEET 94.

▨ — INDICATES D.E.P.

metric units

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	202 BUILDING DEMOLISHED EACH	202 SEPTIC TANK REMOVED EACH	602 CONCRETE MASONRY C.M.	603 375mm CONDUIT TYPE A EACH	604 CATCH BASIN NO.4, A.P.P. EACH	607 FENCE TYPE 47 METER	670 DITCH EROSION PROTECTION S.M.	SPECIAL DRILLED WATER WELL ABANDONED EACH	601 ROCK CHANNEL PROTECTION TYPE C W/FILTER C.M.	601 ROCK CHANNEL PROTECTION TYPE B W/FILTER C.M.	625 GROUND ROD EACH
E-1	RT	0+400								80				
E-2	℄	0+167	0+217							100				
D-1	RT	0+165				0.22	30.4	1						
R-1	RT	0+315		1										
R-2	RT	0+360		1										
R-3	RT	0+365		1										
R-4	RT	0+355			1									
R-5	RT	0+365									1			
F-1	LT	0+160	0+420						262.442					
F-2	RT	0+160	0+420						271.526					
FG-1	LT	0+404												1
FG-2	RT	0+406												1
RCP-1	LT	0+165										1.5		
RCP-2	RT	0+245											9.36	
TOTALS CARRIED TO SUB SUMMARY				3	1	0.22	30.4	1	533.968	180	1	1.5	9.36	2

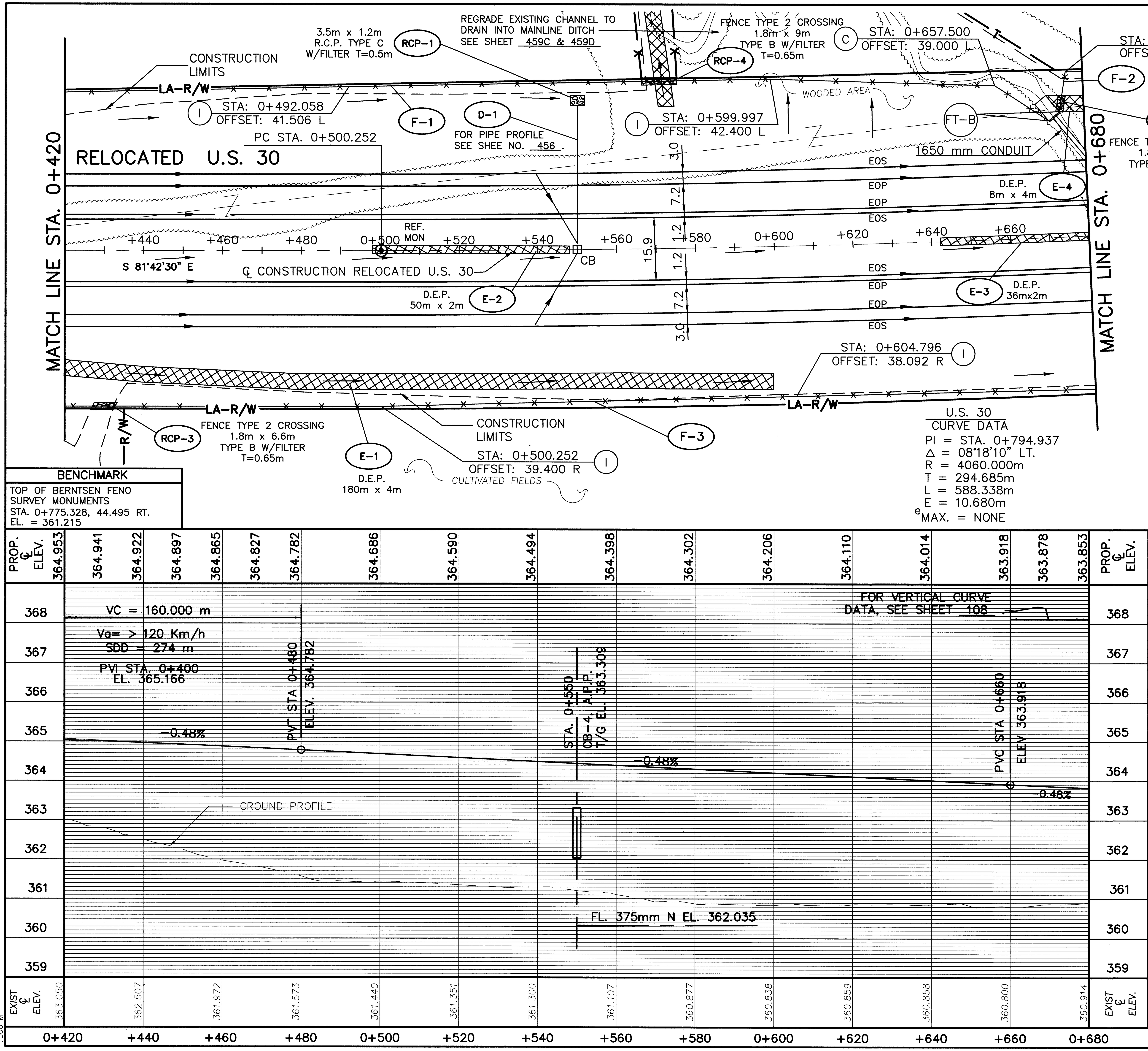
RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE – RELOCATED U.S. 30
STA. 0+160 TO STA. 0+420

CRA/RIC-30-33.500/0.000

GP114.DWG
03-27-2001 10:29 AM
1:500 M



metric units

NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617,618 .
2. FOR UNDERDRAIN QUANTITIES SEE SHEET 496 .
3. FOR FENCE LEGEND SEE SHEET 94 .

— INDICATES D.E.P.

RATIO 1:500
HORIZONTAL SCALE IN METERS

CALCULATED W.J.S. CHECKED C.R.M.

ESTIMATED QUANTITIES

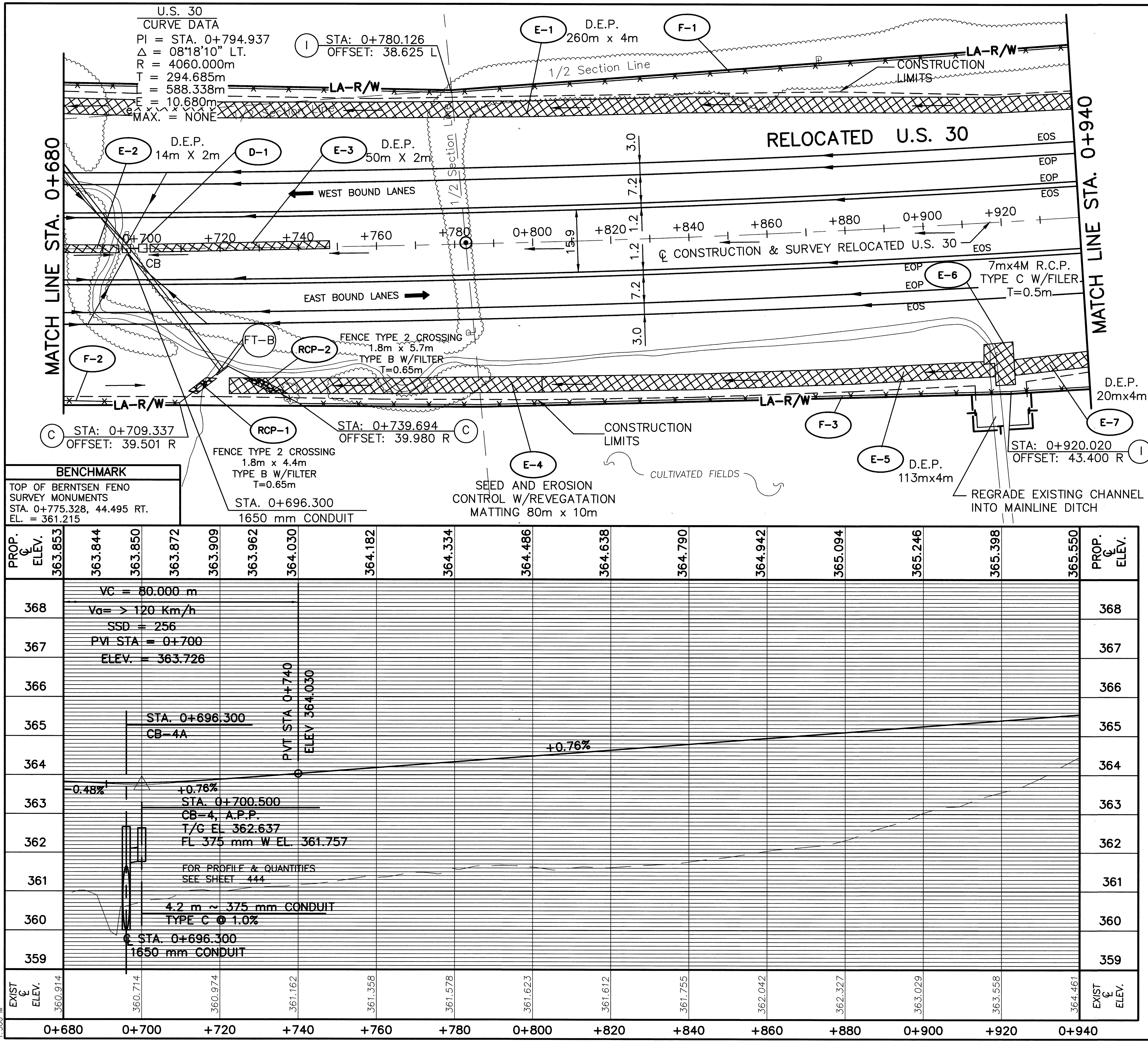
REF. No.	SIDE	STATION FROM	STATION TO	602 CONCRETE MASONRY	603 375mm CONDUIT TYPE A	604 CATCH BASIN NO. 4, A.P.P.	607 FENCE TYPE 47	670 DITCH EROSION PROTECTION	601 ROCK CHANNEL PROTECTION TYPE C W/FILTER	601 ROCK CHANNEL PROTECTION TYPE B W/FILTER
				C.M.	METER	EACH	METER	S.M.	C.M.	C.M.
E-1	RT	0+420	0+480					720		
E-2	℄	0+498	0+543					100		
E-3	℄	0+644	0+680					72		
E-4	LT	0+670.399	0+680					32		
D-1	LT	0+550		0.22	35.7	1				
F-1	LT	0+420	0+670.938				252.307			
F-2	LT	0+672.392	0+680				14.438			
F-3	RT	0+420	0+680				261.718			
RCP-1	LT	0+550							2.1	
RCP-2	LT	0+675								3.861
RCP-3	RT	0+430								7.720
RCP-4	LT	0+571								10.53
TOTALS CARRIED TO SUB SUMMARY				0.22	35.7	1	528.463	924	2.1	22.111

PLAN AND PROFILE – RELOCATED U.S. 30 STA. 0+420 TO STA. 0+680

CRA/RIC-30-33.500/0.000

107/712

GP115.DWG 09-28-2000 2:56 PM 1:500 M



metric units

NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617,618 .
2. FOR UNDERDRAIN QUANTITIES SEE SHEET 496 .
3. FOR FENCE LEGEND SEE SHEET 94

— INDICATES D.E.P.

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	670 DITCH EROSION PROTECTION S.M.	607 FENCE TYPE 47 METER	601 ROCK CHANNEL PROTECTION TYPE C W/FILTER C.U.	839 SEEDING & EROSION CONTROL W/ REVEGATATION MATTING S.M.	604 CATCH BASIN NO.4, A.P.P. EACH	603 375 mm CONDUIT TYPE C METER	601 ROCK CHANNEL PROTECTION TYPE B W/FILTER C.M.
E-1	LT	0+680	0+940	1040						
E-2	℄	0+680	0+694	28						
E-3	℄	0+698	0+748	100						
E-4	RT	0+720	0+800				800			
E-5	RT	0+800	0+913	452						
E-6	RT	0+913	0+920			14				
E-7	RT	0+920	0+940	80						
F-1	LT	0+680	0+940		257.501					
F-2	RT	0+680	0+718.689		41.570					
F-3	RT	0+722.038	0+940		223.224					
D-1	℄	0+696.300	0+700.500					1	4.2	
RCP-1	RT	0+715								5.148
RCP-2	RT	0+731								6.67
TOTALS CARRIED TO SUB SUMMARY				1700	522.295	14	800	1	4.2	11.818

RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

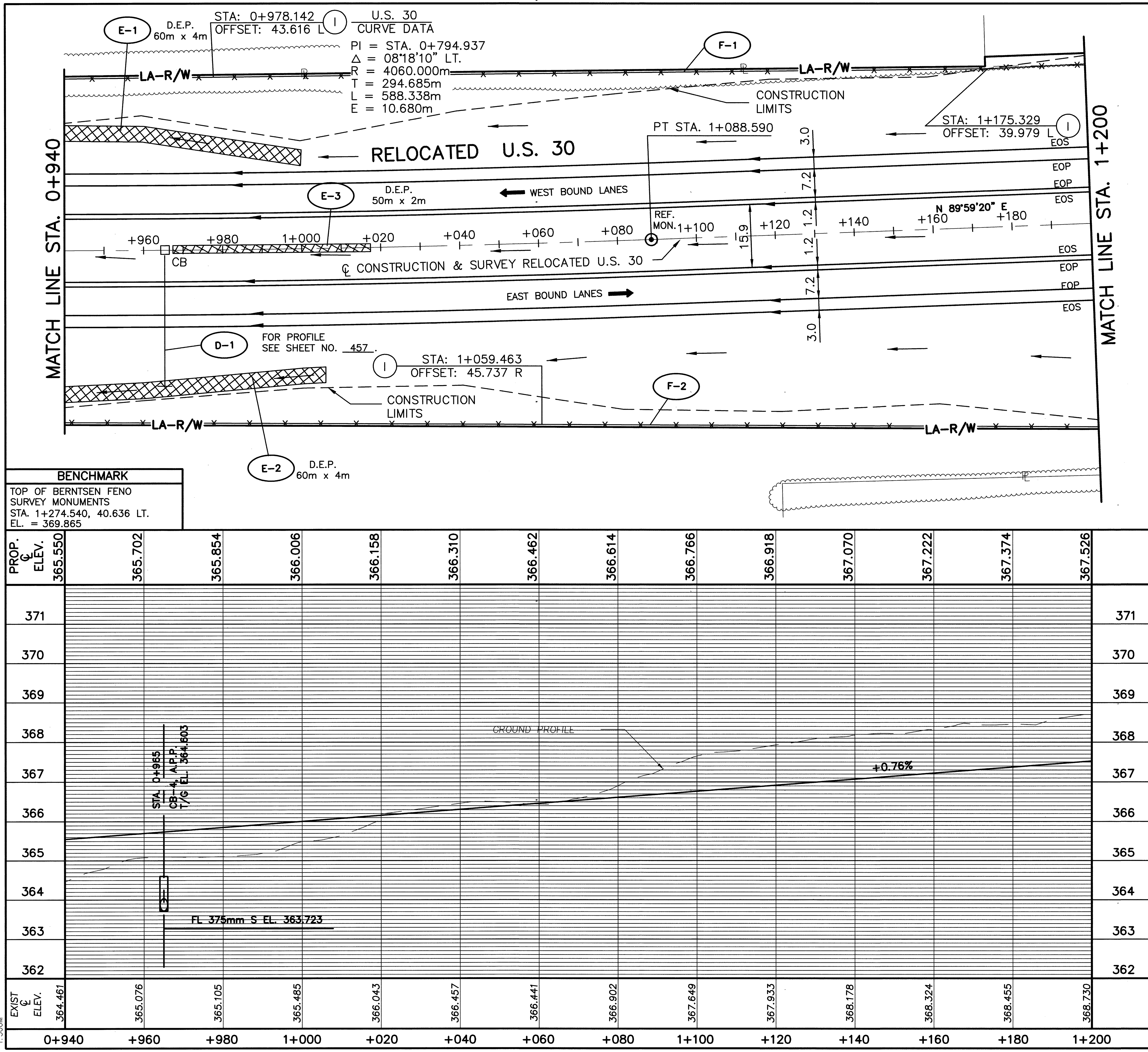
CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE – RELOCATED U.S. 30
STA. 0+680 TO STA. 0+940

CRA/RIC-30-33.500/0.000

108/712

GP116.DWG
08-15-2000 3:58 PM
1:500 M



metric units

NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617,618.
2. FOR UNDERDRAIN QUANTITIES SEE SHEET 496.
3. FOR FENCE LEGEND SEE SHEET 94.

— INDICATES D.E.P.

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	602 CONCRETE MASONRY C.M.	603 375mm CONDUIT TYPE A METER	604 CATCH BASIN NO. 4, A.P.P. EACH	607 FENCE TYPE 47 METER	670 DITCH EROSION PROTECTION S.M.
E-1	LT	0+940	1+000					240
E-2	RT	0+940	1+000					240
E-3	℄	0+967	1+017					100
D-1	RT	0+965		0.22	33.21	1		
F-1	LT	0+940	1+200				260.849	
F-2	RT	0+940	1+200				261.775	
TOTALS CARRIED TO SUB SUMMARY				0.22	33.21	1	522.624	580

RATIO 1:500 HORIZONTAL SCALE IN METERS

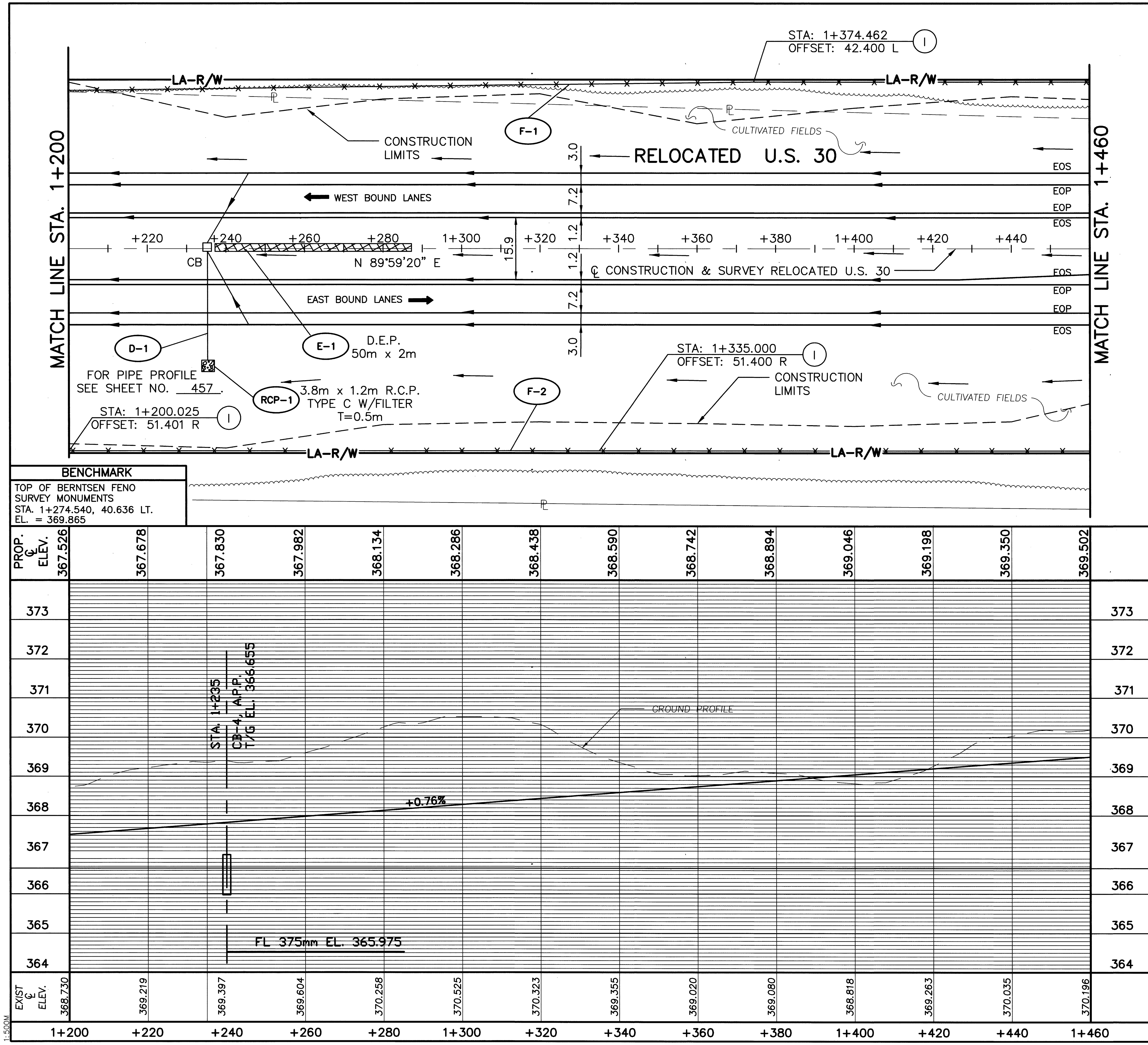
CALCULATED W.J.S. CHECKED C.R.M.

PLAN AND PROFILE – RELOCATED U.S. 30 STA. 0+940 TO STA. 1+200

CRA/RIC-30-33.500/0.000

109/712

GP117.DWG 08-15-2000 4:00 PM 1:500M



BENCHMARK

TOP OF BERNTSEN FENO SURVEY MONUMENTS
STA. 1+274.540, 40.636 LT.
EL. = 369.865

metric units

NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617,618
2. FOR UNDERDRAINS QUANTITIES SEE SHEET 496
3. FOR FENCE LEGEND SEE SHEET 94

— INDICATES D.E.P.

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	602 CONCRETE MASONRY (C.M.)	603 375mm CONDUIT TYPE A (METER)	604 CATCH BASIN NO. 4, A.P.P. (EACH)	607 FENCE TYPE 47 (METER)	670 DITCH EROSION PROTECTION (S.M.)	601 ROCK CHANNEL PROTECTION TYPE C W/FILTER (C.M.)
D-1	RT	1+235		0.22	27.42	1			
F-1	LT	1+200	1+460				259.999		
F-2	RT	1+200	1+460				259.998		
E-1	℄	1+237	1+287					100	
RCP-1	RT	1+235							2.28
TOTALS CARRIED TO SUB SUMMARY				0.22	27.42	1	519.997	100	2.28

RATIO 1:500
HORIZONTAL SCALE IN METERS

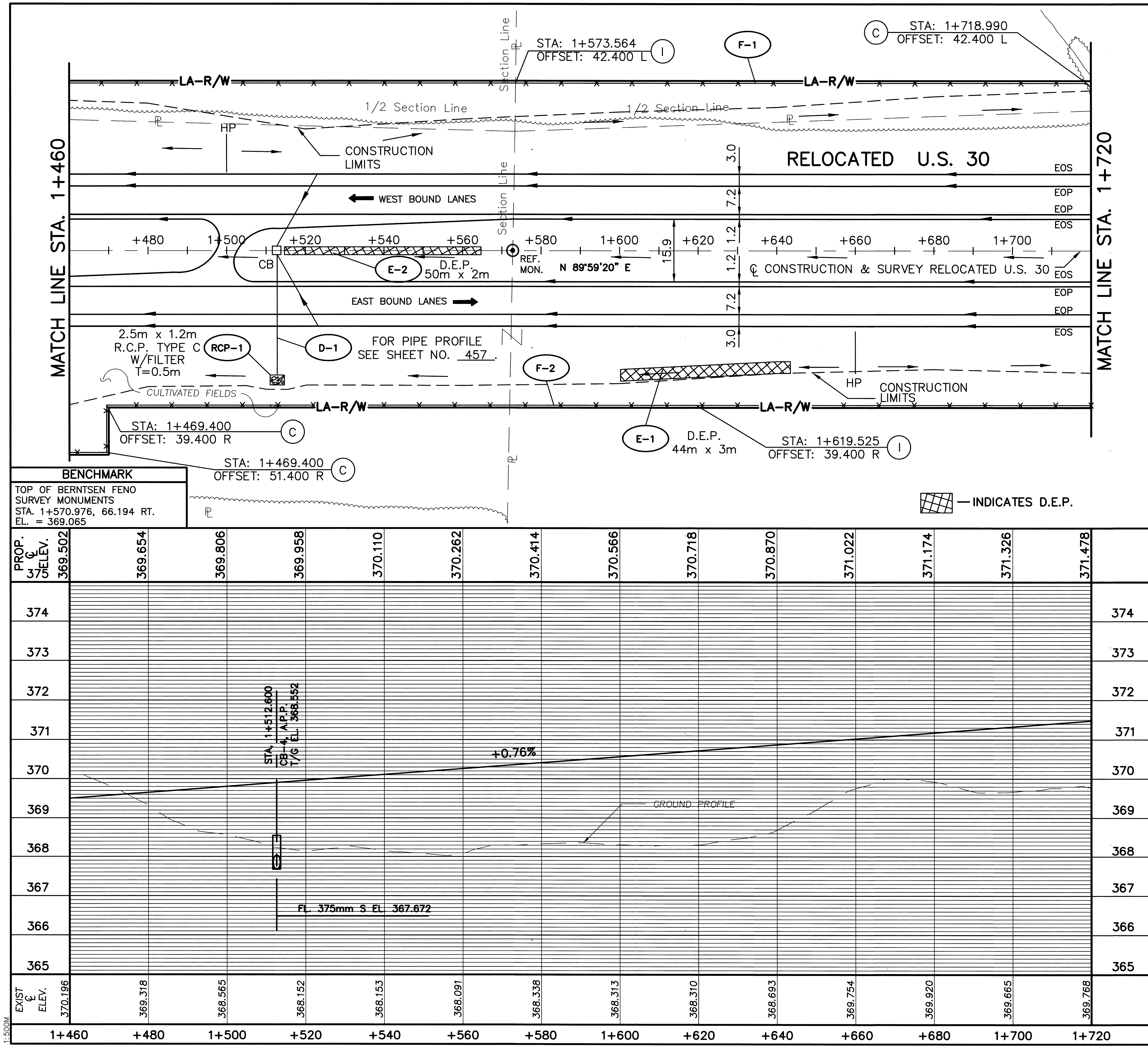
CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE – RELOCATED U.S. 30
STA. 1+200 TO STA. 1+460

CRA/RIC-30-33.500/0.000

110/712

GP118.DWG
08-15-2000 4:00 PM
1:500M



metric units

NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617,618.
2. FOR UNDERDRAIN QUANTITIES SEE SHEET 496.
3. FOR FENCE LEGEND SEE SHEET 94.
4. FOR MEDIAN CROSSOVER DETAIL SEE SHEET 468.

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	602 CONCRETE MASONRY (C.M.)	603 375mm CONDUIT TYPE A (METER)	604 CATCH BASIN NO.4, A.P.P. (EACH)	607 FENCE TYPE 47 (METER)	670 DITCH EROSION PROTECTION (S.M.)	601 ROCK CHANNEL PROTECTION TYPE C W/FILTER (C.M.)
E-1	RT	1+600	1+644					132	
E-2	℄	1+514	1+564					100	
D-1	RT	1+512.600		0.22	30.56	1			
F-1	LT	1+460	1+720				260.464		
F-2	RT	1+460	1+720				272.000		
RCP-1	RT	1+512.600							1.5
TOTALS CARRIED TO SUB SUMMARY				0.22	30.56	1	532.464	232	1.5

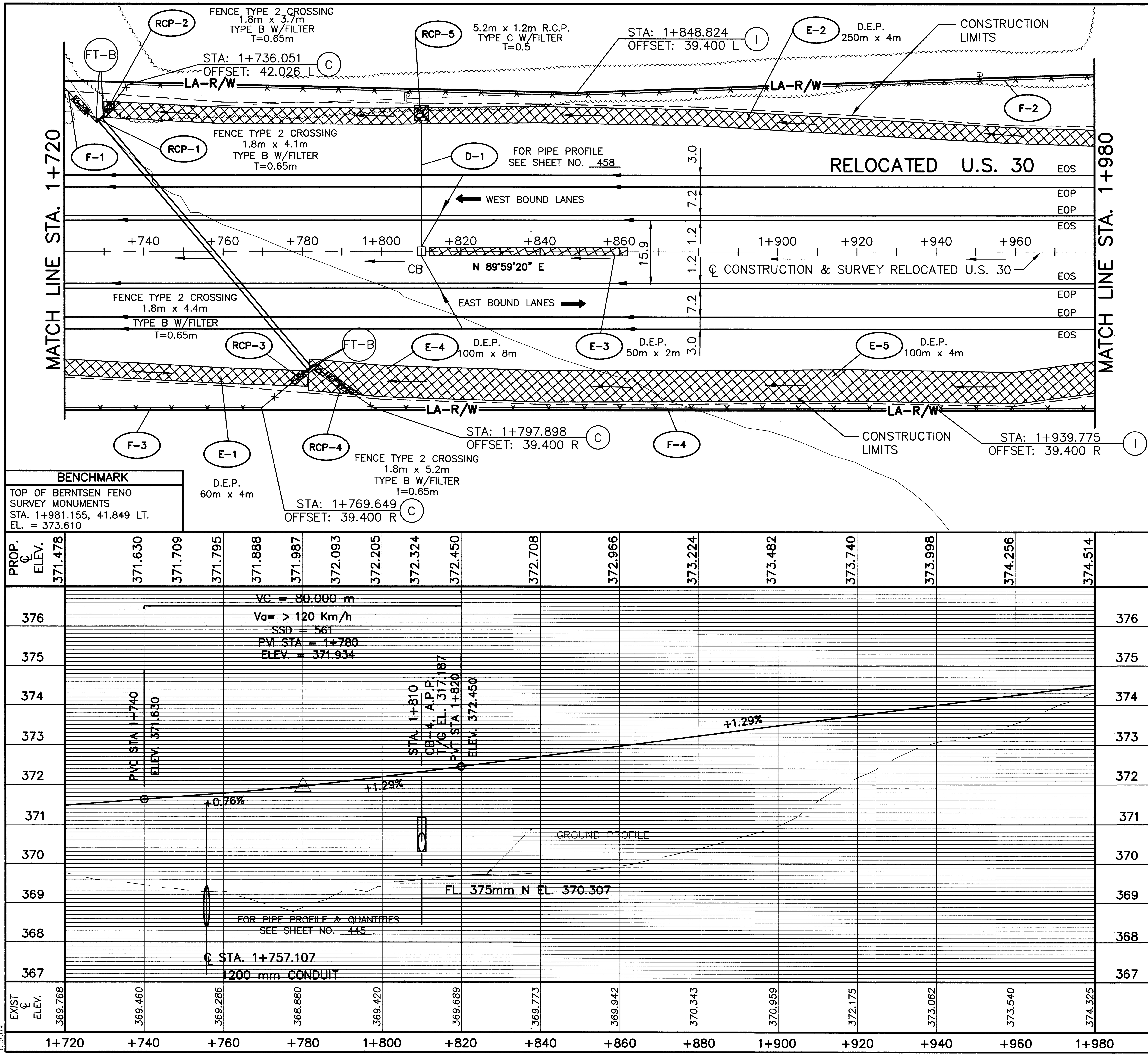
RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

CALCULATED W.J.S. CHECKED C.R.M.

PLAN AND PROFILE – RELOCATED U.S. 30 STA. 1+460 TO STA. 1+720

CRA/RIC-30-33.500/0.000

GP119.DWG 08-15-2000 4:01 PM 1:500M



metric units

1. FOR ℄ MON. LOCATION SEE SHEETS 617,618.
2. FOR UNDERDRAINS QUANTITIES SEE SHEET 496.
3. FOR FENCE LEGEND SEE SHEET 94.

— INDICATES D.E.P.

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	602 CONCRETE MASONRY C.M.	603 375mm CONDUIT TYPE A METER	604 CATCH BASIN NO.4, A.P.P. EACH	607 FENCE TYPE 47 METER	670 DITCH EROSION PROTECTION S.M.	601 ROCK CHANNEL PROTECTION TYPE B W/FILTER C.M.	601 ROCK CHANNEL PROTECTION TYPE C W/FILTER C.M.
E-1	RT	1+720	1+780					240		
E-2	LT	1+730	1+980					1000		
E-3	℄	1+812	1+862					100		
E-4	RT	1+780	1+880					800		
E-5	RT	1+880	1+980					400		
D-1	LT	1+810		0.22	31.57	1				
F-1	LT	1+720	1+727.959				11.623			
F-2	LT	1+729.797	1+980				253.917			
F-3	RT	1+720	1+780.796				64.212			
F-4	RT	1+785.978	1+980				200.864			
RCP-1	LT	1+724							4.80	
RCP-2	LT	1+731							4.33	
RCP-3	RT	1+779							5.15	
RCP-4	RT	1+788							6.08	
RCP-5	RT	1+810								3.12
TOTALS CARRIED TO SUB SUMMARY				0.22	31.57	1	530.616	2540	20.36	3.12

N

RATIO 1:500

0 5 10 20

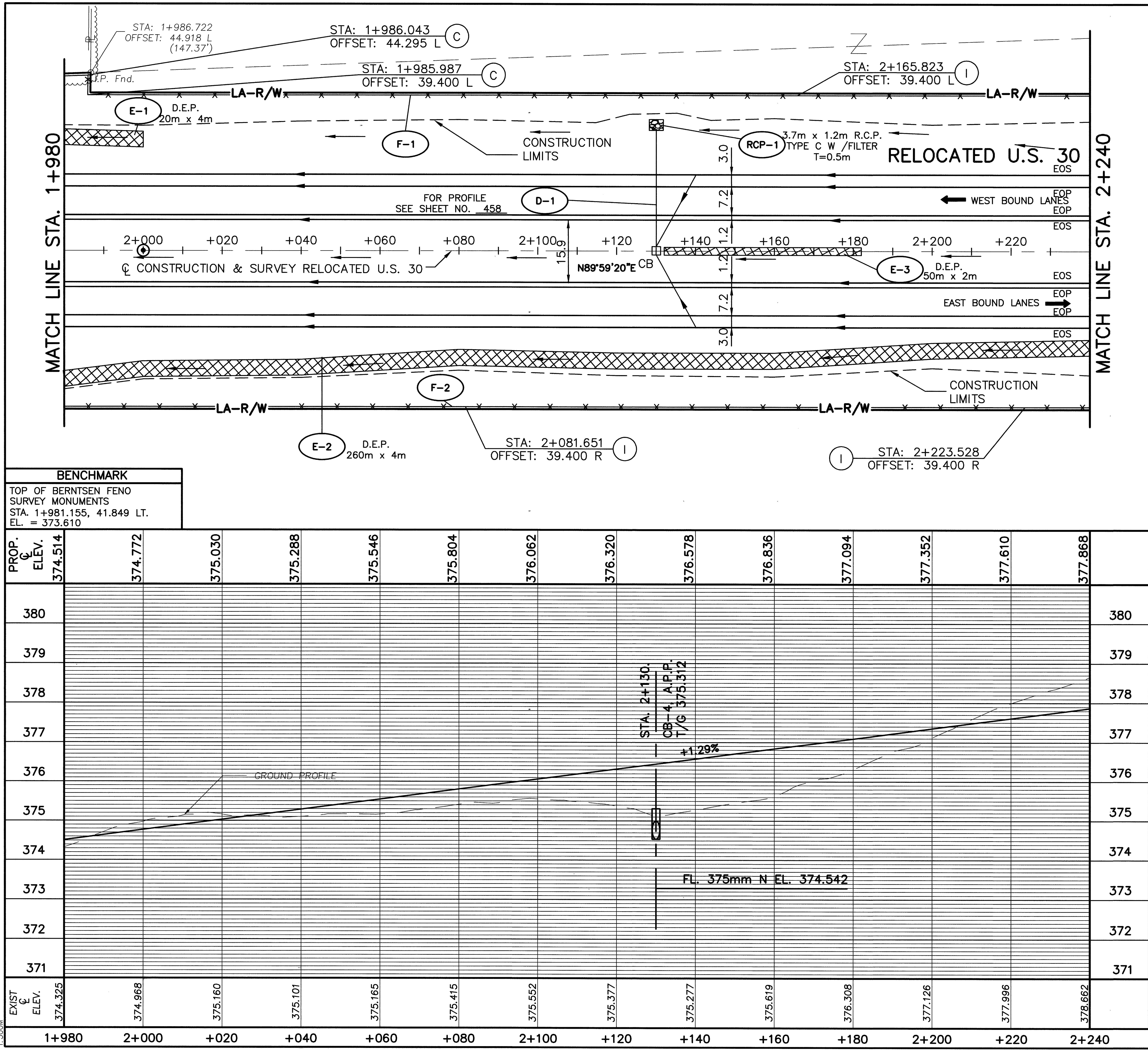
HORIZONTAL SCALE IN METERS

CALCULATED W.J.S.

CHECKED C.R.M.

PLAN AND PROFILE – RELOCATED U.S. 30
STA. 1+720 TO STA. 1+980

CRA/RIC-30-33.500/0.000



BENCHMARK

TOP OF BERNTSEN FENO SURVEY MONUMENTS
STA. 1+981.155, 41.849 LT.
EL. = 373.610

metric units

NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617,618
2. FOR UNDERDRAINS QUANTITIES SEE SHEET 496
3. FOR FENCE LEGEND SEE SHEET 94

— INDICATES D.E.P.

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	602 CONCRETE MASONRY (C.M.)	603 375mm CONDUIT TYPE A (METER)	604 CATCH BASIN NO.4, A.P.P. (EACH)	607 FENCE TYPE 47 (METER)	670 DITCH EROSION PROTECTION (S.M.)	601 ROCK CHANNEL PROTECTION TYPE C W/FILTER (C.M.)
E-1	LT	1+980	2+000					80	
E-2	RT	1+980	2+240					1040	
E-3	℄	1+132	2+182					100	
D-1	RT	2+130		0.22	29.06	1			
F-1	LT	1+980	2+240				264.955		
F-2	RT	1+980	2+240				260.000		
RCP-1	LT	2+130							2.22
TOTALS CARRIED TO SUB SUMMARY				0.22	29.06	1	524.955	1220	2.22

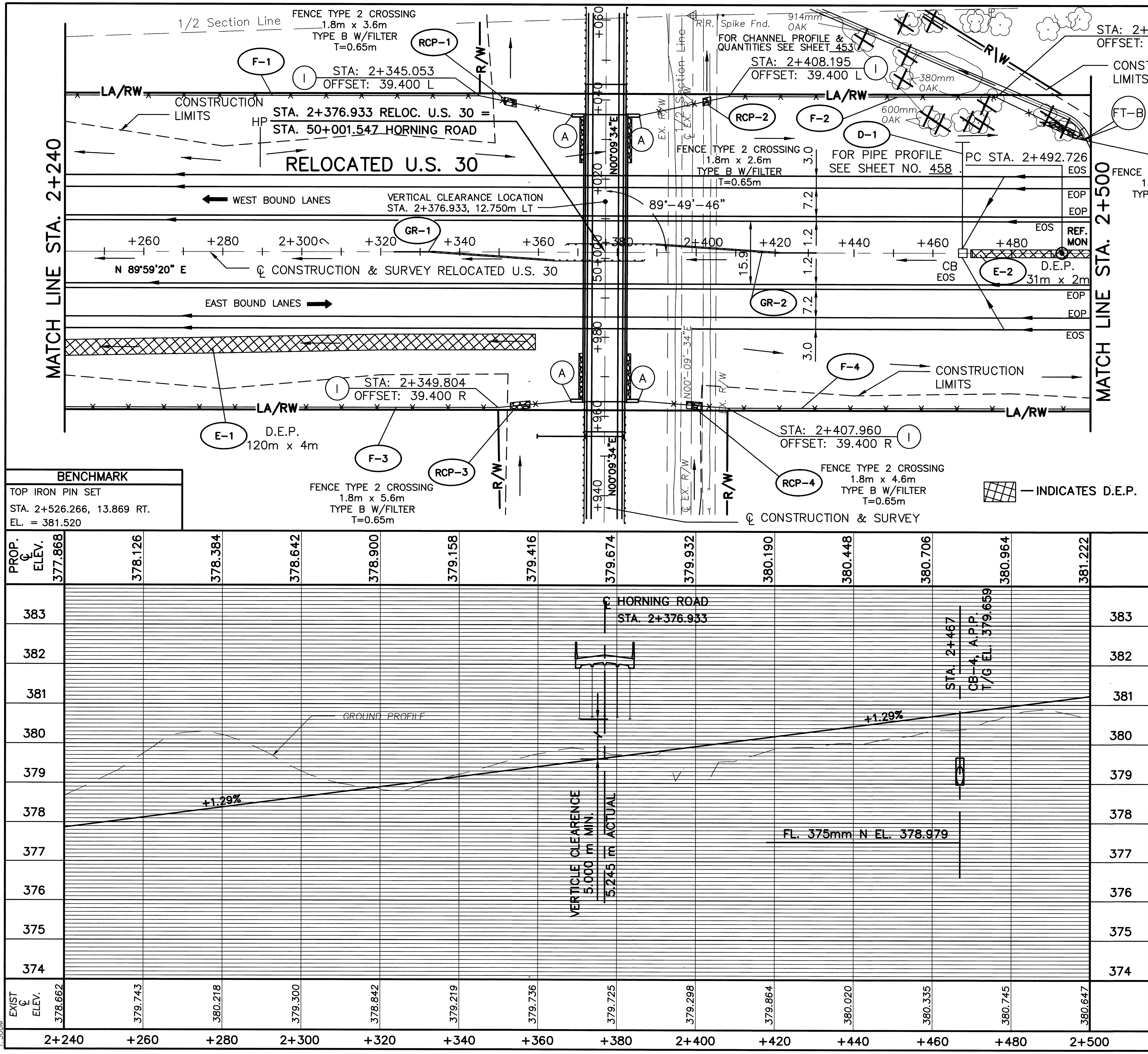
RATIO 1:500 HORIZONTAL SCALE IN METERS 0 5 10 20

CALCULATED W.J.S. CHECKED C.R.M.

PLAN AND PROFILE – RELOCATED U.S. 30 STA. 1+980 TO STA. 2+240

CRA/RIC-30-33.500/0.000

GP121.DWG 08-15-2000 4:05 PM 1:500M



metric units

NOTES:

1. FOR SUPER ELEVATION TABLES SEE SHEET 460
2. FOR ℄ MON. LOCATION SEE SHEETS 617,618 .
3. FOR UNDERDRAINS QUANTITIES SEE SHEET 496 .
4. FOR FENCE LEGEND SEE SHEET 94
5. FOR HORNING ROAD P & P SEE SHEETS 332-335
6. FOR CHANNEL WORK DETAILS, SEE SHEET 453

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	602 CONCRETE MASONRY (C.M.)	603 375mm CONDUIT TYPE A (METER)	604 CATCH BASIN NO.4, A.P.P. (EACH)	606 IMPACT ATTENUATOR BIDIRECTIONAL TYPE 1-98 (EACH)	606 GUARDRAIL BARRIER DESIGN TYPE T (METER)	606 ANCHOR ASSEMBLY TYPE T (EACH)	606 GUARDRAIL TYPE 5 (METER)	607 FENCE TYPE 47 (METER)	670 DITCH EROSION PROTECTION (S.M.)	626 BARRIER REFLECTOR TYPE A (EACH)	601 ROCK CHANNEL PROTECTION TYPE B W/FILTER (C.M.)
E-1	RT	2+240	2+360									480		
E-2	℄	2+469	2+500									62		
D-1	LT	2+467		0.22	28.47	1								
F-1	LT	2+240	2+368.472								128.976			
F-2	LT	2+385.587	2+498.306								116.307			
F-3	RT	2+240	2+368.270								128.264			
F-4	RT	2+385.387	2+500								114.689			
GR-1	RT	2+323.361	2+386.301				1	30.480	1	19.050			3	
GR-2	LT	2+367.572	2+430.512				1	30.480	1	19.050			3	
RCP-1	LT	2+352												4.2
RCP-2	LT	2+402												3.0
RCP-3	RT	2+355												6.6
RCP-4	RT	2+400												5.4
RCP-5	LT	2+493												11.4
TOTALS CARRIED TO SUB SUMMARY				0.22	28.47	1	2	60.960	2	38.100	488.236	542	6	30.6

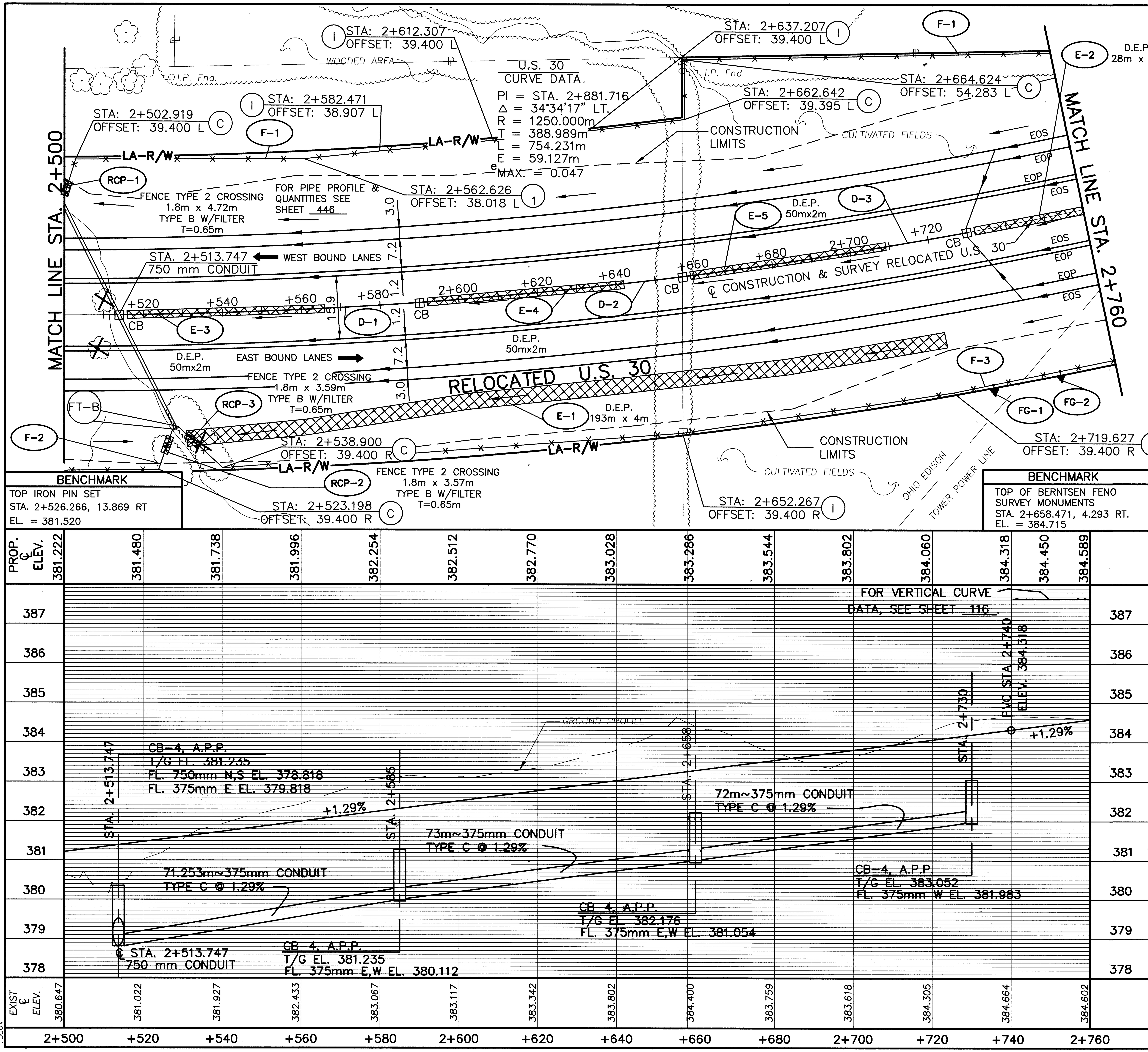
RATIO 1:500
HORIZONTAL SCALE IN METERS 0 5 10 20

CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE - RELOCATED U.S. 30
STA. 2+240 TO STA. 2+500

CRA/RIC-30-33.500/0.000

GP122.DWG 08-15-2000 4:06 PM 1:500M



metric units

NOTES:

1. FOR SUPER ELEVATION TABLES SEE SHEET 460
2. FOR ℄ MON. LOCATION SEE SHEETS 617,618
3. FOR UNDENDRAINS QUANTITIES SEE SHEET 496
4. FOR FENCE LEGEND SEE SHEET 94 .

— INDICATES D.E.P.

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	603 375mm CONDUIT TYPE C (METER)	604 CATCH BASIN NO.4, A.P.P. (EACH)	607 FENCE TYPE 47 (METER)	670 DITCH EROSION PROTECTION (S.M.)	625 GROUND ROD (EACH)	601 ROCK CHANNEL PROTECTION TYPE B W/FILTER (C.M.)
E-1	RT	2+527	2+720				772		
E-2	℄	2+732	2+760				56		
E-3	℄	2+515.747	2+565.747				100		
E-4	℄	2+587	2+637				100		
E-5	℄	2+660	2+710				100		
D-1	℄	2+513.747	2+585	71.253	1				
D-2	℄	2+585	2+658	73	1				
D-3	℄	2+658	2+730	72	2				
F-1	LT	2+500	2+760			272.690			
F-2	RT	2+500	2+528.589			34.750			
F-3	RT	2+529.497	2+760			243.435			
FG-1	RT	2+729						1	
FG-1	RT	2+746						1	
RCP-1	LT	2+500							2.98
RCP-2	RT	2+525							3.57
RCP-3	RT	2+531							3.59
TOTALS CARRIED TO SUB SUMMARY				216.253	4	550.875	1128	2	10.14

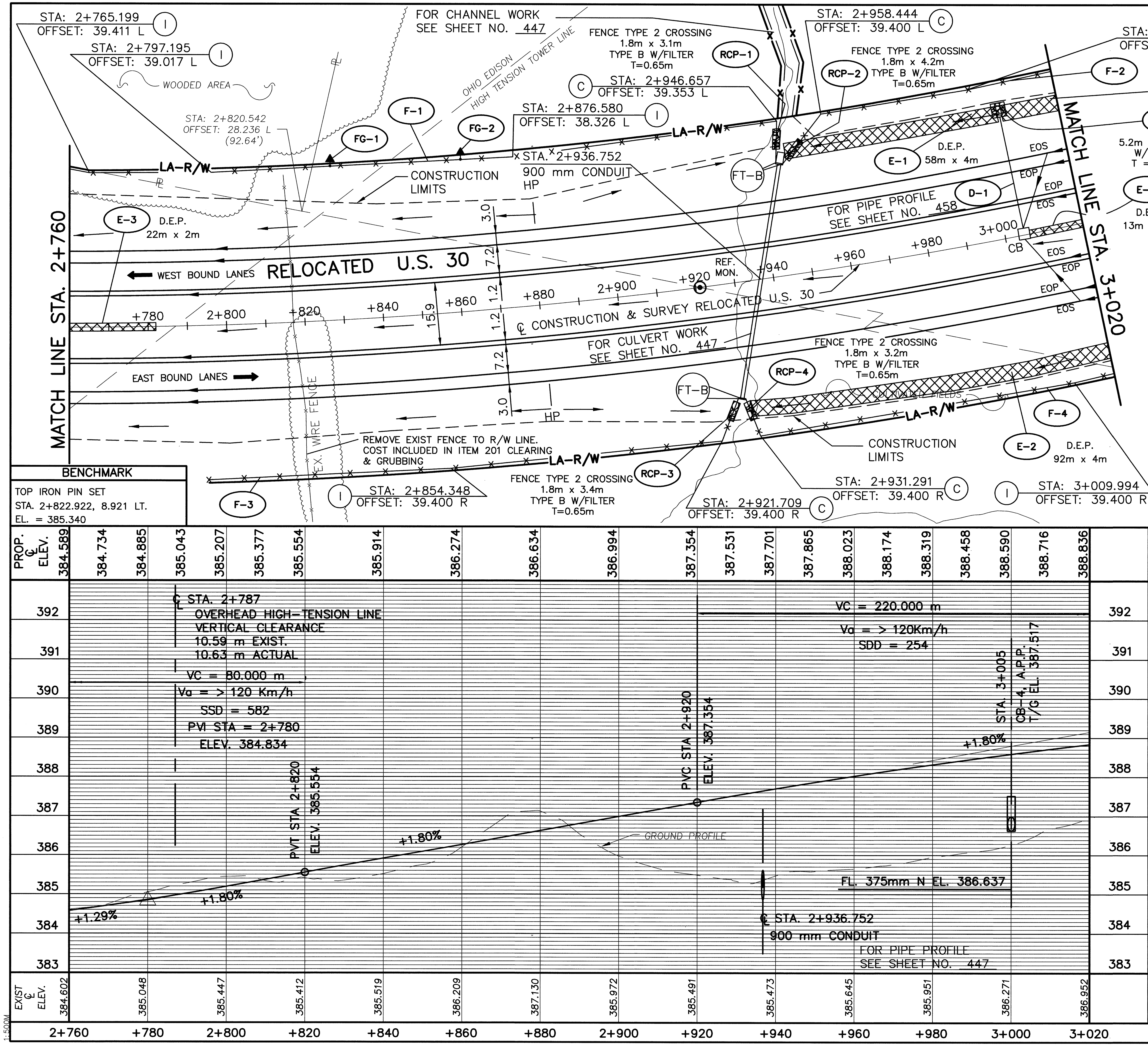
RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

CALCULATED W.J.S. CHECKED C.R.M.

PLAN AND PROFILE – RELOCATED U.S. 30
STA. 2+500 TO STA. 2+760

CRA/RIC-30-33.500/0.000

GP123.DWG 08-15-2000 4:08 PM 1:500M



metric units

NOTES:

1. FOR SUPER ELEVATION TABLES SEE SHEET 460 .
2. FOR C MON. LOCATION SEE SHEETS 617,618 .
3. FOR UNDERDRAIN QUANTITIES SEE SHEET 496
4. FOR FENCE LEGEND SEE SHEET 94

U.S. 30
CURVE DATA

PI = STA. 2+881.716
Δ = 34°34'17" LT.
R = 1250.000m
T = 388.989m
L = 754.231m
E = 59.127m
$e_{MAX.}$ = 0.047

— INDICATES D.E.P.

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	602 CONCRETE MASONRY C.M.	603 375mm CONDUIT TYPE A METER	604 CATCH BASIN NO.4, A.P.P. EACH	607 FENCE TYPE 47 METER	670 DITCH EROSION PROTECTION S.M.	601 ROCK CHANNEL PROTECTION TYPE C W/FILTER C.M.	625 GROUND ROD EACK	601 ROCK CHANNEL PROTECTION TYPE B W/FILTER C.M.
E-1	LT	2+946	3+004.000					232			
E-2	RT	2+928	3+020					368			
E-3	℄	2+760	2+782					44			
E-4	℄	3+007	3+020					26			
E-5	LT	3+005.600	3+020					57.6			
D-1	RT	3+005		0.22	29.56	1					
F-1	LT	2+760	2+941.028				191.505				
F-2	LT	2+942.506	3+020				75.557				
F-3	RT	2+760	2+927.191				178.684				
F-4	RT	2+933.020	3+020				101.728				
FG-1	LT	2+828								2	
FG-2	LT	2+862								2	
RCP-1	LT	2+945									3.63
RCP-2	LT	2+949									4.91
RCP-3	RT	2+925									3.98
RCP-4	RT	2+929									3.74
RCP-5	LT	3+005							3.12		
TOTALS CARRIED TO SUB SUMMARY				0.22	29.56	1	547.474	727.6	3.12	4	16.26

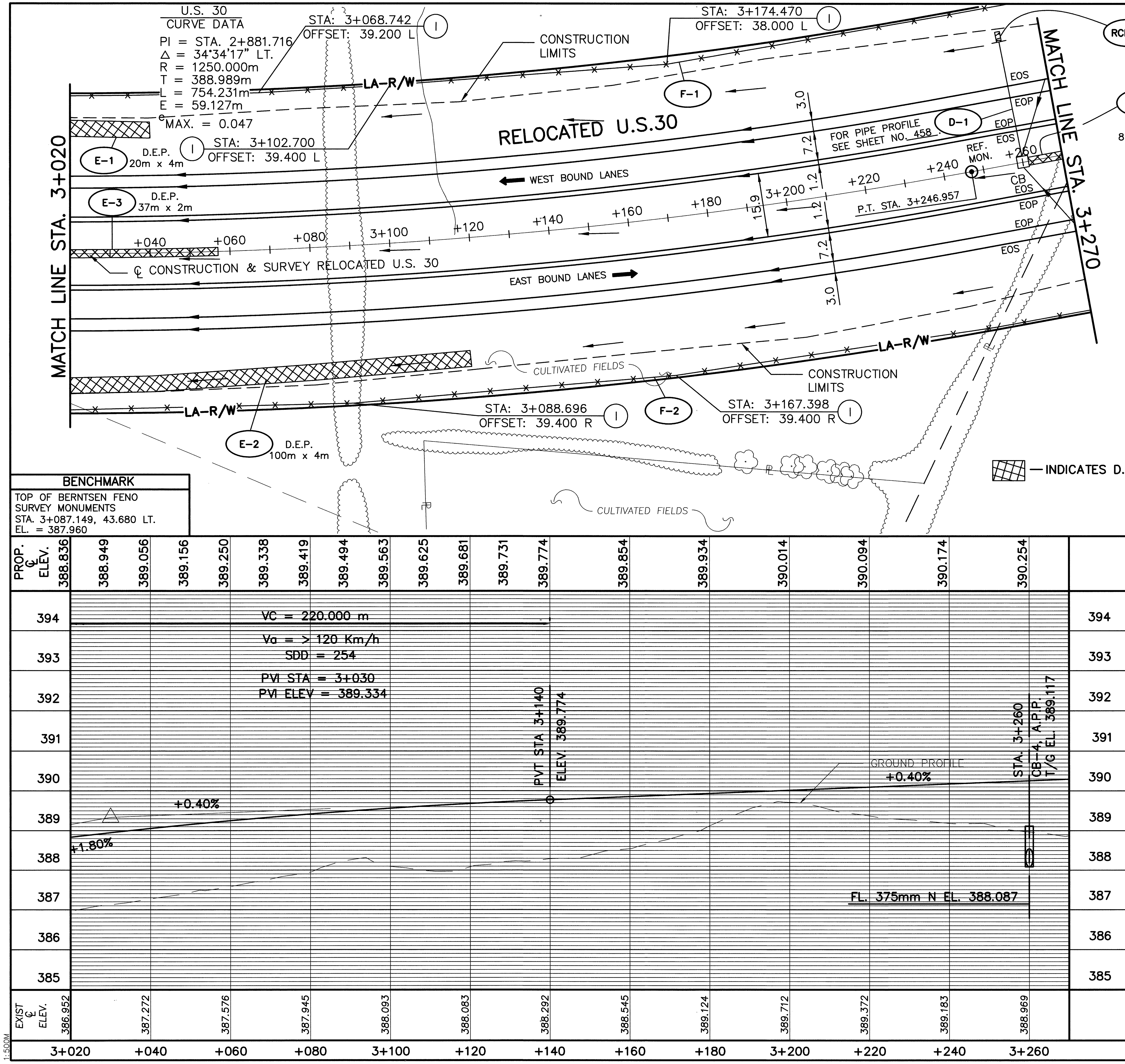
RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE – RELOCATED U.S. 30
STA. 2+760 TO STA. 3+020

CRA/RIC-30-33.500/0.000

116
712



NOTES:

1. FOR SUPER ELEVATION TABLES SEE SHEET 460
2. FOR ℄ MON. LOCATION SEE SHEETS 617 & 461
3. FOR UNDERDRAINS QUANTITIES SEE SHEET 496
4. FOR FENCE LEGEND SEE SHEET 94

metric units

RATIO 1:500
HORIZONTAL SCALE IN METERS

CALCULATED W.J.S.
CHECKED C.R.M.

ESTIMATED QUANTITIES

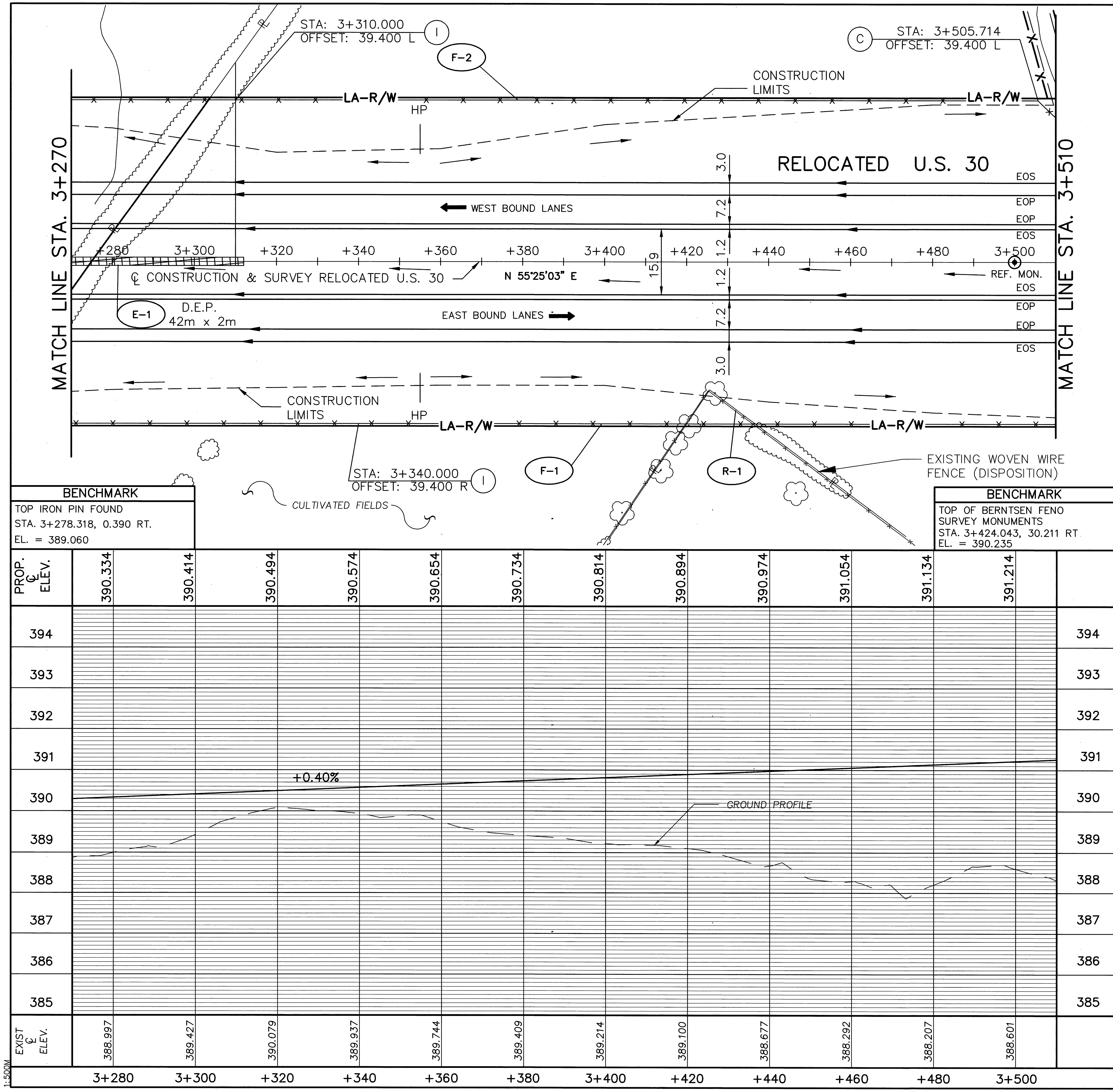
REF. No.	SIDE	STATION FROM	STATION TO	602 CONCRETE MASONRY C.M.	603 375mm CONDUIT TYPE A METER	604 CATCH BASIN NO.4, A.P.P. EACH	607 FENCE TYPE 47 METER	670 DITCH EROSION PROTECTION S.M.	601 ROCK CHANNEL PROTECTION TYPE C W/FILTER C.M.
E-1	LT	3+020	3+040					80	
E-2	RT	3+020	3+120					400	
E-3	℄	3+020	3+057					74	
E-4	℄	3+262	3+270					16	
D-1	LT	3+260		0.22	29.08	1			
F-1	LT	3+020	3+270				242.940		
F-2	RT	3+020	3+270				257.111		
RCP-1	LT	3+260							2.1
TOTALS CARRIED TO SUB SUMMARY				0.22	29.08	1	500.051	570	2.1

PLAN AND PROFILE – RELOCATED U.S. 30 STA. 3+020 TO STA. 3+270

CRA/RIC-30-33.500/0.000

117/712

GP125.DWG 08-15-2000 4:10 PM 1:500M



GP126.DWG
03-4-1999 1:10 PM
1:500M

NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617,618 .
2. FOR UNDERDRAINS QUANTITIES SEE SHEET 496
3. FOR FENCE LEGEND SEE SHEET 94

— INDICATES D.E.P.

metric units

RATIO 1:500
HORIZONTAL SCALE IN METERS

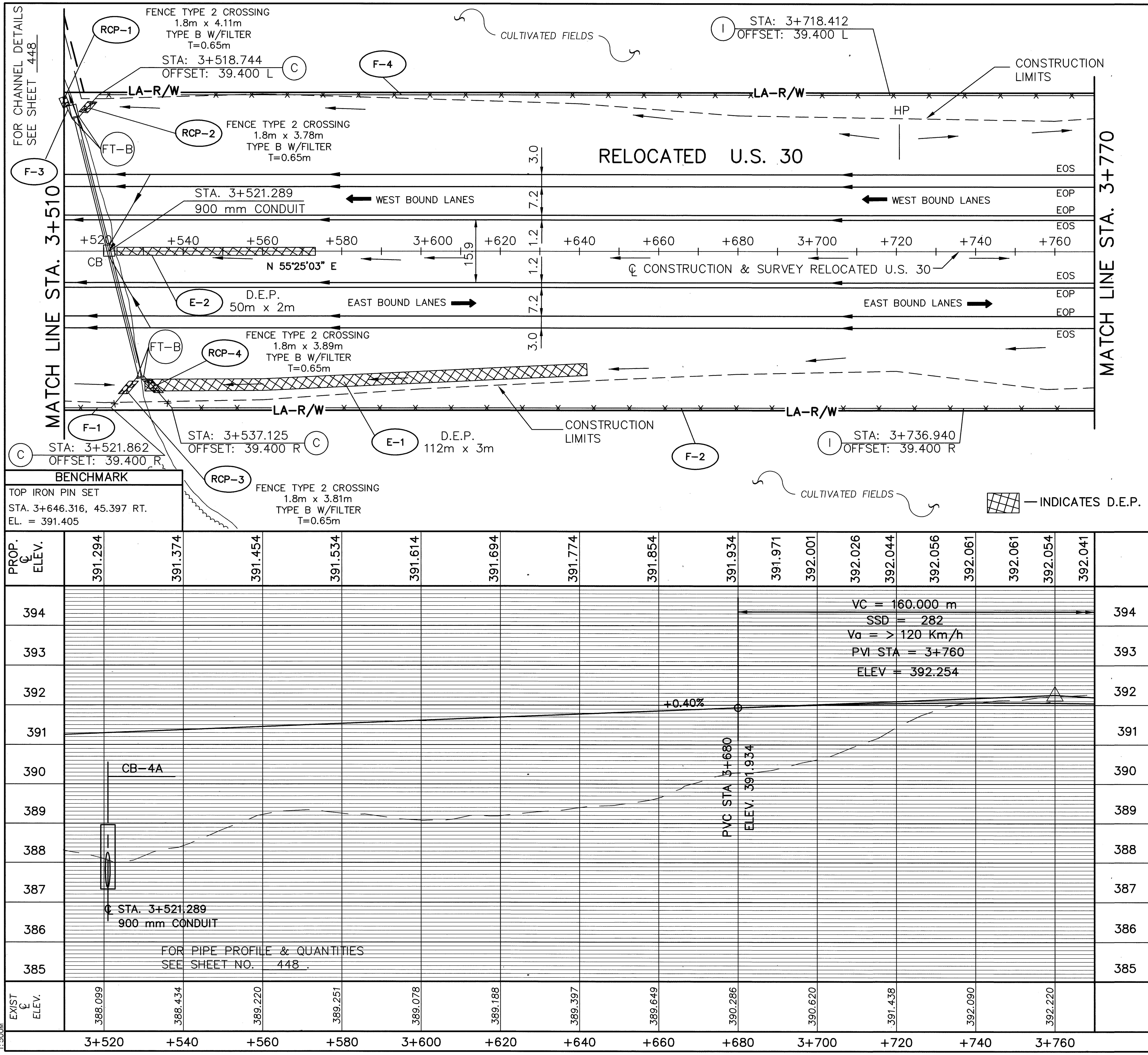
CALCULATED W.J.S.
CHECKED C.R.M.

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	202 FENCE REMOVED (METER)	607 FENCE TYPE 47 (METER)	670 DITCH EROSION PROTECTION (S.M.)
R-1	RT	3+420	3+438	26		
F-1	RT	3+270	3+510		240	
F-2	LT	3+270	3+510		241.625	
E-1	℄	3+270	3+312			84
TOTALS CARRIED TO SUB SUMMARY				26	481.625	84

PLAN AND PROFILE - RELOCATED U.S. 30
STA. 3+270 TO STA. 3+510

CRA/RIC-30-33.500/0.000



NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617,618 .
2. FOR UNDERDRAIN QUANTITIES SEE SHEET 496 .
3. FOR FENCE LEGEND SEE SHEET 94 .

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	607 FENCE TYPE 47 METER	670 DITCH EROSION PROTECTION S.M.	601 ROCK CHANNEL PROTECTION TYPE B W/FILTER C.M.
E-1	RT	3+528	3+640		336	
F-1	RT	3+510	3+528.298	21.798		
F-2	RT	3+530.045	3+770	243.562		
F-3	LT	3+510	3+512.034	4.918		
F-4	LT	3+513.781	3+770	258.714		
E-2	℄	3+523.289	3+573.289		100	
RCP-1	LT	3+510				4.81
RCP-2	LT	3+516				4.42
RCP-3	RT	3+525				4.46
RCP-4	RT	3+532				4.55
TOTALS CARRIED TO SUB SUMMARY				528.992	436	18.24

metric units

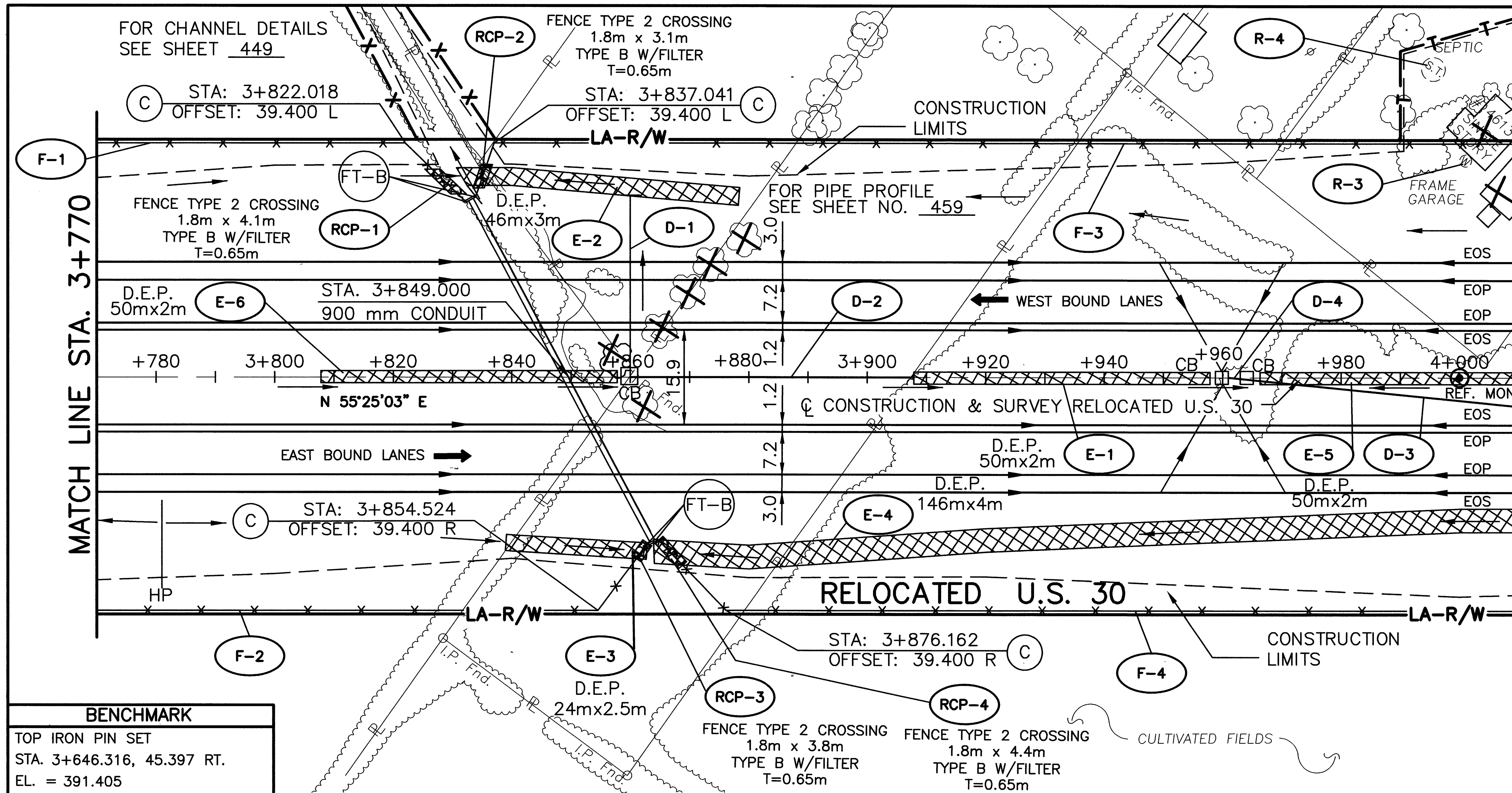
RATIO 1:500
HORIZONTAL SCALE IN METERS

CALCULATED W.J.S.
CHECKED C.R.M.

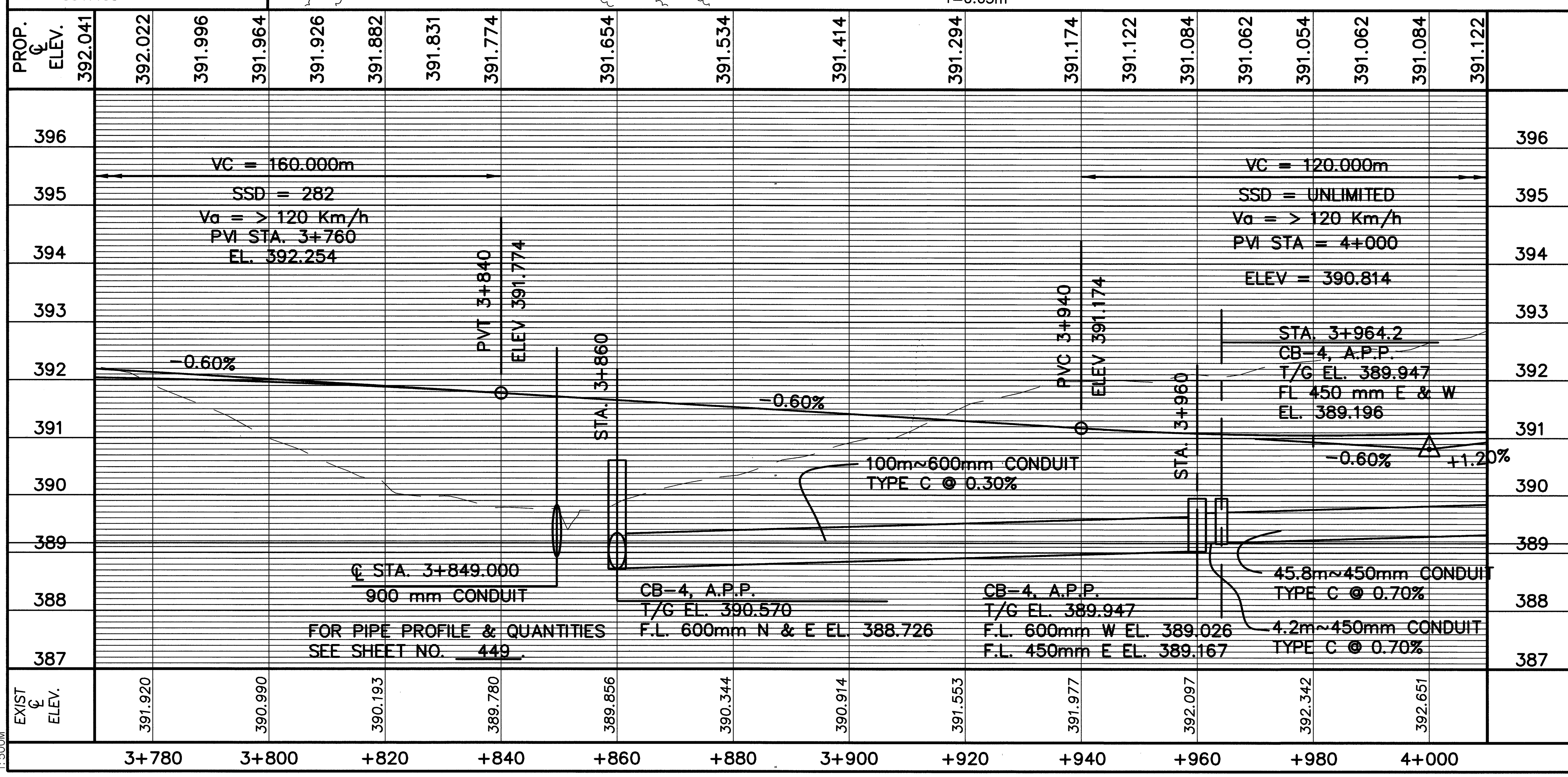
PLAN AND PROFILE - RELOCATED U.S. 30
STA. 3+510 TO STA. 3+770

CRA/RIC-30-33.500/0.000

GP127.DWG 03-4-1999 1:43 PM 1:500M



BENCHMARK
TOP IRON PIN SET
STA. 3+646.316, 45.397 RT.
EL. = 391.405



NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617,618 .
2. FOR UNDERDRAINS QUANTITIES SEE SHEET 496
3. FOR FENCE LEGEND SEE SHEET 94 .

— INDICATES D.E.P.

metric units

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	202 BUILDING DEMOLISHED (EACH)	202 SEPIC TANK REMOVED (EACH)	SPEC. DRILLED WATER WELL ABANDONED (EACH)	603 CONCRETE MASONRY (C.M.)	603 600mm CONDUIT TYPE A (METER)	603 600mm CONDUIT TYPE C (METER)	603 450mm CONDUIT TYPE C (METER)	604 CATCH BASIN NO.4, A.P.P. (EACH)	607 FENCE TYPE 47 (METER)	670 DITCH EROSION PROTECTION (S.M.)	601 ROCK CHANNEL PROTECTION TYPE B W/FILTER (C.M.)
R-1	LT	4+010		1										
R-2	LT	4+005		1										
R-3	LT	4+000			1	1								
R-4	LT	3+995												
D-1	LT	3+860	3+960				0.39	31.202			1			
D-2	℄	3+860	4+010						100		1			
D-3	RT	3+964.2	3+964.2							45.8				
D-4	℄	3+960	3+832.296							4.2				
F-1	LT	3+770	3+862.927									66.290		
F-2	RT	3+770	4+010									98.599		
F-3	LT	3+833.885	4+010									182.551		
F-4	RT	3+864.516	4+010									150.658		
E-1	℄	3+908	3+958										100	
E-2	LT	3+834	3+880										138	
E-3	RT	3+840	3+864										60	
E-4	RT	3+864	4+010										584	
E-5	℄	3+966.2	4+016.2								1		100	
E-6	℄	3+808	3+858										100	
RCP-1	LT	3+828												4.79
RCP-2	LT	3+835												3.63
RCP-3	RT	3+861												4.45
RCP-4	RT	3+867												5.15
TOTALS CARRIED TO SUB SUMMARY				2	1	1	0.39	31.202	100	50	3	498.098	1082	18.02

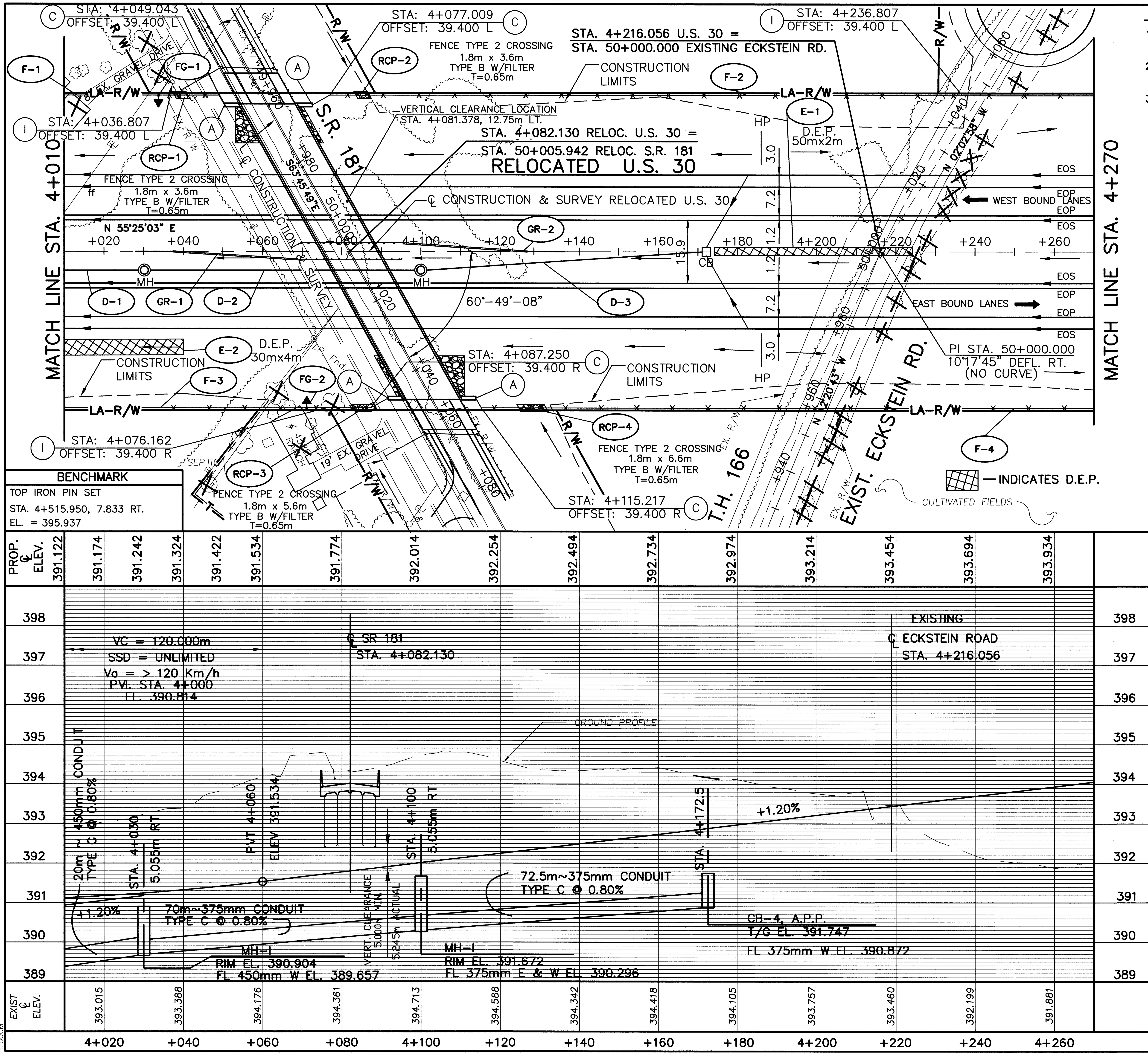
RATIO 1:500
HORIZONTAL SCALE IN METERS

CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE – RELOCATED U.S. 30
STA. 3+770 TO STA. 4+010

CRA/RIC-30-33.500/0.000

GP128.DWG 08-15-2000 4:11 PM 1:500M



NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617,618
2. FOR UNDERDRAINS QUANTITIES SEE SHEET 496
3. FOR FENCE LEGEND SEE SHEET 94

metric units

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	603 375mm CONDUIT TYPE C (METER)	603 450mm CONDUIT TYPE C (METER)	604 MANHOLE NO. 1 (EACH)	604 CATCH BASIN NO. 4, A.P.P. (EACH)	606 IMPACT ATTENUATOR BIDIRECTIONAL TYPE 1-98 (EACH)	606 GUARDRAIL TYPE 5 (METER)	606 ANCHOR ASSEMBLY TYPE T (EACH)	607 FENCE TYPE 47 (METER)	670 DITCH EROSION PROTECTION (S.M.)	626 BARRIER REFLECTOR TYPE A (EACH)	601 ROCK CHANNEL PROTECTION TYPE B W/FILTER (C.M.)	625 GROUND ROD (EACH)	606 GUARDRAIL BARRIER DESIGN TYPE 5 (METER)
E-1	℄	4+174	4+224									100				
E-2	RT	4+010	4+040									120				
D-1	RT	4+010	4+030		20											
D-2	RT	4+030	4+100	70		1										
D-3	℄	4+100	4+172.5	72.5		1	1									
GR-1	RT	4+027.792	4+094.542					1	22.860	1			3			30.480
GR-2	LT	4+069.717	4+136.467					1	22.860	1			3			30.480
F-1	LT	4+010	4+050.421								41.870					
F-2	RT	4+072.589	4+270								198.053					
F-3	RT	4+010	4+091.670								82.312					
F-4	RT	4+113.838	4+270								157.610					
FG-1	RT	4+033													1	
FG-2	RT	4+071													1	
RCP-1	LT	4+039												4.21		
RCP-2	LT	4+085												4.21		
RCP-3	RT	4+085												6.55		
RCP-4	RT	4+128												7.72		
TOTALS CARRIED TO SUB SUMMARY				142.5	20	2	1	2	45.720	2	479.845	220	6	22.69	2	60.960

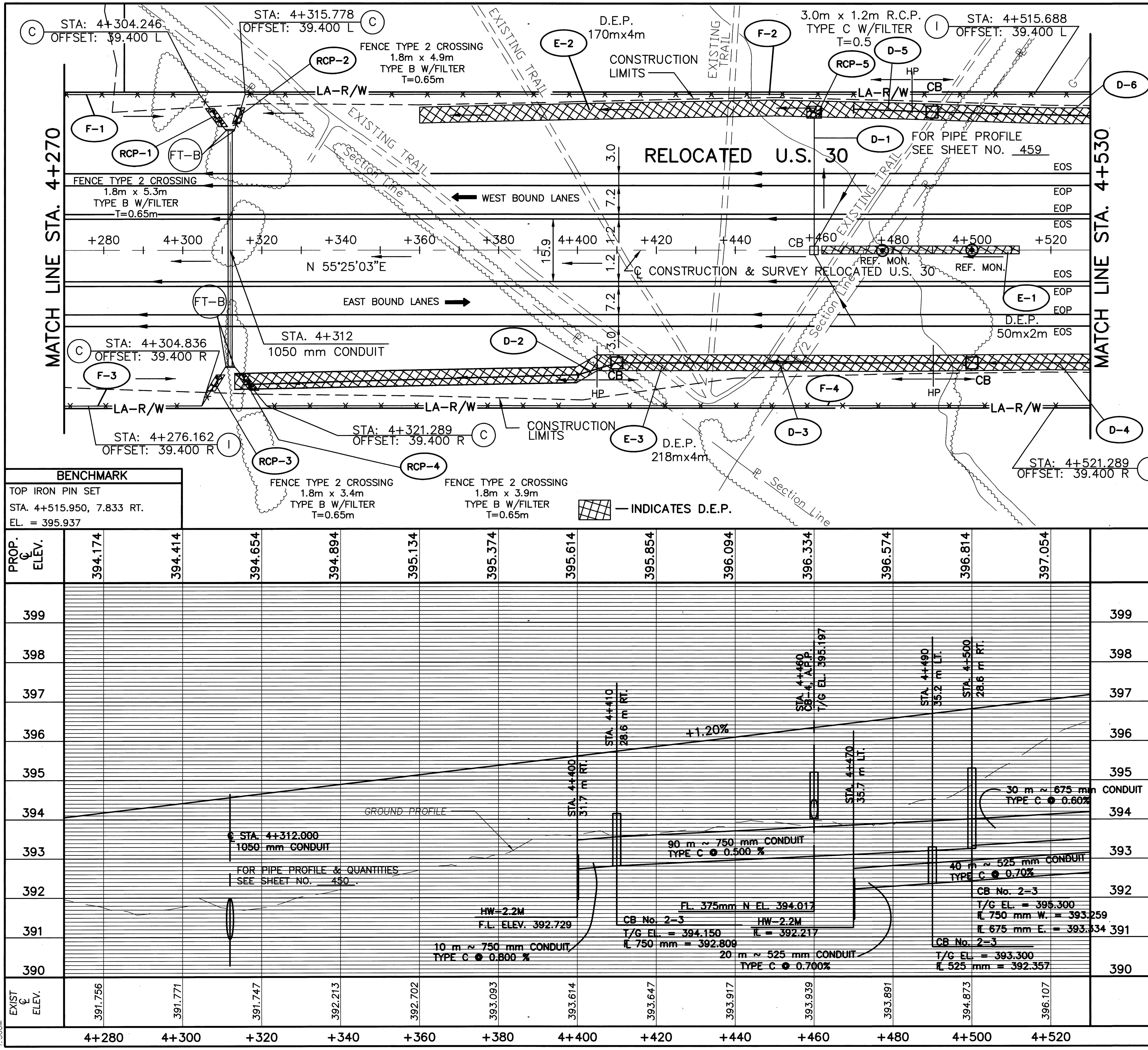
RATIO 1:500
HORIZONTAL SCALE IN METERS

CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE - RELOCATED U.S. 30 STA. 4+010 TO STA. 4+270

CRA/RIC-30-33.500/0.000

GP129.DWG
08-15-2000 4:14 PM
1:500M



NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617,618.
2. FOR UNDERDRAIN QUANTITIES SEE SHEET 496.
3. FOR FENCE LEGEND SEE SHEET 94.

metric units

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	602 CONCRETE MASONRY C.M.	603 375mm CONDUIT TYPE A METER	604 CATCH BASIN NO.4, A.P.P. EACH	603 750 mm CONDUIT TYPE C METER	603 675 mm CONDUIT TYPE C METER	603 525 mm CONDUIT TYPE C METER	604 CATCH BASIN NO. 2-3 EACH	607 FENCE TYPE 47 METER	670 DITCH EROSION PROTECTION S.M.	601 ROCK CHANNEL PROTECTION TYPE B W/FILTER C.M.	601 ROCK CHANNEL PROTECTION TYPE C W/FILTER C.M.
E-1	℄	4+462	4+510									100		
E-2	LT	4+360	4+530									680		
E-3	RT	4+312	4+530									872		
D-1	LT	4+460		0.22	33.401	1								
D-2	RT	4+400	4+410	0.52			10							
D-3	RT	4+410	4+500				90			1				
D-4	RT	4+500	4+530					30		1				
D-5	LT	4+470	4+490	0.32					20					
D-6	LT	4+490	4+530						40	1				
F-1	LT	4+270	4+310.950								45.539			
F-2	LT	4+313.050	4+530								223.710			
F-3	RT	4+270	4+310.950								46.532			
F-4	RT	4+313.050	4+530								221.646			
RCP-1	LT	4+308											6.2	
RCP-2	LT	4+314											5.73	
RCP-3	RT	4+308											3.98	
RCP-4	RT	4+316											4.56	
RCP-5	LT	4+460												1.80
TOTALS CARRIED TO SUB SUMMARY				1.06	33.401	1	100	30	60	3	537.427	1652	20.47	1.80

RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

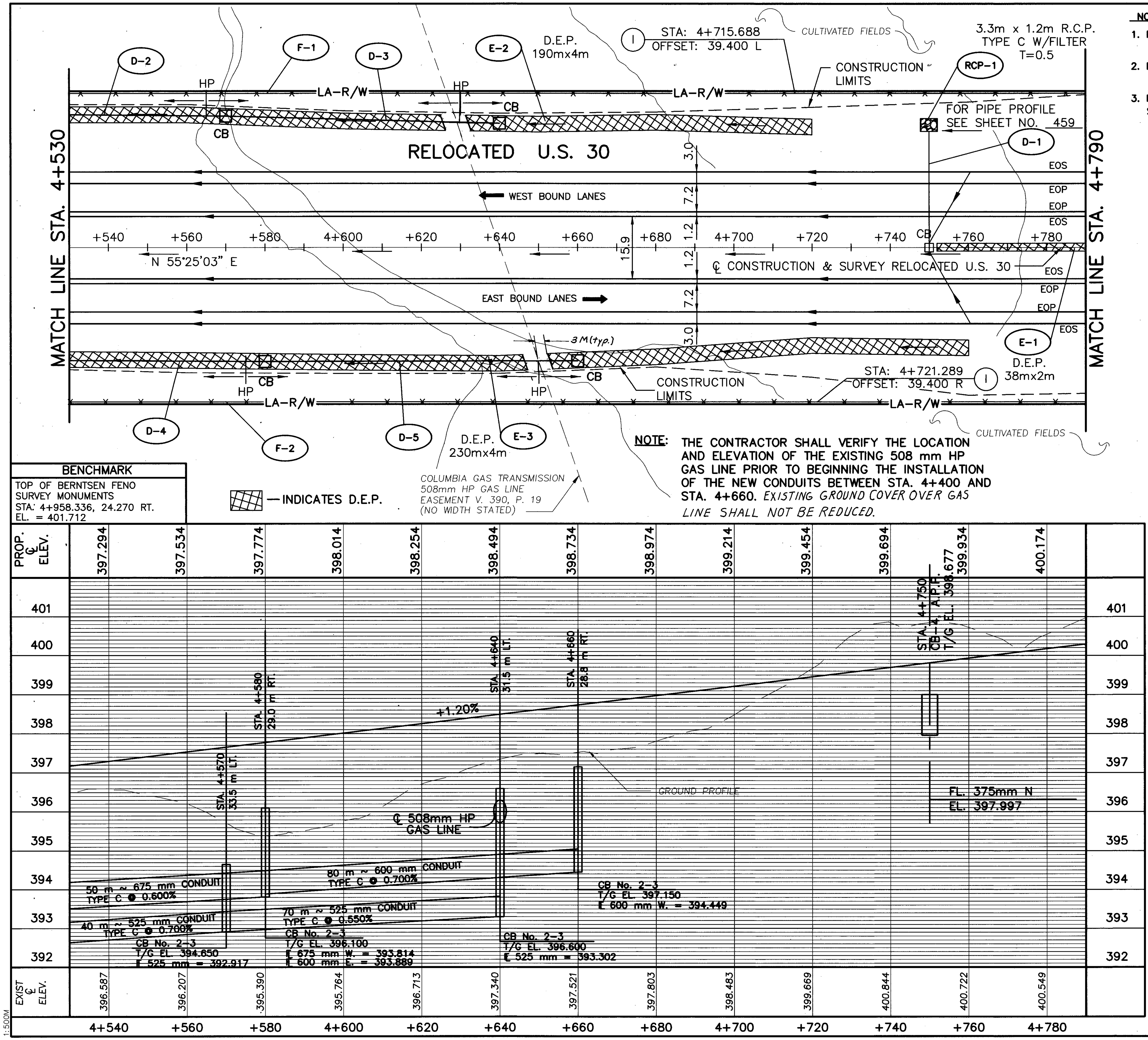
CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE – RELOCATED U.S. 30 STA. 4+270 TO STA. 4+530

CRA/RIC-30-33.500/0.000

122/712

GP130.DWG
08-15-2000 4:15 PM
1:500M



NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617,618
2. FOR UNDERDRAINS QUANTITIES SEE SHEET 496
3. FOR FENCE LEGEND SEE SHEET 94

metric units

N

RATIO 1:500
HORIZONTAL SCALE IN METERS

ESTIMATED QUANTITIES

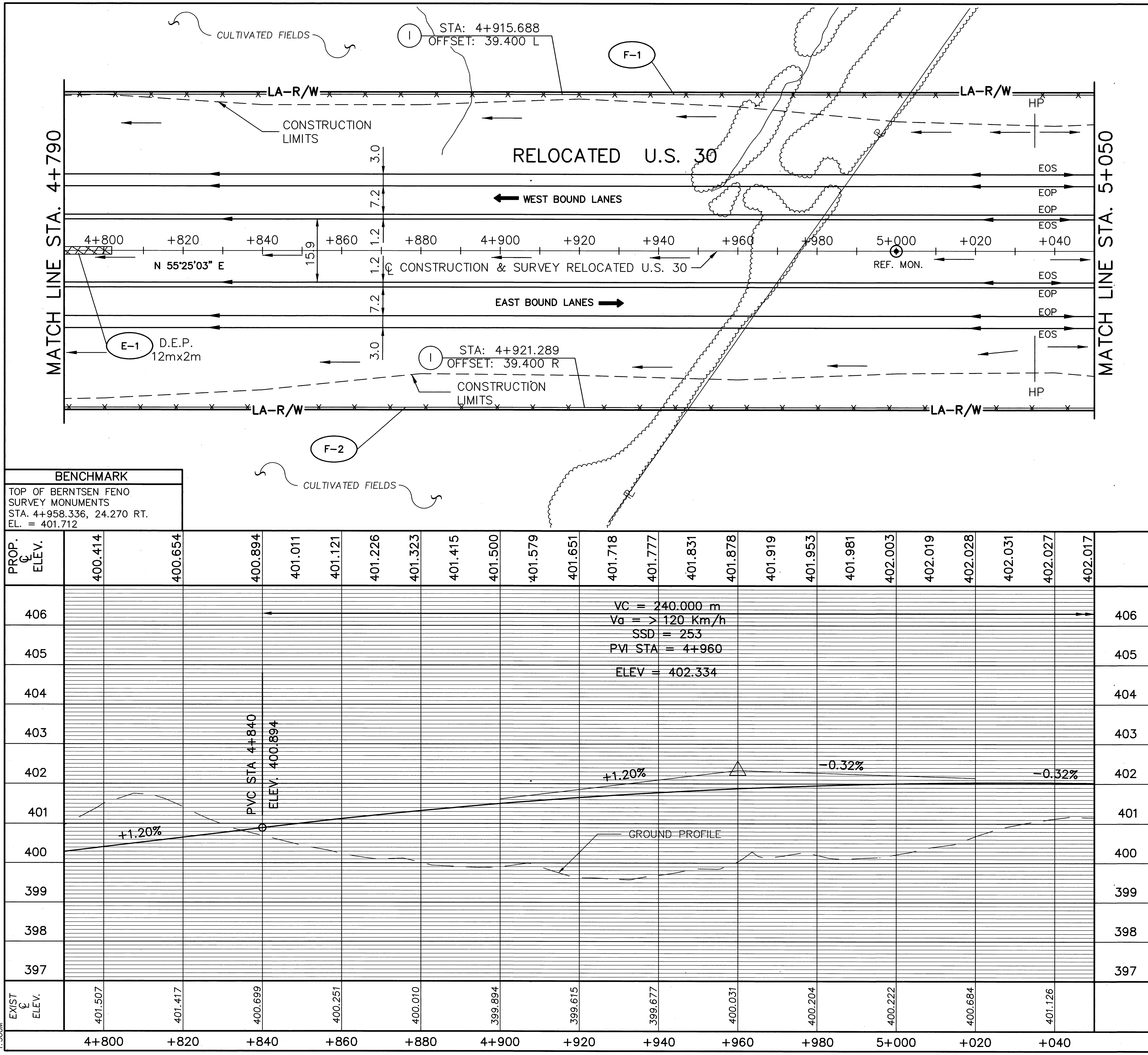
REF. No.	SIDE	STATION FROM	STATION TO	602 CONCRETE MASONRY (C.M.)	603 375mm CONDUIT TYPE A (METER)	604 CATCH BASIN NO.4, A.P.P. (EACH)	607 FENCE TYPE 47 (METER)	670 DITCH EROSION PROTECTION (S.M.)	601 ROCK CHANNEL PROTECTION TYPE C W/FILTER (C.M.)	603 525mm CONDUIT TYPE C (METER)	603 675mm CONDUIT TYPE C (METER)	603 600mm CONDUIT TYPE C (METER)	604 CATCH BASIN NO. 2-3 (EACH)
E-1	℄	4+752	4+790					76					
E-2	LT	4+530	4+720					760					
E-3	RT	4+530	4+760					920					
D-1	LT	4+750		0.22	28.425	1							
F-1	LT	4+530	4+790				260						
F-2	RT	4+530	4+790				260						
RCP-1	LT	4+750							1.98				
D-2	LT	4+530	4+570							40			
D-3	LT	4+570	4+640							70			2
D-4	RT	4+530	4+580								50		
D-5	RT	4+580	4+660									80	2
TOTALS CARRIED TO SUB SUMMARY				0.22	28.425	1	520	1756	1.98	110	50	80	4

CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE – RELOCATED U.S. 30
STA. 4+530 TO STA. 4+790

CRA/RIC-30-33.500/0.000

GP131.DWG
08-15-2000 4:17 PM
1:500M



BENCHMARK

TOP OF BERNTSEN FENO SURVEY MONUMENTS
STA. 4+958.336, 24.270 RT.
EL. = 401.712

NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617,618 .
2. FOR UNDERDRAINS QUANTITIES SEE SHEET 496 .
3. FOR FENCE LEGEND SEE SHEET 94 .

— INDICATES D.E.P.

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	607 FENCE TYPE 47 METER	670 DITCH EROSION PROTECTION S.M.
E-1	℄	4+790	4+802		24
F-1	LT	4+790	5+050	260	
F-2	RT	4+790	5+050	260	
TOTALS CARRIED TO SUB SUMMARY				520	24

metric units

RATIO 1:500
HORIZONTAL SCALE IN METERS

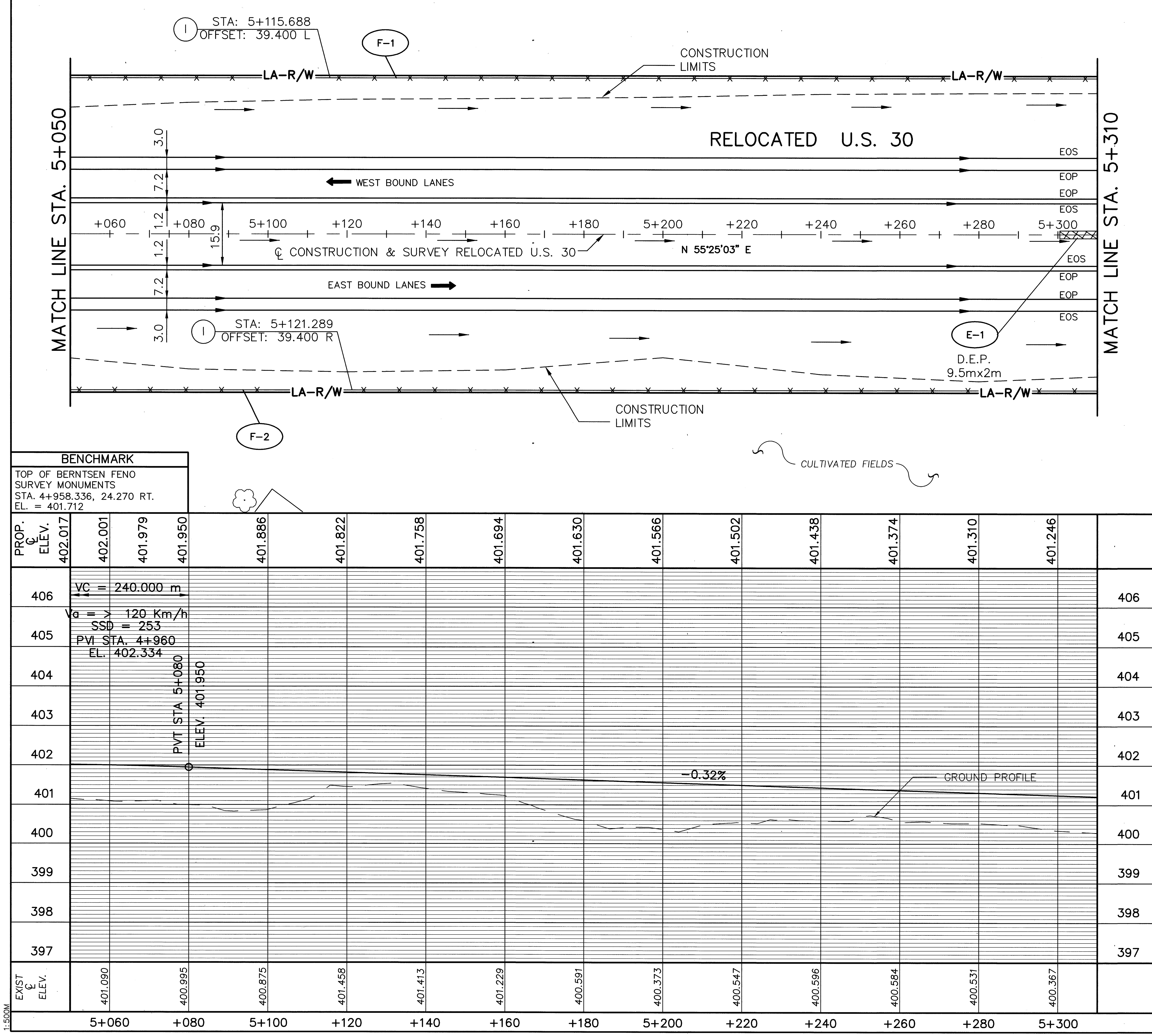
CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE – RELOCATED U.S. 30
STA. 4+790 TO STA. 5+050

CRA/RIC-30-33.500/0.000

124/712

GP132.DWG
03-5-1999 11:16 AM
1:500M



GP133.DWG
03-5-1999 11:20 AM
1:500M

metric units

NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617,618.
2. FOR UNDERDRAIN QUANTITIES SEE SHEET 496.
3. FOR FENCE LEGEND SEE SHEET 94.

RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

CALCULATED W.J.S.
CHECKED C.R.M.

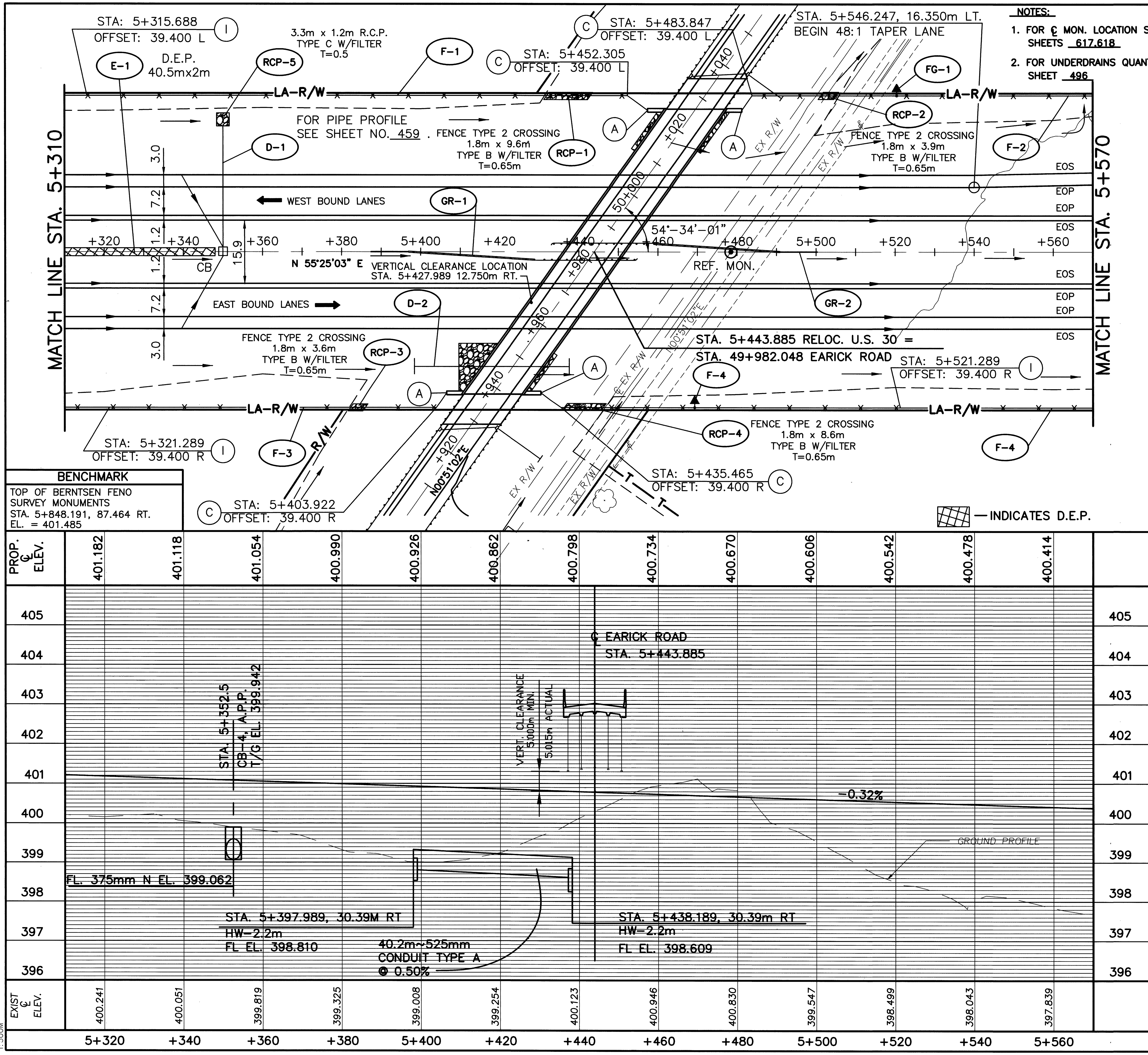
ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	607 FENCE TYPE 47 METER	670 DITCH EROSION PROTECTION S.M.
E-1	℄	5+300.5	5+310		19
F-1	LT	5+050	5+310	260	
F-2	RT	5+050	5+310	260	
TOTALS CARRIED TO SUB SUMMARY				520	19

PLAN AND PROFILE – RELOCATED U.S. 30
STA. 5+050 TO STA. 5+310

CRA/RIC-30-33.500/0.000

125/712



NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617,618
2. FOR UNDERDRAINS QUANTITIES SEE SHEET 496
3. FOR FENCE LEGEND SEE SHEET 94
4. FOR EARICK ROAD P & P SEE SHEETS 388-392

metric units

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	602 CONCRETE MASONRY C.M.	603 375mm CONDUIT TYPE A METER	603 525mm CONDUIT TYPE A METER	604 CATCH BASIN NO.4, A.P.P. EACH	606 IMPACT ATTENUATOR BIDIRECTIONAL TPE 1-98 EACH	606 ANCHOR ASSEMBLY TYPE T EACH	606 GUARDRAIL BARRIER DESIGN TYPE 5 METER	606 GUARDRAIL TYPE 5 METER	607 FENCE TYPE 47 METER	670 DITCH EROSION PROTECTION S.M.	626 BARRIER REFLECTOR TYPE A EACH	625 GROUND ROD EACH	601 ROCK CHANNEL PROTECTION TYPE B W/FILTER C.M.	601 ROCK CHANNEL PROTECTION TYPE C W/FILTER C.M.
E-1	℄	5+310	5+350.5										81				
D-1	LT	5+352.5		0.22	30.717		1										
D-2	RT	5+397.989	5+438.189	0.33		40.2											
F-1	LT	5+310	5+457.408									148.568					
F-2	LT	5+481.264	5+570									90.609					
F-3	RT	5+310	5+406.506									98.378					
F-4	RT	5+430.362	5+570									140.798					
GR-1	RT	5+387.334	5+454.084					1	1	30.480	22.860			3			
GR-2	LT	5+433.686	5+500.436					1	1	30.480	22.860			3			
FG-1	LT	5+520													1		
FG-2	RT	5+469													1		
RCP-1	LT	5+437														11.23	
RCP-2	LT	5+503														4.6	
RCP-3	RT	5+384														4.2	
RCP-4	RT	5+441														10.1	
RCP-5	LT	5+352.5															1.98
TOTALS CARRIED TO SUB SUMMARY				0.55	30.717	40.2	1	2	2	60.960	45.720	478.353	81	6	2	30.13	1.98

RATIO 1:500
HORIZONTAL SCALE IN METERS

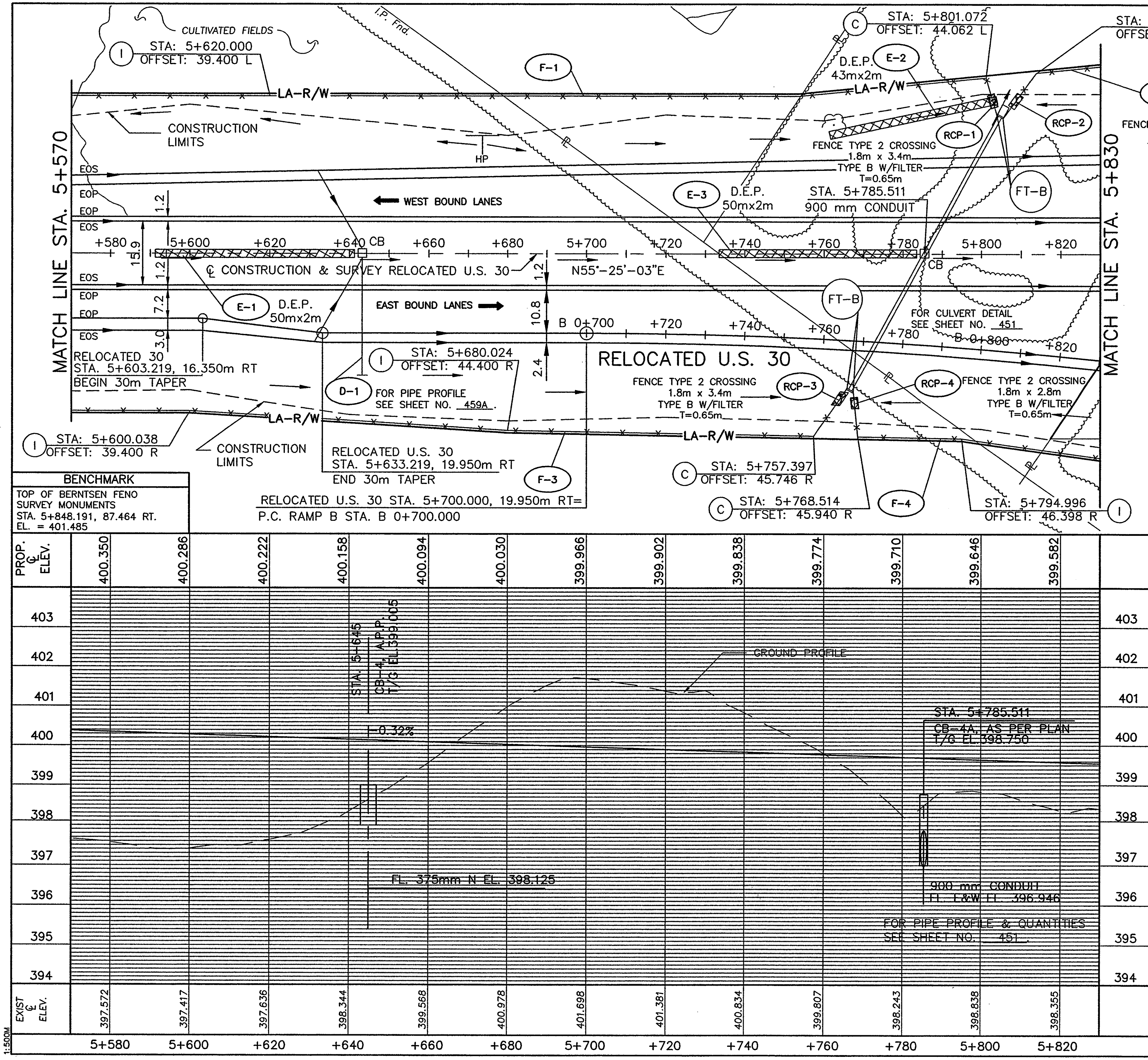
CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE - RELOCATED U.S. 30
STA. 5+310 TO STA. 5+570

CRA/RIC-30-33.500/0.000

126/712

GP134.DWG
08-15-2000 4:19 PM
1:500M



NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617,618.
2. FOR UNDERDRAIN QUANTITIES SEE SHEET 496.
3. FOR FENCE LEGEND SEE SHEET 94.

— INDICATES D.E.P.

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	602 CONCRETE MASONRY (C.M.)	603 375mm CONDUIT TYPE A (METER)	604 CATCH BASIN NO.4, A.P.P. (EACH)	607 FENCE TYPE 47 (METER)	670 DITCH EROSION PROTECTION (S.M.)	601 ROCK CHANNEL PROTECTION TYPE B W/FILTER (C.M.)
E-1	℄	5+593	5+643					100	
E-2	LT	5+760	5+803					86	
E-3	℄	5+733.11	5+783.11					100	
D-1	RT	5+645		0.22	29.618	1			
F-1	LT	5+570	5+803.774				240.945		
F-2	LT	5+805	5+830				304.471		
F-3	RT	5+570	5+765.800				202.246		
F-4	RT	5+767.373	5+830				73.255		
RCP-1	LT	5+803							3.98
RCP-2	LT	5+808							4.45
RCP-3	RT	5+763							3.98
RCP-4	RT	5+767							3.27
TOTALS CARRIED TO SUB SUMMARY				0.22	29.618	1	820.917	286	15.68

metric units

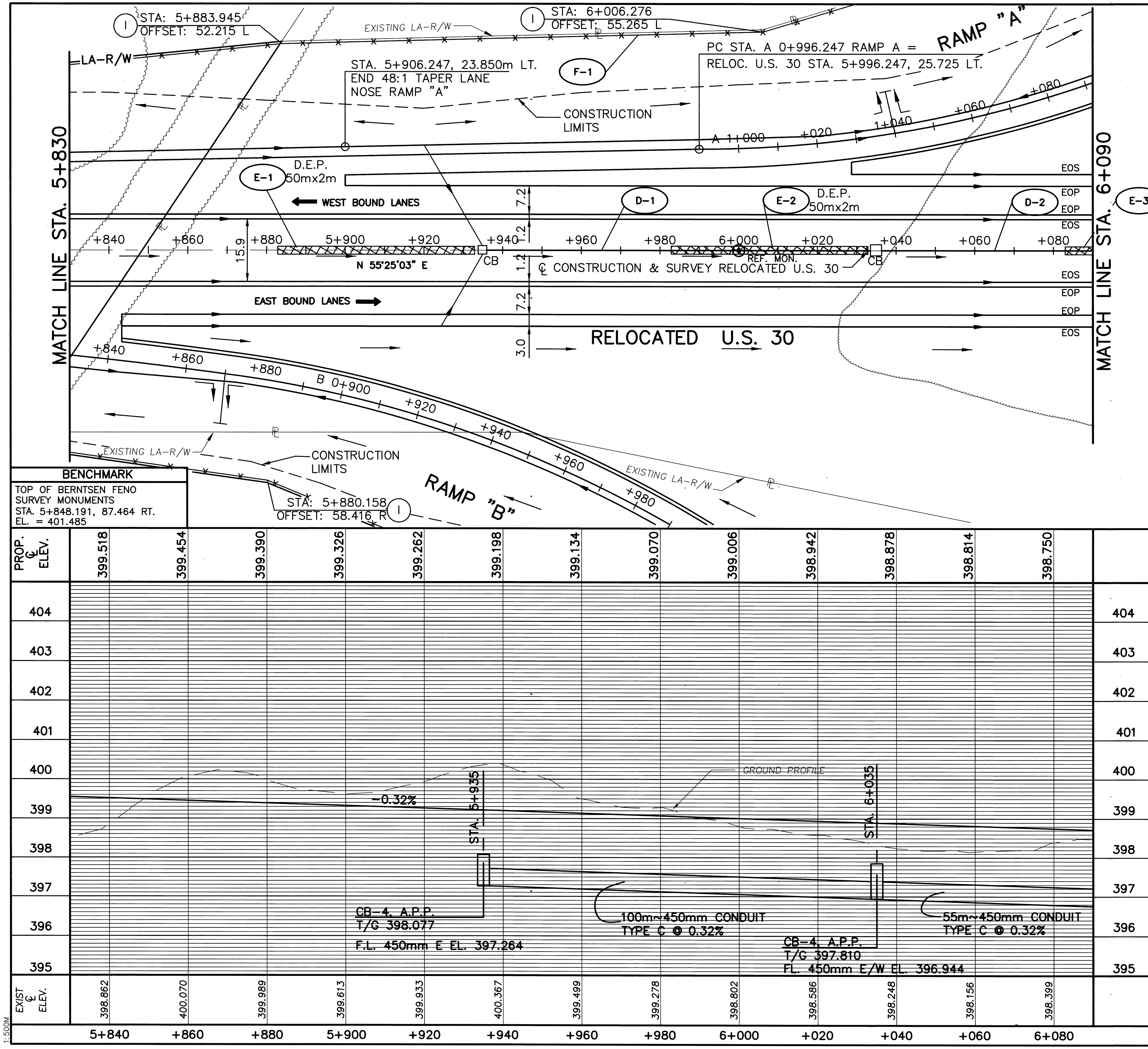
RATIO 1:500 HORIZONTAL SCALE IN METERS

CALCULATED W.J.S. CHECKED C.R.M.

PLAN AND PROFILE – RELOCATED U.S. 30 STA. 5+570 TO STA. 5+830

CRA/RIC-30-33.500/0.000

GP135.DWG 05-30-2003 4:20 PM 1:500M



BENCHMARK

TOP OF BERNTSEN FENO SURVEY MONUMENTS
STA. 5+848.191, 87.464 RT.
EL. = 401.485

NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617,618
2. FOR UNDERDRAINS QUANTITIES SEE SHEET 496
3. FOR FENCE LEGEND SEE SHEET 94

— INDICATES D.E.P.

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	603 450mm CONDUIT TYPE C (METER)	604 CATCH BASIN NO.4, A.P.P. (EACH)	607 FENCE TYPE 47 (METER)	670 DITCH EROSION PROTECTION (S.M.)
E-1	℄	5+883	5+933				100
E-2	℄	5+983	6+033				100
E-3	℄	6+083	6+090				14
D-1	℄	5+935	6+035	100	1		
D-2	℄	6+035	6+090	55	1		
F-1	LT	5+830	6+006.276			176.6	
TOTALS CARRIED TO SUB SUMMARY				155	2	176.6	214

metric units

RATIO 1:500 HORIZONTAL SCALE IN METERS

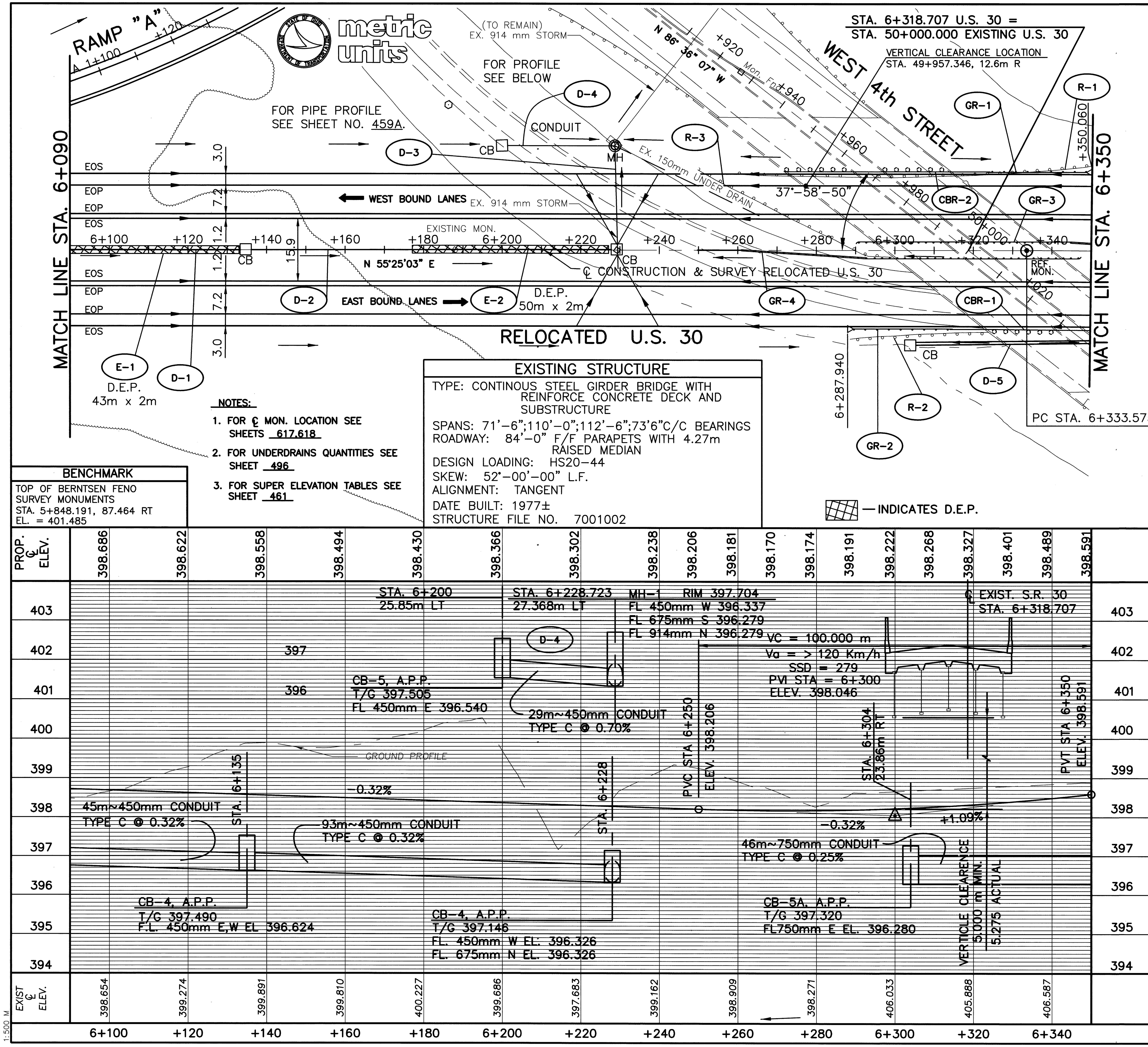
CALCULATED W.J.S. CHECKED C.R.M.

PLAN AND PROFILE - RELOCATED U.S. 30
STA. 5+830 TO STA. 6+090

CRA/RIC-30-33.500/0.000

128/712

GP136.DWG 08-15-2000 4:22 PM 1:500M



ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	202 GUARDRAIL REMOVED (METER)	202 ANCHOR ASSEMBLY BARRIER DESIGNED REMOVED (EACH)	202 ANCHOR ASSEMBLY REMOVED (EACH)	603 675mm CONDUIT TYPE A (METER)	603 450mm CONDUIT TYPE C (METER)	603 750mm CONDUIT TYPE C (METER)	604 CATCH BASIN NO. 5, A.P.P. (EACH)	604 CATCH BASIN NO. 5A, A.P.P. (EACH)	604 CATCH BASIN NO. 4, A.P.P. (EACH)	604 MANHOLE NO. 1 (EACH)	606 GUARDRAIL TYPE 5 (METER)	606 IMPACT ATTENUATOR BIDIRECTIONAL TYPE 1-98 (EACH)	606 GUARDRAIL BARRIER DESIGN TYPE 5 (METER)	606 ANCHOR ASSEMBLY TYPE B-98 (EACH)	606 ANCHOR ASSEMBLY TYPE T (EACH)	606 ANCHOR ASSEMBLY TYPE E-98 (EACH)	626 BARRIER REFLECTOR TYPE A (EACH)	626 BARRIER REFLECTOR TYPE B (EACH)	670 DITCH EROSION PROTECTION (S.M.)	606 BRIDGE TERMINAL ASSEMBLY TYPE I (EACH)	622 CONCRETE BARRIER TYPE D (METER)
R-1	LT	6+267.24	6+353.50	80.010		1																		
R-2	RT	6+282.48	6+350	67.522		1																		
R-3	LT-℄	6+249.85	6+350	136.020	1																			
D-1	℄	6+090	6+135					45				1												
D-2	℄	6+135	6+228					93				1												
D-3	LT	6+228	6+228.72				27.368						1											
D-4	LT	6+200	6+228.72					29		1														
D-5	RT	6+304	6+350						46		1													
GR-1	LT	6+323.390	6+350.060											11.430				1	1	1			1	
GR-2	RT	6+287.940	6+314.610											11.430				1	1	1			1	
GR-3	LT	6+290.830	6+384.250											49.53	1	30.48	1			4				
GR-4	RT	6+249.500	6+342.934											49.53	1	30.48	1			4				
E-1	℄	6+090	6+133																			86		
E-2	℄	6+176	6+226																			100		
CBR-1	RT	6+314	6+366.112																		2			53
CBR-2	LT	6+271.865	6+324																		2			53
TOTALS CARRIED TO SUB SUMMARY				283.552	1	2	27.368	167	46	1	1	2	1	121.92	2	60.96	2	2	2	10	4	186	2	106

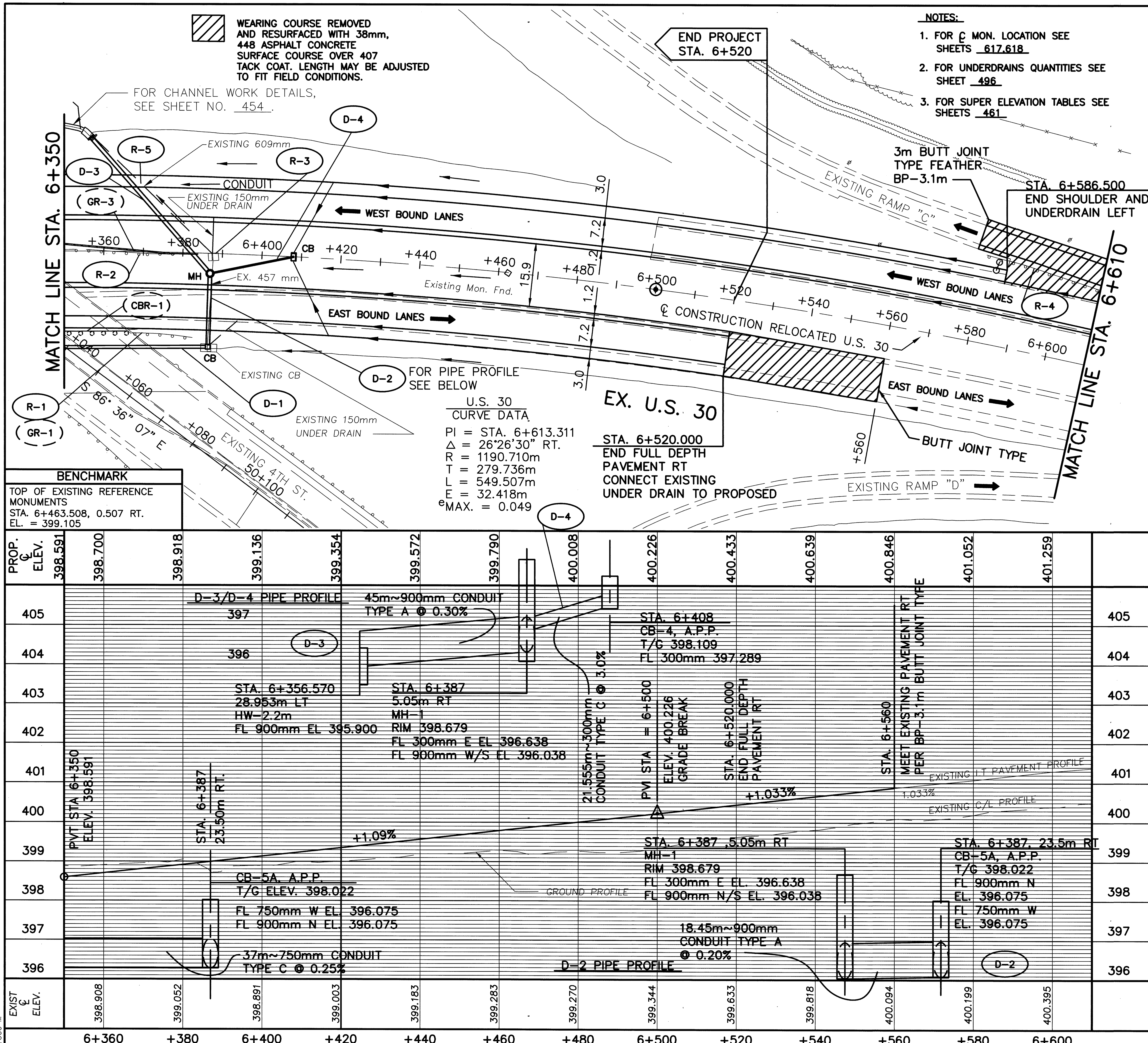
RATIO 1:500
HORIZONTAL SCALE IN METERS

CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE – RELOCATED U.S. 30
STA. 6+090 TO STA. 6+350

CRA/RIC-30-33.500/0.000

GP137.DWG
08-15-2000 4:25 PM
1:500 M



ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	202 GUARDRAIL REMOVED (METER)	202 ANCHOR ASSEMBLY REMOVED (EACH)	202 CATCH BASIN REMOVED (EACH)	202 PIPE REMOVED 600mm AND UNDER (METER)	602 CONCRETE MASONRY (C.M.)	603 750mm CONDUIT TYPE C (METER)	603 900mm CONDUIT TYPE A (METER)	603 300mm CONDUIT TYPE C (METER)	604 CATCH BASIN NO.5A, A.P.P. (EACH)	604 MANHOLE NO.1 (EACH)	604 CATCH BASIN NO.4, A.P.P. (EACH)
R-1	RT	6+350	6+381.54	31.538	1									
R-2	℄	6+350	6+377.27	27.27										
R-3	RT	6+387.5				1								
R-4	LT	6+580	6+610	30										
R-5	LT	6+356.5	6+387.5				42.8							
D-1	RT	6+350	6+387						37			1		
D-2	RT	6+387								18.45			1	
D-3	LT	6+387	6+356.51					0.66		45.873				
D-4	RT	6+387	6+408								21.555			1
TOTALS CARRIED TO SUB SUMMARY				88.808	1	1	42.8	0.66	37	64.323	21.555	1	1	1

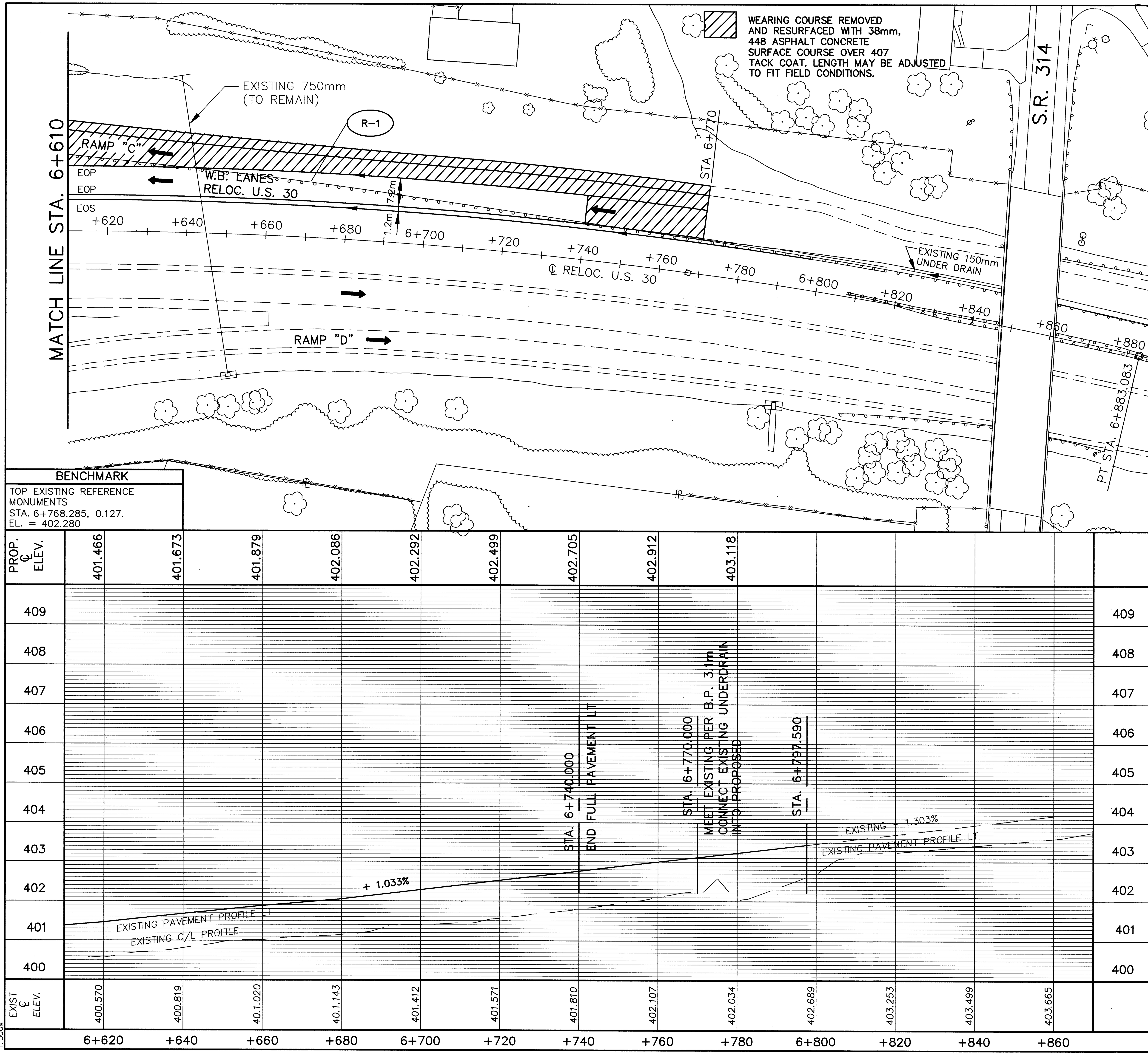
RATIO 1:500
HORIZONTAL SCALE IN METERS

CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE – RELOCATED U.S. 30 STA. 6+350 TO STA. 6+610

CRA/RIC-30-33.500/0.000

GP138.DWG
08-15-2000 4:27 PM
1:500 M



NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617,618 .
2. FOR UNDERDRAIN QUANTITIES SEE SHEET 496 .

metric units

RATIO 1:500 HORIZONTAL SCALE IN METERS

CALCULATED W.J.S. CHECKED C.R.M.

ESTIMATED QUANTITIES

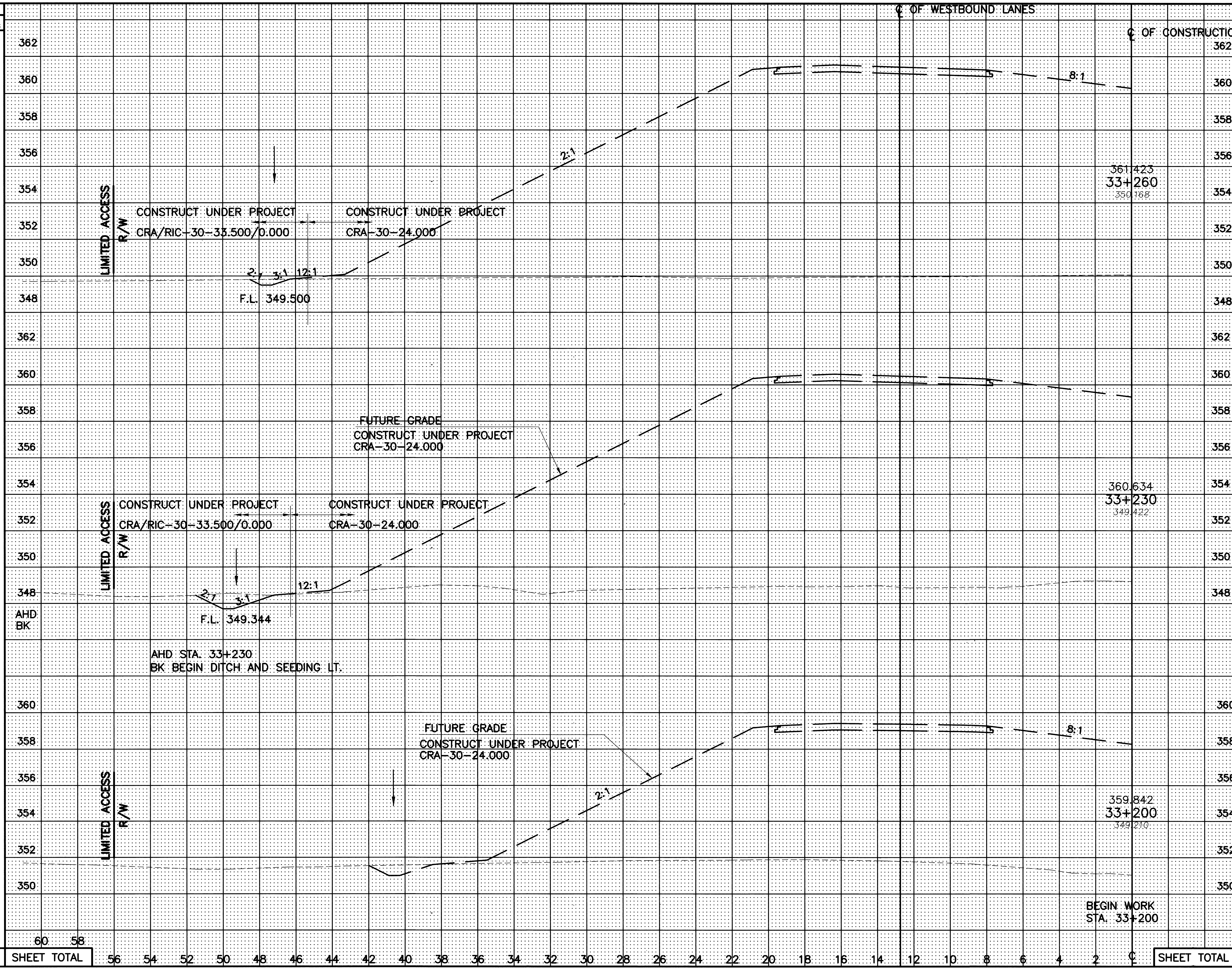
REF. No.	SIDE	STATION FROM	STATION TO	202 GUARDRAIL REMOVED (METER)	202 ANCHOR ASSEMBLY REMOVED (EACH)
R-1	LT	6+610	7+071.50	461.49	1
TOTALS CARRIED TO SUB SUMMARY				461.49	1

PLAN AND PROFILE – RELOCATED U.S. 30
STA. 6+610 TO STA. 6+883.083

CRA/RIC-30-33.500/0.000

GP139.DWG
03-23-1999 2:34 PM
1:500M

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. METERS	CUT	FILL	CUT	FILL
8.0					
	203				
5.5					
0					
	0				
0					
	203				



SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

CALCULATED RR
CHECKED WS

CROSS-SECTIONS - PROPOSED U.S. 30
STA. 33+180 TO STA. 33+260 LEFT ℄

CRA/RIC-335.500/0.000

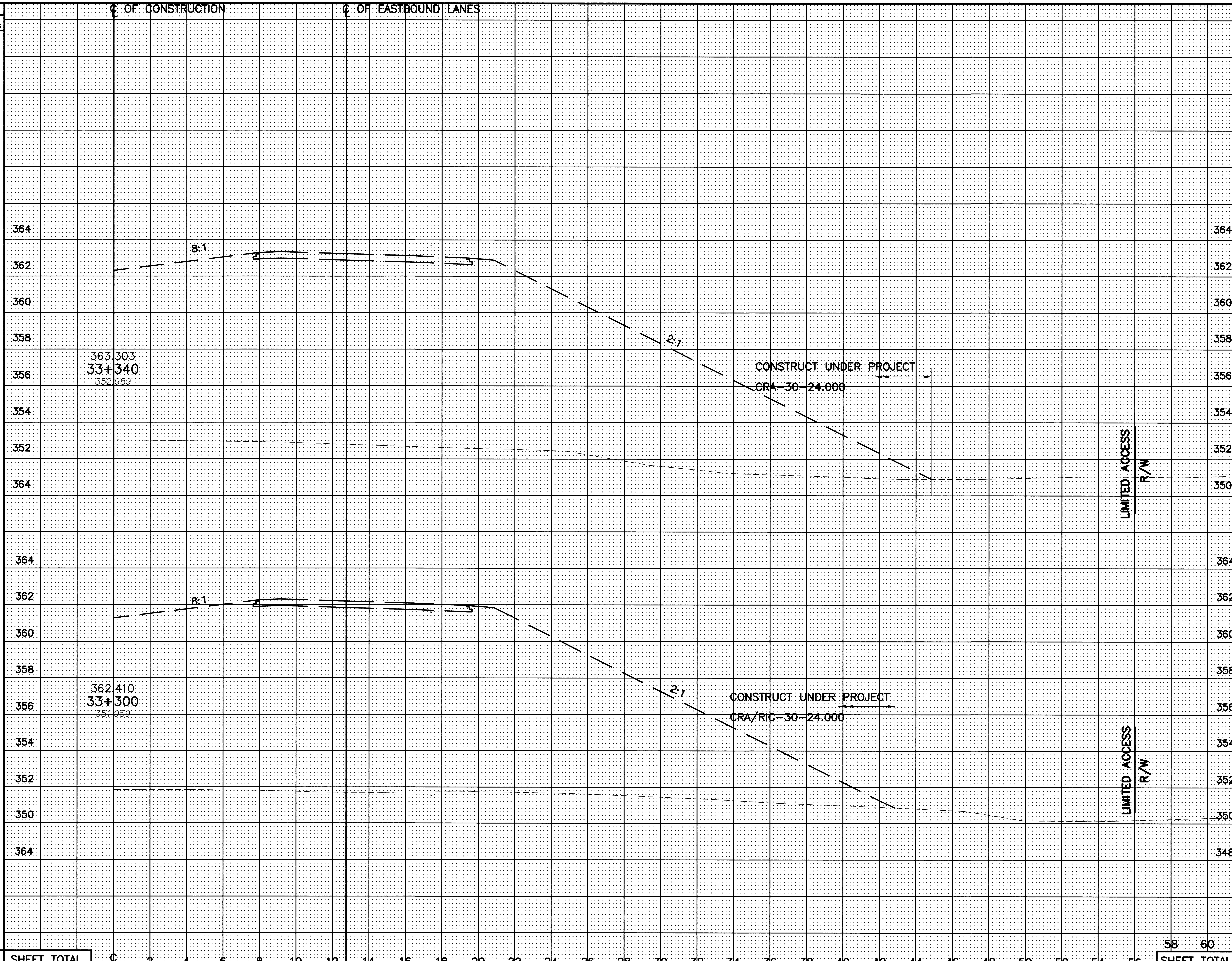
GX100R30.DWG
03-26-2001 10:16 AM
1:100M

GX101R30.DWG
03-26-1999 10:41 AM
1:100M


SEEDING
END WIDTH
SQ. METERS
END AREA
CUT
FILL
VOLUME
CUT
FILL
CALCULATED RR
CHECKED WS
℄ OF WESTBOUND LANES
℄ OF CONSTRUCTION
363.303
33+340
352.989
LIMITED ACCESS R/W
CONSTRUCT UNDER PROJECT CRA/RIC-30-33.500/0.000
CONSTRUCT UNDER PROJECT CRA/RIC-30-24.000
F.L. 351.070
8.5
362.410
33+300
351.959
CONSTRUCT UNDER PROJECT CRA/RIC-30-33.500/0.000
CONSTRUCT UNDER PROJECT CRA/RIC-30-24.000
CONSTRUCT UNDER PROJECT CRA/RIC-30-33.500/0.000
F.L. 350.600
12.0
410
400
60
58
810
SHEET TOTAL
SHEET TOTAL
SEE RIGHT SECTION FOR EARTHWORK QUANTITIES
CROSS-SECTIONS - RELOCATED U.S. 30
STA. 33+300 TO STA. 33+340 LEFT ℄
CRA/RIC-30-33.500\0.000
135
712
GX102R30.DWG
03-26-2001 10:51 AM
1:100M

SEEDING	
END WIDTH	SQ. METERS
SHEET TOTAL	

SEE LEFT SECTION FOR SEEDING QUANTITIES



END AREA		VOLUME	
CUT	FILL	CUT	FILL
0.7	0		
		90	0
3.8	0		
		104	0
SHEET TOTAL		194	0

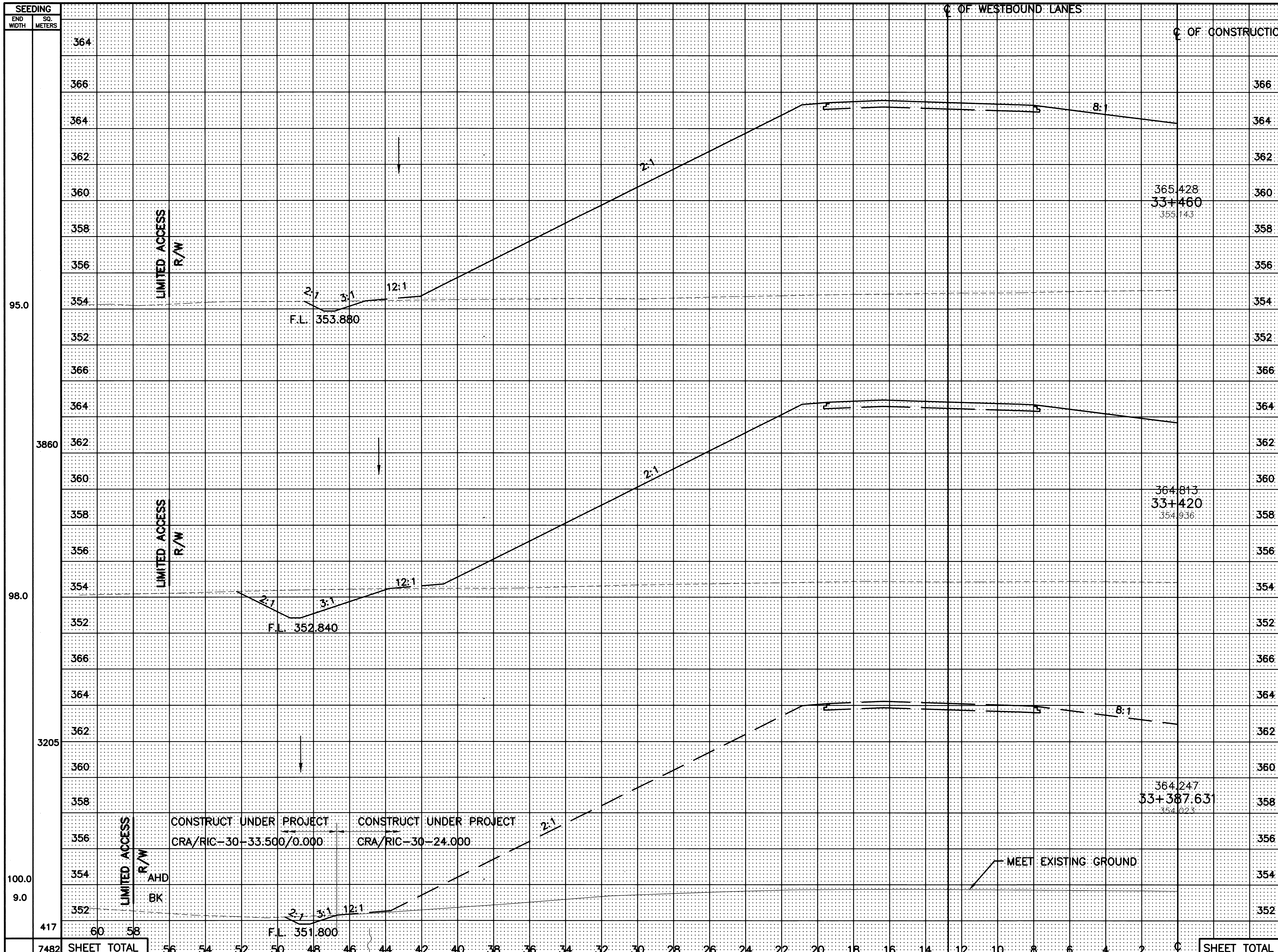
CALCULATED RR CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 33+300 TO STA. 33+340 RIGHT ℄

CRA/RIC-30-33.500/0.000

136
712

GX103R30.DWG
03-26-2001 11:16 AM
1:100M



END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED RR

CHECKED WS

SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 33+380 TO STA. 33+460 LEFT ℄

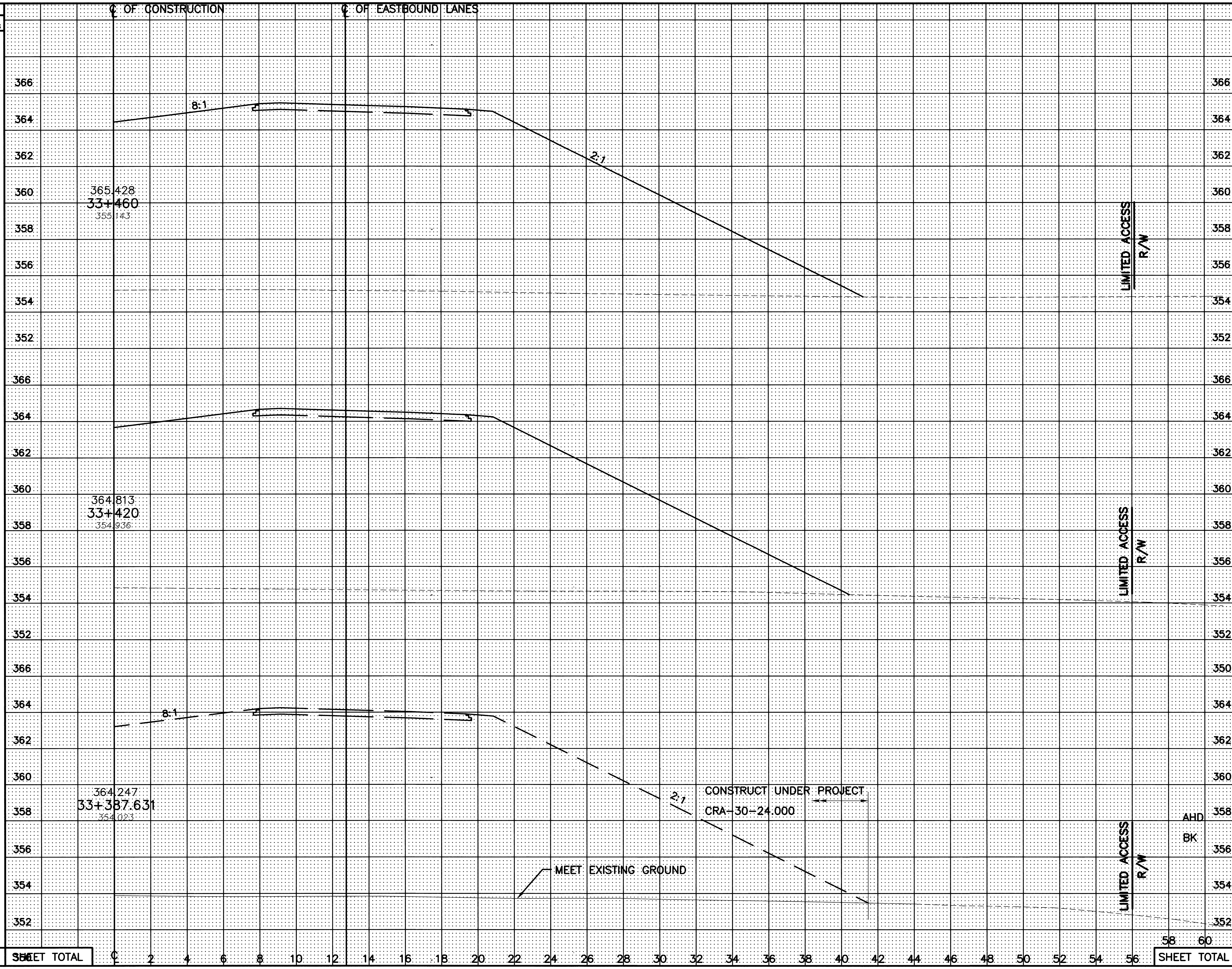
CRA/RIC-30-33.500/0.000

137
712

GX104R30.DWG
03-26-2001 11:23 PM
1:100M

SEEDING	
END WIDTH	SQ. METERS

SEE LEFT SECTION FOR SEEDING QUANTITIES



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
1.1	630.3		
		162	24396
7.0	589.5		
		126	9541
0.8	0		
0.8	0		
		36	0
SHEET TOTAL		324	33937

CALCULATED RR
CHECKED WS

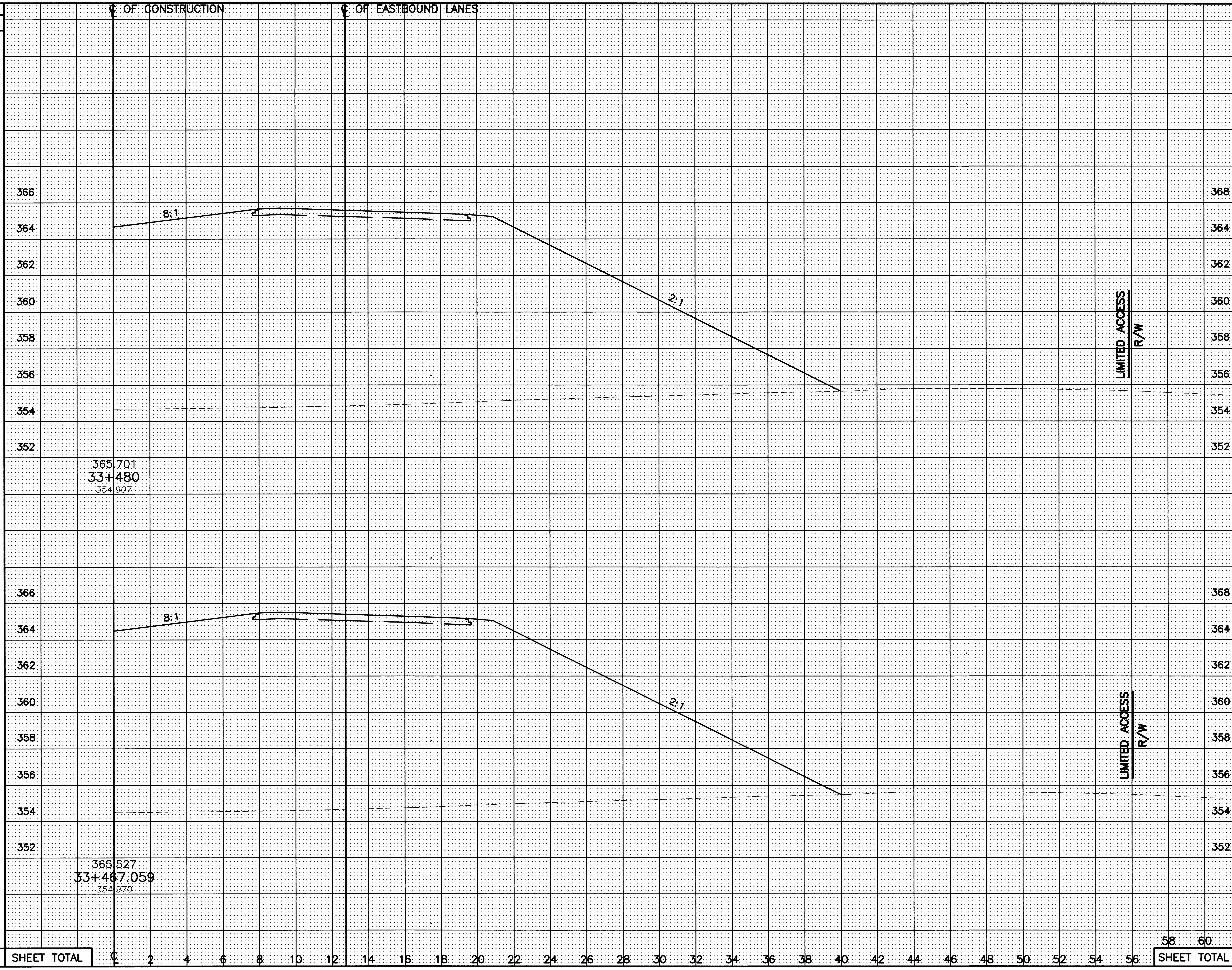
CROSS-SECTIONS – RELOCATED U.S. 30
STA. 33+380 TO STA. 33+460 RIGHT ℄

CRA/RIC-30-33.500/0.000

GX105R30.DWG
03-26-2001 12:41 PM
1:100M


SEEDING
END WIDTH
SQ. METERS
93.5
1220
95
671
1891
SHEET TOTAL
60
58
℄ OF WESTBOUND LANES
℄ OF CONSTRUCTION
LIMITED ACCESS R/W
F.L. 354.290
F.L. 354.060
2:1
3:1
12:1
8:1
365.701
33+480
354.907
365.527
33+467.059
354.970
END AREA
CUT
FILL
VOLUME
CALCULATED RR
CHECKED WS
SEE RIGHT SECTION FOR EARTHWORK QUANTITIES
CROSS-SECTIONS - RELOCATED U.S. 30
STA. 33+467.059 TO STA. 33+480 LEFT ℄
CRA/RIC-30-33.500/0.000
139
712
GX106R30.DWG
03-26-2001 12:47 PM
1:100M

SEEDING	
END WIDTH	SQ. METERS
SEE LEFT SECTION FOR SEEDING QUANTITIES	
SHEET TOTAL	



END AREA		VOLUME	
CUT	FILL	CUT	FILL
1.4	659.4		
		25	8532
2.4	659.2		
		12	4551
		37	13083

CALCULATED RR

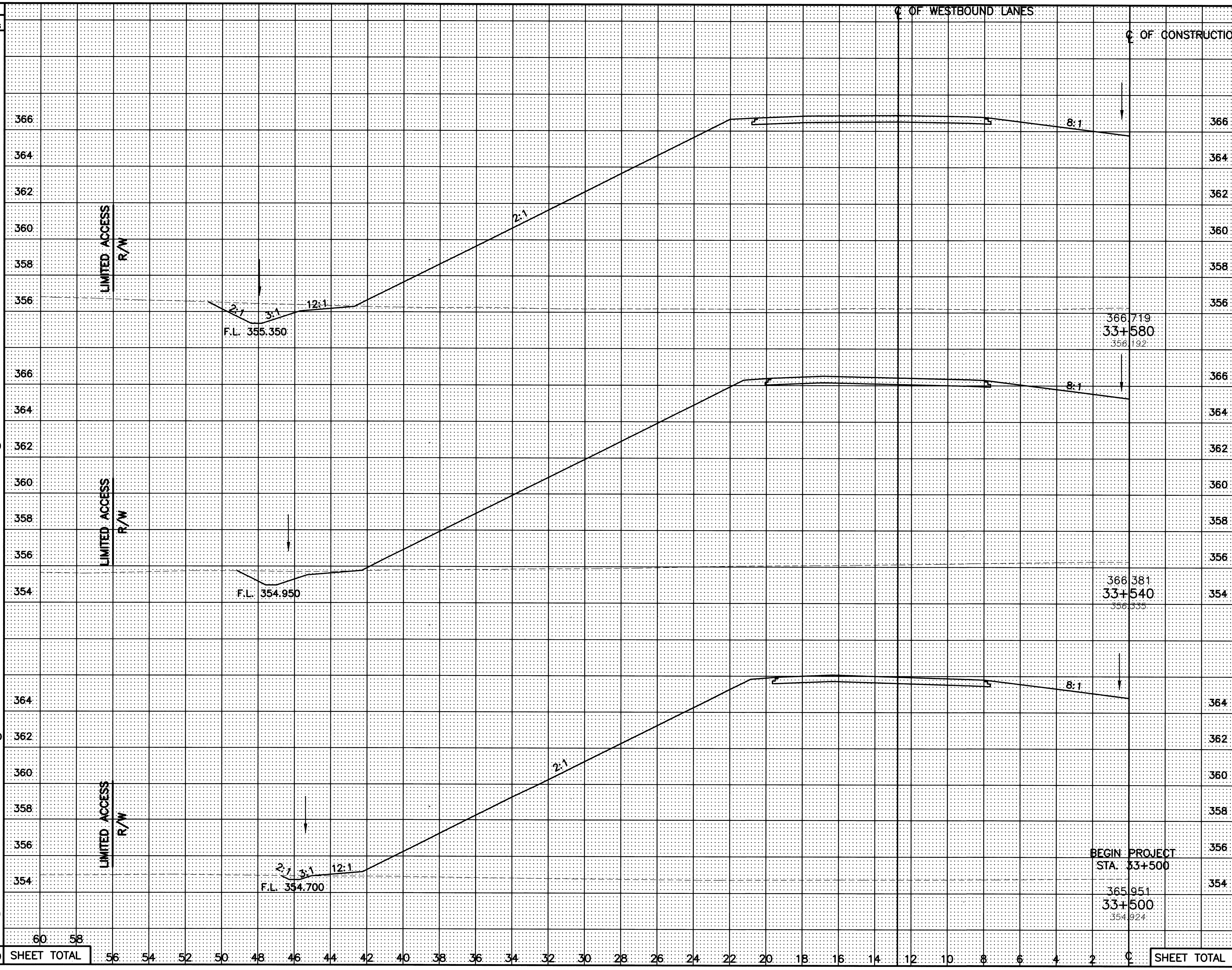
CHECKED WS

CROSS-SECTIONS - RELOCATED U.S. 30
STA. 33+467.059 TO STA. 33+480 RIGHT ℄

CRA/RIC-30-33.500/0.000

GX107R30.DWG
03-26-2001 1:00 PM
1:100M

SEEDING	
END WIDTH	SQ. METERS
74.0	
	2890
70.5	
	2800
69.5	
	1630
	7320



END AREA		VOLUME	
CUT	FILL	CUT	FILL

SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

CALCULATED RR
CHECKED WS

CROSS-SECTIONS - RELOCATED U.S. 30
STA. 33+500 TO STA. 33+580 LEFT ℄

CRA/RIC-30-33.500/0.000

141
712

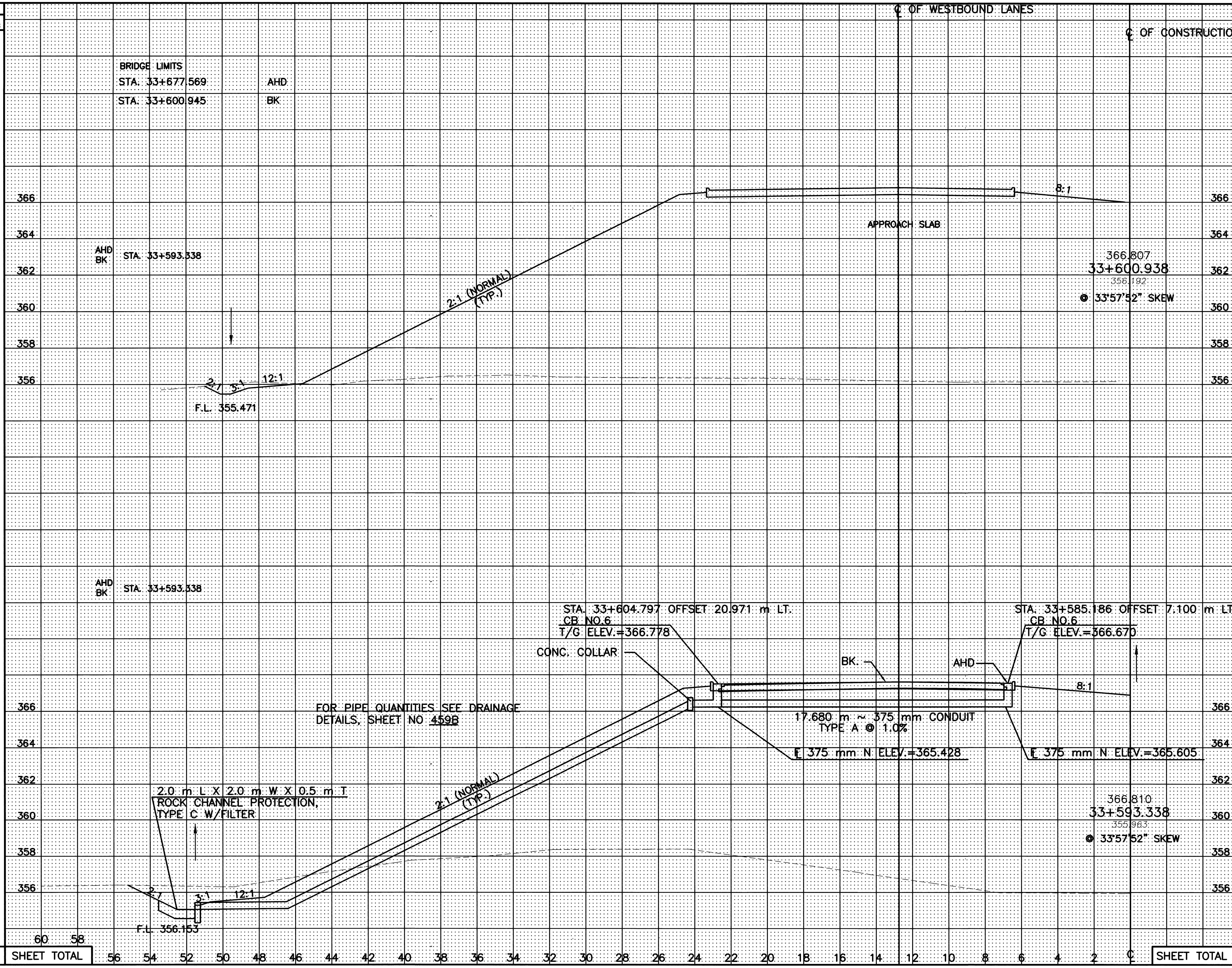
GX108R30.DWG
03-26-2001 1:05 PM
1:100M

SEEDING
END WIDTH
SQ. METERS
SEE LEFT SECTION FOR SEEDING QUANTITIES
℄ OF CONSTRUCTION
℄ OF EASTBOUND LANES
10:1
2:1
LIMITED ACCESS R/W
366.719
33+580
356.192
10:1
LIMITED ACCESS R/W
366.381
33+540
356.335
8:1
2:1
LIMITED ACCESS R/W
BEGIN PROJECT
STA. 33+500
365.951
33+500
354.924
SHEET TOTAL
END AREA
CUT
FILL
VOLUME
CUT
FILL
3.8
638.7
118
24730
2.1
597.8
46
25140
0.2
659.2
16
13190
180
63060
CALCULATED RR
CHECKED WS
CROSS-SECTIONS - RELOCATED U.S. 30
STA. 33+500 TO STA. 33+580 RIGHT ℄
CRA/RIC-30-33.500/0.000
142
712
GX109R30.DWG
03-26-2001 1:14 PM
1:100M

SEEDING	
END WIDTH	SQ. METERS
0	
71	
	540
71	
74	
	987
60	58
	1527

LIMITED ACCESS R/W

LIMITED ACCESS R/W



END AREA		VOLUME	
CUT	FILL	CUT	FILL

SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

CALCULATED RR
CHECKED WS

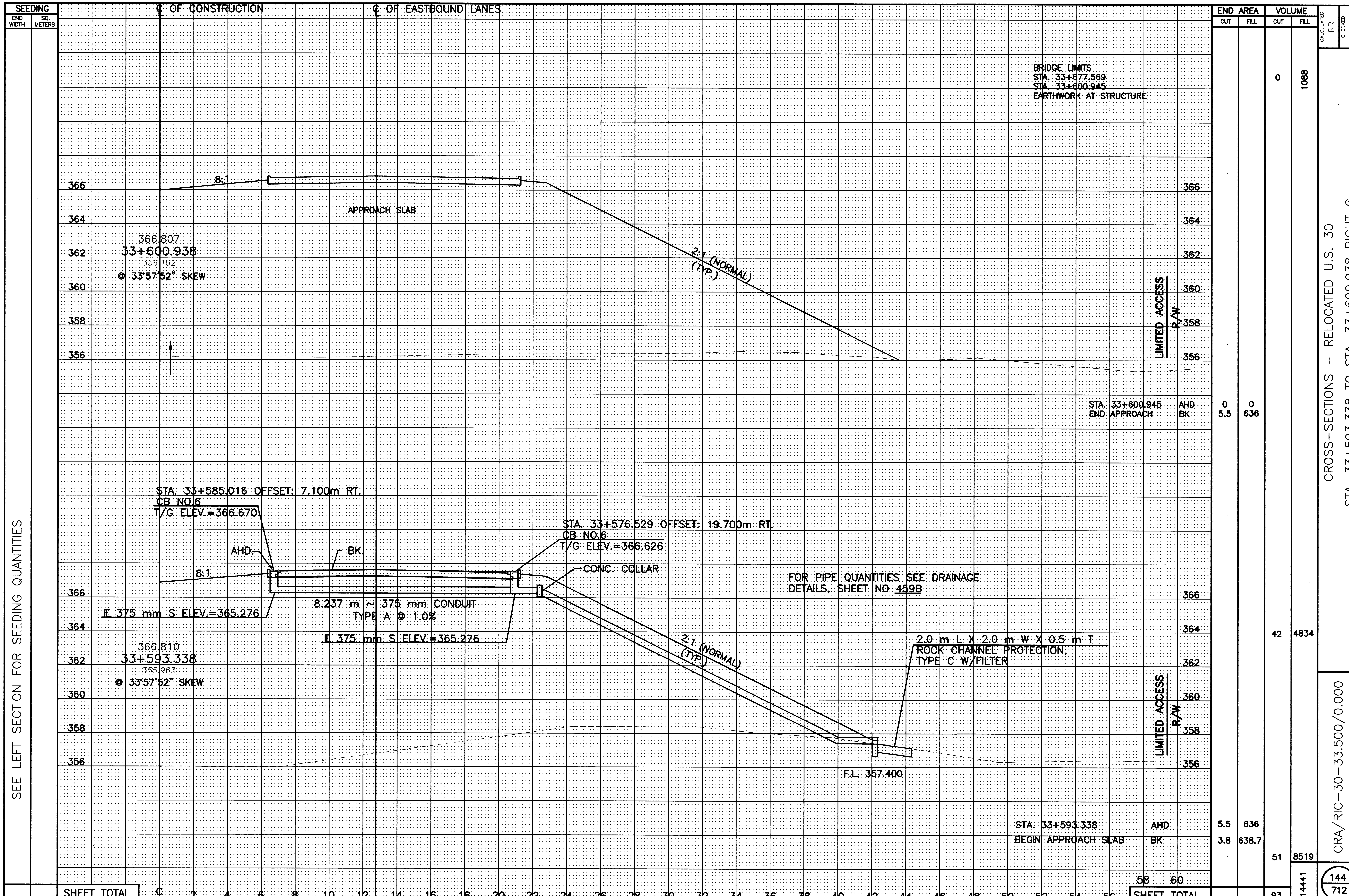
CROSS-SECTIONS – RELOCATED U.S. 30

STA. 33+593.338 TO STA. 33+600.938 LEFT ℄

CRA/RIC-30-33.500/0.000

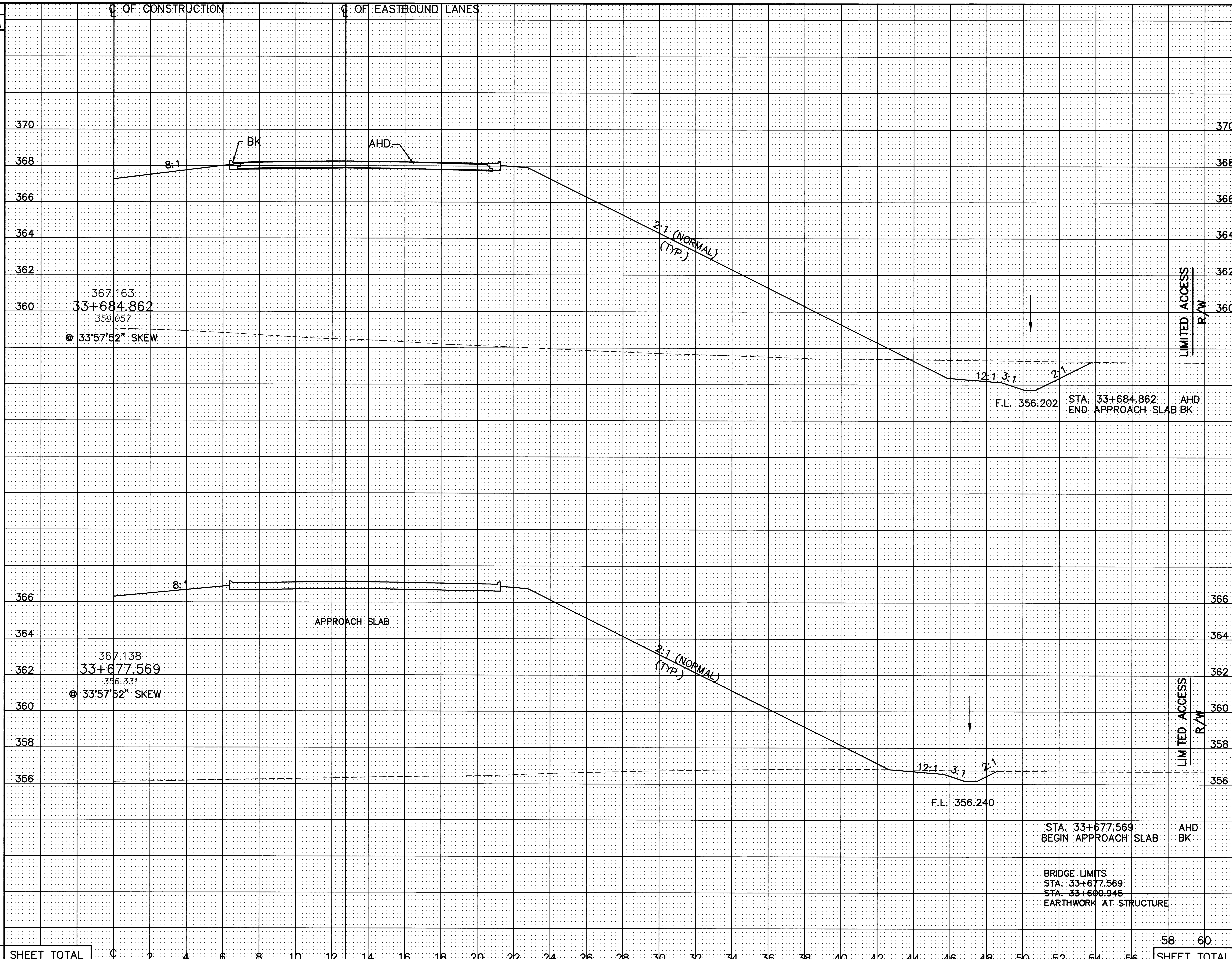
143 / 712

GX110R30.DWG
03-26-2001 1:30 PM
1:100M



GX111R30.DWG
03-26-2001 2:27 PM
1:100M

SEEDING
END WIDTH
SQ. METERS
83
80
532
66
0
532
SHEET TOTAL
LIMITED ACCESS R/W
LIMITED ACCESS R/W
℄ OF WESTBOUND LANES
℄ OF CONSTRUCTION
BK.
AHD.
8:1
AHD STA. 33+684.862
BK END APPROACH SLAB
2:1 (NORMAL) (TYP.)
367.163
33+684.862
359.057
@ 33°57'52" SKEW
2:1
3:1
12:1
F.L. 357.757
APPROACH SLAB
375mm CONDUIT
367.138
33+677.569
356.331
@ 33°57'52" SKEW
2:1 (NORMAL) (TYP.)
AHD STA. 33+677.569 F.L. 356.240
BK BEGIN APPROACH SLAB
BRIDGE LIMITS
STA. 33+677.569 AHD
STA. 33+600.945 BK
SHEET TOTAL
END AREA
CUT
FILL
VOLUME
CUT
FILL
CALCULATED RR
CHECKED WS
SEE RIGHT SECTION FOR EARTHWORK QUANTITIES
CROSS-SECTIONS - RELOCATED U.S. 30
STA. 33+677.569 TO STA. 33+684.862 LEFT ℄
CRA/RIC-30-33.500/0.000
145
712
GX112R30.DWG
03-24-1999 5:41 PM
1:100M



SEE LEFT SECTION FOR SEEDING QUANTITIES

SEEDING END WIDTH	SEEDING SQ. METERS
SHEET TOTAL	

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
19.0	490		
19.0	488		
		76	3566
1.9	490		
0	0		
SHEET TOTAL		76	3566

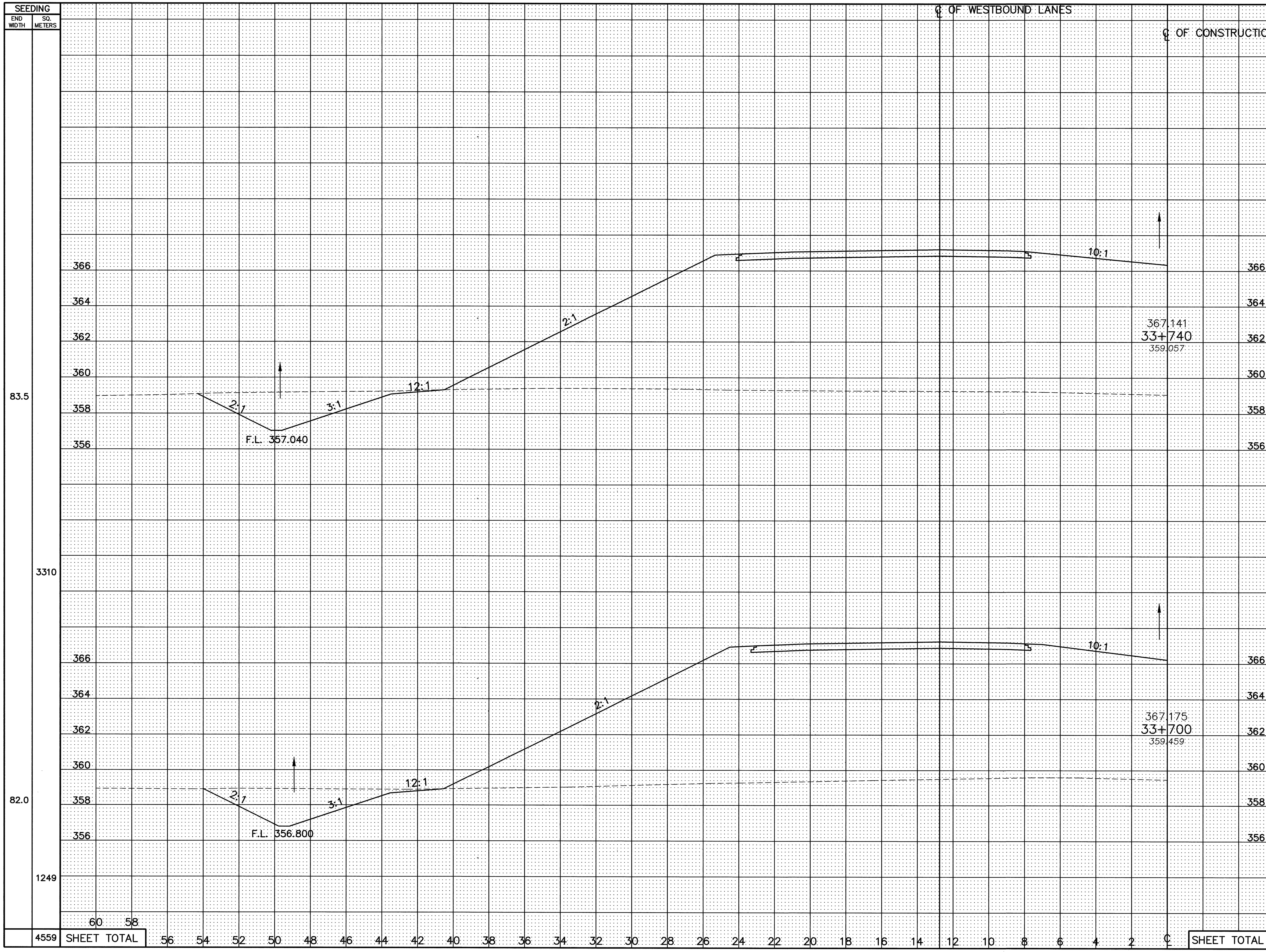
CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 33+677.569 TO STA. 33+684.862 RIGHT ℄

CRA/RIC-30-33.500/0.000

146/712

GX113R30.DWG
03-24-1999 6:08 PM
1:100M



END AREA		VOLUME	
CUT	FILL	CUT	FILL

SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

CALCULATED RR

CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 33+700 TO STA. 33+740 LEFT ℄

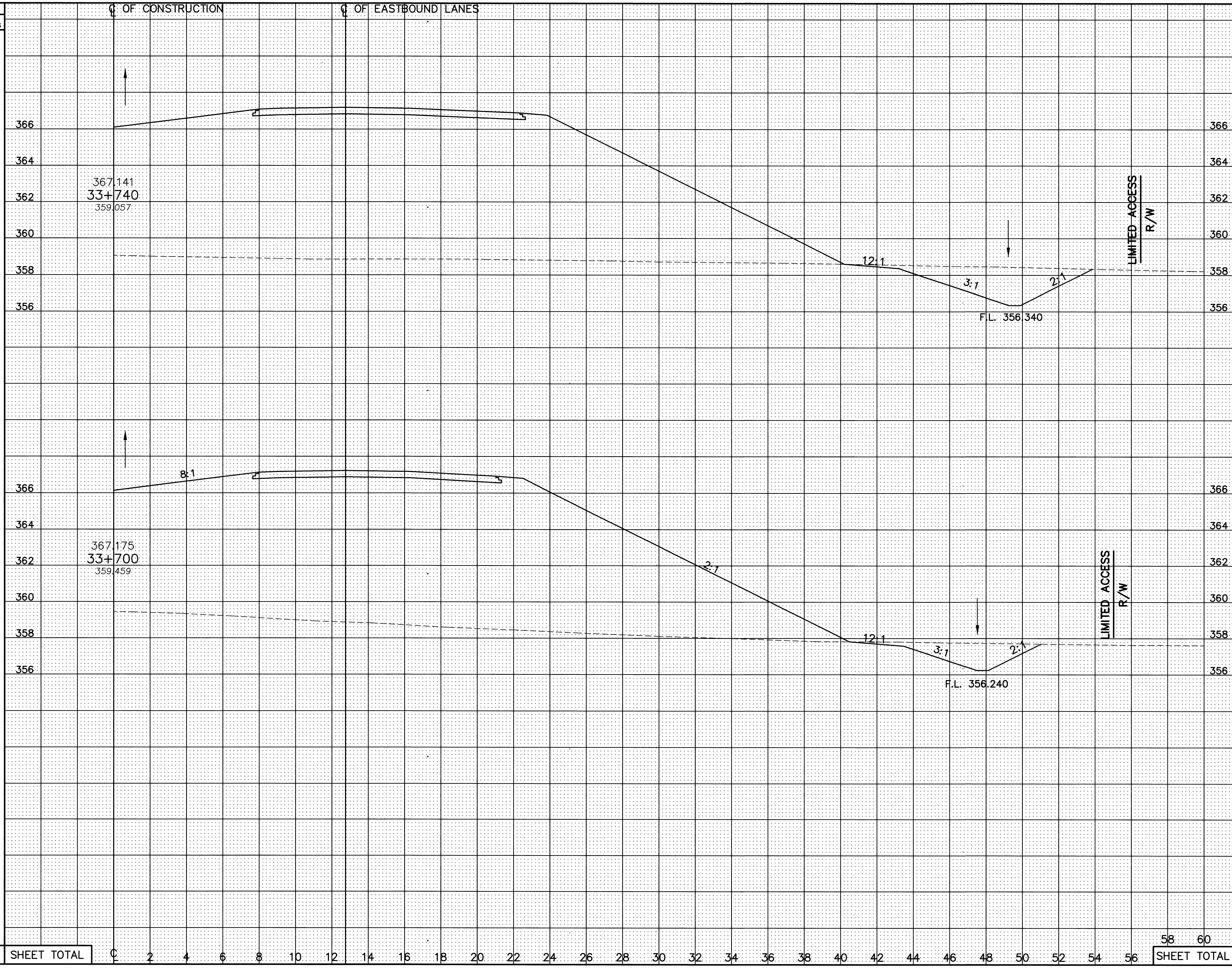
CRA/RIC-30-33.500/0.000

147
712

GX114R30.DWG
02-11-1999 2:53 PM
SXSEC311 1:100M

SEEDING	
END WIDTH	SQ. METERS

SEE LEFT SECTION FOR SEEDING QUANTITIES



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
25.6	494.4		
		900	19658
19.4	488.5		
		29 1	7406
		1191	27064

CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 33+700 TO STA. 33+740 RIGHT ℄

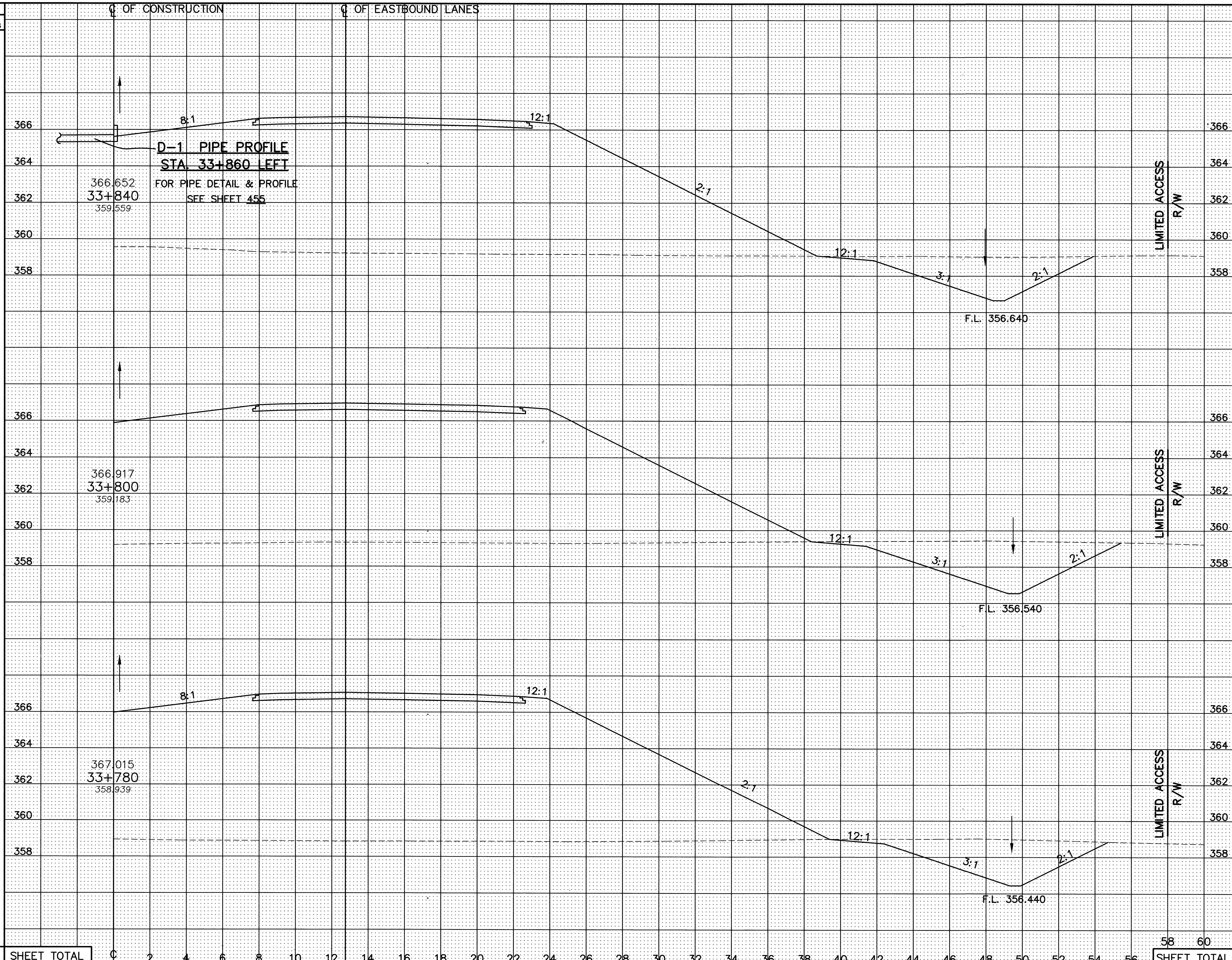
CRA/RIC-30-33.500/0.000

148
712

GX115R30.DWG
03-17-1999 1:11 PM
1:100M


SEEDING
END WIDTH
SQ. METERS
74.0
79.5
80.5
3070
1600
3280
7950
60
58
SHEET TOTAL
℄ OF WESTBOUND LANES
℄ OF CONSTRUCTION
D-1 PIPE PROFILE
STA. 33+860 LEFT
FOR PIPE DETAIL & PROFILE
SEE SHEET 455
366.652
33+840
359.559
F.L. 357.760
366.917
33+800
359.183
F.L. 357.520
367.015
33+780
358.939
F.L. 357.280
2:1
3:1
12:1
8:1
366
364
362
360
358
56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 ℄
END AREA
VOLUME
CUT
FILL
SEE RIGHT SECTION FOR EARTHWORK QUANTITIES
CALCULATED RR
CHECKED WS
CROSS-SECTIONS – RELOCATED U.S. 30
STA. 33+780 TO STA. 33+840 LEFT ℄
CRA/RIC-30-33.500/0.000
149
712
GX116R30.DWG
02-11-1999 2:56 PM
SXSEC33J 1:100M

SEEDING	
END WIDTH	SQ. METERS
SEE LEFT SECTION FOR SEEDING QUANTITIES	
SHEET TOTAL	



END AREA		VOLUME	
CUT	FILL	CUT	FILL
16.4	466.3		
		820	19134
24.6	490.4		
		457	10035
21.1	513.1		
		934	20150
		2211	49319

CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 33+780 TO STA. 33+840 ℄

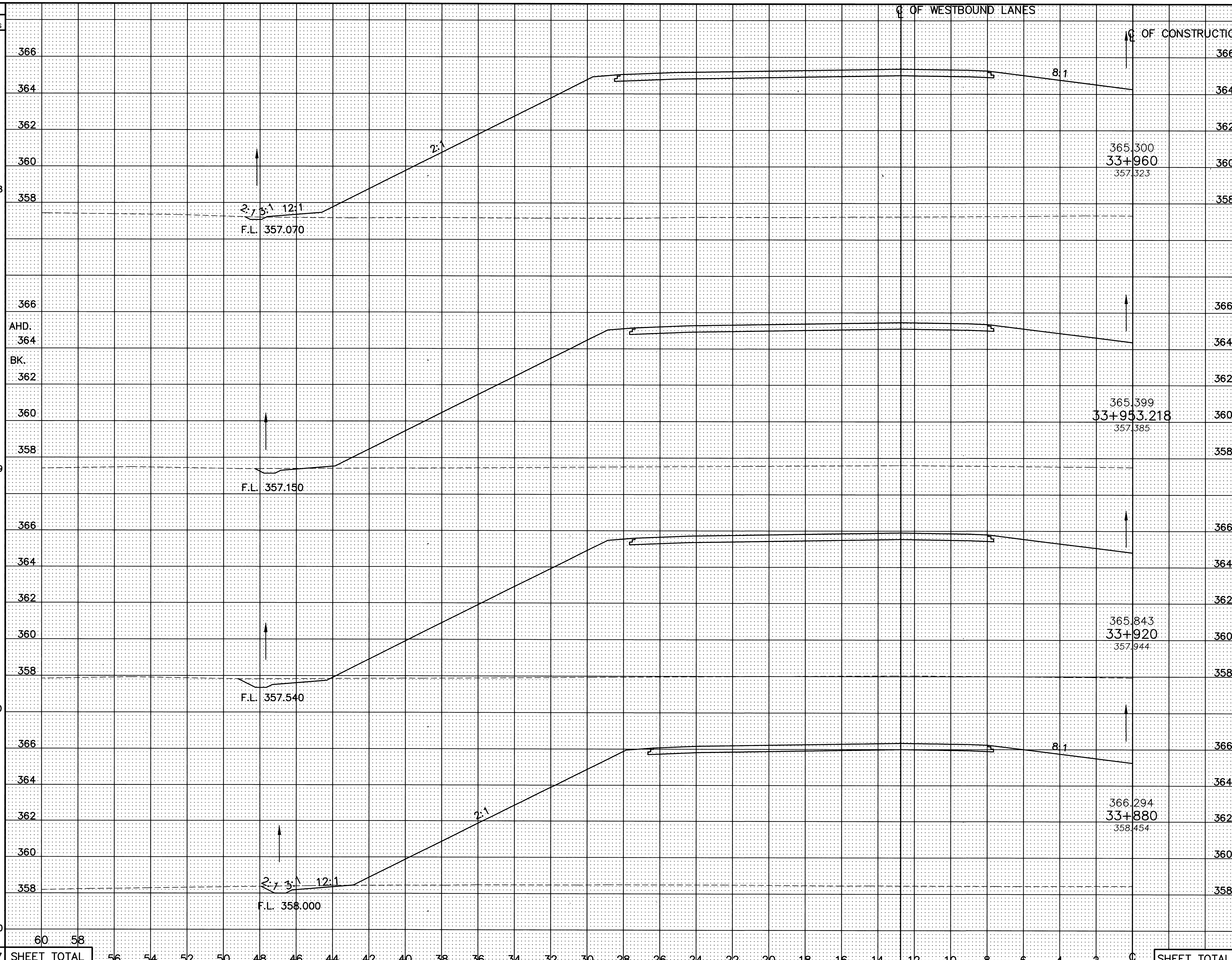
CRA/RIC-30-33.500/0.000

150 / 712

GX117R30.DWG
02-11-1999 2:57 PM
SXSEC33L 1:100M

SEEDING	
END WIDTH	SQ. METERS
41	
	278
41	
65.0	
	2209
68.0	
	2760
70.0	
	2880
	8127

SHEET TOTAL



END AREA		VOLUME	
CUT	FILL	CUT	FILL

SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

CALCULATED RR
CHECKED WS

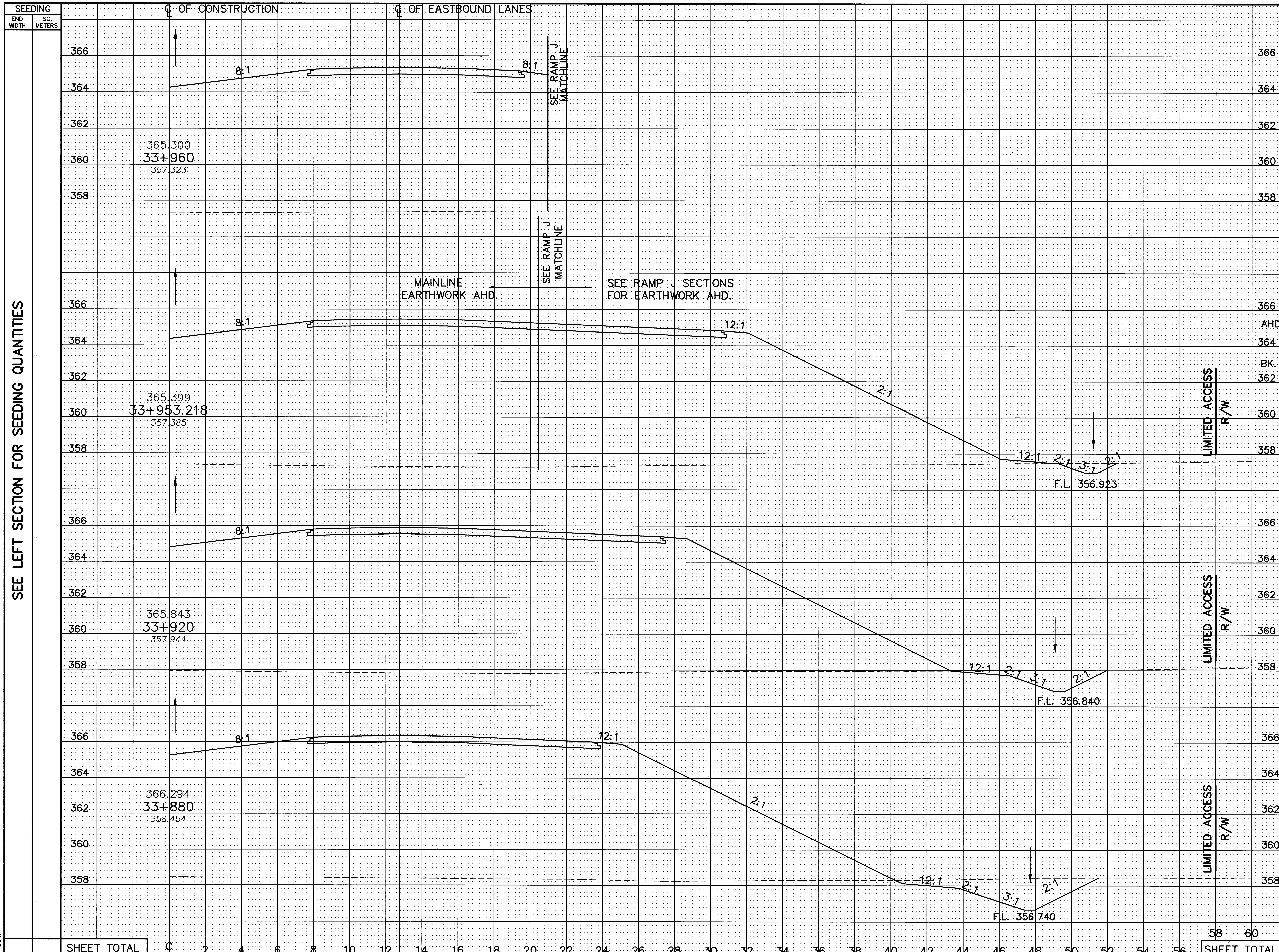
CROSS-SECTIONS - RELOCATED U.S. 30

STA. 33+880 TO STA. 33+960 LEFT ℄

CRA/RIC-30-33.500/0.000

151
712

GX118R30.DWG
02-11-1999 2:60 PM
SXSEC34M 1:100M



Station	End Area Cut	End Area Fill	Volume Cut	Volume Fill
33+960	0.1	443.8		
			1	3010
33+953.218 AHD.	0.1	443.8		
33+953.218 BK.	4.6	560.4		
			173	18287
33+920	5.8	540.6		
			308	20952
33+880	9.6	507		
			520	19466
SHEET TOTAL			1002	61715

CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 33+880 TO STA. 33+960 RIGHT ℄

CRA/RIC-30-33.500/0.000

152/712

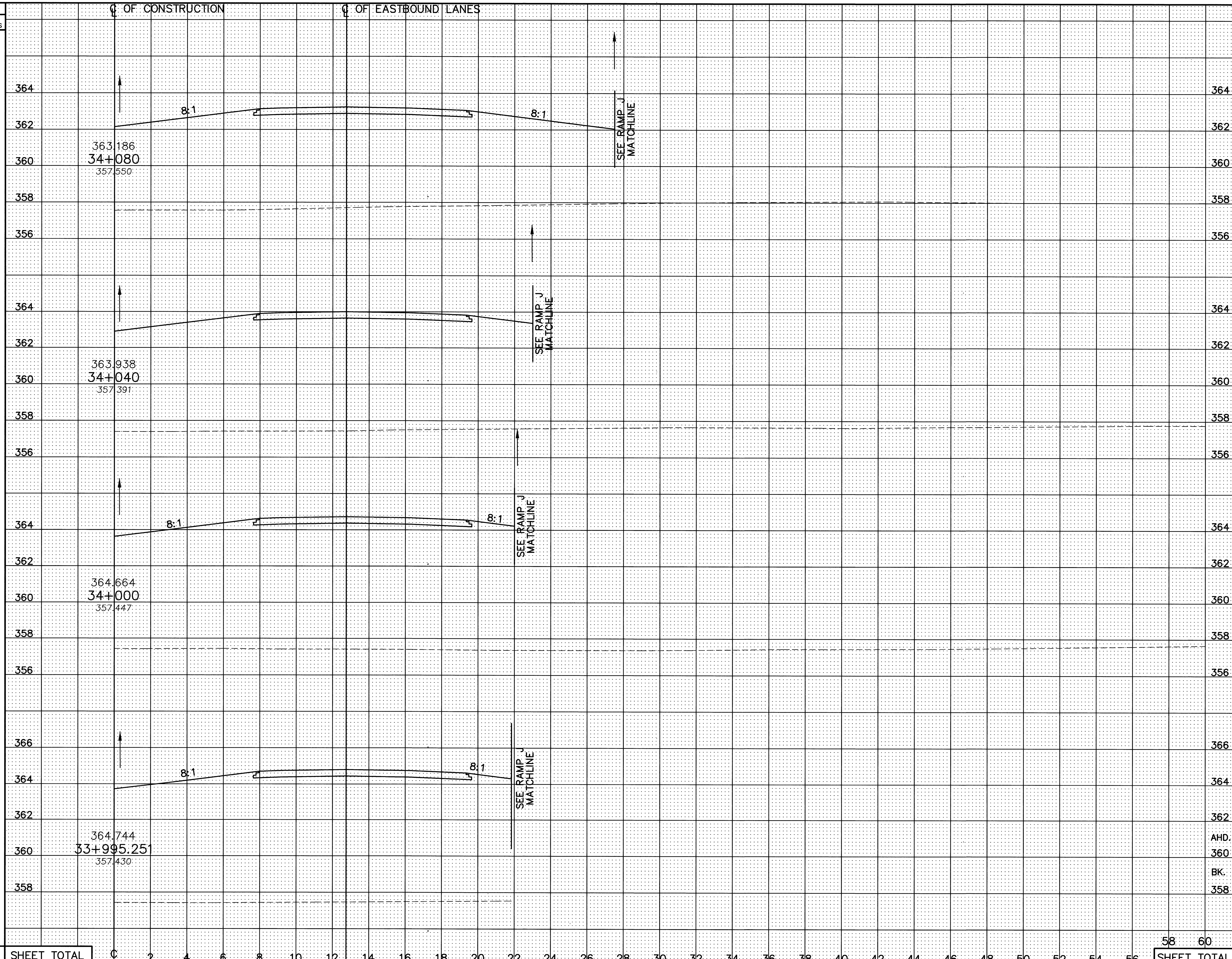
CX119R30.DWG 02-22-1999 3:29 PM 1:100M

SEEDING
END WIDTH
SQ. METERS
33.5
1100
21.5
840
20.5
91
18.0
41.5
1454
3485
SHEET TOTAL
℄ OF WESTBOUND LANES
℄ OF CONSTRUCTION
MATCHLINE SEE RAMP I
8:1
363.186
34+080
357.550
363.938
34+040
357.391
364.664
34+000
357.447
SEE RAMP I SECTIONS FOR EARTHWORK AHD.
MAINLINE EARTHWORK AHD.
2:1
12:1
F.L. 356.947
AHD.
BK.
364.744
33+995.251
357.430
END AREA
VOLUME
CUT
FILL
CALCULATED RR
CHECKED WS
SEE RIGHT SECTION FOR EARTHWORK QUANTITES
CROSS-SECTIONS – RELOCATED U.S. 30
STA. 33+995.251 TO STA. 34+080 LEFT ℄
CRA/RIC-30-33.500/0.000
153
712
GX120R30.DWG
02-11-1999 3:01 PM
SXSEC36L 1:100M

SEEDING

END WIDTH	SQ. METERS
SHEET TOTAL	

SEE LEFT SECTION FOR SEEDING QUANTITES



END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	288.1		
		0	11264
0	275.1		
		0	12546
0	352.2		
		0	1528
AHD. 0	291.3		
BK. 0.7	420.4		
		14	15232
		14	40570

CALCULATED RR

CHECKED WS

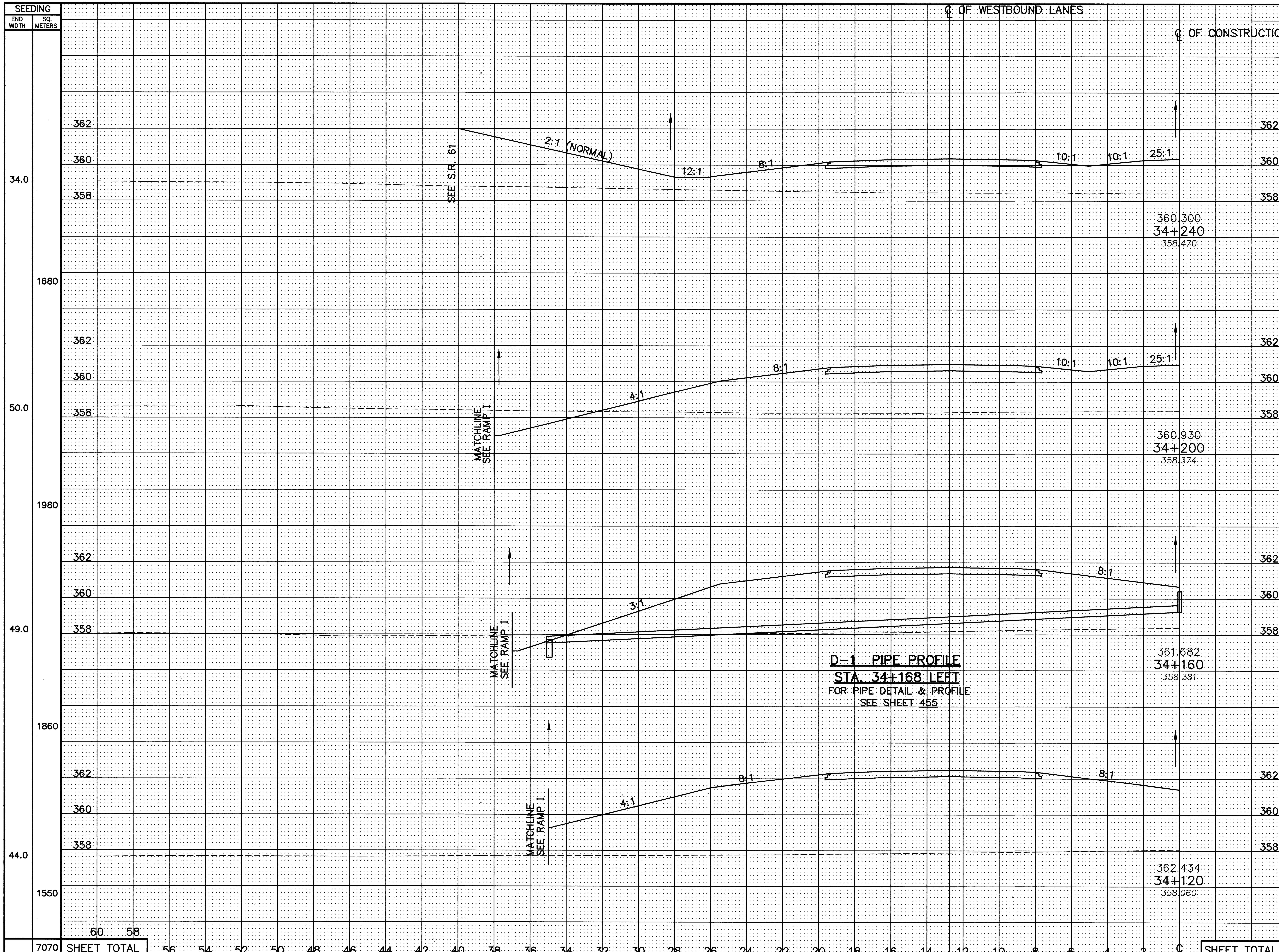
CROSS-SECTIONS - RELOCATED U.S. 30

STA. 33+995.251 TO STA. 34+080 RIGHT ℄

CRA/RIC-30-33.500/0.000

154/712

GX121R30.DWG
02-22-1999 3:32 PM
1:100M



END AREA		VOLUME	
CUT	FILL	CUT	FILL

SEE RIGHT SECTION FOR EARTHWORK QUANTITES

CALCULATED RR

CHECKED WS

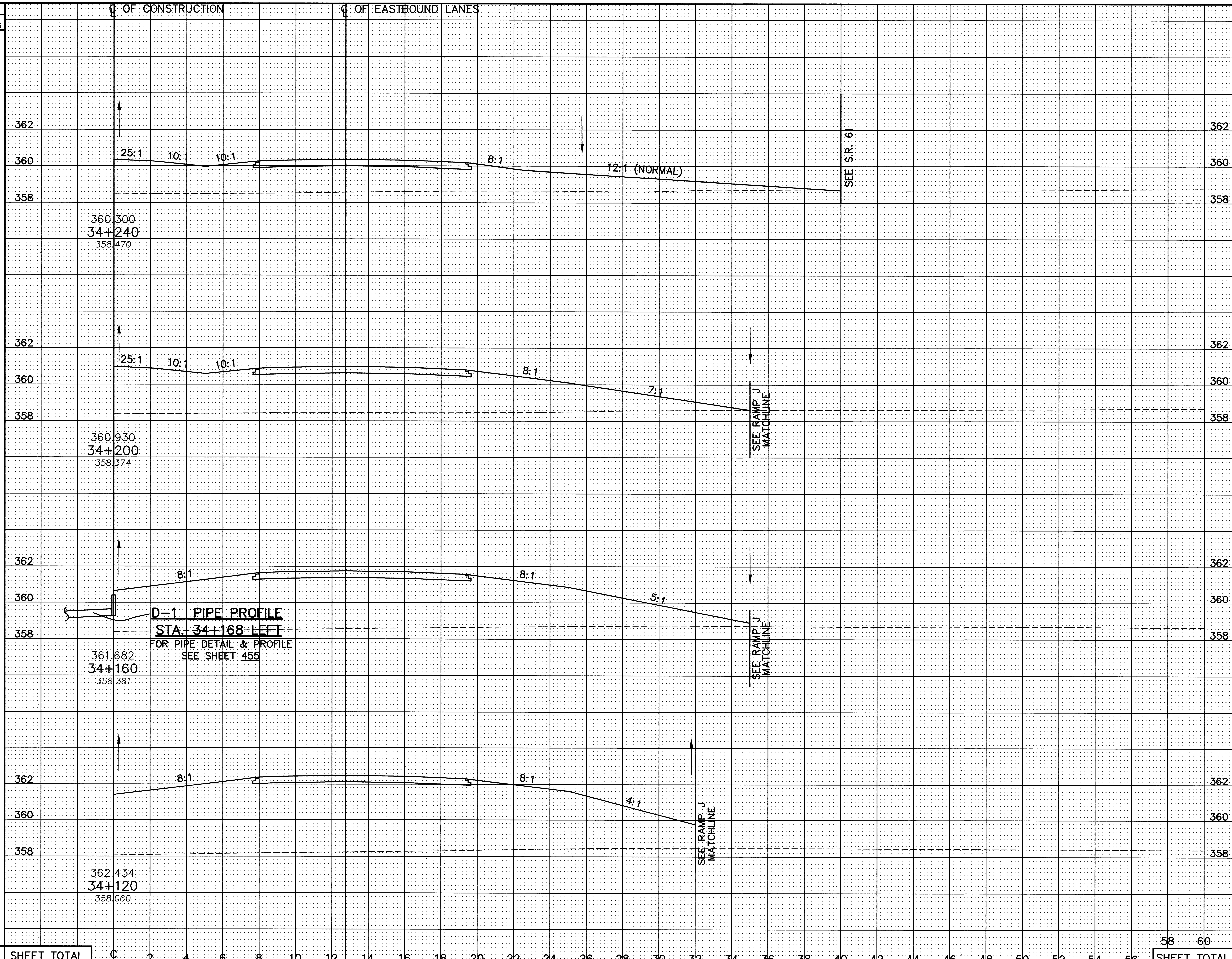
CROSS-SECTIONS – RELOCATED U.S. 30
STA. 34+120 TO STA. 34+240 LEFT ℄

CRA/RIC-30-33.500/0.000

GX122R30.DWG
02-11-1999 3:04 PM
KXSEC1L 1:100M

SEE LEFT SECTION FOR SEEDING QUANTITES

SEEDING END WIDTH	SEEDING SQ. METERS
SHEET TOTAL	



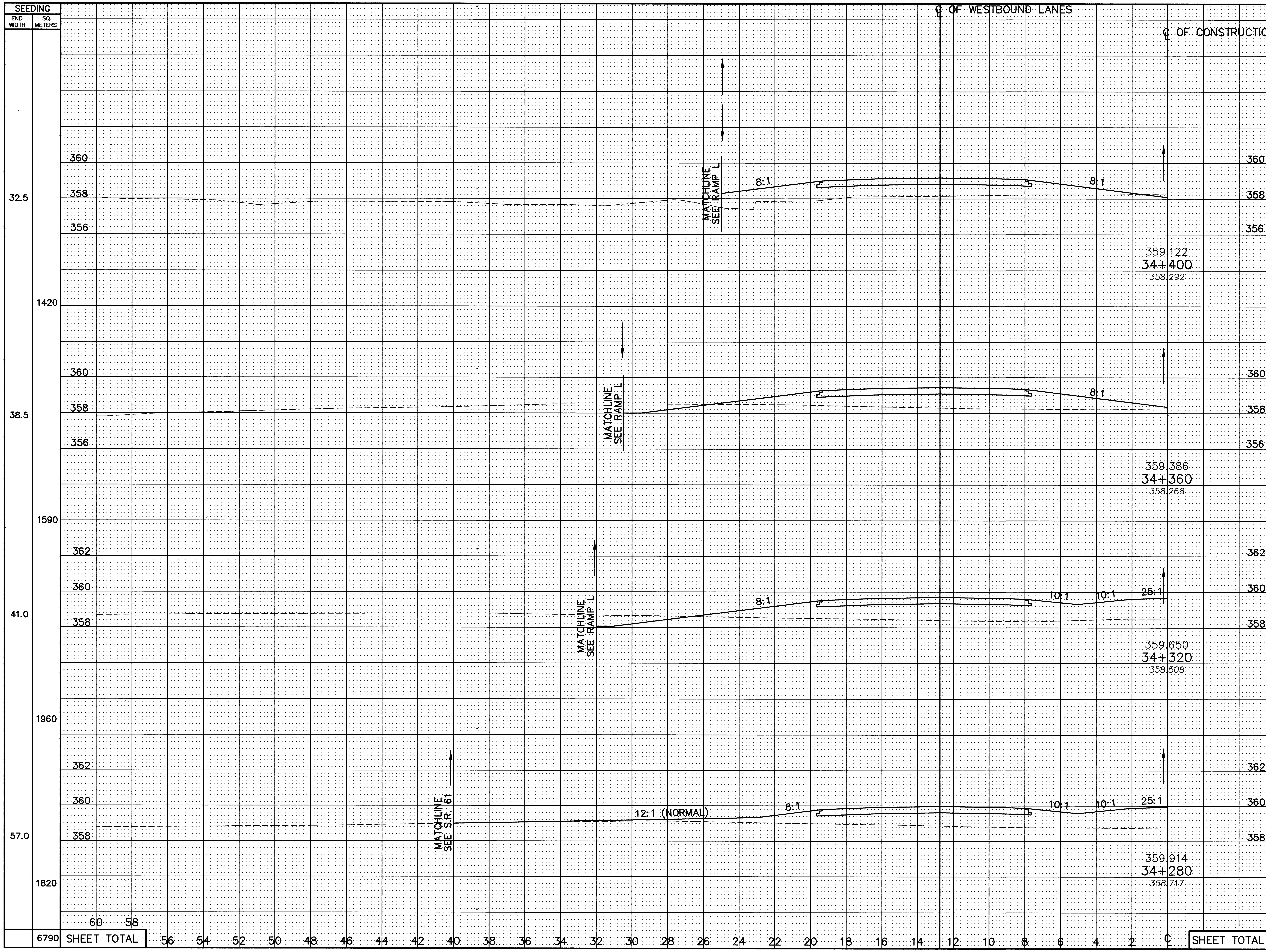
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0	74.1		
		98	3972
4.9	124.5		
		170	5756
3.6	163.3		
		72	8020
0	237.7		
		0	10516
		340	28264

CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 34+120 TO STA. 34+240 RIGHT ℄

CRA/RIC-30-33.500/0.000

GX123R30.DWG
02-11-1999 3:07 PM
KXSECIR 1:100M



END AREA: CUT / FILL
VOLUME: CUT / FILL

SEE RIGHT SECTION FOR EARTHWORK QUANTITES

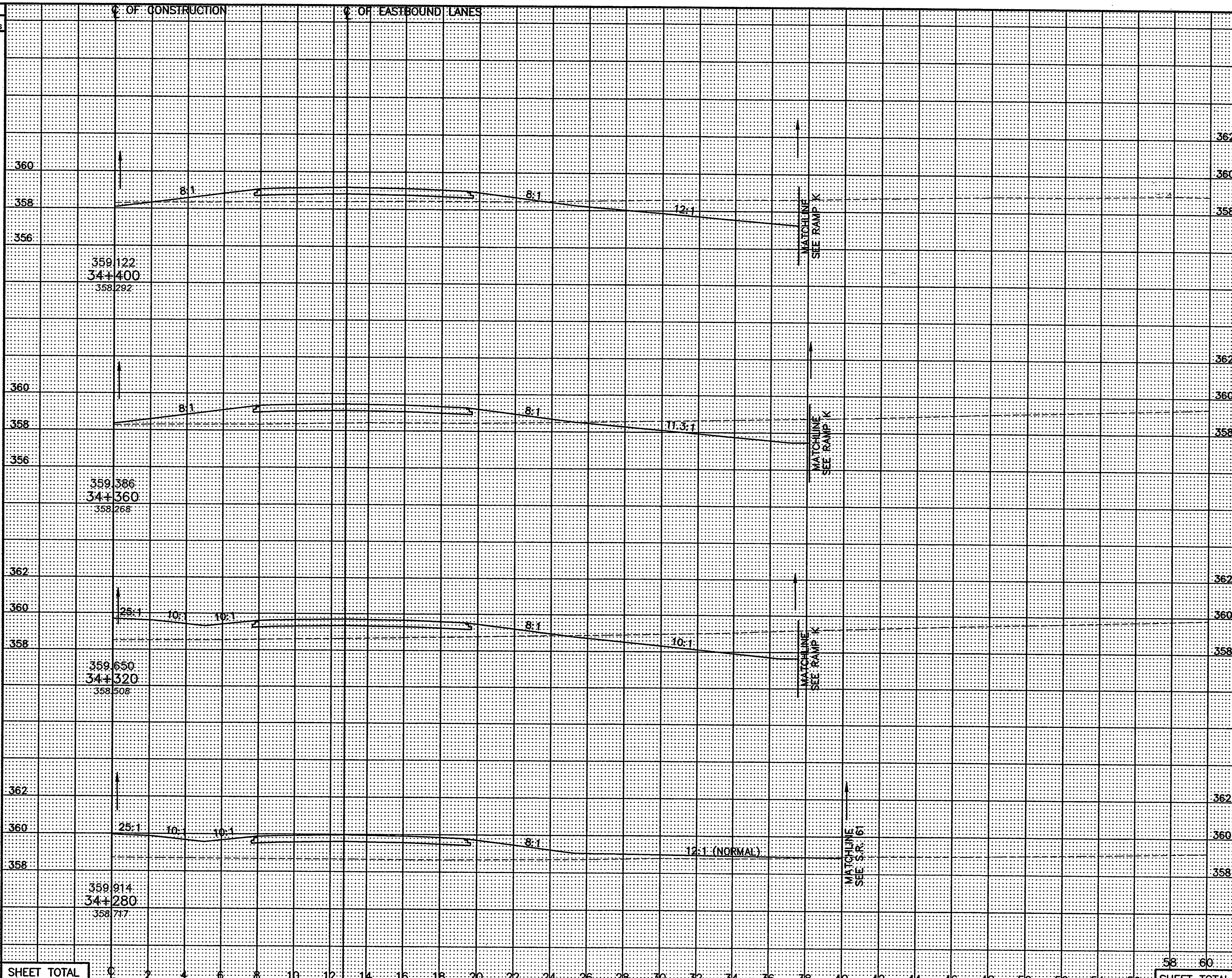
CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 34+280 TO STA. 34+400 LEFT ℄

CRA/RIC-30-33.500/0.000

157
712

GX124R30.DWG
02-11-1999 3:09 PM
KXSEC3L 1:100M



SEEDING	
END WIDTH	SQ. METERS
SHEET TOTAL	

SEE LEFT SECTION FOR SEEDING QUANTITES

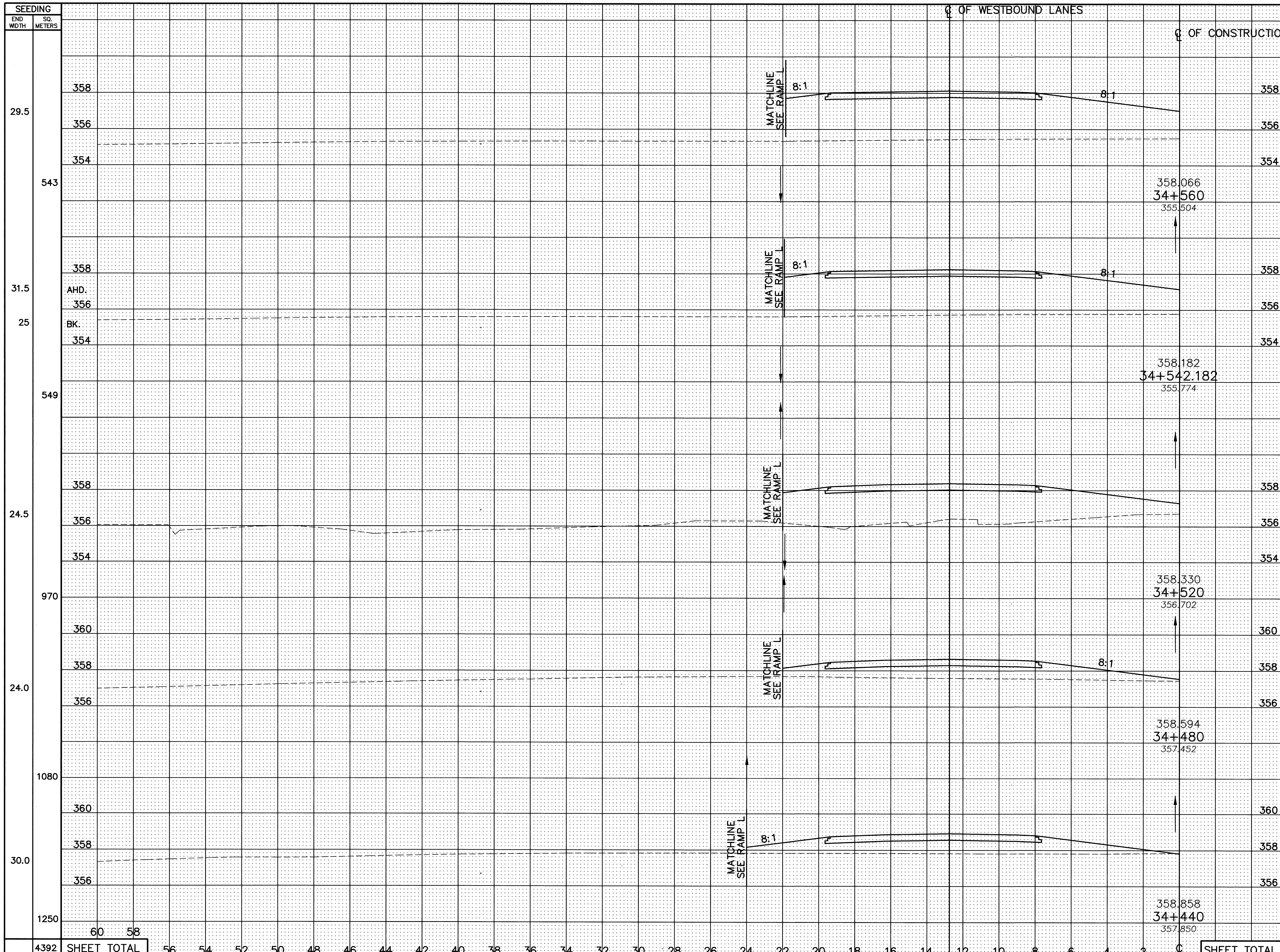
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
4.5	22.2		
		164	1026
3.7	29.1		
		188	1360
5.7	38.9		
		114	1710
0	46.6		
		0	2414
SHEET TOTAL		466	6510

CALCULATED RR
CHECKED WS

CROSS-SECTIONS - RELOCATED U.S. 30
STA. 34+280 TO STA. 34+400 RIGHT ℄

CRA/RIC-30-33.500/0.000

GX12SR30.DWG
05-30-2003 3:15 PM
KXSEC3R 1:100M



END AREA		VOLUME	
CUT	FILL	CUT	FILL

SEE RIGHT SECTION FOR EARTHWORK QUANTITES

CALCULATED RR

CHECKED WS

CROSS-SECTIONS - RELOCATED U.S. 30

STA. 34+440 TO STA. 34+560 LEFT ℄

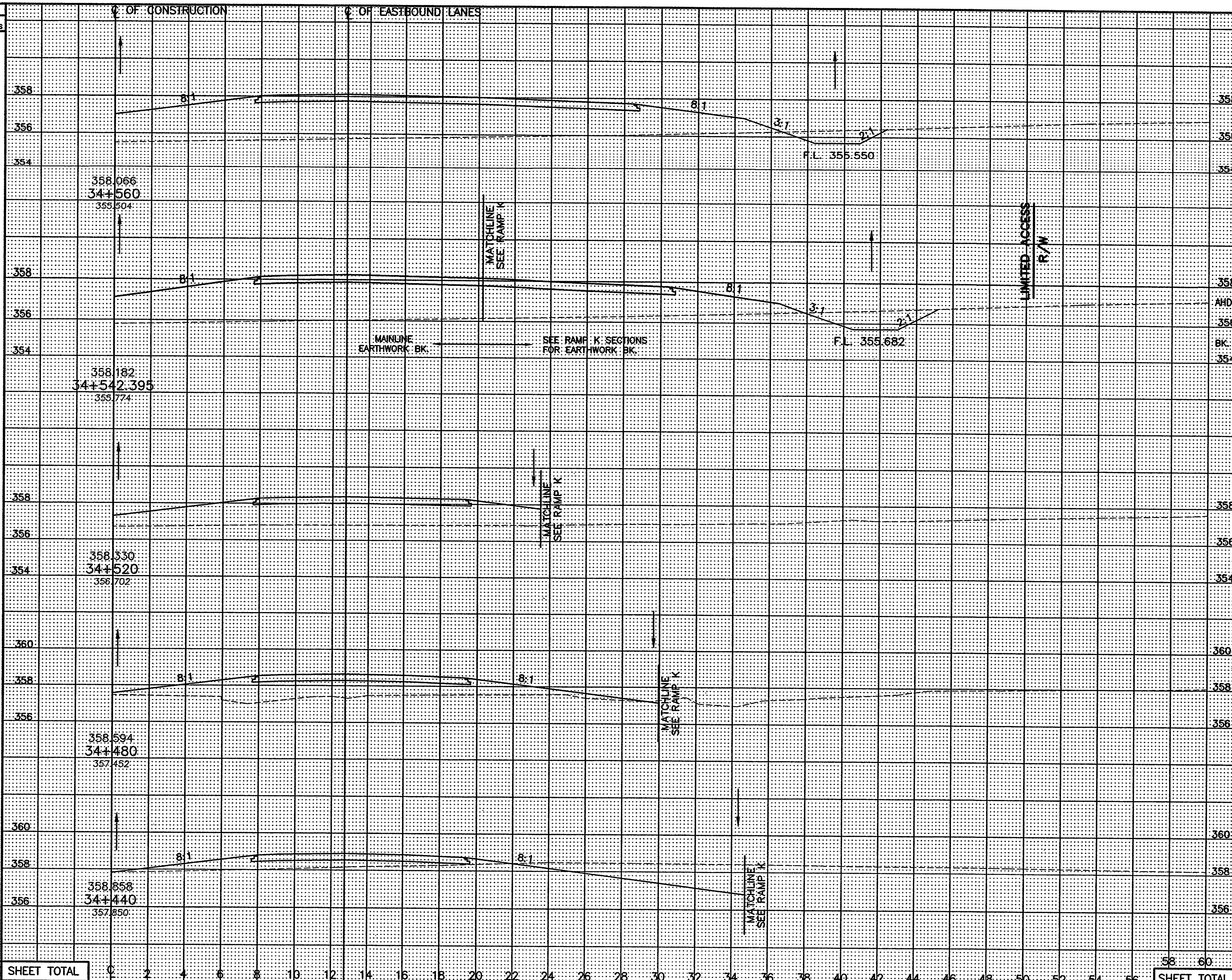
CRA/RIC-30-33.500/0.000

159/712

GX126R30.DWG
02-22-1999 4:1 PM
1:100M

SEEDING	
END WIDTH	SQ. METERS

SEE LEFT SECTION FOR SEEDING QUANTITES



Station	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
34+560	1.4	108.7		
			38	1880
34+542.395 AHD.	2.9	104.9		
34+542.395 BK.	0	81.5		
			0	1601
34+520	0	61.5		
			0	1862
34+480	0	31.6		
			84	1058
34+440	4.2	21.3		
			174	870
SHEET TOTAL			296	7271

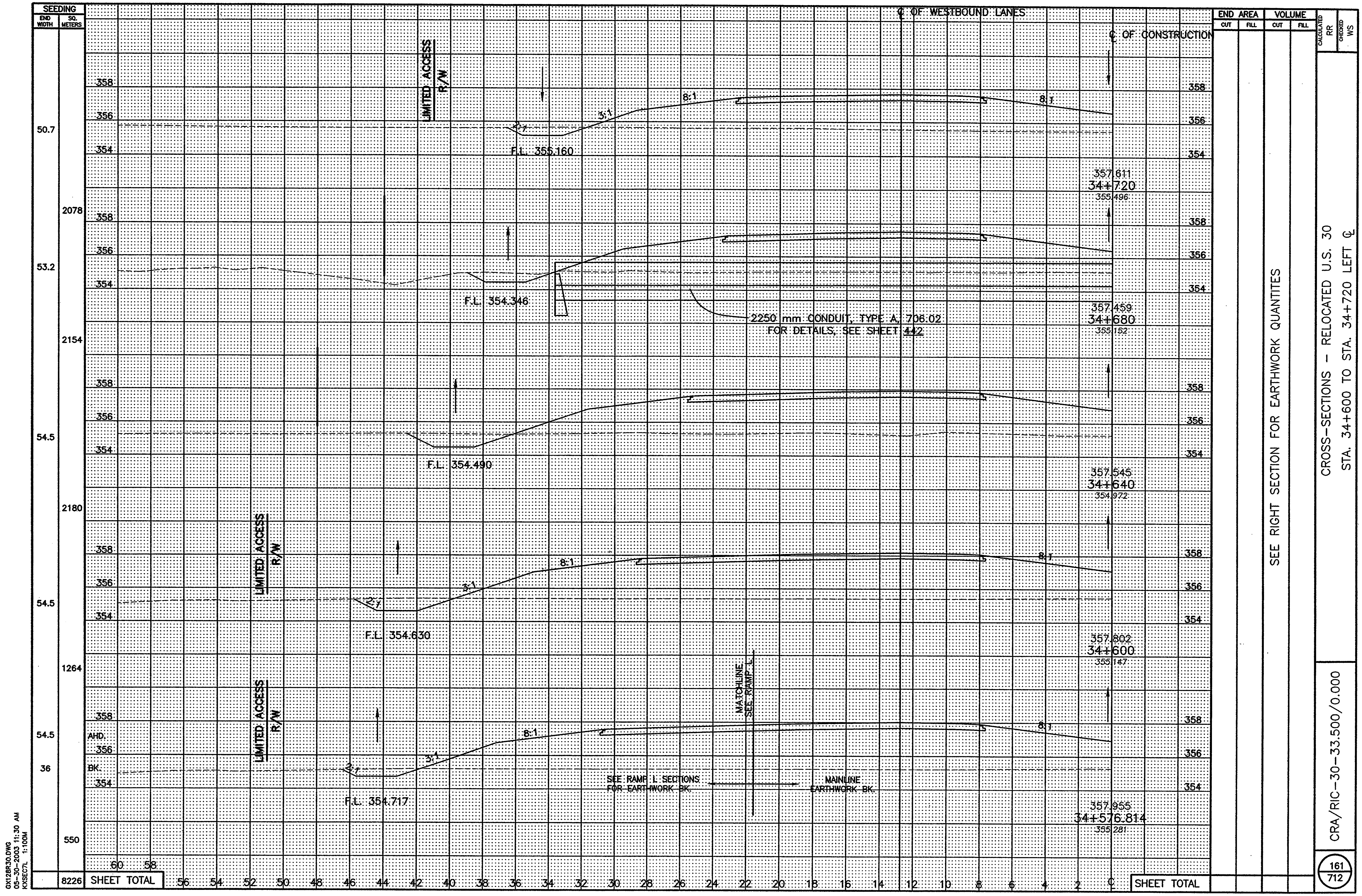
SHEET TOTAL

CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 34+440 TO STA. 34+560 RIGHT ℄

CRA/RIC-30-33.500/0.000

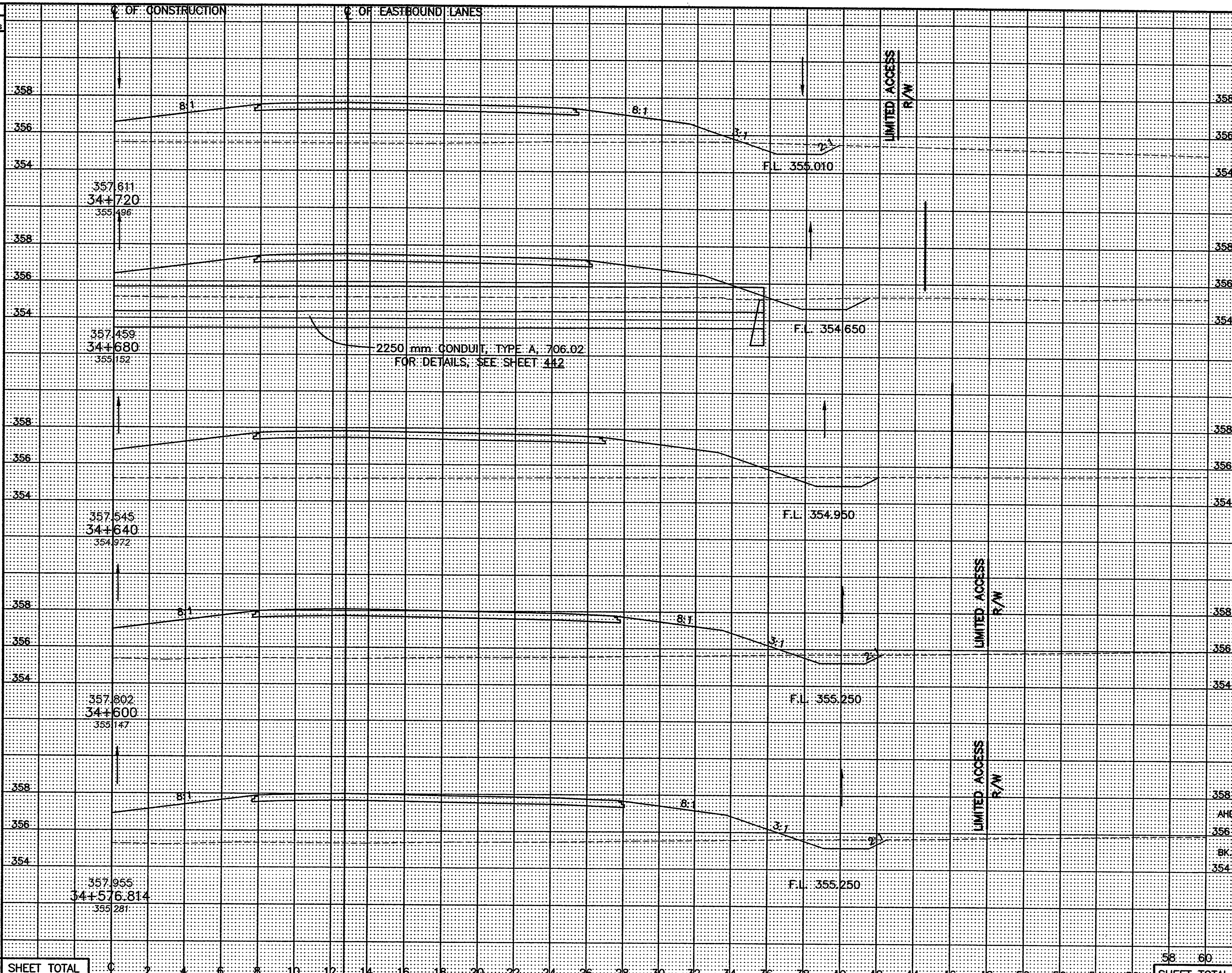
GX127R30.DWG
05-30-2003 4:13 PM
1:100M


SEEDING
END WIDTH
SQ. METERS
50.7
2078
53.2
2154
54.5
2180
54.5
1264
54.5
36
550
8226
SHEET TOTAL
℄ OF WESTBOUND LANES
℄ OF CONSTRUCTION
LIMITED ACCESS R/W
F.L. 355.160
357.611
34+720
355.496
F.L. 354.346
2250 mm CONDUIT, TYPE A, 706.02
FOR DETAILS, SEE SHEET 442
357.459
34+680
355.152
F.L. 354.490
357.545
34+640
354.972
F.L. 354.630
357.802
34+600
355.147
MATCHLINE SEE RAMP L
AHD.
BK.
SEE RAMP L SECTIONS FOR EARTHWORK BK.
MAINLINE EARTHWORK BK.
F.L. 354.717
357.955
34+576.814
355.281
8:1
3:1
2:1
358
356
354
60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 ℄
SHEET TOTAL
END AREA
CUT
FILL
VOLUME
CUT
FILL
SEE RIGHT SECTION FOR EARTHWORK QUANTITES
CALCULATED RR
CHECKED WS
CROSS-SECTIONS - RELOCATED U.S. 30
STA. 34+600 TO STA. 34+720 LEFT ℄
CRA/RIC-30-33.500/0.000
161
712
GX128R30.DWG
05-30-2003 11:30 AM
KXSEC7L 1:100M

SEEDING	
END WIDTH	SQ. METERS

SEE LEFT SECTION FOR SEEDING QUANTITIES

SHEET TOTAL



SHEET TOTAL

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
3.9	99.0		
		162	4350
4.2	118.5		
		192	5112
5.4	137.1		
		208	5798
5.0	152.8		
		97	3608
AHD. 3.4	158.4		
BK. 1.8	122.7		
		27	1945
		686	20813

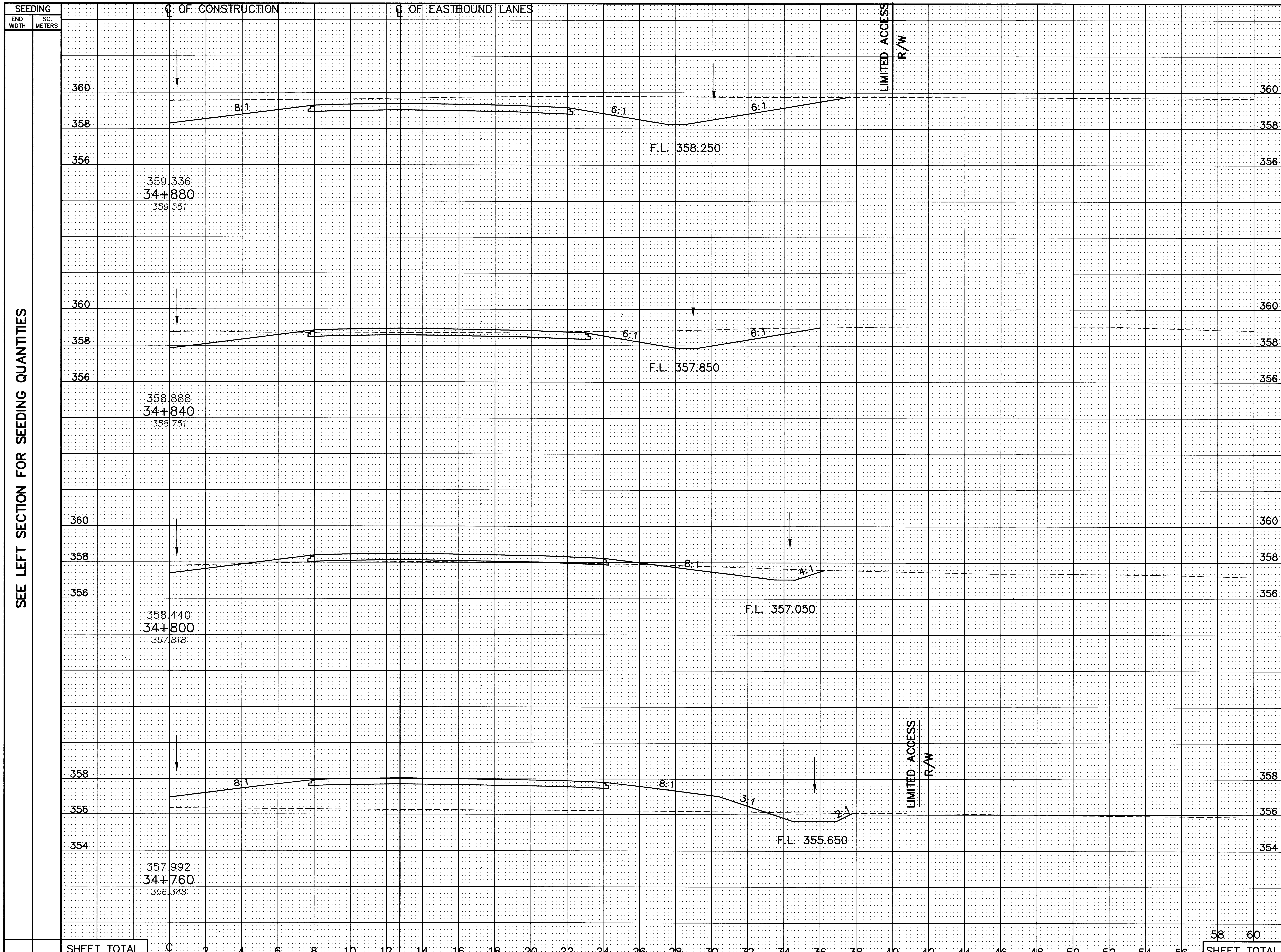
CALCULATED RR
CHECKED WS

CROSS-SECTIONS - RELOCATED U.S. 30
STA. 34+600 TO STA. 34+720 RIGHT ℄

CRA/RIC-30-33.500/0.000

GX129R30.DWG
05-30-2003 12:34 PM
1:100M

GX130R30.DWG
02-23-1999 7:38 AM
1:100M



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
48.9	0		
		1468	0
24.5	0		
		638	226
7.4	11.3		
		212	1680
3.2	72.7		
		142	3434
SHEET TOTAL		2460	5340

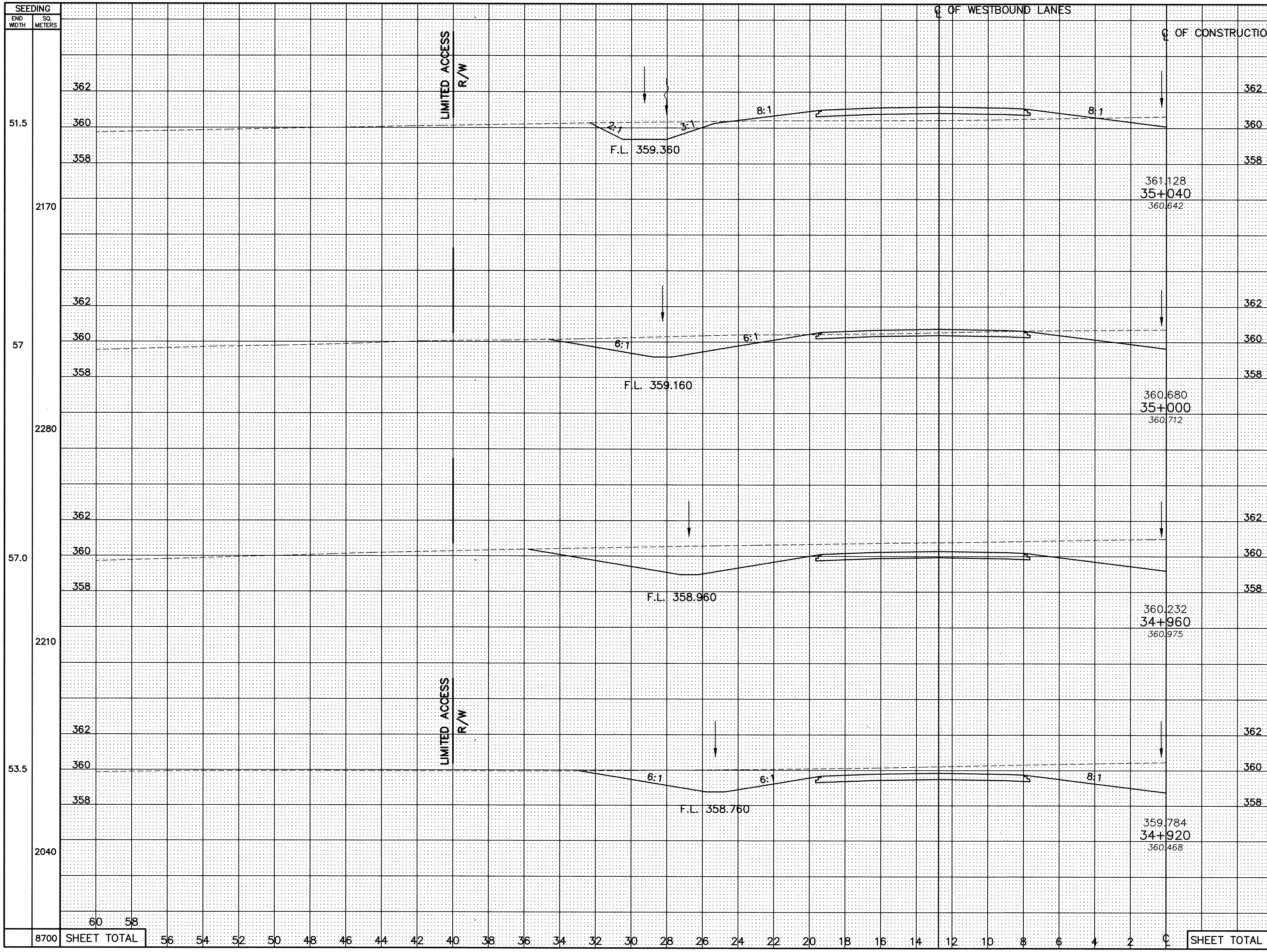
CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 34+760 TO STA. 34+880 RIGHT ℄

CRA/RIC-30-33.500/0.000

164
712

GX131R30.DWG
02-23-1999 7:42 AM
1:100M



END AREA		VOLUME	
CUT	FILL	CUT	FILL

SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

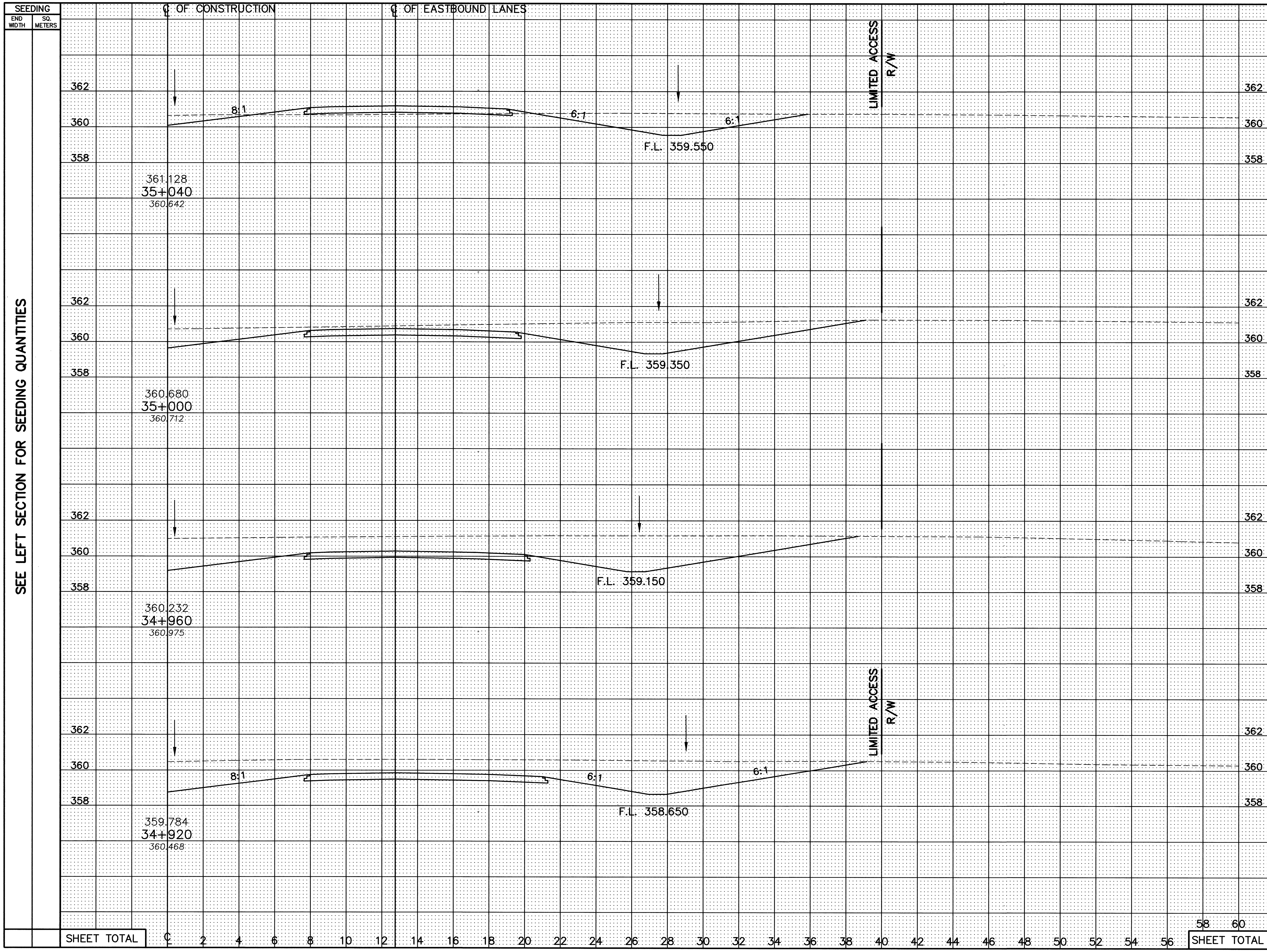
CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 34+920 TO STA. 35+040 LEFT ¢

CRA/RIC-30-33.500/0.000

165
712

GX132R30.DWG
02-11-1999 3:56 PM
KXSEC11L 1:100M



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
17.2	7.8		
		1282	156
46.9	0		
		2622	0
84.2	0		
		3186	0
75.1	0		
		2480	0
		9570	156

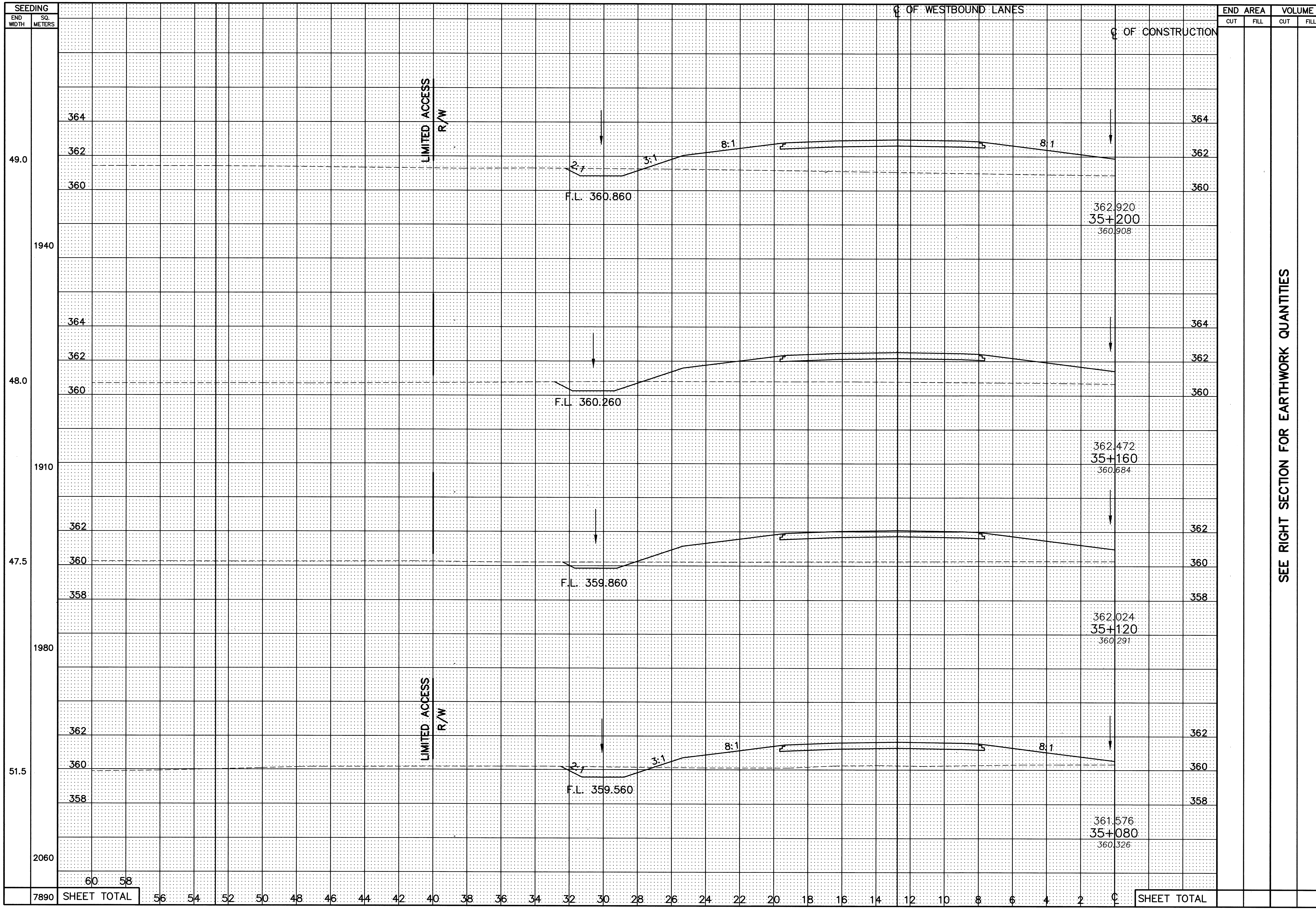
CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 34+920 TO STA. 35+040 RIGHT ℄

CRA/RIC-30-33.500/0.000

166/712

GX133R30.DWG 02-11-1999 3:59 PM KXSEC11R 1:100M



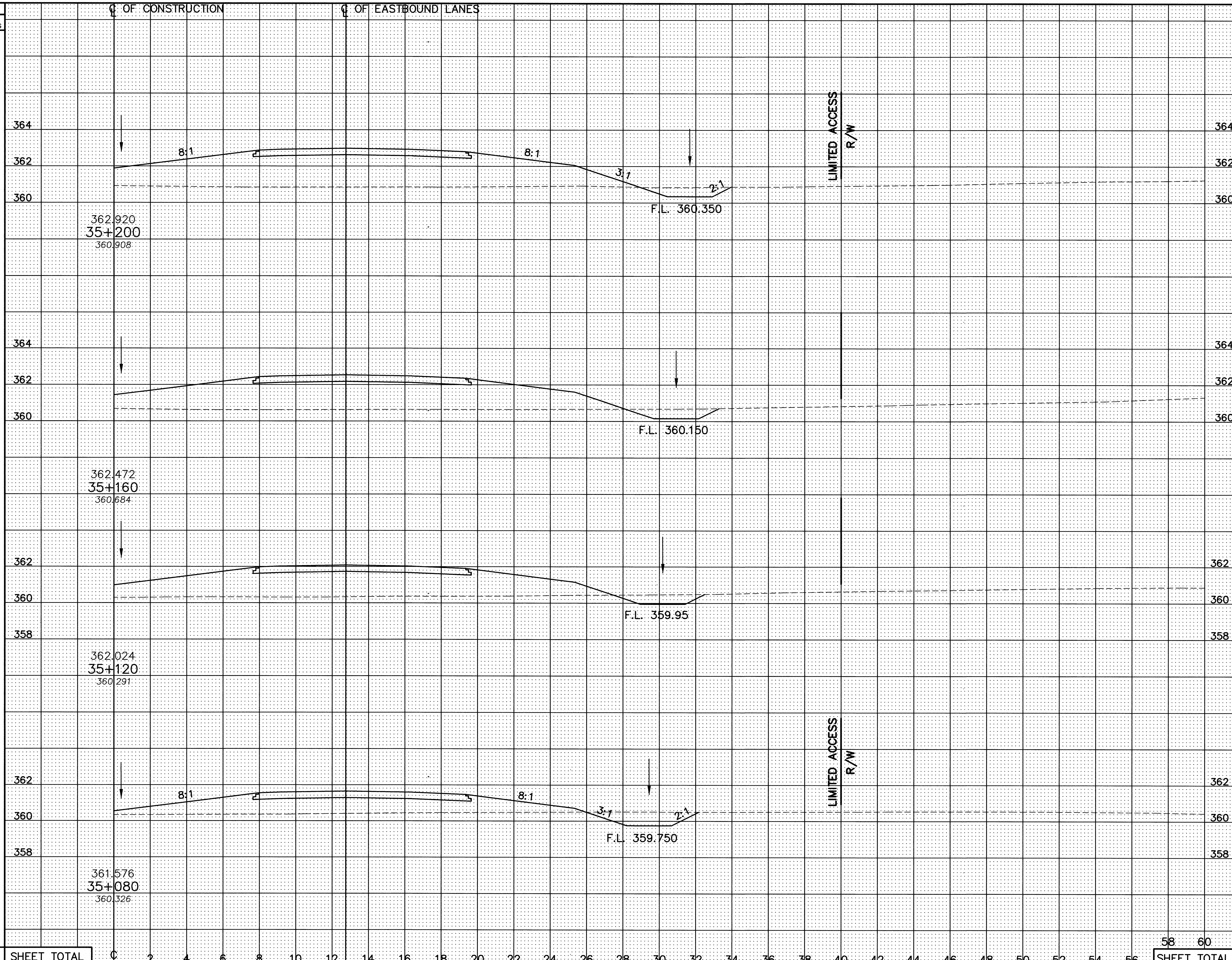
CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 35+080 TO STA. 35+200 LEFT ℄

CRA/RIC-30-33.500/0.000

SEEDING	
END WIDTH	SQ. METERS

SEE LEFT SECTION FOR SEEDING QUANTITIES



SHEET TOTAL

SHEET TOTAL

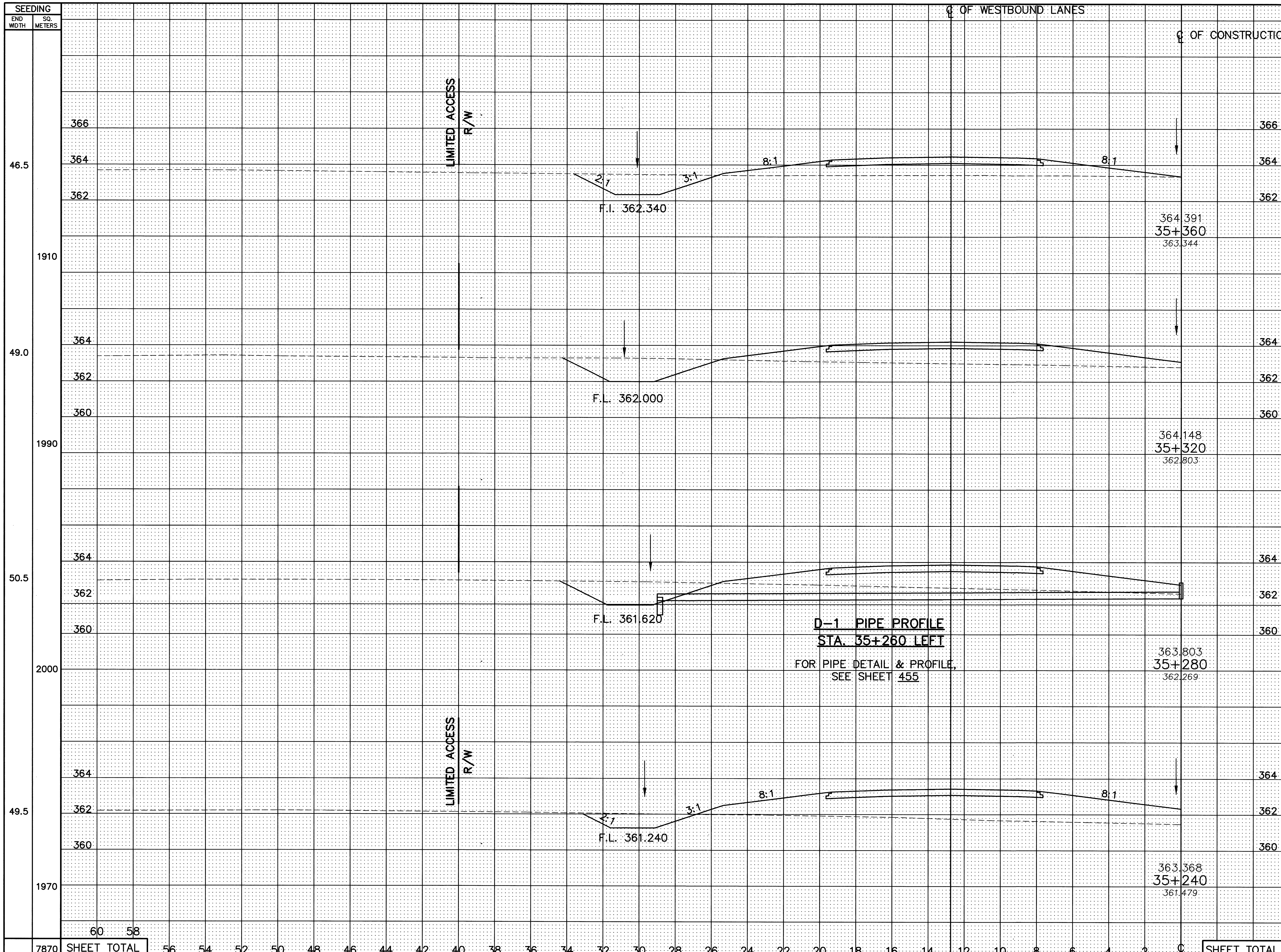
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
3.3	78.9		
		148	2952
4.1	68.7		
		144	2702
3.1	66.4		
		174	2160
5.6	41.6		
		456	988
		922	8802

CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 35+080 TO STA. 35+200 RIGHT ℄

CRA/RIC-30-35.000/0.000

GX135R30.DWG 02-12-1999 7:33 AM KXSEC13R 1:100M



CROSS-SECTIONS – RELOCATED U.S. 30
STA. 35+240 TO STA. 35+360 LEFT ℄

CALCULATED RR
CHECKED WS

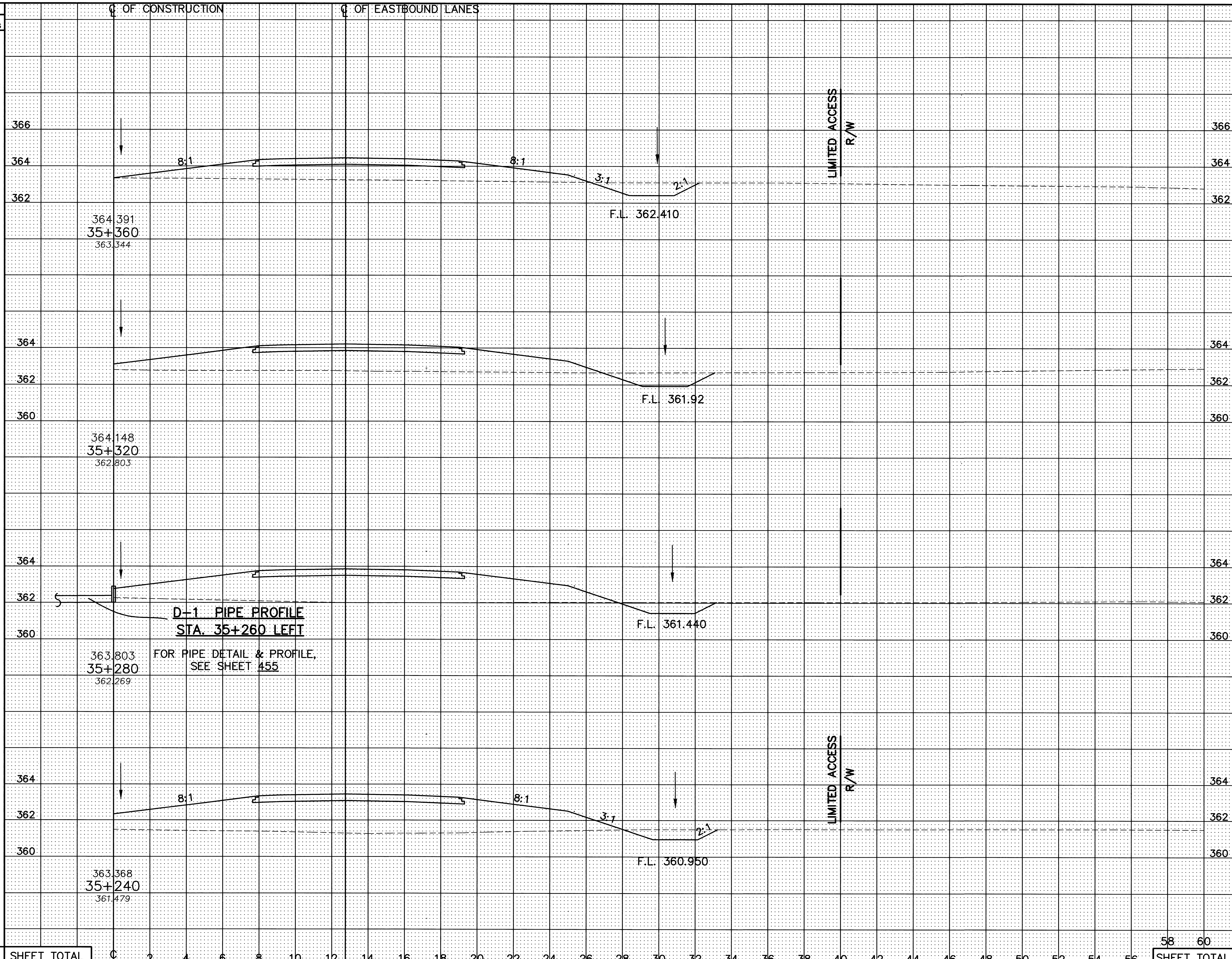
CRA/RIC-30-33.500/0.000

169
712

GX136R30.DWG
02-23-1999 7:47 AM
1:100M

SEEDING	
END WIDTH	SQ. METERS
SHEET TOTAL	

SEE LEFT SECTION FOR SEEDING QUANTITIES



SHEET TOTAL

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
8.7	31.2		
		384	1468
10.5	42.2		
		402	1906
9.6	53.1		
		304	2474
5.6	70.6		
		178	2990
SHEET TOTAL		1268	8838

CALCULATED RR CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 35+240 TO STA. 35+360 RIGHT ℄

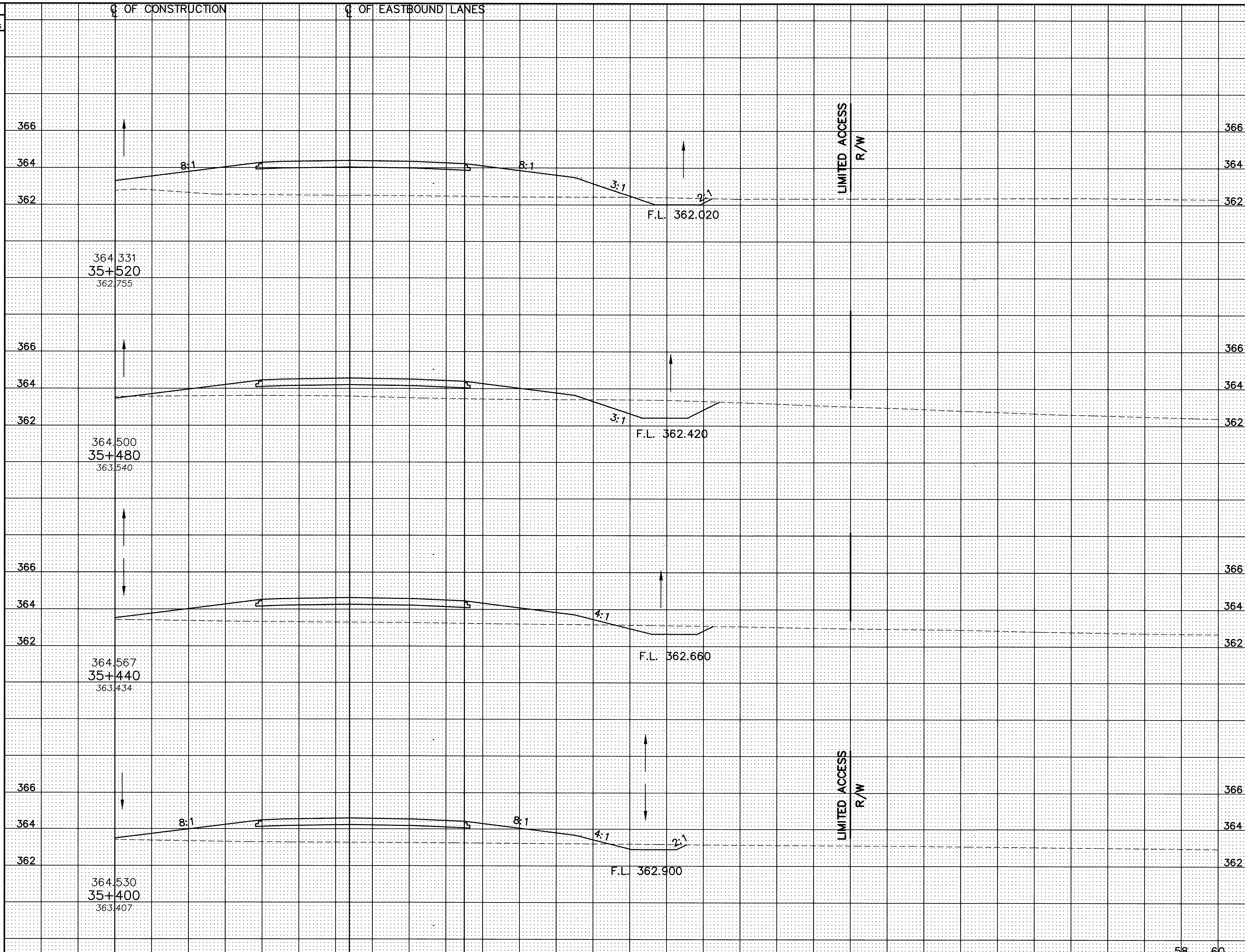
CRA/RIC-30-33.500/0.000

GX137R30.DWG 02-12-1999 7:36 AM MXSEC1R 1:100M


SEEDING
END WIDTH
SQ. METERS
49.5
1940
47.5
1910
48.0
1890
46.5
1860
7600
SHEET TOTAL
℄ OF WESTBOUND LANES
℄ OF CONSTRUCTION
LIMITED ACCESS R/W
366
364
362
2:1
3:1
8:1
F.L. 362.340
364.331
35+520
362.755
F.L. 362.820
364.500
35+480
363.540
F.L. 363.300
364.567
35+440
363.434
F.L. 362.820
364.530
35+400
363.407
60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 ℄
SHEET TOTAL
END AREA
CUT FILL
VOLUME
CUT FILL
SEE RIGHT SECTION FOR EARTHWORK QUANTITIES
CALCULATED RR
CHECKED WS
CROSS-SECTIONS – RELOCATED U.S. 30
STA. 35+400 TO STA. 35+520 LEFT ℄
CRA/RIC-30-33.500/0.000
171
712
GX13BR30.DWG
02-23-1999 7:5 AM
1:100M

SEEDING	
END WIDTH	SQ. METERS
SHEET TOTAL	

SEE LEFT SECTION FOR SEEDING QUANTITIES



END AREA		VOLUME	
CUT	FILL	CUT	FILL
8.7	57.2		
		320	1706
7.3	28.1		
		254	1228
5.4	33.3		
		204	1354
4.8	34.4		
		270	1312
SHEET TOTAL		1048	5600

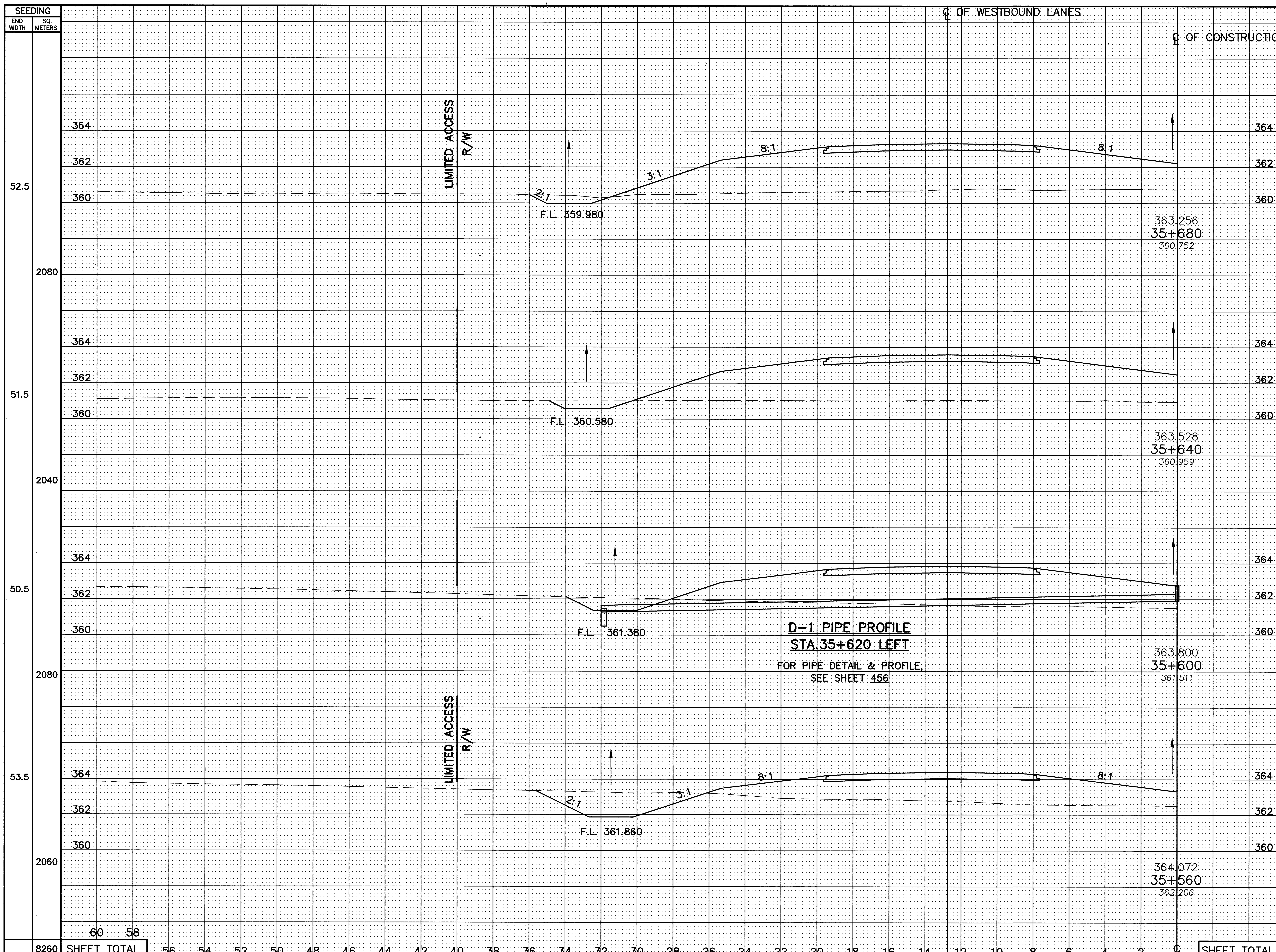
CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 35+400 TO STA. 35+520 RIGHT ℄

CRA/RIC-30-33.500/0.000

172/712

GX139R30.DWG
02-23-1999 7:53 AM
1:100M



END AREA		VOLUME	
CUT	FILL	CUT	FILL

SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

SHEET TOTAL

CALCULATED RR

CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30

STA. 35+560 TO STA. 35+680 LEFT ℄

CRA/RIC-30-33.500/0.000

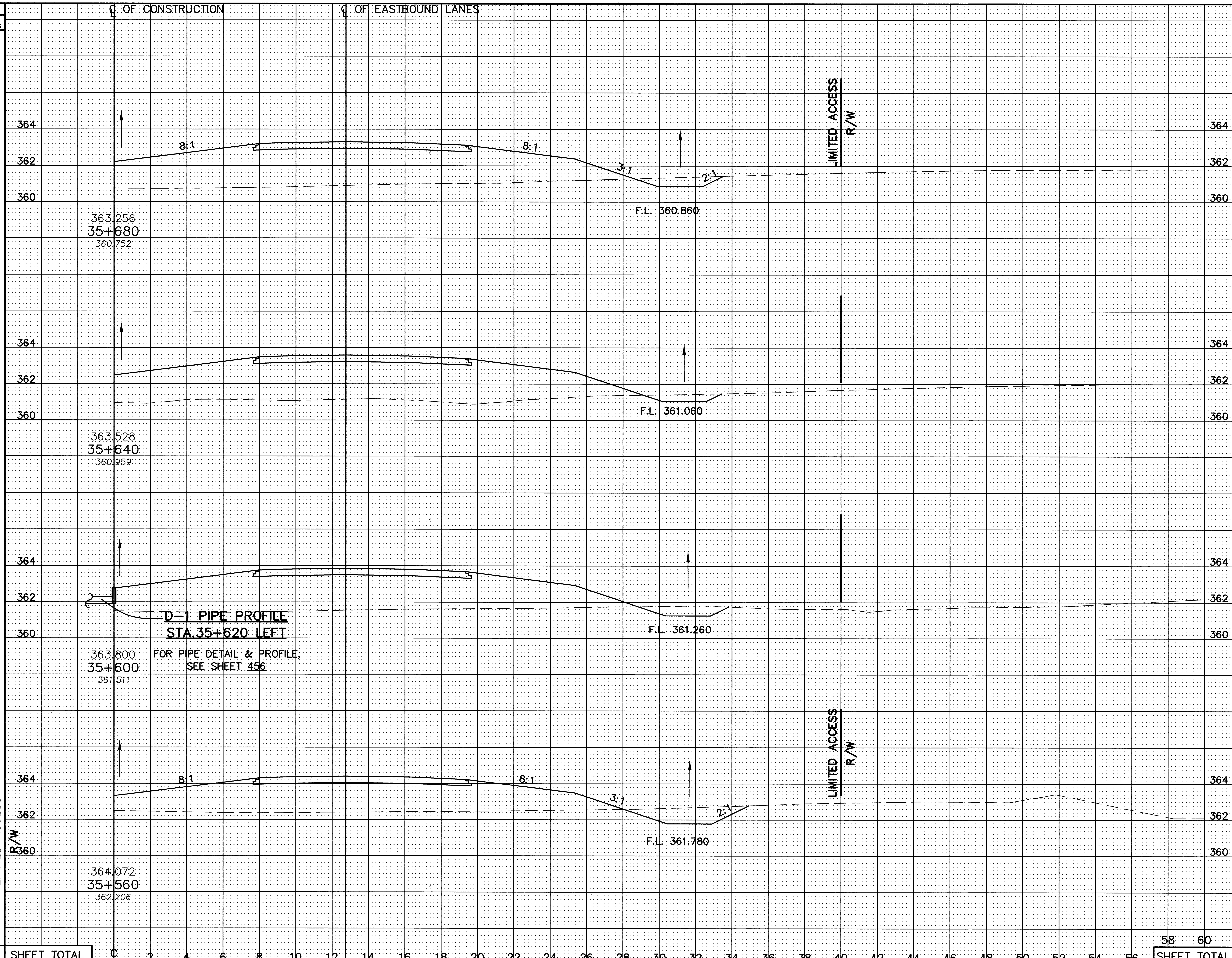
173/712

GX140R30.DWG
02-12-1999 7:44 AM
MXSEC6L 1:100M

SEEDING	
END WIDTH	SQ. METERS

SEE LEFT SECTION FOR SEEDING QUANTITIES

LIMITED ACCESS R/W



SHEET TOTAL

SHEET TOTAL

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
3.3	108.8		
		122	4348
2.8	108.6		
		152	3990
4.8	90.9		
		344	3176
12.4	67.9		
		422	2502
		1040	14016

CALCULATED RR
CHECKED WS

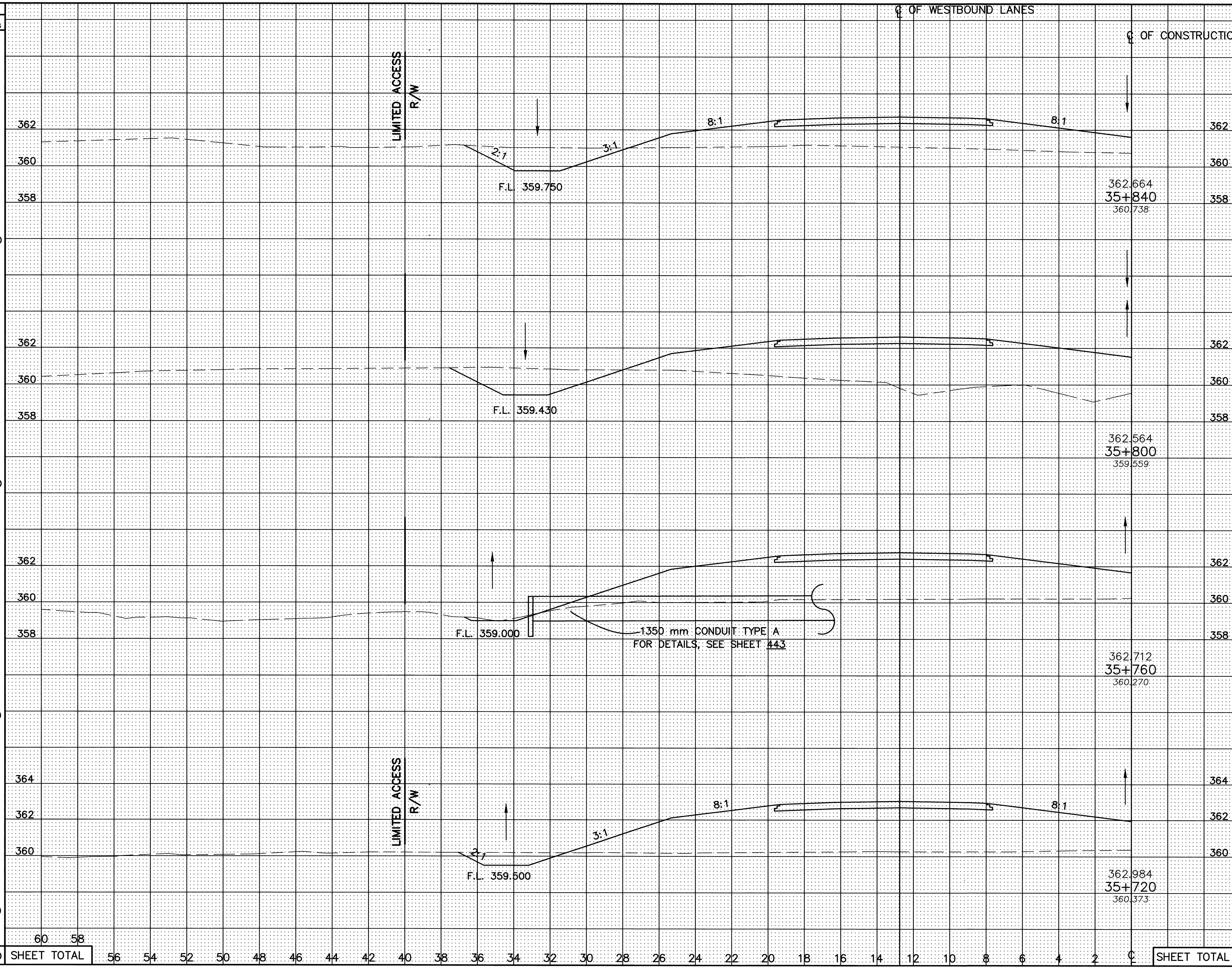
CROSS-SECTIONS – RELOCATED U.S. 30
STA. 35+560 TO STA. 35+680 RIGHT ℄

CRA/RIC-30-33.500/0.000

174/712

GX141R30.DWG
02-12-1999 7:47 AM
MXSEC6R 1:100M

SEEDING	
END WIDTH	SQ. METERS
57.5	2350
60.0	2280
54.0	2150
53.5	2120
	8900



END AREA		VOLUME	
CUT	FILL	CUT	FILL

SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

CALCULATED RR
CHECKED WS

CROSS-SECTIONS - RELOCATED U.S. 30
STA. 35+720 TO STA. 35+840 LEFT ℄

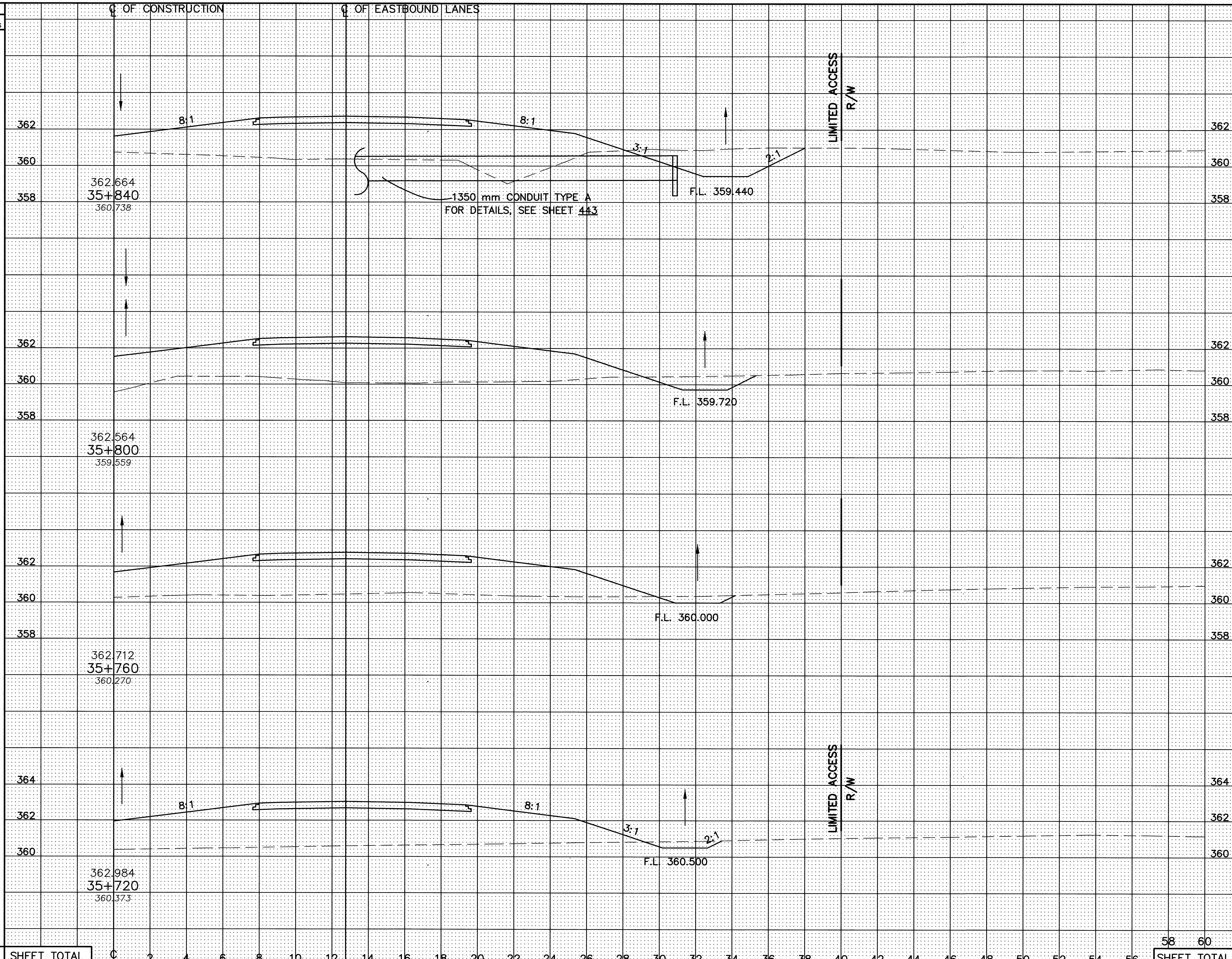
CRA/RIC-30-33.500/0.000

175/712

GX142R30.DWG
02-12-1999 7:49 AM
MXSECBL 1:100M

SEEDING	
END WIDTH	SQ. METERS
SHEET TOTAL	

SEE LEFT SECTION FOR SEEDING QUANTITIES



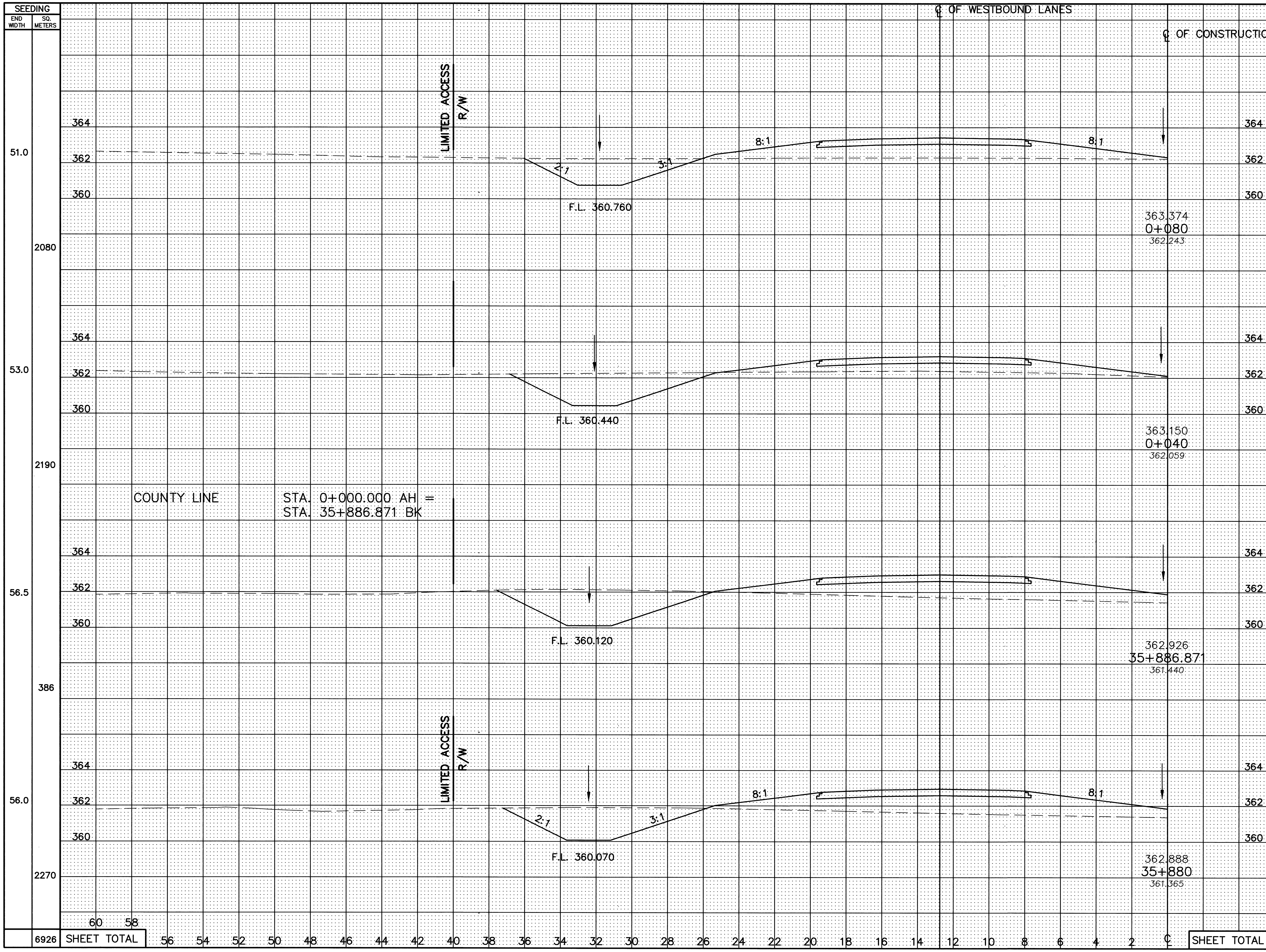
Station	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
35+840	16.5	82.5		
			568	3760
35+800	11.9	105.5		
			266	4286
35+760	1.4	108.8		
			110	4480
35+720	4.1	115.2		
			148	4480
SHEET TOTAL			1092	17006

CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 35+720 TO STA. 35+840 RIGHT ℄

CRA/RIC-30-33.500/0.000

GX143R30.DWG
02-12-1999 7:51 AM
MXSEC8R 1:100M



END AREA		VOLUME	
CUT	FILL	CUT	FILL

SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 35+880 TO STA. 0+080 LEFT ℄

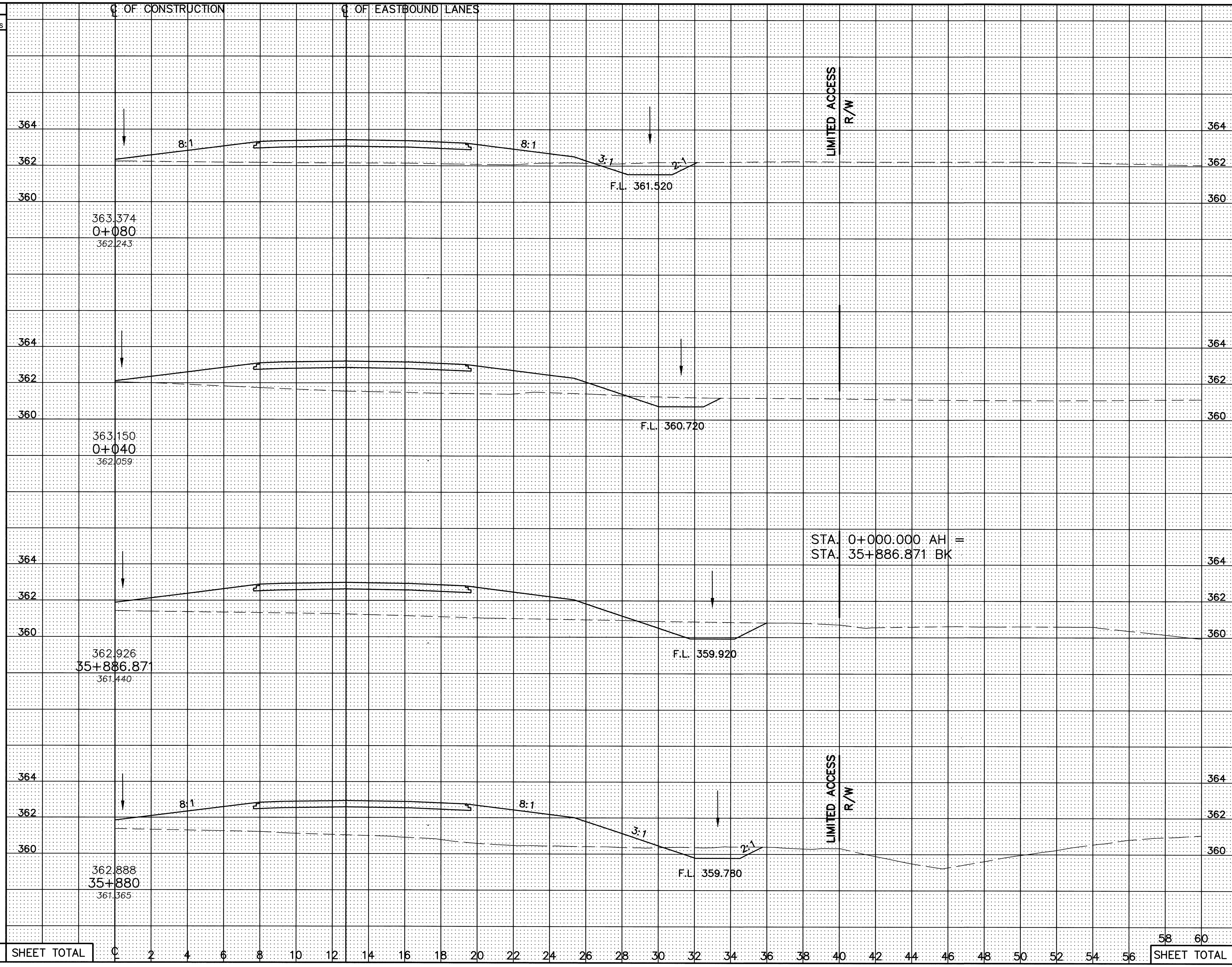
CRA/RIC-30-33.500/0.000

177/712

GX14R30.DWG
02-12-1999 7:58 AM
MXSEC10L 1:100M

SEEDING	
END WIDTH	SQ. METERS

SEE LEFT SECTION FOR SEEDING QUANTITIES



SHEET TOTAL

END AREA		VOLUME	
CUT	FILL	CUT	FILL
11.9	35.8		
		532	1478
14.7	38.1		
		676	1816
19.1	52.7		
		117	396
15.1	62.6		
		632	2902
SHEET TOTAL		1957	6592

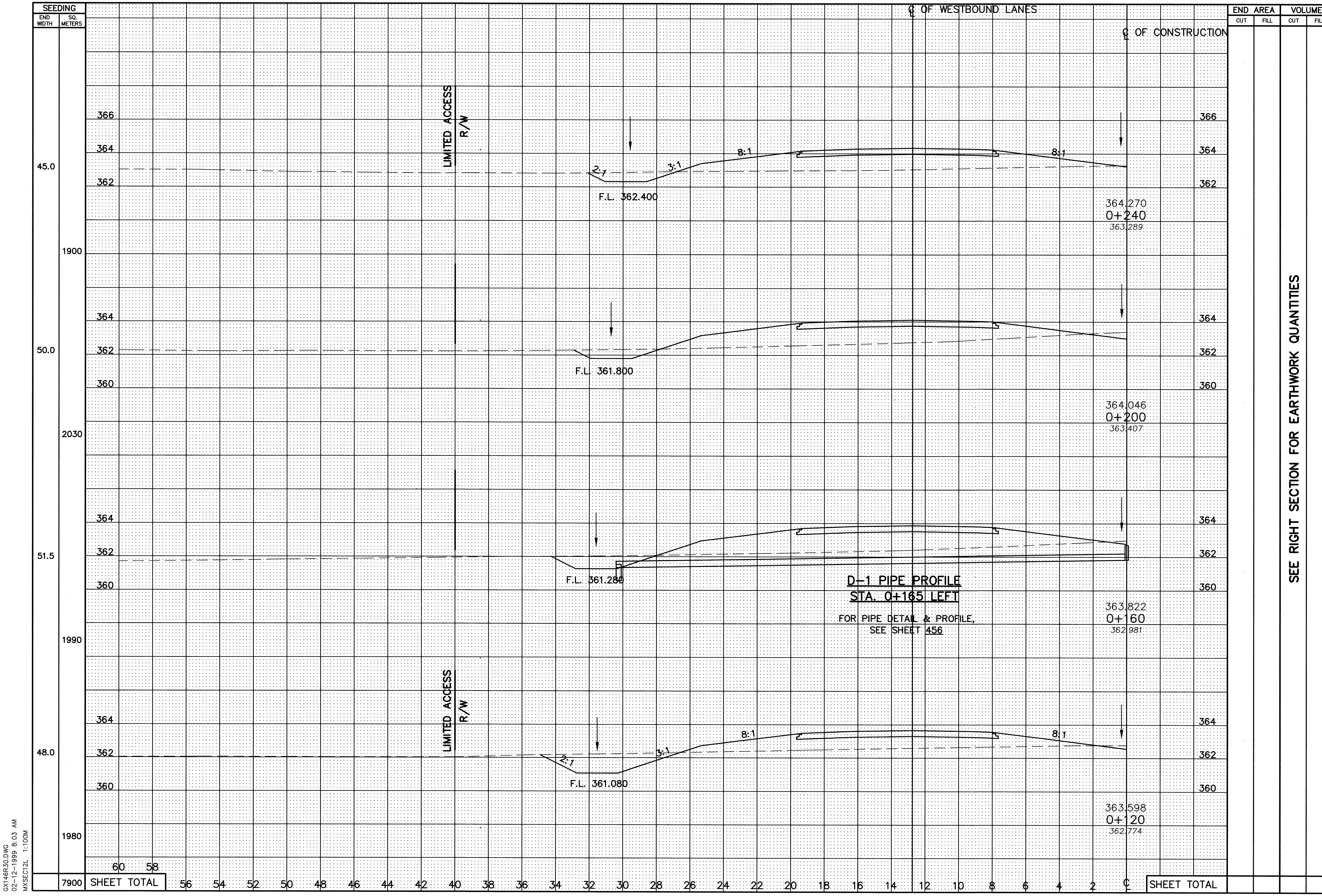
CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 35+880 TO STA. 0+080 RIGHT ℄

CRA/RIC-30-33.500/0.000

178
712

GX145R30.DWG
02-12-1999 8:01 AM
MXSEC10R 1:100M



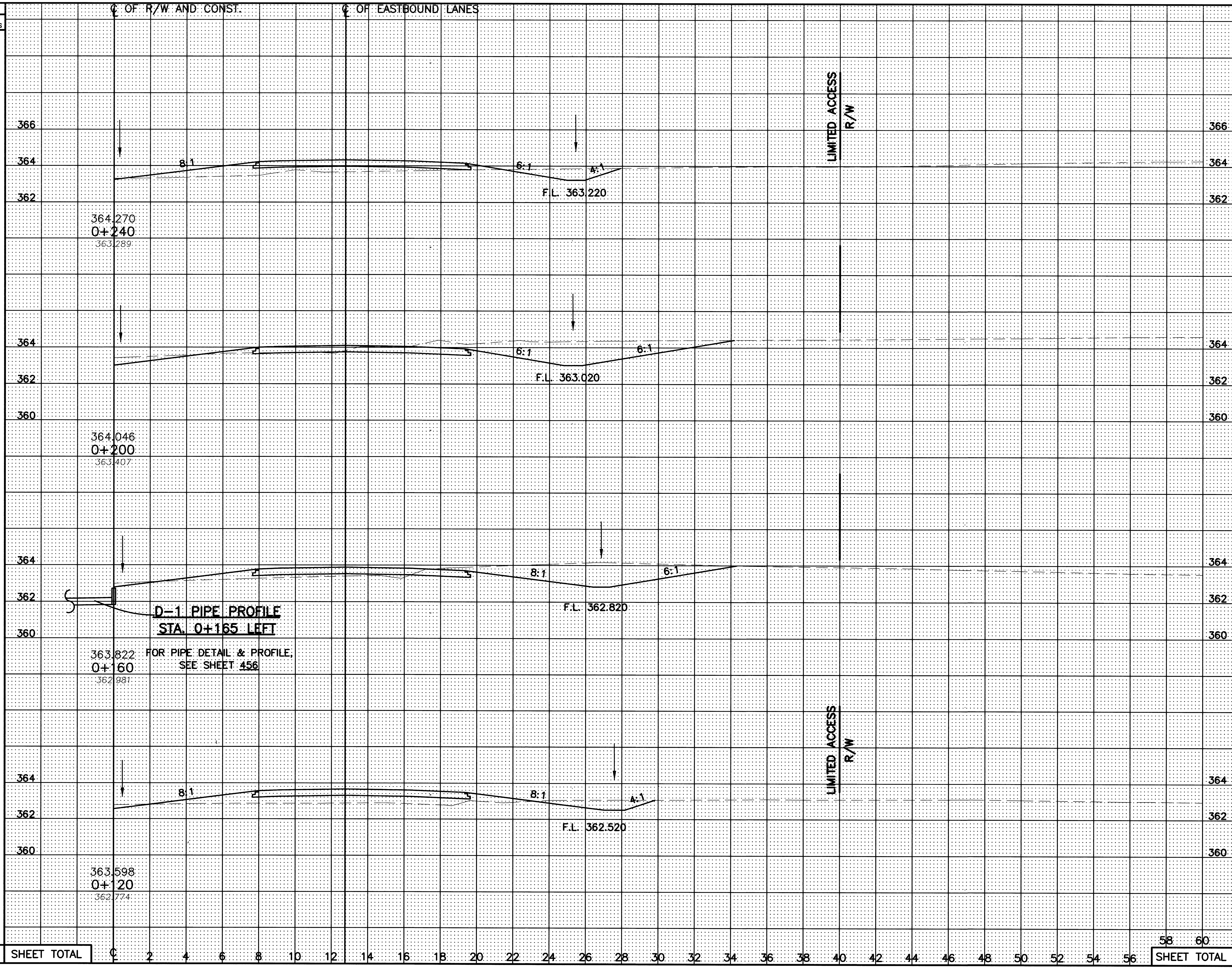
CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 0+120 TO STA. 0+240 LEFT ℄

CRA/RIC-30-33.500/0.000

179
712

SEEDING	
END WIDTH	SQ. METERS
SEE LEFT SECTION FOR SEEDING QUANTITIES	
SHEET TOTAL	



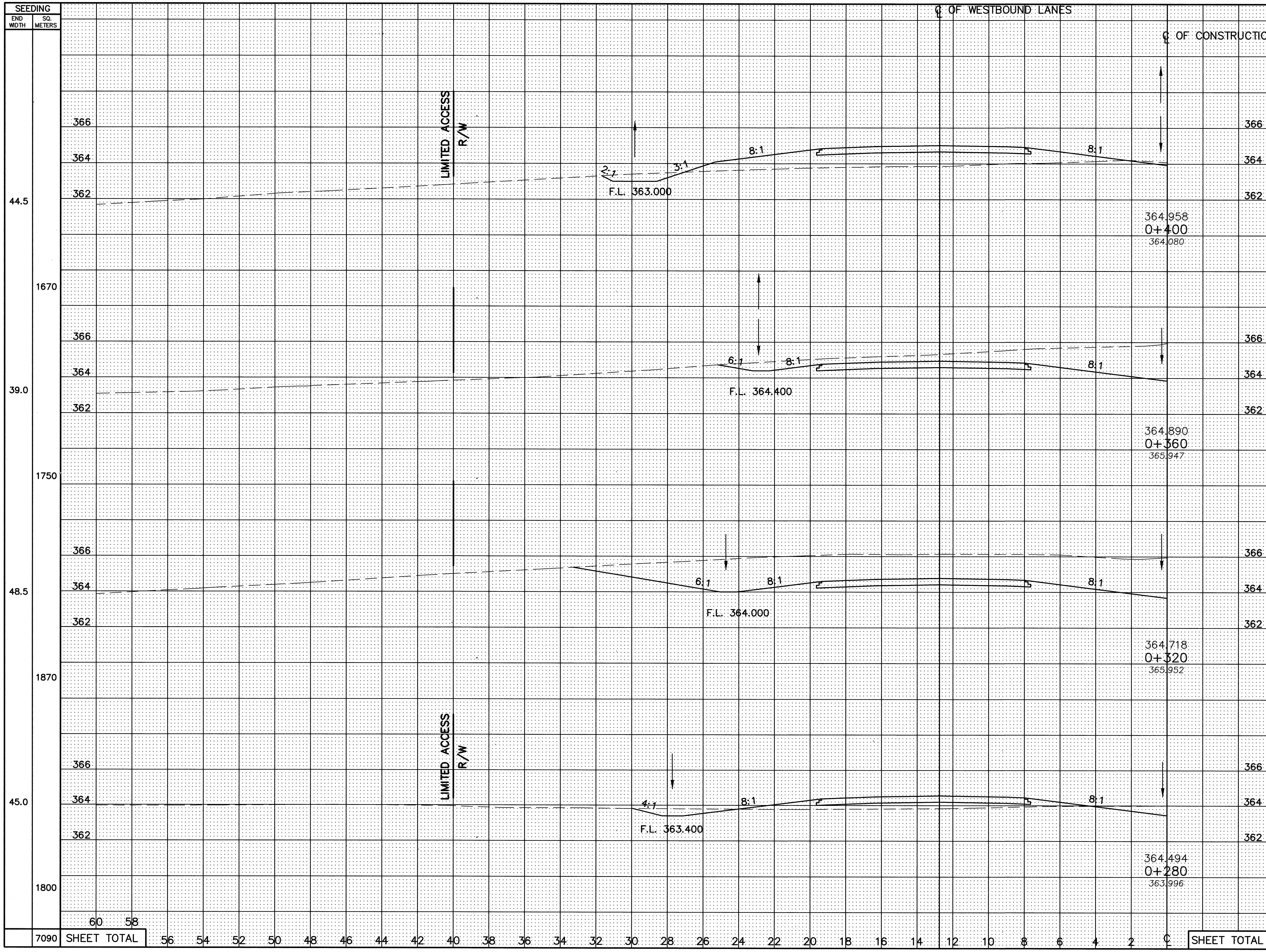
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
5.2	24.6		
		452	942
17.4	22.5		
		662	976
15.7	26.3		
		482	964
8.4	21.9		
		406	1154
		2002	4036

CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 0+120 TO STA. 0+240 RIGHT ℄

CRA/RIC-30-33.500/0.00

GX147R30.DWG
03-27-2001 11:21 AM
1:100M



END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED RR
CHECKED WS

SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

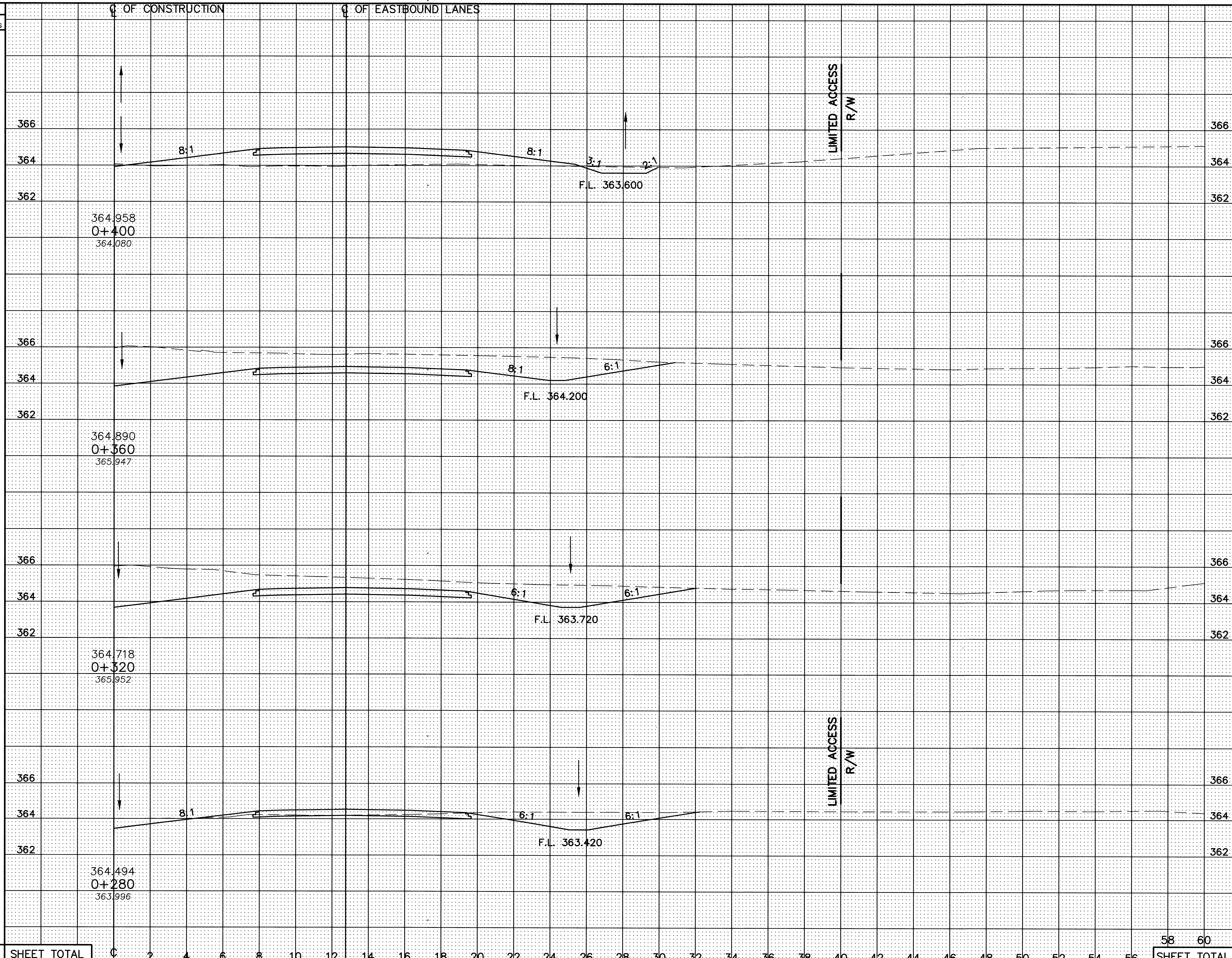
CROSS-SECTIONS – RELOCATED U.S. 30
STA. 0+280 TO STA. 0+400 LEFT ℄

CRA/RIC-30-33.500/0.000

GX148R30.DWG
02-12-1999 8:04 AM
MXSEC13L 1:100M

SEEDING	
END WIDTH	SQ. METERS

SEE LEFT SECTION FOR SEEDING QUANTITIES



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
2.8	29.8		
		1184	576
56.4	0		
		2830	0
85.1	0		
		1980	172
13.9	8.6		
		382	664
SHEET TOTAL		6376	1412

CALCULATED RR
CHECKED WS

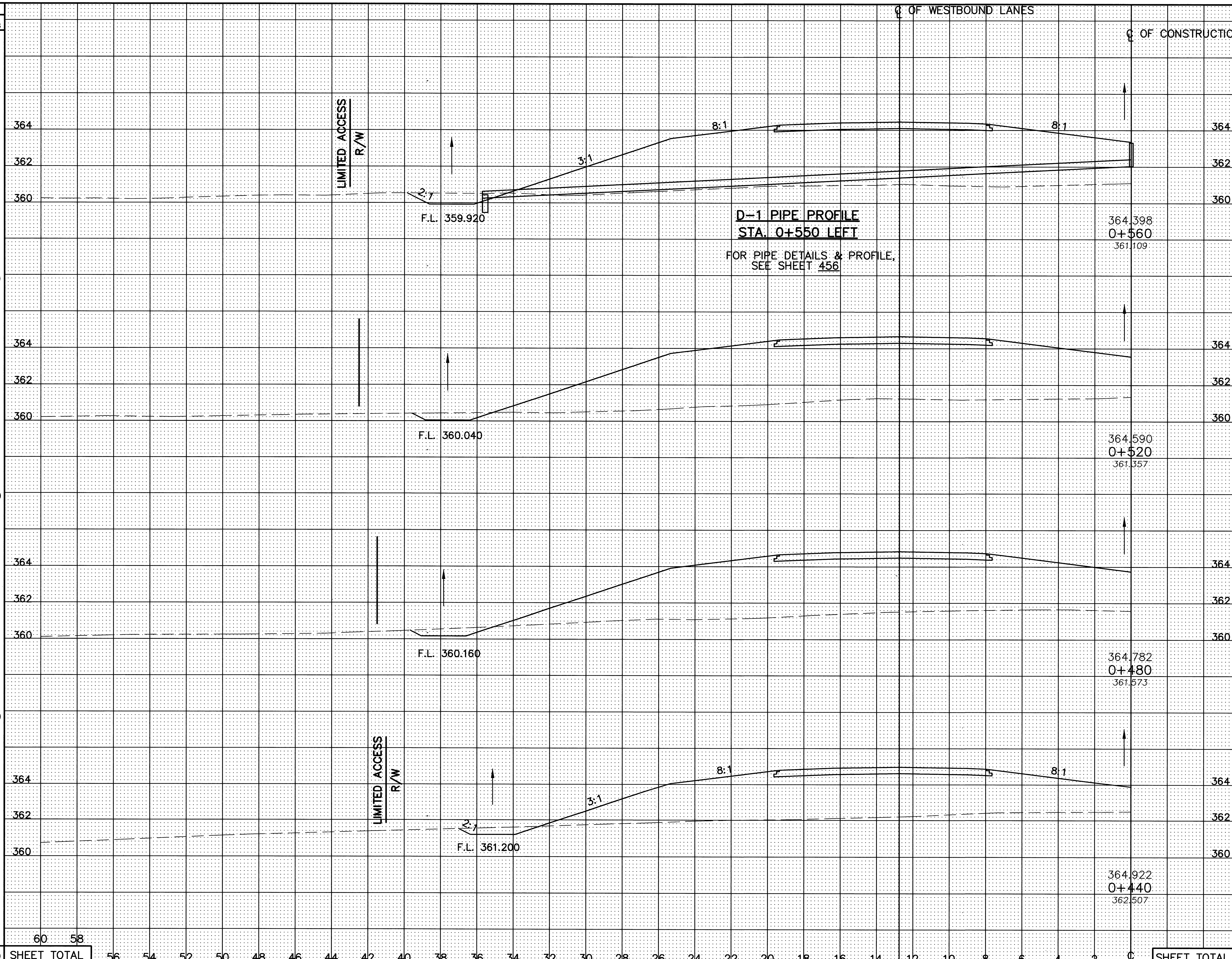
CROSS-SECTIONS – RELOCATED U.S. 30
STA. 0+280 TO STA. 0+400 RIGHT ℄

CRA/RIC-30-33.500/0.000

182
712

GX149R30.DWG
02-12-1999 8:06 AM
MXSEC13R 1:100M

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. METERS	CUT	FILL	CUT	FILL
61.0	2410				
59.5	2340				
57.5	2230				
54.0	1970				
	8950				



SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

CALCULATED RR
CHECKED WS

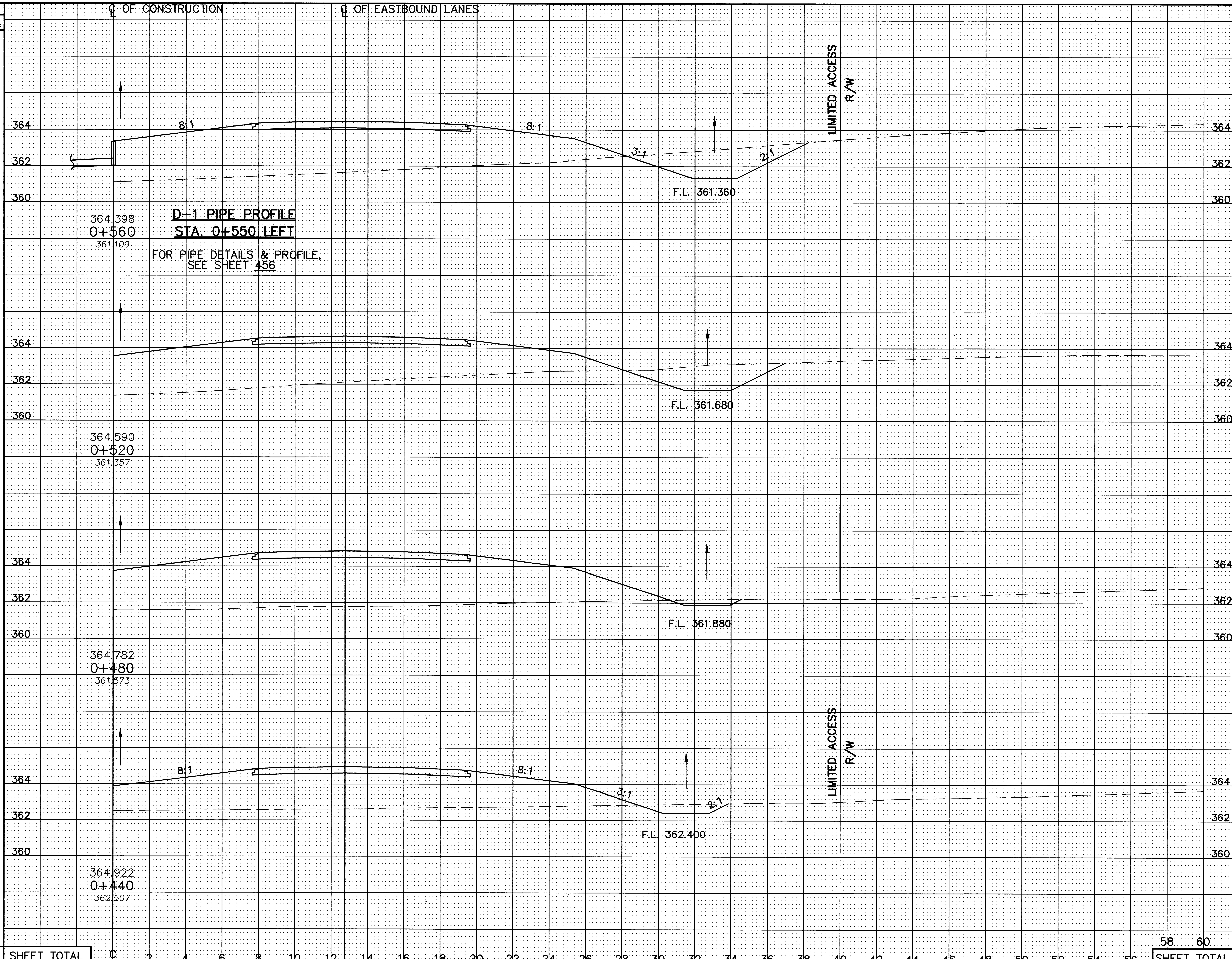
CROSS-SECTIONS – RELOCATED U.S. 30
STA. 0+440 TO STA. 0+560 LEFT ℄

CRA/RIC-30-33.500/0.000

GX150R30.DWG
02-12-1999 8:08 AM
CXSEC33L 1:100M

SEE LEFT SECTION FOR SEEDING QUANTITIES

SEEDING	
END WIDTH	SQ. METERS
SHEET TOTAL	



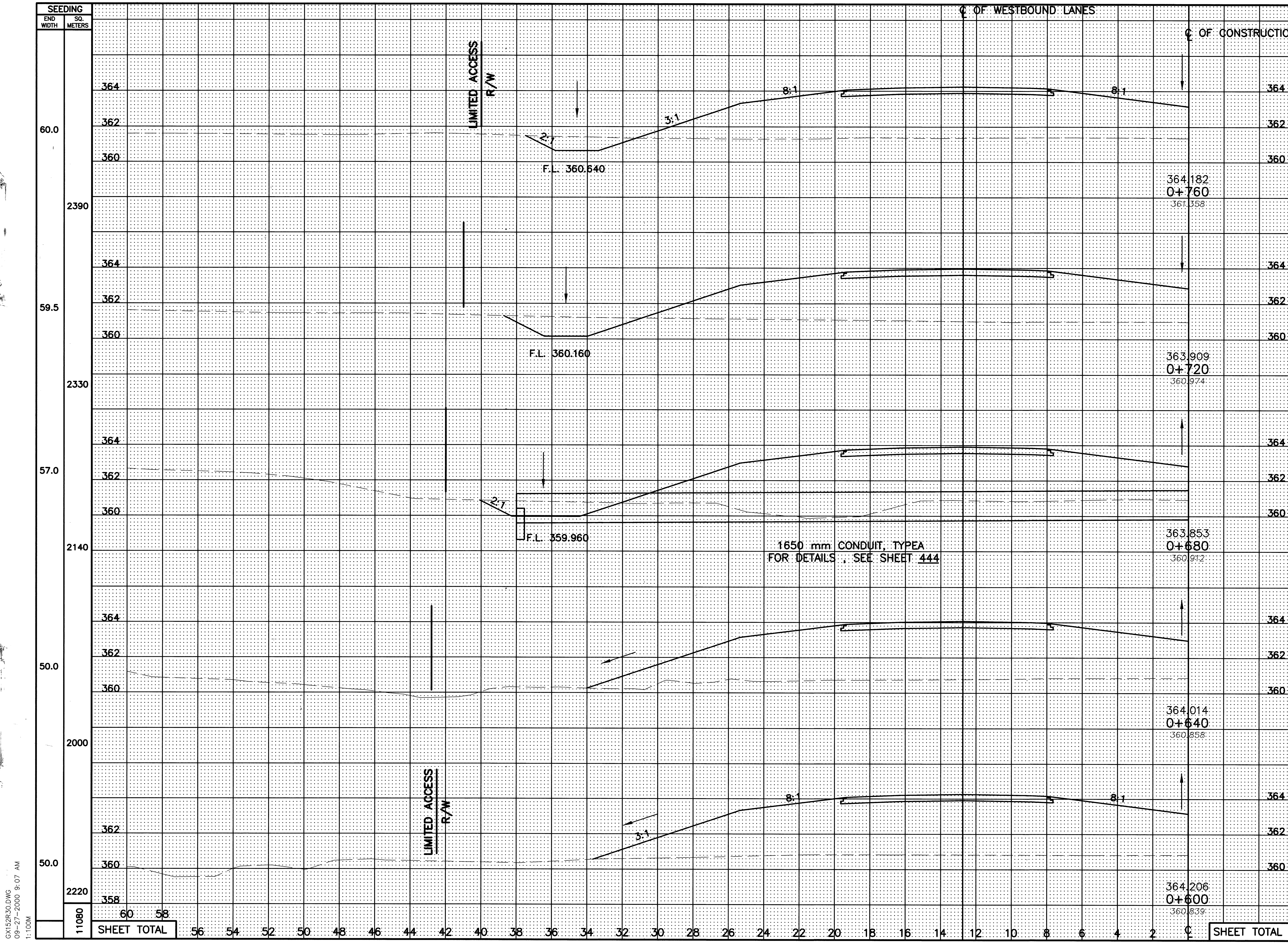
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
12.0	149.2		
		420	5888
9.0	145.2		
		226	6026
2.3	156.1		
		110	5388
3.2	113.3		
		120	2862
		876	20164

CALCULATED RR CHECKED WS

CROSS-SECTIONS - RELOCATED U.S. 30
STA. 0+440 TO STA. 0+560 RIGHT ℄

CRA/RIC-30-33.500/0.000

GX151R30.DWG 02-12-1999 8:1 AM CXSEC33R 1:100M



END AREA		VOLUME	
CUT	FILL	CUT	FILL

SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

CALCULATED RR

CHECKED WS

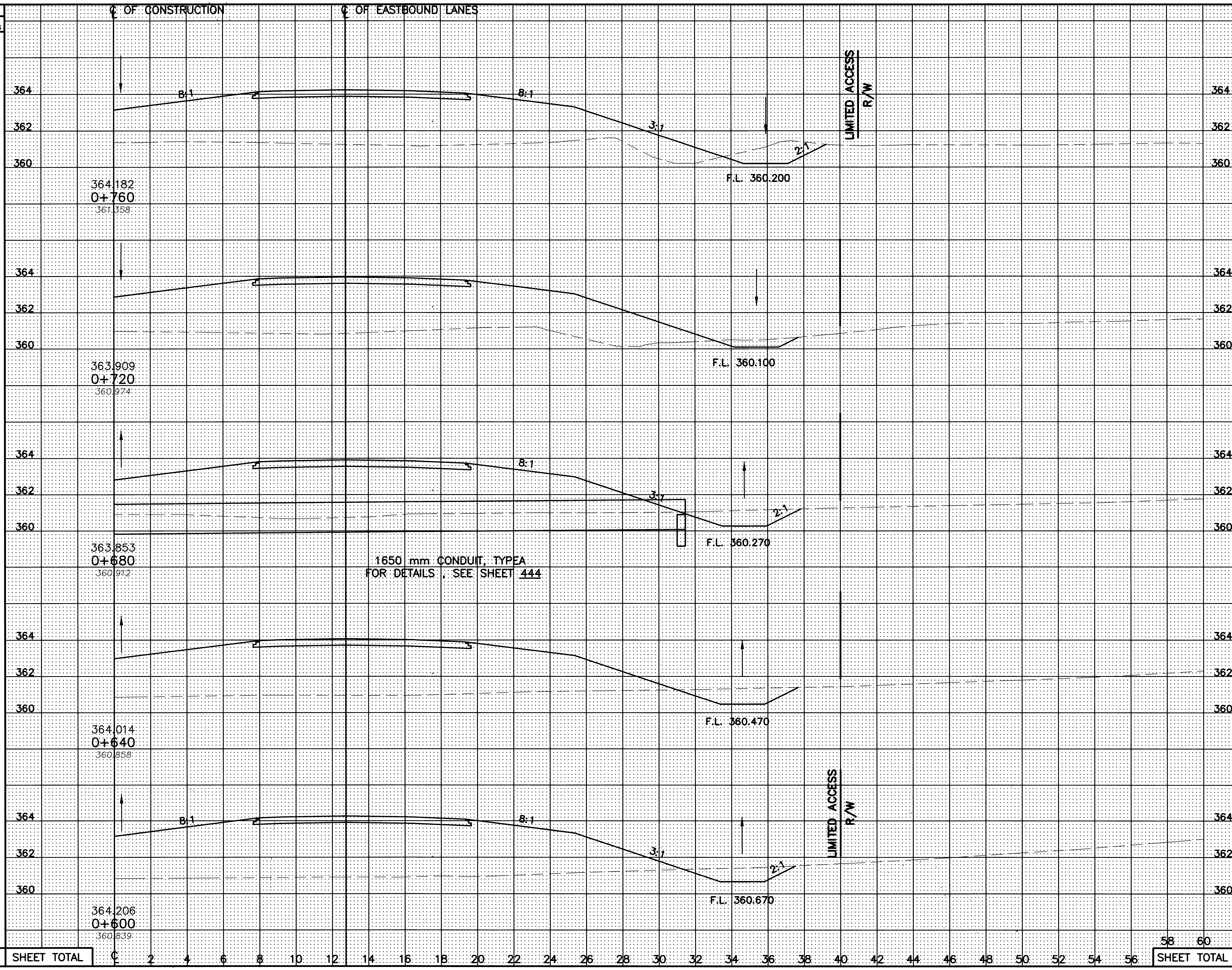
CROSS-SECTIONS – RELOCATED U.S. 30
STA. 0+600 TO STA. 0+760 LEFT ℄

CRA/RIC-30-33.500/0.000

185
712

SEEDING	
END WIDTH	SQ. METERS
SHEET TOTAL	

SEE LEFT SECTION FOR SEEDING QUANTITIES



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
7.4	136.4		
		288	5548
7.0	141.0		
		320	5806
9.0	149.3		
		260	6034
4.0	152.4		
		140	6314
3.0	163.3		
		300	6250
		1308	29952

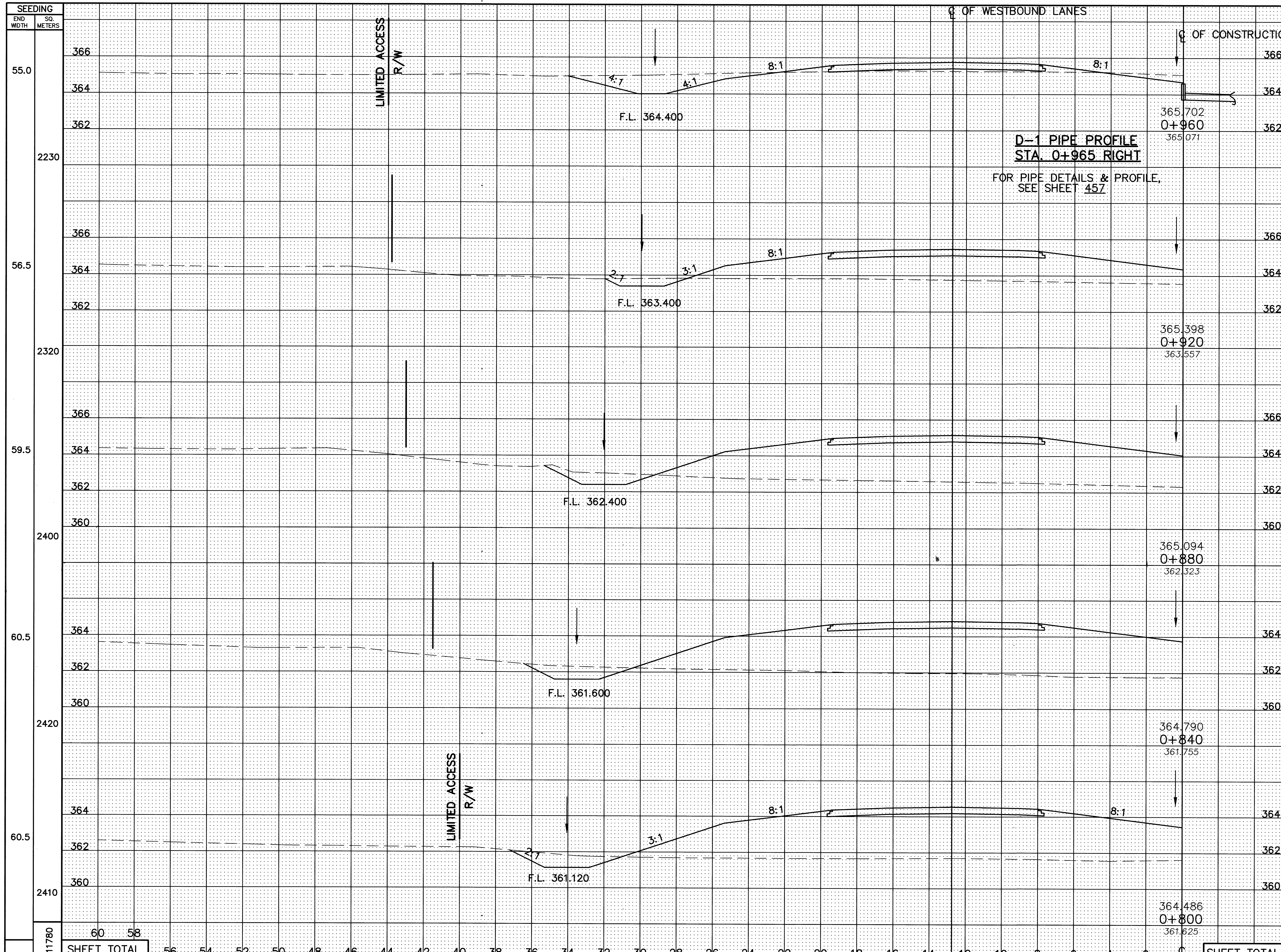
CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 0+600 TO STA. 0+760 RIGHT ℄

CRA/RIC-30-33.500/0.000

186
712

GX153R30.DWG
09-27-2000 9:05 AM
1:100M



END AREA		VOLUME	
CUT	FILL	CUT	FILL

SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

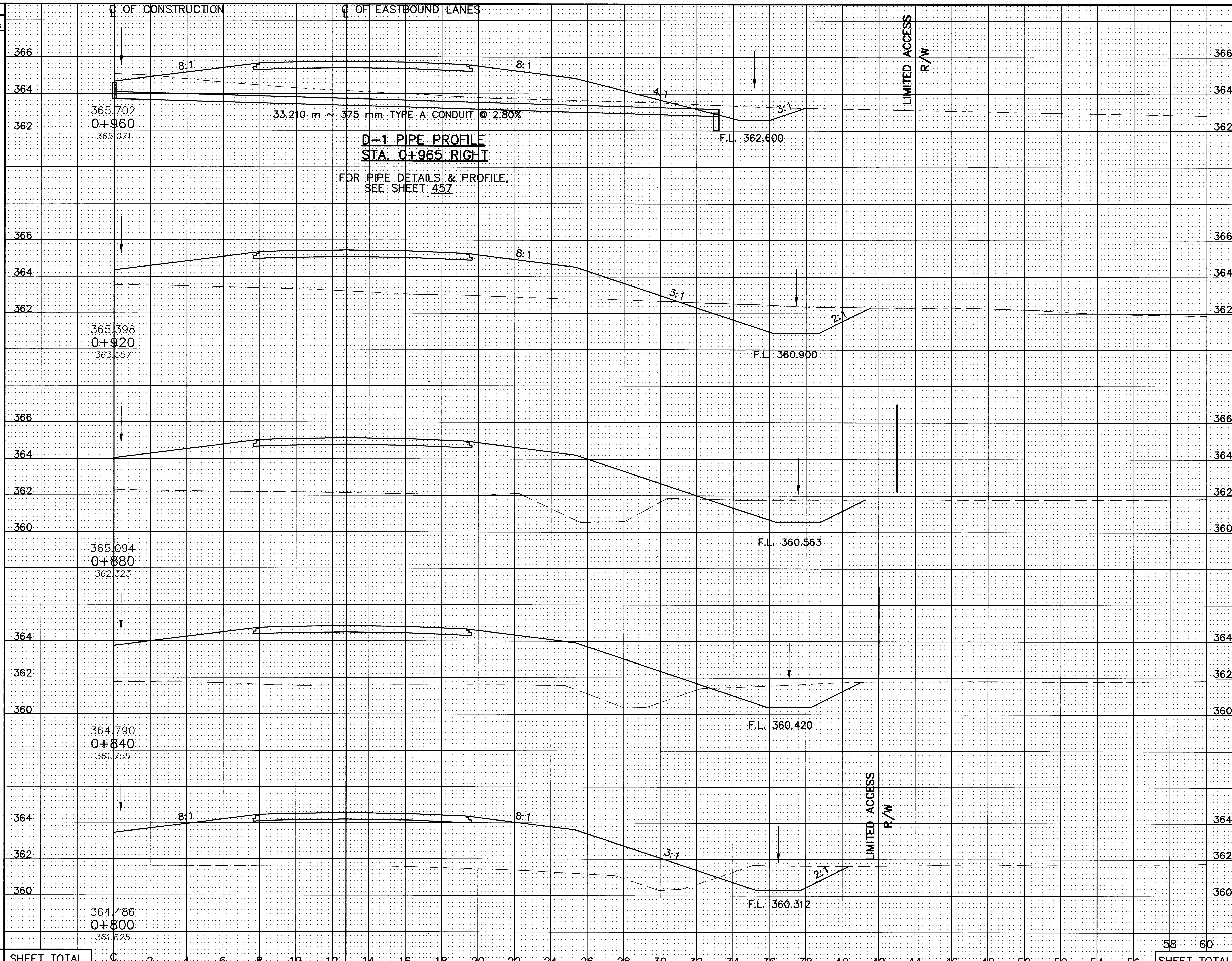
CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 0+800 TO STA. 0+960 LEFT ℄

CRA/RIC-30-33.500/0.000

187
712

GX154R30.DWG
02-23-1999 8:06 AM
1:100M



SEEDING	
END WIDTH	SQ. METERS

SEE LEFT SECTION FOR SEEDING QUANTITIES

SHEET TOTAL

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
9.5	31.2		
		416	128
11.3	80.5		
		420	4288
9.7	133.9		
		384	5628
9.5	147.5		
		382	5780
9.6	141.5		
		340	5558
SHEET TOTAL		1942	23488

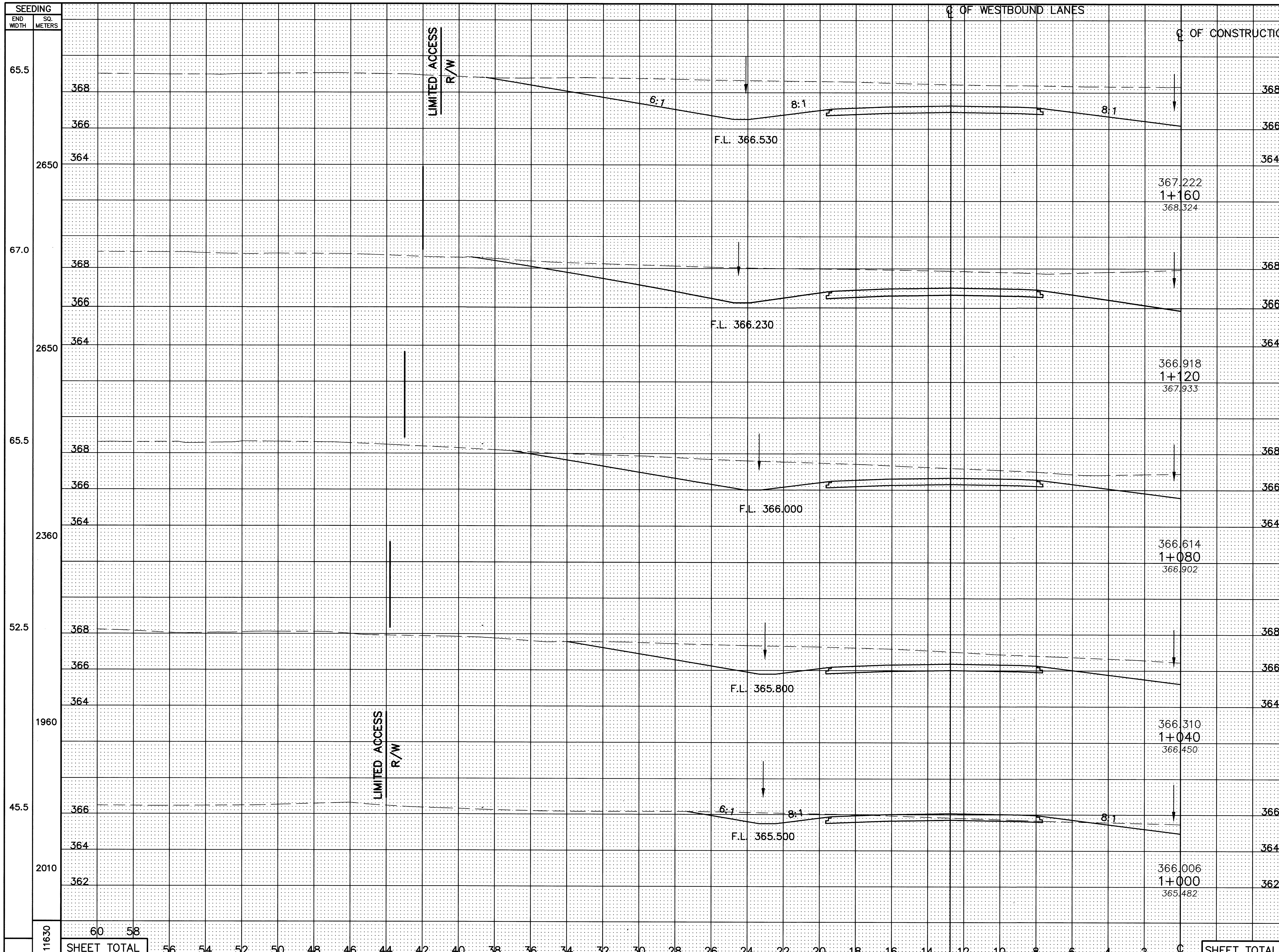
CALCULATED RR CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 0+800 TO STA. 0+960 RIGHT ℄

CRA/RIC-30-33.500/0.000

188 / 712

GX155R30.DWG
02-23-1999 8:09 AM
1:100M



END AREA		VOLUME	
CUT	FILL	CUT	FILL

SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

CALCULATED RR

CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30

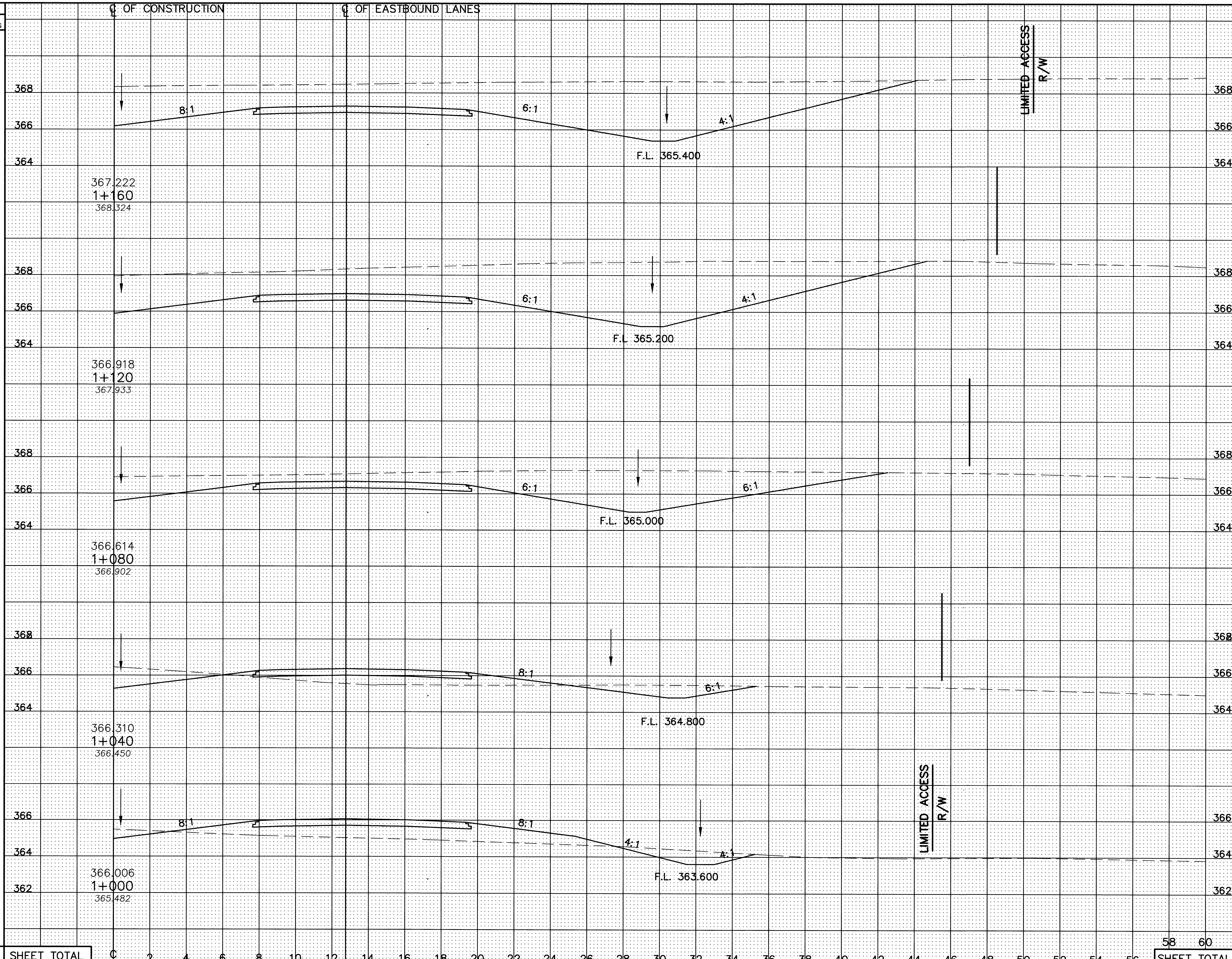
STA. 1+000 TO STA. 1+160 LEFT ℄

CRA/RIC-30-33.500/0.000

GX156R30.DWG
02-23-1999 8:59 AM
1:100M

SEEDING	
END WIDTH	SQ. METERS

SEE LEFT SECTION FOR SEEDING QUANTITIES



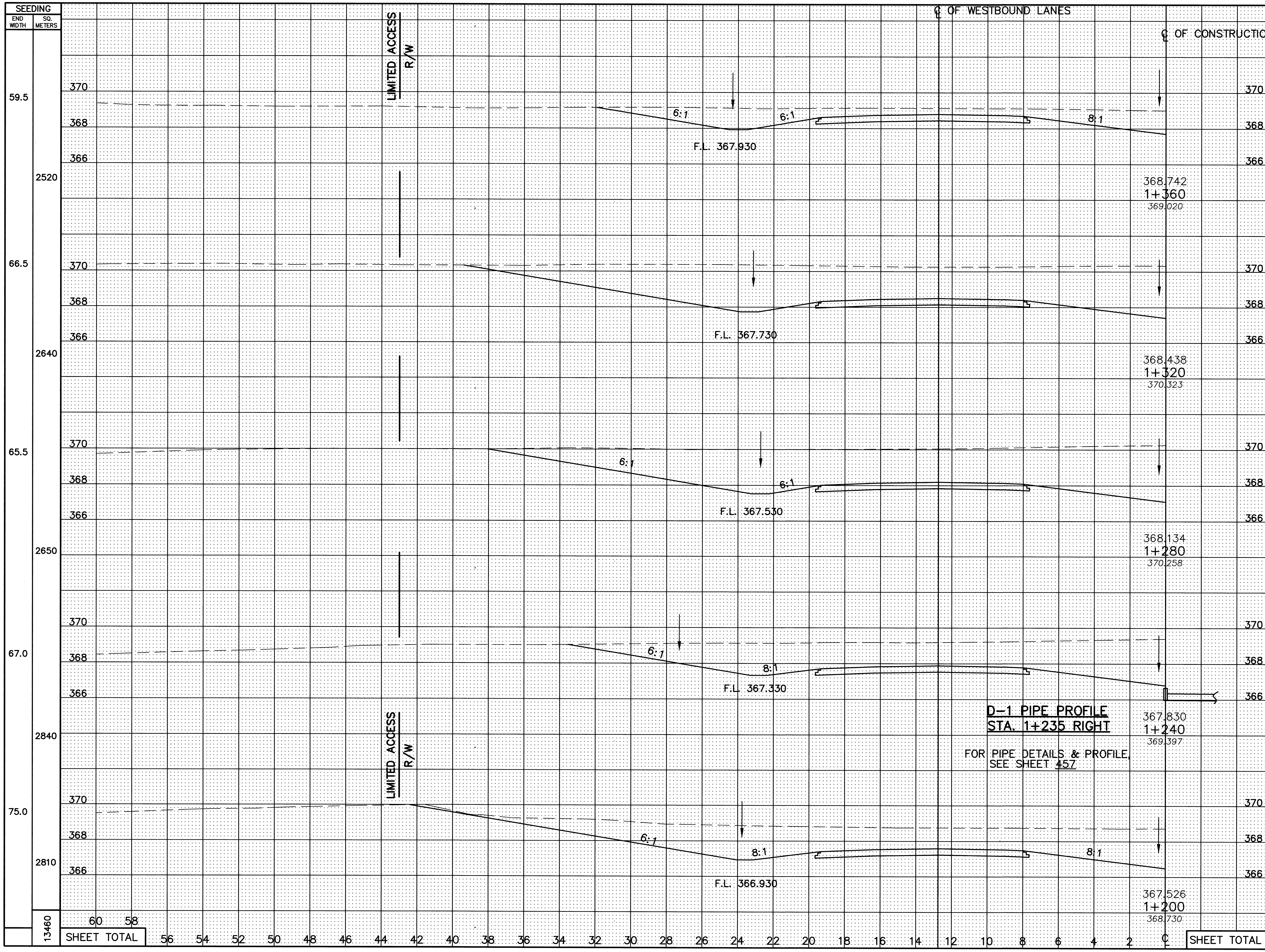
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
138.3	0		
		5500	0
136.7	0		
		4384	0
82.5	0		
		2480	128
41.5	6.4		
		1046	458
10.8	16.5		
		406	954
SHEET TOTAL		13816	1540

CALCULATED RR CHECKED WS

CROSS-SECTIONS - RELOCATED U.S. 30
STA. 1+000 TO STA. 1+160 RIGHT ℄

CRA/RIC-30-33.500/0.000

GX157R30.DWG
02-12-1999 8:16 AM
1:100M



END AREA		VOLUME	
CUT	FILL	CUT	FILL

SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

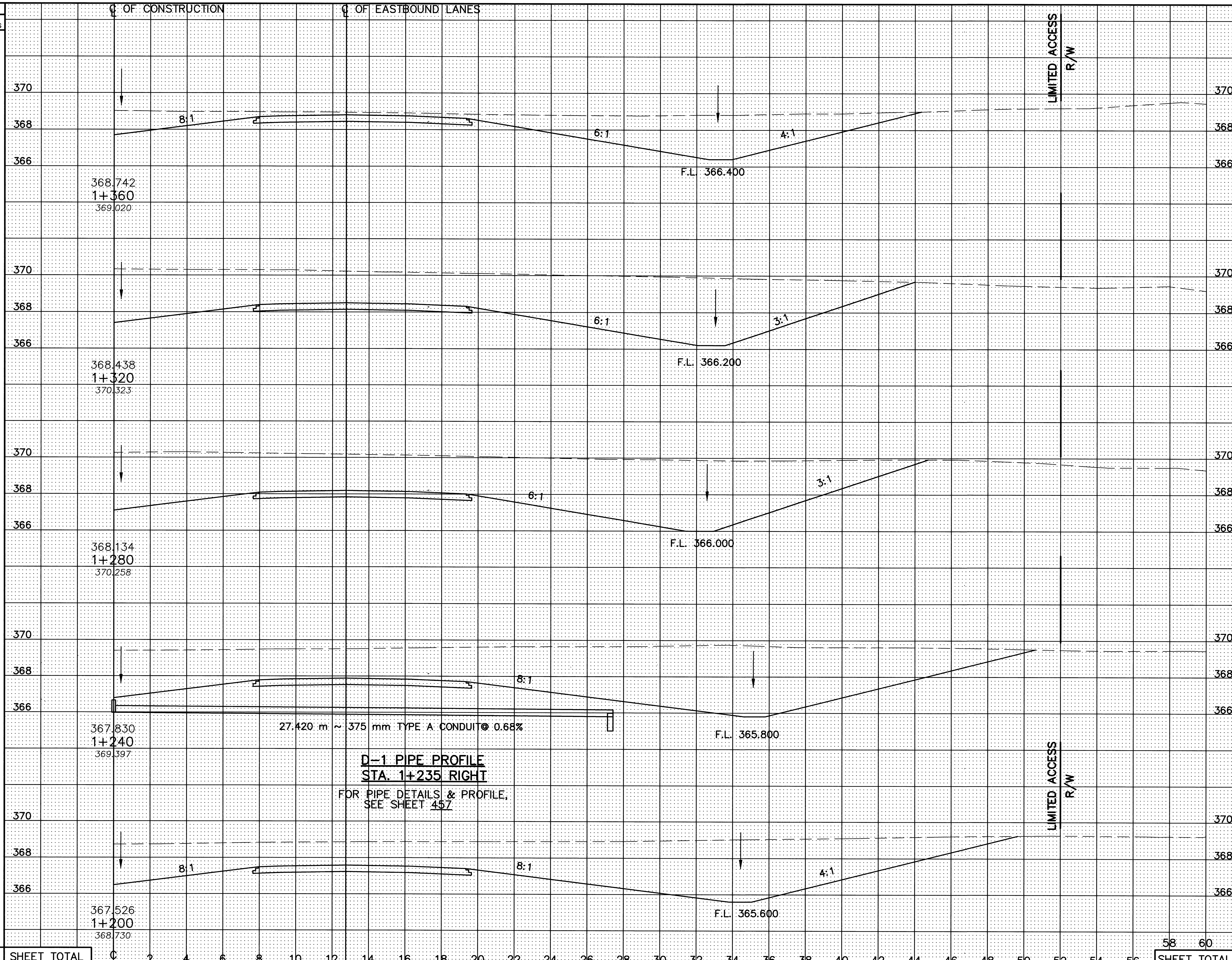
CALCULATED RR
CHECKED WS

CROSS-SECTIONS - RELOCATED U.S. 30
STA. 1+200 TO STA. 1+360 LEFT ℄

CRA/RIC-30-33.500/0.000

191
712

GX158R30.DWG
02-12-1999 8:18 AM
CXSEC41L 1:100M



SEEDING END WIDTH	SEEDING SQ. METERS
SEE LEFT SECTION FOR SEEDING QUANTITIES	
SHEET TOTAL	

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
70.2	0		
		4982	0
178.9	0		
		7324	0
187.3	0		
		7146	0
170.0	0		
		6464	0
153.2	0		
		5830	0
SHEET TOTAL		31746	0

CALCULATED RR
CHECKED WS

CROSS-SECTIONS - RELOCATED U.S. 30
STA. 1+200 TO STA. 1+360 RIGHT ℄

CRA/RIC-30-33.500/0.000

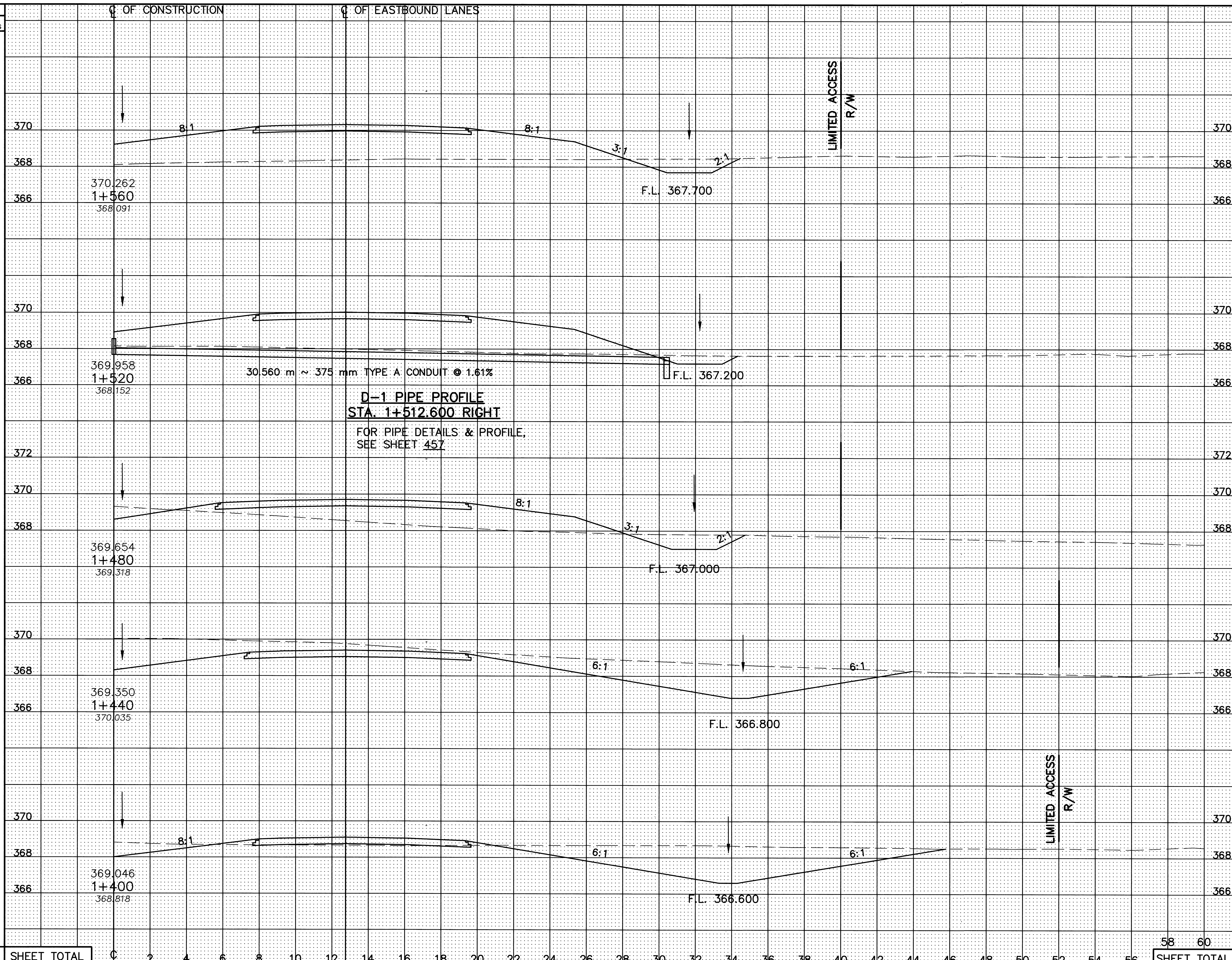
192
712

GX159R30.DWG
02-12-1999 8:2 AM
CXSEC41R 1:100M


SEEDING
END WIDTH
SQ. METERS
51.0
1920
45.0
2000
55.0
2420
66.0
2610
64.5
2480
11430
SHEET TOTAL
℄ OF WESTBOUND LANES
℄ OF CONSTRUCTION
LIMITED ACCESS R/W
8:1
3:1
2:1
F.L. 367.730
370.262
1+560
368.091
4:1
F.L. 368.730
D-1 PIPE PROFILE
STA. 1+512.600 RIGHT
FOR PIPE DETAILS & PROFILE, SEE SHEET 457
369.958
1+520
368.152
6:1
F.L. 368.530
369.654
1+480
369.318
F.L. 368.330
369.350
1+440
370.035
F.L. 368.130
369.046
1+400
368.818
366
368
370
372
60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 ℄
END AREA
VOLUME
CUT
FILL
SEE RIGHT SECTION FOR EARTHWORK QUANTITIES
CALCULATED RR
CHECKED WS
CROSS-SECTIONS - RELOCATED U.S. 30
STA. 1+400 TO STA. 1+560 LEFT ℄
CRA/RIC-30-33.500/0.000
193
712
GX160R30.DWG
02-12-1999 8:22 AM
CXSEC43L 1:100M

SEEDING	
END WIDTH	SQ. METERS
SHEET TOTAL	

SEE LEFT SECTION FOR SEEDING QUANTITIES



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
4.3	88.1		
		156	3022
3.5	63.0		
		748	1634
33.9	18.7		
		2806	374
106.4	0		
		3282	10
57.7	0.5		
		2558	10
		9550	5050

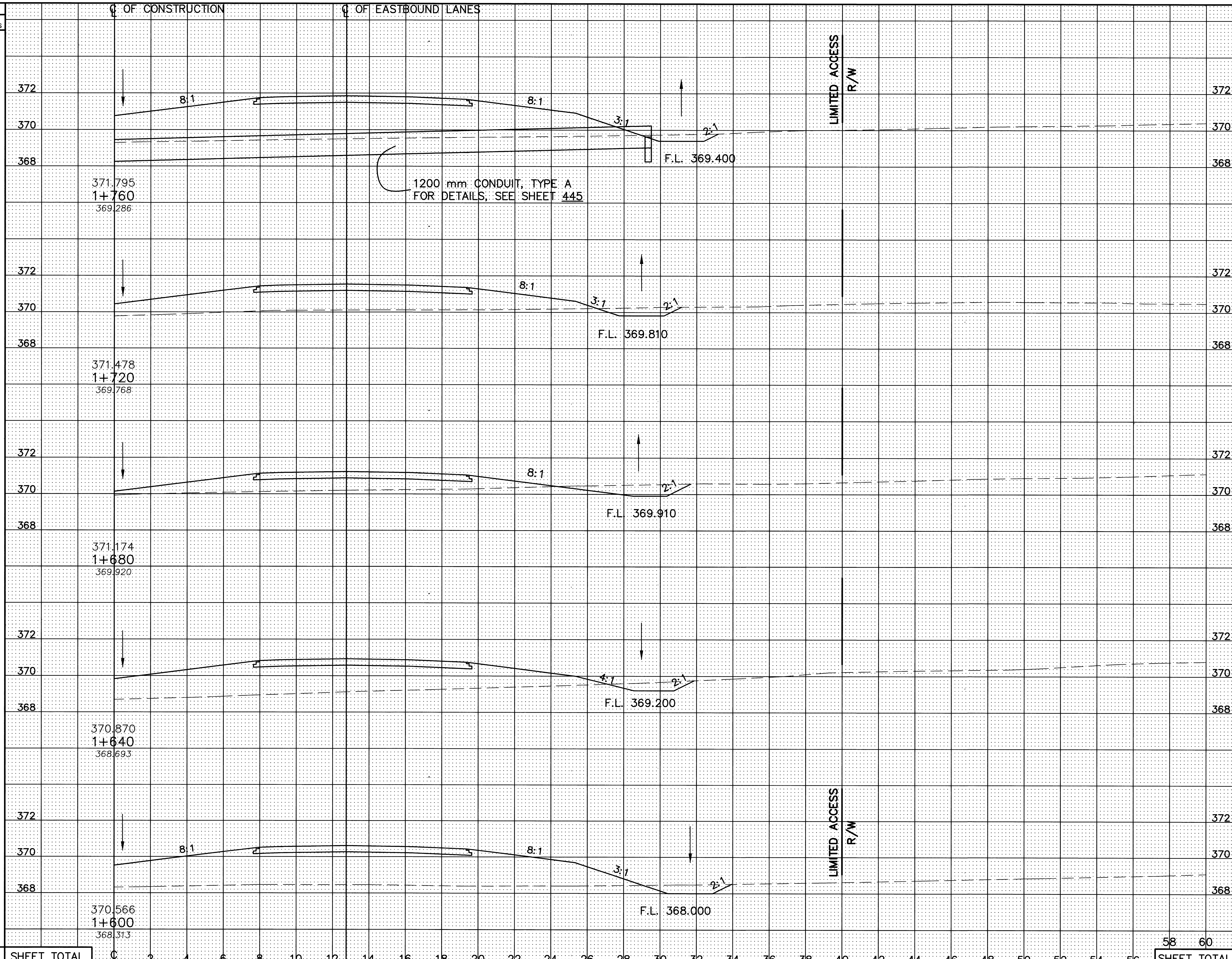
CALCULATED RR CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 1+400 TO STA. 1+560 RIGHT ℄

CRA/RIC-30-33.500/0.000

GX161R30.DWG 02-12-1999 8:28 AM CXSEC43R 1:100M

SEEDING
END WIDTH
SQ. METERS
54.0
2170
54.5
2160
53.5
2090
51.0
2070
52.5
2070
10560
SHEET TOTAL
60
58
℄ OF WESTBOUND LANES
℄ OF CONSTRUCTION
LIMITED ACCESS R/W
8:1
3:1
2:1
F.L. 368.200
1200 mm CONDUIT, TYPE A
FOR DETAILS, SEE SHEET 445
371.795
1+760
369.286
367.330
371.478
1+720
369.768
F.L. 367.430
371.174
1+680
369.920
F.L. 367.530
370.870
1+640
368.693
F.L. 367.630
370.566
1+600
368.313
372
370
368
56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 ℄
SHEET TOTAL
END AREA
CUT
FILL
VOLUME
CUT
FILL
SEE RIGHT SECTION FOR EARTHWORK QUANTITIES
CALCULATED RR
CHECKED WS
CROSS-SECTIONS – RELOCATED U.S. 30
STA. 1+600 TO STA. 1+760 LEFT ℄
CRA/RIC-30-33.500/0.000
195
712
GX162R30.DWG
02-12-1999 8:3 AM
SXSEC39L 1:100M



SEEDING	
END WIDTH	SQ. METERS
SEE LEFT SECTION FOR SEEDING QUANTITIES	
SHEET TOTAL	

Station	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
1+760	5.9	111.6		
			436	3710
1+720	15.9	73.9		
			536	2428
1+680	10.9	47.5		
			290	2728
1+640	3.6	88.9		
			170	3706
1+600	4.9	96.4		
			184	3690
SHEET TOTAL			1616	16262

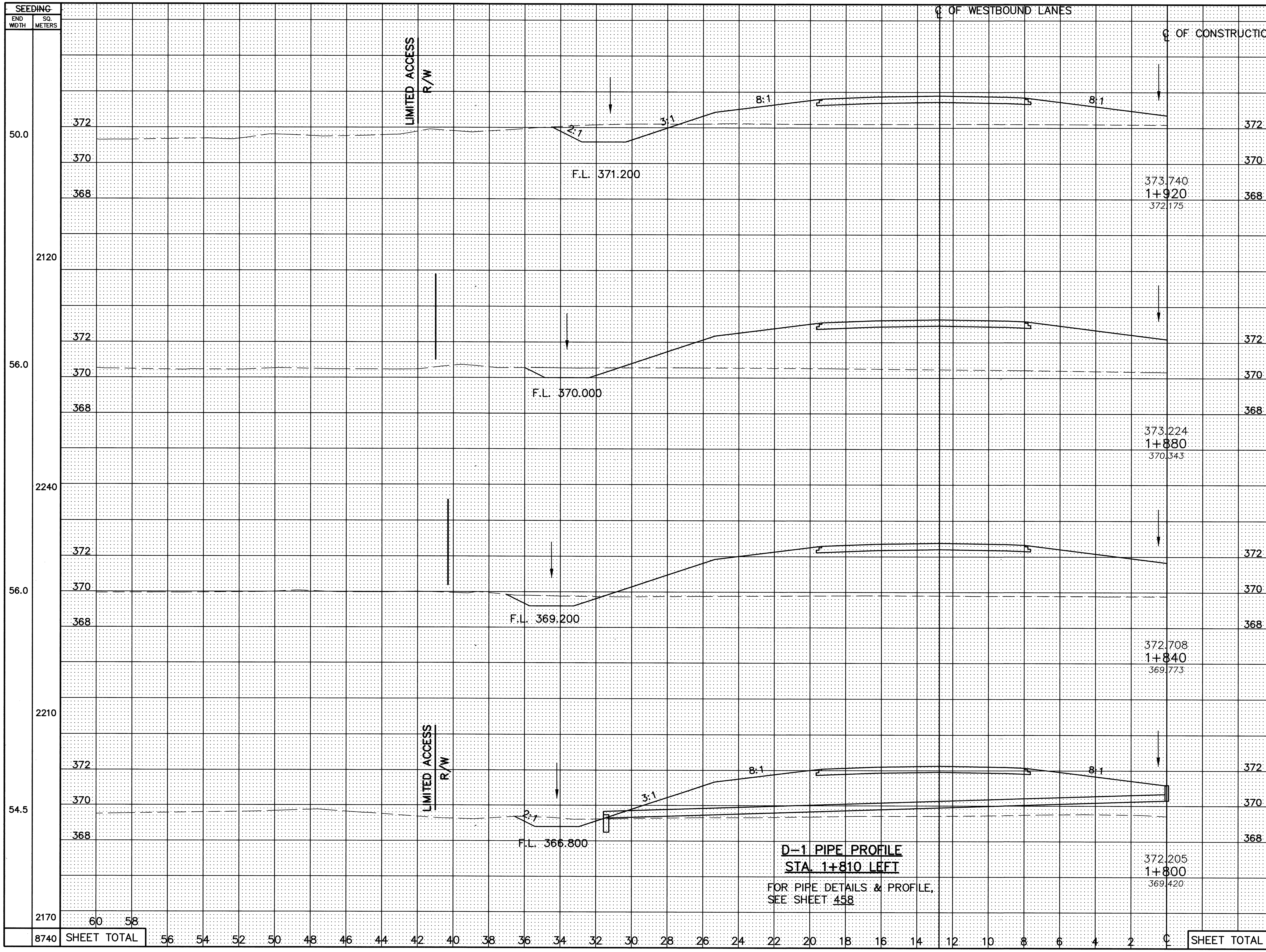
CALCULATED RR
CHECKED WS

CROSS-SECTIONS - RELOCATED U.S. 30
STA. 1+600 TO STA. 1+760 RIGHT ℄

CRA/RIC-30-33.500/0.000

196
712

GX163R30.DWG
02-23-1999 9:15 AM
1:100M



END AREA		VOLUME	
CUT	FILL	CUT	FILL

SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 1+800 TO STA. 1+920 LEFT ℄

CRA/RIC-30-33.500/0.000

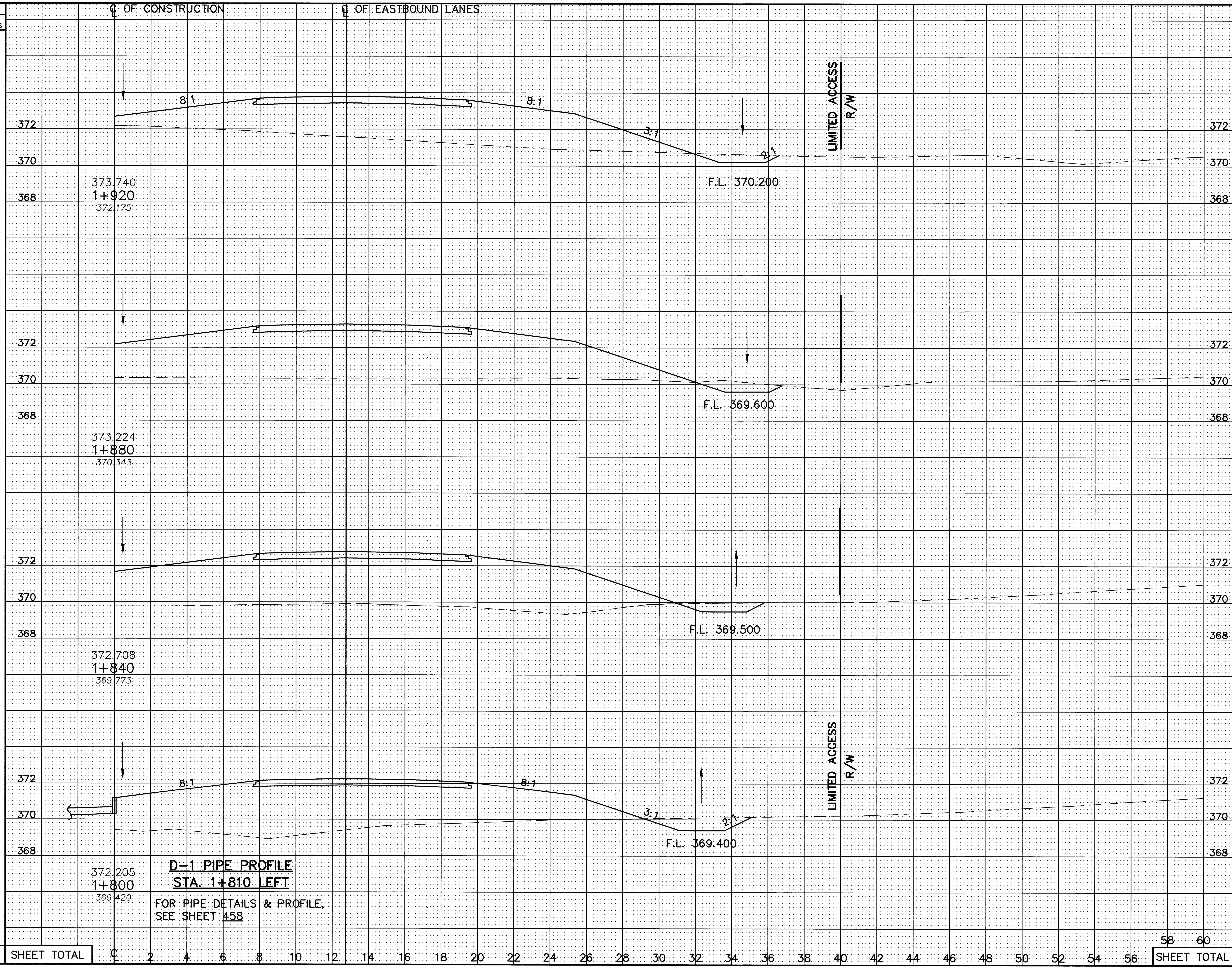
197
712

GX164R30.DWG
02-12-1999 8:33 AM
SXSEC41L 1:100M

SEEDING	
END WIDTH	SQ. METERS

SEE LEFT SECTION FOR SEEDING QUANTITIES

SHEET TOTAL



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
6.2	78.1		
		206	4196
4.1	131.7		
		160	5414
3.9	139.0		
		172	5274
4.7	124.7		
		212	4726
		750	19610

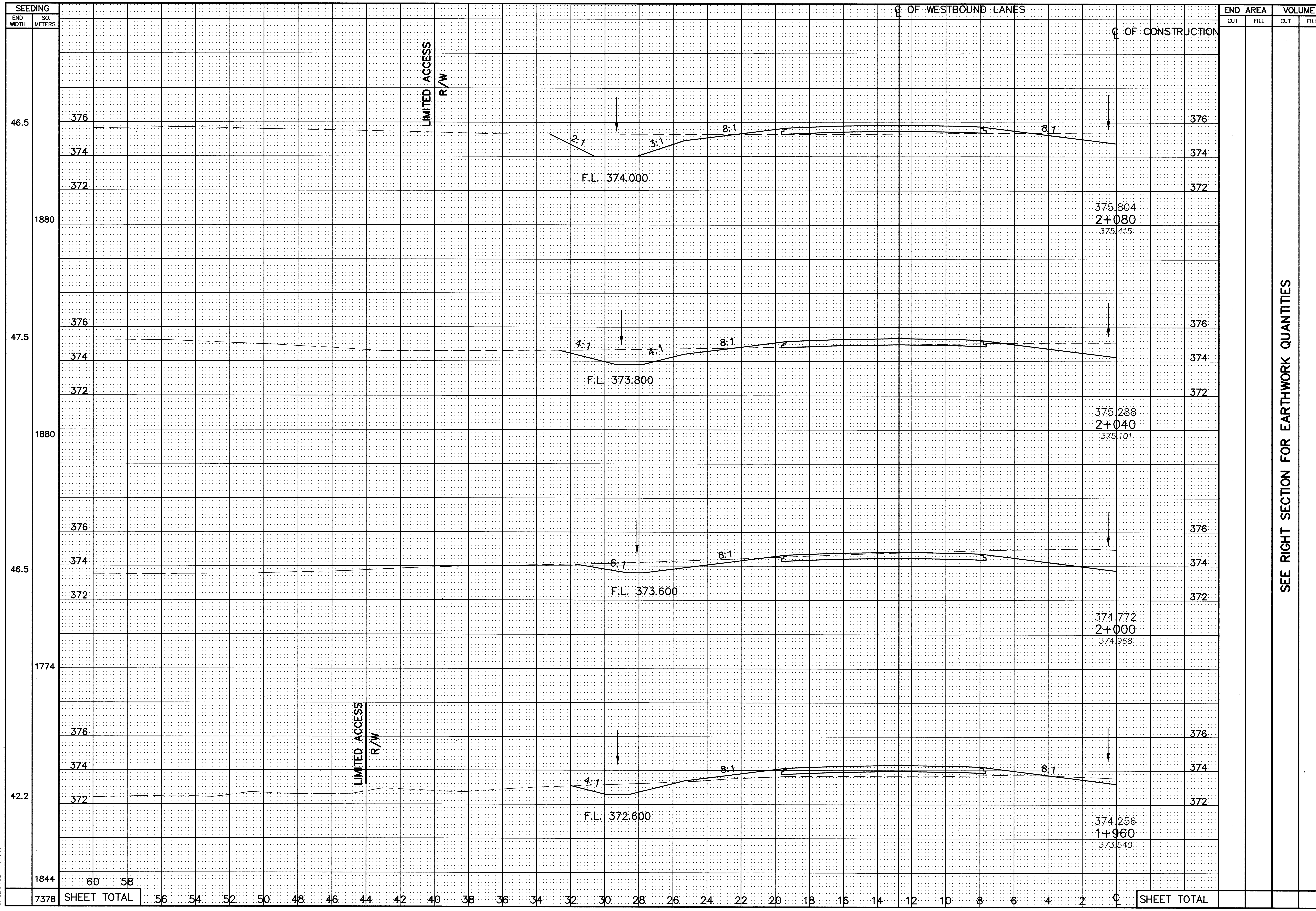
CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 1+800 TO STA. 1+920 RIGHT ℄

CRA/RIC-30-33.500/0.000

198/712

GX165R30.DWG
02-23-1999 9:18 AM
1:100M



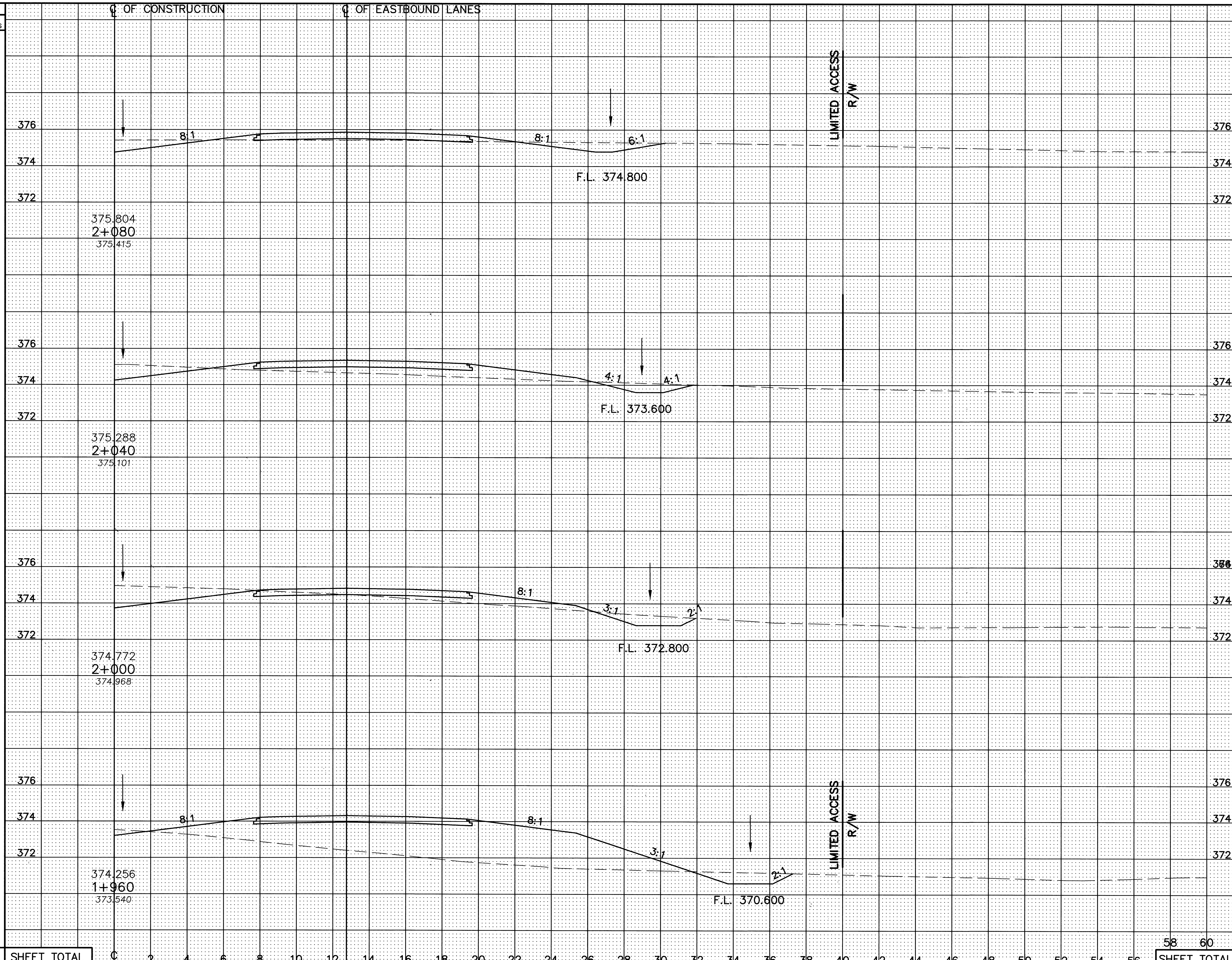
CROSS-SECTIONS – RELOCATED U.S. 30
STA. 1+960 TO STA. 2+080 LEFT ℄

CRA/RIC-30-33.500/0.000

GX166R30.DWG
02-12-1999 8:36 AM
SXSEC43L 1:100M

SEEDING	
END WIDTH	SQ. METERS

SEE LEFT SECTION FOR SEEDING QUANTITIES



SHEET TOTAL

END AREA		VOLUME	
CUT	FILL	CUT	FILL
13.6	1.7		
		514	182
12.1	7.4		
		670	232
21.4	4.2		
		540	1008
5.6	46.2		
		236	2486
SHEET TOTAL		1960	3908

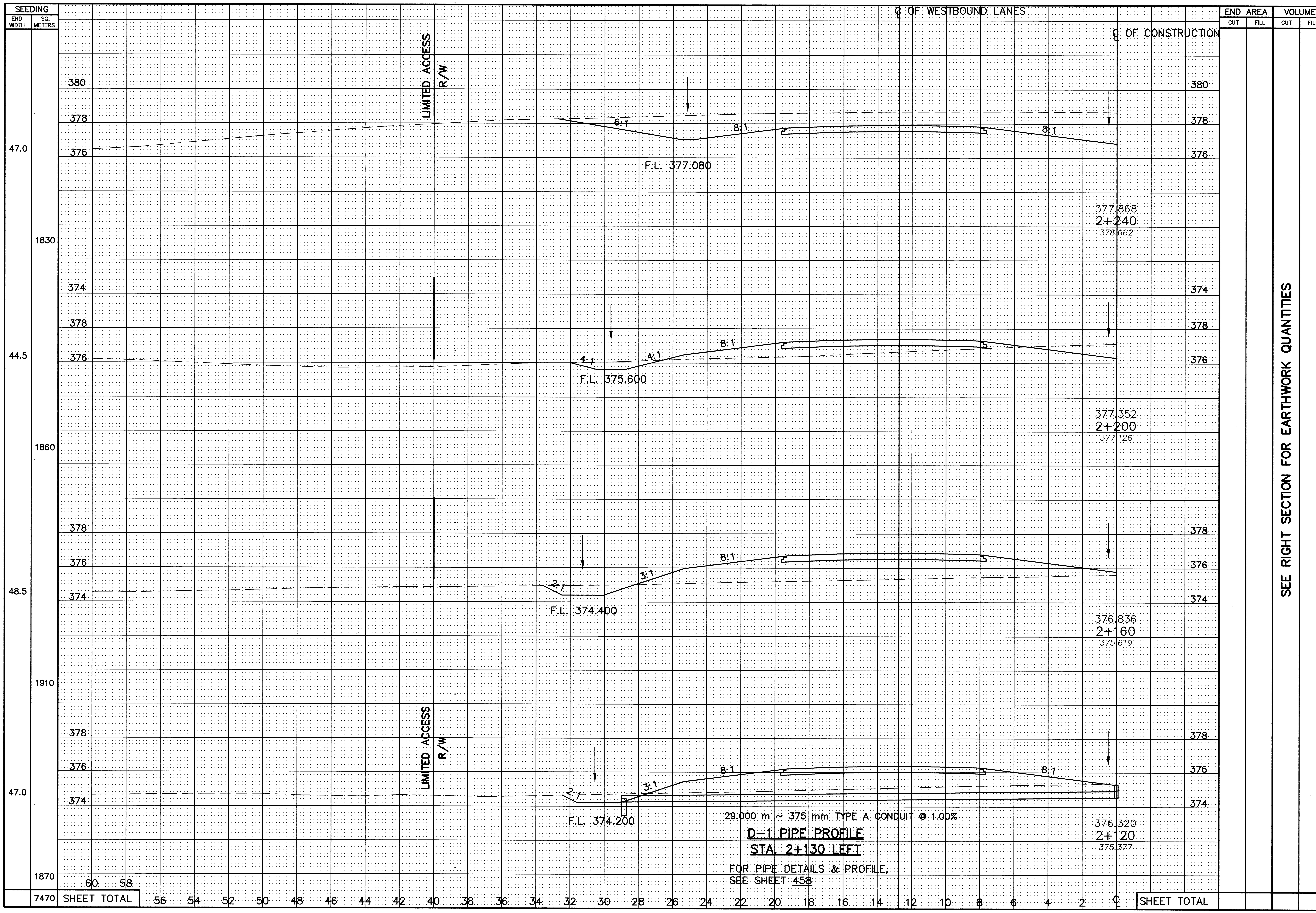
CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 1+960 TO STA. 2+080 RIGHT ℄

CRA/RIC-30-33.500/0.000

200/712

GX167R30.DWG
02-12-1999 8:38 AM
SXSEC43R 1:100M



SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

CALCULATED RR
CHECKED WS

CROSS-SECTIONS - RELOCATED U.S. 30
STA. 2+120 TO STA. 2+240 LEFT ℄

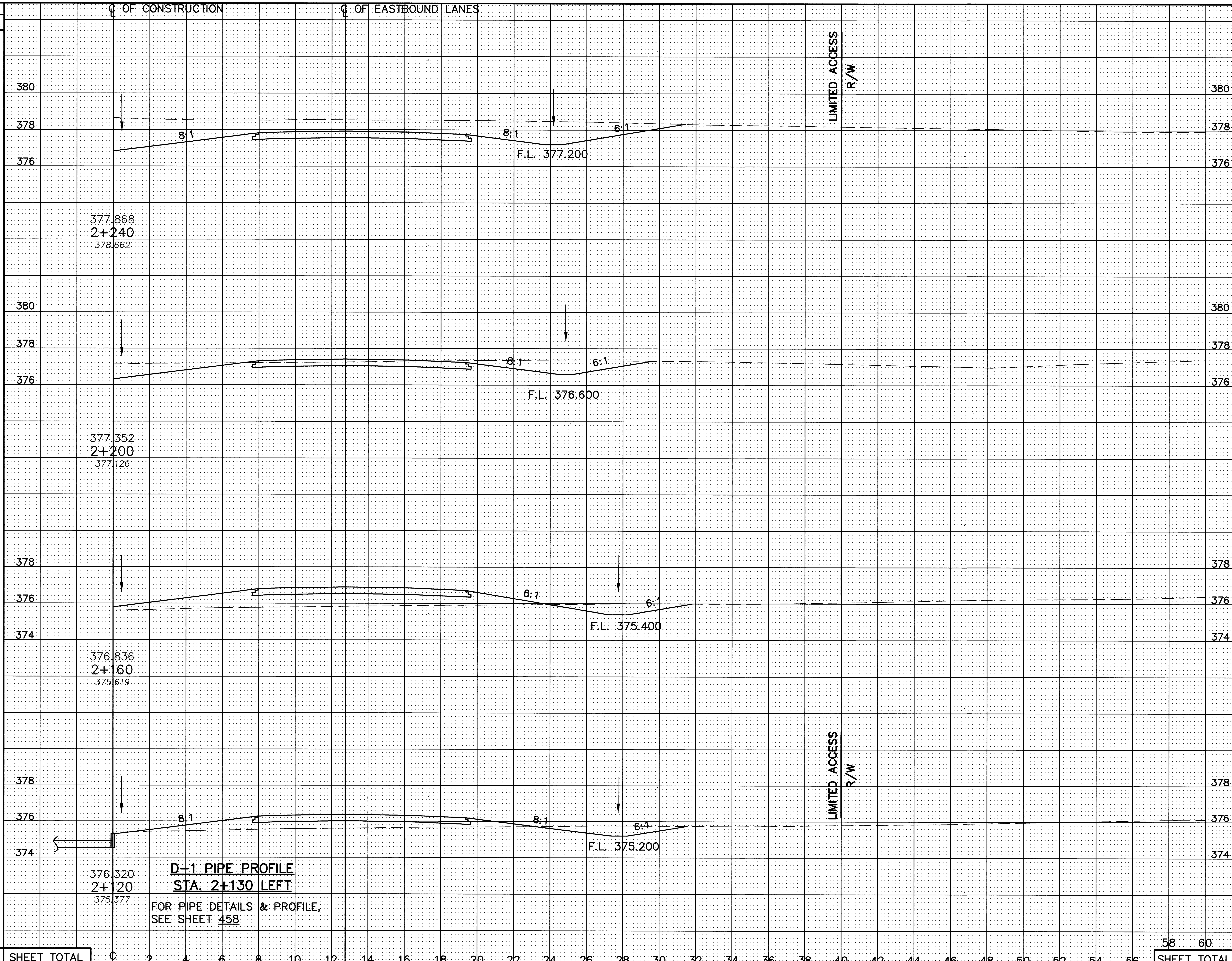
CRA/RIC-30-33.500/0.000

GX168R30.DWG
02-12-1999 8:41 AM
SXSEC45L 1:100M

SEEDING	
END WIDTH	SQ. METERS

SEE LEFT SECTION FOR SEEDING QUANTITIES

SHEET TOTAL



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
68.1	0		
		1648	188
14.3	9.4		
		382	1004
4.8	40.8		
		186	1368
4.5	27.6		
		362	586
		2578	3146

CALCULATED RR
CHECKED WS

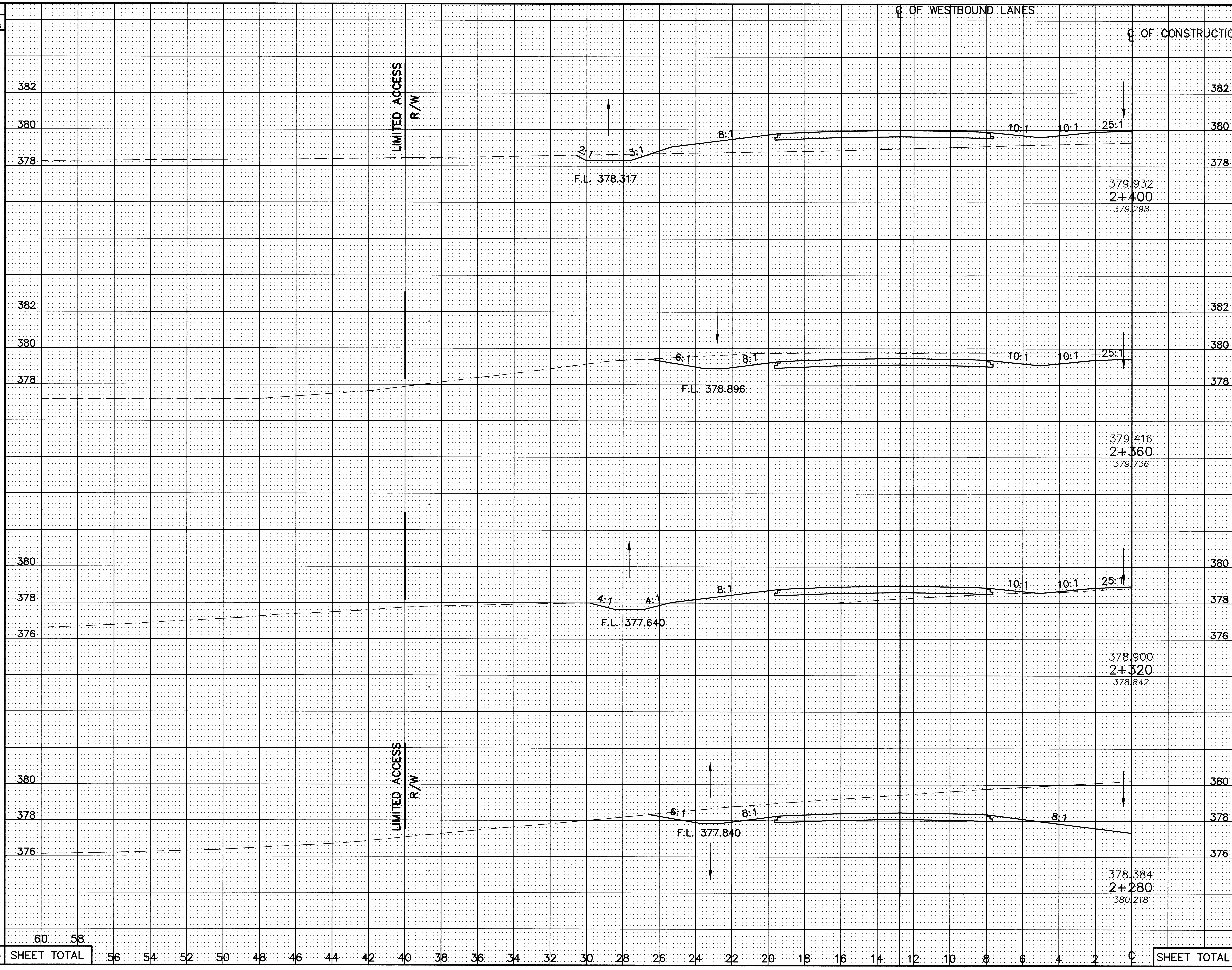
CROSS-SECTIONS – RELOCATED U.S. 30
STA. 2+120 TO STA. 2+240 RIGHT ℄

CRA/RIC-30-33.500/0.000

202 / 712

GX169R30.DWG
02-23-1999 9:21 AM
1:100M

SEEDING	
END WIDTH	SQ. METERS
39.0	1590
40.5	1690
44.0	1770
44.5	1830
	6880



END AREA		VOLUME	
CUT	FILL	CUT	FILL

SHEET TOTAL

SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

CALCULATED RR
CHECKED WS

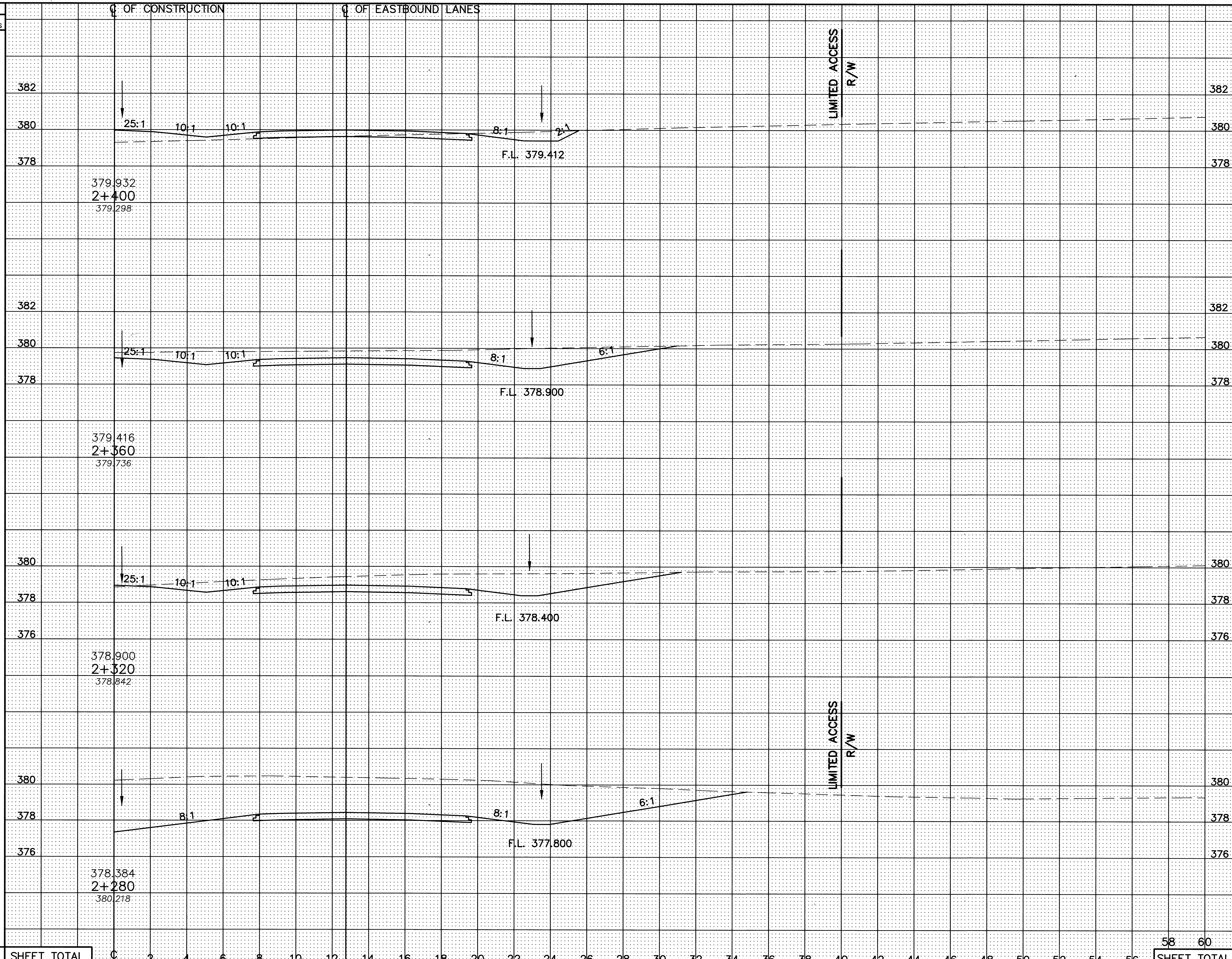
CROSS-SECTIONS - RELOCATED U.S. 30
STA. 2+280 TO STA. 2+400 LEFT ℄

CRA/RIC-30-33.500/0.000

203
712

GX170R30.DWG
02-12-1999 10:49 AM
1:100M

SEEDING	
END WIDTH	SQ. METERS
SEE LEFT SECTION FOR SEEDING QUANTITIES	
SHEET TOTAL	



END AREA		VOLUME	
CUT	FILL	CUT	FILL
4.2	19.2		
		810	384
36.3	0		
		1184	142
22.9	7.1		
		3180	142
136.1	0		
		4084	0
		9258	668

CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 2+280 TO STA. 2+400 RIGHT ℄

CRA/RIC-30-15.948/0.000

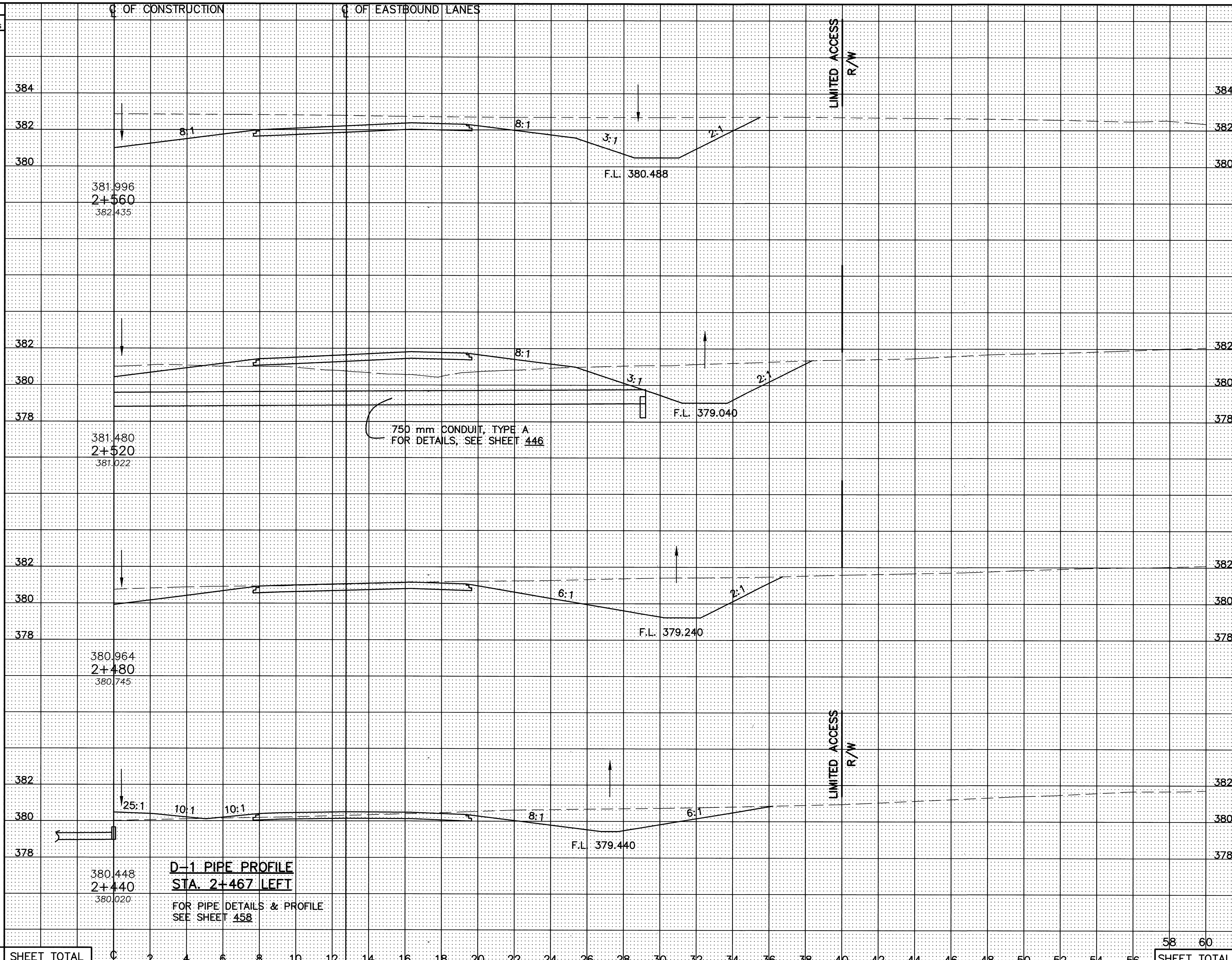
204
712

GX171R30.DWG
02-12-1999 10:52 AM
1:100M

GX172R30.DWG
02-12-1999 10:54 AM
1:100M

SEE LEFT SECTION FOR SEEDING QUANTITIES

SEEDING END WIDTH	SEEDING SQ. METERS
SHEET TOTAL	



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
65.2	0		
		1770	252
23.3	12.6		
		1238	340
38.6	4.4		
		1104	262
16.6	8.7		
		416	558
		4528	1412

CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 2+440 TO STA. 2+560 RIGHT ℄

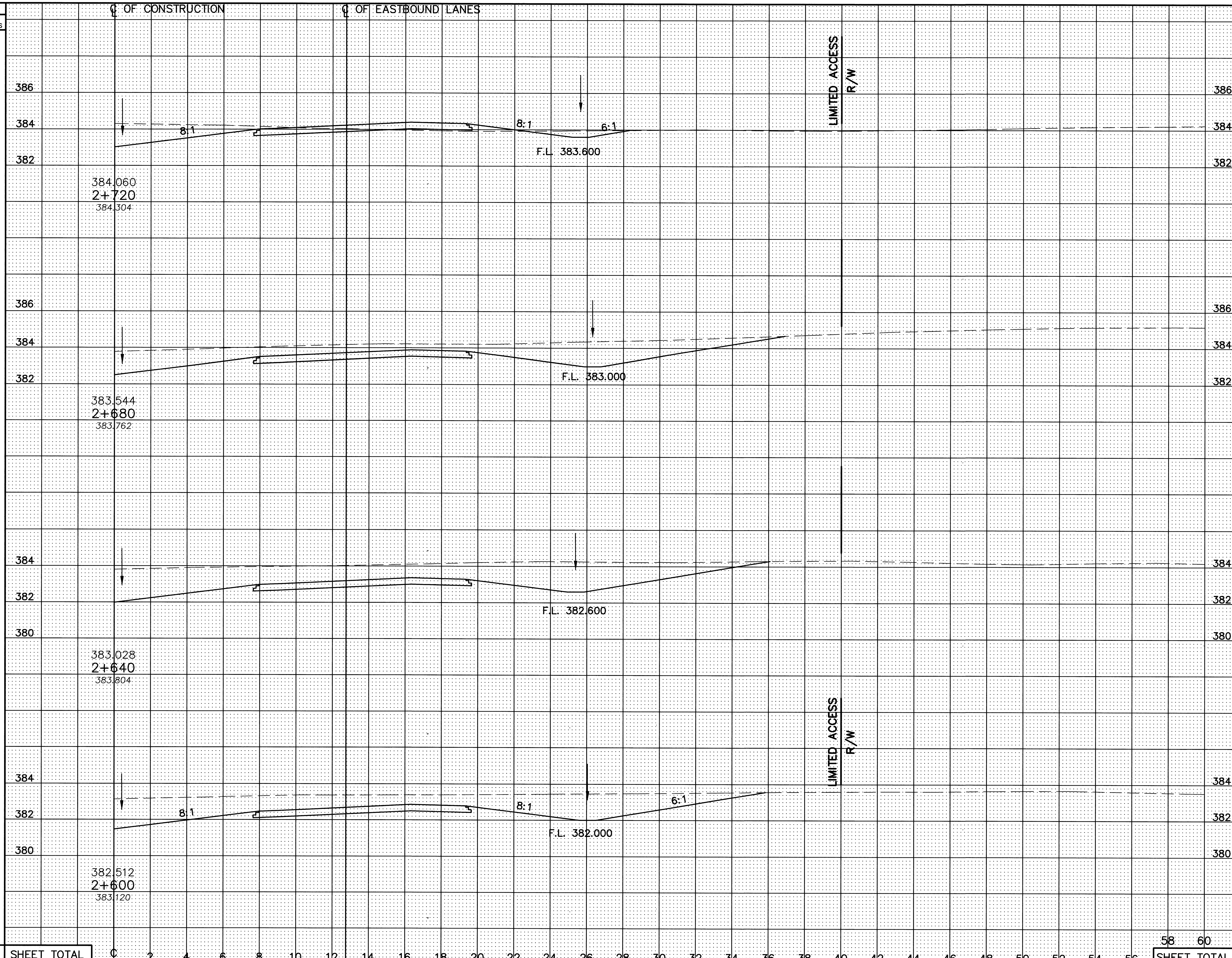
CRA/RIC-30-33.500/0.000

GX173R30.DWG
02-12-1999 10:57 AM
1:100M

CROSS-SECTIONS - RELOCATED U.S. 30
STA. 2+600 TO STA. 2+720 LEFT ℄
SEE RIGHT SECTION FOR EARTHWORK QUANTITIES
CRA/RIC-30-33.500/0.000
207
712
CALCULATED RR
CHECKED WS
SEEDING
END WIDTH
SQ. METERS
END AREA
CUT
FILL
VOLUME
CUT
FILL
℄ OF WESTBOUND LANES
℄ OF CONSTRUCTION
LIMITED ACCESS R/W
43.5
1810
47.0
1940
50.0
2000
50.0
2010
7760
SHEET TOTAL
6:1
8:1
8:1
F.L. 383.130
384.060
2+720
384.304
F.L. 382.610
383.544
2+680
383.762
F.L. 382.100
383.028
2+640
383.804
F.L. 381.580
382.512
2+600
383.120
386
384
382
380
60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 ℄
GX174R30.DWG
02-12-1999 10:59 AM
1:100M

SEEDING	
END WIDTH	SQ. METERS
SHEET TOTAL	

SEE LEFT SECTION FOR SEEDING QUANTITIES



END AREA		VOLUME	
CUT	FILL	CUT	FILL
36.8	0.9		
		1540	18
40.2	0		
		2302	0
74.9	0		
		2862	0
68.2	0		
		2668	0
		9372	18

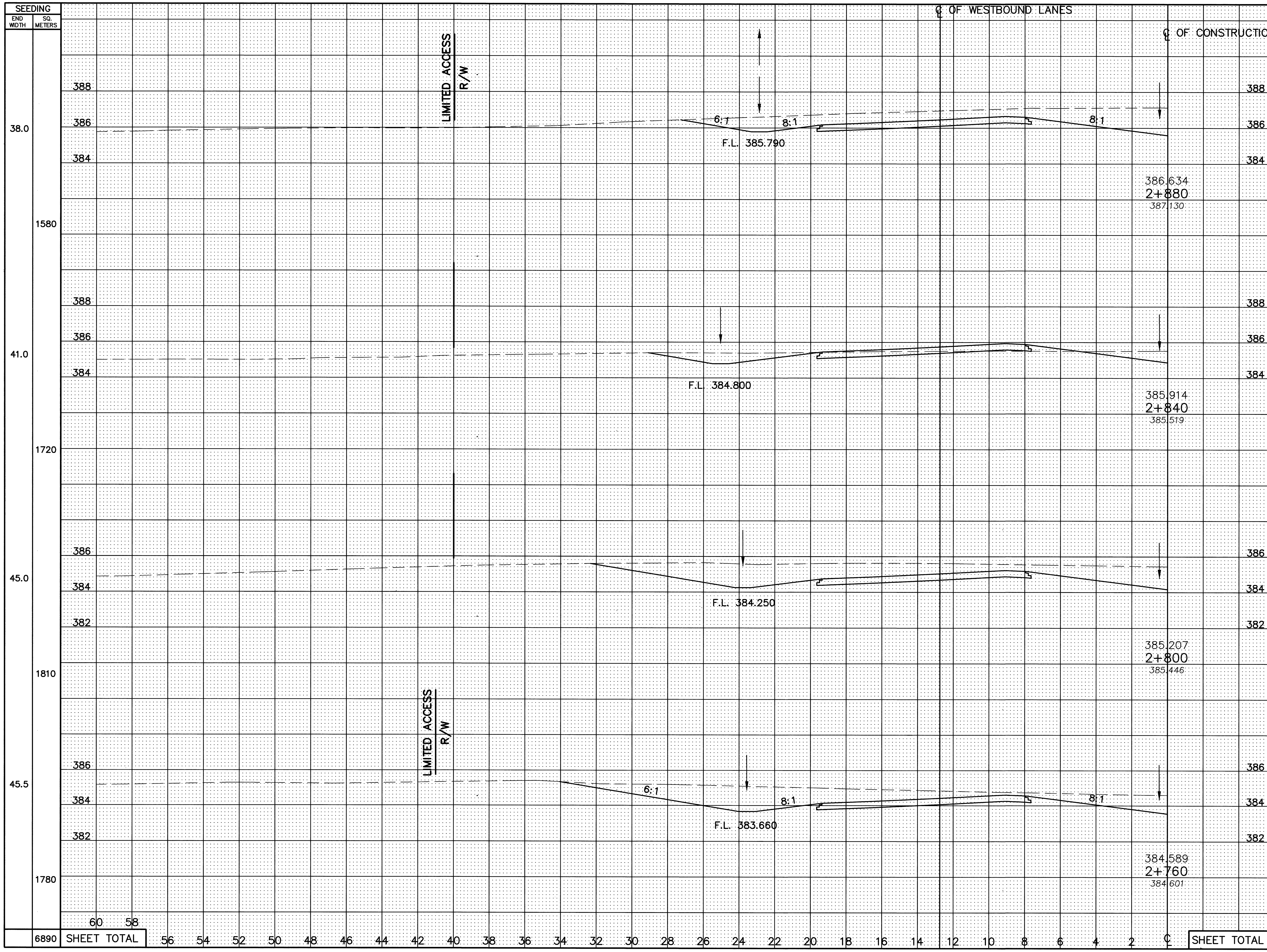
CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 2+600 TO STA. 2+720 RIGHT ℄

CRA/RIC-30-33.500/0.000

208
712

GX175R30.DWG
02-12-1999 11:03 AM
1:100M



END AREA		VOLUME	
CUT	FILL	CUT	FILL

SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 2+760 TO STA. 2+880 LEFT ℄

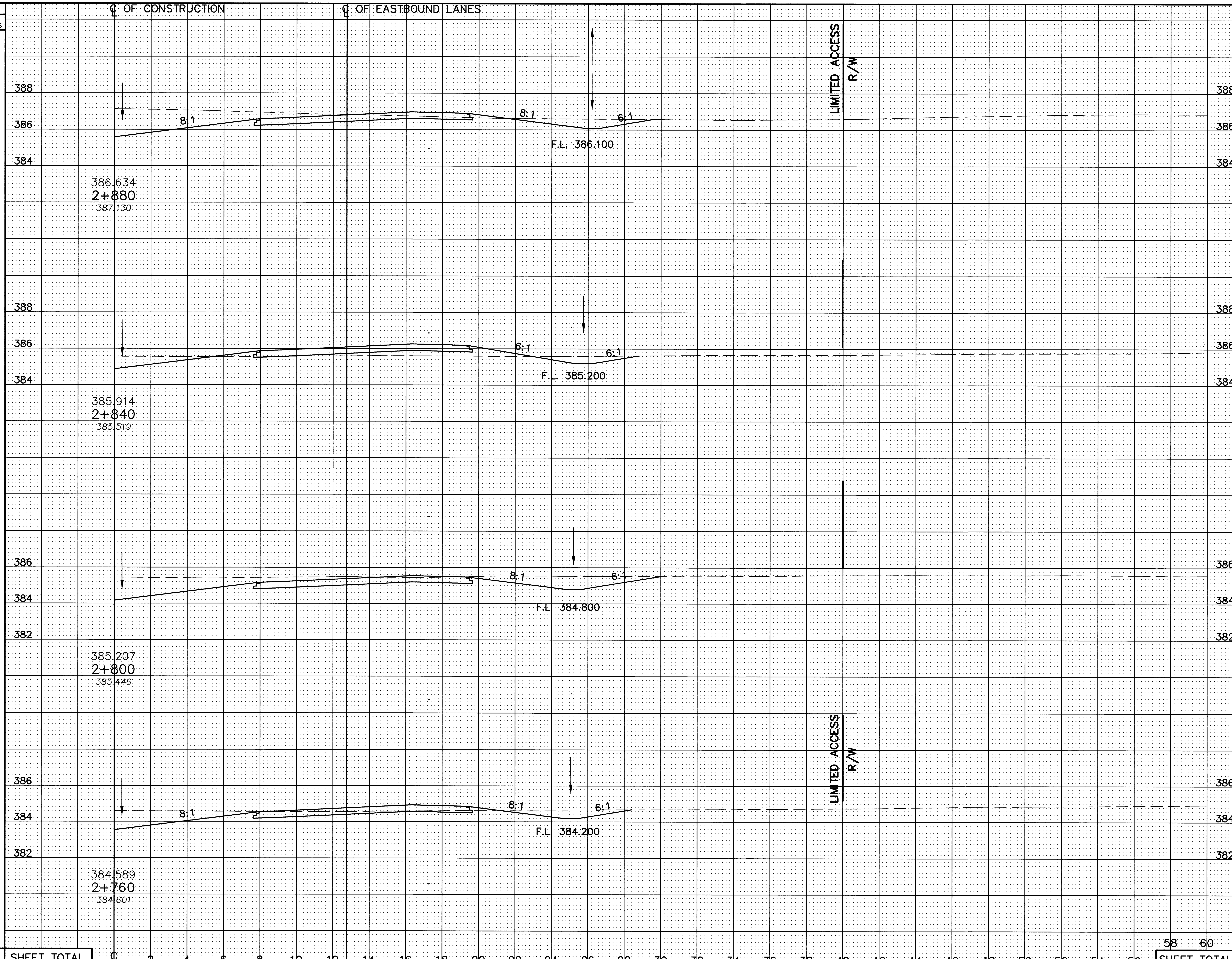
CRA/RIC-30-15.948/0.000

209
712

GX176R30.DWG
02-23-1999 9:52 AM
1:100M

SEEDING	
END WIDTH	SQ. METERS
SHEET TOTAL	

SEE LEFT SECTION FOR SEEDING QUANTITIES



END AREA		VOLUME	
CUT	FILL	CUT	FILL
36.3	0.2		
		918	76
9.6	3.6		
		1076	76
44.2	0.2		
		1584	8
35.0	0.2		
		1436	22
SHEET TOTAL		5014	182

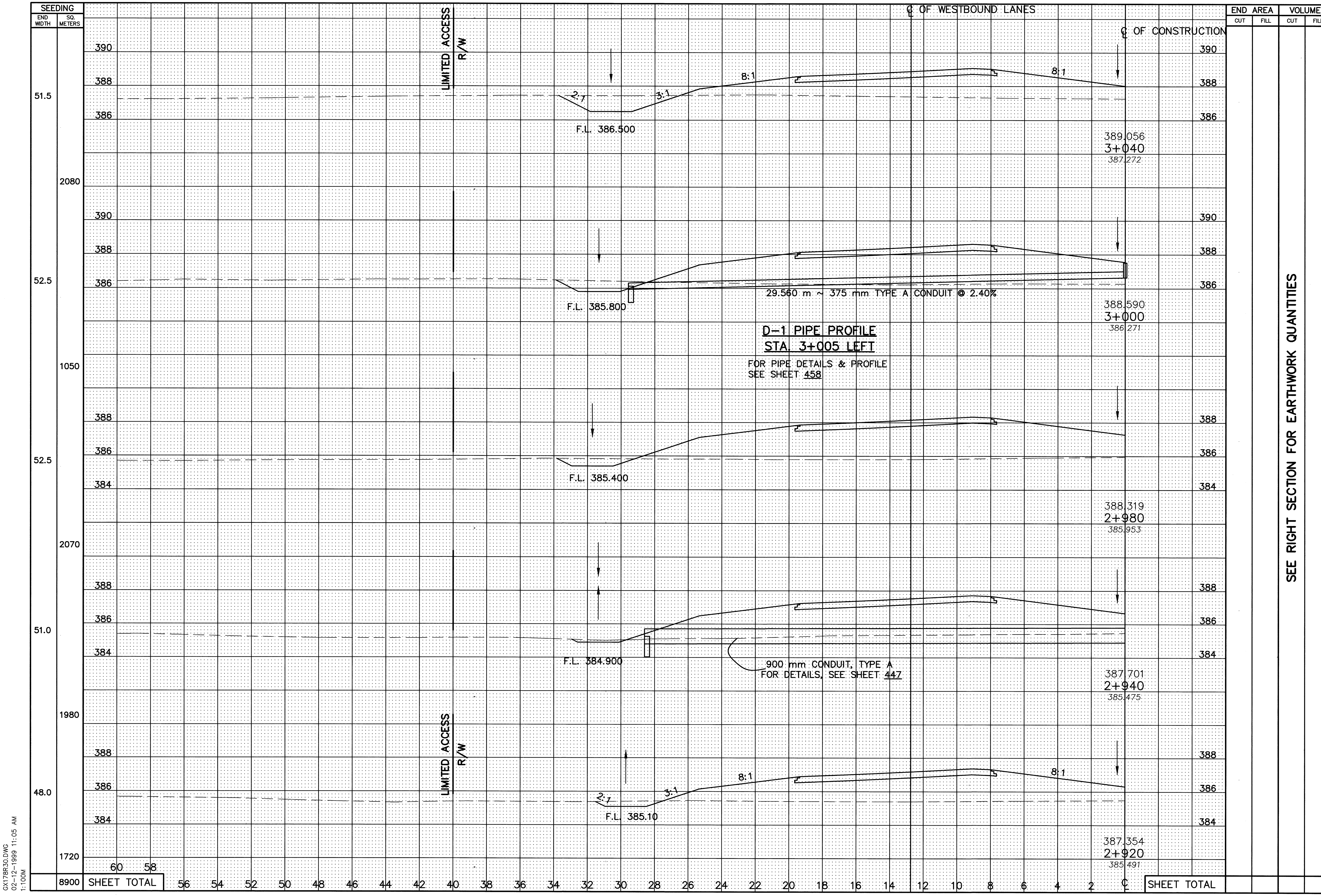
CALCULATED RR
CHECKED WS

CROSS-SECTIONS - RELOCATED U.S. 30
STA. 2+760 TO STA. 2+880 RIGHT ℄

CRA/RIC-30-15.948/0.000

210
712

GX177R30.DWG
02-23-1999 10:05 AM
1:100M



CALCULATED RR
CHECKED WS

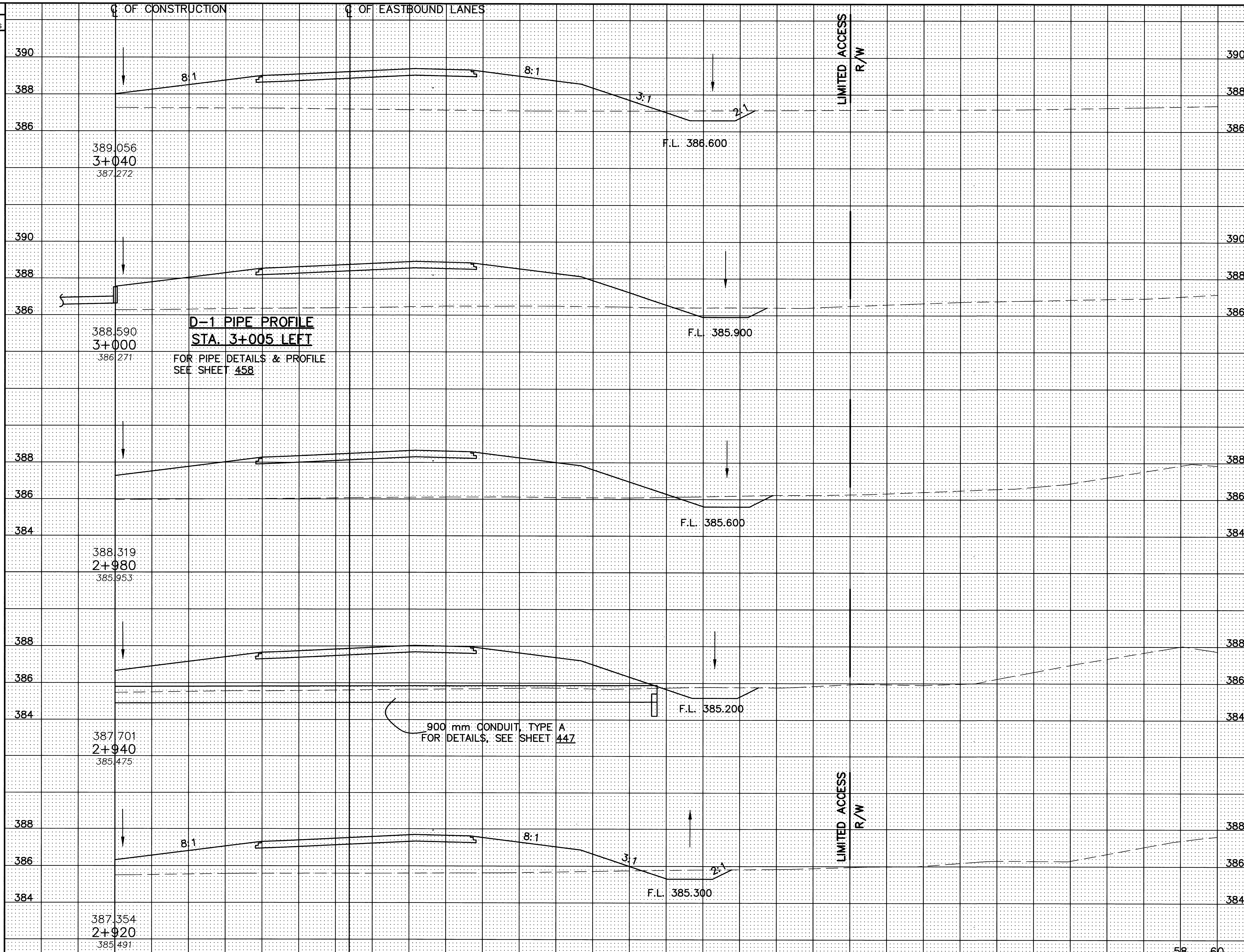
CROSS-SECTIONS - RELOCATED U.S. 30
STA. 2+920 TO STA. 3+040 LEFT ℄

CRA/RIC-30-15.948/0.000

211/712

SEEDING	
END WIDTH	SQ. METERS

SEE LEFT SECTION FOR SEEDING QUANTITIES



SHEET TOTAL

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
6.5	70.2		
		218	3352
4.4	97.4		
		164	4034
3.8	104.3		
		128	4014
2.6	96.4		
		108	3392
2.8	73.2		
		782	1468
SHEET TOTAL		1400	16260

CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 2+920 TO STA. 3+040 RIGHT ℄

CRA/RIC-30-15.948/0.000

212
712

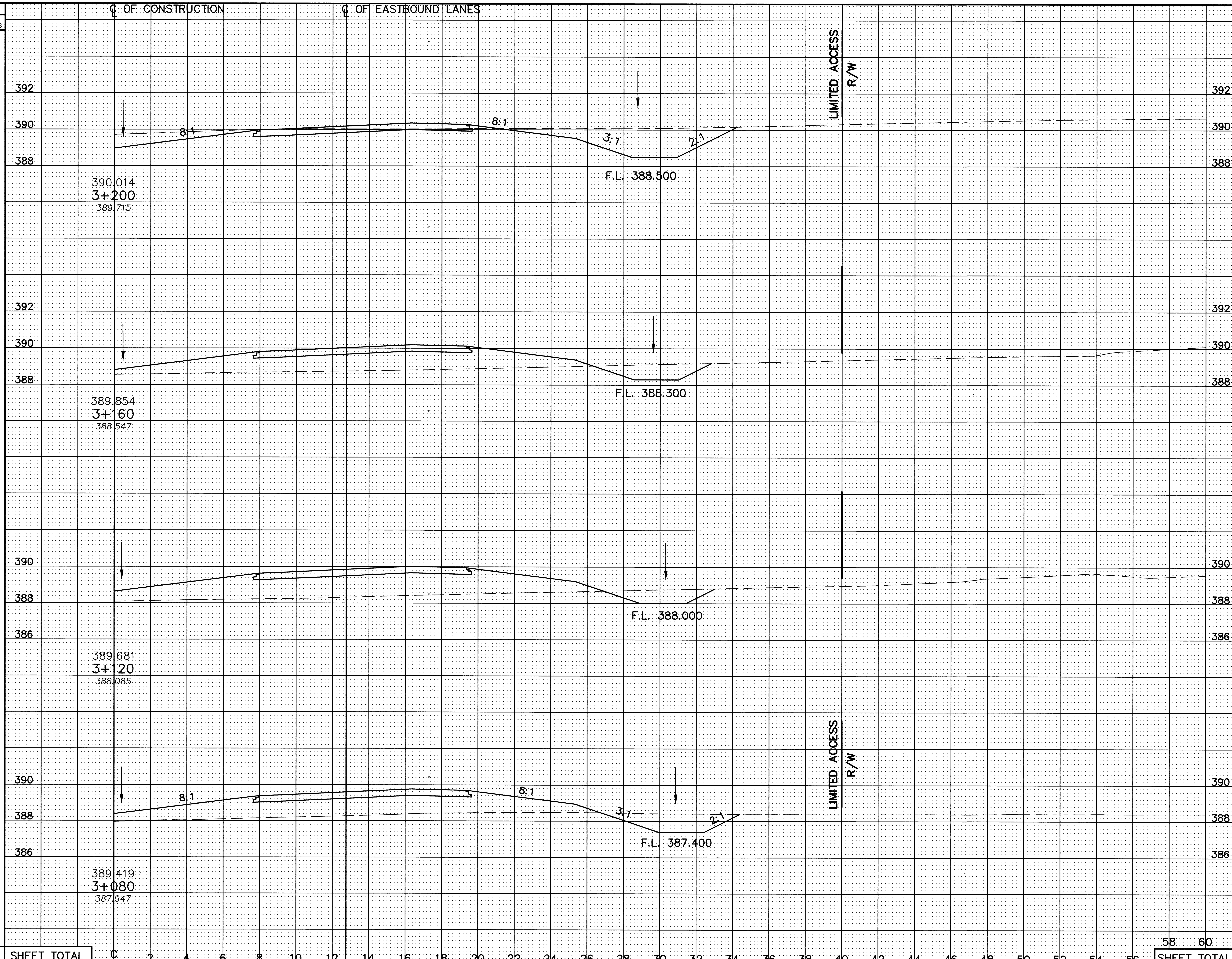
GX179R30.DWG
02-23-1999 10:08 AM
1:100M


SEEDING
END WIDTH
SQ. METERS
51.0
2020
50.0
1950
47.5
1990
52.0
2070
8030
SHEET TOTAL
℄ OF WESTBOUND LANES
℄ OF CONSTRUCTION
LIMITED ACCESS R/W
F.L. 387.800
390.014
3+200
389.715
F.L. 387.100
389.854
3+160
388.547
F.L. 386.900
389.681
3+120
388.085
F.L. 386.700
389.419
3+080
387.947
END AREA
CUT
FILL
VOLUME
CUT
FILL
SEE RIGHT SECTION FOR EARTHWORK QUANTITIES
CALCULATED RR
CHECKED WS
CROSS-SECTIONS – RELOCATED U.S. 30
STA. 3+080 TO STA. 3+200 LEFT ℄
CRA/RIC-30-33.500/0.000
212A
712
GX180R30.DWG
02-23-1999 10:12 AM
1:100M

SEEDING

END WIDTH	SQ. METERS

SEE LEFT SECTION FOR SEEDING QUANTITIES



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
28.7	1.6		
		678	918
5.2	44.3		
		234	2046
6.5	58.0		
		338	2118
10.4	47.9		
		338	2362
		1588	7444

CALCULATED RR

CHECKED WS

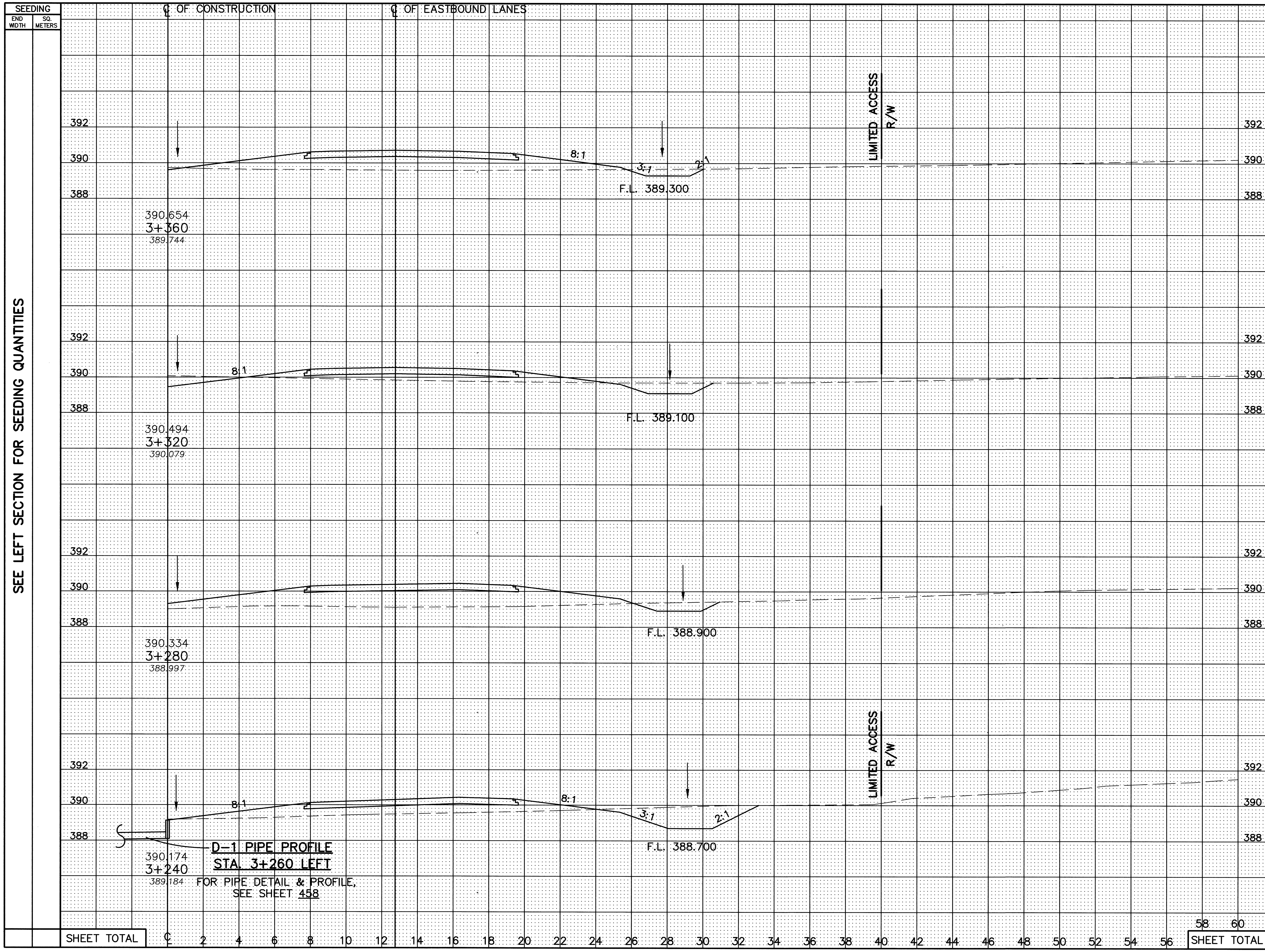
CROSS-SECTIONS – RELOCATED U.S. 30
STA. 3+080 TO STA. 3+200 RIGHT ℄

CRA/RIC-30-33.500/0.000

212B
712

GX181R30.DWG
02-12-1999 11:09 AM
1:100M

SEEDING
END WIDTH
SQ. METERS
24
840
18
1290
46.5
1950
51.0
2040
6120
SHEET TOTAL
℄ OF WESTBOUND LANES
℄ OF CONSTRUCTION
LIMITED ACCESS R/W
6:1
8:1
8:1
F.L. 390.000
390.654
3+360
389.744
F.L. 389.800
390.494
3+320
390.079
F.L. 387.700
390.334
3+280
388.997
2:1
3:1
F.L. 387.500
D-1 PIPE PROFILE
STA. 3+260 LEFT
FOR PIPE DETAIL & PROFILE, SEE SHEET 458
390.174
3+240
389.184
392
390
388
60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 ℄
SHEET TOTAL
END AREA
CUT FILL
VOLUME
CUT FILL
SEE RIGHT SECTION FOR EARTHWORK QUANTITIES
CALCULATED RR
CHECKED WS
CROSS-SECTIONS - RELOCATED U.S. 30
STA. 3+240 TO STA. 3+360 LEFT ℄
CRA/RIC-30-33.500/0.000
212C
712
GX182R30.DWG
02-23-1999 10:16 AM
1:100M



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
2.7	19.7		
		248	518
9.7	6.2		
		256	1180
3.1	52.8		
		394	1526
16.6	23.5		
		906	502
SHEET TOTAL		1804	3726

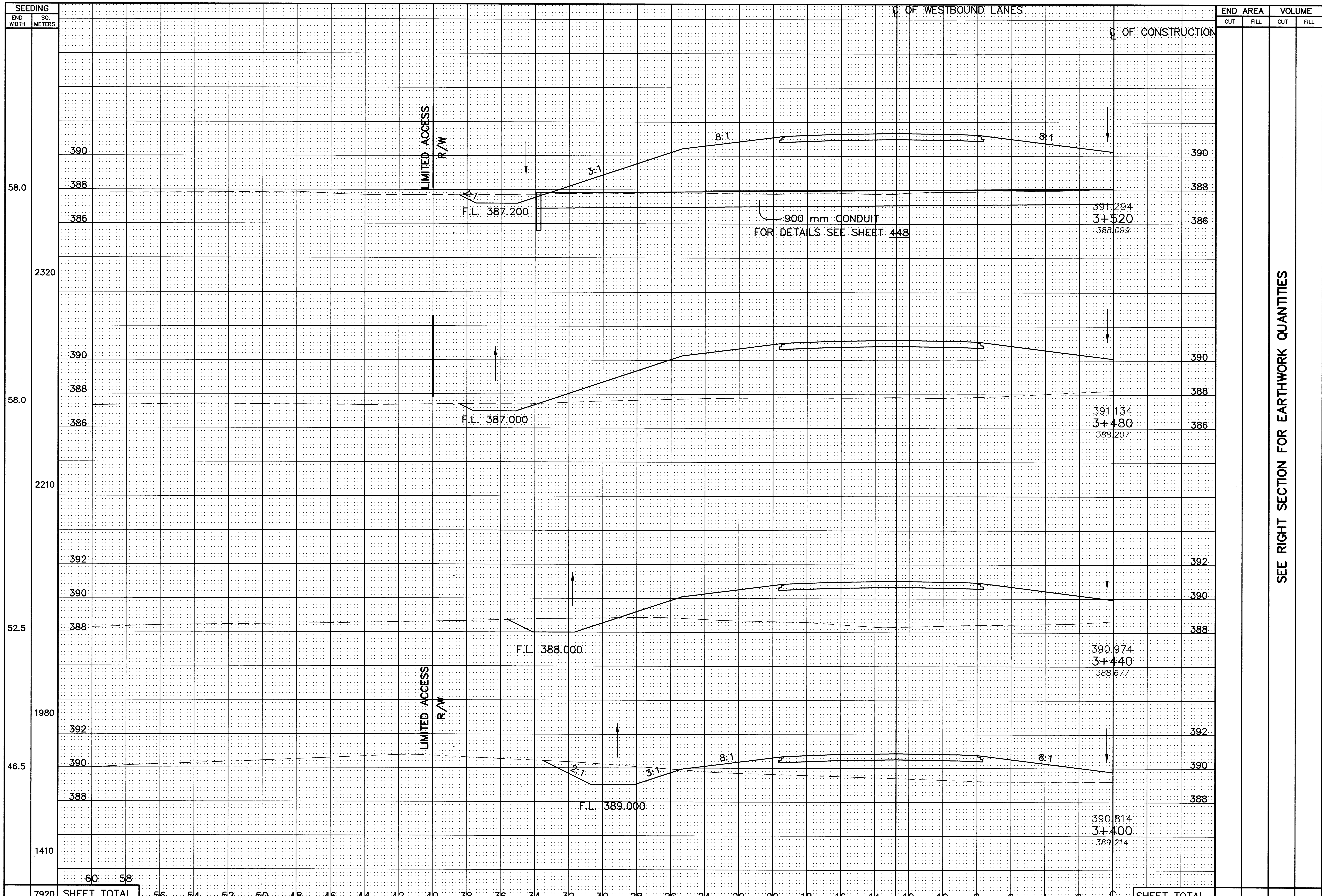
CALCULATED RR
CHECKED WS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 3+240 TO STA. 3+360 RIGHT ℄

CRA/RIC-30-33.500/0.000

212D
712

GX183R30.DWG
02-12-1999 11:11 AM
1:100M



SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

CALCULATED RJR
CHECKED WJS

CROSS-SECTIONS - RELOCATED U.S. 30
STA. 3+400 TO STA. 3+520 LEFT ℄

CRA/RIC-30-33.500/0.000

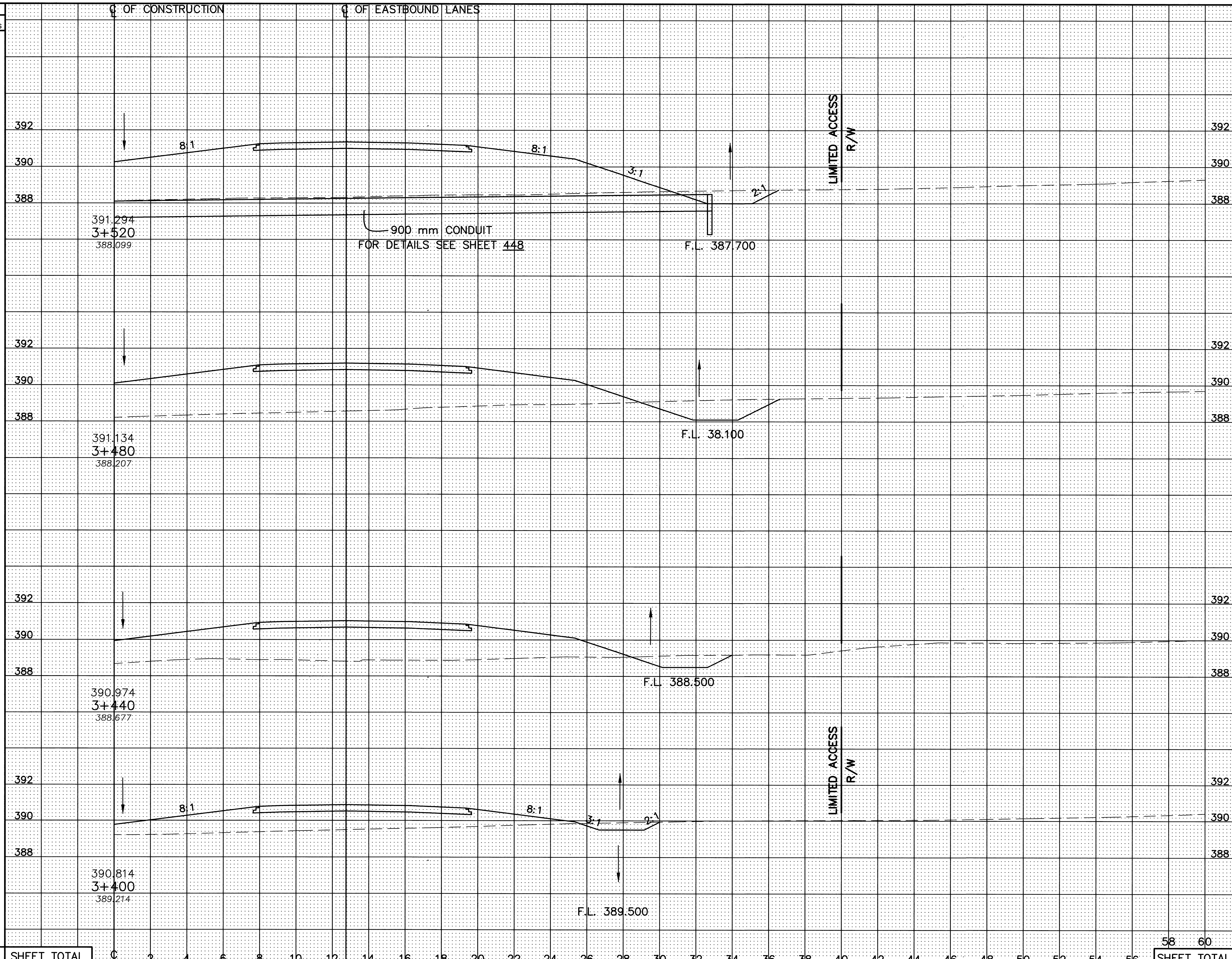
213
712

GX184R30.DWG
02-23-1999 10:2 AM
1:100M

SEEDING	
END WIDTH	SQ. METERS

SEE LEFT SECTION FOR SEEDING QUANTITIES

SHEET TOTAL



SHEET TOTAL

END AREA		VOLUME	
CUT	FILL	CUT	FILL
4.8	154.5		
		236	5834
7.0	137.2		
		264	4660
6.2	95.8		
		276	2824
7.6	45.4		
		206	1302
		982	14620

CALCULATED RJR CHECKED WJS

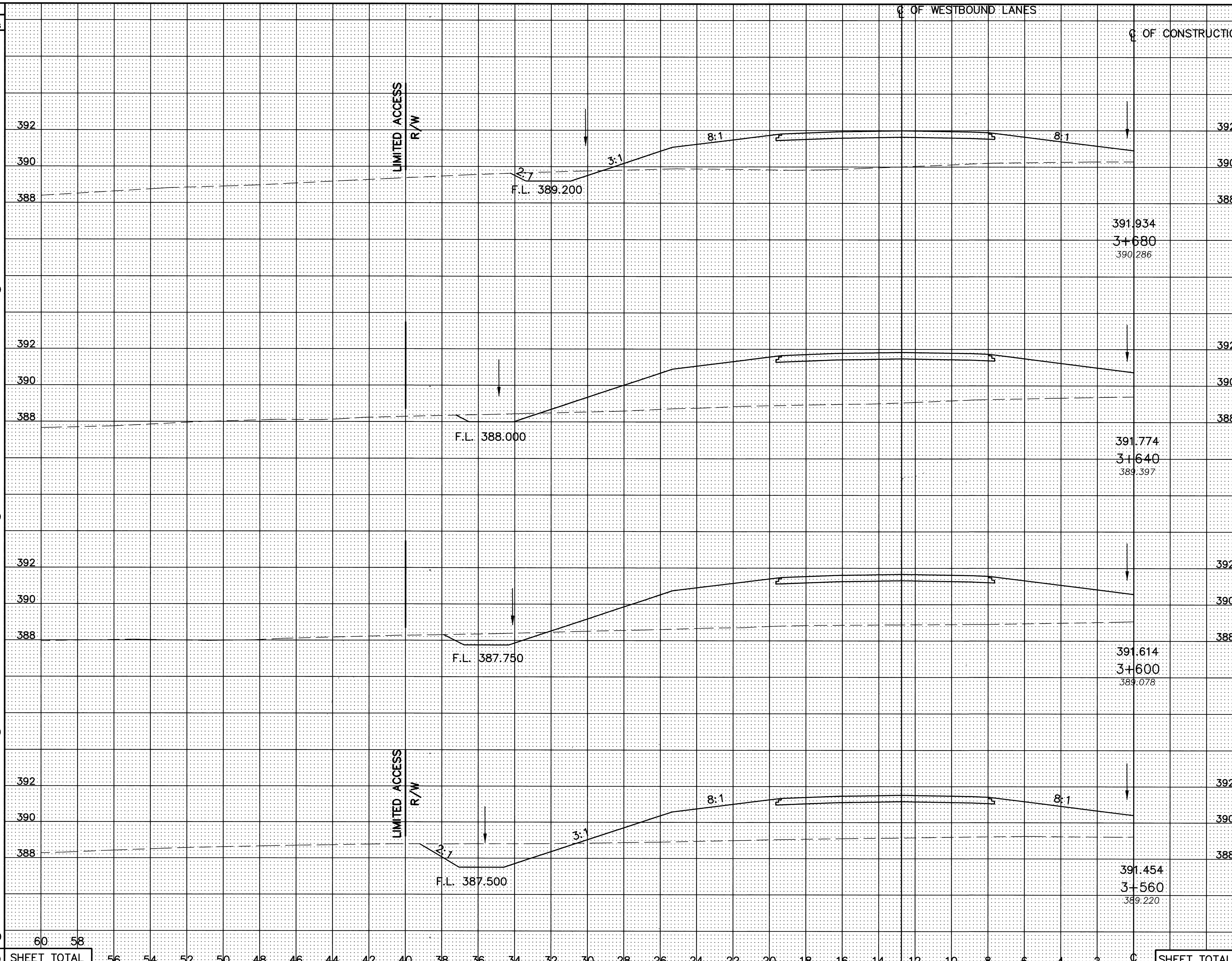
CROSS-SECTIONS – RELOCATED U.S. 30
STA. 3+400 TO STA. 3+520 RIGHT ℄

CRA/RIC-30-33.500/0.000

214/712

GX185R30.DWG
02-12-1999 11:13 AM
1:100M

SEEDING	
END WIDTH	SQ. METERS
48.0	
	2160
60.0	
	2310
55.5	
	2310
60.0	
	2360
	9140



END AREA		VOLUME	
CUT	FILL	CUT	FILL

SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

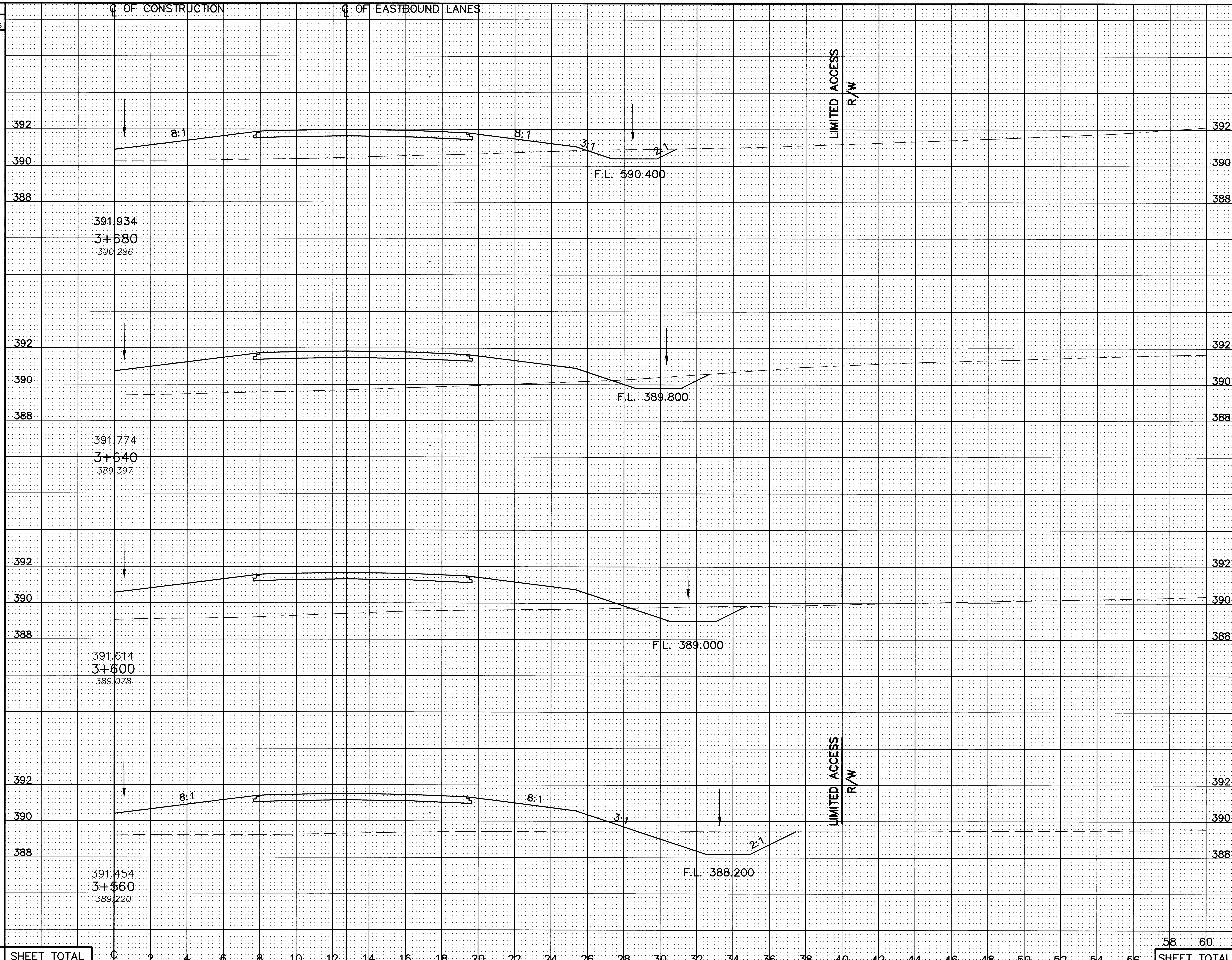
CALCULATED RJR
CHECKED WJS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 3+560 TO STA. 3+680 LEFT ℄

CRA/RIC-30-33.500/0.000

GX186R30.DWG
02-12-1999 11:15 AM
1:100M

SEEDING	
END WIDTH	SQ. METERS
SEE LEFT SECTION FOR SEEDING QUANTITIES	
SHEET TOTAL	



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
3.8	64.1		
		152	3400
3.8	105.9		
		198	4344
6.1	111.3		
		408	4148
14.3	96.1		
		382	5012
		1140	16904

CALCULATED RJR
CHECKED WJS

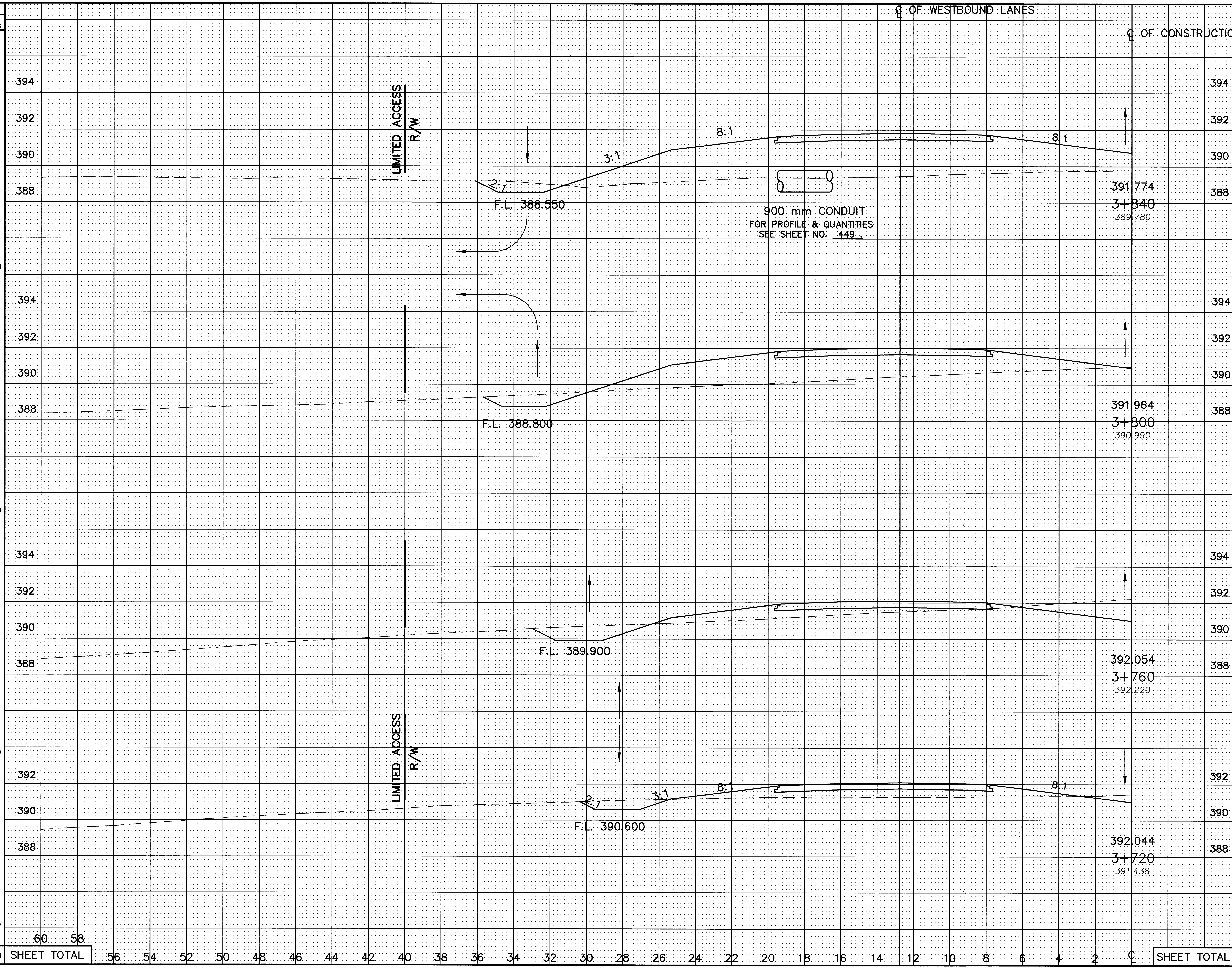
CROSS-SECTIONS – RELOCATED U.S. 30
STA. 3+560 TO STA. 3+680 RIGHT ℄

CRA/RIC-30-33.500/0.000

216/712

GX187R30.DWG
02-23-1999 10:25 AM
1:100M

SEEDING	
END WIDTH	SQ. METERS
49.5	1990
50.0	2120
56.0	1990
43.5	1830
	7930



END AREA		VOLUME	
CUT	FILL	CUT	FILL

SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

CALCULATED RJR CHECKED WJS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 3+720 TO STA. 3+840 LEFT ℄

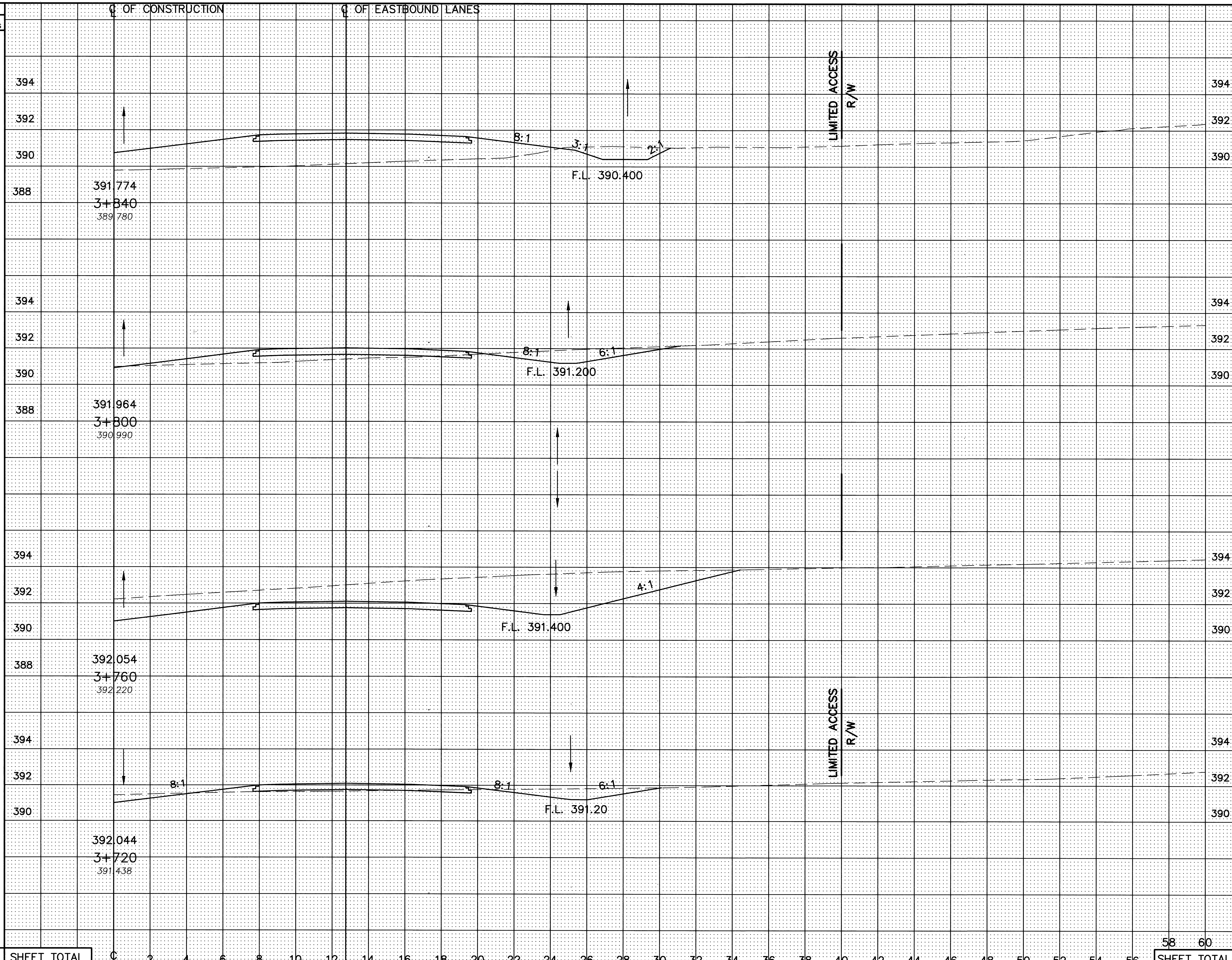
CRA/RIC-30-33.500/0.000

217
712

GX188R30.DWG
02-12-1999 11:17 AM
1:100M

SEEDING	
END WIDTH	SQ. METERS
SHEET TOTAL	

SEE LEFT SECTION FOR SEEDING QUANTITIES



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
4.9	80.5		
		236	2310
6.9	35.0		
		1304	828
58.3	6.4		
		1302	306
6.8	8.9		
		212	1460
		3054	4904

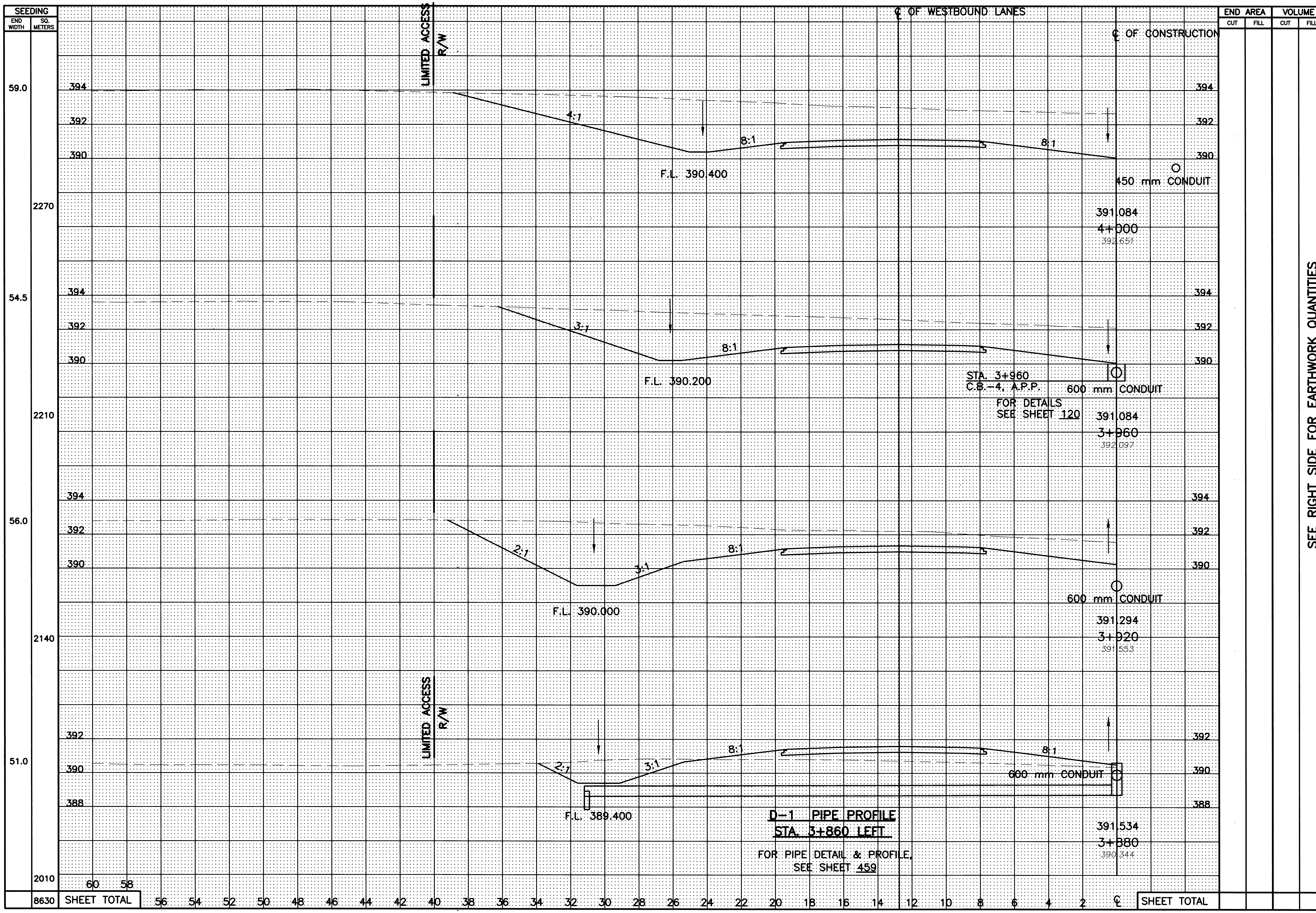
CALCULATED RJR
CHECKED WJS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 3+720 TO STA. 3+840 RIGHT ℄

CRA/RIC-30-33.500/0.000

218/712

GX189R30.DWG
02-12-1999 11:2 AM
1:100M



SEE RIGHT SIDE FOR EARTHWORK QUANTITIES

CALCULATED RJR

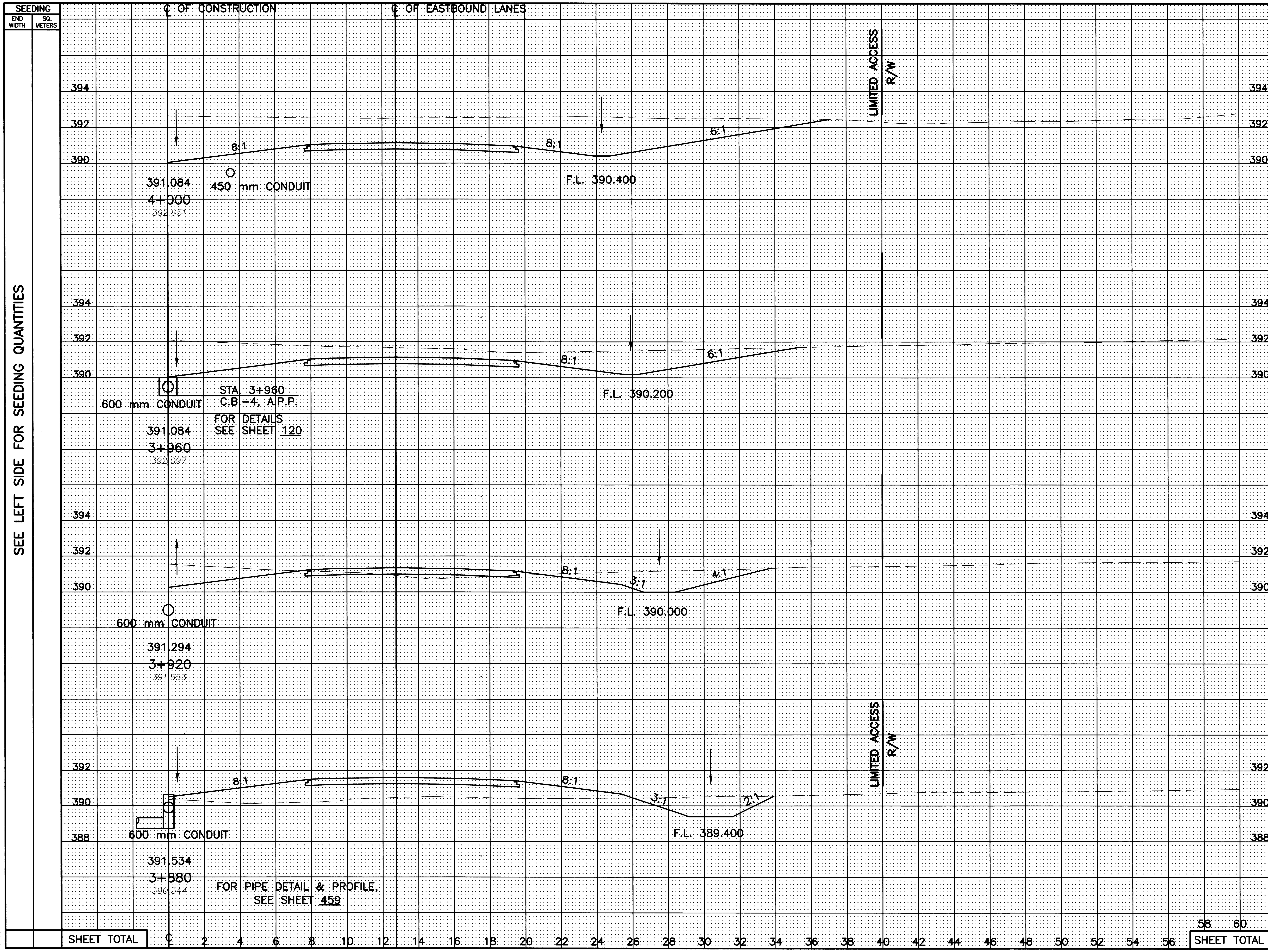
CHECKED WJS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 3+880 TO STA. 4+000 LEFT ℄

CRA/RIC-30-33.500/0.000

219/712

GX19OR30.DWG
08-16-2000 7:42 AM
1:100M



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
141.5	0		
		4832	0
100.1	0		
		3592	20
79.5	1.0		
		1860	604
13.5	29.2		
		368	2194
SHEET TOTAL		10652	2818

CALCULATED RJR
CHECKED WJR

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 3+880 TO STA. 4+000 RIGHT ℄

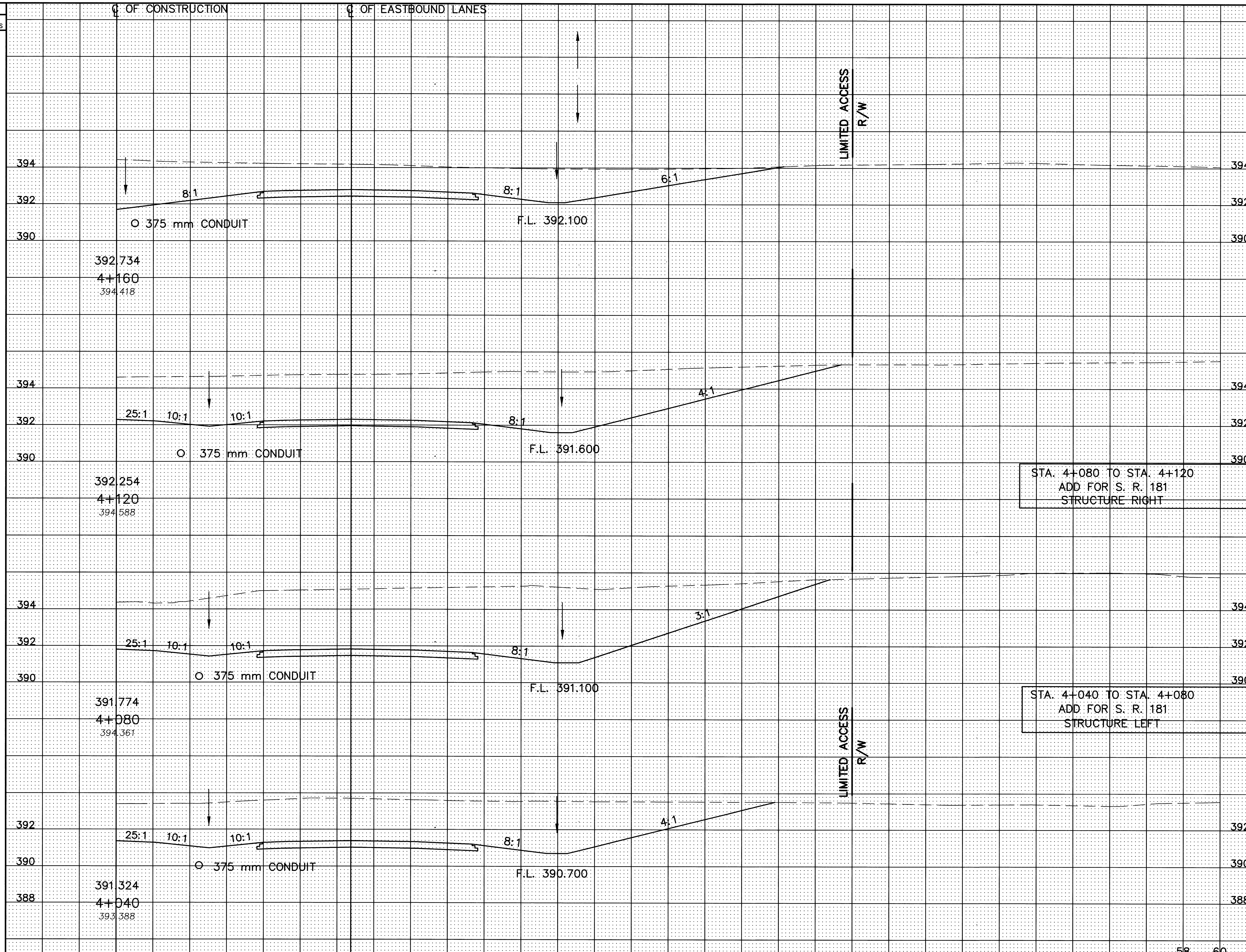
CRA/RIC-30-33.500/0.000

GX19IR30.DWG
08-16-2000 7:41 AM
1:100M

GX192R30.DWG
02-12-1999 11:22 AM
1:100M

SEEDING	
END WIDTH	SQ. METERS

SEE LEFT SIDE FOR SEEDING QUANTITIES



SHEET TOTAL

END AREA		VOLUME	
CUT	FILL	CUT	FILL
123.3	0		
		6028	0
178.1	0		
		3398	0
		4126	22
194.4	0		
		3994	0
		3037	204
152.0	0		
		5870	0
SHEET TOTAL		26453	226

CALCULATED RJR
CHECKED WJS

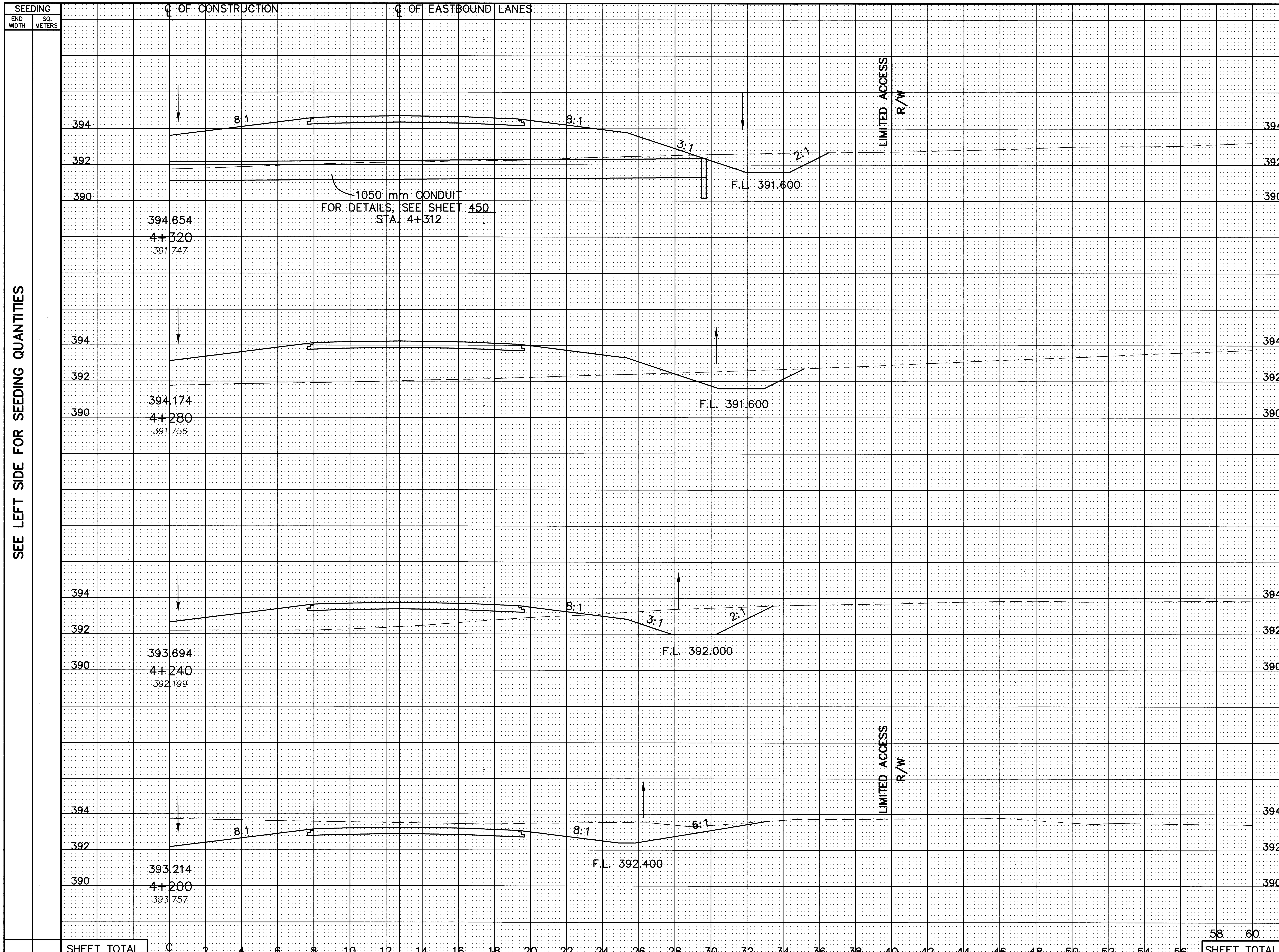
CROSS-SECTIONS – RELOCATED U.S. 30
STA. 4+040 TO STA. 4+160 RIGHT ℄

CRA/RIC-30-33.500/0.000

222
712

GX193R30.DWG
02-23-1999 10:58 AM
1:100M


SEEDING
END WIDTH
SQ. METERS
56.5
2190
53.0
2010
47.5
1900
47.5
2050
8150
SHEET TOTAL
℄ OF WESTBOUND LANES
℄ OF CONSTRUCTION
LIMITED ACCESS R/W
8:1
3:1
2:1
1050 mm CONDUIT
FOR DETAILS, SEE SHEET 450
STA. 4+312
F.L. 391.040
394.654
4+320
391.747
F.L. 391.160
394.174
4+280
391.756
F.L. 392.000
393.694
4+240
392.199
6:1
F.L. 392.400
393.214
4+200
393.757
394
392
390
60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 ℄
END AREA
CUT FILL
VOLUME
CUT FILL
SEE RIGHT SIDE FOR EARTHWORK QUANTITIES
CALCULATED RJR
CHECKED WJS
CROSS-SECTIONS – RELOCATED U.S. 30
STA. 4+200 TO STA. 4+320 LEFT ℄
CRA/RIC-30-33.500/0.000
223
712
GX194R30.DWG
02-12-1999 11:23 AM
1:100M



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
7.2	130.0		
		258	4682
5.7	104.1		
		322	2880
10.4	39.9		
		1246	798
51.9	0		
		3504	0
		5330	8360

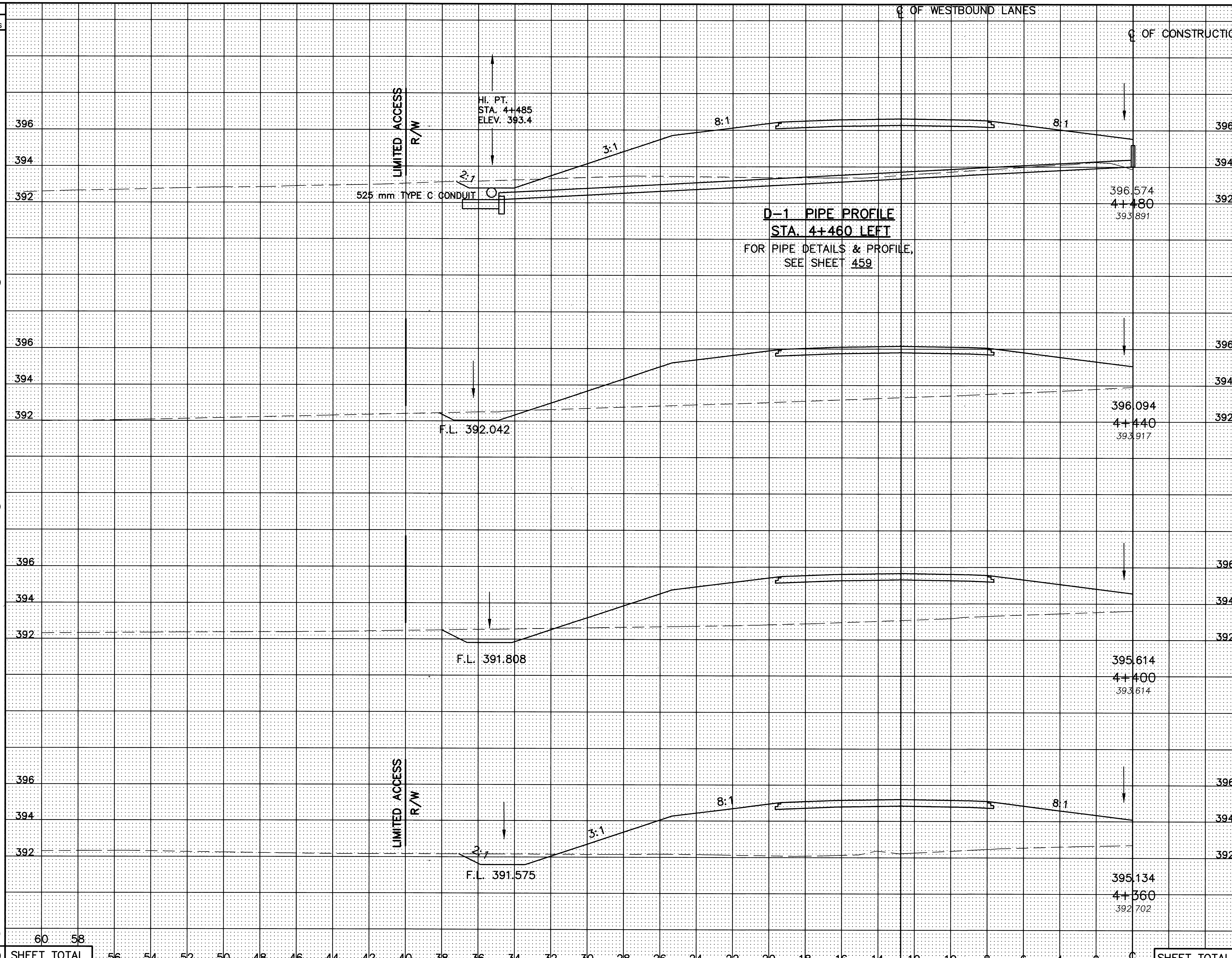
CALCULATED RJR
CHECKED WJS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 4+200 TO STA. 4+320 RIGHT ℄

CRA/RIC-30-33.500/0.000

GX195R30.DWG
02-23-1999 11:12 AM
1:100M

SEEDING	
END WIDTH	SQ. METERS
51.5	
	2100
53.5	
	2140
53.5	
	2110
52.0	
	2170
	8520



END AREA		VOLUME	
CUT	FILL	CUT	FILL

SEE RIGHT SIDE FOR EARTHWORK QUANTITIES

CALCULATED RJR
CHECKED WJS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 4+360 TO STA. 4+480 LEFT ℄

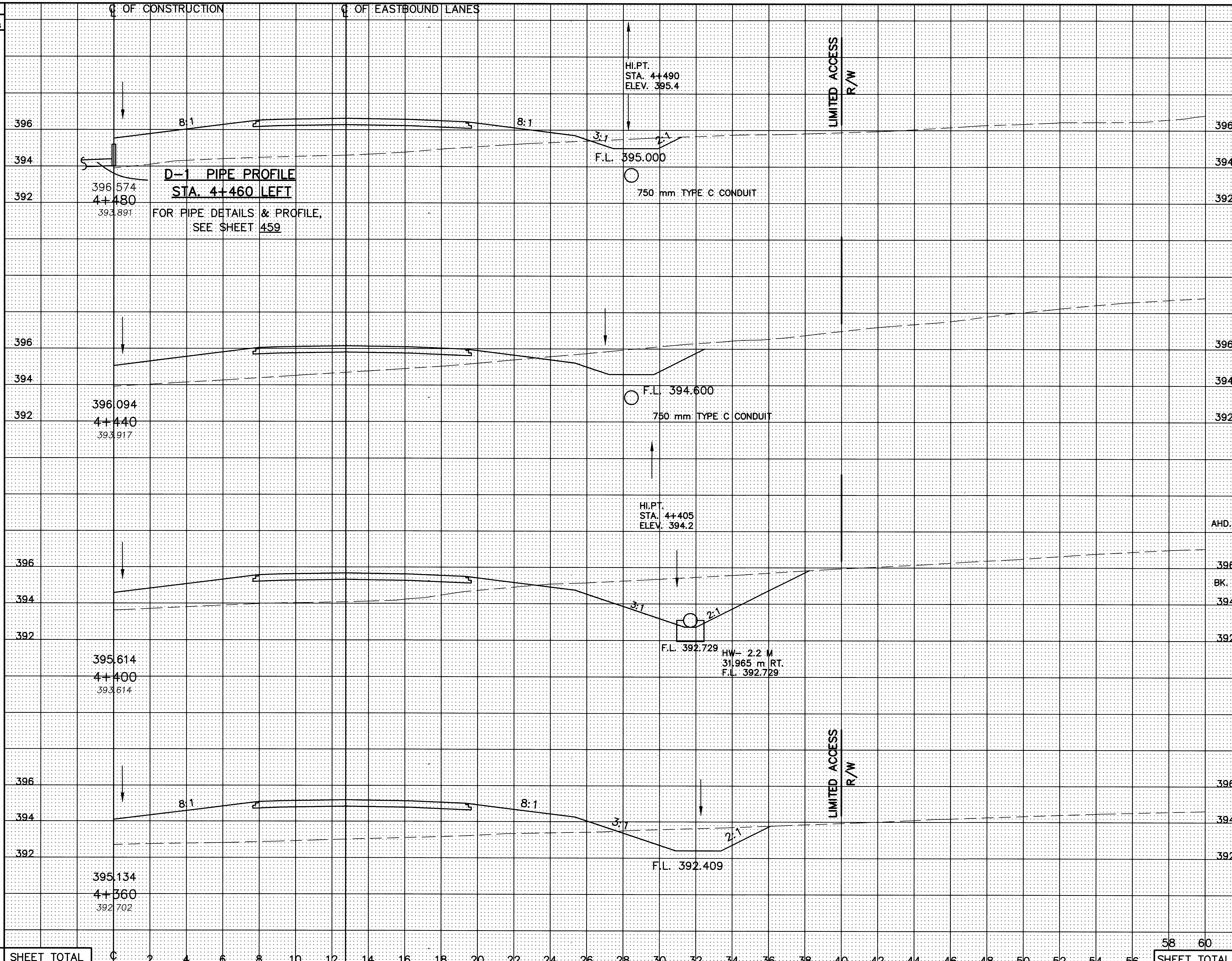
CRA/RIC-30-33.500/0.000

225
712

GX196R30.DWG
03-26-1999 1:58 PM
1:100M

SEEDING	
END WIDTH	SQ. METERS
SHEET TOTAL	

SEE LEFT SIDE FOR SEEDING QUANTITIES



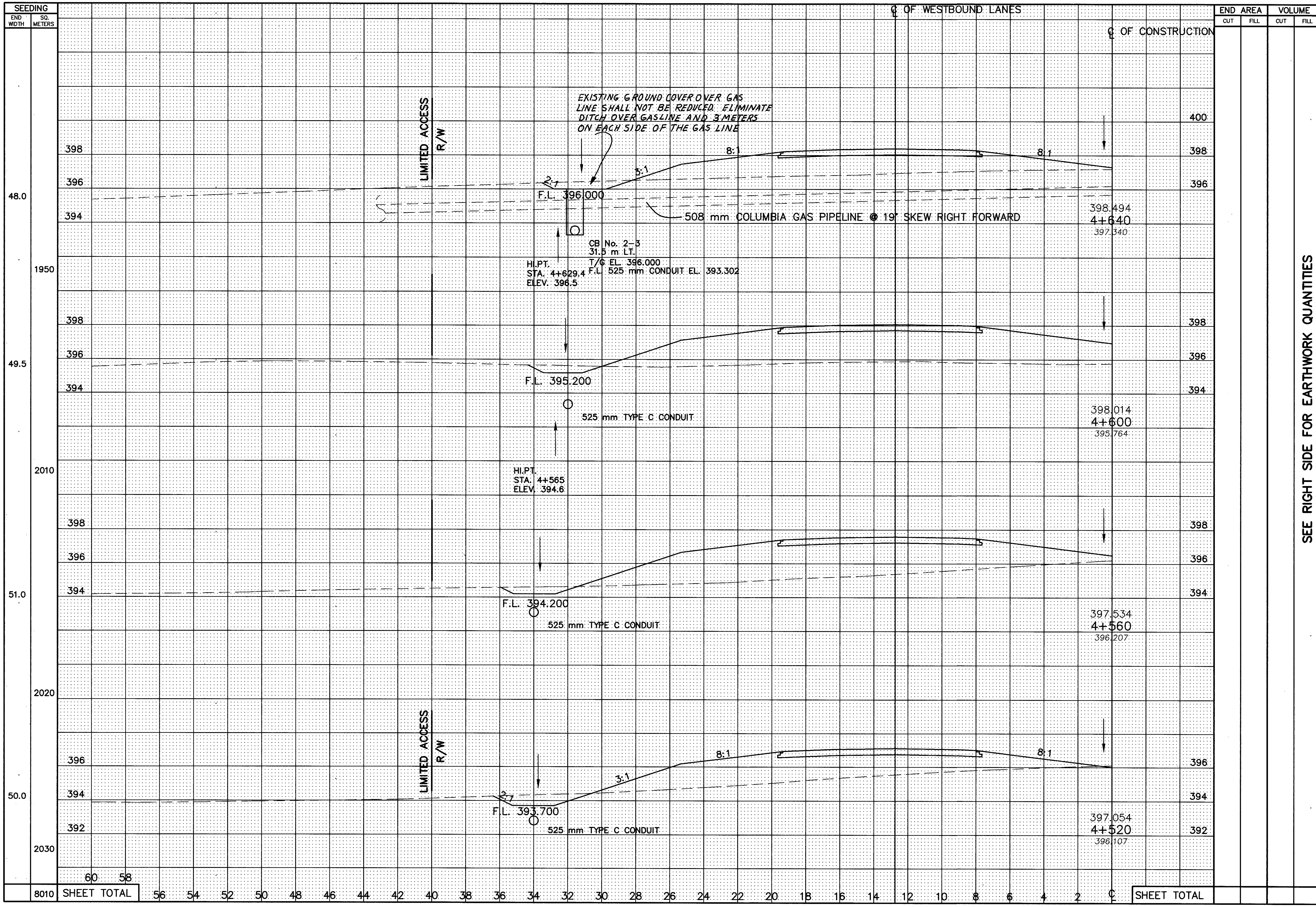
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
3.4	106.6		
		260	3956
9.6	91.2		
		522	3474
AHD. 16.5	82.5		
BK. 21.7	82.5		
		602	3836
8.4	109.3		
		312	4786
SHEET TOTAL		1696	16052

CALCULATED RJR
CHECKED WJS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 4+360 TO STA. 4+480 RIGHT ℄

CRA/RIC-30-33.500/0.000

GX197R30.DWG
03-26-1999 1:6 PM
1:100M



CALCULATED RJR

CHECKED WJS

SEE RIGHT SIDE FOR EARTHWORK QUANTITIES

CROSS-SECTIONS – RELOCATED U.S. 30

STA. 4+520 TO STA. 4+640 LEFT ℄

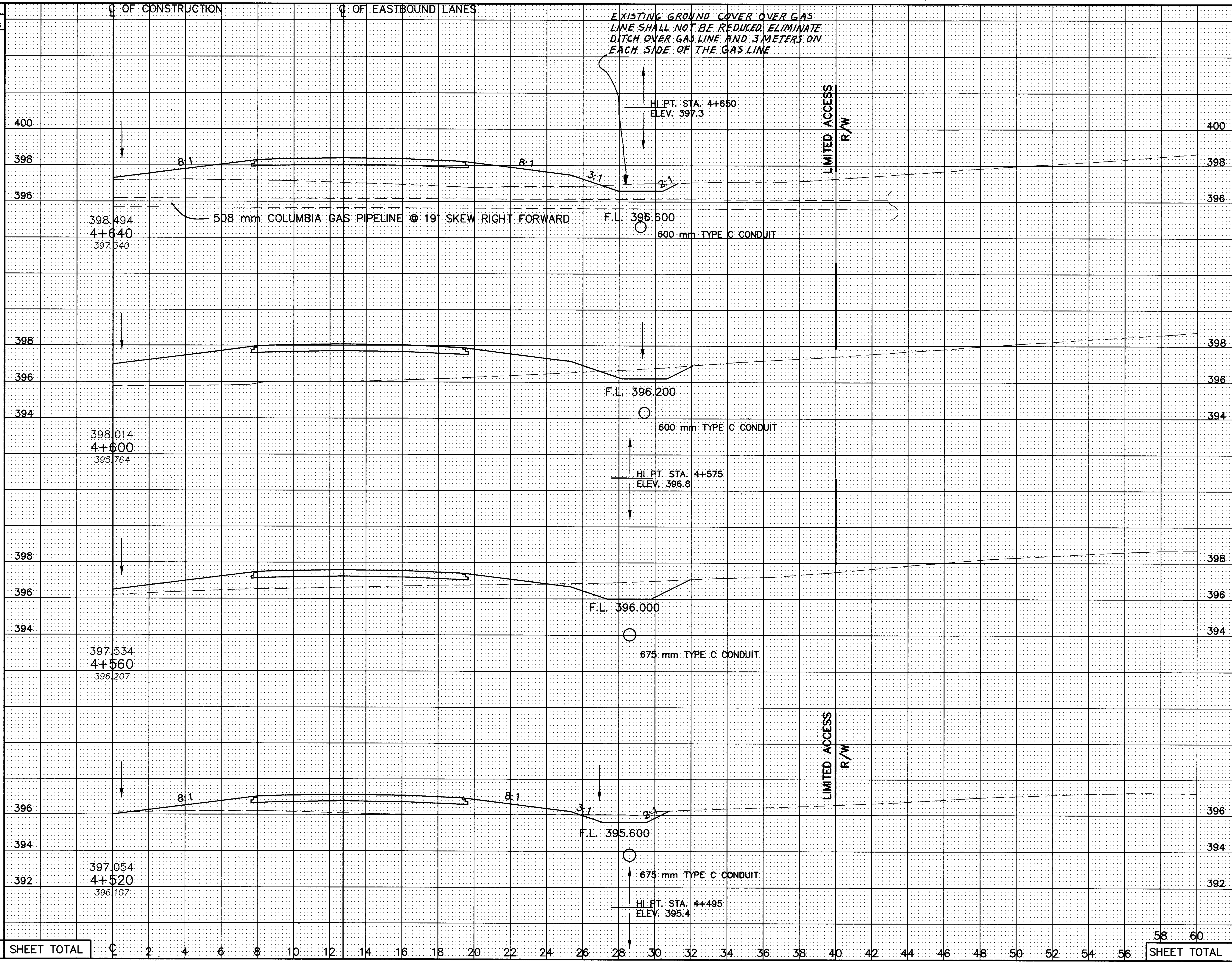
CRA/RIC-30-33.500/0.000

227/712

GX198R30.DWG
03-26-1999 2:08 PM
1:100M

SEE LEFT SIDE FOR SEEDING QUANTITIES

SEEDING END WIDTH	SEEDING SQ. METERS
SHEET TOTAL	



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
3.0	48.2		
		130	2712
3.5	87.4		
		188	2942
5.9	59.7		
		202	2090
4.2	44.8		
		152	3028
		672	10772

CALCULATED RJR CHECKED WJS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 4+520 TO STA. 4+640 RIGHT ℄

CRA/RIC-30-33.500/0.000

228
712

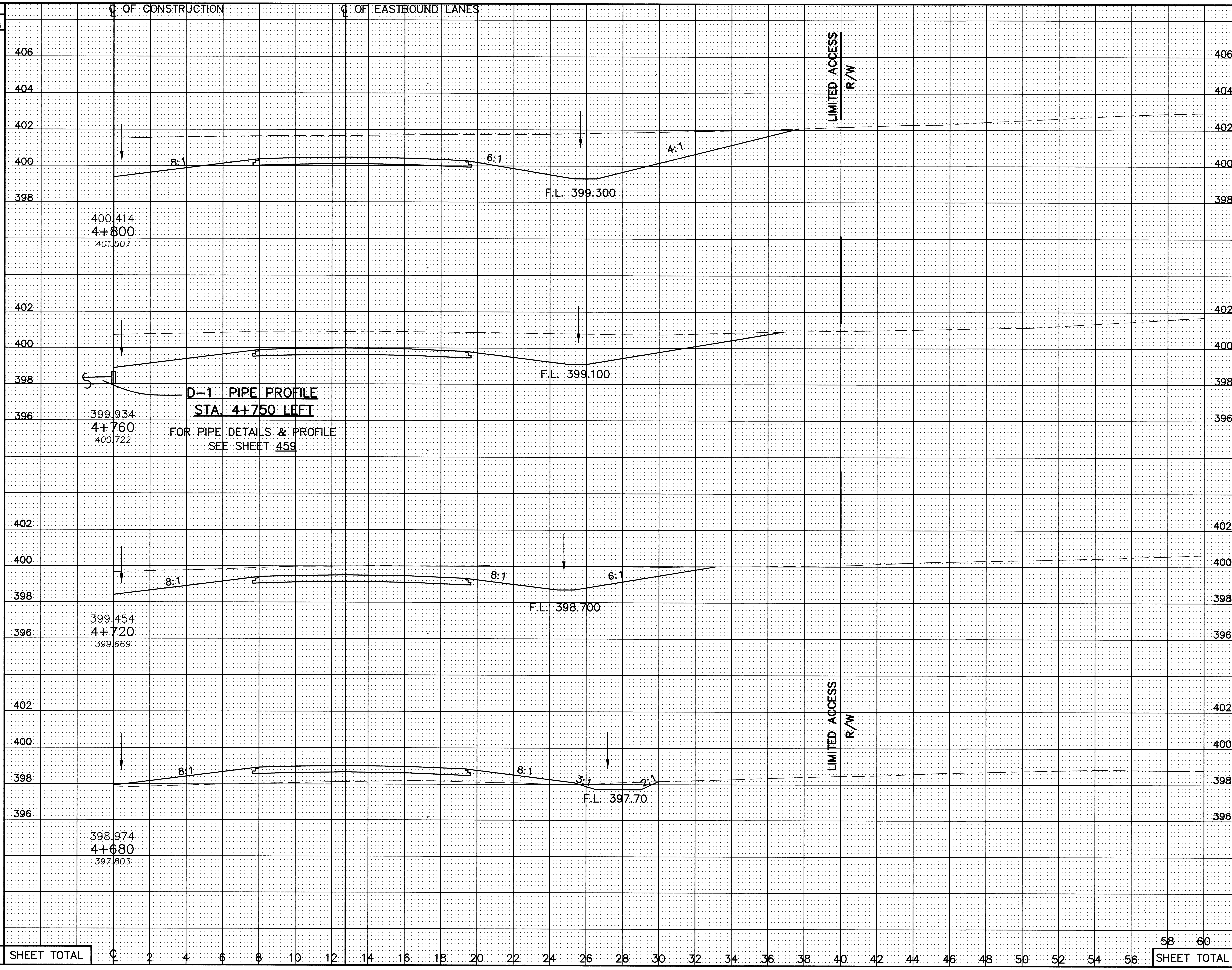
GX199R30.DWG
03-26-1999 2:12 PM
1:100M

SEEDING
END WIDTH
SQ. METERS
END AREA
CUT
FILL
VOLUME
CUT
FILL
CALCULATED RJR
CHECKED WJS
℄ OF WESTBOUND LANES
℄ OF CONSTRUCTION
LIMITED ACCESS R/W
F.L. 397.800
400.414
4+800
401.507
F.L. 397.600
399.934
4+760
400.722
D-1 PIPE PROFILE
STA. 4+750 LEFT
FOR PIPE DETAILS & PROFILE
SEE SHEET 459
F.L. 397.400
399.454
4+720
399.669
F.L. 396.300
398.974
4+680
397.803
60.5
57.0
52.0
47.0
2350
2180
1980
1900
8410
SHEET TOTAL
SEE RIGHT SECTION FOR EARTHWORK QUANTITIES
CROSS-SECTIONS - RELOCATED U.S. 30
STA. 4+680 TO STA. 4+800 LEFT ℄
CRA/RIC-30-33.500/0.000
229
712
GX200R30.DWG
02-23-1999 1:39 PM
1:100M

SEEDING	
END WIDTH	SQ. METERS

SEE LEFT SECTION FOR SEEDING QUANTITIES

SHEET TOTAL



END AREA		VOLUME	
CUT	FILL	CUT	FILL
113.7	0		
		3786	0
75.6	0		
		2478	0
48.3	0		
		1022	866
2.8	43.3		
		116	1830
		7402	2696

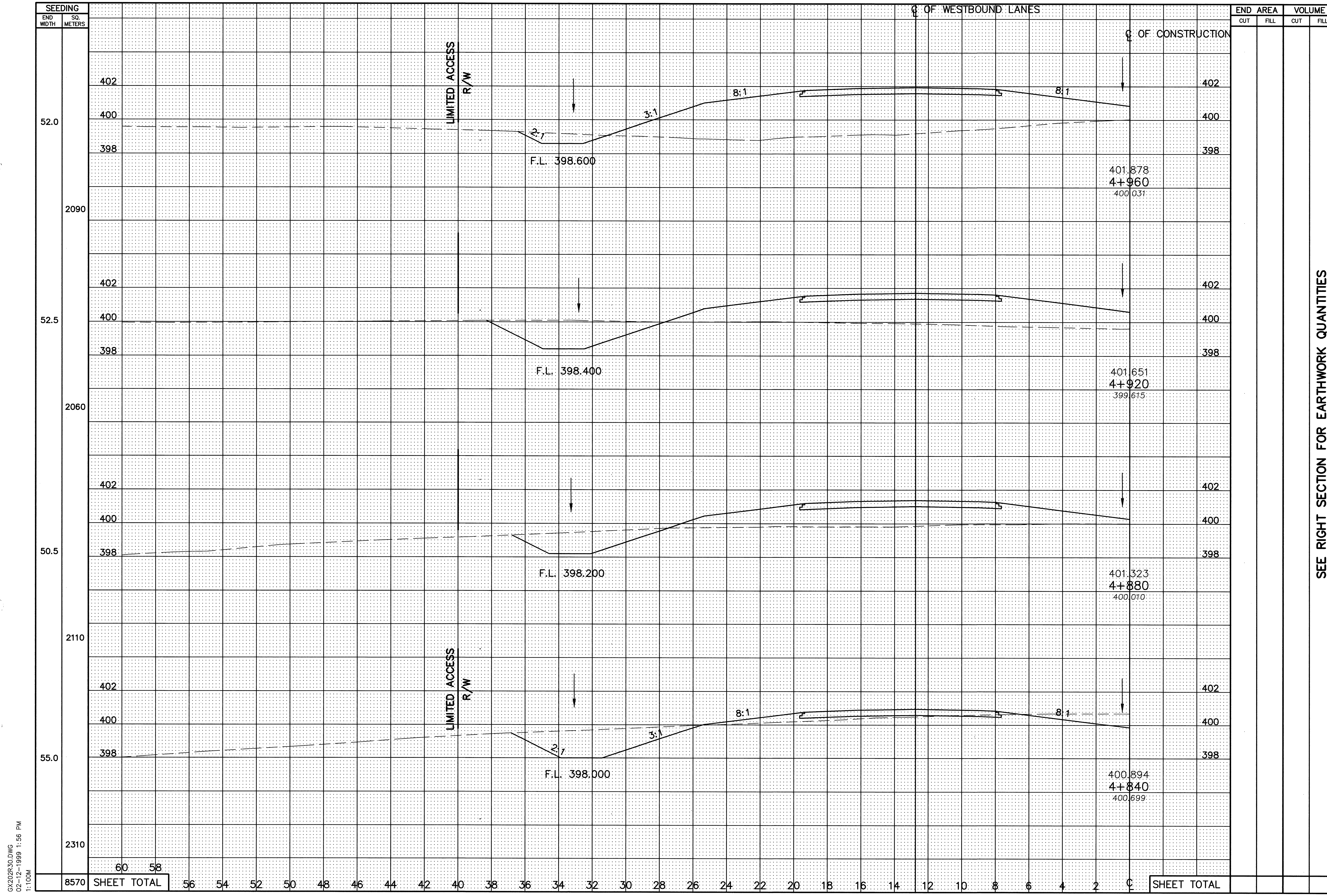
CALCULATED RJR
CHECKED WJS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 4+680 TO STA. 4+800 RIGHT ℄

CRA/RIC-30-33.500/0.000

230/712

GX201R30.DWG
02-12-1999 1:54 PM
1:100M



CALCULATED RJR
CHECKED WJS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 4+840 TO STA. 4+960 LEFT ℄

CRA/RIC-30-33.500/0.000

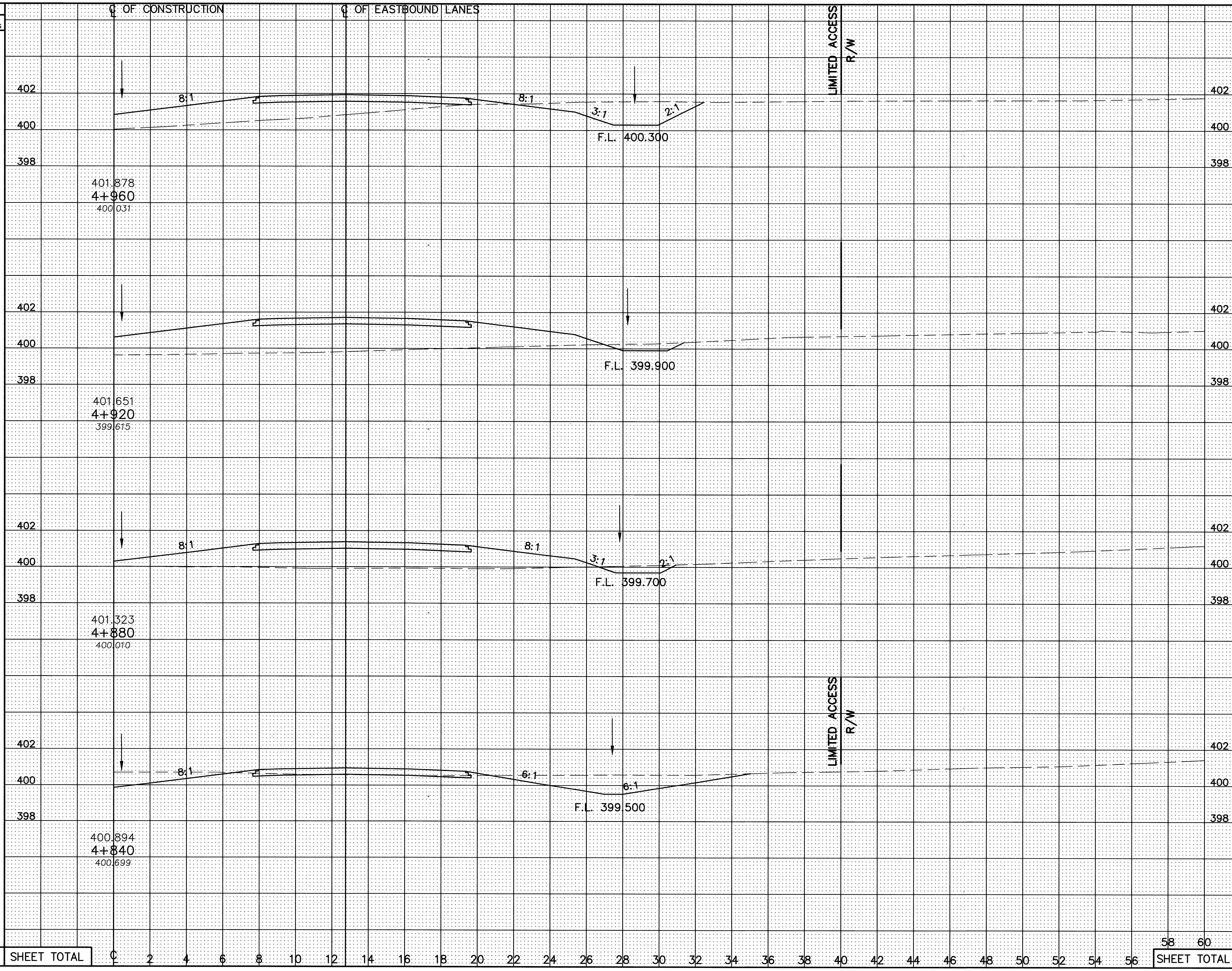
231
712

SEEDING

END WIDTH	SQ. METERS

SEE LEFT SECTION FOR SEEDING QUANTITIES

SHEET TOTAL



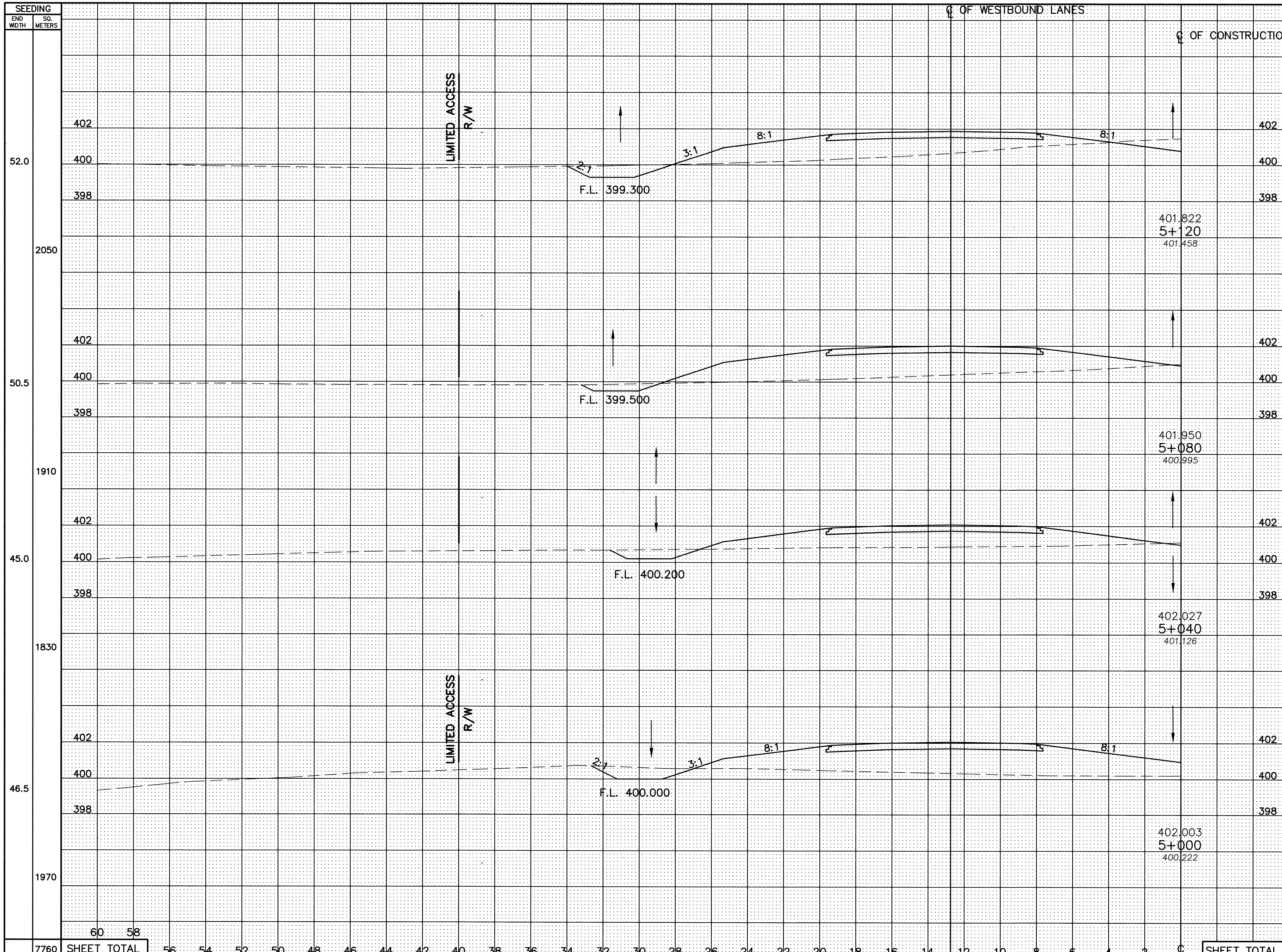
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
9.9	72.2		
		444	2832
12.3	69.4		
		422	2372
8.8	49.2		
		692	1046
25.8	3.1		
		2790	62
		4348	6312

CALCULATED RJR
CHECKED WJS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 4+840 TO STA. 4+960 RIGHT ℄

CRA/RIC-30-33.500/0.000

GX203R30.DWG
02-12-1999 1:58 PM
1:100M



END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED RJR

CHECKED WJS

SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

CROSS-SECTIONS – RELOCATED U.S. 30

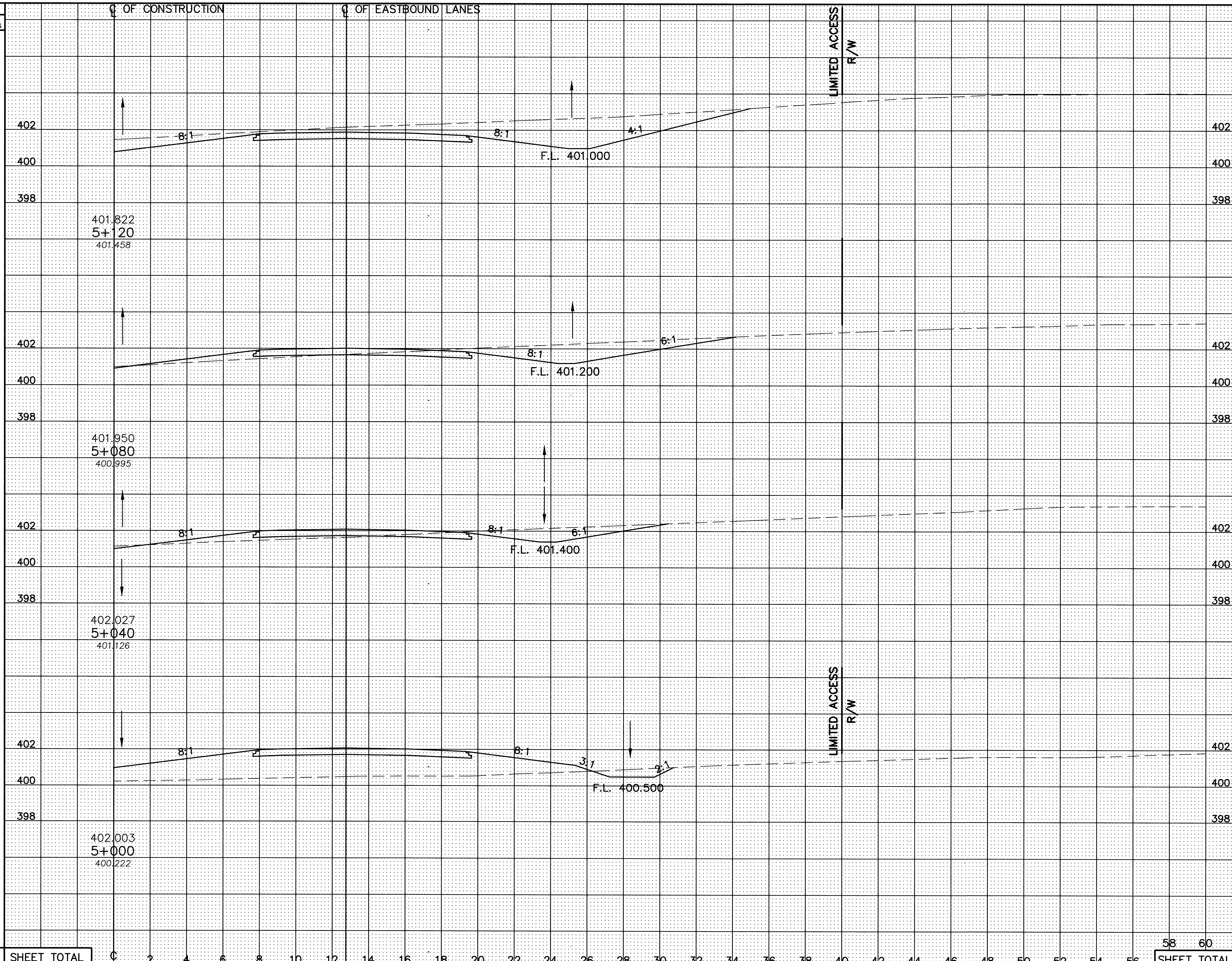
STA. 5+000 TO STA. 5+120 LEFT ℄

CRA/RIC-30-33.500/0.000

233/712

GX204R30.DWG
02-12-1999 1:59 PM
1:100M

SEEDING	
END WIDTH	SQ. METERS
SEE LEFT SECTION FOR SEEDING QUANTITIES	
SHEET TOTAL	



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
30.7	19.1		
		846	1004
11.6	31.1		
		386	1018
7.7	19.8		
		234	1564
4.0	58.4		
		278	2612
SHEET TOTAL		1744	6198

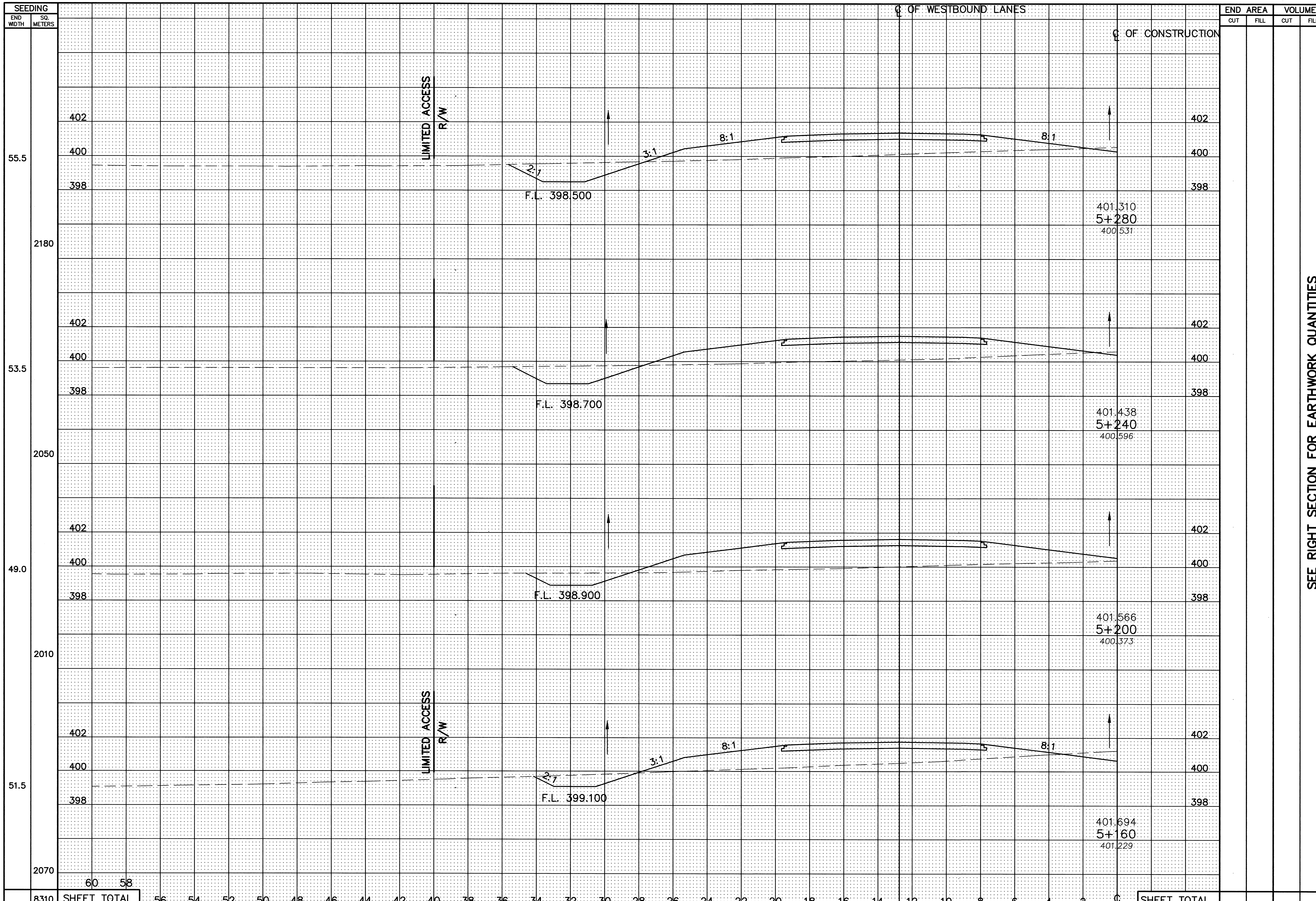
CALCULATED RJR
CHECKED WJS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 5+000 TO STA. 5+120 RIGHT ℄

CRA/RIC-30-33.500/0.000

234
712

GX205R30.DWG
02-12-1999 2:01 PM
1:100M



CALCULATED RJR
CHECKED WJS

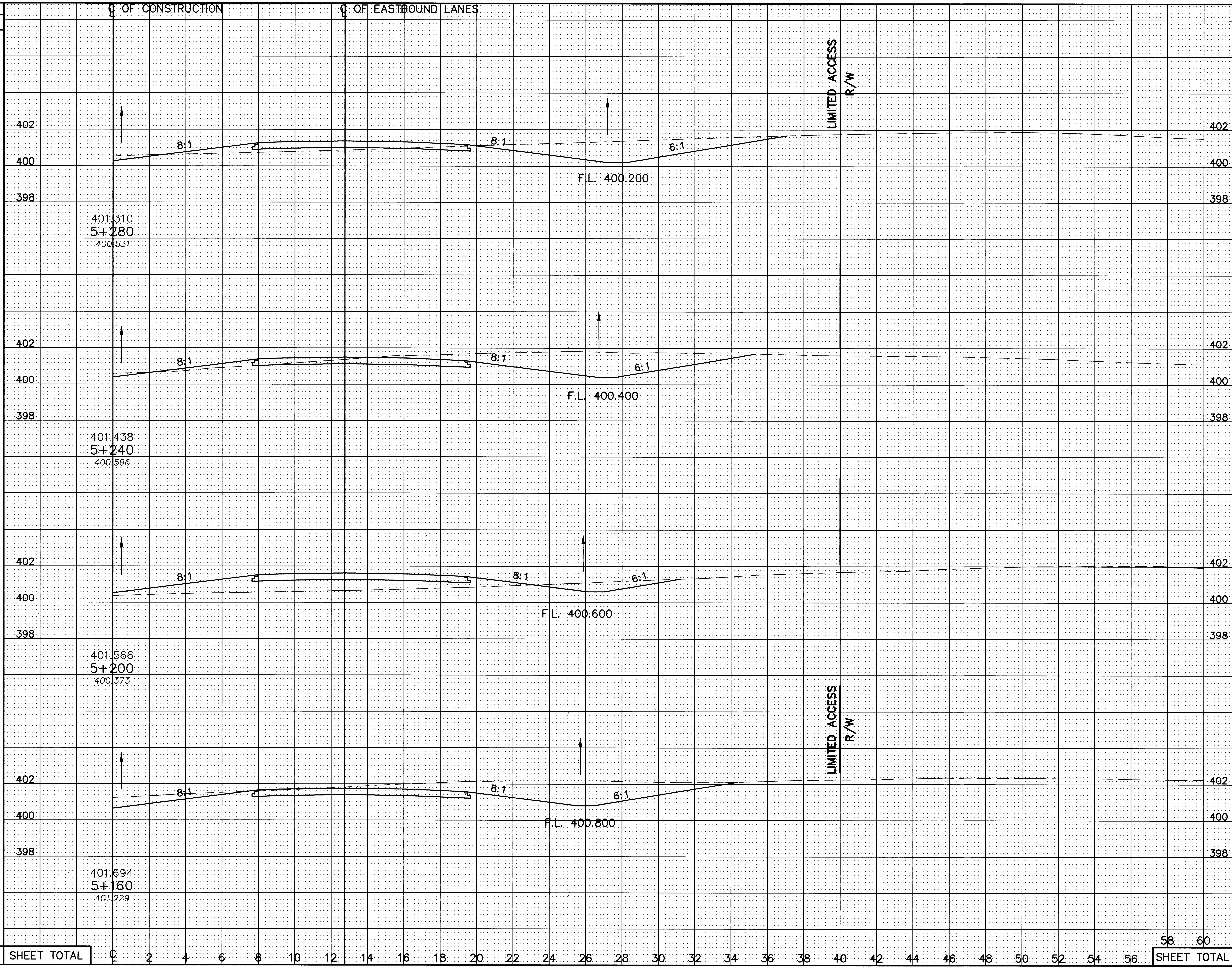
CROSS-SECTIONS – RELOCATED U.S. 30
STA. 5+160 TO STA. 5+280 LEFT ℄

CRA/RIC-30-33.500/0.000

235
712

GX206R30.DWG
02-12-1999 2:04 PM
1:100M

SEEDING	
END WIDTH	SQ. METERS
SEE LEFT SECTION FOR SEEDING QUANTITIES	
SHEET TOTAL	



END AREA		VOLUME	
CUT	FILL	CUT	FILL
17.4	22.1		
		792	904
22.2	23.1		
		552	1272
5.4	40.5		
		602	1198
24.7	19.4		
		1108	770
SHEET TOTAL		3054	4144

CALCULATED RJR
CHECKED WJS

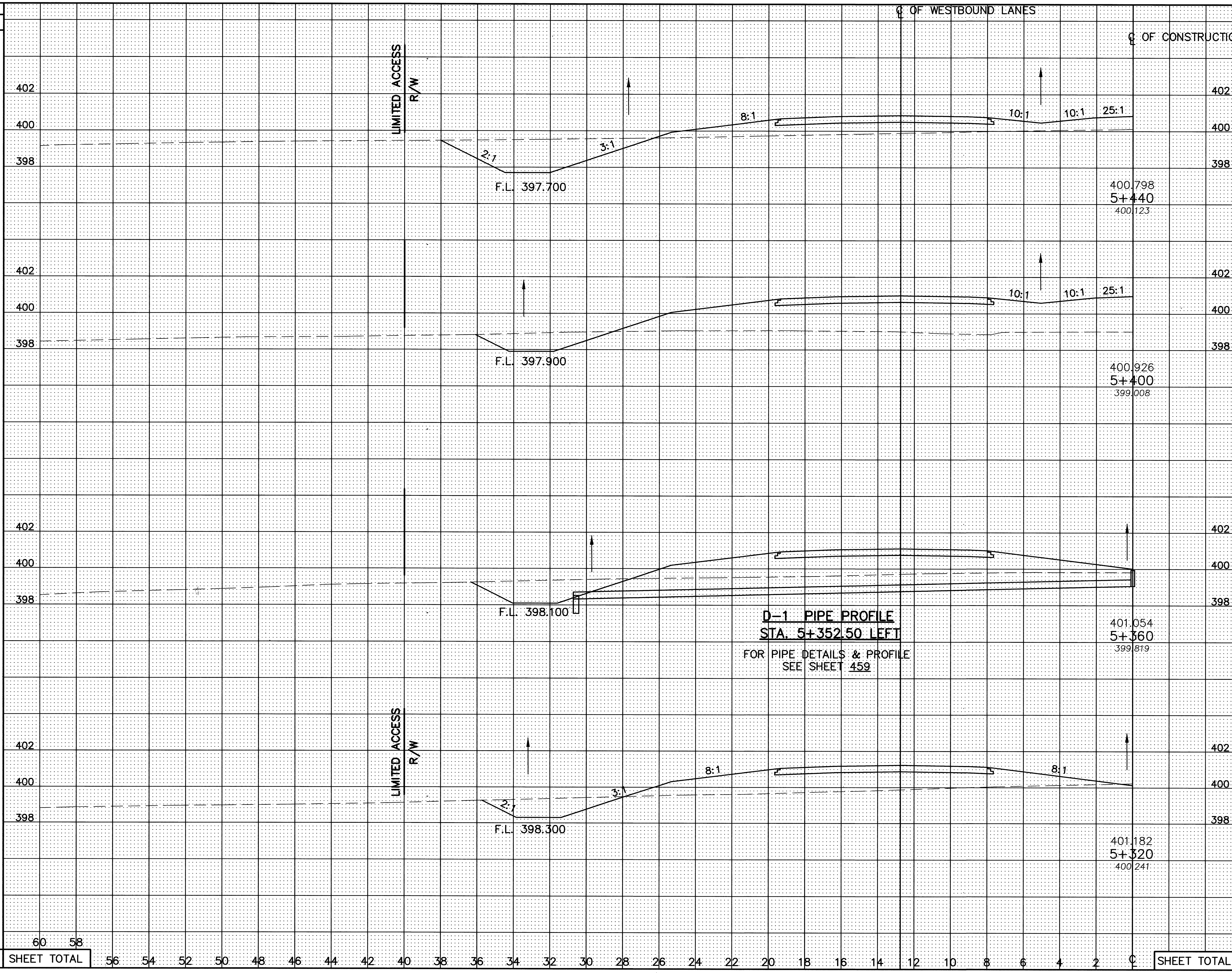
CROSS-SECTIONS - RELOCATED U.S. 30
STA. 5+160 TO STA. 5+280 RIGHT ℄

CRA/RIC-30-33.500/0.000

236/712

GX207R30.DWG
04-1-1999 9:11 AM
1:100M

SEEDING	
END WIDTH	SQ. METERS
58.0	2200
52.0	2050
50.5	2090
54.0	2190
	8530



END AREA		VOLUME	
CUT	FILL	CUT	FILL

SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

CALCULATED RJR
CHECKED WJS

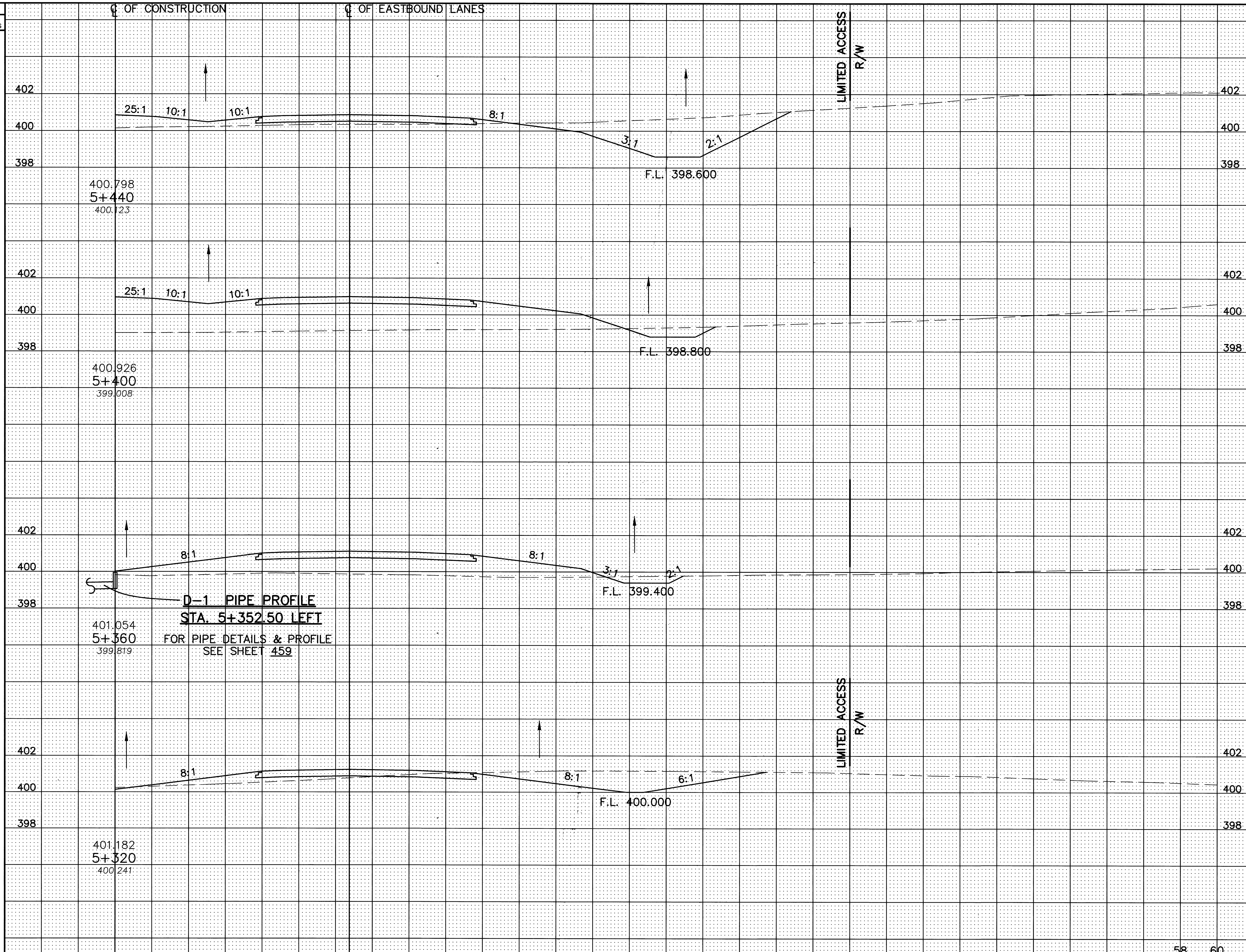
CROSS-SECTIONS - RELOCATED U.S. 30
STA. 5+320 TO STA. 5+440 LEFT ℄

CRA/RIC-30-33.500/0.000

GX208R30.DWG
02-12-1999 2:08 PM
1:100M

SEEDING	
END WIDTH	SQ. METERS
SHEET TOTAL	

SEE LEFT SECTION FOR SEEDING QUANTITIES



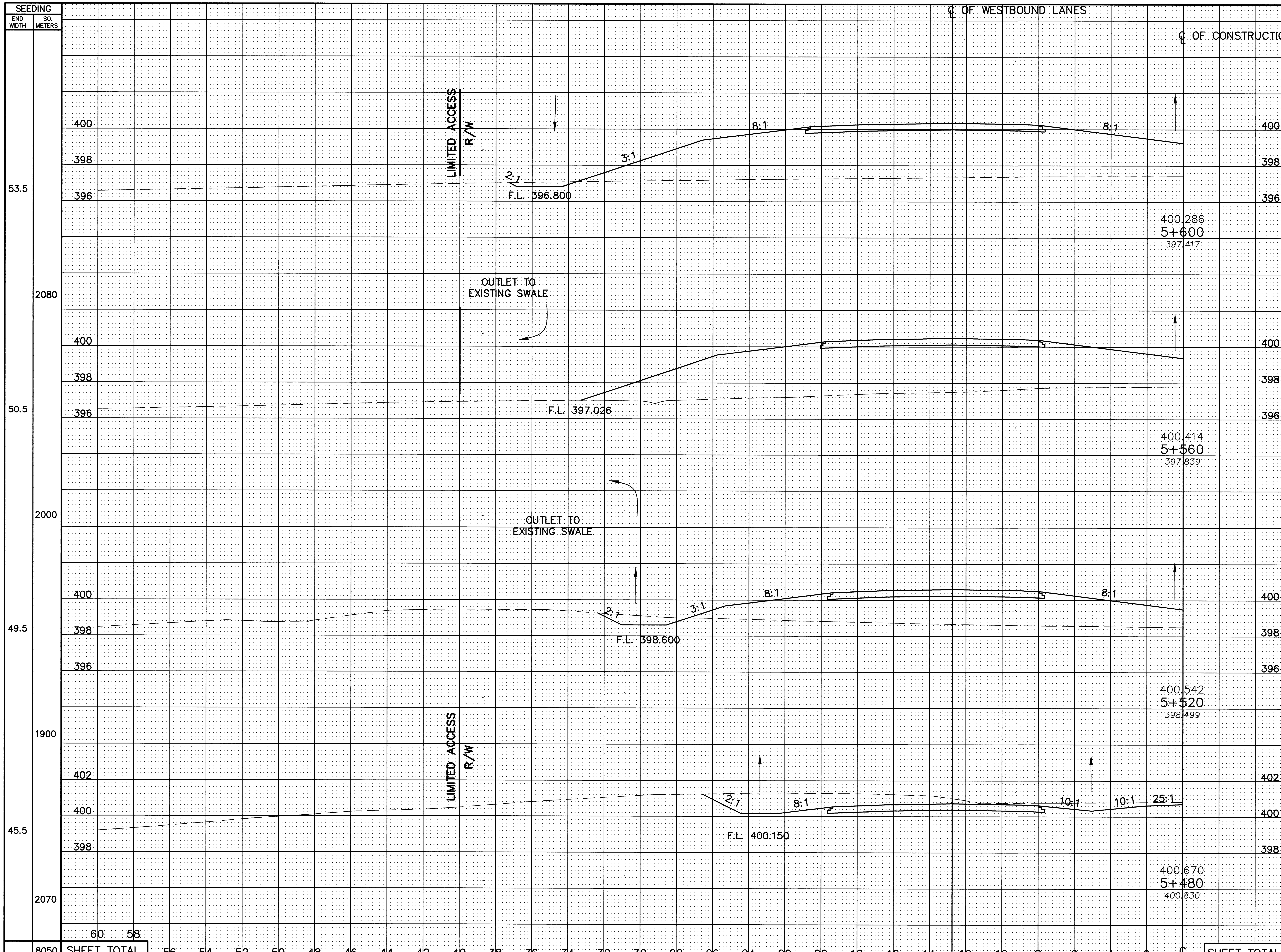
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
29.3	20.3		
		724	2024
6.9	80.9		
		302	2506
8.2	44.4		
		492	1400
16.4	25.6		
		676	954
SHEET TOTAL		2194	6884

CALCULATED RJR
CHECKED WJS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 5+320 TO STA. 5+440 RIGHT ℄

CRA/RIC-30-33.500/0.000

GX209R30.DWG
02-23-1999 2:02 PM
1:100M



SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

CROSS-SECTIONS – RELOCATED U.S. 30

STA. 5+480 TO STA. 5+600 LEFT ℄

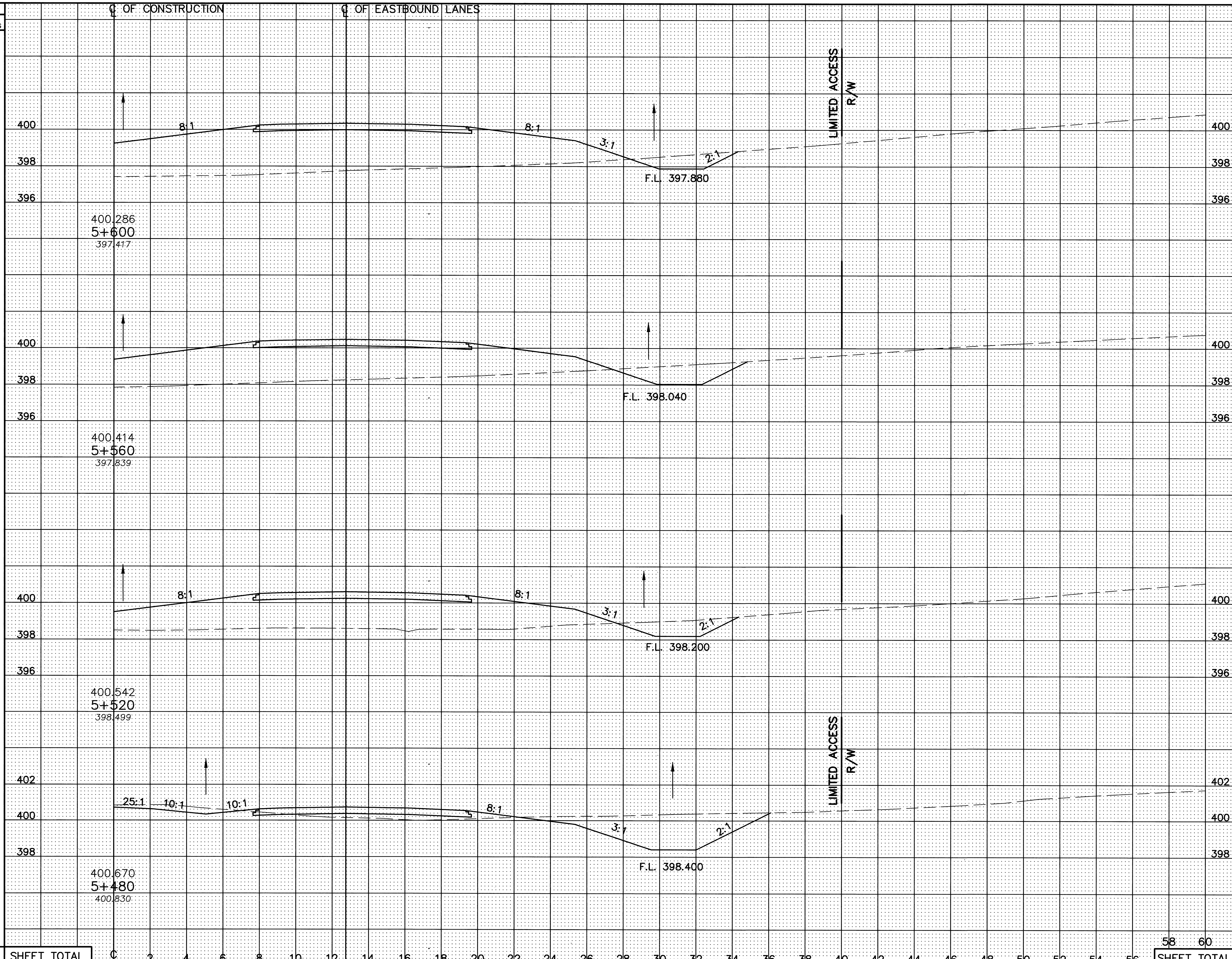
CALCULATED RJR

CHECKED WJS

CRA/RIC-30-33.500/0.000

GX210R30.DWG 02-12-1999 2:13 PM 1:100M

SEEDING	
END WIDTH	SQ. METERS
SEE LEFT SECTION FOR SEEDING QUANTITIES	
SHEET TOTAL	



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
3.8	129.3		
		178	4920
5.1	116.7		
		216	3846
5.7	75.6		
		782	1564
33.4	2.6		
		1254	458
		2430	10788

CALCULATED RJR
CHECKED WJS

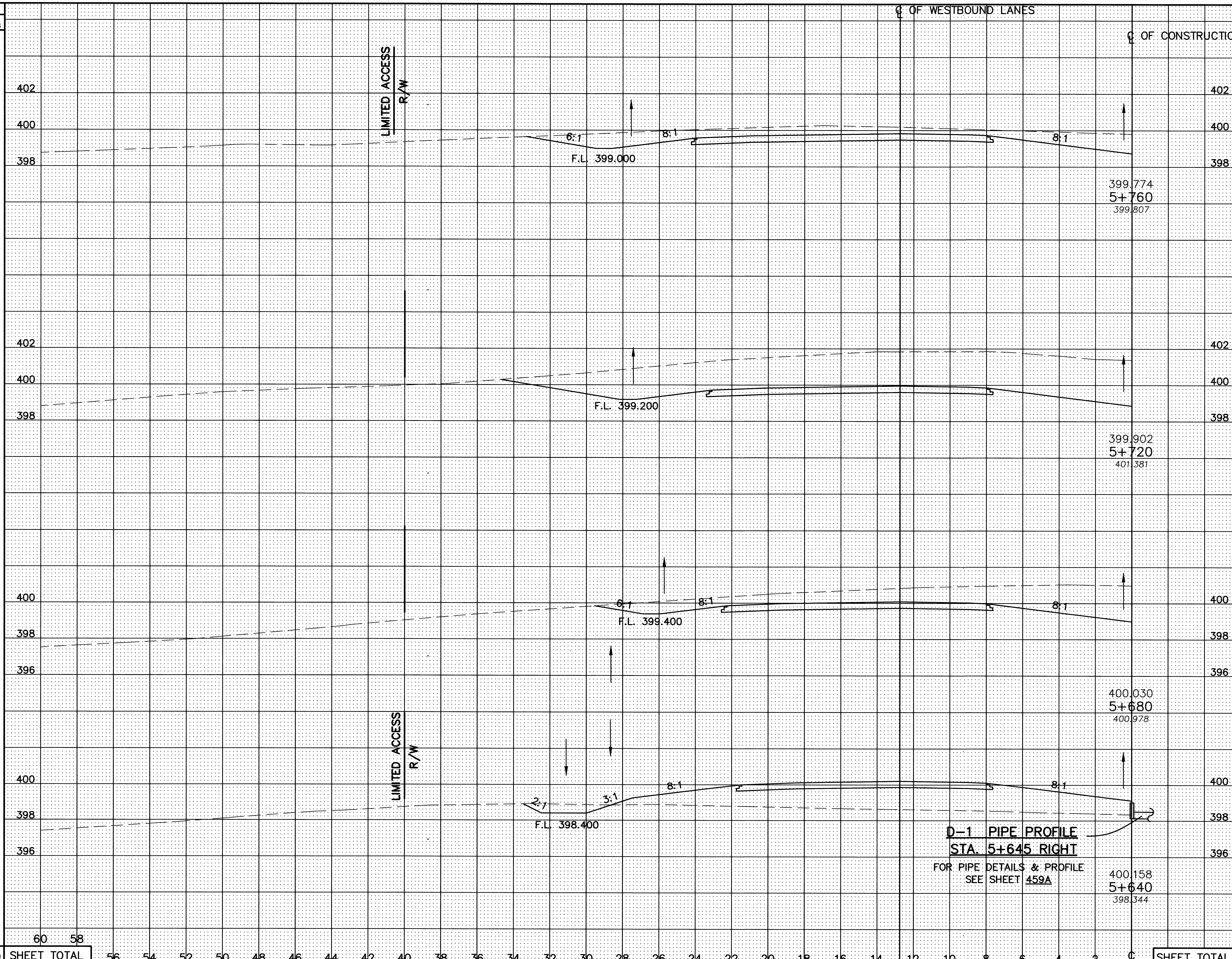
CROSS-SECTIONS – RELOCATED U.S. 30
STA. 5+480 TO STA. 5+600 RIGHT ℄

CRA/RIC-30-33.500/0.000

240/712

GX211R30.DWG
02-12-1999 2:15 PM
1:100M

SEEDING	
END WIDTH	SQ. METERS
47.5	1960
50.5	1950
47.0	1960
51.0	2090
	7960



END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED RJR
CHECKED WJS

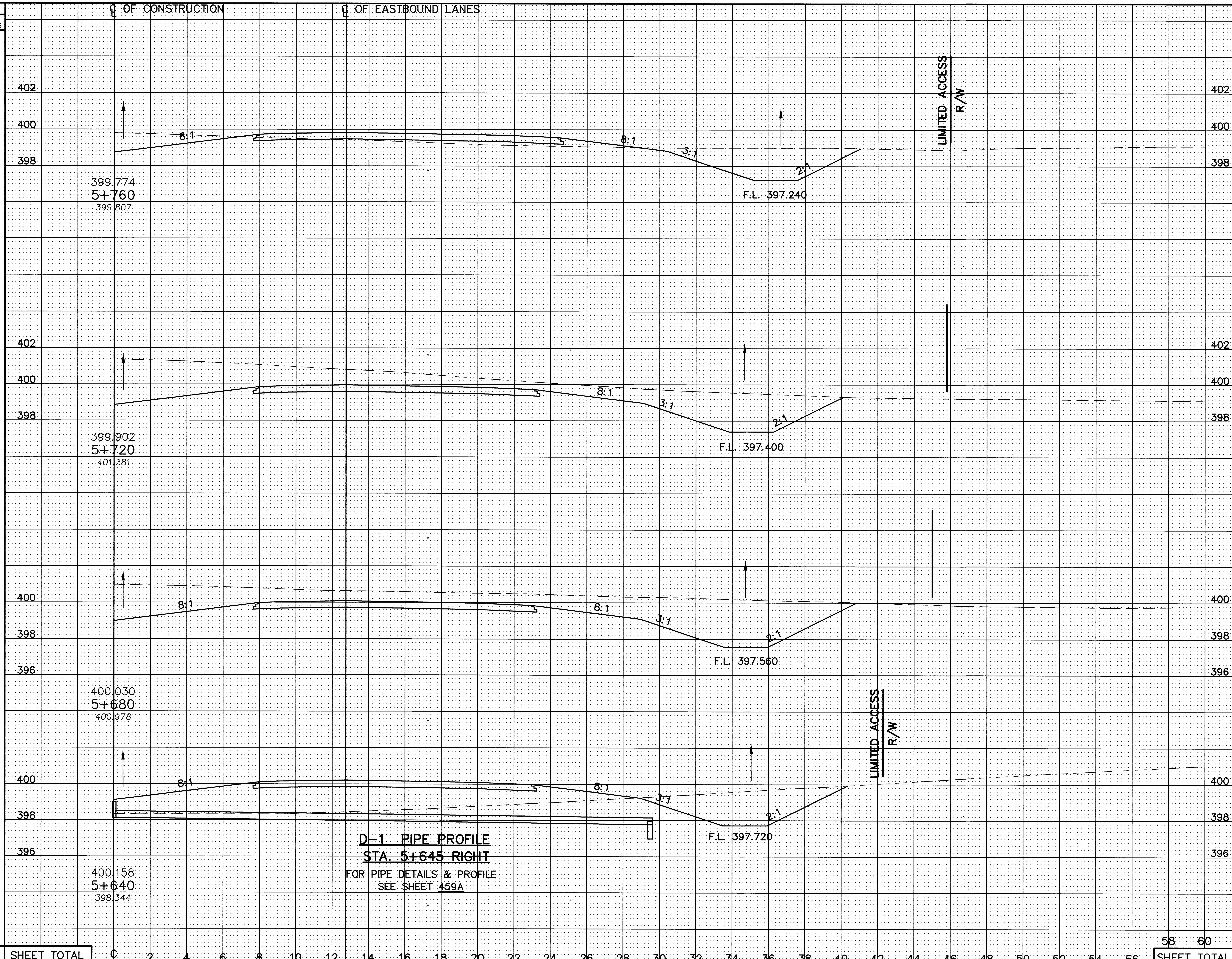
SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 5+640 TO STA. 5+760 LEFT ℄

CRA/RIC-30-33.500/0.000

GX212R30.DWG
02-12-1999 2:17 PM
1:100M

SEEDING	
END WIDTH	SQ. METERS
SEE LEFT SECTION FOR SEEDING QUANTITIES	
SHEET TOTAL	



Station	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
5+760	39.4	2.7		
			3110	54
5+720	116.1	0		
			3986	0
5+680	83.2	0		
			1962	1210
5+640	14.9	60.5		
			374	3796
SHEET TOTAL			9432	5060

CALCULATED RJR
CHECKED WJS

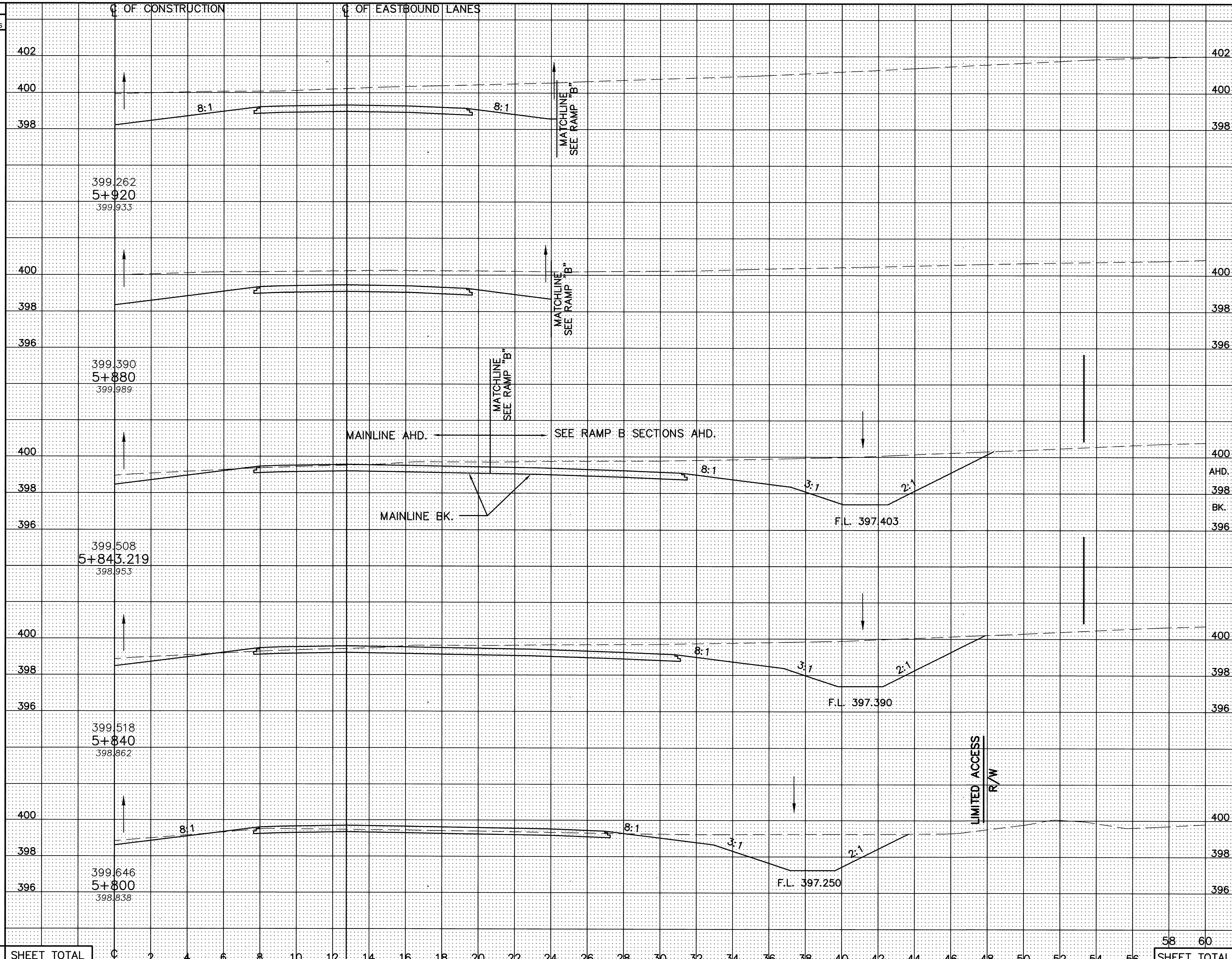
CROSS-SECTIONS - RELOCATED U.S. 30
STA. 5+640 TO STA. 5+760 RIGHT ℄

CRA/RIC-30-33.500/0.000

242/712

GX213R30.DWG
02-12-1999 2:19 PM
1:100M

SEEDING
END WIDTH
SQ. METERS
END AREA
CUT
FILL
VOLUME
CUT
FILL
CALCULATED RJR
CHECKED WJS
℄ OF WESTBOUND LANES
℄ OF CONSTRUCTION
EXISTING LIMITED ACCESS R/W
LIMITED ACCESS R/W
F.L. 398.550
399.262
5+920
399.933
F.L. 398.350
399.390
5+880
399.989
AHD.
BK.
F.L. 397.063
399.508
5+843.219
398.953
F.L. 396.950
399.518
5+840
398.862
F.L. 396.900
900 mm CONDUIT
FOR DETAILS & PROFILE
SEE SHEET 451
399.646
5+800
398.838
6:1
8:1
2:1
3:1
34.0
1400
36.0
1269
33.0
52.5
169
52.5
2110
53.0
2010
6958
SHEET TOTAL
SEE RIGHT SECTION FOR EARTHWORK QUANTITIES
CROSS-SECTIONS – RELOCATED U.S. 30
STA. 5+800 TO STA. 5+920 LEFT ℄
CRA/RIC-30-33.500/0.000
243
712
GX214R30.DWG
02-12-1999 2:21 PM
1:100M



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
64.0	0		
		2234	2
47.7	0.1		
		1034	524
AHD. 8.5	28.4		
BK. 43.8	28.4		
		117	97
28.9	31.9		
		1006	1556
21.4	45.9		
		1216	972
SHEET TOTAL		5607	3151

CALCULATED RJR
CHECKED WJS

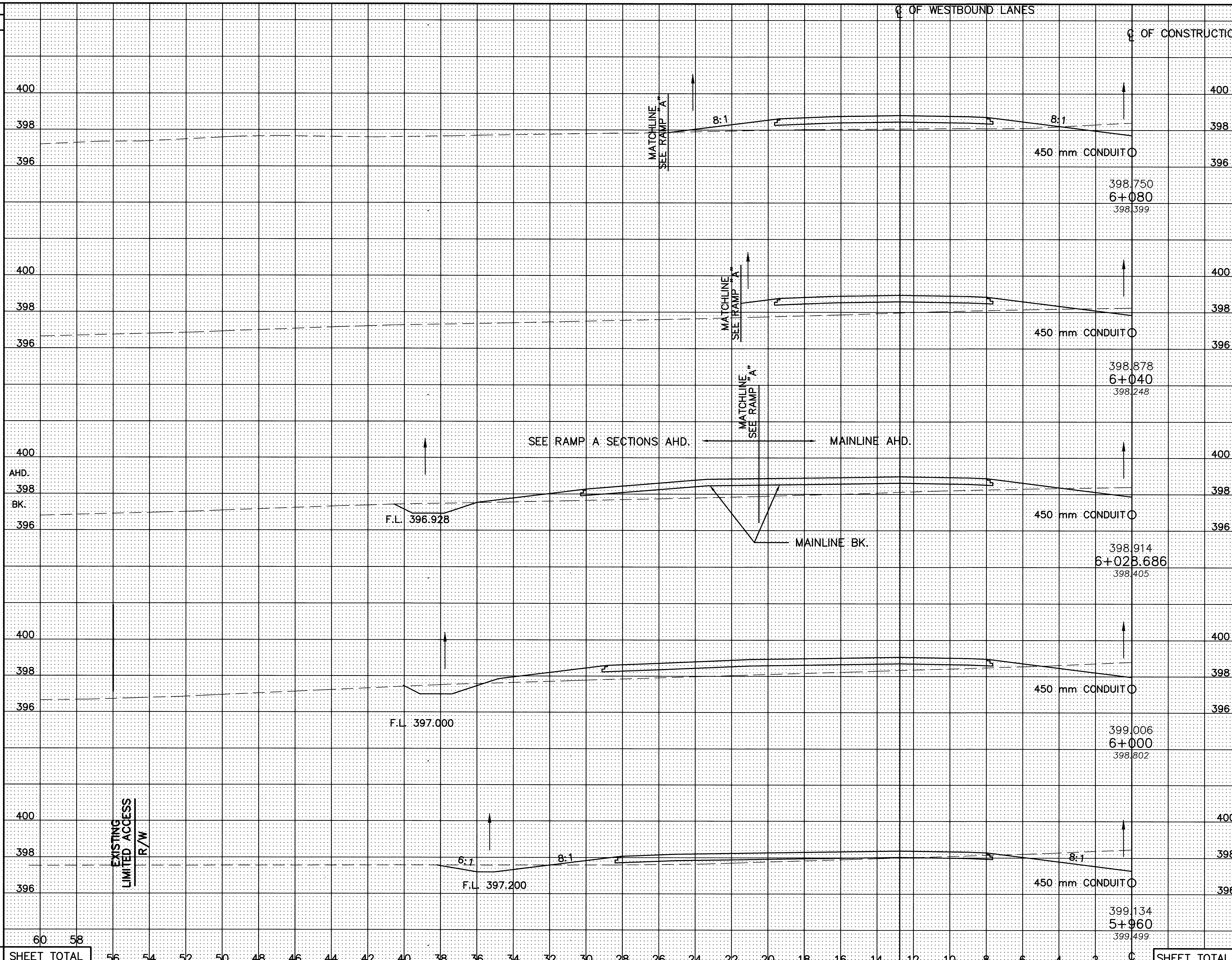
CROSS-SECTIONS – RELOCATED U.S. 30
STA. 5+800 TO STA. 5+920 RIGHT ℄

CRA/RIC-30-33.500/0.000

244/712

GX215R30.DWG
02-23-1999 2:12 PM
1:100M

SEEDING	
END WIDTH	SQ. METERS
42.0	
	1580
37.0	
	399
33.5 AHD.	
46.5 BK.	
	1355
48.0	
	2070
55.5	
	1790
	7194



END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED RJR
CHECKED WJS

SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

CROSS-SECTIONS - RELOCATED U.S. 30
STA. 5+960 TO STA. 6+080 LEFT ℄

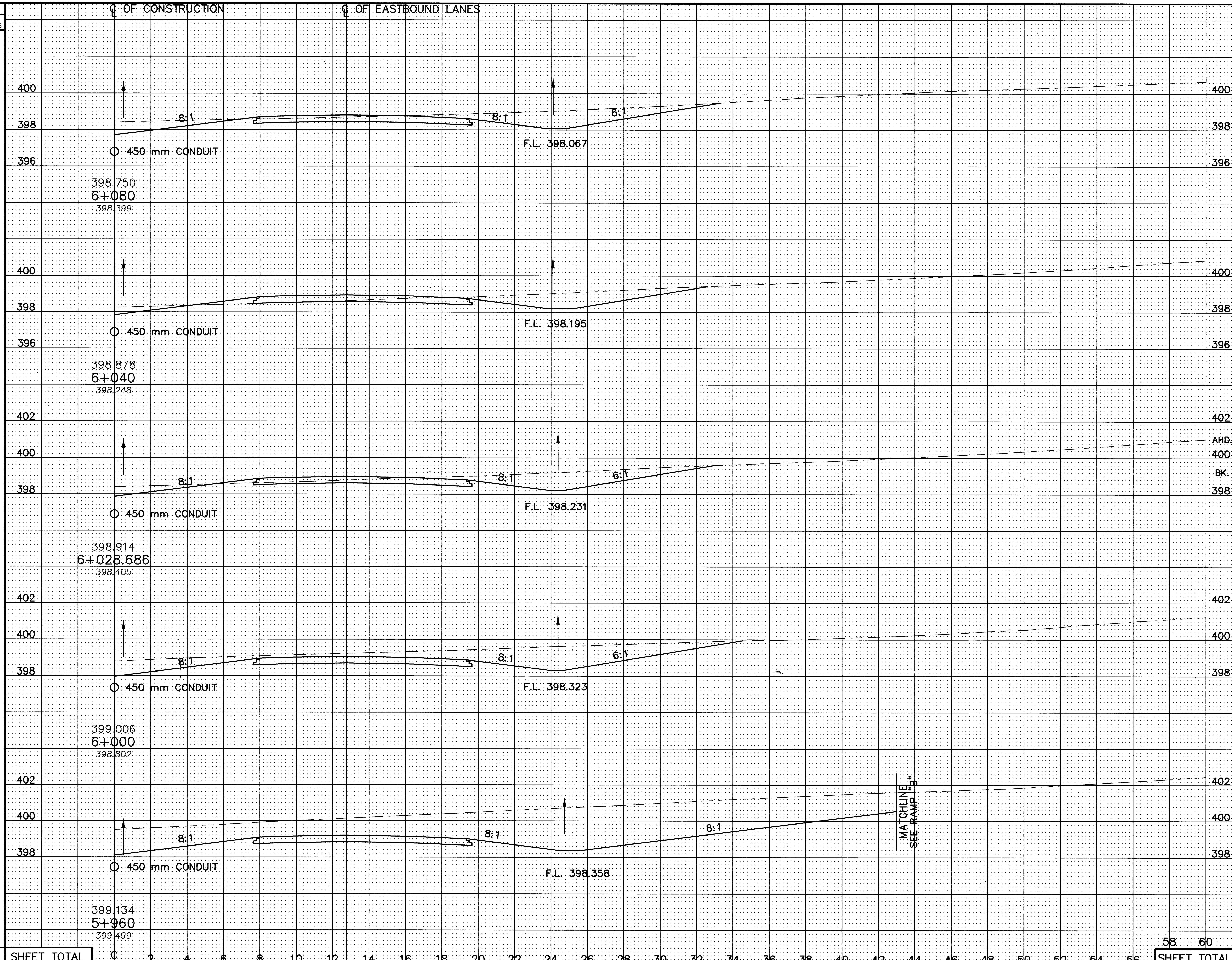
CRA/RIC-30-33.500/0.000

245/712

GX216R30.DWG
02-12-1999 2:46 PM
1:100M

SEEDING	
END WIDTH	SQ. METERS

SEE LEFT SECTION FOR SEEDING QUANTITIES



SHEET TOTAL

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
15.2	7.0		
		506	360
10.1	11.0		
		130	106
12.8	7.7		
14.5	14.6		
		585	384
26.3	12.2		
		1980	304
72.7	3.0		
		2734	60
		5935	1214

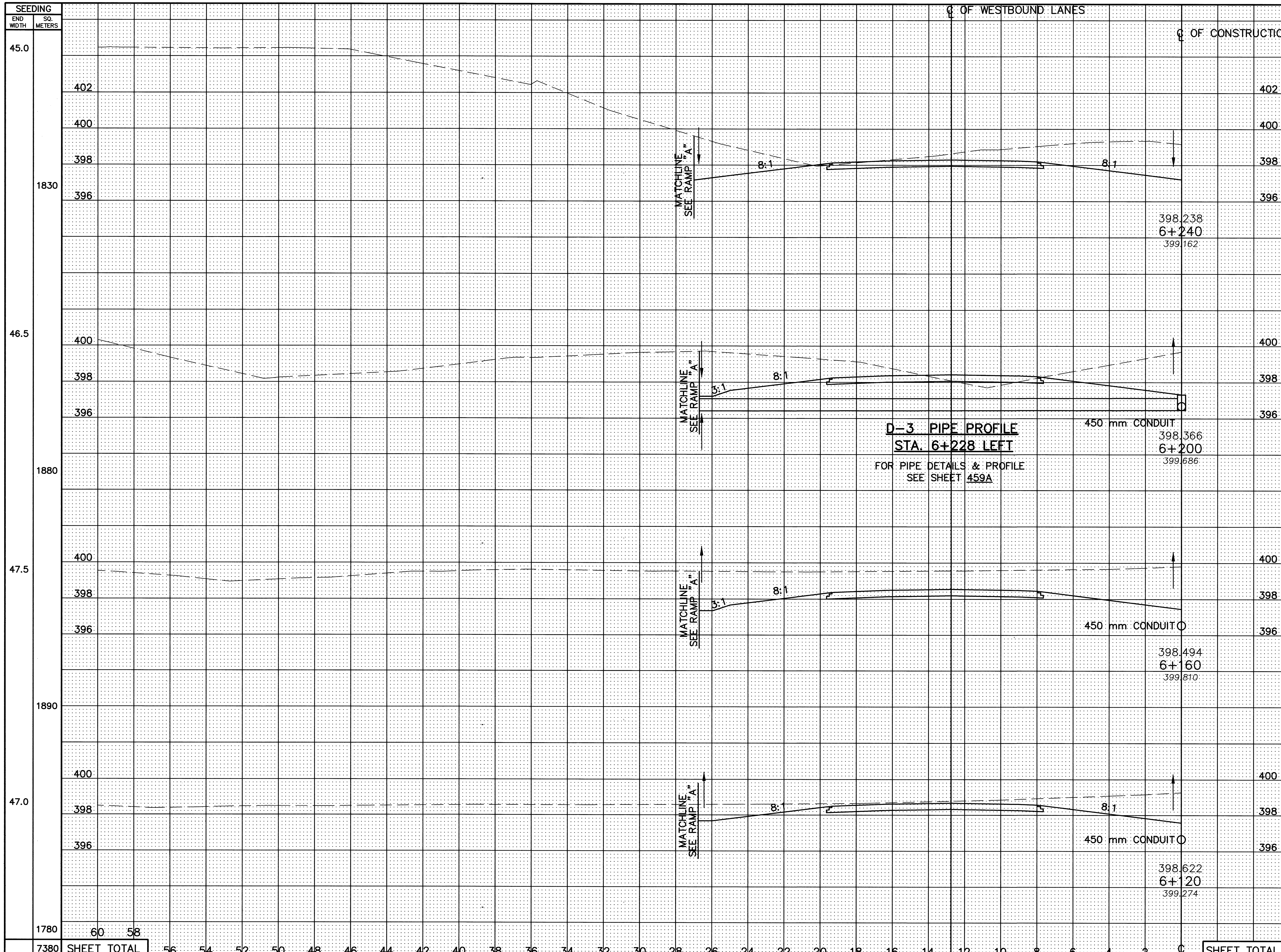
CALCULATED RJR
CHECKED WJS

CROSS-SECTIONS - RELOCATED U.S. 30
STA.5+960 TO STA. 6+080 RIGHT ℄

CRA/RIC-30-33.500/0.000

246/712

GX217R30.DWG
02-12-1999 2:48 PM
1:100M



END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED RJR
CHECKED WJS

SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

CROSS-SECTIONS - RELOCATED U.S. 30
STA. 6+120 TO STA. 6+240 LEFT ℄

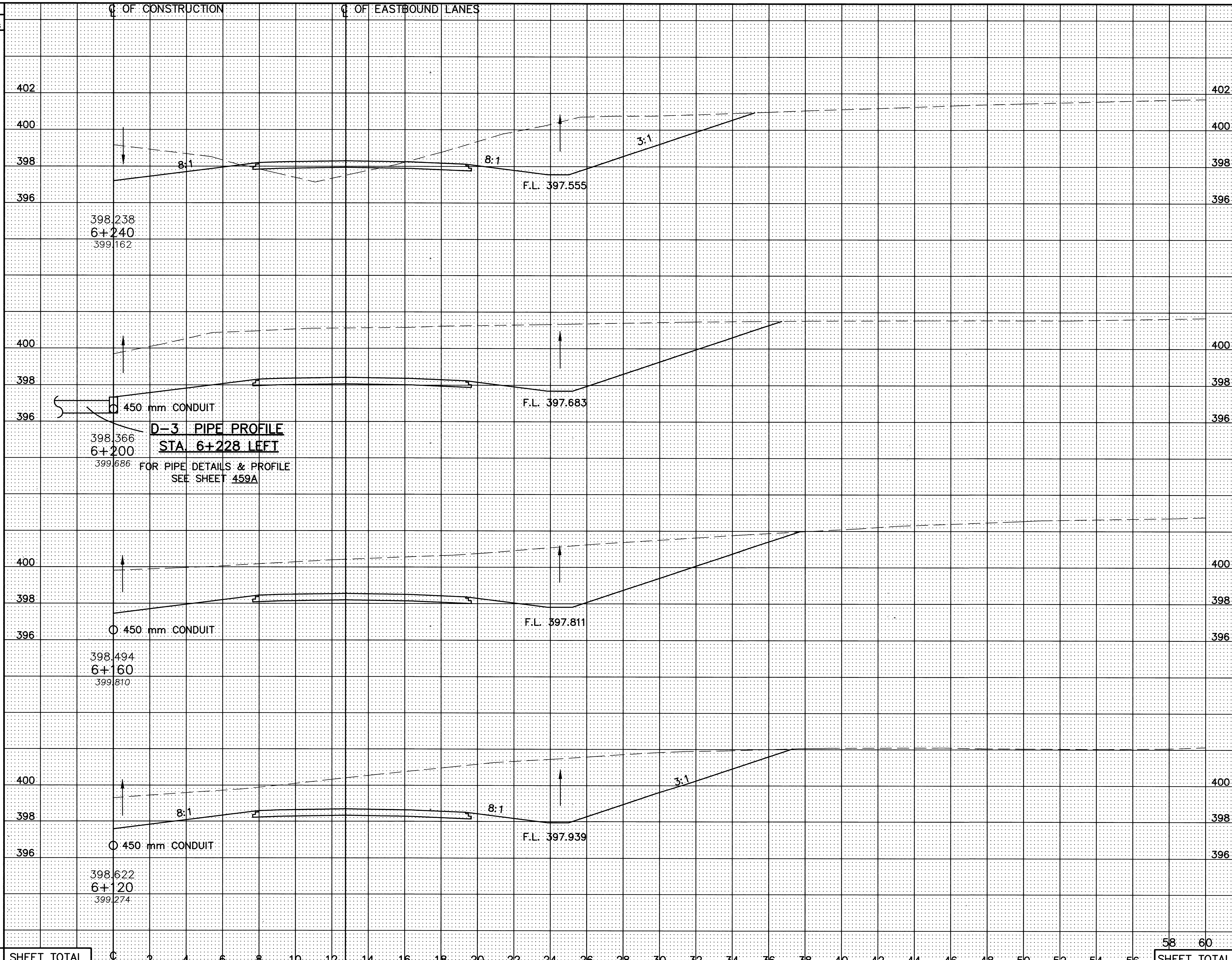
CRA/RIC-30-33.500/0.000

247/712

GX218R30.DWG
02-12-1999 2:5 PM
1:100M

SEEDING	
END WIDTH	SQ. METERS
SHEET TOTAL	

SEE LEFT SECTION FOR SEEDING QUANTITIES



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
66.2	2.7		
		3814	54
124.5	0		
		4948	0
122.9	0		
		4378	0
96.0	0		
		2224	140
SHEET TOTAL		15364	194

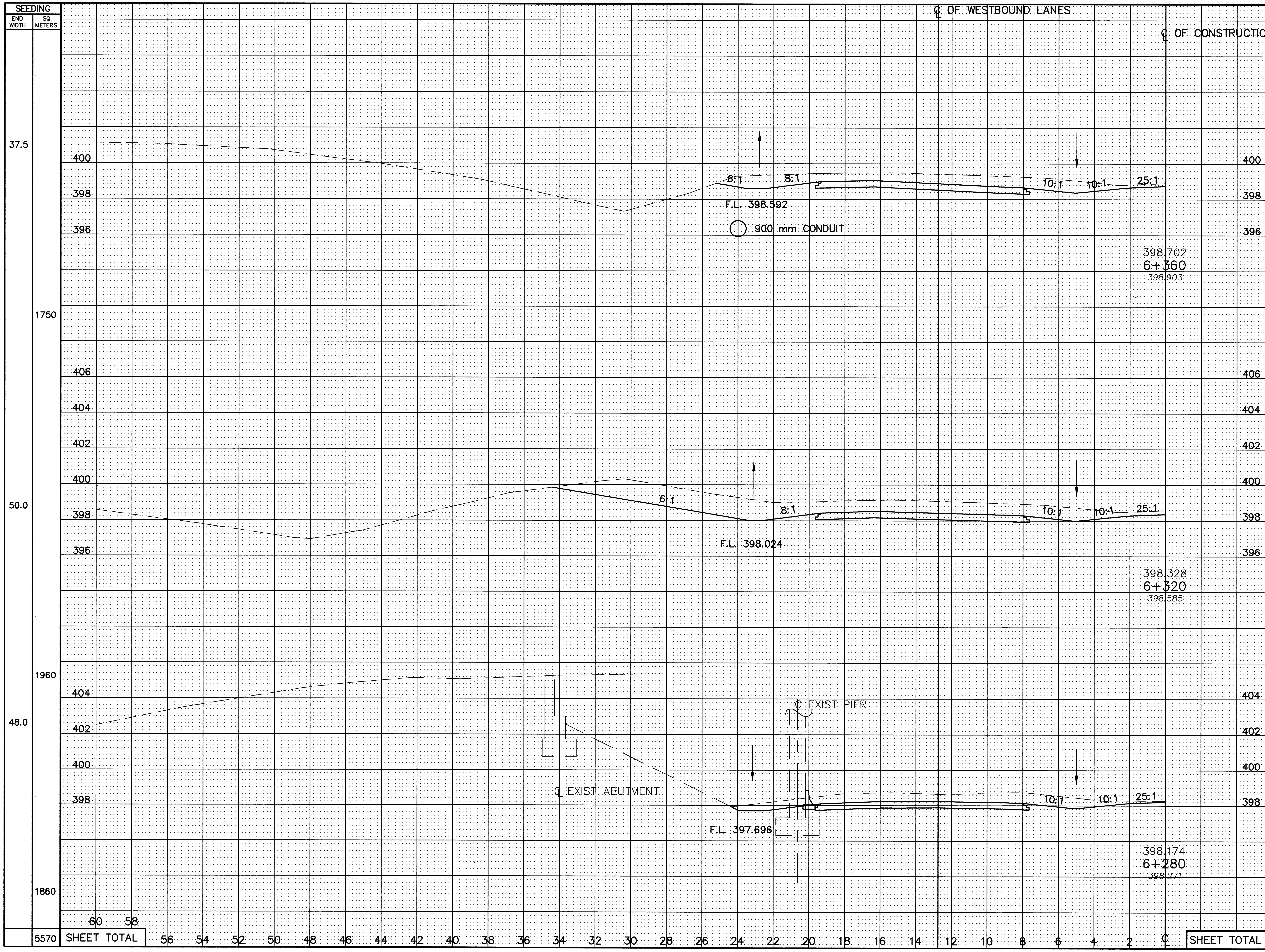
CALCULATED RJR
CHECKED WJS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 6+120 TO STA. 6+240 RIGHT ℄

CRA/RIC-30-33.500/0.000

248/712

GX219R30.DWG
02-12-1999 2:53 PM
1:100M



SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

CALCULATED RJR
CHECKED WJS

CROSS-SECTIONS - RELOCATED U.S. 30
STA. 6+280 TO STA. 6+360 LEFT ℄

CRA/RIC-30-33.500/0.000

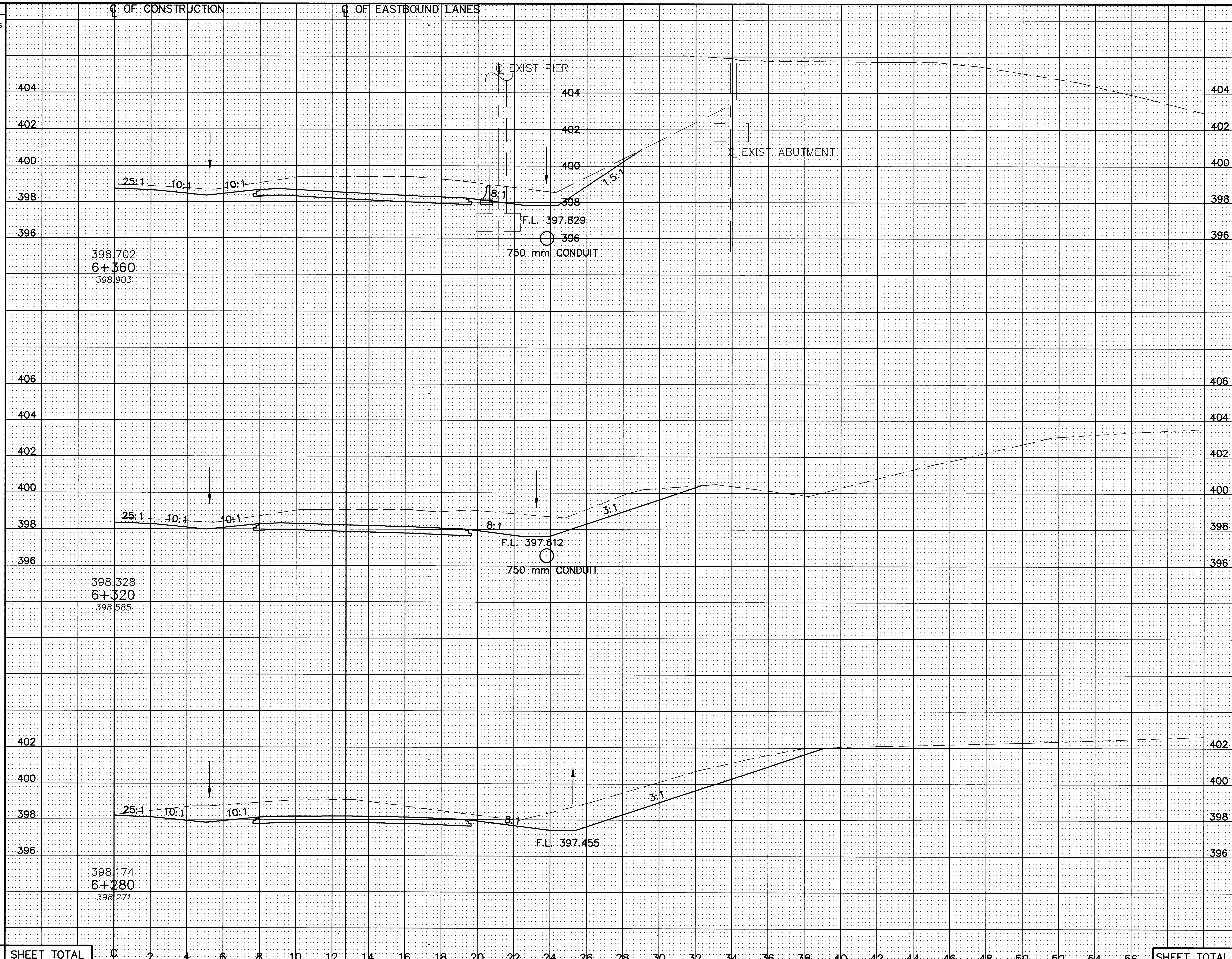
249
712

GX220R30.DWG
03-27-1999 8:16 AM
1:100M

SEEDING	
END WIDTH	SQ. METERS

SEE LEFT SECTION FOR SEEDING QUANTITIES

SHEET TOTAL		



END AREA		VOLUME	
CUT	FILL	CUT	FILL
38.9	0		
		1910	0
56.6	0		
		2096	0
48.2	0		
		2288	54
SHEET TOTAL		6294	54

CALCULATED RJR
CHECKED WJS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 6+280 TO STA. 6+360 RIGHT ℄

CRA/RIC-30-33.500/0.000

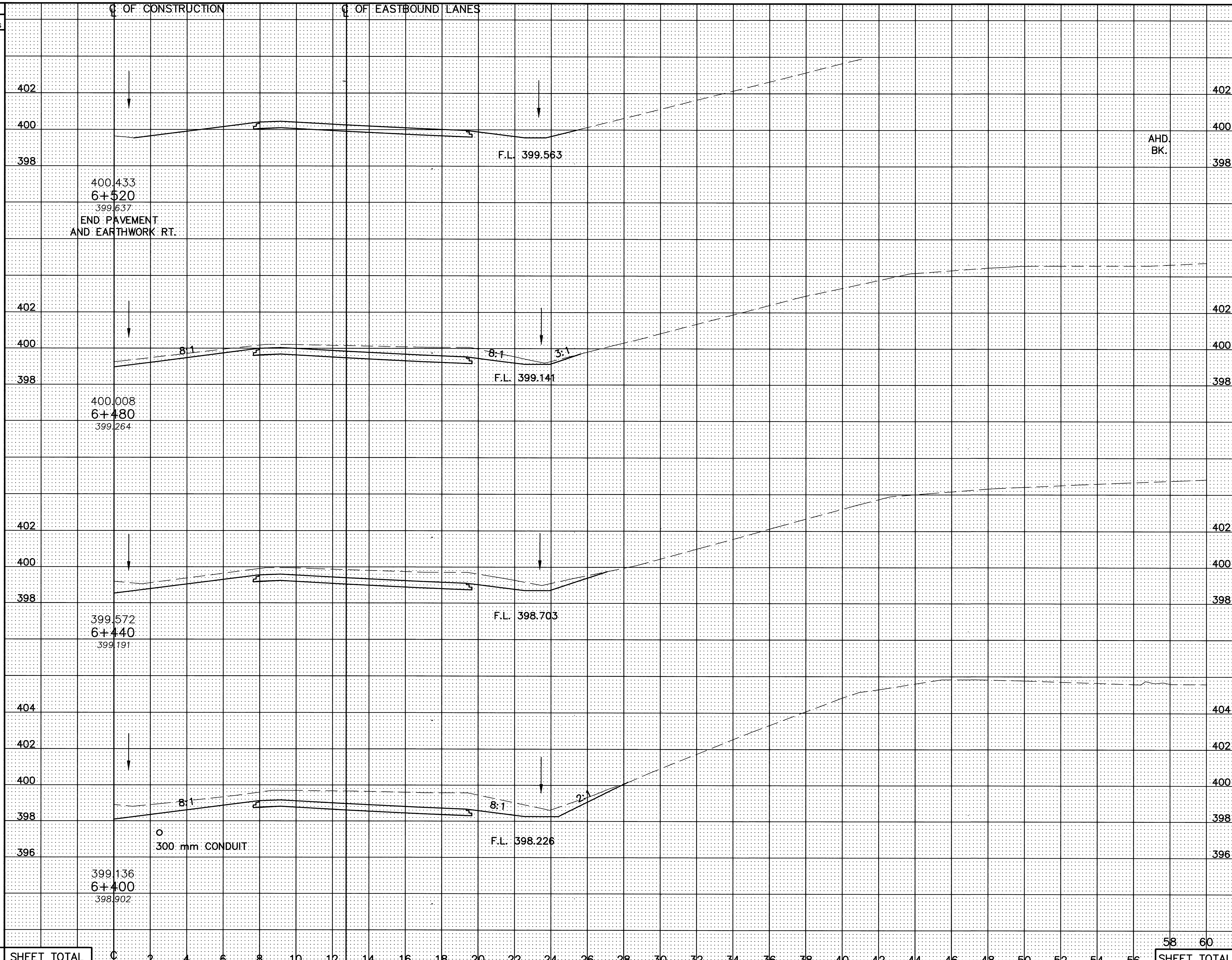
250
712

GX221R30.DWG
03-27-1999 8:2 AM
1:100M


SEEDING
END WIDTH
SQ. METERS
END AREA
VOLUME
CUT
FILL
CUT
FILL
CALCULATED RJR
CHECKED WJS
℄ OF WESTBOUND LANES
℄ OF CONSTRUCTION
STA. 6+520
END SEEDING & MULCHING RT. (AHD)
AHD
BK
16
48.5
1640
F.L. 400.397
8:1
400.433
6+520
399.637
33.5
1360
6:1
8:1
8:1
F.L. 399.903
400.008
6+480
399.264
34.5
1410
F.L. 399.466
399.572
6+440
399.191
36.0
1470
6:1
8:1
8:1
F.L. 399.029
300 mm CONDUIT
399.136
6+400
398.902
402
400
398
396
5880
SHEET TOTAL
60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 ℄
SHEET TOTAL
SEE RIGHT SECTION FOR EARTHWORK QUANTITIES
CROSS-SECTIONS - RELOCATED U.S. 30
STA. 6+400 TO STA. 6+520 LEFT ℄
CRA/RIC-30-33.500/0.000
251
712
GX222R30.DWG
02-12-1999 2:59 PM
1:100M

SEEDING	
END WIDTH	SQ. METERS
SHEET TOTAL	

SEE LEFT SECTION FOR SEEDING QUANTITIES



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0	0		
4.2	0.4		
		512	8
21.4	0		
		1030	0
30.1	0		
		1368	0
38.3	0		
		1544	0
		4454	8

CALCULATED RJR
CHECKED WJS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 6+400 TO STA. 6+520 RIGHT ℄

CRA/RIC-30-33.500/0.000

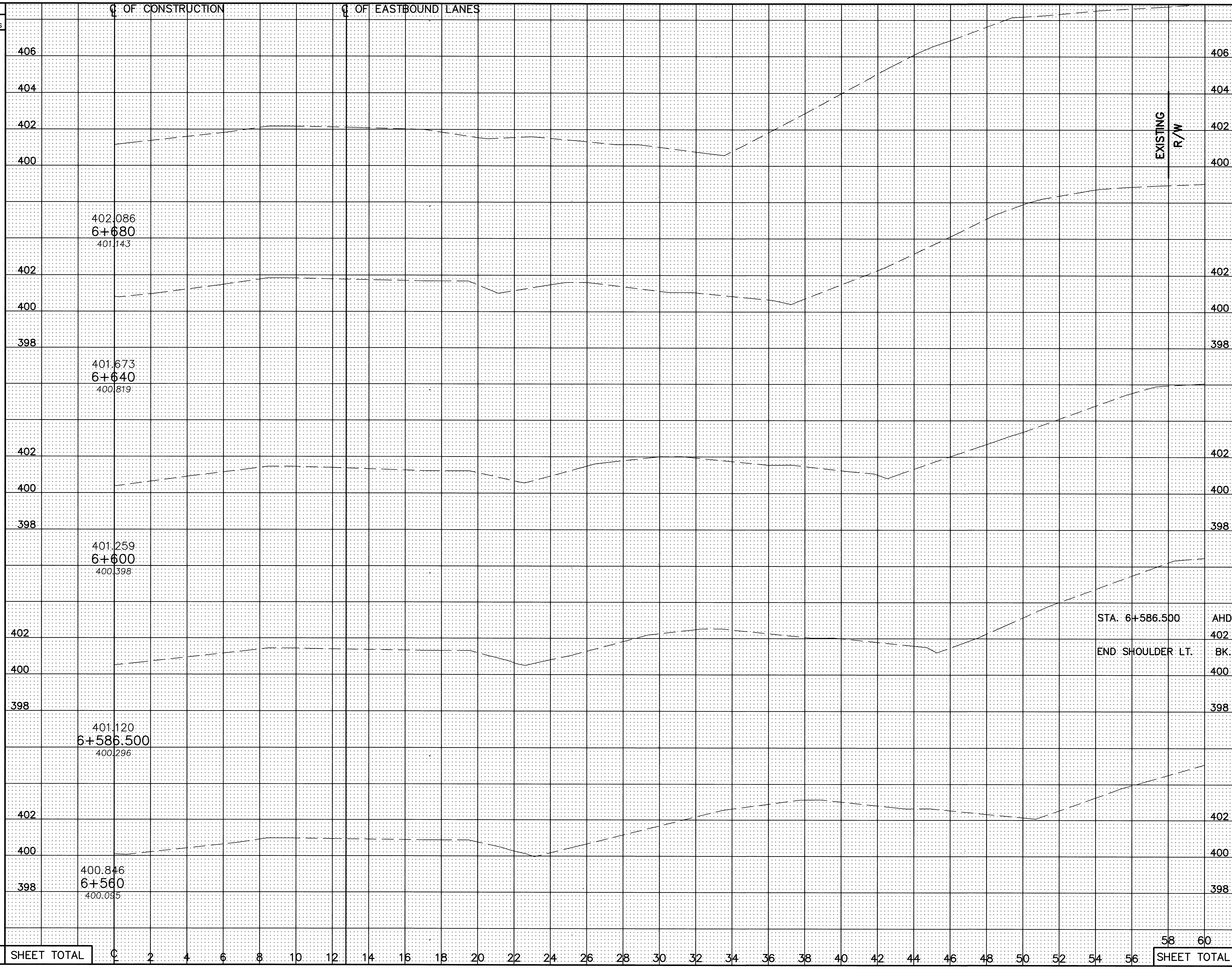
GX223R30.DWG
02-12-1999 3:08 PM
1:100M

SEEDING
END WIDTH
SQ. METERS
END AREA
CUT
FILL
VOLUME
CUT
FILL
CALCULATED RJR
CHECKED WJS
℄ OF WESTBOUND LANES
℄ OF CONSTRUCTION
EXISTING R/W
EXISTING R/W
402.086
6+680
401.143
401.673
6+640
400.819
401.259
6+600
400.398
AHD.
BK.
MAINLINE AHD.
MAINLINE BK.
8:1
401.120
6+586.500
400.296
6:1
8:1
8:1
F.L. 400.734
400.846
6+560
400.095
3
3
3
3
21
21
120
120
41
556
740
1577
SHEET TOTAL
SHEET TOTAL
60
58
56
54
52
50
48
46
44
42
40
38
36
34
32
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
℄
404
402
400
398
SEE RIGHT SECTION FOR EARTHWORK QUANTITIES
CROSS-SECTIONS - RELOCATED U.S. 30
STA. 6+560 TO STA. 6+680 LEFT ℄
CRA/RIC-30-33.500/0.000
253
712
GX224R30.DWG
03-24-1999 2:26 PM
1:100M

SEEDING	
END WIDTH	SQ. METERS

SEE LEFT SECTION FOR SEEDING QUANTITIES

SHEET TOTAL



END AREA		VOLUME	
CUT	FILL	CUT	FILL
4.5	0		
		180	0
4.5	0		
		180	0
4.5	0		
		61	0
4.5	0		
6.1	0		
		155	5
5.6	0.4		
		112	8
SHEET TOTAL		688	13

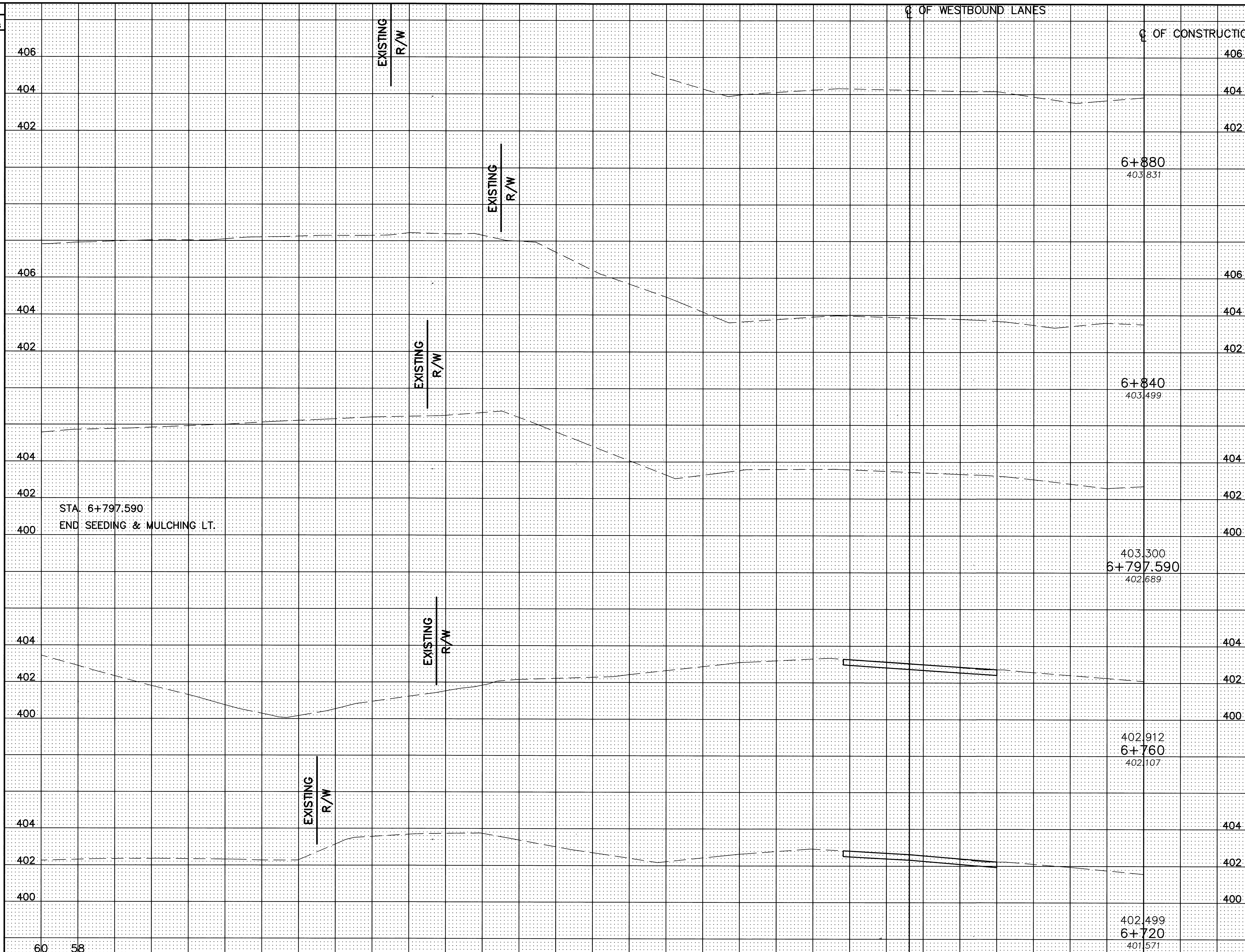
CALCULATED RJR
CHECKED WJS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 6+560 TO STA. 6+680 RIGHT ℄

CRA/RIC-30-33.500/0.000

254/712

GX225R30.DWG
02-22-1999 1:15 PM
1:100M



SEEDING	
END WIDTH	SQ. METERS
3	
3	
	120
3	
	120
	240

SHEET TOTAL

END AREA		VOLUME	
CUT	FILL	CUT	FILL

SHEET TOTAL

CALCULATED RJR
CHECKED WJS

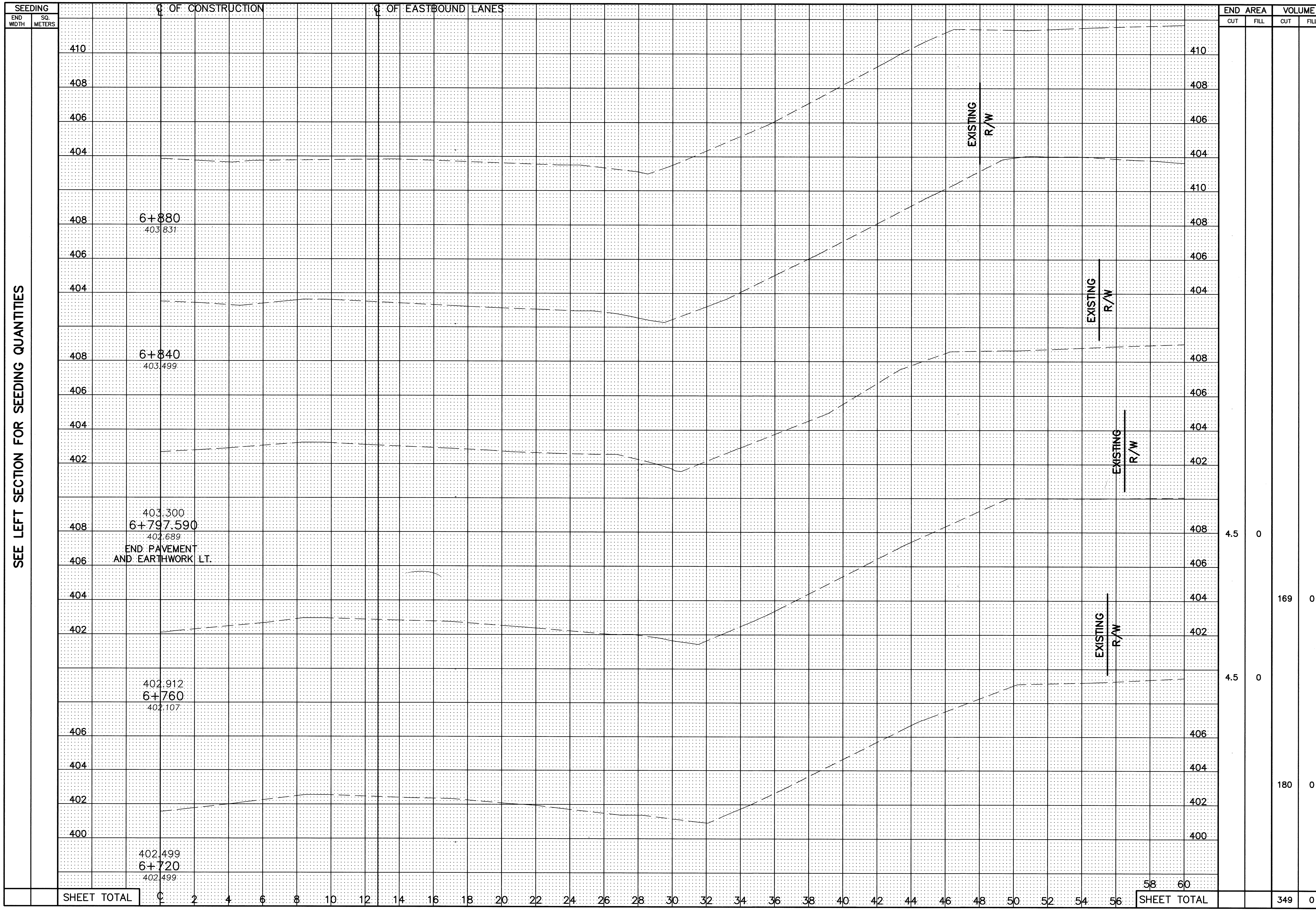
SEE RIGHT SECTION FOR EARTHWORK QUANTITIES

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 6+720 TO STA. 6+880 LEFT ℄

CRA/RIC-30-33.500/0.000

255/712

GX226R30.DWG
02-15-1999 8:04 AM
1:100M

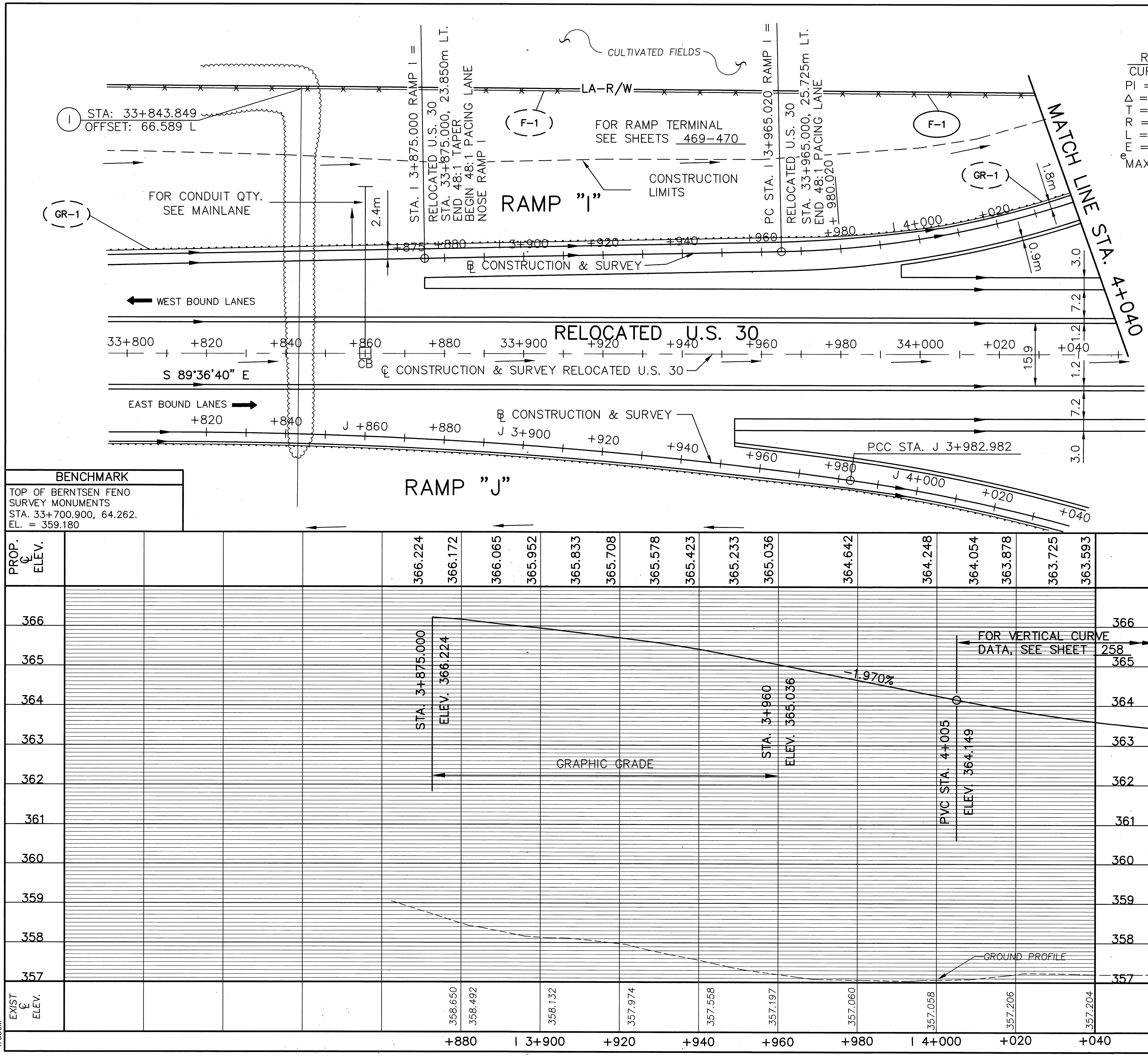


CALCULATED RJR
CHECKED WJS

CROSS-SECTIONS – RELOCATED U.S. 30
STA. 6+720 TO STA. 6+880 RIGHT ℄

CRA/RIC-30-33.500/0.000

GX227R30.DWG
02-15-1999 8:06 AM
1:100M



RAMP "I"
CURVE DATA
PI = STA. I 4+005.970
Δ = 18°36'18" LT
T = 40.950 m
R = 250.000m
L = 81.180 m
E = 3.332 m
e_{MAX} = 0.079

NOTES:

1. FOR SUPERELEVATION TABLES SEE SHEETS 462
2. FOR UNDERDRAINS QUANTITIES SEE SHEET 496
3. FOR FENCE LEGEND SEE SHEET 94
4. FOR RAMP I TERMINAL DETAILS SEE SHEET 469 - 470

metric units

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	607 FENCE TYPE 47 METER
F-1	LT	33+980	4+040	60.000
TOTALS CARRIED TO SUB SUMMARY				60.000

RATIO 1:500
0 10 20 HORIZONTAL SCALE IN METERS

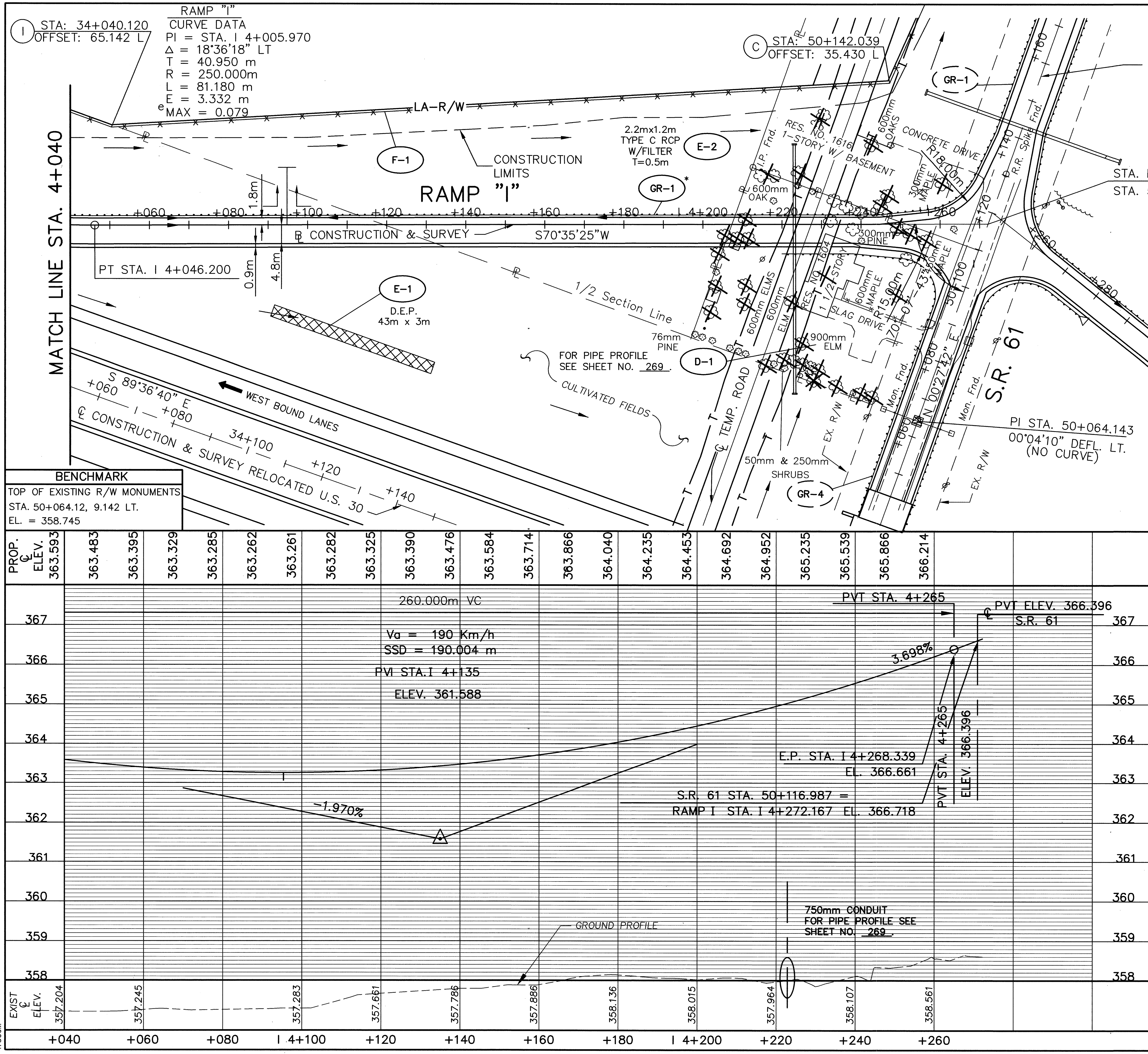
CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE - RAMP I
STA. 3+875 TO STA. 4+040

CRA/RIC-30-33.500/0.000

257/712

GP300RI.DWG
03-10-1999 7:41 AM
1:500M



NOTES:

1. FOR TEMPORARY ROAD SEE SHEETS 31-35.
2. FOR SUPERELEVATION TABLES SEE SHEET 462.
3. FOR UNDERDRAINS QUANTITIES SEE SHEET 496.
4. FOR FENCE LEGEND SEE SHEET 94.
5. FOR INTERSECTION DETAILS SEE SHEET 480.

* 15.984m OF GUARDRAIL GR-1 IS ON 15.6m RADIUS.

— INDICATES D.E.P.

** 750mm CONDUIT TYPE A 706.02 (2500 D-LOAD), 707.01 ALUMINUM COATED (3.51), 707.04 (3.51), 707.09 AASHTO M190 TYPE A

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	601 ROCK CHANNEL PROTECTION TYPE C W/FILTER (C.M.)	602 CONCRETE MASONRY (C.M.)	603 750mm CONDUIT TYPE A ** (METER)	606 GUARDRAIL TYPE 5 (METER)	607 FENCE TYPE 47 (METER)	670 DITCH EROSION PROTECTION (S.M.)	626 BARRIER REFLECTOR TYPE A (EACH)
E-1	LT	4+080	4+120						129	
E-2	LT	I 4+223.145		1.32						
GR-1	LT	I 3+980	50+140.000				304.276			11
F-1	LT	I 4+040	I 4+256.231					229.945		
D-1	LT/RT	I 4+223.145			0.78	63.201				
TOTALS CARRIED TO SUB SUMMARY				1.32	0.78	63.201	304.276	229.945	129	11

metric units

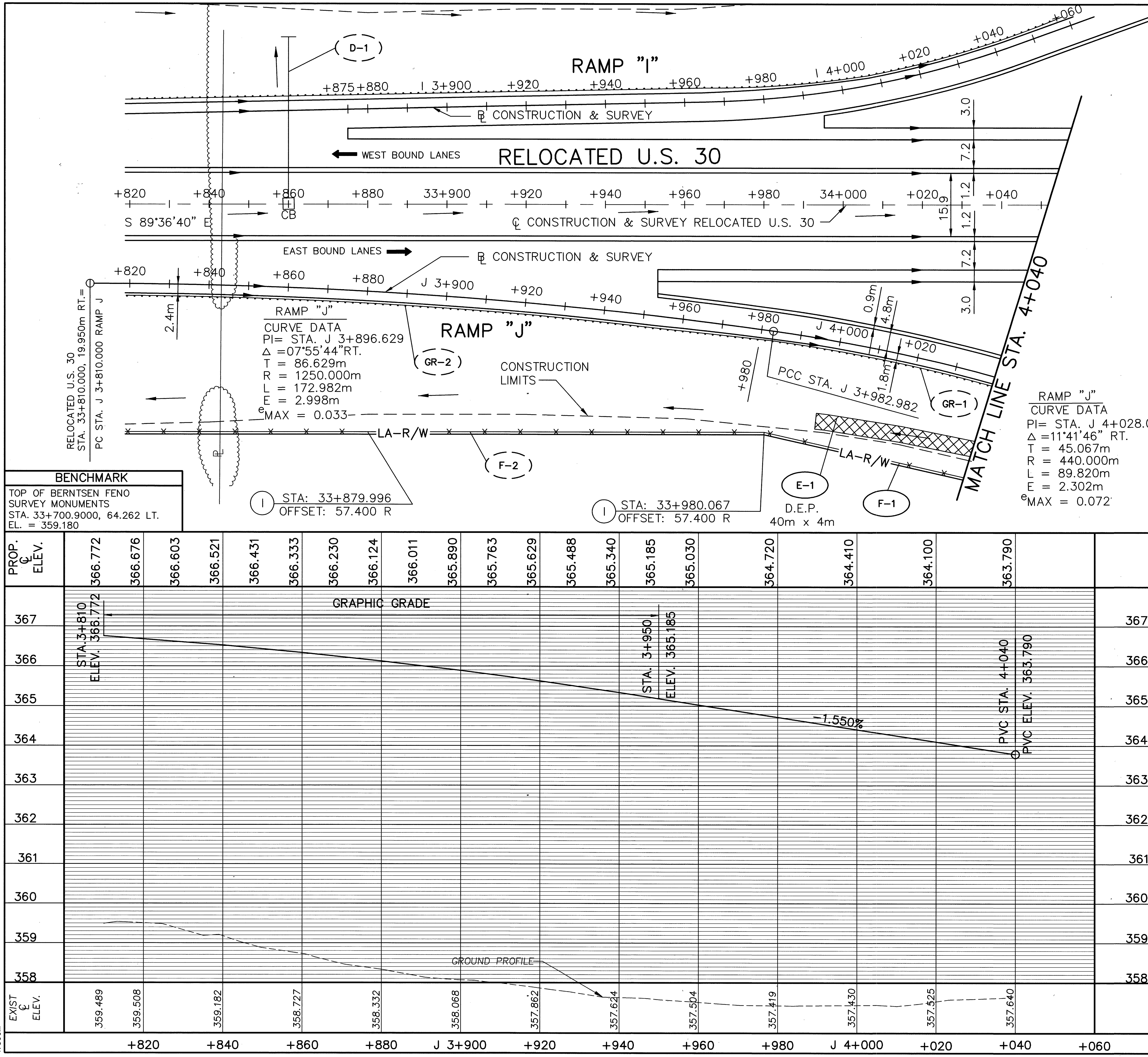
RATIO 1:500 — HORIZONTAL SCALE IN METERS

CALCULATED W.J.S. CHECKED C.R.M.

PLAN AND PROFILE – RAMP I
STA. 4+040 TO STA. 4+272.167

CRA/RIC-30-33.500/0.000

GP301RI.DWG 03-6-1999 10:53 AM 1:500M



metric units

NOTES:

1. FOR SUPERELEVATION TABLES SEE SHEETS 462
2. FOR UNDERDRAIN QUANTITIES SEE SHEET 496
3. FOR FENCE LEGEND SEE SHEET 94
4. FOR RAMP TERMINAL DETAILS SEE SHEET NO. 471

— INDICATES D.E.P.

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	670 DITCH EROSION PROTECTION (S.M.)	607 FENCE TYPE 47 (METER)
E-1	RT	4+000	4+040	160	
F-1	RT	33+980	4+040		51.690
TOTALS CARRIED TO SUB SUMMARY				160	51.690

RATIO 1:500
HORIZONTAL SCALE IN METERS

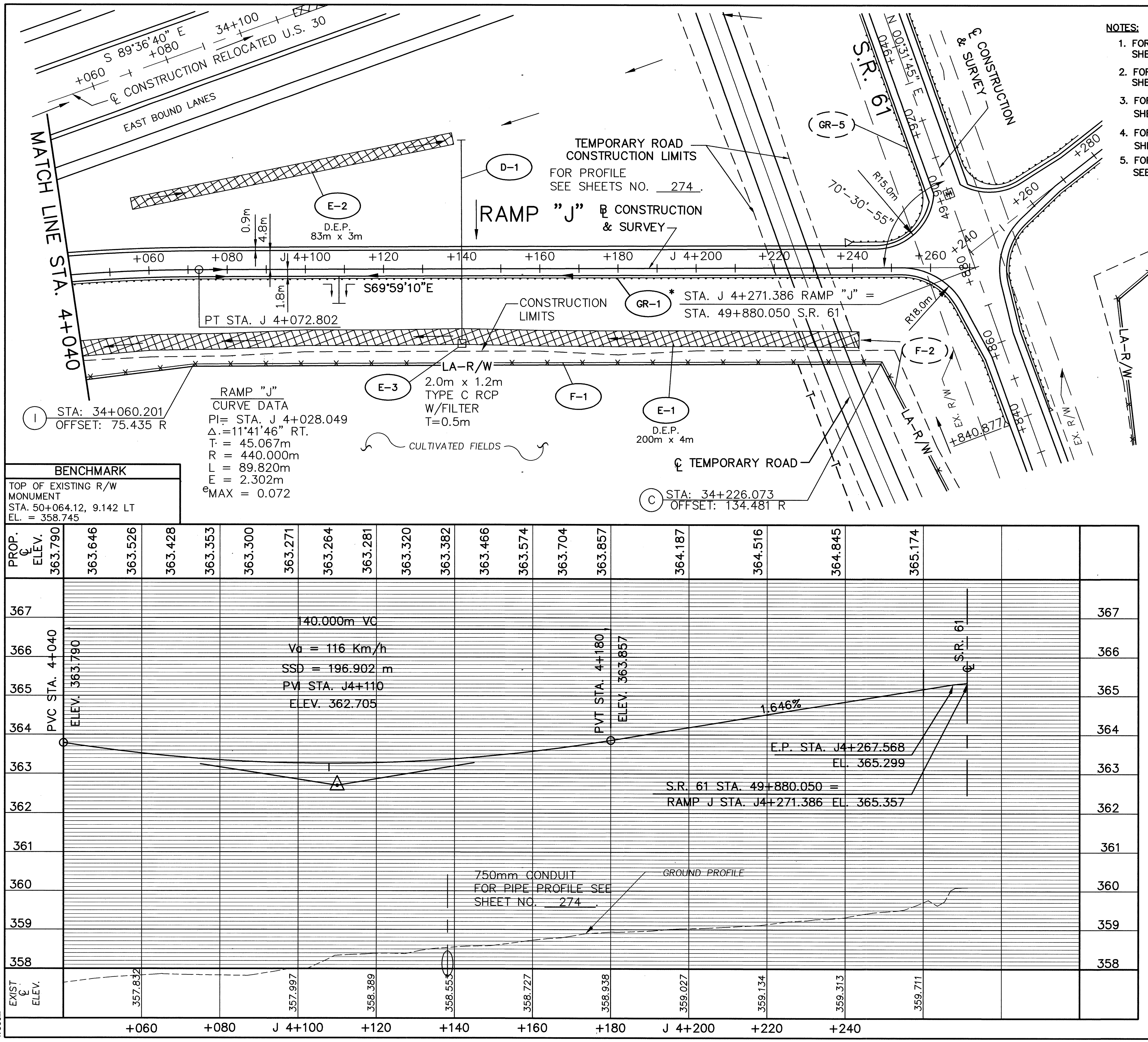
CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE – RAMP J
STA. 3+810 TO STA. 4+040

CRA/RIC-30-33.500/0.000

259/712

GP30RJ.DWG
03-8-1999 7:43 AM
1:500M



metric units

NOTES:

1. FOR TEMPORARY ROAD P&P SEE SHEETS 31-35 .
2. FOR SUPERELEVATION TABLES SEE SHEET 462 .
3. FOR UNDERDRAIN QUANTITIES SEE SHEET 496 .
4. FOR FENCE LEGEND SEE SHEET 94 .
5. FOR RAMP J INTERSECTION DETAILS SEE SHEET NO. 480 .

* 16.224 m OF GUARDRAIL GR-1 IS ON 15.6m RADIUS.

** 750 mm CONDUIT TYPE A 706.02 (1500 D-LAOD), OR 900 mm 707.01 ALUMINUM COATED (3.51), 707.040 (3.51), 707.09 AASHTO M190 TYPE A

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	601 ROCK CHANNEL PROTECTION TYPE C W/FILTER (C.M.)	602 CONCRETE MASONRY (C.M.)	603 750mm CONDUIT TYPE A ** (METER)	606 GUARDRAIL TYPE 5 (METER)	606 ANCHOR ASSEMBLY TYPE E-98 (EACH)	607 FENCE TYPE 47 (METER)	670 DITCH EROSION PROTECTION (S.M.)	626 BARRIER REFLECTOR TYPE A (EACH)
E-1	RT	J 4+040	4+240							800	
E-2	LT	J 4+060	4+140							249	
E-3	RT	J 4+140		1.20							
GR-1	RT	J 3+980	49+840.877				304.662	1			11
F-1	RT	J 4+040	J 4+247.662						203.911		
D-1	LT/RT	J 4+140			0.78	47.4					
TOTALS CARRIED TO SUB SUMMARY				1.20	0.78	47.4	304.662	1	203.911	1049	11

RATIO 1:500 HORIZONTAL SCALE IN METERS 0 5 10 20

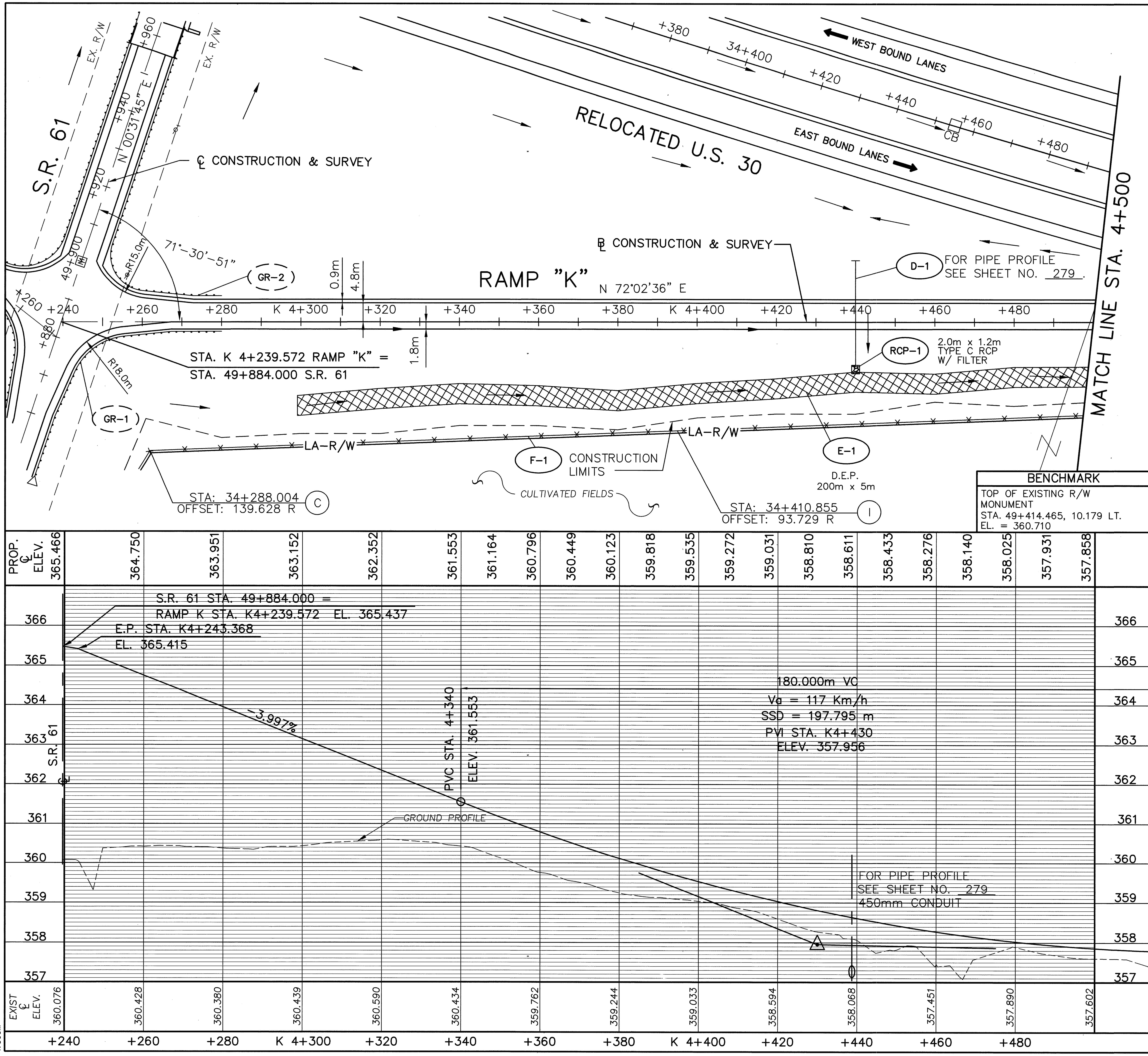
CALCULATED W.J.S. CHECKED C.R.M.

PLAN AND PROFILE - RAMP J
STA. 4+040 TO STA. 4+269.811

CRA/RIC-30-33.500/0.000

260 / 712

GP301RJ.DWG 03-8-1999 8:13 AM 1:500M



metric units

NOTES:

1. FOR UNDERDRAINS QUANTITIES SEE SHEET 496
2. FOR FENCE LEGEND SEE SHEET 94
3. FOR RAMP K INTERSECTION DETAILS SEE SHEET 480

— INDICATES D.E.P.

ESTIMATED QUANTITIES 357.776

REF. No.	SIDE	STATION FROM	STATION TO	670 DITCH EROSION PROTECTION (S.M.)	602 CONCRETE MASONRY (C.M.)	601 ROCK CHANNEL PROTECTION TYPE C W/FILTER (C.M.)	603 450mm CONDUIT TYPE A (METER)	607 FENCE TYPE 47 (METER)
E-1	RT	K 4+300	K 4+500	1000				
RCP-1	RT	K 4+440				1.2		
D-1	LT/RT	K 4+440			0.56		26.3	
F-1	RT	34+288.004	4+500					235.648
TOTALS CARRIED TO SUB SUMMARY				1000	0.56	1.2	26.3	235.648

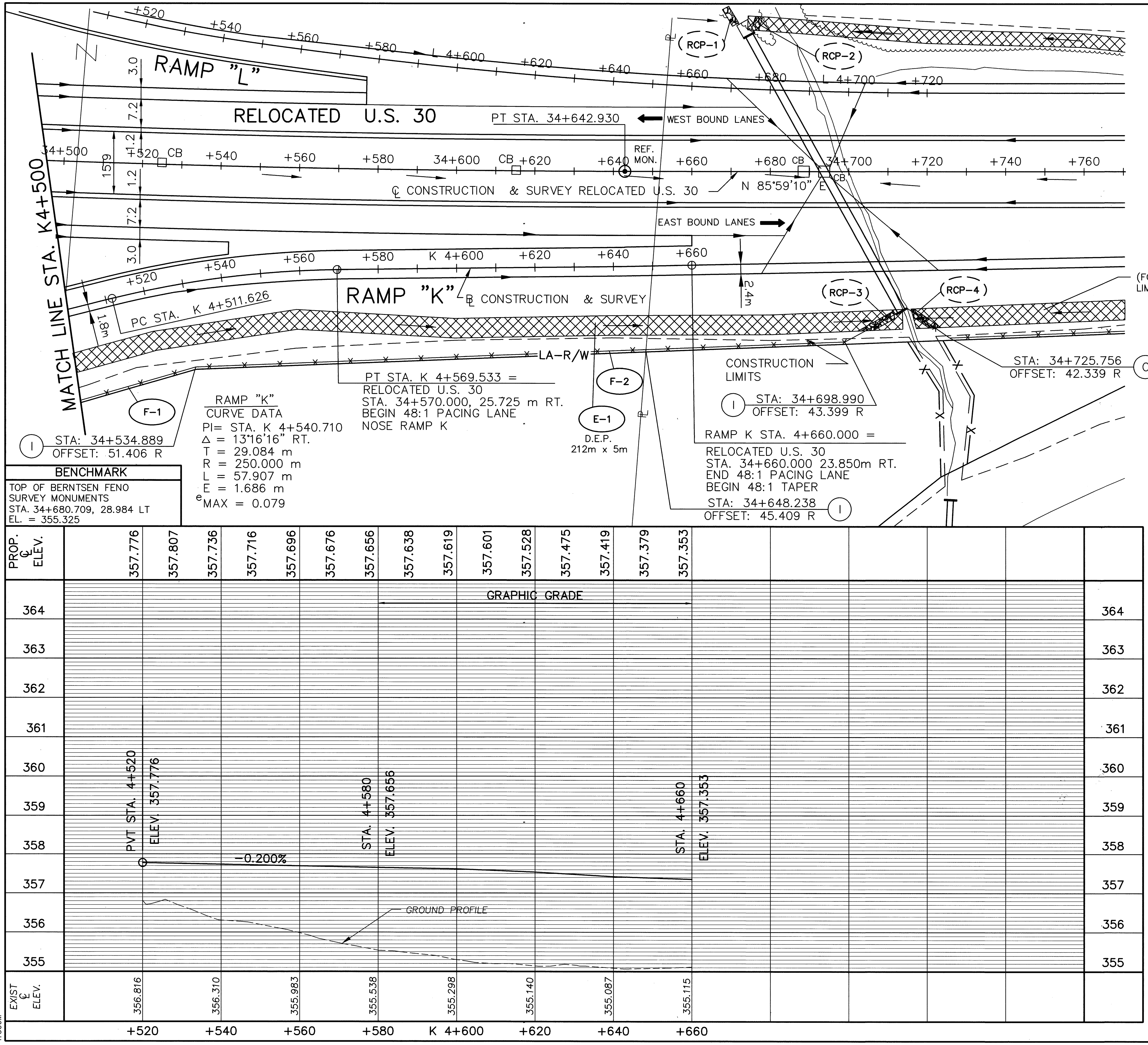
RATIO 1:500
0 10 20 HORIZONTAL SCALE IN METERS

CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE – RAMP K
STA. 4+239.572 TO STA. 4+500

CRA/RIC-30-33.500/0.000

GP300RK.DWG 03-8-1999 1:02 PM 1:500M



NOTE:

1. FOR SUPERELEVATION TABLES SEE SHEET 462.
2. FOR UNDERDRAINS QUANTITIES SEE SHEET 496.
3. FOR FENCE LEGEND SEE SHEET 94.
4. FOR RAMP TERMINAL DETAIL SEE SHEETS 473-474.

— INDICATES D.E.P.

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	670 DITCH EROSION PROTECTION (S.M.)	607 FENCE TYPE 47 (METER)
E-1	RT	4+500	34+712	1060	
F-1	RT	4+500	34+509.850		5.883
F-2	RT	FOR FENCE QUANTITY SEE MAINLANE			
TOTALS CARRIED TO SUB SUMMARY				1060	5.883

metric units

RATIO 1:500 HORIZONTAL SCALE IN METERS

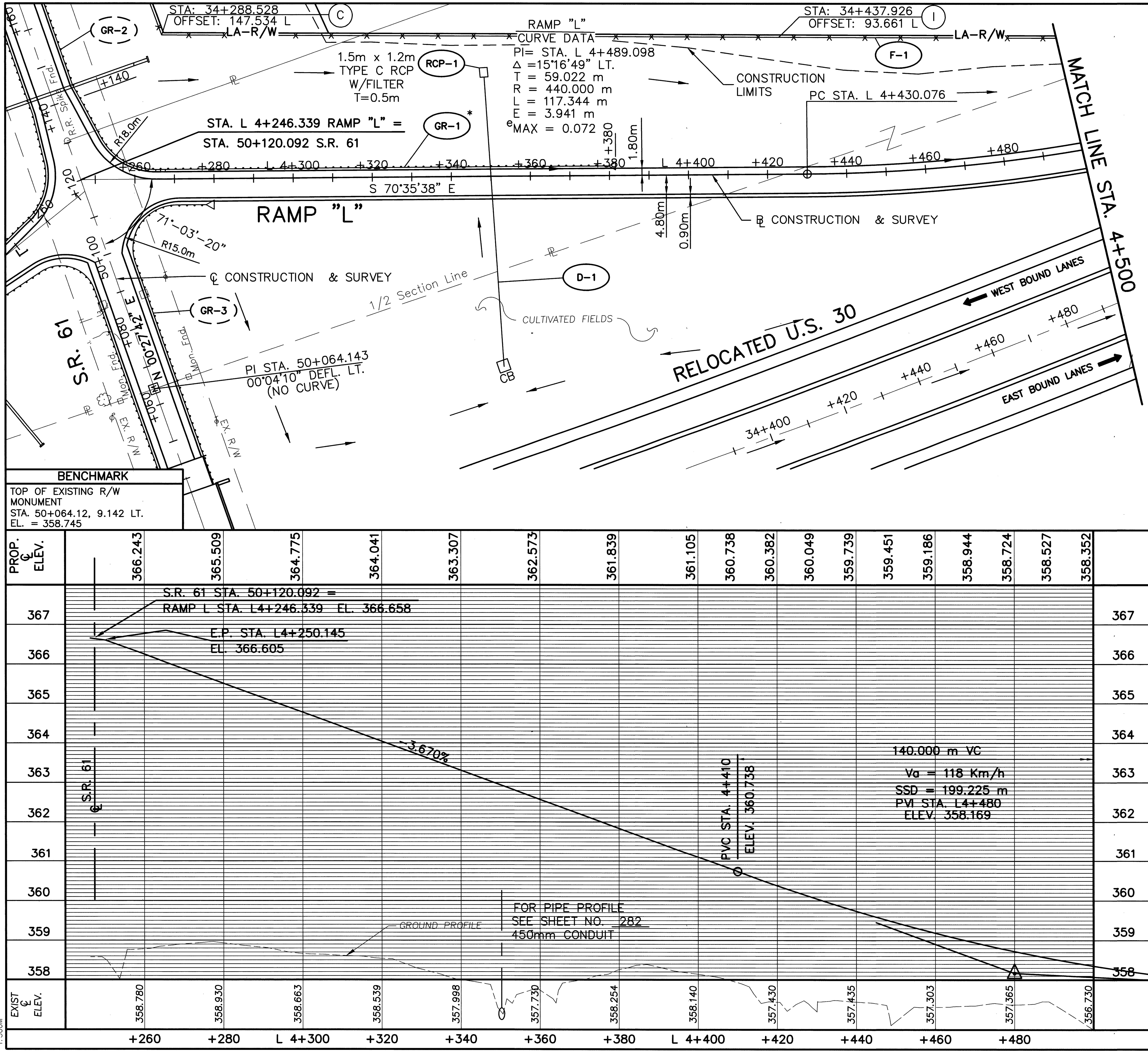
CALCULATED W.J.S. CHECKED C.R.M.

PLAN AND PROFILE - RAMP K STA. 4+500 TO STA. 4+660

CRA/RIC-30-33.500/0.000

262/712

GP301RK.DWG 03-8-1999 10:12 AM 1:500M



GP300RL.DWG
08-16-2000 7:51 AM
1:500M

NOTES:

1. FOR SUPERELEVATION TABLES SEE SHEET 462
2. FOR UNDERDRAINS QUANTITIES SEE SHEET 496
3. FOR FENCE LEGEND SEE SHEET 94
4. FOR INTERSECTION DETAILS SEE SHEET 480

* 16.869 m OF GUARDRAIL GR-1 IS ON 15.6 m RADIUS

** 69.1 M ~ 450 mm TYPE A CONDUIT 706.02 (2500 D-LOAD) 707.12, 702.13 @ 1.00%

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	601 ROCK CHANNEL PROTECTION TYPE C W/FILTER (C.M.)	603 450mm CONDUIT TYPE A ** (METER)	604 CATCH BASIN NO.5, A.P.P. (EACH)	602 CONCRETE MASONRY (C.M.)	606 GUARDRAIL TYPE 5 (METER)	606 ANCHOR ASSEMBLY TYPE E-98 (EACH)	607 FENCE TYPE 47 (METER)	626 BARRIER REFLECTOR TYPE A (EACH)
RCP-1	LT	L 4+350		0.90							
D-1	LT/RT	L 4+350			69.1	1	0.28				
GR-1	LT	50+140	L4+380					127.894	1		6
F-1	LT	4+263.843	4+500							234.758	
TOTALS CARRIED TO SUB SUMMARY				0.90	69.1	1	0.28	127.894	1	234.758	6

metric units

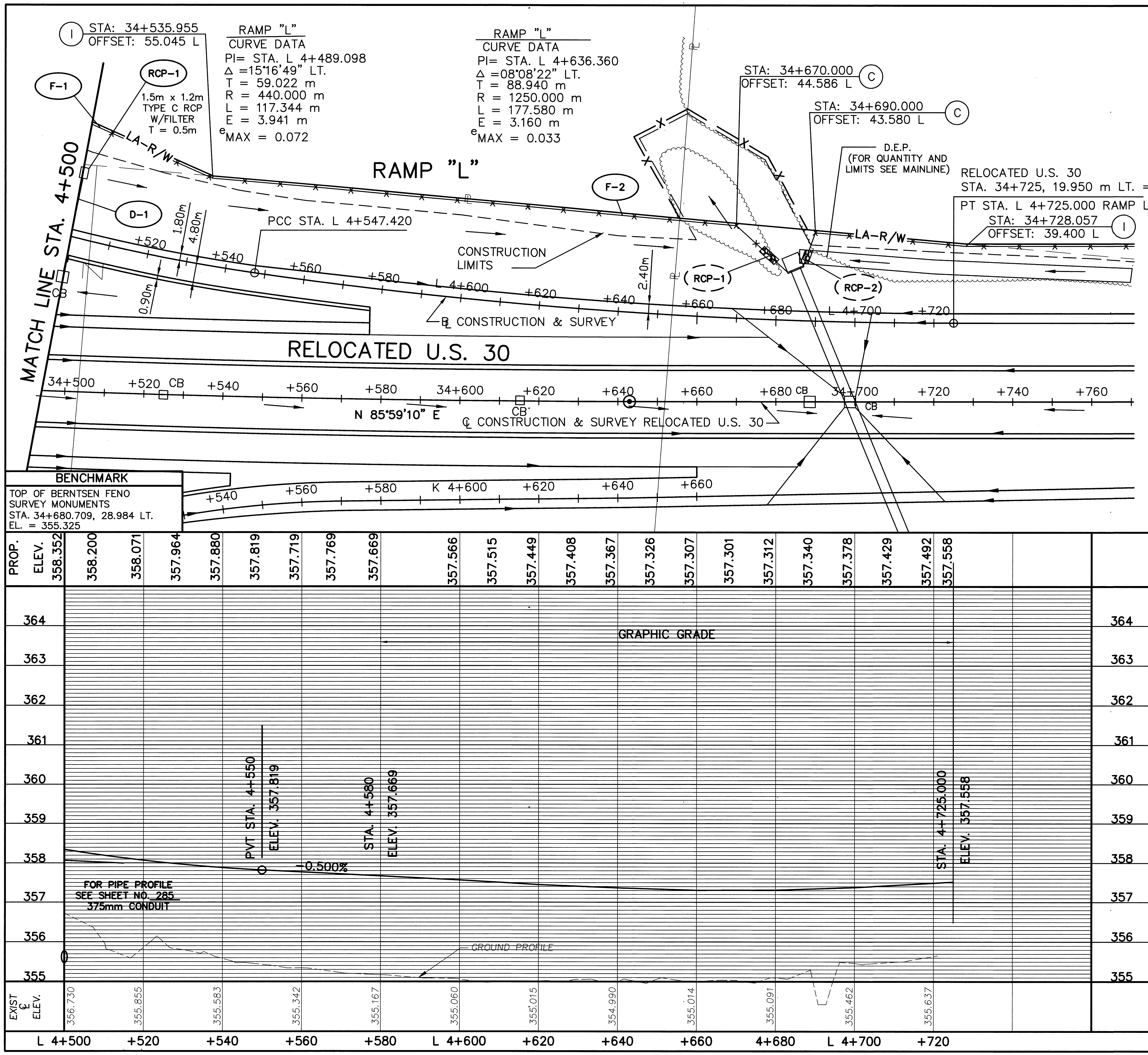
RATIO 1:500
HORIZONTAL SCALE IN METERS
0 5 10 20

CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE – RAMP L
STA. 4+246.339 TO STA. 4+500

CRA/RIC-30-33.500/0.000

263/712



metric units

RATIO 1:500
HORIZONTAL SCALE IN METERS

NOTES:

1. FOR UNDERDRAINS QUANTITIES SEE SHEET 496
2. FOR FENCE LEGEND SEE SHEET 94
3. FOR RAMP TERMINAL DETAILS SEE SHEET 475

— INDICATES D.E.P.

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	601 ROCK CHANNEL PROTECTION TYPE C W/FILTER (C.M.)	603 375mm CONDUIT TYPE A (METER)	604 CATCH BASIN NO.5, A.P.P. (EACH)	602 CONCRETE MASONRY (C.M.)	607 FENCE TYPE 47 (METER)
RCP-1	LT	L 4+500		0.90				
D-1	LT/RT	L 4+500			29	1	0.22	
F-1	LT	L 4+500	34+517.968					14.697
F-2	LT	FOR FENCE QUANTITY SEE MAINLINE						
TOTALS CARRIED TO SUB SUMMARY				0.90	29	1	0.22	14.697

CALCULATED W.J.S.
CHECKED C.R.M.

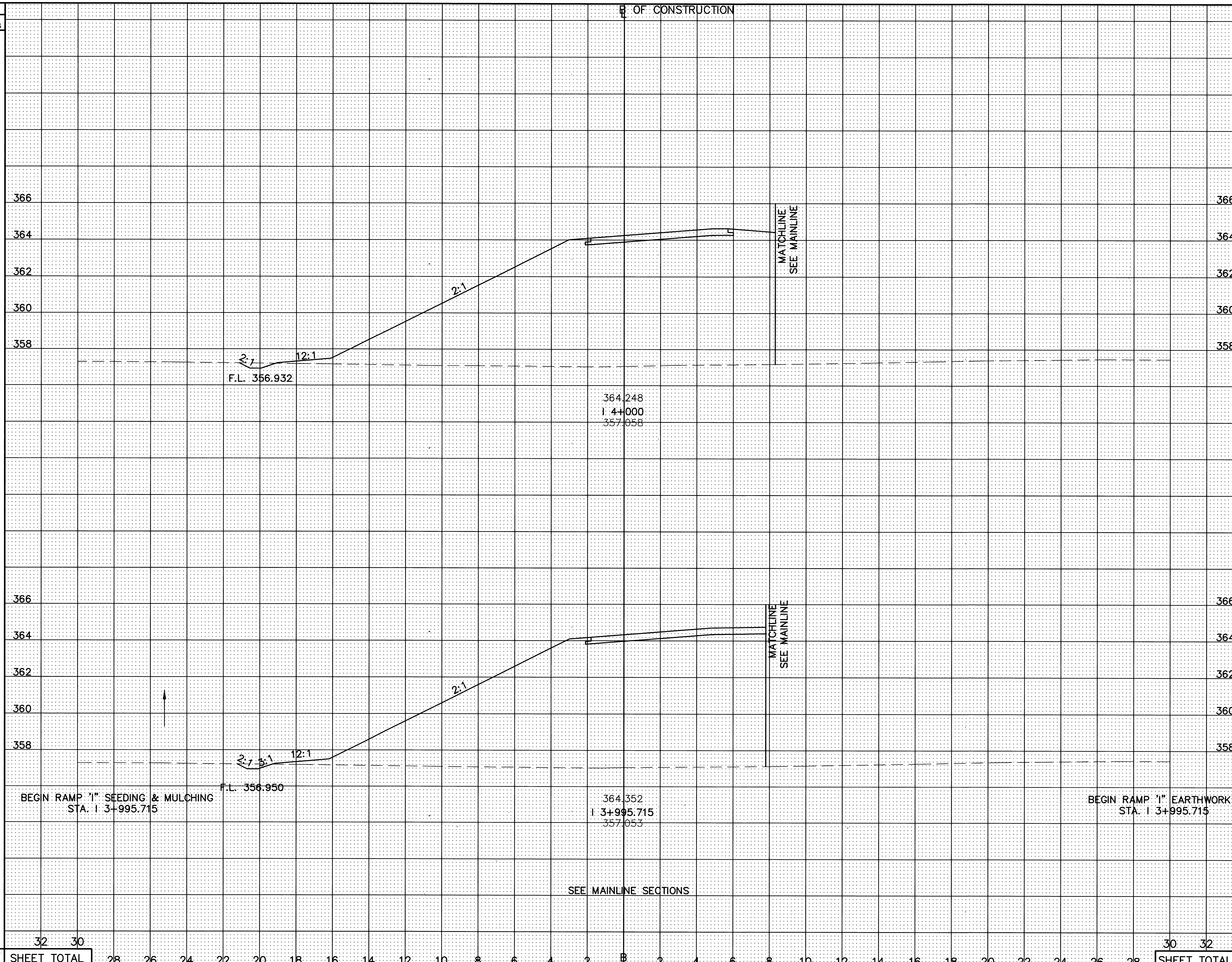
PLAN AND PROFILE - RAMP L
STA. 4+500 TO STA. 4+725

CRA/RIC-30-33.500/0.000

264/712

GP301RL.DWG
12-18-2000 10:37 AM
SCALE: 1:1M

SEEDING	
END WIDTH	SQ. METERS
24.5	
	101
22.5	
	101



END AREA		VOLUME	
CUT	FILL	CUT	FILL
0.7	127.4		
		2	543
0.4	125.9		
		2	543

CALCULATED CRM
CHECKED WJS

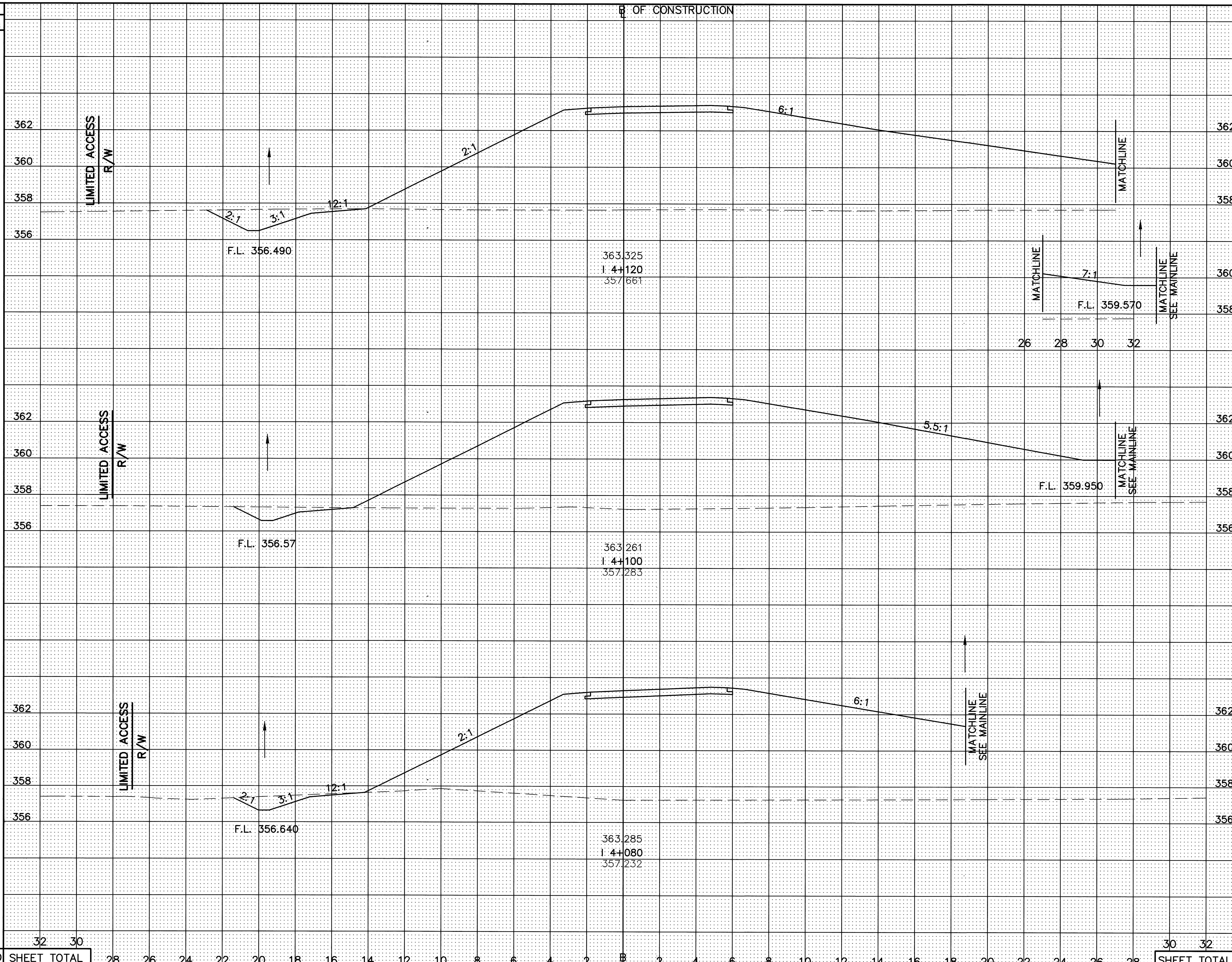
CROSS-SECTIONS – S.R. 61 RAMP I
STA. I 3+995.715 TO STA. I 4+000

CRA/RIC-30-33.500/0.000

GX300RI.DWG
02-23-1999 2:15 PM
1:100M

GX301RI.DWG
02-24-1999 3:44 PM
1:100M

SEEDING END WIDTH	SEEDING SQ. METERS
51.5	
	955
44.0	
	795
35.5	
	690
	2440



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
4.3	177.8		
		63	3454
2.0	167.6		
		39	3142
1.9	146.6		
		39	2950
		141	9546

CALCULATED RR CHECKED WS

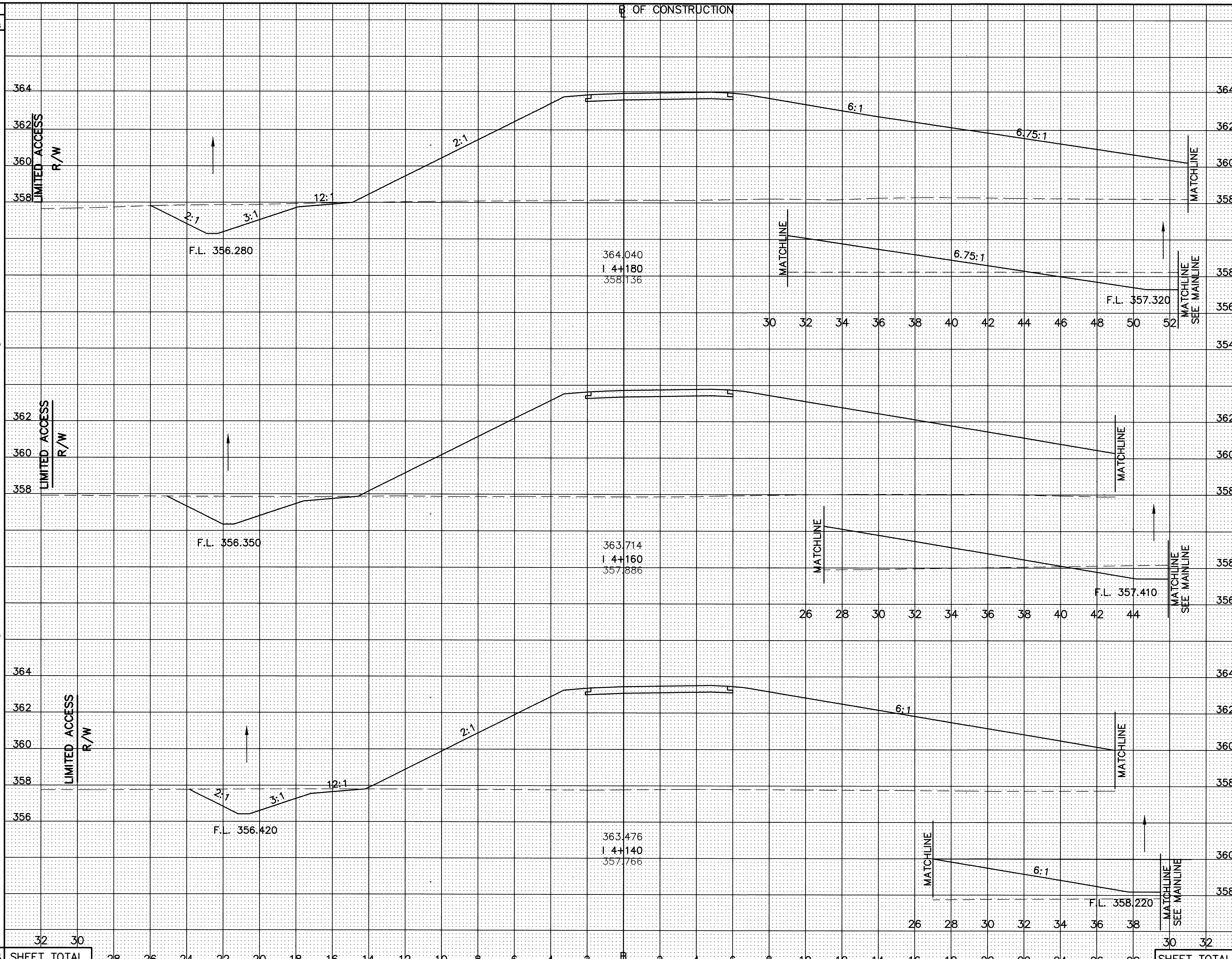
CROSS-SECTIONS – S.R. 61 RAMP I
STA. I 4+080 TO STA. I 4+120

CRA/RIC-30-33.500/0.000

267/712

GX302RI.DWG 02-15-1999 9:43 AM 1:100M

SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
74.0		12.5	197.9		
	1405			223	3833
66.5		9.8	185.4		
	1255			155	3636
59.0		5.7	178.2		
	1105			100	3560
SHEET TOTAL	3765			478	11029



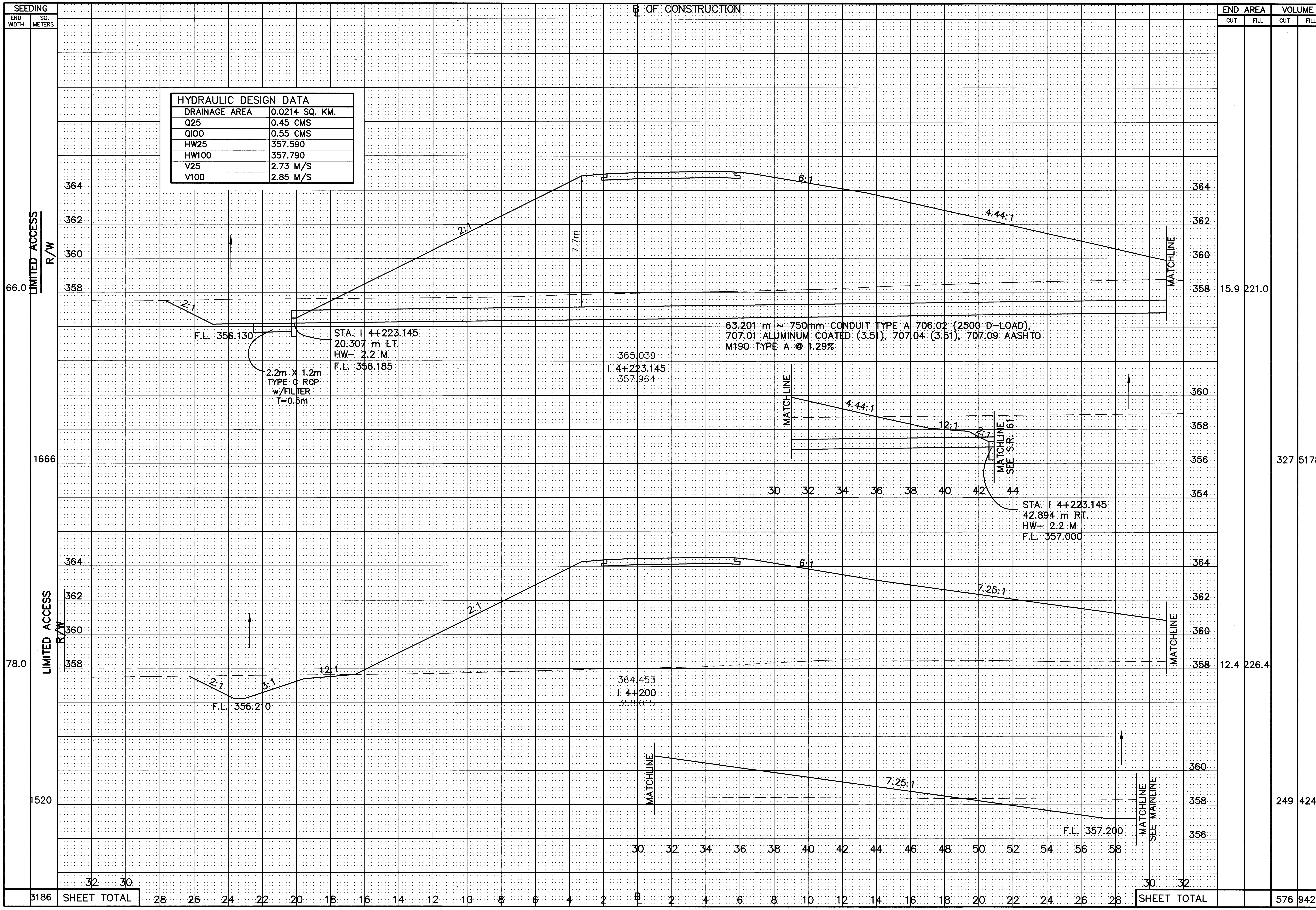
CALCULATED RR
CHECKED WS

CROSS-SECTIONS – S.R. 61 RAMP I
STA. I 4+140 TO STA. I 4+180

CRA/RIC-30-33.500/0.000

268
712

GX303RI.DWG
02-15-1999 9:46 AM
1:100M

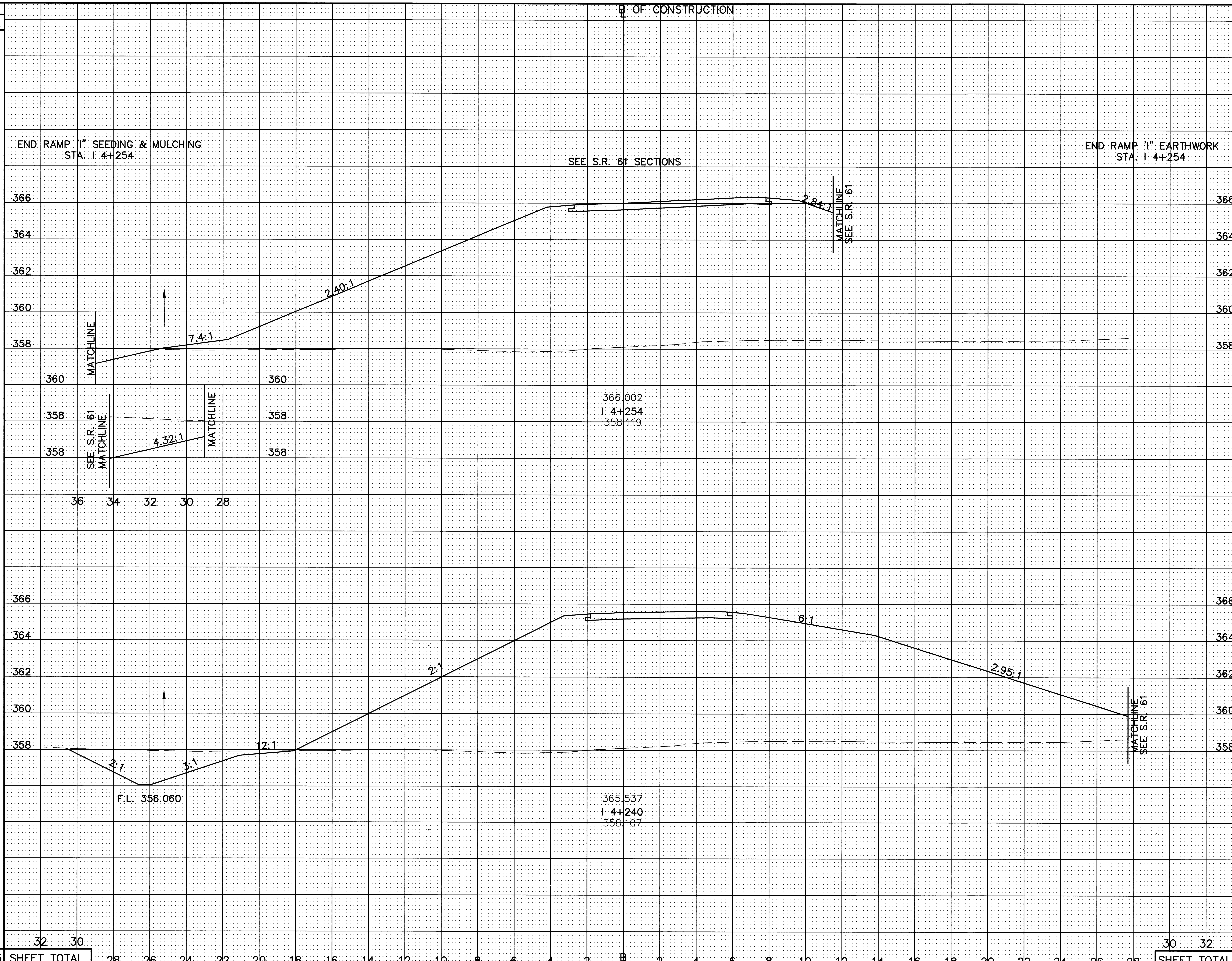


HYDRAULIC DESIGN DATA	
DRAINAGE AREA	0.0214 SQ. KM.
Q25	0.45 CMS
Q100	0.55 CMS
HW25	357.590
HW100	357.790
V25	2.73 M/S
V100	2.85 M/S

CROSS-SECTIONS – S.R. 61 RAMP I

STA. I 4+200 TO STA. I 4+223.145

CRA/RIC-30-33.500/0.000



SEEDING END WIDTH	SEEDING SQ. METERS
38.5	
	623
50.5	
	982
	1605

SHEET TOTAL

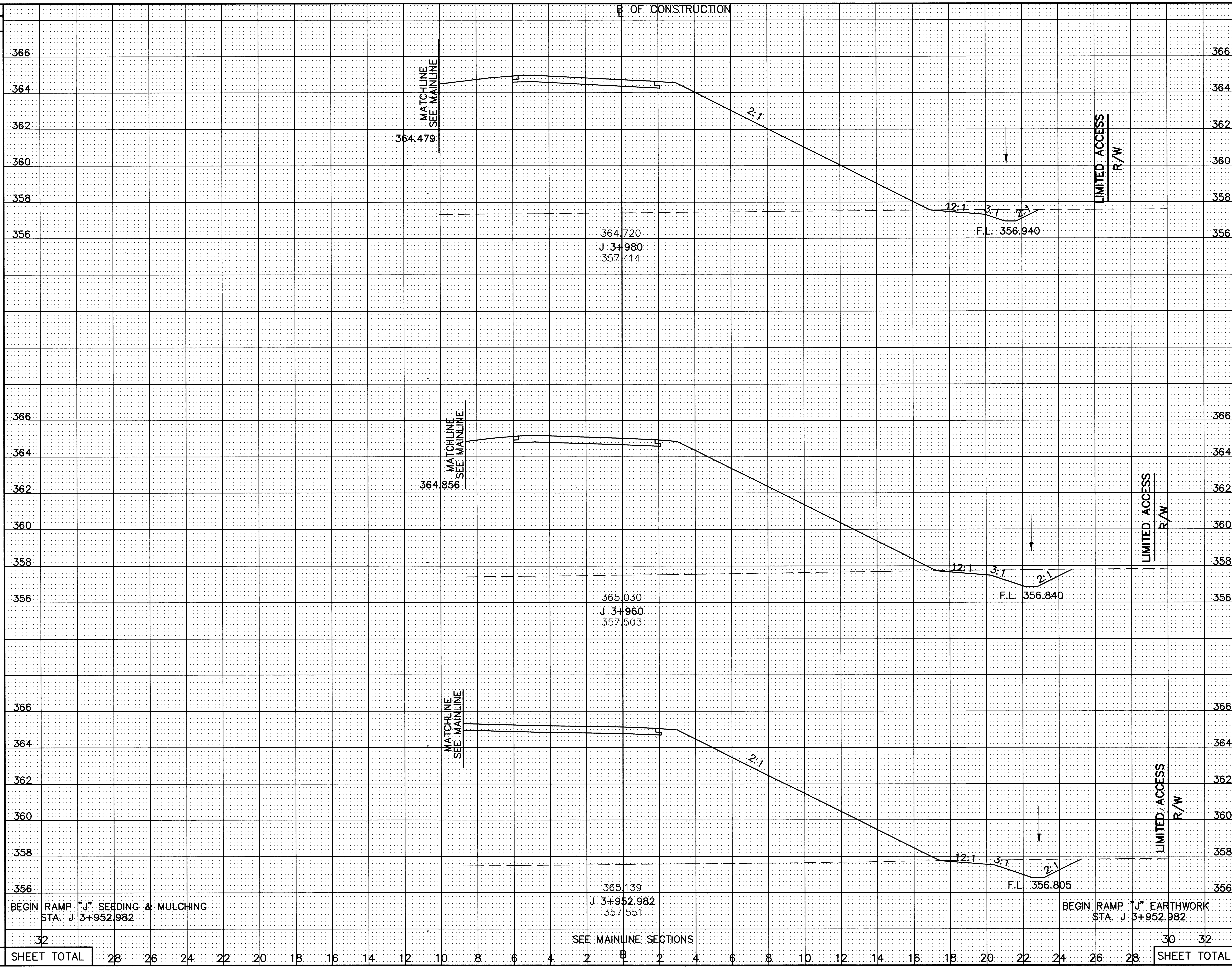
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
9.6	193.6		
		144	2901
11.0	220.8		
		227	3723
		371	6624

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – S.R. 61 RAMP I
STA. I 4+240 TO STA. I 4+254

CRA/RIC-30-33.500/0.000

GX305RI.DWG
02-15-1999 9:56 AM
1:100M



SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
28.0		1.7	143.3		
	570			48	2808
29.0		3.1	137.5		
	195			23	973
26.5		3.4	139.9		
SHEET TOTAL	765			71	3781

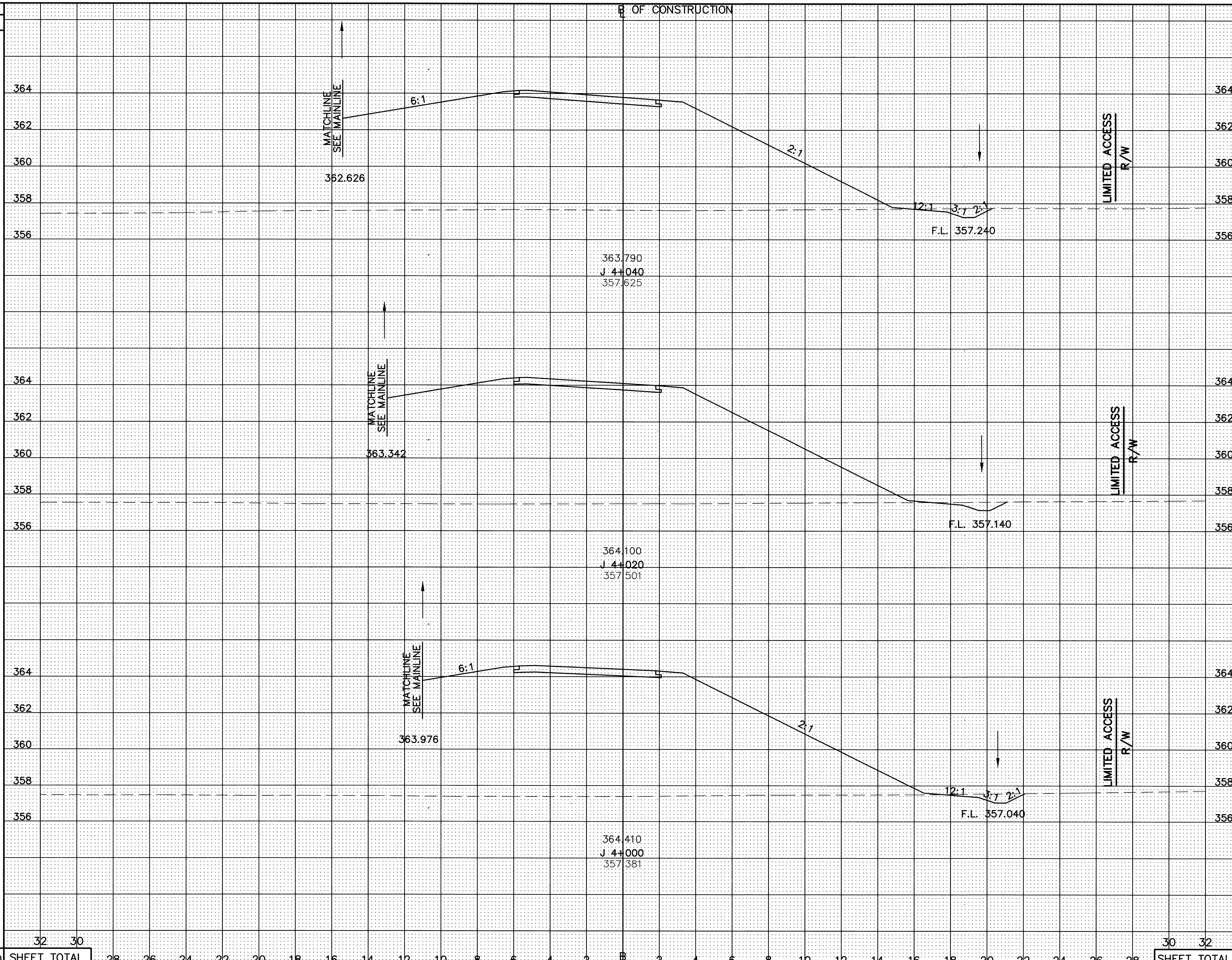
CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – S.R. 61 RAMP J
STA. J 3+952.982 TO STA. J 3+980

CRA/RIC-30-33.500/0.000

GX300RJ.DWG
02-15-1999 9:21 AM
1:100M

CROSS-SECTIONS – S.R. 61 RAMP J
STA. J 4+000 TO STA. J 4+040



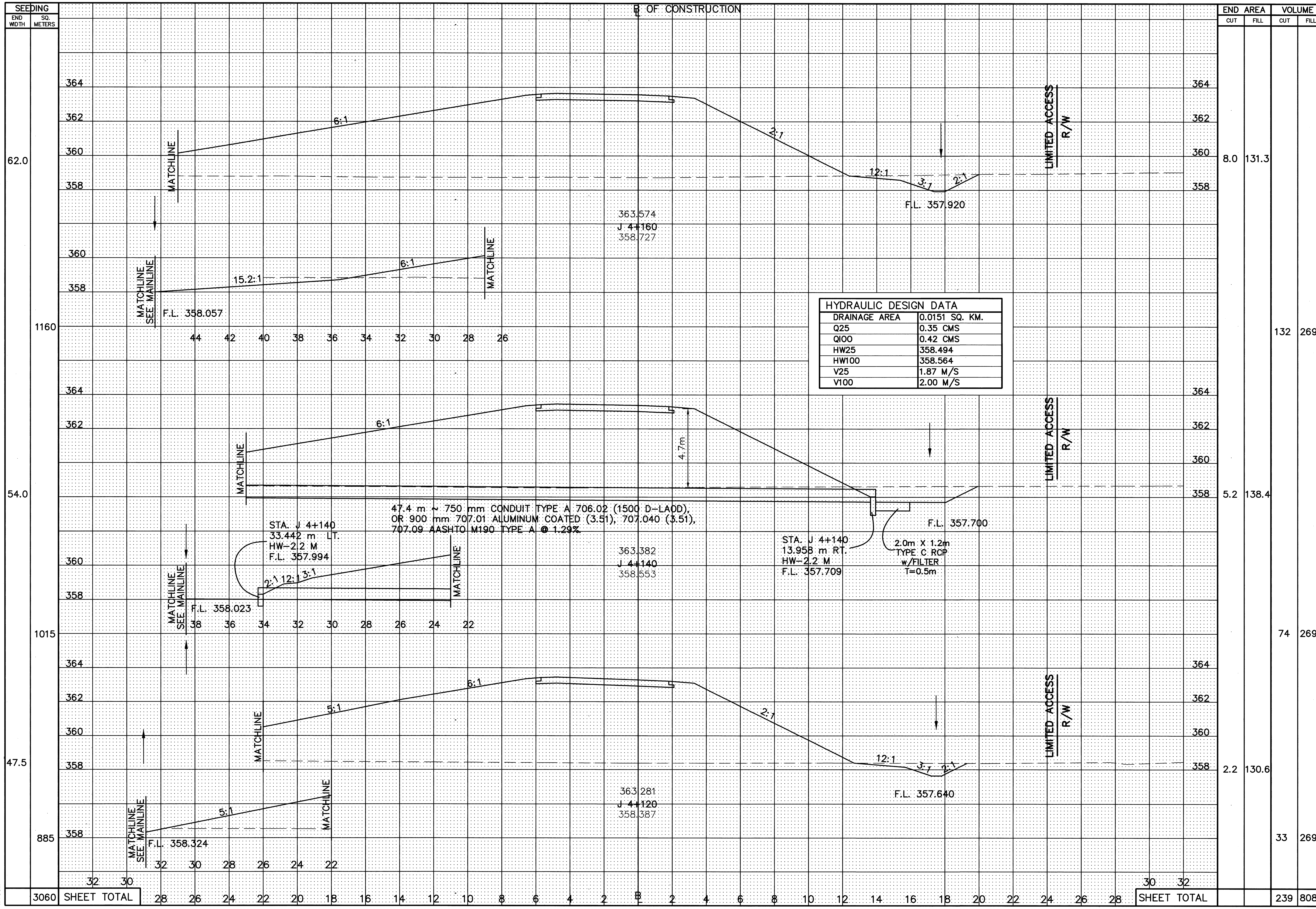
Station	Seeding End Width	Seeding Sq. Meters	End Area Cut	End Area Fill	Volume Cut	Volume Fill
J 4+040	31.0		1.2	144.0		
		605			23	2873
J 4+020	29.5		1.1	143.3		
		580			23	2852
J 4+000	28.5		1.2	141.9		
		565			29	2852
SHEET TOTAL		1750			75	8577

CALCULATED CRM
CHECKED WJS

CRA/RIC-30-33.500/0.000

GX301RJ.DWG
02-22-1999 1:4 PM
1:100M

SEEDING
END WIDTH
SQ. METERS
℄ OF CONSTRUCTION
END AREA
CUT
FILL
VOLUME
CUT
FILL
CALCULATED CRM
CHECKED WJS
364
362
360
358
6:1
4:1
2:1
12:1
3:1
2:1
MATCHLINE SEE MAINLINE
LIMITED ACCESS R/W
358.954
F.L. 357.540
41.0
1.1
139.1
363.271
J 4+100
358.008
785
46
2784
3:1
359.785
F.L. 357.440
37.5
3.5
139.3
363.353
J 4+080
358.080
720
48
2859
361.263
F.L. 357.340
34.5
1.3
146.6
363.526
J 4+060
357.910
655
25
2906
32 30
2160
SHEET TOTAL
28 26 24 22 20 18 16 14 12 10 8 6 4 2 ℄ 2 4 6 8 10 12 14 16 18 20 22 24 26 28
30 32
SHEET TOTAL
119
8549
CROSS-SECTIONS - S.R. 61 RAMP J
STA. J 4+060 TO STA. J 4+100
CRA/RIC-30-33.500/0.000
273
712
GX302RJ.DWG
02-22-1999 1:33 PM
1:100



HYDRAULIC DESIGN DATA	
DRAINAGE AREA	0.0151 SQ. KM.
Q25	0.35 CMS
Q100	0.42 CMS
HW25	358.494
HW100	358.564
V25	1.87 M/S
V100	2.00 M/S

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – S.R. 61 RAMP J
STA. J 4+120 TO STA. J 4+160

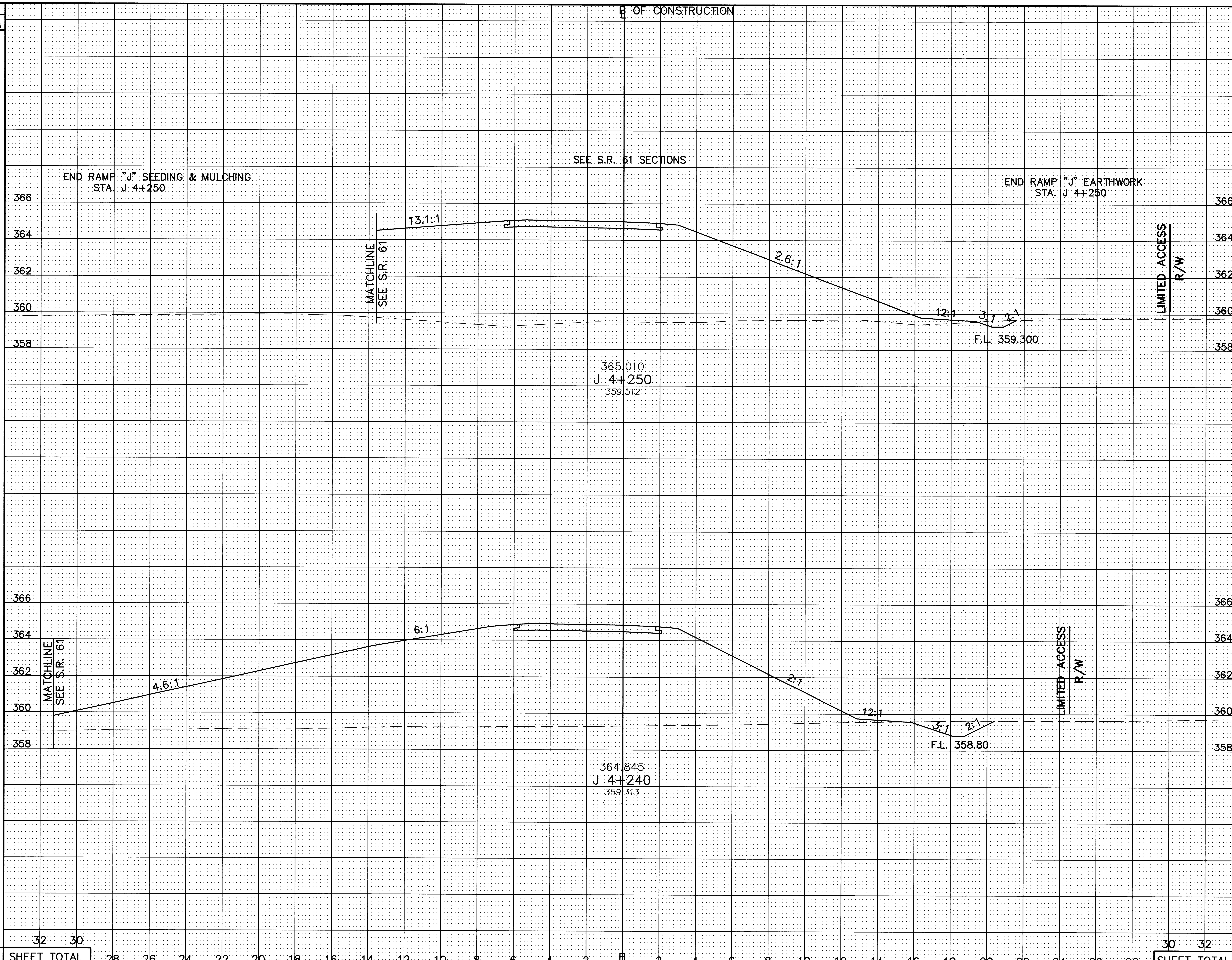
CRA/RIC-30-33.500/0.000

274
712

GX303RJ.DWG
02-24-1999 4:23 PM
1:100M


SEEDING
END WIDTH
SQ. METERS
℄ OF CONSTRUCTION
END AREA
VOLUME
CUT
FILL
CALCULATED CRM
CHECKED WJS
86.0
7.4
169.2
6:1
2:1
12:1
3:1
MATCHLINE
LIMITED ACCESS
R/W
364.516
J 4+220
359.134
F.L. 358.580
1645
125
3242
MATCHLINE SEE MAINLINE
84.1:1
F.L. 358.452
78.5
5.1
155.0
364.187
J 4+200
359.027
F.L. 358.360
53.1:1
F.L. 358.346
1485
154
2942
70.0
10.3
139.2
363.857
J 4+180
358.938
F.L. 358.140
28.9:1
F.L. 358.240
1320
183
2705
4450
SHEET TOTAL
462
8889
CROSS-SECTIONS - S.R. 61 RAMP J
STA. J 4+180 TO STA. J 4+220
CRA/RIC-30-33.500/0.000
275
712
GX304RJ.DWG
02-15-1999 9:52 AM
1:100M

SEEDING	
END WIDTH	SQ. METERS
30.0	
	385
47.0	
	1330
	1715



END AREA		VOLUME	
CUT	FILL	CUT	FILL
0.5	124.3		
		14	1423
2.2	160.2		
		96	3294
		110	4717

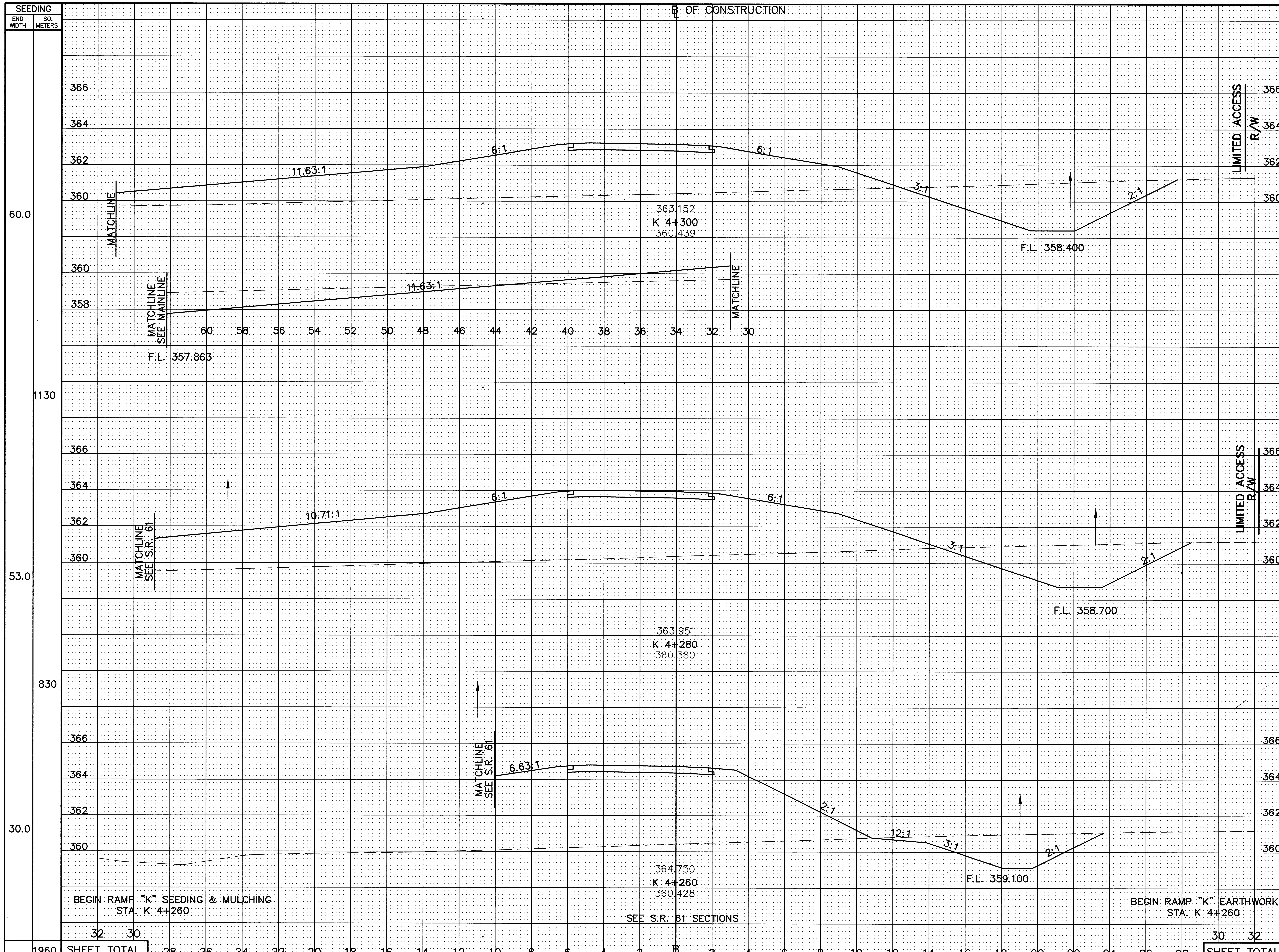
CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – S.R. 61 RAMP J
STA. J 4+240 TO STA. J 4+250

CRA/RIC-30-33.500/0.000

276
712

GX305RJ.DWG
02-22-1999 1:41 PM
1:100M



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
34.1	79.1		
		531	1892
19.0	110.1		
		308	1841
11.8	74.0		
SHEET TOTAL		839	3733

CALCULATED CRM
CHECKED WJS

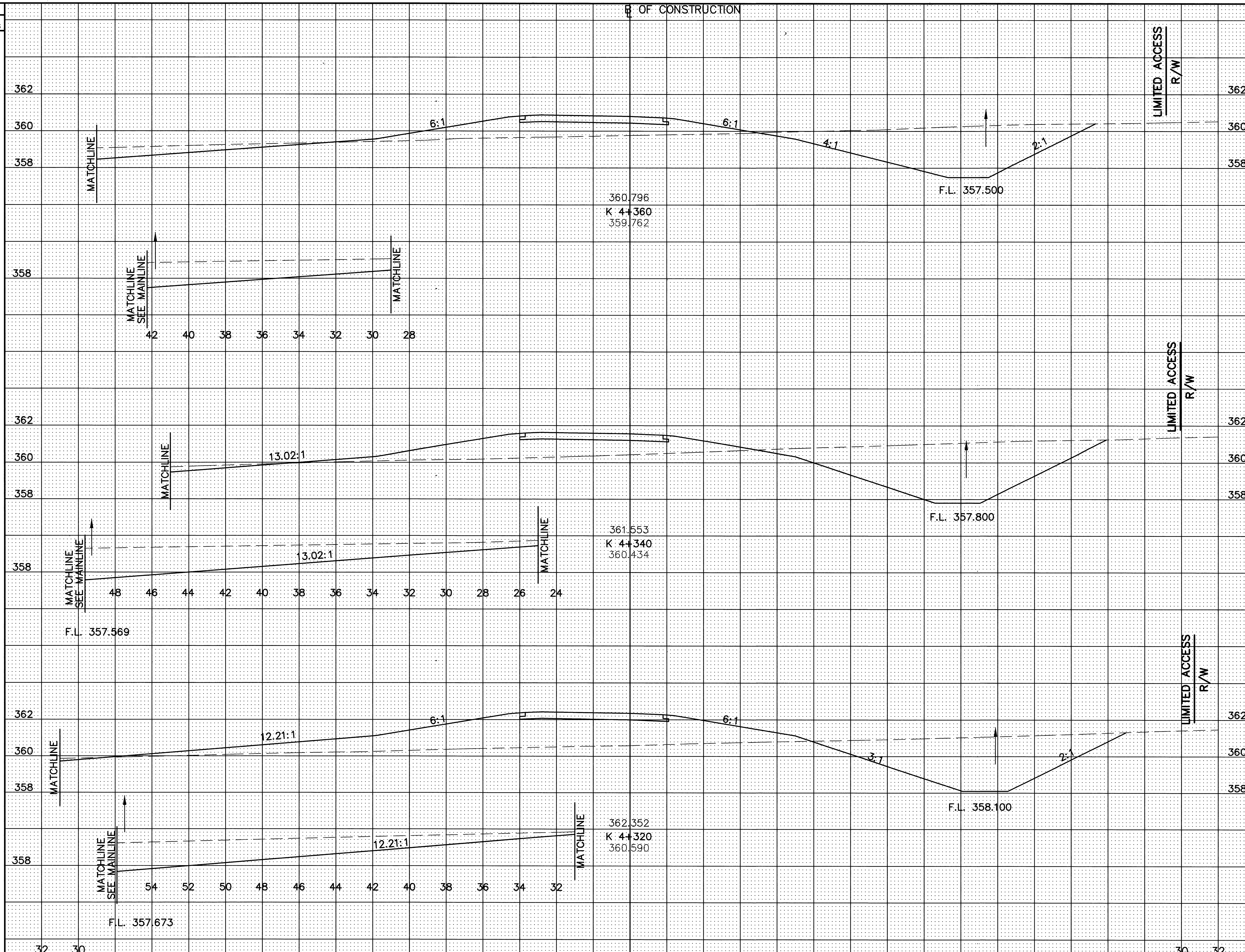
CROSS-SECTIONS – S.R. 61 RAMP K
STA. K 4+260 TO STA. K 4+300

CRA/RIC-30-33.500/0.000

277/712

GX300RK.DWG
02-15-1999 9:19 AM
1:100M

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. METERS	CUT	FILL	CUT	FILL
65.0		44.5	13.7		
	1360			1031	286
71.0		58.6	14.9		
	1495			1088	499
78.5		50.2	35.0		
	1385			843	1141
	4240 SHEET TOTAL	SHEET TOTAL		2962	1926



CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – S.R. 61 RAMP K
STA. K 4+320 TO STA. K 4+360

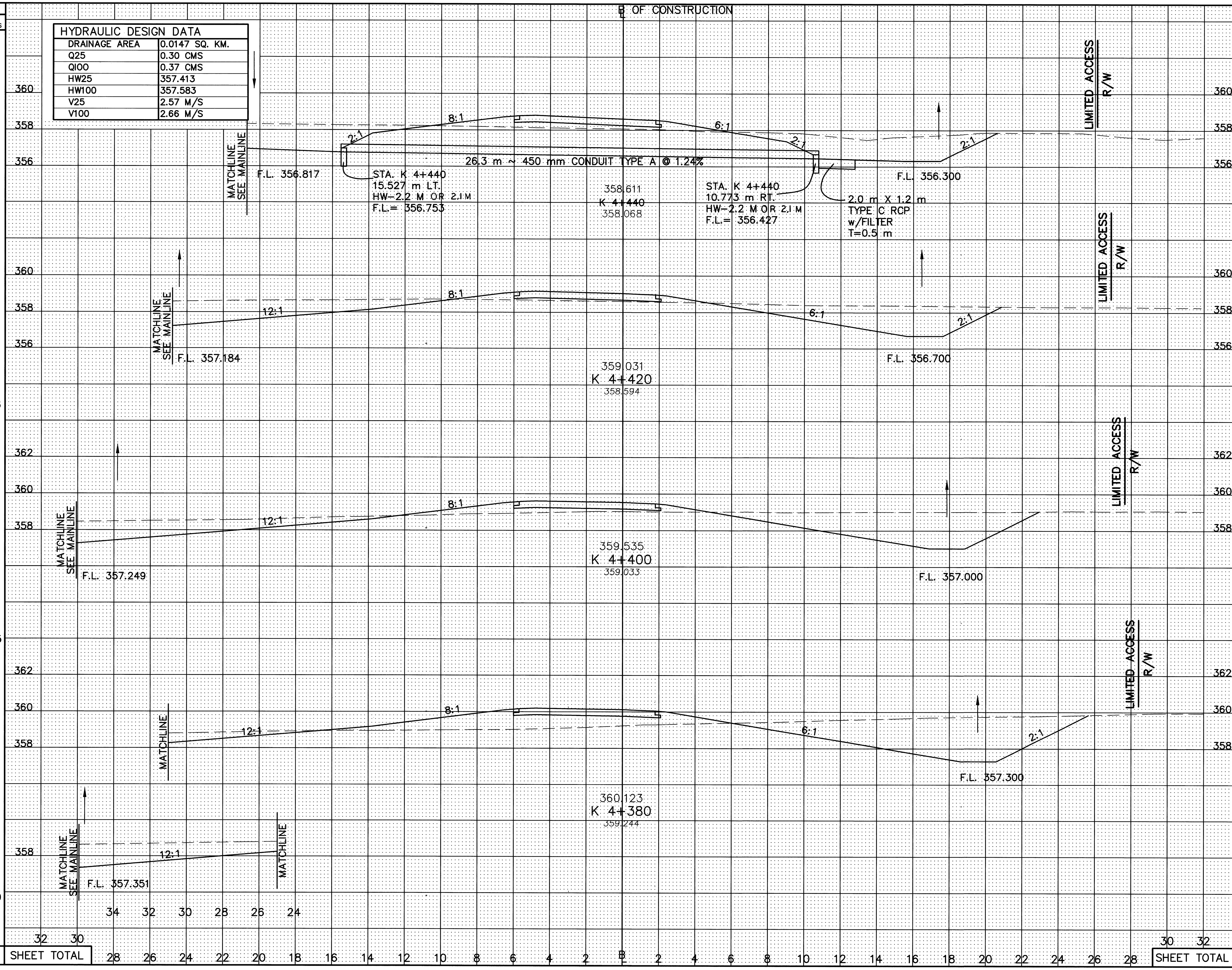
CRA/RIC-30-33.500/0.000

278
712

GX301RK.DWG
02-15-1999 9:41 AM
1:100M

HYDRAULIC DESIGN DATA

DRAINAGE AREA	0.0147 SQ. KM.
Q25	0.30 CMS
Q100	0.37 CMS
HW25	357.413
HW100	357.583
V25	2.57 M/S
V100	2.66 M/S



SEEDING END WIDTH	SEEDING SQ. METERS
37.0	
	780
41.1	
	896
48.5	
	1055
57.0	
	1220
SHEET TOTAL	3951

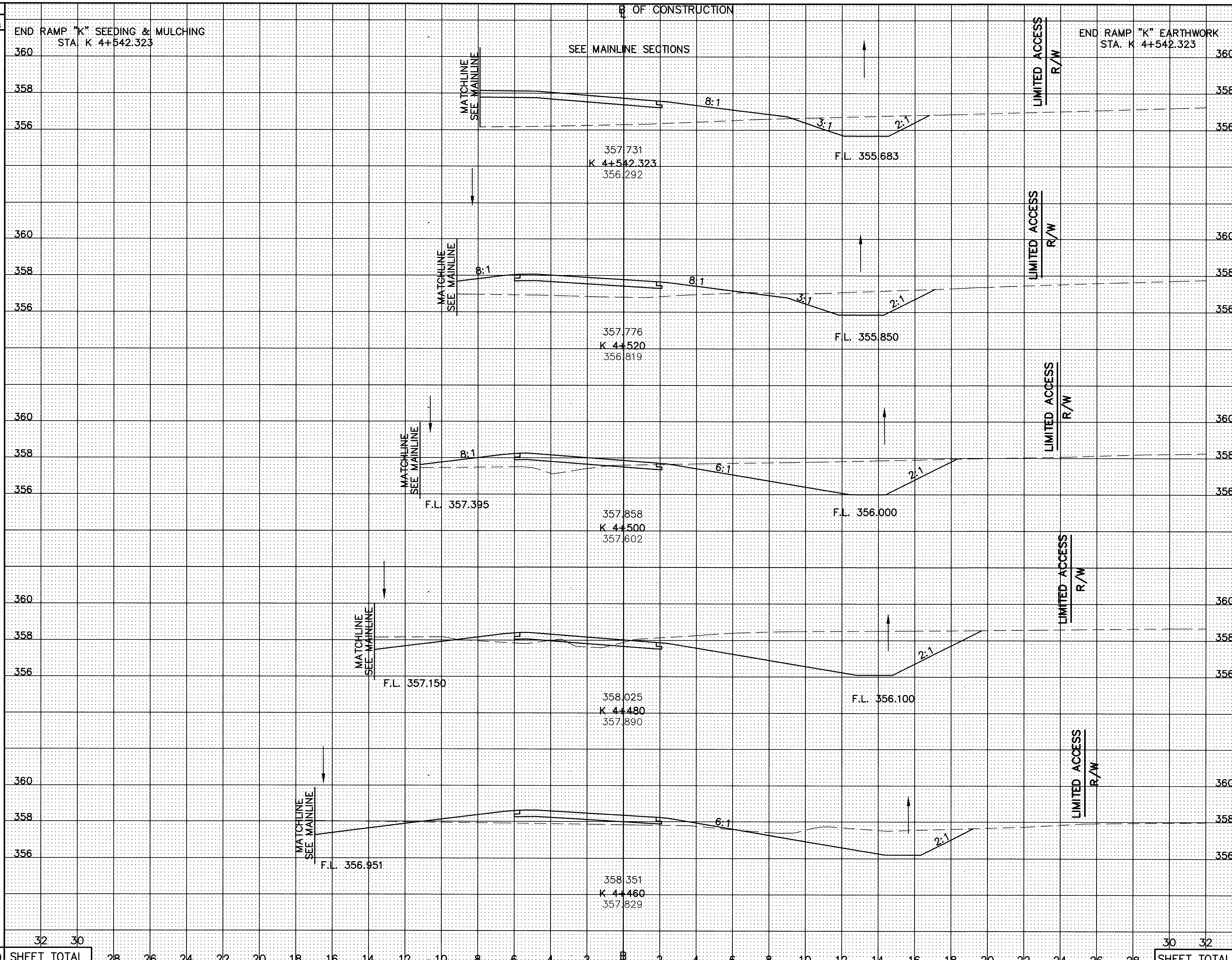
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
22.6	4.6		
		481	64
25.5	1.8		
		566	67
31.1	4.9		
		692	153
38.1	10.4		
		826	241
SHEET TOTAL		2565	525

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – S.R. 61 RAMP K
STA. K 4+380 TO STA. K 4+440

CRA/RIC-30-33.500/0.000

GX302RK.DWG
02-25-1999 8:18 AM
1:100M



SEEDING END WIDTH	SEEDING SQ. METERS
17.5	
	435
21.5	
	515
30.0	
	590
29.0	
	605
31.5	
	685
	2830

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
5.2	17.9		
		138	314
7.2	10.2		
		238	147
16.6	4.5		
		440	54
27.4	0.9		
		397	55
12.3	4.6		
		349	92
		1562	662

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS - S.R. 61 RAMP K
STA. K 4+460 TO STA. K 4+542.323

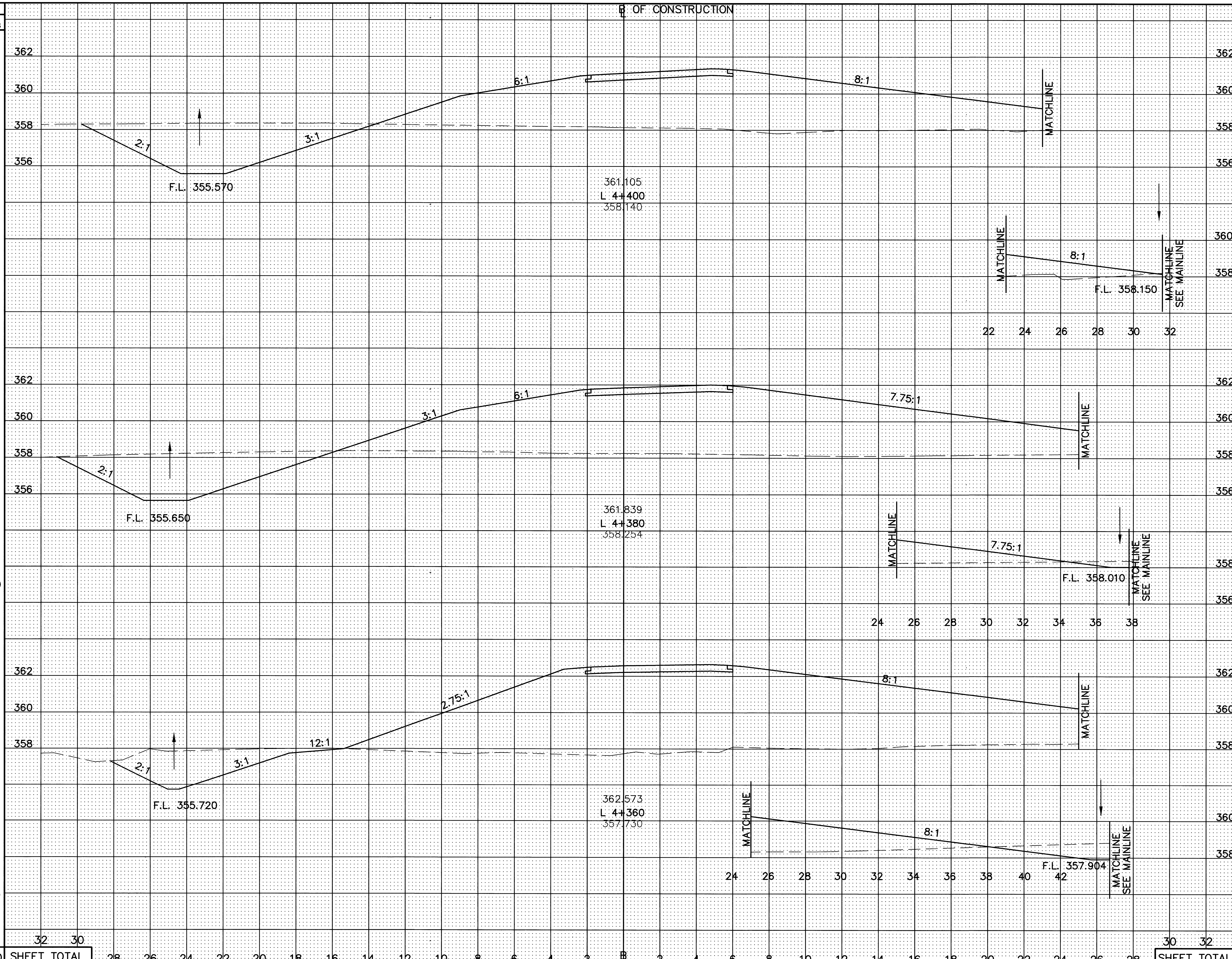
CRA/RIC-30-33.500/0.000

280/712

GX303RK.DWG
02-22-1999 1:44 PM
1:100M


SEEDING
END WIDTH
SQ. METERS
℄ OF CONSTRUCTION
END AREA
CUT
FILL
VOLUME
CUT
FILL
CALCULATED CRM
CHECKED WJS
35.5
25.4
204.5
8:1
2:1
3.35:1
12:1
3:1
MATCHLINE
MATCHLINE SEE S.R. 61
LIMITED ACCESS R/W
365.509
L 4+280
358.930
2:1
3:1
MATCHLINE
FL-355.790
34 32 30 28 26 24
553
268
2584
MATCHLINE SEE S.R. 61
2.53:1
6.5:1
2.7:1
31.5
7.1
108.7
SEE S.R. 61 MATCHLINE
366.115
L 4+263.500
358.780
STA. 4+263.5
30.116 m LT.
END 750 mm TYPE A CONDUIT
F.L. 355.813
SEE S.R. 61 SECTIONS FOR PROFILE
SEE S.R. 61 SECTIONS
BEGIN RAMP "L" EARTHWORK
STA. L 4+260
BEGIN RAMP "L" SEEDING & MULCHING
STA. L 4+260
553
SHEET TOTAL
SHEET TOTAL
268
2584
CROSS-SECTIONS - S.R. 61 RAMP L
STA. L 4+260 TO STA. L 4+280
CRA/RIC-30-33.500/0.000
281
712
GX300RL.DWG
02-15-1999 9:23 AM
1:100M

GX301RL.DWG
08-16-2000 8:01 AM
1:100M



SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
57.0		25.5	85.5		
	1215			487	1950
64.5		23.2	109.5		
	1330			421	2554
68.5		18.9	145.9		
	1455			394	3189
	4000			1302	7693

LIMITED ACCESS R/W

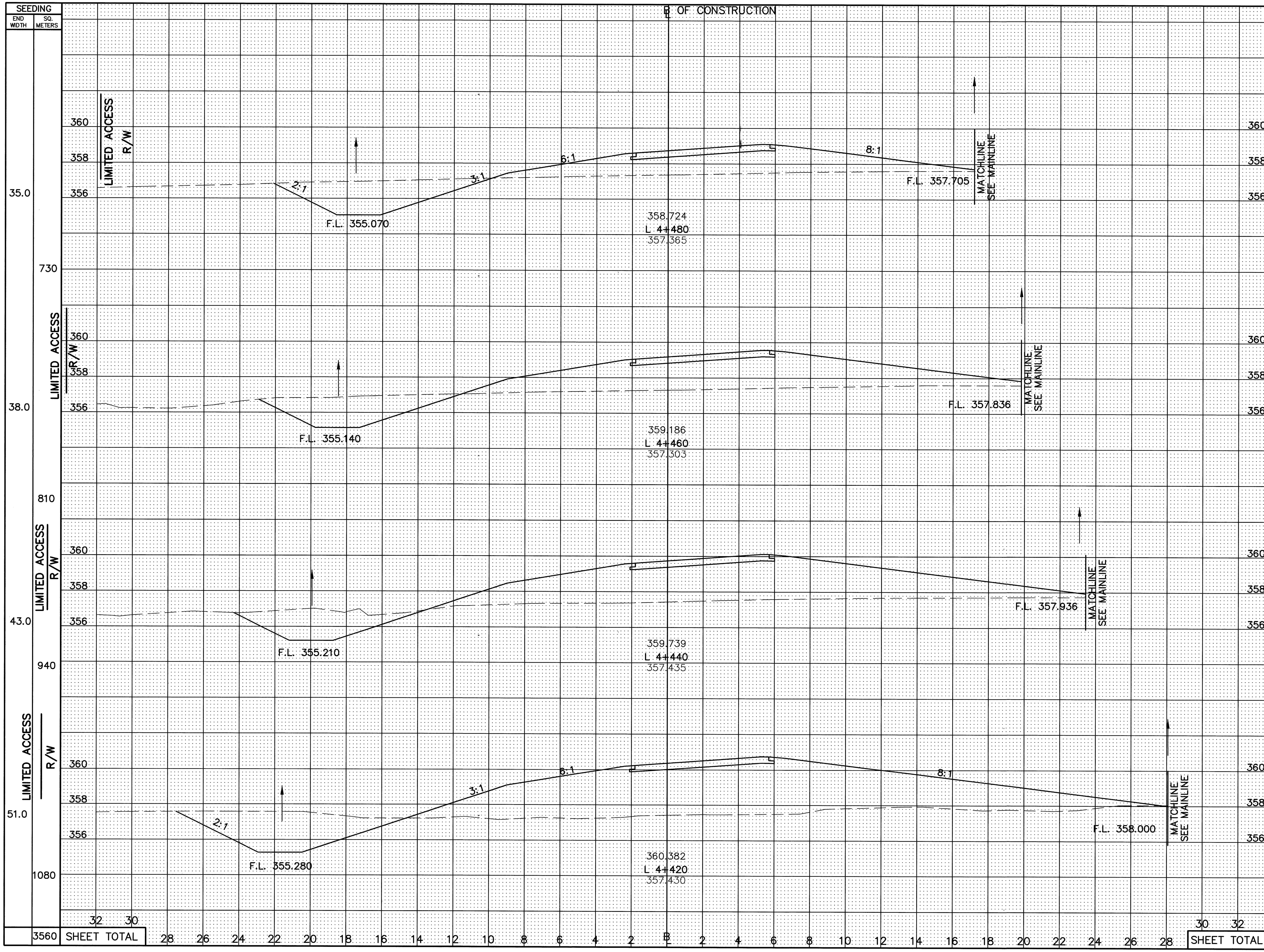
CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – S.R. 61 RAMP L
STA. L 4+360 TO STA. L 4+400

CRA/RIC-30-33.500/0.000

283
712

GX302RL.DWG
02-23-1999 4:12 PM
1:100M



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
13.9	24.7		
		259	648
12.0	40.1		
		228	967
10.8	56.6		
		280	1349
17.2	78.3		
		1508	10052
		2275	13016

CALCULATED CRM
CHECKED WJS

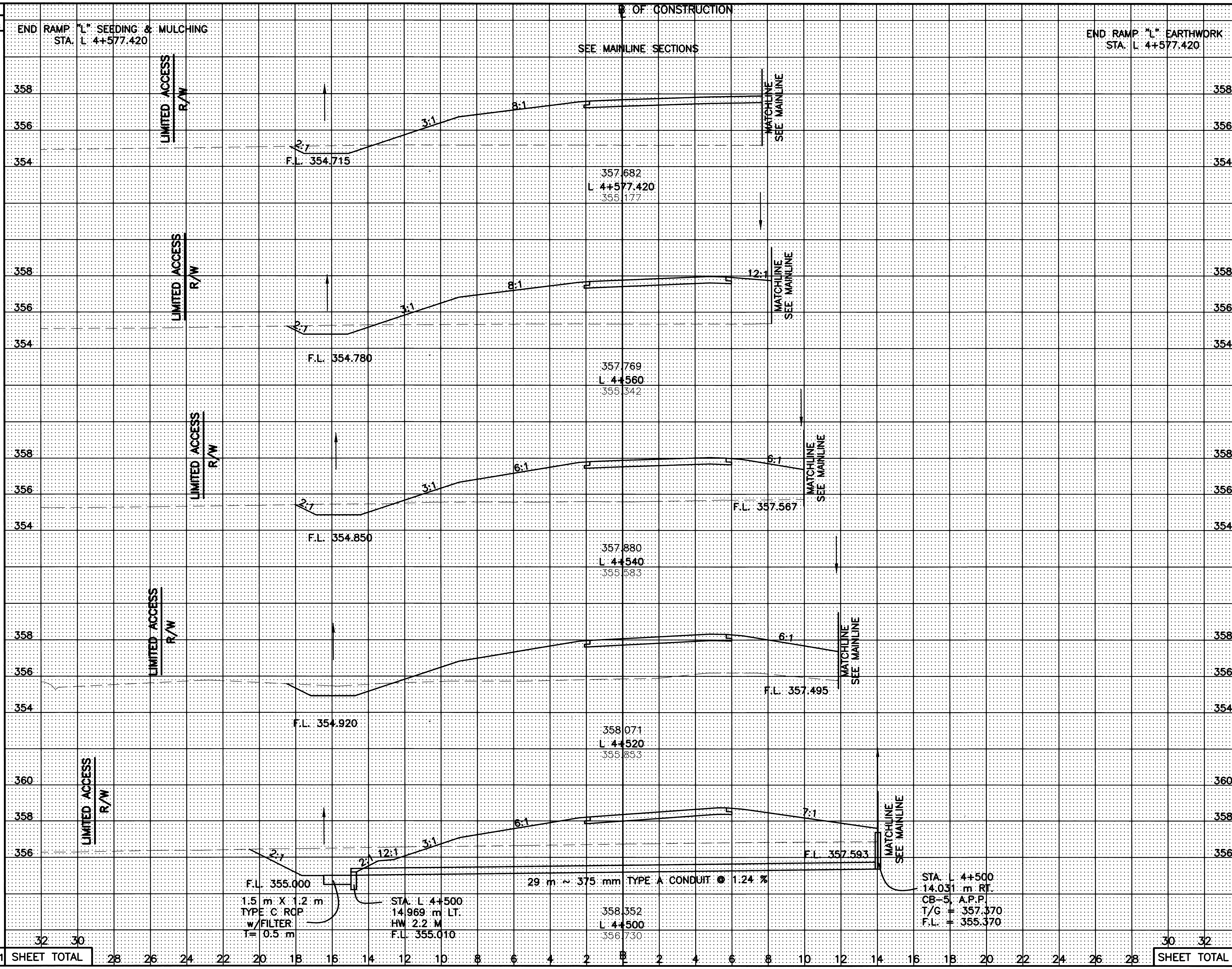
CROSS-SECTIONS – S.R. 61 RAMP L
STA. L 4+420 TO STA. L 4+480

CRA/RIC-30-33.500/0.000

284
712

GX303RL.DWG
02-22-1999 2:05 PM
1:100M

SEEDING END WIDTH	SEEDING SQ. METERS
19.5	
	361
22	
	455
23.5	
	495
26.0	
	560
30.0	
	650
	2521



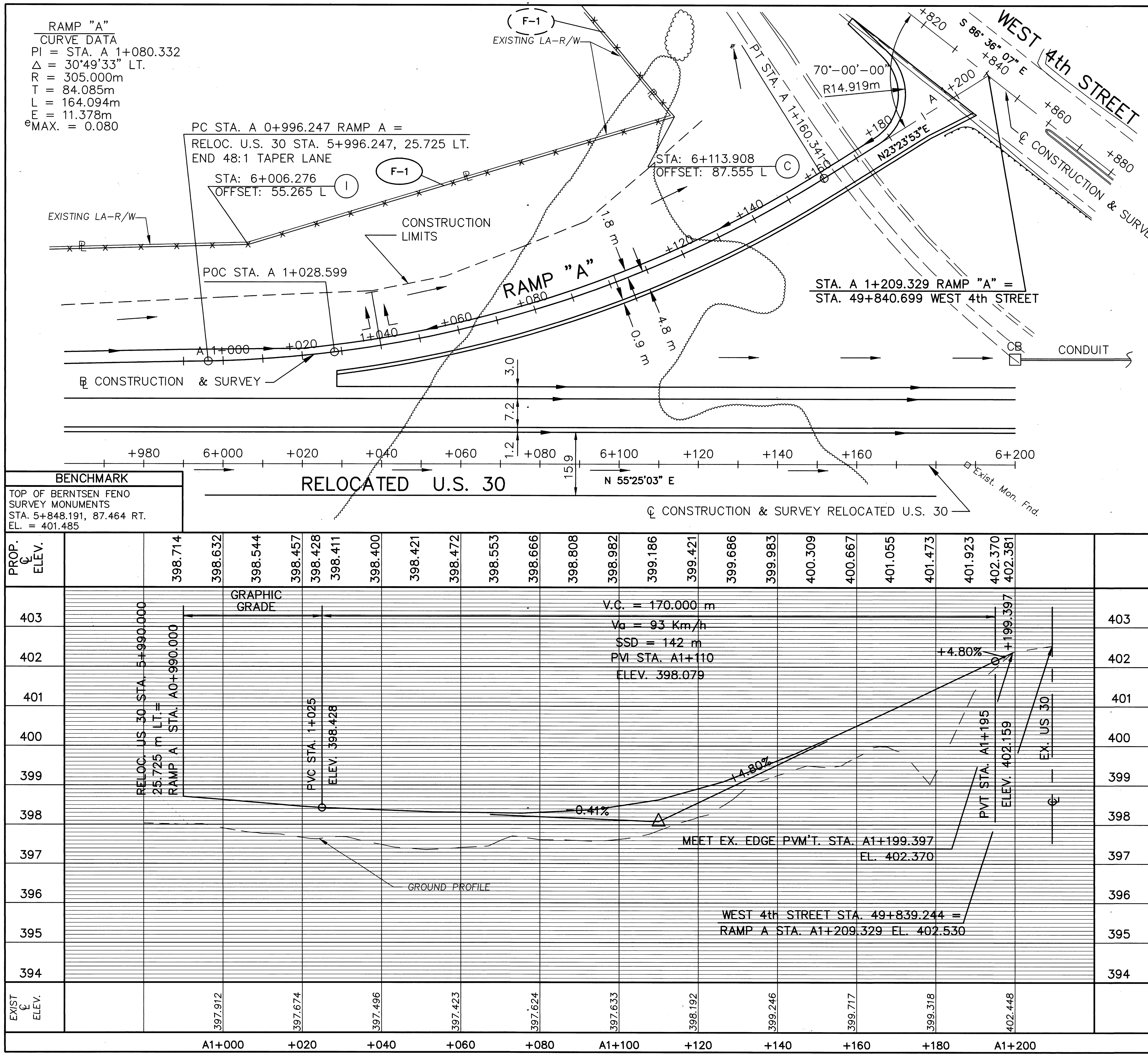
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
1.5	39.3		
		29	688
1.8	39.7		
		42	769
2.4	37.2		
		52	761
2.8	38.9		
		122	683
9.4	29.4		
		233	541
		478	3442

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – S.R. 61 RAMP L
STA. L 4+500 TO STA. L 4+577.420

CRA/RIC-30-33.500/0.000

GX304RL.DWG
08-16-2000 8:05 AM
1:100M



GP300RA.DWG
03-8-1999 1:35 PM
1:500M

NOTES:

1. FOR UNDERDRAINS QUANTITIES SEE SHEETS 496
2. FOR FENCE LEGEND SEE SHEET 94
3. FOR SUPERELEVATION TABLES SEE SHEET 463
4. FOR RAMP INTERSECTION DETAILS SEE SHEET 481

metric units

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	607 FENCE TYPE 47 METER
F-1	LT	6+006.278	6+113.908	112.4
TOTALS CARRIED TO SUB SUMMARY				112.4

RATIO 1:500
HORIZONTAL SCALE IN METERS

CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE RAMP "A"
STA. A 0+990.000 TO STA. A 1+209.311

CRA/RIC-30-33.500/0.000

286/712

NOTES:

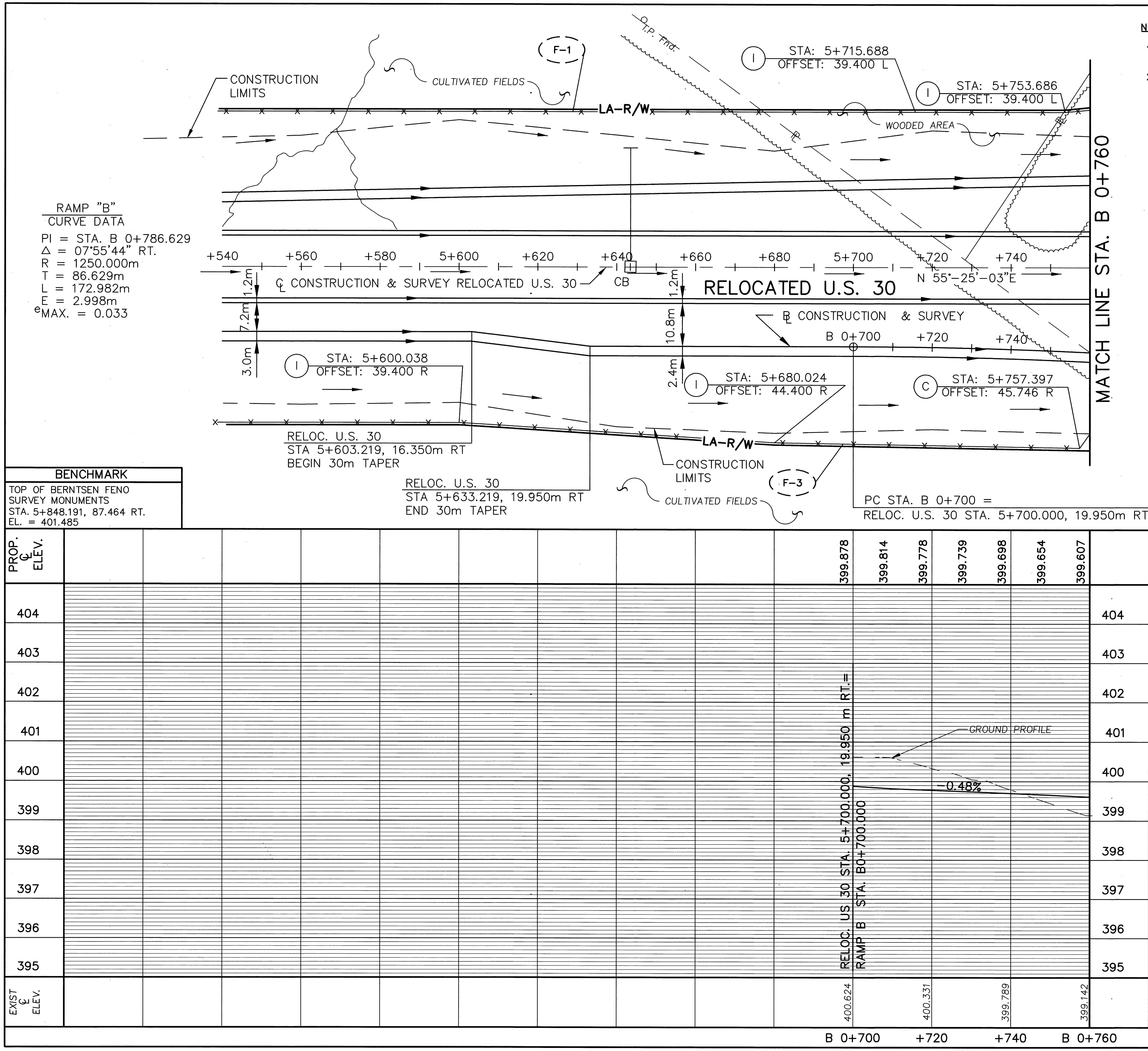
1. FOR SUPERELEVATION TABLES SEE SHEET 463.
2. FOR RAMP TERMINAL DETAILS SEE SHEET 478.

metric units

RAMP "B" CURVE DATA

PI = STA. B 0+786.629
Δ = 07°55'44" RT.
R = 1250.000m
T = 86.629m
L = 172.982m
E = 2.998m
eMAX. = 0.033

BENCHMARK
TOP OF BERNTSEN FENO SURVEY MONUMENTS
STA. 5+848.191, 87.464 RT.
EL. = 401.485



GP300RB.DWG
03-8-1999 1:44 PM
1:500M

ESTIMATED QUANTITIES				
REF. No.	SIDE	STATION FROM	STATION TO	
				TOTALS CARRIED TO SUB SUMMARY

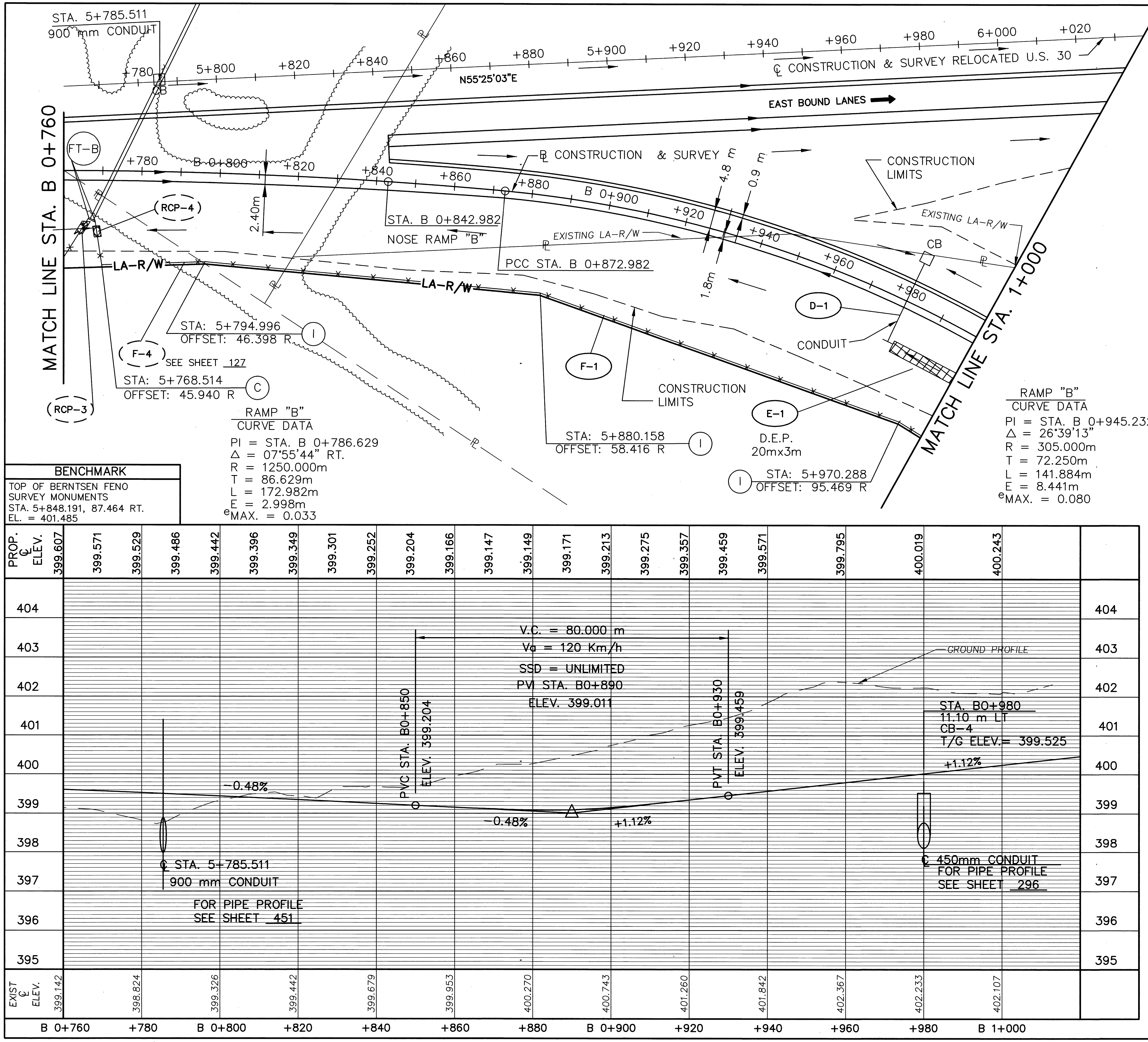
RATIO 1:500
0 5 10
HORIZONTAL SCALE IN METERS

CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE RAMP "B"
STA. B 0+700 TO STA. B 0+760

CRA/RIC-30-33.500/0.000

287
712



metric units

NOTES:

1. FOR UNDERDRAINS QUANTITIES SEE SHEET 496
2. FOR FENCE LEGEND SEE SHEET 94
3. FOR SUPERELEVATION TABLES SEE SHEET 463
4. FOR RAMP TERMINAL DETAILS SEE SHEET 478

— INDICATES D.E.P.

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	602 CONCRETE MASONRY (C.M.)	603 450mm CONDUIT TYPE A (METER)	604 CATCH BASIN NO.5 (EACH)	607 FENCE TYPE 47 (METER)	670 DITCH EROSION PROTECTION (S.M.)
E-1	RT	B 0+980	B 1+000					60
D-1	LT/RT	B 0+980		0.28	21.80	1		
F-1	RT	5+830	B 1+000				154	
TOTALS CARRIED TO SUB SUMMARY				0.28	21.80	1	154	60

RATIO 1:500
HORIZONTAL SCALE IN METERS
0 5 10 20

CALCULATED W.J.S.
CHECKED C.R.M.

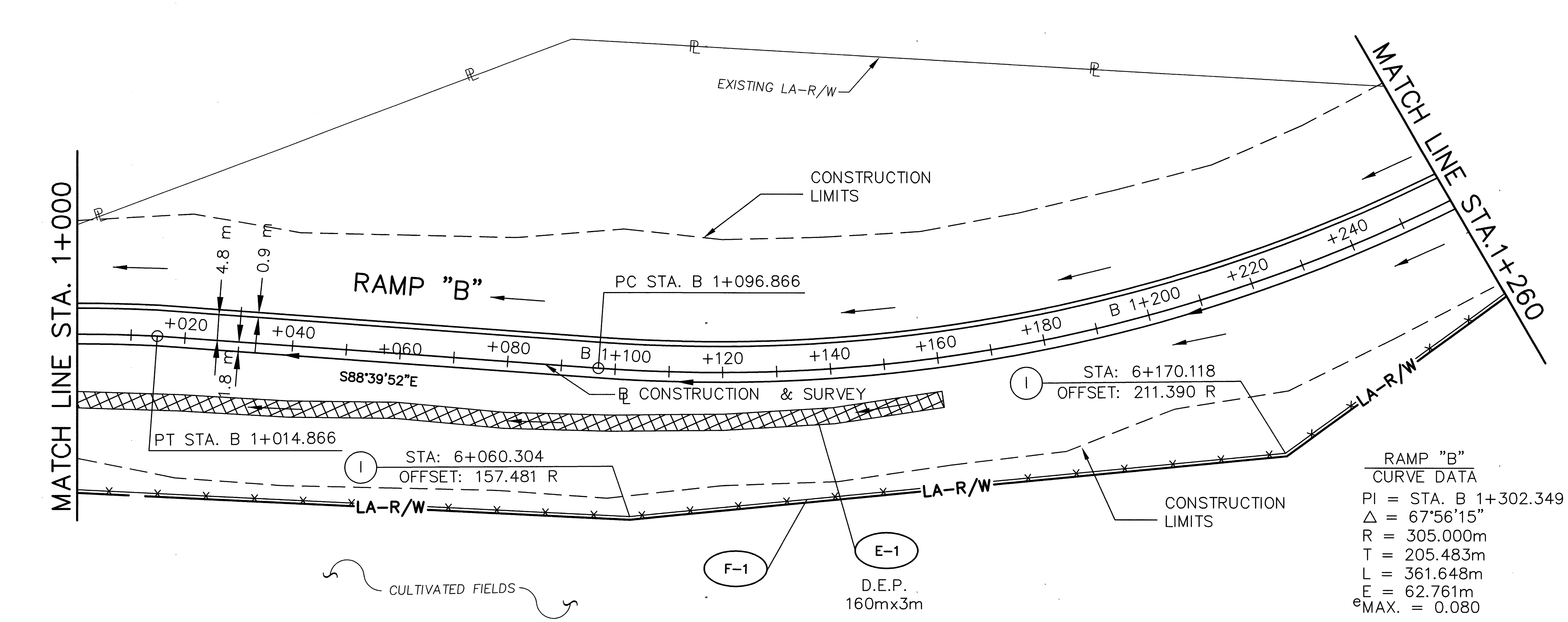
PLAN AND PROFILE RAMP "B" STA. B 0+760 TO STA. B 1+000

CRA/RIC-30-33.500/0.000

NOTES:

1. FOR UNDERDRAINS QUANTITIES SEE SHEET 496 .
2. FOR FENCE LEGEND SEE SHEET 94 .
3. FOR SUPERELEVATION TABLES SEE SHEET 463 .

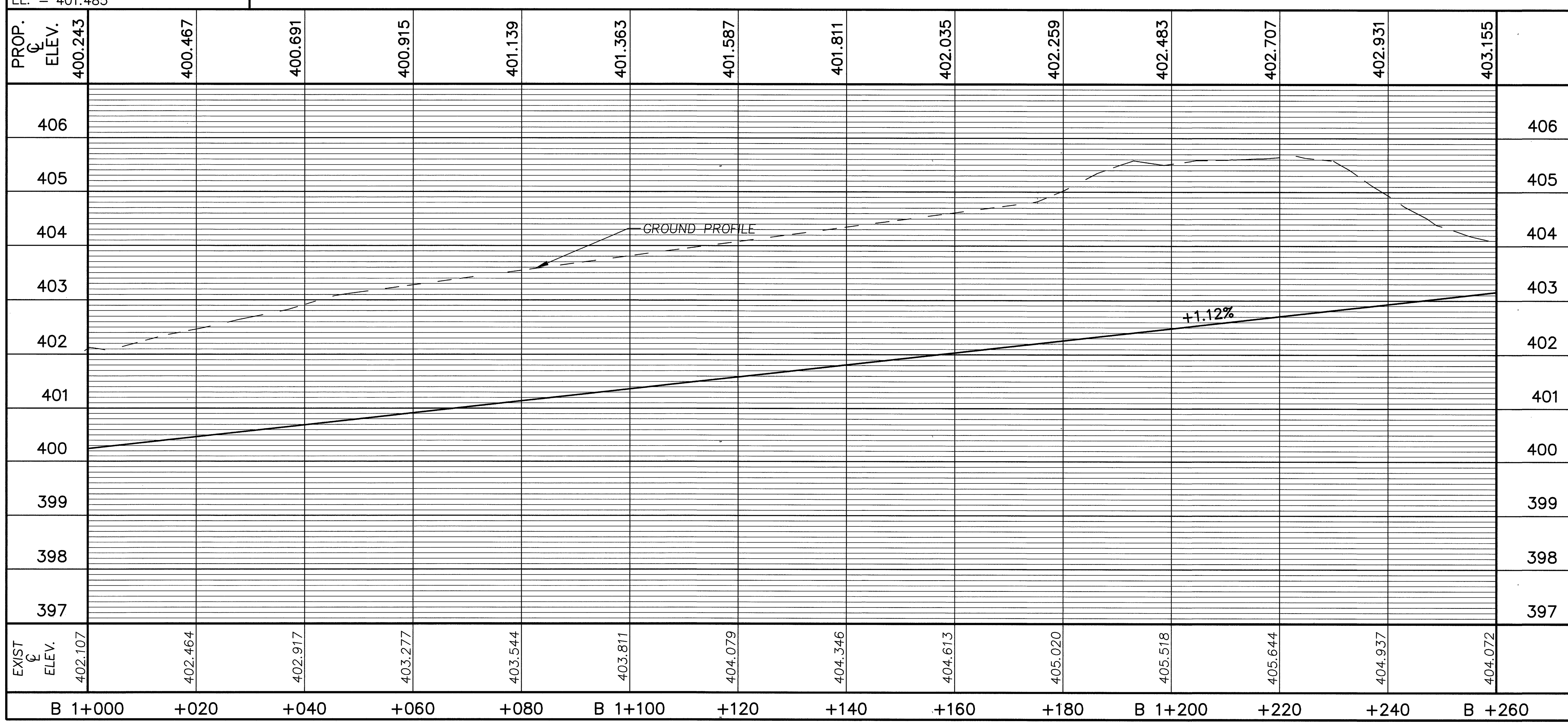
metric units



RAMP "B"
CURVE DATA
PI = STA. B 1+302.349
Δ = 67°56'15"
R = 305.000m
T = 205.483m
L = 361.648m
E = 62.761m
eMAX. = 0.080

— INDICATES D.E.P.

BENCHMARK
TOP OF BERNTSEN FENO SURVEY MONUMENTS
STA. 5+848.191, 87.464 RT.
EL. = 401.485



ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	607 FENCE TYPE 47 METER	670 DITCH EROSION PROTECTION S.M.
E-1	RT	B 1+000	B 1+160		480
F-1	RT	B 1+000	B 1+260	275.20	
TOTALS CARRIED TO SUB SUMMARY				275.20	480

N

RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

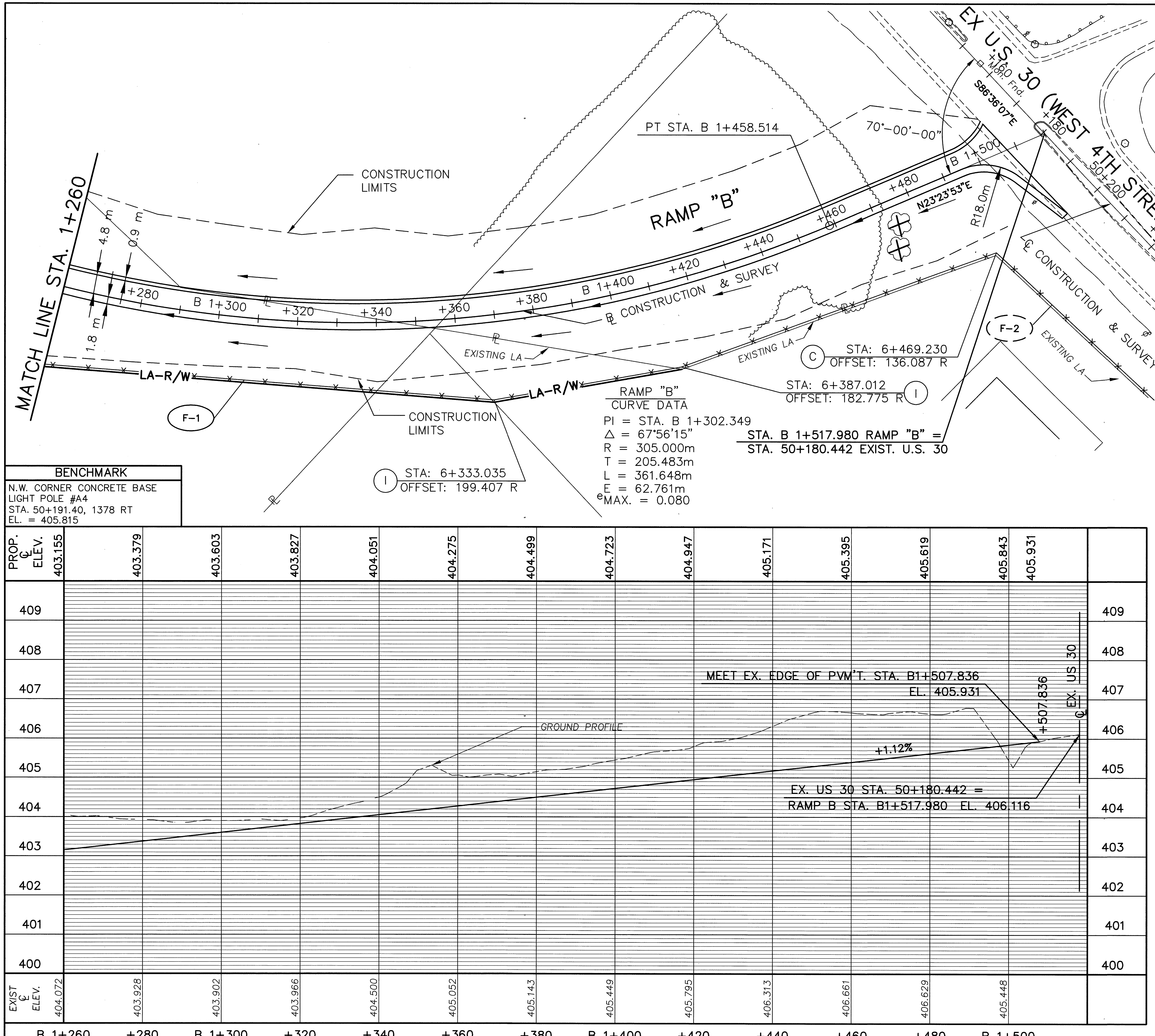
CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE RAMP "B"
STA. B 1+000 TO STA. B 1+260

CRA/RIC-30-33.500/0.000

289
712

GP302RB.DWG
03-8-1999 2:25 PM
1:500M



metric units

NOTES:

1. FOR UNDERDRAINS QUANTITIES SEE SHEET 496
2. FOR FENCE LEGEND SEE SHEET 94
3. FOR SUPERELEVATION TABLES SEE SHEET 463
4. FOR RAMP INTERSECTION DETAIL SEE SHEET 481

RATIO 1:500
HORIZONTAL SCALE IN METERS

CALCULATED W.J.S.
CHECKED C.R.M.

ESTIMATED QUANTITIES

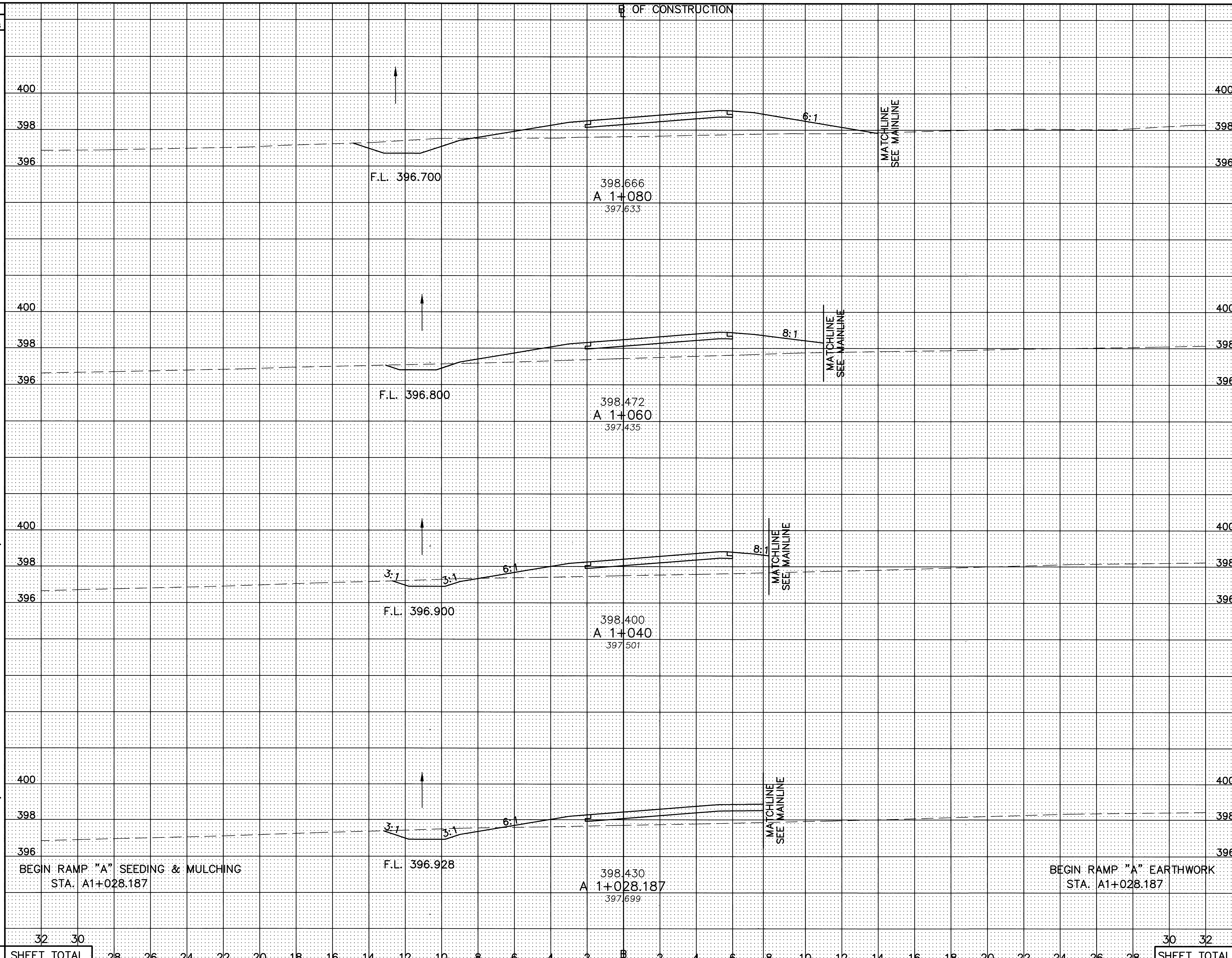
REF. No.	SIDE	STATION FROM	STATION TO	607 FENCE TYPE 47 METER
F-1	RT	B 1+260	6+469.230	248
TOTALS CARRIED TO SUB SUMMARY				248

PLAN AND PROFILE RAMP "B"
STA. B 1+260 TO STA. B 1+517.980

CRA/RIC-30-33.500/0.000

290
712

GP303RB.DWG
03-8-1999 3:11 PM
1:500M



SEEDING END WIDTH	SEEDING SQ. METERS
24.5	
	440
19.5	
	355
16.0	
	189
16.0	
SHEET TOTAL	984

STATION	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
A 1+080	2.9	15.0		
			38	296
A 1+060	0.9	14.6		
			21	247
A 1+040	1.2	10.1		
			19	99
A 1+028.187	2.1	6.7		
			0	0
SHEET TOTAL			78	642

CALCULATED CRM CHECKED WJS

CROSS-SECTIONS – EX. U.S. 30 RAMP A
STA. A 1+028.187 TO STA. A 1+080

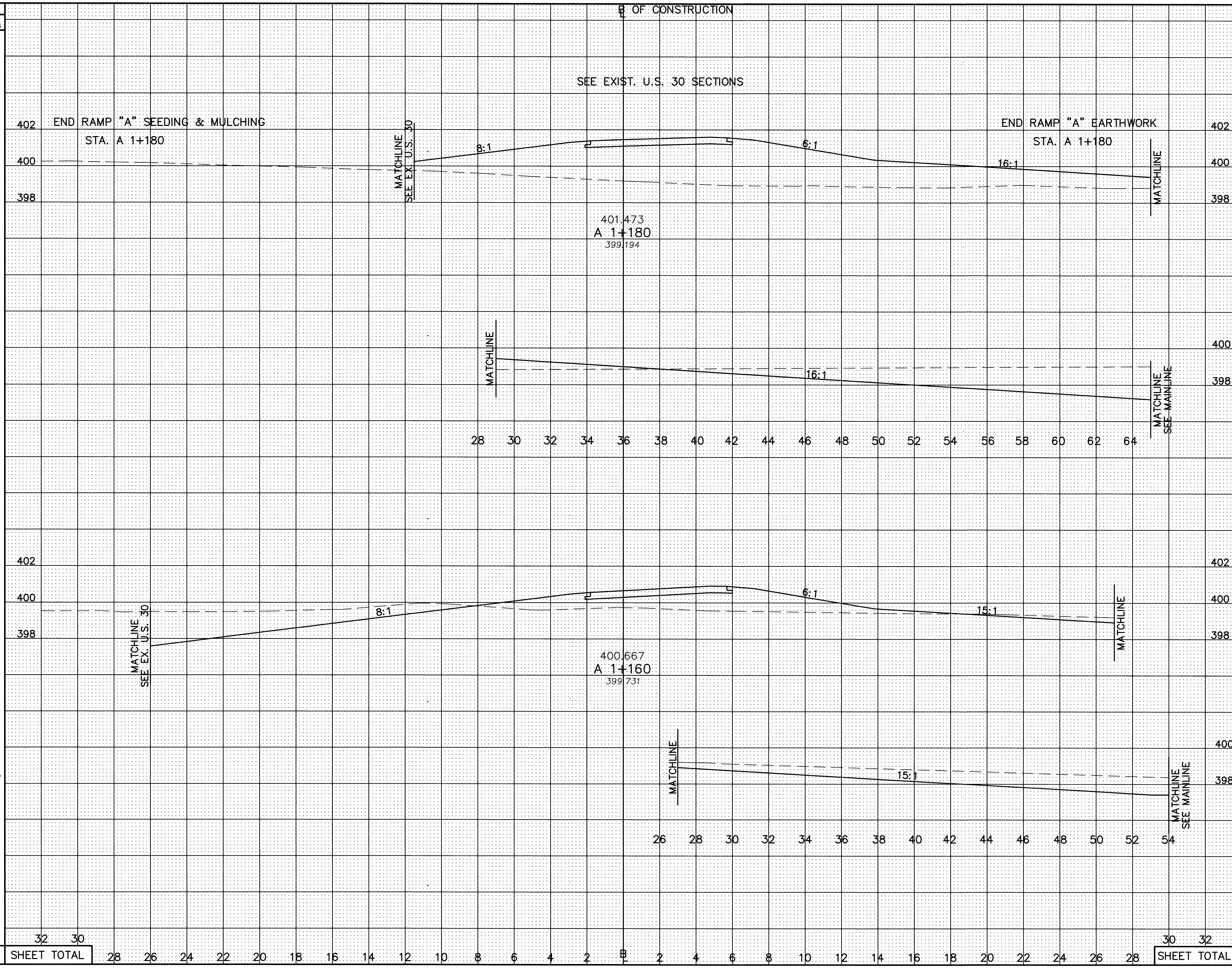
CRA/RIC-30-33.500/0.000

291/712

GX300RA.DWG
02-15-1999 10:33 AM
1:100M

SEEDING
END WIDTH
SQ. METERS
63.0
1080
45.0
775
32.5
570
2425
SHEET TOTAL
℄ OF CONSTRUCTION
402
400
398
396
6:1
14:1
MATCHLINE
399.983
A 1+140
399.205
F.L. 396.400
MATCHLINE SEE MAINLINE
26 28 30 32 34 36 38 40
3:1
13:1
399.421
A 1+120
398.177
F.L. 396.500
11:1
398.982
A 1+100
397.639
F.L. 396.600
32 30
28 26 24 22 20 18 16 14 12 10 8 6 4 2 ℄ 2 4 6 8 10 12 14 16 18 20 22 24 26 28
30 32
END AREA
CUT
FILL
61.3
11.4
21.0
17.2
4.5
22.8
VOLUME
823
286
255
400
74
378
1152
1064
CALCULATED CRM
CHECKED WJS
CROSS-SECTIONS - EX. U.S. 30 RAMP A
STA. A 1+100 TO STA. A 1+140
CRA/RIC-30-33.500/0.000
292
712
GX301RA.DWG
02-15-1999 3:03 PM
SXSEC63A 1:100M

SEEDING	
END WIDTH	SQ. METERS
69.0	
	1445
75.5	
	1385
	2830



END AREA		VOLUME	
CUT	FILL	CUT	FILL
24.4	63.2		
		604	796
36.0	16.4		
		973	278
		1577	1074

CALCULATED CRM
CHECKED WJS

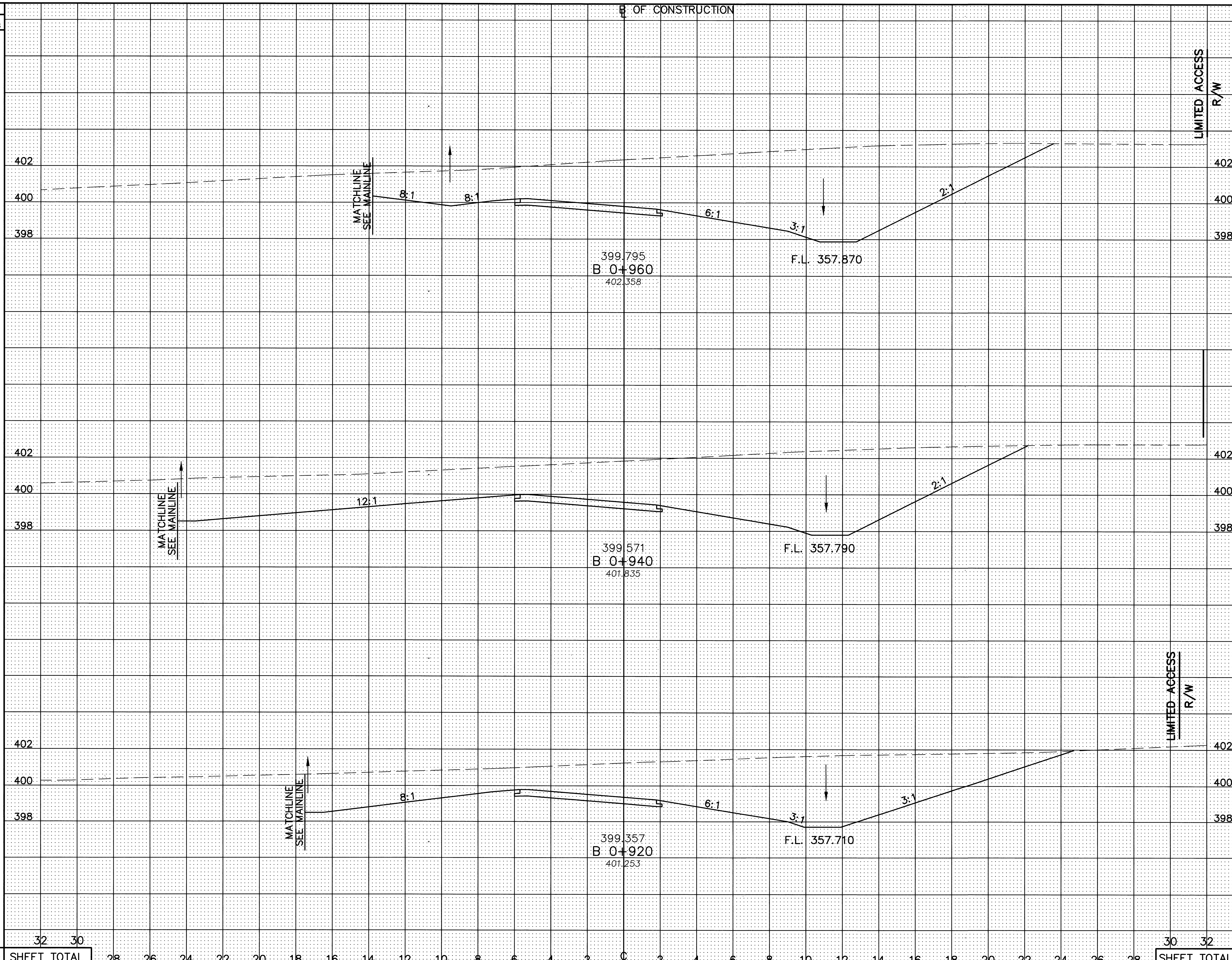
CROSS-SECTIONS – EX. U.S. 30 RAMP A
STA. A 1+160 TO STA. A 1+180

CRA/RIC-30-33.500/0.000

GX302RA.DWG
02-15-1999 3:07 PM
SXSEC64A 1:100M

GX300RB.DWG
02-15-1999 3:01 PM
SXSEC64B 1:100M

SEEDING	
END WIDTH	SQ. METERS
33.0	
	750
42.0	
	795
37.5	
	675
	2220



END AREA		VOLUME	
CUT	FILL	CUT	FILL
107.0	0		
		2228	0
115.8	0		
		2076	0
91.8	0		
		1556	0
		5860	0

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – EX. U.S. 30 RAMP B
STA. B 0+920 TO STA. B 0+960

CRA/RIC-30-33.500/0.000

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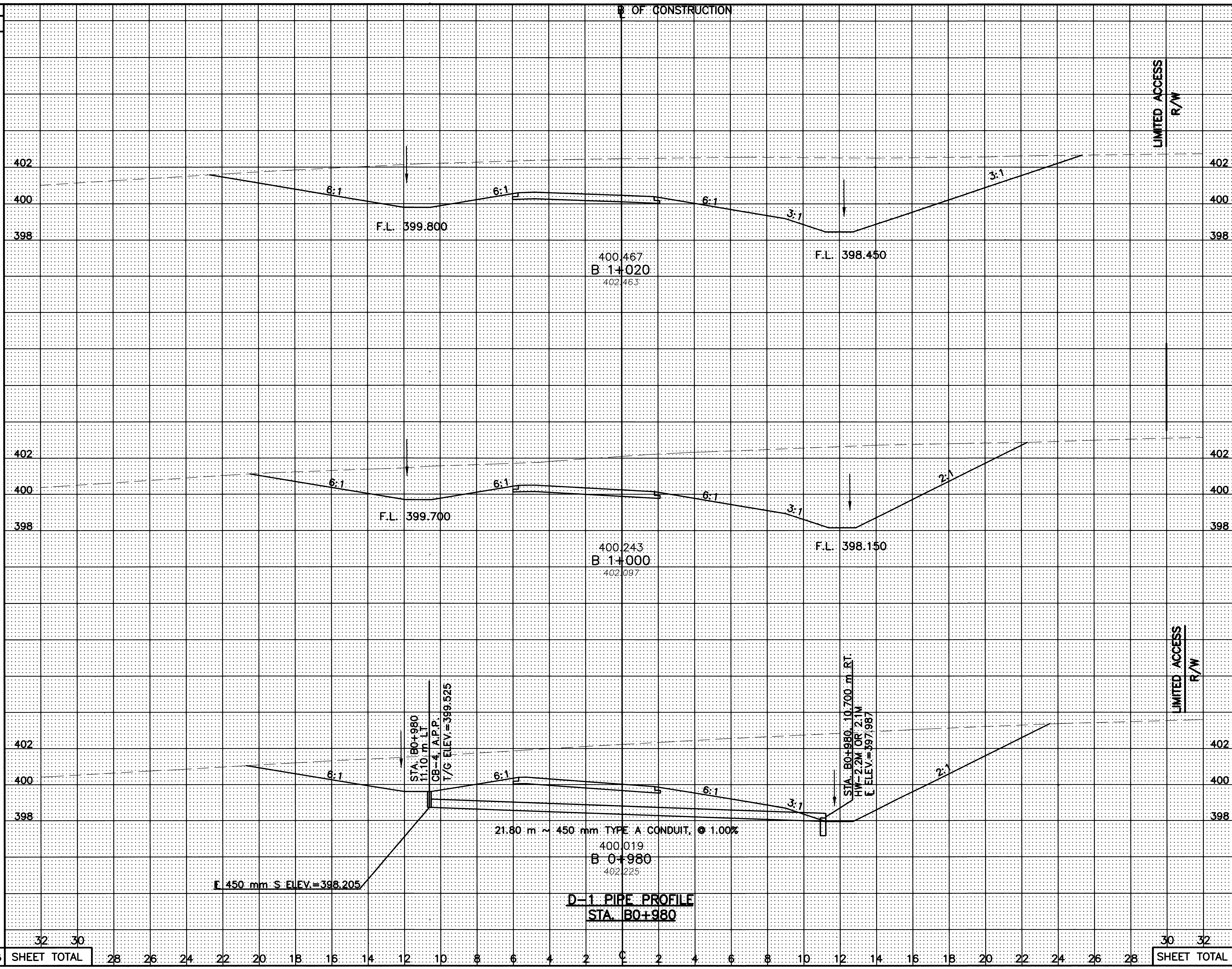
02-15-1999 3:05 PM
1:100M



SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
46.5		102.5	0		
	880			1932	0
41.5		90.7	0		
	845			1947	0
43.0		104.0	0		
	760			2110	0
	2485			5989	0

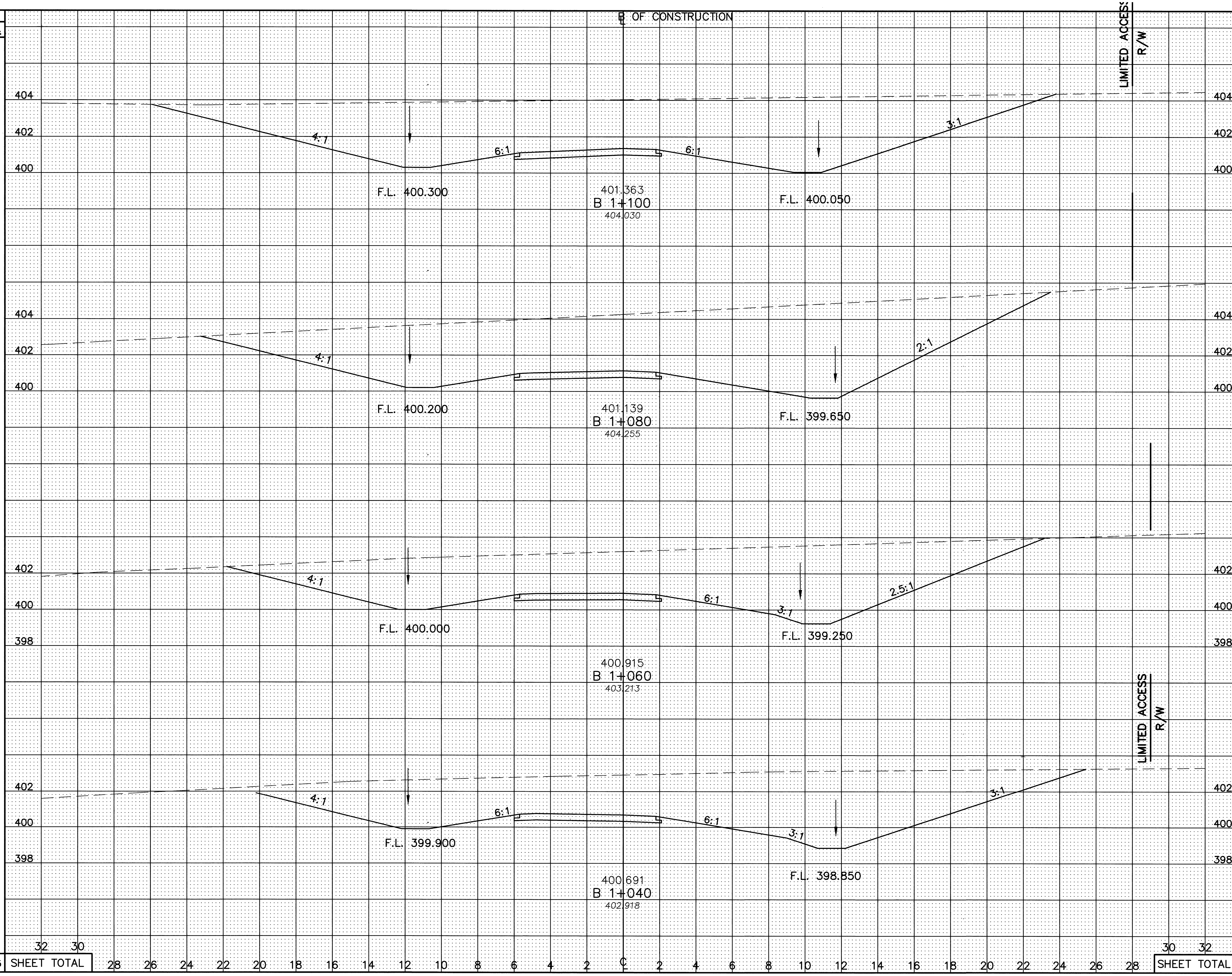
CALCULATED CRM CHECKED WJS

CROSS-SECTIONS – EX. U.S. 30 RAMP B
STA. B 0+980 TO STA. B 1+020

CRA/RIC-30-33.500/0.000

296
712

GX302RB.DWG
08-16-2000 8:07 AM
1:100M



SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
48.0		127.4	0		
	930			2673	0
45.0		139.9	0		
	885			2482	0
43.5		108.3	0		
	875			2195	0
44.0		111.2	0		
	905			2137	0
SHEET TOTAL	3595	SHEET TOTAL		9487	0

CALCULATED CRM CHECKED WJS

CROSS-SECTIONS – EX. U.S. 30 RAMP B
STA. B 1+040 TO STA. B 1+100

CRA/RIC-30-33.500/0.000

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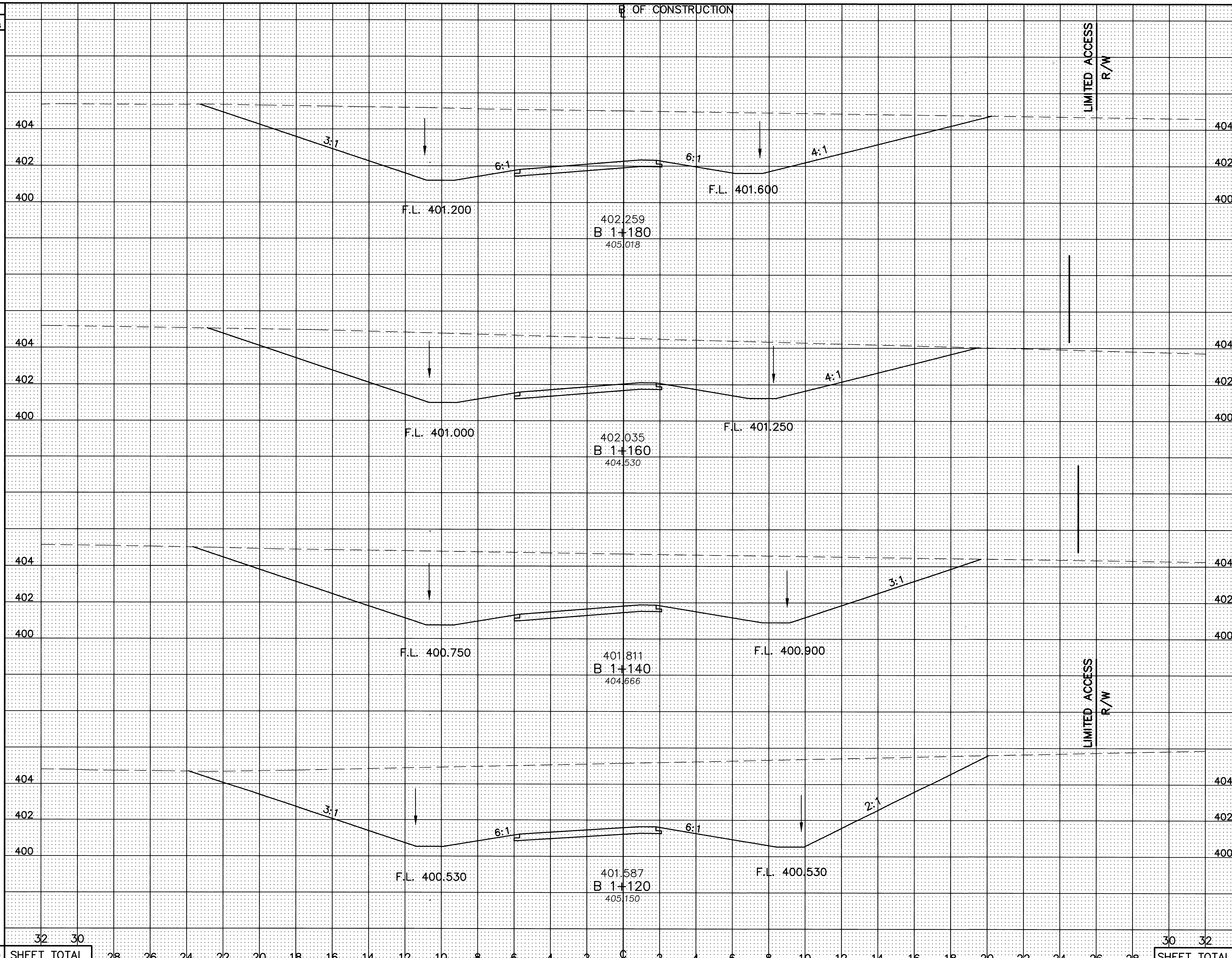
02-15-1999 3:09 PM
1:100M

SEEDING	
END WIDTH	SQ. METERS
42.0	
	830
41.0	
	830
42.0	
	840
42.0	
	900
	3400



END AREA		VOLUME	
CUT	FILL	CUT	FILL
107.6	0		
		2072	0
99.6	0		
		2140	0
114.4	0		
		2547	0
140.3	0		
		2677	0
		9436	0

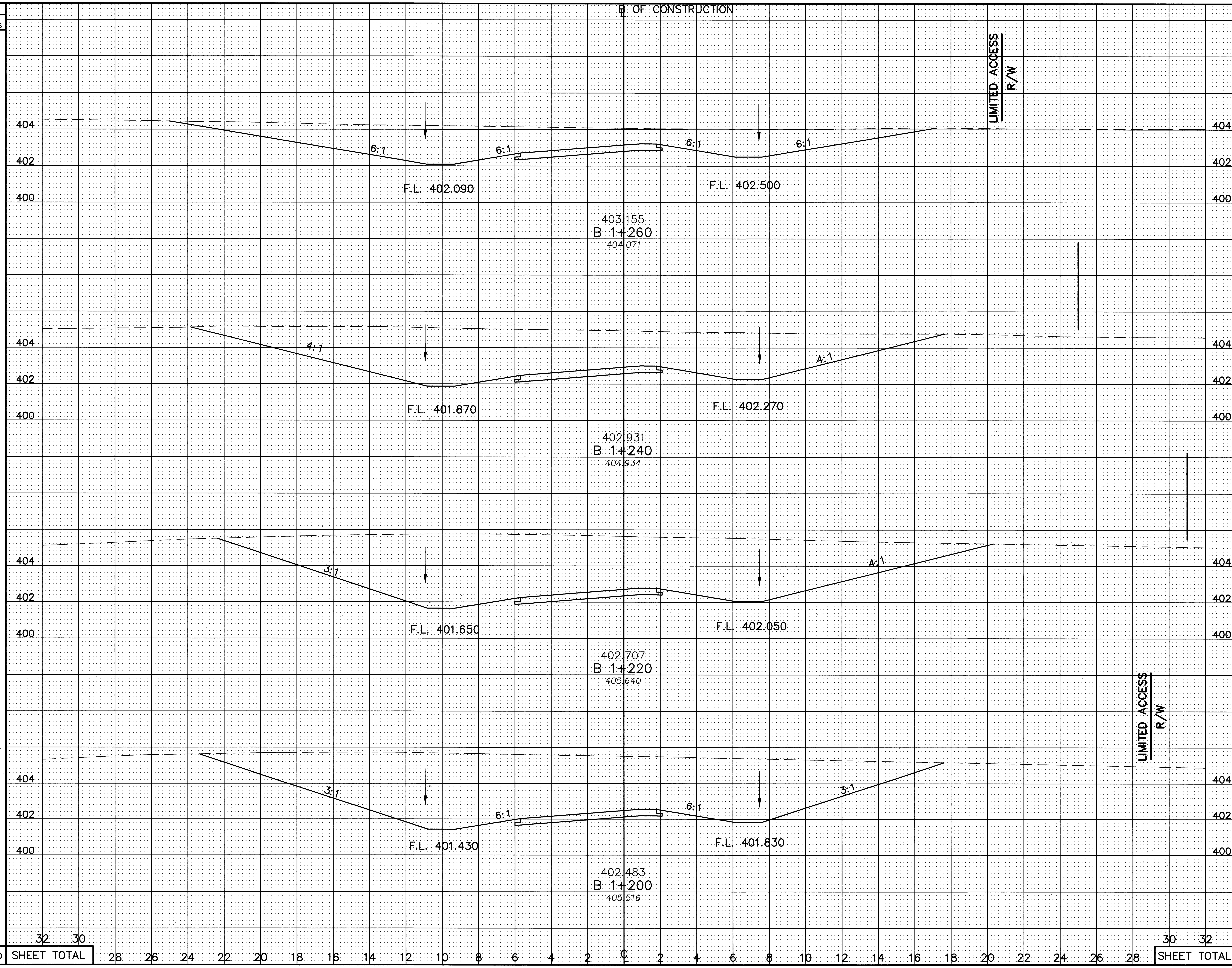
CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – EX. U.S. 30 RAMP B
STA. B 1+120 TO STA. B 1+180

CRA/RIC-30-33.500/0.000

298/712

GX304RB.DWG
02-24-1999 10:17 AM
1:100M



SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
41.0		50.3	0		
	810			1323	0
40.0		82.0	0		
	810			1987	0
41.0		116.7	0		
	805			2285	0
39.5		111.8	0		
	815			2194	0
	3240			7789	0

CALCULATED CRM
CHECKED WJS

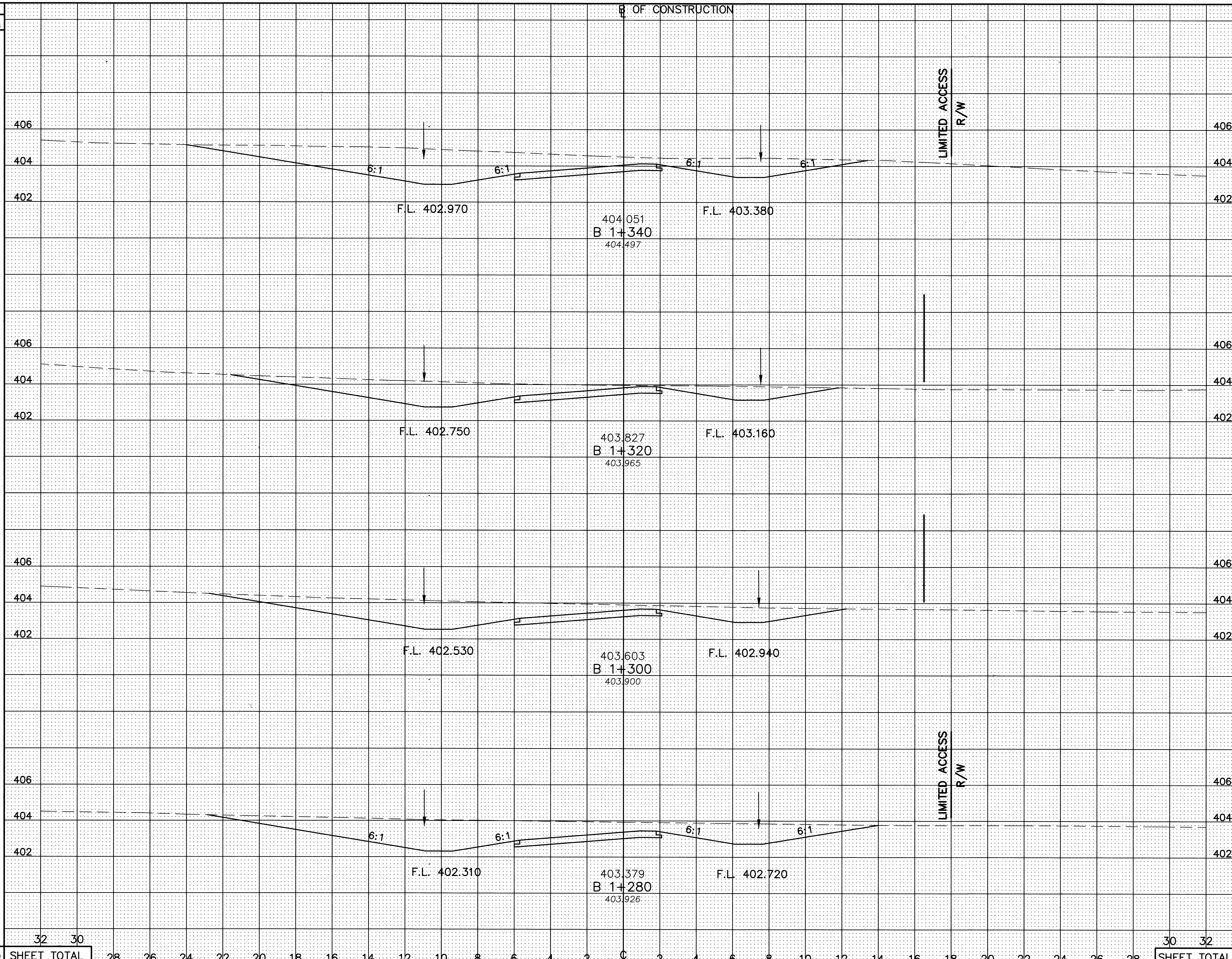
CROSS-SECTIONS – EX. U.S. 30 RAMP B
STA. B 1+200 TO STA. B 1+260

CRA/RIC-30-33.500/0.000

299
712

GX305RB.DWG
02-15-1999 3:11 PM
1:100M

SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
36.0		37.4	0		
	680			604	0
32.0		23.0	0		
	655			510	0
33.5		28.0	0		
	695			633	0
36.0		35.3	0		
	770			856	0
SHEET TOTAL	2800			2603	0



CALCULATED	CHECKED
CRM	WJS

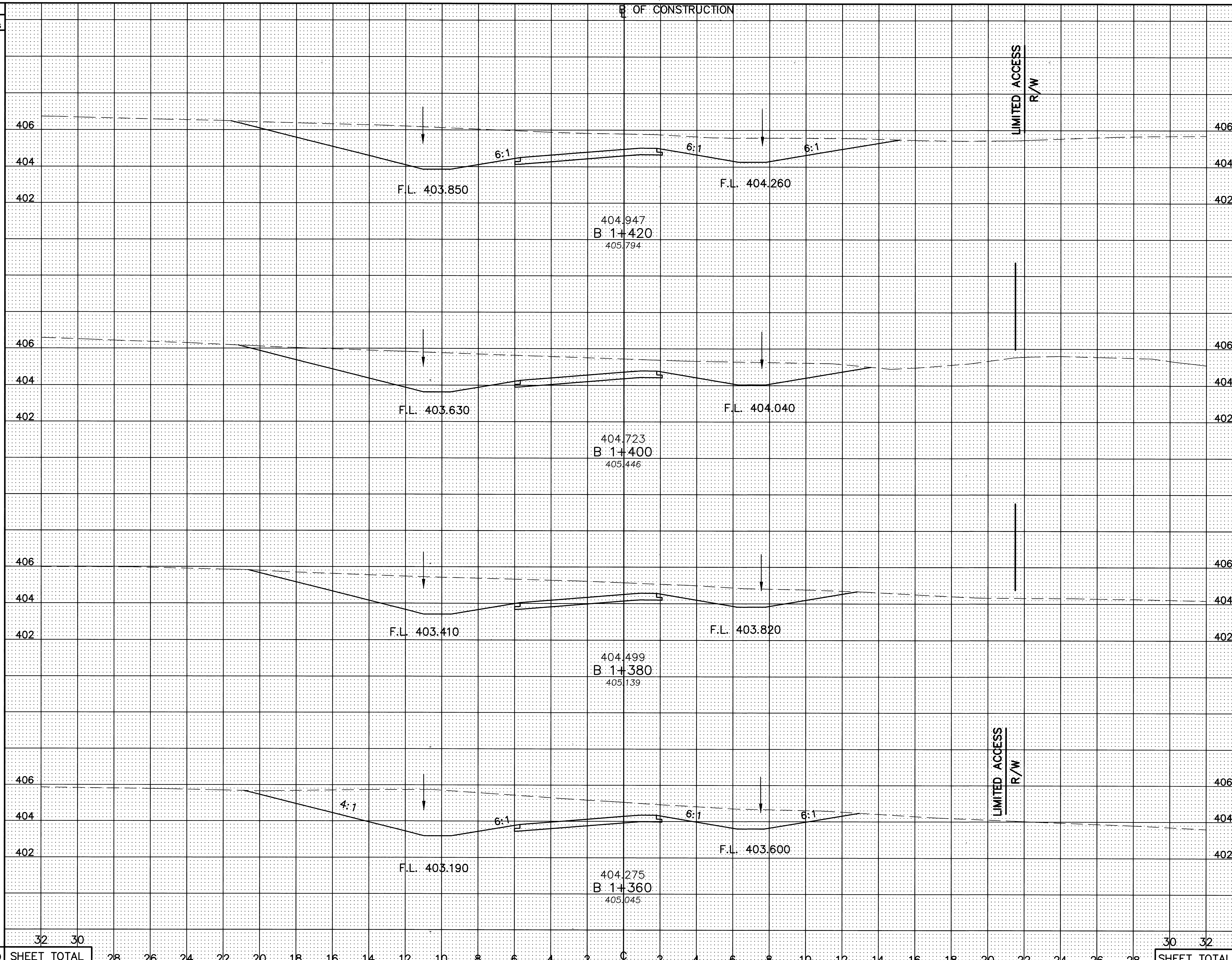
CROSS-SECTIONS – EX. U.S. 30 RAMP B
STA. B 1+280 TO STA. B 1+340

CRA/RIC-30-33.500/0.000

300/712

GX306RB.DWG
02-15-1999 3:16 PM
1:100M

SEEDING	
END WIDTH	SQ. METERS
37.0	
	705
33.5	
	655
32.0	
	645
32.5	
	685
	2690



END AREA		VOLUME	
CUT	FILL	CUT	FILL
45.0	0		
		854	0
40.4	0		
		782	0
37.8	0		
		806	0
42.8	0		
		802	0
		3244	0

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – EX. U.S. 30 RAMP B
STA. B 1+360 TO STA. B 1+420

CRA/RIC-30-15.948/0.000

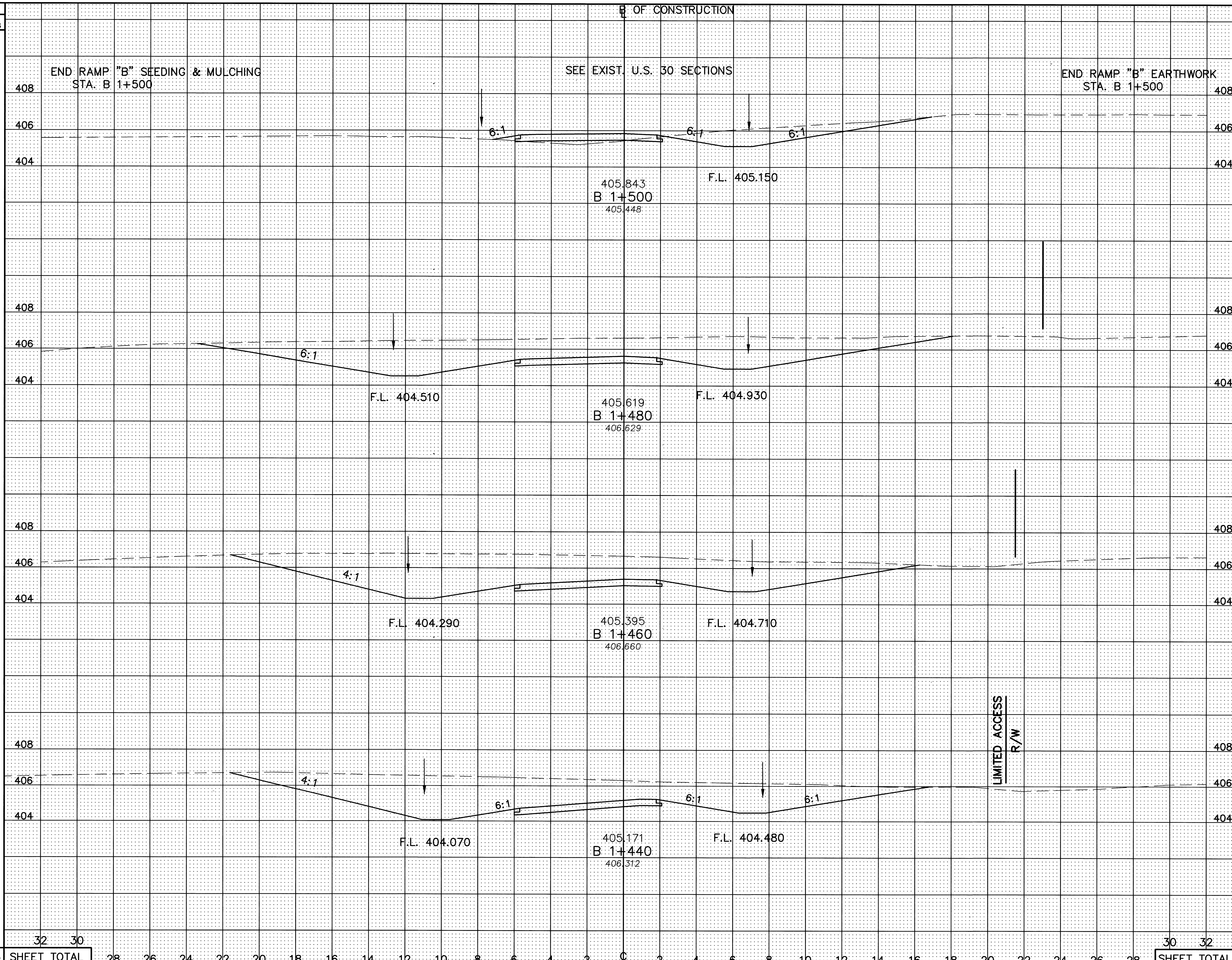
301/712

GX307RB.DWG
02-24-1999 10:28 AM
1:100M

CROSS-SECTIONS – EX. U.S. 30 RAMP B
STA. B 1+440 TO STA. B 1+500

CRA/RIC-30-33.500/0.000

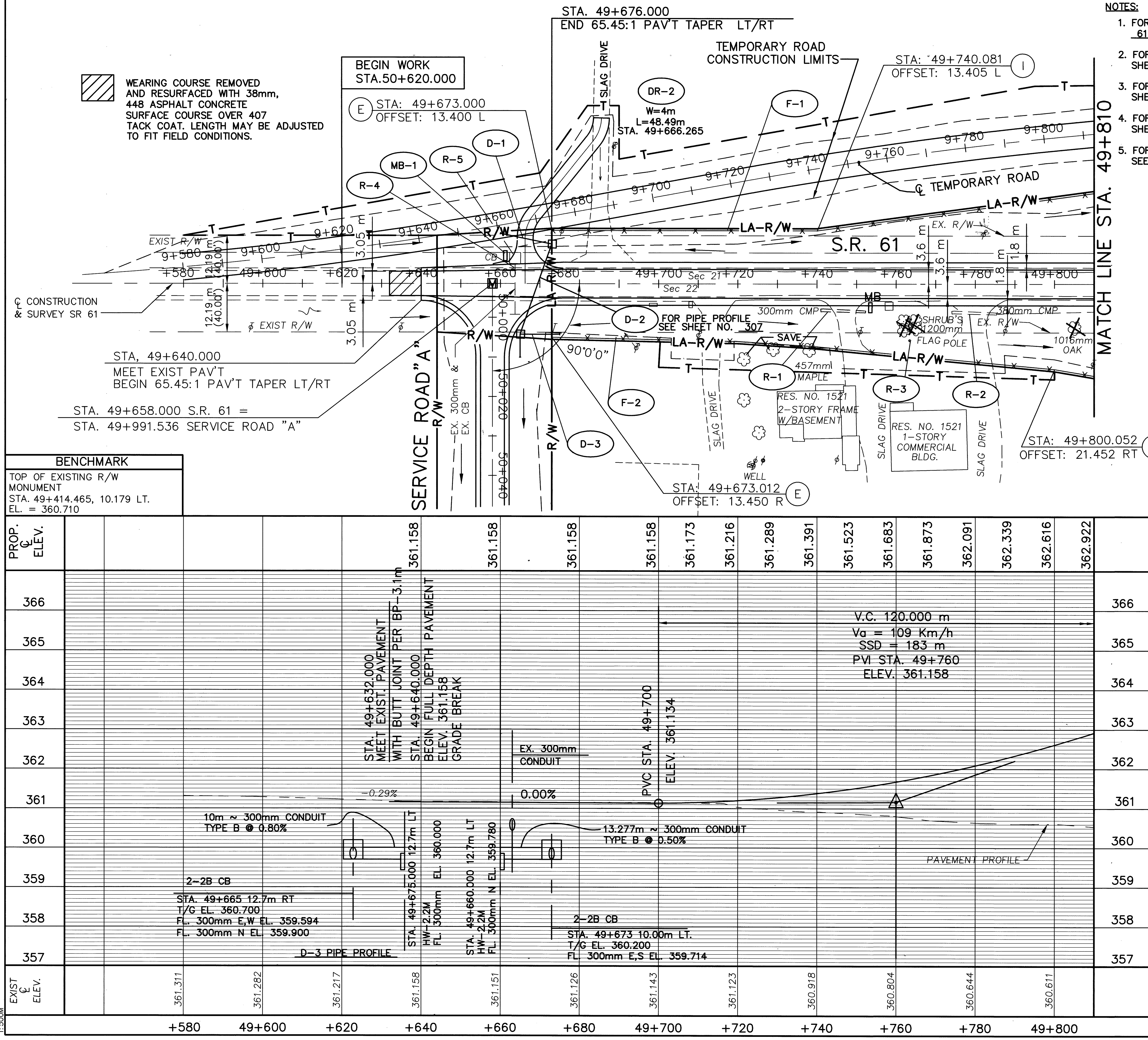
SEEDING END WIDTH	SEEDING SQ. METERS	STATION	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
22.5		B 1+500	10.3	0.2		
	625				604	2
40.0		B 1+480	50.1	0		
	765				1056	0
36.5		B 1+460	55.5	0		
	735				1098	0
37.0		B 1+440	54.3	0		
	740				993	0
SHEET TOTAL	2865				3751	2



CALCULATED CRM
CHECKED WJS

GX308RB.DWG
02-24-1999 10:31 AM
1:100M

WEARING COURSE REMOVED AND RESURFACED WITH 38mm, 448 ASPHALT CONCRETE SURFACE COURSE OVER 407 TACK COAT. LENGTH MAY BE ADJUSTED TO FIT FIELD CONDITIONS.



BENCHMARK
TOP OF EXISTING R/W MONUMENT STA. 49+414.465, 10.179 LT. EL. = 360.710

NOTES:

1. FOR ℄ MON. LOCATIONS SEE SHEETS 617–618.
2. FOR DRIVEWAY DETAILS & QUANTITIES SEE SHEETS 493–495.
3. FOR TEMPORARY ROAD P & P SEE SHEETS 31–35.
4. FOR SERVICE ROAD "A" P & P SEE SHEETS 418–422.
5. FOR INTERSECTION DETAILS SEE SHEET 482.
6. FOR AGGREGATE LOCATIONS SEE SHEET 68.
7. FOR FENCE LEGENDS SEE SHEET 94.

metric units

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	202 PIPE REMOVED 600mm AND UNDER (METER)	202 REMOVAL MISC. FLAG POLE (EACH)	SPEC. MAILBOX ASSEMBLY SYSTEM SINGLE (EACH)	604 CATCH BASIN 2-2B (EACH)	603 300mm CONDUIT TYPE B (METER)	603 300mm CONDUIT TYPE A (METER)	603 300mm CONDUIT TYPE B (METER)	607 FENCE TYPE 47 (METER)	202 CATCH BASIN REMOVED (EACH)	602 CONCRETE MASONRY (C.M.)
R-1	RT	49+741	49+752.3	11.3									
R-2	RT	49+774	49+785.4	11.4									
R-3	RT	49+763.6			1								
R-4	LT/RT	49+663		14.4									
R-5	LT	49+663										1	
MB-1	LT	49+661				1							
D-1	LT	49+660	49+673				1	13.277					0.17
D-2	LT/RT	49+673	49+665				1		24.068				
D-3	RT	49+665	49+675							10			0.17
F-1	LT	49+673	49+810								137.54		
F-2	RT	49+673	49+810								137.43		
TOTALS CARRIED TO SUB SUMMARY				37.1	1	1	2	13.277	24.068	10	274.97	1	0.34

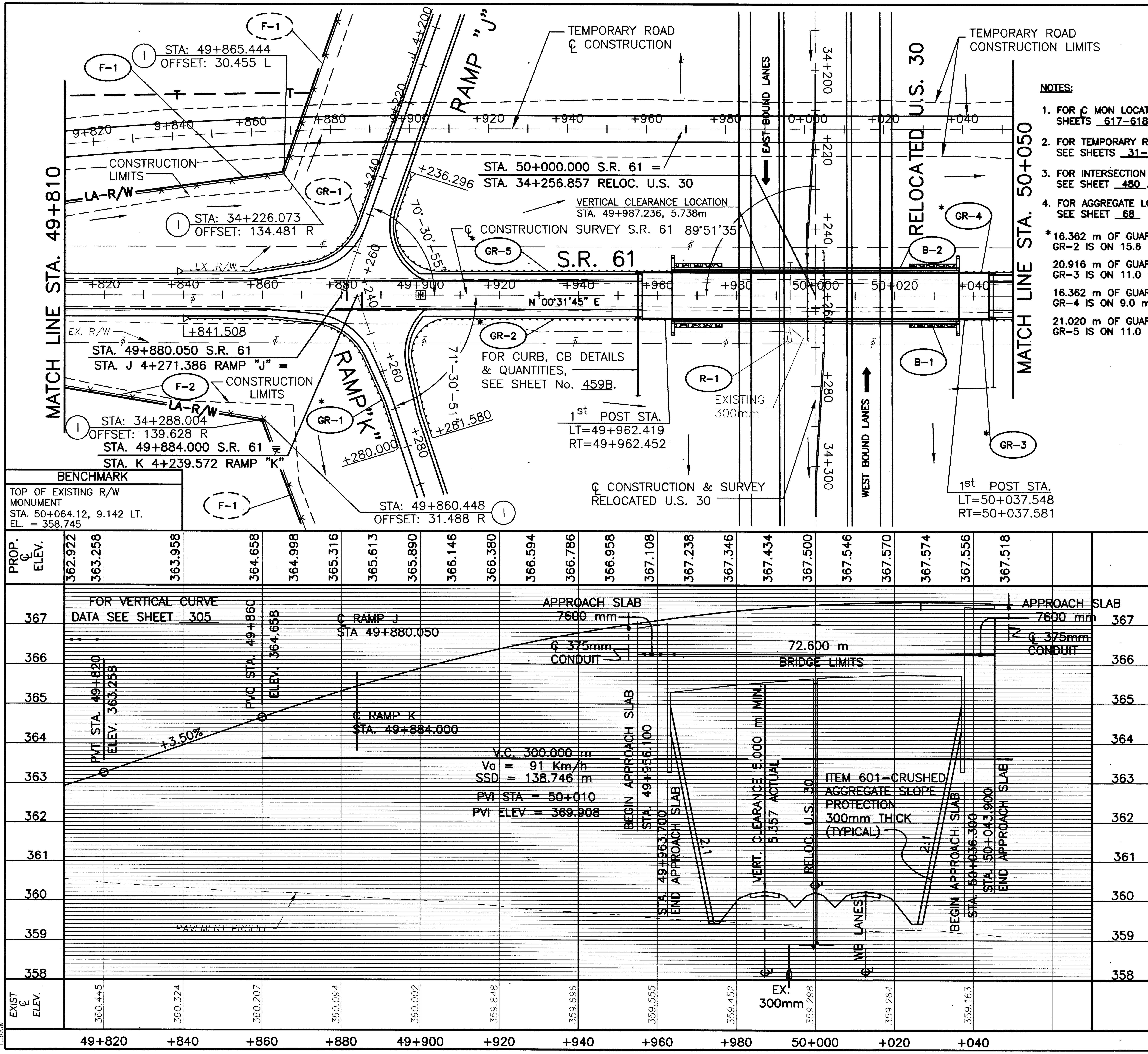
RATIO 1:500
HORIZONTAL SCALE IN METERS

CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE – S.R. 61
STA. 49+570 TO STA. 49+810

CRA/RIC-30-33.500/0.000

GP500S61.DWG 04-16-1999 11:07 AM 1:500M



NOTES:

1. FOR ℄ MON LOCATIONS SEE SHEETS 617-618.
2. FOR TEMPORARY ROAD P & P SEE SHEETS 31-35.
3. FOR INTERSECTION DETAILS SEE SHEET 480.
4. FOR AGGREGATE LOCATIONS SEE SHEET 68.

*16.362 m OF GUARDRAIL GR-2 IS ON 15.6 m RADIUS

20.916 m OF GUARDRAIL GR-3 IS ON 11.0 m RADIUS

16.362 m OF GUARDRAIL GR-4 IS ON 9.0 m RADIUS

21.020 m OF GUARDRAIL GR-5 IS ON 11.0 m RADIUS

PROPOSED STRUCTURE

TYPE: 2 SPAN CONTINUOUS A572M PAINTED STEEL GIRDER BRIDGE w/COMPOSITE REINF. CONC. DECK ON CAP & COLUMN PIER AND INTEGRAL ABUTMENTS
SPANS: 36 000, 36 000 c/c BEARINGS
ROADWAY: 12 000 T/T PARAPETS
DESIGN LOADING: MS18 CASE II & ALTERNATE MILITARY LOADING
SKEW: 00°-08'-25" R.F.
ALIGNMENT: TANGENT
WEARING SURFACE: MONOLITHIC CONCRETE
APPROACH SLABS: 7600 (AS-1-81M)
CROWN: 0.016
LATITUDE: N40°-45'-45"
LONGITUDE: W82°-44'-45"
STRUCTURE FILE NO: 1701886

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	202 PIPE REMOVED 600mm AND UNDER (METER)	606 ANCHOR ASSEMBLY TYPE E-98 (EACH)	606 ANCHOR ASSEMBLY TYPE T (EACH)	606 BRIDGE TERMINAL ASSEMBLY TYPE I (EACH)	606 GUARDRAIL TYPE 5 (METER)	607 FENCE TYPE 47 (METER)	626 BARRIER REFLECTOR TYPE A2 (EACH)	626 BARRIER REFLECTOR TYPE B2 (EACH)
R-1	LT/RT	49+993.9	49+993.4	17.3							
GR-1	RT	49+841.508	K 4+280.000		1	1		53.340		3	
GR-2	RT	K 4+281.580	49+964.357			1	1	91.440		4	
GR-3	RT	50+035.676	L 4+281.580		1		1	87.720		4	
GR-4	LT	50+035.430	I 4+221.330			1	1	99.060		5	
GR-5	LT	J 4+240.106	49+964.324		1		1	76.200		3	
F-1	LT	49+810	49+865.444						56		
F-2	RT	49+810	49+860.448						51.85		
B-1	RT	49+964.357	50+035.676								3
B-2	LT	49+964.324	50+035.430								3
TOTALS CARRIED TO SUB SUMMARY				17.3	3	3	4	407.760	107.85	19	6

metric units

RATIO 1:500
HORIZONTAL SCALE IN METERS

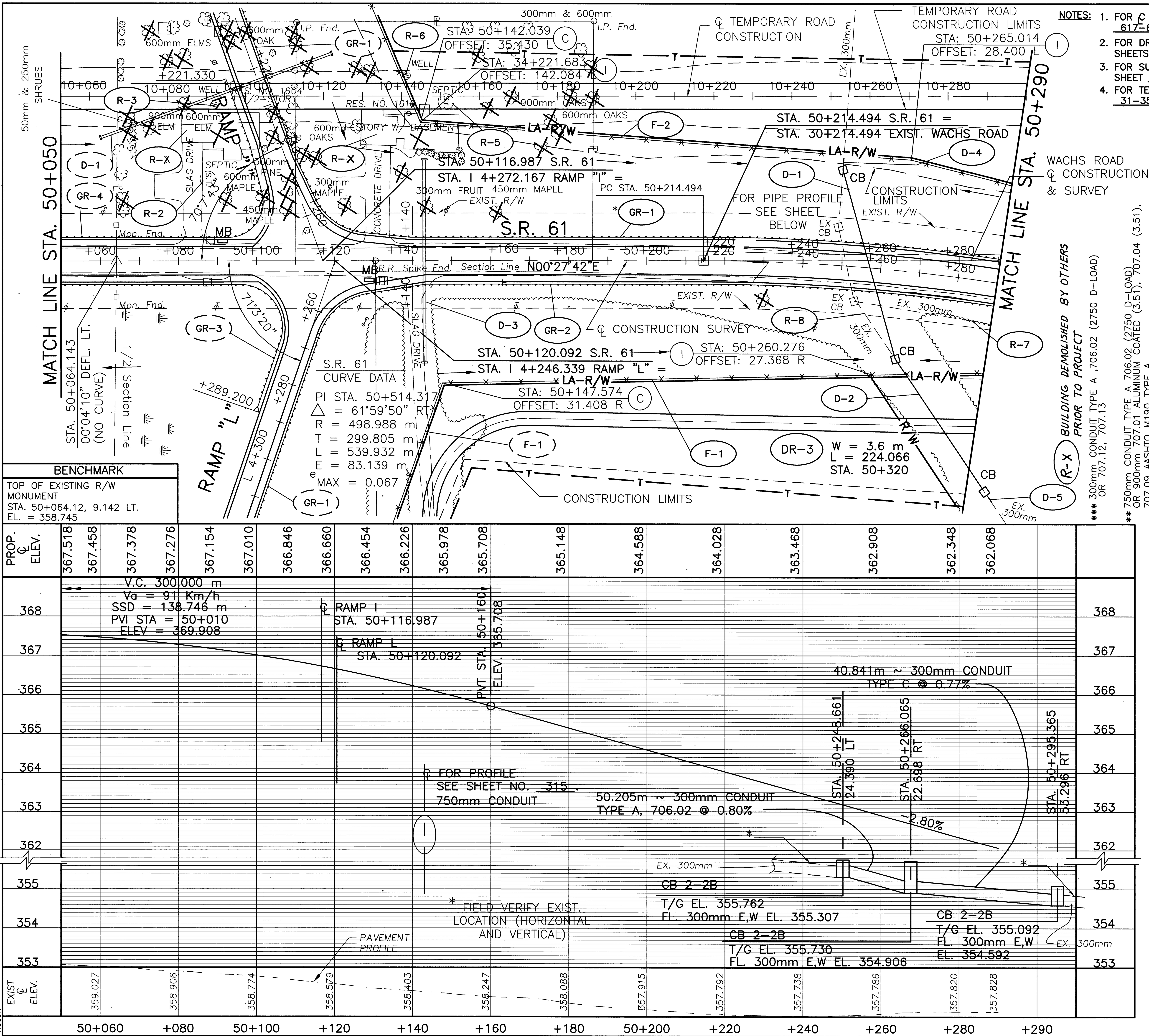
CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE - S.R. 61
STA. 49+810 TO STA. 50+050

CRA/RIC-30-33.500/0.000

304/712

GP50IS61.DWG
08-15-2000 1:04 PM
1:500M



NOTES:
1. FOR ℄ MON. LOCATIONS SEE SHEETS 617-618
2. FOR DRIVEWAY DETAILS & QUANTITIES SEE SHEETS 493-495
3. FOR SUPERELEVATION TABLES SEE SHEET 36
4. FOR TEMPORARY ROAD P & P SEE SHEETS 31-35
5. FOR INTERSECTION DETAILS SEE SHEET 480

metric units

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	202 BUILDING DEMOLISH (EACH)	202 SEPTIC TANK REMOVED (EACH)	SPEC. DRILLED WATER WELL ABANDONED (EACH)	202 CATCH BASIN REMOVED (EACH)	202 PIPE REMOVED 600mm AND UNDER (METER)	604 CATCH BASIN 2-2B (EACH)	603 300mm CONDUIT TYPE A *** (METER)	603 300mm CONDUIT TYPE C (METER)	606 GUARDRAIL TYPE 5 (METER)	606 ANCHOR ASSEMBLY TYPE E-98 (EACH)	603 750mm CONDUIT TYPE A ** (METER)	602 CONCRETE MASONRY (METER)	607 FENCE TYPE 47 (METER)	626 BARRIER REFLECTOR TYPE A2 (EACH)
R-2	LT	50+087			1												
R-3	LT	50+090				1											
R-5	LT	50+150			1												
R-6	LT	50+140				1											
R-7	RT	50+253.867	50+290					35.50									
R-8	RT	50+248.661	50+266.065				2	34.00									
D-1	LT/RT	50+248.661	50+266.065						1	50.205							
D-2	RT	50+266.065	50+295.365						2		40.841						
D-3	LT/RT	50+143												52.3	1.04		
D-4	LT	50+248.661								2.0							
D-5	RT	50+295.365	50+297								2.0						
GR-1	LT	50+140.000	50+290									150.915					6
GR-2	RT	50+140.000	50+302.562									146.426	1				6
F-1	RT	34+288.528	50+290													138.64	
F-2	LT	50+142.039	50+290													152.76	
TOTALS CARRIED TO SUB SUMMARY					2	2	2	69.50	3	52.205	42.841	297.341	1	52.3	1.04	291.40	12

*** 300mm CONDUIT TYPE A ,706.02 (2750 D-LOAD) OR 707.12, 707.13

** 750mm CONDUIT TYPE A 706.02 (2750 D-LOAD) OR 900mm 707.01 ALUMINUM COATED (3.51), 707.04 (3.51), 707.09 AASHTO M190 TYPE A

R-X BUILDING DEMOLISHED BY OTHERS PRIOR TO PROJECT

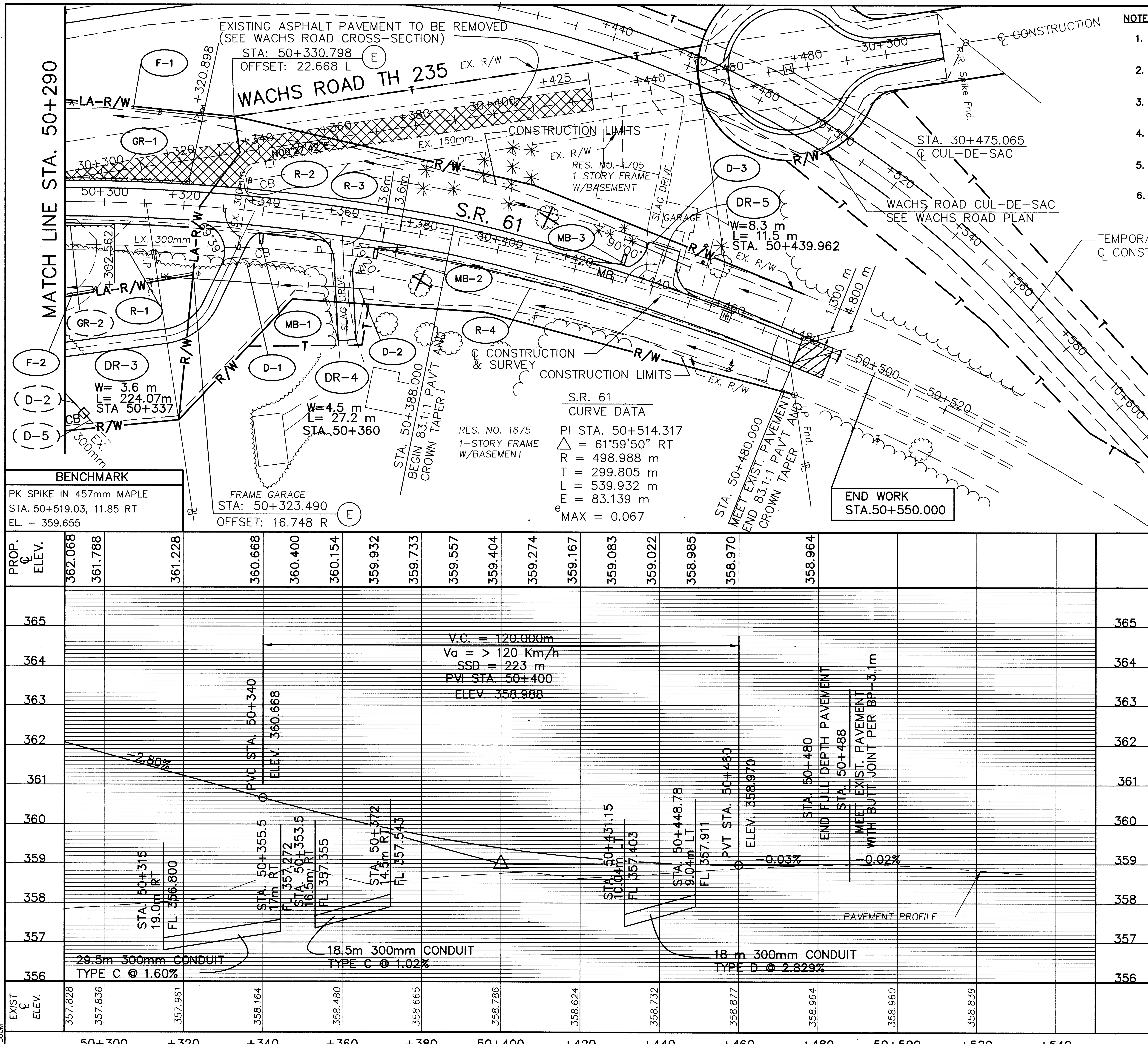
RATIO 1:500 HORIZONTAL SCALE IN METERS

CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE – S.R. 61 STA. 50+050 TO STA. 50+290

CRA/RIC-30-33.500/0.000

GP502S61.DWG 03-27-1999 8:51 AM 1:500M



NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617-610 .
2. FOR DRIVEWAY DETAILS & QUANTITIES SEE SHEETS 493-495 .
3. FOR TEMPORARY ROAD P & P SEE SHEETS 31-35 .
4. FOR SUPERELEVATION TABLE SEE SHEET 36 .
5. FOR CUL-DE-SAC DETAILS SEE SHEET 482 .
6. FOR AGGREGATE LOCATIONS SEE SHEET 68 .

WEARING COURSE REMOVED AND RESURFACED WITH 38mm, 448 ASPHALT CONCRETE SURFACE COURSE OVER 407 TACK COAT. LENGTH MAY BE ADJUSTED TO FIT FIELD CONDITIONS.

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	202 PIPE REMOVED 600mm AND UNDER (METER)	202 CATCH BASIN REMOVED (EACH)	606 GUARDRAIL TYPE 5 (METER)	606 ANCHOR ASSEMBLY TYPE E-98 (EACH)	603 300mm CONDUIT TYPE D (METER)	SPEC. MAILBOX SUPPORT SYSTEM SINGLE (EACH)	607 FENCE TYPE 47 (METER)	626 BARRIER REFLECTOR TYPE A2 (EACH)
R-1	RT	50+290	50+334	44							
R-2	LT/RT	50+334	50+335	17	2						
R-3	LT	30+336	30+452	116							
R-4	RT	50+290	30+452	143							
GR-1	LT	50+334	50+480			16.021	1				2
D-1	RT	50+315	50+344.5					29.5			
D-2	RT	50+353.5	50+372					18.5			
D-3	RT	50+431.15	50+448.78					18			
MB-1	RT	50+340							1		
MB-2	RT	50+368.01							1		
MB-3	LT	50+432.55							1		
F-1	LT	50+290	50+330.798							42.81	
F-2	RT	50+290	50+323.490							32.82	
TOTALS CARRIED TO SUB SUMMARY				320	2	16.021	1	66	3	75.63	2

metric units

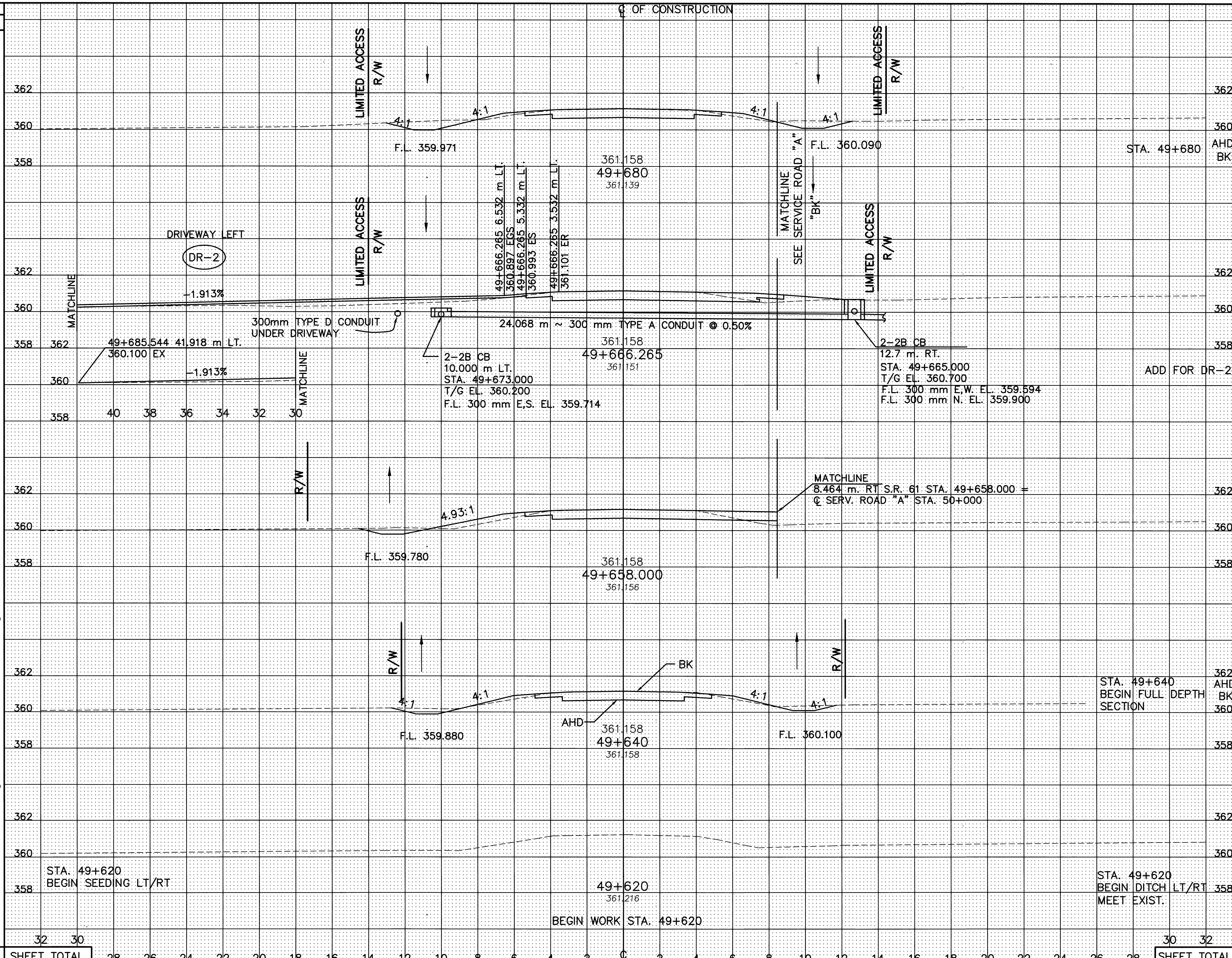
RATIO 1:500 HORIZONTAL SCALE IN METERS

CALCULATED W.J.S. CHECKED C.R.M.

PLAN AND PROFILE - S.R. 61 STA. 50+290 TO STA. 50+480

CRA/RIC-30-33.500/0.000

GP50356I.DWG 03-27-1999 7:54 AM 1:500M



SEEDING END WIDTH	SQ. METERS
21	
	363
12	
	275
18.5	
	325
14	
	963 (SHEET TOTAL)

Station		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
49+680	AHD.	6.8	0.8		
49+680	BK.	5.6	0.8		
				122	25
ADD FOR DR-2				1	8
49+658.000		5.5	1.5		
				90	21
49+640	AHD.	4.5	0.8		
49+640	BK.	1.3	0		
				13	0
49+620		0	0		
SHEET TOTAL				226	54

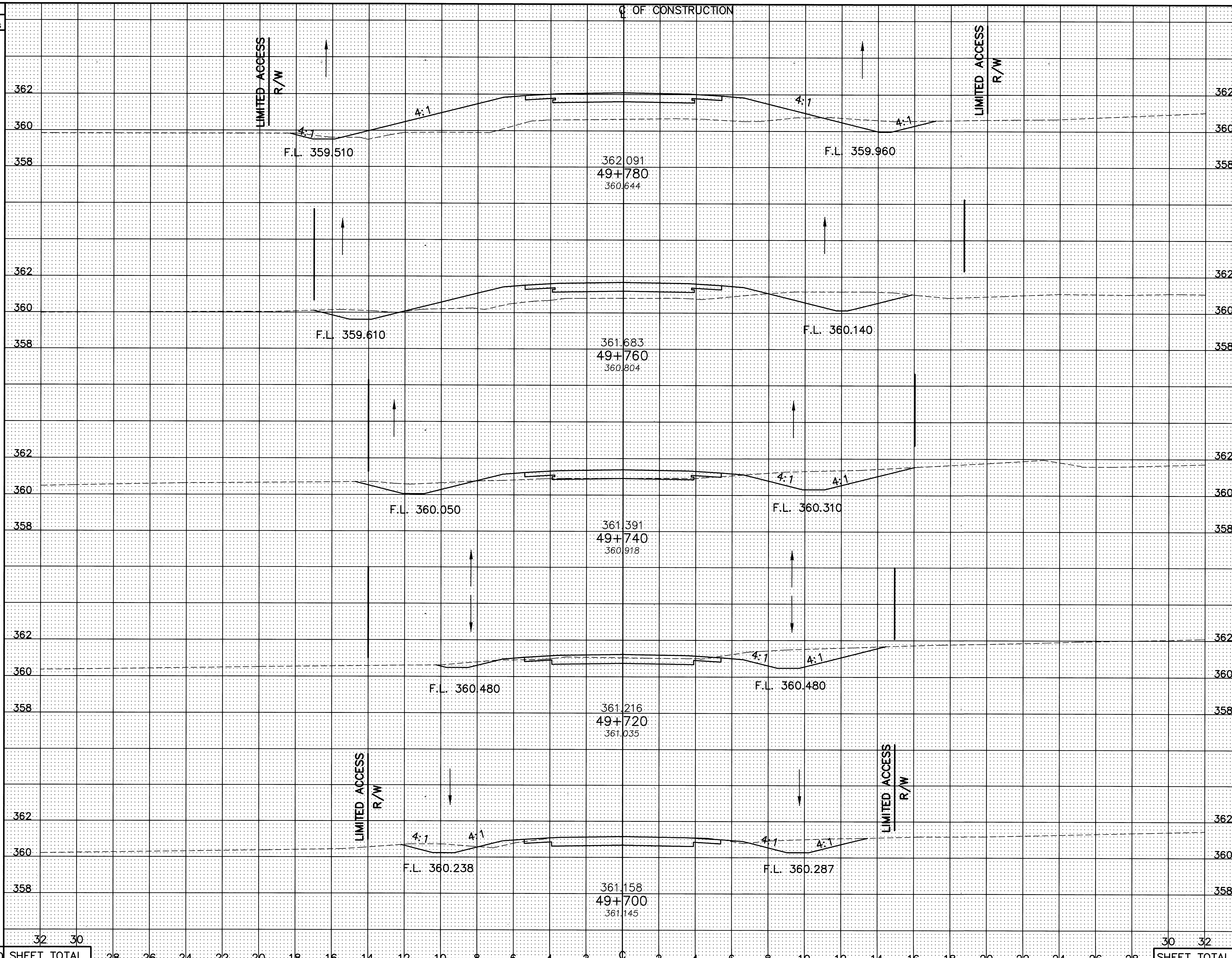
CALCULATED CRM
CHECKED WLS

CROSS-SECTIONS - S.R. 61
STA. 49+620 TO STA. 49+680

CRA/RIC-30-33.500/0.000

307/712

GX500S61.DWG 02-24-1999 10:54 AM 1:100M



SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
31		2.1	26.9		
	590			68	386
28		4.7	11.7		
	545			125	129
26.5		7.8	1.2		
	475			165	13
21		8.7	0.1		
	430			171	7
22		8.4	0.6		
	430			152	14
SHEET TOTAL	2470			681	549

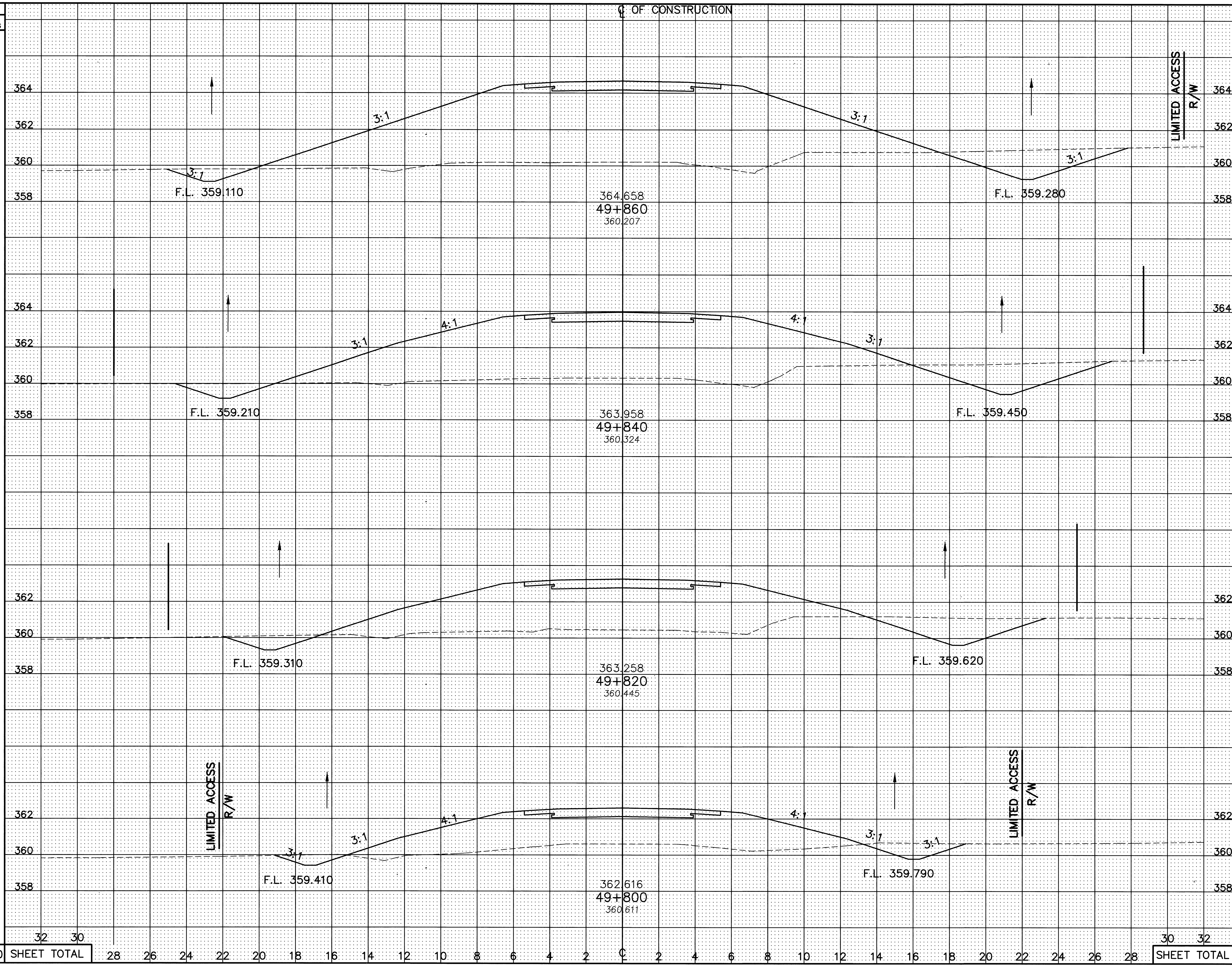
CALCULATED CRM
CHECKED WLS

CROSS-SECTIONS – S.R. 61
STA. 49+700 TO STA. 49+780

CRA/RIC-30-33.500/0.000

308
712

GX501S61.DWG
04-20-1999 10:35 AM
1:100M



SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
48		10.1	106.3		
	945			222	1890
46.5		12.1	82.7		
	870			217	1392
40.5		9.6	56.5		
	740			137	977
33.5		4.1	41.2		
	645			62	681
SHEET TOTAL	3200			638	4940

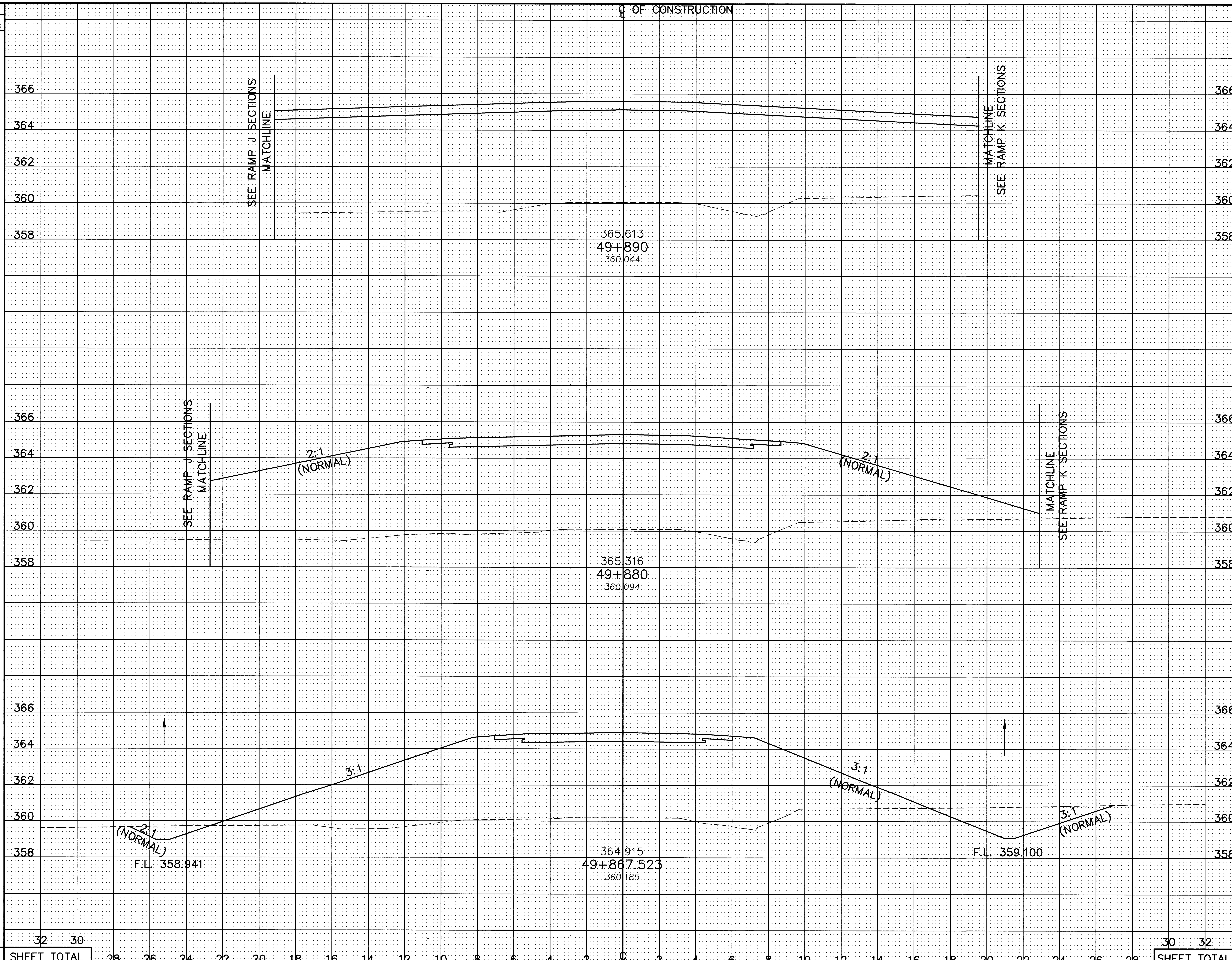
CALCULATED CRM
CHECKED WLS

CROSS-SECTIONS – S.R. 61
STA. 49+800 TO STA. 49+860

CRA/RIC-30-33.500/0.000

309
712

GX502S61.DWG
04-20-1999 10:38 AM
1:100M



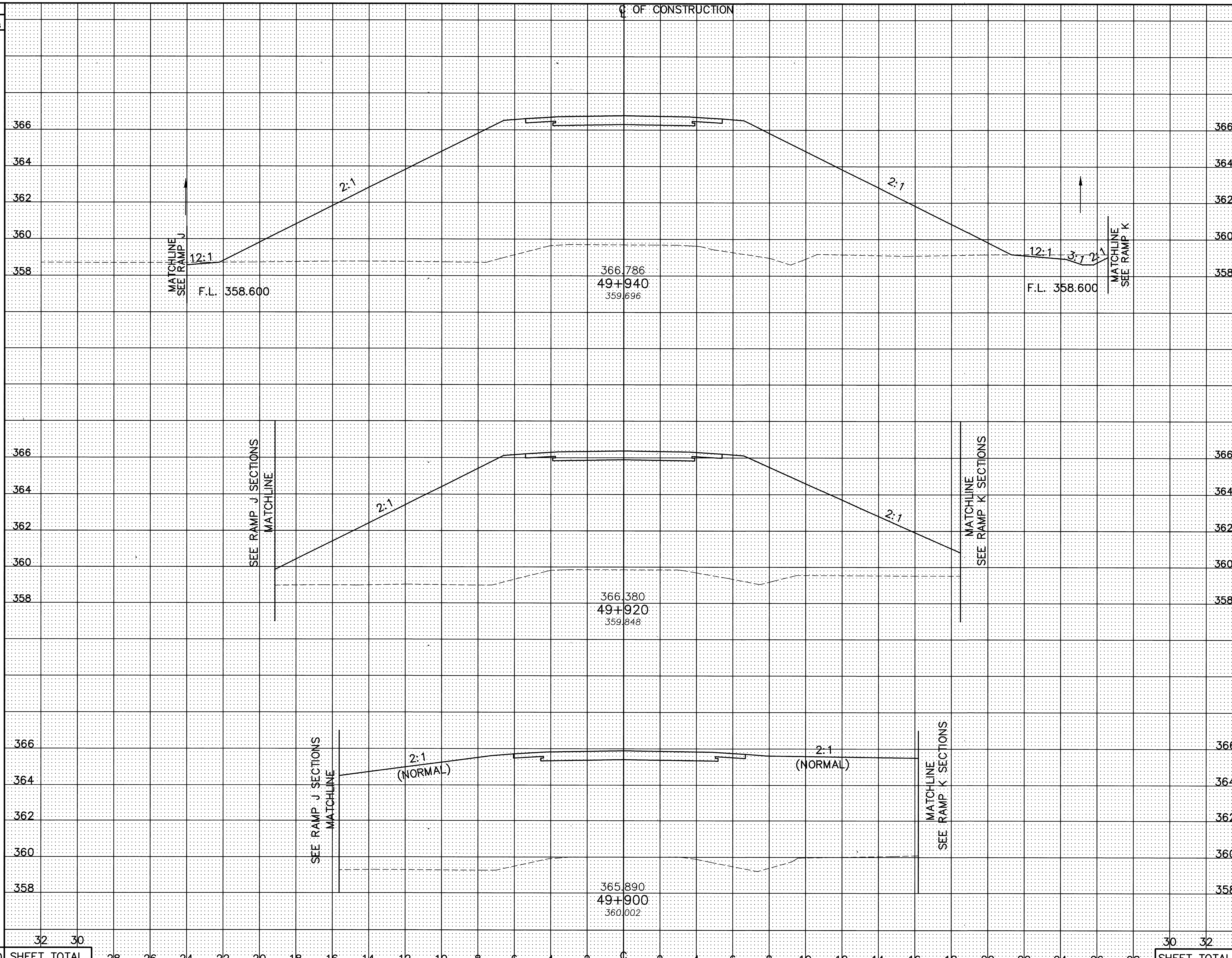
SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0		0	191.0		
	128			0	1863
25.5		0	181.6		
	452			69	1906
47		11.0	124.0		
	357			79	866
	937			148	4635

CALCULATED CRM
W.S XXX

CROSS-SECTIONS – S.R. 61
STA. 49+867.523 TO STA. 49+890

CRA/RIC-30-33.500/0.000

GX503S61.DWG 02-24-1999 11:04 AM 1:100M



Station	SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
49+940	45.5		1.3	205.4		
		725			13	3858
49+920	27		0	180.4		
		460			0	3613
49+900	19		0	180.9		
		95			0	1860
SHEET TOTAL		1280			13	9331

CALCULATED CRM
CHECKED WLS

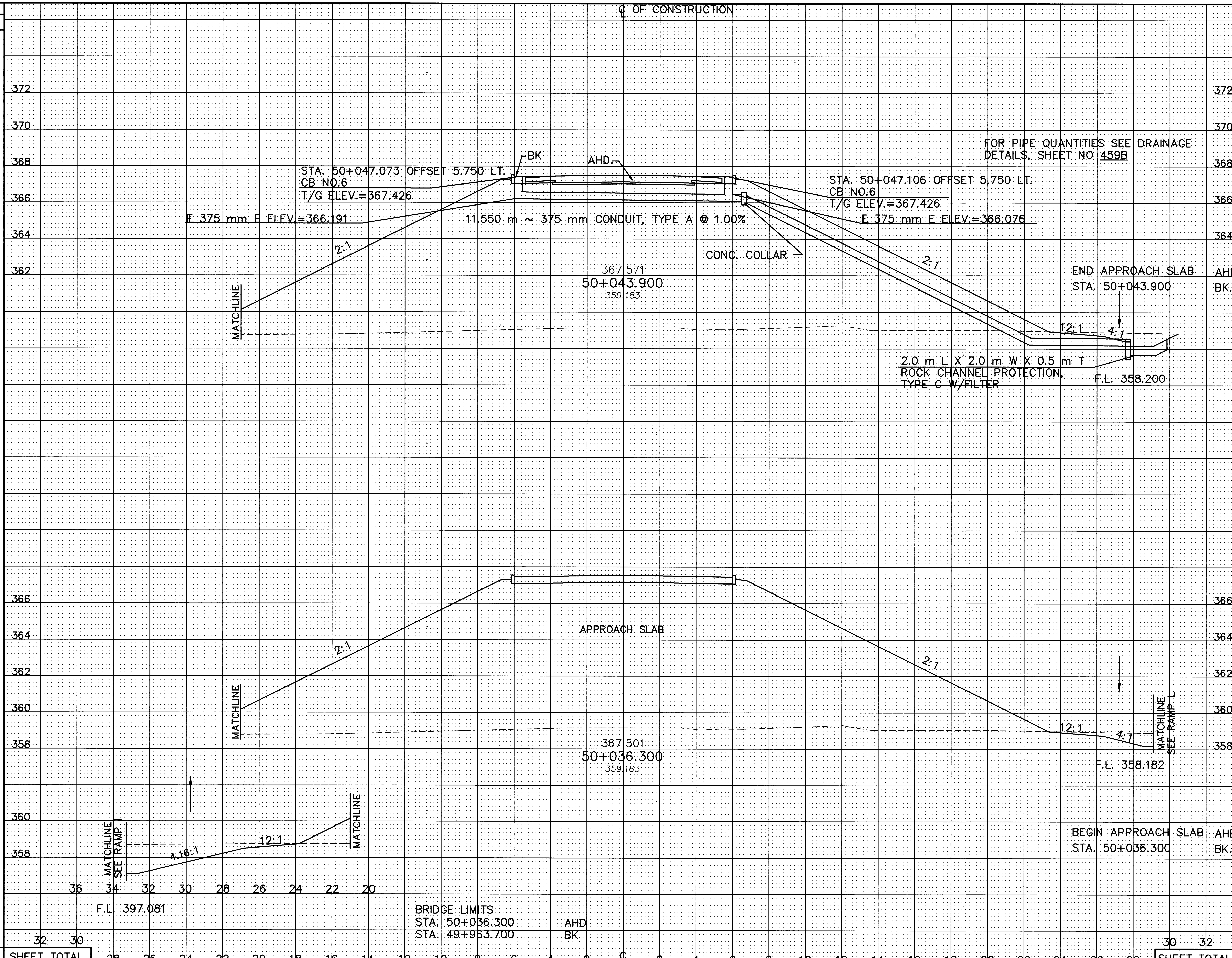
CROSS-SECTIONS – S.R. 61
STA. 49+900 TO STA. 49+940

CRA/RIC-30-33.500/0.000

311/712

CX504S61.DWG
02-24-1999 11:08 AM
F:100M

SEEDING
END WIDTH
SQ. METERS
57
397
47.5
50.5
773
1170
SHEET TOTAL
℄ OF CONSTRUCTION
BRIDGE LIMITS
STA. 50+036.300 AHD
STA. 49+963.700 BK
EARTHWORK AT STRUCTURE
APPROACH SLAB
2:1
2:1
12:1
12:1
4:1
MATCHLINE SEE RAMP J
MATCHLINE SEE RAMP K
F.L. 358.519
367.156
49+963.700
359.555
F.L. 358.274
STA. 49+963.700 AHD
END APPROACH BK
MATCHLINE SEE RAMP I
MATCHLINE
4.16:1
F.L. 396.618
AHD STA. 49+956.100
BK BEGIN APPROACH SLAB
AHD.
BK
STA. 49+952.894 OFFSET 5.750 LT.
CB NO.6
T/G ELEV.=366.898
STA. 49+952.927 OFFSET 5.750 RT.
CB NO.6
T/G ELEV.=366.899
℄ 375 mm E ELEV.=365.640
℄ 375 mm E ELEV.=365.549
11.550 m ~ 375 mm CONDUIT, TYPE A @ 1.00%
CONC. COLLAR
BEGIN APPROACH SLAB AHD.
STA. 49+956.100 BK.
FOR PIPE QUANTITIES SEE DRAINAGE DETAILS, SHEET NO 459B
2.0 m L X 2.0 m W X 0.5 m T ROCK CHANNEL PROTECTION, TYPE C W/FILTER
367.050
49+956.100
359.575
F.L. 358.500
F.L. 358.200
END AREA
CUT FILL
0 0
2.1 227.7
2.1 227.7
2.1 228.4
VOLUME
CUT FILL
0 1738
16 1730
28 3492
44 6960
CALCULATED CRM
CHECKED WLS
CROSS-SECTIONS - S.R. 61
STA. 49+956.100 TO STA. 49+963.700
CRA/RIC-30-33.500/0.000
312
712
GX505S61.DWG
02-24-1999 11:18 AM
1:100M



SEEDING	
END WIDTH	SQ. METERS
39	
	338
50	
	338

SHEET TOTAL

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
AHD.	11.0	245.3		
BK.	11.0	246.0		
			84	1870
AHD.	11.0	246.0		
BK.	0	0		
SHEET TOTAL			84	1870

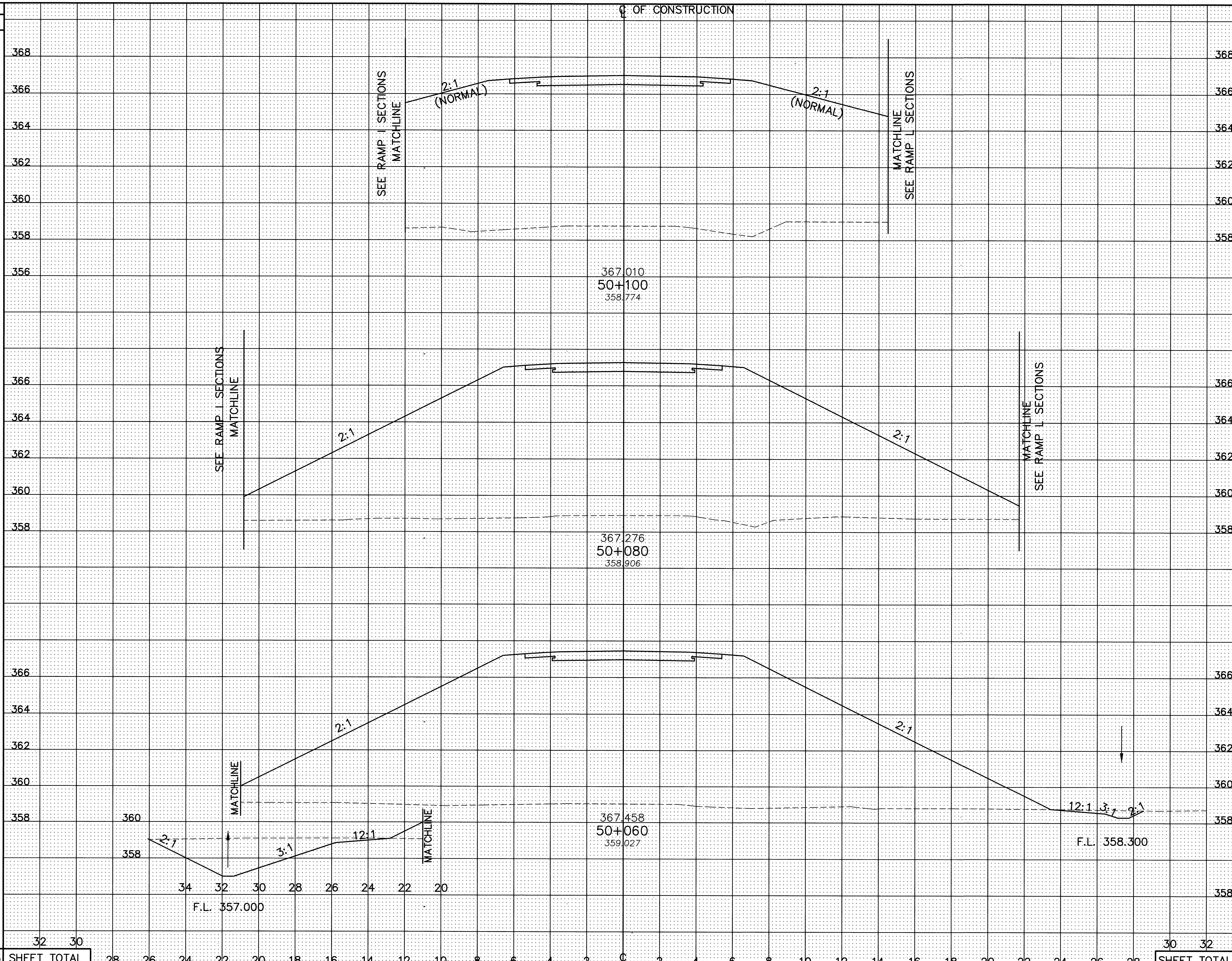
CALCULATED CRM
CHECKED WLS

CROSS-SECTIONS – S.R. 61
STA. 50+036.300 TO STA. 50+043.900

CRA/RIC-30-33.500/0.000

313
712

GX506S61.DWG
02-15-1999 8:10 AM
XSEC61F 1:100M



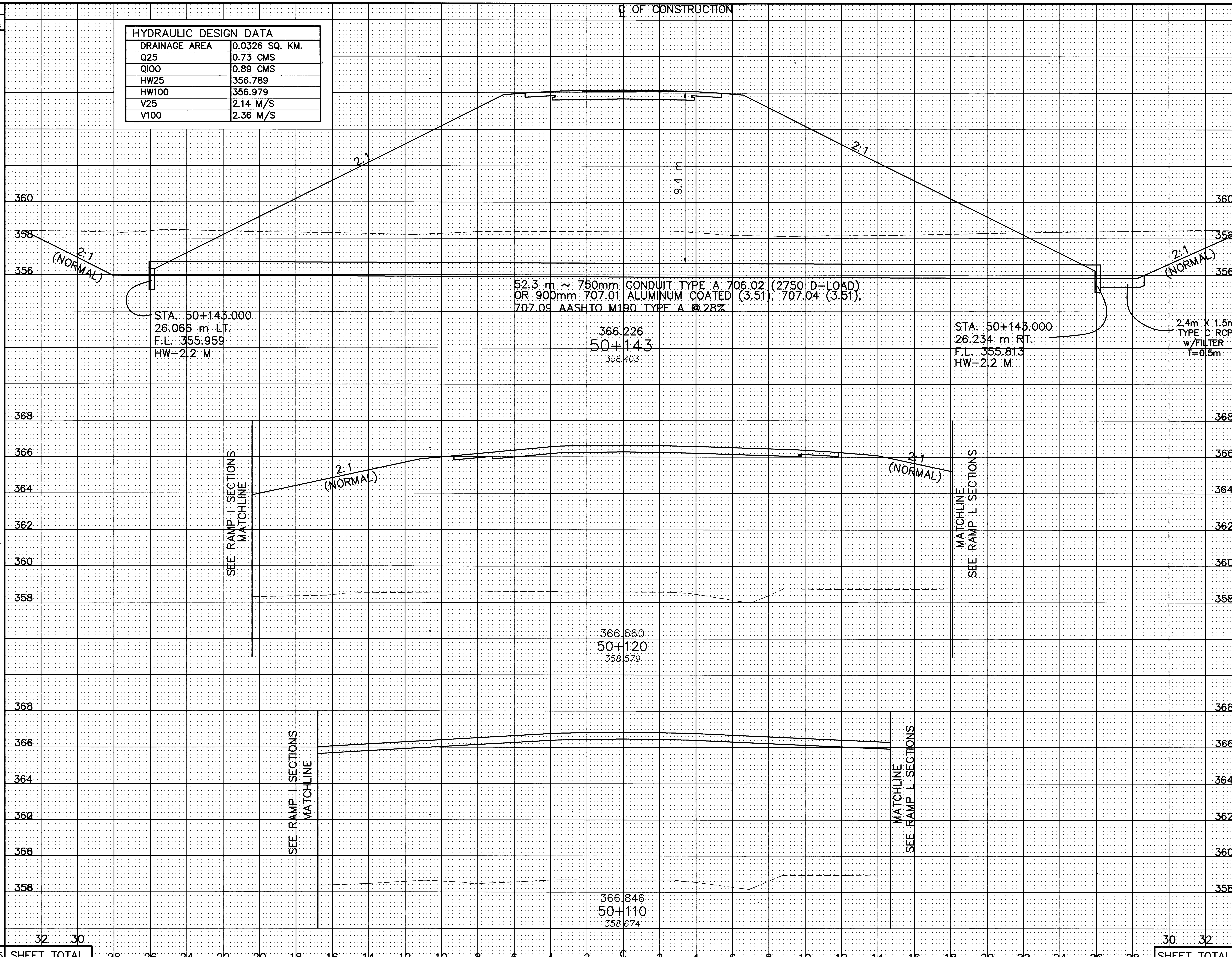
SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
14.5		0	200.0		
	465			0	4423
32		0	242.3		
	915			133	4857
59.5		13.3	243.4		
	793			196	3934
SHEET TOTAL	2173			329	13214

CALCULATED CRM
CHECKED WLS

CROSS-SECTIONS – S.R. 61
STA. 50+060 TO STA. 50+100

CRA/RIC-30-33.500/0.000

GX507S61.DWG
02-15-1999 8:13 AM
XSEC61H 1:100M



SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
62		33.4	214.1		
	914			384	5665
17.5		0	278.5		
	88			0	2580
0		0	237.4		
	73			0	2187
SHEET TOTAL	1075			384	10432

CROSS-SECTIONS – S.R. 61
STA. 50+110 TO STA. 50+143

CRA/RIC-30-33.500/0.000

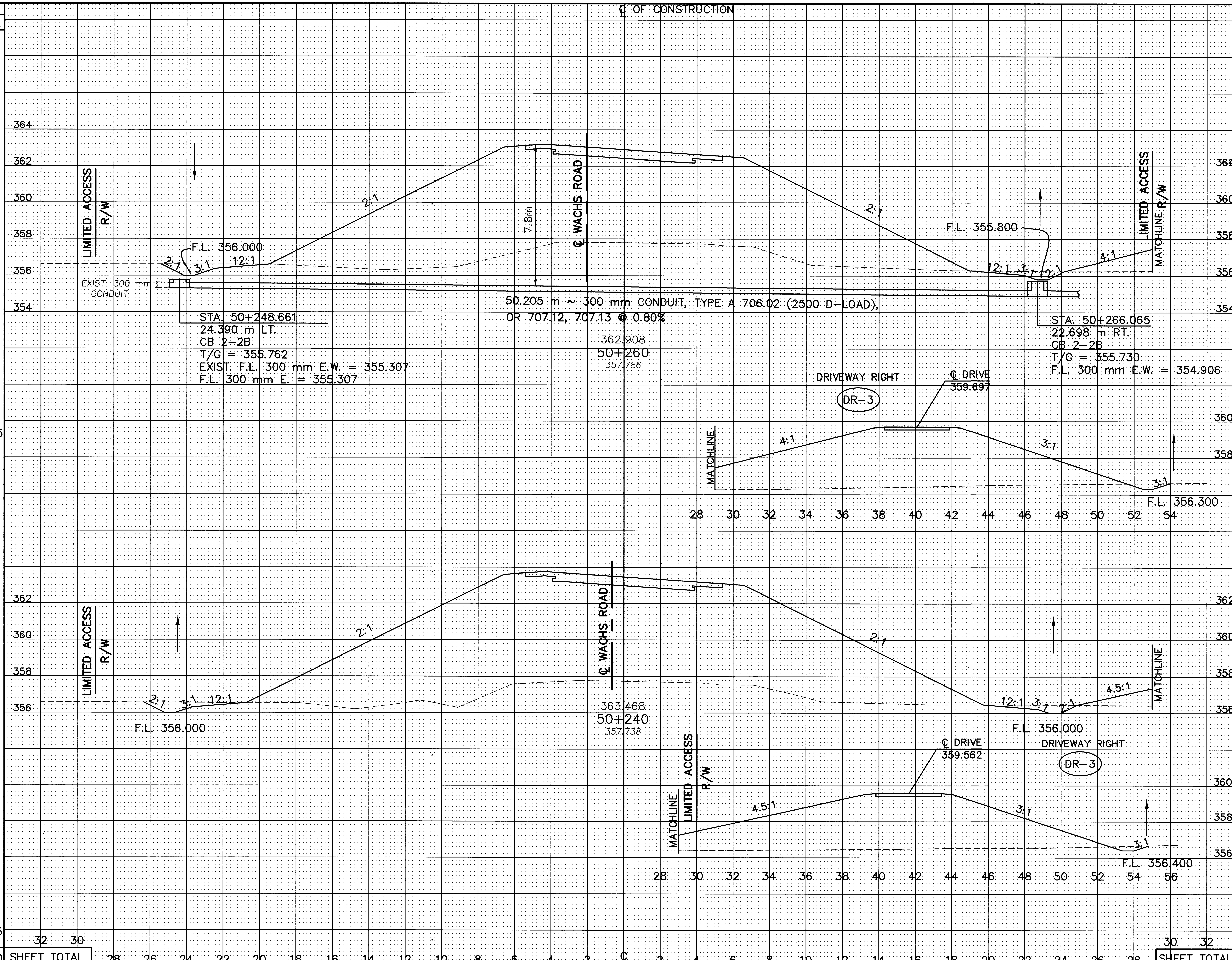
315
712

GX508S61.DWG
02-25-1999 9:23 AM
1:100M


SEEDING
END WIDTH
SQ. METERS
℄ OF CONSTRUCTION
END AREA
CUT
FILL
VOLUME
CUT
FILL
CALCULATED CRM
CHECKED WLS
364
362
360
358
2:1
3:1
12:1
2:1
F.L. 356.900
LIMITED ACCESS R/W
69
365.148
50+180
358.088
12:1
3:1
2:1
MATCHLINE
LIMITED ACCESS R/W
DRIVEWAY RIGHT
DR-3
F.L. 356.900
℄ DRIVE
359.137
9:1
3:1
3:1
MATCHLINE
F.L. 357.749
28 30 32 34 36 38 40 42 44 46 48
8.2
196.3
1380
195
4057
LIMITED ACCESS
69
2:1
3:1
12:1
2:1
F.L. 356.800
365.708
50+160
358.247
12:1
3:1
2:1
MATCHLINE
LIMITED ACCESS R/W
DRIVEWAY RIGHT
DR-3
F.L. 356.800
℄ DRIVE
358.990
9:1
3:1
3:1
2:1
MATCHLINE
F.L. 357.883
11.3
209.4
1114
380
3600
32 30
2494
SHEET TOTAL
28 26 24 22 20 18 16 14 12 10 8 6 4 2 ℄ 2 4 6 8 10 12 14 16 18 20 22 24 26 28
30 32
SHEET TOTAL
575
7657
CROSS-SECTIONS – S.R. 61
STA. 50+160 TO STA. 50+180
CRA/RIC-30-33.500/0.000
316
712
GX509S61.DWG
02-15-1999 8:16 AM
1:100M

SEEDING
END WIDTH
SQ. METERS
℄ OF CONSTRUCTION
END AREA
CUT
FILL
VOLUME
CUT
FILL
CALCULATED CRM
CHECKED WLS
℄ WACHS ROAD
2:1
3:1
12:1
6:1
F.L. 356.200
364.028
50+220
357.792
DRIVEWAY RIGHT
DR-3
℄ DRIVE
359.427
MATCHLINE
F.L. 356.778
72
3.4
213.2
1400
55
4250
LIMITED ACCESS R/W
68
F.L. 357.000
364.588
50+200
357.915
8:1
℄ DRIVE
359.284
F.L. 357.238
2.1
211.8
1370
103
4081
2770
SHEET TOTAL
158
8331
CROSS-SECTIONS - S.R. 61
STA. 50+200 TO STA. 50+220
CRA/RIC-30-33.500/0.000
317
712
GX510S61.DWG
02-15-1999 8:18 AM
1:100M

SEEDING	
END WIDTH	SQ. METERS
71	
	1435
72.5	
	1445
	2880



END AREA		VOLUME	
CUT	FILL	CUT	FILL
2.9	193.2		
		57	4046
2.8	211.3		
		62	4245
		119	8291

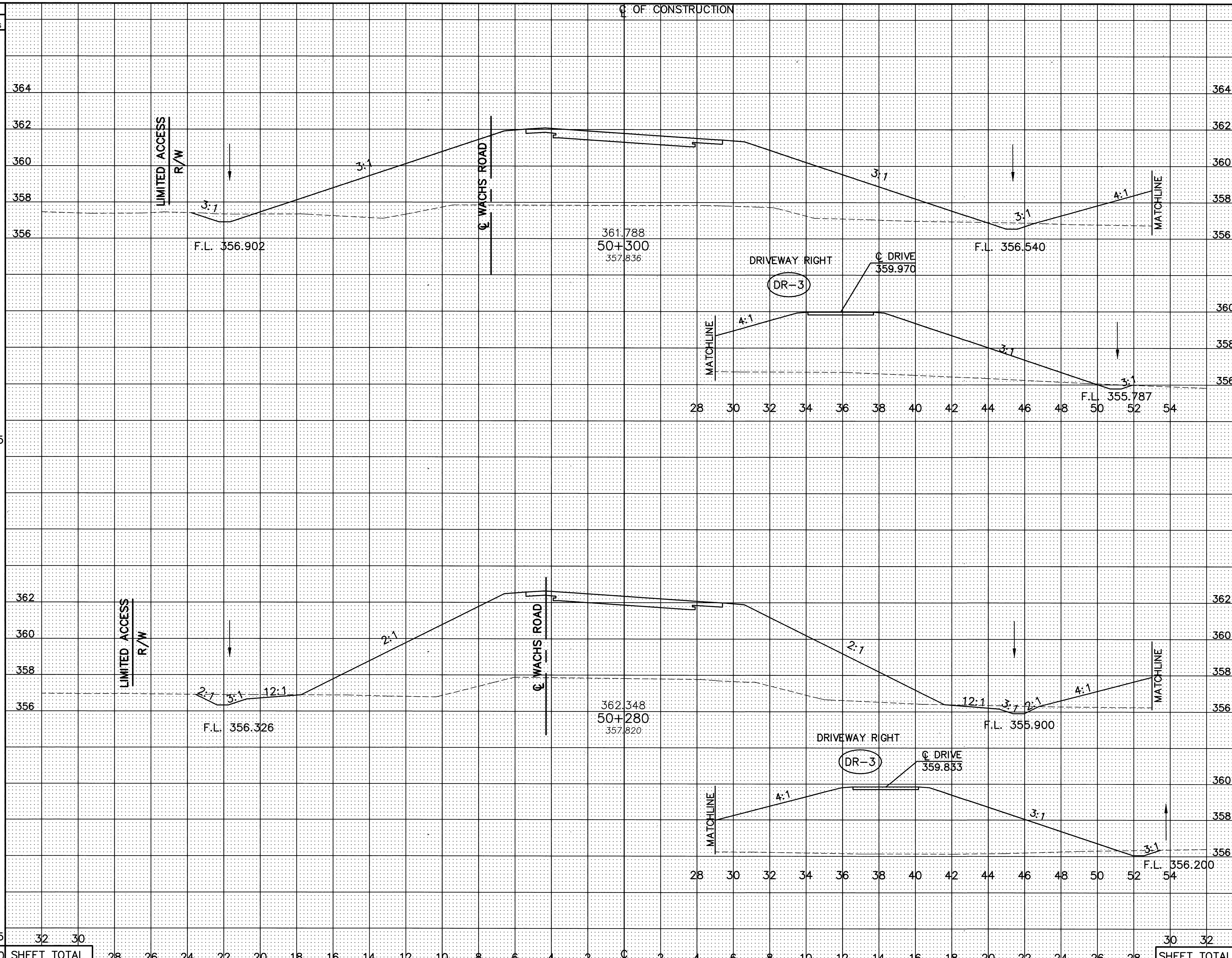
CALCULATED CRM
CHECKED WLS

CROSS-SECTIONS – S.R. 61
STA. 50+240 TO STA. 50+260

CRA/RIC-30-33.500/0.000

318
712

GX511S61.DWG
02-25-1999 10:02 AM
1:100M



SEEDING END WIDTH	SEEDING SQ. METERS
69	
	1375
68.5	
	1395
SHEET TOTAL	2770

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
1.7	156.5		
		44	3291
2.6	172.5		
		55	3658
SHEET TOTAL		99	6949

CALCULATED CRM
CHECKED WLS

CROSS-SECTIONS - S.R. 61
STA. 50+280 TO STA. 50+300

CRA/RIC-30-33.500/0.000

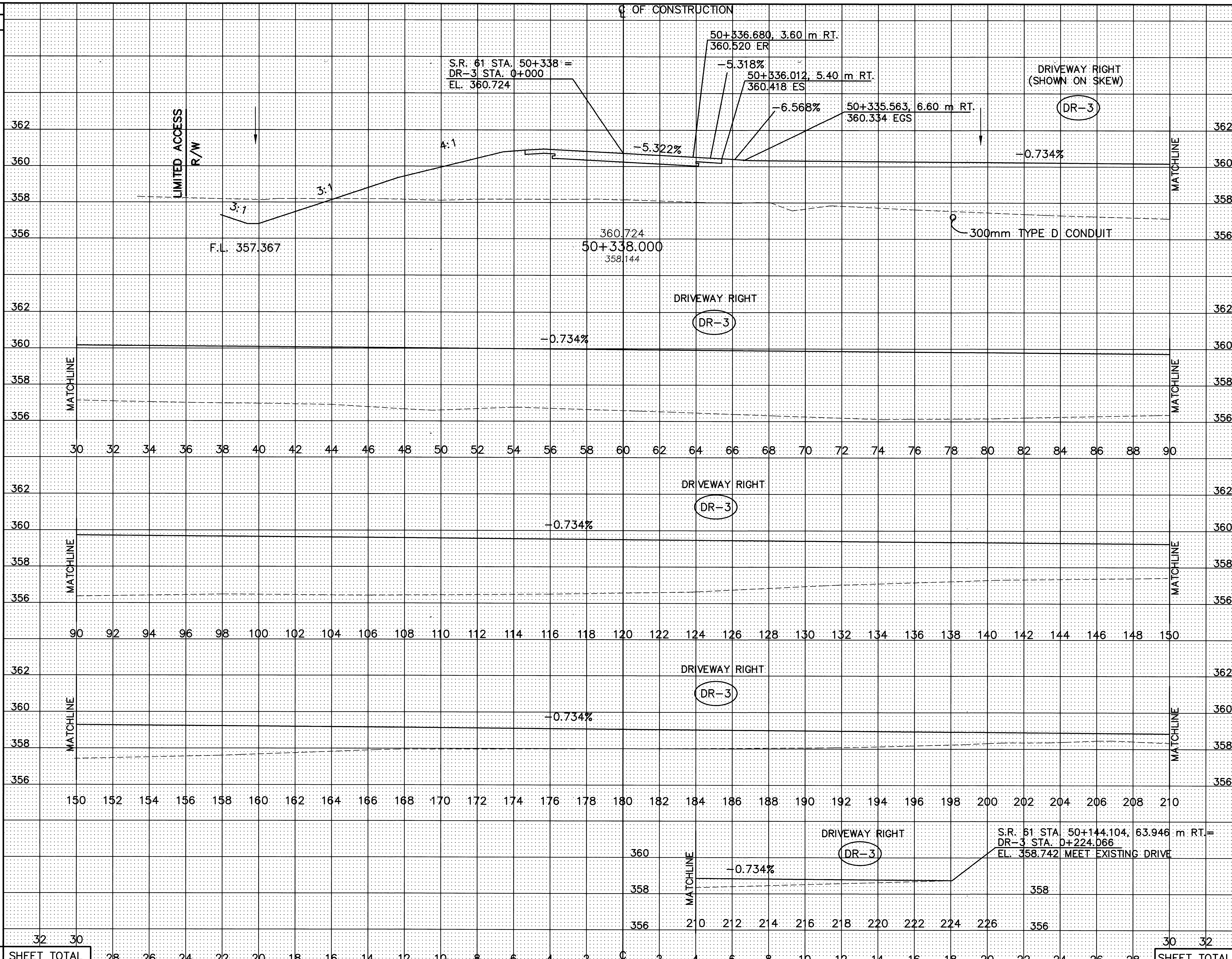
319/712

GX512S61.DWG
02-15-1999 8:22 AM
1:100M

SEEDING
END WIDTH
SQ. METERS
43
1060
63
1320
2380
SHEET TOTAL
℄ OF CONSTRUCTION
R/W
℄ WACHS ROAD
3:1
3:1
4:1
3:1 (NORMAL)
R/W
F.L. 357.833
360.668
50+340
358.164
300mm TYPE D CONDUIT
STA. 50+338 DR-3 RT.
SEE SHEET 321 FOR PROFILE
LIMITED ACCESS R/W
℄ WACHS ROAD
3:1
3:1
4:1
3:1
5:1
MATCHLINE
F.L. 357.367
361.228
50+320
357.961
300mm TYPE D CONDUIT
DRIVEWAY RIGHT
DR-3
℄ DRIVE
360.109
MATCHLINE
4:1
(NORMAL)
3:1
3:1
F.L. 355.877
362
360
358
356
20 22 24 26 28 30 32 34 36 38 40 42 44 46 48
32 30
28 26 24 22 20 18 16 14 12 10 8 6 4 2 ℄ 2 4 6 8 10 12 14 16 18 20 22 24 26 28
30 32
SHEET TOTAL
END AREA
CUT FILL
VOLUME
CUT FILL
0.7 67.5
19 2011
1.2 133.7
30 2902
49 4913
CALCULATED CRM
CHECKED WLS
CROSS-SECTIONS - S.R. 61
STA. 50+320 TO STA. 50+340
CRA/RIC-30-33.500/0.000
320
712
GX513S61.DWG
02-15-1999 8:24 AM
1:100M

SEEDING	
END WIDTH	SQ. METERS

SEEDING QUANTITIES FOR DR-3 ARE INCLUDED W/SECTIONS ON SHEETS 155 TO 159



END AREA		VOLUME	
CUT	FILL	CUT	FILL

EARTHWORK QUANTITIES FOR DR-3 ARE INCLUDED W/SECTIONS ON SHEETS 155 TO 159

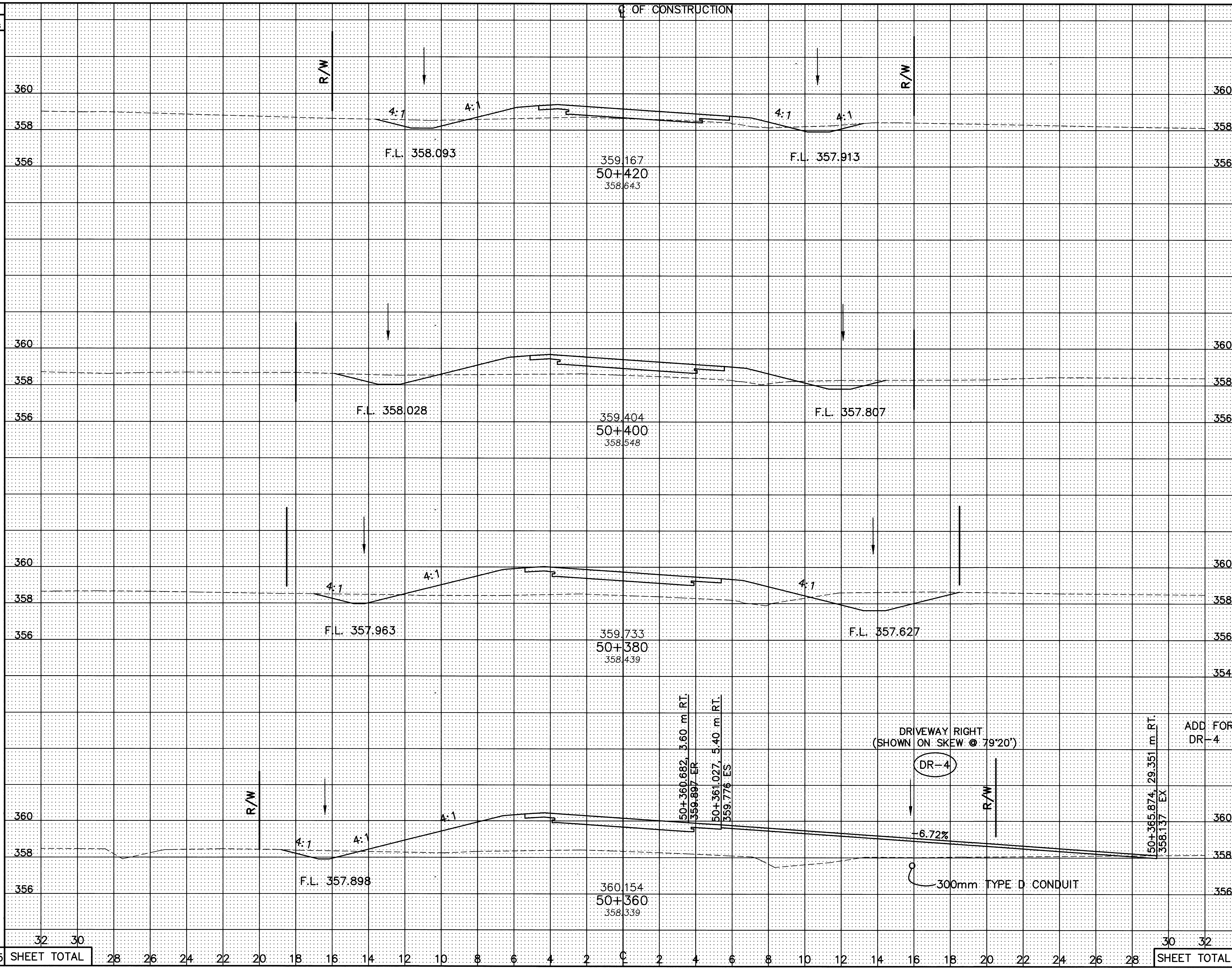
CALCULATED CRM
CHECKED WLS

CROSS-SECTIONS - S.R. 61
DR-3 PROFILE STA. 50+338 RT.

CRA/RIC-30-33.500/0.000

GX514S61.DWG
02-15-1999 8:26 AM
1:100M

GX15S61.DWG
03-26-1999 3:28 PM
1:100M



SEEDING END WIDTH	SEEDING SQ. METERS	Station	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
22.5		50+420	2.4	4.0		
	485				55	140
26		50+400	3.2	10.0		
	560				89	297
30		50+380	5.7	19.8		
	630				86	550
		ADD FOR DR-4			0	78
33		50+360	2.9	35.3		
	760				36	1027
SHEET TOTAL	2435				266	2092

CALCULATED CRM
CHECKED WLS

CROSS-SECTIONS – S.R. 61
STA. 50+360 TO STA. 50+420

CRA/RIC-30-33.500/0.000

GX516S61.DWG
02-24-1999 11:23 AM
1:100M


NOTES:
1. FOR ℄ MON LOCATION SEE SHEETS 617–618
2. FOR DRIVEWAY DETAILS & QUANTITIES SEE SHEETS 493–495
3. FOR CUL-DE-SAC DETAILS SEE SHEET 482
4. FOR TEMPORARY ROAD P & P SEE SHEETS 31–35
5. FOR AGGREGATE LOCATIONS SEE SHEET 68
metric units
WEARING COURSE REMOVED AND RESURFACED WITH 38mm, 448 ASPHALT CONCRETE SURFACE COURSE OVER 407 TACK COAT. LENGTH MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
BEGIN WORK STA.30+355.000
END WORK STA.30+560.000
TEMPORARY ROAD ℄ CONSTRUCTION
STA. 30+475.065 ℄ CUL-DE-SAC
CONSTRUCTION LIMITS
EXISTING ASPHALT PAVEMENT TO BE REMOVED (SEE CROSS SECTIONS)
WACHS ROAD T.H. 253
R=16.440 m
R=15.240 m
R=15.240 m
3.000 m
3.000 m
3.300 m
3.300 m
EX. R/W
N00°27'42"E
EX. 150mm
EX. 300mm
CB
RES. NO. 1705 1 STORY FRAME W/BASEMENT
R-3 FOR QTY. SEE SHT 306
DR-6 W=5.8m L=7.4m STA. 30+460
SLAG DRIVE
GARAGE
S.R. 61
℄ CONSTRUCTION
℄ CONSTRUCTION & SURVEY
STA. 30+504.258 BEGIN PAV'T TAPER
STA. 30+514.258 MEET EXIST. PAVEMENT END PAV'T TAPER
TEMPORARY ROAD CONSTRUCTION LIMITS
RES. NO. 1675 1-STORY FRAME W/BASEMENT
I.P. Fnd.
BENCHMARK
PK SPIKE IN 457mm MAPLE
STA. 50+519.03, 11.85 RT.
EL. = 359.655
PROP. ℄ ELEV.
358.805
359.046
359.019
358.911
358.834
DR-6
STA. 30+452.404 ELEV. 359.002 MATCH EXIST. PAV'T
STA. 30+459.825 ELEV. 358.802 EDGE OF PAV'T.
+0.17%
-4.37%
+1.60%
-0.54%
+6.00%
-0.72%
PAVEMENT PROFILE
EXIST. 150 mm
STA. 30+458.625 ELEV. 358.730 EDGE OF SHOULDER
STA. 30+475.065 ℄ CUL-DE-SAC
STA. 30+514.258 END FULL DEPTH PAVEMENT
GRADE BREAK
STA. 30+525.000 MEET EXIST. PAVEMENT WITH BUTT JOINT PER BP-3.1
363 362 361 360 359 358 357 356 355 354
EXIST ℄ ELEV.
358.756
358.879
358.981
359.015
359.018
358.910
358.804
358.661
358.557
30+400 +420 +440 +460 +480 30+500 +520 +540 30+560
ESTIMATED QUANTITIES
STATION FROM TO
REF. No.
SIDE
TOTALS CARRIED TO SUB SUMMARY
RATIO 1:500
HORIZONTAL SCALE IN METERS
CALCULATED W.J.S.
CHECKED C.R.M.
PLAN & PROFILE – WACHS ROAD
STA. 30+363.928 TO STA. 30+500
CRA/RIC-30-33.500/0.000
324
712
GP500WAH.DWG
03-31-1999 1:15 PM
1:500

GX500WAH.DWG
02-15-1999 9:15 AM
1:100M

SEEDING
END WIDTH
SQ. METERS
℄ OF CONSTRUCTION
END AREA
CUT
FILL
VOLUME
CUT
FILL
CALCULATED CRM
CHECKED WJS
CROSS-SECTIONS - WACHS RD.
STA. 30+452 TO STA. 30+480
CRA/RIC-30-33.500/0.000
326/712
R/W
2:1
3:1
F.L. 358.099
F.L. 358.112
359.019
30+480
359.016
19.0
0
16
79
90
0
F.L. 358.123
F.L. 358.133
359.046
30+475.065
359.020
17.6
0
16
241
212
1
F.L. 358.196
F.L. 358.196
358.805
30+460
359.015
STA. 30+460
BEGIN FULL DEPTH SECTION
10.6
0.1
16
112
42
0
STA. 30+452
RESUME SEEDING LT/RT
AHD. 12
BK. 12
STA. 30+452
RESUME EARTHWORK
BEGIN DITCH LT/RT
EXIST. 150 mm
CONDUIT
30+452
358.998
0
0
362
360
358
356
SHEET TOTAL
432
SHEET TOTAL
344
1
32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 ℄ 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32
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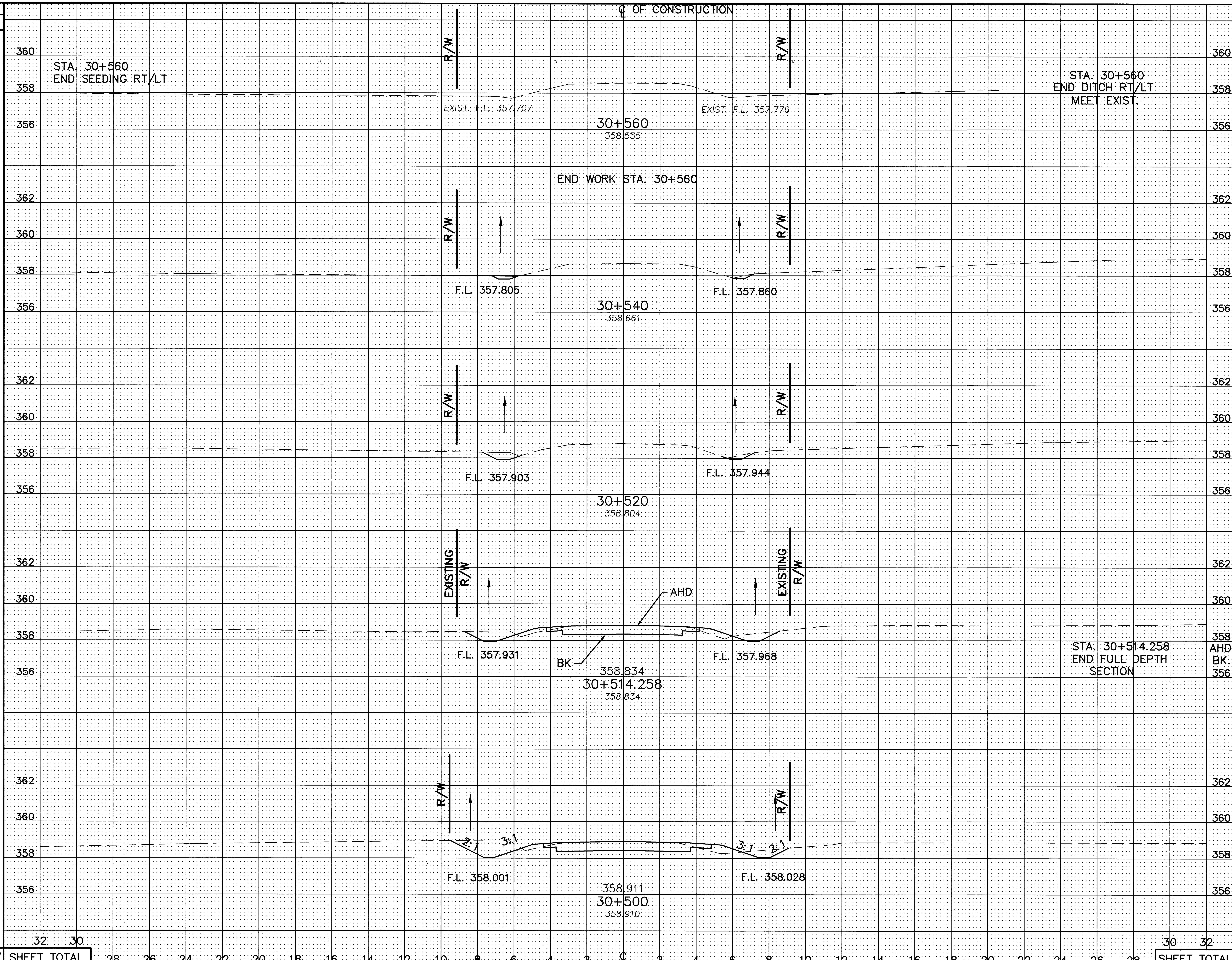
02-15-1999 9:17 AM
1:100M



SEEDING END WIDTH	SEEDING SQ. METERS	STATION	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
10		30+560	0	0		
	230				3	0
13		30+540	0.3	0		
	280				10	0
15		30+520	0.7	0		
	86				7	2
15		30+514.258 AHD.	1.7	0.8		
		30+514.258 BK.	5.3	0.8		
	221				91	11
16		30+500	7.5	0.8		
	320				265	8
	1137	SHEET TOTAL			376	21

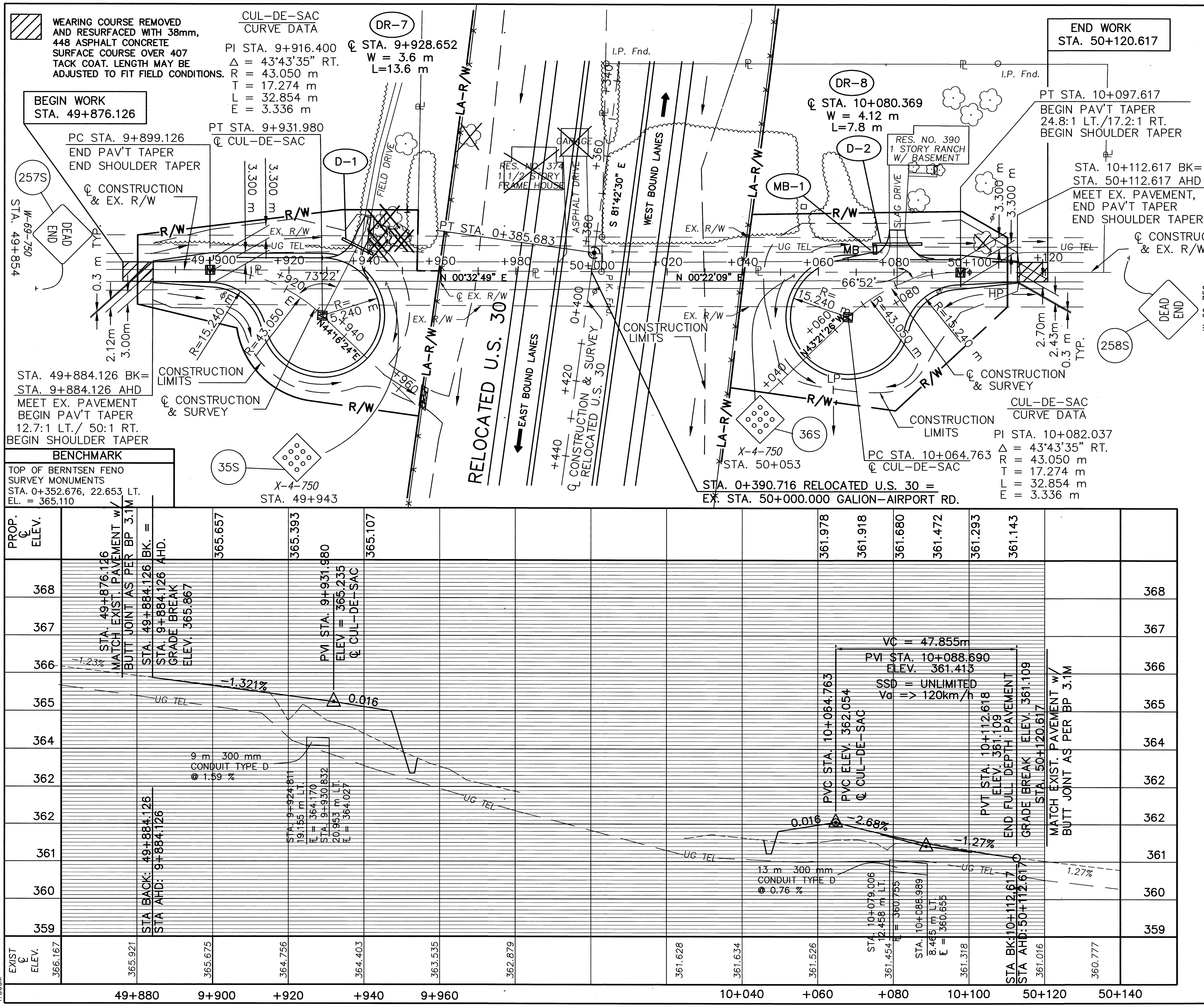
CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – WACHS RD.
STA. 30+500 TO STA. 30+560

CRA/RIC-30-33.500/0.000

326A / 712

GX502WAH.DWG
02-24-1999 2:5 PM
1:100M



NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617-618.
2. FOR DRIVEWAY DETAILS & QUANTITIES SEE SHEETS 493-495.
3. FOR TRAFFIC CONTROL QUANTITIES SEE SHEET 506.
4. FOR CUL-DE-SAC DETAILS SEE SHEET 483.
5. FOR AGGREGATE LOCATIONS SEE SHEET 68

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	603 300 mm CONDUIT TYPE D (METER)	SPEC. MAILBOX SUPPORT SYSTEM SINGLE (EACH)
D-1	LT	9+924.811	9+930.832	9	
D-2	LT	10+079.006	10+088.989	13	
MB-1	LT	10+079.08			1
MB-1	LT	10+079.08			
TOTALS CARRIED TO SUB SUMMARY				22	1

metric units

RATIO 1:500 HORIZONTAL SCALE IN METERS

CALCULATED W.J.S. CHECKED C.R.M.

PLAN & PROFILE - GALION/AIRPORT RD. STA. 49+879.126 TO STA. 50+120.617

CRA/RIC-30-33.500/0.000

GP500GAL.DWG 03-29-1999 3:12 PM 1:500M

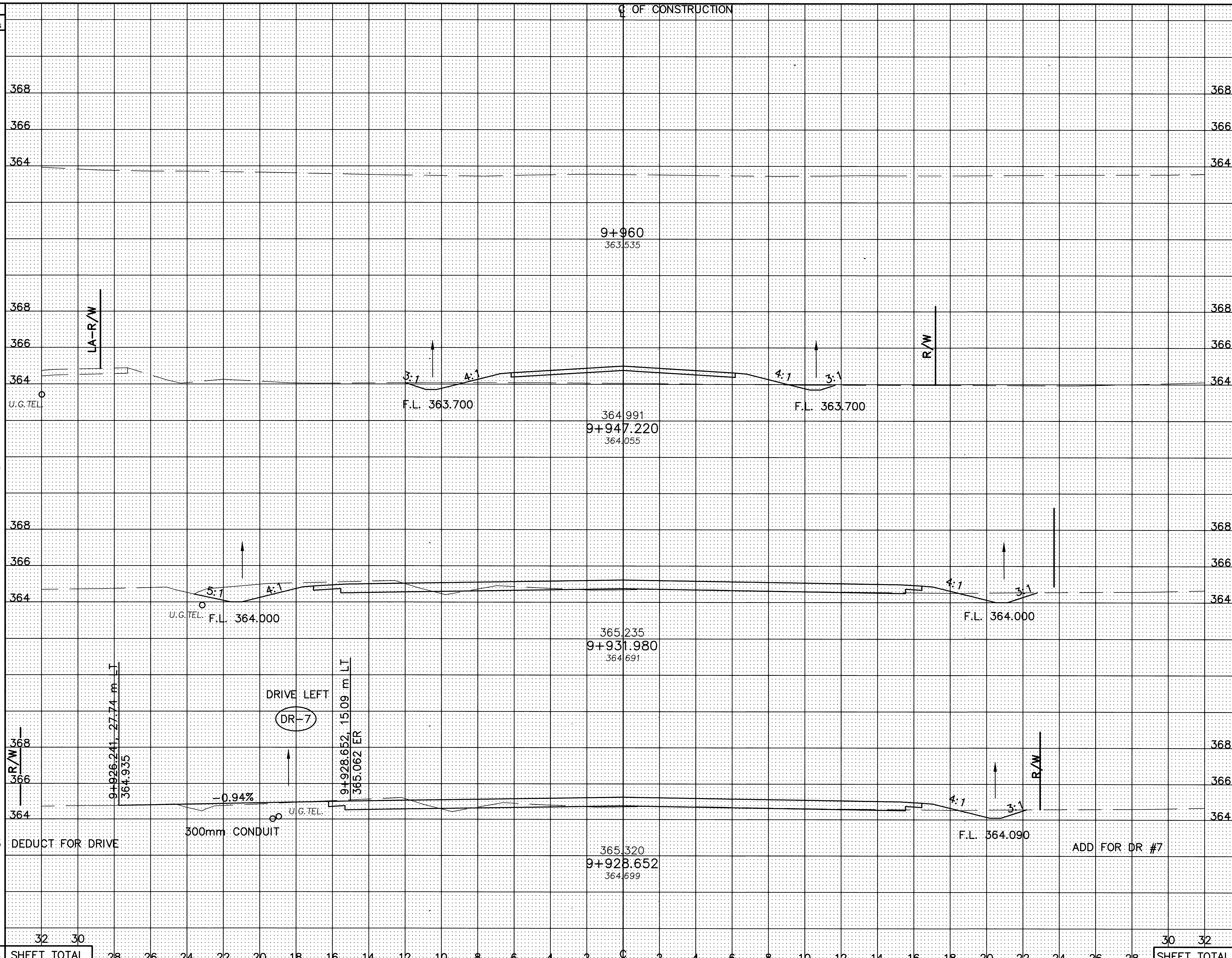
SEEDING
END WIDTH
SQ. METERS
℄ OF CONSTRUCTION
END AREA
CUT
FILL
VOLUME
CUT
FILL
CALCULATED CRM
CHECKED WJS
R/W
3:1
4:1
U.G. TEL.
F.L. 364.400
F.L. 364.450
365.452
9+915.552
365.447
13.9
0.4
304
180
8
20
F.L. 364.970
365.669
9+899.126
365.686
F.L. 364.970
8.0
0.6
17
233
86
7
BK.
AHD.
F.L. 365.300
365.867
9+884.126 AHD = 49+884.126 BK
365.867
F.L. 365.129
3.5
0.3
0.9
0.3
14
41
2
1
49+880
365.921
6
0
0
BEGIN DITCH LT/RT
STA. 49+880
BEGIN WORK
STA. 49+876.126
49+860
366.167
0
0
0
0
0
368
366
364
578
SHEET TOTAL
268
16
CROSS-SECTIONS – GALION/AIRPORT ROAD (SOUTH)
STA. 49+860 TO STA. 9+915.552
CRA/RIC-30-33.500/0.000
328
712
GX500GAL.DWG
03-22-1999 3:52 PM
1:100M

CROSS-SECTIONS – GALION/AIRPORT ROAD (SOUTH)
STA. 9+928.652 TO STA. 9+960

CRA/RIC–30–33.500/0.000

CALCULATED CRM
CHECKED WJS

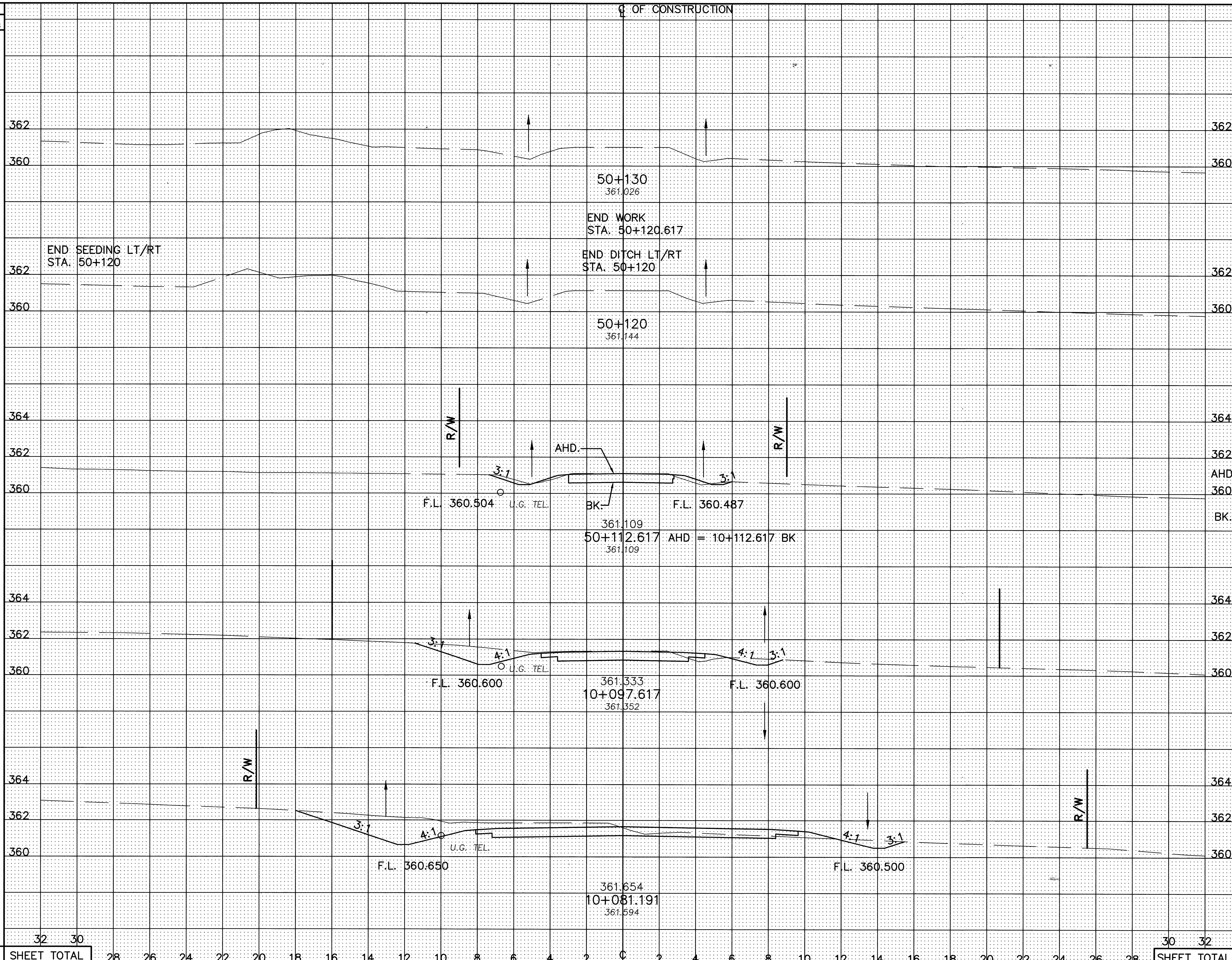
SEEDING END WIDTH	SEEDING SQ. METERS
0	
	109
17	
	267
18	
	312
	–23
	665



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0	0		
		8	52
1.2	8.2		
		76	67
8.8	0.6		
		186	8
		10	0
		280	127

GX501GAL.DWG
03-22-1999 4:08 PM
1:100M

SEEDING
END WIDTH
SQ. METERS
℄ OF CONSTRUCTION
END AREA
CUT
FILL
VOLUME
CUT
FILL
CALCULATED CRM
CHECKED WJS
DRIVE LEFT
DR-8
10+085.713, 18.228 m LT.
362.796
10+083.024, 7.369m LT.
361.450
10+082.673, 6.24 m LT.
361.522
R/W
7.00%
ADD FOR DR #8
DEDUCT FOR DRIVE
-45
U.G. TEL
300mm CONDUIT
361.672
10+080.369
361.469
F.L. 360.400
4:1
3:1
10
0
290
69
R/W
24
3:1
4:1
U.G. TEL
F.L. 360.850
F.L. 360.300
18.9
7.8
362.054
10+064.763
361.582
335
OUTLET TO
EXIST. SWALE
LA-R/W
210
61
20
U.G. TEL
F.L. 361.000
F.L. 360.400
8.6
0.2
361.810
10+049.523
361.525
95
41
1
0
10+040
361.634
0
0
364
362
360
366
SHEET TOTAL
385
551
131
32
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
℄
CROSS-SECTIONS - GALION/AIRPORT ROAD (NORTH)
STA. 10+040 TO STA. 10+080.369
CRA/RIC-30-33.500/0.000
330
712
GX502GAL.DWG
03-22-1999 4:09 PM
1:100M



SEEDING

END WIDTH	SQ. METERS
0	
6	
	59
10	
	203
17	
	312
21	
	370
SHEET TOTAL	944

Station	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
50+130	0	0		
			0	0
50+120	0	0		
			2	2
AHD.	0.4	0.5		
BK.	3.1	0.5		
			81	7
10+097.617	7.7	0.4		
			198	8
10+081.191	16.4	0.6		
			290	69
SHEET TOTAL			571	86

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS - GALION/AIRPORT ROAD (NORTH)
STA. 10+081.191 TO STA. 50+130

CRA/RIC-30-33.500/0.000

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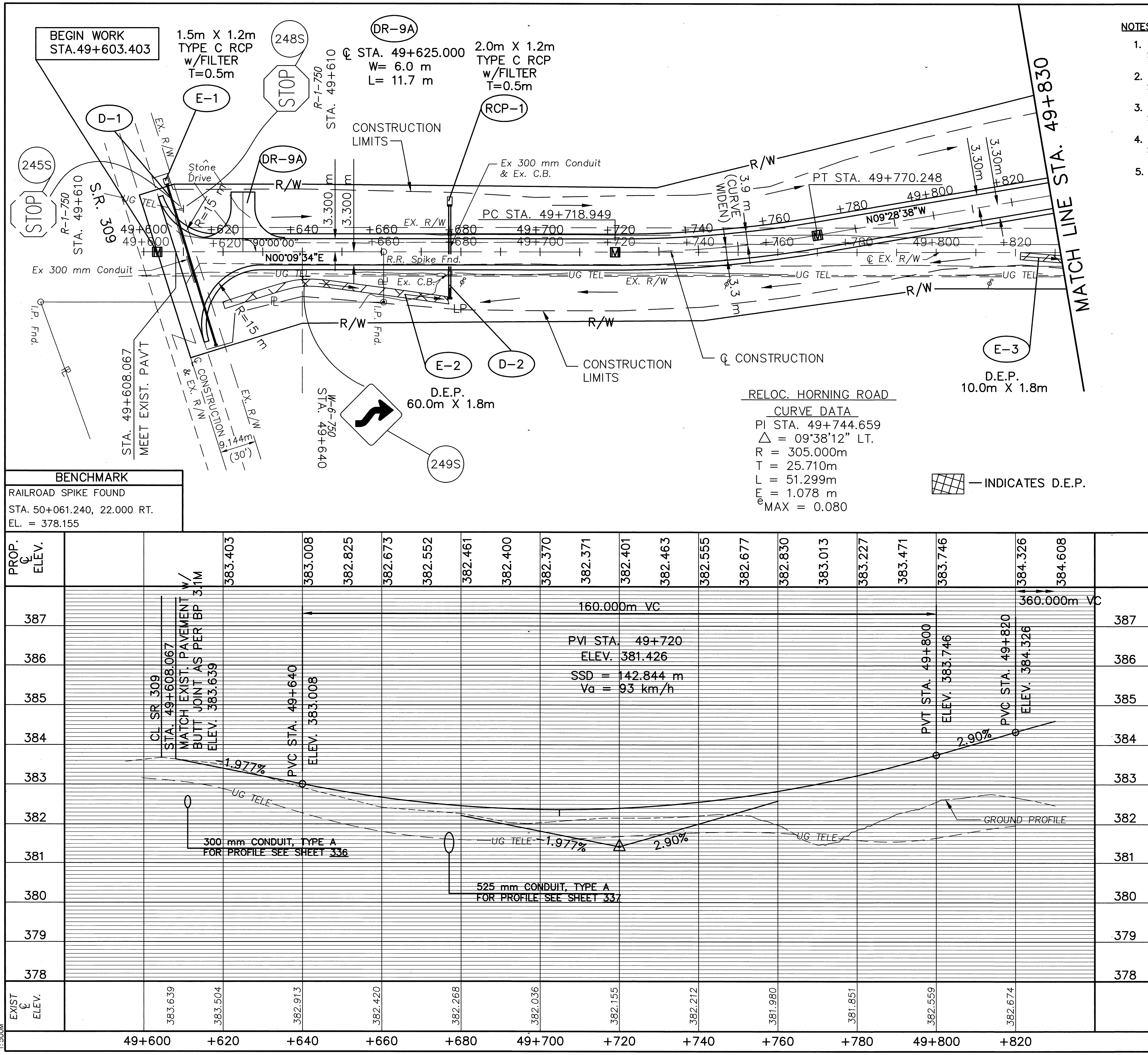

NOTES:

1. FOR SUPERELEVATION TABLES SEE SHEET 465.
2. FOR TRAFFIC CONTROL QUANTITIES SEE SHEET 505.
3. FOR ℄ MONUMENT LOCATIONS SEE SHEETS 617–618.
4. FOR PAVEMENT CURVE WIDENING SEE SUPERELEVATION TABLES SHEET 465.
5. FOR AGGREGATE LOCATIONS SEE SHEET 68.

metric units

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	601 ROCK CHANNEL PROTECTION TYPE C w/ FILTER (C.M.)	602 CONCRETE MASONRY (C.M.)	603 300 mm CONDUIT TYPE A (METER)	603 525 mm CONDUIT TYPE A (METER)	607 DITCH EROSION PROTECTION (S.M.)	601 ROCK CHANNEL PROTECTION TYPE B W/FILTER (C.M.)
D-1	LT/RT	49+605.89	49+618.26		0.34	42.5			
D-2	LT/RT	49+677			0.64		23.6		
E-1	LT	49+605.89		0.90					
E-2	RT	49+620	49+680					108.00	
E-3	RT	49+820	49+830					18.00	
E-3	LT	49+680							1.2
TOTALS CARRIED TO SUB SUMMARY				0.90	0.98	42.5	23.6	126.00	1.2

RATIO 1:500 HORIZONTAL SCALE IN METERS

CALCULATED WJS CHECKED CRM

PLAN AND PROFILE – HORNING ROAD STA. 49+600 TO STA. 49+830

CRA/RIC-30-33.500/0.000

332/712

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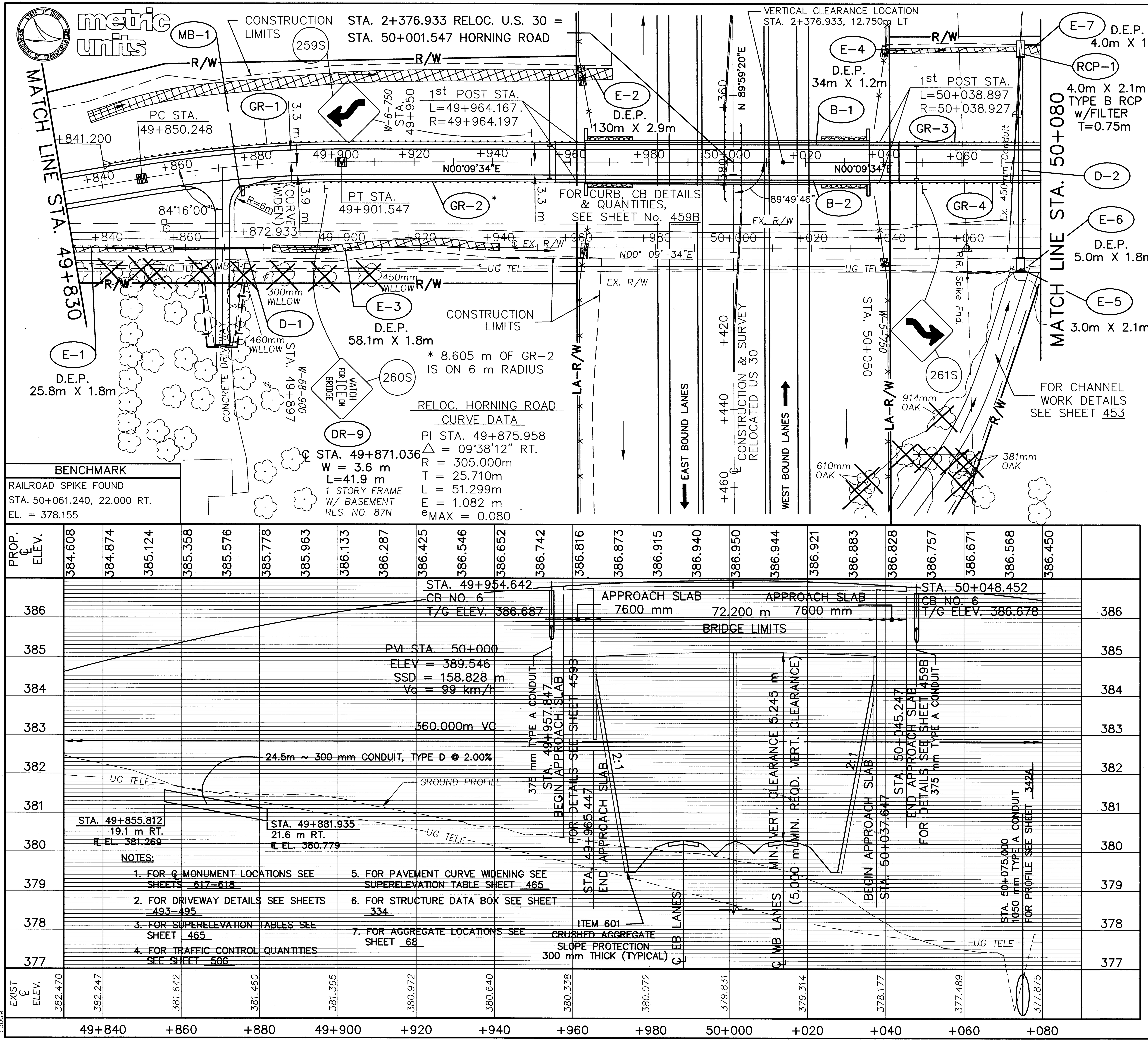


** 1050 mm CONDUIT TYPE A 706.02 (2750 D-LOAD) OR 1200mm 707.01 ALUMINUM COATED (3.51), 707.04 (3.51), 707.09 AASHTO M190 TYPE A.

— INDICATES D.E.P.

ESTIMATED QUANTITIES

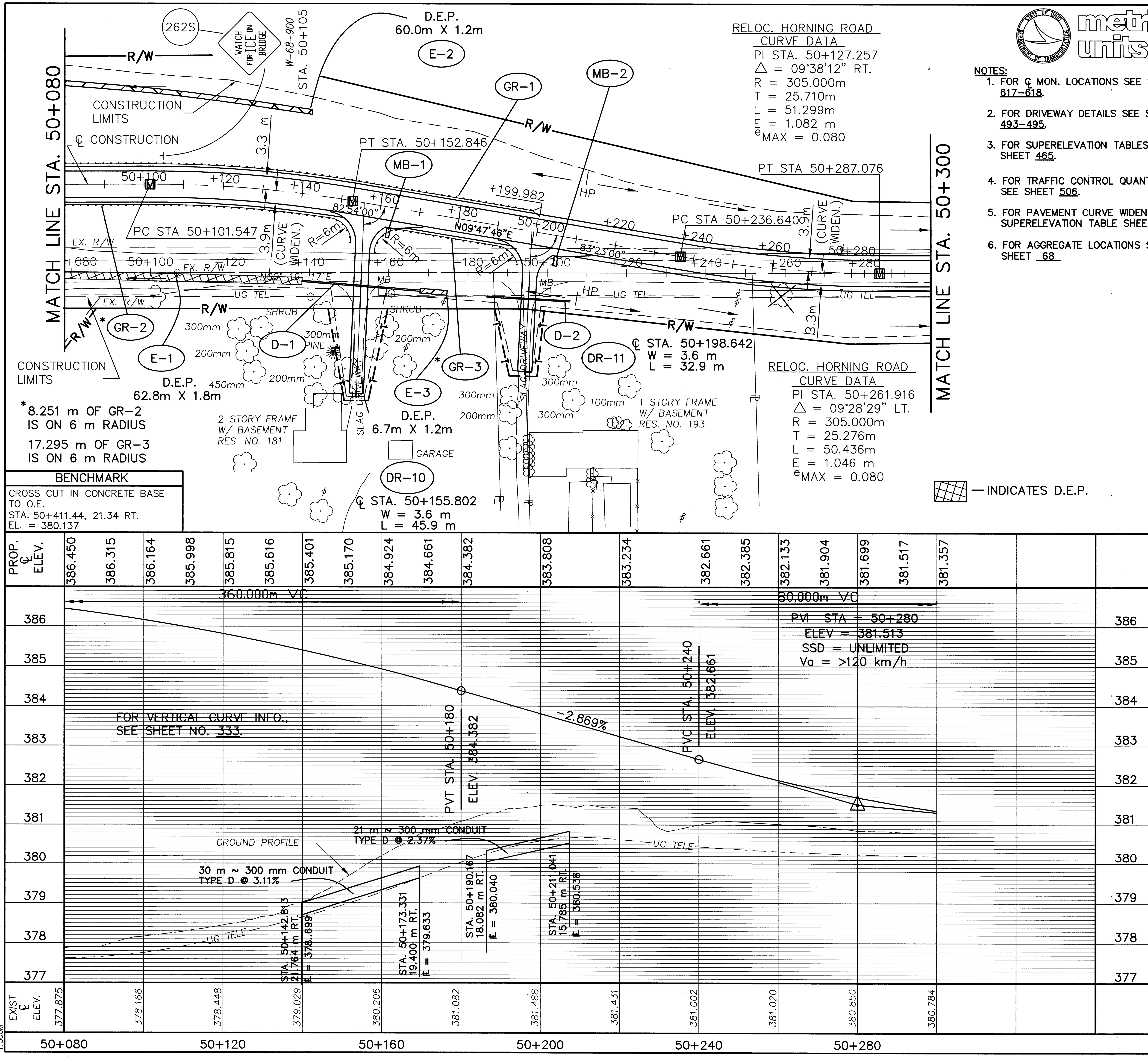
REF. No.	SIDE	STATION FROM	STATION TO	606 GUARDRAIL TYPE 5	606 BRIDGE TERMINAL ASSEMBLY TYPE 1	606 ANCHOR ASSEMBLY TYPE E-98	606 ANCHOR ASSEMBLY TYPE T	603 300 mm CONDUIT TYPE D	603 1050 mm CONDUIT TYPE A **	602 CONCRETE MASONRY	601 ROCK CHANNEL PROTECTION TYPE B w/ FILTER	601 RIPRAP USING 150 mm REINFORCED CONC. SLAB	670 DITCH EROSION PROTECTION	SPEC. MAILBOX SUPPORT SYSTEM, SINGLE	626 BARRIER REFLECTOR TYPE A2	626 BARRIER REFLECTOR TYPE B2
				METER	EACH	EACH	EACH	METER	METER	C.M.	C.M.	S.M.	S.M.	EACH	EACH	EACH
GR-1	LT	49+841.200	49+966.072	110.490	1	1									7	
GR-2	RT	49+878.080	49+966.102	91.440	1		1								6	
GR-3	LT	50+036.992	50+080	43.008	1										2	
GR-4	RT	50+037.022	50+080	42.978	1										2	
MB-1	RT	49+875.320												1		
D-1	RT	49+855.812	49+881.935					24.5								
D-2	LT/RT	50+075							52	1.72						
E-1	RT	49+830	49+855.8										46.44			
E-2	LT	49+840	49+970										377.00			
E-3	RT	49+881.90	49+940										104.58			
E-4	LT	50+040	50+074										40.80			
RCP-1	LT	50+075									6.30					
E-6	RT	50+075	50+080										9.0			
E-7	LT	50+076	50+080										4.8			
E-5	RT	50+075										6.30				
B-1	LT	49+966.072	50+036.992													3
B-2	RT	49+966.102	50+037.022													3
TOTALS CARRIED TO SUB SUMMARY				287.916	4	1	1	24.5	52	1.72	6.30	6.30	582.62	1	17	6

PLAN AND PROFILE – HORNING ROAD STA. 49+830 TO STA. 50+080

CRA/RIC-30-33.500/0.000

CALCULATED WJS
CHECKED CRM

RATIO 1:500
HORIZONTAL SCALE IN METERS



metric units

NOTES:
1. FOR ℄ MON. LOCATIONS SEE SHEETS 617–618.
2. FOR DRIVEWAY DETAILS SEE SHEETS 493–495.
3. FOR SUPERELEVATION TABLES SEE SHEET 465.
4. FOR TRAFFIC CONTROL QUANTITIES SEE SHEET 506.
5. FOR PAVEMENT CURVE WIDENING SEE SUPERELEVATION TABLE SHEET 465.
6. FOR AGGREGATE LOCATIONS SEE SHEET 68

PROPOSED STRUCTURE

TYPE: 2 SPAN CONTINUOUS A572M PAINTED STEEL GIRDER BRIDGE w/COMPOSITE REINF. CONC. DECK ON CAP & COLUMN PIER AND INTEGRAL ABUTMENTS
SPANS: 35 800, 35 800 c/c BEARINGS
ROADWAY: 10 200 T/T PARAPETS
DESIGN LOADING: MS18 CASE II & ALTERNATE MILITARY LOADING
SKEW: 00°-10'-14" R.F.
ALIGNMENT: TANGENT
WEARING SURFACE: MONOLITHIC CONCRETE
APPROACH SLABS: 7600 (AS-1-81M)
CROWN: 0.016
LATITUDE: N40°-48'-37"
LONGITUDE: W82°-41'-54"
STRUCTURE FILE NO: 7000960

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	606 GUARDRAIL TYPE 5 (METER)	606 ANCHOR ASSEMBLY TYPE T (EACH)	606 ANCHOR ASSEMBLY TYPE E-98 (EACH)	603 300mm CONDUIT TYPE D (METER)	670 DITCH EROSION PROTECTION (S.M.)	SPEC. MAILBOX SUPPORT SYSTEM SINGLE (EACH)	626 BARRIER REFLECTOR TYPE A2 (EACH)
GR-1	LT	50+080	50+199.982	97.962		1				6
GR-2	RT	50+080	50+153.918	71.322	1					5
GR-3	RT	50+160.299	50+196.434	34.290	2					3
MB-1	RT	50+162.350							1	
MB-2	RT	50+205.000							1	
D-1	RT	50+142.813	50+173.331				30			
D-1	RT	50+190.167	50+211.041				21			
E-1	RT	50+080	50+142.8					113.04		
E-2	LT	50+080	50+140					72.00		
E-3	RT	50+173.3	50+180					8.04		
TOTALS CARRIED TO SUB SUMMARY				203.574	3	1	51	193.08	2	14

RATIO 1:500
HORIZONTAL SCALE IN METERS
CALCULATED WJS
CHECKED CRM

PLAN AND PROFILE – HORNING ROAD
STA. 50+080 TO STA. 50+300

CRA/RIC-30-33.500/0.000

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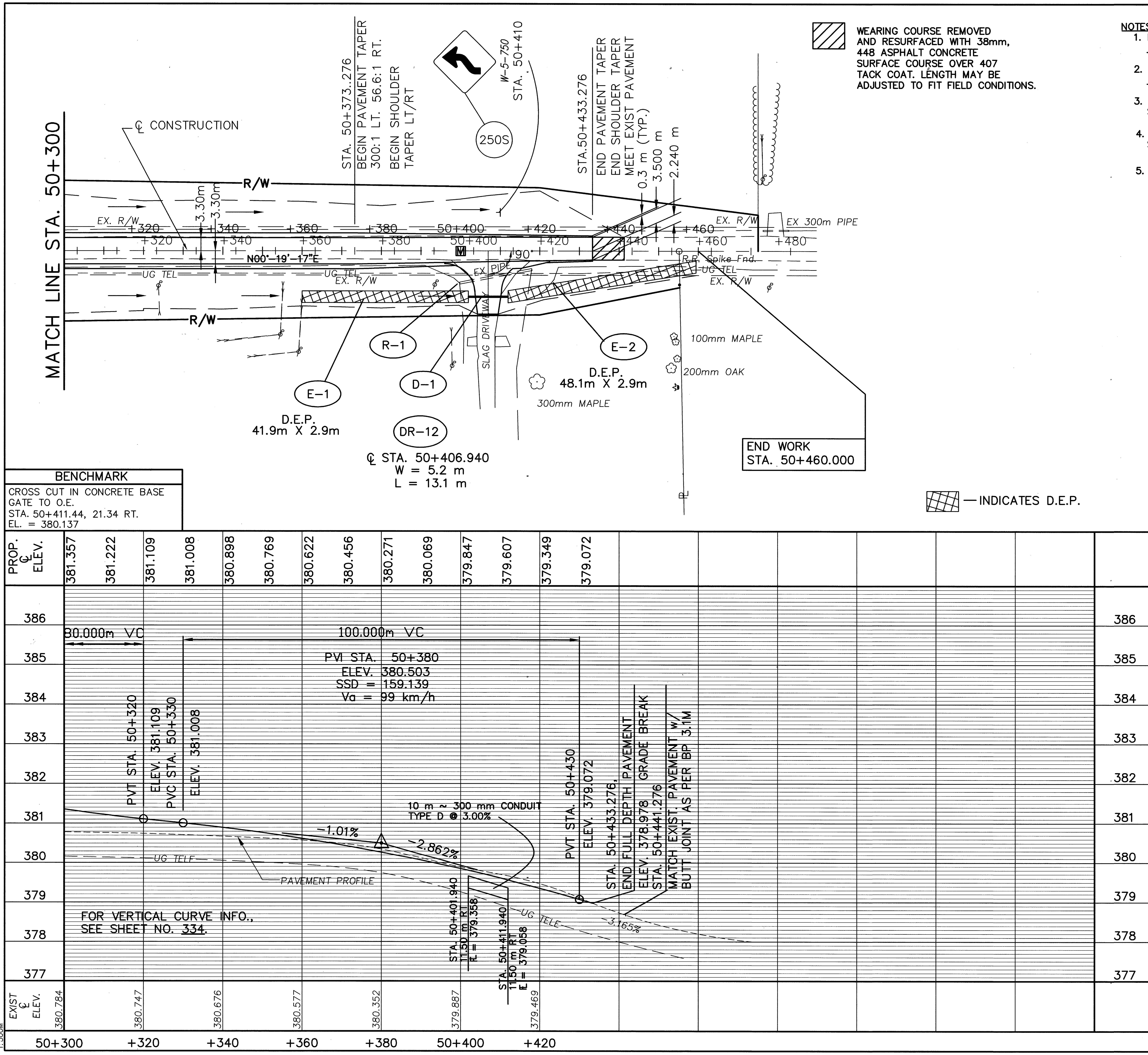

WEARING COURSE REMOVED AND RESURFACED WITH 38mm, 448 ASPHALT CONCRETE SURFACE COURSE OVER 407 TACK COAT. LENGTH MAY BE ADJUSTED TO FIT FIELD CONDITIONS.

— INDICATES D.E.P.

NOTES:

1. FOR ℄ MON. LOCATIONS SEE SHEETS 617-618
2. FOR DRIVEWAY DETAILS SEE SHEETS 493-495
3. FOR SUPERELEVATION TABLES SEE SHEET 465
4. FOR TRAFFIC CONTROL QUANTITIES SEE SHEET 505
5. FOR AGGREGATE LOCATIONS SEE SHEET 68

metric units

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	603 300mm CONDUIT TYPE D (METER)	670 DITCH EROSION PROTECTION (S.M.)	202 PIPE REMOVED 600mm AND UNDER (METER)
D-1	RT	50+401.940	50+411.940	10		
E-1	RT	50+360.000	50+401.940		121.51	
E-2	RT	50+411.940	50+456.418		139.49	
R-1	RT	50+399.7	50+418			18.5
TOTALS CARRIED TO SUB SUMMARY				10	261.00	18.5

RATIO 1:500
HORIZONTAL SCALE IN METERS
0 10 20

CALCULATED WJS
CHECKED CRM

PLAN AND PROFILE - HORNING ROAD STA. 50+300 TO STA. 50+433.276

CRA/RIC-30-33.500/0.000

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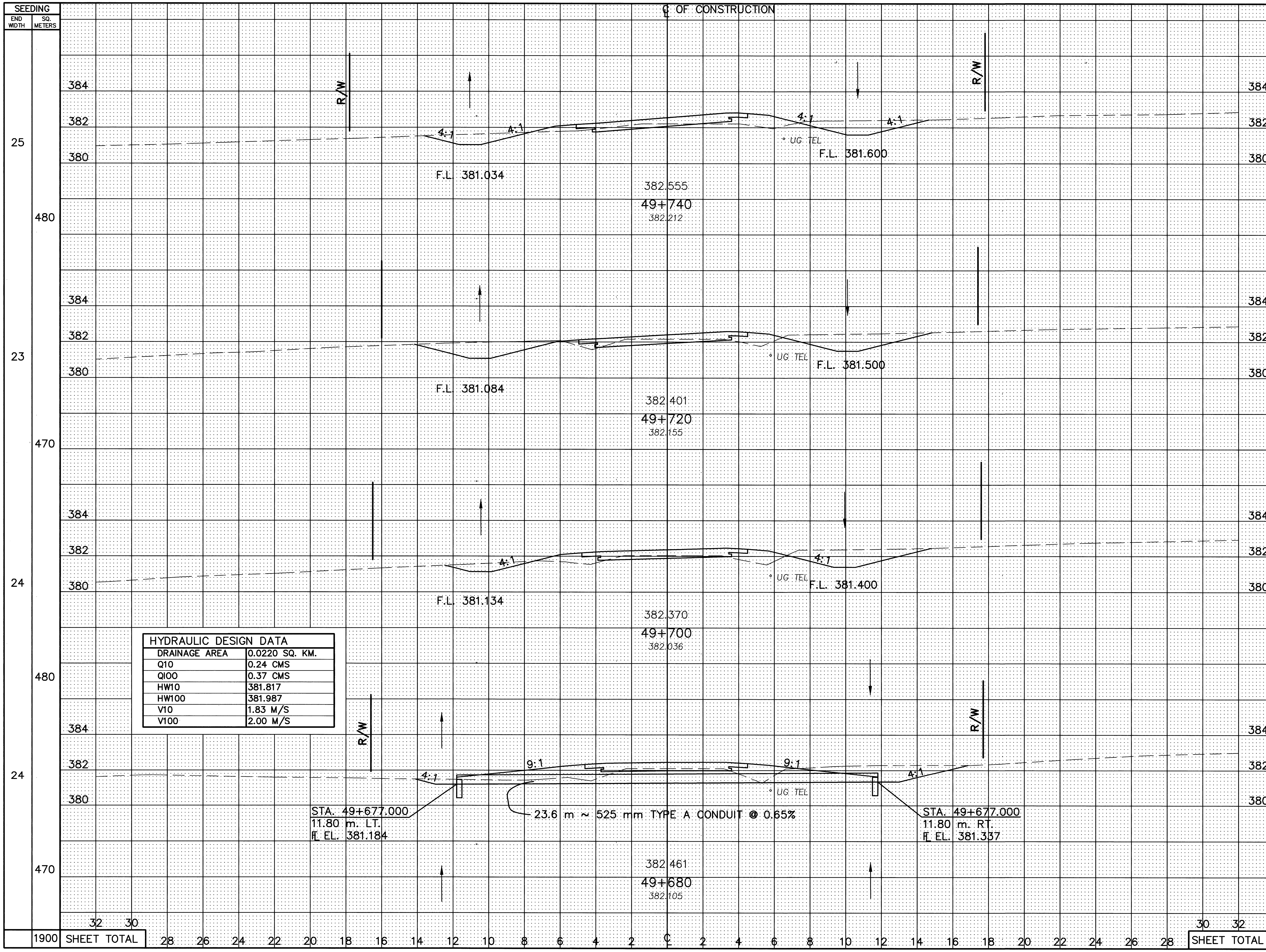

HYDRAULIC DESIGN DATA	
DRAINAGE AREA	0.0220 SQ. KM.
Q10	0.24 CMS
Q100	0.37 CMS
HW10	381.817
HW100	381.987
V10	1.83 M/S
V100	2.00 M/S

STA.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
49+740	5.7	3.1		
			151	50
49+720	9.4	1.9		
			157	51
49+700	6.3	3.2		
			111	83
49+680	4.8	5.1		
			119	69
SHEET TOTAL			538	253

CALCULATED CRM
CHECKED WLS

CROSS-SECTIONS – HORNING ROAD
STA. 49+680 TO STA. 49+740

CRA/RIC-30-33.500/0.000

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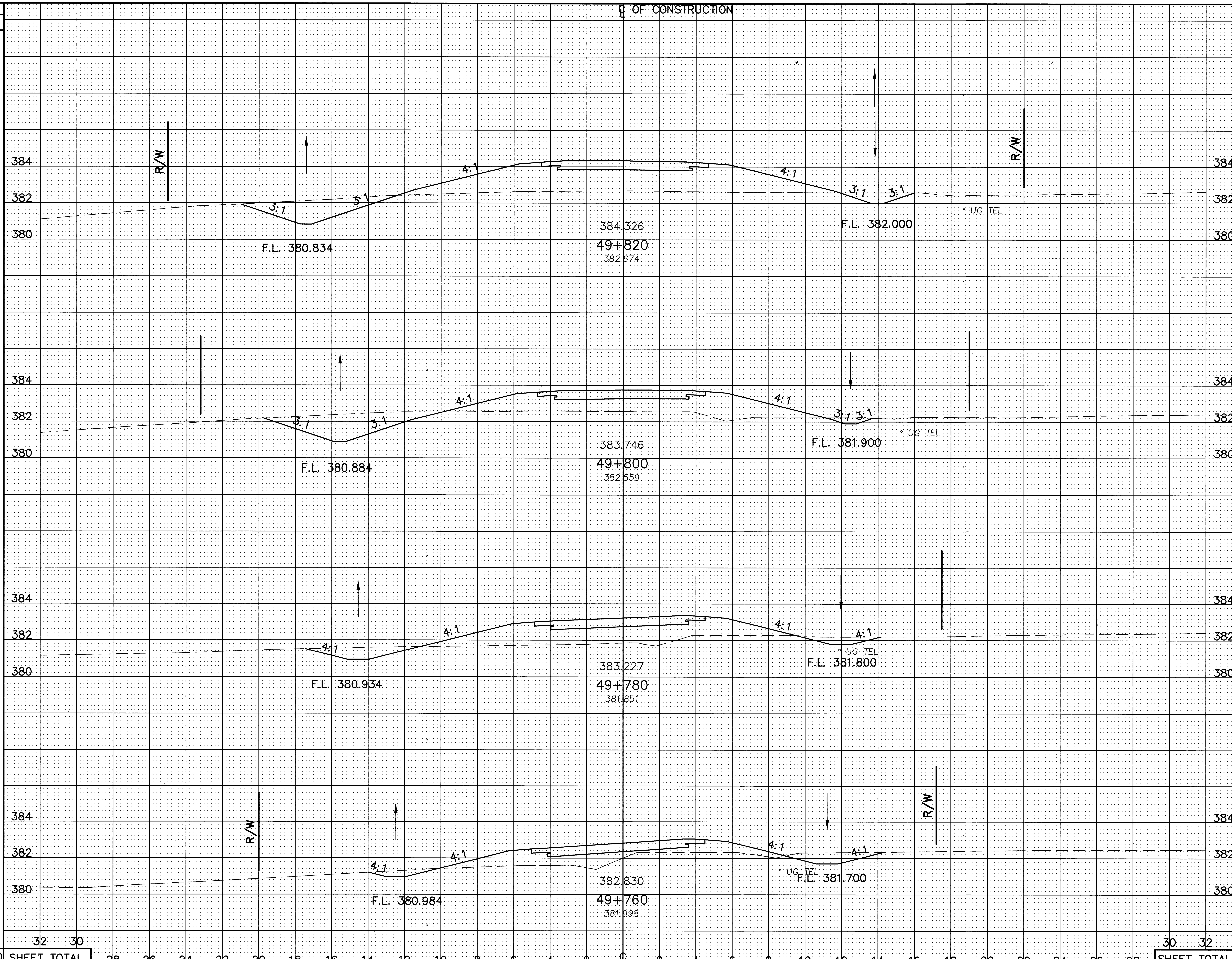

SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
34		7.3	25.9		
	640			156	422
30		8.3	16.3		
	580			120	335
28		3.7	17.2		
	530			65	273
25		2.8	10.1		
32 30	500			85	132
SHEET TOTAL	2250			426	1162

CALCULATED CRM
CHECKED WLS

CROSS-SECTIONS - HORNING ROAD
STA. 49+760 TO STA. 49+820

CRA/RIC-30-33.500/0.000

338/712

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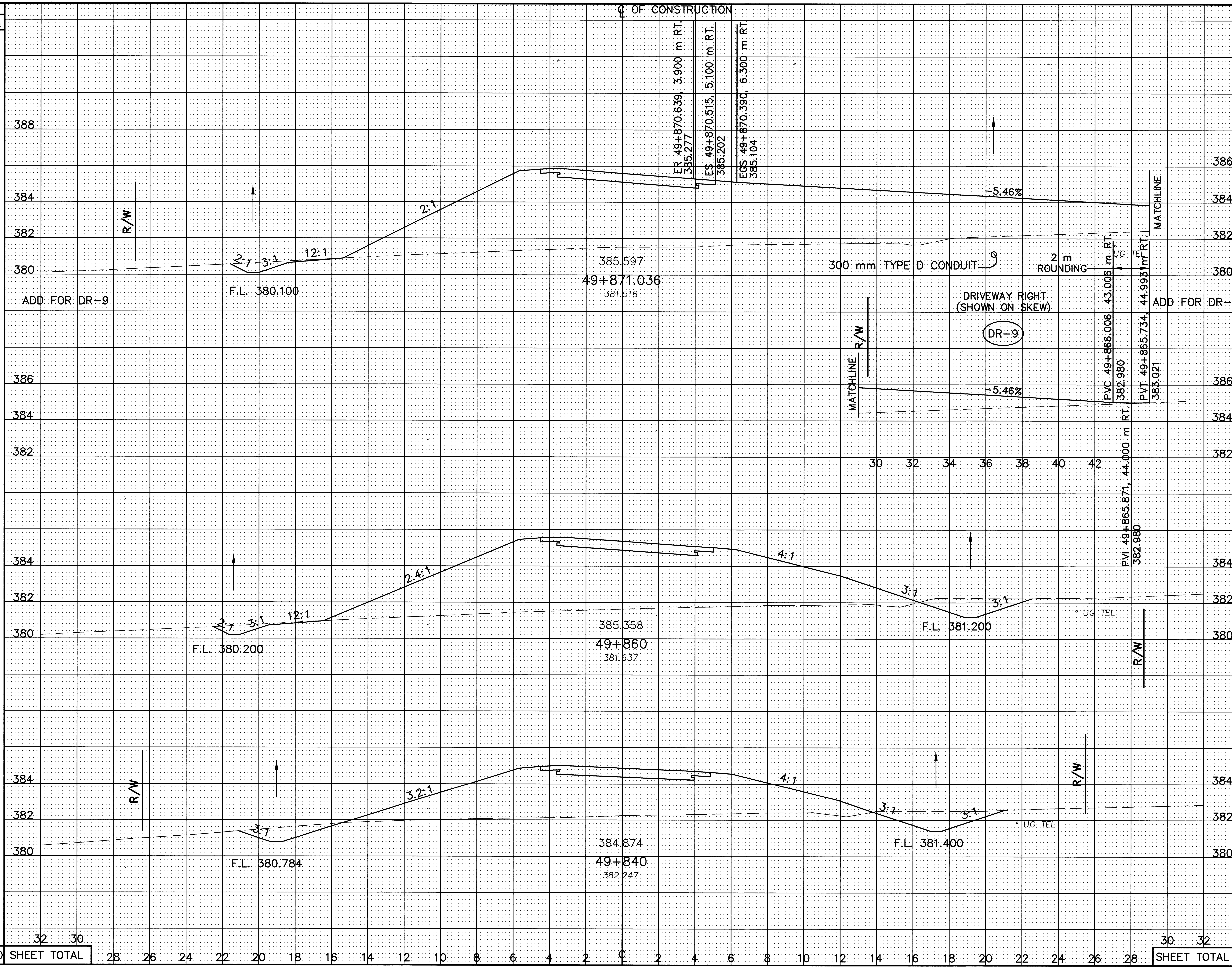
SEEDING	
END WIDTH	SQ. METERS
	210
44	
	830
39	
	730
SHEET TOTAL	1770



END AREA		VOLUME	
CUT	FILL	CUT	FILL
		0	803
4.5	86.1		
		109	1388
6.4	52.7		
		137	786
		246	2977

CALCULATED CRM
CHECKED WLS

CROSS-SECTIONS – HORNING ROAD
STA. 49+840 TO STA. 49+871.036

CRA/RIC-30-33.500/0.000

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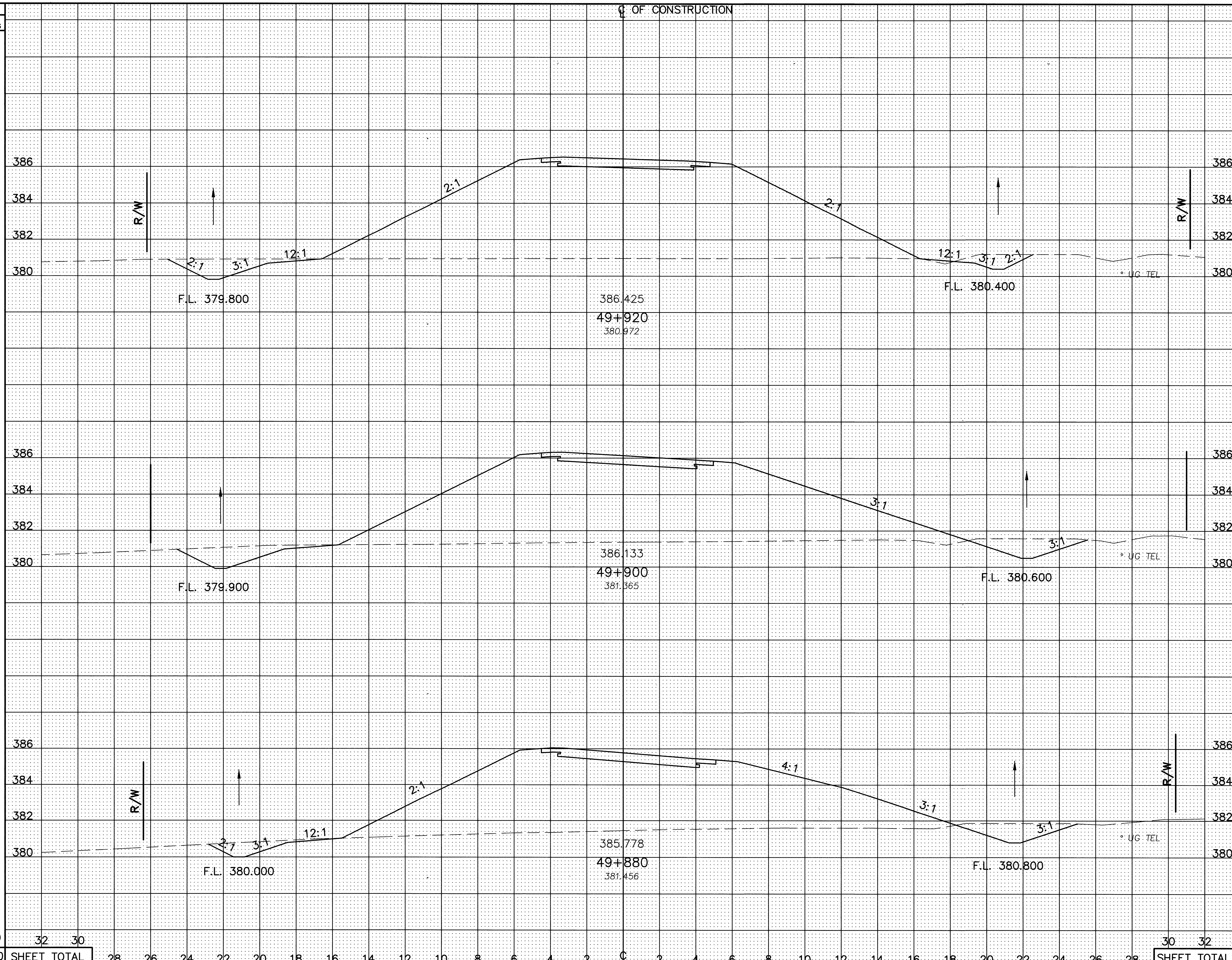
SEEDING	
END WIDTH	SQ. METERS
44	
	910
47	
	910
44	
	880
	2700



END AREA		VOLUME	
CUT	FILL	CUT	FILL
3.9	116.5		
		112	2220
7.3	105.5		
		136	2010
6.3	95.5		
		108	1816
		356	6046

CALCULATED CRM
CHECKED WLS

CROSS-SECTIONS – HORNING ROAD
STA. 49+880 TO STA. 49+920

CRA/RIC-30-33.500/0.000

340/712

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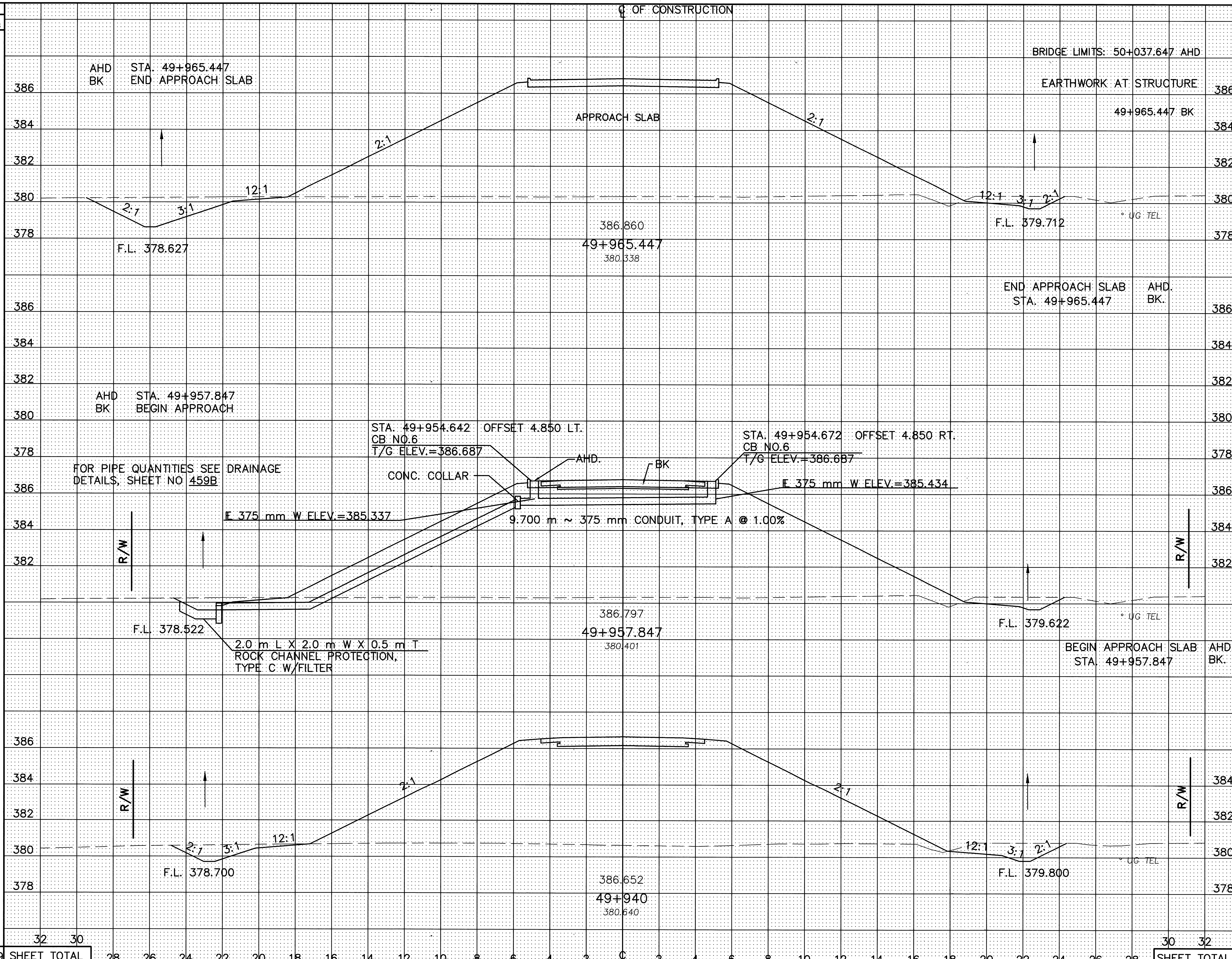
SEEDING END WIDTH	SEEDING SQ. METERS
0	
49	
	359
45	
48	
	830
45	
	890
	2079

SHEET TOTAL



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		0	915
0	0		
7.8	149.0		
		59	1129
7.8	148.0		
7.8	150.7		
		165	2521
10.7	131.8		
		146	2483
		370	7048

CALCULATED CRM
CHECKED WLS

CROSS-SECTIONS – HORNING ROAD
STA. 49+940 TO STA. 49+965.447

CRA/RIC-30-33.500/0.000

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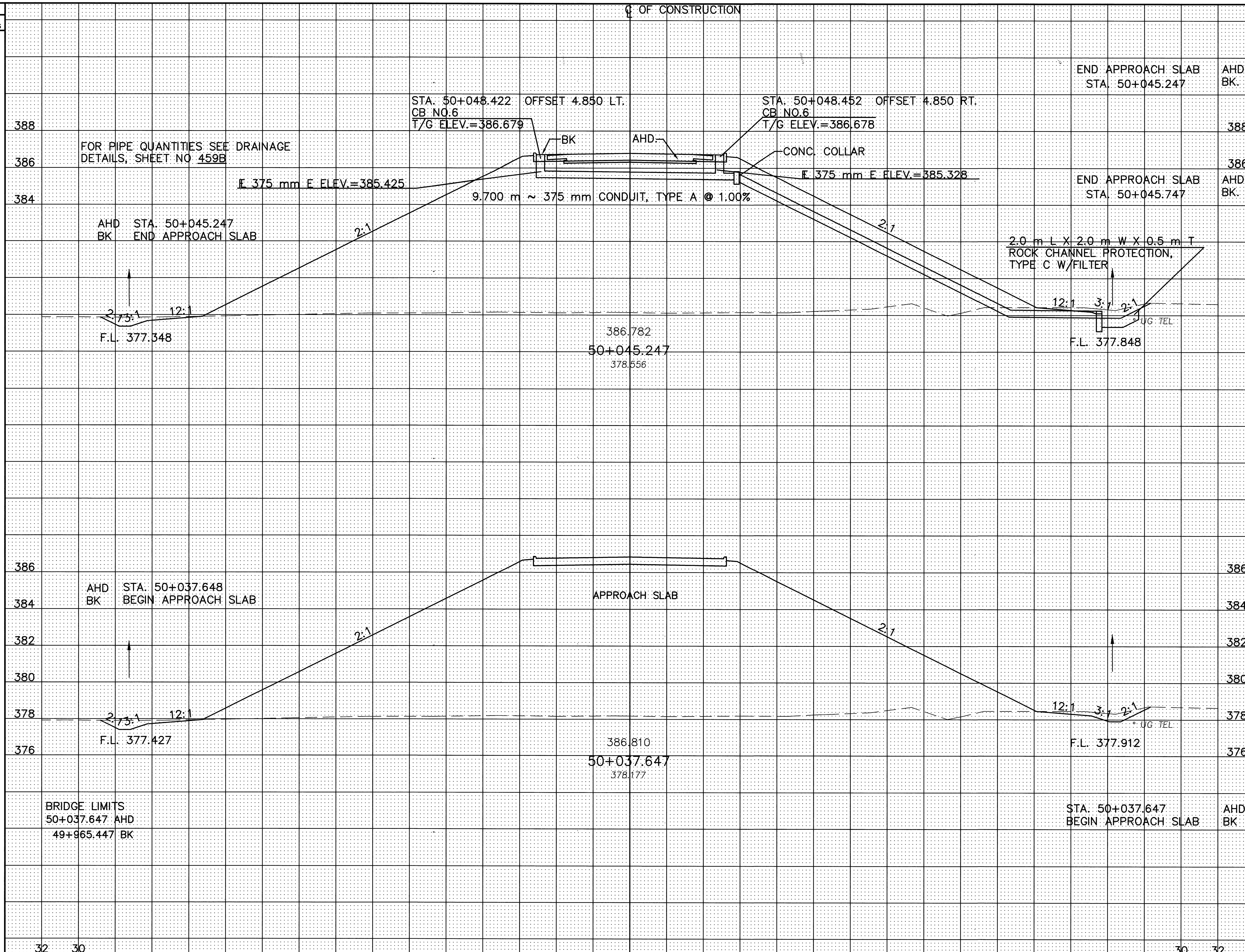
1:100M



SEEDING END WIDTH	SEEDING SQ. METERS
55 52	
	395
52 0	
SHEET TOTAL	395

	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
AHD.	1.8	239.2		
BK.	1.8	236.5		
			14	1797
AHD	1.8	236.5		
BK	0	0		
SHEET TOTAL			14	1797

CALCULATED CRM
CHECKED WLS

CROSS-SECTIONS – HORNING ROAD
STA. 50+037.647 TO STA. 50+045.247

CRA/RIC-30-33.500/0.000

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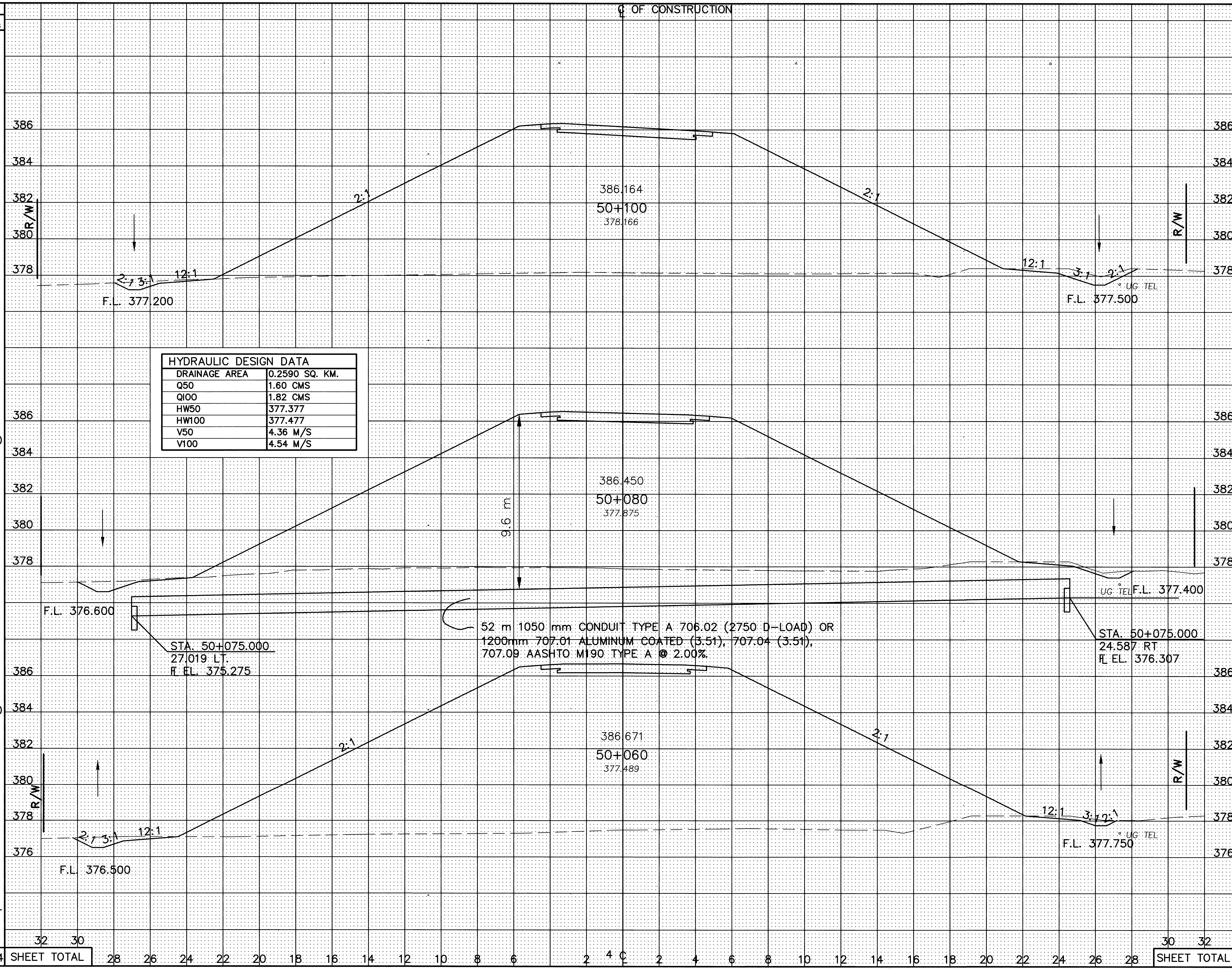

HYDRAULIC DESIGN DATA

DRAINAGE AREA	0.2590 SQ. KM.
Q50	1.60 CMS
Q100	1.82 CMS
HW50	377.377
HW100	377.477
V50	4.36 M/S
V100	4.54 M/S

Station	SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
50+100	53		3.1	217		
		1080			64	4555
50+080	55		3.3	238.5		
		1090			53	5033
50+060	54		2	264.8		
		804			27	3718
SHEET TOTAL		2974			144	13306

CALCULATED CRM CHECKED WLS

CROSS-SECTIONS – HORNING ROAD
STA. 50+060 TO STA. 50+100

CRA/RIC-30-33.500/0.000

342A / 712

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SEEDING
END WIDTH
SQ. METERS
℄ OF CONSTRUCTION
END AREA
CUT
FILL
VOLUME
CUT
FILL
CALCULATED CRM
CHECKED WLS
ER 50+156.266, 3.725 m RT. 384.827
ES 50+156.415, 4.925 m RT. 384.751
EGS 50+156.564, 6.125 m RT. 384.651
-9.40%
R/W
MATCHLINE
385.029
50+155.802
379.954
2:1
12:1
2:1
3:1
F.L. 379.200
336
ADD FOR DR-10
300 mm TYPE D CONDUIT
46.962 m RT.
48.947 m RT.
UG TEL
2 m ROUNDING
DRIVEWAY RIGHT (SHOWN ON SKEW)
DR-10
ADD FOR DR-10
0
1411
PVC 50+161.646, 380.782
PVT 50+161.893, 380.692
-9.40%
MATCHLINE
PVI 50+161.769, 47.955 m RT.
380.688
385.401
50+140
379.029
F.L. 378.400
F.L. 378.600
45
2.5
148.1
385.815
50+120
378.448
F.L. 377.600
F.L. 378.200
930
48
1010
1.8
190.8
43
3389
49
4078
2276
SHEET TOTAL
SHEET TOTAL
92
8878
CROSS-SECTIONS – HORNING ROAD
STA. 50+120 TO STA. 50+155.802
CRA/RIC-30-33.500/0.000
343
712
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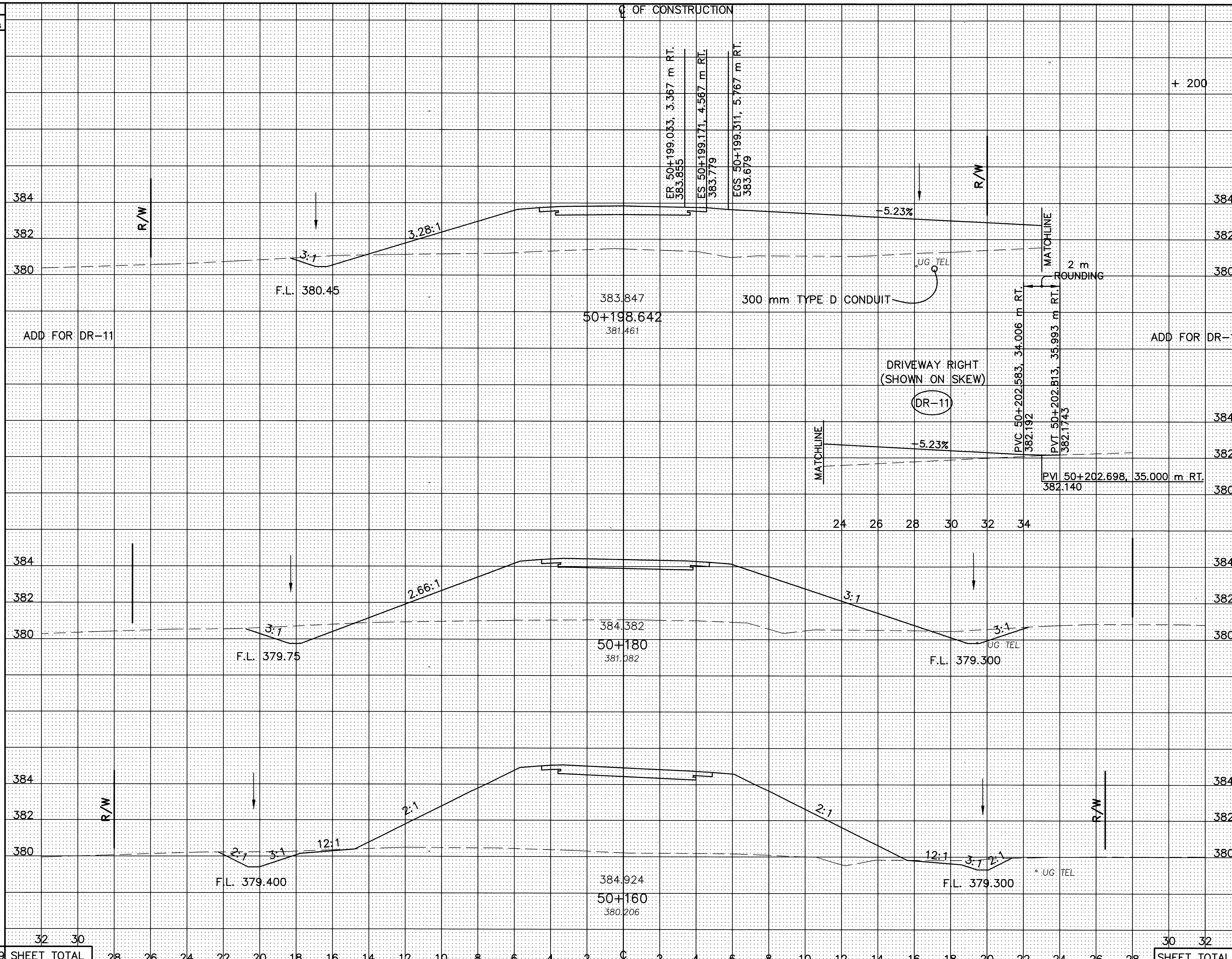
SEEDING END WIDTH	SEEDING SQ. METERS
41	
	105
	764
41	
	810
40	
	850
SHEET TOTAL	2529



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
2.3	50.1		
		114	1215
		0	368
9.1	71.4		
		121	1650
3	93.6		
		55	2417
		290	5650

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS - HORNING ROAD
STA. 50+160 TO STA. 50+198.642

CRA/RIC-30-33.500/0.000

344/712

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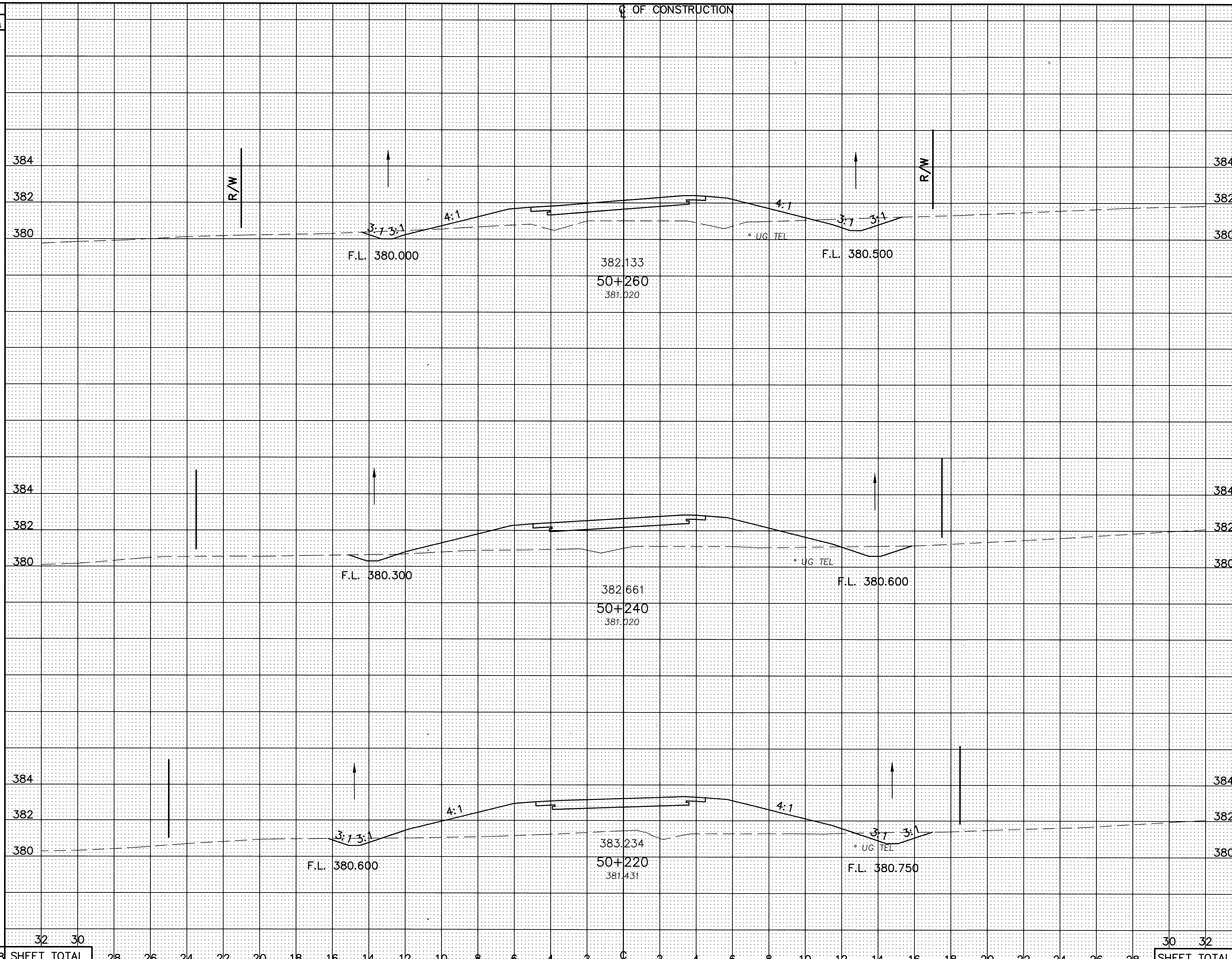
CROSS-SECTIONS – HORNING ROAD
STA. 50+220 TO STA. 50+260

CRA/RIC-30-33.500/0.000

SEEDING	
END WIDTH	SQ. METERS
26	
	530
27	
	570
30	
	758
	1858



END AREA		VOLUME	
CUT	FILL	CUT	FILL
2.5	17		
		43	425
1.8	25.5		
		40	594
2.2	33.9		
		45	840
		128	1859

CALCULATED CRM
CHECKED WJS

345
712

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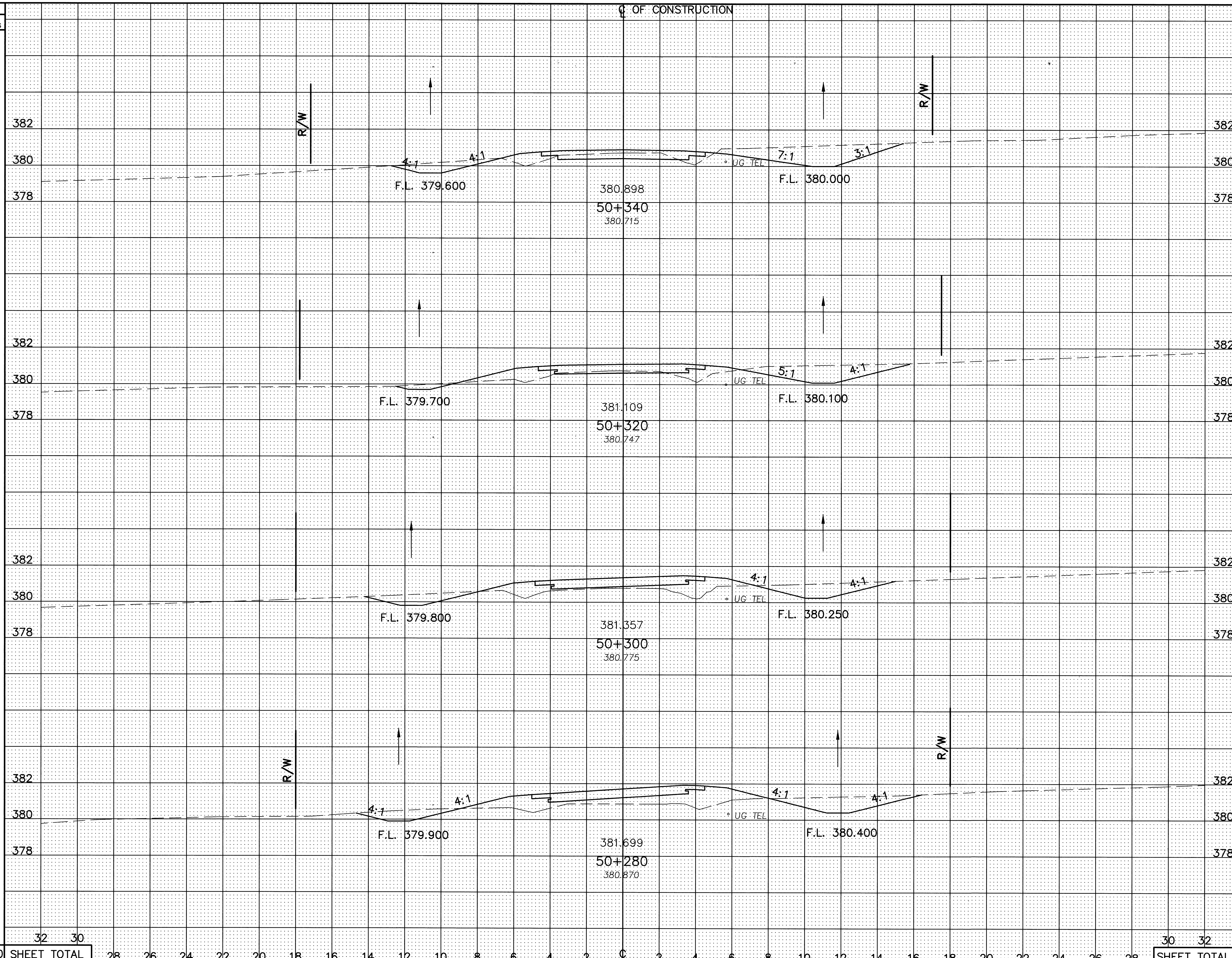

SEEDING END WIDTH	SEEDING SQ. METERS	STATION	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
26		50+340	8.7	1.8		
	500				139	59
24		50+320	5.2	4.1		
	500				110	101
26		50+300	5.8	6		
	540				120	152
28		50+280	6.2	9.2		
	540				87	262
	2080	SHEET TOTAL			456	574

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – HORNING ROAD
STA. 50+280 TO STA. 50+340

CRA/RIC-30-33.500/0.000

346/712

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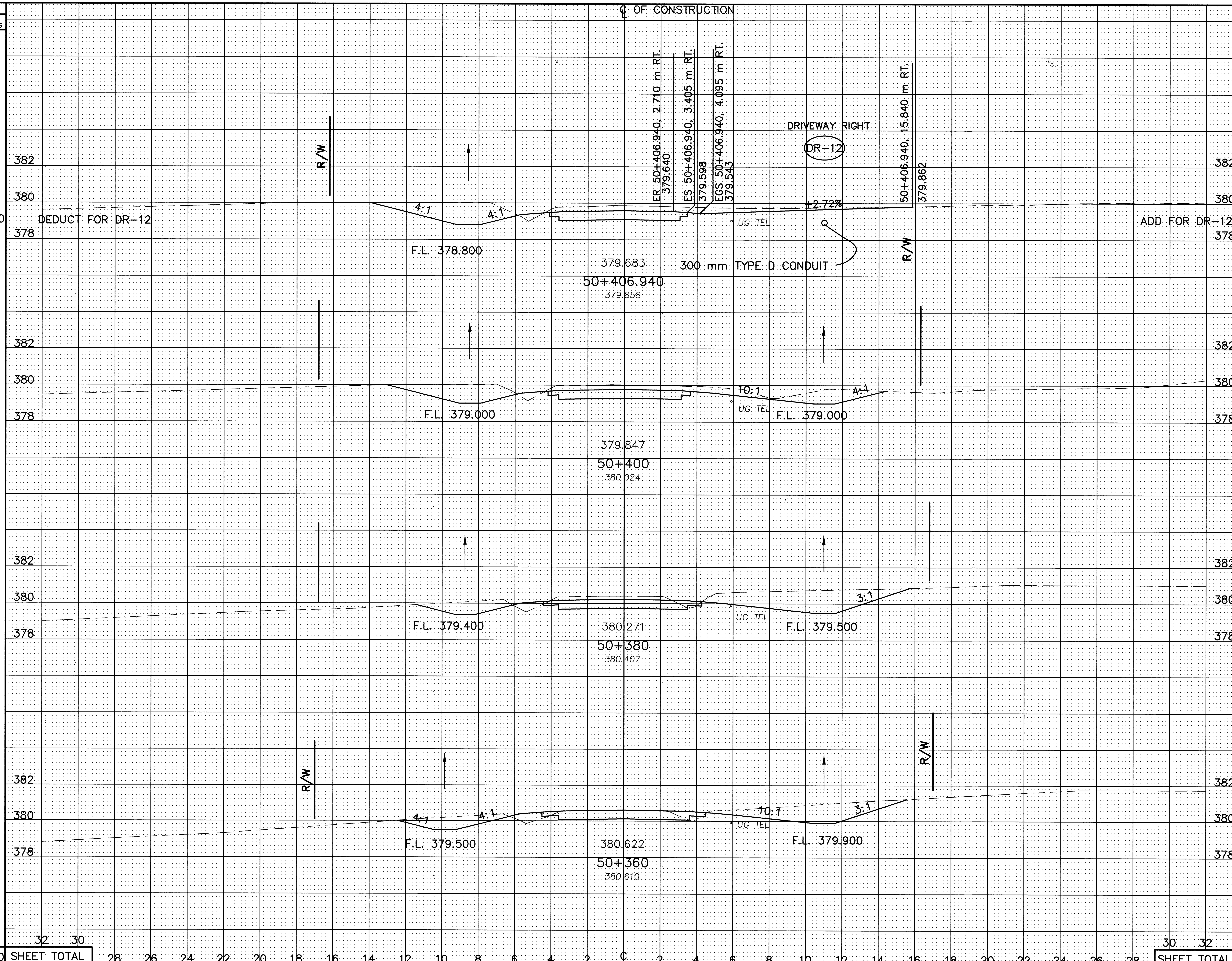
1:100M



SEEDING END WIDTH	SEEDING SQ. METERS
	-120
27	530
26	530
27	530
32 30 SHEET TOTAL	1470

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		58	0
12	.3		
		249	9
12.9	.6		
		223	15
9.4	.9		
		181	27
30 32 SHEET TOTAL		711	51

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS - HORNING ROAD
STA. 50+360TO STA. 50+406.940

CRA/RIC-30-33.500/0.000

347
712

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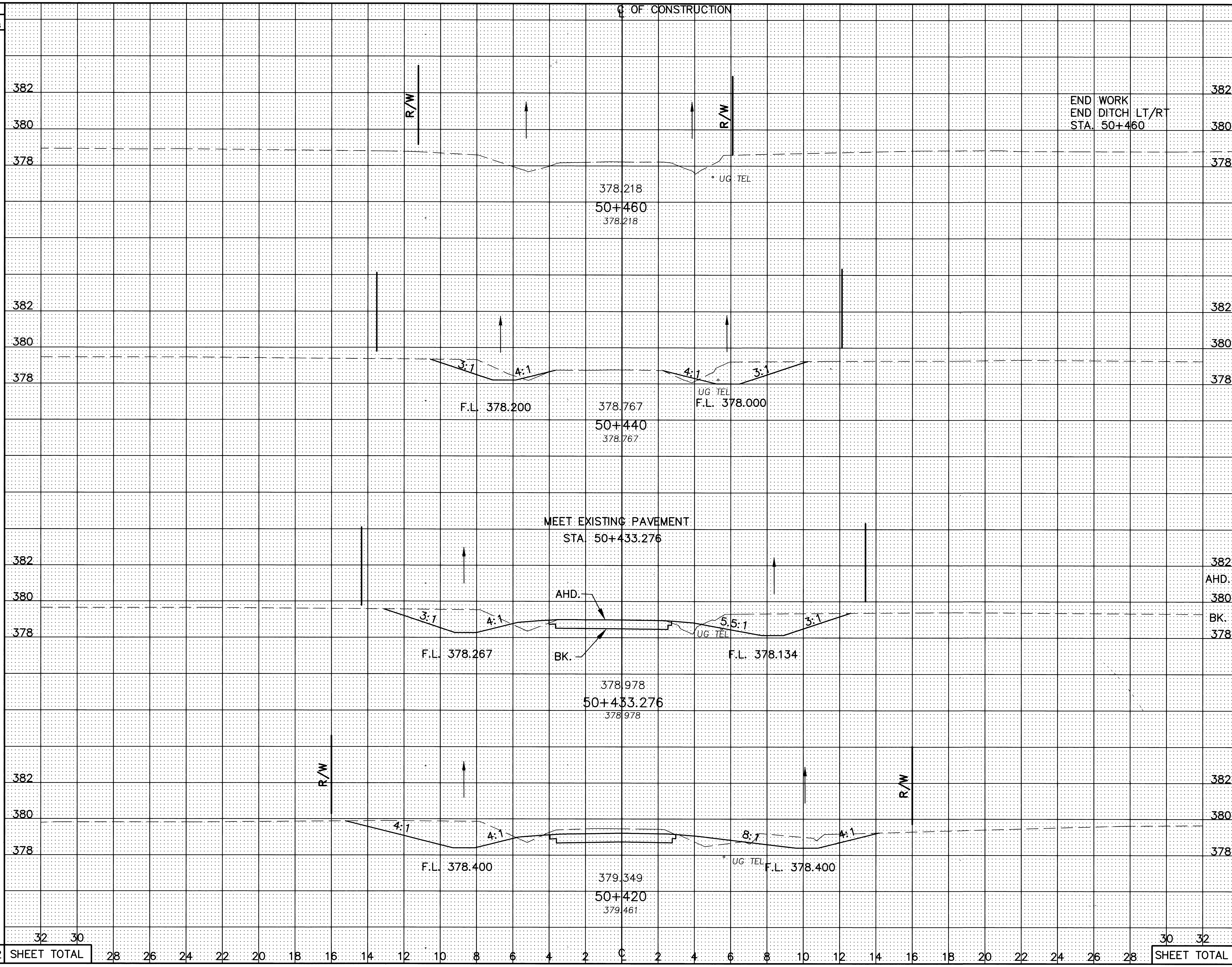

SEEDING END WIDTH	SEEDING SQ. METERS
0	
	110
11	
	117
24	
	345
28	
	550
SHEET TOTAL	1122

	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	0	0		
			79	5
	7.9	.5		
			65	6
AHD.	11.4	1.2		
BK.	14.4	1.2		
			191	16
	14.4	1.2		
			264	15
SHEET TOTAL			599	42

CALCULATED CRM CHECKED WJS

CROSS-SECTIONS – HORNING ROAD
STA. 50+420 TO STA. 50+460

CRA/RIC-30-33.500/0.000

348/712

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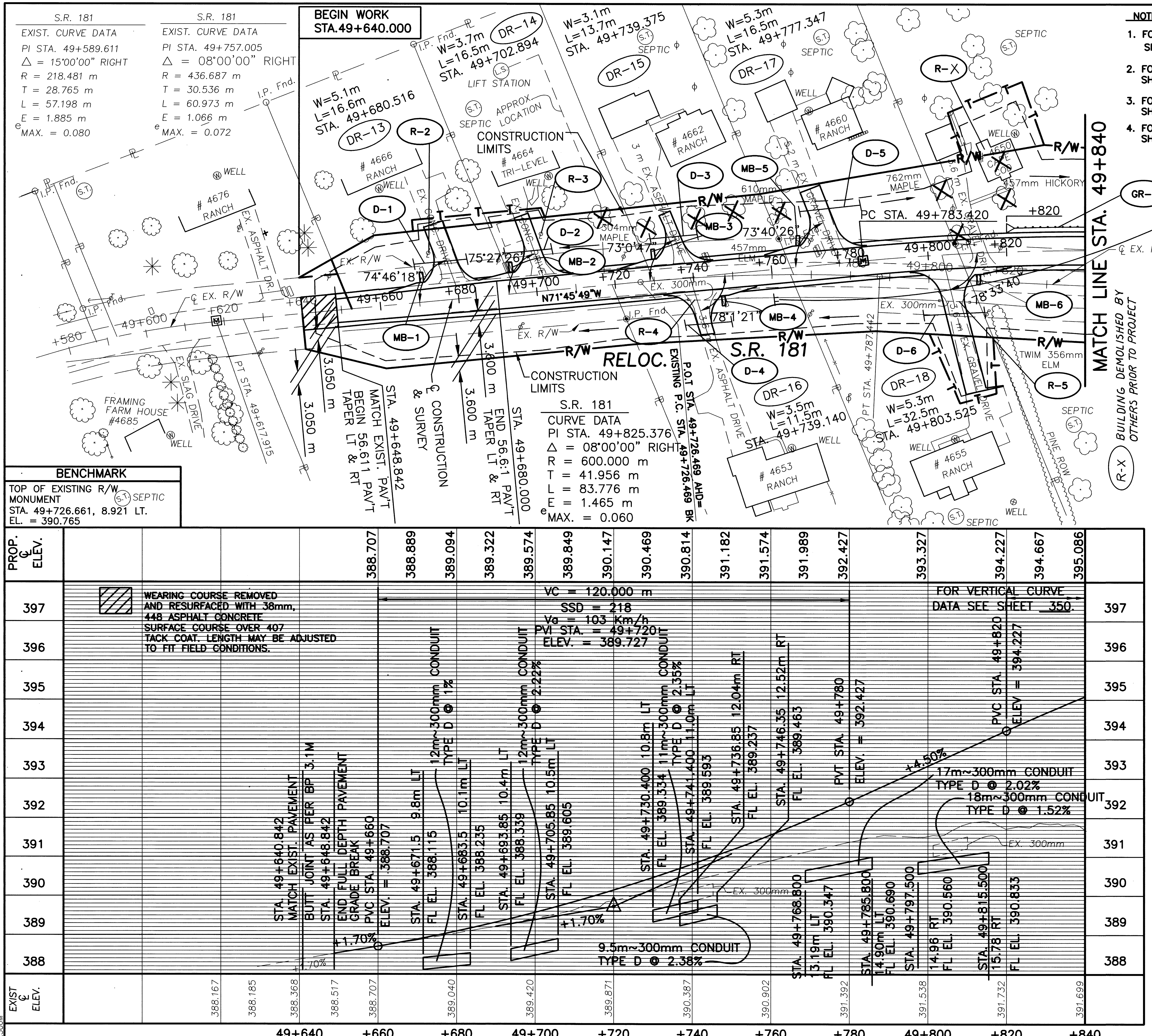


NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617,618 .
2. FOR DRIVEWAY DETAILS & QUANTITIES SEE SHEETS 493–495 .
3. FOR SUPERELEVATION TABLES SEE SHEET 466 .
4. FOR TRAFFIC CONTROL QUANTITIES SEE SHEET 506 .

metric units

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	202 BUILDING DEMOLISHED (EACH)	202 REMOVAL MISC. YARD LIGHT (EACH)	202 PIPE REMOVED 600mm AND UNDER (METER)	603 300mm CONDUIT TYPE D (METER)	606 GUARDRAIL TYPE 5 (METER)	606 ANCHOR ASSEMBLY TYPE E-98 (EACH)	SPEC. MAIL BOX SUPPORT SYSTEM SINGLE (EACH)	626 BARRIER REFLECTOR TYPE A2 (EACH)
GR-1	LT	49+820	49+840					4.600	1		1
D-1	LT	49+671.5	49+683.5				12				
D-2	LT	49+693.5	49+705.8				12				
D-3	LT	49+730.4	49+741.4				11				
D-4	RT	49+736.85	49+746.35				9.5				
D-5	LT	49+768.8	49+785.8				17				
D-6	RT	49+797.5	49+815.5				18				
R-2	LT	49+673			1						
R-3	LT	49+702			1						
R-4	RT	49+737	49+745			8					
R-5	RT	49+801	49+810			9					
MB-1	LT	49+671.5								1	
MB-2	LT	49+694.5								1	
MB-3	RT	49+730.7								1	
MB-4	RT	49+746.7								1	
MB-5	LT	49+767.6								1	
MB-6	RT	49+812.0								1	
TOTALS CARRIED TO SUB SUMMARY					2	17	79.5	4.600	1	6	1

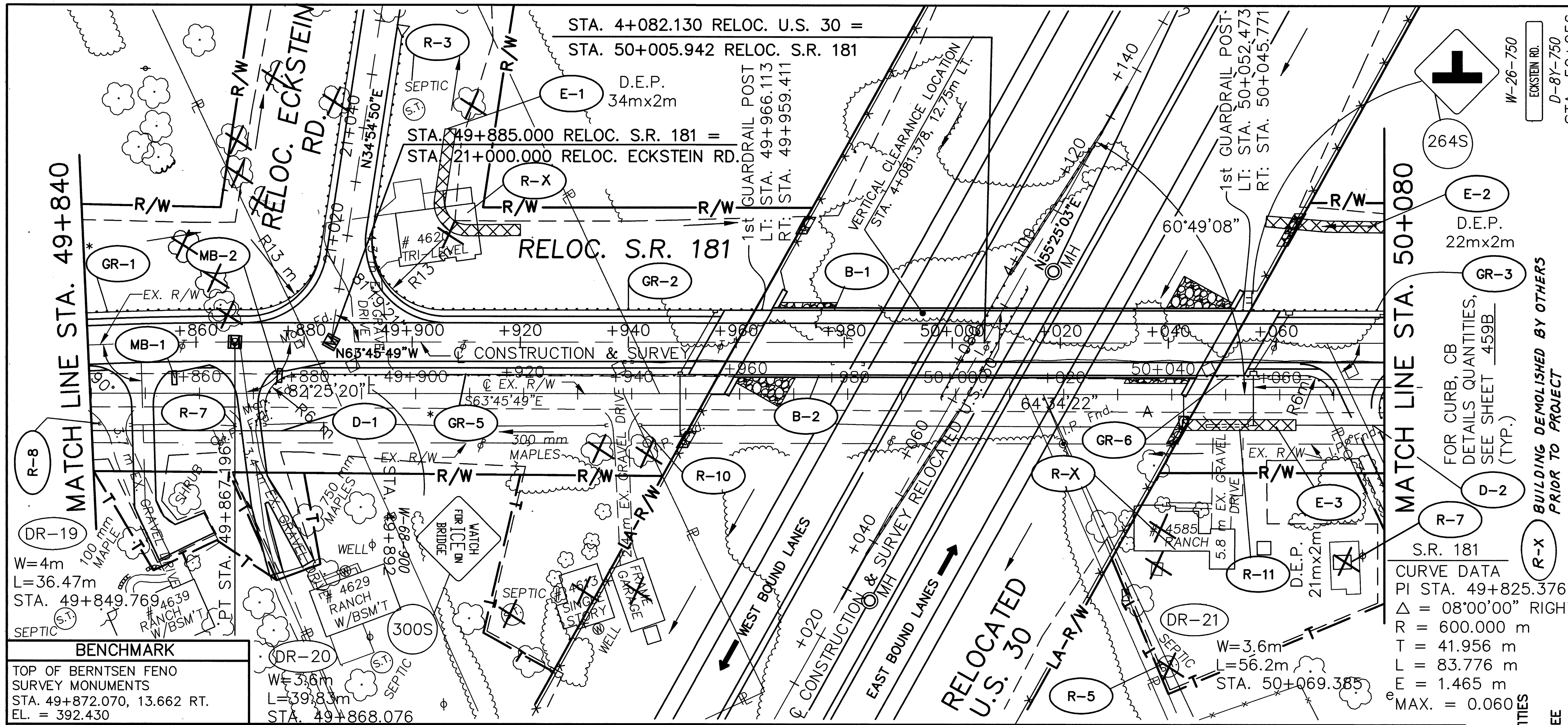
RATIO 1:500
HORIZONTAL SCALE IN METERS

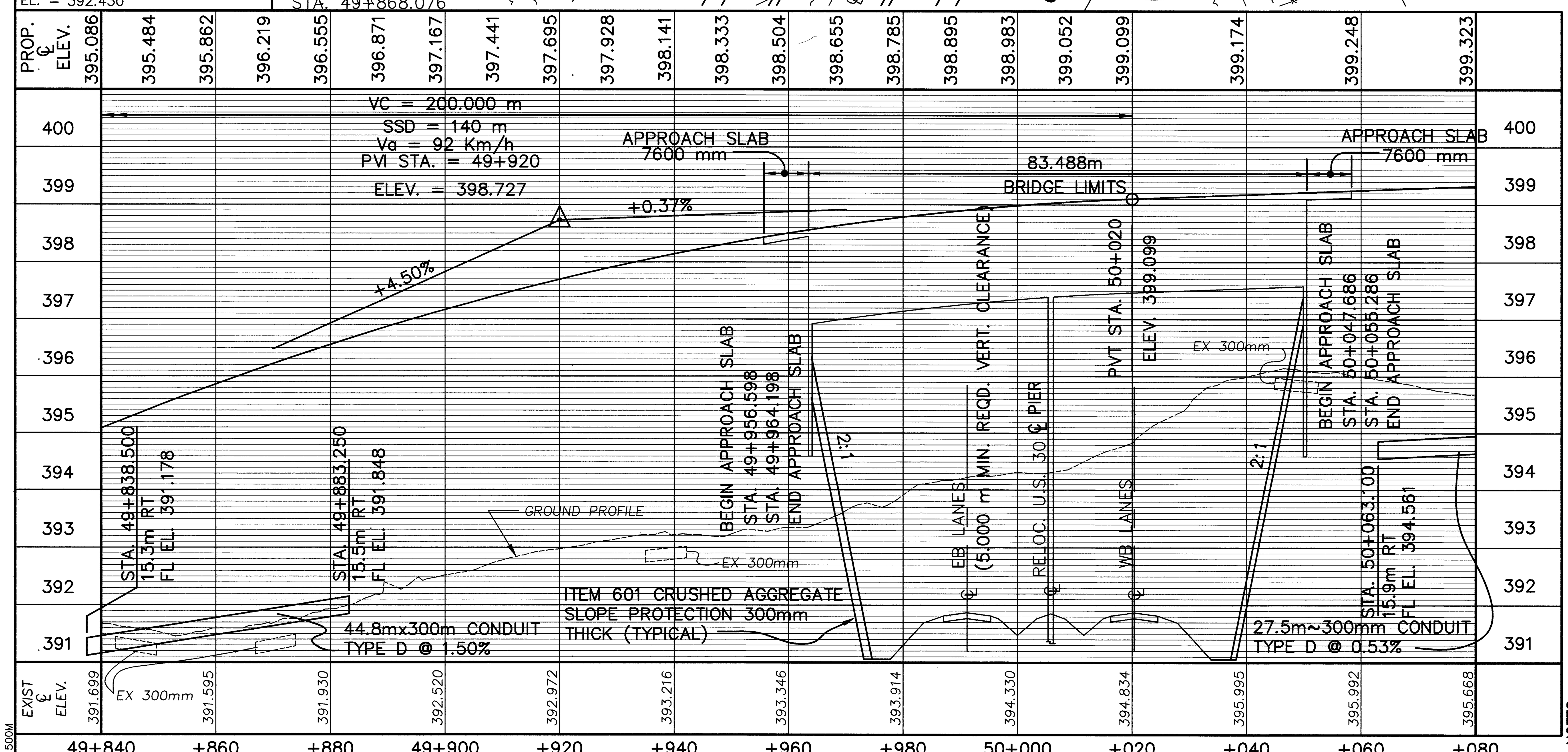
CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE – RELOCATED S.R. 181 STA. 49+580 TO STA. 49+840

CRA/RIC-30-33.500/0.000

GP500181.DWG 08-15-2000 1:09 PM 1:500M





NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617–618.
2. FOR DRIVEWAY DETAIL SEE SHEETS 493–495.
3. FOR SUPERELEVATION TABLES SHE SHEET 466.
4. FOR INTERSECTION DETAILS SEE SHEET 484.
5. FOR PROPOSED STRUCTURE TABLE SEE SHEET 351.
6. FOR TRAFFIC CONTROL QUANTITIES SEE SHEET 506.
7. FOR AGGREGATE LOCATIONS SEE SHEET 68.

* 18.514m OF GUARDRAIL GR-1 IS ON 13m RADIUS
22.389m OF GUARDRAIL GR-2 IS ON 13m RADIUS
10.218m OF GUARDRAIL GR-5 IS ON 6m RADIUS
6.677m OF GUARDRAIL GR-6 IS ON 6m RADIUS

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	202 BUILDING DEMOLISHING	202 SEPTIC TANK REMOVED	202 PIPE REMOVED 600mm AND UNDER	603 300mm CONDUIT TYPE D	606 GUARDRAIL TYPE 5	606 ANCHOR ASSEMBLY TYPE T	606 BRIDGE TERMINAL ASSEMBLY TYPE 1	606 ANCHOR ASSEMBLY TYPE E-98	SPEC MAILBOX SUPPORT SYSTEM SINGLE	SPEC DRILLED WATER WELL ABANDONED	626 BARRIER REFLECTOR TYPE A2	626 BARRIER REFLECTOR TYPE B2	670 DITCH EROSION
				EACH	EACH	METER	METER	METER	EACH	EACH	EACH	EACH	EACH	EACH	EACH	S.M.
D-1	RT	49+838.5	49+883.25				44.80									
D-2	RT	50+063.1	50+090.6				27.50									
GR-1	LT	49+840	21+080.237					98.270			1			4		
GR-2	LT	21+060.271	49+966.753					106.680		1	1			5		
GR-3	LT	50+051.833	50+080					28.167		1				1		
GR-4 NOT BEING USED																
GR-5	RT	49+872.894	49+961.316					87.630	1	1				4		
GR-6	RT	50+045.131	50+070.506					19.050	1	1				2		
R-3	LT	49+903			1											
R-5	RT	50+040			1											
R-7	RT	50+072			1											
R-8	RT	49+841	49+842			6										
R-9	RT	49+867	49+873			6										
R-10	RT	49+935	49+942			7										
R-11	RT	50+047	50+054			7										
B-1	LT	49+967.5	50+051.0												4	
B-2	RT	49+960.8	50+044.3												4	
MB-1	RT	49+855.1														
MB-2	RT	49+874.8														
E-1	LT	21+040	49+920													68
E-2	LT	50+058	50+080													44
E-3	RT	50+042	50+063.1													42
TOTALS CARRIED TO SUB SUMMARY					3	26	72.3	339.797	2	4	2			16	8	154

metric units

RATIO 1:500 HORIZONTAL SCALE IN METERS

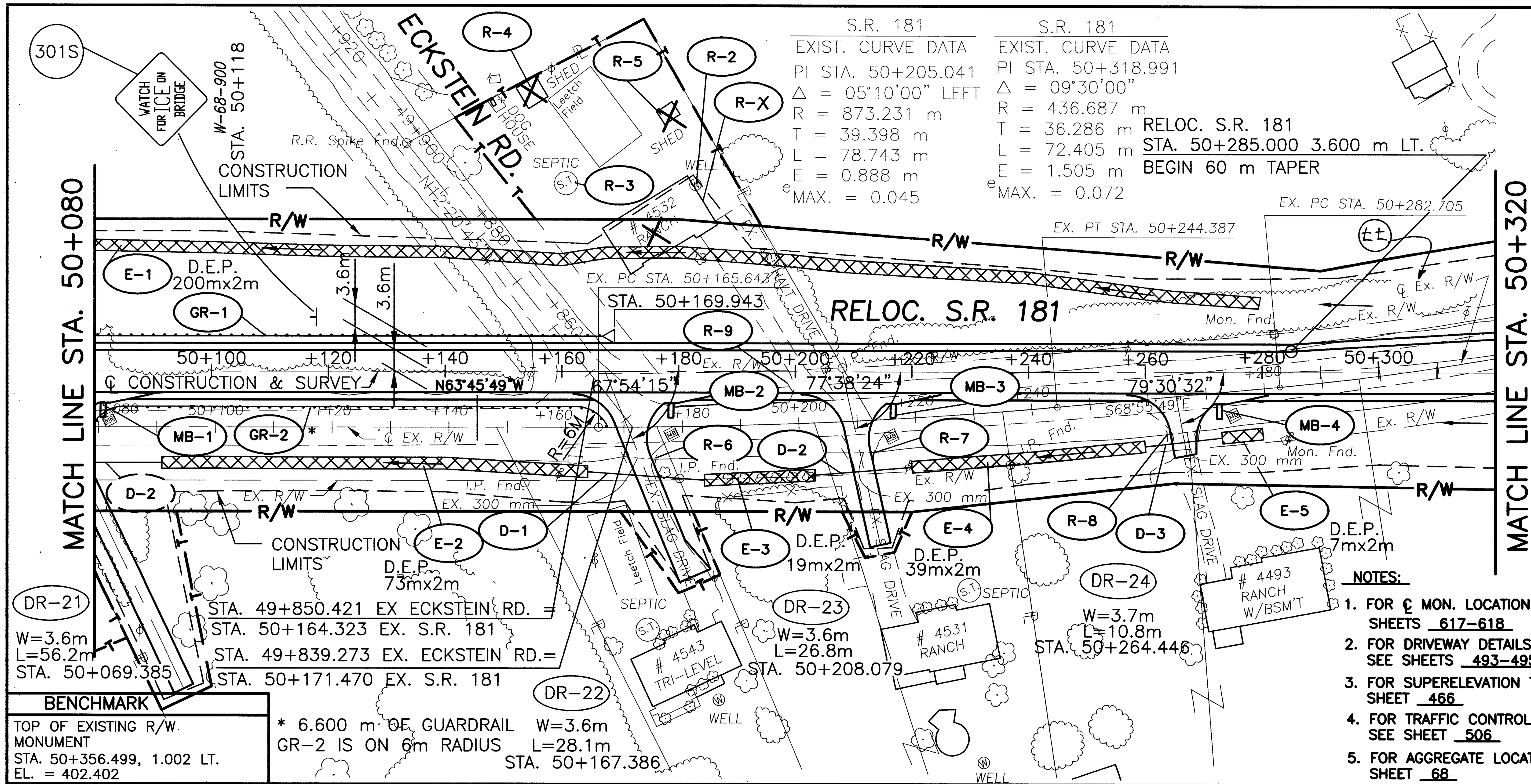
CALCULATED W.J.S. CHECKED C.R.M.

PLAN AND PROFILE – RELOCATED S.R. 181 STA. 49+840 TO STA. 50+080

CRA/RIC-30-33.500/0.000

350/712

GP50181.DWG 03-26-1999 3:54 PM 1:500M



NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617–618
2. FOR DRIVEWAY DETAILS & QUANTITIES SEE SHEETS 493–495
3. FOR SUPERELEVATION TABLES SEE SHEET 466
4. FOR TRAFFIC CONTROL QUANTITIES SEE SHEET 506
5. FOR AGGREGATE LOCATIONS SEE SHEET 68

PROPOSED STRUCTURE

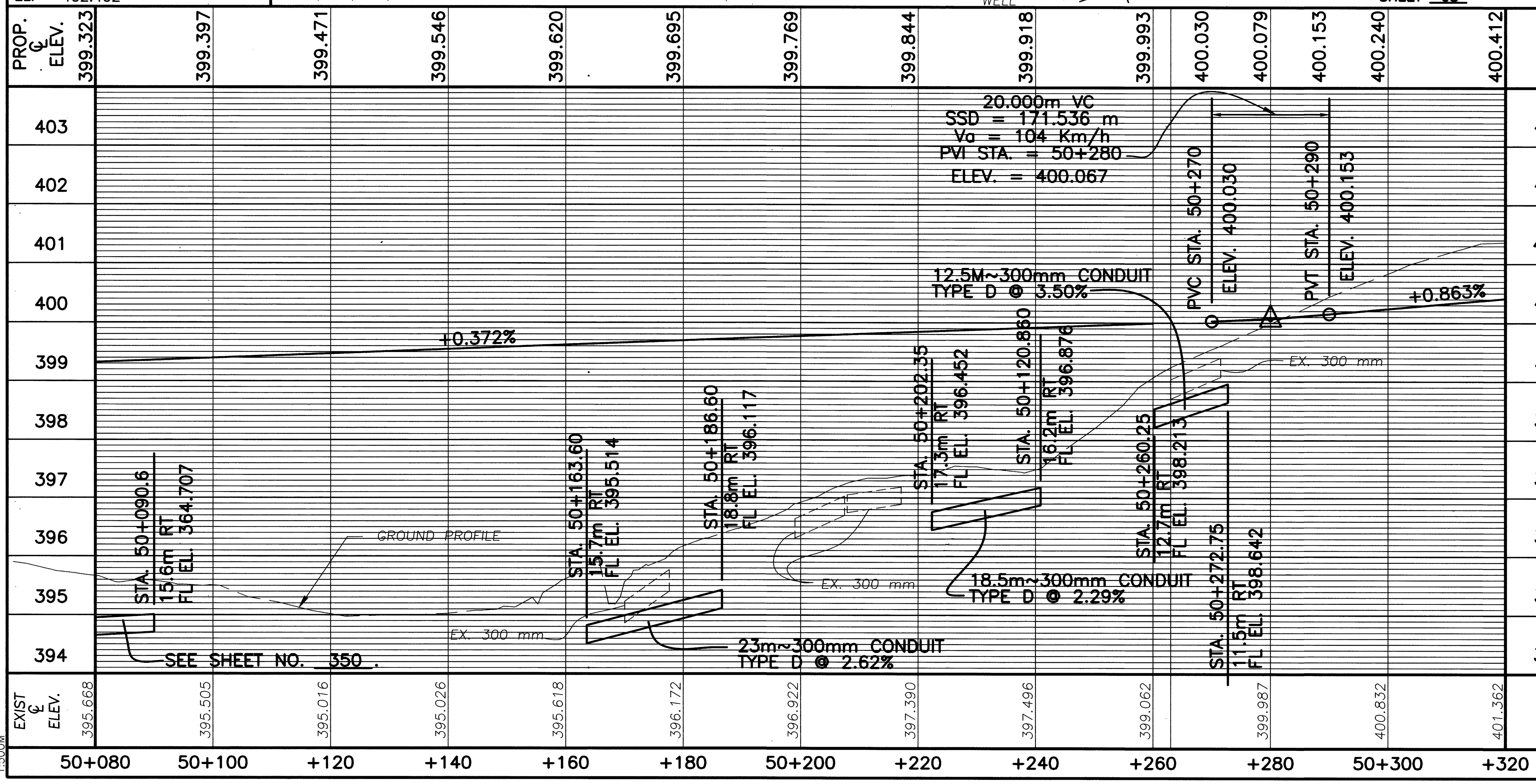
TYPE: 2 SPAN CONTINUOUS A572M PAINTED STEEL GIRDER BRIDGE w/COMPOSITE REINF. CONC. DECK ON CAP & COLUMN PIER AND SEMI-INTEGRAL ABUTMENTS
SPANS: 41 400, 41 400 c/cc BEARINGS
ROADWAY: 12 000 T/T PARAPETS
DESIGN LOADING: MS18 CASE II & ALTERNATE MILITARY LOADING
SKEW: 29°–10'–52" L.F.
ALIGNMENT: TANGENT
WEARING SURFACE: MONOLITHIC CONCRETE
APPROACH SLABS: 7600 (AS–1–81M)
CROWN: 0.016
STRUCTURE FILE NO: 7001037

metric units

(tt) TREES OUTSIDE CONSTRUCTION LIMITS, BUT INSIDE R/W SHALL BE SAVED.

— INDICATES D.E.P.

RATIO 1:500
HORIZONTAL SCALE IN METERS



ESTIMATED QUANTITIES

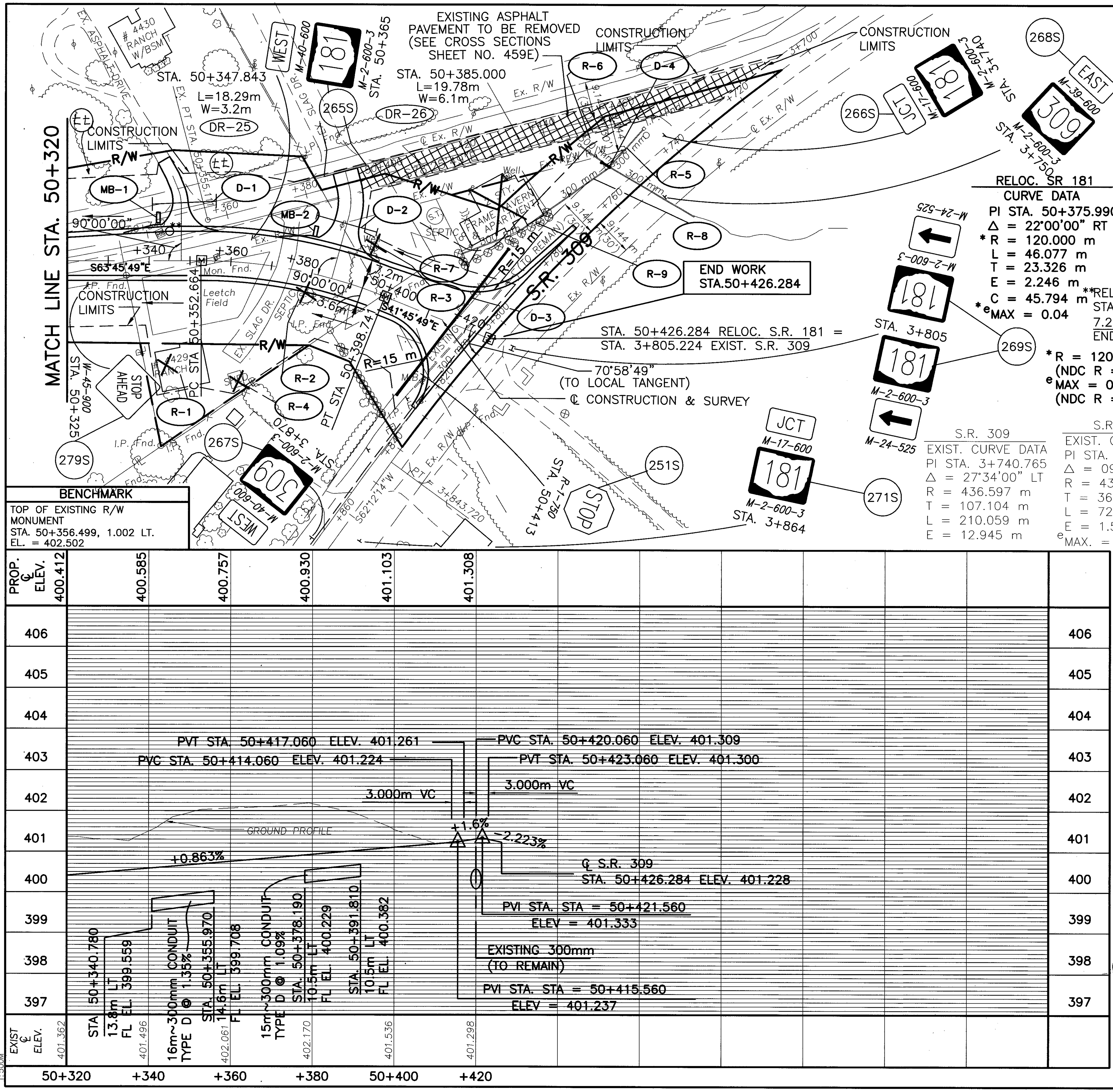
REF. No.	SIDE	STATION FROM	STATION TO	202 BUILDING DEMOLISHED (EACH)	202 PIPE REMOVED 600mm AND UNDER (METER)	603 300mm CONDUIT TYPE D (METER)	606 GUARDRAIL TYPE 5 (METER)	606 ANCHOR ASSEMBLY TYPE E–98 (EACH)	626 BARRIER REFLECTION TYPE A2 (EACH)	670 DITCH EROSION PROTECTION (S.M.)	SPEC. MAILBOX SUPPORT SYSTEM SINGLE (EACH)	202 SEPIC TANK REMOVED (EACH)	SPEC. DRILLED WELL ABANDONED (EACH)	606 ANCHOR ASSEMBLY TYPE T (EACH)
GR–1	LT	50+080	50+169.943				74.703	1	4					
GR–2	RT	50+079.637	50+167.788				95.25		4					2
D–1	RT	50+163.6	50+.183.6			23								
D–2	RT	50+202.35	50+220.85			18.5								
D–3	RT	50+260.25	50+272.75			12.5								
E–1	LT	50+080	50+280							400				
E–2	RT	50+090.6	50+163.6							146				
E–3	RT	50+183.6	50+202.3							38				
E–4	RT	50+220.8	50+260.2							78				
E–5	RT	50+272.7	50+280							14				
R–2	LT	50+183											1	
R–3	LT	50+160										1		
R–4	LT	50+155		1										
R–5	LT	50+178		1										
R–6	RT	50+170	50+176		6									
R–7	RT	50+208	50+214		6									
R–8	RT	50+263	50+269		6									
R–9	LT	50+199	50+205		6									
MB–1	RT	50+080.9									1			
MB–2	RT	50+177.9									1			
MB–3	RT	50+215.9									1			
MB–4	RT	50+272.0									1			
TOTALS CARRIED TO SUB SUMMARY				2	24	54	169.953	1	8	676	4	1	1	2

CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE – RELOCATED S.R. 181 STA. 50+080 TO STA. 50+320

CRA/RIC–30–33.500/0.000

GP502181.DWG 08–18–2000 4:10 PM 1:500M



NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617-618
2. FOR DRIVEWAY DETAIL SEE SHEETS 493-495
3. FOR SUPERELEVATION TABLES SEE SHEET 466
4. FOR INTERSECTION DETAIL SEE SHEET 484.
5. FOR TRAFFIC CONTROL QUANTITIES SEE SHEETS 505-506.
6. FOR AGGREGATE LOCATIONS SEE SHEET 68

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	202 BUILDING DEMOLISHED EACH	202 SEPTIC TANK REMOVED EACH	202 PIPE REMOVED, 600 mm AND UNDER METER	202 CATCH BASIN REMOVED EACH	602 CONCRETE MASONRY CU. METER	603 300mm CONDUIT TYPE B METER	603 300mm CONDUIT TYPE C METER	603 300mm CONDUIT TYPE D METER	604 CATCH BASIN, NO. 2-2B EACH	SPEC. DRILLED WELL ABANDONED METER	SPEC. MAILBOX SUPPORT SYSTEM SINGLE EACH
D-1	LT	50+340.78	50+355.97								16			
D-2	LT	50+378.19	50+391.81								15			
D-3	LT/RT	50+410.503	50+422.443					0.17	45			1		
D-4	RT	3+755.767						0.17		3				
R-1	RT	50+350		1										
R-2	RT	50+383			1									
R-3	LT	50+393											1	
R-4	RT	50+364		1										
R-5	RT	3+744.29	3+756.19			12	2							
R-6	RT	3+757.69				8	1							
R-7	RT	3+785.91	3+798.30			12	2							
R-8	RT	3+755.27	3+782.47			27	1							
R-9	LT	50+415		1										
MB-1	LT	50+342.3												1
MB-2	LT	50+378.7												1
TOTALS CARRIED TO SUB SUMMARY				3	1	59	6	0.34	45	3	31	1	1	2

metric units

RATIO 1:500 HORIZONTAL SCALE IN METERS

CALCULATED W.J.S. CHECKED C.R.M.

PLAN AND PROFILE – RELOCATED S.R. 181
STA. 50+320 TO STA. 50+426.284

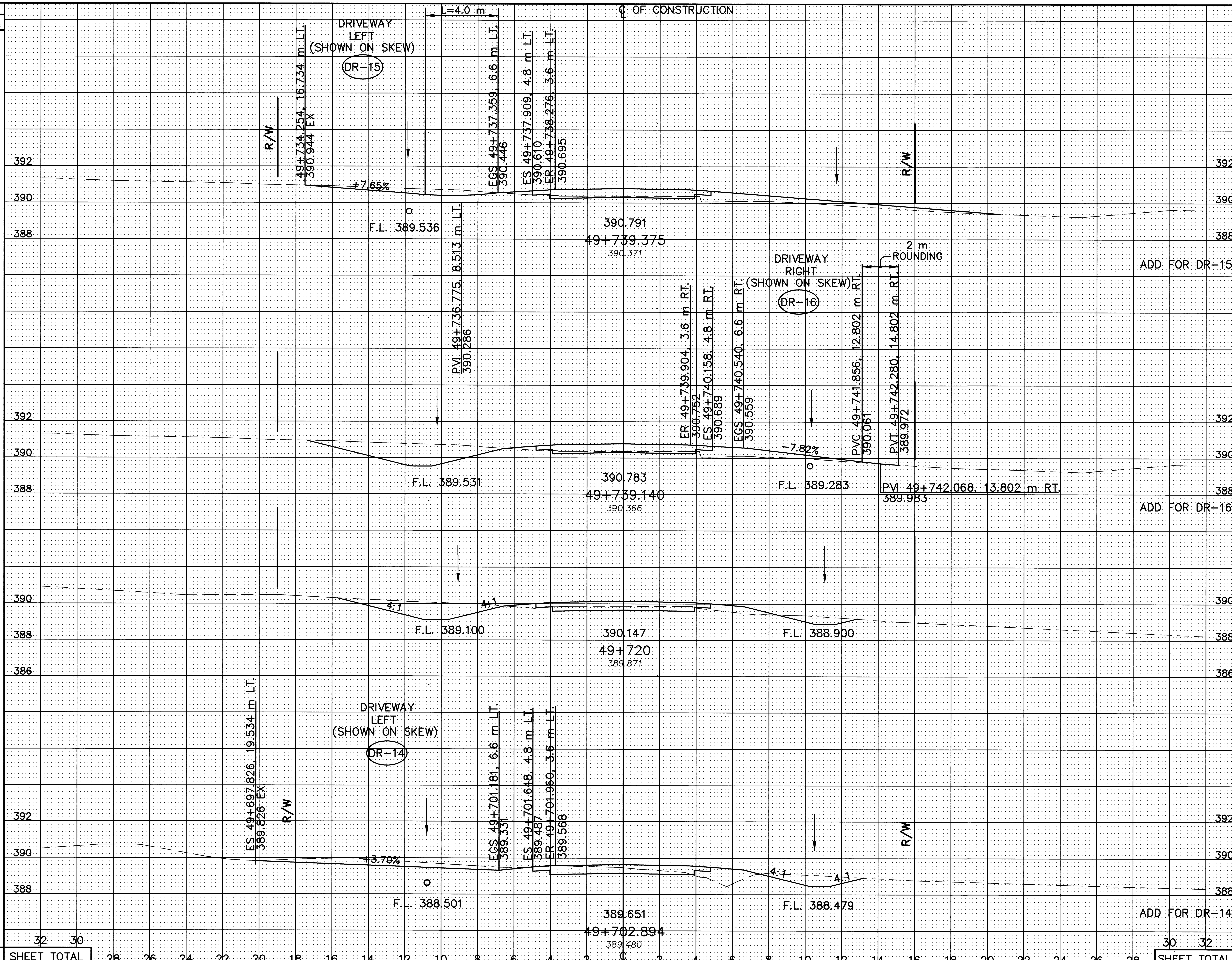
CRA/RIC-30-33.500/0.000

352/712

GP50318I.DWG 09-25-2000 9:15 AM 1:500M

SEEDING
END WIDTH
SQ. METERS
℄ OF CONSTRUCTION
END AREA
VOLUME
CUT
FILL
CALCULATED CRM
CHECKED WJS
R/W
4:1
F.L. 388.400
F.L. 388.300
389.574
49+700
389.420
DRIVEWAY LEFT
DR-13
(SHOWN ON SKEW)
L=4.0 m
ES 49+675.705, 19.464 m LT.
389.371 EX.
EGS 49+678.775, 6.6 m LT.
388.793
ES 49+679.262, 4.8 m LT.
388.948
ER 49+679.588, 3.6 m LT.
389.027
+6.38%
F.L. 388.121
F.L. 387.956
PVI 49+678.249, 8.325 m LT.
388.633
389.105
49+680.516
389.049
ADD FOR DR-13
F.L. 388.000
F.L. 387.477
388.707
49+660
388.707
BK.
AHD.
2:1
F.L. 387.882
F.L. 387.412
388.517
49+648.842
388.517
BEGIN FULL DEPTH PAVEMENT STA. 49+648.842
MEET EXIST. PAVEMENT
49+640
388.368
BEGIN WORK STA. 49+640
MEET EXIST. DITCH RT/LT
SHEET TOTAL
1434
544
105
CROSS-SECTIONS – S.R. 181
STA. 49+640 TO STA. 49+700
CRA/RIC-30-33.500/0.000
353
712
GX500181.DWG
03-24-1999 3:03 PM
1:100M

SEEDING END WIDTH	SEEDING SQ. METERS
34	
	7
29	
	517
25	
	462
29	
	81
	1067



	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
ADD FOR DR-15			1	0
ADD FOR DR-16			1	1
49+720	7.9	1.3		
ADD FOR DR-14			4	0
			31	5
SHEET TOTAL			37	6

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS - S.R. 181
STA. 49+702.894 TO STA. 49+739.375

CRA/RIC-30-33.500/0.000

GX501181.DWG
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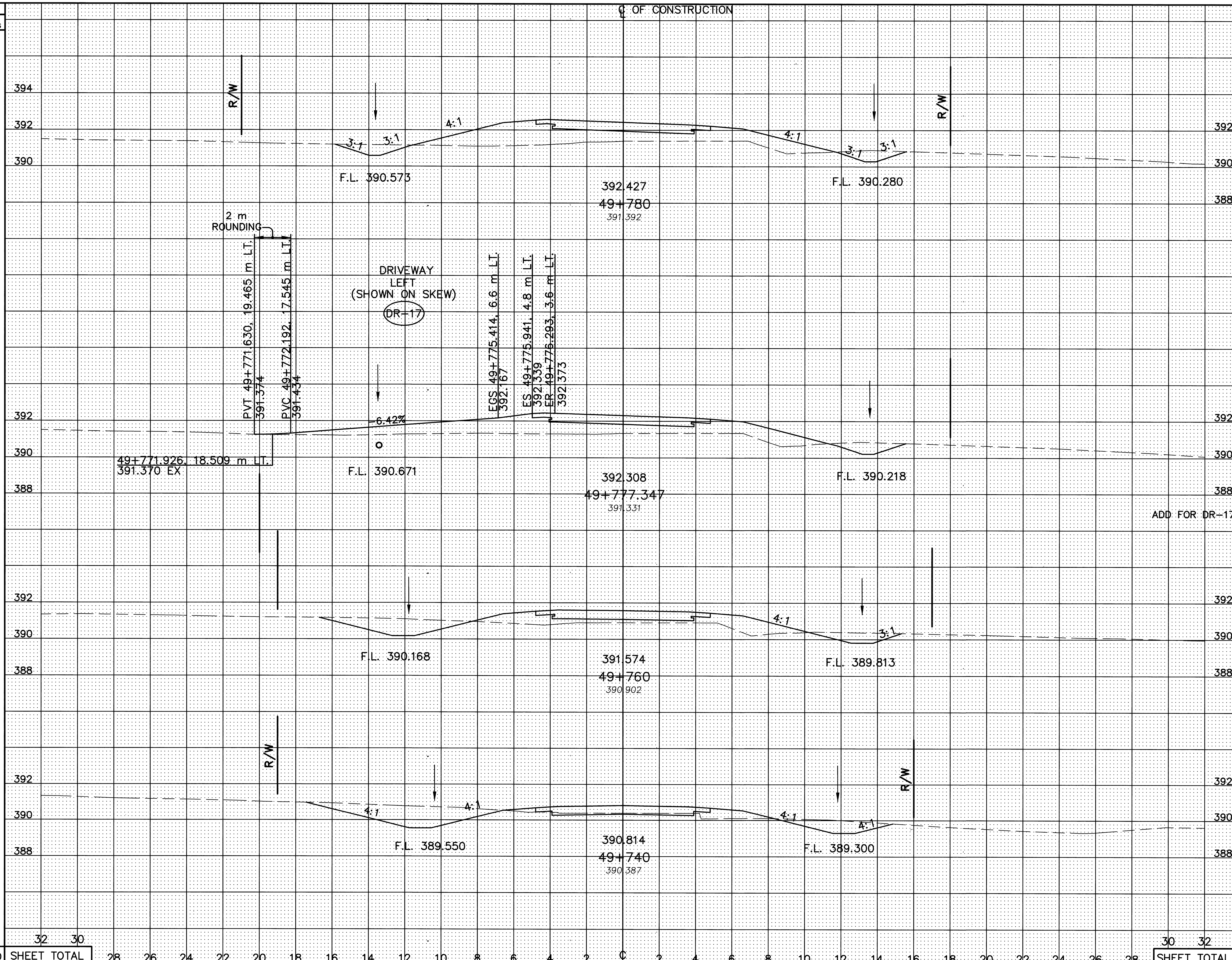
1:100M



SEEDING	
END WIDTH	SQ. METERS
58	
	118
31	
	512
28	
	570
29	
	20
	1220

END AREA		VOLUME	
CUT	FILL	CUT	FILL
2.7	15.9		
		90	228
		2	8
6.3	6.9		
		170	87
10.7	1.8		
		186	31
		448	354

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS - S.R. 181
STA. 49+740 TO STA. 49+780

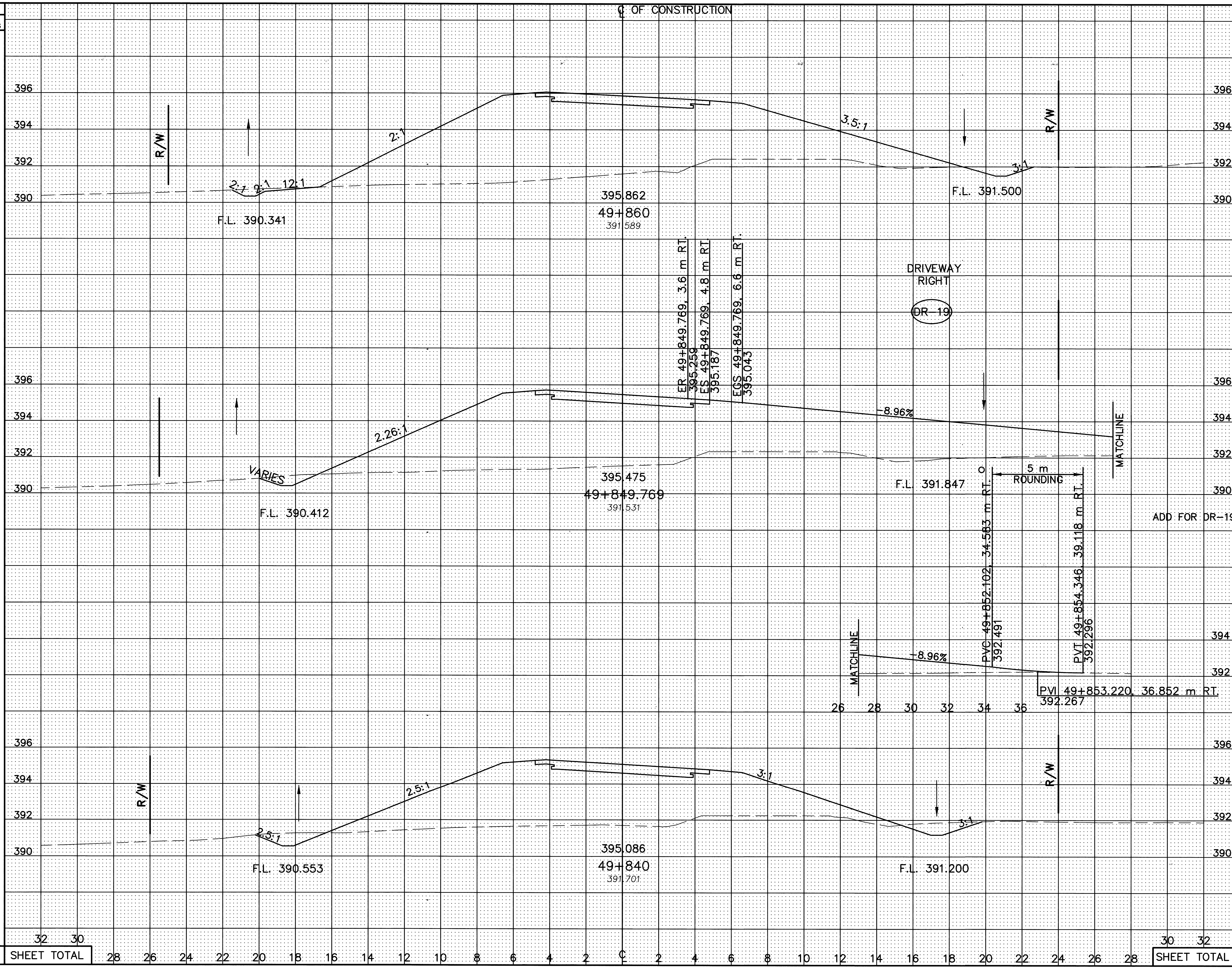
CRA/RIC-30-33.500/0.000

355
712

GX50218I.DWG
02-25-1999 12:58 PM
1:100M

SEEDING
END WIDTH
SQ. METERS
℄ OF CONSTRUCTION
END AREA
CUT
FILL
VOLUME
CUT
FILL
CALCULATED CRM
CHECKED WJS
R/W
3.5:1
F.L. 390.780
394.227
49+820
391.746
F.L. 390.900
41
12.0
40.9
758
146
706
ER 49+804.201, 3.6 m RT.
393.300
ES 49+804.429, 4.8 m RT.
393.238
EGS 49+804.771, 6.6 m RT.
393.110
DRIVEWAY
RIGHT
(SHOWN ON SKEW)
DR-18
VARIES
-7.39%
MATCHLINE
51
F.L. 390.942
393.486
49+803.525
391.554
F.L. 390.653
2 m
ROUNDING
PVC 49+810.156, 33.475 m RT.
391.088
PVT 49+810.569, 35.438 m RT.
391.004
ADD FOR DR-18
0
170
145
49+810.361 34.457 m RT.
391.014
4:1
3:1
F.L. 390.977
393.327
49+800
391.515
F.L. 390.600
31
2.6
29.7
890
53
456
1793
SHEET TOTAL
199
1332
CROSS-SECTIONS – S.R. 181
STA. 49+800 TO STA. 49+820
CRA/RIC-30-33.500/0.000
356
712
GX50318I.DWG
02-25-1999 1:04 PM
1:100M

SEEDING END WIDTH	SEEDING SQ. METERS
39	
	471
53	
	435
36	
	770
	1676



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
1.8	93.5		
		51	1589
		0	440
3.3	65.4		
		153	1063
		204	3092

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – S.R. 181
STA. 49+840 TO STA. 49+860

CRA/RIC-30-33.500/0.000

357/712

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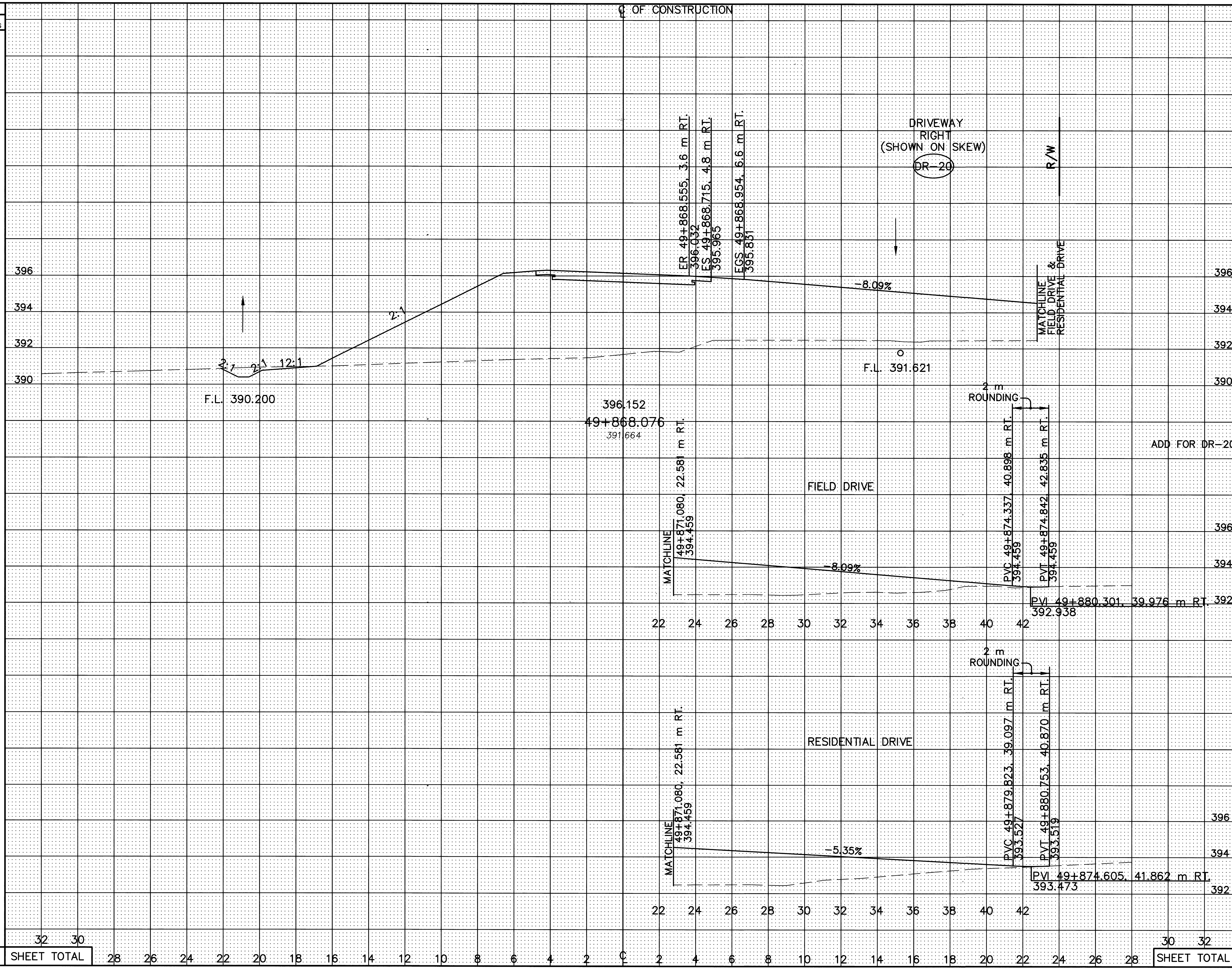
03-4-1999 12:57 PM
1:100M

SEEDING	
END WIDTH	SQ. METERS
61	
	404
404	



END AREA		VOLUME	
CUT	FILL	CUT	FILL
		0	1200
		0	1200

CALCULATED CRM
CHECKED WJS

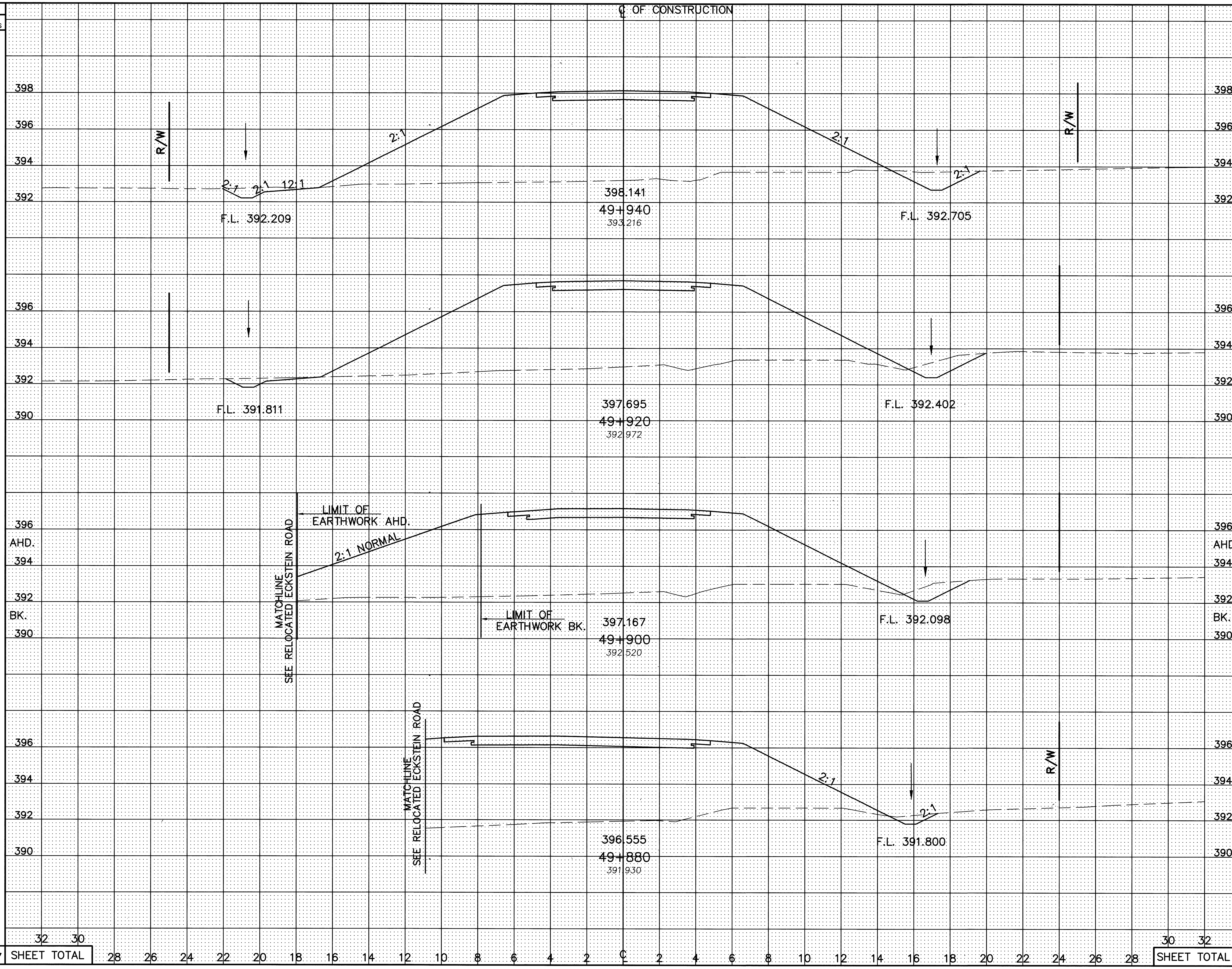
CROSS-SECTIONS - S.R. 181
STA. 49+868.076

CRA/RIC-30-33.500/0.000

358/712

GX505181.DWG
02-25-1999 1:32 PM
1:100M

SEEDING	
END WIDTH	SQ. METERS
38	
	760
38	
	670
29.0 AHD.	
19.0 BK.	
	355
16.5	
	462
	2247



END AREA		VOLUME	
CUT	FILL	CUT	FILL
3.9	100.1		
		71	1984
3.2	98.3		
		50	2047
1.8	106.4		
1.8	76.7		
		25	1642
0.7	87.5		
		25	1781
		171	7454

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – S.R. 181
STA. 49+880 TO STA. 49+940

CRA/RIC-30-33.500/0.000

359/712

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02-25-1999 1:35 PM
1:100M

SEEDING
END WIDTH
SQ. METERS
℄ OF CONSTRUCTION
END AREA
CUT
FILL
VOLUME
CUT
FILL
CALCULATED CRM
CHECKED WJS
37
0
AHD STA. 50+047.686
BK BEGIN APPROACH SLAB
STA. 50+047.686 AHD.
BEGIN APPROACH SLAB BK.
15.7 60.1
0 0
2:1
12:1
3:1
2:1
APPROACH SLAB
399.202
50+047.686
395.668
F.L. 393.435
F.L. 394.403
0
BRIDGE LIMITS
50+047.689 AHD
49+964.198 BK
EARTHWORK AT STRUCTURE
0 226
50+047.686 AHD
BRIDGE LIMITS:
49+964.198 BK
9 366
0
35
AHD STA. 49+964.198
BK END APPROACH SLAB
398.567
49+964.198
393.346
F.L. 392.591
F.L. 393.735
STA. 49+964.198 AHD.
END APPROACH SLAB BK.
0 0
2.1 107.5
266
16 817
35
38
AHD STA. 49+956.598
BK BEGIN APPROACH SLAB
STA. 49+956.588 OFFSET 5.750 LT
CB NO.6
T/G ELEV.=398.343
BK
AHD.
STA. 49+949.886 OFFSET 5.750 RT.
CB NO.6
T/G ELEV.=398.226
CONC. COLLAR
STA. 49+956.598 AHD.
BEGIN APPROACH SLAB BK.
2.1 107.5
2.1 108.5
R/W
FOR PIPE QUANTITIES SEE DRAINAGE DETAILS, SHEET NO 459B
13.171 m ~ 375 mm CONDUIT, TYPE A @ 1.00%
2.0 m L X 2.0 m W X 0.5 m T
ROCK CHANNEL PROTECTION,
TYPE C W/FILTER
℄ 375 mm S ELEV.=397.008
℄ 375 mm S ELEV.=396.876
631
398.443
49+956.598
396.099
F.L. 392.491
F.L. 392.952
50 1731
398
396
394
392
32 30
30 32
897 SHEET TOTAL
SHEET TOTAL 75 3140
28 26 24 22 20 18 16 14 12 10 8 6 4 2 ℄ 2 4 6 8 10 12 14 16 18 20 22 24 26 28
CROSS-SECTIONS – S.R. 181
STA. 49+956.598 TO STA. 50+047.686
CRA/RIC-30-33.500/0.000
360
712
GX507181.DWG
03-31-1999 7:21 AM
1:100M


SEEDING
END WIDTH
SQ. METERS
78
853
43
40
293
1146
SHEET TOTAL
℄ OF CONSTRUCTION
ER 50+071.097, 3.6 m RT.
399.231
ES 50+071.6675, 4.8 m RT.
399.162
EGS 50+072.523, 6.6 m RT.
399.021
DRIVEWAY
RIGHT
(SHOWN ON SKEW)
DR-21
R/W
MATCHLINE
−7.91%
2:1
12:1
2:1
3:1
2 m
ROUNDING
399.283
50+069.385
395.842
F.L. 393.550
F.L. 394.597
PVC 50+094.389,
52.593 m RT. 394.995
PVT 50+095.247
54.399 m RT. 394.922
PVI 50+094.818
53.496 m RT. 394.916
398
396
394
392
28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58
ADD FOR DR-21
STA. 50+061.998 OFFSET 5.750 RT.
CB NO.6
T/G ELEV.=399.151
BK
AHD.
CONC. COLLAR
AHD
BK
STA. 50+055.286
END APPROACH SLAB
℄ 375 mm S ELEV.=397.908
13.171 m ~ 375 mm CONDUIT, TYPE A @ 1.00%
STA. 50+055.296 OFFSET 5.750 RT.
CB NO.6
T/G ELEV.=399.126
℄ 375 mm S ELEV.=397.776
STA. 50+055.286
END APPROACH SLAB
AHD.
BK.
399.231
50+055.286
396.154
F.L. 393.503
F.L. 394.588
2.0 m L X 2.0 m W X 0.5 m T
ROCK CHANNEL PROTECTION,
TYPE C W/FILTER
FOR PIPE QUANTITIES SEE DRAINAGE
DETAILS, SHEET NO 459B
32 30
28 26 24 22 20 18 16 14 12 10 8 6 4 2 ℄ 2 4 6 8 10 12 14 16 18 20 22 24 26 28
30 32
SHEET TOTAL
END AREA
CUT FILL
VOLUME
CUT FILL
8.9 65.6
0 850
173 893
15.7 61.1
15.7 60.1
120 457
293 2200
CALCULATED CRM
CHECKED WJS
CROSS-SECTIONS – S.R. 181
STA. 50+055.286 TO STA. 50+069.385
CRA/RIC-30-33.500/0.000
361/712
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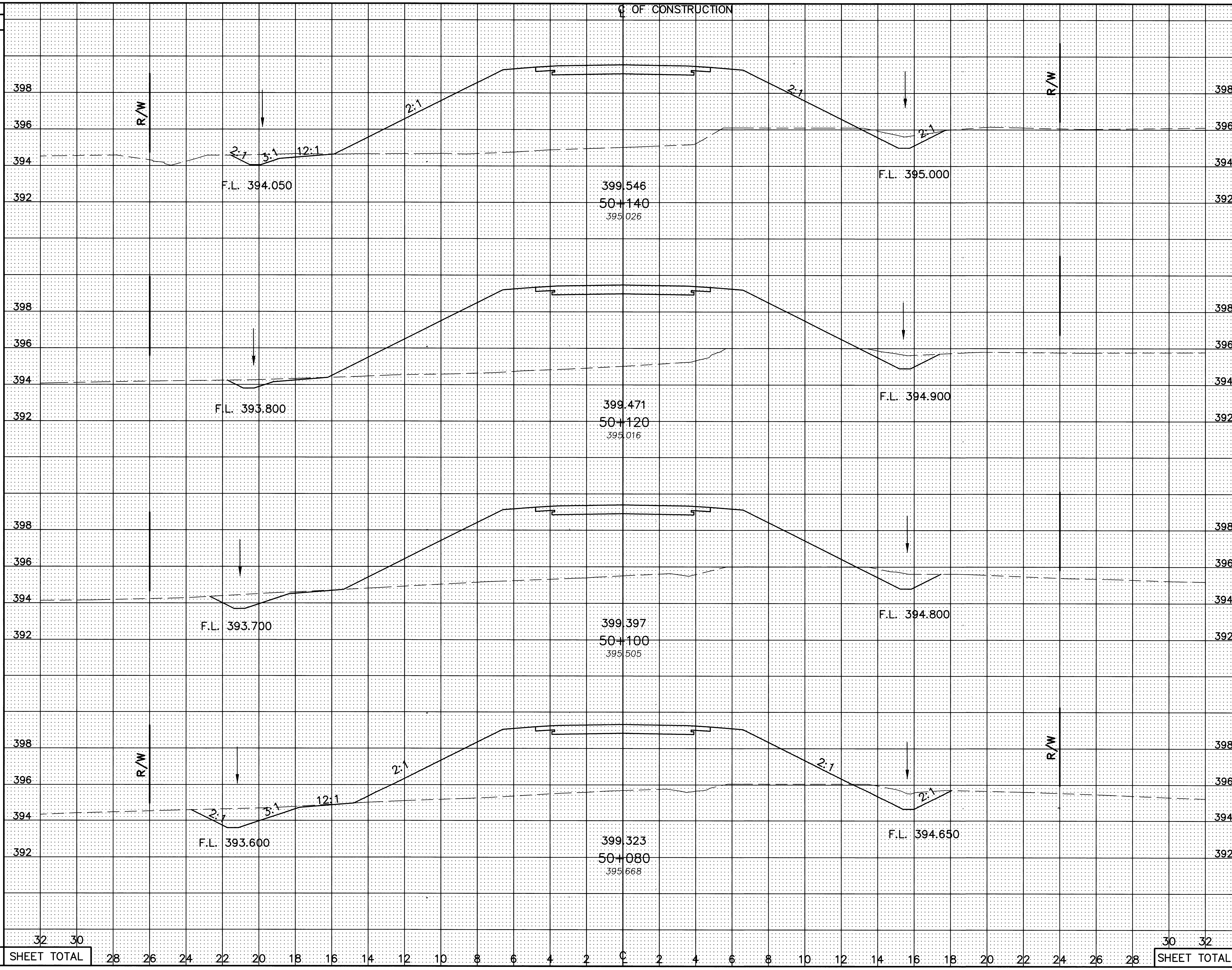
02-25-1999 10:47 AM
1:100M

SEEDING END WIDTH	SEEDING SQ. METERS
36	
	710
35	
	710
36	
	740
38	
	616
	2776 SHEET TOTAL



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
3.2	84.1		
		61	1681
2.9	84.0		
		73	1567
4.4	72.7		
		111	1402
6.7	67.5		
		83	706
		328	5356

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – S.R. 181
STA. 50+080 TO STA. 50+140

CRA/RIC-30-33.500/0.000

362/712

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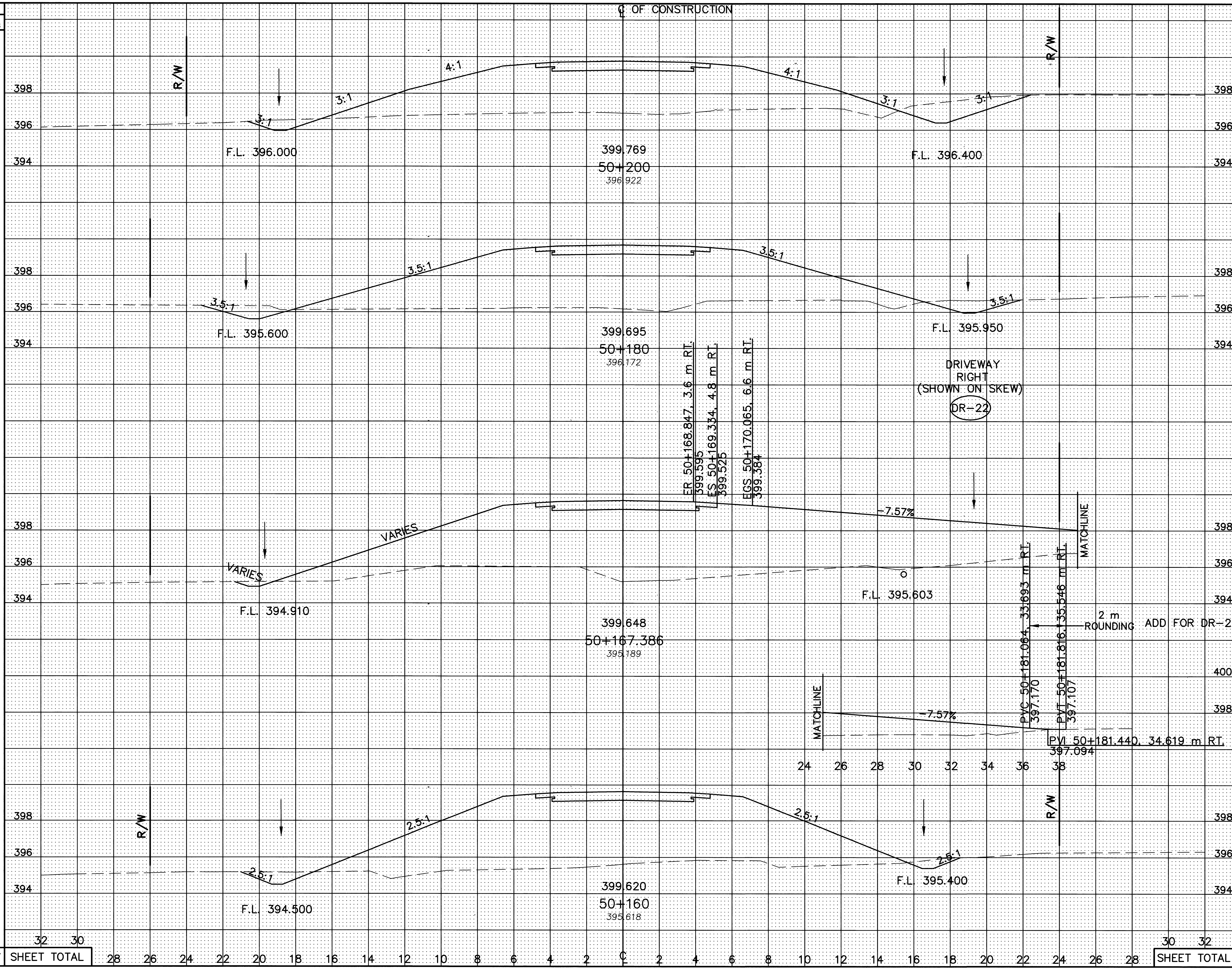
02-25-1999 1:46 PM
1:100M

SEEDING	
END WIDTH	SQ. METERS
40	
	820
42	
	605
54	
	332
36	
	720
	2477



END AREA		VOLUME	
CUT	FILL	CUT	FILL
6.0	56.9		
		101	1297
4.1	72.8		
		64	1598
		0	618
2.3	87.0		
		55	1711
		220	5224

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – S.R. 181
STA. 50+160 TO STA. 50+200

CRA/RIC-30-33.500/0.000

363
712

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02-25-1999 1:51 PM
1:100M


CROSS-SECTIONS – S.R. 181
STA. 50+208.079 TO STA. 50+260
CRA/RIC-30-33.500/0.000
364/712
CALCULATED CRM
CHECKED WJS
℄ OF CONSTRUCTION
SEEDING
END WIDTH
SQ. METERS
END AREA
VOLUME
CUT
FILL
29
640
35
720
37
471
42
331
2162
SHEET TOTAL
4.6
11.9
101
410
5.5
29.1
125
729
7.0
43.8
130
1007
0
205
356
2351
R/W
4:1
3:1
F.L. 398.000
399.993
50+260
399.062
F.L. 398.200
F.L. 397.000
399.918
50+240
397.496
F.L. 397.450
F.L. 396.600
399.844
50+220
397.390
F.L. 396.850
ER 50+208.868, 3.6 m RT. 399.744
ES 50+209.131, 4.8 m RT. 399.673
EGS 50+209.525, 6.6 m RT. 399.531
DRIVEWAY
RIGHT
(SHOWN ON SKEW)
DR-23
5 m
ROUNDING
PVC 50+213.525, 24.825 m RT. 398.331
PVI 50+214.595, 29.737 m RT. 398.287
-6.42%
PVI 50+214.060, 27.295 m RT. 398.170
396
399.799
50+208.079
397.263
F.L. 396.240
F.L. 396.582
ADD FOR DR-23
400
398
396
394
32
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
℄
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SEEDING
END WIDTH
SQ. METERS
℄ OF CONSTRUCTION
END AREA
CUT
FILL
VOLUME
CUT
FILL
CALCULATED CRM
CHECKED WJS
27
520
25
560
31
436
25
120
1636
SHEET TOTAL
R/W
F.L. 399.239
F.L. 399.750
400.412
50+320
401.362
47.1 0
795 1.0
F.L. 398.969
F.L. 399.500
400.240
50+300
400.832
32.4 0.1
473 12
F.L. 398.700
F.L. 398.900
400.079
50+280
399.987
14.9 1.1
195 130
DRIVEWAY
RIGHT
(SHOWN ON SKEW)
DR-24
5 m
ROUNDING
ER 50+265.113, 3.6 m RT.
399.956
ES 50+265.335, 4.8 m RT.
399.885
EGS 50+265.669, 6.6 m RT.
399.743
PVC 50+266.236, 9.322 m RT.
399.664
PVT 50+267.147, 14.239 m RT.
399.785
2.97%
PVI 50+266.606, 11.663 m RT.
399.590
F.L. 398.160
F.L. 398.356
400.011
50+264.446
399.306
ADD FOR DR-24
3 8
1466 151
CROSS-SECTIONS - S.R. 181
STA. 50+264.446 TO STA. 50+320
CRA/RIC-30-33.500/0.000
365/712
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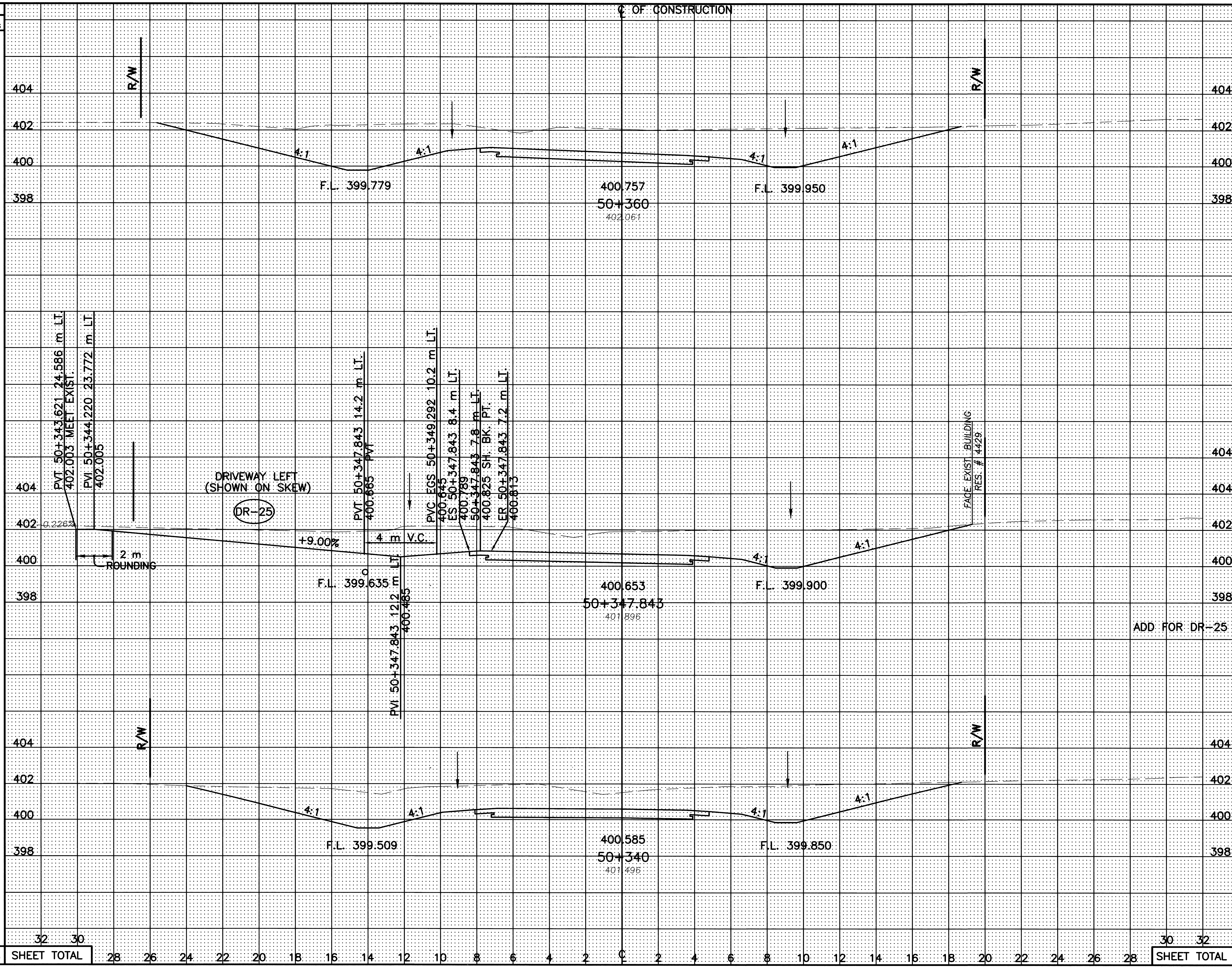

SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
32		66.1	0		
	419			1255	0
37					
	259			18	0
29		59.4	0		
	560			1065	0
SHEET TOTAL	1238			2338	0

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – S.R. 181
STA. 50+340 TO STA. 50+360

CRA/RIC-30-33.500/0.000

366
712

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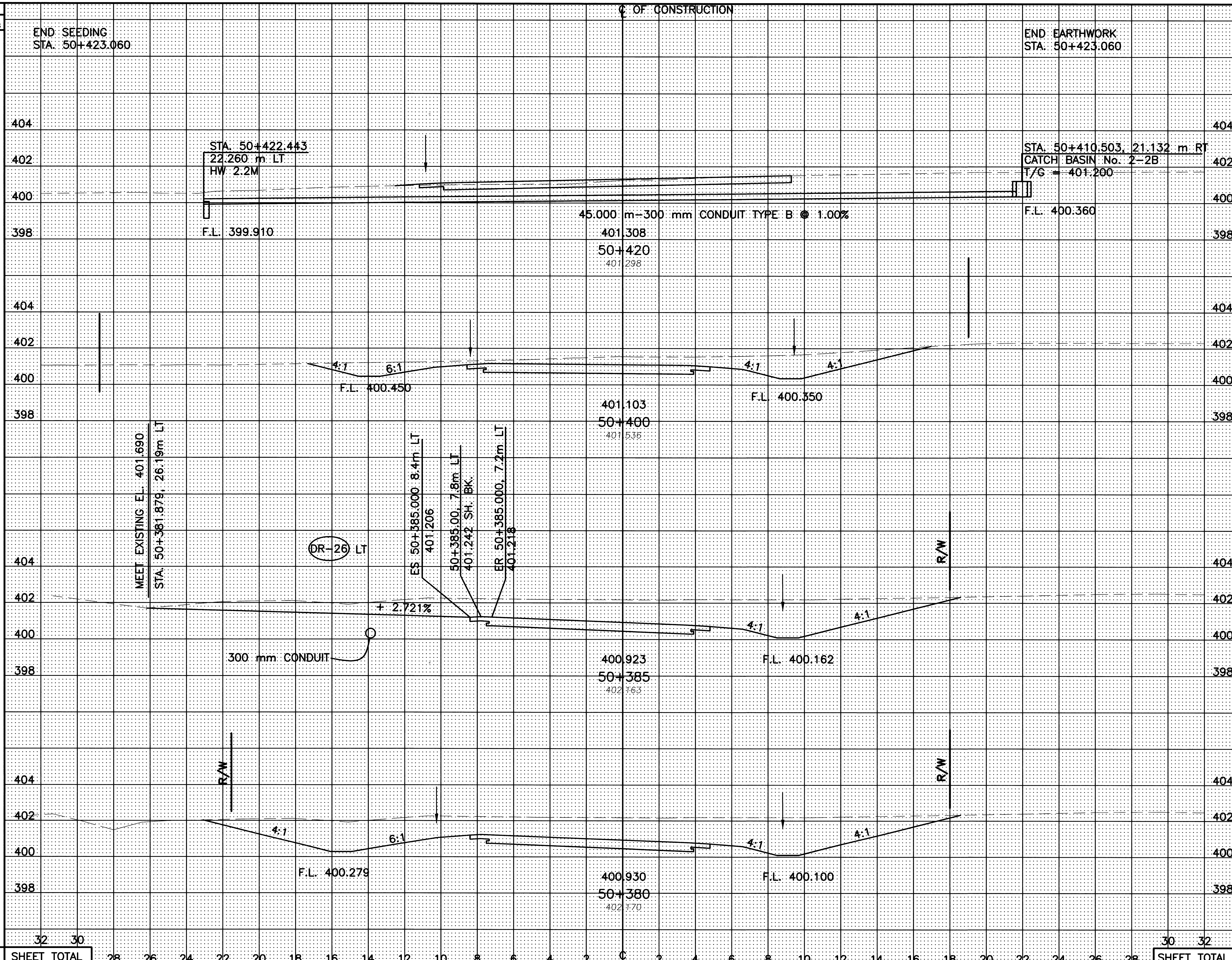
09-25-2000 10:01 AM
1:100M

SEEDING END WIDTH	SEEDING SQ. METERS
20	
	32
1	
	220
21	
	500
29	
	610
SHEET TOTAL	1362



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
75.3	0		
		124	0
5.7	0		
		296	0
23.9	0		
		807	0
56.8	0		
		1229	0
		2456	0

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – S.R. 181
STA. 50+380 TO STA. 50+420

CRA/RIC-30-33.500/0.000

367/712

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09-25-2000 11:05 AM
1:100M


SEEDING
END WIDTH
SQ. METERS
℄ OF CONSTRUCTION
END AREA
VOLUME
CUT
FILL
CALCULATED MJT
CHECKED WJS
EX R/W
STA. 3+755.767
10.662 m RT
HW 2.2M
F.L. 300 mm = 399.261
R/W
4:1
F.L. 399.261
3+755.767
400.311
F.L. 399.390
3+740
400.112
F.L. 399.552
3+720
399.915
3+700
399.766
402
400
398
396
11
9
6
158
150
308
4.3
0.1
2.5
0
1.2
54
1
37
91
SHEET TOTAL
CROSS-SECTIONS - EXIST. S.R. 309
STA. 3+700 TO STA. 3+755.767
CRA/RIC-30-33.500/0.000
367A
712
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09-25-2000 10:18 AM
1:100M

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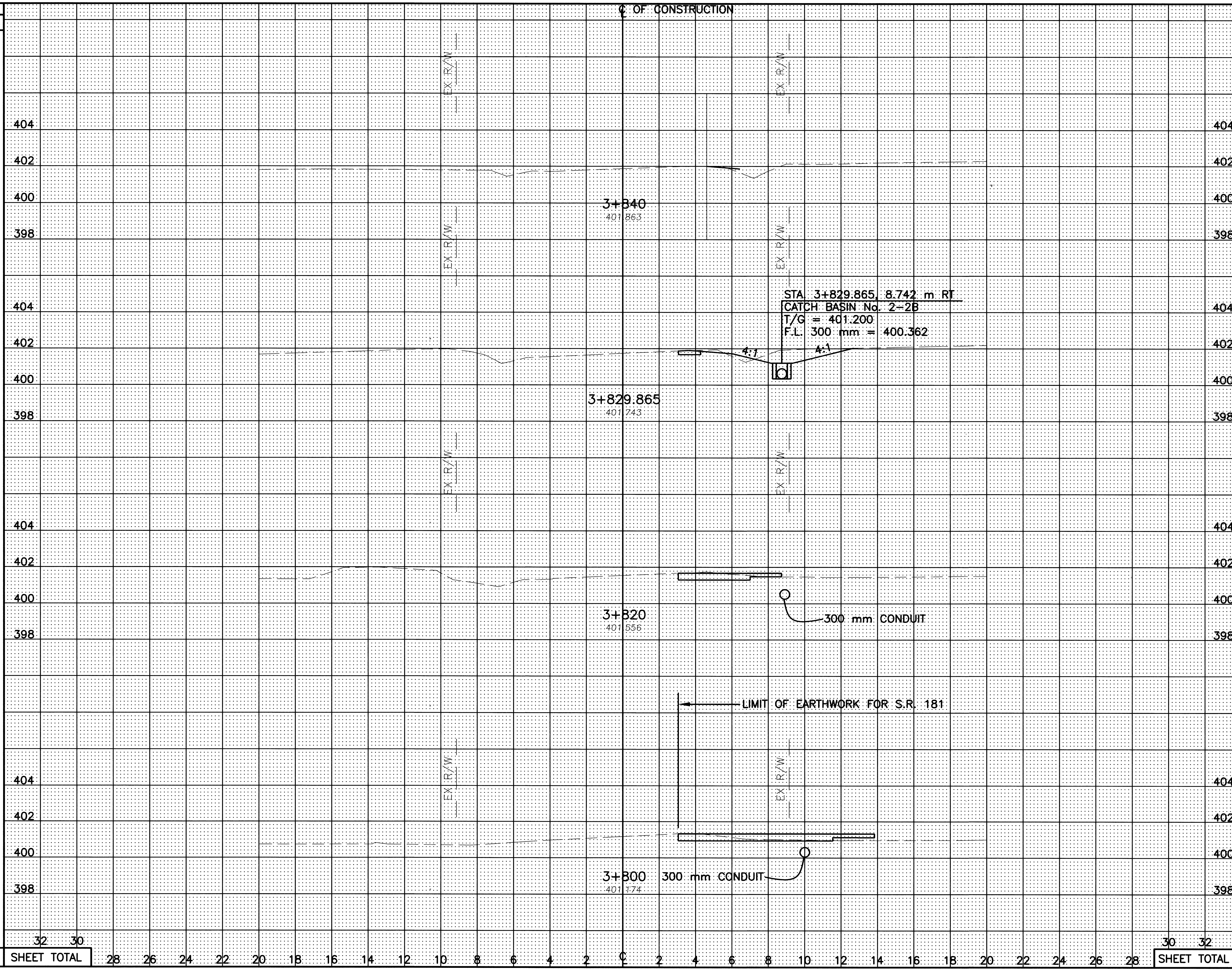

Station	SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
3+840	2		0	0		
		61			13	2
3+829.865	10		2.5	0.3		
		49			12	1
3+820	0		0	0		
		0			0	0
3+800	0		0	0		
		77			25	0
SHEET TOTAL		187			50	3

CALCULATED MJT
CHECKED WJS

CROSS-SECTIONS – EXIST. S.R. 309
STA. 3+800 TO STA. 3+840

CRA/RIC-30-33.500/0.000

367C
712

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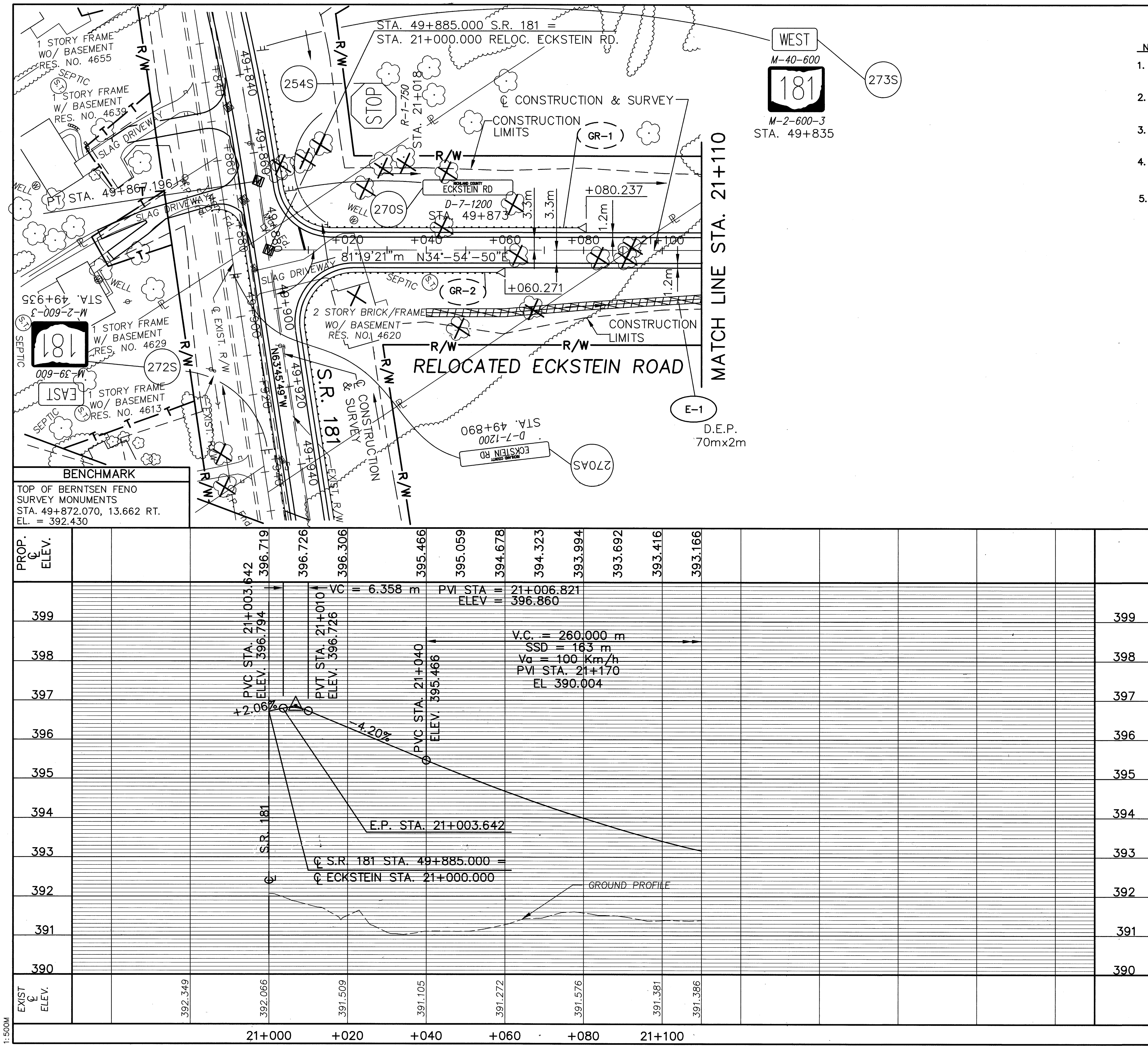
1:100M



NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617-618.
2. FOR INTERSECTION DETAILS SEE SHEET 484.
3. FOR TRAFFIC CONTROL QUANTITIES SEE SHEETS 505-506.
4. FOR S.R. 181 P & P SEE SHEETS 349-352.
5. FOR AGGREGATE LOCATIONS SEE SHEET 68

— INDICATES D.E.P.

metric units

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	670 DITCH EROSION PROTECTION S.M.
E-1	RT	21+040	21+110	140
TOTALS CARRIED TO SUB SUMMARY				140

RATIO 1:500

HORIZONTAL SCALE IN METERS

CALCULATED W.J.S.

CHECKED C.R.M.

PLAN AND PROFILE – RELOCATED ECKSTEIN ROAD
STA. 21+000 TO STA. 21+110

CRA/RIC-30-33.500/0.000

369
712

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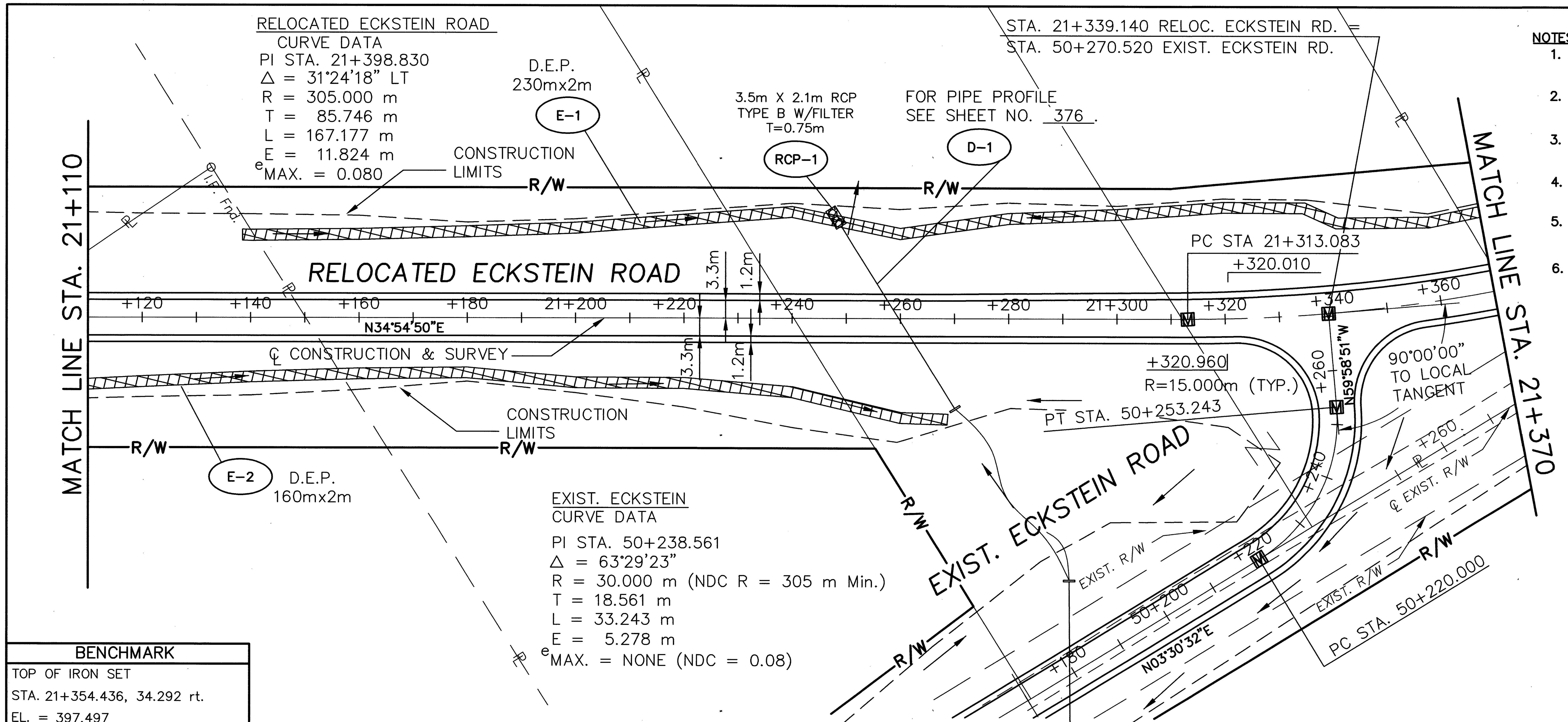
03-10-1999 4:16 PM
1:500M



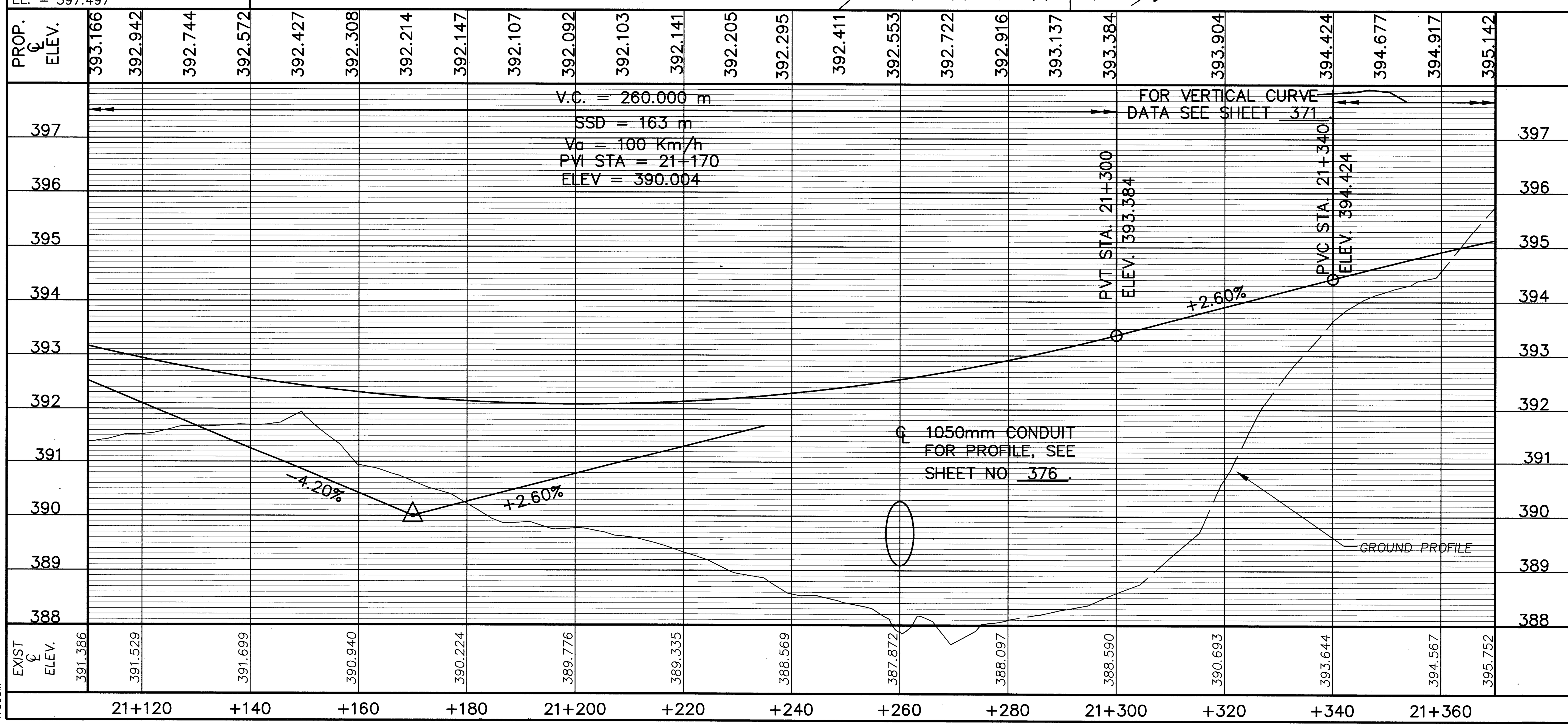
NOTES:
1. FOR ℄ MON. LOCATION SEE SHEETS 617-618 .
2. FOR INTERSECTION DETAILS SEE SHEET 485
3. FOR SUPERELEVATION TABLES SEE SHEET 466 .
4. FOR PAVEMENT CURVE WIDENING SEE SUPERELEVATION TABLE SHEET 466 .
5. FOR EXISTING ECKSTEIN ROAD P & P SEE SHEET 384
6. FOR AGGREGATE LOCATIONS SEE SHEET 68

metric units

RATIO 1:500
HORIZONTAL SCALE IN METERS

CALCULATED W.J.S. CHECKED C.R.M.

BENCHMARK
TOP OF IRON SET
STA. 21+354.436, 34.292 rt.
EL. = 397.497



ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	602 CONCRETE MASONRY C.M.	603 1050mm CONDUIT TYPE A METER	670 DITCH EROSION PROTECTION S.M.	601 ROCK CHANNEL PROTECTION TYPE B W/FILTER C.M.
E-1	LT	21+140	21+370			460	
E-2	RT	21+110	21+270			320	
RCP-1	LT	21+248					5.51
D-1	LT\RT	21+249.090	21+270.017	1.64	39.491		
TOTALS CARRIED TO SUB SUMMARY				1.64	39.491	780	5.51

PLAN AND PROFILE – RELOCATED ECKSTEIN ROAD
STA. 21+110 TO STA. 21+370

CRA/RIC-30-33.500/0.000

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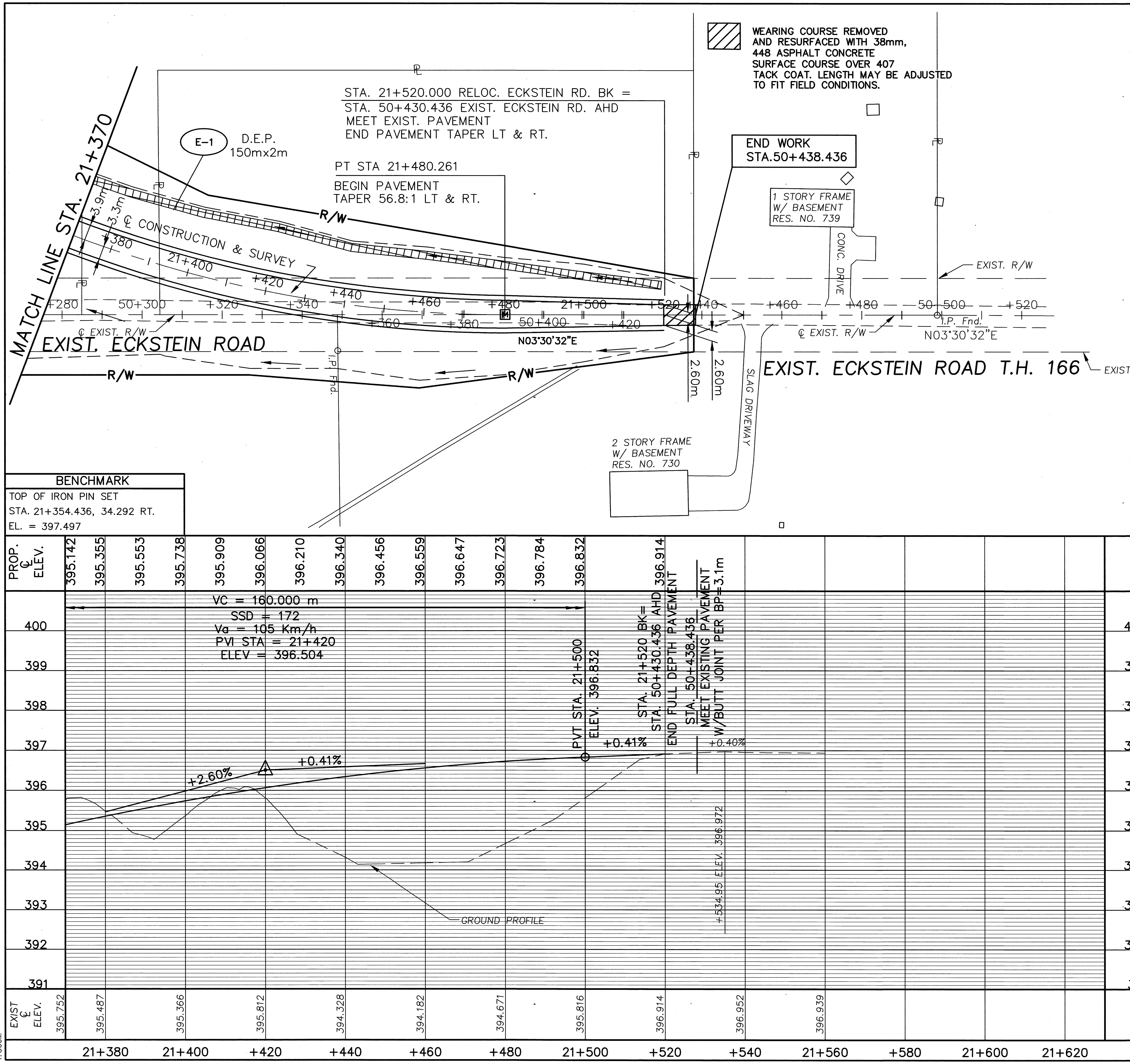
02-15-1999 2:06 PM
1:500M



metric units

NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617-618.
2. FOR SUPERELEVATION TABLES SEE SHEET 466.
3. FOR PAVEMENT CURVE WIDENING SEE SUPERELEVATION TABLE SHEET 466.
4. FOR AGGREGATE LOCATIONS SEE SHEET 68

— INDICATES D.E.P.

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	670 DITCH EROSION PROTECTION S.M.
E-1	LT	21+370	21+520	300
TOTALS CARRIED TO SUB SUMMARY				300

RATIO 1:500
HORIZONTAL SCALE IN METERS

CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE – RELOCATED ECKSTEIN ROAD STA. 21+370 TO STA. 21+520

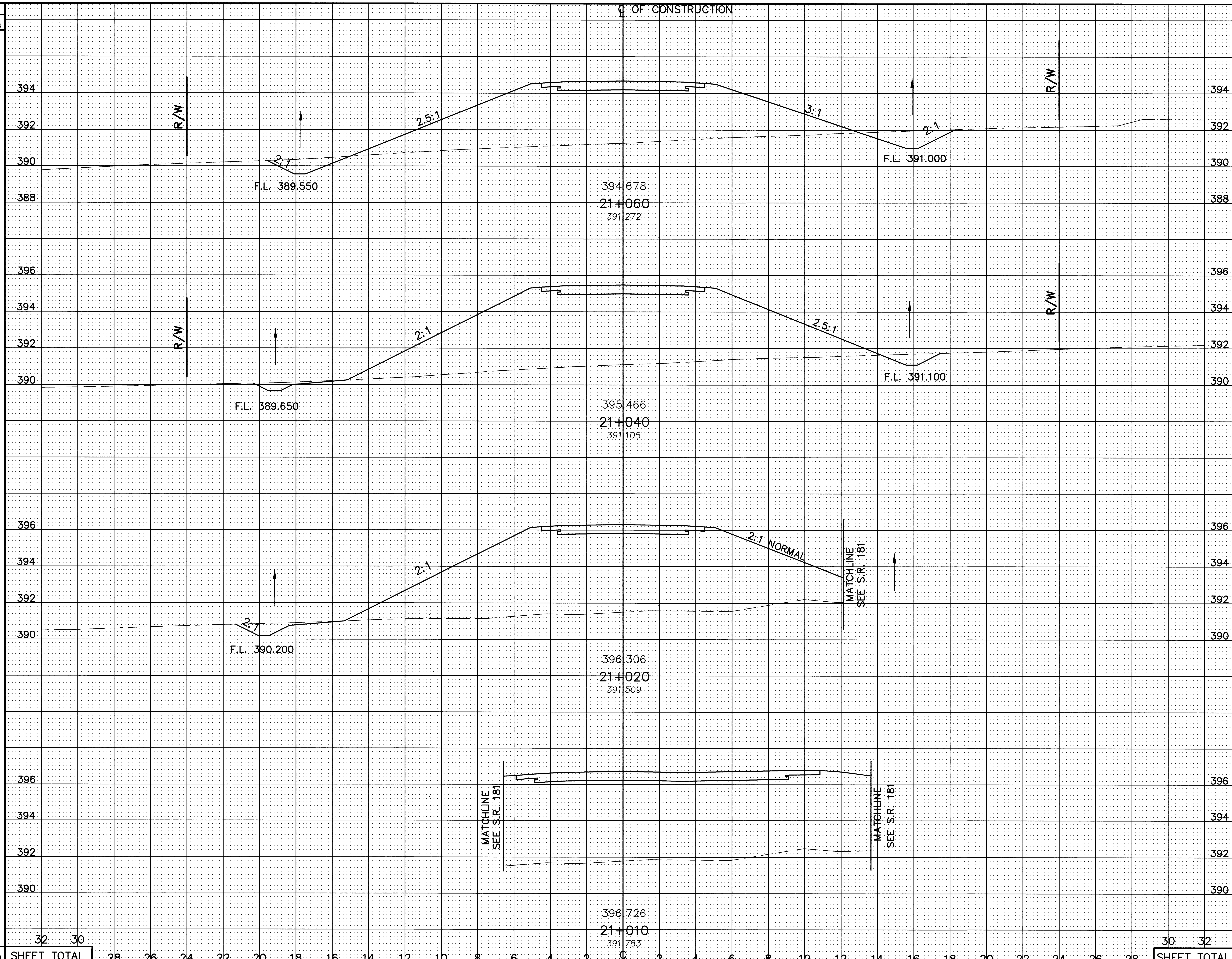
CRA/RIC-30-33.500/0.000

CROSS-SECTIONS – RELOCATED ECKSTEIN RD.
STA. 21+010 TO STA. 21+060

CRA/RIC-30-33.500/0.000

CALCULATED CRM | CHECKED WJS

Station	SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
21+060	35.0		4.9	58.6		
		695			69	1391
21+040	34.5		2.0	80.5		
		620			35	1700
21+020	27.5		1.5	89.5		
		155			8	891
21+010	3.5		0.0	88.7		
SHEET TOTAL		1470			112	3982



372/712

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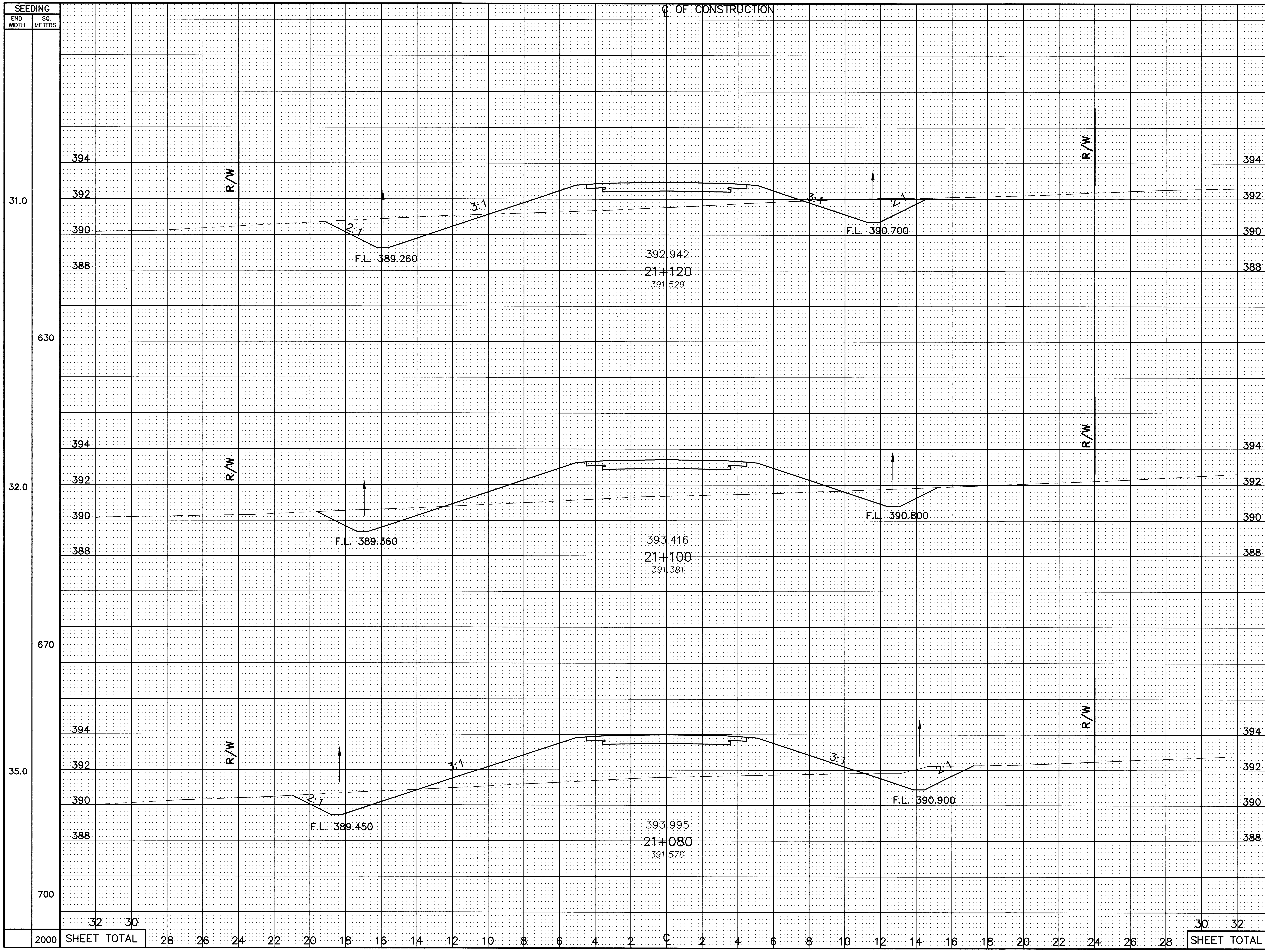


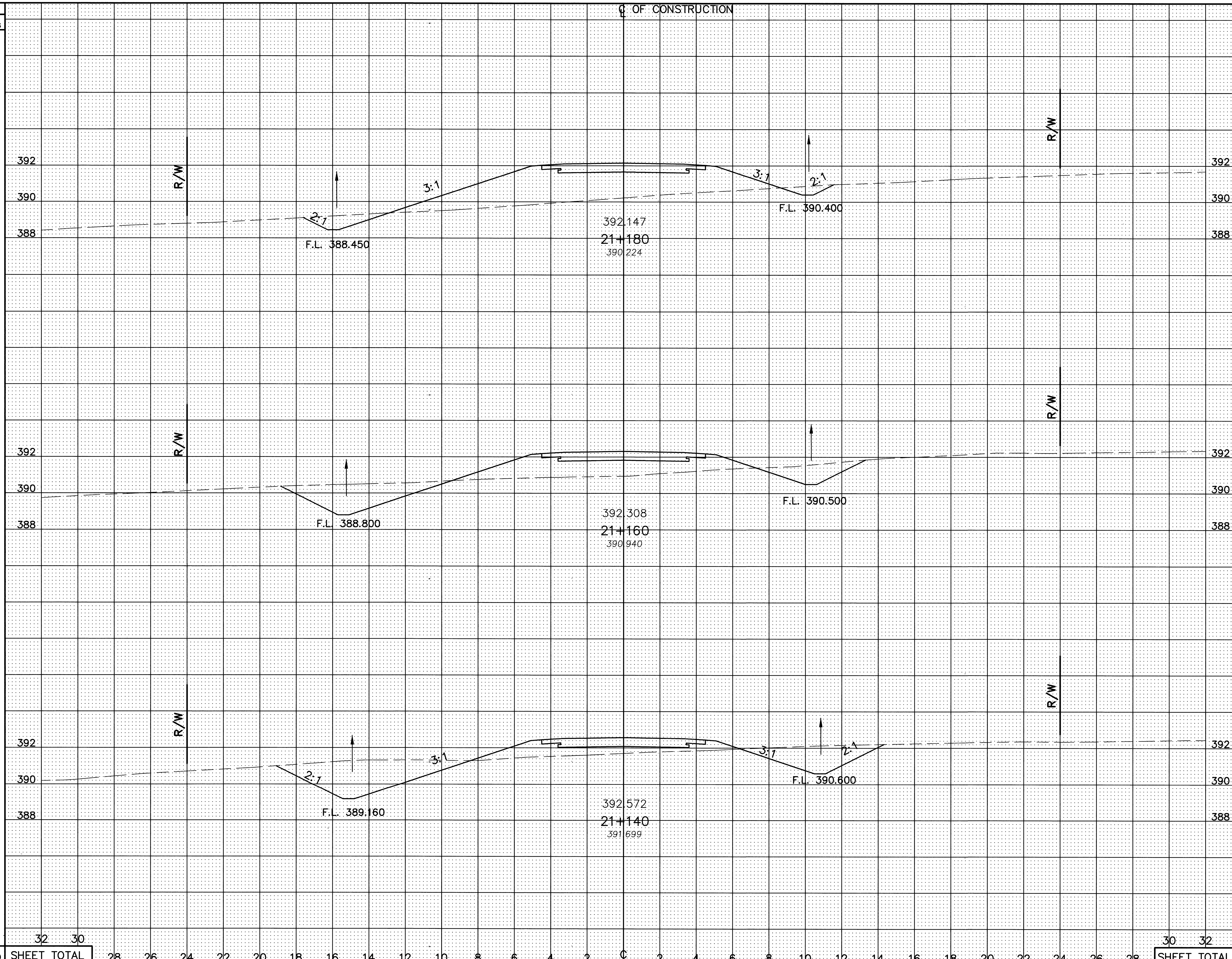
CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – RELOCATED ECKSTEIN RD.
STA. 21+080 TO STA. 21+120

CRA/RIC-30-33.500/0.000

373
712

GX501REK.DWG
02-15-1999 3:38 PM
1:100M



SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
26.0		2.8	26.2		
	555			146	387
29.5		11.8	12.5		
	600			304	189
30.5		18.6	6.4		
	615			317	211
	1770			767	787

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – RELOCATED ECKSTEIN RD.
STA. 21+140 TO STA. 21+180

CRA/RIC-30-33.500/0.000

374
712

GX502REK.DWG
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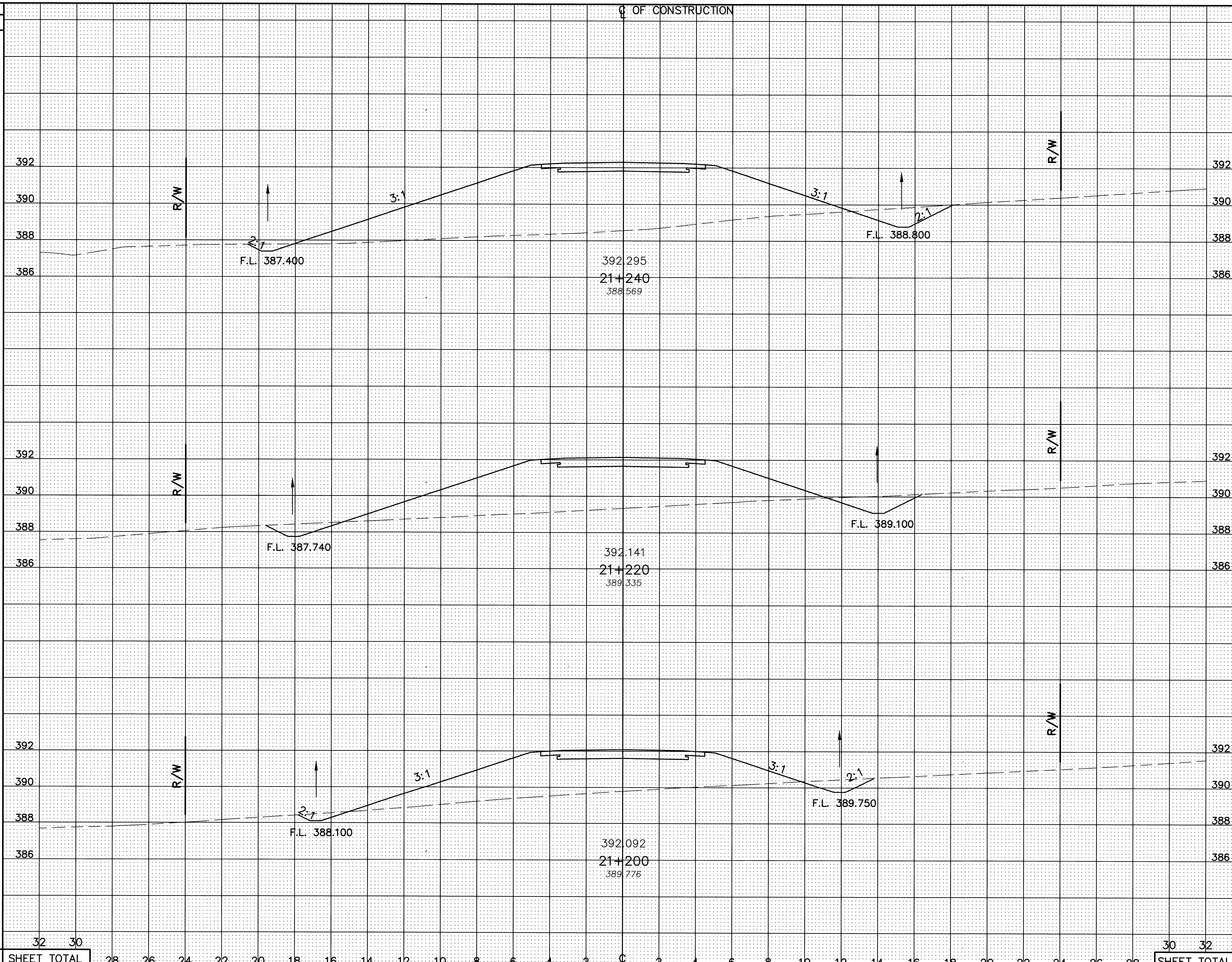
1:100M



SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
35.5		3.8	69.5		
	685			82	1158
33.0		4.4	46.3		
	615			67	823
28.5		2.3	36.0		
	545			51	622
	1845 SHEET TOTAL		SHEET TOTAL	200	2603

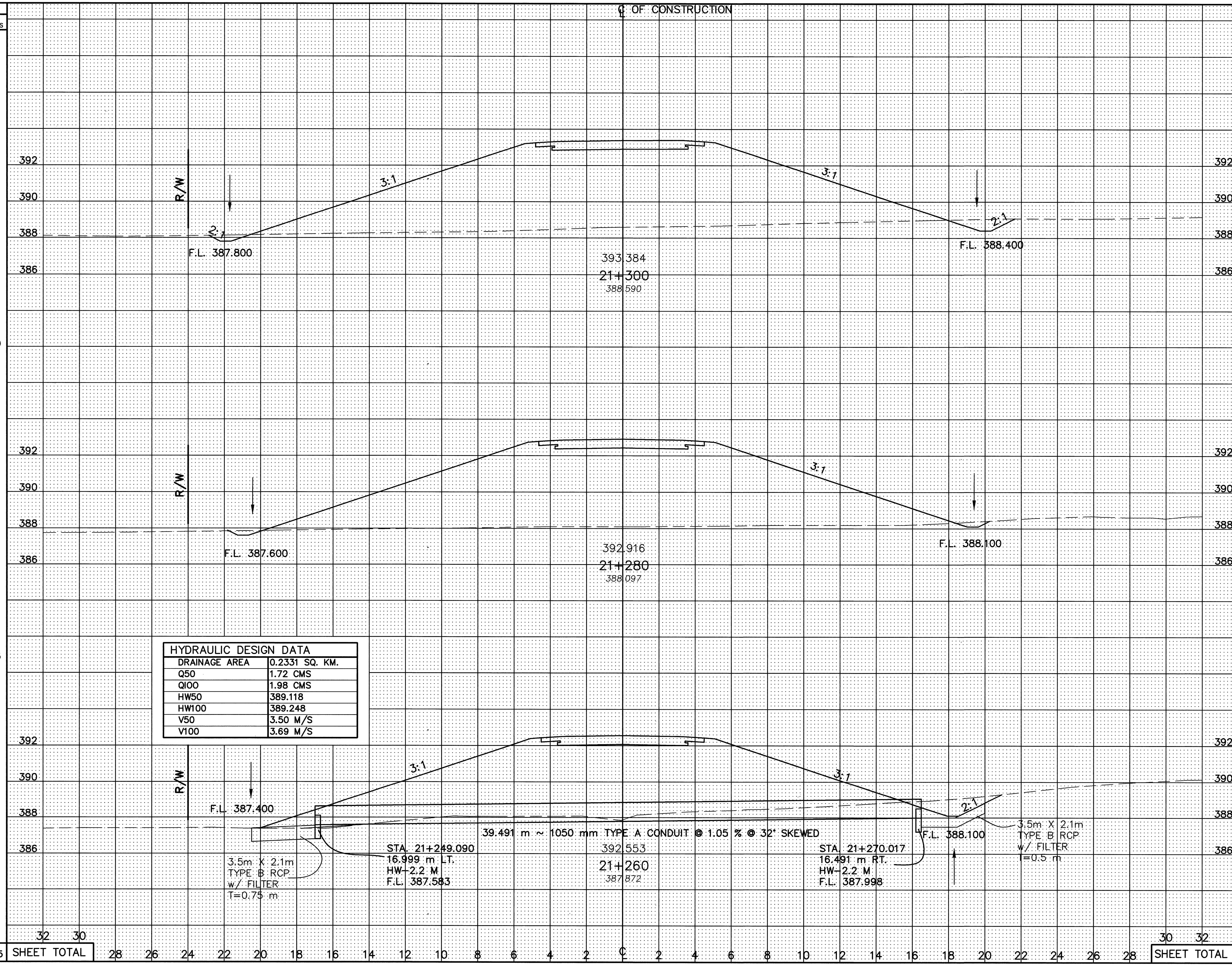
CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS - RELOCATED ECKSTEIN RD.
STA. 21+200 TO STA. 21+240

CRA/RIC-30-33.500/0.000

375/712

GX503REK.DWG
02-15-1999 3:45 PM
1:100M



HYDRAULIC DESIGN DATA

DRAINAGE AREA	0.2331 SQ. KM.
Q50	1.72 CMS
Q100	1.98 CMS
HW50	389.118
HW100	389.248
V50	3.50 M/S
V100	3.69 M/S

SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
36.0		1.9	100		
	700			27	2220
34.0		0.8	122		
	695			36	2035
35.5		2.8	81.5		
	710			66	1510
	2105			129	5765

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS - RELOCATED ECKSTEIN RD.
STA. 21+260 TO STA. 21+300

CRA/RIC-30-33.500/0.000

376/712

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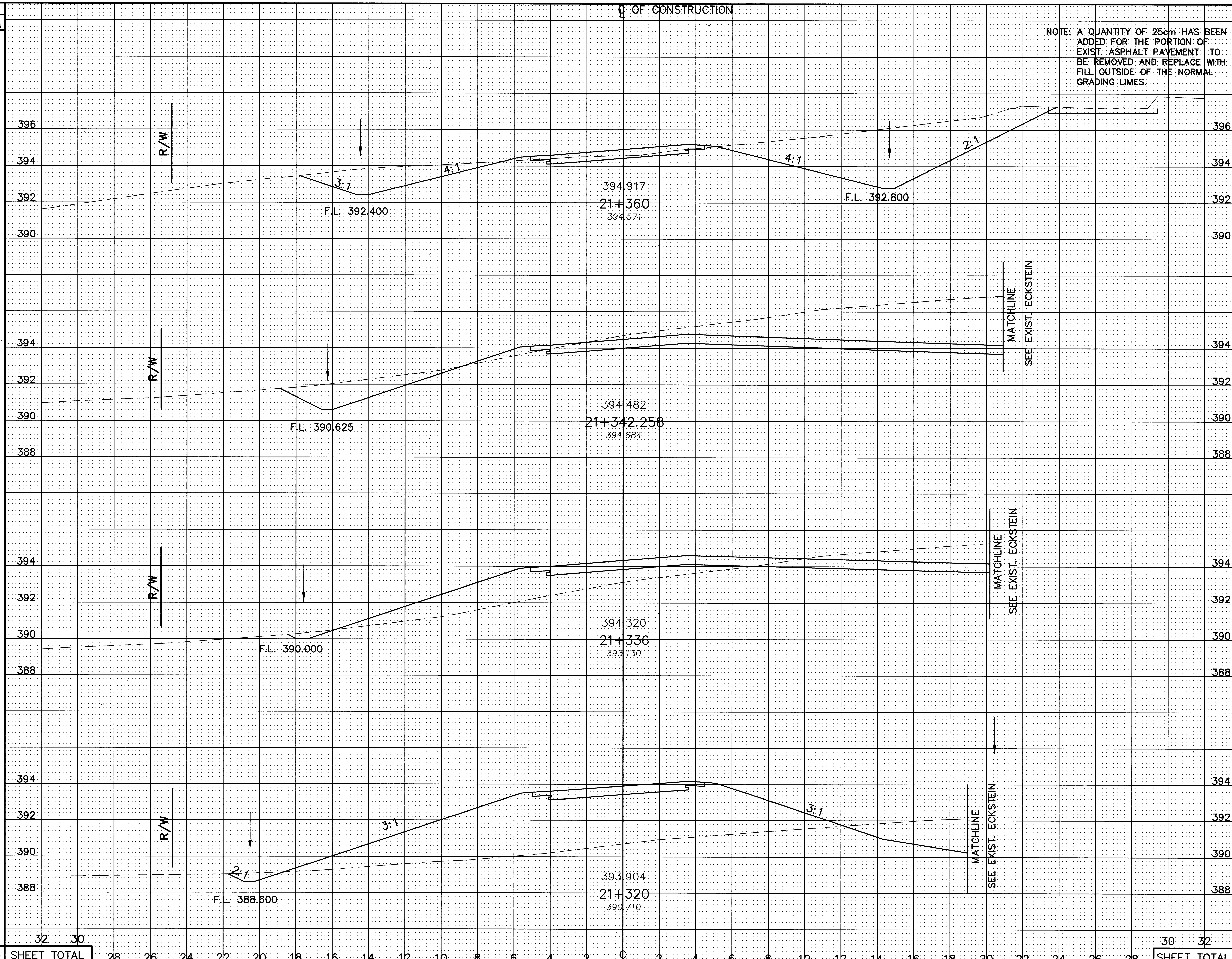
1:100M



SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
				25	25
38.5		42.1	0.2		
	497			810	10
17.5		49.2	0.9		
	108			192	64
17.0		12.2	19.5		
	412			163	661
34.5		8.2	63.1		
	705			101	1582
	1722			1291	2342

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – RELOCATED ECKSTEIN RD.
STA. 21+320 TO STA. 21+360

CRA/RIC-30-33.500/0.000

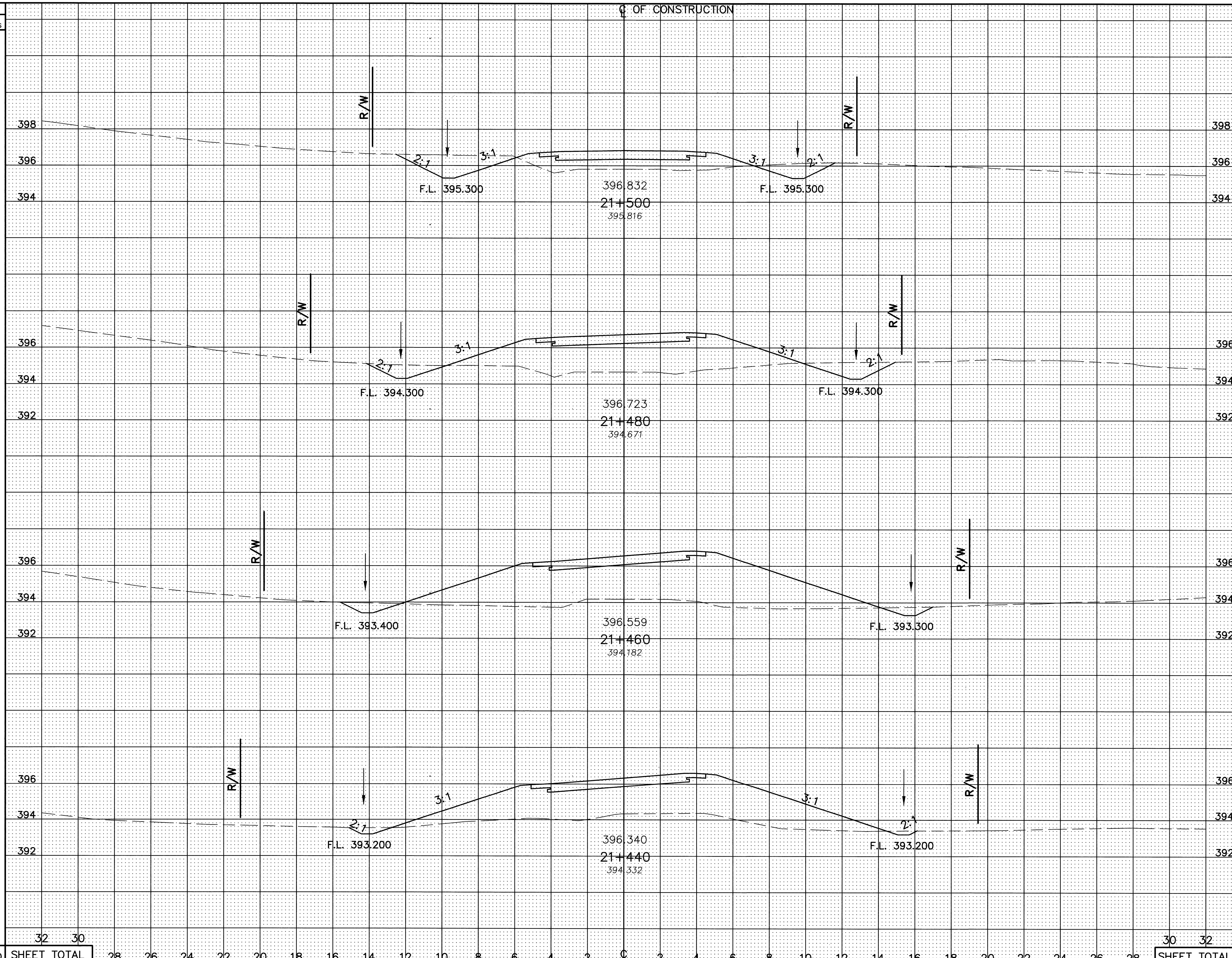
GX505REK.DWG
03-29-1999 3:34 PM
1:100M


SEEDING
END WIDTH
SQ. METERS
℄ OF CONSTRUCTION
END AREA
CUT
FILL
VOLUME
CUT
FILL
CALCULATED CRM
CHECKED WJS
38.0
37.6
2.3
F.L. 393.100
396.066
21+420
395.787
F.L. 393.100
770
776
53
39.0
40.0
3.0
F.L. 393.000
395.738
21+400
395.395
F.L. 393.000
790
976
30
40.0
57.6
0.0
F.L. 392.700
395.355
21+380
395.491
F.L. 392.900
785
997
2
2345
SHEET TOTAL
SHEET TOTAL
2749
85
R/W
4:1
2:1
3:1
CROSS-SECTIONS – RELOCATED ECKSTEIN RD.
STA. 21+380 TO STA. 21+420
CRA/RIC-30-33.500/0.000
378
712
GX506REK.DWG
02-15-1999 3:49 PM
1:100M

CROSS-SECTIONS – RELOCATED ECKSTEIN RD.
STA. 21+440 TO STA. 21+500

CRA/RIC-30-33.500/0.000

CALCULATED CRM | CHECKED WJS



Station	SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
21+500	21.0		6.8	7.3		
		470			113	324
21+480	26.0		4.5	25.1		
		555			64	695
21+460	29.5		1.9	44.4		
		580			27	820
21+440	28.5		0.8	37.6		
		665			384	399
SHEET TOTAL		2270			588	2238

GX507REK.DWG
02-15-1999 3:5 PM
1:100M


SEEDING
END WIDTH
SQ. METERS
℄ OF CONSTRUCTION
END AREA
CUT
FILL
VOLUME
CUT
FILL
CALCULATED CRM
CHECKED WJS
CROSS-SECTIONS - RELOCATED ECKSTEIN RD.
STA. 21+520 BK. TO STA. 50+437.4 AHD.
R/W
R/W
398
396
394
9.0
0.0
0.0
END SEEDING RT/LT
438.436
50+437.400
438.436
END WORK STA. 50+437.400
END EARTHWORK
MEET EXIST. DITCH RT/LT
89
0
0
STA. 21+520.000 RELOC. ECKSTEIN RD. BK.=
STA. 50+430.436 EXIST. ECKSTEIN RD. AHD.
3:1
4:1
AHD
4:1
3:1
F.L. 396.300
BK
F.L. 396.300
16.5
AHD
BK
0.0
0.0
7.6
0.0
396.914
21+520
396.794
END FULL DEPTH PAVEMENT
375
144
73
CRA/RIC-30-33.500/0.000
380
712
464
SHEET TOTAL
SHEET TOTAL
144
73
32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 ℄ 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32
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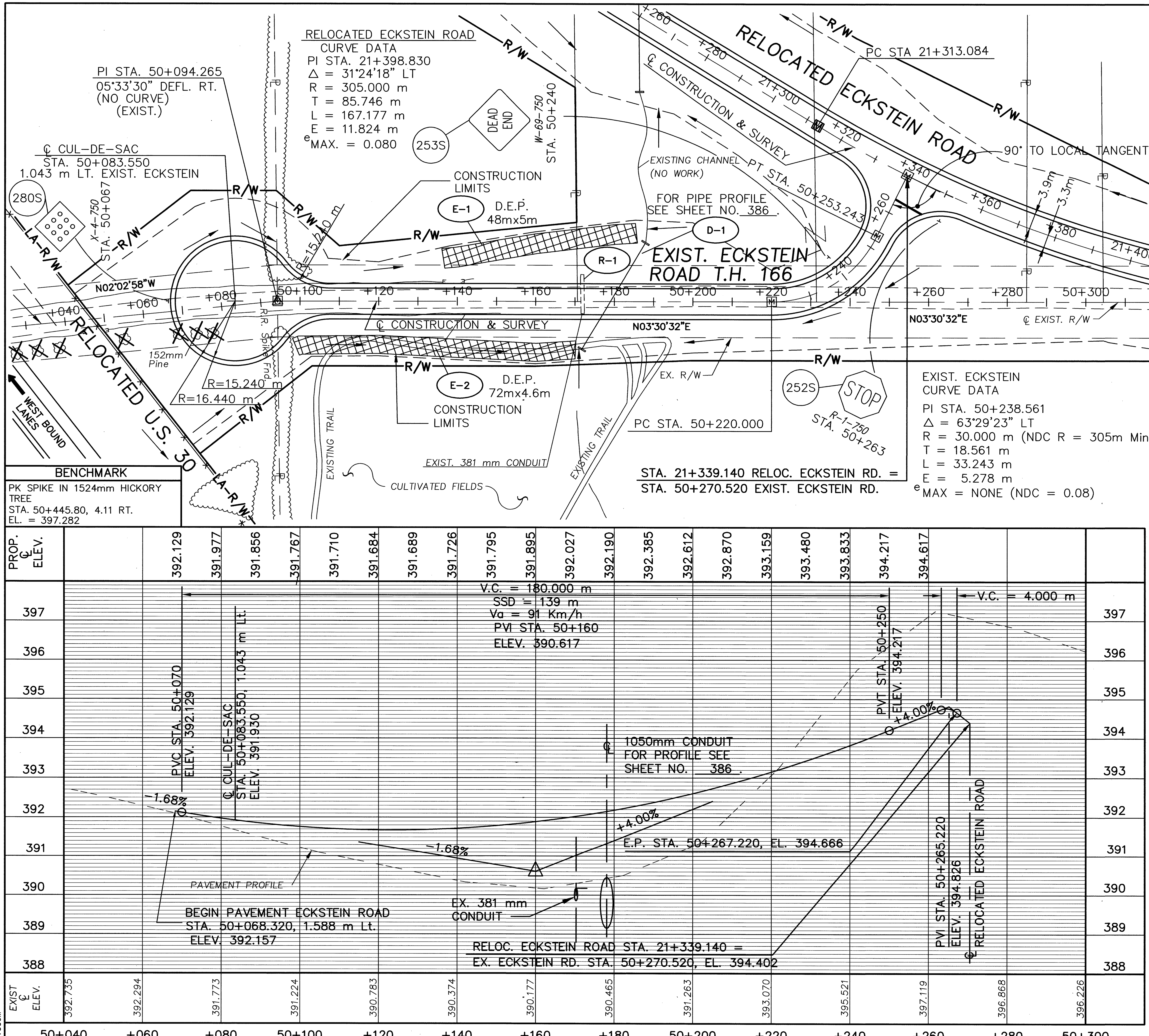
1:100M



NOTES:
1. FOR ℄ MON. LOCATION SEE SHEETS 617-618.
2. FOR INTERSECTION & CUL+DE-SAC DETAILS SEE SHEET 485.
3. FOR TRAFFIC CONTROL QUANTITIES SEE SHEETS 505-506.
4. FOR RELOC. ECKSTEIN ROAD P & P SEE SHEET 370.
6. FOR AGGREGATE LOCATIONS SEE SHEET 68

— INDICATES D.E.P.

274S
W-26-750
STA. 21+439

metric units

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	602 CONCRETE MASONRY C.M.	603 1050mm CONDUIT TYPE A METER	670 DITCH EROSION PROTECTION S.M.	202 PIPE REMOVED 600 mm AND UNDER METER
E-1	LT	50+140	50+188			240	
E-2	RT	50+100	50+172			331	
D-1	LT\RT	50+171.638	50+187.994	1.64	31.758		
R-1	LT\RT	50+172					9.8
TOTALS CARRIED TO SUB SUMMARY				1.64	31.758	571	9.8

RATIO 1:500
HORIZONTAL SCALE IN METERS

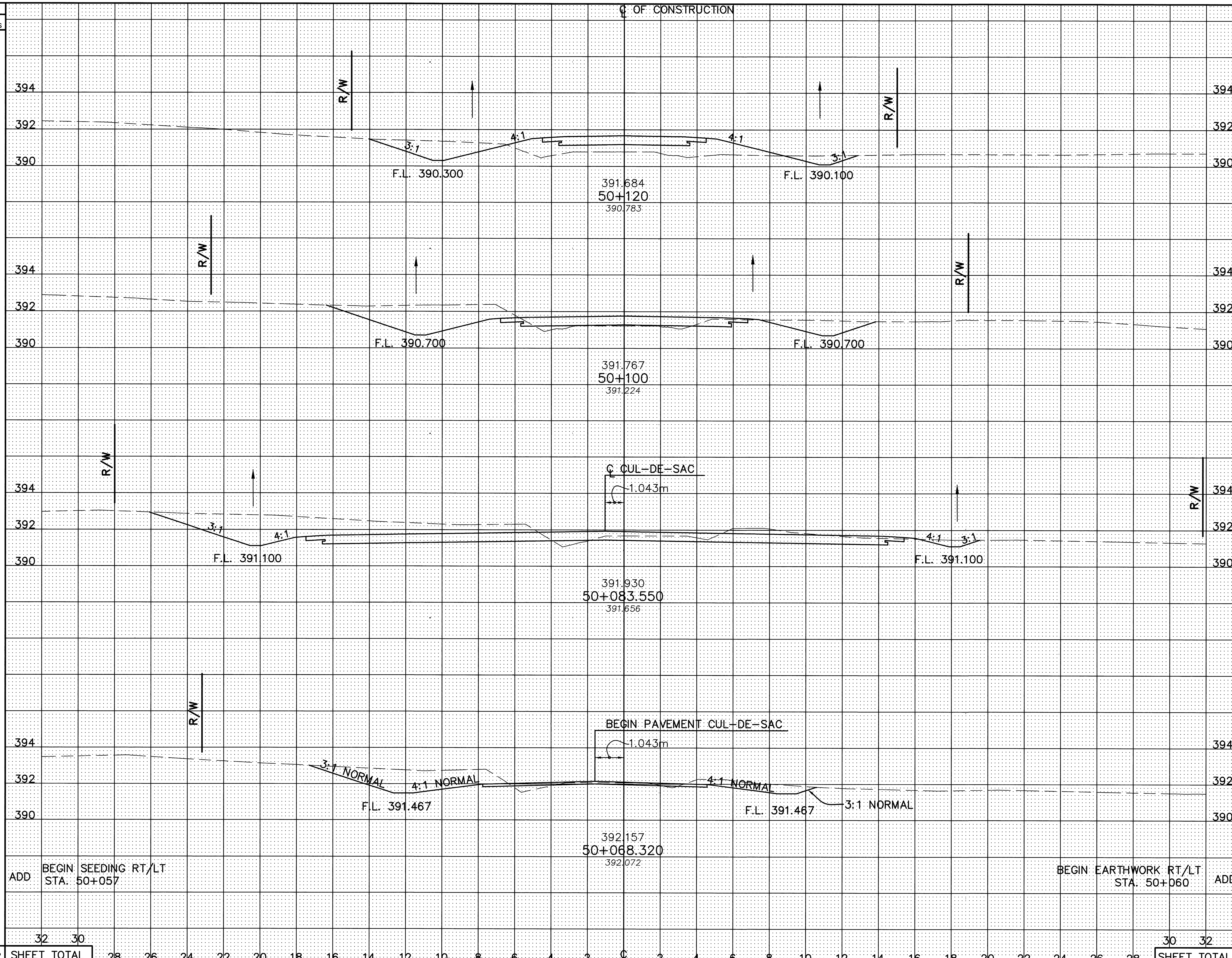
CALCULATED W.J.S. CHECKED C.R.M.

PLAN AND PROFILE - EXISTING ECKSTEIN ROAD
STA. 50+060.740 TO STA. 50+270.520

CRA/RIC-30-33.500/0.000

384/712

GP50EEK.DWG 03-11-1999 1:10 PM 1:500M



SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
24		5.5	7.9		
	470			190	86
23		13.5	0.7		
	345			364	9
19		30.7	0.4		
	308			330	7
21.5		12.7	0.5		
ADD	329	ADD		137	0
SHEET TOTAL	1452	SHEET TOTAL		1021	102

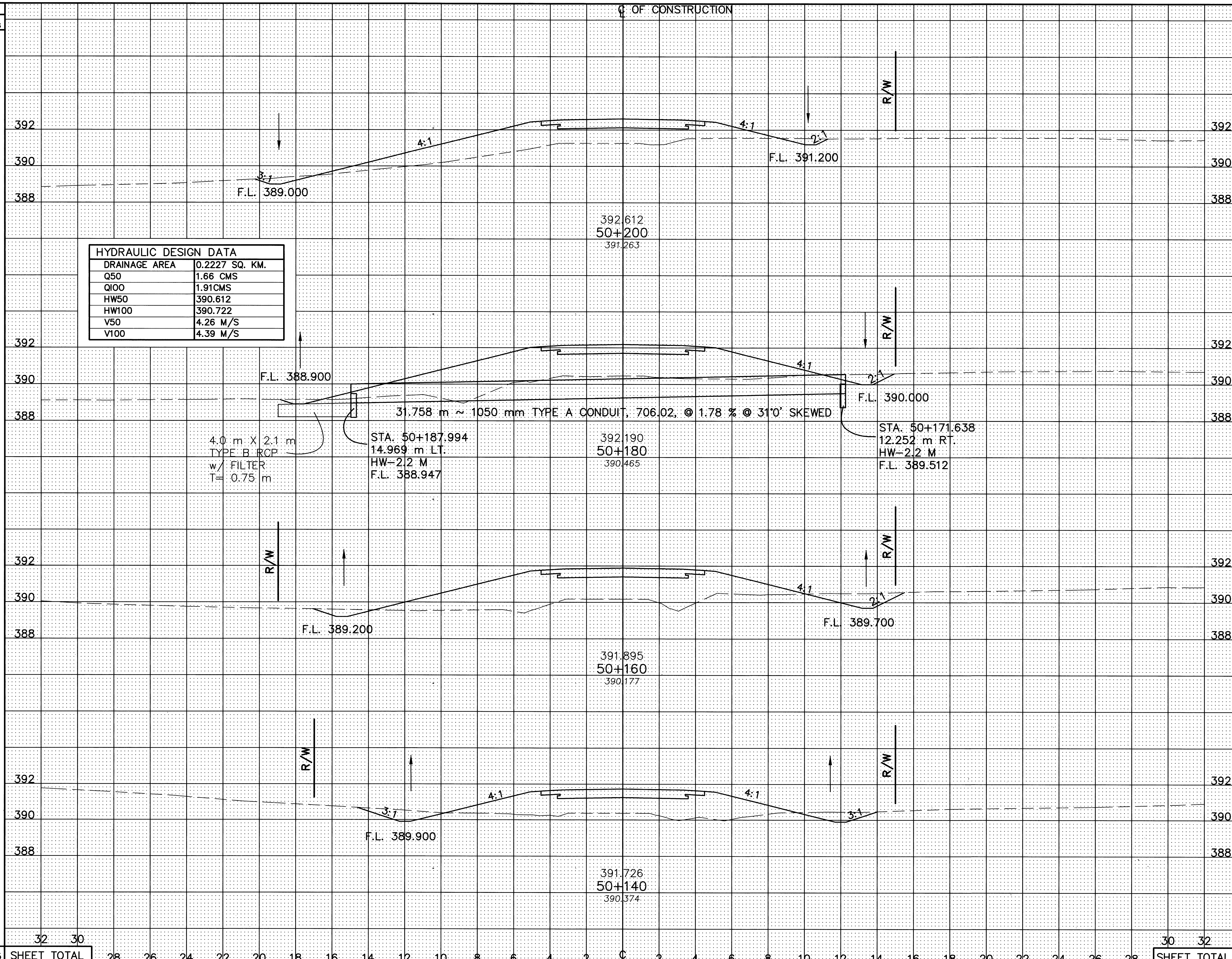
CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – EXIST. ECKSTEIN RD.
STA. 50+068.320 TO STA. 50+120

CRA/RIC-30-33.500/0.000

GX50EEK.DWG
02-15-1999 9:02 AM
1:100M

SEEDING	
END WIDTH	SQ. METERS
28.5	
	595
31	
	605
29.5	
	550
25.5	
	495
	2245



HYDRAULIC DESIGN DATA	
DRAINAGE AREA	0.2227 SQ. KM.
Q50	1.66 CMS
Q100	1.91CMS
HW50	390.612
HW100	390.722
V50	4.26 M/S
V100	4.39 M/S

END AREA		VOLUME	
CUT	FILL	CUT	FILL
1.2	20.3		
		29	532
1.7	32.9		
		49	600
3.2	27.1		
		63	438
3.1	16.7		
		86	246
		227	1816

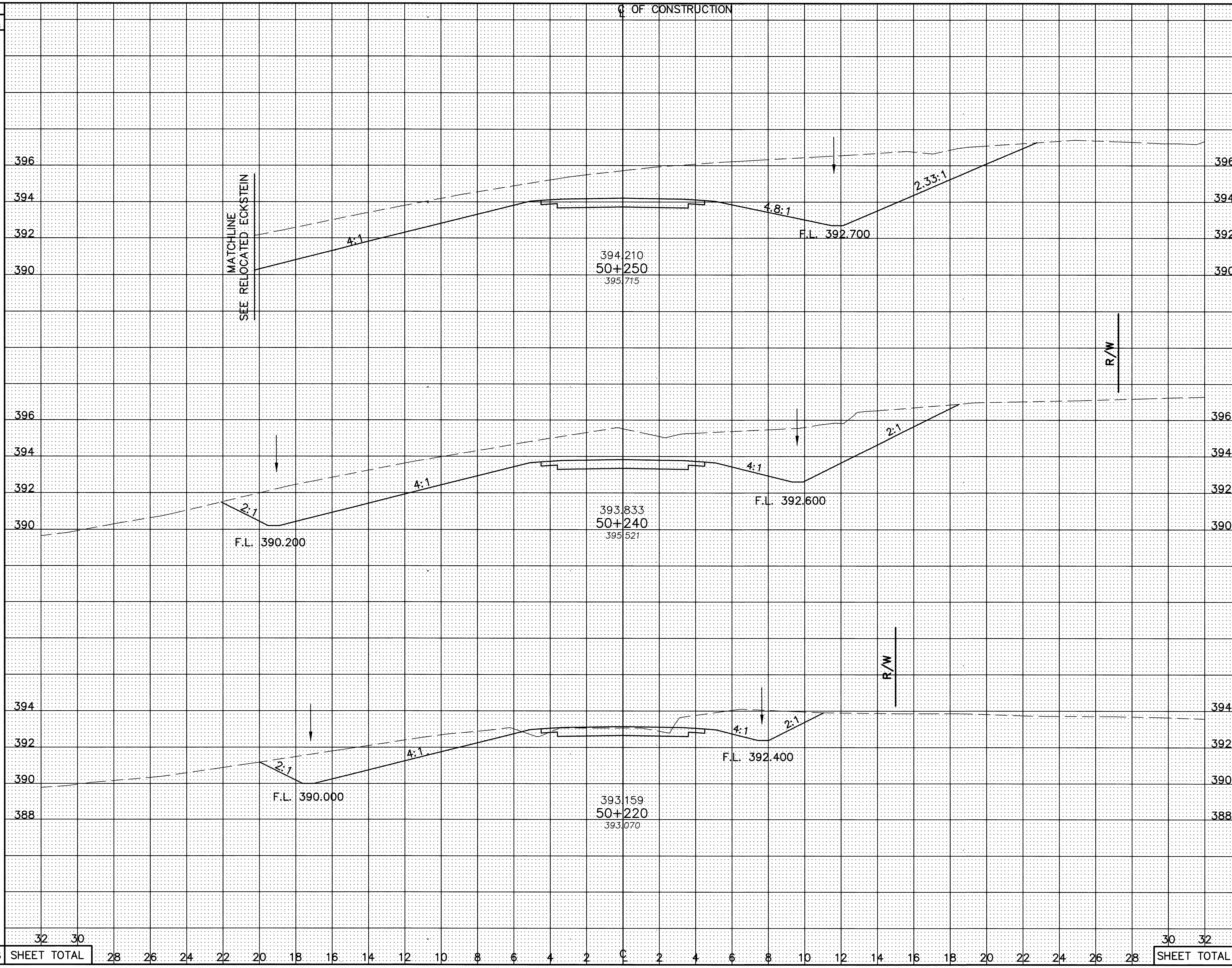
CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – EXIST. ECKSTEIN RD.
STA. 50+140 TO STA. 50+200

CRA/RIC-30-33.500/0.000

386
712

GX501EEK.DWG
02-25-1999 3:36 PM
1:100M



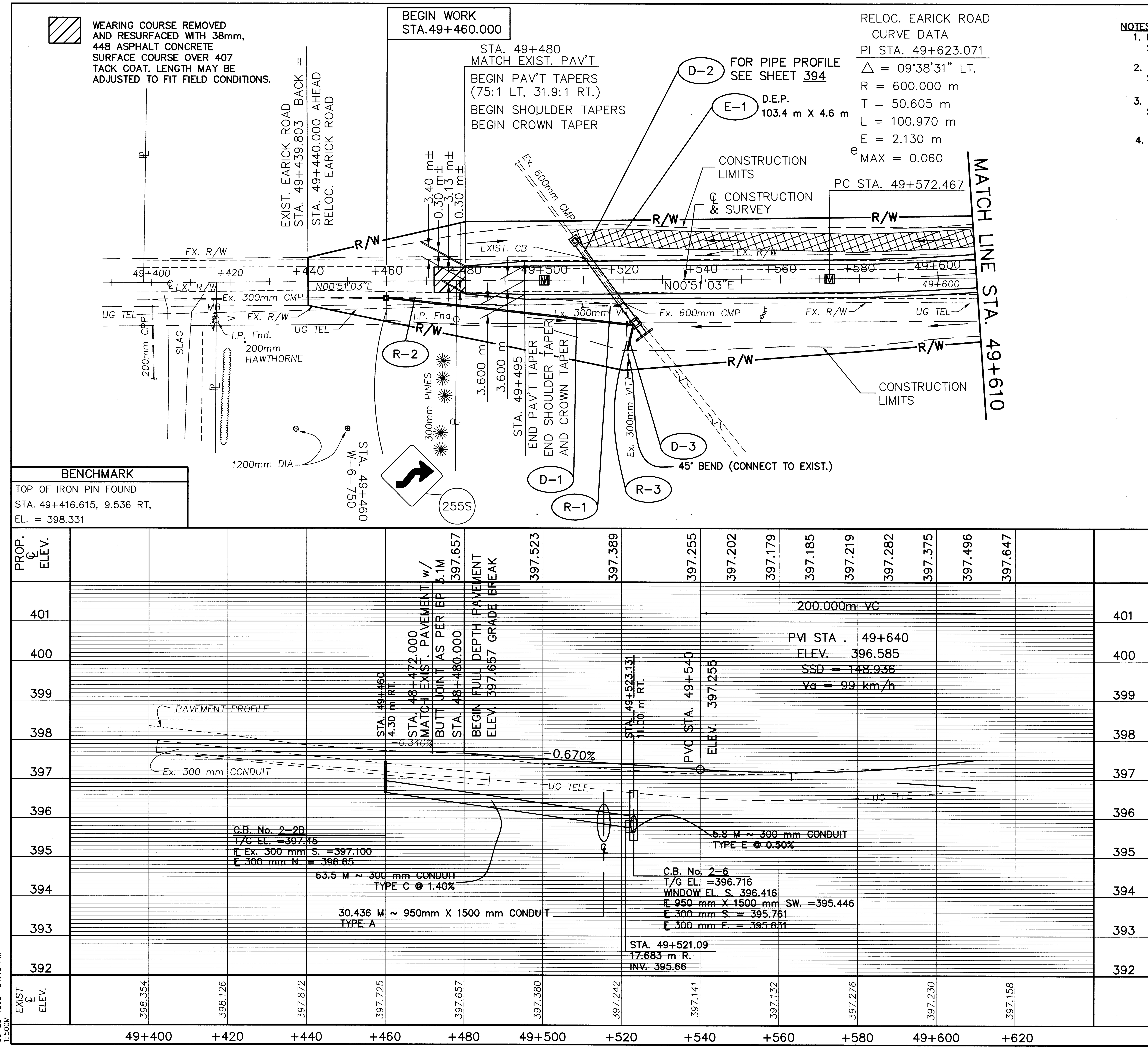
SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
37		83.7	0		
	373			773	0
37.5		70.9	0		
	655			966	3
28		25.7	0.3		
	565			269	206
SHEET TOTAL	1593			2008	209

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – EXIST. ECKSTEIN RD.
STA. 50+220 TO STA. 50+250

CRA/RIC-30-33.500/0.000

GX502EEK.DWG
02-15-1999 9:04 AM
1:100M



NOTES:

1. FOR ℄ MONUMENT LOCATIONS SEE SHEETS 617-618.
2. FOR SUPER ELEVATION TABLES SEE SHEET 467.
3. FOR TRAFFIC CONTROL QUANTITIES SEE SHEET 505.
4. FOR AGGREGATE LOCATIONS SEE SHEET 68

— INDICATES D.E.P.

metric units

RATIO 1:500 HORIZONTAL SCALE IN METERS

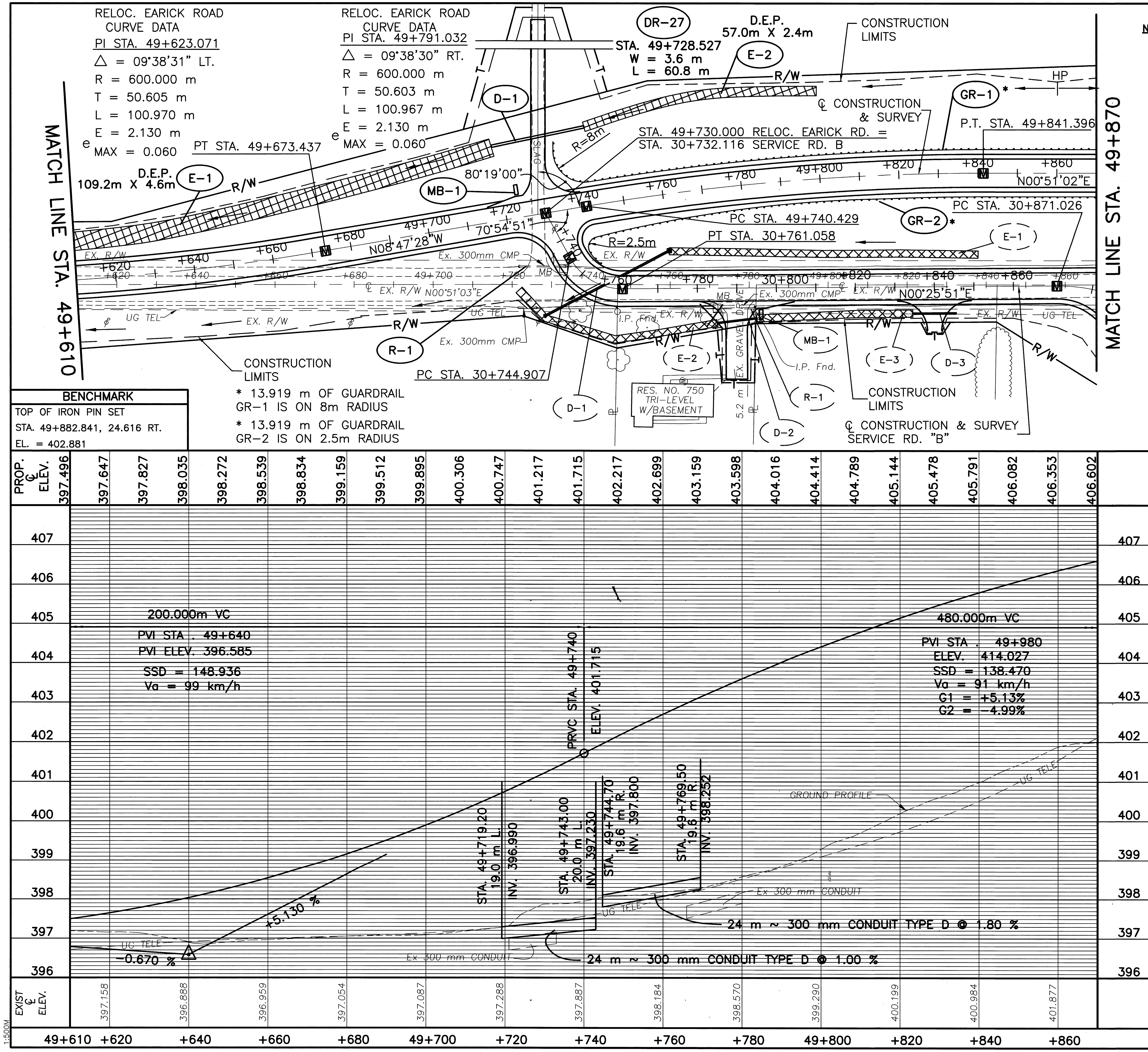
CALCULATED WJS CHECKED CRM

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	604 CATCH BASIN No. 2-6 (EACH)	202 PIPE REMOVED 600 mm AND UNDER (METER)	603 300 mm CONDUIT TYPE C (METER)	603 950 X 1500 mm CONDUIT 706.02 HE-II TYPE A (METER)	604 CATCH BASIN No. 2-2B (EACH)	603 300 mm CONDUIT TYPE E (METER)	602 CONCRETE MASONRY (C.M.)	670 DITCH EROSION PROTECTION (S.M.)
E-1	LT	49+506.6	49+610.0								475.64
R-1	RT	49+509.70	49+519.30		9.6						
R-2	RT	49+460.00	49+486.30		26.3						
R-3	RT	49+520.95	49+521.09		9.1						
D-1	RT	49+460.00	49+523.13	1		63.5		1			
D-2	RT/LT	49+507.53	49+525.46	1			30.44			0.89	
D-3	RT	49+521.09	49+523.13						5.8		
TOTALS CARRIED TO SUB SUMMARY				2	45.0	63.5	30.44	1	5.8	0.89	475.64

PLAN AND PROFILE - EARICK ROAD
STA. 49+400 TO STA. 49+610

CRA/RIC-30-33.500/0.000



NOTES:
1. FOR ℄ MONUMENT LOCATIONS SEE SHEETS 617–618.
2. FOR DRIVEWAY DETAILS & QUANTITIES SEE SHEETS 493–495.
3. FOR SUPERELEVATION TABLES SEE SHEET 467.
4. FOR AGGREGATE LOCATIONS SEE SHEET 68

metric units

— INDICATES D.E.P.

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	606 GUARDRAIL TYPE 5 (METER)	603 300 mm CONDUIT TYPE D (METER)	SPEC. MAILBOX SUPPORT SYSTEM SINGLE (EACH)	670 DITCH EROSION PROTECTION (S.M.)	626 BARRIER REFLECTORS TYPE A2 (EACH)	202 PIPE REMOVED 600mm AND UNDER (METER)	606 ANCHOR ASSEMBLY TYPE T (EACH)
GR-1	LT	49+734.834	49+870.000	140.973				8		1
GR-2	RT	49+741.681	49+870.000	128.239				8		2
D-1	LT	49+719.2	49+743.0		24					
MB-1	LT	49+724.700				1				
E-1	LT	49+610.0	49+719.2				502.32			
E-2	LT	49+743.0	49+800.0				136.80			
R-1	RT	49+720.985	49+732.985						12	
TOTALS CARRIED TO SUB SUMMARY				269.212	24	1	639.12	16	12	3

RATIO 1:500 HORIZONTAL SCALE IN METERS

CALCULATED WJS CHECKED CRM

PLAN AND PROFILE – EARICK ROAD STA. 49+610 TO STA. 49+870

CRA/RIC-30-33.500/0.000

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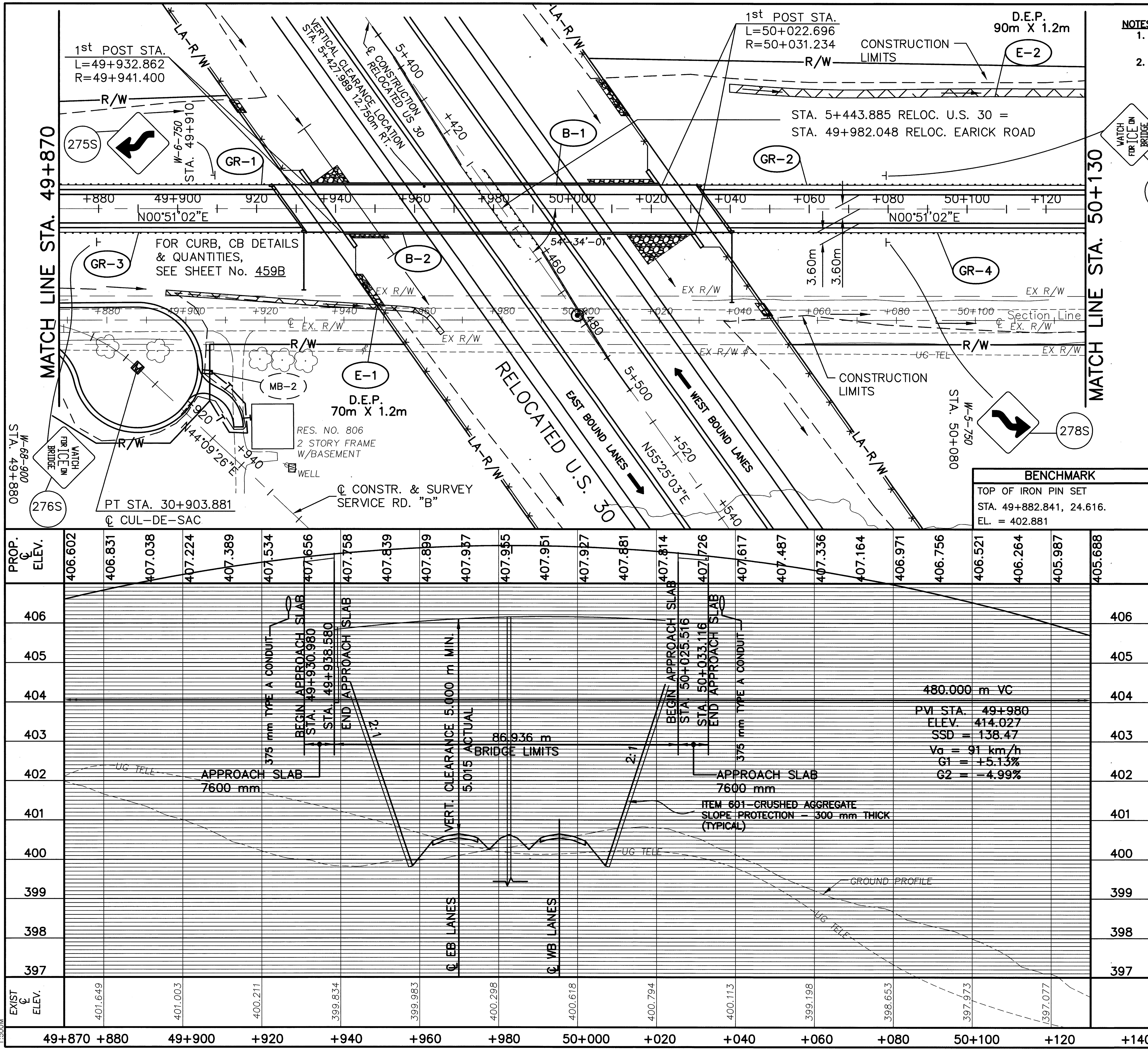

BENCHMARK

TOP OF IRON PIN SET
STA. 49+882.841, 24.616.
EL. = 402.881

NOTES:

1. FOR SUPERELEVATION TABLES SEE SHEET 467.
2. FOR TRAFFIC CONTROL QUANTITIES SEE SHEET 506.

metric units

RATIO 1:500
HORIZONTAL SCALE IN METERS

PROPOSED STRUCTURE

TYPE: 2 SPAN CONTINUOUS A572M PAINTED STEEL GIRDER BRIDGE w/COMPOSITE REINF. CONC. DECK ON CAP & COLUMN PIER AND SEMI-INTEGRAL ABUTMENTS
SPANS: 43 100, 43 100 c/c BEARINGS
ROADWAY: 12 000 T/T PARAPETS
DESIGN LOADING: MS18 CASE II & ALTERNATE MILITARY LOADING
SKEW: 35°-25'-59" R.F.
ALIGNMENT: TANGENT
WEARING SURFACE: MONOLITHIC CONCRETE
APPROACH SLABS: 7600 (AS-1-81M)
CROWN: 0.016
LATITUDE: N40°-46'-30"
LONGITUDE: W82°-40'-02"
STRUCTURE FILE NO: 7000987

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	606 GUARDRAIL TYPE 5 (METER)	606 BRIDGE TERMINAL ASSEMBLY TYPE 1 (EACH)			670 DITCH EROSION PROTECTION (S.M.)	626 BARRIER REFLECTORS TYPE 2A (EACH)	626 BARRIER REFLECTORS TYPE B2 (EACH)	
GR-1	LT	49+870.000	49+934.767	64.767	1				3		
GR-2	LT	50+020.791	50+130.000	109.209	1				4		
GR-3	RT	49+870.000	49+943.305	73.305	1				3		
GR-4	RT	50+029.329	50+130.000	100.671	1				4		
E-1	RT	49+900.0	49+970.0					84.0			
E-2	LT	50+040.0	50+130.0					108			
B-1	LT	49+934.767	50+020.791							4	
B-2	RT	49+943.305	50+029.329							4	
TOTALS CARRIED TO SUB SUMMARY				347.952	4			192	14	8	

CALCULATED WJS
CHECKED CRM

PLAN AND PROFILE - EARICK ROAD
STA. 49+870 TO STA. 50+130

CRA/RIC-30-33.500/0.000

390
712

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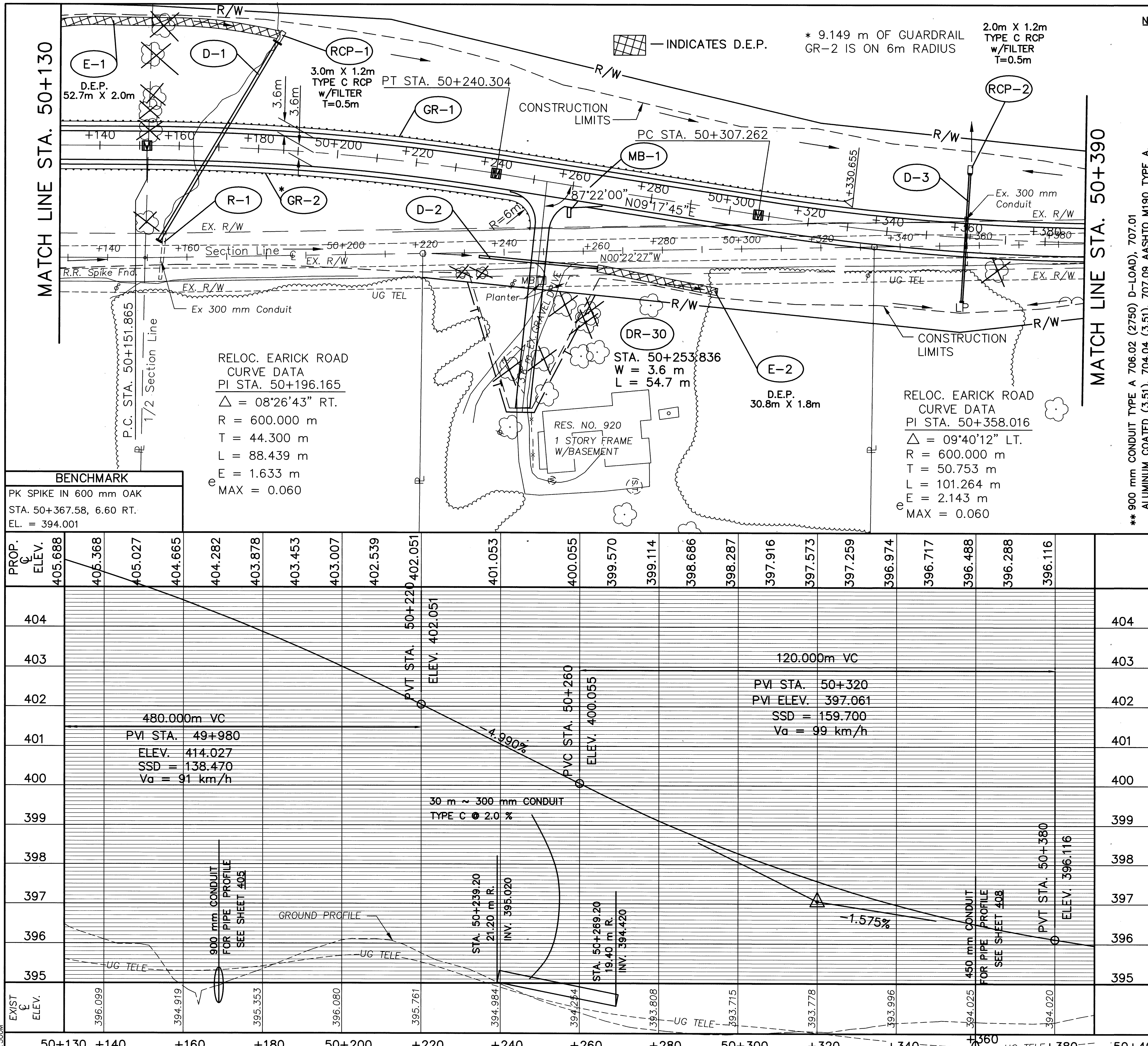
05-09-2001 2:23 PM
1:50OM



** 900 mm CONDUIT TYPE A 706.02 (2750) D-LOAD), 707.01 ALUMINUM COATED (3.51), 704.04 (3.51), 707.09 AASHTO M190 TYPE A.

NOTES:
1. FOR ℄ MONUMENT LOCATIONS SEE SHEETS 617-618
2. FOR DRIVEWAY DETAILS & QUANTITIES SEE SHEETS 493-495
3. FOR SUPERELEVATION TABLES SEE SHEET 467
4. FOR AGGREGATE LOCATIONS SEE SHEET 68

metric units

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	202 PIPE REMOVED 600 mm AND UNDER (METER)	606 GUARDRAIL TYPE 5 (METER)	606 ANCHOR ASSEMBLY TYPE E-98 (EACH)	606 ANCHOR ASSEMBLY TYPE T (EACH)	SPEC MAILBOX SUPPORT SYSTEM SINGLE (EACH)	603 900 mm CONDUIT TYPE A ** (METER)	603 450 mm CONDUIT TYPE A (METER)	603 300 mm CONDUIT TYPE D (METER)	602 CONCRETE MASONRY (C.M.)	670 DITCH EROSION PROTECTION (S.M.)	601 ROCK CHANNEL PROTECTION TYPE C W/ FILTER	626 BARRIER REFLECTORS TYPE A2 (EACH)
GR-1	LT	50+130.000	50+330.655		176.541	1									11
GR-2	RT	50+130.000	50+250.832		120.309		1								9
MB-1	RT	50+258.940						1							
D-1	LT/RT	50+155.071	50+183.275						58.4			1.32			
D-2	RT	50+239.200	50+269.200								30.0				
D-3	LT/RT	50+360.000								32.5		0.54			
E-1	LT	50+130.0	50+182.7										105.40		
RCP-1	LT	50+183.275												1.80	
E-2	RT	50+269.2	50+300.0										55.44		
RCP-2	LT	50+360.0												1.20	
R-1	RT	50+155.566	50+156.661	12.208											
TOTALS CARRIED TO GENERAL SUMMARY				12.208	296.85	1	1	1	58.4	32.5	30.0	1.86	160.84	3.00	20

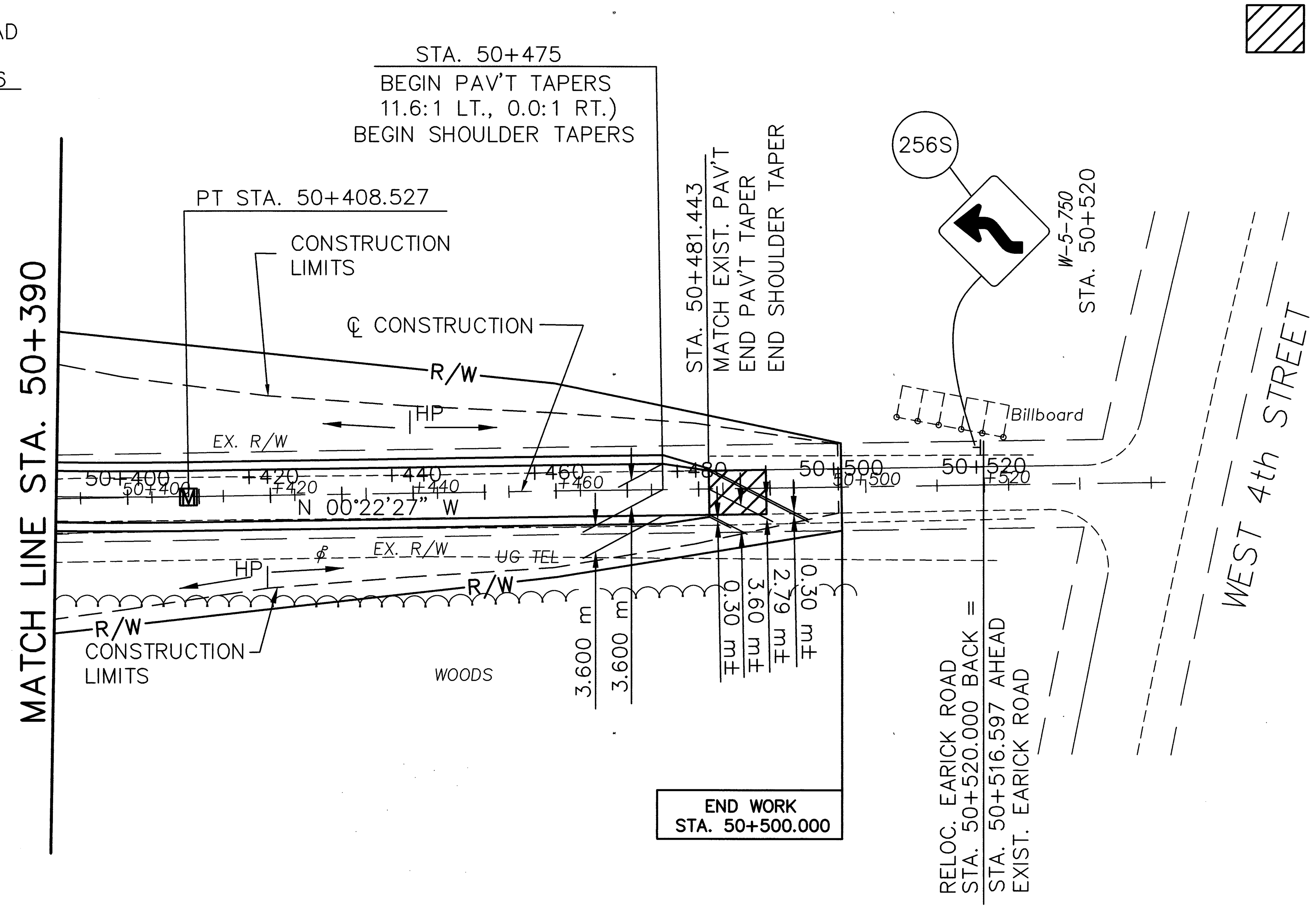
PLAN AND PROFILE - EARICK ROAD
STA. 50+130 TO STA. 50+390

CALCULATED WJS
CHECKED CRM
RATIO 1:500
HORIZONTAL SCALE IN METERS

CRA/RIC-30-33.500/0.000

GP503ERK.DWG
03-31-1999 12:28 PM
1:500M

RELOC. EARICK ROAD CURVE DATA
PI STA. 50+358.016
Δ = 09°40'12" LT.
R = 600.000 m
T = 50.753 m
L = 101.264 m
E = 2.143 m
e_{MAX} = 0.060



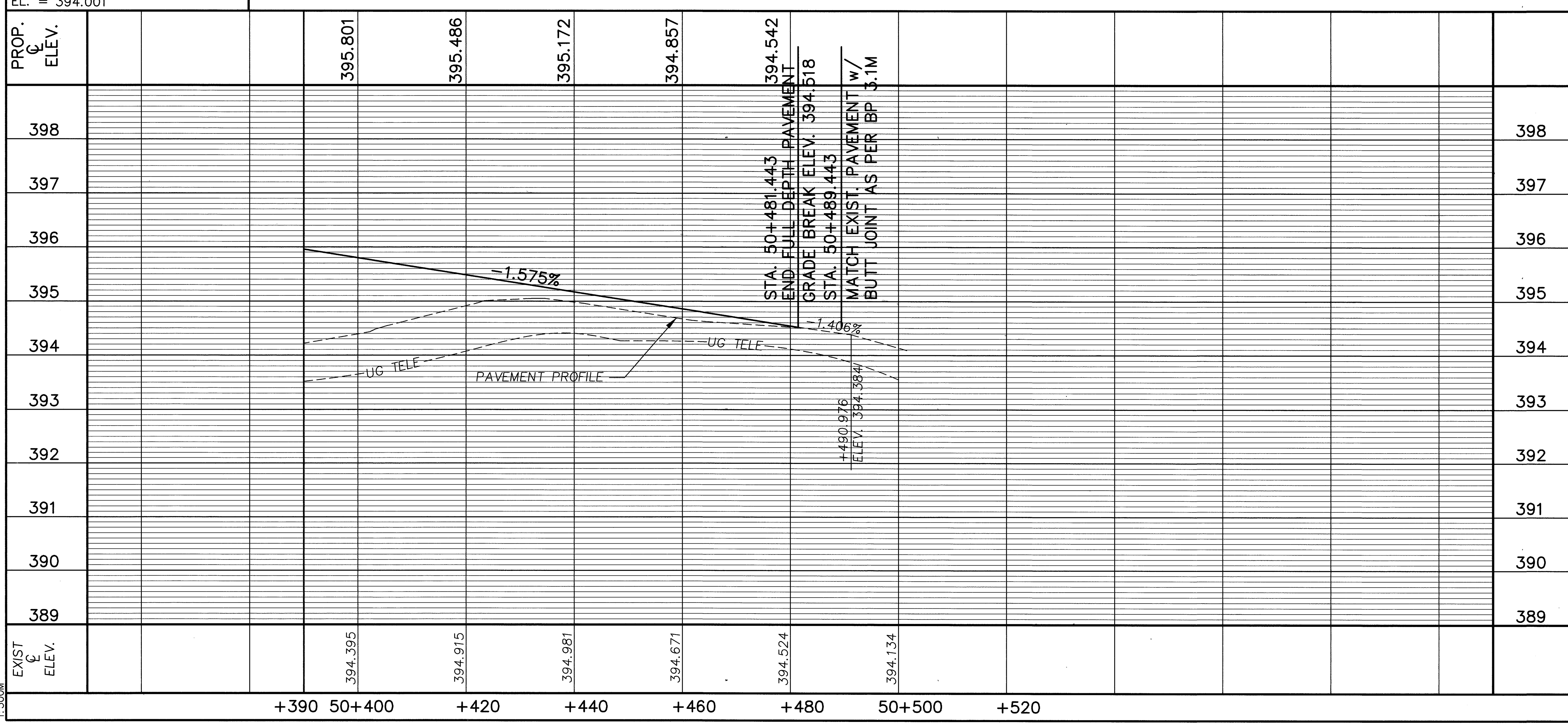
WEARING COURSE REMOVED AND RESURFACED WITH 38mm, 448 ASPHALT CONCRETE SURFACE COURSE OVER 407 TACK COAT. LENGTH MAY BE ADJUSTED TO FIT FIELD CONDITIONS.

NOTES:

1. FOR SUPERELEVATION TABLES SEE SHEET 467
2. FOR TRAFFIC CONTROL QUANTITIES SEE SHEET 506
3. FOR AGGREGATE LOCATIONS SEE SHEET 68

metric units

BENCHMARK
PK. SPIKE IN 600 mm OAK
STA. 50+367.58, 6.60 RT.
EL. = 394.001



ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO																										

TOTALS CARRIED TO SUB SUMMARY

RATIO 1:500
HORIZONTAL SCALE IN METERS 0 5 10 20

CALCULATED WJS
CHECKED CRM

PLAN AND PROFILE - EARICK ROAD STA. 50+390 TO STA. 50+500

CRA/RIC-30-33.500/0.000

392/712

GP504ERK.DWG
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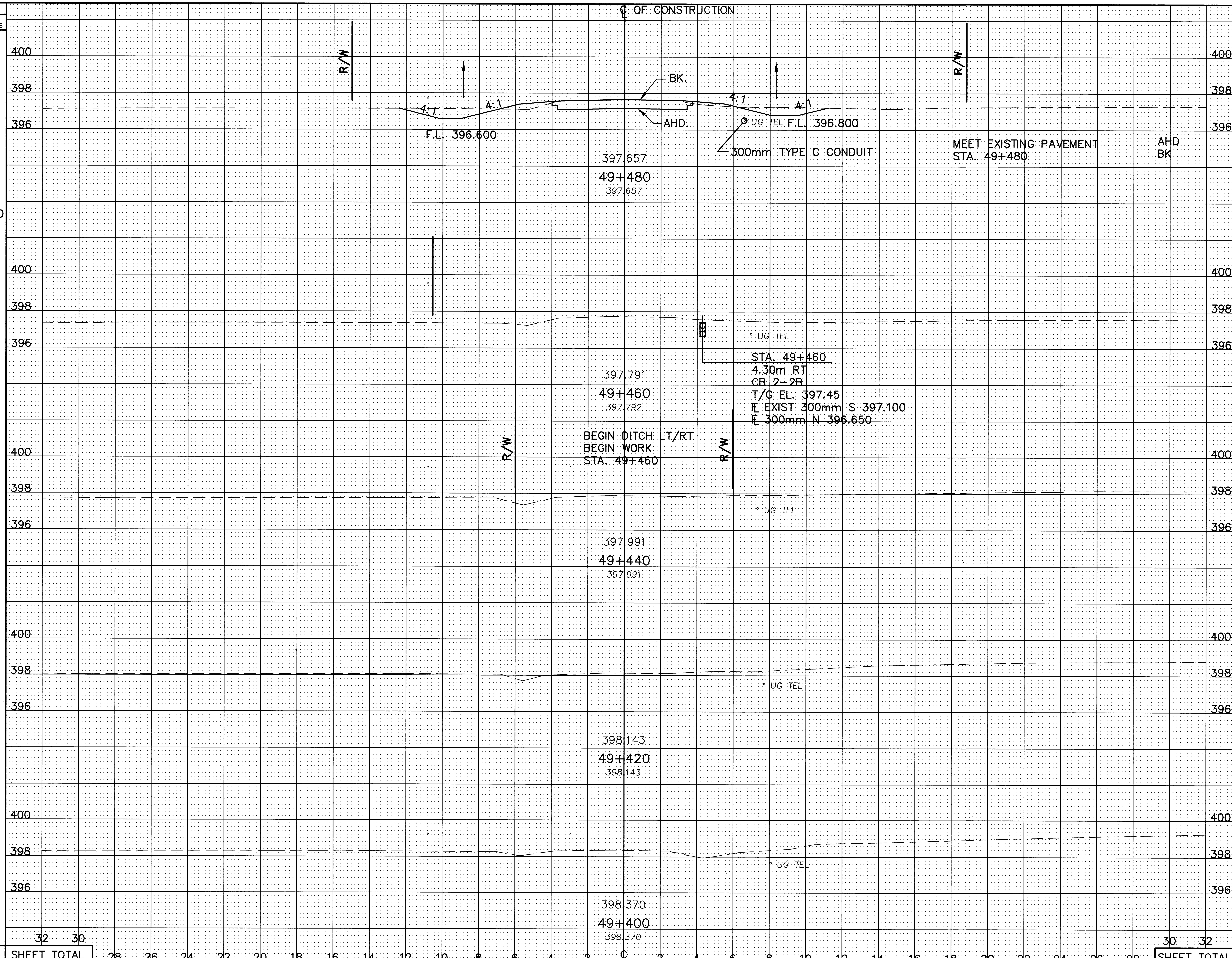
1:500M



SEEDING END WIDTH	SEEDING SQ. METERS	STATION	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
22		49+480	4.9 (AHD) / 2.2 (BK)	1.3 / 1.3		
	280				22	13
6		49+460	0	0		
					0	0
0		49+440	0	0		
					0	0
0		49+420	0	0		
					0	0
0		49+400	0	0		
SHEET TOTAL	280				22	13

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS - EARICK ROAD
STA. 49+400 TO STA. 49+480

CRA/RIC-30-33.500/0.000

GX500ERK.DWG
02-15-1999 8:34 AM
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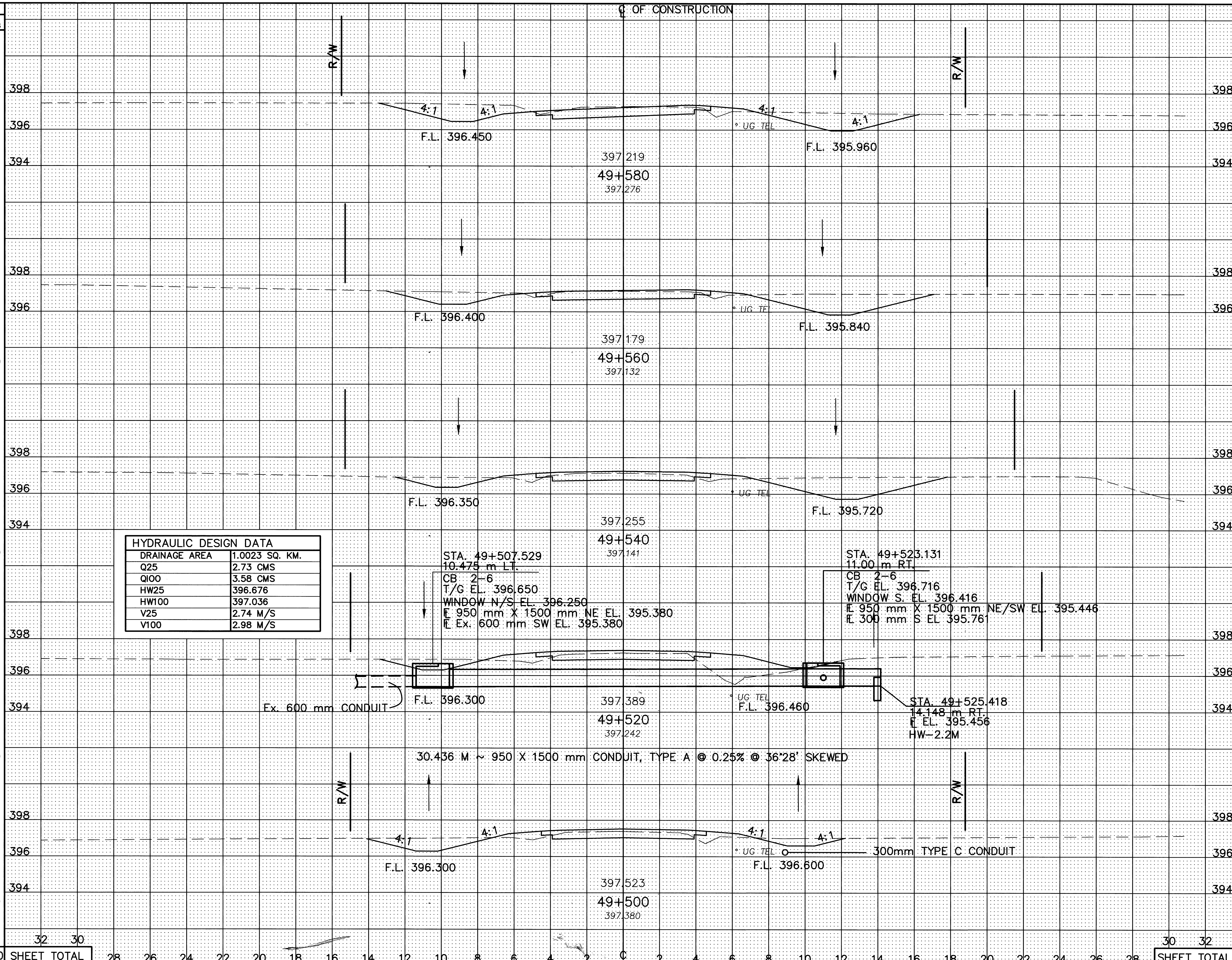
CROSS-SECTIONS – EARICK ROAD
STA. 49+500 TO STA. 49+580

CRA/RIC-30-33.500/0.000

CALCULATED CRM | CHECKED WJS



HYDRAULIC DESIGN DATA	
DRAINAGE AREA	1.0023 SQ. KM.
Q25	2.73 CMS
Q100	3.58 CMS
HW25	396.676
HW100	397.036
V25	2.74 M/S
V100	2.98 M/S

Station	SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
49+580	24		12.8	0.3		
		510			246	6
49+560	27		11.8	0.3		
		540			225	14
49+540	27		10.7	1.1		
		570			205	78
49+520	30		9.8	6.7		
		530			150	84
49+500	23		5.2	1.7		
		450			101	30
SHEET TOTAL		2600			927	212

32 30 SHEET TOTAL

30 32 SHEET TOTAL

GX501ERK.DWG
02-25-1999 4:08 PM
1:100M

SEEDING
END WIDTH
SQ. METERS
℄ OF CONSTRUCTION
END AREA
CUT
FILL
VOLUME
CUT
FILL
CALCULATED CRM
CHECKED WJS
R/W
4:1
3:1
F.L. 396.780
399.159
49+680
397.054
F.L. 396.580
UG TEL
F.L. 396.650
398.539
49+660
396.959
F.L. 396.440
F.L. 396.600
398.035
49+640
396.888
F.L. 396.320
F.L. 396.550
397.647
49+620
397.158
F.L. 396.200
F.L. 396.500
397.375
49+600
397.230
F.L. 396.080
398
396
394
30
590
29
550
26
500
24
490
25
490
2620
SHEET TOTAL
2.3 35
46 570
2.3 22
46 340
2.3 12.0
53 174
3.0 5.4
102 65
7.2 1.1
200 14
447 1163
CROSS-SECTIONS – EARICK ROAD
STA. 49+600 TO STA. 49+680
CRA/RIC-30-33.500/0.000
395
712
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02-15-1999 8:36 AM
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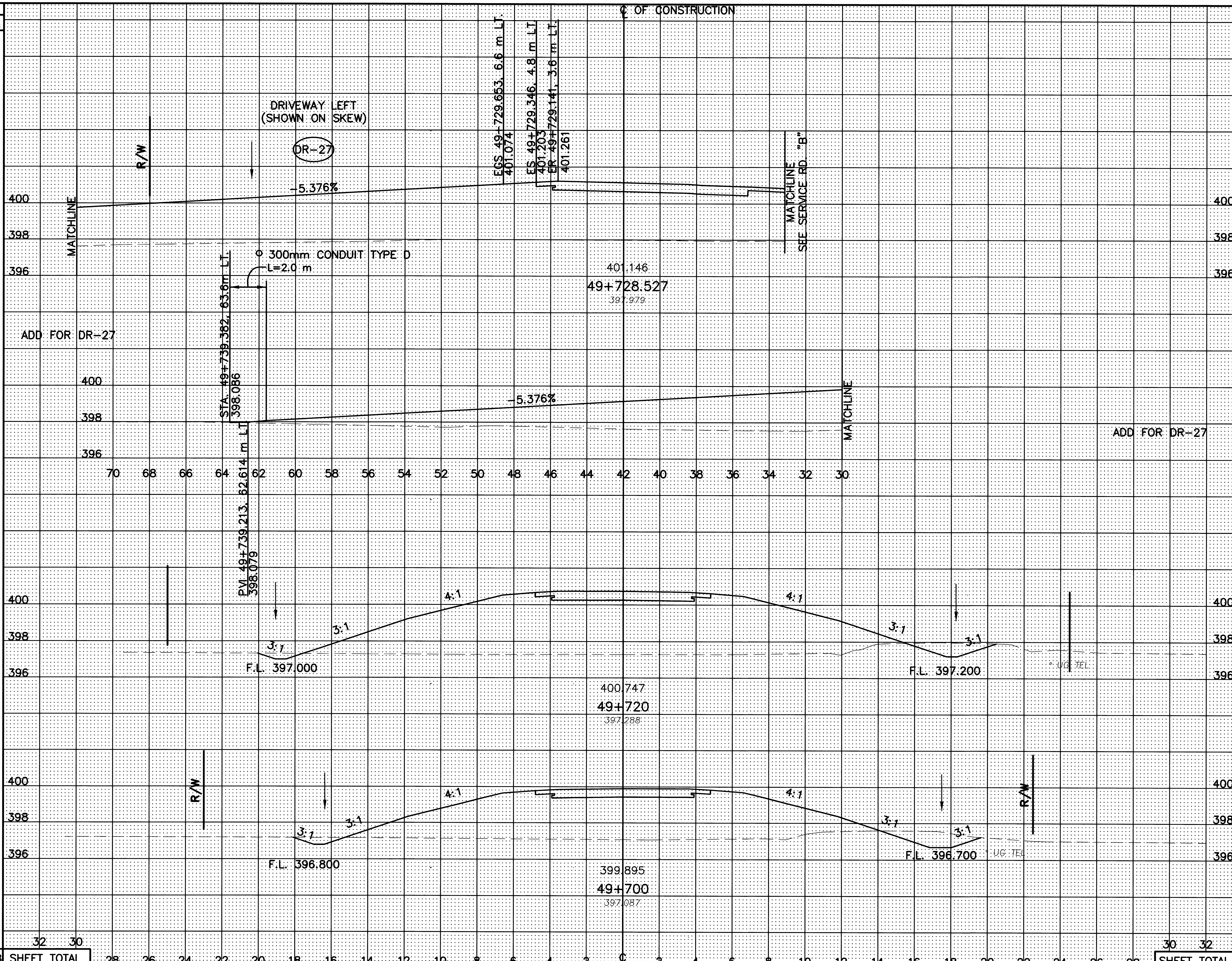

SEEDING END WIDTH	SEEDING SQ. METERS
	308
37	
	710
34	
	640
	1658

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		0	934
3.8	72.4		
		74	1263
3.6	53.9		
		59	889
		133	3086

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – EARICK ROAD
STA. 49+700 TO STA. 49+728.527

CRA/RIC-30-33.500/0.000

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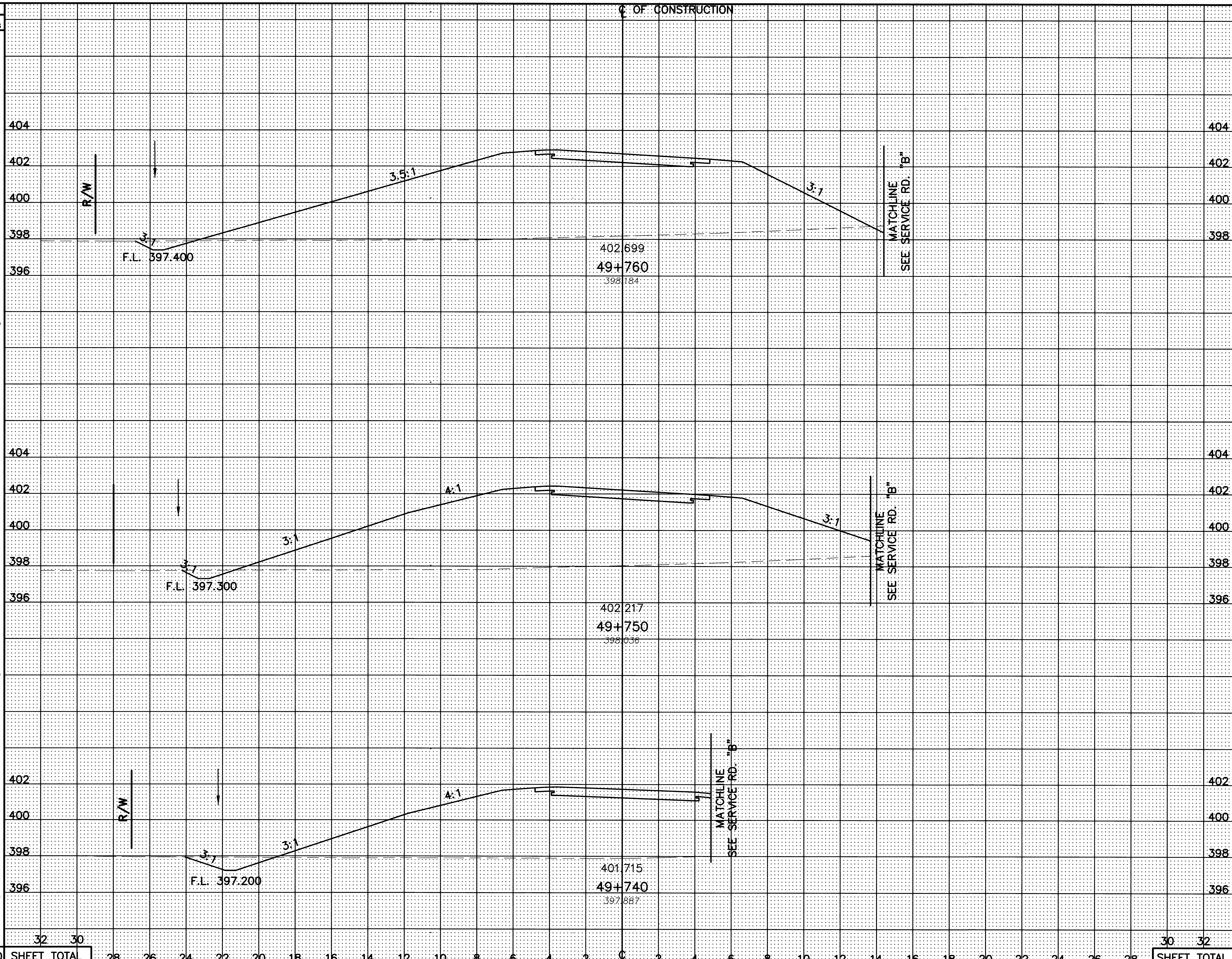
05-09-2001 2:27 PM
1:100M



SEEDING	
END WIDTH	SQ. METERS
34	
	315
29	
	245
20	
	570
	1130

SHEET TOTAL

END AREA		VOLUME	
CUT	FILL	CUT	FILL
1.0	109		
		9	1048
0.8	100.6		
		14	825
2.0	64.4		
		58	1368
		81	3241

SHEET TOTAL

CALCULATED TJM

CHECKED WJS

CROSS-SECTIONS – EARICK ROAD

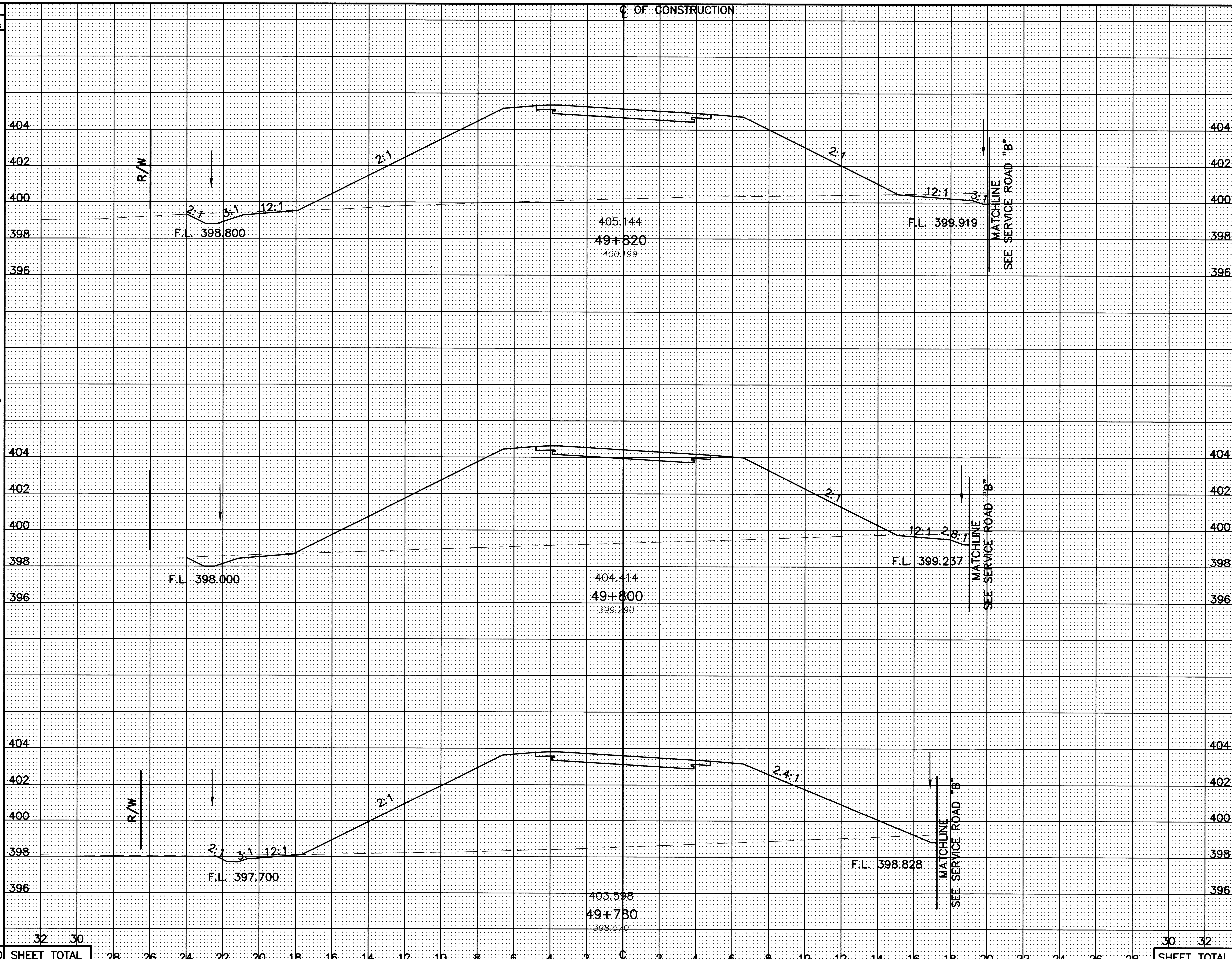
STA. 49+740 TO STA. 49+760

CRA/RIC-30-33.500/0.000

397
712

GX505ERK.DWG
04-25-2001 9:30 AM
1:100M

SEEDING	
END WIDTH	SQ. METERS
40	
	800
40	
	780
38	
	610
	2190



END AREA		VOLUME	
CUT	FILL	CUT	FILL
2.7	107.7		
		50	2193
2.3	111.6		
		35	2191
1.2	107.5		
		21	2026
		106	6410

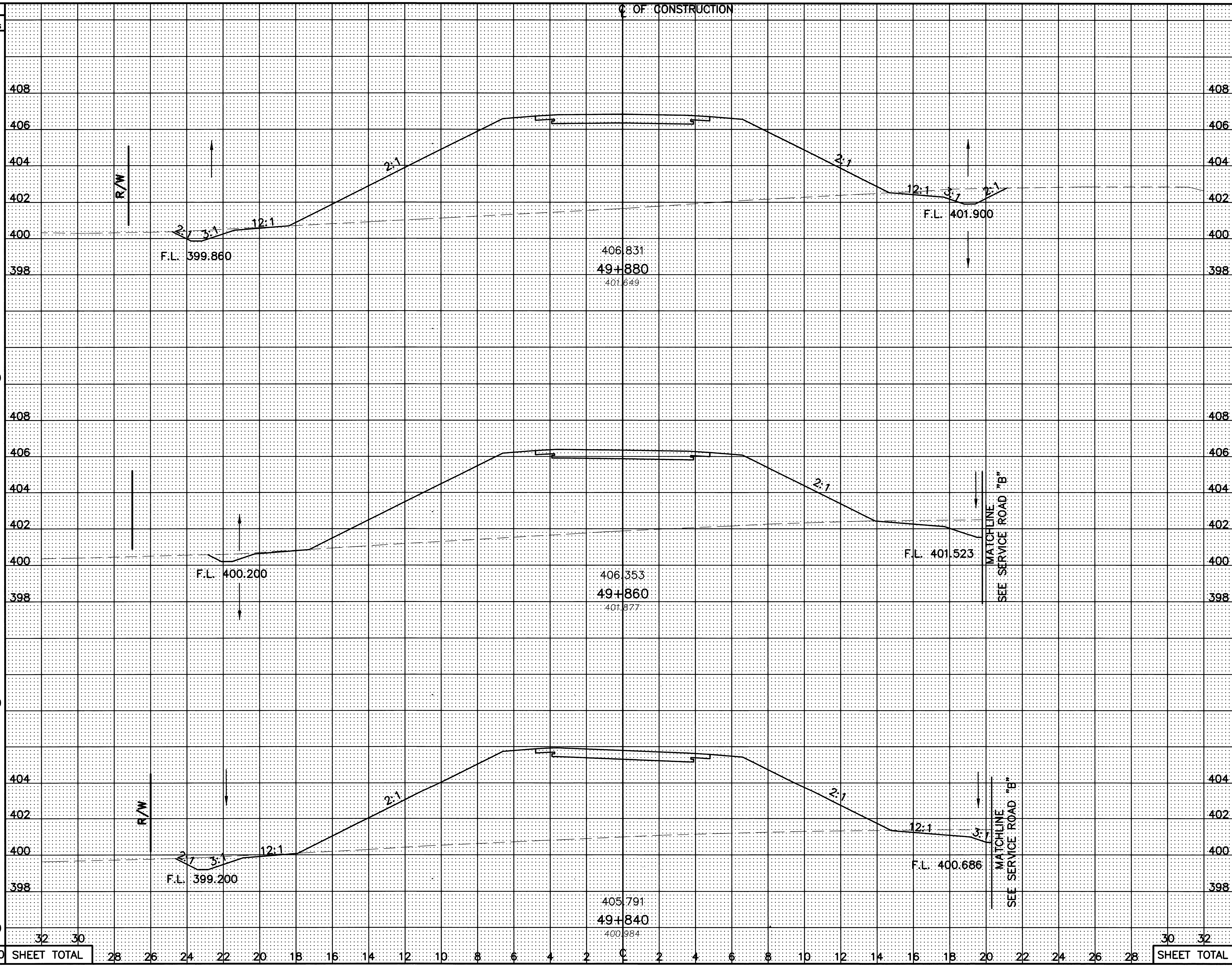
CALCULATED TJM
CHECKED WJS

CROSS-SECTIONS - EARICK ROAD
STA. 49+790 TO STA. 49+820

CRA/RIC-30-33.500/0.000

398/712

GX506ERK.DWG
05-09-2001 2:50 PM
1:100M



SEEDING END WIDTH	SEEDING SQ. METERS	STATION	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
42		49+880	3.7	113.3		
	770				66	2070
35		49+860	2.9	93.7		
	730				62	1947
38		49+840	3.3	103.7		
	780				60	2114
SHEET TOTAL	2280				188	6131

CALCULATED TJM
CHECKED WJS

CROSS-SECTIONS – EARICK ROAD
STA. 49+840 TO STA. 49+880

CRA/RIC-30-33.500/0.000

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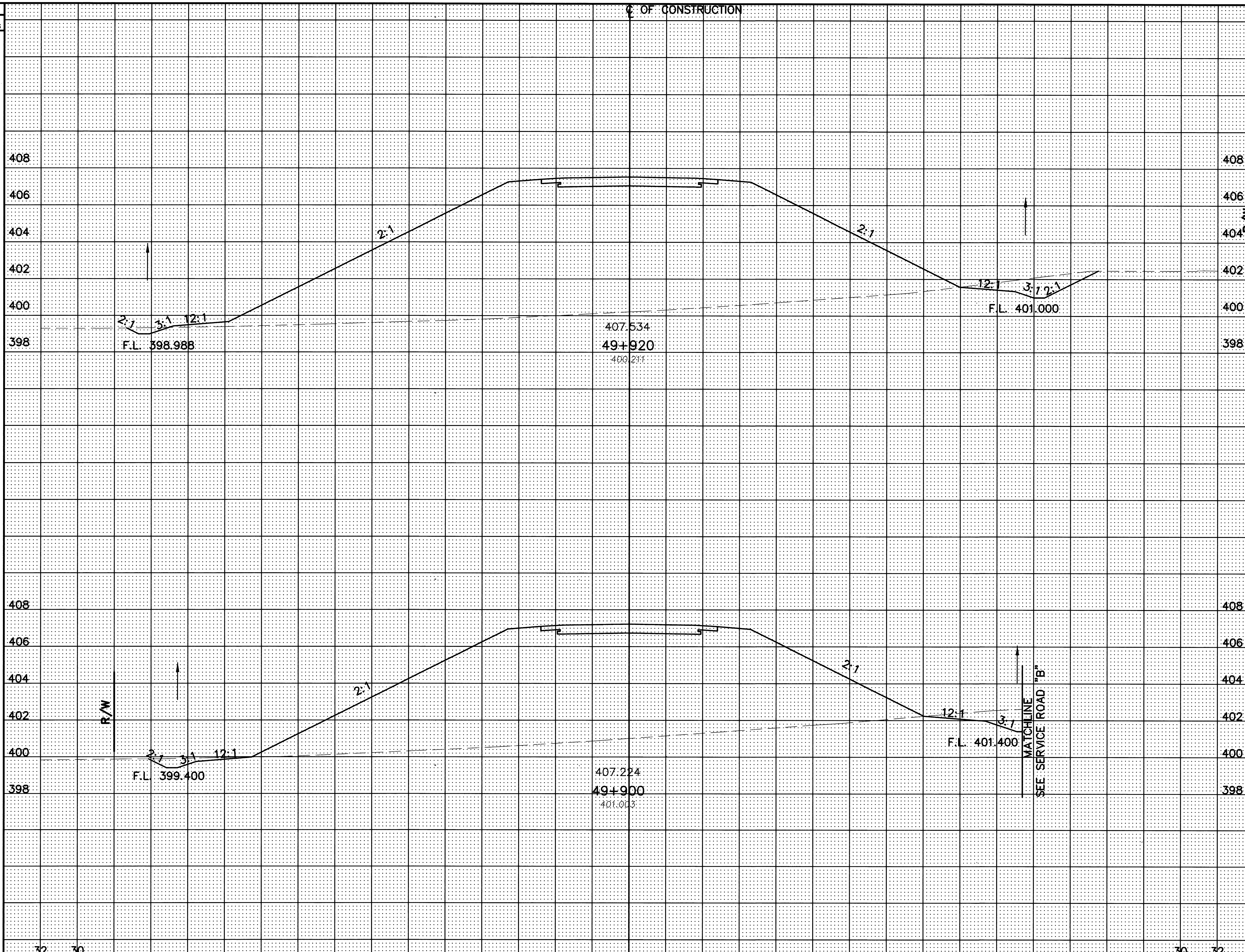
03-19-2001 10:53 AM
1:100M



SEEDING		END AREA		VOLUME	
END WIDTH	SQ. METERS	CUT	FILL	CUT	FILL
50		3	190.2		
	970			69	3399
44		3.9	149.7		
				76	2630
	860				
SHEET TOTAL	1830	SHEET TOTAL		145	6029

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS - EARICK ROAD
STA. 49+900 TO STA. 49+920

CRA/RIC-30-33.500/0.000

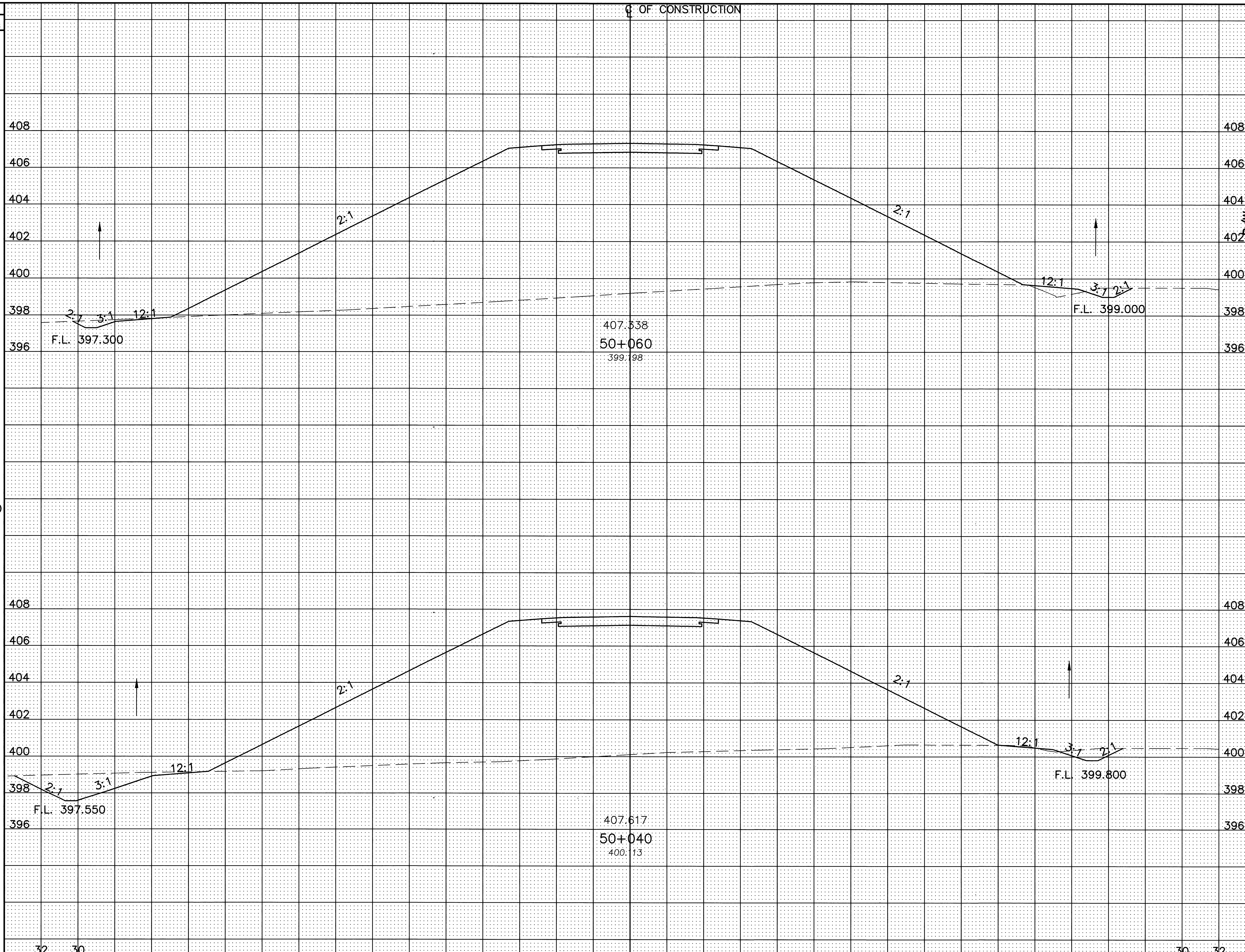
400/712

GX50BERK.DWG
03-19-2001 11:10 AM
1:100M

SEEDING
END WIDTH
SQ. METERS
56
414
53
50
549
963
SHEET TOTAL
BRIDGE LIMITS: 50+025.516 AHD
EARTH WORK AT STRUCTURE
49+938.580 BK
AHD STA. 49+938.580
BK END APPROACH SLAB
APPROACH SLAB
407.747
49+938.580
399.901
2:1
3:1
12:1
F.L. 398.155
F.L. 399.657
STA. 49+938.580 AHD.
END APPROACH SLAB BK.
AHD STA. 49+930.980
BK BEGIN APPROACH SLAB
STA. 49+923.337 OFFSET 5.750 LT.
CB NO.6
T/G ELEV.=407.472
℄ 375 mm E ELEV.=406.363
AHD
℄ 375 mm E ELEV.=406.222
BK
STA. 49+931.875 OFFSET 5.750 RT.
CB NO.6
T/G ELEV.=407.572
CONC. COLLAR
14.114 m ~ 375 mm CONDUIT, TYPE A @ 1.00%
FOR PIPE QUANTITIES SEE DRAINAGE DETAILS, SHEET NO 459B
407.668
49+930.980
399.785
F.L. 398.659
2.0 m L X 2.0 m W X 0.5 m T
ROCK CHANNEL PROTECTION,
TYPE C W/FILTER
F.L. 400.440
R/W
STA. 49+930.980 AHD
BEGIN APPROACH SLAB BK
END AREA
VOLUME
CUT
FILL
0
1885
0
0
5.2
209.4
31
1503
3.0
186.2
3.0
189.5
33
2085
64
5473
CALCULATED CRM
CHECKED WJS
CROSS-SECTIONS – EARICK ROAD
STA. 49+930.980 TO STA. 49+938.580
CRA/RIC-30-33.500/0.000
401
712
GX509ERK.DWG
02-15-1999 8:45 AM
1:100M

SEEDING
END WIDTH
SQ. METERS
END AREA
VOLUME
CUT
FILL
CALCULATED CRM
CHECKED WJS
℄ OF CONSTRUCTION
STA. 50+032.221 OFFSET 5.750 LT.
CB NO.6
T/G ELEV.=407.599
BK
CONC. COLLAR
℄ 375 mm W ELEV.=406.249
STA. 50+040.759 OFFSET 5.750 RT.
CB NO.6
T/G ELEV.=407.503
AHD.
℄ 375 mm W ELEV.=406.390
14.114 m ~ 375 mm CONDUIT, TYPE A @ 1.00%
407.542
50+033.116
400.358
END APPROACH SLAB AHD.
STA. 50+033.116 BK.
FOR PIPE QUANTITIES SEE DRAINAGE
DETAILS, SHEET NO 459B
F.L. 397.569
2.0 m L X 2.0 m W X 0.5 m T
ROCK CHANNEL PROTECTION,
TYPE C W/FILTER
F.L. 400.169
AHD STA. 50+033.116
BK END APPROACH SLAB
57
54
403
9.6 196.9
9.6 193.7
83
1421
R/W
AHD STA. 50+025.516
BK BEGIN APPROACH SLAB
52
0
APPROACH SLAB
407.687
50+025.516
400.558
F.L. 397.672
F.L. 400.380
BRIDGE LIMITS: 50+025.516 AHD
12.2 180.2
SHEET TOTAL
403
83
1421
CROSS-SECTIONS – EARICK ROAD
STA. 50+025.516 TO STA. 50+033.116
CRA/RIC-30-33.500/0.000
402
712
GX51OERK.DWG
02-15-1999 8:47 AM
1:100M

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. METERS	CUT	FILL	CUT	FILL
54		1.3	234.8		
	1110			95	4401
57		8.2	205.3		
	392			61	1384
	1502 SHEET TOTAL			156	5785



CALCULATED CRM
CHECKED WJS

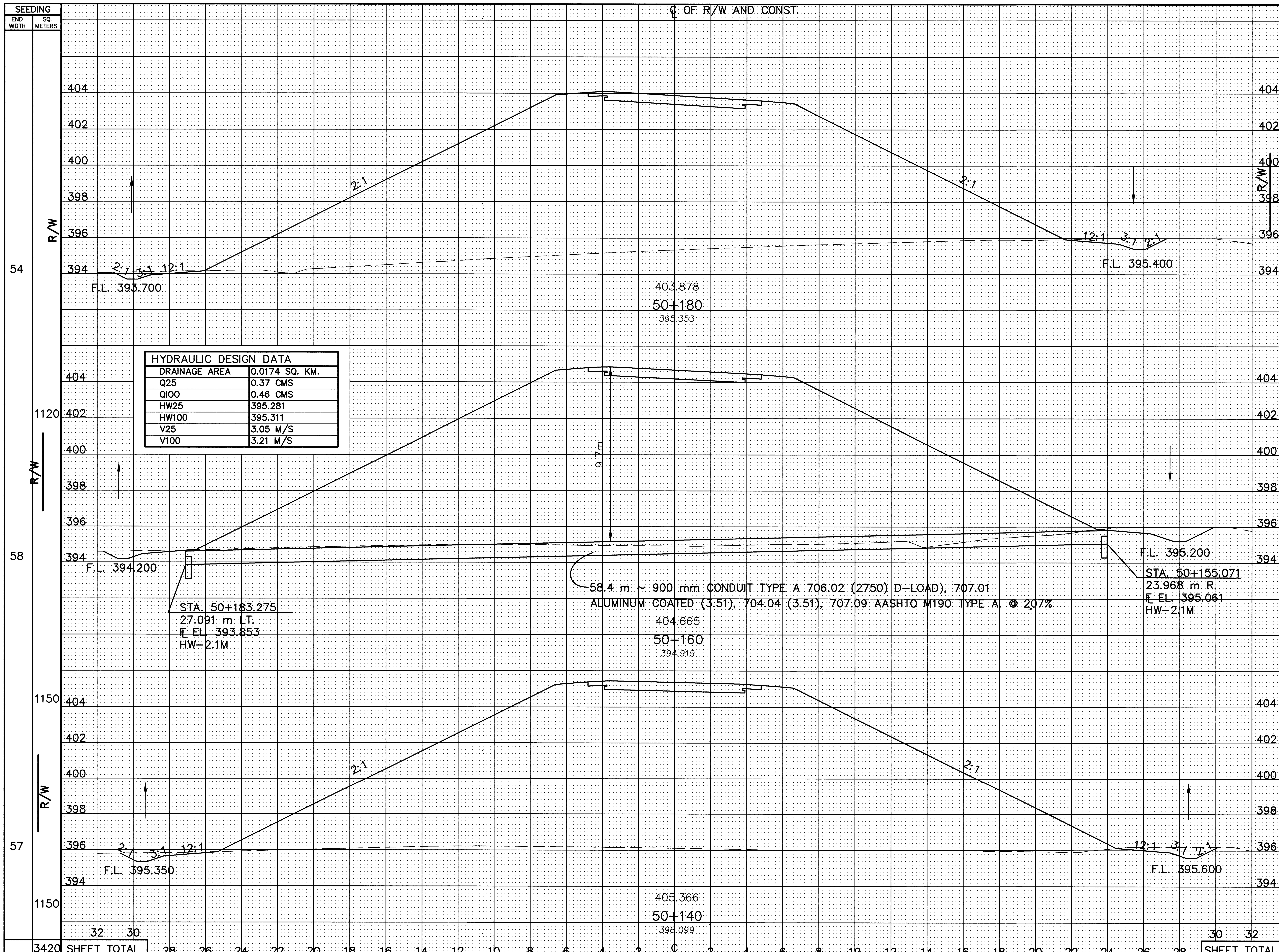
CROSS-SECTIONS – EARICK ROAD
STA. 50+040 TO STA. 50+060

CRA/RIC-30-33.500/0.000

403
712

GX511ERK.DWG
02-15-1999 8:48 AM
1:100M

SEEDING
END WIDTH
SQ. METERS
℄ OF CONSTRUCTION
END AREA
CUT
FILL
VOLUME
CUT
FILL
CALCULATED CRM
CHECKED WJS
R/W
2:1
3:1
12:1
F.L. 395.800
F.L. 395.800
405.987
50+120
397.077
58
2.6
283.3
54
5530
1160
F.L. 396.080
F.L. 396.400
406.521
50+100
397.973
58
2.8
269.7
64
5263
1170
F.L. 396.400
F.L. 397.200
406.971
50+080
398.653
59
3.6
256.6
49
4914
1130
3460
SHEET TOTAL
SHEET TOTAL
167
15707
CROSS-SECTIONS – EARICK ROAD
STA. 50+080 TO STA. 50+120
CRA/RIC-30-33.500/0.000
404
712
GX512ERK.DWG
02-15-1999 8:50 AM
1:100M



HYDRAULIC DESIGN DATA	
DRAINAGE AREA	0.0174 SQ. KM.
Q25	0.37 CMS
Q100	0.46 CMS
HW25	395.281
HW100	395.311
V25	3.05 M/S
V100	3.21 M/S

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
2.3	252		
		54	5506
3.1	298.6		
		56	5819
2.5	283.3		
		51	5666
		161	16991

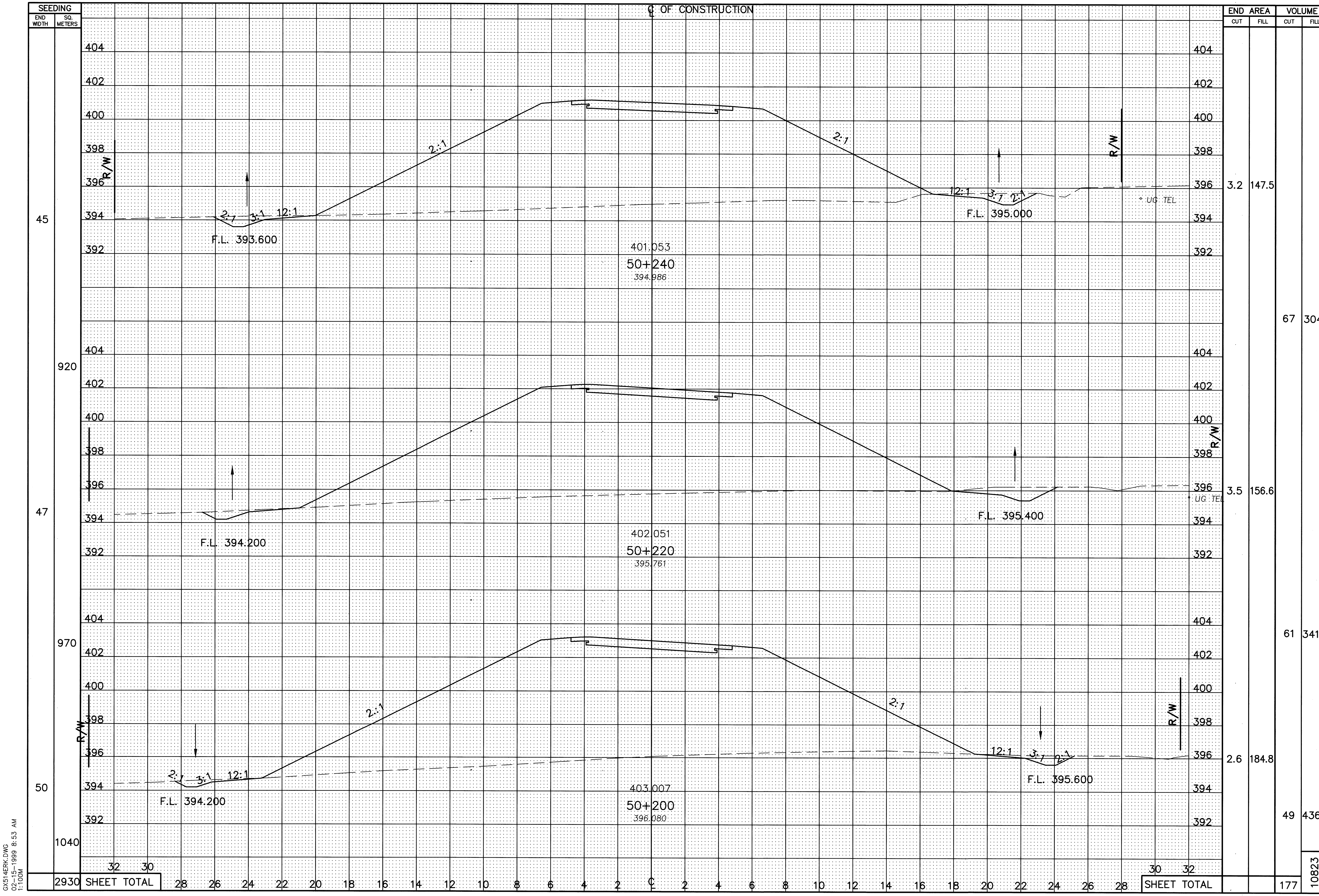
CALCULATED CRM
CHECKED WJS

CROSS–SECTIONS – EARICK ROAD
STA. 50+140 TO STA. 50+180

CRA/RIC–30–33.500/0.000

405/712

GX513ERK.DWG
02–26–1999 7:43 AM
1:100M

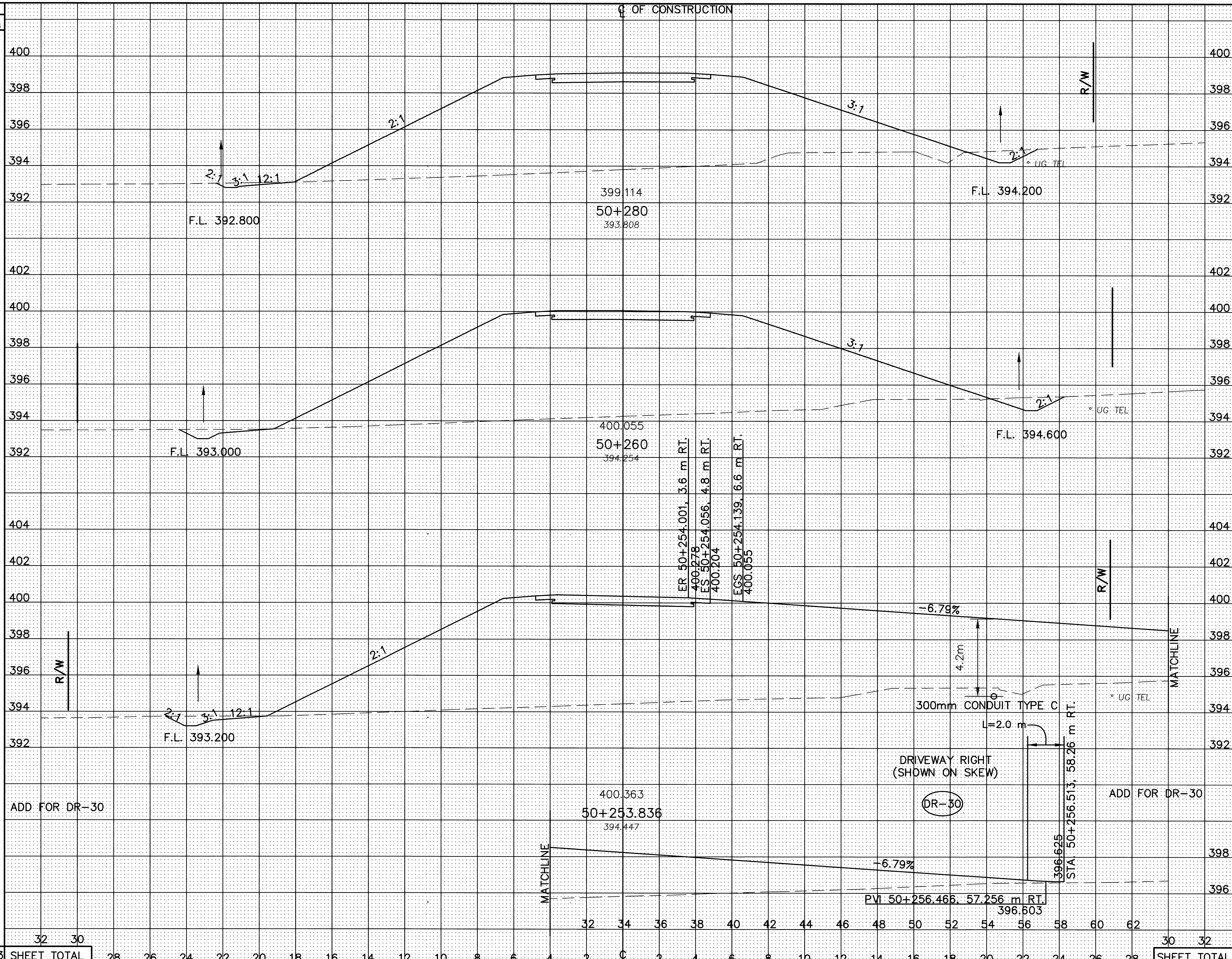


CROSS-SECTIONS - EARICK ROAD
STA. 50+200 TO STA. 50+240

CRA/RIC-30-33.500/0.000

406
712

	SEEDING		END AREA		VOLUME	
	END WIDTH	SQ. METERS	CUT	FILL	CUT	FILL
	39		1.4	124.3		
		820			40	2693
	43		2.6	145		
		880			58	2925
ADD FOR DR-30		533			0	2150
SHEET TOTAL		2233			98	7664



CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – EARICK ROAD
STA. 50+253.836 TO STA. 50+280

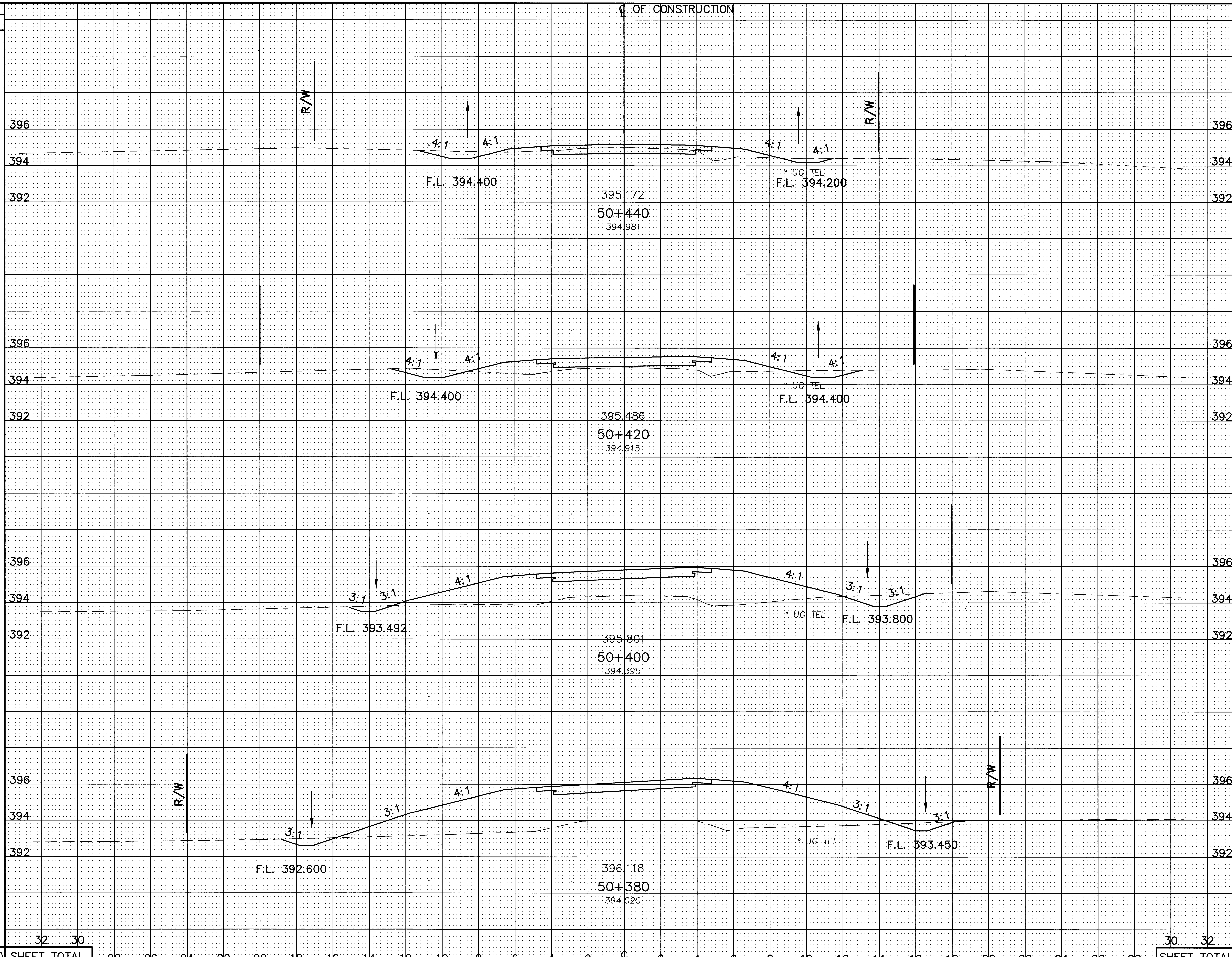
CRA/RIC-30-33.500/0.000

407/712

GX515ERK.DWG
03-24-1999 7:48 AM
1:100M

HYDRAULIC DESIGN DATA

DRAINAGE AREA	0.0255 SQ. KM.
Q25	0.23 CMS
Q100	0.28 CMS
HW25	393.831
HW100	393.931
V25	2.28 M/S
V100	2.39 M/S



SEEDING		END AREA		VOLUME	
END WIDTH	SQ. METERS	CUT	FILL	CUT	FILL
20		2.4	2.1		
	410			47	88
21		2.3	6.7		
	490			49	329
28		2.6	26.2		
	610			45	749
33		1.9	48.7		
	680			35	1109
32 30					
	2190 SHEET TOTAL			176	2275

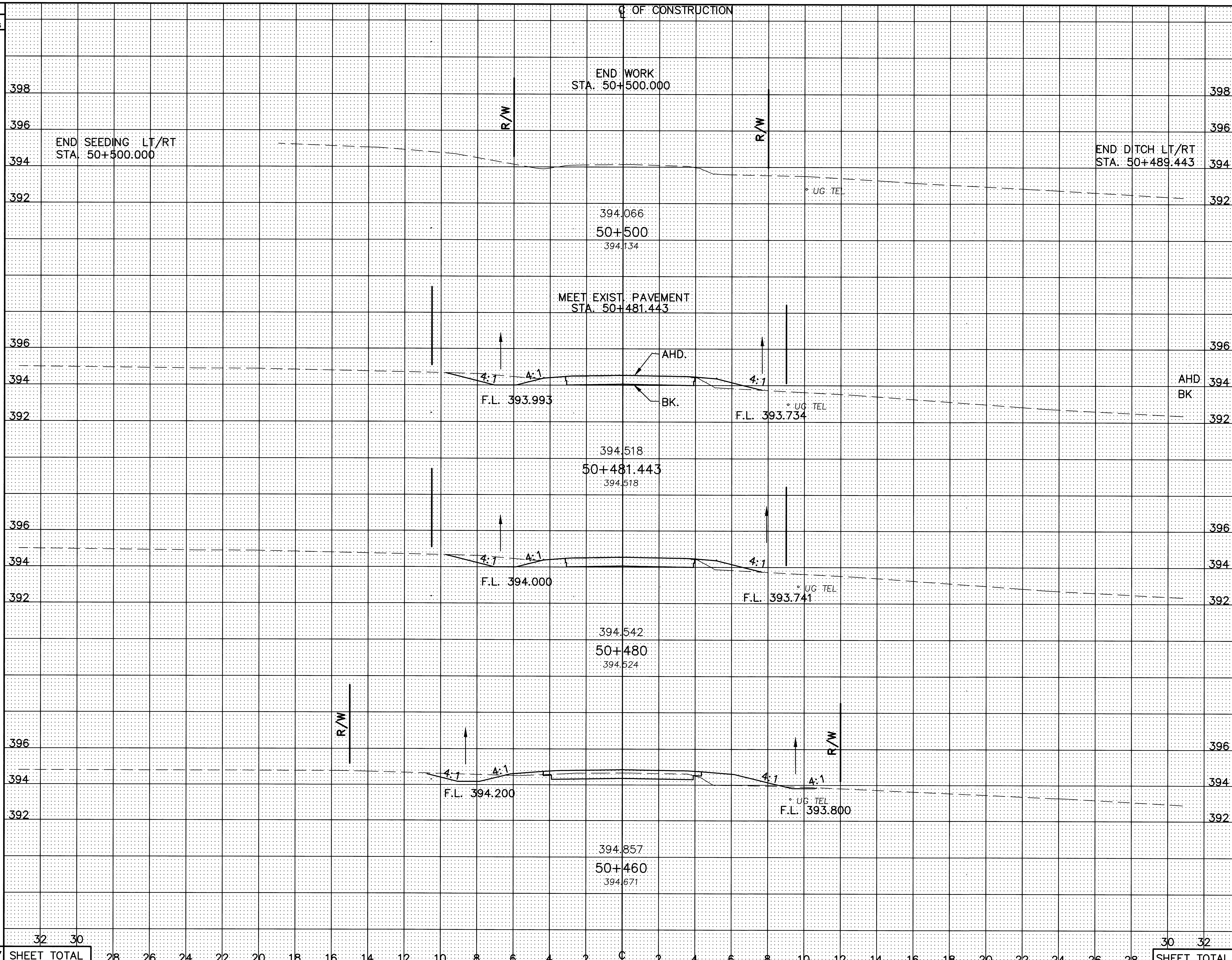
CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS - EARICK ROAD
STA. 50+380 TO STA. 50+440

CRA/RIC-30-33.500/0.000

409
712

GX517ERK.DWG
02-15-1999 8:59 AM
1:100M



SEEDING END WIDTH	SEEDING SQ. METERS
6	
	204
16	
	23
16	
	450
29	
	490
	1167 SHEET TOTAL

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0	0		
		14	11
1.5	1.2		
4.9	1.2		
		7	2
4.9	1.5		
		72	39
2.3	2.4		
		47	45
		140	97

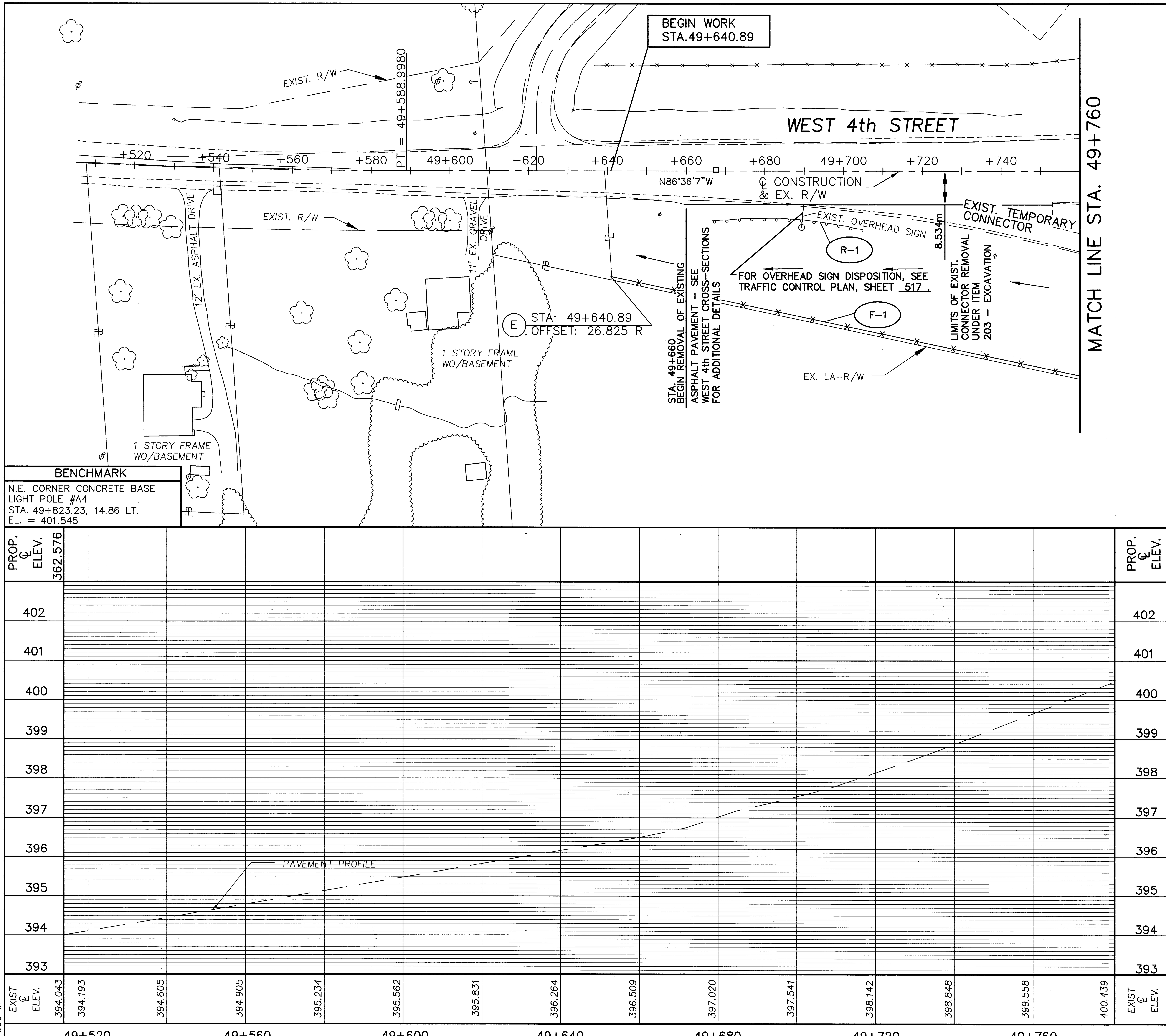
CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS - EARICK ROAD
STA. 50+460 TO STA. 50+500

CRA/RIC-30-33.500/0.000

409A
712

GX518ERK.DWG
02-26-1999 8:51 AM
1:100M



metric units

NOTES:
1. FOR ℄ MON. LOCATION SEE SHEETS 617-618.
2. FOR FENCE LEGEND SEE SHEET 94.

RATIO 1:200
HORIZONTAL SCALE IN METERS
0 5 10

CALCULATED W.J.S.
CHECKED C.R.M.

ESTIMATED QUANTITIES

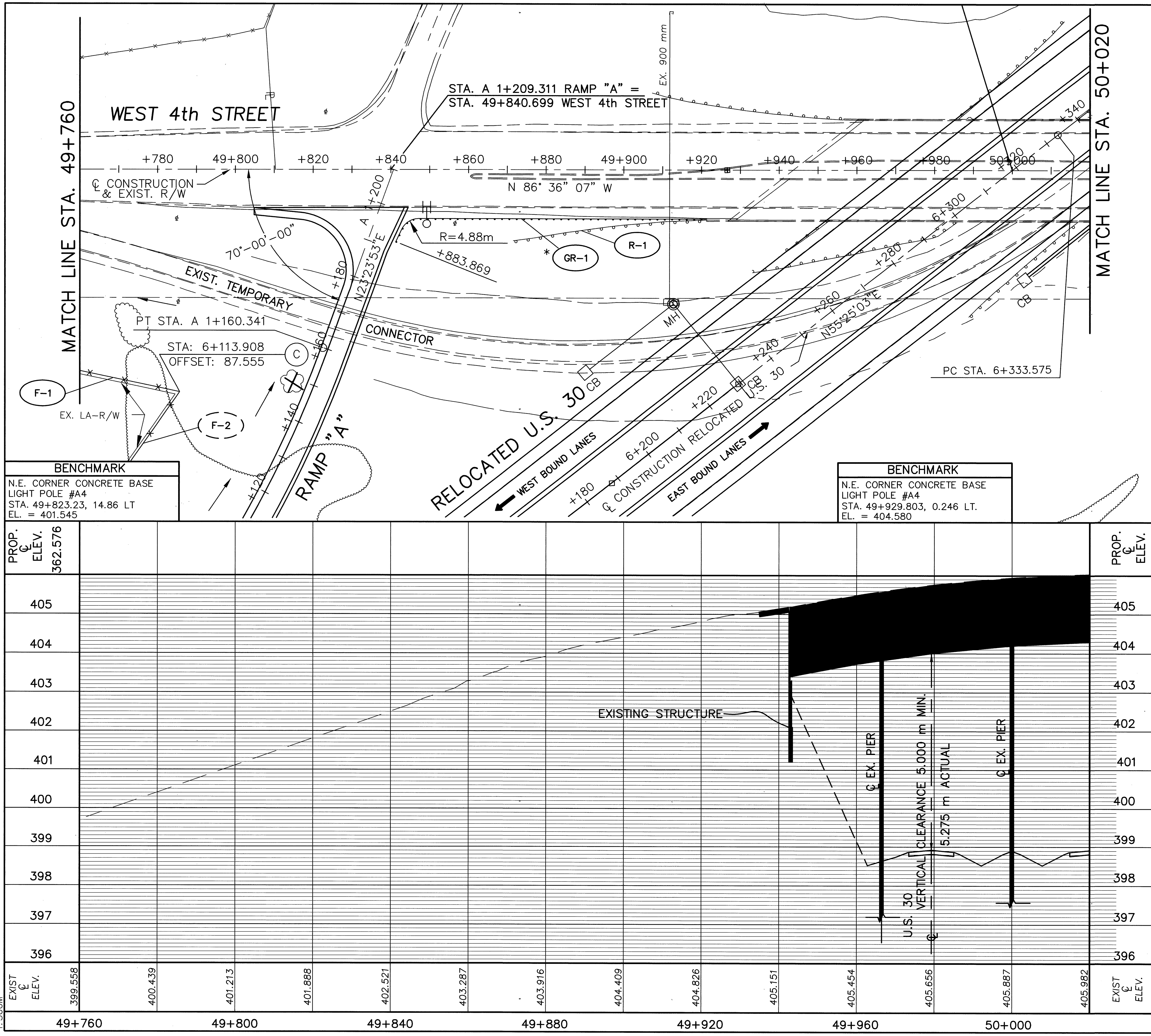
REF. No.	SIDE	STATION FROM	STATION TO	202 GUARDRAIL REMOVED (METER)	607 FENCE TYPE 47 (METER)
F-1	RT	49+640.89	49+760		121.71
R-1	RT	49+666.55	49+704.86	38.1	
TOTALS CARRIED TO SUB SUMMARY				38.1	121.71

PLAN AND PROFILE WEST 4th STREET
STA. 49+640.89 TO STA. 49+760

CRA/RIC-30-33.500/0.000

410
712

GP500U30.DWG
03-24-1999 9:24 AM
1:500 M



GP501U30.DWG
03-29-1999 9:54 AM
1:500M

metric units

NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 612-618
2. FOR FENCE LEGEND SEE SHEET 94
3. FOR INTERSECTION DETAILS SEE SHEET 481
4. FOR AGGREGATE LOCATIONS SEE SHEET 68

* 5.52 m OF GUARDRAIL GR-1 IS ON 4.88 m RADIUS

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	202 GUARDRAIL REMOVED (METER)	606 ANCHOR ASSEMBLY TYPE T (EACH)	606 BRIDGE TERMINAL ASSEMBLY TYPE 1 (EACH)	606 GUARDRAIL TYPE 5 (METER)	607 FENCE TYPE 47 (METER)	626 BARRIER REFLECTOR TYPE A (EACH)
GR-1	RT	49+841.29	49+921.329		1	1	80.010		4
F-1	RT	49+760	6+113.908					25.23	
R-1	RT	49+883.869	49+921.969	38.100					
TOTALS CARRIED TO SUB SUMMARY				38.100	1	1	80.010	25.23	4

N

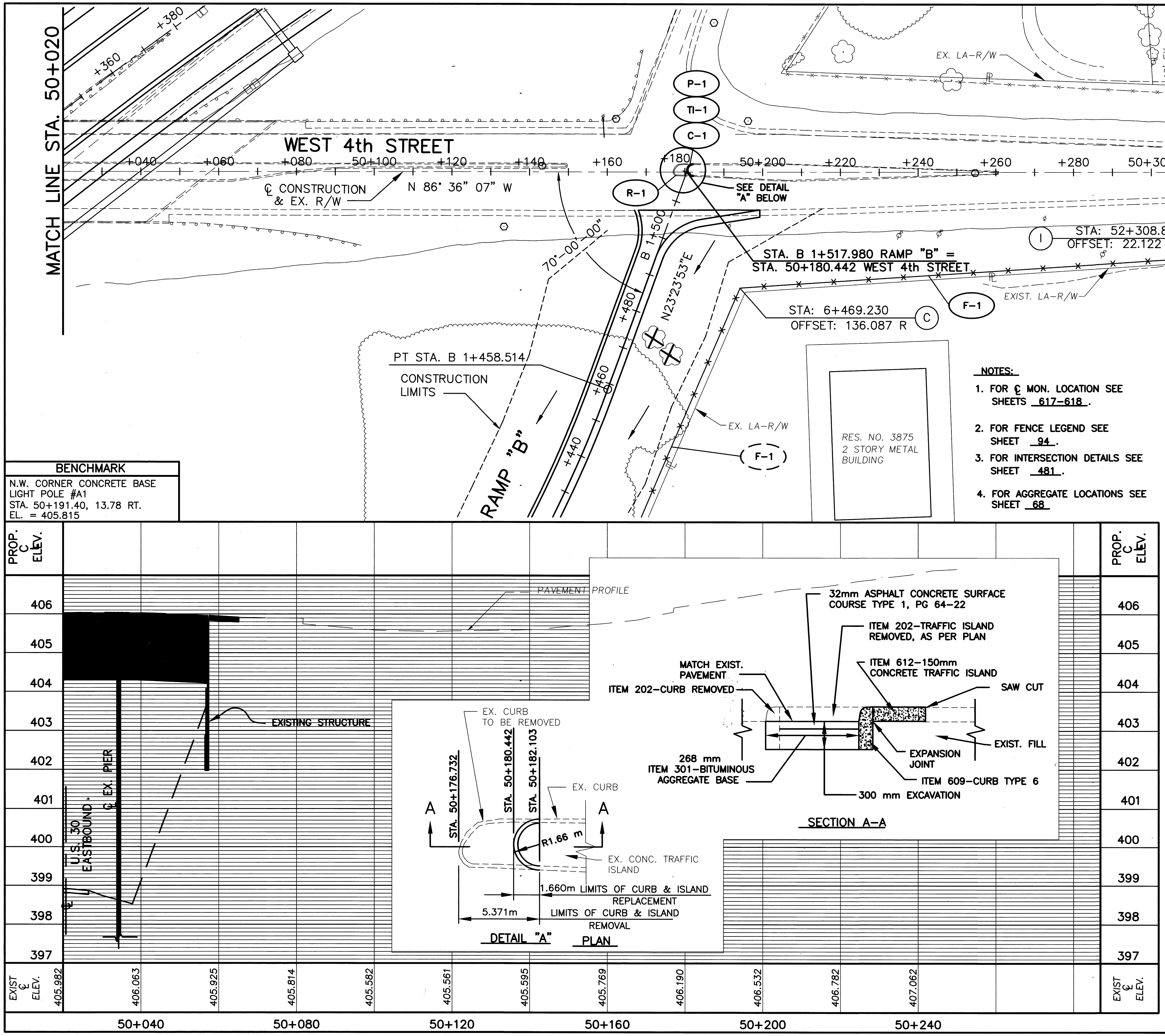
RATIO 1:200
HORIZONTAL SCALE IN METERS

CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE WEST 4th STREET
STA. 49+760 TO STA. 50+020

CRA/RIC-30-33.500/0.000

411/712



BENCHMARK
N.W. CORNER CONCRETE BASE LIGHT POLE #A1
STA. 50+191.40, 13.78 RT.
EL. = 405.815

NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617-618.
2. FOR FENCE LEGEND SEE SHEET 94.
3. FOR INTERSECTION DETAILS SEE SHEET 481.
4. FOR AGGREGATE LOCATIONS SEE SHEET 68.

ESTIMATED QUANTITIES

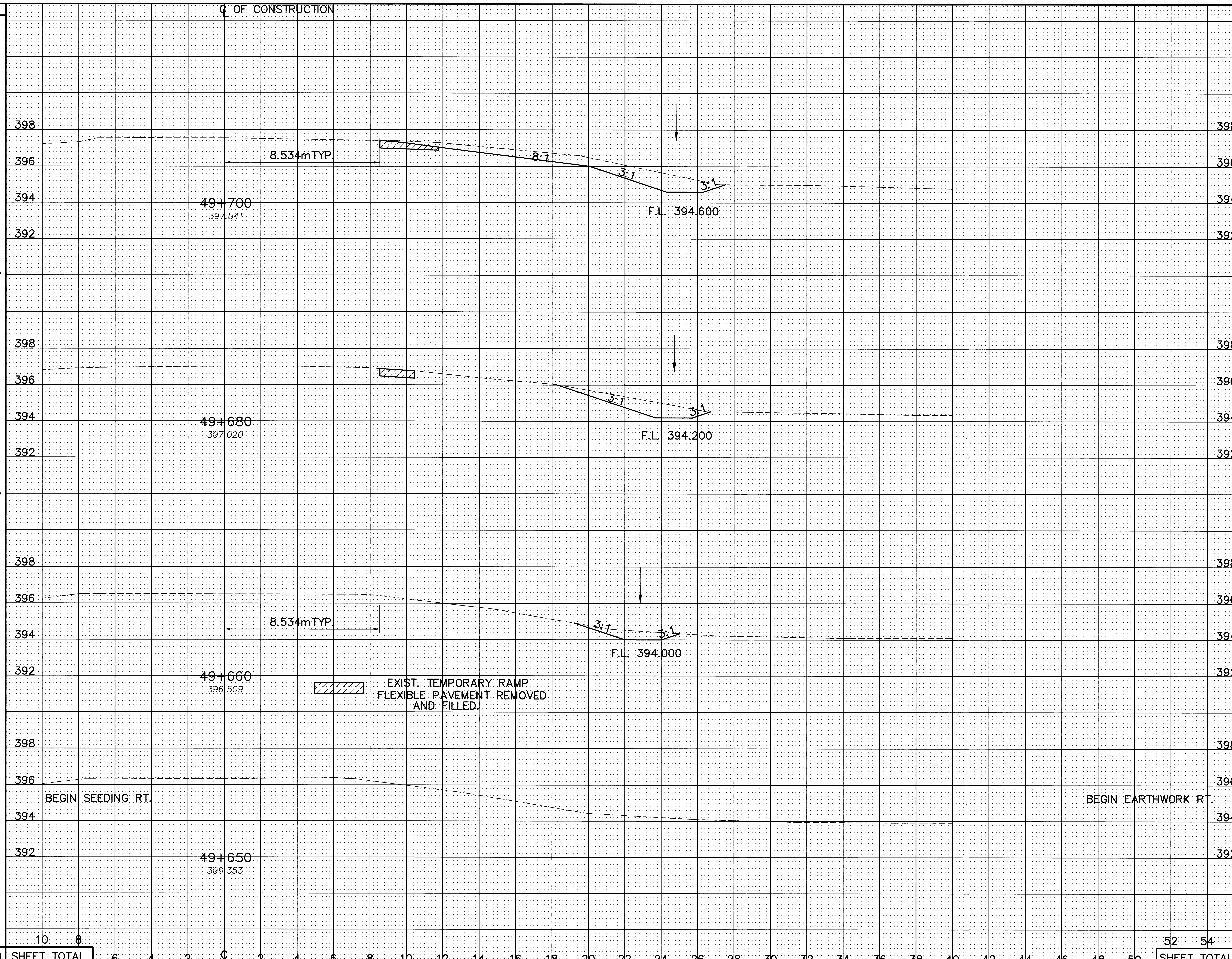
REF. No.	SIDE	STATION FROM	STATION TO	202 TRAFFIC ISLAND REMOVED A.P.P. (S.M.)	301 BITUMINOUS AGGREGATE BASE (C.M.)	448 ASPHALT CONCRETE SURFACE COURSE TYPE 1 PG 64-22 (C.M.)	830 CURB TYPE 6 (METER)	612 150mm CONCRETE TRAFFIC ISLAND (S.M.)	607 FENCE TYPE 47 (METER)
R-1	℄	50+176.732	50+182.103	12.52					
C-1	℄	50+180.442	50+182.103				5.228		
TI-1	℄	50+180.442	50+182.103					3.058	
P-1	℄	50+180.442	50+182.103		3.339	3.99			
F-1	RT	6+469.230	50+365.79						172.157
TOTALS CARRIED TO SUB SUMMARY				12.52	3.339	3.99	5.228	3.058	172.157

PLAN AND PROFILE WEST 4th STREET STA. 50+020 TO STA. 50+365.79

CALCULATED W.J.S. CHECKED C.R.M.

CRA/RIC-30-33.500/0.000

GP502U30.DWG 08-15-2000 1:13 PM



SEEDING END	SEEDING SQ.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
22.0		9.6	1.0		
	415			143	18
19.5		4.7	0.8		
	315			65	8
12.0		1.8	0.0		
	60			9	0
0.0		0.0	0.0		
	790			217	26

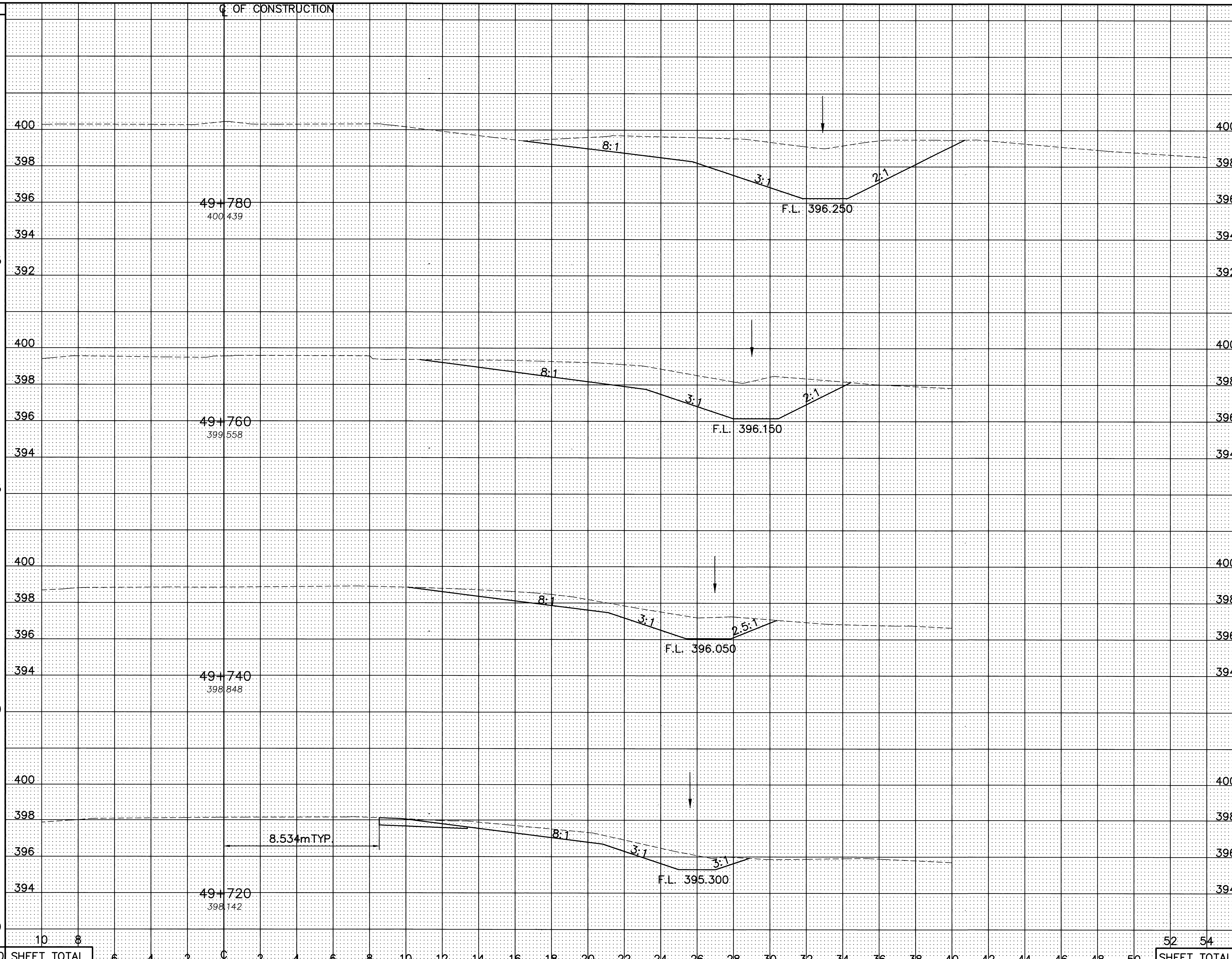
CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – WEST 4th STREET
STA. 49+650 TO STA. 49+700

CRA/RIC-30-33.500/0.000

413/712

CX500U30.DWG 03-24-1999 9:06 AM 1:100M



Station	Seeding End	Seeding Sq.	End Area Cut	End Area Fill	Volume Cut	Volume Fill
49+780	27.0		37.2	0		
		535			637	0
49+760	26.5		26.5	0.0		
		495			392	0
49+740	23.0		12.7	0.0		
		460			231	14
49+720	23.0		10.4	1.4		
		450			200	24
SHEET TOTAL		1940			1460	38

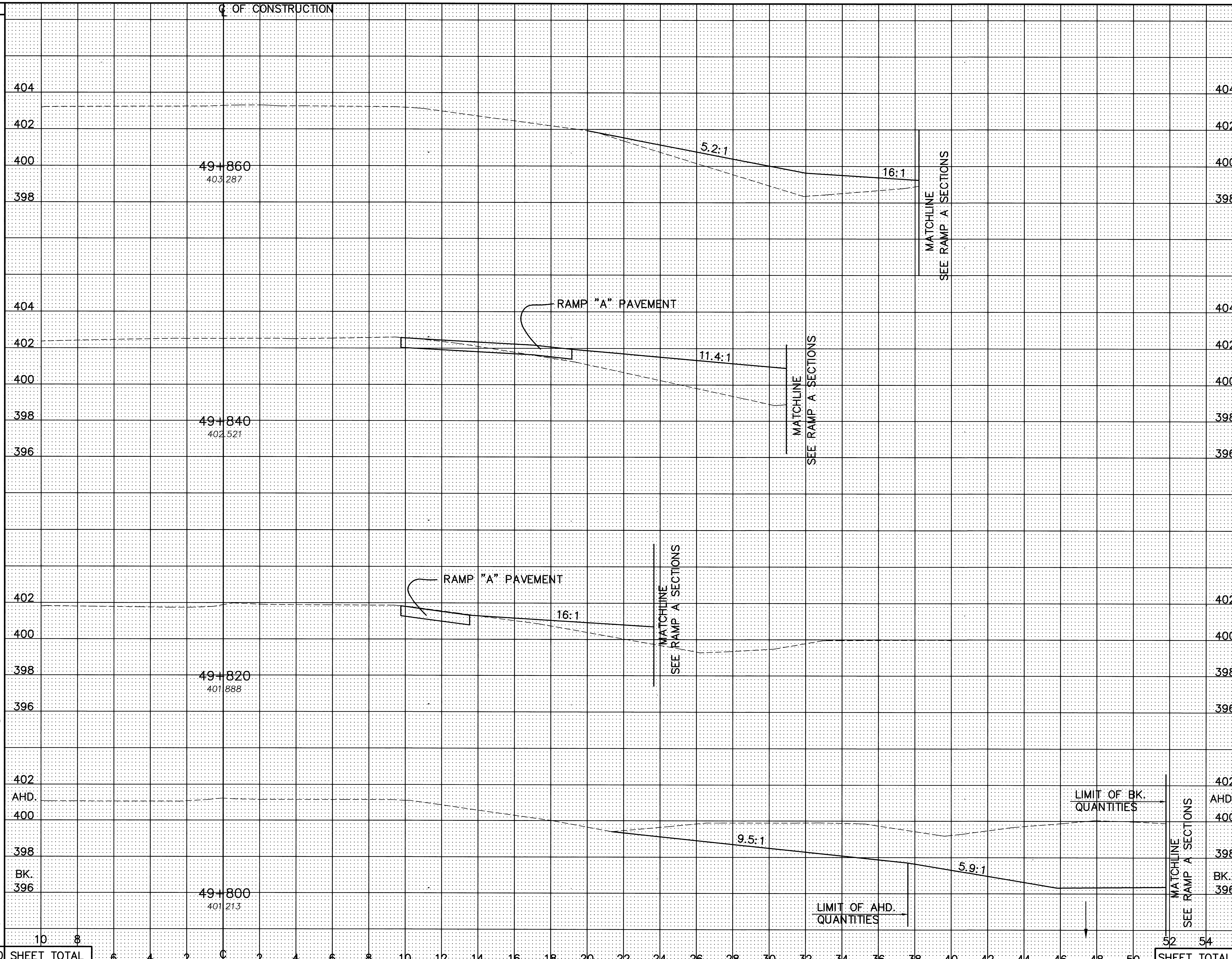
CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – WEST 4th STREET
STA.49+720 TO STA. 49+780

CRA/RIC-30-33.500/0.000

414/712

GX501U30.DWG
03-24-1999 8:54 AM
1:100M



Station	Seeding END	Seeding SQ.	End Area CUT	End Area FILL	Volume CUT	Volume FILL
49+860	9.5		0.0	12.7		
		210			24	295
49+840	11.5		2.4	16.8		
		215			87	189
49+820	10.0		6.3	2.1		
		290			263	21
49+800 AHD.	19.0		20.0	0		
49+800 BK.	33.5		62.1	0.0		
		605			993	0
SHEET TOTAL		1320			1367	505

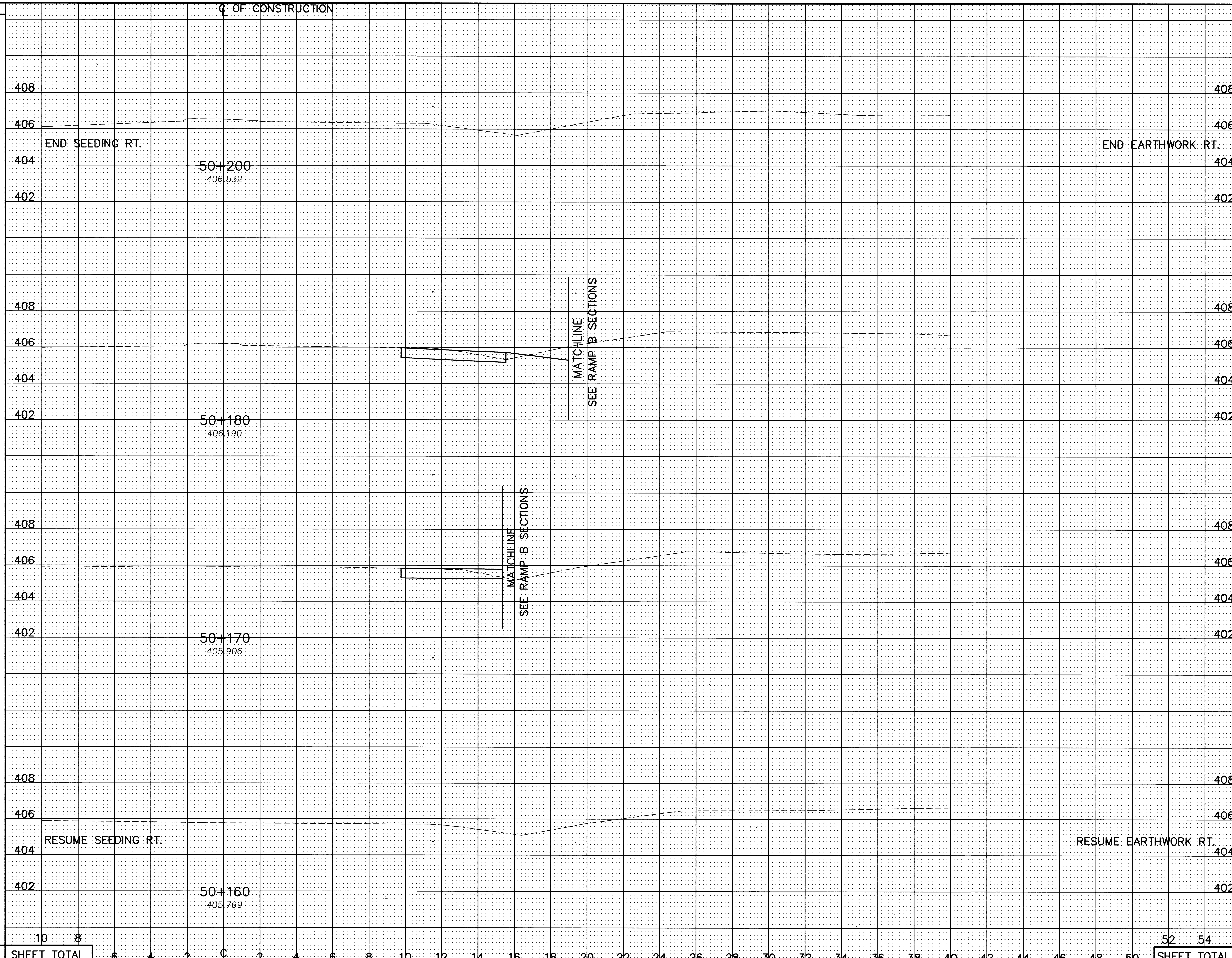
CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS - WEST 4th STREET
STA. 49+800 TO STA. 49+860

CRA/RIC-30-33.500/0.000

GX502U30.DWG
03-11-1999 10:32 AM
1:100M


SEEDING
END
SQ.
℄ OF CONSTRUCTION
END AREA
CUT
FILL
VOLUME
CUT
FILL
CALCULATED CRM
CHECKED WJS
SUSPEND SEEDING RT.
SEE MAINLINE SECTIONS
SUSPEND EARTHWORK RT.
SEE MAINLINE SECTIONS
13.5
49+920
404.826
2:1
MATCHLINE
SEE MAINLINE SECTIONS
7.3
0.0
265
169
0
13.0
49+900
404.409
14:1
MATCHLINE
SEE MAINLINE SECTIONS
9.6
0.0
280
169
39
15.0
49+880
403.916
4.2:1
14:1
MATCHLINE
SEE RAMP A SECTIONS
7.3
3.9
245
73
166
790
SHEET TOTAL
SHEET TOTAL
411
205
CROSS-SECTIONS - WEST 4th STREET
STA. 49+880 TO STA. 49+920
CRA/RIC-30-33.500/0.000
416
712
GX503U30.DWG
03-11-1999 10:35 AM
1:100M



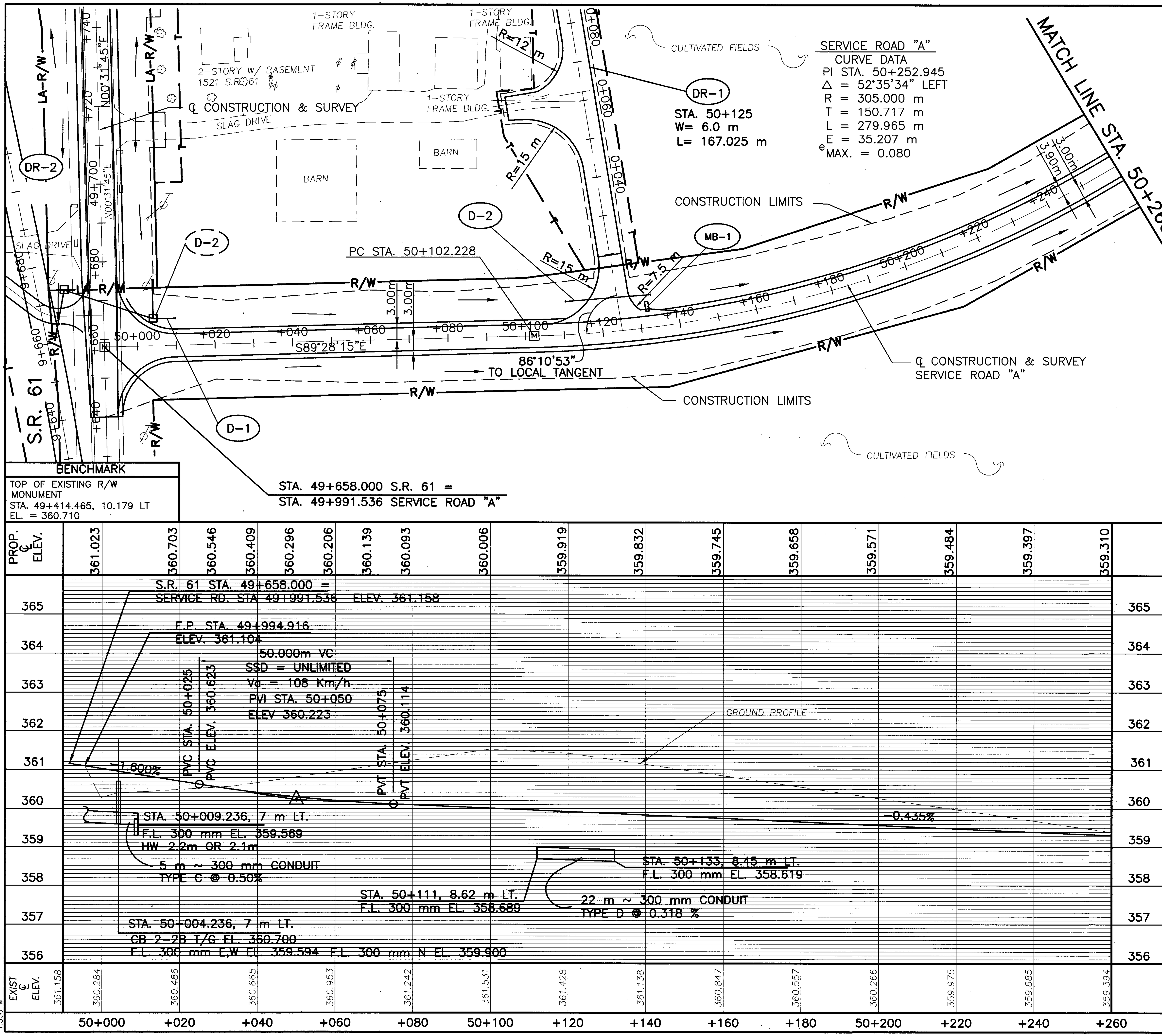
Station	SEEDING END	SEEDING SQ.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
50+200	0.0		0.0	0.0		
		35			34	2
50+180	3.5		3.4	0.2		
					29	1
50+170	0.0		2.4	0.0		
		0			12	0
50+160	0.0		0.0	0.0		
SHEET TOTAL		35			75	3

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – WEST 4th STREET
STA. 50+160 TO STA. 50+200

CRA/RIC-30-33.500/0.000

GX504U30.DWG
03-11-1999 10:37 AM
1:100M



BENCHMARK

TOP OF EXISTING R/W MONUMENT
STA. 49+414.465, 10.179 LT
EL. = 360.710

SERVICE ROAD "A"
CURVE DATA

PI STA. 50+252.945
Δ = 52°35'34" LEFT
R = 305.000 m
T = 150.717 m
L = 279.965 m
E = 35.207 m
$e_{MAX.}$ = 0.080

metric units

NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617-618 .
2. FOR SUPERELEVATION TABLES SEE SHEET 464 .
3. FOR INTERSECTION DETAILS, SEE SHEET 482 .
4. FOR DRIVEWAY DETAILS, SEE SHEETS 493-495 & 495A.
5. FOR S.R. 61 P & P SEE SHEETS 303-306 .
6. FOR AGGREGATE LOCATIONS SEE SHEET 68

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	SPEC MAILBOX SUPPORT SYSTEM SINGLE (EACH)	602 CONCRETE MASONRY (C.M.)	603 300 mm CONDUIT TYPE C (METER)	603 300 mm CONDUIT TYPE D (METER)
MB-1	LT	50+130.2		1			
D-1	LT	50+004.236	50+009.236		.17	5	
D-2	LT	50+111	50+133				22
TOTALS CARRIED TO SUB SUMMARY				1	.17	5	22

RATIO 1:500
0 10 20
HORIZONTAL SCALE IN METERS

CALCULATED W.J.S.
CHECKED C.R.M.

PLAN AND PROFILE - SERVICE ROAD "A"
STA. 49+991.536 TO STA. 50+260

CRA/RIC-30-33.500/0.000

GP500SVA.DWG
05-09-2001 12:58 PM
1:500 M

PLAN AND PROFILE – SERVICE ROAD "A"
STA. 50+260 TO STA. 50+520

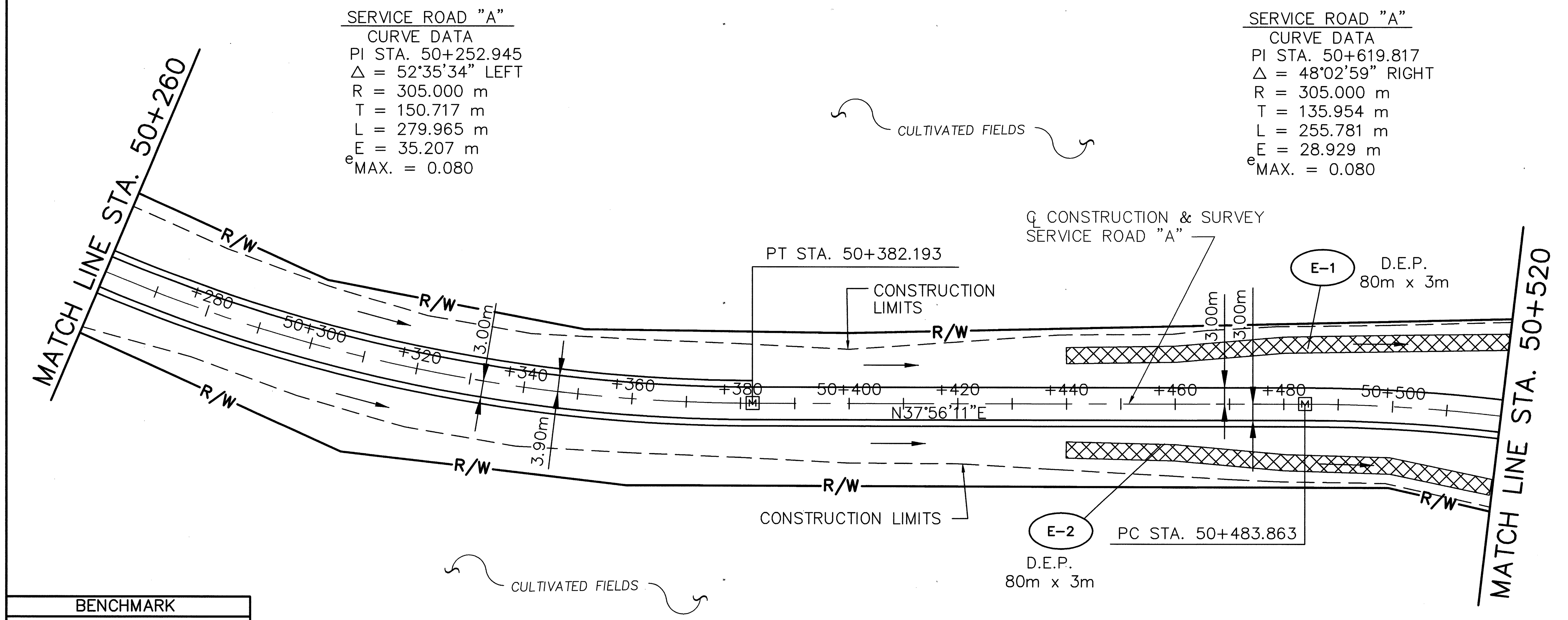
metric units

RATIO 1:500 — HORIZONTAL SCALE IN METERS

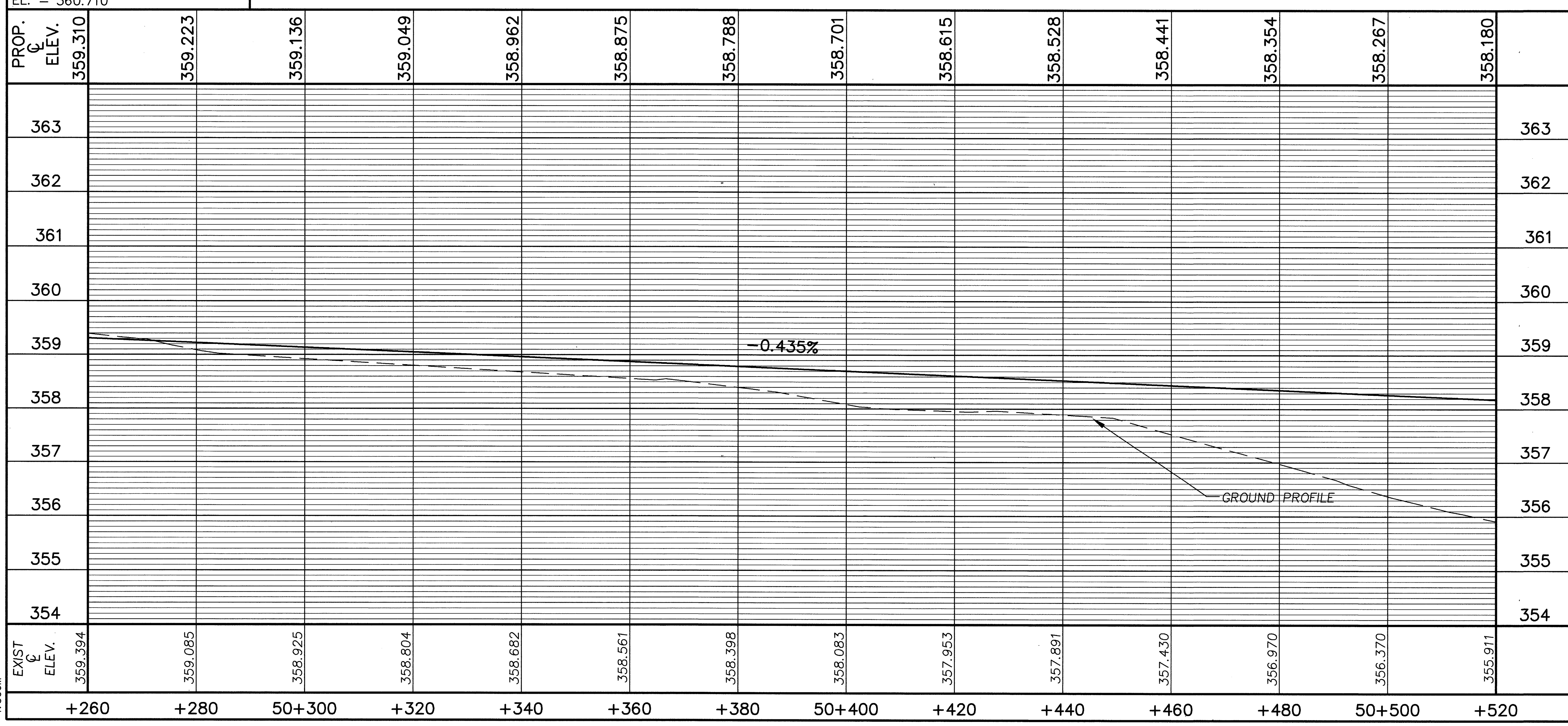
CALCULATED W.J.S. CHECKED C.R.M.

NOTES:
1. FOR ℄ MON. LOCATION SEE SHEETS 617–618.
2. FOR SUPER ELEVATION TABLES SEE SHEET 464.
3. FOR AGGREGATE LOCATIONS SEE SHEET 68.

— INDICATES D.E.P.



BENCHMARK
TOP OF EXISTING R/W MONUMENT STA. 49+414.465, 10.179 LT. EL. = 360.710

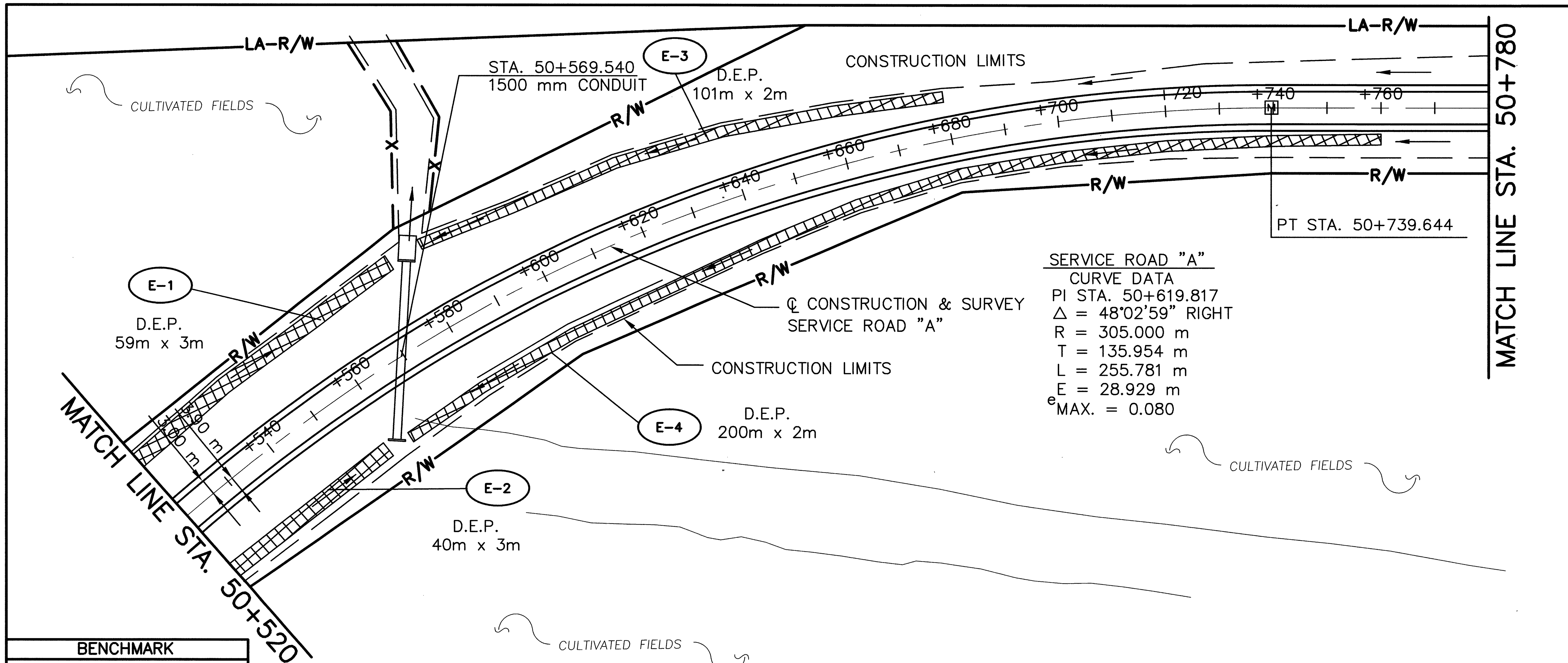


ESTIMATED QUANTITIES

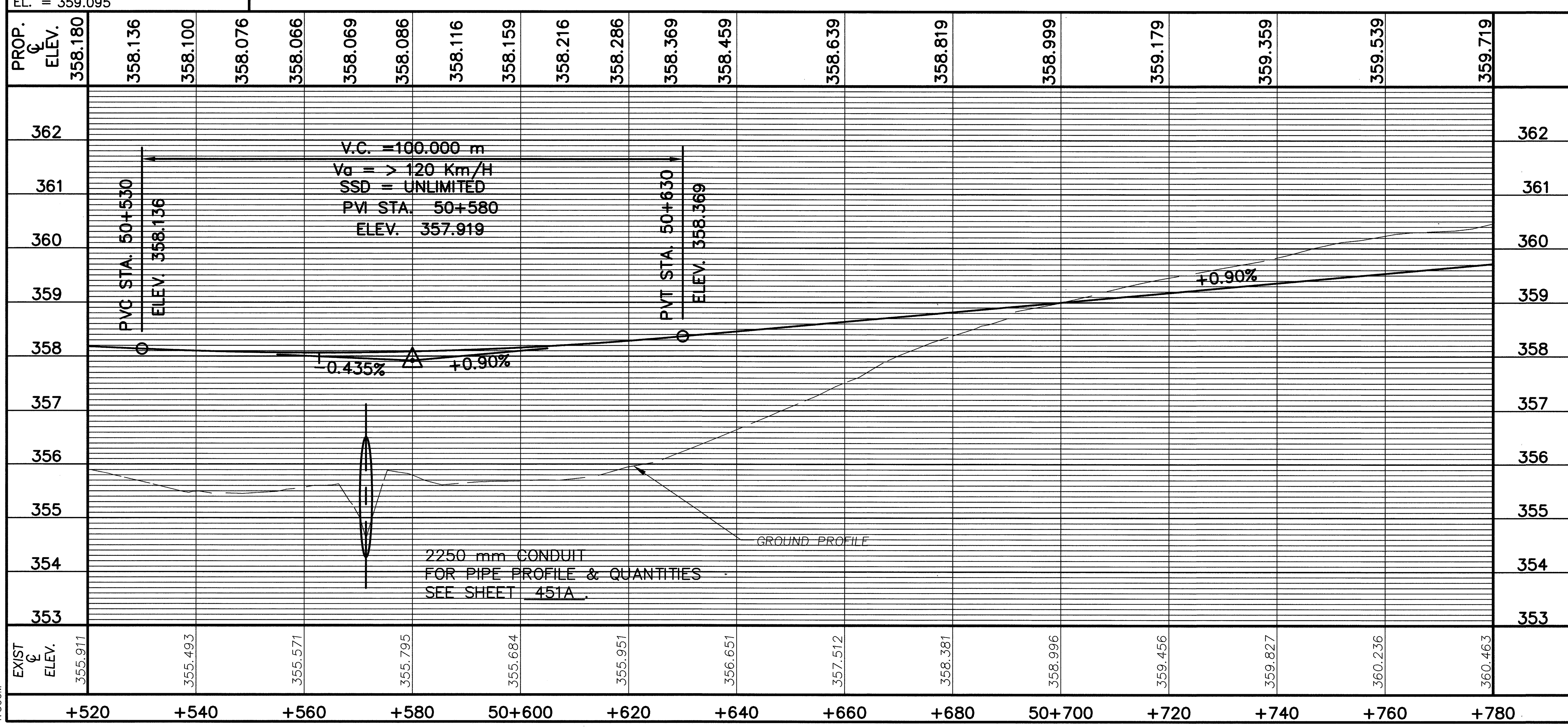
REF. No.	SIDE	STATION FROM	STATION TO	670 DITCH EROSION PROTECTION S.M.
E-1	LT	50+440	50+520	240
E-2	RT	50+440	50+520	240
TOTALS CARRIED TO SUB SUMMARY				480

CRA/RIC-30-33.500/0.000

GP501SVS.DWG 03-13-1999 8:19 AM 1:500M



BENCHMARK
TOP OF BERNTSEN FENO SURVEY MONUMENTS STA. 34+843.696, 15.970 LT. EL. = 359.095



metric units

NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617-618.
2. FOR SUPERELEVATION TABLES SEE SHEET 464.
3. FOR AGGREGATE LOCATIONS SEE SHEET 68.

— INDICATES D.E.P.

RATIO 1:500
HORIZONTAL SCALE IN METERS 0 5 10 20

CALCULATED W.J.S. CHECKED C.R.M.

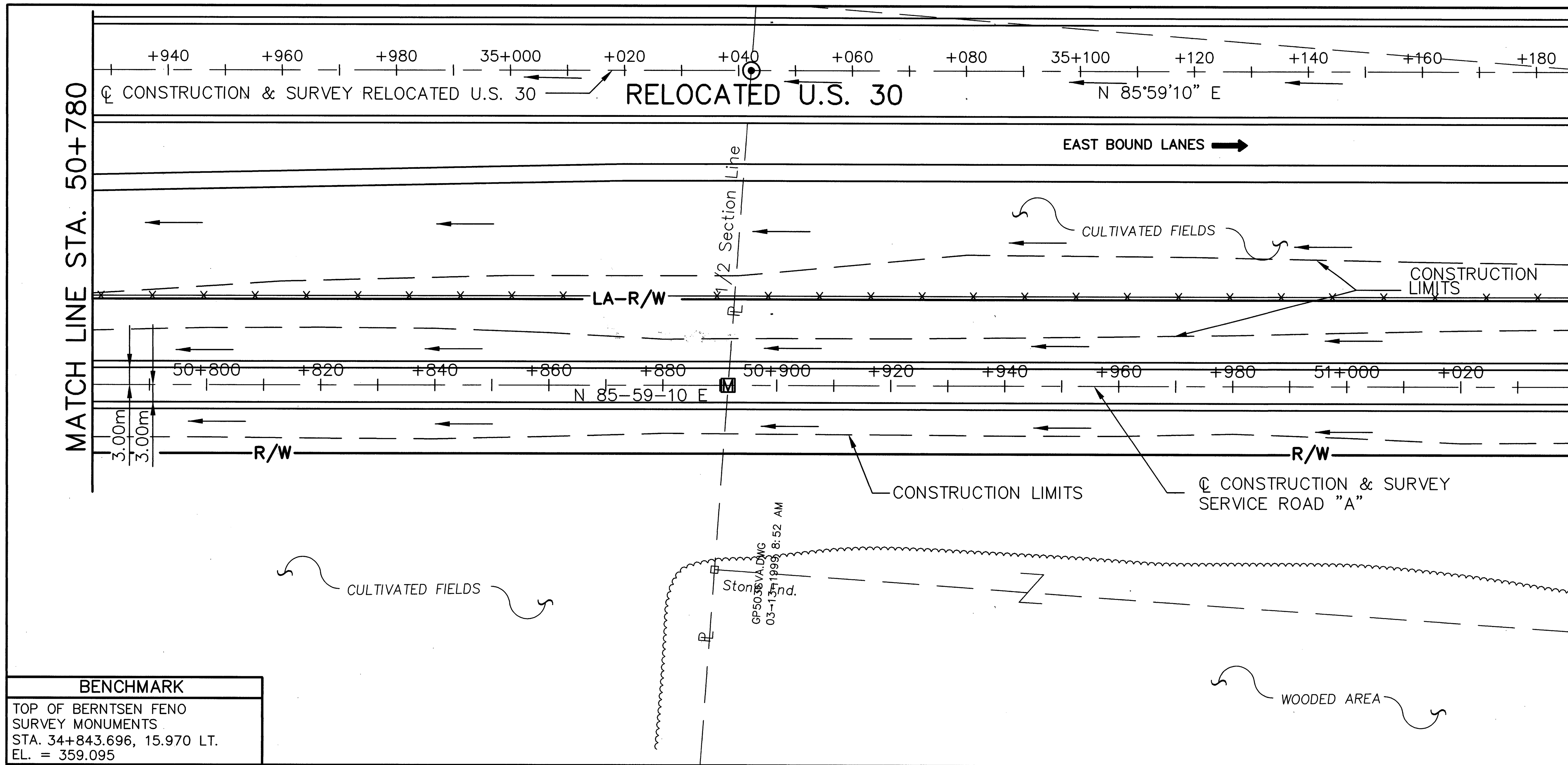
ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	670 DITCH EROSION PROTECTION S.M.	602	601
E-1	LT	50+520	50+579	177		
E-2	RT	50+520	50+560	120		
E-3	LT	50+ 579	50+680	202		
E-4	RT	50+560	50+760	400		
RCP-1	LT	50+579.324				
TOTALS CARRIED TO SUB SUMMARY				899		

PLAN AND PROFILE - SERVICE ROAD "A" STA. 50+520 TO STA. 50+780

CRA/RIC-30-33.500/0.000

GP502SVA.DWG
09-28-2000 4:05 PM
1:500M



NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617-618.
2. FOR SUPERELEVATION TABLES SEE SHEET 464.
3. FOR AGGREGATE LOCATIONS SEE SHEET 68

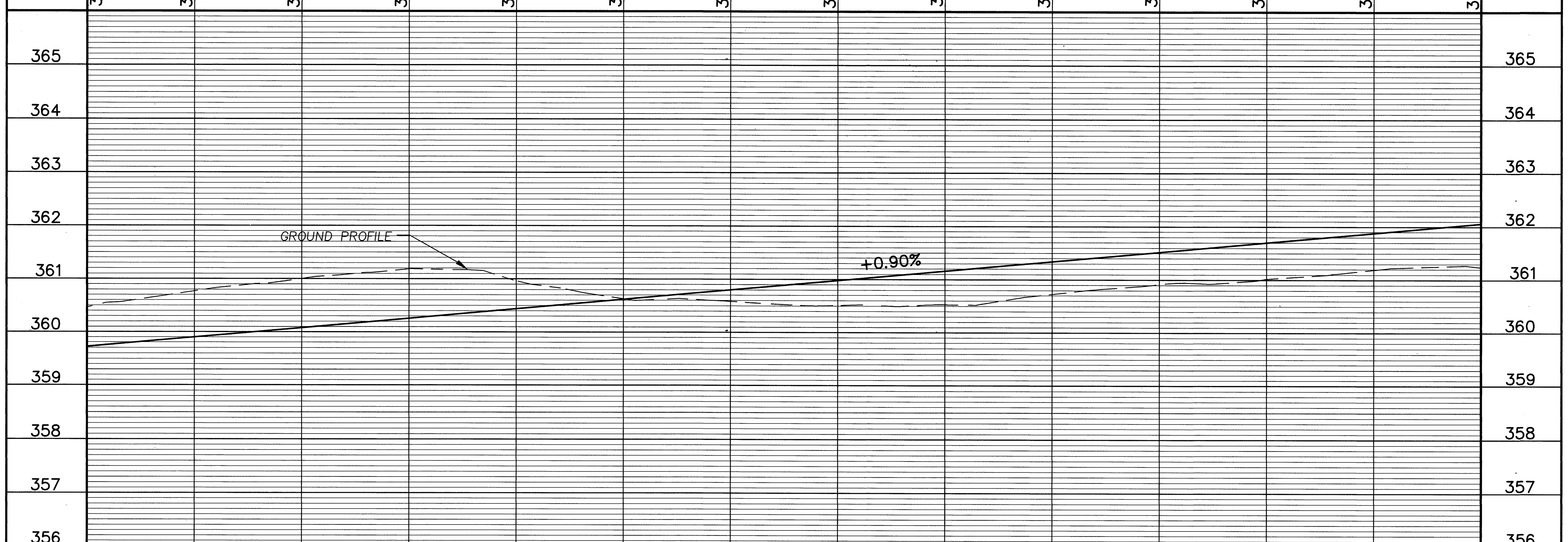
metric units

RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

CALCULATED W.J.S.
CHECKED C.R.M.

BENCHMARK
TOP OF BERNTSEN FENO SURVEY MONUMENTS STA. 34+843.696, 15.970 LT. EL. = 359.095

	+780	50+800	+820	+840	+860	+880	50+900	+920	+940	+960	+980	51+000	+020	+040
PROP. ℄ ELEV.	359.719	359.899	360.079	360.259	360.439	360.619	360.799	360.979	361.159	361.339	361.519	361.699	361.879	362.059
EXIST ℄ ELEV.	360.463	360.768	361.003	361.184	360.965	360.628	360.583	360.512	360.527	360.729	360.916	361.020	361.191	361.238



ESTIMATED QUANTITIES			
REF. No.	SIDE	STATION FROM	STATION TO
TOTALS CARRIED TO SUB SUMMARY			

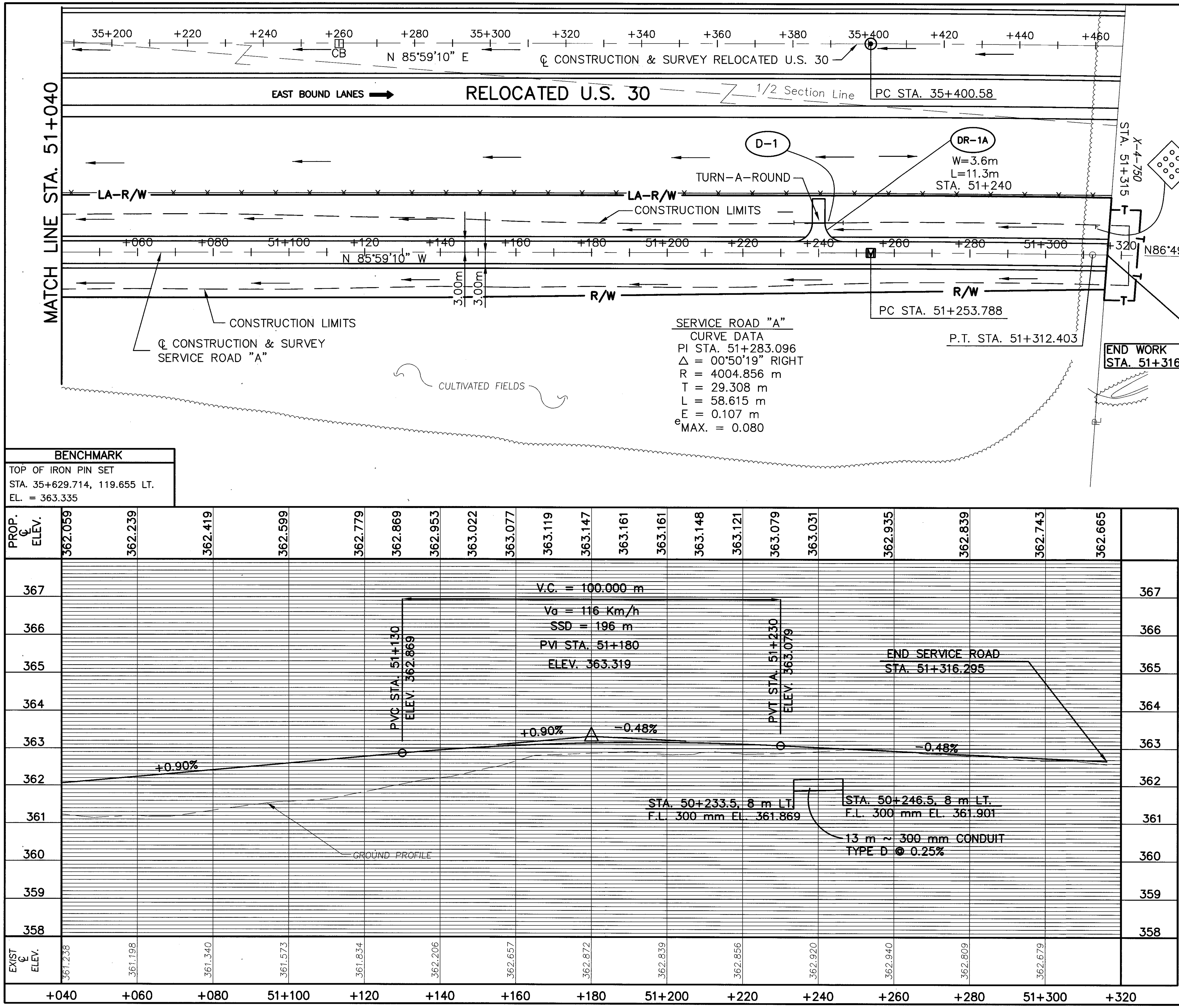
PLAN AND PROFILE – SERVICE ROAD "A" STA. 50+780 TO STA. 51+040

CRA/RIC-30-33.500/0.000

421/712

GP503SVA.DWG 03-13-1999 8:52 AM 1:500M

metric units



NOTES:

1. FOR ℄ MON. LOCATION SEE SHEETS 617-618
2. FOR SUPERELEVATION TABLES SEE SHEET 646
3. FOR DRIVEWAY DETAILS, SEE SHEETS 493-495
4. FOR TRAFFIC CONTROL QUANTITIES SEE SHEET 506

BENCHMARK
TOP OF IRON PIN SET
STA. 35+629.714, 119.655 LT.
EL. = 363.335

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	603 300 mm CONDUIT TYPE D METER
D-1	LT	51+233.5	51+246.5	13
TOTALS CARRIED TO SUB SUMMARY				13

RATIO 1:500
HORIZONTAL SCALE IN METERS 0 5 10 20

CALCULATED W.J.S. CHECKED C.R.M.

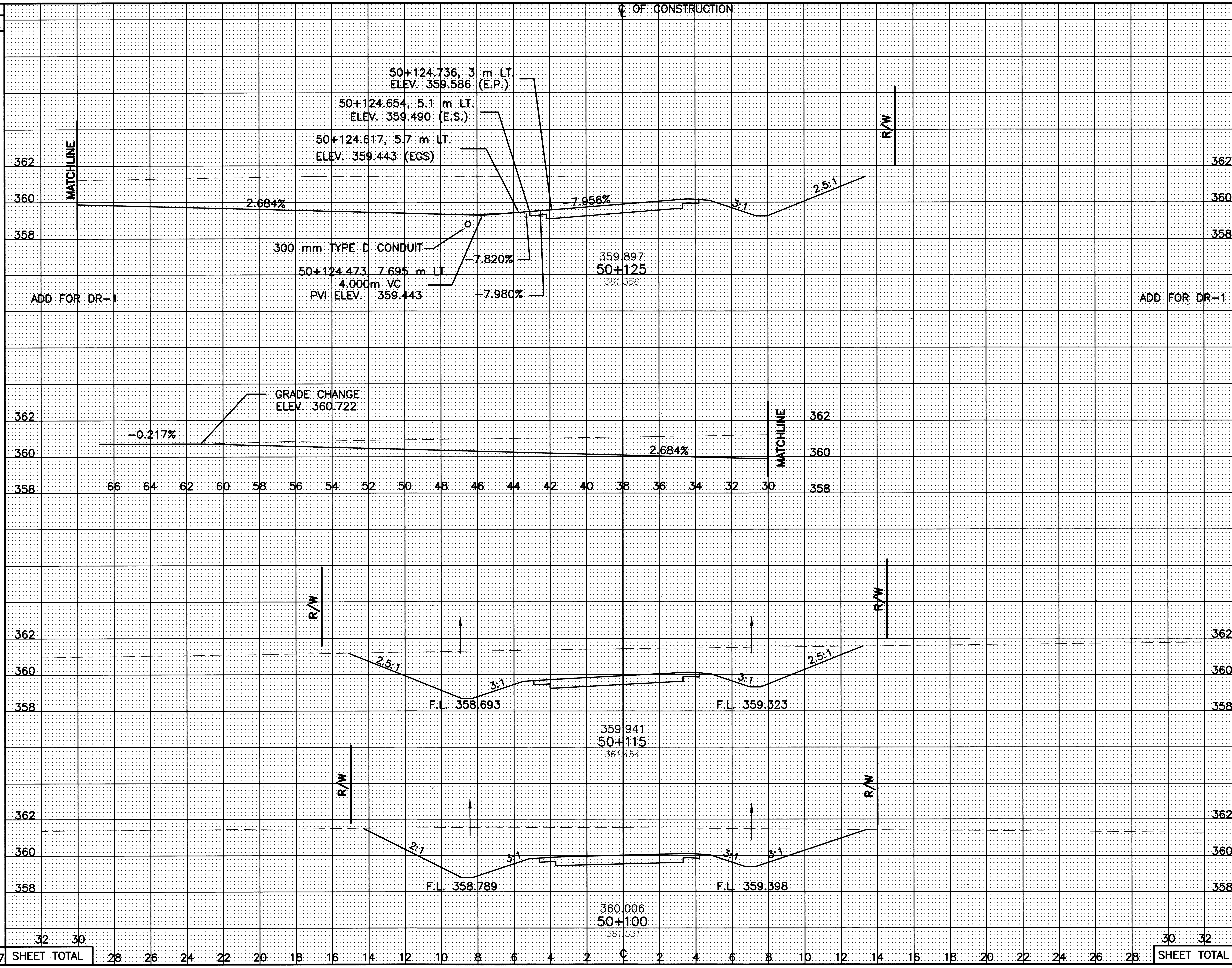
PLAN AND PROFILE - SERVICE ROAD "A"
STA. 51+040 TO STA. 51+316.295

CRA/RIC-30-33.500/0.000

GP504SVA.DWG
08-30-2001 3:38 PM
SCALE: 1:500M

SEEDING
END WIDTH
SQ. METERS
℄ OF CONSTRUCTION
END AREA
CUT
FILL
VOLUME
CUT
FILL
CALCULATED CRM
CHECKED WJS
R/W
362
360
358
21
2.5:1
3:1
F.L. 358.961
F.L. 359.498
35.2 0.0
360.093
50+080
361.242
410
616 0
20
F.L. 359.133
F.L. 359.598
26.4 0.0
360.206
50+060
360.953
380
474 0
18
F.L. 359.306
F.L. 359.791
21.0 0.0
360.409
50+040
360.665
340
287 1
16
F.L. 359.478
F.L. 360.000
7.7 0.1
360.703
50+020
360.486
396
77 104
23.5
STA. 50+000
BEGIN SEEDING
LT. & RT.
MATCHLINE SEE SR 61
F.L. 359.825
0 10.3
STA. 50+000
BEGIN EARTHWORK
LT. & RT.
361.023
50+000
360.284
1526 SHEET TOTAL
32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 ℄ 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32
SHEET TOTAL
1454 105
CROSS-SECTIONS - SERVICE ROAD "A"
STA. 50+000 TO STA. 50+080
CRA/RIC-30-33.500/0.000
423/712
CX500SVA.DWG
02-26-1999 9:13 AM
1:100M

SEEDING	
END WIDTH	SQ. METERS
	334
24	
	353
23	
	440
	1127



END AREA		VOLUME	
CUT	FILL	CUT	FILL
41	0.0		
		442	0
		331	0
47.3	0.0		
		699	0
45.9	0.0		
		811	0
		2283	0

CALCULATED CRM
CHECKED WJS

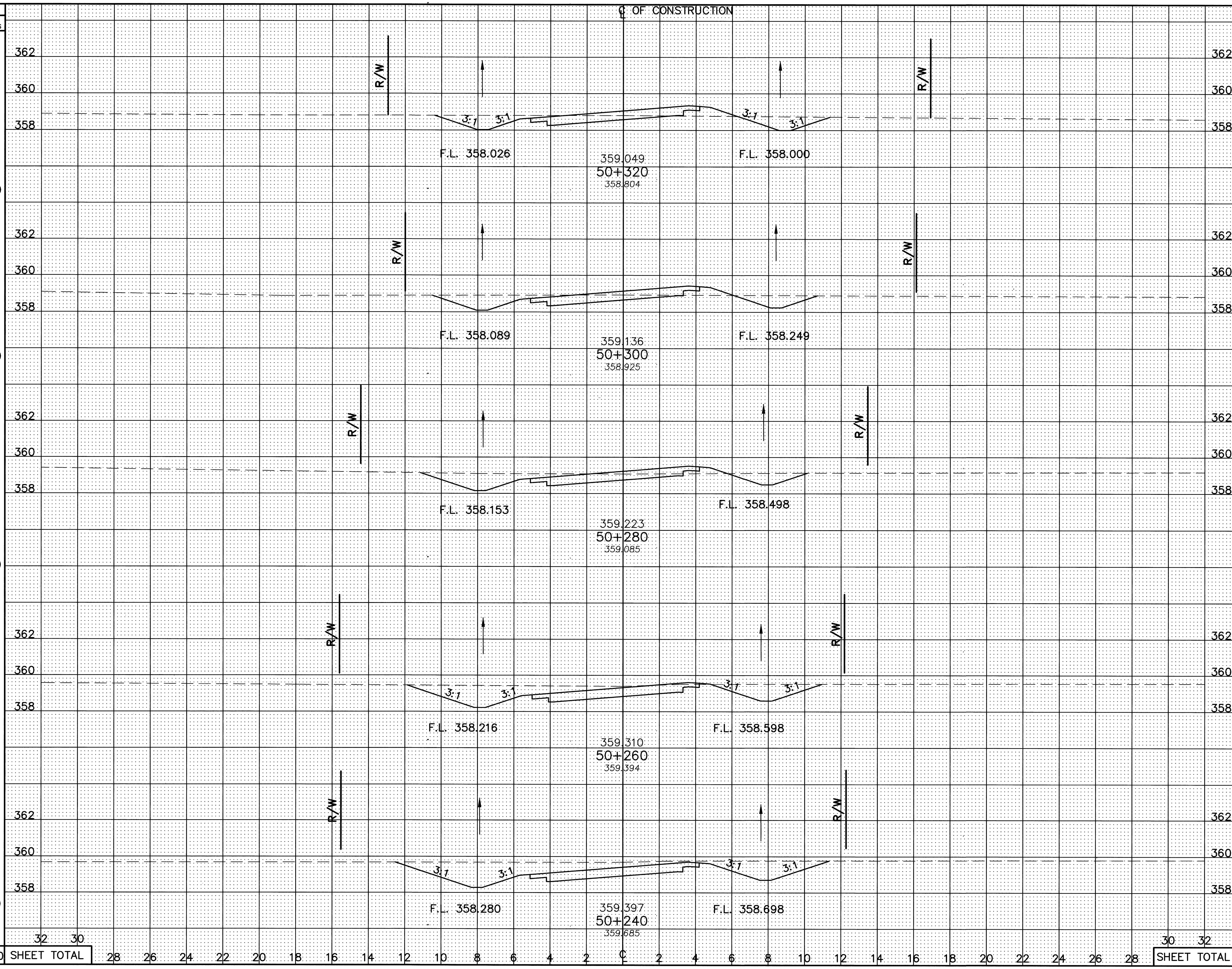
CROSS-SECTIONS – SERVICE ROAD "A"
STA. 50+100 TO STA. 50+125

CRA/RIC-30-33.500/0.000

424
712

GX501SVA.DWG
05-09-2001 1:28 PM
1:100 M

GX502SVA.DWG
05-11-2001 9:16 AM
SCALE: 1:100M



SEEDING	
END WIDTH	SQ. METERS
16	
	320
16	
	330
17	
	370
20	
	410
21	
	420
	1850

END AREA		VOLUME	
CUT	FILL	CUT	FILL
6.7	1.0		
		135	18
6.8	0.8		
		151	14
8.3	0.6		
		217	6
13.4	0.0		
		310	0
17.6	0.0		
		398	0
		1211	38

CALCULATED CRM
CHECKED WJS

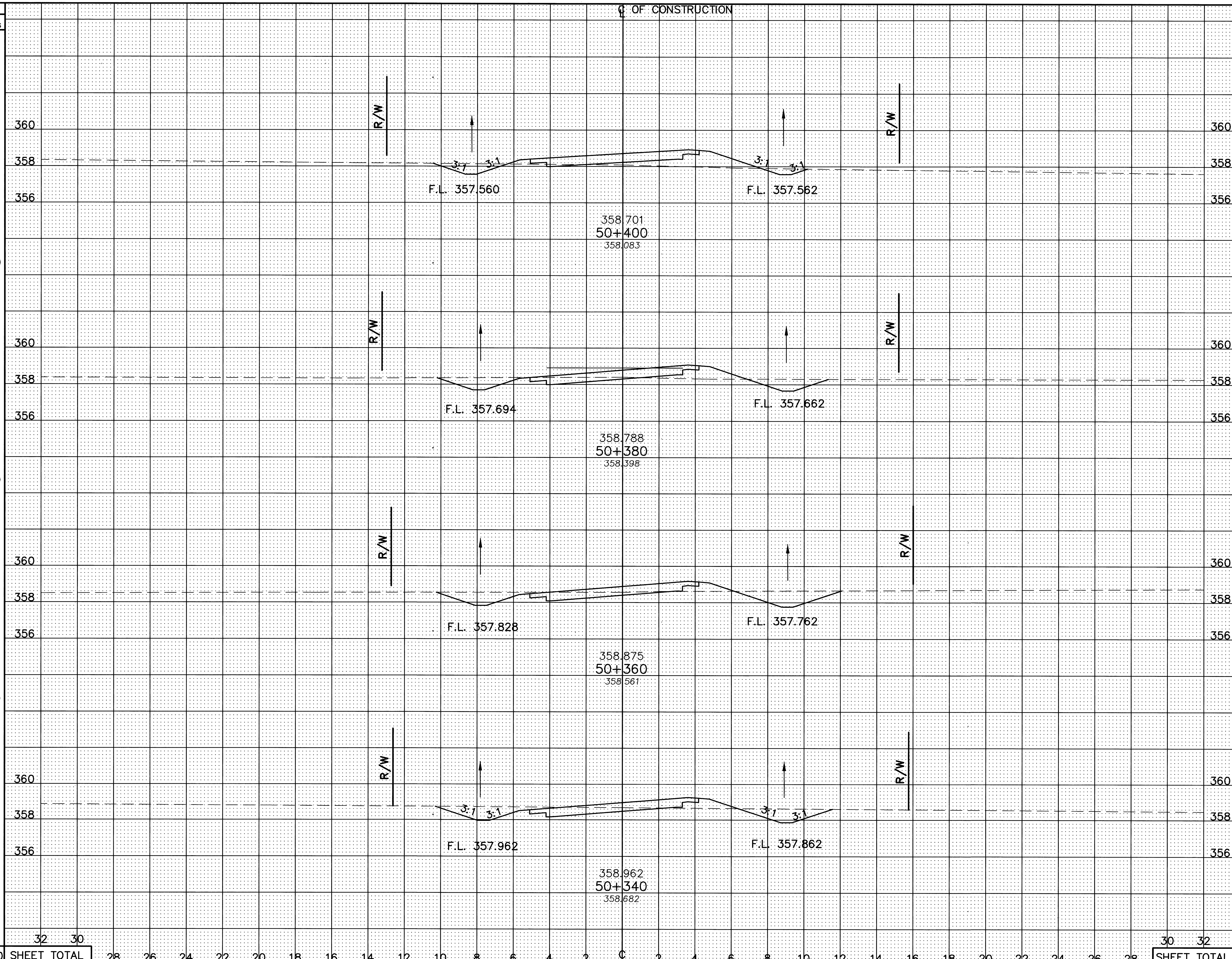
CROSS-SECTIONS – SERVICE ROAD "A"
STA.50+240 TO STA. 50+320

CRA/RIC-30-33.500/0.000

426
712

GX503SVA.DWG
02-26-1999 12:48 PM
1:100M

SEEDING END WIDTH	SEEDING SQ. METERS
17	350
18	370
19	350
16	320
	1390



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
2.0	3.8		
		67	57
4.7	1.9		
		115	28
6.8	0.9		
		134	20
6.6	1.1		
		133	21
		449	126

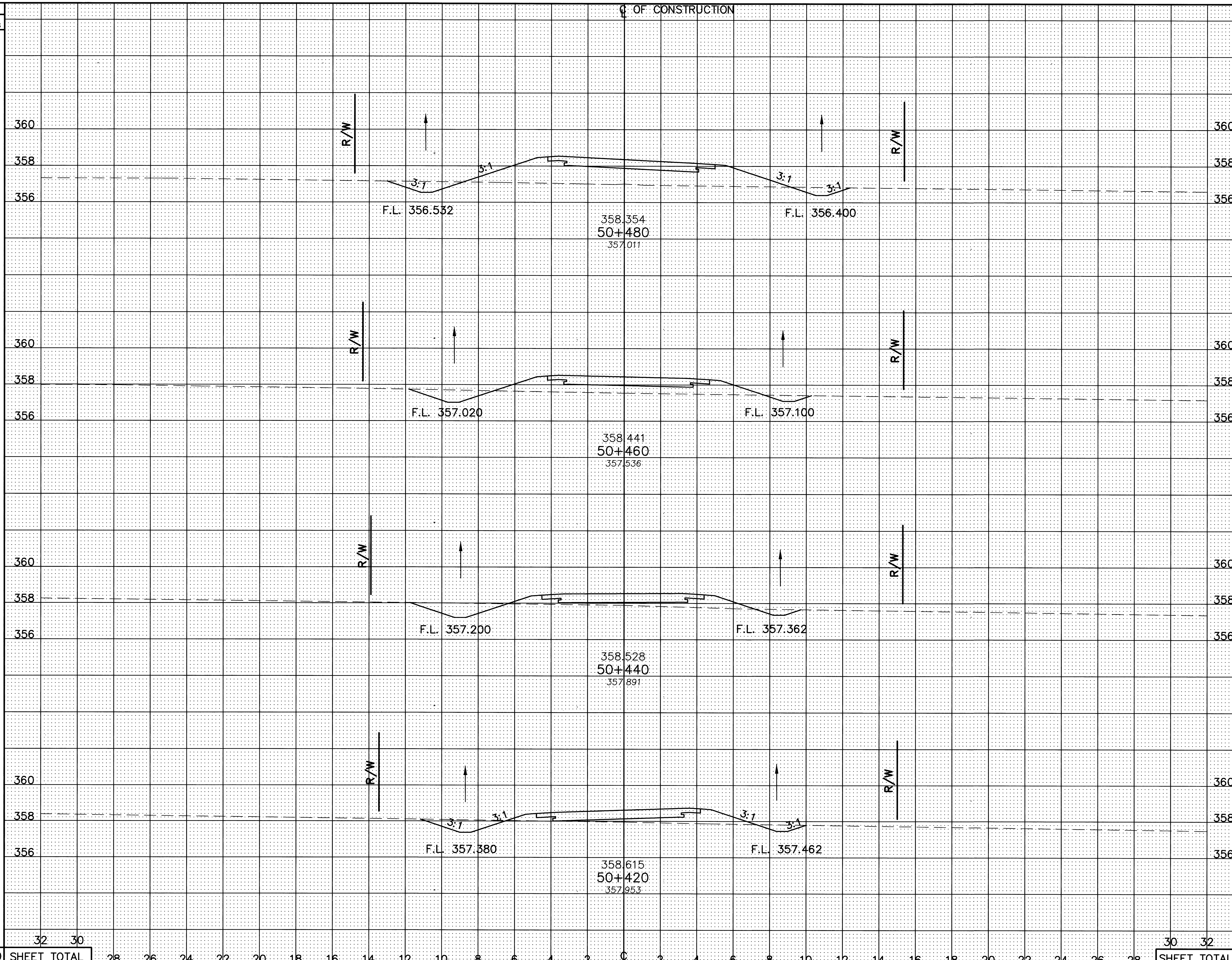
CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – SERVICE ROAD "A"
STA. 50+340 TO STA. 50+400

CRA/RIC-30-33.500/0.000

GX504SVA.DWG
02-26-1999 12:51 PM
1:100M

SEEDING END WIDTH	SEEDING SQ. METERS
21	
	400
19	
	380
19	
	370
18	
	350
	1500



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
2.2	15.0		
		45	220
2.3	7.0		
		52	107
2.9	3.7		
		53	76
2.4	3.9		
		44	77
		194	480

CALCULATED CRM
CHECKED WJS

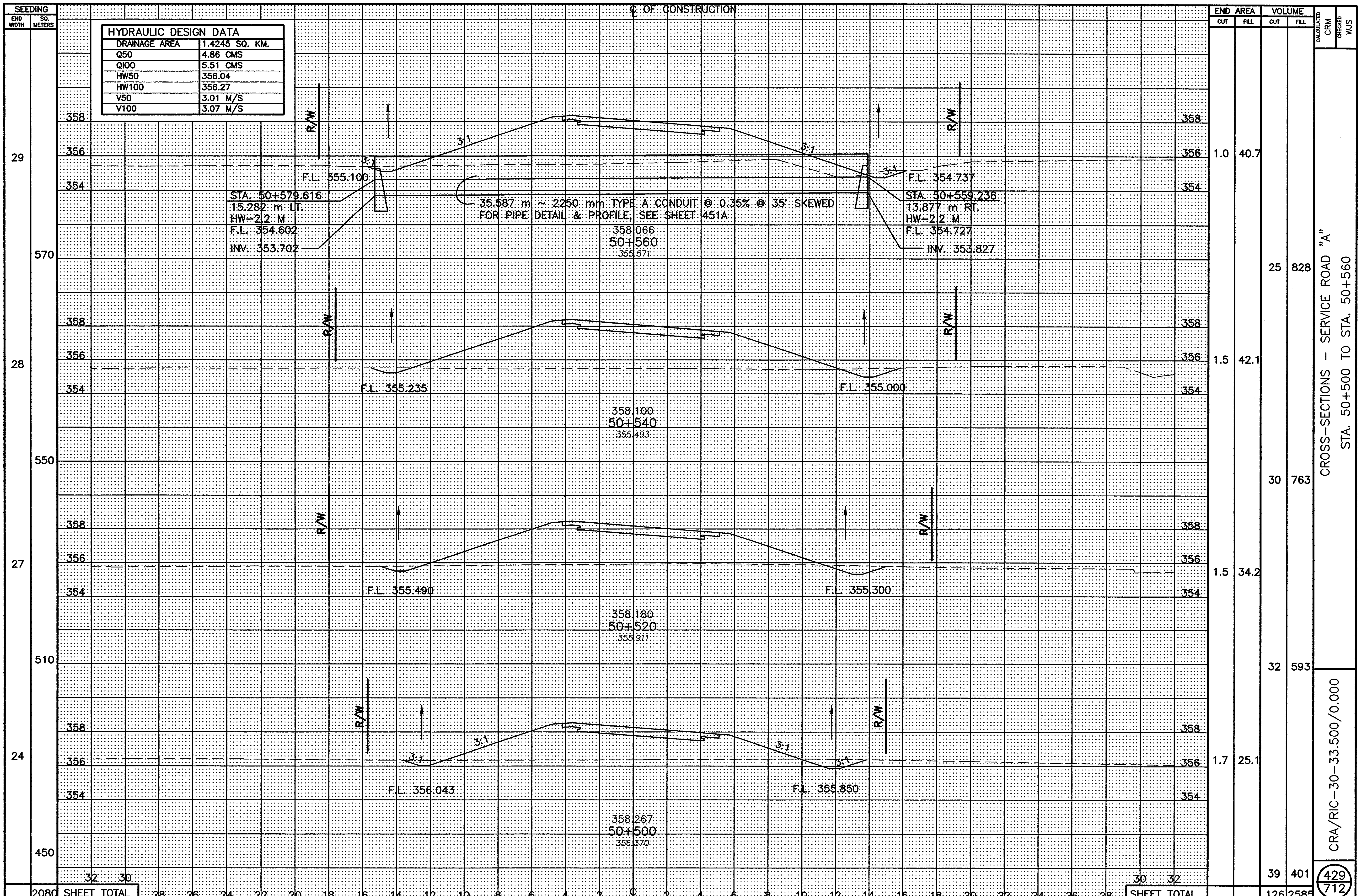
CROSS-SECTIONS – SERVICE ROAD "A"
STA. 50+420 TO STA. 50+480

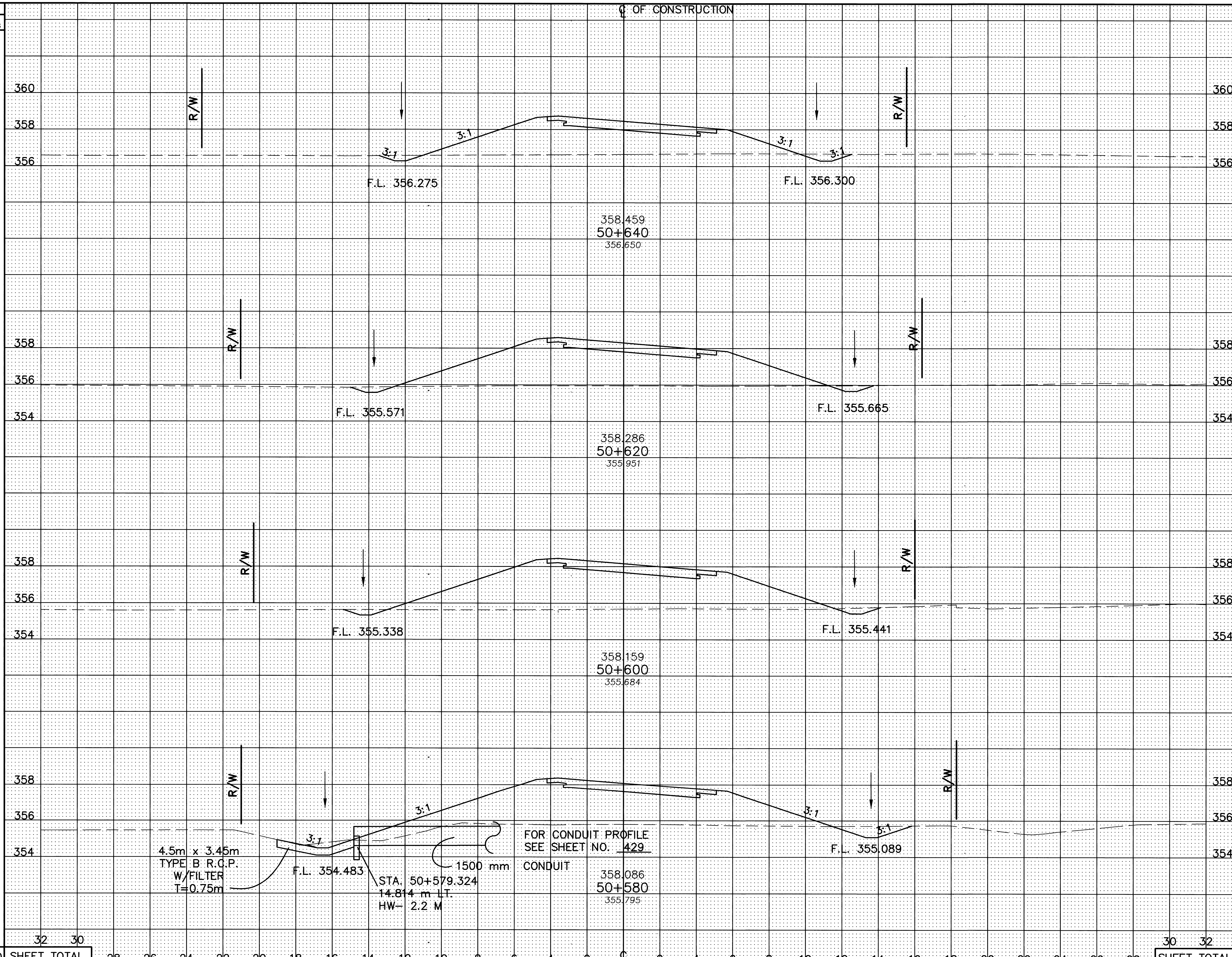
CRA/RIC-30-33.500/0.000

428
712

GX505SVA.DWG
02-26-1999 12:59 PM
1:100M

HYDRAULIC DESIGN DATA	
DRAINAGE AREA	1.4245 SQ. KM.
Q50	4.86 CMS
Q100	5.51 CMS
HW50	356.04
HW100	356.27
V50	3.01 M/S
V100	3.07 M/S





SEEDING END WIDTH	SEEDING SQ. METERS	STATION	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
23		50+640	1.1	24.6		
	480				20	611
25		50+620	0.9	36.5		
	510				18	752
26		50+600	0.9	38.7		
	560				29	754
30		50+580	2.0	36.7		
	590				30	774
	2140	SHEET TOTAL			97	2891

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – SERVICE ROAD "A"
STA. 50+580 TO STA. 50+640

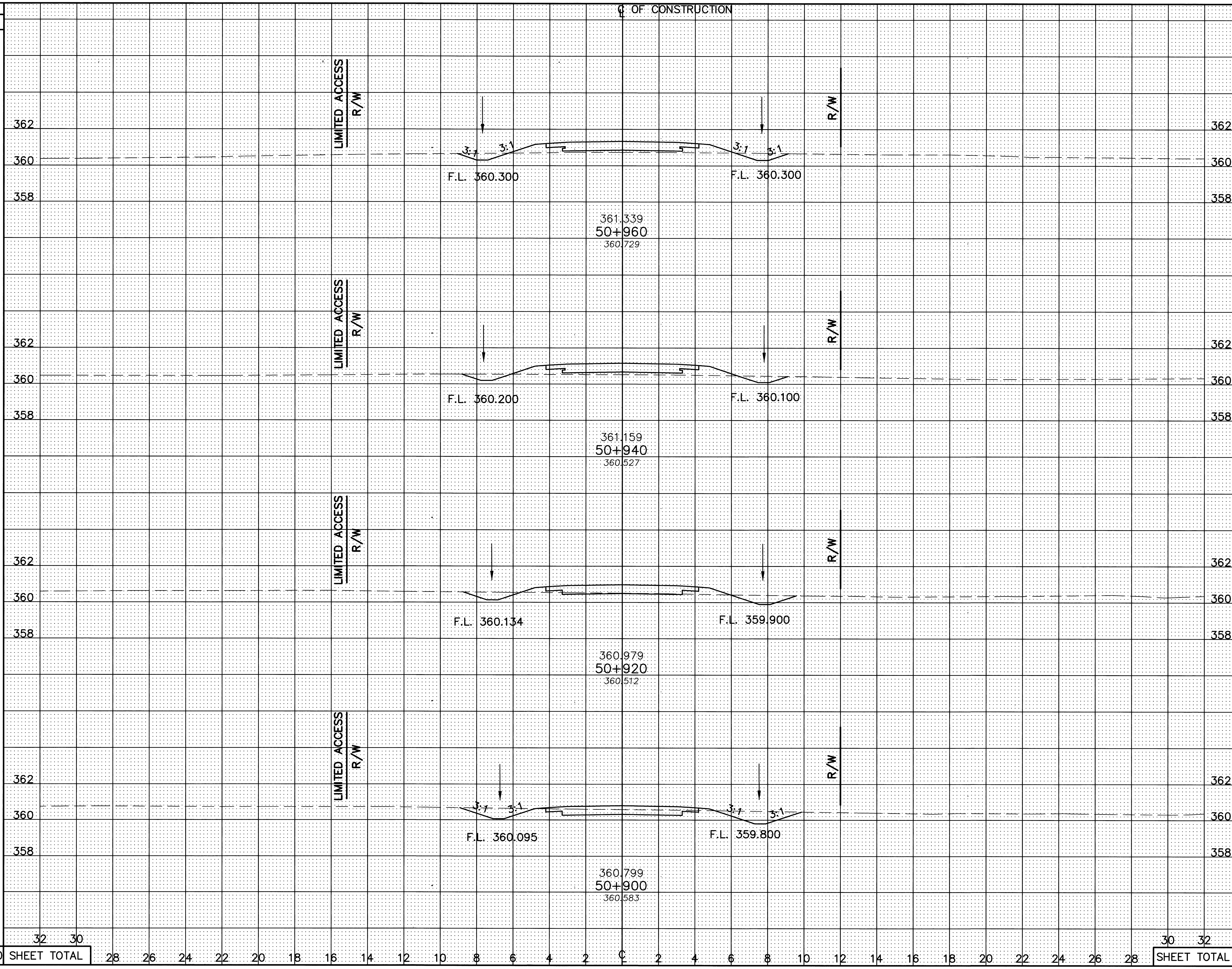
CRA/RIC-30-33.500/0.000

GX507SVA.DWG
02-26-1999 2:19 PM
1:100M

SEEDING
END WIDTH
SQ. METERS
℄ OF CONSTRUCTION
END AREA
CUT FILL
VOLUME
CUT FILL
CALCULATED CRM
CHECKED WJS
LIMITED ACCESS R/W
R/W
3:1
F.L. 358.783
F.L. 358.273
359.179
50+720
359.456
11.6 0.0
17
330
186 1
F.L. 358.603
F.L. 358.036
358.999
50+700
358.998
7.0 0.1
16
320
88 24
F.L. 358.123
F.L. 357.800
358.819
50+680
358.382
1.8 2.3
16
340
28 141
F.L. 357.262
F.L. 357.200
358.639
50+660
357.512
1.0 11.8
18
410
21 364
1400
SHEET TOTAL
323 530
360
358
356
CROSS-SECTIONS – SERVICE ROAD "A"
STA. 50+660 TO STA. 50+720
CRA/RIC-30-33.500/0.000
431
712
GX508SVA.DWG
02-26-1999 3:12 PM
1:100M

GX509SVA.DWG
02-26-1999 3:16 PM
1:100M

℄ OF CONSTRUCTION
SEEDING
END WIDTH
SQ. METERS
END AREA
CUT
FILL
VOLUME
CUT
FILL
CALCULATED CRM
CHECKED WJS
LIMITED ACCESS R/W
R/W
3:1
F.L. 360.001
F.L. 359.700
360.619
50+880
360.628
17
7.4 0.0
360
254 0
F.L. 359.821
F.L. 359.600
360.439
50+860
360.965
19
18.0 0.0
400
432 0
F.L. 359.641
F.L. 359.476
360.259
50+840
361.184
21
25.2 0.0
410
503 0
F.L. 359.461
F.L. 359.353
360.079
50+820
361.003
20
25.1 0.0
400
482 0
362
360
358
1570 SHEET TOTAL
SHEET TOTAL 1671 0
32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 ℄ 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32
CROSS-SECTIONS – SERVICE ROAD "A"
STA. 50+820 TO STA. 50+880
CRA/RIC-30-33.500/0.000
433/712
GX510SVA.DWG
02-26-1999 3:22 PM
1:100M



SEEDING END WIDTH	SEEDING SQ. METERS	STATION	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
16		50+960	1.3	3.6		
	320				25	74
16		50+940	1.2	3.8		
	320				30	57
16		50+920	1.8	1.9		
	320				59	20
16		50+900	4.1	0.1		
	330				115	1
	1290	SHEET TOTAL			229	152

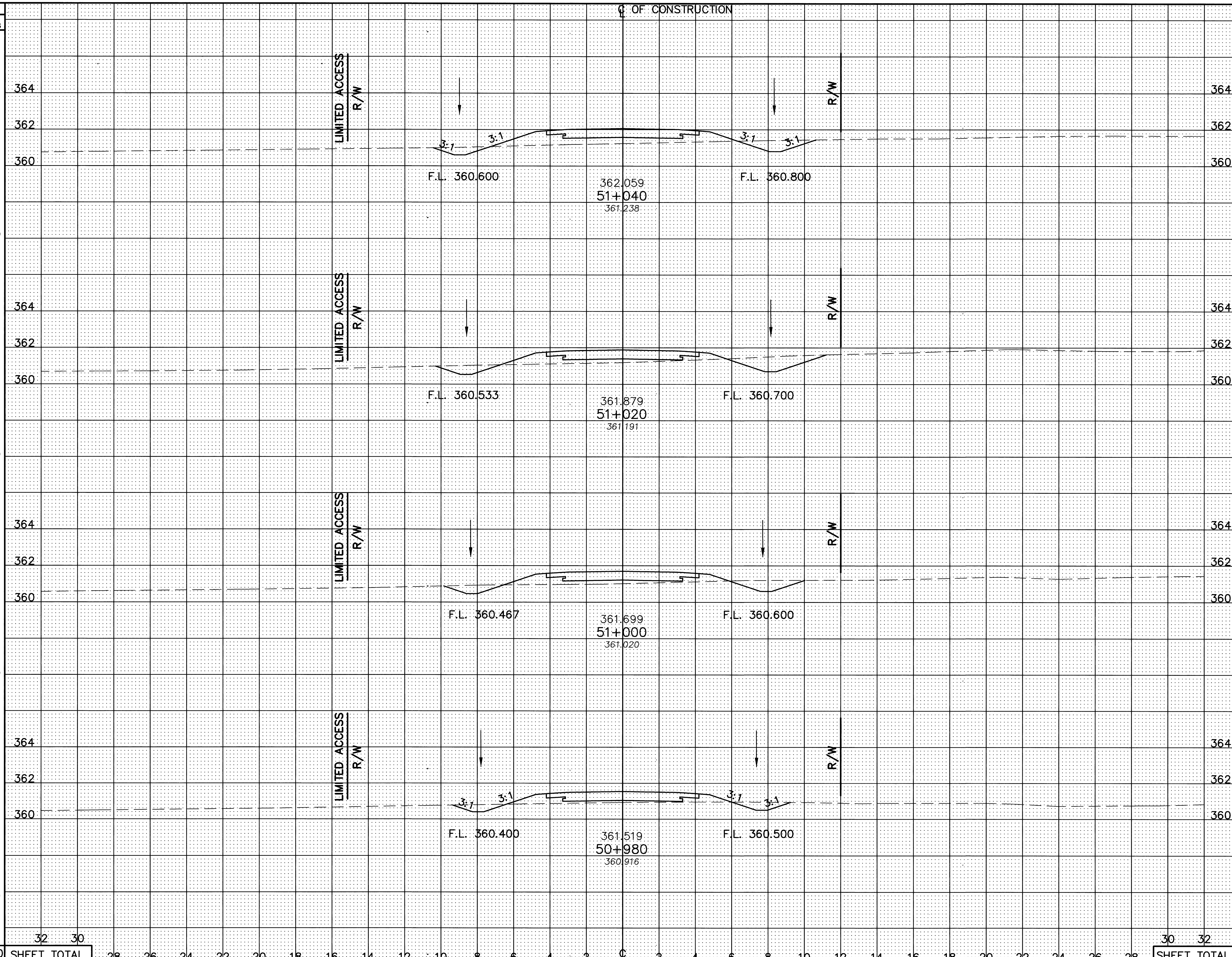
CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – SERVICE ROAD "A"
STA. 50+900 TO STA. 50+960

CRA/RIC-30-33.500/0.000

434/712

GX511SVA.DWG
02-26-1999 3:26 PM
1:100M



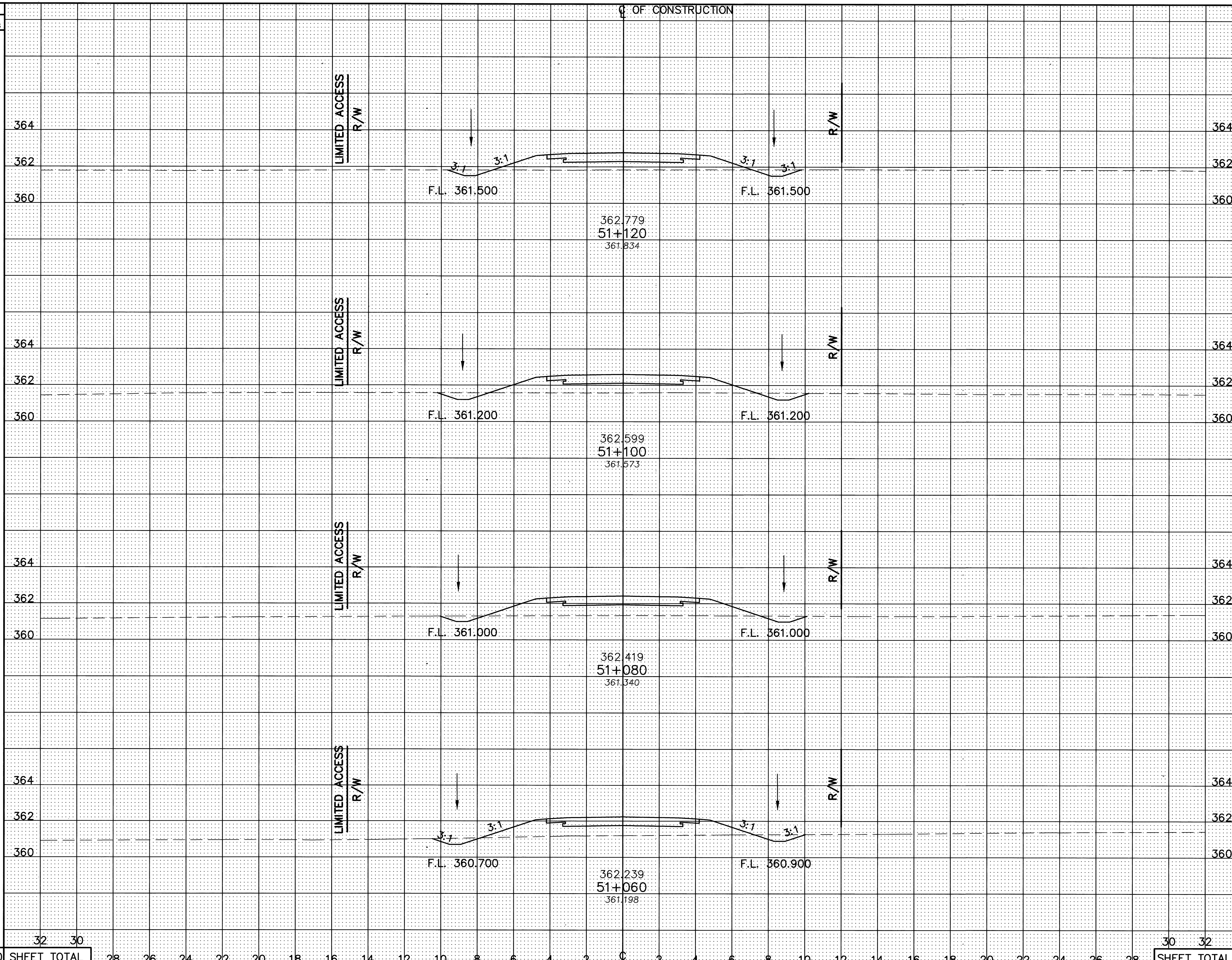
SEEDING END WIDTH	SEEDING SQ. METERS	STATION	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
19		51+040	2.3	6.3		
	380				58	105
19		51+020	3.5	4.2		
	360				58	83
17		51+000	2.3	4.1		
	330				38	76
16		50+980	1.5	3.5		
	320				28	71
SHEET TOTAL	1390	SHEET TOTAL			182	335

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – SERVICE ROAD "A"
STA. 50+980 TO STA. 51+040

CRA/RIC-30-33.500/0.000

GX512SVA.DWG
02-26-1999 3:56 PM
1:100M



SEEDING END WIDTH	SEEDING SQ. METERS
17	
	350
18	
	360
18	
	360
18	
	370
	1440

SHEET TOTAL

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
1.1	8.0		
		24	170
1.3	9.0		
		23	190
1.0	10.0		
		22	195
1.2	9.5		
		35	158
		104	713

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – SERVICE ROAD "A"
STA. 51+060 TO STA. 51+120

CRA/RIC-30-33.500/0.000

436
712

GX513SVA.DWG
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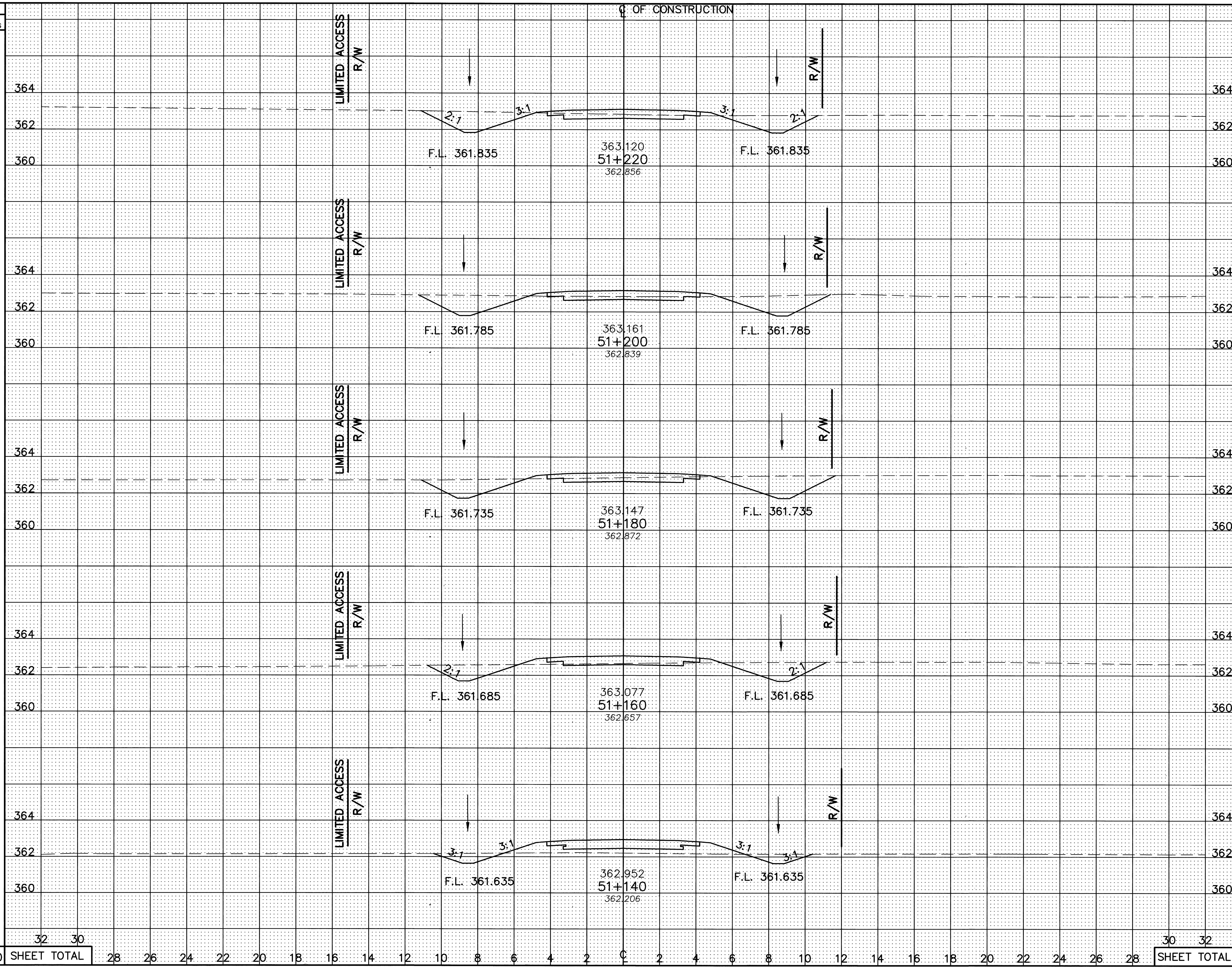
1:100M



SEEDING END WIDTH	SEEDING SQ. METERS
19	
	390
20	
	400
20	
	390
19	
	370
18	
	350
SHEET TOTAL	1900

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
7.4	0.2		
		150	5
7.6	0.3		
		159	6
8.3	0.3		
		141	16
5.8	1.3		
		81	67
2.3	5.4		
		34	134
SHEET TOTAL		565	228

CALCULATED CRM
CHECKED WJS

CROSS-SECTIONS – SERVICE ROAD "A"
STA. 51+140 TO STA. 51+220

CRA/RIC-30-33.500/0.000

437/712

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02-26-1999 4:08 PM
1:100M

SEEDING
END WIDTH
SQ. METERS
END AREA
CUT
FILL
VOLUME
CUT
FILL
CALCULATED CRM
CHECKED WJS
℄ OF CONSTRUCTION
STA. 51+316.295
END SEEDING, LT. & RT.
STA. 51+316.295
END FULL DEPTH
SECTION & DITCH, LT. & RT.
LIMITED ACCESS
R/W
AHD
BK
AHD.
BK.
362.665
51+316.295
362.623
2:1
F.L. 362.035
362.743
51+300
362.679
F.L. 361.985
362.839
51+280
362.810
F.L. 361.935
362.935
51+260
362.941
TURN AROUND
DRIVE LEFT
DR-1A
50+240, 3.0 m LT.
362.983 E.R.
50+240, 4.2 m LT.
362.911 E.S.
0.92%
3:1
300 mm CONDUIT
363.031
51+240
362.920
F.L. 361.885
ADD FOR TURN AROUND
14
228
14
300
16
330
17
300
13
320
1478
SHEET TOTAL
0 0
3.5 0
76 0
5.8 0.0
130 0
7.2 0.0
165 0
9.3 0.0
180 0
8.7 0.0
10 0
161 2
722 2
CROSS-SECTIONS - SERVICE ROAD "A"
STA. 51+240 TO STA. 51+316.295
CRA/RIC-30-33.500/0.000
438
712
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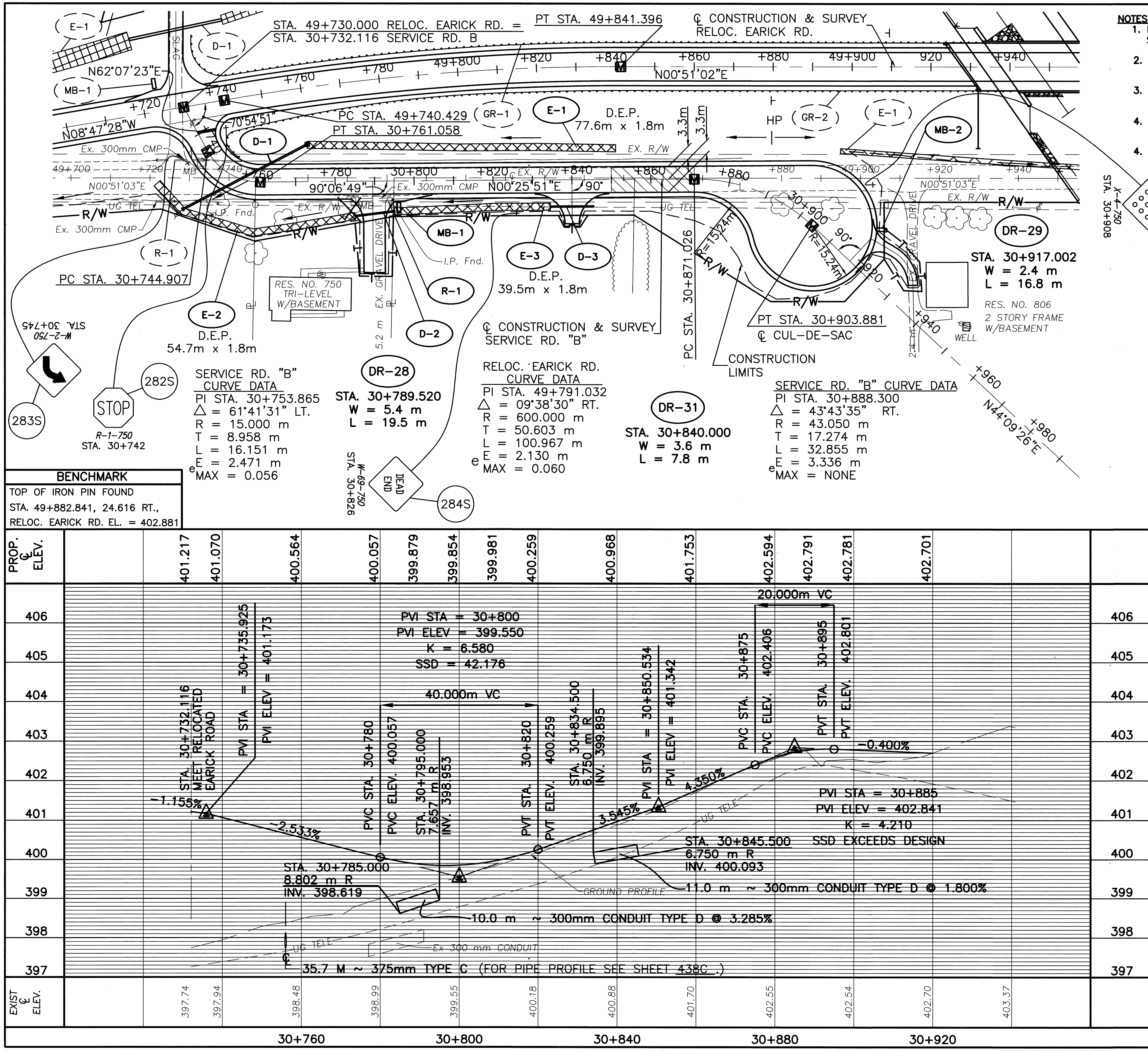
08-30-2001 3:33 PM
SCALE: 1:100M



NOTES:
1. FOR ℄ MONUMENT LOCATIONS SEE SHEETS 617-618.
2. FOR AGGREGATE LOCATIONS SEE SHEET 68.
3. FOR INTERSECTION DETAILS SEE SHEET 485A.
4. FOR TRAFFIC CONTROL QUANTITIES SEE SHEETS 506 & 509.
4. FOR DRIVEWAY DETAILS & QUANTITIES SEE SHEETS 493-495.

— INDICATES D.E.P.

— WEARING COARSE REMOVED (T = 50 mm±)

ESTIMATED QUANTITIES

REF. No.	SIDE	STATION FROM	STATION TO	202 PIPE REMOVED 600 mm AND UNDER (METER)		602 CONCRETE MASONRY (C.M.)	603 375 mm CONDUIT TYPE C (METER)	603 300 mm CONDUIT TYPE D (METER)	604 CATCH BASIN No. 2-2A (EACH)	670 DITCH EROSION PROTECTION (S.M.)	SPEC MAILBOX SUPPORT SYSTEM SINGLE (EACH)	
E-1	LT	30+773.00	30+851.00							139.6		
E-2	RT	30+745.36	30+785.00							98.40		
E-3	RT	30+795.00	30+834.50							71.10		
R-1	RT	30+781.59	30+794.45	13								
D-1	L/R	30+750.000	30+773.000			0.22	35.70		1			
D-2	RT	30+785.000	30+795.000					10.0				
D-3	RT	30+834.500	30+845.500					11.0				
MB-1	RT	30+796.121									1	
MB-2	LT	30+916.499									1	
TOTALS CARRIED TO SUB SUMMARY				13		0.22	35.70	21.0	1	309.10	2	

RATIO 1:500
HORIZONTAL SCALE IN METERS

CALCULATED TJM CHECKED WJS

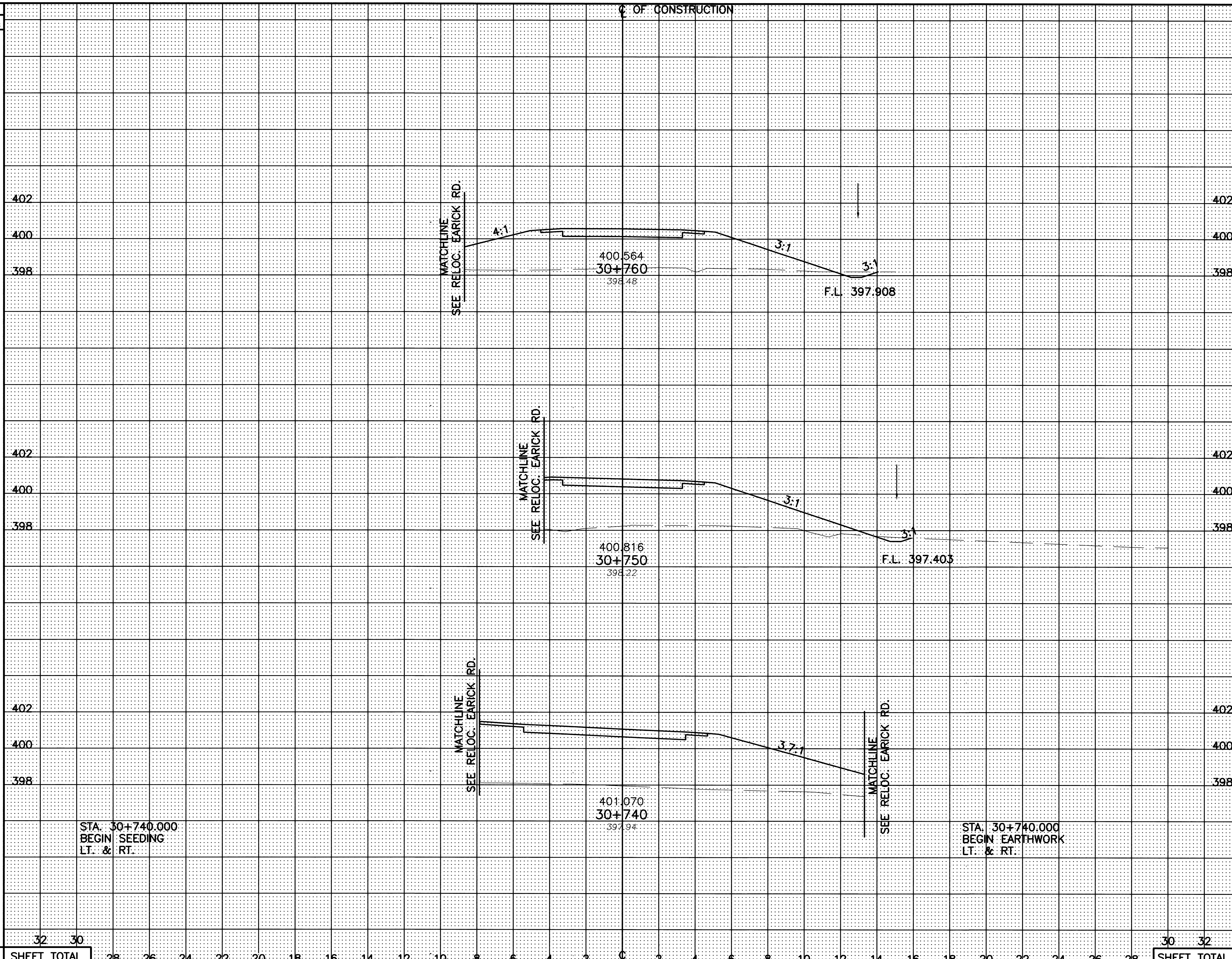
PLAN AND PROFILE – SERVICE ROAD "B"
STA. 30+732.113 TO STA. 30+920.000

CRA/RIC-30-33.500/0.000

438A / 712

GP500SVB.DWG
05-14-2001 10:52 AM
SCALE: 1:500M

SEEDING END WIDTH	SEEDING SQ. METERS	STATION	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
14		30+760	0.5	32.4		
	130				4	324
12		30+750	0.3	32.3		
	105				2	438
9		30+740	0	55.2		
	235	SHEET TOTAL			6	762



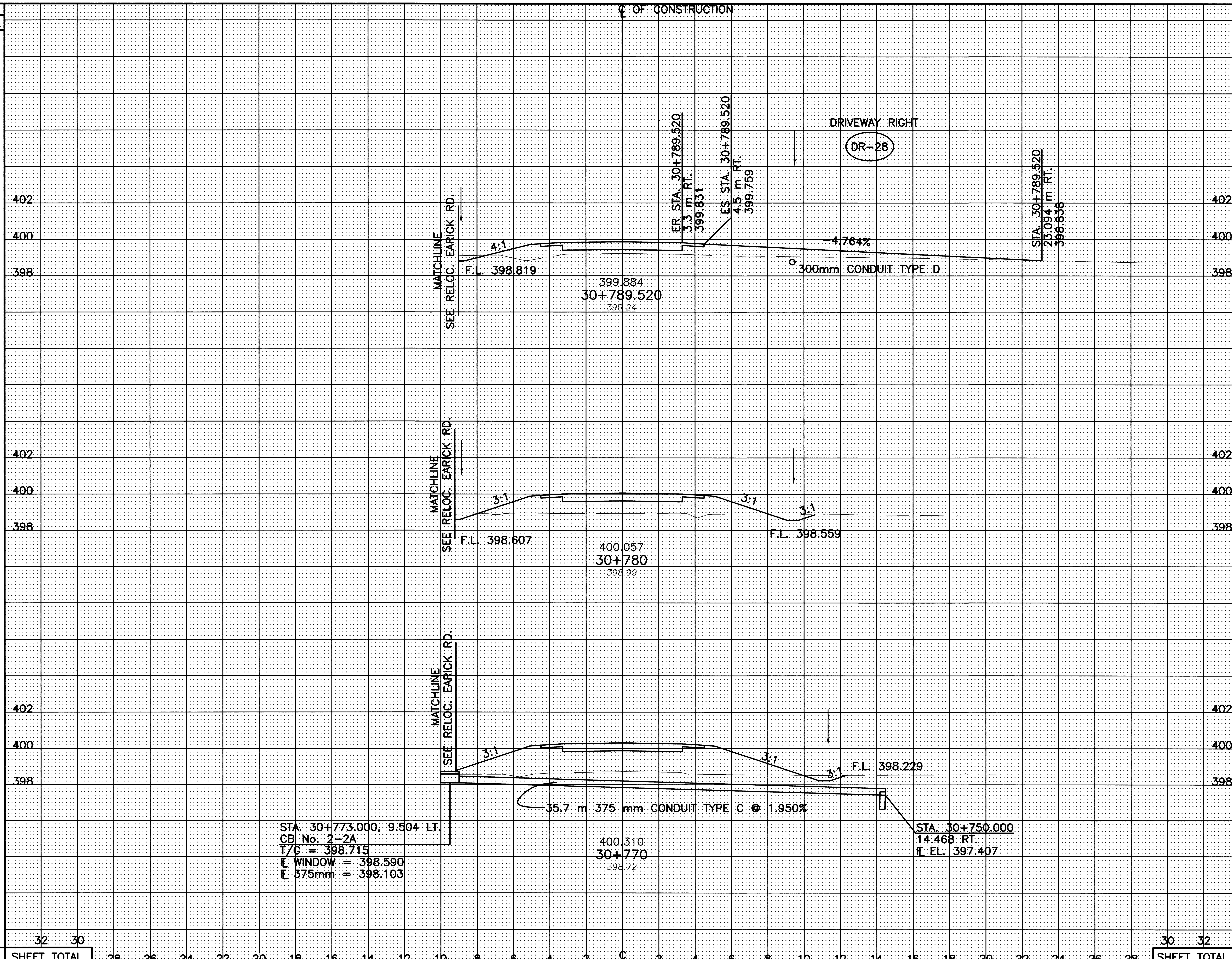
CALCULATED TJM
CHECKED WLS

CROSS-SECTIONS – SERVICE ROAD "B"
STA. 30+740 TO STA. 30+760

CRA/RIC-30-33.500/0.000

438B
712

GX500_ASVB.DWG
05-09-2001 1:46 PM
SCALE: 1:100M



SEEDING END WIDTH	SEEDING SQ. METERS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
11		0.6	8.4		
	105			6	95
11		0.7	11.5		
	120			6	164
13		0.4	21.2		
	135			5	268
	360			17	527

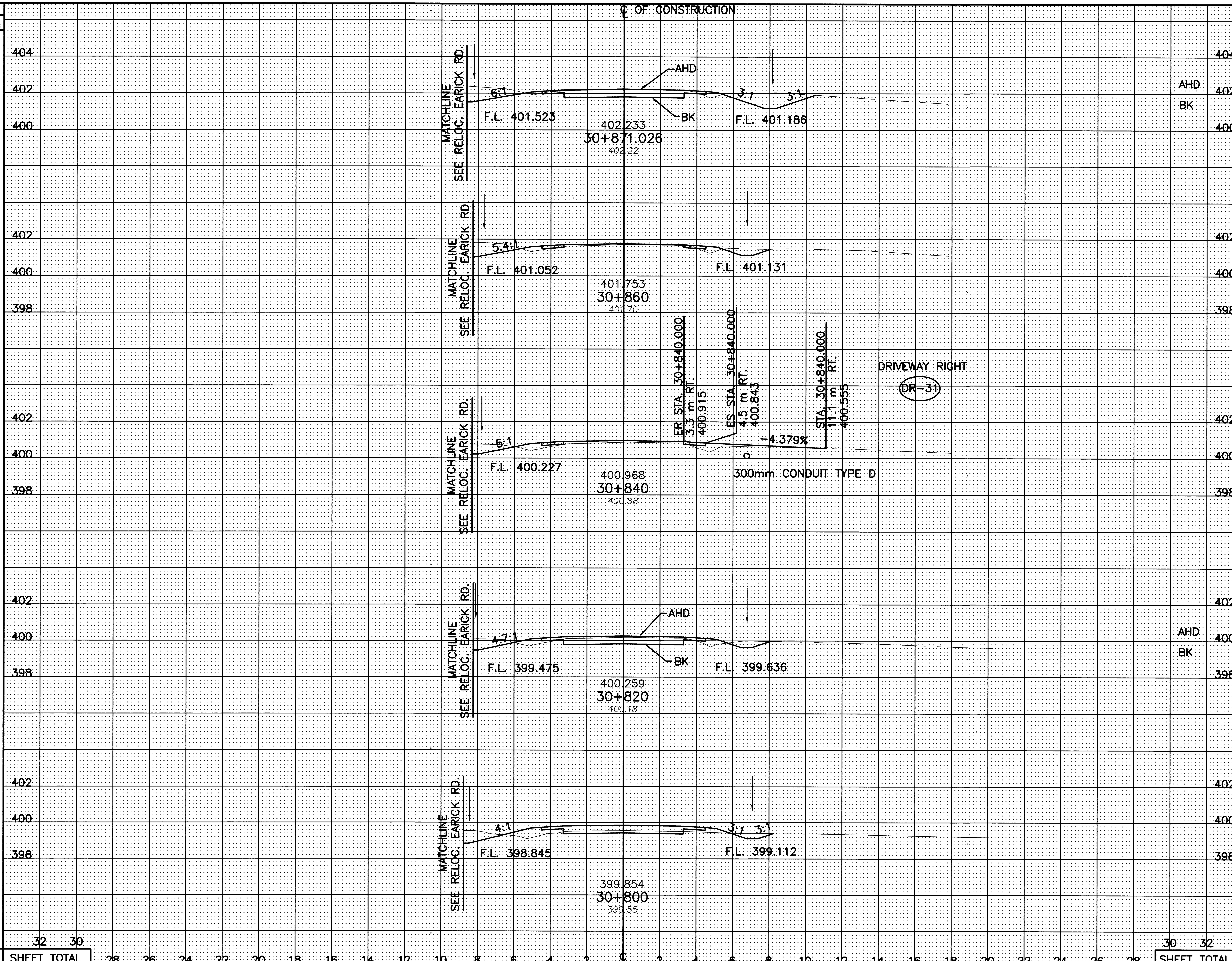
CALCULATED TJM
CHECKED WLS

CROSS-SECTIONS – SERVICE ROAD "B"
STA. 30+770 TO STA. 30+789.520

CRA/RIC-30-33.500/0.000

438C
712

GX500SVB.DWG
05-14-2001 10:57 AM
SCALE: 1:100M



SEEDING END WIDTH	SEEDING SQ. METERS
10	
	99
8	
	150
7	
	140
7	
	150
8	
	100
SHEET TOTAL	639

	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
AHD	6.2	0.3		
BK	4.0	0.3		
			33	4
	1.9	0.5		
			32	13
	1.3	0.8		
			27	16
AHD	1.4	0.8		
BK	3.1	0.8		
			53	29
	2.2	2.1		
			15	55
SHEET TOTAL			160	117

CALCULATED TJM CHECKED WLS

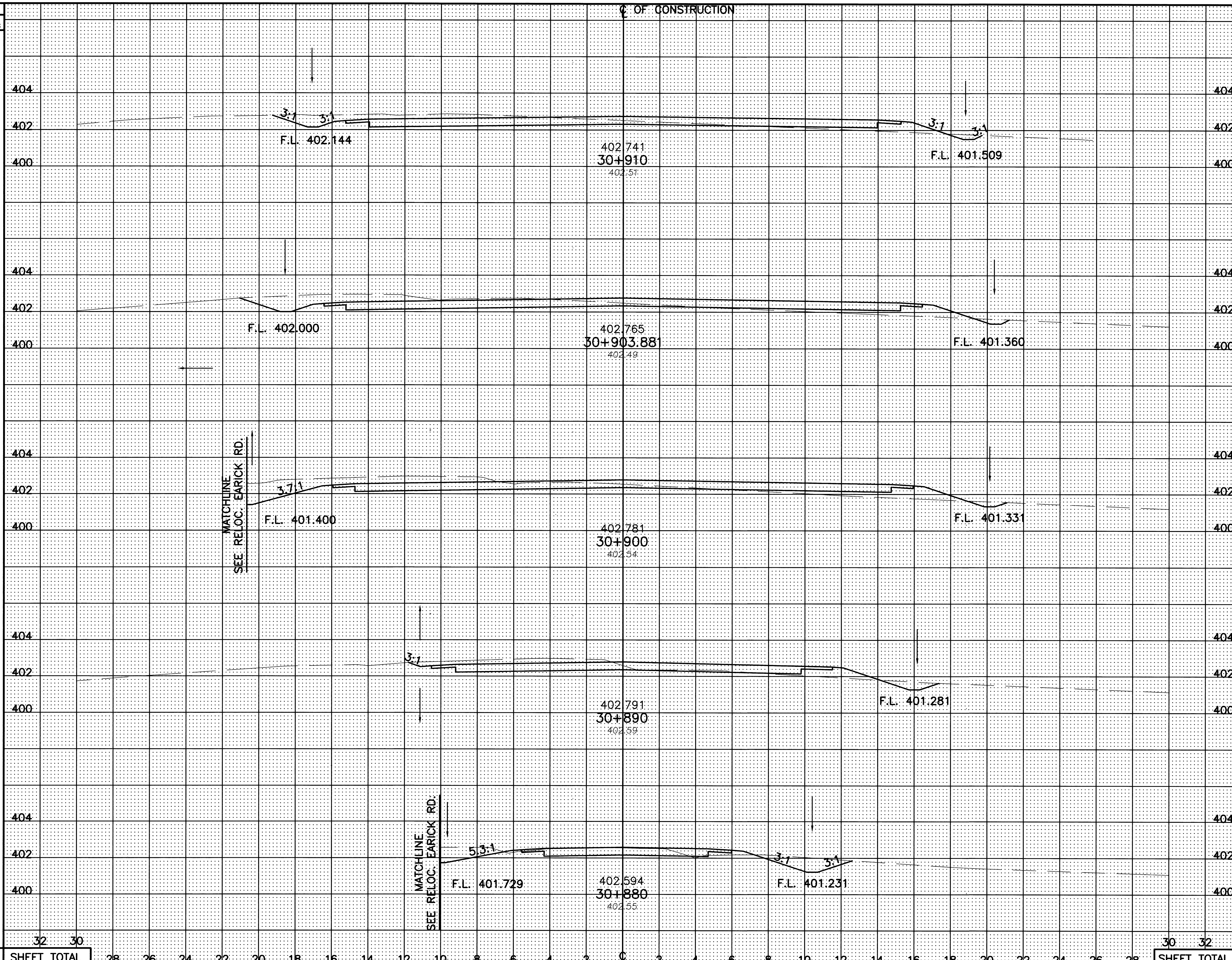
CROSS-SECTIONS - SERVICE ROAD "B"
STA. 30+800 TO STA. 30+871.026

CRA/RIC-30-33.500/0.000

438D
712

GX501SVB.DWG
04-25-2001 1:51 PM
SCALE: 1:100M

SEEDING END WIDTH	SEEDING SQ. METERS
9	
	58
10	
	39
10	
	85
7	
	95
12	
	99
	376



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
8.2	2.9		
		56	22
10.0	4.4		
		42	17
11.7	4.3		
		91	35
6.5	2.6		
		65	16
6.5	0.6		
		57	4
		311	94

CALCULATED TJM CHECKED WLS

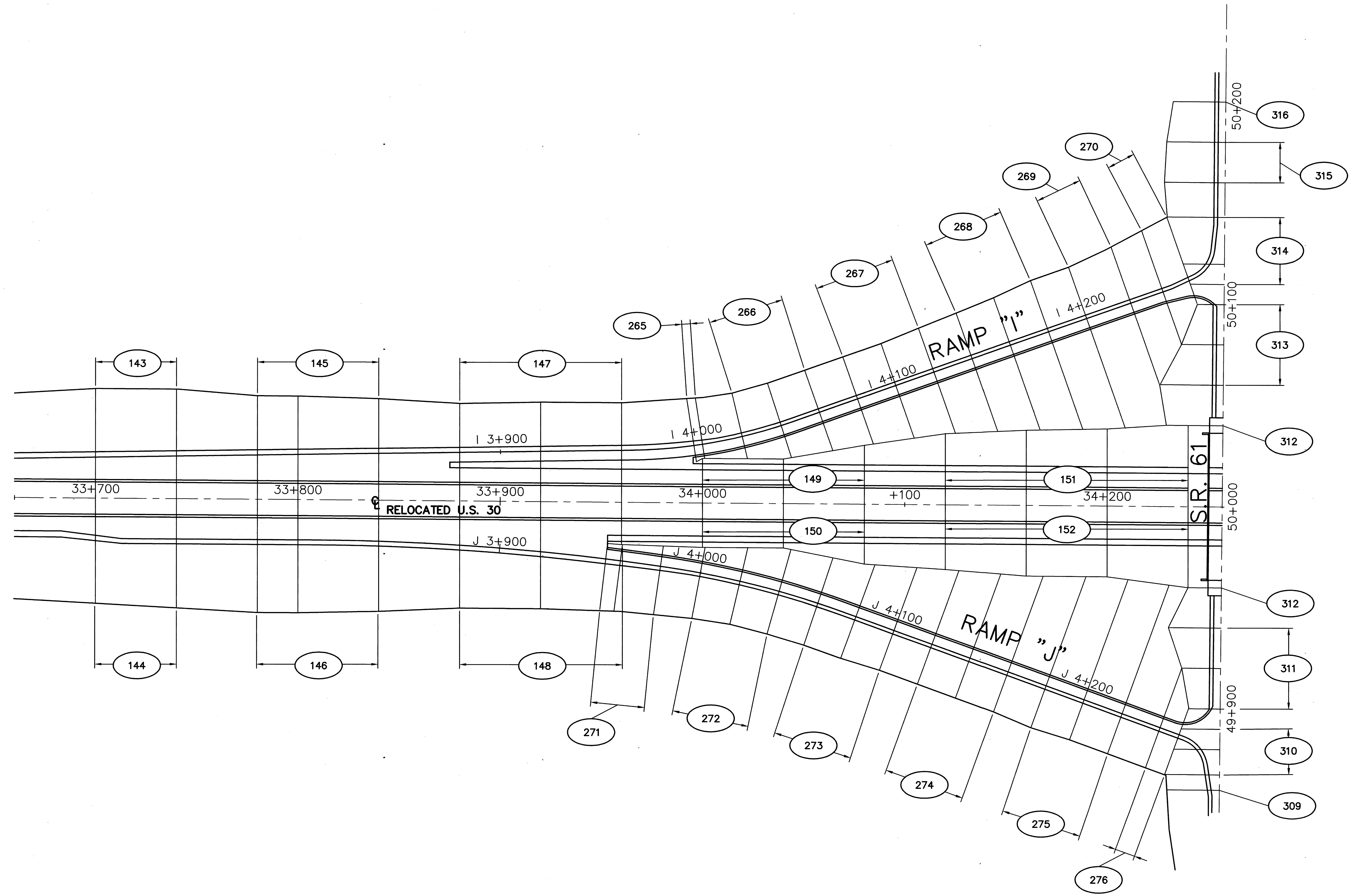
CROSS-SECTIONS – SERVICE ROAD "B"
STA. 30+880 TO STA. 30+910

CRA/RIC-30-33.500/0.000

438E
712

GX502SVB.DWG
05-09-2001 2:03 PM
SCALE: 1:100M

GX503SSVB.DWG
04-25-2001 1:56 PM
SCALE: 1:100M



= SHEET NUMBER WHERE CROSS SECTION APPEARS

N

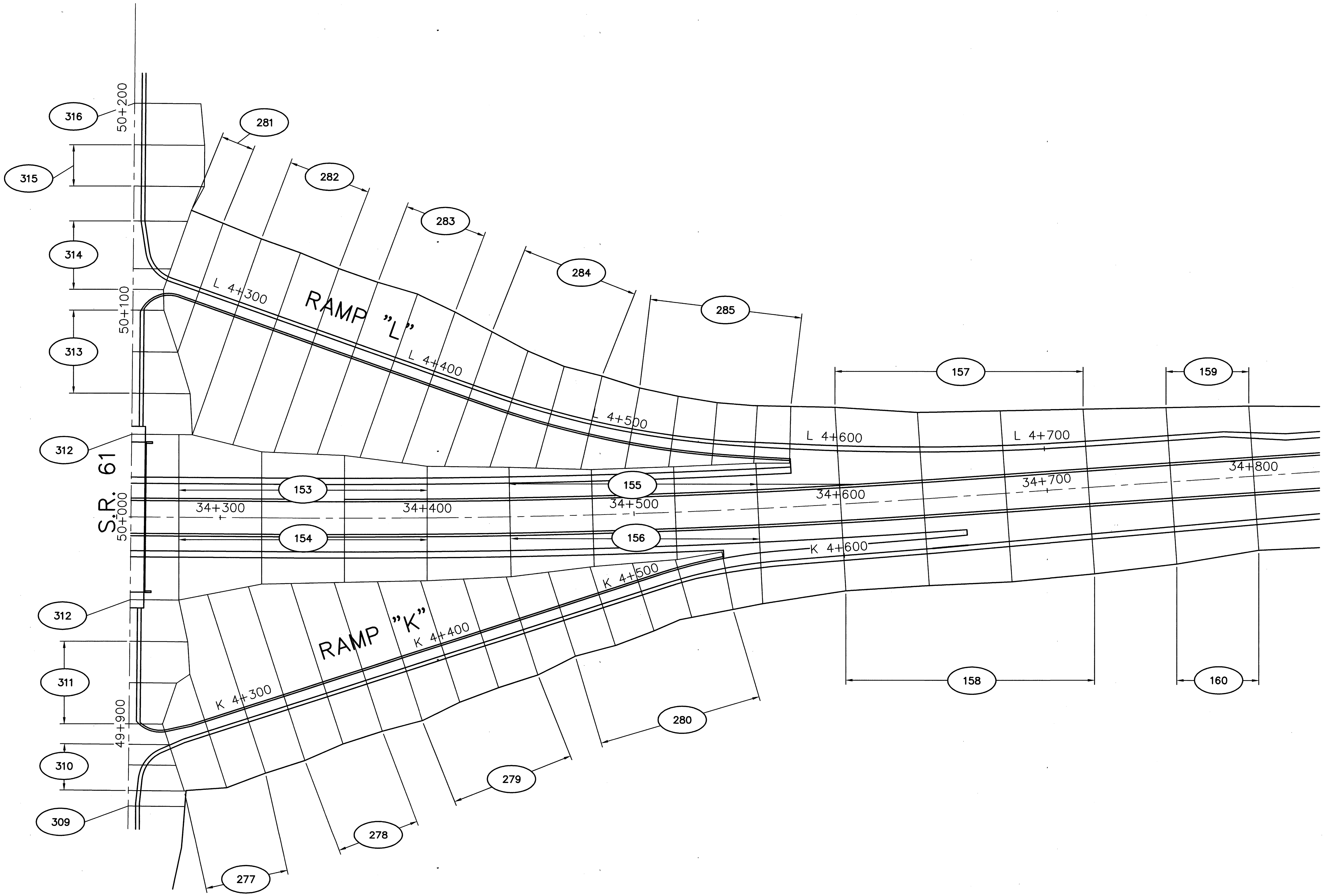
RATIO 1:200
0 5 10
HORIZONTAL SCALE IN METERS

CALCULATED CRM
CHECKED RJR

CROSS SECTION LAYOUT
S.R. 61 INTERCHANGE

CRA/RIC-30-33.500/0.000

GM001.DWG
03-1-1999 10:10 AM
1:1000 M



= SHEET NUMBER WHERE CROSS SECTION APPEARS

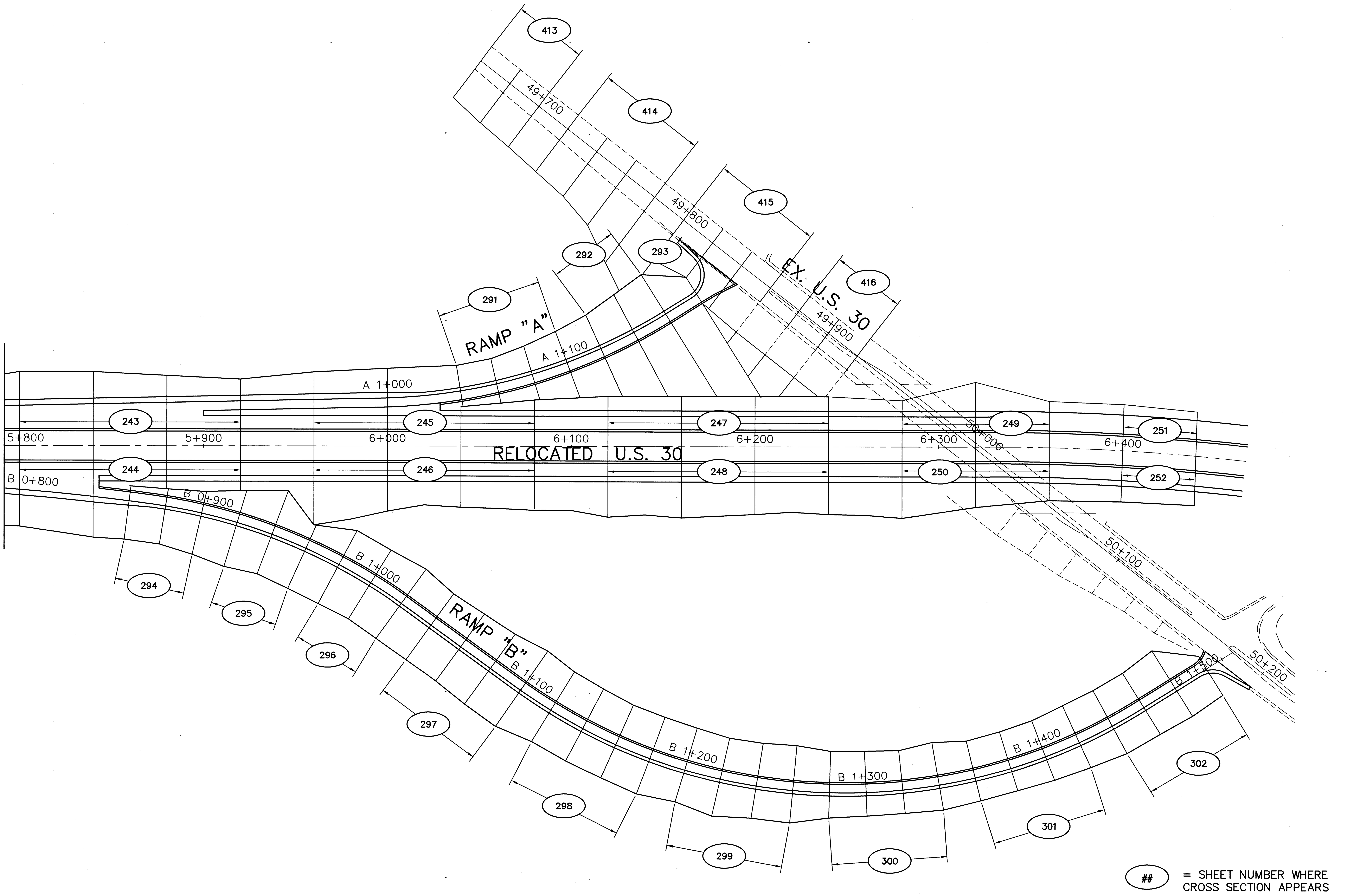
RATIO 1:200
0 5 10
HORIZONTAL SCALE IN METERS

CALCULATED CRM
CHECKED RJR

CROSS SECTION LAYOUT
S.R.61 INTERCHANGE

CRA/RIC-30-33.500/0.000

GM002.DWG
03-1-1999 10:12 AM
1:1000 M



CROSS SECTION LAYOUT
EX. U.S. 30 INTERCHANGE

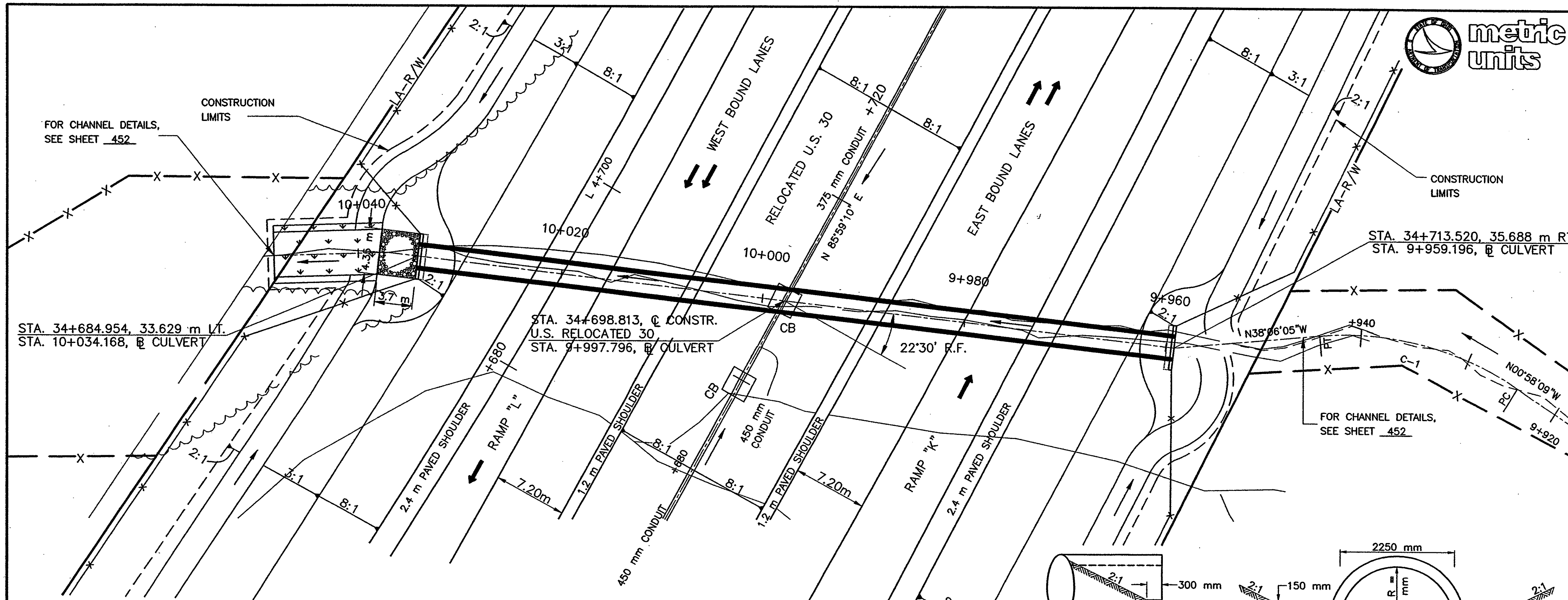
RATIO 1:200
HORIZONTAL SCALE IN METERS

CALCULATED CRM
CHECKED RJR

CRA/RIC-30-33.500/0.000

441
712

GM003.DWG
03-1-1999 10:15 AM
1:1000 M



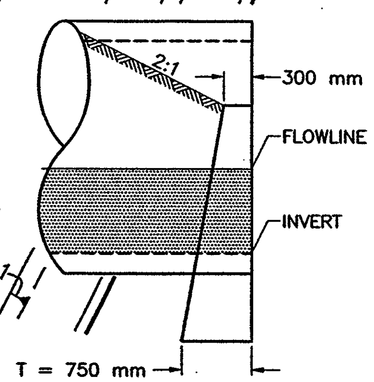
ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
601	12.1	CU M	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER
602	7.90	CU M	CONCRETE MASONRY
603	74.972	METER	2250 MM CONDUIT, TYPE A, 706.02
604	1	EACH	CB-4A, AS PER PLAN

QUANTITIES CARRIED TO SUBSUMMARY SHEET 67

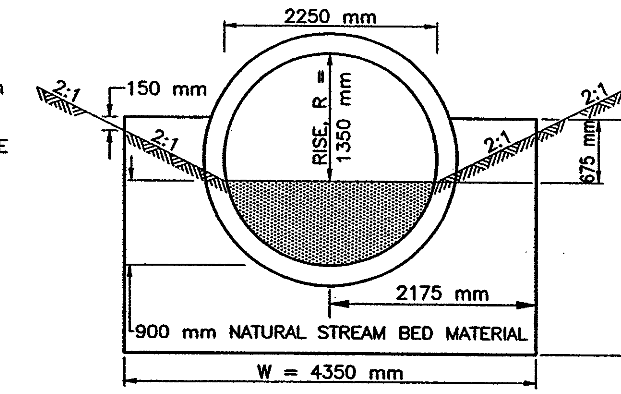
LEGEND

- ROCK CHANNEL PROTECTION, 750 mm THICK, TYPE B WITH FILTER
- RIPRAP, 150 mm REINFORCED CONCRETE SLAB
- DITCH EROSION PROTECTION
- FILL USING NATURAL STREAM BED MATERIAL

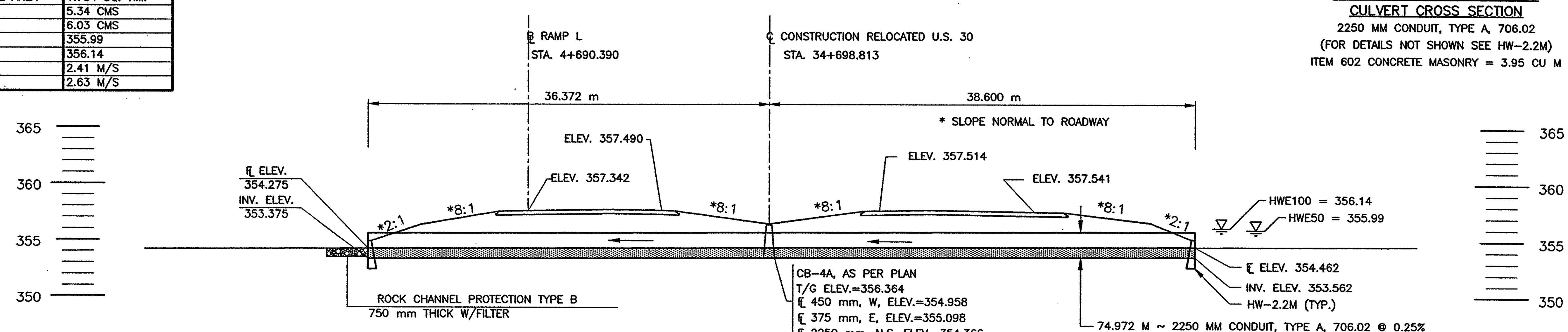
HYDRAULIC DESIGN DATA	
DRAINAGE AREA	1.784 SQ. KM.
Q50	5.34 CMS
Q100	6.03 CMS
HW50	355.99
HW100	356.14
V50	2.41 M/S
V100	2.63 M/S



PROFILE



FULL BANK DESIGN HEADWALL
CULVERT CROSS SECTION
2250 MM CONDUIT, TYPE A, 706.02
(FOR DETAILS NOT SHOWN SEE HW-2.2M)
ITEM 602 CONCRETE MASONRY = 3.95 CU M



RATIO 1:200 HORIZONTAL SCALE IN METERS

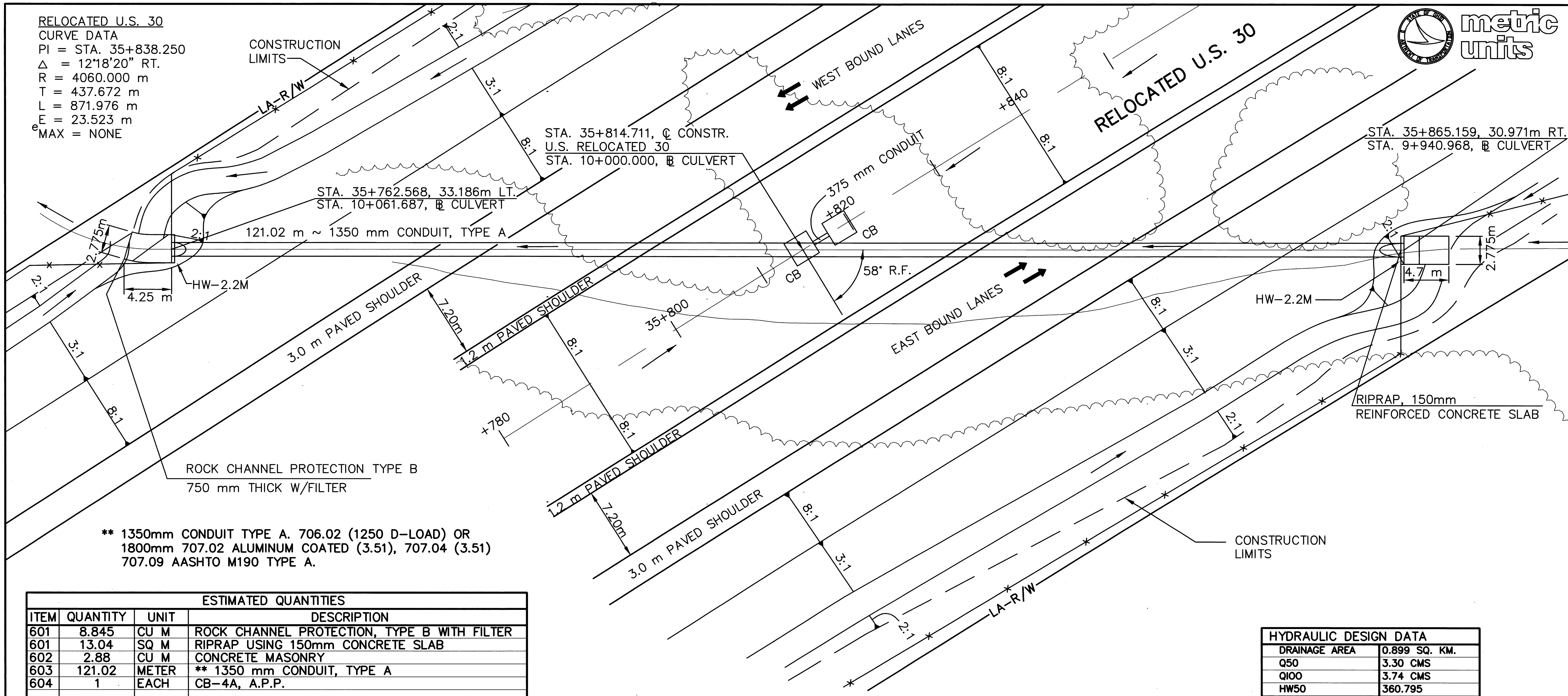
CALCULATED TM CHECKED WS

CULVERT NO.1
RELOC. U.S. 30 STA. 34+698.813

CRA/RIC-30-33.500/0.000

DD100_FBD.DWG
05-30-2003 4:15 PM
SCALE: 200M

RELOCATED U.S. 30
CURVE DATA
PI = STA. 35+838.250
Δ = 12°18'20" RT.
R = 4060.000 m
T = 437.672 m
L = 871.976 m
E = 23.523 m
e_{MAX} = NONE



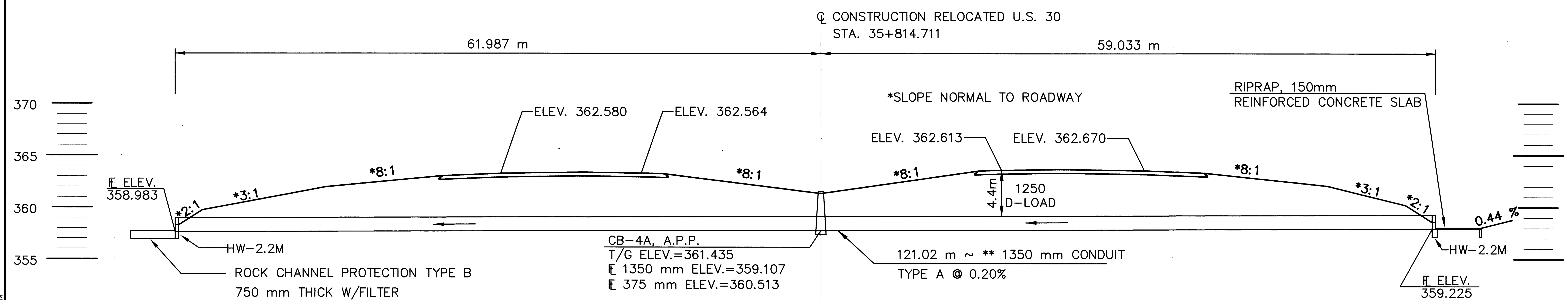
** 1350mm CONDUIT TYPE A. 706.02 (1250 D-LOAD) OR 1800mm 707.02 ALUMINUM COATED (3.51), 707.04 (3.51) 707.09 AASHTO M190 TYPE A.

ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT	DESCRIPTION
601	8.845	CU M	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER
601	13.04	SQ M	RIPRAP USING 150mm CONCRETE SLAB
602	2.88	CU M	CONCRETE MASONRY
603	121.02	METER	** 1350 mm CONDUIT, TYPE A
604	1	EACH	CB-4A, A.P.P.

QUANTITIES CARRIED TO SUBSUMMARY SHEET 67

HYDRAULIC DESIGN DATA	
DRAINAGE AREA	0.899 SQ. KM.
Q50	3.30 CMS
Q100	3.74 CMS
HW50	360.795
HW100	361.045
V50	2.94 M/S
V100	3.10 M/S



metric units

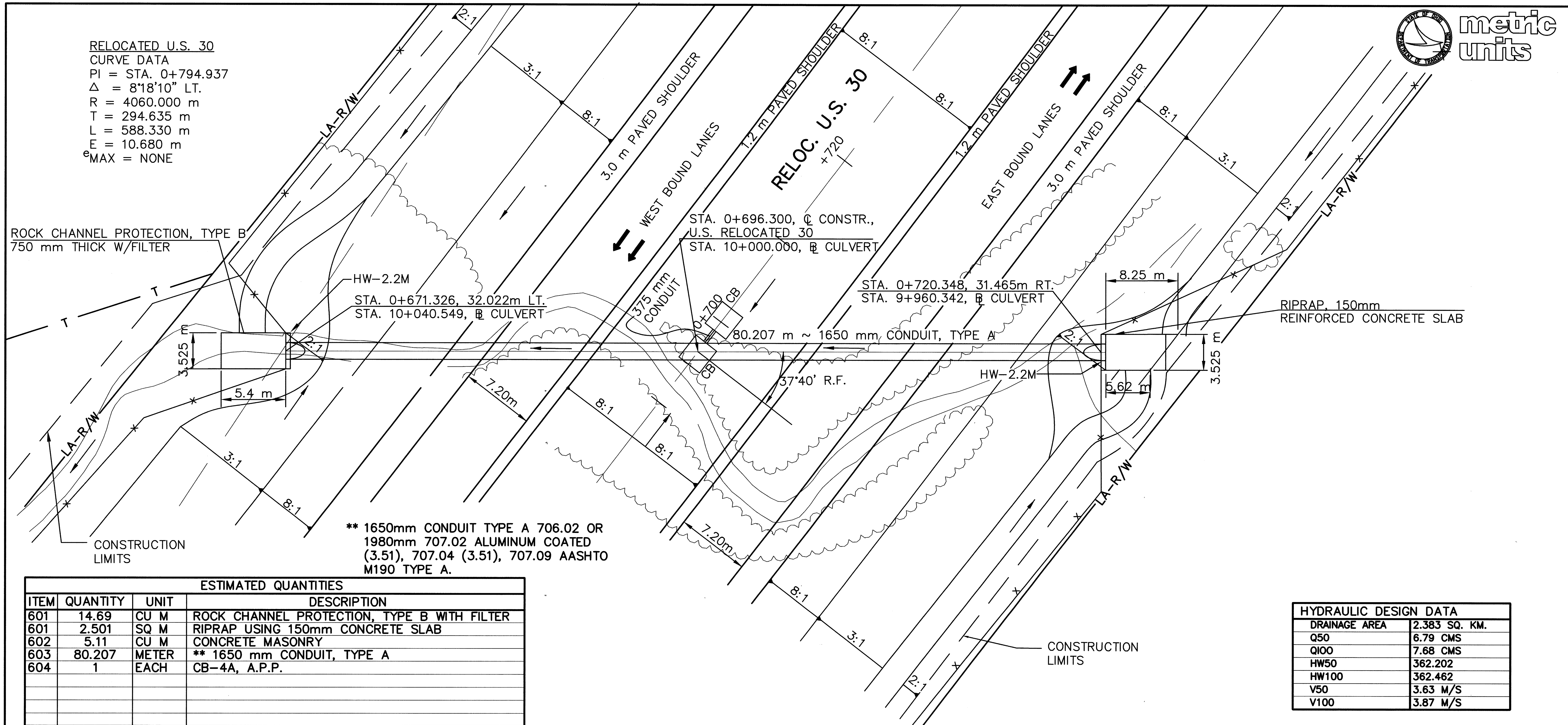
RATIO 1:200
HORIZONTAL SCALE IN METERS

CALCULATED TM
CHECKED WS

CULVERT NO. 2
RELOC. U.S. 30 STA. 35+814.711

CRA/RIC-30-33.500/0.000

DD102.DWG
08-16-2000 8:09 AM
1:200M

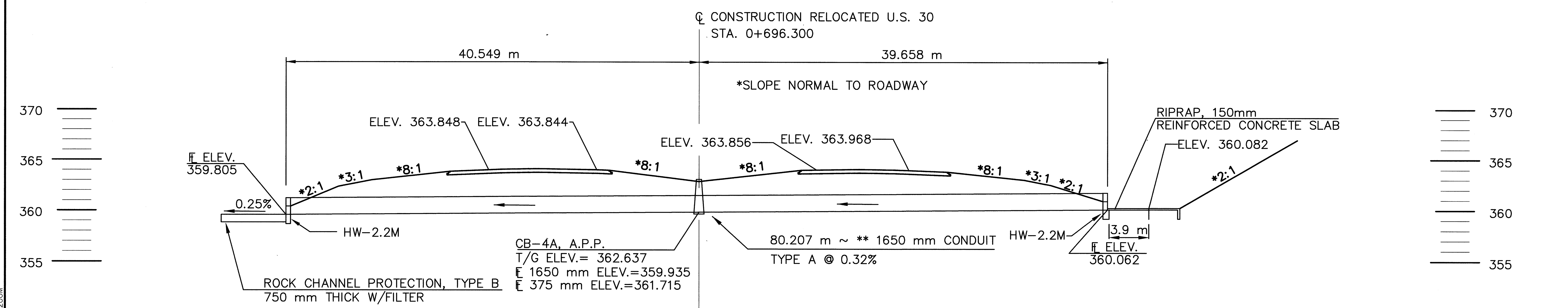


** 1650mm CONDUIT TYPE A 706.02 OR 1980mm 707.02 ALUMINUM COATED (3.51), 707.04 (3.51), 707.09 AASHTO M190 TYPE A.

ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
601	14.69	CU M	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER
601	2.501	SQ M	RIPRAP USING 150mm CONCRETE SLAB
602	5.11	CU M	CONCRETE MASONRY
603	80.207	METER	** 1650 mm CONDUIT, TYPE A
604	1	EACH	CB-4A, A.P.P.

QUANTITIES CARRIED TO SUBSUMMARY SHEET 67

HYDRAULIC DESIGN DATA	
DRAINAGE AREA	2.383 SQ. KM.
Q50	6.79 CMS
Q100	7.68 CMS
HW50	362.202
HW100	362.462
V50	3.63 M/S
V100	3.87 M/S



metric units

RATIO 1:200
HORIZONTAL SCALE IN METERS

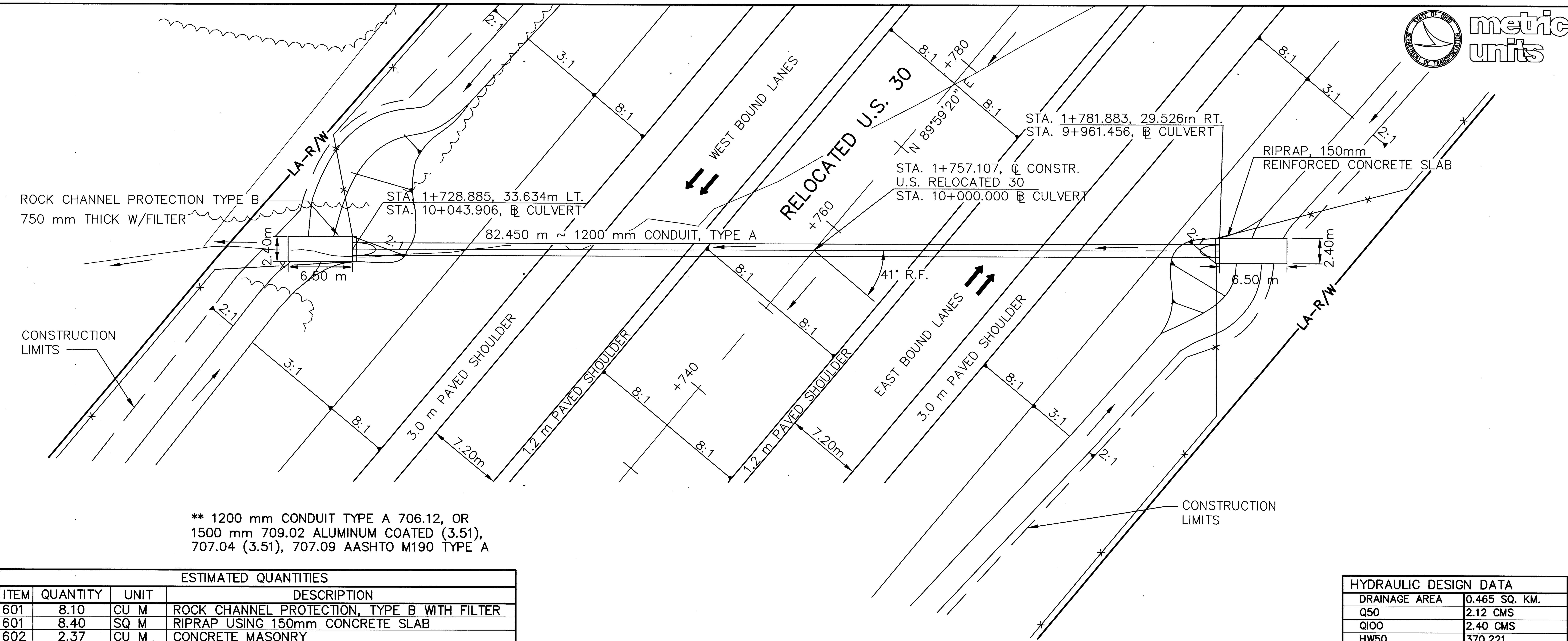
CALCULATED TM
CHECKED WS

CULVERT NO. 3
RELOC. U.S. 30 STA. 0+696.300

CRA/RIC-30-33.500/0.000

444
712

DD103.DWG
09-28-2000 3:15 PM
1:200M

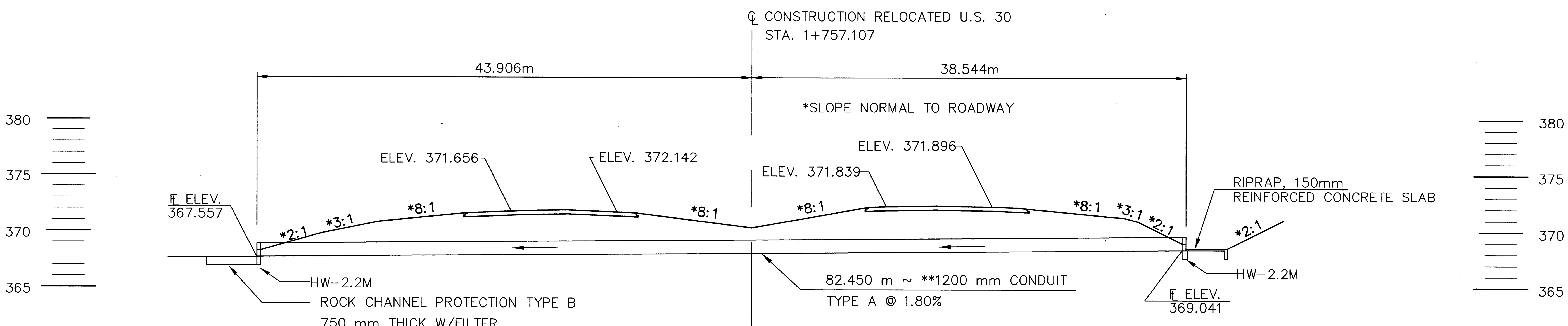


** 1200 mm CONDUIT TYPE A 706.12, OR
1500 mm 709.02 ALUMINUM COATED (3.51),
707.04 (3.51), 707.09 AASHTO M190 TYPE A

ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
601	8.10	CU M	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER
601	8.40	SQ M	RIPRAP USING 150mm CONCRETE SLAB
602	2.37	CU M	CONCRETE MASONRY
603	82.450	METER	**1200 mm CONDUIT, TYPE A

QUANTITIES CARRIED TO SUBSUMMARY SHEET 67

HYDRAULIC DESIGN DATA	
DRAINAGE AREA	0.465 SQ. KM.
Q50	2.12 CMS
Q100	2.40 CMS
HW50	370.221
HW100	370.321
V50	4.56 M/S
V100	4.71 M/S



RATIO 1:200
HORIZONTAL SCALE IN METERS
0 5 10

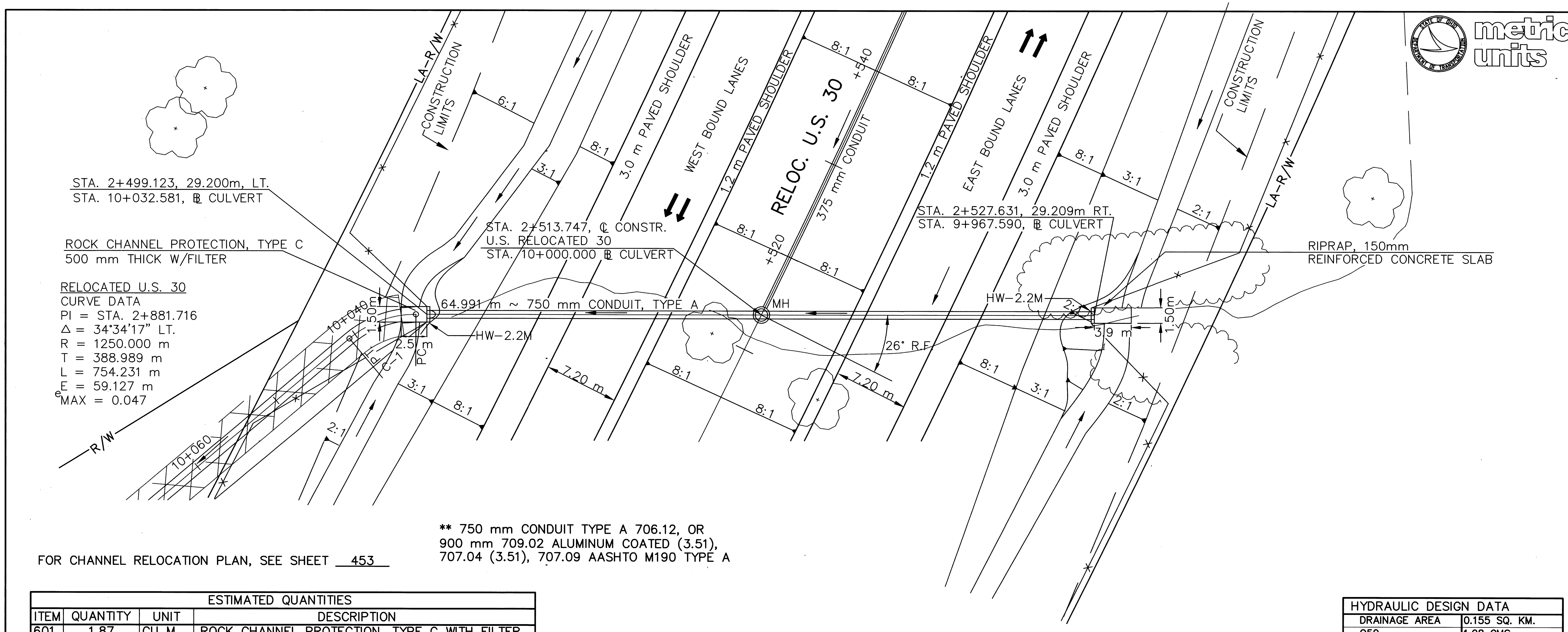
CALCULATED TM
CHECKED WS

CULVERT NO. 4
RELOC. U.S. 30 STA. 1+757.107

CRA/RIC-30-33.500/0.000

445
712

DD104.DWG
03-30-1999 3:15 PM
1:200M



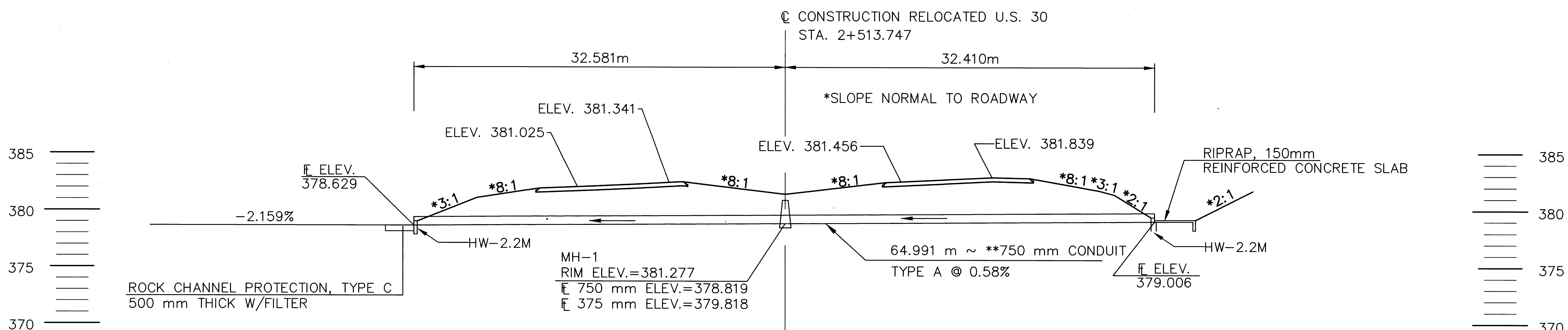
** 750 mm CONDUIT TYPE A 706.12, OR
900 mm 709.02 ALUMINUM COATED (3.51),
707.04 (3.51), 707.09 AASHTO M190 TYPE A

FOR CHANNEL RELOCATION PLAN, SEE SHEET 453

ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
601	1.87	CU M	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER
601	5.85	SQ M	RIPRAP USING 150mm CONCRETE SLAB
602	1.18	CU M	CONCRETE MASONRY
603	64.991	METER	**750 mm CONDUIT, TYPE A

QUANTITIES CARRIED TO SUBSUMMARY SHEET 67

HYDRAULIC DESIGN DATA	
DRAINAGE AREA	0.155 SQ. KM.
Q50	1.08 CMS
Q100	1.24 CMS
HW50	380.146
HW100	380.426
V50	2.64 M/S
V100	2.89 M/S



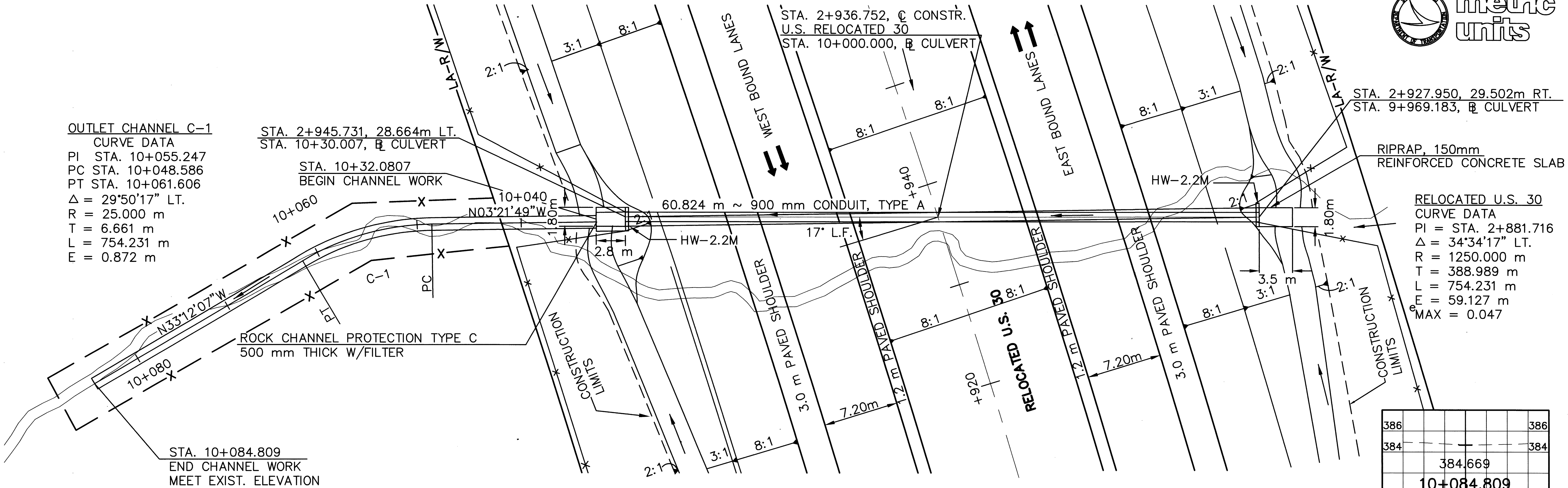
RATIO 1:200
HORIZONTAL SCALE IN METERS

CALCULATED TM
CHECKED WS

CULVERT NO. 5
RELOC. U.S. 30 STA. 2+513.747

CRA/RIC-30-33.500/0.000

DD105.DWG
03-30-1999 3:49 PM



** 900 mm CONDUIT TYPE A 706.12, OR
1200 mm 709.02 ALUMINUM COATED (3.51),
707.04 (3.51), 707.09 AASHTO M190 TYPE A

ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT	DESCRIPTION
601	2.52	CU M	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER
601	6.80	SQ M	RIPRAP USING 150mm CONCRETE SLAB
602	1.53	CU M	CONCRETE MASONRY
603	60.824	METER	**900 mm CONDUIT, TYPE A
203	16	CU M	EXCAVATION, NOT INCLUDING EMBANKMENT CONSTRUCTION
203	0	CU M	EMBANKMENT
870	406	SQ M	SEEDING AND MULCHING

QUANTITIES CARRIED TO SUBSUMMARY SHEET 67

HYDRAULIC DESIGN DATA

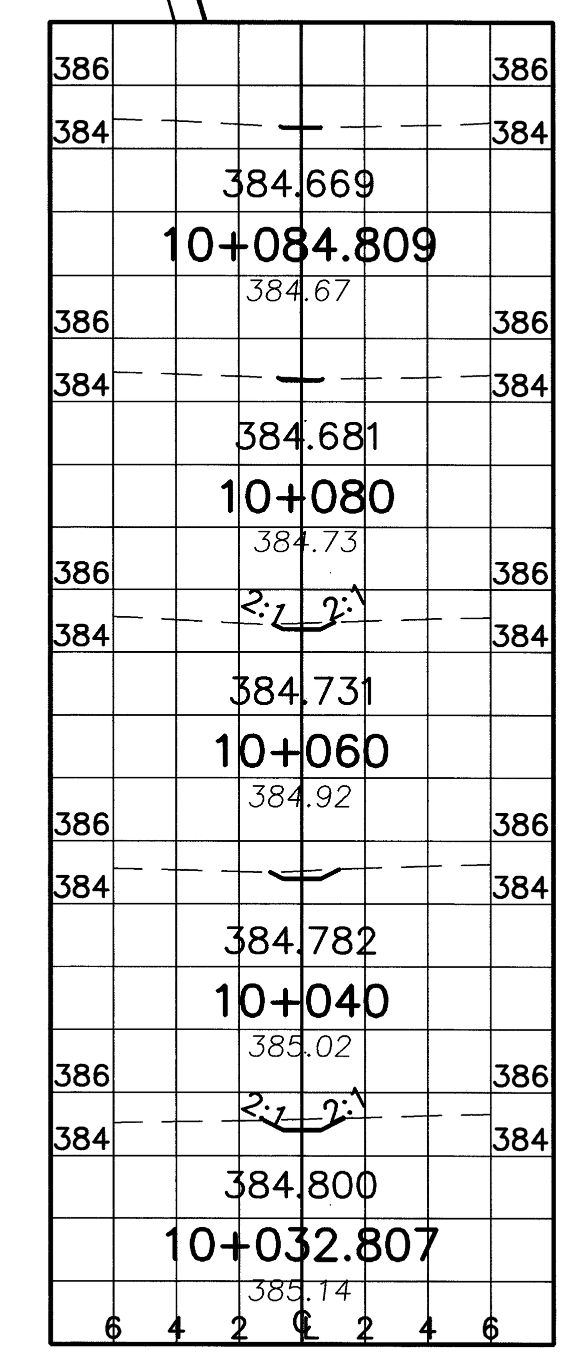
DRAINAGE AREA	0.178 SQ. KM.
Q50	1.19 CMS
Q100	1.35 CMS
HW50	385.999
HW100	386.129
V50	2.39 M/S
V100	2.55 M/S

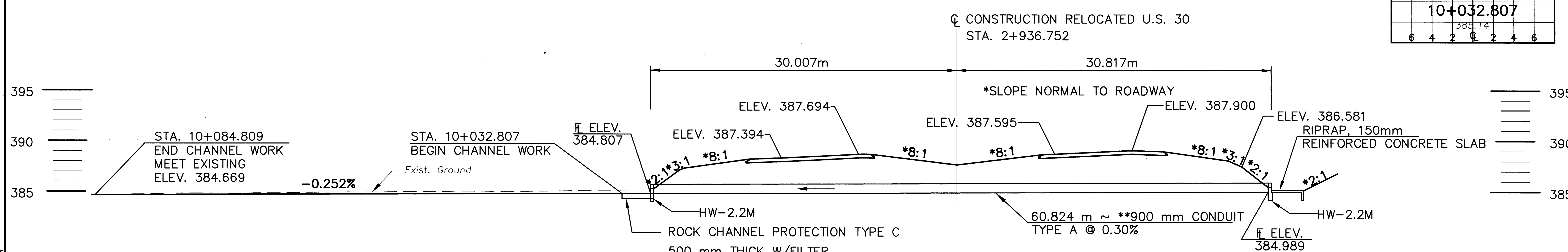
CHANNEL SEEDING TABLE

STA.	WIDTH	AREA
10+032.807	8.5	
		59
10+040	8.0	
		160
10+060	8.0	
		155
10+080	7.5	
		32
10+084.809	6.0	
TOTAL		406

CHANNEL EARTHWORK TABLE

STA.	AREA		VOLUME	
	CUT	FILL	CUT	FILL
10+032.807	0.6	0.0		
			4	0.0
10+040	0.4	0.0		
			7	0.0
10+060	0.3	0.0		
			4	0.0
10+080	0.1	0.0		
			1	0.0
10+084.809	0.0	0.0		
TOTAL			16	0





CULVERT NO. 6
RELOC. U.S. 30 STA. 2+936.752

RATIO 1:200
HORIZONTAL SCALE IN METERS

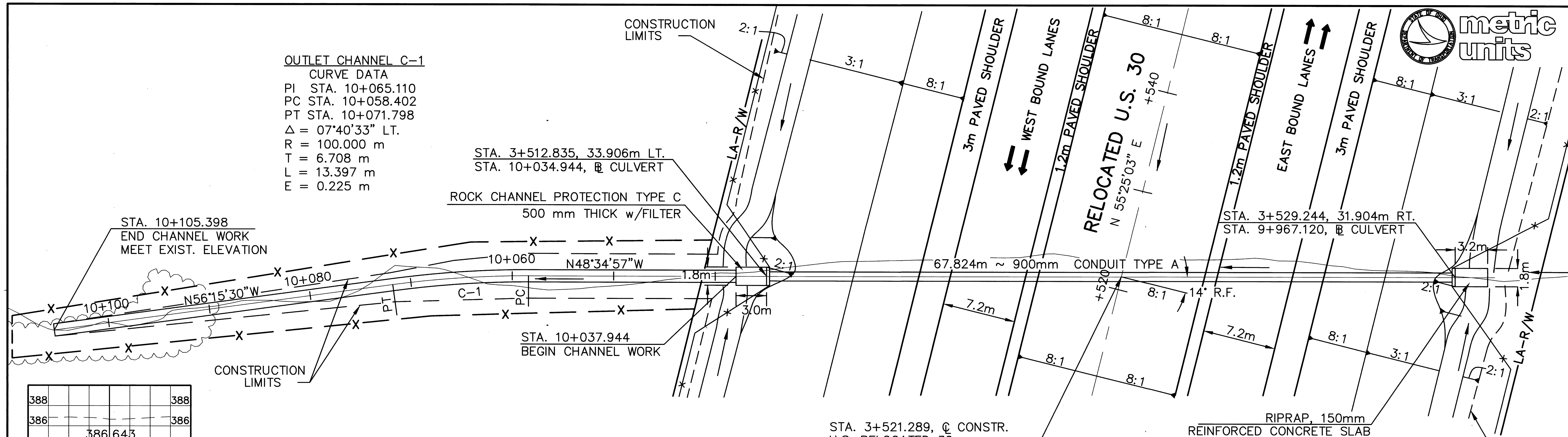
CALCULATED TM
CHECKED WS

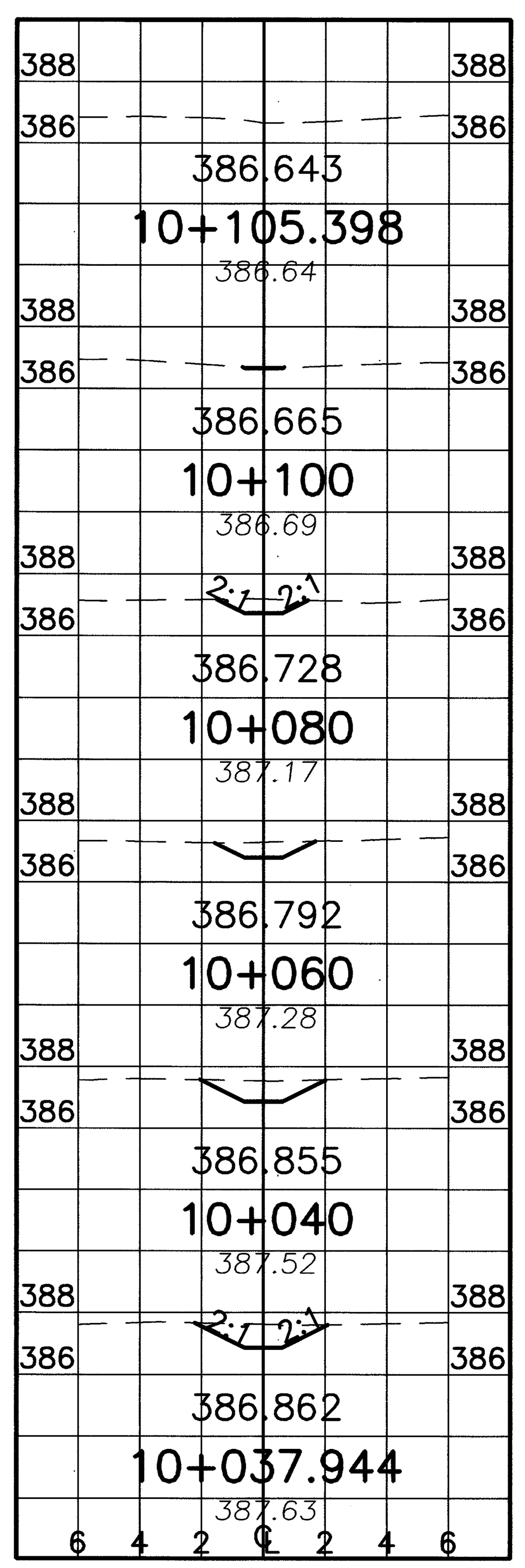
metric units

CRA/RIC-30-33.500/0.000

447
712

DD106.DWG
08-15-2000 3:05 PM
1:200M





CHANNEL EARTHWORK TABLE				
STA.	AREA		VOLUME	
	CUT	FILL	CUT	FILL
10+037.944	2.1	0.0		
			4	0.0
10+040	1.8	0.0		
			29	0.0
10+060	1.1	0.0		
			20	0.0
10+080	0.9	0.0		
			10	0.0
10+100	0.1	0.0		
			1	0.0
10+105.398	0.1	0.0		
TOTAL			64	0

CHANNEL SEEDING TABLE		
STA.	WIDTH	AREA
10+037.944	10.5	
		21
10+040	10.0	
		195
10+060	9.5	
		185
10+080	9.0	
		165
10+100	7.5	
		36
10+105.398	6	
TOTAL		602

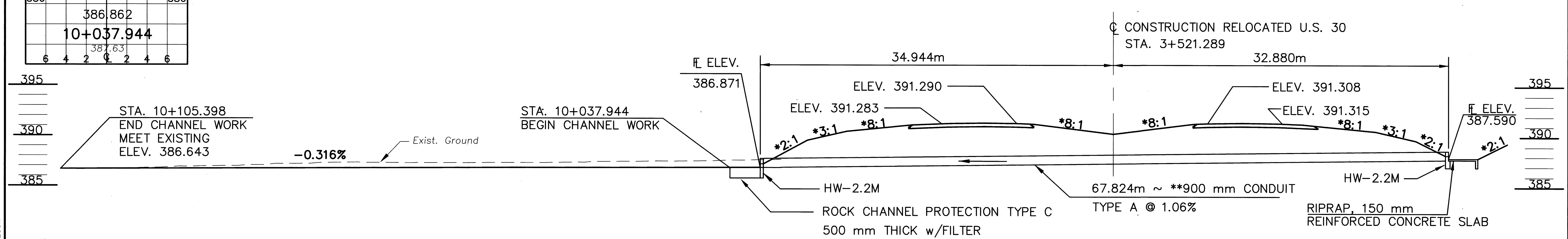
HYDRAULIC DESIGN DATA	
DRAINAGE AREA	0.178 SQ. KM.
Q50	1.23 CMS
Q100	1.41 CMS
HW50	388.590
HW100	388.700
V50	3.25 M/S
V100	3.36 M/S

** 900 mm CONDUIT TYPE A 706.12, OR
1200 mm 709.02 ALUMINUM COATED (3.51),
707.04 (3.51), 707.09 AASHTO M190 TYPE A

ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
601	2.70	CU M	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER
601	5.76	SQ M	RIPRAP USING 150mm CONCRETE SLAB
602	1.49	CU M	CONCRETE MASONRY
603	67.824	METER	**900 mm CONDUIT, TYPE A
203	64	CU M	EXCAVATION, NOT INCLUDING EMBANKMENT CONSTRUCTION
203	0	CU M	EMBANKMENT
870	602	SQ M	SEEDING AND MULCHING

QUANTITIES CARRIED TO SUBSUMMARY SHEET 67

* SLOPE NORMAL TO ROADWAY



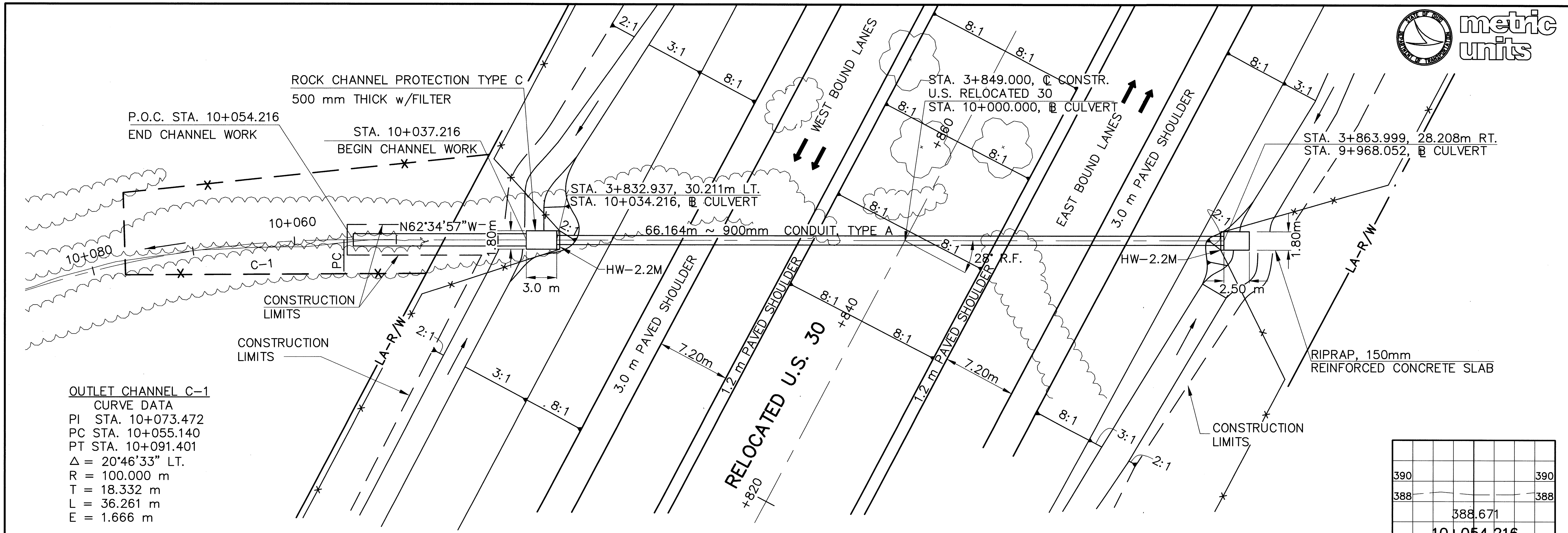
RATIO 1:200
HORIZONTAL SCALE IN METERS

CALCULATED TM
CHECKED WS

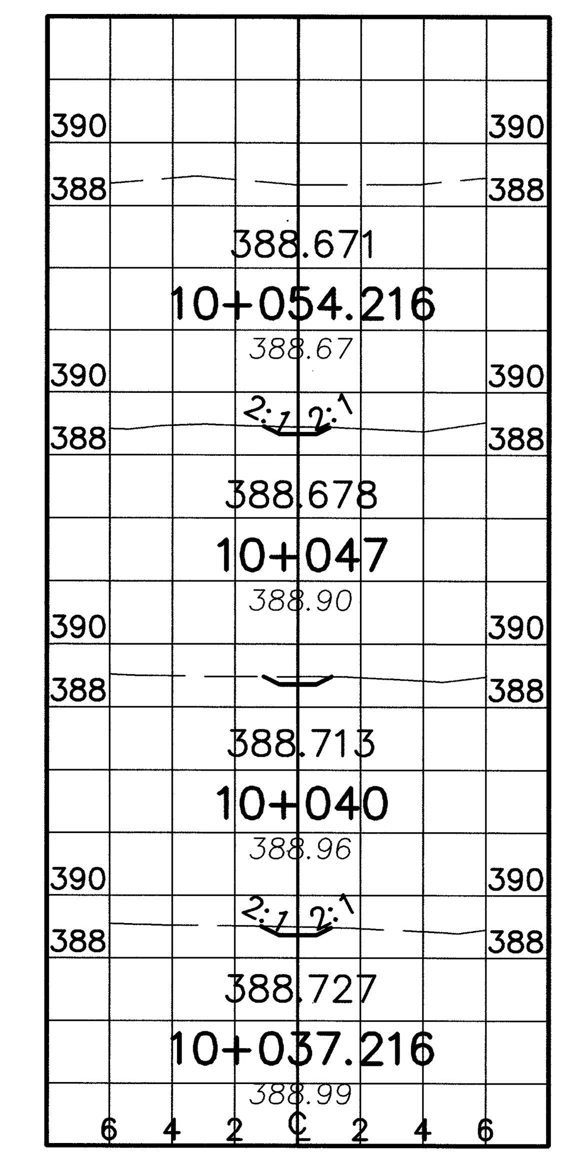
CULVERT NO.7
RELOC. U.S. 30 STA. 3+521.289

CRA/RIC-30-33.500/0.000

DD107.DWG
08-15-2000 3:06 PM
1:200M



OUTLET CHANNEL C-1
CURVE DATA
PI STA. 10+073.472
PC STA. 10+055.140
PT STA. 10+091.401
Δ = 20°46'33" LT.
R = 100.000 m
T = 18.332 m
L = 36.261 m
E = 1.666 m



ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
601	2.70	CU M	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER
601	4.50	SQ M	RIPRAP, 150mm REINFORCED CONCRETE SLAB
602	1.53	CU M	CONCRETE MASONRY
603	66.164	METER	**900 mm CONDUIT, TYPE A
203	6	CU M	EXCAVATION, NOT INCLUDING EMBANKMENT CONSTRUCTION
203	0	CU M	EMBANKMENT
870	47	SQ M	SEEDING AND MULCHING

QUANTITIES CARRIED TO SUBSUMMARY SHEETS 66 & 67

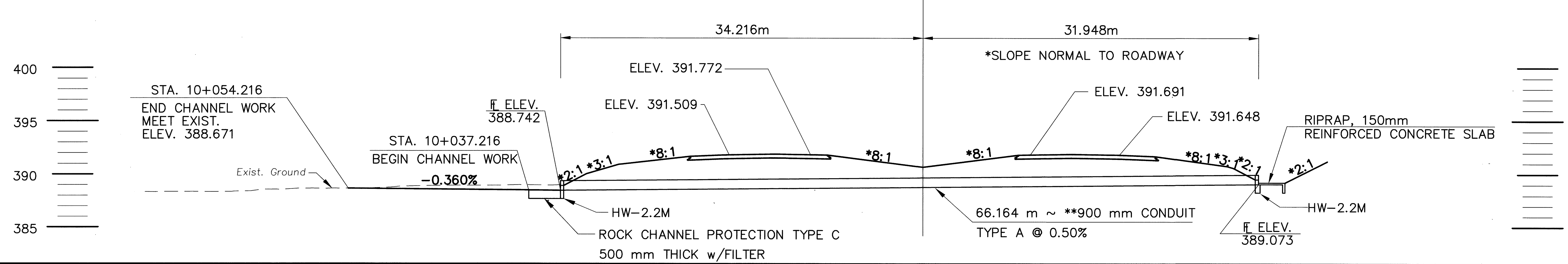
** 900 mm CONDUIT TYPE A 706.12, OR 1200 mm 709.02 ALUMINUM COATED (3.51), 707.04 (3.51), 707.09 AASHTO M190 TYPE A

HYDRAULIC DESIGN DATA	
DRAINAGE AREA	0.155 SQ. KM.
Q50	1.17 CMS
Q100	1.35 CMS
HW50	390.032
HW100	390.142
V50	2.42 M/S
V100	2.55 M/S

CHANNEL SEEDING TABLE		
STA.	WIDTH	AREA
10+037.216	4.0	
		11
10+040	4.0	
		25
10+047	3.0	
		11
10+054.216	0.0	
TOTAL		47

CHANNEL EARTHWORK TABLE				
STA.	AREA		VOLUME	
	CUT	FILL	CUT	FILL
10+037.216	0.5	0.0		
			1	0.0
10+040	0.4	0.0		
			3	0.0
10+047	0.4	0.0		
			2	0.0
10+054.216	0.0	0.0		
TOTAL			6	0

NOTE:
FOR ADDITIONAL CHANNEL DETAILS AND LANDSCAPE PLAN, SEE SHEETS 452A & 452B.



RATIO 1:200
HORIZONTAL SCALE IN METERS
CALCULATED TM
CHECKED WS

CULVERT NO.8
RELOC. U.S. 30 STA. 3+849.000

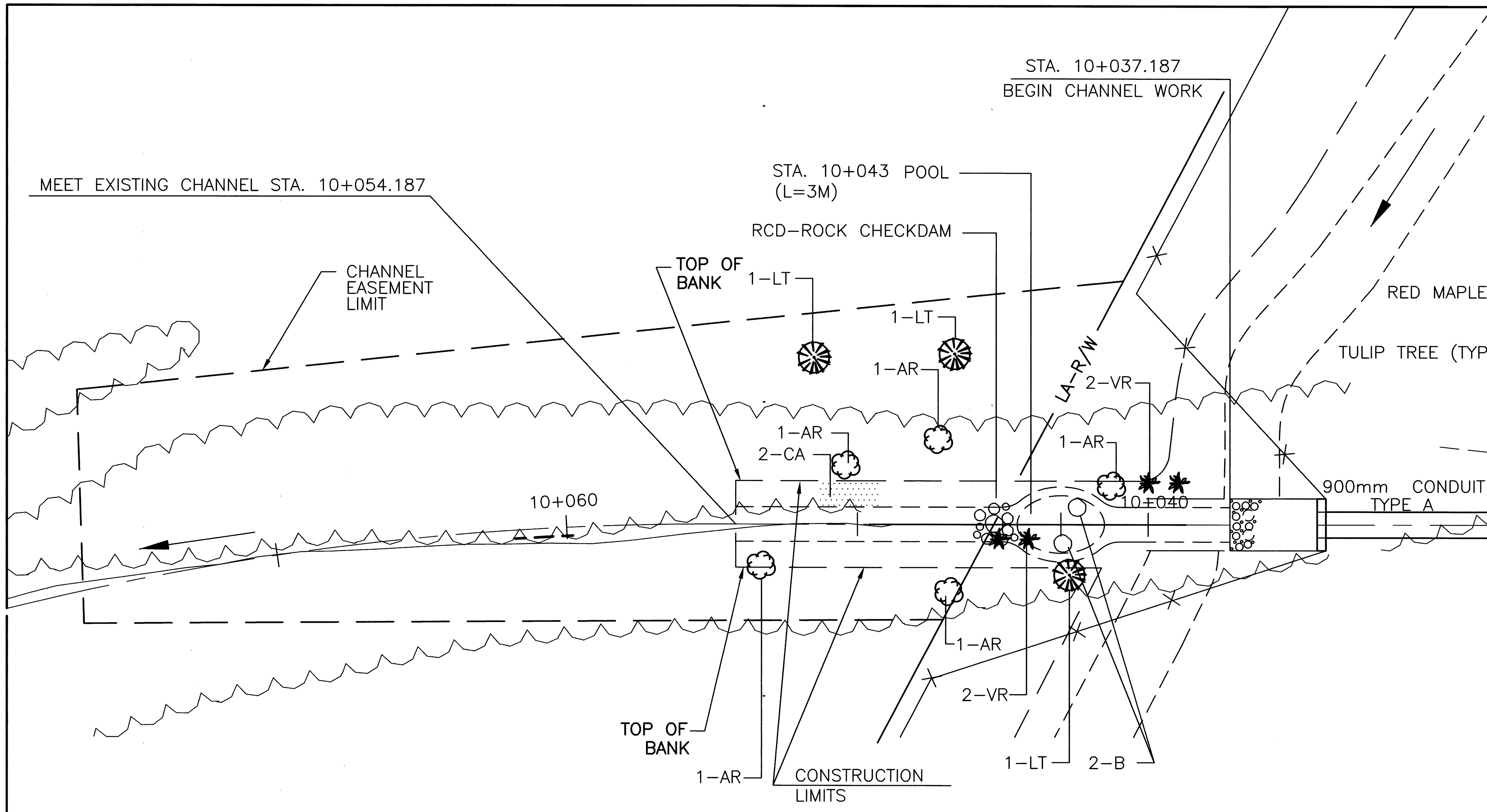
CRA/RIC-30-33.500/0.000

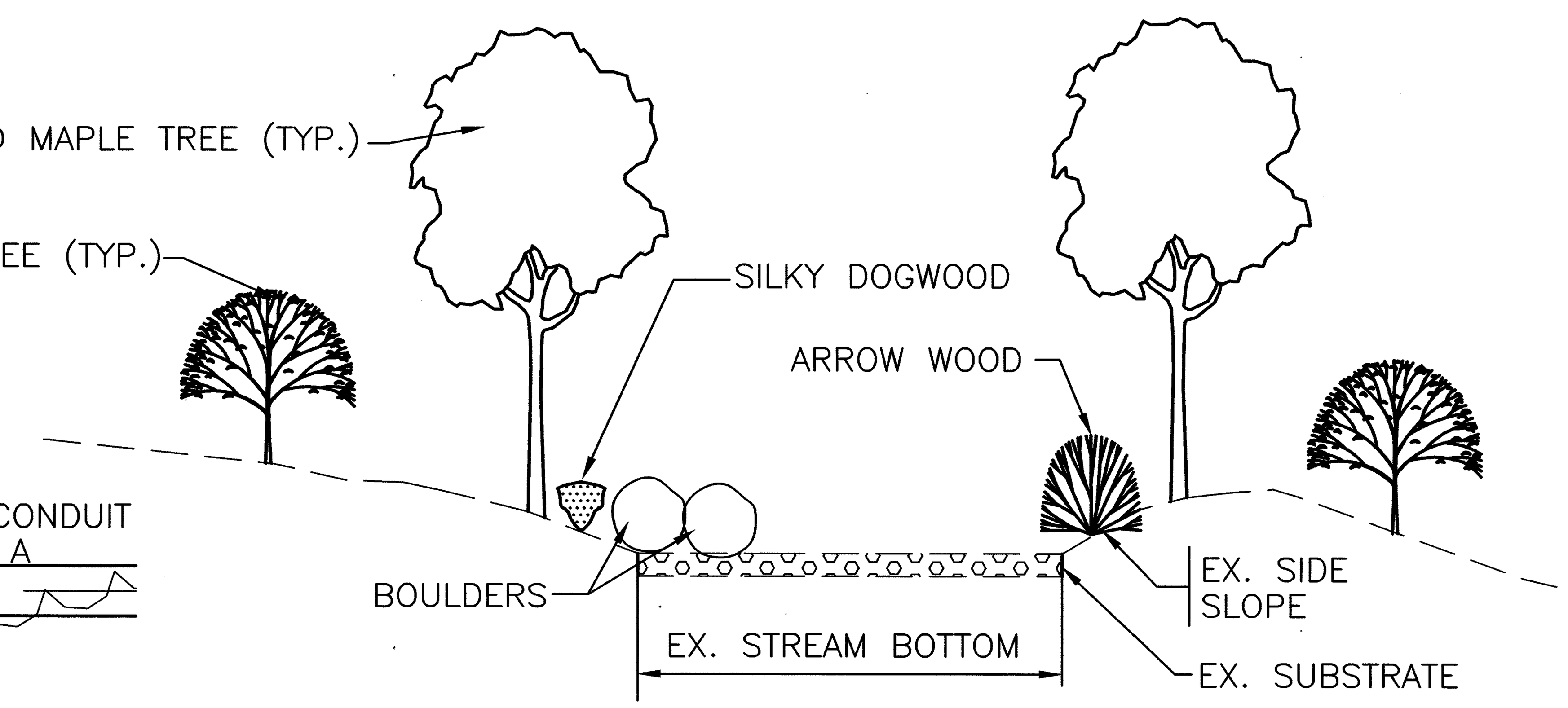
DD108.DWG 12-18-2000 10:11 AM 1:200M

CULVERT NO. 8 STA 3+849 OUTLET CHANNEL LANDSCAPING PLAN

LEGEND

- TULIP TREE
- BOULDERS
- EXISTING WOODS
- RED MAPLE TREE
- SILKY DOGWOOD
- ARROW WOOD



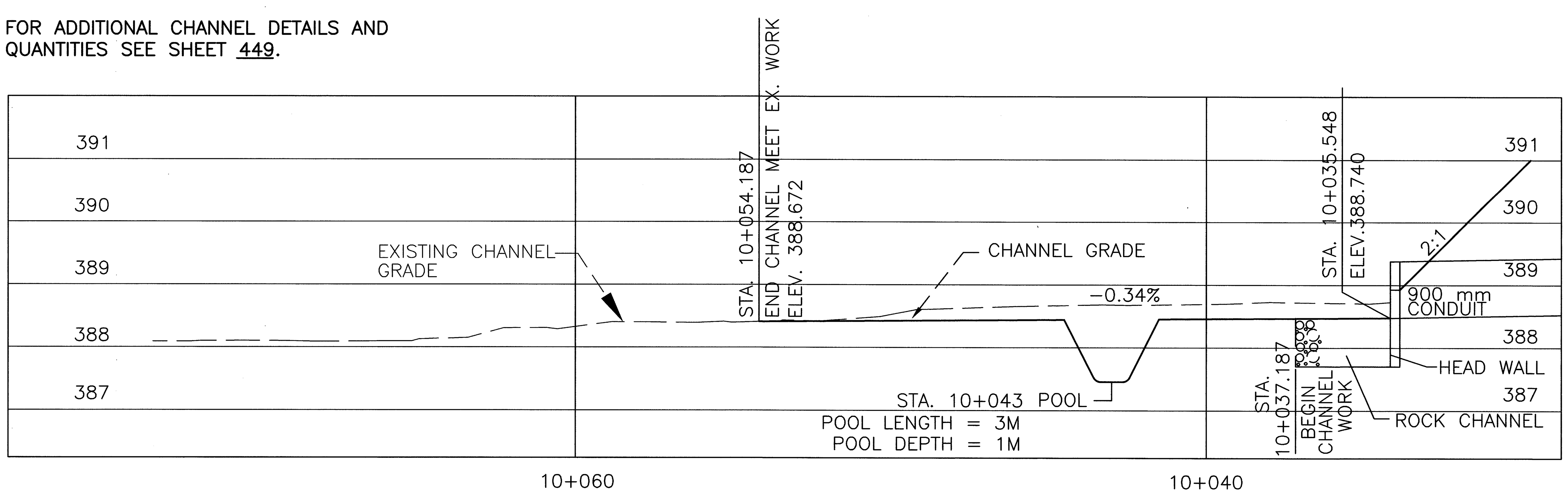


TYPICAL CHANNEL SECTION

ESTIMATED QUANTITIES					
KEY	ITEM	QUANTITY	UNIT	DESCRIPTION	
					SIZE
B	SPECIAL	2	EACH	MISC: BOULDER	
CA	661	2	EACH	PLANTING, MISC: CORNUS AMOMUM (SILKY DOGWOOD TREE)	3.8L (1GAL)
LT	661	3	EACH	PLANTING, MISC: LIRIODENDRON TULIPIFERA (TULIP TREE)	3.8L (1GAL)
AR	661	5	EACH	PLANTING, MISC: ACER RUBRUM (RED MAPLE TREE)	3.8L (1GAL)
DRF	601	5	CU. M.	DUMPED ROCK, TYPE D, AS PER PLAN	
VR	661	4	EACH	PLANTING, MISC. VIBURNUM RECOGNITUM (ARROW WOOD)	3.8L (1GAL)
RCD	601	5	CU. M.	ROCK CHANNEL PROTECTION, TYPE C, WITHOUT FILTER	

QUANTITIES CARRIED TO SUBSUMMARY SHEETS 58 & 61A

FOR ADDITIONAL CHANNEL DETAILS AND QUANTITIES SEE SHEET 449.



NOTES:

1. ITEM 601 DUMPED ROCK FILL, TYPE D, AS PER PLAN, SHALL BE BE SOUND ROCK OR STONE ONLY AS PER SECTION 601.07 AND SHALL BE 0.05M TO 0.10M IN SIZE FOR USE AS SUBSTRATE OR RIFFLE. EXISTING BOULDERS AND COBBLE/GRAVEL SUBSTRATE WITHIN THE STREAM CHANNEL SHALL BE STOCKED FOR REPLACEMENT IN THE MODIFIED STREAM CHANNEL. MATERIAL IN THE EXISTING STREAM CHANNEL SHALL BE EXCAVATED TO A DEPTH OF 0.15 m PRIOR TO CONSTUCTION, PLACED IN AN UPLAND LOCATION AWAY FROM THE STREAM DURING CONSTRUCTION, AND RETURNED TO THE MODIFIED CHANNEL AT APPROXIMATELY THE SAME DEPTH (i.e. 0.15 m) AFTER CONSTRUCTION.

2. SEEDING AND MULCHING, ROADSIDE MIX, CLASS "1", SHALL BE PLACED ON ALL DISTURBED AREAS AND SIDESLOPES OF THE CHANNEL. FOR LANDSCAPING CHANNEL SECTIONS, SEE SHEET No. 449B.

3. THE PROPOSED CHANNEL SHALL REMAIN WITHIN THE EXISTING BANKS.

4. EVERY ATTEMPT SHALL BE MADE TO PRESERVE TREES, SHRUBS, AND OTHER ESTABLISHED VEGETATION WITHIN THE EASEMENT/MITIGATION AREA, ESPECIALLY ALONG THE EXISTING BANKS OF THE CHANNEL. STUMPS AND OTHER PARTIALLY DESTROYED VEGETATION SHOULD REMAIN TO ENSURE STABILIZED BANKS AND POTENTIALLY REGROW NATURALLY.

5. AN ATTEMPT SHOULD BE MADE TO MAINTAIN THE BANKS IN THEIR CURRENT STATE; THEY SHOULD NOT BE BROADENED, GRADED OUT OR TAPERED.

6. TEMPORARY CONSTRUCTION FENCE SHALL BE ADDED TO ALL AREAS OUTSIDE OF THE CONSTRUCTION ZONE SURROUNDING THE STREAM AS DIRECTED BY THE ENGINEER.

7. THE LARGE BOULDERS SHOULD BE KEYED INTO THE STREAM BOTTOM. USUAL DEPTH EQUALS 1/4 TO 1/3 THE HEIGHT OF THE INDIVIDUAL BOULDER.

8. THE AREAS ADJACENT TO THE STREAM SHALL BE PLANTED WITH ARROW WOOD AND SILKY DOGWOOD AT A SPACING OF 1 PER SQ. METER. RED MAPLE, TULIP AND BLACK WILLOW TREES SHALL BE PLANTED AT A SPACING OF 1 PER 4–6 METERS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

metric units

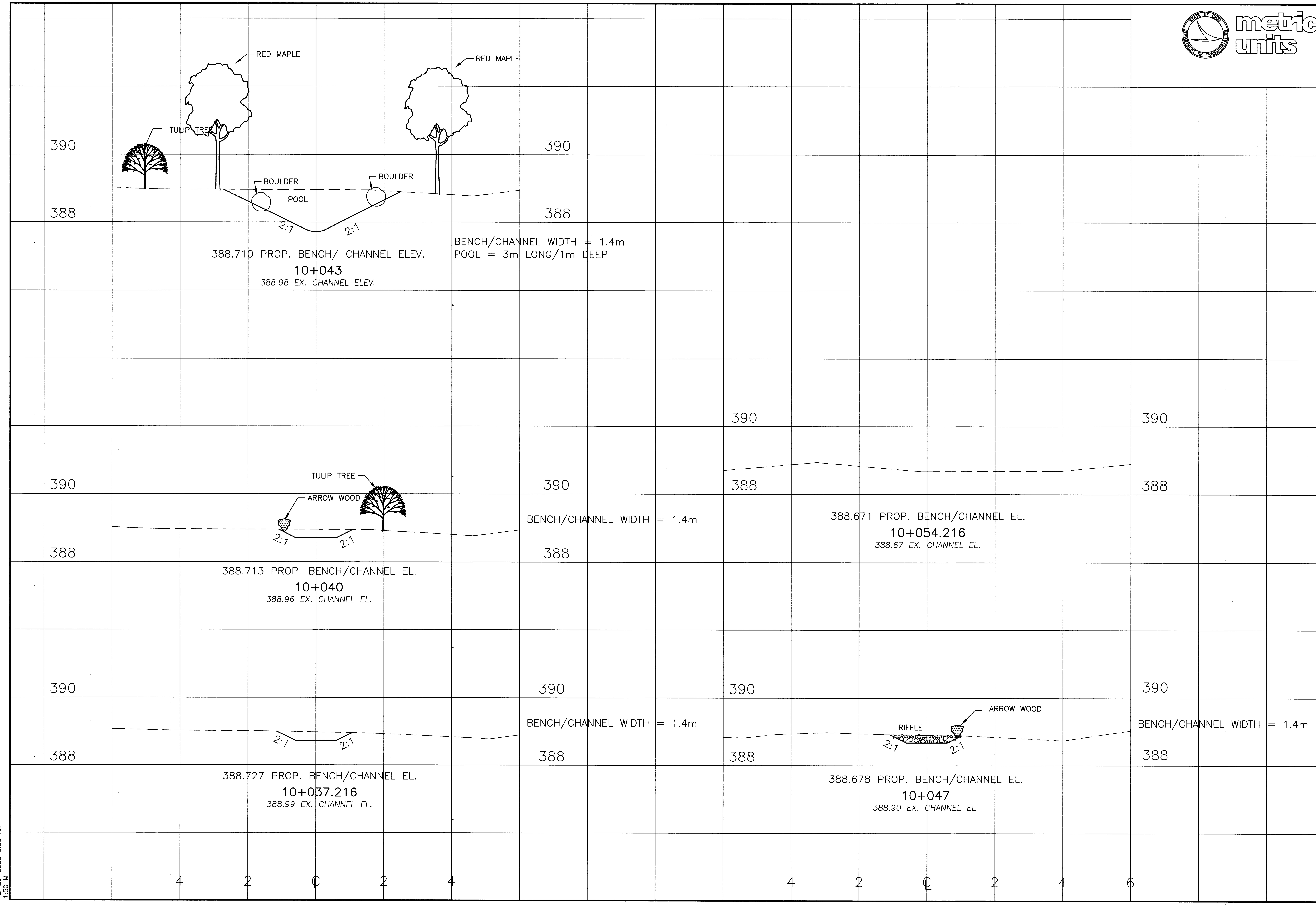
RATIO 1:100
HORIZONTAL SCALE IN METERS

CALCULATED FJB
CHECKED LBD

CRA/RIC-30-33.500/0.000

449A
712

3+849.DWG 12-15-2000 8:26 AM
1:100 M



RATIO 1:50
HORIZONTAL SCALE IN METERS

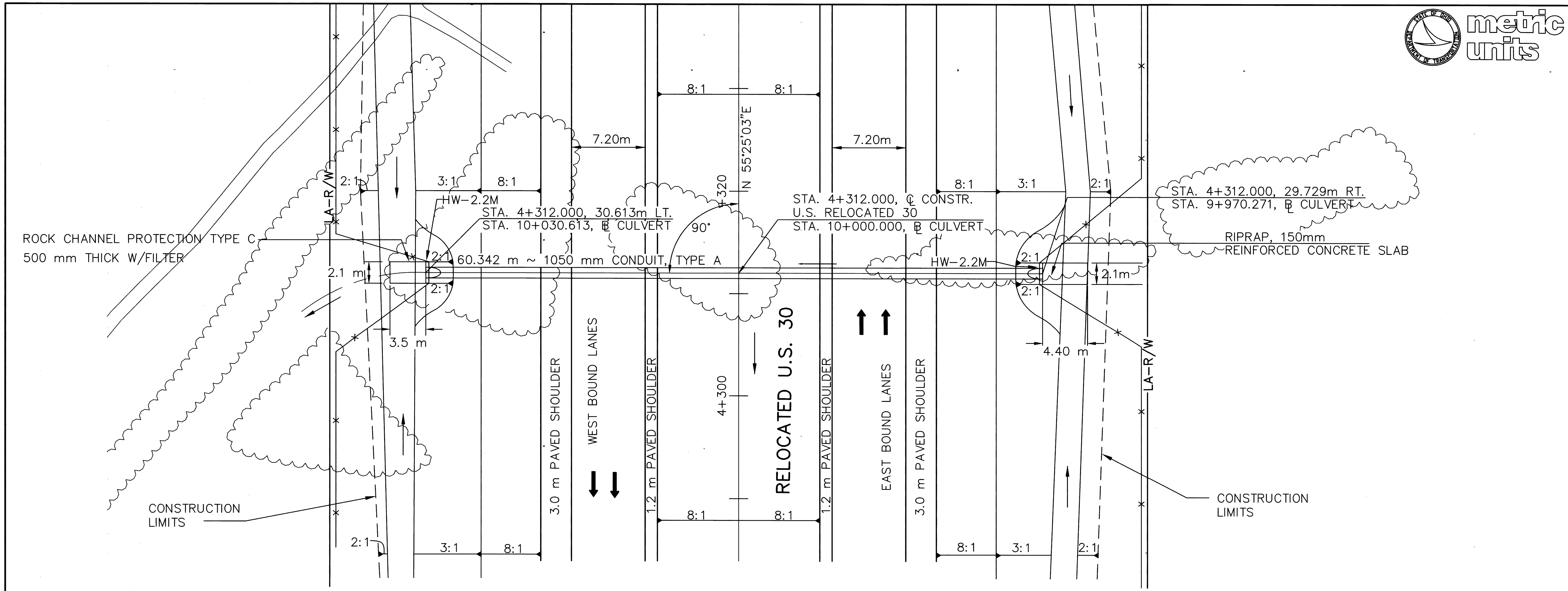
CALCULATED JPS
CHECKED WS

CULVERT NO. 8 LANDSCAPING CROSS-SECTIONS
STA. 10+037.216 TO STA. 10+054.216

CRA/RIC-30-33.500/0.000

449B
712

3+849_XSEC.DWG
12-26-2000 8:33 AM
1:50 M

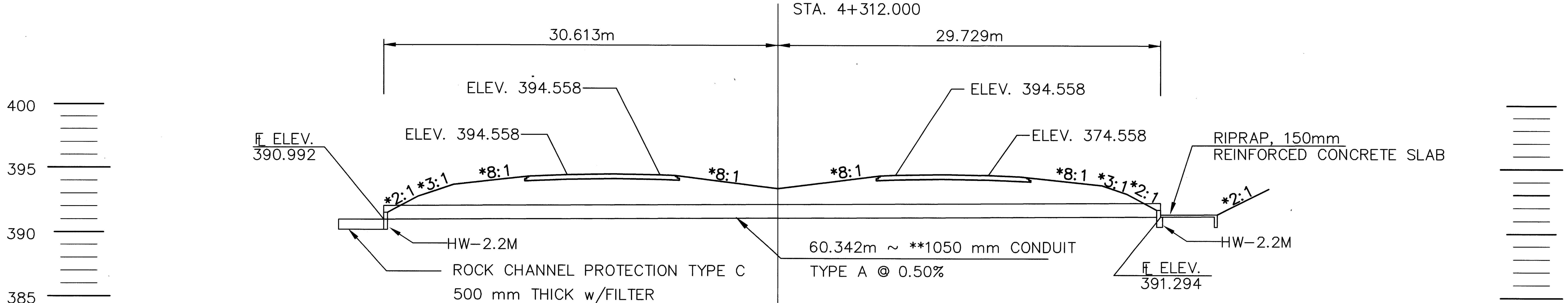


ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
601	3.68	CU M	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER
601	9.24	SQ M	RIPRAP USING 150mm CONCRETE SLAB
602	1.84	CU M	CONCRETE MASONRY
603	60.342	METER	**1050 mm CONDUIT, TYPE A

QUANTITIES CARRIED TO SUBSUMMARY SHEET 67

** 1050 mm CONDUIT TYPE A 706.12, OR 1200 mm 709.02 ALUMINUM COATED (3.51), 707.04 (3.51), 707.09 AASHTO M190 TYPE A

HYDRAULIC DESIGN DATA	
DRAINAGE AREA	0.181 SQ. KM.
Q50	1.42 CMS
Q100	1.63 CMS
HW50	392.284
HW100	392.374
V50	2.54 M/S
V100	2.65 M/S



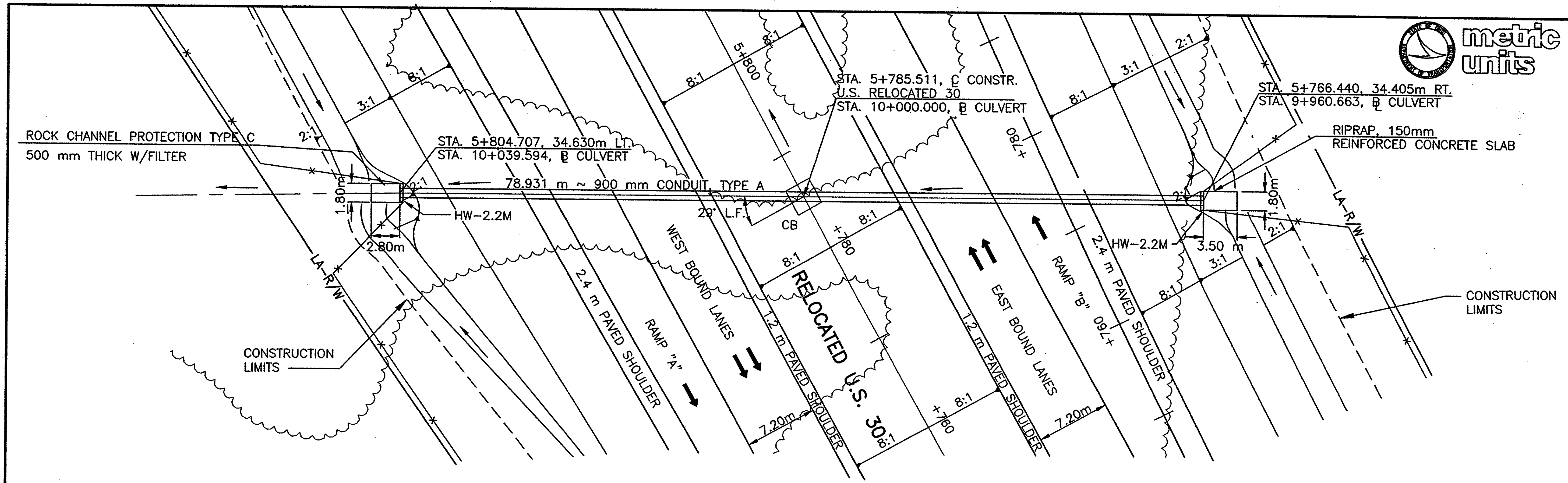
RATIO 1:200
HORIZONTAL SCALE IN METERS
0 5 10

CALCULATED TM
CHECKED WS

CULVERT NO.9
RELOC. U.S. 30 STA. 4+312.00

CRA/RIC-30-33.500/0.000

DD109.DWG
03-31-1999 9:08 AM
1:200M

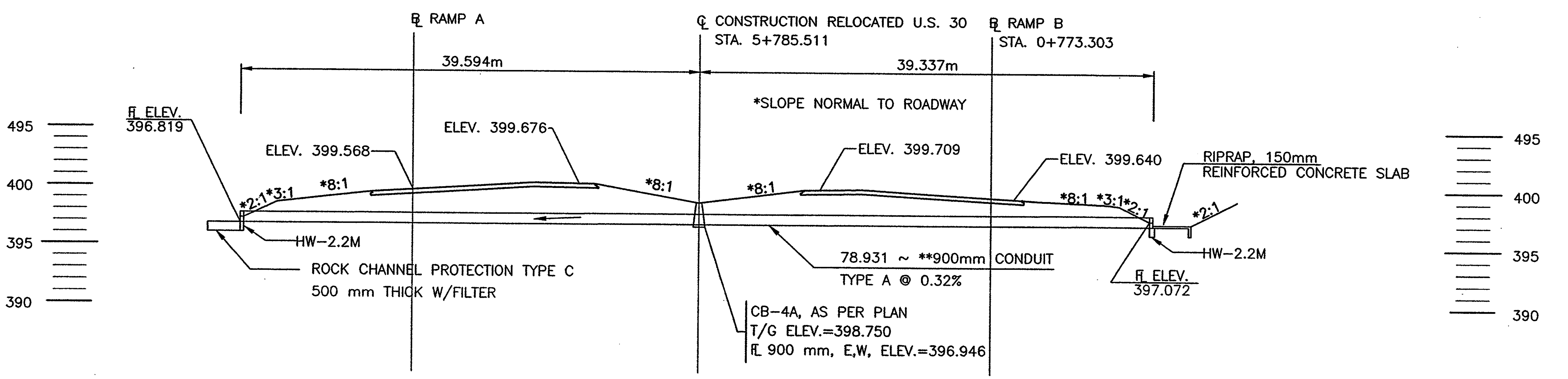


ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
601	2.52	CU M	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER
601	6.30	SQ M	RIPRAP, 150mm REINFORCED CONCRETE SLAB
602	1.49	CU M	CONCRETE MASONRY
603	78.931	METER	**900 mm CONDUIT, TYPE A
604	1	EACH	CATCH BASIN, NO. 4A, AS PER PLAN

QUANTITIES CARRIED TO SUBSUMMARY SHEET 67

** 900 mm CONDUIT TYPE A 706.12, OR 1200 mm 709.02 ALUMINUM COATED (3.51), 707.04 (3.51), 707.09 AASHTO M190 TYPE A

HYDRAULIC DESIGN DATA	
DRAINAGE AREA	0.130 SQ. KM.
Q50	1.09 CMS
Q100	1.26 CMS
HW50	398.012
HW100	398.132
V50	2.29 M/S
V100	2.45 M/S



DD110.DWG
05-30-2003 1:13 PM
1:200M

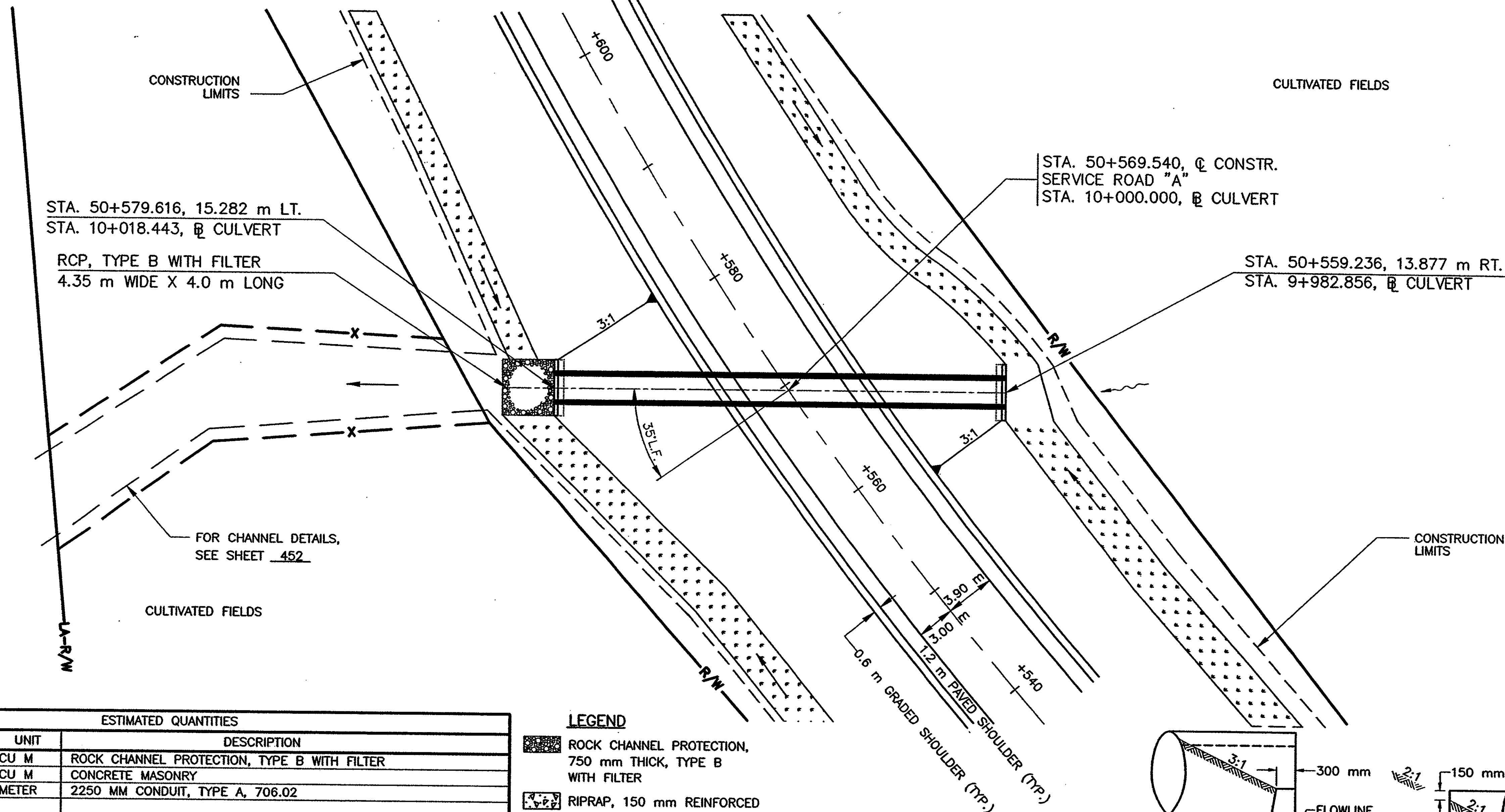
RATIO 1:200
HORIZONTAL SCALE IN METERS

CALCULATED TM
CHECKED WS

CULVERT NO.10
RELOC. U.S. 30 STA. 5+785.511

CRA/RIC-30-33.500/0.000

CULVERT DETAIL
SERVICE ROAD "A" STA. 50+569.540



SERVICE ROAD "A"
CURVE DATA
PI STA. 50+619.817
Δ = 48°02'59" RIGHT
R = 305.000 m
T = 135.954 m
L = 255.781 m
E = 28.929 m
eMAX. = 0.080

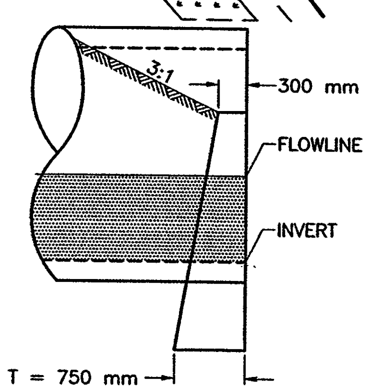
ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
601	13.05	CU M	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER
602	7.90	CU M	CONCRETE MASONRY
603	35.587	METER	2250 MM CONDUIT, TYPE A, 706.02

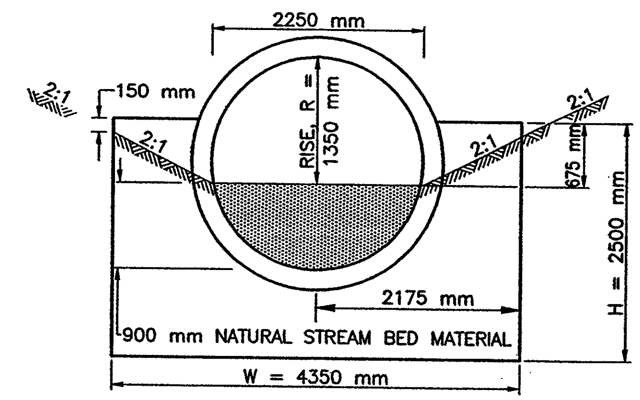
QUANTITIES CARRIED TO SUBSUMMARY SHEET 67

LEGEND
- ROCK CHANNEL PROTECTION, 750 mm THICK, TYPE B WITH FILTER
- RIPRAP, 150 mm REINFORCED CONCRETE SLAB
- DITCH EROSION PROTECTION
- FILL USING NATURAL STREAM BED MATERIAL

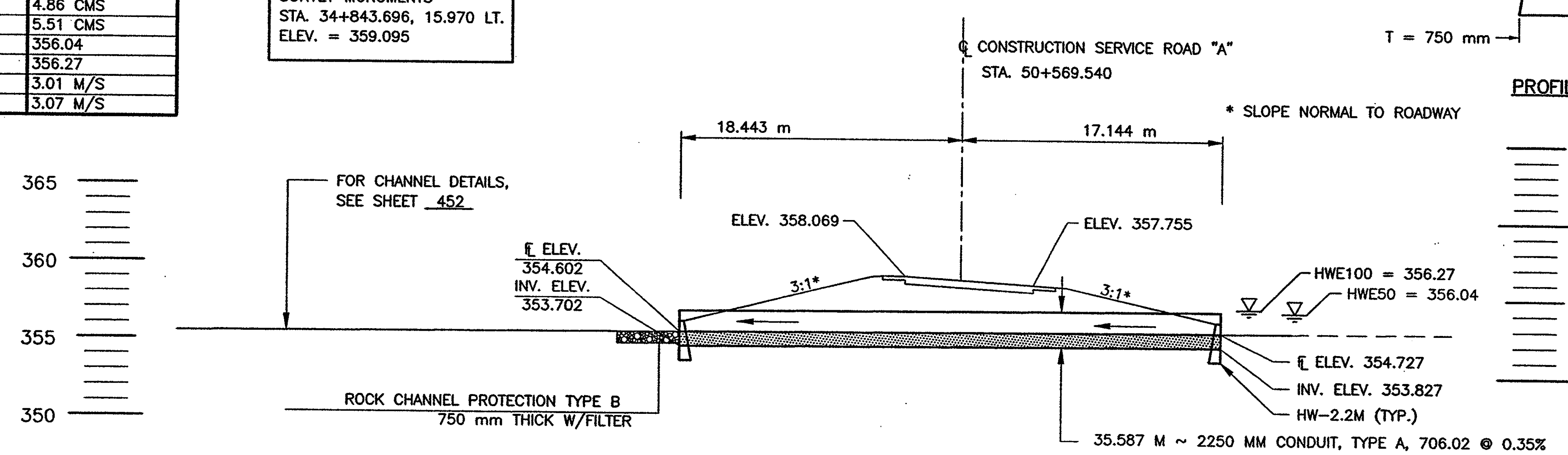
HYDRAULIC DESIGN DATA	
DRAINAGE AREA	1.425 SQ. KM.
Q50	4.86 CMS
Q100	5.51 CMS
HW50	356.04
HW100	356.27
V50	3.01 M/S
V100	3.07 M/S

BENCHMARK
TOP OF BERNTSEN FENO SURVEY MONUMENTS
STA. 34+843.696, 15.970 LT.
ELEV. = 359.095





FULL BANK DESIGN HEADWALL
CULVERT CROSS SECTION
2250 MM CONDUIT, TYPE A, 706.02
(FOR DETAILS NOT SHOWN SEE HW-2.2M)
ITEM 602 CONCRETE MASONRY = 3.95 CU M



PROFILE

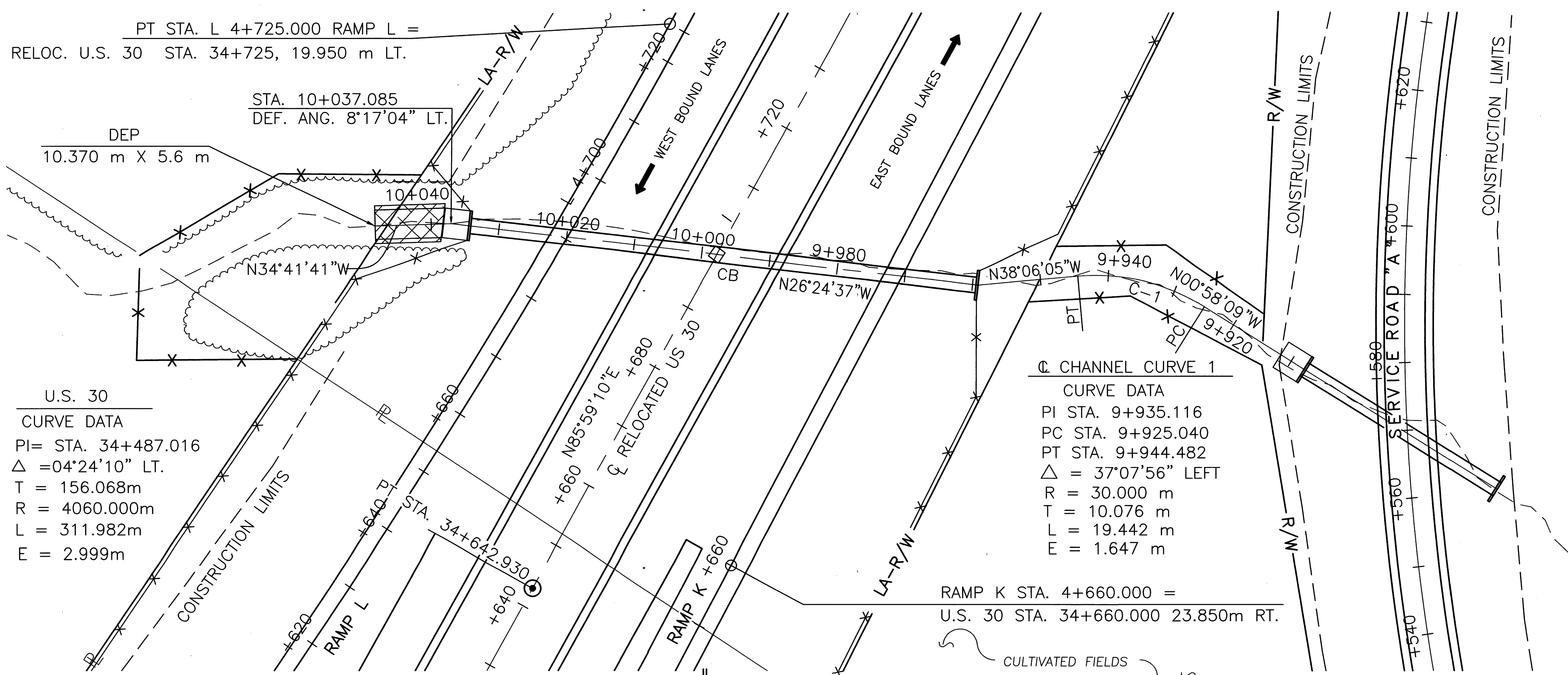
RATIO 1:200
HORIZONTAL SCALE IN METERS

CALCULATED TM
CHECKED WS

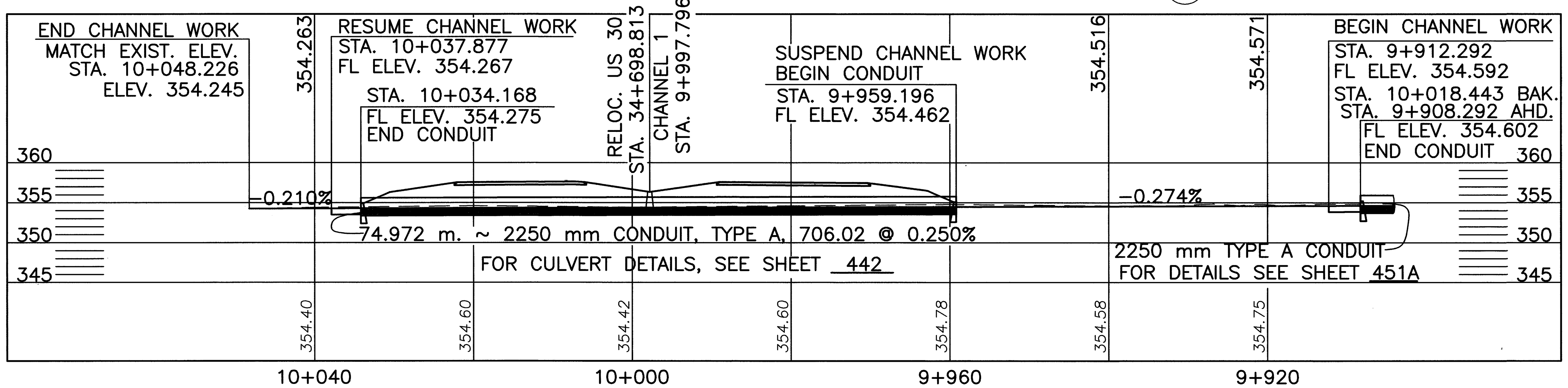
CRA/RIC-30-33.500/0.000

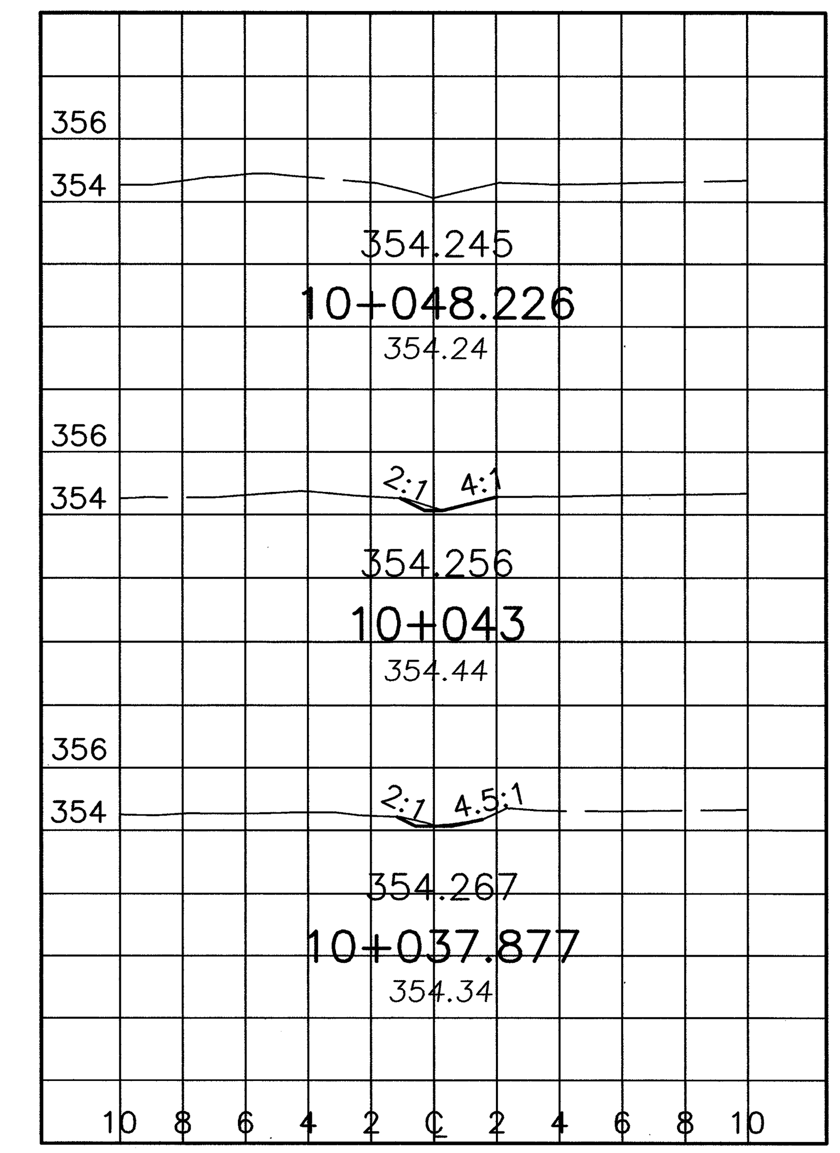
451A
712

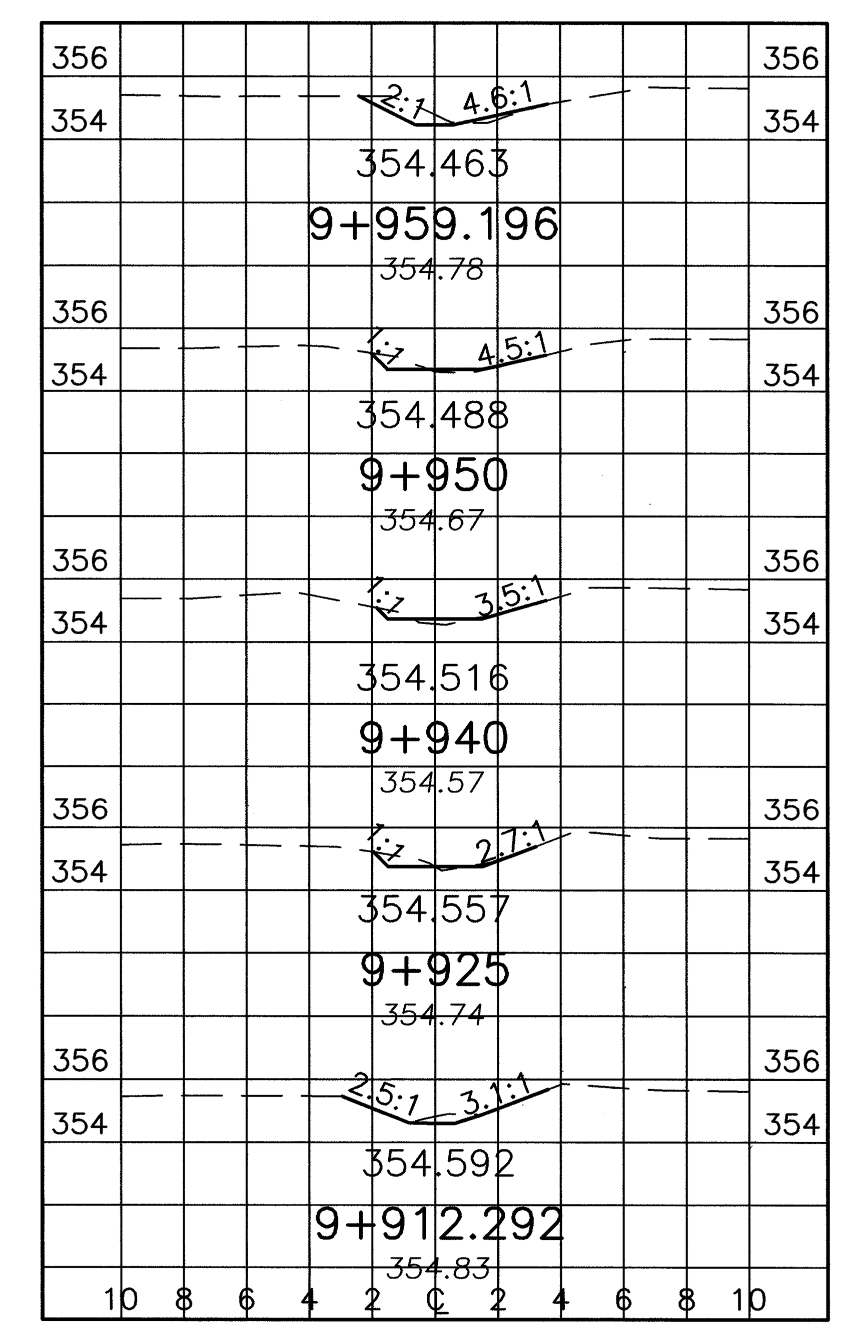
DD_SVA_FBD.DWG
05-30-2003 10:14 PM
SCALE: 1:200M



CROSS SECTION SCALE
HORIZ. 1:200 RATIO
VERT. 1:200 RATIO







CHANNEL EARTHWORK TABLE				
STA.	AREA		VOLUME	
	CUT	FILL	CUT	FILL
9+912.292	0.8	0.0		
			11	0
9+925	0.9	0.0		
			11	0
9+940	0.5	0.0		
			21	0
9+959.196	1.7	0.0		
SUSPEND AT CULVERT No. 1				
10+037.877	0.8	0.0		
			4	0
10+043	0.6	0.0		
			2	0
10+048.226	0.0	0.0		
TOTAL			49	0

CHANNEL SEEDING TABLE		
STA.	WIDTH	AREA
9+912.292	5.5	
		51
9+925	2.5	
		38
9+940	2.6	
		73
9+959.196	5.1	
SUSPEND AT CULVERT No. 1		
TOTAL		493

NOTE:
FOR ADDITIONAL CHANNEL DETAILS AND LANDSCAPE PLAN, SEE SHEETS 452A & 452B.

ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
203	49	CU M	EXCAVATION, NOT INCLUDING EMBANKMENT CONSTRUCTION
870	213	S.M.	SEED & MULCHING
670	58	S.M.	DITCH EROSION PROTECTION

QUANTITIES CARRIED TO SUBSUMMARY SHEET 66-67

DP001.DWG
12-26-2000 8:55 AM
1:400 M

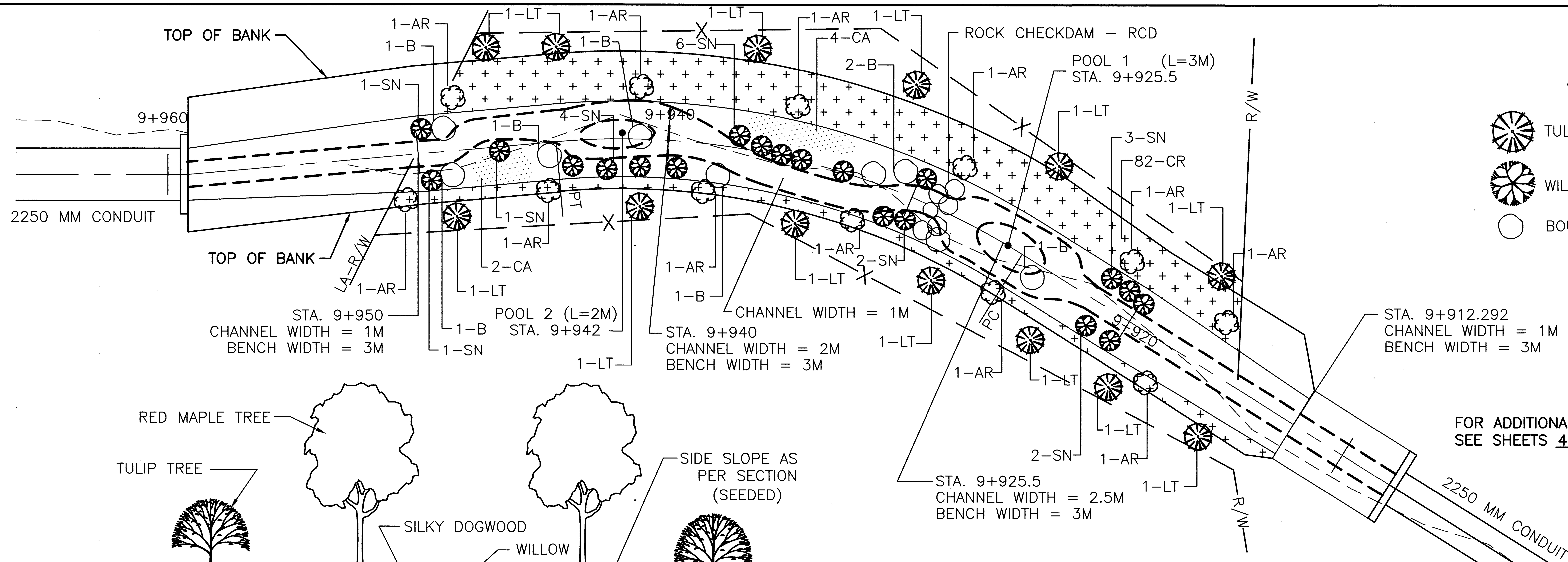
metric units

RATIO 1:400
0 10 20
HORIZONTAL SCALE IN METERS

CALCULATED TM
CHECKED WS

CULVERT NO. 1 OUTLET CHANNEL DETAILS
STA. 9+912.292 TO STA. 10+048.226

CRA/RIC-30-33.500/0.000



LEGEND

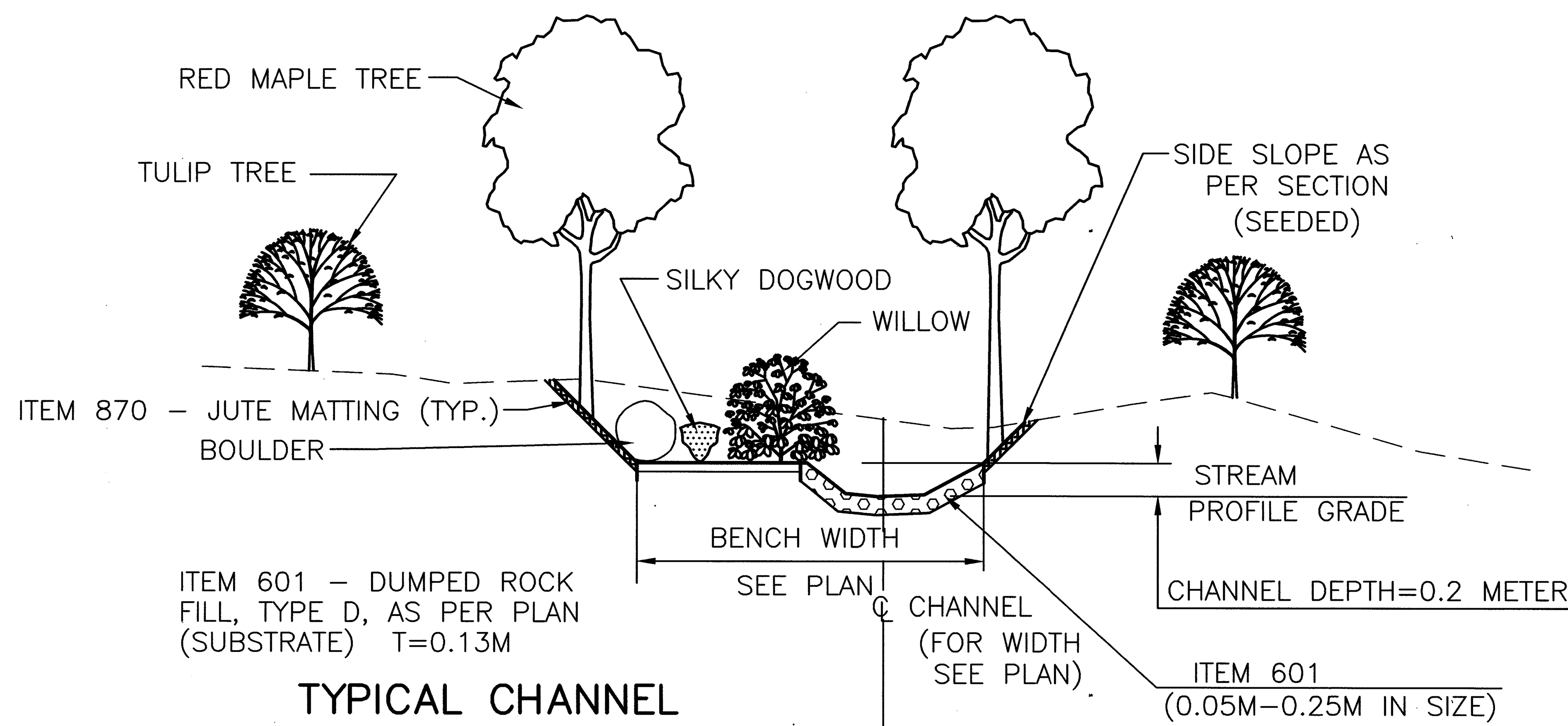
TULIP TREE
RED MAPLE TREE
WILLOW
SILKY DOGWOOD
BOULDERS
GRAY DOGWOOD

metric units

RATIO 1:100
HORIZONTAL SCALE IN METERS

CALCULATED DAB CHECKED WS

FOR ADDITIONAL CHANNEL DETAILS AND QUANTITIES SEE SHEETS 452.



TYPICAL CHANNEL SECTION

NOTES:

1. ITEM 601 DUMPED ROCK FILL, TYPE D, AS PER PLAN, SHALL BE BE SOUND ROCK OR STONE ONLY AS PER SECTION 601.07 AND SHALL BE 0.05M TO 0.10M IN SIZE FOR USE AS SUBSTRATE. EXISTING BOULDERS AND COBBLE/GRAVEL SUBSTRATE WITHIN THE STREAM CHANNEL SHALL BE STOCKED FOR REPLACEMENT IN THE MODIFIED STREAM CHANNEL. MATERIAL IN THE EXISTING STREAM CHANNEL SHALL BE EXCAVATED TO A DEPTH OF 0.15 m PRIOR TO CONSTRUCTION, PLACED IN AN UPLAND LOCATION AWAY FROM THE STREAM DURING CONSTRUCTION, AND RETURNED TO THE MODIFIED CHANNEL AT APPROXIMATELY THE SAME DEPTH (i.e. 0.15 m) AFTER CONSTRUCTION.

2. SEEDING AND MULCHING, ROADSIDE MIX, CLASS "1", SHALL BE PLACED ON ALL DISTURBED AREAS AND SIDESLOPES OF THE CHANNEL. FOR LANSCAPING CHANNEL SECTIONS, SEE SHEET No. 452B.

3. THE PROPOSED CHANNEL SHALL REMAIN WITHIN THE BENCHED SIDESLOPES OR EXISTING BANKS.

4. EVERY ATTEMPT SHALL BE MADE TO PRESERVE TREES, SHRUBS, AND OTHER ESTABLISHED VEGETATION WITHIN THE EASEMENT/MITIGATION AREA, ESPECIALLY ALONG THE EXISTING BANKS OF THE CHANNEL.

5. TEMPORARY CONSTRUCTION FENCE SHALL BE ADDED TO ALL AREAS OUTSIDE THE CONSTRUCTION ZONE SURROUNDING THE STREAM AS DIRECTED BY THE ENGINEER.

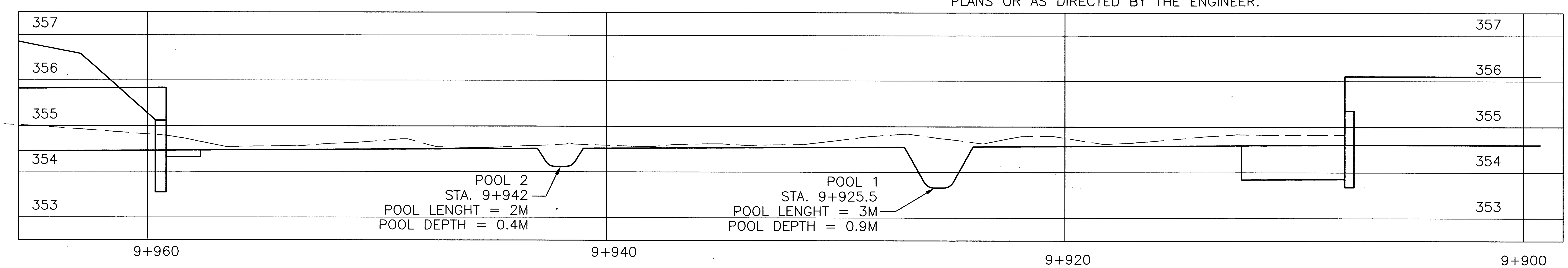
6. THE LARGE BOULDERS SHOULD BE KEYED INTO THE THE STREAM BOTTOM. USUAL DEPTH EQUALS 1/4 TO 1/3 THE HEIGHT OF THE INDIVIDUAL BOULDER.

7. THE AREA ADJACENT TO THE STREAM AND SELECTED AREAS WITHIN THE CHANNEL SHALL BE PLANTED WITH GRAY DOGWOOD AND SILKY DOGWOOD AT A SPACING OF 1 PER SQ. METER. RED MAPLE, TULIP AND BLACK WILLOW TREES SHALL BE PLANTED AT A SPACING OF 1 PER 4–6 METERS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

ESTIMATED QUANTITIES

KEY	ITEM	QUANTITY	UNIT	DESCRIPTION	SIZE
B	SPECIAL	8	EACH	MISC: BOULDER	(0.3M – 1M)
SN	661	20	EACH	PLANTING, MISC: SALIX NIGRA (BLACK WILLOW TREE)	3.8L (1 GAL)
CA	661	6	EACH	PLANTING, MISC: CORNUS AMOMUM (SILKY DOGWOOD)	3.8L (1 GAL)
LT	661	13	EACH	PLANTING, MISC: LIRIODENDRON TULIPIFERA (TULIP TREE)	3.8L (1 GAL)
AR	661	12	EACH	PLANTING, MISC: ACER RUBRUM (RED MAPLE TREE)	3.8L (1 GAL)
CR	661	82	EACH	PLANTING, MISC: CORNUS RACEMOSA (GRAY DOGWOOD)	3.8L (1 GAL)
DRF	601	17	CU. M.	DUMPED ROCK, TYPE D, AS PER PLAN	
RCD	601	5	CU. M.	ROCK CHANNEL PROTECTION, TYPE C, WITHOUT FILTER	
JM	667	82	SQ. M.	SEEDING AND JUTE MATTING	

QUANTITIES CARRIED TO SUBSUMMARY SHEETS 58 & 61A

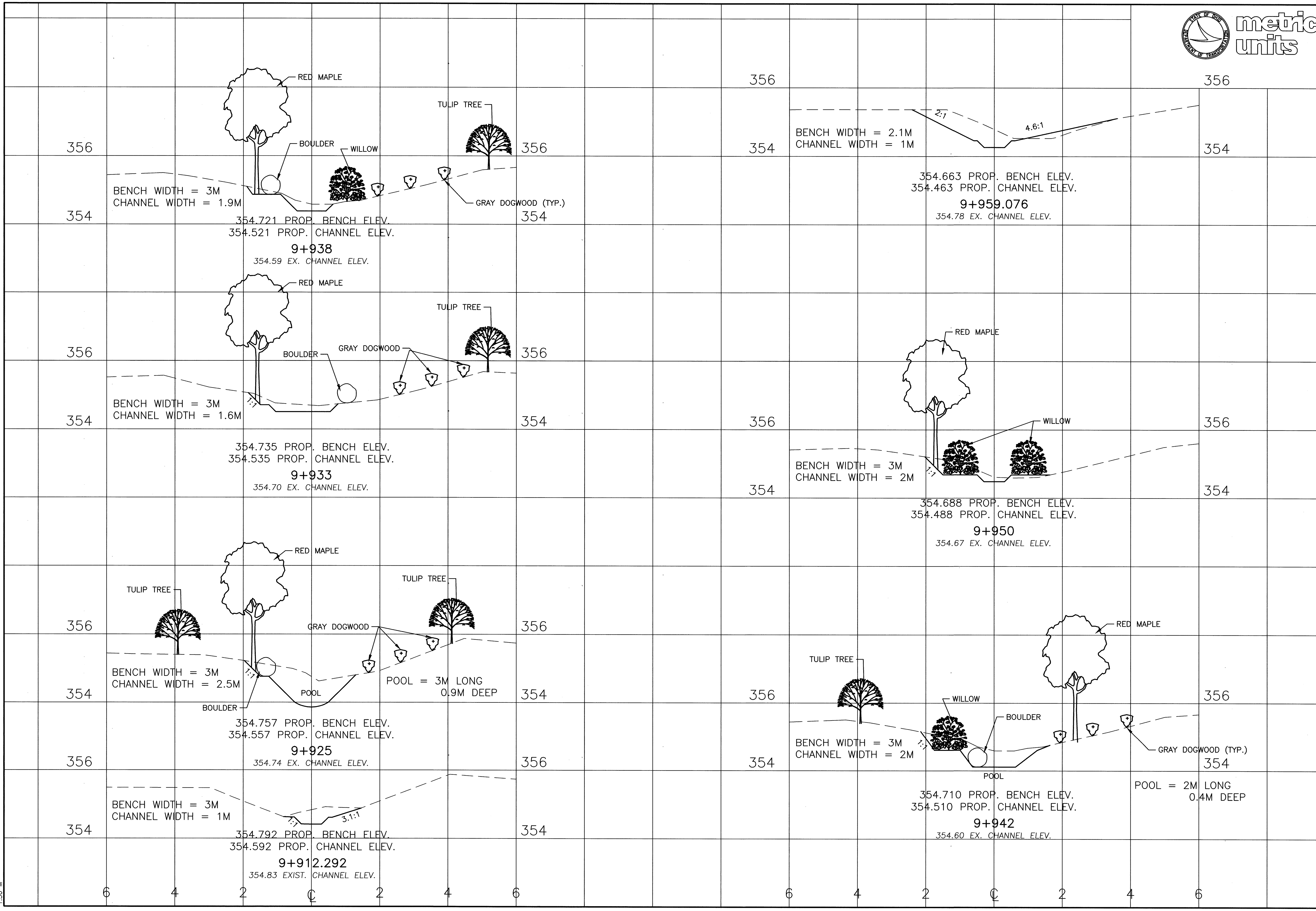


CULVERT NO. 1 STA 34+693.737 INLET CHANNEL LANDSCAPING PLAN

CRA/RIC-30-33.500/0.000

452A
712

50569.DWG 12-26-2000 8:58 AM 1:100 M



RATIO 1:50
0 1 2
HORIZONTAL SCALE IN METERS

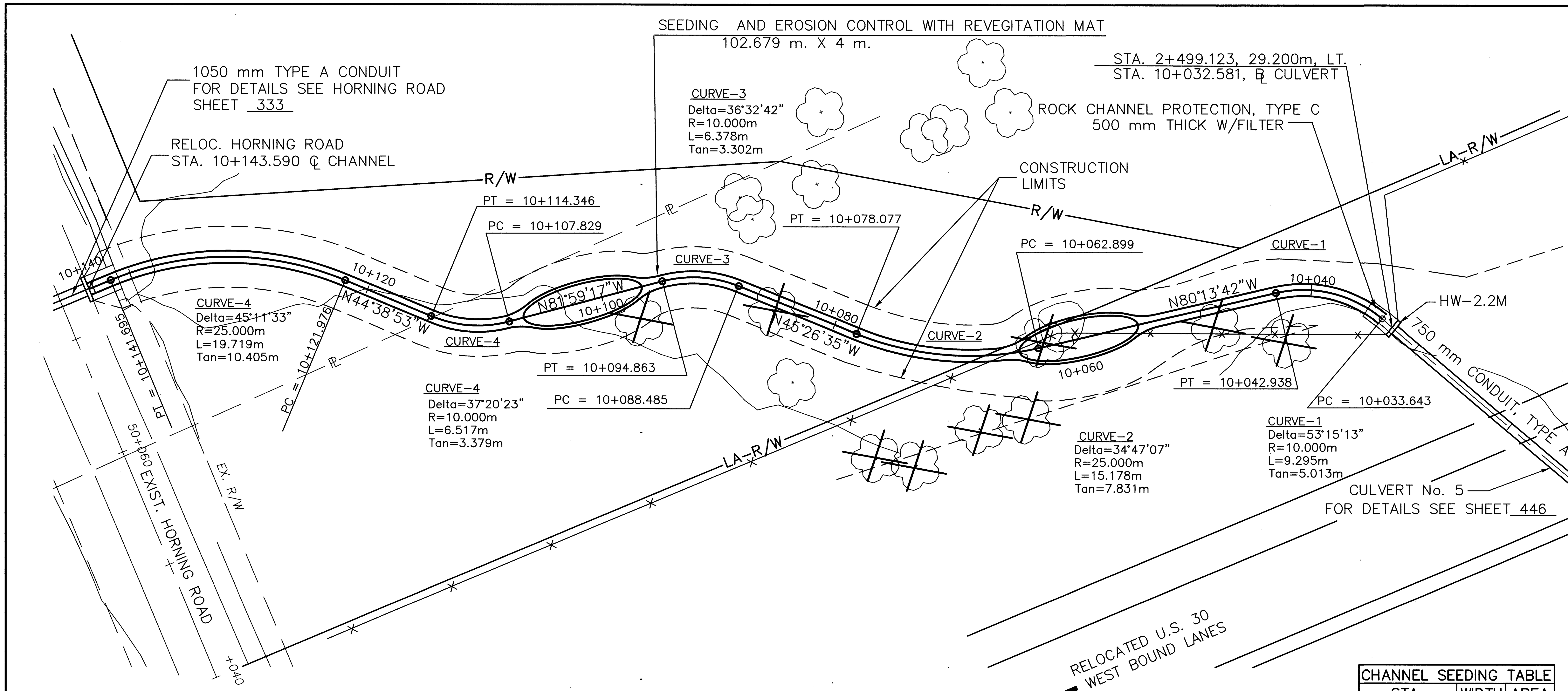
CALCULATED JPS
CHECKED WS

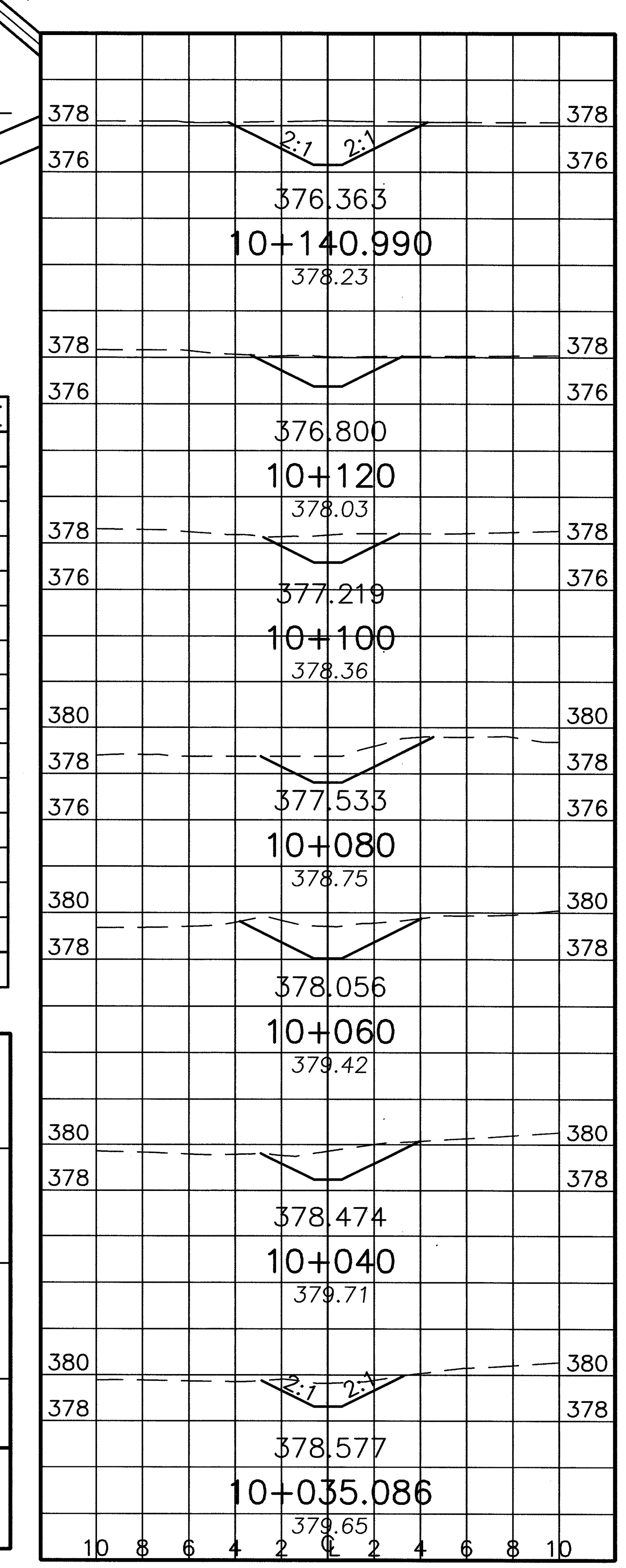
CULVERT NO. 1 LANDSCAPING CROSS-SECTIONS
STA. 9+912.292 TO STA. 9+959.076

CRA/RIC-30-33.500/0.000

452B
712

50569_XSEC.DWG
12-06-2000 11:26 AM
1:50 M





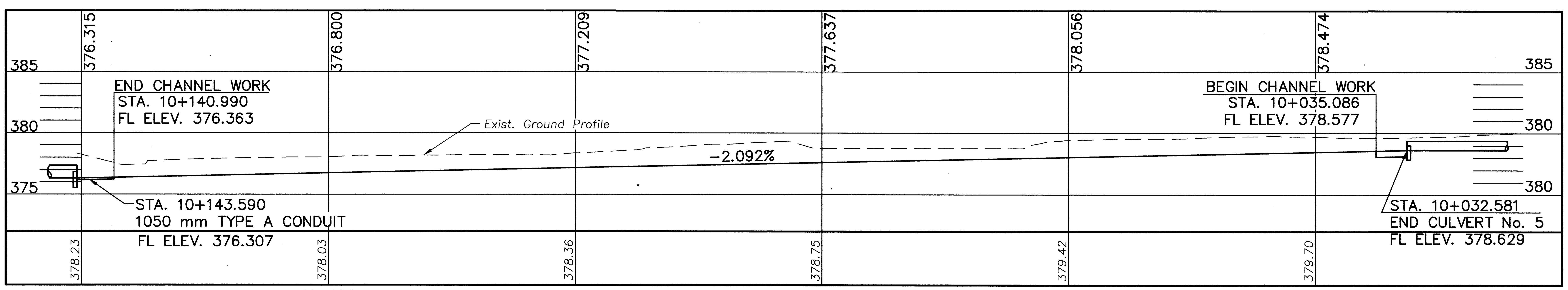
CHANNEL EARTHWORK TABLE				
STA.	AREA		VOLUME	
	CUT	FILL	CUT	FILL
10+035.086	3.8	0.0		
			22	0.0
10+040	5.0	0.0		
			116	0.0
10+060	6.6	0.0		
			120	0.0
10+080	5.4	0.0		
			96	0.0
10+100	4.2	0.0		
			92	0.0
10+120	5.0	0.0		
			127	0.0
10+140.990	9.3	0.0		
TOTAL			573	0

CHANNEL SEEDING TABLE		
STA.	WIDTH	AREA
10+035.086	12.0	
		60
10+040	12.5	
		265
10+060	14.0	
		275
10+080	13.5	
		255
10+100	12.0	
		245
10+120	12.5	
		240
10+137.765	14.5	
TOTAL		1340

NOTE:
FOR ADDITIONAL CHANNEL DETAILS AND LANDSCAPE PLAN, SEE SHEETS, 453A & 453B .

ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
203	573	CU M	EXCAVUATION, NOT INCLUDING EMBANKMENT CONSTRUCTION
203	0	CU M	EMBANKMENT
870	1340	S.M.	SEEDING AND MULCHING
839	411	S.M.	SEEDING AND EROSION CONTROL WITH REVEGITATION MAT

QUANTITIES CARRIED TO SUBSUMMARY SHEET 66-67



PROFILE ALONG CENTERLINE OF CHANNEL

metric units

RATIO 1:200
HORIZONTAL SCALE IN METERS

CALCULATED TM
CHECKED WS

CULVERT NO. 5 OUTLET CHANNEL DETAILS
STA. 10+032.581 TO STA. 10+143.595

CRA/RIC-30-33.500/0.000

453
712

DP002.DWG
12-14-2000 12:53 PM
1:200 M

NOTES:
1. ITEM 601 DUMPED ROCK FILL, TYPE D, AS PER PLAN, SHALL BE BE SOUND ROCK OR STONE ONLY AS PER SECTION 601.07 AND SHALL BE 0.05M TO 0.10M IN SIZE FOR USE AS SUBSTRATE OR RIFFLE. EXISTING BOULDERS AND COBBLE/GRAVEL SUBSTRATE WITHIN THE STREAM CHANNEL SHALL BE STOCKED FOR REPLACEMENT IN THE MODIFIED STREAM CHANNEL. MATERIAL IN THE EXISTING STREAM CHANNEL SHALL BE EXCAVATED TO A DEPTH OF 0.15 m PRIOR TO CONSTUCTION, PLACED IN AN UPLAND LOCATION AWAY FROM THE STREAM DURING CONSTRUCTION, AND RETURNED TO THE MODIFIED CHANNEL AT APPROXIMATELY THE SAME DEPTH (i.e. 0.15 m) AFTER CONSTRUCTION.

2. SEEDING AND MULCHING, ROADSIDE MIX, CLASS "1", SHALL BE PLACED ON ALL DISTURBED AREAS AND SIDESLOPES OF THE CHANNEL BENCH. FOR LANDSCAPING CHANNEL SECTIONS, SEE SHEET No. 453B AND 453C.

3. THE PROPOSED CHANNEL SHALL NOT BE STRAIGHT.

4. EVERY ATTEMPT SHALL BE MADE TO PRESERVE TREES, SHRUBS, AND OTHER ESTABLISHED VEGETATION WITHIN THE EASEMENT/MITIGATION AREA, ESPECIALLY ALONG THE PROPOSED BANKS OF THE CHANNEL. STUMPS AND OTHER PARTIALLY DESTROYED VEGETATION SHOULD REMAIN TO ENSURE STABILIZED BANKS AND POTENTIALLY REGROW NATURALLY.

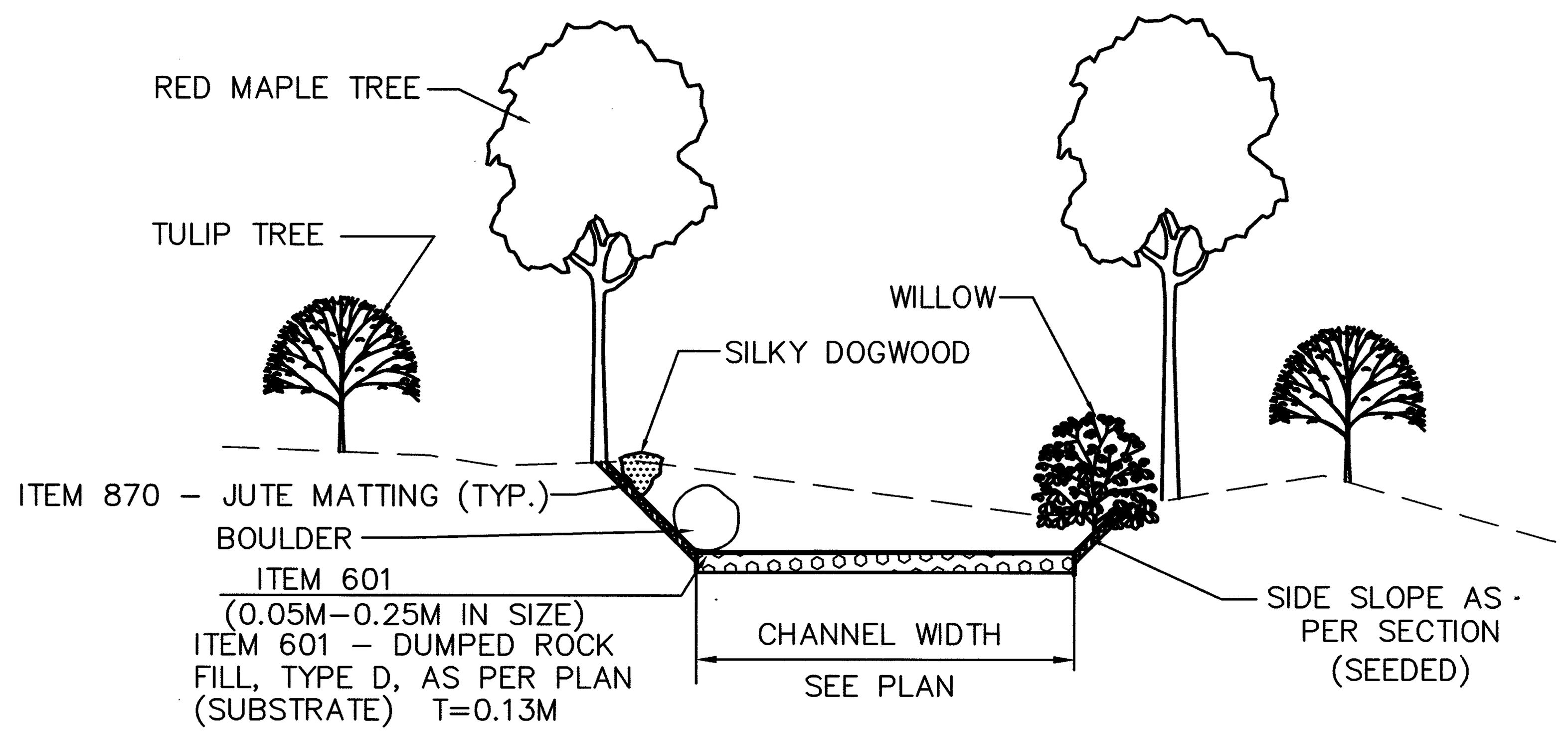
5. THE PROPOSED CHANNEL BANKS SHALL BE GRADED AT A 2:1 SLOPE.

6. TEMPORARY CONSTRUCTION FENCE SHALL BE ADDED TO ALL AREAS OUTSIDE OF THE CONSTRUCTION ZONE SURROUNDING THE STREAM AS DIRECTED BY THE ENGINEER.

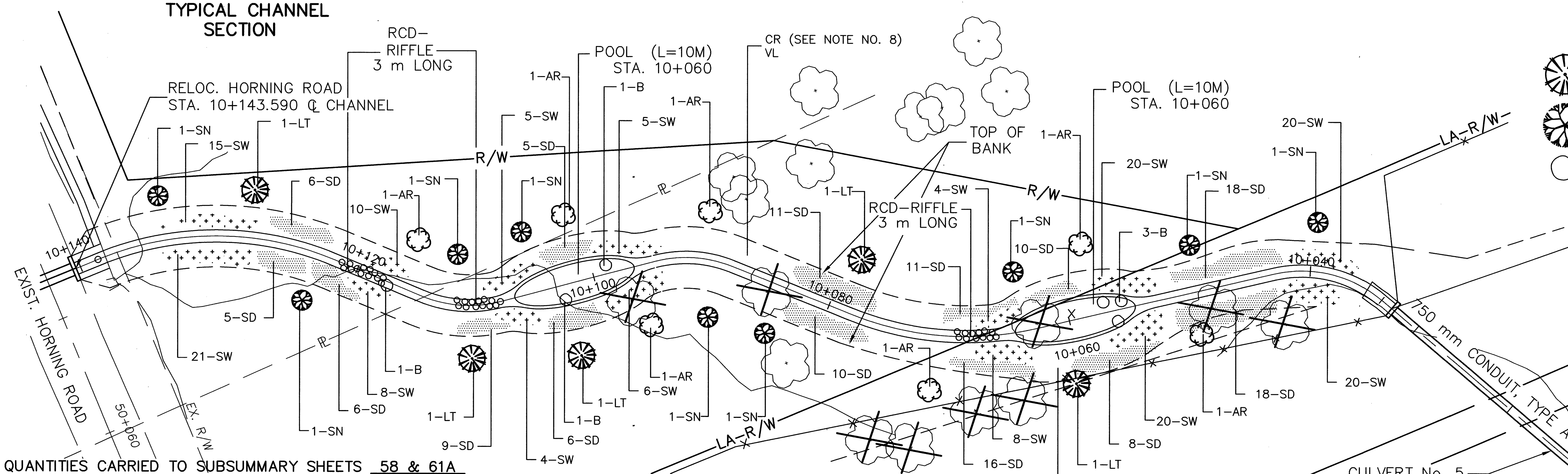
7. THE LARGE BOULDERS SHOULD BE KEYED INTO THE STREAM BOTTOM. USUAL DEPTH EQUALS 1/4 TO 1/3 THE HEIGHT OF THE INDIVIDUAL BOULDER.

8. THE AREAS ADJACENT TO THE STREAM SHALL BE PLANTED WITH SILKY WILLOW SPACED AT 2–3 PER SQ. METER AND SILKY DOGWOOD SPACED AT 1 PER SQ. METER. RED MAPLE, TULIP AND BLACK WILLOW TREES SHALL BE PLANTED AT A SPACING OF 1 PER 4–6 METERS. THE REMAINING UNVEGATATED GRADED BANKS SHALL BE PLANTED IN A STAGGERED FASHION AT A SPACING OF 1 PER SQ. METER WITH A 50/50 MIX OF GRAY DOGWOOD AND NANNYBERRY SHRUBS CLUSTERED BY SPECIES, IN GROUPS OF 10 TO 50 AS SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER.

metric units

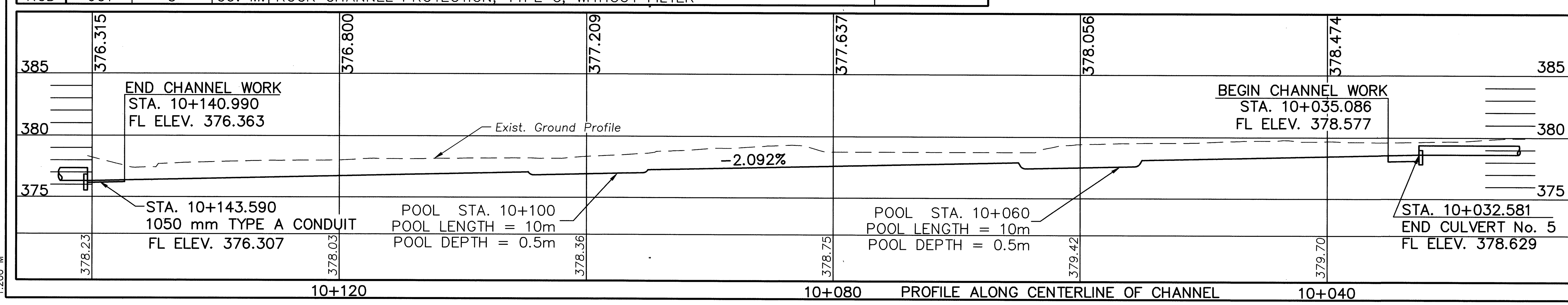


TYPICAL CHANNEL SECTION



QUANTITIES CARRIED TO SUBSUMMARY SHEETS 58 & 61A

ESTIMATED QUANTITIES					
KEY	ITEM	QUANTITY	UNIT	DESCRIPTION	SIZE
B	SPECIAL	6	EACH	MISC: BOULDER	(0.3M – 1M)
SN	661	9	EACH	PLANTING, MISC: SALIX NIGRA (BLACK WILLOW TREE)	3.8L (1 GAL)
CA	661	139	EACH	PLANTING, MISC: CORNUS AMOMUM (SILKY DOGWOOD)	3.8L (1 GAL)
LT	661	5	EACH	PLANTING, MISC: LIRIODENDRON TULIPIFERA (TULIP TREE)	3.8L (1 GAL)
SW	661	148	EACH	PLANTING, MISC: SALIX SERICEA (SILKY WILLOW)	3.8L (1 GAL)
AR	661	7	EACH	PLANTING, MISC: ACER RUBRUM (RED MAPLE TREE)	3.8L (1 GAL)
CR	661	120	EACH	PLANTING, MISC: CORNUS RACEMOSA (GRAY DOGWOOD)	3.8L (1 GAL)
VL	661	120	EACH	PLANTING, MISC: VIBURNUM LENTAGO (NANNYBERRY)	3.8L (1 GAL)
DRF	601	69	CU. M.	DUMPED ROCK, TYPE D, AS PER PLAN	
RCD	601	3	CU. M.	ROCK CHANNEL PROTECTION, TYPE C, WITHOUT FILTER	



PROFILE ALONG CENTERLINE OF CHANNEL

NOTE:
FOR ADDITIONAL CHANNEL DETAILS SEE SHEETS, 453 .

2+513.DWG
12-26-2000 8:47 AM
1:200 M

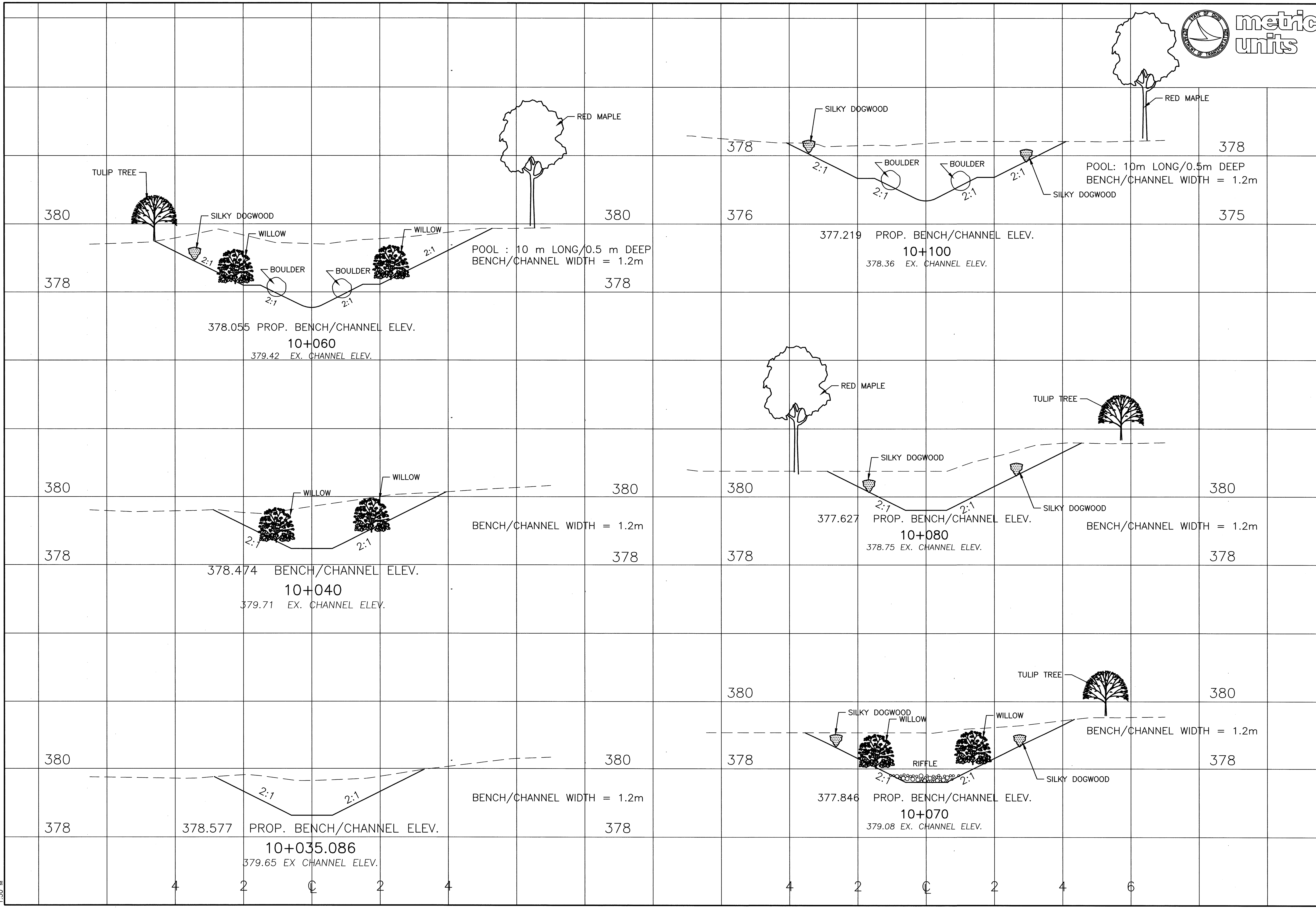
RATIO 1:200
HORIZONTAL SCALE IN METERS

CALCULATED TM CHECKED WS

CULVERT NO. 5 STA. 2+513 OUTLET DETAILS
LANDSCAPING PLAN

CRA/RIC-30-33.500/0.000

453A
712



metric units

RATIO 1:50
HORIZONTAL SCALE IN METERS

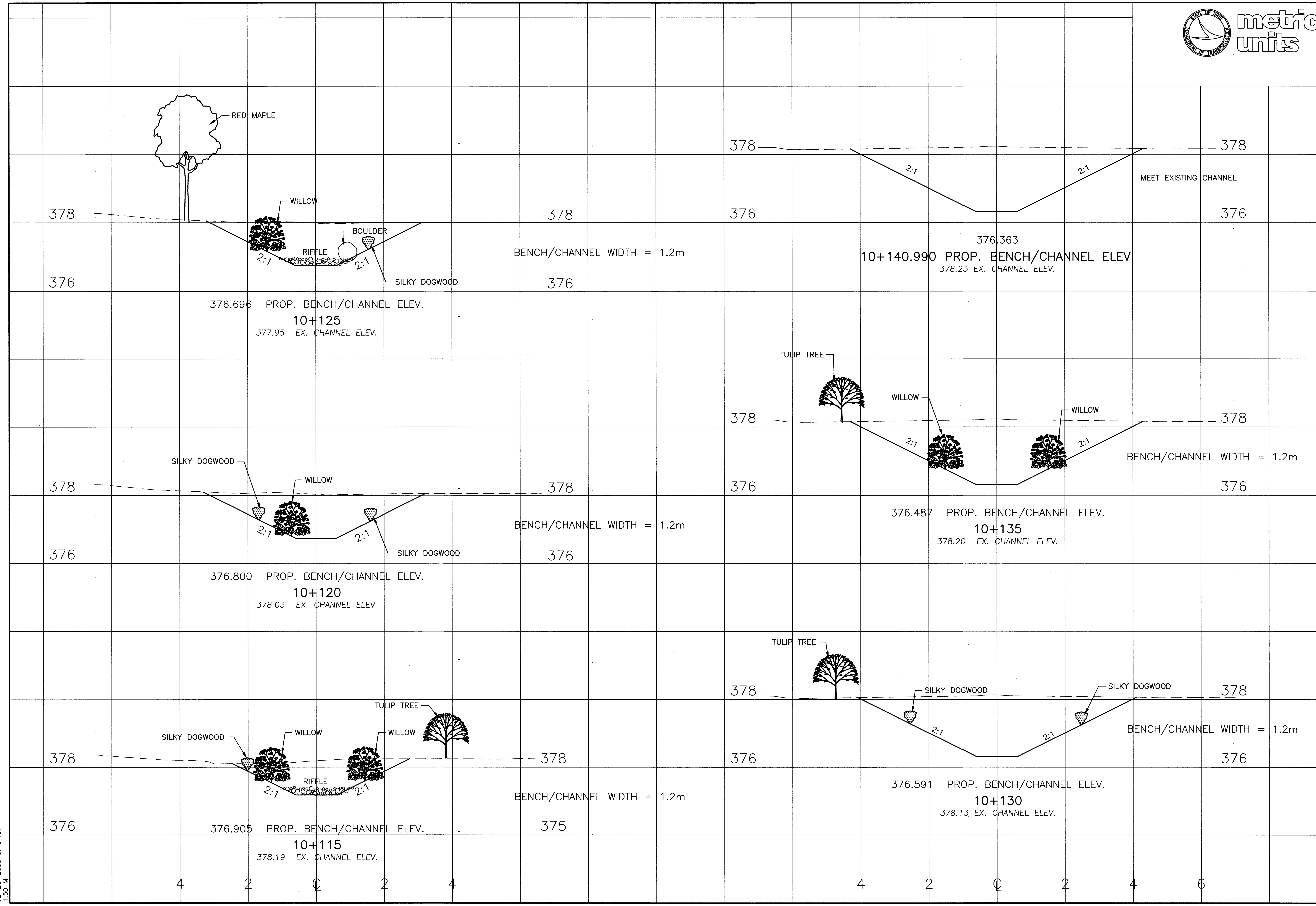
CALCULATED JPS
CHECKED WS

CULVERT NO. 5 LANDSCAPING CROSS-SECTIONS
STA. 10+035.086 TO STA. 10+100

CRA/RIC-30-33.500/0.000

453B
712

2513_XSEC 1.DWG
12-26-2000 8:43 AM
1:50 M



metric units

RATIO 1:50
HORIZONTAL SCALE IN METERS

CALCULATED JPS
CHECKED WS

CULVERT NO. 5 LANDSCAPING CROSS-SECTIONS
STA. 10+115 TO STA. 10+140.990

CRA/RIC-30-33.500/0.000

453C
712

2513_XSEC 2.DWG
12-26-2000 9:13 AM
1:50 M

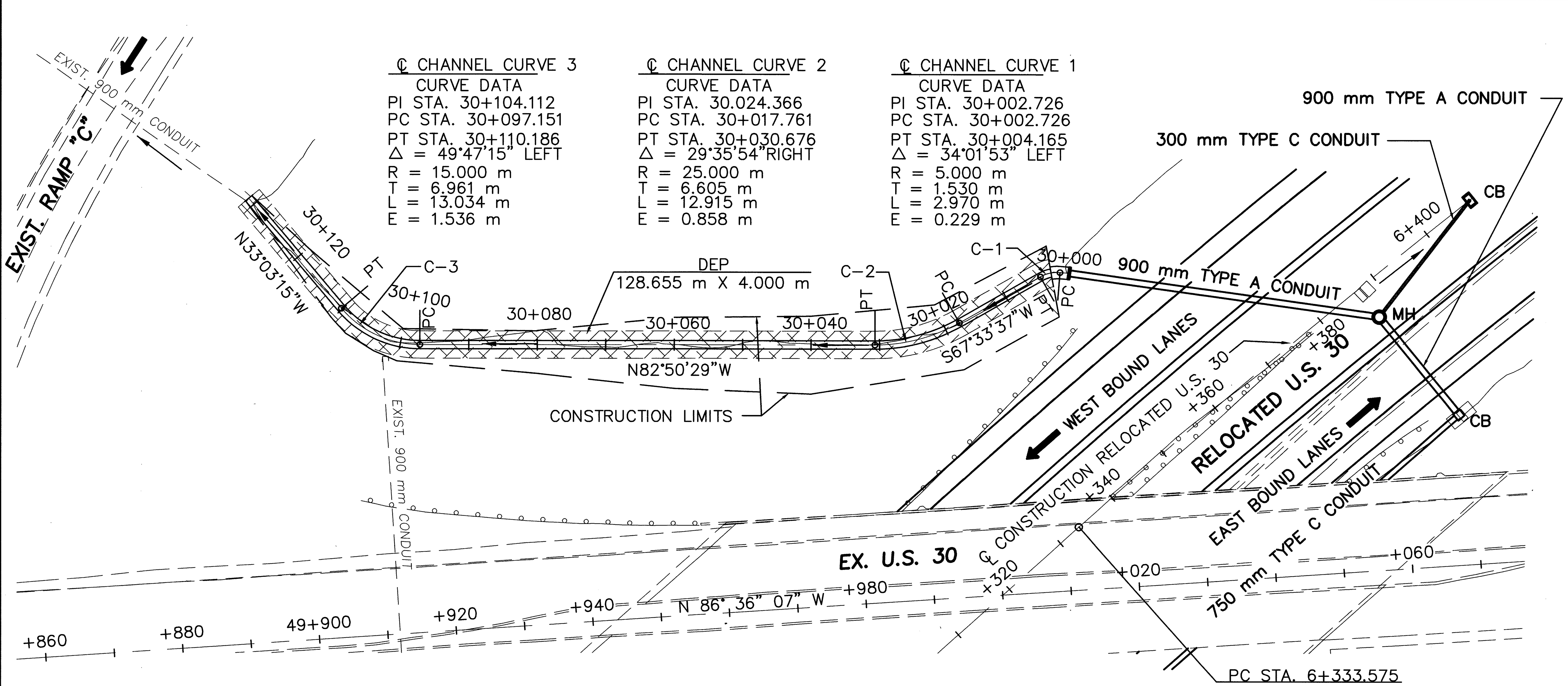
OUTLET CHANNEL DETAILS
STA. 30+000 TO STA. 30+131.155

CRA/RIC-30-33.500/0.000

metric units

RATIO 1:400 — HORIZONTAL SCALE IN METERS

CALCULATED TM — CHECKED WS

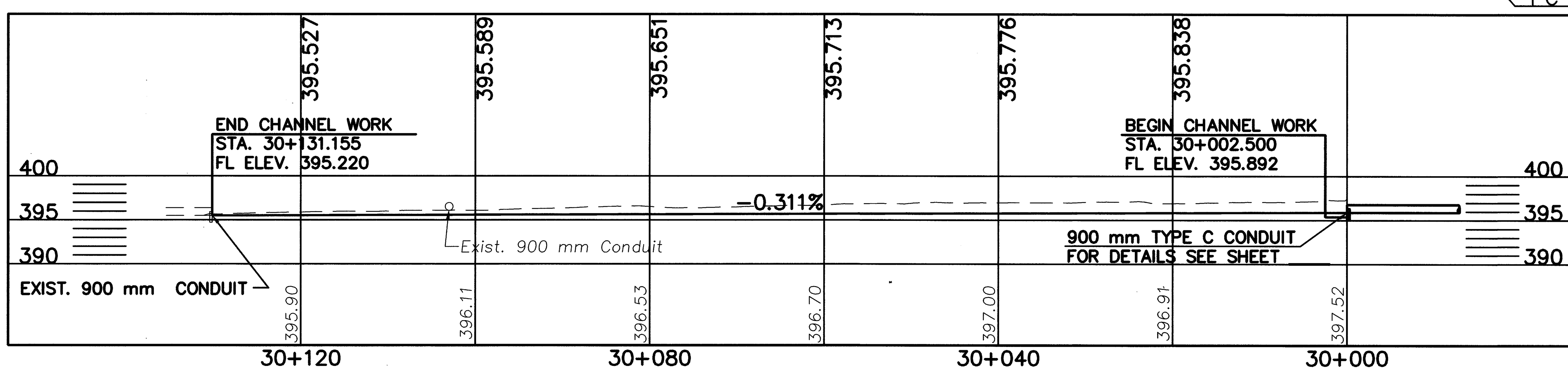


℄ CHANNEL CURVE 3
CURVE DATA
PI STA. 30+104.112
PC STA. 30+097.151
PT STA. 30+110.186
Δ = 49°47'15" LEFT
R = 15.000 m
T = 6.961 m
L = 13.034 m
E = 1.536 m

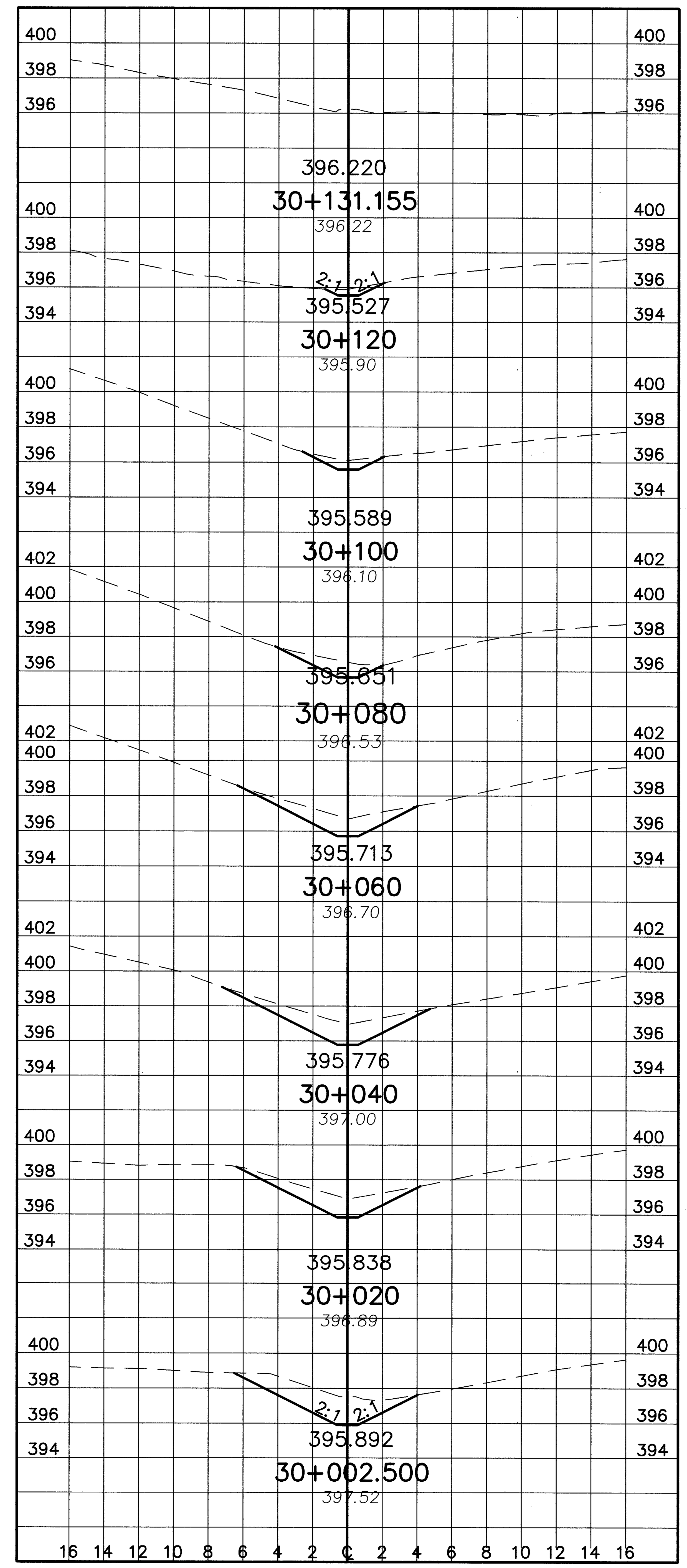
℄ CHANNEL CURVE 2
CURVE DATA
PI STA. 30.024.366
PC STA. 30+017.761
PT STA. 30+030.676
Δ = 29°35'54"RIGHT
R = 25.000 m
T = 6.605 m
L = 12.915 m
E = 0.858 m

℄ CHANNEL CURVE 1
CURVE DATA
PI STA. 30+002.726
PC STA. 30+002.726
PT STA. 30+004.165
Δ = 34°01'53" LEFT
R = 5.000 m
T = 1.530 m
L = 2.970 m
E = 0.229 m

RELOCATED US 30
CURVE DATA
PI STA. 6+613.311
Δ = 26°26'30"RIGHT
R = 1190.710 m
T = 279.736 m
L = 549.507 m
E = 32.418 m



NOTE
CROSS SECTION SCALE HORIZ. 1:200 RATIO
VERT. 1:200 RATIO



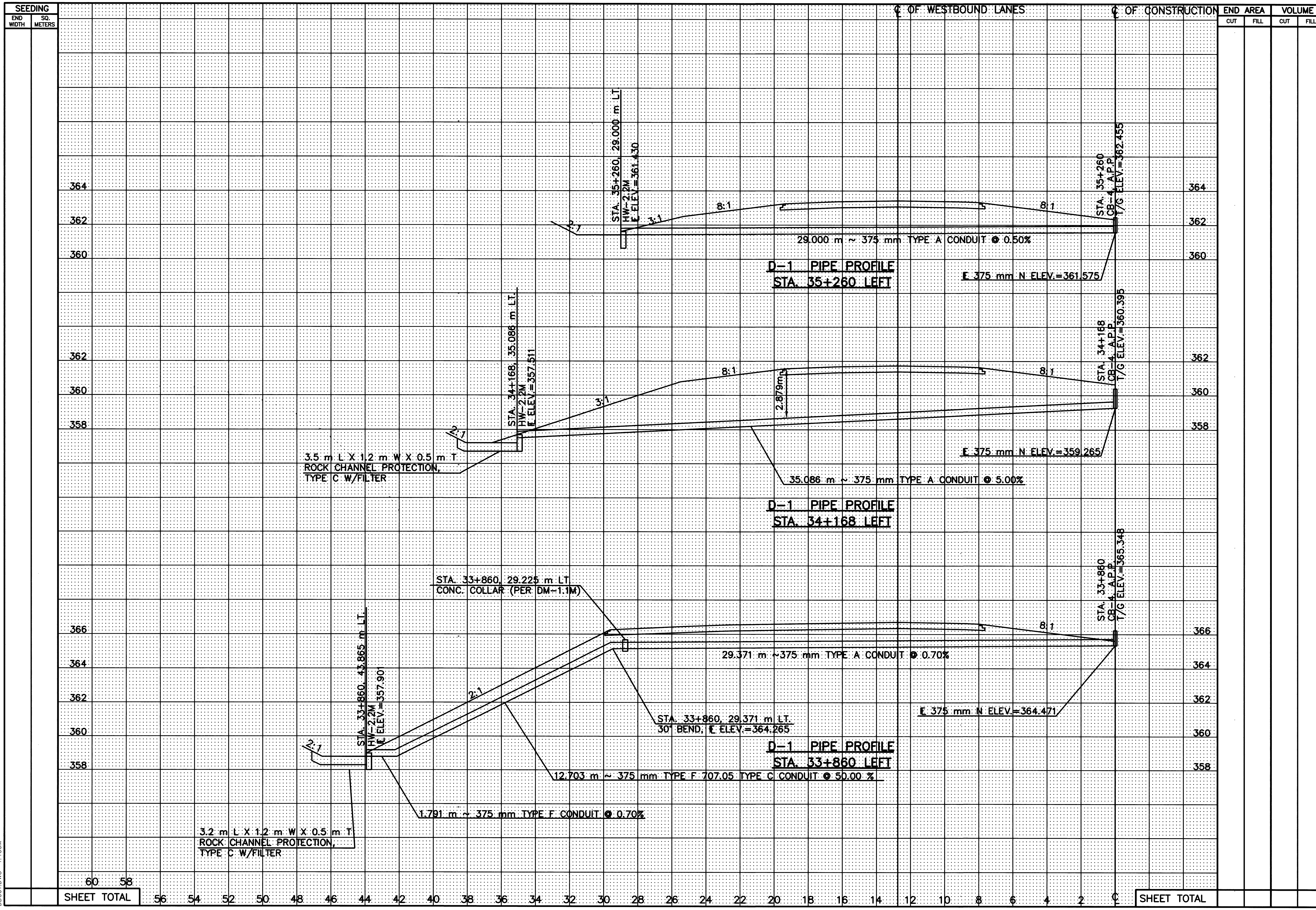
CHANNEL SEEDING TABLE		
STA.	WIDTH	AREA
30+002.500	16.5	
		293
30+020	17.0	
		345
30+040	17.5	
		340
30+060	16.5	
		285
30+080	12.0	
		225
30+100	10.5	
		200
30+020	9.5	
		8.6
30+131.155	6.0	
TOTAL		1774

CHANNEL EARTHWORK TABLE				
STA.	AREA		VOLUME	
	CUT	FILL	CUT	FILL
30+002.500	20.7	0.0		
			305	0
30+020	14.1	0.0		
			311	0
30+040	17.0	0.0		
			296	0
30+060	12.6	0.0		
			191	0
30+080	6.5	0.0		
			98	0
30+100	3.3	0.0		
			32	0
30+120	1.9	0.0		
			11	0
30+131.155	0.0	0.0		
TOTAL			1244	0

ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
203	1244	CU M	EXCAVATION, NOT INCLUDING EMBANKMENT CONSTRUCTION
203	0	CU M	EMBANKMENT
870	1774	S.M.	SEEDING AND MULCHING
670	515	S.M.	DITCH EROSION PROTECTION

QUANTITIES CARRIED TO SUBSUMMARY SHEET 66-67

DP003.DWG 08-15-2000 3:11 PM 1:400 M

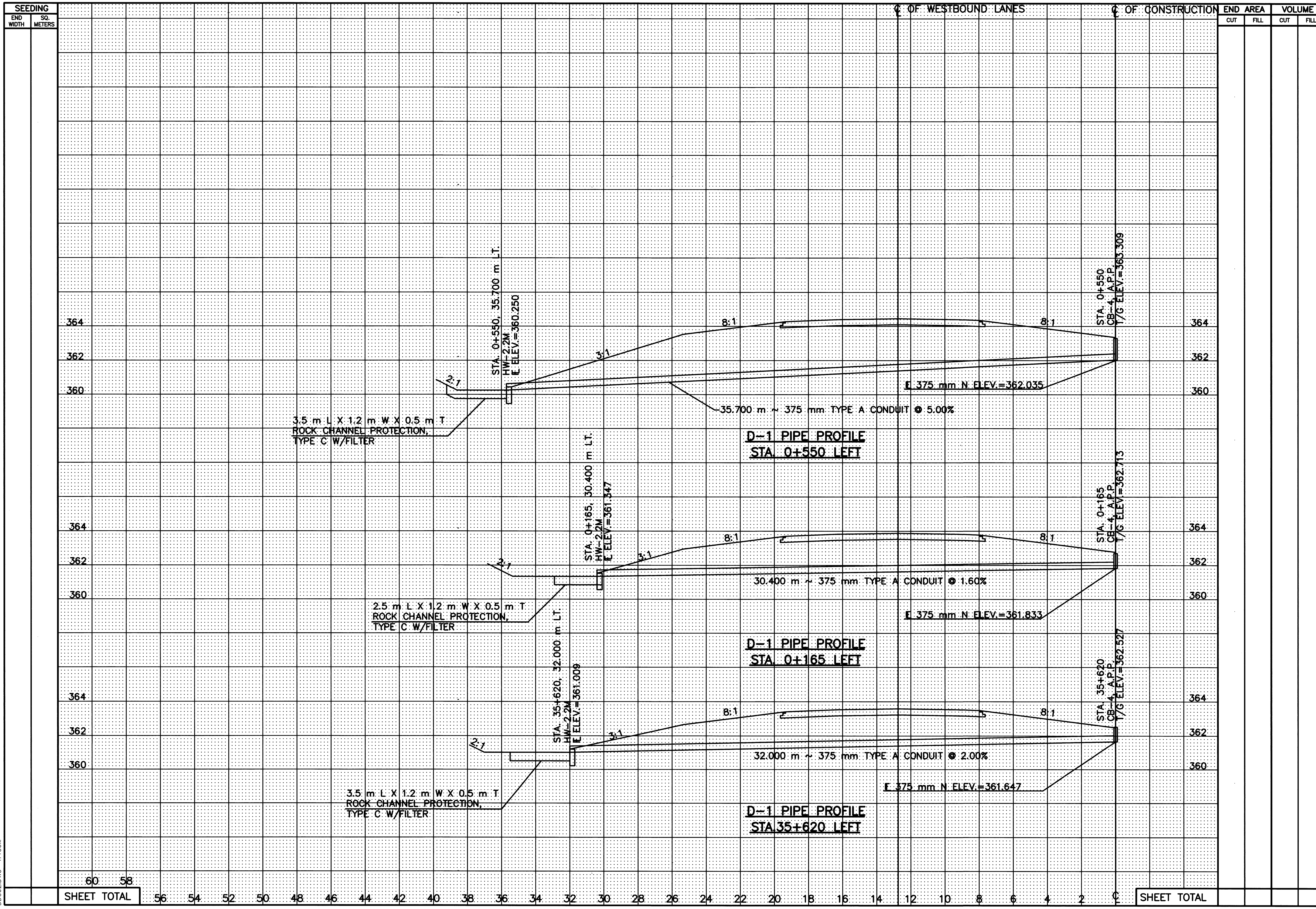


CALCULATED TM
CHECKED WJS

DRAINAGE DETAILS - RELOCATED U.S. 30
STA. 33+860 TO STA. 35+260

CRA/RIC-30-33.500/0.000

DD111.DWG
08-16-2000 8:13 AM
DD001.DWG 1:100M



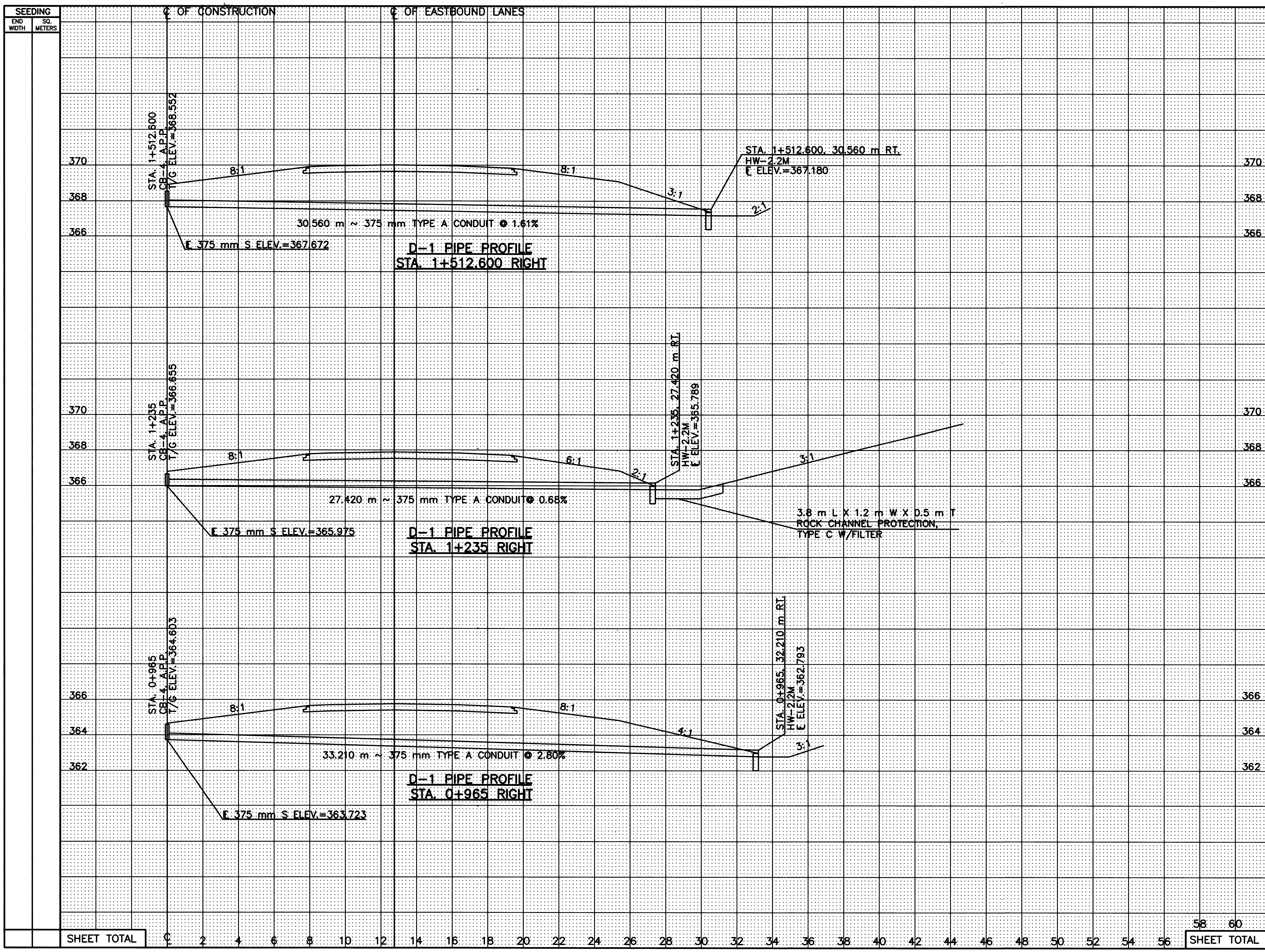
CALCULATED TM
CHECKED WJS

DRAINAGE DETAILS – RELOCATED U.S. 30
STA. 35+620 TO STA. 0+550

CRA/RIC-30-33.500/0.000

456
712

DD112.DWG
08-16-2000 8:14 AM
DD002.DWG 1:100M



CALCULATED TM

CHECKED WS

DRAINAGE DETAILS – RELOCATED U.S. 30

STA. 0+965 TO STA. 1+512.600

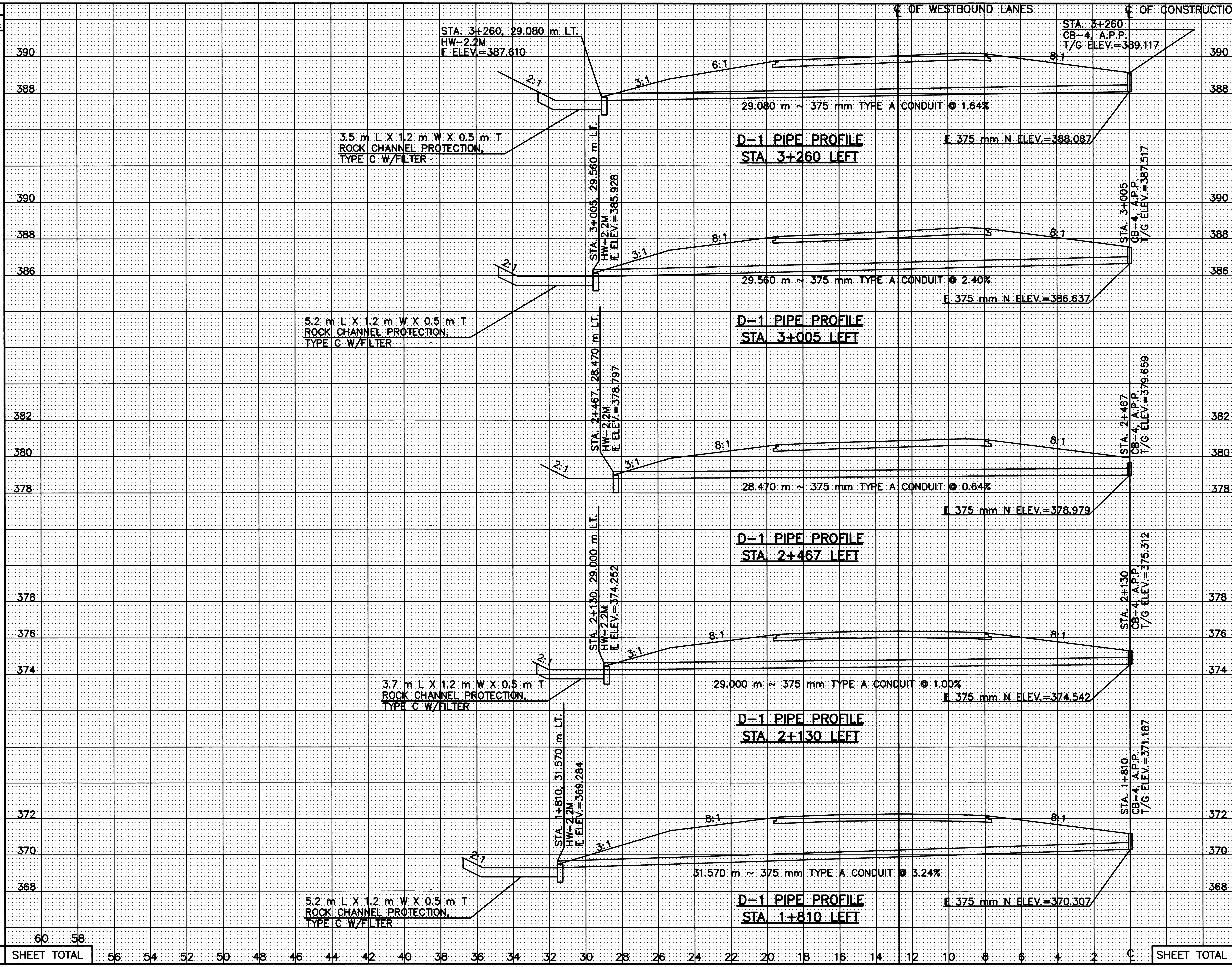
CRA/RIC-30-33.500/0.000

457/712

D0113.DWG
08-16-2000 8:16 AM
1:100M

SEEDING	
END WIDTH	SQ. METERS
60	58

SHEET TOTAL



SHEET TOTAL

END AREA		VOLUME	
CUT	FILL	CUT	FILL

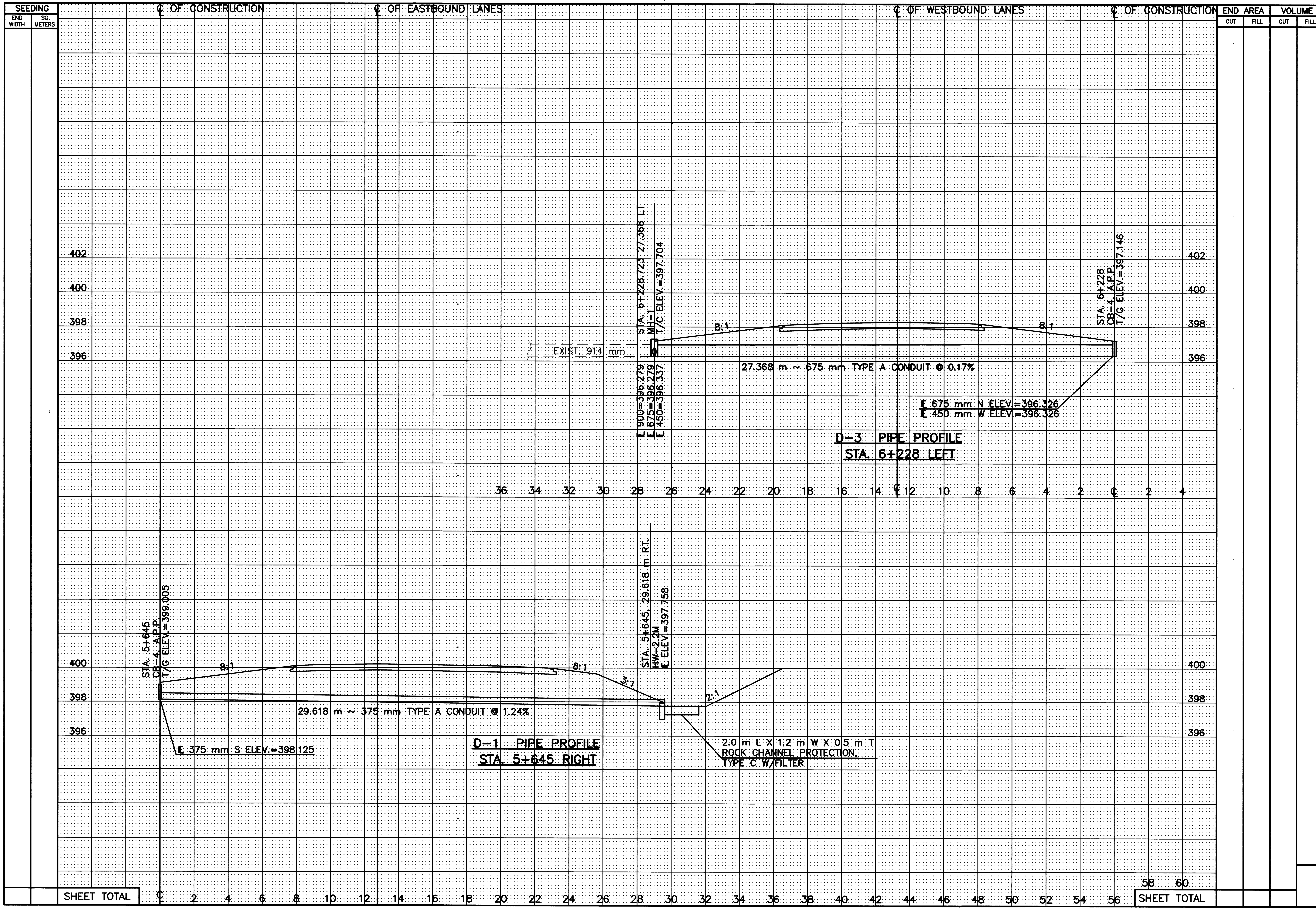
CALCULATED TM
CHECKED WJS

DRAINAGE DETAILS - RELOCATED U.S. 30
STA. 1+810 TO STA. 3+260

CRA/RIC-30-33.500/0.000

DD114.DWG
08-16-2000 8:19 AM
1:100M


SEEDING
END WIDTH
SQ. METERS
℄ OF WESTBOUND LANES
℄ OF CONSTRUCTION
END AREA
CUT
FILL
VOLUME
CUT
FILL
CALCULATED TJM
CHECKED WJS
STA. 5+352.50, 30.717 m LT.
HW-2.2M
℄ ELEV.=398.325
STA. 5+352.50
CB-4, A.P.P.
T/G ELEV.=399.942
3.3 m L X 1.2 m W X 0.5 m T
ROCK CHANNEL PROTECTION,
TYPE C W/FILTER
30.717 m ~ 375 mm TYPE A CONDUIT @ 2.40%
D-1 PIPE PROFILE
STA. 5+352.50 LEFT
℄ 375 mm N ELEV.=399.062
STA. 4+750, 28.425 m LT.
HW-2.2M
℄ ELEV.=397.571
STA. 4+750
CB-4, A.P.P.
T/G ELEV.=398.677
3.3 m L X 1.2 m W X 0.5 m T
ROCK CHANNEL PROTECTION,
TYPE C W/FILTER
28.425 m ~ 375 mm TYPE A CONDUIT @ 1.50%
D-1 PIPE PROFILE
STA. 4+750 LEFT
℄ 375 mm N ELEV.=397.997
STA. 4+460, 34.883 m LT.
HW-2.2M
℄ ELEV.=392.159
STA. 4+460
CB-4, A.P.P.
T/G ELEV.=395.197
3.0 m L X 1.2 m W X 0.5 m T
ROCK CHANNEL PROTECTION,
TYPE C W/FILTER
34.883 m ~ 375 mm TYPE A CONDUIT @ 5.33%
D-1 PIPE PROFILE
STA. 4+460 LEFT
℄ 375 mm N ELEV.=394.017
STA. 3+860, 31.202 m LT.
HW-2.2M
℄ ELEV.=388.632
STA. 3+860
MH-1
T/G ELEV.=390.612
31.202 m ~ 600 mm TYPE A CONDUIT @ 0.30%
D-1 PIPE PROFILE
STA. 3+860 LEFT
℄ 600 mm N ELEV.=388.726
8:1
3:1
2:1
6:1
4:1
60 58
SHEET TOTAL
56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 ℄
DRAINAGE DETAILS - RELOCATED U.S. 30
STA. 3+860 TO STA. 5+352.50
CRA/RIC-30-33.500/0.000
459
712
D0115.DWG
08-16-2000 8:20 AM
1:100M



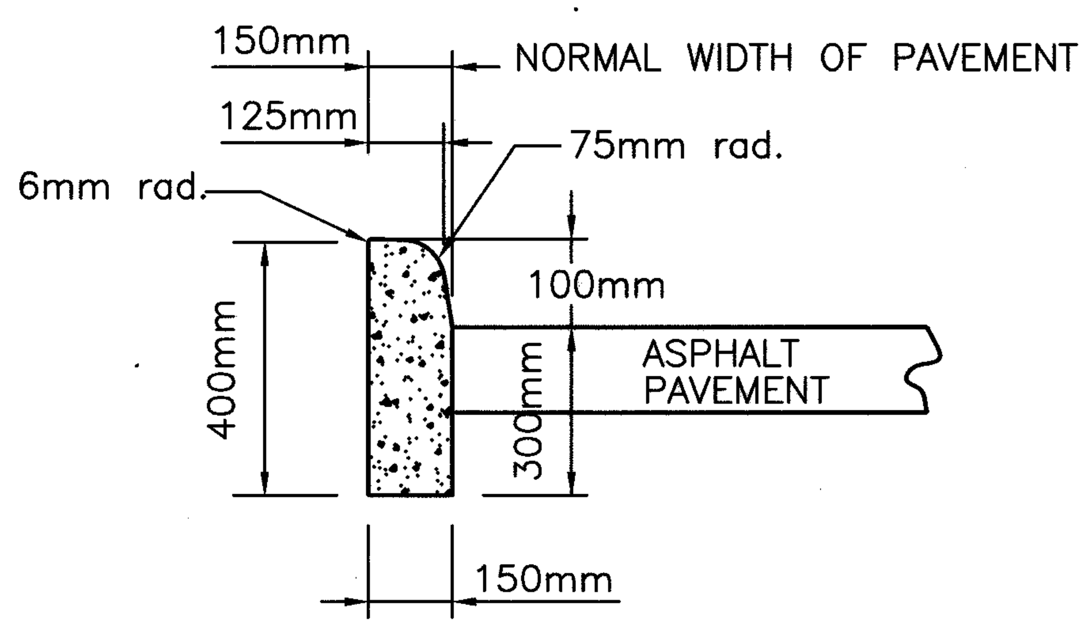
CALCULATED TM
CHECKED WS

DRAINAGE DETAILS – RELOCATED U.S. 30
STA. 5+645 TO STA. 6+228.723

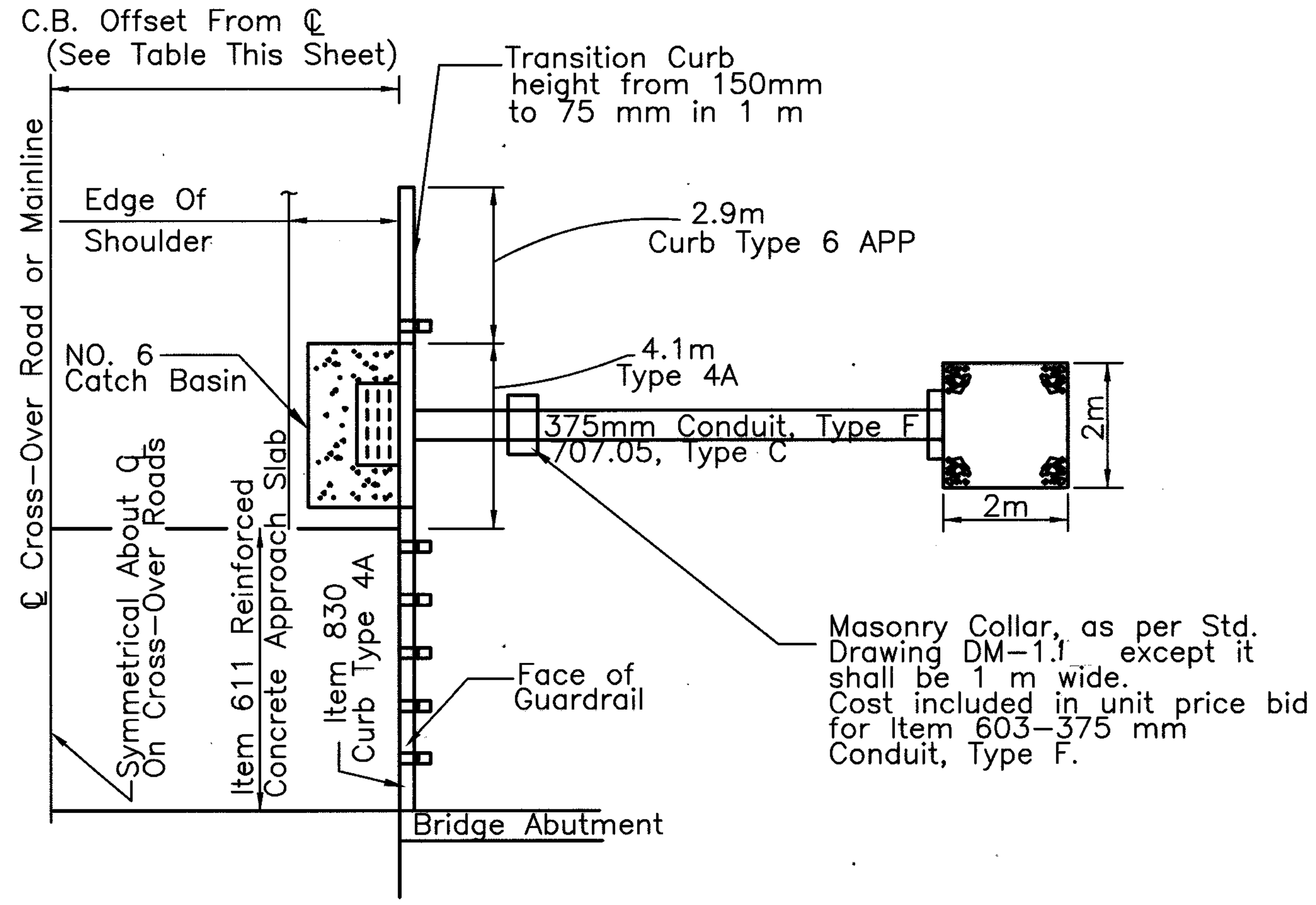
CRA/RIC-30-33.500/0.000

459A
712

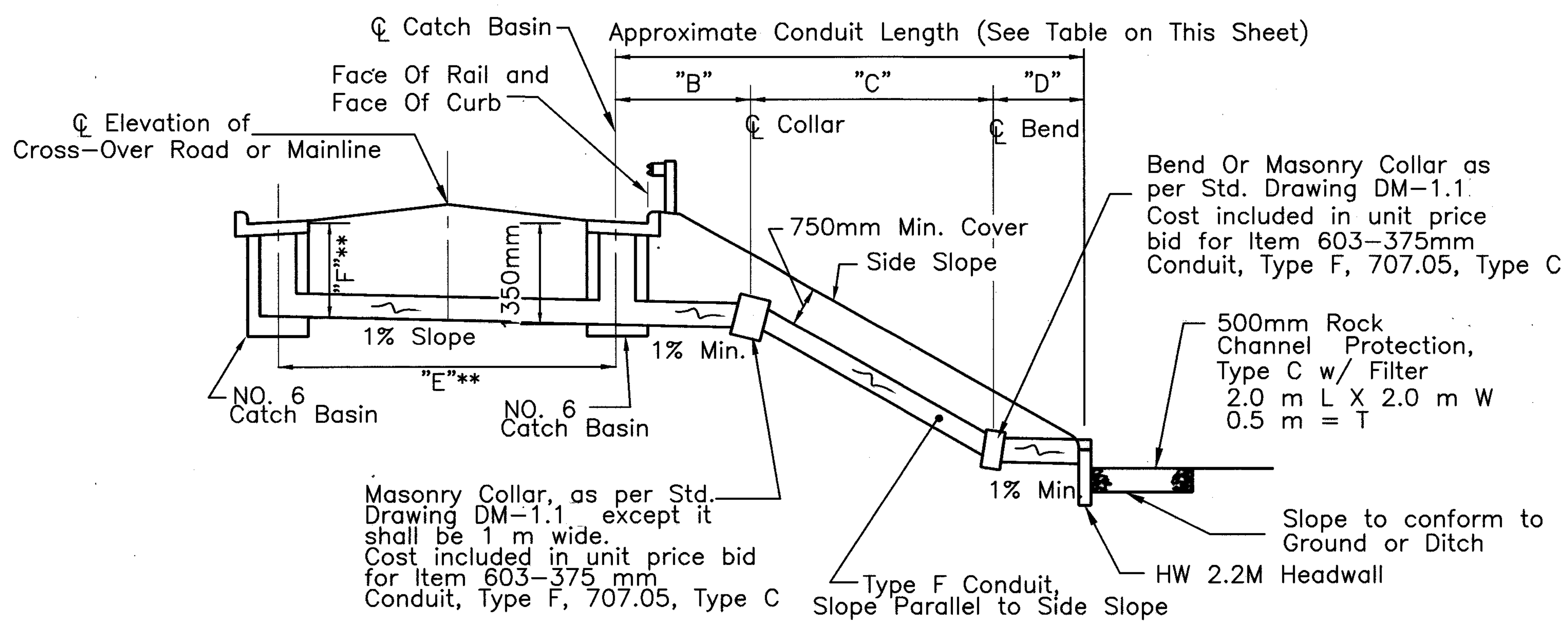
DD116.DWG
08-16-2000 8:22 AM
DD003.DWG 1:100M



CURB TYPE 6, AS PER PLAN



BRIDGE DRAINAGE SYSTEM-PLAN



DRAINAGE SYSTEM-SECTION

ESTIMATED QUANTITIES

LOCATION	SIDE	STATION	C.B. OFFSET FROM ℄	603 375 mm CONDUIT, TYPE F "B"	603 375 mm CONDUIT, TYPE F "C"	603 375 mm CONDUIT, TYPE F "D"	603 TYPE A "E"	604 CB No. 6	830 CURB TYPE 4A	830 CURB TYPE 6 APP	602 CONC. MAS.	601 ROCK CHANNEL PROTECTION, TYPE C, W/FILTER	TOP OF GRATE ELEV.	PLAN SHEET NO.
			METER	M.	M.		M.	EACH	M.	M.	C.M.	C.M.		
CONRAIL R.R. BRIDGE	LT.	33+604.797	20.971	1.853	19.225	5.187	–	1	4.1	2.9	0.22	2	366.778	94
CONRAIL R.R. BRIDGE	RT.	33+576.529	19.700	1.627	17.534	2.399	–	1	4.1	2.9	0.22	2	366.626	94
CONRAIL R.R. BRIDGE	LT.	33+585.186	7.100	–	–	–	17.680	1	4.1	2.9	–	–	366.671	94
CONRAIL R.R. BRIDGE	RT.	33+585.016	7.100	–	–	–	8.237	1	4.1	2.9	–	–	366.670	94
S.R. 61 BRIDGE	LT.	49+952.894	5.750	–	–	–	11.500	1	4.1	2.9	–	–	366.898	304
S.R. 61 BRIDGE	RT.	49+952.927	5.750	1.171	14.541	4.875		1	4.1	2.9	0.22	2	366.899	304
S.R. 61 BRIDGE	LT.	50+047.073	5.750	–	–	–	11.500	1	4.1	2.9	–	–	367.426	304
S.R. 61 BRIDGE	RT.	50+047.106	5.750	1.171	15.405	4.985		1	4.1	2.9	0.22	2	367.426	304
S.R. 181 BRIDGE	RT.	49+949.886	5.750	1.159	7.776	1.831	13.171	1	4.1	2.9	0.22	2	398.226	350
S.R. 181 BRIDGE	LT.	49+956.588	5.750	–	–	–		1	4.1	2.9	–	–	398.343	350
S.R. 181 BRIDGE	RT.	50+055.296	5.750	1.159	7.292	1.841	13.171	1	4.1	2.9	0.22	2	399.126	350
S.R. 181 BRIDGE	LT.	50+061.998	5.750	–	–	–		1	4.1	2.9	–	–	399.151	350
HORNING RD. BRIDGE	LT.	49+954.642	4.850	1.237	11.177	4.618	9.700	1	4.1	2.9	0.22	2	386.687	333
HORNING RD. BRIDGE	RT.	49+954.672	4.850	–	–	–		1	4.1	2.9	–	–	386.687	333
HORNING RD. BRIDGE	LT.	50+048.422	4.850	–	–	–	9.700	1	4.1	2.9	–	–	386.679	333
HORNING RD. BRIDGE	RT.	50+048.452	4.850	1.240	14.602	4.513		1	4.1	2.9	0.22	2	386.678	333
EARICK RD. BRIDGE	LT.	49+923.337	5.750	–	–	–	14.114	1	4.1	2.9	–	–	407.472	390
EARICK RD. BRIDGE	RT.	49+931.875	5.750	1.116	11.137	4.415		1	4.1	2.9	0.22	2	407.572	390
EARICK RD. BRIDGE	LT.	50+032.221	5.750	1.159	16.945	5.972	14.114	1	4.1	2.9	0.22	2	407.599	390
EARICK RD. BRIDGE	RT.	50+040.759	5.750	–	–	–		1	4.1	2.9	–	–	407.503	390
SUB-TOTAL				12.892	135.634	40.636	122.887	20	82	58	2.20	20		
TOTAL				189.162			122.887	20	82	58	2.20	20		
TOTALS CARRIED TO GENERAL SUMMARY				189			122.89	20	82	58	2.20	20		

** For Pipe Length & Catch Basin Depth, See Table Below

** PIPE LENGTH AND CATCH BASIN DEPTH

LOCATION	FROM STATION	TO STATION	"E"	"F"
CONRAIL R.R. BRIDGE	33+585.186, LT.	33+604.797, LT.	17.680 m	1.065 m
CONRAIL R.R. BRIDGE	33+576.529, RT.	33+585.016, RT.	8.237 m	1.312 m
S.R. 61 BRIDGE	49+952.927, RT.	49+952.894, LT	11.500 m	1.234 m
S.R. 61 BRIDGE	50+047.073, LT.	50+047.106, RT.	11.500 m	1.235 m
S.R. 181 BRIDGE	49+956.588, LT.	49+949.886, RT.	13.171 m	1.335 m
S.R. 181 BRIDGE	50+061.998, LT.	50+055.296, RT.	13.171 m	1.243 m
HORNING RD. BRIDGE	49+954.672, RT.	49+954.642, LT.	9.700 m	1.253 m
HORNING RD. BRIDGE	50+048.422, LT.	50+048.452, RT.	9.700 m	1.254 m
EARICK RD. BRIDGE	49+923.337, LT.	49+931.875, RT.	14.114 m	1.109 m
EARICK RD. BRIDGE	50+040.759, RT.	50+032.221, LT.	14.114 m	1.113 m

RATIO 1:200
HORIZONTAL SCALE IN METERS
CALCULATED MJT
CHECKED WJS

DRAINAGE DETAILS

CRA/RIC-30-33.500/0.000

459B
712

DD117.DWG
03-27-2001 1:47 PM
1:200 M

U.S. 30
CURVE DATA

PI = STA. 0+794.937
△ = 08°18'10" LT.
R = 4060.000m
T = 294.685m
L = 588.338m
E = 10.680m
e MAX. = NONE

ITEM	QUANTITY	UNIT	DESCRIPTION
203	123	CU M	EXCAVATION, NOT INCLUDING EMBANKMENT CONSTRUCTION
203	667	CU M	EMBANKMENT
870	416	S.M.	SEEDING AND MULCHING
670	95.6	S.M.	DITCH EROSION PROTECTION

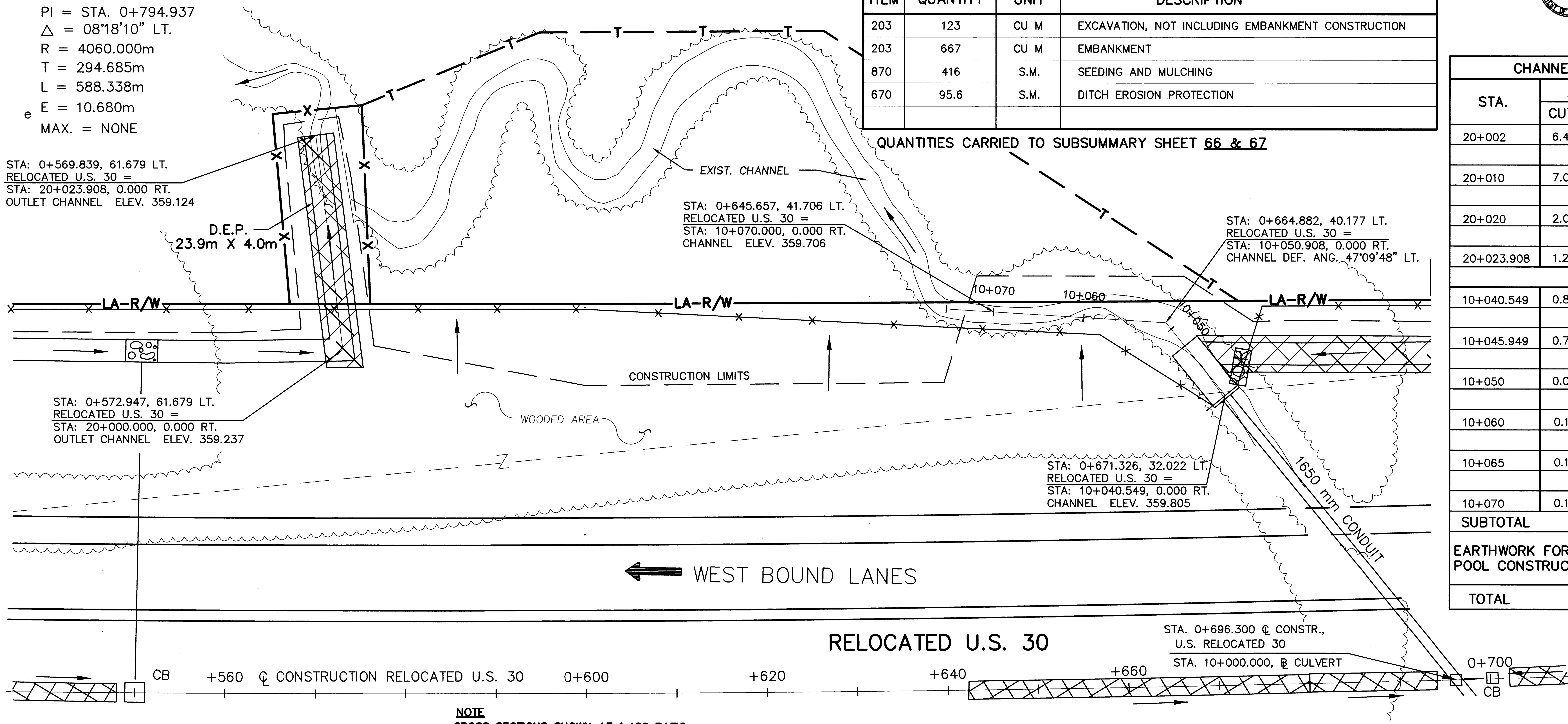
ESTIMATED QUANTITIES

QUANTITIES CARRIED TO SUBSUMMARY SHEET 66 & 67

metric units

CHANNEL EARTHWORK

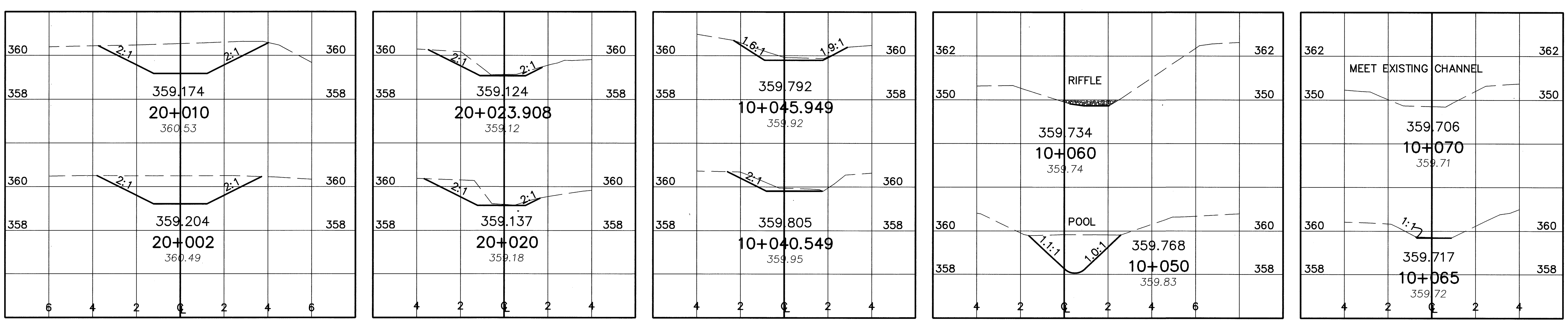
STA.	AREA CUT	AREA FILL	VOLUME CUT	VOLUME FILL
20+002	6.4	0.0		
			54	0
20+010	7.0	0.0		
			45	0
20+020	2.0	0.0		
			6	0
20+023.908	1.2	0.0		
10+040.549	0.8	0.0		
			4	0
10+045.949	0.7	0.0		
			2	0
10+050	0.0	0.0		
			1	0
10+060	0.1	0.0		
			1	0
10+065	0.1	0.0		
			1	0
10+070	0.1	0.0		
SUBTOTAL			114	0
EARTHWORK FOR POOL CONSTRUCTION			38	0
TOTAL			152	0



NOTE
CROSS SECTIONS SHOWN AT 1:100 RATIO
CROSS SECTION SCALE HORIZ. 1:100
VERT. 1:100

FOR CHANNEL PROFILE AND LANDSCAPE PLAN
SEE SHEET 459D.

NOTE
THE PROPOSED BENCH ELEVATION EQUALS THE CHANNEL ELEVATION

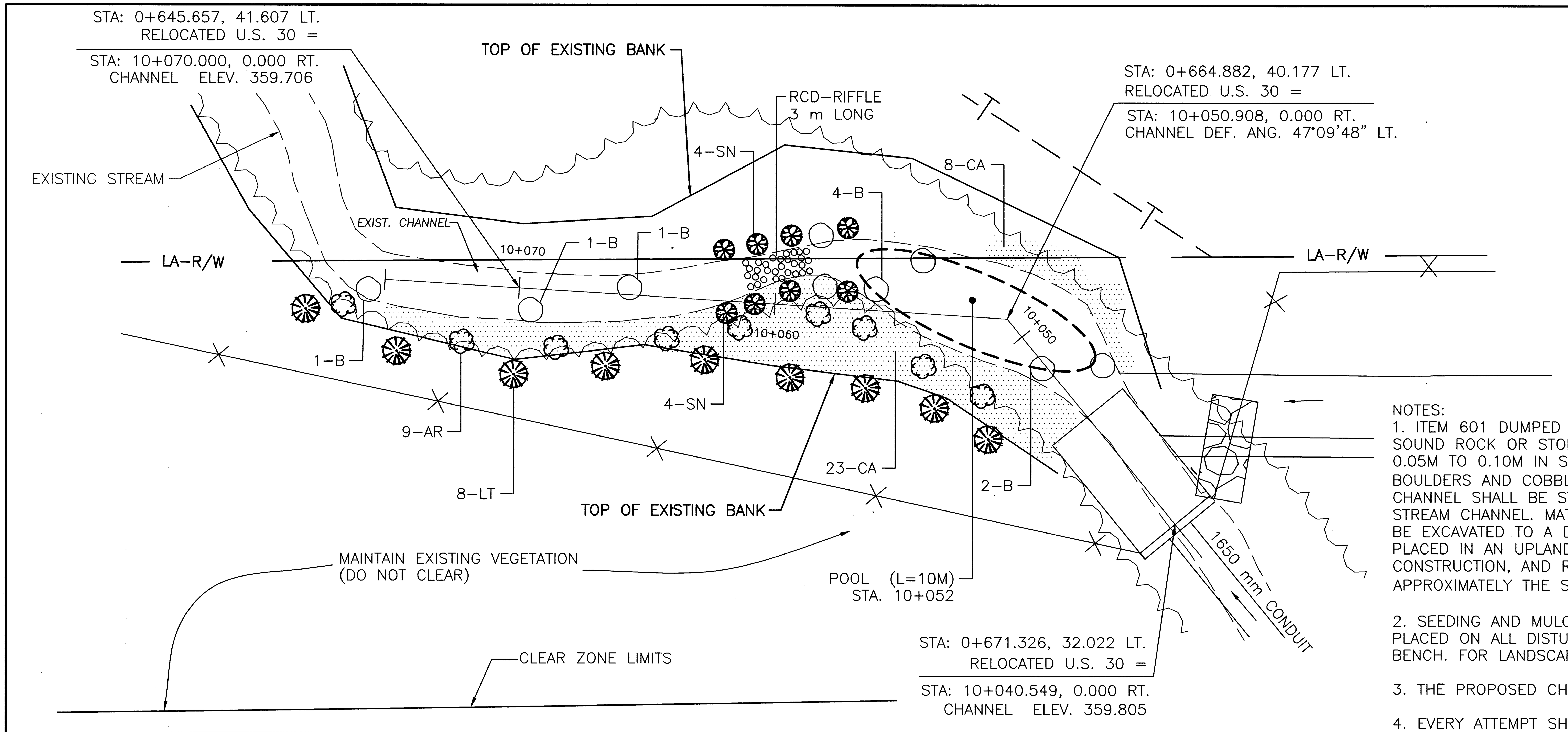


RATIO 1:250
HORIZONTAL SCALE IN METERS
CALCULATED TM
CHECKED WS

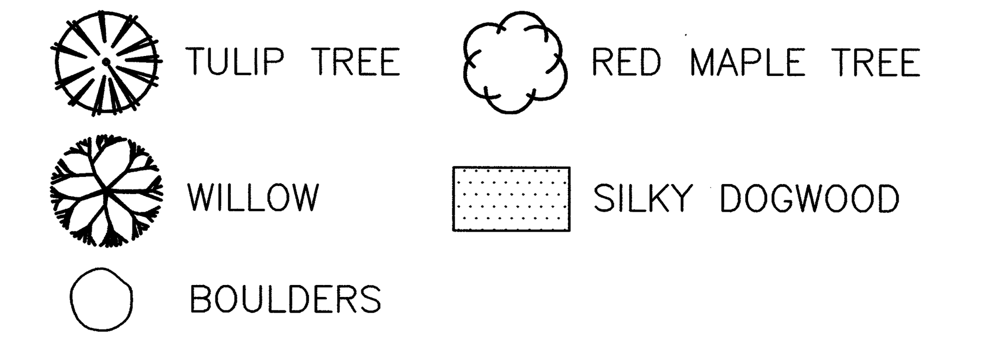
GRADING PLAN
STA. 0+560 TO STA. 0+700

CRA/RIC-30-33.500/0.000

DD119.DWG 12-14-2000 1:22 PM 1:250 M

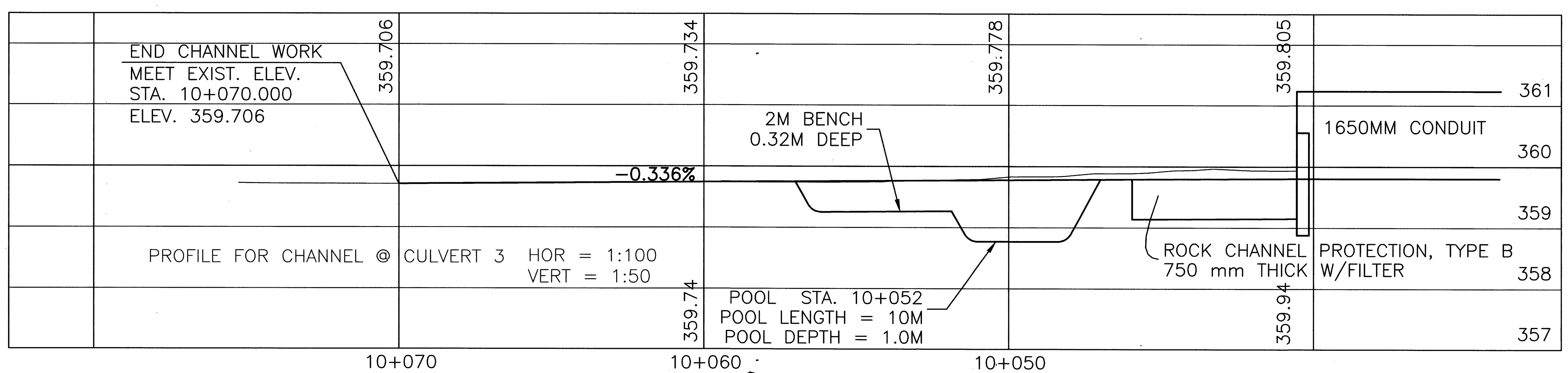


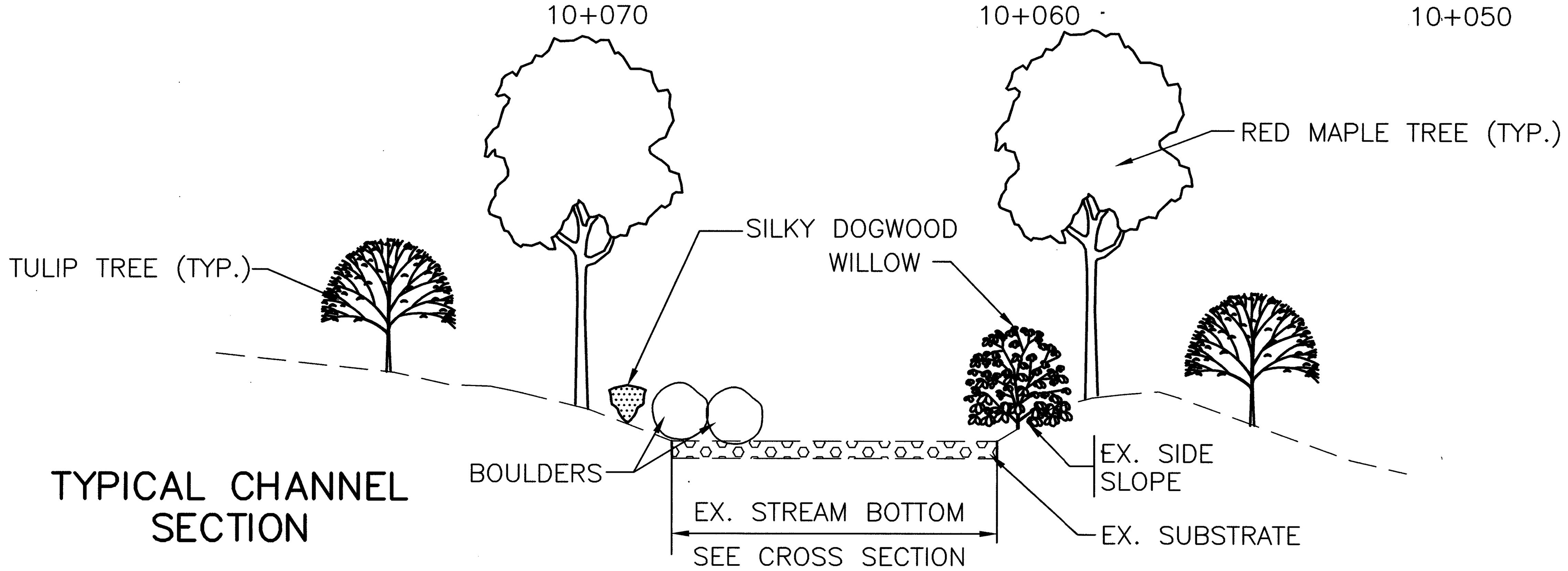
LEGEND



metric units

FOR ADDITIONAL CHANNEL DETAILS AND QUANTITIES SEE SHEET 459C.





TYPICAL CHANNEL SECTION

NOTES:

1. ITEM 601 DUMPED ROCK FILL, TYPE D, AS PER PLAN, SHALL BE BE SOUND ROCK OR STONE ONLY AS PER SECTION 601.07 AND SHALL BE 0.05M TO 0.10M IN SIZE FOR USE AS SUBSTRATE OR RIFFLE. EXISTING BOULDERS AND COBBLE/GRAVEL SUBSTRATE WITHIN THE STREAM CHANNEL SHALL BE STOCKED FOR REPLACEMENT IN THE MODIFIED STREAM CHANNEL. MATERIAL IN THE EXISTING STREAM CHANNEL SHALL BE EXCAVATED TO A DEPTH OF 0.15 m PRIOR TO CONSTUCTION, PLACED IN AN UPLAND LOCATION AWAY FROM THE STREAM DURING CONSTRUCTION, AND RETURNED TO THE MODIFIED CHANNEL AT APPROXIMATELY THE SAME DEPTH (i.e. 0.15 m) AFTER CONSTRUCTION.

2. SEEDING AND MULCHING, ROADSIDE MIX, CLASS "1", SHALL BE PLACED ON ALL DISTURBED AREAS AND SIDESLOPES OF THE CHANNEL BENCH. FOR LANDSCAPING CHANNEL SECTIONS, SEE SHEET No. 459E.

3. THE PROPOSED CHANNEL SHALL REMAIN WITHIN THE EXISTING BANKS.

4. EVERY ATTEMPT SHALL BE MADE TO PRESERVE TREES, SHRUBS, AND OTHER ESTABLISHED VEGETATION WITHIN THE EASEMENT/MITIGATION AREA, AND OUTSIDE THE "CLEAR ZONE", ESPECIALLY ALONG THE EXISTING BANKS OF THE CHANNEL. STUMPS AND OTHER PARTIALLY DESTROYED VEGETATION SHOULD REMAIN TO ENSURE STABILIZED BANKS AND POTENTIALLY REGROW NATURALLY.

5. AN ATTEMPT SHOULD BE MADE TO MAINTAIN THE BANKS IN THEIR CURRENT STATE; THEY SHOULD NOT BE BROADENED, GRADED OUT OR TAPERED.

6. TEMPORARY CONSTRUCTION FENCE SHALL BE ADDED TO ALL AREAS OUTSIDE OF THE CONSTRUCTION ZONE SURROUNDING THE STREAM AS DIRECTED BY THE ENGINEER.

7. THE LARGE BOULDERS SHOULD BE KEYED INTO THE STREAM BOTTOM. USUAL DEPTH EQUALS 1/4 TO 1/3 THE HEIGHT OF THE INDIVIDUAL BOULDER.

8. THE AREAS ADJACENT TO THE STREAM SHALL BE PLANTED WITH SILKY DOGWOOD AT A SPACING OF 1 PER SQ. METER. RED MAPLE, TULIP AND BLACK WILLOW TREES SHALL BE PLANTED AT A SPACING OF 1 PER 4-6 METERS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

ESTIMATED QUANTITIES

KEY	ITEM	QUANTITY	UNIT	DESCRIPTION	SIZE
B	SPECIAL	9	EACH	MISC: BOULDER	(0.3M - 1M)
SN	661	8	EACH	PLANTING, MISC: SALIX NIGRA (BLACK WILLOW TREE)	3.8L (1 GAL)
CA	661	31	EACH	PLANTING, MISC: CORNUS AMOMUM (SILKY DOGWOOD)	3.8L (1 GAL)
LT	661	9	EACH	PLANTING, MISC: LIRIODENDRON TULIPIFERA (TULIP TREE)	3.8L (1 GAL)
AR	661	9	EACH	PLANTING, MISC: ACER RUBRUM (RED MAPLE TREE)	3.8L (1 GAL)
DRF	601	12	CU. M.	DUMPED ROCK, TYPE D, AS PER PLAN	
RCD	601	2	CU. M.	ROCK CHANNEL PROTECTION, TYPE C, WITHOUT FILTER	

QUANTITIES CARRIED TO SUBSUMMARY SHEETS 58 & 61A

RATIO 1:100
HORIZONTAL SCALE IN METERS
0 2 5

CALCULATED DAB
CHECKED WS

CULVERT NO. 3 STA 0+696.300 OUTLET CHANNEL
LANDSCAPING PLAN

CRA/RIC-30-33.500/0.000

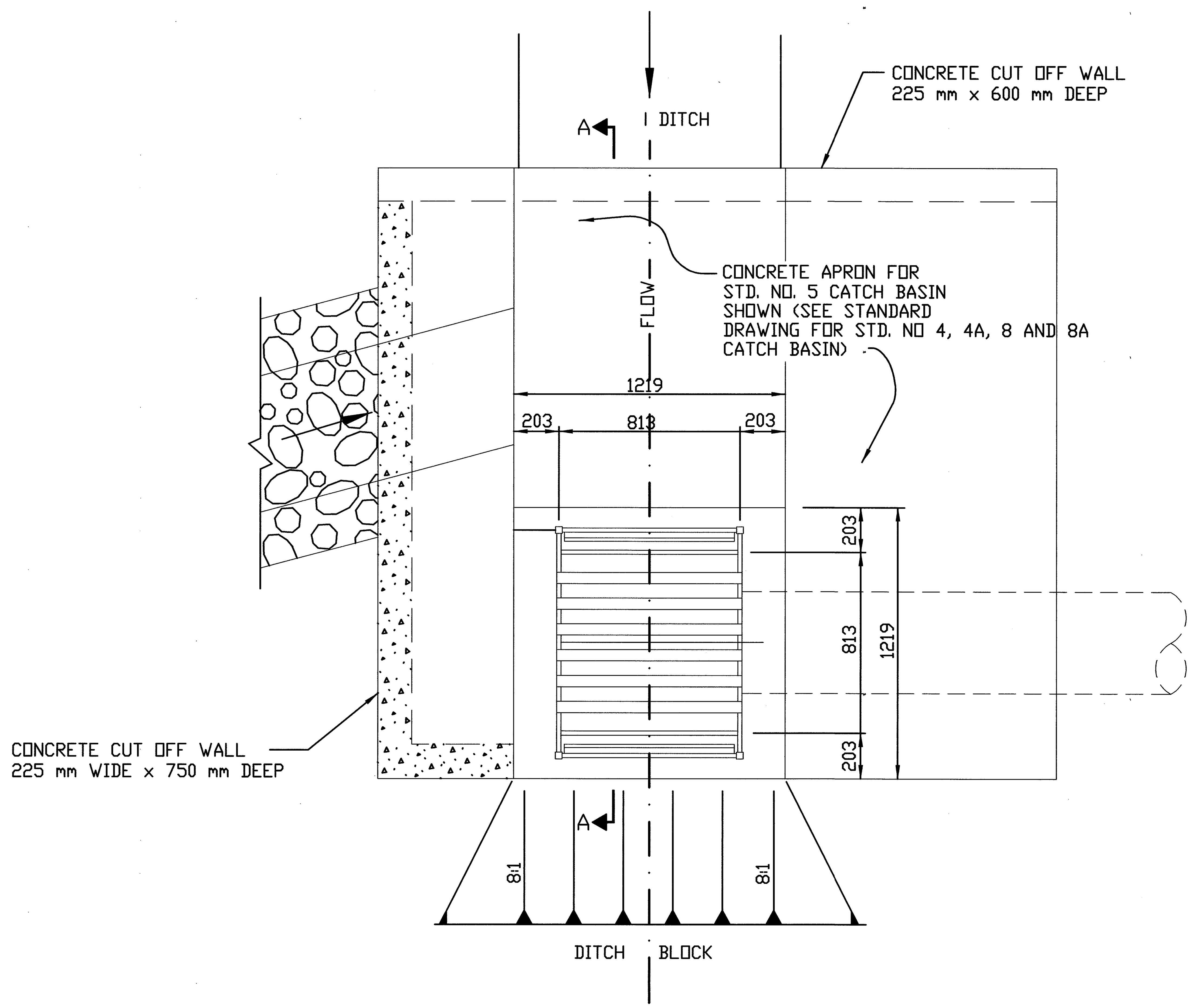
459D
712

0696.DWG
12-26-2000 9:01 AM
1:100 M

CULVERT NO. 3 LANDSCAPING CROSS-SECTIONS
STA. 10+040.549 TO STA. 10+070
CRA/RIC-30-33.500/0.000
459E
712
metric units
RATIO 1:50
HORIZONTAL SCALE IN METERS
CALCULATED JPS
CHECKED WS
TULIP TREE
RED MAPLE
SILKY DOGWOOD
POOL
2:1
BENCH/CHANNEL WIDTH = 2.8M
POOL = 10M LONG
1M DEEP
359.768 PROP. BENCH/CHANNEL ELEV.
10+050
359.83 EX. CHANNEL ELEV.
1.6:1
1.9:1
BENCH/CHANNEL WIDTH = 2.7M
359.792 PROP. BENCH/CHANNEL ELEV.
10+045.949
359.92 EX. CHANNEL ELEV.
BENCH/CHANNEL WIDTH = 2.6M
359.805 PROP. BENCH/CHANNEL ELEV.
10+040.549
359.95 EX. CHANNEL ELEV.
MEET EXISTING CHANNEL
BOULDER
359.706 PROP. BENCH/CHANNEL ELEV.
10+070
359.71 EX. CHANNEL ELEV.
1:1
BENCH/CHANNEL WIDTH = 1.6M
359.717 PROP. BENCH/CHANNEL ELEV.
10+065
359.72 EX. CHANNEL ELEV.
WILLOW
RIFFLE
BENCH/CHANNEL WIDTH = 1.8M
359.734 PROP. BENCH/CHANNEL ELEV.
10+060
359.74 EX. CHANNEL ELEV.
362
360
358
350
4
2
℄
6
0696_XSEC.DWG
12-13-2000 3:17 PM
1:50 M

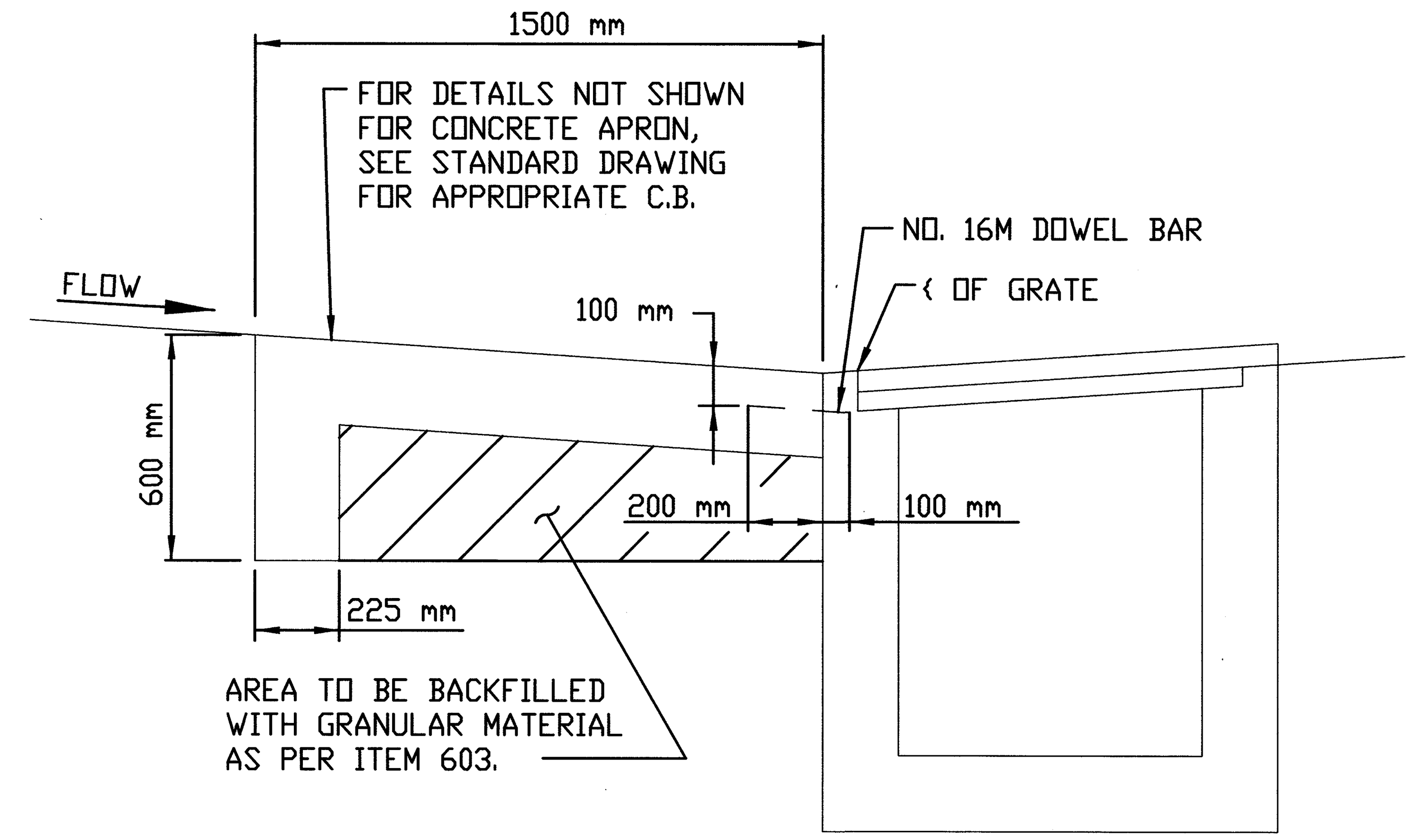
metric units

NOTE: ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.



CONCRETE CUT OFF WALL - 225 M WIDE x 750 mm DEEP
SEE NOTE 2

CATCH BASIN NO. 4, 4A, 5, 5A, 8 AND 8A AS PER PLAN



SECTION A-A

NOTES:

1. THIS DETAIL SHALL BE USED FOR NO.4, 4A ,5, 5A AND NO. 8 & 8A CATCH BASINS, AS PER PLAN. FOR DETAILS NOT SHOWN SEE STD. DRAWING CB-3.1 AND CB-3.2. THE CONCRETE APRON SHALL BE REPLACED INCLUDING CUT OFF WALL AND BACKFILLED AS SHOWN HERE AND IN THE PERTINENT STANDARD DRAWING.

2. A CONCRETE CUT OFF WALL SHALL BE CONSTRUCTED AS DETAILED ON THE SIDES WHERE WATER WILL FLOW ONTO THE APRON AS SHOWN IN THE PLANS AND AS APPROVED BY THE ENGINEER. MATERIALS, LABOR AND ALL INCIDENTALS WILL BE INCLUDED IN THE COST OF ITEM 604 CATCH BASIN, AS PER PLAN.

3. THE FLOW OF WATER FROM THE BACK SIDE OF THE STRUCTURE SHALL BE DIRECTED TOWARDS THE APRON PORTION OF THE PROPOSED CATCH BASIN.

4. NO. 16M BARS SHALL BE EQUALLY SPACED WITH 100 mm CLEARANCE EACH SIDE. THE NUMBER OF BARS NEEDED ALONG EACH SIDE OF A NO. 4, 4A CATCH BASIN WITH A CONCRETE APRON IS 7. FOR A NO. 5, 5A, 8 AND 8A CATCH BASIN. THE NUMBER OF BARS NEEDED ALONG EACH SIDE WITH A CONCRETE APRON IS 4.

5. THE FURNISHING AND PLACING OF STEEL FOR THE 16 mm x 300 mm DOWEL BARS SHALL BE PER 509 REINFORCING STEEL. THE DOWEL BARS SHALL BE EPOXY COATED PER 509.10. THE DOWEL BARS SHALL BE INSTALLED PER 510 OR CAST INTO THE BASIN. BOLT OR INSERTS MAY BE USED. THE CATCH BASIN SHALL BE PRECAST OR CAST-IN-PLACE CONCRETE. BRICK OR CONCRETE BLOCK WILL NOT BY PERMITTED. THE 150 mm CONCRETE APRON SHALL BE REINFORCED PER 601.04(3).

6. PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 604 CATCH BASIN NO. 4 OR 5, AS PER PLAN, INCLUDING REMOVAL AND DISPOSAL OF THE EXISTING CONCRETE APRONS WHERE APPLICABLE. THE PROPOSED CONCRETE APRON SHALL BE PLACED AND BACKFILLED AS SHOWN HERE AND IN THE PERTINENT STANDARD DRAWING. ALL MATERIALS, LABOR, TOOLS, EQUIPMENT AND ALL INCIDENTALS NECESSARY TO COMPLETE THIS ITEM OF WORK WILL BE INCLUDED IN THE COST OF THE ITEM 604 CATCH BASIN NO. 4, 4A,5, 5A, 8 AND 8A AS PER PLAN.

CALCULATED PS
CHECKED DAW

DRAINAGE DETAIL

CRA/RIC-30.500/0.000

459F
712

11365DDA.DGN 10/6/99 SAM,SJK

SUPERELEVATION TABLE

RELOCATED U.S. 30																							
WESTBOUND LANE												EASTBOUND LANE											
EDGE OF PAVEMENT ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	CENTERLINE OF LANE ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	PROFILE GRADE EDGE OF PAVEMENT	STATION	PROFILE GRADE EDGE OF PAVEMENT	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	CENTERLINE OF LANE ELEVATION	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE OF PAVEMENT ELEVATION	REMARKS
											PI STA. 33+370.704 R=2000m												
											GROUP 1												
366.401		0.112	0.0310	3.600	366.290		0.112	0.0310	3.600	366.178	33+520.000	366.178	3.600	−0.0310	−0.112		366.066	3.600	−0.0310	−0.112		365.955	FS
366.474		0.096	0.0266	3.600	366.378		0.096	0.0266	3.600	366.282	33+530.000	366.282	3.600	−0.0266	−0.096		366.186	3.600	−0.0266	−0.096		366.090	
366.516	627.2:1	0.086	0.0239	3.600	366.430	627.2:1	0.086	0.0239	3.600	366.344	33+536.129	366.344	3.600	−0.0239	−0.086	627.2:1	366.258	3.600	−0.0239	−0.086	627.2:1	366.172	PT
366.540		0.080	0.0221	3.600	366.461		0.080	0.0221	3.600	366.381	33+540.000	366.381	3.600	−0.0221	−0.080		366.301	3.600	−0.0221	−0.080		366.222	
366.601		0.064	0.0177	3.600	366.538		0.064	0.0177	3.600	366.474	33+550.000	366.474	3.600	−0.0177	−0.064		366.410	3.600	−0.0177	−0.064		366.347	
366.624		0.058	0.0160	3.600	366.567		0.058	0.0160	3.600	366.509	33+553.870	366.509	3.600	−0.0160	−0.058		366.451	3.600	−0.0160	−0.058		366.394	CR
366.658		0.038	0.0106	3.600	366.620		0.058	0.0160	3.600	366.562	33+560.000	366.562	3.600	−0.0106	−0.038		366.524	3.600	−0.0160	−0.058		366.466	
366.707		0.006	0.0017	3.600	366.701		0.058	0.0160	3.600	366.643	33+570.000	366.643	3.600	−0.0017	−0.006		366.637	3.600	−0.0160	−0.058		366.579	
366.716	313.6:1	0.000	0.0000	3.600	366.716		0.058	0.0160	3.600	366.658	33+571.935	366.658	3.600	0.0000	0.000	313.6:1	366.658	3.600	−0.0160	−0.058		366.600	HL
366.751		−0.026	−0.0071	3.600	366.777		0.058	0.0160	3.600	366.719	33+580.000	366.719	3.600	0.0071	0.026		366.745	3.600	−0.0160	−0.058		366.687	
366.789		−0.058	−0.0160	3.600	366.847		0.058	0.0160	3.600	366.789	33+590.000	366.789	3.600	0.0160	0.058		366.847	3.600	−0.0160	−0.058		366.789	NC
											PI STA. 2+881.716 R=1250m												
											GROUP 2												
380.319		−0.058	−0.0160	3.600	380.377		0.058	0.0160	3.600	380.319	2+430.000	380.319	3.600	0.0160	0.058		380.377	3.600	0.0160	−0.058		380.319	NC
380.411		−0.058	−0.0160	3.600	380.468		0.020	0.0056	3.600	380.448	2+440.000	380.448	3.600	0.0160	0.058		380.506	3.600	0.0056	−0.020		380.485	
380.459		−0.058	−0.0160	3.600	380.517	265.9:1	0.000	0.0000	3.600	380.517	2+445.319	380.517	3.600	0.0160	0.058		380.575	3.600	0.0000	0.000	265.9:1	380.575	HL
380.502		−0.058	−0.0160	3.600	380.559		−0.018	0.0049	3.600	380.577	2+450.000	380.577	3.600	0.0160	0.058		380.635	3.600	0.0049	0.018		380.652	
380.593		−0.058	−0.0160	3.600	380.651		−0.055	0.0153	3.600	380.706	2+460.000	380.706	3.600	0.0160	0.058		380.764	3.600	0.0153	0.055		380.819	
380.599		−0.058	−0.0160	3.600	380.656		−0.058	0.0160	3.600	380.714	2+460.638	380.714	3.600	0.0160	0.058		380.772	3.600	0.0160	0.058		380.829	CR
380.685		−0.075	−0.0209	3.600	380.760		−0.075	0.0209	3.600	380.835	2+470.000	380.835	3.600	0.0209	0.075		380.910	3.600	0.0209	0.075		380.985	
380.776		−0.094	−0.0261	3.600	380.870		−0.094	0.0261	3.600	380.964	2+480.000	380.964	3.600	0.0261	0.094		381.058	3.600	0.0261	0.094		381.152	
380.868	531.9:1	−0.113	−0.0313	3.600	380.980	531.9:1	−0.113	0.0313	3.600	381.093	2+490.000	381.093	3.600	0.0313	0.113	531.9:1	381.206	3.600	0.0313	0.113	531.9:1	381.318	
380.892		−0.118	−0.0328	3.600	381.010		−0.118	0.0328	3.600	381.128	2+492.726	381.128	3.600	0.0328	0.118		381.246	3.600	0.0328	0.118		381.364	PC
380.958		−0.132	−0.0366	3.600	381.090		−0.132	0.0366	3.600	381.222	2+500.000	381.222	3.600	0.0366	0.132		381.354	3.600	0.0366	0.132		381.486	
381.050		−0.150	−0.0418	3.600	381.201		−0.150	0.0418	3.600	381.351	2+510.000	381.351	3.600	0.0418	0.150		381.501	3.600	0.0418	0.150		381.652	
381.142		−0.169	−0.0470	3.600	381.311		−0.169	0.0470	3.600	381.480	2+520.000	381.480	3.600	0.0470	0.169		381.649	3.600	0.0470	0.169		381.818	FS
											GROUP 3												
389.756		−0.169	−0.0470	3.600	389.925		−0.169	0.0470	3.600	390.094	3+220.000	390.094	3.600	0.0470	0.169		390.263	3.600	0.0470	0.169		390.432	FS
389.833		−0.150	−0.0418	3.600	389.984		−0.150	0.0418	3.600	390.134	3+230.000	390.134	3.600	0.0418	0.150		390.284	3.600	0.0418	0.150		390.435	
389.910	531.9:1	−0.132	−0.0366	3.600	390.042	531.9:1	−0.132	0.0366	3.600	390.174	3+240.000	390.174	3.600	0.0366	0.132	531.9:1	390.306	3.600	0.0366	0.132	531.9:1	390.438	
389.965		−0.118	−0.0329	3.600	390.084		−0.118	0.0329	3.600	390.202	3+246.957	390.202	3.600	0.0329	0.118		390.320	3.600	0.0329	0.118		390.439	PT
389.989		−0.113	−0.0313	3.600	390.101		−0.113	0.0313	3.600	390.214	3+250.000	390.214	3.600	0.0313	0.113		390.327	3.600	0.0313	0.113		390.439	
390.066		−0.094	−0.0261	3.600	390.160		−0.094	0.0261	3.600	390.254	3+260.000	390.254	3.600	0.0261	0.094		390.348	3.600	0.0261	0.094		390.442	
390.144		−0.075	−0.0209	3.600	390.219		−0.075	0.0209	3.600	390.294	3+270.000	390.294	3.600	0.0209	0.075		390.369	3.600	0.0209	0.075		390.444	
390.216		−0.058	−0.0160	3.600	390.273		−0.058	0.0160	3.600	390.331	3+279.362	390.331	3.600	0.0160	0.058		390.389	3.600	0.0160	0.058		390.446	CR
390.221		−0.058	−0.0160	3.600	390.279		−0.055	0.0153	3.600	390.334	3+280.000	390.334	3.600	0.0160	0.058		390.392	3.600	0.0153	0.055		390.447	
390.299		−0.058	−0.0160	3.600	390.356		−0.018	0.0049	3.600	390.374	3+290.000	390.374	3.600	0.0160	0.058		390.432	3.600	0.0049	0.018		390.449	
390.335		−0.058	−0.0160	3.600	390.393	265.9:1	0.000	0.0000	3.600	390.393	3+294.681	390.393	3.600	0.0160	0.058		390.451	3.600	0.0000	0.000	265.9:1	390.451	HL
390.377		−0.058	−0.0160	3.600	390.434		0.020	0.0056	3.600	390.414	3+300.000	390.414	3.600	0.0160	0.058		390.472	3.600	−0.0056	−0.020		390.451	
390.454		−0.058	−0.0160	3.600	390.512		0.058	0.0160	3.600	390.454	3+310.000	390.454	3.600	0.0160	0.058		390.512	3.600	−0.0160	−0.058		390.454	NC

LEGEND

NC = NORMAL CROWN
HL = HALF LEVEL
CR = CROWN REMOVAL
PC = POINT OF CURVE
PT = POINT OF TANGENT
FS = FULL SUPERELEVATION

GROUP 2
GROUP 3
WB LANES EB LANES

GROUP 1
GROUP 4
WB LANES EB LANES

metric units

CALCULATED CRM
CHECKED WJS

SUPERELEVATION TABLE
RELOCATED U.S. 30

CRA/RIC-30-33.500/0.000

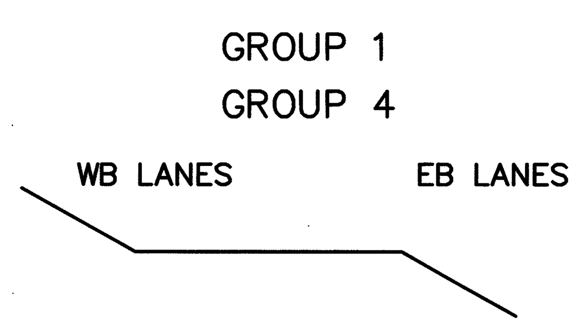
460/712

GE001.DWG
04-1-1999 10:24 AM
1:500 M

metric units

SUPERELEVATION TABLE

RELOCATED U.S. 30																							
WESTBOUND LANE												EASTBOUND LANE											
EDGE OF PAVEMENT ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	CENTERLINE OF LANE ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	PROFILE GRADE EDGE OF PAVEMENT	STATION	PROFILE GRADE EDGE OF PAVEMENT	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	CENTERLINE OF LANE ELEVATION	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE OF PAVEMENT ELEVATION	REMARKS
											PI STA. 6+613.311 R=1190.710m												
											GROUP 4												
398.170	255.1:1	−0.058	−0.0160	3.600	398.228		0.058	0.0160	3.600	398.170	6+270.000	398.170	3.600	0.0160	0.058	255.1:1	398.228	3.600	−0.0160	−0.058		398.170	NC
398.213		−0.018	−0.0051	3.600	398.232		0.058	0.0160	3.600	398.174	6+280.000	398.174	3.600	0.0051	0.018		398.192	3.600	−0.0160	−0.058		398.135	
398.238		0.000	0.0000	3.600	398.238		0.058	0.0160	3.600	398.180	6+284.694	398.180	3.600	0.0000	0.000		398.180	3.600	−0.0160	−0.058		398.122	HL
398.269		0.021	0.0058	3.600	398.249		0.058	0.0160	3.600	398.191	6+290.000	398.191	3.600	−0.0058	−0.021		398.170	3.600	−0.0160	−0.058		398.113	
398.335		0.058	0.0160	3.600	398.278		0.058	0.0160	3.600	398.220	6+299.388	398.220	3.600	−0.0160	−0.058		398.162	3.600	−0.0160	−0.058		398.105	CR
398.339	510.2:1	0.059	0.0163	3.600	398.281	510.2:1	0.059	0.0163	3.600	398.222	6+300.000	398.222	3.600	−0.0163	−0.059	510.2:1	398.163	3.600	−0.0163	−0.059	510.2:1	398.105	
398.425		0.078	0.0218	3.600	398.346		0.078	0.0218	3.600	398.268	6+310.000	398.268	3.600	−0.0218	−0.078		398.190	3.600	−0.0218	−0.078		398.111	
398.523		0.098	0.0272	3.600	398.425		0.098	0.0272	3.600	398.327	6+320.000	398.327	3.600	−0.0272	−0.098		398.229	3.600	−0.0272	−0.098		398.131	
398.636		0.118	0.0327	3.600	398.519		0.118	0.0327	3.600	398.401	6+330.000	398.401	3.600	−0.0327	−0.118		398.283	3.600	−0.0327	−0.118		398.166	
398.680		0.125	0.0346	3.600	398.556		0.125	0.0346	3.600	398.431	6+333.575	398.431	3.600	−0.0346	−0.125		398.306	3.600	−0.0346	−0.125		398.182	PC
398.763		0.137	0.0381	3.600	398.626		0.137	0.0381	3.600	398.489	6+340.000	398.489	3.600	−0.0381	−0.137		398.352	3.600	−0.0381	−0.137		398.215	
398.905		0.157	0.0436	3.600	398.748		0.157	0.0436	3.600	398.591	6+350.000	398.591	3.600	−0.0436	−0.157		398.434	3.600	−0.0436	−0.157		398.277	
399.053		0.176	0.0490	3.600	398.876		0.176	0.0490	3.600	398.700	6+360.000	398.700	3.600	−0.0490	−0.176		398.524	3.600	−0.0490	−0.176		398.347	FS



CALCULATED CRM
CHECKED WJS

SUPERELEVATION TABLE
RELOCATED U.S. 30

CRA/RIC-30-33.500/0.000

GE002.DWG
04-1-1999 10:25 AM
1:500 M

SUPERELEVATION TABLE

RAMP "I"							
BASELINE CONTROL		RIGHT SIDE					
STATION	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE OF PAVEMENT	REMARKS
	PI STA. I 4+005.970 R=250m						
3+965.020	364.937	4.800	0.0475	0.228	231.3:1	365.165	PC
3+970.000	364.839	4.800	0.0520	0.250		365.089	
3+980.000	364.642	4.800	0.0610	0.016		364.935	
3+990.000	364.445	4.800	0.0700	0.336		364.781	
4+000.000	364.248	4.800	0.0790	0.379		364.627	FS
4+010.000	364.054	4.800	0.0790	0.379		364.433	FS
4+020.000	363.878	4.800	0.0700	0.336	231.5:1	364.214	
4+030.000	363.725	4.800	0.0610	0.293		364.018	
4+040.000	363.593	4.800	0.0520	0.250		363.843	
4+046.200	363.523	4.800	0.0464	0.223		363.746	PT
4+050.000	363.483	4.800	0.0430	0.206		363.689	
4+060.000	363.395	4.800	0.0340	0.163		363.558	
4+070.000	363.329	4.800	0.0250	0.120		363.449	
4+080.000	363.285	4.800	0.0160	0.077		363.362	
	FOR ADDITIONAL PAVEMENT ELEVATION SEE INTERSECTION DETAILS SHEET NO. 480 AND RAMP TERMINAL DETAILS, SHEET NO. 469 – 470.						

SUPERELEVATION TABLE

RAMP "J"							
	LEFT SIDE					BASELINE CONTROL	
REMARKS	EDGE OF PAVEMENT	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	PROFILE GRADE	STATION
		PI STA. J 3+896.629 R=1250m					
FS	365.188	213.7:1	0.158	0.0330	4.800	365.030	3+960.000
	365.080		0.205	0.0428	4.800	364.875	3+970.000
	364.972		0.252	0.0525	4.800	364.720	3+980.000
PCC	364.940		0.266	0.0554	4.800	364.674	3+982.982
	364.864		0.299	0.0623	4.800	364.565	3+990.000
FS	364.756		0.346	0.0720	4.800	364.410	4+000.000
		PI STA. J 4+028.049 R=440m					
FS	363.992	223.2:1	0.346	0.0720	4.800	363.646	4+050.000
	363.825		0.299	0.0623	4.800	363.526	4+060.000
	363.684		0.256	0.0533	4.800	363.428	4+070.000
PT	363.647		0.243	0.0507	4.800	363.404	4+072.802
	363.564		0.211	0.0440	4.800	363.353	4+080.000
	363.467		0.167	0.0347	4.800	363.300	4+090.000
	363.392		0.121	0.0253	4.800	363.271	4+100.000
	363.341		0.077	0.0160	4.800	363.264	4+110.000
	FOR ADDITIONAL PAVEMENT ELEVATIONS SEE INTERSECTION DETAILS SHEET NO. 480 AND RAMP TERMINAL DETAILS, SHEET NO. 471 – 472.						

SUPERELEVATION TABLE

RAMP "L"							
BASELINE CONTROL		RIGHT SIDE					
STATION	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE OF PAVEMENT	REMARKS
		PI STA. L 4+489.098 R=440m					
4+390.000	361.472	4.800	0.0160	0.077	223.2:1	361.549	
4+400.000	361.105	4.800	0.0253	0.121		361.226	
4+410.000	360.738	4.800	0.0347	0.167		360.905	
4+420.000	360.382	4.800	0.0440	0.211		360.593	
4+430.000	360.049	4.800	0.0533	0.256		360.305	
4+430.076	360.047	4.800	0.0534	0.256		360.303	PC
4+440.000	359.739	4.800	0.0623	0.299		360.038	
4+450.000	359.451	4.800	0.0720	0.346		359.797	FS
		PI STA. L 4+636.360 R=1250m					
4+530.000	357.964	4.800	0.0720	0.346	213.7:1	358.310	FS
4+540.000	357.880	4.800	0.0623	0.299		358.179	
4+547.420	357.833	4.800	0.0551	0.264		358.097	PCC
4+550.000	357.819	4.800	0.0525	0.252		358.071	
4+560.000	357.769	4.800	0.0428	0.205		357.974	
4+570.000	357.719	4.800	0.0330	0.158		357.877	FS
	FOR ADDITIONAL PAVEMENT ELEVATIONS SEE INTERSECTION DETAILS SHEET 480 AND RAMP TERMINAL DETAILS, SHEET NO. 475.						

SUPERELEVATION TABLE

RAMP "K"							
	LEFT SIDE					BASELINE CONTROL	
REMARKS	EDGE OF PAVEMENT	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	PROFILE GRADE	STATION
		PI STA. K 4+540.710 R=250m					
	358.217	231.5:1	0.077	0.0160	4.800	358.140	4+470.000
	358.145		0.120	0.0250	4.800	358.025	4+480.000
	358.094		0.163	0.0340	4.800	357.931	4+490.000
	358.064		0.206	0.0430	4.800	357.858	4+500.000
	358.057		0.250	0.0520	4.800	357.807	4+510.000
PC	358.057		0.257	0.0535	4.800	357.800	4+511.626
	358.069		0.293	0.0610	4.800	357.776	4+520.000
	358.092		0.336	0.0700	4.800	357.756	4+530.000
FS	358.115	231.3:1	0.379	0.0790	4.800	357.736	4+540.000
	358.054		0.338	0.0704	4.800	357.716	4+550.000
	357.989		0.293	0.0610	4.800	357.696	4+560.000
PT	357.929		0.252	0.0524	4.800	357.677	4+569.533
	FOR ADDITIONAL PAVEMENT ELEVATIONS SEE INTERSECTION DETAILS SHEET NO. 480 AND RAMP TERMINAL DETAILS, SHEET NO. 473 – 474.						

metric units

NOTE

1. FOR RAMP TERMINAL DETAILS SEE SHEETS 469 – 475

LEGEND

NORMAL CROWN
HALF LEVEL
CR = CROWN REMOVAL
PC = POINT OF CURVE
PT = POINT OF TANGENT
FS = FULL SUPERELEVATION

CALCULATED CRM
CHECKED WJS

SUPERELEVATION TABLE
RAMP "I","J","L" & "K"

CRA/RIC-30-33.500/0.000

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SUPERELEVATION TABLE

RAMP "A"

BASELINE CONTROL		RIGHT SIDE					
STATION	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE OF PAVEMENT	REMARKS
	PI STA. A1+077.513 R=305m						
0+990.000	398.712	4.800	0.0526	0.252	231.5:1	398.964	
0+996.247	398.663	4.800	0.0583	0.280		398.943	PC
1+000.000	398.633	4.800	0.0617	0.296		398.929	
1+010.000	398.549	4.800	0.0709	0.340		398.889	
1+020.000	398.459	4.800	0.0800	0.384		398.843	FS
1+140.000	399.983	4.800	0.0800	0.384	162.8:1	400.367	FS
1+150.000	400.309	4.800	0.0672	0.323		400.632	
1+160.000	400.667	4.800	0.0544	0.261		400.928	
1+160.448	400.683	4.800	0.0538	0.258		400.941	PT
1+170.000	401.055	4.800	0.0416	0.200		401.255	
1+180.000	401.473	4.800	0.0288	0.138		401.611	
1+190.000	401.923	4.800	0.0160	0.077		402.000	

FOR ADDITIONAL PAVEMENT ELEVATIONS
SEE INTERSECTION DETAILS SHEET NO. 481 AND
RAMP TERMINAL DETAILS, SHEET NO. 476 – 477.

LEGEND

NC = NORMAL CROWN
HL = HALF LEVEL
CR = CROWN REMOVAL
PC = POINT OF CURVE
PT = POINT OF TANGENT
FS = FULL SUPERELEVATION

SUPERELEVATION TABLE

RAMP "B"

	LEFT SIDE					BASELINE CONTROL	
REMARKS	EDGE OF PAVEMENT	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	PROFILE GRADE	STATION
	PI STA. 0+786.629 R=1250m						
FS	399.410	221:6	0.158	0.0330	4.800	399.252	0+840.000
	399.408		0.204	0.0424	4.800	399.204	0+850.000
	399.415		0.249	0.0518	4.800	399.166	0+860.000
	399.441		0.294	0.0612	4.800	399.147	0+870.000
PCC	399.453		0.307	0.0640	4.800	399.146	0+872.982
	399.488		0.339	0.0706	4.800	399.149	0+880.000
FS	399.555		0.384	0.0800	4.800	399.171	0+890.000
	PI STA. 0+945.232 R=305m						
FS	400.334	213.5:1	0.384	0.0800	4.800	399.950	0+973.866
	400.374		0.355	0.0740	4.800	400.019	0+980.000
	400.440		0.309	0.0643	4.800	400.131	0+990.000
	400.505		0.262	0.0545	4.800	400.243	1+000.000
	400.570		0.215	0.0447	4.800	400.355	1+010.000
PT	400.602		0.192	0.0400	4.800	400.410	1+014.866
	400.635		0.168	0.0350	4.800	400.467	1+020.000
	400.700		0.121	0.0252	4.800	400.579	1+030.000
	400.765		0.074	0.0155	4.800	400.691	1+040.000
	400.830		0.027	0.0057	4.800	400.803	1+050.000
FLAT	400.869		0.000	0.0000	4.800	400.869	1+055.866
	400.896		−0.019	−0.0040	4.800	400.915	1+060.000
	400.961		−0.066	−0.0138	4.800	401.027	1+070.000
	401.026		−0.113	−0.0235	4.800	401.139	1+080.000
	401.091		−0.160	−0.0333	4.800	401.251	1+090.000
PC	401.136		−0.192	−0.0400	4.800	401.328	1+096.866
	401.156		−0.207	−0.0431	4.800	401.363	1+100.000
	401.222		−0.253	−0.0528	4.800	401.475	1+110.000
	401.287		−0.300	−0.0626	4.800	401.587	1+120.000
	401.352		−0.347	−0.0723	4.800	401.699	1+130.000
FS	401.403		−0.384	−0.0800	4.800	401.787	1+137.866
	PI STA. 1+302.349 R=305m						
FS	404.787	162.8:1	−0.384	−0.0800	4.800	405.171	1+440.000
	404.960		−0.323	−0.0672	4.800	405.283	1+450.000
PT	405.109		−0.270	−0.0563	4.800	405.379	1+458.514
	405.134		−0.261	−0.0544	4.800	405.395	1+460.000
	405.307		−0.200	−0.0416	4.800	405.507	1+470.000
	405.481		−0.138	−0.0288	4.800	405.619	1+480.000
	405.654		−0.077	−0.0160	4.800	405.731	1+490.000

FOR ADDITIONAL PAVEMENT ELEVATIONS
SEE INTERSECTION DETAILS SHEET NO. 481 AND
RAMP TERMINAL DETAILS, SHEET NO. 478.

metric units

CALCULATED CRM
CHECKED WJS

SUPERELEVATION TABLE
RAMP "A" & RAMP "B"

CRA/RIC-30-33.500/0.000

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metric units

SUPERELEVATION AND CROWN TABLE

S.R. 61													
LEFT SIDE					CENTERLINE CONTROL			RIGHT SIDE					
EDGE OF PAVEMENT	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	STATION	CROWN OFFSET RIGHT	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE OF PAVEMENT	REMARKS
					PI STA. 50+514.317 R=498.988m								
365.445		−0.058	−0.0160	3.600	50+167.315	0	365.503	3.600	−0.0160	−0.058		365.445	NC
365.382		−0.045	−0.0125	3.600	50+170.000	0	365.428	3.600	−0.0160	−0.058		365.370	
365.162		0.000	0.0000	3.600	50+179.494	0	365.162	3.600	−0.0160	−0.058		365.104	HL
365.152		0.003	0.0007	3.600	50+180.000	0	365.148	3.600	−0.0160	−0.058		365.090	
364.918		0.050	0.0140	3.600	50+190.000	0	364.868	3.600	−0.0160	−0.058		364.810	
364.879		0.058	0.0160	3.600	50+191.673	0	364.821	3.600	−0.0160	−0.058		364.763	CR
364.685	211.4:1	0.097	0.0269	3.600	50+200.000	0	364.588	3.600	−0.0269	−0.097		364.491	
364.452		0.144	0.0401	3.600	50+210.000	0	364.308	3.600	−0.0401	−0.144	211.4:1	364.164	
365.469		0.167	0.0465	3.600	50+214.495	0	365.302	3.600	−0.0465	−0.167		365.135	PC
364.220		0.192	0.0532	3.600	50+220.000	0	364.028	3.600	−0.0532	−0.192		363.836	
363.986		0.239	0.0664	3.600	50+230.000	0	363.748	3.600	−0.0664	−0.0401		363.507	
363.975		0.241	0.0670	3.600	50+230.494	0	363.734	3.600	−0.0664	−0.239		363.493	FS
359.831		0.241	0.0670	3.600	50+388.000	0	359.590	3.600	−0.0670	−0.241		359.349	①
359.780		0.241	0.0670	3.590	50+390.000	0.037	359.557	3.591	−0.0670	−0.241		359.316	
359.641		0.237	0.0670	3.538	50+400.000	0.222	359.404	3.547	−0.0670	−0.238		359.166	
359.508		0.234	0.0670	3.486	50+410.000	0.407	359.274	3.504	−0.0670	−0.235		359.039	
359.397		0.230	0.0670	3.432	50+420.000	0.591	359.167	3.461	−0.0670	−0.232		358.935	
359.309		0.227	0.0670	3.381	50+430.000	0.776	359.083	3.417	−0.0670	−0.229		358.854	
359.245		0.223	0.0670	3.329	50+440.000	0.961	359.022	3.374	−0.0670	−0.226		358.760	
359.205		0.220	0.0670	3.277	50+450.000	1.146	358.985	3.330	−0.0670	−0.223		358.762	
359.202		0.220	0.0670	3.277	50+451.075	1.166	358.982	3.330	−0.0670	−0.223		358.759	FS
359.147	236.7:1	0.177	0.0550	3.224	50+460.000	1.330	358.970	3.287	−0.0550	−0.181	236.7:1	358.789	
359.100		0.133	0.0420	3.172	50+470.000	1.515	358.967	3.244	−0.0420	−0.136		358.831	
*359.056		0.092	* 0.0290	3.160	50+480.000	1.700	358.964	3.160	*−0.0290	−0.092		358.872	②

* = INDICATES EXISTING

① BEGIN PAVEMENT AND CROWN TAPER

② END PAVEMENT AND CROWN TAPER (MEET EXISTING)

LEGEND

NC = NORMAL CROWN
HL = HALF LEVEL
CR = CROWN REMOVAL
PC = POINT OF CURVE
PT = POINT OF TANGENT
FS = FULL SUPERELEVATION

SUPERELEVATION TABLE

SERVICE ROAD "A"												
LEFT SIDE					CENTERLINE CONTROL		RIGHT SIDE					
EDGE OF PAVEMENT	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	STATION	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE OF PAVEMENT	REMARKS
					PI STA. 50+252.945 R=305m							
360.174		−0.048	−0.0160	3.000	50+057.928	360.222	3.000	−0.0160	−0.048		360.174	NC
360.158		−0.048	−0.0160	3.030	50+060.000	360.206	3.000	−0.0128	−0.038		360.168	
360.102		−0.048	−0.0160	3.030	50+068.148	360.150	3.000	0.0000	0.000		360.150	HL
360.088		−0.051	−0.0160	3.177	50+070.000	360.139	3.000	0.0029	0.009		360.148	
360.047		−0.053	−0.0160	3.300	50+078.368	360.100	3.000	0.0160	0.048		360.148	CR
360.032		−0.061	−0.0185	3.324	50+080.000	360.093	3.000	0.0185	0.056	213:1	360.149	
359.930		−0.119	−0.0342	3.471	50+090.000	360.049	3.000	0.0342	0.103		360.152	
359.826	213:1	−0.180	−0.0498	3.617	50+100.000	360.006	3.000	0.0498	0.149		360.155	
359.801		−0.195	−0.0533	3.650	50+102.228	359.996	3.000	0.0533	0.160		360.156	PC
359.715		−0.247	−0.0655	3.764	50+110.000	359.962	3.000	0.0655	0.197		360.159	
359.610		−0.312	−0.0800	3.900	50+119.272	359.922	3.000	0.0800	0.240		360.162	FS
					PI STA. 50+252.945 R=305m							
358.541		−0.312	−0.0800	3.900	50+365.248	358.853	3.000	0.0800	0.240		359.093	FS
358.546		−0.286	−0.0744	3.847	50+370.000	358.832	3.000	0.0744	0.223		359.055	
358.554		−0.234	−0.0626	3.737	50+380.000	358.788	3.000	0.0626	0.188		358.976	
358.556		−0.223	−0.0600	3.713	50+382.193	358.779	3.000	0.0600	0.180		358.959	PT
358.561		−0.184	−0.0508	3.626	50+390.000	358.745	3.000	0.0508	0.152		358.897	
358.564		−0.137	−0.0390	3.515	50+400.000	358.701	3.000	0.0390	0.117		358.818	
358.565		−0.093	−0.0272	3.405	50+410.000	358.658	3.000	0.0272	0.082		358.740	
359.738		−0.053	−0.0160	3.300	50+419.459	359.791	3.000	0.0160	0.048		359.839	CR
358.564		−0.051	−0.0154	3.294	50+420.000	358.615	3.006	0.0154	0.046		358.661	
358.560		−0.011	−0.0036	3.184	50+430.000	358.571	3.117	0.0036	0.011		358.582	
358.558	282.4:1	0.000	0.0000	3.150	50+433.028	358.558	3.150	0.0000	0.000	282.4:1	358.558	FLAT
358.553		0.025	0.0082	3.073	50+440.000	358.528	3.227	−0.0082	−0.026		358.502	
358.547		0.048	0.0160	3.000	50+446.597	358.499	3.300	−0.0160	−0.053		358.446	CR
358.544		0.060	0.0200	3.000	50+450.000	358.484	3.338	−0.0200	−0.067		358.417	
358.536		0.095	0.0318	3.000	50+460.000	358.441	3.449	−0.0318	−0.110		358.331	
358.528		0.131	0.0436	3.000	50+470.000	358.397	3.559	−0.0436	−0.155		358.242	
358.520		0.166	0.0554	3.000	50+480.000	358.354	3.670	−0.0554	−0.203		358.151	
358.517		0.180	0.0600	3.000	50+483.863	358.337	3.713	−0.0600	−0.223		358.114	PC
358.512		0.202	0.0672	3.000	50+490.000	358.310	3.780	−0.0672	−0.254		358.056	
358.504		0.237	0.0790	3.000	50+500.000	358.267	3.890	−0.0790	−0.307		357.960	
358.503		0.240	0.0800	3.000	50+500.808	358.263	3.900	−0.0800	−0.312		357.951	FS
					PI STA. 50+619.818 R=305m							
359.893		0.240	0.0800	3.000	50+722.620	359.653	3.900	−0.0800	−0.312		359.341	FS
359.475		0.206	0.0685	3.000	50+730.000	359.269	3.792	−0.0685	−0.260		359.009	
359.516		0.160	0.0533	3.000	50+739.664	359.356	3.650	−0.0533	−0.195		359.161	PT
359.517		0.158	0.0528	3.000	50+740.000	359.359	3.645	−0.0528	−0.192	213:1	359.167	
359.561		0.112	0.0372	3.000	50+750.000	359.449	3.498	−0.0372	−0.130		359.319	
359.604	213:1	0.065	0.0215	3.000	50+760.000	359.539	3.352	−0.0215	−0.072		359.467	
359.619		0.048	0.0160	3.000	50+763.524	359.571	3.300	−0.0160	−0.053		359.518	CR
359.647		0.018	0.0059	3.000	50+770.000	359.629	3.205	−0.0160	−0.051		359.578	
359.663		0.000	0.0000	3.000	50+773.744	359.663	3.150	−0.0160	−0.050		359.613	HL
359.689		−0.030	−0.0100	3.000	50+780.000	359.719	3.058	−0.0160	−0.049		359.670	
359.707		−0.048	−0.0160	3.000	50+783.964	359.755	3.000	−0.0160	−0.048		359.707	NC

CALCULATED CRM
CHECKED WJS

SUPERELEVATION TABLE
S..R. 61 & SERVICE ROAD "A"

CRA/RIC-30-33.500/0.000

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SUPERELEVATION TABLE

HORNING ROAD C.H. 175

LEFT SIDE					CENTERLINE CONTROL		RIGHT SIDE					
EDGE OF PAVEMENT	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	STATION	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE OF PAVEMENT	REMARKS
					REVERSE CURVES SOUTH							
382.527		−0.053	−0.0160	3.300	49+667.449	382.580	3.300	−0.0160	−0.053		382.527	NC
382.499		−0.053	−0.0160	3.322	49+670.000	382.552	3.300	−0.0125	−0.041		382.511	
382.415		−0.054	−0.0160	3.400	49+678.949	382.469	3.300	0.0000	0.000		382.469	HL
382.406		−0.055	−0.0160	3.409	49+680.000	382.461	3.300	0.0015	0.005		382.466	
382.344		−0.056	−0.0160	3.496	49+690.000	382.400	3.300	0.0154	0.051		382.451	
382.342		−0.056	−0.0160	3.500	49+690.449	382.398	3.300	0.0154	0.051		382.449	CR
382.265		−0.105	−0.0293	3.583	49+700.000	382.370	3.300	0.0293	0.097	217.8:1	382.467	
382.212		−0.159	−0.0432	3.670	49+710.000	382.371	3.300	0.0432	0.143		382.514	
382.188	217.8:1	−0.209	−0.0557	3.748	49+718.949	382.397	3.300	0.0557	0.184		382.581	PC
382.186		−0.215	−0.0571	3.757	49+720.000	382.401	3.300	0.0571	0.188		382.589	
382.190		−0.273	−0.0710	3.844	49+730.000	382.463	3.300	0.0710	0.234		382.697	
382.207		−0.312	−0.0800	3.900	49+736.449	382.519	3.300	0.0800	0.264		382.783	FS
					PI STA. 49+744.659 R=305m							
382.404		−0.312	−0.0800	3.900	49+752.748	382.716	3.300	0.0800	0.264		382.980	FS
382.562		−0.268	−0.0699	3.837	49+760.000	382.830	3.300	0.0699	0.231		383.061	
382.803		−0.210	−0.0560	3.750	49+770.000	383.013	3.300	0.0560	0.185		383.198	
382.809		−0.209	−0.0557	3.748	49+770.248	383.018	3.300	0.0557	0.184		383.202	PT
383.073		−0.154	−0.0421	3.663	49+780.000	383.227	3.300	0.0421	0.139		383.366	
383.370		−0.101	−0.0282	3.576	49+790.000	383.471	3.300	0.0282	0.093		383.564	
383.696		−0.050	−0.0143	3.489	49+800.000	383.746	3.311	0.0143	0.047		383.793	
384.035		−0.001	−0.0003	3.402	49+810.000	384.036	3.398	0.0003	0.001		384.037	
384.043	217.8:1	0.000	0.0000	3.400	49+810.248	384.043	3.400	0.0000	0.000	217.8:1	384.043	FLAT
384.371		0.045	0.0136	3.315	49+820.000	384.326	3.485	−0.0136	−0.047		384.279	
384.699		0.091	0.0275	3.300	49+830.000	384.608	3.572	−0.0275	−0.098		384.510	
385.011		0.137	0.0414	3.300	49+840.000	384.874	3.659	−0.0414	−0.151		384.723	
385.300		0.176	0.0535	3.300	49+850.000	385.124	3.746	−0.0553	−0.207		384.917	
385.314		0.184	0.0557	3.300	49+850.248	385.130	3.748	−0.0557	−0.209		384.921	PC
385.586		0.228	0.0692	3.300	49+860.000	385.358	3.833	−0.0692	−0.265		385.093	
385.792		0.264	0.0800	3.300	49+867.748	385.528	3.900	−0.0800	−0.312		385.216	FS
					PI STA. 49+875.958 R=305m							
386.119		0.264	0.0800	3.300	49+884.047	385.855	3.900	−0.0800	−0.312		385.543	FS
386.200		0.237	0.0717	3.300	49+890.000	385.963	3.848	−0.0717	−0.276		385.687	
386.324		0.191	0.0578	3.300	49+900.000	386.133	3.761	−0.0578	−0.217		385.916	
386.342		0.184	0.0557	3.300	49+901.547	386.158	3.748	−0.0557	−0.209		385.949	PT
386.432		0.145	0.0439	3.300	49+910.000	386.287	3.674	−0.0439	−0.161		386.126	
386.524		0.099	0.0300	3.300	49+920.000	386.425	3.587	−0.0300	−0.108		386.317	
386.599	217.8:1	0.053	0.0161	3.300	49+930.000	386.546	3.500	−0.0161	−0.056	217.8:1	386.490	
386.600		0.053	0.0160	3.300	49+930.047	386.547	3.500	−0.0160	−0.056		386.491	CR
386.659		0.007	0.0022	3.300	49+940.000	386.652	3.413	−0.0160	−0.055		386.597	
386.667		0.000	0.0000	3.300	49+941.547	386.667	3.400	−0.0160	−0.054		386.613	HL
386.703		−0.039	−0.0118	3.300	49+950.000	386.742	3.326	−0.0160	−0.053		386.689	
386.713		−0.053	−0.0160	3.300	49+953.047	386.766	3.300	−0.0160	−0.053		386.713	NC
					REVERSE CURVE NORTH							

SUPERELEVATION TABLE

HORNING ROAD C.H. 175

LEFT SIDE					CENTERLINE CONTROL		RIGHT SIDE					
EDGE OF PAVEMENT	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	STATION	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE OF PAVEMENT	REMARKS
386.645		−0.053	−0.0160	3.300	50+050.047	386.698	3.300	−0.0160	−0.053		386.645	NC
386.664		−0.007	−0.0022	3.300	50+060.000	386.671	3.387	−0.0160	−0.054		386.617	
386.656		0.000	0.0000	3.300	50+061.547	386.656	3.400	−0.0160	−0.054		386.602	HL
386.607		0.039	0.0118	3.300	50+070.000	386.568	3.474	−0.0160	−0.056		386.512	
386.587		0.053	0.0160	3.300	50+073.047	386.534	3.500	−0.0160	−0.056		386.478	
386.535	217.8:1	0.085	0.0257	3.300	50+080.000	386.450	3.561	−0.0257	−0.092	217.8:1	386.358	CR
386.446		0.131	0.0396	3.300	50+090.000	386.315	3.648	−0.0396	−0.144		386.171	
386.341		0.177	0.0535	3.300	50+100.000	386.164	3.735	−0.0535	−0.200		385.964	
386.324		0.184	0.0557	3.300	50+101.547	386.140	3.748	−0.0557	−0.209		385.931	PC
386.220		0.222	0.0674	3.300	50+110.000	385.998	3.822	−0.0674	−0.258		385.740	
386.097		0.264	0.0800	3.300	50+119.047	385.833	3.900	−0.0800	−0.312		385.521	FS
					PI STA. 50+127.257 R=305m							
385.777		0.264	0.0800	3.300	50+134.891	385.513	3.900	−0.0800	−0.312		385.201	FS
385.643		0.242	0.0732	3.300	50+140.000	385.401	3.857	−0.0732	−0.282		385.119	
385.367		0.197	0.0598	3.300	50+150.000	385.170	3.774	−0.0598	−0.226		384.944	
385.287		0.185	0.0560	3.300	50+152.846	385.102	3.750	−0.0560	−0.210		384.892	PT
385.077		0.153	0.0464	3.300	50+160.000	384.924	3.690	−0.0464	−0.171		384.753	
384.770		0.109	0.0331	3.300	50+170.000	384.661	3.607	−0.0331	−0.119		384.542	
384.447		0.065	0.0197	3.300	50+180.000	384.382	3.523	−0.0197	−0.069		384.313	
384.116		0.021	0.0063	3.360	50+190.000	384.095	3.440	−0.0063	−0.022		384.073	
383.959	226.7:1	0.000	0.0000	3.400	50+194.743	383.959	3.400	0.0000	0.000	266.7:1	383.959	FLAT
383.784		−0.024	−0.0070	3.444	50+200.000	383.808	3.356	0.0070	0.023		383.831	
383.449		−0.072	−0.0204	3.527	50+210.000	383.521	3.300	0.0204	0.067		383.588	
383.112		−0.122	−0.0338	3.611	50+220.000	383.234	3.300	0.0338	0.112		383.346	
382.773		−0.174	−0.0471	3.695	50+230.000	382.947	3.300	0.0471	0.155		383.102	
382.547		−0.210	−0.0560	3.750	50+236.640	382.757	3.300	0.0560	0.185		382.942	PC
382.432		−0.229	−0.0605	3.778	50+240.000	382.661	3.300	0.0605	0.200		382.861	
382.100		−0.285	−0.0739	3.862	50+250.000	382.385	3.300	0.0739	0.244		382.629	
381.955		−0.312	−0.0800	3.900	50+254.594	382.267	3.300	0.0800	0.264		382.531	FS
					PI STA. 50+261.916 R=305m							
381.602		−0.312	−0.0800	3.900	50+269.576	381.914	3.300	0.0800	0.264		382.178	FS
381.595		−0.309	−0.0794	3.896	50+270.000	381.904	3.300	0.0794	0.262		382.166	
381.450		−0.249	−0.0655	3.809	50+280.000	381.699	3.300	0.0655	0.216		381.915	
381.358	217.8:1	−0.209	−0.0557	3.748	50+287.076	381.567	3.300	0.0557	0.184		381.751	PT
381.325		−0.192	−0.0516	3.722	50+290.000	381.517	3.300	0.0516	0.170		381.687	
381.220		−0.137	−0.0377	3.635	50+300.000	381.357	3.300	0.0377	0.124	217.8:1	381.481	
381.138		−0.084	−0.0238	3.548	50+310.000	381.222	3.300	0.0238	0.079		381.301	
381.100		−0.056	−0.0160	3.500	50+315.576	381.156	3.300	0.0160	0.053		381.209	CR
381.054		−0.055	−0.0160	3.462	50+320.000	381.109	3.300	0.0098	0.032		381.141	
380.984		−0.054	−0.0160	3.400	50+327.076	381.038	3.300	0.0000	0.000		381.038	HL
380.954		−0.054	−0.0160	3.375	50+330.000	381.008	3.300	−0.0041	−0.014		380.994	
380.860		−0.053	−0.0160	3.300	50+338.576	380.913	3.300	−0.0160	−0.053		380.860	NC

LEGEND

NC = NORMAL CROWN
HL = HALF LEVEL
CR = CROWN REMOVAL
PC = POINT OF CURVE
PT = POINT OF TANGENT
FS = FULL SUPERELEVATION

metric units

CALCULATED CRM
CHECKED WJS

SUPERELEVATION TABLE
HORNING ROAD C.H. 175

CRA/RIC-30-33.500/0.000

GE006.DWG
03-15-1999 1:47 PM
1:500 M

metric units

CALCULATED	CHECKED
CRM	WJS

SUPERELEVATION TABLE

RELOCATED ECKSTIEN ROAD

LEFT SIDE					CENTERLINE CONTROL		RIGHT SIDE					
EDGE OF PAVEMENT	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	STATION	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE OF PAVEMENT	REMARKS
					PI STA. 21+398.830 R=305m							
392.570		−0.053	−0.0160	3.300	21+264.349	392.623	3.300	−0.0160	−0.053		392.570	NC
392.668		−0.054	−0.0160	3.350	21+270.000	392.722	3.300	−0.0080	−0.026		392.696	
392.773		−0.054	−0.0160	3.400	21+275.595	392.827	3.300	0.0000	0.000		392.827	HL
392.861		−0.055	−0.0160	3.439	21+280.000	392.916	3.300	0.0063	0.021		392.937	
393.009		−0.056	−0.0160	3.500	21+286.841	393.065	3.300	0.0160	0.053		393.118	CR
393.065		−0.072	−0.0205	3.528	21+290.000	393.137	3.300	0.0205	0.068	213:1	393.205	
393.258		−0.126	−0.0347	3.617	21+300.000	393.384	3.300	0.0347	0.115		393.499	
393.463	213:1	−0.181	−0.0489	3.706	21+310.000	393.644	3.300	0.0489	0.161		393.805	
393.525		−0.199	−0.0533	3.733	21+313.084	393.724	3.300	0.0533	0.176		393.900	PC
393.664		−0.240	−0.0632	3.795	21+320.000	393.904	3.300	0.0632	0.209		394.113	
393.863		−0.301	−0.0774	3.884	21+330.000	394.164	3.300	0.0774	0.255		394.419	
393.900		−0.312	−0.0800	3.900	21+331.827	394.212	3.300	0.0800	0.264		394.476	FS
396.147		−0.312	−0.0800	3.900	21+450.271	396.459	3.300	0.0800	0.264		396.723	FS
396.313		−0.246	−0.0662	3.718	21+460.000	396.559	3.300	0.0662	0.218		396.777	
396.464	213:1	−0.183	−0.0519	3.532	21+470.000	396.647	3.300	0.0519	0.171		396.818	
396.597		−0.126	−0.0377	3.345	21+480.000	396.723	3.300	0.0377	0.124		396.847	
396.603		−0.121	−0.0372	3.240	21+480.261	396.724	3.300	0.0372	0.123		396.847	PT
396.710		−0.074	−0.0235	3.158	21+490.000	396.784	3.128	0.0235	0.075		396.859	
396.762		−0.049	−0.0160	3.055	21+495.257	396.811	3.036	0.0160	0.049	213:1	396.840	CR
396.784		−0.048	−0.0160	2.971	21+500.000	396.832	2.552	0.0093	0.027		396.859	
396.813		−0.046	−0.0160	2.850	21+506.503	396.859	2.838	0.0000	0.000		396.859	HL
396.828		−0.045	−0.0160	2.785	21+510.000	396.873	2.776	−0.0050	−0.014		396.859	
*396.863		−0.042	−0.0160	2.640	21+517.749	*396.905	2.690	−0.0160	−0.042		*396.863	NC

* = INDICATES EXISTING

LEGEND

NC = NORMAL CROWN
HL = HALF LEVEL
CR = CROWN REMOVAL
PC = POINT OF CURVE
PT = POINT OF TANGENT
FS = FULL SUPERELEVATION

SUPERELEVATION TABLE

S.R. 181

LEFT SIDE					CENTERLINE CONTROL		RIGHT SIDE					
EDGE OF PAVEMENT	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	STATION	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE OF PAVEMENT	REMARKS
				EXIST.PISTA.49+589.481 R=218.481								
*388.618		*0.101	*0.0331	3.050	49+648.842	388.517	*3.050	*−0.0331	−0.101		*388.416	P.O.C.
388.634		0.097	0.0316	3.070	49+650.000	388.537	3.070	−0.0316	−0.097		388.440	
388.767		0.060	0.0185	3.247	49+660.000	388.707	3.247	−0.0185	−0.060	213:1	388.647	
388.793	213:1	0.052	0.0160	3.281	49+661.954	388.741	3.281	−0.0160	−0.052		388.689	CR
388.907		0.018	0.0054	3.423	49+670.000	388.889	3.423	−0.0160	−0.055		388.834	
388.972		0.000	0.0000	3.498	49+674.223	388.972	3.498	−0.0160	−0.056		388.916	HL
389.066		−0.028	−0.0077	3.600	49+680.000	389.094	3.600	−0.0160	−0.058		389.036	
389.178		−0.058	−0.0160	3.600	49+686.342	389.236	3.600	−0.0160	−0.058		389.178	NC
					PI STA.49+825.376 R=600							
390.773		−0.058	−0.0160	3.600	49+740.479	390.831	3.600	−0.0160	−0.058		390.773	NC
391.169		−0.013	−0.0036	3.600	49+750.000	391.182	3.600	−0.0160	−0.058		391.124	
391.287		0.000	0.0000	3.600	49+752.748	391.287	3.600	−0.0160	−0.058		391.229	HL
391.608		0.034	0.0095	3.600	49+760.000	391.574	3.600	−0.0160	−0.058		391.516	
391.837		0.058	0.0160	3.600	49+765.017	391.779	3.600	−0.0160	−0.058		391.721	CR
392.070	213:1	0.081	0.0225	3.600	49+770.000	391.989	3.600	−0.0225	−0.081		391.908	
392.555		0.128	0.0355	3.600	49+780.000	392.427	3.600	−0.0355	−0.128	213:1	392.299	
392.725		0.144	0.0400	3.600	49+783.420	392.581	3.600	−0.0400	−0.144		392.437	PC
393.052		0.175	0.0486	3.600	49+790.000	392.877	3.600	−0.0486	−0.175		392.702	
393.487		0.216	0.0600	3.600	49+798.756	393.271	3.600	−0.0600	−0.216		393.055	FS
395.772		0.216	0.0600	3.600	49+851.860	395.556	3.600	−0.0600	−0.216		395.340	FS
396.040		0.178	0.0494	3.600	49+860.000	395.862	3.600	−0.0494	−0.178		395.684	
396.265		0.144	0.0400	3.600	49+867.196	396.121	3.600	−0.0400	−0.144		395.977	PT
396.350		0.131	0.0363	3.600	49+870.000	396.219	3.600	−0.0363	−0.131	213:1	396.088	
396.639		0.084	0.0232	3.600	49+880.000	396.555	3.600	−0.0232	−0.084		396.472	
396.793	213:1	0.058	0.0160	3.600	49+885.599	396.735	3.600	−0.0160	−0.058		396.677	CR
396.908		0.037	0.0101	3.600	49+890.000	396.871	3.600	−0.0160	−0.058		396.814	
397.105		0.000	0.0000	3.600	49+897.868	397.105	3.600	−0.0160	−0.058		397.047	HL
397.157		−0.010	−0.0029	3.600	49+900.000	397.167	3.600	−0.0160	−0.058		397.109	
397.384		−0.057	−0.0158	3.600	49+910.000	397.441	3.600	−0.0160	−0.058		397.384	
397.387		−0.058	−0.0160	3.600	49+910.137	397.445	3.600	−0.0160	−0.058		397.387	NC
					PI STA.50+375.990 R=120							
400.378		−0.115	−0.0160	7.200	50+329.317	400.493	3.600	−0.0160	−0.058		400.435	NC
400.392		−0.107	−0.0148	7.200	50+330.000	400.499	3.600	−0.0160	−0.058		400.441	
400.568		0.000	0.0000	7.200	50+338.072	400.568	3.600	−0.0160	−0.058		400.510	HL
400.610		0.025	0.0035	7.200	50+340.000	400.585	3.600	−0.0160	−0.058		400.527	
400.759	152:1	0.115	0.0160	7.200	50+346.827	400.644	3.600	−0.0160	−0.058		400.586	CR
400.828		0.157	0.0218	7.200	50+350.000	400.671	3.600	−0.0218	−0.078	152:1	400.593	
400.886		0.192	0.0267	7.200	50+352.644	400.694	3.600	−0.0267	−0.096		400.598	PC
401.045		0.288	0.0400	7.200	50+359.960	400.757	3.600	−0.0400	−0.144		400.613	FS
401.240		0.288	0.0400	7.200	50+382.500	400.952	3.600	−0.0400	−0.144		400.808	FS
401.205		0.189	0.0263	7.200	50+390.000	401.016	3.600	−0.0263	−0.095		400.922	
401.166		0.074	0.0103	7.200	50+398.741	401.092	3.600	−0.0103	−0.037		401.055	PT
401.161		0.058	0.0080	7.200	50+400.000	401.103	3.600	−0.0080	−0.029	152:1	401.074	
401.141	152:1	0.000	0.0000	7.200	50+404.388	401.141	3.600	0.0000	0.000		401.141	FLAT
401.106		−0.083	−0.0103	8.035	50+410.000	401.189	3.600	0.0103	0.037		401.226	
401.061		−0.190	−0.0220	8.641	50+416.426	401.251	3.600	0.0220	0.079		401.330	

SUPERELEVATION TABLE
RELOCATED ECKSTIEN ROAD & S.R 181

CRA/RIC-30-33.500/0.000

GE007.DWG
08-24-2000 10:21 AM
1:500 M

SUPERELEVATION TABLE

EARICK ROAD T.H. 167													
LEFT SIDE					CENTERLINE CONTROL		RIGHT SIDE						REMARKS
EDGE OF PAVEMENT	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	STATION	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE OF PAVEMENT		
					REVERSE CURVES SOUTH							
397.267		−0.058	−0.0160	3.600	49+529.525	397.325	3.600	−0.0160	−0.058		397.267	NC
397.264		−0.058	−0.0160	3.600	49+530.000	397.322	3.600	−0.0154	−0.055		397.267	
397.197		−0.058	−0.0160	3.600	49+540.000	397.255	3.600	−0.0023	−0.008		397.247	
397.185		−0.058	−0.0160	3.600	49+541.794	397.243	3.600	0.0000	0.000		397.243	HL
397.144		−0.058	−0.0160	3.600	49+550.000	397.202	3.600	0.0107	0.039		397.241	
397.131		−0.058	−0.0160	3.600	49+554.063	397.189	3.600	0.0160	0.058	213:1	397.247	CR
397.094		−0.085	−0.0237	3.600	49+560.000	397.179	3.600	0.0237	0.085		397.264	
397.053	213:1	−0.132	−0.0368	3.600	49+570.000	397.185	3.600	0.0368	0.132		397.317	
397.046		−0.144	−0.0400	3.600	49+572.466	397.190	3.600	0.0400	0.144		397.334	PC
397.040		−0.179	−0.0498	3.600	49+580.000	397.219	3.600	0.0498	0.179		397.398	
397.010		−0.216	−0.0600	3.600	49+587.802	397.226	3.600	0.0600	0.216		397.442	FS
					PI STA. 49+623.072 R=600m							
398.232		−0.216	−0.0600	3.600	49+656.692	398.448	3.600	0.0600	0.216		398.664	FS
398.337		−0.202	−0.0560	3.600	49+660.000	398.539	3.600	0.0560	0.202		398.741	
398.675		−0.159	−0.0441	3.600	49+670.000	398.834	3.600	0.0441	0.159		398.993	
398.799		−0.144	−0.0400	3.600	49+673.439	398.943	3.600	0.0400	0.144		399.087	PT
399.043		−0.116	−0.0322	3.600	49+680.000	399.159	3.600	0.0322	0.116		399.275	
399.439		−0.073	−0.0202	3.600	49+690.000	399.512	3.600	0.0202	0.073		399.585	
399.586		−0.058	−0.0160	3.600	49+693.536	399.644	3.600	0.0160	0.058		399.702	
399.865		−0.030	−0.0083	3.600	49+700.000	399.895	3.600	0.0083	0.030		399.925	
400.177	232.6:1	0.000	0.0000	3.600	49+706.934	400.177	3.600	0.0000	0.000	232.6:1	400.177	FLAT
400.319		0.013	0.0037	3.600	49+710.000	400.306	3.600	−0.0037	−0.013		400.293	
400.803		0.056	0.0156	3.600	49+720.000	400.747	3.600	−0.0156	−0.056		400.691	
400.820		0.058	0.0160	3.600	49+720.332	400.762	3.600	−0.0160	−0.058		400.704	
401.316		0.099	0.0275	3.600	49+730.000	401.217	3.600	−0.0275	−0.099		401.118	
401.857		0.142	0.0395	3.600	49+740.000	401.715	3.600	−0.0395	−0.142		401.573	
401.881		0.144	0.0400	3.600	49+740.428	401.737	3.600	−0.0400	−0.144		401.593	PC
402.402		0.185	0.0514	3.600	49+750.000	402.217	3.600	−0.0514	−0.185		402.032	
402.741		0.216	0.0600	3.600	49+757.176	402.525	3.600	−0.0600	−0.216		402.309	FS
					PI STA. 49+791.032 R=600m							
405.565		0.216	0.0600	3.600	49+826.060	405.349	3.600	−0.0600	−0.216		405.133	FS
405.676		0.198	0.0549	3.600	49+830.000	405.478	3.600	−0.0549	−0.198		405.280	
405.941		0.150	0.0418	3.600	49+840.000	405.791	3.600	−0.0418	−0.150		405.641	
405.977		0.144	0.0400	3.600	49+841.396	405.833	3.600	−0.0400	−0.144	213:1	405.689	PT
406.186		0.104	0.0288	3.600	49+850.000	406.082	3.600	−0.0288	−0.104		405.978	
406.406	213:1	0.058	0.0160	3.600	49+859.799	406.348	3.600	−0.0160	−0.058		406.290	CR
406.410		0.057	0.0157	3.600	49+860.000	406.353	3.600	−0.0160	−0.058		406.295	
406.612		0.010	0.0027	3.600	49+870.000	406.602	3.600	−0.0160	−0.058		406.544	
406.651		0.000	0.0000	3.600	49+872.068	406.651	3.600	−0.0160	−0.058		406.593	HL
406.794		−0.037	−0.0103	3.600	49+880.000	406.831	3.600	−0.0160	−0.058		406.773	
406.865		−0.058	−0.0160	3.600	49+884.337	406.923	3.600	−0.0160	−0.058		406.865	NC
					REVERSE CURVE NORTH							

SUPERELEVATION TABLE

EARICK ROAD T.H. 167													
LEFT SIDE					CENTERLINE CONTROL		RIGHT SIDE						REMARKS
EDGE OF PAVEMENT	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	STATION	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE OF PAVEMENT		
406.235		−0.0160	−0.0160	3.600	50+108.924	406.293	3.600	−0.0160	−0.058		406.235	NC
406.211		−0.0146	−0.0146	3.600	50+110.000	406.264	3.600	−0.0160	−0.058		406.206	
405.981		−0.0016	−0.0016	3.600	50+120.000	405.987	3.600	−0.0160	−0.058		405.929	
405.952		0.0000	0.0000	3.600	50+121.193	405.952	3.600	−0.0160	−0.058	213:1	405.894	HL
405.729		0.0115	0.0115	3.600	50+130.000	405.688	3.600	−0.0160	−0.058		405.630	
405.638	213:1	0.0160	0.0160	3.600	50+133.462	405.580	3.600	−0.0160	−0.058		405.522	CR
405.456		0.0245	0.0245	3.600	50+140.000	405.368	3.600	−0.0245	−0.088		405.280	
405.162		0.0376	0.0376	3.600	50+150.000	405.027	3.600	−0.0376	−0.135		404.892	
405.106		0.0400	0.0400	3.600	50+151.865	404.962	3.600	−0.0400	−0.144		404.818	PC
404.847		0.0506	0.0506	3.600	50+160.000	404.665	3.600	−0.0506	−0.182		404.483	
404.611		0.0600	0.0600	3.600	50+167.201	404.395	3.600	−0.0600	−0.216		404.179	FS
					PI STA. 50+196.165 R=600m							
402.089		0.0600	0.0600	3.600	50+223.565	401.873	3.600	−0.0600	−0.216		401.657	FS
401.740		0.0523	0.0523	3.600	50+230.000	401.552	3.600	−0.0523	−0.188		401.364	
401.198		0.0404	0.0404	3.600	50+240.000	401.053	3.600	−0.0404	−0.145		400.908	
401.182		0.0400	0.0400	3.600	50+240.304	401.038	3.600	−0.0400	−0.144		400.894	PT
400.656		0.0284	0.0284	3.600	50+250.000	400.554	3.600	−0.0284	−0.102		400.452	
400.114		0.0165	0.0165	3.600	50+260.000	400.055	3.600	−0.0165	−0.059		399.996	
400.094		0.0160	0.0160	3.600	50+260.391	400.036	3.600	−0.0160	−0.058		399.978	
399.586	232.5:1	0.0045	0.0045	3.600	50+270.000	399.570	3.600	−0.0045	−0.016		399.554	
399.394		0.0000	0.0000	3.600	50+273.783	399.394	3.600	0.0000	0.000	232.5:1	399.394	FLAT
399.087		−0.0074	−0.0074	3.600	50+280.000	399.114	3.600	0.0074	0.027		399.141	
398.746		−0.0160	−0.0160	3.600	50+287.175	398.804	3.600	0.0160	0.058		398.862	
398.616		−0.0194	−0.0194	3.600	50+290.000	398.686	3.600	0.0194	0.070		398.756	
398.174		−0.0313	−0.0313	3.600	50+300.000	398.287	3.600	0.0313	0.113		398.400	
397.870		−0.0400	−0.0400	3.600	50+307.262	398.014	3.600	0.0400	0.144		398.158	PC
397.760		−0.0433	−0.0433	3.600	50+310.000	397.916	3.600	0.0433	0.156		398.072	
397.374		−0.0552	−0.0552	3.600	50+320.000	397.573	3.600	0.0552	0.199		397.772	
397.228		−0.0600	−0.0600	3.600	50+324.001	397.444	3.600	0.0600	0.216		397.660	FS
					PI STA. 50+358.016 R=600m							
395.692		−0.0600	−0.0600	3.600	50+393.192	395.908	3.600	0.0600	0.216		396.124	FS
395.617		−0.0511	−0.0511	3.600	50+400.000	395.801	3.600	0.0511	0.184		395.985	
395.523	213:1	−0.0400	−0.0400	3.600	50+408.528	395.667	3.600	0.0400	0.144		395.811	PT
395.506		−0.0381	−0.0381	3.600	50+410.000	395.643	3.600	0.0381	0.137		395.780	
395.396		−0.0250	−0.0250	3.600	50+420.000	395.486	3.600	0.0250	0.090		395.576	
395.319		−0.0160	−0.0160	3.600	50+426.931	395.377	3.600	0.0160	0.058		395.435	CR
395.270		−0.0160	−0.0160	3.600	50+430.000	395.328	3.600	0.0120	0.043	213:1	395.371	
395.125		−0.0160	−0.0160	3.600	50+439.200	395.183	3.600	0.0000	0.000		395.183	HL
395.113		−0.0160	−0.0160	3.600	50+440.000	395.172	3.600	−0.0010	−0.004		395.167	
394.955		−0.0160	−0.0160	3.600	50+450.000	395.013	3.600	−0.0141	−0.051		394.962	
394.932		−0.0160	−0.0160	3.600	50+451.469	394.990	3.600	−0.0160	−0.058		394.932	NC

LEGEND

NC = NORMAL CROWN
HL = HALF LEVEL
CR = CROWN REMOVAL
PC = POINT OF CURVE
PT = POINT OF TANGENT
FS = FULL SUPERELEVATION

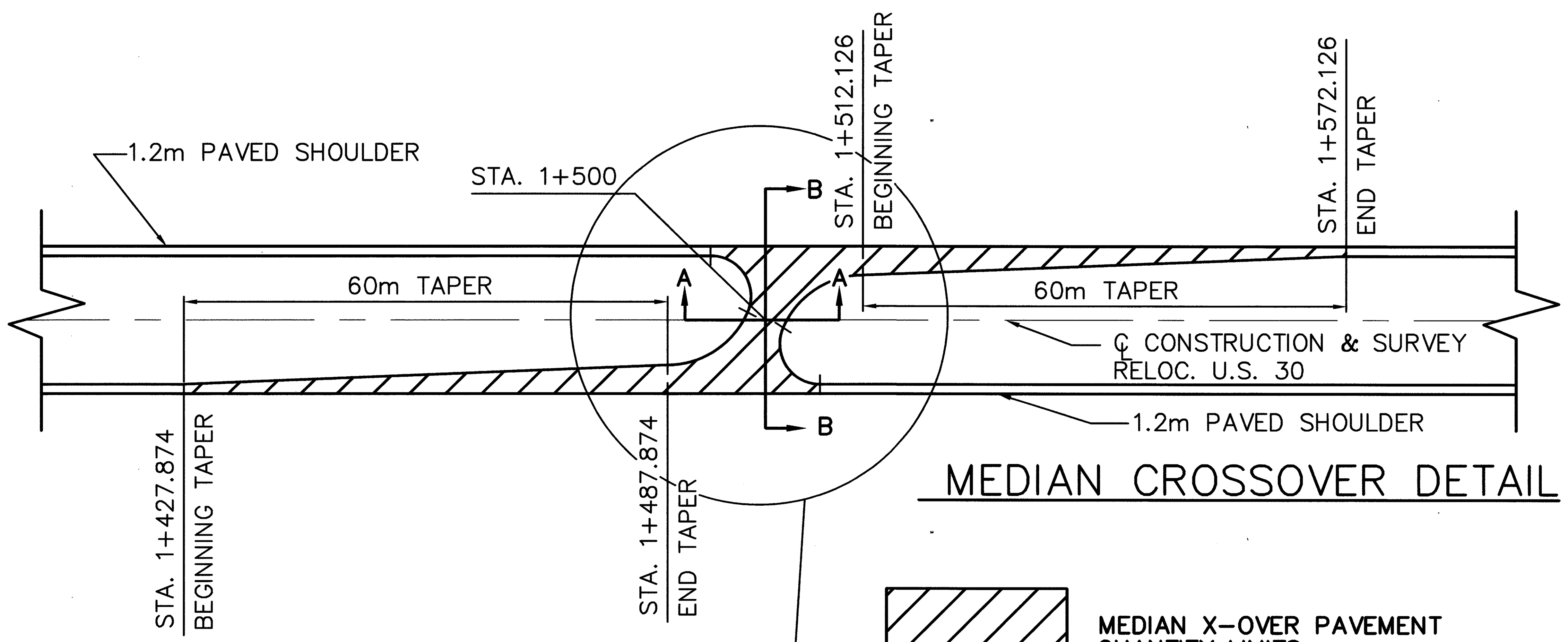
metric units

CALCULATED CRM
CHECKED WJS

SUPERELEVATION TABLE
EARICK ROAD T.H. 167

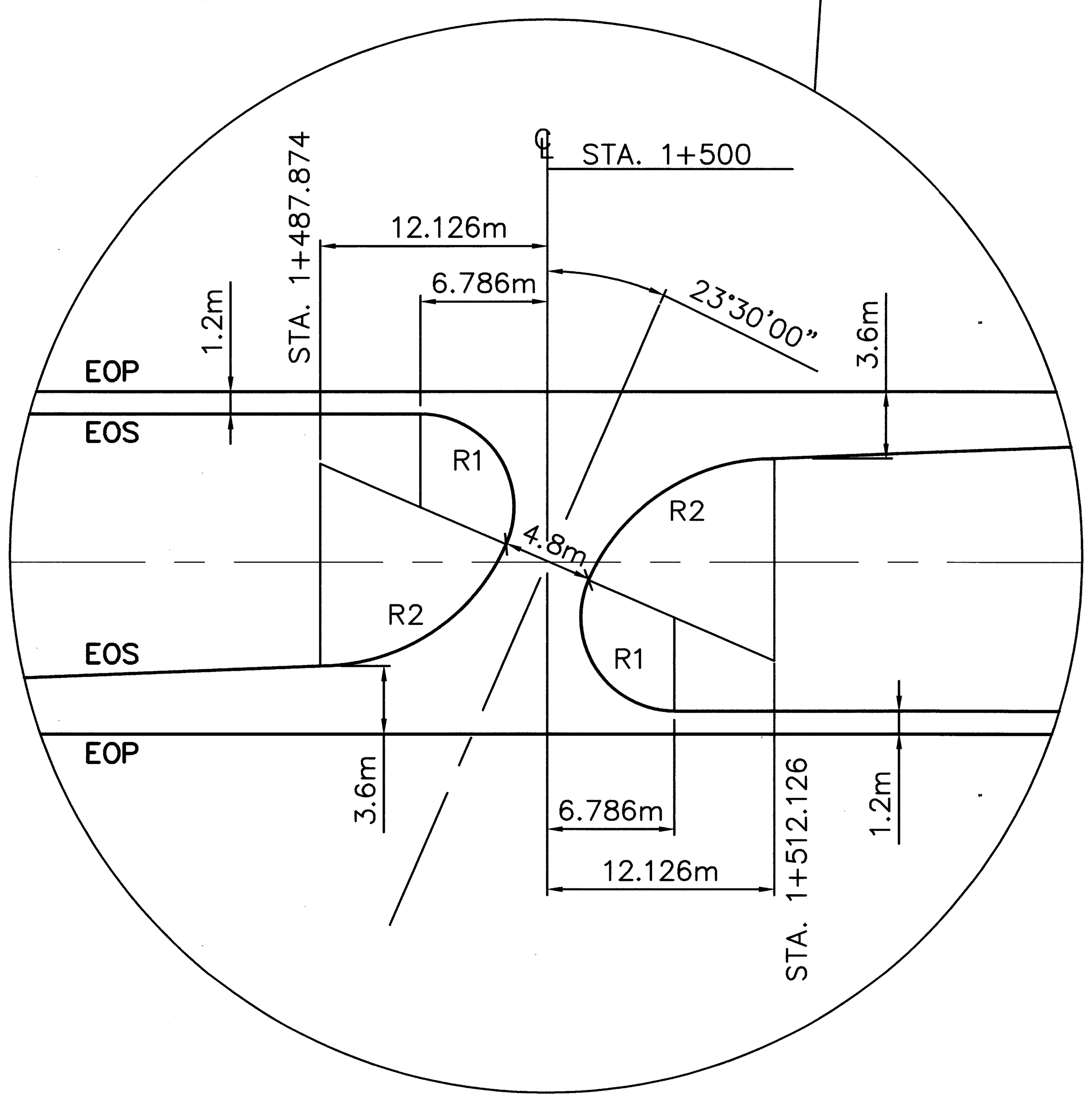
CRA/RIC-30-33.500/0.000

EARICK.DWG
12-11-1998 7:11 AM
1:500 M



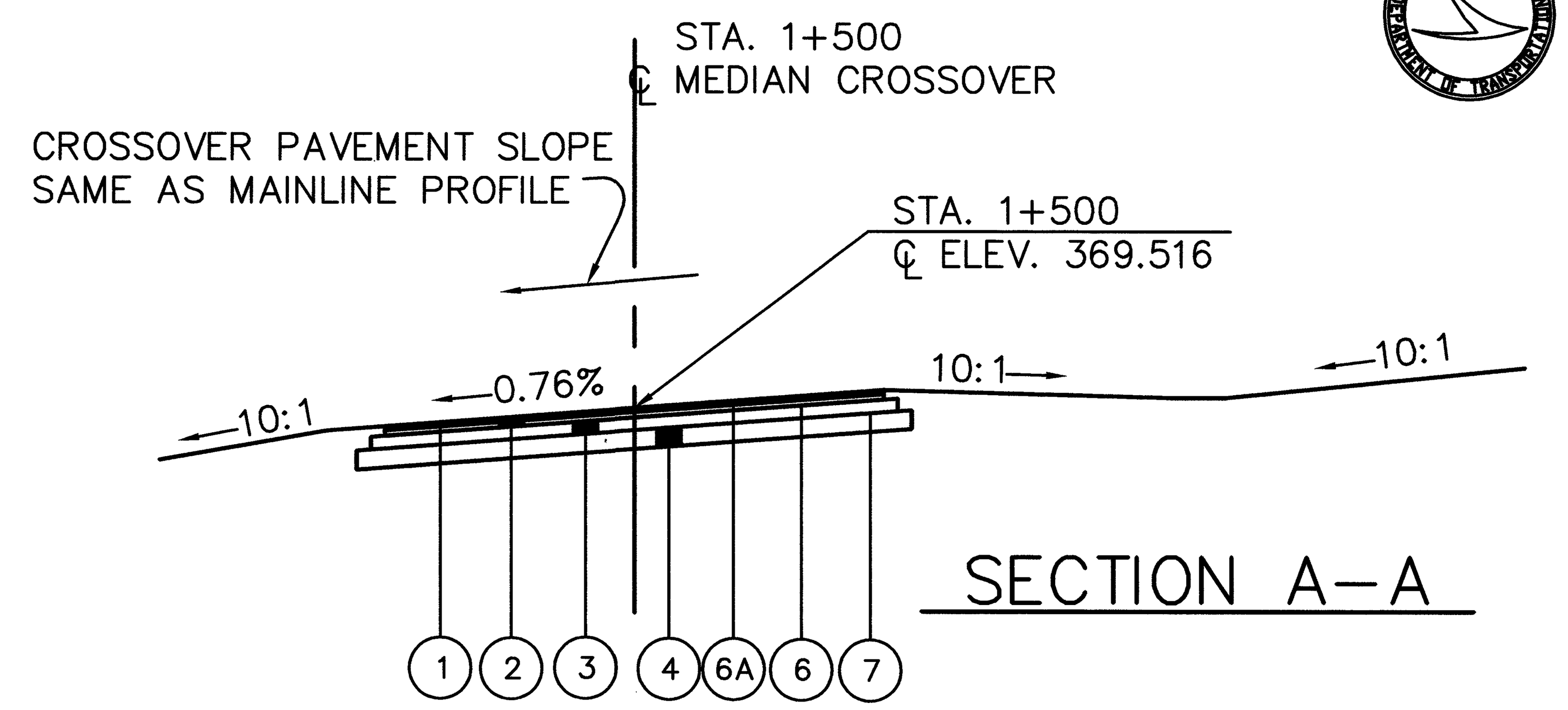
MEDIAN CROSSOVER DETAIL

MEDIAN X-OVER PAVEMENT QUANTITY LIMITS

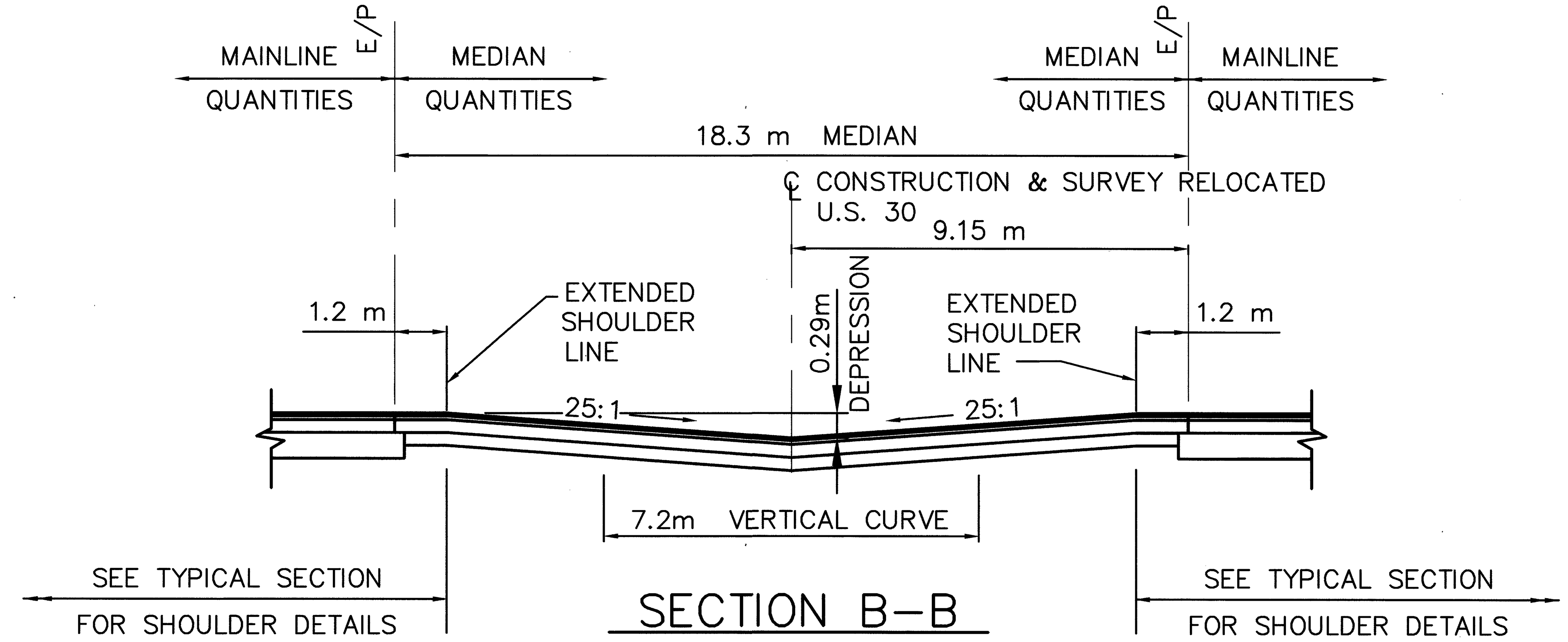


R1 CURVE DATA
Delta = 113°30'00"
Radius = 4.999 m
Length = 9.904 m
Tangent = 7.625 m
External = 4.119 m

R2 CURVE DATA
Delta = 66°30'00"
Radius = 10.822 m
Length = 12.561 m
Tangent = 7.095 m
External = 2.119 m



SECTION A–A



SECTION B–B

LEGEND

1. ITEM 446 – 38 mm ASPHALT CONCRETE SURFACE COURSE, TYPE 1H
2. ITEM 446– 45 mm ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64–22
3. ITEM 302 – 205 mm BITUMINOUS AGGREGATE BASE, PG 64–22
4. ITEM 304 – 150 mm AGGREGATE BASE
6. ITEM 407 – TACK COAT , AS PER PLAN
6A. ITEM 407 – TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTES)
7. ITEM 408 – BITUMINOUS PRIME COAT (APPLIED AT THE RATE OF 1.8 L PER m^2)

LOCATION	1	2	3	4	6	6A	7
	446	446	302	304	407	407	408
	38 mm ASPHALT CONCRETE SURFACE COURSE, TYPE 1H	45 mm ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 PG 64–22	205 mm BITUMINOUS AGGREGATE BASE, PG 64–22	150 mm AGGREGATE BASE	TACK COAT , AS PER PLAN	TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTES)	BITUMINOUS PRIME COAT (APPLIED AT THE RATE OF 1.8 L PER m^2)
STA. TO STA.	CU. M	CU. M	CU. M	CU. M	LITER	LITER	LITER
1+427.874 – 1+487.874	5.47	6.48	30.75	23.85	28.80	28.80	270.00
1+487.874 – 1+512.126	7.77	9.20	42.85	32.34	40.91	40.91	376.20
1+512.126 – 1+572.126	5.47	6.48	30.75	23.85	28.80	28.80	270.00
TOTALS CARRIED TO	18.71	22.16	104.35	80.04	98.51	98.51	916.20
SUB-SUMMARY SHEET 71J	19	23	105	80	99	99	917

metric units

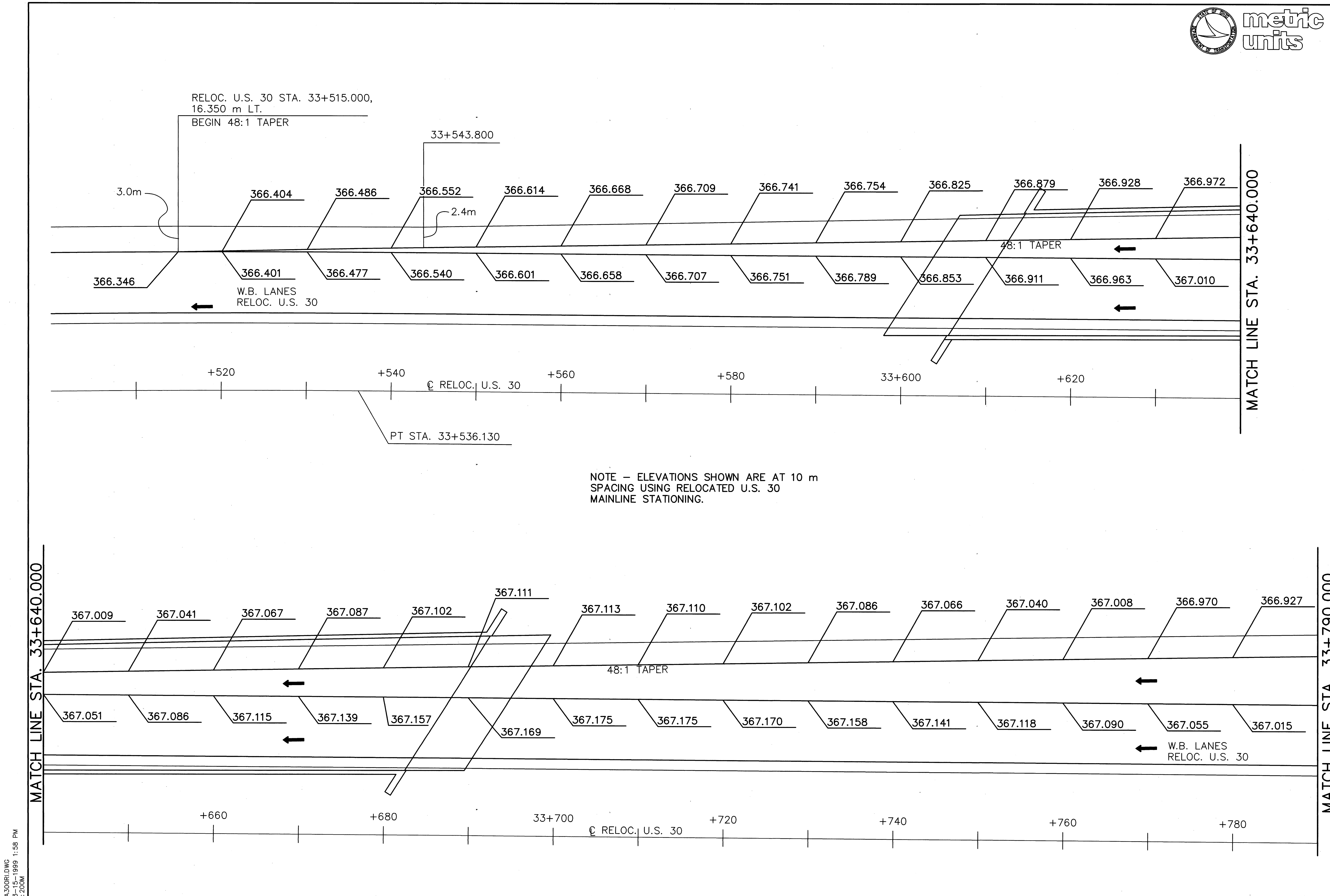
RATIO 1:200
HORIZONTAL SCALE IN METERS
0 5 10

CALCULATED WJS
CHECKED MJT

MEDIAN CROSSOVER DETAILS

CRA/RIC–30–33.500/0.000

GM004.DWG
12–04–2000 10:25 AM
1:500M



NOTE – ELEVATIONS SHOWN ARE AT 10 m SPACING USING RELOCATED U.S. 30 MAINLINE STATIONING.

SCALE 1:200

HORIZONTAL SCALE IN METERS

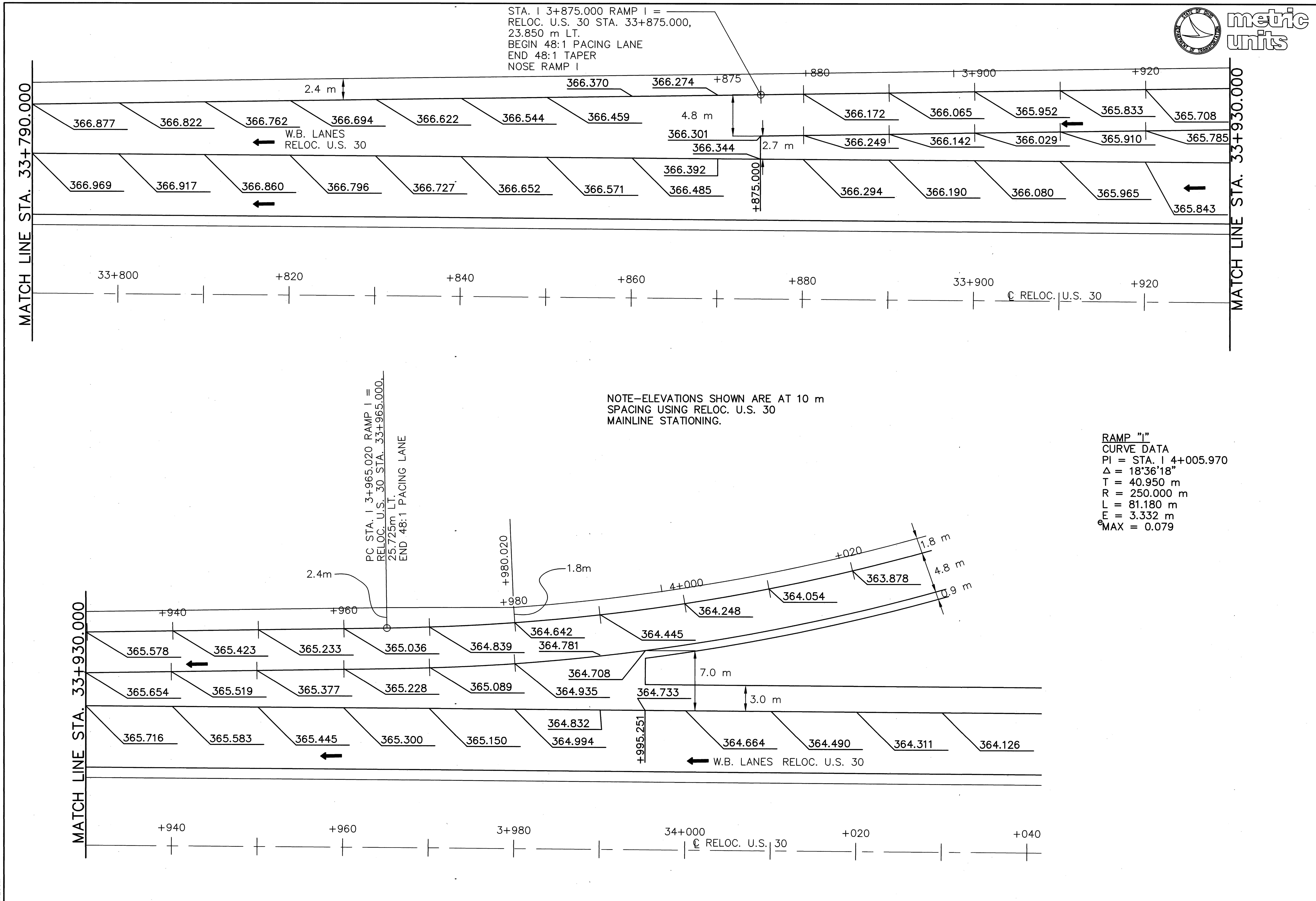
CALCULATED

CHECKED

TERMINAL DETAILS
RAMP "I"

CRA/RIC-30-33.500/0.000

469
712



metric units

SCALE 1:200
HORIZONTAL SCALE IN METERS
0 5 10

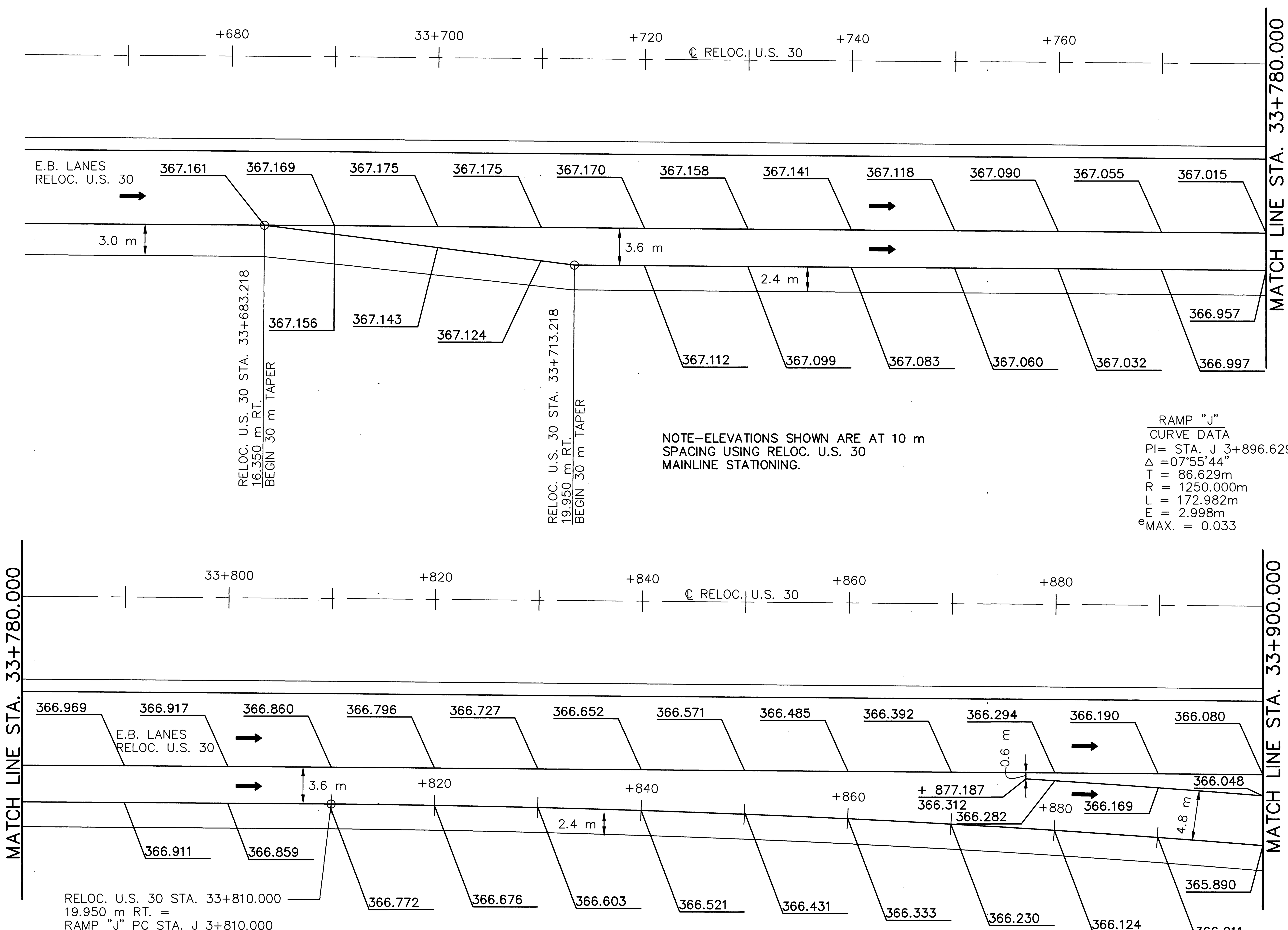
CALCULATED
CHECKED

TERMINAL DETAILS RAMP "I"

CRA/RIC-30-33.500/0.000

470
712

GA301RI.DWG
03-15-1999 2:00 PM
1:200M



metric units

SCALE 1:200
0 5 10
HORIZONTAL SCALE IN METERS

CALCULATED XXX
CHECKED XXX

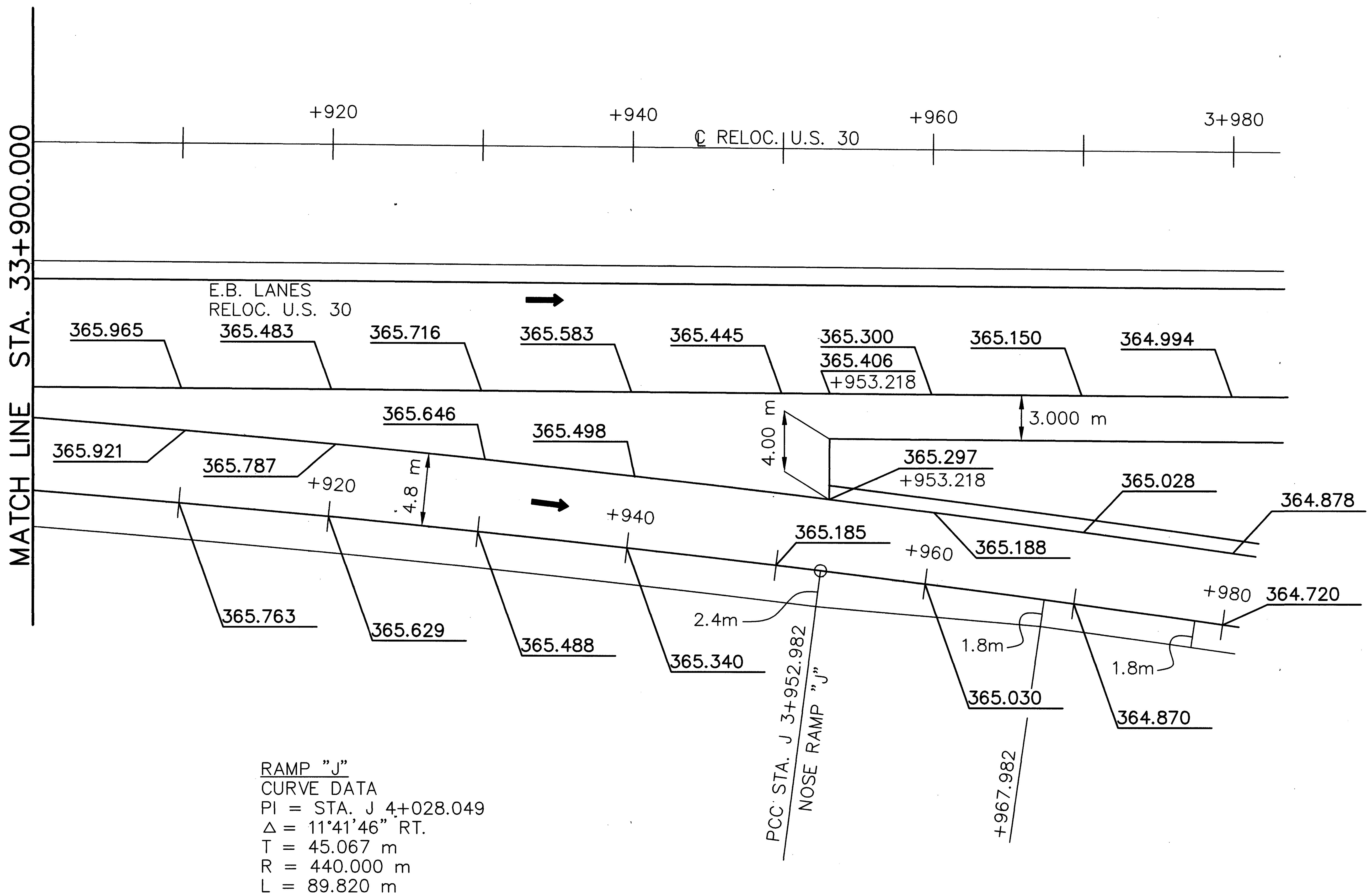
TERMINAL DETAILS RAMP "J"

CRA/RIC-30-33.500/0.000

471
712

GA30ORJ.DWG
03-15-1999 2:10 PM
1:200M

NOTE–ELEVATIONS SHOWN ARE AT 10 m
SPACING USING RELOC. U.S. 30
MAINLINE STATIONING.



RAMP "J"
CURVE DATA
PI = STA. J 4+028.049
Δ = 11°41'46" RT.
T = 45.067 m
R = 440.000 m
L = 89.820 m
E = 2.302 m
e_{MAX} = 0.072

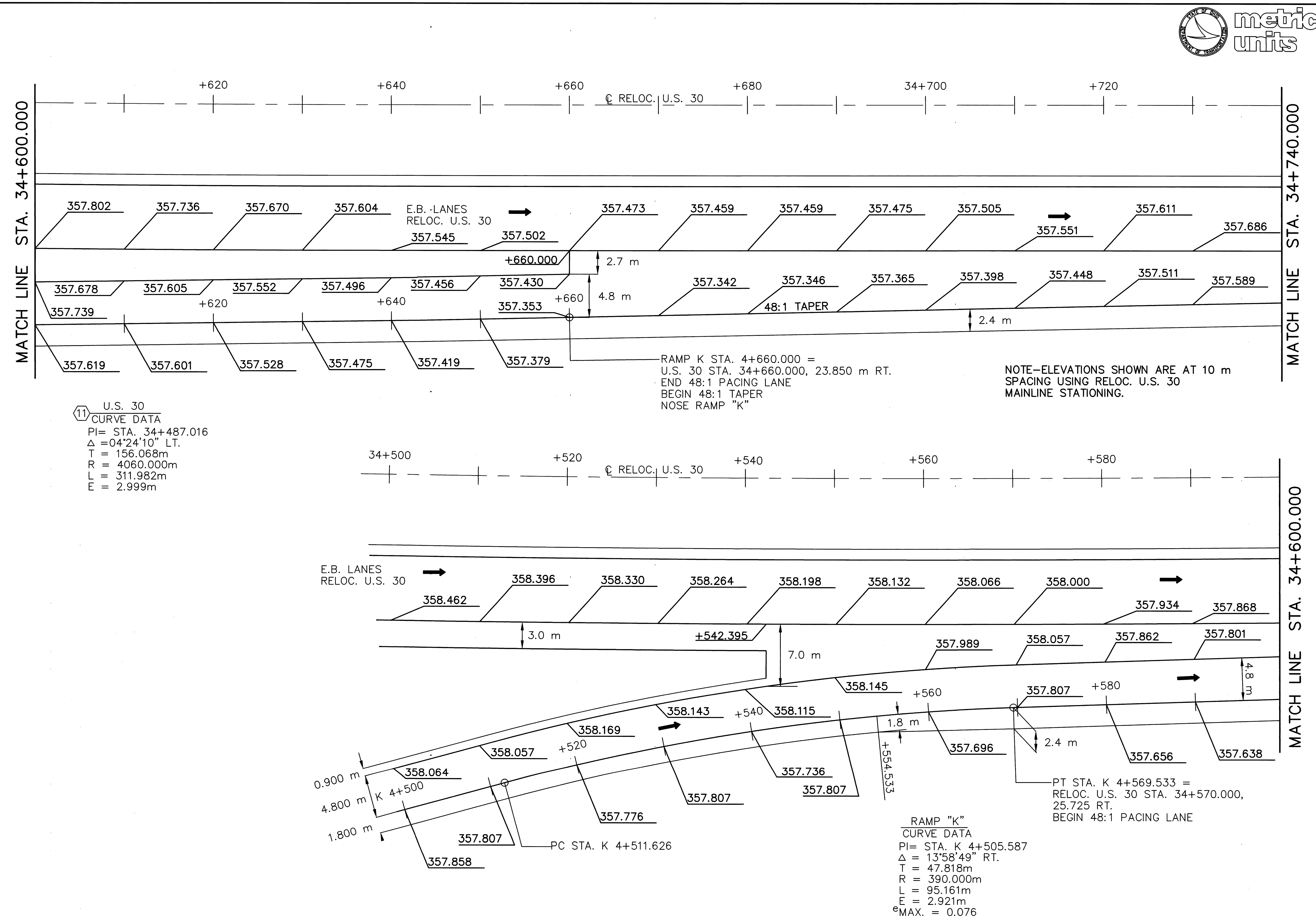
SCALE 1:200
HORIZONTAL
SCALE IN METERS
0 5 10

CALCULATED
CHECKED

TERMINAL DETAILS
RAMP "J"

CRA/RIC–30–33.500/0.000

GA301R.DWG
03-2-1999 10:44 AM
1:200M



TERMINAL DETAILS
RAMP "K"

SCALE 1:200
HORIZONTAL SCALE IN METERS

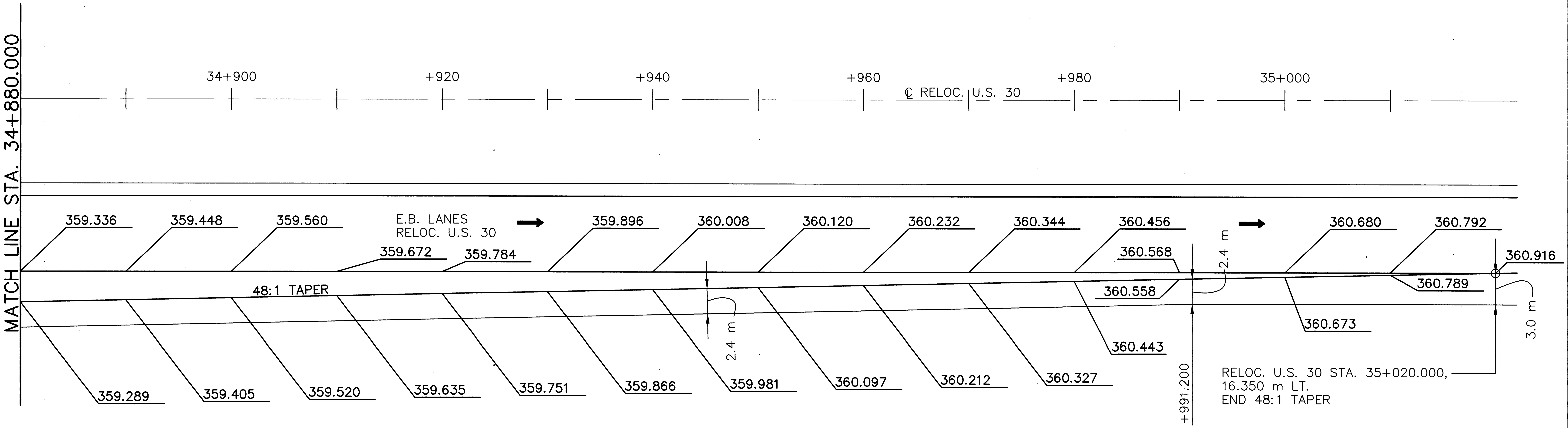
CALCULATED
CHECKED

CRA/RIC-30-33.500/0.000

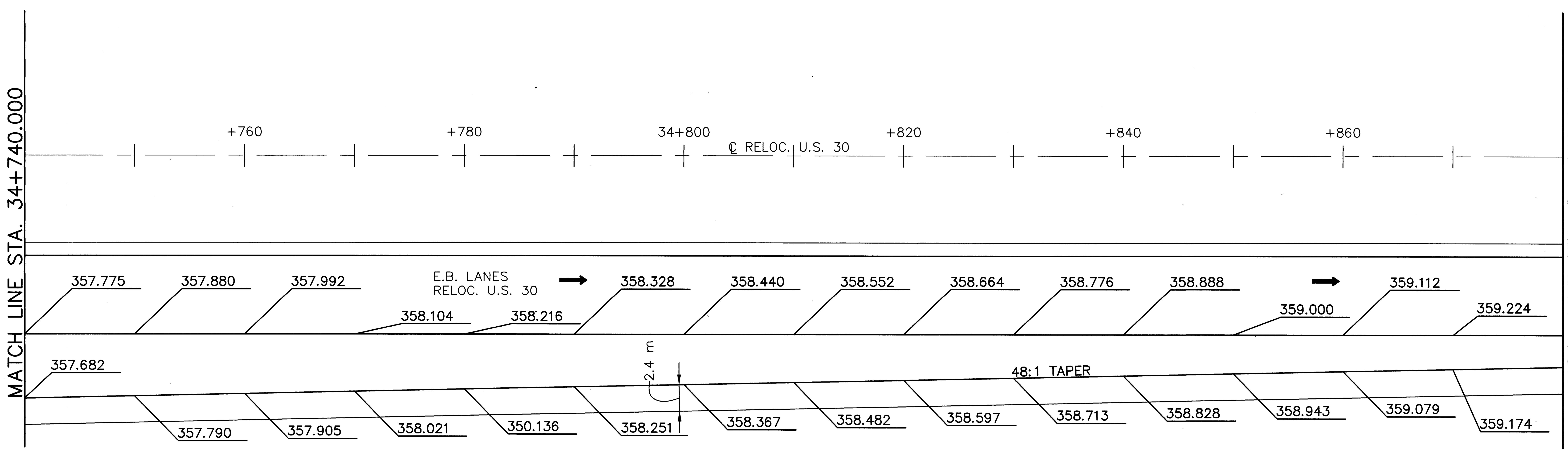
473
712

GA301RK.DWG
03-15-1999 2:53 PM
1:200M

metric units



NOTE–ELEVATIONS SHOWN ARE AT 10 m
SPACING USING RELOC. U.S. 30
MAINLINE STATIONING.



SCALE 1:200
0 5 10
HORIZONTAL
SCALE IN METERS

CALCULATED
CHECKED

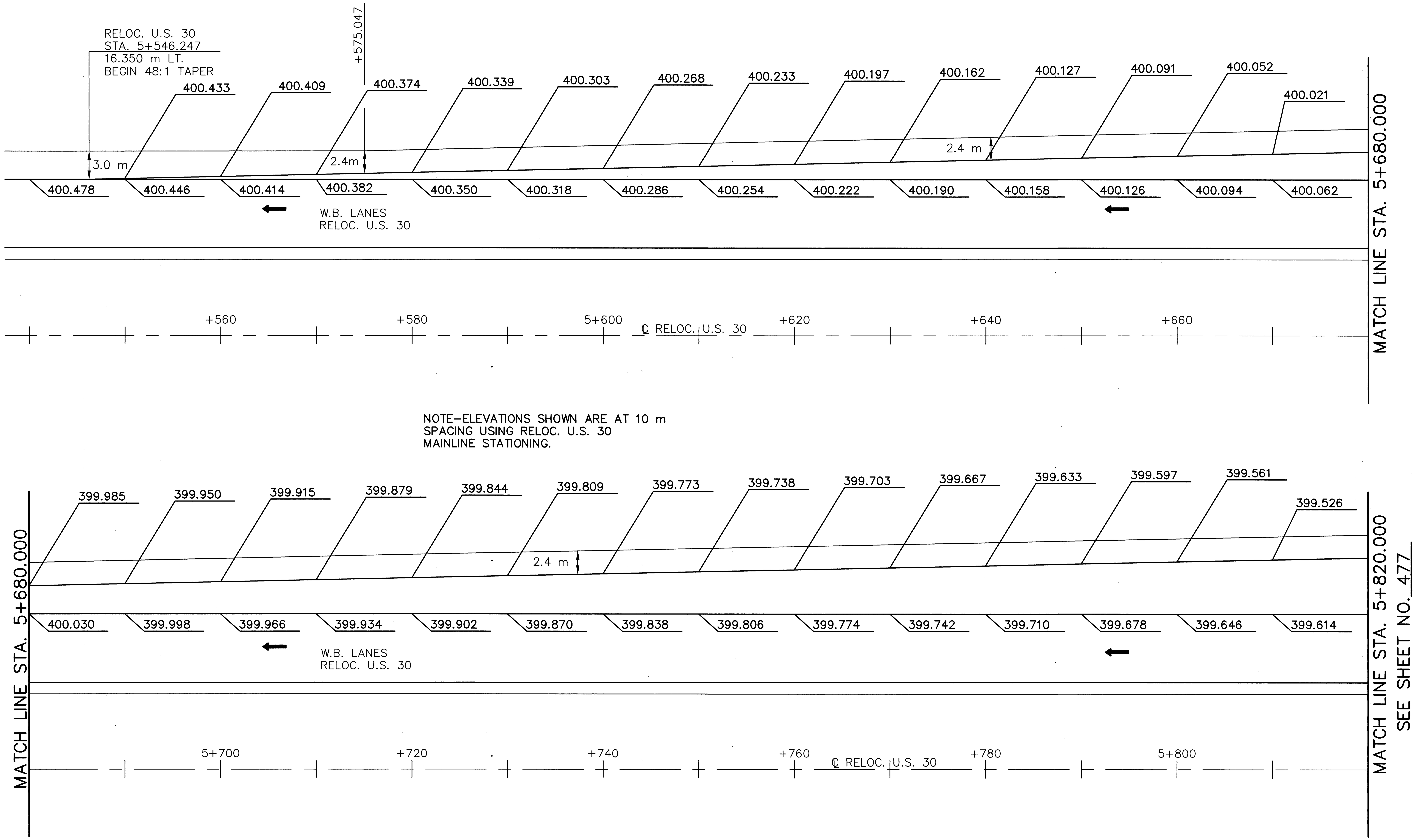
TERMINAL DETAILS
RAMP "K"

CRA/RIC-30-33.500/0.000

474
712

GA300RK.DWG
03-15-1999 2:57 PM
1:200M

RELOC. U.S. 30, STA. 34+725.000, 19.950 m LT. =
PT STA. L 4 +725.000 RAMP L
RELOC. U.S. 30, STA. 34+816.814, 16.350 m LT.
END 30 m TAPER
RELOC. U.S. 30, STA. 34+786.814, 19.950 m LT.
BEGIN 30 m TAPER
MATCH LINE STA. 34+700.000
357.378
357.492
357.717
357.822
357.934
358.046
358.158
358.408
358.539
358.628
358.276
357.429
357.628
3.6 m
2.4 m
3.0 m
357.505
357.551
357.611
357.686
357.775
357.880
357.992
358.104
358.216
358.328
358.440
358.552
358.664
W.B. LANES
RELOC. U.S. 30
+720
+740
+760
+780
34+800
+820
℄ RELOC. U.S. 30
NOTE–ELEVATIONS SHOWN ARE AT 10 m
SPACING USING RELOC. U.S. 30
MAINLINE STATIONING.
RAMP "L"
CURVE DATA
PI = STA. L 4+636.360
Δ = 08°08'22" LT.
T = 88.940 m
R = 1250.000 m
L = 177.580 m
E = 3.160 m
eMAX = 0.033
STA. L 4+577.420
NOSE RAMP "L"
1.8 m
STA. 4+542.420
2.4 m
357.769
+580
L 4+600
+620
+640
+660
+680
4.8 m
0.9 m
4.0 m
3.0 m
0.6 m
357.927
357.669
357.619
357.566
357.515
357.449
357.408
357.367
357.326
357.307
357.301
357.312
357.340
357.827
357.853
357.777
357.724
357.673
357.607
357.566
357.525
357.484
357.470
+657.336
+576.814
358.000
357.955
357.934
357.868
357.802
357.736
357.670
357.604
357.545
357.502
357.473
357.459
357.459
357.475
W.B. LANES
RELOC. U.S. 30
+580
34+600
+620
+640
+660
+680
℄ RELOC. U.S. 30
MATCH LINE STA. 34+700.000
metric units
SCALE 1:200
HORIZONTAL
SCALE IN METERS
CALCULATED WJS
CHECKED CRM
TERMINAL DETAILS
RAMP "L"
CRA/RIC-30-33.500/0.000
475
712
GA30ORL.DWG
03-15-1999 3:17 PM
1:200M



metric units

SCALE 1:200
0 5 10
HORIZONTAL SCALE IN METERS

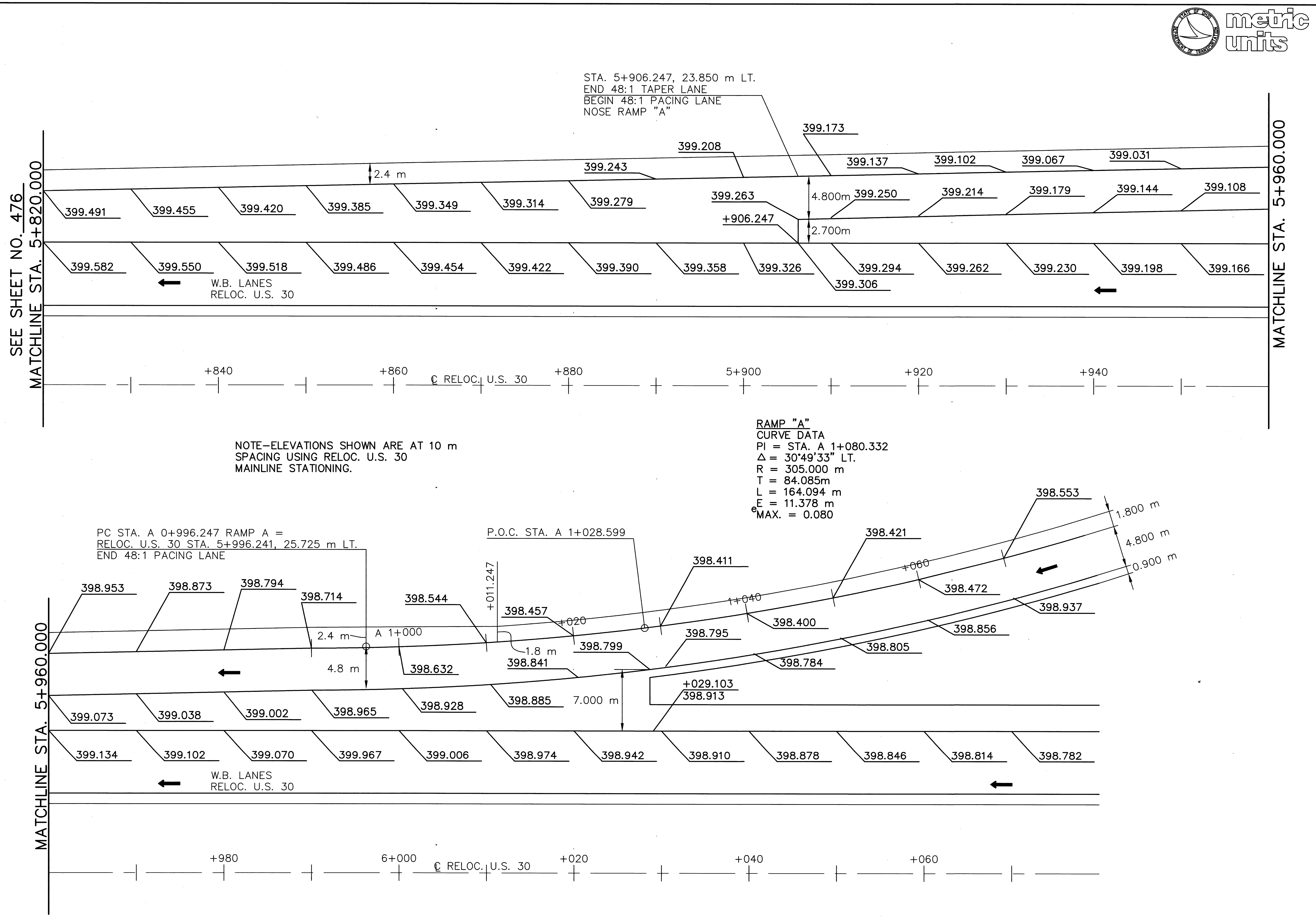
CALCULATED CRM
CHECKED WJS

TERMINAL DETAILS RAMP "A"

CRA/RIC-30-33.500/0.000

476
712

GA300RA.DWG
03-15-1999 3:20 PM
1:200M



SCALE 1:200

0 5 10

HORIZONTAL SCALE IN METERS

CALCULATED CRM

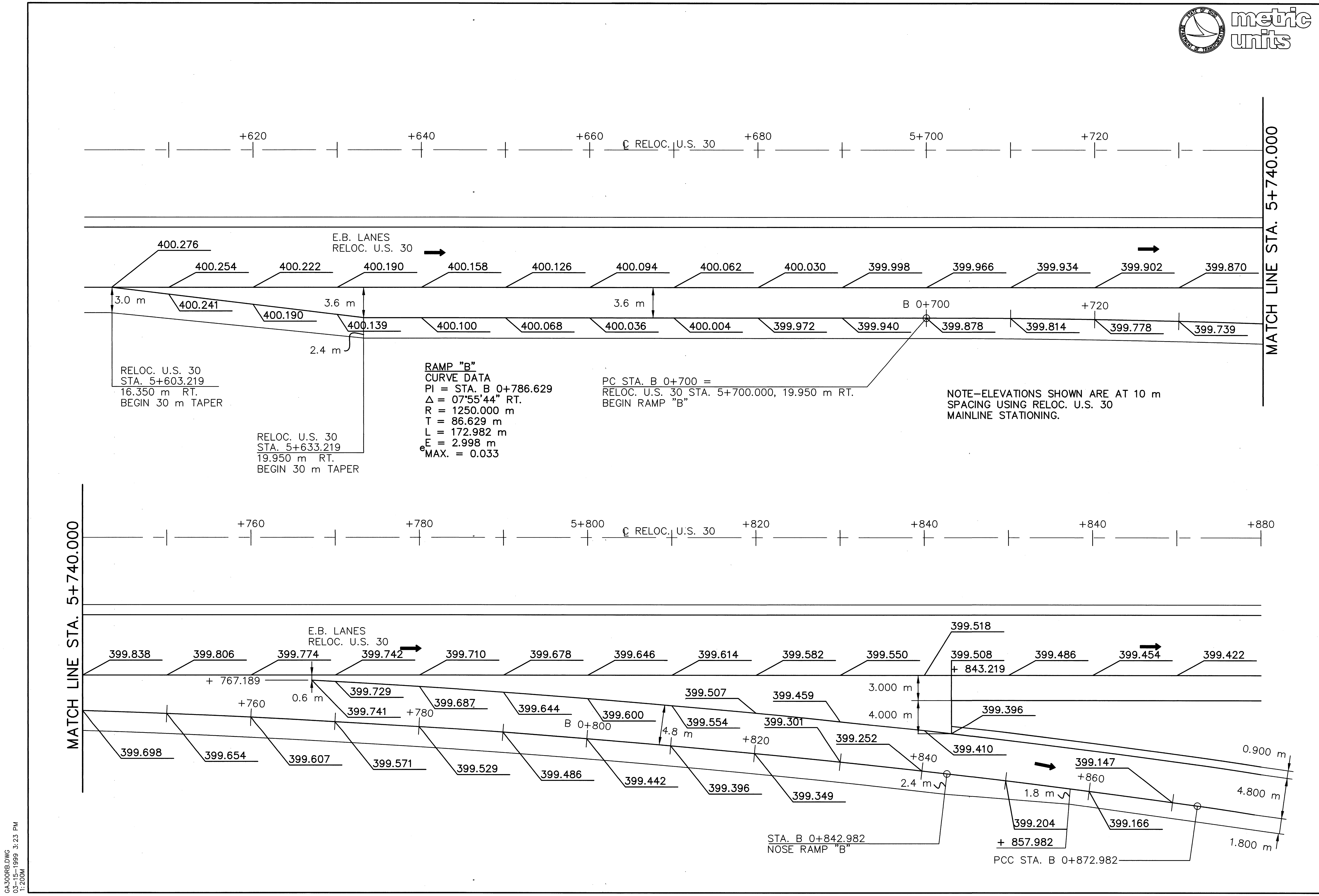
CHECKED WJS

TERMINAL DETAILS RAMP "A"

CRA/RIC-30-33.500/0.000

477/712

GA301RA.DWG
03-16-1999 9:06 AM
1:200M



SCALE 1:200
HORIZONTAL SCALE IN METERS
0 5 10

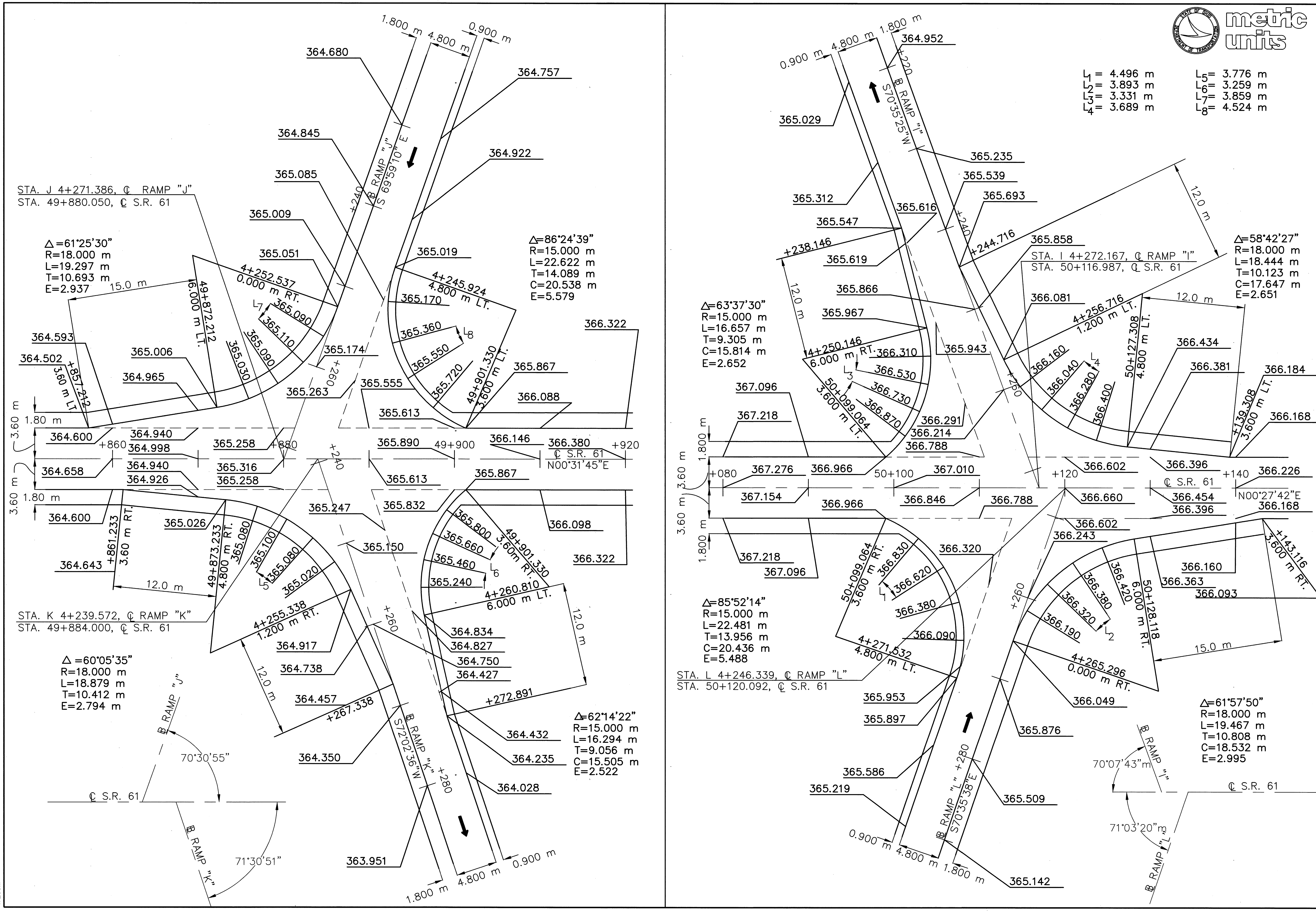
CALCULATED CRM
CHECKED WJS

TERMINAL DETAILS
RAMP "B"

CRA/RIC-30-33.500/0.000

478/712

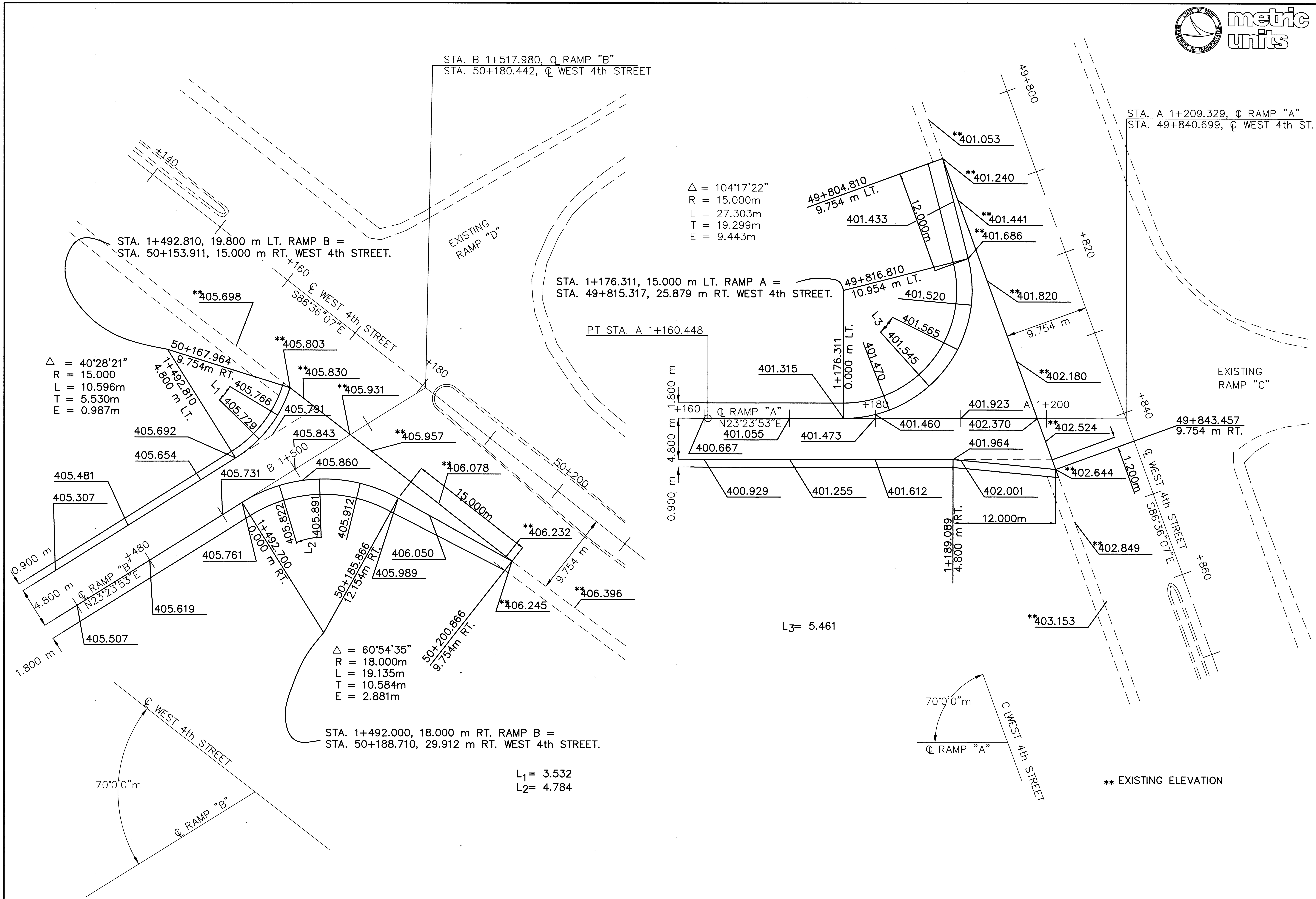
metric units
STA. 6+740.000
MATCH LINE STA. 6+680
*402.391
*402.509
*402.638
*402.755
*402.872
*402.960
7.2 m
W.B. LANES
RELOC. U.S. 30
402.038
402.156
402.285
402.402
402.519
402.607
6+700
+720
+740
℄ RELOC. U.S. 30
+760
+780
6+800
* EXISTING PAVEMENT ELEVATION
NOTE–ELEVATIONS SHOWN ARE AT 10 m
SPACING USING RELOC. U.S. 30
MAINLINE STATIONING.
EXIST. RAMP "C"
3.0 m
*401.480
*401.564
*401.663
*401.768
*401.909
*402.051
*402.140
*402.221
*402.321
W.B. LANES
RELOC. U.S. 30
400.992
401.096
401.199
401.302
401.405
400.639
400.743
400.846
400.949
401.052
401.127
401.211
401.310
401.415
401.556
401.698
401.787
401.868
401.968
+540
+560
+580
6+600
℄ RELOC. U.S. 30
+620
+640
+660
MATCH LINE STA. 6+680
SCALE 1:200
HORIZONTAL
SCALE IN METERS
CALCULATED MJT
CHECKED WS
TERMINAL DETAILS
RAMP "C"
CRA/RIC-30-33.500/0.000
479
712
GA300RC.DWG
03-23-1999 2:02 PM
1:200M



INTERSECTION DETAILS
S.R. 61 & RAMPS "I", "J", "K", "L"

CRA/RIC-30-33.500/0.000

480
712



SCALE 1:200
HORIZONTAL SCALE IN METERS

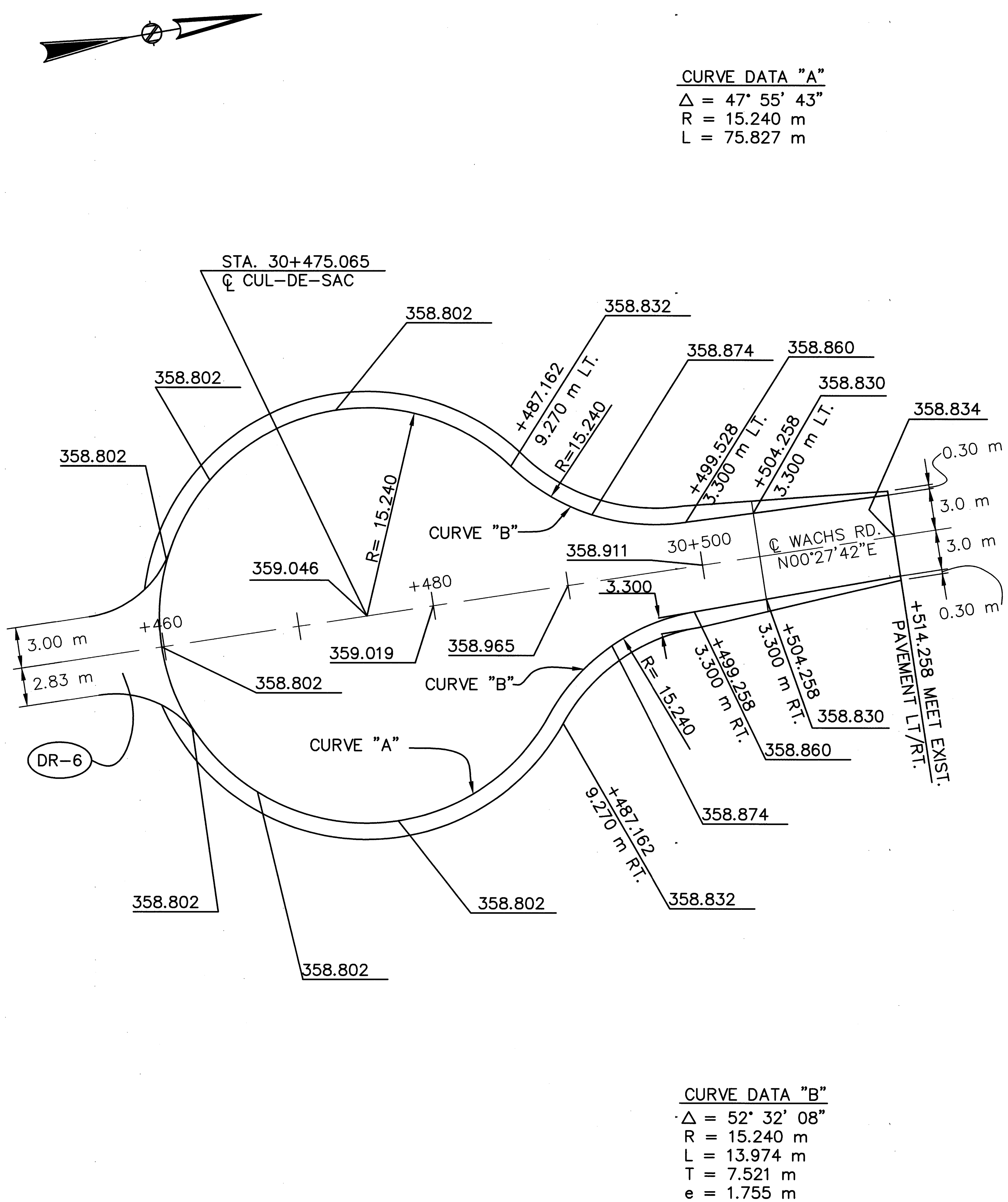
CALCULATED CRM
CHECKED WJS

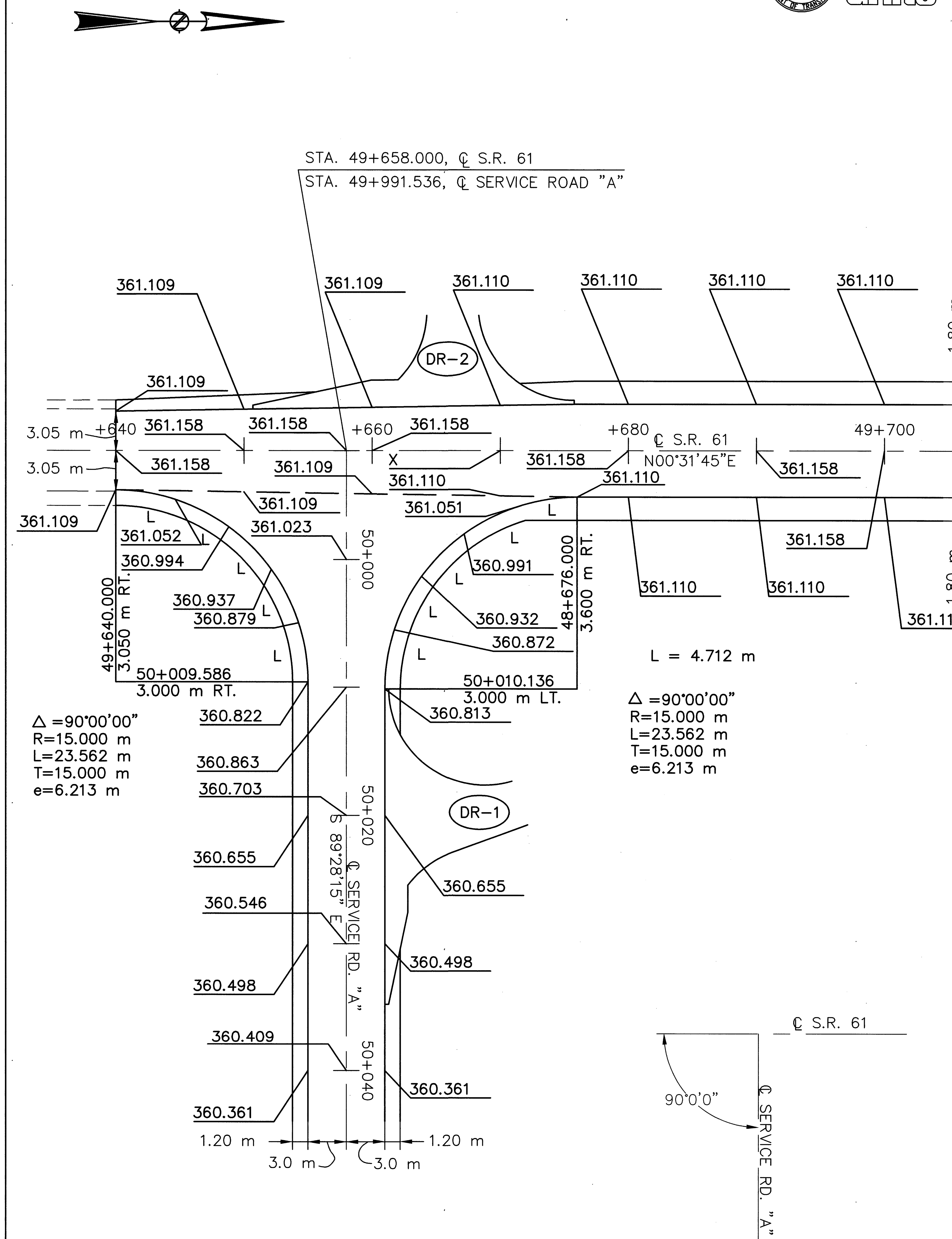
INTERSECTION DETAILS
WEST 4th STREET & RAMP "A" & "B"

CRA/RIC-30-33.500/0.000

481
712

GI501.DWG
03-19-1999 11:33 AM
1:200M





metric units

SCALE 1:200
HORIZONTAL
SCALE IN METERS

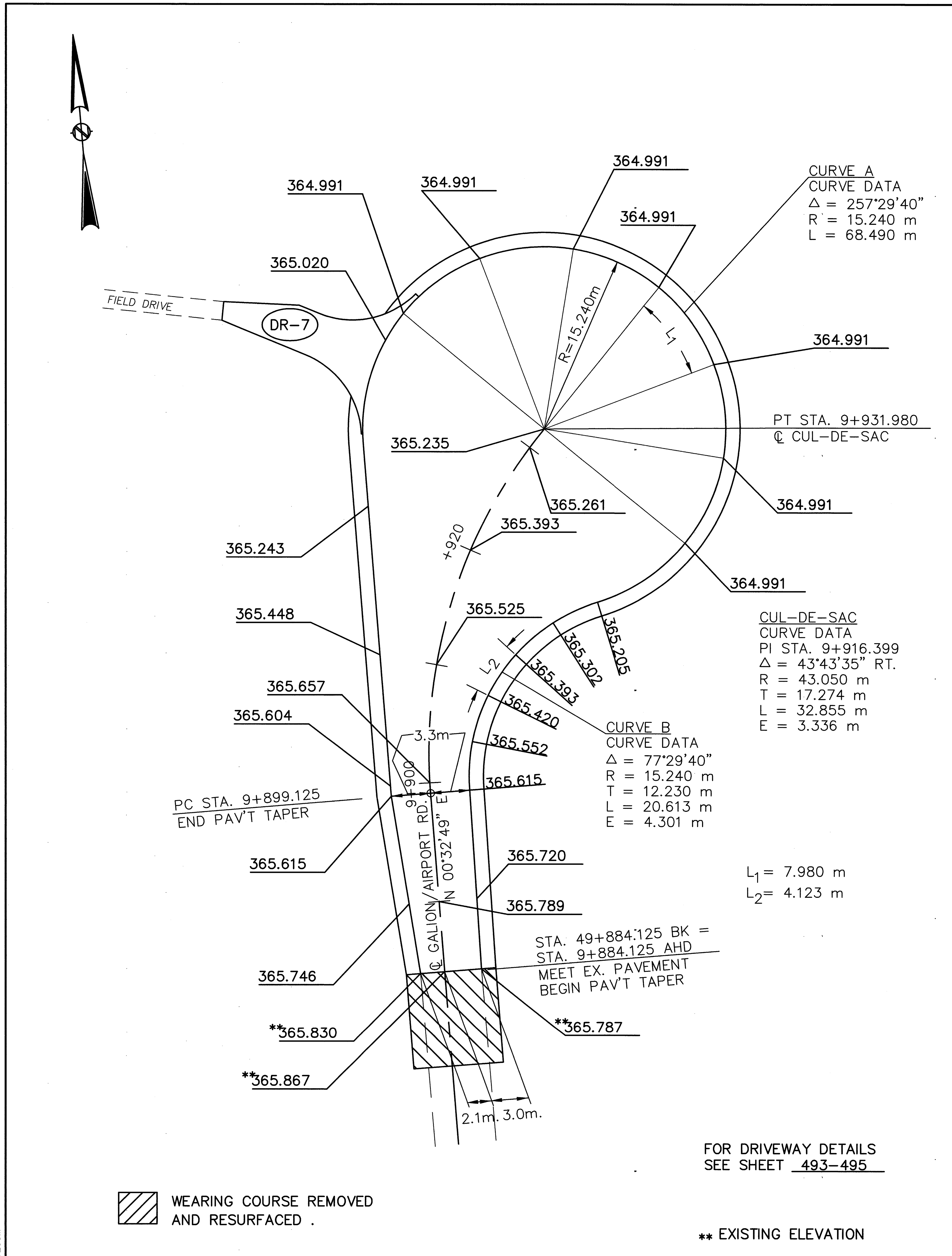
CALCULATED
CHECKED

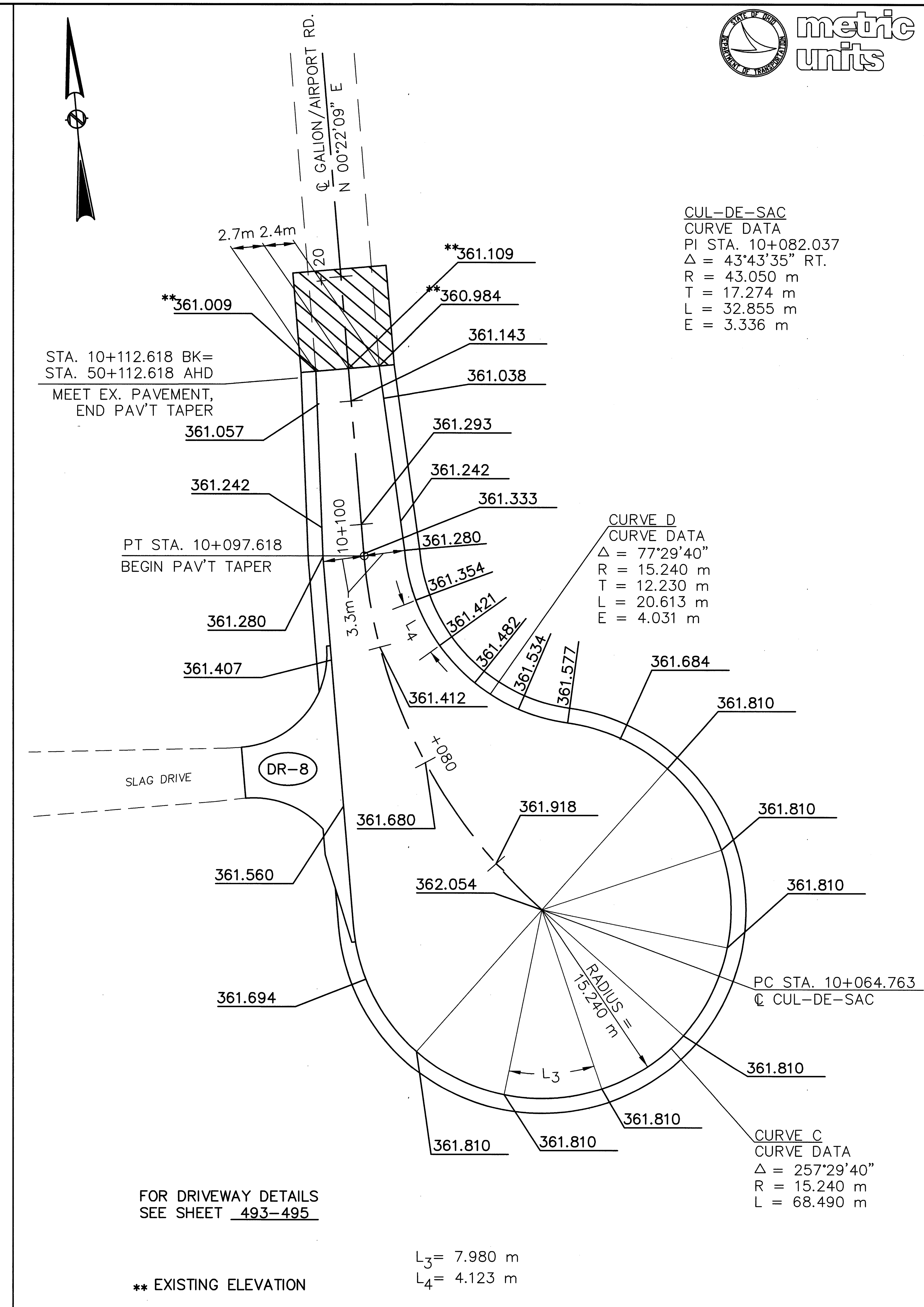
INTERSECTION DETAILS
S.R.61 & SERVICE RD. "A"; WACHS RD. CUL-DE-SAC

CRA/RIC-30-33.500/0.000

482
712

GI502.DWG
03-16-1999 9:48 AM
1:200





metric units

SCALE 1:200
HORIZONTAL SCALE IN METERS
0 5 10

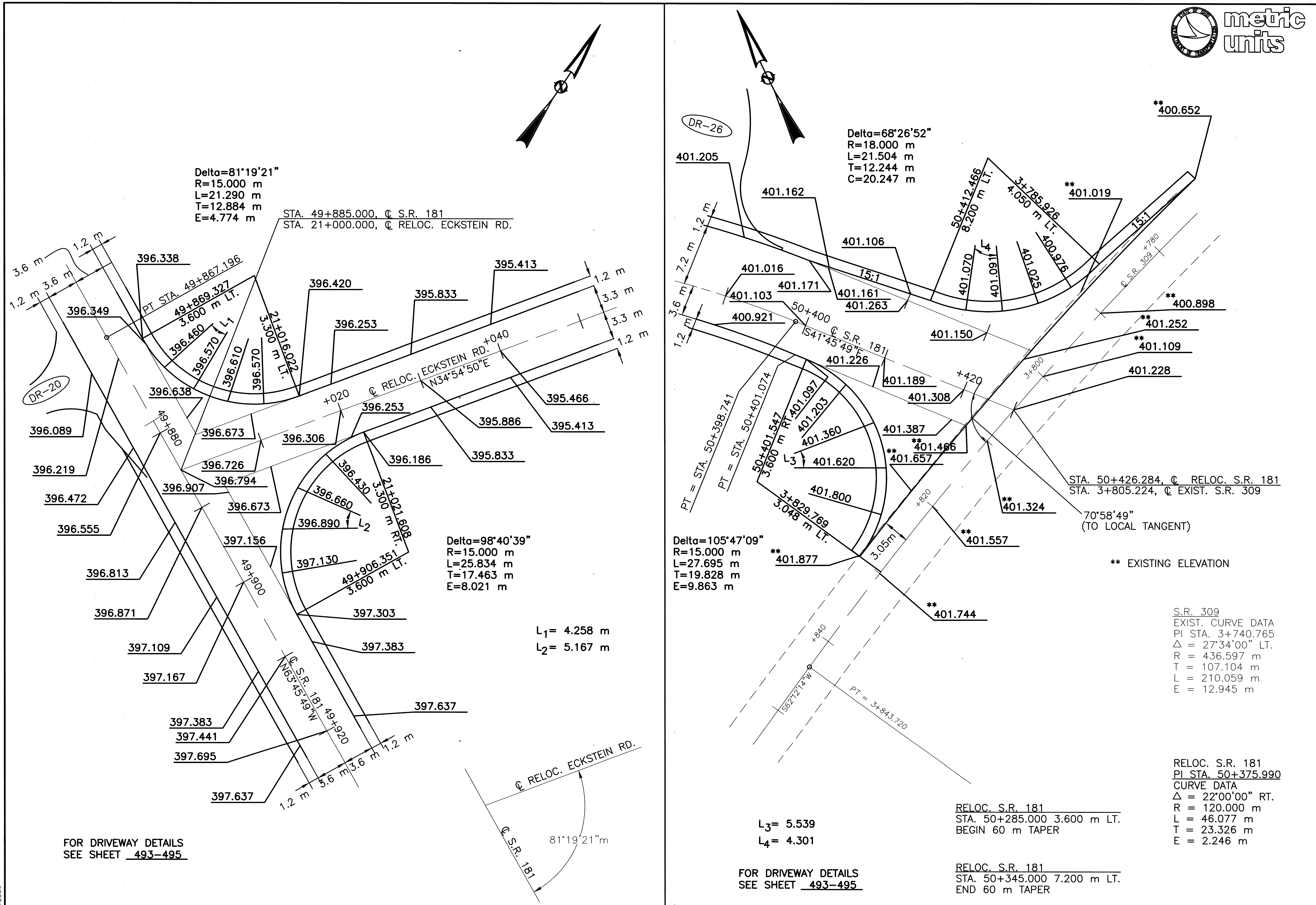
CALCULATED CRM
CHECKED WJS

INTERSECTION DETAILS
GALION/AIRPORT RD CUL-DE-SACS

CRA/RIC-30-33.500/0.000

483
712

GI503.DWG
03-16-1999 10:50 AM
1:200M



metric units

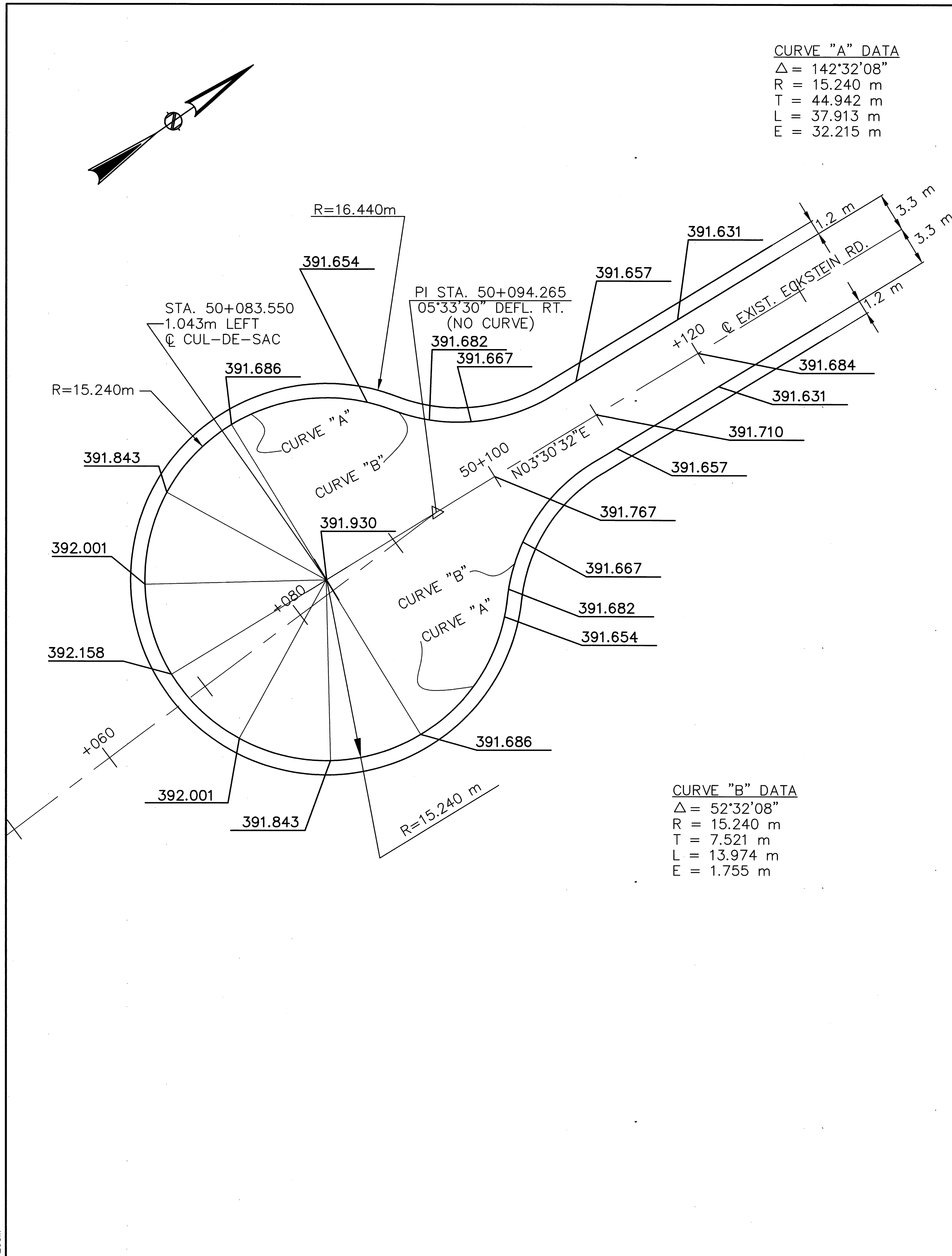
SCALE 1:200
HORIZONTAL SCALE IN METERS

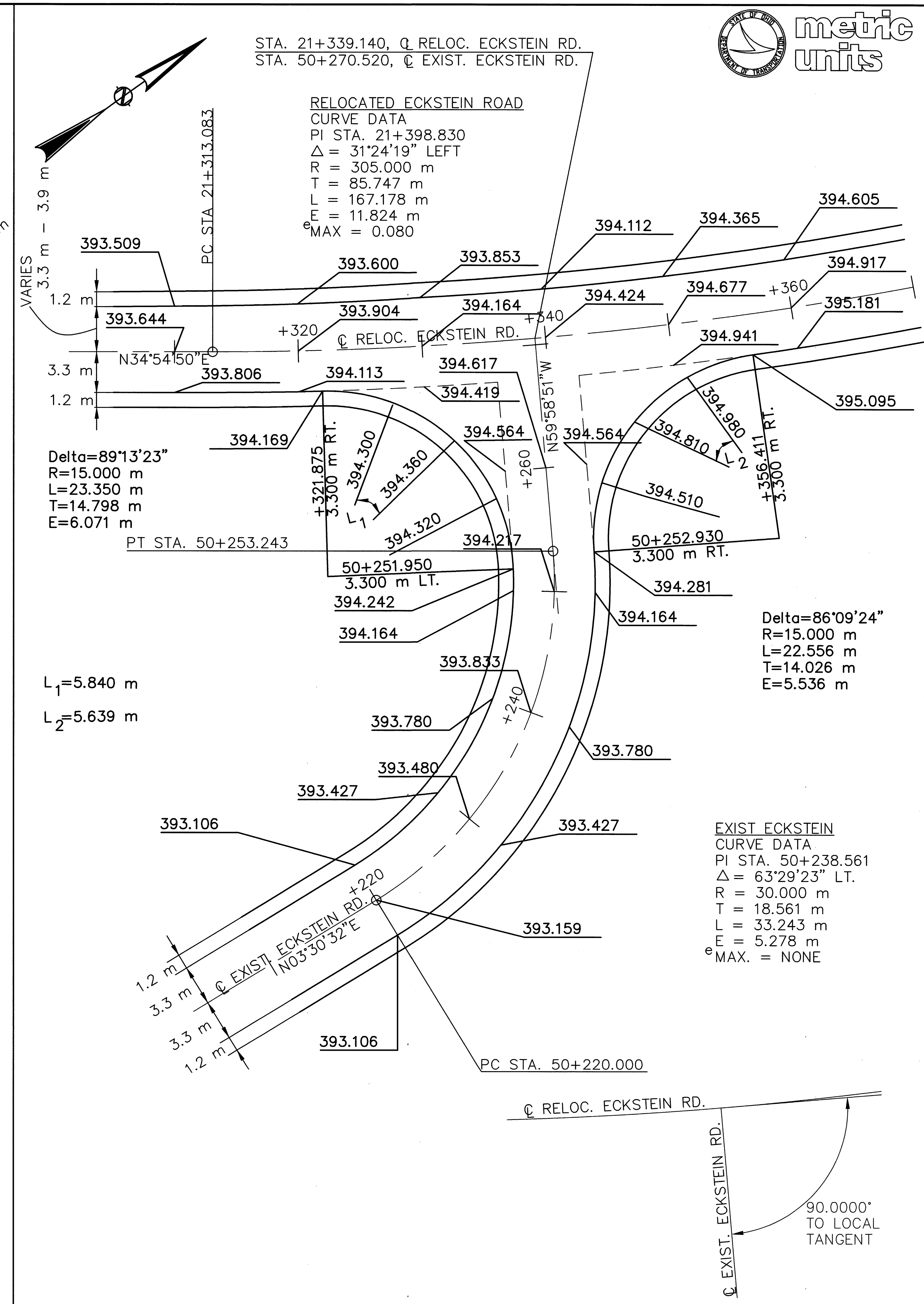
CALCULATED CRM
CHECKED WJS

INTERSECTION DETAILS
S.R. 181 / RELOC. ECKSTEIN RD. / S.R. 309

CRA/RIC-30-33.500/0.000

GI504.DWG
08-22-2000 11:16 AM
1:200M





SCALE 1:200
HORIZONTAL SCALE IN METERS

CALCULATED CRM
CHECKED WJS

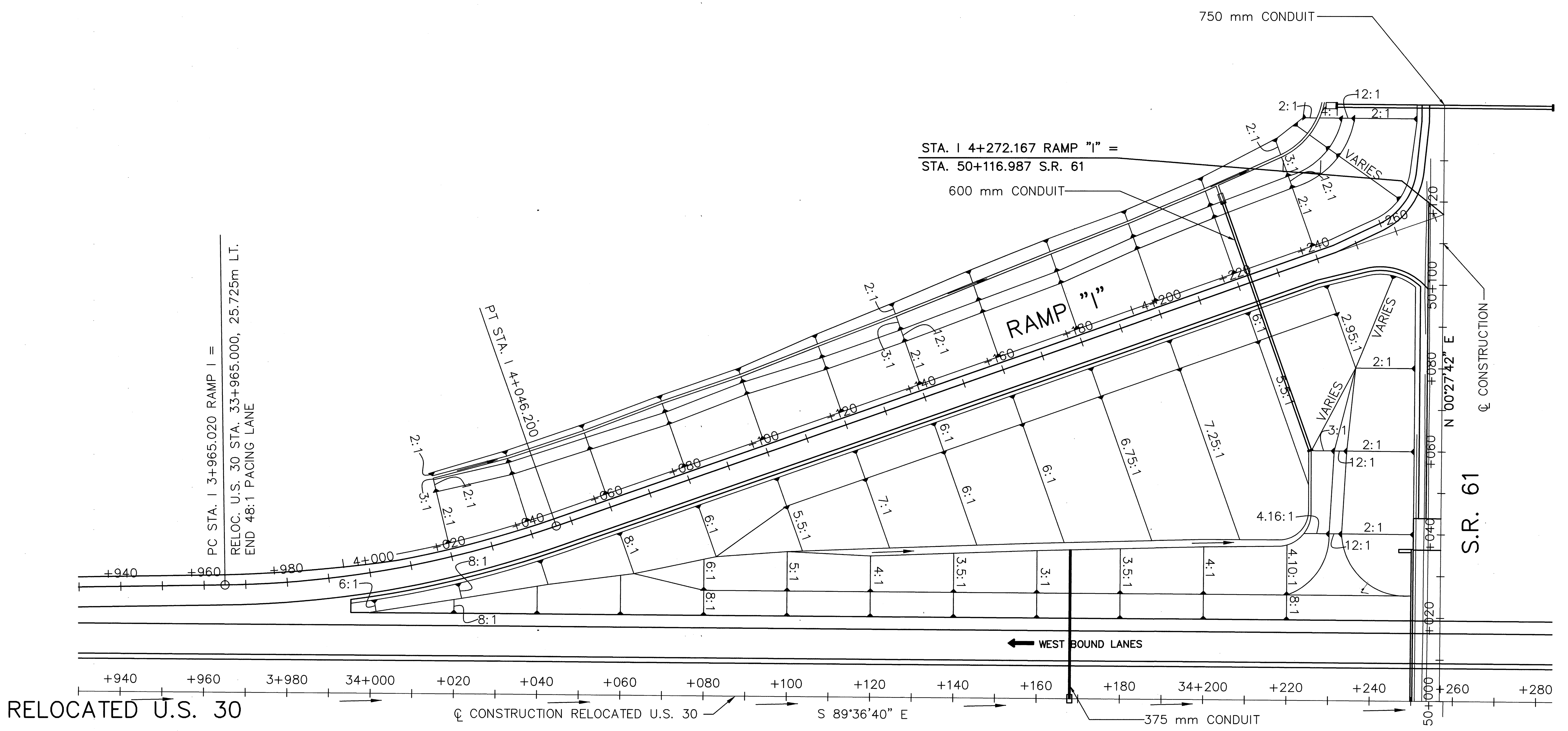
INTERSECTION DETAILS
ECKSTEIN ROAD; ECKSTEIN ROAD CUL-DE-SAC

CRA/RIC-30-33.500/0.000

485
712

GI505.DWG
03-16-1999 10:26 AM
1:200M

INTERSECTION DETAILS
SERVICE ROAD "B" CUL-DE-SACS
CRA/RIC-30-33.500/0.000
485A
712
metric units
SCALE 1:200
HORIZONTAL SCALE IN METERS
CALCULATED JPS
CHECKED WJS
DR-27
DR-29
Delta=109°12'54"
R=5.000 m
L=9.531 m
T=7.038 m
E=3.633 m
1.2m
3.3m
3.3m
1.2m
℄ RELOC. EARICK ROAD
℄ SERVICE ROAD "B"
N00°25'51"E
400.302 +768.236
400.355 +768.236
400.530 +761.319
400.302 +768.236
400.530 +761.319
PT STA. 30+761.058
400.573
400.563
400.402 +754.402
400.510
400.902
400.705 +754.402
401.656 49+741.778 3.600 m RT.
401.715
401.449 49+734.738
400.652 +754.402
400.816
L3
401.217
70°54'51"
N62°07'23"E
400.730
PC STA. 30+744.907
STA 49+730.000 RELOC. EARICK RD. =
STA 30+732.116 SERVICE ROAD "B"
401.109 49+727.754
400.916 49+723.677
400.776 49+720.632
N08°47'28"W
400.877
30+741.905 3.300 m RT.
400.933
400.947
400.835
L4
49+720.632 3.600 m RT.
400.717
Delta=70°54'51"
R=10.000 m
L=12.377 m
T=7.122 m
E=2.277 m
+760
+740
+720
SERVICE ROAD "B"
CURVE DATA
PI STA. 30+753.865
Δ = 61°41'31" LT.
R = 15.000 m
T = 8.958 m
L = 16.151 m
E = 2.471 m
L3 = 2.383 m
L4 = 3.904 m
A 401.527
B 401.322
C 401.198
D 401.098 30+744.090 3.300 m LT.
E 401.070
F 401.173 30+735.925 0.000 m RT.
G 401.233
H 401.329 30+737.067 3.300 m LT.
I 401.573
J 400.999 30+737.067 3.300 m RT.
K 401.020 49+727.754 3.600 m RT.
L 400.844 49+723.677 3.600 m RT.
CURVE B
CURVE DATA
Δ = 257°04'29"
R = 15.840 m
L = 68.379 m
402.643
402.582
402.521
402.548
402.704
402.643
402.765
N44°09'26"E
L1
+940
+920
30+900
402.781
402.660
402.791
402.582
PT STA. 30+903.881
SERVICE ROAD "B"
℄ CUL-DE-SAC
402.521
402.594
402.542
402.525
+880
402.619
402.531
402.443
402.356
402.268
L2
402.233
CURVE A
CURVE DATA
Δ = 77°29'40"
R = 15.240 m
T = 12.230 m
L = 20.613 m
E = 4.031 m
CUL-DE SAC
CURVE DATA
Δ = 43°43'35"
R = 43.050 m
T = 17.274 m
L = 32.855 m
E = 3.336 m
PC STA. 30+871.026
SERVICE ROAD "B"
℄ CUL-DE-SAC
402.180
402.180
30+860
30+840
L1 = 7.980 m
L2 = 4.123 m
GI506.DWG
05-01-2001 9:13 AM
1:200 M



HORIZONTAL SCALE: 1:500
SCALE IN METERS

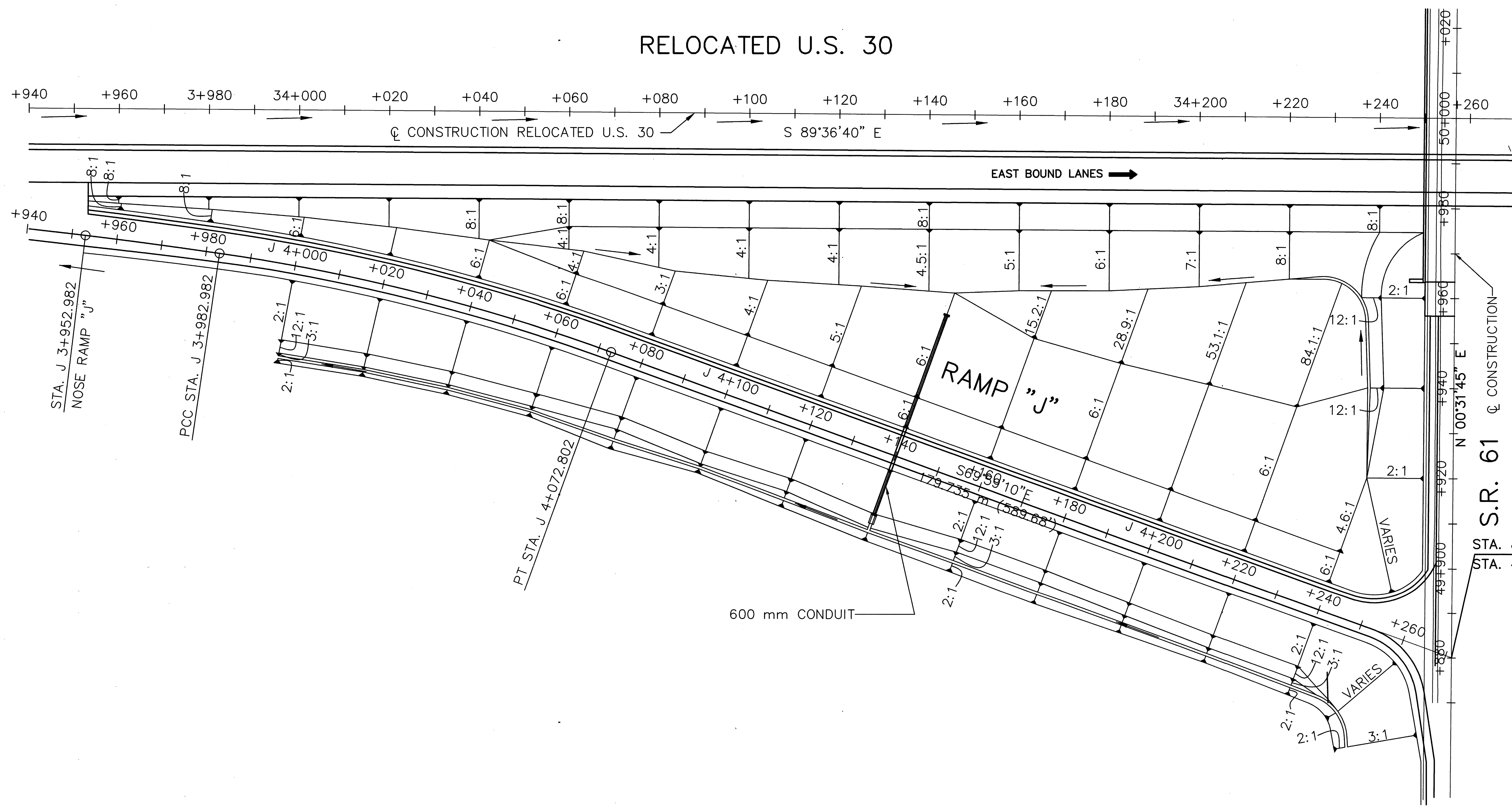
CALCULATED TM
CHECKED WJS

GRADING PLAN – RELOCATED U.S. 30 & RAMP I
STA. 3+940 TO STA. 4+270

CRA/RIC-30-33.500/0.000

486
712

GM005.DWG
03-16-1999 10:30 AM
1:500M



GRADING PLAN – RELOCATED U.S. 30 & RAMP J
STA. 33+940 TO STA. 4+270

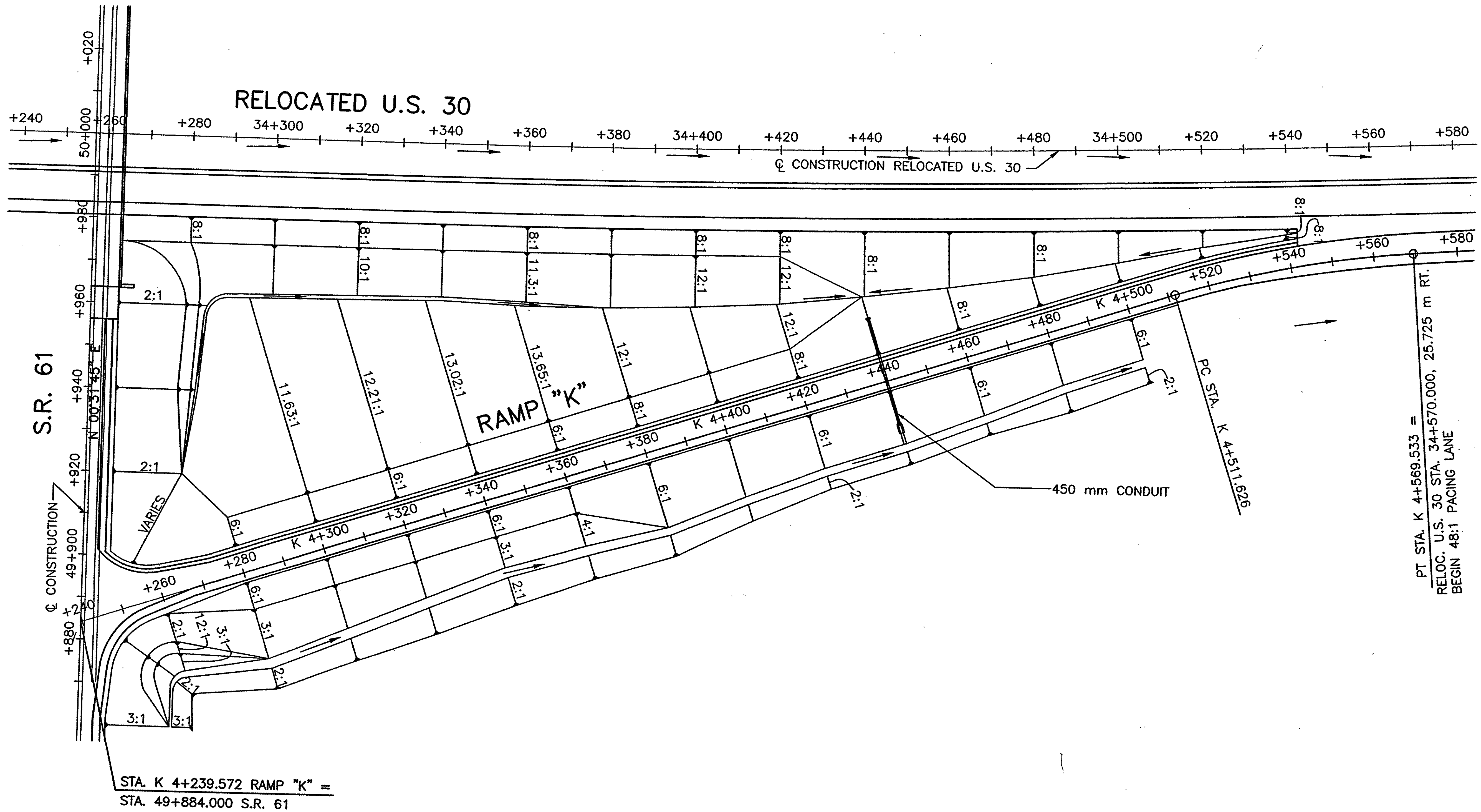
HORIZONTAL SCALE: 1:500
SCALE IN METERS

CALCULATED TM
CHECKED WJS

CRA/RIC-30-33.500/0.000

487
712

GM006.DWG
03-16-1999 10:32 AM
1:500M



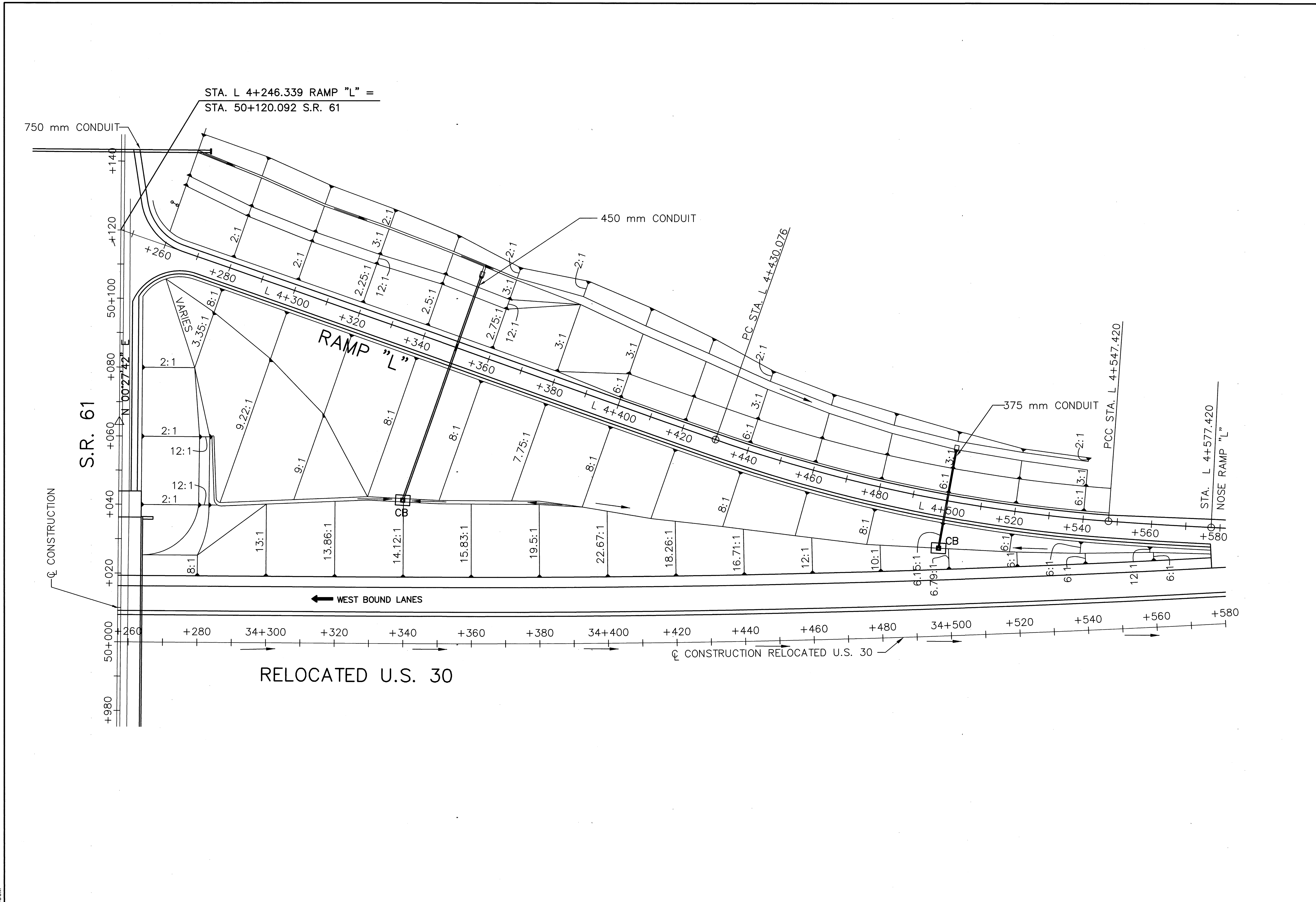
GRADING PLAN – RELOCATED U.S. 30 & RAMP K
STA. 4+250 TO STA. 4+580

HORIZONTAL SCALE: 1:500
SCALE IN METERS

CALCULATED TM
CHECKED WJS

CRA/RIC-30-33.500/0.000

GM007.DWG
05-30-2003 10:34 AM
1:500M



HORIZONTAL SCALE: 1:500

SCALE IN METERS

CALCULATED TM

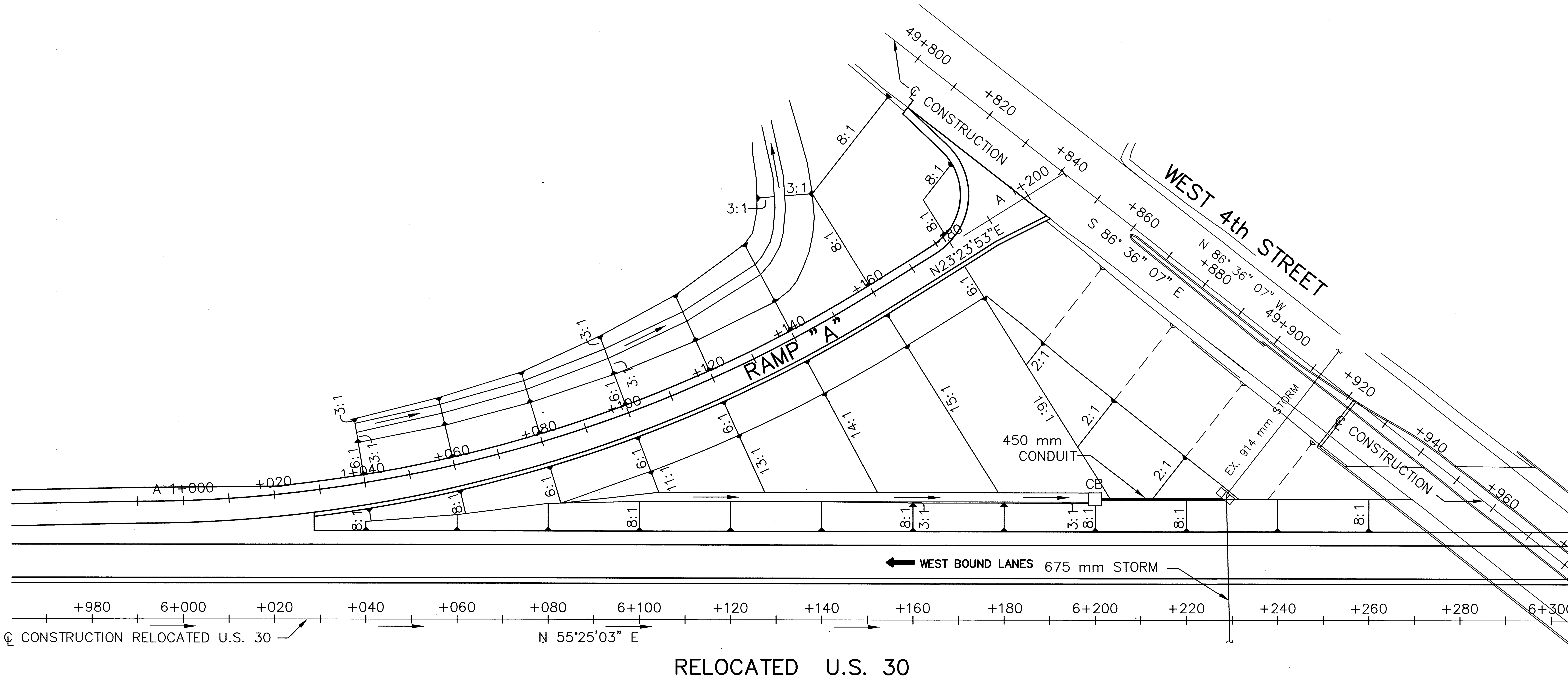
CHECKED WJS

GRADING PLAN – RELOCATED U.S. 30 & RAMP L
STA. 4+250 TO STA. 4+580

CRA/RIC-30-33.500/0.000

489
712

GM008.DWG
03-16-1999 10:36 AM
1:500M



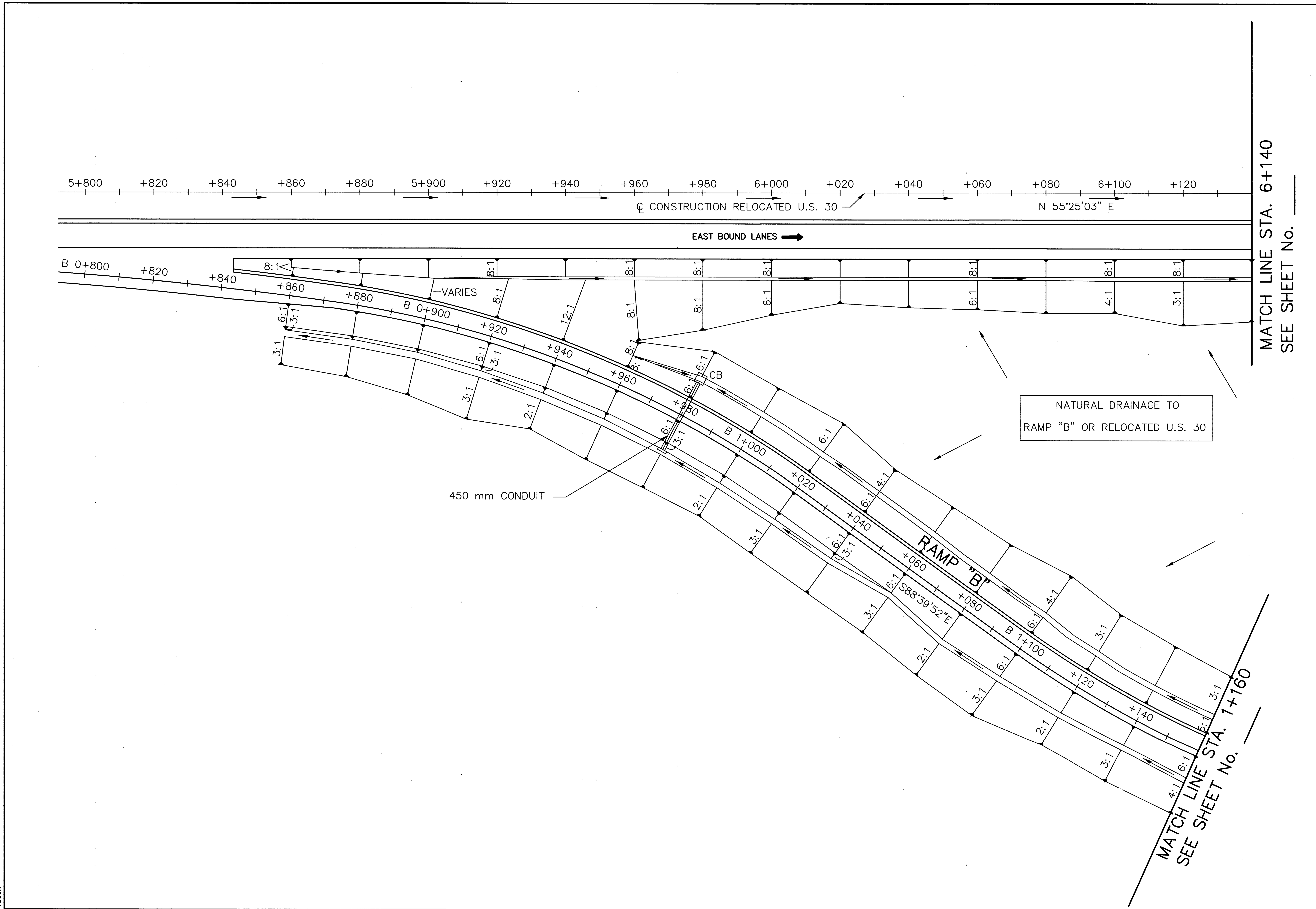
GRADING PLANS – RELOCATED U.S. 30 & RAMP A
STA. 5+970 TO STA. 6+300

HORIZONTAL SCALE: 1:500
0 5 10 20
SCALE IN METERS

CALCULATED DSH
CHECKED WJS

CRA/RIC-30-33.500/0.000

GM009.DWG
03-11-1999 11:15 AM
1:500M



HORIZONTAL SCALE: 1:500

0 5 10 20

SCALE IN METERS

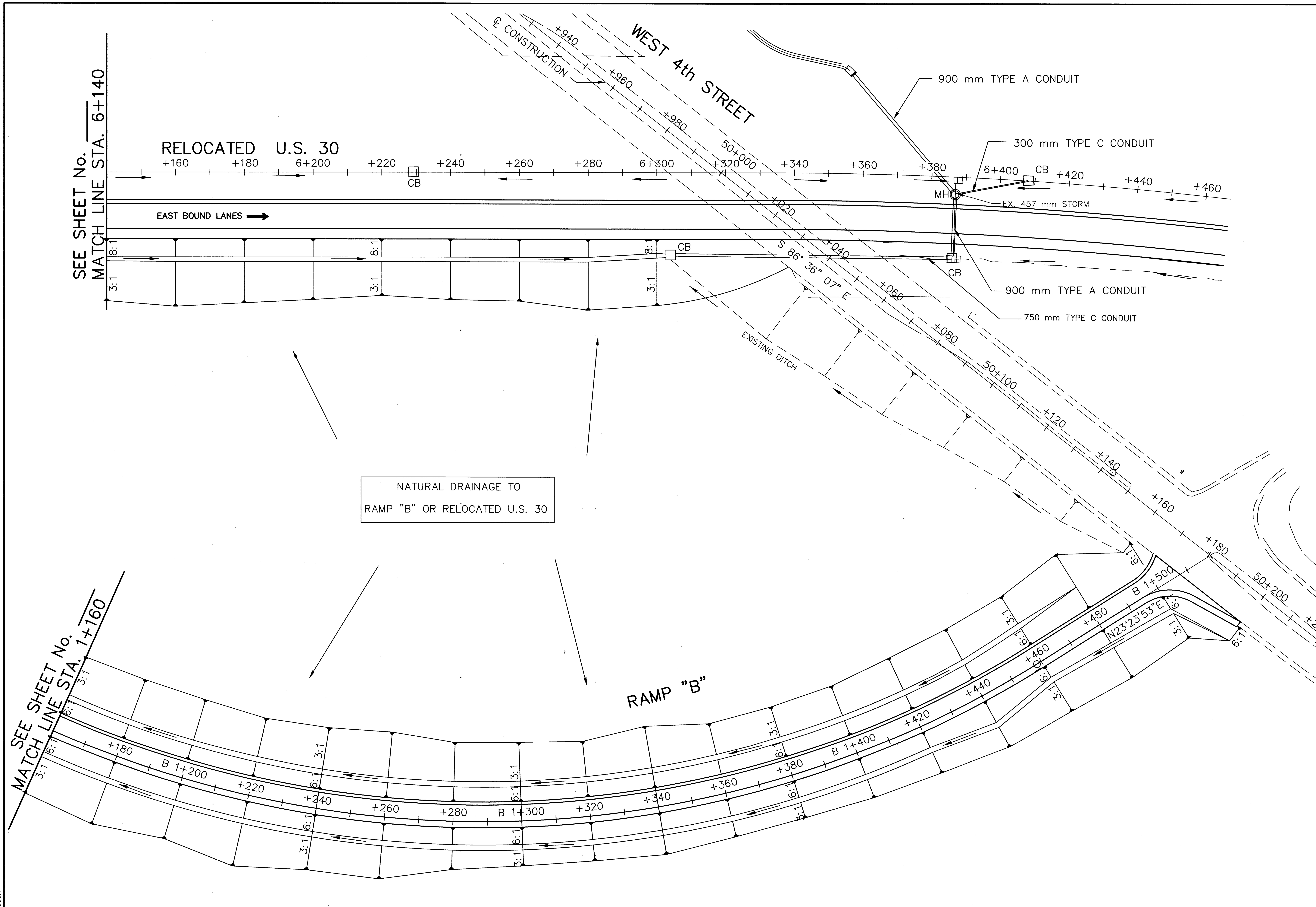
CALCULATED DSH

CHECKED WJS

GRADING PLANS – RELOCATED U.S. 30 & RAMP B
STA. 5+800 TO STA. 6+140

CRA/RIC-30-33.500/0.000

GM010.DWG
03-11-1999 11:20 AM
1:500M



HORIZONTAL SCALE: 1:500
SCALE IN METERS
CALCULATED DSH
CHECKED WJS

GRADING PLANS – RELOCATED U.S. 30 & RAMP B
STA. 6+140 TO STA. 6+460

CRA/RIC-30-33.500/0.000

492
712

GM011.DWG
03-11-1999 11:22 AM
1:500M

Y=YES
N=NO

DRIVEWAY APPROACH QUANTITIES

PLAN SHEET NUMBER	PROFILE SHEET NUMBER	DRIVE NUMBER	DRIVEWAY ℄ STATION	LOCATION	SIDE	DRIVE TYPE	EXISTING MATERIAL	LENGTH "L1"	LENGTH "L2"	WIDTH "W1"	WIDTH "W2"	DRIVE ANGLE	APPROACH AREAS PROPOSED DRIVES	OTHER AREAS PROPOSED DRIVES	TOTAL AREAS PROPOSED DRIVES	202 PAVEMENT REMOVED	255 FULL DEPTH PAVEMENT SAWING	301 BITUMINOUS AGGREGATE BASE, PG64-22	448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAYS)	304 AGGREGATE BASE	452 150 mm PLAIN CONCRETE PAVEMENT	PAVE APPROACH	PAVE ENTIRE DRIVE
																SQ. METER	METER	CU. METER	CU. METER	CU. METER	SQ. METER		
495A	495A	DR-1	50+125.000	SERVICE RD. "A"	LT.	COMM.	N/A	***					---	---	1347.802			163.084	43.130			Y	Y
422	438	DR-1A	51+240.000	SERVICE RD. "A"	LT.	COMM.	N/A	*					---	---	69.323			8.388	2.218			Y	Y
303	307	DR-2	49+666.265	S.R. 61	LT.	RES.	SLAG	*					67.956	147.479	215.435			6.456	2.175	29.938		Y	N
(1)	321	DR-3	50+337.000	S.R. 61	RT.	RES.	SLAG	*					88.785	711.072	799.857			8.435	2.841	144.348		Y	N
306	322	DR-4	50+360.000	S.R. 61	RT.	RES.	SLAG	27.2	---	---	4.5	79°20'00"	84.214	77.811	162.025			8.000	2.695	15.796		Y	N
306	323	DR-5	50+439.962	S.R. 61	LT.	RES.	SLAG	11.5	---	---	8.3	90°00'00"	100.441	31.294	131.735			9.542	3.214	6.353		Y	N
324	326	DR-6	30+460.000	WACHS RD.	C/L	RES.	ASPH.	**					---	---	55.099			5.234	1.763			Y	Y
327	329	DR-7	9+928.652	GALION/AIRPORT RD.	LT.	COMM.	SLAG	**					34.553	21.229	55.782			4.180	1.106	5.392		Y	N
327	330	DR-8	10+080.369	GALION/AIRPORT RD.	LT.	RES.	SLAG	7.8	---	---	4.1	66°52'00"	68.276	---	68.276			6.486	2.185			Y	–
333	339	DR-9	49+871.036	HORNING RD.	RT.	RES.	CONC.	41.9	---	---	3.6	84°16'00"	---	---	187.909	83.305	3.6			18.791	187.909	N	N
332	336	DR-9A	49+625.000	HORNING RD.	LT.	FIELD	SLAG	11.7	---	---	6.0	90°00'00"	---	---	98.300					14.745		N	N
334	343	DR-10	50+155.802	HORNING RD.	RT.	RES.	SLAG	40.9	5.0	3.1	3.6	82°54'00"	70.098	131.947	202.045			6.659	2.243	26.785		Y	N
334	344	DR-11	50+198.642	HORNING RD.	RT.	RES.	SLAG	26.9	6.0	2.7	3.6	83°23'00"	69.411	83.527	152.938			6.594	2.221	16.956		Y	N
335	347	DR-12	50+406.940	HORNING RD.	RT.	RES.	SLAG	13.1	---	---	5.2	90°00'00"	88.593	31.665	120.258			8.416	2.835	6.428		Y	N
349	353	DR-13	49+680.516	RELOCATED S.R. 181	LT.	RES.	CONC.	16.6	---	---	5.1	74°46'18"	---	---	123.011	76.852	5.1			12.301	123.011	N	N
349	354	DR-14	49+702.894	RELOCATED S.R. 181	LT.	RES.	CONC.	16.5	---	---	3.7	75°27'26"	---	---	102.115	60.461	3.7			10.211	102.115	N	N
349	354	DR-15	49+739.375	RELOCATED S.R. 181	LT.	RES.	ASPH.	13.7	---	---	3.1	73°00'47"	---	---	82.318			7.820	2.634			Y	–
349	354	DR-16	49+739.140	RELOCATED S.R. 181	RT.	RES.	ASPH.	11.5	---	---	3.5	78°01'21"	---	---	78.686			7.475	2.518			Y	Y
349	355	DR-17	49+777.347	RELOCATED S.R. 181	LT.	RES.	GRAV.	16.5	---	---	5.3	73°40'26"	100.308	28.817	129.125			9.529	3.210	5.850		Y	N
349	356	DR-18	49+803.525	RELOCATED S.R. 181	RT.	RES.	GRAV.	32.5	---	---	5.3	79°25'06"	92.216	118.888	211.104			8.761	2.951	24.134		Y	N
349	357	DR-19	49+849.769	RELOCATED S.R. 181	RT.	RES.	GRAV.	**					66.917	146.944	213.861			6.357	2.141	29.830		Y	N
349	358	DR-20	49+868.076	RELOCATED S.R. 181	RT.	RES.	GRAV.	**					69.374	136.618	205.992			6.591	2.220	27.733		Y	N
349	361	DR-21	50+069.385	RELOCATED S.R. 181	RT.	RES.	SLAG	56.2	---	---	3.6	64°34'22"	96.039	155.482	251.521			9.124	3.073	31.563		Y	N
351	363	DR-22	50+167.386	RELOCATED S.R. 181	RT.	RES.	SLAG	28.1	---	---	3.6	67°54'15"	89.653	87.303	176.956			8.517	2.869	17.723		Y	N
351	364	DR-23	50+208.079	RELOCATED S.R. 181	RT.	RES.	SLAG	26.8	---	---	3.6	77°38'24"	75.340	60.241	135.581			7.157	2.411	12.229		Y	N
351	365	DR-24	50+264.446	RELOCATED S.R. 181	RT.	RES.	SLAG	10.8	---	---	3.7	79°30'32"	72.410	9.872	82.282			6.879	2.317	2.004		Y	N
352	366	DR-25	50+347.843	RELOCATED S.R. 181	LT.	RES.	ASPH.	**					---	---	98.244			9.333	3.144			Y	Y
352	367	DR-26	50+385.000	RELOCATED S.R. 181	LT.	RES.	ASPH.	**			6.1		77.606	75.653	153.259			7.373	2.483	15.358		Y	N
389	396	DR-27	49+728.527	EARICK RD.	LT.	RES.	SLAG	60.8	---	---	3.6	80°19'00"	72.373	184.680	257.053			6.875	2.316	37.490		Y	N
438A	438B	DR-28	30+789.520	SERVICE RD. "B"	RT.	RES.	GRAV.	19.8	---	---	5.4	90°06'49"	71.870	66.944	138.814			6.828	2.300	28.179		Y	N
438A	438E	DR-29	30+917.002	SERVICE RD. "B"	LT.	RES.	GRAV.	**					21.695	26.798	48.493			2.061	0.694	9.844		Y	N
391	407	DR-30	50+253.836	EARICK RD.	RT.	RES.	GRAV.	54.7	50.2	2.7	3.6	87°22'00"	66.383	165.708	232.091			6.306	2.124	33.639		Y	N
438A	438D	DR-31	30+840.000	SERVICE RD. "B"	RT.	FIELD	--	7.8	---	---	3.6	90°00'00"	---	---	56.723					8.509		N	N
TOTALS																220.618	12.4	358.460	108.031	592.129	413.035		
GRAND TOTALS CARRIED TO GENERAL SUMMARY, SHEET 61																221	12	358	108	592	413		

(1) 305/306

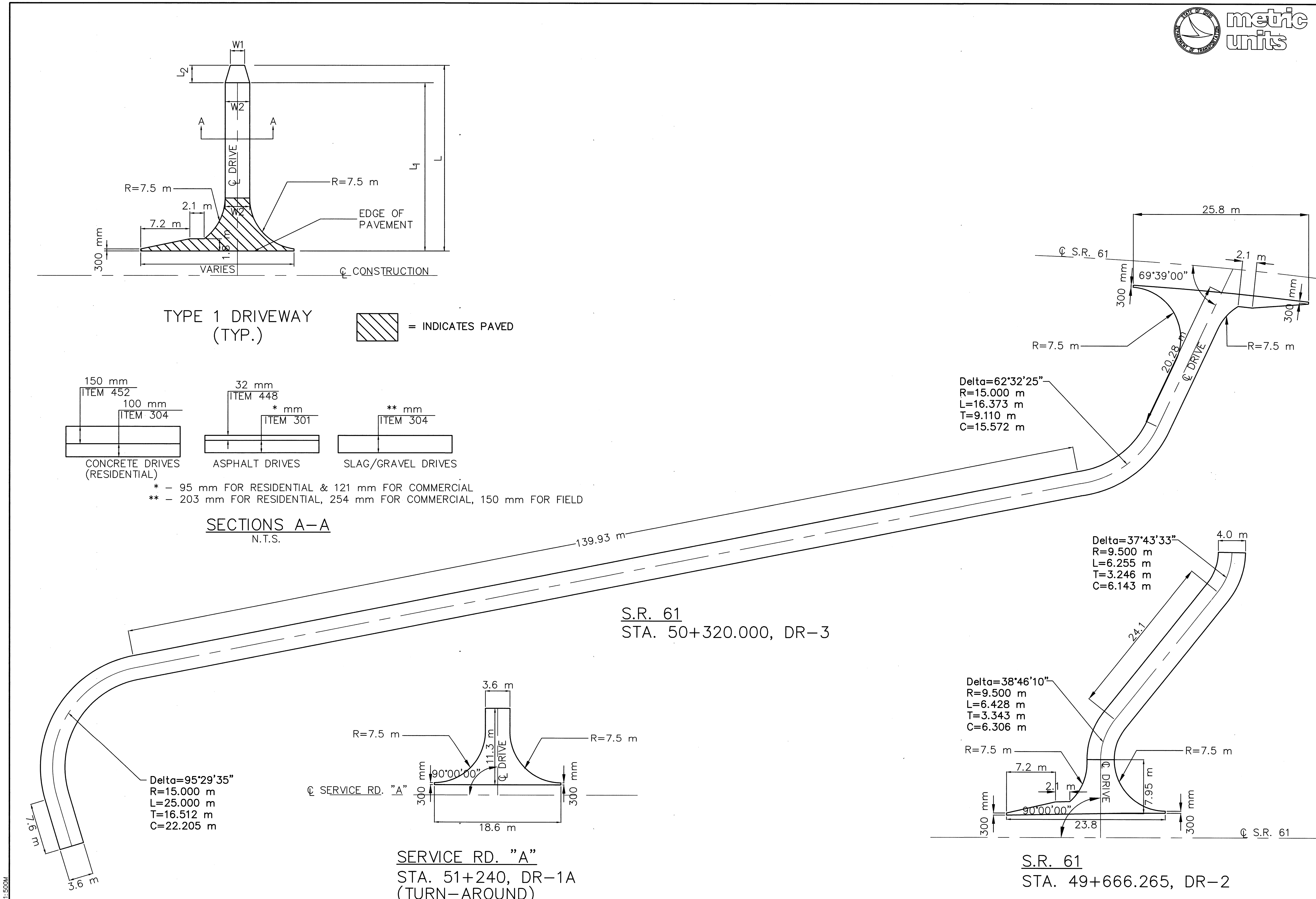
* – FOR DRIVEWAY DIMENSIONS SEE DETAIL ON SHEET 494.
** – FOR DRIVEWAY DIMENSIONS SEE DETAIL ON SHEET 495.
*** – FOR DRIVEWAY DIMENSIONS SEE DETAIL ON SHEET 495A.

CALCULATED MJT CHECKED WS

DRIVEWAY SUB-SUMMARY

CRA/RIC-30-33.500/0.000

CC014.DWG 04-27-2001 9:14 AM 1:1 M



RATIO 1:500

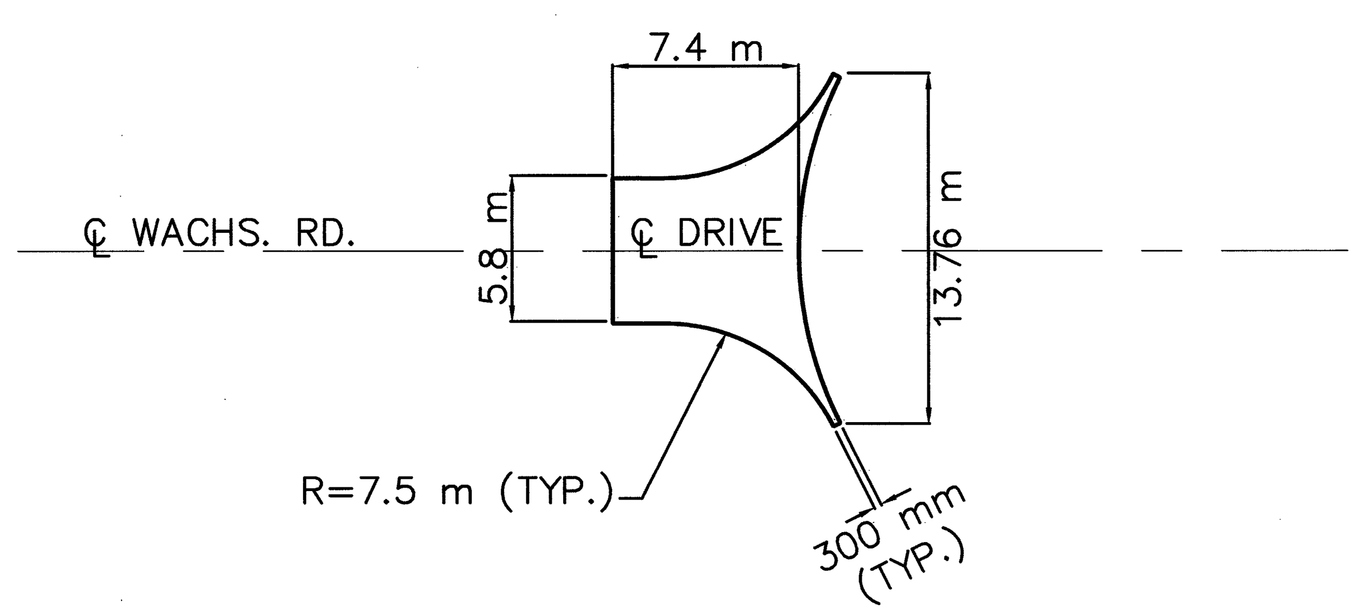
HORIZONTAL SCALE IN METERS

CALCULATED | CHECKED

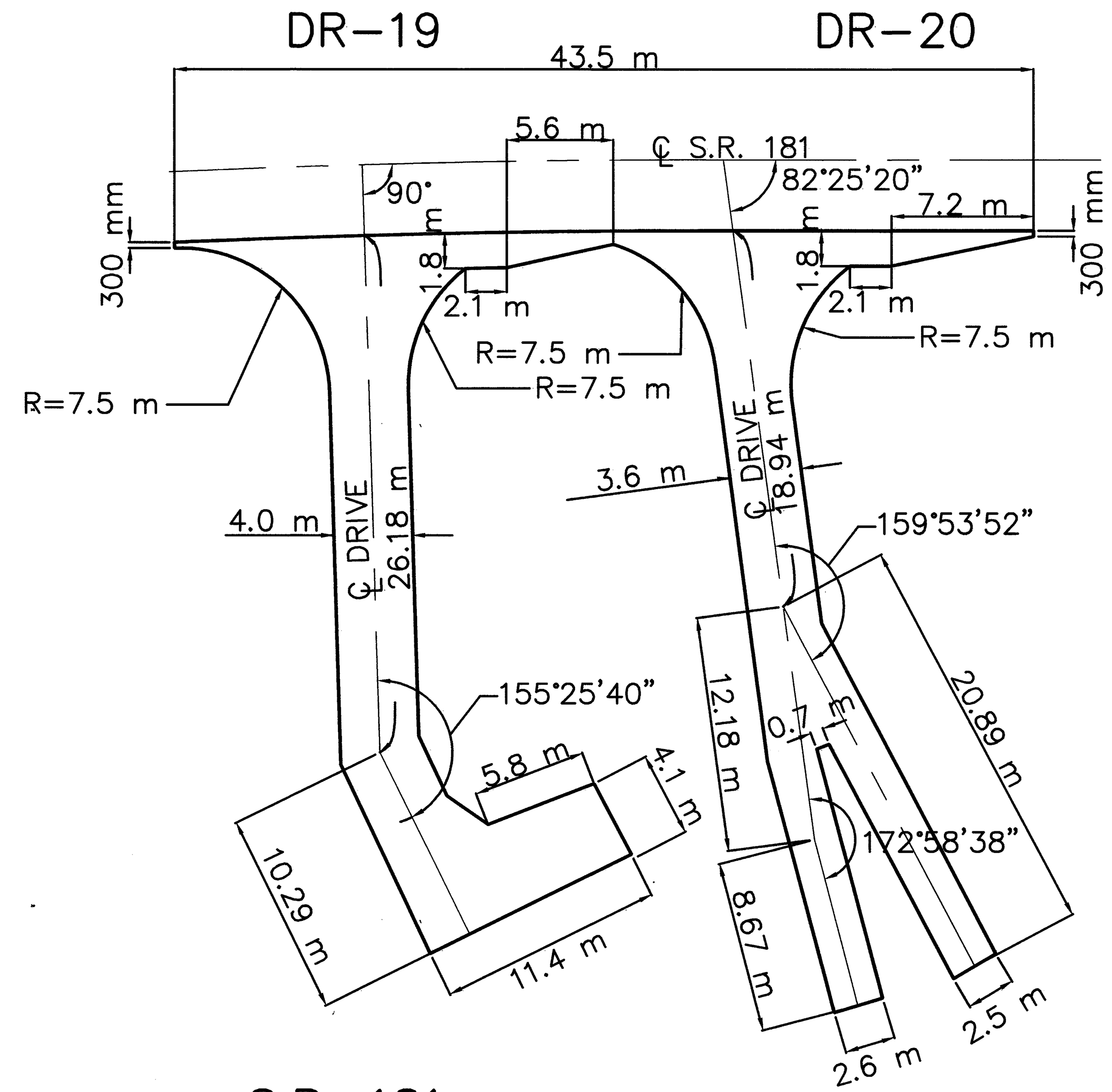
DRIVEWAY DETAILS

CRA/RIC–30–33.500/0.000

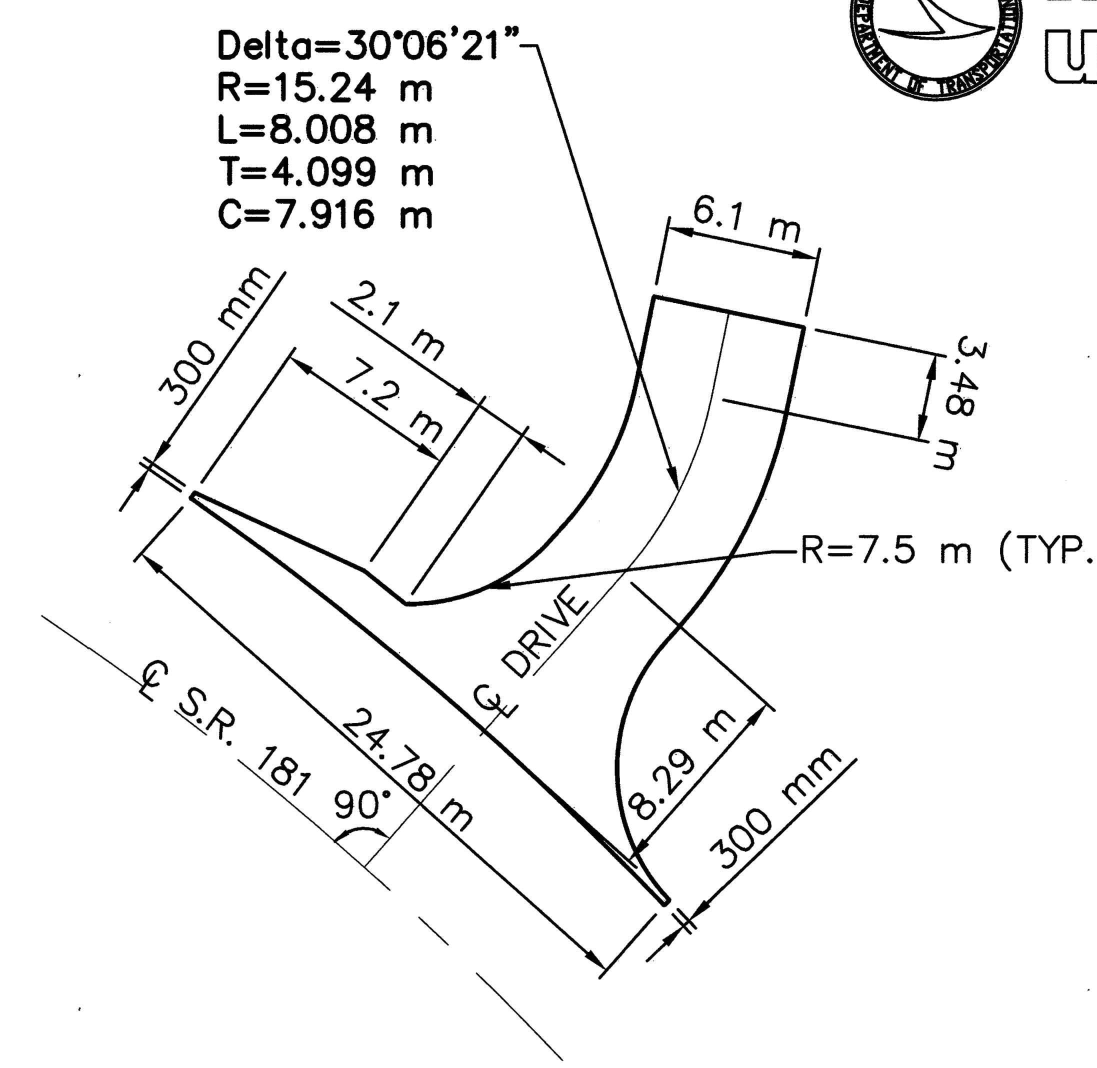
metric units



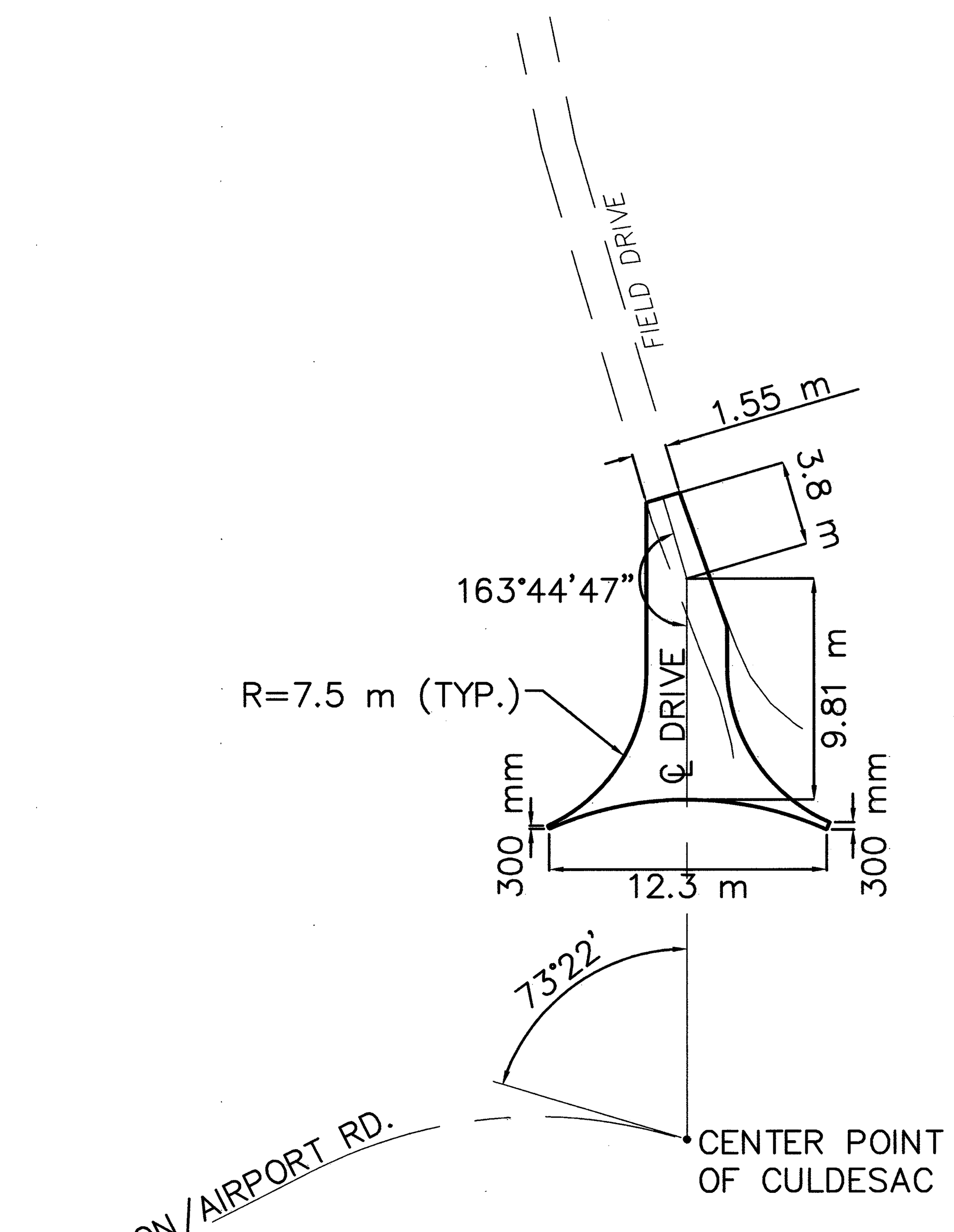
WACHS RD.
STA.30+460.000, DR-6



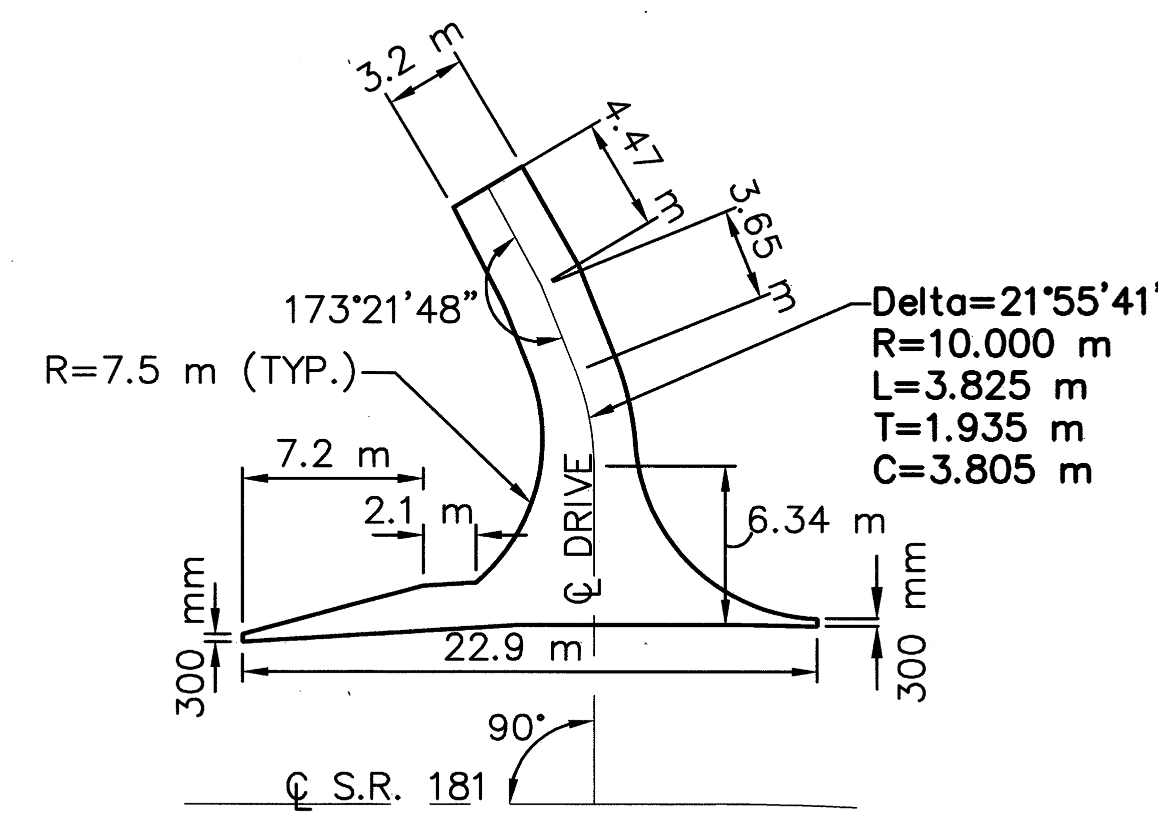
S.R. 181
STA. 49+849.769, DR-19
STA. 49+868.076, DR-20



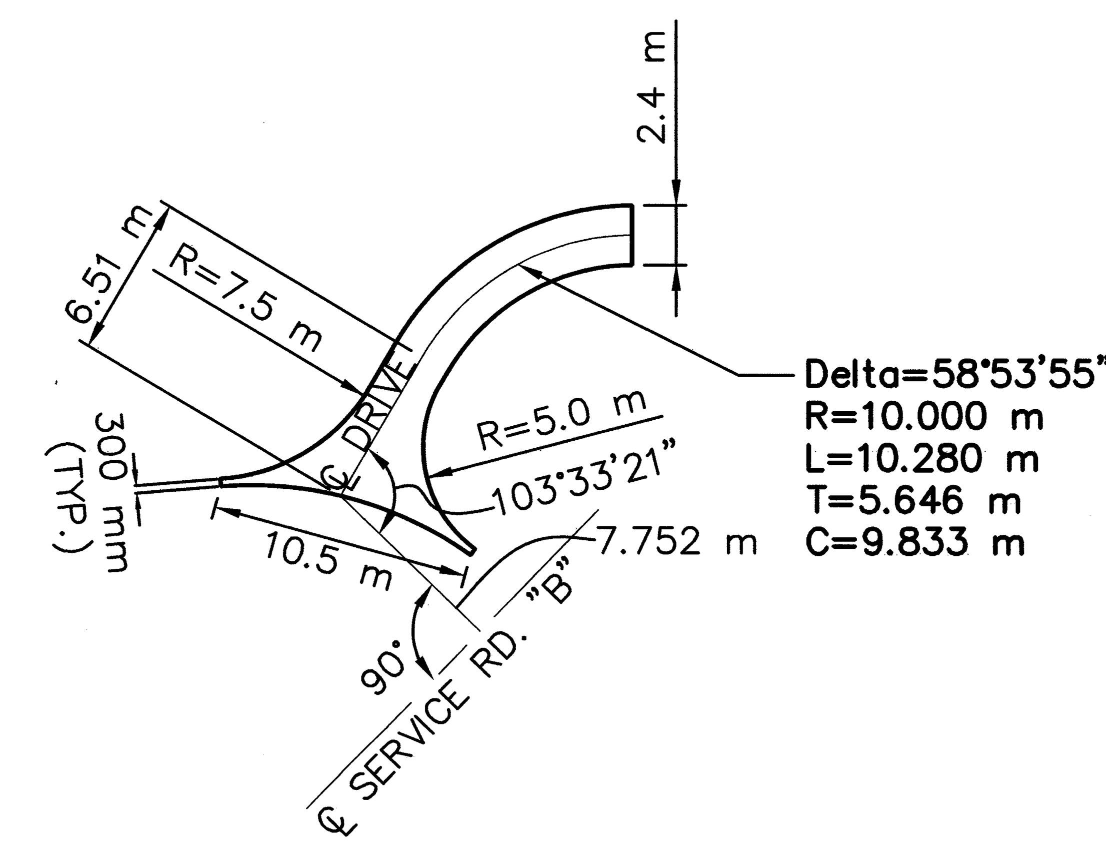
S.R. 181
STA. 50+385.000 DR-26



GALION/AIRPORT RD.
STA. 9+928.652, DR-7



S.R. 181
STA. 50+347.843, DR-25



SERVICE ROAD "B"
STA. 30+917.002, DR-29

RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

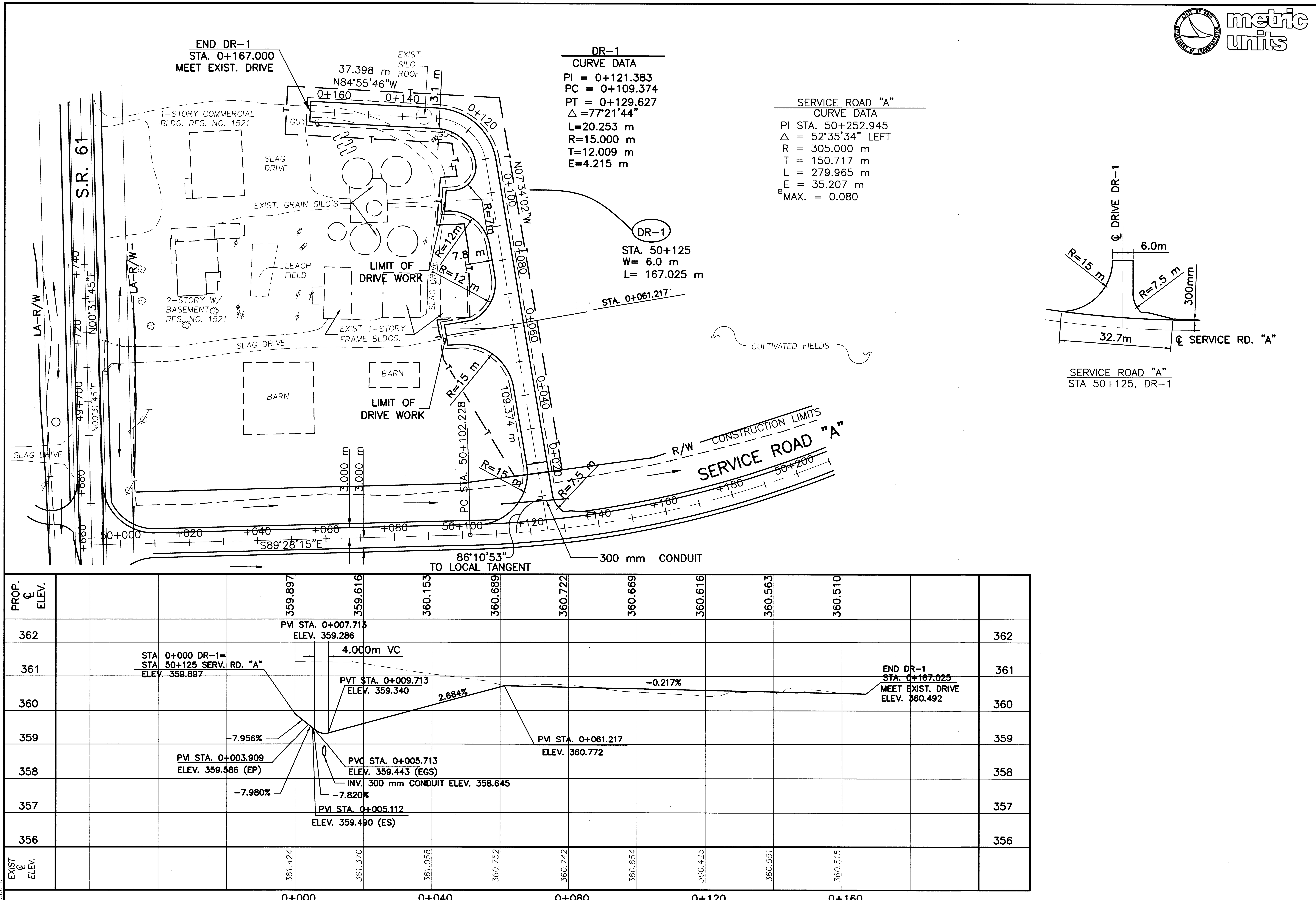
CALCULATED M.J.T.
CHECKED W.J.S.

DRIVEWAY DETAILS

CRA/RIC-30-33.500/0.000

495
712

GM013.DWG
04-27-2001 12:54 PM
1:500M



metric units

RATIO 1:500
HORIZONTAL SCALE IN METERS

CALCULATED XXX
CHECKED XXX

DRIVEWAY DETAILS
DR-1

CRA/RIC-30-33.500/0.000

495A
712

GM014.DWG
05-09-2001 1:22 PM
1:500 M

UNDERDRAIN QUANTITIES

NOTE–"RCO" DENOTES PRECAST REINFORCED CONCRETE OUTLET
* DENOTES ELEVATION AT GRADE BREAK

WESTBOUND LANES

"X" DENOTES OUTLET LOCATION

X	STATION LIMITS BEGIN	STATION LIMITS END	X	LOCATION	TYPE OF OUTLET	ELEV. #1	ELEV. #2	ELEV. #3	ELEV. AT CB	603 150 mm CONDUIT, TYPE F	605 150 mm SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, AS PER PLAN	604 PRECAST REINFORCED CONCRETE OUTLET	605 150 mm SHALLOW PIPE UNDERDRAIN	FOR INFORMATION ONLY – MANUFACTURED: 150 mm x 60° BEND	150 mm x 150 mm 30° WYE	150 mm x 90° BEND
										METER	METER	EACH	METER	EACH	EACH	EACH
	MAINLINE															
	33+500.000	33+614.240		WB	CB	-----	-----	-----	-----		114.240		57.120			
	33+500.000	33+606.759				-----	-----	-----	-----		106.759		53.377			
	33+682.673	33+848.915	X			366.737	366.245	366.359	365.054	22.170	172.651		86.066	3	2	
	33+690.154	33+848.915	X			366.737	366.245	366.359	365.054		158.761		80.160	3	2	
	33+860.600	33+995.251				-----	-----	-----	-----		269.302		134.651			
	33+995.251	34+156.915	X			361.905	361.413	361.527	360.222	22.170	329.737		165.388	3	2	
	34+168.600	34+423.915	X		CB	359.129	358.637	358.751	357.446	22.170	517.039		259.039	3	2	
	34+435.600	34+513.915	X		CB	358.535	358.043	358.157	356.852	22.170	163.039		82.039	3	2	
	34+525.600	34+577.420				-----	-----	-----	-----		51.820		51.820			
	34+577.420	34+682.652	X		CB	357.627	357.135	357.249	355.944	22.170	111.641		108.956	3	2	
X	34+704.822	34+979.400				357.691	357.199	357.313	355.944	22.170	555.565		278.302	3	2	
X	34+991.085	35+259.600				360.745	360.253	360.367	359.062	22.170	543.439		272.239	3	2	
X	35+271.085	35+435, HP				363.877	363.385	363.499	362.194	22.170	334.239		167.639	3	2	
	35+435, HP	35+608.915	X			363.904	363.412	363.526	362.221	22.170	354.239		177.639	3	2	
	35+620.600	35+803.626	X			362.728	362.236	362.350	361.045	22.170	372.461		186.750	3	2	
X	35+825.796	0+164.400				362.767	362.275	362.389	361.045	22.170	457.359		229.199	3	2	
X	0+176.085	0+400, HP				364.077	363.585	363.699	362.394	22.170	454.239		227.639	3	2	
	0+400, HP	0+538.915	X			364.664	364.172	364.326	362.981	22.170	284.239		142.639	3	2	
	0+550.600	0+685.215	X			363.998	363.506	363.620	362.315	22.170	275.639		138.339	3	2	
X	0+707.385	0+964.400				364.000	363.508	363.622	362.315	22.170	520.439		260.739	3	2	
X	0+976.085	1+234.400				365.989	365.497	365.611	364.306	22.170	523.039		262.039	3	2	
X	1+246.085	1+512.000				368.041	367.549	367.663	366.358	22.170	538.239		269.639	3	2	
X	1+523.685	1+809.400				370.151	369.659	369.773	368.468	22.170	577.839		289.439	3	2	
X	1+821.085	2+129.400				372.629	372.137	372.251	370.946	22.170	623.039		312.039	3	2	
X	2+141.085	2+466.400				376.757	376.265	376.379	375.074	22.170	657.039		329.039	3	2	
X	2+478.085	2+729.400				379.875	379.390	379.678	378.385	22.170	509.039		255.039	3	2	
X	2+741.085	3+004.400				383.090	382.395	383.091	381.778	22.170	533.039		267.039	3	2	
X	3+016.085	3+259.400				387.548	387.089	387.549	386.236	22.170	493.039		247.039	3	2	
X	3+271.085	3+521.889				389.243	388.763	389.037	387.744	22.170	508.017		254.528	3	2	
X	3+532.374	3+720, HP				391.508	391.016	391.130	389.825	22.170	381.661		191.350	3	2	
	3+720, HP	3+948.915	X			391.286	390.794	390.908	389.603	22.170	464.239		232.639	3	2	
X	3+971.085	4+173.100				391.226	390.734	390.848	389.543	22.170	410.439		205.739	3	2	
X	4+183.585	4+459.400				393.182	392.690	392.804	391.499	22.170	558.039		279.539	3	2	
X	4+471.085	4+749.400				396.632	396.140	396.254	394.949	22.170	563.039		282.039	3	2	
X	4+761.085	5+035, HP				400.112	399.620	399.734	398.429	22.170	554.239		277.639	3	2	
	5+035, HP	5+341.415	X			401.278	400.786	400.090	399.595	22.170	619.239		310.139	3	2	
	5+351.100	5+633.915	X			400.342	399.850	399.964	398.659	22.170	572.039		286.539	3	2	
	5+645.600	5+923.915	X			399.414	398.922	399.036	397.731	22.170	563.039		282.039	3	2	
	5+935.600	6+028.187				-----	-----	-----	-----		191.583		96.311			
	6+028.187	6+218.915	X			398.470	397.978	398.092	396.787	22.170	385.865		193.452	3	2	
X	6+218.915	6+240.000	X			398.185	397.693	397.807	396.646	22.170				3	2	
X	6+240.000	6+270.000	*			398.335	397.843	397.957	-----		66.409		33.448			
*	6+270.000	6+407.400				398.335	397.843	397.957	-----		274.800		137.400			
X	6+419.085	6+586.500				398.870	398.333	398.072	396.790	22.170	341.239		171.139	3	2	
	6+586.500	6+740.000				-----	-----	-----	-----				153.500			
	RAMPS															
	33+995.251	I 4+095.369	X		RCO	361.896	362.424	-----	362.384	5.000	100.118	1	100.118		1	1
X	I 4+095.369	I 4+267.279				361.896	362.424	-----	362.384		171.910					
	L 4+250.145	L 4+682.652	X			-----	356.516	-----	-----		432.507					
	6+028.187	A 1+040.000	X		RCO	397.037	397.565	-----	397.525	4.000	11.813	1	11.813		1	1
X	A 1+040.000	A 1+198.931				397.037	397.565	-----	397.525		158.931					
	SUB–TOTALS–THIS COLUMN									807.120	17930.323	2	8635.897	111	76	2

EASTBOUND LANES

"X" DENOTES OUTLET LOCATION

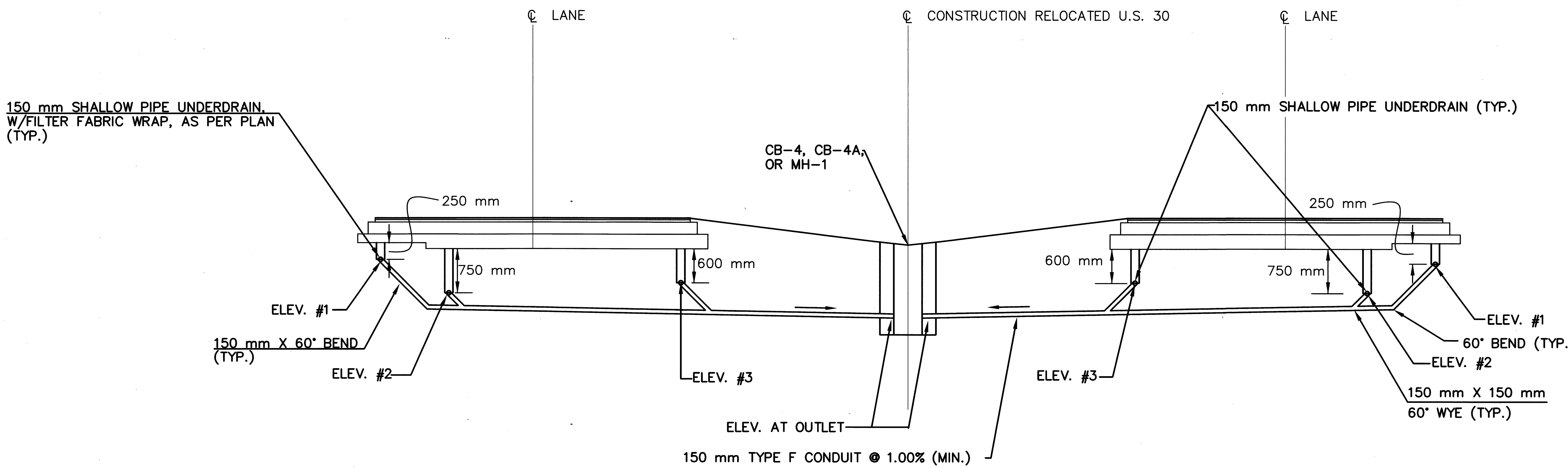
X	STATION LIMITS BEGIN	STATION LIMITS END	X	LOCATION	TYPE OF OUTLET	ELEV. #1	ELEV. #2	ELEV. #3	ELEV. AT CB	603 150 mm CONDUIT, TYPE F	605 150 mm SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, AS PER PLAN	604 PRECAST REINFORCED CONCRETE OUTLET	605 150 mm SHALLOW PIPE UNDERDRAIN	FOR INFORMATION ONLY – MANUFACTURED: 150 mm x 60° BEND	150 mm x 150 mm 30° WYE	150 mm x 90° BEND
										METER	METER	EACH	METER	EACH	EACH	EACH
	MAINLINE															
	33+500.000	33+588.360		EB	CB	-----	-----	-----	-----		88.360		44.180			
	33+500.000	33+595.841				-----	-----	-----	-----		95.841		47.921			
	33+664.274	33+848.915	X			366.737	366.245	366.359	365.054	22.170	184.641		93.100	3	2	
	33+671.755	33+848.915	X			366.737	366.245	366.359	365.054		183.569		91.525	3	2	
	33+860.600	33+952.982				-----	-----	-----	-----		184.764		92.382			
	33+952.982	34+156.915	X			361.905	361.413	361.527	360.222	22.170	414.275		207.657	3	2	
	34+168.600	34+423.915	X		CB	359.129	358.637	358.751	357.446	22.170	517.039		259.039	3	2	
	34+435.600	34+513.915	X		CB	358.535	358.043	358.207	356.852	22.170	163.039		82.039	3	2	
	34+525.600	34+543.269				-----	-----	-----	-----		35.338		17.669			
	34+543.269	34+682.652	X		CB	357.627	357.135	357.313	355.944	22.170	145.792		143.107	3	2	
X	34+704.822	34+979.400				357.691	357.199	357.713	355.944	22.170	555.565		278.302	3	2	
X	34+991.085	35+259.600				360.745	360.253	360.367	359.062	22.170	543.439		272.239	3	2	
X	35+271.085	35+435, HP				363.877	363.385	363.499	362.194	22.170	334.239		167.639	3	2	
	35+435, HP	35+608.915	X			363.904	363.412	363.526	362.221	22.170	354.239		177.639	3	2	
	35+620.600	35+803.626	X			362.728	362.236	362.350	361.045	22.170	372.461		186.750	3	2	
X	35+825.796	0+164.400				362.767	362.275	362.389	361.045	22.170	457.359		229.199	3	2	
X	0+176.085	0+400, HP				364.077	363.585	363.699	362.394	22.170	454.239		227.639	3	2	
	0+400, HP	0+538.915	X			364.664	364.172	364.286	362.981	22.170	284.239		142.639	3	2	
	0+550.600	0+685.215	X			363.998	363.506	363.620	362.315	22.170	275.639		138.339	3	2	
X	0+707.385	0+964.400				364.000	363.508	363.622	362.315	22.170	520.439		260.739	3	2	
X	0+976.085	1+234.400				365.989	365.497	365.611	364.306	22.170	523.039		262.039	3	2	
X	1+246.085	1+512.000				368.041	367.549	367.663	366.358	22.170	538.239		269.639	3	2	
X	1+523.685	1+809.400				370.151	369.659	369.773	368.468	22.170	577.839		289.439	3	2	
X	1+821.085	2+129.400				372.629	372.137	372.251	370.946	22.170	623.039		312.039	3	2	
X	2+141.085	2+466.400				376.757	376.265	376.379	375.074	22.170	657.039		329.039	3	2	
X	2+478.085	2+729.400				380.237	379.757	379.678	378.385	22.170	509.039		255.039	3	2	
X	2+741.085	3+004.400				383.838	383.307	383.063	381.778	22.170	533.039		267.039	3	2	
X	3+016.085	3+259.400				388.296	387.765	387.521	386.236	22.170	493.039		247.039	3	2	
X	3+271.085	3+521.889				389.587	389.107	389.037	387.744	22.170	508.017		254.528	3	2	
X	3+532.374	3+720, HP				391.508	391.016	391.130	389.825	22.170	381.661		191.350	3	2	
	3+720, HP	3+948.915	X			391.286	390.794	390.908	389.603	22.170	464.239		232.639	3	2	
X	3+971.085	4+173.100				391.226	390.734	390.848	389.543	22.170	410.439		205.739	3	2	
X	4+183.585	4+459.400				393.182	392.690	392.804	391.499	22.170	558.039		279.539	3	2	
X	4+471.085	4+749.400				396.632	396.140	396.254	394.949	22.170	563.039		282.039	3	2	
X	4+761.085	5+035, HP				400.112	399.620	399.734	398.429	22.170	554.239		277.639	3	2	
	5+035, HP	5+341.415	X			401.278	400.786	400.900	399.595	22.170	619.239		310.139	3	2	
	5+351.100	5+633.915	X			400.342	399.850	399.964	398.659	22.170	572.039		286.539	3	2	
	5+645.600	5+842.982	X			399.414	398.922	399.036	397.731	22.170	401.173		201.106	3	2	
	5+842.982	5+923.915	X			-----	-----	-----	-----	22.170	168.275		84.657			
	5+935.600	6+218.915	X			398.470	397.978	398.092	396.787	22.170	571.039		286.039	3	2	
X	6+218.915	6+240.000	X			398.185	397.693	397.807	396.646	22.170				3	2	
X	6+240.000	6+270.000	*			398.335	397.843	397.957	-----		66.409		33			
*	6+270.000	6+407.400				398.335	397.843	397.957	-----		274.800		137.400			
X	6+419.085	6+520.000				398.102	397.629	398.106	397.790	22.170	208.239		104.120	3	2	
	RAMPS															
	33+952.982	J 4+107.892	X		RCO	361.901	362.429	-----	362.389	4.000	154.910	1	154.910		1	1
X	J 4+107.892	J 4+267.568				361.901	362.429	-----	362.389		159.676					
	K 4+243.368	34+682.652	X			357.627	-----	-----	-----		439.284					
	5+842.982	B 0+870.000	X		RCO	397.784	398.312	-----	398.272	4.000	27.018	1	27.018		1	1
X	B 0+870.000	B 1+507.600				397.784	398.312	-----	398.272		637.600					
	SUB–TOTALS THIS COLUMN									828.290	18358.202	2	8740.180	111	76	2
	SUB–TOTALS LEFT COLUMN									807.120	17930.323	2	8639.897	111	76	2
	TOTALS CARRIED TO GENERAL SUMMARY SHEET 60									1635	36289	4	17380.077	222	152	4

CALCULATED MJT
CHECKED RJR

UNDERDRAIN QUANTITIES

CRA/RIC-30-33.500/0.000

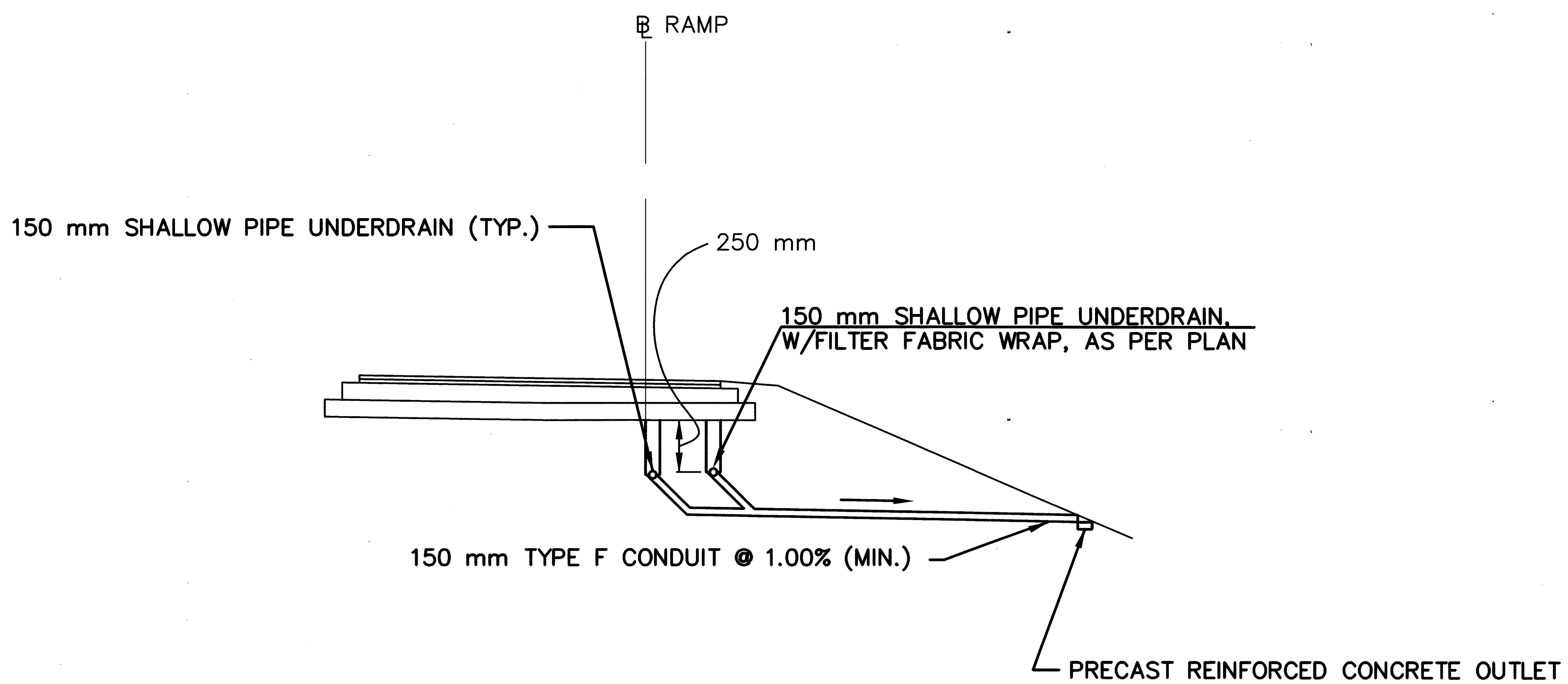
DQ001.DWG
08-15-2000 1:22 PM
1:200 M



UNDERDRAIN OUTLET DETAIL

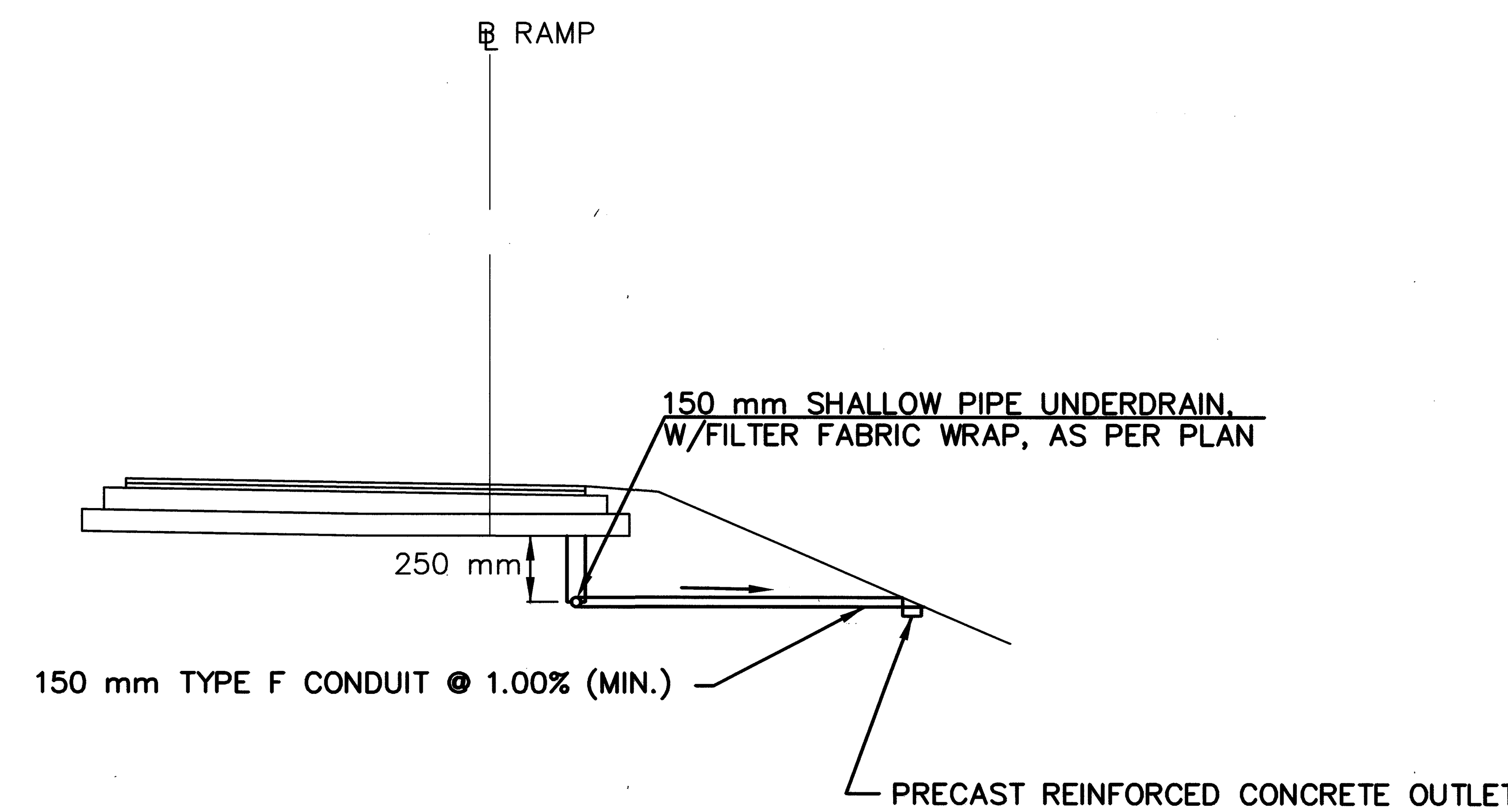
FOR STATION LIMITS – SEE SHEET 496

NOTE – FOR UNDERDRAIN QUANTITIES AND PIPE ELEVATIONS SEE SHEET 496



UNDERDRAIN RAMP OUTLET DETAIL

FOR STATION LIMITS – SEE SHEET 496



UNDERDRAIN RAMP OUTLET DETAIL

FOR STATION LIMITS – SEE SHEET 496

RATIO 1:200

HORIZONTAL SCALE IN METERS

CALCULATED MJT CHECKED RJR

DRAINAGE DETAILS

CRA/RIC-30-33.500/0.000

DD118.DWG
12-04-2000 9:25 AM
1:200M

	SHEET NUMBER													ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	501	502	503	504	505	506	507		510	511									
																		TRAFFIC CONTROL	
									204					620	10300	204	EACH	DELINEATOR, TYPE C, POST MOUNTED	
									1					620	11000	1	EACH	DELINEATOR, TYPE C, BRACKET MOUNTED	
									40					620	15300	40	EACH	DELINEATOR, TYPE D, POST MOUNTED	
									2					620	40300	2	EACH	REFLECTOR, TYPE D	
										76				621	00210	76	EACH	RAISED PAVEMENT MARKER, HIGH PROFILE YELLOW-YELLOW,	
																		INSTALLATION ONLY	
										501				621	00214	501	EACH	RAISED PAVEMENT MARKER, HIGH PROFILE WHITE, INSTALLATION ONLY	
										57				621	00218	57	EACH	RAISED PAVEMENT MARKER, HIGH PROFILE WHITE-RED,	
																		INSTALLATION ONLY	
										102				621	00220	102	EACH	RAISED PAVEMENT MARKER, HIGH PROFILE YELLOW-RED,	
																		INSTALLATION ONLY	
	7		25	16	50	97								630	02100	195	METER	GROUND MOUNTED SUPPORT, NO. 2 POST	
	67	38	27	17	64	90								630	03100	303	METER	GROUND MOUNTED SUPPORT, NO. 3 POST	
			17			25								630	04100	42	METER	GROUND MOUNTED SUPPORT, NO.4 POST	
	44	11	19	29	21									630	06400	124	METER	GROUND MOUNTED SUPPORT, S100 x 11.5 BEAM	
			13											630	06500	13	METER	GROUND MOUNTED SUPPORT, W150 x 13.5 BEAM	
		15												630	07000	15	METER	GROUND MOUNTED SUPPORT, W200 x 26.6 BEAM	
	37	29												630	07500	66	METER	GROUND MOUNTED SUPPORT, W250 x 32.7 BEAM	
	57	15	26											630	07600	98	METER	GROUND MOUNTED SUPPORT, W250 x 17.9 BEAM	
	38													630	08000	38	METER	GROUND MOUNTED SUPPORT, W310 x 44.5 BEAM	
			22		43									630	08004	65	METER	ONE WAY SUPPORT, NO. 3 POST	
	18	10	8	6	4									630	09000	46	EACH	BREAKAWAY BEAM CONNECTION	
	13	7	14	3	27	25								630	80102	89	SQ. METER	SIGN, FLAT SHEET, TYPE G	
	80	42	24	14	6		16							630	80204	182	SQ. METER	SIGN, EXTRUSHEET, TYPE G	
	7	5	3		5									630	82000	20	EACH	SIGN BACKING ASSEMBLY	
			4											630	83000	4	SQ. METER	COVERING OF SIGN	

CALCULATED MJT
CHECKED GP

TRAFFIC CONTROL GENERAL SUMMARY

CRA/RIC-30-33.500/0.000

TG001.DWG
05-10-2001 8:37 AM
1:1M

SHEET NUMBER												SUBTOTAL		ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
501	502	503	504	505		507	508	509		521	500		100% STATE						
																		TRAFFIC CONTROL	
18	10	8	6	4										630	84500	46	METER	GROUND MOUNTED BEAM SUPPORT FOUNDATION	
						1								630	84510	1	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	
				1										630	84900	1	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
	21	9	12							18				630	85000	60	EACH	REMOVAL OF GROUND MOUNTED SIGN AND STORAGE	
	31	6	10	1						11				630	86002	59	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
						1								630	87000	1	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND STORAGE	
						1								630	89100	1	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND REERECTION, TYPE TC-12.30M	
											260		260	SPECIAL	63097700	260	EACH	SIGNING, MISC.: SIGN DATA COLLECTION	
						1								631	84000	1	EACH	SIGN SERVICE	
						2								631	84300	2	EACH	SIGN WIRED	
						1								631	85100	1	EACH	DISCONNECT SWITCH WITH ENCLOSURE, TYPE X	
						1								631	87202	1	EACH	BALLAST, TYPE CMRI-175-480, INTEGRAL	
						1								631	89200	1	EACH	MERCURY VAPOR LUMINAIRE, TYPE TC-31.21M WITH 175 WATT LAMP	
						1								631	94304	1	EACH	REMOVAL OF DISCONNECT SWITCH AND DISPOSAL	
						1								631	94406	1	EACH	REMOVAL OF SIGNS WIRED	
						1								631	94412	1	EACH	REMOVAL OF SIGN SERVICE AND DISPOSAL	
								11.17						642	00090	11.17	KILOMETER	EDGE LINE	
								5.69						642	00290	5.69	KILOMETER	CENTER LINE	
								31						642	00390	31	METER	CHANNELIZING LINE	
								55						642	00490	55	METER	STOP LINE	
								93						642	00690	93	METER	TRANSVERSE LINE	
								1						642	01290	1	EACH	LANE ARROW	
								1						642	01408	1	EACH	WORD ON PAVEMENT, 2500 MM	
								41.78						644	00100	41.78	KILOMETER	EDGE LINE	
							0.22	19.05						644	00200	19.27	KILOMETER	LANE LINE	
							718	126						644	00400	844	METER	CHANNELIZING LINE	
								35						644	00500	35	METER	STOP LINE	
							297							644	00700	297	METER	TRANSVERSE LINE	

CALCULATED MJT CHECKED GP

TRAFFIC CONTROL GENERAL SUMMARY

CRA/RIC-30-33.500/0.000

TG002.DWG
04-30-2001 4:05 PM
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REMOVAL OF EXISTING SIGN INSTALLATIONS
THIS WORK SHALL CONSIST OF THE REMOVAL OF EXISTING SIGN INSTALLATIONS ON MAIN ROADWAY, RAMPS AND APPROACH ROADWAYS WITHIN WORK LIMITS OF THIS PROJECT.

WORK SHALL ALSO INCLUDE REMOVAL OF SIGN SUPPORTS AND FOUNDATIONS AS REQUIRED IN SECTION 202.

ALL SIGNS, SUPPORTS, AND ACCESSORIES REMOVED SHALL BE STORED NEATLY WITHIN THE LIMITS OF THE PROJECT AT LOCATIONS APPROVED BY THE ENGINEER FOR REMOVAL BY STATE FORCES. THIS WORK SHALL INCLUDE DISPOSAL OF ALL WASTE MATERIAL.

TO ASSURE MAINTENANCE OF ADEQUATE TRAFFIC CONTROL AT ALL TIMES, NO SIGNS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

PAYMENT FOR REMOVAL OF EXISTING SIGNS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS 630 ITEMS AND SHALL INCLUDE ALL NECESSARY LABOR AND EQUIPMENT REQUIRED TO PERFORM THE REQUIRED WORK AS INDICATED ABOVE.

MILE MARKER LOCATION
THE LOCATION OF MILE MARKERS ON THE PLANS ARE APPROXIMATE AND A MORE PRECISE LOCATION WILL BE PROVIDED BY THE DEPARTMENT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST THIRTY (30) DAYS IN ADVANCE OF THE PLANNED DATE OF MILE MARKER INSTALLATION. THE ENGINEER WILL CONTACT THE BUREAU OF TECHNICAL SERVICES WHICH WILL LOCATE THE LONGITUDINAL POSITION OF MILE MARKERS BY MEANS OF A PAINT MARK ON THE PAVEMENT EDGE. ALTERNATE MARKS WILL NOT BE PROVIDED ON DIVIDED HIGHWAYS AND THE CONTRACTOR SHALL SET MARKERS FOR THE OPPOSITE ROADWAY ACROSS FROM THE PROVIDED MARK. DELINEATORS WHOSE NORMAL POSITION FALLS WITHIN 15 METERS OF A MILE MARKER SHALL BE OMITTED.

FREEWAY LOCATION IDENTIFICATION SYSTEM SIGNS
THESE SIGNS CONSIST OF A MAINLINE MARKER (N-44B) OR A RAMP MARKER (N-43B), ATTACHED TO GUIDE AND DESTINATION SIGNS WITH AN ITEM 630 SIGN BACKING ASSEMBLY.

THE CONTRACTOR SHALL DETERMINE THE CORRECT STRAIGHT LINE MILEAGE, IN HUNDREDTHS OF A MILE, FOR EACH SIGN BASED ON THE FINAL LOCATION OF THE SIGN. THE CORRECT MILEAGE SHALL BE DETERMINED ONLY AFTER THE MILE MARKERS HAVE BEEN LOCATED BY THE DEPARTMENT. THE PLAN SHOWS THE ROUTE NUMBER, ROUTE DIRECTION AND THE RAMP CODES (WHERE APPLICABLE). THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A RECORD OF THE STRAIGHT LINE MILEAGE FOR EACH FREEWAY LOCATION IDENTIFICATION SYSTEM SIGN.

PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE METER FOR ITEM 630, SIGN, FLAT SHEET, TYPE F. THE REQUIRED ITEM 630, SIGN BACKING ASSEMBLY IS PAID SEPARATELY AS INDICATED.

ITEM 630 – REMOVAL OF GROUND MOUNTED SIGN AND STORAGE

ALL SIGNS MARKED FOR ITEM 630 – REMOVABLE OF GROUND MOUNTED SIGNS AND STORAGE SHALL BE STORED ON THE PROJECT FOR SALVAGE BY STATE FORCES.

ITEM 630 – REMOVAL OF OVERHEAD SIGN SUPPORT AND REERECTION, TYPE TC-12.30
OVERHEAD SIGN SUPPORTS INDICATED FOR REMOVAL AND REERECTION SHALL BE CAREFULLY DISMANTLED AND REEUSED. TO ASSURE MAINTENANCE OF ADEQUATE TRAFFIC CONTROL AT ALL TIMES, SIGNS SHALL BE REMOVED ONLY WITH THE APPROVAL OF THE ENGINEER.

SIGN SUPPORTS SHALL BE REMOVED IN A MANNER AVOIDING DAMAGE. SIGN SERVICE TO THE SUPPORT SHALL ALSO BE REMOVED BY DISCONNECTING AND REMOVING CABLES AT THE SERVICE PULLBOX. CONNECTION OF REMAINING CABLES SHALL CONFORM TO 625.17. SUPPORT FOUNDATIONS SHALL BE REMOVED TO AT LEAST 0.3 m BELOW SUBGRADE OF FINISHED GROUNDLINE. BACKFILLING, RESTORATION OF SURFACES AND DISPOSAL OF SURPLUS MATERIAL SHALL BE IN ACCORDANCE WITH 603.09

PAYMENT FOR THIS ITEM SHALL BE THE UNIT PRICE BID, AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO PERFORM THE WORK.

SHEET NO.	SIGN NO.	STATION
517	170S	49+689, RT (W. 4TH ST.)

PAYMENT WILL BE MADE UNDER:

ITEM	UNIT	DESCRIPTION	
630	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND REERECTION, TYPE TC-12.30m	1 EACH

ITEM SPECIAL - SIGNING, MISC.: SIGN DATA COLLECTION
THIS ITEM OF WORK SHALL CONSIST OF LOGGING INFORMATION FOR ANY WORK INVOLVING PERMANENT SIGNING INCLUDING REMOVAL, RELOCATION OR NEW INSTALLATION ON THIS PROJECT. ALL EXISTING SIGNS HAVE A BAR CODE STICKER. THE BAR CODE NUMBER FOR ANY SIGNS REMOVED ON THE PROJECT SHALL BE RECORDED SO THEY CAN BE REMOVED FROM THE INVENTORY. THE BAR CODE NUMBER FOR ANY SIGNS THAT ARE NEW OR RELOCATED SHALL ALSO BE RECORDED COMPLETELY AND ACCURATELY. NEW SIGNS REQUIRE NEW BAR CODE STICKERS WHICH WILL BE SUPPLIED TO THE CONTRACTOR AT THE PRECONSTRUCTION MEETING. ANY STICKERS NOT USED ARE TO BE RETURNED TO ODOT D03 TRAFFIC DEPARTMENT.

THE INFORMATION SHALL BE RECORDED COMPLETELY AND ACCURATELY BY A PERSON FAMILIAR WITH SIGNING TERMINOLOGY. THE INFORMATION REQUIRED APPEARS ON A FORM WHICH WILL BE SUPPLIED TO THE CONTRACTOR AT THE PRECONSTRUCTION MEETING. AFTER THE FORM IS COMPLETED, IT SHALL BE RETURNED TO ODOT DISTRICT 03 TRAFFIC DEPARTMENT. A COPY OF THIS FORM IS AVAILABLE UPON REQUEST FOR THE CONTRACTOR TO REVIEW FOR BIDDING PURPOSES. FOR A COPY OF THIS FORM PLEASE CALL 1-419-281-0513 EXTENSION 340 - ROADWAY SERVICES MANAGER.

PAYMENT FOR THE LABOR, MATERIALS AND EQUIPMENT NECESSARY TO PERFORM THE ABOVE WORK WHICH INCLUDES COMPLETION OF THE FORMS SUPPLIED TO THE CONTRACTOR, INSTALLATION OF BAR CODE STICKERS, MEASURING OF THE SIGNS AND ANY OTHER WORK IN ORDER TO COMPLETE THE FORM SHALL BE INCLUDED IN THE COST OF ITEM SPECIAL - SIGNING, MISC.: SIGN DATA COLLECTION PER EACH. THE FOLLOWING QUANTITY HAS BEEN CARRIED FORWARD TO THE GENERAL SUMMARY:

ITEM SPECIAL - SIGNING, MISC.: SIGN DATA COLLECTION 260 EACH

metric units

CALCULATED MJT CHECKED GP

TRAFFIC CONTROL GENERAL NOTES

CRA/RIC-30-33.500/0.000

TN001.DWG 11-5-1998 7:45 AM 1:1M

SIGNING SUB-SUMMARY

SHEET NO.	REFERENCE NO.	LOCATION	STATION	CODE	SIZE (m x m)	630																
						SIGNS																
						SIGN, EXTRUSHEET, TYPE G	SIGN, FLAT SHEET, TYPE G		GROUND MOUNTED SUPPORT, NO. 2 POST	GROUND MOUNTED SUPPORT, NO. 3 POST			GROUND MOUNTED SUPPORT, W310 x 44.5 BEAM	GROUND MOUNTED SUPPORT, S100 x 11.5 BEAM		GROUND MOUNTED SUPPORT, W250 x 32.7 BEAM	GROUND MOUNTED SUPPORT, W250 x 17.9 BEAM		SIGN BACKING ASSEMBLY		BREAKAWAY BEAM CONNECTION	GROUND MOUNTED BEAM SUPPORT FOUNDATION
						SQ. M.	SQ. M.		METER	METER			METER	METER		METER	METER		EACH		EACH	EACH
512	1S	RELOC US 30	33+683, RT	LEVEL I GE	3.900 x 3.600	14.04							9.5/10.8						1		2	2
				N-44B-450	0.450 x 0.300		0.14															
512	2S	RELOC US 30	33+976, RT	GF	1.800 x 1.500	2.70								5.2/5.2					1		2	2
				N-44B-450	0.450 x 0.300		0.14															
512	3S	RELOC US 30	34+090, LT	W-49R-1200	1.200 x 1.200		1.44			4.6/4.7												
512	4S	RELOC US 30	34+450, RT	W-49R-1200	1.200 x 1.200		1.44			4.6/4.7												
513	5S	RELOC US 30	34+555, LT	GF	1.800 x 1.500	2.70								5.0/5.2					1		2	2
				N-44B-450	0.450 x 0.300		0.14															
513	6S	RELOC US 30	34+817, LT	LEVEL I GE	3.900 x 3.600	14.04							8.5/8.8						1		2	2
				N-44B-450	0.450 x 0.300		0.14															
513	20S	RELOC US 30	35+150, RT	M-1-900-2	0.900 x 0.900		0.81			4.8/4.9												
				M-39-900	0.900 x 0.450		0.41															
	REFERENCE NUMBERS 21S THROUGH 25S NOT USED																					
513	26S	RELOC US 30	35+450, RT	R-10-1200	1.200 x 1.500		1.80			5.1/5.3												
513	27S	RELOC US 30	35+450, RT	R-9A-1200	1.200 x 1.500		1.80			5.3/5.5												
514	28S	RELOC US 30	35+617, LT	LEVEL I GB	4.500 x 3.600	16.20										8.9/9.8			1		2	2
				N-44B-450	0.450 x 0.300		0.14															
514	29S	RELOC US 30	35+877, RT	GP	2.400 x 1.500	3.60								5.7/6.0							2	2
514	30S	RELOC US 30	0+010, LT	GP	2.400 x 1.500	3.60								5.7/6.0							2	2
514	31S	RELOC US 30	35+750, RT	LEVEL I GJ	4.800 x 1.800	8.64											6.9/7.8		1		2	2
				N-44B-450	0.450 x 0.300		0.14															
514	32S	RELOC US 30	0+530, LT	LEVEL I GB	3.900 x 3.600	14.04										8.8/9.7			1		2	2
				N-44B-450	0.450 x 0.300		0.14															
	REFERENCE NUMBERS 33S THROUGH 36S NOT USED																					
514	37S	GAL./APT. RD	49+943, RT.	X-4-750	0.750 x 0.750		0.56		3.7													
514	38S	GAL./APT. RD	50+053, RT	X-4-750	0.750 x 0.750		0.56		3.7													
515	39S	RELOC US 30	1+492, C/L	R-123-900	0.900 x 0.900		0.81			4.4/4.5												
				R-9-600	0.600 x 0.750		0.45															
515	40S	RELOC US 30	1+508, C/L	R-123-900	0.900 x 0.900		0.81			4.4/4.5												
				R-9-600	0.600 x 0.750		0.45															
	REFERENCE NUMBERS 41S THROUGH 45S NOT USED																					
			TOTALS			79.56	12.32		7.40	66.9			37.60	44.0		37.20	56.70		7		18	18
TOTALS CARRIED TO GENERAL SUMMARY, SHEET NO. 498						80	13		7	67			38	44		37	57		7		18	18

CALCULATED MJT
CHECKED GP

CRA/RIC-30-33.500/0.000

TS100.DWG
11-18-1998 12:41 PM
1:1M

SHEET NO.	REFERENCE NO.	LOCATION	STATION	CODE	SIZE (m x m)	630 SIGNS: SIGN, EXTRUSHEET, TYPE G	SIGN, FLAT SHEET, TYPE G	GROUND MOUNTED SUPPORT, NO. 3 POST	GROUND MOUNTED SUPPORT, S100 x 11.5 BEAM	GROUND MOUNTED SUPPORT, W200 x 26.6 BEAM	GROUND MOUNTED SUPPORT, W250 x 17.9 BEAM	GROUND MOUNTED SUPPORT, W250 x 32.7 BEAM	SIGN BACKING ASSEMBLY	REMOVAL OF GROUND MOUNTED SIGN AND STORAGE	REMOVAL OF GROUND MOUNTED POST SUPPORT DISPOSAL	BREAKAWAY BEAM CONNECTION	GROUND MOUNTED BEAM SUPPORT FOUNDATION
						SQ. M.	SQ. M.	METER	METER	METER	METER	METER	EACH	EACH	EACH	EACH	EACH
515	46S	RELOC US 30	4+003, RT	LEVEL I GB	4.200 x 2.550	10.71						6.6/7.1	1			2	2
				N-44B-450	0.450 x 0.300		0.14										
515	47S	RELOC US 30	4+790, LT	LEVEL I GJ	4.800 x 1.800	8.64					6.9/7.6		1			2	2
				N-44B-450	0.450 x 0.300		0.14										
516	48S	RELOC US 30	4+803, RT	GB	4.500 x 2.550	11.48						7.1/7.8	1			2	2
				N-44B-450	0.450 x 0.300		0.14										
516	49S	RELOC US 30	5+090, LT	R-9A-1200	1.200 x 1.500		1.80	4.7/4.8									
516	50S	RELOC US 30	5+090, LT	R-10-1200	1.200 x 1.500		1.80	4.9/5.0									
	REFERENCE NUMBERS 51S THROUGH 55S NOT USED																
516	56S	RELOC US 30	5+390, LT	M-40-900	0.900 x 0.450		0.41	4.6/4.7									
				M-1-900-2	0.900 x 0.900		0.81										
516	57S	RELOC US 30	5+603, RT	GE	4.200 x 2.550	10.71				7.4/7.7			1			2	2
				N-44B-450	0.450 x 0.300		0.14										
517	58S	RELOC US 30	5+858, RT	GF					5.2/5.3				1			2	2
				N-44B-450	0.450 x 0.300		0.14										
517	59S	RELOC US 30	6+104, LT	W-49R-1200	1.200 x 1.200		1.44	4.6/4.7									
518	60S	RELOC US 30	6+583, LT	EXISTING TO REMAIN													
	REFERENCE NUMBERS 61S THROUGH 65S NOT USED																
518	66S	RELOC US 30	6+628, LT	W-138-1200										1	2		
518	67S	RELOC US 30	6+688, LT	W-138-1200										1	2		
518	68S	RELOC US 30	6+748, LT	W-138-1200										1	2		
518	69S	RELOC US 30	6+808, LT	W-138-1200										1	2		
518	70S	RELOC US 30	6+831, LT	EXISTING TO REMAIN													
	REFERENCE NUMBERS 71S THROUGH 75S NOT USED																
518	76S	RELOC US 30	6+868, LT	EXISTING TO REMAIN													
518	77S	RELOC US 30	6+868, LT	W-138-1200										1	2		
518	78S	RELOC US 30	6+839, RT	EXISTING TO REMAIN													
518	79S	RELOC US 30	6+814, RT	EXISTING TO REMAIN													
518	80S	RELOC US 30	6+618, RT	EXISTING TO REMAIN													
	REFERENCE NUMBERS 81S THROUGH 85S NOT USED																
519	86S	RELOC US 30	6+928, LT	R-33-750										1	1		
519	87S	RELOC US 30	6+928, LT	W-138-1200										1	2		
519	88S	RELOC US 30	6+988, LT	W-138-1200										1	2		
519	89S	RELOC US 30	7+018, LT	W-138-1200										1	2		
519	90S	RELOC US 30	7+049, LT	W-138-1200										1	2		
	REFERENCE NUMBERS 91S THROUGH 95S NOT USED																
519	96S	RELOC US 30	7+080, LT	W-138-1200										1	2		
519	97S	RELOC US 30	7+163, LT	W-54A-4800										1	2		
				N-44B-450										1			
519	98S	RELOC US 30	7+163, LT	W-54A-4800										1	2		
				N-44B-450										1			
519	99S	RELOC US 30	7+990, LT	W-54B-4800										1	2		
				N-44B-450										1			
519	100S	RELOC US 30	7+990, LT	W-54B-4800										1	2		
				N-44B-450										1			
	REFERENCE NUMBERS 101S THROUGH 107S NOT USED																
519	108S	RELOC US 30	8+773, LT	W-55-3600										1	2		
				N-44B-450										1			
		TOTALS				41.54	6.96	38.0	10.50	15.10	14.50	28.60	5	21	31	10	10
TOTALS CARRIED TO GENERAL SUMMARY, SHEET NO. 498						42	7	38	11	15	15	29	5	21	31	10	10

CALCULATED MJT
CHECKED GP

SIGNING SUB-SUMMARY

CRA/RIC-30-33.500/0.000

TS002.DWG
03-25-1999 5:41 PM
1:1M

						630																
						SIGNS																
SHEET NO.	REFERENCE NO.	LOCATION	STATION	CODE	SIZE (m x m)	SIGN, EXTRUSHEET, TYPE G	SIGN, FLAT SHEET, TYPE G	SIGN, FLAT SHEET, TYPE G	GROUND MOUNTED SUPPORT, NO. 2 POST	GROUND MOUNTED SUPPORT, NO. 3 POST	GROUND MOUNTED SUPPORT, NO. 4 POST	GROUND MOUNTED SUPPORT, S100 x 11.5 BEAM	GROUND MOUNTED BEAM SUPPORT FOUNDATION	GROUND MOUNTED SUPPORT, W150 x 13.5 BEAM	GROUND MOUNTED SUPPORT, W250 x 17.9 BEAM	ONE WAY SUPPORT, NO.3 POST	SIGN BACKING ASSEMBLY	REMOVAL OF GROUND MOUNTED SIGN AND STORAGE		REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	BREAKAWAY BEAM CONNECTION	COVERING OF SIGN
						SQ. M.	SQ. M.	SQ. M.	METER	METER	METER	METER	EACH	METER	METER	METER	EACH	EACH		EACH	EACH	SQ. M.
519	109S	RELOC US 30	8+773, LT	W-55-3600														1		2		
				N-44B-450														1				
520	110S	S.R. 61	49+940, LT	D-4A	4.500 x 0.900	4.05							2		5.6/6.9		1				2	
				M-24-525	0.525 x 0.375		0.20															
				M-1-600-2	0.600 x 0.600		0.36															
				M-39-600	0.600 x 0.300		0.18															
REFERENCE NUMBERS 111S THROUGH 115S NOT USED																						
520	116S	S.R. 61	49+915, RT	M-52A-2700	2.700 x 0.750	2.03					4.9/5.7											
520	117S	S.R. 61	49+850, LT	M-2-600-2	0.600 x 0.600		0.36			4.6												
				M-38-600	0.600 x 0.300		0.18															
520	118S	S.R. 61	49+800, RT	D-4B	4.500 x 1.800	8.10							2		6.2/6.9						2	4.10
520	119S	S.R. 61	49+766, LT	R-10-600	0.600 x 0.750		0.45		4.3													
520	120S	S.R. 61	49+690, RT	M-52A-2700	2.700 x 0.750	2.03						4.4/4.6	2								2	
REFERENCE NUMBERS 121S THROUGH 125S NOT USED																						
520	126S	S.R. 61	49+600, RT	M-1-600-2	0.600 x 0.600		0.36			4.6												
				M-17-600	0.600 x 0.300		0.18															
520	127S	S.R. 61	50+200, LT	D-4A	4.500 x 0.900	4.05							2	5.7/7.0							2	
520	128S	S.R. 61	50+148, RT	M-2-600-2	0.600 x 0.600		0.36			4.2												
				M-37-600	0.600 x 0.300		0.18															
520	129S	S.R. 61	50+242, RT	R-10-600	0.600 x 0.750		0.45			4.2												
520	130S	S.R. 61	50+410, LT	M-1-600-2	0.600 x 0.600		0.36			4.9												
				M-17-600	0.600 x 0.300		0.18															
520	131S	SERV. RD. "A"	50+060, RT	W-48-750	0.750 x 0.750		0.56			4.9												
422	132S	SERV. RD. "A"	50+315, LT	X-4-750	0.750 x 0.750		0.56		3.7													
REFERENCE NUMBERS 133S THROUGH 135S NOT USED																						
517	136S	RAMP B	B 1+180, RT	D-4B	2.700 x 1.200	3.24						4.5/4.8					1					
				N-43B-450	0.450 x 0.300		0.14															
517	137S	RAMP B	B 1+430, LT	R-41A-900	0.900 x 0.600			0.54	4.2/4.3													
517	138S	RAMP B	B 1+430, RT	R-41A-900	0.900 x 0.600			0.54	4.2/4.3													
518	139S	RAMP B	B 1+490, RT	R-1-1200	1.200 x 1.200			1.44								5.1/5.6						
				R-43L-1200	1.200 x 0.450			0.54														
				R-43R-1200	1.200 x 0.450			0.54														
				R-41B-900	0.900 x 0.900			0.81														
518	140S	RAMP B	B 1+490, LT	R-1-1200	1.200 x 1.200			1.44								5.2/5.7						
				R-43L-1200	1.200 x 0.450			0.54														
				R-43R-1200	1.200 x 0.450			0.54														
				R-41B-900	0.900 x 0.900			0.81														
520	141S	S.R. 61	50+148, RT	M-26-525	0.525 x 0.375		0.20				5.9											
				M-1-600-2	0.600 x 0.600		0.36															
				M-40-600	0.600 x 0.300		0.18															
				M-8-600	0.600 x 0.300		0.18															
REFERENCE NUMBERS 142S THROUGH 145S NOT USED																						
518	146S	RAMP C	6+447, RT	W-45-1200														1		2		
518	147S	RAMP C	6+447, LT	W-45-1200														1		2		
517	148S	RAMP C	6+425, RT	D-4B													1					
				M-24-525														1				
				M-1C-600-2														1				
				N-43B-450																		
517	149S	RAMP C	49+905, RT	EXISTING TO REMAIN																		
517	150S	RAMP C	49+854, LT	EXISTING TO REMAIN																		
517	151S	RAMP C	6+425, LT	M-24-525														1				
				M-1C-750-3														1				
				M-8-600														1				
REFERENCE NUMBERS 152S THROUGH 155S NOT USED																						
TOTALS						23.50	5.98	7.74	25.00	27.40	16.5	18.3	8	12.70	25.60	21.60	3	9		6	8	4.10
TOTALS CARRIED TO GENERAL SUMMARY, SHEET NO. 498						24	14		25	27	17	19	8	13	26	22	3	9		6	8	4

CALCULATED MJT
CHECKED GP

SIGNING SUB-SUMMARY

CRA/RIC-30-33.500/0.000

TS003.DWG
03-26-1999 8:15 AM
1:1M

CALCULATED MJT CHECKED GP

SIGNING SUB-SUMMARY

SHEET NO.	REFERENCE NO.	LOCATION	STATION	CODE	SIZE (m x m)	630 SIGNS: SIGN, EXTRUSHEET, TYPE G	SIGN, FLAT SHEET, TYPE G		GROUND MOUNTED SUPPORT, NO. 2 POST	GROUND MOUNTED SUPPORT, NO. 3 POST	GROUND MOUNTED SUPPORT, S100 x 11.5 BEAM	REMOVAL OF GROUND MOUNTED SIGN AND STORAGE		REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL			BREAKAWAY BEAM CONNECTION	GROUND MOUNTED BEAM SUPPORT FOUNDATION
						SQ. M.	SQ. M.		METER	METER	METER	EACH		EACH			EACH	EACH
517	156S	RAMP C	49+869, RT	EXISTING TO REMAIN														
517	157S	RAMP C	49+836, RT	EXISTING TO REMAIN														
517	158S	RAMP C	49+853, LT	EXISTING TO REMAIN														
517	159S	W. 4TH ST.	49+540, RT	M-1-600-2	0.600 x 0.600		0.36			4.1								
				M-17-600	0.600 x 0.300		0.18											
517	160S	W. 4TH ST.	49+591, RT	M-39-600								1						
				M-1C-600-2								1						
				M-27-525								1						
517	161S	W. 4TH ST.	49+612, LT	EXISTING TO REMAIN														
REFERENCE NUMBERS 162S THROUGH 165S NOT USED																		
517	166S	W. 4TH ST.	49+608, RT	EXISTING TO REMAIN														
517	167S	W. 4TH ST.	49+608, LT	EXISTING TO REMAIN														
517	168S	W. 4TH ST.	49+655, RT	M-52A-2700	2.700 x 0.750	2.03					4.5/4.8						2	2
517	169S	W. 4TH ST.	49+676, RT	EXISTING TO REMAIN														
REFERENCE NUMBERS 171S THROUGH 175S NOT USED																		
517	176S	W. 4TH ST.	49+709, LT	R-10-600	0.600 x 0.750		0.45		3.5									
517	177S	W. 4TH ST.	49+741, LT	M-40-600								1		1				
				M-1-600-2								1						
517	178S	W. 4TH ST.	49+750, RT	D-4B	2.400 x 1.200	2.88					4.7/4.8						2	2
517	179S	W. 4TH ST.	49+763, RT	GF								1		2				
517	180S	W. 4TH ST.	49+754, RT	W-98-1200								1		2				
REFERENCE NUMBERS 181S THROUGH 185S NOT USED																		
517	186S	W. 4TH ST.	49+786, RT	R-15A-900								1		2				
517	187S	W. 4TH ST.	49+800, RT	SPECIAL	0.900 x 0.900		0.81		4.2/4.3			1						
517	188S	W. 4TH ST.	49+827, C/L	EXISTING TO REMAIN														
517	189S	W. 4TH ST.	49+823, RT	M-39-600								1		2				
				M-1C-600-2								1						
REFERENCE NUMBERS 190S THROUGH 195S NOT USED																		
517	198S	W. 4TH ST.	49+866, C/L	EXISTING TO REMAIN														
517	199S	W. 4TH ST.	49+748, C/L	EXISTING TO REMAIN														
518	200S	W. 4TH ST.	50+139, RT	EXISTING TO REMAIN														
REFERENCE NUMBERS 201S THROUGH 205S NOT USED																		
518	206S	W. 4TH ST.	50+158, C/L	EXISTING TO REMAIN														
518	207S	W. 4TH ST.	50+158, LT	GH	2.700 x 1.950	5.27												
518	208S	W. 4TH ST.	50+158, LT	EXISTING TO REMAIN														
518	209S	W. 4TH ST.	50+190, C/L	R-38R-600					3.8			1		1				
518	210S	W. 4TH ST.	50+245, C/L	EXISTING TO REMAIN														
518	211S	W. 4TH ST.	50+250, LT	D-4B	3.000 x 1.200	3.60					4.9/5.2						2	2
518	212S	W. 4TH ST.	50+276, LT	EXISTING TO REMAIN														
REFERENCE NUMBER 213S NOT USED																		
518	214S	W. 4TH ST.	50+311, RT	EXISTING TO REMAIN														
518	215S	W. 4TH ST.	50+354, LT	EXISTING TO REMAIN														
518	216S	W. 4TH ST.	50+400, RT	EXISTING TO REMAIN														
518	217S	W. 4TH ST.	50+508, LT	EXISTING TO REMAIN														
520	218S	RAMP I	I 4+238, LT	R-15A-900	0.900 x 0.900		0.81			6.1/6.3								
TOTALS						13.78	2.61		15.80	16.50	28.9	12		10			6	6
TOTALS CARRIED TO GENERAL SUMMARY, SHEET NO. 498						14	3		16	17	29	12		10			6	6

CRA/RIC-30-33.500/0.000

TS004.DWG
03-26-1999 8:18 AM
1:1M

SHEET NO.	REFERENCE NO.	LOCATION	STATION	CODE	SIZE (m x m)	630 SIGNS: SIGN, EXTRUSHEET, TYPE G	SIGN, FLAT SHEET, TYPE G	SIGN, FLAT SHEET, TYPE G	GROUND MOUNTED SUPPORT, NO. 2 POST	GROUND MOUNTED SUPPORT, NO. 3 POST			ONE WAY SUPPORT, NO.3 POST	GROUND MOUNTED SUPPORT, S100 x 11.5 BEAM			SIGN BACKING ASSEMBLY	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL		BREAKAWAY BEAM CONNECTION	GROUND MOUNTED BEAM SUPPORT FOUNDATION
						SQ. M.	SQ. M.	SQ. M.	METER	METER			METER	METER			EACH	EACH	EACH		EACH	EACH
517	219S	RAMP A	A 1+172, LT	R-15A-900	0.900 x 0.900		0.81			4.4/4.5												
REFERENCE NUMBERS 220S THROUGH 225S NOT USED																						
512	226S	RAMP L	L 4+360, LT	D-4B	2.400 x 1.200	2.88								4.8/5.3			3				2	2
				M-19-525	0.525 x 0.375		0.20															
				M-25-525	0.525 x 0.375		0.20															
				M-1-600-2	0.600 x 0.600		0.36															
				M-2-600-2	0.600 x 0.600		0.36															
				M-40-600	0.600 x 0.300		0.18															
				N-43B-450	0.450 x 0.300		0.14															
520	227S	SERV. RD. "A"	50+008, LT	R-1-750	0.750 x 0.750			0.56		4.8												
520	228S	RAMP L	L 4+327, LT	R-41A-900	0.900 x 0.600			0.54	4.0/4.3													
520	229S	RAMP L	L 4+327, RT	R-41A-900	0.900 x 0.600			0.54	4.0/4.0													
520	230S	RAMP L	L 4+260, LT	R-1-1200	1.200 x 1.200			1.44					5.2/5.7									
				R-43L-1200	1.200 x 0.450			0.54														
				R-43R-1200	1.200 x 0.450			0.54														
				R-41B-900	0.900 x 0.900			0.81														
520	231S	RAMP L	L 4+267, RT	R-1-1200	1.200 x 1.200			1.44					5.1/5.6									
				R-43L-1200	1.200 x 0.450			0.54														
				R-43R-1200	1.200 x 0.450			0.54														
				R-41B-900	0.900 x 0.900			0.81														
520	232S	RAMP K	K 4+267, RT	R-15A-900	0.900 x 0.900		0.81		4.4/4.7													
512	233S	RAMP J	J 4+112, RT	D-4B	2.400 x 1.200	2.88								5.1/5.8			2				2	2
				M-25-525	0.525 x 0.375		0.20															
				M-2-600-2	0.600 x 0.600		0.36															
				N-43B-450	0.450 x 0.300		0.14															
520	234S	RAMP J	J 4+191, LT	R-41A-900	0.900 x 0.600			0.54	4.1/4.4													
520	235S	RAMP J	J 4+191, RT	R-41A-900	0.900 x 0.600			0.54	4.1/4.2													
520	236S	RAMP J	J 4+259, RT	R-1-1200	1.200 x 1.200			1.44					5.2/5.7									
				R-43L-1200	1.200 x 0.450			0.54														
				R-43R-1200	1.200 x 0.450			0.54														
				R-41B-900	0.900 x 0.900			0.81														
520	237S	RAMP J	J 4+251, LT	R-1-1200	1.200 x 1.200			1.44					5.1/5.6									
				R-43L-1200	1.200 x 0.450			0.54														
				R-43R-1200	1.200 x 0.450			0.54														
				R-41B-900	0.900 x 0.900			0.81														
520	238S	WACHS RD.	30+800, LT	W-48-750	0.750 x 0.750		0.56			4.5												
512	239S	S.R. 61	50+048, LT	M-21-525	0.525 x 0.375		0.20			4.6												
				M-1-600-2	0.600 x 0.600		0.36															
				M-39-600	0.600 x 0.300		0.18															
518	240S	W. 4TH ST.	50+165, LT	EXISTING TO REMAIN																		
REFERENCE NUMBERS 241S THROUGH 244S NOT USED																						
332	245S	HORNING	49+610 LT	R-1-750	0.750 x 0.750													1	1			
518	246S	RELOC US 30	6+450, LT	M-1-900-2	0.900 x 0.900		0.81			4.7/4.8												
				M-40-900	0.900 x 0.450		0.41															
512	247S	WACHS RD.	30+440, C/L	X-4-750	0.750 x 0.750		0.56		3.8													
332	248S	HORNING RD.	49+610, LT	R-1-750	0.750 x 0.750			0.56		4.5												
332	249S	HORNING RD.	49+640, RT	W-6-750	0.750 x 0.750		0.56			4.5												
335	250S	HORNING RD.	50+410, LT	W-5-750	0.750 x 0.750		0.56			4.4												
352	251S	S.R. 181	50+413, RT	R-1-750	0.750 x 0.750			0.56	3.5													
384	252S	EX. ECK. RD.	50+263, RT	R-1-750	0.750 x 0.750			0.56		4.4												
384	253S	EX. ECK. RD.	50+240, LT	W-69-750	0.750 x 0.750		0.56			4.4												
369	254S	REL. ECK. RD.	21+018, LT	R-1-750	0.750 x 0.750			0.56		4.8												
388	255S	EARICK RD.	49+460, RT	W-6-750	0.750 x 0.750		0.56			4.5												
TOTALS						5.76	9.08	18.28	49.50	63.80			43.2	21.0			5	1	1		4	4
TOTALS CARRIED TO GENERAL SUMMARY, SHEET NO. 498						6	27		50	64			43	21			5	1	1		4	4

CALCULATED MJT
CHECKED GP

SIGNING SUB-SUMMARY

CRA/RIC-30-33.500/0.000

T5005.DWG
03-26-1999 9:38 AM
1:1M

SHEET NO.	REFERENCE NO.	LOCATION	STATION	CODE	SIZE (m x m)	630 SIGNS					
							SIGN, FLAT SHEET, TYPE G	SIGN, FLAT SHEET, TYPE G	GROUND MOUNTED SUPPORT, NO. 2 POST	GROUND MOUNTED SUPPORT, NO. 3 POST	GROUND MOUNTED SUPPORT, NO. 4 POST
							SQ. M.	SQ. M.	METER	METER	METER
392	256S	EARICK RD.	50+520, LT	W-5-750	0.750 x 0.750		0.56			4.2	
327	257S	GAL./APT. RD	48+195, RT	W-69-750	0.750 x 0.750		0.56		4.2		
327	258S	GAL./APT. RD	50+767, LT	W-69-750	0.750 x 0.750		0.56		4.0		
333	259S	HORNING RD.	49+950, LT	W-6-750	0.750 x 0.750		0.56			5.7	
333	260S	HORNING RD.	49+897, RT	W-68-900	0.900 x 0.900		0.81			5.0	
333	261S	HORNING RD.	50+050, RT	W-5-750	0.750 x 0.750		0.56			4.9	
334	262S	HORNING RD.	50+105, LT	W-68-900	0.900 x 0.900		0.81				5.3
349	263S	REL. S.R. 181	49+760, RT	W-26-750	0.750 x 0.750		0.56			4.3	
				D-8Y-750	0.750 x 0.200		0.15				
350	264S	REL. S.R. 181	50+056, LT	W-26-750	0.750 x 0.750		0.56				4.7
				D-8Y-750	0.750 x 0.200		0.15				
352	265S	REL. S.R. 181	50+365, LT	M-2-600-3	0.600 x 0.750		0.45			4.1	
				M-40-600	0.600 x 0.300		0.18				
352	266S	EX. S.R. 309	3+740, RT	M-2-600-3	0.600 x 0.750		0.45			3.9	
				M-17-600	0.600 x 0.300		0.18				
352	267S	EX. S.R. 309	3+870, RT	M-2-600-3	0.600 x 0.750		0.45		3.7		
				M-40-600	0.600 x 0.300		0.18				
352	268S	EX. S.R. 309	3+750, LT	M-2-600-3	0.600 x 0.450		0.45			4.2	
				M-39-600	0.600 x 0.300		0.18				
352	269S	EX. S.R. 309	3+805, LT	M-2-600-3	0.600 x 0.750		0.45			3.5	
				M-24-525	0.525 x 0.375		0.20				
				M-2-600-3	0.600 x 0.750		0.45				
				M-24-525	0.525 x 0.375		0.20				
369	270S	S.R. 181	49+873, LT	D-7-1200	1.200 x 0.250		0.30		4.9/5.2		
369	270A	S.R. 181	49+890, RT	D-7-1200	1.200 x 0.250		0.30		4.9/5.2		
352	271S	EX. S.R. 309	3+864, LT	M-2-600-3	0.600 x 0.750		0.45		3.7		
				M-17-600	0.600 x 0.300		0.18				
369	272S	S.R. 181	49+935, RT	M-2-600-3	0.600 x 0.750		0.45			4.5	
				M-39-600	0.600 x 0.300		0.18				
369	273S	S.R. 181	49+835, LT	M-2-600-3	0.600 x 0.750		0.45			4.2	
				M-40-600	0.600 x 0.300		0.18				
384	274S	REL. ECK. RD.	21+439, LT	W-26-750	0.750 x 0.750		0.56			4.7	
390	275S	EARICK RD.	49+910, LT	W-6-750	0.750 x 0.750		0.56			4.7	
390	276S	EARICK RD.	49+880, RT	W-68-900	0.900 x 0.900		0.81				5.0
390	277S	EARICK RD.	50+080, LT	W-68-900	0.900 x 0.900		0.81				4.9
390	278S	EARICK RD.	50+080, RT	W-5-750	0.750 x 0.750		0.56			4.7	
352	279S	REL. S.R. 181	50+325, RT	W-45-900	0.900 x 0.900		0.81			4.5	
369	280S	EX. ECK. RD.	50+067, LT	X-4-750	0.750 x 0.750		0.56		3.5		
521A	281S	REL. S.R. 181	50+375, RT	R-31F-900	0.900 x 0.750		0.68		4.5/4.6		
438A	282S	SERV. RD. "B"	30+742, LT	R-1-750	0.750 x 0.750			0.56		4.5	
438A	283S	SERV. RD. "B"	30+745, RT	W-2-750	0.750 x 0.750		0.56			4.5	
438A	284S	SERV. RD. "B"	30+826, RT	W-69-750	0.750 x 0.750		0.56			4.5	
438A	285S	SERV. RD. "B"	30+908, LT	X-4-750	0.750 x 0.750		0.56			4.5	
514	286S	RELOC US 30	0+000, LT	N-41-300	0.300 x 0.600		0.18		3.2		
514	287S	RELOC US 30	0+000, RT	N-41-300	0.300 x 0.600		0.18		3.2		
515	288S	RELOC US 30	1+609, LT	N-41-300	0.300 x 0.600		0.18		3.2		
515	289S	RELOC US 30	1+609, RT	N-41-300	0.300 x 0.600		0.18		3.2		
515	290S	RELOC US 30	3+218, LT	N-41-300	0.300 x 0.600		0.18		3.2		
515	291S	RELOC US 30	3+218, RT	N-41-300	0.300 x 0.600		0.18		3.2		
516	292S	RELOC US 30	4+827, LT	N-41-300	0.300 x 0.600		0.18		3.2		
516	293S	RELOC US 30	4+827, RT	N-41-300	0.300 x 0.600		0.18		3.2		
518	294S	RELOC US 30	6+436, LT	N-41-300	0.300 x 0.600		0.18		3.2		
518	295S	RELOC US 30	6+436, RT	N-41-300	0.300 x 0.600		0.18		3.2		
513	296S	RELOC US 30	35+404, LT	N-41-300	0.300 x 0.900		0.27		3.5		
513	297S	RELOC US 30	35+404, RT	N-41-300	0.300 x 0.900		0.27		3.5		
512	298S	RELOC US 30	33+795, LT	N-41-300	0.300 x 0.900		0.27		3.5		
512	299S	RELOC US 30	33+795, RT	N-41-300	0.300 x 0.900		0.27		3.5		
350	300S	REL. S.R. 181	49+892, RT	W-68-900	0.900 x 0.900		0.81				5.3
351	301S	REL. S.R. 181	50+118, LT	W-68-900	0.900 x 0.900		0.81			5.0	
			TOTALS				23.68	0.56	97.4	90.1	25.20
TOTALS CARRIED TO GENERAL SUMMARY, SHEET NO. 498							25		97	90	25

CALCULATED MJT
CHECKED GP

SIGNING SUB-SUMMARY

CRA/RIC-30-33.500/0.000

TS006.DWG
05-10-2001 8:40 AM
1:1M

OVERHEAD MOUNTED SIGNS						630								INFORMATION ONLY				631										
SHEET NO.	REFERENCE NO.	LOCATION	STATION	CODE	SIZE (m x m)					RIGID OVERHEAD SIGN SUPPORT FOUNDATION	SIGN EXTRUSHEET, TYPE G	REMOVAL OF OVERHEAD MOUNTED SIGN AND STORAGE	REMOVAL OF OVERHEAD SIGN SUPPORT AND REERECTION, TYPE TC-12.30M				SIGN ATTACHMENT ASSEMBLY		REMOVAL OF SIGN SERVICE AND DISPOSAL	REMOVAL OF DISCONNECT SWITCH AND DISPOSAL	REMOVAL OF SIGN WIRED		SIGN WIRED	SIGN SERVICE	DISCONNECT SWITCH WITH ENCLOSURE, TYPE X	BALLAST, TYPE CMRI-175-480, INTEGRAL	MERCURY VAPOR LUMINAIRE TYPE TC-31.21 WITH 175 WATT LAMP	REMARKS
										EACH	SQ. M.	EACH	EACH				EA.		EA.	EA.	EA.		EA.	EA.	EA.	EA.	EA.	
517	170S	W. 4TH ST.	49+689, RT	GE								1	1															RELOCATE
517	196S	W. 4TH ST.	49+850, RT	GH-1	2.400 x 2.100					1	5.04						2											REERECT W/
517	197S	W. 4TH ST.	49+850, RT	GH-1	2.400 x 2.100						5.04																	NEW PANELS
518	207S	W. 4TH ST.	50+159, LT	GH	2.700 x 2.100						5.67						1						1	1	1	1	1	NEW
518	208S	W. 4TH ST.	50+159, LT	EXISTING TO REMAIN															1	1	1		1					EXISTING
TOTALS										1	15.75	1	1						1	1	1		2	1	1	1	1	
TOTALS CARRIED TO GENERAL SUMMARY, SHEET NO. 498-499										1	16	1	1						1	1	1		2	1	1	1	1	

CALCULATED MJT
CHECKED GP

OVERHEAD SIGN SUB-SUMMARY

CRA/RIC-30-33.500/0.000

507
712

TS007.DWG
03-26-1999 9:48 AM
1:1M

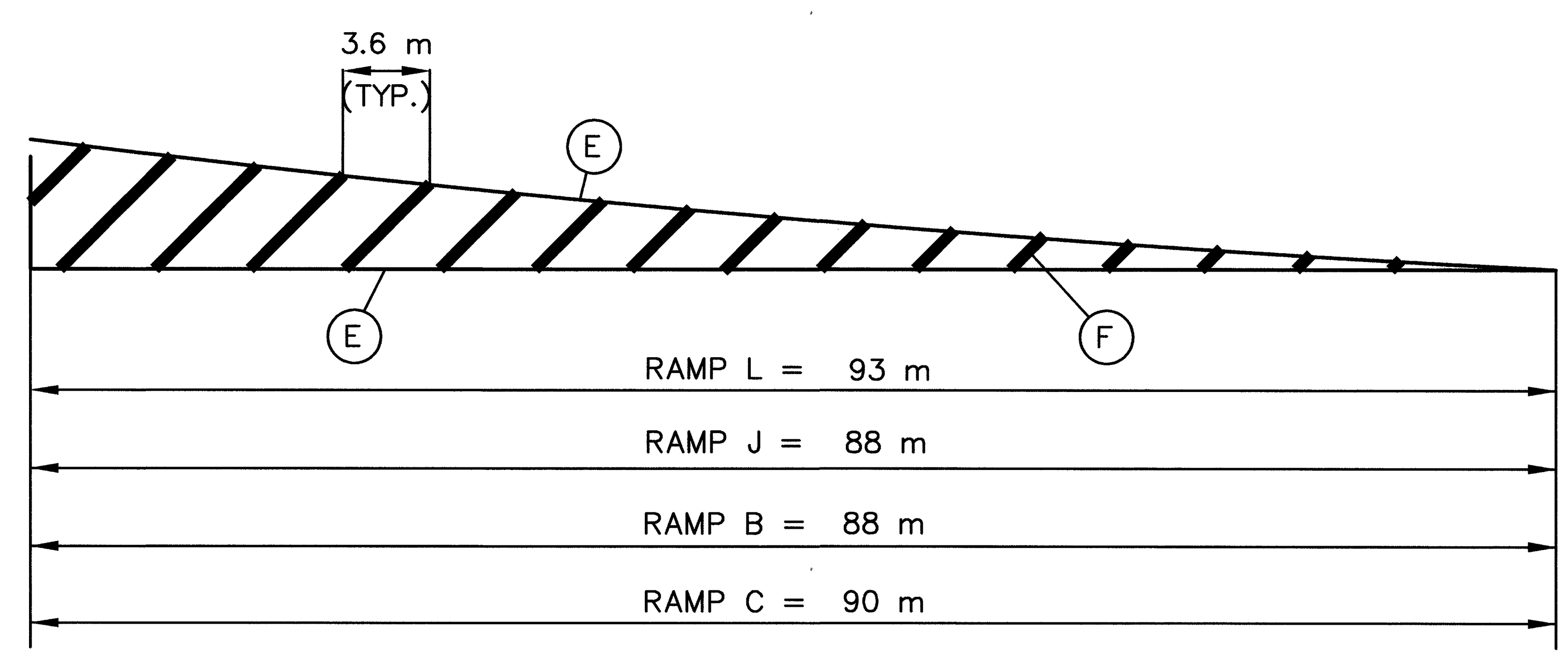
CALCULATED MJT
CHECKED GP

PAVEMENT MARKINGS

LINE SPECIFICATIONS

A	EDGE LINE, WHITE — 100 mm
B	EDGE LINE, YELLOW — 100 mm
C	LANE LINE, WHITE — 100 mm; 3 m, 9 m, 3 m, 9 m, 3 m
D	CENTER LINE, YELLOW, DOUBLE SOLID — 100 mm, 100 mm, 100 mm
E	CHANNELIZING LINE, WHITE — 200 mm
F	TRANSVERSE LINE, WHITE OR YELLOW — 600 mm
G	STOP LINE, WHITE — 600 mm
H	LANE ARROW, AS PER TC–71.10M
I	WORD ON PAVEMENT, 2500 mm — ONLY 2500 mm

ITEM 644 PAVEMENT MARKING				
GORE PAVEMENT MARKING		CHANNELIZING LINE – WHITE	TRANSVERSE LINE – WHITE	LANE LINE WHITE
LOCATION	STATION TO STATION	LENGTH x 2 (METERS)	LENGTH (METERS)	LENGTH (KILOMETERS)
MAINLINE				
RAMP J	33+865 – 33+953	176	73	0.076
RAMP L	34+577 – 34+670	186	79	0.059
RAMP B	5+755 – 5+843	176	74	0.061
RAMP C	6+586 – 6+676	180	71	0.026
TOTALS		718	297	0.222
TOTALS CARRIED TO GENERAL SUMMARY, SHEET NO. 499		718	297	0.22



NOTE: VARIOUS CROSS–ROADS HAVE VARYING WIDTH ROADWAYS (CURVE WIDENING). ALL CENTERLINE STRIPING SHALL FOLLOW THE CENTERLINE OF CONSTRUCTION, NOT THE PHYSICAL CENTER OF PAVEMENT. SEE SUPERELEVATION TABLES FOR THE PAVEMENT WIDTHS AND THEIR LOCATION. SEE SHEETS 464–467

PAVEMENT MARKING SUB–SUMMARY

CRA/RIC–30–33.500/0.000

TS008.DWG
08–22–2000 7:56 AM
1:1M

metric units

CALCULATED MJT CHECKED GP

PAVEMENT MARKING SUB-SUMMARY

ROUTE	STATION TO STATION	SIDE	ITEM 644 EDGE LINE, YELLOW	EDGE LINE, WHITE	CHANNELIZING LINE, WHITE	LANE LINE, WHITE		STOP LINE
			KILOMETER	KILOMETER	METER	KILOMETER		METER
	MAINLINE							
RELOC. U.S. 30	33+500.000 – 35+886.871	E.B.	2.387	2.387		2.387		
	0+000.000 – 6+520.000	E.B.	6.520	6.520		6.520		
	34+660.000 – 34+700.849	E.B.			40.849			
	34+700.849 – 35+020.000	E.B.				0.319		
RELOC. U.S. 30	33+500.000 – 35+886.871	W.B.	2.387	2.387		2.387		
	0+000.000 – 6+803.917	W.B.	6.804	6.804		6.804		
	33+515.000 – 33+831.872	W.B.				0.317		
	33+831.872 – 33+875.000	W.B.			43.128			
	5+540.000 – 5+857.612	W.B.				0.318		
	5+857.612 – 5+900.000	W.B.			42.388			
	RAMPS							
RAMP A	A 0+900.000 – A 1+199.292	W.B.	0.299					
WEST 4th STREET	A 0+857.612 – A 1+199.292	W.B.		0.342				
RAMP B	B 0+842.982 – B 1+502.000	E.B.	0.659					
WEST 4th STREET	B 0+633.219 – B 1+502.000	E.B.		0.869				
	B 1+502.000							10.255
RAMP I	I 3+875.000 – I 4+272.167	W.B.	0.397					
S.R. 61	I 3+831.872 – I 4+272.167	W.B.		0.440				
RAMP J	J 3+952.982 – J 4+259.000	E.B.	0.306					
S.R. 61	J 3+713.218 – J 4+259.000	E.B.		0.546				
	J 4+259.000							13.651
RAMP K	K 4+239.572 – K 4+660.000	E.B.	0.420					
S.R. 61	K 4+239.572 – K 4+700.849	E.B.		0.461				
RAMP L	L 4+260.000 – L 4+577.420	W.B.	0.317					
S.R. 61	L 4+260.000 – L 4+786.814	W.B.		0.527				
	L 4+260.000							11.004
TOTALS			20.496	21.283	126.365	19.052		34.910
TOTALS CARRIED TO GENERAL SUMMARY, SHEET NO. 499			41.78		126	19.05		35

ROUTE	STATION TO STATION	SIDE	ITEM 642 EDGE LINE, WHITE	CENTER LINE, YELLOW	STOP LINE	TRANSVERSE LINE, YELLOW	CHANNELIZING LINE, WHITE	LANE ARROW, WHITE	WORD ON PAVEMENT, 2500 mm, WHITE
			KILOMETER	KILOMETER	METER	METER	METER	EACH	EACH
	SIDE ROADS								
S.R. 61	49+640.000 – 50+480.000		1.680	0.840					
GALION/AIRPORT	9+884.125 – 9+899.125		0.030	0.015					
C.H. 47	10+097.618 – 10+112.618		0.030	0.015					
HORNING RD.	49+610.367 – 50+433.276		1.646	0.823					
C.H. 175	49+610.367				7.439				
S.R. 181	49+660.000 – 50+420.760		1.522						
	49+660.000 – 50+390.000			0.836					
	50+285.000 – 50+390.000					92.836			
	50+390.000 – 50+420.760			0.031			30.760		
	50+394.000								1
	50+411.000							1	
	50+420.760				18.540				
REL ECKSTEIN RD.	21+014.920 – 21+520.000		1.010	0.505					
T.H. 166	21+014.920				3.340				
EX. ECKSTEIN RD.	50+100.947 – 50+264.920		0.328	0.164					
T.H. 166	50+264.920				9.978				
EARICK RD.	49+460.000 – 50+482.342		2.044	1.022					
T.H. 167									
SERVICE RD. "A"	50+005.900 – 51+312.403		2.614	1.307					
	50+005.900				10.592				
SERVICE RD. "B"	30+739.417 – 30+871.026		0.263	0.132					
	30+739.417				4.893				
TOTALS			11.167	5.690	54.782	92.836	30.760	1	1
TOTALS CARRIED TO GENERAL SUMMARY, SHEET NO. 499			11.17	5.69	55	93	31	1	1

CRA/RIC-30-33.500/0.000

TS009.DWG 05-01-2001 8:07 AM 1:1M

ITEM 620 – DELINEATORS

LOCATION	STATION FROM	STATION TO	DISTANCE	TYPE C FLEXIBLE POST MOUNTED	TYPE C BRACKET MOUNTED	SPACING	TYPE D FLEXIBLE POST MOUNTED	TYPE D BRACKET MOUNTED	TYPE D REFLECTOR, TYPE D	SPACING
			METER	EACH	EACH	METER	EACH	EACH	EACH	METER
RELOC. U.S. 30 EB	33+500.000	33+713.218	213.218	1	1	122 m				
	33+952.982	34+543.269	590.287	5						
	35+020.000	5+603.219	6470.090	53						
	5+842.982	6+520.000	677.018	6						
RELOC. U.S. 30 WB	33+500.000	33+515.000	15.000	1						
	33+995.251	34+577.420	582.169	5						
	34+786.814	5+540.000	6640.057	54						
	6+028.187	6+586.254	558.067	5		122 m				
S.R. 61 RAMP "I"	33+995.251	I 3+965.020	30.231	1		61 m				
	I 3+965.020	I 4+046.200	81.180	3		27.4 m	3			27.4 m
	I 4+046.200	I 4+272.167	225.967	4		61 m				
S.R. 61 RAMP "J"	33+713.218	J 4+271.386	558.168	10		61 m				
S.R. 61, RAMP "K"	K 4+239.572	34+543.269	303.697	5		61 m				
S.R. 61, RAMP "L"	L 4+246.239	34+786.814	540.575	9		61 m				
WEST 4th STREET, RAMP "A"	6+028.686	A 1+028.187	0.499	1		61 m				
	A 1+028.187	A 1+160.448	132.261	5		30.5 m	5			30.5 m
	A 1+160.448	A 1+197.885	37.437	0		61 m				
WEST 4th STREET, RAMP "B"	5+603.219	B 0+872.982	269.763	5		61 m				
	B 0+872.982	B 1+458.514	585.532	20		30.5 m	20			30.5 m
	B 1+458.514	B 1+506.540	48.026	0		61 m				
RELOC. U.S. 30 EB	1+401.326	1+461.326	60.000				3			30 m
RELOC. U.S. 30 WB	1+598.674	1+538.674	60.000				3			30 m
RELOC. U.S. 30 C/L	1+492								1	
RELOC. U.S. 30 C/L	1+508								1	
TOTALS				193	1		34		2	
TOTALS CARRIED TO GENERAL SUMMARY, SHEET NO. 498				193	1		34		2	

ITEM 620 – DELINEATOR

ITEM 620 DELINEATOR			
LOCATION	SIDE	TYPE C	TYPE D
RELOC. U.S. 30			
6+287.940	RT	1	
6+350.060	LT	1	
RAMP J			
4+236.296	LT		1
RAMP L			
4+281.580	RT		1
4+380.000	LT	1	
S.R. 61			
49+840.877	LT		1
49+841.508	RT	1	
50+302.562	RT	1	
50+320.898	LT	1	
HORNING RD.			
49+841.200	LT		1
50+199.982	LT	1	
EARICK RD.			
49+760.317	LT		1
50+330.655	LT	1	
S.R. 181			
49+820.000	LT		1
50+169.943	LT	1	
RELOC. ECKSTEIN RD.			
21+060.271	RT	1	
21+080.237	LT	1	
TOTAL		11	6

TOTALS CARRIED TO GENERAL SUMMARY

ITEM 620 – DELINEATOR, TYPE C = *11 EACH*
ITEM 620 – DELINEATOR, TYPE D = *6 EACH*

CALCULATED MJT
CHECKED GP

DELINEATOR SUB-SUMMARY

CRA/RIC-30-33.500/0.000

TS010.DWG
03-26-1999 10:21 AM
1:1M

ITEM 621 – RAISED PAVEMENT MARKERS

LOCATION	STATION FROM	STATION TO	LENGTH	EDGE LINE	EDGE LINE YELLOW/RED	LANE LINE WHITE	CENTER LINE YELLOW/YELLOW	CHANNELIZING LINE WHITE/RED	SPACING
	FROM	TO	METER		EACH	EACH	EACH	EACH	METER
RELOC. U.S. 30 EB	33+500.000	35+886.871	2386.871			66			36
	0+000.000	6+520.000	6520.000			181			36
	33+865.000	33+952.982 DEC.	87.982					15	12
	34+700.849	34+660.000 ACC.	40.849					3	12
	5+754.865	5+842.982 DEC.	88.117					15	12
RELOC. U.S. 30 WB	33+500.000	35+886.871	2386.871			66			36
	0+000.000	6+803.917	6803.917			188			36
	33+831.872	33+875.000 ACC.	43.128					3	12
	34+577.420	34+670.000 DEC.	92.580					15	12
	5+754.865	5+799.914 ACC.	45.049					3	12
S.R. 61, RAMP "I"	I 3+875.000	I 4+272.167	397.167		16				24
S.R. 61, RAMP "J"	J 3+952.982	J 4+271.386	318.404		13				24
S.R. 61, RAMP "K"	K 4+700.849	K 4+239.572	461.277		19				24
S.R. 61, RAMP "L"	L 4+577.420	L 4+246.339	331.081		13				24
EX. U.S. 30, RAMP "A"	A 0+857.612	A 1+199.292	341.680		14				24
EX. U.S. 30, RAMP "B"	B 0+842.982	B 1+507.600	664.618		27				24
S.R. 181	49+660.000	50+285.000	625.000				27		24
S.R. 181	50+285.000	50+390.000	105.000				9		24
S.R. 181	50+375.000	50+390.000	15.000				3		5
S.R. 181	50+390.000	50+420.760	30.760				2		24
S.R. 181	50+390.000	50+420.760	30.760					3	12
S.R. 61	49+640.000	50+480.000	840.000				35		24
SUB-TOTALS					102	501	76	57	
TOTALS CARRIED TO GENERAL SUMMARY, SHEET NO. 498					102	501	76	57	

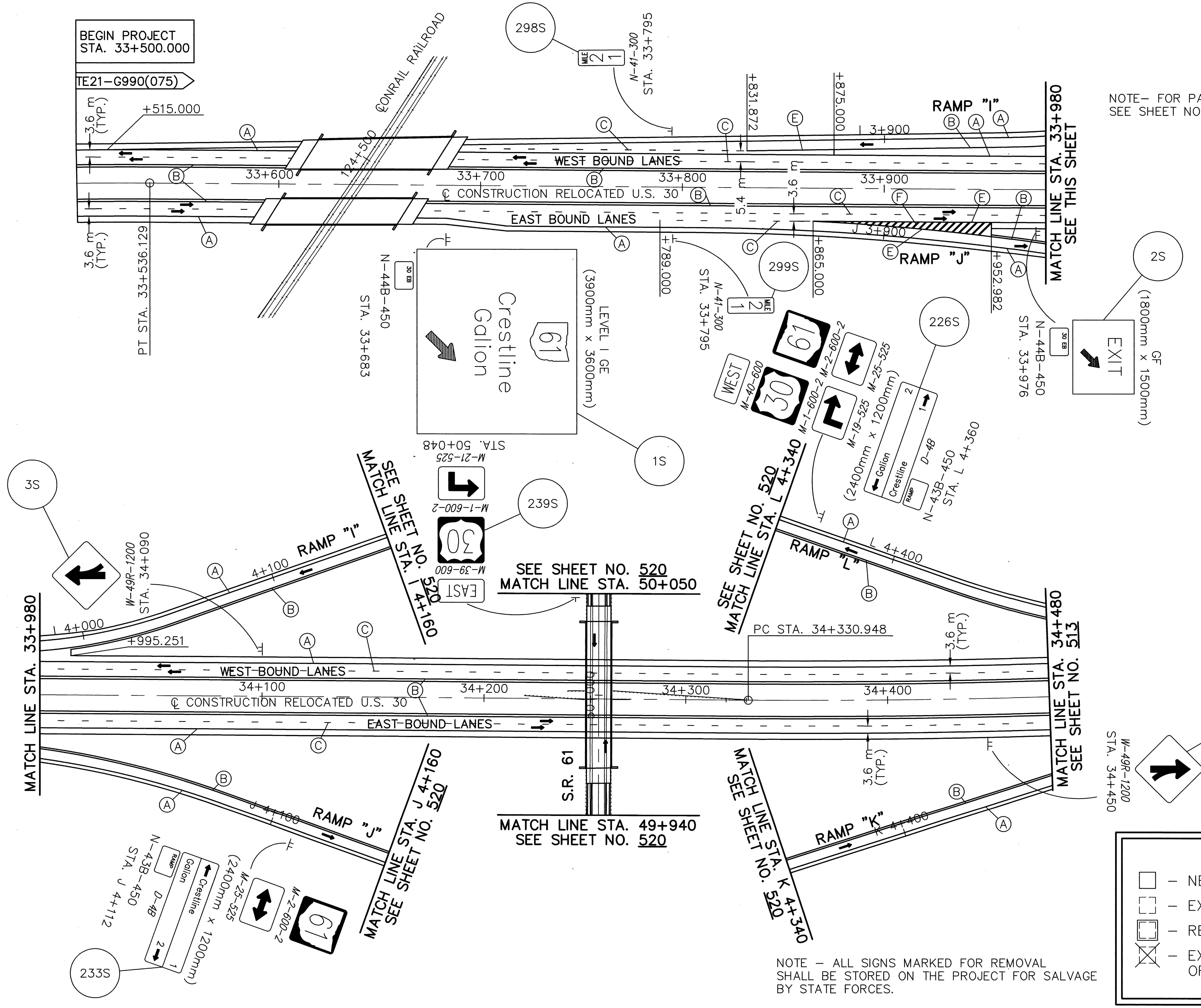
CALCULATED MJT CHECKED GP

RAISED PAVEMENT MARKER SUB-SUMMARY

CRA/RIC-30-33.500/0.000

511/712

TS011.DWG 08-22-2000 8:36 AM 1:1M



NOTE– FOR PAVEMENT MARKING LEGEND SEE SHEET NO. 508

NOTE – ALL SIGNS MARKED FOR REMOVAL SHALL BE STORED ON THE PROJECT FOR SALVAGE BY STATE FORCES.

LEGEND

- NEW
- EXISTING TO REMAIN
- RELOCATED EXISTING
- EXISTING TO BE REMOVED OR RELOCATED

metric units

SCALE 1:1000
HORIZONTAL SCALE IN METERS

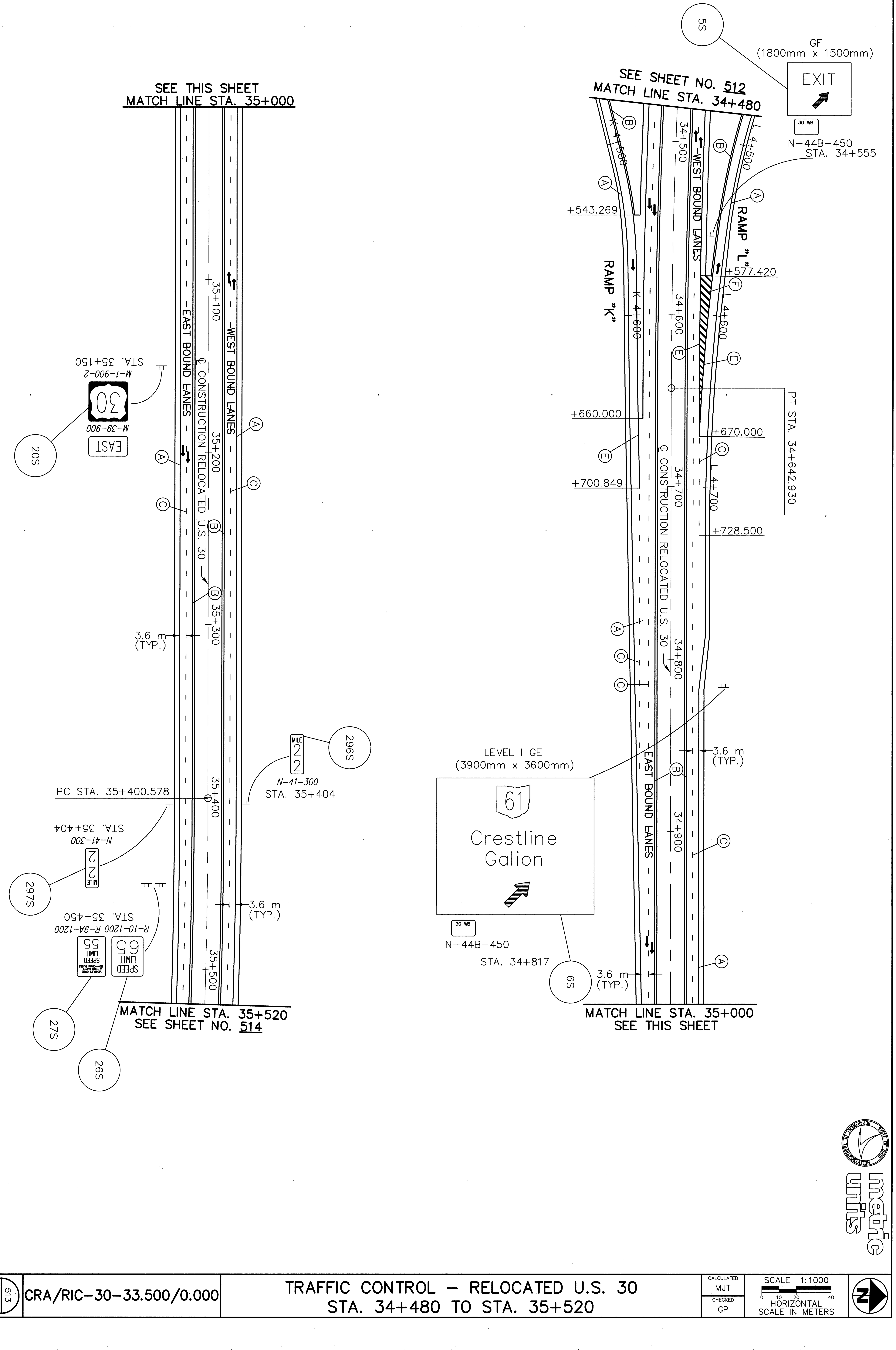
CALCULATED MJT
CHECKED GP

TRAFFIC CONTROL – RELOCATED U.S. 30
STA. 33+500 TO STA. 34+480

CRA/RIC-30-33.500/0.000

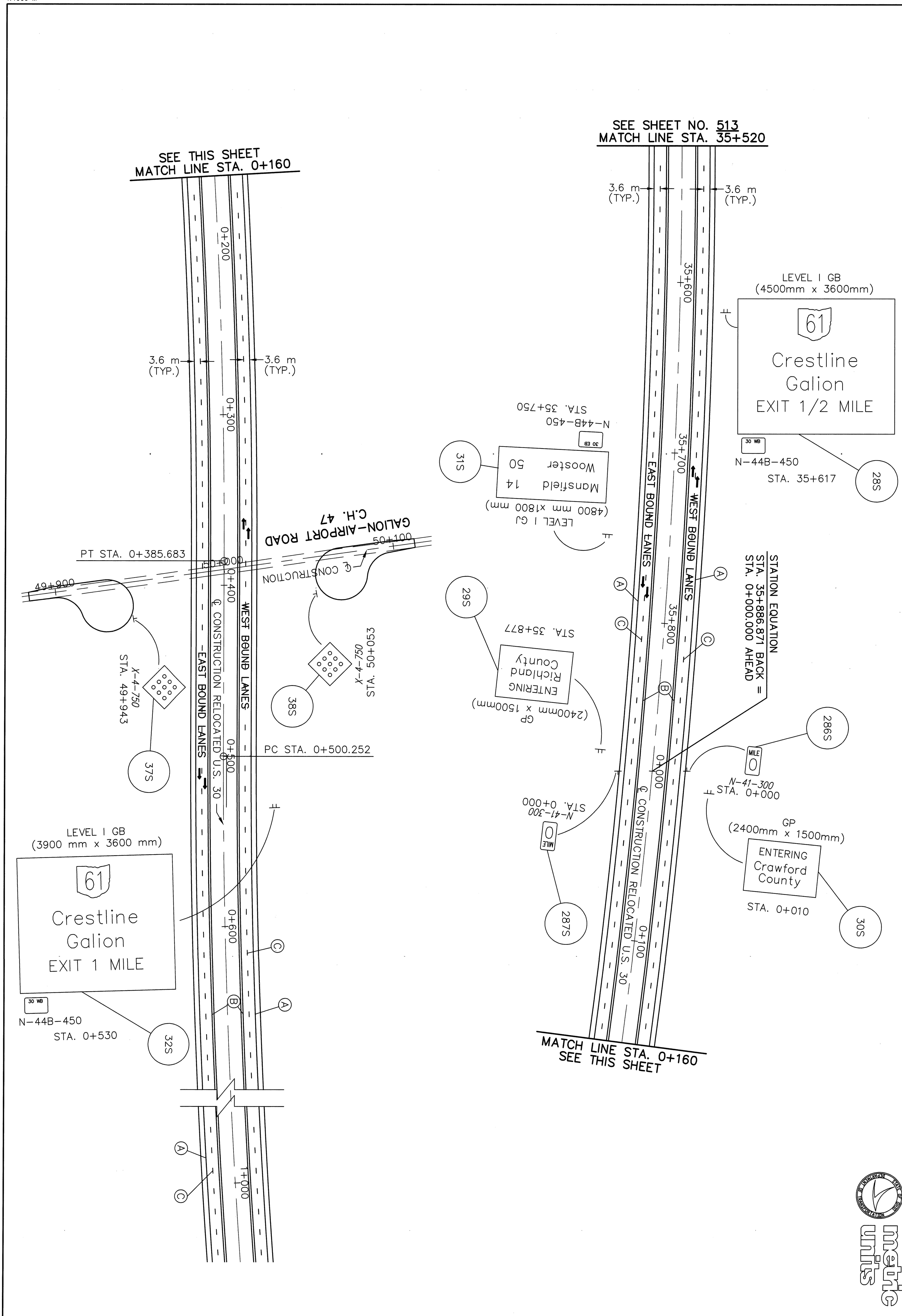
TP001.DWG
03-26-1999 10:27 AM
1:1000 M

TP002.DWG
03-26-1999 10:33 AM
1:1000 M

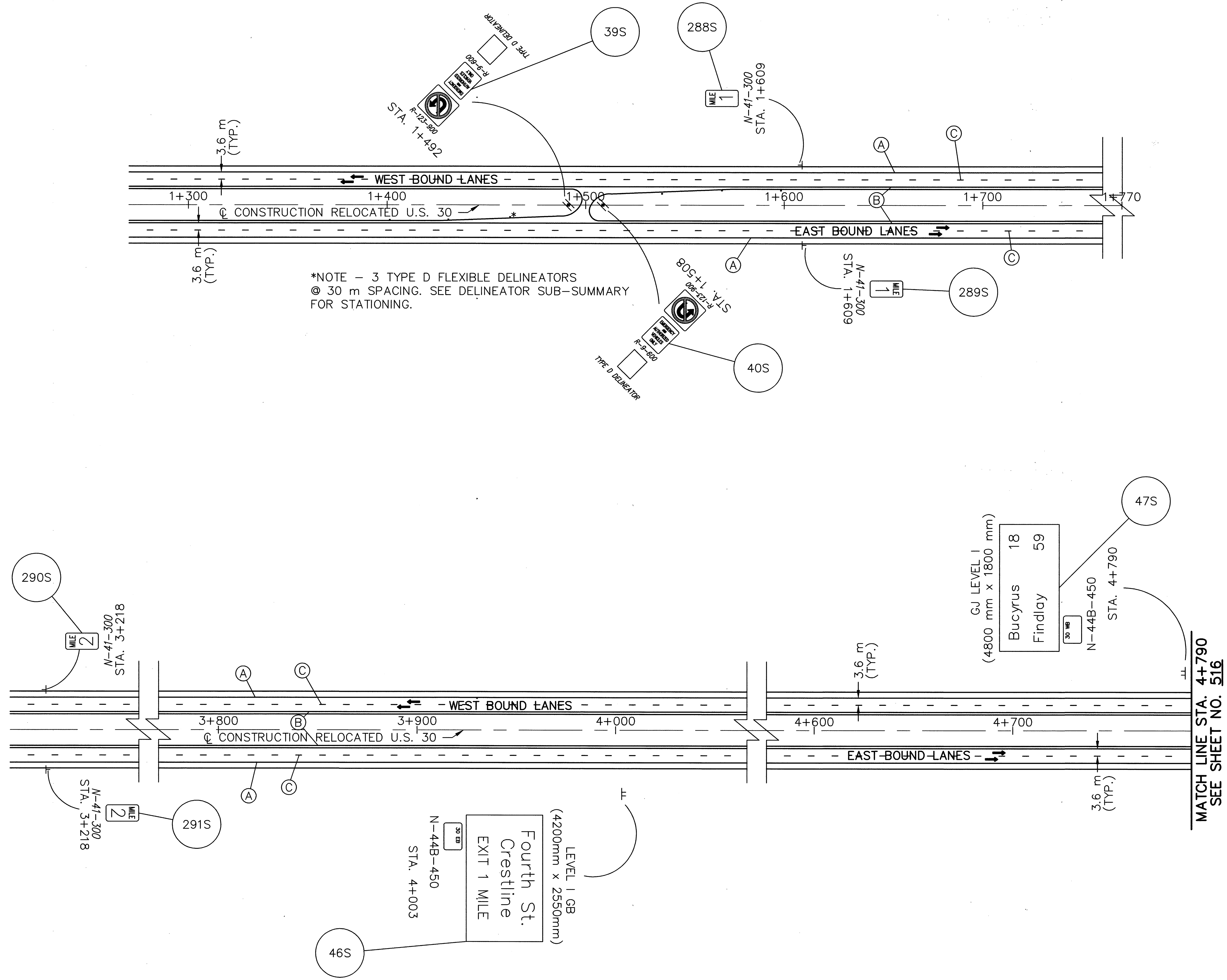


513 / 712	CRA/RIC-30-33.500/0.000	TRAFFIC CONTROL – RELOCATED U.S. 30 STA. 34+480 TO STA. 35+520	CALCULATED MJT CHECKED GP	SCALE 1:1000 0 10 20 40 HORIZONTAL SCALE IN METERS

TP003.DWG
03-26-1999 10:38 AM
1:1000 M



514 / 712	CRA/RIC-30-33.500/0.000	TRAFFIC CONTROL - RELOCATED U.S. 30 STA. 35+520 TO STA. 1+045	CALCULATED MJT CHECKED GP	SCALE 1:1000 0 10 20 40 HORIZONTAL SCALE IN METERS



metric units

SCALE 1:1000
HORIZONTAL SCALE IN METERS

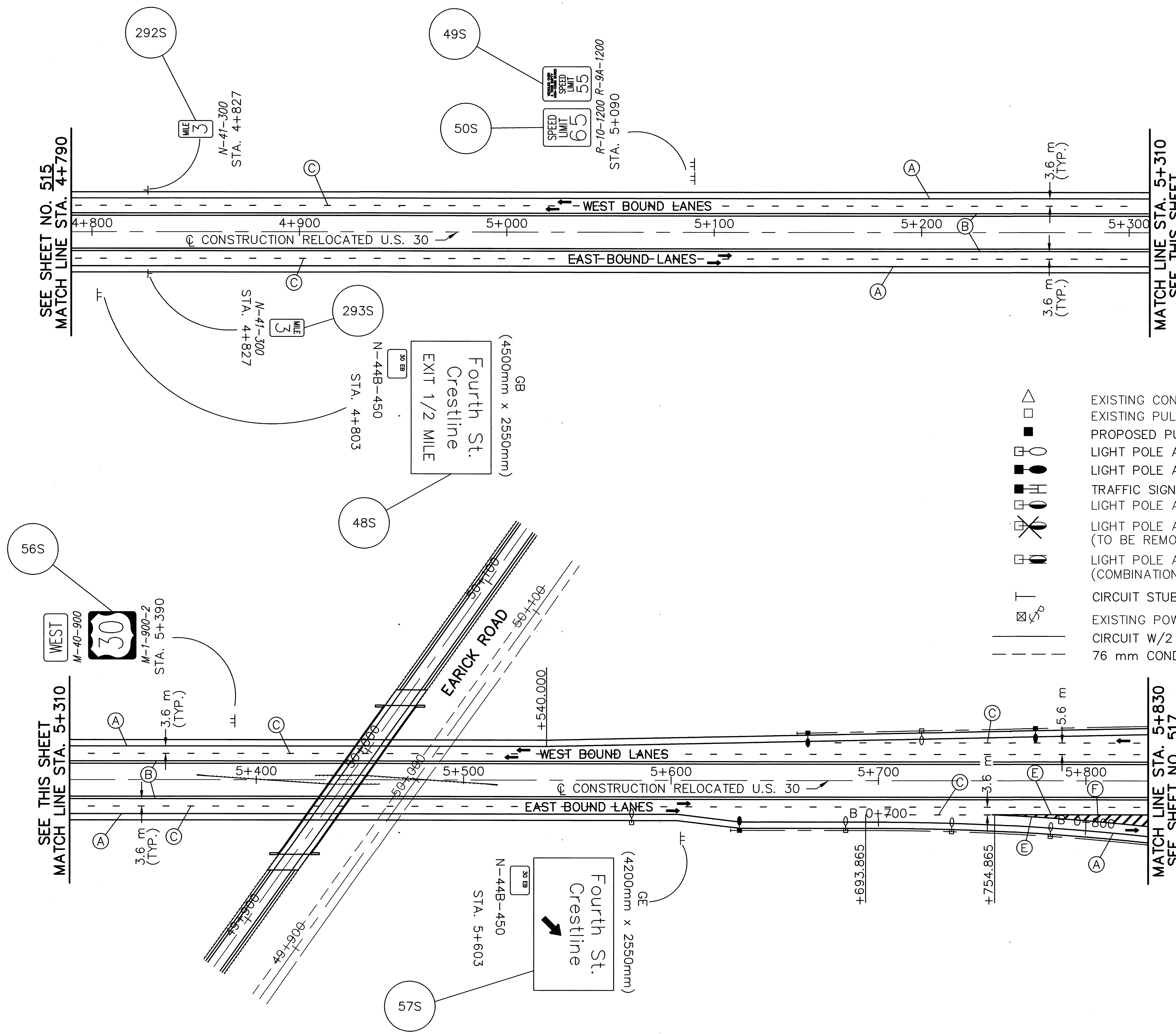
CALCULATED MJT
CHECKED GP

TRAFFIC CONTROL – RELOCATED U.S. 30
STA. 1+270 TO STA. 4+790

CRA/RIC-30-33.500/0.000

515
712

TP004.DWG
03-26-1999 10:39 AM
1:1000 M



LIGHTING LEGEND

- △ EXISTING CONTROL CENTER
- □ EXISTING PULL BOX
- ■ PROPOSED PULL BOX
- LIGHT POLE AND LUMINAIRE, FUTURE INSTALLATION
- LIGHT POLE AND LUMINAIRE, PROPOSED INSTALLATION
- TRAFFIC SIGN, PROPOSED INSTALLATION
- LIGHT POLE AND LUMINAIRE, EXISTING INSTALLATION
- LIGHT POLE AND LUMINAIRE, EXISTING INSTALLATION (TO BE REMOVED)
- LIGHT POLE AND LUMINAIRE, EXISTING INSTALLATION (COMBINATION LIGHT AND SIGN)
- CIRCUIT STUB & CAP
- EXISTING POWER SUPPLY
- CIRCUIT W/2 #4 AWG 5000 VOLT CABLES
- 76 mm CONDUIT

metric units

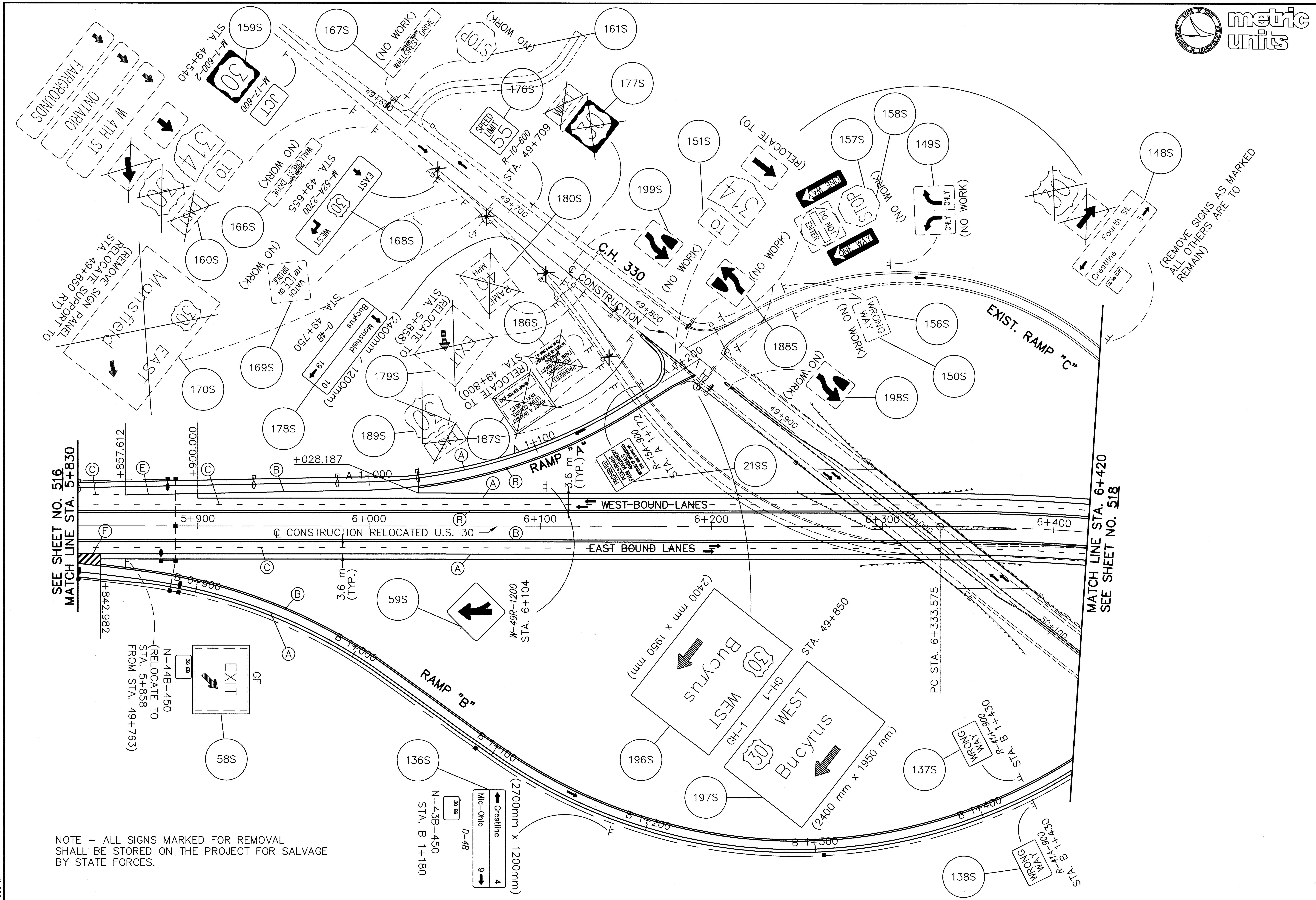
SCALE 1:1000
0 10 20 40
HORIZONTAL SCALE IN METERS

CALCULATED MJT
CHECKED GP

TRAFFIC CONTROL – RELOCATED U.S. 30
STA. 4+790 TO STA. 5+830

CRA/RIC-30-33.500/0.000

TP005.DWG
03-26-1999 10:40 AM
1:1000 M



NOTE – ALL SIGNS MARKED FOR REMOVAL SHALL BE STORED ON THE PROJECT FOR SALVAGE BY STATE FORCES.

TRAFFIC CONTROL – RELOCATED U.S. 30
STA. 5+830 TO STA. 6+420

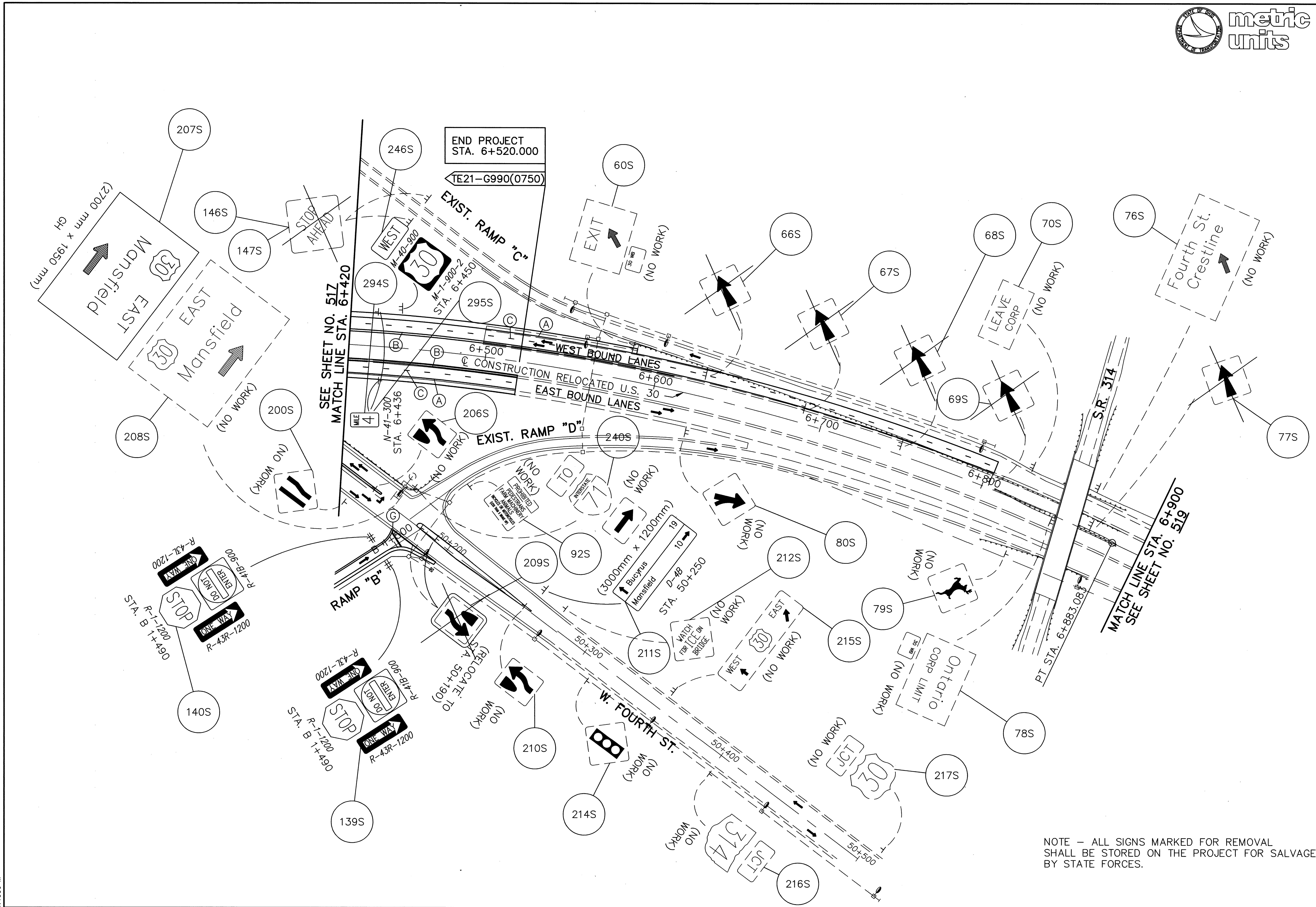
SCALE 1:1000
HORIZONTAL SCALE IN METERS

CALCULATED MJT
CHECKED GP

CRA/RIC-30-33.500/0.000

517
712

TP006.DWG
03-26-1999 10:42 AM
1:1000 M



NOTE – ALL SIGNS MARKED FOR REMOVAL SHALL BE STORED ON THE PROJECT FOR SALVAGE BY STATE FORCES.

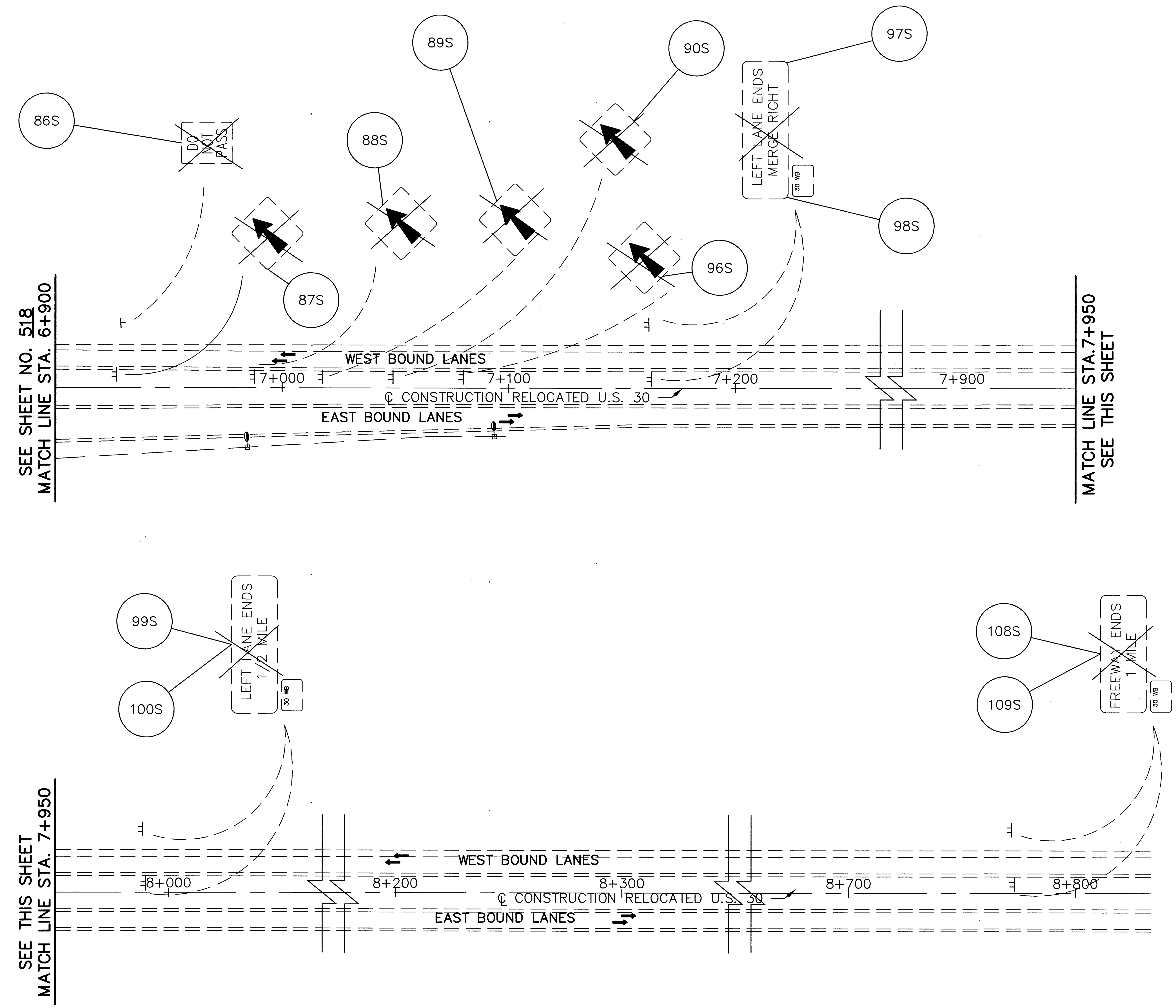
CALCULATED MJT
CHECKED GP

TRAFFIC CONTROL – RELOCATED U.S. 30
STA. 6+420 TO STA. 6+900

CRA/RIC-30-33.500/0.000

518
712

TP007.DWG
03-26-1999 10:52 AM
1:1000 M



NOTE – ALL SIGNS MARKED FOR REMOVAL SHALL BE STORED ON THE PROJECT FOR SALVAGE BY STATE FORCES.

metric units

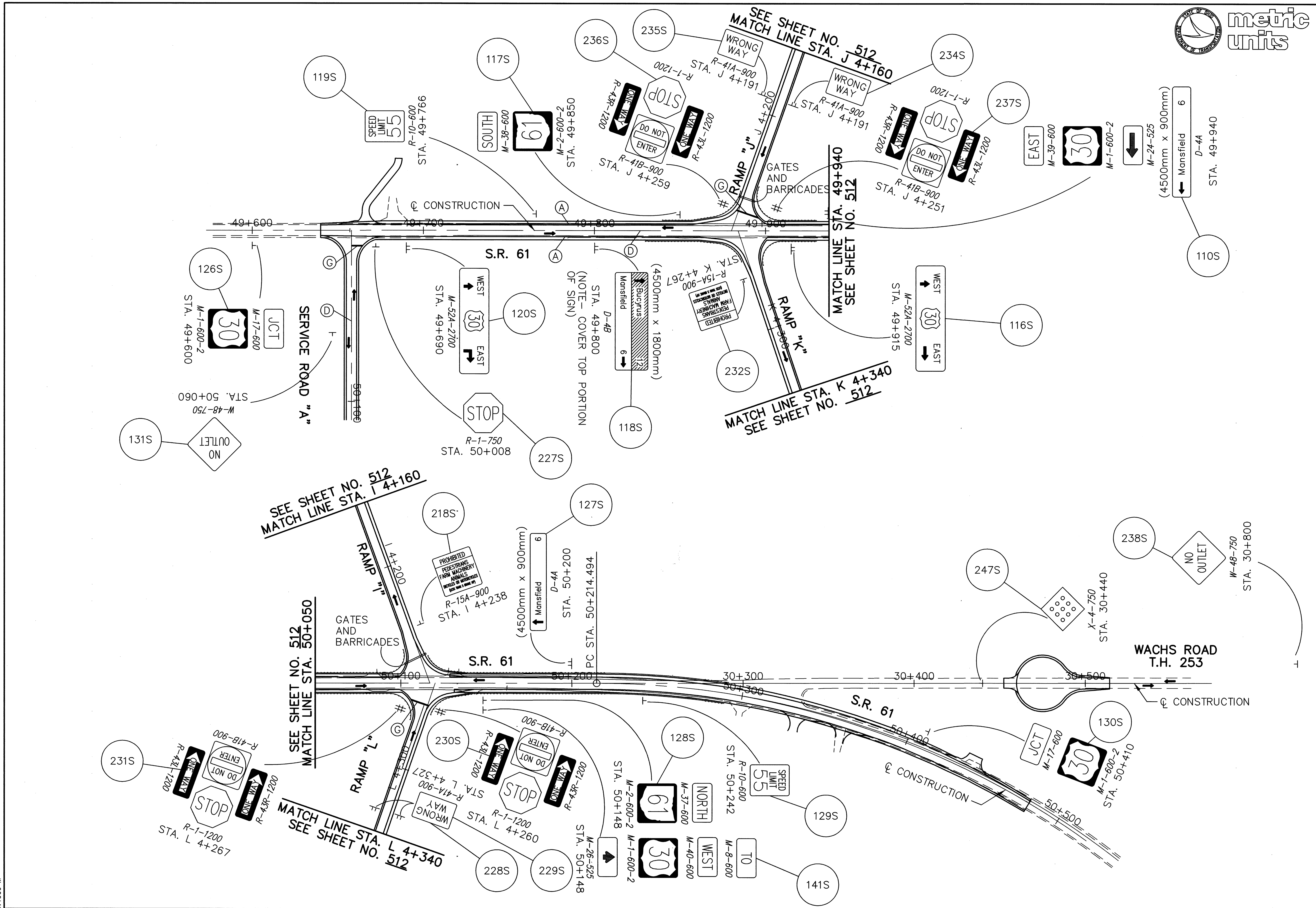
SCALE 1:1000
HORIZONTAL
SCALE IN METERS
0 10 20 40

CALCULATED MJT
CHECKED GP

TRAFFIC CONTROL – RELOCATED U.S. 30
STA. 6+420 TO STA. 6+900

CRA/RIC-30-33.500/0.000

TP008.DWG
03-26-1999 10:56 AM
1:1000 M



TRAFFIC CONTROL – S.R. 61
STA. 49+580 TO STA. 50+480

SCALE 1:1000
0 10 20 40
HORIZONTAL SCALE IN METERS

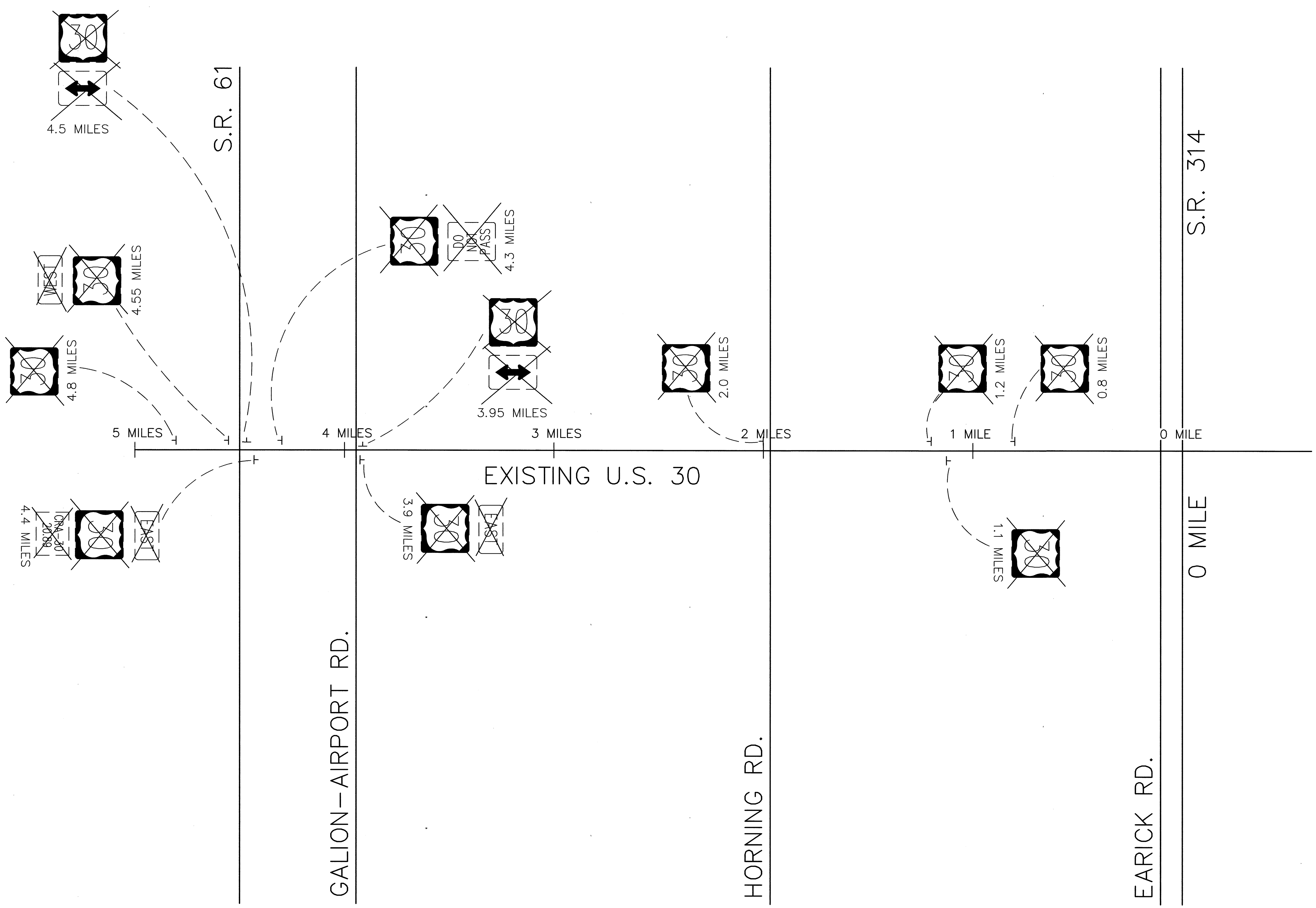
CALCULATED MJT
CHECKED GP

CRA/RIC-30-33.500/0.000

520
712

TP009.DWG
03-26-1999 11:06 AM
1:1000 M

ESTIMATED QUANTITIES
ITEM 630 – REMOVAL OF GROUND MOUNTED SIGN AND STORAGE = 18 EACH
ITEM 630 – REMOVAL OF GROUND MOUNTED POST SUPPORT AND STORAGE = 11 EACH



NOTE – ALL SIGNS MARKED FOR REMOVAL SHALL BE STORED ON THE PROJECT FOR SALVAGE BY STATE FORCES.

metric units

SCALE 1:1000
HORIZONTAL SCALE IN METERS
0 10 20 40

CALCULATED MJT
CHECKED GP

TRAFFIC CONTROL – EXISTING U.S. 30

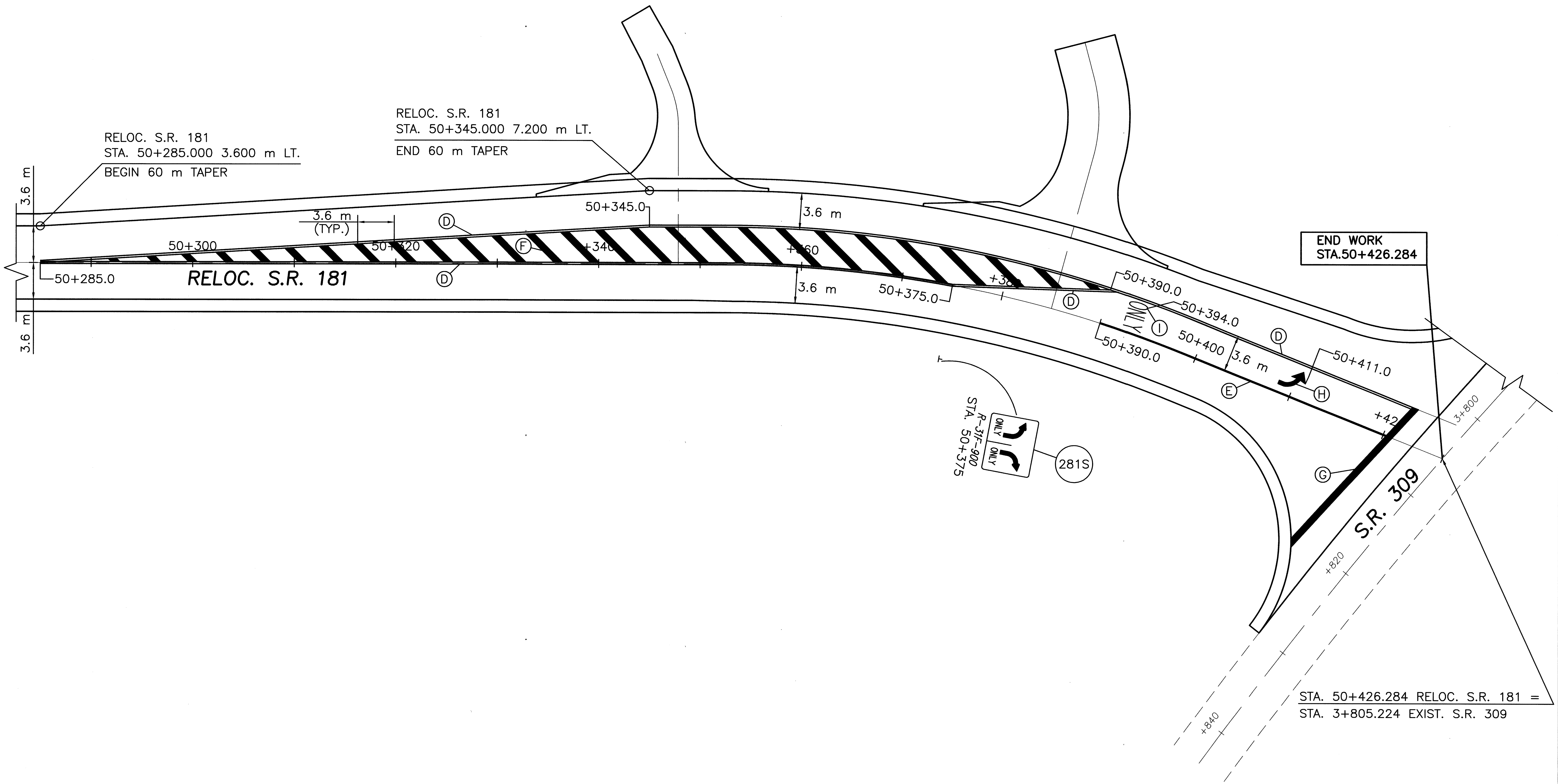
CRA/RIC–30–33.500/0.000

521
712

TP010.DWG
03-26-1999 11:08 AM
1:1000 M

NOTES:

1. FOR PAVEMENT MARKING LEGEND SEE SHEET 508
2. FOR ADDITIONAL SIGNING SEE SHEET 352
3. FOR TRAFFIC CONTROL QUANTITIES SEE SHEETS 505–506



metric units

SCALE 1:200
HORIZONTAL SCALE IN METERS

CALCULATED MJT
CHECKED WJS

TRAFFIC CONTROL DETAILS
RELOC. S.R. 181 & EXIST. S.R. 309

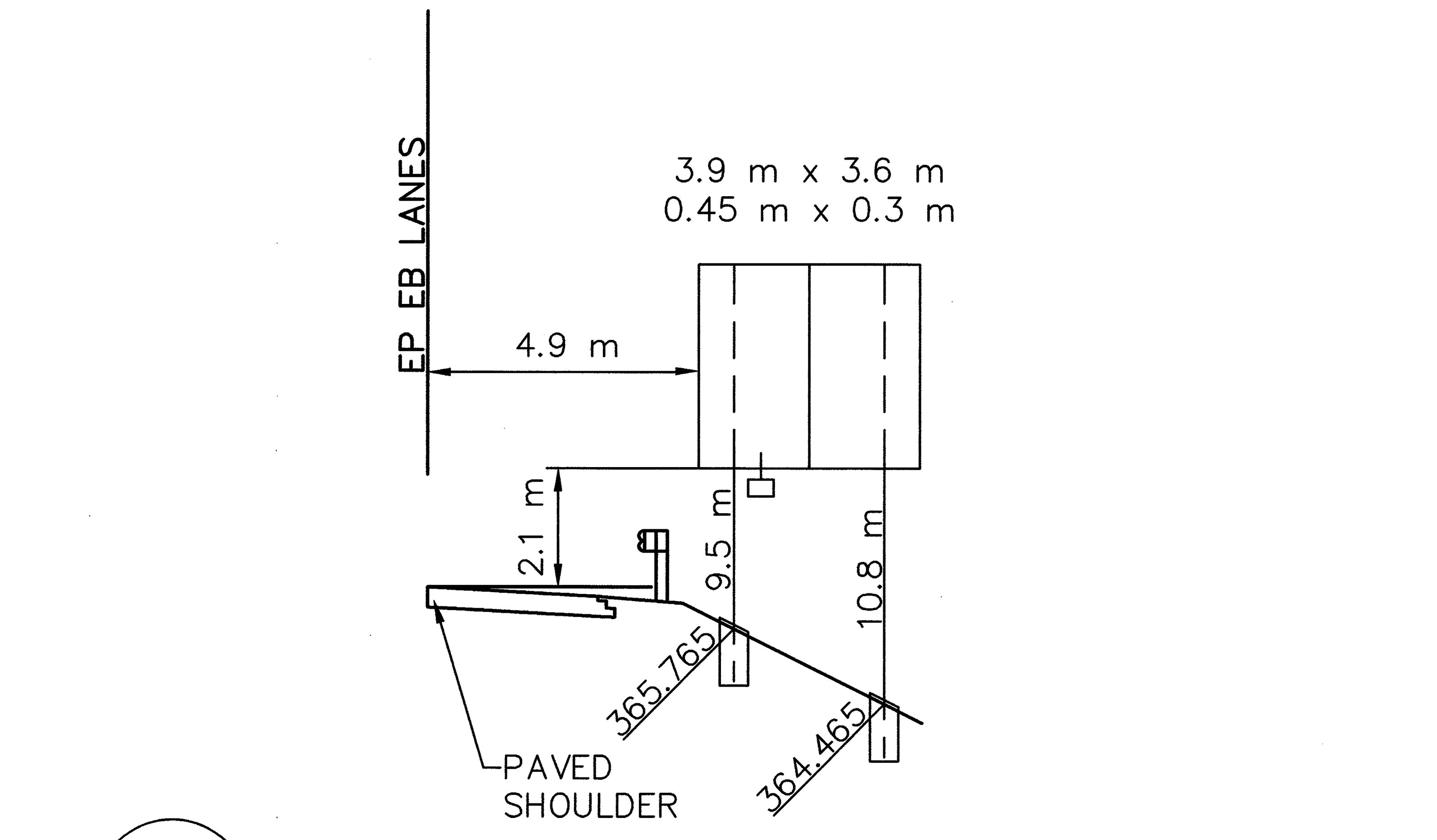
CRA/RIC-30-33.500/0.000

521A
712

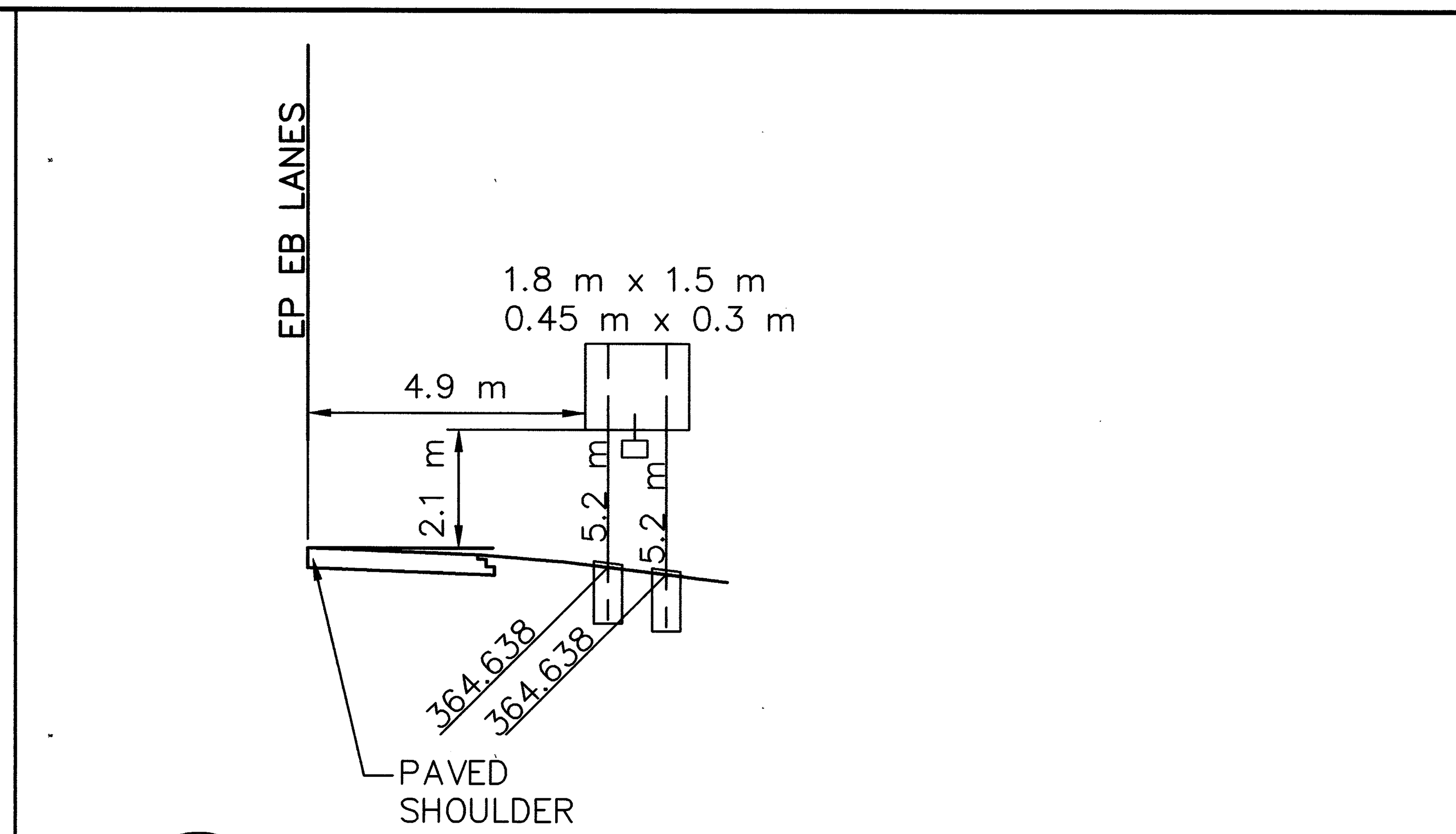
TD002.DWG
08-21-2000 3:38 PM
1:200M

metric units

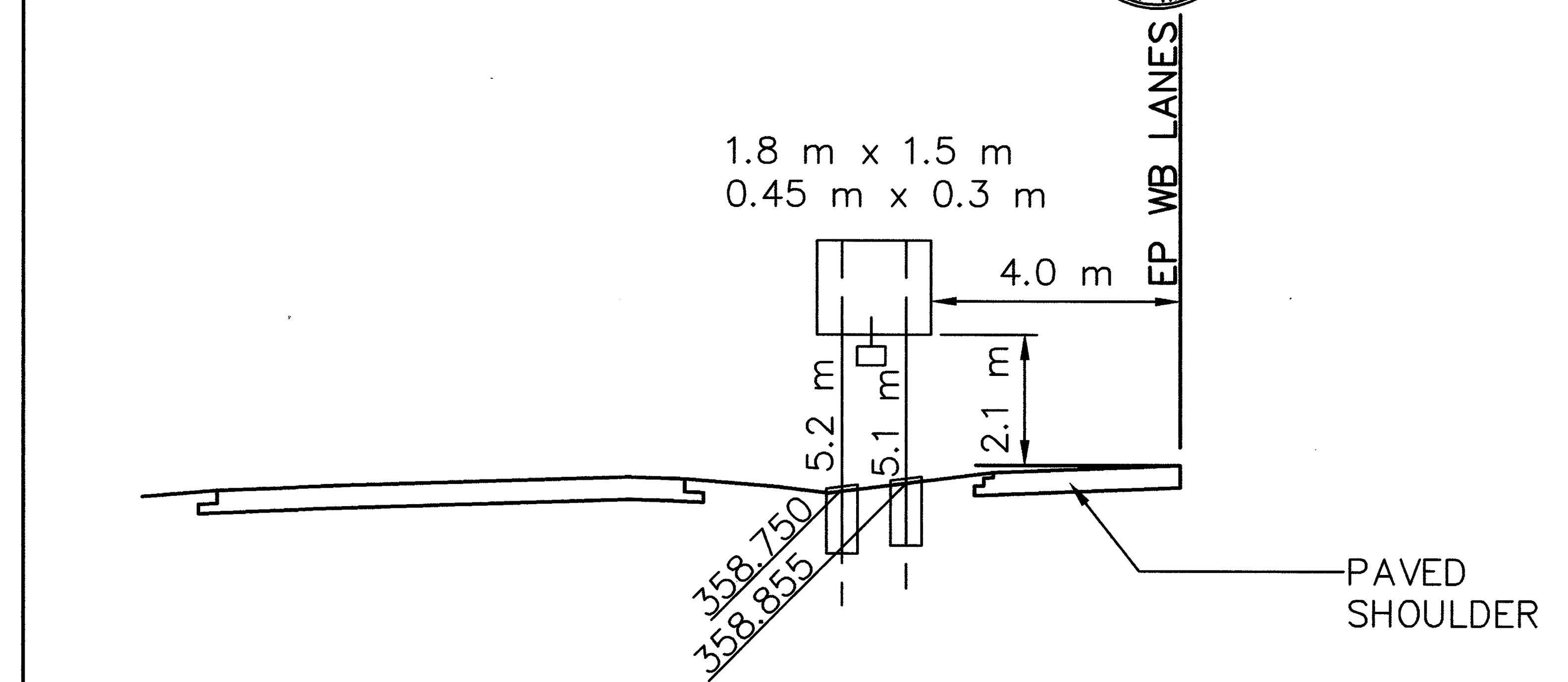
CALCULATED MJT
CHECKED GP



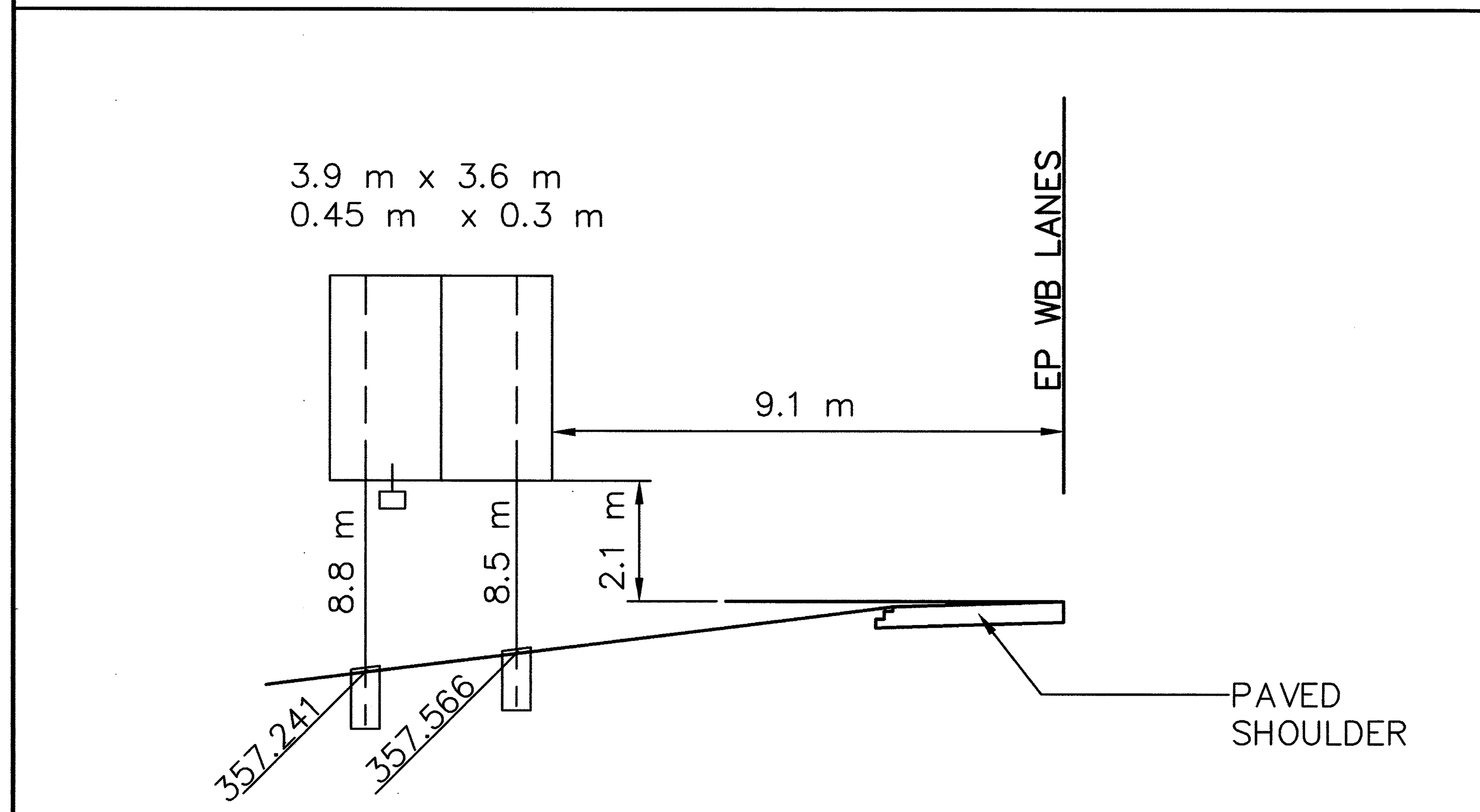
1S STA. 33+683 EB RELOC. U.S. 30
TYPE W310 x 44.5



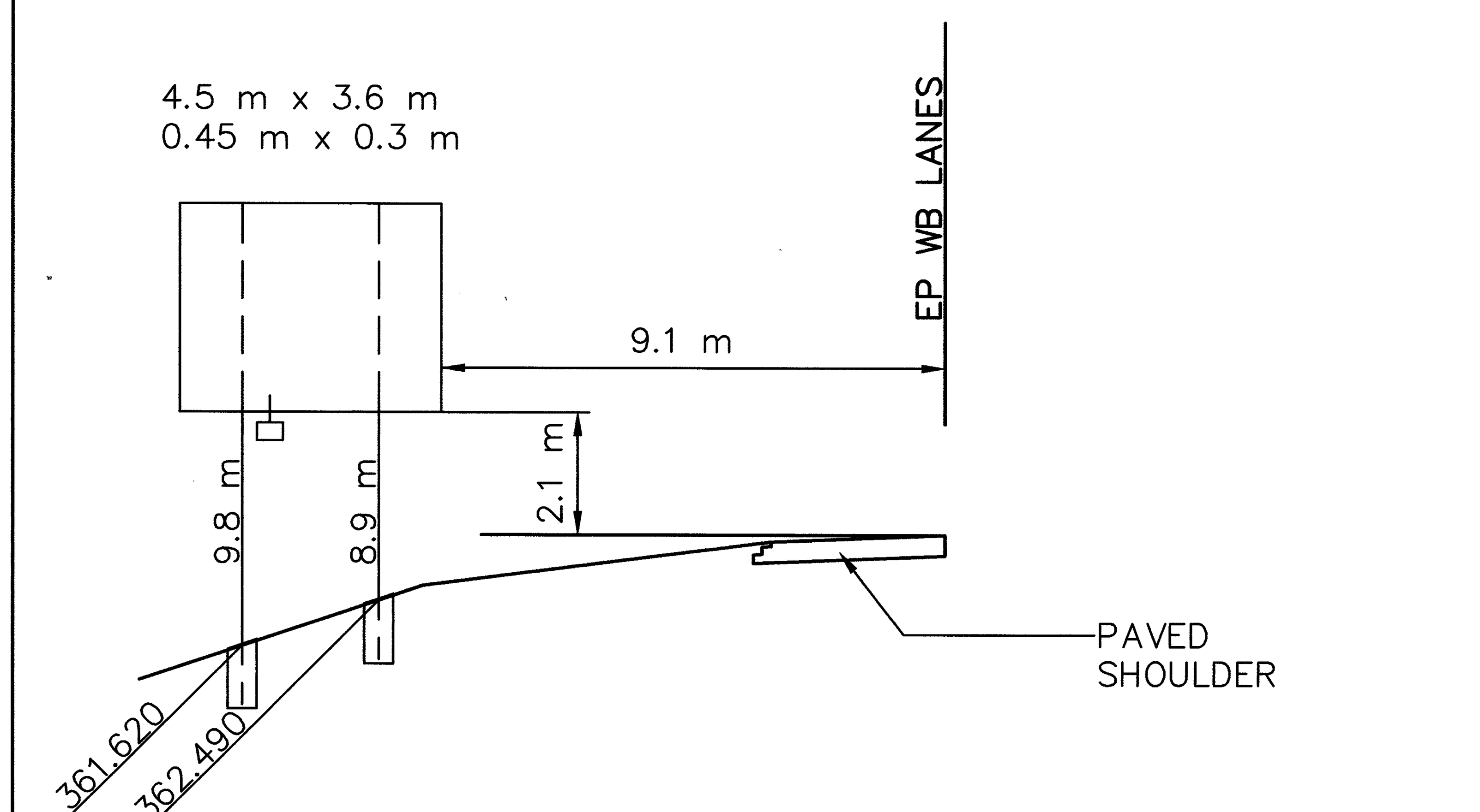
2S STA. 33+976 EB RELOC. U.S. 30
TYPE S100 x 11.5



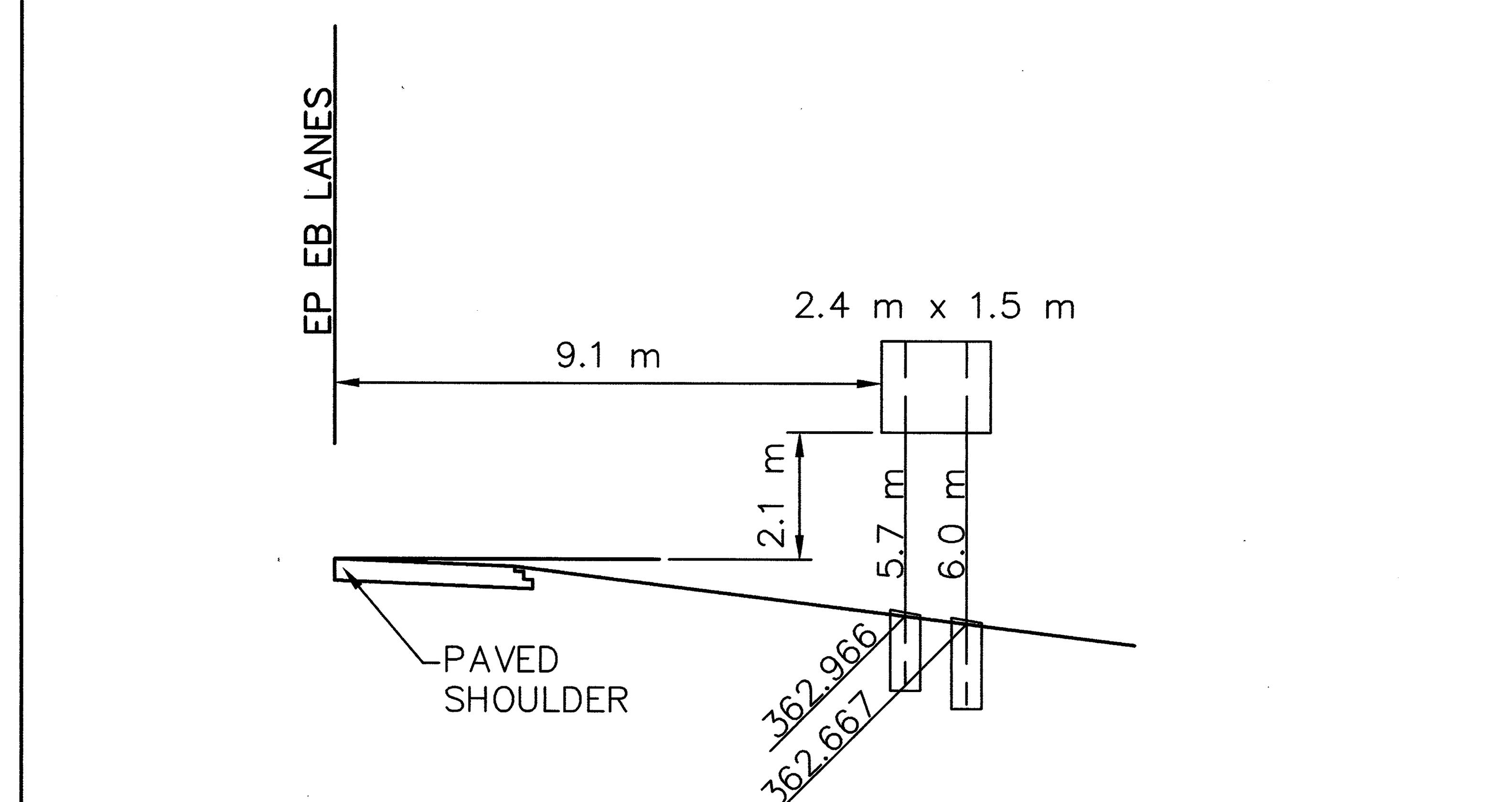
5S STA. 34+555 WB RELOC. U.S. 30
TYPE S100 x 11.5



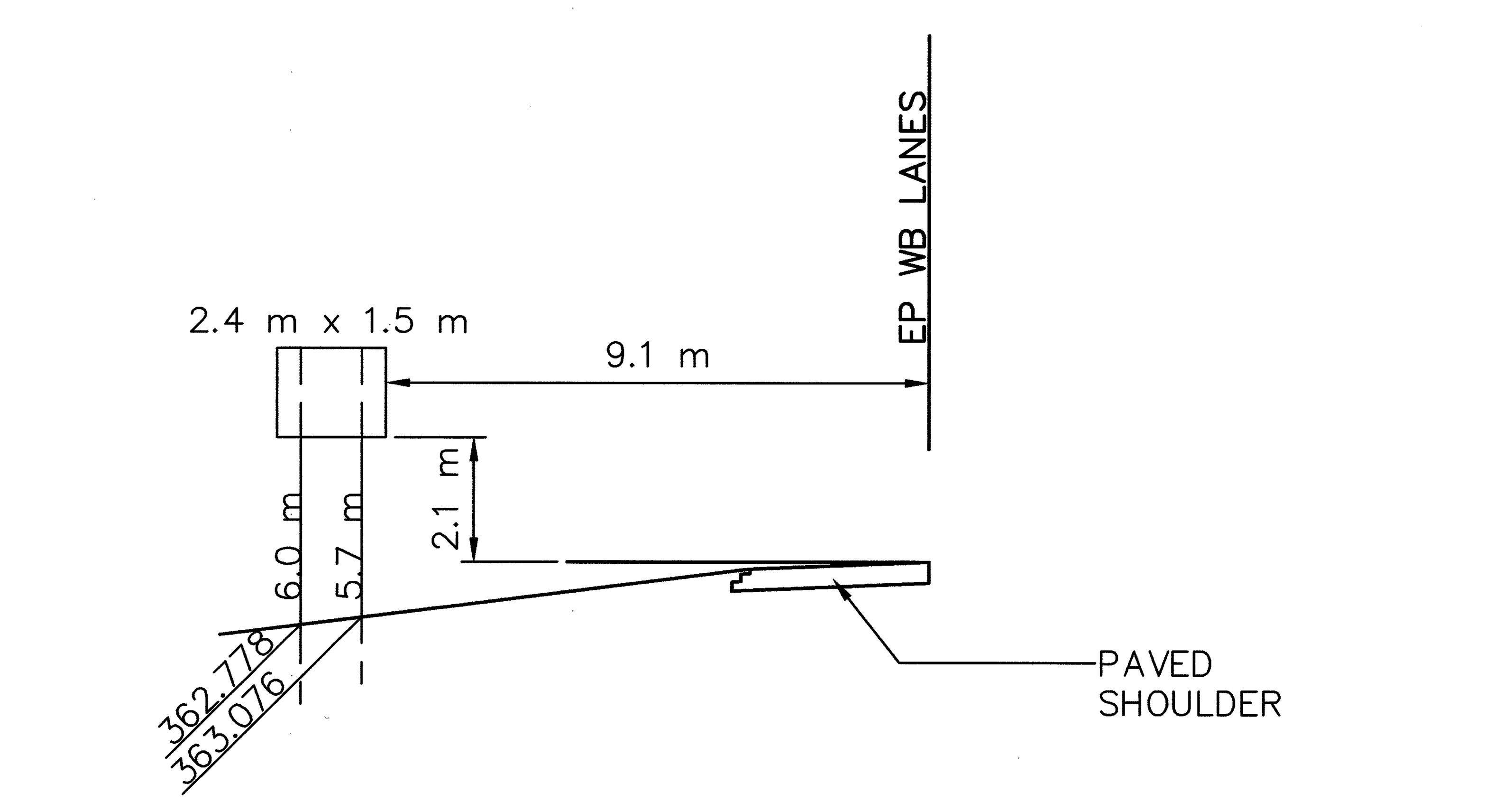
9S STA. 34+817 WB RELOC. U.S. 30
TYPE W310 x 44.5



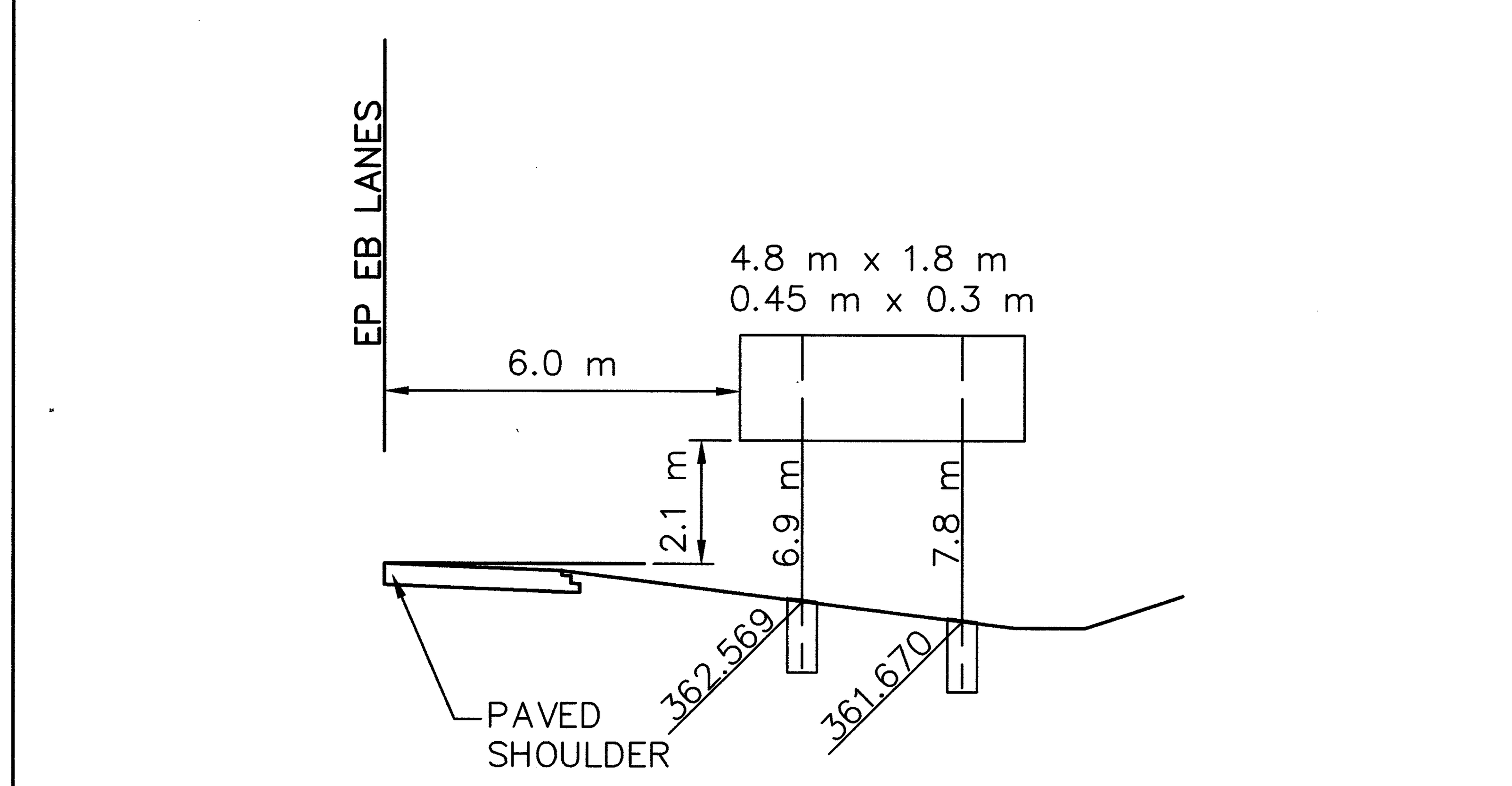
28S STA. 35+617 WB RELOC. U.S. 30
TYPE W250 x 32.7



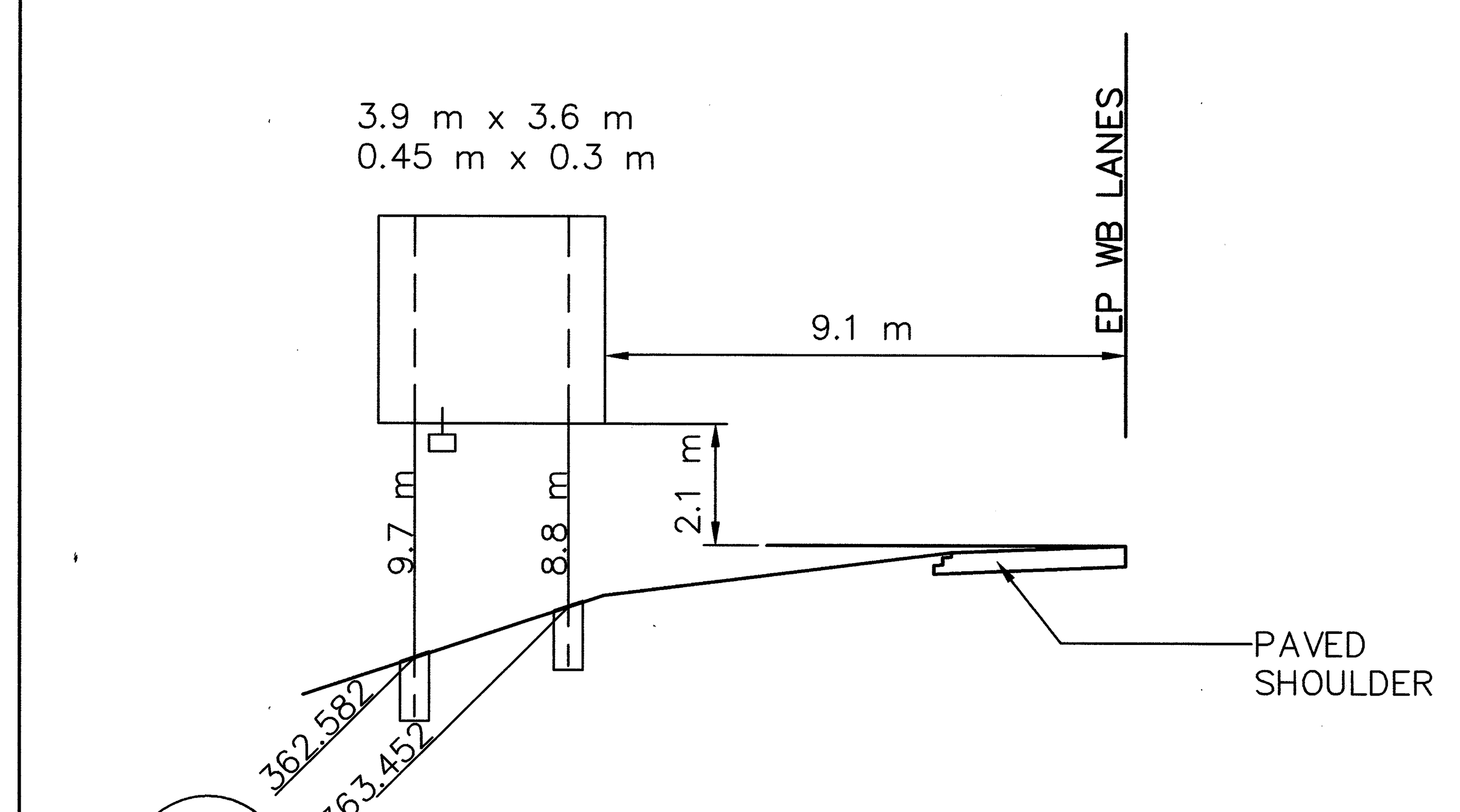
29S STA.35+877 EB RELOC. U.S. 30
TYPE S100 x 11.5



30S STA. 0+010 WB RELOC. U.S. 30
TYPE S100 x 11.5



31S STA. 35+750 EB RELOC. U.S. 30
TYPE W250 x 17.9

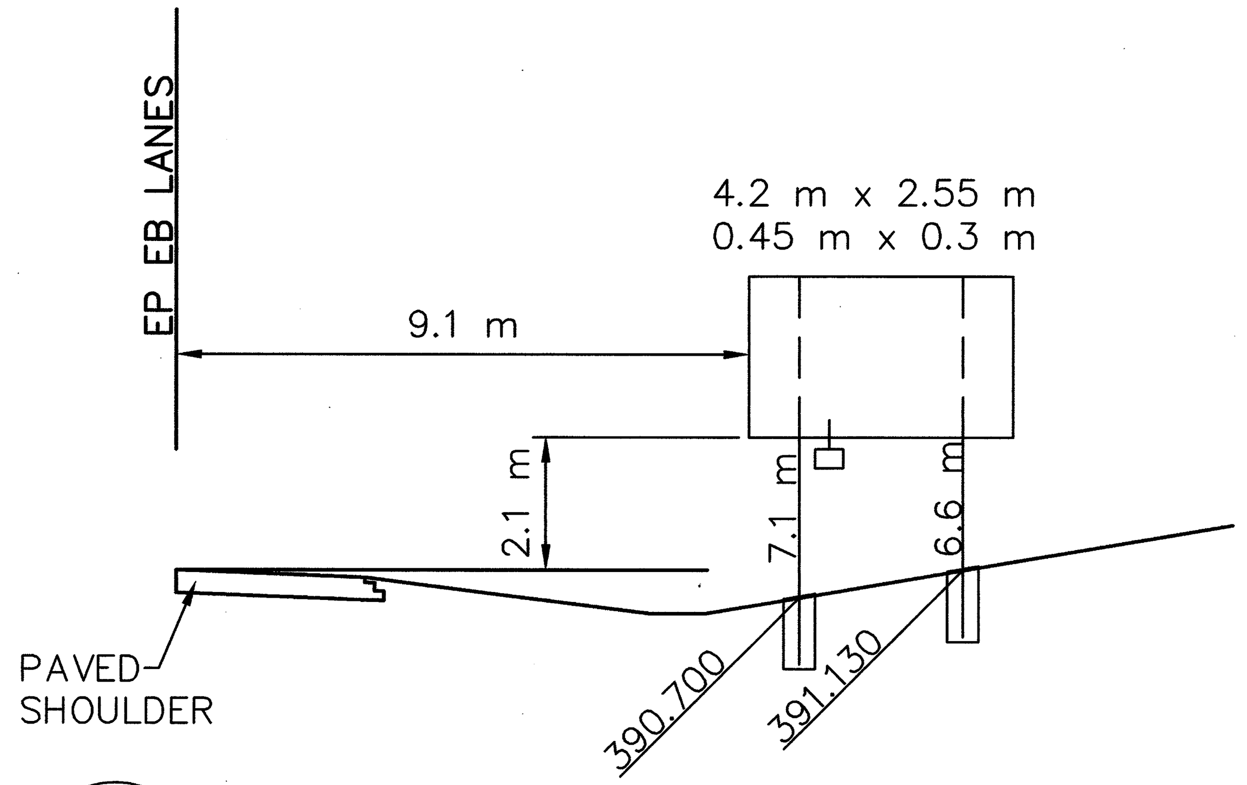


34S STA. 0+530 WB RELOC. U.S. 30
TYPE W250 x 32.7

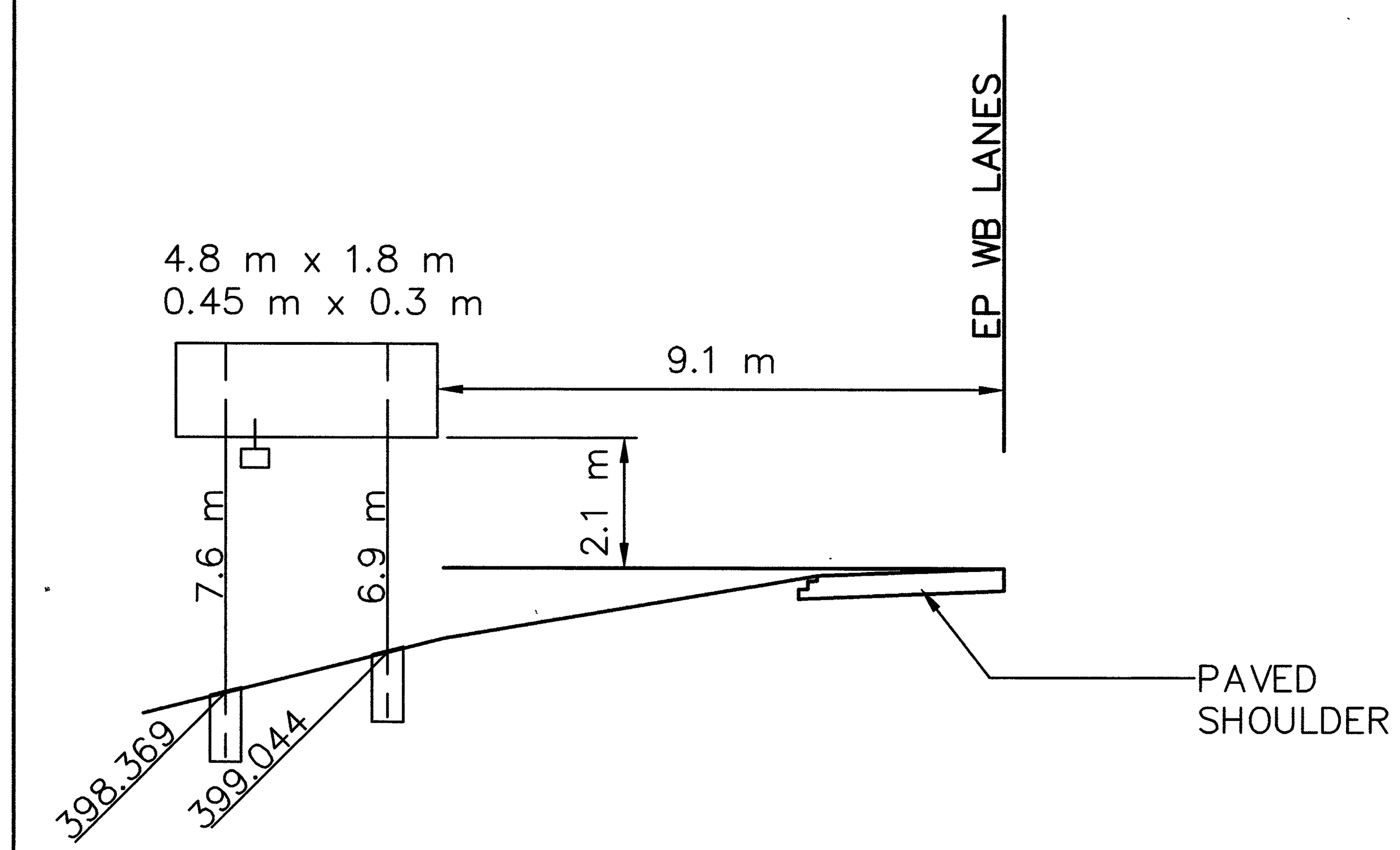
TRAFFIC CONTROL DETAILS

CRA/RIC-30-33.500/0.000

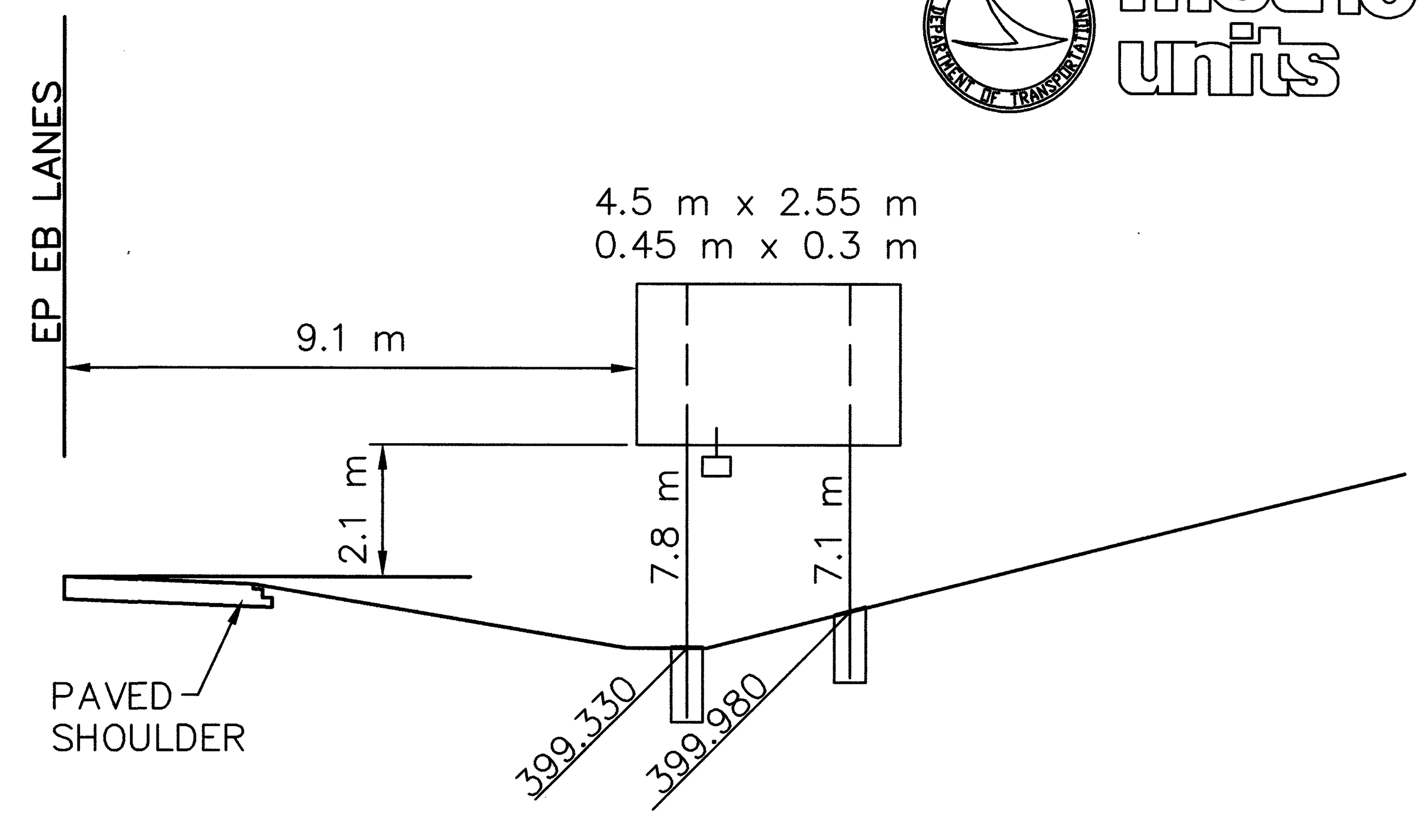
TE100.DWG
03-26-1999 1:38 PM
1:100M



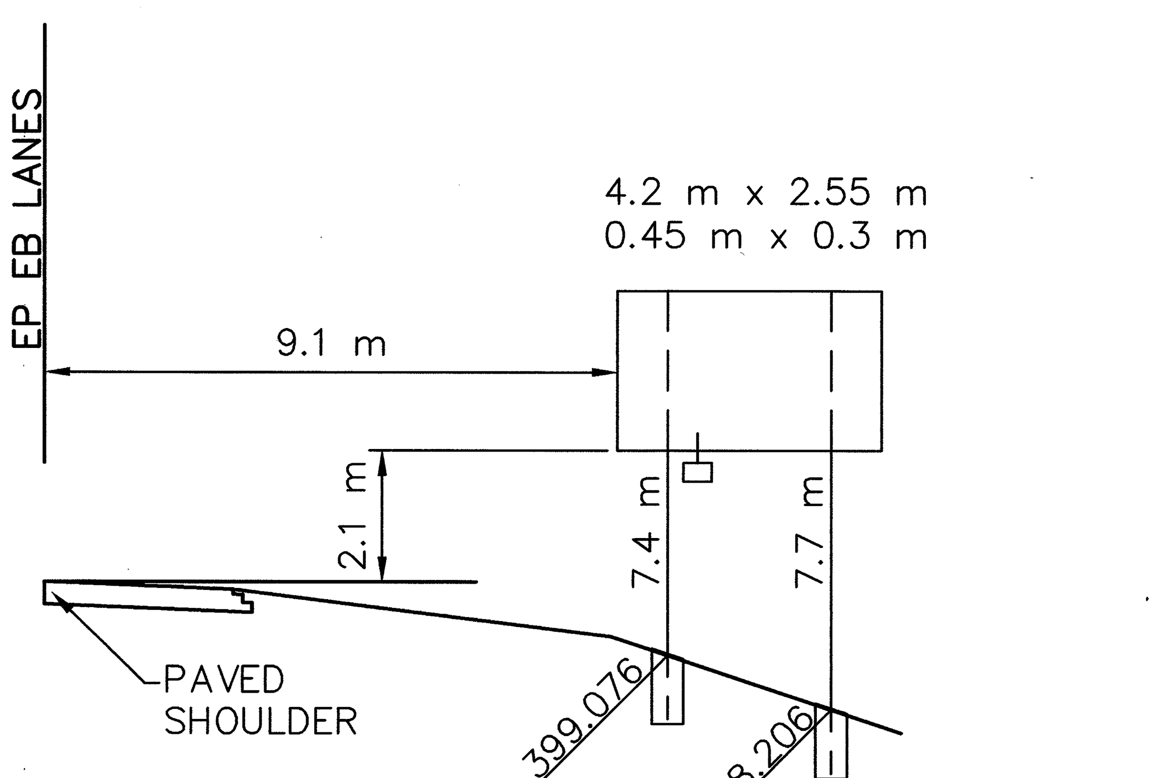
46S STA. 4+003 EB RELOC. U.S. 30
TYPE W250 x 32.7



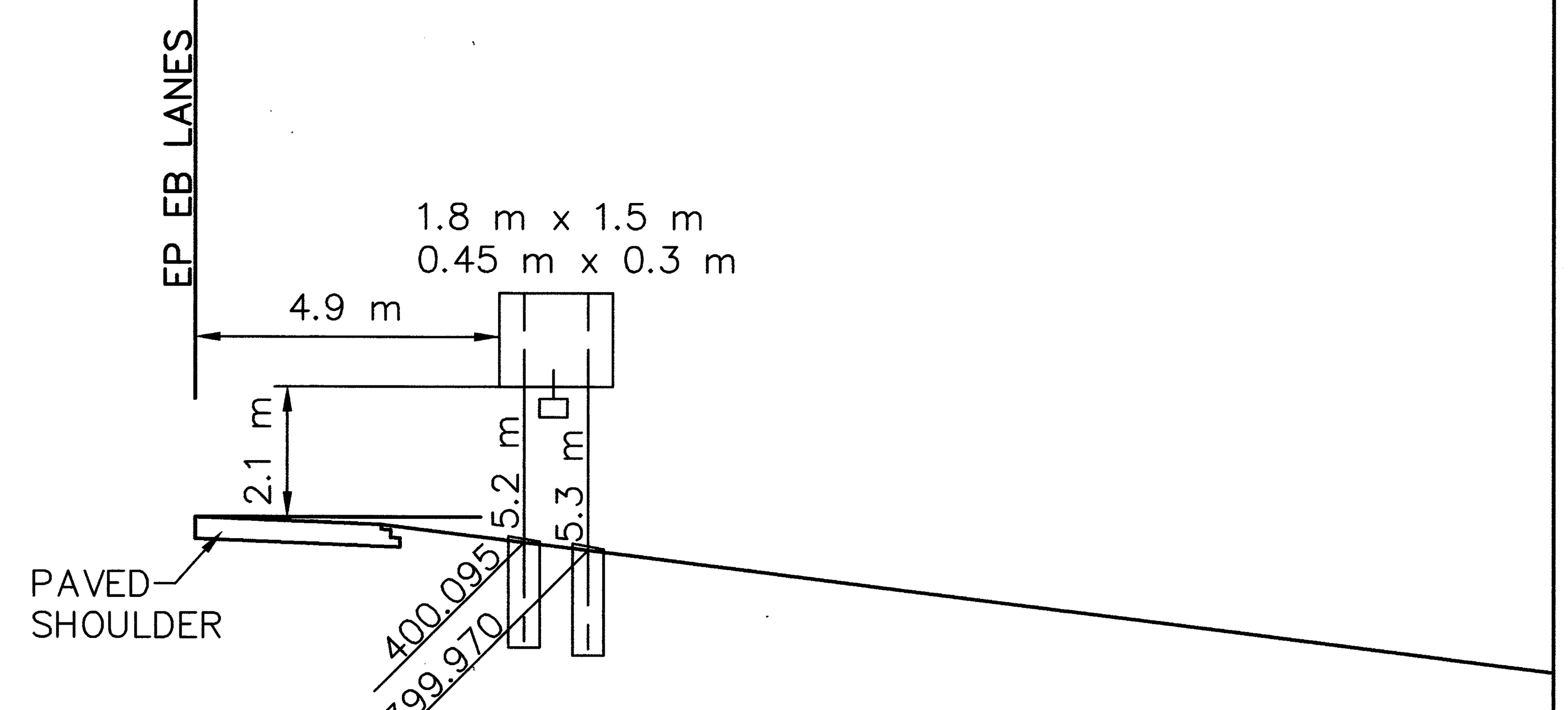
47S STA. 4+790 WB RELOC. U.S. 30
TYPE W250 x 17.9



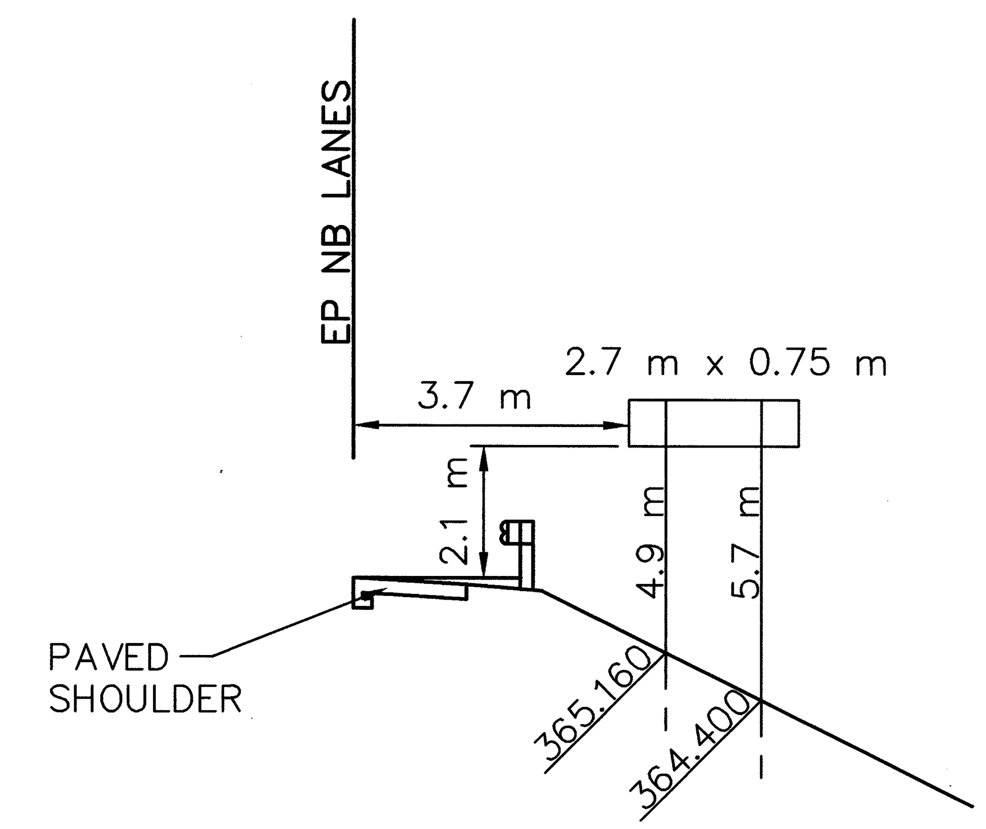
48S STA. 4+803 EB RELOC. U.S. 30
TYPE W250 x 32.7



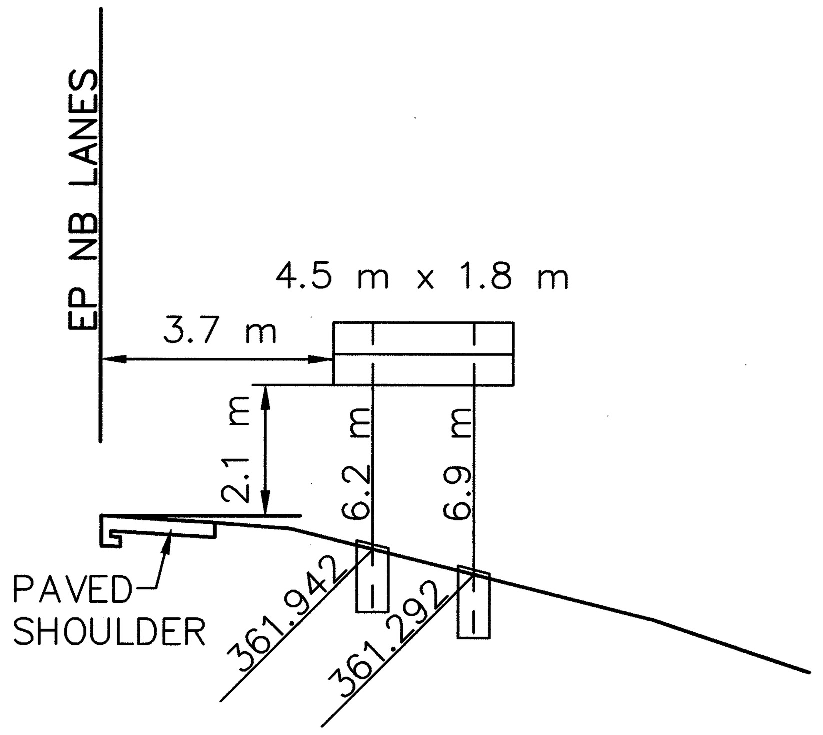
57S STA. 5+603 EB RELOC. U.S. 30
TYPE W200 x 26.6



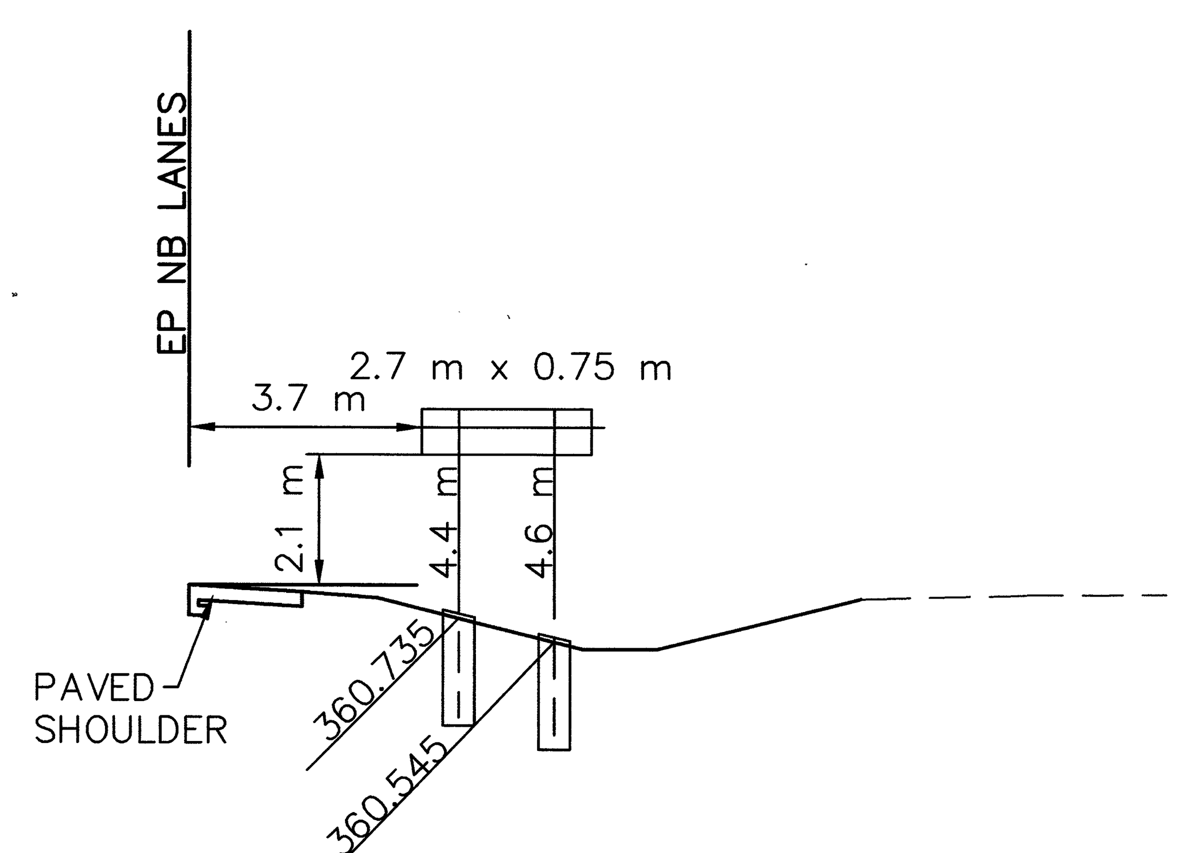
58S STA. 5+858 EB RELOC. U.S. 30
TYPE S100 x 11.5



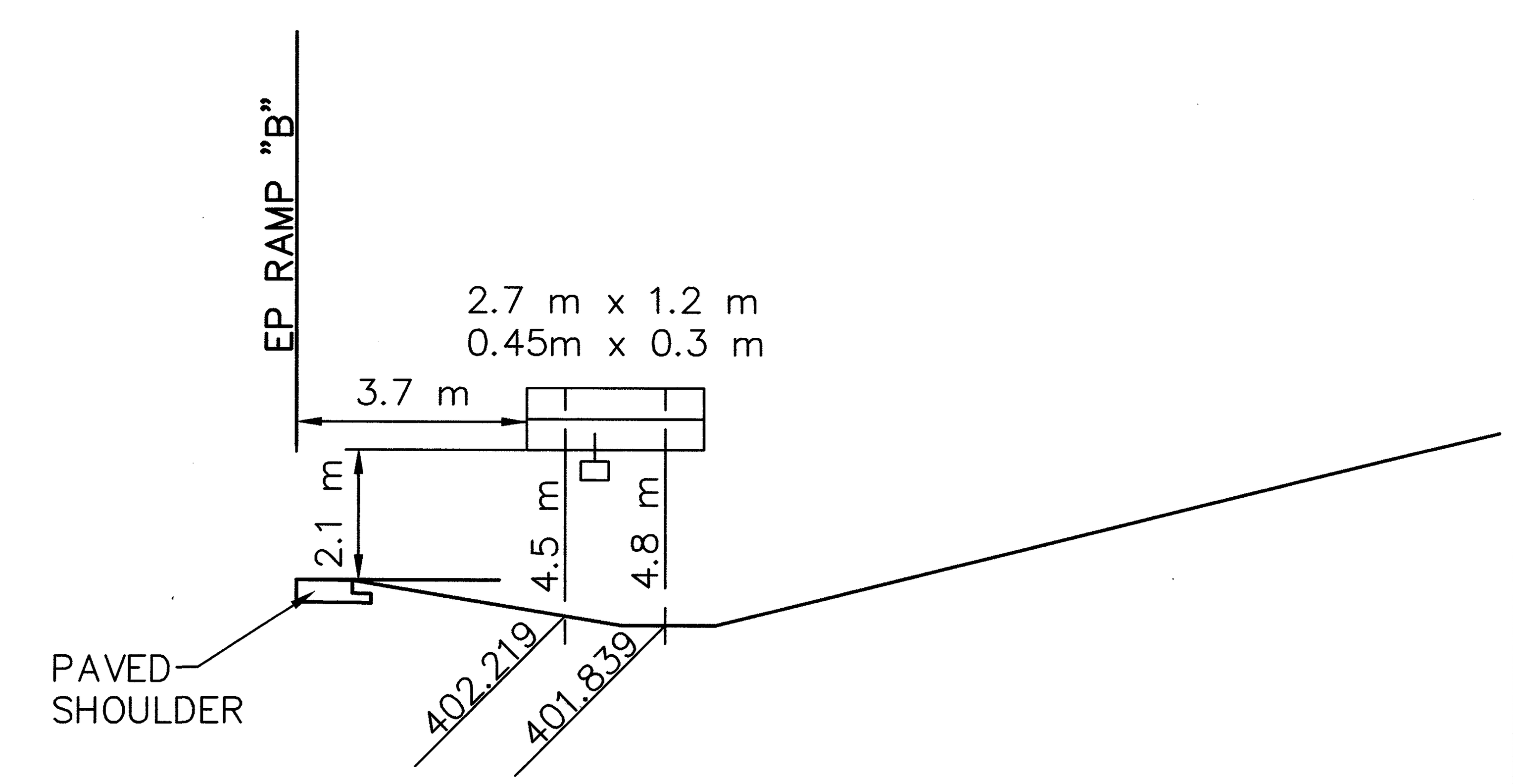
116S STA. 49+915, NB S.R. 61
TYPE N0.4 POST



118S STA. 49+800, NB S.R. 61
TYPE W250 x 17.9



120S STA. 49+690, NB S.R. 61
TYPE S100 x 11.5



136S STA. B 1+180, RAMP "B"
TYPE S100 x 11.5

metric units

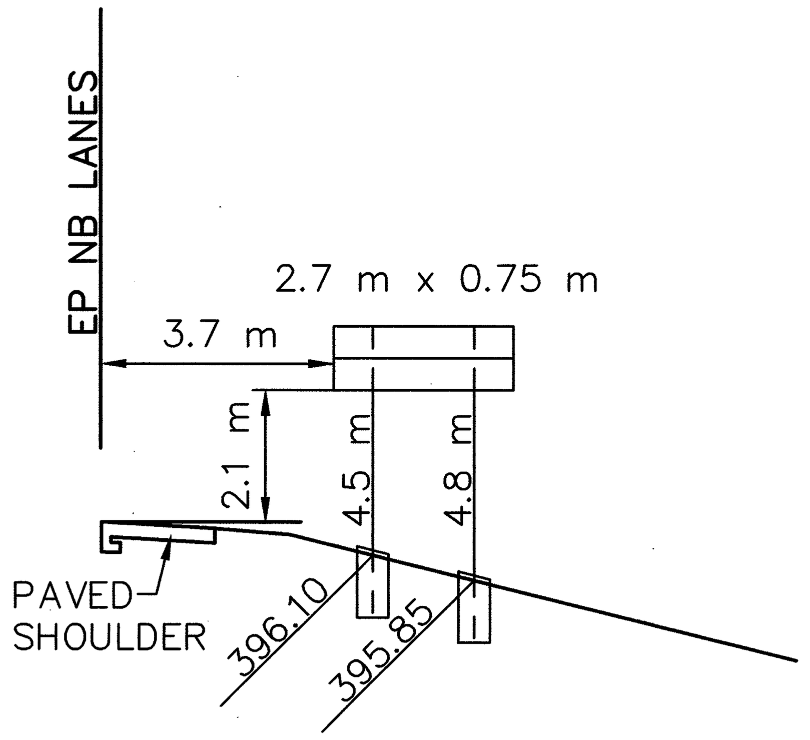
CALCULATED MJT
CHECKED GP

TRAFFIC CONTROL DETAILS

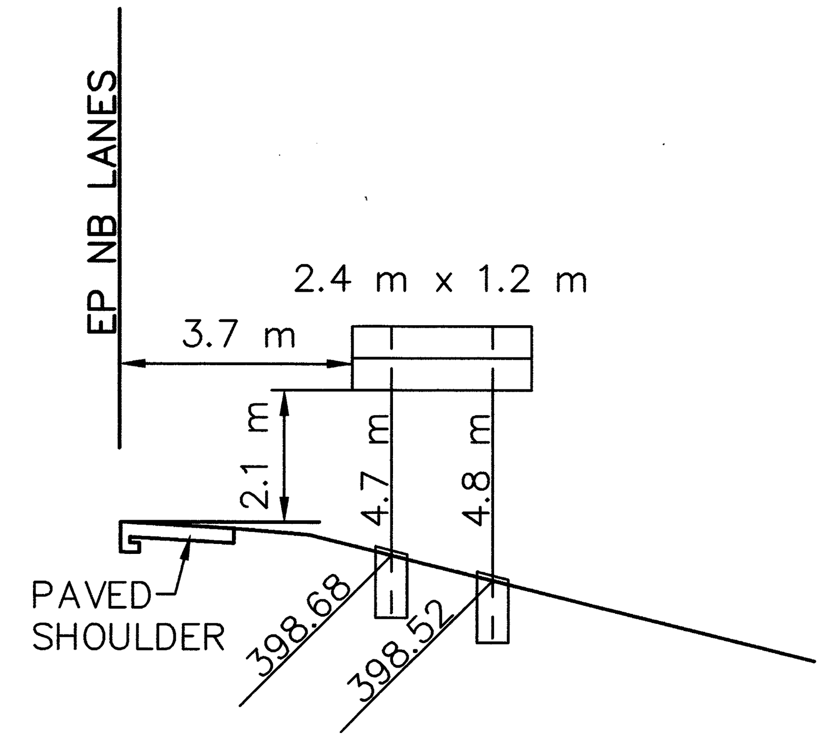
CRA/RIC-30-33.500/0.000

523
712

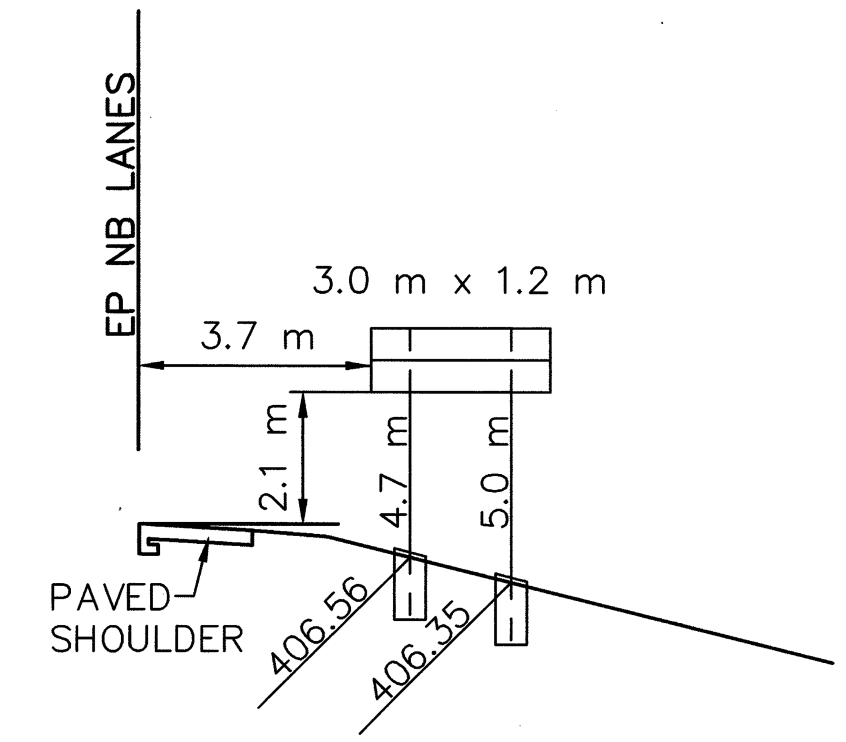
TE101.DWG
03-26-1999 11:24 AM
1:100M



168S STA. 49+655, EB WEST 4th STREET
TYPE S100 x 11.5



178S STA. 49+750, WEST 4th STREET
TYPE S100 x 11.5



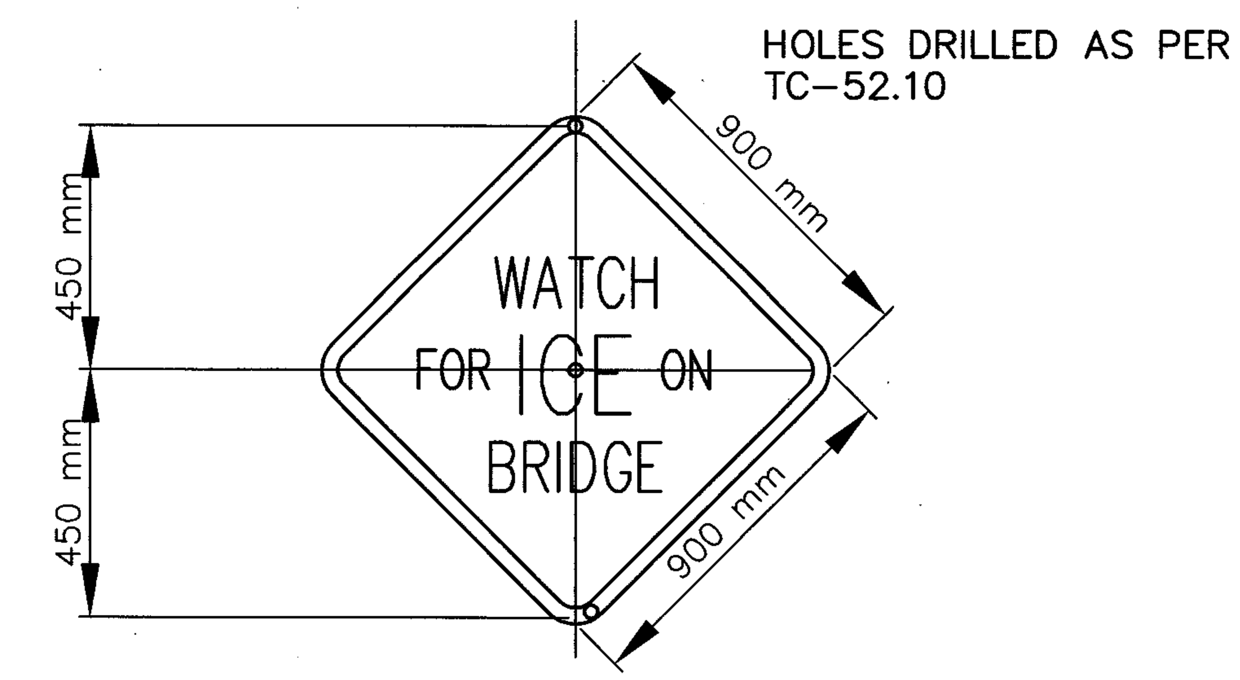
211S STA. 50+250, WEST 4th STREET
TYPE S100 x 11.5

CALCULATED MJT CHECKED GP

TRAFFIC CONTROL DETAILS

CRA/RIC-30-33.500/0.000

TE102.DWG
03-26-1999 12:46 PM
1:100M



W-68-900 HINGED SIGN DETAIL

1) THE SIGN SHALL BE JOINED WITH A 203.2 mm LONG BY 25.4-38.1 mm WIDE HINGE WHICH IS RIVETED TO EACH SECTION OF THE SIGN AND THEN COVERED WITH YELLOW REFLECTIVE SHEETING (TYPE F - 730.18) TO MATCH THE BACKGROUND OF THE SIGN. USE STAINLESS STEEL HINGES.

2) TO FOLD THE SIGN DOWN, REMOVE THE TOP TWO BOLTS, FOLD THE UPPER PART OF THE SIGN DOWN AND INSERT A BOLT THROUGH THE LOWEST HOLE IN THE SIGN AND INTO THE POST. FASTEN THE BOLT TO PREVENT THE SIGN FROM FLOPPING IN THE WIND AND SUSTAINING DAMAGE.

metric units

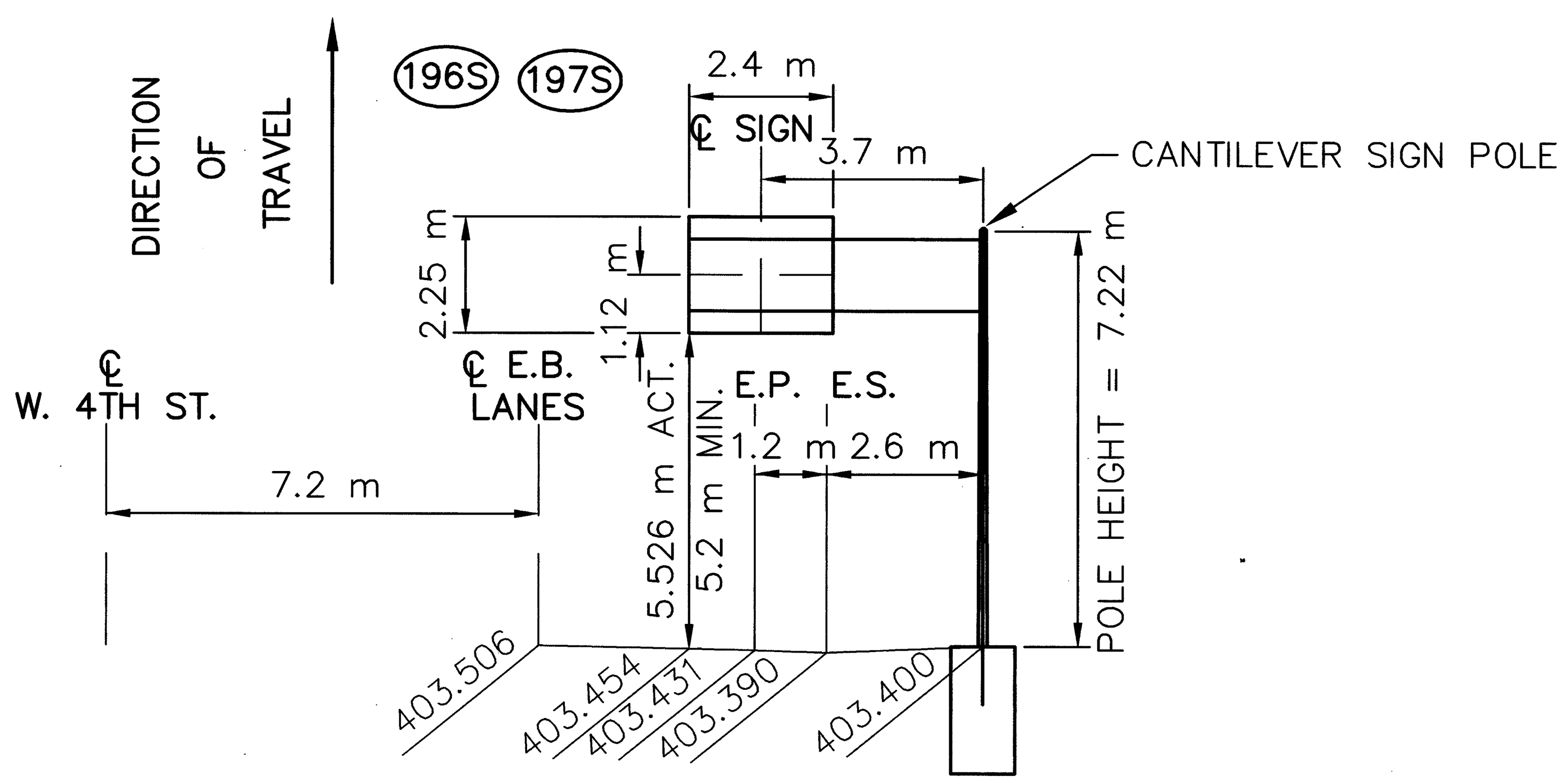
CALCULATED MJT
CHECKED GP

SIGN DETAILS

CRA/RIC-30-33.500/0.000

525
712

TD001.DWG
03-17-1999 3:31 PM
1:1M

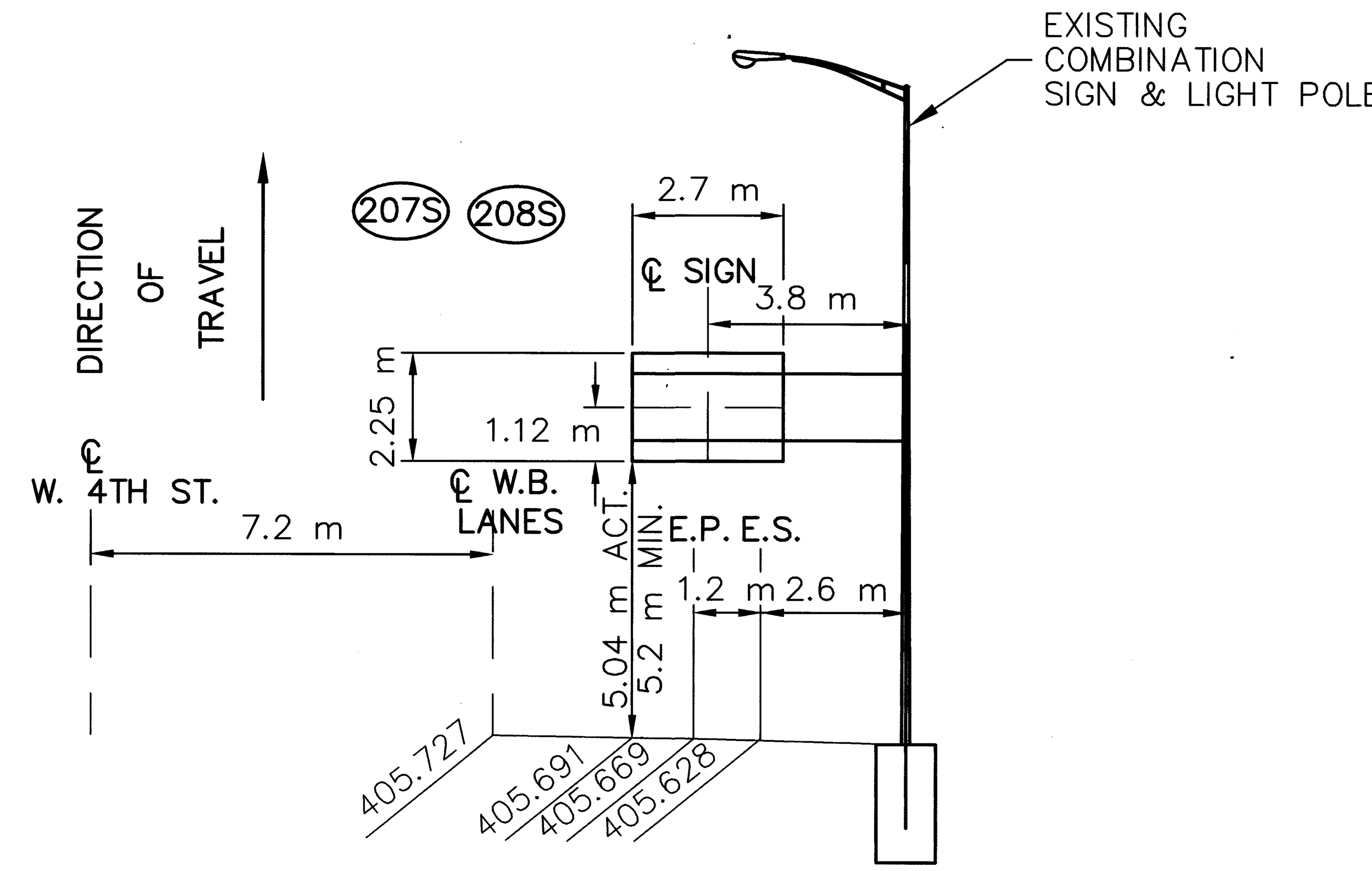


STA. 49+850, 13.600 m RT.

W. 4TH. ST.

RELOCATED SIGN SUPPORT TC-12.30 DESIGN 1
4.90 m ARM

NOTE– 3.6 m LANE WIDTH (TYP.)



STA. 50+159, 14.576 m LT.

W. 4TH. ST.

EXISTING SIGN SUPPORT TC-12.30 DESIGN 1
4.90 m ARM

NOTE– 3.6 m LANE WIDTH (TYP.)

metric units

CALCULATED MJT CHECKED GP

SIGN DETAILS

CRA/RIC-30-33.500/0.000

TE001.DWG
11-5-1998 8:23 AM
1:100M

SPECIFICATIONS

THESE NOTES ARE SUPPLEMENTAL TO ITEMS 625 AND 713 OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS.

REFERENCE SHALL BE MADE TO STANDARD CONSTRUCTION DRAWINGS LISTED ON THE TITLE SHEET OF THESE PLANS.

625.03 – GENERAL

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

OHIO EDISON COMPANY
1717 ASHLAND RD.
MANSFIELD, OHIO 44902

THIS PROJECT HAS BEEN DESIGNED ON THE BASIS OF 5% VOLTAGE DROP WITH A MAXIMUM UNIFORMITY OF 3.0 TO 1 FOR CONVENTIONAL UNITS .

THE EXISTING CIRCUIT "A" PROVIDES FOR 200 WATT HPS, 480 VOLT LUMINAIRES, 480 VOLTS, WITH NO.4 AWG CONDUCTOR AND AN EXISTING CONTROL CENTER WITH AN ENCLOSURE RATING OF 30 AMPS.

625.07 – 713.11 LUMINAIRES

STYLE B LUMINAIRES SHALL HAVE SINGLE RATED 480 VOLT, 200 WATT, INTEGRAL REGULATOR BALLASTS FOR USE WITH HIGH PRESSURE SODIUM LAMPS AND SHALL BE GENERAL ELECTRIC M400, COOPER OV–25, ITT AMERICAN 400, OR EQUAL APPROVED BY THE ENGINEER.

713.14 LAMPS

HIGH PRESSURE SODIUM LAMPS SHALL BE GENERAL ELECTRIC "LUCALOX", COOPER "CERMALUX", SYLVANIA "LUMALUX", OR EQUAL APPROVED BY THE ENGINEER. 200 WATT HPS LAMPS SHALL BE OF THE 480 VOLT DESIGN, ANSI S50.

UNDERDRAINS FOR PULL BOXES

REFERENCE IS MADE TO STANDARD DRAWING HL–30.11 FOR DETAILS OF DRAINING PULL BOXES. UNDERDRAINS FOR PULL BOXES SHALL BE USED AS DIRECTED BY THE ENGINEER AND SHALL BE PROVIDED WHERE THE LENGTH REQUIRED FOR A SATISFAC–TORY OUTLET DOES NOT EXCEED APPROXIMATELY 6 METERS. AN ESTIMATED QUANTITY OF "180 METERS OF ITEM 605, 100 mm SHALLOW PIPE UNDERDRAINS" IS INCLUDED IN THE LIGHTING GENERAL SUMMARY FOR THIS PURPOSE.

ITEM 625 – PULL BOX, 713.08, 450mm

ALL PULL BOXES SHALL BE A CONCRETE TYPE CONFORMING TO 713.08 CORRUGATED METAL PULL BOXES ARE NOT PERMITTED.

ITEM 625 – TRENCH, AS PER PLAN

TRENCH SHALL BE AS PER 625.12, EXCEPT THAT THE DEPTH SHALL BE 0.8 METERS. IN ADDITION, ALL TRENCHING SHALL BE PERFORMED PRIOR TO THE PLACEMENT OF THE SUBBASE.

ITEM 625 – LIGHT POLE DESIGN AT4.6B10.4, AS PER PLAN

THIS ITEM SHALL BE AS PER 625.05 AND 713.01, EXCEPT THAT THE POLES SHALL HAVE A SUPPORT HEIGHT OF 9.1 METERS AND A MOUNTING HEIGHT OF 10.4 METERS. IN ADDITION, THE POLES SHALL BE LIMITED TO GALVANIZED STEEL.

ITEM 625 – POWER SERVICE, AS PER PLAN

EXISTING POWER SERVICE LOCATIONS SHALL BE USED FOR NEW LIGHTING. THE RECONNECTION OF NEW DISTRIBUTION CIRCUITS TO EXISTING CIRCUITS CONDUCTORS AT EXISTING CONTROL CENTER IS INCLUDED IN THIS WORK. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING CIRCUITS, POWER SUPPLIES, AND CONTROL CENTERS AFFECTED BY THIS WORK.

ITEM SPECIAL – PLASTIC CAUTION TAPE

THE LOCATION OF UNDERGROUND DUCT CABLE OR NON–METALLIC CONDUIT, WHEN INSTALLED IN LOCATIONS OTHER THAN THE NORMAL OR ALTERNATE TRENCH ALIGNMENT SHOWN ON STANDARD CONSTRUCTION DRAWING HL–30.11, SHALL BE MARKED BY THE USE OF CONTINUOUS IDENTIFYING TAPE BURIED IN THE TRENCH ABOVE THE LINE. THE IDENTIFYING TAPE SHALL BE AN INERT MATERIAL, APPROXIMATELY 150 MM WIDE, COMPOSED OF POLYETHYLENE PLASTIC, HIGHLY RESISTANT TO ALKALIS, ACID OR OTHER CHEMICAL COMPONENTS LIKELY TO BE ENCOUNTERED IN SOILS. THE TAPE SHALL BE BRIGHT RED WITH IDENTIFYING PRINTING "ELECTRIC" IN BLACK LETTERS, ONE SIDE ONLY. TAPES SHALL BE SUPPLIED IN CONTINUOUS ROLLS WITH THE IDENTIFYING LETTERING REPEATED CONTINUOUSLY THE FULL LENGTH OF THE TAPE. IDENTIFYING TAPES SHALL BE BURIED IN THE ELECTRIC LINE TRENCH WITH ONE STRIP PLACED APPROXIMATELY DOWN THE CENTERLINE AND LOCATED APPROXIMATELY 200 mm TO 300 mm BELOW THE FINAL FINISHED GRADE. THE TAPE SHALL BE PLACED IN THE TRENCH WITH PRINTED SIDE UP AND SHALL BE ESSENTIALLY PARALLEL WITH THE FINISHED SURFACE. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO INSURE THAT THE TAPE IS NOT PULLED, DISTORTED, OR OTHERWISE MISPLACED IN COMPLETING THE TRENCH BACKFILL. TAPE SHALL BE ALLEN SYSTEM'S, TERRA TAPE, TECTA TAPE OR EQUAL AS APPROVED BY THE ENGINEER.

THE TAPE SHALL BE PAID FOR PER METER OF "ITEM SPECIAL – PLASTIC CAUTION TAPE," COMPLETE AND IN PLACE.

ELECTRICAL SERVICE FOR ILLUMINATED SIGNS

THE PAY ITEMS IN THE LIGHTING GENERAL SUMMARY INCLUDE THE PULL BOX OR JUNCTION BOX ADJACENT TO EACH LIGHTED SIGN AND THE ELECTRICAL SERVICE CONNECTIONS LEADING INTO THE BOX, INCLUDING SPLICES OR CONNECTOR KITS IN THE PULL BOX OR JUNCTION BOX. QUANTITIES FOR ELECTRICAL SERVICE FROM THE CONNECTION IN THE PULL BOX OR JUNCTION BOX TO THE SIGN ARE INCLUDED IN THE TRAFFIC CONTROL GENERAL SUMMARY.

HIGH VOLTAGE DIRECT CURRENT TEST

A HIGH VOLTAGE DIRECT CURRENT TEST, AS DESCRIBED IN SUPPLEMENTAL SPECIFICATION 1003, SHALL BE PERFORMED ON ALL DISTRIBUTION CABLE, AND DUCT CABLE SYSTEMS TO BE INSTALLED ON THIS PROJECT. THE TEST SHALL NOT BE PERFORMED UNTIL AFTER ALL NEW CONSTRUCTION, SUCH AS GUARDRAIL, FENCE, DELINEATOR POSTS, SIGN SUPPORTS, ETC., IN THE IMMEDIATE VICINITY OF THE LOCATION OF THE CABLE RUN BEING TESTED, HAS BEEN COMPLETED.

713.07 POLYVINYL CHLORIDE PLASTIC CONDUIT

CONDUIT FURNISHED UNDER THIS SPECIFICATION SHALL CONFORM TO NEMA STANDARDS PUBLICATION NO. TC–6 WITH THE EXCEPTION THAT CONDUIT AND CONDUIT FITTINGS COMPOSED OF ACRYLONITRILE–BUTADIENE–STYRENE (ABS) SHALL NOT, BE ACCEPTABLE.

AS AN ALTERNATE TO POLYVINYL CHLORIDE, CORRUGATED COILABLE POLYPRO–PYLENE CONFORMING TO NEMA STANDARDS PUBLICATION NO. TC–5 MAY BE USED.

ITEM 625 – CABLE SPLICING KIT

THIS ITEM SHALL CONSIST OF PROVIDING AND INSTALLING AN APPROVED CABLE SPLICING KIT AS DESCRIBED IN PARAGRAPH 5 OF SECTION 713.15 OF THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS. THE COST OF ALL MATERIALS, LABOR, AND EQUIPMENT NECESSARY FOR THIS ITEM SHALL BE INCLUDED IN THE UNIT PRICE BID FOR EACH "ITEM 625 – CABLE SPLICING KIT."

ITEM 202 – DISCONNECTING EXISTING CIRCUIT

THIS ITEM OF WORK SHALL CONSIST OF THE DISCONNECTION OF AN EXISTING LIGHT CIRCUIT AT A PULL BOX OR A LIGHT POLE.

DISCONNECTION AT A PULL BOX SHALL INVOLVE CUTTING THE EXISTING CIRCUIT AND REMOVING ALL SPLICE KITS. ANY CABLE THAT IS TO BE ABANDONED SHALL BE TERMINATED IN A MANNER SUCH THAT NO CABLE IS LEFT REMAINING IN THE PULL BOX.

DISCONNECTION AT A LIGHT POLE SHALL INVOLVE THE REMOVAL OF THE PART OF CABLE THAT IS TO BE ABANDONED FROM THE POLE. THOSE ENDS OF THE CONNECTOR KITS FROM WHICH THE ABANDONED CABLE IS REMOVED SHALL BE PLUGGED AND TAPED.

ANY CABLE THAT IS TO BE REUSED IN A PULL BOX OR LIGHT POLE SHALL BE CUT IN A MANNER SO THAT THERE IS SUFFICIENT LENGTH OF CABLE LEFT FOR RECONNECTION. CABLE SPLICE KITS AND CONNECTOR KITS WILL BE PAID FOR RESPECTIVELY UNDER EACH ITEM 625.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH ITEM 202 "DISCONNECTING EXISTING CIRCUIT" AND SHALL BE FULL COMPENSATION INCLUDING ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK.

metric units

CALCULATED MJT CHECKED WS

LIGHTING GENERAL NOTES

CRA/RIC–30–33.500/0.000

LN001.DWG 03-19-1999 7:55 AM 1:1M

LIGHTING GENERAL SUMMARY

SHEET NUMBER 527	SHEET NUMBER 529	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
						LIGHTING	
	2	202	75300	2	EACH	PULL BOX REMOVED	
	3	202	75400	3	EACH	LIGHT POLE REMOVED	
	3	202	75500	3	EACH	LIGHT POLE FOUNDATION REMOVED	
	3	202	75506	3	EACH	LUMINAIRE REMOVED	
	5	202	75800	5	EACH	DISCONNECT EXISTING CIRCUIT	
180		605	05100	180	METER	100mm SHALLOW PIPE UNDERDRAIN	
	7	625	00500	7	EACH	CONNECTOR KIT, TYPE II	
	7	625	00600	7	EACH	CONNECTOR KIT, TYPE III	
	6	625	01500	6	EACH	CABLE SPLICING KIT	
	7	625	04400	7	EACH	LIGHT POLE, DESIGN AT4.6B10.4, AS PER PLAN	527
	7	625	14500	7	EACH	LIGHT POLE FOUNDATION, 610mm x 1.8m DEEP	
	185	625	23200	185	METER	NO. 4 AWG 5000 V DISTRIBUTION CABLE	
	210	625	23400	210	METER	NO. 10 AWG POLE AND BRACKET CABLE	
	1139	625	24100	1139	METER	38mm DUCT CABLE WITH 2 NO. 4 AWG 5000 V CABLES	
	65	625	25900	65	METER	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, 76mm	
	2	625	26250	2	EACH	LUMINAIRE, CONVENTIONAL, STYLE B, TYPE II 200W,	
						H.P.S. 480 V	
	5	625	26250	5	EACH	LUMINAIRE, CONVENTIONAL, STYLE B, TYPE III 200W,	
						H.P.S. 480 V	
	1103	625	29001	1103	METER	TRENCH, AS PER PLAN	527
	6	625	30700	6	EACH	PULL BOX, 713.08, 450mm	
	7	625	32000	7	EACH	GROUND ROD	
	1	625	34001	1	EACH	POWER SERVICE, AS PER PLAN	527
	1103	SPECIAL	62536000	1103	METER	PLASTIC CAUTION TAPE	527
		625	38000	LUMP		HIGH VOLTAGE TEST	527
						FOR SIGN SERVICE, SEE TRAFFIC CONTROL	507
						FOR SIGN WIRED, SEE TRAFFIC CONTROL	507

CALCULATED MJT
CHECKED WS

CRA/RIC-30-33.500/0.000

LG001.DWG
08-5-2000 1:50 PM
1:1M

REFERENCE NO.	SHEET NO.	SIDE	ROADWAY	STATION TO STATION	625												SPECIAL	625					202			
					LIGHT POLE, DESIGN AT4.6B10.4, AS PER PLAN	LIGHT POLE FOUNDATION 610mm x 1.8m DEEP	NO. 10 AWG POLE AND BRACKET CABLE	LUMINAIRE, CONVENTIONAL, STYLE B, TYPE II 200W, H.P.S. 480 V	LUMINAIRE, CONVENTIONAL, STYLE B, TYPE III 200W, H.P.S. 480 V	CONNECTOR KIT, TYPE II	CONNECTOR KIT, TYPE III	GROUND ROD		TRENCH, AS PER PLAN	38mm DUCT CABLE WITH 2 NO.4 AWG 5000 V CABLES	NO.4 AWG 5000 V DISTRIBUTION CABLE	PLASTIC CAUTION TAPE	PULL BOX, 713.08, 450 mm	CABLE SPLICING KIT	POWER SERVICE, AS PER PLAN	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, 76 mm	DISCONNECT EXISTING CIRCUIT	LIGHT POLE REMOVED	LUMINAIRE REMOVED	PULL BOX REMOVED	LIGHT POLE FOUNDATION REMOVED
					EACH	EACH	METER	EACH	EACH	EACH	EACH	EACH		METER	METER	METER	METER	EACH	EACH	EACH	METER	EACH	EACH	EACH	EACH	EACH
1	531	RT	U.S.R. 30	5+630.000 TO 5+633.000										3	6		3									
2	531	RT	U.S.R. 30	5+633.000	1	1	30		1	1	1	1														
3	531	RT	U.S.R. 30/RAMP B	5+633.000 TO 0+830.810										197.81	200.81		197.81									
4	532	RT	RAMP B	0+830.810	1	1	30		1	1	1	1														
5	532	RT	RAMP B	0+830.810 TO 0+885.000										54.19	57.19		54.19									
6	532	RT	RAMP B	0+885.000														1	2							
7	532	RT	RAMP B	0+885.000 TO 0+890.250										5.25	8.25		5.25									
8	532	RT	RAMP B	0+890.250	1	1	30	1		1	1	1														
9	532	RT	RAMP B	0+890.250 TO 1+090.000										199.75	202.75		199.75									
10	533	RT	RAMP B	1+090.000														1								
11	533	RT	RAMP B	1+090.00 TO 1+305.000										215	218		215									
12	534	RT	RAMP B	1+305.000														1								
13	534	RT	RAMP B/U.S. 30	1+305.000 TO 50+184.000										195	198		195									
14	534	RT	EX. U.S. 30	50+184.000 TO 50+199.000												36										
15	534	RT	EX. U.S. 30	50+199.000																1						
16	531	LT	U.S.R. 30	5+662.970 TO 5+665.970										3	6		3									
17	531	LT	U.S.R. 30	5+665.970	1	1	30	1		1	1	1														
18	531	LT	U.S.R. 30	5+665.970 TO 5+775.690										109.72	112.72		109.72									
19	531	LT	U.S.R. 30	5+775.690	1	1	30		1	1	1	1														
20	531	LT	U.S.R. 30	5+775.690 TO 5+882.390										106.70	109.70		106.70									
21	532	LT	U.S.R. 30	5+882.390	1	1	30		1	1	1	1														
22	532	LT	U.S.R. 30	5+882.390 TO 5+887.000										4.61	7.61		4.61									
23	532	LT	U.S.R. 30	5+887.000														1	2							
24	532	LT/℄	U.S.R. 30	5+887.000												75.10					34.55					
25	532	RT	U.S.R. 30	5+887.000														1								
26	532	℄/RT	U.S.R. 30	5+887.000												32.90					13.45					
27	532	RT	U.S.R. 30	5+878.530	1	1	30		1	1	1	1														
28	532	RT	U.S.R. 30	5+878.530 TO 5+887.000										8.47	11.47		8.47									
29	532	RT	U.S.R. 30	5+887.000														1	2							
30	532	RT/RT	U.S.R. 30/RAMP B	5+887.000 TO 0+885.000												40.76					17.38					
31	535	RT	EX. U.S. 30	49+652.000																		1	1	1		1
32	535	RT	EX. U.S. 30	49+695.000																		1			1	
33	535	RT	EX. U.S. 30	49+739.000																		1	1	1		1
34	535	RT	EX. U.S. 30	49+753.000																		1			1	
35	535	RT	EX. U.S. 30	49+796.000																		1	1	1		1
			TOTALS		7	7	210	2	5	7	7	7		1102.50	1138.50	184.76	1102.50	6	6	1	65.38	5	3	3	2	3
TOTALS CARRIED TO GENERAL SUMMARY SHEET 528					7	7	210	2	5	7	7	7		1103	1139	185	1103	6	6	1	65	5	3	3	2	3

CALCULATED MJT
CHECKED WS

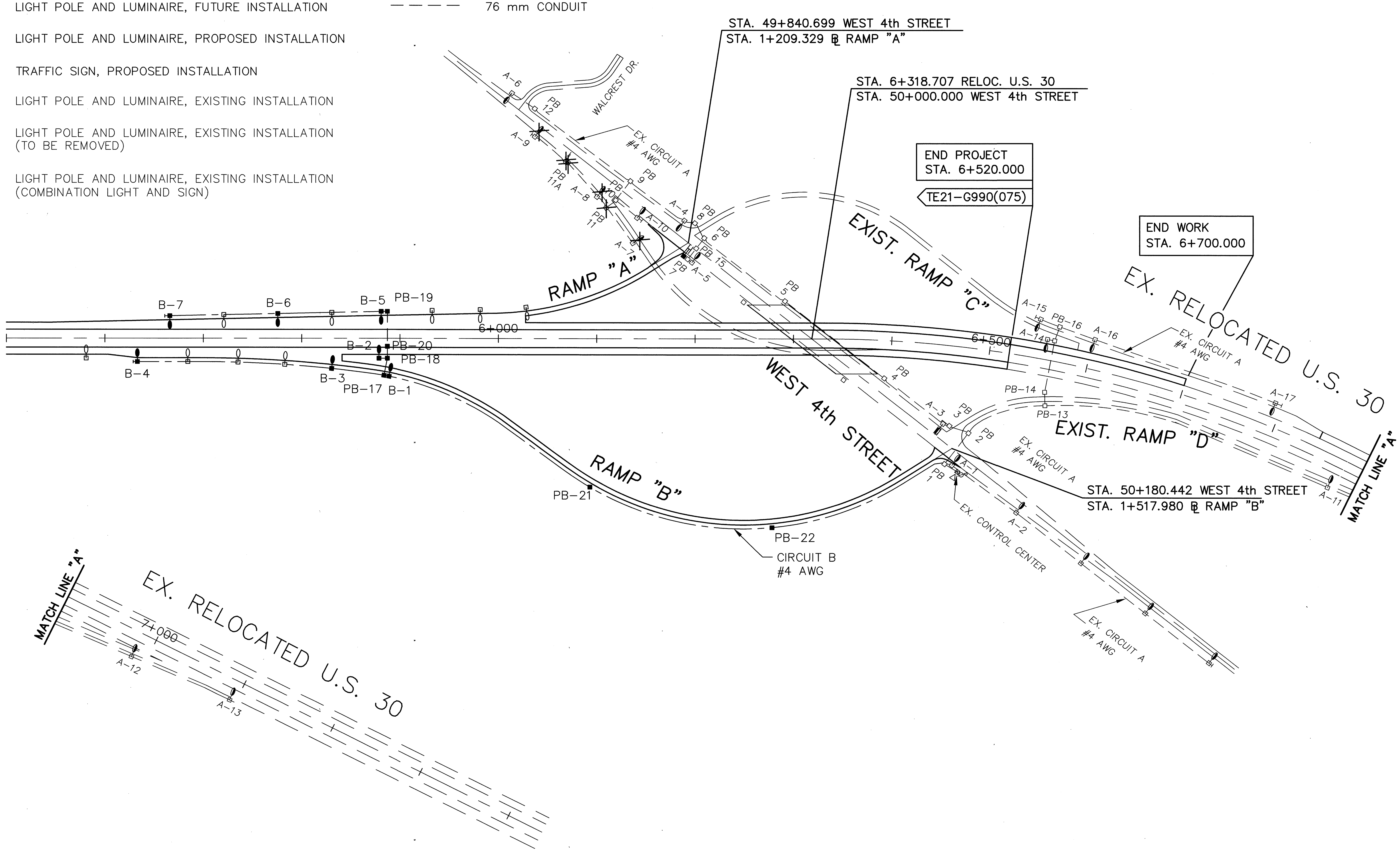
LIGHTING PLAN SUB-SUMMARY

CRA/RIC-30-33.500/0.000

LS001.DWG
08-16-2000 2:02 PM
1:1M

LEGEND

△	EXISTING CONTROL CENTER	⊢	CIRCUIT STUB & CAP
□	EXISTING PULL BOX	⊠	EXISTING POWER SUPPLY
■	PROPOSED PULL BOX	— — —	CIRCUIT W/2 #4 AWG 5000 VOLT CABLES
	LIGHT POLE AND LUMINAIRE, FUTURE INSTALLATION	– – – –	76 mm CONDUIT
	LIGHT POLE AND LUMINAIRE, PROPOSED INSTALLATION		
	TRAFFIC SIGN, PROPOSED INSTALLATION		
	LIGHT POLE AND LUMINAIRE, EXISTING INSTALLATION		
	LIGHT POLE AND LUMINAIRE, EXISTING INSTALLATION (TO BE REMOVED)		
	LIGHT POLE AND LUMINAIRE, EXISTING INSTALLATION (COMBINATION LIGHT AND SIGN)		



metric units

SCALE 1:2000
0 20 40 80
HORIZONTAL SCALE IN METERS

CALCULATED MJT
CHECKED WS

LIGHTING SCHEMATIC PLAN
STA. 5+650 TO STA. 7+000

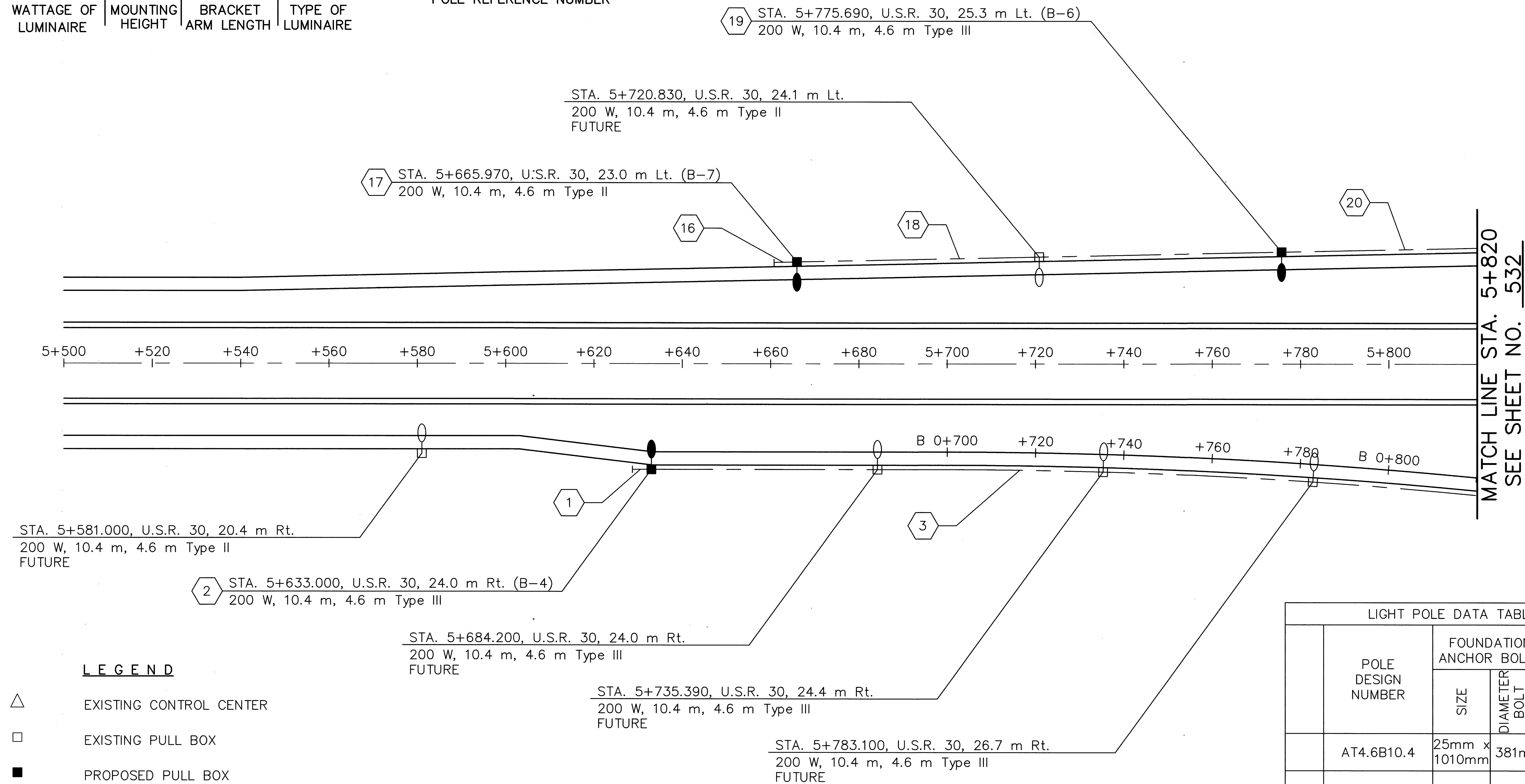
CRA/RIC-30-33.500/0.000

LC001.DWG
03-19-1999 8: AM
1:2000M

POLE LEGEND

STATION	OFFSET FROM PAVEMENT EDGE	CIRCUIT NUMBER	POLE NUMBER
WATTAGE OF LUMINAIRE	MOUNTING HEIGHT	BRACKET ARM LENGTH	TYPE OF LUMINAIRE

— POLE REFERENCE NUMBER



LIGHT POLE DATA TABLE

	POLE DESIGN NUMBER	FOUNDATION ANCHOR BOLTS SIZE	FOUNDATION ANCHOR BOLTS DIAMETER BOLT CIRCLE	TRANSFORMER BASE TYPE
	AT4.6B10.4	25mm x 1010mm	381mm	AT-A

LEGEND

- EXISTING CONTROL CENTER
- EXISTING PULL BOX
- PROPOSED PULL BOX
- LIGHT POLE AND LUMINAIRE, FUTURE INSTALLATION
- LIGHT POLE AND LUMINAIRE, PROPOSED INSTALLATION
- TRAFFIC SIGN, PROPOSED INSTALLATION
- LIGHT POLE AND LUMINAIRE, EXISTING INSTALLATION
- LIGHT POLE AND LUMINAIRE, EXISTING INSTALLATION (COMBINATION LIGHT AND SIGN)
- LIGHT POLE AND LUMINAIRE, EXISTING INSTALLATION (TO BE REMOVED)
- CIRCUIT STUB & CAP
- EXISTING POWER SUPPLY
- CIRCUIT W/2 #4 AWG 5000 VOLT CABLES
- 76 mm CONDUIT
- 7 QUANTITY REFERENCE NUMBER

LIGHT DESIGN DATA

ILLUMINATION LEVEL: 11.0 LUX, INITIAL (AVG Ix)
UNIFORM RATIO: 3:1
LIGHT SOURCE: HIGH PRESSURE SODIUM
LAMP SIZE: 200 WATT 27,500 LUMENS
LUMINAIRE OVERHANG: 1.22 m
MOUNTING HEIGHT: 10.4 m WITH TRANSFORMER BASE
LIGHT DISTRIBUTION: IES, TYPE II, TYPE III (MEDIUM, SEMI-CUTOFF)
STREET WIDTH: VARIES
LUMINARE ARRANGEMENT: PARTICAL INTERCHANGE LIGHTING

metric units

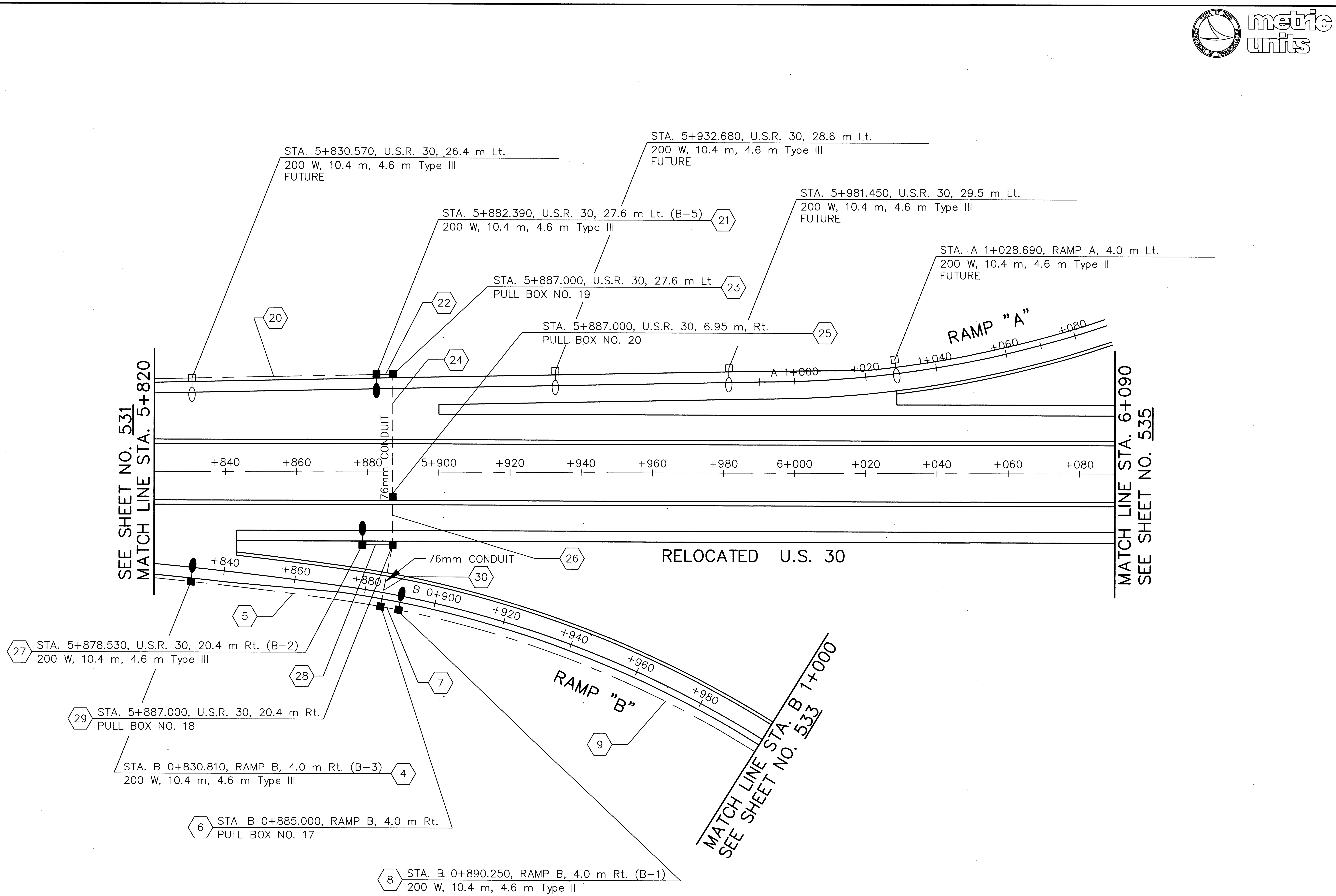
SCALE 1:500
0 5 10 20
HORIZONTAL
SCALE IN METERS

CALCULATED MJT
CHECKED WS

LIGHTING PLAN
STA. 5+500 TO STA. 5+820

CRA/RIC-30-33.500/0.000

LP001.DWG
03-19-1999 8:06 AM
1:500M



SCALE 1:500

0 5 10 20

HORIZONTAL SCALE IN METERS

CALCULATED MJT

CHECKED WS

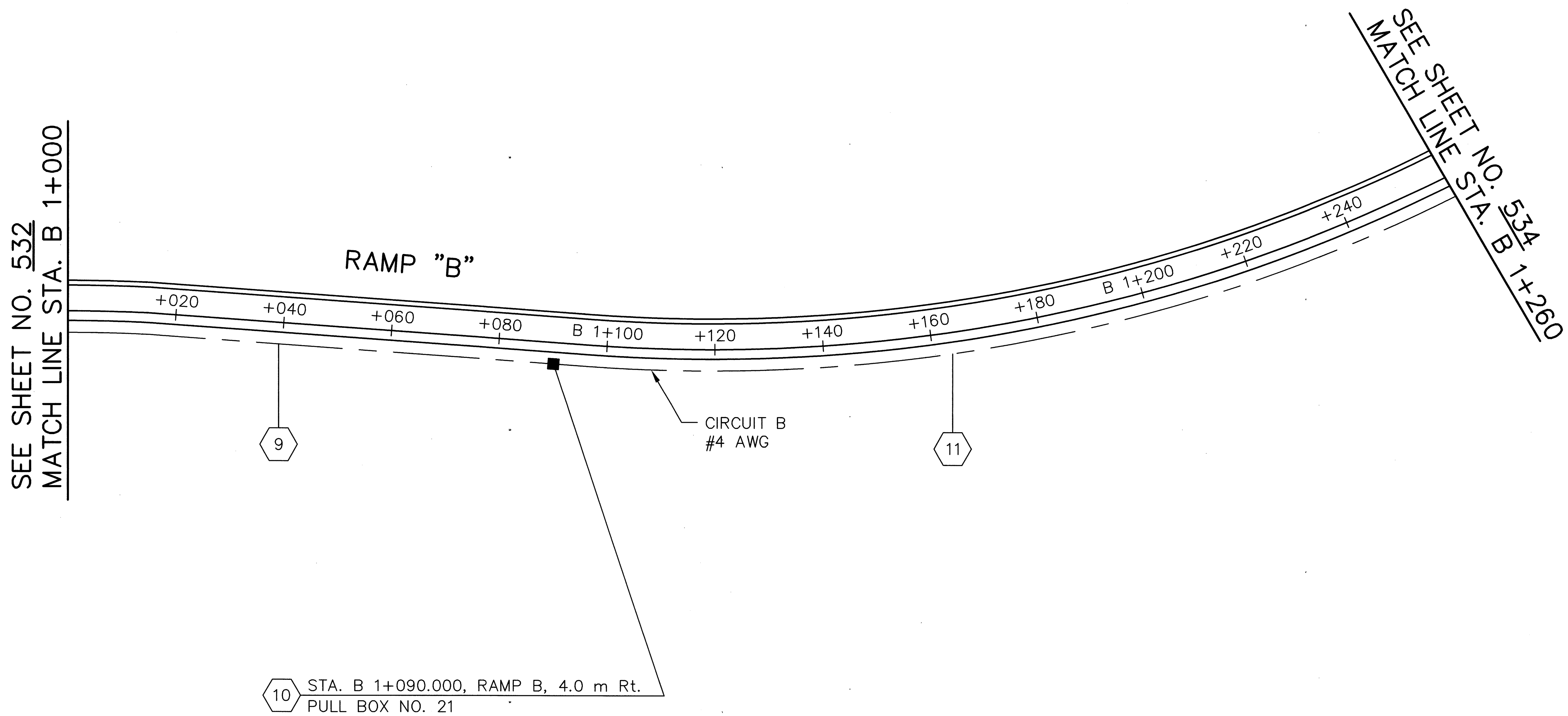
LIGHTING PLAN

STA. 5+820 TO STA. 6+090

CRA/RIC-30-33.500/0.000

532
712

LP002.DWG
03-19-1999 8:07 AM
1:500M



metric units

SCALE 1:500
0 5 10 20
HORIZONTAL
SCALE IN METERS

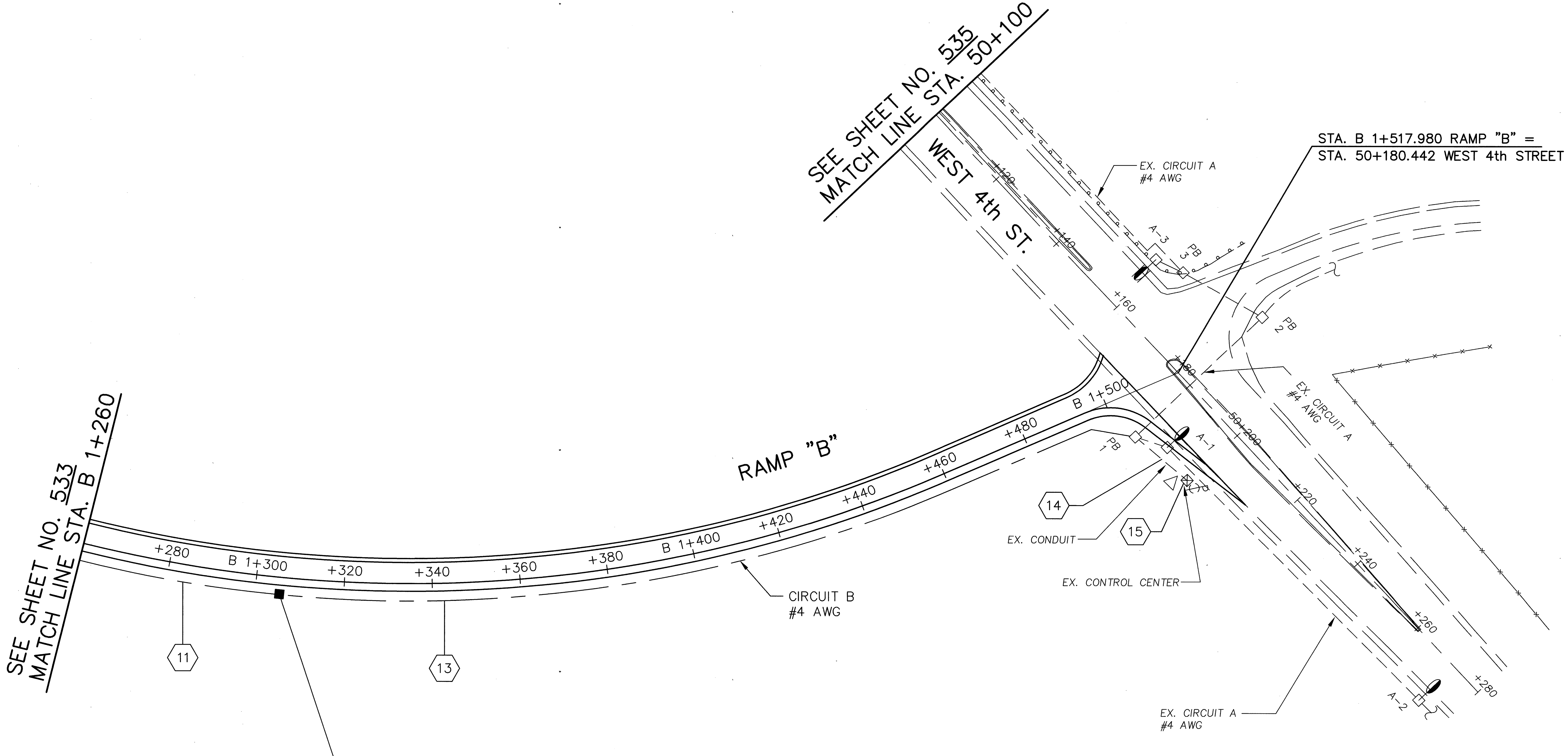
CALCULATED MJT
CHECKED WS

LIGHTING PLAN
STA. B 1+000 TO STA. B 1+260

CRA/RIC-30-33.500/0.000

533
712

LP104.DWG
12-16-1998 10:27 AM
1:500M



12 STA. B 1+305.000, RAMP B, 4.0 m Rt.
PULL BOX NO. 22

metric units

SCALE 1:500
0 5 10 20
HORIZONTAL
SCALE IN METERS

CALCULATED MJT
CHECKED WS

LIGHTING PLAN
STA. B 1+260 TO STA. B 1+517.980

CRA/RIC-30-33.500/0.000

534
712

LP004.DWG
03-19-1999 8:22 AM
1:500M


LIGHTING PLAN
STA. 6+090 TO STA. 6+420
CRA/RIC-30-33.500/0.000
535
712
metric units
SCALE 1:500
HORIZONTAL SCALE IN METERS
CALCULATED MJT
CHECKED WS
STA. A 1+209.329 RAMP "A" =
STA. 49+840.699 WEST 4th STREET
SEE SHEET NO. 535
MATCH LINE STA. 49+800
EX. RAMP C
EX. U.S. 30
EX. CIRCUIT A
#4 AWG
RAMP "A"
FOR SIGN DETAILS, SEE
SHEET NO. 526
STA. 6+318.707 RELOC. U.S. 30 =
STA. 50+000.000 WEST 4th STREET
SEE SHEET NO. 532
MATCH LINE STA. 6+090
MATCH LINE STA. 6+420
SEE SHEET NO. _
RELOCATED U.S. 30
6+100 +120 +140 +160 +180 6+200 +220 +240 +260 +280 6+300 +320 +340 +360 +380 6+400
MATCH LINE STA. 50+100
SEE SHEET NO. 534
WALCREST DR.
EX. CIRCUIT A
#4 AWG
49+600 +620 +640 +660 +680 49+700 +720 +740 +760 +780
MATCH LINE STA. 49+800
SEE SHEET NO. 535
A-4 A-5 A-6 A-7 A-8 A-9 A-10
PB 4 PB 5 PB 6 PB 7 PB 8 PB 9 PB 10 PB 11 PB 11A PB 12 PB 15
31 32 33 34 35
LP005.DWG
03-19-1999 8:25 AM
1:500M

STRUCTURAL GENERAL NOTES

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1996, INCLUDING THE 1997 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING

MS18, CASE II AND THE ALTERNATE MILITARY LOADING (HORNING RD., S.R. 61, S.R. 181, EARICK RD.).
MS18, CASE I AND THE ALTERNATE MILITARY LOADING (CSX TRANSPORTATION, INC.)

DESIGN STRESSES

CONCRETE CLASS C – COMPRESSIVE STRENGTH 27.5 MPa (SUBSTRUCTURE)

HIGH PERFORMANCE CONCRETE– COMPRESSIVE STRENGTH 31 MPa (SUPERSTRUCTURE)

REINFORCING STEEL – ASTM A615M, A616M OR A617M – GRADE 420 MINIMUM YIELD STRENGTH 420 MPa. SPIRAL REINFORCEMENT MAY BE PLAIN BARS, ASTM A82M OR A615M.

STRUCTURAL STEEL – ASTM A572M – UNIT STRESS 186.2 MPa (TYPICAL UNLESS NOTED OTHERWISE) – YIELD STRENGTH 350 MPa (S.R. 61)

STRUCTURAL STEEL – ASTM A588M – UNIT STRESS 186.2 MPa (CSX TRANSPORTATION, INC.)

REFERENCE SHALL BE MADE TO THE FOLLOWING STANDARD DRAWINGS:

AS-1-81M	DATED 10-25-94
ICD-1-82M	DATED 03-20-95
GSD-1-96M	DATED 11-21-97
SBR-1-99M	DATED 01-12-99
SICD-1-96M	DATED 02-12-97

AND THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

816	DATED 04-21-97
842	DATED 01-06-99
844	DATED 01-06-99
846	DATED 09-09-97
863	DATED 10-12-99
894	DATED 10-12-99
899	DATED 10-21-98
910	DATED 07-11-00
954	DATED 09-09-97
864	DATED 07-11-00

DECK PROTECTION METHOD

EPOXY COATED REINFORCING STEEL AND 65 mm CONCRETE COVER.

MONOLITHIC WEARING SURFACE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 25 mm THICK.

ITEM 503, UNCLASSIFIED EXCAVATION, AS PER PLAN

UNCLASSIFIED EXCAVATION SHALL BE IN ACCORDANCE WITH 503 EXCEPT THAT THE BACKFILL MATERIAL BEHIND THE ABUTMENTS SHALL BE 203 MATERIAL PLACED IN 150 mm LIFTS AND COMPACTED IN ACCORDANCE WITH 304.04

ITEM 842, CLASS C CONCRETE, FOOTING, AS PER PLAN

THE AGGREGATE SHALL CONSIST OF NO. 8 LIMESTONE. THE COST OF REINFORCING STEEL SHALL BE INCLUDED.

ITEM 842, CLASS C CONCRETE, PIER ABOVE FOOTING, AS PER PLAN

THE AGGREGATE SHALL CONSIST OF NO. 8 LIMESTONE. THE COST OF REINFORCING STEEL SHALL BE INCLUDED.

ITEM 842, CLASS C CONCRETE, ABUTMENT, AS PER PLAN

THE AGGREGATE SHALL CONSIST OF NO. 8 LIMESTONE. THE COST OF REINFORCING STEEL SHALL BE INCLUDED.

INSTALL A 900 mm WIDE STRIP, 2.5 mm THICK, GENERAL PURPOSE, HEAVY DUTY NEOPRENE SHEET WITH NYLON FABRIC REINFORCEMENT AT LOCATIONS SHOWN IN THE PLANS. SECURE THE 1 METER WIDE NEOPRENE SHEETING TO THE CONCRETE WITH 32 X 3 mm (LENGTH X SHANK DIAMETER) GALVANIZED BUTTON HEAD SPIKES THROUGH A 25 mm OUTSIDE DIAMETER, 3 mm GALVANIZED WASHER. MAXIMUM FASTENER SPACING IS 225 mm. OTHER SIMILAR GALVANIZED DEVICES WHICH WILL NOT DAMAGE EITHER THE NEOPRENE OR THE CONCRETE MAY BE USED SUBJECT TO THE APPROVAL OF THE ENGINEER.

CENTER THE NEOPRENE STRIPS ON ALL JOINTS. FOR HORIZONTAL JOINTS, SECURE THE HORIZONTAL NEOPRENE STRIP BY USING A SINGLE LINE OF FASTENERS, STARTING AT 150 mm (+/–) FROM THE TOP OF THE NEOPRENE STRIP. FOR THE VERTICAL JOINTS, SECURE THE VERTICAL NEOPRENE STRIP BY USING A SINGLE VERTICAL LINE OF FASTENERS, STARTING AT 150 mm (+/–) FROM THE VERTICAL EDGE OF THE NEOPRENE STRIP NEAREST TO THE CENTERLINE OF ROADWAY. FOR VERTICAL JOINTS, INSTALL 2 ADDITIONAL FASTENERS AT 150 mm CENTER TO CENTER ACROSS THE TOP OF THE NEOPRENE STRIP ON THE SAME SIDE OF THE VERTICAL JOINT AS THE SINGLE VERTICAL ROW OF FASTENERS IS LOCATED.

THE VERTICAL NEOPRENE STRIPS SHOULD COMPLETELY OVERLAP THE HORIZONTAL STRIPS. LAPS IN THE LENGTH OF THE HORIZONTAL STRIPS DUE TO MATERIAL MANUFACTURING SHALL BE AT LEAST 300 mm IN LENGTH, IF NOT VULCANIZED OR ADHESIVE BONDED, OR 150 mm IN LENGTH IF THE LAP IS VULCANIZED OR ADHESIVE BONDED. NO LAPS ARE ACCEPTABLE IN VERTICALLY INSTALLED NEOPRENE STRIPS.

THE NEOPRENE SHEETING SHALL BE 2.5 mm THICK GENERAL PURPOSE, HEAVY DUTY NEOPRENE SHEET WITH NYLON FABRIC REINFORCEMENT. THE SHEETING SHALL BE "FAIRPRENE NUMBER NN-0003", BY E. I. DUPONT DE NEMOURS AND COMPANY, INC., "WINGPRENE" BY THE GOODYEAR TIRE AND RUBBER COMPANY, OR AN APPROVED ALTERNATE. THE NEOPRENE SHEETING SHALL CONFORM TO THE FOLLOWING:

DESCRIPTION OF TEST	ASTM METHOD	REQUIREMENT
THICKNESS, mm	D 751	2.5+/-.25
BREAKING STRENGTH, GRAB WXF, N, MINIMUM	D 751	3130 x 3130
ADHESIVE 25 mm STRIP, 50 mm MINIMUM, N MINIMUM	D 751	27
BURST STRENGTH(MULLEN) MPa, MINIMUM	D 751	9.65
HEAT AGING 70 HOURS T 100°C, 180 BEND WITHOUT CRACKING	D 2136	NO CRACKING OF COATING
LOW TEMPERATURE BRITTLENESS 1 HOUR AT –40°C, BEND AROUND 6 mm MANDREL	D 2136	NO CRACKING OF COATING

IN LIEU OF THE NEOPRENE SHEETING THE CONTRACTOR MAY CHOOSE TO SUPPLY TYPE 3 MEMBRANE, 711.29.

PAYMENT FOR LABOR, MATERIALS AND INSTALLATION OF THESE ITEMS SHALL BE INCLUDED IN ITEM 842 CLASS C CONCRETE, ABUTMENT, AS PER PLAN.

ITEM 518, POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN

POROUS BACKFILL SHALL BE INSTALLED AS PER THE PLAN DETAILS. THE AGGREGATE SHALL BE NO. 57 GRAVEL.

DRIP GROOVES

THE DRIP GROOVES AS DETAILED ON STANDARD CONSTRUCTION DRAWINGS SHALL NOT BE CONSTRUCTED.

ITEM 844, HIGH PERFORMANCE CONCRETE SUBSTRUCTURE, AS PER PLAN

THE DESIGN MIX SHALL BE MIX NO. 4. COURSE AGGREGATE SHALL BE LIMESTONE.

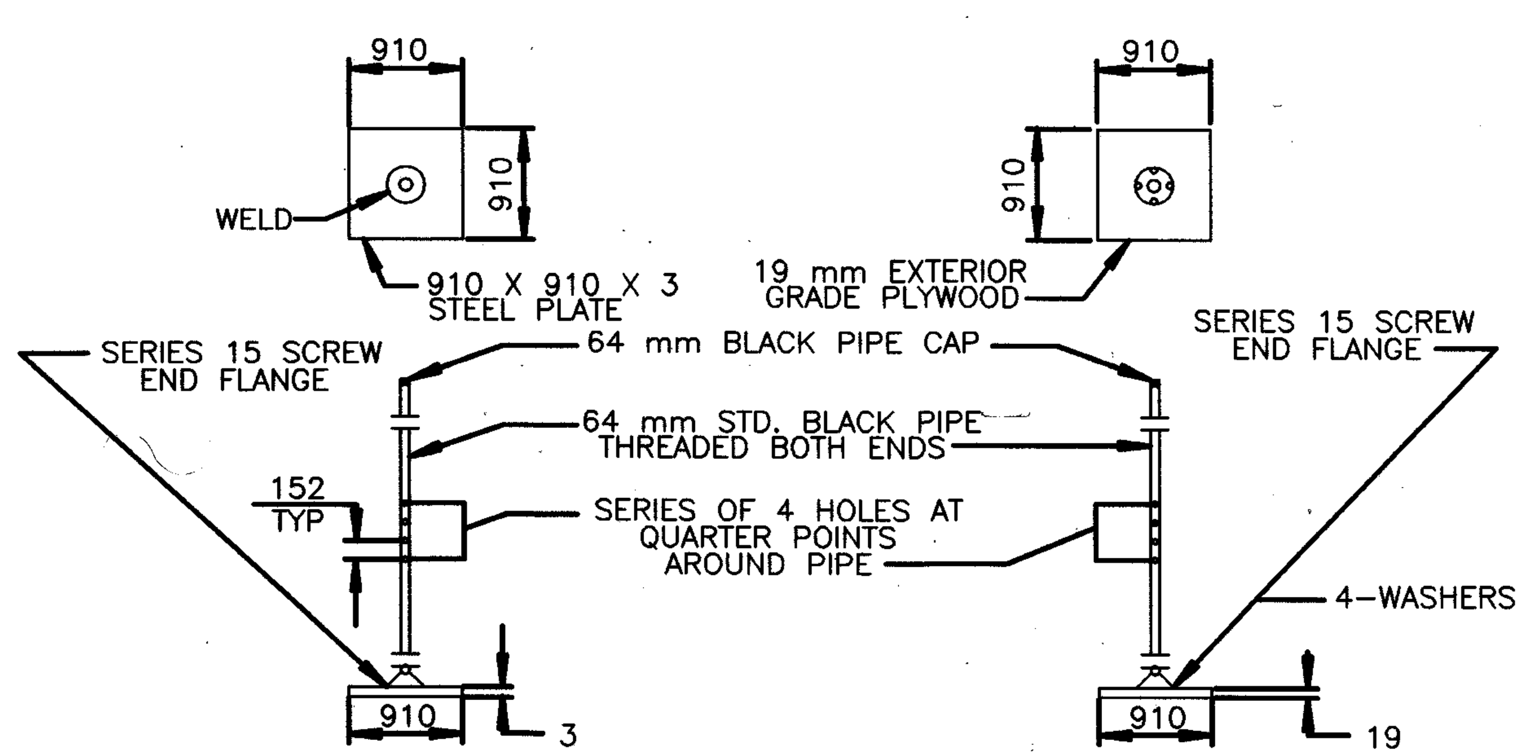
CURING SHALL BE PER METHOD (A) WATER CURE ONLY.

ITEM 894, HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN

THE OPTION OF SLIP FORM CONSTRUCTION OF THE BRIDGE RAILING PER 844.031 IS NOT PERMITTED.

SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

EPOXY-URETHANE SHALL BE THE "LIGHT NEUTRAL" COLOR MEETING FEDERAL COLOR STANDARD NO. 17778 AS PER THE DETAILS IN THE PLANS.



SETTLEMENT PLATFORM DETAIL
NOT TO SCALE

SURVEY DISC ON STRUCTURE

THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST ONE (1) WEEK IN ADVANCE OF POURING THE CONCRETE FOR COMPLETION OF THE ABUTMENT. THE ENGINEER WILL PROVIDE THE CONTRACTOR ONE (1) SURVEY DISC FOR EACH STRUCTURE (OBTAINED FROM THE DISTRICT SURVEYOR) WHICH THE CONTRACTOR SHALL PLACE IN THE SURFACE OF THE FRESH CONCRETE. THE LOCATION OF THE DISC SHALL BE ON THE ABUTMENT, AND ON A FLAT, HORIZONTAL SURFACE BEYOND THE EDGE OF DECK AND GUARDRAIL OR PARAPET. THE BENCHMARK SHALL BE ACCESSIBLE TO A SURVEYOR'S ROD WITHOUT ANY OBSTRUCTIONS. COST OF THIS WORK IS CONSIDERED INCIDENTAL TO THE CONCRETE BID ITEM.

PILE DRIVING CONSTRAINTS

PRIOR TO DRIVING PILES, THE SPILL THROUGH SLOPES AND THE BRIDGE APPROACH EMBANKMENT BEHIND THE ABUTMENTS SHALL BE CONSTRUCTED UP TO THE LEVEL OF THE SUBGRADE ELEVATION FOR A MINIMUM DISTANCE OF 60 METERS BEHIND EACH ABUTMENT. THE EXCAVATION FOR THE ABUTMENT FOOTINGS AND THE INSTALLATION OF THE ABUTMENT PILES SHALL NOT BEGIN UNTIL A MINIMUM WAITING PERIOD HAS OCCURRED AFTER THE ABOVE REQUIRED EMBANKMENT HAS BEEN CONSTRUCTED (SEE TABLE A). IN ADDITION THE INSTALLATION OF THE ABUTMENT PILES AT EARICK ROAD. IS CONTINGENT UPON SUFFICIENT SETTLEMENT OF THE APPROACH EMBANKMENT OCCURRING PRIOR TO PLACING THE PILES. THIS ADDITIONAL WAITING PERIOD WILL BE DETERMINED BY THE DIRECTOR BASED ON EVALUATION OF THE SETTLEMENT PLATFORM READINGS. PILE DRIVING MAY BEGIN UPON RECEIVING WRITTEN PERMISSION OF THE DIRECTOR.

TABLE A

STRUCTURE	MINIMUM WAITING PERIOD
S.R. 61	6 MONTHS
EARICK RD.	60 DAYS
HORNING RD.	90 DAYS
S.R. 181	90 DAYS
CSX TRANSPORTATION, INC.	6 MONTHS

ITEM SPECIAL, SETTLEMENT PLATFORMS

DESCRIPTION: THIS SHALL CONSIST OF FURNISHING, CONSTRUCTING AND MAINTAINING SETTLEMENT PLATFORMS AND OBTAINING SETTLEMENT READINGS AS DIRECTED BY THE ENGINEER. A COMPLETED COPY OF THE SETTLEMENT READINGS SHALL BE SENT TO THE OFFICE OF STRUCTURAL ENGINEERING, ATTENTION, FOUNDATION ENGINEER.

MATERIALS: SOUND LUMBER SUCH AS 19 mm EXTERIOR GRADE PLYWOOD SHALL BE USED FOR THE BASE. THE PIPE SHALL BE 64 mm STANDARD BLACK PIPE WITH THREADED FITTINGS AS SHOWN ON THE PLANS. A STEEL PLATE 910 mm X 910 mm X 3 mm MAY BE SUBSTITUTED FOR THE LUMBER FOR THE PLATFORMS, AT THE CONTRACTOR'S OPTIONS

CONSTRUCTION REQUIREMENTS: THE 910 mm X 910 mm PLATFORM SHALL CONFORM TO THE DETAILS SHOWN ON THE PLANS. THE PLATFORM SHALL SET ON A LEVEL SURFACE AND SHALL BE PLACED AT A ELEVATION WITHIN 300mm. OF THE BOTTOM OF FOOTING ELEVATION OF THE PROPOSED ABUTMENT.
THE PIPES SHALL BE FIRMLY SECURED TO THE PLATFORMS AND SHALL BE MAINTAINED IN A PLUMB POSITION DURING THE PLACEMENT OF THE EMBANKMENT. PIPES SHALL BE MARKED AT INTERVALS BY THE CONTRACTOR TO FACILITATE MEASUREMENT OF THE DEPTH OF FILL. THE CONTRACTOR SHALL STOP WORK IN ANY LOCATION WHERE A SETTLEMENT PLATFORM HAS BEEN DISTURBED OR DAMAGED UNTIL THE NECESSARY CORRECTIONS OR REPLACEMENT HAS BEEN PERFORMED.

PRIOR TO PAVING, THE TOP OF THE SETTLEMENT PLATFORM PIPE SHALL BE CUT OFF 0.6 METER BELOW THE FINISHED SURFACE OF THE SUBGRADE OR TOPSOIL SURFACE, WHICHEVER IS APPLICABLE.

METHOD OF MEASUREMENT: THE NUMBER OF SETTLEMENT PLATFORMS TO BE PAID FOR WILL BE THE ACTUAL NUMBER OF SETTLEMENT PLATFORMS COMPLETED, MAINTAINED, AND ACCEPTED BY THE ENGINEER.

BASIS OF PAYMENT: PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE PER EACH FOR "ITEM SPECIAL, SETTLEMENT PLATFORMS" WHICH IS COMPENSATED FOR CONSTRUCTING, MAINTAINING, AND MONITORING THE SETTLEMENT PLATFORMS; INCLUDING FURNISHING ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK. PAYMENT WILL NOT BE MADE FOR SETTLEMENT PLATFORMS WHICH BECOME USELESS BECAUSE OF DAMAGE INFLICTED BY THE CONTRACTOR'S OPERATIONS.

NOTES:

1. SETTLEMENT PLATES SHALL BE PLACED AT THE LOCATIONS AS SHOWN ON THE GENERAL PLAN, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
2. CONTRACTOR HAS OPTION OF USING EITHER STEEL OR PLYWOOD PLATFORM BASE.
3. CONTRACTOR SHALL FURNISH MATERIALS AND LABOR TO EXTEND PIPE UP THROUGH ENTIRE FILL.
4. SETTLEMENT PLATFORMS SHALL BE ANCHORED BY STAKES DRIVEN AT EACH CORNER TO PREVENT OVERTURNING.
5. REFER TO ITEM SPECIAL, SETTLEMENT PLATFORMS, GENERAL NOTE ON THIS SHEET.

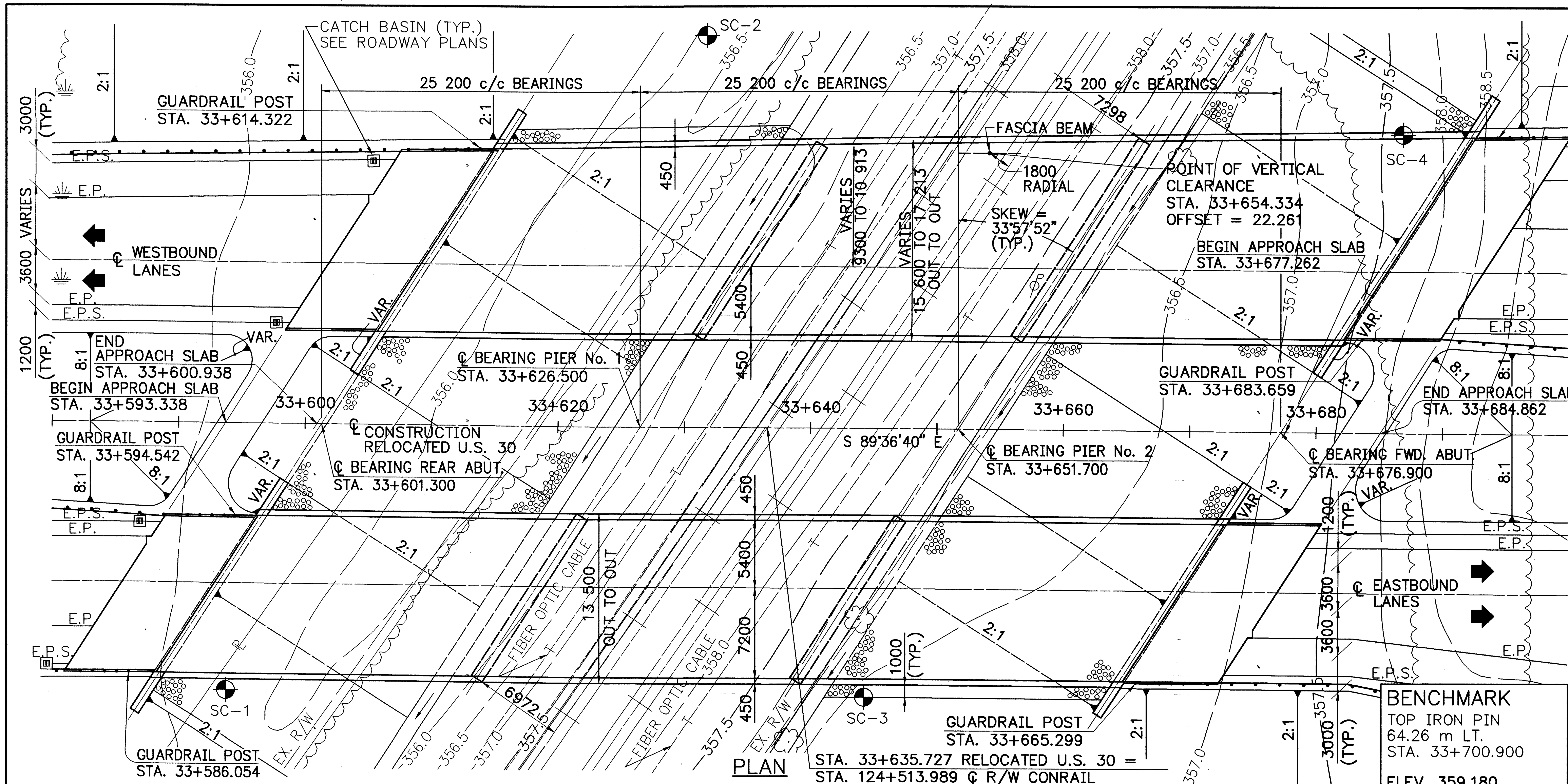
DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

CALCULATED MCM
CHECKED RHW
REVISED 12-8-00

STRUCTURAL GENERAL NOTES
CRA/RIC-30-33.500/0.000

CRA/RIC-30-33.500/0.000

GN-1



NOTE

EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

WHERE CONRAIL APPEARS IN THE PLANS, CSX TRANSPORTION, INC. SHALL BE CONSIDERED.

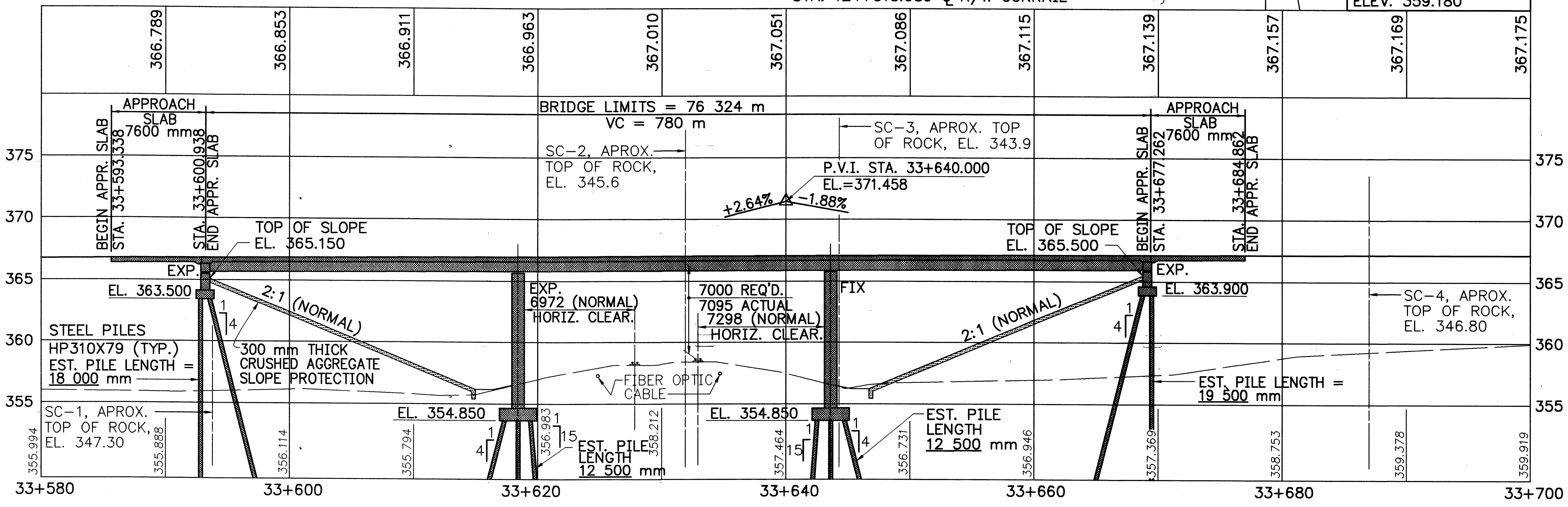
BENCHMARK

TOP IRON PIN
64.26 m LT.
STA. 33+700.900
ELEV. 359.180

FOUNDATION INVESTIGATION LEGEND

⯐ INDICATES BORING LOCATION

SITE	STATION	OFFSET mm	TOP OF GROUND ELEVATION
SC–1	33+593.0	20 000 RT.	355.92
SC–2	33+632.0	37 000 LT.	355.96
SC–3	33+644.0	20 000 RT.	356.60
SC–4	33+687.0	23 000 LT.	357.76



PROFILE SHOWN ALONG PROFILE GRADE OF EASTBOUND RELOCATED U.S. 30 OVER CONRAIL

TRAFFIC DATA

DESIGN ADT (2020) = 14,160
DESIGN ADTT (2020) = 3965

PROPOSED STRUCTURE

TYPE: DUAL–3 SPAN CONTINUOUS A588M STEEL BEAM BRIDGES w/COMPOSITE REINFORCED CONCRETE DECK ON T-TYPE PIERS AND SEMI-INTEGRAL ABUTMENTS
SPANS: 25 200, 25 200, 25 200 c/c BEARINGS
ROADWAY: W.B. VARIES T/T PARAPETS
E.B. 12 600 T/T PARAPETS
DESIGN LOADING: MS18 CASE I & ALTERNATE MILITARY LOADING
SKEW: 33°–57'–52" L.F.
ALIGNMENT: TANGENT
WEARING SURFACE: MONOLITHIC CONCRETE
APPROACH SLABS: 7600 (AS–1–81M)
CROWN: 0.016
LATITUDE: N40°–45'–45"
LONGITUDE: W82°–45'–10"

LEGEND:

E.P. EDGE OF PAVEMENT
E.P.S. EDGE OF PAVED SHOULDER
E.S. EDGE OF SHOULDER
TYP. TYPICAL

ALL DIMENSIONS ARE IN MILLIMETERS
ALL ELEVATIONS AND STATIONING ARE IN METERS

metric units

DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

REVIEWED	DATE	STRUCTURE FILE NUMBER
LBD	8–14–00	L–1701851 R–1701878

DRAWN	REVISED
PS	

DESIGNED	CHECKED
RHW	HK

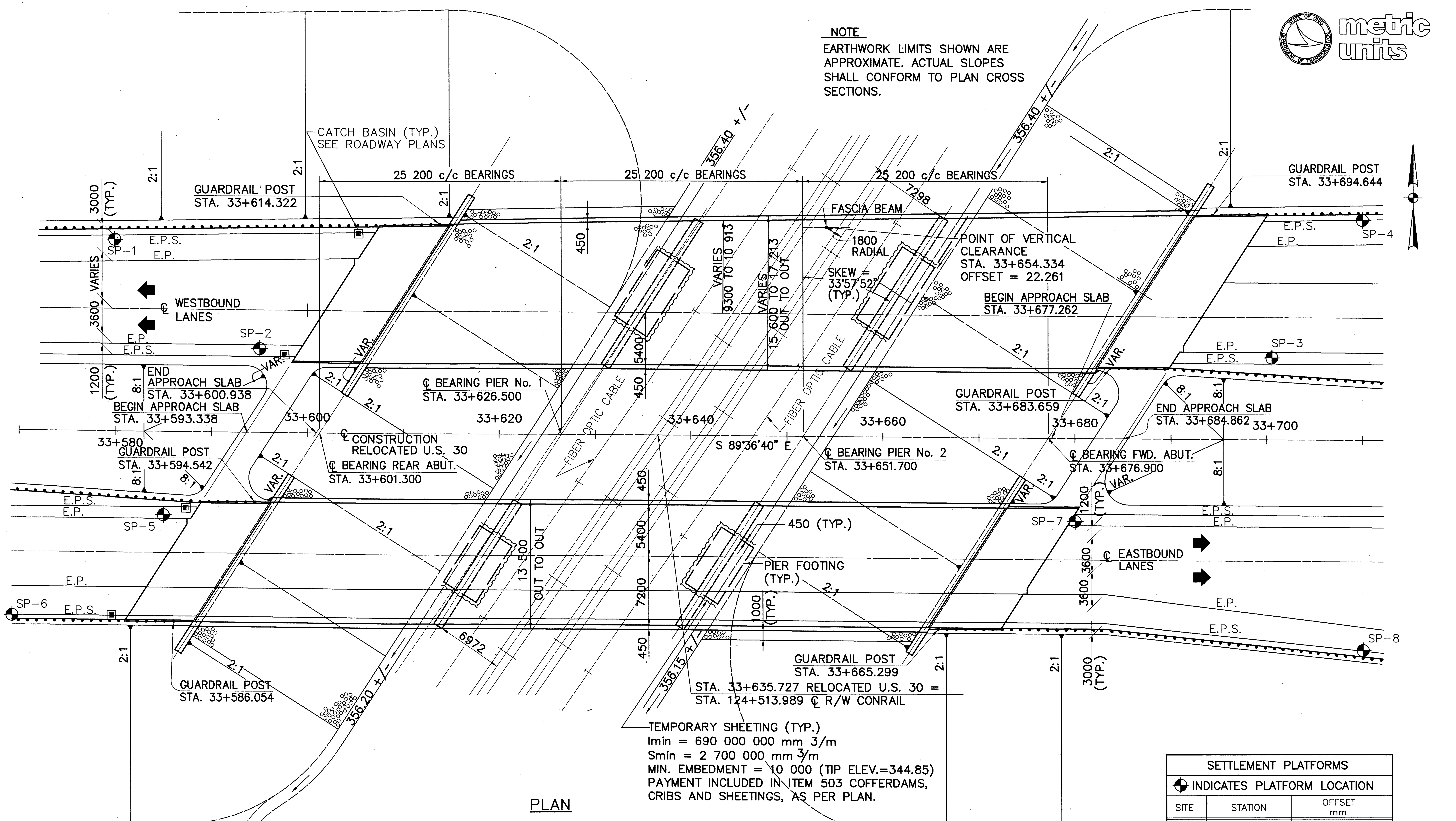
CRAWFORD COUNTY
STA. 33+600.938
STA. 33+677.262

SITE PLAN
BRIDGE NO. CRA–30–33602–L & R
RELOCATED U.S. 30 OVER CSX TRANSPORTATION, INC.

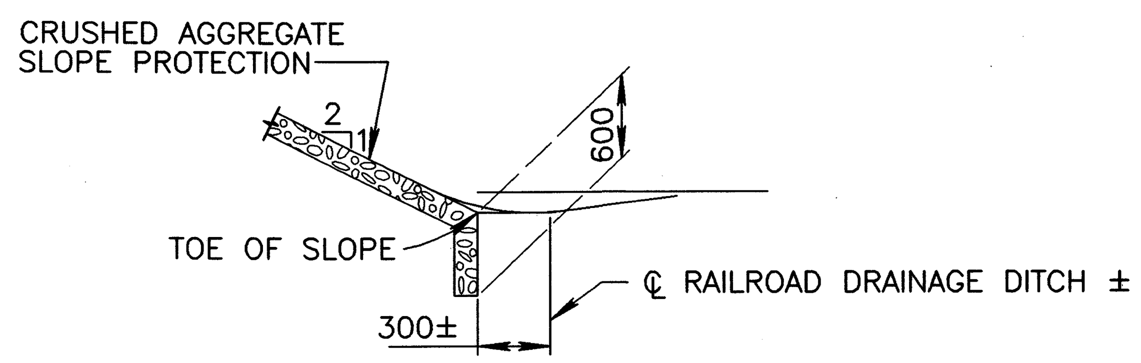
CRA/RIC–30–33.500/0.000

NOTE

EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.



PLAN



TYPICAL ABUTMENT SLOPE DETAIL

SETTLEMENT PLATFORMS

⊕ INDICATES PLATFORM LOCATION

SITE	STATION	OFFSET mm
SP-1	33+580.000	20 000 LT.
SP-2	33+595.000	8 750 LT.
SP-3	33+700.000	8 750 LT.
SP-4	33+710.000	23 000 LT.
SP-5	33+585.000	8 750 RT.
SP-6	33+570.000	20 000 RT.
SP-7	33+680.000	8 750 RT.
SP-8	33+710.000	22 000 RT.

metric units

DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

REVIEWED LBD DATE 8-14-00 STRUCTURE FILE NUMBER L-1701851 R-1701878

DRAWN MAT REVISED

DESIGNED RHW CHECKED WEB

GENERAL PLAN
BRIDGE NO. CRA-30-33602-L & R
RELOCATED U.S. 30 OVER CSX TRANSPORTATION, INC.

CRA/RIC-30-33.500/0.000

2/27

538/712

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	ABUT.	PIER	SUPER	GENERAL	AS PER PLAN SHEET NO.
				ESTIMATED QUANTITIES – WESTBOUND BRIDGE					
SPECIAL	20365000	4	EACH	SETTLEMENT PLATFORM				4	GN–1
503	11101	LUMP		COFFERDAMS, CRIBS AND SHEETING, AS PER PLAN				LUMP	
503	21301	LUMP		UNCLASSIFIED EXCAVATION, AS PER PLAN	LUMP	LUMP			GN–1
									2
505	11100	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION				LUMP	
507	00200	487.5	METER	STEEL PILES HP310x79, FURNISHED		487.5			
507	00250	487.5	METER	STEEL PILES HP310x79, DRIVEN		487.5			
507	00400	808.5	METER	STEEL PILES, MISC.: HP310x110, FURNISHED	808.5				
507	00400	808.5	METER	STEEL PILES, MISC.: HP310x110, DRIVEN	808.5				
507	50500	53	EACH	STEEL PILE SPLICES	33	20			
516	44100	7	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (60.0 mm X 330 mm X 510 mm WITH 50 mm X 356 mm X 660 mm LOAD PLATE)		7			
516	44100	7	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (60.0 mm X 330 mm X 510 mm WITH 50 mm X 356 mm X 536 mm LOAD PLATE)		7			
516	44201	14	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (75.0 mm X 230 mm X 355 mm WITH 38 mm X 256 mm X 381 mm LOAD PLATE)	14				22
518	21231	LUMP		POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN	LUMP				GN–1
518	40000	52	METER	150 mm PERFORATED CORRUGATED PLASTIC PIPE	52				
518	40010	12	METER	150 mm NON–PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	12				
842	41001	195	CU METER	CLASS C CONCRETE, PIER ABOVE FOOTINGS, AS PER PLAN		195			GN–1
842	45501	137	CU METER	CLASS C CONCRETE, ABUTMENT, AS PER PLAN	137				GN–1
842	46501	46	CU METER	CLASS C CONCRETE, FOOTING, AS PER PLAN		46			GN–1
844	48041	38	CU METER	HIGH PERFORMANCE CONCRETE SUBSTRUCTURE, AS PER PLAN	38				GN–1
844	49000	LUMP		HIGH PERFORMANCE CONCRETE TRIAL MIX			LUMP		
844	49010	LUMP		HIGH PERFORMANCE CONCRETE TESTING			LUMP		
863	10061	LUMP		STRUCTURAL STEEL MEMBERS, LEVEL THREE (3) FABRICATION, AS PER PLAN, A588M			LUMP		3
863	20000	5037	EACH	WELDED STUD SHEAR CONNECTOR			5037		
864	10100	1065	SQ METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	83	445	537		GN-1
894	10001	358	CU METER	HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN			358		GN-1

metric units

GENERAL NOTES

PILE DESIGN LOADS (ULTIMATE BEARING VALUE)

THE ABUTMENT PILES SHALL BE HP310x110. THE PILE ULTIMATE BEARING VALUE IS 2000 KN PER PILE. AN ADDITIONAL 900 KN OF ULTIMATE BEARING VALUE PER ABUTMENT PILE IS DUE TO THE POSSIBILITY OF DOWN DRAG FORCES INDUCED BY EMBANKMENT SETTLEMENT. THIS FORCES DOES NOT CONSIDER THE POSSIBLE REDUCTION IN DOWN DRAG FORCES THAT MAY OCCUR BY ALLOWING THE EMBANKMENT TO SETTLE FOR 6 MONTHS PRIOR TO DRIVING PILES.

THE PIER PILES SHALL BE HP310x79. THE ULTIMATE BEARING VALUE IS 1300 KN PER PILE FOR THE PIER PILES.

WESTBOUND BRIDGE

REAR ABUTMENT PILES:

20 PILES 18.0 METERS LONG, ESTIMATED LENGTH
20 PILES OF ORDER LENGTH 18.0 METERS LONG
10 SPLICES

FORWARD ABUTMENT PILES:

23 PILES 19.5 METERS LONG, ESTIMATED LENGTH
23 PILES OF ORDER LENGTH 18 METERS LONG
23 PILES OF ORDER LENGTH 1.5 METERS LONG
23 SPLICES

PIER PILES:

39 PILES 12.5 METERS LONG, ESTIMATED LENGTH
39 PILES OF ORDER LENGTH 12.5 METERS LONG
20 SPLICES

EASTBOUND BRIDGE

REAR ABUTMENT PILES:

17 PILES 18.0 METERS LONG, ESTIMATED LENGTH
17 PILES OF ORDER LENGTH 18.0 METERS LONG
8 SPLICES

FORWARD ABUTMENT PILES:

20 PILES 19.5 METERS LONG, ESTIMATED LENGTH
20 PILES OF ORDER LENGTH 18 METERS LONG
20 PILES OF ORDER LENGTH 1.5 METERS LONG
20 SPLICES

PIER PILES:

32 PILES 12.5 METERS LONG, ESTIMATED LENGTH
32 PILES OF ORDER LENGTH 12.5 METERS LONG
16 SPLICES

PILE DRIVEN TO BEDROCK

PILES SHALL BE DRIVEN TO REFUSAL ON BEDROCK. REFUSAL SHALL BE CONSIDERED AS OBTAINED BY PENETRATING SOFT BEDROCK FOR SEVERAL MILLIMETERS WITH A MINIMUM RESISTANCE OF 20 BLOWS PER 25 mm OR REFUSAL SHALL BE CONSIDERED AS OBTAINED AFTER THE PILE HAS CONTACTED HARD BEDROCK AND THE PILE HAS THEN RECEIVED AT LEAST 20 BLOWS.

PROTECTION OF RAILROAD TRAFFIC

PRIOR TO CONSTRUCTION OF THE NEW STRUCTURES, THE CONTRACTOR SHALL SUBMIT TO THE DIRECTOR FOR APPROVAL HIS PLANS FOR THE PROTECTION OF CSX TRANSPORTATION, INC. TRAFFIC ADJACENT TO AND/OR UNDER THE STRUCTURE. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO ENSURE SUCH PROTECTION. FOR ADDITIONAL RESTRICTIONS AND REQUIREMENTS WHEN WORKING ON OR ADJACENT TO CSX TRANSPORTATION, INC. PROPERTY, REFER TO THE SPECIAL CLAUSES IN THE PROPOSAL.

PAYMENT FOR THIS WORK, EXCEPT TEMPORARY SHEETING, SHALL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE BID FOR ITEM 863, AS PER PLAN. THIS PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN CONFORMANCE WITH THESE REQUIREMENTS AND TO THE SATISFACTION OF THE ENGINEER.

DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

REVISED LBD DATE 8-14-00
STRUCTURE FILE NUMBER L-1701851 R-1701878
DRAWN MCM REVISED 12-8-00
DESIGNED — CHECKED WEB

ESTIMATED QUANTITIES AND GENERAL NOTES
BRIDGE NO. CRA-30-33602-L & R
RELOCATED U.S. 30 OVER CSX TRANSPORTATION, INC.

CRA/RIC-30-33.500/0.000

ESTIMATED QUANTITIES – EASTBOUND BRIDGE

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	ABUT.	PIER	SUPER	GENERAL	AS PER PLAN SHEET NO.
SPECIAL	20365000	4	EACH	SETTLEMENT PLATFORM				4	GN-1
503	11101	LUMP		COFFERDAMS, CRIBS AND SHEETING, AS PER PLAN				LUMP	
503	21301	LUMP		UNCLASSIFIED EXCAVATION, AS PER PLAN	LUMP	LUMP			GN-1
505	11100	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION				LUMP	
507	00200	400	METER	STEEL PILES HP310x79, FURNISHED		400			
507	00250	400	METER	STEEL PILES HP310x79, DRIVEN		400			
507	00400	696	METER	STEEL PILES, MISC.: HP310x110, FURNISHED	696				
507	00400	696	METER	STEEL PILES, MISC.: HP310x110, DRIVEN	696				
507	50500	44	EACH	STEEL PILE SPLICES	28	16			
516	44100	6	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (60.0 mm X 330 mm X 510 mm WITH 50 mm X 356 mm X 660 mm LOAD PLATE)		6			
516	44100	6	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (60.0 mm X 330 mm X 510 mm WITH 50 mm X 356 mm X 536 mm LOAD PLATE)		6			
516	44201	12	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (75.0 mm X 230 mm X 355 mm WITH 38 mm X 256 mm X 381mm LOAD PLATE)	12				22
518	21231	LUMP		POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN	LUMP				GN-1
518	40000	45	METER	150 mm PERFORATED CORRUGATED PLASTIC PIPE	45				
518	40010	12	METER	150 mm NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	12				
842	41001	154	CU METER	CLASS C CONCRETE, PIER ABOVE FOOTINGS, AS PER PLAN		154			GN-1
842	45501	118	CU METER	CLASS C CONCRETE, ABUTMENT, AS PER PLAN	118				GN-1
842	46501	38	CU METER	CLASS C CONCRETE, FOOTING, AS PER PLAN		38			GN-1
844	48041	31	CU METER	HIGH PERFORMANCE CONCRETE SUBSTRUCTURE, AS PER PLAN	31				GN-1
844	49000	LUMP		HIGH PERFORMANCE CONCRETE TRIAL MIX			LUMP		
844	49010	LUMP		HIGH PERFORMANCE CONCRETE TESTING			LUMP		
863	10061	LUMP		STRUCTURAL STEEL MEMBERS, LEVEL THREE (3) FABRICATION, AS PER PLAN, A588M			LUMP		3
863	20000	4194	EACH	WELDED STUD SHEAR CONNECTOR			4194		
864	10100	961	SQ METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	71	357	533		GN-1
894	10001	305	CU METER	HIGH PERFORMANCE CONCRETE FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN			305		GN-1

RAILROAD AERIAL LINES

RAILROAD AERIAL LINES WILL BE RELOCATED BY THE RAILROAD. THE CONTRACTOR SHALL USE ALL PRECAUTIONS NECESSARY TO SEE THAT THE LINES ARE NOT DISTURBED DURING THE CONSTRUCTION STAGE AND SHALL COOPERATE WITH THE RAILROAD IN THE RELOCATION. WORK SHALL BE INCLUDED IN THE RAILROAD FORCE ACCOUNT.

FOR ADDITIONAL GENERAL NOTES SEE SHEET GN-1, 536/712.

NOTE: FOR REINFORCED CONCRETE APPROACH SLAB AND CRUSHED AGGREGATE SLOPE PROTECTION QUANTITIES, SEE ROADWAY PLANS, SHEET 58/712 AND 61/712 .

metric units

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

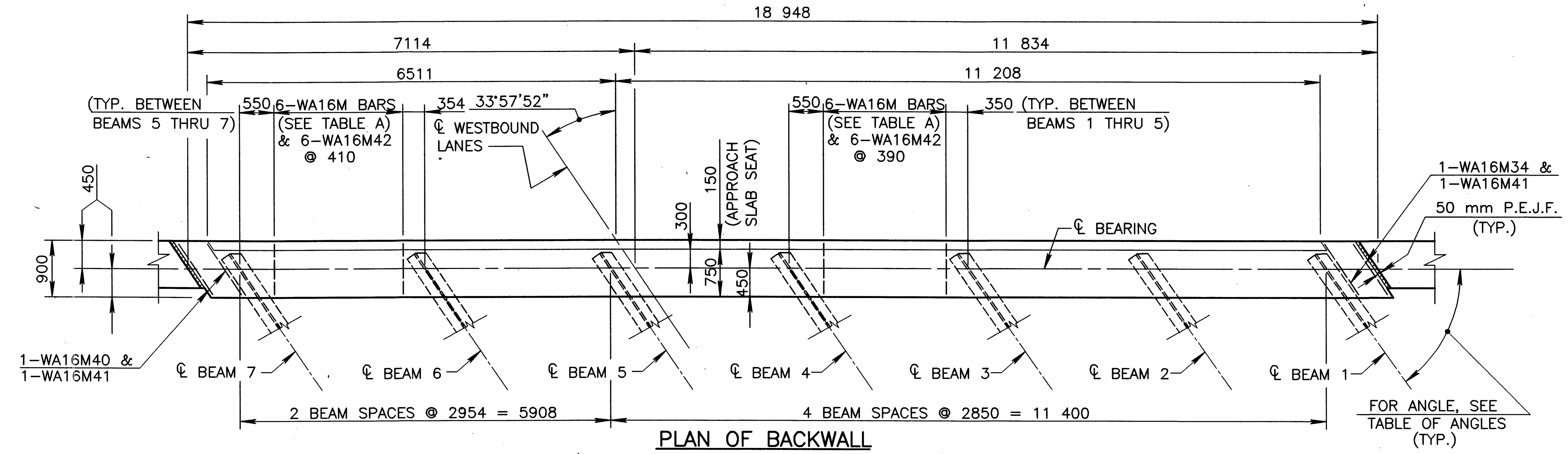
REVIEWED LBD DATE 8-14-00
STRUCTURE FILE NUMBER L-1701851 R-1701878
DRAWN MCM REVISED 12-8-00
DESIGNED – CHECKED WEB

ESTIMATED QUANTITIES AND GENERAL NOTES
BRIDGE NO. CRA-30-33602-L & R
RELOCATED U.S. 30 OVER CSX TRANSPORTATION, INC.

CRA/RIC-30-33.500/0.000

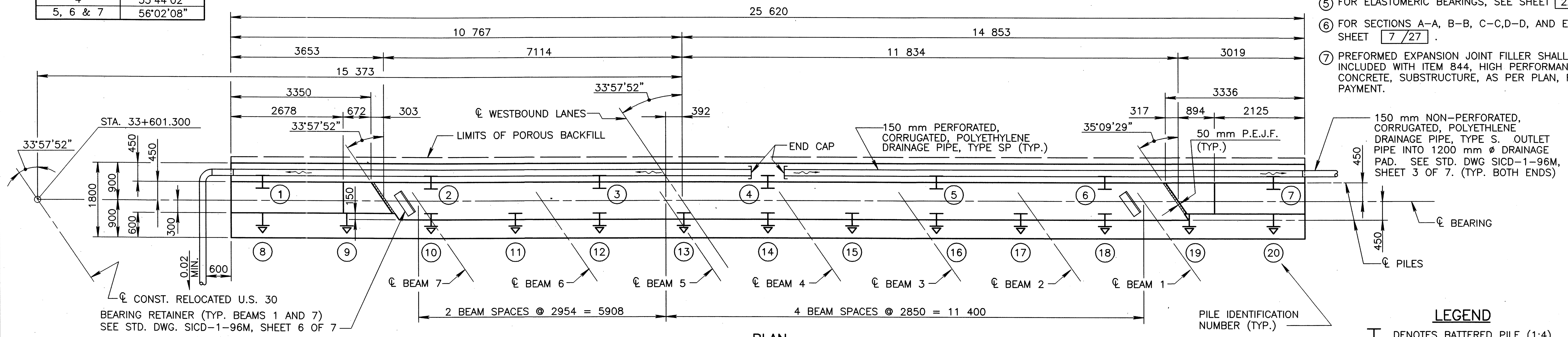
TABLE A	
LOCATION	BAR MARK
BEAM 1 – BEAM 2	WA16M35
BEAM 2 – BEAM 3	WA16M36
BEAM 3 – BEAM 4	WA16M37
BEAM 4 – BEAM 5	WA16M38
BEAM 5 – BEAM 6	WA16M37
BEAM 6 – BEAM 7	WA16M39

TABLE OF ANGLES	
BEAM	ANGLE
1	54°50'31"
2	55°08'14"
3	55°26'04"
4	55°44'02"
5, 6 & 7	56°02'08"



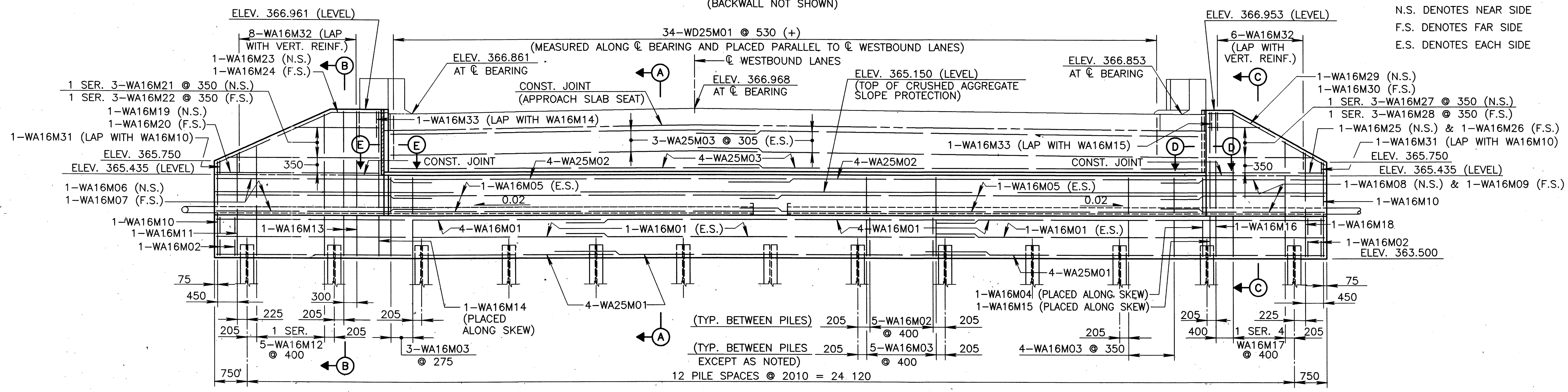
PLAN OF BACKWALL

(DECK SLAB AND APPROACH SLAB NOT SHOWN)
(FOR LONGITUDINAL REINFORCEMENT, SEE ELEVATION)



PLAN

(BACKWALL NOT SHOWN)



ELEVATION

metric units

NOTES

1. BRIDGE SEAT REINFORCING: REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT SHALL BE ACCURATELY PLACED TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING RETAINER ANCHOR HOLES.
2. DIAPHRAGM (BACKWALL) CONCRETE ENCASING THE STRUCTURAL MEMBER SECTIONS SUPPORTED IN SEMI-INTEGRAL TYPE ABUTMENTS SHALL BE HIGH PERFORMANCE CONCRETE, MIX 4, AND SHALL BE PLACED AT LEAST 48 HOURS BEFORE THE ACTUAL DECK CONCRETE IS PLACED.
3. MINIMUM LAP UNLESS OTHERWISE NOTED:
   - 16M BARS = 875 mm
   - 25M BARS = 1500 mm
   - WA16M31 = 290 mm
   - WA16M32 & WA16M33 = 400 mm
   - WA25M02 = 2090 mm
4. ALL PILES ARE HP310x110 STEEL PILES.
5. FOR ELASTOMERIC BEARINGS, SEE SHEET 22/27.
6. FOR SECTIONS A–A, B–B, C–C, D–D, AND E–E, SEE SHEET 7/27.
7. PREFORMED EXPANSION JOINT FILLER SHALL BE INCLUDED WITH ITEM 844, HIGH PERFORMANCE CONCRETE, SUBSTRUCTURE, AS PER PLAN, FOR PAYMENT.

LEGEND

- DENOTES BATTERED PILE (1:4)
- N.S. DENOTES NEAR SIDE
- F.S. DENOTES FAR SIDE
- E.S. DENOTES EACH SIDE

DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

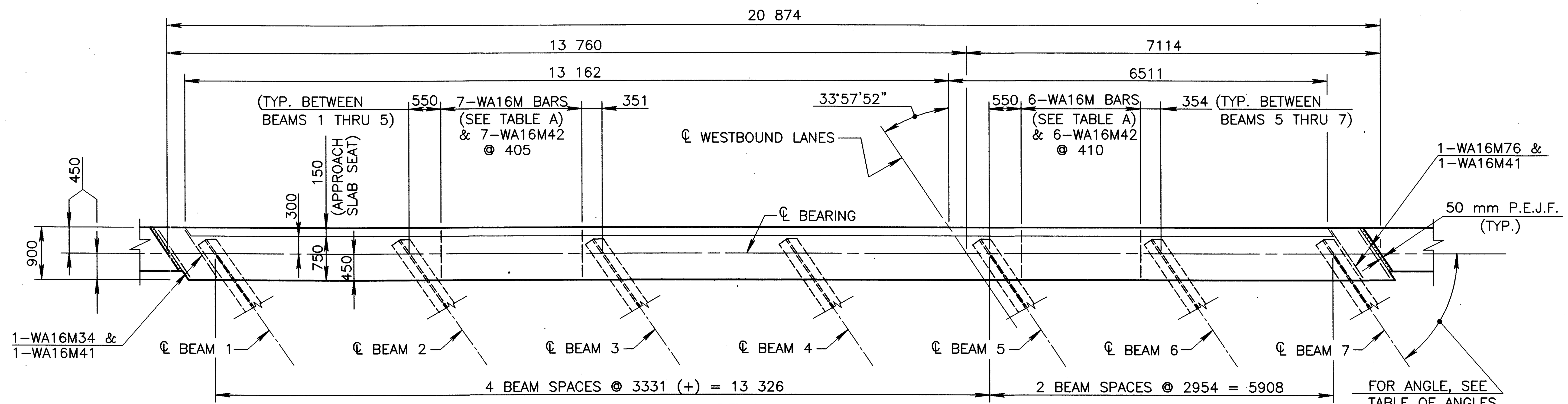
DESIGNED	DRAWN	REVIEWED	DATE
HK	WEB	LBD	8-14-00
CHECKED	REVISED		STRUCTURE FILE NUMBER
RHW			L-1701851 R-1701878

REAR ABUTMENT – WESTBOUND BRIDGE
BRIDGE NO. CRA-30-33602-L & R
RELOCATED U.S. 30 OVER CSX TRANSPORTATION, INC.

CRA/RIC-30-33.500/0.000

TABLE A	
LOCATION	BAR MARK
BEAM 1 – BEAM 2	WA16M35
BEAM 2 – BEAM 3	WA16M73
BEAM 3 – BEAM 4	WA16M38
BEAM 4 – BEAM 5	WA16M74
BEAM 5 – BEAM 6	WA16M74
BEAM 6 – BEAM 7	WA16M75

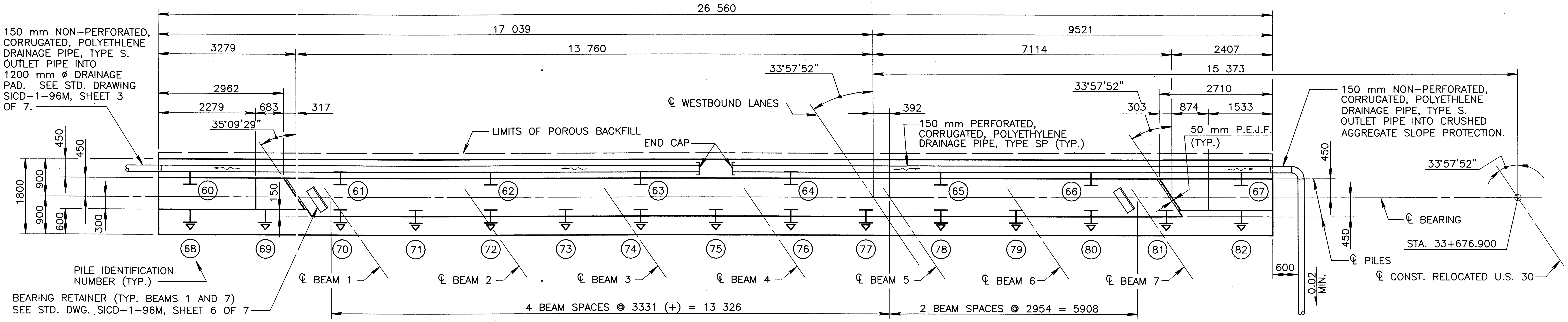
TABLE OF ANGLES	
BEAM	ANGLE
1	54°50'31"
2	55°08'14"
3	55°26'04"
4	55°44'02"
5, 6 & 7	56°02'08"



PLAN OF BACKWALL
(DECK SLAB AND APPROACH SLAB NOT SHOWN)
(FOR LONGITUDINAL REINFORCEMENT, SEE ELEVATION)

NOTES

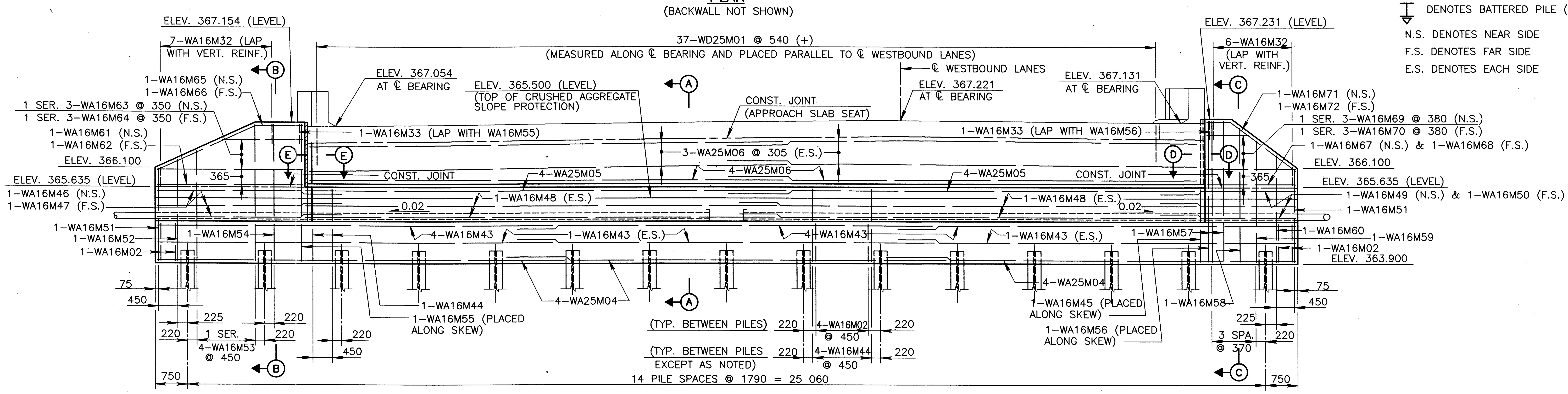
1. FOR SECTIONS A–A, B–B, C–C, D–D, AND E–E, SEE SHEET 7/27.
2. MINIMUM LAP UNLESS NOTED OTHERWISE:
   16M BARS = 875 mm
   25M BARS = 1500 mm
   WA16M32 & WA16M33 = 400 mm
   WA25M05 = 2090 mm
3. ALL PILES ARE HP310x110 STEEL PILES.
4. FOR ADDITIONAL NOTES, SEE SHEET 5/27.



PLAN
(BACKWALL NOT SHOWN)

LEGEND

DENOTES BATTERED PILE (1:4)
N.S. DENOTES NEAR SIDE
F.S. DENOTES FAR SIDE
E.S. DENOTES EACH SIDE



ELEVATION

FORWARD ABUTMENT – WESTBOUND BRIDGE
BRIDGE NO. CRA–30–33602–L & R
RELOCATED U.S. 30 OVER CSX TRANSPORTATION, INC.

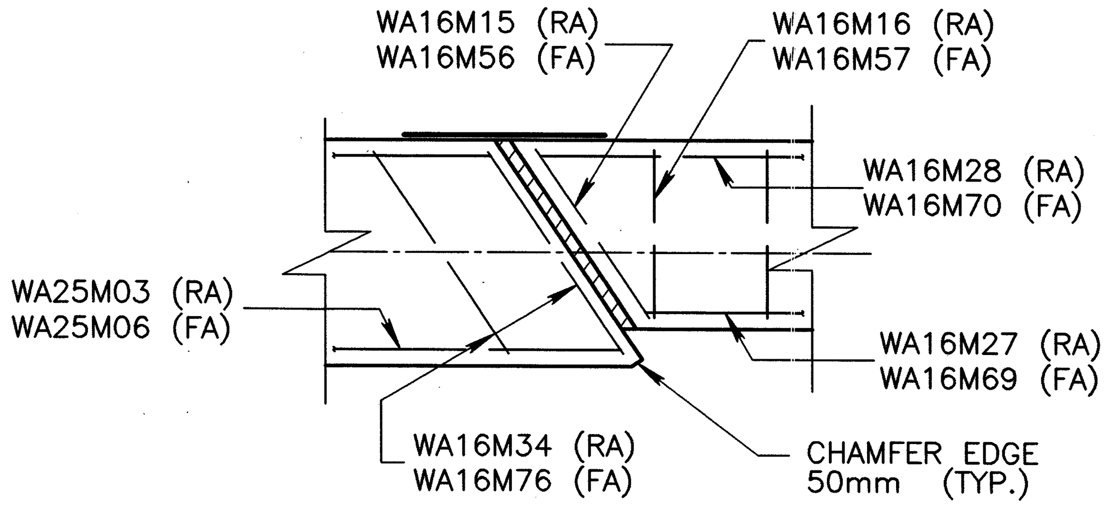
DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

DESIGNED	CHECKED	DRAWN	REVISED	REVIEWED	DATE	STRUCTURE FILE NUMBER
HK	RHW	WEB		LBD	8–14–00	L–1701851 R–1701878

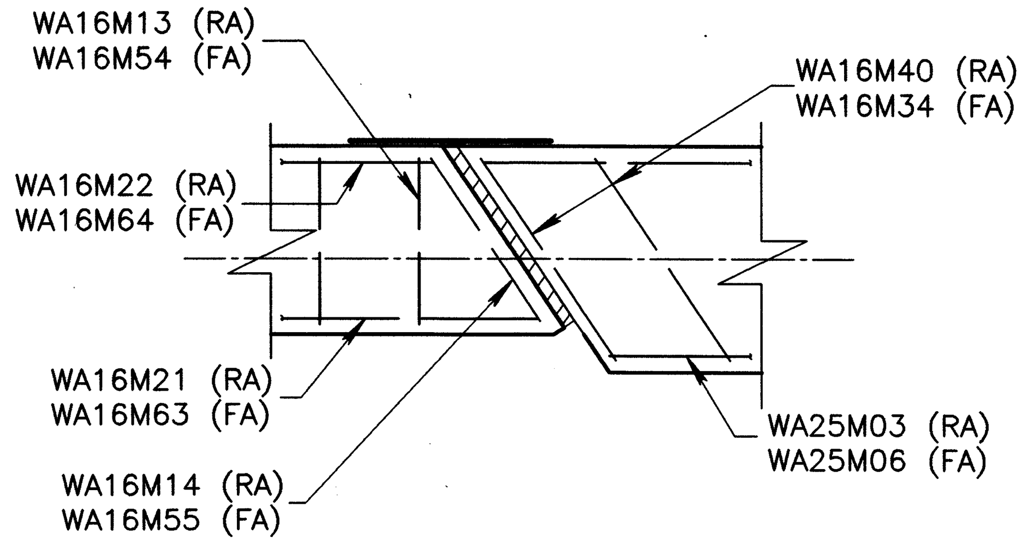
CRA/RIC–30–33.500/0.000

6/27

542/712



SECTION D–D



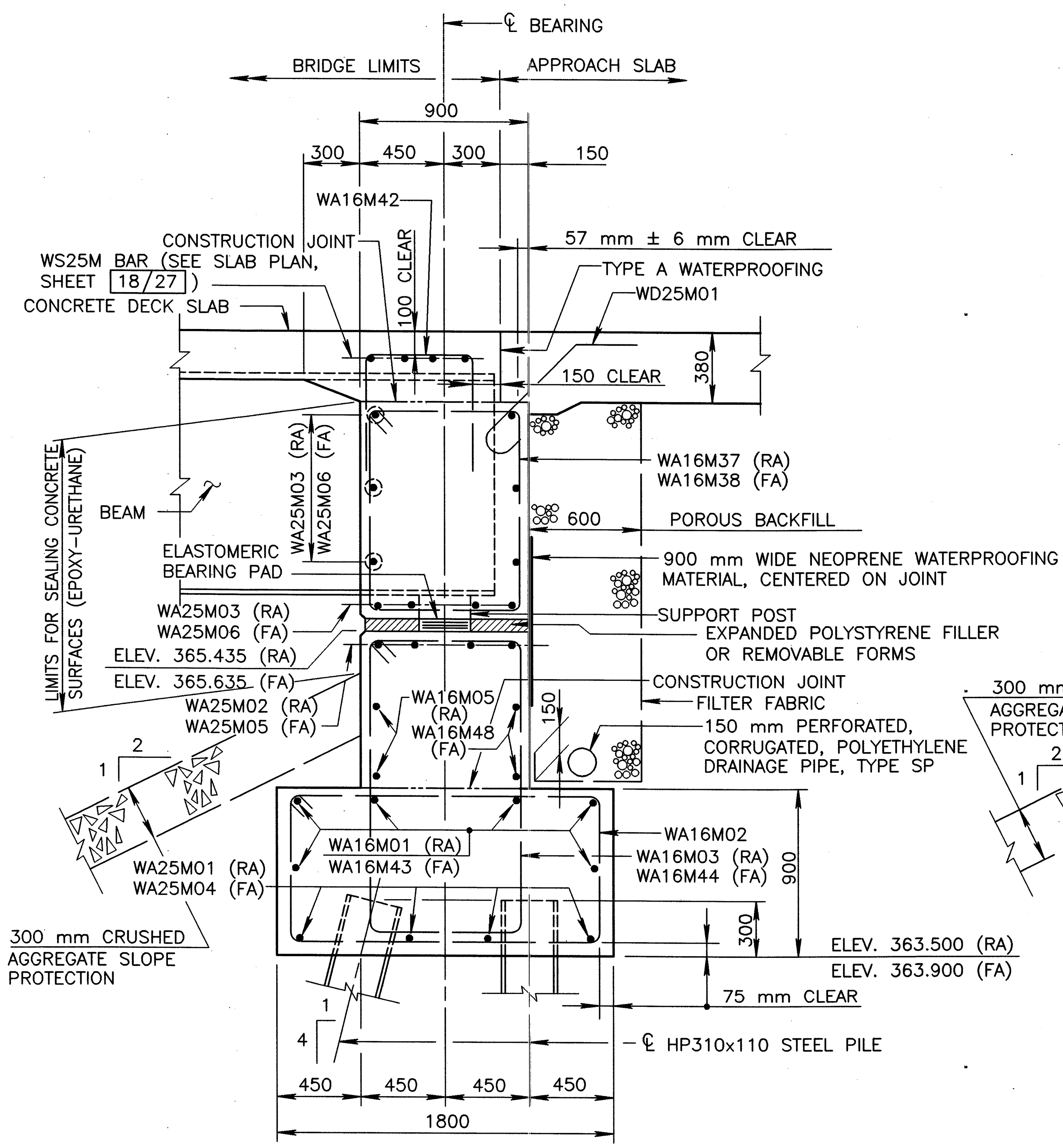
SECTION E–E

NOTES

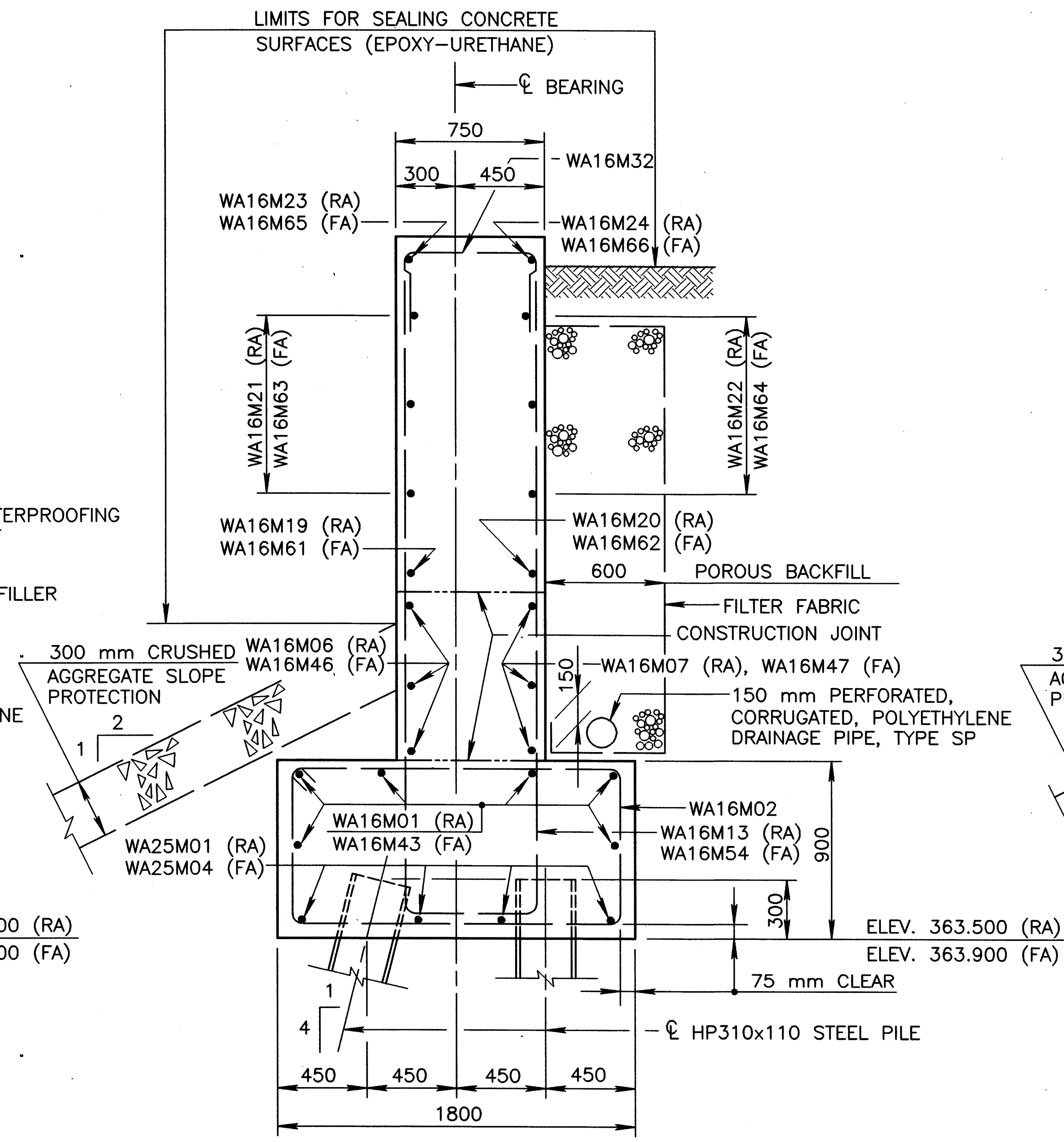
1. FOR LOCATION OF SECTIONS A–A, B–B, C–C, D–D, AND E–E AND ADDITIONAL NOTES, SEE SHEETS 5/27 AND 6/27.
2. FOR DETAILS NOT SHOWN, SEE STANDARD DRAWING SICD–1–96M, SHEETS 1 THRU 7.
3. POROUS BACKFILL WITH FILTER FABRIC, 600 mm THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 300 mm BELOW THE EMBANKMENT SURFACE, AND LATERALLY TO THE ENDS OF THE WINGWALLS.

LEGEND

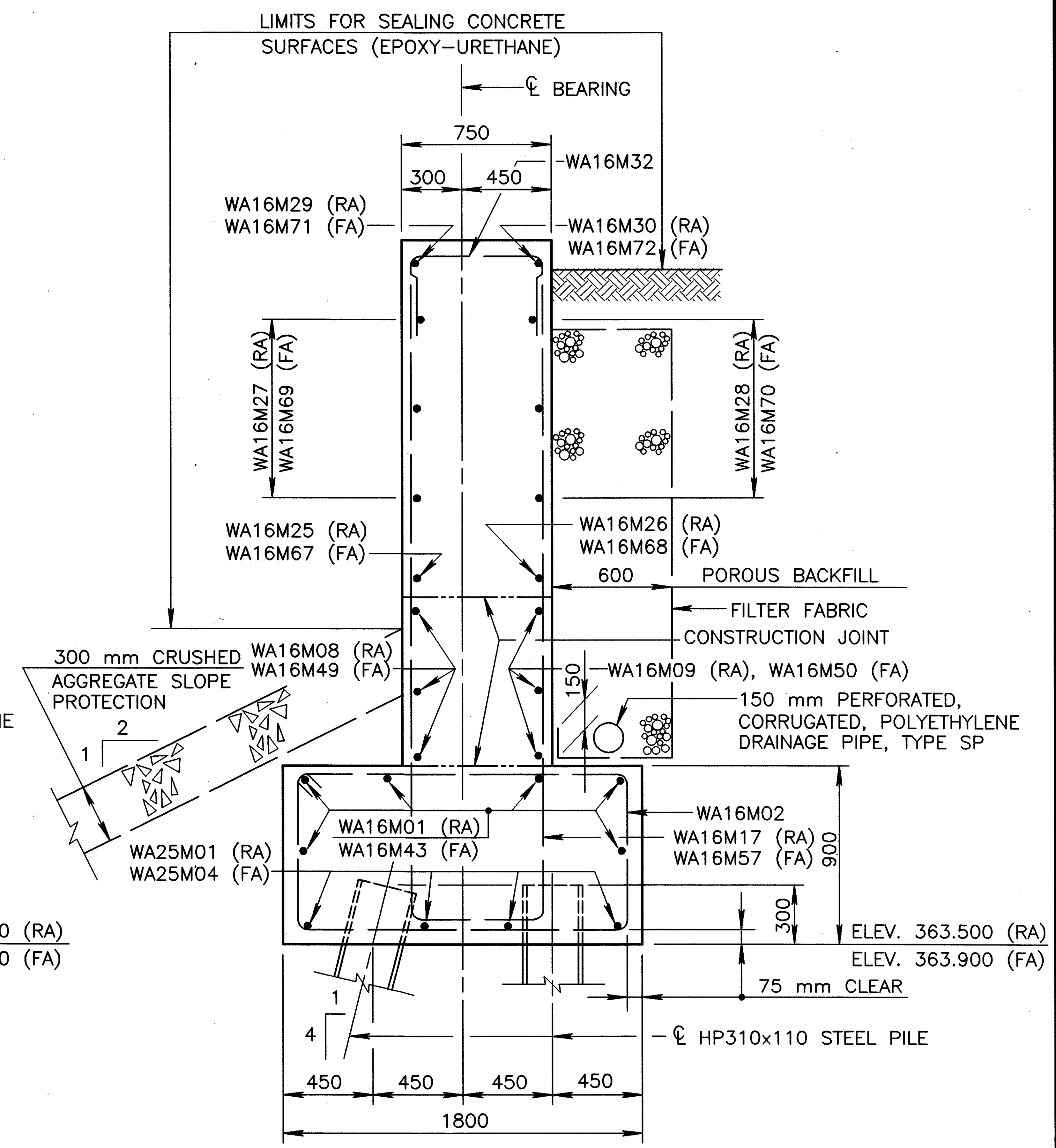
RA DENOTES REAR ABUTMENT
FA DENOTES FORWARD ABUTMENT



SECTION A–A



SECTION B–B



SECTION C–C

metric units

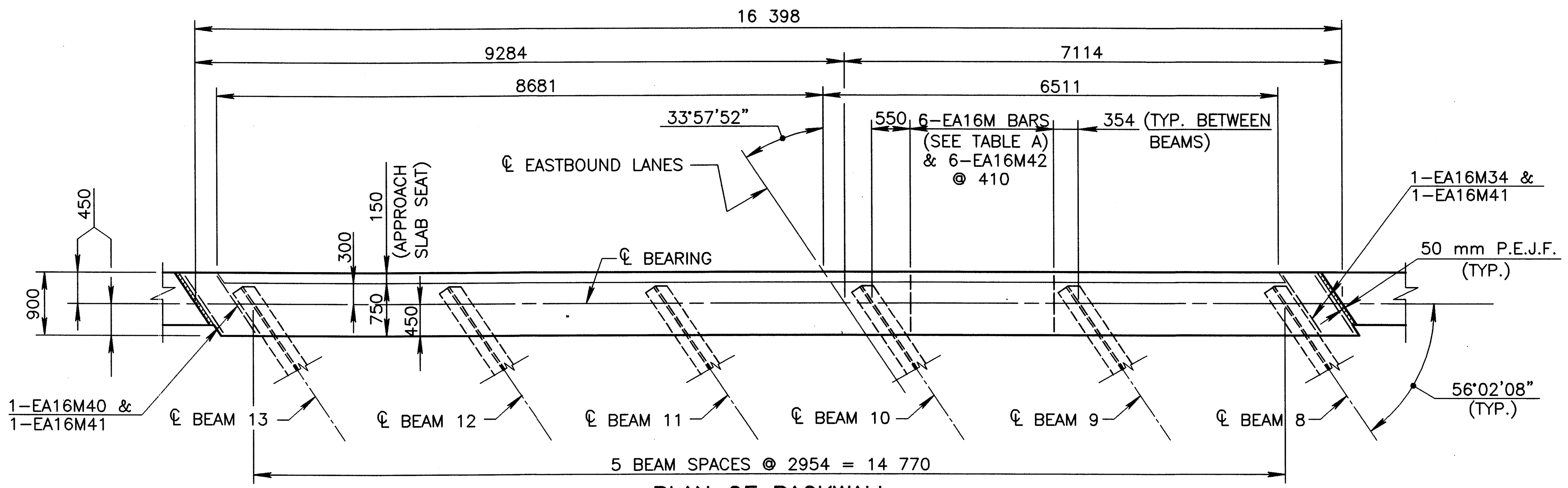
DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

DESIGNED	CHECKED	DRAWN	REVISED	REVIEWED	DATE	STRUCTURE FILE NUMBER
HK	RHW	WEB		LBD	8-14-00	L-1701851 R-1701878

ABUTMENT DETAILS – WESTBOUND BRIDGE
BRIDGE NO. CRA-30-33602-L & R
RELOCATED U.S. 30 OVER CSX TRANSPORTATION, INC.

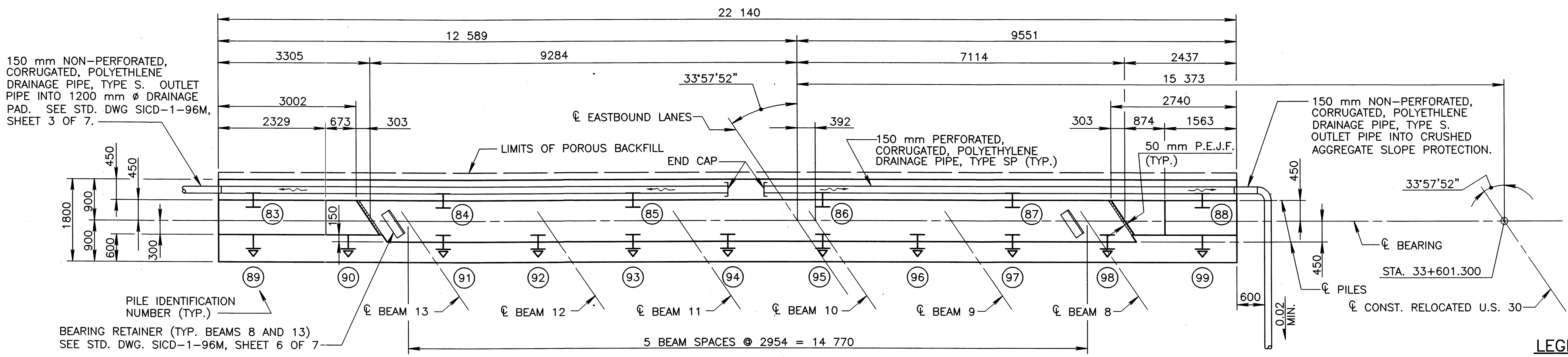
CRA/RIC-30-33.500/0.000

TABLE A	
LOCATION	BAR MARK
BEAM 8–BEAM 9	EA16M35
BEAM 9–BEAM 10	EA16M36
BEAM 10–BEAM 11	EA16M37
BEAM 11–BEAM 12	EA16M38
BEAM 12–BEAM 13	EA16M39



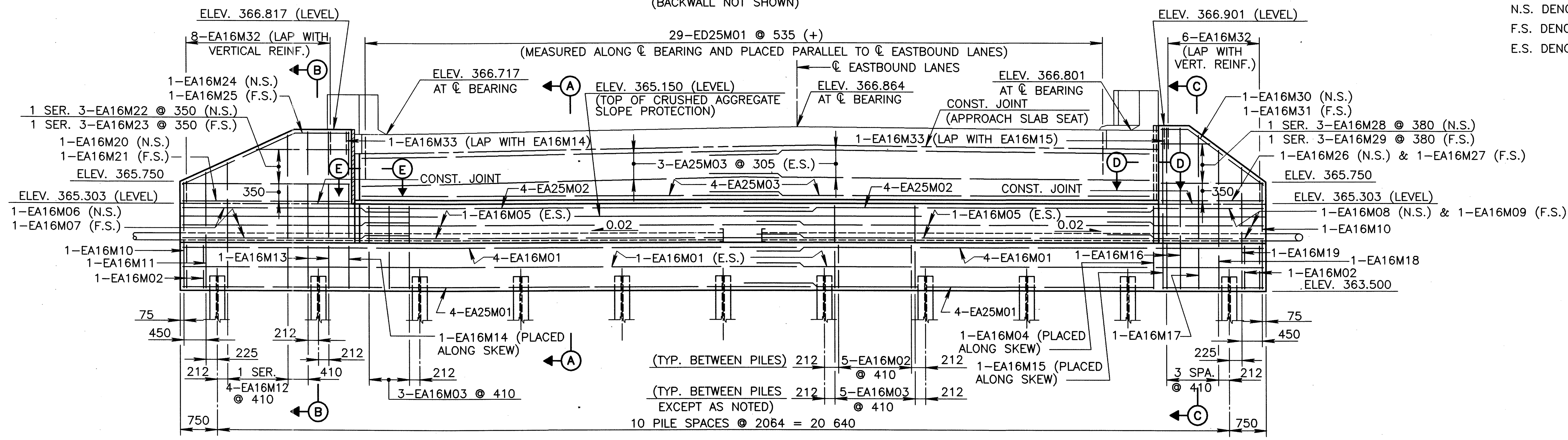
PLAN OF BACKWALL

(DECK SLAB AND APPROACH SLAB NOT SHOWN)
(FOR LONGITUDINAL REINFORCEMENT, SEE ELEVATION)



PLAN

(BACKWALL NOT SHOWN)



ELEVATION

NOTES

1. BRIDGE SEAT REINFORCING: REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT SHALL BE ACCURATELY PLACED TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING RETAINER ANCHOR HOLES.
2. DIAPHRAGM (BACKWALL) CONCRETE ENCASING THE STRUCTURAL MEMBER SECTIONS SUPPORTED IN SEMI–INTEGRAL TYPE ABUTMENTS SHALL BE HIGH PERFORMANCE CONCRETE, MIX 4, AND SHALL BE PLACED AT LEAST 48 HOURS BEFORE THE ACTUAL DECK CONCRETE IS PLACED.
3. MINIMUM LAP UNLESS OTHERWISE NOTED:
   16M BARS = 875 mm   EA16M32 & EA16M33 = 400 mm
   25M BARS = 1500 mm   EA25M02 = 2090 mm
4. ALL PILES ARE HP310x110 STEEL PILES.
5. FOR ELASTOMERIC BEARINGS SEE SHEET 22/27.
6. FOR SECTIONS A–A, B–B, C–C, D–D, AND E–E, SEE SHEET 10/27.
7. PREFORMED EXPANSION JOINT FILLER SHALL BE INCLUDED WITH ITEM 844, HIGH PERFORMANCE CONCRETE, SUBSTRUCTURE, AS PER PLAN, FOR PAYMENT.

LEGEND

DENOTES BATTERED PILE (1:4)
N.S. DENOTES NEAR SIDE
F.S. DENOTES FAR SIDE
E.S. DENOTES EACH SIDE

metric units

DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

REVIEWED LBD DATE 8–14–00
STRUCTURE FILE NUMBER L–1701851 R–1701878
DRAWN WEB REVISED
DESIGNED HK CHECKED RHW

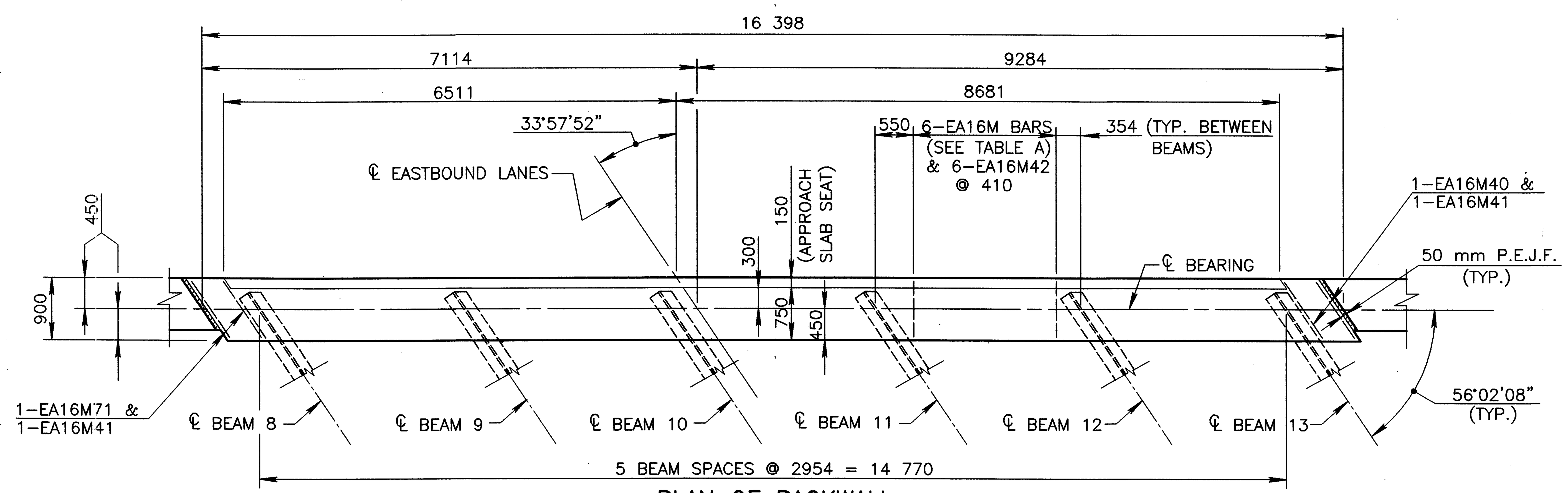
REAR ABUTMENT – EASTBOUND BRIDGE
BRIDGE NO. CRA–30–33602–L & R
RELOCATED U.S. 30 OVER CSX TRANSPORTATION, INC.

CRA/RIC–30–33.500/0.000

8/27

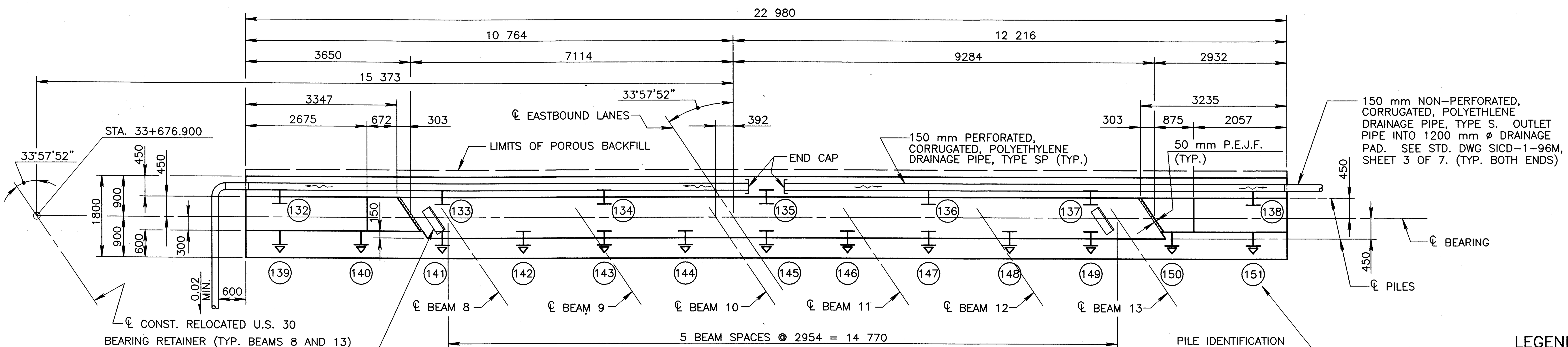
544/712

TABLE A	
LOCATION	BAR MARK
BEAM 8–BEAM 9	EA16M38
BEAM 9–BEAM 10	EA16M35
BEAM 10–BEAM 11	EA16M35
BEAM 11–BEAM 12	EA16M72
BEAM 12–BEAM 13	EA16M39



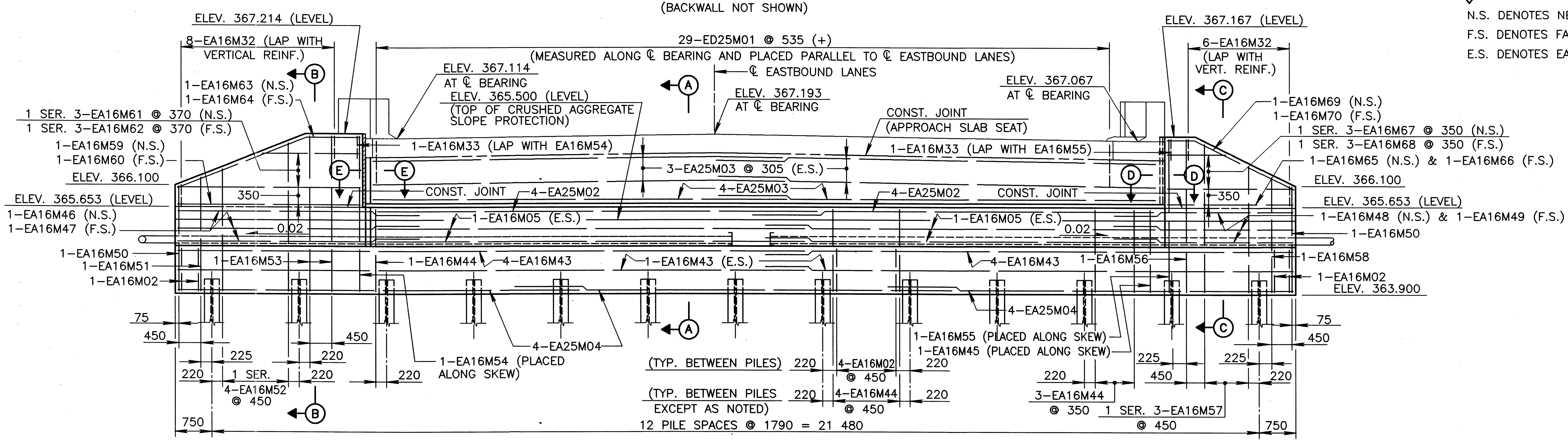
PLAN OF BACKWALL

(DECK SLAB AND APPROACH SLAB NOT SHOWN)
(FOR LONGITUDINAL REINFORCEMENT, SEE ELEVATION)



PLAN

(BACKWALL NOT SHOWN)



ELEVATION

NOTES

1. FOR SECTIONS A–A, B–B, C–C, D–D AND E–E, SEE SHEET 10/27.
2. MINIMUM LAP UNLESS NOTED OTHERWISE:
   16M BARS = 875 mm EA16M32 & EA16M33 = 400 mm
   25M BARS = 1500 mm EA25M02 = 2090 mm
3. ALL PILES ARE HP310x110 STEEL PILES.
4. FOR ADDITIONAL NOTES, SEE SHEET 8/27.

LEGEND

DENOTES BATTERED PILE (1:4)
N.S. DENOTES NEAR SIDE
F.S. DENOTES FAR SIDE
E.S. DENOTES EACH SIDE

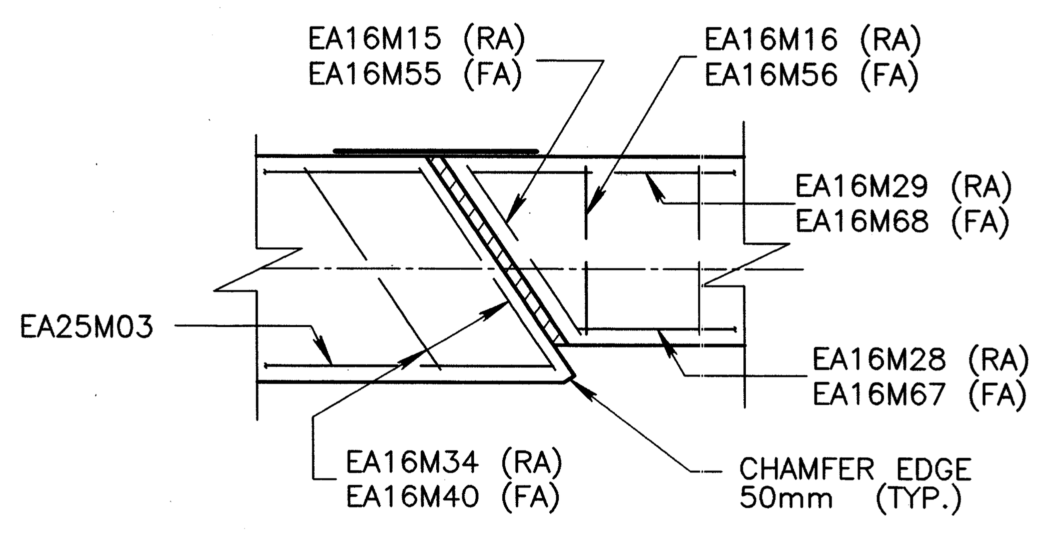
metric units

DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

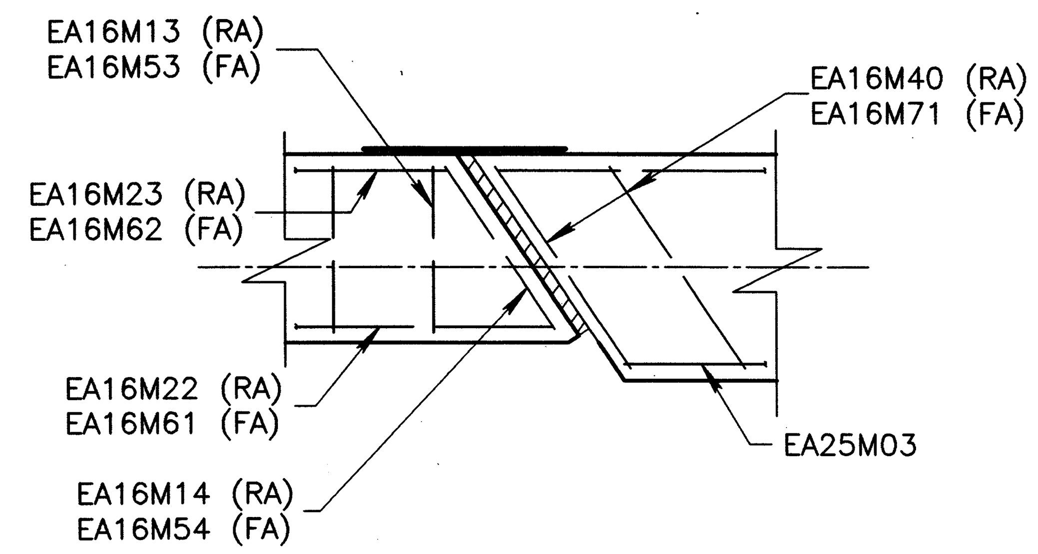
DESIGNED	DRAWN	REVIEWED	DATE
HK	WEB	LBD	8–14–00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RHW		L–1701851 R–1701878	

FORWARD ABUTMENT – EASTBOUND BRIDGE
BRIDGE NO. CRA–30–33602–L & R
RELOCATED U.S. 30 OVER CSX TRANSPORTATION, INC.

CRA/RIC–30–33.500/0.000



SECTION D–D



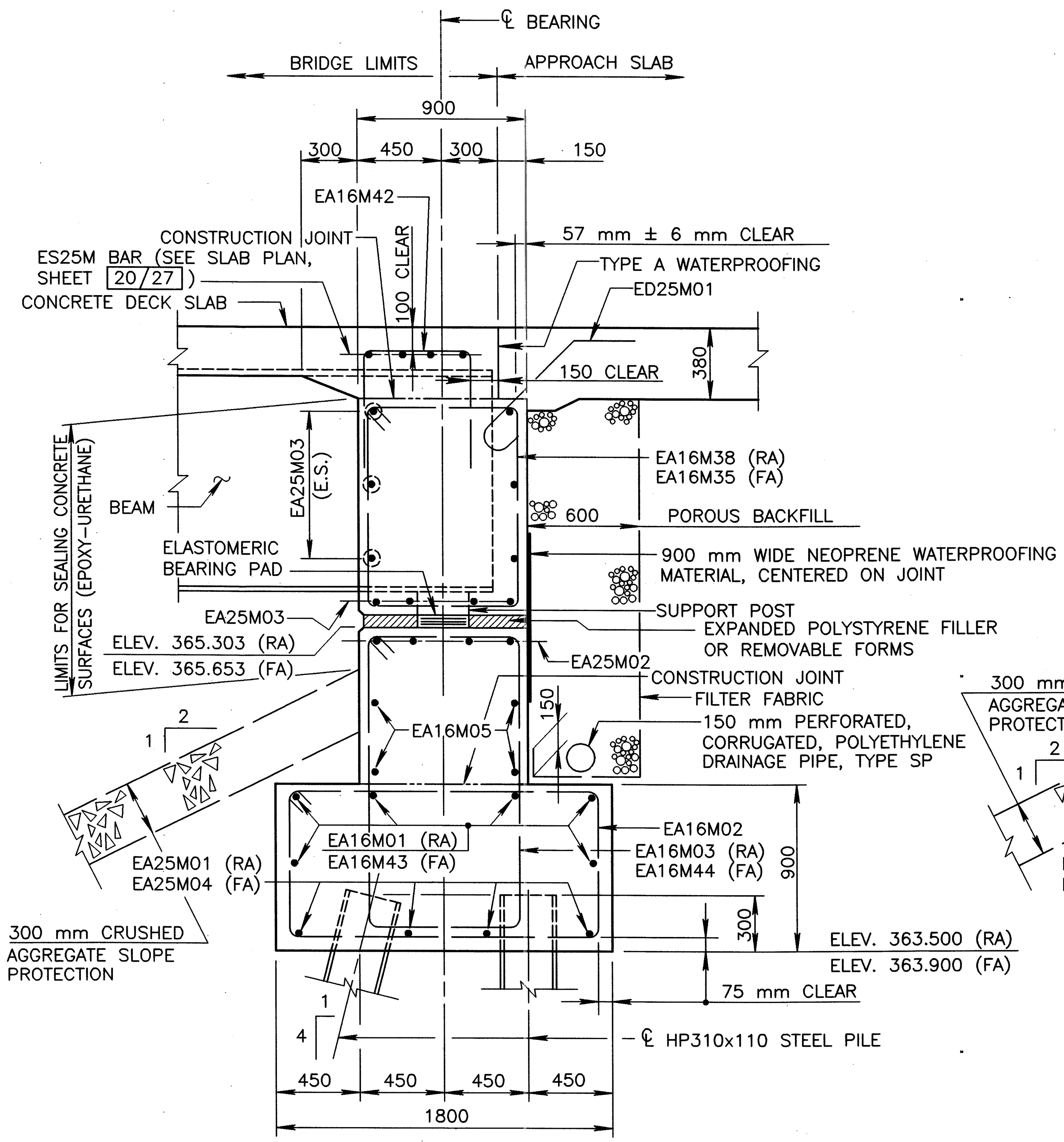
SECTION E–E

NOTES

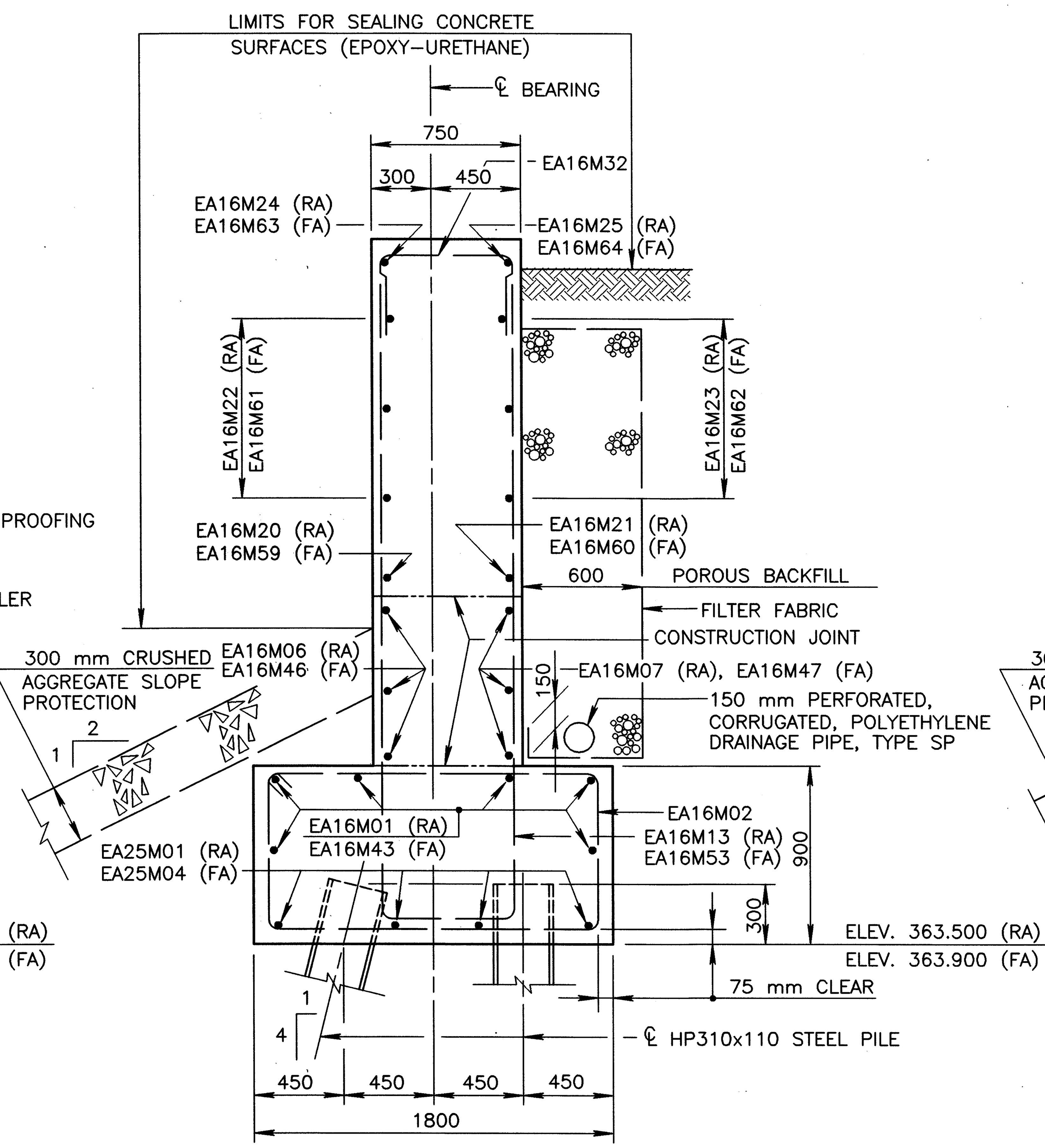
1. FOR LOCATION OF SECTIONS A–A, B–B, C–C, D–D AND E–E AND ADDITIONAL NOTES, SEE SHEETS 8/27 AND 9/27.
2. FOR DETAILS NOT SHOWN, SEE STANDARD DRAWING SICD–1–96M, SHEETS 1 THRU 7.
3. POROUS BACKFILL WITH FILTER FABRIC, 600 mm THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 300 mm BELOW THE EMBANKMENT SURFACE, AND LATERALLY TO THE ENDS OF THE WINGWALLS.

LEGEND

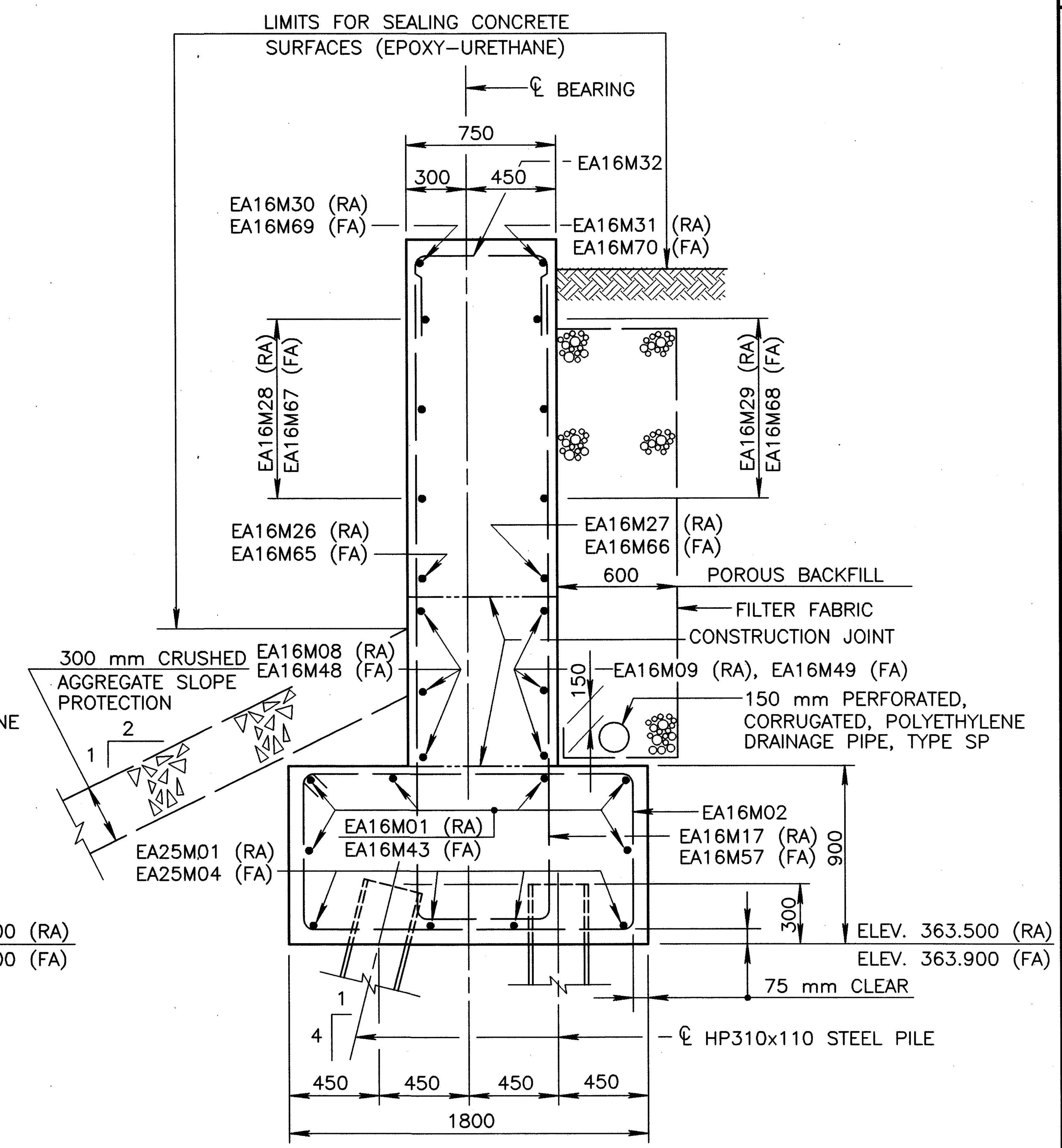
RA DENOTES REAR ABUTMENT
FA DENOTES FORWARD ABUTMENT



SECTION A–A



SECTION B–B



SECTION C–C

metric units

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

REVIEWED LBD DATE 8–14–00
STRUCTURE FILE NUMBER L–1701851 R–1701878
DESIGNED HK CHECKED RHW DRAWN WEB REVISED

ABUTMENT DETAILS – EASTBOUND BRIDGE
BRIDGE NO. CRA–30–33602–L & R
RELOCATED U.S. 30 OVER CSX TRANSPORTATION, INC.

CRA/RIC–30–33.500/0.000

10/27

546/712

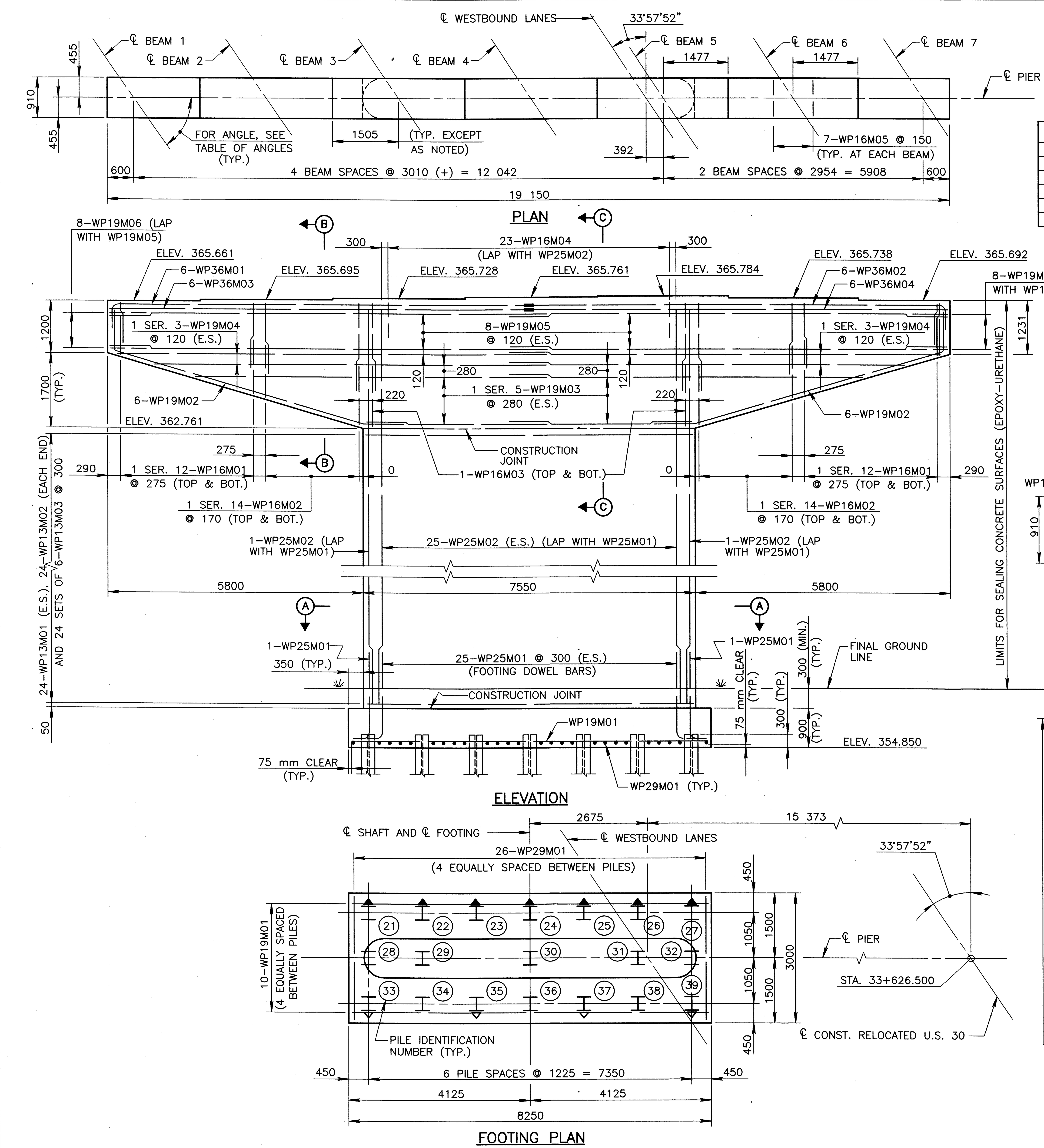


TABLE OF ANGLES	
BEAM	ANGLE
1	54°50'31"
2	55°08'14"
3	55°26'04"
4	55°44'02"
5, 6 & 7	56°02'08"

NOTES

1. MINIMUM LAP UNLESS NOTED OTHERWISE:
   13M BARS = 590 mm 16M BARS = 750 mm
   19M BARS = 890 mm 25M BARS = 1500 mm
2. ALL PILES ARE HP310x79 STEEL PILES.
3. PILE LAYOUT DIMENSIONS ARE MEASURED ALONG BOTTOM OF FOOTING.

LEGEND

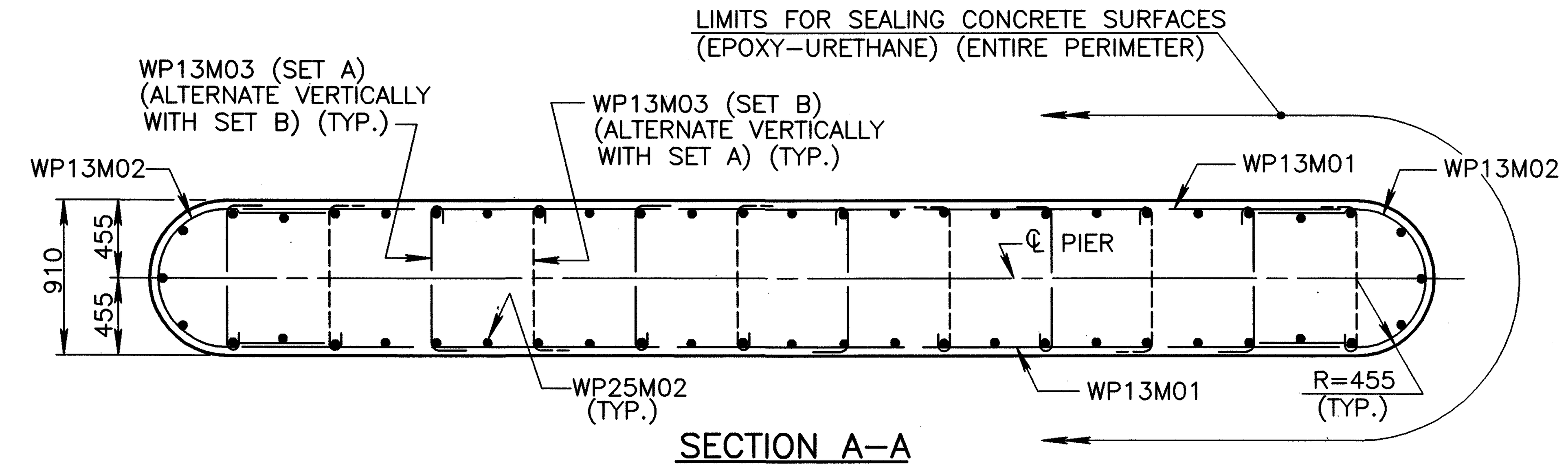
DENOTES BATTERED PILE (1:15)

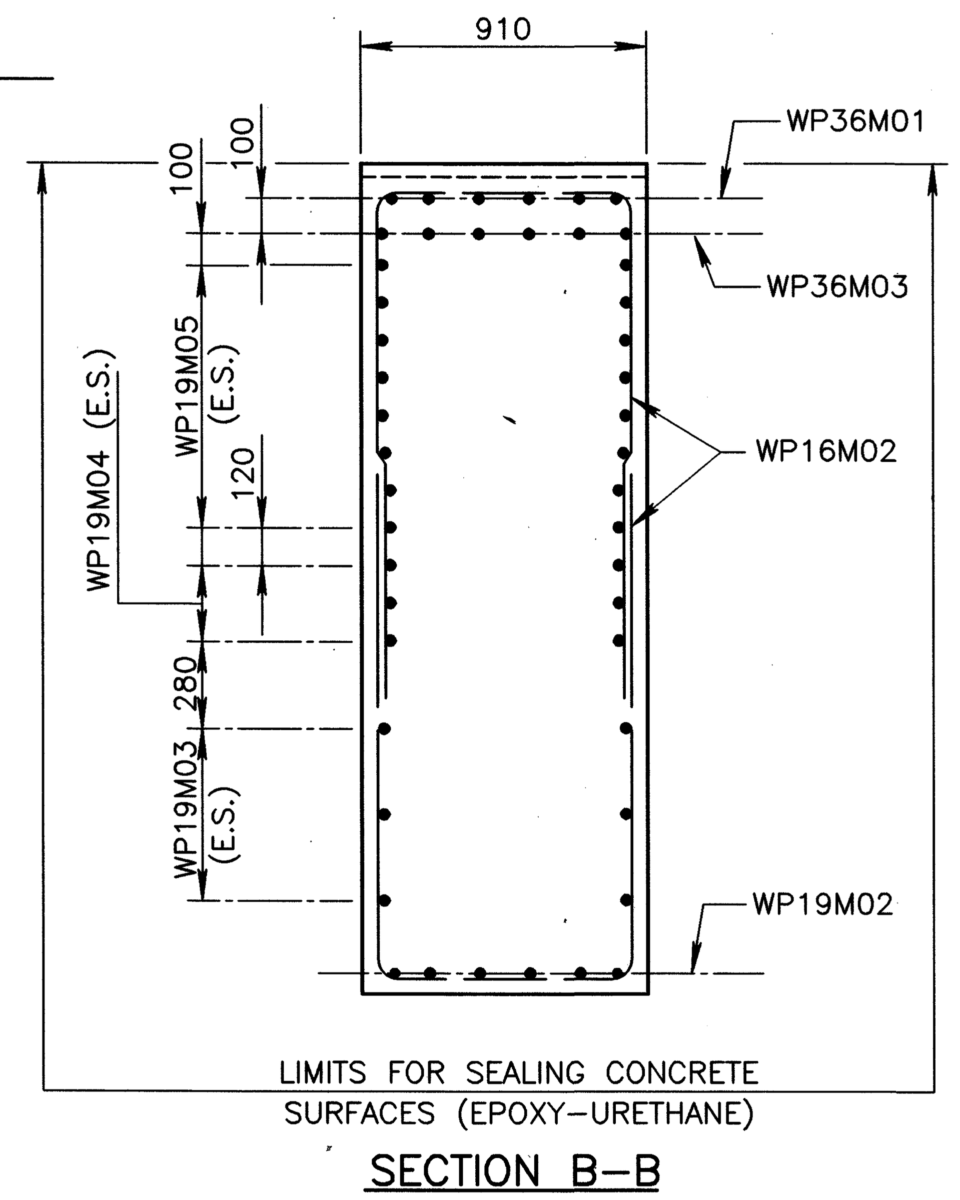
DENOTES BATTERED PILE (1:4)

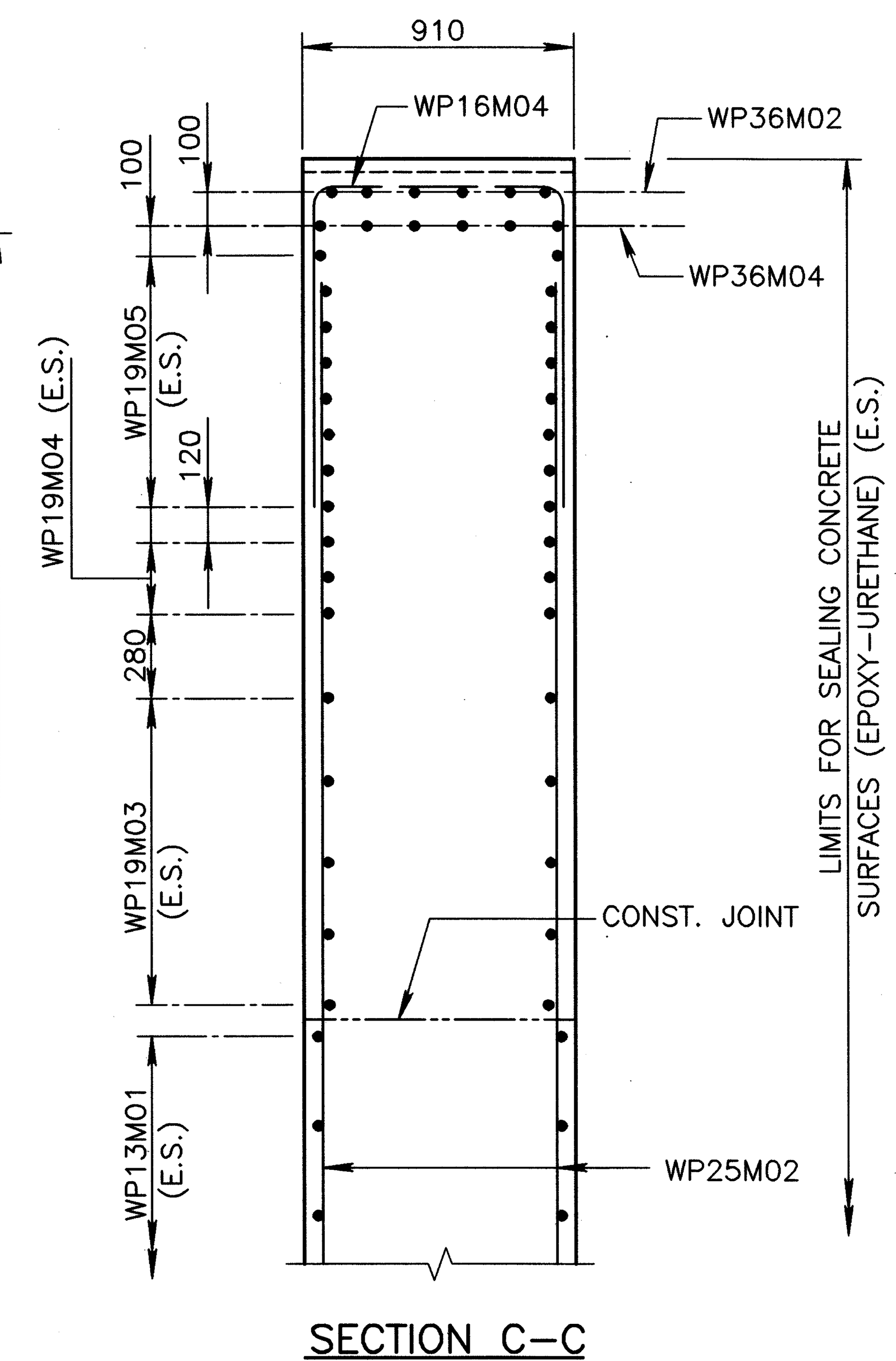
E.S. DENOTES EACH SIDE

BOT. DENOTES BOTTOM

DENOTES MECHANICAL CONNECTOR







DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

metric units

REVIEWED: LBD DATE: 8-14-00 STRUCTURE FILE NUMBER: L-1701851 R-1701878

DRAWN: WEB REVISED:

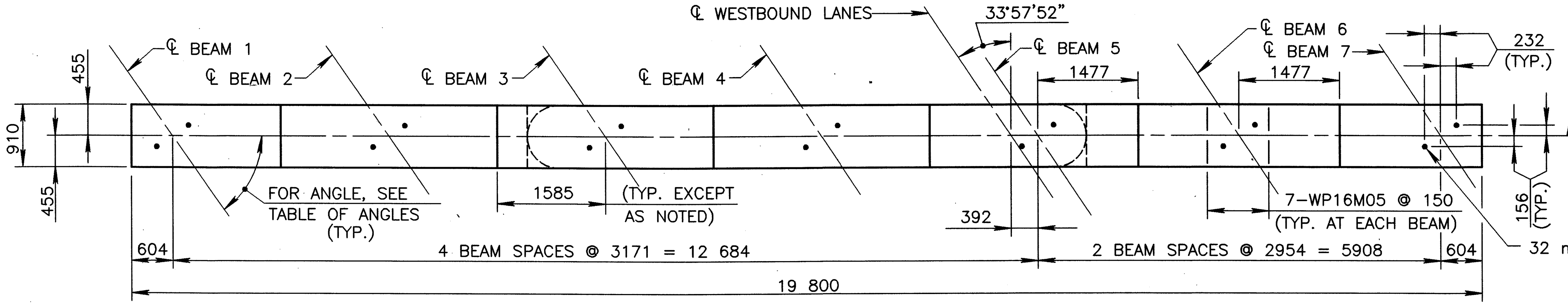
DESIGNED: HK CHECKED: RHW

PIER 1 - WESTBOUND BRIDGE
BRIDGE NO. CRA-30-33602-L & R
RELOCATED U.S. 30 OVER CSX TRANSPORTATION, INC.

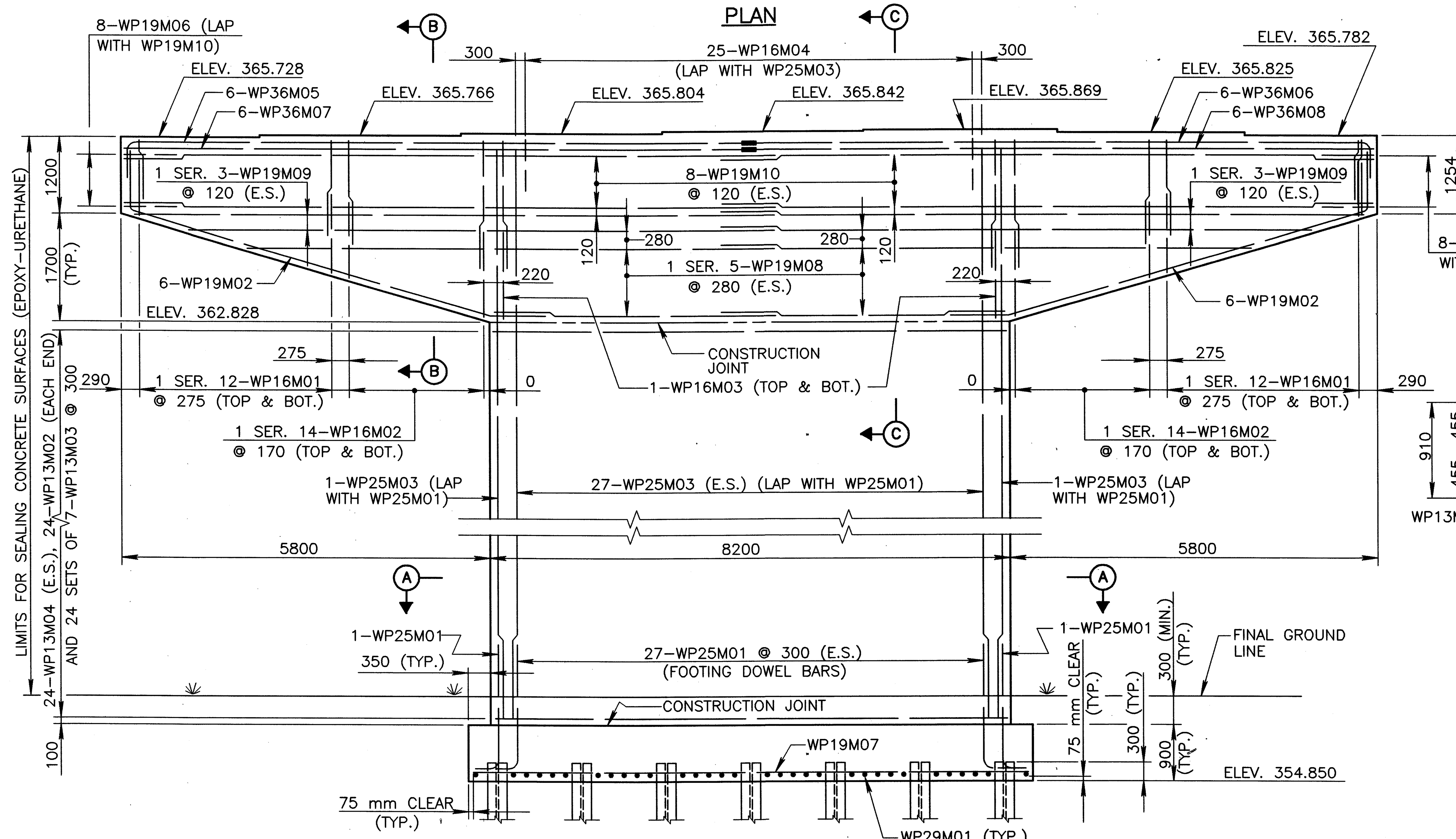
CRA/RIC-30-33.500/0.000

11/27

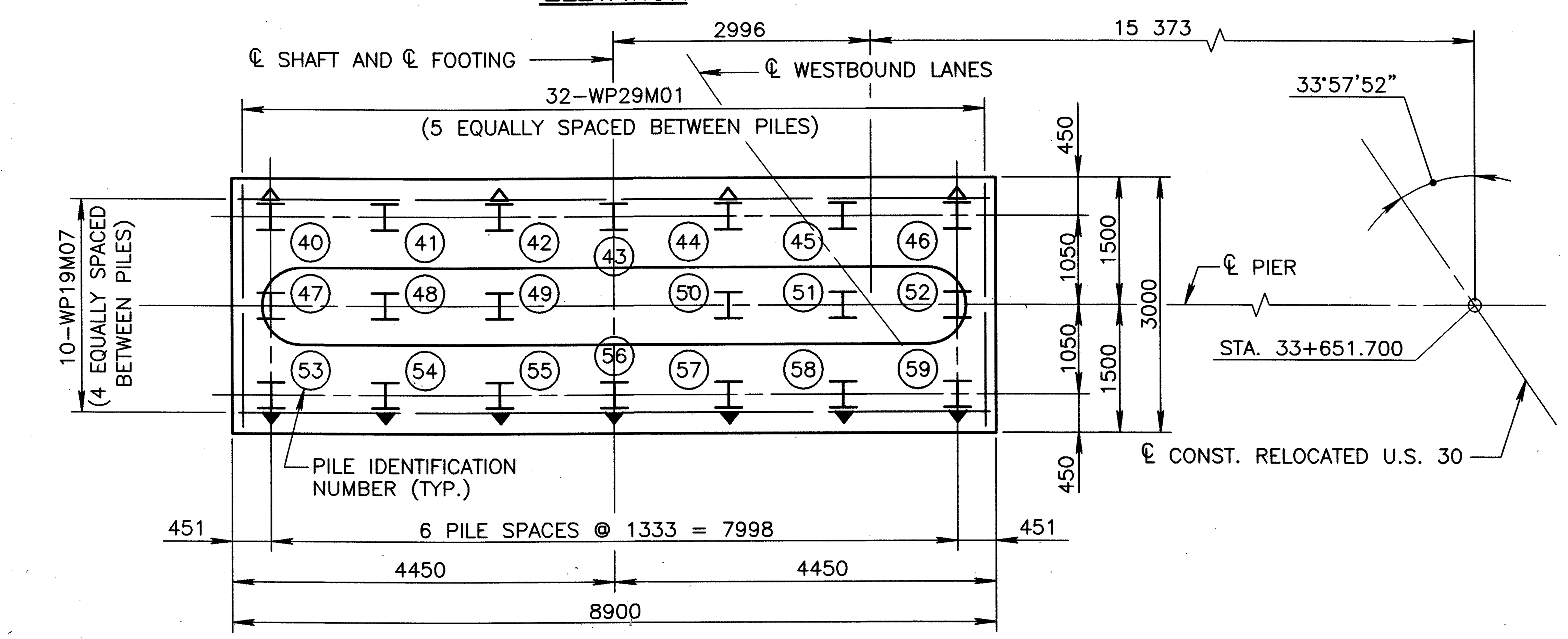
547/712



PLAN



ELEVATION



FOOTING PLAN

NOTES

1. BRIDGE SEAT REINFORCING: REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT SHALL BE ACCURATELY PLACED TO AVOID INTERFERENCE WITH THE DRILLING OF THE BEARING ANCHOR HOLES OR THE PRE-SETTING OF BEARING ANCHORS.
2. MINIMUM LAP UNLESS NOTED OTHERWISE:
   13M BARS = 590 mm   16M BARS = 750 mm
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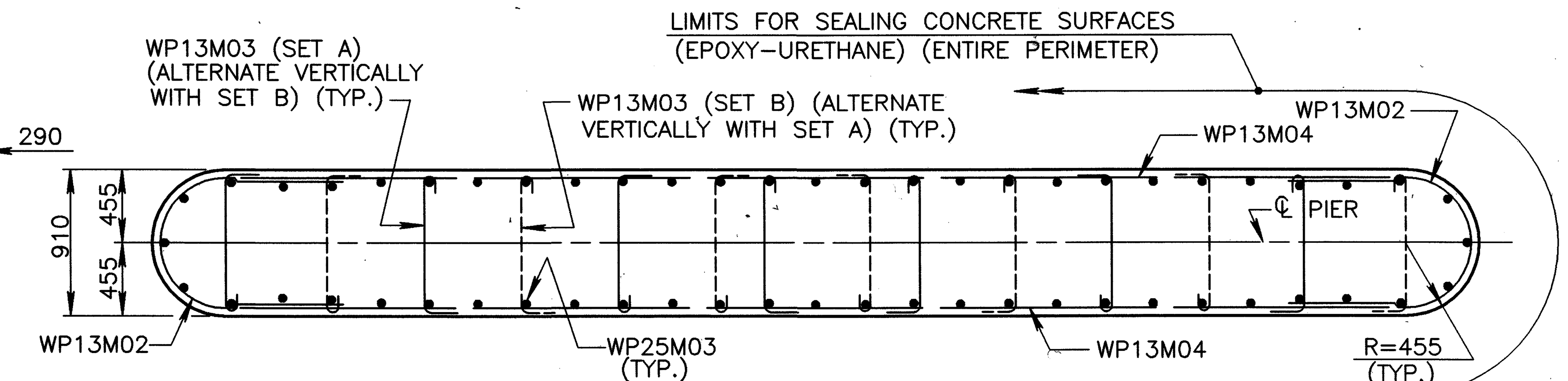
3. ALL PILES ARE HP310x79 STEEL PILES.
4. PILE LAYOUT DIMENSIONS ARE MEASURED ALONG BOTTOM OF FOOTING.

TABLE OF ANGLES

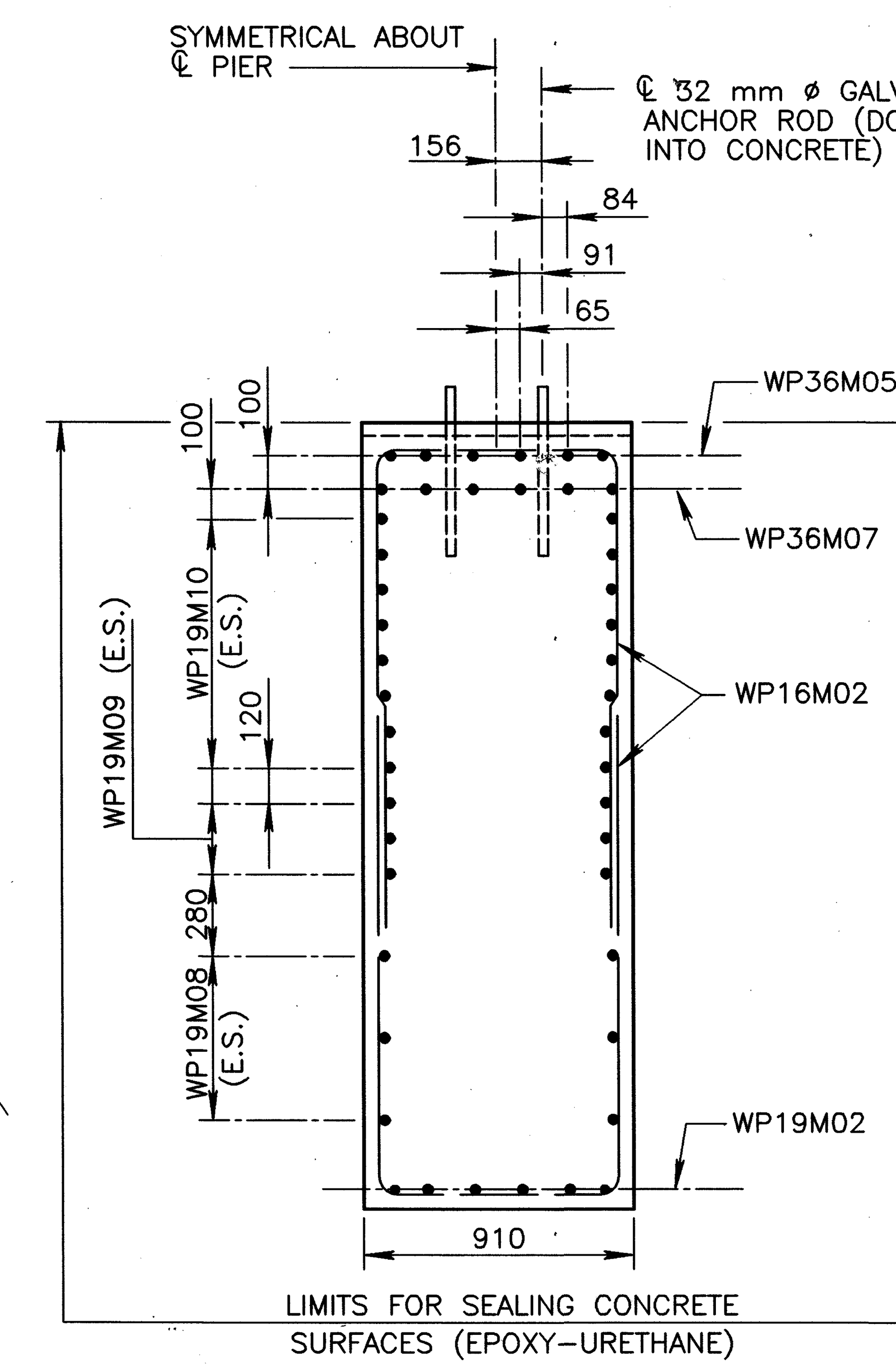
BEAM	ANGLE
1	54°50'31"
2	55°08'14"
3	55°26'04"
4	55°44'02"
5, 6 & 7	56°02'08"

LEGEND

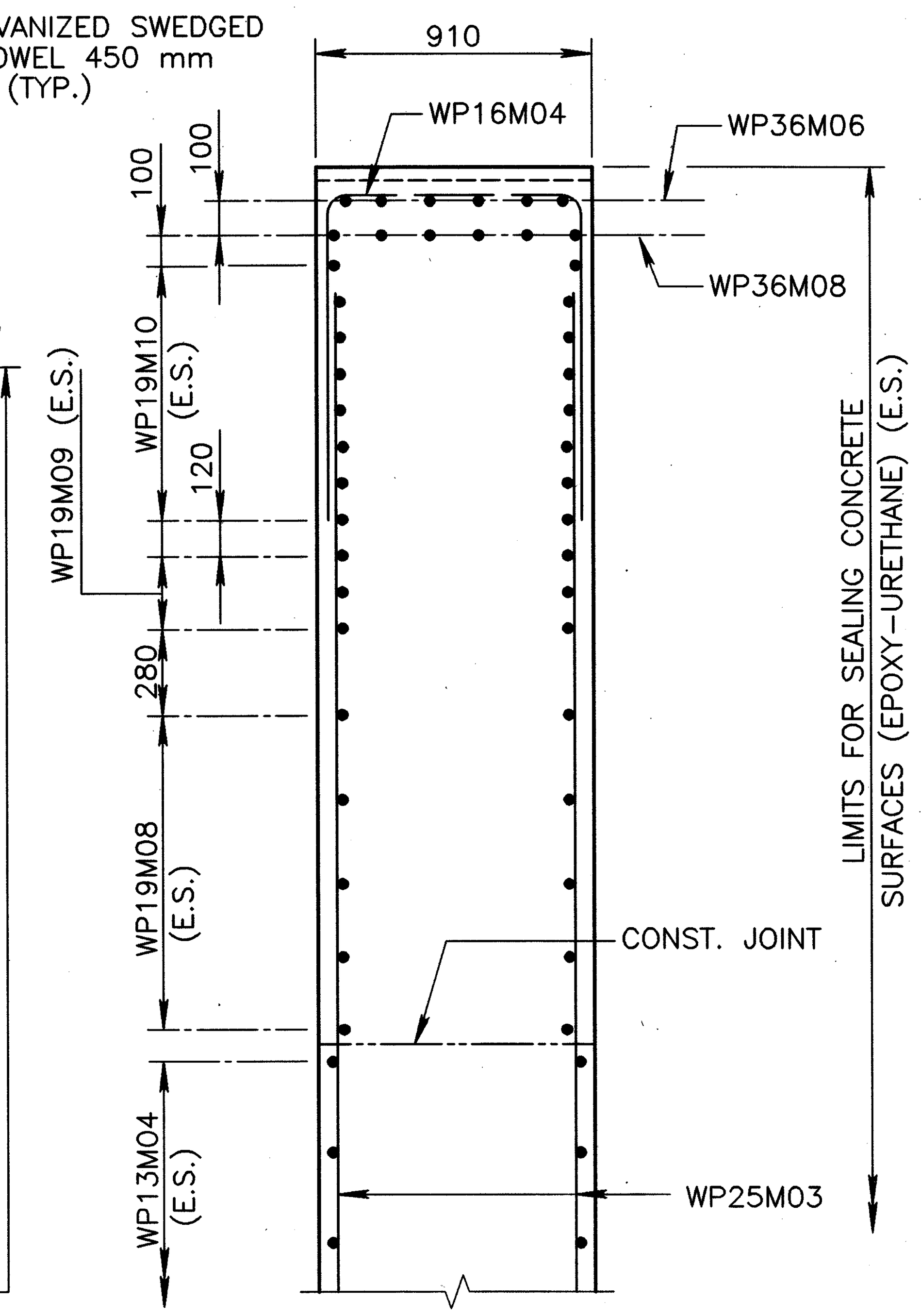
DENOTES BATTERED PILE (1:15)
DENOTES BATTERED PILE (1:4)
E.S. DENOTES EACH SIDE
BOT. DENOTES BOTTOM
DENOTES MECHANICAL CONNECTOR



SECTION A–A



SECTION B–B



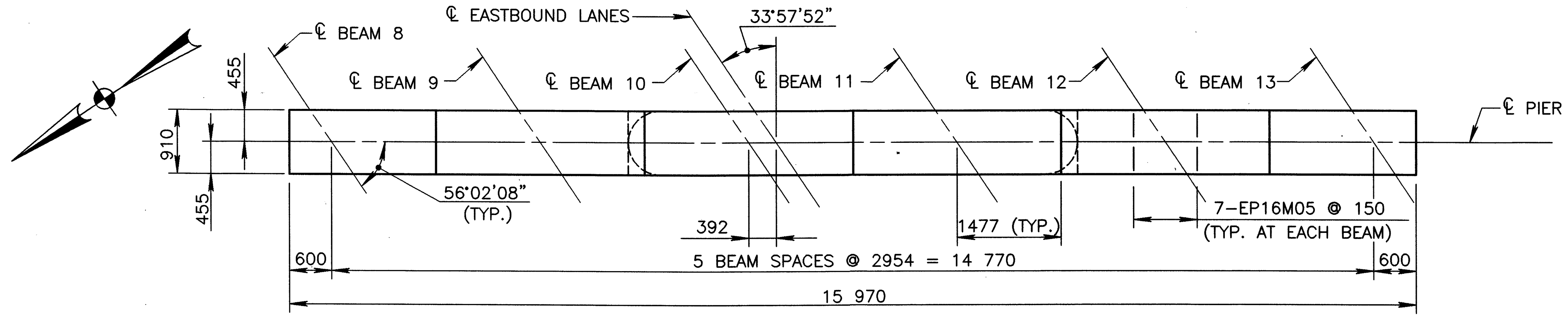
SECTION C–C

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

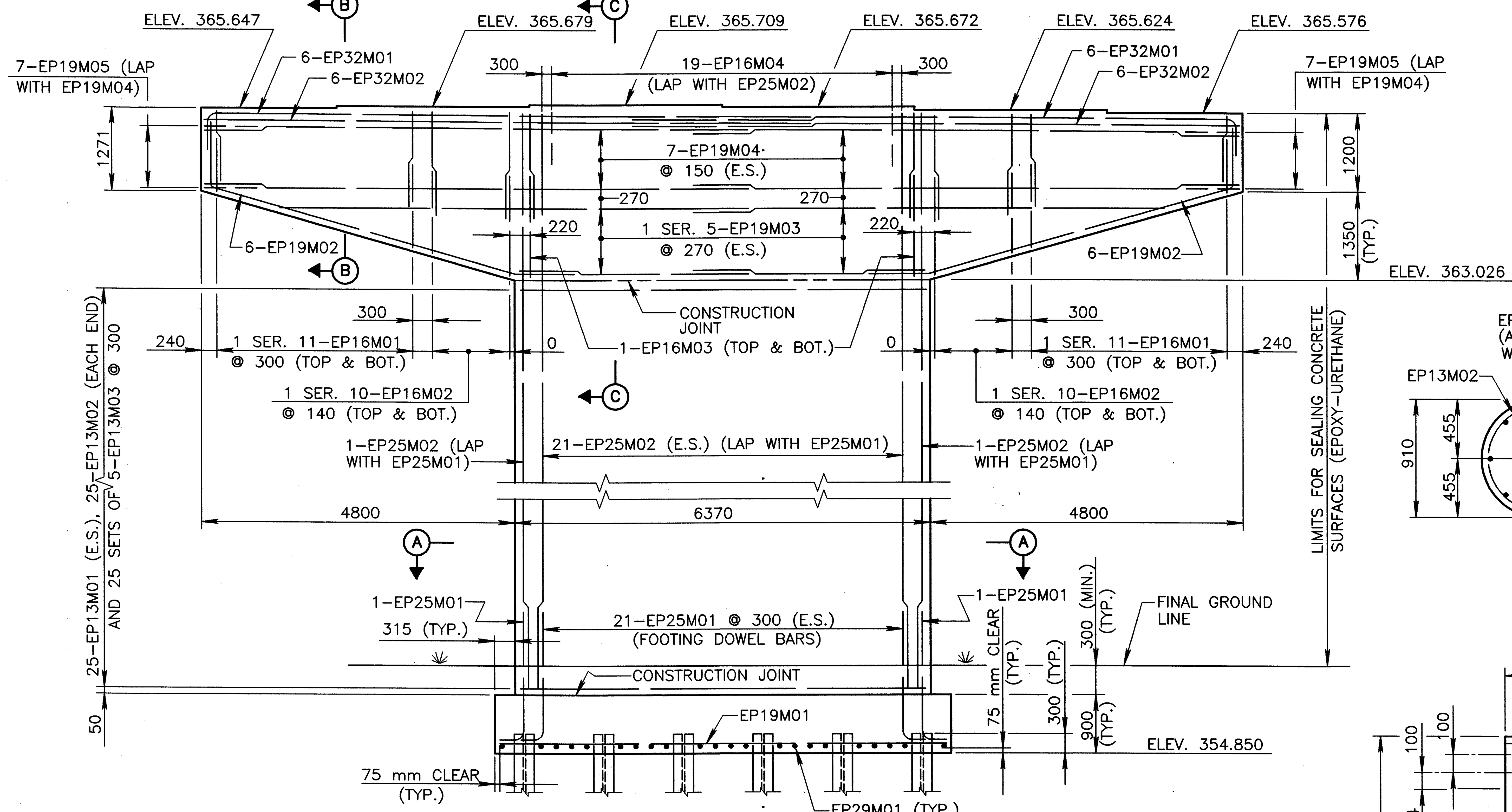
DATE	REVIEWED	STRUCTURE FILE NUMBER	DRAWN	REVISED	DESIGNED	CHECKED
8-14-00	LBD	L-1701851 R-1701878	WEB		HK	RHW

PIER 2 – WESTBOUND BRIDGE
BRIDGE NO. CRA-30-33602-L & R
RELOCATED U.S. 30 OVER CSX TRANSPORTATION, INC.

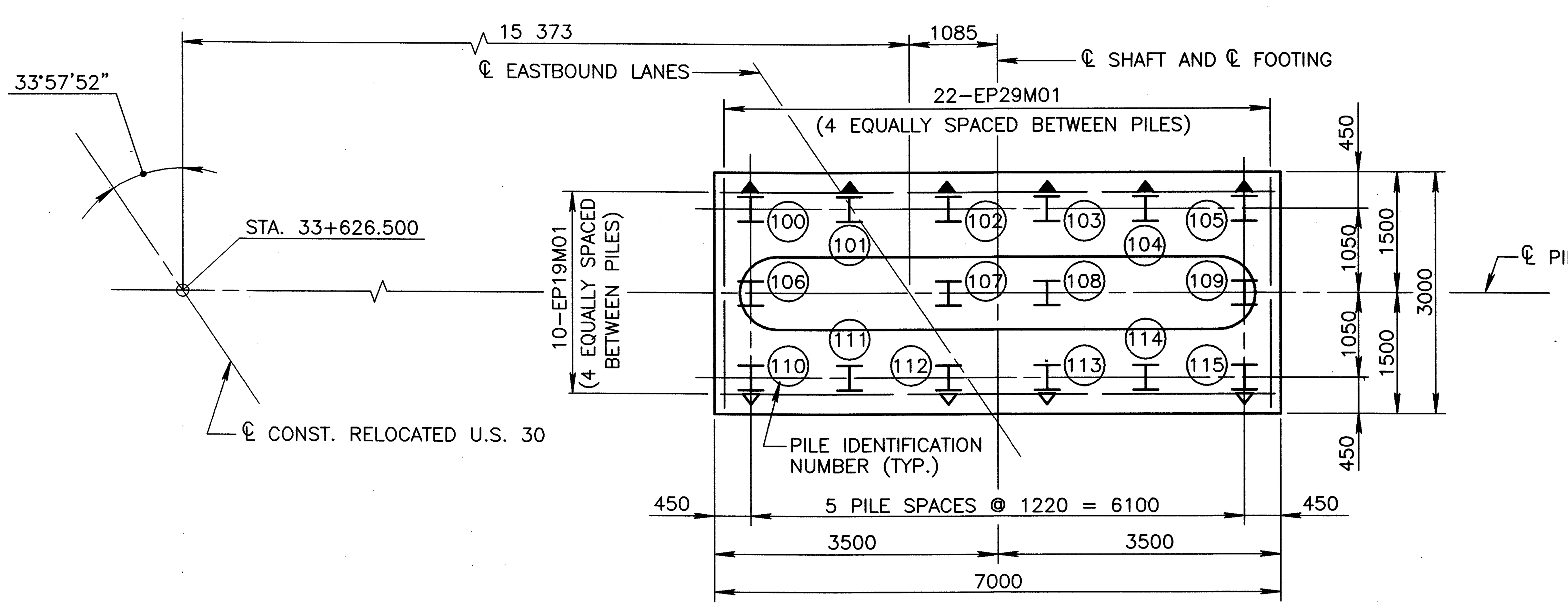
CRA/RIC-30-33.500/0.000



PLAN



ELEVATION



FOOTING PLAN

NOTES

1. MINIMUM LAP UNLESS NOTED OTHERWISE:

13M BARS =	590 mm	16M BARS =	750 mm
19M BARS =	890 mm	25M BARS =	1500 mm
32M BARS =	2750 mm		

2. ALL PILES ARE HP310x79 STEEL PILES.
3. PILE LAYOUT DIMENSIONS ARE MEASURED ALONG BOTTOM OF FOOTING.

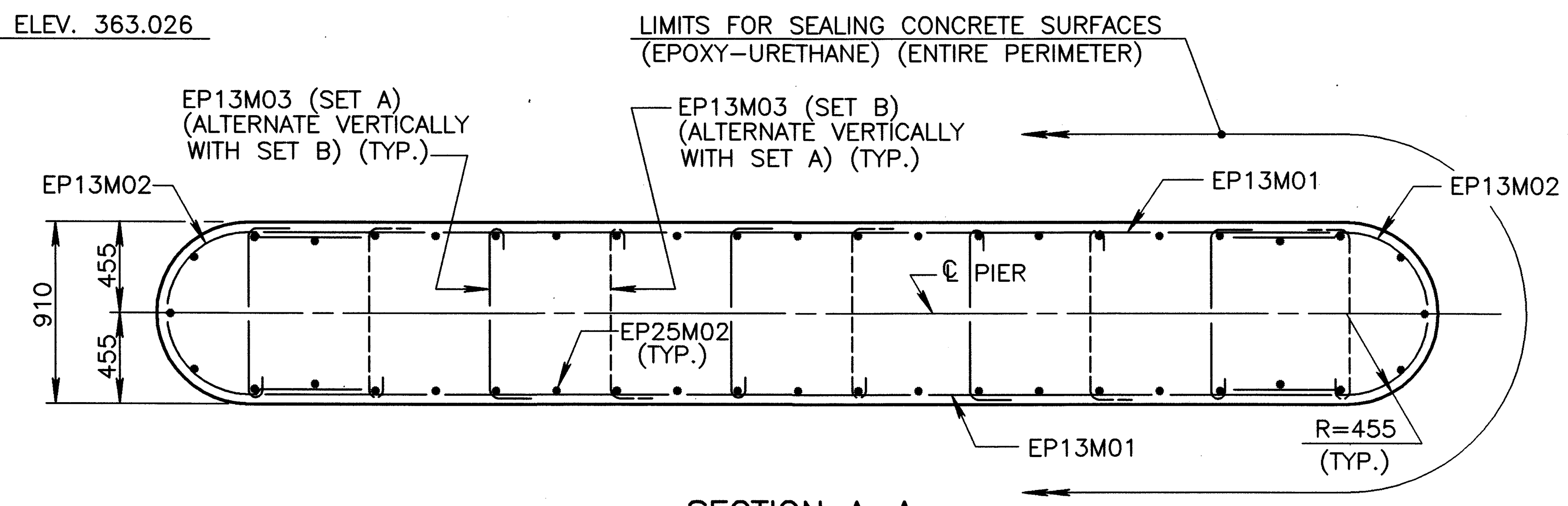
LEGEND

DENOTES BATTERED PILE (1:15)

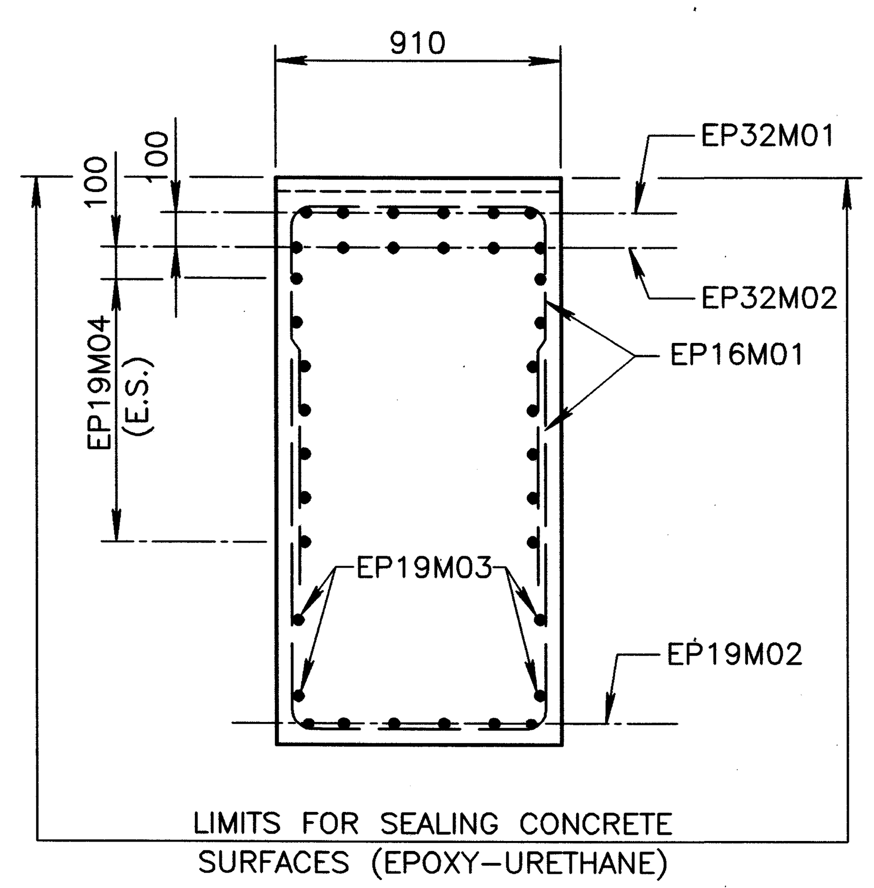
DENOTES BATTERED PILE (1:4)

E.S. DENOTES EACH SIDE

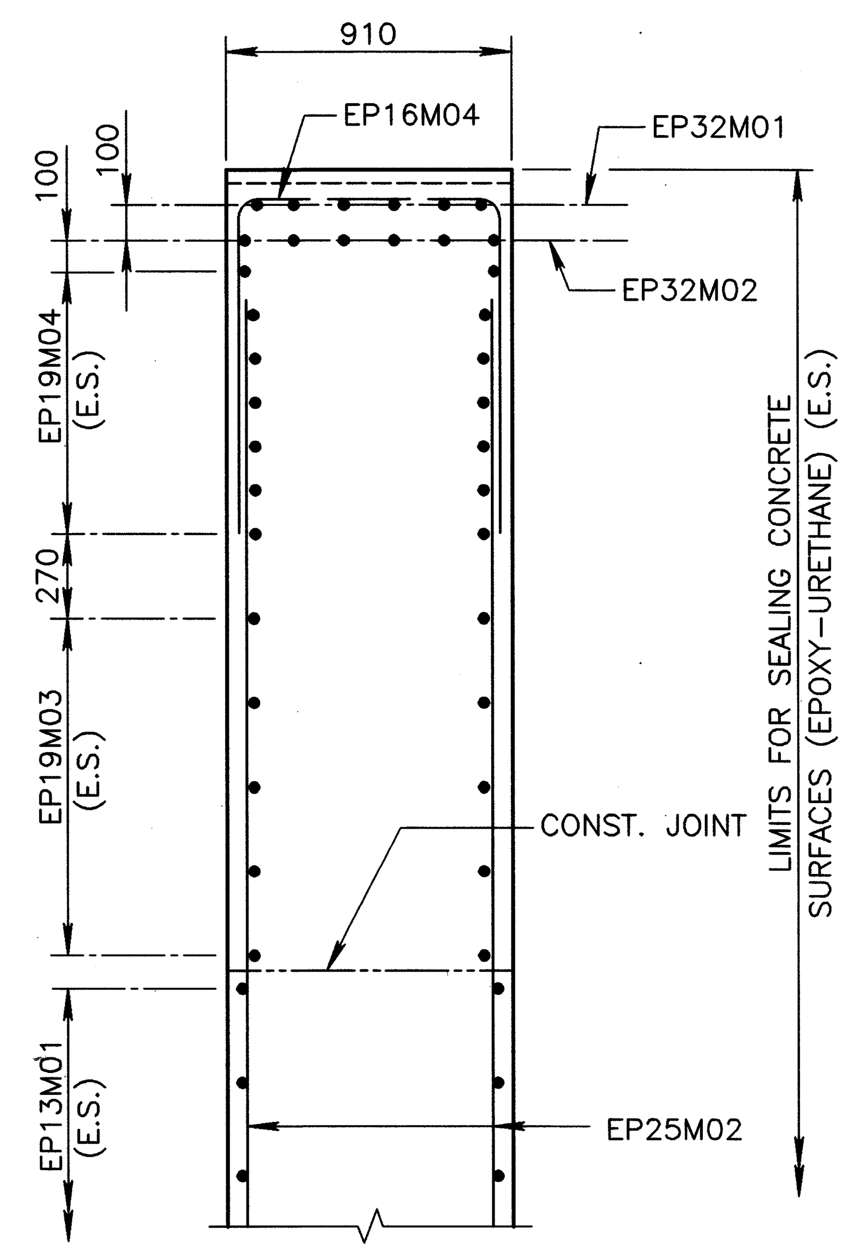
BOT. DENOTES BOTTOM



SECTION A–A



SECTION B–B



SECTION C–C

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

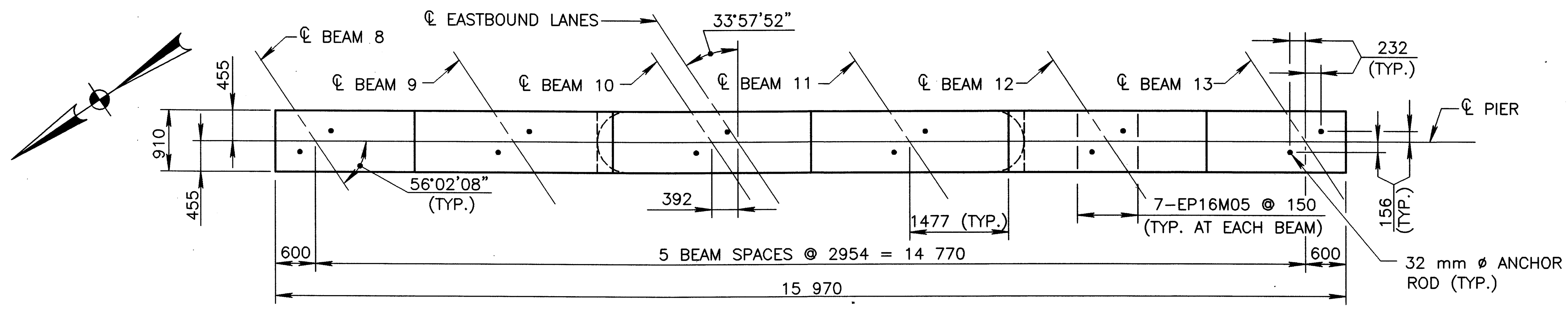
DESIGNED	DRAWN	REVIEWED	DATE	STRUCTURE FILE NUMBER
HK	WEB	LBD	8-14-00	L-1701851 R-1701878
CHECKED	REVISED			
RHW				

PIER 1 – EASTBOUND BRIDGE
BRIDGE NO. CRA-30-33602-L & R
RELOCATED U.S. 30 OVER CSX TRANSPORTATION, INC.

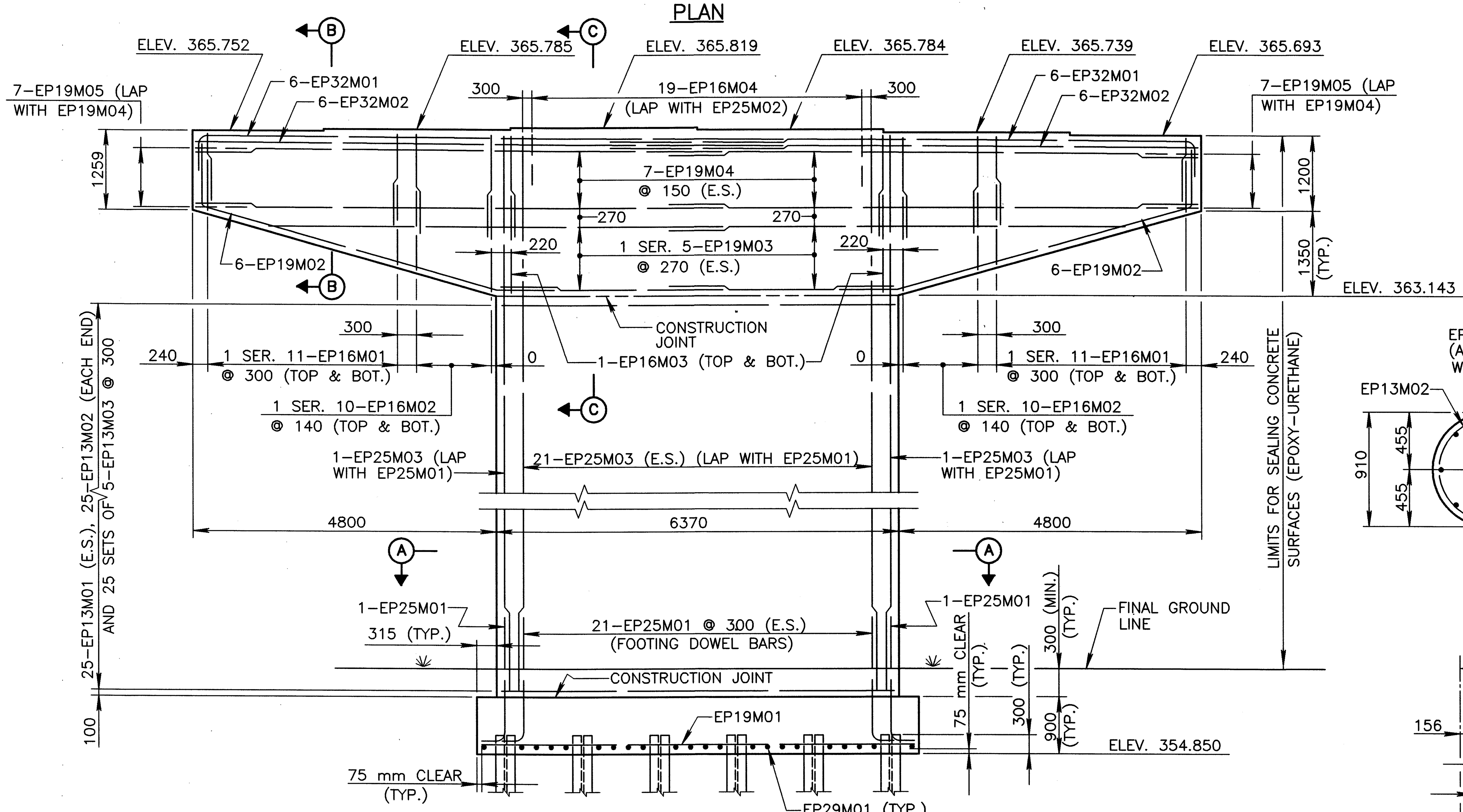
CRA/RIC-30-33.500/0.000

13/27

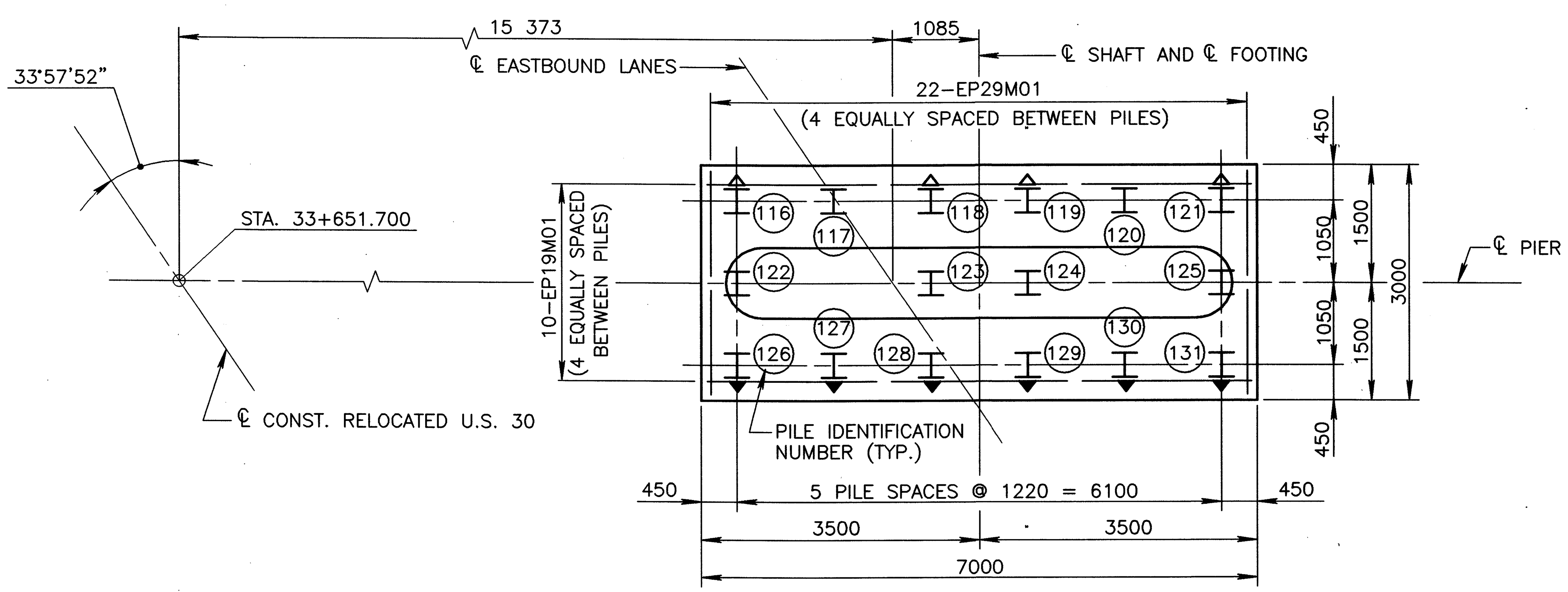
549/712



PLAN



ELEVATION



FOOTING PLAN

NOTES

1. BRIDGE SEAT REINFORCING: REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT SHALL BE ACCURATELY PLACED TO AVOID INTERFERENCE WITH THE DRILLING OF THE BEARING ANCHOR HOLES OR THE PRE-SETTING OF BEARING ANCHORS.
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19M BARS =	890 mm	25M BARS =	1500 mm
32M BARS =	2750 mm		

3. ALL PILES ARE HP310x79 STEEL PILES.
4. PILE LAYOUT DIMENSIONS ARE MEASURED ALONG BOTTOM OF FOOTING.

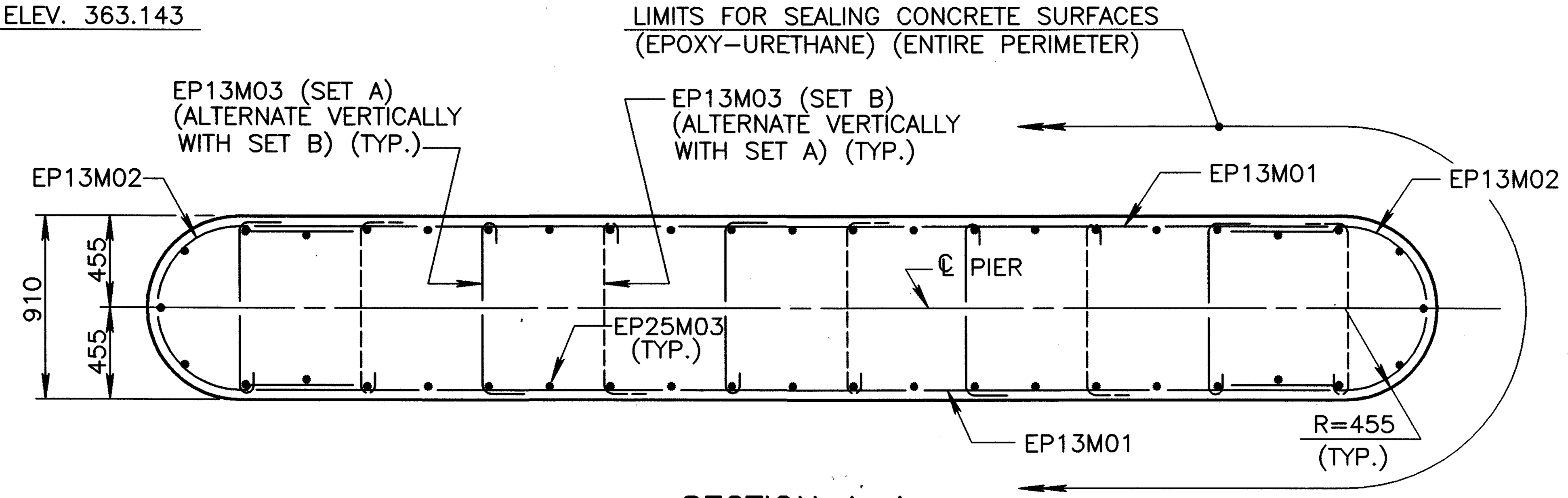
LEGEND

DENOTES BATTERED PILE (1:4)

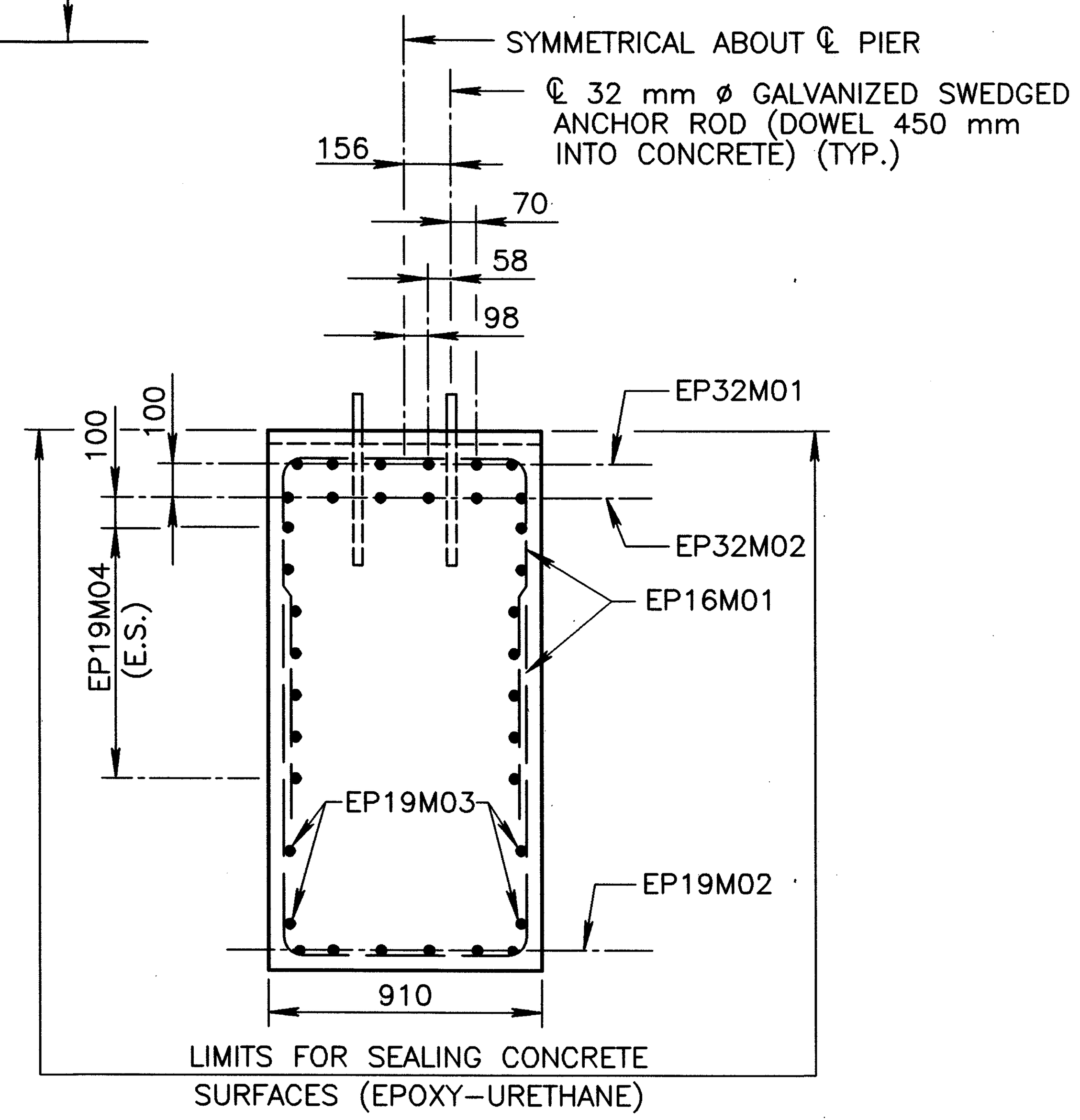
DENOTES BATTERED PILE (1:15)

E.S. DENOTES EACH SIDE

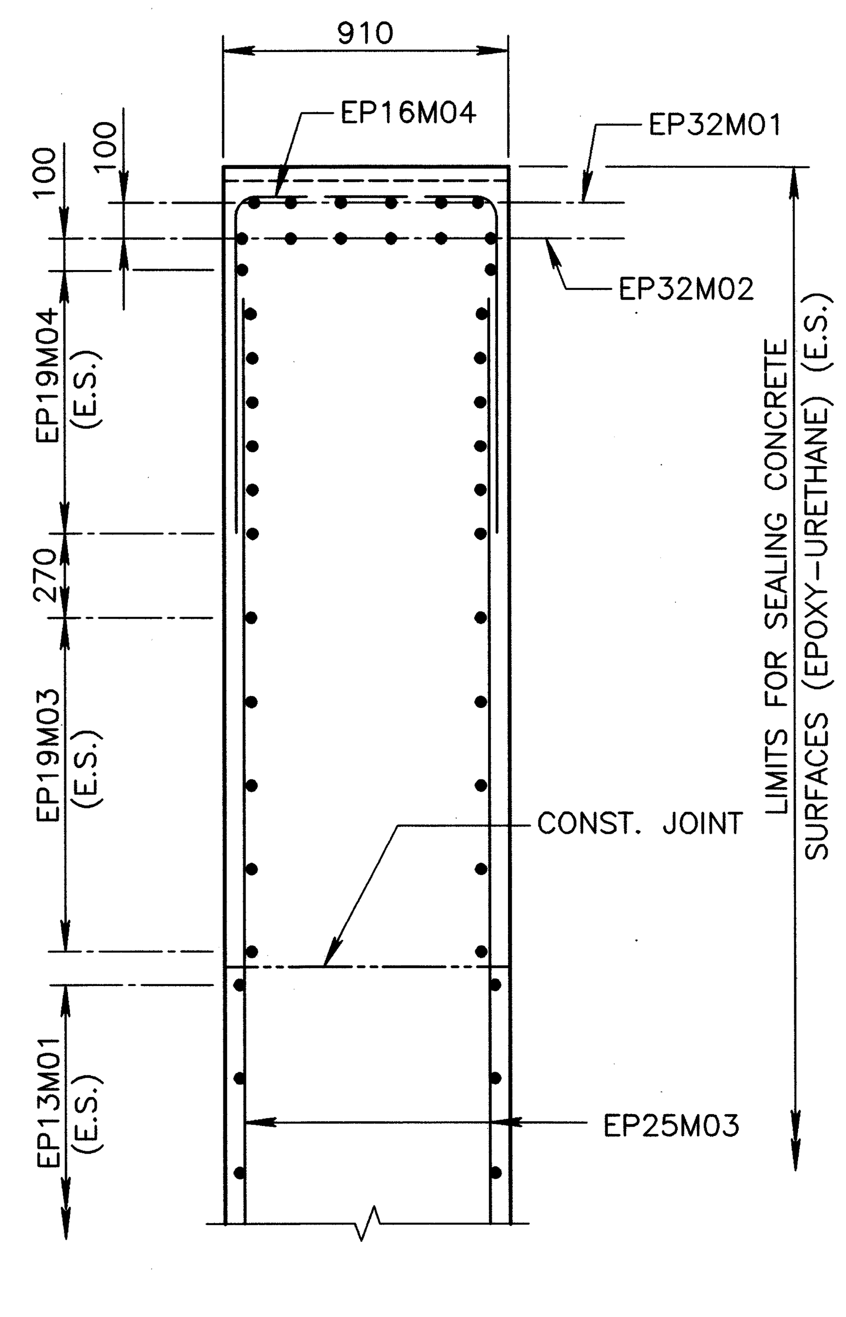
BOT. DENOTES BOTTOM



SECTION A-A



SECTION B-B



SECTION C-C

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

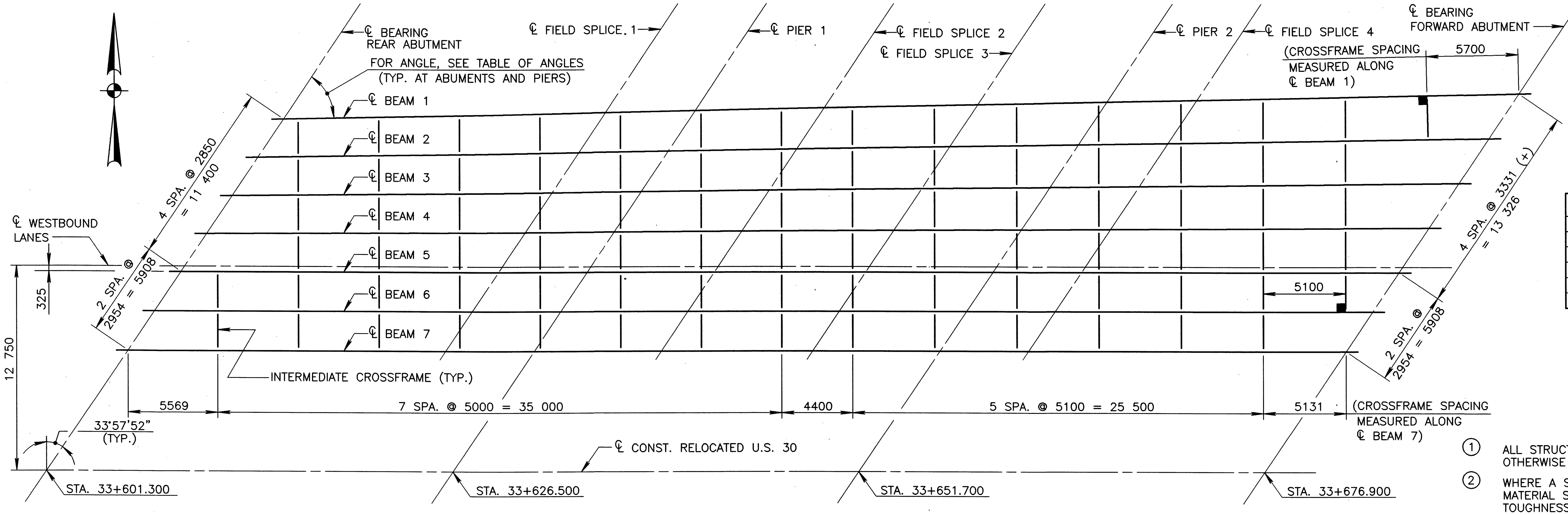
DESIGNED	DRAWN	REVIEWED	DATE
HK	WEB	LBD	8-14-00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RHW		L-1701851 R-1701878	

PIER 2 - EASTBOUND BRIDGE
BRIDGE NO. CRA-30-33602-L & R
RELOCATED U.S. 30 OVER CSX TRANSPORTATION, INC.

CRA/RIC-30-33.500/0.000

14/27

550/712



FRAMING PLAN

TABLE OF ANGLES	
BEAM	ANGLE
1	54°50'31"
2	55°08'14"
3	55°26'04"
4	55°44'02"
5, 6 & 7	56°02'08"

NOTES

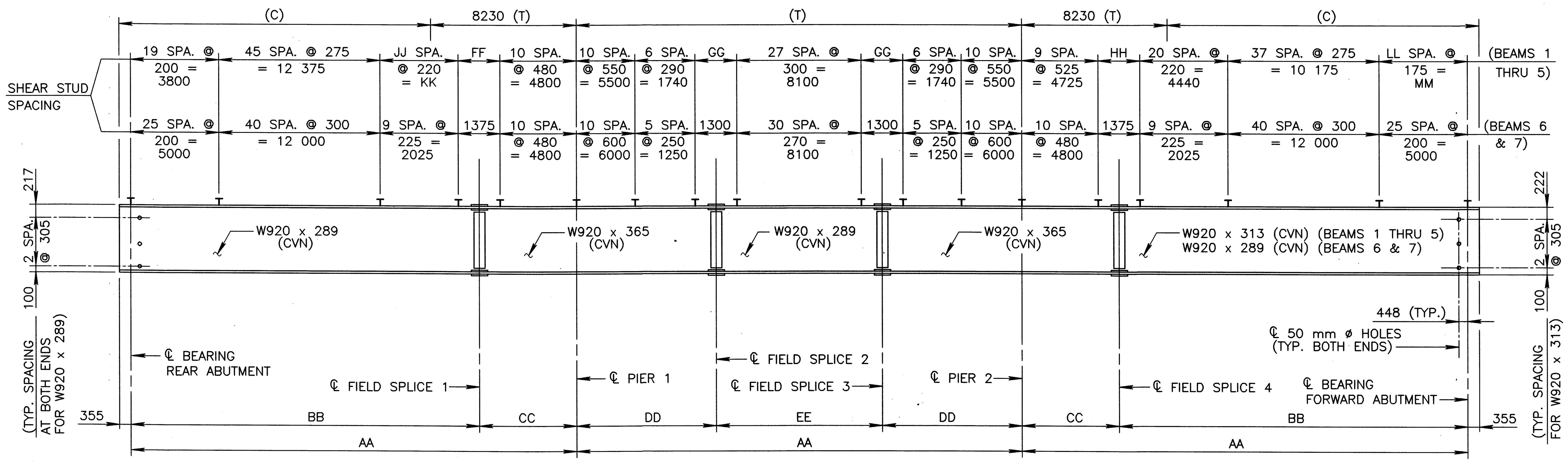
1. ALL STRUCTURAL STEEL SHALL BE A588M, UNLESS OTHERWISE NOTED.
2. WHERE A SHAPE OR PLATE IS DESIGNATED (CVN) THE MATERIAL SHALL MEET SPECIFIED MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
3. FOR FIELD SPLICE DETAILS, SEE STANDARD DRAWING BS-1-93M, AND THE MODIFICATIONS ON THIS SHEET.
4. ALL CROSSFRAMES ARE SET PERPENDICULAR TO BEAM 7, EXCEPT AS SHOWN.
5. FOR INTERMEDIATE CROSSFRAME DETAILS, SEE STANDARD DRAWING GSD-1-96M, SHEET 1 OF 3. (TYPE 3)
6. FOR TRANSVERSE SECTION, SEE SHEET 18/27.
7. FOR ELASTOMERIC BEARING DETAILS, SEE SHEETS 22/27 AND 23/27.
8. WELDED ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE MAY BE MADE TO AREAS OF THE FASCIA STRINGER FLANGES DESIGNATED "COMPRESSION". ATTACHMENTS SHALL NOT BE MADE TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE NOT CLOSER THAN 25 mm FROM EDGE OF FLANGE, BE NOT MORE THAN 50 mm LONG, AND BE NOT SMALLER THAN THE MINIMUM SIZE REQUIRED BY AASHTO.

LEGEND

(T) DENOTES AREA OF TENSION IN THE TOP FLANGE. THE BOTTOM FLANGE IN THESE AREAS IS IN COMPRESSION.

(C) DENOTES AREA OF COMPRESSION IN THE TOP FLANGE THE BOTTOM FLANGE IN THESE AREAS IS IN TENSION.

■ DENOTES 90°00'00"

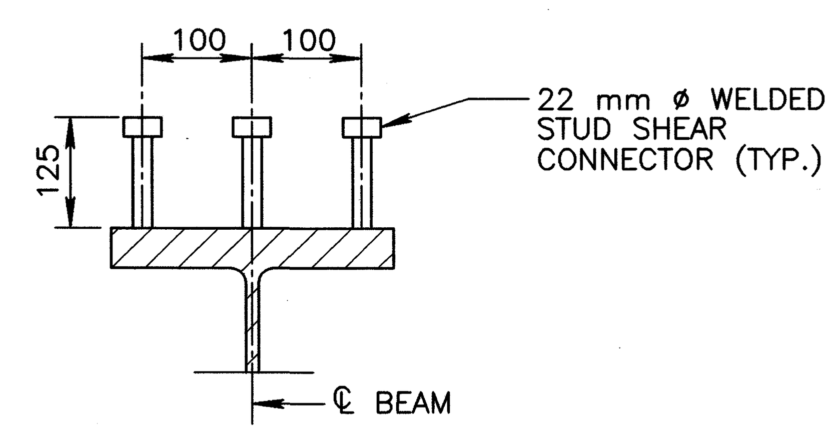


BEAM ELEVATION

TABLE OF DIMENSIONS					
BEAM	DIMENSION				
	AA	BB	CC	DD	EE
1	25 564	19 985	5579	8014	9536
2	25 472	19 913	5559	7985	9502
3	25 381	19 841	5540	7957	9467
4	25 290	19 770	5520	7928	9434
5 THRU 7	25 200	19 700	5500	7900	9400

TABLE OF SHEAR STUD DATA							
BEAM	FF	GG	HH	JJ	KK	LL	MM
1	1509	1492	1674	14	3080	26	4550
2	1417	1446	1582	14	3080	26	4550
3	1546	1401	1666	13	2860	25	4375
4	1455	1355	1575	13	2860	25	4375
5	1365	1310	1660	13	2860	24	4200

FIELD SPLICE MODIFICATIONS				
BEAM	FLANGE PLATES		FLANGE BOLTS	
	OUTSIDE	INSIDE	NUMBER	N SPA.
W920 x 313	300 x 16 x 1390	110 x 16 x 1390	64	7
W920 x 289	300 x 16 x 1220	110 x 16 x 1220	56	6



SHEAR STUD CONNECTOR DETAIL

metric units

DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

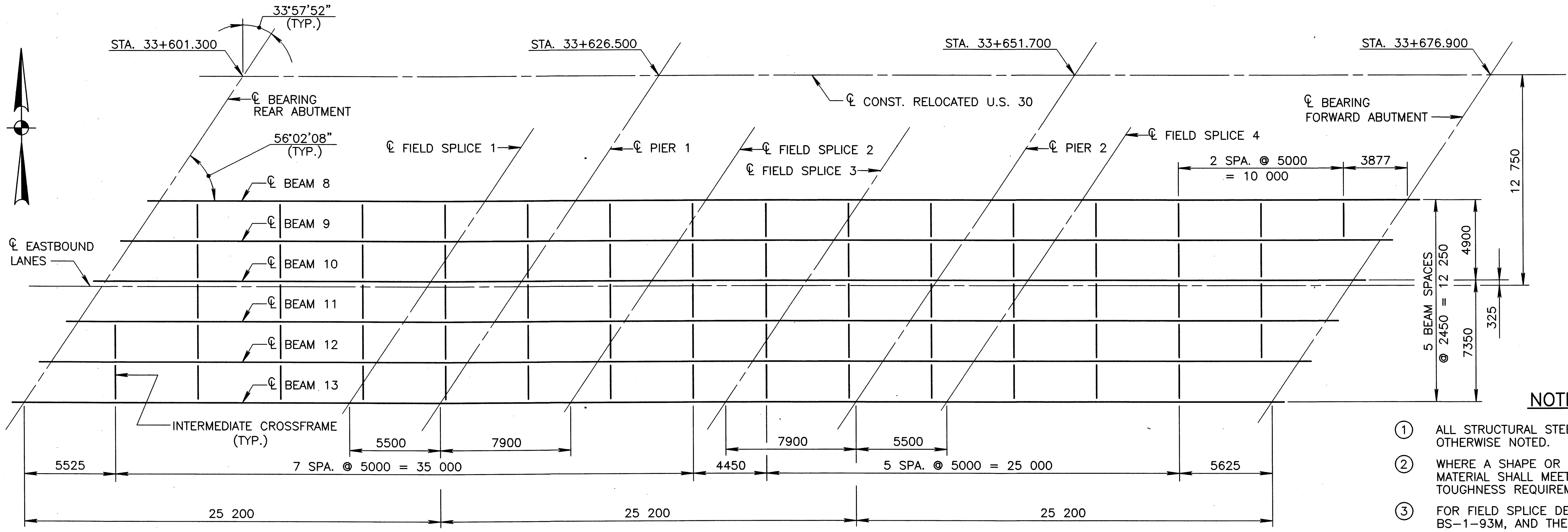
REVIEWED LBD DATE 8-14-00 STRUCTURE FILE NUMBER L-1701851 R-1701878

DESIGNED HK DRAWN WEB REVISED CHECKED RHW

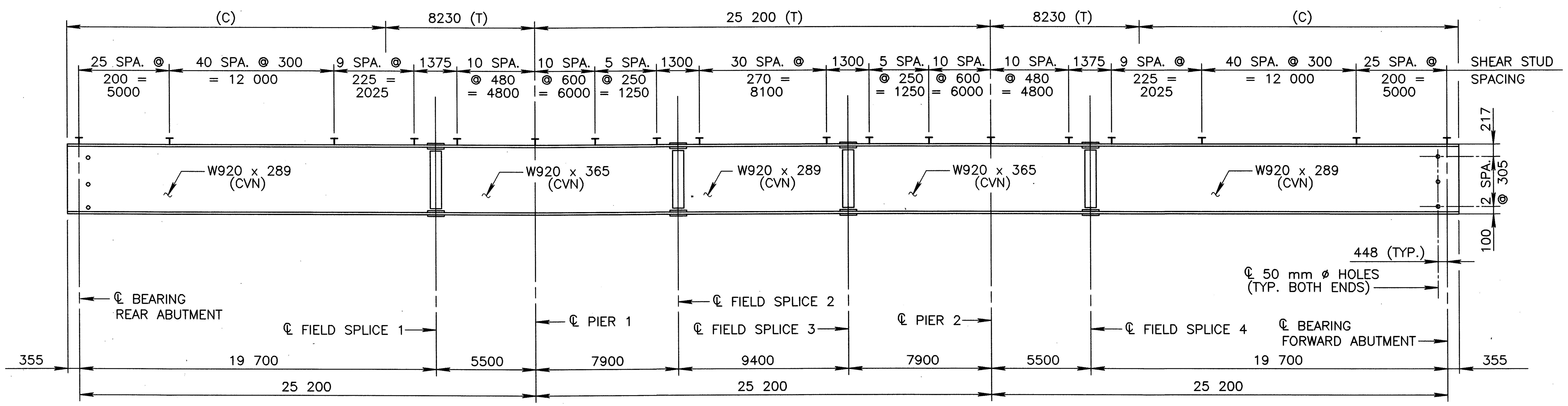
FRAMING PLAN AND BEAM ELEVATION - WESTBOUND BRIDGE

BRIDGE NO. CRA-30-33602-L & R RELOCATED U.S. 30 OVER CSX TRANSPORTATION, INC.

CRA/RIC-30-33.500/0.000



FRAMING PLAN



BEAM ELEVATION

FIELD SPLICE MODIFICATIONS				
BEAM	FLANGE PLATES		FLANGE BOLTS	
	OUTSIDE	INSIDE	NUMBER	N SPA.
W920 x 289	300 x 16 x 1220	110 x 16 x 1220	56	6

NOTES

1. ALL STRUCTURAL STEEL SHALL BE A588M, UNLESS OTHERWISE NOTED.
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6. FOR TRANSVERSE SECTION, SEE SHEET 20/27.
7. FOR ELASTOMERIC BEARING DETAILS, SEE SHEETS 22/27 AND 23/27.
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LEGEND

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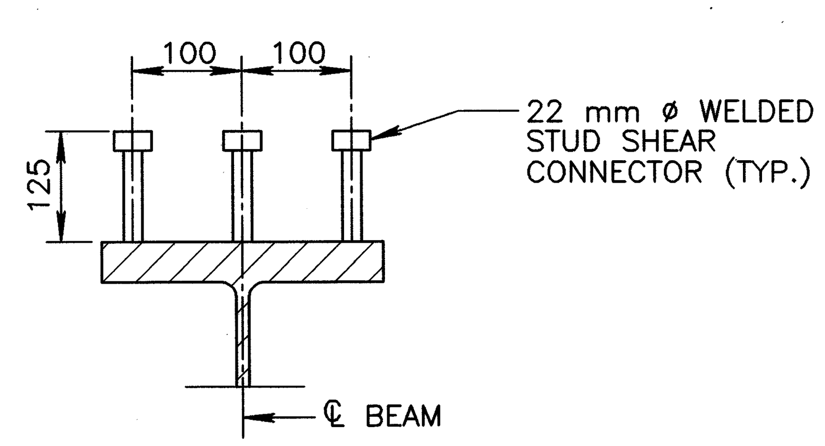
(C) DENOTES AREA OF COMPRESSION IN THE TOP FLANGE. THE BOTTOM FLANGE IN THESE AREAS IS IN TENSION.



SHEAR STUD CONNECTOR DETAIL

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

REVIEWED LBD DATE 8-14-00
STRUCTURE FILE NUMBER L-1701851 R-1701878

DRAWN WEB REVISED

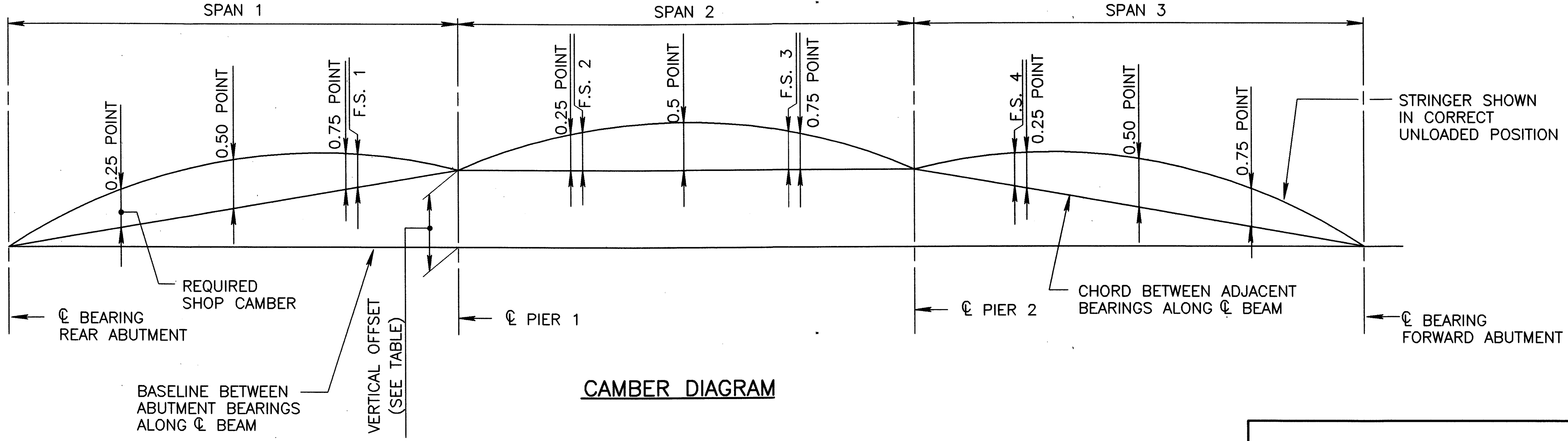
DESIGNED HK CHECKED RHW

FRAMING PLAN AND BEAM ELEVATION - EASTBOUND BRIDGE
BRIDGE NO. CRA-30-33602-L & R
RELOCATED U.S. 30 OVER CSX TRANSPORTATION, INC.

CRA/RIC-30-33.500/0.000

16/27

552/712

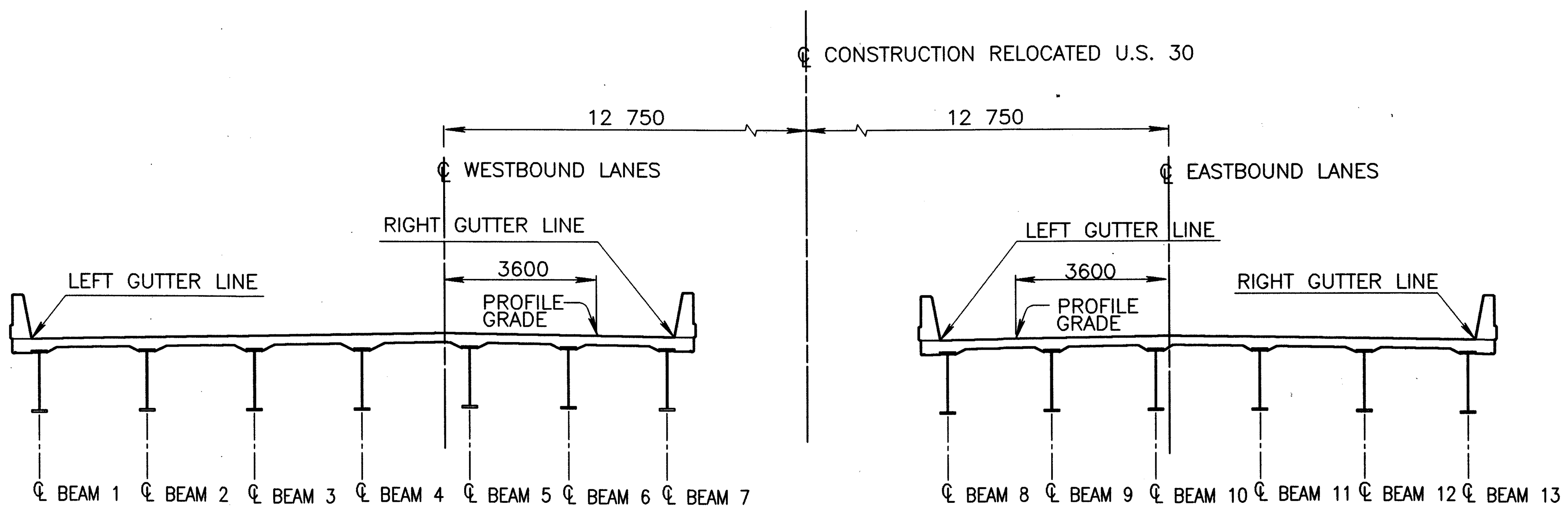


CAMBER DIAGRAM

VERTICAL OFFETS AT PIER 1		VERTICAL OFFETS AT PIER 2	
LOCATION	OFFSET	LOCATION	OFFSET
BEAM 1	37	BEAM 1	37
BEAM 2	37	BEAM 2	37
BEAM 3	37	BEAM 3	37
BEAM 4	37	BEAM 4	37
BEAM 5	37	BEAM 5	37
BEAM 6	37	BEAM 6	37
BEAM 7	37	BEAM 7	37
BEAM 8	37	BEAM 8	37
BEAM 9	37	BEAM 9	37
BEAM 10	37	BEAM 10	37
BEAM 11	37	BEAM 11	37
BEAM 12	37	BEAM 12	37
BEAM 13	37	BEAM 13	37

DEFLECTION AND CAMBER TABLE

		SPAN 1				SPAN 2					SPAN 3			
BEAMS 1,7,8 & 13	POINTS	.25 PT.	.50 PT.	.75 PT.	F.S. 1	.25 PT.	F.S. 2	.50 PT.	F.S. 3	.75 PT.	F.S. 4	.25 PT.	.50 PT.	.75 PT.
	DEFLECTION DUE TO WEIGHT OF STEEL	5	7	4	4	0	0	1	0	0	4	4	7	5
	DEFLECTION DUE TO REMAINING DEAD LOAD	24	31	17	15	−2	−2	−1	−2	−2	17	17	31	24
	ADJUSTMENT REQUIRED FOR VERTICAL CURVE	3	5	4	3	3	4	5	4	4	3	3	5	3
	REQUIRED SHOP CAMBER	32	43	25	22	1	2	5	2	2	22	24	43	32
BEAMS 2 THRU 6 BEAMS 9 THRU 12	POINTS	.25 PT.	.50 PT.	.75 PT.	F.S. 1	.25 PT.	F.S. 2	.50 PT.	F.S. 3	.75 PT.	F.S. 4	.25 PT.	.50 PT.	.75 PT.
	DEFLECTION DUE TO WEIGHT OF STEEL	5	7	4	4	0	0	1	0	0	4	4	7	5
	DEFLECTION DUE TO REMAINING DEAD LOAD	31	39	21	19	−3	−2	−1	−2	−3	19	21	39	31
	ADJUSTMENT REQUIRED FOR VERTICAL CURVE	3	5	4	3	3	4	5	4	3	3	3	5	3
	REQUIRED SHOP CAMBER	39	51	29	26	0	2	5	2	0	26	28	51	39



SCREED LOCATION KEY

NOTES

1. SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.

SCREED ELEVATIONS – WESTBOUND

POINT	℄ WESTBOUND	LEFT GUTTER LINE	BEAM 1	BEAM 2	BEAM 3	BEAM 4	BEAM 5	BEAM 6	BEAM 7	RIGHT GUTTER LINE
℄ BRG. REAR ABUT.	366.968	366.853	366.855	366.884	366.914	366.943	366.962	366.913	366.864	366.861
.25	367.033	366.907	366.910	366.946	366.977	367.007	367.026	366.979	366.924	366.920
.50	367.072	366.942	366.944	366.984	367.015	367.046	367.066	367.019	366.963	366.960
.75	367.083	366.952	366.954	366.992	367.024	367.057	367.077	367.031	366.980	366.976
F.S. 1	367.084	366.953	366.955	366.991	367.023	367.056	367.078	367.032	366.981	366.978
℄ PIER 1	367.089	366.958	366.960	366.994	367.027	367.060	367.083	367.037	366.991	366.988
.25	367.112	366.976	366.978	367.012	367.047	367.081	367.106	367.059	367.015	367.012
F.S. 2	367.118	366.981	366.983	367.018	367.053	367.088	367.112	367.066	367.021	367.018
.50	367.136	366.996	366.998	367.034	367.070	367.105	367.130	367.084	367.039	367.036
F.S. 3	367.149	367.006	367.008	367.045	367.081	367.118	367.143	367.099	367.054	367.051
.75	367.153	367.010	367.012	367.048	367.085	367.121	367.148	367.103	367.060	367.056
℄ PIER 2	367.174	367.025	367.027	367.065	367.103	367.141	367.168	367.124	367.081	367.077
F.S. 4	367.205	367.053	367.056	367.095	367.134	367.173	367.200	367.158	367.110	367.107
.25	367.213	367.053	367.055	367.099	367.138	367.177	367.205	367.161	367.114	367.111
.50	367.240	367.076	367.079	367.127	367.167	367.207	367.235	367.193	367.143	367.140
.75	367.242	367.075	367.078	367.126	367.167	367.208	367.237	367.197	367.148	367.145
℄ BRG. FWD. ABUT.	367.221	367.054	367.057	367.099	367.142	367.184	367.216	367.175	367.133	367.131

SCREED ELEVATIONS – EASTBOUND

℄ EASTBOUND	LEFT GUTTER LINE	BEAM 8	BEAM 9	BEAM 10	BEAM 11	BEAM 12	BEAM 13	RIGHT GUTTER LINE
366.864	366.801	366.803	366.832	366.860	366.821	366.771	366.720	366.717
366.935	366.864	366.866	366.902	366.931	366.892	366.843	366.786	366.782
366.981	366.907	366.909	366.947	366.977	366.939	366.890	366.832	366.829
366.998	366.927	366.930	366.964	366.994	366.957	366.908	366.856	366.852
367.001	366.930	366.932	366.966	366.997	366.959	366.911	366.858	366.855
367.011	366.942	366.944	366.976	367.006	366.969	366.921	366.873	366.870
367.038	366.970	366.972	367.003	367.034	366.998	366.950	366.904	366.901
367.047	366.977	366.979	367.011	367.043	367.006	366.959	366.912	366.909
367.069	366.998	367.000	367.033	367.065	367.029	366.982	366.935	366.932
367.088	367.016	367.018	367.051	367.083	367.048	367.002	366.955	366.952
367.093	367.022	367.024	367.056	367.089	367.053	367.007	366.962	366.959
367.120	367.047	367.049	367.082	367.116	367.081	367.036	366.990	366.987
367.158	367.079	367.082	367.120	367.154	366.119	367.075	367.026	367.022
367.163	367.084	367.086	367.124	367.158	367.124	367.079	367.030	367.027
367.200	367.116	367.118	367.161	367.196	367.162	367.118	367.065	367.062
367.209	367.125	367.127	367.169	367.205	367.172	367.128	367.077	367.074
367.193	367.114	367.117	367.153	367.188	367.156	367.113	367.070	367.067

metric units

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

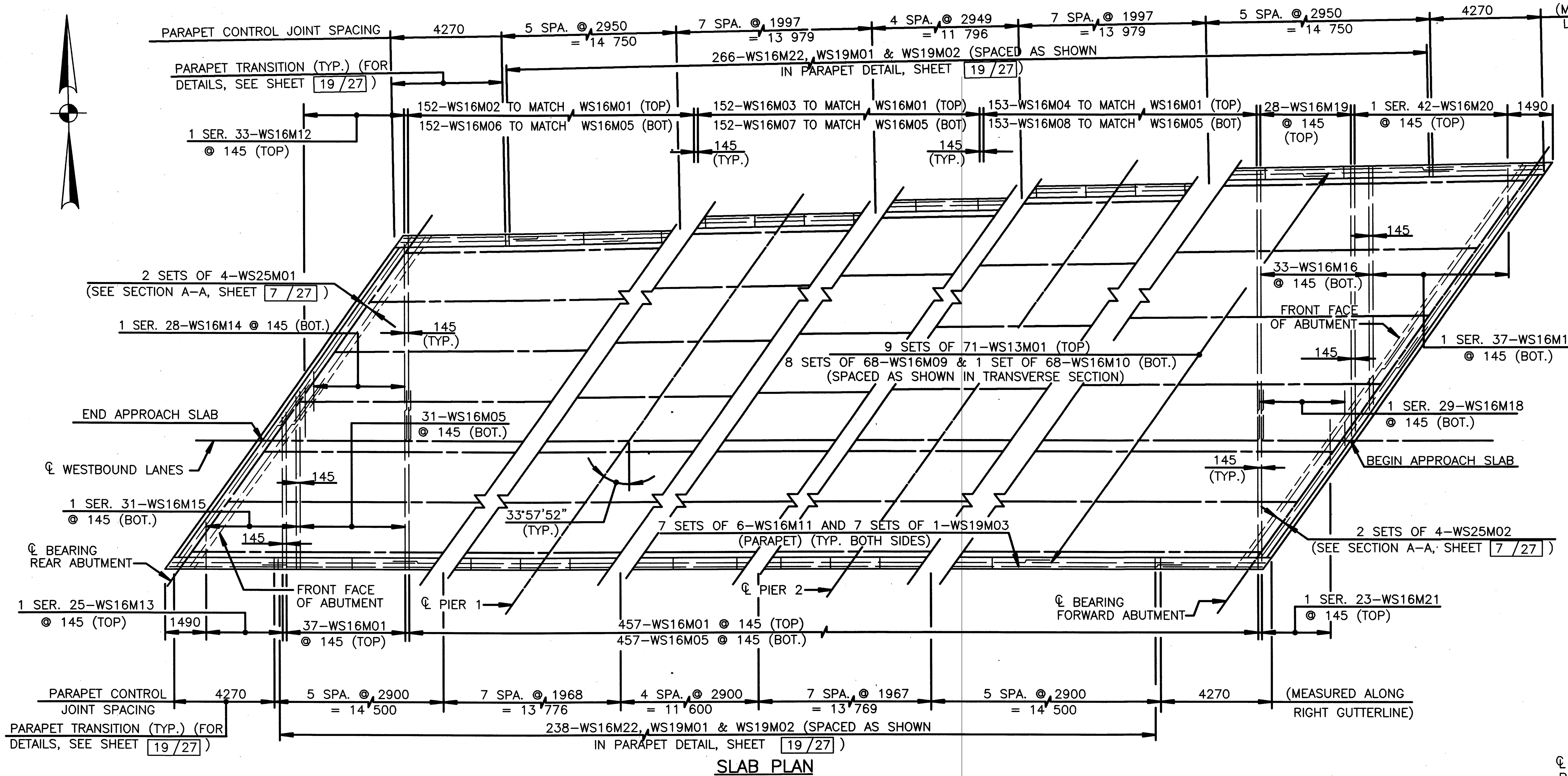
REVIEWED LBD DATE 8-14-00
STRUCTURE FILE NUMBER L-1701851 R-1701878

DRAWN WEB REVISED

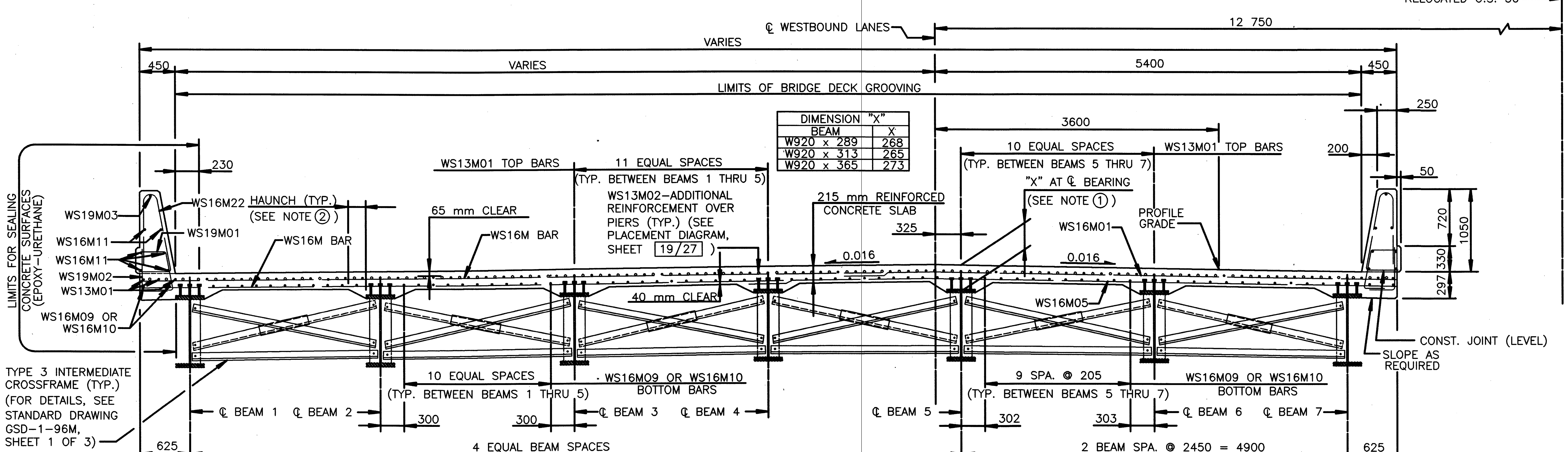
DESIGNED RHW CHECKED HK

SCREED ELEVATIONS AND DEFLECTION AND CAMBER TABLES
BRIDGE NO. CRA-30 33602-L & R
RELOCATED U.S. 30 OVER CSX TRANSPORTATION, INC.

CRA/RIC-30-33.500/0.000



SLAB PLAN



DIMENSION "X"	
BEAM	X
W920 x 289	268
W920 x 313	265
W920 x 365	273

TRANSVERSE SECTION

metric units

NOTES

1. DECK SLAB DEPTH: THE DISTANCE SHOWN FROM TOP OF DECK SLAB TO TOP OF STEEL BEAM IS THE THEORETICAL DESIGN DIMENSION INCLUDING THE DESIGN HAUNCH THICKNESS OF 50 mm. THE QUANTITY OF DECK CONCRETE TO BE PAID FOR SHALL BE BASED ON THIS DIMENSION, MINUS THE DESIGN HAUNCH THICKNESS, EVEN THOUGH DEVIATION FROM IT MAY BE NECESSARY BECAUSE THE TOP FLANGE OF THE BEAM MAY NOT HAVE THE EXACT CAMBER OR CONFORMATION REQUIRED TO PLACE IT PARALLEL TO THE FINISHED GRADE.
2. A HAUNCH WIDTH OF 225 mm SHALL BE USED FOR COMPUTING QUANTITY OF CONCRETE. HOWEVER, THE HAUNCH WIDTH MAY VARY BETWEEN 150 mm AND 300 mm.
3. MINIMUM LAP UNLESS OTHERWISE NOTED:

13M BARS	=	500 mm
16M BARS	=	890 mm
19M BARS	=	1040 mm
25M BARS	=	1500 mm

5. ALL TRANSVERSE REINFORCEMENT SHALL BE PLACED PERPENDICULAR TO ℄ WESTBOUND LANES.
4. FOR SCREED ELEVATIONS, SEE SHEET 17/27.
5. FOR PARAPET CONTROL JOINT DETAILS AND NOTES, SEE STANDARD DRAWING SBR-1-99M.

DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

DESIGNED	CHECKED	DRAWN	REVISED	REVIEWED	DATE	STRUCTURE FILE NUMBER
HK	WEB	RHW	12-8-00	LBD	8-14-00	L-1701851 R-1701878

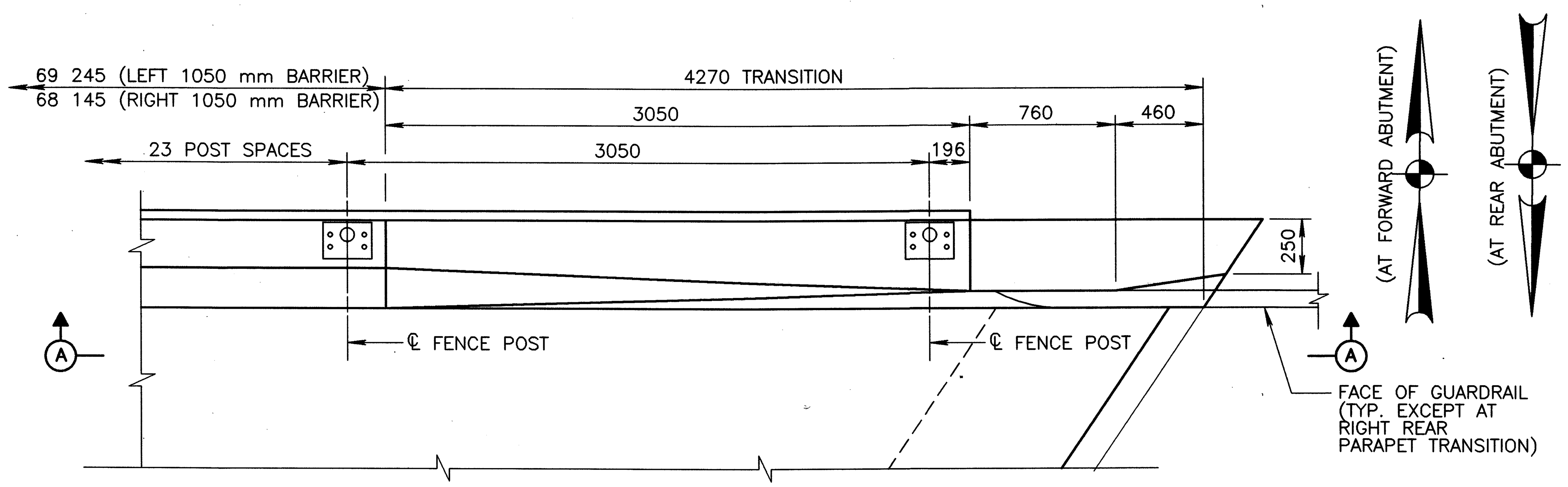
SLAB PLAN AND TRANSVERSE SECTION – WESTBOUND BRIDGE
BRIDGE NO. CRA-30-33602-L & R
RELOCATED U.S. 30 OVER CSX TRANSPORTATION, INC.

CRA/RIC-30-33.500/0.000

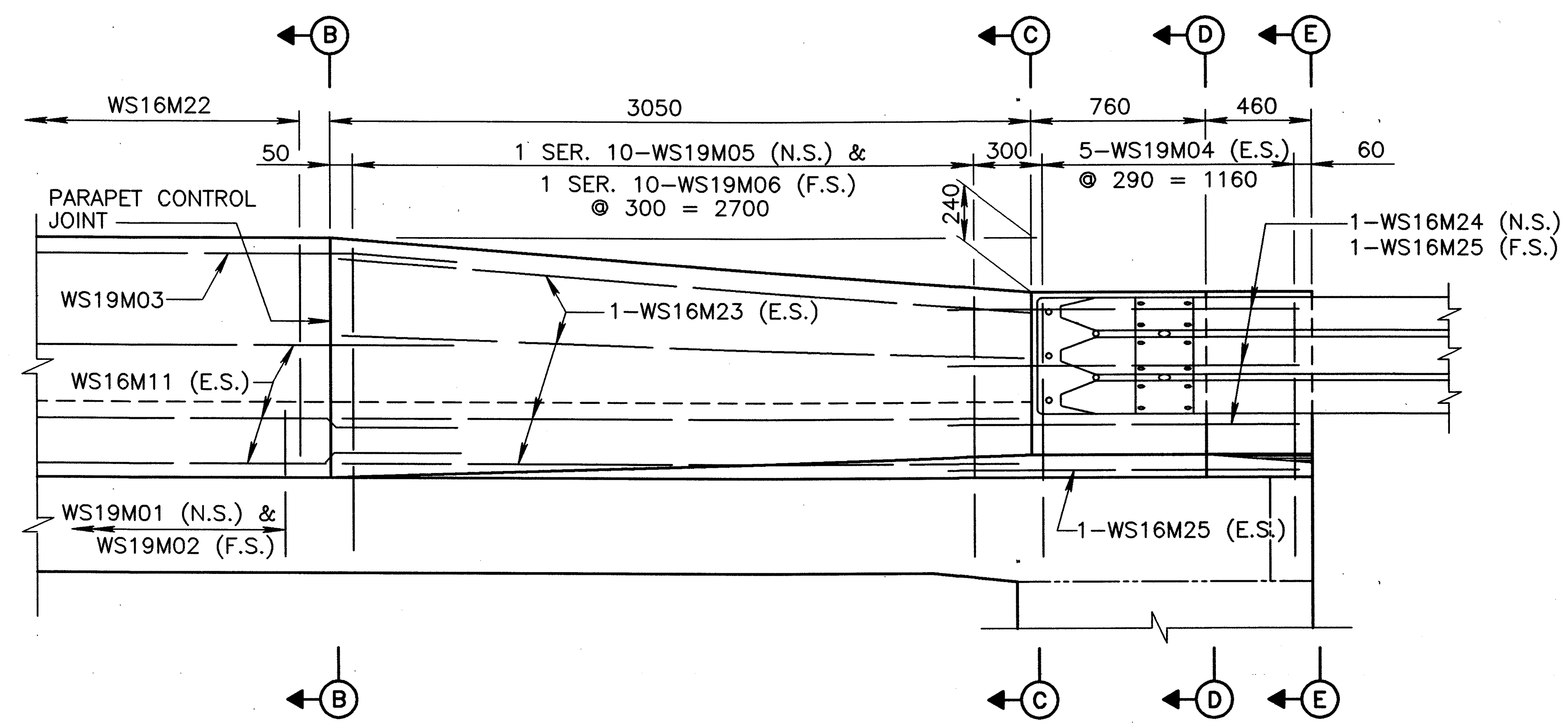
18/27

554/712

metric units

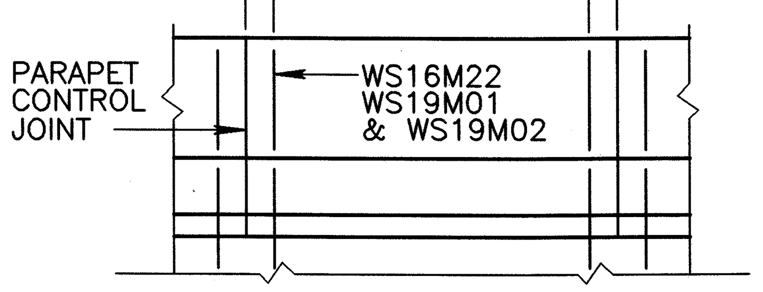


PARAPET TRANSITION PLAN
(RIGHT REAR AND LEFT FORWARD PARAPET TRANSITION SHOWN, LEFT REAR AND RIGHT FORWARD PARAPET TRANSITION SIMILAR)



SECTION A–A
(FENCE NOT SHOWN)
(LEFT FORWARD PARAPET TRANSITION SHOWN, RIGHT FORWARD AND REAR PARAPET TRANSITIONS SIMILAR)

(1997 PANEL LENGTH)	71	7 SPA. @ 265	71
(2949+ PANEL LENGTH)	75	10 SPA. @ 280	74+
(2900 PANEL LENGTH)	100	9 SPA. @ 300	100
(1967+ PANEL LENGTH)	84	6 SPA. @ 300	83+



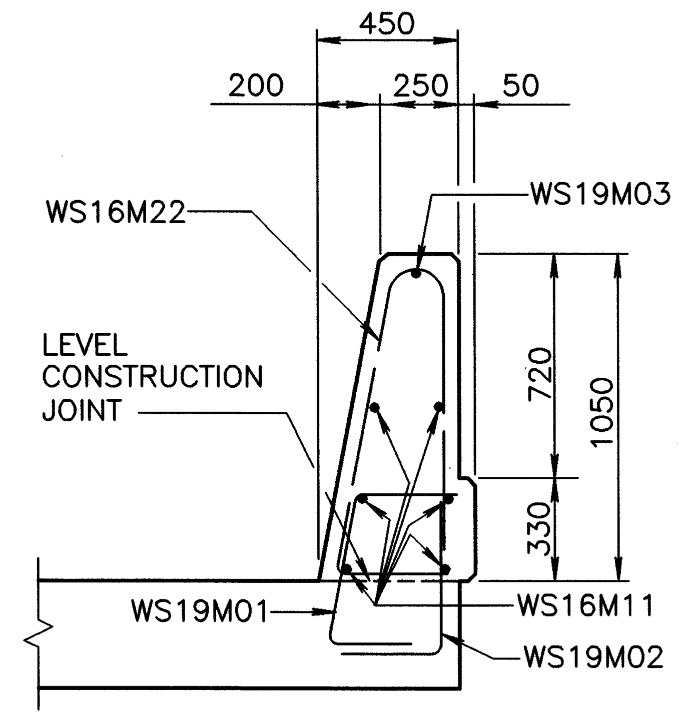
PARAPET DETAIL

LEGEND

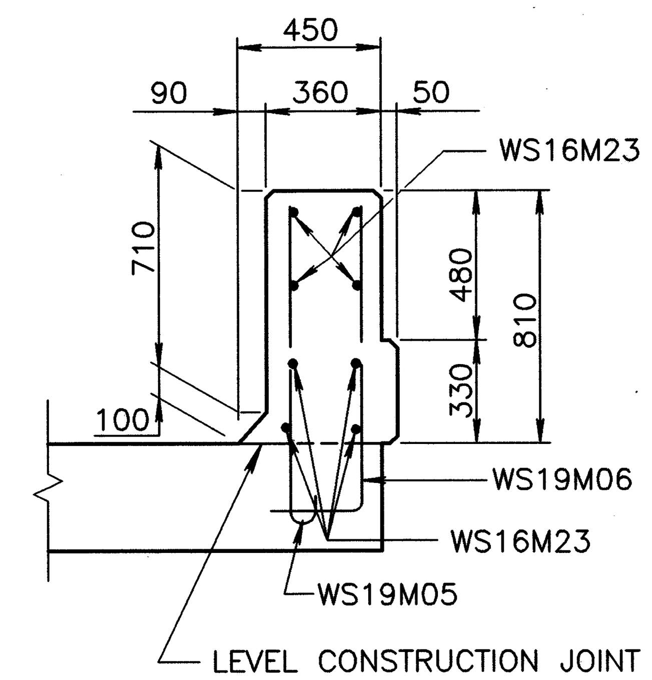
N.S. DENOTES NEAR SIDE
F.S. DENOTES FAR SIDE
E.S. DENOTES EACH SIDE

NOTES

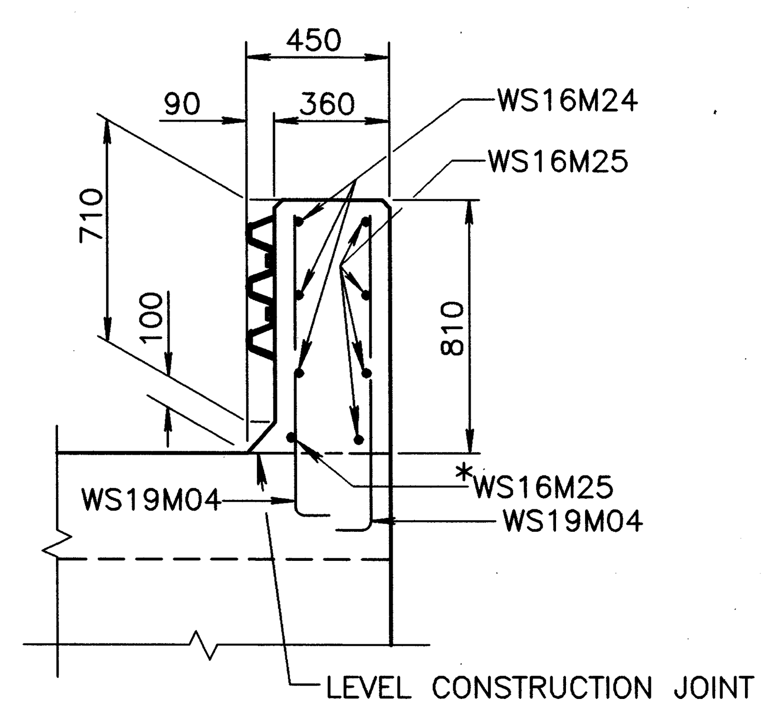
1. FOR SLAB PLAN AND ADDITIONAL NOTES, SEE SHEET 18/27.
2. MINIMUM LAP – 16M BARS = 890 mm



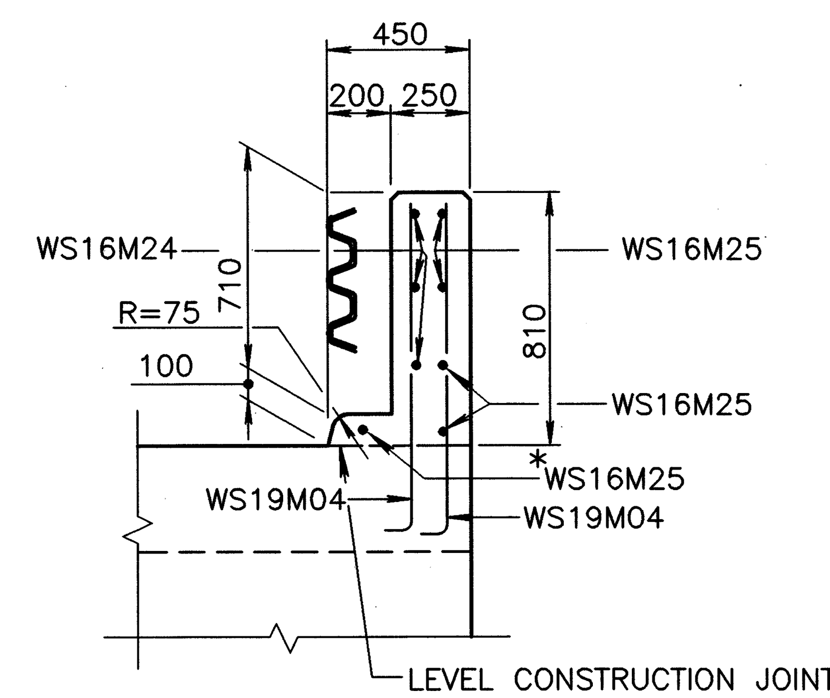
SECTION B–B



SECTION C–C

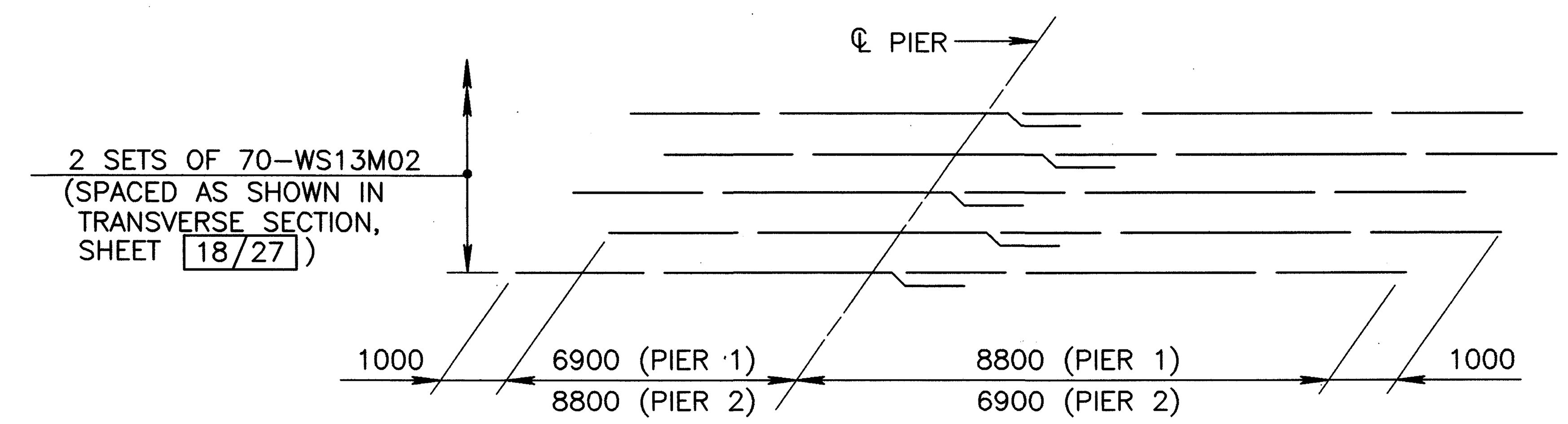


SECTION D–D



SECTION E–E

* FIELD BEND AS REQUIRED.



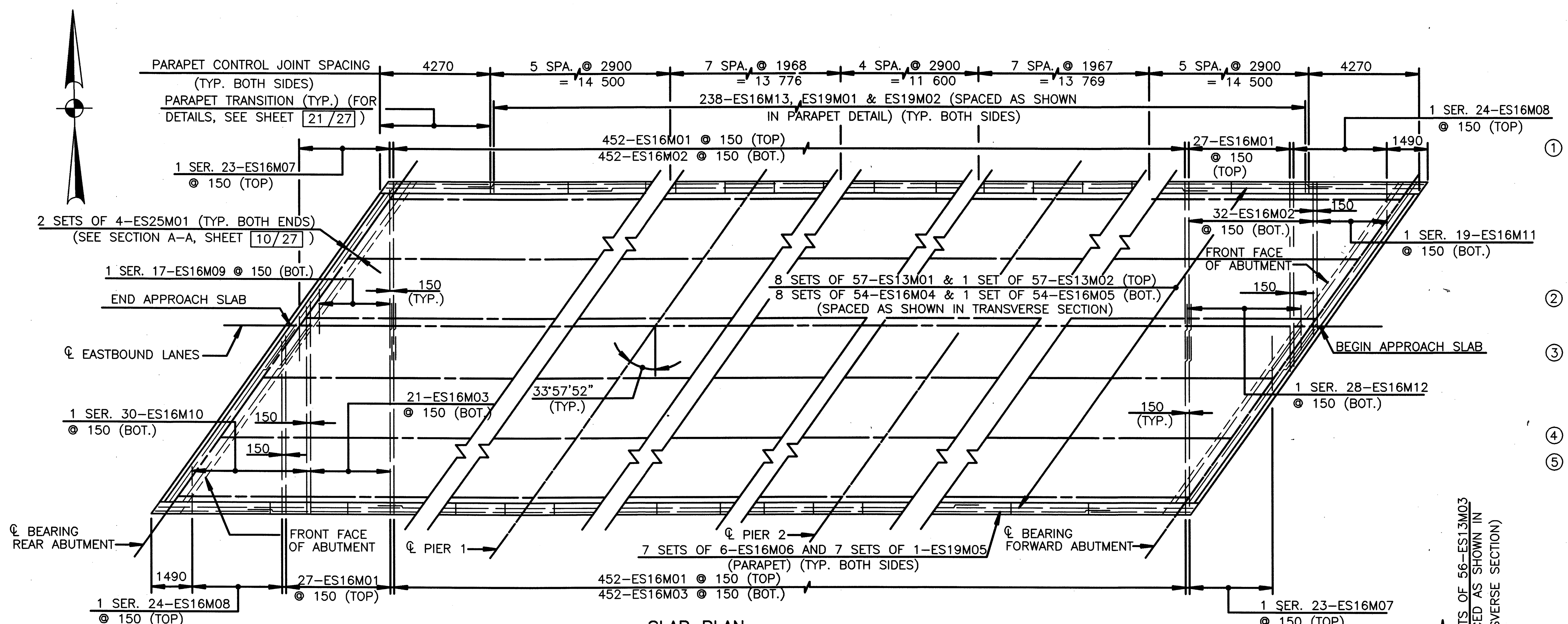
PLACEMENT OF ADDITIONAL REINFORCEMENT OVER PIERS

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

DESIGNED	DRAWN	REVIEWED	DATE
HK	RHW	LBD	8-14-00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WEB		L-1701851 R-1701878	

SLAB DETAILS – WESTBOUND BRIDGE
BRIDGE NO. CRA-30-33602-L & R
RELOCATED U.S. 30 OVER CSX TRANSPORTATION, INC.

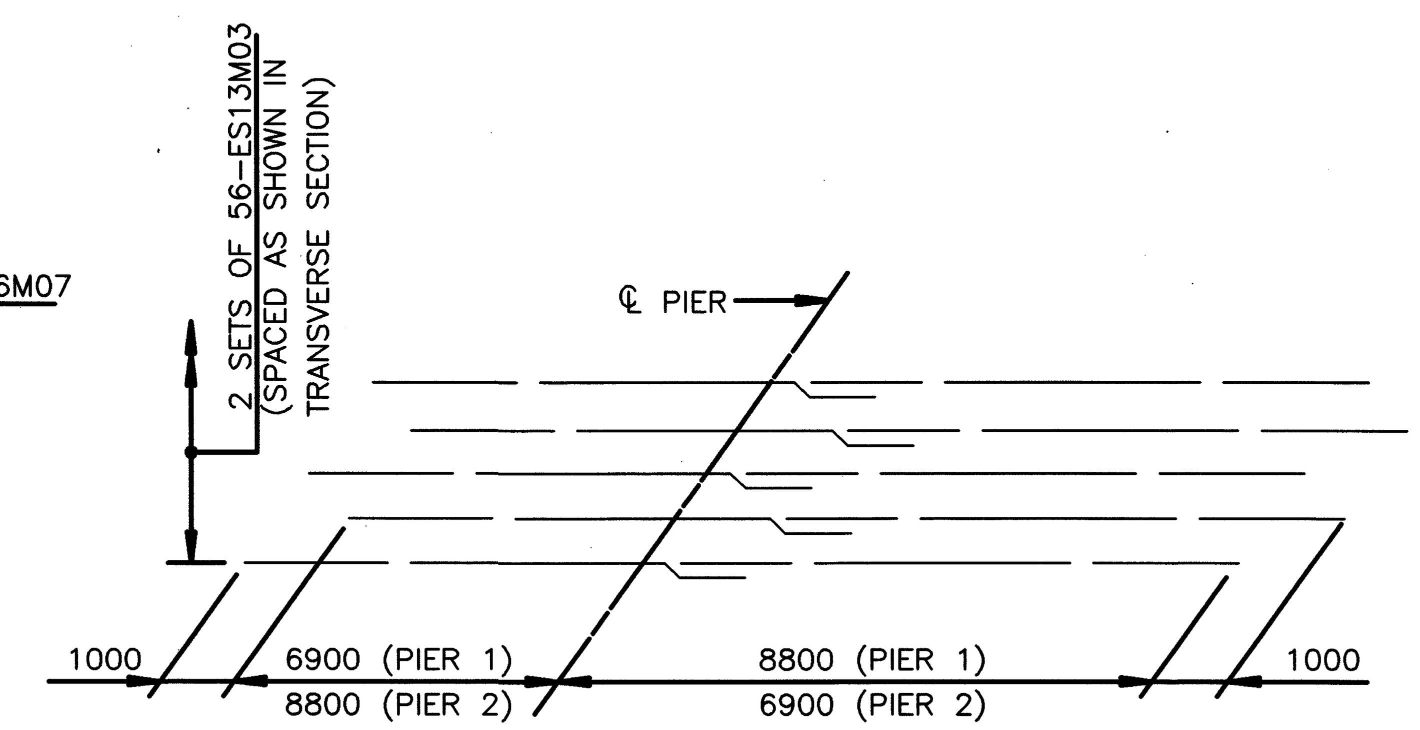
CRA/RIC-30-33.500/0.000



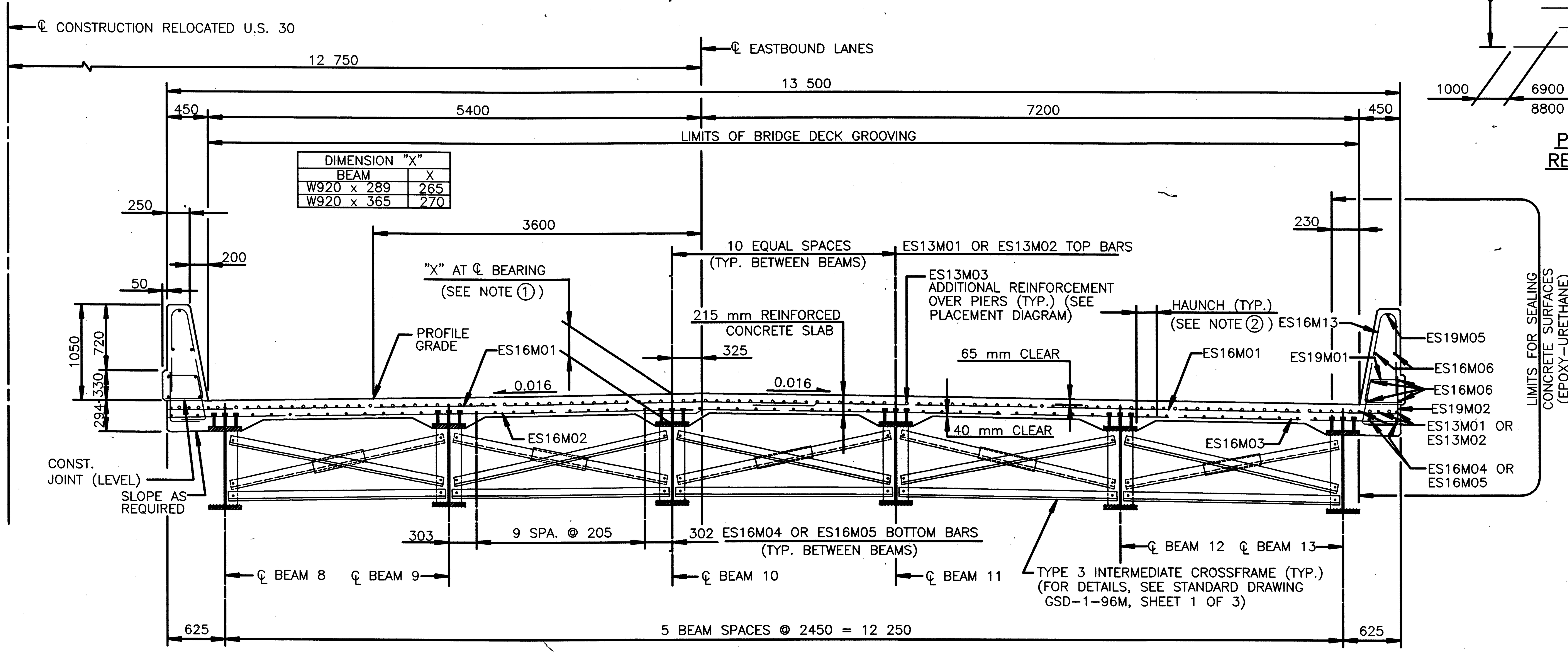
SLAB PLAN

NOTES

1. DECK SLAB DEPTH: THE DISTANCE SHOWN FROM TOP OF DECK SLAB TO TOP OF STEEL BEAM IS THE THEORETICAL DESIGN DIMENSION INCLUDING THE DESIGN HAUNCH THICKNESS OF 50 mm. THE QUANTITY OF DECK CONCRETE TO BE PAID FOR SHALL BE BASED ON THIS DIMENSION, MINUS THE DESIGN HAUNCH THICKNESS, EVEN THOUGH DEVIATION FROM IT MAY BE NECESSARY BECAUSE THE TOP FLANGE OF THE BEAM MAY NOT HAVE THE EXACT CAMBER OR CONFORMATION REQUIRED TO PLACE IT PARALLEL TO THE FINISHED GRADE.
2. A HAUNCH WIDTH OF 225 mm SHALL BE USED FOR COMPUTING QUANTITY OF CONCRETE. HOWEVER, THE HAUNCH WIDTH MAY VARY BETWEEN 150 mm AND 300 mm.
3. MINIMUM LAP UNLESS OTHERWISE NOTED:
   13M BARS = 500 mm
   16M BARS = 890 mm
   19M BARS = 1040 mm
   25M BARS = 1500 mm
4. FOR SCREED ELEVATIONS, SEE SHEET 17/27.
5. FOR PARAPET CONTROL JOINT DETAILS AND NOTES, SEE STANDARD DRAWING SBR-1-99M.

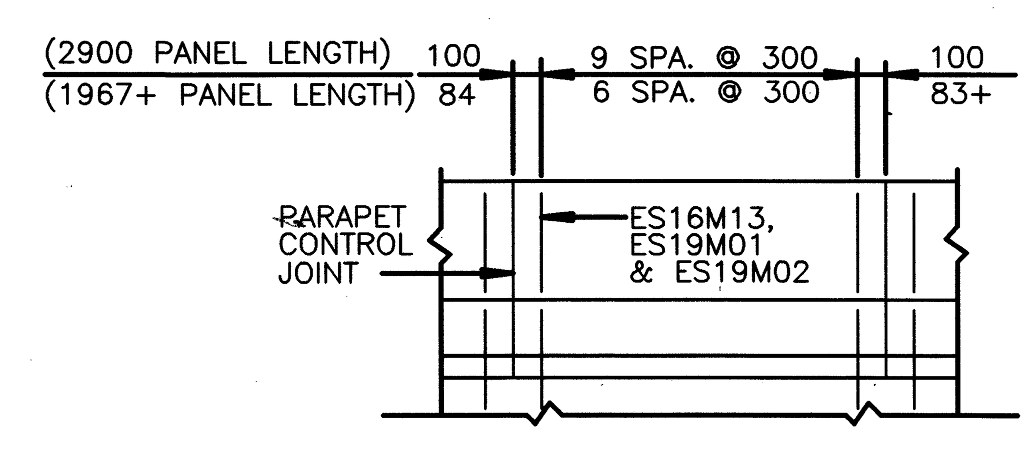


PLACEMENT OF ADDITIONAL REINFORCEMENT OVER PIERS



DIMENSION "X"	
BEAM	X
W920 x 289	265
W920 x 365	270

TRANSVERSE SECTION



PARAPET DETAIL

DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

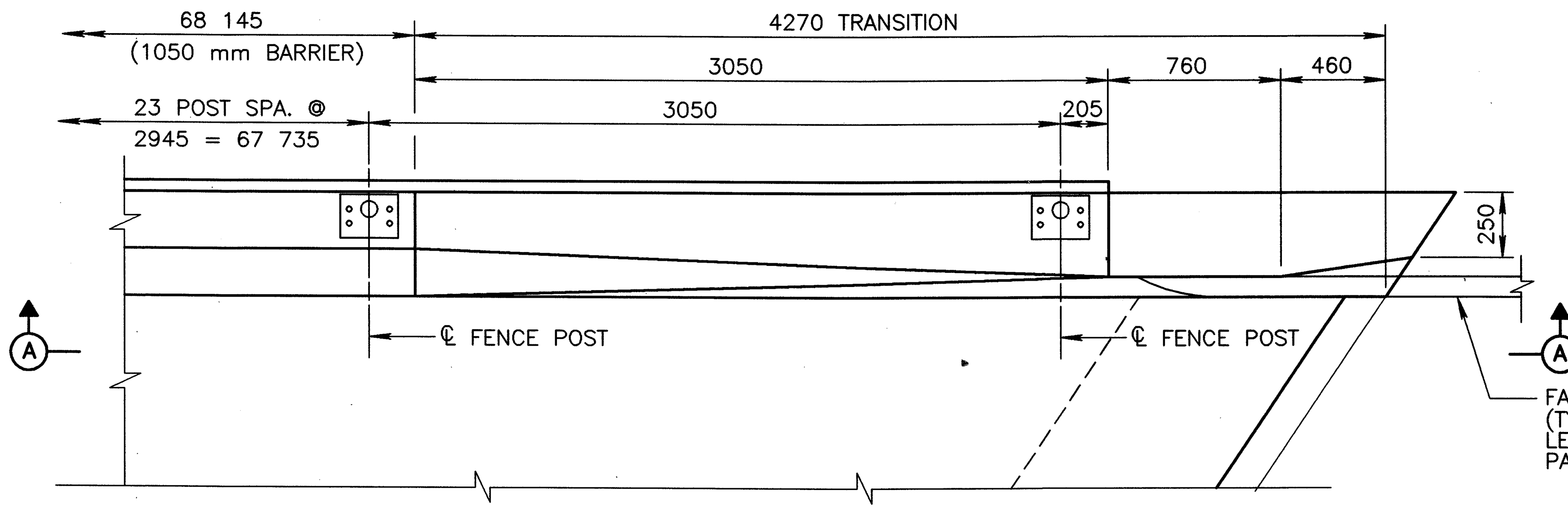
DESIGNED	DRAWN	REVIEWED	DATE
HK	RHW	LBD	8-14-00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
WEB	12-8-00	L-1701851 R-1701878	

SLAB PLAN AND TRANSVERSE SECTION – EASTBOUND BRIDGE
BRIDGE NO. CRA-30-33602-L & R
RELOCATED U.S. 30 OVER CSX TRANSPORTATION, INC.

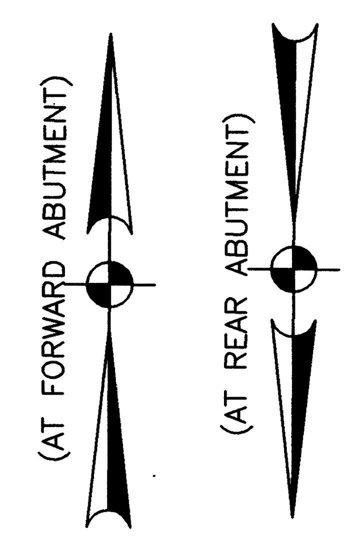
CRA/RIC-30-33.500/0.000

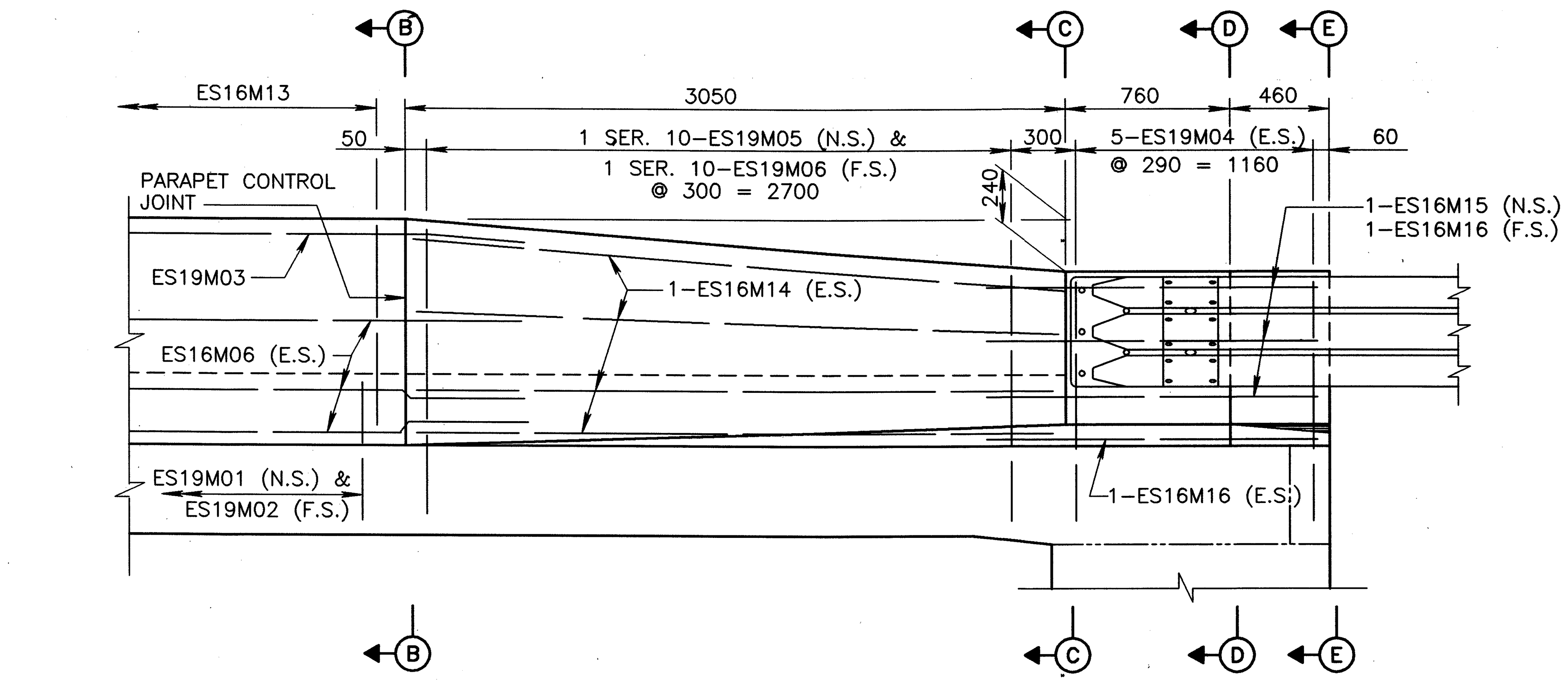
20/27

556/712



PARAPET TRANSITION PLAN
(RIGHT REAR AND LEFT FORWARD PARAPET TRANSITION SHOWN,
LEFT REAR AND RIGHT FORWARD PARAPET TRANSITION SIMILAR)





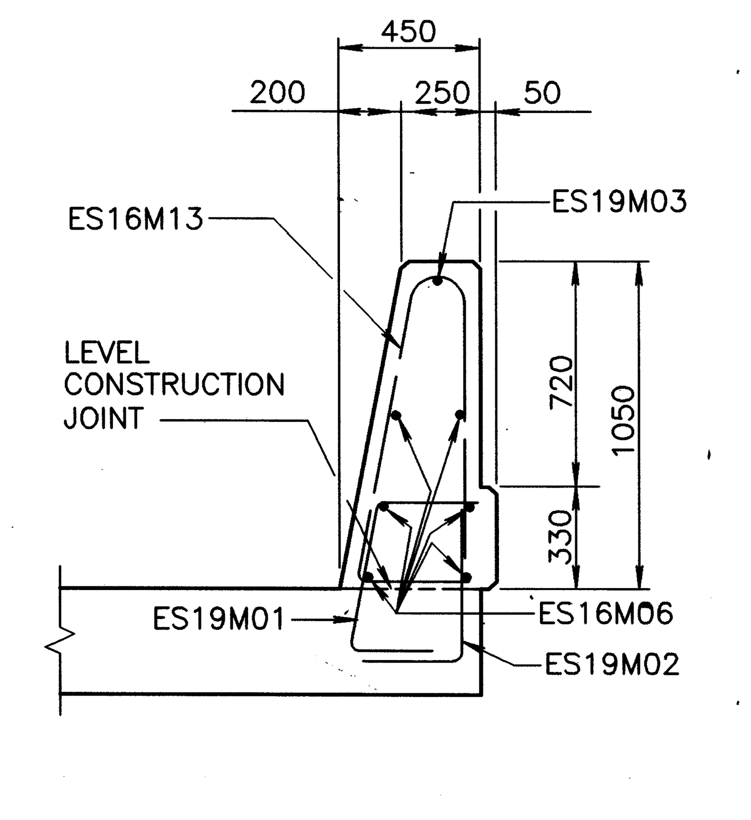
SECTION A–A
(FENCE NOT SHOWN)
(RIGHT REAR PARAPET TRANSITION SHOWN,
LEFT REAR AND FORWARD PARAPET TRANSITIONS SIMILAR)

NOTES

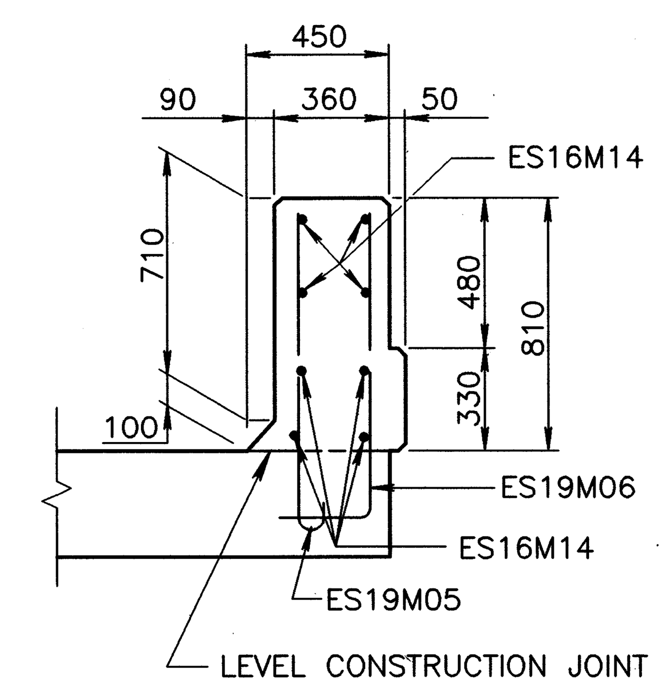
1. FOR SLAB PLAN AND ADDITIONAL NOTES, SEE SHEET 20/27.
2. MINIMUM LAP – 16M BARS = 890 mm

LEGEND

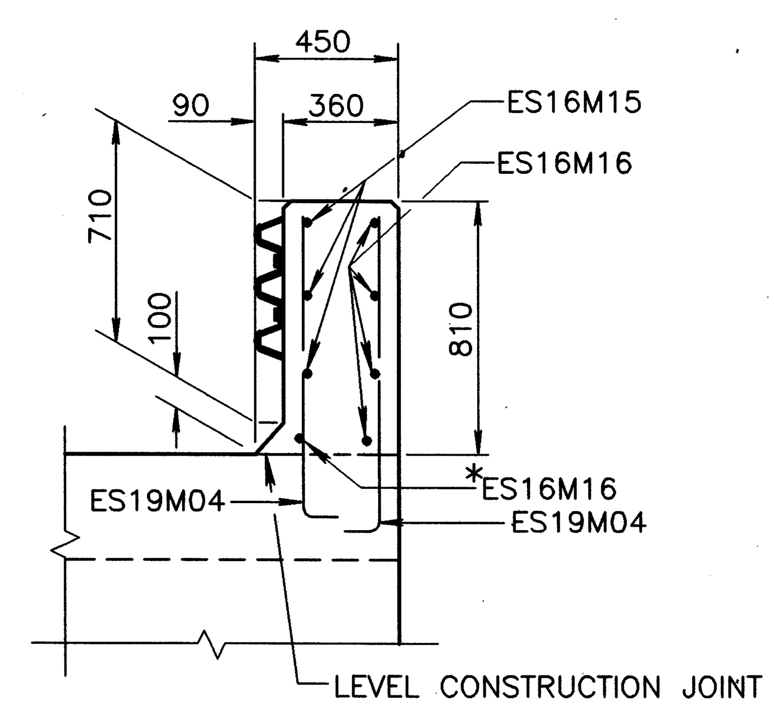
N.S. DENOTES NEAR SIDE
F.S. DENOTES FAR SIDE
E.S. DENOTES EACH SIDE



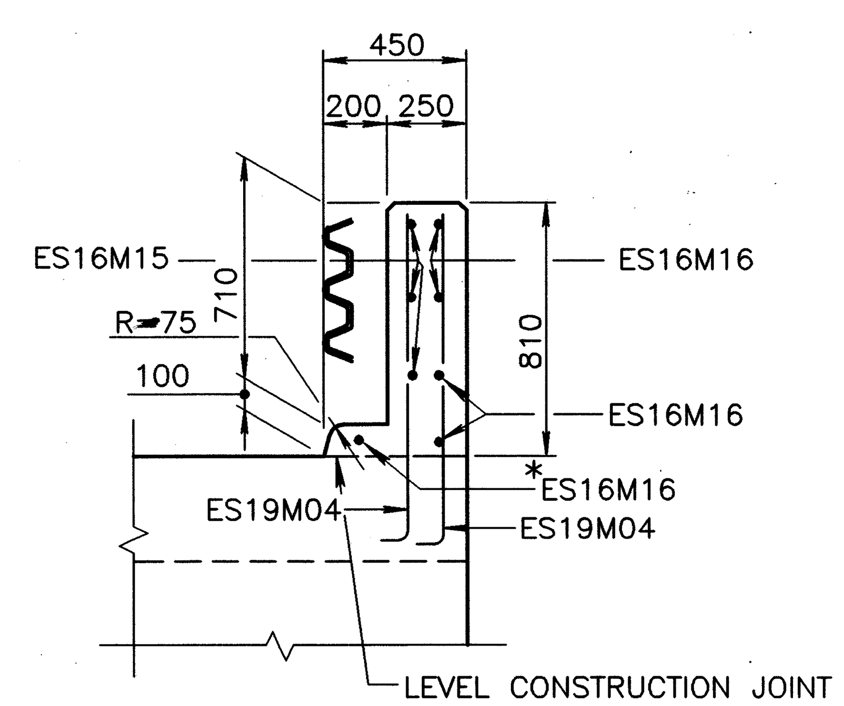
SECTION B–B



SECTION C–C



SECTION D–D



SECTION E–E

* FIELD BEND AS REQUIRED.

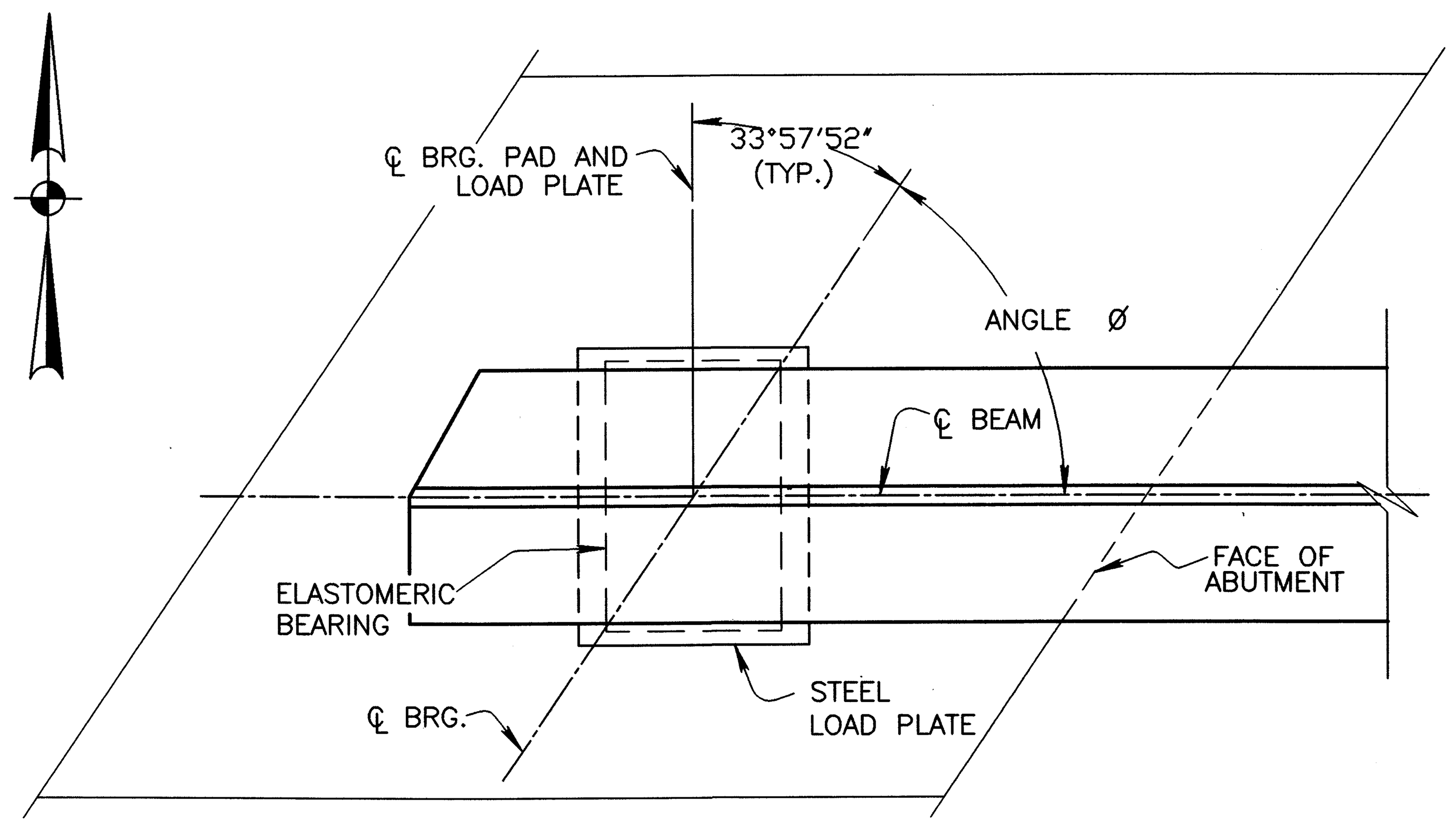
metric units

DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

DESIGNED	CHECKED	DRAWN	REVISED	REVIEWED	DATE	STRUCTURE FILE NUMBER
HK	WEB	RHW		LBD	8-14-00	L-1701851 R-1701878

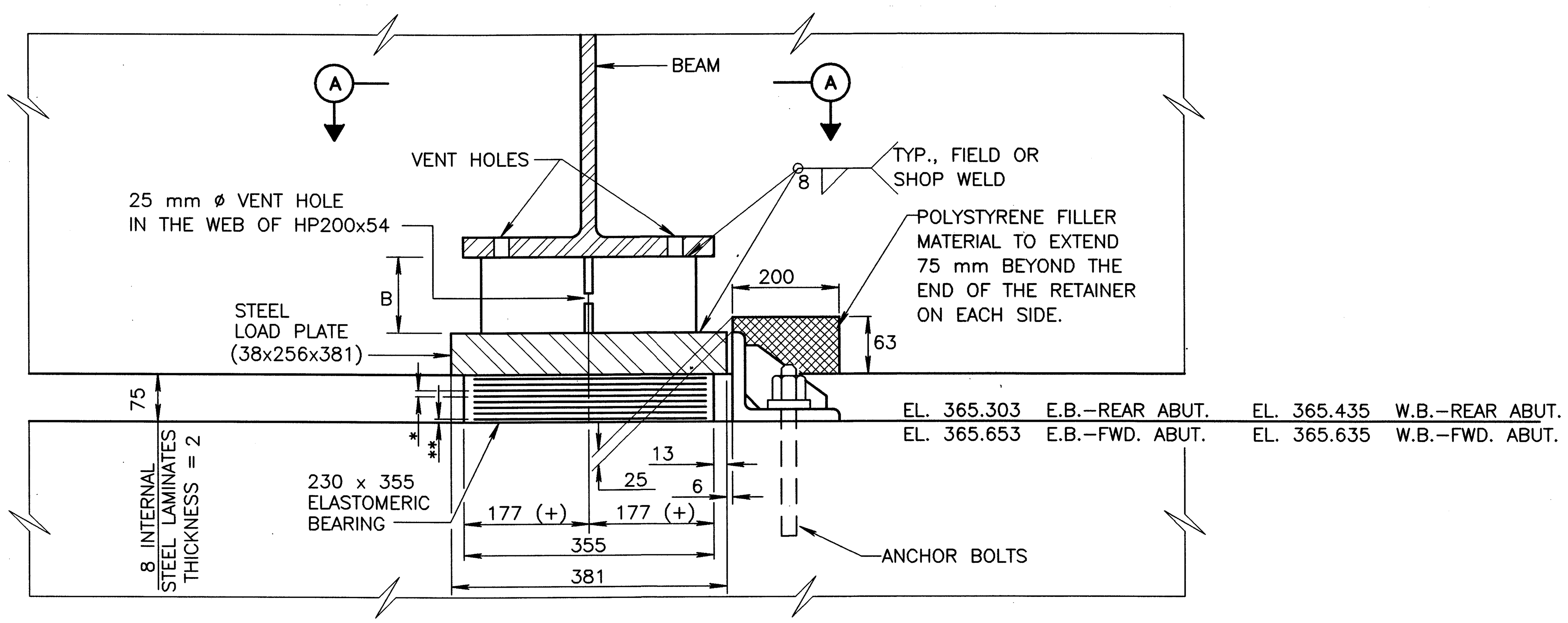
SLAB DETAILS – EASTBOUND BRIDGE
* BRIDGE NO. CRA-30-33602-L & R
RELOCATED U.S. 30 OVER CSX TRANSPORTATION, INC.

CRA/RIC-30-33.500/0.000



VIEW A–A
(REAR ABUTMENT SHOWN)
(HP SHAPE AND RETAINER NOT SHOWN)

ANGLE Ø	
LOCATION	Ø
BEAM 1	54° 50' 31"
BEAM 2	55° 08' 14"
BEAM 3	55° 26' 04"
BEAM 4	55° 44' 02"
BEAMS 5 THRU 13	56° 02' 08"



ABUTMENT BEARINGS

DEAD LOAD REACTION = 270 kN
LIVE LOAD REACTION = 240 kN
TOTAL DESIGN LOAD = 510 kN

* t_i = 7.0 (TYP.) 7 LAYERS
** t_e= 5.0

WESTBOUND – DIMENSION B							
LOCATION	BEAM 1	BEAM 2	BEAM 3	BEAM 4	BEAM 5	BEAM 6	BEAM 7
REAR ABUT.	112	141	171	200	219	170	121
FORWARD ABUT.	111	153	196	238	270	232	190

EASTBOUND – DIMENSION B						
LOCATION	BEAM 8	BEAM 9	BEAM 10	BEAM 11	BEAM 12	BEAM 13
REAR ABUT.	195	224	252	213	163	112
FORWARD ABUT.	159	195	230	198	155	112

metric units

NOTES

1. STEEL LOAD PLATE AND HP200x54 SHALL BE ASTM A588M AND INCLUDED WITH ITEM 516, ELASTOMERIC BEARING FOR PAYMENT.
2. FOR ADDITIONAL BEARING RETAINER DETAILS, SEE STANDARD DRAWING SICD–1–96M , SHEETS 6 AND 7.
3. MATERIALS: THE STEEL RETAINER ASSEMBLY AND SQUARE PLATE WASHER SHALL BE ASTM A572M–50. ANCHOR BOLTS AND NUTS SHALL BE ASTM A325M. STEEL RETAINER ASSEMBLIES, ANCHOR BOLTS, NUTS AND SQUARE PLATE WASHERS SHALL BE GALVANIZED AS PER 711.02.
4. ELASTOMERIC BEARINGS SHALL COMPLY WITH ITEM 516 AND AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, SECTION 18, BEARING DEVICES, DIVISION II, CONSTRUCTION, ARTICLES 18.4.5.1 AND 18.5.6.2. BEARINGS SHALL BE GRADE 3, 50 DUROMETER ELASTOMER, AND SHALL BE SUBJECTED TO THE LOAD TESTING REQUIREMENTS DEFINED IN ARTICLE 18.7.4.5 OF THE AASHTO DOCUMENT LISTED ABOVE. BEARINGS WERE DESIGNED UNDER SECTION 14.6.6 OF SECTION 14, BEARINGS DIVISION I, DESIGN. TESTING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BEARINGS, EACH.
5. WELDING SHALL BE CONTROLLED SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 150° C AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.
6. BASIS OF PAYMENT: THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS, LABOR TESTING, ANCHOR RODS, RETAINERS AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS. PAYMENT WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 516, EACH, ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) :

   230 mm x 355 mm x 75.0 mm WITH 256 mm x 381 mm x 38 mm LOAD PLATE, AS PER PLAN

   330 mm x 510 mm x 60.0 mm WITH 356 mm x 536 mm x 50 mm LOAD PLATE.

   330 mm x 510 mm x 60.0 mm WITH 356 mm x 660 mm x 50 mm LOAD PLATE.

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

DESIGNED RHW | DRAWN RHW | REVIEWED LBD | DATE 8–14–00
CHECKED WEB | REVISED | STRUCTURE FILE NUMBER L–1701851 R–1701878

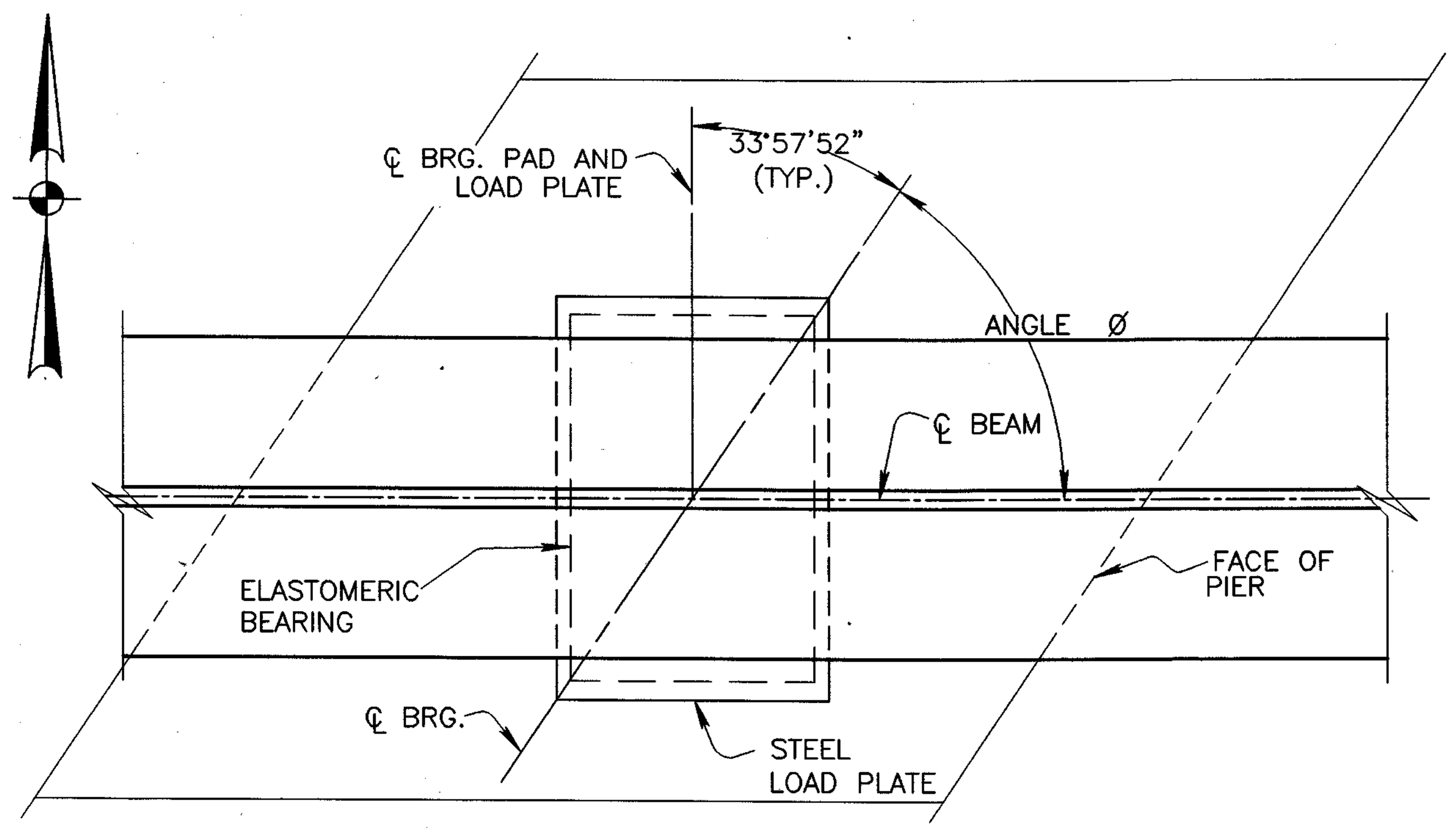
BEARING DETAILS #1
BRIDGE NO. CRA–30–33602–L & R
RELOCATED U.S. 30 OVER CSX TRANSPORTATION, INC.

CRA/RIC–30–33.500/0.000

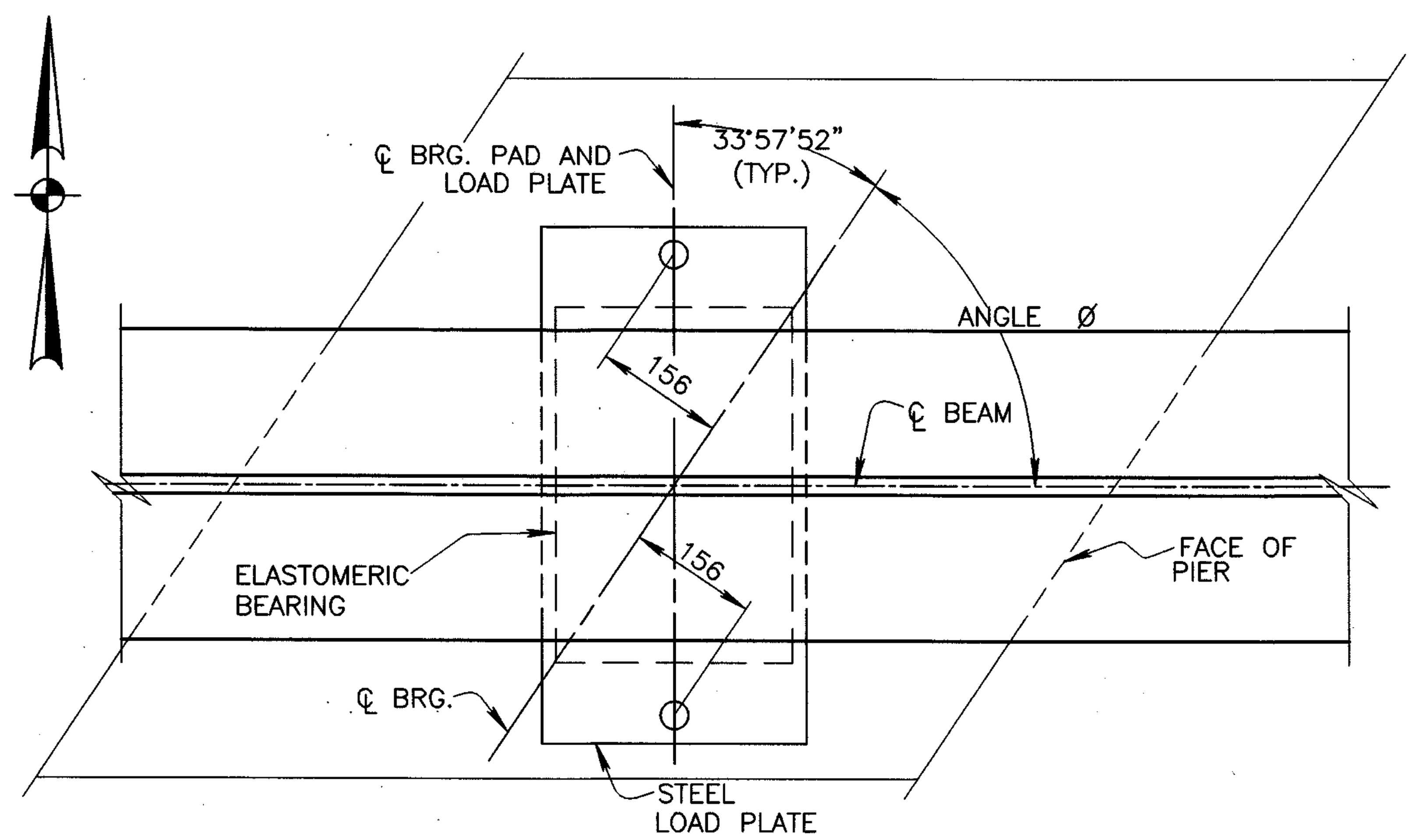
NOTES

(1) FOR ADDITIONAL NOTES AND DETAILS SEE SHEET 22/27.

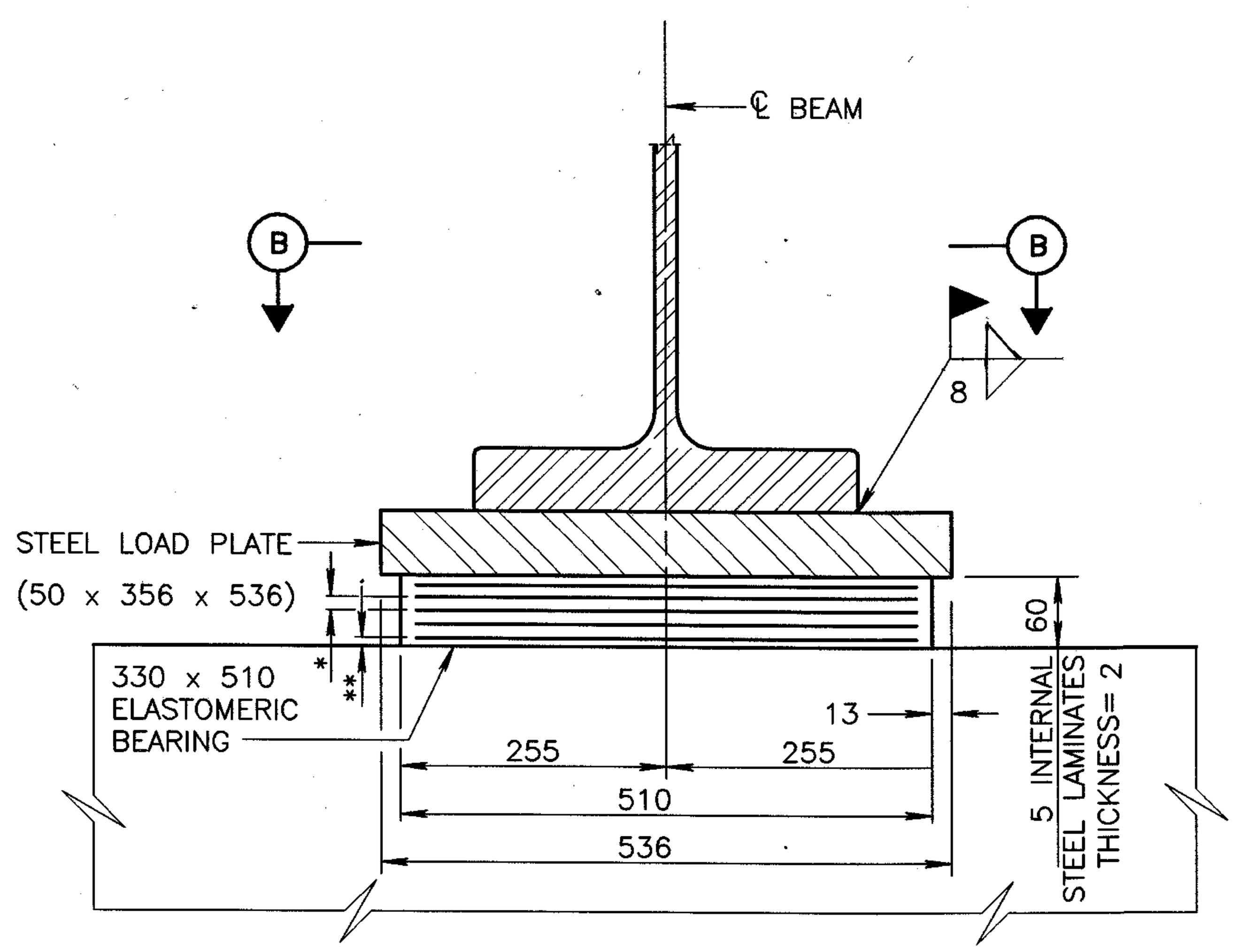
ANGLE Ø	
LOCATION	Ø
BEAM 1	54° 50' 31"
BEAM 2	55° 08' 14"
BEAM 3	55° 26' 04"
BEAM 4	55° 44' 02"
BEAMS 5 THRU 13	56° 02' 08"



VIEW B–B



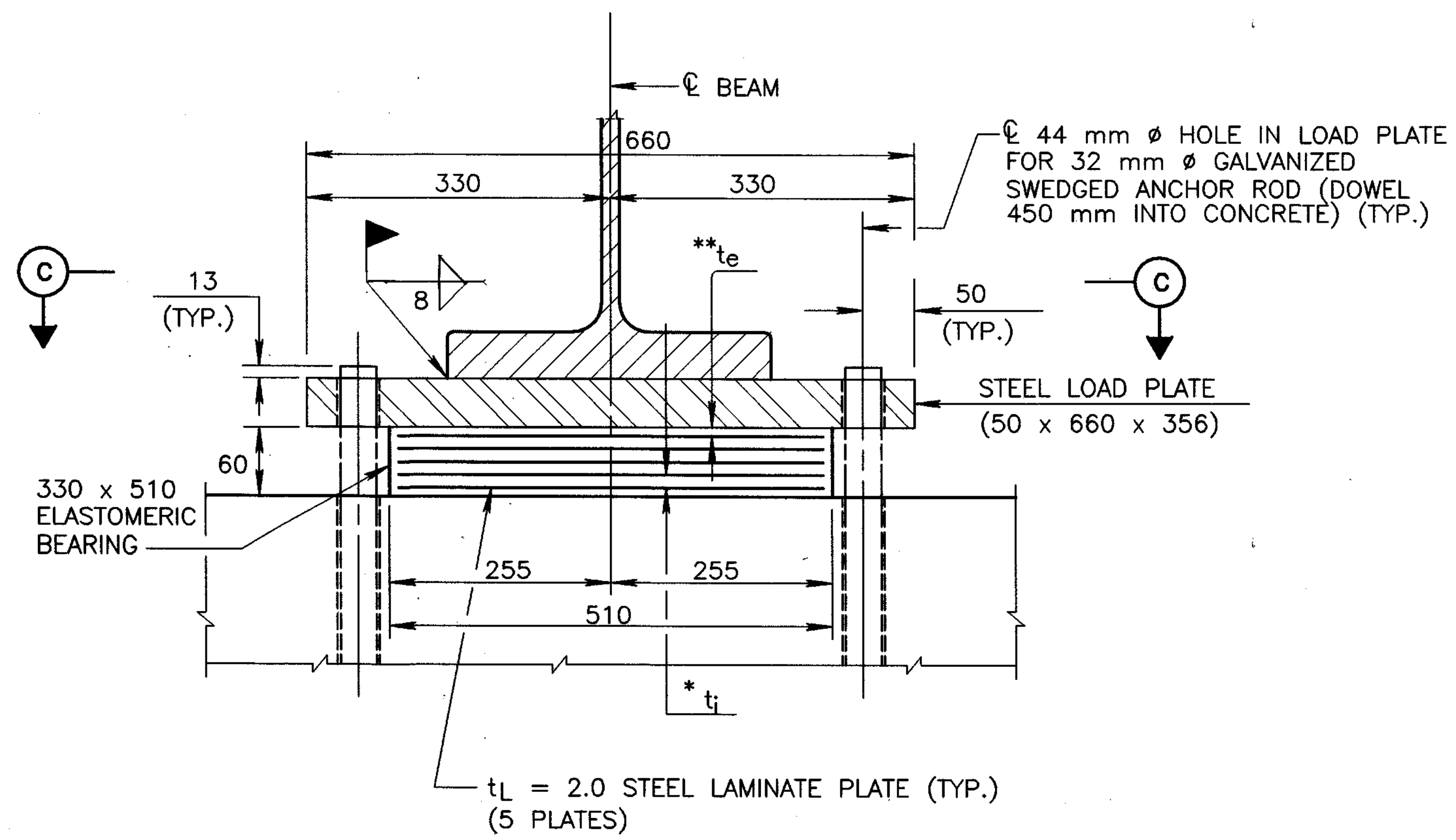
VIEW C–C



PIER 1 BEARINGS

DEAD LOAD REACTION = 750 kN
LIVE LOAD REACTION = 350 kN
TOTAL DESIGN LOAD = 1100 kN

* t_i = 9.0 (TYP.) 4 LAYERS
** t_e = 7.0



PIER 2 BEARINGS

DEAD LOAD REACTION = 750 kN
LIVE LOAD REACTION = 350 kN
TOTAL DESIGN LOAD = 1100 kN

* t_i = 9.0 (TYP.) 4 LAYERS
** t_e = 7.0

metric units

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

REVIEWED LBD DATE 8-14-00
STRUCTURE FILE NUMBER L-1701851 R-1701878
DRAWN RHW REVISED
DESIGNED RHW CHECKED WEB

BEARING DETAILS #2
BRIDGE NO. CRA-30-33602-L & R
RELOCATED U.S. 30 OVER CSX TRANSPORTATION, INC.

CRA/RIC-30-33.500/0.000

FILE NAME: SD101C03
DATE: 10-26-98
PLOT: 1 = 1

REINFORCING SCHEDULE

ABUTMENTS

MARK	NO. REQ'D	LENGTH	TYPE	LOCATION REAR	LOCATION FWD.	DIMENSIONS A	DIMENSIONS B	DIMENSIONS C	DIMENSIONS D	INCRM.
WA16M01	18	9090	STR.	18						
WA16M02	124	5010	14	64	60	775	1650			
WA16M03	47	5290	14	47		800	1765			
WA16M04	1	5620	14	1		965	1765			
WA16M05	8	9810	STR.	8						
WA16M06	3	4300	STR.	3						
WA16M07	3	4325	STR.	3						
WA16M08	3	3315	STR.	3						
WA16M09	3	4260	STR.	3						
WA16M10	2	4800	2	2		650	2115			
WA16M11	1	5210	2	1		650	2320			
SERIES WA16M12	1 SET OF 5	5600 TO 7040	2	1 SET OF 5		650	2515 TO 3235			180
WA16M13	2	7160	2	2		650	3295			
WA16M14	1	7295	2	1		785	3295			
WA16M15	1	7275	2	1		785	3285			
WA16M16	1	7140	2	1		650	3285			
SERIES WA16M17	1 SET OF 4	5800 TO 7140	2	1 SET OF 4		650	2615 TO 3285			223
WA16M18	1	5320	2	1		650	2375			
WA16M19	1	3700	STR.	1						
WA16M20	1	3285	STR.	1						
SERIES WA16M21	1 SET OF 3	1965 TO 3515	STR.	1 SET OF 3						775
SERIES WA16M22	1 SET OF 3	1550 TO 3100	STR.	1 SET OF 3						775
WA16M23	1	4050	10	1		1170	1185	2625		
WA16M24	1	3535	10	1		655	1185	2625		
WA16M25	1	2760	STR.	1						
WA16M26	1	3175	STR.	1						
SERIES WA16M27	1 SET OF 3	1360 TO 2610	STR.	1 SET OF 3						625
SERIES WA16M28	1 SET OF 3	1770 TO 3020	STR.	1 SET OF 3						625
WA16M29	1	3065	10	1		655	1175	2100		
WA16M30	1	3480	10	1		1070	1175	2100		
WA16M31	2	1150	2	2		650	290			
WA16M32	27	1370	2	14	13	650	400			
WA16M33	4	1505	2	2	2	785	400			
WA16M34	4	3810	14	2	2	965	860			
WA16M35	13	3480	14	6	7	800	860			
WA16M36	6	3540	14	6		800	890			
WA16M37	12	3600	14	12		800	920			
WA16M38	13	3660	14	6	7	800	950			
WA16M39	6	3500	14	6		800	870			
WA16M40	2	3830	14	2		965	870			
WA16M41	8	2040	2	4	4	660	730			
WA16M42	76	1930	2	36	40	550	730			
WA16M43	18	9410	STR.		18					
WA16M44	46	4890	14		46	800	1565			
WA16M45	1	5220	14		1	965	1565			
WA16M46	3	3935	STR.		3					
WA16M47	3	3955	STR.		3					
WA16M48	8	10 770	STR.		8					
WA16M49	3	2690	STR.		3					
WA16M50	3	3640	STR.		3					
WA16M51	1	4700	2		1	650	2065			
WA16M52	1	5110	2		1	650	2270			
SERIES WA16M53	1 SET OF 4	5520 TO 6750	2		1 SET OF 4	650	2475 TO 3090			205
WA16M54	1	6740	2		1	650	3085			
WA16M55	1	6875	2		1	785	3085			
WA16M56	1	7035	2		1	785	3165			
WA16M57	1	6900	2		1	650	3165			
WA16M58	1	6610	2		1	650	3020			
WA16M59	1	6070	2		1	650	2750			
WA16M60	1	5410	2		1	650	2420			
WA16M61	1	3335	STR.		1					
WA16M62	1	2920	STR.		1					
SERIES WA16M63	1 SET OF 3	1800 TO 3335	STR.		1 SET OF 3					768
SERIES WA16M64	1 SET OF 3	1385 TO 2920	STR.		1 SET OF 3					768

REINFORCING SCHEDULE

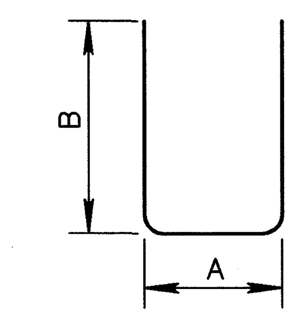
ABUTMENTS

MARK	NO. REQ'D	LENGTH	TYPE	LOCATION REAR	LOCATION FWD.	DIMENSIONS A	DIMENSIONS B	DIMENSIONS C	DIMENSIONS D	INCRM.
WA16M65	1	3655	10		1	1170	1030	2260		
WA16M66	1	3140	10		1	655	1030	2260		
WA16M67	1	2140	STR.		1					
WA16M68	1	2555	STR.		1					
SERIES WA16M69	1 SET OF 3	1110 TO 2140	STR.		1 SET OF 3					515
SERIES WA16M70	1 SET OF 3	1525 TO 2555	STR.		1 SET OF 3					515
WA16M71	1	2495	10		1	655	1090	1480		
WA16M72	1	2910	10		1	1070	1090	1480		
WA16M73	7	3570	14		7	800	905			
WA16M74	13	3740	14		13	800	990			
WA16M75	6	3640	14		6	800	940			
WA16M76	2	3970	14		2	965	940			
WA25M01	12	9510	STR.	12						
WA25M02	8	10 420	STR.	8						
WA25M03	20	10 120	STR.	20						
WA25M04	12	9820	STR.		12					
WA25M05	8	11 380	STR.		8					
WA25M06	20	11 090	STR.		20					
WD25M01	71	1655	13	34	37	950	431	305		

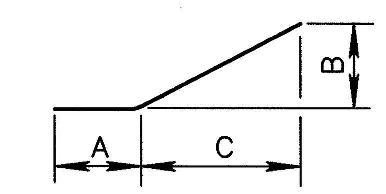
metric units

NOTES

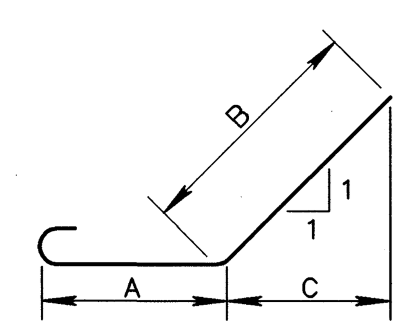
1. ALL REINFORCING STEEL TO BE EPOXY COATED.
2. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST TWO DIGITS INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, A 16M01 IS A 16M BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED.



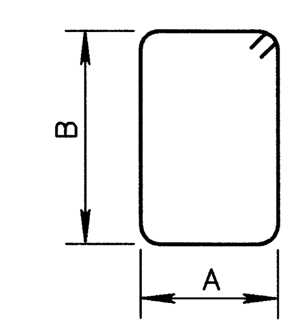
TYPE 2



TYPE 10



TYPE 13



TYPE 14

DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

REVIEWED: LBD | DATE: 8-14-00 | STRUCTURE FILE NUMBER: L-1701851 R-1701878

DRAWN: WEB | REVISED:

DESIGNED: – | CHECKED: RHW

REINFORCING SCHEDULE – WESTBOUND BRIDGE
BRIDGE NO. CRA-30-33602-L & R
RELOCATED U.S 30 OVER CSX TRANSPORTATION, INC.

CRA/RIC-30-33.500/0.000

24/27

560/712

REINFORCING SCHEDULE

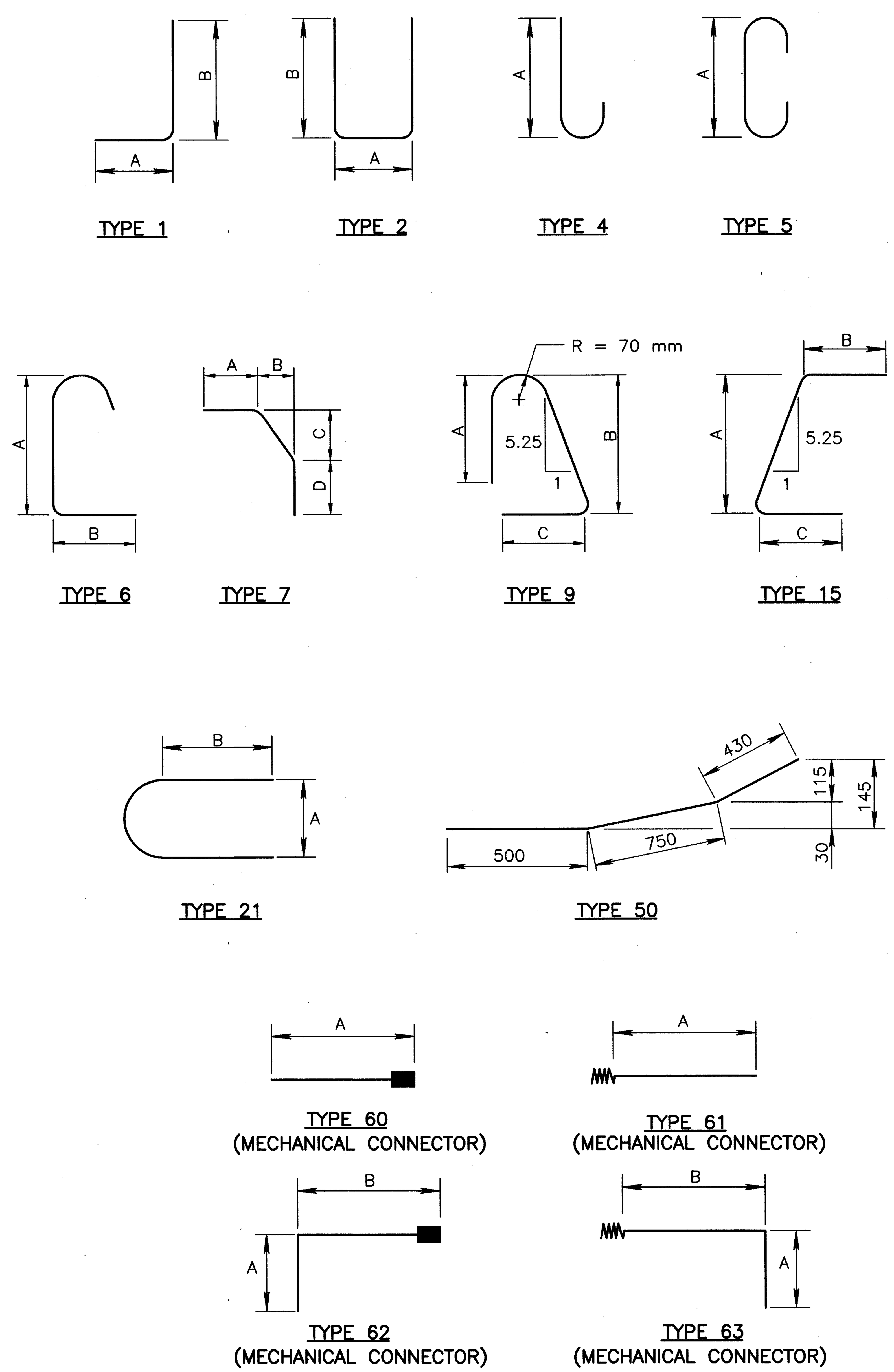
MARK	NO. REQ'D	LENGTH	TYPE	PIER1	PIER 2	DIMENSIONS A	B	C	D	INCRM.
PIERS										
WP13M01	48	6640	STR.	48						
WP13M02	96	2455	21	48	48	810	600			
WP13M03	312	1105	6	144	168	810	205			
WP13M04	48	7290	STR.		48					
SERIES WP16M01	8 SETS OF 12	2720 TO 3610	2	4 SETS OF 12	4 SETS OF 12	810	995 TO 1440			40
SERIES WP16M02	8 SETS OF 14	3710 TO 4340	2	4 SETS OF 14	4 SETS OF 14	810	1490 TO 1805			24
WP16M03	8	4340	2	4	4	810	1805			
WP16M04	48	2930	2	23	25	810	1100			
WP16M05	98	1850	2	49	49	810	560			
WP19M01	10	8100	STR.	10						
WP19M02	24	7785	7	12	12	900	1697	5791	900	
SERIES WP19M03	4 SETS OF 5	4290 TO 8110	STR.	4 SETS OF 5						955
SERIES WP19M04	4 SETS OF 3	9065 TO 9885	STR.	4 SETS OF 3						410
WP19M05	32	9970	STR.	32						
WP19M06	32	2455	2	16	16	775	890			
WP19M07	10	8750	STR.		10					
SERIES WP19M08	4 SETS OF 5	4615 TO 8435	STR.		4 SETS OF 5					955
SERIES WP19M09	4 SETS OF 3	9390 TO 10 210	STR.		4 SETS OF 3					410
WP19M10	32	10 295	STR.		32					
WP25M01	108	2675	1	52	56	2325	410			
WP25M02	52	9670	STR.	52						
WP25M03	56	9750	STR.		56					
WP29M01	58	3610	5	26	32	2850				
WP36M01	6	9990	62	6		610	9480			
WP36M02	6	9990	63	6		610	9480			
WP36M03	6	9480	60	6		9480				
WP36M04	6	9480	61	6		9480				
WP36M05	6	10 310	62		6	610	9800			
WP36M06	6	10 310	63		6	610	9800			
WP36M07	6	9800	60		6	9800				
WP36M08	6	9800	61		6	9800				

REINFORCING SCHEDULE

MARK	NO. REQ'D	LENGTH	TYPE	DIMENSIONS A	B	C	D	INCRM.
SUPERSTRUCTURE								
WS13M01	639	9140	STR.					
WS13M02	280	8600	STR.					
WS16M01	494	7125	STR.					
WS16M02	152	9750	STR.					
WS16M03	152	10 200	STR.					
WS16M04	153	10 675	STR.					
WS16M05	488	8300	STR.					
WS16M06	152	8550	STR.					
WS16M07	152	9000	STR.					
WS16M08	153	9475	STR.					
WS16M09	544	9140	STR.					
WS16M10	68	11 800	STR.					
WS16M11	84	10 910	STR.					
SERIES WS16M12	1 SET OF 33	1800 TO 8680	STR.					215
SERIES WS16M13	1 SET OF 25	1800 TO 6960	STR.					215
SERIES WS16M14	1 SET OF 28	1800 TO 7605	STR.					215
SERIES WS16M15	1 SETS OF 31	1800 TO 8250	STR.					215
WS16M16	33	9570	STR.					
SERIES WS16M17	1 SET OF 37	1800 TO 9360	STR.					210
SERIES WS16M18	1 SET OF 29	1800 TO 7820	STR.					215
WS16M19	28	10 750	STR.					
SERIES WS16M20	1 SET OF 42	1800 TO 10 410	STR.					210
SERIES WS16M21	1 SET OF 23	1940 TO 6670	STR.					215
WS16M22	504	2205	9	900	950	320		
WS16M23	32	1680	STR.					
WS16M24	12	1680	50					
WS16M25	20	1680	STR.					
WS19M01	504	995	15	455	320	320		
WS19M02	504	725	1	320	455			
WS19M03	14	11 100	STR.					
WS19M04	40	1010	1	125	935			
SERIES WS19M05	4 SETS OF 10	1140 TO 1365	4	935 TO 1160				25
SERIES WS19M06	4 SETS OF 10	1135 TO 1360	1	935 TO 1160	250			25
WS25M01	8	10 185	STR.					
WS25M02	8	11 150	STR.					

NOTES

1. ALL REINFORCING STEEL TO BE EPOXY COATED.
2. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST TWO DIGITS INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, A 16M01 IS A 16M BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED.



DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

REVIEWED LBD | DATE 8-14-00 | STRUCTURE FILE NUMBER L-1701851 R-1701878

DRAWN WEB | REVISED

DESIGNED - | CHECKED RHW

REINFORCING SCHEDULE – WESTBOUND BRIDGE
BRIDGE NO. CRA-30-33602-L & R
RELOCATED U.S 30 OVER CSX TRANSPORTATION, INC.

CRA/RIC-30-33.500/0.000

REINFORCING SCHEDULE

MARK	NO. REQ'D	LENGTH	TYPE	LOCATION		DIMENSIONS				INCRM.
						A	B	C	D	
ABUTMENTS										
				REAR	FWD.					
EA16M01	12	11 460	STR.	12						
EA16M02	106	5010	14	54	52	775	1650			
EA16M03	38	5030	14	38		800	1635			
EA16M04	1	5360	14	1		965	1635			
EA16M05	16	8535	STR.	8	8					
EA16M06	3	3950	STR.	3						
EA16M07	3	3975	STR.	3						
EA16M08	3	2725	STR.	3						
EA16M09	3	3670	STR.	3						
EA16M10	2	4800	2	2		650	2115			
EA16M11	1	5210	2	1		650	2320			
SERIES EA16M12	1 SET OF 4	5620 TO 6740	2	1 SET OF 4		650	2525 TO 3085			187
EA16M13	2	6870	2	2		650	3150			
EA16M14	1	7005	2	1		785	3150			
EA16M15	1	7175	2	1		785	3235			
EA16M16	2	7040	2	2		650	3235			
EA16M17	1	6750	2	1		650	3090			
EA16M18	1	6150	2	1		650	2790			
EA16M19	1	5510	2	1		650	2470			
EA16M20	1	3350	STR.	1						
EA16M21	1	2935	STR.	1						
SERIES EA16M22	1 SET OF 3	1820 TO 3350	STR.	1 SET OF 3						765
SERIES EA16M23	1 SET OF 3	1405 TO 2935	STR.	1 SET OF 3						765
EA16M24	1	3670	10	1		1170	1040	2275		
EA16M25	1	3155	10	1		655	1040	2275		
EA16M26	1	2170	STR.	1						
EA16M27	1	2585	STR.	1						
SERIES EA16M28	1 SET OF 3	1130 TO 2170	STR.	1 SET OF 3						520
SERIES EA16M29	1 SET OF 3	1545 TO 2585	STR.	1 SET OF 3						520
EA16M30	1	2535	10	1		655	1115	1510		
EA16M31	1	2950	10	1		1070	1115	1510		
EA16M32	28	1370	2	14	14	650	400			
EA16M33	4	1505	2	2	2	785	400			
EA16M34	2	3970	14	2		965	940			
EA16M35	18	3640	14	2	12	800	940			
EA16M36	6	3700	14	6		800	970			
EA16M37	6	3670	14	6		800	955			
EA16M38	12	3570	14	6	6	800	905			
EA16M39	12	3470	14	6	6	800	855			
EA16M40	4	3800	14	2	2	965	855			
EA16M41	8	2040	2	4	4	660	730			
EA16M42	60	1930	2	30	30	550	730			
EA16M43	12	11 880	STR.	36	12					
EA16M44	36	4930	14		36	800	1585			
EA16M45	1	5260	14		1	965	1585			
EA16M46	3	4400	STR.		3					
EA16M47	3	4320	STR.		3					
EA16M48	3	3215	STR.		3					
EA16M49	3	4165	STR.		3					
EA16M50	2	4700	2		2	650	2065			
EA16M51	1	5070	2		1	650	2250			
SERIES EA16M52	1 SET OF 4	5440 TO 6560	2		1 SET OF 4	650	2435 TO 2995			187
EA16M53	2	6860	2		2	650	3145			
EA16M54	1	6995	2		1	785	3145			
EA16M55	1	6905	2		1	785	3100			
EA16M56	1	6770	2		1	650	3100			
SERIES EA16M57	1 SET OF 3	5640 TO 6570	2		1 SET OF 3	650	2535 TO 3000			233
EA16M58	1	5180	2		1	650	2305			
EA16M59	1	3695	STR.		1					
EA16M60	1	3280	STR.		1					
SERIES EA16M61	1 SET OF 3	1915 TO 3695	STR.		1 SET OF 3					890
SERIES EA16M62	1 SET OF 3	1500 TO 3280	STR.		1 SET OF 3					890
EA16M63	1	4015	10		1	1170	1095	2625		
EA16M64	1	3500	10		1	655	1095	2625		

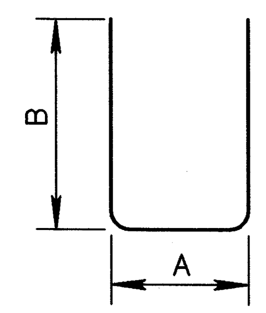
REINFORCING SCHEDULE

MARK	NO. REQ'D	LENGTH	TYPE	LOCATION		DIMENSIONS				INCRM.
						A	B	C	D	
ABUTMENTS										
				REAR	FWD.					
EA16M65	1	2665	STR.		1					
EA16M66	1	3080	STR.		1					
SERIES EA16M67	1 SET OF 3	1315 TO 2665	STR.		1 SET OF 3					675
SERIES EA16M68	1 SET OF 3	1730 TO 3080	STR.		1 SET OF 3					675
EA16M69	1	2915	10		1	655	1040	2005		
EA16M70	1	3335	10		1	1075	1040	2005		
EA16M71	2	3900	14		2	965	905			
EA16M72	6	3550	14		6	800	895			
EA25M01	8	11 770	STR.	8						
EA25M02	16	9150	STR.	8	8					
EA25M03	40	8850	STR.	20	20					
EA25M04	12	8630	STR.		12					
ED25M01	58	1655	13	29	29	950	431	305		

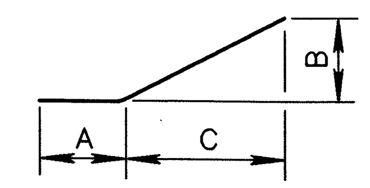
metric units

NOTES

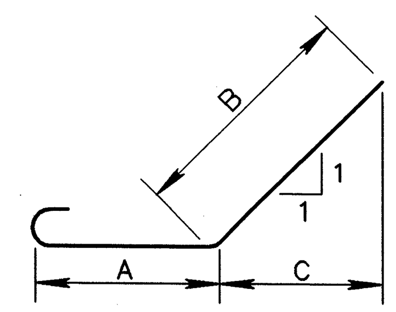
1. ALL REINFORCING STEEL TO BE EPOXY COATED.
2. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST TWO DIGITS INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, A 16M01 IS A 16M BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED.



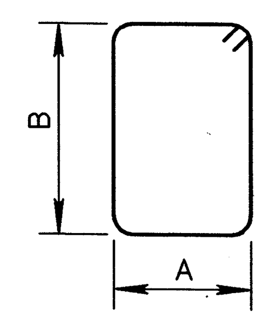
TYPE 2



TYPE 10



TYPE 13



TYPE 14

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

DATE 8-14-00
REVIEWED LBD
STRUCTURE FILE NUMBER L-1701851 R-1701878
DRAWN WEB
REVISED
DESIGNED –
CHECKED RHW

REINFORCING SCHEDULE – EASTBOUND BRIDGE
BRIDGE NO. CRA-30-33602-L & R
RELOCATED U.S 30 OVER CSX TRANSPORTATION, INC.

CRA/RIC-30-33.500/0.000

26/27

562/712

REINFORCING SCHEDULE

PIERS

MARK	NO. REQ'D	LENGTH	TYPE	PIER1	PIER 2	DIMENSIONS A	B	C	D	INCRM.
EP13M01	100	5460	STR.	50	50					
EP13M02	100	2455	21	50	50	810	600			
EP13M03	250	1105	6	125	125	810	205			
SERIES EP16M01	8 SETS OF 11	2730 TO 3570	2	4 SETS OF 11	4 SETS OF 11	810	1000 TO 1420			42
SERIES EP16M02	8 SETS OF 10	3650 TO 4010	2	4 SETS OF 10	4 SETS OF 10	810	1460 TO 1640			20
EP16M03	8	4010	2	4	4	810	1640			
EP16M04	38	2930	2	19	19	810	1100			
EP16M05	84	1880	2	42	42	810	575			
EP19M01	20	6850	STR.	10	10					
EP19M02	24	6730	7	12	12	900	1348	4794	900	
SERIES EP19M03	8 SETS OF 5	3710 TO 7550	STR.	4 SETS OF 5	4 SETS OF 5					960
EP19M04	56	8380	STR.	28	28					
EP19M05	28	2455	2	14	14	775	890			
EP25M01	88	2675	1	44	44	2325	410			
EP25M02	44	9575	STR.	44						
EP25M03	44	9690	STR.		44					
EP29M01	44	3610	5	22	22	2850				
EP32M01	24	9765	1	12	12	555	9310			
EP32M02	24	9310	STR.	12	12					

REINFORCING SCHEDULE

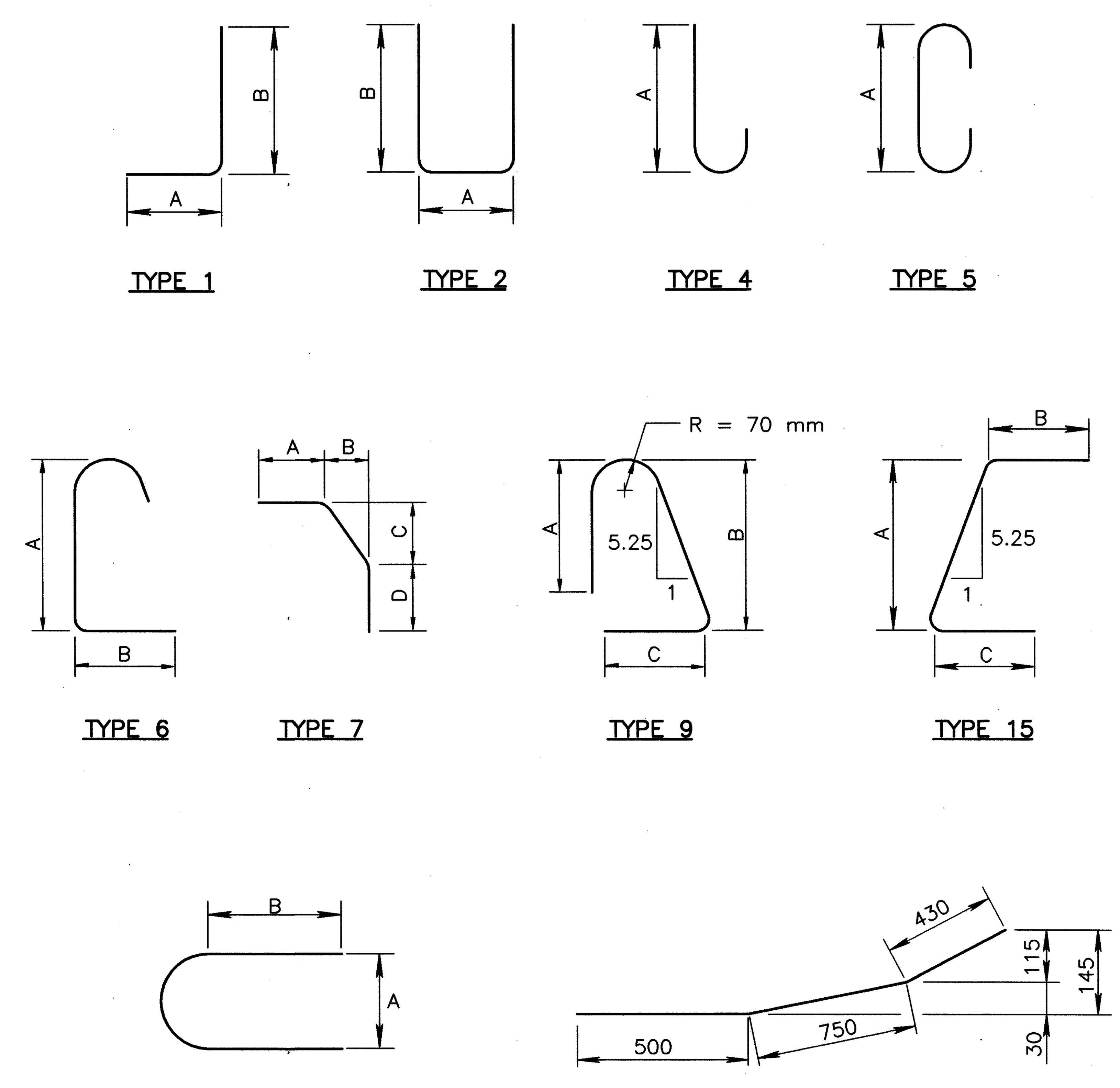
SUPERSTRUCTURE

MARK	NO. REQ'D	LENGTH	TYPE	DIMENSIONS A	B	C	D	INCRM.
ES13M01	456	9140	STR.					
ES13M02	57	7565	STR.					
ES13M03	224	8600	STR.					
ES16M01	958	7150	STR.					
ES16M02	484	5930	STR.					
ES16M03	473	8380	STR.					
ES16M04	432	9140	STR.					
ES16M05	54	10 685	STR.					
ES16M06	84	10 750	STR.					
SERIES ES16M07	2 SETS OF 23	1800 TO 6705	STR.					223
SERIES ES16M08	2 SETS OF 24	1800 TO 6930	STR.					223
SERIES ES16M09	1 SET OF 17	1900 TO 5468	STR.					223
SERIES ES16M10	1 SET OF 30	1800 TO 8267	STR.					223
SERIES ES16M11	1 SET OF 19	1800 TO 5814	STR.					223
SERIES ES16M12	1 SET OF 28	1900 TO 7921	STR.					223
ES16M13	476	2205	9	900	950	320		
ES16M14	32	1680	STR.					
ES16M15	12	1680	50					
ES16M16	20	1680	STR.					
ES19M01	476	995	15	455	320	320		
ES19M02	476	725	1	320	455			
ES19M03	14	10 940	STR.					
ES19M04	40	1010	1	125	935			
SERIES ES19M05	4 SETS OF 10	1140 TO 1365	4	935 TO 1160				25
SERIES ES19M06	4 SETS OF 10	1135 TO 1360	1	935 TO 1160	250			25
ES25M01	16	8910	STR.					

metric units

NOTES

1. ALL REINFORCING STEEL TO BE EPOXY COATED.
2. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST TWO DIGITS INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, A 16M01 IS A 16M BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED.



DESIGN AGENCY McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

REVIEWED LBD | DATE 8-14-00 | STRUCTURE FILE NUMBER L-1701851 R-1701878

DRAWN WEB | REVISED

DESIGNED – | CHECKED RHW

REINFORCING SCHEDULE – EASTBOUND BRIDGE

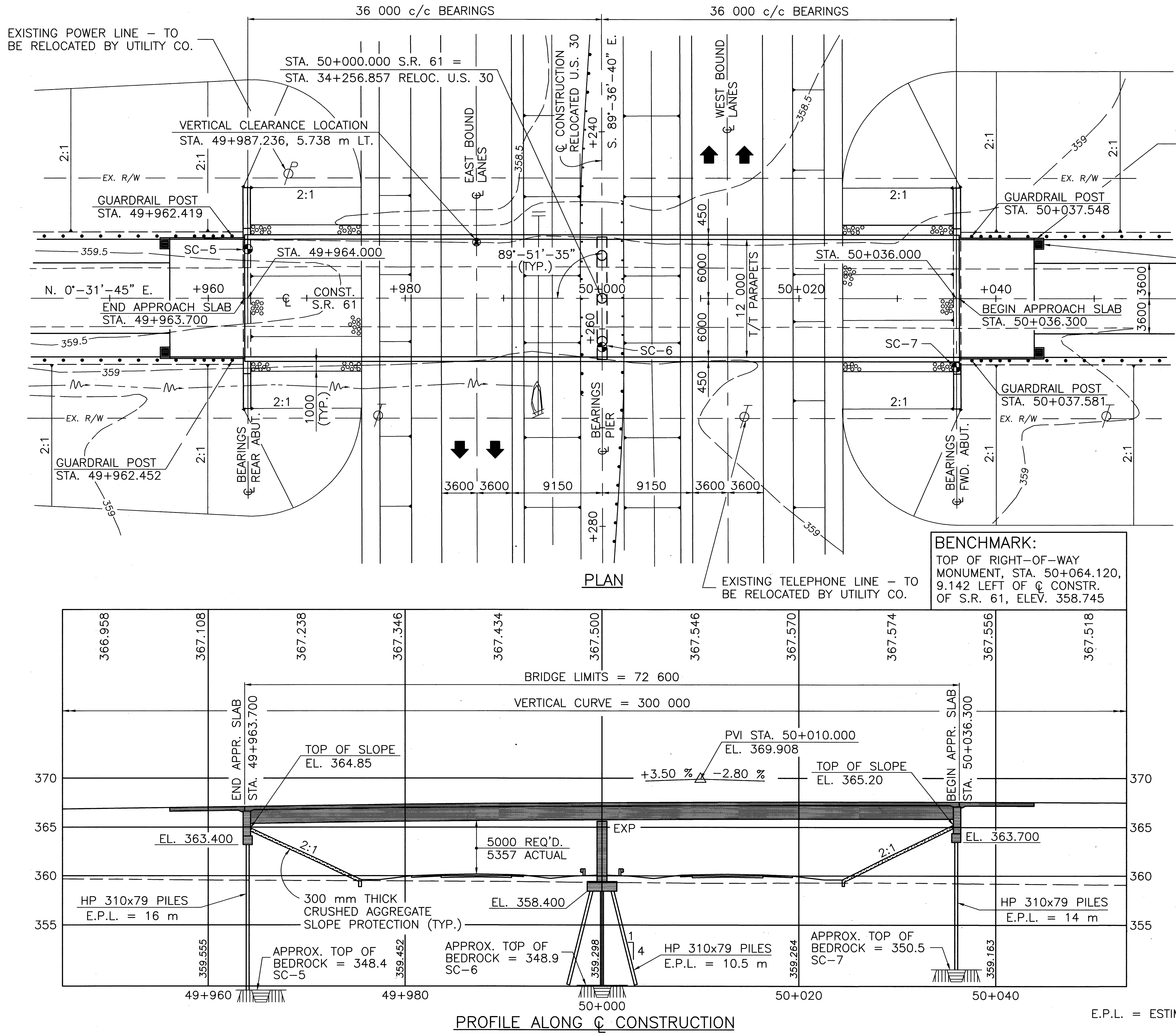
BRIDGE NO. CRA-30-33602-L & R

RELOCATED U.S 30 OVER CSX TRANSPORTATION, INC.

CRA/RIC-30-33.500/0.000

27/27

563/712



= BORING LOG LOCATION

TYPE 4A CURB (TYP.)

TYPE 6 CATCH BASIN (TYP.) SEE ROADWAY PLANS

NOTE: EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

VERTICAL CURVE DATA

PVI STA. 50+010
PVI EL. 369.908
G1 = +3.50 %
G2 = −2.80 %
L = 300 m

TRAFFIC DATA

DESIGN ADT (2020) = 8520
DESIGN ADTT (2020) = 340

PROPOSED STRUCTURE

TYPE: 2 SPAN CONTINUOUS A572 PAINTED STEEL GIRDER BRIDGE w/COMPOSITE REINF. CONC. DECK ON CAP & COLUMN PIER AND INTEGRAL ABUTMENTS
SPANS: 36 000, 36 000 c/c BEARINGS
ROADWAY: 12 000 T/T PARAPETS
DESIGN LOADING: MS18 CASE II & ALTERNATE MILITARY LOADING
SKEW: 0°-08'-25" R.F.
ALIGNMENT: TANGENT
WEARING SURFACE: MONOLITHIC CONCRETE
APPROACH SLABS: 7600 (AS-1-81M)
CROWN: 0.016
LATITUDE: N40°-45'-45"
LONGITUDE: W82°-44'-45"

ALL DIMENSIONS ARE IN MILLIMETERS
ALL ELEVATIONS AND STATIONING ARE IN METERS

E.P.L. = ESTIMATED PILE LENGTH.

metric units

DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

DESIGNED SJR | CHECKED JDV | DRAWN KRM | REVISED | REVIEWED TF | DATE 11/00 | STRUCTURE FILE NUMBER 1701886

CRAWFORD COUNTY STA. 49+963.700 STA. 50+036.300

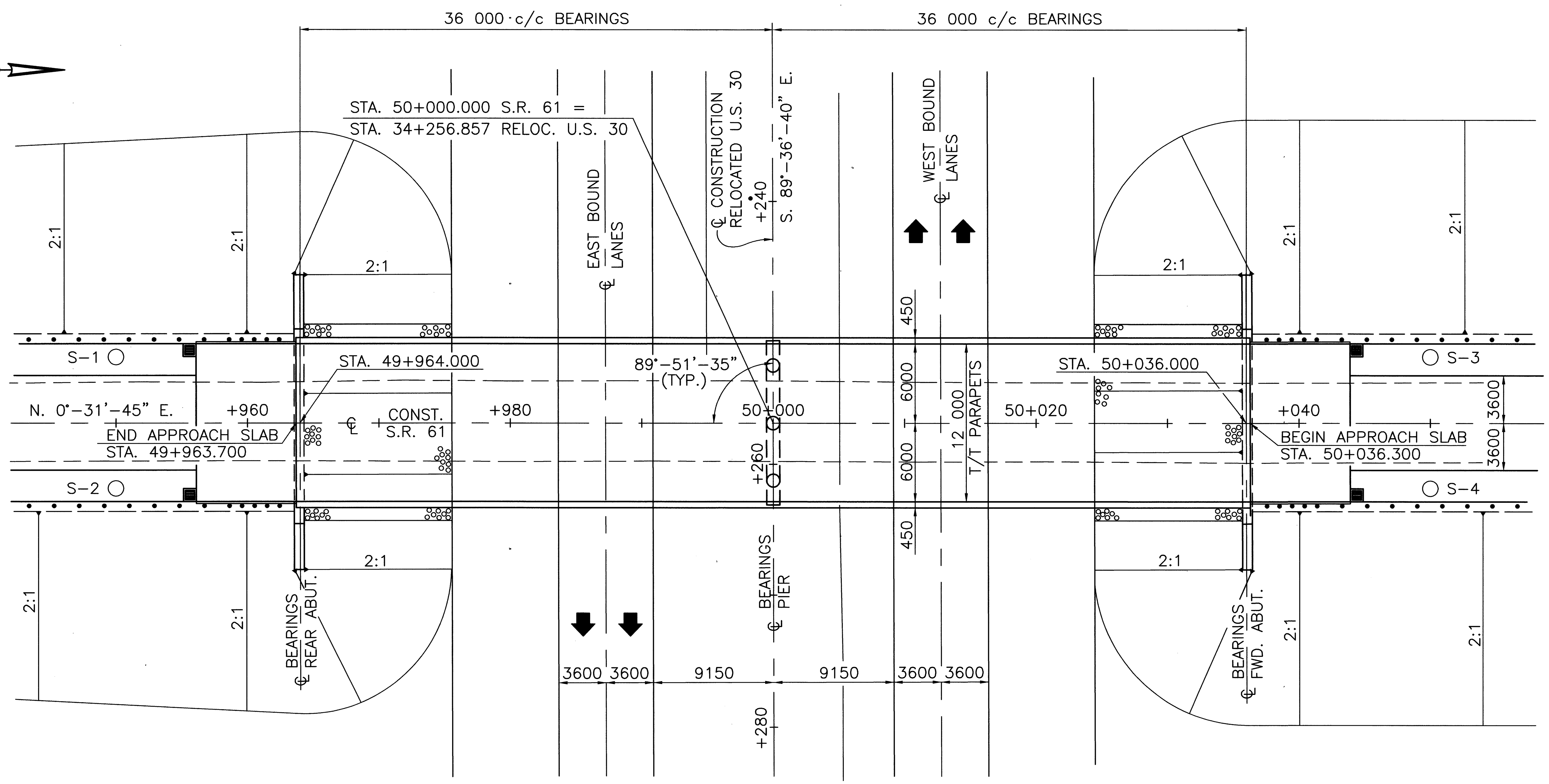
SITE PLAN
BRIDGE NO. CRA-30-34250 UNDER S.R. 61

CRA/RIC-30-33.500/0.000

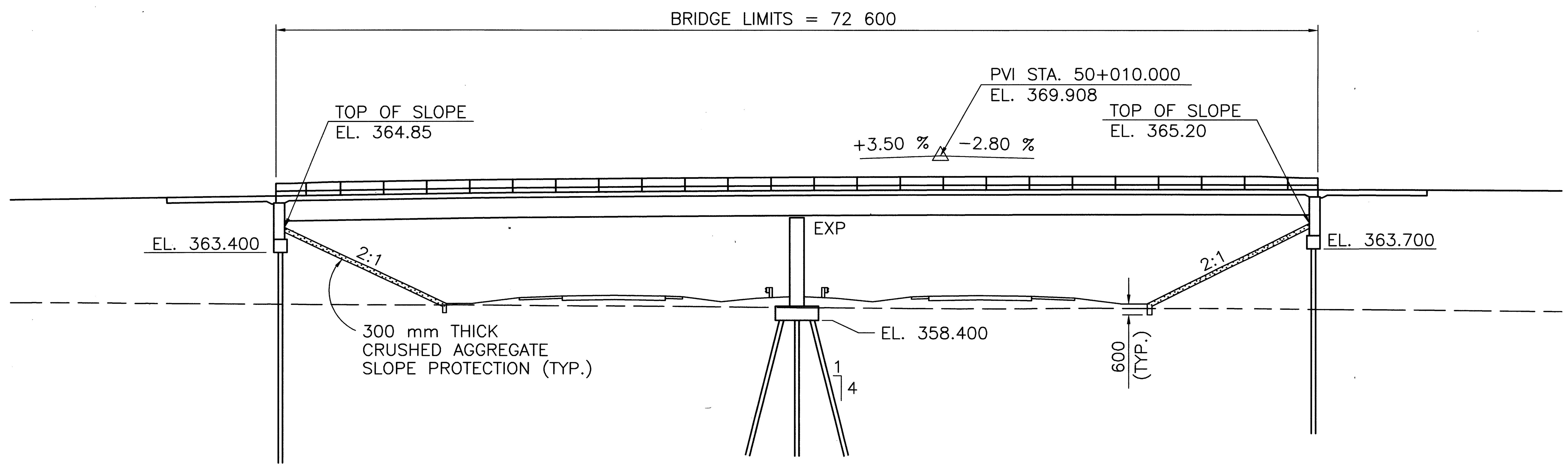
1/12

564/712

16284S2A.DWG 11-14-2000 1:25 PM SCALE: 1:0.2M



PLAN



ELEVATION

SETTLEMENT PLATFORM DATA		
NO.	LOCATION	STATION
S-1	5 m LT.	49+950
S-2	5 m RT.	49+950
S-3	5 m LT.	50+050
S-4	5 m RT.	50+050

ALL DIMENSIONS ARE IN MILLIMETERS
ALL ELEVATIONS AND STATIONING ARE IN METERS

metric units

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

REVIEWED TF DATE 11/00
STRUCTURE FILE NUMBER 1701886

DESIGNED SJR DRAWN KRM CHECKED JDV REVISED

GENERAL PLAN
BRIDGE NO. CRA-30-34250
UNDER S.R. 61

CRA/RIC-30-33.500/0.000

2/12

565/712

16284S2B.DWG
11-14-2000 1:29 PM
SCALE: 1:0.2M

GENERAL NOTES

PILES DRIVEN TO BEDROCK

PILES SHALL BE DRIVEN TO REFUSAL ON BEDROCK. REFUSAL SHALL BE CONSIDERED AS OBTAINED BY PENETRATING SOFT BEDROCK FOR SEVERAL MILLIMETERS WITH A MINIMUM RESISTANCE OF 20 BLOWS PER 25 mm OR REFUSAL SHALL BE CONSIDERED AS OBTAINED AFTER THE PILE HAS CONTACTED HARD BEDROCK AND THE PILE HAS THEN RECEIVED AT LEAST 20 BLOWS.

THE ULTIMATE BEARING VALUE IS 900 kN PER PILE FOR THE HP310x79 ABUTMENT PILES. THE ULTIMATE BEARING VALUE IS 1300 kN PER PILE FOR THE HP310x79 PIER PILES.

ABUTMENT PILES: REAR
10 PILES 16 METERS LONG, ESTIMATED LENGTH
10 PILES OF ORDER LENGTH 17 METERS LONG
FORWARD
10 PILES 14 METERS LONG, ESTIMATED LENGTH
10 PILES OF ORDER LENGTH 15 METERS LONG

PIER PILES: 18 PILES 10.5 METERS LONG, ESTIMATED LENGTH
18 PILES OF ORDER LENGTH 12 METERS LONG

ITEM 507, STEEL POINT (OR SHOE), AS PER PLAN:

STEEL PILE POINTS SHALL BE USED TO PROTECT THE TIPS OF THE PROPOSED STEEL "H" PILING. THE STEEL POINTS SHALL BE FURNISHED BY ASSOCIATED PILE AND FITTING CORPORATION, 262 RUTHERFORD BLVD., CLIFTON, NEW JERSEY 07014; INTERNATIONAL CONSTRUCTION EQUIPMENT, INC., 301 WAREHOUSE DRIVE, MATTHEWS, NORTH CAROLINA 28015; DOUGHERTY FOUNDATION PRODUCTS, INC., P.O. BOX 688, FRANKLIN LAKES, NEW JERSEY 07417; VERSA STEEL INC., 3601 N.W. YEON AVE., P.O. BOX 10559, PORTLAND, OREGON 97210; PILING ACCESSORIES, INC., 3467 GRIBBLE ROAD, MATTHEWS, NC 28105 OR BY A MANUFACTURER THAT CAN FURNISH A STEEL POINT THAT IS ACCEPTABLE TO THE DIRECTOR. THE MATERIAL USED FOR THE MANUFACTURING OF PILE POINTS SHALL CONFORM TO ASTM A27M 450/240 – CLASS 2 – HEAT TREATED OR AASHTO M103M 450/240 – HEAT TREATED. A NOTARIZED COPY OF THE MILL TEST REPORT SHALL BE SUBMITTED TO THE ENGINEER.

PAINTING OF 863 STEEL

ALL NEW STEEL SHALL BE SHOP PRIMED PER ITEM 816, WHICH SHALL BE INCLUDED IN THE COST OF ITEM 863.

ITEM 816, FIELD PAINTING OF NEW STEEL, SYSTEM IZEU

ALL NEW STEEL SHALL BE PAINTED WITH AN INTERMEDIATE AND FINISH COAT OF PAINT IN THE FIELD USING SYSTEM IZEU. THE COLOR OF THE FINISH COAT SHALL BE LIGHT NEUTRAL FEDERAL COLOR STANDARD NO. 17778. IN ADDITION TO THE SURFACE AREA OF THE STEEL STRINGERS TO BE PAINTED, INCIDENTALS SUCH AS CROSSFRAMES AND BEARINGS SHALL BE INCLUDED. THE COST OF THIS WORK SHALL BE INCLUDED IN ITEM 816, FIELD PAINTING OF NEW STEEL, INTERMEDIATE AND FINISH COAT, SYSTEM IZEU FOR PAYMENT.

ESTIMATED QUANTITIES

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	ABUT.	PIER	SUPER.	GEN'L.	AS PER PLAN SHEET NO.
SPECIAL	20365000	4	EACH	SETTLEMENT PLATFORM				4	GN-1
503	21301	LUMP		UNCLASSIFIED EXCAVATION, AS PER PLAN	LUMP				GN-1
505	11100	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION				LUMP	
507	00200	536	METER	STEEL PILES HP310X79, FURNISHED	320	216			
507	00250	498	METER	STEEL PILES HP310X79, DRIVEN	300	198			
507	93301	38	EACH	STEEL POINT (OR SHOE), AS PER PLAN	20	18			3
516	13200	8	SQ M	13 mm PREFORMED EXPANSION JOINT FILLER	8				
516	13600	6	SQ M	25 mm PREFORMED EXPANSION JOINT FILLER	6				
516	44101	5	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN 57 X 460 X 584 mm w/51 X 490 X 610 mm LOAD PLATE		5			8
518	21231	LUMP		POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN	LUMP				GN-1
518	40000	42	METER	150 mm PERFORATED CORRUGATED PLASTIC PIPE	42				
518	40011	19	METER	150 mm NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN	19				4
SPECIAL	53013000	50	SQ M	FORM LINER	50				
816	00610	130282	KILOGRAM	FIELD PAINTING OF NEW STEEL, INTERMEDIATE AND FINSH COAT, SYSTEM IZEU			130282		
842	41001	23	CU M	CLASS C CONCRETE, PIER ABOVE FOOTINGS, AS PER PLAN		23			GN-1
842	43501	73	CU M	CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING, AS PER PLAN	73				GN-1
842	46501	30	CU M	CLASS C CONCRETE, FOOTING, AS PER PLAN		30			GN-1
844	49000	LUMP		HIGH PERFORMANCE CONCRETE TRIAL MIX			LUMP		
844	49010	LUMP		HIGH PERFORMANCE CONCRETE TESTING			LUMP		
844	49500	35	CU M	HIGH PERFORMANCE CONCRETE, MISC.: SUPERSTRUCTURE, INTEGRAL DIAPHRAGM, AS PER PLAN			35		GN-1
863	10080	LUMP		STRUCTURAL STEEL MEMBERS, LEVEL FOUR (4) FABRICATION, A572			LUMP		
863	20000	2355	EACH	WELDED STUD SHEAR CONNECTOR			2355		
864	10100	623	SQ M	SEALING OF CONCRETE SURFACES (EPOXY URETHANE)	37	79	507		GN-1
894	10001	295	CU M	HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN			295		GN-1
				COMPUTED BY : JDV DATE : 3-11-99					
				CHECKED BY : KRM DATE : 3-12-99					

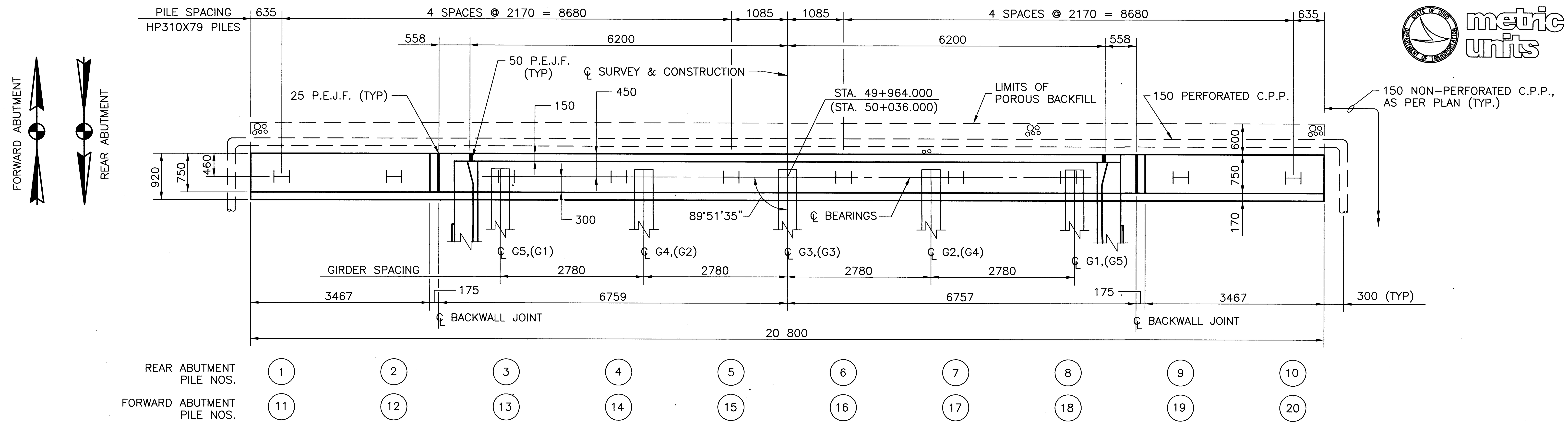
DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

DATE 11/00
REVIEWED TF
STRUCTURE FILE NO. 1701886
DRAWN KRM
REVISED
DESIGNED SJR
CHECKED JDV

ESTIMATED QUANTITIES
BRIDGE NO. CRA-30-34250
UNDER S.R. 61

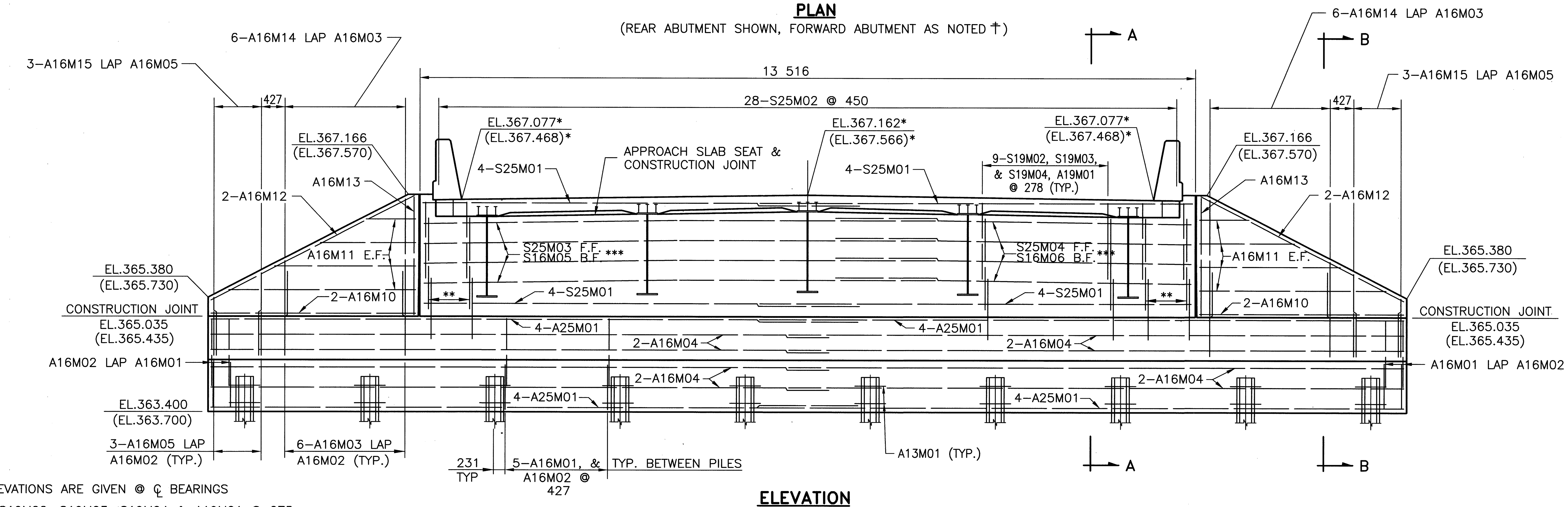
CRA/RIC-30-33.500/0.000

16284S2C.DWG
11-14-2000 1:37 PM
SCALE: 1=1E



PLAN

(REAR ABUTMENT SHOWN, FORWARD ABUTMENT AS NOTED †)



ELEVATION

(REAR ABUTMENT SHOWN, FORWARD ABUTMENT AS NOTED †)

* ELEVATIONS ARE GIVEN @ ℄ BEARINGS

** 4–S19M02, S19M03, S19M04 & A19M01 @ 275

*** STAGGER SPLICE

† ELEVATIONS, STATIONS, & GIRDER NUMBERS IN ( ) ARE FOR FORWARD ABUTMENT ONLY.

MINIMUM BAR LAPS
LAP NO.16M BARS 750 mm.
LAP NO.19M BARS 1040 mm.
LAP NO.25M BARS 1750 mm.

ABBREVIATIONS
F.F. = FRONT FACE
B.F. = BACK FACE
E.F. = EACH FACE
C.P.P. = CORRUGATED POLYETHYLENE PIPE

NOTES:

1. REFER TO SHEET 5/12 FOR ADDITIONAL NOTES, AND SECTIONS A–A & B–B.

ALL DIMENSIONS ARE IN MILLIMETERS
ALL ELEVATIONS ARE IN METERS

16284S2E.DWG
08-14-2000 9:22 AM
SCALE: 1:40M

metric units

DESIGN AGENCY
MCCOY/FOX & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

DATE 8/00
REVIEWED TF
STRUCTURE FILE NO. 1701886
DRAWN KRM
REVISED
DESIGNED SJR
CHECKED JDV

ABUTMENT DETAILS
BRIDGE NO. CRA–30–34250
UNDER S.R. 61

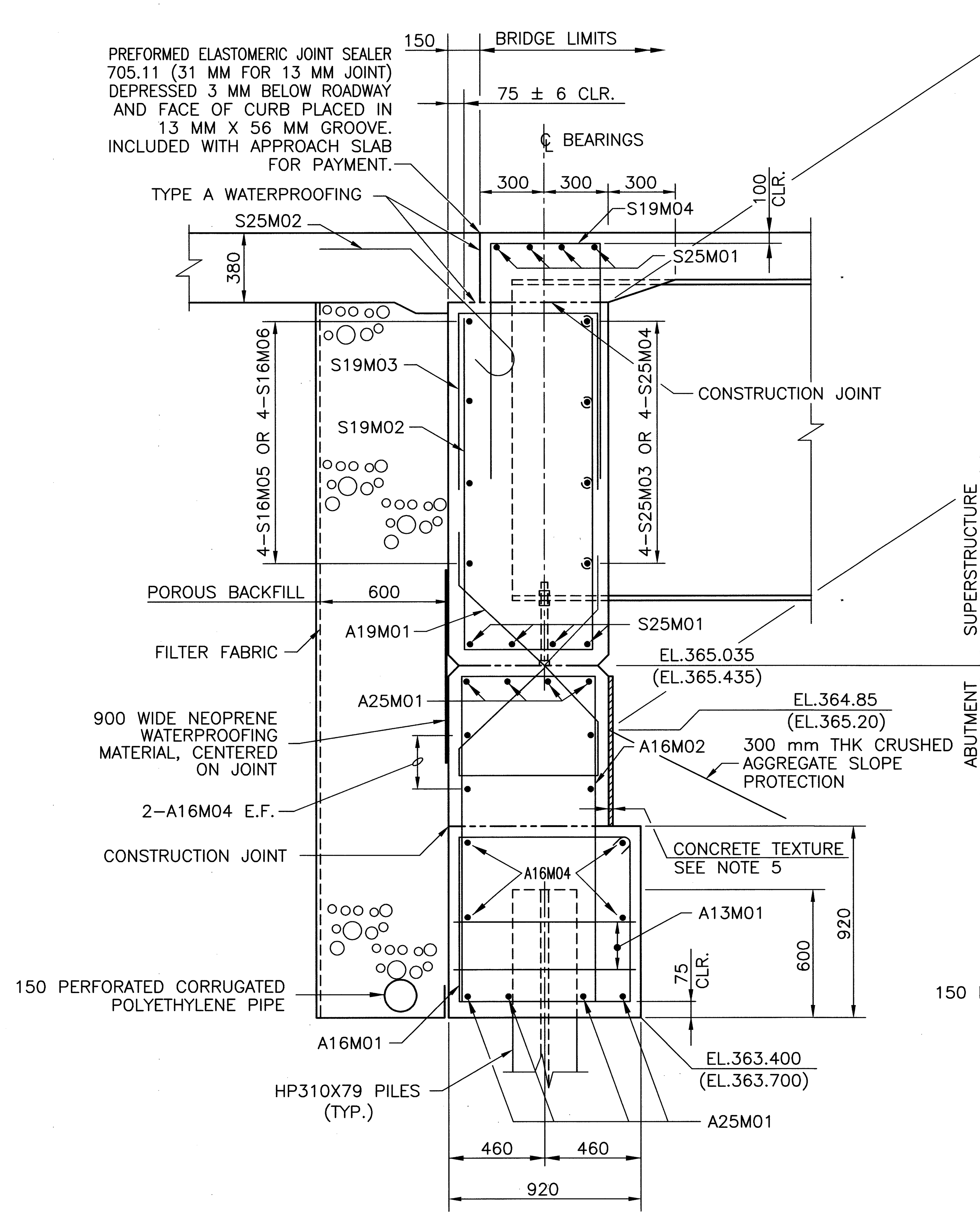
CRA/RIC–30–33.500/0.000

4/12

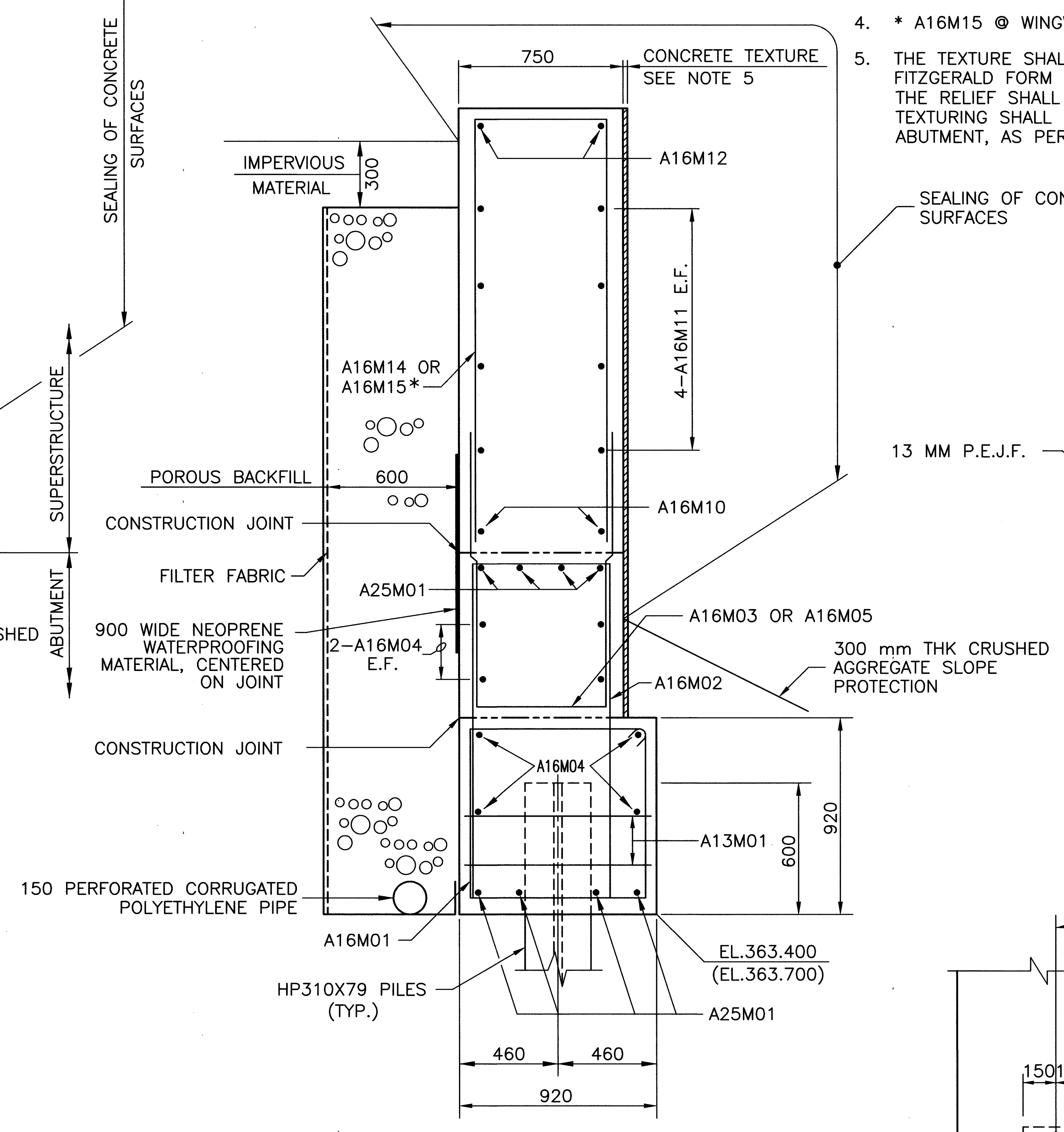
metric units

NOTES:

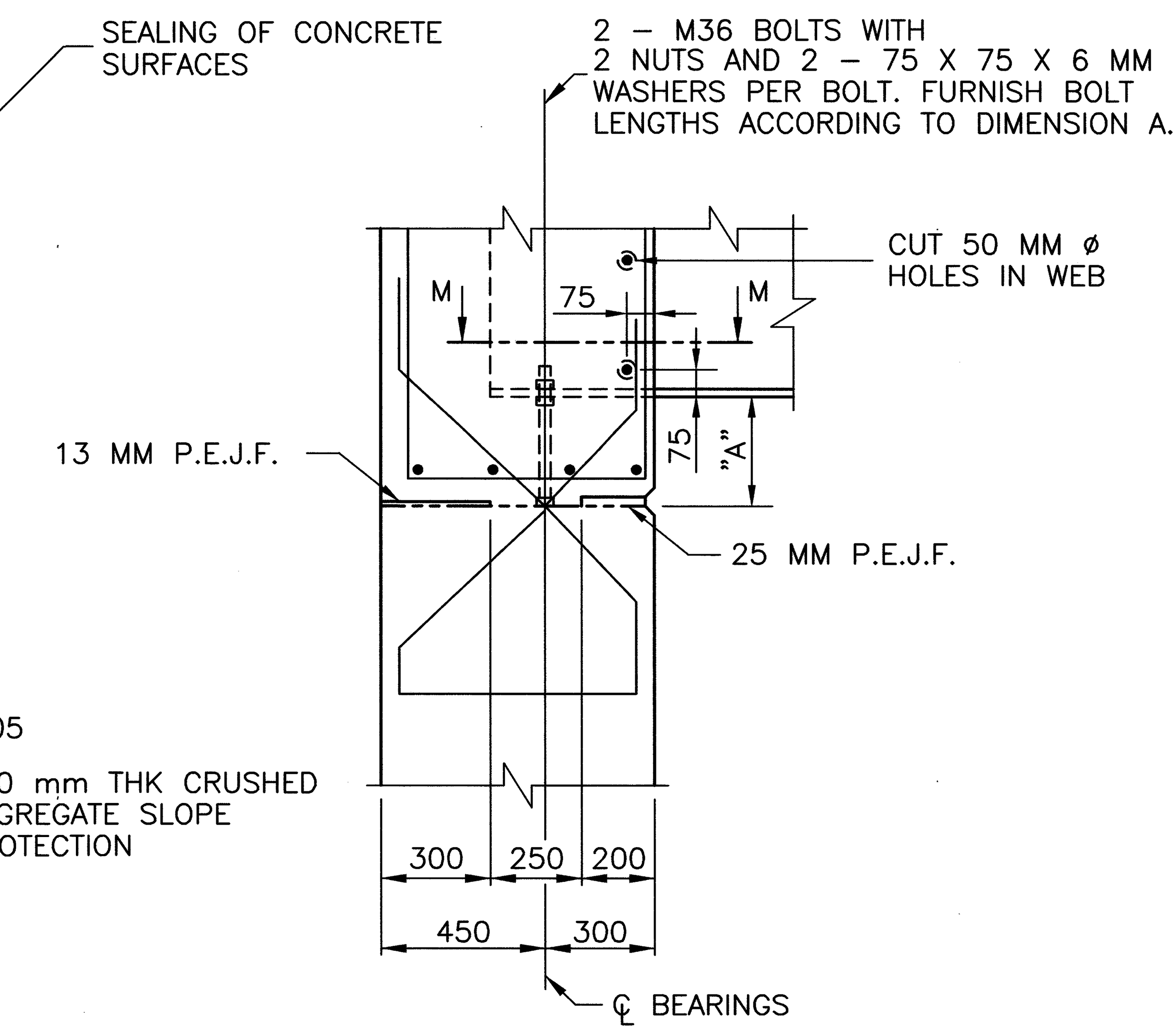
1. POROUS BACKFILL WITH FILTER FABRIC SHALL EXTEND UPWARD TO THE PLANE OF THE SUBGRADE, TO ONE FOOT BELOW THE EMBANKMENT SURFACE, AND LATERALLY TO THE ENDS OF THE WINGWALLS.
2. FOR LOCATION OF SECTIONS A–A & B–B SEE SHEET 4/12
3. FOR ADDITIONAL DETAILS REFER TO STD. DWG. ICD–1–82M.
4. * A16M15 @ WINGWALL END EMBEDDED IN BREASTWALL.
5. THE TEXTURE SHALL BE AN ASHLER STONE PATTERN AS PER THE FITZGERALD FORM LINER NUMBER 16986 OR APPROVED EQUAL. THE RELIEF SHALL BE A MINIMUM OF 19 mm. CONCRETE FOR TEXTURING SHALL BE INCLUDED WITH ITEM 842, CLASS C CONCRETE, ABUTMENT, AS PER PLAN, FOR PAYMENT.



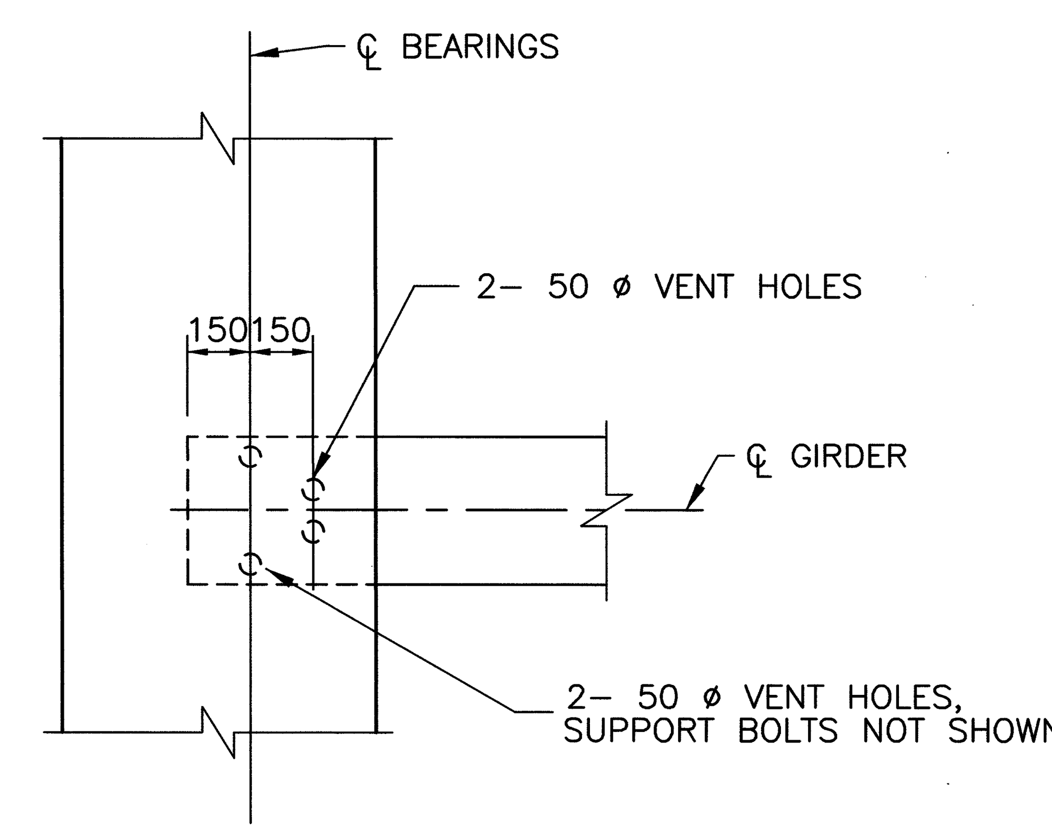
SECTION A–A



SECTION B–B



DETAIL X



SECTION M–M

DIMENSION "A"					
	GIRDER NO. 1	GIRDER NO. 2	GIRDER NO. 3	GIRDER NO. 4	GIRDER NO. 5
REAR ABUTMENT	301	346	390	346	302
FORWARD ABUTMENT	305	349	394	349	305

ALL DIMENSIONS ARE IN MILLIMETERS
ALL ELEVATIONS ARE IN METERS

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

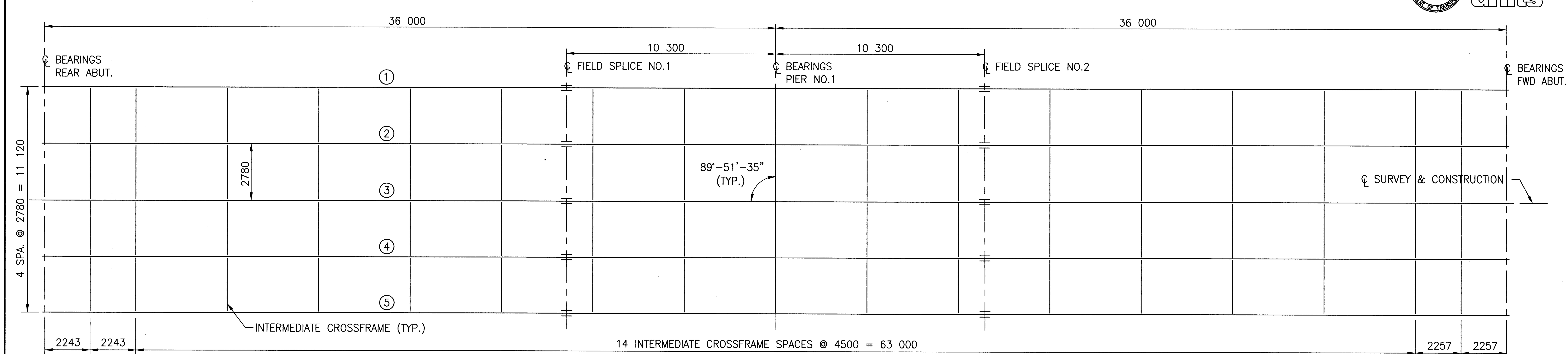
DESIGNED SJR | CHECKED JDV | DRAWN KRM | REVISED | REVIEWED TF | DATE 11/00 | STRUCTURE FILE NUMBER 1701886

ABUTMENT DETAILS
BRIDGE NO. CRA–30–34250
UNDER S.R. 61

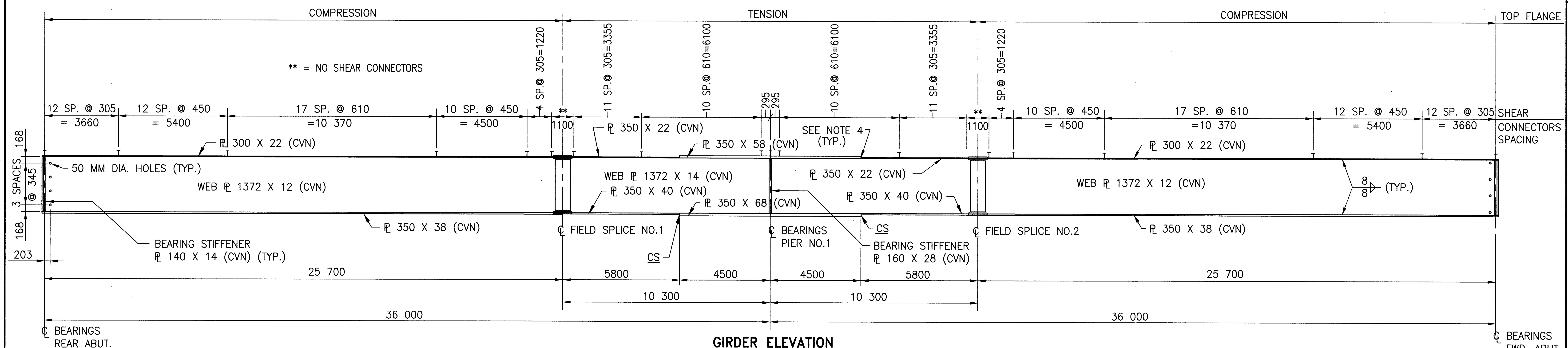
CRA/RIC–30–33.500/0.000

16284S2F.DWG
11–14–2000 2:28 PM
SCALE: 1:15M

℄ SURVEY & CONSTRUCTION
STA. 50+000.000
℄ BEARINGS
458 (TYP.) 1067 (TYP.) 1067 (TYP.) 458 (TYP.)
3050 (TYP.)
1525 (TYP.) 1525 (TYP.)
P-1 P-2 P-3 P-4 P-5 P-6 P-7 P-8 P-9 P-10 P-11 P-12 P-13 P-14 P-15 P-16 P-17 P-18
89°-51'-35"
℄ PIER
NO.1 NO.2 NO.3 NO.4 NO.5
600 (TYP)
2780 2780 2780 2780
GIRDER SPACING
1460 4700 4700 1460
12 320
PLAN
2 SETS OF 2-P16M02 TOP & BOT. (TYP.)
2 SETS OF 9-P16M03 TOP & BOT. (TYP.)
29-P16M04 (TOP & BOT.) (TYP.)
4-P25M04 *
EL.365.537
8-P25M03 *
EL.365.582
EL.365.626
8-P25M01 *
EL.365.582
EL.365.537
4-P25M02 *
4-P16M01 E.F.
4-P16M01 E.F.
EL.364.590
8-P32M04
EL.364.590
EL.364.440
EL.364.440
EL.364.440
8-P32M04
10-SPACES @ 115
17 SPACES @ 100
7 SPACES @ 300
STIRRUP SPA. SYMMETRICAL ABOUT ℄ COLUMN
210
4 SPACES @ 120
210
CONSTR. JOINT (TYP.)
10-P32M03 (TYP.)
SEAL ENTIRE SURFACE AREA OF COLUMN ABOVE EL.360.070 ± (TYP.)
SP13M01 (TYP.)
1910
1067 915 1068
EL.360.070 ±
CONSTR. JOINT TYPICAL
10-P32M02 (TYP.)
1065
600
EL.358.400 (TYP.)
P32M01
75
12-P32M01 (TYP.)
ELEVATION
915
8-P25M03
P16M02
4-P25M02
4-P16M01 E.F.
P16M02
8-P32M04
SEALING OF CONCRETE (TYP.)
SECTION A-A
915
8-P25M01
P16M03
4-P25M04
4-P16M01 E.F.
100
P16M03
8-P32M04
SECTION B-B
SP13M01
765 CORE DIA.
P32M03
75 CLEAR
915
SECTION C-C
1067 915 1068
P32M01
12-P32M01
VIEW D-D
LEGEND
PILE SYMBOL
INDICATES BATTERED PILE @ 1:4
P-1 INDICATES PILE IDENTIFICATION NUMBER
E.F. EACH FACE
* STAGGER SPLICE
MINIMUM BAR LAPS
LAP No. 16M BARS 750 mm
LAP No. 25M BARS 2210 mm
LAP No. 32M BOTT. BARS 3130 mm
ALL DIMENSIONS ARE IN MILLIMETERS
ALL ELEVATIONS ARE IN METERS
metric units
DESIGN AGENCY
MCCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO
DATE 4/99
REVIEWED TF
STRUCTURE FILE NO. 1701886
DRAWN KRM
REVISED
DESIGNED SJR
CHECKED JDV
PIER DETAILS
BRIDGE NO. CRA-30-34250
UNDER S.R. 61
CRA/RIC-30-33.500/0.000
6/12
569/712



FRAMING PLAN

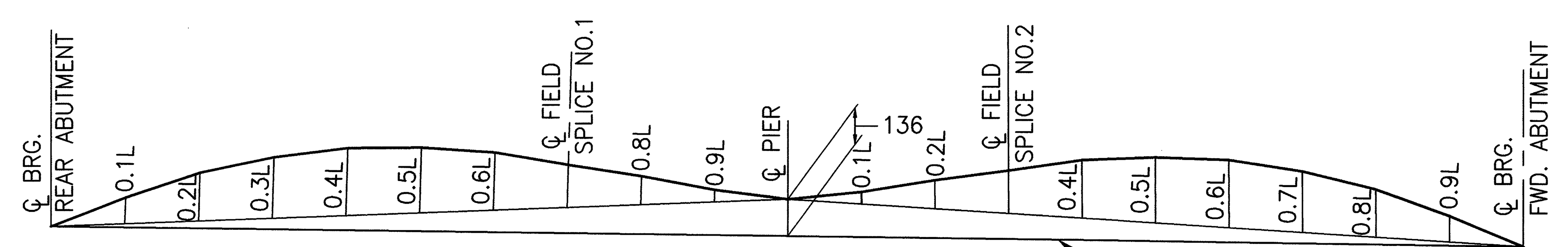


GIRDER ELEVATION

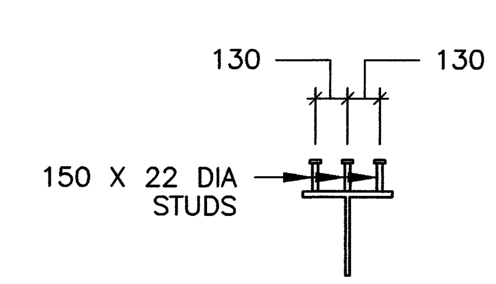
DEFLECTION AND CAMBER

	SPAN 1									SPAN 2								
	0.10L	0.20L	0.30L	0.40L	0.50L	0.60L	0.714L *	0.80L	0.90L	0.10L	0.20L	0.286L *	0.40L	0.50L	0.60L	0.70L	0.80L	0.90L
DEFLECTION DUE TO WEIGHT OF STEEL	4	6	8	9	8	7	5	2	1	1	2	5	7	8	9	8	6	4
DEFLECTION DUE TO REMAINING DEAD LOAD	26	47	61	65	62	49	30	16	4	4	16	30	49	62	65	61	47	26
ADJUSTMENT DUE TO VERTICAL CURVE	12	22	29	33	34	33	28	22	12	12	22	28	33	34	33	29	22	12
TOTAL CAMBER	42	75	98	107	104	89	63	40	17	17	40	63	89	104	107	98	75	42

* = ℄ FIELD SPLICE



CAMBER DIAGRAM



SHEAR CONNECTOR DETAIL

ALL DIMENSIONS ARE IN MILLIMETERS
ALL ELEVATIONS ARE IN METERS

NOTES:

1. WELDED ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE MAY BE MADE TO AREAS OF THE FLANGES DESIGNATED "COMPRESSION". ATTACHMENTS SHALL NOT BE MADE TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE NOT CLOSER THAN 25 FROM EDGE OF THE FLANGE, BE NOT MORE THAN 25 LONG AND BE NOT SMALLER THAN THE MINIMUM SIZE REQUIRED BY AASHTO.
2. CHARPY V-NOTCH TOUGHNESS REQUIREMENT
ALL GIRDER COMPONENTS, I.E., FLANGE PLATES, WEB PLATES AND SPLICE PLATES SHALL MEET MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01 OF CMS.
3. REFER TO SHEET 8 OF 12 FOR SPLICE DETAILS.
4. ALL FLANGE BUTT WELDS TO BE COMPLETE JOINT PENETRATION WELDS.
5. CS – INDICATES BUTT WELD SUBJECT TO COMPRESSION STRESS ONLY.
6. ALL STRUCTURAL STEEL TO BE A572 PAINTED.

metric units

DESIGN AGENCY
MCCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

DATE	4/99
REVIEWED	TF
STRUCTURE FILE NO.	1701886
DRAWN	KRM
REVISED	
DESIGNED	SJR
CHECKED	JDV

SUPERSTRUCTURE DETAILS
BRIDGE NO. CRA-30-34250
UNDER S.R. 61

CRA/RIC-30-33.500/0.000

7/12

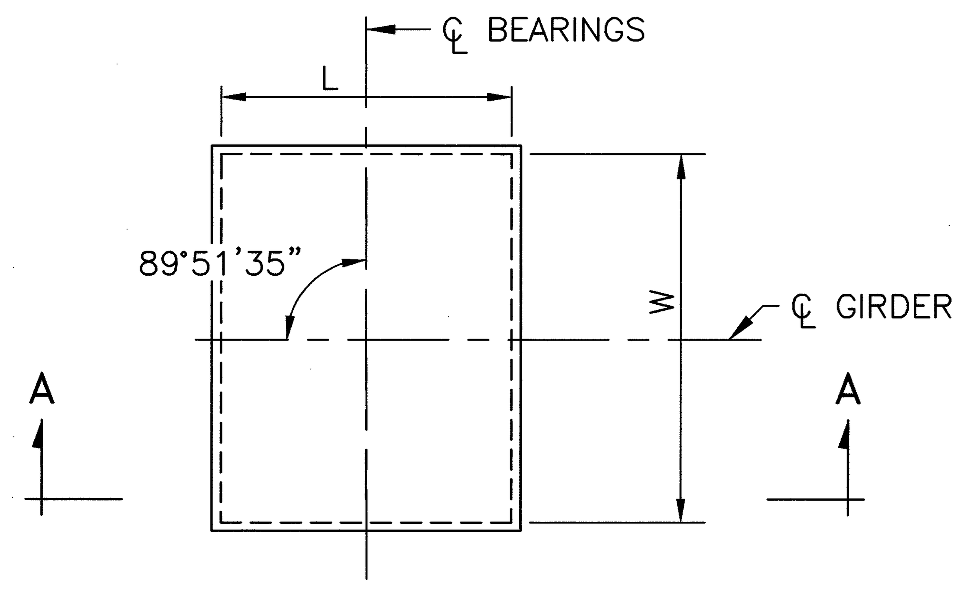
570
712

1628452H 1=100 3-17-99

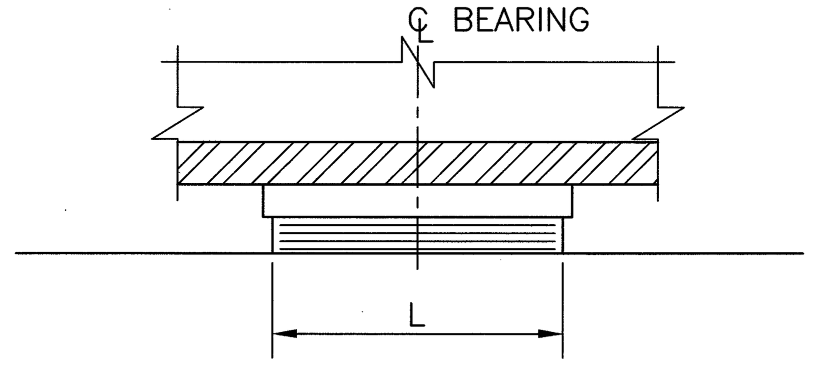
LAMINATED ELASTOMERIC BEARINGS										
LOCATION	DIMENSIONS (MM)					N	STEEL LOAD PLATE	REACTIONS		MAXIMUM DESIGN LOAD
	L	W	T_i	T_e	T			DL	LL	
PIER EXPANSION BRNGS.	460	584	11	8	57	4	490 X 610 X 51	1381 kN	459.5 kN	1840.5 kN

T_i = THICKNESS OF INTERNAL LAYER
T_e = THICKNESS OF EXTERNAL LAYER
T = TOTAL THICKNESS OF ELASTOMERIC BEARING

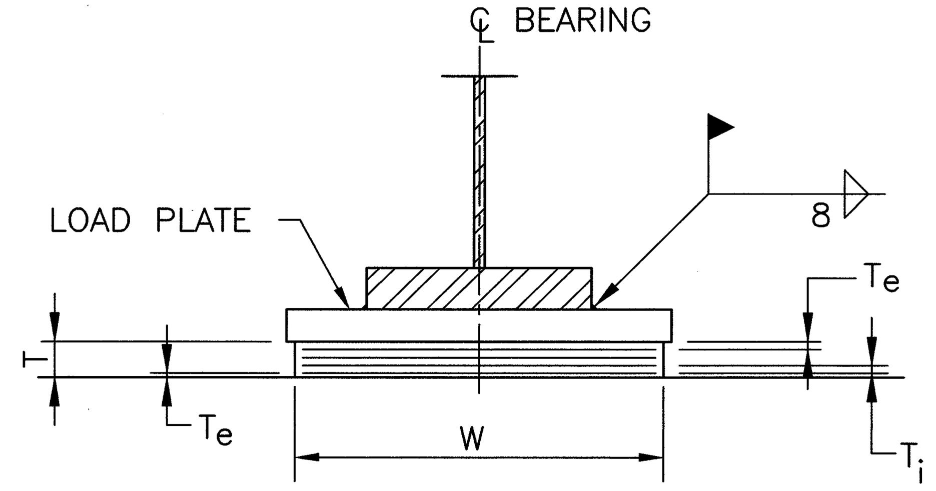
N = NO. OF STEEL LAMINATES
INTERNAL STEEL LAMINATE THICKNESS = 1.89 MM
DUROMETER OF ELASTOMER = 50 DUROMETER



PLAN



VIEW A–A



ELASTOMERIC EXPANSION BEARING

LOAD PLATE

THE STEEL LOAD PLATE SHALL BE THE SAME MATERIAL AS THE ATTACHED STRUCTURAL STEEL AND BE SIMILARLY CLEANED AND COATED. SURFACE PREPARATION AND PRIMING SHALL BE DONE IN THE SHOP AND BE INCLUDED IN THE PRICE BID FOR THE BEARINGS. FIELD COATS SHALL BE INCLUDED IN THE PRICE BID FOR PAINTING MAIN STRUCTURAL STEEL.

THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS.

WELDING OF THE LOAD PLATE TO THE SUPERSTRUCTURE SHALL BE CONTROLLED SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE SHALL NOT EXCEED 150° C AS DETERMINED BY THE USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

BASIS OF PAYMENT

THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS, LABOR AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS EITHER FIXED OR EXPANSION. PAYMENT WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 516, EACH, ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN.

HIGH STRENGTH BOLTS

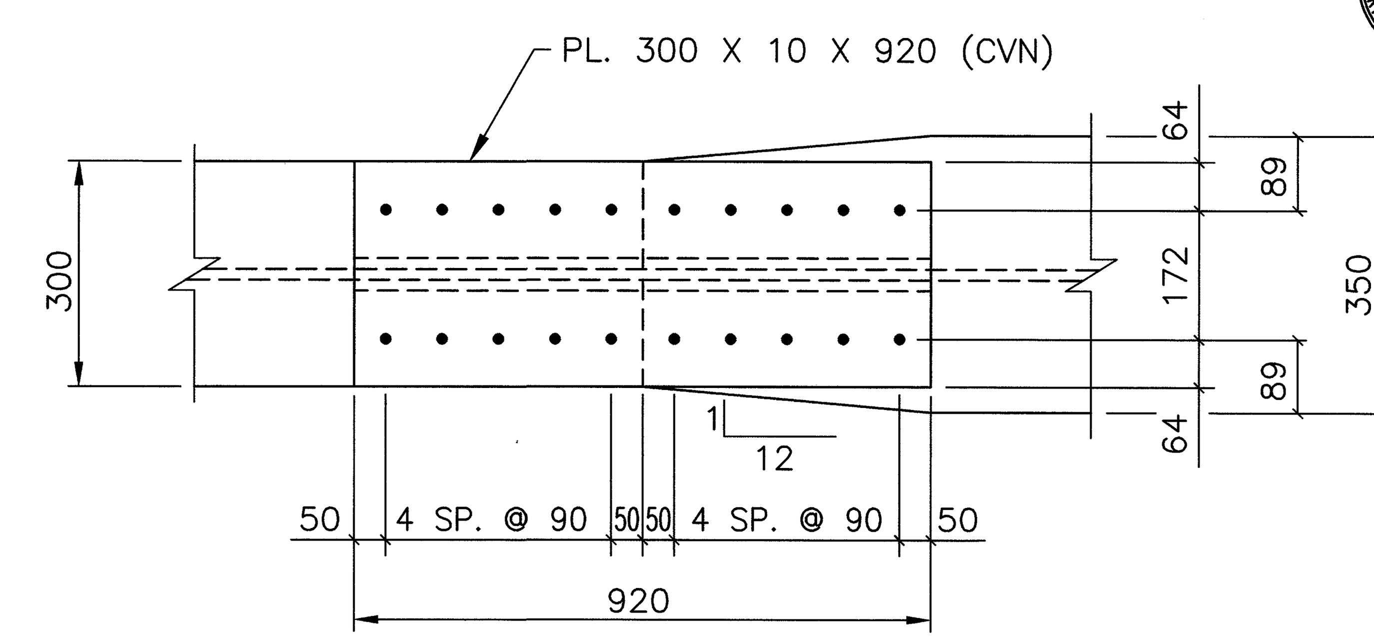
HIGH STRENGTH BOLTS SHALL BE 28.6 mm DIAMETER A325 UNLESS OTHERWISE NOTED.

CHARPY V–NOTCH TOUGHNESS REQUIREMENT

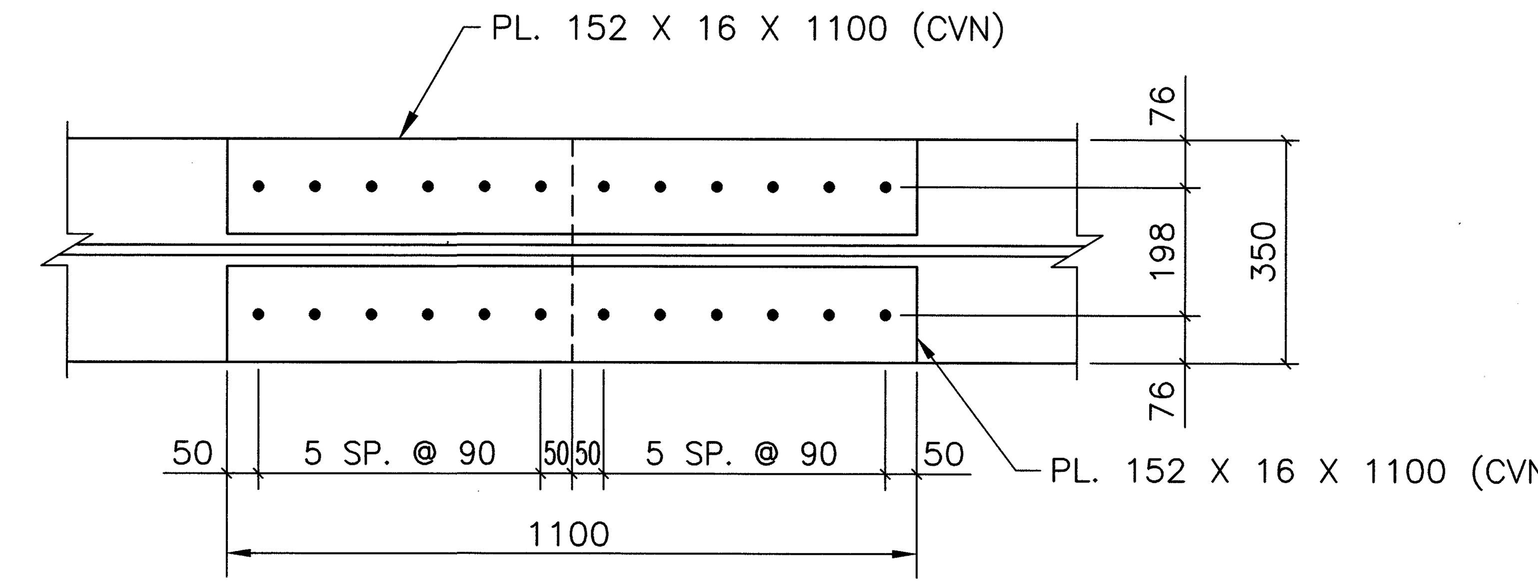
WHERE A SHAPE OR PLATE IS DESIGNATED (CVN) THE MATERIAL SHALL MEET SPECIFIED MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01 OF CMS.

ELASTOMERIC BEARINGS

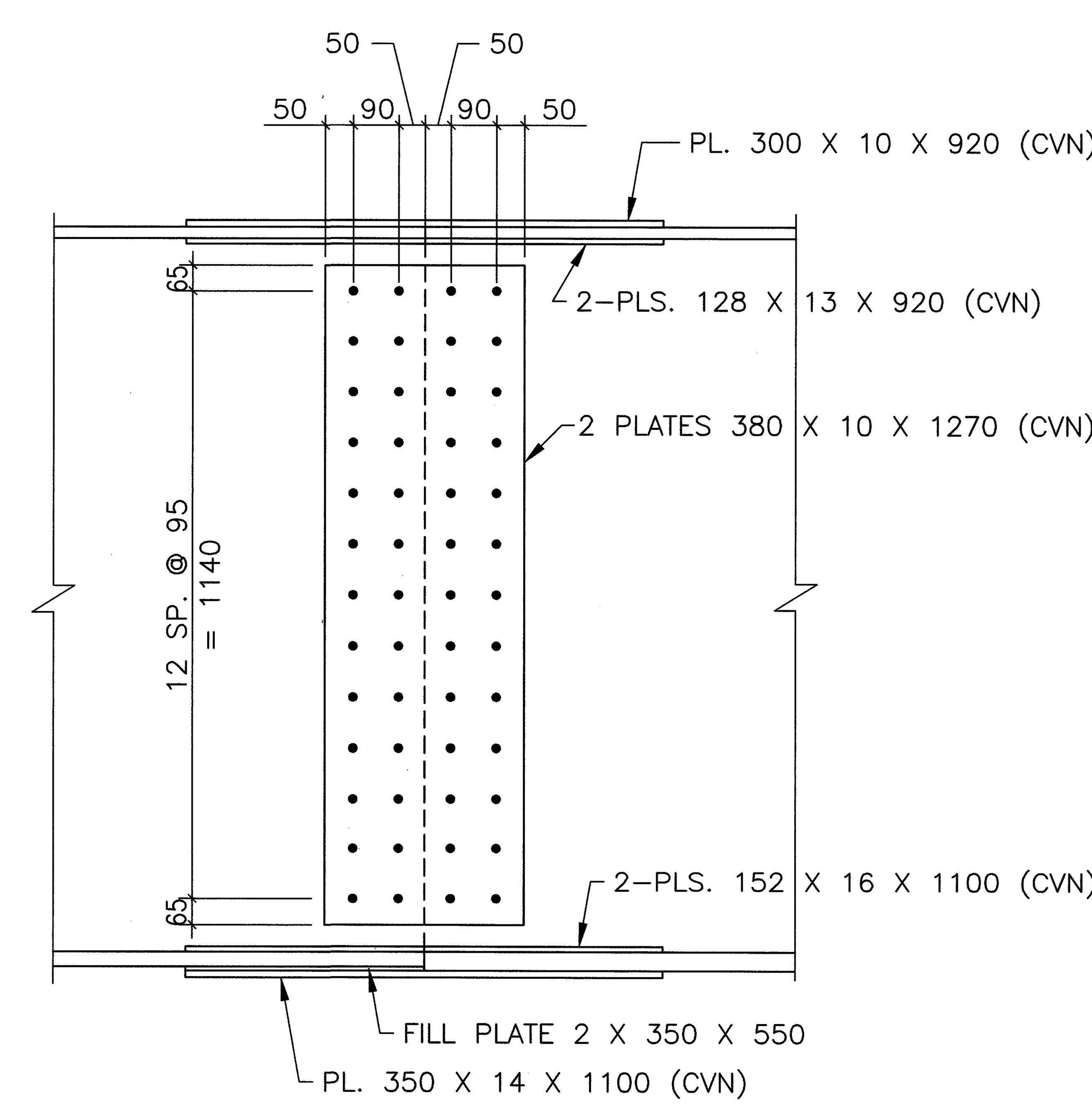
ELASTOMERIC BEARINGS SHALL COMPLY WITH ITEM 516 AND SECTION 18.7.4.5 TEST REQUIREMENTS FOR ELASTOMERIC BEARINGS, SECTION 18 BEARINGS, DIVISION II, CONSTRUCTION, OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES. BEARINGS SHALL BE GRADE 3, 50 DUROMETER ELASTOMER. TESTING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BEARINGS, EACH.



PLAN – TOP FLANGE
SPLICE No.1 & No.2



PLAN – BOTTOM FLANGE
SPLICE No.1 & No.2



TYPICAL FIELD SPLICE DETAILS
SPLICE No.1 & No.2

ALL DIMENSIONS ARE IN MILLIMETERS
ALL ELEVATIONS ARE IN METERS

metric units

DESIGN AGENCY
MCCOY/FOK & ASSOCIATES INC.
387 GHENT ROAD, SUITE 1A
AKRON, OHIO

DATE 4/99
REVIEWED TF
STRUCTURE FILE NO. 1701886
DRAWN KRM
REVISED
DESIGNED SJR
CHECKED JDV

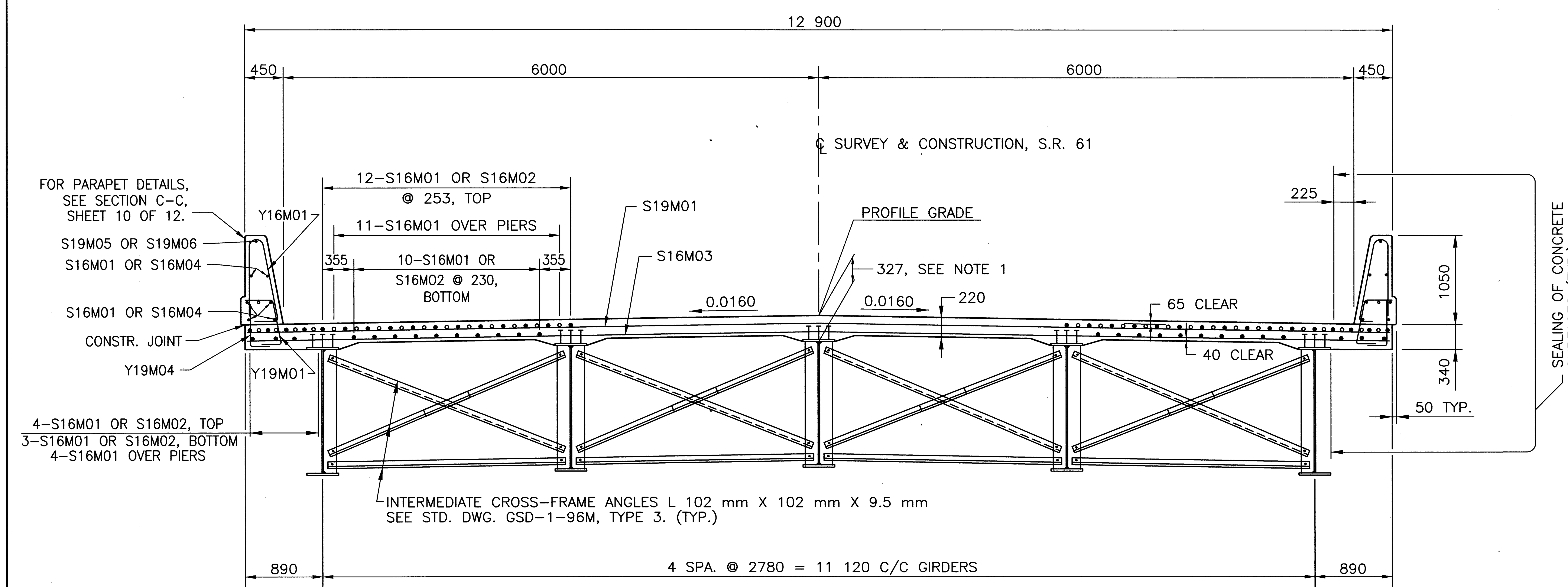
BEARING & SPLICE DETAILS
BRIDGE NO. CRA–30–34250
UNDER S.R. 61

CRA/RIC–30–33.500/0.000

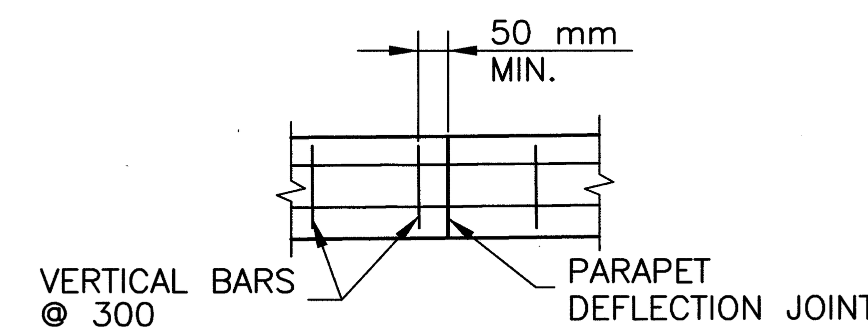
8/12

571/712

16284SDJ 1=10 3-17-99

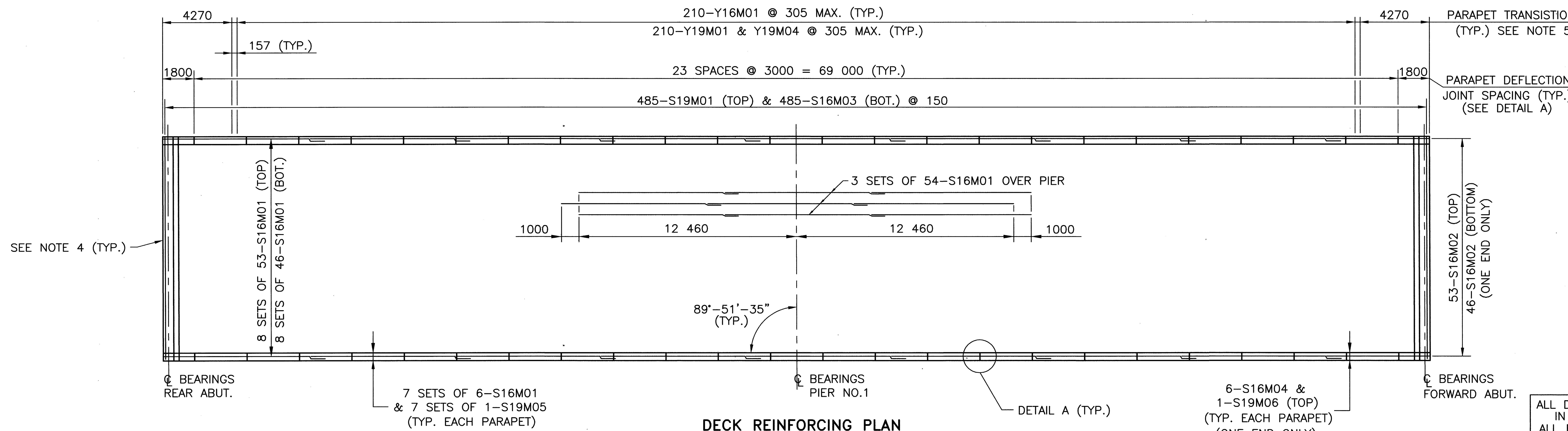


TRANSVERSE SECTION



DETAIL A

MOVE PARAPET DEFLECTION JOINTS WHERE NEEDED TO PROVIDE 50 mm CLEARANCE AS SHOWN.



DECK REINFORCING PLAN

ALL DIMENSIONS ARE IN MILLIMETERS
ALL ELEVATIONS ARE IN METERS

metric units

NOTES:

1. CONCRETE DECK SLAB DEPTH

THE DISTANCE SHOWN FROM TOP OF DECK SLAB TO BOTTOM OF THE TOP FLANGE IS THE THEORETICAL DESIGN DIMENSION INCLUDING THE DESIGN HAUNCH THICKNESS OF 50 mm. THE QUANTITY OF DECK CONCRETE TO BE PAID FOR SHALL BE BASED ON THIS DIMENSION, MINUS THE DESIGN HAUNCH THICKNESS, EVEN THOUGH DEVIATION FROM IT MAY BE NECESSARY BECAUSE THE TOP FLANGE OF THE GIRDER MAY NOT HAVE THE EXACT CAMBER OR CONFORMATION REQUIRED TO PLACE IT PARALLEL TO THE FINISHED GRADE. DEDUCTION SHALL BE MADE FOR VOLUME OF ENCASED STEEL PLATES AS PER 842.

2. CONCRETE DECK HAUNCH WIDTH

A HAUNCH WIDTH OF 225 SHALL BE USED FOR COMPUTING QUANTITY OF CONCRETE. HOWEVER, THE HAUNCH WIDTH MAY VARY BETWEEN 150 AND 300.

3. MINIMUM LAP LENGTHS

LAP NO.16M BARS 750 MM.

LAP NO.19M BARS 1240 MM.

4. FOR DETAILS AT END OF DECK, SEE SECTION A-A, SHEET 5 OF 12.

5. FOR PARAPET TRANSITION DETAILS, SEE SHEET 10 OF 12.

6. CONCRETE PARAPETS: (NO SLIP FORMING)

AS SOON AS A CONCRETE SAW CAN BE OPERATED WITHOUT DAMAGING THE FRESHLY PLACED CONCRETE, 25 mm DEEP CONTROL JOINTS SHALL BE SAWED INTO THE PERIMETER OF THE CONCRETE PARAPET. THE SAW CUT SHALL BE MADE IN THE COMPLETE CIRCUMFERENCE OF THE PARAPET, STARTING AND ENDING AT THE ELEVATION OF THE CONCRETE DECK.

THE USE OF AN EDGE GUIDE, FENCE, OR JIG IS REQUIRED TO INSURE THAT THE CUT JOINT IS STRAIGHT, TRUE, AND ALIGNED ON ALL FACES OF THE PARAPET. THE JOINT WIDTH SHALL BE THE WIDTH OF THE SAW BLADE, A NOMINAL WIDTH OF 6 mm. THE PERIMETER OF THE DEFLECTION CONTROL JOINT SHALL BE SEALED TO A MINIMUM DEPTH OF 25 mm WITH A CAULKING MATERIAL CONFORMING TO FEDERAL SPECIFICATION, TT-S-00227E.

DESIGN AGENCY
MCCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

REVIEWED TF
DATE 11/00
STRUCTURE FILE NO. 1701886

DRAWN KRM
REVISED

DESIGNED SJR
CHECKED JDV

SUPERSTRUCTURE DETAILS
BRIDGE NO. CRA-30-34250
UNDER S.R. 61

CRA/RIC-30-33.500/0.000

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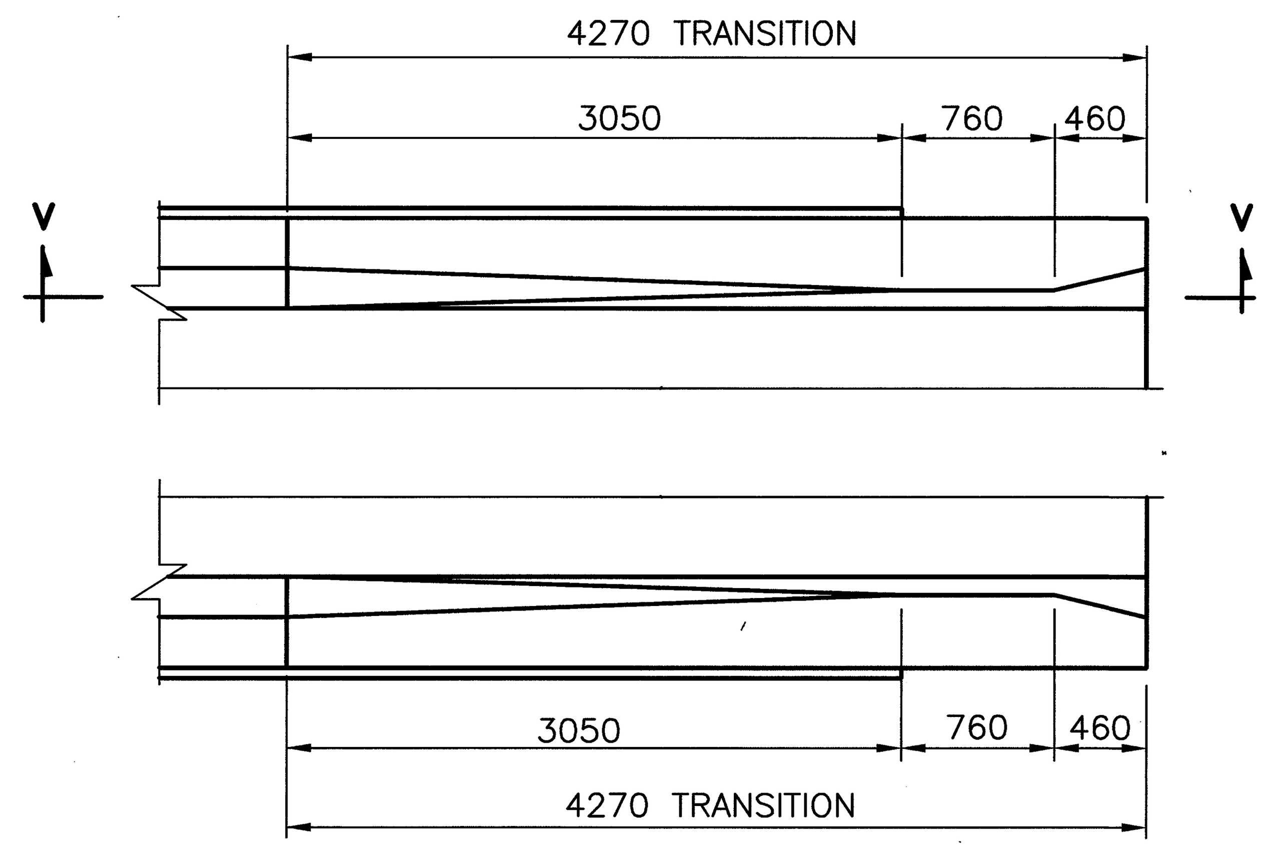
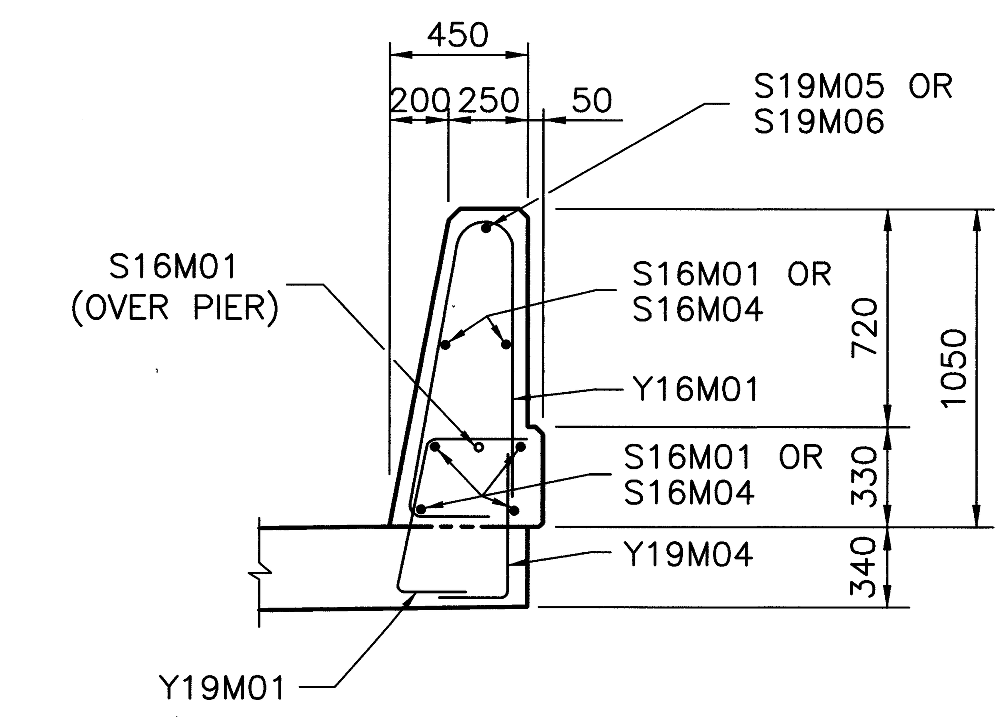
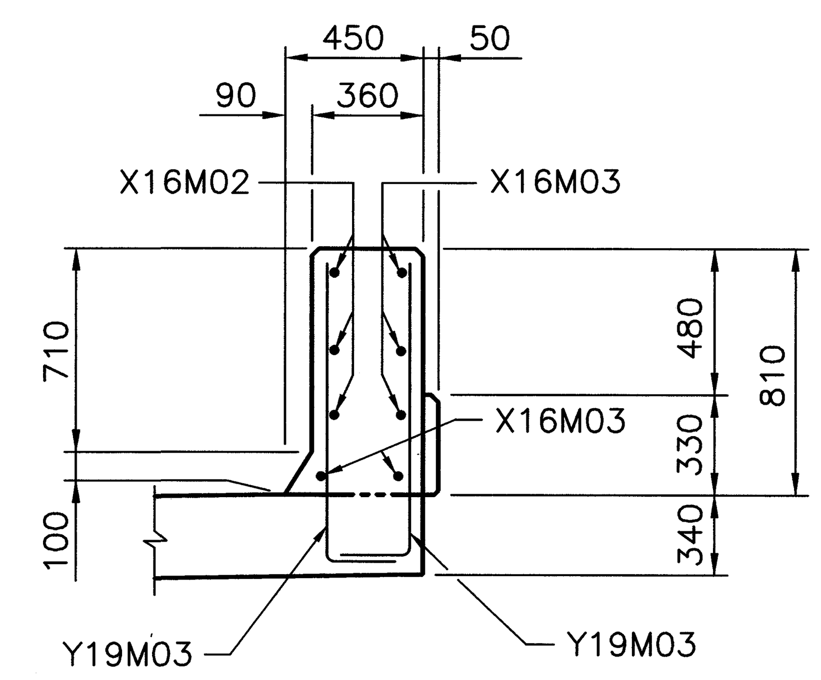
11-14-2000 1:43 PM
SCALE: 1:125M



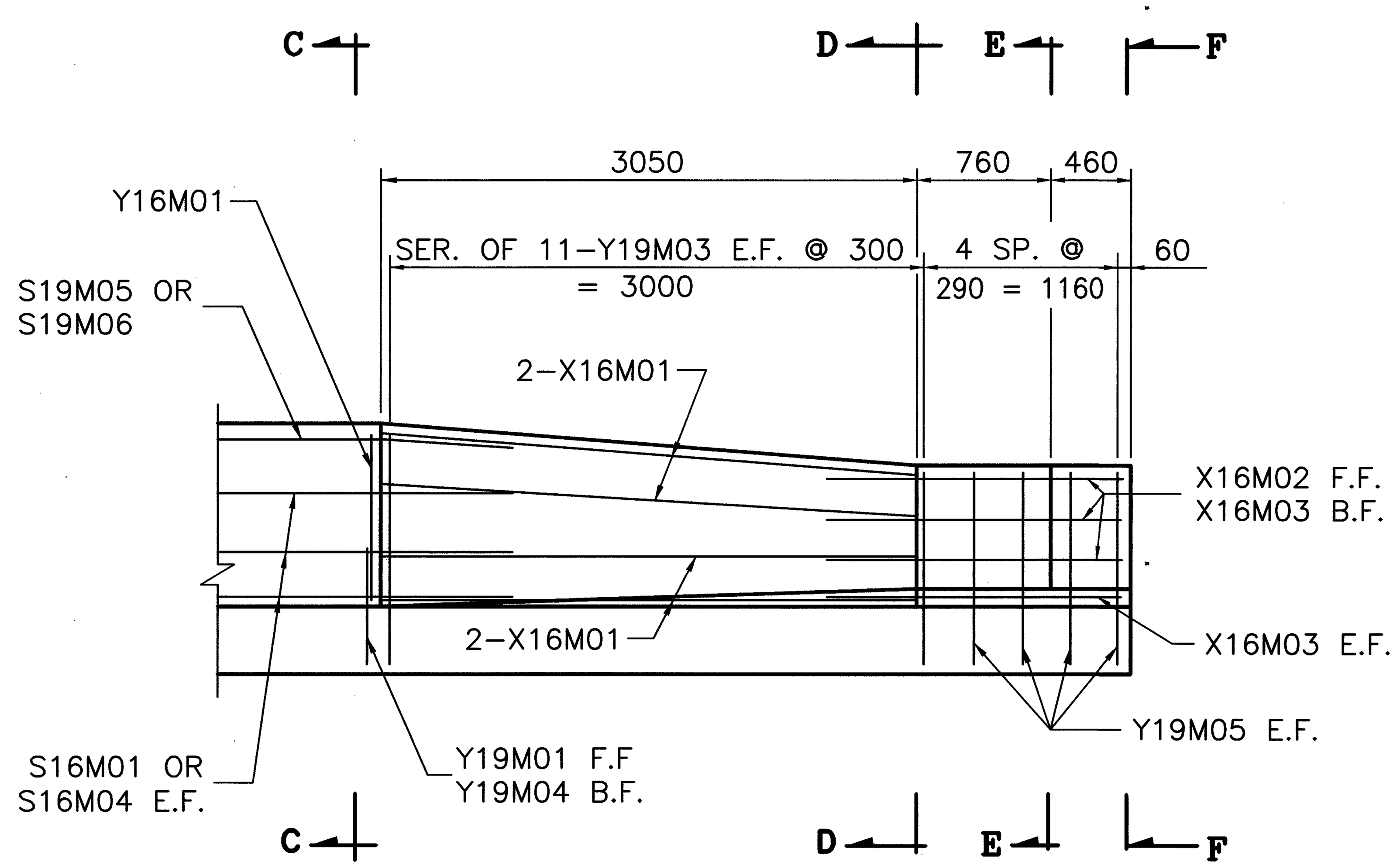
PARAPET TRANSITION DETAIL
TYPICAL @ BOTH ABUTMENTS



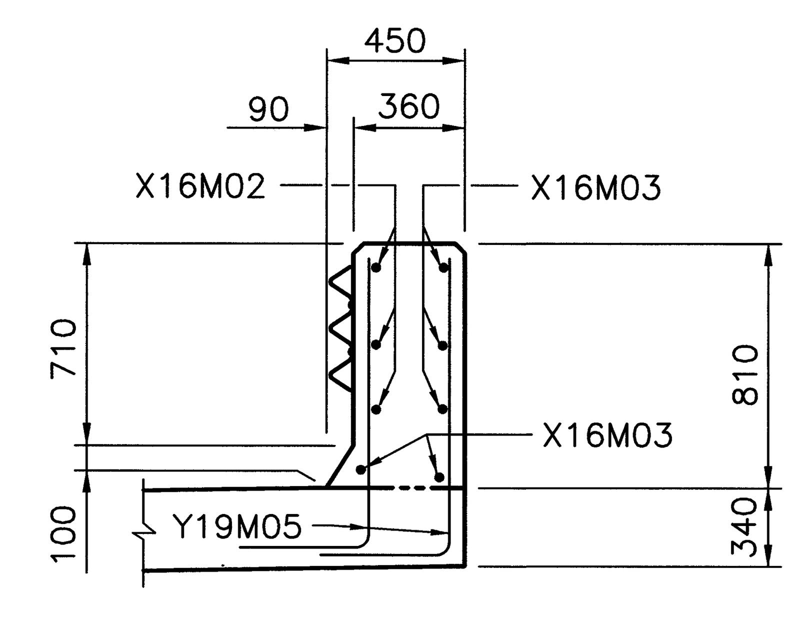
SECTION C–C



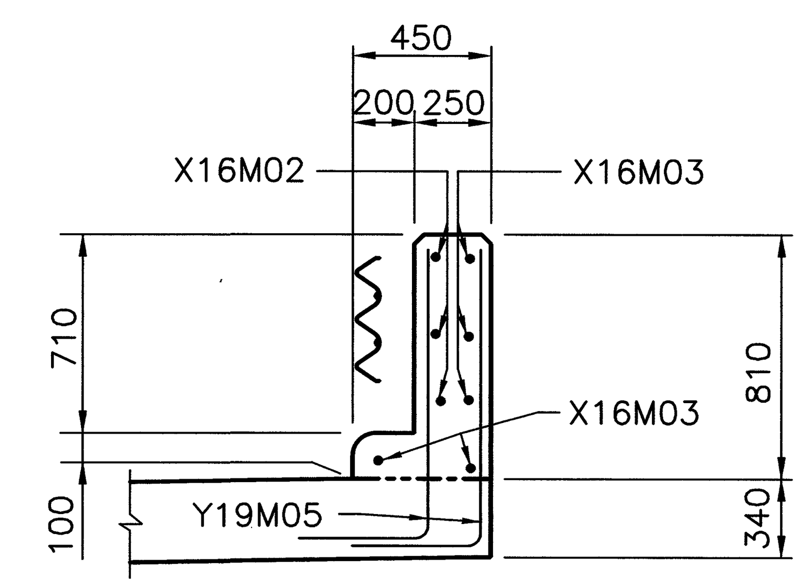
SECTION D–D



SECTION V–V



SECTION E–E



SECTION F–F

NOTES

FOR NOTES & ADDITIONAL DETAILS OF THE CONCRETE PARAPET, REFERENCE IS MADE TO STD. DRAWING SBR–1–99M, ICD–1–82M & STD. CONSTRUCTION DRAWING GR–3.1M.

LEGEND

F.F. = FRONT FACE
B.F. = BACK FACE
E.F. = EACH FACE

ALL DIMENSIONS ARE IN MILLIMETERS
ALL ELEVATIONS ARE IN METERS

metric units

DESIGN AGENCY
MCCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

REVIEWED TF | DATE 8/00
STRUCTURE FILE NO. 1701886
DRAWN KRM | REVISED
DESIGNED HJS | CHECKED JDV

SUPERSTRUCTURE DETAILS
BRIDGE NO. CRA–30–34250
UNDER S.R. 61

CRA/RIC–30–33.500/0.000

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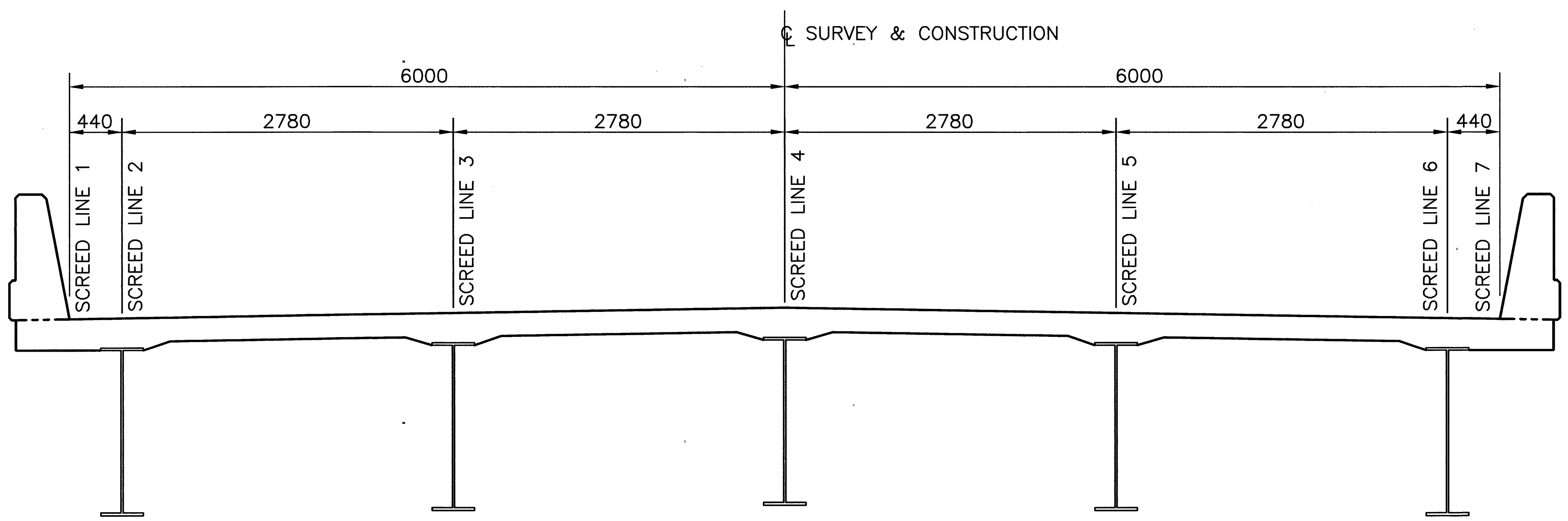
08–14–2000 9:16 AM
SCALE: 1:125M

SCREED ELEVATION TABLE

		SCREED LINE 1		SCREED LINE 2		SCREED LINE 3		SCREED LINE 4		SCREED LINE 5		SCREED LINE 6		SCREED LINE 7	
SPAN NO.	LOCATION	STATION	SCREED ELEVATION	STATION	SCREED ELEVATION	STATION	SCREED ELEVATION	STATION	SCREED ELEVATION	STATION	SCREED ELEVATION	STATION	SCREED ELEVATION	STATION	SCREED ELEVATION
SPAN NO.1	0.00 L	49+963.985	367.066	49+963.986	367.073	49+963.993	367.118	49+964.000	367.162	49+964.007	367.118	49+964.014	367.074	49+964.015	367.067
	0.10 L	49+967.585	367.138	49+967.586	367.145	49+967.593	367.190	49+967.600	367.234	49+967.607	367.190	49+967.614	367.146	49+967.615	367.139
	0.20 L	49+971.185	367.202	49+971.186	367.210	49+971.193	367.254	49+971.200	367.299	49+971.207	367.254	49+971.214	367.210	49+971.215	367.203
	0.30 L	49+974.785	367.257	49+974.786	367.264	49+974.793	367.309	49+974.800	367.353	49+974.807	367.309	49+974.814	367.264	49+974.815	367.257
	0.40 L	49+978.385	367.299	49+978.386	367.306	49+978.393	367.351	49+978.400	367.395	49+978.407	367.351	49+978.414	367.306	49+978.415	367.299
	0.50 L	49+981.985	367.331	49+981.986	367.338	49+981.993	367.383	49+982.000	367.427	49+982.007	367.383	49+982.014	367.338	49+982.015	367.331
	0.60 L	49+985.585	367.350	49+985.586	367.358	49+985.593	367.402	49+985.600	367.447	49+985.607	367.402	49+985.614	367.358	49+985.615	367.351
FIELD SPLICE	0.714 L	49+989.689	367.365	49+989.690	367.372	49+989.697	367.417	49+989.704	367.461	49+989.711	367.417	49+989.718	367.372	49+989.719	367.365
	0.80 L	49+992.785	367.374	49+992.786	367.381	49+992.793	367.426	49+992.800	367.470	49+992.807	367.426	49+992.814	367.381	49+992.815	367.374
	0.90 L	49+996.385	367.386	49+996.386	367.393	49+996.393	367.438	49+996.400	367.482	49+996.407	367.438	49+996.414	367.394	49+996.415	367.387
SPAN NO.2	0.00 L	49+999.985	367.404	49+999.986	367.411	49+999.993	367.455	50+000.000	367.500	50+000.007	367.456	50+000.014	367.411	50+000.015	367.404
	0.10 L	50+003.585	367.427	50+003.586	367.434	50+003.593	367.478	50+003.600	367.523	50+003.607	367.478	50+003.614	367.434	50+003.615	367.427
	0.20 L	50+007.185	367.455	50+007.186	367.462	50+007.193	367.506	50+007.200	367.551	50+007.207	367.506	50+007.214	367.462	50+007.215	367.455
FIELD SPLICE	0.286 L	50+010.281	367.480	50+010.282	367.488	50+010.289	367.532	50+010.296	367.577	50+010.303	367.532	50+010.310	367.488	50+010.311	367.481
	0.40 L	50+014.385	367.512	50+014.386	367.519	50+014.393	367.563	50+014.400	367.608	50+014.407	367.563	50+014.414	367.519	50+014.415	367.512
	0.50 L	50+017.985	367.533	50+017.986	367.540	50+017.993	367.584	50+018.000	367.629	50+018.007	367.584	50+018.014	367.540	50+018.015	367.533
	0.60 L	50+021.585	367.541	50+021.586	367.548	50+021.593	367.592	50+021.600	367.637	50+021.607	367.592	50+021.614	367.548	50+021.615	367.541
	0.70 L	50+025.185	367.539	50+025.186	367.546	50+025.193	367.591	50+025.200	367.635	50+025.207	367.591	50+025.214	367.546	50+025.215	367.539
	0.80 L	50+028.785	367.525	50+028.786	367.532	50+028.793	367.577	50+028.800	367.621	50+028.807	367.577	50+028.814	367.532	50+028.815	367.525
	0.90 L	50+032.385	367.501	50+032.386	367.508	50+032.393	367.553	50+032.400	367.597	50+032.407	367.553	50+032.414	367.508	50+032.415	367.501
	1.00 L	50+035.985	367.470	50+035.986	367.477	50+035.993	367.521	50+036.000	367.566	50+036.007	367.521	50+036.014	367.477	50+036.015	367.469

SCREED ELEVATIONS ARE FOR THE CONCRETE SURFACE BEFORE THE CONCRETE IS PLACED. ALLOWANCE HAS BEEN MADE FOR THE ANTICIPATED DEFLECTION OF THE STRUCTURAL STEEL.

L = SPAN LENGTH



SCREED LINE LOCATIONS

ALL DIMENSIONS ARE IN MILLIMETERS
ALL ELEVATIONS ARE IN METERS

DESIGN AGENCY
MCCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

DATE 8/00
REVIEWED TF
STRUCTURE FILE NO. 1701886
DRAWN KRM
REVISED
DESIGNED SJR
CHECKED JDV

SCREED ELEVATIONS
BRIDGE NO. CRA-30-34250
UNDER S.R. 61

CRA/RIC-30-33.500/0.000

11/12

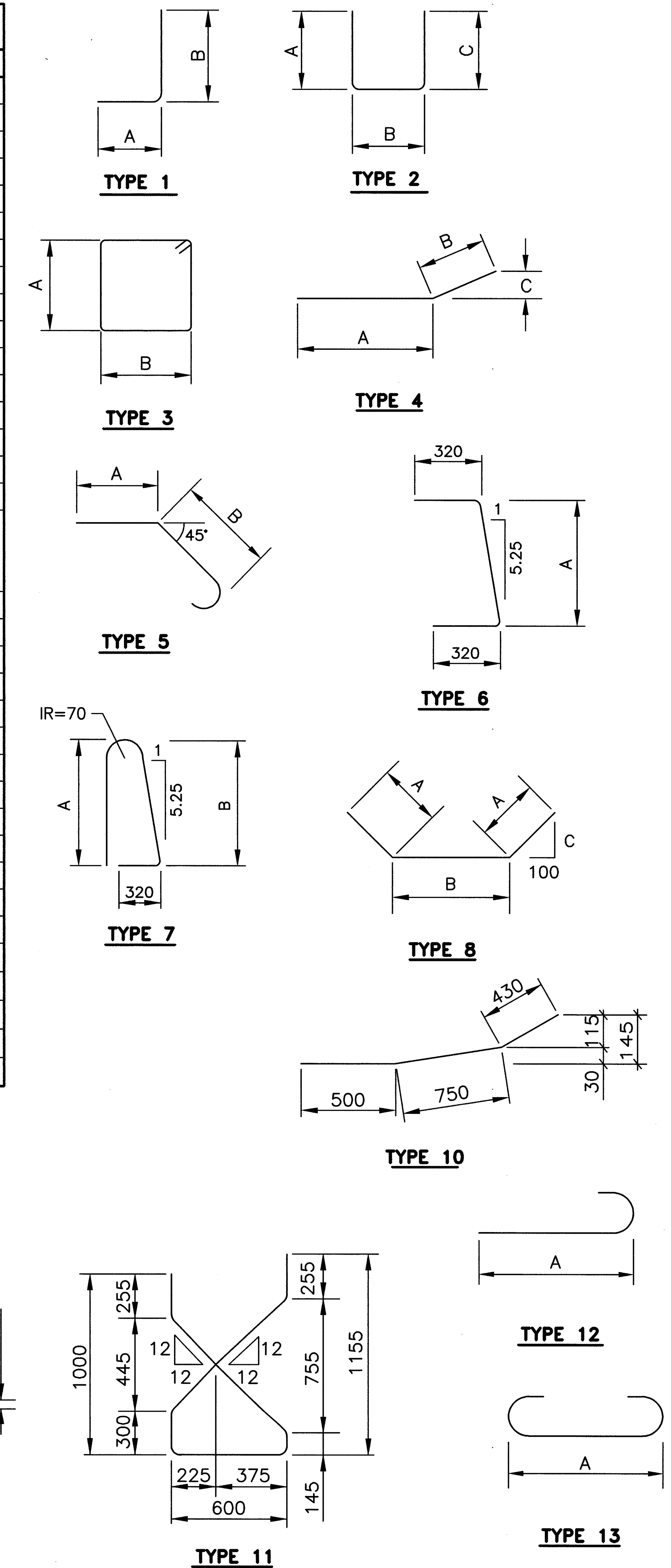
574/712

16284S2M.DWG
08-10-2000 3:45 PM
SCALE: 1:30M

REINFORCING STEEL LIST

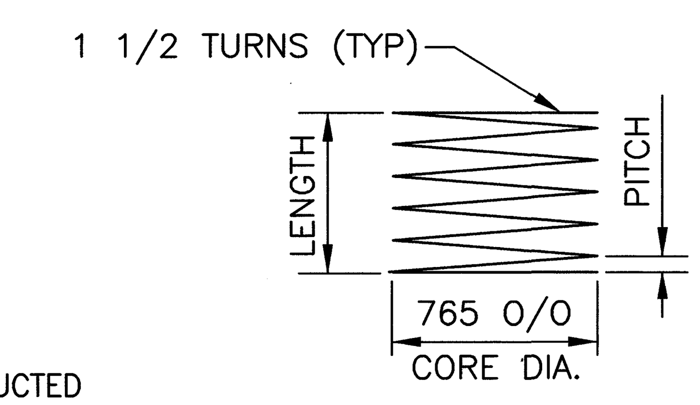
MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	REMARKS
				ABUTMENTS					
A13M01	40	2665		3	515	740			
A16M01	98	3250		3	770	770			
A16M02	98	3520		2	1500	600	1500		
A16M03	24	3560		2	1520	600	1520		
A16M04	32	10 700		STR					
A16M05	12	2455		2	965	600	965		
A16M10	8	3490		STR					
A16M11	8 S.O. 4	955 TO 3220		STR					INCR. = 755
A16M12	8	3840		STR					
A16M13	4	4460		2	1970	600	1970		
A16M14	4 S.O. 6	2130 TO 4430		2	805 TO 1955	600	805 TO 1955		VARY A BY 230 VARY C BY 230
A16M15	4 S.O. 3	2320 TO 3120		2	900 TO 1300	600	900 TO 1300		VARY A BY 200 VARY C BY 200
A19M01	88	3100		11					
A25M01	32	11 200		STR					
				PIER					
P16M01	16	6460		STR					
P16M02	16	2155		2	840	550	840		
P16M03	72	2235		2	880	550	880		
P16M04	116	2720		2	990	815	990		
P25M01	8	10 275		1	800	9540			
P25M02	4	9570		STR					
P25M03	8	5575		1	800	4840			
P25M04	4	4870		STR					
P32M01	72	3760		13	2900				
P32M02	30	3360		1	560	2900			
P32M03	30	5890		STR					
P32M04	16	7685		4	6725	960	150		
SP13M01	3	4975							

MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	REMARKS
				SUPERSTRUCTURE					
S16M01	1038	9140		STR					
S16M02	99	5400		STR					
S16M03	485	12 800		STR					
S16M04	12	6830		STR					
X16M01	32	3050		STR					
X16M02	12	1680		10					
X16M03	20	1680		STR					
Y16M01	420	2205		7	900	950			
S19M01	485	12 800		STR					
S19M05	14	9140		STR					
S19M06	2	11 240		STR					
Y19M01	420	1100		6	560				
Y19M03	8 S.O. 11	1320 TO 1560		1	320	1050 TO 1290			VARY B BY 24
Y19M04	420	830		1	320	560			
Y19M05	32	1320		1	320	1050			
				SUPERSTRUCTURE – DIAPHRAGMS					
S16M05	8	8485		STR					
S16M06	8	5665		STR					
S19M02	88	3460		2	1480	600	1480		
S19M03	88	2770		2	1135	600	1135		
S19M04	88	3240		2	1420	500	1420		
S25M01	32	7550		STR					
S25M02	56	1490		5	430	790			
S25M03	8	8945		STR					
S25M04	8	6165		STR					



DIMENSIONS SHOWN ARE OUT TO OUT.
STR = STRAIGHT
S.O. = SERIES OF

SPIRALS; SP13M01 – CORE DIAMETER 765 MM, PITCH 115 MM
OTHER DETAILS IN ACCORDANCE WITH C.R.S.I. STANDARDS



SPIRAL

SPIRAL REINFORCING BAR SPACES:

CONCRETE SPACERS OR OTHER APPROVED NONCORROSIVE SPACING DEVICES SHALL BE USED AT SUFFICIENT INTERVAL (NEAR THE BOTTOM AND AT INTERVALS NOT EXCEEDING 3 M) TO INSURE CONCENTRIC SPACING FOR THE ENTIRE CAGE LENGTH. SPACERS SHALL BE CONSTRUCTED OF APPROVED MATERIAL EQUAL IN QUALITY AND DURABILITY TO THE CONCRETE SPECIFIED FOR THE SHAFT. THE SPACERS SHALL HAVE ADEQUATE DIMENSIONS TO ENSURE A MINIMUM 76 MM CLEAR SPACE BETWEEN THE OUTSIDE OF THE REINFORCING CAGE AND THE DESIGN DIMENSION OF THE DRILLED SHAFT OR COLUMN. CYLINDRICAL CONCRETE FEET (BOTTOM SUPPORT) SHALL BE PROVIDED TO ENSURE THAT THE BOTTOM OF THE CAGE IS MAINTAINED AT THE PROPER DISTANCE ABOVE THE BASE.

ALL DIMENSIONS ARE IN MILLIMETERS
ALL ELEVATIONS ARE IN METERS

THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST TWO DIGITS INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, A15M01 IS A #15M BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED.

ALL REINFORCING STEEL TO BE EPOXY COATED.

metric units

DESIGN AGENCY
MCCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

DATE 8/00
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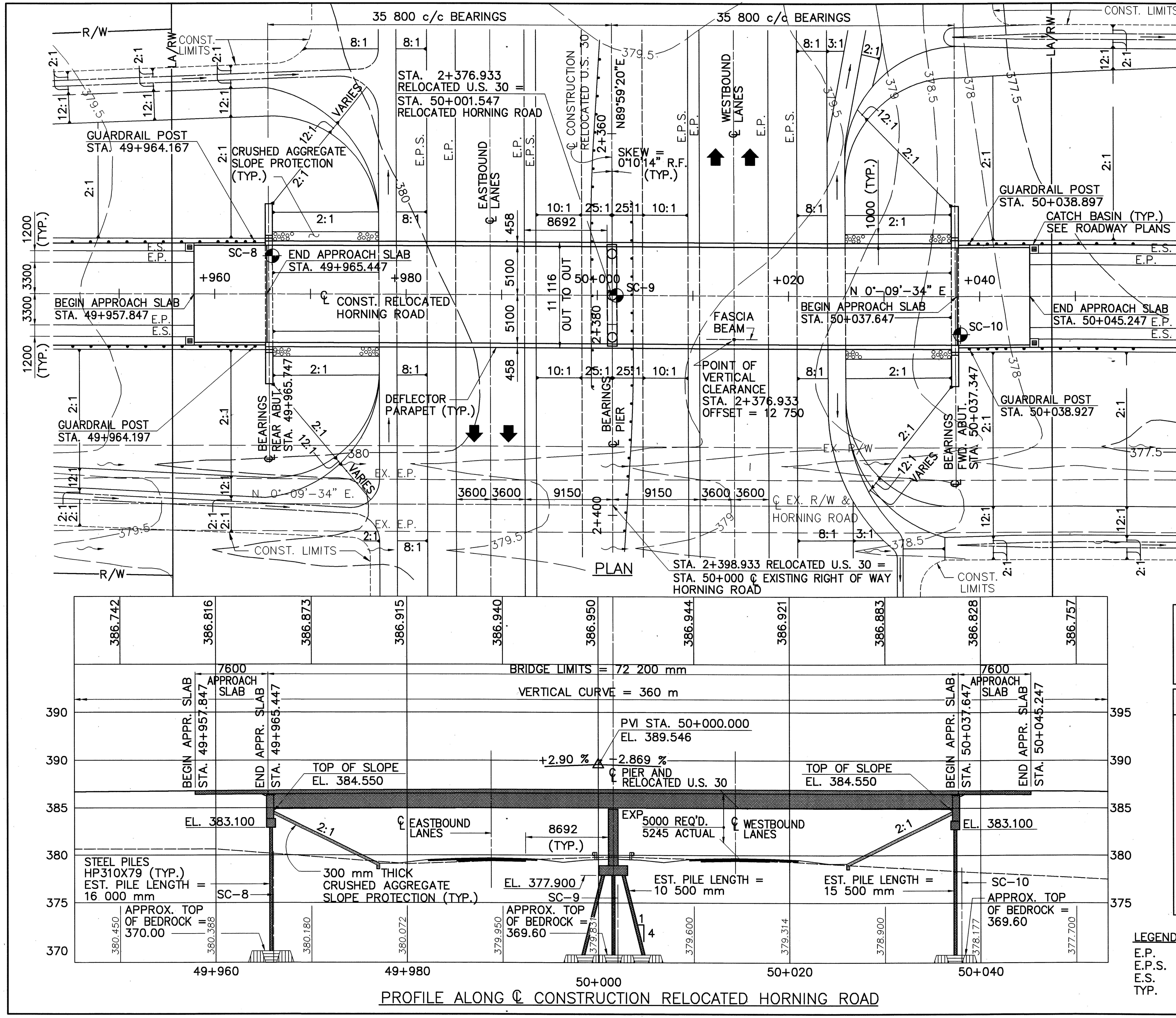
REVISED
DESIGNED SJR
CHECKED JDV

REINFORCING STEEL LIST
BRIDGE NO. CRA-30-34250
UNDER S.R. 61

CRA/RIC-30-33.500/0.000

16284S2N.DWG
08-10-2000 3:47 PM
SCALE: 1:M



NOTE

EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

FOUNDATION INVESTIGATION LEGEND

⊕ INDICATES BORING LOCATION

SITE	STATION	OFFSET mm	TOP OF GROUND ELEVATION
SC–8	49+966.000	4000 LT.	380.21
SC–9	50+002.000	℄	379.76
SC–10	50+038.000	4000 RT.	378.28

BENCHMARK

PK SPIKE IN 450 mm MAPLE. LOCATED EAST 6.25 m RT. OF STA. 49+833.000 ELEV. 382.865

TRAFFIC DATA

DESIGN ADT (2020) = 1502
DESIGN ADTT (2020) = 45

PROPOSED STRUCTURE

TYPE: 2 SPAN CONTINUOUS A572M PAINTED STEEL GIRDER BRIDGE w/COMPOSITE REINF. CONC. DECK ON CAP & COLUMN PIER AND INTEGRAL ABUTMENTS
SPANS: 35 800, 35 800 c/c BEARINGS
ROADWAY: 10 200 T/T PARAPETS
DESIGN LOADING: MS18 CASE II & ALTERNATE MILITARY LOADING
SKEW: 0°-10'-14" R.F.
ALIGNMENT: TANGENT
WEARING SURFACE: MONOLITHIC CONCRETE
APPROACH SLABS: 7600 (AS-1-81M)
CROWN: 0.016
LATITUDE: N40°-45'-44"
LONGITUDE: W82°-41'-54"

LEGEND:

E.P. EDGE OF PAVEMENT
E.P.S. EDGE OF PAVED SHOULDER
E.S. EDGE OF SHOULDER
TYP. TYPICAL

ALL DIMENSIONS ARE IN MILLIMETERS
ALL ELEVATIONS AND STATIONING ARE IN METERS

metric units

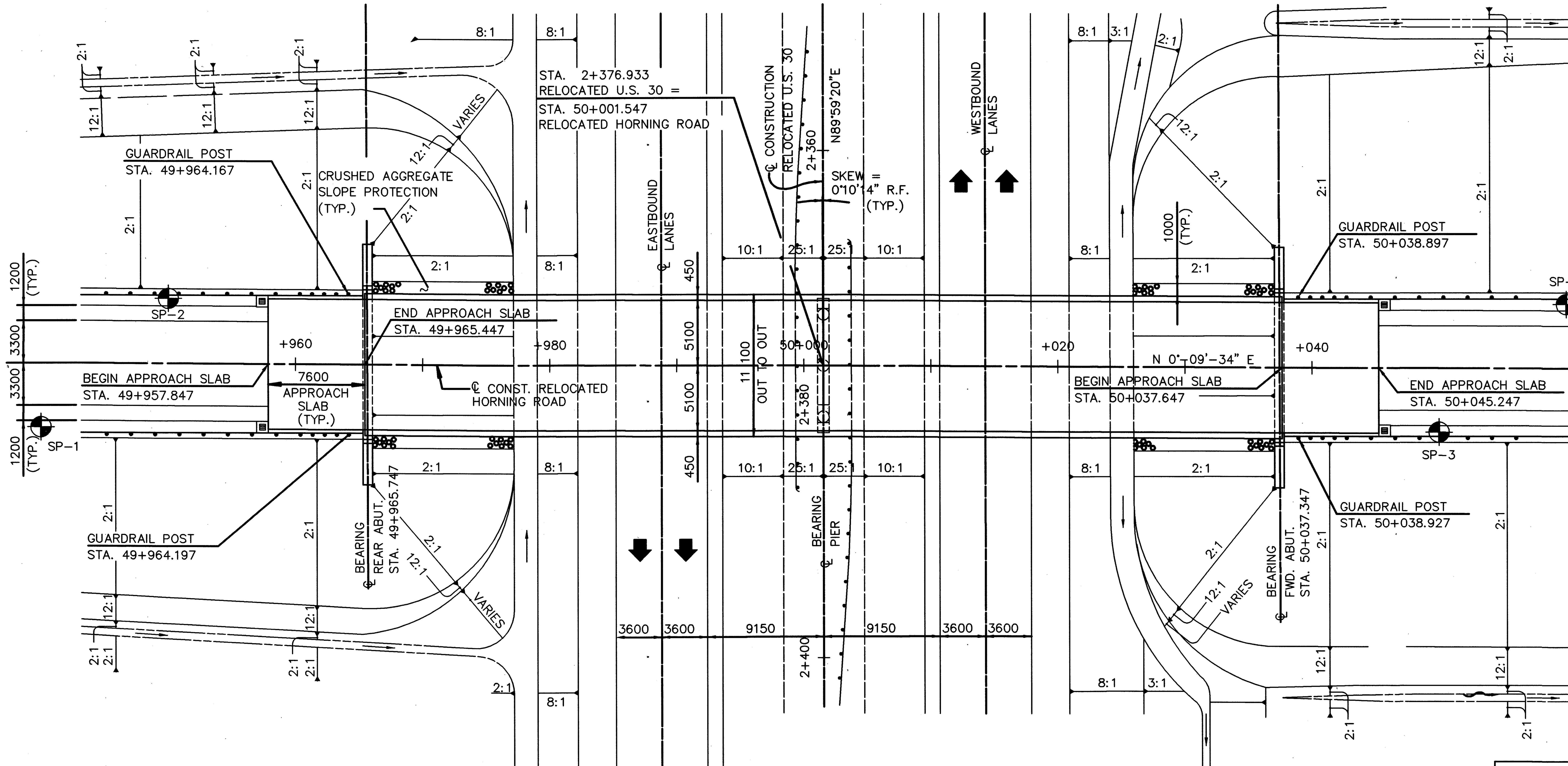
DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

REVIEWED LBD DATE 8-14-00
STRUCTURE FILE NUMBER 7000960
DRAWN PS REVISED
DESIGNED RHW CHECKED HK

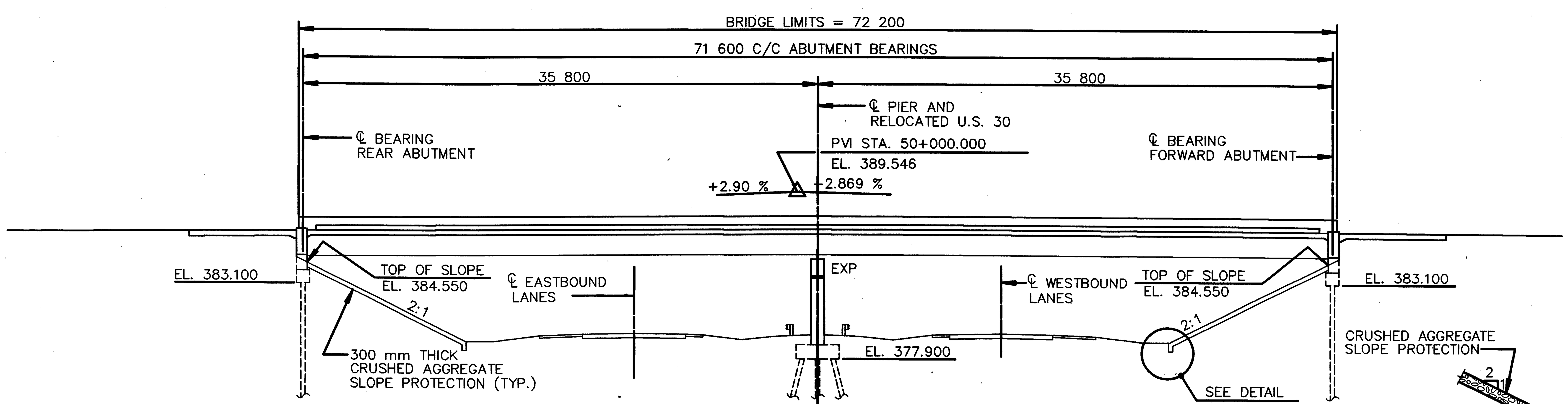
RICHLAND COUNTY
STA. 49+965.447
STA. 50+037.647

SITE PLAN
BRIDGE NO. RIC-30-02371
UNDER RELOCATED HORNING ROAD

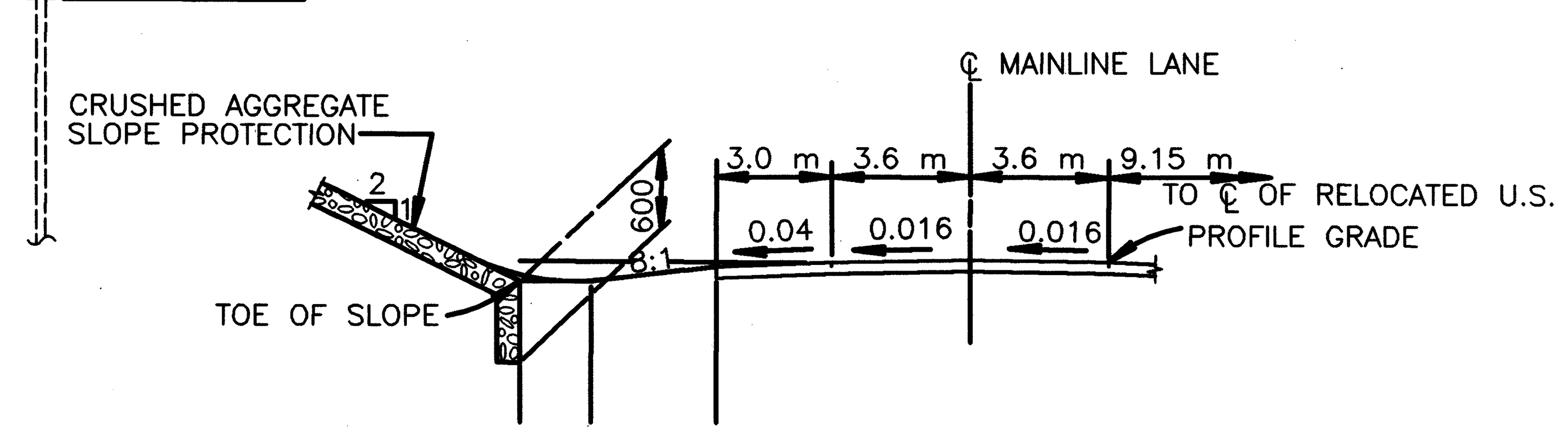
CRA/RIC-30-33.500/0.000



PLAN



ELEVATION



TYPICAL ABUTMENT SLOPE DETAIL

SETTLEMENT PLATFORMS		
⊕ INDICATES PLATFORM LOCATION		
SITE	STATION	OFFSET mm
SP-1	49+940.000	5000 RT.
SP-2	49+950.000	5000 LT.
SP-3	50+050.000	5000 RT.
SP-4	50+060.000	5000 LT.

metric units

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

DESIGNED	DRAWN	REVIEWED	DATE
RHW	WEB	LBD	8-14-00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
HK	12-8-00	7000960	

GENERAL PLAN AND ELEVATION
BRIDGE NO. RIC-30-02371
UNDER RELOCATED HORNING ROAD

CRA/RIC-30-33.500/0.000

ESTIMATED QUANTITIES

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	ABUT.	PIER	SUPER	GENERAL	AS PER PLAN SHEET NO.
SPECIAL	20365000	4	EACH	SETTLEMENT PLATFORM				4	GN-1
503	21301	LUMP		UNCLASSIFIED EXCAVATION, AS PER PLAN	LUMP	LUMP			GN-1
505	11100	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION				LUMP	
507	00200	441	METER	STEEL PILES HP310x79, FURNISHED	283.5	157.5			
507	00250	441	METER	STEEL PILES HP310x79, DRIVEN	283.5	157.5			
507	50500	15	EACH	STEEL PILE SPLICES	8	7			
516	44100	4	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (65.0 mm X 450 mm X 660 mm WITH 50 mm X 476 mm X 686 mm LOAD PLATE)		4			
518	21231	LUMP		POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN	LUMP				GN-1
518	40000	37	METER	150 mm PERFORATED CORRUGATED PLASTIC PIPE	37				
518	40010	13	METER	150 mm NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	13				
SPECIAL	53013000	45	SQ METER	FORM LINER	45				
816	00610	120100	KG	FIELD PAINTING OF NEW STEEL, INTERMEDIATE AND FINISH COAT, SYSTEM IZEU			120100		
842	41001	21	CU METER	CLASS C CONCRETE, PIER ABOVE FOOTINGS, AS PER PLAN		21			GN-1
842	45501	67	CU METER	CLASS C CONCRETE, ABUTMENT, AS PER PLAN	67				GN-1
842	46501	24	CU METER	CLASS C CONCRETE, FOOTING, AS PER PLAN		24			GN-1
844	48041	31	CU METER	HIGH PERFORMANCE CONCRETE SUBSTRUCTURE, AS PER PLAN	31				GN-1
844	49000	LUMP		HIGH PERFORMANCE CONCRETE TRIAL MIX			LUMP		
844	49010	LUMP		HIGH PERFORMANCE CONCRETE TESTING			LUMP		
863	10080	LUMP		STRUCTURAL STEEL MEMBERS, LEVEL FOUR (4) FABRICATION, A572M			LUMP		
863	20000	1764	EACH	WELDED STUD SHEAR CONNECTOR			1764		
									GN-1
864	10100	653	SQ METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	80	73	500		GN-1
894	10001	278	CU METER	HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN			278		GN-1

metric units

GENERAL NOTES

PILES DRIVEN TO BEDROCK

PILES SHALL BE DRIVEN TO REFUSAL ON BEDROCK. REFUSAL SHALL BE CONSIDERED AS OBTAINED BY PENETRATING SOFT BEDROCK FOR SEVERAL MILLIMETERS WITH A MINIMUM RESISTANCE OF 20 BLOWS PER 25 mm OR REFUSAL SHALL BE CONSIDERED AS OBTAINED AFTER THE PILE HAS CONTACTED HARD BEDROCK AND THE PILE HAS THEN RECEIVED AT LEAST 20 BLOWS.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE)

THE ABUTMENT AND PIER PILES SHALL BE HP310x79. THE PILE ULTIMATE BEARING VALUE FOR THE ABUTMENT PILES IS 840 kN PER PILE. THE ABUTMENT PILES SHOULD BE DRIVEN TO AN ULTIMATE BEARING VALUE OF 1570 kN PER PILE. THE ADDITIONAL 730 kN PER PILE OF ULTIMATE BEARING VALUE IS DUE TO THE POSSIBILITY OF DOWN DRAG FORCES INDUCED BY EMBANKMENT SETTLEMENT.

THE PIER PILES SHOULD BE DRIVEN TO AN ULTIMATE BEARING VALUE OF 1270 kN PER PILE.

THE ORDER LENGTH FOR THE REAR ABUTMENT PILES IS:
9 PILES 16.0 METERS LONG
4 SPLICES

THE ORDER LENGTH FOR THE FORWARD ABUTMENT PILES IS:
9 PILES 15.5 METERS LONG
4 SPLICES

THE ORDER LENGTH FOR THE PIER PILES IS:
15 PILES 10.5 METERS LONG
7 SPLICES

PAINTING OF 863 STEEL

ALL NEW STEEL SHALL BE SHOP PRIMED PER ITEM 816, WHICH SHALL BE INCLUDED IN THE COST OF ITEM 863.

ITEM 816, FIELD PAINTING OF NEW STEEL, SYSTEM IZEU

ALL NEW STEEL SHALL BE PAINTED WITH AN INTERMEDIATE AND FINISH COAT OF PAINT IN THE FIELD USING SYSTEM IZEU. THE COLOR OF THE FINISH COAT SHALL BE LIGHT NEUTRAL FEDERAL COLOR STANDARD NO. 17778. IN ADDITION TO THE SURFACE AREA OF THE STEEL STRINGERS TO BE PAINTED, INCIDENTALS SUCH AS CROSSFRAMES AND BEARINGS SHALL BE INCLUDED. THE COST OF THIS WORK SHALL BE INCLUDED IN ITEM 816, FIELD PAINTING OF NEW STEEL, INTERMEDIATE AND FINISH COAT, SYSTEM IZEU FOR PAYMENT.

FOR ADDITIONAL GENERAL NOTES SEE SHEET GN-1, 536/712.

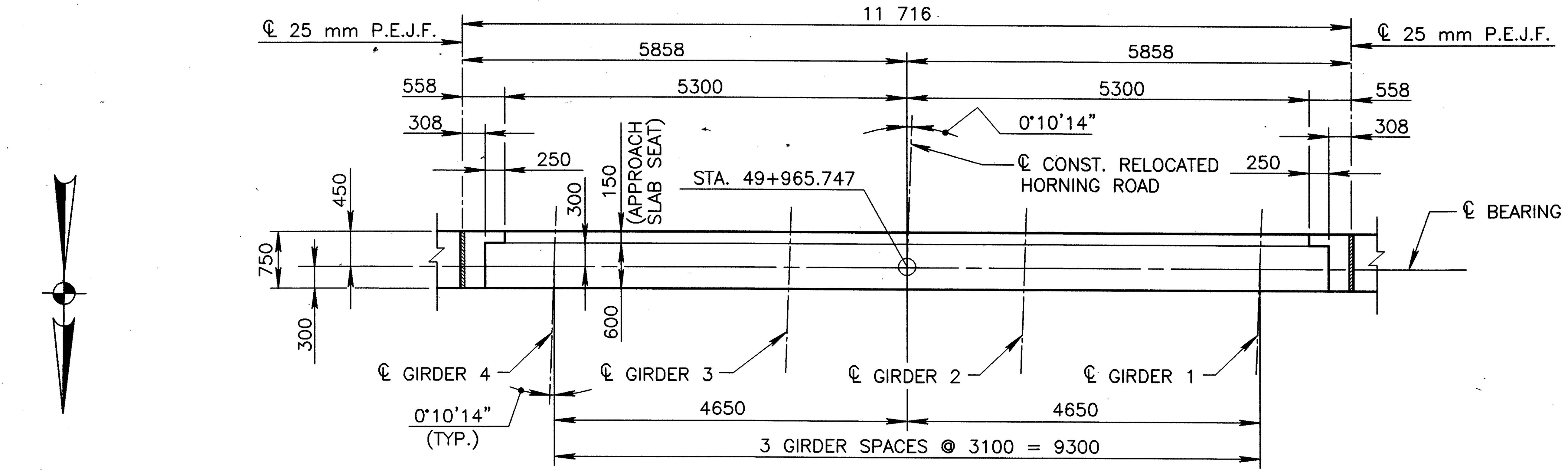
NOTE: FOR REINFORCED CONCRETE APPROACH SLAB AND CRUSHED AGGREGATE SLOPE QUANTITIES, SEE ROADWAY PLANS, SHEET 58/712 AND 61/712.

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

REVIEWED LBD DATE 8-14-00
STRUCTURE FILE NUMBER 7000960
DRAWN WEB REVISED 12-8-00
DESIGNED - CHECKED HK

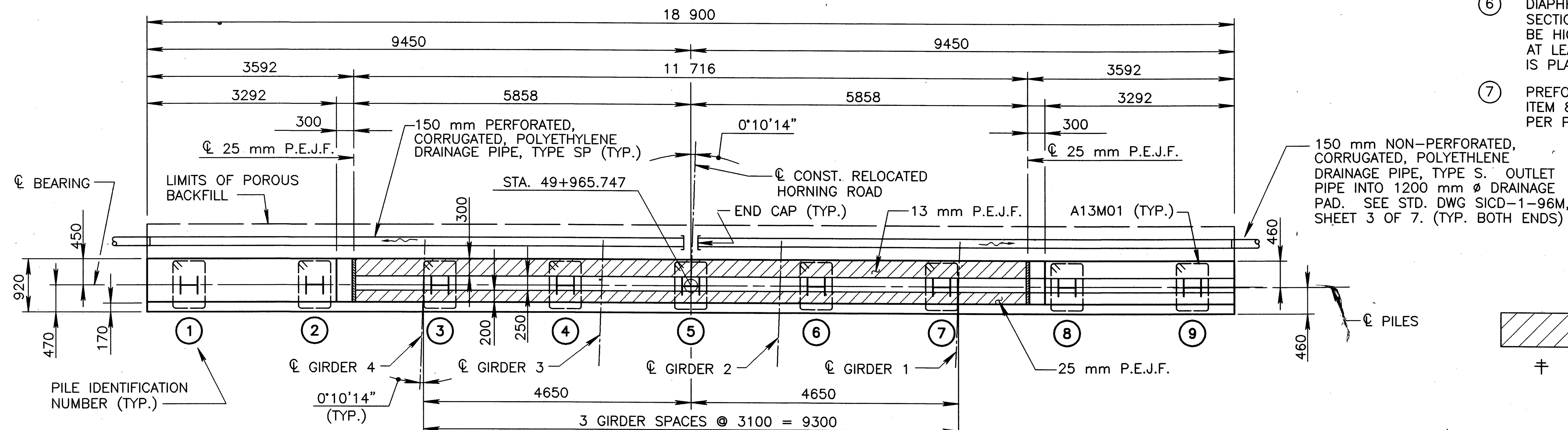
ESTIMATED QUANTITIES AND GENERAL NOTES
BRIDGE NO. RIC-30-02371
UNDER RELOCATED HORNING ROAD

CRA/RIC-30-33.500/0.000



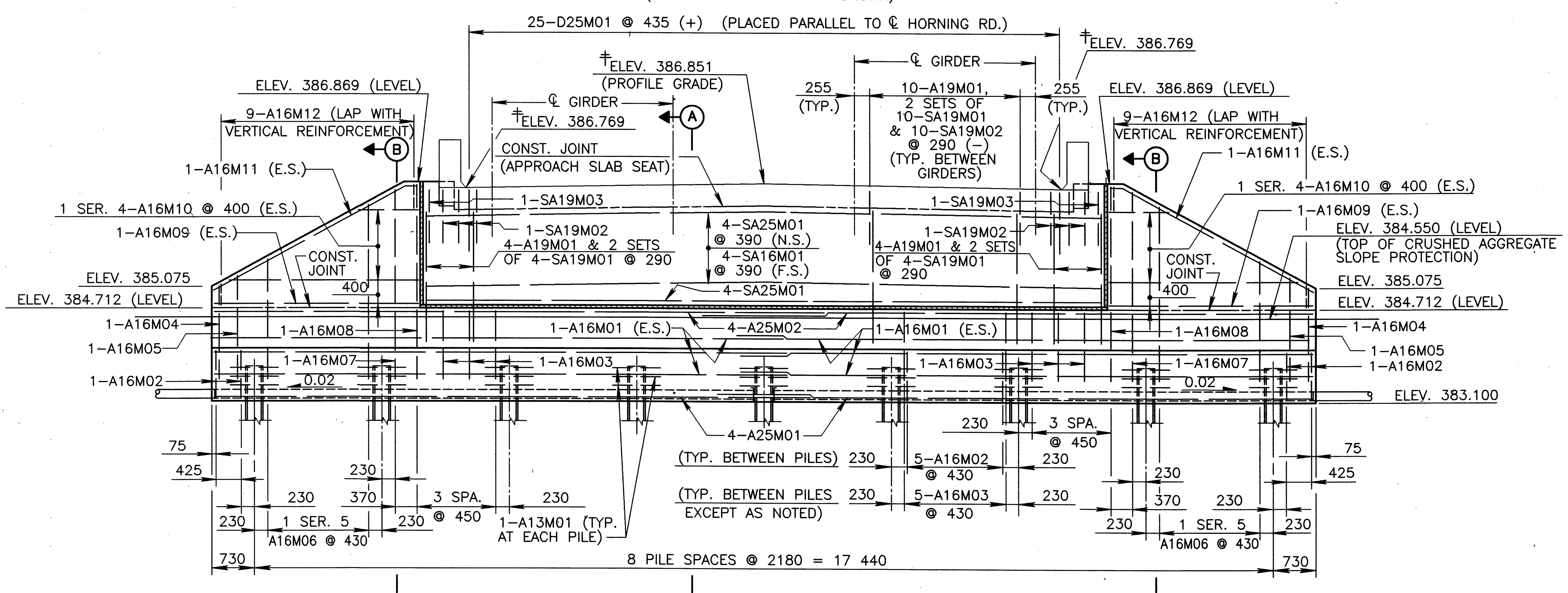
PLAN OF INTEGRAL BACKWALL

(DECK SLAB AND APPROACH SLAB NOT SHOWN)



PLAN

(INTEGRAL BACKWALL NOT SHOWN)



ELEVATION

NOTES

1. FOR SECTIONS A-A AND B-B, SEE SHEET 6/13.
2. MINIMUM LAP LENGTHS UNLESS OTHERWISE NOTED:

16M BARS =	875 mm	A16M12 =	300 mm
19M BARS =	1040 mm	A25M02 =	2090 mm
25M BARS =	1500 mm		

3. ALL REINFORCING STEEL CLEARANCES ARE 75 mm UNLESS OTHERWISE NOTED.
4. FOR DETAILS NOT SHOWN, SEE STANDARD DRAWING ICD-1-82M, SHEETS 1, 2 AND 5.
5. ALL PILES ARE HP310x79 STEEL PILES.
6. DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER SECTIONS SUPPORTED IN INTEGRAL TYPE ABUTMENTS SHALL BE HIGH PERFORMANCE CONCRETE AND SHALL BE PLACED AT LEAST 48 HOURS BEFORE THE ACTUAL DECK CONCRETE IS PLACED.
7. PREFORMED EXPANSION JOINT FILLER SHALL BE INCLUDED WITH ITEM 844, HIGH PERFORMANCE CONCRETE, SUBSTRUCTURE, AS PER PLAN, FOR PAYMENT.

LEGEND

LIMITS OF PREFORMED EXPANSION JOINT FILLER

ǂ ELEVATION SHOWN AT CENTERLINE OF BEARING.

N.S. DENOTES NEAR SIDE

F.S. DENOTES FAR SIDE

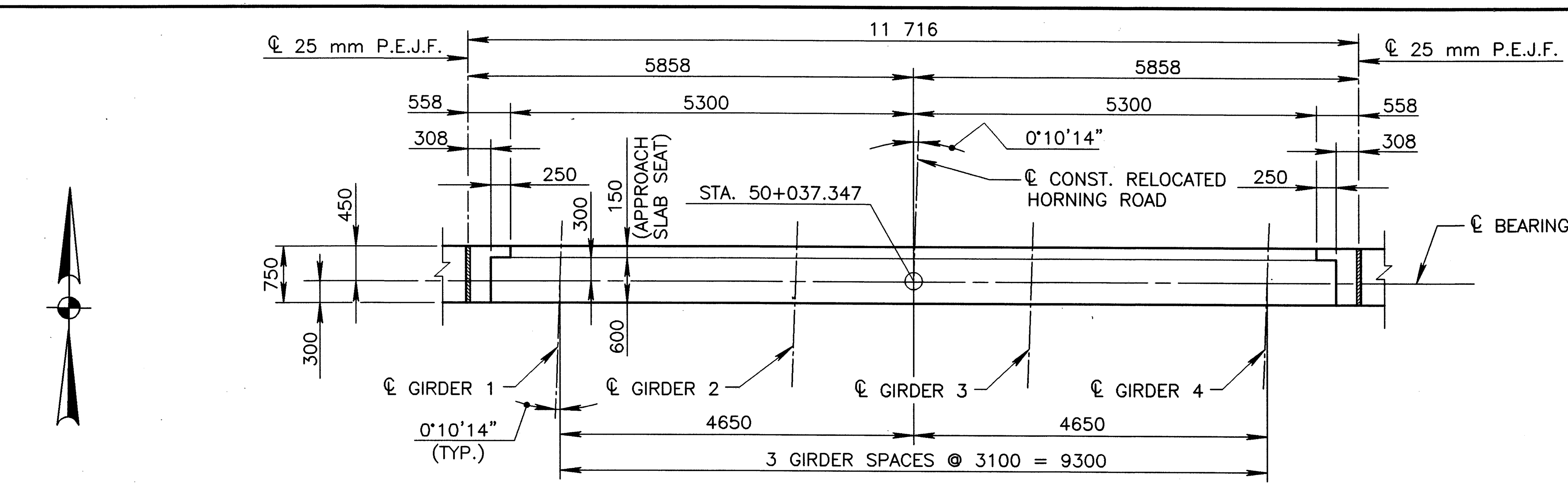
E.S. DENOTES EACH SIDE

DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

DESIGNED	DRAWN	REVIEWED	DATE
HK	WEB	LBD	8-14-00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RHW		7000960	

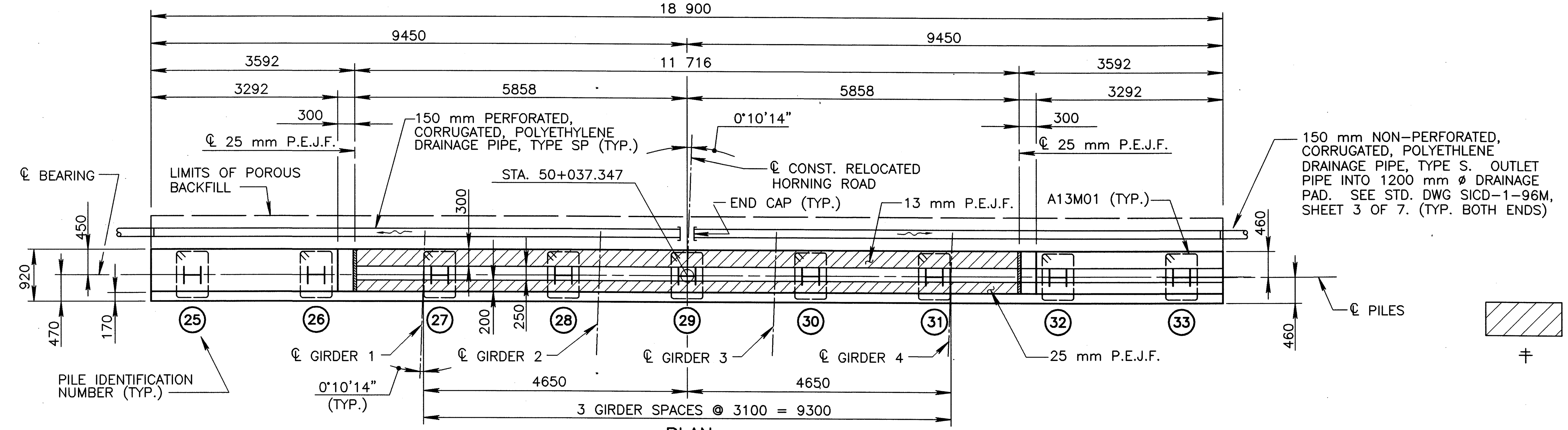
REAR ABUTMENT
BRIDGE NO. RIC-30-02371
UNDER RELOCATED HORNING ROAD

CRA/RIC-30-33.500/0.000



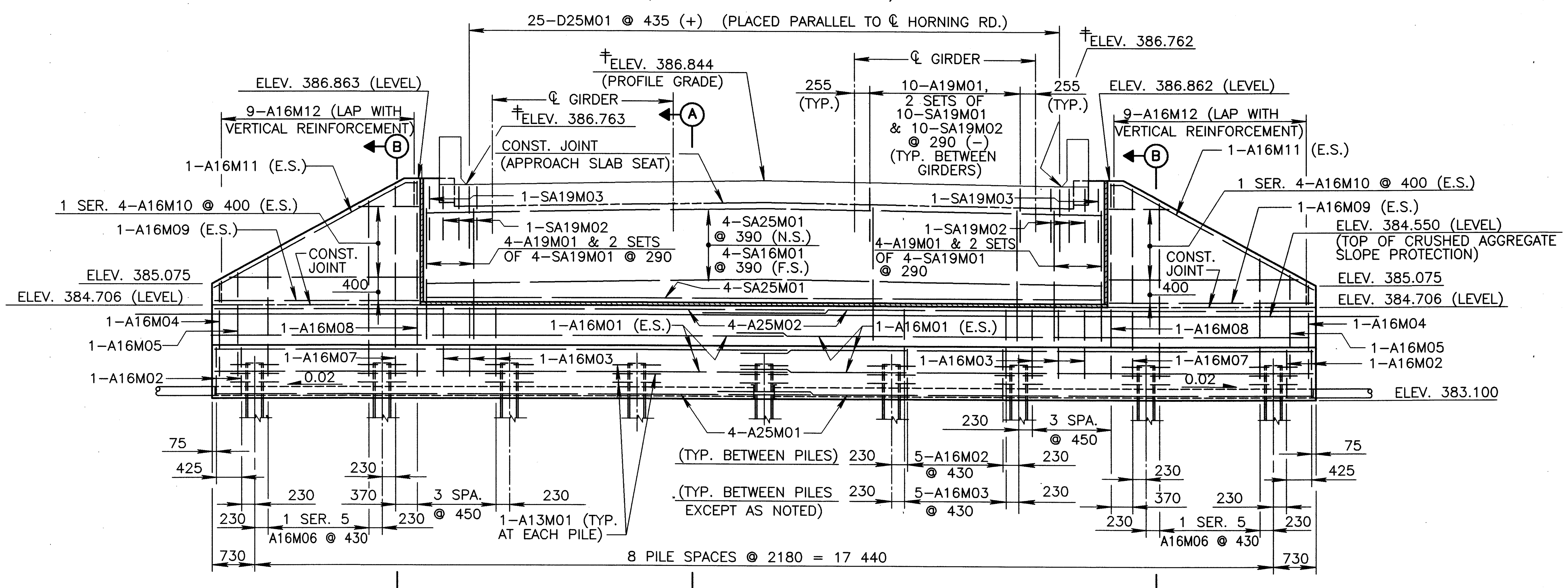
PLAN OF INTEGRAL BACKWALL

(DECK SLAB AND APPROACH SLAB NOT SHOWN)



PLAN

(INTEGRAL BACKWALL NOT SHOWN)



ELEVATION

NOTES

1. FOR SECTIONS A-A AND B-B, SEE SHEET 6/13.
2. MINIMUM LAP LENGTHS UNLESS OTHERWISE NOTED:

16M BARS	= 875 mm	A16M12	= 300 mm
19M BARS	= 1040 mm	A25M02	= 2090 mm
25M BARS	= 1500 mm		

3. ALL REINFORCING STEEL CLEARANCES ARE 75 mm UNLESS OTHERWISE NOTED.
4. ALL PILES ARE HP310x79 STEEL PILES.
5. FOR ADDITIONAL NOTES, SEE SHEET 4/13.

LEGEND

LIMITS OF PREFORMED EXPANSION JOINT FILLER

ǂ ELEVATION SHOWN AT CENTERLINE OF BEARING.

N.S. DENOTES NEAR SIDE

F.S. DENOTES FAR SIDE

E.S. DENOTES EACH SIDE

metric units

DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

REVIEWED LBD DATE 8-14-00 STRUCTURE FILE NUMBER 7000960

DRAWN WEB REVISED

DESIGNED HK CHECKED RHW

FORWARD ABUTMENT
BRIDGE NO. RIC-30-02371
UNDER RELOCATED HORNING ROAD

CRA/RIC-30-33.500/0.000

5/13

582/712

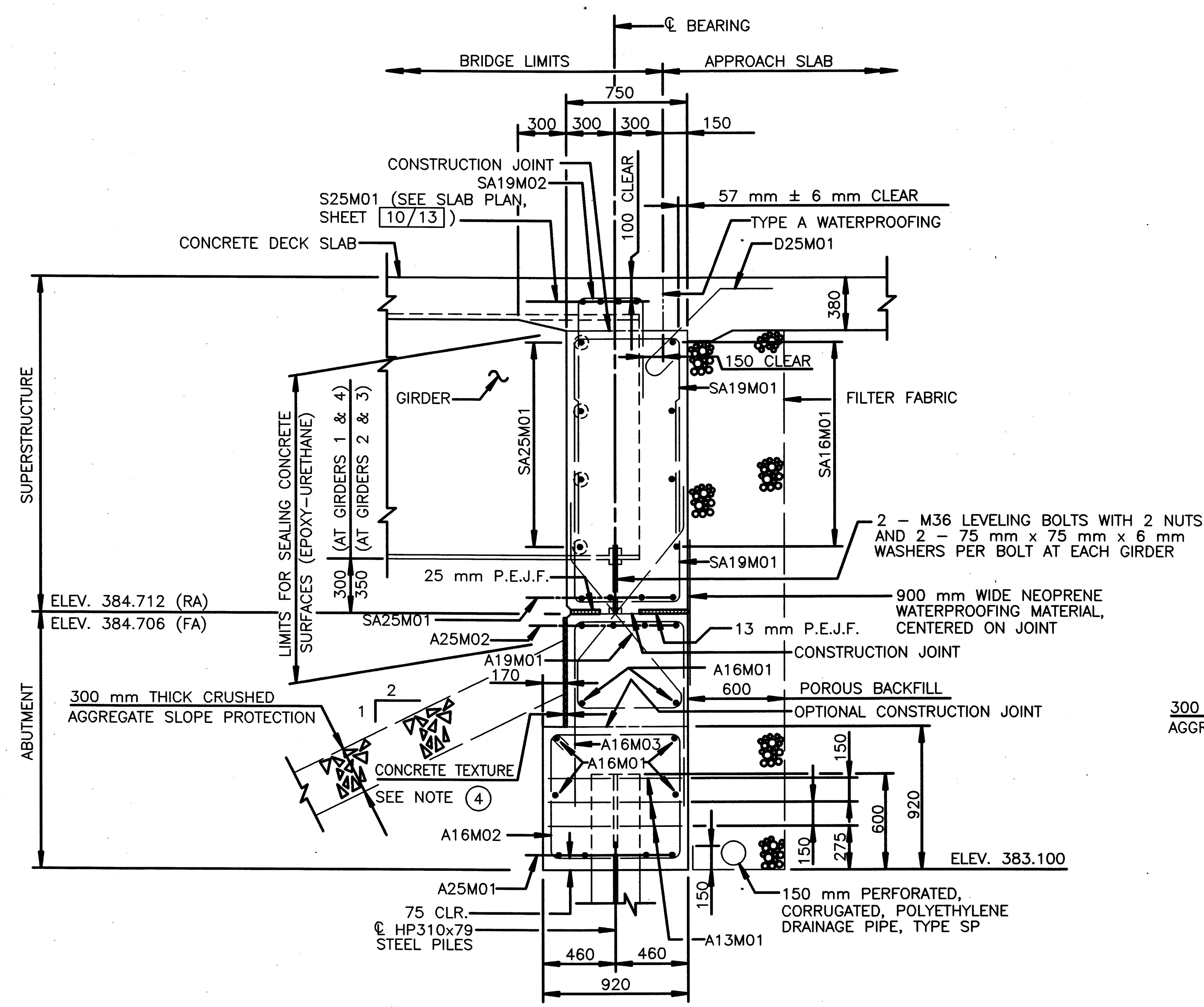
LEGEND

RA DENOTES REAR ABUTMENT

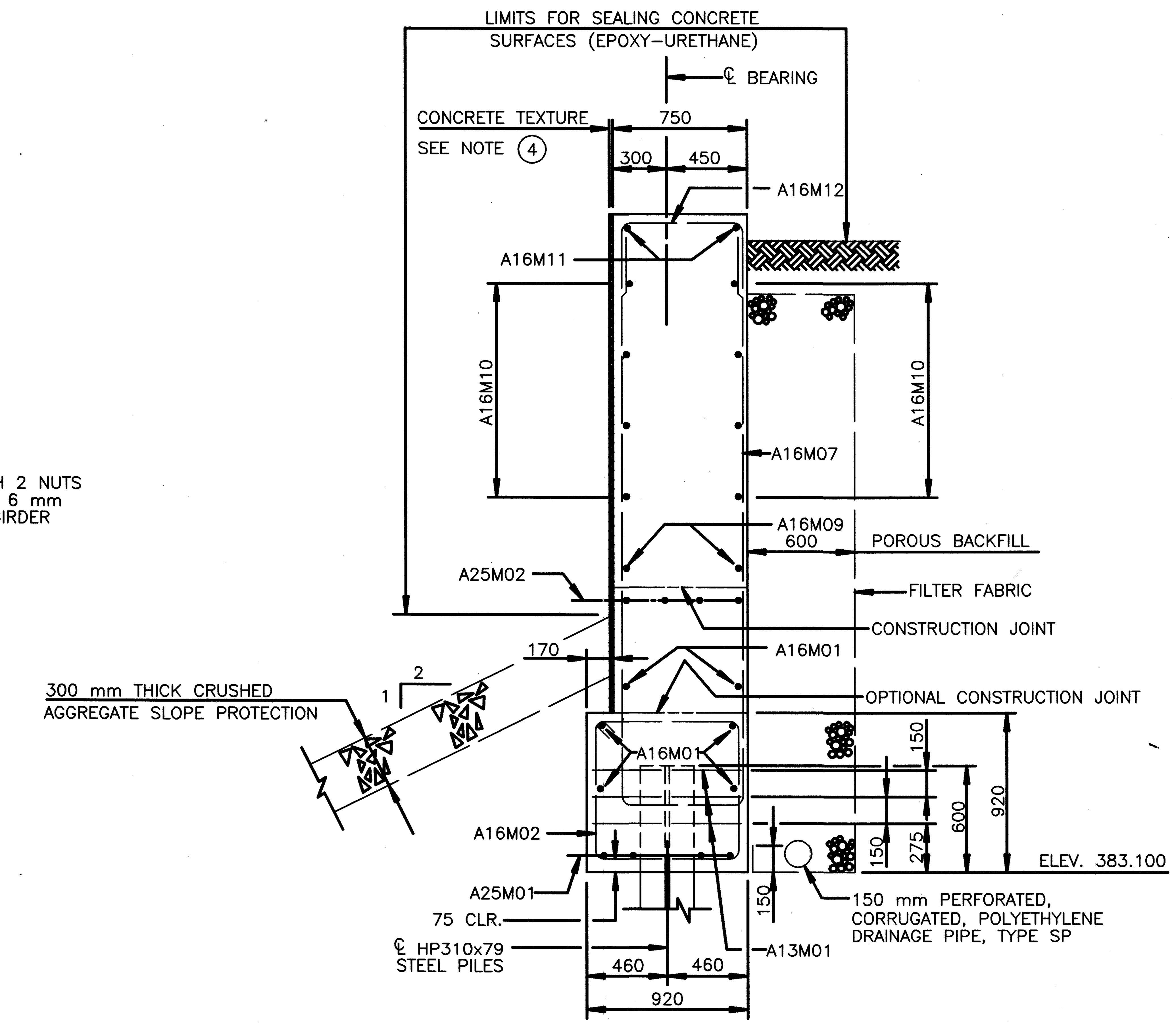
FA DENOTES FORWARD ABUTMENT

NOTES

1. FOR LOCATION OF SECTIONS A–A AND B–B, AND ADDITIONAL NOTES, SEE SHEETS 4/13 AND 5/13.
2. FOR DETAILS NOT SHOWN, SEE STANDARD DRAWING ICD–1–82M, SHEETS 1, 2 AND 5.
3. POROUS BACKFILL WITH FILTER FABRIC, 600 mm THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 300 mm BELOW THE EMBANKMENT SURFACE, AND LATERALLY TO THE ENDS OF THE WINGWALLS.
4. THE TEXTURE SHALL BE AN ASHLER STONE PATTERN AS PER THE FITZGERALD FORM LINER NUMBER 16986 OR APPROVED EQUAL. THE RELIEF SHALL BE A MINIMUM OF 19 mm. CONCRETE FOR TEXTURING SHALL BE INCLUDED WITH ITEM 842, CLASS C CONCRETE, ABUTMENT, AS PER PLAN, FOR PAYMENT.



SECTION A–A



SECTION B–B

metric units

DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

REVIEWED: LBD · DATE: 9–15–98 · STRUCTURE FILE NUMBER: 7000960

DRAWN: WEB · REVISED: 12–800

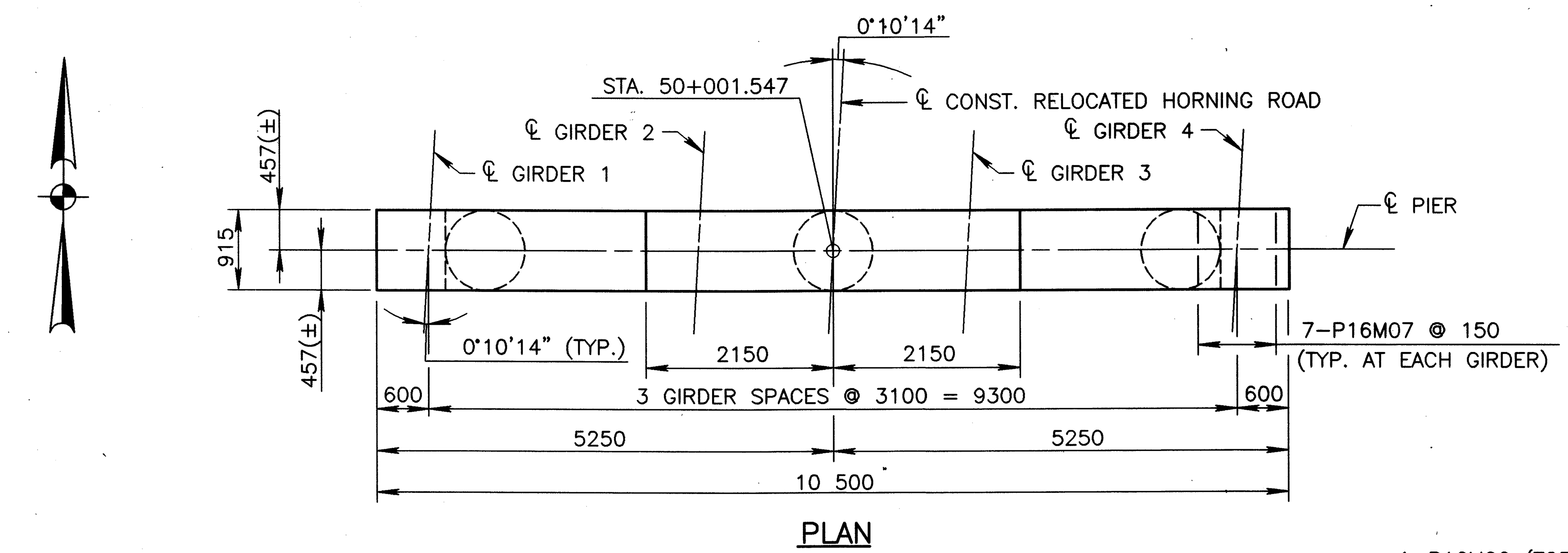
DESIGNED: HK · CHECKED: RHW

ABUTMENT DETAILS
BRIDGE NO. RIC–30–02371
UNDER RELOCATED HORNING ROAD

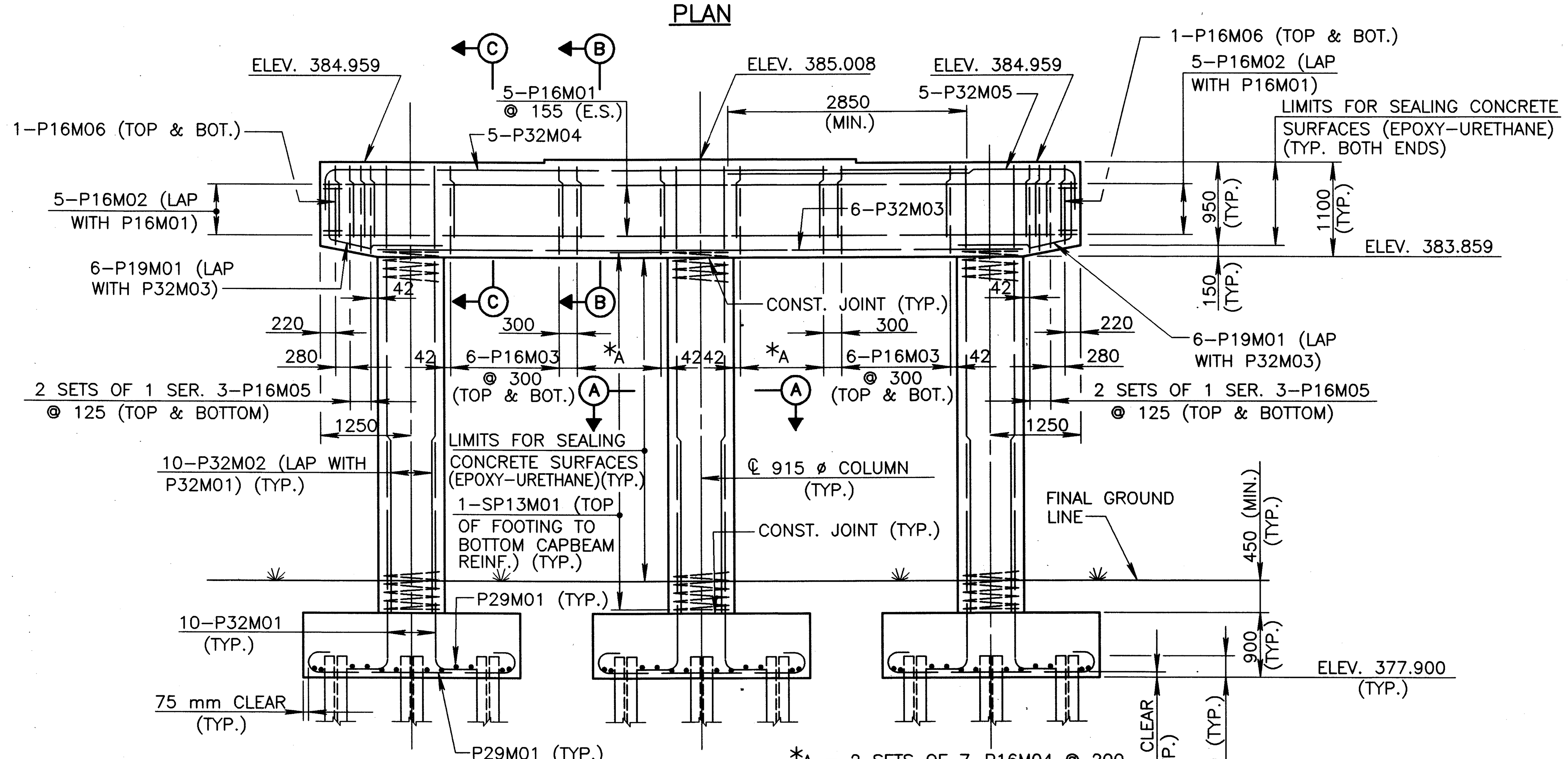
CRA/RIC–30–33.500/0.000

6/13

583/712

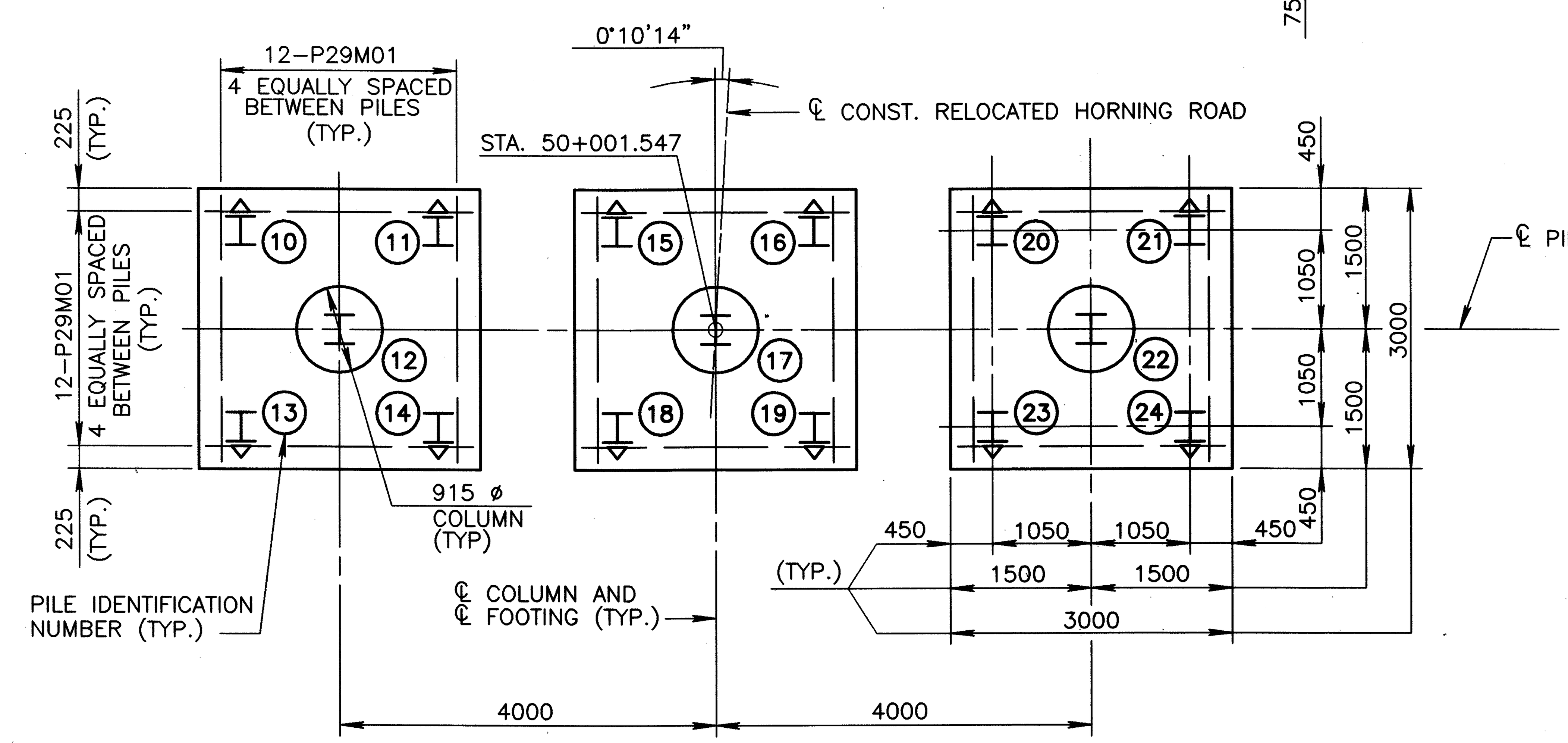


PLAN



ELEVATION

*A = 2 SETS OF 7-P16M04 @ 200 (TOP & BOTTOM)



FOOTING PLAN

NOTES

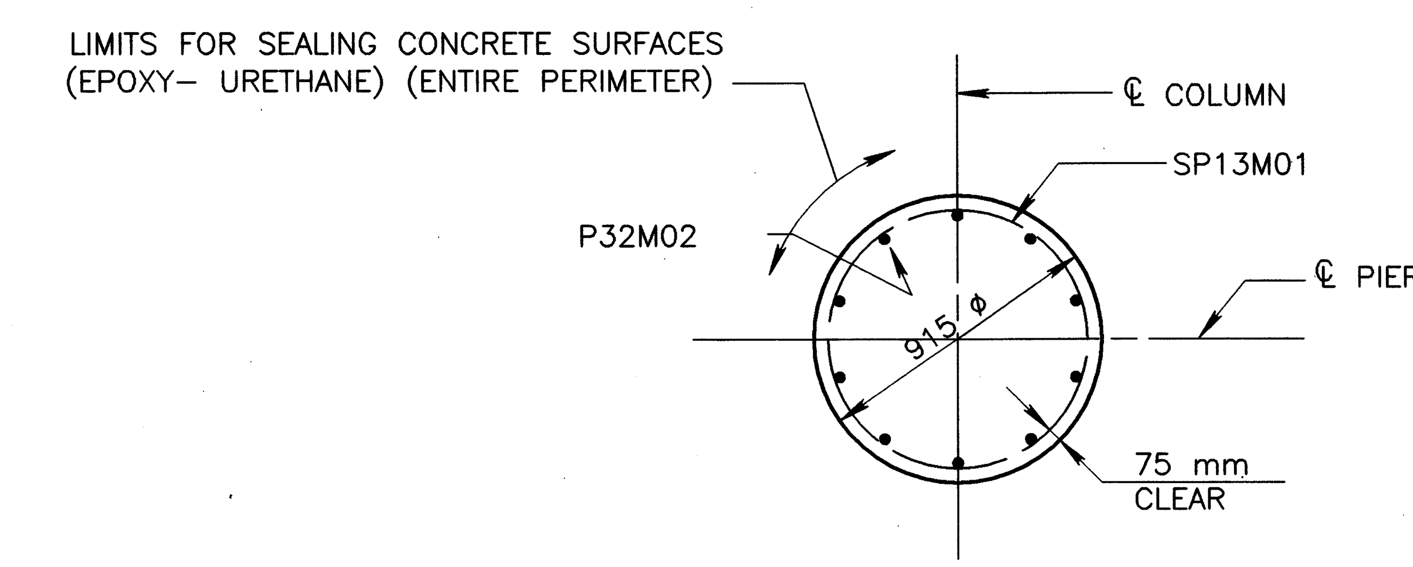
1. MINIMUM LAP UNLESS NOTED OTHERWISE:
   16M BARS = 750 mm
   19M BARS = 890 mm
   32M BARS = 1910 mm
2. ALL PILES ARE HP310x79 STEEL PILES.
3. PILE LAYOUT DIMENSIONS ARE MEASURED ALONG BOTTOM OF FOOTING.

LEGEND

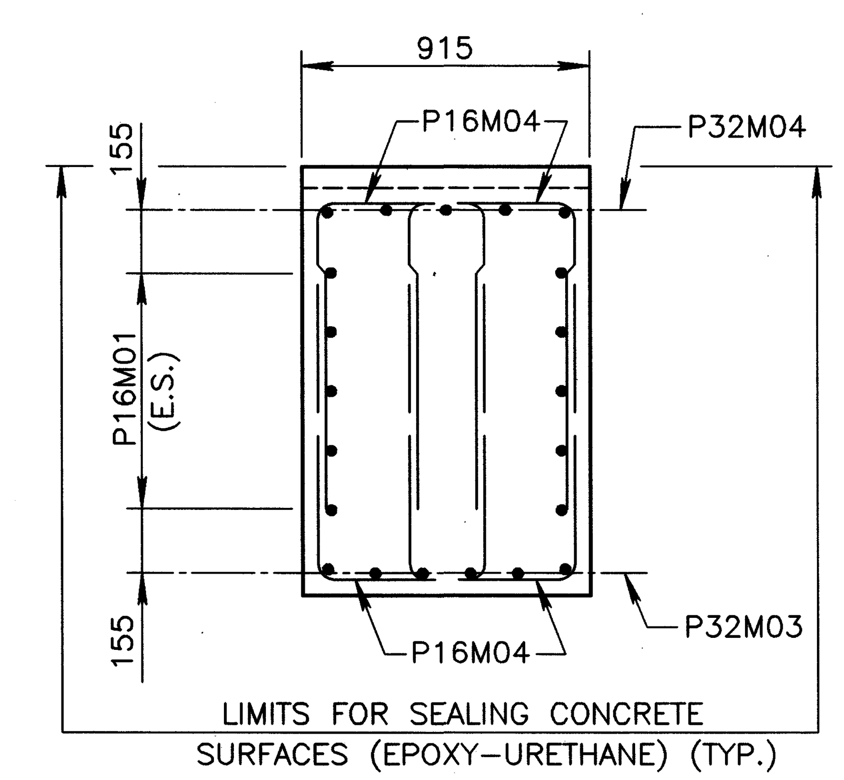
DENOTES BATTERED PILE (1:4)

E.S. DENOTES EACH SIDE

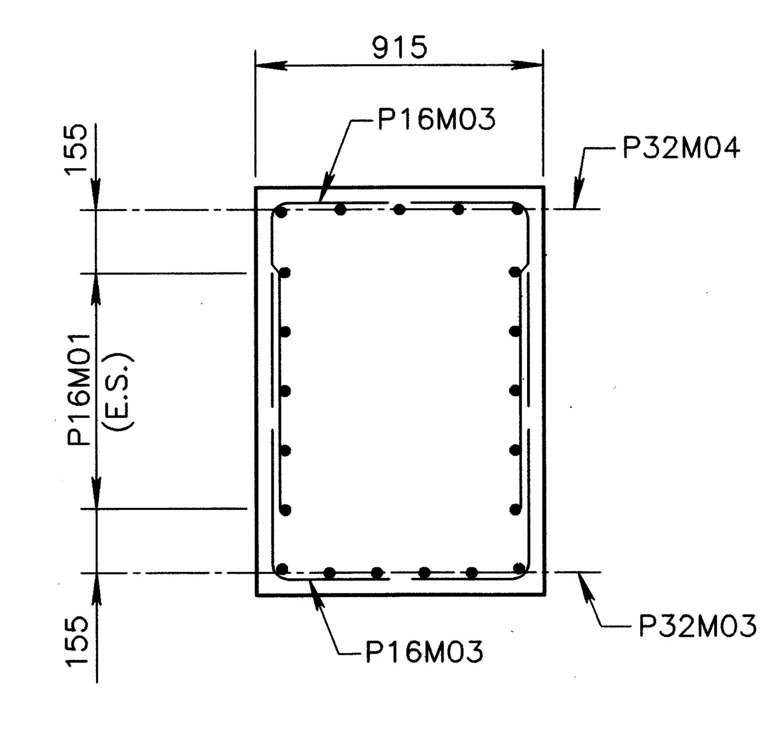
BOT. DENOTES BOTTOM



SECTION A-A



SECTION B-B



SECTION C-C

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

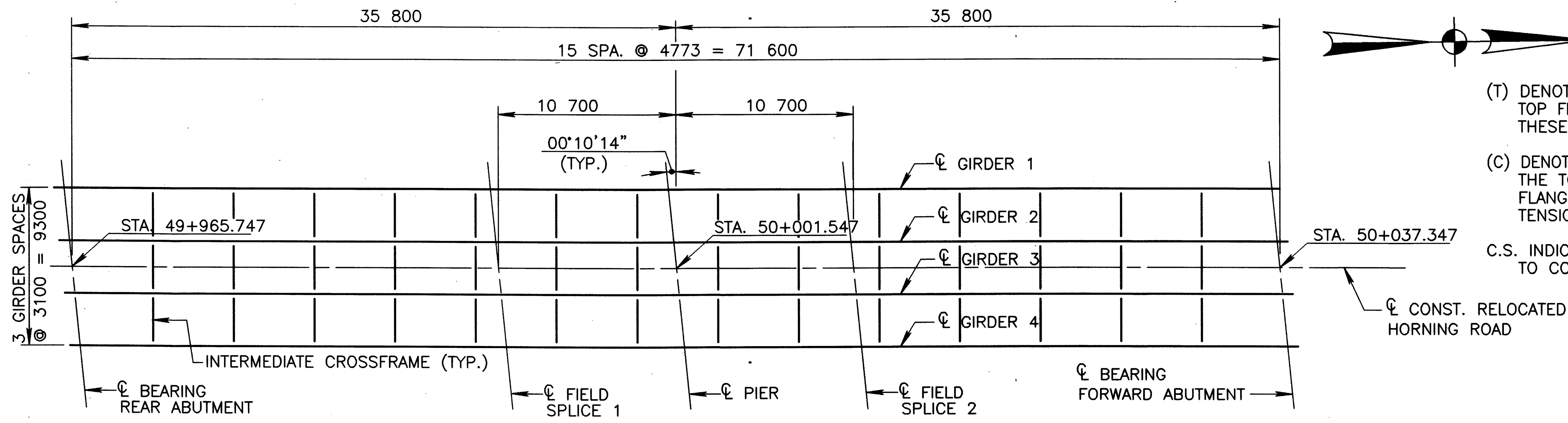
REVIEWED	DATE
LBD	9-15-98
STRUCTURE FILE NUMBER 7000960	

DRAWN	REVISED
WEB	

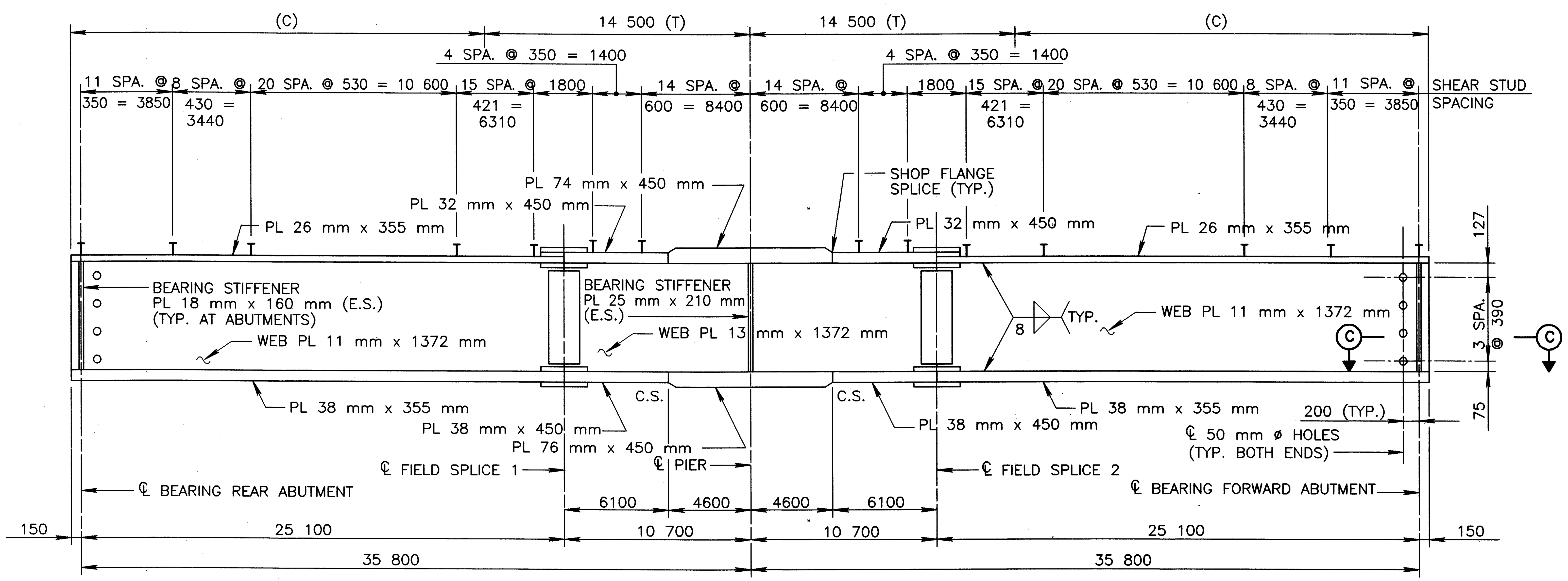
DESIGNED	CHECKED
HK	RHW

PIER DETAILS
BRIDGE NO. RIC-30-02371
UNDER RELOCATED HORNING ROAD

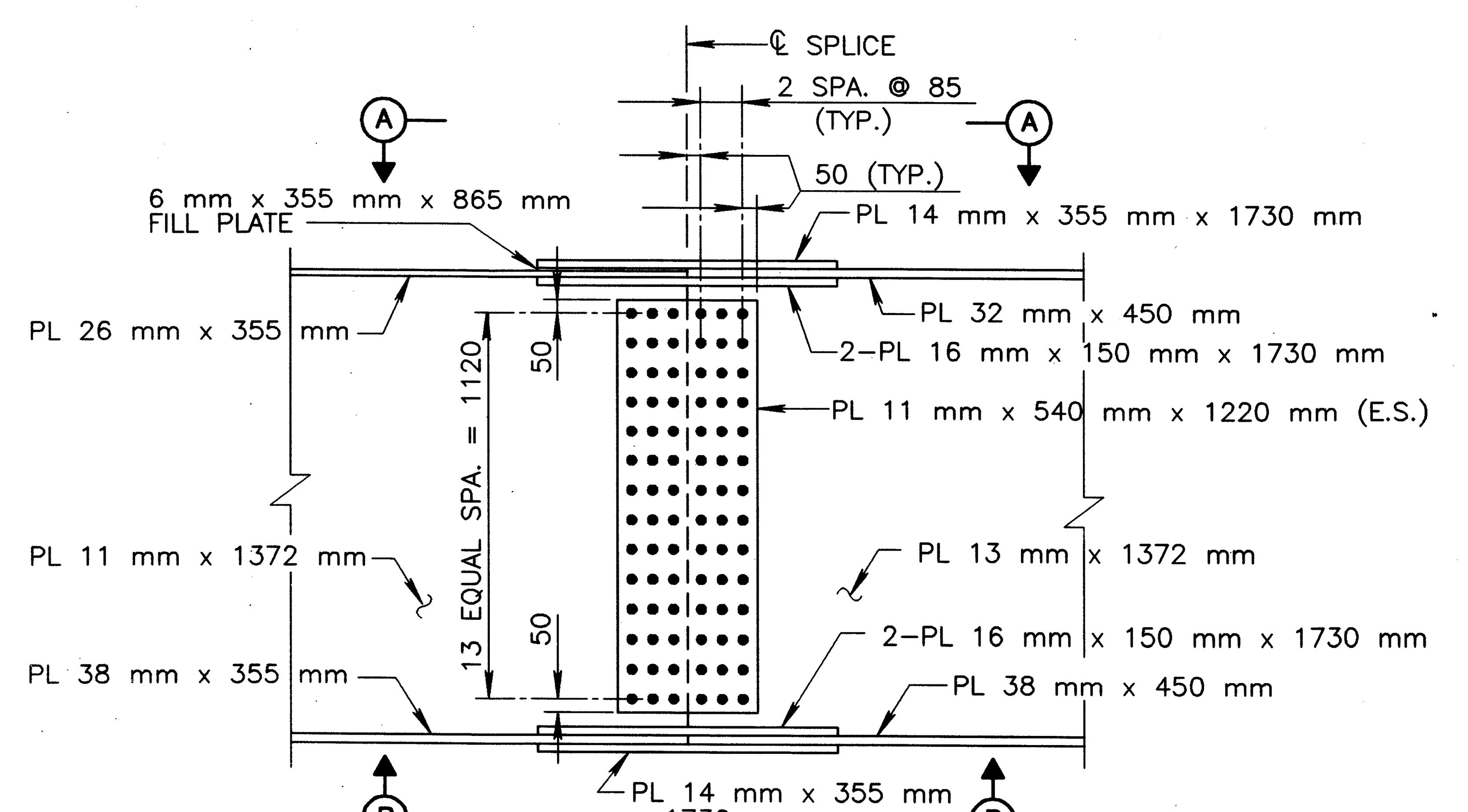
CRA/RIC-30-33.500/0.000



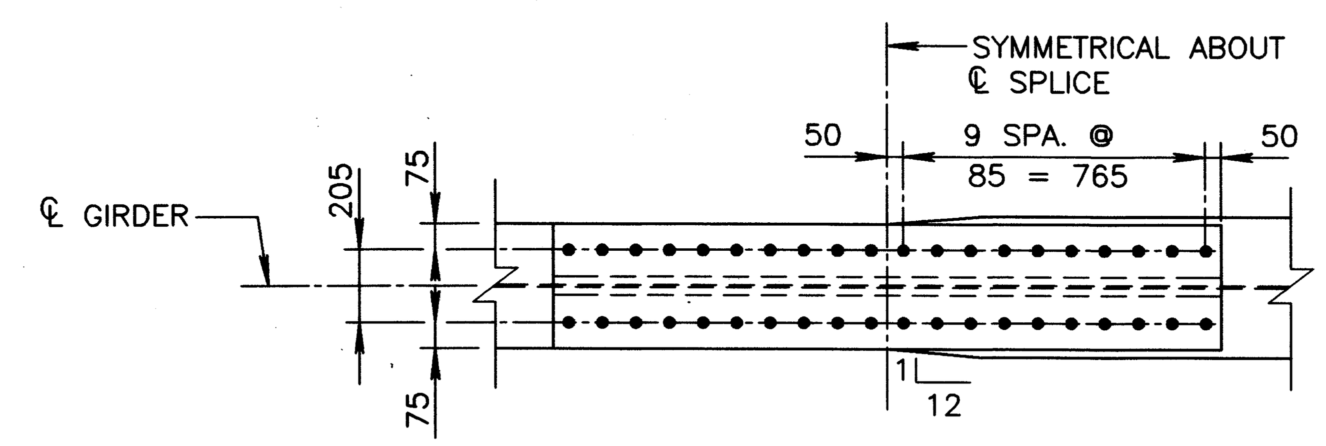
FRAMING PLAN



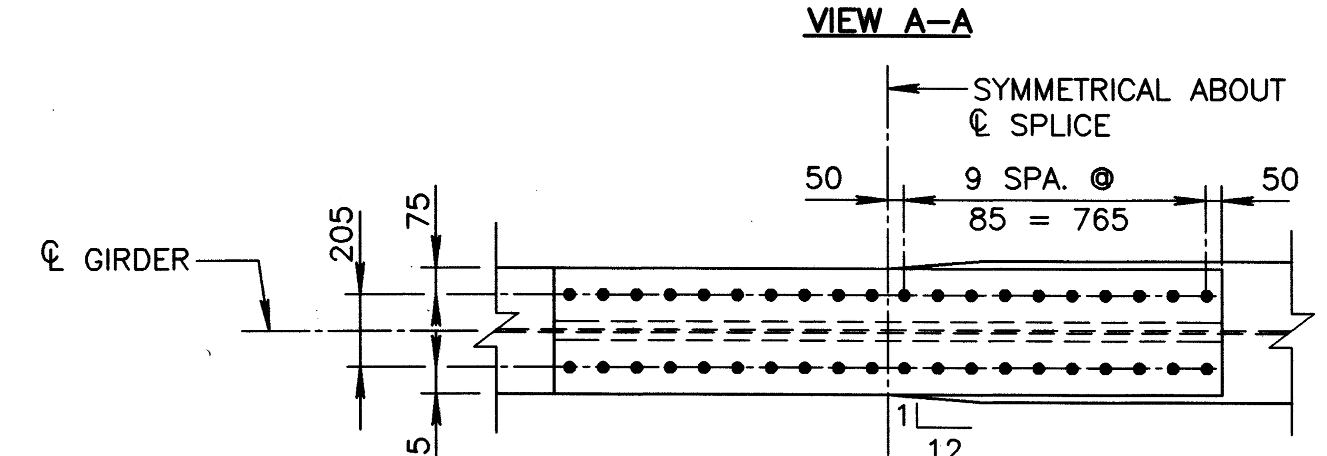
GIRDER ELEVATION



GIRDER SPLICE DETAIL



VIEW A-A



VIEW B-B

FIELD SPLICE DETAILS

LEGEND

(T) DENOTES AREA OF TENSION IN THE TOP FLANGE. THE BOTTOM FLANGE IN THESE AREAS IS IN COMPRESSION.

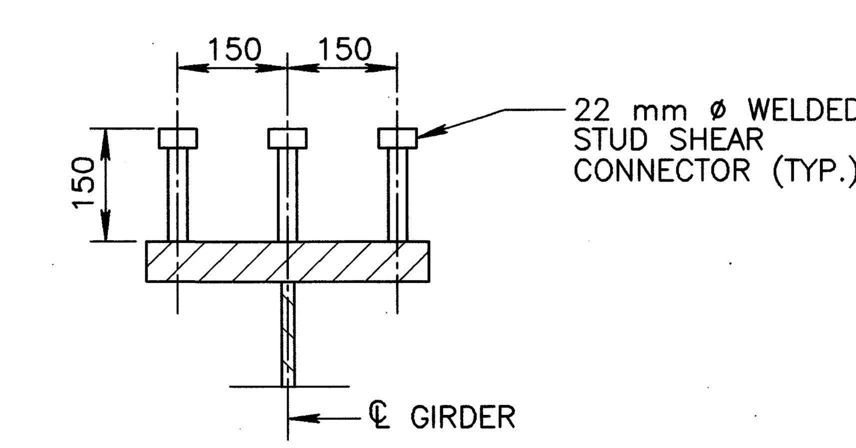
(C) DENOTES AREA OF COMPRESSION IN THE TOP FLANGE. THE BOTTOM FLANGE IN THESE AREAS IS IN TENSION.

C.S. INDICATES BUTT WELD IS SUBJECT TO COMPRESSIVE STRESS ONLY.

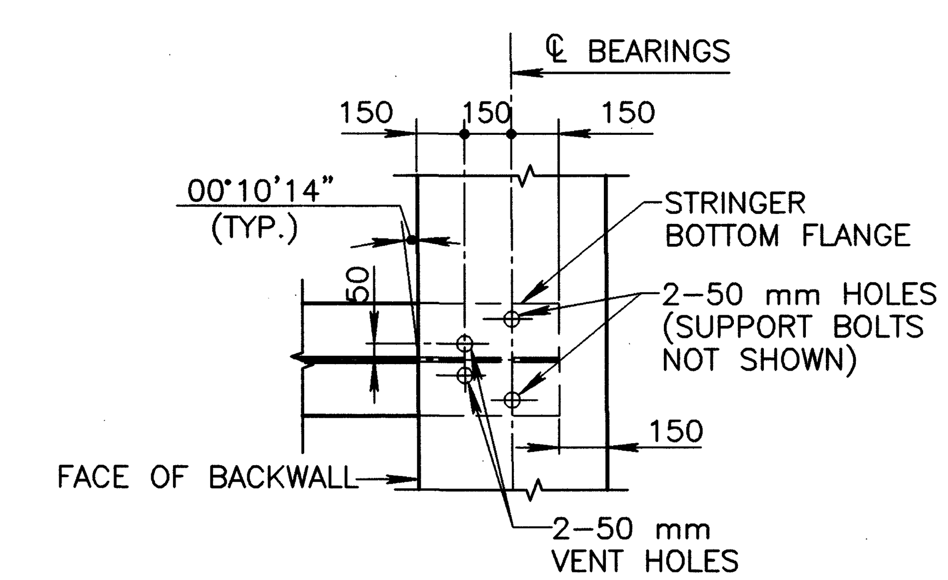
metric units

NOTES

1. ALL STRUCTURAL STEEL SHALL BE A572M PAINTED, UNLESS OTHERWISE NOTED.
2. ALL FLANGE, WEB AND SPLICE PLATES SHALL BE DESIGNATED (CVN).
3. WHERE A SHAPE OR PLATE IS DESIGNATED (CVN) THE MATERIAL SHALL MEET SPECIFIED MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
4. ALL FIELD SPLICES SHALL BE MADE WITH 25 mm DIAMETER HIGH STRENGTH BOLTS CONFORMING TO A325M. THE BOLTS SHALL BE PLACED WITH THEIR HEADS ON THE OUTSIDE FACE OF EXTERIOR GIRDERS AND ON THE BOTTOM OF BOTTOM FLANGES AND ON THE TOP OF TOP FLANGES.
5. BEARING STIFFENERS SHALL BE PLACED IN PAIRS ON ALL GIRDERS. FOR DETAILS, SEE STANDARD DRAWING GSD-1-96M, SHEET 2 OF 3.
6. ALL CROSSFRAMES ARE SET PERPENDICULAR TO GIRDERS.
7. FOR INTERMEDIATE CROSSFRAME DETAILS, SEE STANDARD DRAWING GSD-1-96M, SHEET 1 OF 3. (TYPE 3)
8. FOR TRANSVERSE SECTION, SEE SHEET 10/13.
9. FOR ELASTOMERIC BEARING DETAILS, SEE SHEET 12/13.
10. WELDED ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE MAY BE MADE TO AREAS OF THE FASCIA GIRDER FLANGES DESIGNATED "COMPRESSION". ATTACHMENTS SHALL NOT BE MADE TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE NOT CLOSER THAN 25 mm FROM EDGE OF FLANGE, BE NOT MORE THAN 50 mm LONG, AND BE NOT SMALLER THAN THE MINIMUM SIZE REQUIRED BY AASHTO.
11. BUTT WELDS AT SHOP SPLICES SHALL BE COMPLETE PENETRATION WELDS. WELD REINFORCEMENT SHALL BE GROUND IN THE DIRECTION PARALLEL TO THE MAIN STRESSES.



SHEAR STUD CONNECTOR DETAIL



SECTION C-C

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

REVIEWED LBD | DATE 9-15-98 | STRUCTURE FILE NUMBER 7000960

DRAWN MAT | REVISED

DESIGNED RHW | CHECKED HK

FRAMING PLAN AND GIRDER DETAILS
BRIDGE NO. RIC-30-02371
UNDER RELOCATED HORNING ROAD

CRA/RIC-30-33.500/0.000

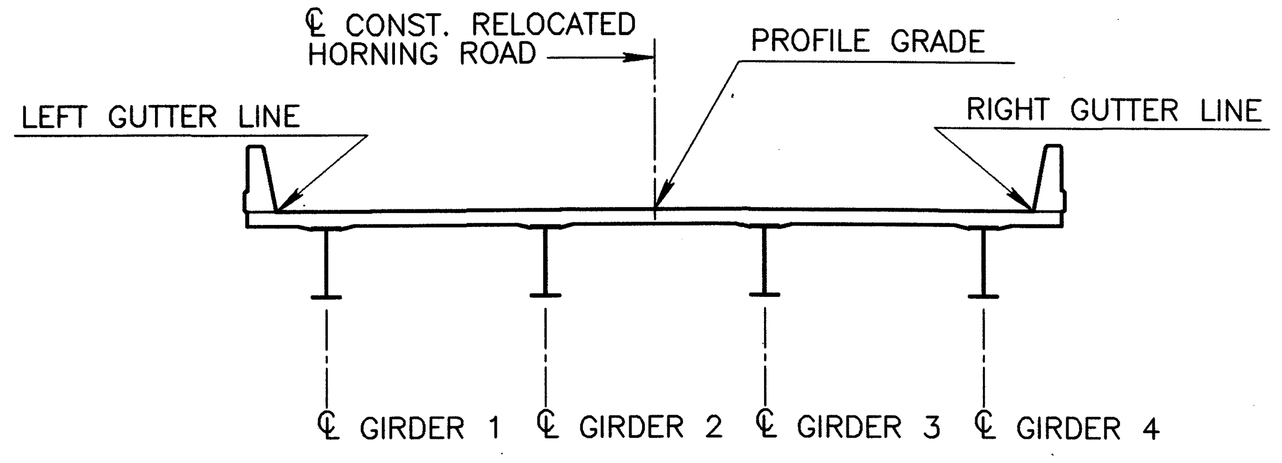
SCREED ELEVATIONS

POINT	PROFILE GRADE	LEFT GUTTER LINE	GIRDER 1	GIRDER 2	GIRDER 3	GIRDER 4	RIGHT GUTTER LINE
℄ BRG. REAR ABUT.	386.851	386.769	386.776	386.826	386.826	386.776	386.769
.1	386.890	386.806	386.813	386.865	386.865	386.814	386.806
.2	386.922	386.836	386.844	386.897	386.897	386.844	386.836
.3	386.947	386.860	386.868	386.922	386.922	386.868	386.861
.4	386.963	386.875	386.883	386.938	386.938	386.883	386.876
.5	386.970	386.883	386.891	386.945	386.945	386.891	386.883
.6	386.970	386.884	386.892	386.945	386.945	386.892	386.884
.7	386.965	386.880	386.887	386.940	386.940	386.887	386.880
℄ FIELD SPLICE 1	386.965	386.880	386.887	386.940	386.940	386.887	386.880
.8	386.958	386.875	386.882	386.933	386.933	386.882	386.875
.9	386.952	386.871	386.878	386.928	386.928	386.878	386.871
℄ PIER	386.950	386.868	386.876	386.925	386.925	386.876	386.868
.1	386.952	386.870	386.877	386.927	386.927	386.877	386.870
.2	386.956	386.874	386.881	386.931	386.931	386.881	386.874
℄ FIELD SPLICE 2	386.963	386.878	386.886	386.938	386.938	386.885	386.878
.3	386.963	386.878	386.885	386.938	386.938	386.885	386.878
.4	386.967	386.882	386.889	386.943	386.942	386.889	386.882
.5	386.967	386.880	386.887	386.942	386.942	386.887	386.880
.6	386.959	386.872	386.879	386.934	386.934	386.879	386.871
.7	386.942	386.856	386.863	386.918	386.918	386.863	386.856
.8	386.917	386.831	386.838	386.892	386.892	386.838	386.831
.9	386.884	386.800	386.808	386.859	386.859	386.807	386.800
℄ BRG. FWD. ABUT.	386.844	386.763	386.770	386.819	386.819	386.770	386.762

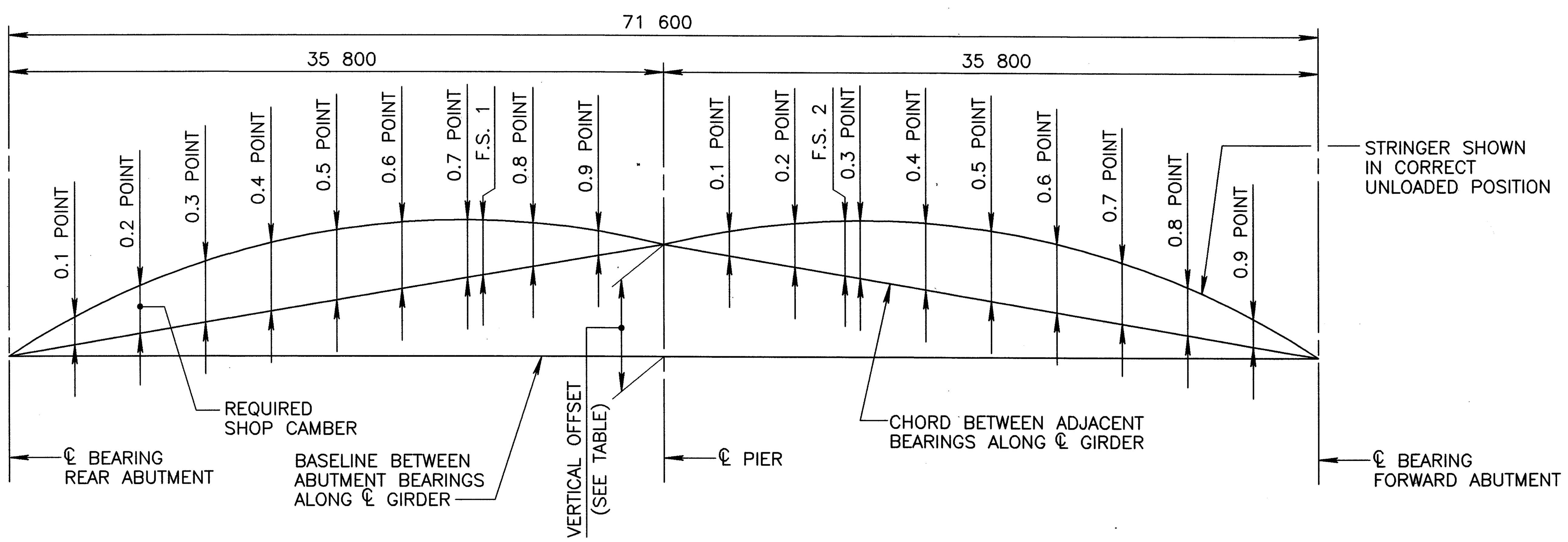
metric units

NOTES

① SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.



SCREED LOCATION KEY



CAMBER DIAGRAM

VERTICAL OFFETS AT PIER

LOCATION	OFFSET
GIRDER 1	103
GIRDER 2	103
GIRDER 3	103
GIRDER 4	103

DEFLECTION AND CAMBER TABLE

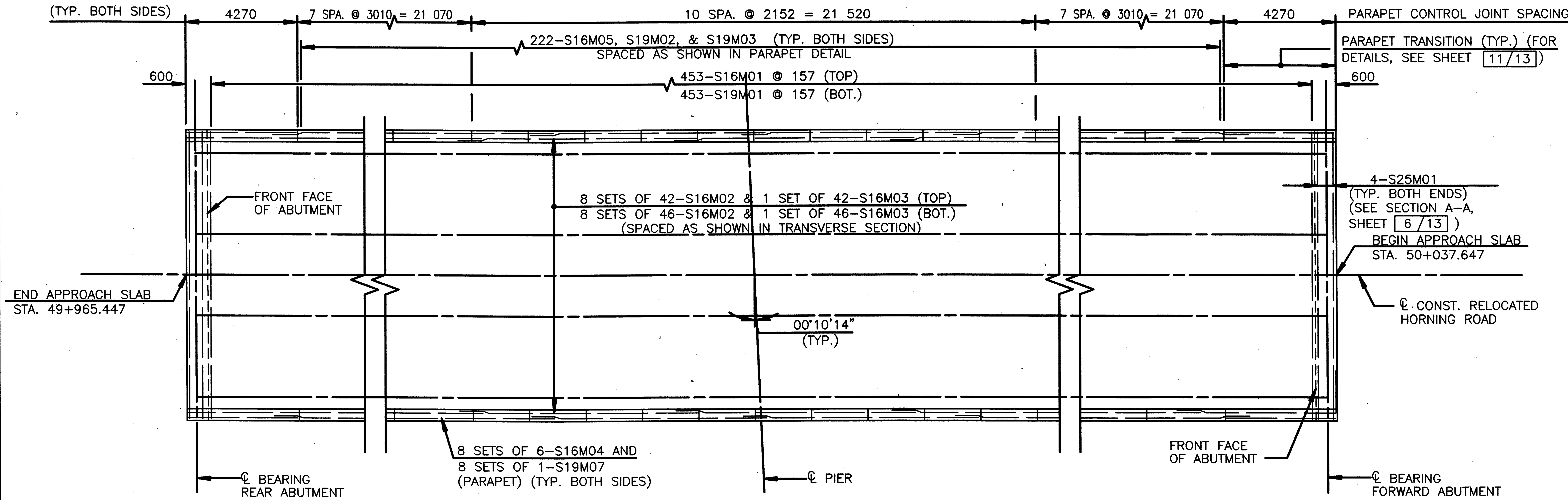
		SPAN 1										SPAN 2									
GIRDERS 1 & 4	POINTS	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	F.S. 1	0.8 PT.	0.9 PT.	0.1 PT.	0.2 PT.	F.S. 2	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.
	DEFLECTION DUE TO WEIGHT OF STEEL	3	6	7	8	7	6	4	4	2	1	1	2	4	4	6	7	8	7	6	3
	DEFLECTION DUE TO REMAINING DEAD LOAD	18	31	40	42	39	31	20	20	10	3	3	10	20	20	31	39	42	40	31	18
	ADJUSTMENT REQUIRED FOR VERTICAL CURVE	9	17	22	25	26	25	21	21	16	9	9	16	22	21	24	25	25	21	16	9
	REQUIRED SHOP CAMBER	30	54	69	75	72	62	45	.45	28	13	13	28	46	45	61	71	75	68	53	30
GIRDERS 2 & 3	POINTS	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	F.S. 1	0.8 PT.	0.9 PT.	0.1 PT.	0.2 PT.	F.S. 2	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.
	DEFLECTION DUE TO WEIGHT OF STEEL	3	6	7	8	7	6	4	4	2	1	1	2	4	4	6	7	8	7	6	3
	DEFLECTION DUE TO REMAINING DEAD LOAD	20	35	45	48	44	35	23	23	11	3	3	11	23	23	35	44	48	45	35	20
	ADJUSTMENT REQUIRED FOR VERTICAL CURVE	9	16	21	24	25	25	22	22	17	10	10	16	22	22	25	26	25	22	17	9
	REQUIRED SHOP CAMBER	32	57	73	80	76	66	49	49	30	14	14	29	49	49	66	77	81	74	58	32

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

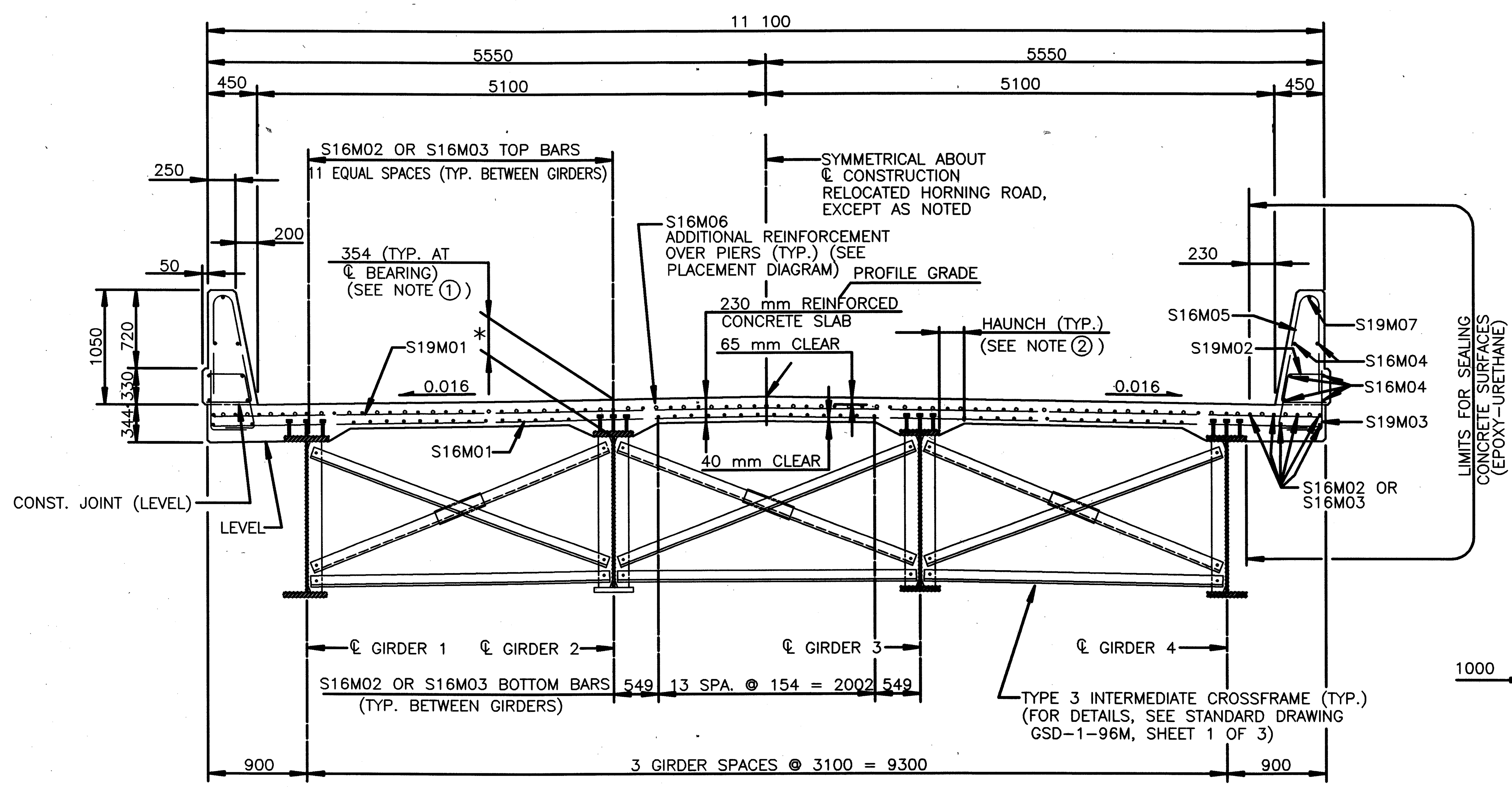
REVIEWED LBD DATE 8-14-00
STRUCTURE FILE NUMBER 7000960
DRAWN WEB REVISED
DESIGNED RHW CHECKED MAT

SCREED ELEVATIONS AND DEFLECTION AND CAMBER TABLES
BRIDGE NO. RIC-30-02371
UNDER RELOCATED HORNING ROAD

CRA/RIC-30-33.500/0.000



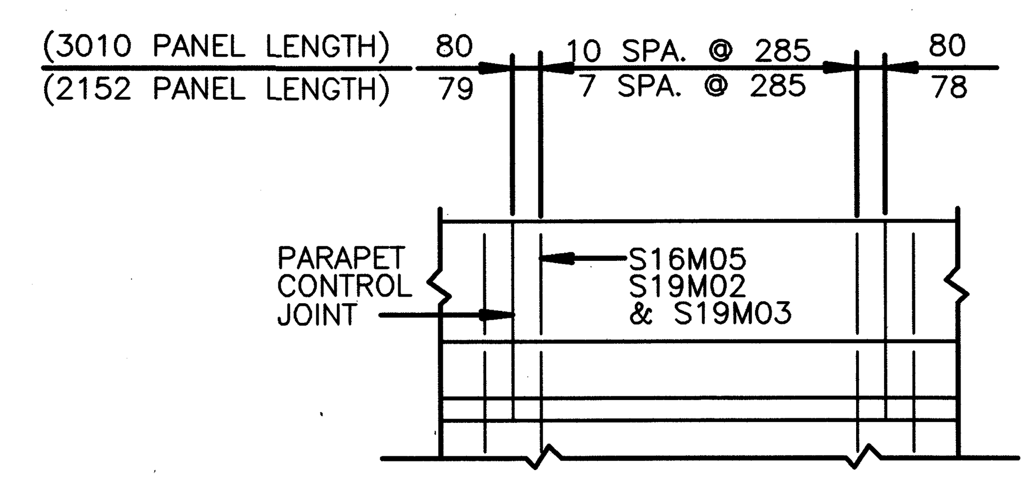
SLAB PLAN



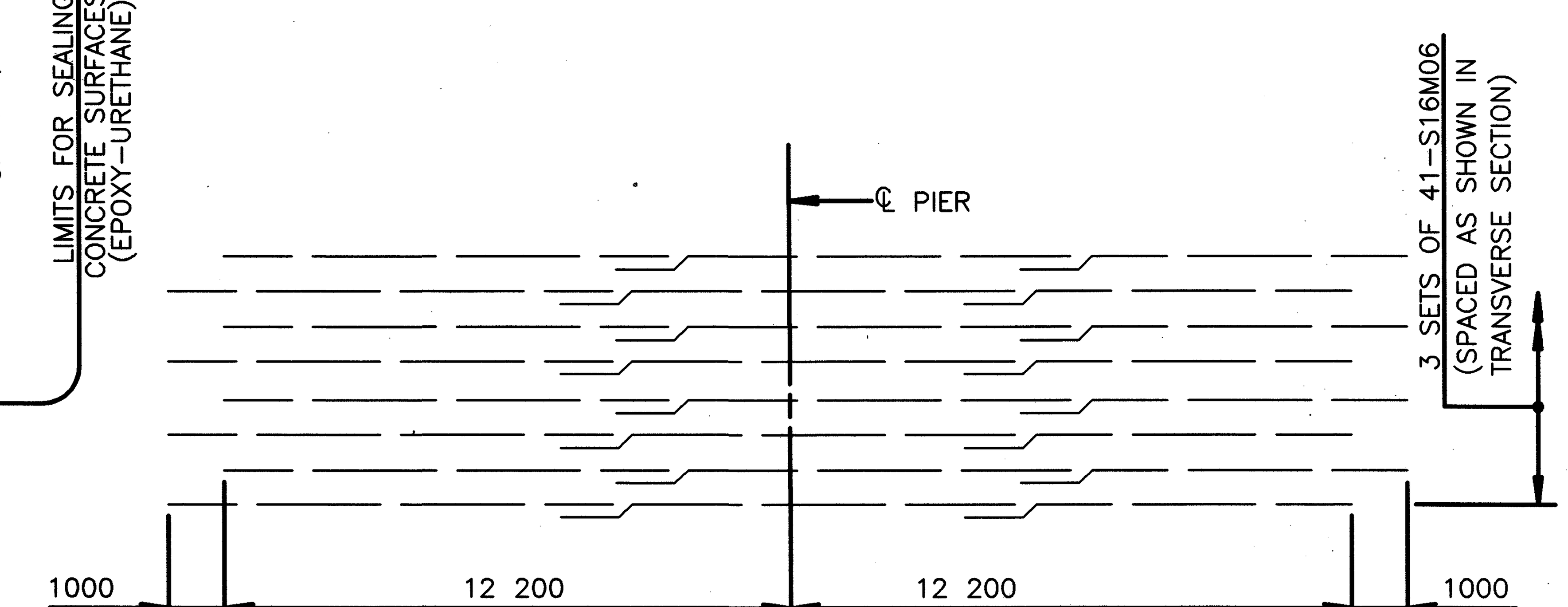
TRANSVERSE SECTION

NOTES

1. *DECK SLAB DEPTH: THE DISTANCE SHOWN FROM THE TOP OF THE DECK SLAB TO THE BOTTOM OF THE TOP FLANGE IS THE THEORETICAL DESIGN DIMENSION INCLUDING THE DESIGN HAUNCH THICKNESS OF 50 mm. THE QUANTITY OF DECK CONCRETE TO BE PAID FOR SHALL BE BASED UPON THIS DIMENSION, MINUS THE DESIGN HAUNCH THICKNESS, EVEN THOUGH DEVIATION FROM IT MAY BE NECESSARY BECAUSE THE TOP FLANGE OF THE GIRDER MAY NOT HAVE THE EXACT CAMBER OR CONFORMATION REQUIRED TO PLACE IT PARALLEL TO THE FINISHED GRADE. DEDUCTION SHALL BE MADE FOR VOLUME OF ENCASED STEEL PLATES AS PER 842.18.
2. A HAUNCH WIDTH OF 225 mm SHALL BE USED FOR COMPUTING QUANTITY OF CONCRETE. HOWEVER, THE HAUNCH WIDTH MAY VARY BETWEEN 150 mm AND 300 mm.
3. MINIMUM LAP UNLESS OTHERWISE NOTED:
   16M BARS = 890 mm
   19M BARS = 1040 mm
   25M BARS = 1500 mm
4. FOR SCREED ELEVATIONS, SEE SHEET 9/13.
5. FOR PARAPET CONTROL JOINT DETAILS AND NOTES, SEE STANDARD DRAWING SBR–1–99M.



PARAPET DETAIL



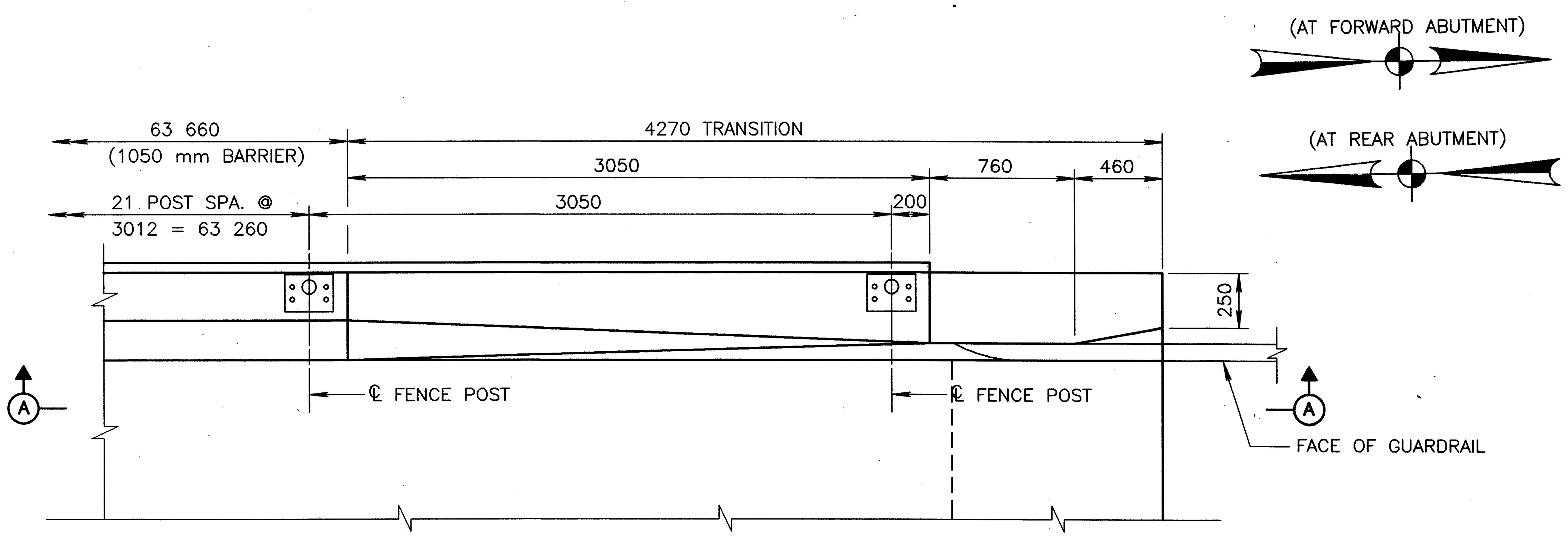
PLACEMENT OF ADDITIONAL REINFORCEMENT OVER PIER

DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

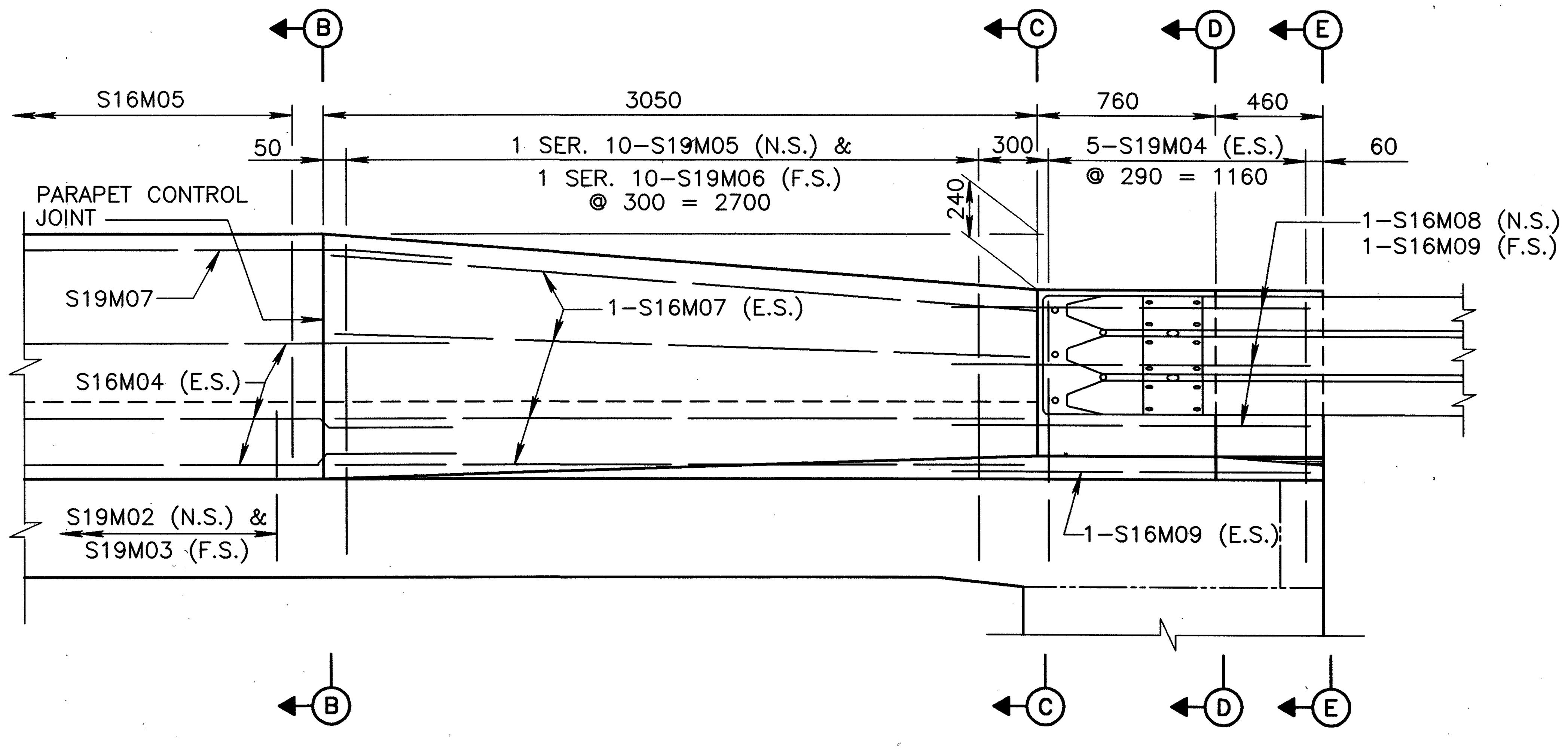
DESIGNED	CHECKED	DRAWN	REVISED	REVIEWED	DATE	STRUCTURE FILE NUMBER
HK	RHW	MAT	12-8-00	LBD	8-14-00	7000960

SLAB PLAN AND TRANSVERSE SECTION
BRIDGE NO. RIC-30-02371 UNDER RELOCATED HORNING ROAD

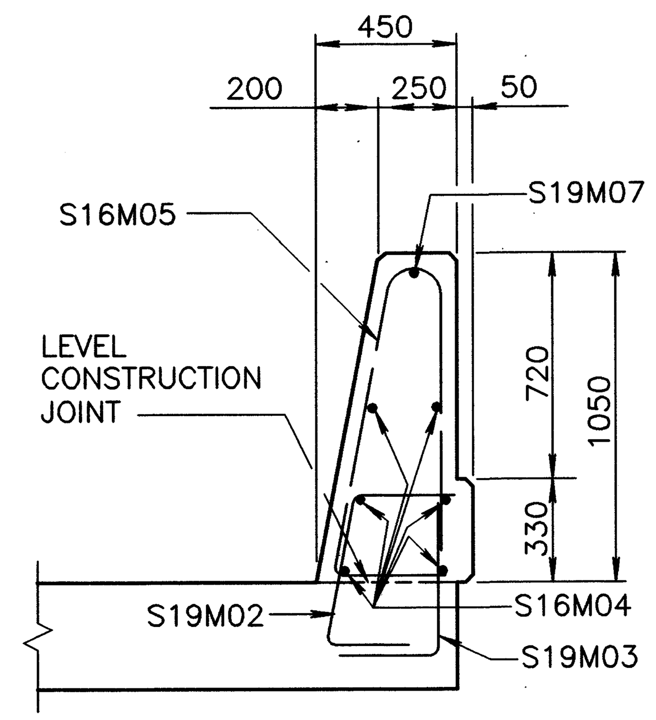
CRA/RIC-30-33.500/0.000



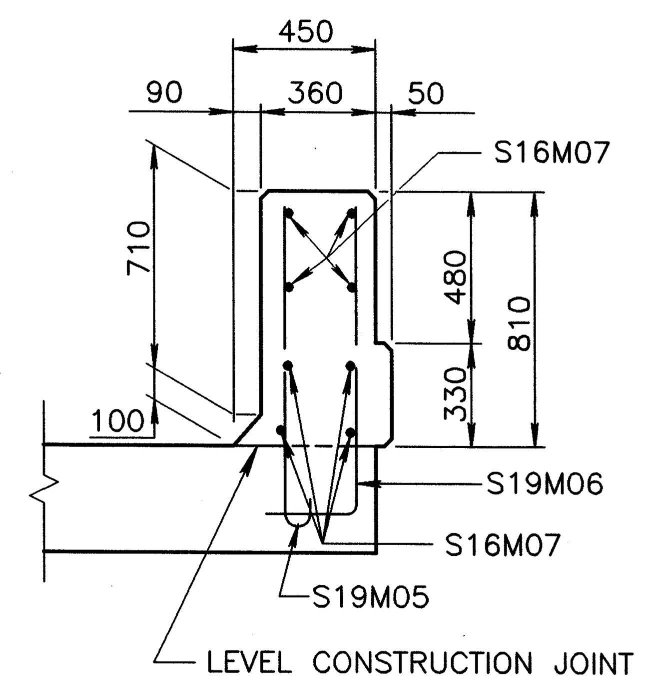
PARAPET TRANSITION PLAN
(RIGHT REAR AND LEFT FORWARD PARAPET TRANSITION SHOWN, LEFT REAR AND RIGHT FORWARD PARAPET TRANSITION SIMILAR)



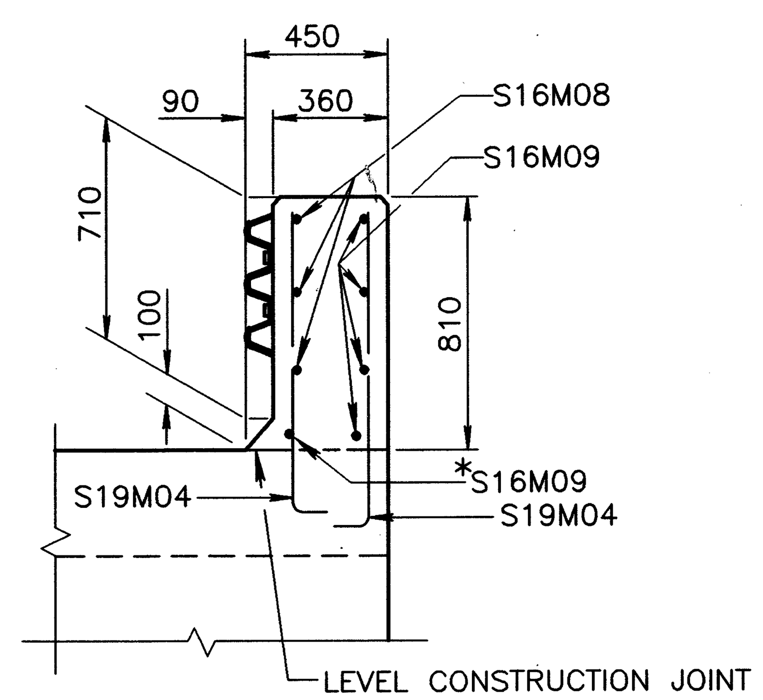
SECTION A–A
(FENCE NOT SHOWN)



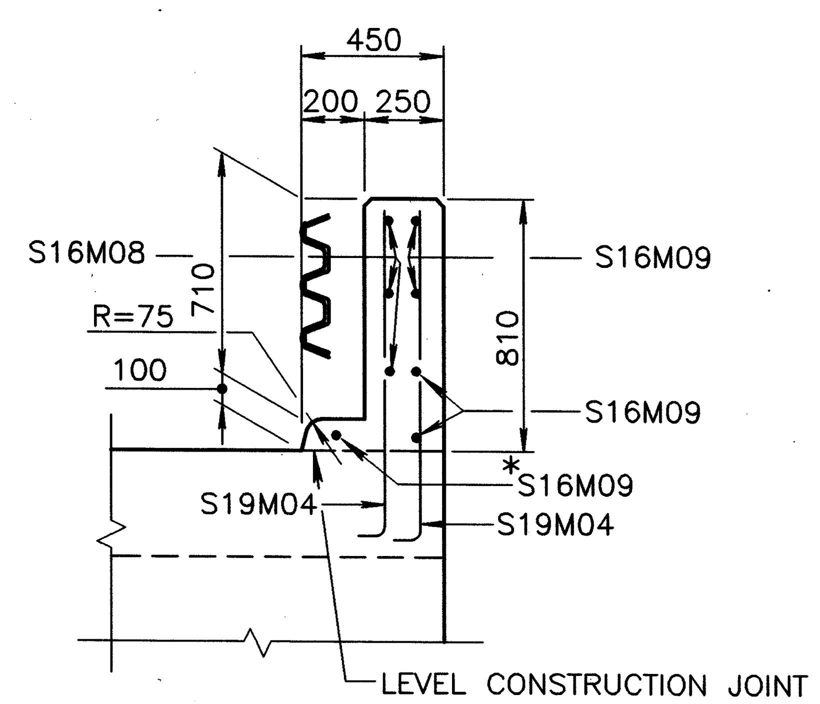
SECTION B–B



SECTION C–C



SECTION D–D



SECTION E–E

* FIELD BEND AS REQUIRED.

metric units

NOTES

1. FOR SLAB PLAN AND ADDITIONAL NOTES, SEE SHEET 10/13.
2. MINIMUM LAP – 16M BARS = 890 mm

LEGEND

N.S. DENOTES NEAR SIDE
F.S. DENOTES FAR SIDE
E.S. DENOTES EACH SIDE

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

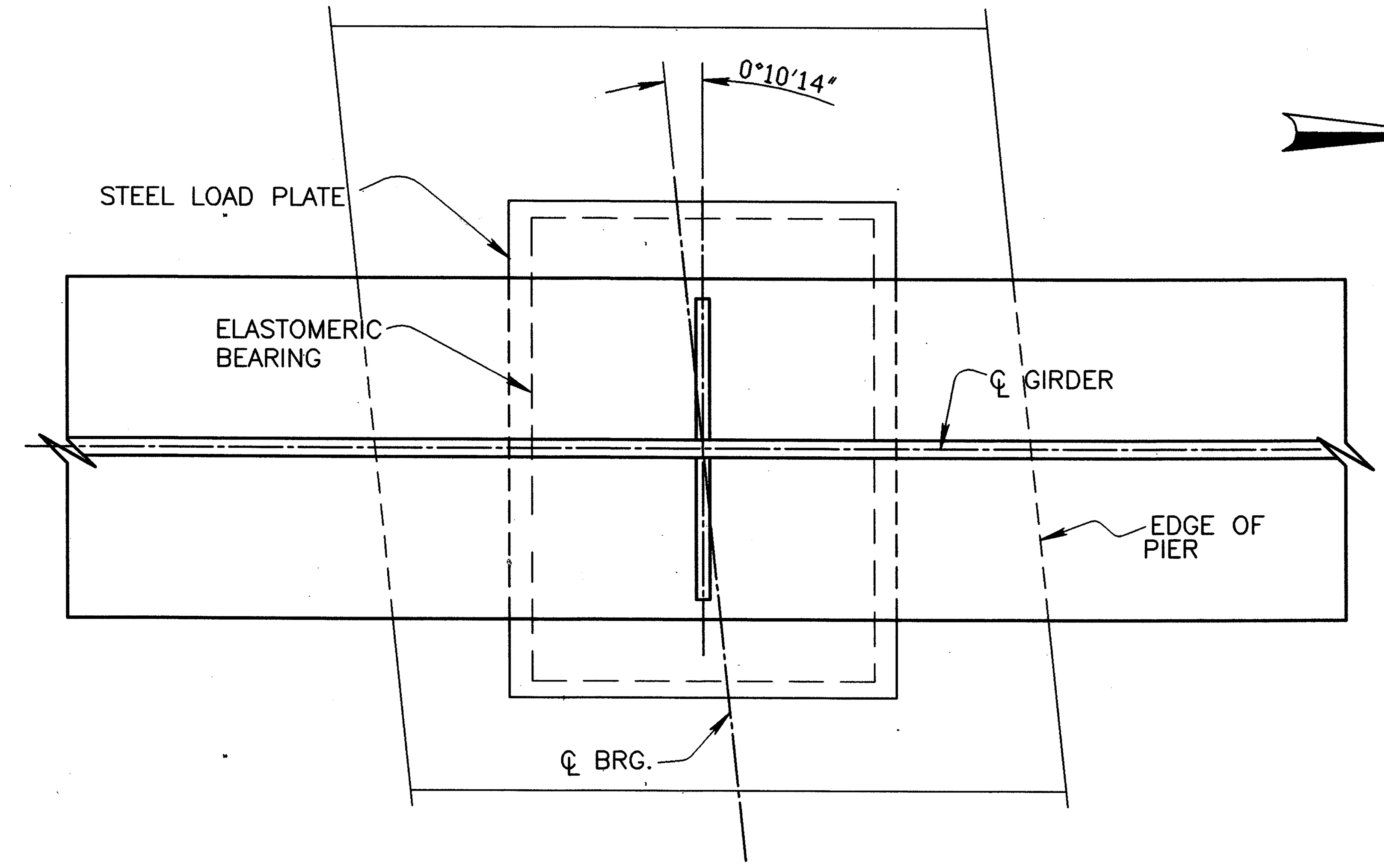
REVIEWED LBD | DATE 8-14-00 | STRUCTURE FILE NUMBER 7000960

DRAWN MAT | REVISED

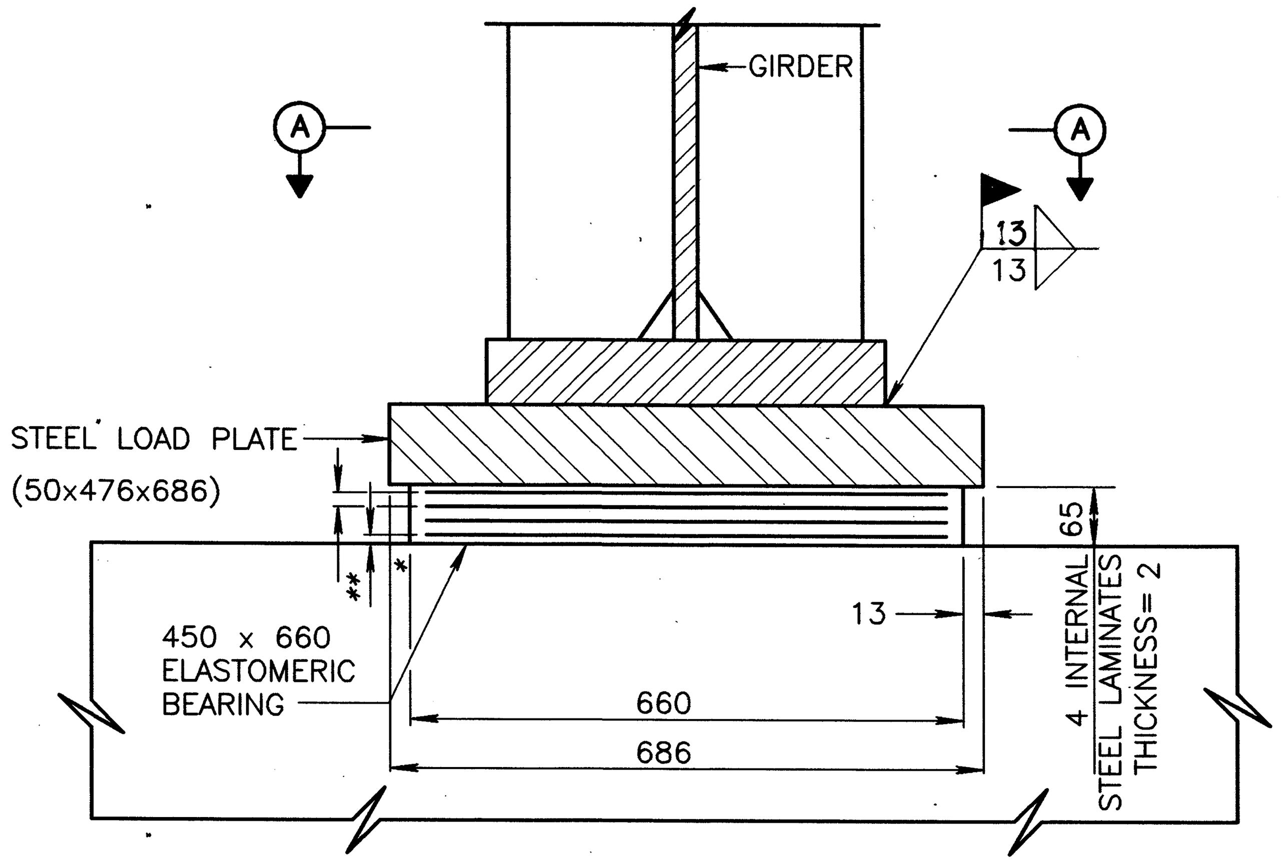
DESIGNED HK | CHECKED RHW

PARAPET DETAILS
BRIDGE NO. RIC-30-02371
UNDER RELOCATED HORNING ROAD

CRA/RIC-30-33.500/0.000



VIEW A–A



PIER BEARINGS

DEAD LOAD REACTION = 1550 kN
LIVE LOAD REACTION = 520 kN
TOTAL DESIGN LOAD = 2070 kN

* t_i = 13.0 (TYP.) 3 LAYERS
** t_e = 9.0

NOTES

(1) STEEL LOAD PLATE SHALL BE ASTM A572M AND INCLUDED WITH ITEM 516, ELASTOMERIC BEARING, FOR PAYMENT.

(2) ELASTOMERIC BEARINGS SHALL COMPLY WITH ITEM 516 AND AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, SECTION 18, BEARING DEVICES, DIVISION II, CONSTRUCTION. ARTICLES 18.4.5.1 AND 18.5.6.2 BEARINGS SHALL BE GRADE 3, 50 DUROMETER ELASTOMER, AND SHALL BE SUBJECTED TO THE LOAD TESTING REQUIREMENTS DEFINED IN ARTICLE 18.7.4.5 OF THE AASHTO DOCUMENT LISTED ABOVE. BEARINGS WERE DESIGNED UNDER SECTION 14.6.6 OF SECTION 14, BEARINGS DIVISION I, DESIGN. TESTING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BEARINGS, EACH.

(3) WELDING SHALL BE CONTROLLED SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 150° C AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

(4) BASIS OF PAYMENT: THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS, LABOR TESTING, ANCHOR RODS, RETAINERS AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS. PAYMENT WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 516, EACH, ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) :

450 mm x 660 mm x 65.0 mm WITH 476 mm x 686 mm x 50 mm LOAD PLATE.

metric units

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

REVIEWED LBD DATE 8-14-00
STRUCTURE FILE NUMBER 7000960

DRAWN RHW REVISED

DESIGNED RHW CHECKED HK

BEARING DETAILS
BRIDGE NO. RIC-30-02371
UNDER RELOCATED HORNING ROAD

CRA/RIC-30-33.500/0.000

REINFORCING SCHEDULE

MARK	NO. REQ'D	LENGTH	TYPE	LOCATION REAR	LOCATION FWD.	DIMENSIONS A	DIMENSIONS B	DIMENSIONS C	DIMENSIONS D	INCRM.
ABUTMENTS										
A13M01	54	2660	14	27	27	740	515			
A16M01	24	9840	ST	12	12					
A16M02	88	3240	14	44	44	770	770			
A16M03	52	2840	2	26	26	600	1160			
A16M04	4	3490	2	2	2	600	1485			
A16M05	4	3950	2	2	2	600	1715			
SERIES A16M06	4 SET OF 5	4450 TO 6310	2	2 SETS OF 5	2 SETS OF 5	600	1965 TO 2895			233
A16M07	4	6810	2	2	2	600	3145			
A16M08	4	7210	2	2	2	600	3345			
A16M09	8	3430	ST	4	4					
SERIES A16M10	8 SET OF 4	1020 TO 3230	ST	4 SET OF 4	4 SET OF 4					737
A16M11	8	3865	10	4	4	180	1757	3236		
A16M12	36	1120	2	18	18	600	300			
A19M01	76	3100	35	38	38					
A25M01	16	10 150	ST	8	8					
A25M02	16	10 445	ST	8	8					
D25M01	50	1489	13	25	25	788	431	305		
SA16M01	8	11 540	ST	4	4					
SA19M01	152	3040	2	76	76	600	1270			
SA19M02	72	1915	2	36	36	375	820			
SA19M03	4	2140	2	2	2	600	820			
SA25M01	16	11 540	ST	8	8					

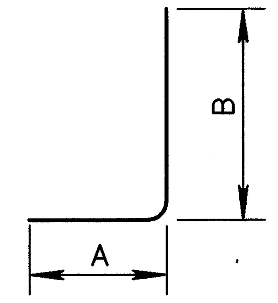
REINFORCING SCHEDULE

MARK	NO. REQ'D	LENGTH	TYPE	DIMENSIONS A	DIMENSIONS B	DIMENSIONS C	DIMENSIONS D	INCRM.
PIER								
P16M01	10	10 400	ST					
P16M02	10	2385	2	965	750			
P16M03	24	2685	2	815	875			
P16M04	56	2485	2	540	875			
SERIES P16M05	8 SETS OF 3	2210 TO 2160	2	540	850 TO 875			13
P16M06	4	2375	2	815	820			
P16M07	28	1715	2	815	490			
P19M01	12	2385	7	890	732	139	800	
P29M01	72	3610	5	2850				
P32M01	30	3190	1	555	2735			
P32M02	30	6060	ST					
P32M03	6	8900	ST					
P32M04	5	9080	1	555	8625			
P32M05	5	5080	1	555	4625			
SP13M01	3	5110	52	765	115			
SUPERSTRUCTURE								
S16M01	453	11 000	ST					
S16M02	704	9144	ST					
S16M03	88	6070	ST					
S16M04	96	8970	ST					
S16M05	444	2205	9	900	950	320		
S16M06	123	9060	ST					
S16M07	32	3050	ST					
S16M08	12	1680	50					
S16M09	20	1680	ST					
S19M01	453	11 000	ST					
S19M02	444	1010	15	470	320	320		
S19M03	444	740	1	320	470			
S19M04	40	1025	1	125	950			
SERIES S19M05	4 SETS OF 10	1155 TO 1380	4	950 TO 1175				25
SERIES S19M06	4 SETS OF 10	1150 TO 1375	1	250	950 TO 1175			25
S19M07	16	9140	ST					
S25M01	8	11 000	ST					

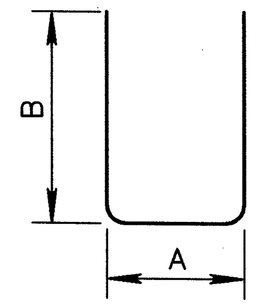
metric units

NOTES

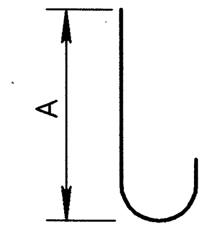
1. ALL REINFORCING STEEL TO BE EPOXY COATED.
2. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST TWO DIGITS INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, A 16M01 IS A 16M BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED.



TYPE 1



TYPE 2



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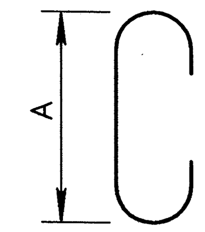

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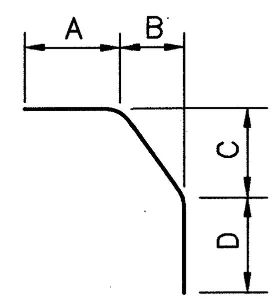
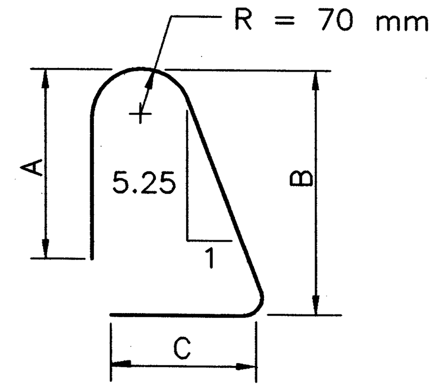
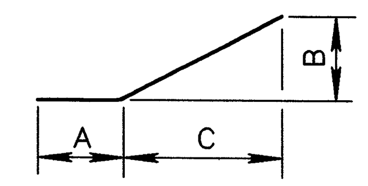


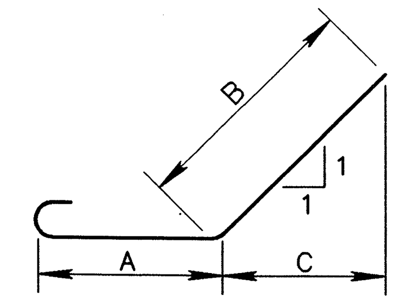
TYPE 7



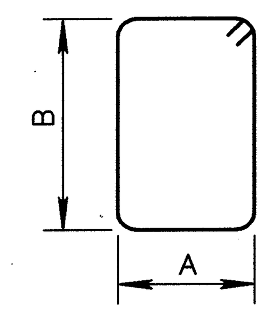
TYPE 9



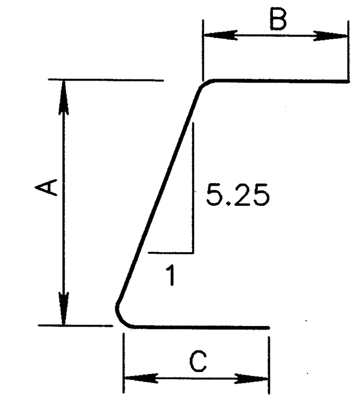
TYPE 10



TYPE 13



TYPE 14



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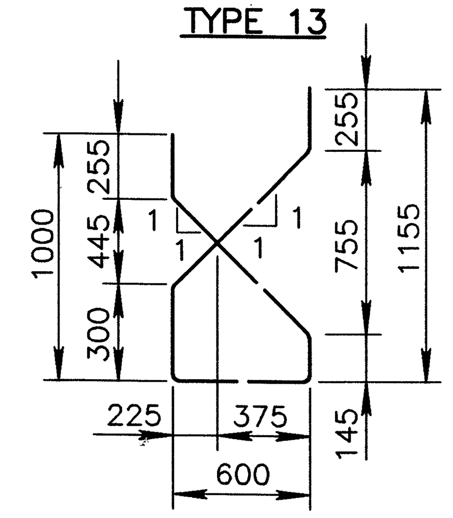

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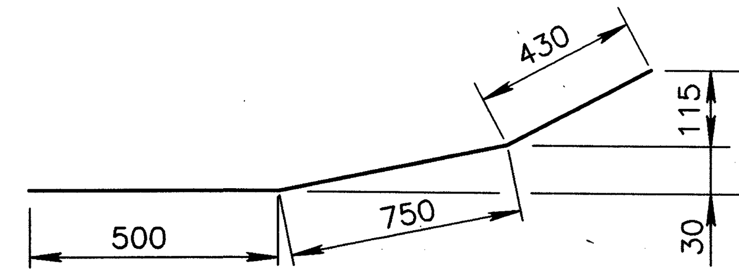
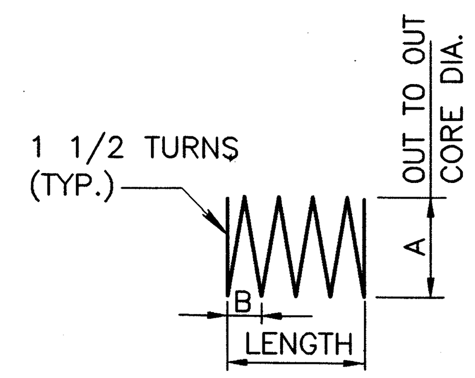


TYPE 50



TYPE 52

SPIRAL REINFORCING BAR SPACERS

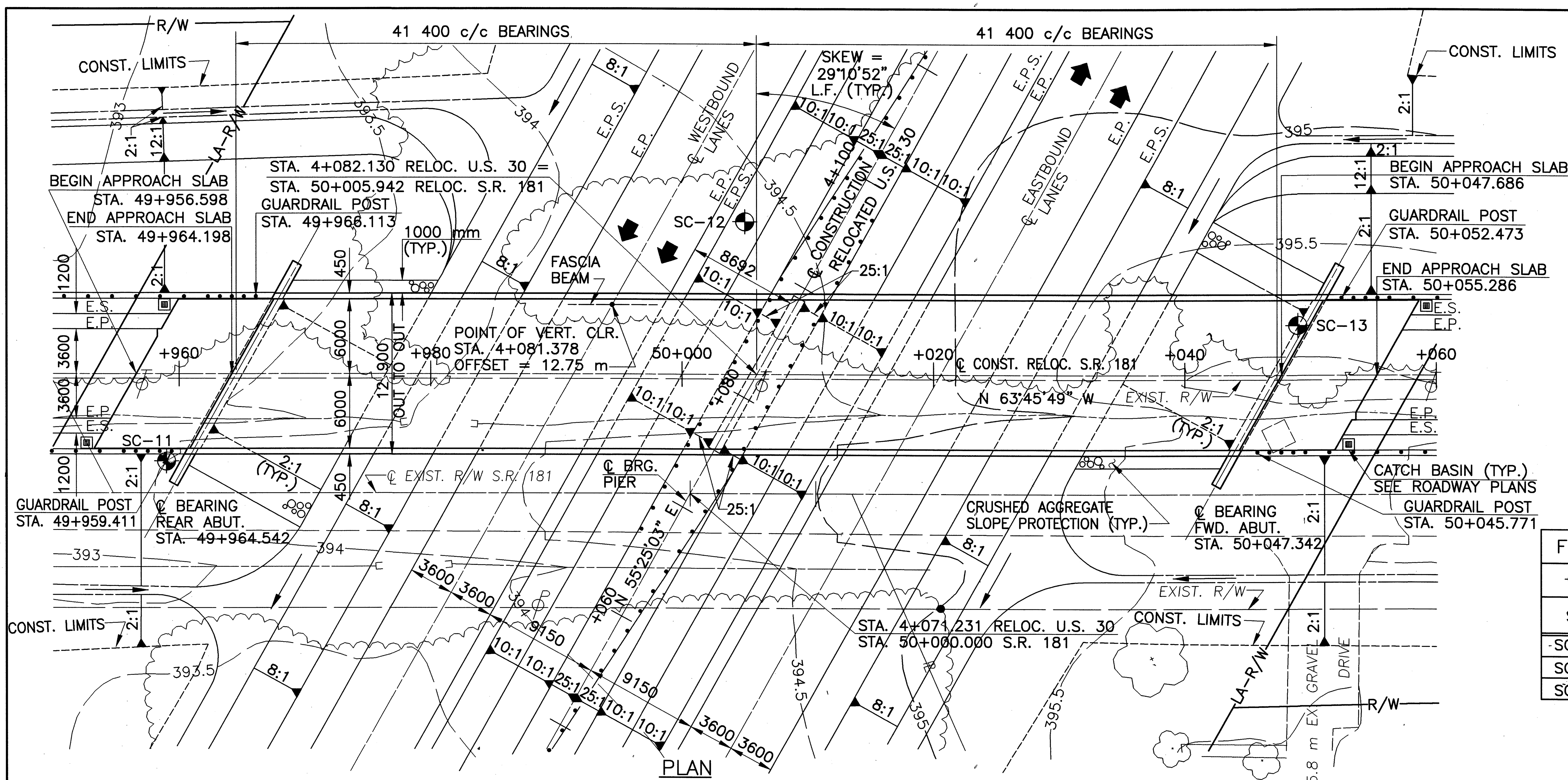
CONCRETE SPACERS OR OTHER APPROVED NONCORROSIVE SPACING DEVICES SHALL BE USED AT SUFFICIENT INTERVALS (NEAR THE BOTTOM AND AT INTERVALS NOT EXCEEDING 3050 mm) TO INSURE CONCENTRIC SPACING FOR THE ENTIRE CAGE LENGTH. SPACERS SHALL BE CONSTRUCTED OF APPROVED MATERIAL EQUAL IN QUALITY AND DURABILITY TO THE CONCRETE SPECIFIED FOR THE SHAFT. THE SPACERS SHALL HAVE ADEQUATE DIMENSIONS TO ENSURE A MINIMUM 75 mm CLEAR SPACE BETWEEN THE OUTSIDE OF THE REINFORCING CAGE AND THE DESIGN DIMENSION OF THE COLUMN. CYLINDRICAL CONCRETE FEET (BOTTOM SUPPORTS) SHALL BE PROVIDED TO ENSURE THAT THE BOTTOM OF THE CAGE IS MAINTAINED AT THE PROPER DISTANCE ABOVE THE BASE.

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

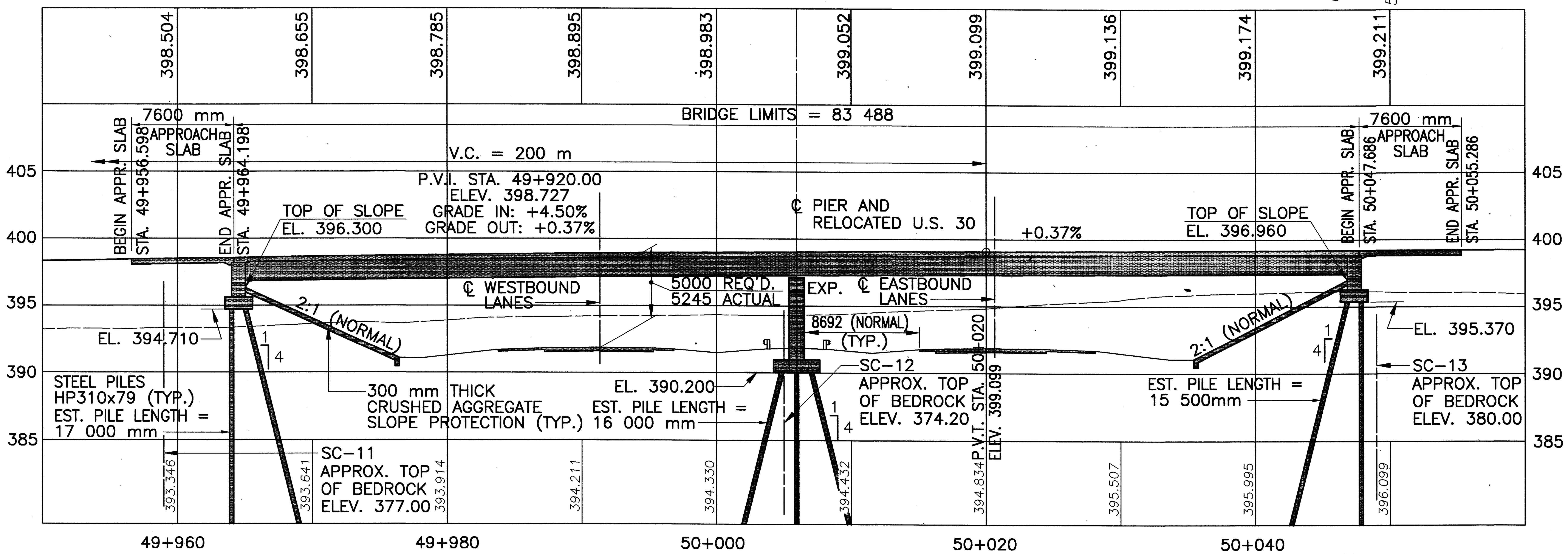
REVIEWED LBD DATE 8-14-00
STRUCTURE FILE NUMBER 7000960
DRAWN MAT REVISED
DESIGNED – CHECKED RHW

REINFORCING SCHEDULE
BRIDGE NO. RIC-30-02371
UNDER RELOCATED HORNING ROAD

CRA/RIC-30-33.500/0.000



PLAN



PROFILE ALONG ℄ CONSTRUCTION RELOCATED S.R. 181

metric units

NOTE

EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

FOUNDATION INVESTIGATION LEGEND

⊕ INDICATES BORING LOCATION

SITE	STATION	OFFSET mm	TOP OF GROUND ELEVATION
SC-11	49+959.0	7000 RT.	393.99
SC-12	50+005.0	12 200 LT.	394.28
SC-13	50+049.0	4000 LT.	395.84

TRAFFIC DATA

DESIGN ADT (2020) = 3500
DESIGN ADTT (2020) = 105

BENCHMARK

EXIST. FENO MONUMENT
STA. 49+872.070,
13.662 m RT.
ELEV. 392.430

BENCHMARK

EXIST. R/W MONUMENT
STA. 50+356.499,
1.002 m LT.
ELEV. 402.502

PROPOSED STRUCTURE

TYPE: 2 SPAN CONTINUOUS A572M PAINTED STEEL GIRDER BRIDGE w/COMPOSITE REINF. CONC. DECK ON CAP & COLUMN PIER AND SEMI-INTEGRAL ABUTMENTS
SPANS: 41 400, 41 400 c/c BEARINGS
ROADWAY: 12 000 T/T PARAPETS
DESIGN LOADING: MS18 CASE II & ALTERNATE MILITARY LOADING
SKEW: 29°-10'-52" L.F.
ALIGNMENT: TANGENT
WEARING SURFACE: MONOLITHIC CONCRETE
APPROACH SLABS: 7600 (AS-1-81M)
CROWN: 0.016
LATITUDE: N 40°46'04"
LONGITUDE: W 82°40'53"

LEGEND:

E.P. EDGE OF PAVEMENT
E.P.S. EDGE OF PAVED SHOULDER
E.S. EDGE OF SHOULDER
TYP. TYPICAL

ALL DIMENSIONS ARE IN MILLIMETERS
ALL ELEVATIONS AND STATIONING ARE IN METERS

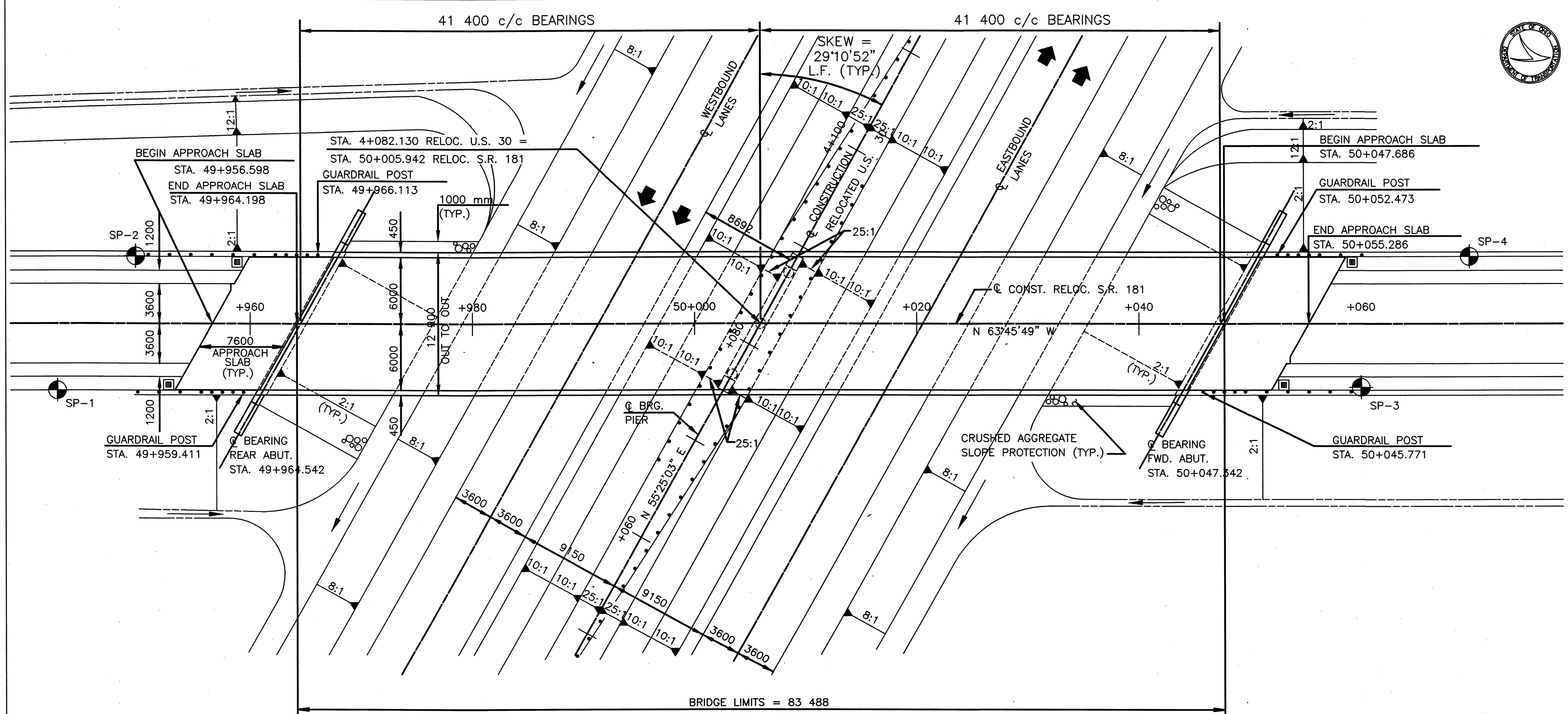
DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

REVIEWED LBD | DATE 8-14-00 | STRUCTURE FILE NUMBER 7001037
DRAWN JSU | REVISED
DESIGNED HK | CHECKED RHW

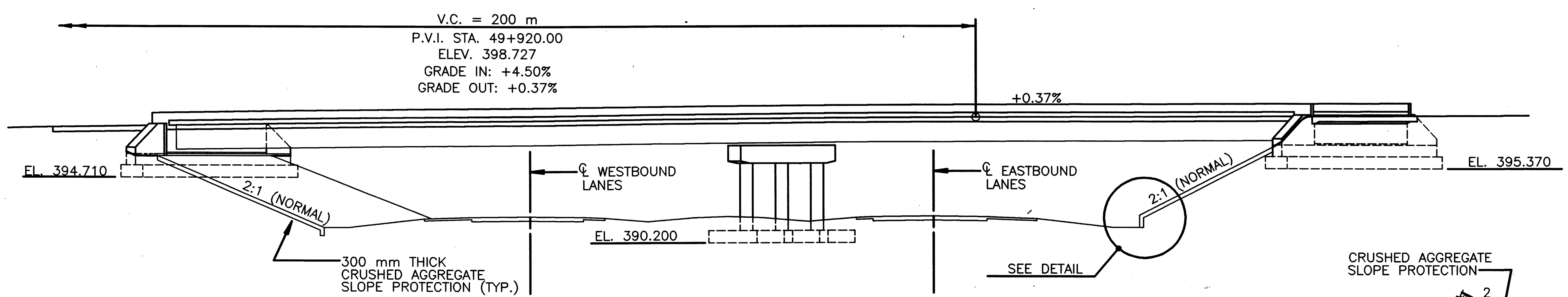
RICHLAND COUNTY
STA. 49+964.198
STA. 50+047.686

SITE PLAN
BRIDGE NO. RIC-30-04075
UNDER RELOCATED STATE ROUTE 181

CRA/RIC-30-33.500/0.000

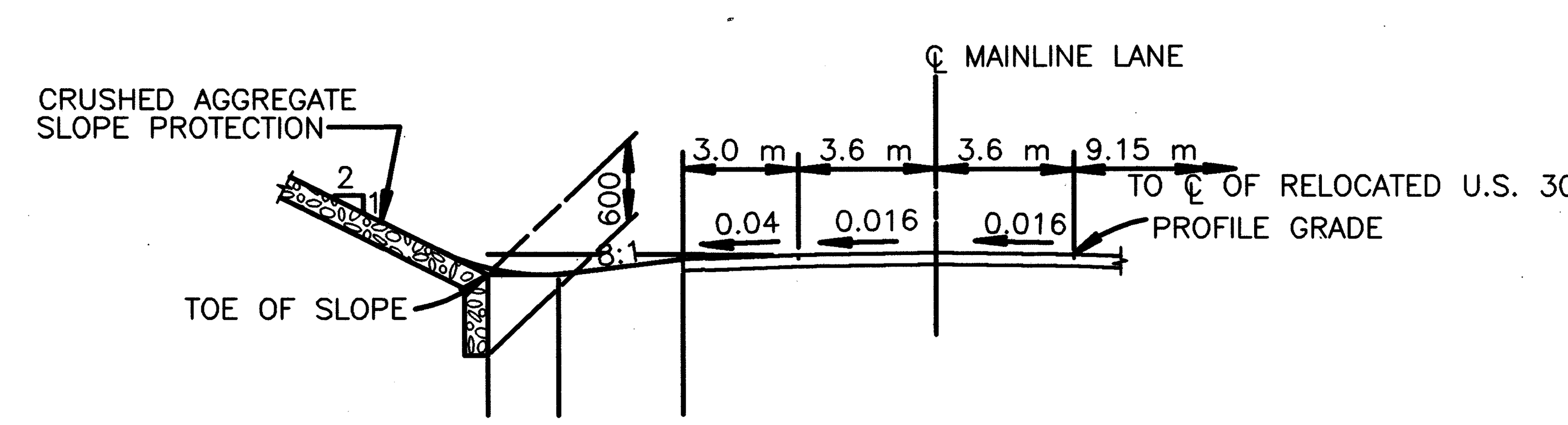


PLAN



ELEVATION
(PILES NOT SHOWN)

SETTLEMENT PLATFORMS		
INDICATES PLATFORM LOCATION		
SITE	STATION	OFFSET mm
SP-1	49+940.000	6000 RT.
SP-2	49+950.000	6000 LT.
SP-3	50+060.000	6000 RT.
SP-4	50+070.000	6000 LT.



TYPICAL ABUTMENT SLOPE DETAIL

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

DESIGNED	DRAWN	REVIEWED	DATE
RHW	WEB	LBD	8-14-00
CHECKED	REVISED	STRUCTURE FILE NUMBER	
HK	12-8-00	7001037	

GENERAL PLAN AND ELEVATION
BRIDGE NO. RIC-30-04075
UNDER RELOCATED STATE ROUTE 181

CRA/RIC-30-33.500/0.000

2/13

592/712

ESTIMATED QUANTITIES

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	ABUT.	PIER	SUPER	GENERAL	AS PER PLAN SHEET NO.
SPECIAL	20365000	4	EACH	SETTLEMENT PLATFORM				4	GN-1
503	21301	LUMP		UNCLASSIFIED EXCAVATION, AS PER PLAN	LUMP	LUMP			GN-1
505	11100	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION				LUMP	
507	00200	986	METER	STEEL PILES HP310x79, FURNISHED	650	336			
507	00250	986	METER	STEEL PILES HP310x79, DRIVEN	650	336			
507	50500	30	EACH	STEEL PILE SPLICES	20	10			
516	44100	5	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (65.0 mm X 460 mm X 730 mm WITH 50 mm X 486 mm X 756 mm LOAD PLATE)		5			
516	44201	10	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (84.0 mm X 270 mm X 430 mm WITH 38 mm X 296 mm X 456 mm LOAD PLATE)	10				12
518	21231	LUMP		POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN	LUMP				GN-1
518	40000	46	METER	150 mm PERFORATED CORRUGATED PLASTIC PIPE	46				
518	40010	10	METER	150 mm NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	10				
SPECIAL	53013000	64	SQ METER	FORM LINER	64				
816	00610	191000	KG	FIELD PAINTING OF NEW STEEL, INTERMEDIATE AND FINISH COAT, SYSTEM IZEU			191000		
842	41001	30	CU METER	CLASS C CONCRETE, PIER ABOVE FOOTINGS, AS PER PLAN		30			GN-1
842	45501	127	CU METER	CLASS C CONCRETE, ABUTMENT, AS PER PLAN	127				GN-1
842	46501	24	CU METER	CLASS C CONCRETE, FOOTING, AS PER PLAN		24			GN-1
844	48041	43	CU METER	HIGH PERFORMANCE CONCRETE SUBSTRUCTURE, AS PER PLAN	43				GN-1
844	49000	LUMP		HIGH PERFORMANCE CONCRETE TRIAL MIX			LUMP		
844	49010	LUMP		HIGH PERFORMANCE CONCRETE TESTING			LUMP		
863	10080	LUMP		STRUCTURAL STEEL MEMBERS, LEVEL FOUR (4) FABRICATION, A572M			LUMP		
863	20000	2355	EACH	WELDED STUD SHEAR CONNECTOR			2355		
864	10100	766	SQ.METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	97.6	90.0	578.4		GN-1
894	10001	344	CU METER	HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN			344		GN-1

metric units

GENERAL NOTES

PILE DESIGN LOADS (ULTIMATE BEARING VALUE)

THE ULTIMATE BEARING VALUE IS 1100 kN PER PILE FOR THE HP310x79 ABUTMENT PILES. THE ULTIMATE BEARING VALUE IS 1280 kN PER PILE FOR THE HP310x79 PIER PILES.

REAR ABUTMENT PILES:

20 PILES 17.0 METERS LONG, ESTIMATED LENGTH
20 PILES OF ORDER LENGTH 17.0 METERS LONG
10 SPLICES

FORWARD ABUTMENT PILES:

20 PILES 15.5 METERS LONG, ESTIMATED LENGTH
20 PILES OF ORDER LENGTH 15.5 METERS LONG
10 SPLICES

PIER PILES:

21 PILES 16.0 METERS LONG, ESTIMATED LENGTH
21 PILES OF ORDER LENGTH 16.0 METERS LONG
10 SPLICES

PILE DRIVEN TO BEDROCK

PILES SHALL BE DRIVEN TO REFUSAL ON BEDROCK. REFUSAL SHALL BE CONSIDERED AS OBTAINED BY PENETRATING SOFT BEDROCK FOR SEVERAL MILLIMETERS WITH A MINIMUM RESISTANCE OF 20 BLOWS PER 25 mm OR REFUSAL SHALL BE CONSIDERED AS OBTAINED AFTER THE PILE HAS CONTACTED HARD BEDROCK AND THE PILE HAS THEN RECEIVED AT LEAST 20 BLOWS.

PAINTING OF 863 STEEL

ALL NEW STEEL SHALL BE SHOP PRIMED PER ITEM 816, WHICH SHALL BE INCLUDED IN THE COST OF ITEM 863.

ITEM 816, FIELD PAINTING OF NEW STEEL, SYSTEM IZEU

ALL NEW STEEL SHALL BE PAINTED WITH AN INTERMEDIATE AND FINISH COAT OF PAINT IN THE FIELD USING SYSTEM IZEU. THE COLOR OF THE FINISH COAT SHALL BE LIGHT NEUTRAL FEDERAL COLOR STANDARD NO. 17778. IN ADDITION TO THE SURFACE AREA OF THE STEEL STRINGERS TO BE PAINTED, INCIDENTALS SUCH AS CROSSFRAMES AND BEARINGS SHALL BE INCLUDED. THE COST OF THIS WORK SHALL BE INCLUDED IN ITEM 816, FIELD PAINTING OF NEW STEEL, INTERMEDIATE AND FINISH COAT, SYSTEM IZEU FOR PAYMENT.

FOR ADDITIONAL GENERAL NOTES SEE SHEET GN-1, 536/712.

NOTE: FOR REINFORCED CONCRETE APPROACH SLAB AND CRUSHED AGGREGATE SLOPE PROTECTION QUANTITIES, SEE ROADWAY PLANS, SHEETS 58/712 AND 61/712.

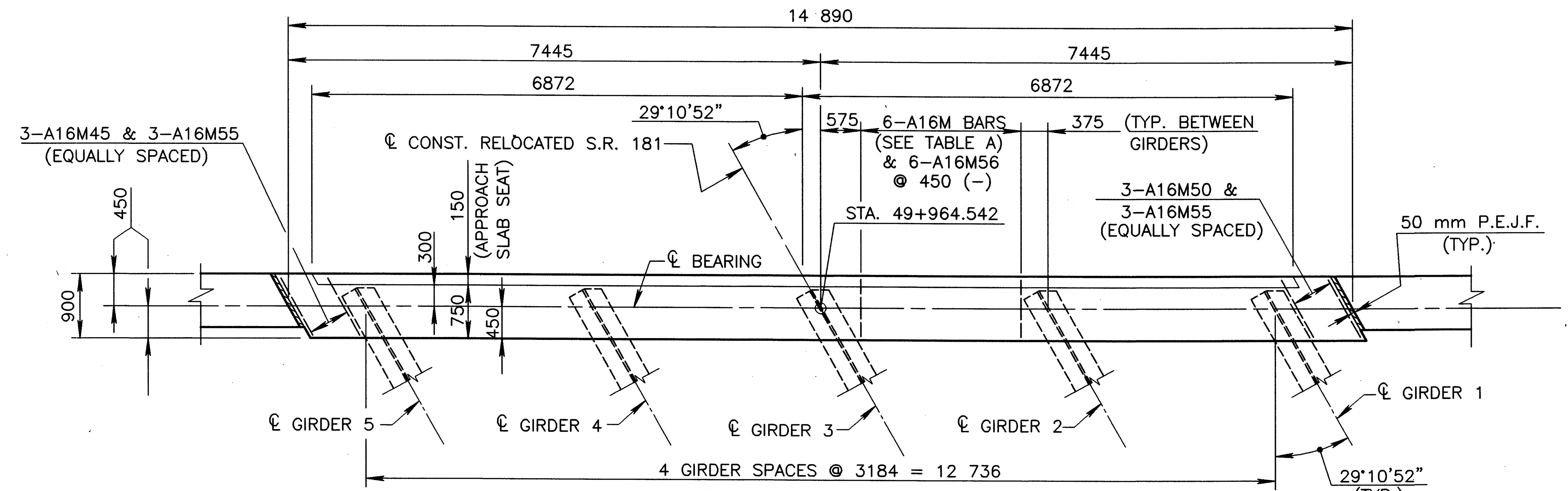
DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

DESIGNED: - | CHECKED: HK | DRAWN: MCM | REVISED: 12-8-00 | REVIEWED: LBD | DATE: 8-14-00 | STRUCTURE FILE NUMBER: 7001037

ESTIMATED QUANTITIES AND GENERAL NOTES
BRIDGE NO. RIC-30-04075
UNDER RELOCATED STATE ROUTE 181

CRA/RIC-30-33.500/0.000

metric units

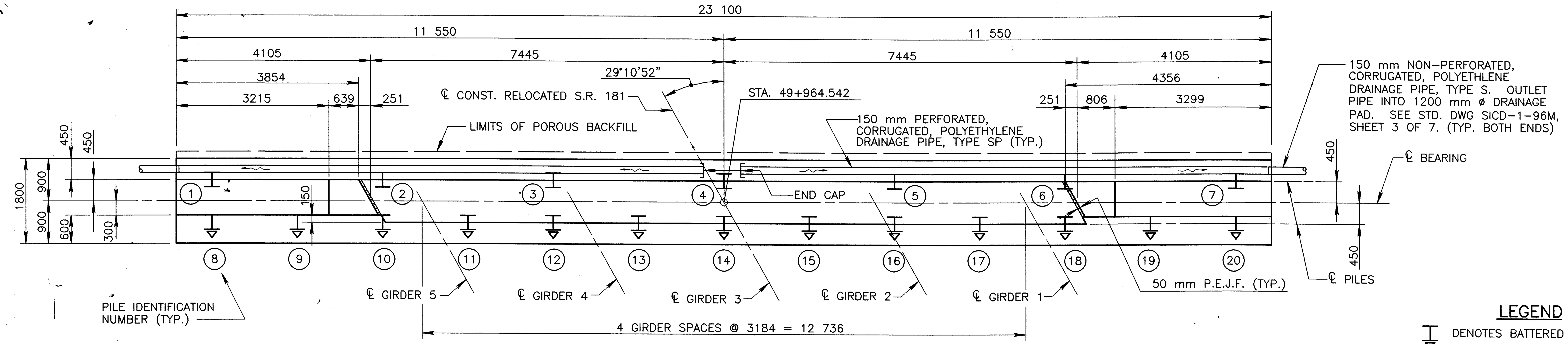


PLAN OF BACKWALL
(DECK SLAB AND APPROACH SLAB NOT SHOWN)
(FOR LONGITUDINAL REINFORCEMENT, SEE ELEVATION)

TABLE A	
LOCATION	BAR MARK
GIRD. 1-GIRD. 2	A16M49
GIRD. 2-GIRD. 3	A16M48
GIRD. 3-GIRD. 4	A16M47
GIRD. 4-GIRD. 5	A16M46

NOTES

1. DIAPHRAGM (BACKWALL) CONCRETE ENCASING THE STRUCTURAL MEMBER SECTIONS SUPPORTED IN SEMI-INTEGRAL TYPE ABUTMENTS SHALL BE HIGH PERFORMANCE CONCRETE, MIX 4, AND SHALL BE PLACED AT LEAST 48 HOURS BEFORE THE ACTUAL DECK CONCRETE IS PLACED.
2. MINIMUM LAP UNLESS OTHERWISE NOTED:
   16M BARS = 875 mm A16M43 & A16M44 = 400 mm
   25M BARS = 1500 mm A25M02 = 2090 mm
3. ALL PILES ARE HP310x79 STEEL PILES.
4. FOR ELASTOMERIC BEARINGS SEE SHEET 12/13.
5. FOR SECTIONS A-A, B-B, C-C, D-D AND E-E, SEE SHEET 6/13.
6. PREFORMED EXPANSION JOINT FILLER SHALL BE INCLUDED WITH ITEM 844, HIGH PERFORMANCE CONCRETE, SUBSTRUCTURE, AS PER PLAN, FOR PAYMENT.



PLAN
(BACKWALL NOT SHOWN)

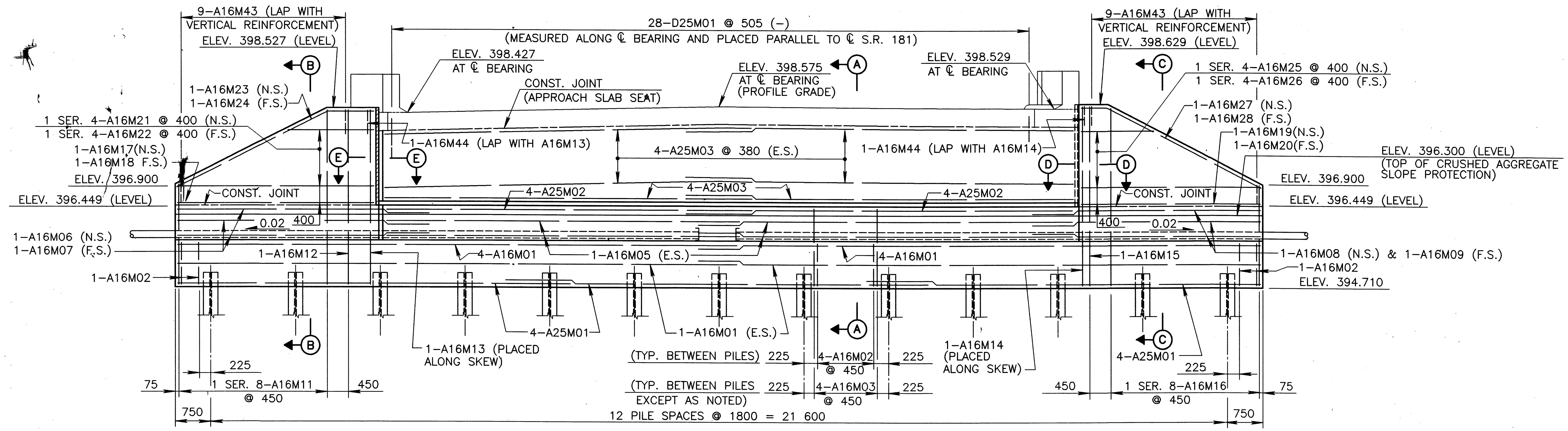
LEGEND

DENOTES BATTERED PILE (1:4)

N.S. DENOTES NEAR SIDE

F.S. DENOTES FAR SIDE

E.S. DENOTES EACH SIDE



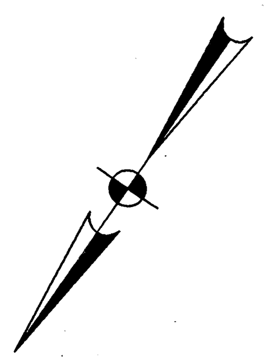
ELEVATION

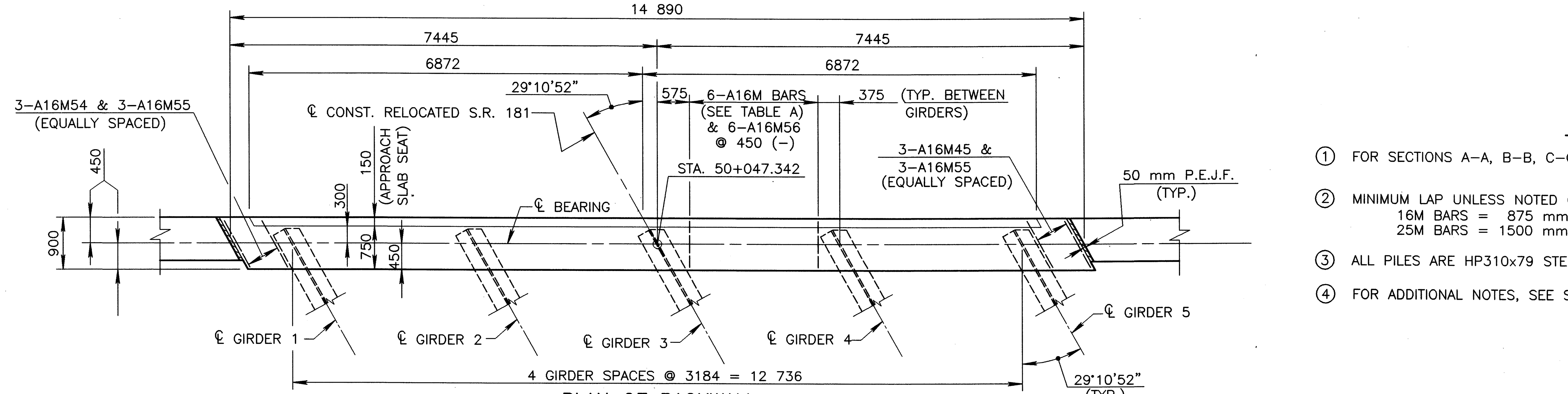
DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

DATE	8-14-00
STRUCTURE FILE NUMBER	7001037
REVIEWED	LBD
DRAWN	WEB
REVISED	
DESIGNED	HK
CHECKED	RHW

REAR ABUTMENT
BRIDGE NO. RIC-30-04075
UNDER RELOCATED STATE ROUTE 181

CRA/RIC-30-33.500/0.000





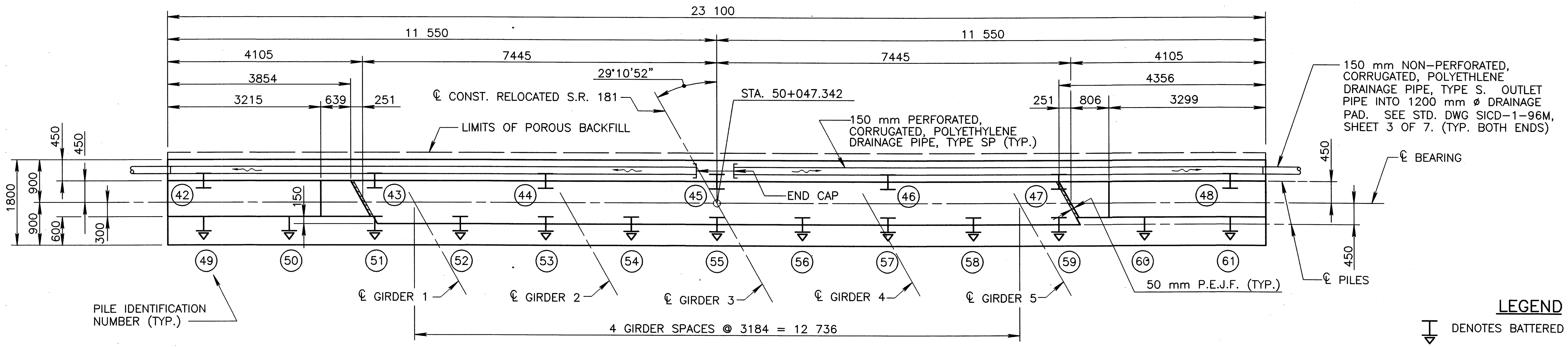
PLAN OF BACKWALL

(DECK SLAB AND APPROACH SLAB NOT SHOWN)
(FOR LONGITUDINAL REINFORCEMENT, SEE ELEVATION)

TABLE A	
LOCATION	BAR MARK
GIRD. 1-GIRD. 2	A16M53
GIRD. 2-GIRD. 3	A16M52
GIRD. 3-GIRD. 4	A16M51
GIRD. 4-GIRD. 5	A16M46

NOTES

1. FOR SECTIONS A-A, B-B, C-C, D-D AND E-E, SEE SHEET 6/13.
2. MINIMUM LAP UNLESS NOTED OTHERWISE:
   16M BARS = 875 mm A16M43 & A16M44 = 400 mm
   25M BARS = 1500 mm A25M02 = 2090 mm
3. ALL PILES ARE HP310x79 STEEL PILES.
4. FOR ADDITIONAL NOTES, SEE SHEET 4/13.

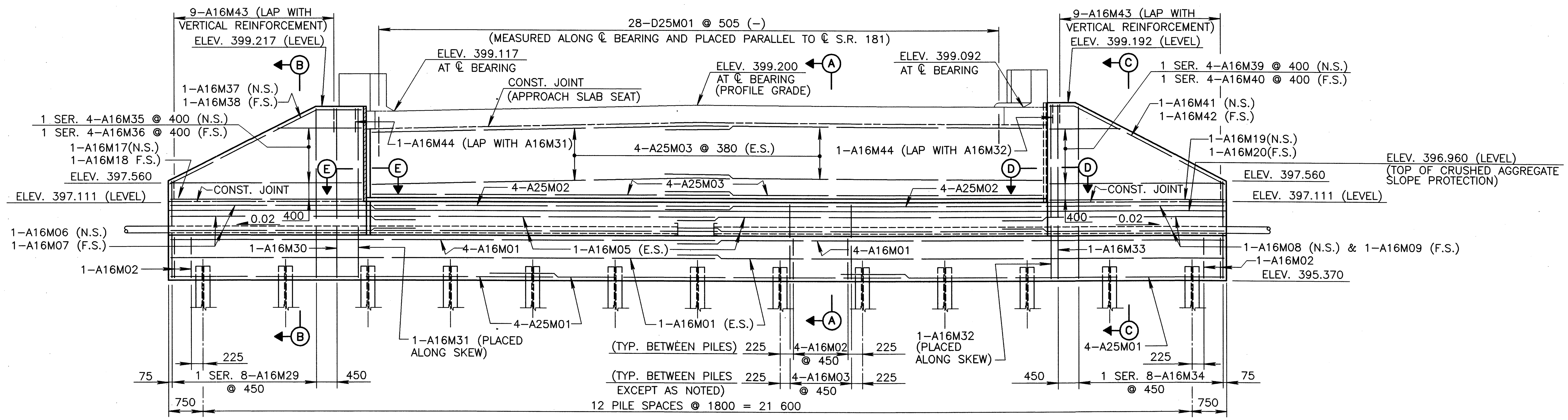


PLAN

(BACKWALL NOT SHOWN)

LEGEND

DENOTES BATTERED PILE (1:4)
N.S. DENOTES NEAR SIDE
F.S. DENOTES FAR SIDE
E.S. DENOTES EACH SIDE



ELEVATION

DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

REVIEWED: LBD | DATE: 8-14-00 | STRUCTURE FILE NUMBER: 7001037

DRAWN: WEB | REVISED:

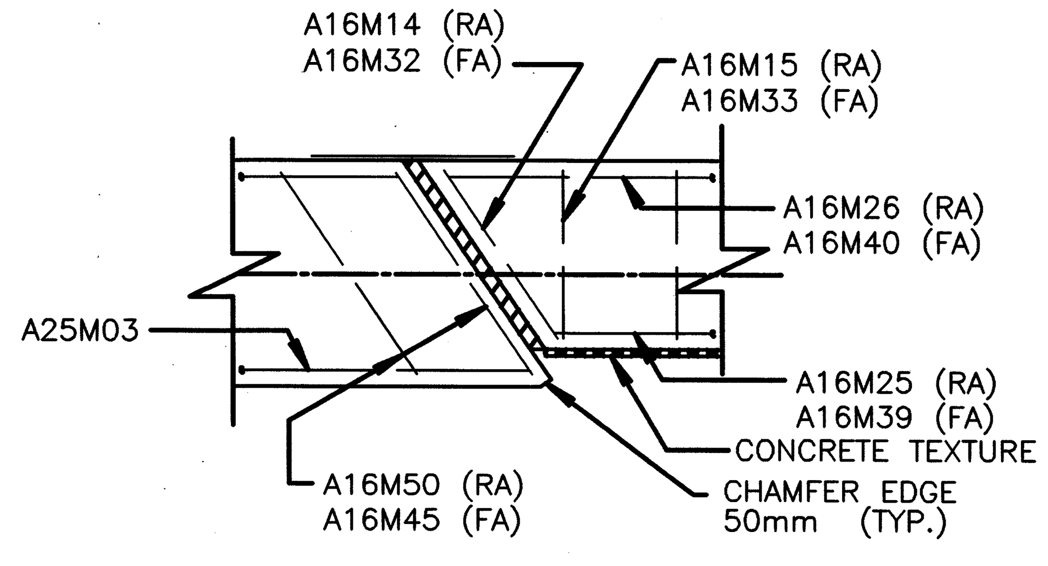
DESIGNED: HK | CHECKED: RHW

FORWARD ABUTMENT
BRIDGE NO. RIC-30-04075
UNDER RELOCATED STATE ROUTE 181

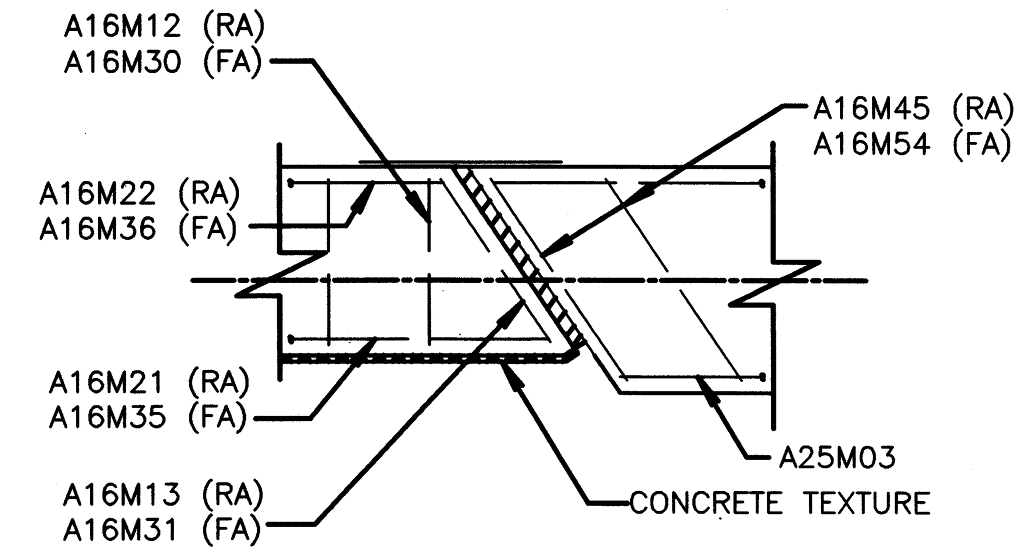
CRA/RIC-30-33.500/0.000

5/13

595/712



SECTION D–D



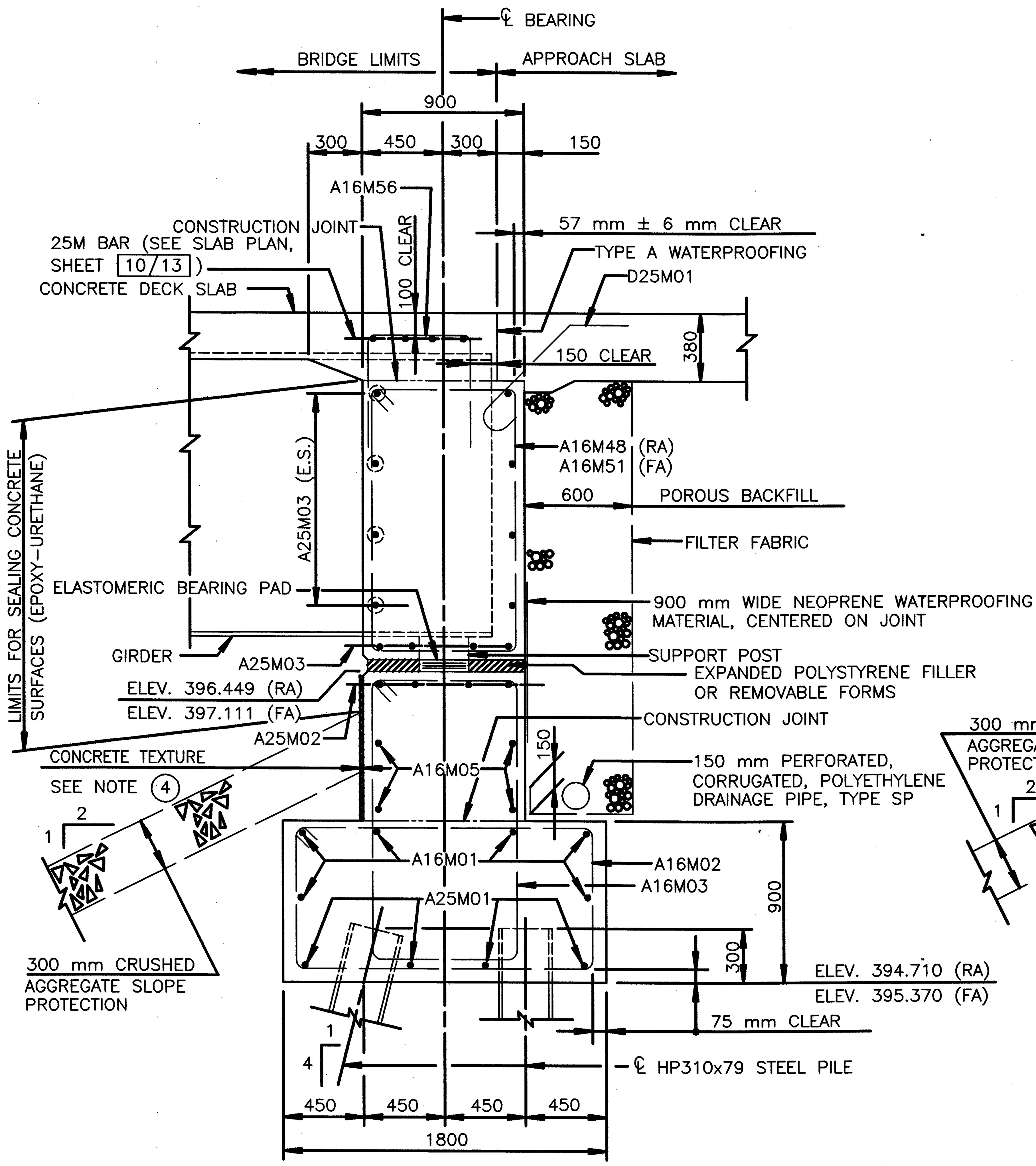
SECTION E–E

NOTES

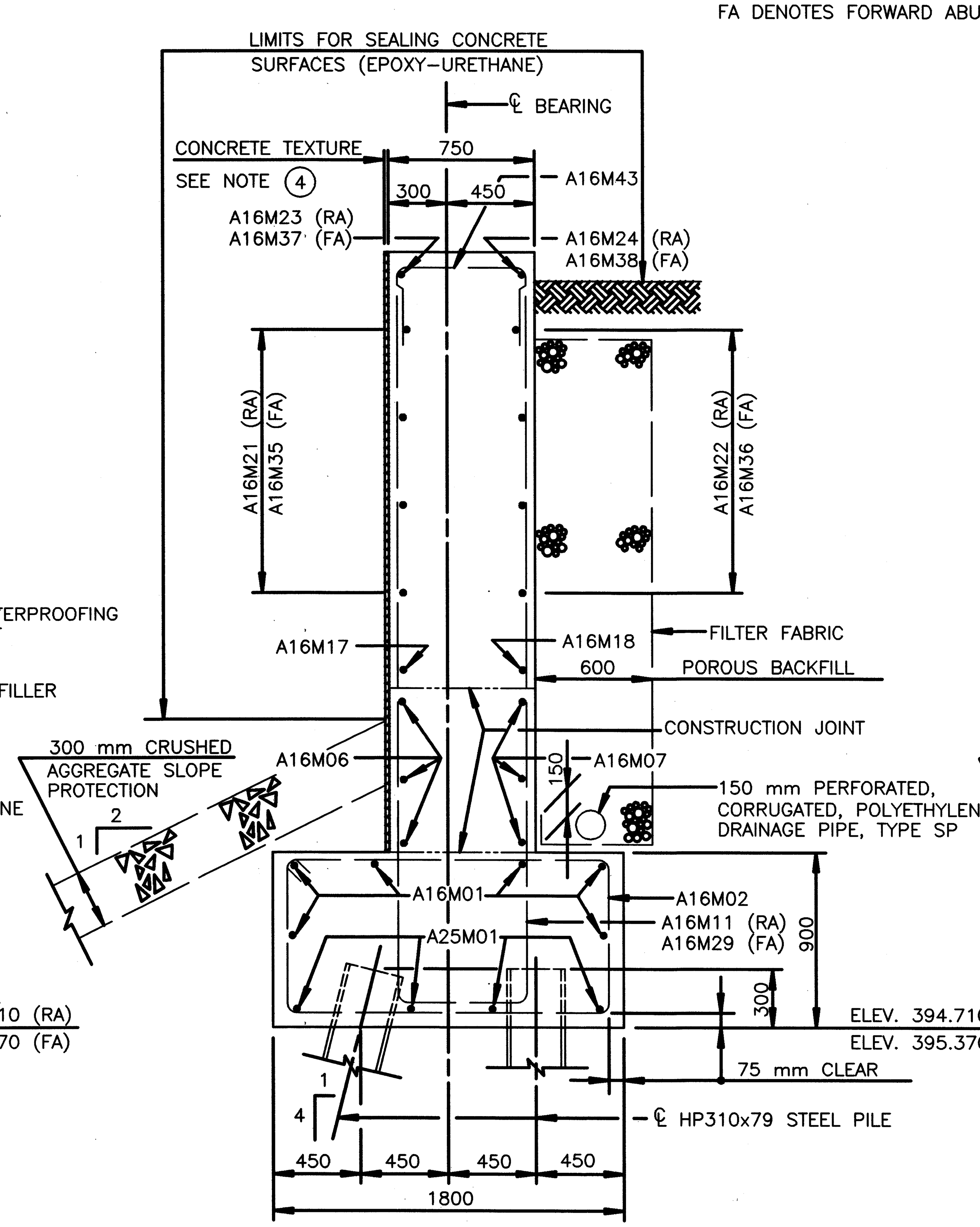
1. FOR LOCATION OF SECTIONS A–A, B–B, C–C, D–D AND E–E, AND ADDITIONAL NOTES, SEE SHEETS 4/13 AND 5/13.
2. FOR DETAILS NOT SHOWN, SEE STANDARD DRAWING SICD–1–96M, SHEETS 1 THRU 7.
3. POROUS BACKFILL WITH FILTER FABRIC, 600 mm THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 300 mm BELOW THE EMBANKMENT SURFACE, AND LATERALLY TO THE ENDS OF THE WINGWALLS.
4. THE TEXTURE SHALL BE AN ASHLER STONE PATTERN AS PER THE FITZGERALD FORM LINER NUMBER 16986 OR APPROVED EQUAL. THE RELIEF SHALL BE A MINIMUM OF 19 mm. CONCRETE FOR TEXTURING SHALL BE INCLUDED WITH ITEM 842, CLASS C CONCRETE, ABUTMENT, AS PER PLAN, FOR PAYMENT.

LEGEND

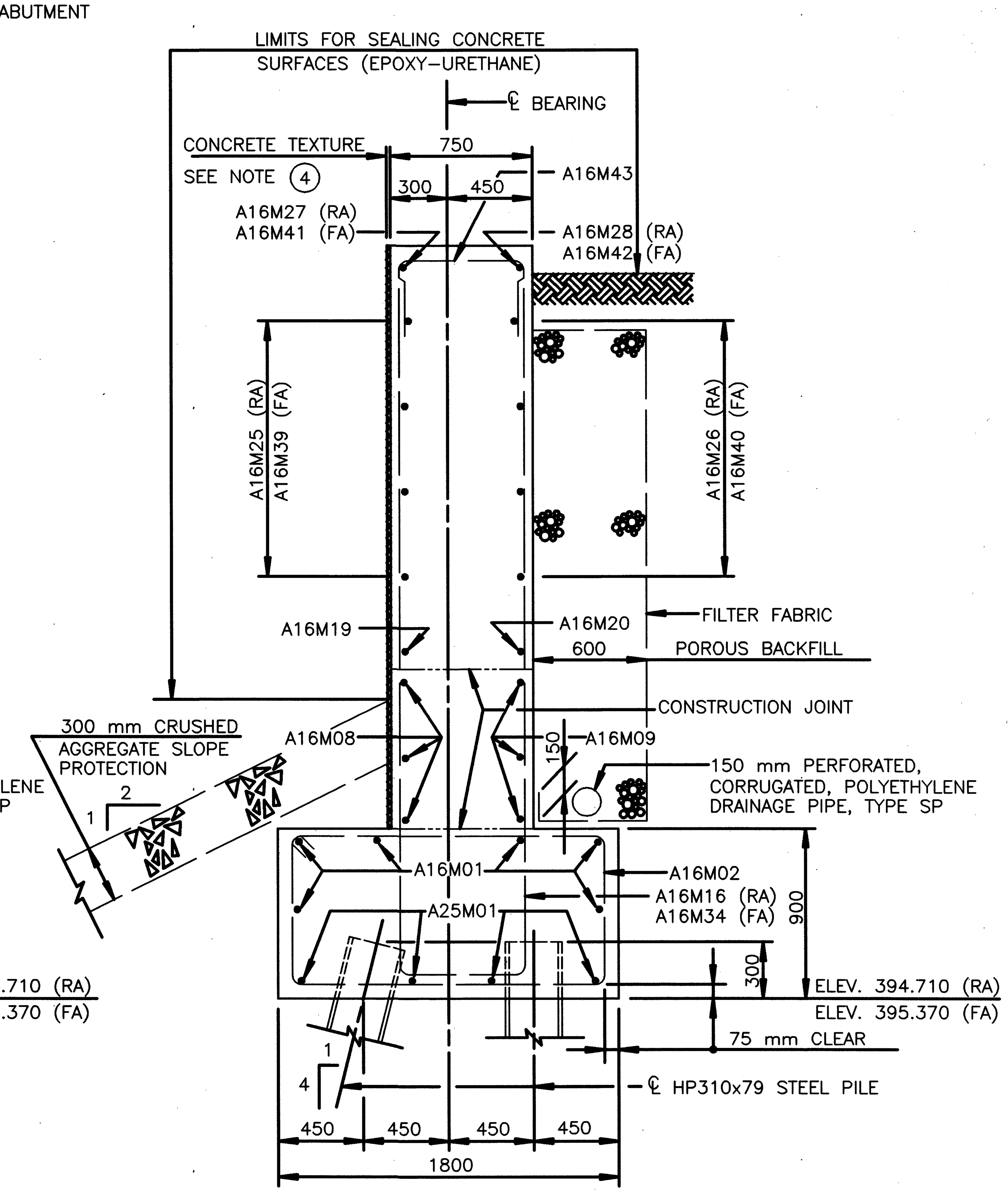
RA DENOTES REAR ABUTMENT
FA DENOTES FORWARD ABUTMENT



SECTION A–A



SECTION B–B



SECTION C–C

metric units

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

DESIGNED	DRAWN	REVIEWED	DATE
HK	WEB	LBD	10-26-98
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RHW	12-8-00	7001037	

ABUTMENT DETAILS
BRIDGE NO. RIC-30-04075
UNDER RELOCATED STATE ROUTE 181

CRA/RIC-30-33.500/0.000

metric units

NOTES

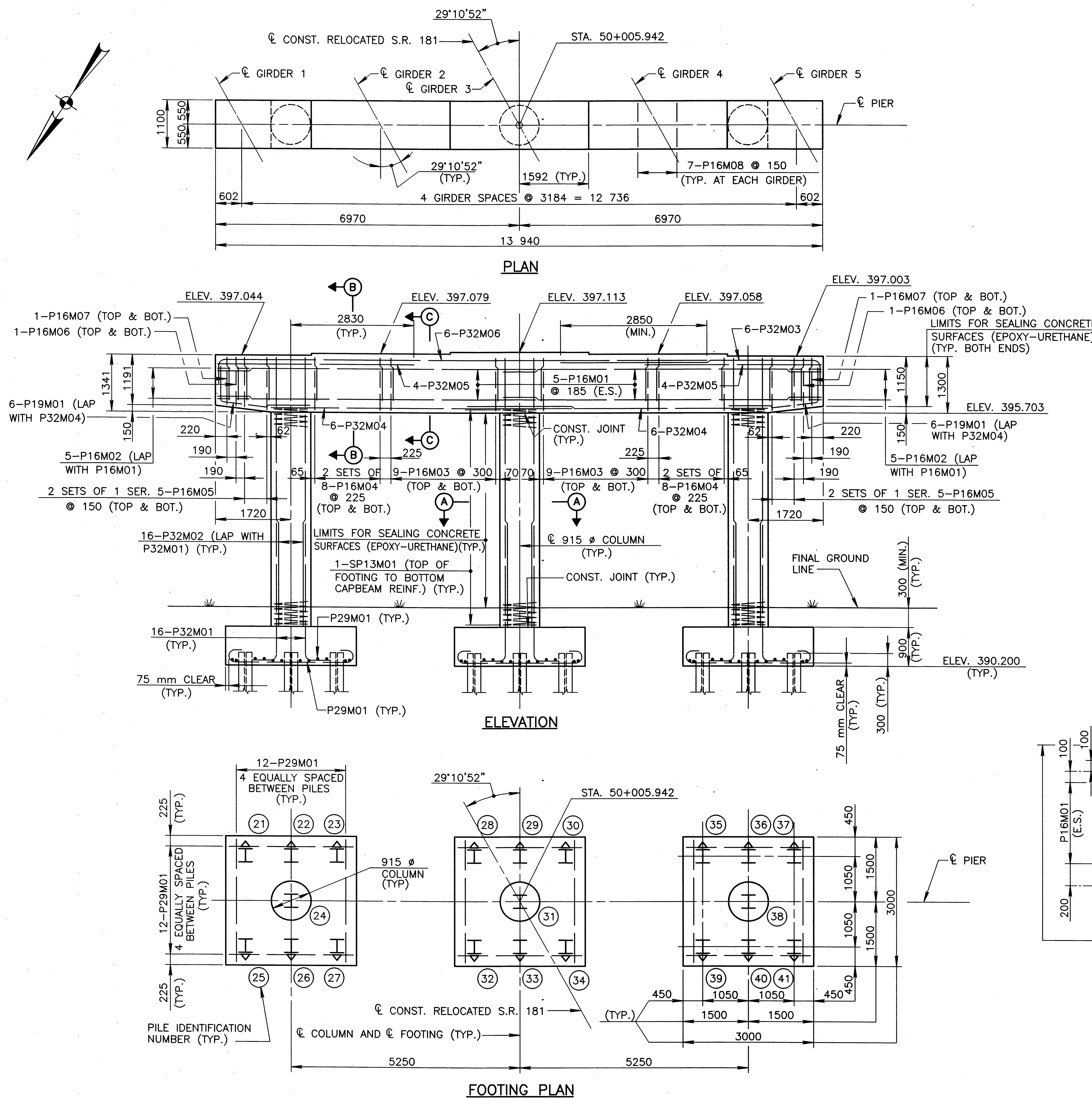
1. MINIMUM LAP UNLESS NOTED OTHERWISE:
   16M BARS = 750 mm
   19M BARS = 890 mm
   32M BARS = 1910 mm
2. ALL PILES ARE HP310x79 STEEL PILES.
3. PILE LAYOUT DIMENSIONS ARE MEASURED ALONG BOTTOM OF FOOTING.

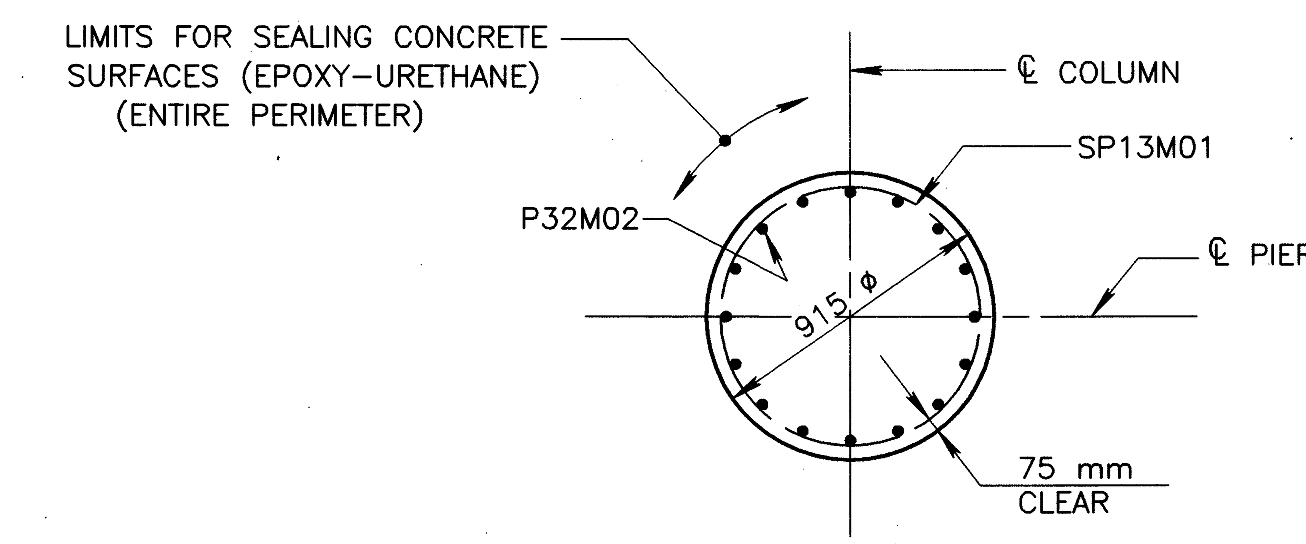
LEGEND

DENOTES BATTERED PILE (1:4)

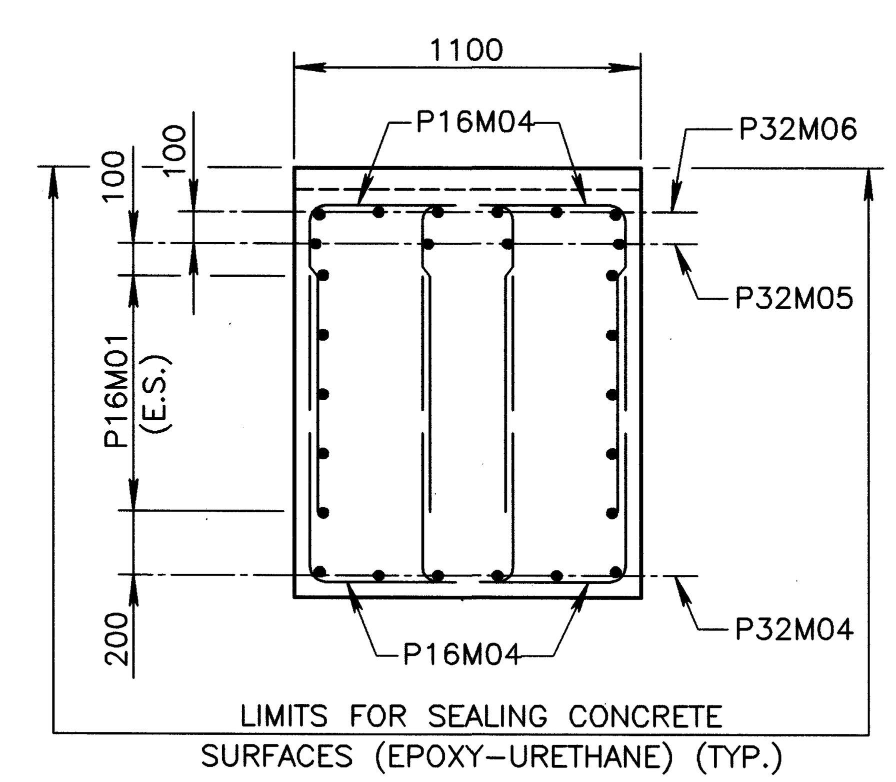
E.S. DENOTES EACH SIDE

BOT. DENOTES BOTTOM

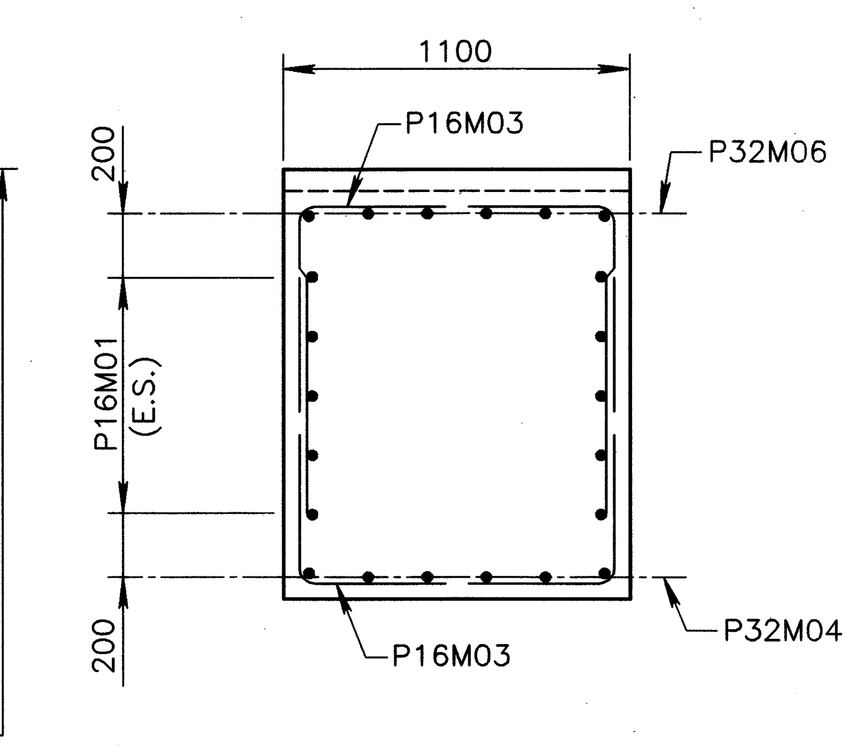




SECTION A-A



SECTION B-B



SECTION C-C

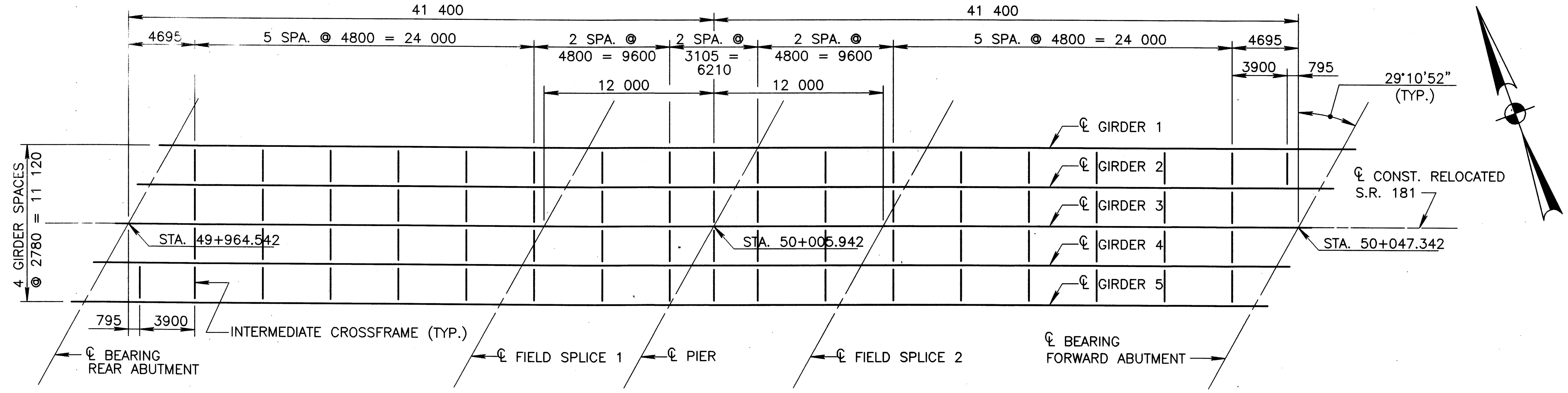
DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

REVIEWED LBD	DATE 10-26-98	STRUCTURE FILE NUMBER 7001037
DRAWN WEB	REVISED	
DESIGNED HK.	CHECKED RHW	

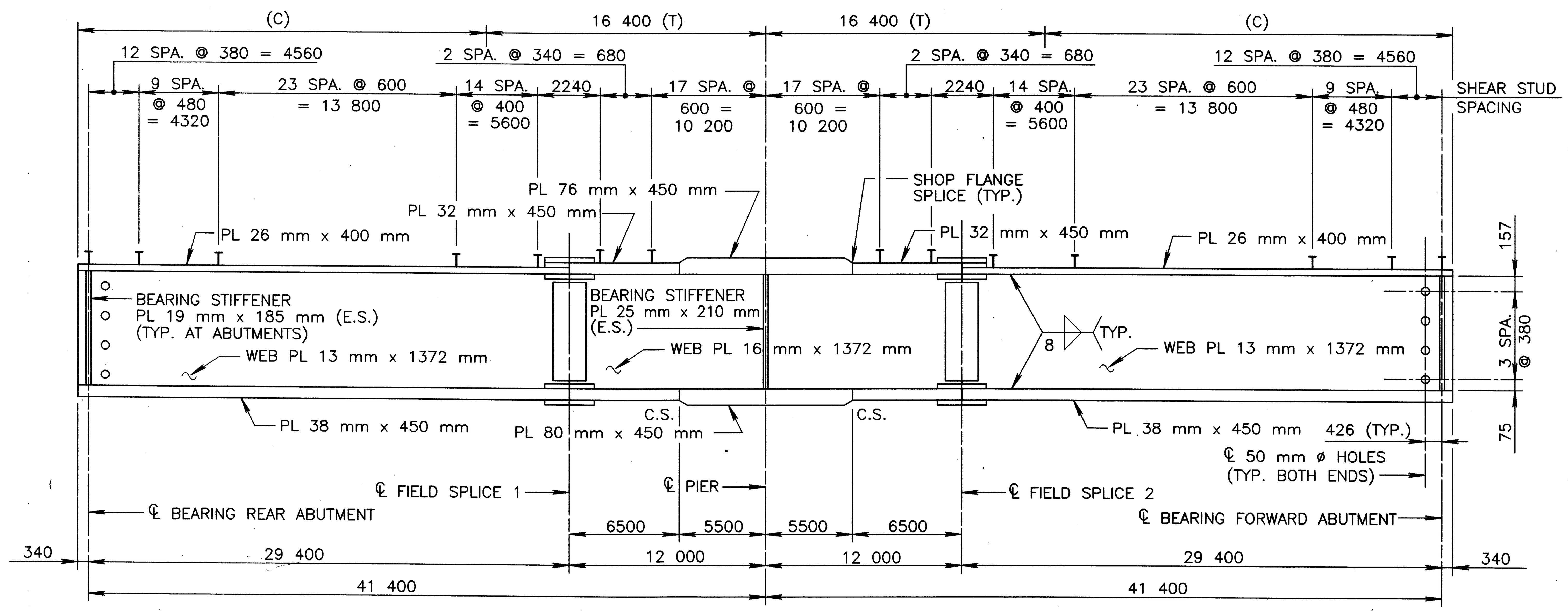
PIER DETAILS

BRIDGE NO. RIC-30-04075
UNDER RELOCATED STATE ROUTE 181

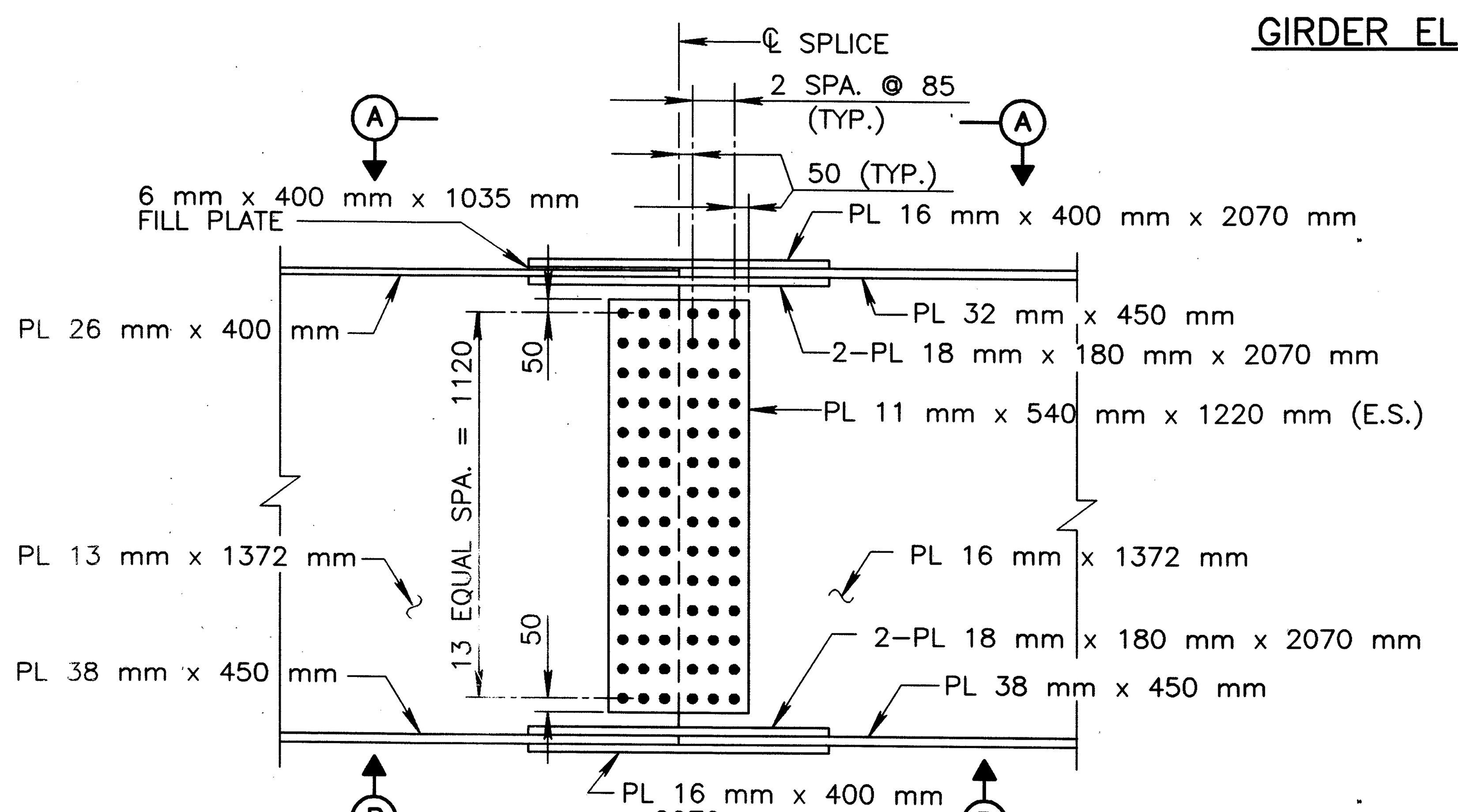
CRA/RIC-30-33.500/0.000



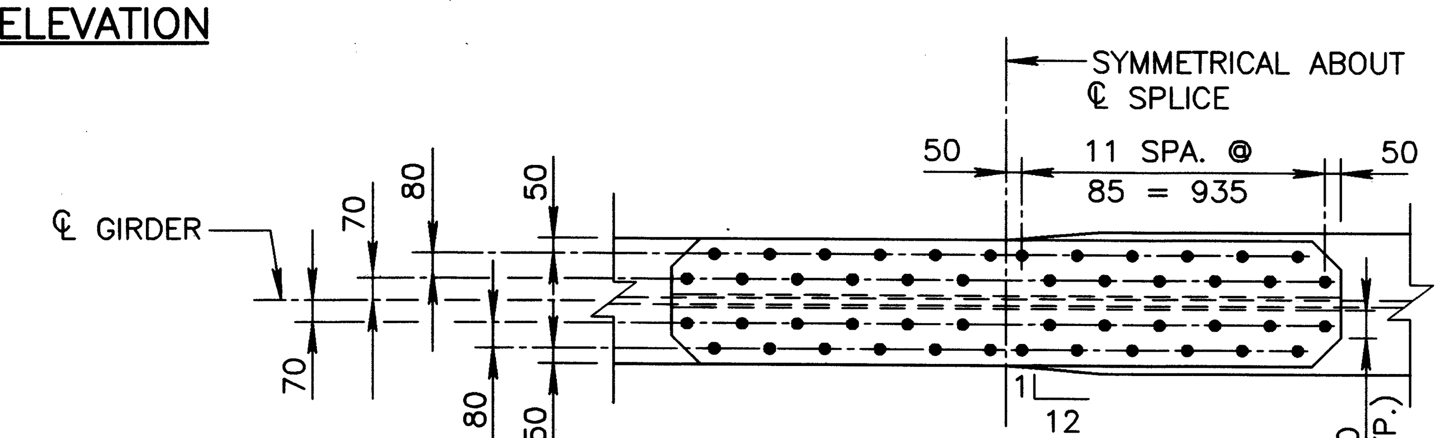
FRAMING PLAN



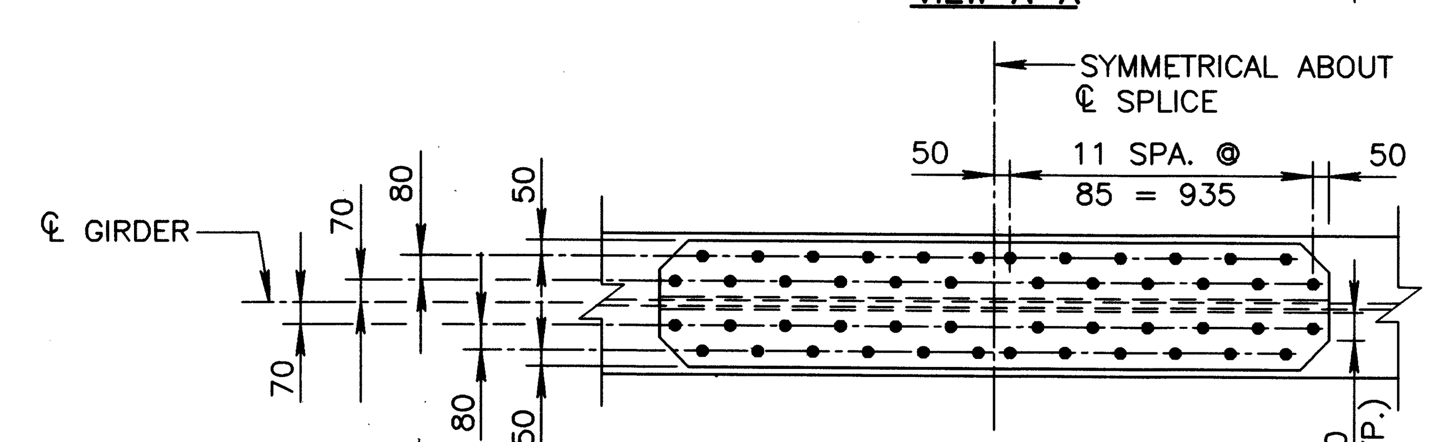
GIRDER ELEVATION



GIRDER SPLICE DETAIL



VIEW A-A



VIEW B-B

FIELD SPLICE DETAILS

NOTES

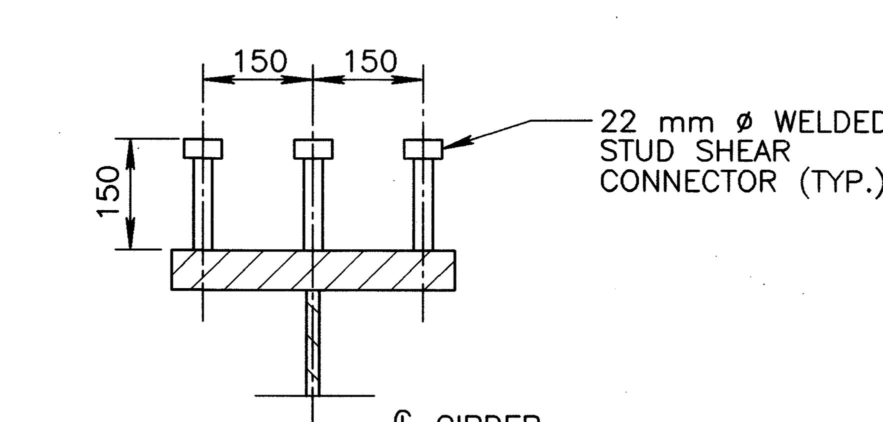
1. ALL STRUCTURAL STEEL SHALL BE A572M PAINTED, UNLESS OTHERWISE NOTED.
2. ALL FLANGE, WEB AND SPLICE PLATES SHALL BE DESIGNATED (CVN).
3. WHERE A SHAPE OR PLATE IS DESIGNATED (CVN) THE MATERIAL SHALL MEET SPECIFIED MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
4. ALL FIELD SPLICES SHALL BE MADE WITH 25 mm DIAMETER HIGH STRENGTH BOLTS CONFORMING TO A325M. THE BOLTS SHALL BE PLACED WITH THEIR HEADS ON THE OUTSIDE FACE OF EXTERIOR GIRDERS AND ON THE BOTTOM OF BOTTOM FLANGES AND ON THE TOP OF TOP FLANGES.
5. BEARING STIFFENERS SHALL BE PLACED IN PAIRS ON ALL GIRDERS. FOR DETAILS, SEE STANDARD DRAWING GSD-1-96M, SHEET 2 OF 3.
6. ALL CROSSFRAMES ARE SET PERPENDICULAR TO GIRDERS.
7. FOR INTERMEDIATE CROSSFRAME DETAILS, SEE STANDARD DRAWING GSD-1-96M, SHEET 1 OF 3. (TYPE 3) DUE TO DIFFERENTIAL DEFLECTION BETWEEN ADJACENT MEMBERS SLOTTED HOLES MAY BE REQUIRED FOR THE ERECTION BOLTS.
8. WHEN AN INTERMEDIATE CROSSFRAME CONNECTS TO A BEARING STIFFENER, THE ADJACENT CONNECTION STIFFENER AND FILLER PLATE SHALL MATCH THE THICKNESS OF THE BEARING STIFFENER.
9. AT CROSSFRAME LOCATIONS WHERE FIELD SPLICE FLANGE PLATES INTERFERE WITH THE WELDING OF THE STIFFENER TO THE FLANGE, A BOLTED ANGLE DETAIL SIMILAR TO DETAIL "F" ON STANDARD DRAWING GSD-1-96M, SHEET 1 OF 3, SHALL BE USED.
10. FOR TRANSVERSE SECTION, SEE SHEET 10/13.
11. FOR ELASTOMERIC BEARING DETAILS, SEE SHEET 12/13.
12. WELDED ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE MAY BE MADE TO AREAS OF THE FASCIA GIRDER FLANGES DESIGNATED "COMPRESSION". ATTACHMENTS SHALL NOT BE MADE TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE NOT CLOSER THAN 25 mm FROM EDGE OF FLANGE, BE NOT MORE THAN 50 mm LONG, AND BE NOT SMALLER THAN THE MINIMUM SIZE REQUIRED BY AASHTO.
13. BUTT WELDS AT SHOP SPLICES SHALL BE COMPLETE PENETRATION WELDS. WELD REINFORCEMENT SHALL BE GROUND IN THE DIRECTION PARALLEL TO THE MAIN STRESSES.

LEGEND

(T) DENOTES AREA OF TENSION IN THE TOP FLANGE. THE BOTTOM FLANGE IN THESE AREAS IS IN COMPRESSION.

(C) DENOTES AREA OF COMPRESSION IN THE TOP FLANGE THE BOTTOM FLANGE IN THESE AREAS IS IN TENSION.

C.S. INDICATES BUTT WELD IS SUBJECT TO COMPRESSIVE STRESS ONLY.



SHEAR STUD CONNECTOR DETAIL

metric units

DESIGN AGENCY McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

DESIGNED HK	CHECKED RHW	DRAWN WEB	REVISED	REVIEWED LBD	DATE 10-26-98	STRUCTURE FILE NUMBER 7001037

FRAMING PLAN AND GIRDER DETAILS
BRIDGE NO. RIC-30-04075
UNDER RELOCATED STATE ROUTE 181

CRA/RIC-30-33.500/0.000

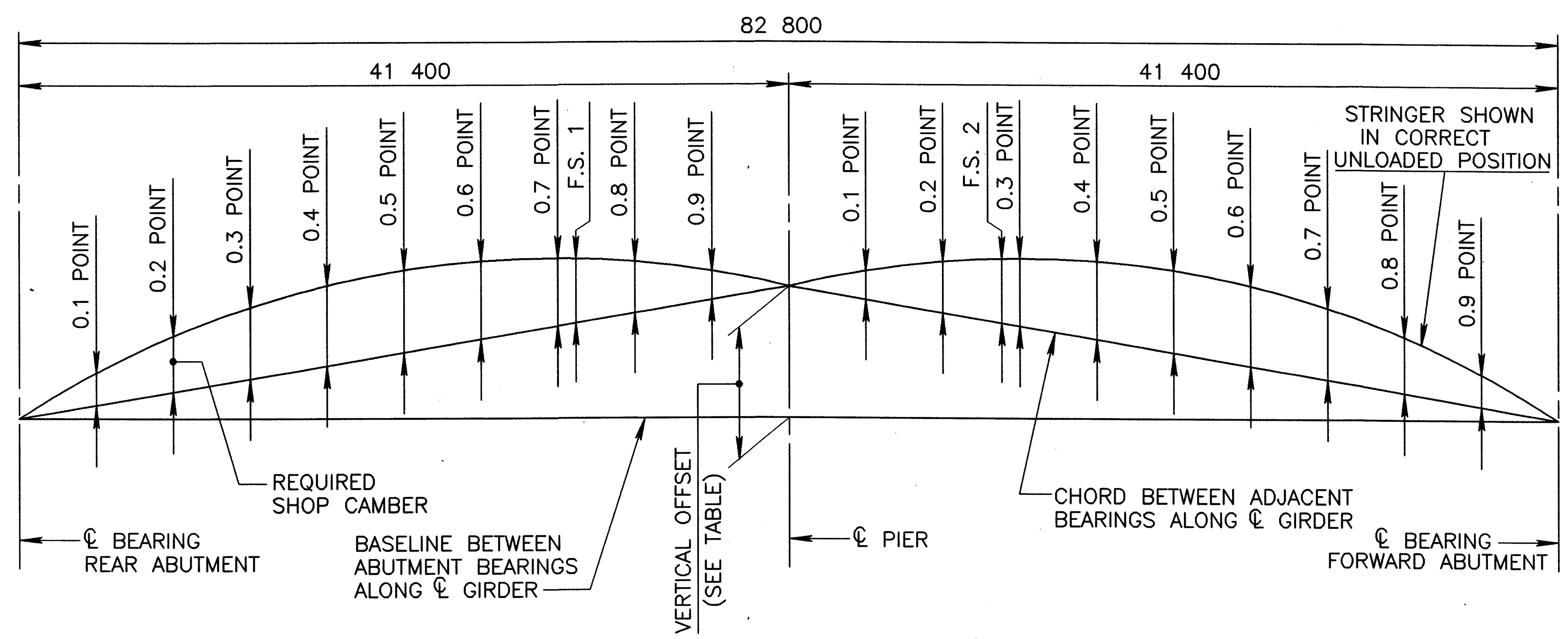
SCREED ELEVATIONS

POINT	PROFILE GRADE	LEFT GUTTER LINE	GIRDER 1	GIRDER 2	GIRDER 3	GIRDER 4	GIRDER 5	RIGHT GUTTER LINE
℄ BRG. REAR ABUT.	398.575	398.529	398.532	398.554	398.575	398.507	398.438	398.427
.1	398.663	398.612	398.616	398.641	398.663	398.596	398.527	398.516
.2	398.744	398.689	398.693	398.720	398.744	398.678	398.609	398.599
.3	398.812	398.753	398.757	398.787	398.812	398.747	398.679	398.668
.4	398.867	398.805	398.810	398.841	398.867	398.804	398.737	398.727
.5	398.909	398.844	398.849	398.881	398.909	398.847	398.781	398.771
.6	398.939	398.873	398.878	398.910	398.939	398.879	398.815	398.806
.7	398.961	398.893	398.898	398.931	398.961	398.902	398.841	398.831
℄ FIELD SPLICE 1	398.965	398.896	398.901	398.934	398.965	398.906	398.845	398.835
.8	398.980	398.910	398.915	398.949	398.980	398.923	398.864	398.854
.9	399.001	398.929	398.934	398.968	399.001	398.945	398.888	398.879
℄ PIER	399.026	398.951	398.957	398.992	399.026	398.971	398.916	398.907
.1	399.056	398.978	398.984	399.020	399.056	399.002	398.948	398.939
.2	399.090	399.008	399.014	399.053	399.090	399.038	398.984	398.975
℄ FIELD SPLICE 2	399.124	399.039	399.045	399.086	399.124	399.073	399.019	399.011
.3	399.126	399.040	399.046	399.087	399.126	399.075	399.021	399.013
.4	399.159	399.073	399.079	399.121	399.159	399.109	399.056	399.048
.5	399.188	399.100	399.106	399.149	399.188	399.137	399.083	399.075
.6	399.208	399.120	399.126	399.169	399.208	399.158	399.103	399.095
.7	399.218	399.131	399.137	399.179	399.218	399.168	399.114	399.106
.8	399.220	399.133	399.139	399.181	399.220	399.169	399.116	399.108
.9	399.212	399.126	399.132	399.173	399.212	399.162	399.109	399.101
℄ BRG. FWD. ABUT.	399.200	399.117	399.123	399.161	399.200	399.150	399.100	399.092

NOTES

① SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.

metric units

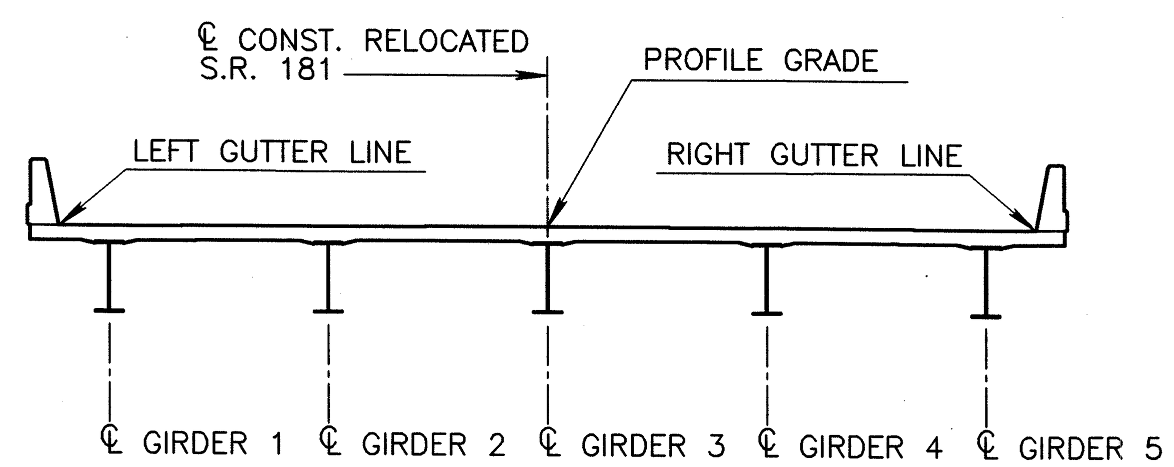


CAMBER DIAGRAM

DEFLECTION AND CAMBER TABLE

GIRDER	POINTS	SPAN 1: 0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	F.S. 1	0.8 PT.	0.9 PT.	SPAN 2: 0.1 PT.	0.2 PT.	F.S. 2	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.
GIRDER 1	DEFLECTION DUE TO WEIGHT OF STEEL	5	10	12	13	12	10	7	7	3	1	1	3	7	7	10	12	13	12	10	5
GIRDER 1	DEFLECTION DUE TO REMAINING DEAD LOAD	25	47	60	65	60	48	31	31	15	4	4	15	31	31	48	60	65	60	47	25
GIRDER 1	ADJUSTMENT REQUIRED FOR VERTICAL CURVE	17	29	38	43	44	43	38	36	28	16	6	9	9	8	8	6	4	4	2	1
GIRDER 1	REQUIRED SHOP CAMBER	47	86	110	121	116	101	76	74	46	21	11	27	47	46	66	78	82	76	59	31
GIRDER 2	DEFLECTION DUE TO WEIGHT OF STEEL	5	10	12	13	12	10	7	7	3	1	1	3	7	7	10	12	13	12	10	5
GIRDER 2	DEFLECTION DUE TO REMAINING DEAD LOAD	27	50	64	69	64	51	33	33	16	4	4	16	33	33	51	64	69	64	50	27
GIRDER 2	ADJUSTMENT REQUIRED FOR VERTICAL CURVE	16	28	38	43	44	42	37	36	29	16	7	11	12	11	10	8	7	5	4	2
GIRDER 2	REQUIRED SHOP CAMBER	48	88	114	125	120	103	77	76	48	21	12	30	52	51	71	84	89	81	64	34
GIRDER 3	DEFLECTION DUE TO WEIGHT OF STEEL	5	10	12	13	12	10	7	7	3	1	1	3	7	7	10	12	13	12	10	5
GIRDER 3	DEFLECTION DUE TO REMAINING DEAD LOAD	27	50	64	69	64	51	33	33	16	4	4	16	33	33	51	64	69	64	50	27
GIRDER 3	ADJUSTMENT REQUIRED FOR VERTICAL CURVE	16	29	38	43	45	42	37	37	28	16	9	13	15	15	12	11	9	6	5	2
GIRDER 3	REQUIRED SHOP CAMBER	48	89	114	125	121	103	77	77	47	21	14	32	55	55	73	87	91	82	65	34
GIRDER 4	DEFLECTION DUE TO WEIGHT OF STEEL	5	10	12	13	12	10	7	7	3	1	1	3	7	7	10	12	13	12	10	5
GIRDER 4	DEFLECTION DUE TO REMAINING DEAD LOAD	27	50	64	69	64	51	33	33	16	4	4	16	33	33	51	64	69	64	50	27
GIRDER 4	ADJUSTMENT REQUIRED FOR VERTICAL CURVE	16	28	37	42	44	43	37	37	29	16	9	15	17	17	15	12	11	8	5	3
GIRDER 4	REQUIRED SHOP CAMBER	48	88	113	124	120	104	77	77	48	21	14	34	57	57	76	88	93	84	65	35
GIRDER 5	DEFLECTION DUE TO WEIGHT OF STEEL	5	10	12	13	12	10	7	7	3	1	1	3	7	7	10	12	13	12	10	5
GIRDER 5	DEFLECTION DUE TO REMAINING DEAD LOAD	25	47	60	65	60	48	31	31	15	4	4	15	31	31	48	60	65	60	47	25
GIRDER 5	ADJUSTMENT REQUIRED FOR VERTICAL CURVE	16	28	38	43	44	42	37	37	29	16	10	16	19	19	18	15	12	9	6	2
GIRDER 5	REQUIRED SHOP CAMBER	46	85	110	121	116	100	75	75	47	21	15	34	57	57	76	87	90	81	63	32

VERTICAL OFFETS AT PIER	
LOCATION	OFFSET
GIRDER 1	130
GIRDER 2	135
GIRDER 3	139
GIRDER 4	143
GIRDER 5	147



SCREED LOCATION KEY

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

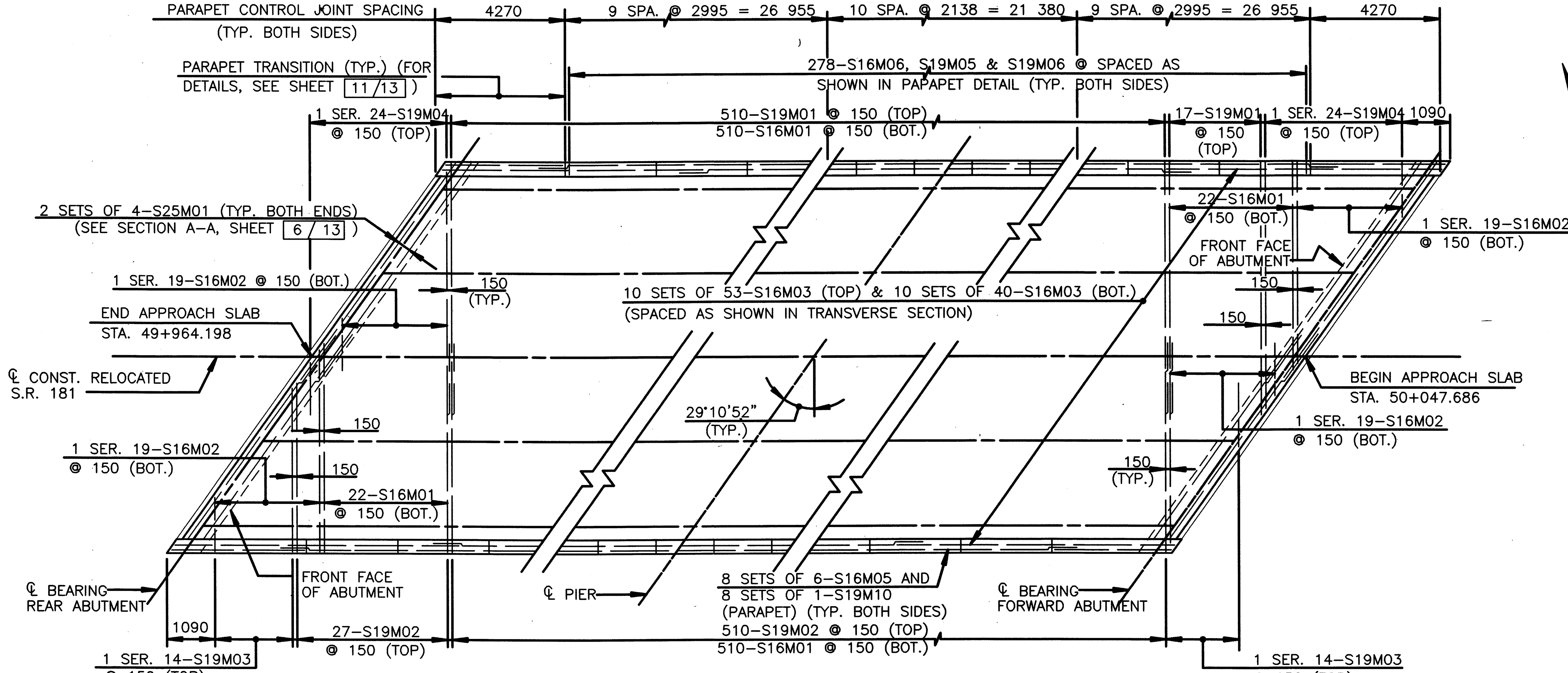
REVIEWED LBD DATE 8-14-00
STRUCTURE FILE NUMBER 7001037

DRAWN WEB REVISED

DESIGNED RHW CHECKED MAT

SCREED ELEVATIONS AND DEFLECTION AND CAMBER TABLES
BRIDGE NO. RIC-30-04075
UNDER RELOCATED STATE ROUTE 181

CRA/RIC-30-33.500/0.000

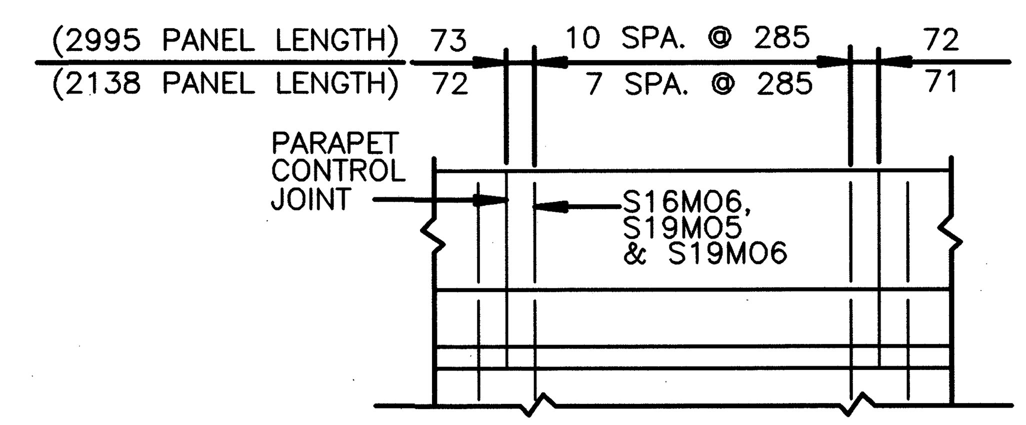


SLAB PLAN

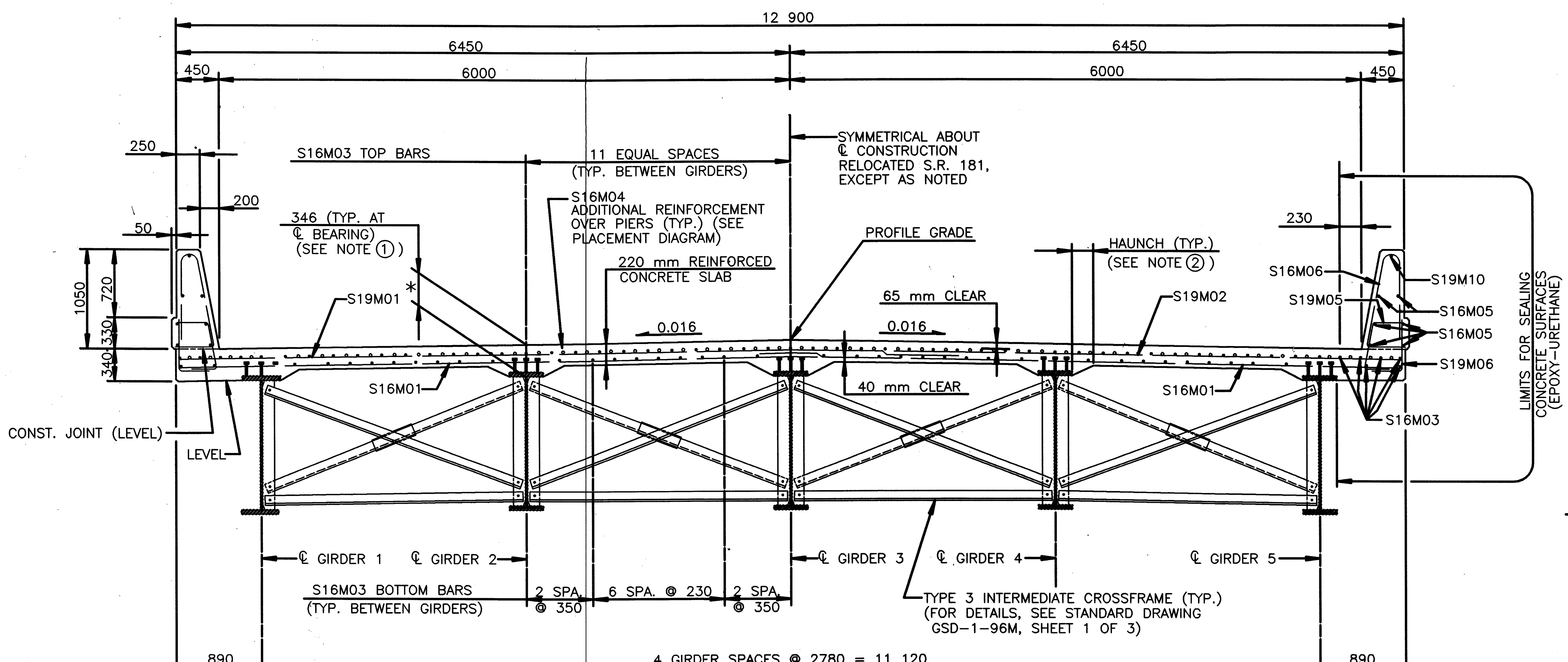
metric units

NOTES

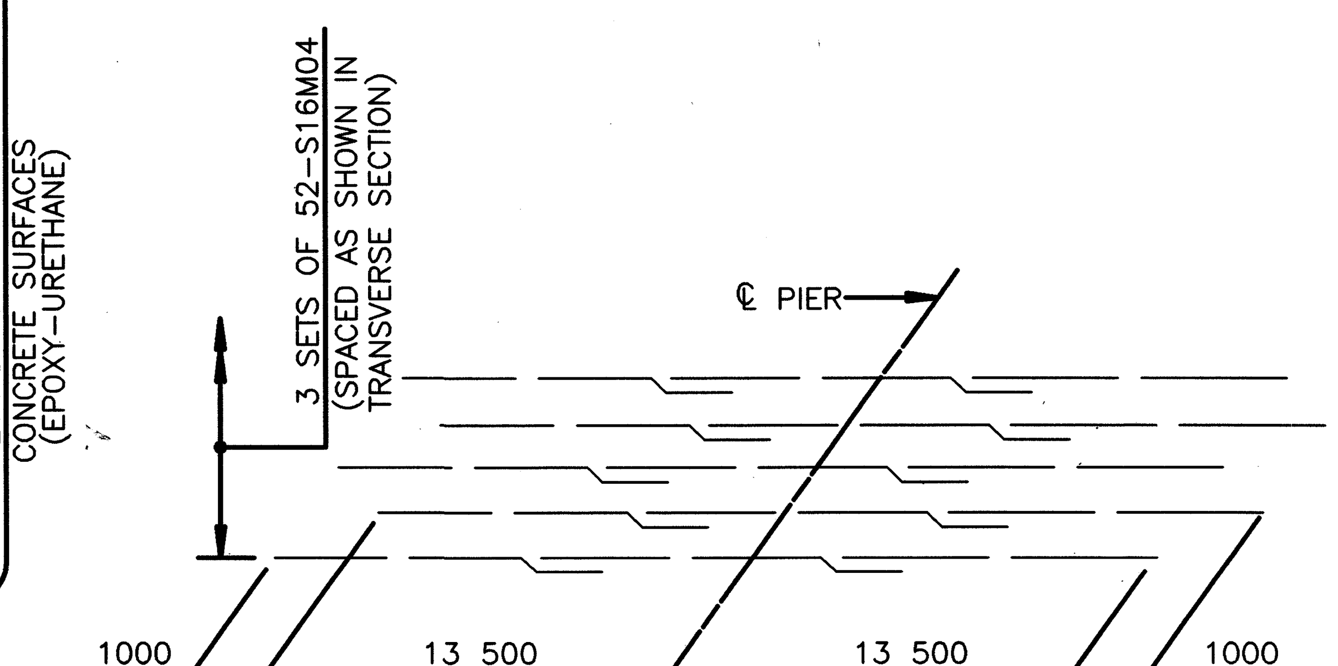
1. *DECK SLAB DEPTH: THE DISTANCE SHOWN FROM THE TOP OF THE DECK SLAB TO THE BOTTOM OF THE TOP FLANGE IS THE THEORETICAL DESIGN DIMENSION INCLUDING THE DESIGN HAUNCH THICKNESS OF 50 mm. THE QUANTITY OF DECK CONCRETE TO BE PAID FOR SHALL BE BASED UPON THIS DIMENSION, MINUS THE DESIGN HAUNCH THICKNESS, EVEN THOUGH DEVIATION FROM IT MAY BE NECESSARY BECAUSE THE TOP FLANGE OF THE GIRDER MAY NOT HAVE THE EXACT CAMBER OR CONFORMATION REQUIRED TO PLACE IT PARALLEL TO THE FINISHED GRADE. DEDUCTION SHALL BE MADE FOR VOLUME OF ENCASED STEEL PLATES AS PER 842.18.
2. A HAUNCH WIDTH OF 225 mm SHALL BE USED FOR COMPUTING QUANTITY OF CONCRETE. HOWEVER, THE HAUNCH WIDTH MAY VARY BETWEEN 150 mm AND 300 mm.
3. MINIMUM LAP UNLESS OTHERWISE NOTED:
   16M BARS = 890 mm
   19M BARS = 1040 mm
   25M BARS = 1500 mm
4. FOR SCREED ELEVATIONS, SEE SHEET 9/13.
5. FOR PARAPET CONTROL JOINT DETAILS AND NOTES, SEE STANDARD DRAWING SBR-1-99M.



PARAPET DETAIL



TRANSVERSE SECTION



PLACEMENT OF ADDITIONAL REINFORCEMENT OVER PIER

DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

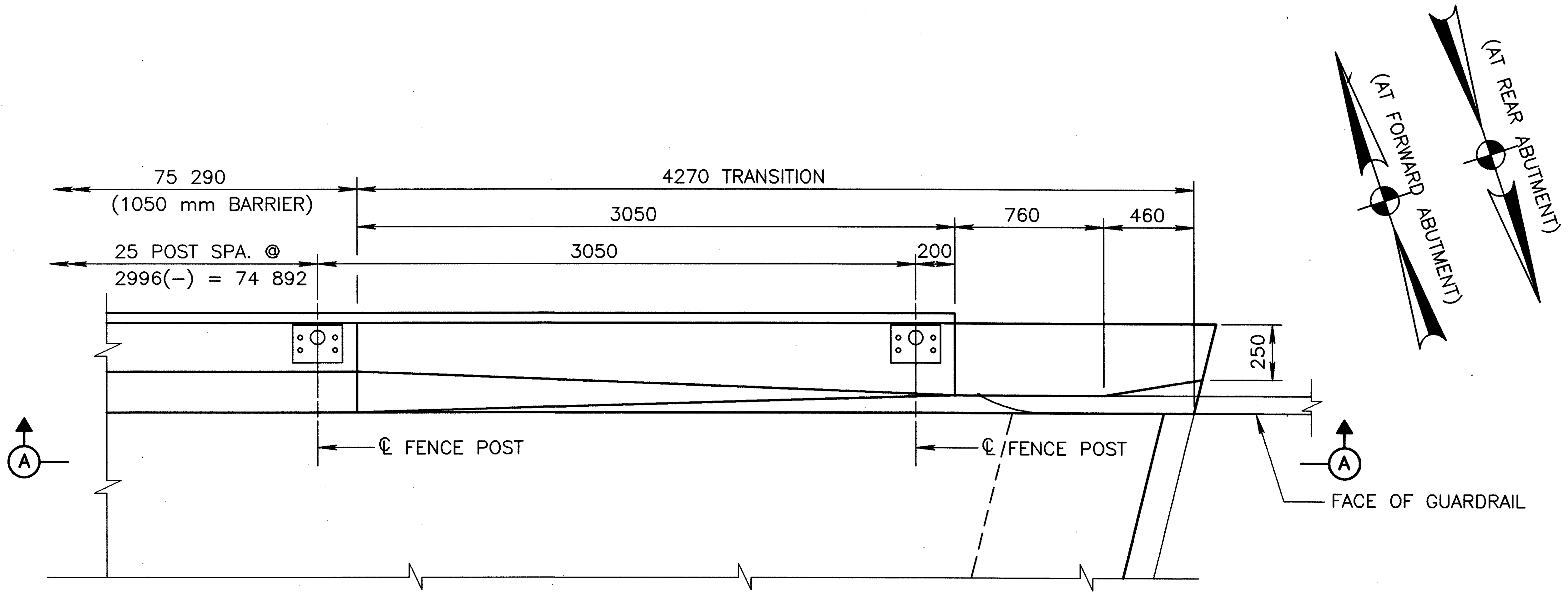
REVIEWED LBD	DATE 8-14-00	STRUCTURE FILE NUMBER 7001037
DRAWN MAT	REVISED 12-8-00	
DESIGNED HK	CHECKED RHW	

SLAB PLAN AND TRANSVERSE SECTION
BRIDGE NO. RIC-30-04075
UNDER RELOCATED STATE ROUTE 181

CRA/RIC-30-33.500/0.000

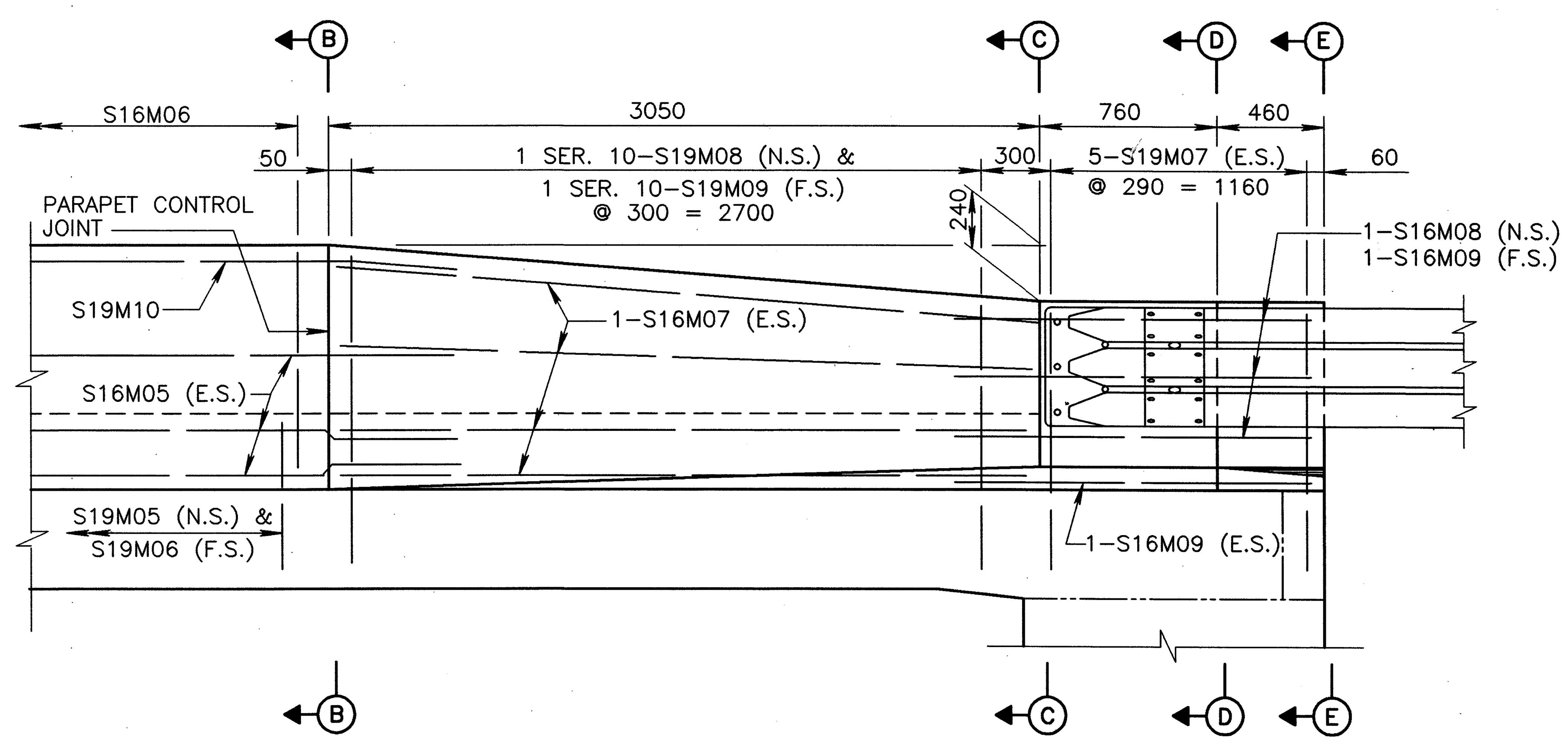
10/13

600/712



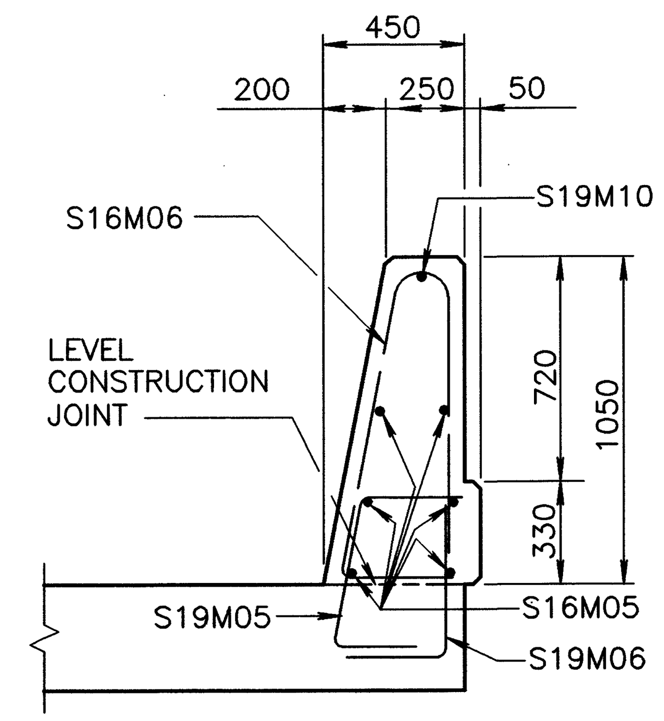
PARAPET TRANSITION PLAN

(RIGHT REAR AND LEFT FORWARD PARAPET TRANSITION SHOWN, LEFT REAR AND RIGHT FORWARD PARAPET TRANSITION SIMILAR)

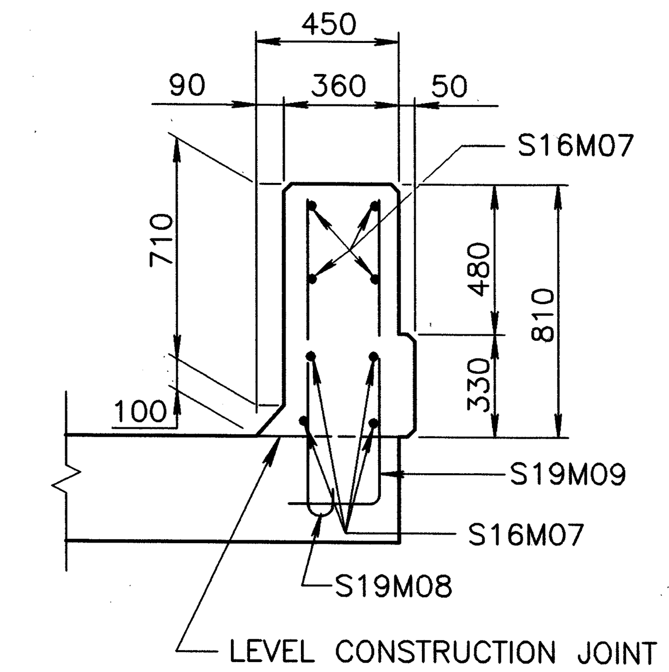


SECTION A−A

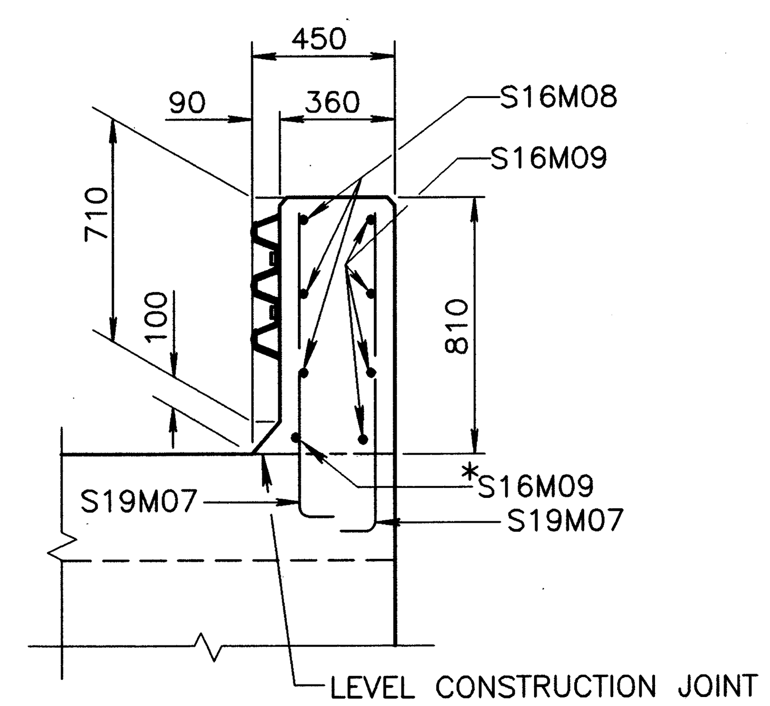
(FENCE NOT SHOWN)



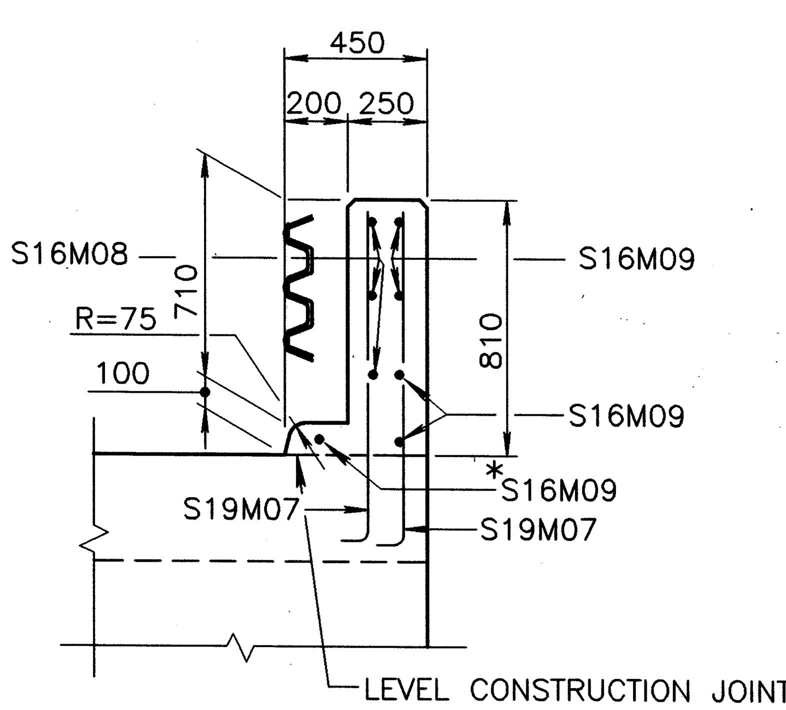
SECTION B−B



SECTION C−C



SECTION D−D



SECTION E−E

* FIELD BEND AS REQUIRED.

metric units

NOTES

1. FOR SLAB PLAN AND ADDITIONAL NOTES, SEE SHEET 10/13.
2. MINIMUM LAP − 16M BARS = 890 mm

LEGEND

N.S. DENOTES NEAR SIDE
F.S. DENOTES FAR SIDE
E.S. DENOTES EACH SIDE

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

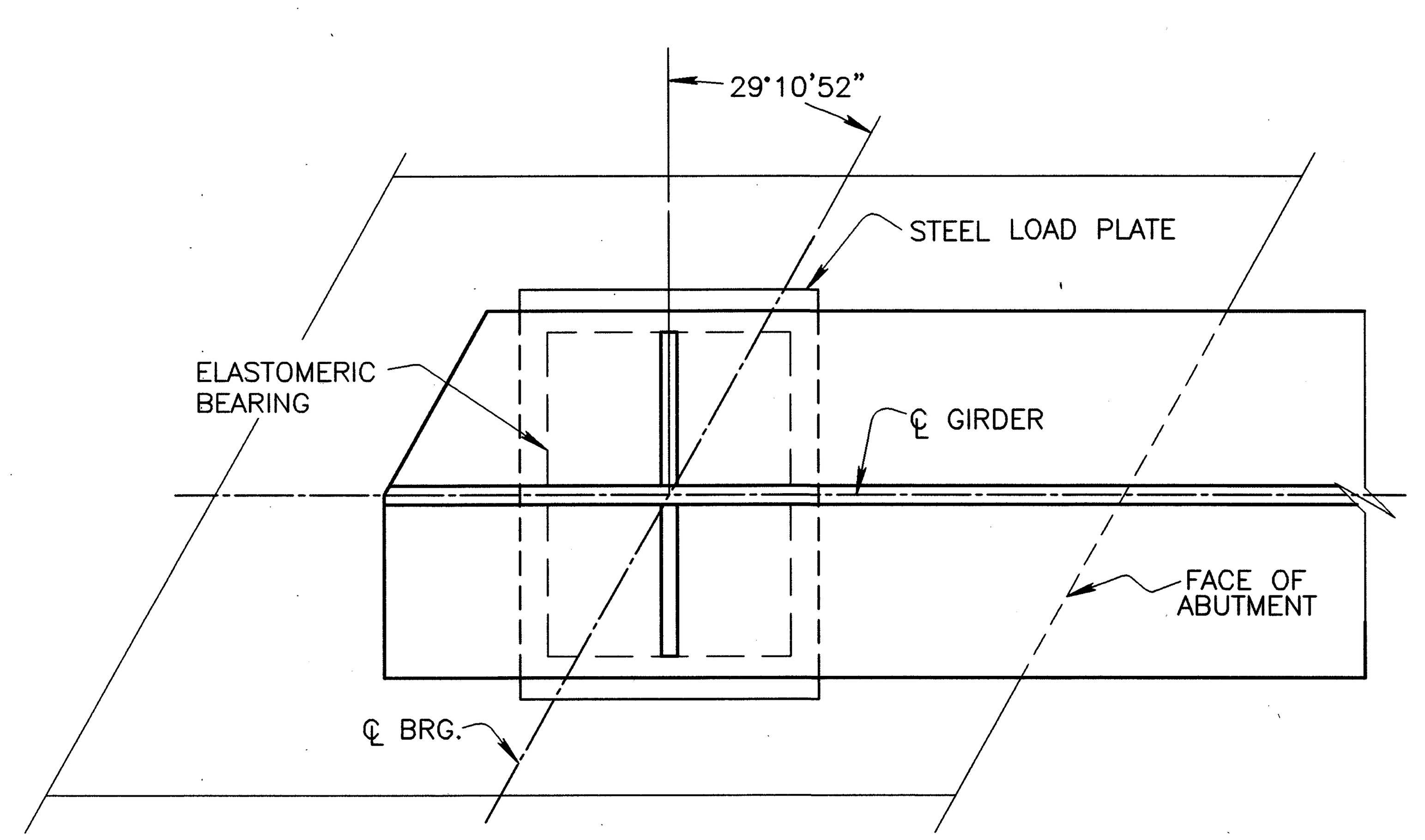
REVIEWED LBD
DATE 8−14−00
STRUCTURE FILE NUMBER 7001037

DRAWN MAT
REVISED

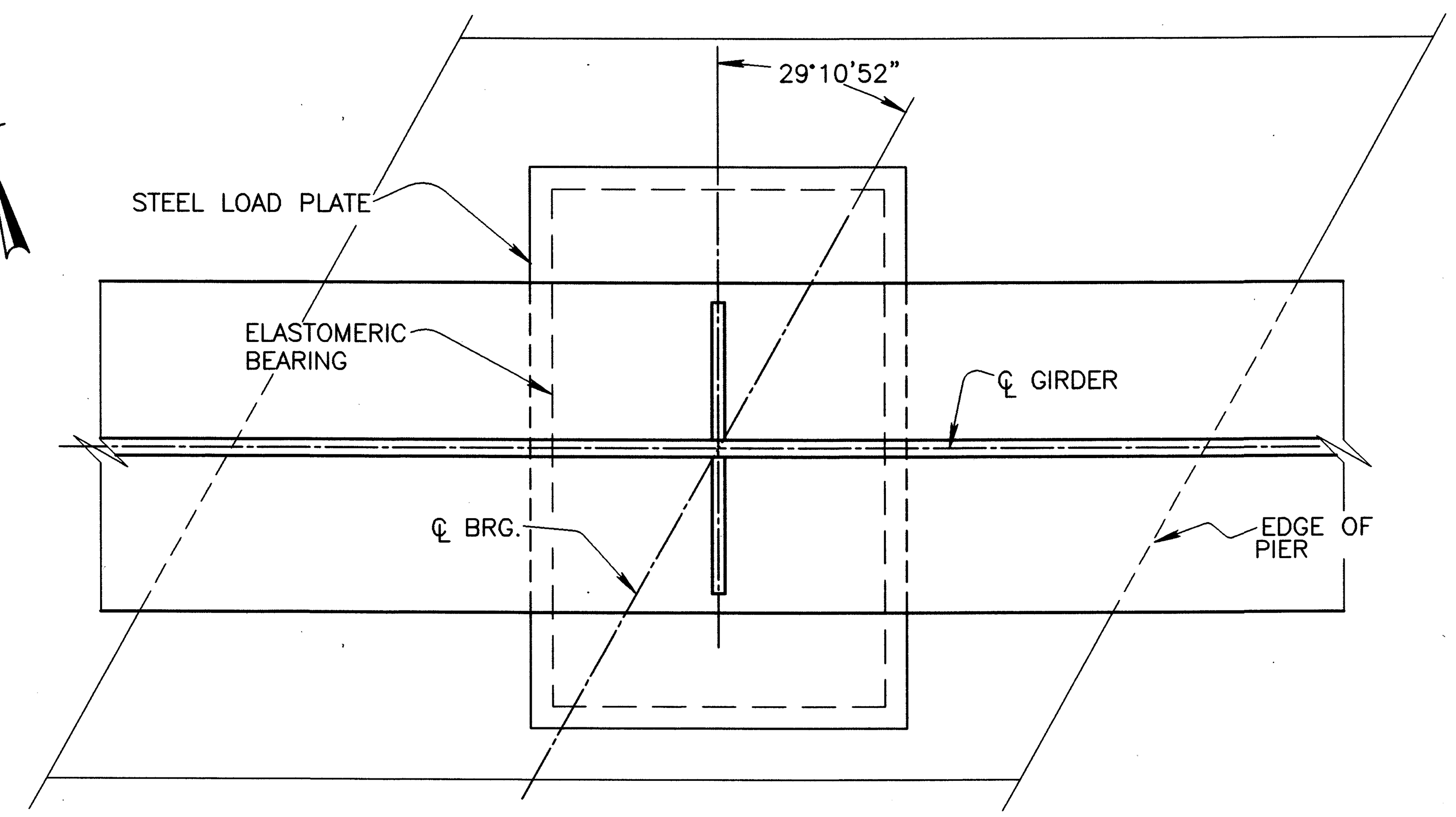
DESIGNED HK
CHECKED RHW

PARAPET DETAILS
BRIDGE NO. RIC−30−04075
UNDER RELOCATED STATE ROUTE 181

CRA/RIC−30−33.500/0.000



VIEW A–A
(HP SHAPE AND RETAINER NOT SHOWN)



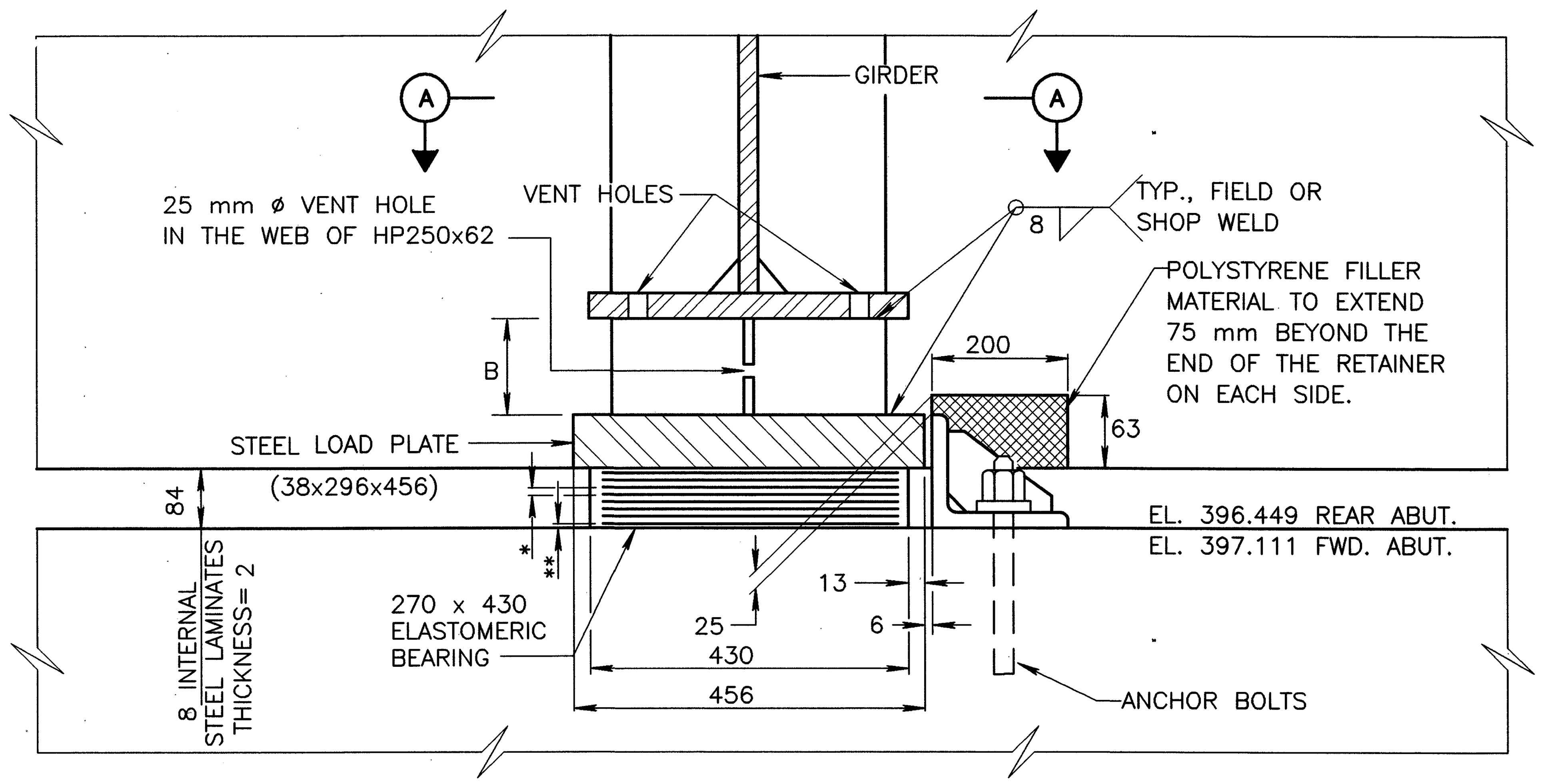
VIEW B–B

NOTES

1. STEEL LOAD PLATE AND HP250x62 SHALL BE ASTM A572M AND INCLUDED WITH ITEM 516, ELASTOMERIC BEARING FOR PAYMENT.
2. FOR ADDITIONAL BEARING RETAINER DETAILS, SEE STANDARD DRAWING SICD–1–96M , SHEETS 6 AND 7.
3. MATERIALS: THE STEEL RETAINER ASSEMBLY AND SQUARE PLATE WASHER SHALL BE ASTM A572M–50. ANCHOR BOLTS AND NUTS SHALL BE ASTM A325M. STEEL RETAINER ASSEMBLIES SHALL HAVE THE SAME PROTECTIVE COATING AS THE MAIN STRUCTURAL STEEL. ANCHOR BOLTS, NUTS AND SQUARE PLATE WASHERS SHALL BE GALVANIZED AS PER 711.02.
4. ELASTOMERIC BEARINGS SHALL COMPLY WITH ITEM 516 AND AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, SECTION 18, BEARING DEVICES, DIVISION II, CONSTRUCTION, ARTICLES 18.4.5.1 AND 18.5.6.2. BEARINGS SHALL BE GRADE 3, 50 DUROMETER ELASTOMER, AND SHALL BE SUBJECTED TO THE LOAD TESTING REQUIREMENTS DEFINED IN ARTICLE 18.7.4.5 OF THE AASHTO DOCUMENT LISTED ABOVE. BEARINGS WERE DESIGNED UNDER SECTION 14.6.6 OF SECTION 14, BEARINGS DIVISION I, DESIGN. TESTING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BEARINGS, EACH
5. WELDING SHALL BE CONTROLLED SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 150° C AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.
6. BASIS OF PAYMENT: THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS, LABOR TESTING, ANCHOR RODS, RETAINERS AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS. PAYMENT WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 516, EACH, ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) :

   270 mm x 430 mm x 84.0 mm WITH 296 mm x 456 mm x 38 mm LOAD PLATE, AS PER PLAN.

   460 mm x 730 mm x 65.0 mm WITH 486 mm x 756 mm x 50 mm LOAD PLATE.

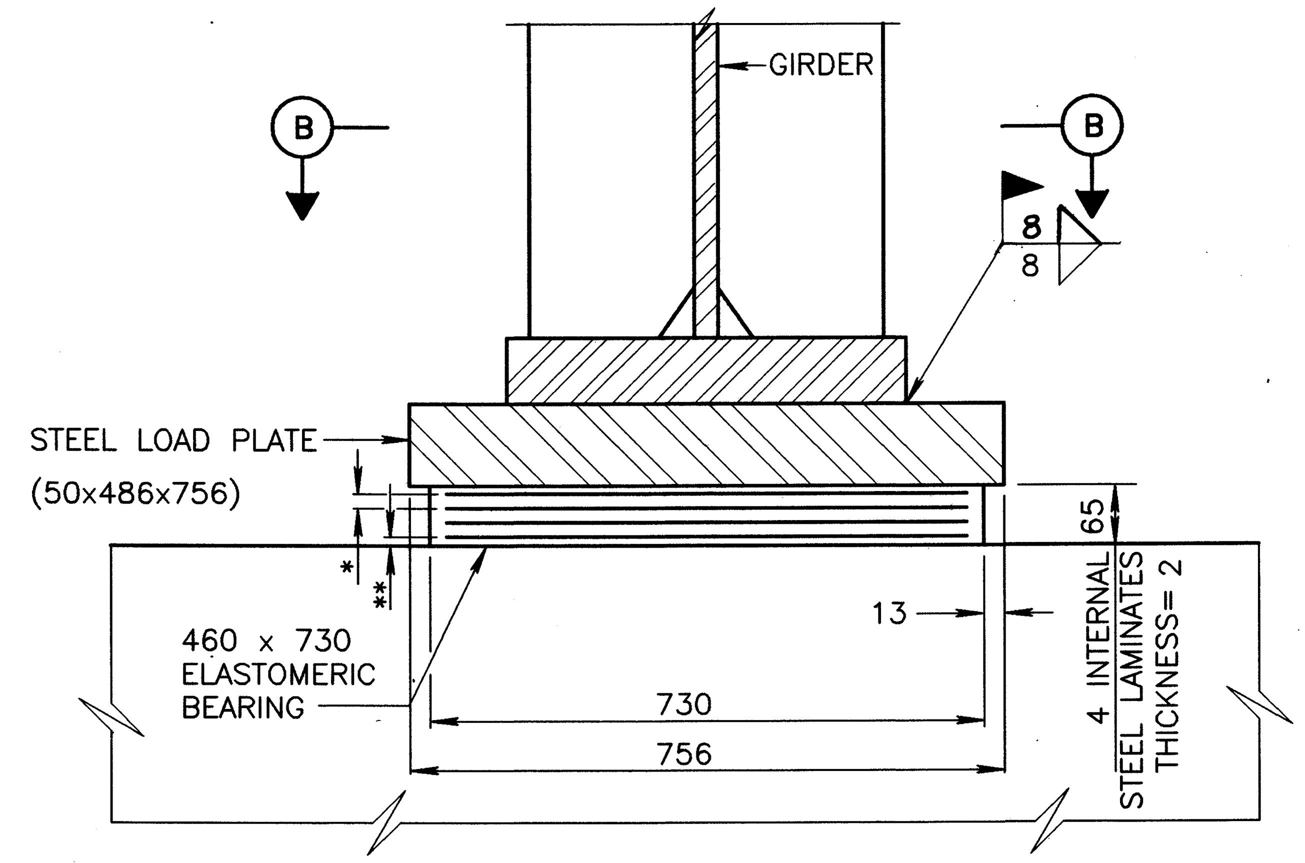


ABUTMENT BEARINGS

DEAD LOAD REACTION = 430 kN
LIVE LOAD REACTION = 260 kN
TOTAL DESIGN LOAD = 690 kN

* t_i = 8.0 (TYP.) 7 LAYERS
** t_e= 6.0

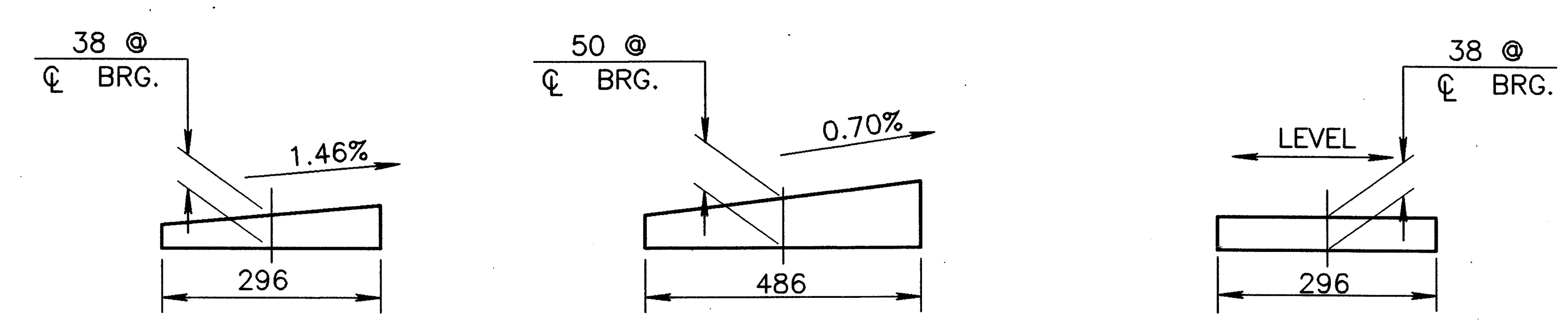
LOCATION	DIM. B GIRDER 1	GIRDER 2	GIRDER 3	GIRDER4	GIRDER 5
REAR ABUT.	205	227	248	180	111
FORWARD ABUT.	134	172	211	161	111



PIER BEARINGS

DEAD LOAD REACTION = 1630 kN
LIVE LOAD REACTION = 560 kN
TOTAL DESIGN LOAD = 2190 kN

* t_i = 13.0 (TYP.) 3 LAYERS
** t_e= 9.0



LOAD PLATE BEVEL DETAIL

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

REVIEWED	DATE	STRUCTURE FILE NUMBER	DRAWN	REVISED	DESIGNED	CHECKED
LBD	8–14–00	7001037	RHW		RHW	HK

BEARING DETAILS
BRIDGE NO. RIC–30–04075
UNDER RELOCATED STATE ROUTE 181

CRA/RIC–30–33.500/0.000

REINFORCING SCHEDULE

MARK	NO. REQ'D	LENGTH	TYPE	LOCATION: REAR	LOCATION: FWD.	DIMENSIONS: A	B	C	D	INCRM.
ABUTMENTS										
A16M01	24	11 940	STR.	12	12					
A16M02	104	5010	14	52	52	775	1650			
A16M03	64	4920	14	32	32	800	1580			
A16M05	16	7780	STR.	8	8					
A16M06	6	4720	STR.	3	3					
A16M07	6	4815	STR.	3	3					
A16M08	6	4415	STR.	3	3					
A16M09	6	5280	STR.	3	3					
SERIES A16M11	1 SET OF 8	4670 TO 7850	2	1 SET OF 8		650	2050 TO 3640			227
A16M12	1	7870	2	1		650	3650			
A16M13	1	7965	2	1		745	3650			
A16M14	1	8165	2	1		745	3750			
A16M15	1	8070	2	1		650	3750			
SERIES A16M16	1 SET OF 8	4670 TO 7970	2	1 SET OF 8		650	2050 TO 3700			236
A16M17	2	4125	STR.	1	1					
A16M18	2	3780	STR.	1	1					
A16M19	2	3865	STR.	1	1					
A16M20	2	4210	STR.	1	1					
SERIES A16M21	1 SET OF 4	1750 TO 4120	STR.	1 SET OF 4						790
SERIES A16M22	1 SET OF 4	1410 TO 3780	STR.	1 SET OF 4						790
A16M23	1	4505	10	1		960	1600	3165		
A16M24	1	4160	10	1		615	1600	3165		
SERIES A16M25	1 SET OF 4	1575 TO 3865	STR.	1 SET OF 4						763
SERIES A16M26	1 SET OF 4	1920 TO 4210	STR.	1 SET OF 4						763
A16M27	1	4285	10	1		620	1700	3245		
A16M28	1	4625	10	1		960	1700	3245		
SERIES A16M29	1 SET OF 8	4670 TO 7910	2		1 SET OF 8	650	2050 TO 3670			231
A16M30	1	7910	2		1	650	3670			
A16M31	1	8005	2		1	745	3670			
A16M32	1	7955	2		1	745	3645			
A16M33	1	7860	2		1	650	3645			
SERIES A16M34	1 SET OF 8	4670 TO 7790	2		1 SET OF 8	650	2050 TO 3610			223
SERIES A16M35	1 SET OF 4	1795 TO 4125	STR.		1 SET OF 4					777
SERIES A16M36	1 SET OF 4	1450 TO 3780	STR.		1 SET OF 4					777
A16M37	1	4520	10		1	960	1630	3165		
A16M38	1	4175	10		1	615	1630	3165		
SERIES A16M39	1 SET OF 4	1440 TO 3865	STR.		1 SET OF 4					808
SERIES A16M40	1 SET OF 4	1785 TO 4210	STR.		1 SET OF 4					808
A16M41	1	4240	10		1	620	1605	3245		
A16M42	1	4580	10		1	960	1605	3245		
A16M43	36	1370	2	18	18	650	400			
A16M44	4	1465	2	2	2	745	400			
A16M45	6	4800	14	3	3	910	1410			
A16M46	12	4580	14	6	6	800	1410			
A16M47	6	4660	14	6		800	1450			
A16M48	6	4780	14	6		800	1510			
A16M49	6	4740	14	6		800	1490			
A16M50	3	4960	14	3		910	1490			
A16M51	6	4700	14		6	800	1470			
A16M52	6	4720	14		6	800	1480			
A16M53	6	4640	14		6	800	1440			
A16M54	3	4820	14		3	915	1440			
A16M55	12	2010	2	6	6	630	730			
A16M56	48	1930	2	24	24	550	730			
A25M01	24	8670	STR.	12	12					
A25M02	16	8390	STR.	8	8					
A25M03	48	8100	STR.	24	24					
D25M01	56	1670	13	28	28	905	431	305		

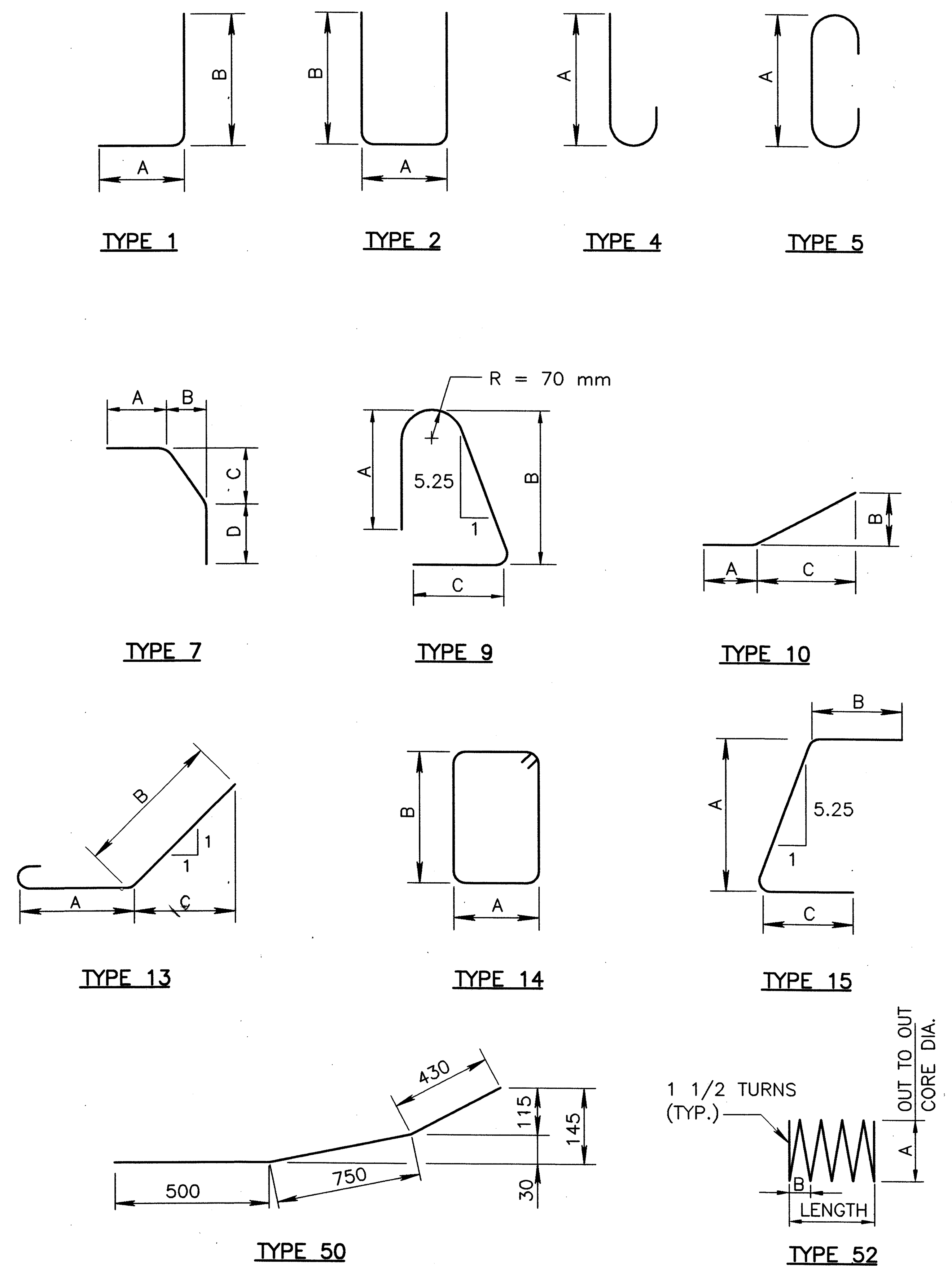
REINFORCING SCHEDULE

MARK	NO. REQ'D	LENGTH	TYPE	DIMENSIONS: A	B	C	D	INCRM.
PIER								
P16M01	20	7295	STR.					
P16M02	10	2385	2	965	750			
P16M03	36	2870	2	1000	975			
P16M04	64	2520	2	650	975			
SERIES P16M05	8 SETS OF 5	2440 TO 2520	2	650	935 TO 975			10
P16M06	4	2770	2	1000	925			
P16M07	4	2750	2	1000	915			
P16M08	35	1980	2	1000	530			
P19M01	12	2970	7	890	1202	143	900	
P29M01	72	3610	5	2850				
P32M01	48	3190	1	555	2735			
P32M02	48	5800	STR.					
P32M03	6	6225	1	555	5770			
P32M04	12	6660	STR.					
P32M05	8	4500	STR.					
P32M06	6	11 455	1	555	11 000			
SP13M01	3	4650	52	765	115			
SUPERSTRUCTURE								
S16M01	1064	6850	STR.					
SERIES S16M02	4 SETS OF 19	1800 TO 6624	STR.					268
S16M03	930	9140	STR.					
S16M04	156	9930	STR.					
S16M05	96	11 260	STR.					
S16M06	556	2205	9	900	950	320		
S16M07	32	3050	STR					
S16M08	12	1680	50					
S16M09	20	1680	STR					
S19M01	527	8320	STR.					
S19M02	537	5540	STR.					
SERIES S19M03	2 SETS OF 14	1800 TO 5284	STR.					268
SERIES S19M04	2 SETS OF 24	1800 TO 7964	STR.					268
S19M05	556	1000	15	460	320	320		
S19M06	556	730	1	320	460			
S19M07	40	1015	1	125	940			
SERIES S19M08	4 SETS OF 10	1145 TO 1370	4	940 TO 1165				25
SERIES S19M09	4 SETS OF 10	1140 TO 1365	1	250	940 TO 1165			25
S19M10	16	10 600	STR.					
S25M01	16	8150	STR.					

metric units

NOTES

1. ALL REINFORCING STEEL TO BE EPOXY COATED.
2. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST TWO DIGITS INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, A 16M01 IS A 16M BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED.



SPIRAL REINFORCING BAR SPACERS

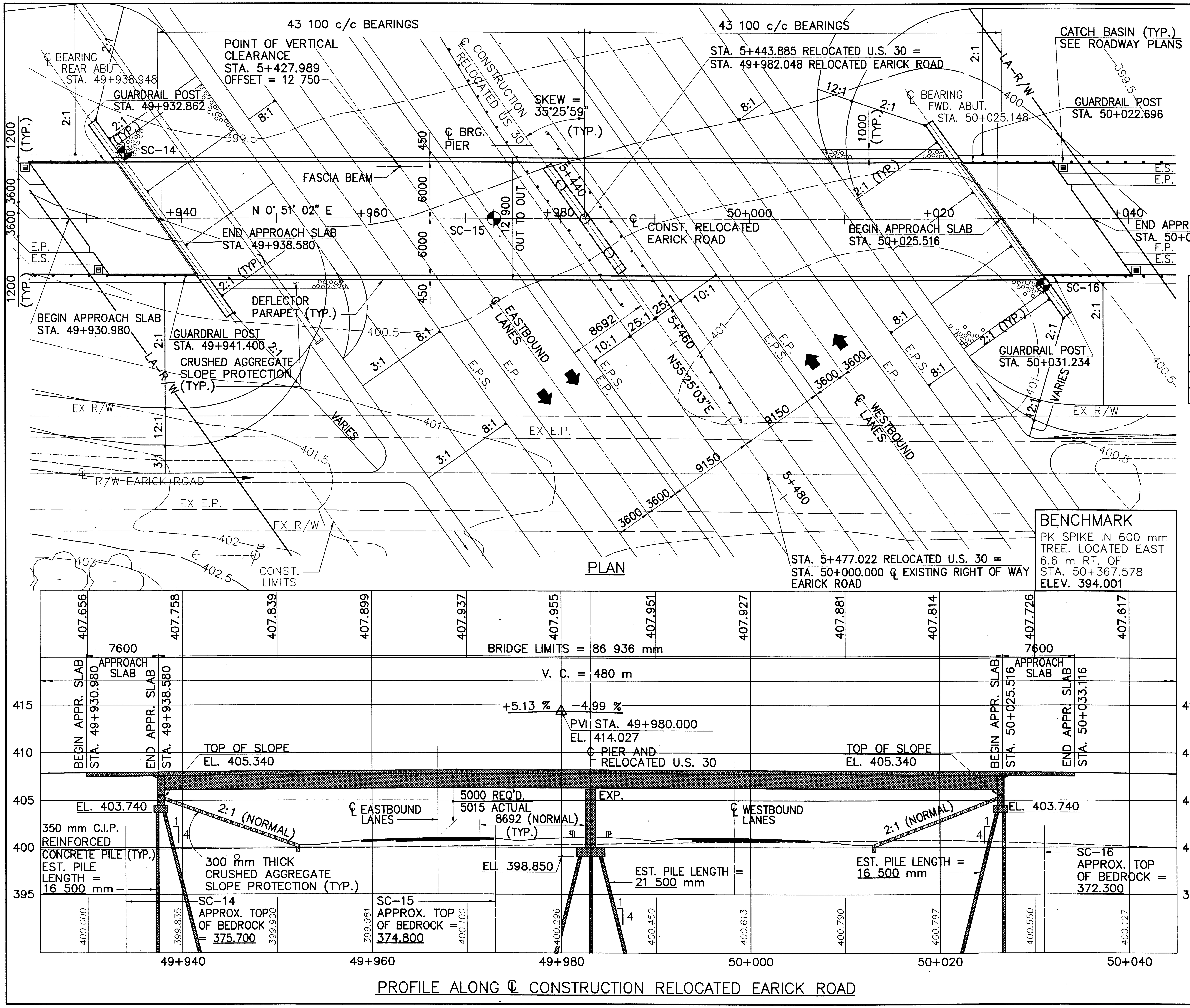
CONCRETE SPACERS OR OTHER APPROVED NONCORROSIVE SPACING DEVICES SHALL BE USED AT SUFFICIENT INTERVALS (NEAR THE BOTTOM AND AT INTERVALS NOT EXCEEDING 3050 mm) TO INSURE CONCENTRIC SPACING FOR THE ENTIRE CAGE LENGTH. SPACERS SHALL BE CONSTRUCTED OF APPROVED MATERIAL EQUAL IN QUALITY AND DURABILITY TO THE CONCRETE SPECIFIED FOR THE SHAFT. THE SPACERS SHALL HAVE ADEQUATE DIMENSIONS TO ENSURE A MINIMUM 75 mm CLEAR SPACE BETWEEN THE OUTSIDE OF THE REINFORCING CAGE AND THE DESIGN DIMENSION OF THE COLUMN. CYLINDRICAL CONCRETE FEET (BOTTOM SUPPORTS) SHALL BE PROVIDED TO ENSURE THAT THE BOTTOM OF THE CAGE IS MAINTAINED AT THE PROPER DISTANCE ABOVE THE BASE.

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

REVIEWED LBD DATE 8-14-00 STRUCTURE FILE NUMBER 7001037
DRAWN WEB REVISED
DESIGNED - CHECKED RHW

REINFORCING SCHEDULE
BRIDGE NO. RIC-30-04075
UNDER RELOCATED STATE ROUTE 181

CRA/RIC-30-33.500/0.000



PROFILE ALONG ℄ CONSTRUCTION RELOCATED EARICK ROAD

metric units

NOTE

EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

FOUNDATION INVESTIGATION LEGEND

⊕ INDICATES BORING LOCATION

SITE	STATION	OFFSET mm	TOP OF GROUND ELEVATION
SC-14	49+934.000	7000 LT.	399.60
SC-15	49+973.000	℄	400.20
SC-16	50+031.000	7000 RT.	400.80

TRAFFIC DATA

DESIGN ADT (2020) = 2569
DESIGN ADTT (2020) = 77

PROPOSED STRUCTURE

TYPE: 2 SPAN CONTINUOUS A572M PAINTED STEEL GIRDER BRIDGE w/COMPOSITE REINFORCED CONCRETE DECK ON CAP AND COLUMN PIER AND SEMI-INTEGRAL ABUTMENTS
SPANS: 43 100, 43 100 c/c BEARINGS
ROADWAY: 12 000 T/T PARAPETS
DESIGN LOADING: MS18 CASE II & ALTERNATE MILITARY LOADING
SKEW: 35°-25'-59" R.F.
ALIGNMENT: TANGENT
WEARING SURFACE: MONOLITHIC CONCRETE
APPROACH SLABS: 7600 (AS-1-81M)
CROWN: 0.016
LATITUDE: N40°-46'-30"
LONGITUDE: W82°-40'-02"

LEGEND:

E.P. EDGE OF PAVEMENT
E.P.S. EDGE OF PAVED SHOULDER
E.S. EDGE OF SHOULDER
TYP. TYPICAL

ALL DIMENSIONS ARE IN MILLIMETERS
ALL ELEVATIONS AND STATIONING ARE IN METERS

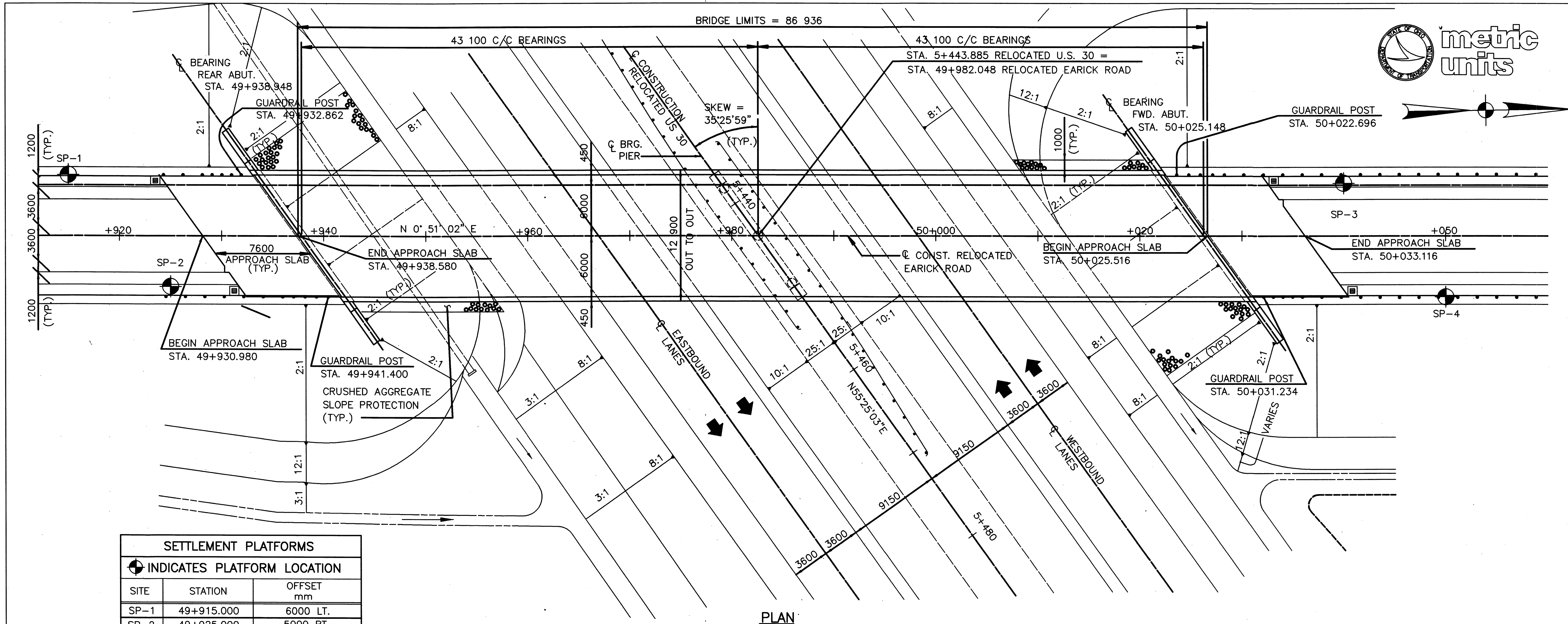
DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

REVIEWED LBD DATE 8-14-00 STRUCTURE FILE NUMBER 7000987
DRAWN PS REVISED
DESIGNED RHW CHECKED HK

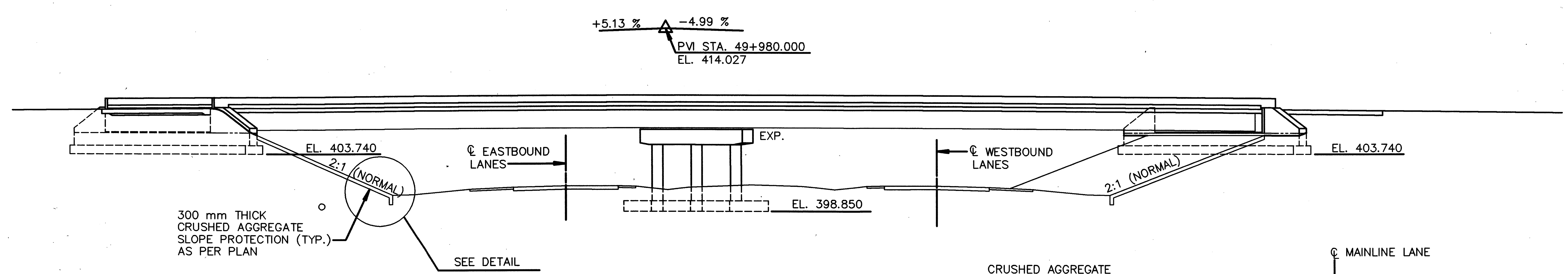
RICHLAND COUNTY STA. 49+938.580 STA. 50+025.516

SITE PLAN
BRIDGE NO. RIC-30-05405 UNDER RELOCATED EARICK ROAD

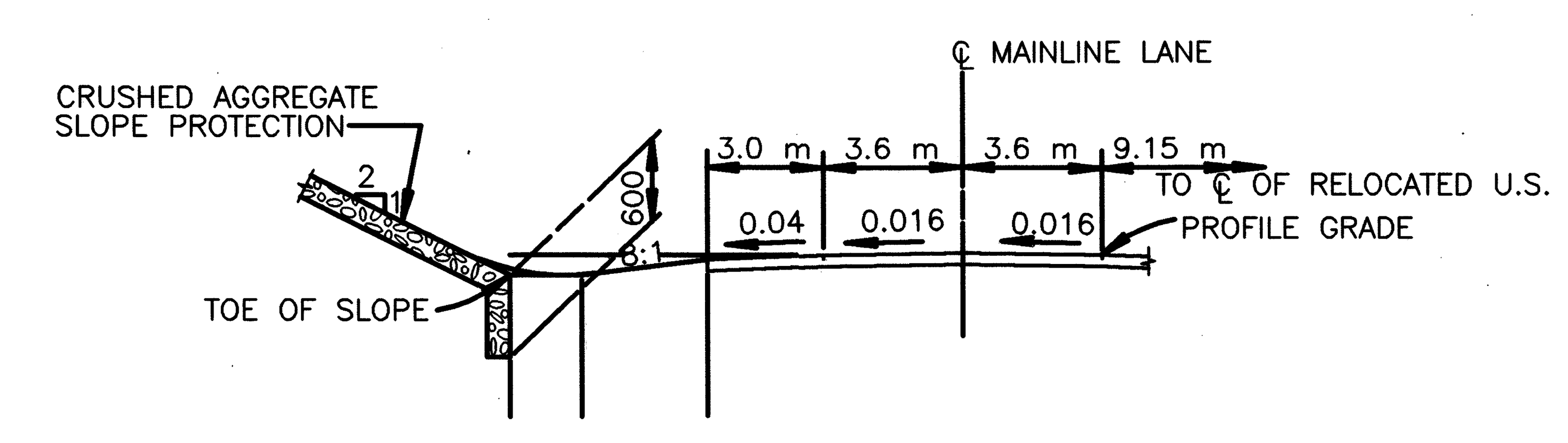
CRA/RIC-30-33.500/0.000



SETTLEMENT PLATFORMS		
INDICATES PLATFORM LOCATION		
SITE	STATION	OFFSET mm
SP-1	49+915.000	6000 LT.
SP-2	49+925.000	5000 RT.
SP-3	50+040.000	5000 LT.
SP-4	50+050.000	6000 RT.



ELEVATION
(PILES NOT SHOWN)



TYPICAL ABUTMENT SLOPE DETAIL

metric units

DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

REVIEWED: LBD | DATE: 8-14-00 | STRUCTURE FILE NUMBER: 7000987

DRAWN: WEB | REVISED: 12-8-00

DESIGNED: RHW | CHECKED: HK

GENERAL PLAN AND ELEVATION
BRIDGE NO. RIC-30-05405
UNDER RELOCATED EARICK ROAD

CRA/RIC-30-33.500/0.000

2/13

605/712

ESTIMATED QUANTITIES

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	ABUT.	PIER	SUPER	GENERAL	AS PER PLAN SHEET NO.
SPECIAL	20365000	4	EACH	SETTLEMENT PLATFORM				4	GN-1
503	21301	LUMP		UNCLASSIFIED EXCAVATION, AS PER PLAN	LUMP	LUMP			GN-1
505	11100	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION				LUMP	
507	00600	1272	METER	350 mm CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	720	552			
507	00650	1272	METER	350 mm CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	720	552			
507	50500	44	EACH	STEEL PILE SPLICES	20	24			
516	44100	5	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (65.0 mm X 460 mm X 730 mm WITH 50 mm X 486 mm X 756 mm LOAD PLATE)		5			
516	44201	10	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (84.0 mm X 270 mm X 430 mm WITH 38 mm X 296 mm X 456 mm LOAD PLATE)	10				12
518	21231	LUMP		POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN	LUMP				GN-1
518	40000	51	METER	150 mm PERFORATED CORRUGATED PLASTIC PIPE	51				
518	40010	7	METER	150 mm NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	7				
523	11100	3	HOUR	DYNAMIC LOAD TEST				3	
SPECIAL	53013000	73	SQ METER	FORM LINER	73				
816	00610	215600	KG	FIELD PAINTING OF NEW STEEL, INTERMEDIATE AND FINISH COAT, SYSTEM IZEU			215600		
842	41001	31	CU METER	CLASS C CONCRETE, PIER ABOVE FOOTINGS, AS PER PLAN		31			GN-1
842	45501	117	CU METER	CLASS C CONCRETE, ABUTMENT, AS PER PLAN	117				GN-1
842	46501	51	CU METER	CLASS C CONCRETE, FOOTING, AS PER PLAN		51			GN-1
844	48041	50	CU METER	HIGH PERFORMANCE CONCRETE SUBSTRUCTURE, AS PER PLAN	50				GN-1
844	49000	LUMP		HIGH PERFORMANCE CONCRETE TRIAL MIX			LUMP		
844	49010	LUMP		HIGH PERFORMANCE CONCRETE TESTING			LUMP		
863	10080	LUMP		STRUCTURAL STEEL MEMBERS, LEVEL FOUR (4) FABRICATION, A572M			LUMP		
863	20000	2385	EACH	WELDED STUD SHEAR CONNECTOR			2385		
864	10100	810	SQ METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	115	93	602		GN-1
894	10001	368	CU METER	HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN			368		GN-1

metric units

GENERAL NOTES

PILE DESIGN LOADS (ULTIMATE BEARING VALUE)

THE ULTIMATE BEARING VALUE IS 1240 kN PER PILE FOR THE 350 mm ø ABUTMENT PILES. THE ULTIMATE BEARING VALUE IS 1170 kN PER PILE FOR THE 350 mm ø PIER PILES.

ABUTMENT PILES:

40 PILES 16.5 METERS LONG, ESTIMATED LENGTH
40 PILES OF ORDER LENGTH 18 METERS LONG
20 SPLICES

PIER PILES:

24 PILES 21.5 METERS LONG, ESTIMATED LENGTH
24 PILES OF ORDER LENGTH 18 METERS LONG
24 PILES OF ORDER LENGTH 5 METERS LONG
24 SPLICES

PAINTING OF 863 STEEL

ALL NEW STEEL SHALL BE SHOP PRIMED PER ITEM 816, WHICH SHALL BE INCLUDED IN THE COST OF ITEM 863.

ITEM 816, FIELD PAINTING OF NEW STEEL, SYSTEM IZEU

ALL NEW STEEL SHALL BE PAINTED WITH AN INTERMEDIATE AND FINISH COAT OF PAINT IN THE FIELD USING SYSTEM IZEU. THE COLOR OF THE FINISH COAT SHALL BE A GREEN COLOR MEETING FEDERAL STANDARD NUMBER 24277. IN ADDITION TO THE SURFACE AREA OF THE STEEL STRINGERS TO BE PAINTED, INCIDENTALS SUCH AS CROSSFRAMES AND BEARINGS SHALL BE INCLUDED. THE COST OF THIS WORK SHALL BE INCLUDED IN ITEM 816, FIELD PAINTING OF NEW STEEL, INTERMEDIATE AND FINISH COAT, SYSTEM IZEU FOR PAYMENT.

FOR ADDITIONAL GENERAL NOTES SEE SHEET GN-1, 536/712.

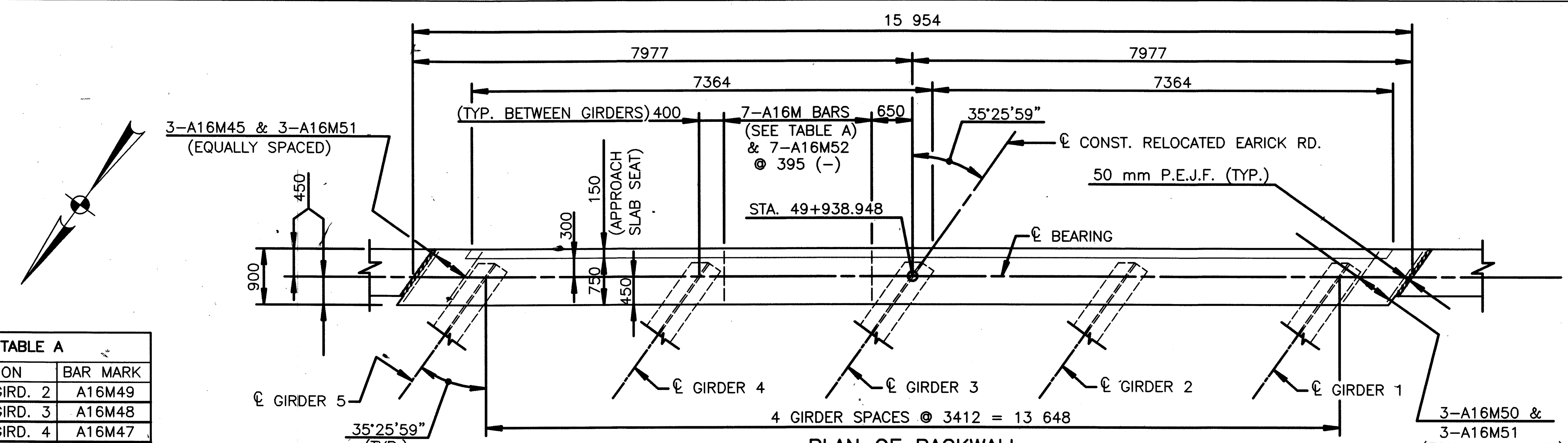
NOTE: FOR REINFORCED CONCRETE APPROACH SLAB AND CRUSHED AGGREGATE SLOPE PROTECTION QUANTITIES, SEE ROADWAY PLANS, SHEETS 58/712 AND 61/712.

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

REVIEWED LBD | DATE 8-14-00 | STRUCTURE FILE NUMBER 7000987
DRAWN MCM | REVISED
DESIGNED - | CHECKED HK

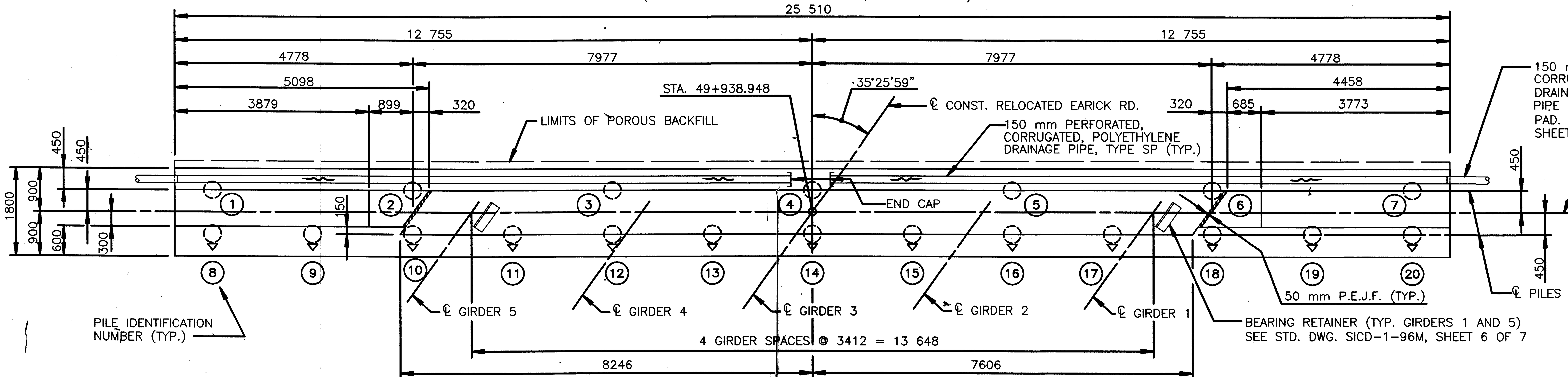
ESTIMATED QUANTITIES AND GENERAL NOTES
BRIDGE NO. RIC-30-05405
UNDER RELOCATED EARICK ROAD

CRA/RIC-30-33.500/0.000

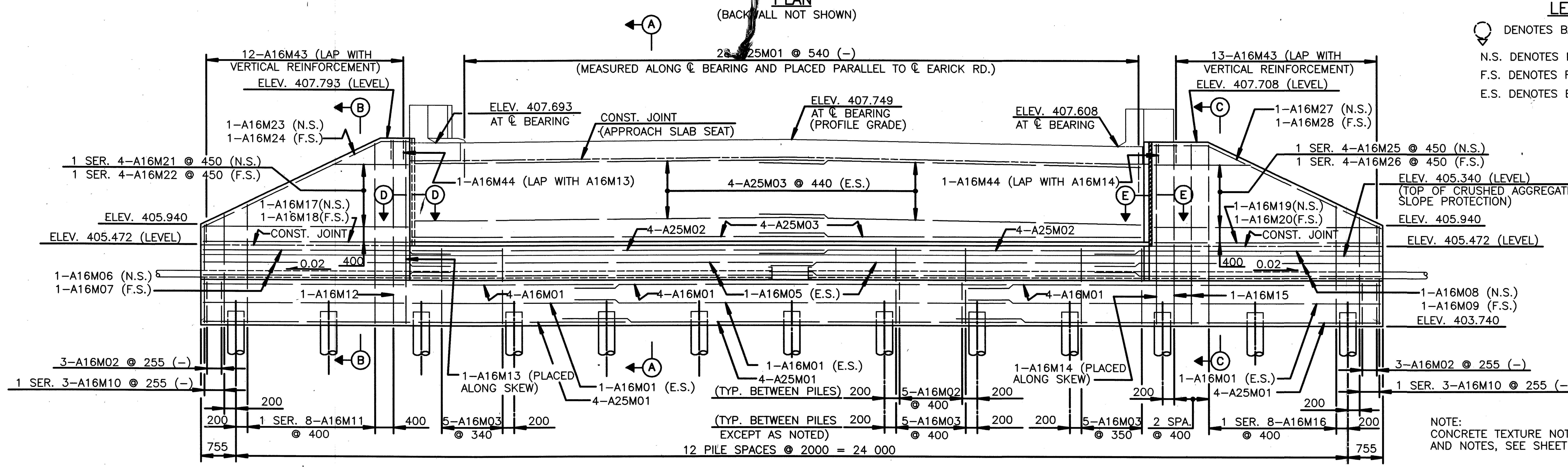


PLAN OF BACKWALL
(DECK SLAB AND APPROACH SLAB NOT SHOWN)
(FOR LONGITUDINAL REINFORCEMENT, SEE ELEVATION)

TABLE A	
LOCATION	BAR MARK
GIRD. 1-GIRD. 2	A16M49
GIRD. 2-GIRD. 3	A16M48
GIRD. 3-GIRD. 4	A16M47
GIRD. 4-GIRD. 5	A16M46



PLAN
(BACKWALL NOT SHOWN)



ELEVATION

metric units

NOTES

1. DIAPHRAGM (BACKWALL) CONCRETE ENCASING THE STRUCTURAL MEMBER SECTIONS SUPPORTED IN SEMI-INTEGRAL TYPE ABUTMENTS SHALL BE HIGH PERFORMANCE CONCRETE, MIX 4, AND SHALL BE PLACED AT LEAST 48 HOURS BEFORE THE ACTUAL DECK CONCRETE IS PLACED.
2. MINIMUM LAP UNLESS OTHERWISE NOTED:
   16M BARS = 875 mm A16M43 & A16M44 = 400 mm
   25M BARS = 1500 mm A25M02 = 2090 mm
3. ALL PILES ARE 350 mm ø CAST-IN-PLACE REINFORCED CONCRETE PILES.
4. FOR ELASTOMERIC BEARINGS SEE SHEET 12/13.
5. FOR SECTIONS A-A, B-B, C-C, D-D AND E-E SEE SHEET 6/13.
6. PREFORMED EXPANSION JOINT FILLER SHALL BE INCLUDED WITH ITEM 844, HIGH PERFORMANCE CONCRETE, SUBSTRUCTURE, AS PER PLAN, FOR PAYMENT.

LEGEND

DENOTES BATTERED PILE (1:4)
N.S. DENOTES NEAR SIDE
F.S. DENOTES FAR SIDE
E.S. DENOTES EACH SIDE

NOTE:
CONCRETE TEXTURE NOT SHOWN. FOR LOCATION AND NOTES, SEE SHEET 6/13.

DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

REVIEWED: LBD DATE: 8-14-00 STRUCTURE FILE NUMBER: 7000987

DRAWN: WEB REVISED:

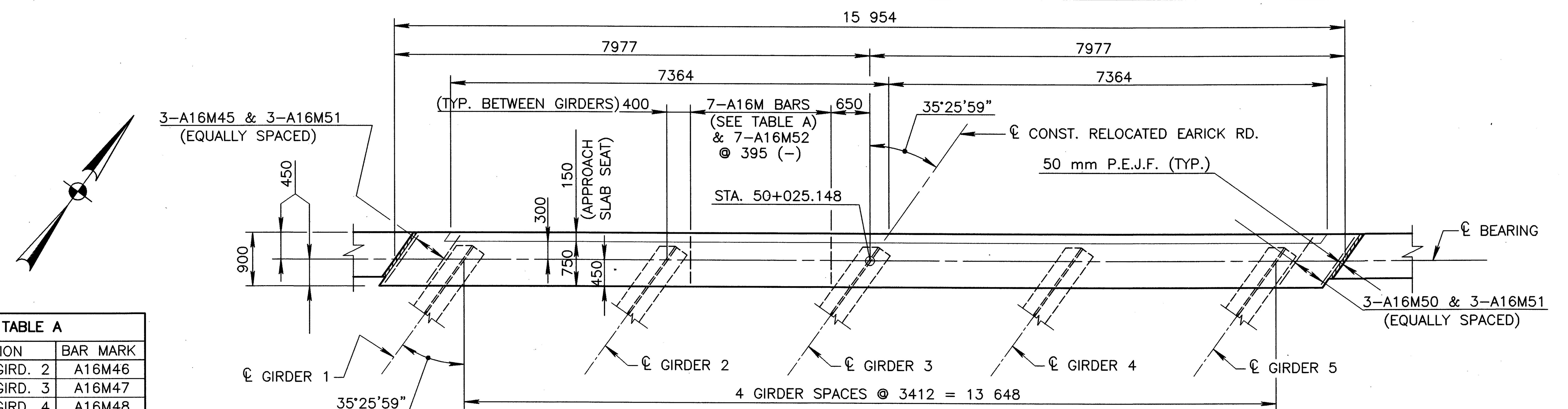
DESIGNED: HK CHECKED: RHW

REAR ABUTMENT
BRIDGE NO. RIC-30-05405
UNDER RELOCATED EARICK ROAD

CRA/RIC-30-33.500/0.000

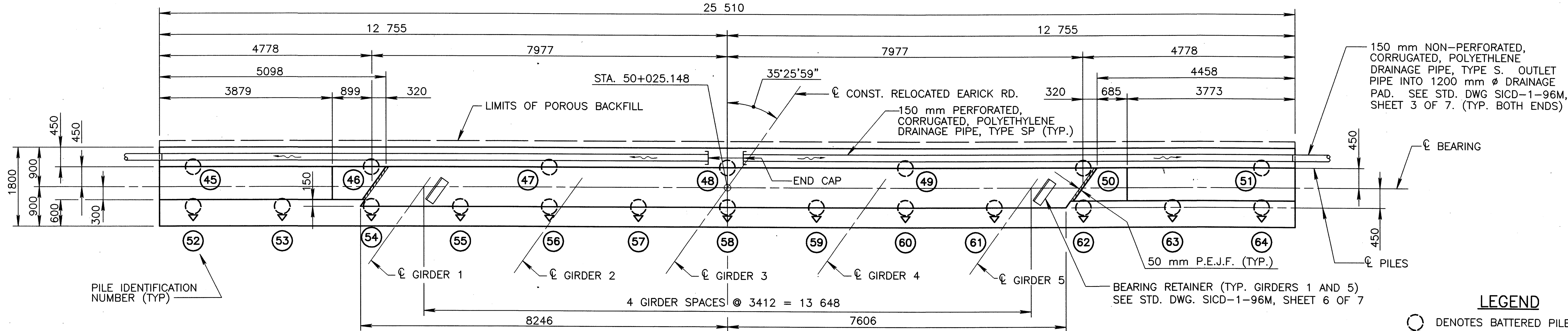
4/13

607/712

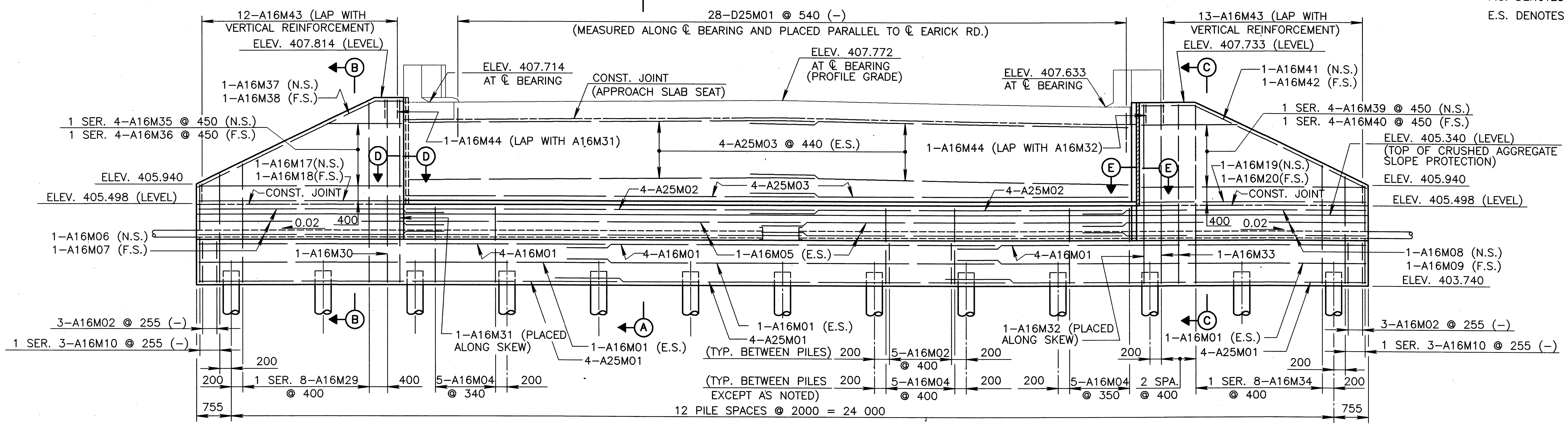


PLAN OF BACKWALL
(DECK SLAB AND APPROACH SLAB NOT SHOWN)
(FOR LONGITUDINAL REINFORCEMENT, SEE ELEVATION)

TABLE A	
LOCATION	BAR MARK
GIRD. 1–GIRD. 2	A16M46
GIRD. 2–GIRD. 3	A16M47
GIRD. 3–GIRD. 4	A16M48
GIRD. 4–GIRD. 5	A16M49



PLAN
(BACKWALL NOT SHOWN)



ELEVATION

NOTES

1. FOR SECTIONS A–A, B–B, C–C, D–D AND E–E, SEE SHEET 6/13.
2. MINIMUM LAP UNLESS NOTED OTHERWISE:
   16M BARS = 875 mm A16M43 & A16M44 = 400 mm
   25M BARS = 1500 mm A25M02 = 2090 mm
3. ALL PILES ARE 350 mm ø CAST–IN–PLACE REINFORCED CONCRETE PILES.
4. FOR ADDITIONAL NOTES, SEE SHEET 4/13.

LEGEND

DENOTES BATTERED PILE (1:4)
N.S. DENOTES NEAR SIDE
F.S. DENOTES FAR SIDE
E.S. DENOTES EACH SIDE

metric units

DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

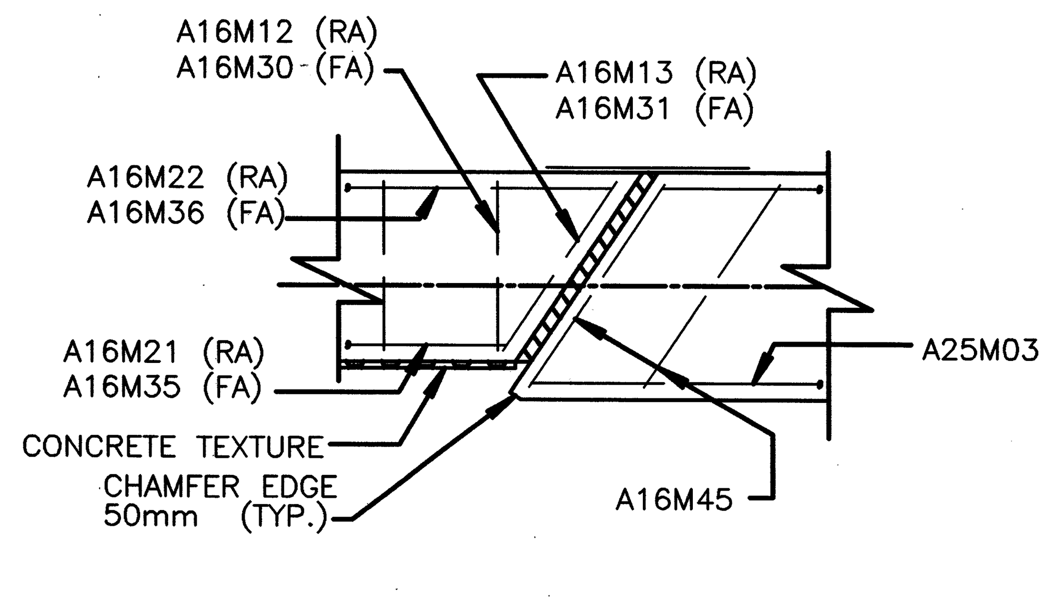
REVIEWED LBD | DATE 8–14–00 | STRUCTURE FILE NUMBER 7000987
DRAWN WEB | REVISED
DESIGNED HK | CHECKED RHW

FORWARD ABUTMENT
BRIDGE NO. RIC–30–05405
UNDER RELOCATED EARICK ROAD

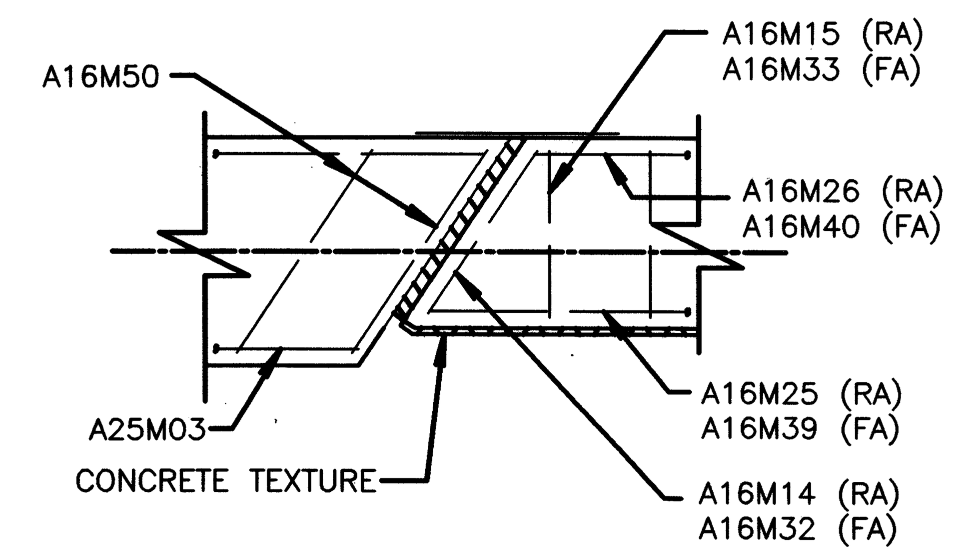
CRA/RIC–30–33.500/0.000

5/13

608/712



SECTION D–D



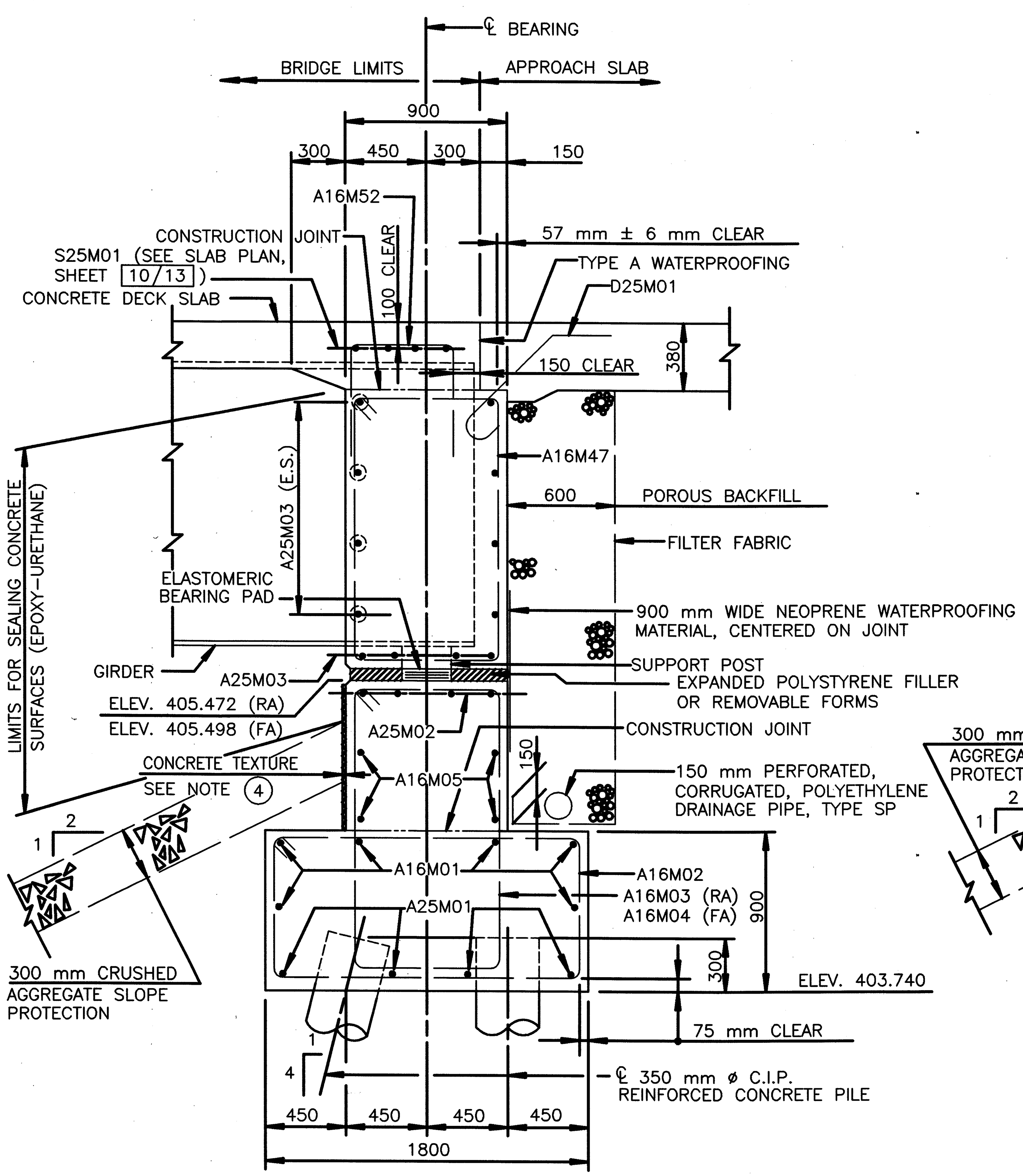
SECTION E–E

NOTES

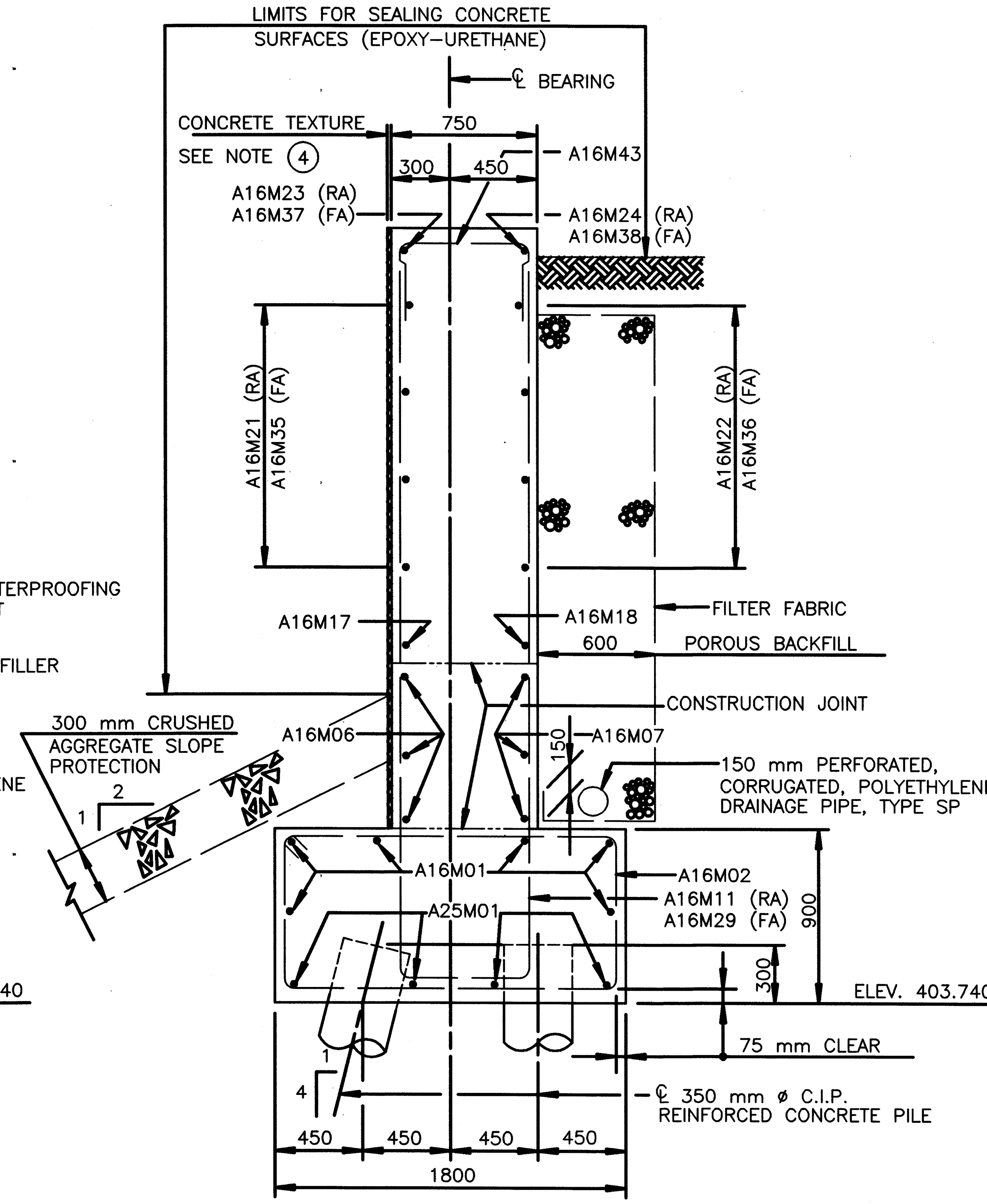
1. FOR LOCATION OF SECTIONS A–A, B–B C–C, D–D AND E–E, AND ADDITIONAL NOTES, SEE SHEETS 4/13 AND 5/13.
2. FOR DETAILS NOT SHOWN, SEE STANDARD DRAWING SICD–1–96M, SHEETS 1 THRU 7.
3. POROUS BACKFILL WITH FILTER FABRIC, 600 mm THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 300 mm BELOW THE EMBANKMENT SURFACE, AND LATERALLY TO THE ENDS OF THE WINGWALLS.
4. THE TEXTURE SHALL BE AN ASHLER STONE PATTERN AS PER THE FITZGERALD FORM LINER NUMBER 16986 OR APPROVED EQUAL. THE RELIEF SHALL BE A MINIMUM OF 19 mm. CONCRETE FOR TEXTURING SHALL BE INCLUDED WITH ITEM 842, CLASS C CONCRETE, ABUTMENT, AS PER PLAN, FOR PAYMENT.

LEGEND

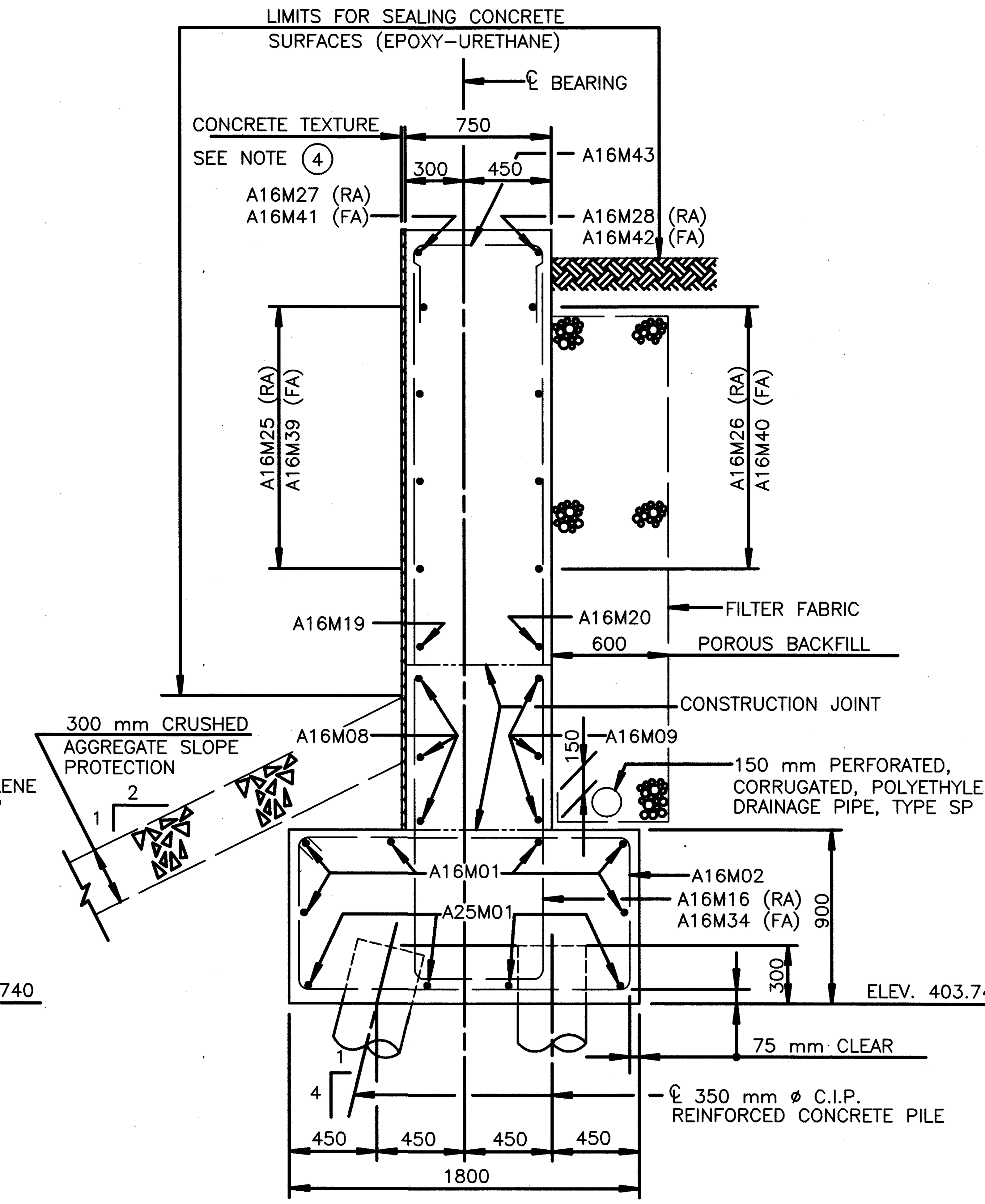
RA DENOTES REAR ABUTMENT
FA DENOTES FORWARD ABUTMENT



SECTION A–A



SECTION B–B



SECTION C–C

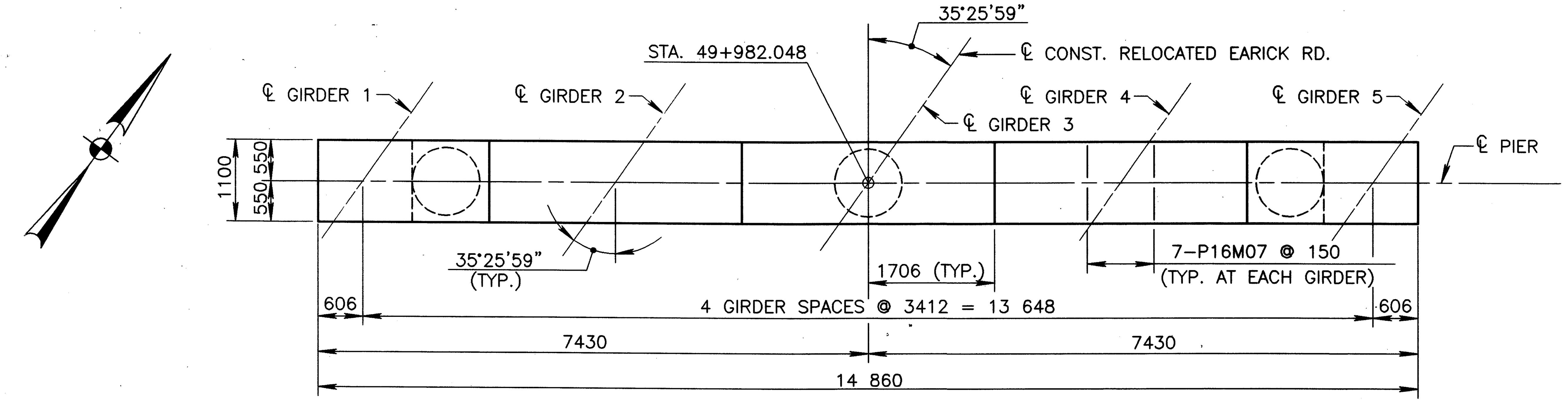
metric units

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

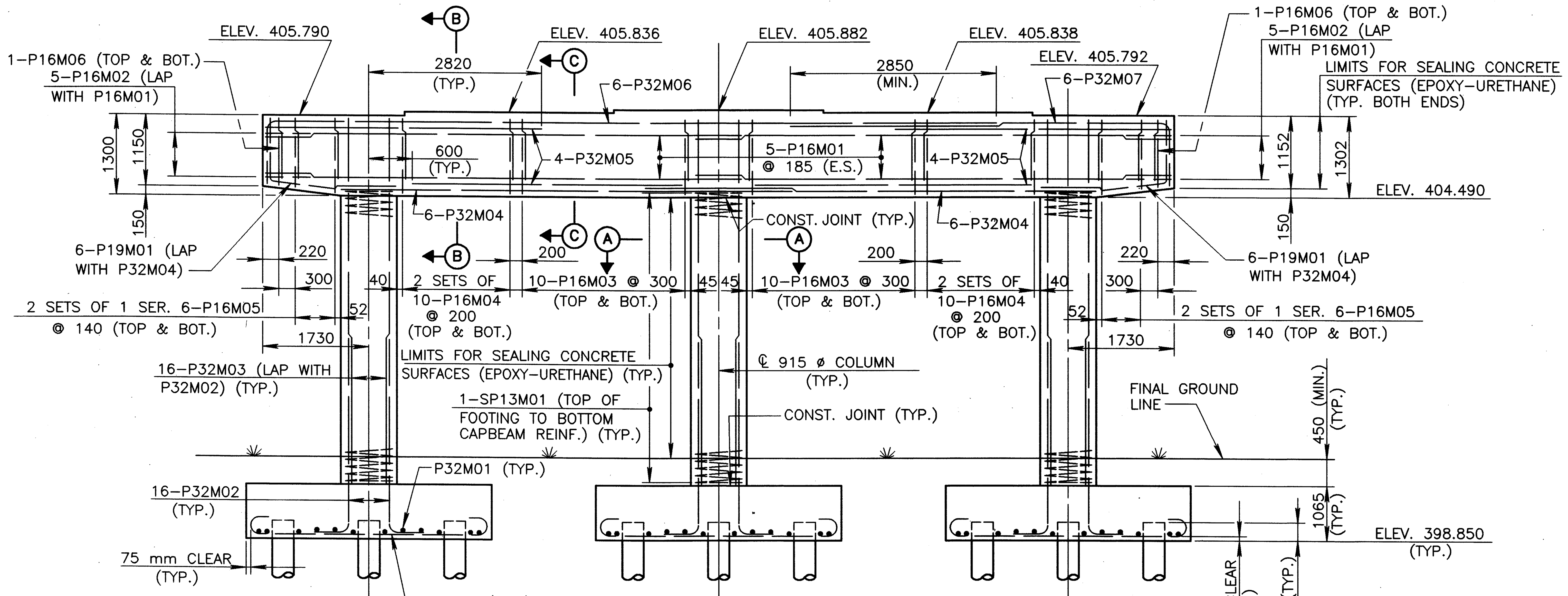
DESIGNED	DRAWN	REVIEWED	DATE
HK	WEB	LBD	8-7-98
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RHW	12-8-00	7000987	

ABUTMENT DETAILS
BRIDGE NO. RIC–30–05405
UNDER RELOCATED EARICK ROAD

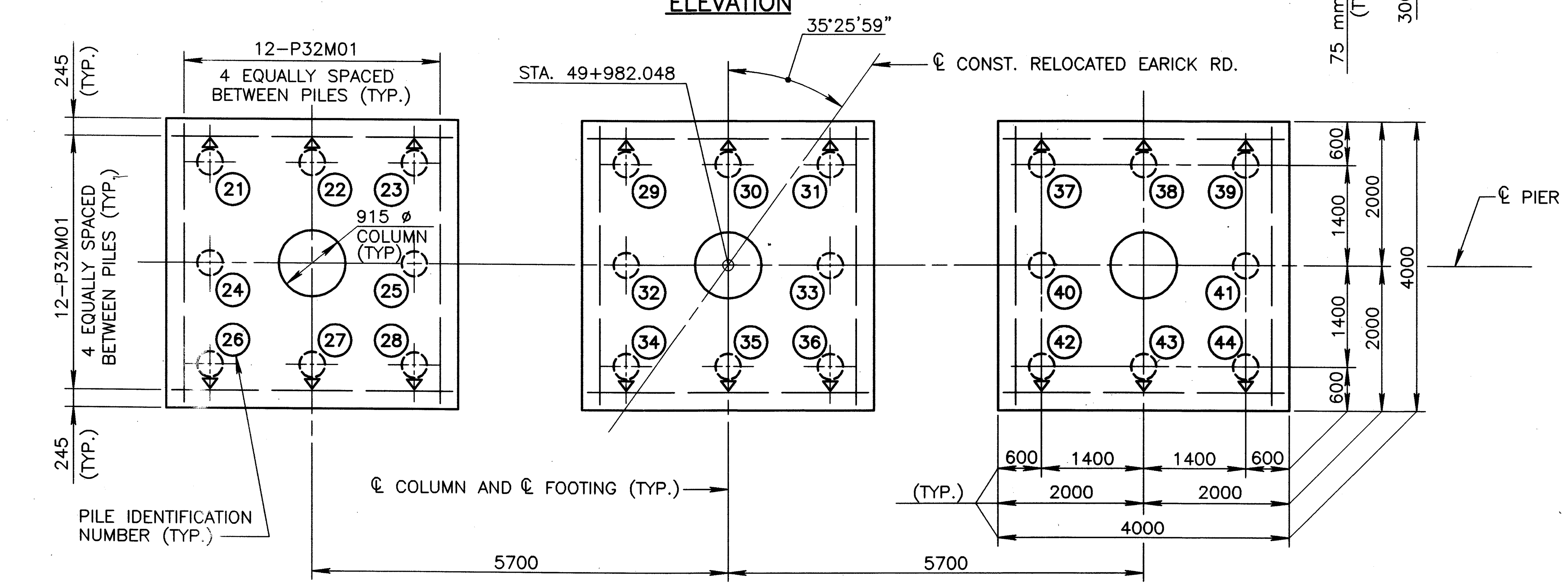
CRA/RIC–30–33.500/0.000



PLAN



ELEVATION



FOOTING PLAN

NOTES

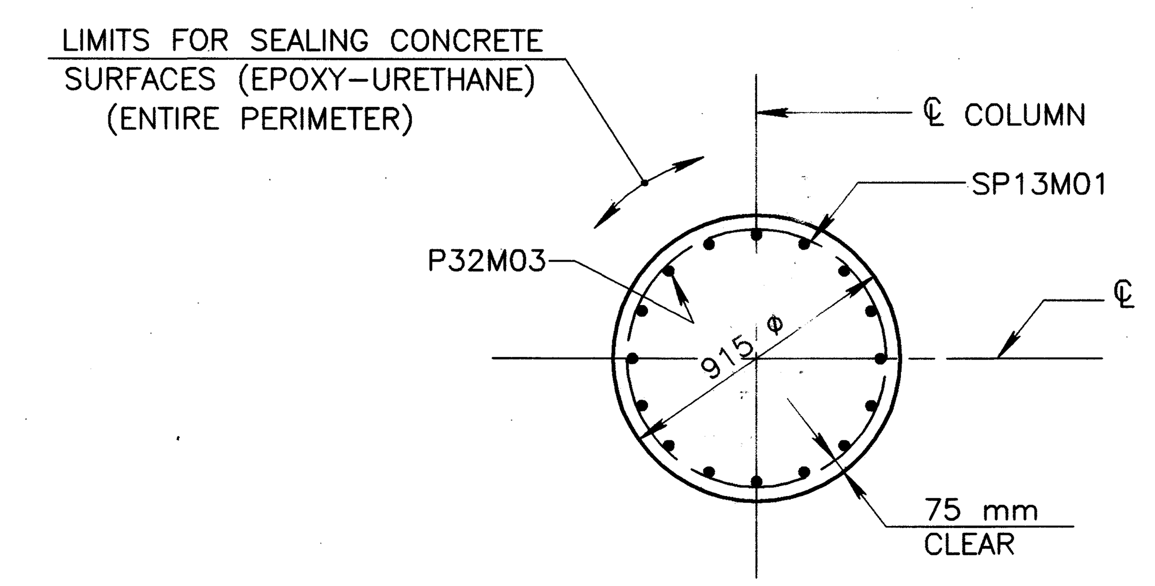
1. MINIMUM LAP UNLESS NOTED OTHERWISE:
   16M BARS = 750 mm
   19M BARS = 890 mm
   32M BARS = 1910 mm
2. ALL PILES ARE 350 mm ø CAST-IN-PLACE REINFORCED CONCRETE PILES.
3. PILE LAYOUT DIMENSIONS ARE MEASURED ALONG BOTTOM OF FOOTING.

LEGEND

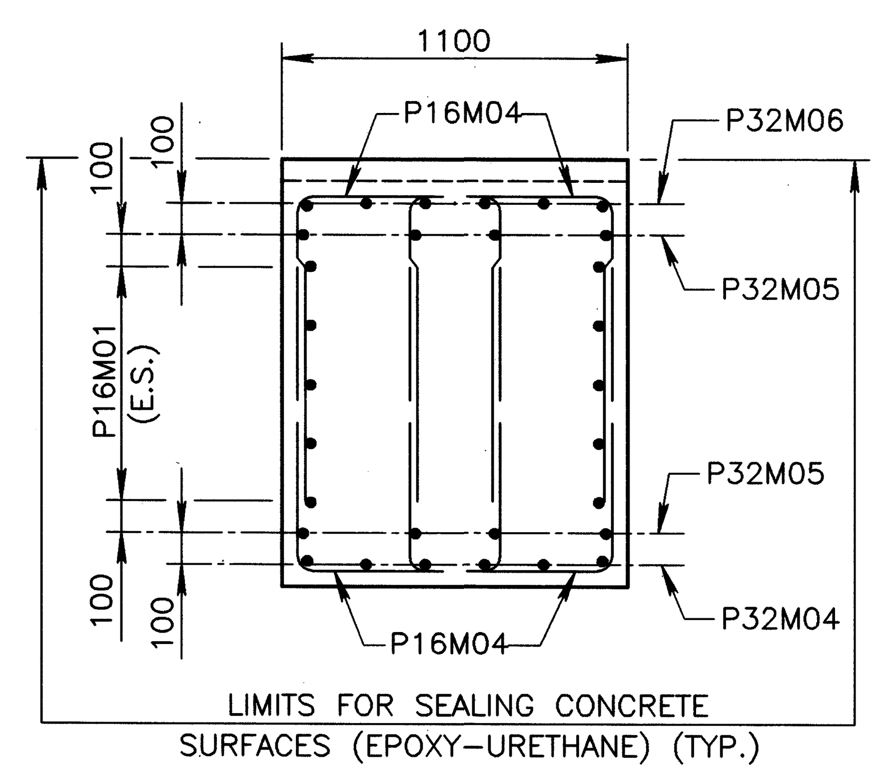
DENOTES BATTERED PILE (1:4)

E.S. DENOTES EACH SIDE

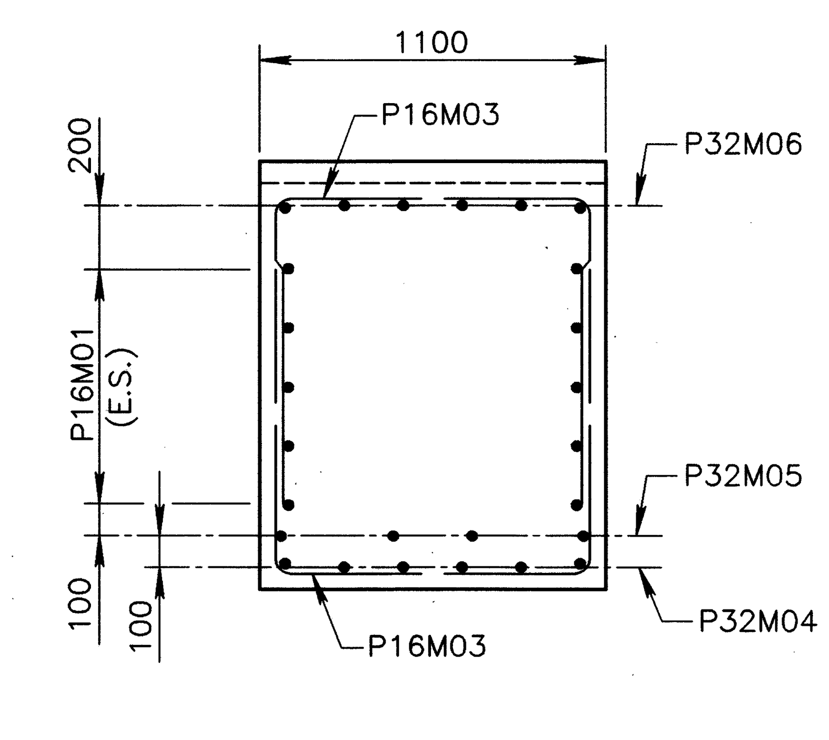
BOT. DENOTES BOTTOM



SECTION A–A



SECTION B–B



SECTION C–C

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

REVIEWED LBD | DATE 8-7-98 | STRUCTURE FILE NUMBER 7000987

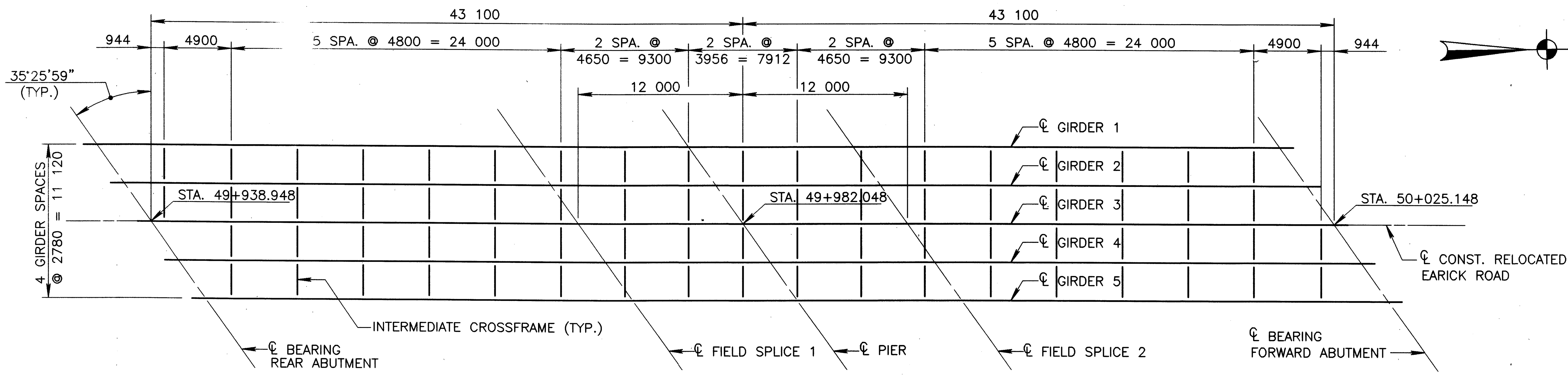
DESIGNED RHW | CHECKED HK | DRAWN WEB | REVISED

PIER DETAILS
BRIDGE NO. RIC-30-05405
UNDER RELOCATED EARICK ROAD

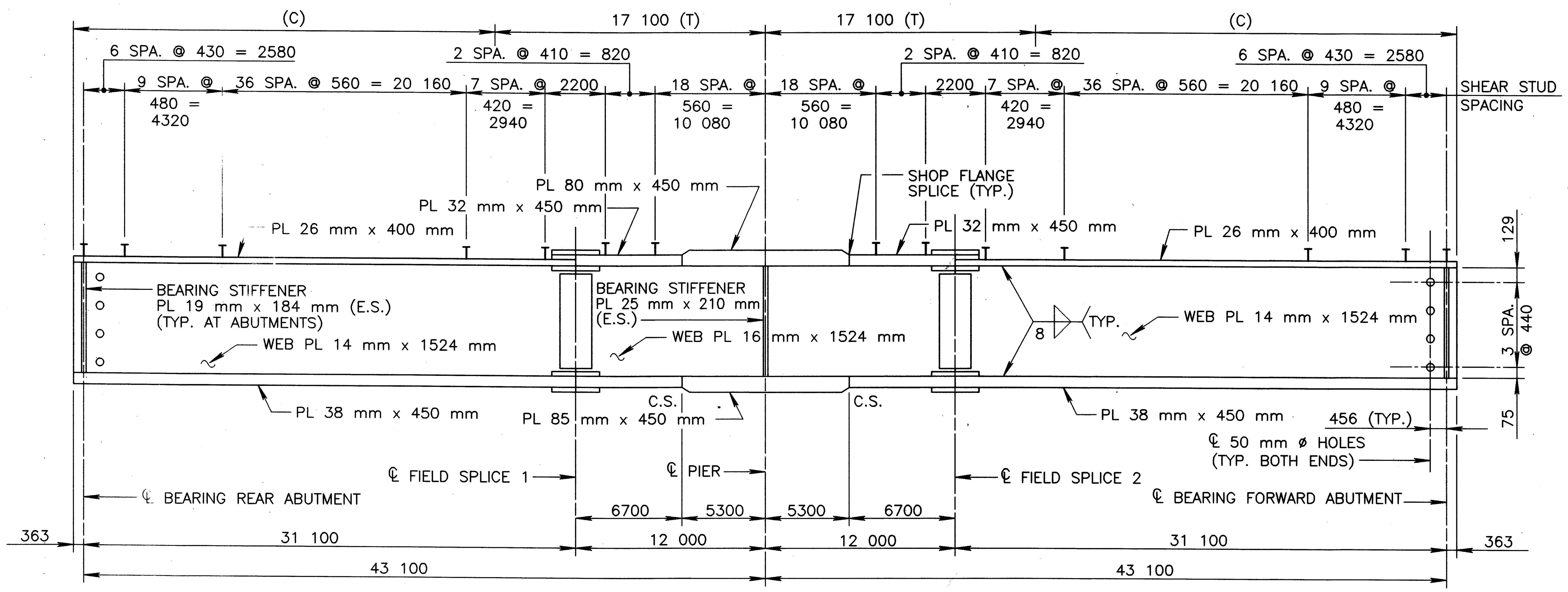
CRA/RIC-30-33.500/0.000

7/13

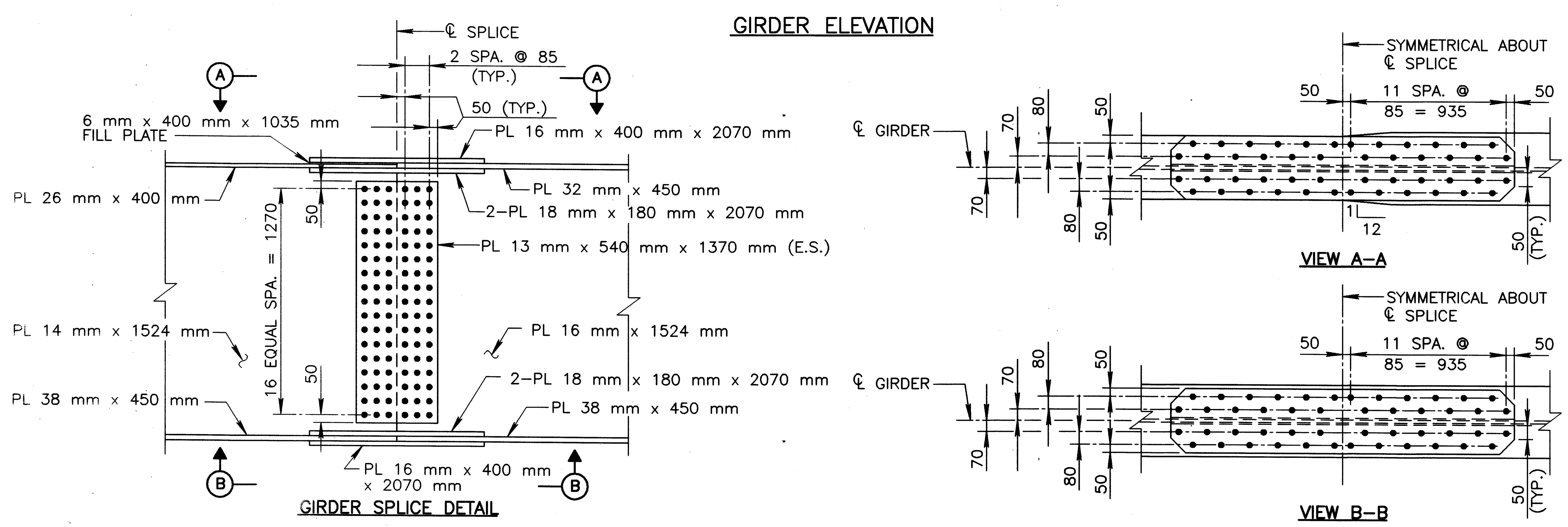
610/712



FRAMING PLAN



GIRDER ELEVATION



FIELD SPLICE DETAILS

NOTES

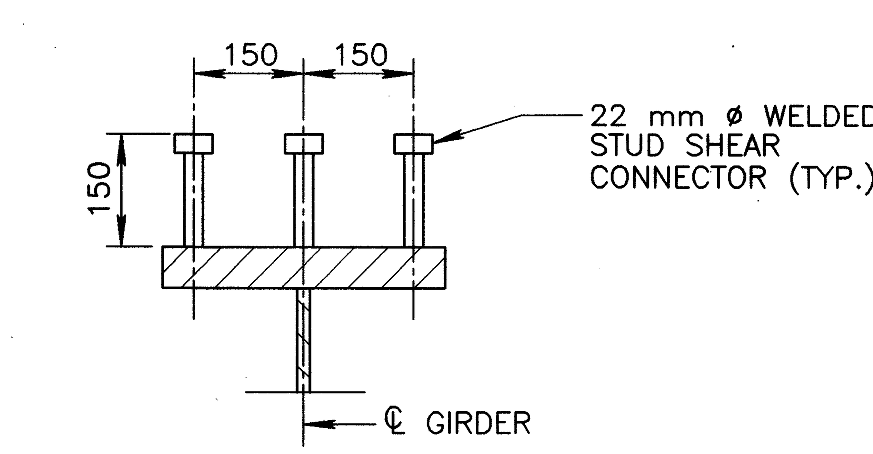
1. ALL STRUCTURAL STEEL SHALL BE A572M PAINTED, UNLESS OTHERWISE NOTED.
2. ALL FLANGE, WEB AND SPLICE PLATES SHALL BE DESIGNATED (CVN).
3. WHERE A SHAPE OR PLATE IS DESIGNATED (CVN) THE MATERIAL SHALL MEET SPECIFIED MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
4. ALL FIELD SPLICES SHALL BE MADE WITH 25 mm DIAMETER HIGH STRENGTH BOLTS CONFORMING TO A325M. THE BOLTS SHALL BE PLACED WITH THEIR HEADS ON THE OUTSIDE FACE OF EXTERIOR GIRDERS AND ON THE BOTTOM OF BOTTOM FLANGES AND ON THE TOP OF TOP FLANGES.
5. BEARING STIFFENERS SHALL BE PLACED IN PAIRS ON ALL GIRDERS. FOR DETAILS, SEE STANDARD DRAWING GSD–1–96M, SHEET 2 OF 3.
6. ALL CROSSFRAMES ARE SET PERPENDICULAR TO GIRDERS.
7. FOR INTERMEDIATE CROSSFRAME DETAILS, SEE STANDARD DRAWING GSD–1–96M, SHEET 1 OF 3. (TYPE 3) DUE TO DIFFERENTIAL DEFLECTION BETWEEN ADJACENT MEMBERS SLOTTED HOLES MAY BE REQUIRED FOR THE ERECTION BOLTS.
8. WHEN AN INTERMEDIATE CROSSFRAME CONNECTS TO A BEARING STIFFENER, THE ADJACENT CONNECTION STIFFENER AND FILLER PLATE SHALL MATCH THE THICKNESS OF THE BEARING STIFFENER
9. AT CROSSFRAME LOCATIONS WHERE FIELD SPLICE FLANGE PLATES INTERFERE WITH THE WELDING OF THE STIFFENER TO THE FLANGE, A BOLTED ANGLE DETAIL SIMILAR TO DETAIL "F" ON STANDARD DRAWING GSD–1–96M, SHEET 1 OF 3, SHALL BE USED.
10. FOR TRANSVERSE SECTION, SEE SHEET 10/13.
11. FOR ELASTOMERIC BEARING DETAILS, SEE SHEET 12/13.
12. WELDED ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE MAY BE MADE TO AREAS OF THE FASCIA GIRDER FLANGES DESIGNATED "COMPRESSION". ATTACHMENTS SHALL NOT BE MADE TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE NOT CLOSER THAN 25 mm FROM EDGE OF FLANGE, BE NOT MORE THAN 50 mm LONG, AND BE NOT SMALLER THAN THE MINIMUM SIZE REQUIRED BY AASHTO.
13. BUTT WELDS AT SHOP SPLICES SHALL BE COMPLETE PENETRATION WELDS. WELD REINFORCEMENT SHALL BE GROUND IN THE DIRECTION PARALLEL TO THE MAIN STRESSES.

LEGEND

(T) DENOTES AREA OF TENSION IN THE TOP FLANGE. THE BOTTOM FLANGE IN THESE AREAS IS IN COMPRESSION.

(C) DENOTES AREA OF COMPRESSION IN THE TOP FLANGE. THE BOTTOM FLANGE IN THESE AREAS IS IN TENSION.

C.S. INDICATES BUTT WELD IS SUBJECT TO COMPRESSIVE STRESS ONLY.



SHEAR STUD CONNECTOR DETAIL

metric units

DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

DESIGNED: RHW | CHECKED: HK | DRAWN: WEB | REVISED: | REVIEWED: LBD | DATE: 8-7-98 | STRUCTURE FILE NUMBER: 7000987

FRAMING PLAN AND GIRDER DETAILS

BRIDGE NO. RIC-30-05405 UNDER RELOCATED EARICK ROAD

CRA/RIC-30-33.500/0.000

8/13

611/712

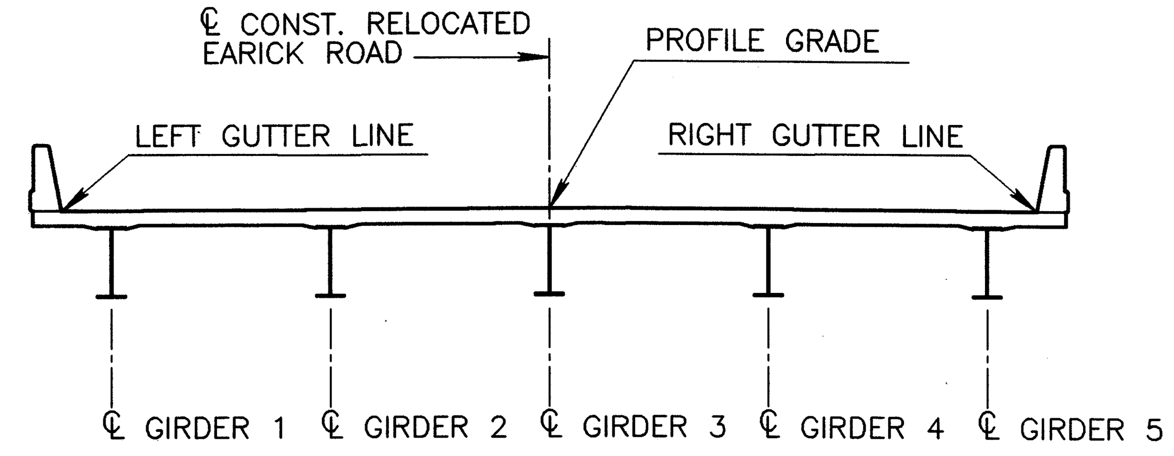
SCREED ELEVATIONS

POINT	PROFILE GRADE	LEFT GUTTER LINE	GIRDER 1	GIRDER 2	GIRDER 3	GIRDER 4	GIRDER 5	RIGHT GUTTER LINE
℄ BRG. REAR ABUT.	407.749	407.608	407.618	407.684	407.749	407.723	407.697	407.693
.1	407.811	407.674	407.684	407.748	407.811	407.784	407.755	407.750
.2	407.866	407.734	407.741	407.806	407.866	407.837	407.804	407.799
.3	407.909	407.781	407.787	407.850	407.909	407.878	407.843	407.838
.4	407.941	407.816	407.822	407.884	407.941	407.908	407.870	407.864
.5	407.958	407.838	407.843	407.903	407.958	407.923	407.884	407.878
.6	407.965	407.849	407.855	407.912	407.965	407.928	407.888	407.882
.7	407.965	407.853	407.859	407.914	407.965	407.926	407.885	407.878
℄ FIELD SPLICE 1	407.968	407.857	407.863	407.917	407.968	407.929	407.887	407.880
.8	407.960	407.852	407.859	407.911	407.960	407.919	407.877	407.870
.9	407.957	407.853	407.861	407.909	407.957	407.914	407.871	407.864
℄ PIER	407.956	407.857	407.864	407.910	407.956	407.912	407.866	407.859
.1	407.959	407.864	407.871	407.916	407.959	407.913	407.866	407.858
.2	407.964	407.873	407.879	407.923	407.964	407.916	407.866	407.858
℄ FIELD SPLICE 2	407.974	407.886	407.891	407.934	407.974	407.924	407.872	407.864
.3	407.972	407.885	407.889	407.932	407.972	407.922	407.869	407.860
.4	407.974	407.891	407.895	407.936	407.974	407.922	407.866	407.858
.5	407.970	407.891	407.893	407.934	407.970	407.916	407.857	407.848
.6	407.954	407.880	407.881	407.920	407.954	407.899	407.838	407.829
.7	407.925	407.855	407.857	407.893	407.925	407.867	407.806	407.796
.8	407.885	407.819	407.821	407.855	407.885	407.825	407.762	407.752
.9	407.832	407.770	407.773	407.803	407.832	407.770	407.707	407.697
℄ BRG. FWD. ABUT.	407.772	407.714	407.718	407.745	407.772	407.708	407.644	407.633

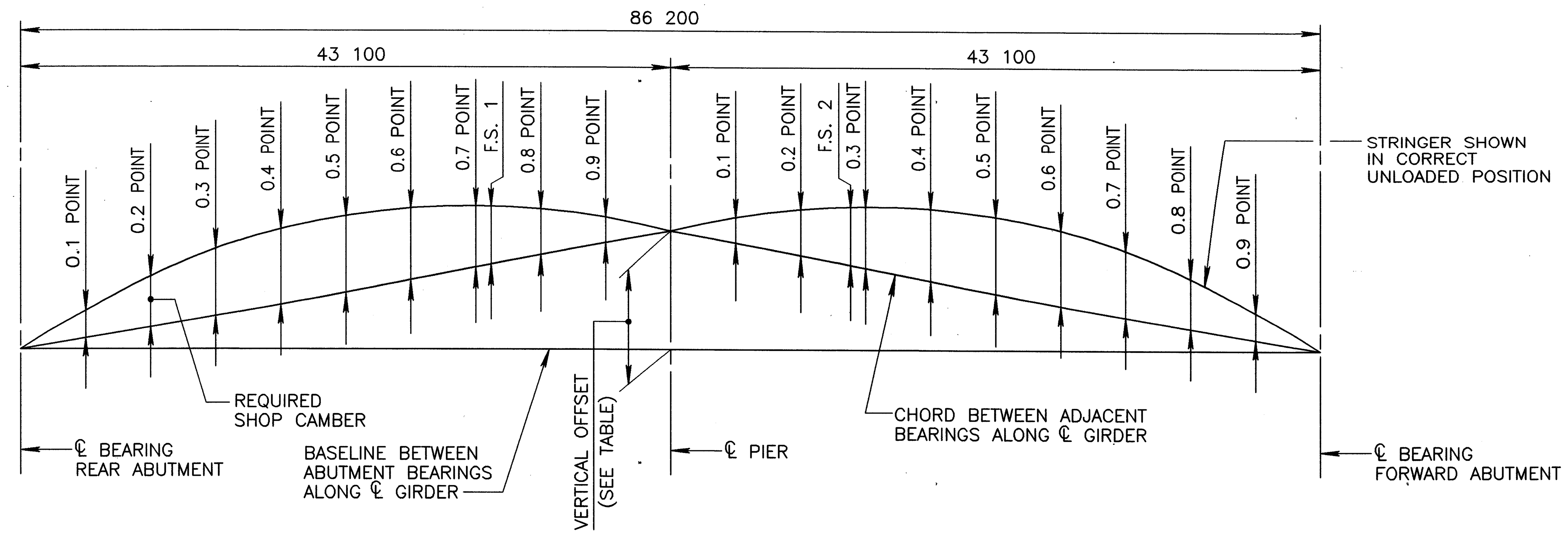
metric units

NOTES

① SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.



SCREED LOCATION KEY



CAMBER DIAGRAM

VERTICAL OFFETS AT PIER	
LOCATION	OFFSET
GIRDER 1	196
GIRDER 2	196
GIRDER 3	196
GIRDER 4	196
GIRDER 5	196

DEFLECTION AND CAMBER TABLE

		SPAN 1										SPAN 2									
GIRDERS 1 & 5	POINTS	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	F.S. 1	0.8 PT.	0.9 PT.	0.1 PT.	0.2 PT.	F.S. 2	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.
	DEFLECTION DUE TO WEIGHT OF STEEL	5	10	12	13	12	10	6	7	3	1	1	3	7	6	10	12	13	12	10	5
	DEFLECTION DUE TO REMAINING DEAD LOAD	23	42	54	58	53	42	28	28	13	4	4	13	28	28	42	53	58	54	42	23
	ADJUSTMENT REQUIRED FOR VERTICAL CURVE	18	32	41	48	49	47	41	40	31	18	18	31	40	41	47	49	47	41	32	17
	REQUIRED SHOP CAMBER	46	84	107	119	114	99	75	75	47	23	23	47	75	75	99	114	118	107	84	45
GIRDERS 2, 3 & 4	POINTS	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	F.S. 1	0.8 PT.	0.9 PT.	0.1 PT.	0.2 PT.	F.S. 2	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.
	DEFLECTION DUE TO WEIGHT OF STEEL	5	10	12	13	12	10	6	7	3	1	1	3	7	6	10	12	13	12	10	5
	DEFLECTION DUE TO REMAINING DEAD LOAD	24	45	57	62	57	45	30	30	14	4	4	14	30	30	45	57	62	57	45	24
	ADJUSTMENT REQUIRED FOR VERTICAL CURVE	17	31	41	47	48	47	41	40	31	18	17	31	40	41	47	49	46	41	31	18
	REQUIRED SHOP CAMBER	46	86	110	122	117	102	77	77	48	23	22	48	77	77	102	118	121	110	86	47

DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

REVIEWED: LBD | DATE: 8-14-00 | STRUCTURE FILE NUMBER: 7000987

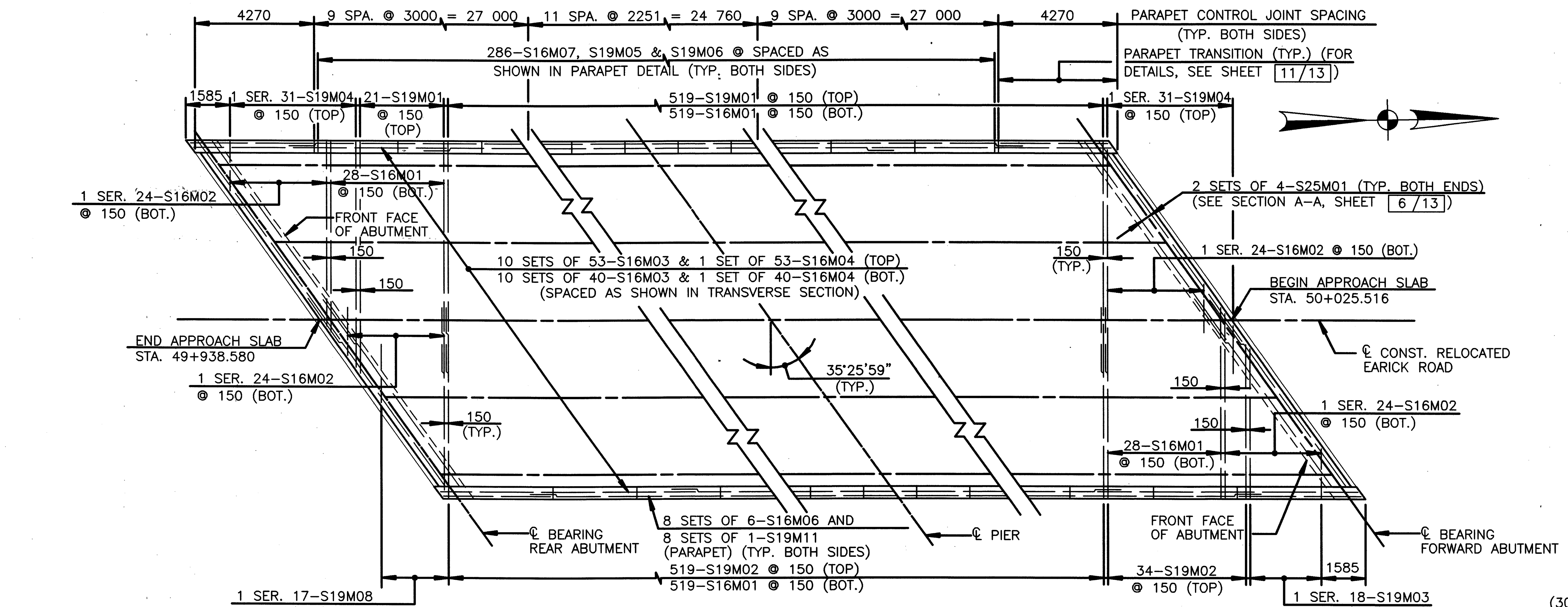
DRAWN: WEB | REVISED:

DESIGNED: RHW | CHECKED: HK

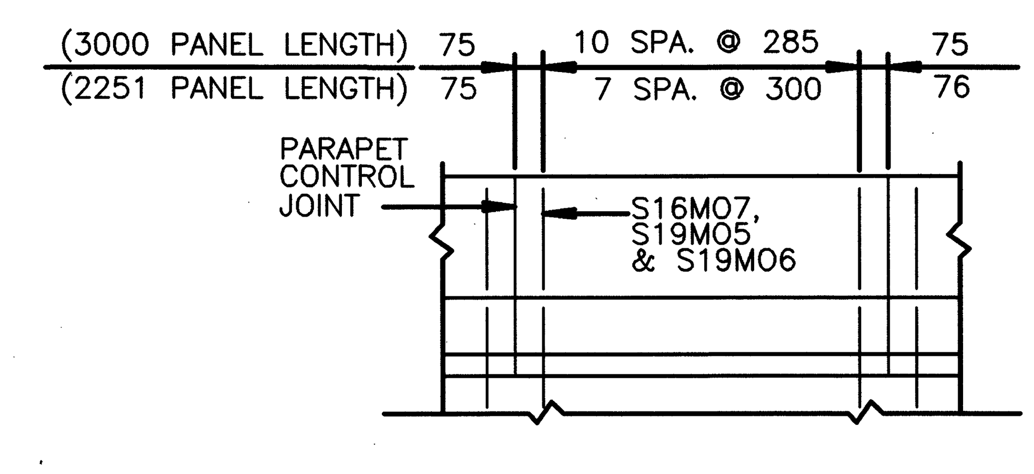
SCREED ELEVATIONS AND DEFLECTION AND CAMBER TABLES

BRIDGE NO. RIC-30-05405 UNDER RELOCATED EARICK ROAD

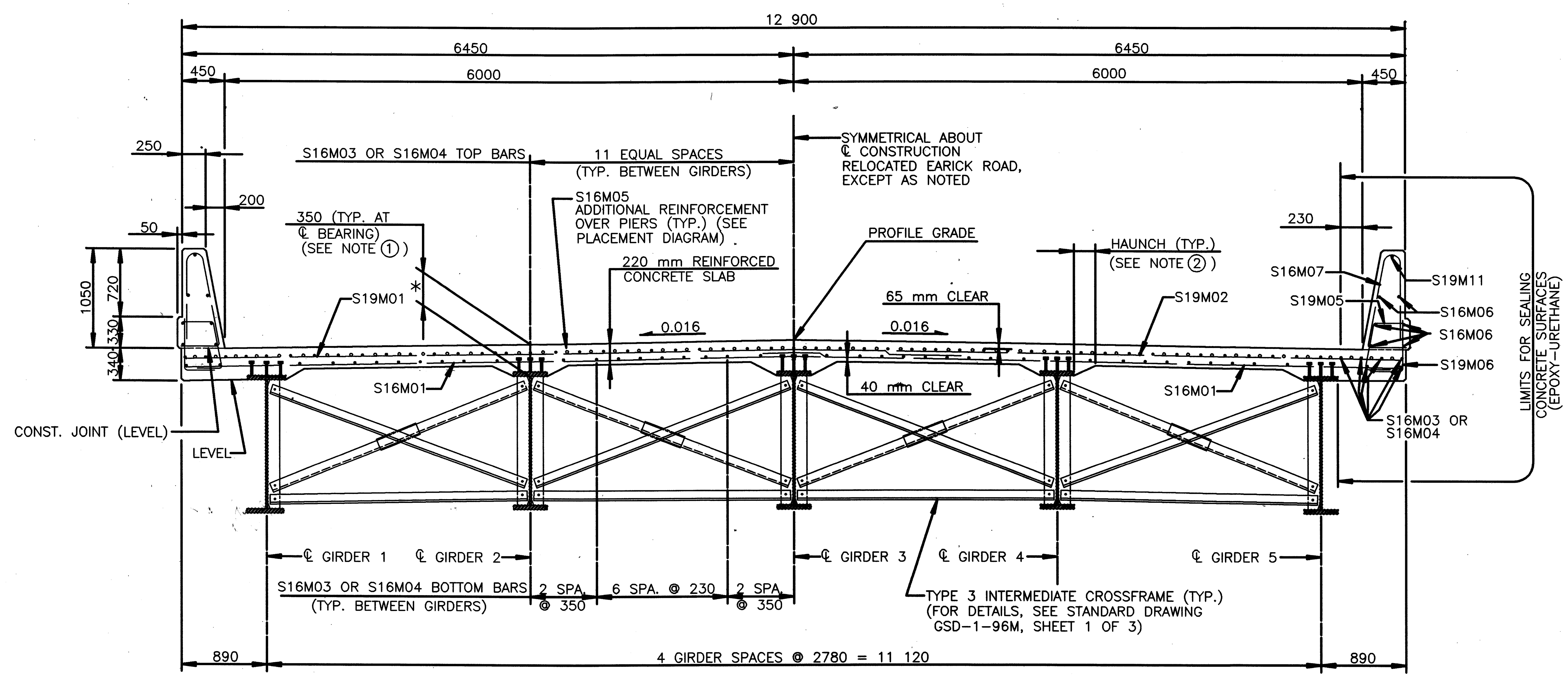
CRA/RIC-30-33.500/0.000



SLAB PLAN



PARAPET DETAIL



TRANSVERSE SECTION

NOTES

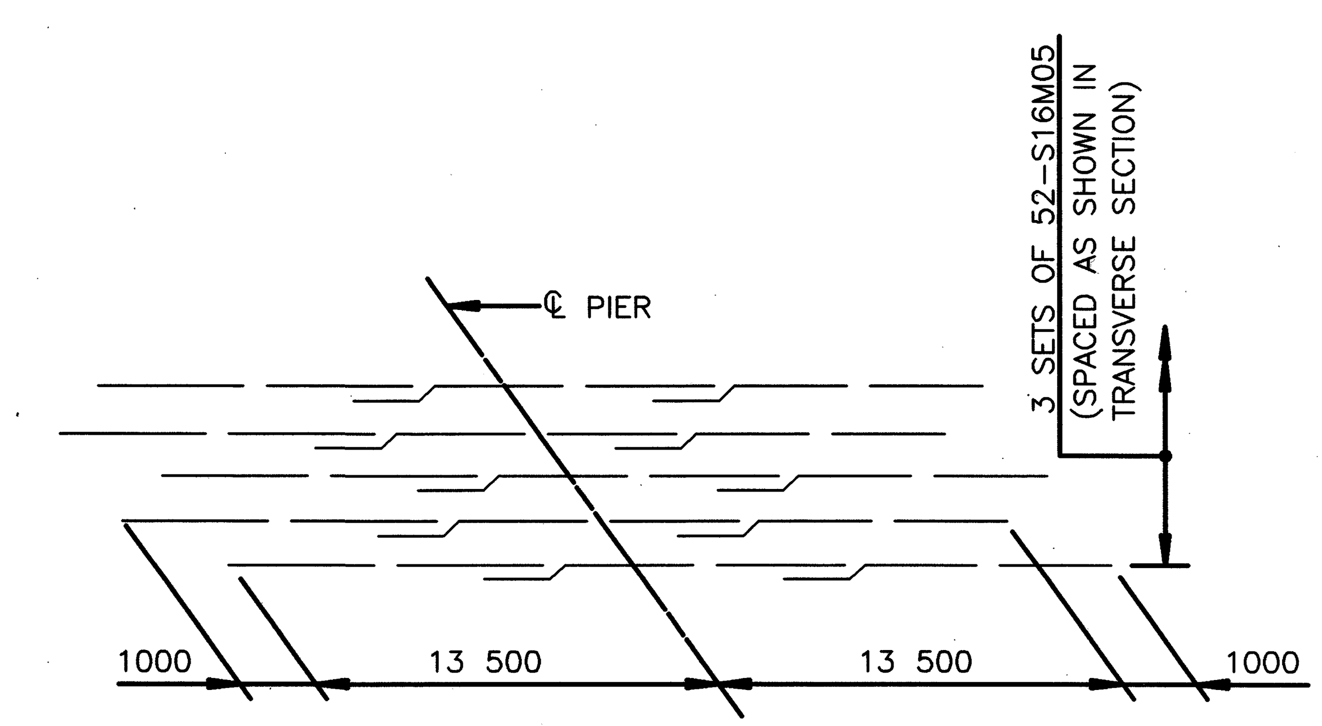
① *DECK SLAB DEPTH: THE DISTANCE SHOWN FROM THE TOP OF THE DECK SLAB TO THE BOTTOM OF THE TOP FLANGE IS THE THEORETICAL DESIGN DIMENSION INCLUDING THE DESIGN HAUNCH THICKNESS OF 50 mm. THE QUANTITY OF DECK CONCRETE TO BE PAID FOR SHALL BE BASED UPON THIS DIMENSION, MINUS THE DESIGN HAUNCH THICKNESS, EVEN THOUGH DEVIATION FROM IT MAY BE NECESSARY BECAUSE THE TOP FLANGE OF THE GIRDER MAY NOT HAVE THE EXACT CAMBER OR CONFORMATION REQUIRED TO PLACE IT PARALLEL TO THE FINISHED GRADE. DEDUCTION SHALL BE MADE FOR VOLUME OF ENCASED STEEL PLATES AS PER 842.18.

② A HAUNCH WIDTH OF 225 mm SHALL BE USED FOR COMPUTING QUANTITY OF CONCRETE. HOWEVER, THE HAUNCH WIDTH MAY VARY BETWEEN 150 mm AND 300 mm.

③ MINIMUM LAP UNLESS OTHERWISE NOTED:
16M BARS = 890 mm
19M BARS = 1040 mm
25M BARS = 1500 mm

④ FOR SCREED ELEVATIONS, SEE SHEET 9/13.

⑤ FOR PARAPET CONTROL JOINT DETAILS AND NOTES, SEE STANDARD DRAWING SBR–1–99M.



PLACEMENT OF ADDITIONAL REINFORCEMENT OVER PIER

metric units

DESIGN AGENCY: McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

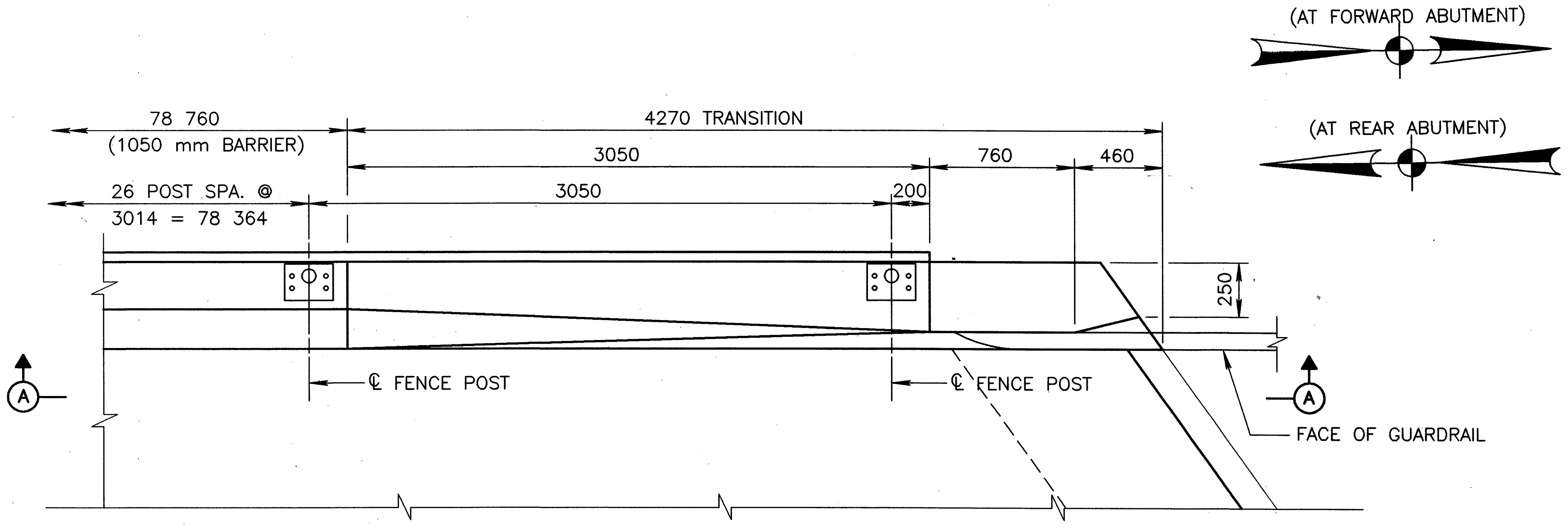
DESIGNED	CHECKED	DRAWN	REVIEWED	REVISED	DATE	STRUCTURE FILE NUMBER
HK	RHW	WEB	LBD	12–8–00	8–14–00	7000987

SLAB PLAN AND TRANSVERSE SECTION
BRIDGE NO. RIC–30–05405
UNDER RELOCATED EARICK ROAD

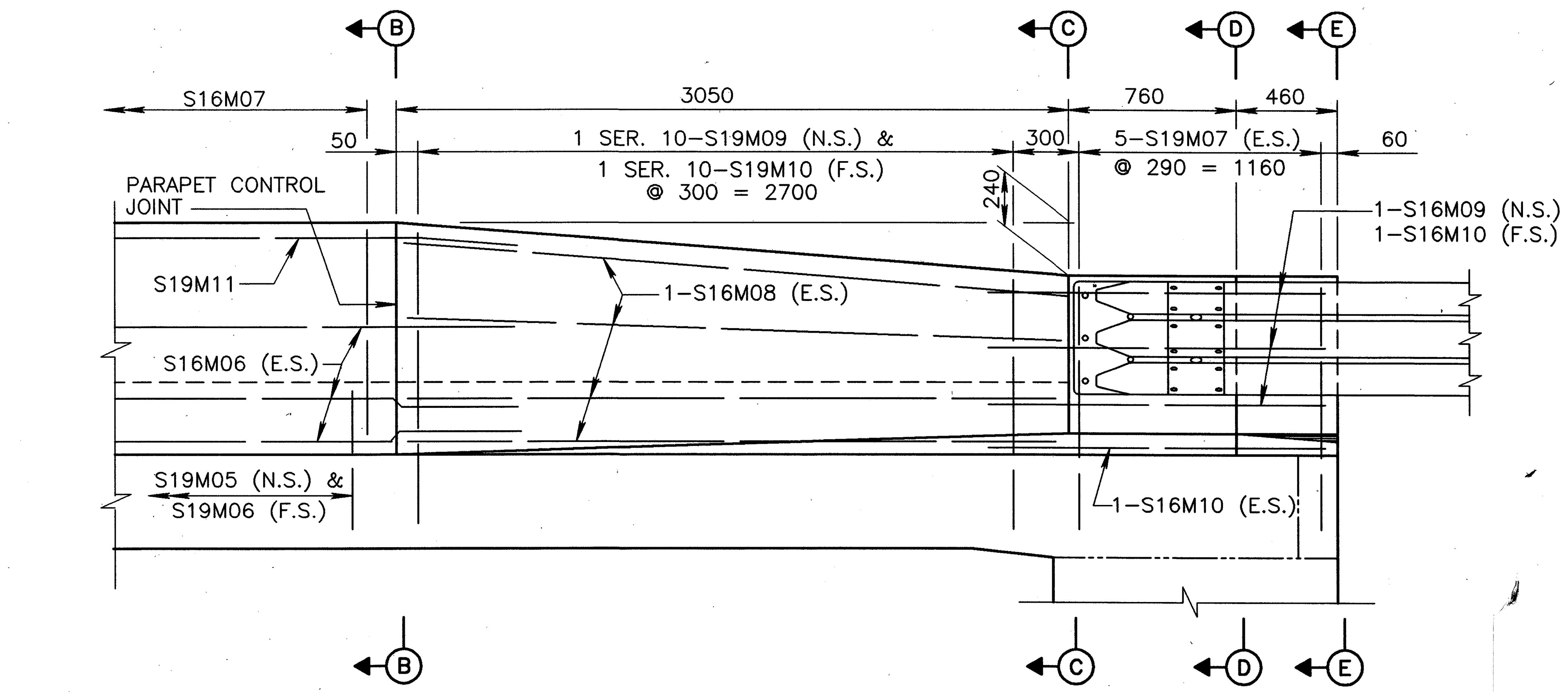
CRA/RIC–30–33.500/0.000

10/13

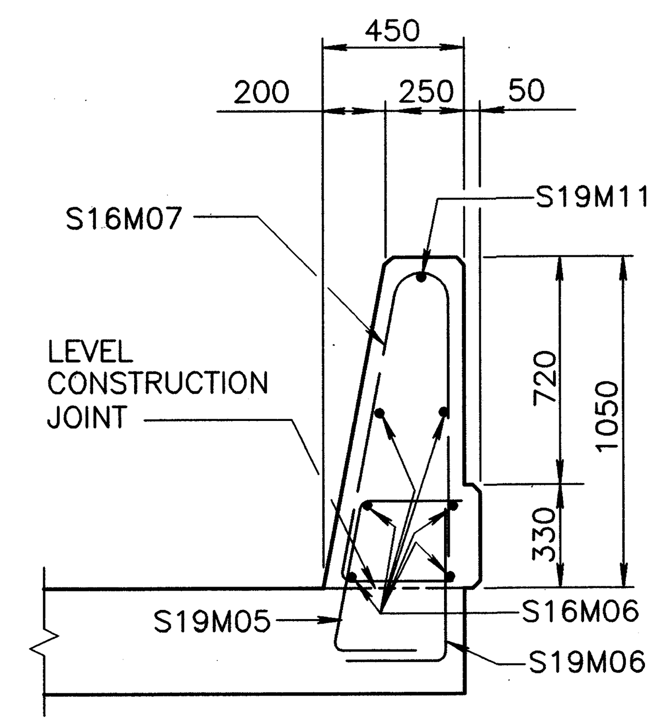
613/712



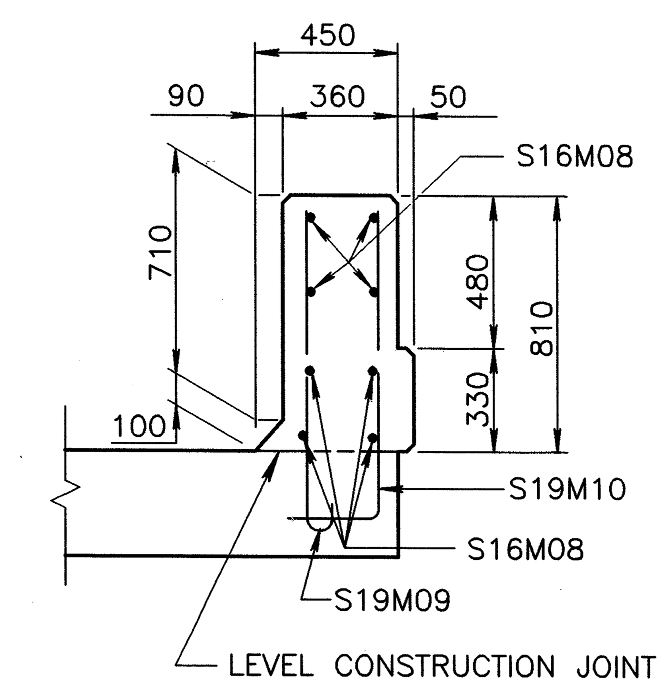
PARAPET TRANSITION PLAN
(RIGHT REAR AND LEFT FORWARD PARAPET TRANSITION SHOWN, LEFT REAR AND RIGHT FORWARD PARAPET TRANSITION SIMILAR)



SECTION A-A
(FENCE NOT SHOWN)



SECTION B-B



SECTION C-C

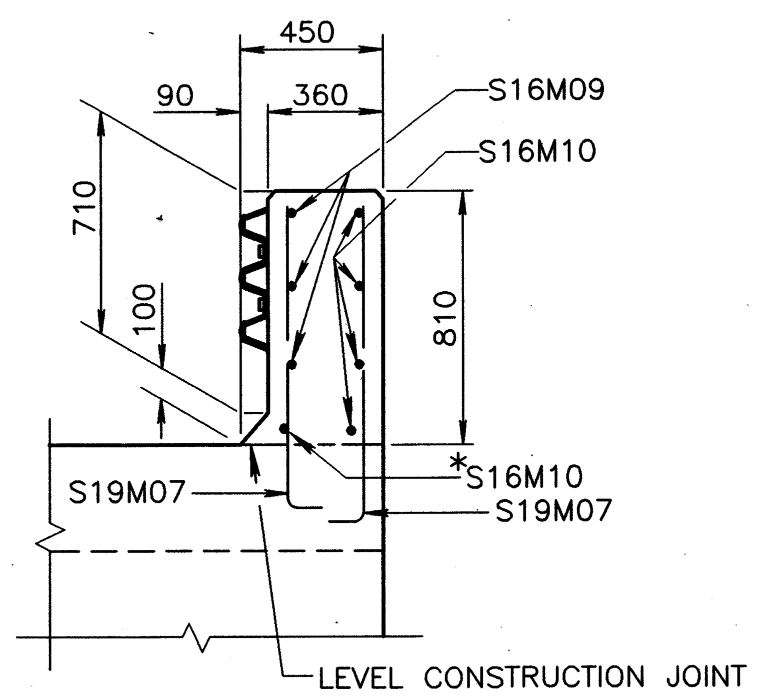
NOTES

① FOR SLAB PLAN AND ADDITIONAL NOTES, SEE SHEET 10/13.

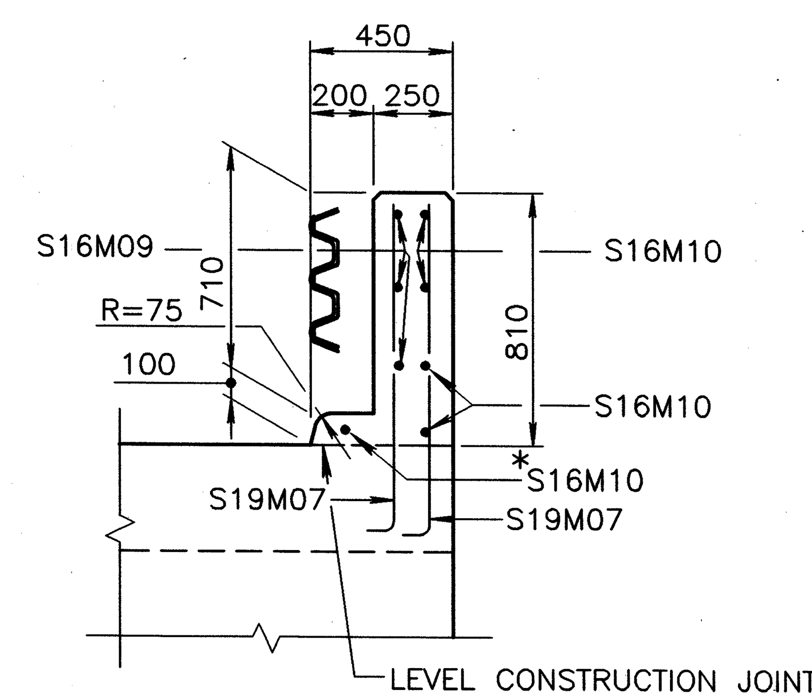
② MINIMUM LAP – 16M BARS = 890 mm

LEGEND

N.S. DENOTES NEAR SIDE
F.S. DENOTES FAR SIDE
E.S. DENOTES EACH SIDE



SECTION D-D



SECTION E-E

* FIELD BEND AS REQUIRED.

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

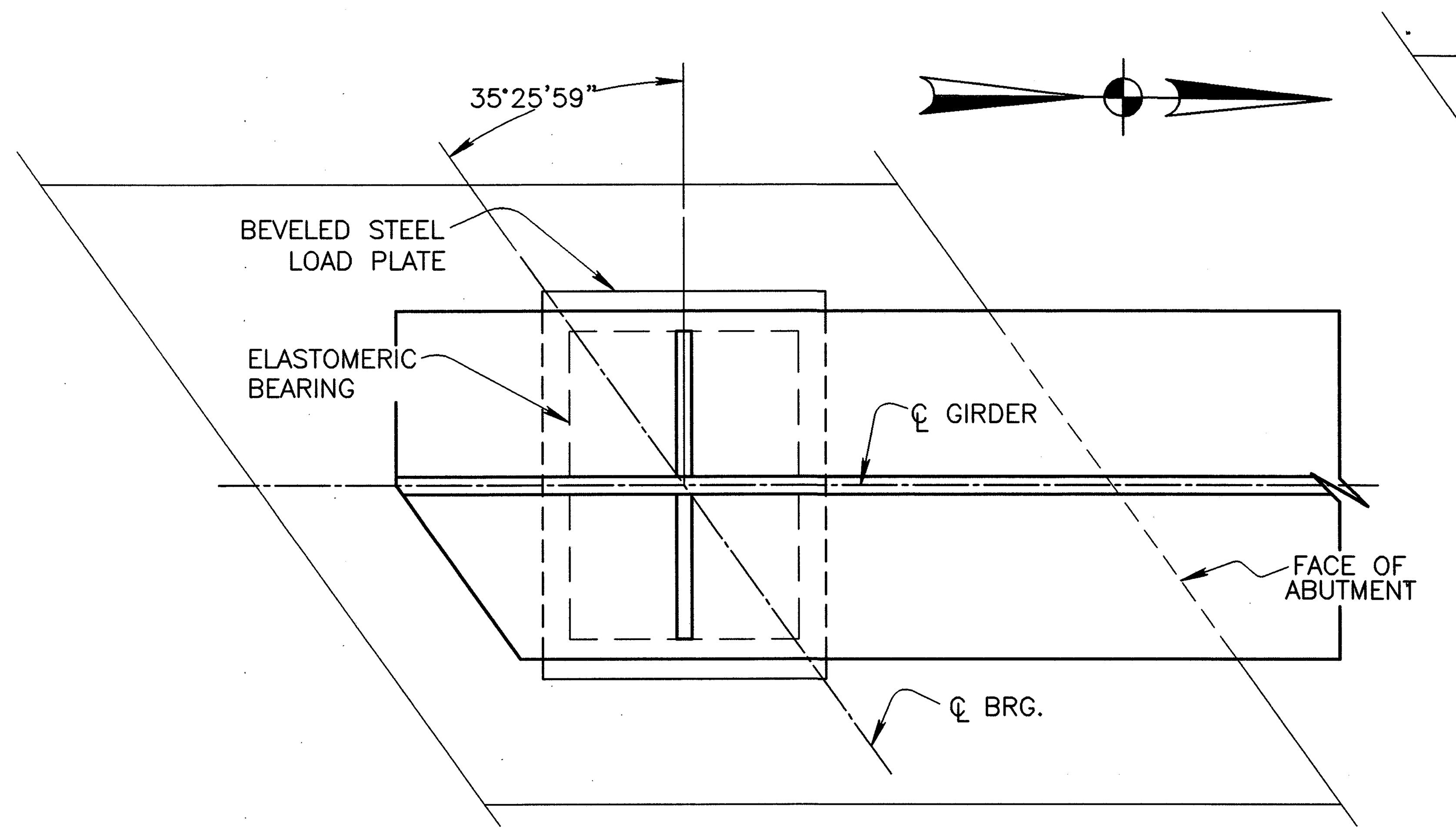
REVIEWED LBD | DATE 8-14-00 | STRUCTURE FILE NUMBER 7000987
DRAWN WEB | REVISED
DESIGNED HK | CHECKED RHW

PARAPET DETAILS
BRIDGE NO. RIC-30-05405
UNDER RELOCATED EARICK ROAD

CRA/RIC-30-33.500/0.000

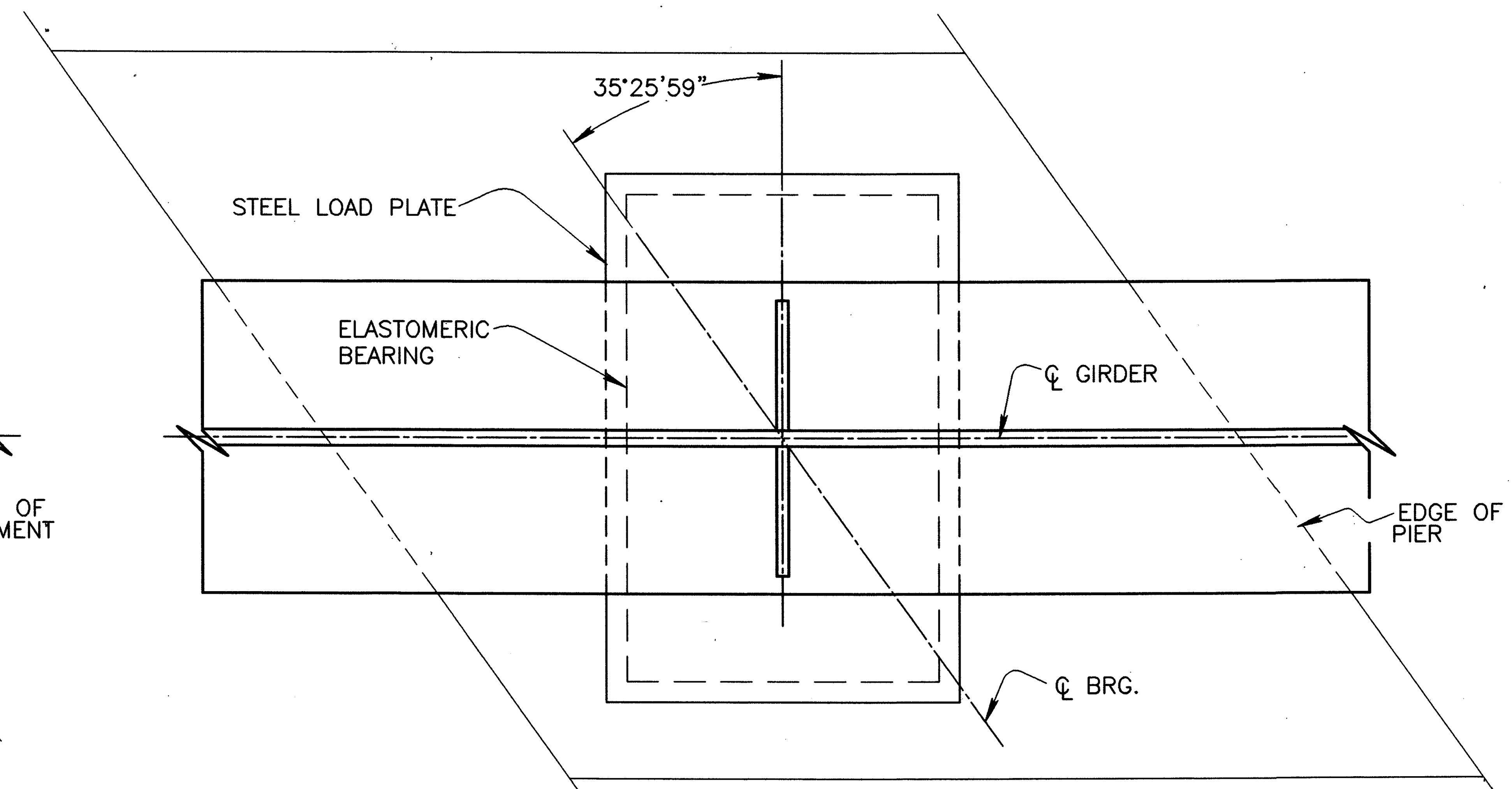
11/13

614/712

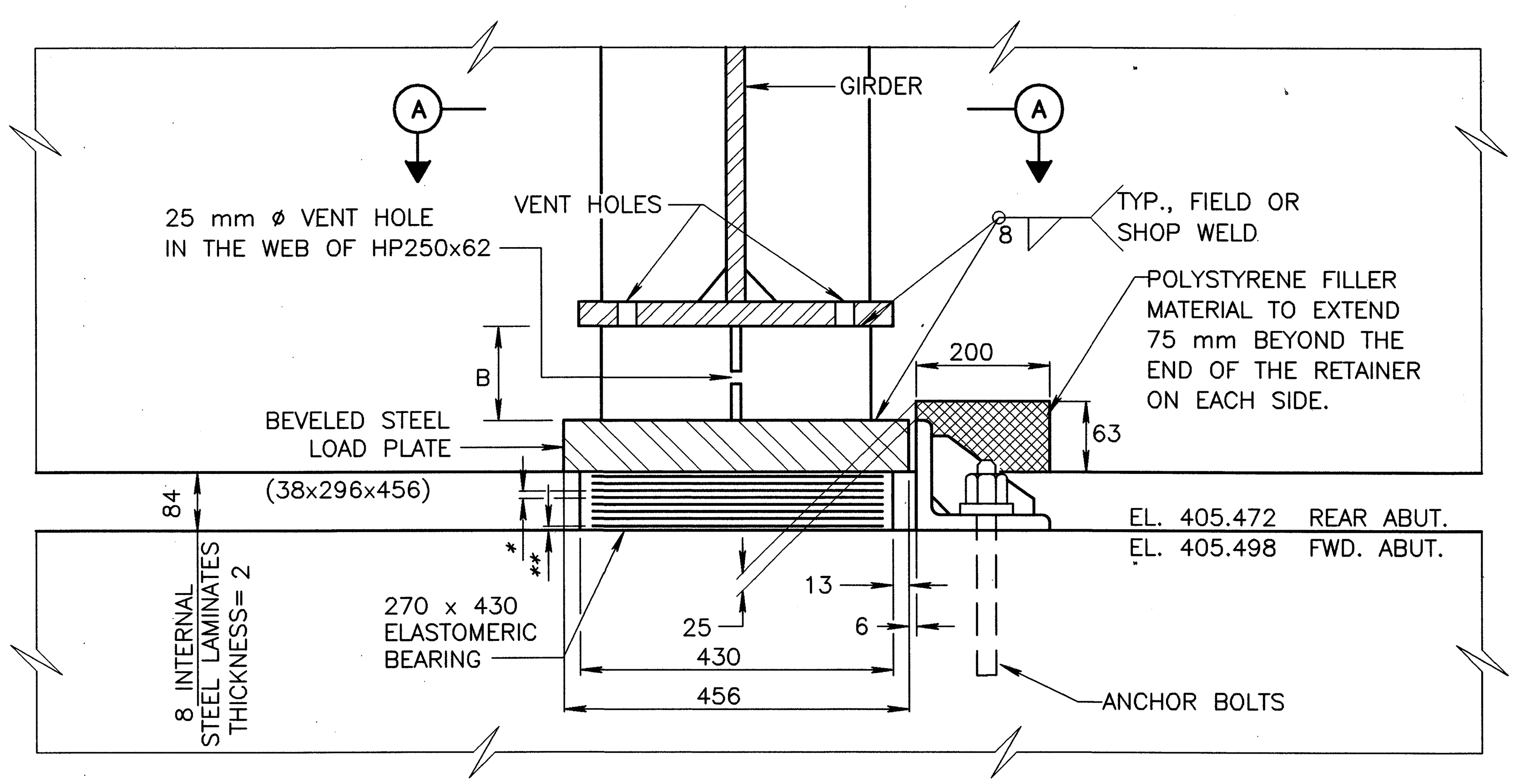


VIEW A–A

(HP SHAPE AND RETAINER NOT SHOWN)



VIEW B–B

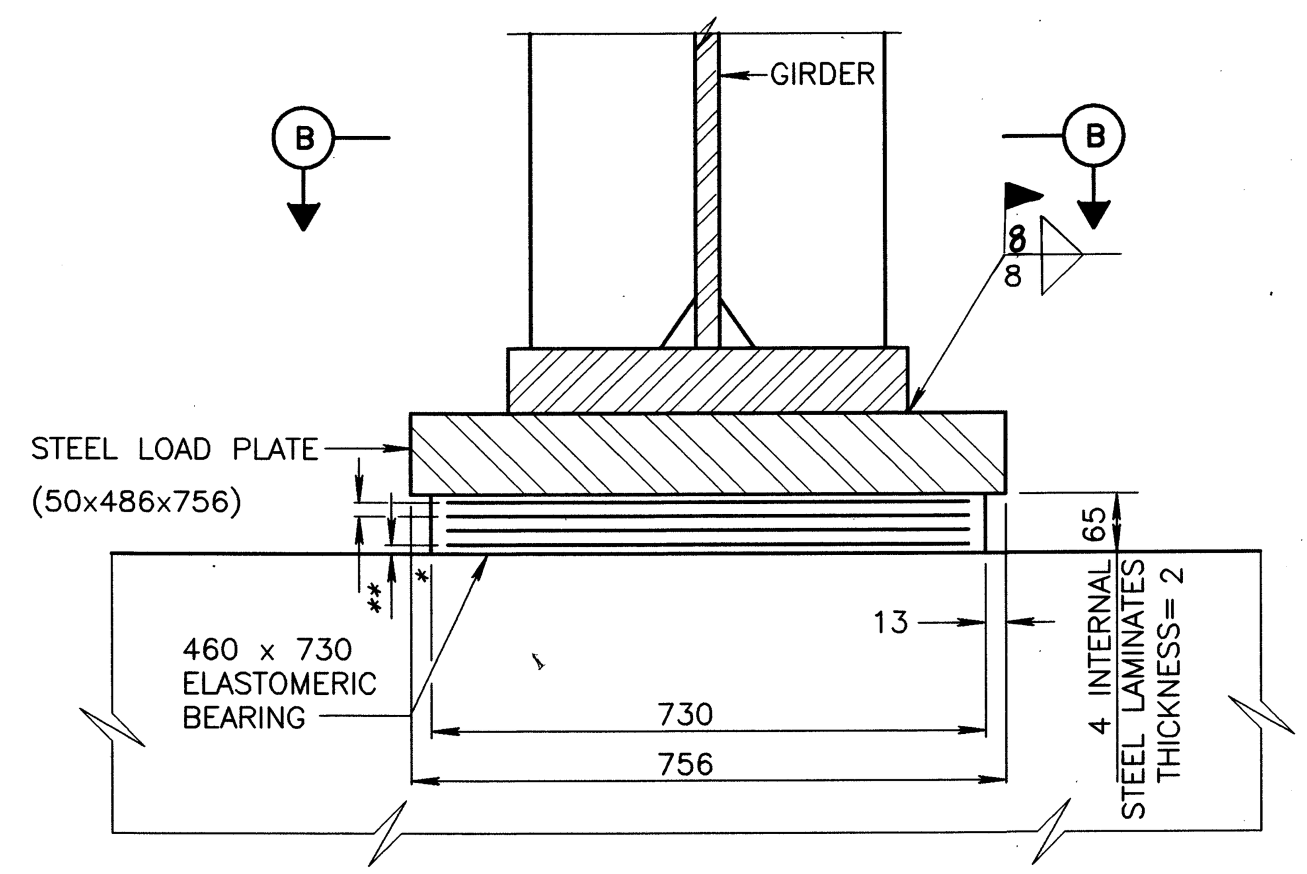


ABUTMENT BEARINGS

DEAD LOAD REACTION = 450 kN
LIVE LOAD REACTION = 260 kN
TOTAL DESIGN LOAD = 710 kN

* t_i = 8.0 (TYP.) 7 LAYERS
** t_e= 6.0

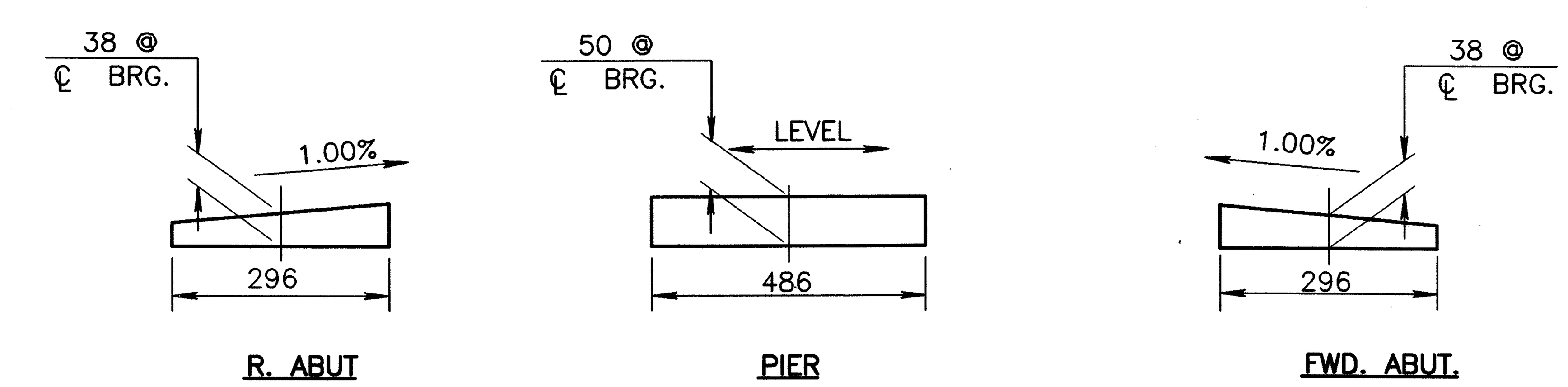
DIM. B					
LOCATION	GIRDER 1	GIRDER 2	GIRDER 3	GIRDER4	GIRDER 5
REAR ABUT.	112	178	243	217	191
FORWARD ABUT.	186	213	240	176	112



PIER BEARINGS

DEAD LOAD REACTION = 1720 kN
LIVE LOAD REACTION = 570 kN
TOTAL DESIGN LOAD = 2290 kN

* t_i = 13.0 (TYP.) 3 LAYERS
** t_e= 9.0



LOAD PLATE BEVEL DETAIL

metric units

NOTES

1. STEEL LOAD PLATE AND HP250x62 SHALL BE ASTM A572M AND INCLUDED WITH ITEM 516, ELASTOMERIC BEARING, AS PER PLAN FOR PAYMENT.
2. FOR ADDITIONAL BEARING RETAINER DETAILS, SEE STANDARD DRAWING SICD–1–96M , SHEETS 6 AND 7.
3. MATERIALS: THE STEEL RETAINER ASSEMBLY AND SQUARE PLATE WASHER SHALL BE ASTM A572M–50. ANCHOR BOLTS AND NUTS SHALL BE ASTM A325M. STEEL RETAINER ASSEMBLIES SHALL HAVE THE SAME PROTECTIVE COATING AS THE MAIN STRUCTURAL STEEL. ANCHOR BOLTS, NUTS AND SQUARE PLATE WASHERS SHALL BE GALVANIZED AS PER 711.02.
4. ELASTOMERIC BEARINGS SHALL COMPLY WITH ITEM 516 AND AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, SECTION 18, BEARING DEVICES, DIVISION II, CONSTRUCTION, ARTICLES 18.4.5.1 AND 18.5.6.2. BEARINGS SHALL BE GRADE 3, 50 DUROMETER ELASTOMER, AND SHALL BE SUBJECTED TO THE LOAD TESTING REQUIREMENTS DEFINED IN ARTICLE 18.7.4.5 OF THE AASHTO DOCUMENT LISTED ABOVE. BEARINGS WERE DESIGNED UNDER SECTION 14.6.6 OF SECTION 14, BEARINGS DIVISION I, DESIGN. TESTING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BEARINGS, EACH
5. WELDING SHALL BE CONTROLLED SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 150° C AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.
6. BASIS OF PAYMENT: THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS, LABOR TESTING, ANCHOR RODS, RETAINERS AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS. PAYMENT WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 516, EACH, ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) :

   270 mm x 430 mm x 84.0 mm WITH 296 mm x 456mm x 38 mm LOAD PLATE. AS PER PLAN

   460 mm x 730 mm x 65.0 mm WITH 486 mm x 756mm x 50 mm LOAD PLATE.

DESIGN AGENCY
McCOY/FOK & ASSOCIATES INC.
367 GHENT ROAD, SUITE 1A
AKRON, OHIO

REVIEWED LBD DATE 8–14–00
STRUCTURE FILE NUMBER 7000987
DRAWN RHW REVISED
DESIGNED RHW CHECKED HK

BEARING DETAILS
BRIDGE NO. RIC–30–05405
UNDER RELOCATED EARICK ROAD

CRA/RIC–30–33.500/0.000

12/13

615/712

REINFORCING SCHEDULE

MARK	NO. REQ'D	LENGTH	TYPE	LOCATION REAR	LOCATION FWD.	DIMENSIONS A	B	C	D	INCRM.
ABUTMENTS										
				REAR	FWD.					
A16M01	36	9040	ST	18	18					
A16M02	132	5010	14	66	66	775	1650			
A16M03	40	4860	14	40		800	1550			
A16M04	40	4910	14		40	800	1560			
A16M05	16	8320	ST	8	8					
A16M06	6	5010	ST	3	3					
A16M07	6	6025	ST	3	3					
A16M08	6	5440	ST	3	3					
A16M09	6	5390	ST	3	3					
SERIES A16M10	4 SETS OF 3	4670 TO 5140	2	2 SETS OF 3	2 SETS OF 3	650	2050 TO 2285			118
SERIES A16M11	1 SET OF 8	5530 TO 8200	2	1 SET OF 8		650	2480 TO 3815			191
A16M12	1	8320	2	1		650	3875			
A16M13	1	8470	2	1		800	3875			
A16M14	1	8300	2	1		800	3790			
A16M15	2	8150	2	2		650	3790			
SERIES A16M16	1 SET OF 8	5510 TO 8140	2	1 SET OF 8		650	2470 TO 3785			188
A16M17	2	4490	ST	1	1					
A16M18	2	4950	ST	1	1					
A16M19	2	4845	ST	1	1					
A16M20	2	4380	ST	1	1					
SERIES A16M21	1 SET OF 4	1660 TO 4490	ST	1 SET OF 4						943
SERIES A16M22	1 SET OF 4	2120 TO 4950	ST	1 SET OF 4						943
A16M23	1	4905	10	1		660	1850	3820		
A16M24	1	5365	10	1		1120	1850	3820		
SERIES A16M25	1 SET OF 4	1970 TO 4845	ST	1 SET OF 4						958
SERIES A16M26	1 SET OF 4	1505 TO 4380	ST	1 SET OF 4						958
A16M27	1	5240	10	1		1120	1771	3720		
A16M28	1	4780	10	1		660	1771	3720		
SERIES A16M29	1 SET OF 8	5540 TO 8242	2		1 SET OF 8	650	2485 TO 3836			193
A16M30	1	8350	2		1	650	3890			
A16M31	1	8500	2		1	800	3890			
A16M32	1	8360	2		1	800	3820			
A16M33	2	8210	2		2	650	3820			
SERIES A16M34	1 SET OF 8	5530 TO 8190	2		1 SET OF 8	650	2480 TO 3810			190
SERIES A16M35	1 SET OF 4	1690 TO 4490	ST		1 SET OF 4					933
SERIES A16M36	1 SET OF 4	2150 TO 4950	ST		1 SET OF 4					933
A16M37	1	4915	10		1	660	1870	3820		
A16M38	1	5375	10		1	1120	1870	3820		
SERIES A16M39	1 SET OF 4	2010 TO 4845	ST		1 SET OF 4					945
SERIES A16M40	1 SET OF 4	1545 TO 4380	ST		1 SET OF 4					945
A16M41	1	5248	10		1	1120	1790	3720		
A16M42	1	4788	10		1	660	1790	3720		
A16M43	50	1370	2	25	25	650	400			
A16M44	4	1520	2	2	2	800	400			
A16M45	6	5440	14	3	3	980	1660			
A16M46	14	5080	14	7	7	800	1660			
A16M47	14	5140	14	7	7	800	1690			
A16M48	14	5040	14	7	7	800	1640			
A16M49	14	4900	14	7	7	800	1570			
A16M50	6	5260	14	3	3	980	1570			
A16M51	12	2050	2	6	6	670	730			
A16M52	56	1930	2	28	28	550	730			
A25M01	24	9460	ST	12	12					
A25M02	16	8930	ST	8	8					
A25M03	48	8630	ST	24	24					
D25M01	56	1675	13	28	28	970	431	305		

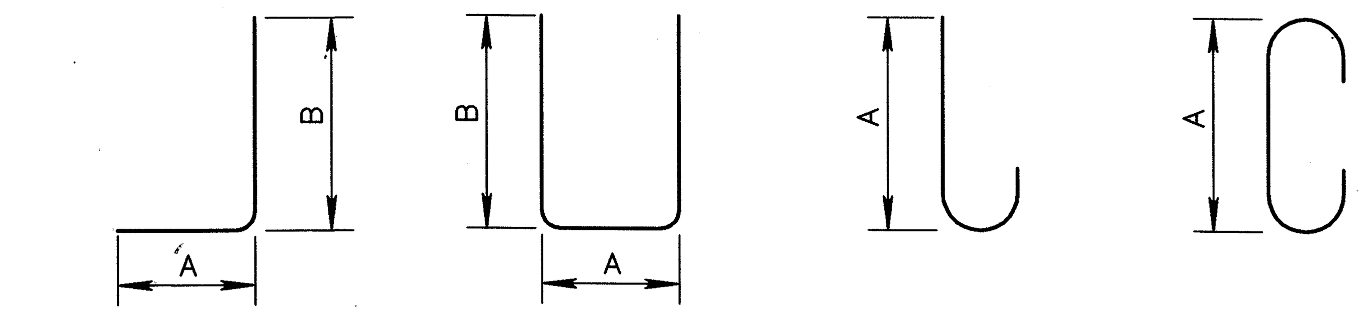
REINFORCING SCHEDULE

MARK	NO. REQ'D	LENGTH	TYPE	DIMENSIONS A	B	C	D	INCRM.
PIER								
P16M01	20	7755	ST					
P16M02	10	2385	2	965	750			
P16M03	40	2870	2	1000	975			
P16M04	80	2520	2	650	975			
SERIES P16M05	8 SETS OF 6	2430 TO 2520	2	650	930 TO 975			9
P16M06	4	2750	2	1000	915			
P16M07	35	2040	2	1000	560			
P19M01	12	2970	7	900	1212	143	900	
P32M01	72	4710	5	3850				
P32M02	48	3355	1	555	2900			
P32M03	48	5800	ST					
P32M04	12	7110	ST					
P32M05	16	4500	ST					
P32M06	6	12 110	1	555	11 655			
P32M07	6	6410	1	555	5955			
SP13M01	3	4625	52	765	115			
SUPERSTRUCTURE								
S16M01	1094	6850	ST					
SERIES S16M02	4 SETS OF 24	1810 TO 6640	ST					210
S16M03	930	9140	ST					
S16M04	93	4440	ST					
S16M05	156	9930	ST					
S16M06	96	10 850	ST					
S16M07	572	2205	9	900	950	320		
S16M08	32	3050	ST					
S16M09	12	1680	50					
S16M10	20	1680	ST					
S19M01	540	8320	ST					
S19M02	553	5540	ST					
SERIES S19M03	1 SET OF 18	1810 TO 5380	ST					210
SERIES S19M04	2 SETS OF 31	1810 TO 8110	ST					210
S19M05	572	1000	15	460	320	320		
S19M06	572	730	1	320	460			
S19M07	40	1015	1	125	940			
SERIES S19M08	1 SET OF 17	1910 TO 5270	ST					210
SERIES S19M09	4 SETS OF 10	1145 TO 1370	4	940 TO 1165				25
SERIES S19M10	4 SETS OF 10	1140 TO 1365	1	250	940 TO 1165			25
S19M11	16	11 030	ST					
S25M01	16	8630	ST					

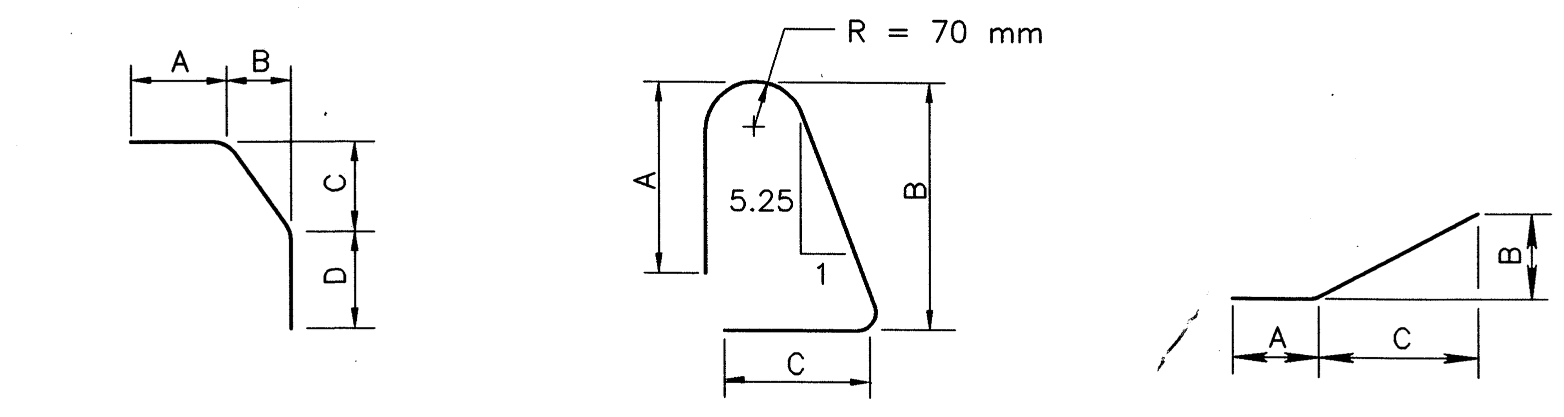
metric units

NOTES

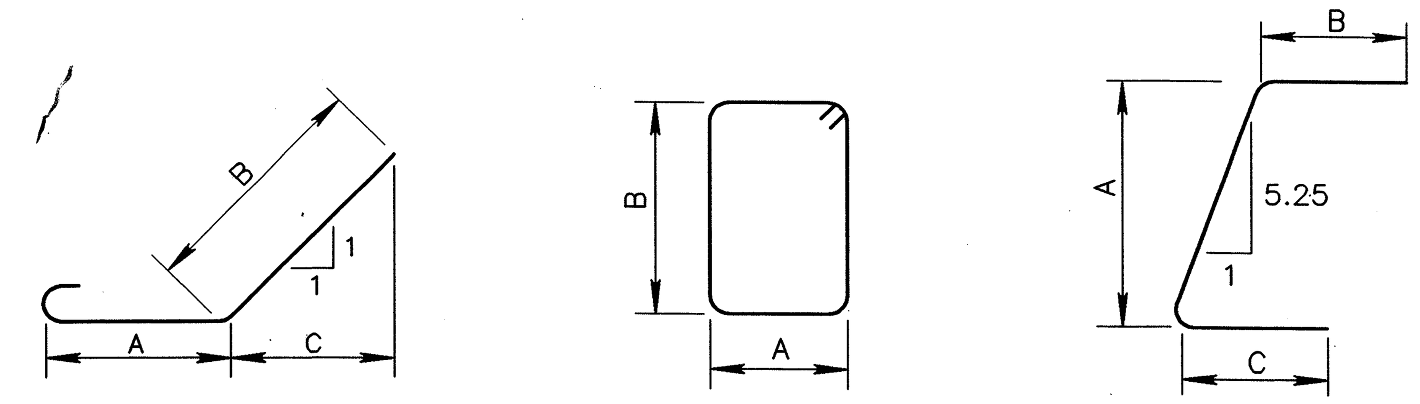
1. ALL REINFORCING STEEL TO BE EPOXY COATED.
2. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST TWO DIGITS INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, A 16M01 IS A 16M BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED.



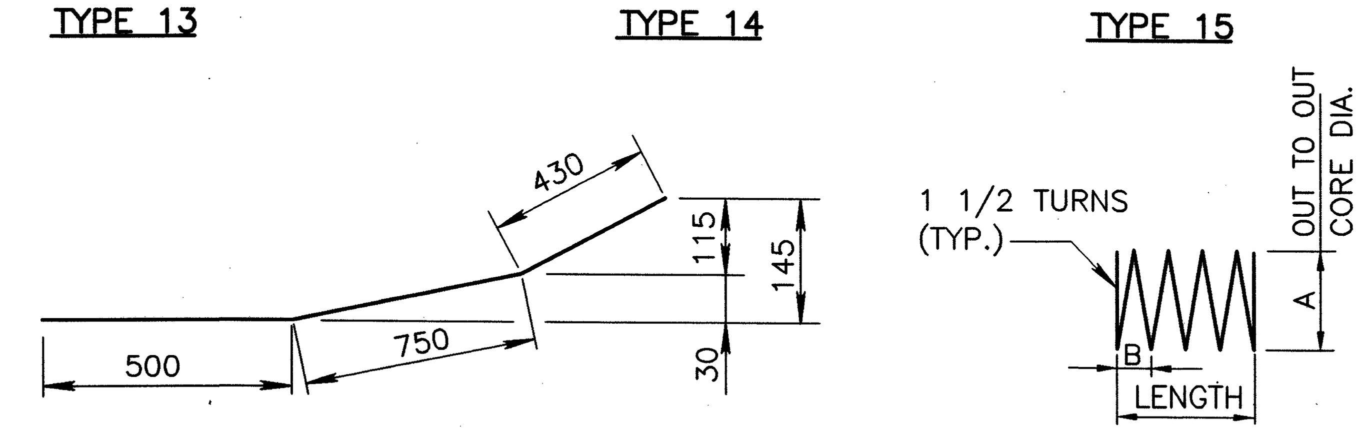
TYPE 1 TYPE 2 TYPE 4 TYPE 5



TYPE 7 TYPE 9 TYPE 10



TYPE 13 TYPE 14 TYPE 15



TYPE 50 TYPE 52

SPIRAL REINFORCING BAR SPACERS

CONCRETE SPACERS OR OTHER APPROVED NONCORROSIVE SPACING DEVICES SHALL BE USED AT SUFFICIENT INTERVALS (NEAR THE BOTTOM AND AT INTERVALS NOT EXCEEDING 3050 mm) TO INSURE CONCENTRIC SPACING FOR THE ENTIRE CAGE LENGTH. SPACERS SHALL BE CONSTRUCTED OF APPROVED MATERIAL EQUAL IN QUALITY AND DURABILITY TO THE CONCRETE SPECIFIED FOR THE SHAFT. THE SPACERS SHALL HAVE ADEQUATE DIMENSIONS TO ENSURE A MINIMUM 75 mm CLEAR SPACE BETWEEN THE OUTSIDE OF THE REINFORCING CAGE AND THE DESIGN DIMENSION OF THE COLUMN. CYLINDRICAL CONCRETE FEET (BOTTOM SUPPORTS) SHALL BE PROVIDED TO ENSURE THAT THE BOTTOM OF THE CAGE IS MAINTAINED AT THE PROPER DISTANCE ABOVE THE BASE.

DESIGN AGENCY McCOY/FOK & ASSOCIATES INC. 367 GHENT ROAD, SUITE 1A AKRON, OHIO

DESIGNED – CHECKED RHW DRAWN WEB REVISED REVIEWED LBD DATE 8-14-00 STRUCTURE FILE NUMBER 7000987

REINFORCING SCHEDULE BRIDGE NO. RIC-30-05405 UNDER RELOCATED EARICK ROAD

CRA/RIC-30-33.500/0.000

MONUMENTS TO BE SET DURING CONSTRUCTION						NAD 83 (1995)		
LOCATION		ITEM 604 EACH	ITEM 604 EACH	SURFACE COORDINATES		STATE PLANE COORDINATES		
Station	Road	MONUMENT ASSEMBLY	REFERENCE MONUMENT	NORTHING	EASTING	NORTHING	EASTING	SIDE
	RELOCATED U.S. 30							
P.T. 33+536.130			1	121664.8652	578522.1144	121664.8962	578521.7857	℄
P.O.T. 34+000.000			1	121661.7168	578985.9747	121661.7481	578985.6001	℄
P.C. 34+330.948			1	121659.4705	579316.9151	121659.5021	579316.5076	℄
P.T. 34+642.930			1	121669.3357	579628.6643	121669.3663	579628.2259	℄
P.O.T. 35+042.251			1	121722.3698	580384.4539	121722.3951	580383.9405	℄
P.C. 35+400.578			1	121697.2875	580027.0058	121697.3153	580026.5279	℄
P.O.C. 35+500.000			1	121728.1142	580483.7073	121728.1389	580483.1841	℄
P.O.C. 35+886.871			1	121727.3110	580870.4311	121727.3358	580869.8696	℄
P.T. 0+385.683			1	121689.8884	581254.1489	121689.9169	581253.5493	℄
P.C. 0+500.252			1	121673.3661	581367.5203	121673.3963	581366.9095	℄
P.O.C. 0+782.884			1	121642.3708	581648.3901	121642.4041	581647.7515	℄
P.T. 1+088.590			1	121630.9261	581953.8096	121630.9605	581953.1407	℄
P.O.T. 1+572.722			1	121631.0200	582437.9416	121631.0544	582437.2246	℄
P.O.T. 2+000.000			1	121631.1029	582865.2195	121631.1372	582864.4603	℄
P.C. 2+492.726			1	121631.1984	583357.9455	121631.2328	583357.1374	℄
P.O.C. 2+921.074			1	121703.9571	583777.9452	121703.9843	583777.0954	℄
P.T. 3+246.957			1	121852.0611	584067.1938	121852.0736	584066.3154	℄
P.O.T. 3+500.000			1	121995.6864	584275.5266	121995.6846	584274.6275	℄
P.O.T. 4+000.000			1	122279.4825	584687.1815	122279.4526	584686.2416	℄
P.O.T. 4+370.680			1	122489.8774	584992.3656	122489.8266	584991.3954	℄
P.O.T. 4+477.429			1	122550.4676	585080.2536	122550.4108	585079.2747	℄
P.O.T. 5+000.000			1	122847.0748	585510.4913	122846.9886	585509.4697	℄
P.O.T. 5+477.022			1	123117.8289	585903.2281	123117.7158	585902.1676	℄
P.O.T. 6+000.000			1	123414.6671	586333.8010	123414.5247	586332.6978	℄
P.C. 6+333.575	RELOCATED U.S. 30		1	123604.0017	586608.4366	123603.8405	586607.3062	℄
P.O.T. 49+900.000	S.R. 61	1		121559.9777	579241.9026	121560.0191	579241.5025	℄
P.I. 50+064.143		1		121724.1137	579243.4185	121724.1388	579243.0183	℄
P.C. 50+214.494		1		121874.4598	579244.6298	121874.4700	579244.2295	℄
P.O.C. 50+460.000	S.R. 61	1		122109.6956	579305.7134	122109.6825	579305.3070	℄
P.O.T. 30+475.065	WACHS ROAD	1		122135.0220	579246.7289	122135.0064	579246.3284	℄
P.C. 49+991.536	SERVICE ROAD "A"	1		121317.9880	579239.6675	121318.0534	579239.2677	℄
P.C. 50+102.288		1		121316.9657	579350.3548	121317.0312	579349.9440	℄
P.T. 50+382.193		1		121434.4429	579593.7236	121434.4967	579593.2887	℄
P.C. 50+483.863		1		121514.6294	579656.2288	121514.6753	579655.7877	℄
P.T. 50+739.644		1		121631.3718	579875.4308	121631.4062	579874.9680	℄
P.O.T. 50+891.439		1		121641.9972	580026.8535	121642.0305	580026.3756	℄
P.C. 51+253.788	SERVICE ROAD "A"	1		121667.3610	580388.3137	121667.3918	580387.8000	℄
SUBTOTAL		12	25					

SUB TOTALS CARRIED TO SHEET NO. 2/10 .

metric units

THIS IMPROVEMENT IS ESPECIALLLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN

ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE REVISED CODE OF OHIO CENTERLINE MONUMENTS AND CENTERLINE REFERENCE MONUMENTS ARE SHOWN ON STANDARD CONSTRUCTION DRAWING RM-1.1 (4-8-97) OF THE OHIO DEPARTMENT OF TRANSPORTATION. THE PLACING OF THE MONUMENTS SHALL BE UNDER THE DIRECTION OF A REGISTERED SURVEYOR AND ARE TO BE SET, AS SHOWN, BY THE HIGHWAY CONTRACTOR AT THE TIME OF CONSTRUCTION. ANY ALTERATIONS, WITH PRIOR APPROVAL OF THE DEPARTMENT OF TRANSPORTATION, SHALL BE NOTED AND O.D.O.T. SHALL BE NOTIFIED OF THE NEW LOCATIONS.

BASIS FOR BEARING AND PROJECT ADJUSTMENT FACTOR (PAF)

THE PROJECT (SURFACE LEVEL) ADJUSTED OHIO STATE PLANE COORDINATE VALUES ARE RELATIVE TO NAD 83(1995) OHIO STATE PLANE GRID DATUM BY A PROJECT ADJUSTMENT FACTOR (PAF). THE (PAF) IS 1.00009915983. THE FACTOR WAS DERIVED FROM A GPS SURVEY MADE IN 1997 BY McCOY/FOK ASSOCIATES.

THE PROJECT BEARINGS AND (PAF) ARE REFERENCED TO OHIO STATE PLANE GRID NORTH ZONE ESTABLISHED USING NAD 83 STATE PLANE CO-ORDINATES (HARN, ORDER B) OF NGS MONUMENTS 17GA, ARP MFD, GQQA AND WACHS.

The establishment of the property lines and existing right of way lines shown on this plan as of this date was performed by me or under my direct supervision.

I hereby certify that this plat is a true delineation of a survey made for the Department Of Transportation, State Of Ohio in 1997 by Thomas Fok and Associates.

By Thomas D.Y. Fok 1-8-1999
Thomas D.Y. Fok, Surveyor No.4896

STATE OF OHIO THOMAS D. Y. FOK 4896 REGISTERED SURVEYOR

Received for record this ________ day of ________, 199___

at ________ o'clock _____ m.

Recorded this day________day of____________, 199___

in Volume________Page_____of the __________ County Record of Plats

__________ County Recorder

CENTERLINE PLAT

PID NO. 16284

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

1/10

1/95

617/712

RC109.DWG
06-1-1999 2:23 PM
1:2000M

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

MONUMENTS TO BE SET DURING CONSTRUCTION						NAD 83 (1995)		
LOCATION		ITEM 604 EACH	ITEM 604 EACH	SURFACE COORDINATES		STATE PLANE COORDINATES		
Station	Road	MONUMENT ASSEMBLY	REFERENCE MONUMENT	NORTHING	EASTING	NORTHING	EASTING	SIDE
P.C. 9+899.126	GALION/AIRPORT RD.	1		121588.2926	581258.1663	121588.3312	581257.5664	℄
P.T. 9+931.980		1		121617.9341	581270.3898	121617.9698	581269.7886	℄
P.C. 10+064.763		1		121756.9450	581271.5145	121756.9669	581270.9132	℄
P.T. 10+097.617	GALION/AIRPORT RD.	1		121786.7777	581259.7665	121786.7966	581259.1664	℄
P.O.T. 49+603.403	HORNING ROAD	1		121234.5852	583263.0492	121234.6588	583262.2505	℄
P.C. 49+718.949		1		121350.1307	583263.3706	121350.1929	583262.5718	℄
P.T. 49+770.248		1		121401.2000	583259.2087	121401.2571	583258.4104	℄
P.C. 49+850.248		1		121480.1081	583246.0363	121480.1574	583245.2393	℄
P.T. 49+901.547		1		121531.1773	583241.8746	121531.2216	583241.0780	℄
P.C. 50+101.547		1		121731.1766	583242.4312	121731.2010	583241.6345	℄
P.T. 50+152.846		1		121782.2219	583246.8772	121782.2412	583246.0801	℄
P.C. 50+236.639		1		121864.7931	583261.1339	121864.8043	583260.3354	℄
P.T. 50+287.076		1		121914.9764	583265.5763	121914.9826	583264.7773	℄
P.O.T. 50+400.000	HORNING ROAD	1		122027.8986	583266.2095	122027.8937	583265.4105	℄
P.T. 49+617.915	S.R. 181	1		122470.9050	584395.6728	122470.8561	584394.7618	℄
P.C. 49+783.420		1		122419.1123	584552.8650	122419.0685	584551.9384	℄
P.T. 49+867.196		1		122387.4347	584630.3476	122387.3941	584629.4133	℄
P.O.T. 49+885.000		1		122379.5640	584646.3174	122379.5242	584645.3815	℄
P.C. 50+352.664		1		122172.8212	585065.8016	122172.8018	585064.8241	℄
P.T. 50+398.741		1		122145.1107	585102.2606	122145.0941	585101.2795	℄
P.O.T. 50+426.284	S.R. 181	1		122124.5664	585120.6059	122124.5518	585119.6230	℄
P.O.T. 50+094.265	ECKSTEIN ROAD	1		122496.3189	584861.6913	122496.2675	584860.7340	℄
P.C. 50+220.000	ECKSTEIN ROAD	1		122621.8182	584869.3865	122621.7543	584868.4285	℄
P.T. 50+253.243	ECKSTEIN ROAD	1		122654.9989	584871.4211	122654.9317	584870.4629	℄
P.C. 21+313.083	RELOC. ECKSTEIN RD.	1		122636.2960	584825.5090	122636.2307	584824.5553	℄
P.O.C. 21+339.140		1		122658.2737	584839.4923	122658.2062	584838.5373	℄
P.T. 21+480.261		1		122792.1952	584879.8336	122792.1144	584878.8746	℄
P.O.T. 21+520.000	RELOC. ECKSTEIN RD.	1		122831.8597	584882.2657	122831.7750	584881.3064	℄
P.O.T. 49+500.000	EARICK ROAD	1		122618.5044	585896.9855	122618.4408	585895.9256	℄
P.C. 49+572.467		1		122690.6928	585898.0617	122690.8926	585897.0018	℄
P.T. 49+673.437		1		122791.5734	585891.0791	122791.4935	585890.0198	℄
P.C. 49+740.429		1		122857.7774	585880.8407	122857.6898	585879.7825	℄
P.T. 49+841.396		1		122958.3836	585873.8581	122958.2866	585872.8005	℄
P.C. 50+151.865		1		123268.8189	585878.4668	123268.1512	585877.4008	℄
P.T. 50+240.304		1		123356.8314	585886.2802	123356.1556	585885.2135	℄
P.C. 50+307.263		1		123422.9110	585897.0962	123422.2950	585896.0394	℄
P.T. 50+408.527		1		123523.7497	585904.9630	123523.1242	585903.9054	℄
P.O.T. 50+480.000	EARICK ROAD	1		123594.7489	585904.4942	123594.5886	585903.4385	℄
P.O.T. 30+732.116	SERVICE ROAD "B"	1		122847.4716	585882.4346	122847.3854	585881.3761	℄
P.C. 30+744.907		1		122853.4523	585893.7411	122853.3655	585892.6815	℄
P.T. 30+761.058		1		122866.5988	585901.7270	122866.5107	585900.6667	℄
P.C. 30+871.026		1		122976.5640	585902.5540	122976.4650	585901.4935	℄
P.T. 30+903.881	SERVICE ROAD "B"	1		123006.2304	585914.7174	123006.1284	585913.6558	℄
P.O.T. 49+840.699	WEST 4th STREET	1		123605.0051	586437.1748	123604.8437	586436.0614	℄
P.O.T. 50+180.442	WEST 4th STREET	1		123584.8676	586776.3205	123584.7083	586775.1734	℄
SECTION CORNER LOCATIONS								
STATION	LOCATION	OFFSET						
33+434.767	RELOC. U.S. 30	−72.895 (239.16')		121735.8094	578417.5818	121735.8334	578417.2635	
35+043.115		−11.843 (38.56')		121709.1623	580027.0384	121709.1890	580026.5605	
0+000.961		25.412 (83.37')		121701.8829	580870.1219	121701.9103	580869.5604	
0+780.152		−39.224 (128.69')		121681.6882	581648.6358	121681.7176	581647.9971	
1+573.388		−30.176 (99.00')		121661.1965	582438.6022	121661.2279	582437.8852	
2+399.111		−59.629 (195.63')		121690.8089	583264.3188	121690.8373	583263.5200	
3+189.401		128.018 (420.01')		121711.8638	584086.8055	121711.8901	584085.9251	
3+663.477		−537.660 (1763.98')		122531.1355	584104.9465	122531.0806	584104.0643	
4+440.421		53.330 (174.97')		122485.5548	585080.0537	122485.5045	585079.0748	
5+565.095	RELOC. U.S. 30	−121.753 (399.45')		123268.0587	585906.6333	123267.9308	585905.5725	
SUBTOTAL ABOVE		45	0					
SUBTOTAL SHEET 1/10		12	25					
GRAND TOTAL		57	25					

TOTALS CARRIED TO GENERAL SUMMARY SHEET NO. 57.

CRA/RIC−30−33.500 (20.82)/0.000 (0.00)

metric units

	EXISTING MONUMENT SUMMARY			
NO.	ROAD	STATION	OFFSET	DESCRIPTION
1	NAZOR ROAD	49+255.423	6.428 m (21.09')LT.	#5 Iron Pin Fd.
2		49+296.766	5.340 m (17.52')LT.	#5 Iron Pin Fd.
3		49+334.232	4.336 m (14.23')LT.	#5 Iron Pin Fd.
4		49+548.551	7.950 m (26.08')LT.	#5 Iron Pin Fd.
5		49+668.153	6.673 m (21.89')LT.	#5 Iron Pin Fd.
6		49+812.053	6.747 m (22.14')LT.	Iron Pin Fd.
7		49+812.062	6.743 m (22.12')LT.	#5 Iron Pin Fd.
8		50+238.577	101.895 m (334.30')LT.	1" Iron Pin Fd.
9		50+431.236	10.805 m (35.45')LT.	1" Iron Pin Fd.
10		50+431.256	10.459 m (34.31')LT.	
11		50+550.017	8.170 m (26.81')RT.	3/4"Iron Pin Fd.
12	NAZOR ROAD	51+009.316	5.179 m (16.99')LT.	R.R. Spike Fd.
14	EX. RELOC. U.S. 30	6+189.047	0.563 m (1.85')RT.	Monument Fd.
15		6+463.508	0.507 m (1.66')RT.	Monument Fd.
16		6+768.285	0.127 m (0.42')RT.	Monument Fd.
17		6+884.274	0.000 m LT.	Monument Fd.
18		7+134.078	0.000 m LT.	Monument Fd.
19	EX. RELOC. U.S. 30	7+438.871	0.000 m LT.	Monument Fd.
20	S.R. 61	49+268.076	9.081 m (29.79')RT.	1" Iron Pin Fd.
21		49+364.714	9.163 m (30.06')LT.	Iron Pin Fd.
22		49+413.174	9.199 m (30.18')LT.	#5 Iron Pin Fd.
23		49+414.402	9.197 m (30.17')LT.	Monument Fd.
24		50+064.154	9.144 m (30.00')RT.	Monument Fd.
25		50+064.120	9.142 m (29.99')LT.	Monument Fd.
26		50+313.074	12.197 m (40.02')RT.	#5 Iron Pin Fd.
27		50+483.387	12.228 m (40.12')RT.	#5 Iron Pin Fd.
28	S.R. 61	50+841.152	12.139 m (39.83')LT.	3/4" Pipe Fd.
30	WACHS ROAD	30+515.118	0.003 m (0.01')LT.	R.R. Spike Fd.
31		30+520.367	0.002 m (0.01')RT.	R.R. Spike Fd.
32		30+589.812	0.001 m (0.01')RT.	R.R. Spike Fd.
33	WACHS ROAD	30+857.841	0.000 m RT.	R.R. Spike Fd.
35	GALION/AIRPORT RD.	49+418.573	8.752 m (28.71')LT.	3/4" Pipe Fd.
36		50+002.629	0.000 m RT.	PK Fd.
37		50+434.257	0.000 m RT.	PK Fd.
38	GALION/AIRPORT RD.	50+550.650	0.000 m RT.	R.R. Spike Fd.
40	RELOC. HORNING RD.	49+660.521	0.000 m RT.	R.R. Spike Fd.
41	RELOC. HORNING RD.	50+061.240	22.000 m (72.18')RT.	R.R. Spike Fd.
42	RELOC. HORNING RD.	50+455.163	0.000 m RT.	R.R. Spike Fd.
29				
44	RELOC. S.R. 181	49+726.662	8.921 m)29.27')LT.	Monument Fd.
45		49+879.006	0.375 m (1.23')RT.	Monument Fd.
46		50+205.188	0.567 m (0.88')LT.	Monument Fd.
47	RELOC. S.R. 181	50+356.508	0.975 m (3.20')LT.	Monument Fd.
50	ECKSTEIN ROAD	49+900.368	0.000 m RT.	R.R. Spike Fd.
51	ECKSTEIN ROAD	50+094.265	0.000 m RT.	R.R. Spike Fd.
52	ECKSTEIN ROAD	50+498.881	0.000 m RT.	#5 Iron Pin Fd.
55	RELOC. EARICK RD.	49+337.918	9.144 m (30.00')LT.	#5 Iron Pin Fd.
56		50+151.866	27.000 m (88.58')RT.	R.R. Spike Fd.
57		50+224.702	21.242 m (69.69')RT.	R.R. Spike Fd.
58	RELOC. EARICK RD.	50+337.417	3.447 m (11.41')RT.	R.R. Spike Fd.
	S.R. 309	3+657.297	9.669 m (31.72')LT.	1" Iron Pipe Fd.
		3+827.708	9.186 m (30.14')LT.	1" Iron Pipe Fd.
		3+914.239	10.087 m (33.09')LT.	1" Iron Pipe Fd.
		3+992.783	9.089 m (29.82')RT.	Monument Fd.
		3+992.982	9.144 m (30.00')LT.	Monument Fd.
		4+114.802	9.136 m (29.97')RT.	Monument Fd.
	S.R. 309	4+114.760	9.376 m (30.76')LT.	Monument Fd.

PID NO. 16284

CENTERLINE PLAT

CRA−30−33.500 (20.82)
RIC−30−0.000 (0.00)

2/10

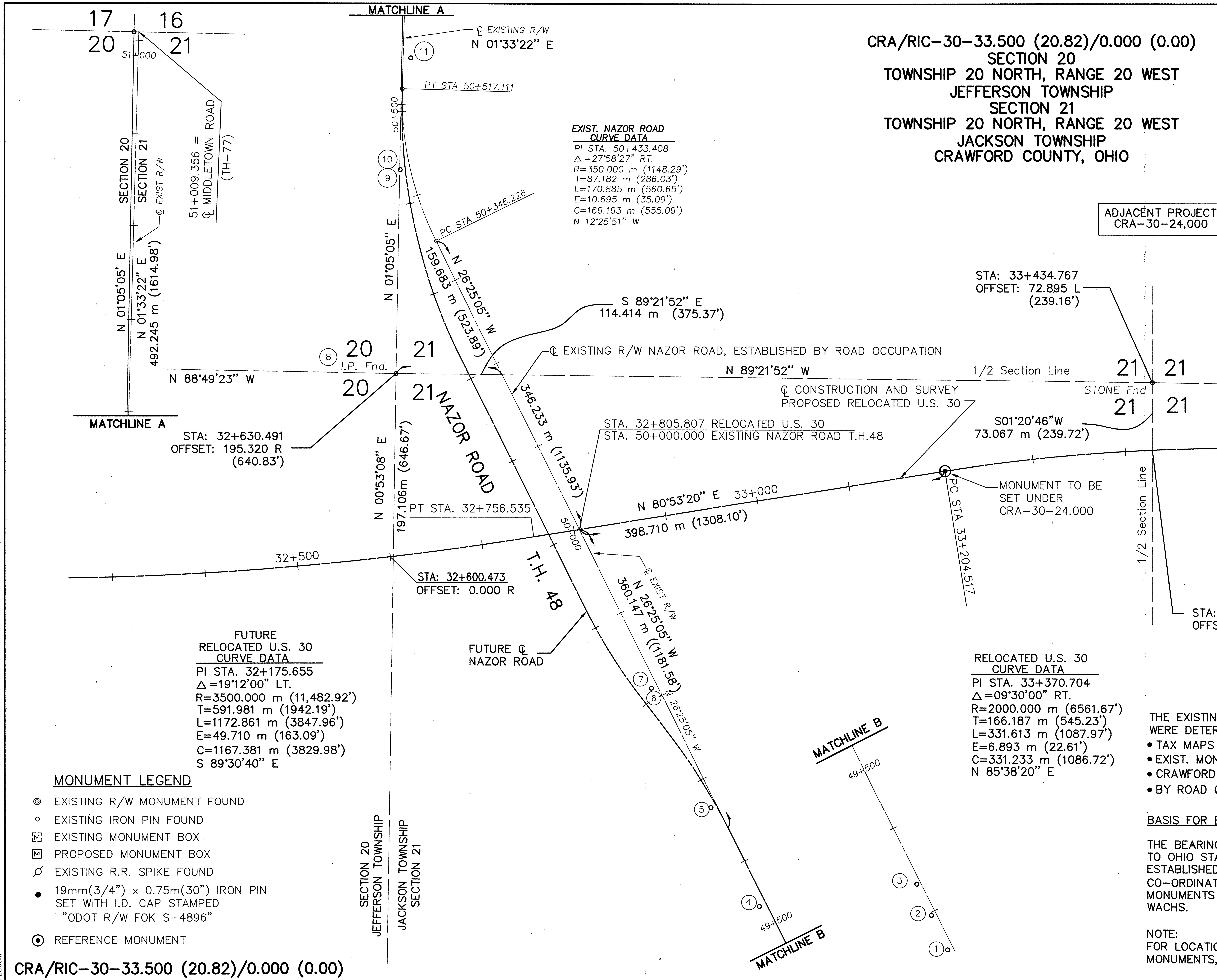
2/95

618/712

RC110.DWG
04-17-2001 9:20 AM
1:2000 M

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)
SECTION 20
TOWNSHIP 20 NORTH, RANGE 20 WEST
JEFFERSON TOWNSHIP
SECTION 21
TOWNSHIP 20 NORTH, RANGE 20 WEST
JACKSON TOWNSHIP
CRAWFORD COUNTY, OHIO

metric units



EXIST. NAZOR ROAD
CURVE DATA
PI STA. 50+433.408
△=27°58'27" RT.
R=350.000 m (1148.29')
T=87.182 m (286.03')
L=170.885 m (560.65')
E=10.695 m (35.09')
C=169.193 m (555.09')
N 12°25'51" W

FUTURE
RELOCATED U.S. 30
CURVE DATA
PI STA. 32+175.655
△=19°12'00" LT.
R=3500.000 m (11,482.92')
T=591.981 m (1942.19')
L=1172.861 m (3847.96')
E=49.710 m (163.09')
C=1167.381 m (3829.98')
S 89°30'40" E

RELOCATED U.S. 30
CURVE DATA
PI STA. 33+370.704
△=09°30'00" RT.
R=2000.000 m (6561.67')
T=166.187 m (545.23')
L=331.613 m (1087.97')
E=6.893 m (22.61')
C=331.233 m (1086.72')
N 85°38'20" E

MONUMENT LEGEND

- ◎ EXISTING R/W MONUMENT FOUND
- ○ EXISTING IRON PIN FOUND
- M EXISTING MONUMENT BOX
- M PROPOSED MONUMENT BOX
- ∅ EXISTING R.R. SPIKE FOUND
- ● 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- ⊙ REFERENCE MONUMENT

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
- TAX MAPS
- EXIST. MONUMENTS
- CRAWFORD COUNTY ENGINEER
- BY ROAD OCCUPATION

BASIS FOR BEARING

THE BEARINGS ARE REFERENCED TO OHIO STATE PLANE GRID NORTH ZONE ESTABLISHED USING NAD 83 (1995) STATE PLANE CO-ORDINATES (HARN, ORDER B) OF NGS MONUMENTS 17GA, ARP MFD, GQQA AND WACHS.

NOTE:
FOR LOCATIONS OF EXISTING AND PROPOSED MONUMENTS, SEE SHEET NO. 1&2.

RATIO 1:2000
0 20 40 60 80
HORIZONTAL SCALE IN METERS

PID NO. 16284

CENTERLINE PLAT

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

3/10

3/95

619/712

RC108.DWG
04-16-1999 1:01 PM
1:2000M

CRA/RIC-30-33.500(20.82)/0.000(0.00)

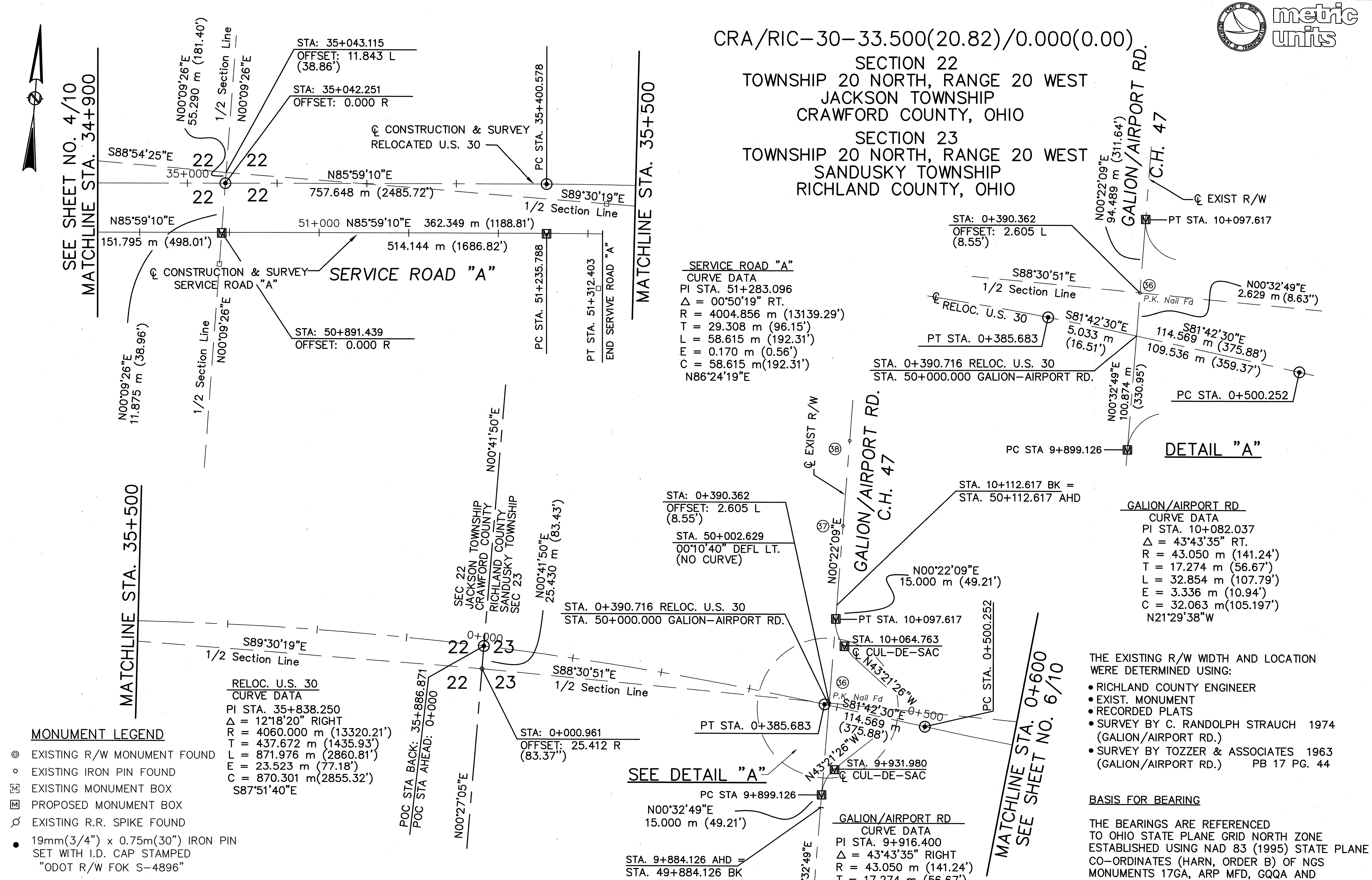
SECTION 21 SECTION 22
TOWNSHIP 20 NORTH, RANGE 20 WEST
JACKSON TOWNSHIP
CRAWFORD COUNTY, OHIO

CRA/RIC-30-33.500(20.82)/0.000(0.00)

SECTION 22
TOWNSHIP 20 NORTH, RANGE 20 WEST
JACKSON TOWNSHIP
CRAWFORD COUNTY, OHIO

SECTION 23
TOWNSHIP 20 NORTH, RANGE 20 WEST
SANDUSKY TOWNSHIP
RICHLAND COUNTY, OHIO

metric units



RELOC. U.S. 30
CURVE DATA
PI STA. 35+838.250
Δ = 12°18'20" RIGHT
R = 4060.000 m (13320.21')
T = 437.672 m (1435.93')
L = 871.976 m (2860.81')
E = 23.523 m (77.18')
C = 870.301 m(2855.32')
S87°51'40"E

GALION/AIRPORT RD
CURVE DATA
PI STA. 10+082.037
Δ = 43°43'35" RT.
R = 43.050 m (141.24')
T = 17.274 m (56.67')
L = 32.854 m (107.79')
E = 3.336 m (10.94')
C = 32.063 m(105.197')
N21°29'38"W

GALION/AIRPORT RD
CURVE DATA
PI STA. 9+916.400
Δ = 43°43'35" RIGHT
R = 43.050 m (141.24')
T = 17.274 m (56.67')
L = 32.854 m (107.89')
E = 3.336 m (10.94')
C = 32.063 m(105.197')
N22°24'36"E

MONUMENT LEGEND
- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT
- STONE FOUND

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
- RICHLAND COUNTY ENGINEER
- EXIST. MONUMENT
- RECORDED PLATS
- SURVEY BY C. RANDOLPH STRAUCH 1974 (GALION/AIRPORT RD.)
- SURVEY BY TOZZER & ASSOCIATES 1963 (GALION/AIRPORT RD.) PB 17 PG. 44

BASIS FOR BEARING

THE BEARINGS ARE REFERENCED TO OHIO STATE PLANE GRID NORTH ZONE ESTABLISHED USING NAD 83 (1995) STATE PLANE CO-ORDINATES (HARN, ORDER B) OF NGS MONUMENTS 17GA, ARP MFD, GQQA AND WACHS.

NOTE:
FOR LOCATIONS OF EXISTING AND PROPOSED MONUMENTS, SEE SHEET NO. 1 & 2/10 .

RATIO 1:2000
0 20 40 80
HORIZONTAL SCALE IN METERS

PID NO. 16284

CENTERLINE PLAT

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

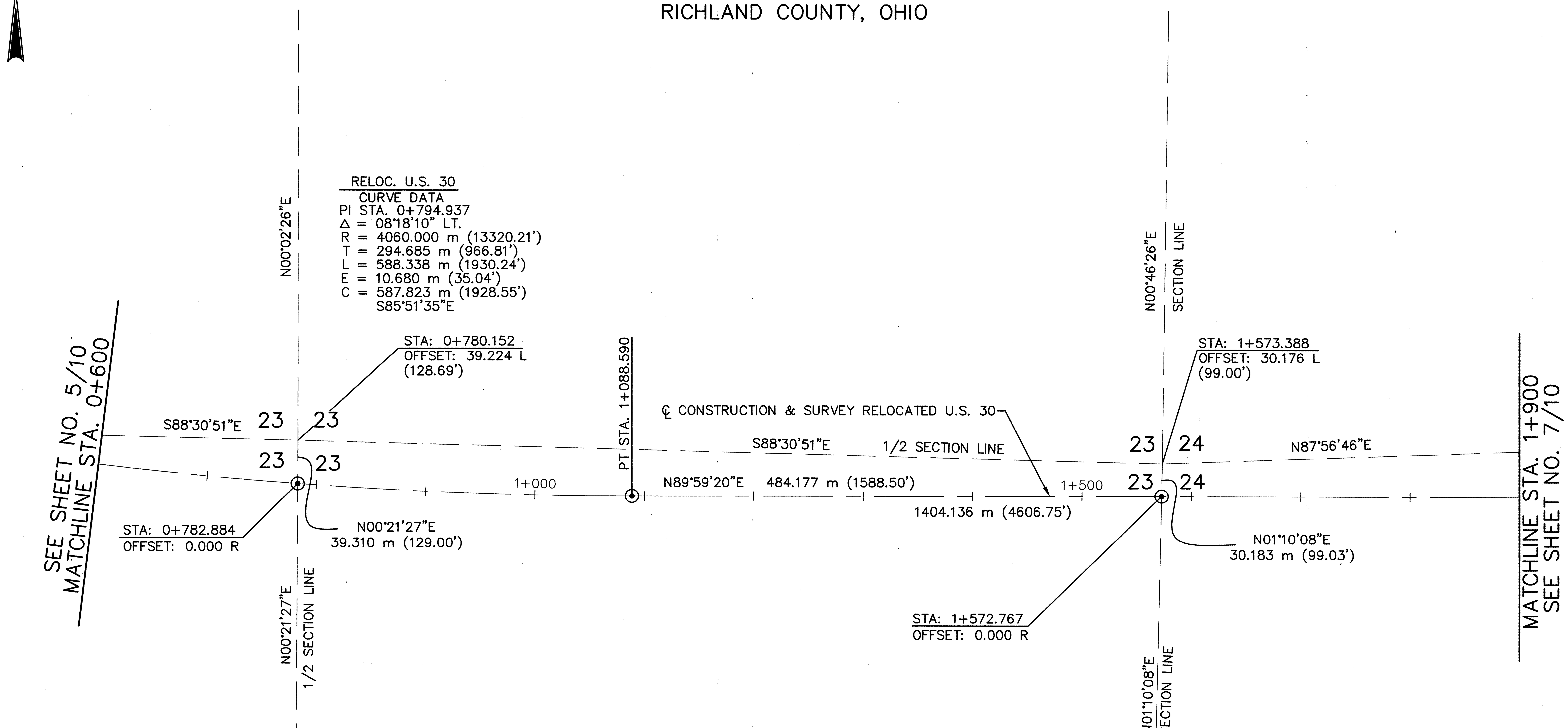
5/10
5/95
621/712

RC101.DWG
08-1-1998 11:55 AM
1:2000M PREL RW

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

CRA/RIC-30-33.500(20.82)/0.000(0.00)

SECTION 23 & 24
TOWNSHIP 20 NORTH, RANGE 20 WEST
SANDUSKY TOWNSHIP
RICHLAND COUNTY, OHIO



MONUMENT LEGEND

- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

BASIS FOR BEARING

THE BEARINGS ARE REFERENCED TO OHIO STATE PLANE GRID NORTH ZONE ESTABLISHED USING NAD 83 (1995) STATE PLANE CO-ORDINATES (HARN, ORDER B) OF NGS MONUMENTS 17GA, ARP MFD, GQQA AND WACHS.

NOTE:
FOR LOCATIONS OF EXISTING AND PROPOSED MONUMENTS, SEE SHEET NO. 1 & 2 OF 10 .

RC102.DWG
12-16-1998 12:43 PM
1:2000M RW

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

metric units

RATIO 1:2000
HORIZONTAL SCALE IN METERS
0 20 40 80

PID NO. 16284

CENTERLINE PLAT

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

6/10

6/95

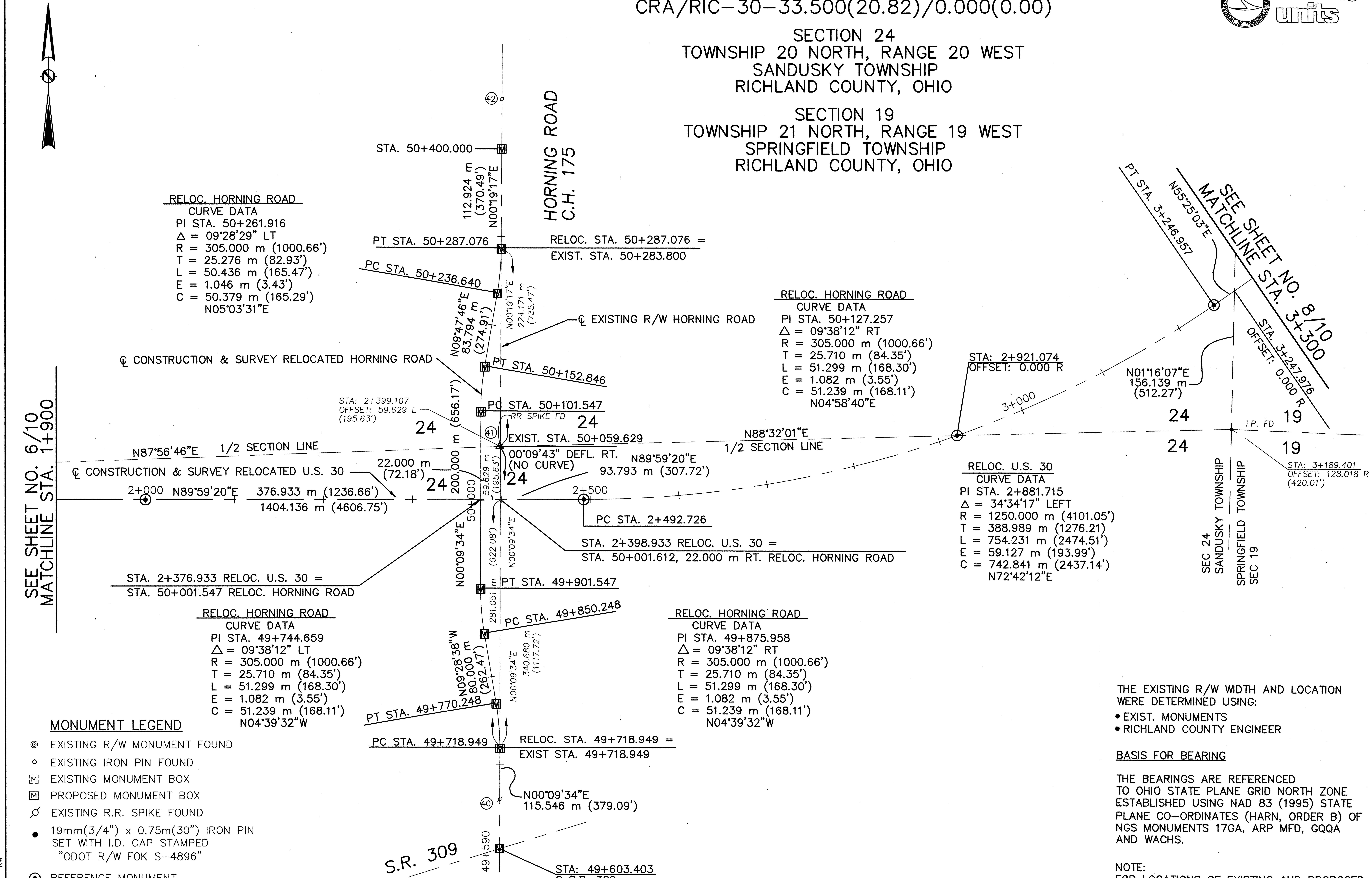
622/712

CRA/RIC-30-33.500(20.82)/0.000(0.00)

SECTION 24
TOWNSHIP 20 NORTH, RANGE 20 WEST
SANDUSKY TOWNSHIP
RICHLAND COUNTY, OHIO

SECTION 19
TOWNSHIP 21 NORTH, RANGE 19 WEST
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY, OHIO

metric units



MONUMENT LEGEND

- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
• EXIST. MONUMENTS
• RICHLAND COUNTY ENGINEER

BASIS FOR BEARING

THE BEARINGS ARE REFERENCED TO OHIO STATE PLANE GRID NORTH ZONE ESTABLISHED USING NAD 83 (1995) STATE PLANE CO-ORDINATES (HARN, ORDER B) OF NGS MONUMENTS 17GA, ARP MFD, GQQA AND WACHS.

NOTE:
FOR LOCATIONS OF EXISTING AND PROPOSED MONUMENTS, SEE SHEET NO. 1 & 2 OF 10 .

RATIO 1:2000
HORIZONTAL SCALE IN METERS

PID NO. 16284

CENTERLINE PLAT

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

7/10
7/95
623/712

RC103.DWG
12-16-1998 1:11 PM
1:2000M RW

CRA/RIC-30-33.500(20.82)/0.000(0.00)

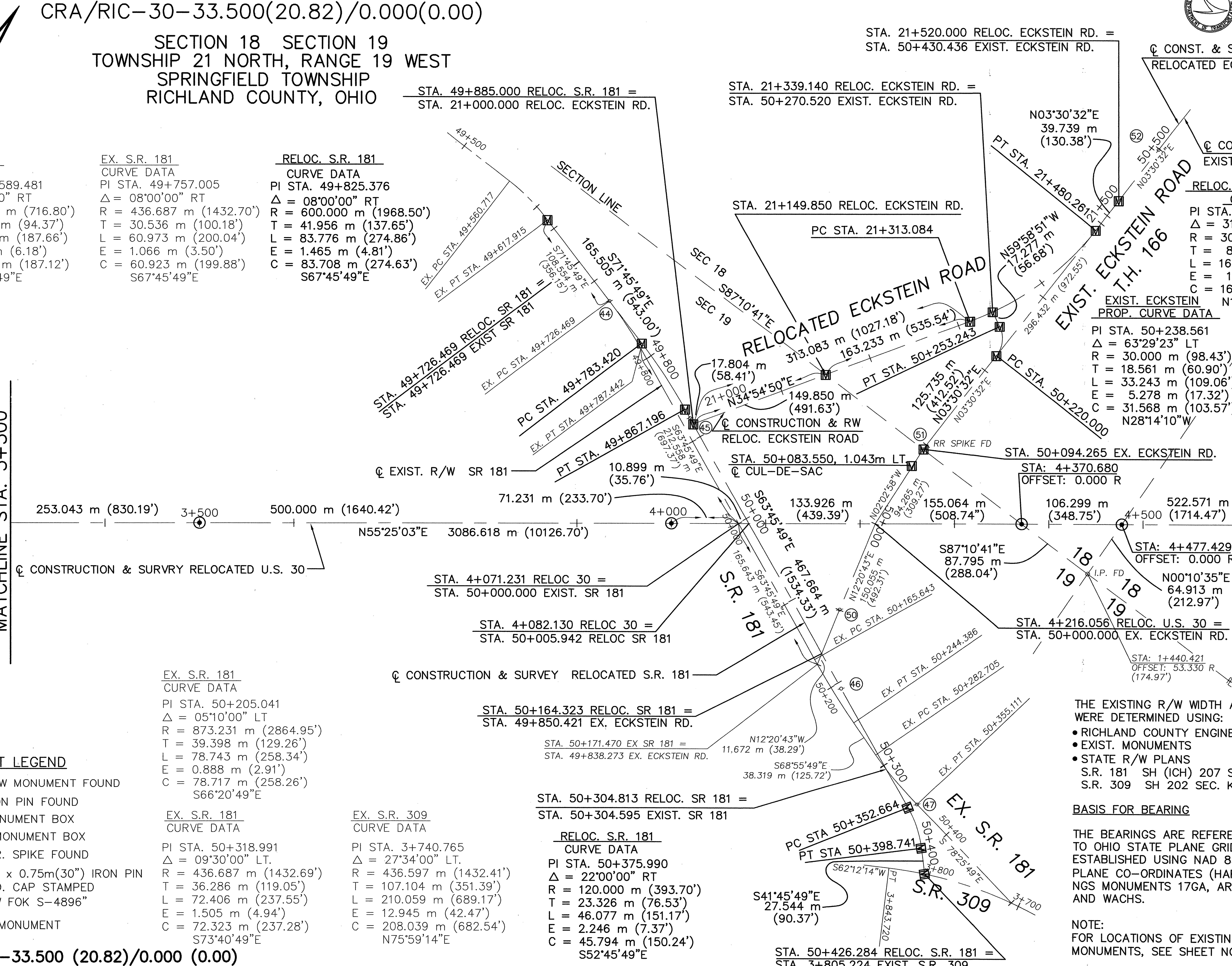
SECTION 18 SECTION 19
TOWNSHIP 21 NORTH, RANGE 19 WEST
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY, OHIO

metric units

RATIO 1:2000
HORIZONTAL SCALE IN METERS

PID NO. 16284

CENTERLINE PLAT



EX.S.R. 181
CURVE DATA
PI STA. 49+589.481
Δ = 15°00'00" RT
R = 218.481 m (716.80')
T = 28.764 m (94.37')
L = 57.190 m (187.66')
E = 1.885 m (6.18')
C = 57.035 m (187.12')
S79°15'49"E

EX. S.R. 181
CURVE DATA
PI STA. 49+757.005
Δ = 08°00'00" RT
R = 436.687 m (1432.70')
T = 30.536 m (100.18')
L = 60.973 m (200.04')
E = 1.066 m (3.50')
C = 60.923 m (199.88')
S67°45'49"E

RELOC. S.R. 181
CURVE DATA
PI STA. 49+825.376
Δ = 08°00'00" RT
R = 600.000 m (1968.50')
T = 41.956 m (137.65')
L = 83.776 m (274.86')
E = 1.465 m (4.81')
C = 83.708 m (274.63')
S67°45'49"E

RELOC. ECKSTEIN ROAD
CURVE DATA
PI STA. 21+398.830
Δ = 31°24'18" LT.
R = 305.000 m (1000.66')
T = 85.746 m (281.32')
L = 167.177 m (548.48')
E = 11.824 m (38.79')
C = 165.092 m (541.64')
N19°12'41"E

EXIST. ECKSTEIN
PROP. CURVE DATA
PI STA. 50+238.561
Δ = 63°29'23" LT
R = 30.000 m (98.43')
T = 18.561 m (60.90')
L = 33.243 m (109.06')
E = 5.278 m (17.32')
C = 31.568 m (103.57')
N28°14'10"W

EX. S.R. 181
CURVE DATA
PI STA. 50+205.041
Δ = 05°10'00" LT
R = 873.231 m (2864.95')
T = 39.398 m (129.26')
L = 78.743 m (258.34')
E = 0.888 m (2.91')
C = 78.717 m (258.26')
S66°20'49"E

EX. S.R. 181
CURVE DATA
PI STA. 50+318.991
Δ = 09°30'00" LT.
R = 436.687 m (1432.69')
T = 36.286 m (119.05')
L = 72.406 m (237.55')
E = 1.505 m (4.94')
C = 72.323 m (237.28')
S73°40'49"E

EX. S.R. 309
CURVE DATA
PI STA. 3+740.765
Δ = 27°34'00" LT.
R = 436.597 m (1432.41')
T = 107.104 m (351.39')
L = 210.059 m (689.17')
E = 12.945 m (42.47')
C = 208.039 m (682.54')
N75°59'14"E

RELOC. S.R. 181
CURVE DATA
PI STA. 50+375.990
Δ = 22°00'00" RT
R = 120.000 m (393.70')
T = 23.326 m (76.53')
L = 46.077 m (151.17')
E = 2.246 m (7.37')
C = 45.794 m (150.24')
S52°45'49"E

MONUMENT LEGEND
- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
- RICHLAND COUNTY ENGINEER
- EXIST. MONUMENTS
- STATE R/W PLANS
S.R. 181 SH (ICH) 207 SEC. a-1-a-2
S.R. 309 SH 202 SEC. K-1,2,3 & G

BASIS FOR BEARING

THE BEARINGS ARE REFERENCED TO OHIO STATE PLANE GRID NORTH ZONE ESTABLISHED USING NAD 83 (1995) STATE PLANE CO-ORDINATES (HARN, ORDER B) OF NGS MONUMENTS 17GA, ARP MFD, GQQA AND WACHS.

NOTE:
FOR LOCATIONS OF EXISTING AND PROPOSED MONUMENTS, SEE SHEET NO. 1 & 2 OF 10.

RC104.DWG
06-2-1999 10:53 AM
1:2000M RW

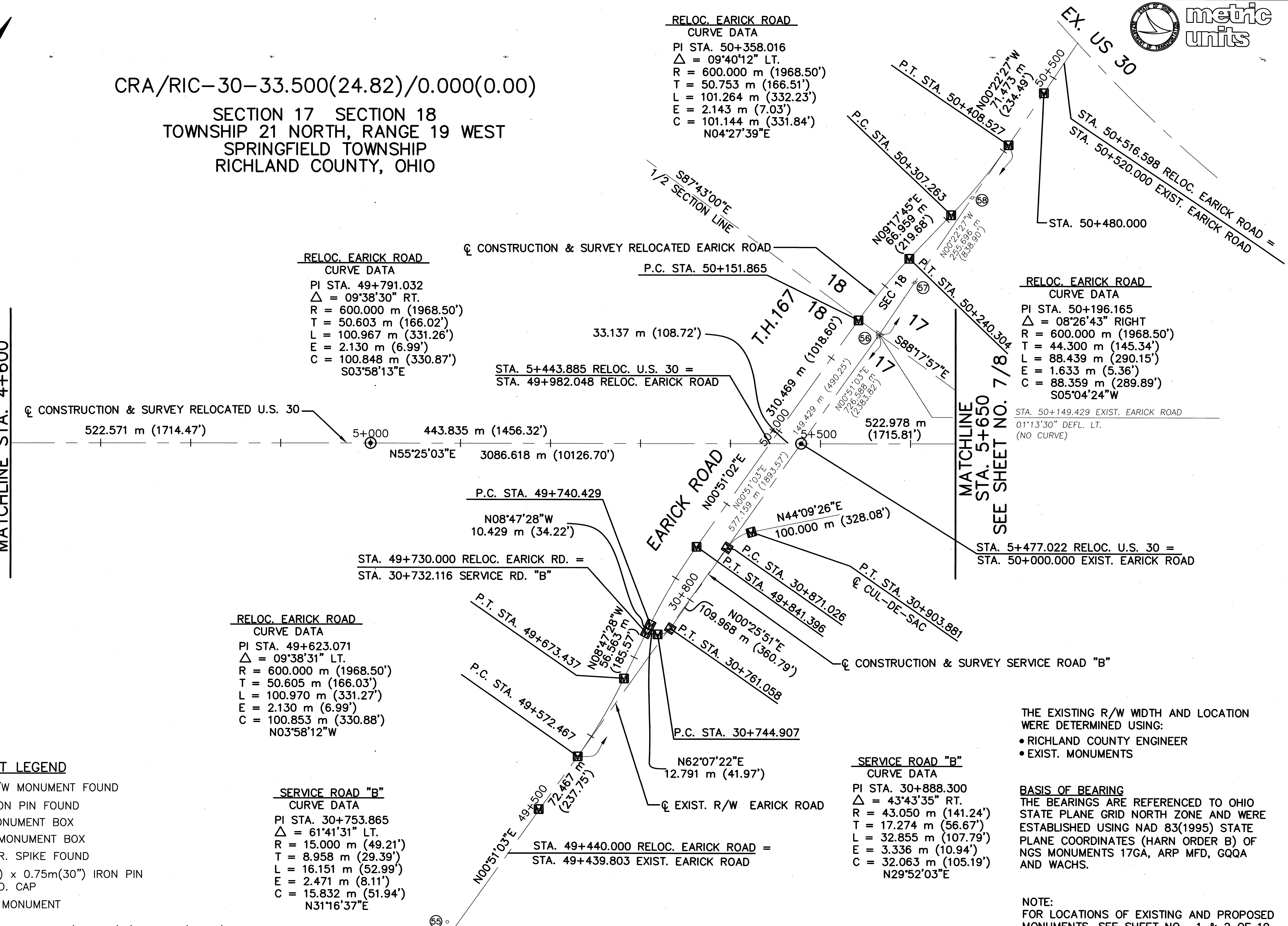
CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

8/10
8/95
624/712

CRA/RIC-30-33.500(24.82)/0.000(0.00)

SECTION 17 SECTION 18
TOWNSHIP 21 NORTH, RANGE 19 WEST
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY, OHIO



RELOC. EARICK ROAD
CURVE DATA
PI STA. 50+358.016
△ = 09°40'12" LT.
R = 600.000 m (1968.50')
T = 50.753 m (166.51')
L = 101.264 m (332.23')
E = 2.143 m (7.03')
C = 101.144 m (331.84')
N04°27'39"E

RELOC. EARICK ROAD
CURVE DATA
PI STA. 49+791.032
△ = 09°38'30" RT.
R = 600.000 m (1968.50')
T = 50.603 m (166.02')
L = 100.967 m (331.26')
E = 2.130 m (6.99')
C = 100.848 m (330.87')
S03°58'13"E

RELOC. EARICK ROAD
CURVE DATA
PI STA. 50+196.165
△ = 08°26'43" RIGHT
R = 600.000 m (1968.50')
T = 44.300 m (145.34')
L = 88.439 m (290.15')
E = 1.633 m (5.36')
C = 88.359 m (289.89')
S05°04'24"W

RELOC. EARICK ROAD
CURVE DATA
PI STA. 49+623.071
△ = 09°38'31" LT.
R = 600.000 m (1968.50')
T = 50.605 m (166.03')
L = 100.970 m (331.27')
E = 2.130 m (6.99')
C = 100.853 m (330.88')
N03°58'12"W

SERVICE ROAD "B"
CURVE DATA
PI STA. 30+753.865
△ = 61°41'31" LT.
R = 15.000 m (49.21')
T = 8.958 m (29.39')
L = 16.151 m (52.99')
E = 2.471 m (8.11')
C = 15.832 m (51.94')
N31°16'37"E

SERVICE ROAD "B"
CURVE DATA
PI STA. 30+888.300
△ = 43°43'35" RT.
R = 43.050 m (141.24')
T = 17.274 m (56.67')
L = 32.855 m (107.79')
E = 3.336 m (10.94')
C = 32.063 m (105.19')
N29°52'03"E

MONUMENT LEGEND
- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP
- REFERENCE MONUMENT

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
- RICHLAND COUNTY ENGINEER
- EXIST. MONUMENTS

BASIS OF BEARING
THE BEARINGS ARE REFERENCED TO OHIO STATE PLANE GRID NORTH ZONE AND WERE ESTABLISHED USING NAD 83(1995) STATE PLANE COORDINATES (HARN ORDER B) OF NGS MONUMENTS 17GA, ARP MFD, GQQA AND WACHS.

NOTE:
FOR LOCATIONS OF EXISTING AND PROPOSED MONUMENTS, SEE SHEET NO. 1 & 2 OF 10 .

metric units

RATIO 1:2000
HORIZONTAL SCALE IN METERS
PID NO. 16284
CENTERLINE PLAT
CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)
9/10
9/95
625/712

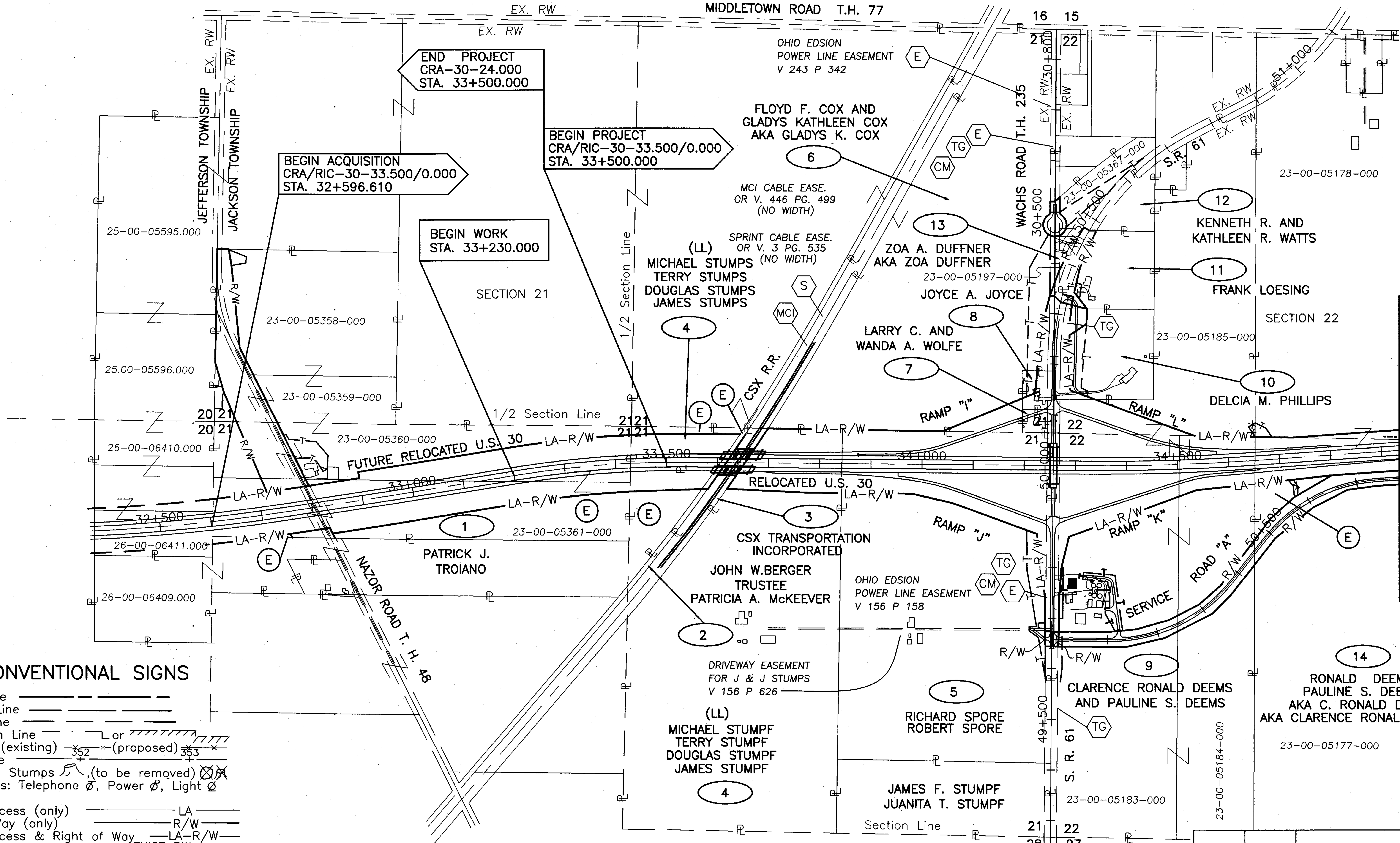
RC105.DWG
05-08-2001 9:57 AM
1:2000M


CRA/RIC-30-33.500(20.82)/0.000(0.00)
SECTION 17
TOWNSHIP 21 NORTH, RANGE 19 WEST
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY, OHIO
metric units
RATIO 1:2000
0 20 40 80
HORIZONTAL SCALE IN METERS
PID NO. 16284
CENTERLINE PLAT
CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)
10/10
10/95
626/712
C.H. 330
(OLD EX. U.S. 30)
49+500
WALCREST DR.
STA. 49+840.699 WEST 4th STREET
STA. A1+209.329 ℄ RAMP "A"
STA. 6+318.707 RELOC. U.S. 30 =
STA. 50+000.000 EX. S.R. 30
END PROJECT
STA. 6+520.000
TE21-G990 (075)
RAMP "A"
CURVE DATA
PI STA. A1+080.332
Δ = 30°49'33" LT.
R = 305.000 m (1000.66')
T = 84.085 m (275.87')
L = 164.094 m (538.37')
E = 11.378 m (37.33')
C = 162.122 m (531.90')
N38°48'40"E
PC STA. A0+996.247 ℄ RAMP "A" =
M STA. 5+996.247
25.725 m LT.
PT STA. A 1+160.341
N23°23'53"E
48.988 m
(160.72')
N86° 36' 07"W
℄ RAMP "A"
EX. RAMP "C"
SEE SHEET NO. 9/10
MATCHLINE STA. 5+650
℄ CONSTRUCTION & SURVEY
RELOCATED U.S. 30
522.978 m (1715.81')
0+700
6+000
318.707 m (1045.63')
N55°25'03"E
3086.618 m (10126.70')
14.868 m
(48.78')
6+500
RELOC. U.S. 30
CURVE DATA
PI STA. 6+613.311
Δ = 26°26'30" RT.
R = 1190.710 m (3906.53')
T = 279.736 m (917.77')
L = 549.507 m (1802.84')
E = 32.418 m (106.36')
C = 544.644 m (1786.89')
N57°22'00")
PT STA. 6+883.082 RELOC. U.S. 30
CRA/RIC-30-33.500/0.000 =
PT STA. 225+80.48 EX. RELOC. U.S. 30
RIC-30-3.74
PC STA. B0+700.000=
℄ RAMP "B"
M STA. 5+700.000
19.950 m RT.
PCC STA. B0+872.982
PT STA. B1+014.866
S88°39'52"E
82.000 m
(269.03')
PC STA. B1+096.866
℄ RAMP "B"
PC STA. 6+333.575
PT STA. B1+458.514
N23°23'53"E
59.466 m
(195.10')
EX. RAMP "D"
STA. 50+180.442 WEST 4th STREET
STA. B1+517.980 ℄ RAMP "B"
EX. RELOCATED U.S. 30
N81°51'33"E
7+000
WEST 4th STREET
50+500
14
15
16
17
18
19
RAMP "B"
CURVE DATA
PI STA. B0+786.629
Δ = 07°55'44" RT.
R = 1250.000 m (4101.05')
T = 86.629 m (284.22')
L = 172.982 m (567.53')
E = 2.998 m (9.81')
C = 172.844 m (567.07')
N59°22'55"E
RAMP "B"
CURVE DATA
PI STA. B 0+945.232
Δ = 26°39'13" RT.
R = 305.000 m (1000.66')
T = 72.250 m (237.04')
L = 141.884 m (465.50')
E = 8.441 m (27.69')
C = 140.608 m (461.31')
N76°40'24"E
RAMP "B"
CURVE DATA
PI STA. B 1+302.349
Δ = 67°56'15" LT.
R = 305.000 m (1000.66')
T = 205.483 m (674.16')
L = 361.648 m (1186.51')
E = 62.761 m (205.91')
C = 340.832 m (1118.22')
N57°22'00"E
MONUMENT LEGEND
EXISTING R/W MONUMENT FOUND
EXISTING IRON PIN FOUND
EXISTING MONUMENT BOX
PROPOSED MONUMENT BOX
EXISTING R.R. SPIKE FOUND
19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
REFERENCE MONUMENT
THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
• EXIST. MONUMENTS
• STATE R/W PLANS (U.S. 30) RIC-30-3.74, RIC-CH 135
BASIS FOR BEARING
ALL BEARINGS ARE SHOWN FOR PROJECT USE ONLY. THESE BEARINGS ARE REFERENCED TO OHIO STATE PLANE GRID NORTH ESTABLISHED USING NAD 83 (1995) STATE PLANE CO-ORDINATES (HARN, ORDER B) OF NGS MONUMENTS 17GA, ARP MFD, GQQA AND WACHS.
NOTE:
FOR LOCATIONS OF EXISTING AND PROPOSED MONUMENTS, SEE SHEET NO. 8/8 .
RC106.DWG
04-13-1999 12:48 PM
1:2000M
CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

SECTION 21 & 22
TOWNSHIP 20 NORTH, RANGE 20 WEST
JACKSON TOWNSHIP
CRAWFORD COUNTY

NOTE:
FOR LISTING OF UTILITIES,
SEE SHEET NO. 14



CONVENTIONAL SIGNS

County Line
Township Line
Section Line
Corporation Line
Fence Line(existing) (proposed)
Center Line
Trees, Stumps, (to be removed)
Utility Poles: Telephone, Power, Light

Limited Access (only) LA
Right of Way (only) R/W
Limited Access & Right of Way LA-R/W
Existing Right of Way EXIST RW
Property Line (in existing fence)
Railroad or
Guardrail (existing) (proposed)
Construction Limits

STRUCTURES KEY:

- RESIDENTIAL BUILDING
- COMMERCIAL BUILDING

(E) = E PARCEL
(LL) = LANDLOCKED

RATIO 1:4000 HORIZONTAL SCALE IN METERS 0 50 100 200

PID NO. 16284

PROPERTY MAP

TJM	5/08/01	REVISED BEGIN WORK STA.
JPS	2/26/01	REVISED PARCEL 9T-1
REV	DATE	DESCRIPTION

DATE COMPLETED 1/14/2000

CRA-30-33.500 (20.82) RIC-30-0.000 (0.00)

11/95

627/712

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

L:\DRAWINGS\93125\ROW\ROW\FOK\Rm100.dwg August 17 2001 1:01pm By:dakovacs

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)
SECTION 22
TOWNSHIP 20 NORTH, RANGE 20 WEST
JACKSON TOWNSHIP
CRAWFORD COUNTY
SECTION 23 & 24
TOWNSHIP 20 NORTH, RANGE 20 WEST
SANDUSKY TOWNSHIP
RICHLAND COUNTY
metric units
RATIO 1:4000
HORIZONTAL SCALE IN METERS
PID NO. 16284
PROPERTY MAP
MIDDLETOWN ROAD T.H. 77
S.R. 181
EX. RW
23
CLARENCE RONALD DEEMS AND PAULINE S. DEEMS
27
JAMES F. ZIMMERMAN AND BRIDIE L. ZIMMERMAN
29
FRANCIS C. KELLER AND NANCY A. KELLER, JOSEPH L. KELLER AND JANEEN E. KELLER
31
HORST KARL SCHLUMBERGER
23-00-05181.000
23-00-05180.000
23-00-05373.000
1/2 Section Line
SECTION 22
RICHLAND COUNTY Sandusky Township SEC 23
RANDY L. NICKLER AND CATHERINE A. NICKLER
24
C. H. 47
042-31-209-100-000
SECTION 23
SECTION 24
Section Line
MATCH LINE SEE SHEET NO. 11
MATCH LINE SEE SHEET NO. 13
RELOCATED U.S. 30
LA-R/W
35+500
35+000
51+000
51+300
0+000
0+500
1+000
1+500
50+500
1/2 Section Line
SERVICE ROAD "A" R/W
23-00-05372.000
RELOCATED U.S. 30
25
D. MICHAEL RICHARD AND SHAWN R. RADER
PARCEL 25-E SOLD TO FLATS CAPITOL COMPANY 10/06/06
RECORDED OR 1697 Page 104
26
ULMER AND COMPANY, A PARTNERSHIP
040-29-183-14-000
N-AIRPORT ROAD
19
CLARENCE RONALD DEEMS AND PAULINE S. DEEMS
20
PATRICIA WEAVER
SEC 22 Jackson Township CRAWFORD COUNTY
28
STUDER & NIESE CORPORATION
040-29-181-05-000
30
MAE TITSCHINGER
040-29-186-06-000
28
STUDER & NIESE CORPORATION
040-29-181-03-000
14
RONALD DEEMS AND PAULINE S. DEEMS AKA C. RONALD DEEMS AKA CLARENCE RONALD DEEMS
23-00-05179.000
23-00-05371-000
23-00-05370.000
22
MARY C. McKOWN
040-29-184-050.000
49+500
040-29-184-04.000
040-29-186-05-000
S.R. 309
Section Line
040-29-186-04-000
040-29-186-03-000
NOTE:
FOR LISTING OF UTILITIES, SEE SHEET NO. 14
(E) = E PARCEL
(LL) = LANDLOCKED
SLR 11-20-06 SALE OF PARCEL 25-E
REV DATE DESCRIPTION
DATE OF COMPLETED 10/19/2000
CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)
12/95
628/712
CRA/RIC-30-33.500 (20.82)/0.000 (0.00)
1:4000 M
RM101.DWG 3 NOVEMBER 2000

08/27/2001

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

SECTION 24
TOWNSHIP 20 NORTH, RANGE 20 WEST
SANDUSKY TOWNSHIP

SECTION 18 & 19
TOWNSHIP 21 NORTH, RANGE 19 WEST
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY

NOTE:
FOR LISTING OF UTILITIES,
SEE SHEET NO. 14

(E) = E PARCEL

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

CRA/RIC-30-33.500(20.82)/0.000(0.00)

SECTION 17 & 18
TOWNSHIP 21 NORTH, RANGE 19 WEST
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY

Project Uitlity Addresses

(CA) Adelphia Cable
P. O. Box 576
1575 Lexington Avenue
Mansfield, Ohio 44901
Phone: 419-342-2709

(G1) (G2) (GT) Columbia Gas Transmission Corp.
Regional Division
3151 Lincoln Way West
P. O. Box 758
Wooster, Ohio 44691
Phone: 330-287-6630

(TG) GTE Telephone Operations
83 Townsend Ave.
Norwlk, Ohio 33857
Phone: 419-744-3619

City of Galion, Electric Division
700 Primrose Street
Galion, Ohio 44833
(419) 468-5520

(MCI) MCI Telecommunications
2270 Lakeside Blvd.
Richardson Texas 75082
Phone: 972-498-6075

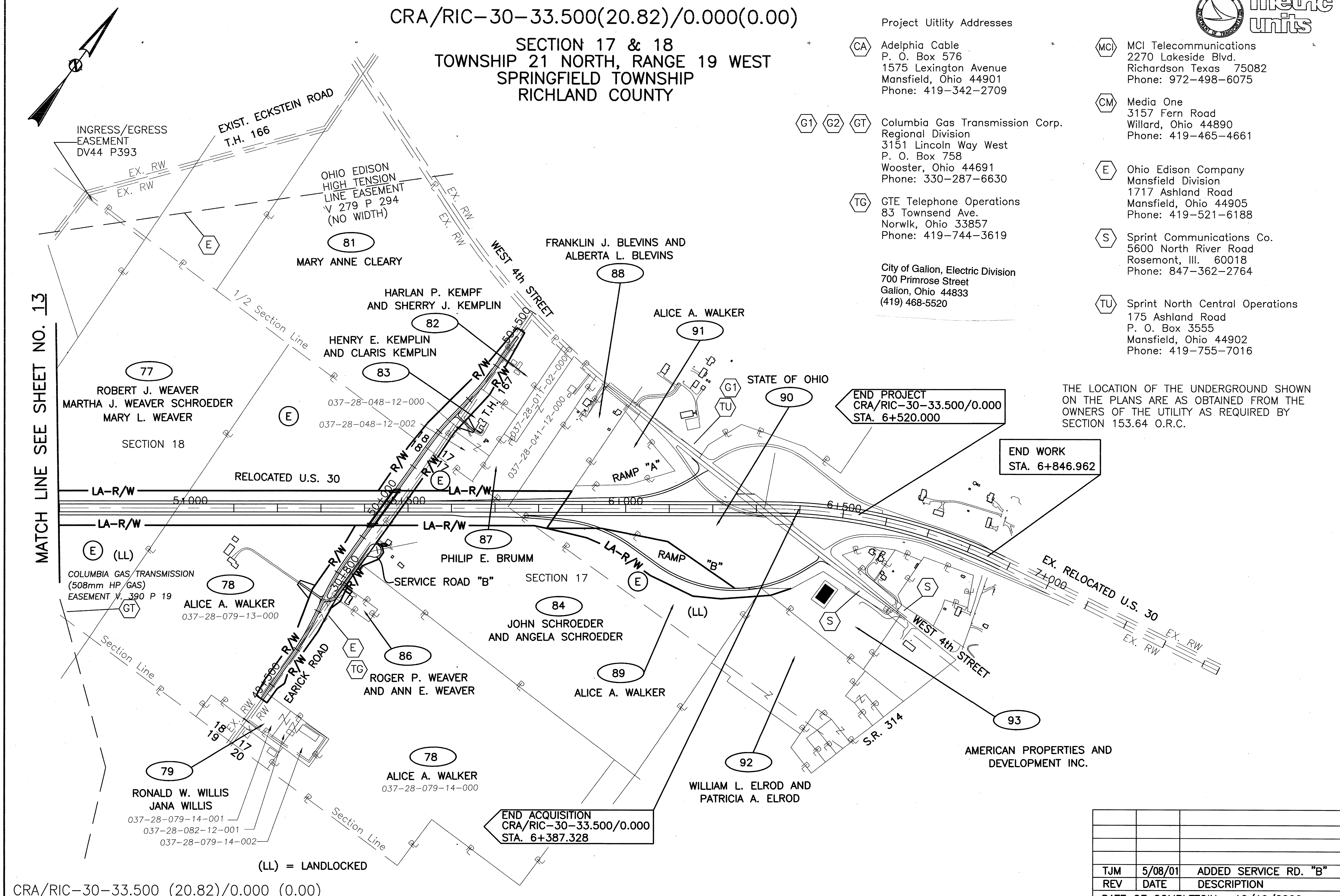
(CM) Media One
3157 Fern Road
Willard, Ohio 44890
Phone: 419-465-4661

(E) Ohio Edison Company
Mansfield Division
1717 Ashland Road
Mansfield, Ohio 44905
Phone: 419-521-6188

(S) Sprint Communications Co.
5600 North River Road
Rosemont, Ill. 60018
Phone: 847-362-2764

(TU) Sprint North Central Operations
175 Ashland Road
P. O. Box 3555
Mansfield, Ohio 44902
Phone: 419-755-7016

THE LOCATION OF THE UNDERGROUND SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.64 O.R.C.



metric units

RATIO 1:4000
HORIZONTAL SCALE IN METERS

PID NO. 16284

PROPERTY MAP

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

TJM	5/08/01	ADDED SERVICE RD. "B"
REV	DATE	DESCRIPTION

DATE OF COMPLETOIN: 10/19/2000

TOTAL NUMBER OF :
75 OWNERSHIPS 9 OWNERSHIPS WITH STRUCTURES INVOLVED
8 TOTAL TAKES 3 OWNERSHIPS WITH "P" ITEMS

NET RESIDUE = RECORD AREA - TOTAL PRO - NET TAKE

GRANTEE: ALL RIGHT-OF-WAY ACQUIRED IN THE NAME OF STATE OF OHIO UNLESS OTHERWISE SHOWN.

metric units

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD		AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC-TURE	NET RESIDUE		TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED	
			BOOK	PAGE								LEFT	RIGHT			BOOK	PAGE
1WL	PATRICK J. TROIANO	32-35	DV398	303	23-00-05358.000	8.3608	0.3427	8.5380	0.1405	8.3975				FED./STATE	1WL 23-00-05361.000 5.3633(13.2528)	760	790
	MARGARET FERN TROIANO		DV339	249		(20.6600)	(0.8468)	(21.0976)	(0.3472)	(20.7504)					1WL 23-00-05360.000 3.1747(7.8448)		
1WV		32-33	DV339	245	23-00-05359.000	4.0469	0.1593	2.8006	0.7159	2.0847					1WV 23-00-05358.000 1.0084(2.4919)		
		74-75	DV230	95		(10.0000)	(0.3936)	(6.9205)	(1.7692)	(5.1513)					1WV 23-00-05359.000 0.6977(1.7241)		
1WV-1		33			23-00-05360.000	9.0448	0.1893	0.1116	0.0320	0.0796					1WV 23-00-05360.000 0.9189(2.2706)		
						(22.3500)	(0.4678)	(0.2758)	(0.0791)	(0.1967)					1WV 23-00-05361.000 0.1756(0.4339)		
					23-00-05361.000	9.0407	0.1972								1WV-1 23-00-05361.000 0.1116(0.2758)		
						(22.3400)	(0.4873)										
1E		33-35						3.3486	0	3.3486					RESIDUE		
								(8.2746)	0	(8.2746)					1E 23-00-05361.000		
1E-1		32-33						0.0151	0	0.0151					RESIDUE		
								(0.0373)	0	(0.0373)					1E-1 23-00-05361.000		
					GRAND TOTAL	30.4932	0.8885	11.4502	0.8885	10.5618		15.5679	3.4750				
						(75.3500)	(2.1955)	(28.2939)	(2.1955)	(26.0984)		(38.4691)	(8.5870)				
1T		33,74						0.2683		0.2683					TO CONSTRUCT DRIVEWAY		
								(0.663)		(0.663)							
								(0.6630)		(0.6630)							
1-T-1		74						0.0646		0.0646					TO CONSTRUCT DRIVEWAY		
								(0.1596)		(0.1596)							
1-T-2		75						0.0648		0.0648					TO CONSTRUCT DRIVEWAY		
								(0.1601)		(0.1601)							
2WL	JOHN W. BERGER, TRUSTEE 5/6 INTEREST	36	DV355	175	23-00-05160.000	0.3699	0	0.1204	0	0.1204							
	PATRICIA A. McKEEVER 1/6 INTEREST		DV345	342		(0.9140)	0	(0.2975)	0	(0.2975)							
			DV332	470				0.0137	0	0.0137							
2E		36						(0.0339)	0	(0.0339)					LANDLOCKED		
					GRAND TOTAL	0.3699	0	0.1341	0	0.1341			0.2358				
						(0.9140)	0	(0.3314)	0	(0.3314)			(0.5826)				
3R	CSX TRANSPORTATION, INCORPORATED	36,94	DV13	545	23-00-61109.000	5.8991		0.1928		0.1928					AERIAL EASEMENT	701	622
						(14.5770)		(0.4764)		(0.4764)							
					GRAND TOTAL	UNKNOWN											
3T		36,94						0.1928		0.1928					CONTRACTOR'S WORK AREA		
								(0.4764)		(0.4764)							
3		36,94,95						0.0044		0.0044					PIER EASEMENT		
								(0.0109)		(0.0109)							
3-1		36,94,95						0.0045		0.0045					PIER EASEMENT		
								(0.0111)		(0.0111)							
3-2		36,94,95						0.0038		0.0038					PIER EASEMENT		
								(0.0094)		(0.0094)							
3-3		36,94,95						0.0036		0.0036					PIER EASEMENT		
								(0.0089)		(0.0089)							
														FED./STATE			

NOTE : UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

NOTE: UNLESS SPECIFIED OTHERWISE, AREAS ARE STATED IN HECTARES WITH ENGLISH EQUIVALENTS IN (ACRES).

1 HECTARE = 2.471044 ACRES

NOTE: ALL TEMPORARY PARCELS TO BE OF 24 MONTHS DURATION.

LBD	8/20/01	ADDED PARCELS 1-T-1 & 1-T-2
PWS	10\17\01	SUMMARY TABLE - PAR.1
JEK	6/15/01	ADD PARCELS 1E, 1E-1 & 2E
TJM	5/08/01	REV. TOTAL NUMBER OF TABULATION
REV.	DATE	DESCRIPTION
DATE OF COMPLETION		1/14/2000

FEDERAL PROJECT NO.

PID NO. 16284

STATE JOB NO. 03592

SUMMARY OF ADDITIONAL RIGHT OF WAY

CRA-30-33.500 (20.82) RIC-30-0.000 (0.00)

15/95

631/712

1:1M RS001.DWG 10 MAY 2001

TOTAL NUMBER OF :
75 OWNERSHIPS 9 OWNERSHIPS WITH STRUCTURES INVOLVED
8 TOTAL TAKES 3 OWNERSHIPS WITH "P" ITEMS

NET RESIDUE = RECORD AREA − TOTAL PRO − NET TAKE

GRANTEE: ALL RIGHT-OF-WAY ACQUIRED IN THE NAME OF STATE OF OHIO UNLESS OTHERWISE SHOWN.

metric units

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD BOOK	OWNERS RECORD PAGE	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUCTURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED BOOK	AS ACQUIRED PAGE
														FED./STATE			
4WL	MICHAEL STUMPF, TERRY STUMPF,	35-36	DV156	626	23-00-05339.000	30.3839	0	1.9628	0	1.9628						490	516
	DOUGLAS STUMPF, JAMES STUMPF					(75.0800)	0	(4.8502)	0	(4.8502)							
4WL-1		36-37						2.2924	0	2.2924						490	512
								(5.6646)	0	(5.6646)							
4E-1		35-36						1.3286	0	1.3286					LANDLOCKED		
								(3.2830)	0	(3.2830)							
4E		35-36						0.3006	0	0.3006					LANDLOCKED		
								(0.7428)	0	(0.7428)							
					GRAND TOTAL	30.3839	0	5.8844	0	5.8844		0	24.4995				
						(75.0800)	0	(14.5406)	0	(14.5406)		0	(60.5394)				
5WL	RICHARD SPORE	37-39	DV381	470	23-00-05330.000	26.1509	0.7936	6.5863	0.4769	6.1094						812	438
	ROBERT SPORE	76-77	DV478	222		(64.6200)	(1.9610)	(16.2750)	(1.1784)	(15.0966)							
5WD		76						0.0380	0.0354	0.0026							
								(0.0939)	(0.0875)	(0.0064)							
					GRAND TOTAL	26.1509	0.7936	6.6243	0.5123	6.1120		0	19.2453				
						(64.6200)	(1.9610)	(16.3689)	(1.2659)	(15.1030)		0	(47.5560)				
5T		76						0.5580		0.5580					TO CONSTRUCT TEMPORARY ROAD		
								(1.379)		(1.379)					AND DRIVEWAY		
6WL	FLOYD F. COX AND GLADYS KATHLEEN COX	38,77	DV196	200	23-00-05176.000	25.4026	0.6317	0.5253	0	0.5253						VOL. 483	605
	AKA GLADYS K. COX					(62.7710)	(1.5610)	(1.2980)	0	(1.2980)							
6WL-1		77-78						0.3599	0.1563	0.2036						VOL. 483	608
								(0.8893)	(0.3862)	(0.5031)							
6WD		78						0.0106	0.0106	0						VOL. 483	602
								(0.0262)	(0.0262)	0							
6WV		78						0.1035	0.0618	0.0417						VOL. 483	599
								(0.2557)	(0.1527)	(0.1030)					Director's Deed transfer to County	762	212
					GRAND TOTAL	25.4026	0.6317	0.9993	0.2287	0.7706		24.0003					
						(62.7710)	(1.5610)	(2.4692)	(0.5651)	(1.9041)		(59.3059)					
6T		77-78						0.7747		0.7747					TO CONSTRUCT TEMPORARY ROAD	VOL. 483	611
								(1.914)		(1.914)							
6WA		77															
7WL	LARRY C. AND WANDA A. WOLFE	77	DV458	386	23-00-05170.000	0.2787	0.0558	0.2787	0.0558	0.2229	YES	0			TOTAL TAKE	VOL 482	515
						(0.6887)	(0.1380)	(0.6887)	(0.1380)	(0.5507)		0			RECORD AREA 0.2788 Ha (0.6890 Ac)		
														FED./STATE			

NOTE : UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

NOTE: UNLESS SPECIFIED OTHERWISE, AREAS ARE STATED IN HECTARES WITH ENGLISH EQUIVALENTS IN (ACRES).

1 HECTARE = 2.471044 ACRES

NOTE: ALL TEMPORARY PARCELS TO BE OF 24 MONTHS DURATION.

REV.	DATE	DESCRIPTION
TJM	5/08/01	REV. TOTAL NUMBER OF TABULATION

DATE OF COMPLETION: 6/8/2000

FEDERAL PROJECT NO.

PID NO. 16284

STATE JOB NO. 03592

SUMMARY OF ADDITIONAL RIGHT OF WAY

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

08/27/2001

1:1M RS002.DWG 10 MAY 2001

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

TOTAL NUMBER OF :
75 OWNERSHIPS 9 OWNERSHIPS WITH STRUCTURES INVOLVED
8 TOTAL TAKES 3 OWNERSHIPS WITH "P" ITEMS

NET RESIDUE = RECORD AREA – TOTAL PRO – NET TAKE

GRANTEE: ALL RIGHT-OF-WAY ACQUIRED IN THE NAME OF STATE OF OHIO UNLESS OTHERWISE SHOWN.

metric units

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD BOOK	OWNERS RECORD PAGE	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUCTURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED BOOK	AS ACQUIRED PAGE
														FED./STATE			
8WL	JOYCE A. JOYCE	77	DV448	479	23-00-05235.000	0.4646	0.0929	0.3342	0.0929	0.2413	YES				REMOVE BUILDINGS	VOL. 482	518
						(1.1480)	(0.2296)	(0.8258)	(0.2296)	(0.5962)							
8E		77													Parcel 8E sold to Floyd E. Cox	VOL 482	522
					GRAND TOTAL	0.4646	0.0929	0.3342	0.0929	0.2413		0.1303					
						(1.1480)	(0.2296)	(0.8258)	(0.2296)	(0.5962)		(0.3220)					
8T		77						0.0886		0.0886					TO CONSTRUCT TEMPORARY ROAD		
								(0.219)		(0.219)							
															LANDLOCKED		
9WL	CLARENCE RONALD DEEMS AND	39,40	DV350	306	23-00-05183.000	18.4546	0.9708	7.2411	0.5578	6.6833					SAME OWNER AS 19 AND 23	884	896
	PAULINE S. DEEMS	76,77				(45.6020)	(2.3989)	(17.8931)	(1.3783)	(16.5148)					FLAGPOLE		
					23-00-05184.000	11.9585	0								9WL 23-00-05183.000 4.5120(11.1494)		
9WD		76				(29.5500)	0	0.0380	0.0354	0.0026					9WL 23-00-05184.000 1.5338(3.7901)		
					23-00-05185.000	12.5902	0.1882	(0.0939)	(0.0875)	(0.0064)					9WL 23-00-05185.000 1.1953(2.9536)		
						(31.1110)	(0.4651)								9WD 23-00-05183.000 0.0380(0.0939)		
9WV								1.3019	0	1.3019					9WV 23-00-05183.000 0.7065(1.7458)		
		76,79						(3.2171)	0	(3.2171)					9WV 23-00-05184.000 0.5954(1.4713)		
					GRAND TOTAL	43.0033	1.1590	8.5810	0.5932	7.9878		11.2491	22.6074				
						(106.2630)	(2.8640)	(21.2041)	(1.4658)	(19.7383)		(27.7968)	(55.8639)				
9X		40						0.0181		0.0181					TO RECONSTRUCT CHANNEL		
								(0.0447)		(0.0447)							
9T		76						0.0327		0.0327					TO REMOVE DRIVEWAY		
								(0.081)		(0.081)							
9T-1		76,79						0.2925		0.2925					TO CONSTRUCT DRIVEWAY		
								(0.723)		(0.723)							
10WL	DELCIA M. PHILLIPS	77-78	DV409	568	23-00-05220.000	3.4965	0.2197	0.5630	0.2197	0.3433						VOL. 490	504
			DV478	407		(8.6400)	(0.5429)	(1.3912)	(0.5429)	(0.8483)							
10WD								0.1413	0	0.1413						VOL. 490	508
								(0.3492)	0	(0.3492)							
					GRAND TOTAL	3.4965	0.2197	0.7043	0.2197	0.4846		2.7922					
						(8.6400)	(0.5429)	(1.7404)	(0.5429)	(1.1975)		(6.8996)					
10T		77						0.3486		0.3486					TO CONSTRUCT DRIVEWAY	VOL. 701	619
								(0.861)		(0.861)							
11WL	FRANK LOESING	78	DV459	900	23-00-05233.000	2.5333	0.2024	0.0206	0.0146	0.0060						VOL. 484	138
						(6.2600)	(0.5001)	(0.0509)	(0.0361)	(0.0148)							
11WD		78						0.3259	0.1878	0.1381						VOL. 484	142
								(0.8053)	(0.4641)	(0.3412)							
					GRAND TOTAL	2.5333	0.2024	0.3465	0.2024	0.1441		2.1868					
						(6.2600)	(0.5001)	(0.8562)	(0.5002)	(0.3560)		(5.4039)					
11T		78						0.0268		0.0268					TO CONSTRUCT DRIVEWAY	VOL. 484	146
								(0.066)		(0.066)							
12	KENNETH R. AND KATHLEEN R. WATTS	78	DV442	954	23-00-05149.000	0.4330	0.2388	NO TAKE REQUIRED									
						(1.0700)	(0.5901)										
					23-00-05233.001	1.0684											
						(2.6400)											
					GRAND TOTAL	1.5014	0.2388										
						(3.7100)	(0.5901)							FED./STATE			

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1 HECTARE = 2.471044 ACRES

NOTE: ALL TEMPORARY PARCELS TO BE OF 24 MONTHS DURATION.

REV.	DATE	DESCRIPTION
SLR	12/02/08	Sale of Pcl 8E
TJM	5/08/01	REV. TOTAL NUMBER OF TABULATION
JPS	2/26/01	PARCEL 9T-1 REVISED

DATE OF COMPLETION 1/14/2000

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

1:1M RS003.DWG 10 MAY 2001

08/27/2001

FEDERAL PROJECT NO.

PID NO. 16284

STATE JOB NO. 03592

SUMMARY OF ADDITIONAL RIGHT OF WAY

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

17/95

633/712

TOTAL NUMBER OF :
75 OWNERSHIPS   9 OWNERSHIPS WITH STRUCTURES INVOLVED
8 TOTAL TAKES   3 OWNERSHIPS WITH "P" ITEMS

NET RESIDUE = RECORD AREA − TOTAL PRO − NET TAKE

GRANTEE: ALL RIGHT-OF-WAY ACQUIRED IN THE NAME OF STATE OF OHIO UNLESS OTHERWISE SHOWN.

metric units

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD BOOK	OWNERS RECORD PAGE	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUCTURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED BOOK	AS ACQUIRED PAGE
13WL	ZOA A. DUFFNER	77-78	DV414	115	23-00-05197.000	2.1157	0.8385	0.0501	0.0501	0				FED./STATE		796	260
	AKA ZOA DUFFNER		DV416	464		(5.2280)	(2.0720)	(0.1238)	(0.1238)	0							
13WD		78						0.2433	0.2333	0.0100							
								(0.6012)	(0.5765)	(0.0247)							
13WV		78						0.1073	0.0656	0.0417							
								(0.2651)	(0.1621)	(0.1030)							
					GRAND TOTAL	2.1157	0.8385	0.4007	0.3490	0.0517		1.2255					
						(5.2280)	(2.0720)	(0.9901)	(0.8624)	(0.1277)		(3.0283)					
13T		78						0.3238		0.3238					TO CONSTRUCT TEMPORARY ROAD		
								(0.800)		(0.800)							
14WL	RONALD DEEMS AND	40-42	DV464	647	23-00-05177.000	32.3750	0	3.1918	0	3.1918					14WL 23-00-05177.000 2.7454(6.7840)	884	896
	PAULINE S. DEEMS		DV399	234		(80.0000)	0	(7.8871)	0	(7.8871)					14WL 23-00-05178.000 0.4464(1.1031)		
14WV	AKA C.RONALD DEEMS	40-42	DV450	268	23-00-05178.000	29.1027	0.7632	1.4073	0	1.4073					14WV 23-00-05177.000 1.4073(3.4775)		
	AKA CLARENCE RONALD DEEMS	79	DV460	332		(71.914)	(1.8859)	(3.4775)	0	(3.4775)							
14E		40,41,79	DV464	677				0.6630		0.6630							
			DV481	587				(1.6383)		(1.6383)							
					GRAND TOTAL	61.4777	0.7632	5.2621	0	5.2621		27.8932	27.5592		OVERLAP AREA = 0.0271 Ha		
						(151.9140)	(1.8859)	(13.0029)	0	(13.0029)		(68.9252)	(68.1001)		w/CHANNEL EASEMENT (0.0669 Ac)		
14X		40						0.0576		0.0576					TO RECONSTRUCT CHANNEL		
								(0.1423)		(0.1423)							
14X-1		40						0.0271		0.0271					TO RECONSTRUCT CHANNEL		
								(0.0669)		(0.0669)							
15	NUMBERS NOT USED																
16WV	WALTER SLOBODA	80	DV877	427	040-29-199-14-000	2.436	0.1926	0.0697	0.0509	0.0188			2.2246			O.R. 800	244
			DV876	279		(6.019)	(0.476)	(0.172)	(0.126)	(0.046)			(5.497)				
17-18	NUMBERS NOT USED																
19WL	CLARENCE RONALD DEEMS AND	42-43	DV259	534	23-00-05179.000	29.9347	0	3.3994	0	3.3994					LAND CONTRACT TO ALAN H. DEEMS	884	896
	PAULINE S. DEEMS					(73.9700)	0	(8.4001)	0	(8.4001)					DATED 7/12/66 DV268, PG. 337		
19WV		42-43			23-00-05180.000	27.0372	0.0125	1.1314	0	1.1314					SAME OWNER AS 9 AND 23		
						(66.8100)	(0.0309)	(2.7957)	0	(2.7957)					19WL 23-00-05180.000 3.3923(8.3826)		
					23-00-05181.000	0.1862									19WL 23-00-05181.000 0.0071(0.0175)		
						(0.4600)									19WV 23-00-05180.000 1.1314(2.7957)		
					GRAND TOTAL	57.1581	0.0125	4.5308	0	4.5308		21.1427	31.4721				
						(141.2400)	(0.0309)	(11.1958)	0	(11.1958		(52.2444)	(77.7689)				
20WL	PATRICIA WEAVER	43-45	DV456	011	23-00-05370.000	18.8827	0								20WL 23-00-05370.000 0.3114(0.7695)	VOL 486	022
			DV216	96		(46.6600)	0								20WL 23-00-05372.000 0.2419(0.5977)		
					23-00-05371.000	10.6514	0								20WL 23-00-05373.000 2.8043(6.9296)		
						(26.3200)	0										
					23-00-05372.000	1.4892	0										
						(3.6800)	0										
					23-00-05373.000	32.3750	0.3889										
						(80.0000)	(0.9610)										
					GRAND TOTAL	63.3983	0.3889	3.3576	0	3.3576		29.1818	30.4700				
						(156.660)	(0.961)	(8.2968)	0	(8.2968)		(72.1095)	(75.2927)				
20T								0.0192		0.0192					TO RECONSTRUCT DRIVE	VOL 486	019
								(0.047)		(0.047)							
														FED./STATE			
21	NUMBER NOT USED																

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1 HECTARE = 2.471044 ACRES

NOTE: ALL TEMPORARY PARCELS TO BE OF 24 MONTHS DURATION.

REV.	DATE	DESCRIPTION
TJM	5/08/01	REV. TOTAL NUMBER OF TABULATION

DATE OF COMPLETION: 10/19/2000

FEDERAL PROJECT NO.

PID NO. 16284

STATE JOB NO. 03592

SUMMARY OF ADDITIONAL RIGHT OF WAY

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

18/95

634/712

1:1M RS004.DWG 10 MAY 2001

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

08/27/2001

TOTAL NUMBER OF :
75 OWNERSHIPS — 9 OWNERSHIPS WITH STRUCTURES INVOLVED
8 TOTAL TAKES — 3 OWNERSHIPS WITH "P" ITEMS

NET RESIDUE = RECORD AREA − TOTAL PRO − NET TAKE

GRANTEE: ALL RIGHT-OF-WAY ACQUIRED IN THE NAME OF STATE OF OHIO UNLESS OTHERWISE SHOWN.

metric units

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD BOOK	OWNERS RECORD PAGE	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUCTURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED BOOK	AS ACQUIRED PAGE
22WL	MARY C. MCKOWN	45–46	DV872	51	040–29–184–05–000	27.6887	0.4896	0.6799	0	0.6799				FED./STATE		OR 840	0119
						(68.420)	(1.210)	(1.680)	0	(1.680)					22WL 040–29–184–05–000 0.6799(1.680)		
22WV		46			040–29–184–04–000	1.6228	0.2647	0.0998	0.0676	0.0322					22WV 040–29–184–05–000 0.0998(0.247)	OR 840	0122
						(4.010)	(0.654)	(0.247)	(0.167)	(0.080)							
					GRAND TOTAL	29.3115	0.7543	0.7475	0.0676	0.7121			27.8451				
						(72.430)	(1.864)	(1.847)	(0.167)	(1.760)			(68.806)				
23WL	CLARENCE RONALD DEEMS AND	45–46	DV593	172	042–31–203–08–000	23.8098	0.7887	1.9039	0	1.9039		21.1172			SAME OWNER AS 9 AND 19		
	PAULINE S. DEEMS					(58.835)	(1.949)	(4.705)	0	(4.705)		(52.181)					
24WL	RANDY L. NICKLER AND	46	DV825	309	042–31–206–09–000	0.7284	0.1214	0.2244	0.0351	0.1893						DR 800	241
	CATHERINE A. NICKLER					(1.800)	(0.300)	(0.555)	(0.087)	(0.468)							
24WV		46						0.1032	0.0631	0.0401						DR 800	237
								(0.255)	(0.156)	(0.099)							
					GRAND TOTAL	0.7284	0.1214	0.3276	0.0982	0.2294		0.3776					
						(1.800)	(0.300)	(0.810)	(0.243)	(0.567)		(0.933)					
25WL	D. MICHAEL RICHARD AND	46	DV807	30	040–29–184–13–000	0.4046	0.0445	0.3172	0.0387	0.2785	YES				TOTAL TAKE	DR 803	612
	SHAWN R. RADER					(1.000)	(0.110)	(0.784)	(0.096)	(0.688)							
25WV		46						0.0058	0.0058	0						DR 803	615
								(0.014)	(0.014)	0							
25E		46													RESIDUE	DR 803	609
															PARCEL 25-E SOLD TO FLATS CAPITOL COMPANY 10/06/06 RECORDED OR 1697 Page 104		
					GRAND TOTAL	0.4046	0.0445	0.3230	0.0445	0.2785		0.0816					
						(1.000)	(0.110)	(0.798)	(0.110)	(0.688)		(0.202)					
														FED./STATE			

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1 HECTARE = 2.471044 ACRES

NOTE: ALL TEMPORARY PARCELS TO BE OF 24 MONTHS DURATION.

REV.	DATE	DESCRIPTION
TJM	5/08/01	REV. TOTAL NUMBER OF TABULATION
DATE OF COMPLETION		1/14/2000

CRA/RIC–30–33.500 (20.82)/0.000 (0.00)

1:1M RS005.DWG 10 MAY 2001

08/27/2001

FEDERAL PROJECT NO.

PID NO. 16284

STATE JOB NO. 03592

SUMMARY OF ADDITIONAL RIGHT OF WAY

CRA–30–33.500 (20.82)
RIC–30–0.000 (0.00)

TOTAL NUMBER OF :
75 OWNERSHIPS   9 OWNERSHIPS WITH STRUCTURES INVOLVED
8 TOTAL TAKES   3 OWNERSHIPS WITH "P" ITEMS

NET RESIDUE = RECORD AREA − TOTAL PRO − NET TAKE

GRANTEE: ALL RIGHT-OF-WAY ACQUIRED IN THE NAME OF STATE OF OHIO UNLESS OTHERWISE SHOWN.

metric units

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD BOOK	OWNERS RECORD PAGE	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUCTURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED BOOK	AS ACQUIRED PAGE
														FED./STATE			
26WL	ULMER AND COMPANY, A PARTNERSHIP	46-48	DV886	458	042-31-209-10-000	30.7562	1.0704	3.2164	0.0739	3.1425					26WL 042-31-209-10-000 0.7241(1.789)	OR 817	0240
			DV886	456		(76.000)	(2.645)	(7.948)	(0.183)	(7.765)					26WL 040-29-183-14-000 2.4923(6.159)		
26WV	bought in the name of "State of Ohio"	46			040-29-183-14-000	15.3781	0.3695	0.2096	0.0642	0.1454					26WV 042-31-209-10-000 0.2096(0.518)	OR 817	0232
						(38.000)	(0.913)	(0.518)	(0.159)	(0.359)					26WV-1 040-29-183-14-000 0.2040(0.504)		
26WV-1	bought in the name of "State of Ohio"	46						0.2040	0.0722	0.1318						OR 817	0236
								(0.504)	(0.178)	(0.326)							
					GRAND TOTAL	46.1343	1.4399	3.6300	0.2103	3.4197		28.8504	12.4243				
						(114.000)	(3.558)	(8.970)	(0.520)	(8.450)		(71.291)	(30.701)				
26X		47						0.0202		0.0202					TO RELOCATE CHANNEL	OR 817	0244
								(0.050)		(0.050)							
26T		47						0.2133		0.2133					TO RELOCATE CHANNEL	OR 817	0248
								(0.527)		(0.527)							
27	JAMES F. ZIMMERMAN AND	48-49	DV744	287	042-31-209-16-000	31.9703	0.3666	NO TAKE REQUIRED									
	BIRDIE L. ZIMMERMAN					(79.000)	(0.906)										
28WL	STUDER & NIESE CORP.	48-54	DV907	387	040-29-181-05-000	21.6508	0	13.3020	0.0732	13.2288					28WL 040-29-181-05-000 6.7940(16.788)	OR 862	0253
						(53.500)	0	(32.870)	(0.181)	(32.689)					28WL 040-29-181-03-000 6.5080(16.082)		
					040-29-181-03-000	41.9984	0.9089								28WV 040-29-181-03-000 1.1138(2.752)		
28WV		54,80				(103.780)	(2.246)	1.1138	0.3274	0.7864					28WV-1 040-29-181-03-000 0.1726(0.426)	OR 862	0249
						2.2744	0.0004	(2.752)	(0.809)	(1.943)							
						(5.620)	(0.001)										
28WV-1		54				0.2331	0.0053	0.1726	0.0280	0.1446						OR 862	0257
						(0.576)	(0.013)	(0.427)	(0.069)	(0.358)							
28E		53-54													RESIDUE		
					GRAND TOTAL	66.1567	0.9146	14.5886	0.4286	14.1600		2.6100	48.4723				
						(163.476)	(2.260)	(36.049)	(1.059)	(34.990)		(6.449)	(119.777)				
28T		48						0.0138		0.0138					TO CONSTRUCT CHANNEL	OR 862	0246
								(0.034)		(0.034)							
29WL	FRANCIS C. KELLER AND	49-51	OR563	366	042-31-209-10-000	31.5656	0.2942	0.3037	0	0.3037		30.9677				OR880	339
	NANCY A. KELLER,					(78.000)	(0.727)	(0.750)	0	(0.750)		(76.532)					
	JOSEPH L. KELLER AND																
	JANEEN E. KELLER																
														FED./STATE			

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1 HECTARE = 2.471044 ACRES

NOTE: ALL TEMPORARY PARCELS TO BE OF 24 MONTHS DURATION.

TJM	5/08/01	REV. TOTAL NUMBER OF TABULATION
REV.	DATE	DESCRIPTION
DATE OF COMPLETION		1/14/2000

FEDERAL PROJECT NO.

PID NO. 16284

STATE JOB NO. 03592

SUMMARY OF ADDITIONAL RIGHT OF WAY

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

20/95

636/712

1:1M RS006.DWG 10 MAY 2001

08/27/2001

TOTAL NUMBER OF :
75 OWNERSHIPS 9 OWNERSHIPS WITH STRUCTURES INVOLVED
8 TOTAL TAKES 3 OWNERSHIPS WITH "P" ITEMS

NET RESIDUE = RECORD AREA – TOTAL PRO – NET TAKE

GRANTEE: ALL RIGHT-OF-WAY ACQUIRED IN THE NAME OF STATE OF OHIO UNLESS OTHERWISE SHOWN.

metric units

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD BOOK	OWNERS RECORD PAGE	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUCTURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED BOOK	AS ACQUIRED PAGE
30	MAE TITSCHINGER	49–51	DV879	319	040-29-186-06-000	28.3281	0.0668	NO TAKE REQUIRED						FED./STATE			
			DV698	224		(70.000)	(0.165)										
					040-29-186-04-000	0.4452	0.0622										
						(1.100)	(0.154)										
					040-29-186-03-000	0.2023	0.1105										
						(0.500)	(0.273)										
					040-29-186-05-000	1.6916	0.0745										
						(4.180)	(0.184)										
					GRAND TOTAL	30.6672	0.3140										
						(75.780)	(0.776)										
31WL	HORST KARL SCHLUMBERGER	51–52	DV881	231	042-31-208-10-000	24.2812	0.0045	0.1985	0	0.1985		24.0782				OR 800	247
			DV631	339		(60.000)	(0.011)	(0.491)	0	(0.491)		(59.498)					
			DV258	521													
32WV	VIRGINIA L. RADER	54,81,82	OR535	110	042-31-207-16-000	34.6615	1.0704	1.1403	0.3669	0.7734		32.8177				OR 857	0384
						(85.650)	(2.645)	(2.818)	(0.907)	(1.911)		(81.094)					
33	TERRY M. SNYDER AND JANET A. SNYDER	82	OR417	551	042-31-207-16-002	1.5095	0.0522	NO TAKE REQUIRED									
						(3.730)	(0.129)										
34	ROLAND HALLER	82	DV709	369	042-31-204-06-000	15.2972	0.5322	NO TAKE REQUIRED								OR 813	864
	CLIFFORD RADER		DV710	42		(37.800)	(1.315)										
			DV710	45													
35WL	OHIO EDISON COMPANY	56	DV715	297	042-31-900-06-001	14.0831	0.1897	0.0322	0	0.0322						OR 832	0209
						(34.800)	(0.469)	(0.079)	0	(0.079)							
35WV		81–82						0.3230	0.1830	0.1400					bought in the name of "State of Ohio"	OR 832	0209
								(0.798)	(0.452)	(0.346)							
35WV-1		81						0.0067	0.0067	0					bought in the name of "State of Ohio"	OR 832	0209
								(0.017)	(0.017)	0							
					GRAND TOTAL	14.0831	0.1897	0.3619	0.1897	0.1722		13.7212					
						(34.800)	(0.469)	(0.894)	(0.469)	(0.425)		(33.906)					
35T		81						0.0098		0.0098					TO CONSTRUCT DRIVEWAY	OR 832	0217
								(0.024)		(0.024)							
														FED./STATE			

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1 HECTARE = 2.471044 ACRES

NOTE: ALL TEMPORARY PARCELS TO BE OF 24 MONTHS DURATION.

TJM	5/08/01	REV. TOTAL NUMBER OF TABULATION
REV.	DATE	DESCRIPTION
DATE OF COMPLETION		1/14/2000

FEDERAL PROJECT NO.

PID NO. 16284

STATE JOB NO. 03592

SUMMARY OF ADDITIONAL RIGHT OF WAY

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

1:1M RS007.DWG 10 MAY 2001

08/27/2001

TOTAL NUMBER OF :
75 OWNERSHIPS 9 OWNERSHIPS WITH STRUCTURES INVOLVED
8 TOTAL TAKES 3 OWNERSHIPS WITH "P" ITEMS

NET RESIDUE = RECORD AREA − TOTAL PRO − NET TAKE

GRANTEE: ALL RIGHT-OF-WAY ACQUIRED IN THE NAME OF STATE OF OHIO UNLESS OTHERWISE SHOWN.

metric units

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD BOOK	OWNERS RECORD PAGE	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUCTURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED BOOK	AS ACQUIRED PAGE
36WV	PHYLLIS J. FETTER	81	DV920	127	042-31-205-03-000	0.4047	0.0530	0.0709	0.0530	0.0179			0.3338	FED./STATE		805	696
	AKA PHYLLIS J. SCHRACK		DV786	229		(1.000)	(0.131)	(0.175)	(0.131)	(0.044)			(0.825)				
36T		81						0.0068		0.0068					TO CONSTRUCT DRIVEWAY		
								(0.017)		(0.017)							
37WV	JOHNATHAN R. INMAN AND	54,81	OR470	500	042-31-203-01-000	1.6228	0.1159	0.1611	0.1159	0.0452			1.4617			OR812	0224
	KRISTA L. INMAN					(4.010)	(0.286)	(0.398)	(0.286)	(0.112)			(3.612)				
37T		81						0.0245		0.0245					TO CONSTRUCT DRIVEWAY	OR812	0228
								(0.061)		(0.061)							
38WL	DELLA M. STONEY AND	54-55	DV378	178	040-29-185-17-000	9.4171	0.6557	0.5698	0.0190	0.5508						OR960	0302
	DOLORES J. FOGLE		OR4	765		(23.270)	(1.620)	(1.408)	(0.047)	(1.361)							
38WV		54,80	OR23	591				0.4060	0.2739	0.1321						OR960	0306
								(1.003)	(0.677)	(0.326)							
					GRAND TOTAL	9.4171	0.6557	0.9758	0.2929	0.6828			8.0786				
						(23.270)	(1.620)	(2.411)	(0.724)	(1.687)			(19.963)				
38T		54						0.0151		0.0151					TO CONSTRUCT DRIVEWAY	OR960	0310
								(0.037)		(0.037)							
38AWL	LARRY J. STONEY	54-55	DV532	466-467	040-29-185-17-001	2.0234	0.0719	1.4950	0.0538	1.4412					TOTAL TAKE	OR962	0495
						(5.000)	(0.178)	(3.694)	(0.133)	(3.561)							
38AWV		54						0.1567	0.0181	0.1386						OR962	0492
								(0.387)	(0.045)	(0.342)							
38AE		54-55						0.3717	0	0.3717							
								(0.919)	0	(0.919)							
					GRAND TOTAL	2.0234	0.0719	2.0234	0.0719	1.9515							
						(5.000)	(0.178)	(5.000)	(0.178)	(4.822)							
39WL	ALAN P. DINGER	55-57	OR80	830	040-29-184-14-005	12.0354	0.6297	4.9925	0	4.9925					39WL 040-29-184-14-005 2.1405(7.048)	OR1225	763
						(29.740)	(1.556)	(12.337)	0	(12.337)					39WL 040-29-208-01-000 2.8520(5.289)		
															39E 040-29-208-01-000		
39E		56-57			042-31-208-01-000	15.4267	0								LANDLOCKED	OR1225	761
						(38.120)	0										
					GRAND TOTAL	27.4621	0.6297	4.9925	0	4.9925		12.1212	9.7187				
						(67.860)	(1.556)	(12.337)	0	(12.337)		(29.952)	(24.015)				
39X		56						0.0256		0.0256					TO CONSTRUCT CHANNEL	OR1225	765
								(0.063)		(0.063)							
40	LARRY S. MOONEY AND	57-58	OR77	994	042-31-208-01-001	0.5099	0	NO TAKE REQUIRED									
	CHARLENE MOONEY					(1.260)	0										
					040-29-184-14-003	1.0683	0.0571										
						(2.640)	(0.141)										
					037-28-038-02-000	1.2141	0.2247										
						(3.000)	(0.555)										
					GRAND TOTAL	2.7923	0.2818										
						(6.900)	(0.696)										
41	INLAND PROPERTY MANAGEMENT	60	OR510	967	037-28-147-68-000	3.3872	0.5686	NO TAKE REQUIRED									
	(AN OHIO CORPORATION)					(8.370)	(1.405)										
42WL	CARL E. RUTH AND SANDRA A. RUTH	60	DV739	353	037-28-147-30-000	0.5655	0	0.3800	0	0.3800					RECORD AREA CALCULATED	OR857	0745
			OR738	147		(1.397)	0	(0.939)	0	(0.939)							
42E		60													LANDLOCKED SOLD 42E 2/16/07	OR862	0261
42E-1		60													LANDLOCKED		
					GRAND TOTAL	0.5655	0	0.3800	0	0.3800		0.1115	0.0740	FED./STATE			
						(1.397)	0	(0.939)	0	(0.939)		(0.275)	(0.183)				

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1 HECTARE = 2.471044 ACRES

NOTE: ALL TEMPORARY PARCELS TO BE OF 24 MONTHS DURATION.

REV.	DATE	DESCRIPTION
SLR	07/19/07	SALE OF PARCEL 42E
JEK	6/14/01	CORRECT NAME PARCEL 38
TJM	5/08/01	REV. TOTAL NUMBER OF TABULATION

DATE OF COMPLETION 10/19/2000

FEDERAL PROJECT NO.

PID NO. 16284

STATE JOB NO. 03592

SUMMARY OF ADDITIONAL RIGHT OF WAY

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

22/95

638/712

1:1M RS008.DWG 10 MAY 2001

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

TOTAL NUMBER OF :
75 OWNERSHIPS 9 OWNERSHIPS WITH STRUCTURES INVOLVED
8 TOTAL TAKES 3 OWNERSHIPS WITH "P" ITEMS

NET RESIDUE = RECORD AREA – TOTAL PRO – NET TAKE

GRANTEE: ALL RIGHT–OF–WAY ACQUIRED IN THE NAME OF STATE OF OHIO UNLESS OTHERWISE SHOWN.

metric units

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD BOOK	OWNERS RECORD PAGE	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC–TURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND FED./STATE	REMARKS AND PERSONALTY	AS ACQUIRED BOOK	AS ACQUIRED PAGE
43WL	JACK A. SPANGLER AND	58–60	DV500	381	037–28–070–15–000	23.9615	0.2311	4.5586	0	4.5586						OR 870	0146
	BETTY JEAN SPANGLER					(59.210)	(0.571)	(11.265)	0	(11.265)							
43WD		83						0.1353	0.0862	0.0491						OR 870	0139
								(0.334)	(0.213)	(0.121)							
43E		58–60						3.7745		3.7745					LANDLOCKED	OR 870	0136
								(9.327)		(9.327)					SOLD PARCEL 43-E		
43E–1		58						2.3095		2.3095					LANDLOCKED	OR 870	0143
								(5.707)		(5.707)					SOLD PARCEL 43-E1		
					GRAND TOTAL	23.9615	0.2311	10.7779	0.0862	10.6917		13.0387	0				
						(59.210)	(0.571)	(26.633)	(0.213)	(26.420)		(32.219)	0				
43X		58–59						0.0409		0.0409					TO CONSTRUCT CHANNEL	OR 870	0154
								(0.101)		(0.101)							
43X–1		60						0.0179		0.0179					TO CONSTRUCT CHANNEL	OR 870	0150
								(0.044)		(0.044)							
44WL	RONALD DAVID HENRY AND	58	OR230	103	037–28–052–09–000	2.0234	0.0210	0.0080	0	0.0080			1.9944		WOVEN WIRE FENCE	OR 885	0090
	REGINA HENRY					(5.000)	(0.052)	(0.020)	0	(0.020)			(4.928)				
45WL	MARY ANN MARSHALEK	60	DV908	241	037–28–044–16–000	0.9146	0.0417	0.0012	0	0.0012						OR 832	0237
			DV708	614		(2.260)	(0.103)	(0.003)	0	(0.003)							
			OR427	97													
45WD		83						0.0723	0.0417	0.0306						OR 832	0233
								(0.179)	(0.103)	(0.076)							
					GRAND TOTAL	0.9146	0.0417	0.0735	0.0417	0.0318		0.8411					
						(2.260)	(0.103)	(0.182)	(0.103)	(0.079)		(2.078)					
45X		60						0.0138		0.0138					TO CONSTRUCT CHANNEL	OR 840	0157
								(0.034)		(0.034)							
46WL	TAMARA L. KAPLE AND	60	OR567	186	037–28–026–08–000	0.8620	0.0418	0.1110	0	0.1110						OR 832	0225
	THEODORE A. KAPLE					(2.130)	(0.103)	(0.274)	0	(0.274)							
46WD		83						0.0652	0.0418	0.0234						OR 832	0221
								(0.161)	(0.103)	(0.058)							
					GRAND TOTAL	0.8620	0.0418	0.1762	0.0418	0.1344		0.6858					
						(2.130)	(0.103)	(0.435)	(0.103)	(0.332)		(1.695)					
46T		83						0.0208		0.0208					TO CONSTRUCT DRIVEWAY	OR 840	0148
								(0.051)		(0.051)							
														FED./STATE			

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1 HECTARE = 2.471044 ACRES

NOTE: ALL TEMPORARY PARCELS TO BE OF 24 MONTHS DURATION.

REV.	DATE	DESCRIPTION
SLR	01/24/08	ADDED SALE OF PCLS 43E, 43E1
TJM	5/08/01	REV. TOTAL NUMBER OF TABULATION

DATE OF COMPLETION: 4/4/2000

FEDERAL PROJECT NO.

PID NO. 16284

STATE JOB NO. 03592

SUMMARY OF ADDITIONAL RIGHT OF WAY

CRA–30–33.500 (20.82)
RIC–30–0.000 (0.00)

1:1M RS009.DWG 10 MAY 2001

CRA/RIC–30–33.500 (20.82)/0.000 (0.00)

TOTAL NUMBER OF :
75 OWNERSHIPS 9 OWNERSHIPS WITH STRUCTURES INVOLVED
8 TOTAL TAKES 3 OWNERSHIPS WITH "P" ITEMS

NET RESIDUE = RECORD AREA − TOTAL PRO − NET TAKE

GRANTEE: ALL RIGHT-OF-WAY ACQUIRED IN THE NAME OF STATE OF OHIO UNLESS OTHERWISE SHOWN.

metric units

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD BOOK	OWNERS RECORD PAGE	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC-TURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND FED./STATE	REMARKS AND PERSONALTY	AS ACQUIRED BOOK	AS ACQUIRED PAGE
47WD	CARL EDWIN RUTH	83-84	DV701	707	037-28-063-05-000	0.4452	0.0444	0.0696	0.0444	0.0252			0.3756			OR857	0749
						(1.100)	(0.110)	(0.172)	(0.110)	(0.062)			(0.928)				
47T		84						0.0365		0.0365					TO CONSTRUCT DRIVEWAY	OR857	0742
								(0.090)		(0.090)							
48WL	H. FREDERICK LONG AND MARJORY M. LONG	60-61	DV808	701	037-28-064-05-000	2.3794	0.0708	1.1271	0.0608	1.0663					RECORD AREA CALCULATED	OR961	0562
						(5.879)	(0.175)	(2.785)	(0.150)	(2.635)							
48WD		61						0.0119	0.0100	0.0019						OR961	0566
								(0.029)	(0.025)	(0.004)							
48E		60						0.0122		0.0122					LANDLOCKED	OR961	0573
								(0.030)		(0.030)					SOLD PARCEL 48E-1		
48E-1		60-61						1.2282		1.2282					LANDLOCKED	OR961	0569
								(3.035)		(3.035)							
					GRAND TOTAL	2.3794	0.0708	2.3794	0.0708	0.0234		0	0				
						(5.879)	(0.175)	(5.879)	(0.175)	(5.704)		0	0				
49WL	JUDY NOLEN	60	OR260	495	037-28-064-04-000	0.1781	0.0240	0.0041	0	0.0041						OR1346	583
			DV806	80		(0.440)	(0.059)	(0.010)	0	(0.010)							
49WD		84						0.0385	0.0240	0.0145						OR1346	585
								(0.095)	(0.059)	(0.036)							
					GRAND TOTAL	0.1781	0.0240	0.0426	0.0240	0.0186		0.1355					
						(0.440)	(0.059)	(0.105)	(0.059)	(0.046)		(0.335)					
49T		84						0.0210		0.0210					TO CONSTRUCT DRIVEWAY	OR1346	586
								(0.052)		(0.052)							
50WL	ERNEST T. WEIMER AND VIVIAN R. WEIMER	60-61	OR534	176	037-28-076-14-000	0.3592	0.0488	0.1351	0	0.1351	YES				TOTAL TAKE	875	111
						(0.888)	(0.121)	(0.334)	0	(0.334)					RECORD AREA CALCULATED		
50WD		61,84						0.0801	0.0488	0.0313							
								(0.198)	(0.121)	(0.077)							
50E		60,61,84						0.1440	0	0.1440					RESIDUE		
								(0.356)		(0.356)							
					GRAND TOTAL	0.3592	0.0488	0.3592	0.0488	0.3104		0	0				
						(0.888)	(0.121)	(0.888)	(0.121)	(0.767)		0	0				
50T		60,61,84						0.0592		0.0592					TO REMOVE BUILDINGS		
								(0.146)		(0.146)							
														FED./STATE			

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NOTE: UNLESS SPECIFIED OTHERWISE, AREAS ARE STATED IN HECTARES WITH ENGLISH EQUIVALENTS IN (ACRES).

1 HECTARE = 2.471044 ACRES

NOTE: ALL TEMPORARY PARCELS TO BE OF 24 MONTHS DURATION.

REV.	DATE	DESCRIPTION
PWS	06/06/08	ADDED PAR. 50E TAKE AREAS
SLR	07/19/07	SALE OF PARCEL 48E-1
JEK	6/14/01	NAME & OWNER RECORD PAR 48
TJM	5/08/01	REV. TOTAL NUMBER OF TABULATION

DATE OF COMPLETION: 4/4/2000

1:1M RS010.DWG 10 MAY 2001

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

FEDERAL PROJECT NO.

PID NO. 16284

STATE JOB NO. 03592

SUMMARY OF ADDITIONAL RIGHT OF WAY

CRA-30-33.500 (20.82) RIC-30-0.000 (0.00)

24/95

640/712

TOTAL NUMBER OF :
75 OWNERSHIPS — 9 OWNERSHIPS WITH STRUCTURES INVOLVED
8 TOTAL TAKES — 3 OWNERSHIPS WITH "P" ITEMS

NET RESIDUE = RECORD AREA − TOTAL PRO − NET TAKE

GRANTEE: ALL RIGHT-OF-WAY ACQUIRED IN THE NAME OF STATE OF OHIO UNLESS OTHERWISE SHOWN.

metric units

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD BOOK	OWNERS RECORD PAGE	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUCTURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED BOOK	AS ACQUIRED PAGE
51	JAMES A. BILLHEIMER AND	83	DV847	785	037-28-076-15-000	2.0234	0.0793	NO TAKE REQUIRED						FED./STATE			
	ELOISE A. BILLHEIMER					(5.000)	(0.196)										
52T	GEORGE F. FLEINER JR AND	83	DV797	793	037-28-076-06-000	0.2833	0.0550	0.0019		0.0019					TO CONSTRUCT DRIVEWAY		
	JANE C. FLEINER					(0.700)	(0.136)	(0.005)		(0.005)							
53WD	TIMOTHY A. SCOTT	83	OR488	358	037-28-021-01-000	0.2533	0.0385	0.0731	0.0385	0.0346		0.1802				O.R. 840	0134
						(0.626)	(0.095)	(0.181)	(0.095)	(0.086)		(0.445)					
53T		83						0.0051		0.0051					TO CONSTRUCT DRIVEWAY	O.R. 840	0138
								(0.013)		(0.013)							
54WD	ROBERT A. ROGERS AND	83	DV900	543	037-28-040-01-000	0.2469	0.0321	0.0654	0.0321	0.0333		0.1815				O.R. 822	0200
	BARBARA J. ROGERS					(0.610)	(0.079)	(0.162)	(0.079)	(0.083)		(0.448)					
54T		83						0.0037		0.0037					TO CONSTRUCT DRIVEWAY		
								(0.009)		(0.009)							
55WD	LAURIE A. KEHRES AND	83	OR155	978	037-28-039-18-001	0.2792	0.0326	0.0693	0.0326	0.0367		0.2099				O.R. 840	0130
	JOSEPH M. KEHRES					(0.690)	(0.081)	(0.171)	(0.081)	(0.090)		(0.519)					
56WD	HERMAN SCHROEMER AND	83	OR592	62	037-28-021-02-000	0.4047	0.0410	0.1089	0.0410	0.0679		0.2958				O.R. 812	0231
	DENISE L. SCHROEMER					(1.000)	(0.101)	(0.269)	(0.101)	(0.168)		(0.731)					
57WD	MELODY B. CASTLE	83-84	OR496	199	037-28-023-11-001	0.8123	0.0678	0.2498	0.0678	0.1820	YES				TOTAL TAKE	O.R. 800	682
						(2.007)	(0.168)	(0.617)	(0.168)	(0.449)					RECORD AREA CALCULATED		
57E		83-84													RESIDUE		
					GRAND TOTAL	0.8123	0.0678	0.2498	0.0678	0.1820		0.5625					
						(2.007)	(0.168)	(0.617)	(0.168)	(0.449)		(1.390)					
57T		83						0.0300		0.0300					REMOVE BUILDINGS	O.R. 800	685
								(0.074)		(0.074)				FED./STATE			

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1 HECTARE = 2.471044 ACRES

NOTE: ALL TEMPORARY PARCELS TO BE OF 24 MONTHS DURATION.

REV.	DATE	DESCRIPTION
TJM	5/08/01	REV. TOTAL NUMBER OF TABULATION

DATE OF COMPLETION 1/14/2000

FEDERAL PROJECT NO.
PID NO. 16284
STATE JOB NO. 03592

SUMMARY OF ADDITIONAL RIGHT OF WAY

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

25/95

641/712

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

1:1M RS011.DWG 10 MAY 2001

08/27/2001

TOTAL NUMBER OF :
75 OWNERSHIPS 9 OWNERSHIPS WITH STRUCTURES INVOLVED
8 TOTAL TAKES 3 OWNERSHIPS WITH "P" ITEMS

NET RESIDUE = RECORD AREA – TOTAL PRO – NET TAKE

GRANTEE: ALL RIGHT-OF-WAY ACQUIRED IN THE NAME OF STATE OF OHIO UNLESS OTHERWISE SHOWN.

metric units

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD		AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC-TURE	NET RESIDUE		TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED	
			BOOK	PAGE								LEFT	RIGHT			BOOK	PAGE
58WD	ROBERT W. APPEL AND ANNA M. APPEL	61,84,88	DV837	441	037-28-023-11-000	0.8130	0.0555	0.5259	0.0555	0.4704	YES			FED./STATE	TOTAL TAKE	OR. 790	224
						(2.009)	(0.137)	(1.300)	(0.137)	(1.163)					RECORD AREA CALCULATED		
58E		84,88													RESIDUE	O.R. 790	221
58E-1		84													RESIDUE	O.R. 790	218
					GRAND TOTAL	0.8130	0.0555	0.5259	0.0555	0.4704		0.2652	0.0219				
						(2.009)	(0.137)	(1.300)	(0.137)	(1.163)		(0.655)	(0.054)				
59WL	JAMES L. BROWN AND PHYLLIS A. BROWN	61,88	OR307	110	037-28-147-55-000	3.4742	0.4269	1.1769	0.1668	1.0101						OR 857	708
						(8.585)	(1.055)	(2.908)	(0.412)	(2.496)							
59WD		61						0.0923	0.0125	0.0798						OR 857	0716
								(0.228)	(0.031)	(0.197)							
59WD-1		61,85						0.3608	0.1401	0.2207						OR 857	0380
								(0.892)	(0.346)	(0.546)							
59WV		84,88						0.2813	0	0.2813						OR 857	0712
								(0.695)	0	(0.695)							
59WV-1		61,88						0.1220	0.0457	0.0763					RESIDUE	OR 857	0705
								(0.301)	(0.113)	(0.188)							
59E		61,85														OR 857	0720
59E-1		88															
					GRAND TOTAL	3.4742	0.4269	2.0333	0.4269	1.6682		1.2194	0.1597				
						(8.585)	(1.055)	(5.024)	(1.055)	(4.122)		(3.014)	(0.394)				
														FED./STATE			

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1 HECTARE = 2.471044 ACRES

NOTE: ALL TEMPORARY PARCELS TO BE OF 24 MONTHS DURATION.

REV.	DATE	DESCRIPTION
TJM	5/08/01	REV. TOTAL NUMBER OF TABULATION

DATE OF COMPLETION 1/14/2000

FEDERAL PROJECT NO.

PID NO. 16284

STATE JOB NO. 035920

SUMMARY OF ADDITIONAL RIGHT OF WAY

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

26/95

642/712

1:1M RS012.DWG 10 MAY 2001

08/27/2001

TOTAL NUMBER OF :
75 OWNERSHIPS — 9 OWNERSHIPS WITH STRUCTURES INVOLVED
8 TOTAL TAKES — 3 OWNERSHIPS WITH "P" ITEMS

NET RESIDUE = RECORD AREA – TOTAL PRO – NET TAKE

GRANTEE: ALL RIGHT-OF-WAY ACQUIRED IN THE NAME OF STATE OF OHIO UNLESS OTHERWISE SHOWN.

metric units

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD BOOK	OWNERS RECORD PAGE	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUCTURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED BOOK	AS ACQUIRED PAGE
														FED./STATE			
60WL	MICHAEL A. GREEN	61	DV909	228	037-28-080-10-000	0.8310	0.0470	0.0449	0.0230	0.0219	YES				TOTAL TAKE	OR800	693
						(2.053)	(0.116)	(0.111)	(0.057)	(0.054)					RECORD AREA CALCULATED		
60WD		61						0.0420	0.0240	0.0180						OR800	690
								(0.104)	(0.059)	(0.045)							
60E		61													SOLD PARCEL 60E	OR800	696
					GRAND TOTAL	0.8310	0.0470	0.0869	0.0470	0.0399		0	0.7441				
						(2.053)	(0.116)	(0.215)	(0.116)	(0.099)			(1.838)				
60T		61						0.1538		0.1538					TO REMOVE BUILDINGS		
								(0.380)		(0.380)					SEPTIC TANK AND WELL		
61WV	JEFFREY JAMES AND LISA A. JAMES	88	OR527	90	037-28-055-02-006	2.0234	0.0698	0.4328	0	0.4328						OR962	0483
						(5.000)	(0.173)	(1.070)	0	(1.070)							
61WV-1		88						0.1362	0.0698	0.1362						OR962	0486
								(0.336)	(0.173)	(0.336)							
					GRAND TOTAL	2.0234	0.0698	0.5690	0.0698	0.5690		0.9269	0.4577				
						(5.000)	(0.173)	(1.406)	(0.173)	(1.406)		(2.290)	(1.131)				
62WV	DONALD R. PHILLMORE	88	OR527	81	037-28-055-02-002	3.1566	0.1046	0.8782	0.1046	0.7736		2.2784				961	550
						(7.800)	(0.259)	(2.170)	(0.259)	(1.911)		(5.630)					
63WD	ERIC A. DZUGAN AND	61,85	OR470	940	037-28-033-12-000	2.2258	0.1534	0.1174	0.0737	0.0437			2.0287			OR840	0141
	TRACY M. HATFIELD					(5.500)	(0.379)	(0.290)	(0.182)	(0.108)			(5.013)				
63T		61,85						0.0464		0.0464					TO CONSTRUCT DRIVEWAY	OR840	0145
								(0.115)		(0.115)							
64WD	EDWARD E. AULT AND NETTA KAY AULT	85	DV843	522	037-28-052-03-000	0.2630	0.0248	0.0390	0.0248	0.0142			0.2240			OR857	0388
			DV831	532		(0.650)	(0.061)	(0.096)	(0.061)	(0.035)			(0.554)				
64T		85						0.0133		0.0133					TO CONSTRUCT DRIVEWAY	OR857	0392
								(0.033)		(0.033)							
65WD	BRIAN L. SHOOK AND	85	OR391	391	037-28-023-08-000	0.4650	0.0531	0.0881	0.0531	0.0350			0.3769		SPLIT RAIL FENCE	OR832	0199
	TAMMY D. SHOOK					(1.149)	(0.131)	(0.218)	(0.131)	(0.087)			(0.931)				
65T		85						0.0064		0.0064					TO CONSTRUCT DRIVEWAY	OR840	0151
								(0.016)		(0.016)							
66	JAD DEVELOPERS	62,63,86	OR392	926	037-28-028-03-000	18.3809	0.5686	NO TAKE REQUIRED									
	(AN OHIO PARTNERSHIP)					(45.42)	(1.405)										
														FED./STATE			

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NOTE: UNLESS SPECIFIED OTHERWISE, AREAS ARE STATED IN HECTARES WITH ENGLISH EQUIVALENTS IN (ACRES).

1 HECTARE = 2.471044 ACRES

NOTE: ALL TEMPORARY PARCELS TO BE OF 24 MONTHS DURATION.

REV.	DATE	DESCRIPTION
SLR	07/19/07	SALE OF PARCEL 60E
JEK	6/14/01	AUDITOR'S PARCEL, PARCEL 61
TJM	5/09/01	REV. TOTAL NUMBER OF TABULATION
TJM	5/09/01	CORRECT AREA 61WV, REVISED RESIDUE

DATE OF COMPLETION 3/3/2000

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

1:1M RS013.DWG 10 MAY 2001

FEDERAL PROJECT NO.

PID NO. 16284

STATE JOB NO. 035920

SUMMARY OF ADDITIONAL RIGHT OF WAY

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

TOTAL NUMBER OF :
75 OWNERSHIPS 9 OWNERSHIPS WITH STRUCTURES INVOLVED
8 TOTAL TAKES 3 OWNERSHIPS WITH "P" ITEMS

NET RESIDUE = RECORD AREA – TOTAL PRO – NET TAKE

GRANTEE: ALL RIGHT-OF-WAY ACQUIRED IN THE NAME OF STATE OF OHIO UNLESS OTHERWISE SHOWN.

metric units

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD BOOK	OWNERS RECORD PAGE	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC-TURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED BOOK	AS ACQUIRED PAGE
67WD	JEFFREY JAMES AND LISA ANN JAMES	85	DV905	525	037-28-064-11-001	0.2826	0.0871	0.1599	0.0694	0.0905	YES			FED./STATE	TOTAL TAKE	OR 933	0809
						(0.698)	(0.215)	(0.395)	(0.171)	(0.224)					RECORD AREA CALCULATED		
67E		85														OR 933	0812
					GRAND TOTAL	0.2826	0.0871	0.1599	0.0694	0.0905		0.1050					
						(0.698)	(0.215)	(0.395)	(0.171)	(0.224)		(0.259)					
67T		85						0.1227	0.0177	0.1050					TO REMOVE BUILDINGS		
								(0.303)	(0.044)	(0.259)							
68WL	RANDALL LEE PERMAN AND	61,62,88	DV838	516	037-28-064-11-000	5.6778	0.3335	1.2187	0.0828	1.1359							
	BRENDA A. PERMAN					(14.030)	(0.824)	(3.012)	(0.205)	(2.807)						OR 907	0494
68WD		85,86						0.3852	0.1567	0.2285							
								(0.952)	(0.387)	(0.565)						OR 907	0498
68WV		61,88						0.1095	0.0398	0.0697							
								(0.270)	(0.098)	(0.172)						OR 907	0502
68E		88													RESIDUE		
					GRAND TOTAL	5.6778	0.3335	1.7134	0.2793	1.4342		0.0421	3.8681				
						(14.030)	(0.824)	(4.234)	(0.690)	(3.544)		(0.104)	(9.558)				
69WD	DEAN M. RICHARD	85–86	DV484	379	037-28-058-17-000	0.2307	0	0.1791	0.0337	0.1454					69WD 037-28-058-17-000 0.0978 (0.241)	OR 832	0229
	BETTY L. RICHARD		DV527	24		(0.570)	0	(0.442)	(0.083)	(0.359)					69WD 037-28-058-18-000 0.0813 (0.201)		
	AKA DEAN RICHARD				037-28-058-18-000	0.4532	0.0337										
						(1.120)	(0.083)										
					GRAND TOTAL	0.6839	0.0337						0.5048				
						(1.690)	(0.083)						(1.248)				
																1358	730
70WD	DENNIS J. NELSON AND	86	OR362	288	037-28-003-13-000	0.2261	0.1555	0.1742	0.1209	0.0533	YES						
	JACKIE L. NELSON		OR134	57		(0.559)	(0.384)	(0.431)	(0.132)	(0.132)							
70T-1		86						0.0068	0	0.0068					TO REMOVE STRUCTURES		
								(0.017)	0	(0.017)							
70E-1		86			037-28-003-13-000			0.042	0.0352								
								(0.104)	(0.087)								
70WD		86			037-28-060-17-000	0.3018	0.062	0.2598	0.062	0.1978							
						(0.746)	(0.153)	(0.642)	(0.153)	(0.489)							
70T		86						0.0519	0	0.0519					TO REMOVE STRUCTURES		
70E								(0.128)	0	(0.128)							
70WD		86			037-28-003-12-000	0.0419	0.0147	0.0419	0.0147	0.0272							
						(0.103)	(0.037)	(0.103)	(0.037)	(0.067)							
					GRAND TOTAL	0.5698	0.2322	0.4759	0.1976	0.2783		0.0068	0.0519				
						(1.408)	(0.574)	(1.176)	(0.488)	(0.688)		(0.017)	(0.128)				
71WD	RANDY S. ROSE SR AND	86	OR425	668	037-28-055-08-000	0.1821	0.0680	0.0028	0	0.0028			0.1113			OR 832	0206
	OPAL R. ROSE					(0.450)	(0.168)	(0.007)	0	(0.007)			(0.275)				
72WV	JOEY J. BURGAN	88–89	OR719	109	037-28-055-02-002	2.6592	0.221	0.0785	0.0178	0.0607		2.3775			SAME OWNER AS 73	OR 857	0739
						(6.571)	(0.546)	(0.194)	(0.044)	(0.150)		(5.875)					
73WV	JOEY J. BURGAN	89	OR709	864	037-28-055-04-000	0.8134	0.1221	0.2767	0.1221	0.1546		0.5367			SAME OWNER AS 72	OR 857	0735
						(2.010)	(0.302)	(0.684)	(0.302)	(0.382)		(1.326)					
														FED./STATE			

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1 HECTARE = 2.471044 ACRES

NOTE: ALL TEMPORARY PARCELS TO BE OF 24 MONTHS DURATION.

REV.	DATE	DESCRIPTION
PWS	09/27/01	REV PARCEL 70
TJM	5/09/01	REV. TOTAL NUMBER OF TABULATION

DATE OF COMPLETION 9/27/2000

FEDERAL PROJECT NO.

PID NO. 16284

STATE JOB NO. 035920

SUMMARY OF ADDITIONAL RIGHT OF WAY

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

28/95

644/712

RS014.DWG 10 MAY 2001 1:1M

TOTAL NUMBER OF :
75 OWNERSHIPS
8 TOTAL TAKES
9 OWNERSHIPS WITH STRUCTURES INVOLVED
3 OWNERSHIPS WITH "P" ITEMS

NET RESIDUE = RECORD AREA − TOTAL PRO − NET TAKE

GRANTEE: ALL RIGHT-OF-WAY ACQUIRED IN THE NAME OF STATE OF OHIO UNLESS OTHERWISE SHOWN.

metric units

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD BOOK	OWNERS RECORD PAGE	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUCTURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED BOOK	AS ACQUIRED PAGE
74	JOHN W. KIMBLE AND TAMMY J. KIMBLE	89	DV909	396	037-28-055-05-000	0.5585	0.0558	NO TAKE REQUIRED									
						(1.380)	(0.138)							FED./STATE			
75WL	JEFFERY JAMES AND	62	OR729	343	037-28-055-02-001	2.6909	0.1728	0.8540	0	0.8540							
	LISA ANN JAMES					(6.6485)	(0.4271)	(2.110)	0	(2.110)					75WL 037-28-055-02-001 0.8540 (2.110)	OR 961	0558
75WV		88-89	OR727	643	037-28-055-02-010	1.3446		0.2995	0.1728	0.1267					75WV 037-28-055-02-010 0.0963 (0.2379)		
						(3.3225)		(0.7401)	(0.4271)	(0.3130)					75WV 037-28-055-02-001 0.2032 (0.5022)	OR 962	0489
75E		62						0.0178		0.0178							
								(0.044)		(0.044)					LANDLOCKED		
					GRAND TOTAL	4.0351	0.1728	1.1713	0.1728	0.9985			2.8638				
						(9.9710)	(0.4271)	(2.8545)	(0.4271)	(2.4274)			(7.1165)				
75AWV	DOUGLAS E. ALLEN AND	62,88,89	OR602	542	037-28-055-02-009	1.3448	0.0598	0.1000	0.0598	0.0402			1.2448				
	HELEN C. SANDS					(3.3231)	(0.1477)	(0.2470)	(0.1477)	(0.0993)			(3.0761)			OR 832	0203
76SHV	JAMES D. THOMPSON	89	OR66	594	037-28-055-02-004	3.9255	0.1813	0.1298	0.0815	0.0483			3.6959				
						(9.700)	(0.448)	(0.321)	(0.202)	(0.119)			(9.133)			OR 925	0310
77WL	ROBERT J. WEAVER 1/4 INTEREST	62-64	OR738	634	037-28-080-11-000	25.6645	0	3.9843	0	3.9843		21.6802					
	MARY L. WEAVER 1/4 INTEREST					(63.418)	0	(9.845)	0	(9.845)		(53.573)				OR 961	0577
	MARTHA J. WEAVER SCHROEDER 1/2																
	INTEREST																
77E		62-64															
															LANDLOCKED		
78WL	ALICE A. WALKER	64-66	DV758	146	037-28-079-13-000	31.7679	0.4581	4.0240	0.0599	3.9641							
						(78.500)	(1.132)	(9.943)	(0.148)	(9.795)					SAME OWNER AS 89 AND 91	OR 862	0264
78WV		66,87	DV308	320	037-28-079-14-000	32.4624	0.2011	2.1179	0.4750	1.6429					78WL 037-28-079-13-000 4.0240 (9.944)		
		90-91				(80.216)	(0.497)	(5.233)	(1.174)	(4.059)					78WV 037-28-079-13-000 1.6722 (4.132)	OR 862	0271
78WV-1		66,92						0.8029	0.0625	0.7404					78WV 037-28-079-14-000 0.4457 (1.101)		
								(1.984)	(0.154)	(1.830)					78WV-1 037-28-079-13-000 0.8029 (1.984)	OR 862	0268
78WV-2		91						0.0118	0	0.0118					78WV-2 037-28-079-14-000 0.0118 (0.029)		
								(0.029)	0	(0.029)					78WV-3 037-28-079-14-000 0.0213 (0.053)	OR 1024	0394
78WV-3		91						0.0213	0	0.0213					78T 037-28-079-13-000 0.1021 (0.252)		
								(0.053)	0	(0.053)					78T-1 037-28-079-14-000 0.0017 (0.004)	OR 1024	0401
78E		64-66						9.5474	0	9.5474					78E 037-28-079-13-000 9.5474 (23.592)		
		92						(23.592)	0	(23.592)						OR 880	0342
					GRAND TOTAL	64.2303	0.6592	16.5253	0.5974	15.9279		15.6380	32.0052				
						(158.716)	(1.629)	(40.834)	(1.476)	(39.358)		(38.642)	(79.086)				
78T		91						0.1021		0.1021							
								(0.252)		(0.252)					TO CONSTRUCT DRIVEWAY		
78T-1		91						0.0017		0.0017							
								(0.004)		(0.004)					TO CONSTRUCT DRIVEWAY		
79WV	RONALD W. WILLIS AND JANA WILLIS	90	DV726	125	037-28-082-12-000	0.1821	0	0.0379	0.0230	0.0149			1.0446				
	AKA JANA L. WILLIS		DV800	175		(0.450)	0	(0.094)	(0.057)	(0.037)			(2.581)		79WV 037-28-079-14-001 0.0379 (0.094)	OR 880	0345
			DV794	455	037-28-079-14-001	0.4290	0.0372										
			OR34	661		(1.060)	(0.092)										
					037-28-079-14-002	0.4856	0										
						(1.200)	0										
					GRAND TOTAL	1.0967	0.0372										
						(2.710)	(0.092)										
80	NUMBER NOT USED																
81WV	MARY ANNE CLEARY	92-93	DV641	147	037-28-014-04-000	31.7679	0.5573	1.2197	0.2115	1.0082		30.2024		FED./STATE			
						(78.500)	(1.377)	(3.014)	(0.523)	(2.491)		(74.632)				OR 1024	0405

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1 HECTARE = 2.471044 ACRES

NOTE: ALL TEMPORARY PARCELS TO BE OF 24 MONTHS DURATION.

REV.	DATE	DESCRIPTION
MGA	6/14/01	RECORD AREA PAR 77; DEL 77E
JEK	6/14/01	PARCEL 76WV TO 76SHV
TJM	5/08/01	ADDED 78WV-2, 78WV-3, & 78T-1

DATE OF COMPLETION: 10/19/2000

FEDERAL PROJECT NO.

PID NO. 16284

STATE JOB NO. 035920

SUMMARY OF ADDITIONAL RIGHT OF WAY

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

29/95

645/712

1:1M RS015.DWG 10 MAY 2001

08/27/2001

TOTAL NUMBER OF :
75 OWNERSHIPS — 9 OWNERSHIPS WITH STRUCTURES INVOLVED
8 TOTAL TAKES — 3 OWNERSHIPS WITH "P" ITEMS

NET RESIDUE = RECORD AREA − TOTAL PRO − NET TAKE

GRANTEE: ALL RIGHT-OF-WAY ACQUIRED IN THE NAME OF STATE OF OHIO UNLESS OTHERWISE SHOWN.

metric units

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD BOOK	OWNERS RECORD PAGE	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUCTURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND FED./STATE	REMARKS AND PERSONALTY	AS ACQUIRED BOOK	AS ACQUIRED PAGE
82WV	HARLAN P. KEMPF AND SHERRY J. KEMPF	92-93	OR287	659	037-28-048-12-001	1.9506	0.2185	0.2537	0.0695	0.1842			1.5479			OR961	0554
						(4.820)	(0.540)	(0.627)	(0.172)	(0.455)			(3.825)				
83WV	HENRY E. KEMPLIN AND CLARIS KEMPLIN	92	OR168	947	037-28-048-12-002	0.7042	0.0427	0.1881	0.1122	0.0759					83WV 037-28-048-12-002 0.0427 (0.105)	OR832	0196
						(1.740)	(0.105)	(0.465)	(0.277)	(0.188)					83WV 037-28-048-12-000 0.1454 (0.359)		
					037-28-048-12-000	1.1331	0.0695								83T 037-28-048-12-000 0.0625 (0.154)		
						(2.800)	(0.172)										
					GRAND TOTAL	1.8373	0.1122	0.1881	0.1122	0.0759			1.6492				
						(4.540)	(0.277)	(0.465)	(0.277)	(0.188)			(4.075)				
83T		92						0.0625		0.0625					TO CONSTRUCT DRIVEWAY	OR840	0154
								(0.154)		(0.154)							
84WL	JOHN SCHROEDER AND	66,67,87	OR870	695	037-28-039-10-000	24.5603	0.1870	2.1055	0.0599	2.0456					RECORD AREA CALCULATED	1436	471
	ANGELA SCHROEDER					(60.690)	(0.462)	(5.203)	(0.148)	(5.055)							
84WV		66,91						0.1829	0.0673	0.1156							
								(0.452)	(0.166)	(0.286)							
84WV-1		66,92						0.0598	0.0598	0							
								(0.148)	(0.148)	0							
84E		66,67,92						0.6332	0	0.6332							
								(1.565)	0	(1.565)							
					GRAND TOTAL	24.5603	0.1870	2.9814	0.1870	2.7944			21.5789				
						(60.690)	(0.462)	(7.368)	(0.462)	(6.906)			(53.322)				
84T								0.0089		0.0089					TO CONSTRUCT DRIVEWAY		
								(0.022)		(0.022)							
85	NUMBER NOT USED																
86WV	ROGER P. WEAVER AND ANN E. WEAVER	91	DV794	793	037-28-002-11-000	0.3399	0.0214	0.0214	0.0214	0						OR992	0474
						(0.840)	(0.053)	(0.053)	(0.053)	0							
86WV-1		91						0.0239	0	0.0239						OR1024	0397
								(0.059)	0	(0.059)							
					GRAND TOTAL	0.3399	0.0214	0.0453	0.0214	0.0239			0.2946				
						(0.840)	(0.053)	(0.112)	(0.053)	(0.059)			(0.728)				
86T		91						0.0128		0.0128					TO CONSTRUCT DRIVEWAY	OR857	0732
								(0.032)		(0.032)							
														FED./STATE			

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1 HECTARE = 2.471044 ACRES

NOTE: ALL TEMPORARY PARCELS TO BE OF 24 MONTHS DURATION.

REV.	DATE	DESCRIPTION
TJM	5/08/01	REV. 84E-1 TO 84E; ADDED 84T
TJM	5/08/01	REV. 84WV & 86T; ADDED 86WV-1

DATE OF COMPLETION: 10/19/2000

FEDERAL PROJECT NO.

PID NO. 16284

STATE JOB NO. 035920

SUMMARY OF ADDITIONAL RIGHT OF WAY

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

1:1M RS016.DWG 10 MAY 2001

08/27/2001

TOTAL NUMBER OF :
75 OWNERSHIPS 9 OWNERSHIPS WITH STRUCTURES INVOLVED
8 TOTAL TAKES 3 OWNERSHIPS WITH "P" ITEMS

NET RESIDUE = RECORD AREA − TOTAL PRO − NET TAKE

GRANTEE: ALL RIGHT-OF-WAY ACQUIRED IN THE NAME OF STATE OF OHIO UNLESS OTHERWISE SHOWN.

metric units

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD BOOK	OWNERS RECORD PAGE	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUCTURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED BOOK	AS ACQUIRED PAGE
														FED./STATE			
87WL	PHILIP E. BRUMM AND	67	DV803	282	037-28-041-12-000	3.1282	0.0627								87WL 037-28-041-12-000 0.1470 (0.363)	OR 857	0725
	HILDE BRUMM		DV556	126		(7.730)	(0.155)										
			DV556	126	037-28-011-02-000	0.8094	0.0312										
						(2.000)	(0.077)										
					GRAND TOTAL	3.9376	0.0939	0.1470	0	0.1470		3.6967					
						(9.730)	(0.232)	(0.363)	0	(0.363)		(9.135)					
88WL	FRANKLIN J. BLEVINS AND	67-68	DV561	546	037-28-007-13-000	3.6422	0.0611	0.8945	0	0.8945						OR 857	0698
	ALBERTA L. BLEVINS					(9.000)	(0.151)	(2.210)	0	(2.210)							
88E		67													LANDLOCKED	OR 857	0702
					GRAND TOTAL	3.6422	0.0611	0.8945	0	0.8945		2.6779	0.0087				
						(9.000)	(0.151)	(2.210)	0	(2.210)		(6.617)	(0.022)				
89WL	ALICE A. WALKER	67-69	DV758	146	037-28-079-12-000	15.3215	0	2.5008	0	2.5008					SAME OWNER AS 78 AND 91	OR 840	0126
		72-73	DV580	573		(37.860)	0	(6.179)	0	(6.179)							
89E		67-68													LANDLOCKED		
		72,73,87															
					GRAND TOTAL	15.3215	0	2.5008	0	2.5008		9.1224	3.6983				
						(37.860)	0	(6.179)	0	(6.179)		(22.542)	(9.139)				
90	STATE OF OHIO	67-70						NO TAKE REQUIRED									
91	ALICE A. WALKER	68-69	DV758	146	037-28-079-12-000	15.3215	0	NO TAKE REQUIRED							SAME OWNER AS 78 AND 89		
			DV580	573		(37.860)	0										
92WL	WILLIAM L. ELROD AND	73	DV913	115	037-28-038-16-002	6.2609	0.0741	0.0243	0	0.0243			6.1625			OR 857	0729
	PATRICIA A. ELROD					(15.471)	(0.183)	(0.060)	0	(0.060)			(15.228)				
93WL	AMERICAN PROPERTIES AND	73	OR353	673	037-28-048-04-000	3.0392	0.0267	0.0532	0	0.0532			2.9593			OR 871	0853
	DEVELOPMENT, INC.					(7.510)	(0.066)	(0.131)	0	(0.131)			(7.313)				
	(AN OHIO CORPORATION)																
														FED./STATE			

NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

NOTE: UNLESS SPECIFIED OTHERWISE, AREAS ARE STATED IN HECTARES WITH ENGLISH EQUIVALENTS IN (ACRES).

1 HECTARE = 2.471044 ACRES

NOTE: ALL TEMPORARY PARCELS TO BE OF 24 MONTHS DURATION.

TJM	5/09/01	REV. TOTAL NUMBER OF TABULATION
REV.	DATE	DESCRIPTION
DATE OF COMPLETION		1/14/2000

FEDERAL PROJECT NO.

PID NO. 16284

STATE JOB NO. 035920

SUMMARY OF ADDITIONAL RIGHT OF WAY

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

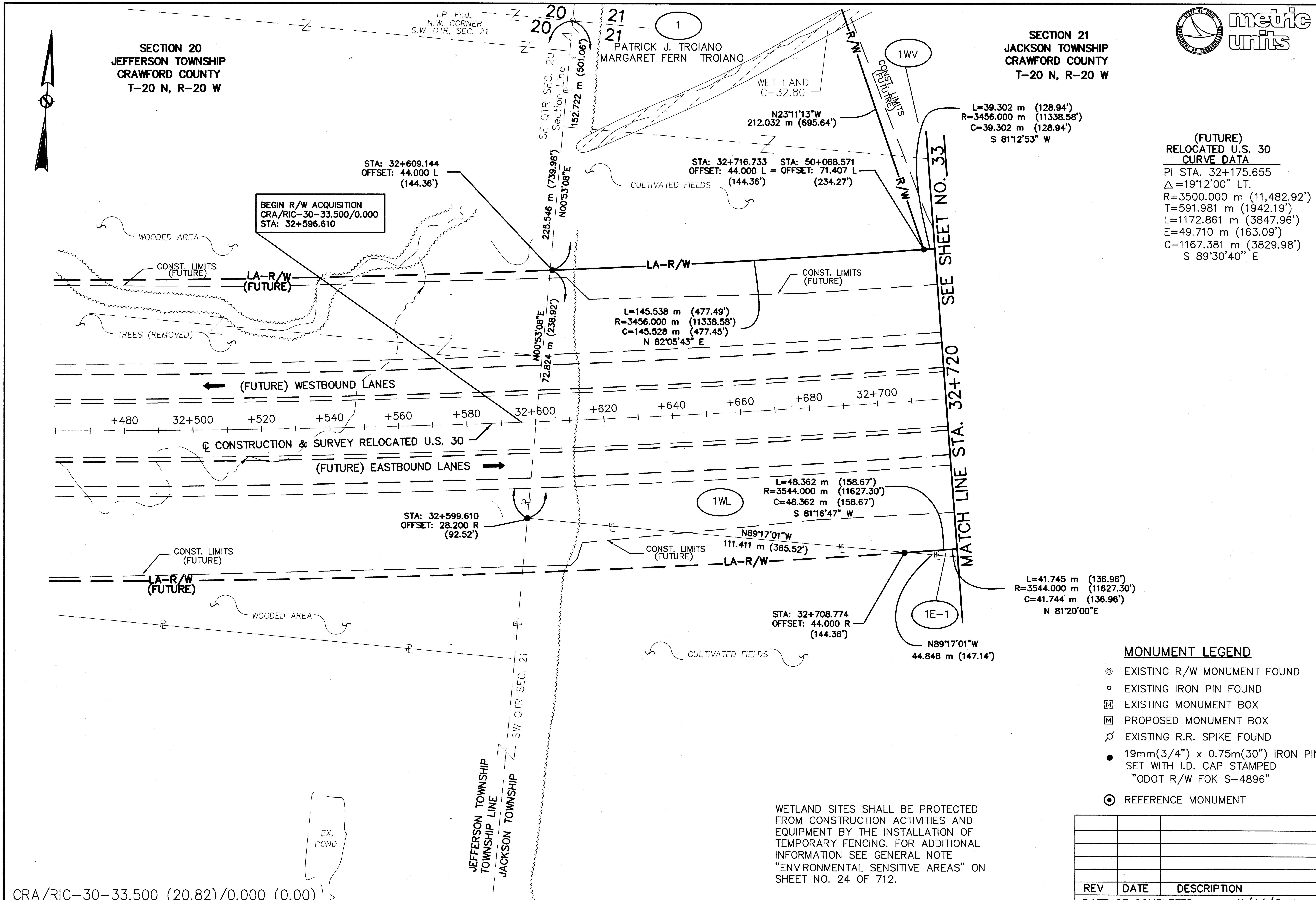
31/95

647/712

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

1:1M RS017.DWG 10 MAY 2001

08/27/2001



MONUMENT LEGEND

- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

WETLAND SITES SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES AND EQUIPMENT BY THE INSTALLATION OF TEMPORARY FENCING. FOR ADDITIONAL INFORMATION SEE GENERAL NOTE "ENVIRONMENTAL SENSITIVE AREAS" ON SHEET NO. 24 OF 712.

REV	DATE	DESCRIPTION

DATE OF COMPLETED 11/06/2000

RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

PID NO. 16284

RIGHT OF WAY PLAN RELOCATED U.S. 30
STA. 32+460 TO STA. 32+720

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

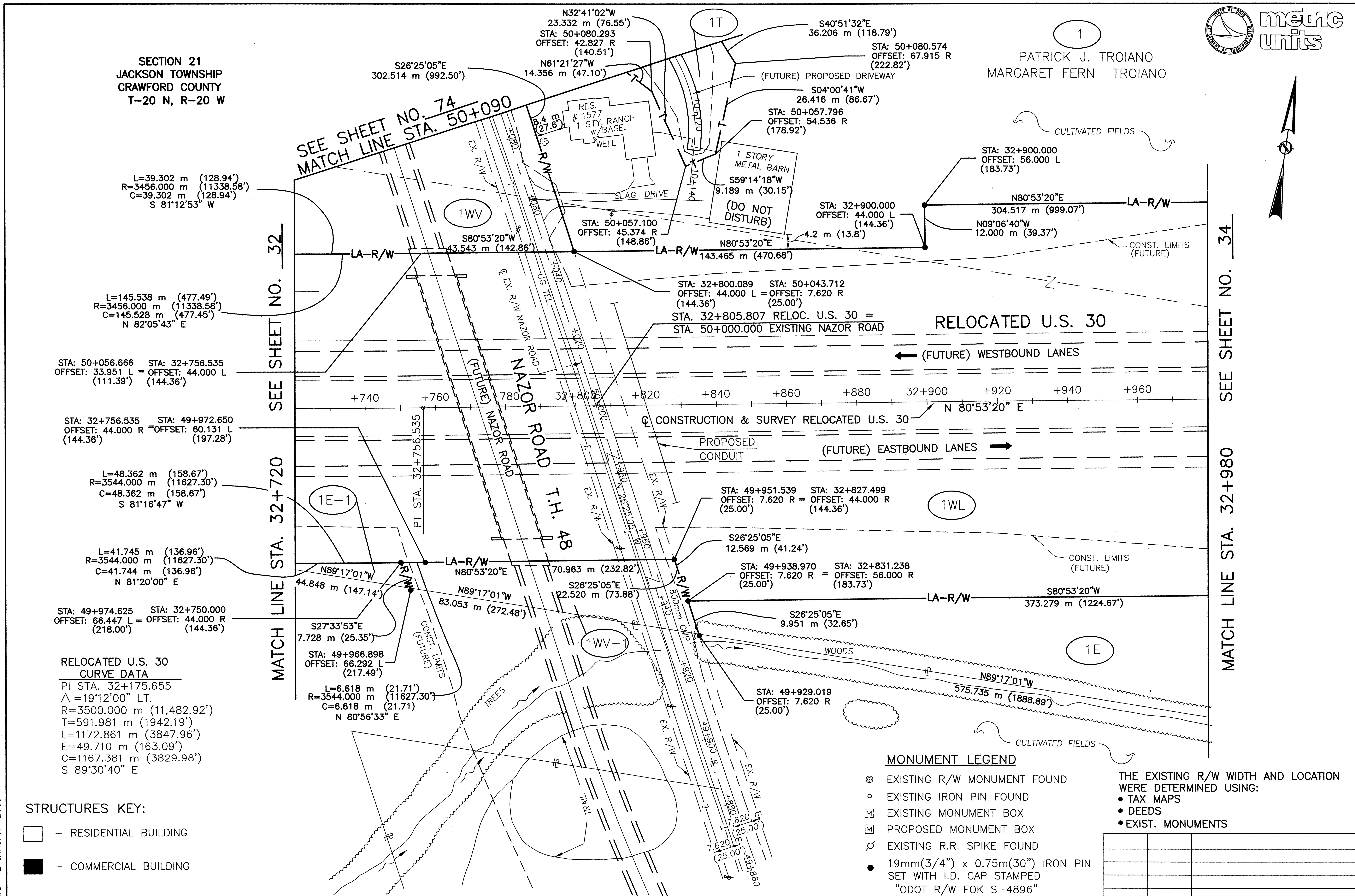
32/95

648/712

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

1:500M
RP140.DWG 3 NOVEMBER 2000

RIGHT OF WAY PLAN RELOCATED U.S. 30
STA. 32+720 TO STA. 32+980



RELOCATED U.S. 30
CURVE DATA
PI STA. 32+175.655
Δ =19°12'00" LT.
R=3500.000 m (11,482.92')
T=591.981 m (1942.19')
L=1172.861 m (3847.96')
E=49.710 m (163.09')
C=1167.381 m (3829.98')
S 89°30'40" E

STRUCTURES KEY:
- ☐ – RESIDENTIAL BUILDING
- ■ – COMMERCIAL BUILDING

MONUMENT LEGEND
- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
- TAX MAPS
- DEEDS
- EXIST. MONUMENTS

REV	DATE	DESCRIPTION

DATE OF COMPLETED 1-14-2000

metric units

RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

PID NO. 16284

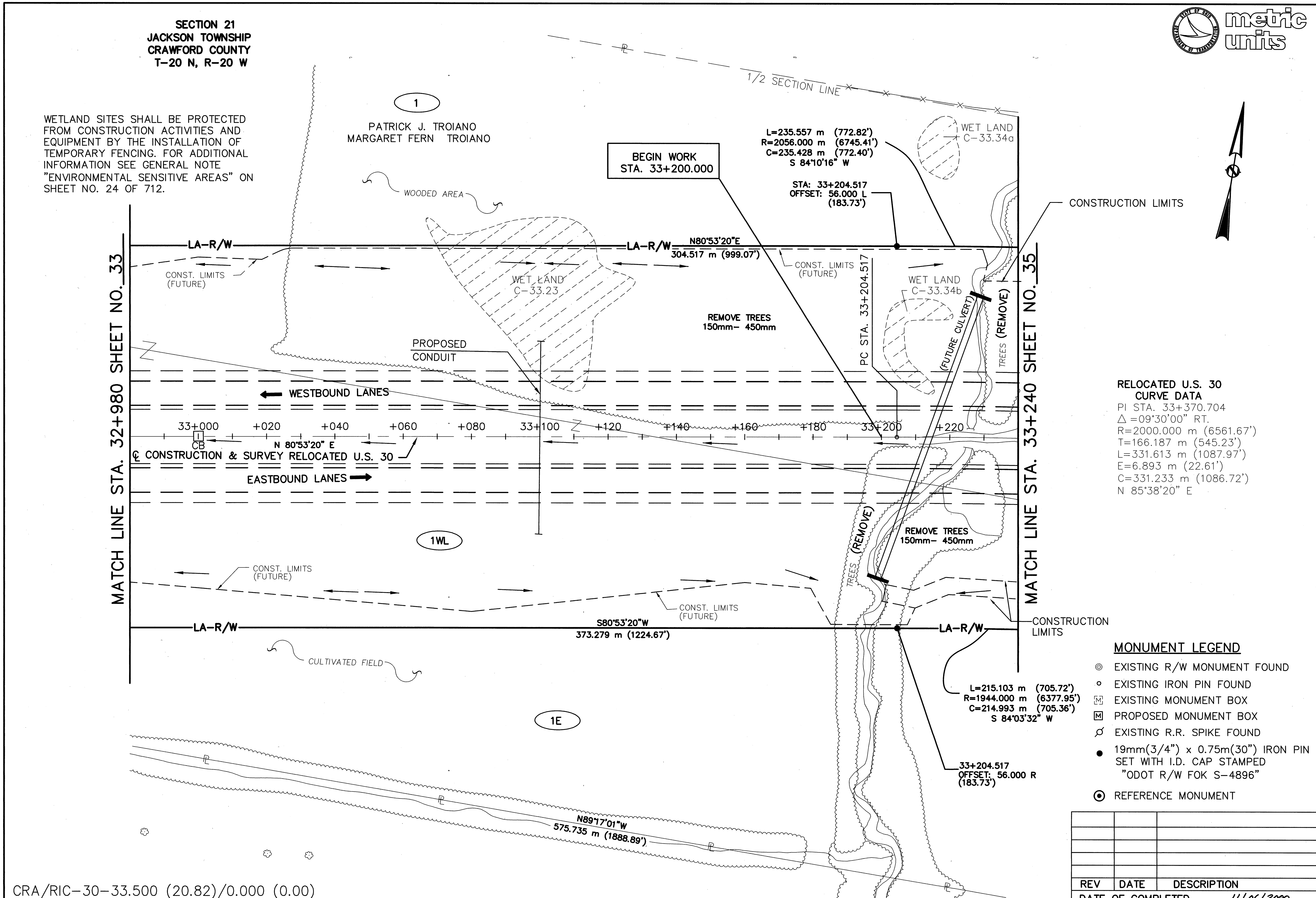
CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

33/95

649/712

1:500M
RP141.DWG 12 JANUARY 2000

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)



REV	DATE	DESCRIPTION
DATE OF COMPLETED		11/06/2000

RATIO 1:500
HORIZONTAL SCALE IN METERS
PID NO. 16284

RIGHT OF WAY PLAN RELOCATED U.S. 30
STA. 32+980 TO STA. 33+240

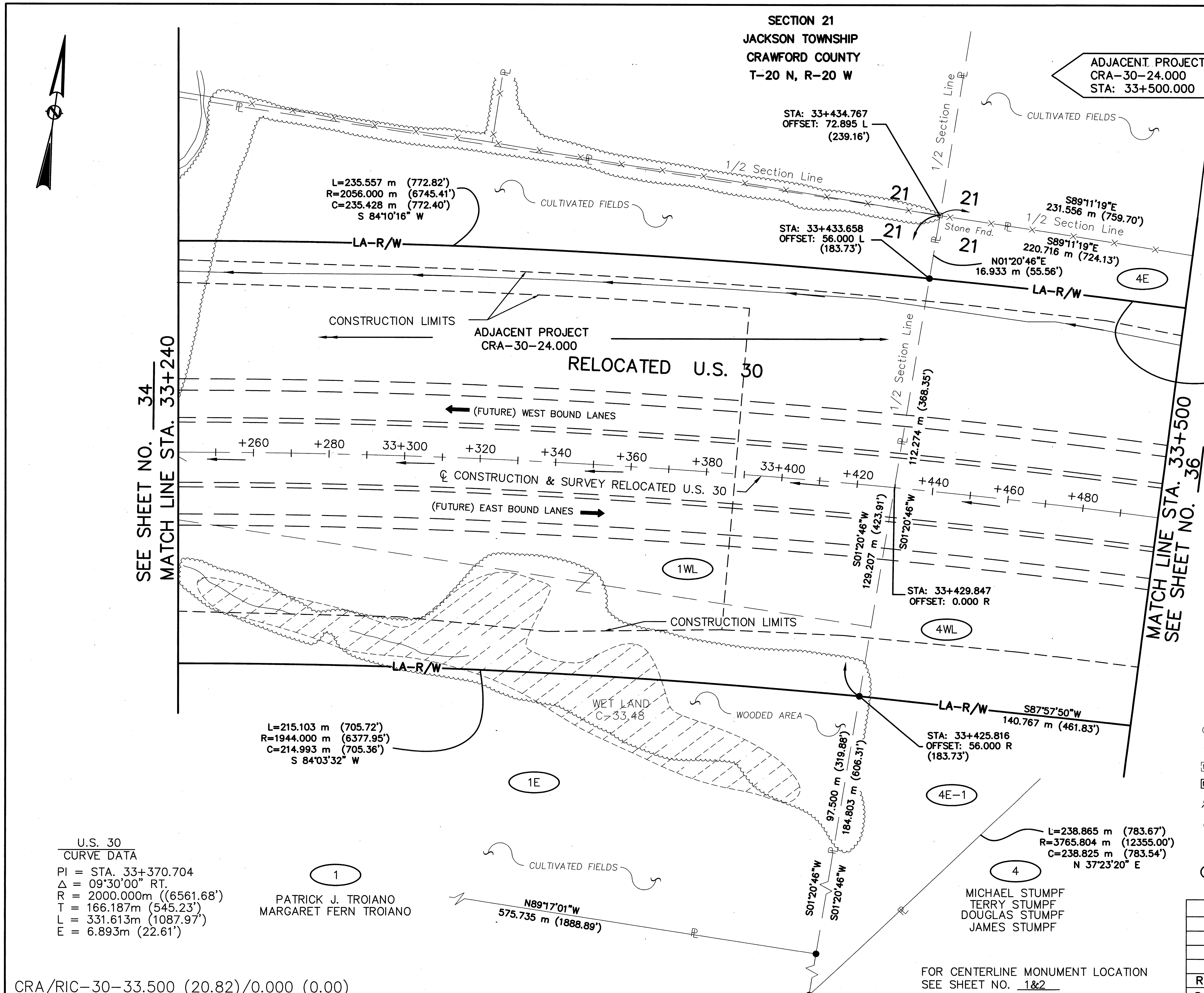
CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

34/95

650/712

1:500M
RP100.DWG 3 NOVEMBER 2000

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)



metric units

RATIO 1:500
HORIZONTAL SCALE IN METERS

PID NO. 16284

WETLAND SITES SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES AND EQUIPMENT BY THE INSTALLATION OF TEMPORARY FENCING. FOR ADDITIONAL INFORMATION SEE GENERAL NOTE "ENVIRONMENTAL SENSITIVE AREAS" ON SHEET NO. 24 OF 712.

MONUMENT LEGEND

- ◎ EXISTING R/W MONUMENT FOUND
- ○ EXISTING IRON PIN FOUND
- M EXISTING MONUMENT BOX
- M PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- ● 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- ⊙ REFERENCE MONUMENT

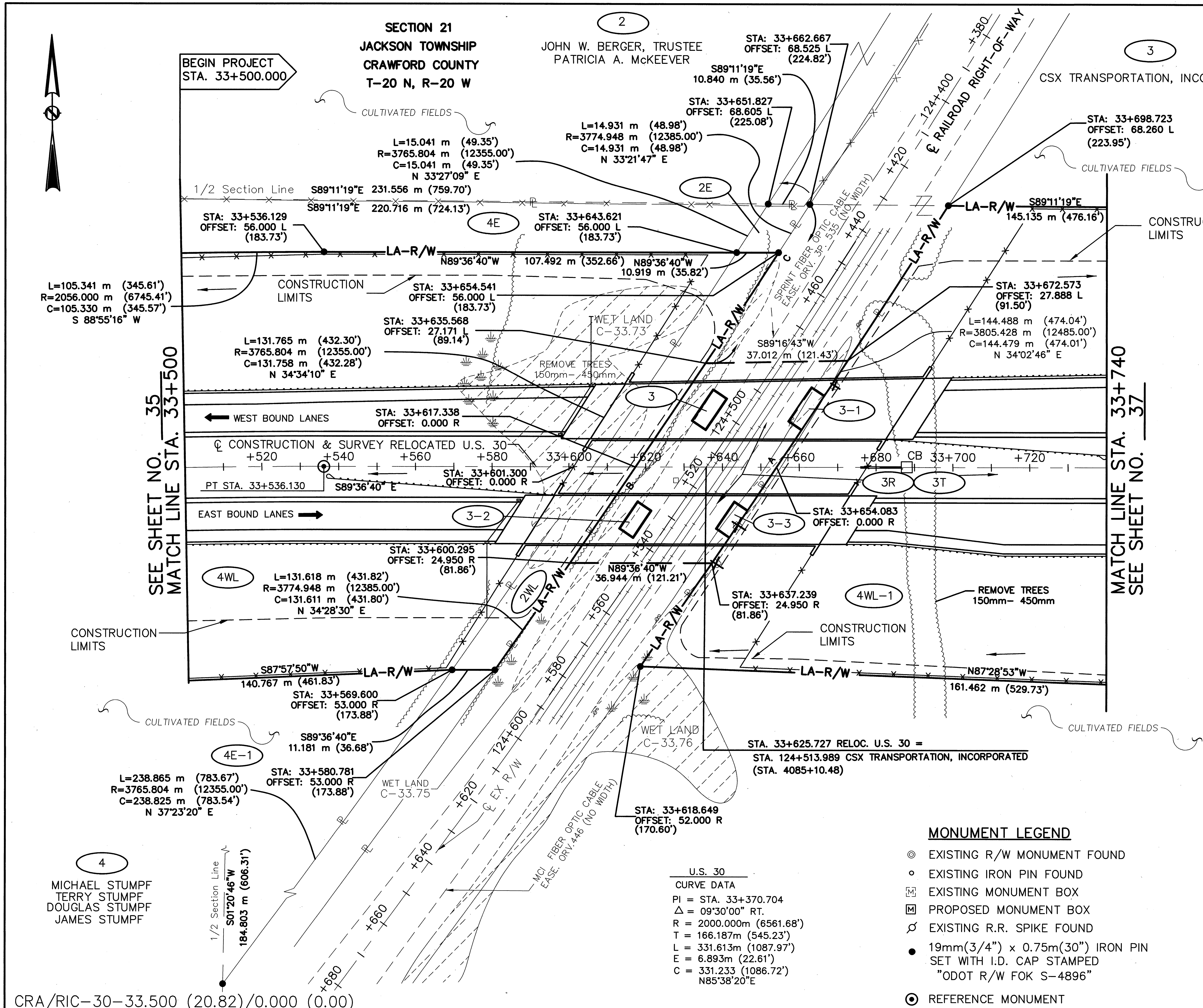
FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

REV	DATE	DESCRIPTION
DATE OF COMPLETED		11/06/2000

RIGHT OF WAY PLAN RELOCATED U.S. 30
STA. 33+240 TO STA. 33+500

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

1:500M
RP101.DWG 3 NOVEMBER 2000



metric units

WETLAND SITES SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES AND EQUIPMENT BY THE INSTALLATION OF TEMPORARY FENCING. FOR ADDITIONAL INFORMATION SEE GENERAL NOTE "ENVIRONMENTAL SENSITIVE AREAS" ON SHEET NO. 24 OF 712.

	PARCEL 3T & 3R
A	L=63.565 m (208.55')
	R=3805.428 m (12485.00')
	C=63.564 m (208.54')
	S 34°09'40" W
B	L=62.935 m (206.48')
	R=3774.948 m (12385.00')
	C=62.935 m (206.48')
	N 34°28'40" E

C	L=49.443 m (162.21')
	R=3774.948 m (12.385.00')
	C=49.443 m (162.21')
	S33°37'29"W

FOR RAILROAD PLAT SEE SHEET NO. 94 & 95

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
- TAX MAPS
- RAILROAD VALUATION MAPS
  RAILROAD INFORMATION TAKEN FROM THE CLEVELAND, CINNCINNATI, CHICAGO & ST. LOUIS RY CO., CLEVELAND DIVISION – MAIN LINE, RIGHT-OF-WAY AND TRACK MAP V35, PAGE 38.
- EXIST. MONUMENTS

U.S. 30
CURVE DATA
PI = STA. 33+370.704
Δ = 09°30'00" RT.
R = 2000.000m (6561.68')
T = 166.187m (545.23')
L = 331.613m (1087.97')
E = 6.893m (22.61')
C = 331.233 (1086.72')
N85°38'20"E

MONUMENT LEGEND

- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

PID NO. 16284

RIGHT OF WAY PLAN RELOCATED U.S. 30
STA. 33+500 TO STA. 33+740

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

REV	DATE	DESCRIPTION

DATE OF COMPLETED 1/14/2000

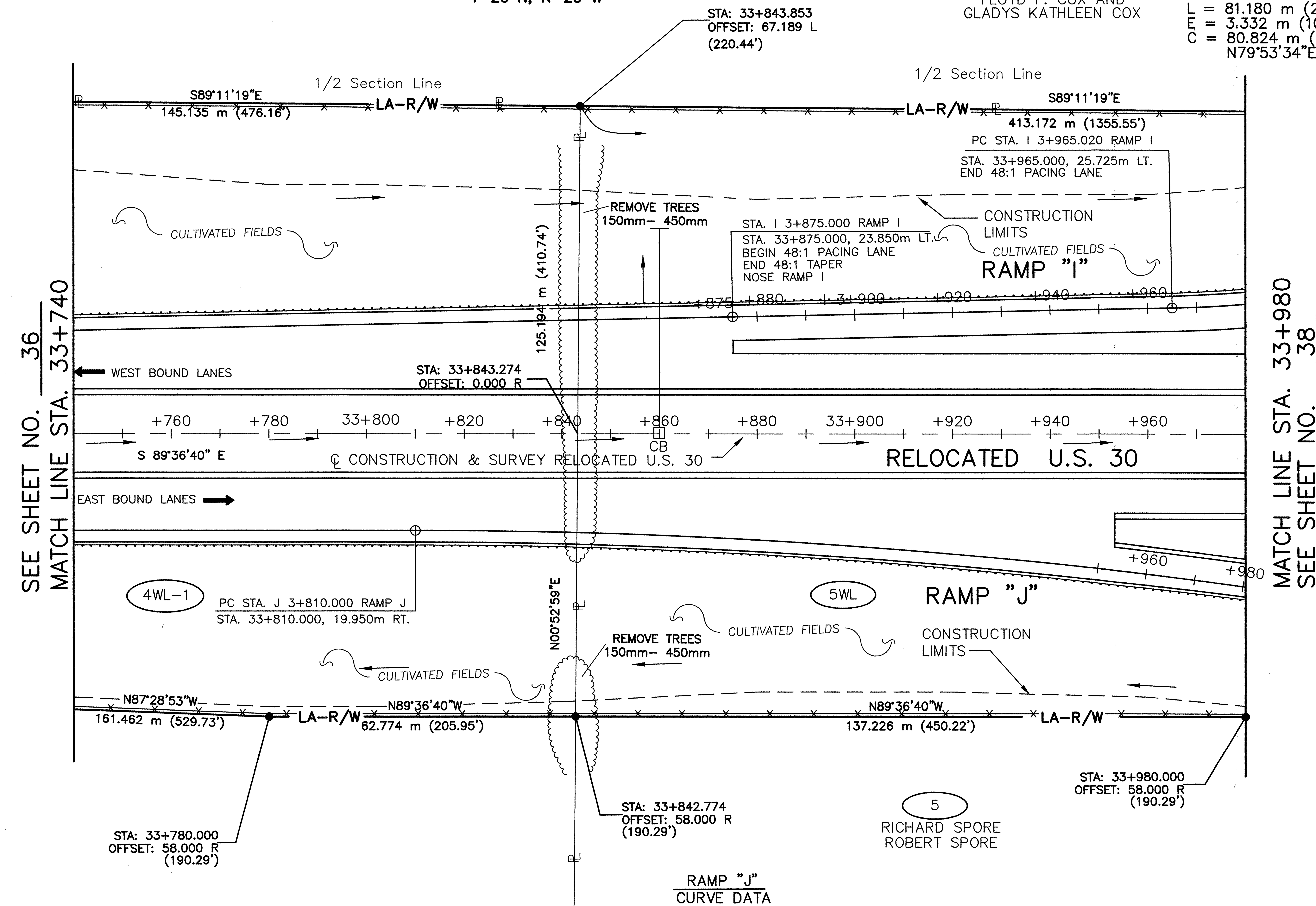
1:500M RW
RP102.DWG 3 NOVEMBER 2000

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

SECTION 21
JACKSON TOWNSHIP
CRAWFORD COUNTY
T-20 N, R-20 W

RAMP "I"
CURVE DATA
PI = STA. I 4+005.970
Δ = 18°36'18" LT.
T = 40.950 m (134.35')
R = 250.000 m (820.21')
L = 81.180 m (266.34')
E = 3.332 m (10.93')
C = 80.824 m (265.17')
N79°53'34"E

metric units



4
MICHAEL STUMPF
TERRY STUMPF
DOUGLAS STUMPF
JAMES STUMPF

RAMP "J"
CURVE DATA
PI= STA. J 3+896.629
Δ =07°55'44" RT.
T = 86.629 m (284.22)
R = 1250.000 m (4,101.05')
L = 172.982 m (567.53')
E = 2.998 m (9.84')
C = 172.844 m (567.07')
S85°38'48"E

MONUMENT LEGEND
- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

FOR CENTERLINE MONUMENT LOCATION
SEE SHEET NO. 1 & 2

REV	DATE	DESCRIPTION
DATE OF COMPLETED		1-14-2000

RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

PID NO. 16284

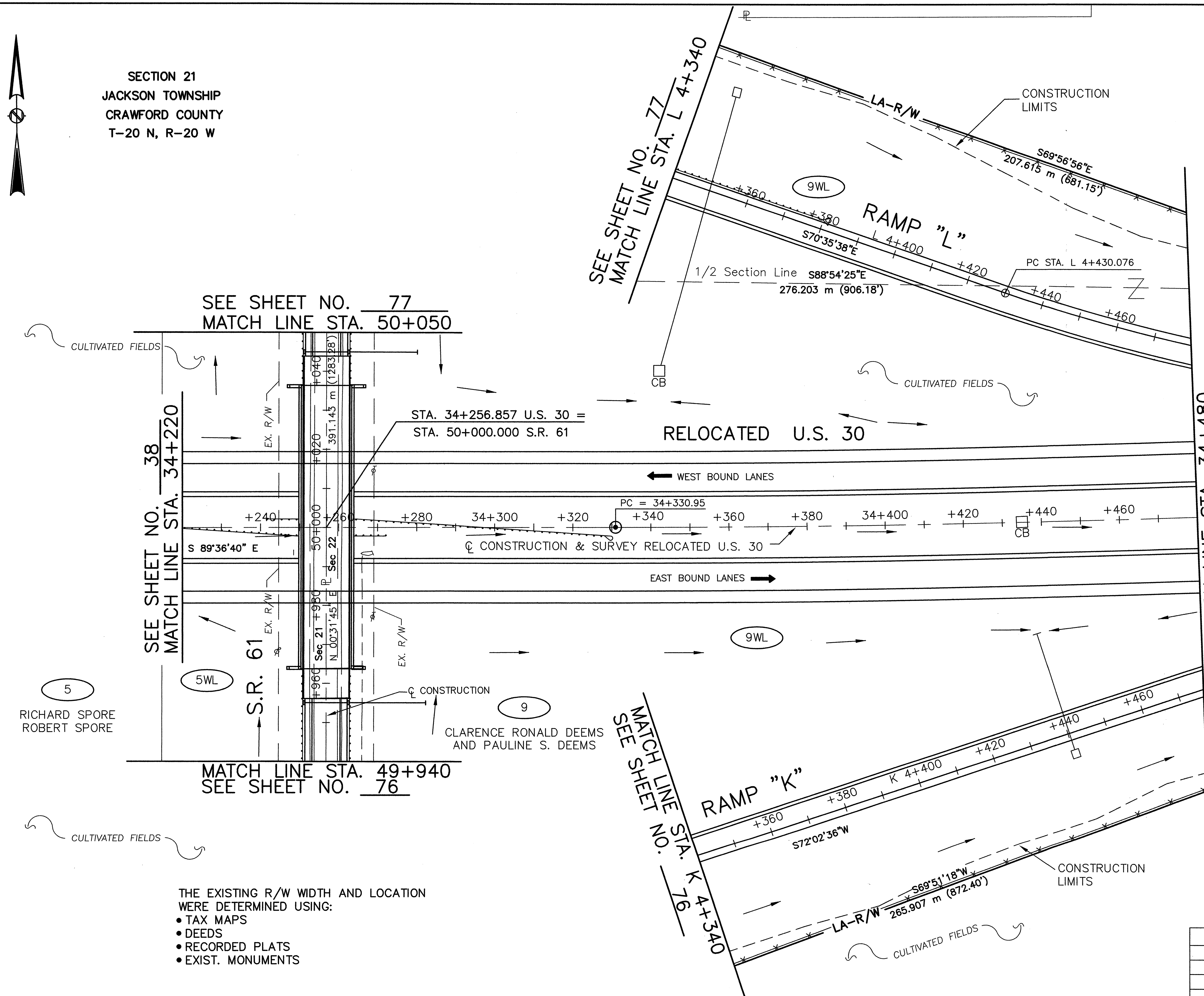
RIGHT OF WAY PLAN RELOCATED U.S. 30
STA. 33+740 TO STA. 33+980

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

1:500M
RP103.DWG 12 JANUARY 2000

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

1:500M
RP104.DWG 12 JANUARY 2000



metric units

RATIO 1:500

HORIZONTAL SCALE IN METERS

PID NO. 16284

RAMP "L"
CURVE DATA
PI= STA. L 4+489.098
Δ =15°16'49" LT.
T = 59.022 m (193.64')
R = 440.000 m (1443.57')
L = 117.344 m (384.98)
E = 3.941 m (12.93')
C = 116.997 m (383.85')
S78°14'03"E

U.S. 30
CURVE DATA
PI= STA. 34+487.016
Δ =04°24'10" LT.
T = 156.068m (512.03')
R = 4060.000m (13320.21')
L = 311.982m (1023.56')
E = 2.999m (9.84')
C = 311.906 m (1023.31')
N88°11'15"E)

MONUMENT LEGEND
- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

THE EXISTING R/W WIDTH AND LOCATION
WERE DETERMINED USING:
- TAX MAPS
- DEEDS
- RECORDED PLATS
- EXIST. MONUMENTS

FOR CENTERLINE MONUMENT LOCATION
SEE SHEET NO. 1&2

REV	DATE	DESCRIPTION

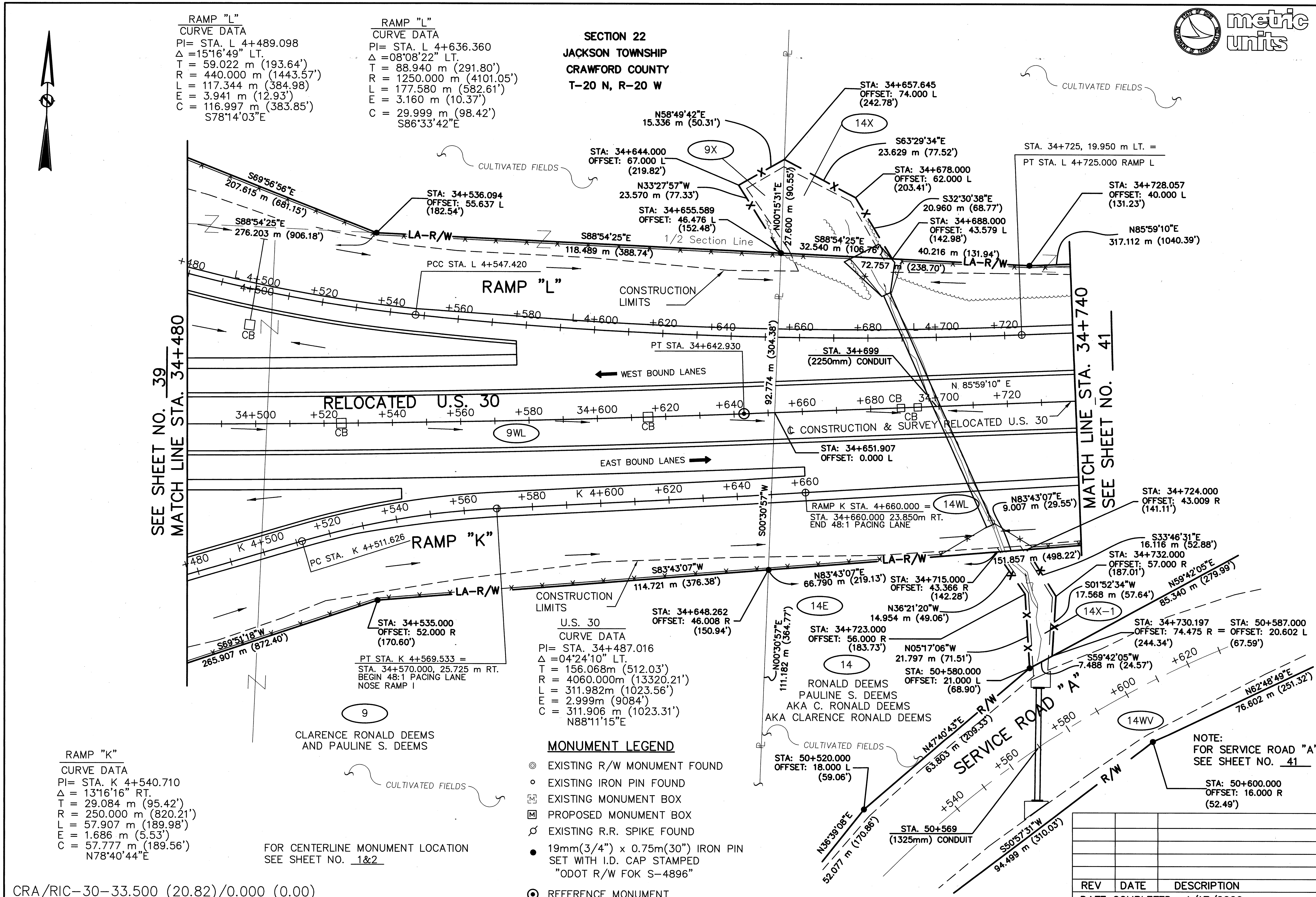
DATE OF COMPLETED 1-14-2000

RIGHT OF WAY PLAN RELOCATED U.S. 30
STA. 34+220 TO STA. 34+480

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

1:500M
RP105.DWG 12 JANUARY 2000



1:500M
RP106.DWG 3 NOVEMBER 2000

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

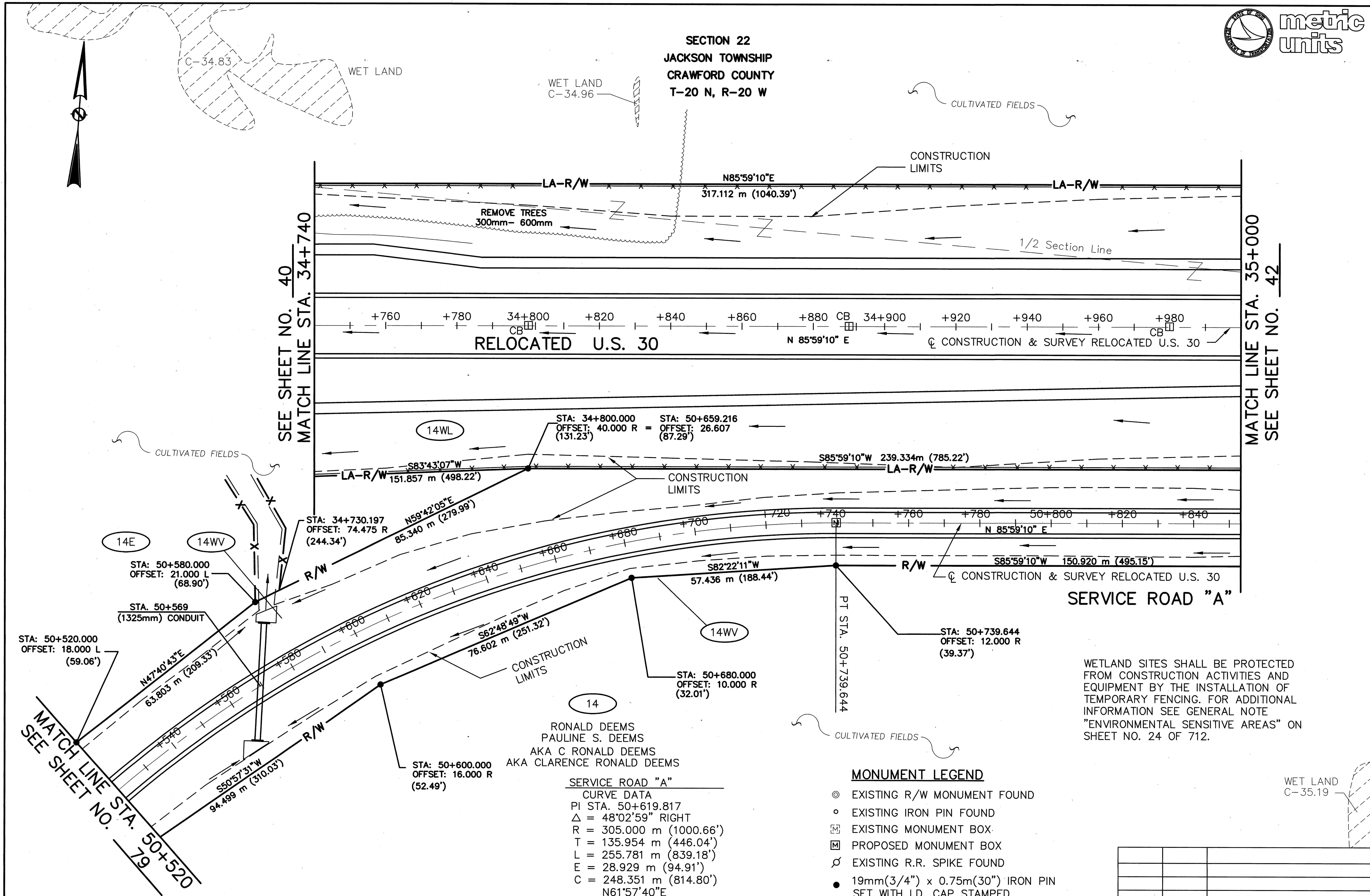
REV	DATE	DESCRIPTION
DATE COMPLETED	4/17/2000	

RATIO 1:500
HORIZONTAL SCALE IN METERS

PID NO. 16284

RIGHT OF WAY PLAN RELOCATED U.S. 30
STA. 34+480 TO STA. 34+740

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)



WETLAND SITES SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES AND EQUIPMENT BY THE INSTALLATION OF TEMPORARY FENCING. FOR ADDITIONAL INFORMATION SEE GENERAL NOTE "ENVIRONMENTAL SENSITIVE AREAS" ON SHEET NO. 24 OF 712.

SERVICE ROAD "A"
CURVE DATA
PI STA. 50+619.817
Δ = 48°02'59" RIGHT
R = 305.000 m (1000.66')
T = 135.954 m (446.04')
L = 255.781 m (839.18')
E = 28.929 m (94.91')
C = 248.351 m (814.80')
N61°57'40"E

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

MONUMENT LEGEND

- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

metric units

RATIO 1:500
HORIZONTAL SCALE IN METERS

PID NO. 16284

RIGHT OF WAY PLAN RELOCATED U.S. 30
STA. 34+740 TO STA. 35+000

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

REV	DATE	DESCRIPTION

DATE COMPLETED 8/16/2000

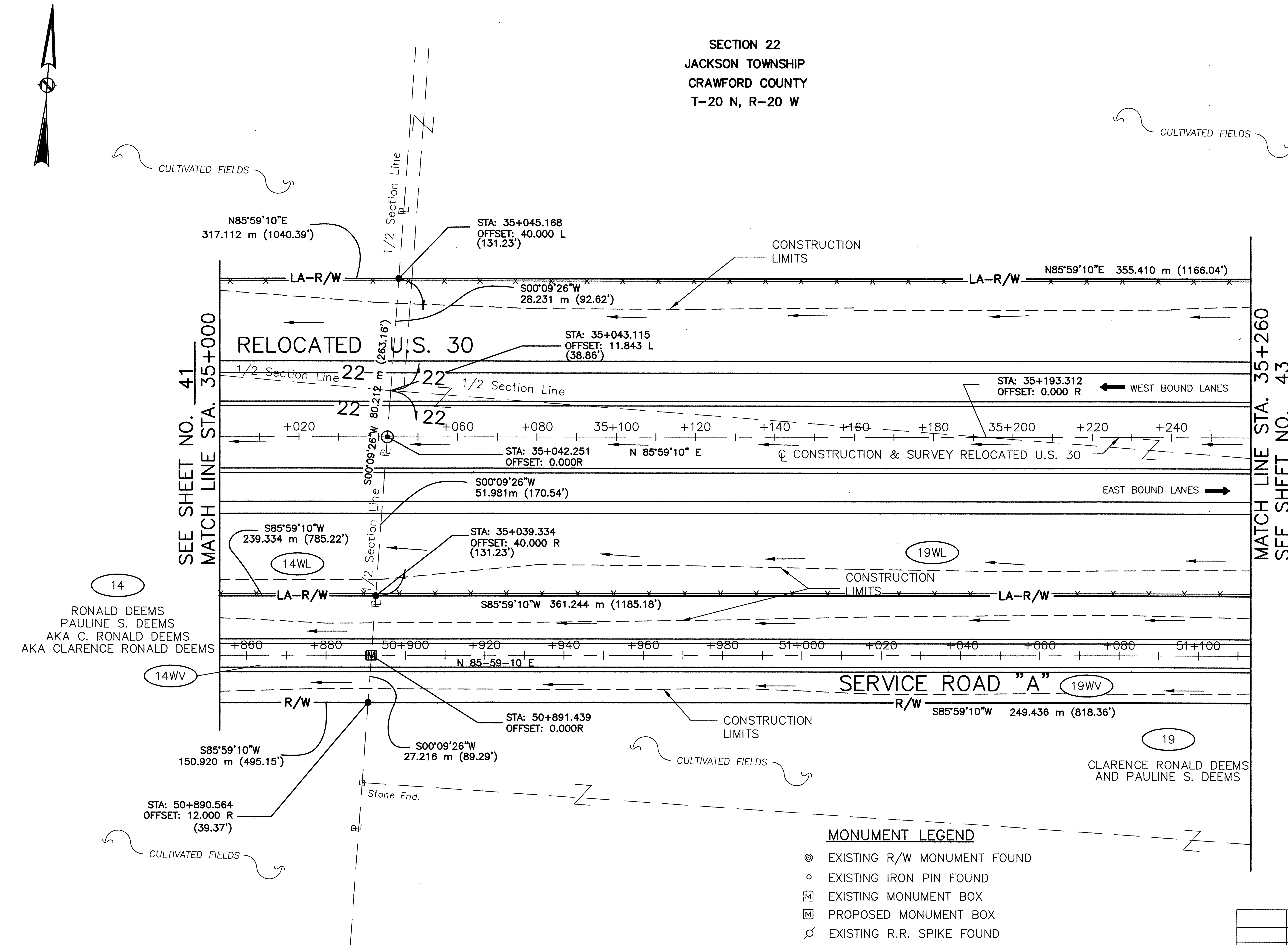
41/95

657/712

1:500M RP107.DWG 3 NOVEMBER 2000

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

SECTION 22
JACKSON TOWNSHIP
CRAWFORD COUNTY
T-20 N, R-20 W



MONUMENT LEGEND

- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

metric units

RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

PID NO. 16284

RIGHT OF WAY PLAN RELOCATED U.S. 30
STA. 35+000 TO STA. 35+260

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

REV	DATE	DESCRIPTION

DATE OF COMPLETED 1-14-2000

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

1:500M
RP108.DWG 12 JANUARY 2000

WETLAND SITES SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES AND EQUIPMENT BY THE INSTALLATION OF TEMPORARY FENCING. FOR ADDITIONAL INFORMATION SEE GENERAL NOTE "ENVIRONMENTAL SENSITIVE AREAS" ON SHEET NO. 24 OF 712.

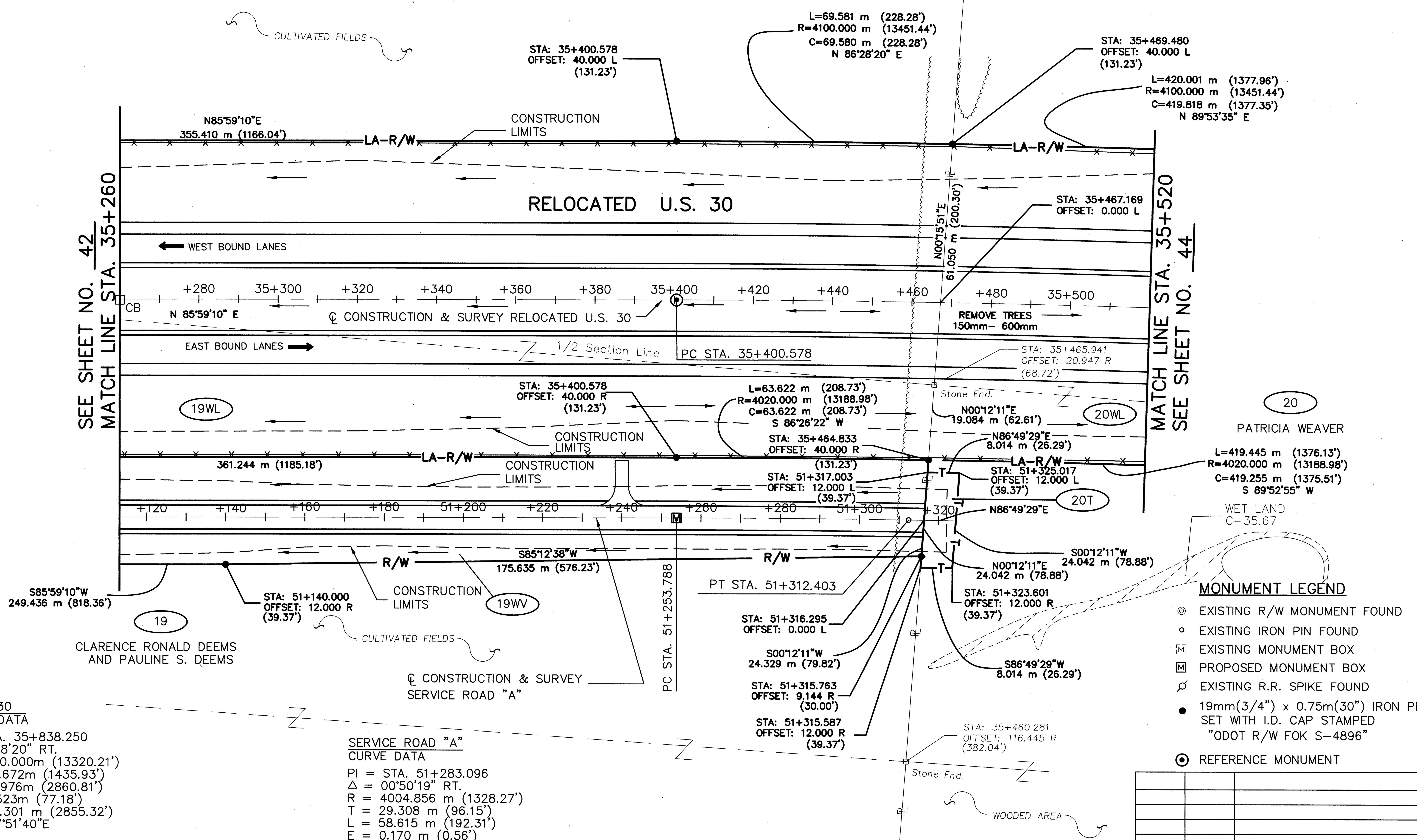
SECTION 22
JACKSON TOWNSHIP
CRAWFORD COUNTY
T-20 N, R-20 W

metric units

RATIO 1:500
HORIZONTAL SCALE IN METERS

PID NO. 16284

RIGHT OF WAY PLAN RELOCATED U.S. 30
STA. 35+260 TO STA. 35+520



MONUMENT LEGEND
- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

U.S. 30
CURVE DATA
PI = STA. 35+838.250
Δ = 12°18'20" RT.
R = 4060.000m (13320.21')
T = 437.672m (1435.93')
L = 871.976m (2860.81')
E = 23.523m (77.18')
C = 870.301 m (2855.32')
S87°51'40"E

SERVICE ROAD "A"
CURVE DATA
PI = STA. 51+283.096
Δ = 00°50'19" RT.
R = 4004.856 m (1328.27')
T = 29.308 m (96.15')
L = 58.615 m (192.31')
E = 0.170 m (0.56')
C = 58.615 m (192.3')
N86°24'19"E

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

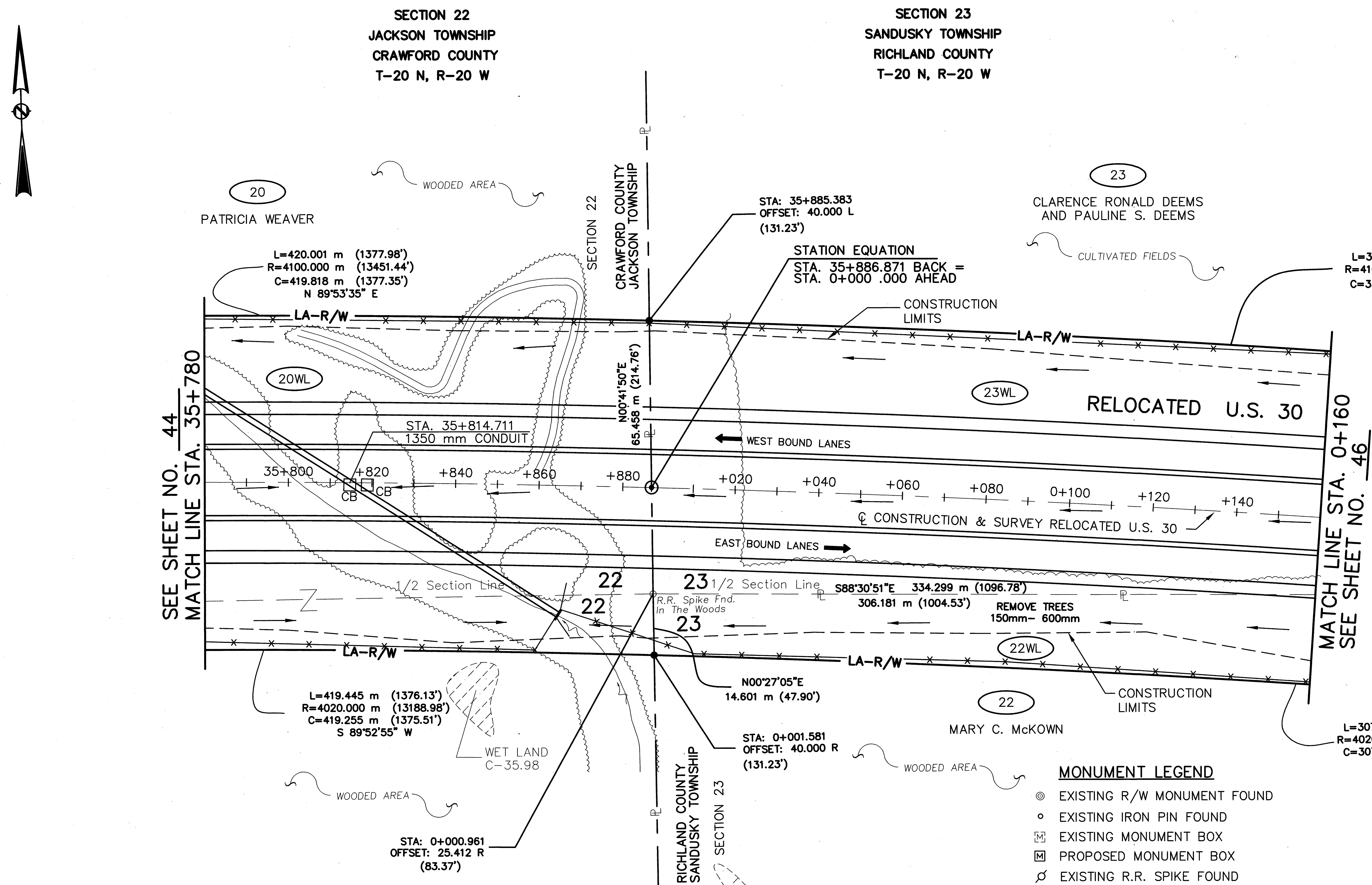
REV	DATE	DESCRIPTION

DATE OF COMPLETED 11/06/2000

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

1:500M RP109.DWG 3 NOVEMBER 2000


metric units
RATIO 1:500
HORIZONTAL SCALE IN METERS
0 5 10 20
PID NO. 16284
SECTION 22
JACKSON TOWNSHIP
CRAWFORD COUNTY
T-20 N, R-20 W
20
PATRICIA WEAVER
WOODED AREA
CONSTRUCTION LIMITS
L=420.001 m (1377.96')
R=4100.000 m (13451.44')
C=419.818 m (1377.35')
N 89°53'35" E
LA-R/W
20WL
RELOCATED U.S. 30
REMOVE TREES 150mm- 600mm
REMOVE TREES 150mm- 600mm
1350 mm CONDUIT
L=7.069 m (23.19')
R=4100.000 m (13451.44')
C=7.069 m (23.19')
N 88°57'46" W
SEE SHEET NO. 43
MATCH LINE STA. 35+520
WEST BOUND LANES
+540
+560
+580
35+600
+620
CB
+640
+660
+680
35+700
+720
+740
+760
N 85°59'10" E
℄ CONSTRUCTION & SURVEY RELOCATED U.S. 30
WET LAND C-35.87
EAST BOUND LANES
MATCH LINE STA. 35+780
SEE SHEET NO. 45
WET LAND C-35.66
1/2 Section Line
LA-R/W
LA-R/W
WOODED AREA
CONSTRUCTION LIMITS
L=419.445 m (1376.13')
R=4020.000 m (13188.98')
C=419.255 m (1375.51')
S 89°52'55" W
WET LAND C-35.67
CULTIVATED FIELDS
MONUMENT LEGEND
EXISTING R/W MONUMENT FOUND
EXISTING IRON PIN FOUND
EXISTING MONUMENT BOX
PROPOSED MONUMENT BOX
EXISTING R.R. SPIKE FOUND
19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
REFERENCE MONUMENT
WETLAND SITES SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES AND EQUIPMENT BY THE INSTALLATION OF TEMPORARY FENCING. FOR ADDITIONAL INFORMATION SEE GENERAL NOTE "ENVIRONMENTAL SENSITIVE AREAS" ON SHEET NO. 24 OF 712.
FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2
REV
DATE
DESCRIPTION
DATE OF COMPLETED 11/06/2000
RIGHT OF WAY PLAN RELOCATED U.S. 30
STA. 35+520 TO STA. 35+780
CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)
44/95
660/712
1:500M
RP110.DWG 3 NOVEMBER 2000
CRA/RIC-30-33.500 (20.82)/0.000 (0.00)



MONUMENT LEGEND

- ◎ EXISTING R/W MONUMENT FOUND
- ○ EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- ● 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- ⊙ REFERENCE MONUMENT

U.S. 30
CURVE DATA

PI = STA. 35+838.250
Δ = 12°18'20" RT.
R = 4060.000m (13320.21')
T = 437.672m (1435.93')
L = 871.976m (2860.81')
E = 23.523m (77.18')
C = 870.301 m (2855.32')
S87°51'40"E

WETLAND SITES SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES AND EQUIPMENT BY THE INSTALLATION OF TEMPORARY FENCING. FOR ADDITIONAL INFORMATION SEE GENERAL NOTE "ENVIRONMENTAL SENSITIVE AREAS" ON SHEET NO. 24 OF 712.

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1 & 2

metric units

RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

PID NO. 16284

RIGHT OF WAY PLAN RELOCATED U.S. 30
STA. 35+780 TO STA. 0+160

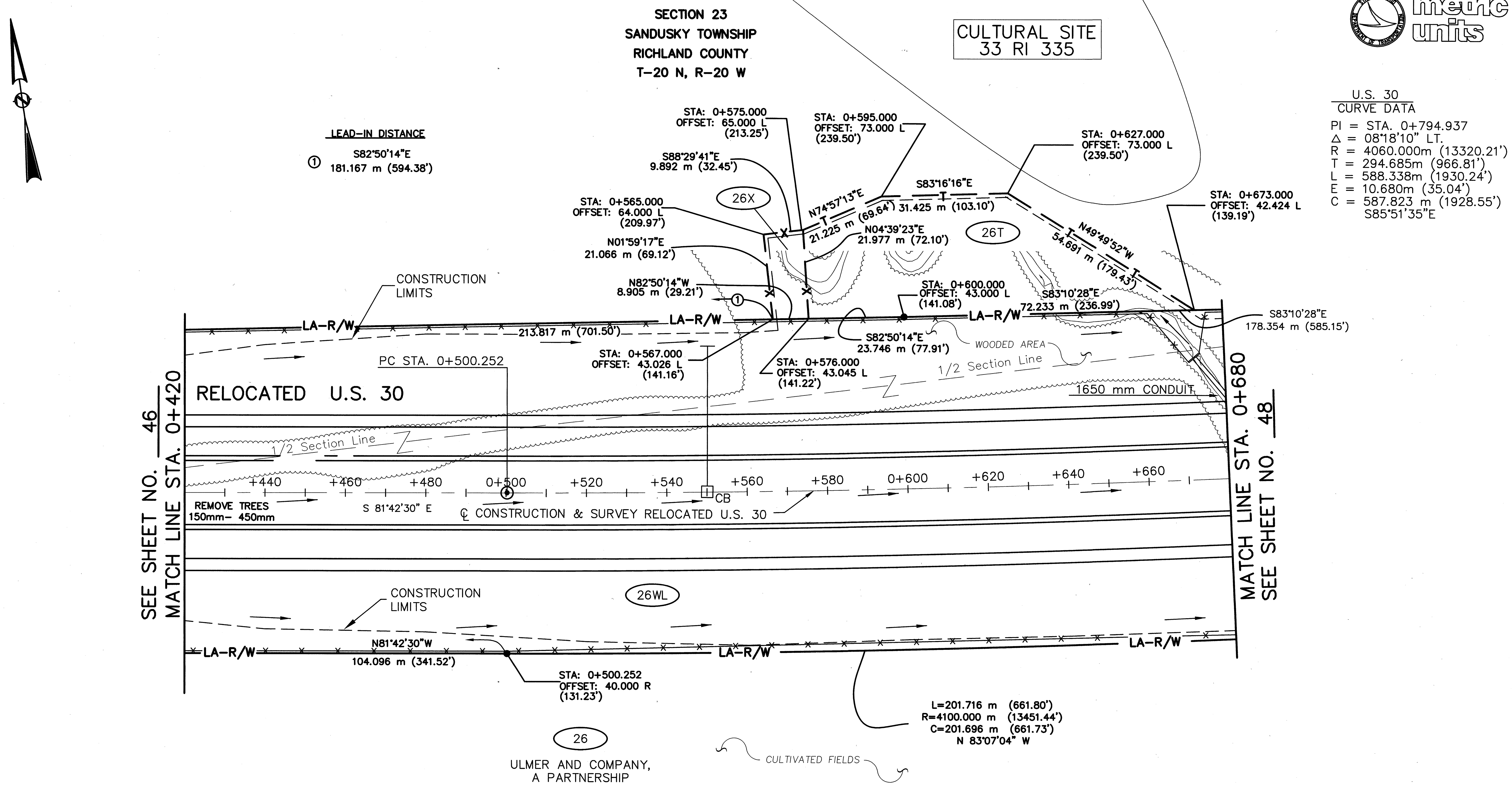
CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

REV	DATE	DESCRIPTION

DATE OF COMPLETED 11/06/2000

1:500M
RP111.DWG 3 NOVEMBER 2000

	PARCEL 24WV	
J	L=15.312 m (50.26')	
	R=4100.000 m (13451.44')	
	C=15.312 m (50.24')	
	N81°49'22"W	
	PARCEL 25E	
AG	L=73.175 m (240.07')	
	R=4020.000 m (13188.98')	
	C=73.174 m (240.07')	
	S82°13'47"E	
	PARCEL 26WV-1	
R	L=29.441 m (96.59')	
	R=22.860 m (75.00')	
	C=27.448 m (90.05')	
	S45°11'11"W	



CULTURAL SITES SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES AND EQUIPMENT BY THE INSTALLATION OF TEMPORARY FENCING. FOR ADDITIONAL INFORMATION SEE GENERAL NOTE "ENVIRONMENTAL SENSITIVE AREAS" ON SHEET NO. 24 OF 712.

MONUMENT LEGEND

- ◎ EXISTING R/W MONUMENT FOUND
- ∘ EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- ● 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- ⦿ REFERENCE MONUMENT

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

metric units

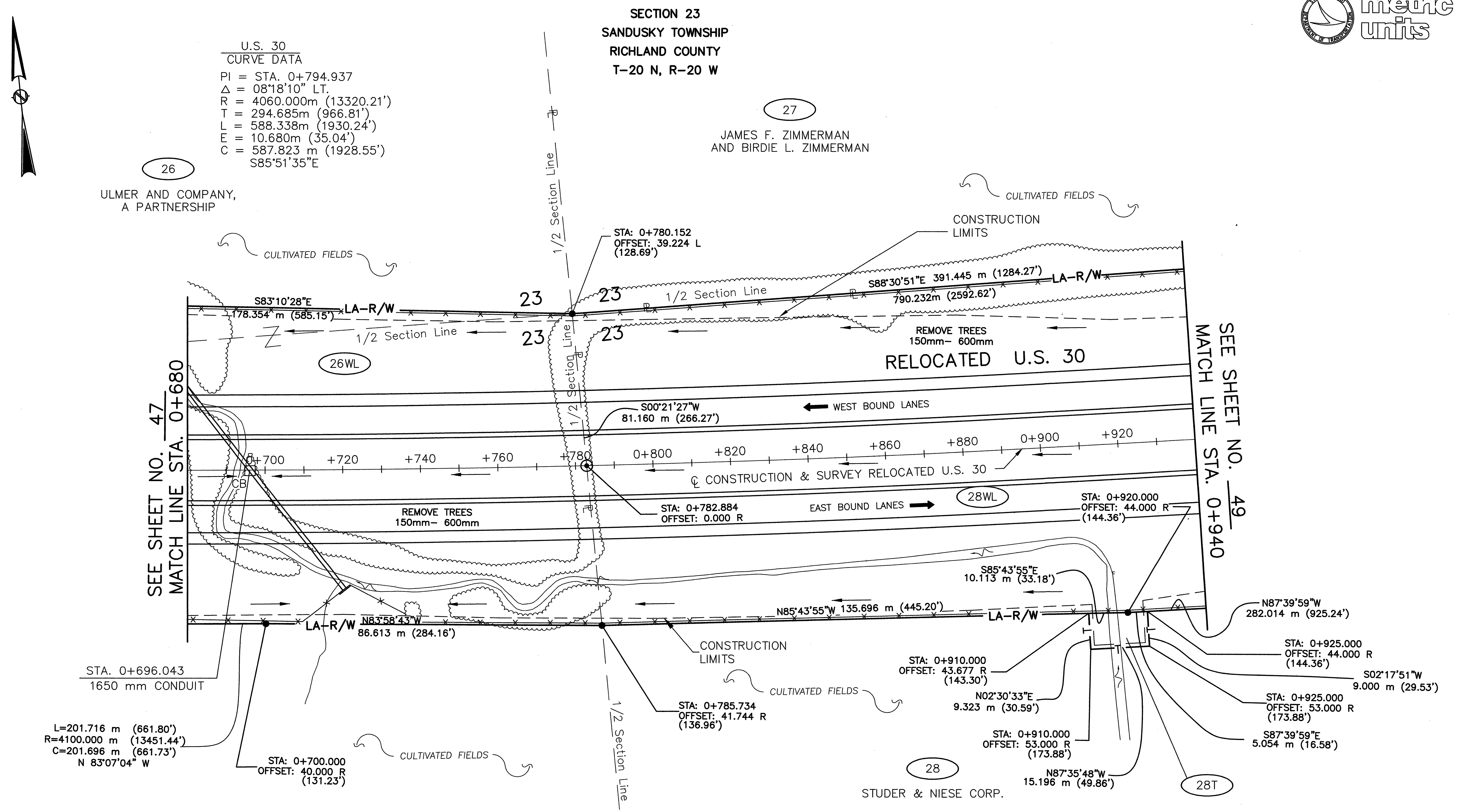
RATIO 1:500
HORIZONTAL SCALE IN METERS

PID NO. 16284

RIGHT OF WAY PLAN RELOCATED U.S. 30
STA. 0+420 TO STA. 0+680

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

REV	DATE	DESCRIPTION
DATE OF COMPLETED		11/06/2000



MONUMENT LEGEND

- ◎ EXISTING R/W MONUMENT FOUND
- ○ EXISTING IRON PIN FOUND
- [M] EXISTING MONUMENT BOX
- [M] PROPOSED MONUMENT BOX
- Ø EXISTING R.R. SPIKE FOUND
- ● 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- ⊙ REFERENCE MONUMENT

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

metric units

RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

PID NO. 16284

RIGHT OF WAY PLAN RELOCATED U.S. 30
STA. 0+680 TO STA. 0+940

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

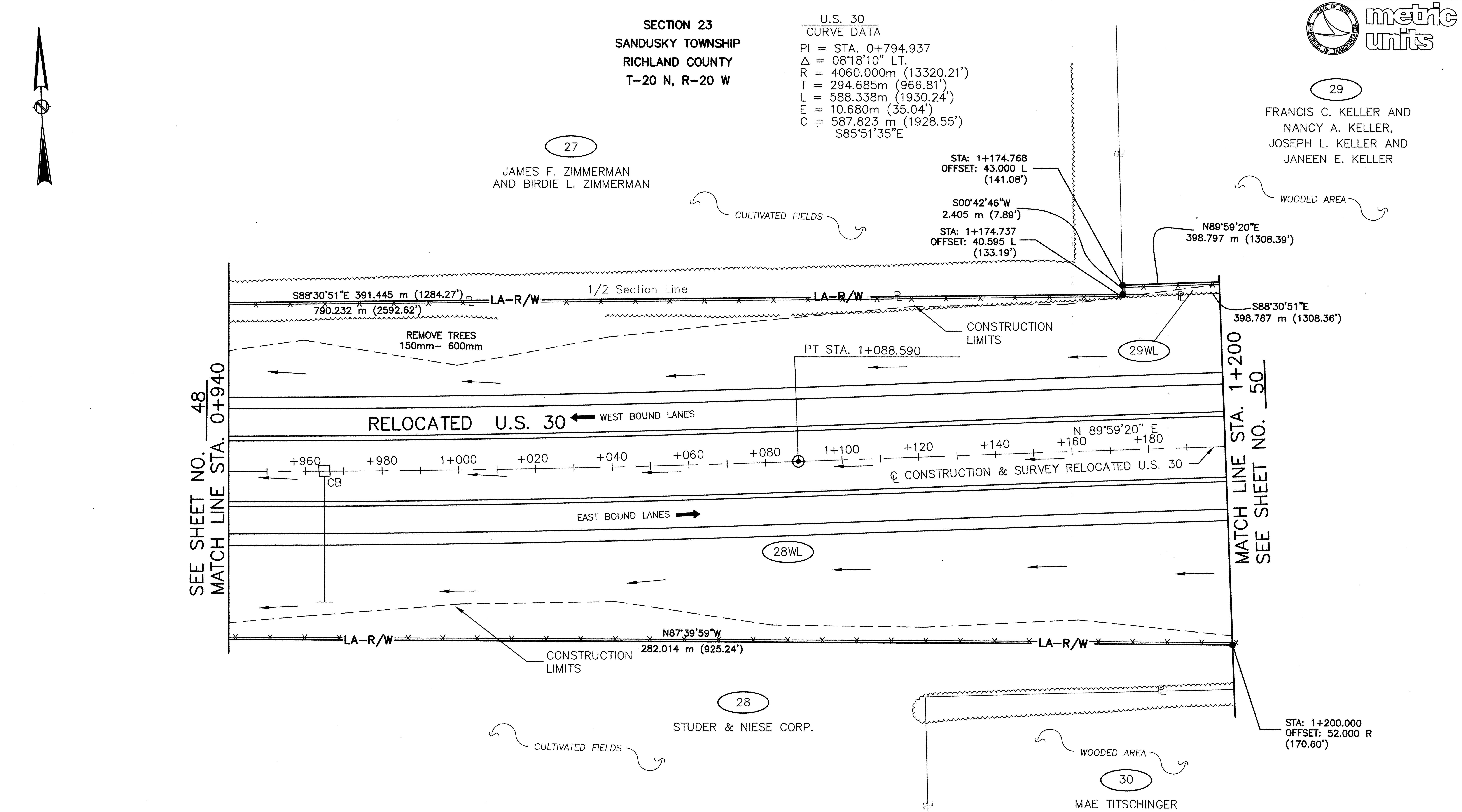
REV	DATE	DESCRIPTION
DATE OF COMPLETED	1-14-2000	

48/95

664/712

1:500M
RP114.DWG 12 JANUARY 2000

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)



MONUMENT LEGEND

- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

FOR CENTERLINE MONUMENT LOCATION
SEE SHEET NO. 1&2

REV	DATE	DESCRIPTION

DATE OF COMPLETED 1-14-2000

RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

PID NO. 16284

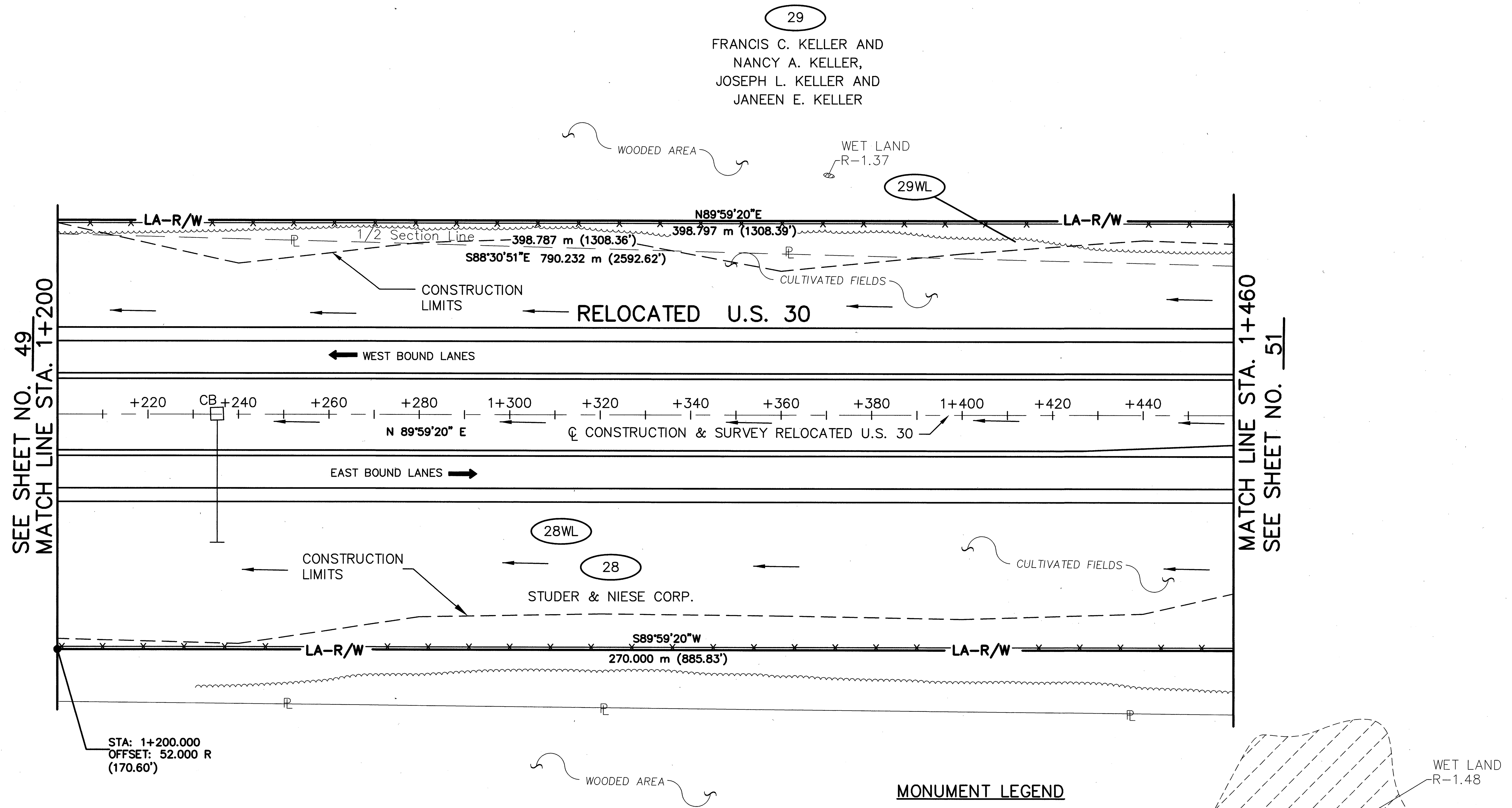
RIGHT OF WAY PLAN RELOCATED U.S. 30
STA. 0+940 TO STA. 1+200

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

1:500M
RP115.DWG 12 JANUARY 2000

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

SECTION 23
SANDUSKY TOWNSHIP
RICHLAND COUNTY
T-20 N, R-20 W



WETLAND SITES SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES AND EQUIPMENT BY THE INSTALLATION OF TEMPORARY FENCING. FOR ADDITIONAL INFORMATION SEE GENERAL NOTE "ENVIRONMENTAL SENSITIVE AREAS" ON SHEET NO. 24 OF 712.

MONUMENT LEGEND

- ◎ EXISTING R/W MONUMENT FOUND
- ○ EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- ● 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- ⦿ REFERENCE MONUMENT

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1 & 2

REV	DATE	DESCRIPTION

DATE OF COMPLETED 1/14/2000

metric units

RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

PID NO. 16284

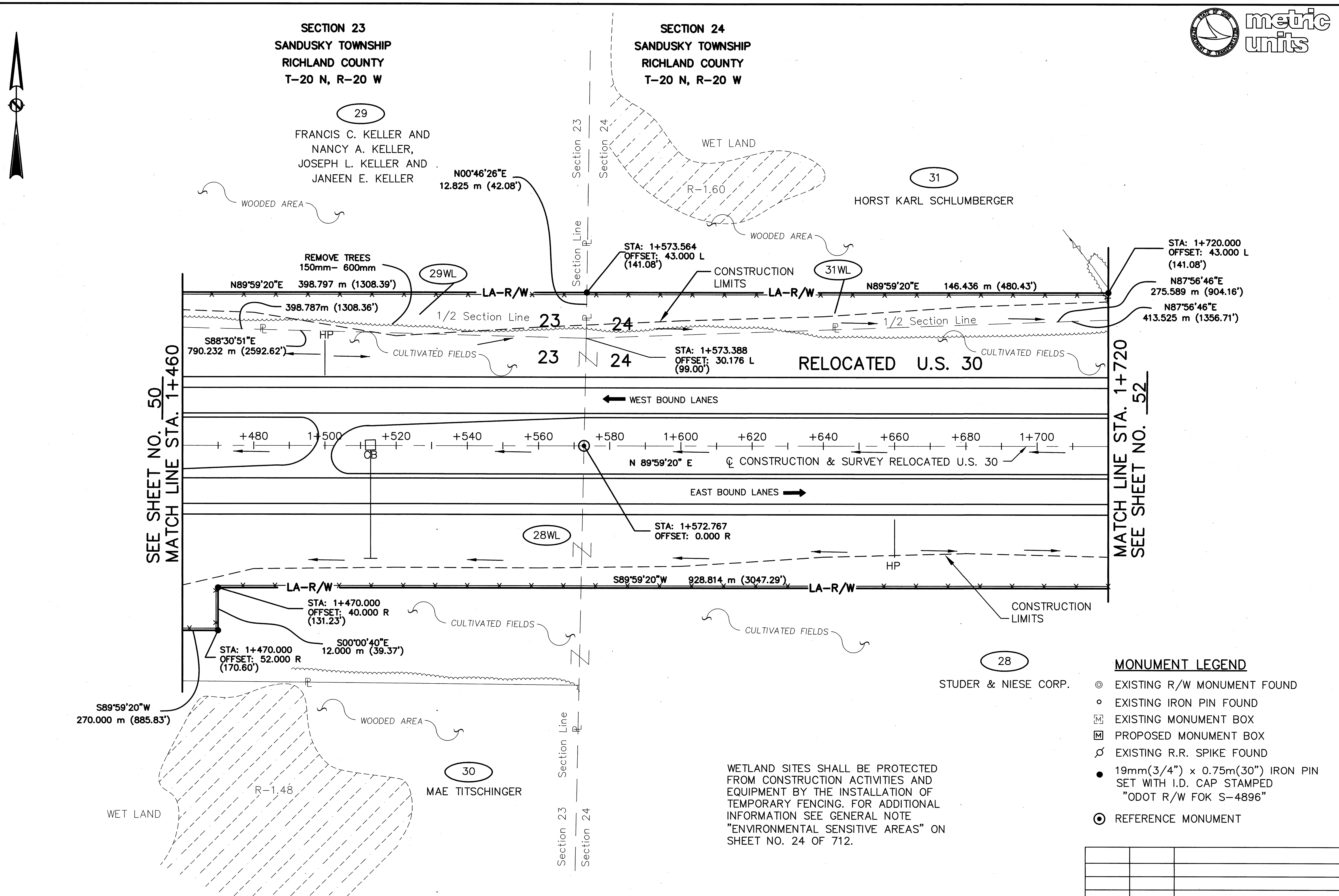
RIGHT OF WAY PLAN RELOCATED U.S. 30
STA. 1+200 TO STA. 1+460

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

50/95

666/712

1:500M
RP116.DWG 3 NOVEMBER 2000



WETLAND SITES SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES AND EQUIPMENT BY THE INSTALLATION OF TEMPORARY FENCING. FOR ADDITIONAL INFORMATION SEE GENERAL NOTE "ENVIRONMENTAL SENSITIVE AREAS" ON SHEET NO. 24 OF 712.

MONUMENT LEGEND

- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1 & 2

REV	DATE	DESCRIPTION

DATE OF COMPLETED 11/06/2000

metric units

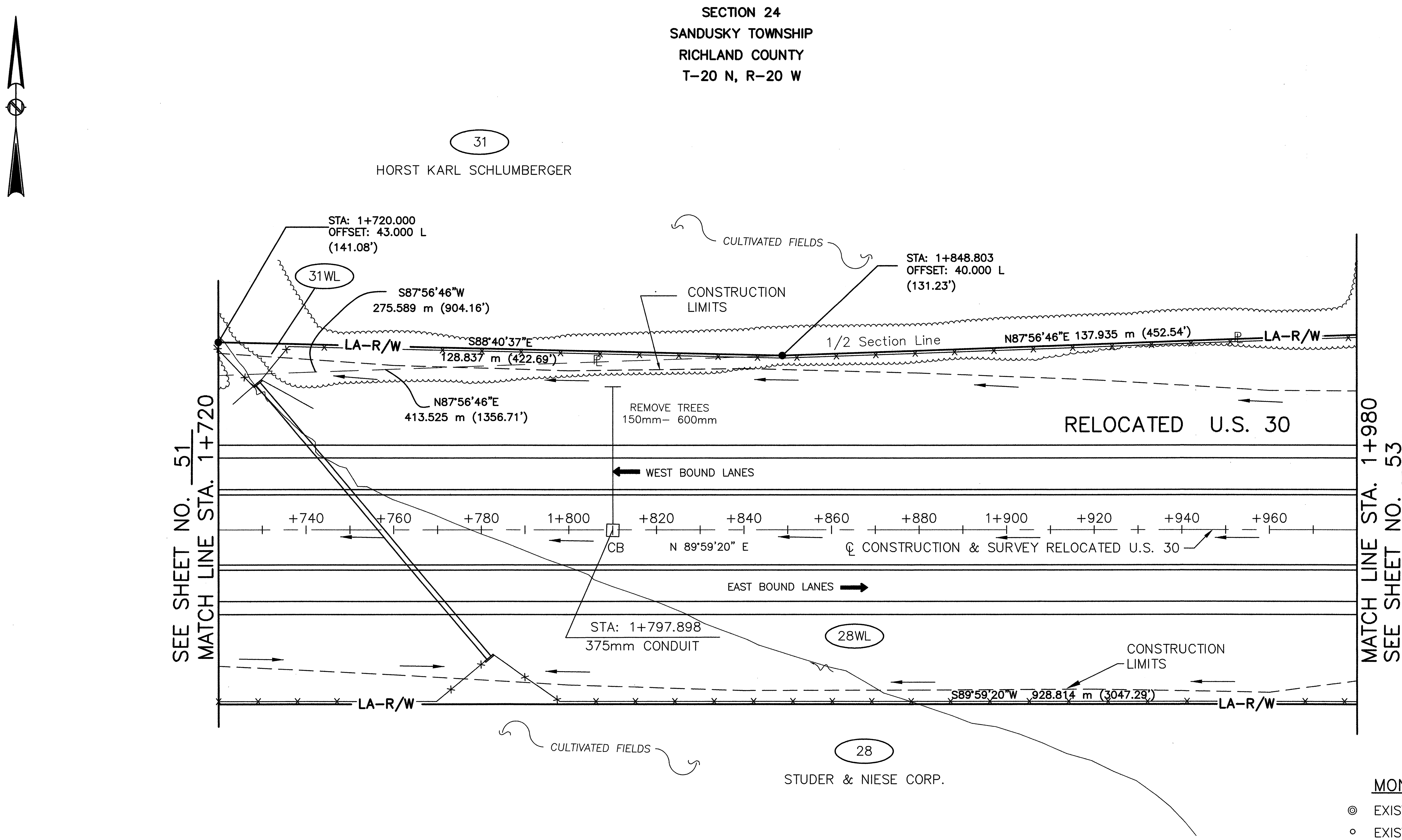
RATIO 1:500
HORIZONTAL SCALE IN METERS

PID NO. 16284

RIGHT OF WAY PLAN RELOCATED U.S. 30
STA. 1+460 TO STA. 1+720

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

SECTION 24
SANDUSKY TOWNSHIP
RICHLAND COUNTY
T-20 N, R-20 W



metric units

RATIO 1:500
HORIZONTAL SCALE IN METERS

PID NO. 16284

MONUMENT LEGEND

- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

FOR CENTERLINE MONUMENT LOCATION
SEE SHEET NO. 1 & 2

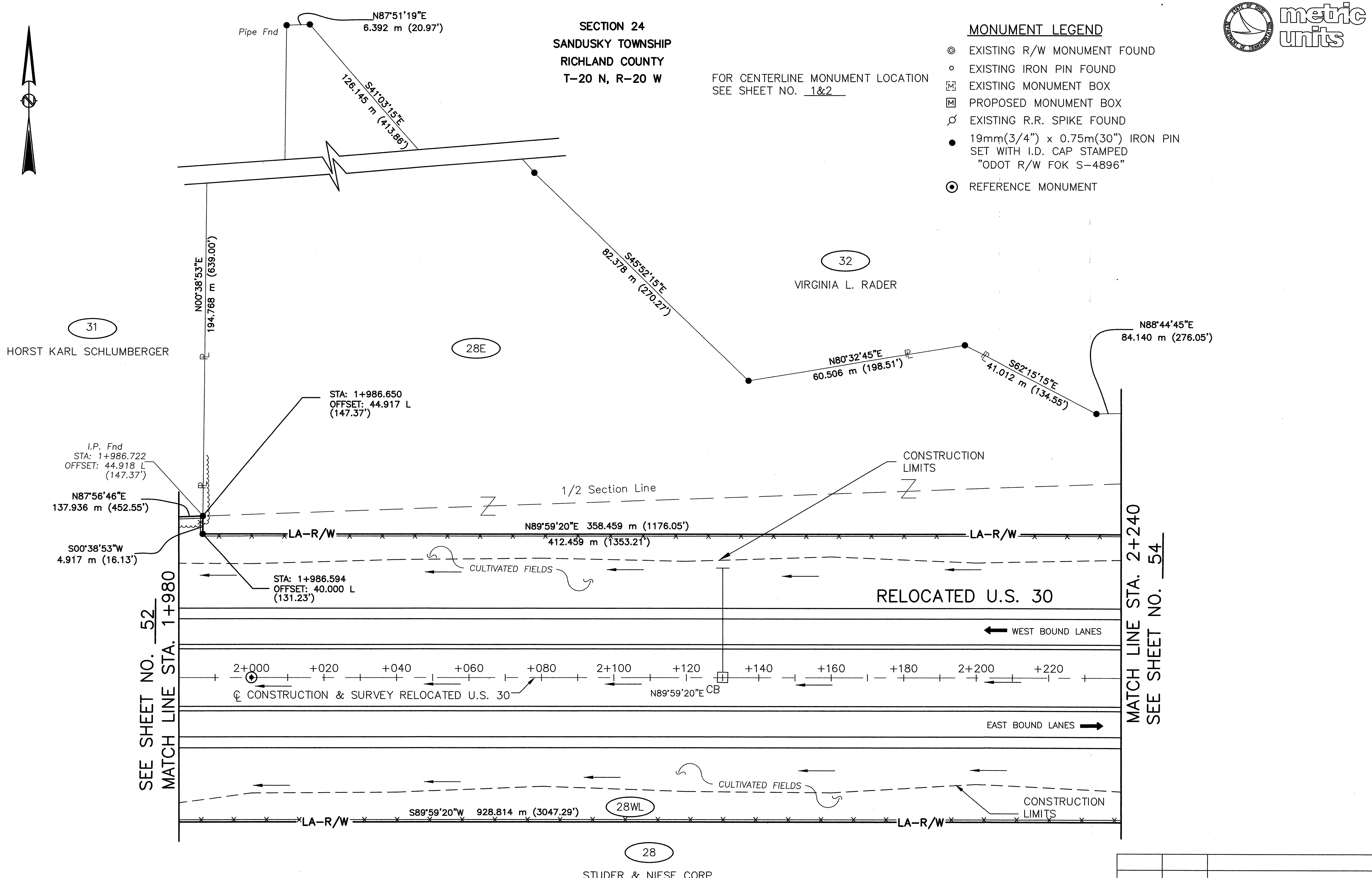
REV	DATE	DESCRIPTION

DATE OF COMPLETED 1-14-2000

RIGHT OF WAY PLAN RELOCATED U.S. 30
STA. 1+720 TO STA. 1+980

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

1:500M
RP118.DWG 12 JANUARY 2000



RATIO 1:500
HORIZONTAL
SCALE IN METERS

16284

RIGHT OF WAY PLAN RELOCATED U.S. 30
STA. 1+980 TO STA. 2+240

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

53/95

669/712

REV	DATE	DESCRIPTION

DATE OF COMPLETED 1-14-2000

1:500M PREL RW
RP119.DWG 12 JANUARY 2000

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

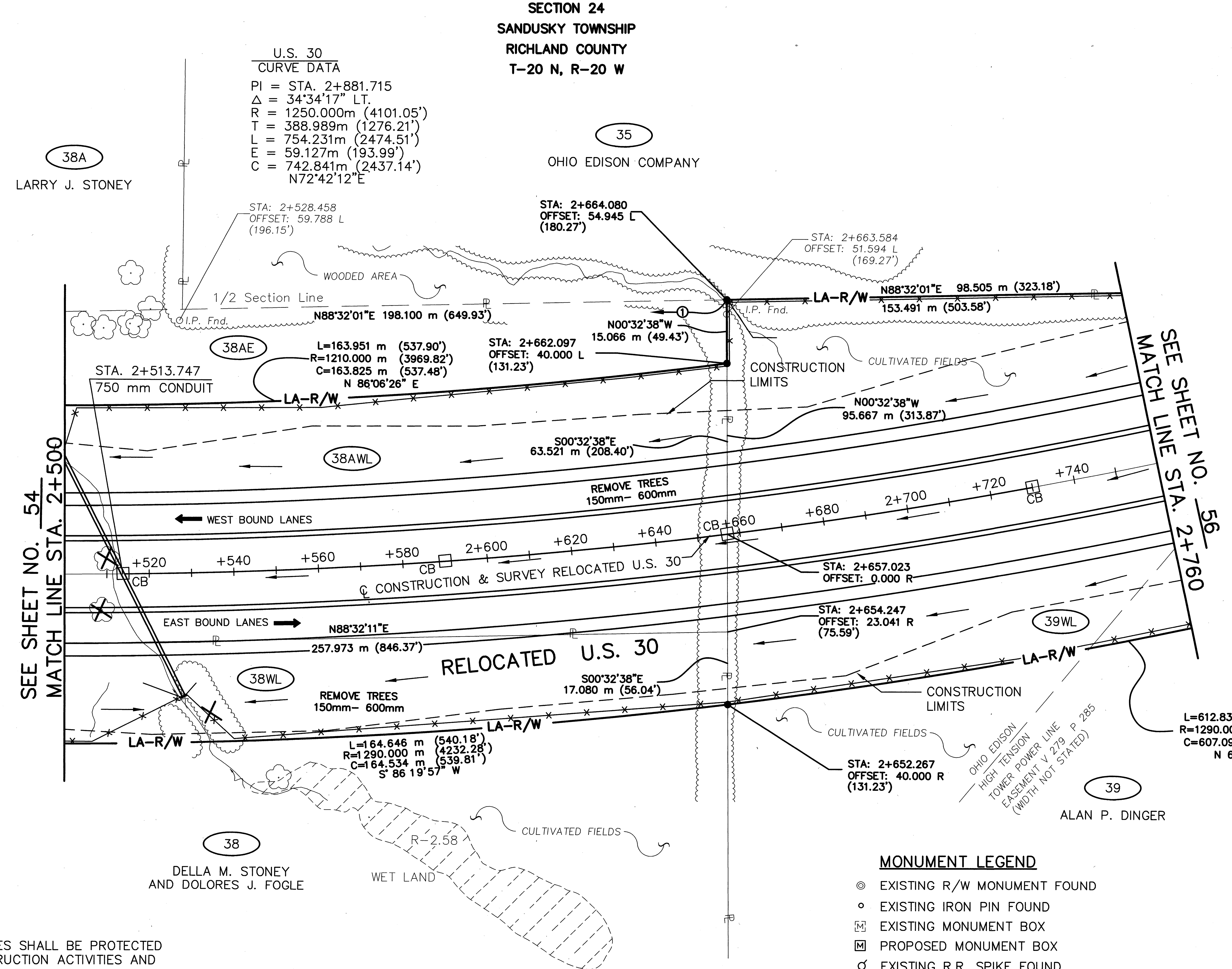
1:500M
RP120.DWG 3 NOVEMBER 2000

SECTION 24
SANDUSKY TOWNSHIP
RICHLAND COUNTY
T-20 N, R-20 W

U.S. 30
CURVE DATA
PI = STA. 2+881.715
Δ = 34°34'17" LT.
R = 1250.000m (4101.05')
T = 388.989m (1276.21')
L = 754.231m (2474.51')
E = 59.127m (193.99')
C = 742.841m (2437.14')
N72°42'12"E

metric units

LEAD-IN DISTANCE
① N88°32'01"E
257.207 m (843.86')



WETLAND SITES SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES AND EQUIPMENT BY THE INSTALLATION OF TEMPORARY FENCING. FOR ADDITIONAL INFORMATION SEE GENERAL NOTE "ENVIRONMENTAL SENSITIVE AREAS" ON SHEET NO. 24 OF 712.

MONUMENT LEGEND

- ◎ EXISTING R/W MONUMENT FOUND
- ∘ EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- ● 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- ⊙ REFERENCE MONUMENT

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

REV	DATE	DESCRIPTION

DATE OF COMPLETED 11/03/2000

RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

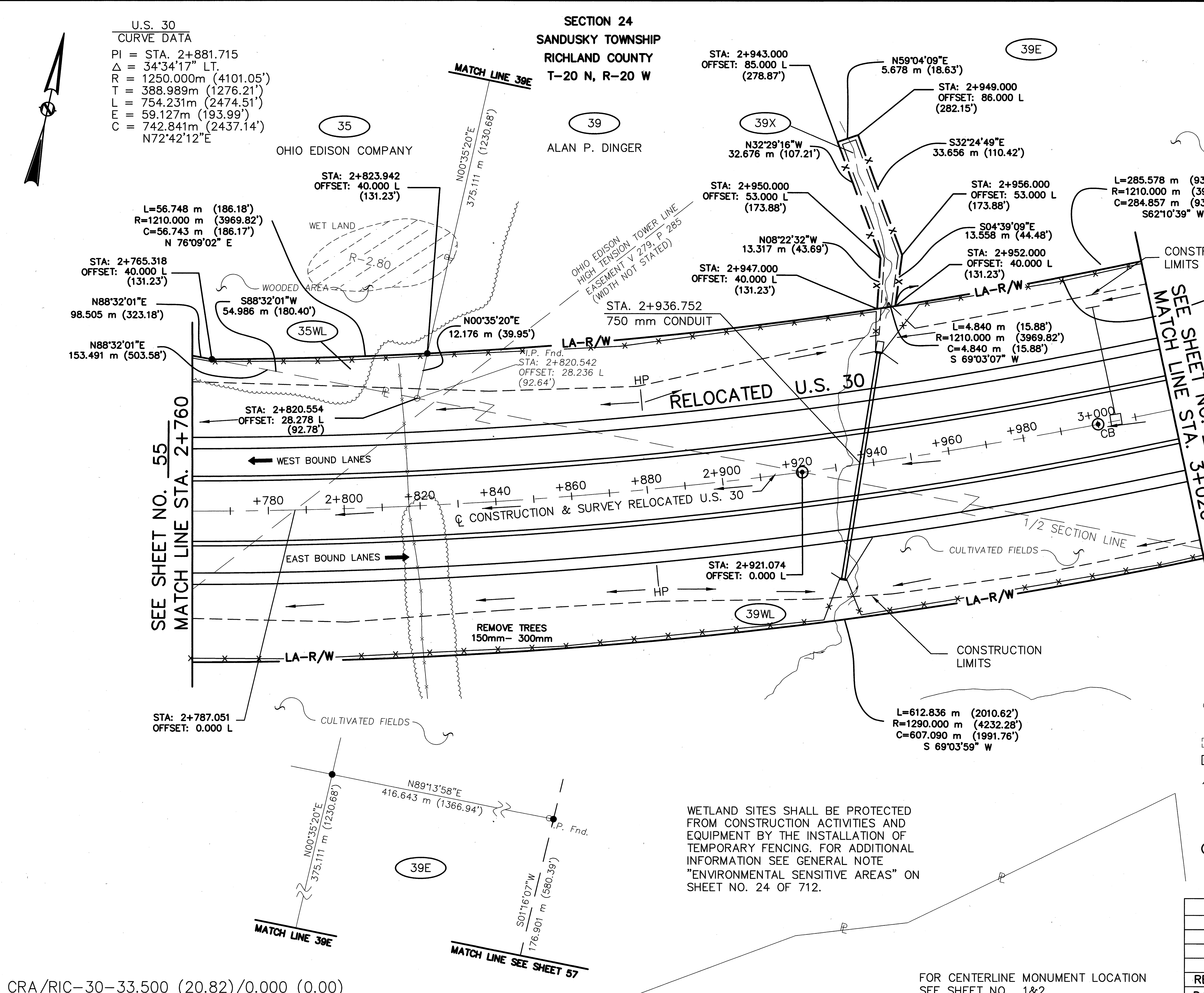
PID NO. 16284

RIGHT OF WAY PLAN RELOCATED U.S. 30
STA. 2+500 TO STA. 2+760

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

1:500M
RP121.DWG 3 NOVEMBER 2000

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)



WETLAND SITES SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES AND EQUIPMENT BY THE INSTALLATION OF TEMPORARY FENCING. FOR ADDITIONAL INFORMATION SEE GENERAL NOTE "ENVIRONMENTAL SENSITIVE AREAS" ON SHEET NO. 24 OF 712.

metric units

RATIO 1:500
HORIZONTAL SCALE IN METERS

PID NO. 16284

MONUMENT LEGEND

- ◎ EXISTING R/W MONUMENT FOUND
- ∘ EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- ● 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- ⊙ REFERENCE MONUMENT

RIGHT OF WAY PLAN RELOCATED U.S. 30
STA. 2+760 TO STA. 3+020

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

56/95

672/712

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

REV	DATE	DESCRIPTION

DATE OF COMPLETED 11/06/2000

1:500M
RP122.DWG 3 NOVEMBER 2000


SECTION 24
SANDUSKY TOWNSHIP
RICHLAND COUNTY
T-20 N, R-20 W
U.S. 30
CURVE DATA
PI = STA. 2+881.716
Δ = 34°34'17" LT.
R = 1250.000m (4101.05')
T = 388.989m (1276.21')
L = 754.231m (2474.51')
E = 59.127m (193.99')
C = 742.841m (2437.14')
N72°42'12"E
39
ALAN P. DINGER
39E
metric units
MATCH LINE SEE SHEET 56
STA: 3+303.879
OFFSET: 40.000 L
(131.23')
STA: 3+246.957
OFFSET: 40.000 L
(131.23')
N55°25'03"E
56.922 m (186.75')
LA-R/W
CONSTRUCTION LIMITS
CULTIVATED FIELDS
PT STA. 3+246.957
L=285.578 m (936.74')
R=1210.000 m (3969.82')
C=284.857 m (934.57')
S62°10'39" W
L=409.478 m (1343.43')
R=1210.000 m (3969.82')
C=407.527 m (1337.03')
N 65°06'44" E
RELOCATED U.S.30
WEST BOUND LANES
EAST BOUND LANES
℄ CONSTRUCTION & SURVEY RELOCATED U.S. 30
+040 +060 +080 3+100 +120 +140 +160 +180 3+200 +220 +240 +260 CB
STA: 3+274.976
OFFSET: 0.000 R
MATCH LINE STA. 3+274.976
SEE SHEET NO. 58
SEE SHEET NO. 56
MATCH LINE STA. 3+020
Section 24 Sandusky Township
Springfield Township Setion 19
176.901 m (580.39')
98.699 m (323.82')
S01°16'07"W
39WL
REMOVE TREES
150mm- 450mm
STA: 3+246.100
OFFSET: 40.000 R
(131.23')
L=612.836 m (2010.62')
R=1290.000 m (4232.28')
C=607.090 m (1991.76')
S 69°03'59" W
I.P. Fnd.
STA: 3+087.547
OFFSET: 47.265 R
(155.07')
N01°16'07"E
106.790 m (350.36')
205.489 m (674.18')
GRASS
40
LARRY S. MOONEY AND
CHARLENE MOONEY
STA: 3+086.660
OFFSET: 85.688 R
(281.13')
1/2 Section Line
Section 24 Sandusky Township
Township Line & Section Line
Springfield Township Setion 19
STA: 3+189.401
OFFSET: 128.018 R
(420.01')
24 19
SECTION 19
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY
T-21 N, R-19 W
MONUMENT LEGEND
EXISTING R/W MONUMENT FOUND
EXISTING IRON PIN FOUND
EXISTING MONUMENT BOX
PROPOSED MONUMENT BOX
EXISTING R.R. SPIKE FOUND
19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
REFERENCE MONUMENT
FOR CENTERLINE MONUMENT LOCATION
SEE SHEET NO. 1 & 2
REV DATE DESCRIPTION
DATE OF COMPLETED 1-14-2000
RATIO 1:500
HORIZONTAL SCALE IN METERS
PID NO. 16284
RIGHT OF WAY PLAN RELOCATED U.S. 30
STA. 3+020 TO STA. 3+274.976
CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)
57/95
673/712
1:500M
RP123.DWG 12 JANUARY 2000
CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

SECTION 24
SANDUSKY TOWNSHIP
RICHLAND COUNTY
T-20 N, R-20 W
SECTION 19
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY
T-21 N, R-19 W
metric units
Parcel 43E-1 Sold Larry S. and Charlene Mooney
01/30/07
OR Book 1814 Page 598
Recorded 01/04/2008
MATCH LINE 43E-1
43E-1
N87°38'34"W
147.669 m (484.48')
S00°37'25"E 211.352 m (693.41')
Section 24
Sandusky Township
Springfield Township
Section 19
Township Line & Section Line
STA: 3+303.879
OFFSET: 40.000 L
(131.23')
MATCH LINE STA. 3+274.976
SEE SHEET NO. 57
43
JACK A. SPANGLER AND
BETTY JEAN SPANGLER
43WL
43X
CONSTRUCTION LIMITS
HP
LA-R/W
N55°25'03"E
204.121 m (669.69')
527.771 m (1731.53')
RELOCATED U.S. 30
N01°16'07"E
98.699 m (323.82')
WEST BOUND LANES
+280
3+300
+320
+340
+360
+380
3+400
+420
+440
+460
+480
3+500
N 55°25'03" E
℄ CONSTRUCTION & SURVEY RELOCATED U.S. 30
STA: 3+274.976
OFFSET: 0.000 R
EAST BOUND LANES
MATCH LINE STA. 3+510
SEE SHEET NO. 59
STA: 3+491.000
OFFSET: 105.000 L
(344.49')
N41°22'53"E
4.123 m (13.53')
STA: 3+487.000
OFFSET: 104.000 L
(341.21')
N54°19'46"W
41.437 m (135.95')
STA: 3+501.000
OFFSET: 65.000 L
(213.25')
N50°13'29"W
25.962 m (85.18')
STA: 3+508.000
OFFSET: 40.000 L
(131.23')
S57°46'52"E
45.695 m (149.92')
STA: 3+509.000
OFFSET: 63.000 L
(206.69')
S49°12'12"E
23.770 m (77.98')
S55°25'03"W
7.000 m (22.97')
WETLAND SITES SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES AND EQUIPMENT BY THE INSTALLATION OF TEMPORARY FENCING. FOR ADDITIONAL INFORMATION SEE GENERAL NOTE "ENVIRONMENTAL SENSITIVE AREAS" ON SHEET NO. 24 OF 712.
REMOVE TREES
150mm- 450mm
S55°25'03"W
173.543 m (569.37')
S00°37'25"E
10.780 m (35.37')
44WL
N87°48'56"W
14.938 m (49.01')
460mm MAPLES
EXIST WOVEN WIRE FENCE
S55°25'03"W
393.657 m (1291.53')
STA: 3+246.100
OFFSET: 40.000 R
(131.23')
WET LAND
R-3.31
CULTIVATED FIELDS
STA: 3+437.604
OFFSET: 40.000 R
(131.23')
43E
S55°25'03"W
17.988 m (59.02')
STA: 3+425.571
OFFSET: 31.059 R
(101.90')
STA: 3+419.616
OFFSET: 40.000 R
(131.23')
NOTE:
REMOVE ALL FENCE WITHIN RIGHT OF WAY BETWEEN BEGIN WORK STA. RT 3+420 TO ENDWORK STA. 3+438.
Parcel 43-E1 Sold to Larry S. and Charlene Mooney
01/30/07
OR Book 1814 Page 598
Recorded 01/04/08
Parcel 43E Sold to Inland Property Management
01/30/07
OR Book 1733 Page 260
Recorded 02/22/2007
EXIST WOVEN WIRE FENCE
N87°48'56"W
320.381 m (1051.12')
40
LARRY S. MOONEY AND
CHARLENE MOONEY
N01°16'07"E
106.790 m (350.36')
43E-1
S00°37'25"E
211.352 m (693.41')
44
RONALD DAVID HENRY
AND REGINA HENRY
MONUMENT LEGEND
EXISTING R/W MONUMENT FOUND
EXISTING IRON PIN FOUND
EXISTING MONUMENT BOX
PROPOSED MONUMENT BOX
EXISTING R.R. SPIKE FOUND
19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
REFERENCE MONUMENT
1/2 Section Line
24
24
19
19
I.P. Fnd.
STA: 3+189.401
OFFSET: 128.018 R
(420.01')
N87°38'34"W
147.669m (484.48')
MATCH LINE 43E-1
FOR CENTERLINE MONUMENT LOCATION
SEE SHEET NO. 1&2
CRA/RIC-30-33.500 (20.82)/0.000 (0.00)
1:500M
RP124.DWG 3 NOVEMBER 2000
SLR | 01/30/08 | Sale of PCLS 43-E & 43-E1
REV | DATE | DESCRIPTION
DATE OF COMPLETED 11/06/2000
RATIO 1:500
HORIZONTAL SCALE IN METERS
PID NO. 16284
RIGHT OF WAY - RELOCATED U.S. 30
STA. 3+274.976 TO STA. 3+510
CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)
58/95
674/712

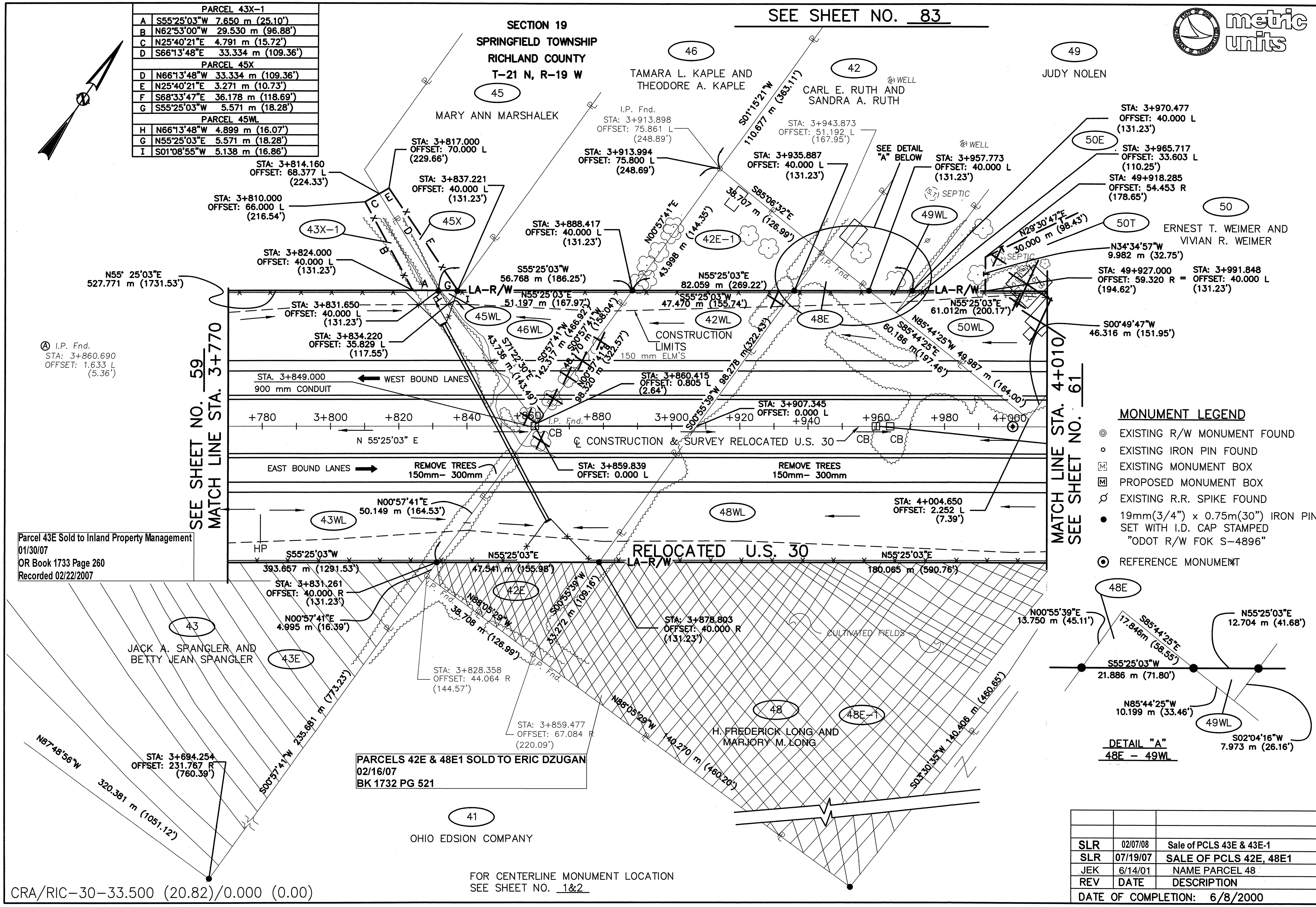

SECTION 19
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY
T-21 N, R-19 W
metric units
43
JACK A. SPANGLER AND
BETTY JEAN SPANGLER
S49°12'12"E
23.770 m (77.98')
43X
S55°25'03"W
7.000 m (22.97')
STA: 3+515.000
OFFSET: 40.000 L
(131.23')
LA-R/W
CULTIVATED FIELDS
N55°25'03"E
527.771 m (1731.53')
CONSTRUCTION
LIMITS
HP
43WL
RELOCATED U.S. 30
STA. 3+521.289
900 mm CONDUIT
WEST BOUND LANES
+520
+540
+560
+580
3+600
+620
+640
+660
+680
3+700
+720
+740
+760
CB
N 55°25'03" E
℄ CONSTRUCTION & SURVEY RELOCATED U.S. 30
EAST BOUND LANES
SEE SHEET NO. 58
MATCH LINE STA. 3+510
MATCH LINE STA. 3+770
SEE SHEET NO. 60
S55°25'03"W
393.657 m (1291.53')
Parcel 43E Sold to Inland Property Management
01/30/07
OR Book 1733 Page 260
Recorded 02/22/2007
43E
N87°48'56"W 320.381 m (1051.12')
44
RONALD DAVID HENRY
AND REGINA G. HENRY
MONUMENT LEGEND
EXISTING R/W MONUMENT FOUND
EXISTING IRON PIN FOUND
EXISTING MONUMENT BOX
PROPOSED MONUMENT BOX
EXISTING R.R. SPIKE FOUND
19mm(3/4") x 0.75m(30") IRON PIN
SET WITH I.D. CAP STAMPED
"ODOT R/W FOK S-4896"
REFERENCE MONUMENT
FOR CENTERLINE MONUMENT LOCATION
SEE SHEET NO. 1 & 2
SLR 02/07/2008 SALE OF PCLS 43E & 43E-1
REV DATE DESCRIPTION
DATE OF COMPLETED 1-14-2000
RATIO 1:500
HORIZONTAL
SCALE IN METERS
PID NO. 16284
RIGHT OF WAY - RELOCATED U.S. 30
STA. 3+510 TO STA. 3+770
CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)
59/95
675/712
1:500M
RP125.DWG 12 JANUARY 2000
CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

	PARCEL 43X-1
A	S55°25'03"W 7.650 m (25.10')
B	N62°53'00"W 29.530 m (96.88')
C	N25°40'21"E 4.791 m (15.72')
D	S66°13'48"E 33.334 m (109.36')
	PARCEL 45X
D	N66°13'48"W 33.334 m (109.36')
E	N25°40'21"E 3.271 m (10.73')
F	S68°33'47"E 36.178 m (118.69')
G	S55°25'03"W 5.571 m (18.28')
	PARCEL 45WL
H	N66°13'48"W 4.899 m (16.07')
G	N55°25'03"E 5.571 m (18.28')
I	S01°08'55"W 5.138 m (16.86')

SECTION 19
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY
T-21 N, R-19 W

SEE SHEET NO. 83

metric units



Parcel 43E Sold to Inland Property Management
01/30/07
OR Book 1733 Page 260
Recorded 02/22/2007

PARCELS 42E & 48E1 SOLD TO ERIC DZUGAN
02/16/07
BK 1732 PG 521

MONUMENT LEGEND

- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

RATIO 1:500
HORIZONTAL SCALE IN METERS

PID NO. 16284

RIGHT OF WAY - RELOCATED U.S. 30
STA. 3+770 TO STA. 4+010

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

REV	DATE	DESCRIPTION
SLR	02/07/08	Sale of PCLS 43E & 43E-1
SLR	07/19/07	SALE OF PCLS 42E, 48E1
JEK	6/14/01	NAME PARCEL 48

DATE OF COMPLETION: 6/8/2000

RELOC. SR 181
CURVE DATA
PI STA. 49+825.376
Δ = 08°00'00" RT.
R = 600.000 m (1968.50')
T = 41.956 m (137.65')
L = 83.776 m (274.86')
E = 1.465 m (4.81')
C = 83.708 m (274.63')
S67°45'49"E

SECTION 19
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY
T-21 N, R-19 W

	PARCEL 48WL	
Z	N00°49'47"E	46.316 m (151.95')
AA	N55°25'03"E	17.405 m (57.10')
AB	S63°45'49"E	62.020 m (203.48')
AC	S03°30'35"W	32.847 m (107.76')
	PARCEL 48WD	
AP	S63°45'49"E	15.704 m (51.52')
AA	S55°25'03"W	17.405 m (57.10')
AM	N00°49'47"E	16.823 m (55.19')
	PARCEL 50WL	
AK	N55°25'03"E	61.012 m (200.17')
	PARCEL 50WD	
DL	S63°45'49"E	53.249 m (174.70')
AM	S00°49'47"W	16.823 m (55.19')
DM	N63°18'32"W	53.842 m (176.65')

	PARCEL 58WD	
EH	S01°04'15"W	38.135 m (125.11')
EI	N63°45'49"W	60.646 m (198.97')
	PARCEL 59WD-1	
ER	N55°25'03"E	40.678 m (133.46')
ES	S63°45'49"E	77.505 m (254.28')
EV	N63°45'49"W	119.828 m (393.14')
	PARCEL 59WD	
EH	N01°04'15"E	38.135 m (125.11')
EJ	S63°45'49"E	44.490 m (145.96')
EK	S55°25'03"W	39.533 m (129.70')
EL	N63°45'49"W	8.999 m (29.52')
	PARCEL 59E	
EX	S12°20'43"E	73.105 m (239.85')
ES	N63°45'49"W	77.505 m (254.28')
	PARCEL 60WL	
AN	S63°45'49"E	29.609 m (97.14')
AO	S55°25'03"W	34.701 m (113.85')
AC	N03°30'35"E	32.847 m (107.76')

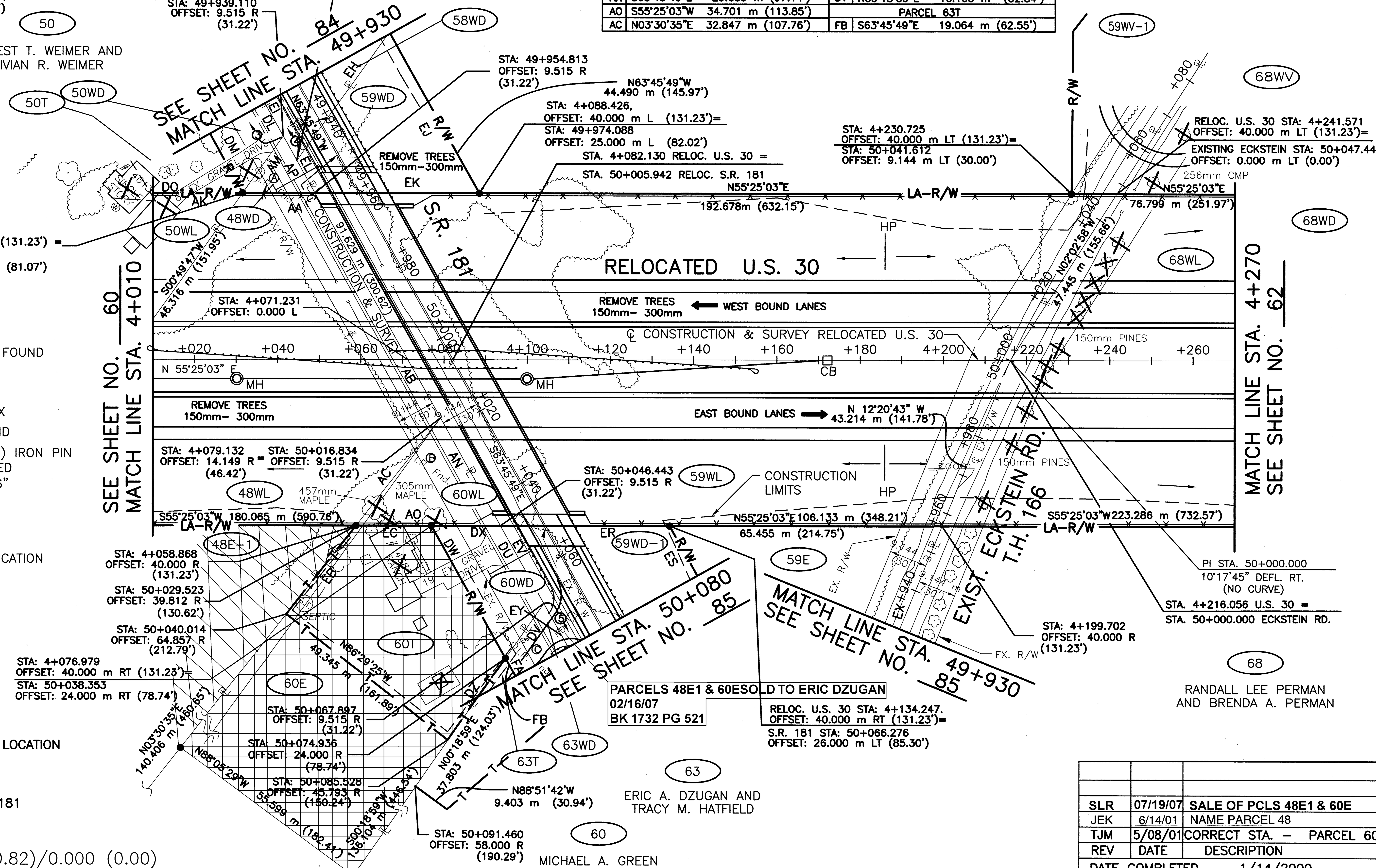
	PARCEL 60WD	
DU	S63°45'49"E	21.454 m (70.39')
DV	S00°18'59"W	16.105 m (52.84')
DW	N63°45'49"W	36.583 m (120.02')
DX	N55°25'03"E	16.590 m (54.43')
	PARCEL 60E	
DW	S63°45'49"E	36.583 m (120.02')
EC	N55°25'03"E	18.110 m (59.42')
	PARCEL 60T	
DW	S63°45'49"E	36.583 m (120.02')
DZ	S00°18'59"W	24.231 m (79.50')
EB	N03°30'35"E	27.153 m (89.09')
EC	N55°25'03"E	18.110 m (59.42')
	PARCEL 63WD	
EY	S63°45'49"E	80.866 m (265.31')
FA	N63°45'49"W	81.203 m (266.41')
DV	N00°18'59"E	16.105 m (52.84')
	PARCEL 63T	
FB	S63°45'49"E	19.064 m (62.55')

metric units

NOTE:
FOR ECKSTEIN ROAD R/W PLAN, SEE SHEET NO. 88

LEAD-IN DISTANCE
③ S63°45'49"E 128.065 m (420.16')
④ S63°45'49"E 134.770 m (442.16')
⑤ N63°45'49"W 98.375 m (322.75')

Ⓐ STA: 49+943.453 OFFSET: 18.659 R (61.22')
Ⓑ STA: 50+020.568 OFFSET: 18.638 R (61.15')
Ⓒ STA: 50+073.261 OFFSET: 20.496 R (67.24')



MONUMENT LEGEND
- ◎ EXISTING R/W MONUMENT FOUND
- ∘ EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- ● 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- ⊙ REFERENCE MONUMENT

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

STRUCTURES KEY:
- RESIDENTIAL BUILDING
- COMMERCIAL BUILDING

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
- RICHLAND COUNTY ENGINEER
- STATE R/W PLANS FOR SR 181 SH (ICH) 207 SEC A-1-A-2
- EXIST. MONUMENTS

1:500M RP127.DWG 10 MAY 2001

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

SLR	07/19/07	SALE OF PCLS 48E1 & 60E
JEK	6/14/01	NAME PARCEL 48
TJM	5/08/01	CORRECT STA. - PARCEL 60T
REV	DATE	DESCRIPTION
DATE COMPLETED		1/14/2000

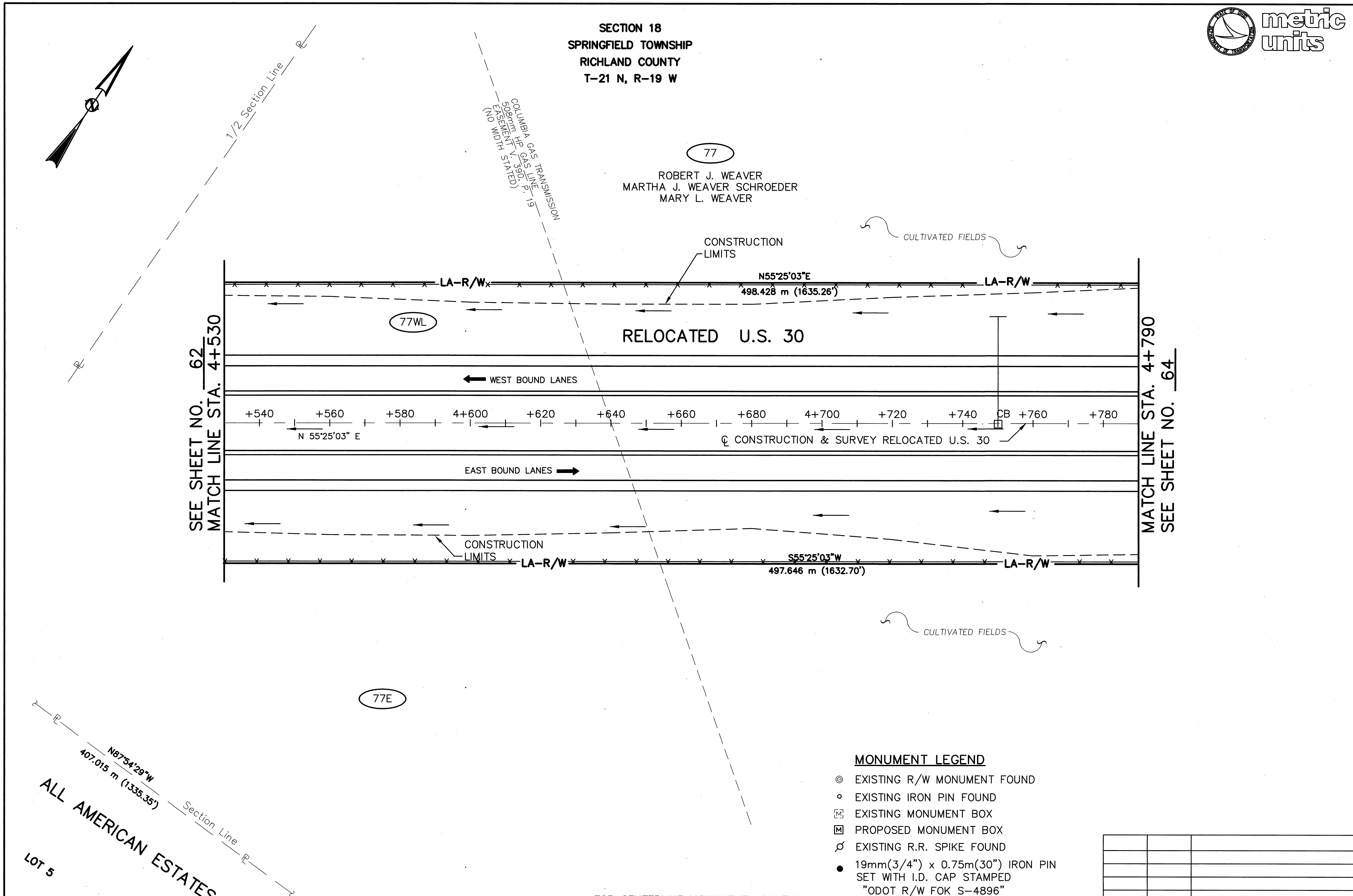
RATIO 1:500 HORIZONTAL SCALE IN METERS 0 10 20

PID NO. 16284

RIGHT OF WAY - RELOCATED U.S. 30 STA. 4+010 TO STA. 4+270

CRA-30-33.500 (20.82) RIC-30-0.000 (0.00)

SECTION 19
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY
T-21 N, R-19 W
SECTION 18
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY
T-21 N, R-19 W
metric units
RATIO 1:500
HORIZONTAL SCALE IN METERS
PID NO. 16284
RELOC. U.S. 30 STA: 4+285.178,
OFFSET: 40.000 m L (131.23')=
EXISTING ECKSTEIN STA: 50+070.896,
OFFSET: 36.764 m R (120.62')
68E
75
JEFFERY JAMES AND
LISA ANN JAMES
77
ROBERT J. WEAVER
MARTHA J. WEAVER SCHROEDER
MARY L. WEAVER
68WV
Section Line
Field Trail
STA: 4+318.370
OFFSET: 40.000 L
(131.23')
STA: 4+505.187
OFFSET: 40.000 L
(131.23')
N55°25'03"E
498.428 m (1635.26')
N55°25'03"E 76.799 m (251.97')
LA-R/W
N55°25'03"E 186.817 m (612.92')
S87°10'41"E
75WL
CONSTRUCTION
LIMITS
REMOVE TREES
150mm- 300mm
RELOCATED U.S. 30
97.376 m (319.47')
SEE SHEET NO. 61
MATCH LINE STA. 4+270
MATCH LINE STA. 4+530
SEE SHEET NO. 63
WEST BOUND LANES
STA: 4+370.680
OFFSET: 0.000R
STA: 4+477.429
OFFSET: 0.000L
+280
4+300
+320
+340
+360
+380
4+400
+420
+440
CB
+480
4+500
+520
N 55°25'03"E
℄ CONSTRUCTION & SURVEY RELOCATED U.S. 30
1/2 Section Line
S00°10'35"W
REMOVE TREES
150mm- 450mm
EAST BOUND LANES
131.700 m (432.09')
STA. 4+312
1050 mm CONDUIT
68WL
REMOVE TREES
150mm- 450mm
77WL
S55°25'03"W
223.286 m (732.57')
S55°25'03"W
497.646m (1632.70')
CONSTRUCTION
LIMITS
STA: 4+422.988
OFFSET: 40.000 R
(131.23')
18
19
STA: 4+449.671
OFFSET: 40.000 R
(131.23')
N55°25'03"E
26.683 m (87.54')
75E
I Pin Fd.
S00°10'35"W
16.225 m (53.23')
N87°10'41"W
21.945 m (72.00')
68
RANDALL LEE PERMAN
AND BRENDA A. PERMAN
77E
S03°38'43"E
310.940 m (1020.14')
N87°54'29"W
407.015 m (1335.35')
I Pin Fd.
STA: 4+440.421
OFFSET: 53.330 R
(174.97')
ALL AMERICAN ESTATES
PLAT VOL. 27 PG. 19
LOT 5
66
JAD DEVELOPERS
SEE SHEET NO. 86
MONUMENT LEGEND
EXISTING R/W MONUMENT FOUND
EXISTING IRON PIN FOUND
EXISTING MONUMENT BOX
PROPOSED MONUMENT BOX
EXISTING R.R. SPIKE FOUND
19mm(3/4") x 0.75m(30") IRON PIN
SET WITH I.D. CAP STAMPED
"ODOT R/W FOK S-4896"
REFERENCE MONUMENT
FOR CENTERLINE MONUMENT LOCATION
SEE SHEET NO. 1&2
REV
DATE
DESCRIPTION
DATE OF COMPLETED 10/19/2000
RIGHT OF WAY – RELOCATED U.S. 30
STA. 4+270 TO STA. 4+530
CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)
62/95
678/712
1:500 M PREL RW
RP128.DWG 3 NOVEMBER 2000
CRA/RIC-30-33.500 (20.82)/0.000 (0.00)



MONUMENT LEGEND

- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

1:500M PREL RW 3 NOVEMBER 2000
RP129.DWG

REV	DATE	DESCRIPTION

DATE OF COMPLETED 10/19/2000

metric units

RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

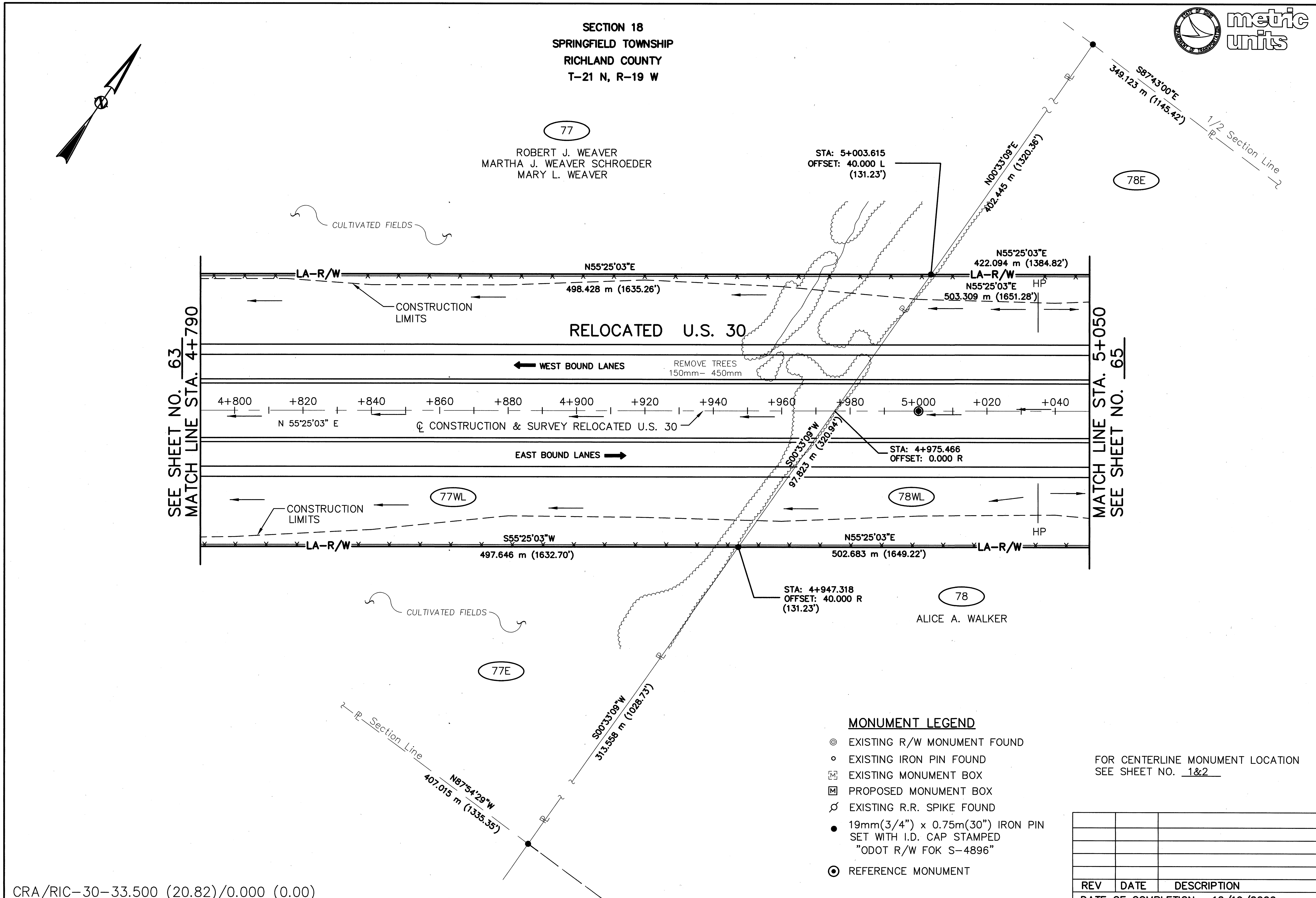
PID NO. 16284

RIGHT OF WAY - RELOCATED U.S. 30
STA. 4+530 TO STA. 4+790

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

63/95

679/712



REV	DATE	DESCRIPTION
DATE OF COMPLETION: 10/19/2000		

RATIO 1:500
HORIZONTAL SCALE IN METERS

PID NO. 16284

RIGHT OF WAY – RELOCATED U.S. 30
STA. 4+790 TO STA. 5+050

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

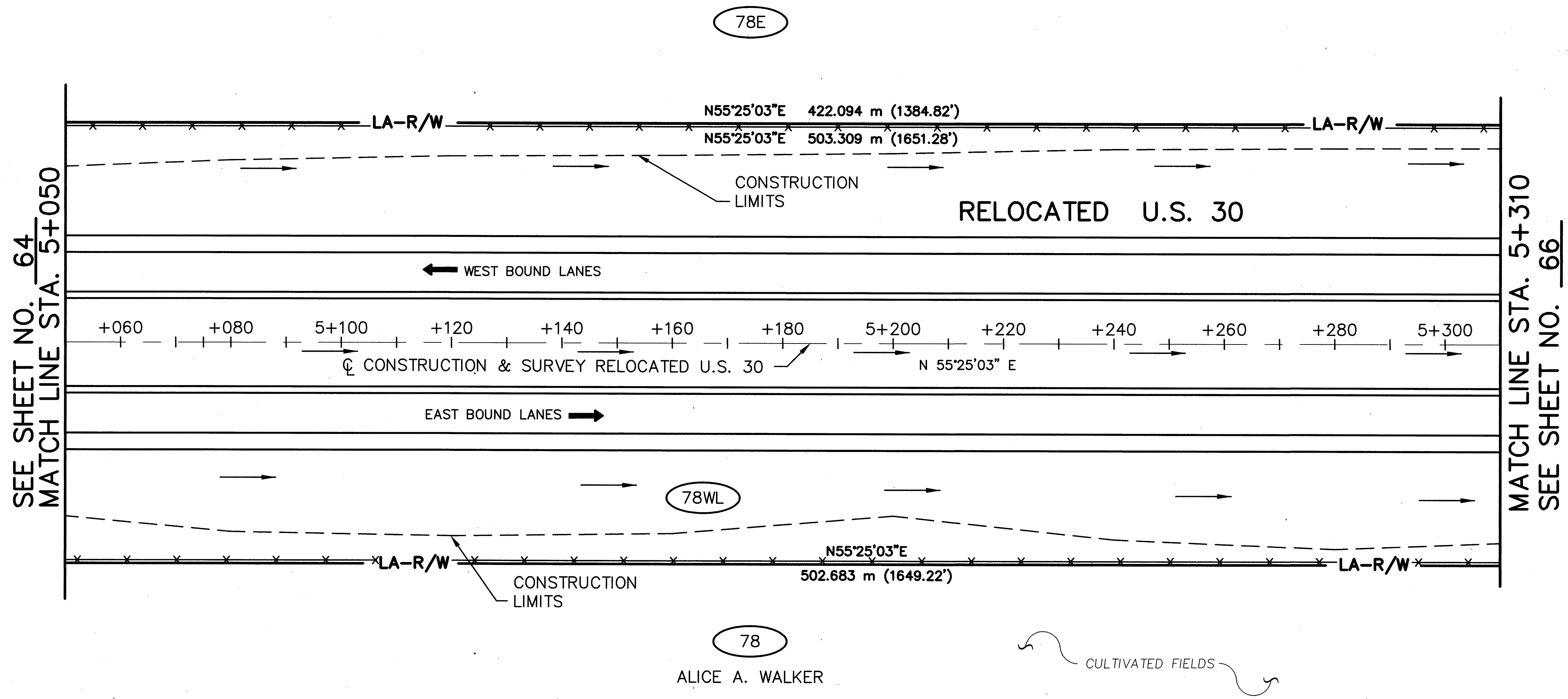
64/95

680/712

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

1:500M RP130.DWG 3 NOVEMBER 2000

SECTION 18
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY
T-21 N, R-19 W



MONUMENT LEGEND

- ◎ EXISTING R/W MONUMENT FOUND
- ∘ EXISTING IRON PIN FOUND
- [M] EXISTING MONUMENT BOX
- [M] PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- ● 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- ⊙ REFERENCE MONUMENT

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

REV	DATE	DESCRIPTION

DATE OF COMPLETION; 9/27/2000

metric units

RATIO 1:500
HORIZONTAL SCALE IN METERS
0 5 10 20

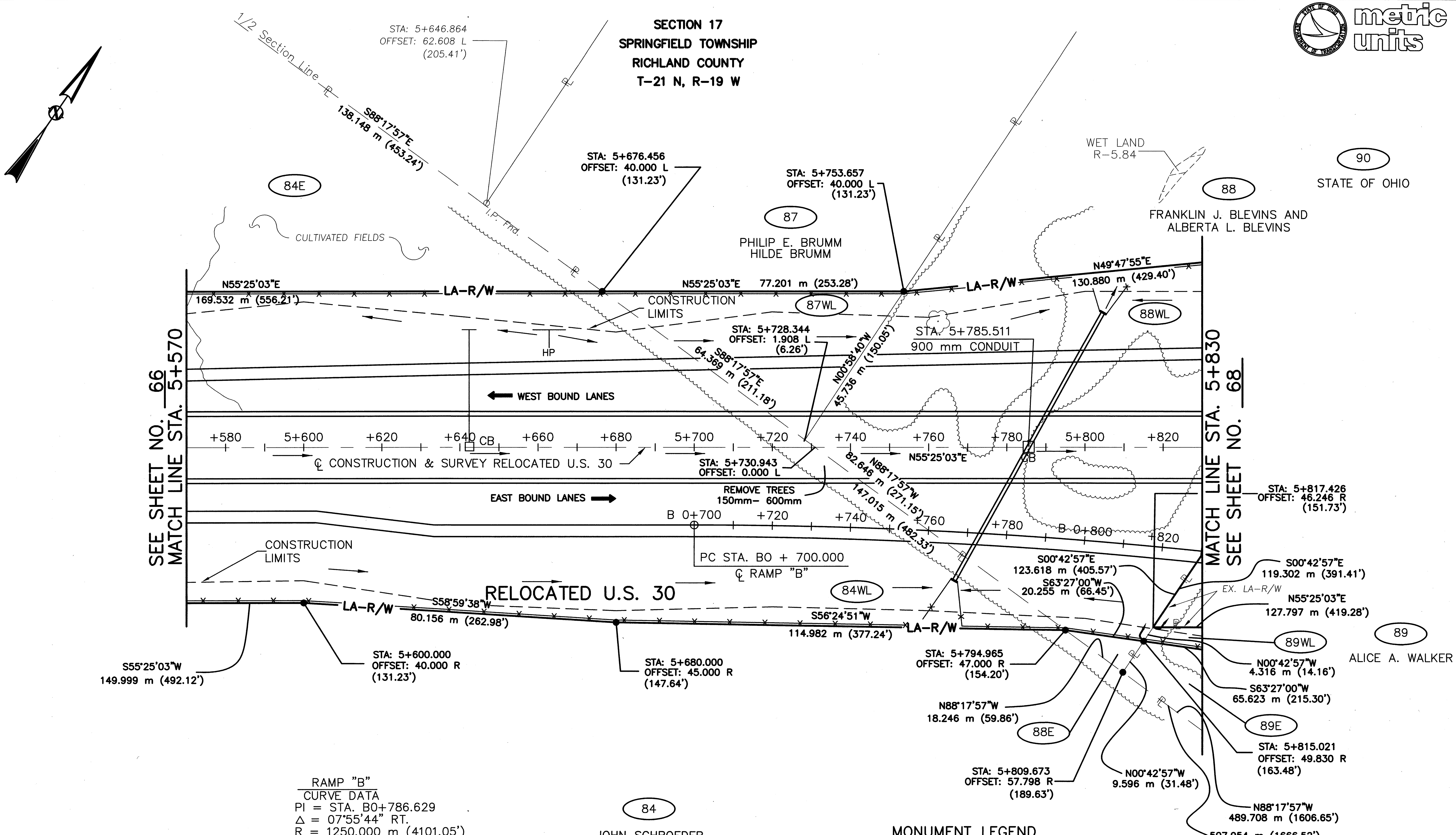
PID NO. 16284

RIGHT OF WAY - RELOCATED U.S. 30
STA. 5+050 TO STA. 5+310

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

1:500M PREL RW
RP131.DWG 3 NOVEMBER 2000

SECTION 18
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY
T-21 N, R-19 W
SECTION 17
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY
T-21 N, R-19 W
metric units
SEE SHEET NO. 92
MATCH LINE STA. 50+130
SEE SHEET NO. 65
MATCH LINE STA. 5+310
MATCH LINE STA. 5+570
SEE SHEET NO. 67
MATCH LINE STA. 49+870
SEE SHEET NO. 91
CONSTRUCTION LIMITS
EARICK ROAD T.H. 167
℄ CONSTRUCTION & SURVEY RELOCATED EARICK ROAD
℄ CONSTRUCTION & SURVEY RELOCATED U.S. 30
WEST BOUND LANES
EAST BOUND LANES
N 55°25'03" E
N02°00'16"E 149.031 m (488.95')
N00°51'02"E
STA. 5+443.885 RELOC. U.S. 30 =
STA. 49+982.048 RELOC. EARICK ROAD
STA. 5+478.462 RELOC. U.S. 30 =
STA. 50+000 EXIST. EARICK ROAD
N55°25'03"E 422.094 m (1384.82')
N55°25'03"E 503.309 m (1651.28')
81.216 m (266.46')
N55°25'03"E 169.532 m (556.21')
502.683 m (1649.22')
S55°25'03"W
S55°25'03"W 69.716m (228.73')
S55°25'03"W 149.999 m (492.12')
S00°51'03"W 367.597 m (1206.03')
198.521 m (651.32')
98.185 m (322.13')
S00°51'03"W 49.225 m (161.50')
54°34'01"
STA: 50+004.102 OFFSET: 38.000 L (124.67')
STA: 5+425.709 OFFSET: 40.000 L (131.23')
N00°51'03"E 100.336 m (329.19')
S00°51'03"W 95.908 m (314.66')
STA: 50+051.187 OFFSET: 28.174 R (92.43') = STA: 5+506.924 OFFSET: 40.000 L (131.23')
N55°25'03"E 7.482 m (24.55')
STA: 50+055.524 OFFSET: 34.270 R (112.43') = STA: 5+514.406 OFFSET: 40.000 L (131.23')
STA: 5+450.001 OFFSET: 40.000 R (131.23')
STA: 5+457.482 OFFSET: 40.000 R (131.23')
STA: 49+957.340 OFFSET: 34.269 R (112.43')
N55°25'03"E 7.482 m (24.55')
STA: 49+953.002 OFFSET: 28.173 R (92.43')
STA: 5+380.285 OFFSET: 40.000 R (131.23')
STA: 49+912.584 OFFSET: 28.630 L (93.93')
N01°07'56"W 156.351 m (512.96')
S89°08'57"E 14.366 m (47.13')
STA: 49+908.115 OFFSET: 34.269 R (112.43')
STA: 30+913.146 OFFSET: 16.808 L (55.14')
N00°51'03"E 108.135 m (354.77')
S32°58'47"W 40.888 m (134.15')
S00°51'03"W 18.756 m (61.53')
S45°50'34"E 14.629 m (48.00')
STA: 30+923.000 OFFSET: 6.354 L (20.85')
STA: 30+923.000 OFFSET: 8.276 R (27.15')
PT STA. 30+903.881 CUL-DE-SAC
STA: 30+909.351 OFFSET: 21.140 R (69.36')
N44°09'26"E
℄ CONSTR. & SURVEY SERVICE ROAD "B"
SEE DETAIL "A"
RES. NO. 806 2 STORY FRAME W/BASEMENT
MAPLE 300mm
M 500mm
BIRCH 300mm
MAPLE 355mm
CHERRY 300mm
WELL
(SAVE)
78E 78WV-1 84T 84E 84WV-1 78WL 84WL 84WV 78WV 78
ALICE A. WALKER
N48°14'34"E 7.018 m (23.02')
STA: 30+930.000 OFFSET: 12.000 L (39.37')
STA: 30+923.000 OFFSET: 12.500 L (41.01')
N86°25'51"E 7.433 m (24.39')
N38°47'24"E 5.345 m (17.54')
STA: 30+935.500 OFFSET: 7.000 L (22.97')
STA: 30+917.678 OFFSET: 12.000 L (39.37')
S03°33'21"W 4.610 m (15.12')
STA: 30+923.000 OFFSET: 6.354 L (20.85')
STA: 30+932.000 OFFSET: 4.000 L (13.12')
N89°08'57"W 7.759 m (25.46')
S58°48'48"W 9.303 m (30.52')
DETAIL "A"
SERVICE ROAD "B" CURVE DATA
PI STA. 30+888.300
Δ = 43°43'35" RT.
R = 43.050 m (141.24')
T = 17.274 m (56.67')
L = 32.855 m (107.79')
E = 3.336 m (10.94')
C = 32.063 m (105.19')
N29°52'03"E
FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1 & 2
MONUMENT LEGEND
EXISTING R/W MONUMENT FOUND
EXISTING IRON PIN FOUND
EXISTING MONUMENT BOX
PROPOSED MONUMENT BOX
EXISTING R.R. SPIKE FOUND
19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
REFERENCE MONUMENT
84
JOHN SCHROEDER AND ANGELA SCHROEDER
STRUCTURES KEY:
– RESIDENTIAL BUILDING
– COMMERCIAL BUILDING
THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
• RICHLAND COUNTY ENGINEER
• EXIST. MONUMENTS
RATIO 1:500
HORIZONTAL SCALE IN METERS
PID NO. 16284
RIGHT OF WAY – RELOCATED U.S. 30
STA. 5+310 TO STA. 5+570
CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)
66/95
682/712
TJM 5/08/01 ADDED SERVICE RD. "B"
REV DATE DESCRIPTION
DATE OF COMPLETION: 9/27/2000
CRA/RIC-30-33.500 (20.82)/0.000 (0.00)
1:500M RP132.DWG 10 MAY 2001



RAMP "B"
CURVE DATA
PI = STA. B0+786.629
Δ = 07°55'44" RT.
R = 1250.000 m (4101.05')
T = 86.629 m (284.22')
L = 172.982 m (567.53')
E = 2.998 m (9.81')
C = 172.844 m (567.07')
N59°22'55"E

FOR CENTERLINE MONUMENT LOCATION
SEE SHEET NO. 1&2

MONUMENT LEGEND

- ◎ EXISTING R/W MONUMENT FOUND
- ○ EXISTING IRON PIN FOUND
- M EXISTING MONUMENT BOX
- M PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- ● 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- ⦿ REFERENCE MONUMENT

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
- STATE R/W PLANS FROM U.S. 30 RIC-30-3.74 RIC-CH 135
- EXIST. MONUMENTS

TJM	5/08/01	REV. 84E-1 TO 84E
REV	DATE	DESCRIPTION
DATE COMPLETED		1/14/2000

metric units

RATIO 1:500
HORIZONTAL SCALE IN METERS

PID NO. 16284

RIGHT OF WAY – RELOCATED U.S. 30
STA. 5+570 TO STA. 5+830

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

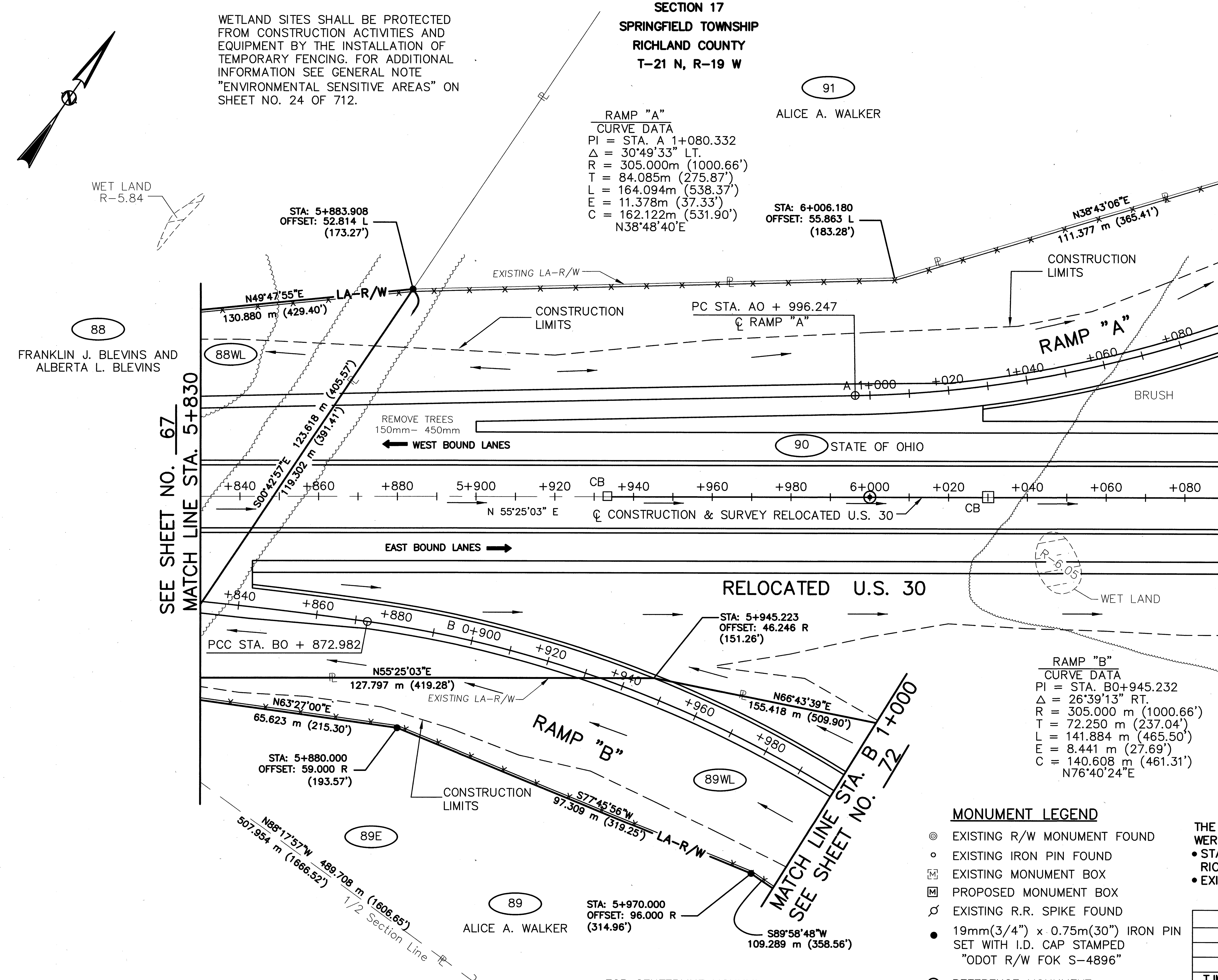
1:500M
RP133.DWG 10 MAY 2001

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

SECTION 17
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY
T-21 N, R-19 W

WETLAND SITES SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES AND EQUIPMENT BY THE INSTALLATION OF TEMPORARY FENCING. FOR ADDITIONAL INFORMATION SEE GENERAL NOTE "ENVIRONMENTAL SENSITIVE AREAS" ON SHEET NO. 24 OF 712.

RAMP "A"
CURVE DATA
PI = STA. A 1+080.332
Δ = 30°49'33" LT.
R = 305.000m (1000.66')
T = 84.085m (275.87')
L = 164.094m (538.37')
E = 11.378m (37.33')
C = 162.122m (531.90')
N38°48'40"E



RAMP "B"
CURVE DATA
PI = STA. B0+945.232
Δ = 26°39'13" RT.
R = 305.000 m (1000.66')
T = 72.250 m (237.04')
L = 141.884 m (465.50')
E = 8.441 m (27.69')
C = 140.608 m (461.31')
N76°40'24"E

EXISTING LA-R/W ACQUIRED UNDER PROJECT RIC-30-3.92
DV 646 PG 514
DV 651 PG 480
DV 673 PG 59

MONUMENT LEGEND
- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
- STATE R/W PLANS FROM U.S. 30 RIC-30-3.74 RIC-CH 135
- EXIST. MONUMENTS

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

metric units

RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

PID NO. 16284

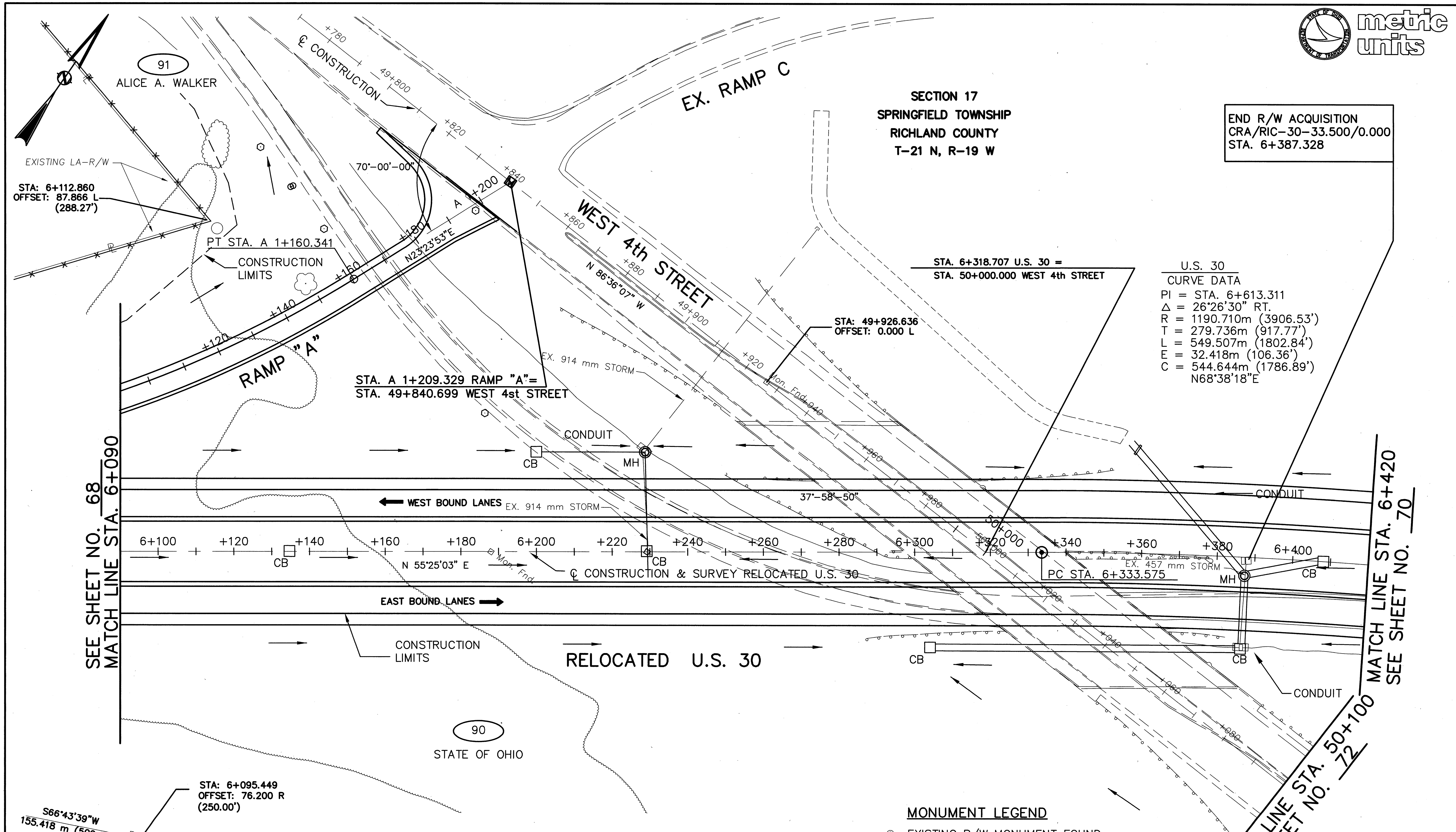
RIGHT OF WAY - RELOCATED U.S. 30
STA. 5+830 TO STA. 6+090

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

TJM	5/08/01	REMOVED 84E & OWNER'S NAME
REV	DATE	DESCRIPTION
DATE COMPLETED		11/06/2000

1:500M
RP134.DWG 10 MAY 2001

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)



EXISTING LA-R/W ACQUIRED
UNDER PROJECT RIC-30-3.92
DV 646 PG 514
DV 651 PG 480
DV 673 PG 59

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
- STATE R/W PLANS FROM U.S. 30 RIC-30-3.74 RIC-CH 135
- EXIST. MONUMENTS

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

MONUMENT LEGEND

- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

REV	DATE	DESCRIPTION
DATE OF COMPLETED 8/16/2000		

metric units

RATIO 1:500
HORIZONTAL SCALE IN METERS
0 5 10 20

PID NO. 16284

RIGHT OF WAY - RELOCATED U.S. 30
STA. 6+090 TO STA. 6+420

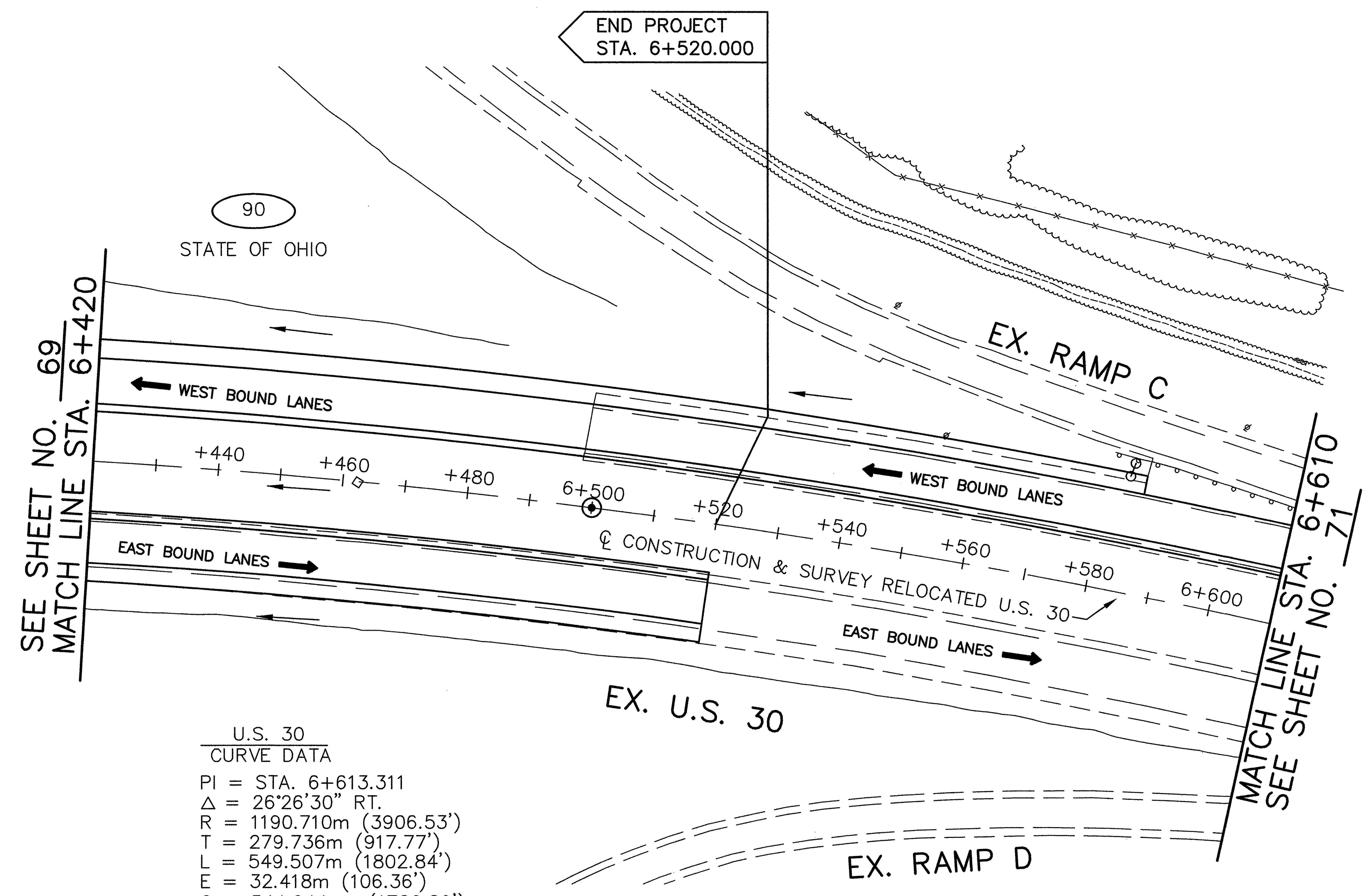
CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

1:500M
RP135.DWG 3 NOVEMBER 2000

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

SECTION 17
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY
T-21 N, R-19 W

metric units



U.S. 30
CURVE DATA

PI = STA. 6+613.311
Δ = 26°26'30" RT.
R = 1190.710m (3906.53')
T = 279.736m (917.77')
L = 549.507m (1802.84')
E = 32.418m (106.36')
C = 544.644 m (1786.89')
N68°38'18"E

MONUMENT LEGEND

- ◎ EXISTING R/W MONUMENT FOUND
- ○ EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- ● 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- ⊙ REFERENCE MONUMENT

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
- STATE R/W PLANS FROM U.S. 30 RIC-30-3.74 RIC-CH 135
- EXIST. MONUMENTS

FOR CENTERLINE MONUMENT LOCATION
SEE SHEET NO. 1&2

REV	DATE	DESCRIPTION

DATE OF COMPLETED 1-14-2000

RATIO 1:500
0 5 10 20
HORIZONTAL
SCALE IN METERS

PID NO. 16284

RIGHT OF WAY - RELOCATED U.S. 30
STA. 6+420 TO STA. 6+610

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

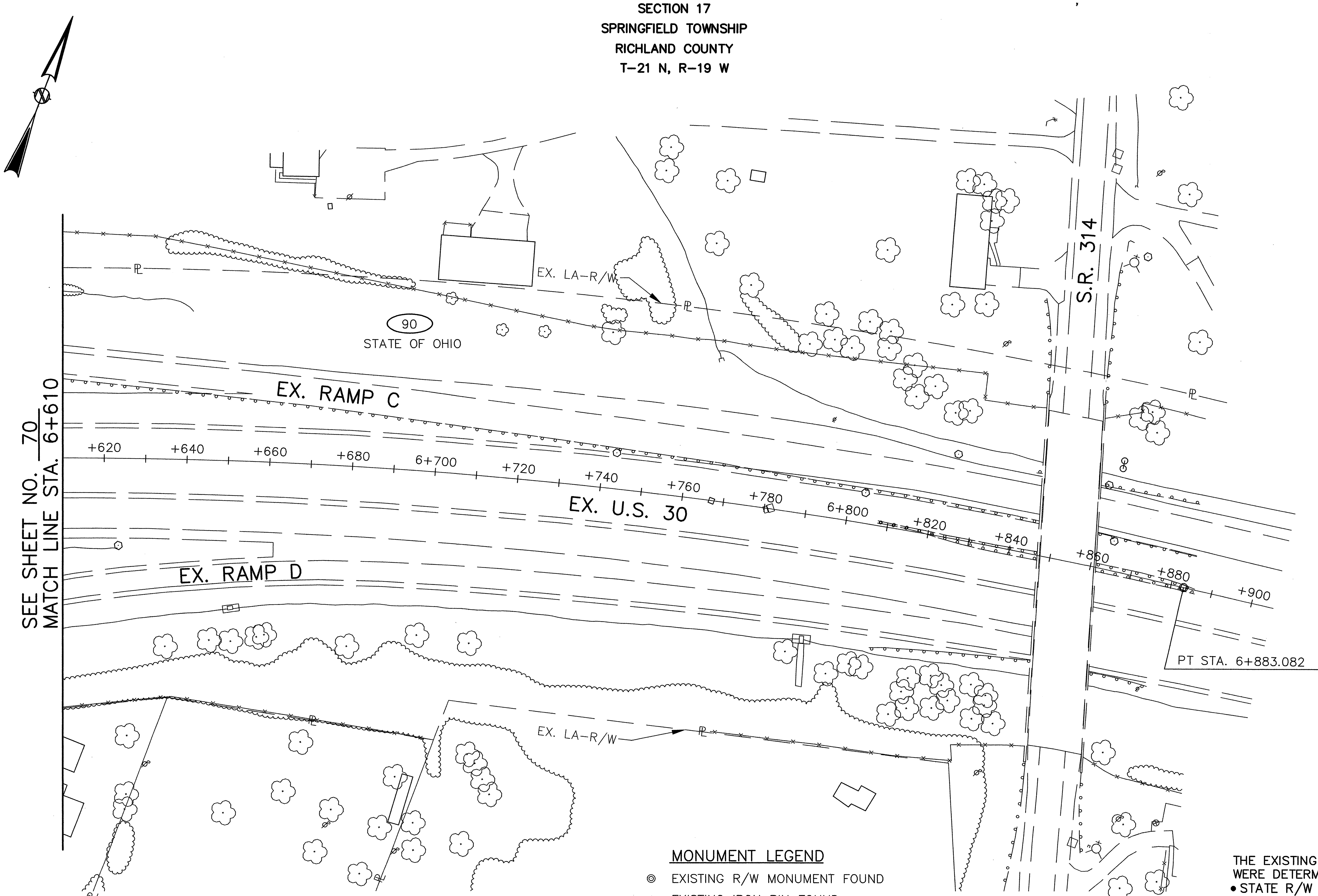
70/95

686/712

1:500M
RP136.DWG 12 JANUARY 2000

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

SECTION 17
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY
T-21 N, R-19 W



MONUMENT LEGEND

- ◎ EXISTING R/W MONUMENT FOUND
- ○ EXISTING IRON PIN FOUND
- [M] EXISTING MONUMENT BOX
- [M] PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- ● 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- ⊙ REFERENCE MONUMENT

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
- STATE R/W PLANS FROM U.S. 30 RIC-30-3.74 RIC-CH 135
- EXIST. MONUMENTS

REV	DATE	DESCRIPTION

DATE OF COMPLETED 1-14-2000

metric units

RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

PID NO. 16284

RIGHT OF WAY - RELOCATED U.S. 30
STA. 6+610 TO STA. 6+900

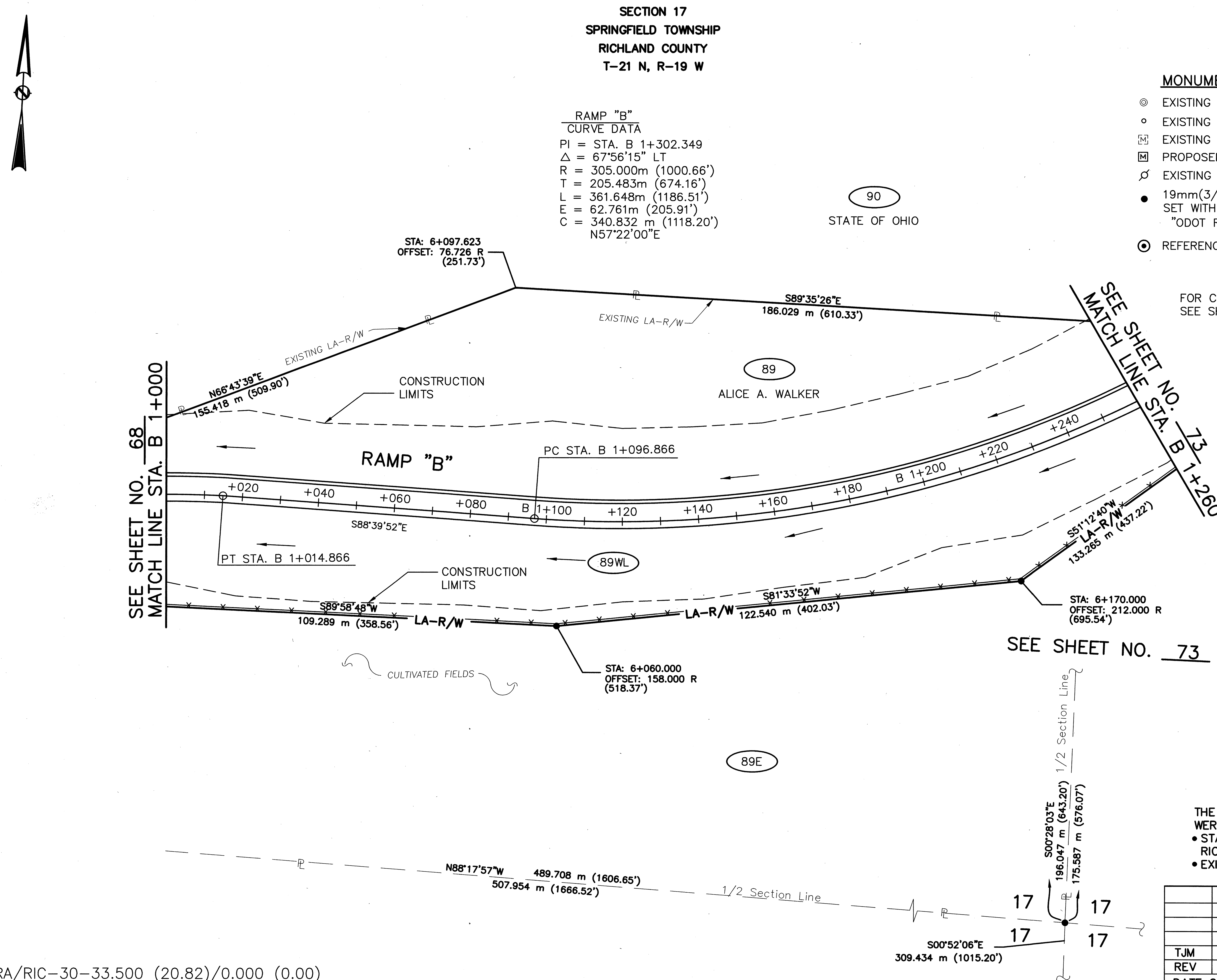
CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

1:500M
RP137.DWG 12 JANUARY 2000

SECTION 17
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY
T-21 N, R-19 W

RAMP "B"
CURVE DATA
PI = STA. B 1+302.349
△ = 67°56'15" LT
R = 305.000m (1000.66')
T = 205.483m (674.16')
L = 361.648m (1186.51')
E = 62.761m (205.91')
C = 340.832 m (1118.20')
N57°22'00"E



metric units

MONUMENT LEGEND
- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
- STATE R/W PLANS FROM U.S. 30 RIC-30-3.74 RIC-CH 135
- EXIST. MONUMENTS

TJM	5/05/01	REMOVED 84E & OWNER'S NAME
REV	DATE	DESCRIPTION

DATE OF COMPLETION: 9/27/2000

RATIO 1:500
HORIZONTAL SCALE IN METERS 0 5 10 20

PID NO. 16284

RIGHT OF WAY - RELOCATED U.S. 30
STA. B 1+000 TO STA. B 1+260

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

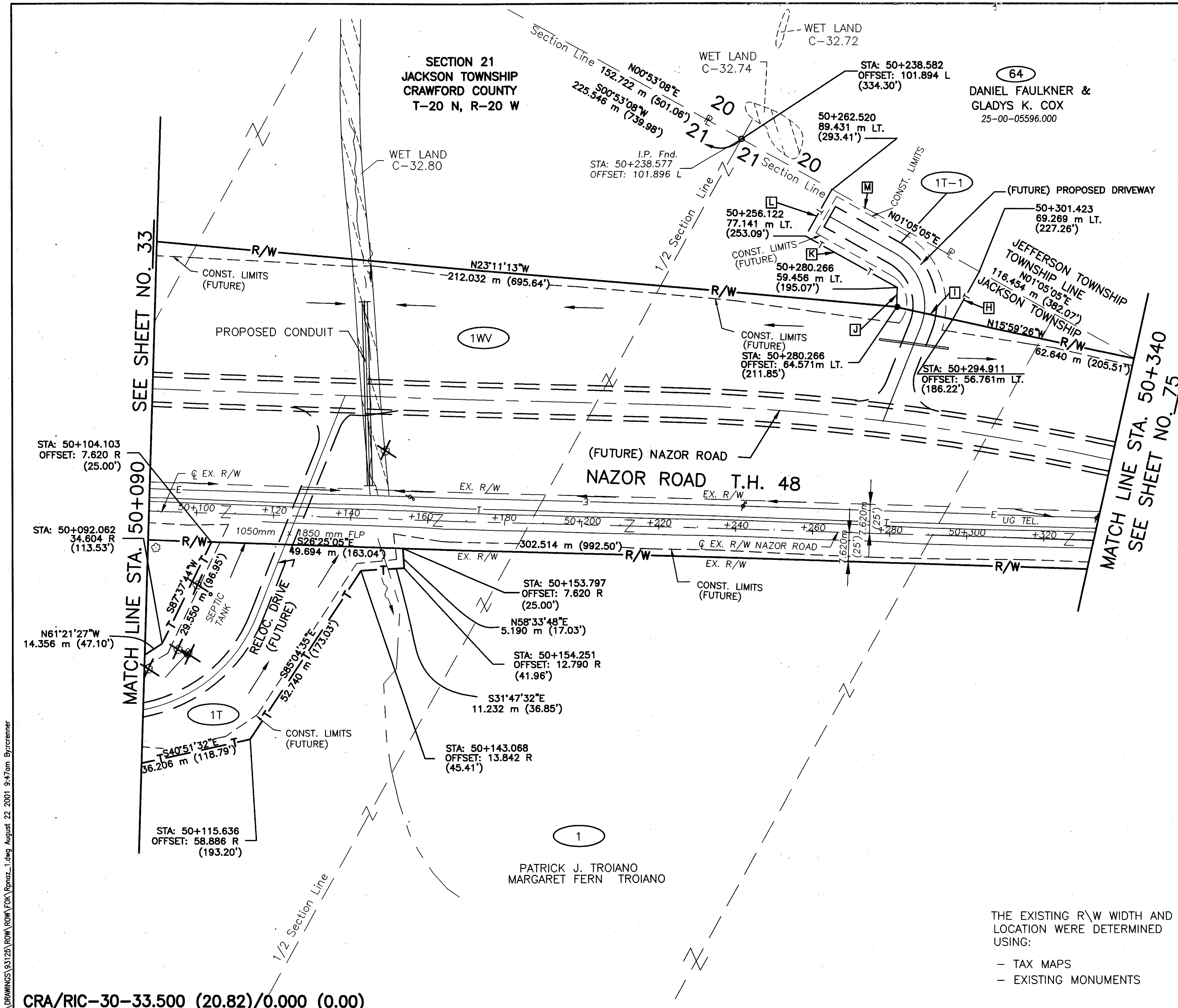
72/95

688/712

1:500M PREL RW
RP138.DWG 10 MAY 2001

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

SECTION 17
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY
T-21 N, R-19 W
MONUMENT LEGEND
EXISTING R/W MONUMENT FOUND
EXISTING IRON PIN FOUND
EXISTING MONUMENT BOX
PROPOSED MONUMENT BOX
EXISTING R.R. SPIKE FOUND
19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
REFERENCE MONUMENT
RAMP "B" CURVE DATA
PI = STA. B 1+302.349
Δ = 67°56'15" LT
R = 305.000m (1000.66')
T = 205.483m (674.16')
L = 361.648m (1186.51')
E = 62.761m (205.91')
C = 340.832 m (1118.22') N57°22'00"E
metric units
EX U.S. 30
SEE SHEET NO. 69
MATCH LINE STA. 50+100
STA. B 1+517.980 RAMP "B" = STA. 50+180.442 WEST 4th STREET
90
STATE OF OHIO
S89°35'26"E 186.029 m (610.33')
STA: 6+250.024 OFFSET: 183.407 R (601.73')
STA: 6+315.394 OFFSET: 183.791 R (602.99')
N55°54'46"E 3.250 m (10.66')
STA: 6+312.085 OFFSET: 183.716 R (602.74')
PT STA. B 1+458.514
Mon. Fnd.
Mon. Fnd.
S86°36'07"E
N23°23'53"E
WEST 4th STREET
RAMP "B"
N55°44'44"E 62.121 m (203.81')
SEE SHEET NO. 72
MATCH LINE STA. B 1+260
EX. LA-R/W
CONSTRUCTION LIMITS
89WL
STA: 6+314.381 OFFSET: 185.285 R (607.89')
N55°54'46"E 63.646 m (208.81')
93WL
S51°12'40"W 133.265 m (437.22')
LA-R/W
S51°12'40"W 30.332 m (99.52')
S36°34'21"W 48.480 m (159.05')
15.1m
STA: 6+387.328 OFFSET: 183.314 R (601.42')
89
ALICE A. WALKER
S00°28'03"E 22.266 m (73.05')
92WL
N00°28'03"W 1.806 m (5.92')
S00°28'03"E 20.460 m (67.13')
S86°29'46"E 23.854 m (78.26')
1-STORY METAL BLDG. W/O BASEMENT
STA: 6+302.906 OFFSET: 202.225 R (663.47')
STA: 6+333.156 OFFSET: 200.000 R (656.17')
93
AMERICAN PROPERTIES AND DEVELOPMENT, INC.
89E
S00°28'03"E 196.047 m (643.20')
175.587 m (576.07')
1/2 Section Line
1/2 Section Line
SEE SHEET NO. 72
92
WILLIAM L. ELROD AND PATRICIA A. ELROD
THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
• STATE R/W PLAN FROM U.S. 30 RIC-30-3.74 RIC-CH 135
• EXIST. MONUMENTS
FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2
CRA/RIC-30-33.500 (20.82)/0.000 (0.00)
1:500M RP139.DWG 3 NOVEMBER 2000
REV DATE DESCRIPTION
DATE OF COMPLETION: 9/27/2000
RATIO 1:500 HORIZONTAL SCALE IN METERS
PID NO. 16284
RIGHT OF WAY - RELOCATED U.S. 30
STA. B 1+260 TO STA. B1+517.980
CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)
73/95
689/712



WETLAND SITES SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES AND EQUIPMENT BY THE INSTALLATION OF TEMPORARY FENCING. FOR ADDITIONAL INFORMATION SEE GENERAL NOTE "ENVIRONMENTAL SENSITIVE AREAS" ON SHEET NO. 24 OF 712.

BEARINGS AND DISTANCES	
H	S 88°54'55" E, 14.020m (46.00')
I	S 15°59'29" E, 14.891m (48.85')
J	S 63°34'55" W, 5.115m (16.78')
K	S 01°05'05" W, 27.221m (89.31')
L	N 88°54'55" W, 13.856m (45.46')
M	N 01°05'05" E, 43.817m (143.76')

MONUMENT LEGEND

- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

THE EXISTING R\W WIDTH AND LOCATION WERE DETERMINED USING:

- TAX MAPS
- EXISTING MONUMENTS

LBD	8/20/01	ADDED PARCEL 1-T-1
REV	DATE	DESCRIPTION
DATE OF COMPLETED		

metric units

RATIO 1:500
0 10 20
HORIZONTAL SCALE IN METERS

PID NO. 16284

RIGHT OF WAY PLAN NAZOR ROAD T.H. 48
STA. 50+090 TO STA. 50+340

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

74/95

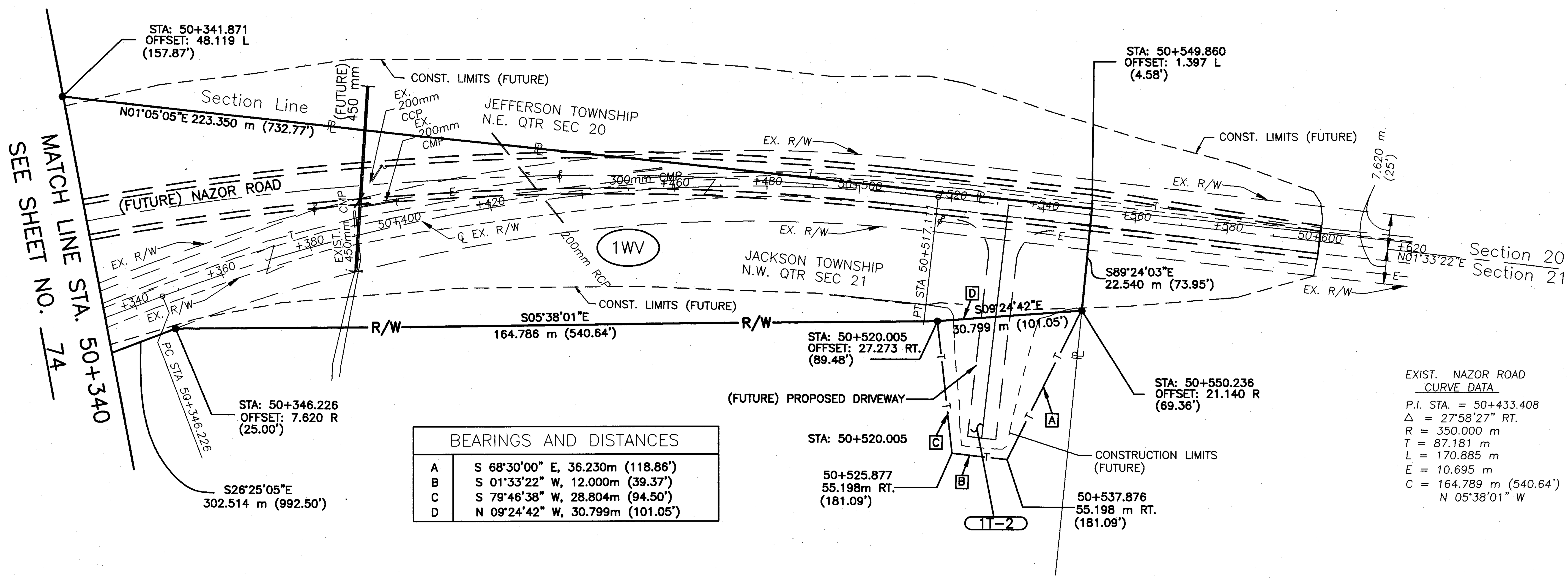
690/712

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

L:\DRAWINGS\93125\ROW\ROW\FOK\Rpnaz_1.dwg August 22 2001 9:47am By:crenner

SECTION 20
JEFFERSON TOWNSHIP
CRAWFORD COUNTY
T–20 N, R–20 W

metric units



	BEARINGS AND DISTANCES
A	S 68°30'00" E, 36.230m (118.86')
B	S 01°33'22" W, 12.000m (39.37')
C	S 79°46'38" W, 28.804m (94.50')
D	N 09°24'42" W, 30.799m (101.05')

EXIST. NAZOR ROAD
CURVE DATA

P.I. STA. = 50+433.408
Δ = 27°58'27" RT.
R = 350.000 m
T = 87.181 m
L = 170.885 m
E = 10.695 m
C = 164.789 m (540.64')
N 05°38'01" W

1
PATRICK J. TROIANO
MARGARET FERN TROIANO

SECTION 21
JACKSON TOWNSHIP
CRAWFORD COUNTY
T–20 N, R–20 W

MONUMENT LEGEND

- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S–4896"
- REFERENCE MONUMENT

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
- TAX MAPS
- DEEDS
- EXIST. MONUMENTS
- CRAWFORD COUNTY ENGINEER

LBD	8/20/01	ADDED PARCEL 1–T–2
REV	DATE	DESCRIPTION

DATE OF COMPLETED

RATIO 1:500
0 5 10 20
HORIZONTAL
SCALE IN METERS

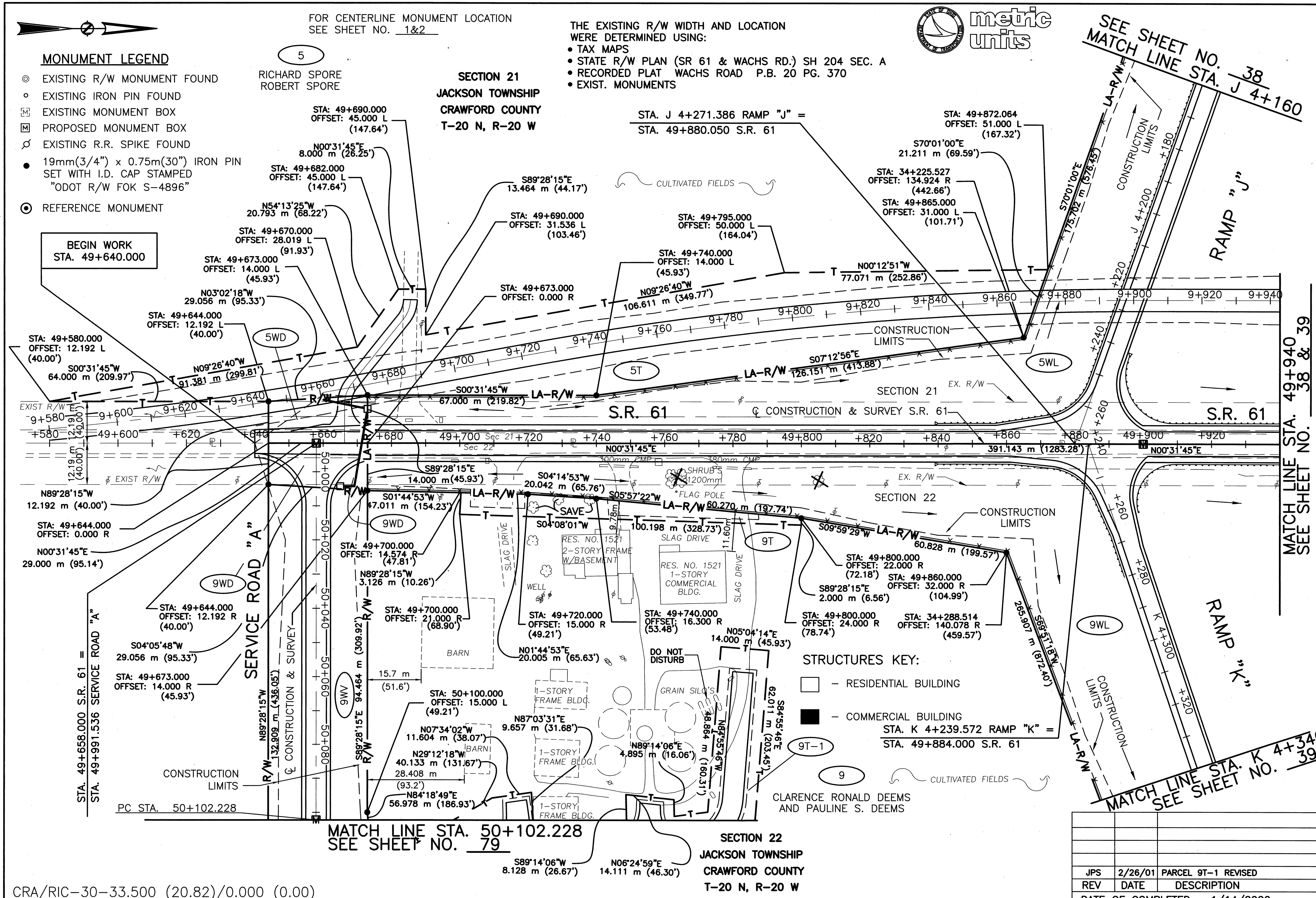
PID NO. 16284

RIGHT OF WAY PLAN NAZOR ROAD T.H. 48
STA. 50+340 TO STA. 50+620

CRA–30–33.500 (20.82)
RIC–30–0.000 (0.00)

L:\DRAWINGS\93125\ROW\ROW\FOK\Rpnaz_2.dwg August 22 2001 10:02am By:rcrenner

CRA/RIC–30–33.500 (20.82)/0.000 (0.00)



RIGHT OF WAY PLAN S.R. 61
STA. 49+580 TO STA. 49+940

RATIO 1:500 HORIZONTAL SCALE IN METERS

PID NO. 16284

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

JPS	2/26/01	PARCEL 9T-1 REVISED
REV	DATE	DESCRIPTION

DATE OF COMPLETED 1/14/2000

76/95

692/712

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

1:500M SR61ARW.DWG 10 MAY 2001

WETLAND SITES SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES AND EQUIPMENT BY THE INSTALLATION OF TEMPORARY FENCING. FOR ADDITIONAL INFORMATION SEE GENERAL NOTE "ENVIRONMENTAL SENSITIVE AREAS" ON SHEET NO. 24 OF 712.

	PARCEL 13WL	
BE	N00°27'42"E	101.216 m (332.07')
BG	L= 90.078 m	(295.53')
	R= 498.988 m	(1637.10')
	C= 89.956 m	(295.13')
	S07°51'50"W	
AH	N89°42'37"W	0.378 m (1.24')
	PARCEL 10WL	
AF	N00°27'42"E	19.412 m (63.69')
AH	S89°42'37"E	0.378 m (1.24')
AI	L= 76.586 m	(251.27')
	R= 498.988 m	(1637.10')
	C= 76.511 m	(251.02')
	N07°05'21"E	
	PARCEL 6WL-1	
R	S00°27'42"W	149.069 m (489.07')

S.R. 61
CURVE DATA

PI STA. 50+514.300
Δ = 61°59'50" R
R = 498.988 m (1637.10')
T = 299.805m (983.61')
L = 539.932 m (1771.43')
E = 83.139 m (272.77')
C = 513.974 m (1686.27')
N31°27'37"E

MONUMENT LEGEND

- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

LEAD-IN DISTANCE

① N00°27'42"E 121.920 m (400.00')
② N00°27'42"E 150.352 m (493.28')
③ L=109.505 m (359.27')
R=498.988 m (1637.10')
C=109.286 m (358.55')
N06°44'55" E

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
- TAX MAPS
- STATE R/W PLAN (SR 61 & WACHS RD.) SH 204 SEC. A
- RECORDED PLAT WACHS ROAD P.B. 20 PG. 370
- EXIST. MONUMENTS

metric units

RATIO 1:500
HORIZONTAL SCALE IN METERS

PID NO. 16284

RIGHT OF WAY PLAN S.R. 61
STA. 50+050 TO STA. 50+290

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

SLR	12/02/08	Sale of Pcl 8E
REV	DATE	DESCRIPTION

DATE OF COMPLETION: 8/16/2000

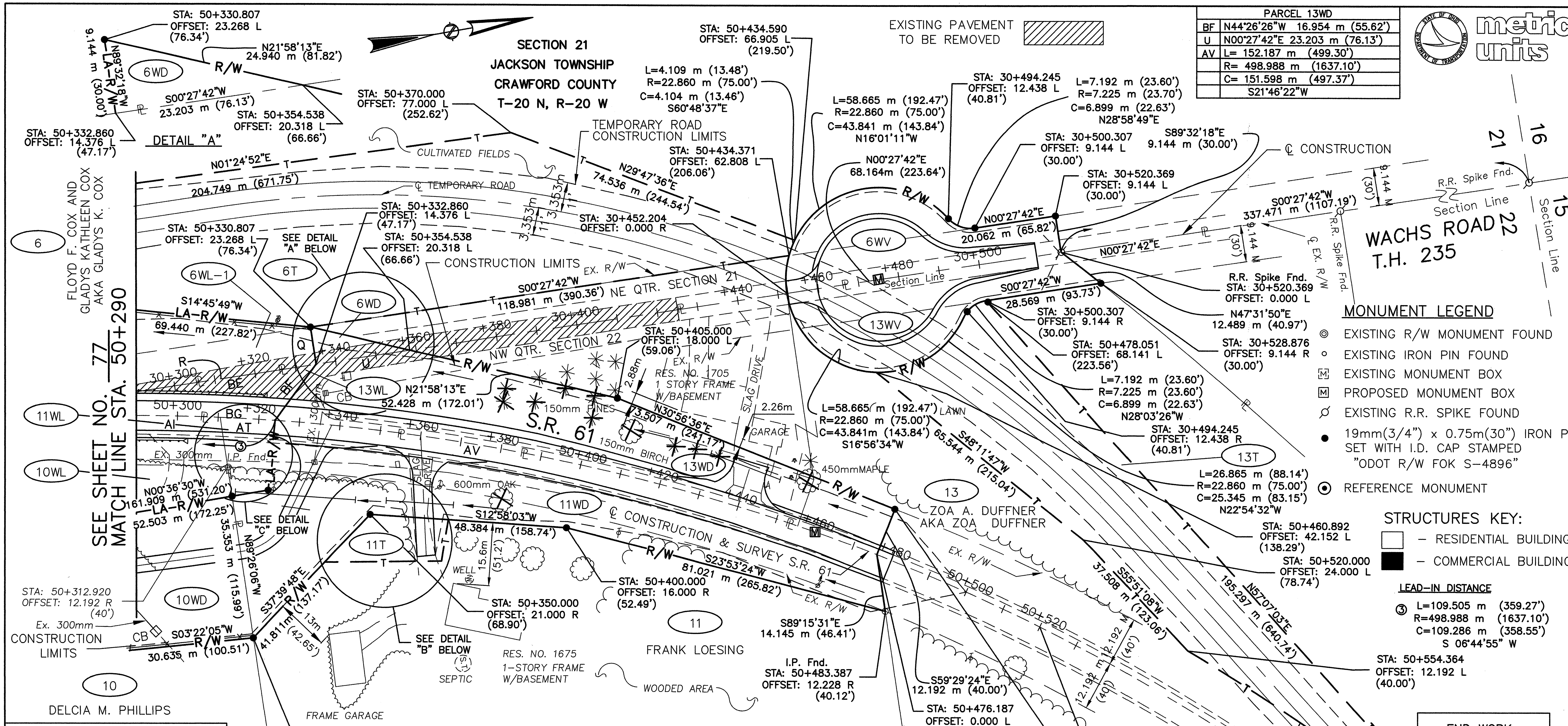
77/95

693/712

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

1:500M
SR61CRW.DWG 3 NOVEMBER 2000

08/27/2001



MONUMENT LEGEND

- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

STRUCTURES KEY:

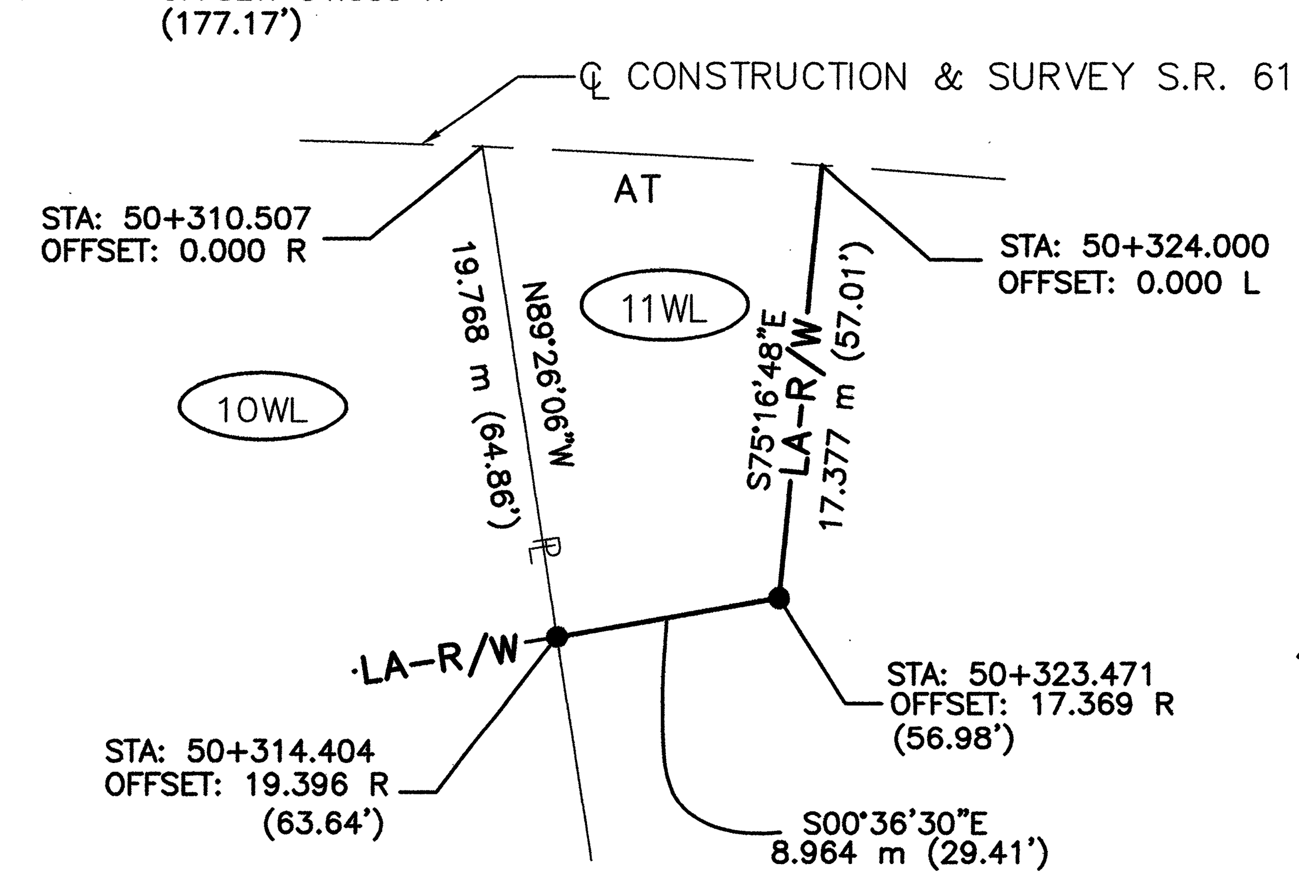
- RESIDENTIAL BUILDING
- COMMERCIAL BUILDING

LEAD-IN DISTANCE

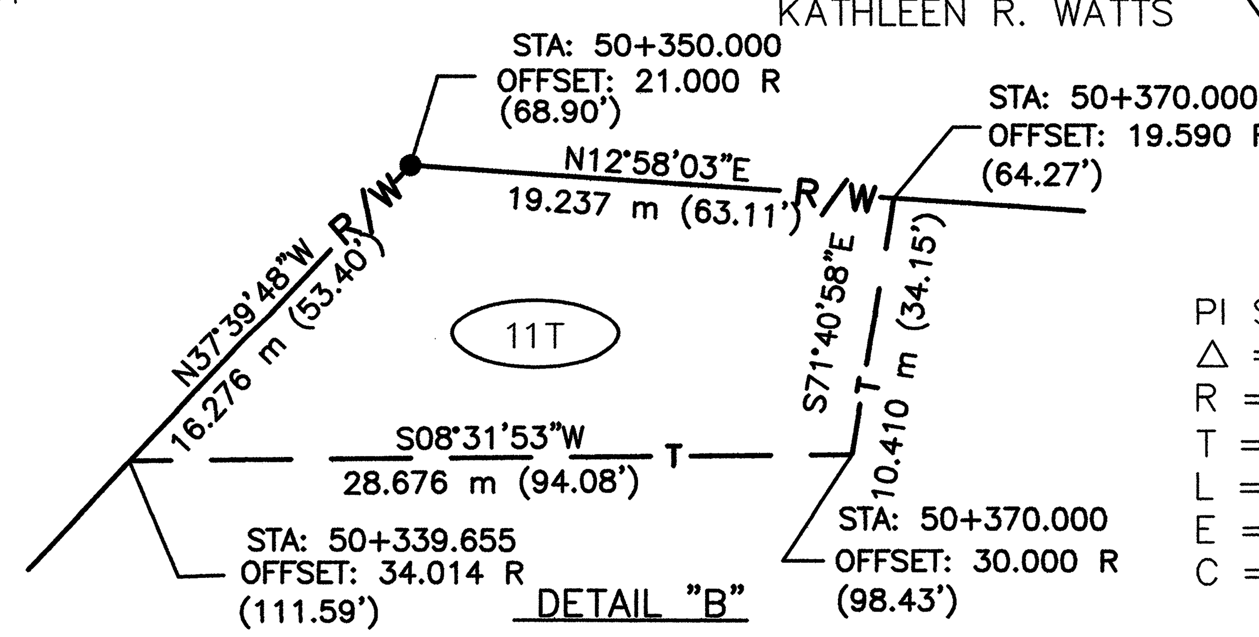
③ L=109.505 m (359.27') R=498.988 m (1637.10') C=109.286 m (358.55') S 06°44'55" W

PARCEL 13WD	
BF	N44°26'26"W 16.954 m (55.62')
U	N00°27'42"E 23.203 m (76.13')
AV	L= 152.187 m (499.30')
	R= 498.988 m (1637.10')
	C= 151.598 m (497.37')
	S21°46'22"W

	PARCEL 6WL-1
Q	S89°32'18"E 9.144 m (30.00')
R	S00°27'42"W 149.069 m (489.07')
	PARCEL 10WL
AI	L= 76.586 m (251.27')
	R= 498.988 m (1637.10')
	C= 76.511 m (251.02')
	N07°05'21"E
	PARCEL 11WL
AT	L= 13.493 m (44.27')
	R= 498.988 m (1637.10')
	C= 13.492 m (44.27')
	N12°15'39"E
	PARCEL 11WD
AV	L= 152.187 m (499.30')
	R= 498.988 m (1637.10')
	C= 151.598 m (497.37')
	N21°46'22"E
	PARCEL 13WL
BE	N00°27'42"E 101.216 m (332.07')
BF	S44°26'26"E 16.954 m (55.62')
BG	L= 90.078 m (295.53')
	R= 498.988 m (1637.10')
	C= 89.956 m (295.13')
	S07°51'50"W



DETAIL "C"



DETAIL "B"

SECTION 22
JACKSON TOWNSHIP
CRAWFORD COUNTY
T-20 N, R-20 W

S.R. 61
CURVE DATA
PI STA. 50+514.300
Δ = 61°59'50" RT
R = 498.988 m (1637.10')
T = 299.805m (983.61')
L = 539.932 m (1771.43')
E = 83.139 m (272.77')
C = 513.974 m (1686.27')
N31°27'37"E

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
- TAX MAPS
- STATE R/W PLAN (SR 61 & WACHS RD.) SH 204 SEC. A
- RECORDED PLAT WACHS ROAD P.B. 20 PG. 370
- EXIST. MONUMENTS

metric units

RATIO 1:500 HORIZONTAL SCALE IN METERS

PID NO. 16284

RIGHT OF WAY PLAN S.R. 61/WACHS ROAD
STA. 50+290 TO STA. 50+520

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

REV	DATE	DESCRIPTION
DATE OF COMPLETED	1-14-2000	

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

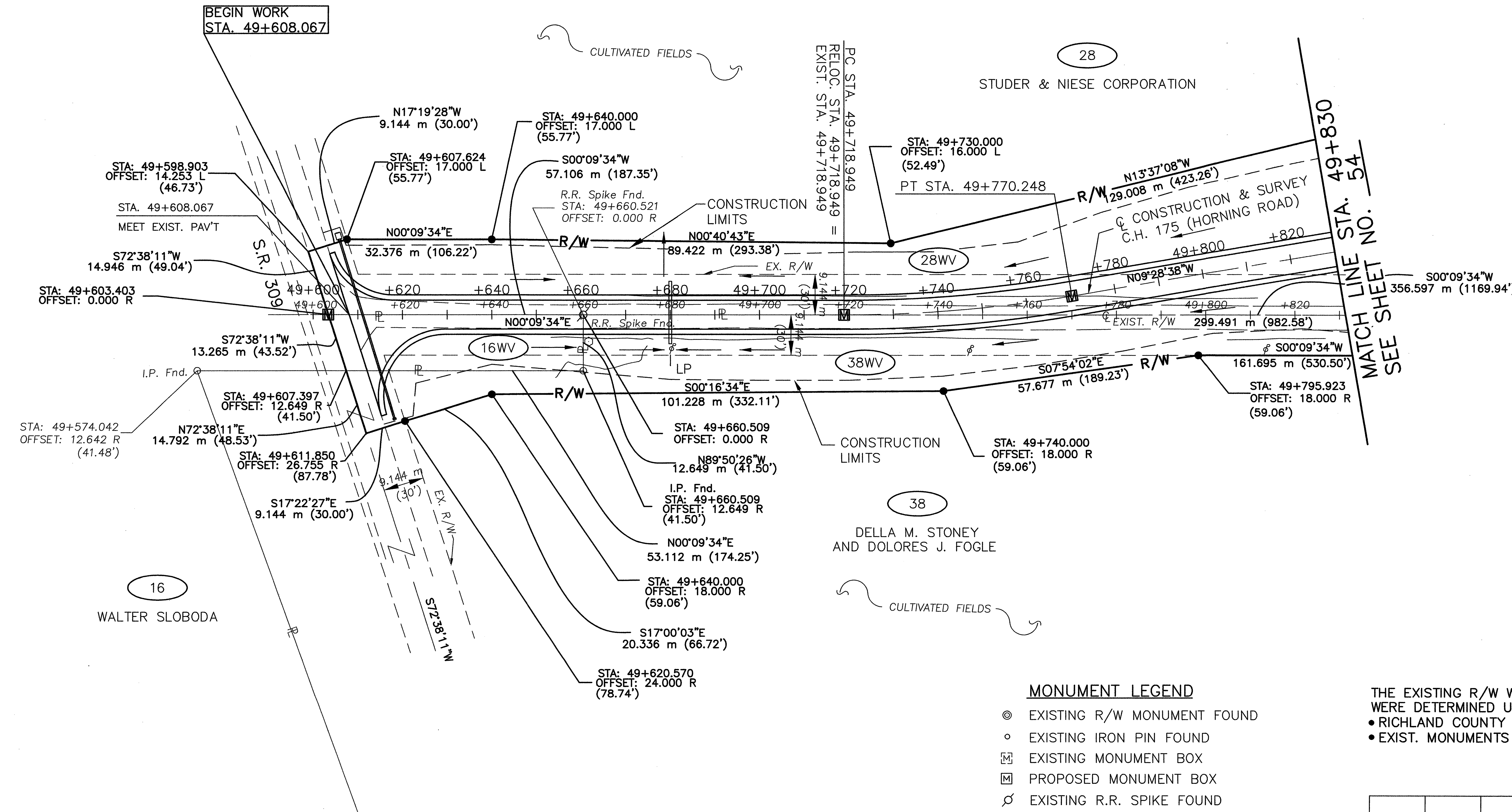
1:500M SR61DRW.DWG 13 JANUARY 2000

NOT TO SCALE
FLOYD F. COX AND GLADYS KATHLEEN COX AKA GLADYS COX 23-00-05176.000 D.V. 196, PG. 200
6
FRANK LOESING 23-00-05233.000 D.V. 459, PG. 900
11
8-A
D.V. 148, PG. 493 DATED MAR. 15, 1937 SH 204 SEC. A (1934)
℄ CONSTR. & SUR. WACHS RD. (T.H. 235)
℄ CONSTR. & SUR. S.R. 61
30+400
50+400
30+300
50+300
50+200
R/W
LA-R/W
N 00° 27' 42" E, 207.158 m (679.65')
64.142 m (210.44') LT. STA. 34+257.014 ℄ CONSTR. & SUR. RELOC. U.S. 30- STA. 50+064.143 ℄ CONSTR. & SUR. S.R. 61
THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING: TAX MAPS STATE R/W PLAN: SH 204 SEC. A DATED 1934 RECORDED PLAT WACHS RD. P.B. 20, PG. 370 EXISTING MONUMENTS
CRA/RIC-30-33.500 (20.82)/0.000 (0.00)
SECTIONS 21 & 22
TOWNSHIP 20 NORTH, RANGE 20 WEST
JACKSON TOWNSHIP
CRAWFORD COUNTY
50+214.495 ℄ CONSTR. & SUR. S.R. 61 = 30+214.495 ℄ CONSTR. & SUR. WACHS RD. (T.H. 235)
150.352 m (493.28')
SW COR. OF NW QTR. OF SEC. 22
21 22
HALF SECTION LINE
21 22
metric units
ZOA A. DUFFNER AKA ZOA DUFFNER 23-00-05197.000 D.V. 414, PG. 115 D.V. 416, PG. 464
13
RES. NO. 1705 1-STY. FR. W/ BASEMENT
13VAC
0.0067 HA (0.0165 AC.) = 67 SQ. METERS (719 S.F.)
EXIST. R/W
EX. R/W
30+421.654 9.144' (30.00')
S 89° 32' 18" E 9.144 m (30.00')
N 00° 27' 42" E 5.159 m (16.93')
S 66° 36' 52" E 16.202 m (53.16')
13.651 m (44.79') N 69° 01' 54" W
2.000m (6.56')
30+416.495 9.144 m (30.00')
30+415.343 24.067 m (78.96') 50+414.139 16.658 m (54.65')
S 30° 56' 36" W 4.213 m (13.82')
30+411.713 21.930 m (71.95') 50+410.102 17.229 m (56.52')
50+405.00 18.000 (59.05')
30+421.654
N 00° 27' 42" E
I.P.S.
EXIST. R/W SH 204 SEC. A (1934)
℄ R/W & CONSTR. S.R. 61
BASIS FOR BEARINGS:
REFERENCED TO OHIO STATE PLANE GRID NORTH ZONE, ESTABLISHED USING NAD 83 STATE PLANE COORDINATES (HARN, ORDER B OF NGS MONUMENTS 17GA, ARP MFD, GQQA AND WACHS
MONUMENT LEGEND
EXISTING CONCRETE MONUMENT
I.P.F. IRON PIN FOUND
EXISTING R/W MONUMENT BOX
PROPOSED R/W MONUMENT BOX
RAILROAD SPIKE FOUND
I.P.S. IRON PIN SET W/ ID CAP
REFERENCE MONUMENT
S.R. 61 CURVE DATA
P.I. STA. = 50+514.300
Δ = 61°59'50" (RT)
R = 498.988 m (1637.10')
T = 299.805 m (983.61')
L = 539.932 m (1771.43')
E = 83.139 m (272.77')
C = 513.974 m (1686.27') N31°27'37"E
STATE OF OHIO JAMES E. KENYON 6891 PROFESSIONAL SURVEYOR
BY: James E. Kenyon
JAMES E. KENYON
SURVEYOR NO.: 6891 DATE: JUNE 10, 2003
HORIZONTAL SCALE IN METERS
PID. NO. 16284
VACATION PLAT FOR STATE ROUTE 61
CRA-30-33.500 (20.82) RIC-30-0.000 (0.00)
78A/95
694A 712
DESIGN FILE: ...\16284\RW\par13vac.dgn WORKSTATION: psnyder DATE: 06/12/03

RIGHT OF WAY PLAN SERVICE ROAD "A"
STA. 50+102.228 TO STA. 50+520
CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)
79/95
695/712
RATIO 1:500
HORIZONTAL SCALE IN METERS
PID NO. 16284
metric units
SECTION 22
JACKSON TOWNSHIP
CRAWFORD COUNTY
T-20 N, R-20 W
SEE SHEET NO. 76
MATCH LINE STA. 50+102.228
PC STA. 50+102.228
MATCH LINE STA. 50+400
MATCH LINE STA. 50+520
SEE SHEET NO. 41
PT STA. 50+382.193
PC STA. 50+483.863
SERVICE ROAD "A"
CURVE DATA
PI STA. 50+252.945
△ =52°35'34" LT
R = 305.000 m (1000.66')
L = 279.965 m (918.52')
T = 150.717 m (494.48')
C = 270.239 m (886.61')
N64°13'58"E
9
CLARENCE RONALD DEEMS
AND PAULINE S. DEEMS
9T-1
9WV
14E
14WV
14
RONALD DEEMS
PAULINE S.DEEMS
AKA C. RONALD DEEMS
AKA CLARENCE RONALD DEEMS
CULTIVATED FIELDS
CONSTRUCTION LIMITS
R/W
℄ CONSTRUCTION
N06°45'18"W 9.872 m (32.39')
N06°24'59"E 14.111 m (46.30')
N06°45'18"W 7.887 m (25.88')
N00°48'26"E 19.436 m (63.77')
N87°03'31"E 9.657 m (31.68')
N07°34'02"W 11.604 m (38.07')
N84°55'46"E 62.011 m (203.45')
N89°14'06"E 4.895 m (16.06')
S89°14'06"W 8.128 m (26.67')
S07°34'02"E 110.436 m (362.32')
N29°12'18"W 40.133 m (131.67')
N84°18'49"E 56.978 m (186.93')
S84°18'49"W 14.008 m (45.96')
N89°28'15"W 132.909 m (436.05')
S76°42'47"W 78.599 m (257.87')
N73°57'36"E 66.304 m (217.53')
N62°30'29"E 66.821 m (219.23')
N48°40'49"E 47.979 m (157.41')
N38°40'43"E 48.680 m (159.71')
S62°30'24"W 104.980 m (344.42')
S44°38'13"W 52.765 m (173.12')
S38°02'26"W 72.109 m (236.58')
N36°39'08"E 69.997 m (229.65')
N36°39'08"E 52.077 m (170.86')
N00°30'57"E 111.182 m (364.77')
49.123 m (161.16')
S38°02'26"W 72.109 m (236.58')
S38°02'26"W 68.234 m (223.86')
S50°57'31"W 94.499 m (310.03')
STA: 50+116.421 OFFSET: 16.392 L (53.78')
STA: 50+131.228 OFFSET: 16.920 L (55.51')
STA: 50+160.000 OFFSET: 16.000 L (52.49')
STA: 50+135.000 OFFSET: 15.850 R (52.00')
STA: 50+230.000 OFFSET: 15.000 L (49.21')
STA: 50+210.000 OFFSET: 15.000 R (49.21')
STA: 50+300.000 OFFSET: 12.000 L (39.37')
STA: 50+350.000 OFFSET: 12.000 L (39.37')
STA: 50+400.000 OFFSET: 13.000 L (42.65')
STA: 50+310.000 OFFSET: 18.000 R (59.06')
STA: 50+360.000 OFFSET: 16.000 R (52.49')
STA: 50+400.000 OFFSET: 13.000 L (42.65')
STA: 50+469.979 OFFSET: 14.569 L (47.80')
STA: 50+520.000 OFFSET: 18.000 L (59.06')
STA: 50+430.966 OFFSET: 15.282 R (50.14')
STA: 50+500.000 OFFSET: 15.000 R (49.21')
50+120 50+140 50+160 50+180 50+200 50+220 50+240 50+260 50+280 50+300 50+320 50+340 50+360 50+380
50+420 50+440 50+460 50+480 50+500
MONUMENT LEGEND
EXISTING R/W MONUMENT FOUND
EXISTING IRON PIN FOUND
EXISTING MONUMENT BOX
PROPOSED MONUMENT BOX
EXISTING R.R. SPIKE FOUND
19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
REFERENCE MONUMENT
FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2
JPS 2/26/01 PARCEL 9T-1 REVISED
REV DATE DESCRIPTION
DATE COMPLETED 4/17/2000
CRA/RIC-30-33.500 (20.82)/0.000 (0.00)
1:500M SV61BRW.DWG 10 MAY 2001

SECTION 24
SANDUSKY TOWNSHIP
RICHLAND COUNTY
T-20 N, R-20 W

RELOC. HORNING ROAD
CURVE DATA
PI STA. 49+744.659
Δ = 09°38'12" LT.
R = 305.000m (1000.66')
T = 25.710m (84.35')
L = 51.299m (168.30')
E = 1.078 m (3.54')
C = 51.239 m (168.11')
N04°32'32"W



MONUMENT LEGEND
- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
- RICHLAND COUNTY ENGINEER
- EXIST. MONUMENTS

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

REV	DATE	DESCRIPTION
DATE OF COMPLETED		1-14-2000

metric units

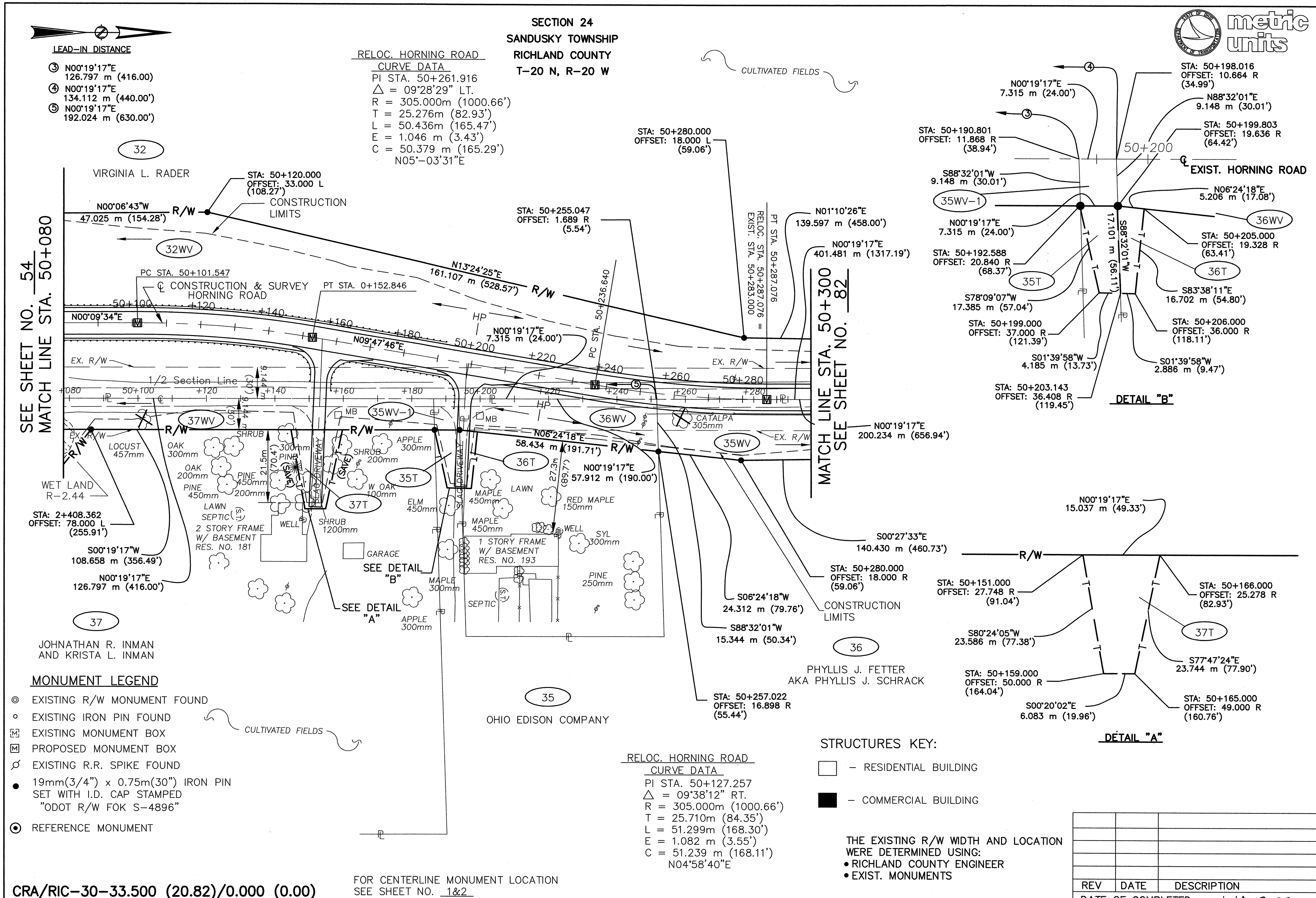
RATIO 1:500 HORIZONTAL SCALE IN METERS

PID NO. 16284

RIGHT OF WAY PLAN HORNING ROAD C.H. 175
STA. 49+600 TO STA. 49+8300

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

1:500M HORNARW.DWG 13 JANUARY 2000



SECTION 24
SANDUSKY TOWNSHIP
RICHLAND COUNTY
T-20 N, R-20 W

RELOC. HORNING ROAD CURVE DATA
PI STA. 50+261.916
△ = 09°28'29" LT.
R = 305.000m (1000.66')
T = 25.276m (82.93')
L = 50.436m (165.47')
E = 1.046 m (3.43')
C = 50.379 m (165.29')
N05°-03'31"E

metric units

RATIO 1:500
HORIZONTAL SCALE IN METERS

PID NO. 16284

RIGHT OF WAY PLAN HORNING ROAD C.H.175
STA. 50+080 TO STA. 50+300

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

MONUMENT LEGEND
- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

RELOC. HORNING ROAD CURVE DATA
PI STA. 50+127.257
△ = 09°38'12" RT.
R = 305.000m (1000.66')
T = 25.710m (84.35')
L = 51.299m (168.30')
E = 1.082 m (3.55')
C = 51.239 m (168.11')
N04°58'40"E

STRUCTURES KEY:
- RESIDENTIAL BUILDING
- COMMERCIAL BUILDING

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
- RICHLAND COUNTY ENGINEER
- EXIST. MONUMENTS

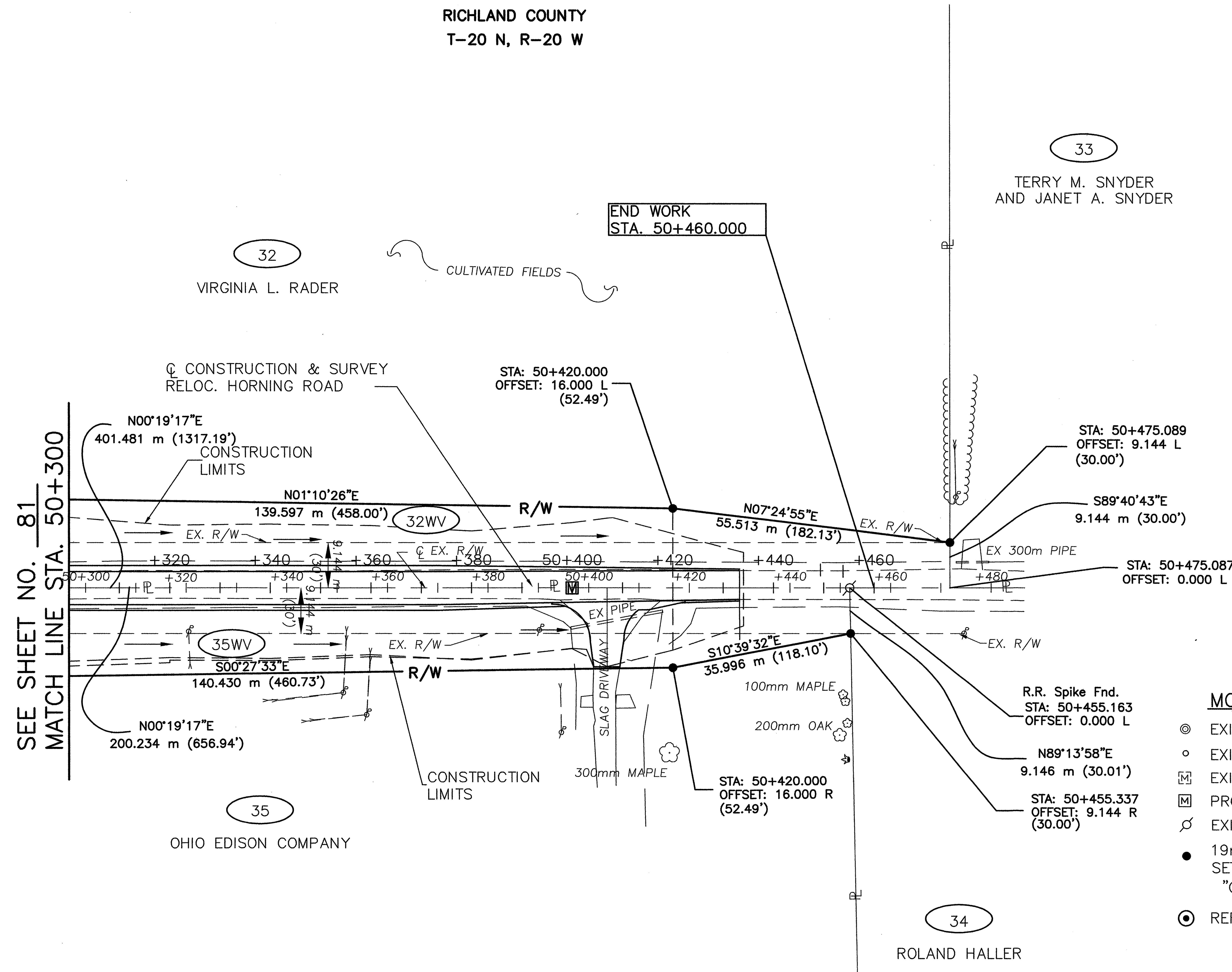
REV	DATE	DESCRIPTION
DATE OF COMPLETED		1-14-2000

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

1:500M HORNCRW.DWG 13 JANUARY 2000

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

SECTION 24
SANDUSKY TOWNSHIP
RICHLAND COUNTY
T-20 N, R-20 W



MONUMENT LEGEND

- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
- RICHLAND COUNTY ENGINEER
- EXIST. MONUMENTS

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

REV	DATE	DESCRIPTION

DATE OF COMPLETED 1-14-2000

metric units

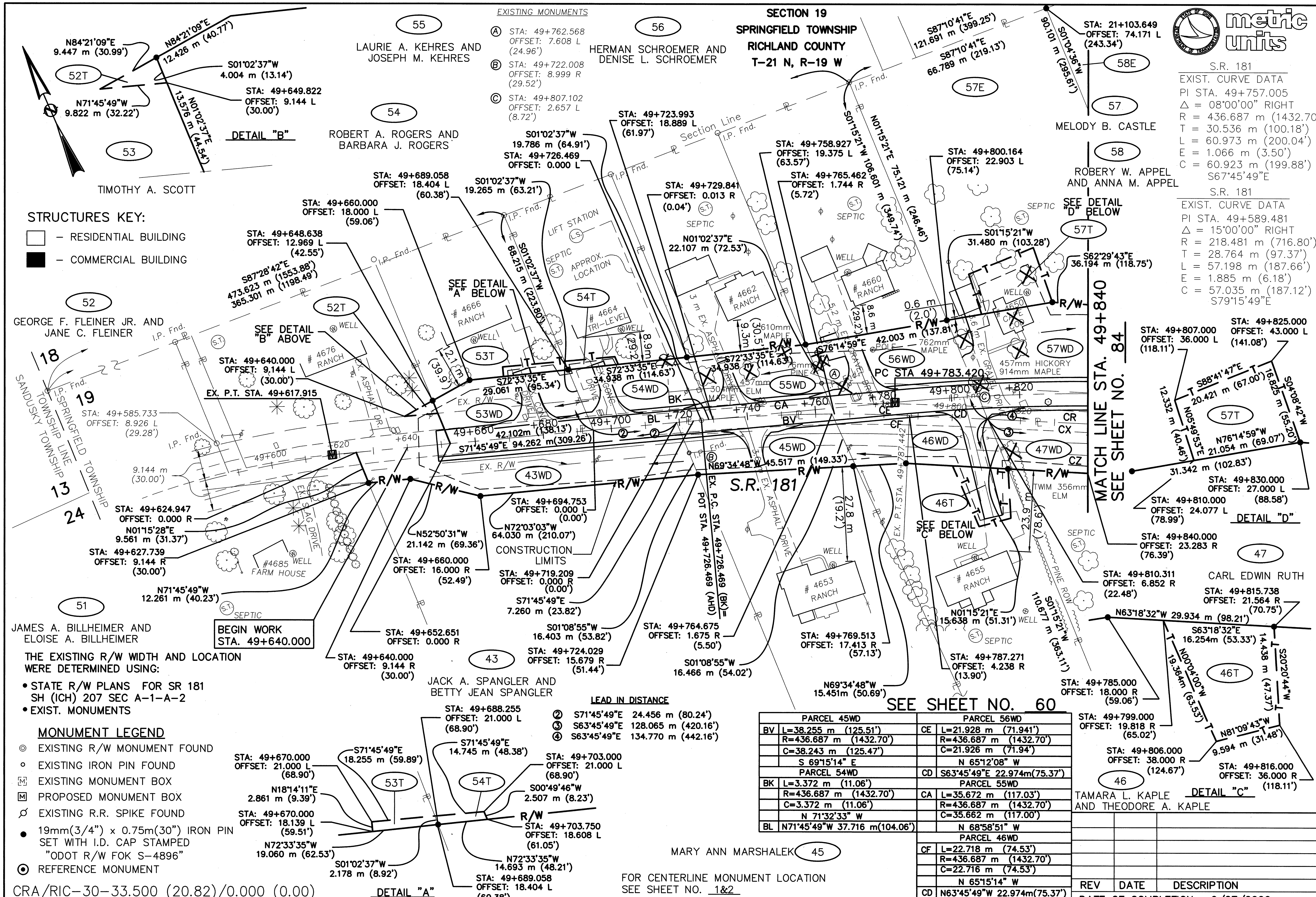
RATIO 1:500
0 5 10 20
HORIZONTAL
SCALE IN METERS

PID NO. 16284

RIGHT OF WAY PLAN HORNING ROAD C.H. 175
STA. 50+300 TO STA. 50+460

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

1:500M PREL RW
HORNDRW.DWG 13 JANUARY 2000



STRUCTURES KEY:

- ☐ – RESIDENTIAL BUILDING
- ■ – COMMERCIAL BUILDING

S.R. 181
EXIST. CURVE DATA
PI STA. 49+757.005
Δ = 08°00'00" RIGHT
R = 436.687 m (1432.70')
T = 30.536 m (100.18')
L = 60.973 m (200.04')
E = 1.066 m (3.50')
C = 60.923 m (199.88')
S67°45'49"E

S.R. 181
EXIST. CURVE DATA
PI STA. 49+589.481
Δ = 15°00'00" RIGHT
R = 218.481 m (716.80')
T = 28.764 m (97.37')
L = 57.198 m (187.66')
E = 1.885 m (6.18')
C = 57.035 m (187.12')
S79°15'49"E

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:

- STATE R/W PLANS FOR SR 181 SH (ICH) 207 SEC A-1-A-2
- EXIST. MONUMENTS

MONUMENT LEGEND

- ◎ EXISTING R/W MONUMENT FOUND
- ○ EXISTING IRON PIN FOUND
- Ⓜ EXISTING MONUMENT BOX
- Ⓜ PROPOSED MONUMENT BOX
- ⌀ EXISTING R.R. SPIKE FOUND
- ● 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- ⊙ REFERENCE MONUMENT

LEAD IN DISTANCE

②	S71°45'49"E	24.456 m (80.24')
③	S63°45'49"E	128.065 m (420.16')
④	S63°45'49"E	134.770 m (442.16')

	PARCEL 45WD
BV	L=38.255 m (125.51')
	R=436.687 m (1432.70')
	C=38.243 m (125.47')
	S 69°15'14" E
	PARCEL 54WD
BK	L=3.372 m (11.06')
	R=436.687 m (1432.70')
	C=3.372 m (11.06')
	N 71°32'33" W
BL	N71°45'49"W 37.716 m(104.06')

	PARCEL 56WD
CE	L=21.928 m (71.941')
	R=436.687 m (1432.70')
	C=21.926 m (71.94')
	N 65°12'08" W
CD	S63°45'49"E 22.974m(75.37')
	PARCEL 55WD
CA	L=35.672 m (117.03')
	R=436.687 m (1432.70')
	C=35.662 m (117.00')
	N 68°58'51" W
	PARCEL 46WD
CF	L=22.718 m (74.53')
	R=436.687 m (1432.70')
	C=22.716 m (74.53')
	N 65°15'14" W
CD	N63°45'49"W 22.974m(75.37')

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

REV	DATE	DESCRIPTION

DATE OF COMPLETION: 9/27/2000

metric units

RATIO 1:500 HORIZONTAL SCALE IN METERS

PID NO. 16284

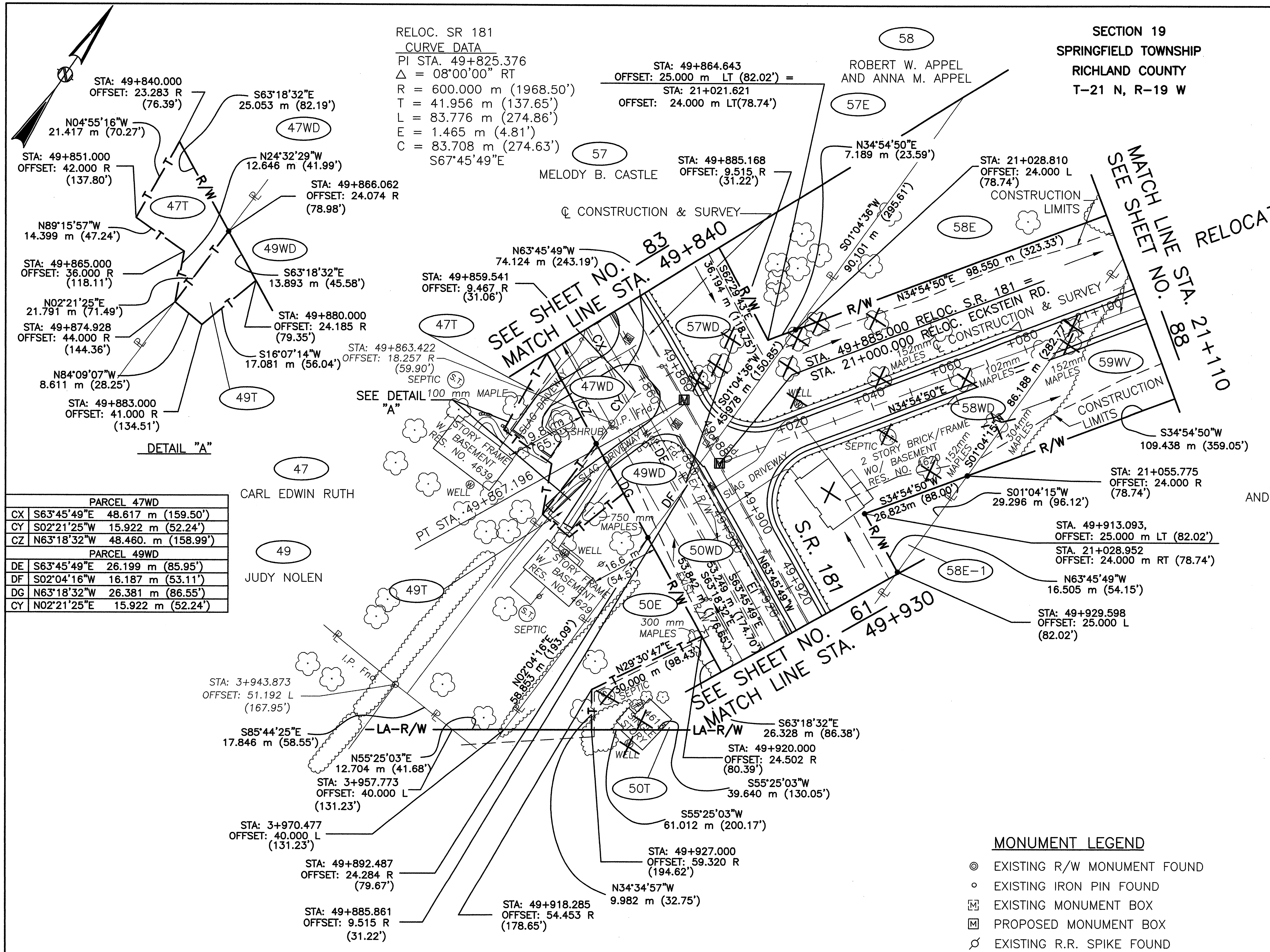
RIGHT OF WAY – S.R. 181
STA. 49+660 TO STA. 49+840

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

1:500M RP181_1.DWG 3 NOVEMBER 2000

SECTION 19
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY
T-21 N, R-19 W

RELOC. SR 181
CURVE DATA
PI STA. 49+825.376
Δ = 08°00'00" RT
R = 600.000 m (1968.50')
T = 41.956 m (137.65')
L = 83.776 m (274.86')
E = 1.465 m (4.81')
C = 83.708 m (274.63')
S67°45'49"E



PARCEL 47WD		
CX	S63°45'49"E 48.617 m	(159.50')
CY	S02°21'25"W 15.922 m	(52.24')
CZ	N63°18'32"W 48.460. m	(158.99')
PARCEL 49WD		
DE	S63°45'49"E 26.199 m	(85.95')
DF	S02°04'16"W 16.187 m	(53.11')
DG	N63°18'32"W 26.381 m	(86.55')
CY	N02°21'25"E 15.922 m	(52.24')

STRUCTURES KEY:
- ☐ – RESIDENTIAL BUILDING
- ■ – COMMERCIAL BUILDING

MONUMENT LEGEND
- ◎ EXISTING R/W MONUMENT FOUND
- ○ EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- ● 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- ⦿ REFERENCE MONUMENT

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
- STATE R/W PLANS FOR SR 181 SH (ICH) 207 SEC A-1-A-2
- EXIST. MONUMENTS

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

REV	DATE	DESCRIPTION
DATE OF COMPLETED		1-14-2000

RATIO 1:500
HORIZONTAL SCALE IN METERS
PID NO. 16284

RIGHT OF WAY – RELOCATED S.R. 181
STA. 49+840 TO STA. 49+930
CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

1:500M RP181_1B.DWG 13 JANUARY 2000

PARCEL 59WD-1	
EU	L=5.827 m (19.12')
	R=873.231 m (2864.93')
	C=5.827 m (19.12')
	N 63°57'17" W

STA. 49+839.273 EXIST. ECKSTEIN RD. =
STA. 50+171.470 EXIST. S.R. 181

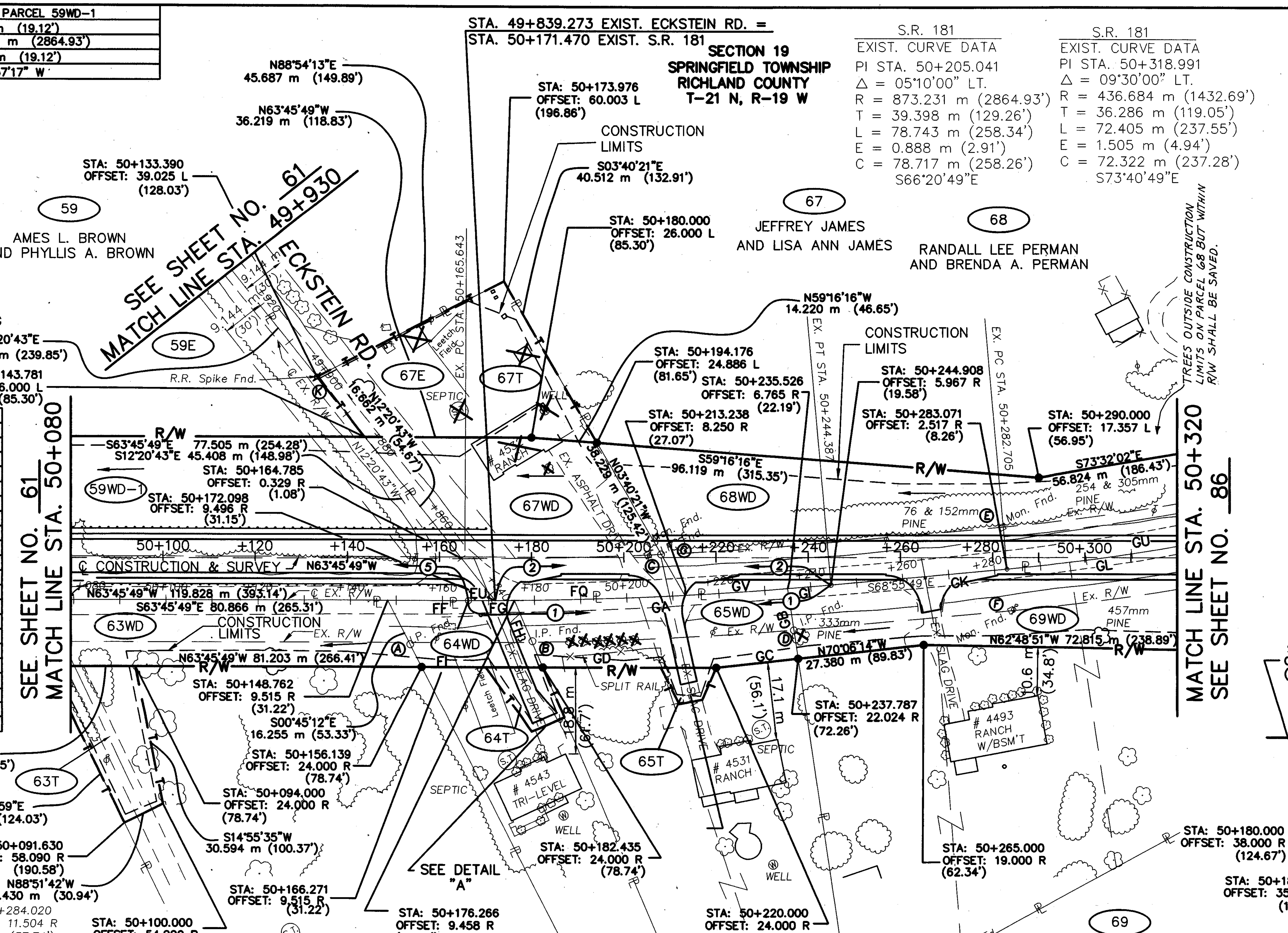
SECTION 19
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY
T-21 N, R-19 W

S.R. 181
EXIST. CURVE DATA
PI STA. 50+205.041
Δ = 05°10'00" LT.
R = 873.231 m (2864.93')
T = 39.398 m (129.26')
L = 78.743 m (258.34')
E = 0.888 m (2.91')
C = 78.717 m (258.26')
S66°20'49"E

S.R. 181
EXIST. CURVE DATA
PI STA. 50+318.991
Δ = 09°30'00" LT.
R = 436.684 m (1432.69')
T = 36.286 m (119.05')
L = 72.405 m (237.55')
E = 1.505 m (4.94')
C = 72.322 m (237.28')
S73°40'49"E

metric units

STRUCTURES KEY:
- RESIDENTIAL BUILDING
- COMMERCIAL BUILDING

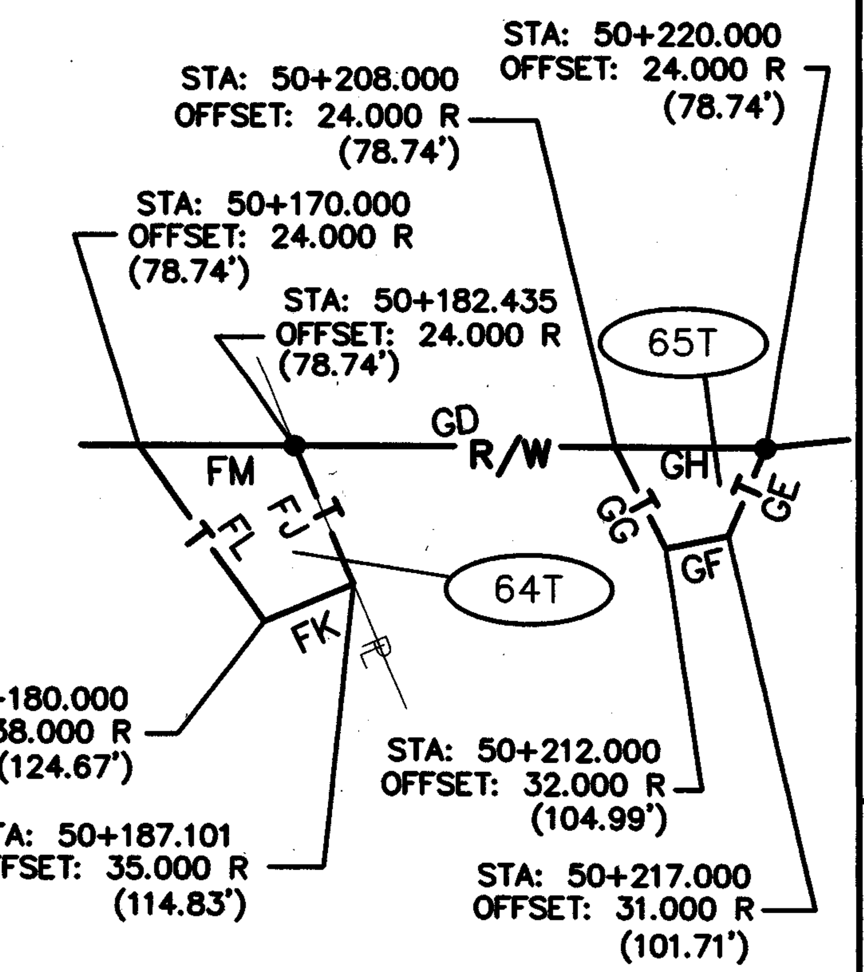


PARCEL 64WD	
FF	S63°45'49"E 17.509 m (57.44')
FG	L= 9.995 m (32.79')
	R=873.231 m (2864.93')
	C=9.995 m (32.79')
	S 64°05'30"E
FH	S03°15'01"W 15.796 m (51.82')
FI	N63°45'49"W 26.295 m (86.27')
PARCEL 65WD	
GA	L=59.332 m (194.66')
	R=873.231 m (2864.93')
	C=59.320 m (194.62')
	S66°21'57"E
GB	S17°48'13"W 15.426 m (50.61')
GC	N70°06'14"W 17.897 m (58.72')
GD	N63°45'49"W 37.565 m (123.24')
FH	N03°15'01"E 15.796 m (51.82')
PARCEL 67WD	
FQ	L= 41.163 m (135.05')
	R=873.231 m (2864.93')
	C=41.159 m (135.04')
	S 65°30'09"E

PARCEL 64T	
FJ	S03°15'01"W 11.949 m (39.20')
FK	N86°40'03"W 7.708 m (25.29')
FL	N09°18'05"W 17.205 m (56.45')
FM	S63°45'49"E 12.435 m (40.80')
PARCEL 65T	
GE	S49°26'06"W 7.616 m (24.99')
GF	N75°04'25"W 5.099 m (16.73')
GG	N00°19'43"W 8.944 m (29.34')
GH	S63°45'49"E 12.000 m (39.37')
PARCEL 68WD	
GU	L=72.405 m (237.55')
	R=436.684 m (1432.69')
	C=72.322 m (237.28')
	N73°40'49"W
GK	N68°55'49"W 38.319 m (125.72')
GV	L=31.753 m (104.18')
	R=873.231 m (2864.93')
	C=31.752 m (104.17')
	N67°53'19"W

LEAD-IN DISTANCE

① L=78.743 m (258.34'), R=873.231m (2864.93'), C=78.717 m (258.26'), N66°20'49" W
② L=72.916 m (239.23'), R=873.231m (2864.93'), C=72.895 m (239.16'), N66°32'17" W
⑤ N63°45'49"W 98.375 m (322.75')



DETAIL "A"

EXIST. MON. FOUND

Ⓐ STA: 50+153.647 OFFSET: 19.041 R (62.47')
Ⓑ STA: 50+180.164 OFFSET: 18.279 R (59.97')
Ⓒ STA: 50+205.176 OFFSET: 0.523 L (1.72')
Ⓓ STA: 50+236.873 OFFSET: 15.854 R (52.01')
Ⓔ STA: 50+282.074 OFFSET: 6.538 L (21.45')
Ⓕ STA: 50+284.020 OFFSET: 11.504 R (37.74')
Ⓖ STA: 50+208.075 OFFSET: 0.654 L (2.15')
Ⓗ STA: 50+226.161 OFFSET: 111.925 R (367.208')
Ⓘ STA: 50+249.222 OFFSET: 99.155 R (325.31')
Ⓙ STA: 50+273.162 OFFSET: 85.869 R (281.72')
Ⓚ STA: 50+133.374 OFFSET: 39.045 L (128.10')

ERIC A. DZUGAN AND TRACY M. HATFIELD

PARCEL 69WD	
GI	L=9.416 m (30.89')
	R=873.231 m (2864.93')
	C=9.416 m (30.89')
	S68°37'17"E
GK	N68°55'49"W 38.319 m (125.72')
GL	L=50.206 m (164.72')
	R=436.684 m (1432.69')
	C=50.178 m (164.63')
	S72°13'26"E
GB	N17°48'13"E 15.426 m (50.61')

NOTE:
REMOVE ALL FORCE WITHIN EXISTITN AND PROPOSED RIGHT OF WAY BETWEEN STATION 50+186.63 TO STATION 50+207.92 .

64 EDWARD E. AULT AND NETTA KAY AULT

65 BRIAN L. SHOOK AND TAMMY D. SHOOK

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

MONUMENT LEGEND
- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
- STATE R/W PLANS FOR SR 181 SH (ICH) 207 SEC A-1-A-2
- EXIST. MONUMENTS

REV	DATE	DESCRIPTION

DATE OF COMPLETION: 9/27/2000

RATIO 1:500 HORIZONTAL SCALE IN METERS

PID NO. 16284

RIGHT OF WAY – S.R. 181
STA. 50+080 TO STA. 50+320

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

1:500M RP181_2.DWG 3 NOVEMBER 2000

08/27/2001

PARCEL 68WD		
GS	S03°38'43"E 9.476 m	(31.09')
GU	L=72.405 m (237.55')	
	R=436.684 m (1432.69')	
	C=72.322 m (237.28')	
	N73°40'49"W	
PARCEL 69WD		
GL	L=50.206 m (164.72')	
	R=436.684 m (1432.69')	
	C=50.178 m (164.63')	
	S72°13'26"E	
PARCEL 70WD		
GW	L=22.199 m (72.83')	
	R=436.684 m (1432.69')	
	C=22.197 m (72.82')	
	S76°58'26"E	
GY	S78°25'49"E 16.042 m	(52.63')
GZ	S46°05'08"E 28.774 m	(94.40')
HA	L=34.909 m (114.53')	
	R=456.597 m (1498.02')	
	C=34.900 m (114.50')	
	N75°23'45"E	

SECTION 19
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY
T-21 N, R-19 W
LOT 9

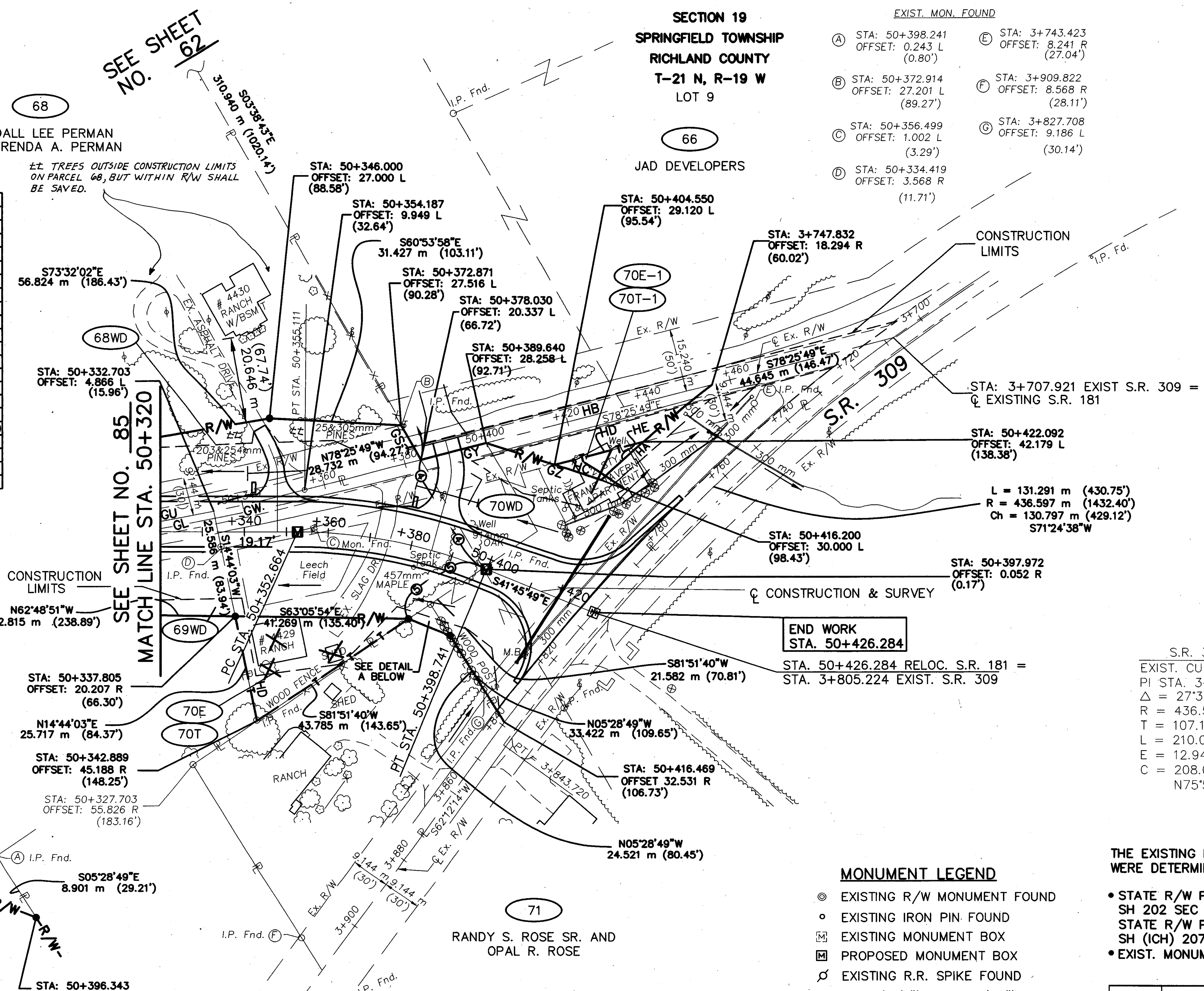
EXIST. MON. FOUND

Ⓐ STA: 50+398.241 OFFSET: 0.243 L (0.80')
Ⓑ STA: 50+372.914 OFFSET: 27.201 L (89.27')
Ⓒ STA: 50+356.499 OFFSET: 1.002 L (3.29')
Ⓓ STA: 50+334.419 OFFSET: 3.568 R (11.71')
Ⓔ STA: 3+743.423 OFFSET: 8.241 R (27.04')
Ⓕ STA: 3+909.822 OFFSET: 8.568 R (28.11')
Ⓖ STA: 3+827.708 OFFSET: 9.186 L (30.14')

metric units

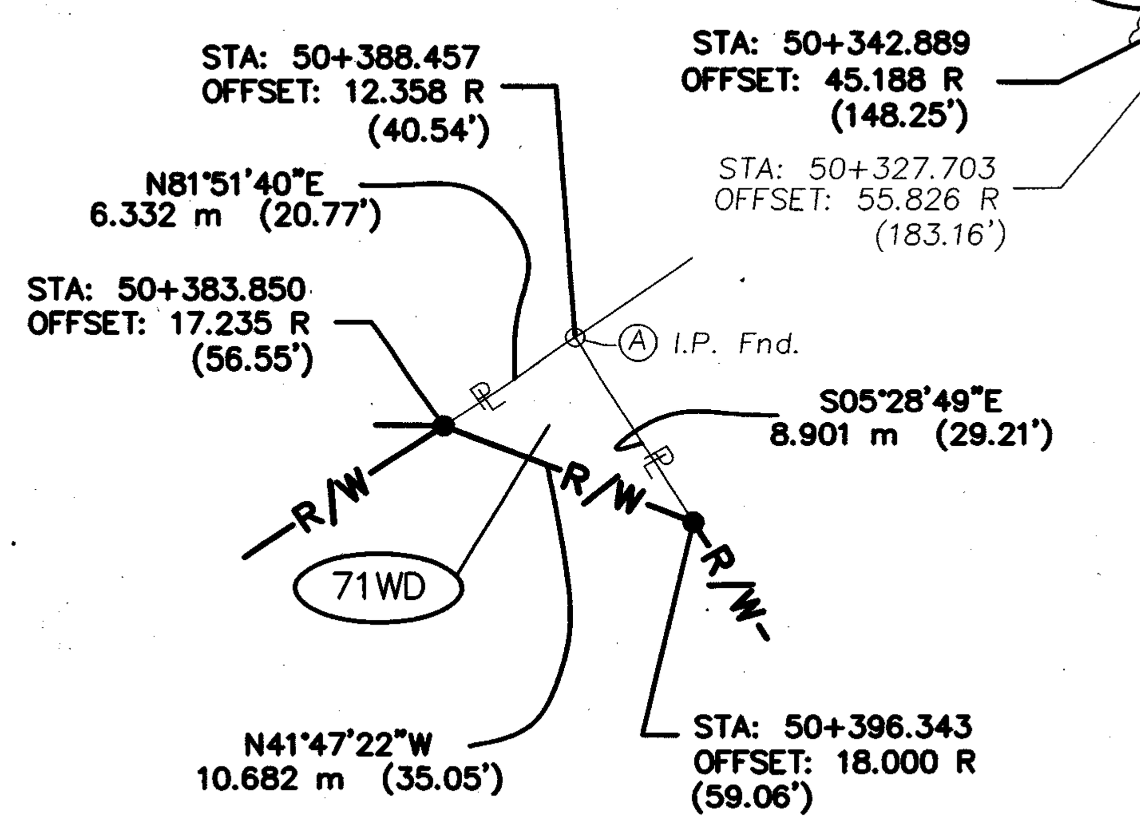
S.R. 181
EXIST. CURVE DATA
PI STA. 50+318.991
Δ = 09°30'00" LT.
R = 436.684 m (1432.69')
T = 36.286 m (119.05')
L = 72.405 m (237.55')
E = 1.505 m (4.94')
C = 72.322 m (237.28')
S73°40'49"E

RELOC. SR 181
PI STA. 50+375.990
CURVE DATA
Δ = 22°00'00" RT.
R = 120.000 m (393.70')
L = 46.077 m (151.17')
T = 23.326 m (76.53')
E = 2.246 m (7.37')
C = 45.794 m (150.24')
S52°45'49"E



PARCEL 70E-1		
HB	S78°25'49"E 55.631 m	(182.52')
HA	L=34.909 m (114.53')	
	R=456.597 m (1498.02')	
	C=34.900 m (114.50')	
	S75°23'45"W	
GZ	N46°05'08"W 28.774 m	(94.40')
PARCEL 70T-1		
HD	S78°25'49"E 21.869 m	(71.75')
HE	L=13.530 m (44.39')	
	R=456.597 m (1498.02')	
	C=13.529 m (44.39')	
	S74°03'16"W	
HC	N46°05'08"W 11.683 m	(38.33')

S.R. 309
EXIST. CURVE DATA
PI STA. 3+740.765
Δ = 27°34'00" LT.
R = 436.597 m (1432.40')
T = 107.104 m (351.39')
L = 210.059 m (689.16')
E = 12.945 m (42.47')
C = 208.039 m (682.54')
N75°59'14"E



DETAIL A

LEAD IN DISTANCE
④ S03°38'43"E 29.657 m (97.30')
⑤ S81°51'40"W 21.582 m (70.81')

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

MONUMENT LEGEND
- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
- STATE R/W PLANS FOR SR 309 SH 202 SEC K-1,2,3 & G STATE R/W PLANS FOR SR 181 SH (ICH) 207 SEC A-1-A-2
- EXIST. MONUMENTS

REV	DATE	DESCRIPTION

DATE OF COMPLETION: 6/8/2000

RATIO 1:500 HORIZONTAL SCALE IN METERS

PID NO. 16284

RIGHT OF WAY – S.R. 181
STA. 50+320 TO STA. 50+423.217

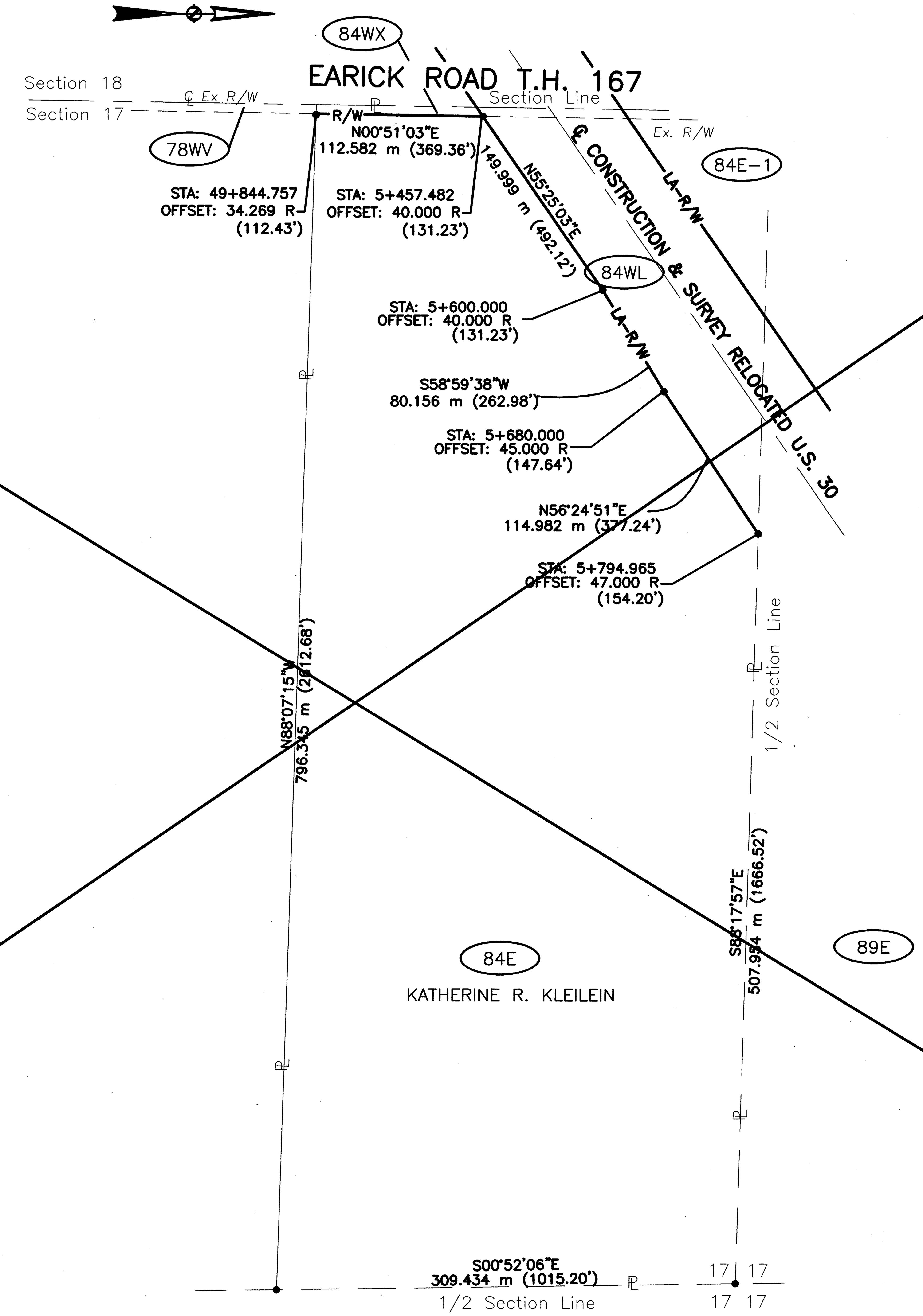
CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

86/95

702/712

1:500M RP181_3.DWG 3 NOVEMBER 2000

08/27/2001



PARCEL 84 E DETAIL

FOR R/W PLANS SEE
SHEETS 66,67,68,70 & 91

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

1:500M
RP181_5.DWG 14 MAY 2001

metric units

RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

PID NO. 16284

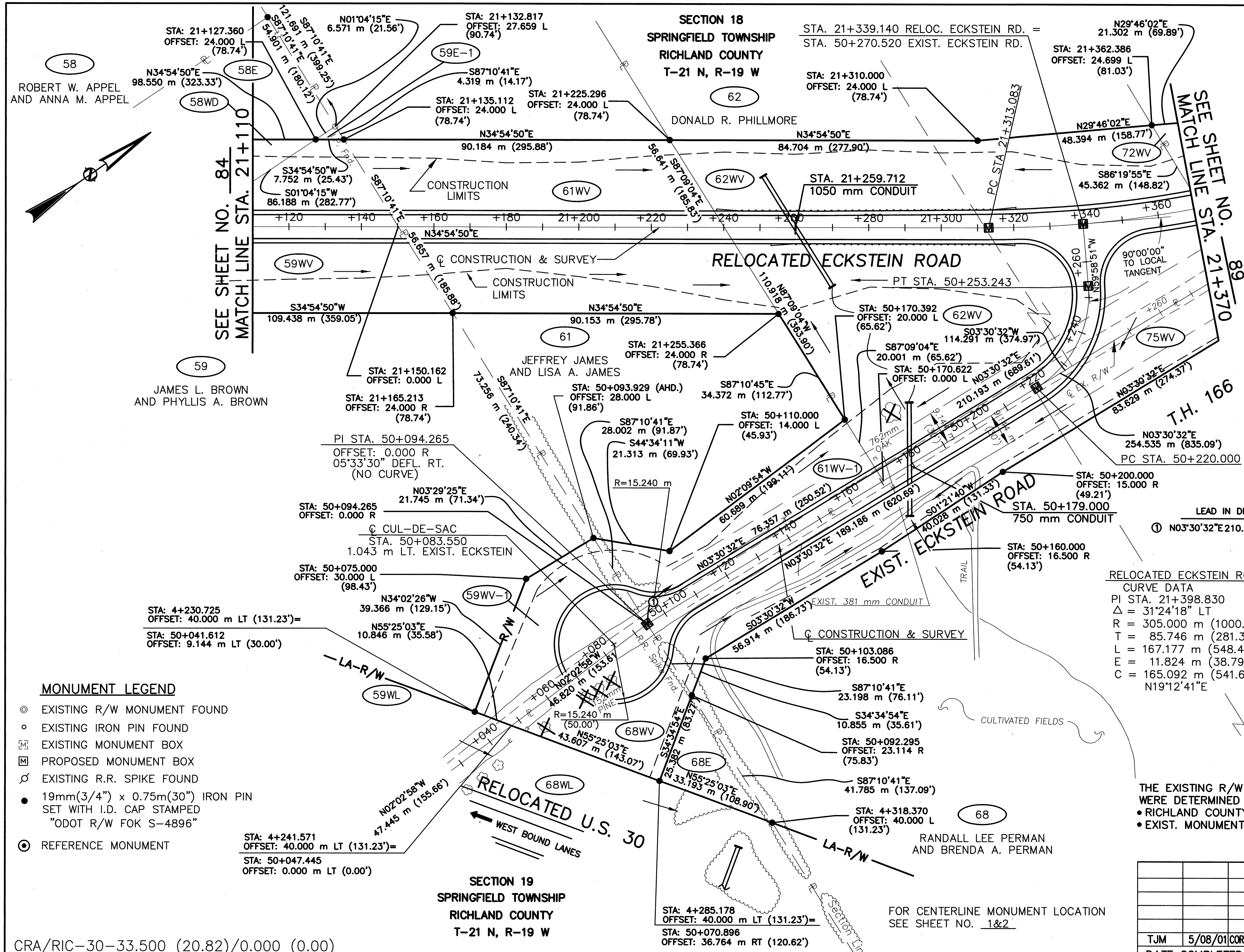
RIGHT OF WAY - EARICK ROAD

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

TJM	5/14/01	THIS SHEET NO LONGER USED
REV	DATE	DESCRIPTION
DATE COMPLETED		1/14/2000

87/95

703/712



LEAD IN DISTANCE

① N03°30'32"E 210.193 m (689.61')

EXIST. ECKSTEIN
CURVE DATA

PI STA. 50+238.561
Δ = 63°29'23" LT
R = 30.000 m (98.43')
T = 18.561 m (60.90')
L = 33.243 m (109.06')
E = 5.278 m (17.32')
C = 31.568 m (103.57')
N28°14'10"W

RELOCATED ECKSTEIN ROAD
CURVE DATA

PI STA. 21+398.830
Δ = 31°24'18" LT
R = 305.000 m (1000.66')
T = 85.746 m (281.32')
L = 167.177 m (548.48')
E = 11.824 m (38.79')
C = 165.092 m (541.64')
N19°12'41"E

MONUMENT LEGEND

- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
- RICHLAND COUNTY ENGINEER
- EXIST. MONUMENTS

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

TJM	5/08/01	CORRECT STA. – 61WV, 62WV, 61WV-1, 72WV

DATE COMPLETED 1/14/2000

metric units

RATIO 1:500
HORIZONTAL SCALE IN METERS

PID NO. 16284

RIGHT OF WAY – ECKSTEIN ROAD
STA. 21+110 TO STA. 21+370

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

88/95

704/712

1:500M
RP_ECK1.DWG 10 MAY 2001

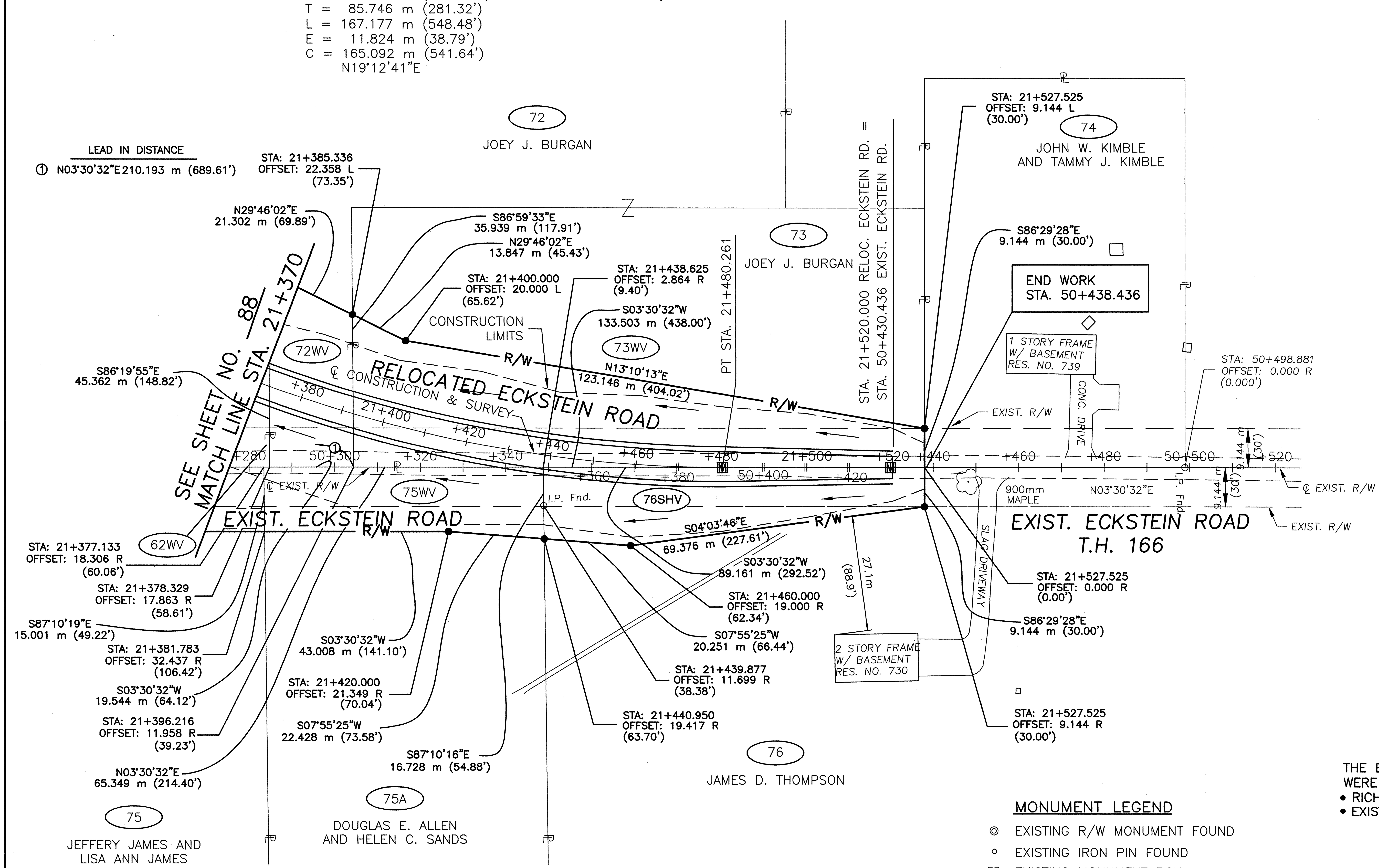
RELOCATED ECKSTEIN ROAD
CURVE DATA
PI STA. 21+398.830
Δ = 31°24'18" LT
R = 305.000 m (1000.66')
T = 85.746 m (281.32')
L = 167.177 m (548.48')
E = 11.824 m (38.79')
C = 165.092 m (541.64')
N19°12'41"E

SECTION 18
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY
T-21 N, R-19 W

metric units

RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

PID NO. 16284



THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
- RICHLAND COUNTY ENGINEER
- EXIST. MONUMENTS

MONUMENT LEGEND

- ◎ EXISTING R/W MONUMENT FOUND
- ○ EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- ● 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- ⦿ REFERENCE MONUMENT

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

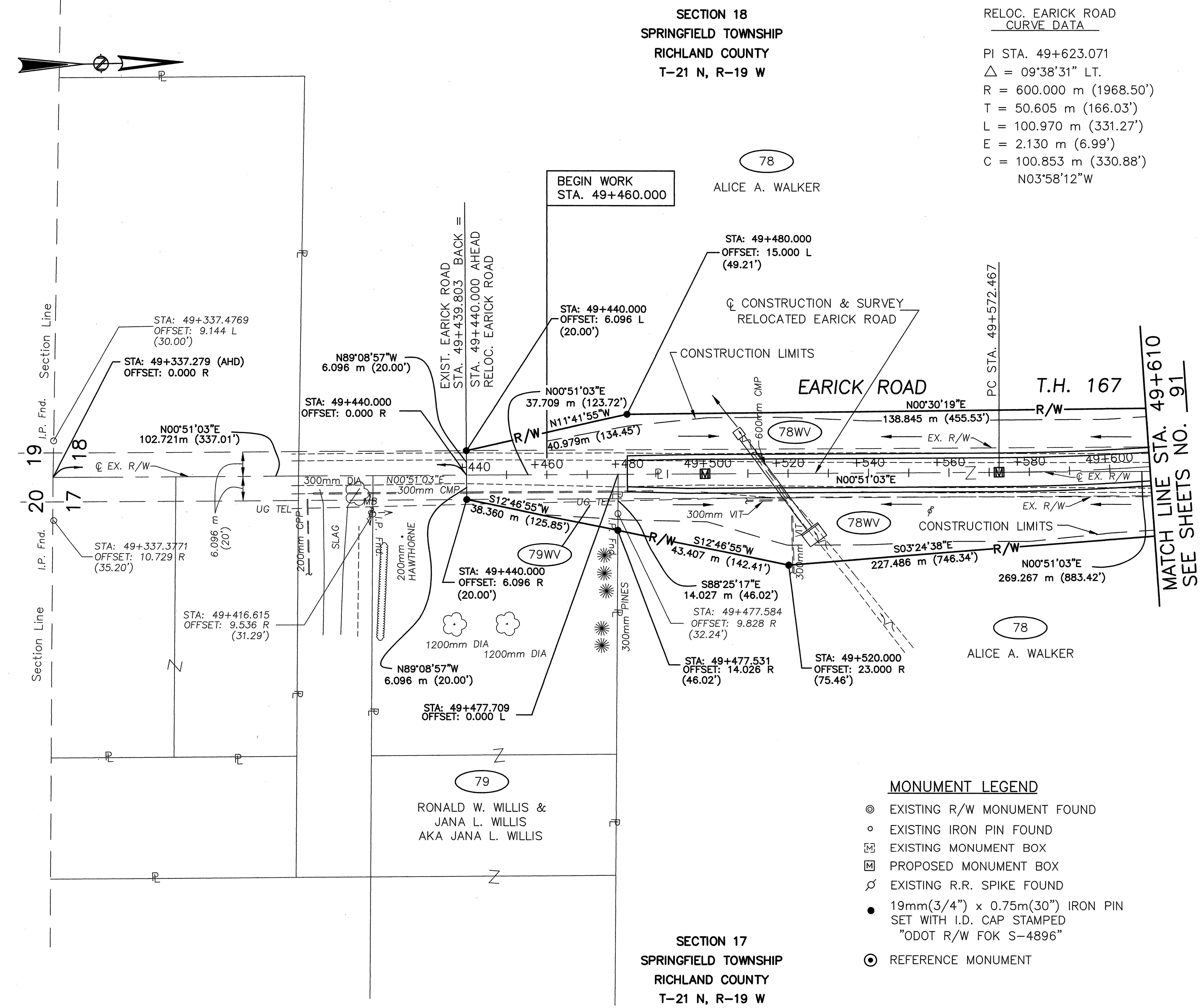
REV	DATE	DESCRIPTION
JEK	6/14/01	PARCEL 76WV TO 76SHV

DATE OF COMPLETED 1-14-2000

RIGHT OF WAY - RELOCATED ECKSTEIN ROAD
STA. 21+370 TO STA. 21+520

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

1:500M
RP_ECK2.DWG 14 JANUARY 2000



RELOC. EARICK ROAD
CURVE DATA

PI STA. 49+623.071
△ = 09°38'31" LT.
R = 600.000 m (1968.50')
T = 50.605 m (166.03')
L = 100.970 m (331.27')
E = 2.130 m (6.99')
C = 100.853 m (330.88')
N03°58'12"W

metric units

MONUMENT LEGEND

- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
- RICHLAND COUNTY ENGINEER
- EXIST. MONUMENTS

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

REV	DATE	DESCRIPTION
DATE OF COMPLETED		1-14-2000

RATIO 1:500
0 5 10 20
HORIZONTAL SCALE IN METERS

PID NO. 16284

RIGHT OF WAY – EARICK ROAD T.H. 167
STA. 49+400 TO STA. 49+610

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

90/95

706/712

1:500M
RPEAR_1.DWG 13 JANUARY 2000

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

metric units

RATIO 1:500 — HORIZONTAL SCALE IN METERS

PID NO. 16284

RIGHT OF WAY – EARICK ROAD T.H. 167
STA. 49+610 TO STA. 49+870

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

SECTION 18
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY
T-21 N, R-19 W

RELOC. EARICK ROAD
CURVE DATA

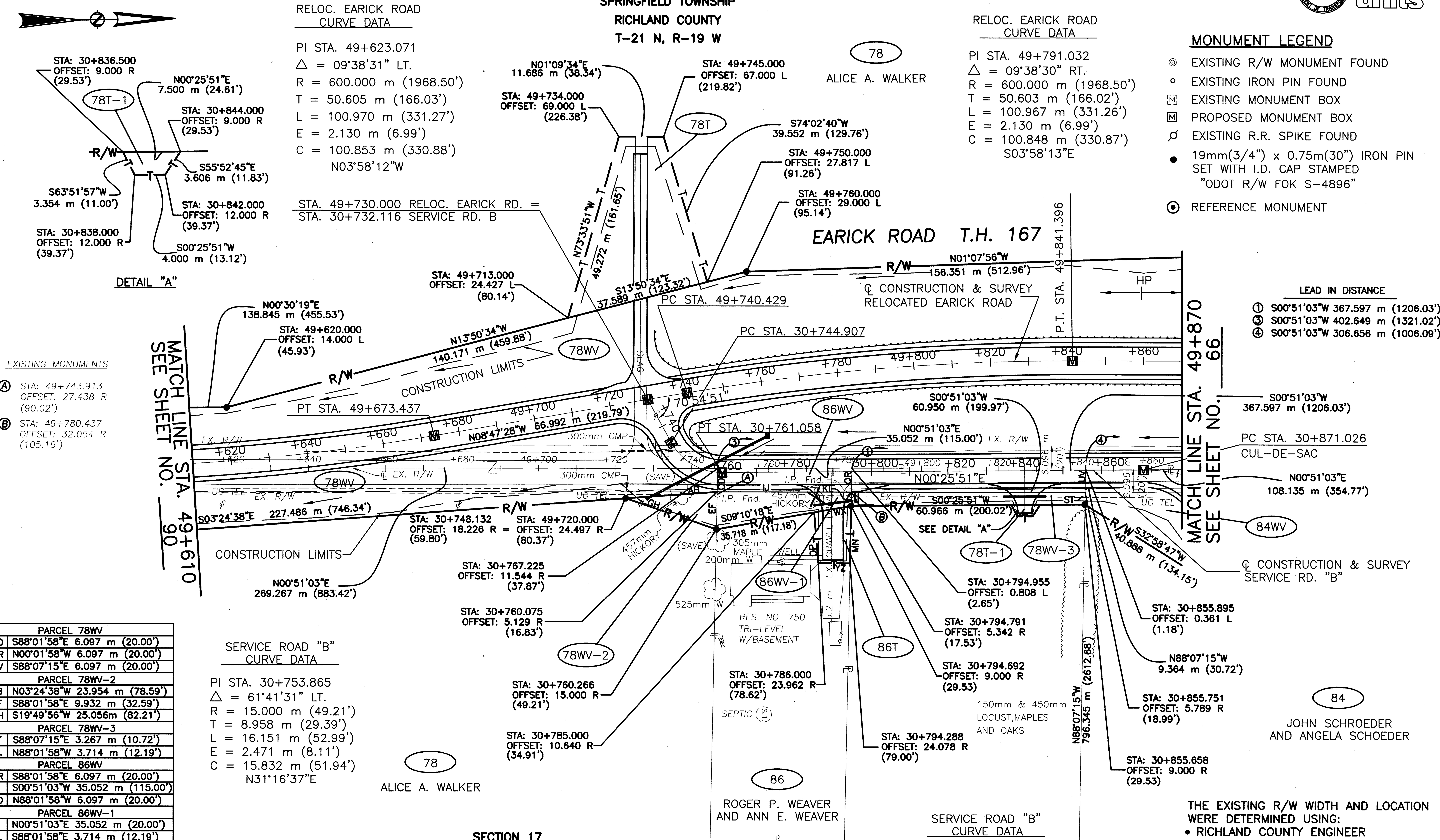
PI STA. 49+623.071
△ = 09°38'31" LT.
R = 600.000 m (1968.50')
T = 50.605 m (166.03')
L = 100.970 m (331.27')
E = 2.130 m (6.99')
C = 100.853 m (330.88')
N03°58'12"W

RELOC. EARICK ROAD
CURVE DATA

PI STA. 49+791.032
△ = 09°38'30" RT.
R = 600.000 m (1968.50')
T = 50.603 m (166.02')
L = 100.967 m (331.26')
E = 2.130 m (6.99')
C = 100.848 m (330.87')
S03°58'13"E

MONUMENT LEGEND

- ◎ EXISTING R/W MONUMENT FOUND
- ○ EXISTING IRON PIN FOUND
- [M] EXISTING MONUMENT BOX
- [M] PROPOSED MONUMENT BOX
- ∅ EXISTING R.R. SPIKE FOUND
- ● 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- ⊙ REFERENCE MONUMENT



LEAD IN DISTANCE

① S00°51'03"W 367.597 m (1206.03')
③ S00°51'03"W 402.649 m (1321.02')
④ S00°51'03"W 306.656 m (1006.09')

PARCEL 78WV	
CD	S88°01'58"E 6.097 m (20.00')
QR	N00°01'58"W 6.097 m (20.00')
UV	S88°07'15"E 6.097 m (20.00')
PARCEL 78WV-2	
AB	N03°24'38"W 23.954 m (78.59')
EF	S88°01'58"E 9.932 m (32.59')
GH	S19°49'56"W 25.056m (82.21')
PARCEL 78WV-3	
ST	S88°07'15"E 3.267 m (10.72')
KL	N88°01'58"W 3.714 m (12.19')
PARCEL 86WV	
QR	S88°01'58"E 6.097 m (20.00')
IJ	S00°51'03"W 35.052 m (115.00')
CD	N88°01'58"W 6.097 m (20.00')
PARCEL 86WV-1	
IJ	N00°51'03"E 35.052 m (20.00')
KL	S88°01'58"E 3.714 m (12.19')
EF	N88°01'58"W 9.932 m (32.59')
PARCEL 86T	
WX	N09°10'18"W 9.830 m (32.25')
MN	S88°01'58"E 15.083 m (49.49')
YZ	S01°14'00"W 8.289 m (27.19')
OP	S86°08'17"W 13.359 m (43.83')

SERVICE ROAD "B"
CURVE DATA

PI STA. 30+753.865
△ = 61°41'31" LT.
R = 15.000 m (49.21')
T = 8.958 m (29.39')
L = 16.151 m (52.99')
E = 2.471 m (8.11')
C = 15.832 m (51.94')
N31°16'37"E

SECTION 17
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY
T-21 N, R-19 W

SERVICE ROAD "B"
CURVE DATA

PI STA. 30+888.300
△ = 43°43'35" RT.
R = 43.050 m (141.24')
T = 17.274 m (56.67')
L = 32.855 m (107.79')
E = 3.336 m (10.94')
C = 32.063 m (105.19')
N29°52'03"E

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
- RICHLAND COUNTY ENGINEER
- EXIST. MONUMENTS

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

TJM	5/08/01	ADDED SERVICE RD. "B"
REV	DATE	DESCRIPTION
DATE COMPLETED		1/14/2000

1:500M RPEAR_3.DWG 10 MAY 2001

SECTION 18
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY
T-21 N, R-19 W

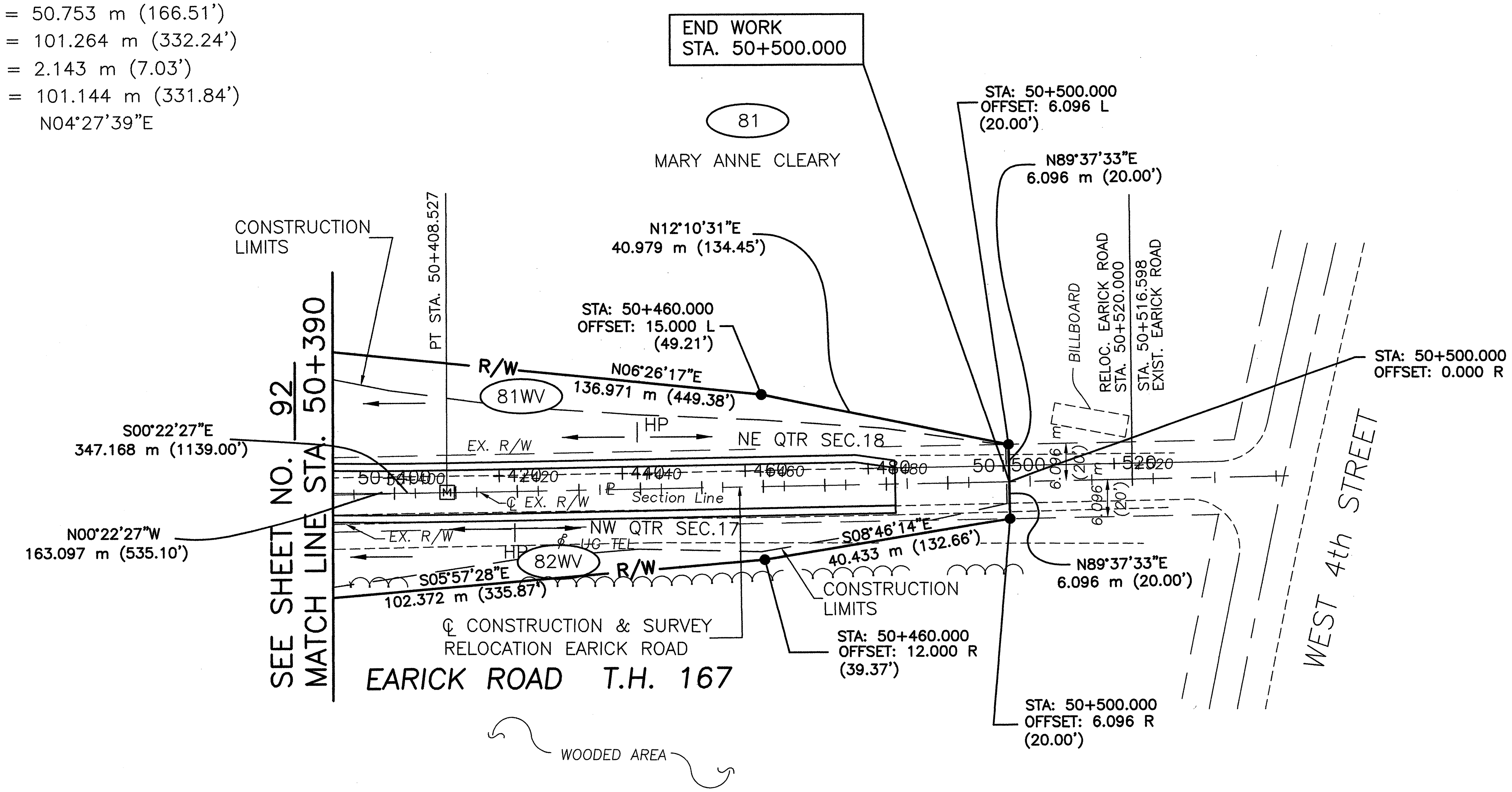
metric units

RATIO 1:500
HORIZONTAL SCALE IN METERS
0 5 10 20

PID NO. 16284

RELOC. EARICK ROAD
CURVE DATA

PI STA. 50+358.016
△ = 09°40'12" LT.
R = 600.000 m (1968.50')
T = 50.753 m (166.51')
L = 101.264 m (332.24')
E = 2.143 m (7.03')
C = 101.144 m (331.84')
N04°27'39"E



82
HARLAN P. KEMPF
AND SHERRY J. KEMPF

RIGHT OF WAY – EARICK ROAD
STA. 50+390 TO STA. 50+500

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
- RICHLAND COUNTY ENGINEER
- EXIST. MONUMENTS

MONUMENT LEGEND
- EXISTING R/W MONUMENT FOUND
- EXISTING IRON PIN FOUND
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- EXISTING R.R. SPIKE FOUND
- 19mm(3/4") x 0.75m(30") IRON PIN SET WITH I.D. CAP STAMPED "ODOT R/W FOK S-4896"
- REFERENCE MONUMENT

FOR CENTERLINE MONUMENT LOCATION SEE SHEET NO. 1&2

SECTION 17
SPRINGFIELD TOWNSHIP
RICHLAND COUNTY
T-21 N, R-19 W

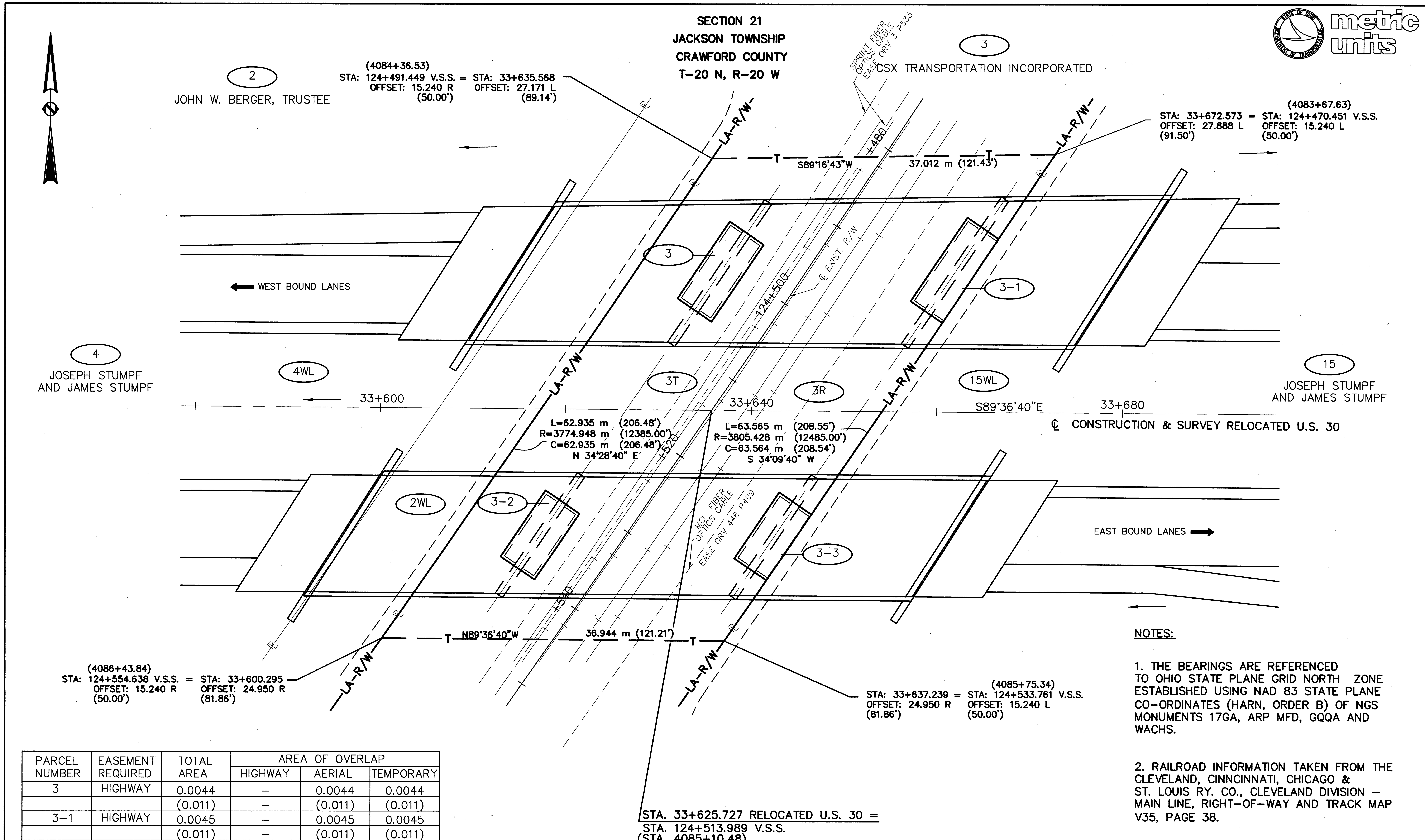
REV	DATE	DESCRIPTION

DATE OF COMPLETED 1-14-2000

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

1:500M
RPEAR_4.DWG 13 JANUARY 2000

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)



NOTES:

1. THE BEARINGS ARE REFERENCED TO OHIO STATE PLANE GRID NORTH ZONE ESTABLISHED USING NAD 83 STATE PLANE CO-ORDINATES (HARN, ORDER B) OF NGS MONUMENTS 17GA, ARP MFD, GQQA AND WACHS.

2. RAILROAD INFORMATION TAKEN FROM THE CLEVELAND, CINNCINNATI, CHICAGO & ST. LOUIS RY. CO., CLEVELAND DIVISION – MAIN LINE, RIGHT-OF-WAY AND TRACK MAP V35, PAGE 38.

3. SEE PAGE 95 FOR PIER EASEMENT DETAILS.

PARCEL NUMBER	EASEMENT REQUIRED	TOTAL AREA	AREA OF OVERLAP		
			HIGHWAY	AERIAL	TEMPORARY
3	HIGHWAY	0.0044	–	0.0044	0.0044
		(0.011)	–	(0.011)	(0.011)
3–1	HIGHWAY	0.0045	–	0.0045	0.0045
		(0.011)	–	(0.011)	(0.011)
3–2	HIGHWAY	0.0038	–	0.0038	0.0038
		(0.009)	–	(0.009)	(0.009)
3–3	HIGHWAY	0.0036	–	0.0036	0.0036
		(0.009)	–	(0.009)	(0.009)
3R	AERIAL	0.1928	0.0163	–	0.1928
		(0.476)	(0.040)	–	(0.476)
3T	TEMPORARY	0.1928	0.0163	0.1928	–
		(0.476)	(0.040)	(0.476)	–

FOR R/W PLAN SEE SHEET 36

REV	DATE	DESCRIPTION
DATE OF COMPLETED		1/14/2000

RATIO 1:200
HORIZONTAL SCALE IN METERS
PID NO. 16284

RAILROAD PLAT

CRA/RIC-30-33.500/0.000

RPRR1.DWG
09-25-2000 2:15 PM
1:200M


SECTION 21
JACKSON TOWNSHIP
CRAWFORD COUNTY
T-20 N, R-20 W
PIER EASEMENT DETAILS
metric units
(4084+51.62)
STA: 124+496.049 V.S.S. = STA: 33+637.539
OFFSET: 9.821 R = OFFSET: 20.351 L
(32.22') (66.77')
S55°38'48"E
4.428 m (14.53')
N34°21'12"E
9.996 m (32.80')
(4084+51.69)
STA: 33+641.211 = STA: 124+496.071 V.S.S.
OFFSET: 17.877 L = OFFSET: 5.393 R
(58.65') (17.69')
3
S34°21'12"W
9.996 m (32.80')
(4084+84.50)
STA: 124+506.071 V.S.S. = STA: 33+631.954
OFFSET: 9.857 R = OFFSET: 12.060 L
(32.34') (39.57')
(4084+84.53)
STA: 33+635.627 = STA: 124+506.081 V.S.S.
OFFSET: 9.586 L = OFFSET: 5.429 R
(31.45') (17.81')
N55°38'48"W
4.428 m (14.53')
S55°38'48"E
4.059 m (13.32')
(4084+03.44)
STA: 124+481.366 V.S.S. = STA: 33+663.159
OFFSET: 11.181 L = OFFSET: 20.975 L
(36.68') (68.82')
LA-R/W
(4084+03.56)
STA: 33+666.525 = STA: 124+481.401 V.S.S.
OFFSET: 18.707 L = OFFSET: 15.240 L
(61.37') (50.00')
N34°21'12"E
10.866 m (35.65')
3-1
L=10.866 m (35.65')
R=3805.428 m (12485.00')
C=10.866 m (35.65')
S 33°55'48" W
(4084+38.99)
STA: 124+492.199 V.S.S. = STA: 33+657.088
OFFSET: 11.101 L = OFFSET: 11.962 L
(36.42') (39.25')
N55°38'48"W
4.139 m (13.58')
LA-R/W
(4084+39.07)
STA: 33+660.521 = STA: 124+492.224 V.S.S.
OFFSET: 9.650 L = OFFSET: 15.240 L
(31.66') (50.00')
(4085+67.41)
STA: 124+531.343 V.S.S. = STA: 33+617.872
OFFSET: 9.831 R = OFFSET: 8.845 R
(32.25') (29.02')
S55°38'48"E
4.428 m (14.53')
(4085+67.35)
STA: 33+621.545 = STA: 124+531.323 V.S.S.
OFFSET: 11.319 R = OFFSET: 5.403 R
(37.14') (17.73')
N34°21'12"E
8.604 m (28.23')
S34°21'12"W
8.604 m (28.23')
3-2
(4085+95.62)
STA: 33+616.738 = STA: 124+539.940 V.S.S.
OFFSET: 18.455 R = OFFSET: 5.356 R
(60.55') (17.57')
N55°38'48"W
4.428 m (14.53')
(4085+95.71)
STA: 33+613.065 = STA: 124+539.969 V.S.S.
OFFSET: 15.981 R = OFFSET: 9.784 R
(52.43') (32.10')
S55°38'48"E
4.206 m (13.80')
(4085+21.06)
STA: 124+517.214 V.S.S. = STA: 33+643.072
OFFSET: 11.034 L = OFFSET: 8.845 R
(36.20') (29.02')
LA-R/W
(4085+21.05)
STA: 33+646.561 = STA: 124+517.212 V.S.S.
OFFSET: 11.195 R OFFSET: 15.240 L
(36.73') (50.00')
N34°21'12"E
8.604 m (28.23')
3-3
L=8.604 m (28.23')
R=3805.428 m (12485.00')
C=8.604 m (28.23')
S 34°27'15" W
(4085+49.20)
STA: 124+525.793 V.S.S. = STA: 33+638.265
OFFSET: 11.049 L = OFFSET: 15.981 R
(36.25') (52.43')
N55°38'48"W
4.191 m (13.75')
LA-R/W
(4085+49.16)
STA: 33+641.741 = STA: 124+525.781 V.S.S.
OFFSET: 18.322 R = OFFSET: 15.240 L
(60.11') (50.00')
FOR R/W PLAN SEE SHEET 36
REV DATE DESCRIPTION
DATE OF COMPLETED 4-19-1999
RATIO 1:200
HORIZONTAL SCALE IN METERS
RID NO. 16284
RAILROAD PLAT
CRA/RIC-30-33.500/0.000
95/95
711/712
RPRR2.DWG
01-4-1999 8:17 AM
1:200M

THIS SHEET IS BLANK

CRA/RIC-30-33.500 (20.82)/0.000 (0.00)

1:500M
RPRR3.DWG 5 JULY 2001

REV	DATE	DESCRIPTION

DATE OF COMPLETED

metric units

PID NO. 16284

CRA-30-33.500 (20.82)
RIC-30-0.000 (0.00)

95A/95

712/712

INTRODUCTION

THIS REPORT IS A PRESENTATION OF THE SUBSURFACE INVESTIGATION PERFORMED FOR THE PROPOSED CRA/RIC-30-33.543/0.00 PROJECT, WHICH INVOLVES RELOCATING U.S. ROUTE 30 SOUTH OF THE EXISTING ROUTE FROM 0.721 KILOMETERS WEST OF STATE ROUTE 61 TO WHERE THE PROPOSED ALIGNMENT JUNCTIONS THE EXISTING U.S. ROUTE 30, JUST WEST OF STATE ROUTE 314, IN ONTARIO, OHIO. THE LARGE MAJORITY OF THE PROPOSED HIGHWAY IS TO BE CONSTRUCTED ON FILL SECTIONS. THE LARGEST FILL SECTION PROPOSED ALONG THE MAINLINE OF U.S. ROUTE 30 IS APPROXIMATELY 11.0 METERS HIGH, LOCATED AT APPROXIMATE STATION 33+600. THE LARGEST CUT ALONG THE MAINLINE IS PROPOSED AT APPROXIMATE STATION 6+195, AND WILL BE APPROXIMATELY 2.1 METERS IN DEPTH. IN ADDITION TO THE RELOCATION OF U.S. ROUTE 30, IMPROVEMENTS ARE PLANNED AT VARIOUS ADJACENT SIDE ROADS, AND ON AND OFF RAMPS ARE PROPOSED FOR THE STATE ROUTE 61 JUNCTION (RAMPS I, J, K, AND L) AND THE EXISTING U.S. ROUTE 30 JUNCTION (RAMPS A AND B).

THE EXISTING LAND USAGE IS PRIMARILY AGRICULTURAL, WITH THE VAST MAJORITY OF THE ACREAGE CONSISTING OF CULTIVATED FARM FIELDS. A FEW WOODED TRACTS ARE PRESENT ALONG THE ALIGNMENT. THE MOST EXTENSIVE WOODED AREA IS IN THE SECTION OF THE PROPOSED ROUTE BETWEEN STATE ROUTE 181 AND ECKSTEIN ROAD. THE ALIGNMENT WILL ALSO TRAVERSE SCATTERED HOUSE LOTS (LAWNS). THE EXISTING TERRAIN ACROSS THE SITE IS RELATIVELY FLAT, GENERALLY SLOPING DOWNWARD GENTLY TO THE WEST ACROSS THE PROJECT. EXISTING DRAINAGE PATTERNS FOLLOW THE SITE TERRAIN.

GEOLOGY AND OBSERVATIONS OF THE PROJECT

GEOLOGICALLY, THE SITE LIES ON THE GLACIATED, VERY SMOOTH, MISSISSIPPI VALLEY PLAIN. BOTH THE ILLINOIAN AND WISCONSIN GLACIERS PASSED OVER THE AREA. THE QUATERNARY GEOLOGY OF OHIO MARION QUADRANGLE, OBTAINED FROM THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR), INDICATES THE SITE TRAVERSES HIRAM AND LAKE GROUND AND END MORAINE TILL, DEPOSITED BY THE LATE WISCONSINAN ICE SHEET. THE TOTAL SOIL STRATA IS BETWEEN APPROXIMATELY 5.0 METERS AND 30.0 METERS THICK ACROSS THE SITE, GENERALLY INCREASING IN THICKNESS FROM THE WEST END OF THE PROJECT TO THE EAST END. THE UNDERLYING BEDROCK IS PRESENT BETWEEN APPROXIMATE ELEVATIONS 340.0 METERS AND 380.0 METERS, AND CONSISTS OF DOLOMITE FROM THE SILURIAN AGE (SEE APPENDIX A).

EXPLORATION

ONE HUNDRED AND FIFTY THREE (153) ENGINEERING TEST BORINGS WERE DRILLED IN REFERENCE TO THE PROPOSED PROJECT. THE BORING LOCATIONS WERE SPECIFIED BY REPRESENTATIVES OF RESOURCE INTERNATIONAL, INCORPORATED, AND WERE FIELD LOCATED BY REPRESENTATIVES OF McCOY/FOK & ASSOCIATES. THE BORINGS WERE DRILLED TO DEPTHS RANGING FROM 3.0 METERS TO 7.0 METERS, BUT PRIMARILY TO DEPTHS OF BETWEEN 3.0 METERS AND 5.0 METERS. THE DESIGNATED DEPTH OF EACH BORING WAS DEPENDENT UPON THE EXISTING AND PROPOSED GRADES. IN PROPOSED CUT SECTIONS, THE BORINGS WERE DRILLED TO 3.0 METERS BELOW THE PROPOSED GRADE, WHILE FOR PROPOSED FILL SECTIONS, THE BORINGS WERE DRILLED TO A DEPTH OF 3.0 METERS PLUS ONE-HALF THE HEIGHT OF THE PROPOSED EMBANKMENT FILL. SOME OF THE BORINGS WERE ADVANCED WITH A GEOPROBE MODEL 4220, A VEHICLE-MOUNTED, HYDRAULICALLY-POWERED MACHINE THAT UTILIZES STATIC FORCE AND PERCUSSION TO ADVANCED A 122-CENTIMETER LONG BY 5.1-CENTIMETER DIAMETER SOIL SAMPLER. THE REMAINING BORINGS (GENERALLY, THE DEEPER BORINGS) WERE ADVANCED USING A TRUCK MOUNTED ROTARY DRILLING MACHINE UTILIZING 5.7-CENTIMETER AND 8.3-CENTIMETER HOLLOW STEM AUGERS TO ADVANCE THE HOLES. THE BORING METHOD IS PRESENTED ON EACH BORING LOG, WHICH CAN BE FOUND IN APPENDIX C OF THE SUBSURFACE INVESTIGATION REPORT. THE DRILLING WAS PERFORMED BETWEEN SEPTEMBER 30 AND NOVEMBER 4, 1997.

INVESTIGATIONAL FINDINGS

A MAJORITY OF THE TEST BORINGS EXHIBITED TOPSOIL RANGING IN DEPTH FROM 10.0 CENTIMETERS TO 20.0 CENTIMETERS. THE TOPSOIL IS GENERALLY DESCRIBED AS DARK BROWN AND BROWN SILTY CLAY WITH THE PRESENCE OF ORGANICS AND/OR ROOT STRUCTURES.

THE SUBSURFACE SOILS ALONG THE PROPOSED ROUTE ARE EXTREMELY CONSISTENT, COMPRISED OF COHESIVE SOILS. A LARGE PERCENTAGE OF THE COHESIVE MATERIAL CONSISTED OF BROWN MODERATE TO HIGH PLASTICITY CLAY SOILS WITH VARYING PERCENTAGES OF SILT AND SMALLER AMOUNTS OF SAND AND GRAVEL. THE REMAINDER OF THE COHESIVE SOILS ARE GENERALLY DESCRIBED AS BROWN SILTY CLAY WITH VARYING AMOUNTS OF SAND AND SMALL AMOUNTS OF GRAVEL. GRANULAR MATERIAL WAS ENCOUNTERED IN WIDESPREAD POCKETS ACROSS THE SITE, GENERALLY AT DEPTHS BELOW 2.0 METERS. THE GRANULAR MATERIAL ENCOUNTERED IS GENERALLY DESCRIBED AS BROWN AND GRAY SAND WITH VARYING AMOUNTS OF GRAVEL AND SMALL AMOUNTS OF SILT AND CLAY. A MORE COMPREHENSIVE DESCRIPTION OF THE SOILS ENCOUNTERED DURING THE DRILLING PROGRAM CAN BE FOUND ON THE BORING LOGS IN APPENDIX C OF THE SUBSURFACE INVESTIGATION REPORT. LABORATORY TEST RESULTS AND VISUAL INSPECTION OF REPRESENTATIVE SAMPLES INDICATE THAT THE SOILS ENCOUNTERED ARE CLASSIFIED PREDOMINANTLY AS ODOT A-7-6, A-6B, AND A-6A, AS WELL AS A-1-A, A-1-B, A-3A, A-2-4, A-2-6, AND A-4A.

MANY SOIL PROPERTIES, INCLUDING SOIL CONSISTENCY AND SHEAR STRENGTH (OF COHESIVE SAMPLES), ARE PRIMARILY DERIVED FROM STANDARD PENETRATION BLOW COUNTS AND HAND PENETROMETER READINGS (PERFORMED ON COHESIVE SAMPLES). FOR THE COHESIVE SOIL STRATA, THE STANDARD PENETRATION BLOW COUNTS RECORDED DURING THE DRILLING PROCESS RANGED FROM 6 BLOWS PER 30 CENTIMETERS TO REFUSAL, INDICATING THE PRESENCE OF MEDIUM STIFF TO HARD SOILS. REFUSAL IS DEFINED AS OBTAINING IN EXCESS OF 50 BLOWS WITH LESS THAN 15 CENTIMETERS OF PENETRATION. FOR THE GRANULAR MATERIAL ENCOUNTERED, THE BLOW COUNTS RANGED FROM 7 BLOWS PER 30 CENTIMETERS TO REFUSAL, INDICATING THE PRESENCE OF LOOSE TO VERY DENSE GRANULAR MATERIAL. THE UNCONFINED COMPRESSIVE STRENGTH OF THE SOIL SAMPLES TESTED, AS OBTAINED FROM THE HAND PENETROMETER, RANGED FROM 72 KILOPASCALS TO IN EXCESS OF 431 KILOPASCALS (THE LIMIT OF THE INSTRUMENT).

NATURAL MOISTURE CONTENTS OF THE SOIL SAMPLES TESTED RANGED FROM 8% TO 33% IN THE COHESIVE SOILS, AND FROM 7% TO 33% IN THE GRANULAR MATERIAL. A LARGE PERCENTAGE OF THESE MOISTURE CONTENTS WERE IN THE 12% TO 19% RANGE IN THE COHESIVE SOILS, AND LESS THAN 20% IN THE GRANULAR MATERIAL. IT SHOULD BE NOTED THAT THE MOISTURE CONTENTS OF THE TOPSOIL ARE GENERALLY MUCH HIGHER THAN THE UNDERLYING SUBSURFACE SOILS, AND ARE NOT REFLECTIVE OF THE CONDITIONS OF THE PROPOSED SUBGRADE. THE MOISTURE CONTENTS OF THE COHESIVE SOILS FOLLOWED A DISTINCT PATTERN, RANGING FROM 18% TO 25% IN THE FIRST SAMPLE (BENEATH THE TOPSOIL), THEN DECREASING TO BETWEEN 12% AND 19% THEREAFTER. THE MOISTURE CONTENTS FOR COHESIVE SAMPLES RANGED FROM 6% BELOW TO 13% ABOVE THEIR CORRESPONDING PLASTIC LIMITS, HOWEVER, A LARGE MAJORITY OF THE MOISTURE CONTENTS RANGED FROM 4% BELOW TO 4% ABOVE THEIR CORRESPONDING PLASTIC LIMITS. AGAIN, THE SOILS WHICH EXHIBITED MOISTURE CONTENTS WELL ABOVE THEIR CORRESPONDING PLASTIC LIMITS WERE TYPICALLY THE TOP SAMPLE FROM EACH BORING, AND THESE SOILS WERE ENCOUNTERED EVENLY ACROSS THE ENTIRE SITE. THE MOISTURE CONTENTS ARE GENERALLY CONSIDERED TO BE SLIGHTLY BELOW TO WELL ABOVE THEIR CORRESPONDING OPTIMUM MOISTURE CONTENTS (AS DETERMINED BY CORRELATION CHARTS). SAMPLES WHICH EXHIBITED MOISTURE CONTENTS WELL IN EXCESS OF THEIR CORRESPONDING PLASTIC LIMITS ARE PRESENTED IN A TABLE IN THE SUBSURFACE INVESTIGATION REPORT.

GROUNDWATER WAS ENCOUNTERED DURING THE DRILLING PROCESS IN LESS THAN 15% OF THE TEST BORINGS. THE GROUNDWATER THAT WAS ENCOUNTERED WAS PRIMARILY PERCHED WATER IN VERY THIN SCATTERED GRANULAR LENSES. BASED ON THE DATA COLLECTED, NO STATIC WATER LEVEL COULD BE DETERMINED ACROSS THE SITE, AND THE GROUNDWATER TABLE IN THE VICINITY OF THE PROPOSED HIGHWAY WAS AT AN ELEVATION BELOW THAT INVESTIGATED. HOWEVER, THE GROUNDWATER LEVEL IS CONSIDERED TO BE DEPENDENT ON THE FLUCTUATIONS IN PRECIPITATION. OVER THE PERIOD OF TIME FOR THIS PROJECT'S DRILLING OPERATIONS, PRECIPITATION LEVELS WERE CONSIDERED TO BE AT TO SLIGHTLY ABOVE NORMAL.

ADDITIONAL SOIL INFORMATION

THE SOIL PROFILE AND/OR STRUCTURE FOUNDATION INVESTIGATION SHEETS CONTAIN ALL AVAILABLE SOIL AND BEDROCK INFORMATION WHICH CAN BE CONVENIENTLY SHOWN. ADDITIONAL SUBSURFACE INVESTIGATIONS MAY HAVE BEEN MADE TO STUDY SOME ASPECT OF THE PROJECT.
MORE INFORMATION, IF ANY, MAY BE OBTAINED IN DISTRICT 3, THE OFFICE OF MATERIALS MANAGEMENT OR THE OFFICE OF STRUCTURAL ENGINEERING.

LEGEND FOR PROJECT AVERAGE RESULTS OF TESTS – 142 SAMPLES TESTED

DESCRIPTION	HRB CLASS	OHIO CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
GRAVEL AND/ OR STONE FRAGMENTS	A-1-a	A-1-a	64	19	8	- 9 -		–	–	14	2
GRAVEL WITH SAND	A-1-b	A-1-b	30	35	26	- 9 -		–	–	15	2
COARSE AND FINE SAND	A-3a	A-3a	9	17	49	- 25 -		–	–	22	3
GRAVEL WITH SAND AND SILT	A-2-4(0)	A-2-4	54	9	6	- 31 -		–	–	13	1
GRAVEL WITH SAND, SILT AND CLAY	A-2-6(0)	A-2-6	VISUALLY CLASSIFIED								
SANDY SILT	A-4a(5)	A-4a	6	7	25	28	34	26	9	18	13
SILT AND CLAY	A-6a(9)	A-6a	6	6	16	28	44	30	13	16	63
SILTY CLAY	A-6b(11)	A-6b	5	5	16	26	48	35	18	18	46
CLAY	A-7-6(15)	A-7-6	1	5	14	24	56	45	24	23	12
WEATHERED SILTSTONE			VISUALLY CLASSIFIED								

ASPHALT

SOD AND/OR TOPSOIL

BERM MATERIAL

DRIVE SAMPLE BORING – PLAN VIEW

DRIVE SAMPLE BORING PLOTTED TO VERTICAL SCALE ONLY

FREE WATER

STATIC WATER LEVEL

X/Y/Z NUMBER OF BLOWS FOR STANDARD PENETRATION TEST

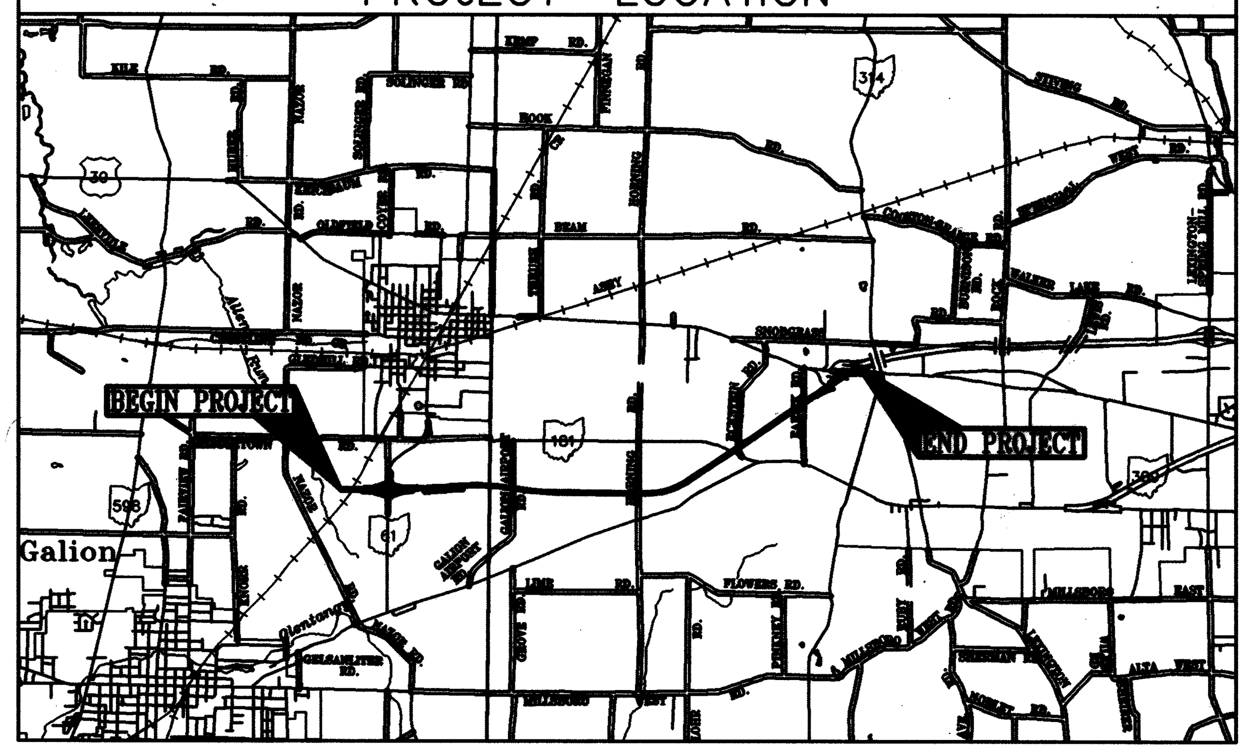
X = NUMBER OF BLOWS FOR FIRST 15 CENTIMETERS

Y = NUMBER OF BLOWS FOR SECOND 15 CENTIMETERS

Z = NUMBER OF BLOWS FOR THIRD 15 CENTIMETERS

NOTE: FIGURES BESIDE BORINGS INDICATE WATER CONTENT IN PERCENT. E.G. 15

PROJECT LOCATION



PROJECT INDEX

STATIONS FROM	TO	PLAN VIEW SHEET	PROFILE SHEET	CUT MAX.	FILL EMB. MAX.
33+500	34+200	8	8	0.0M	11.3M
34+200	34+900	9	9	0.5M	2.8M
34+900	35+600	10	10	0.8M	2.3M
35+600	0+400	11	11	1.6M	3.0M
0+400	1+100	12	12	0.9M	4.0M
1+100	1+800	13	13	2.3M	3.2M
1+800	2+500	14	14	2.0M	3.0M
2+500	3+200	15	15	1.4M	2.4M
3+200	3+900	16	16	0.0M	3.4M
3+900	4+600	17	17	3.4M	3.0M
4+600	5+300	18	18	1.2M	2.1M
5+300	6+000	19	19	1.7M	2.9M
6+000	6+700	20	20	2.1M	1.2M
S.R. 61					
49+600	50+300	21	21	0.0M	8.5M
50+300	50+530	22	22	0.0M	4.0M
RAMP I					
3+895	4+269.715	23	23	0.0M	8.3M
RAMP J					
3+840	4+269.811	24	24	0.0M	8.0M
RAMP K					
4+242.317	4+642.930	25	25	0.0M	6.4M
RAMP L					
4+247.437	4+700	26	26	0.0M	8.6M
S.R. 61 SERVICE ROAD					
50+000	50+700	27	27	1.6M	3.5M
50+700	51+312.395	28	28	0.8M	1.1M
HORNING ROAD					
49+600	50+300	29	29	0.1M	10.6M
50+300	50+460	30	30	0.3M	0.6M
S.R. 181					
49+580	50+300	31	31	0.5M	5.2M
50+300	50+460	32	32	1.1M	0.4M
EXISTING ECKSTEIN ROAD					
50+000	50+300	33	33	2.7M	1.8M
RELOCATED ECKSTEIN ROAD					
21+000	21+520	34	34	0.7M	5.2M
EARICK ROAD					
49+500	50+100	35	35	0.1M	8.8M
50+100	50+500	36	36	0.0M	10.2M
RAMP A					
0+990	1+209.311	37	37	0.0M	2.2M
RAMP B					
0+700	1+400	38	38	3.2M	0.8M
1+400	1+517.980	39	39	1.4M	0.6M

RESOURCE INTERNATIONAL INC.
281 ENTERPRISE DR.
WESTERVILLE, OHIO 43081
(614) 885-1959

CALCULATED

CHECKED GPH

DATE 1/18/98

DATE 1/19/98

REVIEWED KEB

DRAWN KEB

SOIL PROFILE

CRAWFORD/RICHLAND COUNTY

CRA/RIC-30-33.500/0.000

RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109 FILENAME: 7109R-1.DWG DATE: 18-JAN-1998

SUMMARY OF SOIL TEST DATA

NOTE: NP SHOWN IN LIQUID LIMIT AND PLASTIC INDEX COLUMNS INDICATES THAT THE SAMPLE IS NON-PLASTIC

BORINGS REFERENCED TO CENTERLINE

Location & Offset	From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L	P.I	W.C.	SHTL Class.
(C-1) 33+560, CL	0.3-0.8	SAME AS 1.1-1.5							19	VISUAL
	1.1-1.5	5	5	13	27	50	35	17	18	A-6b
	1.8-2.3	SAME AS 1.1-1.5							14	VISUAL
	2.6-3.1	8	6	13	29	44	29	12	16	A-6a
	3.4-3.8	SAME AS 2.6-3.1							14	VISUAL
	4.1-4.6	SAME AS 2.6-3.1							12	VISUAL
	4.9-5.3	8	6	10	35	41	27	11	14	A-6a
	5.6-6.1	SAME AS 4.9-5.3							12	VISUAL
	6.5-7.0	SAME AS 4.9-5.3						11	13	VISUAL
(C-2) 33+700, CL	0.3-0.8	SAME AS 1.1-1.5							15	VISUAL
	1.1-1.5	16	5	13	23	43	32	14	15	A-6a
	1.8-2.3	SAME AS 1.1-1.5							14	VISUAL
	2.6-3.1	SAME AS 1.1-1.5							14	VISUAL
	3.4-3.8	11	6	13	26	44	28	12	14	A-6a
	4.1-4.6	SAME AS 3.4-3.8							13	VISUAL
	4.9-5.3	5	9	53	-33-				21	A-3a
	5.6-6.1	18	7	16	26	33	24	8	14	A-4a
(C-3) 33+820, CL	0.3-0.8	SAME AS 1.1-1.5							15	VISUAL
	1.1-1.5	12	7	15	26	40	29	13	15	A-6a
	1.8-2.3	SAME AS 1.1-1.5							15	VISUAL
	2.6-3.1	SAME AS 1.1-1.5							14	VISUAL
	3.4-3.8	SAME AS 4.1-4.6							13	VISUAL
	4.1-4.6	9	8	16	27	40	27	11	14	A-6a
	4.9-5.3	SAME AS 4.1-4.6							13	VISUAL
	5.6-6.1	SAME AS 4.1-4.6							14	VISUAL
(C-4) 33+940, CL	0.3-0.8	SAME AS 1.1-1.5							22	VISUAL
	1.1-1.5	0	3	10	36	51	39	19	23	A-6b
	1.8-2.3	SAME AS 1.1-1.5							22	VISUAL
	2.6-3.1	SAME AS 1.1-1.5							14	VISUAL
	3.4-3.8	SAME AS 1.1-1.5							15	VISUAL
	4.1-4.6	12	12	15	23	38	31	12	15	A-6a
	4.9-5.3	SAME AS 4.1-4.6							14	VISUAL
	5.6-6.1	SAME AS 4.1-4.6							16	VISUAL
(C-5) 34+060, CL	0.0-0.5	SAME AS 0.5-0.9							21	VISUAL
	0.5-0.9	2	4	14	30	50	42	21	25	A-7-6
	1.1-1.5	SAME AS 0.5-0.9							16	VISUAL
	1.8-2.3	SAME AS 0.5-0.9							17	VISUAL
	2.6-3.0	6	5	14	30	45	29	12	14	A-6a
	4.1-4.6	61	23	7	-9-				14	A-1-a
	5.6-6.1	BROWN SILTY CLAY, SOME SAND, LITTLE GRAVEL							17	VISUAL
(C-6) 34+180, CL	0.0-0.5	SAME AS 0.5-0.9							24	VISUAL
	0.5-0.9	1	3	9	36	51	39	20	20	A-6b
	1.1-1.5	SAME AS 0.5-0.9							21	VISUAL
	1.8-2.3	SAME AS 0.5-0.9							16	VISUAL
	2.6-3.0	SAME AS 3.5-4.0							21	VISUAL
	3.5-4.0	3	6	13	25	53	27	11	14	A-6a
(C-7) 34+300, CL	0.0-0.3	BROWN SILTY CLAY, SOME SAND, SOME ORGANICS (TOPSOIL)							24	VISUAL
	0.3-1.8	8	12	30	-50-		35	20	20	A-6b
	1.8-2.4	SAME AS 0.3-1.8							16	VISUAL
	2.4-3.0	SAME AS 0.3-1.8							16	VISUAL
(C-8) 34+420, CL	0.0-0.3	DARK BROWN SILTY CLAY, LITTLE ORGANICS, LITTLE SAND (TOPSOIL)							21	VISUAL
	0.3-1.9	2	5	12	31	50	31	12	16	A-6a
	1.9-3.0	SAME AS 0.3-1.9							16	VISUAL
(C-9) 34+540, CL	0.0-0.5	0	5	21	31	43	30	13	24	A-6a
	0.5-0.9	SAME AS 0.0-0.5							18	VISUAL
	1.1-1.5	SAME AS 0.0-0.5							17	VISUAL
	1.8-2.3	SAME AS 0.0-0.5							17	VISUAL
	2.5-3.0	SAME AS 0.0-0.5							17	VISUAL
(C-10) 34+660, CL	0.0-0.5	2	7	26	-65-		34	16	21	A-6b
	0.5-0.9	SAME AS 0.0-0.5							20	VISUAL
	1.1-1.5	SAME AS 0.0-0.5							23	VISUAL
	1.8-2.3	SAME AS 0.0-0.5							22	VISUAL
	2.5-3.0	SAME AS 0.0-0.5							24	VISUAL
(C-11) 34+690, 25M LT	0.0-0.5	BROWN SILTY CLAY, SOME SAND, TRACE GRAVEL							22	VISUAL
	0.5-0.9	SAME AS 0.0-0.5							25	VISUAL
	1.1-1.5	3	2	57	-38-				21	VISUAL
	1.8-2.3	BROWN SILTY CLAY, TRACE SAND, TRACE GRAVEL							22	VISUAL
	2.5-3.0	SAME AS 1.8-2.3							23	VISUAL
	4.1-4.6	BROWN SAND, SOME GRAVEL, SOME SILTY CLAY							10	VISUAL
	5.6-6.1	SAME AS 4.1-4.6							19	VISUAL
(C-12) 34+710, 30M RT	0.0-0.5	SAME AS 0.5-0.9							17	VISUAL
	0.5-0.9	3	8	24	20	45	30	15	21	A-6a
	1.1-1.5	SAME AS 0.5-0.9							23	VISUAL
	1.8-2.3	SAME AS 0.5-0.9							23	VISUAL
	2.5-3.0	SAME AS 0.5-0.9							23	VISUAL
	4.1-4.6	SAME AS 0.5-0.9							9	VISUAL
	5.6-6.1	SAME AS 0.5-0.9							10	VISUAL

BORINGS REFERENCED TO CENTERLINE

Location & Offset	From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L	P.I	W.C.	SHTL Class.
(C-13) 34+780, CL	0.0-0.2	BROWN SILTY CLAY, LITTLE ORGANICS, TRACE SAND (TOPSOIL)							20	VISUAL
	0.2-1.7	7	6	17	29	41	28	11	15	A-6a
	1.7-3.0	SAME AS 0.2-1.7							17	VISUAL
(C-14) 34+900, CL	0.0-0.2	BROWN SILTY CLAY, SOME SAND, LITTLE ORGANICS (TOPSOIL)							20	VISUAL
	0.2-1.7	3	6	31	-60-		32	16	15	A-6b
	1.7-3.0	SAME AS 0.2-1.7							17	VISUAL
(C-15) 35+020, CL	0.0-0.2	BROWN SILTY CLAY, SOME SAND, LITTLE ORGANICS (TOPSOIL)							19	VISUAL
	0.2-1.7	3	4	16	27	50	30	13	17	A-6a
	1.7-3.0	SAME AS 0.2-1.7							15	VISUAL
(C-16) 35+140, CL	0.0-0.2	BROWN SILTY CLAY, SOME SAND, LITTLE ORGANICS (TOPSOIL)							21	VISUAL
	0.2-1.7	7	4	18	-71-		31	16	16	A-6b
	1.7-3.0	SAME AS 0.2-1.7							16	VISUAL
(C-17) 35+260, CL	0.0-0.2	BROWN SILTY CLAY, SOME SAND, SOME ORGANICS (TOPSOIL)							24	VISUAL
	0.2-1.7	3	3	13	27	54	37	18	18	A-6b
	1.7-3.0	SAME AS 0.2-1.7							16	VISUAL
(C-18) 35+380, CL	0.0-0.2	BROWN SILTY CLAY, SOME SAND, LITTLE ORGANICS (TOPSOIL)							20	VISUAL
	0.2-1.7	4	5	21	-70-		33	18	17	A-6b
	1.7-3.0	SAME AS 0.2-1.7							19	VISUAL
(C-19) 35+500, CL	0.0-0.2	BROWN SILTY CLAY, LITTLE ORGANICS, TRACE SAND (TOPSOIL)							24	VISUAL
	0.2-1.7	4	4	15	-77-		29	12	16	A-6a
	1.7-3.0	SAME AS 0.2-1.7							16	VISUAL
(C-20) 35+620, CL	0.0-0.2	BROWN SILTY CLAY, LITTLE ORGANICS, TRACE SAND (TOPSOIL)							26	VISUAL
	0.2-1.7	1	4	10	25	60	47	27	18	A-7-6
	1.7-3.2	SAME AS 0.2-1.7							14	VISUAL
	3.2-4.0	SAME AS 0.2-1.7							16	VISUAL
(C-21) 35+740, CL	0.0-0.2	DARK BROWN SILTY CLAY, TRACE SAND, TRACE ORGANICS (TOPSOIL)							32	VISUAL
	0.2-1.5	0	3	18	36	43	30	15	19	A-6a
	1.5-2.6	SAME AS 0.2-1.5							12	VISUAL
	2.6-4.0	GRAY GRAVEL, LITTLE SAND, TRACE SILTY CLAY							12	VISUAL
(C-22) 35+780, 25M LT	0.0-0.5	SAME AS 2.5-3.0							27	VISUAL
	0.5-0.9	SAME AS 2.5-3.0							19	VISUAL
	1.1-1.5	SAME AS 2.5-3.0							20	VISUAL
	1.8-2.3	SAME AS 2.5-3.0							14	VISUAL
	2.5-3.0	7	3	5	22	63	34	15	20	A-6a
	4.1-4.6	SAME AS 2.5-3.0							15	VISUAL
	4.6-5.0	SAME AS 2.5-3.0							13	VISUAL
(C-23) 35+780, 25M RT	0.0-0.5	SAME AS 0.5-0.9							28	VISUAL
	0.5-0.9	1	8	42	-49-		36	17	30	A-6b
	1.1-1.5	SAME AS 0.5-0.9							21	VISUAL
	1.8-2.3	SAME AS 0.5-0.9							9	VISUAL
	2.5-3.0	SAME AS 0.5-0.9							16	VISUAL
	4.1-4.6	SAME AS 0.5-0.9							15	VISUAL
	4.6-5.0	SAME AS 0.5-0.9							16	VISUAL
(C-24) 35+860, CL	0.0-0.2	BROWN SILTY CLAY, LITTLE ORGANICS, TRACE SAND (TOPSOIL)							35	VISUAL
	0.2-1.7	2	5	21	-72-		33	16	14	A-6b
	1.7-3.0	SAME AS 0.2-1.7							16	VISUAL
(C-25) 0+090, CL	0.0-0.5	1	12	33	-54-		27	8	23	A-4a
	0.5-0.9	SAME AS 0.0-0.5							21	VISUAL
	1.1-1.5	SAME AS 0.0-0.5							16	VISUAL
	1.8-2.3	SAME AS 0.0-0.5							16	VISUAL
	2.5-3.0	SAME AS 0.0-0.5							15	VISUAL
(C-26) 0+210, CL	0.0-0.5	1	3	14	38	44	29	10	25	A-4a
	0.5-0.9	SAME AS 0.0-0.5							25	VISUAL
	1.1-1.5	SAME AS 0.0-0.5							16	VISUAL
	1.8-2.3	SAME AS 0.0-0.5							16	VISUAL
	2.5-3.0	SAME AS 0.0-0.5							15	VISUAL
(C-27) 0+320, CL	0.0-0.5	SAME AS 0.5-0.9							19	VISUAL
	0.5-0.9	8	9	29	-54-		33	14	20	A-6a
	1.1-1.5	SAME AS 0.5-0.9							21	VISUAL
	1.8-2.3	SAME AS 0.5-0.9							19	VISUAL
	2.5-3.0	SAME AS 0.5-0.9							15	VISUAL
	3.5-4.0	SAME AS 0.5-0.9							16	VISUAL
(C-28) 0+440, CL	0.0-0.5	SAME AS 0.5-0.9							22	VISUAL
	0.5-0.9	1	6	19	-74-		36	18	18	A-6b
	1.1-1.5	SAME AS 0.5-0.9							15	VISUAL
	1.8-2.3	SAME AS 0.5-0.9							16	VISUAL
	2.5-3.0	SAME AS 0.5-0.9							16	VISUAL
(C-29) 0+560, CL	0.0-0.5	SAME AS 0.5-0.9							20	VISUAL
	0.5-0.9	7	12	16	19	46	36	19	18	A-6b
	1.1-1.5	SAME AS 0.5-0.9							16	VISUAL
	1.8-2.3	SAME AS 0.5-0.9							19	VISUAL
	2.5-3.0	SAME AS 0.5-0.9							26	VISUAL
	3.5-4.0	GRAY GRAVEL AND SAND, LITTLE SILT							17	VISUAL

RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109 FILENAME: 7109R-2.DWG DATE: 17_JAN_1998

RESOURCE INTERNATIONAL INC.
281 ENTERPRISE DR.
WESTERVILLE, OHIO 43081
(614) 885-1959

CALCULATED	CHECKED GPH
DATE 1/17/98	DATE 1/19/98
REVIEWED KEB	
DRAWN KEB	

SOIL PROFILE

CRAWFORD/RICHLAND COUNTY
CRA/RIC-30-33.500/0.000

2/39

SUMMARY OF SOIL TEST DATA

NOTE: NP SHOWN IN LIQUID LIMIT AND PLASTIC INDEX COLUMNS INDICATES THAT THE SAMPLE IS NON-PLASTIC

BORINGS REFERENCED TO CENTERLINE

Location	Offset	From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L	P.I	W.C.	SHTL Class.
(C-30)	0+670, 25M LT	0.0-0.5	2	10	30	-58-		29	10	14	A-4a
		0.5-0.9	SAME AS 0.0-0.5							18	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							16	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							20	VISUAL
		2.5-3.0	24	47	23	-6-				16	A-1-b
		4.1-4.6	SAME AS 2.5-3.0							20	VISUAL
		5.6-6.0	SAME AS 2.5-3.0							7	VISUAL
(C-31)	0+680, 25M RT	0.0-0.5	BROWN TO GRAY SILTY CLAY, SOME SAND, LITTLE GRAVEL							23	VISUAL
		0.5-0.9	SAME AS 0.0-0.5							21	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							24	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							23	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							13	VISUAL
		4.1-4.6	SAME AS 0.0-0.5							15	VISUAL
		5.6-6.0	GRAY WEATHERED SILTSTONE								VISUAL
(C-32)	0+790, CL	0.0-0.5	2	4	19	31	44	31	13	20	A-6a
		0.5-0.9	SAME AS 0.0-0.5							18	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							15	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							14	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							23	VISUAL
		3.5-4.0	BROWN SAND, SOME GRAVEL, SOME SILTY CLAY							18	VISUAL
(C-33)	0+910, CL	0.0-0.5	BROWN SILTY CLAY, SOME SAND, TRACE GRAVEL							18	VISUAL
		0.5-0.9	SAME AS 0.0-0.5							24	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							19	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							17	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							15	VISUAL
(C-34)	1+030, CL	0.0-0.5	SAME AS 0.5-0.9							21	VISUAL
		0.5-0.9	12	4	11	22	51	35	17	18	A-6b
		1.1-1.5	SAME AS 0.5-0.9							17	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							16	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							16	VISUAL
(C-35)	1+150, CL	0.0-0.5	SAME AS 0.5-0.9							19	VISUAL
		0.5-0.9	6	6	18	31	39	27	11	16	A-6a
		1.1-1.5	SAME AS 0.5-0.9							15	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							18	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							15	VISUAL
		3.5-4.0	SAME AS 0.5-0.9							16	VISUAL
(C-36)	1+270, CL	0.0-0.5	BROWN SILTY CLAY, SOME SAND, TRACE GRAVEL							26	VISUAL
		0.5-0.9	SAME AS 0.0-0.5							28	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							14	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							14	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							12	VISUAL
		4.1-4.6	SAME AS 0.0-0.5							14	VISUAL
		4.6-5.0	SAME AS 0.0-0.5							16	VISUAL
(C-37)	1+390, CL	0.0-0.5	SAME AS 0.5-0.9							20	VISUAL
		0.5-0.9	6	3	13	25	53	37	18	23	A-6b
		1.1-1.5	SAME AS 0.5-0.9							15	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							13	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							13	VISUAL
(C-38)	1+510, CL	0.0-0.5	BROWN CLAY, SOME SILT, LITTLE SAND, TRACE GRAVEL							17	VISUAL
		0.5-0.9	SAME AS 0.0-0.5							18	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							16	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							14	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							13	VISUAL
(C-39)	1+630, CL	0.0-0.5	0	3	11	25	61	40	20	26	A-6b
		0.5-0.9	SAME AS 0.0-0.5							15	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							15	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							14	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							15	VISUAL
(C-40)	1+750, 25M LT	0.0-0.5	BROWN CLAY AND SILT, SOME SAND, TRACE GRAVEL							22	VISUAL
		0.5-0.9	SAME AS 0.0-0.5							19	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							17	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							16	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							15	VISUAL
		4.1-4.6	SAME AS 0.0-0.5							15	VISUAL
		4.6-5.0	SAME AS 0.0-0.5							15	VISUAL
(C-41)	1+750, 25M RT	0.0-0.5	1	3	20	35	41	33	14	15	A-6a
		0.5-0.9	SAME AS 0.0-0.5							17	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							16	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							20	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							17	VISUAL
		4.1-4.6	SAME AS 0.0-0.5							15	VISUAL
		4.6-5.0	SAME AS 0.0-0.5							14	VISUAL
(C-42)	1+870, CL	0.0-0.5	SAME AS 0.5-0.9							23	VISUAL
		0.5-0.9	2	5	21	-72-		26	11	16	A-6a
		1.1-1.5	SAME AS 0.5-0.9							11	VISUAL
		1.8-2.3	BROWN SAND, SOME CLAYEY SILT, TRACE GRAVEL							19	VISUAL
		2.5-3.0	SAME AS 1.8-2.3							20	VISUAL
		3.5-4.0	SAME AS 1.8-2.3							20	VISUAL

BORINGS REFERENCED TO CENTERLINE

Location	Offset	From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L	P.I	W.C.	SHTL Class.
(C-43)	1+990, CL	0.0-0.5	SAME AS 0.5-0.9							18	VISUAL
		0.5-0.9	5	11	19	26	39	27	11	14	A-6a
		1.1-1.5	SAME AS 0.5-0.9							15	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							16	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							14	VISUAL
(C-44)	2+110, CL	0.0-0.5	2	6	17	-75-		26	7	19	A-4a
		0.5-0.9	SAME AS 0.0-0.5							15	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							15	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							15	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							16	VISUAL
(C-45)	2+140, 25M LT	0.0-0.5	SAME AS 0.5-0.9							22	VISUAL
		0.5-0.9	9	6	18	32	35	26	9	14	A-4a
		1.1-1.5	SAME AS 0.5-0.9							14	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							15	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							12	VISUAL
		3.5-4.0	SAME AS 0.5-0.9							14	VISUAL
(C-46)	2+140, 25M RT	0.0-0.5	BROWN SILTY CLAY, SOME SAND, TRACE GRAVEL							20	VISUAL
		0.5-0.9	SAME AS 0.0-0.5							14	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							14	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							14	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							15	VISUAL
		3.5-4.0	SAME AS 0.0-0.5							12	VISUAL
(C-47)	2+230, CL	0.0-0.5	BROWN SILTY CLAY, SOME SAND, TRACE GRAVEL							22	VISUAL
		0.5-0.9	SAME AS 0.0-0.5							17	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							14	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							16	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							17	VISUAL
(C-48)	2+350, CL	0.0-0.5	SAME AS 0.5-0.9							19	VISUAL
		0.5-0.9	2	4	13	29	52	36	19	18	A-6b
		1.1-1.5	SAME AS 0.5-0.9							20	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							13	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							16	VISUAL
(C-49)	2+470, CL	0.0-0.5	1	6	15	-78-		40	23	22	A-7-6
		0.5-0.9	SAME AS 0.0-0.5							26	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							23	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							12	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							12	VISUAL
(C-50)	2+520, 25M LT	0.0-0.5	BROWN SILTY CLAY, LITTLE SAND, LITTLE GRAVEL							15	VISUAL
		0.5-0.9	SAME AS 0.0-0.5							13	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							15	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							15	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							13	VISUAL
		3.5-4.0	SAME AS 0.0-0.5							15	VISUAL
(C-51)	2+520, 25M RT	0.0-0.5	SAME AS 0.5-0.9							13	VISUAL
		0.5-0.9	14	5	15	23	43	33	17	14	A-6b
		1.1-1.5	SAME AS 0.5-0.9							14	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							16	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							14	VISUAL
		3.5-4.0	SAME AS 0.5-0.9							14	VISUAL
(C-52)	2+590, CL	0.0-0.5	SAME AS 0.5-0.9							20	VISUAL
		0.5-0.9	1	5	24	-70-		30	13	16	A-6a
		1.1-1.5	SAME AS 0.5-0.9							15	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							15	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							13	VISUAL
		3.5-4.0	SAME AS 0.5-0.9							16	VISUAL
(C-53)	2+720, 25M LT	0.0-0.5	3	1	6	36	54	36	18	23	A-6b
		0.5-0.9	SAME AS 0.0-0.5							17	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							16	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							14	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							15	VISUAL
		3.5-4.0	SAME AS 0.0-0.5							15	VISUAL
(C-54)	2+720, 25M RT	0.0-0.5	BROWN SILTY CLAY, TRACE SAND, TRACE GRAVEL							20	VISUAL
		0.5-0.9	SAME AS 0.0-0.5							16	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							15	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							16	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							17	VISUAL
		3.5-3.9	SAME AS 0.0-0.5							15	VISUAL
(C-55)	2+840, CL	0.0-0.5	SAME AS 0.5-0.9							25	VISUAL
		0.5-0.9	9	7	22	-62-		32	15	17	A-6a
		1.1-1.5	SAME AS 0.5-0.9							19	VISUAL
		1.8-2.3	BROWN SANDY SILT, SOME CLAY, TRACE GRAVEL							13	VISUAL
		2.5-3.0	SAME AS 1.8-2.3							21	VISUAL
(C-56)	2+930, 25M RT	0.0-0.5	BROWN SILTY CLAY, TRACE TO LITTLE SAND, TRACE GRAVEL							28	VISUAL
		0.5-0.9	SAME AS 0.0-0.5							24	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							22	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							29	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							17	VISUAL
		3.5-4.0	SAME AS 0.0-0.5							24	VISUAL

RESOURCE INTERNATIONAL INC.
281 ENTERPRISE DR.
WESTERVILLE, OHIO 43081
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CALCULATED | DATE 1/17/98 | CHECKED GPH | DATE 1/19/98 | REVIEWED KEB | DRAWN KEB

SOIL PROFILE

CRAWFORD/RICHLAND COUNTY
CRA/RIC-30-33.500/0.000

RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109 FILENAME: 7109R-3.DWG DATE: 17_JAN_1998

SUMMARY OF SOIL TEST DATA

NOTE: NP SHOWN IN LIQUID LIMIT AND PLASTIC INDEX COLUMNS INDICATES THAT THE SAMPLE IS NON-PLASTIC

BORINGS REFERENCED TO CENTERLINE

Boring	Location & Offset	From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L	P.I	W.C.	SHTL Class.
(C-57)	2+940, 25M LT	0.0-0.5	SAME AS 0.5-0.9							25	VISUAL
		0.5-0.9	0	3	6	34	57	37	21	21	A-6b
		1.1-1.5	SAME AS 0.5-0.9							23	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							15	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							14	VISUAL
		3.5-4.0	SAME AS 0.5-0.9							17	VISUAL
(C-58)	3+060, CL	0.0-0.5	BROWN SILTY CLAY, LITTLE TO SOME SAND, TRACE GRAVEL							18	VISUAL
		0.5-0.9	SAME AS 0.0-0.5							22	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							14	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							16	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							20	VISUAL
		3.5-4.0	SAME AS 0.0-0.5							14	VISUAL
(C-59)	3+180, CL	0.0-0.5	SAME AS 0.5-0.9							19	VISUAL
		0.5-0.9	4	3	11	25	57	36	19	18	A-6b
		1.1-1.5	SAME AS 0.5-0.9							14	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							15	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							18	VISUAL
(C-60)	3+280, 25M LT	0.0-0.5	BROWN CLAY, SOME SILT, LITTLE SAND, TRACE GRAVEL							18	VISUAL
		0.5-0.9	SAME AS 0.0-0.5							15	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							16	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							16	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							17	VISUAL
		3.5-4.0	SAME AS 0.0-0.5							14	VISUAL
(C-61)	3+280, 25M RT	0.0-0.5	SAME AS 0.5-0.9							24	VISUAL
		0.5-0.9	3	4	15	28	50	30	13	16	A-6a
		1.1-1.5	SAME AS 0.5-0.9							15	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							19	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							16	VISUAL
		3.5-4.0	SAME AS 0.5-0.9							18	VISUAL
(C-62)	3+400, CL	0.0-0.5	SAME AS 0.5-0.9								VISUAL
		0.5-0.9	0	11	38	-51-		40	22	25	A-7-6
		1.1-1.5	SAME AS 0.5-0.9							25	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							21	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							14	VISUAL
(C-63)	3+520, 25M LT	0.0-0.5	SAME AS 0.5-0.9							19	VISUAL
		0.5-0.9	1	10	18	35	36	31	14	15	A-6a
		1.1-1.5	SAME AS 0.5-0.9							17	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							15	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							15	VISUAL
		3.5-4.0	SAME AS 0.5-0.9							16	VISUAL
(C-64)	3+530, 25M RT	0.0-0.5	BROWN CLAY AND SILT, SOME SAND, TRACE GRAVEL							16	VISUAL
		0.5-0.9	SAME AS 0.0-0.5							16	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							17	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							20	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							18	VISUAL
		3.5-4.0	SAME AS 0.0-0.5							17	VISUAL
(C-65)	3+640, CL	0.0-0.5	SAME AS 0.5-0.9							18	VISUAL
		0.5-0.9	13	5	16	-66-		32	15	13	A-6a
		1.1-1.5	SAME AS 0.5-0.9							13	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							15	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							13	VISUAL
		3.5-4.0	SAME AS 0.5-0.9							14	VISUAL
(C-66)	3+760, CL	0.0-0.5	BROWN SILTY CLAY, SOME SAND, TRACE GRAVEL							14	VISUAL
		0.5-0.9	SAME AS 0.0-0.5							15	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							15	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							12	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							12	VISUAL
(C-67)	3+840, 20M LT	0.0-0.5	SAME AS 0.5-0.9							16	VISUAL
		0.5-0.9	9	7	16	25	43	35	17	14	A-6b
		1.1-1.5	SAME AS 0.5-0.9							13	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							16	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							17	VISUAL
		3.5-4.0	SAME AS 0.5-0.9							14	VISUAL
(C-68)	3+840, 20M RT	0.0-0.5	SAME AS 0.5-0.9							18	VISUAL
		0.5-0.9	BROWN SILT AND CLAY, SOME SAND, LITTLE GRAVEL					30	15	19	VISUAL
		1.1-1.5	SAME AS 0.5-0.9							18	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							19	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							18	VISUAL
		3.5-4.0	SAME AS 0.5-0.9							13	VISUAL
(C-69)	3+960, CL	0.0-0.5	SAME AS 0.5-0.9							24	VISUAL
		0.5-0.9	1	5	12	-82-		36	17	17	A-6b
		1.1-1.5	SAME AS 0.5-0.9							15	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							16	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							14	VISUAL
		3.5-4.0	SAME AS 0.5-0.9							13	VISUAL

BORINGS REFERENCED TO CENTERLINE

Boring	Location & Offset	From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L	P.I	W.C.	SHTL Class.
(C-70)	4+080, CL	0.0-0.5	SAME AS 0.5-0.9							24	VISUAL
		0.5-0.9	4	3	11	-82-		44	21	15	A-7-6
		1.1-1.5	SAME AS 0.5-0.9							16	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							13	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							14	VISUAL
		3.5-4.0	SAME AS 0.5-0.9							20	VISUAL
		4.5-5.0	SAME AS 0.5-0.9							17	VISUAL
(C-71)	4+200, CL	0.0-0.2	BROWN SILTY CLAY, LITTLE ORGANICS, LITTLE SAND (TOPSOIL)							25	VISUAL
		0.2-1.7	3	5	21	-71-		37	19	16	A-6b
		1.7-3.0	SAME AS 0.2-1.7							15	VISUAL
(C-72)	4+300, 25M LT	0.0-0.5	BROWN SILTY CLAY, LITTLE ORGANICS, TRACE SAND (TOPSOIL)							33	VISUAL
		0.5-0.9	BROWN SILTY CLAY, SOME SAND, TRACE GRAVEL							20	VISUAL
		1.1-1.5	SAME AS 0.5-0.9							21	VISUAL
		1.8-2.3	36	22	29	-13-				14	A-1-b
		2.5-3.0	SAME AS 1.8-2.3							17	VISUAL
		3.5-4.0	BROWNISH-GRAY SILTY CLAY, SOME SAND, LITTLE GRAVEL							15	VISUAL
(C-73)	4+300, 25M RT	0.0-0.5	SAME AS 0.5-0.9							21	VISUAL
		0.5-0.9	2	4	14	-80-		30	13	16	A-6a
		1.1-1.5	SAME AS 0.5-0.9							15	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							24	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							14	VISUAL
		3.5-4.0	SAME AS 0.5-0.9							15	VISUAL
(C-74)	4+420, CL	0.0-0.5	BROWN CLAY, LITTLE SILT, LITTLE SAND, TRACE GRAVEL							21	VISUAL
		0.5-0.9	SAME AS 0.0-0.5							16	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							16	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							16	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							17	VISUAL
		3.5-4.0	SAME AS 0.0-0.5							17	VISUAL
(C-75)	4+540, CL	0.0-0.5	SAME AS 0.5-0.9							18	VISUAL
		0.5-0.9	6	5	11	17	61	34	16	16	A-6b
		1.1-1.5	SAME AS 0.5-0.9							16	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							18	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							17	VISUAL
(C-76)	4+600, 20M LT	0.0-0.5	SAME AS 0.5-0.9							15	VISUAL
		0.5-0.9	5	3	18	-74-		32	15	15	A-6a
		1.1-1.5	SAME AS 0.5-0.9							16	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							15	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							15	VISUAL
		3.5-4.0	SAME AS 0.5-0.9							15	VISUAL
(C-77)	4+600, 20M RT	0.0-0.5	BROWN SILTY CLAY, SOME SAND, TRACE GRAVEL							15	VISUAL
		0.5-0.9	SAME AS 0.0-0.5							15	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							16	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							15	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							16	VISUAL
		3.5-4.0	SAME AS 0.0-0.5							15	VISUAL
(C-78)	4+720, CL	0.0-0.5	3	4	38	-55-		37	17	18	A-6b
		0.5-0.9	SAME AS 0.0-0.5							14	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							15	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							18	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							24	VISUAL
(C-79)	4+840, CL	0.0-0.5	SAME AS 0.5-0.9							18	VISUAL
		0.5-0.9	5	5	11	25	54	31	15	15	A-6a
		1.1-1.5	SAME AS 0.5-0.9							15	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							15	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							16	VISUAL
(C-80)	4+970, 25M LT	0.0-0.5	BROWN SILT AND CLAY, SOME SAND, TRACE GRAVEL							15	VISUAL
		0.5-0.9	SAME AS 0.0-0.5							15	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							15	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							17	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							17	VISUAL
		3.5-4.0	SAME AS 0.0-0.5							17	VISUAL
(C-81)	4+970, 25M RT	0.0-0.5	SAME AS 0.5-0.9							19	VISUAL
		0.5-0.9	7	5	15	-73-		31	14	14	A-6a
		1.1-1.5	SAME AS 0.5-0.9							15	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							16	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							16	VISUAL
		3.5-4.0	SAME AS 0.5-0.9							16	VISUAL
(C-82)	5+090, CL	0.0-0.5	SAME AS 0.5-0.9							22	VISUAL
		0.5-0.9	6	4	10	38	42	34	17	16	A-6b
		1.1-1.5	SAME AS 0.5-0.9							17	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							16	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							15	VISUAL
(C-83)	5+210, CL	0.0-0.5	BROWN SILTY CLAY, LITTLE SAND, TRACE GRAVEL							25	VISUAL
		0.5-0.9	SAME AS 0.0-0.5							16	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							16	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							14	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							18	VISUAL

RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109 FILENAME: 7109R-4.DWG DATE: 17_JAN_1998

RESOURCE INTERNATIONAL INC.
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WESTERVILLE, OHIO 43081
(614) 885-1959

CALCULATED	CHECKED GPH
DATE 1/17/98	DATE 1/19/98
REVIEWED KEB	
DRAWN KEB	

SOIL PROFILE

CRAWFORD/RICHLAND COUNTY
CRA/RIC-30-33.500/0.000

4/39

4/59

SUMMARY OF SOIL TEST DATA

NOTE: NP SHOWN IN LIQUID LIMIT AND PLASTIC INDEX COLUMNS INDICATES THAT THE SAMPLE IS NON-PLASTIC

BORINGS REFERENCED TO CENTERLINE

Location	Offset	From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L	P.I	W.C.	SHTL Class.
(C-84)	5+330, CL	0.0-0.5	SAME AS 0.5-0.9							15	VISUAL
		0.5-0.9	3	5	11	-81-		31	14	15	A-6a
		1.1-1.5	SAME AS 0.5-0.9							17	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							21	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							15	VISUAL
(C-85)	5+450, CL	0.0-0.5	SAME AS 0.5-0.9							17	VISUAL
		0.5-0.9	4	5	12	-79-		33	15	15	A-6a
		1.1-1.5	SAME AS 0.5-0.9							17	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							17	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							16	VISUAL
(C-86)	5+560, 25M LT	0.0-0.5	SAME AS 0.5-0.9							22	VISUAL
		0.5-0.9	2	5	12	21	60	34	17	22	A-6b
		1.1-1.5	SAME AS 0.5-0.9							17	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							15	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							15	VISUAL
		3.5-4.0	SAME AS 0.5-0.9							16	VISUAL
(C-87)	5+560, 25M RT	0.0-0.5	BROWN SILTY CLAY, SOME SAND, TRACE GRAVEL							16	VISUAL
		0.5-0.9	16	32	38	-14-				19	A-3a
		1.1-1.5	BROWN SILTY CLAY, SOME SAND, LITTLE GRAVEL							17	VISUAL
		1.8-2.3	SAME AS 1.1-1.5							18	VISUAL
		2.5-3.0	SAME AS 1.1-1.5							14	VISUAL
		3.5-4.0	SAME AS 1.1-1.5							16	VISUAL
(C-88)	5+690, CL	0.0-0.5	SAME AS 0.5-0.9							15	VISUAL
		0.5-0.9	15	5	11	31	38	32	16	13	A-6b
		1.1-1.5	SAME AS 0.5-0.9							14	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							16	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							16	VISUAL
		3.5-4.0	SAME AS 0.5-0.9							15	VISUAL
(C-89)	5+820, 25M LT	0.0-0.5	SAME AS 0.5-0.9							21	VISUAL
		0.5-0.9	3	4	13	32	48	35	16	13	A-6b
		1.1-1.5	SAME AS 0.5-0.9							12	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							18	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							17	VISUAL
		3.5-4.0	BROWN SANDY CLAY, SOME GRAVEL, LITTLE SILT							18	VISUAL
(C-90)	5+820, 25M RT	0.0-0.5	SAME AS 0.5-0.9								VISUAL
		0.5-0.9	3	12	27	-58-		41	16	22	A-7-6
		1.1-1.5	SAME AS 0.5-0.9								VISUAL
		1.8-2.3	SAME AS 0.5-0.9							16	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							18	VISUAL
		3.5-4.0	SAME AS 0.5-0.9							14	VISUAL
(C-91)	5+940, CL	0.0-0.5	SAME AS 0.5-0.9							19	VISUAL
		0.5-0.9	4	7	22	34	33	26	12	15	A-6a
		1.1-1.5	SAME AS 0.5-0.9							15	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							14	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							15	VISUAL
		3.5-4.0	SAME AS 0.5-0.9							15	VISUAL
(C-92)	6+060, CL	0.0-0.5	BROWN SILTY CLAY, LITTLE ORGANICS, TRACE SAND (TOPSOIL)							17	VISUAL
		0.5-0.9	BROWN SILT AND CLAY, SOME SAND, TRACE GRAVEL							17	VISUAL
		1.1-1.5	SAME AS 0.5-0.9							15	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							16	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							15	VISUAL
(C-93)	6+180, CL	0.0-0.5	SAME AS 0.5-0.9							14	VISUAL
		0.5-0.9	7	24	22	-47-		31	14	15	A-6a
		1.1-1.5	SAME AS 0.5-0.9							15	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							16	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							15	VISUAL
		3.5-4.0	SAME AS 0.5-0.9							16	VISUAL
(C-94)	6+300, CL	0.0-0.2	BROWN SILTY CLAY, SOME SAND, LITTLE ORGANICS, TRACE GRAVEL (TOPSOIL)							14	VISUAL
		0.2-1.7	10	9	19	-62-		26	11	15	A-6a
		1.7-3.0	SAME AS 0.2-1.7							19	VISUAL
(C-95)	6+420, CL	0.0-0.2	BROWN SILTY CLAY, SOME SAND, LITTLE ORGANICS, TRACE GRAVEL (TOPSOIL)							14	VISUAL
		0.2-1.7	BROWN SILTY CLAY, SOME SAND, TRACE GRAVEL							15	VISUAL
		1.7-2.2	SAME AS 0.2-1.7							16	VISUAL
		2.2-3.0	SAME AS 0.2-1.7							16	VISUAL

BORINGS REFERENCED TO CENTERLINE OF SR 61

Location	Offset	From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L	P.I	W.C.	SHTL Class.
(C-96)	49+620, 5M RT	0.0-0.5	GRAY SAND AND GRAVEL, SOME SILTY CLAY (BERM)							8	VISUAL
		0.5-0.9	BROWN CLAY, SOME SILT, LITTLE SAND, TRACE GRAVEL							16	VISUAL
		1.1-1.5	SAME AS 0.5-0.9							18	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							17	VISUAL
		2.5-3.0	BROWN SAND AND GRAVEL, SOME SILTY CLAY							19	VISUAL
(C-97)	49+740, 5M LT	0.0-0.5	BROWN SAND AND GRAVEL, SOME SILTY CLAY (BERM)							16	VISUAL
		0.5-0.9	3	5	10	28	54	35	17	19	VISUAL
		1.1-1.5	SAME AS 0.5-0.9							24	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							17	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							14	VISUAL

BORINGS REFERENCED TO CENTERLINE OF SR 61

Location	Offset	From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L	P.I	W.C.	SHTL Class.
(C-98)	49+860, 5M RT	0.0-0.5	BROWN SAND AND GRAVEL, SOME SILTY CLAY (BERM)							16	VISUAL
		0.5-0.9	8	13	35	-44-		30	13	18	A-6a
		1.1-1.5	SAME AS 0.5-0.9							18	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							16	VISUAL
		2.5-3.0	BROWN AND GRAY SILTY CLAY, LITTLE SAND, TRACE GRAVEL							14	VISUAL
		4.1-4.6	SAME AS 2.5-3.0							16	VISUAL
		4.6-5.0	SAME AS 2.5-3.0							16	VISUAL
(C-99)	50+220, 5M LT	0.0-0.5	GRAY SAND AND GRAVEL, LITTLE SILTY CLAY (BERM)							5	VISUAL
		0.5-0.9	14	5	16	-65-		30	13	17	A-6a
		1.1-1.5	SAME AS 0.5-0.9							25	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							26	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							16	VISUAL
		4.1-4.6	SAME AS 0.5-0.9							15	VISUAL
		5.6-6.1	SAME AS 0.5-0.9							12	VISUAL
(C-100)	50+340, 5M RT	0.0-0.5	BROWN TO BROWNISH GRAY CLAY, SOME SILT, LITTLE SAND, LITTLE GRAVEL							20	VISUAL
		0.5-0.9	SAME AS 0.0-0.5							23	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							13	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							14	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							15	VISUAL
		3.6-4.0	SAME AS 0.0-0.5							12	VISUAL
(C-101)	50+460, 5M LT	0.0-0.5	SAME AS 0.5-0.9							20	VISUAL
		0.5-0.9	14	6	12	21	47	32	16	13	A-6b
		1.1-1.5	SAME AS 0.5-0.9							14	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							16	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							16	VISUAL

BORINGS REFERENCED TO BASELINE OF RAMP I

Location	Offset	From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L	P.I	W.C.	SHTL Class.
(I-1)	4+020, BL	0.0-0.5	0	2	10	29	59	45	22	26	A-7-6
		0.5-0.9	SAME AS 0.0-0.5							26	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							17	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							12	VISUAL
		2.5-3.0	0	2	12	-86-				19	VISUAL
		4.1-4.6	SAME AS 2.5-3.0							17	VISUAL
		5.6-6.1	12	8	13	30	37	25	9	13	A-4a
(I-2)	4+140, BL	0.0-0.5	SAME AS 1.1-1.5							24	VISUAL
		0.5-0.9	SAME AS 1.1-1.5							23	VISUAL
		1.1-1.5	1	3	12	24	60	45	26	24	A-7-6
		1.8-2.3	SAME AS 1.1-1.5							20	VISUAL
		2.5-3.0	6	6	14	26	48	27	12	15	A-6a
		4.1-4.6	SAME AS 2.5-3.0							15	VISUAL
		4.6-5.0	66	16	9	-9-				14	A-1-a
(I-3)	4+260, BL	0.0-0.5	SAME AS 0.5-0.9							9	VISUAL
		0.5-0.9	8	5	12	24	51	30	14	16	A-6a
		1.1-1.5	SAME AS 0.5-0.9							16	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							15	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							15	VISUAL
		4.1-4.6	GRAY SAND AND GRAVEL, SOME CLAYEY SILT							18	VISUAL
		5.6-6.1	GRAY CLAYEY SAND, SOME GRAVEL, SOME SILT							14	VISUAL

BORINGS REFERENCED TO BASELINE OF RAMP J

Location	Offset	From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L	P.I	W.C.	SHTL Class.
(J-1)	4+020, BL	0.0-0.5	DARK BROWN SILTY CLAY, SOME ORGANICS, TRACE SAND (TOPSOIL)							31	VISUAL
		0.5-0.9	0	0	3	28	69	56	38	31	A-7-6
		1.1-1.5	SAME AS 2.5-3.0							17	VISUAL
		1.8-2.3	SAME AS 2.5-3.0							22	VISUAL
		2.5-3.0	10	7	14	24	45	26	11	13	A-6a
		4.1-4.6	SAME AS 2.5-3.0							14	VISUAL
		5.6-6.1	SAME AS 2.5-3.0							14	VISUAL
(J-2)	4+140, BL	0.0-0.5	SAME AS 0.5-0.9							23	VISUAL
		0.5-0.9	0	3	9	31	57	41	20	23	A-7-6
		1.1-1.5	SAME AS 2.5-3.0							19	VISUAL
		1.8-2.3	SAME AS 2.5-3.0							14	VISUAL
		2.5-3.0	6	5	13	27	49	29	15	14	A-6a
		4.1-4.6	54	9	6	-31-				13	A-2-4
		5.6-6.1	SAME AS 4.1-4.6							12	VISUAL
(J-3)	4+260, BL	0.0-0.5	SAME AS 0.5-0.9							23	VISUAL
		0.5-0.9	4	3	26	24	43	29	12	23	A-6a
		1.1-1.5	SAME AS 0.5-0.9							15	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							20	VISUAL
		2.5-3.0	5	6	14	28	47	32	14	16	A-6a
		4.1-4.6	SAME AS 2.5-3.0							15	VISUAL
		4.6-5.0	SAME AS 2.5-3.0							15	VISUAL

BORINGS REFERENCED TO BASELINE OF RAMP K

Location	Offset	From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L	P.I	W.C.	SHTL Class.
(K-1)	4+360, BL	0.0-0.5	2	7	13	23	55	36	17	18	A-6b
		0.5-0.9	SAME AS 0.0-0.5							16	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							17	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							22	VISUAL
		2.5-3.0	6	7	14	23	50	27	11	15	A-6a

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CALCULATED	DATE 1/17/98	REVIEWED KEB	DRAWN KEB
CHECKED GPH	DATE 1/19/98		

SOIL PROFILE

CRAWFORD/RICHLAND COUNTY
CRA/RIC-30-33.500/0.000

5/39

RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109 FILENAME: 7109R-5.DWG DATE: 17_JAN_1998

SUMMARY OF SOIL TEST DATA

NOTE: NP SHOWN IN LIQUID LIMIT AND PLASTIC INDEX COLUMNS INDICATES THAT THE SAMPLE IS NON-PLASTIC

Location	Offset	From – To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L	P.I	W.C.	SHTL Class.
BORINGS REFERENCED TO BASELINE OF RAMP K											
(K-2)	4+480, BL	0.0–0.5	SAME AS 0.5–0.9							21	VISUAL
		0.5–0.9	2	4	19	22	53	35	18	19	A-6b
		1.1–1.5	SAME AS 0.5–0.9							16	VISUAL
		1.8–2.3	18	7	13	26	36	30	12	15	A-6a
		2.5–3.0	SAME AS 1.8–2.3							15	VISUAL
BORINGS REFERENCED TO BASELINE OF RAMP L											
(L-1)	4+360, BL	0.0–0.5	SAME AS 2.5–3.0							30	VISUAL
		0.5–0.9	SAME AS 2.5–3.0							24	VISUAL
		1.1–1.5	SAME AS 2.5–3.0							16	VISUAL
		1.8–2.3	SAME AS 2.5–3.0							16	VISUAL
		2.5–3.0	7	4	14	32	43	29	13	14	A-6a
		4.1–4.6	SAME AS 2.5–3.0							16	VISUAL
		4.6–5.0	SAME AS 2.5–3.0							15	VISUAL
(L-2)	4+480, BL	0.0–0.5	1	2	21	34	42	27	11	23	A-6a
		0.5–0.9	SAME AS 0.0–0.5							20	VISUAL
		1.1–1.5	SAME AS 1.8–2.3							16	VISUAL
		1.8–2.3	6	7	14	31	42	29	12	15	A-6a
		2.5–3.0	SAME AS 1.8–2.3							17	VISUAL
BORINGS REFERENCED TO CENTERLINE OF SR 61 SERVICE ROAD											
(C-124)	50+060, CL	0.0–0.2	BROWN SILTY CLAY, SOME SAND, LITTLE ORGANICS, TRACE GRAVEL (TOPSOIL)							20	VISUAL
		0.2–1.7	2	6	23	–69–		32	15	16	A-6a
		1.7–3.0	SAME AS 0.2–1.7							15	VISUAL
(C-125)	50+180, CL	0.0–0.2	BROWN SILTY CLAY, LITTLE ORGANICS, TRACE SAND (TOPSOIL)							21	VISUAL
		0.2–1.7	4	6	12	31	47	31	15	15	A-6a
		1.7–3.0	SAME AS 0.2–1.7							15	VISUAL
(C-126)	50+300, CL	0.0–0.2	BROWN SILTY CLAY, LITTLE ORGANICS, TRACE SAND (TOPSOIL)							19	VISUAL
		0.2–1.7	2	3	17	33	45	38	23	20	A-6b
		1.7–3.0	SAME AS 0.2–1.7							16	VISUAL
(C-127)	50+420, CL	0.0–0.3	DARK BROWN SILTY CLAY, LITTLE ORGANICS, TRACE SAND, TRACE GRAVEL (TOPSOIL)							20	VISUAL
		0.3–1.7	5	5	11	19	60	41	24	17	A-7-6
		1.7–3.0	SAME AS 0.3–1.7							17	VISUAL
(C-128)	50+540, CL	0.0–0.3	BROWN SILTY CLAY, LITTLE ORGANICS, TRACE SAND (TOPSOIL)							18	VISUAL
		0.3–1.3	6	11	55	–28–				27	A-3a
		1.7–2.1	SAME AS 0.3–1.3							33	VISUAL
		2.1–3.0	SAME AS 0.3–1.3							29	VISUAL
(C-129)	50+660, CL	0.0–0.2	BROWN SILTY CLAY, LITTLE ORGANICS, TRACE SAND (TOPSOIL)							20	VISUAL
		0.2–2.2	10	5	14	–71–		31	13	16	A-6a
		2.2–2.7	GRAY SAND, LITTLE CLAYEY SILT							16	VISUAL
		2.7–3.0	GRAY SILTY CLAY, TRACE GRAVEL, TRACE SAND							15	VISUAL
(C-130)	50+780, CL	0.0–0.2	BROWN SILTY CLAY, LITTLE ORGANICS, TRACE SAND (TOPSOIL)							21	VISUAL
		0.2–1.7	13	3	11	28	45	33	15	18	A-6a
		1.7–3.2	SAME AS 0.2–1.7							15	VISUAL
		3.2–4.0	SAME AS 0.2–1.7							12	VISUAL
(C-131)	50+900, CL	0.0–0.2	BROWN SILTY CLAY, LITTLE ORGANICS, TRACE SAND, TRACE GRAVEL							25	VISUAL
		0.2–1.7	1	4	42	23	30	NP	NP	19	A-4a
		1.7–3.0	SAME AS 0.2–1.7							15	VISUAL
(C-132)	51+020, CL	0.0–0.2	BROWN SILTY CLAY, LITTLE ORGANICS, LITTLE SAND, TRACE GRAVEL							24	VISUAL
		0.2–1.7	5	5	21	–69–		32	17	19	A-6b
		1.7–3.0	SAME AS 0.2–1.7							18	VISUAL
(C-133)	51+140, CL	0.0–0.4	BROWN SILTY CLAY, LITTLE ORGANICS, TRACE SAND (TOPSOIL)							23	VISUAL
		0.4–1.8	4	5	10	28	53	33	15	18	A-6a
		1.8–3.0	SAME AS 0.4–1.8							18	VISUAL
(C-134)	51+260, CL	0.0–0.2	DARK BROWN SILTY CLAY, LITTLE ORGANICS, TRACE SAND (TOPSOIL)							23	VISUAL
		0.2–1.7	5	7	13	–75–		33	15	16	A-6a
		1.7–3.0	SAME AS 0.2–1.7							17	VISUAL
BORINGS REFERENCED TO CENTERLINE OF HORNING ROAD											
(C-102)	49+720, CL	0.0–0.1	GRAY SAND AND GRAVEL, SOME SILTY CLAY (BERM)							7	VISUAL
		0.1–1.6	14	12	21	–53–		24	8	14	A-4a
		1.6–2.2	SAME AS 0.1–1.6							20	VISUAL
		2.2–3.0	SAME AS 0.1–1.6							13	VISUAL
(C-103)	49+840, CL	0.0–0.2	BROWN SILTY CLAY, SOME SAND, LITTLE GRAVEL, LITTLE ORGANICS (TOPSOIL)							25	VISUAL
		0.2–1.6	BROWN SILTY CLAY, SOME SAND, TRACE GRAVEL							16	VISUAL
		1.6–3.2	10	16	28	–46–				23	VISUAL
		3.2–4.0	BROWNISH-GRAY CLAY, SOME SILT, TRACE SAND, TRACE GRAVEL							19	VISUAL

Location	Offset	From – To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L	P.I	W.C.	SHTL Class.
BORINGS REFERENCED TO CENTERLINE OF HORNING ROAD											
(C-104)	50+150, CL	0.0–0.5	SAME AS 0.5–0.9							18	VISUAL
		0.5–0.9	5	7	17	–71–		31	14	15	A-6a
		1.1–1.5	SAME AS 0.5–0.9							14	VISUAL
		1.8–2.3	SAME AS 0.5–0.9							13	VISUAL
		2.5–3.0	SAME AS 0.5–0.9							12	VISUAL
		4.1–4.6	SAME AS 0.5–0.9							12	VISUAL
		4.6–5.0	SAME AS 0.5–0.9							13	VISUAL
(C-105)	50+270, CL	0.2–0.3	SAND AND GRAVEL BASE							5	VISUAL
		0.3–1.7	6	4	10	33	47	36	17	17	A-6b
		1.7–3.0	SAME AS 0.3–1.7							16	VISUAL
BORINGS REFERENCED TO CENTERLINE OF SR 181											
(C-106)	49+580, CL	0.0–0.5	SAND AND GRAVEL BASE							5	VISUAL
		0.5–0.9	6	8	14	23	49	34	18	14	A-6b
		1.1–1.5	SAME AS 0.5–0.9							13	VISUAL
		1.8–2.3	SAME AS 0.5–0.9							13	VISUAL
		2.5–3.0	SAME AS 0.5–0.9							13	VISUAL
(C-107)	49+700, 5M LT	0.0–0.5	SAND AND GRAVEL BASE							6	VISUAL
		0.5–0.9	BROWN CLAY, SOME SILT, SOME SAND, TRACE GRAVEL							19	VISUAL
		1.1–1.5	SAME AS 0.5–0.9							14	VISUAL
		1.8–2.3	SAME AS 0.5–0.9							19	VISUAL
		2.5–3.0	SAME AS 0.5–0.9							15	VISUAL
(C-108)	49+820, CL	0.0–0.5	SAME AS 0.5–0.9							8	VISUAL
		0.5–0.9	13	8	15	–64–		29	13	14	A-6a
		1.1–1.5	SAME AS 0.5–0.9							15	VISUAL
		1.8–2.3	SAME AS 0.5–0.9							15	VISUAL
		2.5–3.0	SAME AS 0.5–0.9							21	VISUAL
		3.5–4.0	SAME AS 0.5–0.9							16	VISUAL
(C-109)	50+160, CL	0.0–0.5	SAND AND GRAVEL BASE							2	VISUAL
		0.5–0.9	BROWN SILTY CLAY, SOME SAND, LITTLE GRAVEL							22	VISUAL
		1.1–1.5	SAME AS 0.5–0.9							19	VISUAL
		1.8–2.3	SAME AS 0.5–0.9							16	VISUAL
		2.5–3.0	SAME AS 0.5–0.9							15	VISUAL
		3.5–4.0	SAME AS 0.5–0.9							14	VISUAL
		4.5–5.0	SAME AS 0.5–0.9							15	VISUAL
(C-110)	50+280, CL	0.0–0.5	SAND AND GRAVEL BASE							3	VISUAL
		0.5–0.9	3	4	20	30	43	25	10	20	A-4a
		1.1–1.5	SAME AS 0.5–0.9							17	VISUAL
		1.8–2.3	SAME AS 0.5–0.9							17	VISUAL
		2.5–3.0	SAME AS 0.5–0.9							16	VISUAL
BORINGS REFERENCED TO CENTERLINE OF EXISTING ECKSTEIN ROAD											
(C-111)	50+100, 5M LT	0.0–0.2	BROWN SILTY CLAY, SOME SAND, LITTLE ORGANICS, LITTLE GRAVEL (TOPSOIL)							22	VISUAL
		0.2–1.7	4	5	10	22	59	36	19	15	A-6b
		1.7–3.0	SAME AS 0.2–1.7							17	VISUAL
(C-112)	50+200, 5M RT	0.0–0.5	SAME AS 0.5–0.9							12	VISUAL
		0.5–0.9	7	6	12	44	31	27	7	19	A-4a
		1.1–1.5	SAME AS 0.5–0.9							17	VISUAL
		1.8–2.3	SAME AS 0.5–0.9							18	VISUAL
		2.5–3.0	SAME AS 0.5–0.9							21	VISUAL
BORINGS REFERENCED TO CENTERLINE OF RELOCATED ECKSTEIN ROAD											
(C-113A)	21+000, CL	0.0–0.5	BROWN TO GRAY SILTY CLAY, LITTLE SAND, LITTLE GRAVEL							23	VISUAL
		0.5–0.9	SAME AS 0.0–0.5							20	VISUAL
		1.1–1.5	SAME AS 0.0–0.5							14	VISUAL
		1.8–2.3	SAME AS 0.0–0.5							14	VISUAL
		2.5–3.0	SAME AS 0.0–0.5							14	VISUAL
		4.1–4.6	SAME AS 0.0–0.5							12	VISUAL
		4.6–5.0	SAME AS 0.0–0.5							15	VISUAL
(C-113)	21+100, CL	0.0–0.5	BROWN SILTY CLAY, LITTLE ORGANICS, LITTLE SAND (TOPSOIL)							30	VISUAL
		0.5–0.9	11	5	12	33	39	38	20	20	A-6b
		1.1–1.5	SAME AS 0.5–0.9							12	VISUAL
		1.8–2.3	SAME AS 0.5–0.9							13	VISUAL
		2.5–3.0	SAME AS 0.5–0.9							13	VISUAL
		4.1–4.6	SAME AS 0.5–0.9							18	VISUAL
		4.6–5.0	SAME AS 0.5–0.9							14	VISUAL
(C-114)	21+220, CL	0.0–0.5	BROWN TO GRAY SILTY CLAY, LITTLE SAND, LITTLE GRAVEL							18	VISUAL
		0.5–0.9	SAME AS 0.0–0.5							17	VISUAL
		1.1–1.5	SAME AS 0.0–0.5							19	VISUAL
		1.8–2.3	SAME AS 0.0–0.5							16	VISUAL
		2.5–3.0	SAME AS 0.0–0.5							17	VISUAL
		4.1–4.6	SAME AS 0.0–0.5							15	VISUAL
		4.6–5.0	SAME AS 0.0–0.5							14	VISUAL

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SOIL PROFILE

CRAWFORD/RICHLAND COUNTY
CRA/RIC-30-33.500/0.000

RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109 FILENAME: 7109R-6.DWG DATE: 17_JAN_1998

SUMMARY OF SOIL TEST DATA

NOTE: NP SHOWN IN LIQUID LIMIT AND PLASTIC INDEX COLUMNS INDICATES THAT THE SAMPLE IS NON-PLASTIC

BORINGS REFERENCED TO CENTERLINE OF RELOCATED ECKSTEIN ROAD

Location	Offset	From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L	P.I	W.C.	SHTL Class.
(C-115)	21+340, CL	0.0-0.5	SAME AS 0.5-0.9							21	VISUAL
		0.5-0.9	19	10	20	27	24	29	13	19	A-6a
		1.1-1.5	SAME AS 0.5-0.9							19	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							13	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							13	VISUAL
		3.5-4.0	SAME AS 0.5-0.9							13	VISUAL
(C-116)	21+460, CL	0.2-0.3	SAND AND GRAVEL BASE							6	VISUAL
		0.3-1.8	0	2	10	34	54	35	18	25	A-6b
		1.8-3.3	SAME AS 0.3-1.8							22	VISUAL
		3.3-4.0	SAME AS 0.3-1.8							14	VISUAL

BORINGS REFERENCED TO CENTERLINE OF EARICK ROAD

Location	Offset	From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L	P.I	W.C.	SHTL Class.
(C-117)	49+540, CL	0.2-0.2	SAND AND GRAVEL BASE							4	VISUAL
		0.2-1.7	BROWN SILTY CLAY, LITTLE GRAVEL							31	VISUAL
		1.7-3.0	SAME AS 0.2-1.7							19	VISUAL
(C-118)	49+660, CL	0.0-0.2	BROWN SILTY CLAY, SOME SAND, LITTLE ORGANICS (TOPSOIL)							27	VISUAL
		0.2-1.7	0	1	11	-88-		56	33	27	A-7-6
		1.7-2.5	BROWN SAND, SOME CLAYEY SILT, LITTLE GRAVEL							20	VISUAL
		2.5-3.0	BROWN SILTY CLAY, TRACE SAND, TRACE GRAVEL							15	VISUAL
(C-119)	49+780, CL	0.0-0.5	SAME AS 0.5-0.9							19	VISUAL
		0.5-0.9	5	5	14	32	44	34	16	15	A-6b
		1.1-1.5	SAME AS 0.5-0.9							14	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							18	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							19	VISUAL
		4.1-4.6	SAME AS 0.5-0.9							12	VISUAL
		4.6-5.0	SAME AS 0.5-0.9							13	VISUAL
(C-120)	49+900, CL	0.0-0.5	SAME AS 0.5-0.9							17	VISUAL
		0.5-0.9	2	5	14	-79-		35	18	17	A-6b
		1.1-1.5	SAME AS 0.5-0.9							16	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							16	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							14	VISUAL
		4.1-4.6	SAME AS 0.5-0.9							17	VISUAL
		4.6-5.0	SAME AS 0.5-0.9							17	VISUAL
(C-121)	50+170, CL	0.0-0.5	SAME AS 0.5-0.9							25	VISUAL
		0.5-0.9	3	7	15	-75-		33	16	15	A-6b
		1.1-1.5	SAME AS 0.5-0.9							18	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							14	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							17	VISUAL
		4.1-4.6	SAME AS 0.5-0.9							15	VISUAL
		5.6-6.1	SAME AS 0.5-0.9							15	VISUAL
		6.5-7.0	SAME AS 0.5-0.9							14	VISUAL
(C-122)	50+290, CL	0.0-0.5	BROWN TO GRAY SILTY CLAY, SOME SAND, TRACE GRAVEL							22	VISUAL
		0.5-0.9	SAME AS 0.0-0.5							17	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							15	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							13	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							15	VISUAL
		4.1-4.6	SAME AS 0.0-0.5							18	VISUAL
		4.6-5.0	SAME AS 0.0-0.5							19	VISUAL
(C-123)	50+410, CL	0.0-0.3	GRAY SAND AND GRAVEL (BERM)							6	VISUAL
		0.3-2.2	5	4	13	-78-		31	14	15	A-6a
		2.2-3.0	SAME AS 0.3-2.2							14	VISUAL

BORINGS REFERENCED TO BASELINE OF RAMP A

Location	Offset	From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L	P.I	W.C.	SHTL Class.
(A-1)	1+020, BL	0.0-0.2	BROWN SILTY CLAY, SOME SAND, LITTLE ORGANICS, TRACE GRAVEL (TOPSOIL)							26	VISUAL
		0.2-1.7	4	7	15	31	43	33	16	17	A-6b
		1.7-3.0	SAME AS 0.2-1.7							16	VISUAL
(A-2)	1+140, BL	0.0-0.2	BROWN SILTY CLAY, SOME SAND, LITTLE ORGANICS, TRACE GRAVEL (TOPSOIL)							27	VISUAL
		0.2-1.7	BROWN SILTY CLAY, SOME SAND, TRACE GRAVEL							14	VISUAL
		1.7-3.0	SAME AS 0.2-1.7							20	VISUAL

BORINGS REFERENCED TO BASELINE OF RAMP B

Location	Offset	From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L	P.I	W.C.	SHTL Class.
(B-2)	0+940, BL	0.0-0.5	SAME AS 0.5-0.9							22	VISUAL
		0.5-0.9	5	5	11	26	53	33	16	15	A-6b
		1.1-1.5	SAME AS 0.5-0.9							15	VISUAL
		1.8-2.3	SAME AS 0.5-0.9							17	VISUAL
		2.5-3.0	SAME AS 0.5-0.9							14	VISUAL
		4.1-4.6	SAME AS 0.5-0.9							18	VISUAL
		4.6-5.0	SAME AS 0.5-0.9							16	VISUAL
(B-3)	1+060, BL	0.0-0.5	BROWN TO GRAY CLAY, SOME SILT, LITTLE SAND, TRACE GRAVEL							18	VISUAL
		0.5-0.9	SAME AS 0.0-0.5							13	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							16	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							14	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							15	VISUAL
		4.1-4.6	SAME AS 0.0-0.5							14	VISUAL
		4.6-5.0	SAME AS 0.0-0.5							13	VISUAL

BORINGS REFERENCED TO BASELINE OF RAMP B

Location	Offset	From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L	P.I	W.C.	SHTL Class.
(B-4)	1+180, BL	0.0-0.5	SAME AS 0.0-0.5							20	VISUAL
		0.5-0.9	8	8	17	31	36	28	13	15	A-6a
		1.1-1.5	SAME AS 0.0-0.5							19	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							18	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							13	VISUAL
		4.1-4.6	SAME AS 0.0-0.5							15	VISUAL
		4.6-5.0	SAME AS 0.0-0.5							18	VISUAL
(B-5)	1+300, BL	0.0-0.1	BROWN CLAYEY SILT, SOME SAND, LITTLE ORGANICS, TRACE GRAVEL (TOPSOIL)							25	VISUAL
		0.1-1.6	8	9	18	31	34	26	11	16	A-6a
		1.6-3.0	SAME AS 0.1-1.6							14	VISUAL
(B-6)	1+420, BL	0.0-0.5	BROWN TO GRAY SILTY CLAY, SOME SAND, TRACE GRAVEL							–	VISUAL
		0.5-0.9	SAME AS 0.0-0.5							19	VISUAL
		1.1-1.5	SAME AS 0.0-0.5							15	VISUAL
		1.8-2.3	SAME AS 0.0-0.5							15	VISUAL
		2.5-3.0	SAME AS 0.0-0.5							10	VISUAL
		3.5-4.0	SAME AS 0.0-0.5							14	VISUAL

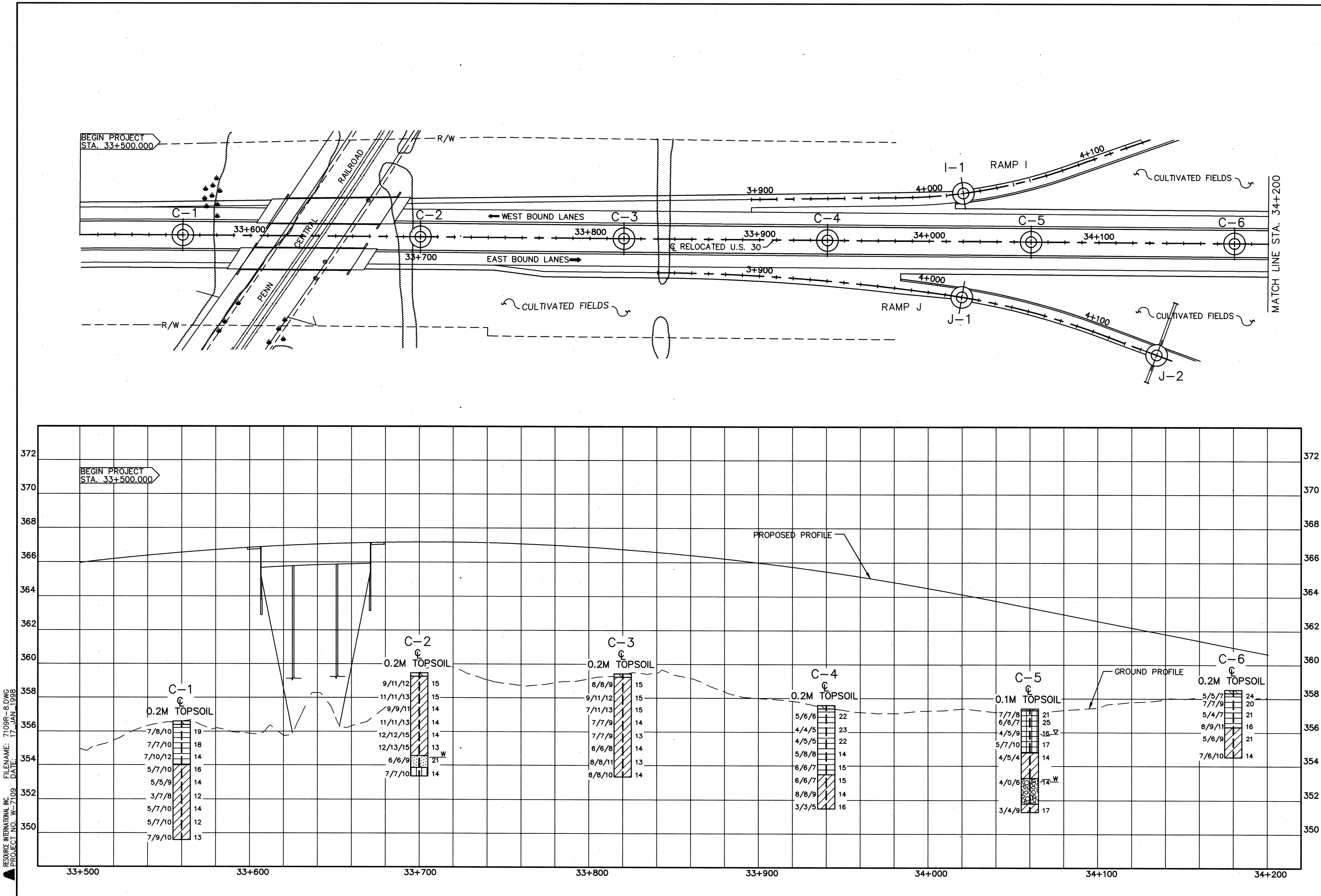
RESOURCE INTERNATIONAL INC.
281 ENTERPRISE DR.
WESTERVILLE, OHIO 43081
(614) 885-1959

CALCULATED | CHECKED GPH
DATE 1/17/98 | DATE 1/19/98
REVIEWED KEB
DRAWN KEB

SOIL PROFILE

CRAWFORD/RICHLAND COUNTY
CRA/RIC-30-33.500/0.000

RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109 FILENAME: 7109R-7.DWG DATE: 17_JAN_1998



HORIZONTAL SCALE IN METERS (0, 20, 40)

DRAWN	REVIEWED	DATE	CALCULATED	CHECKED	DATE
EMC	KEB	1/17/98		GPH	1/19/98

STA. 33+500 TO STA. 34+200

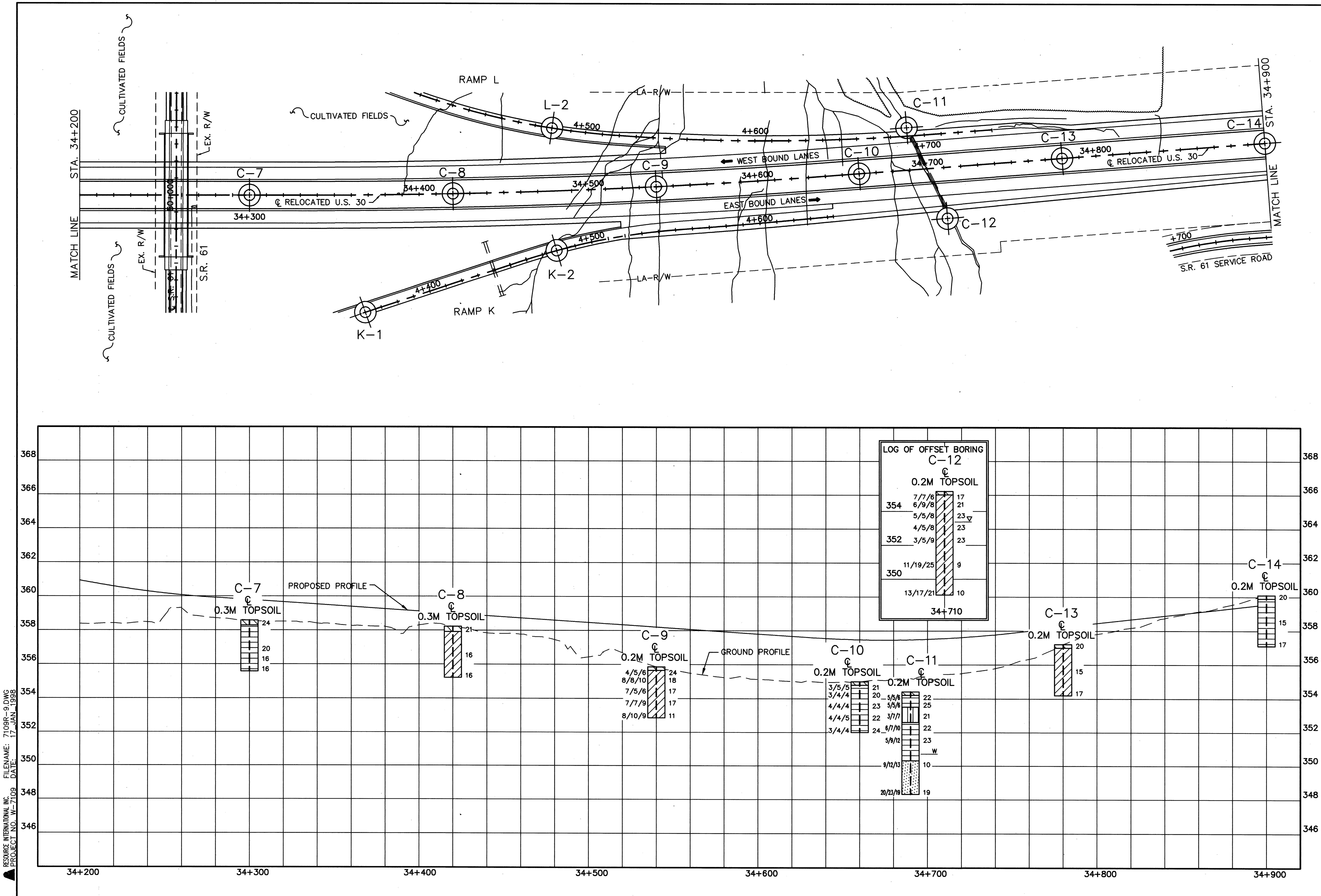
SOIL PROFILE

CRAWFORD/RICHLAND COUNTY

CRA/RIC-30-33.500/0.000

8/39

8/59



DRAWN EMC | REVIEWED KEB | DATE 1/17/98 | CALCULATED | CHECKED GPH | DATE 1/19/98

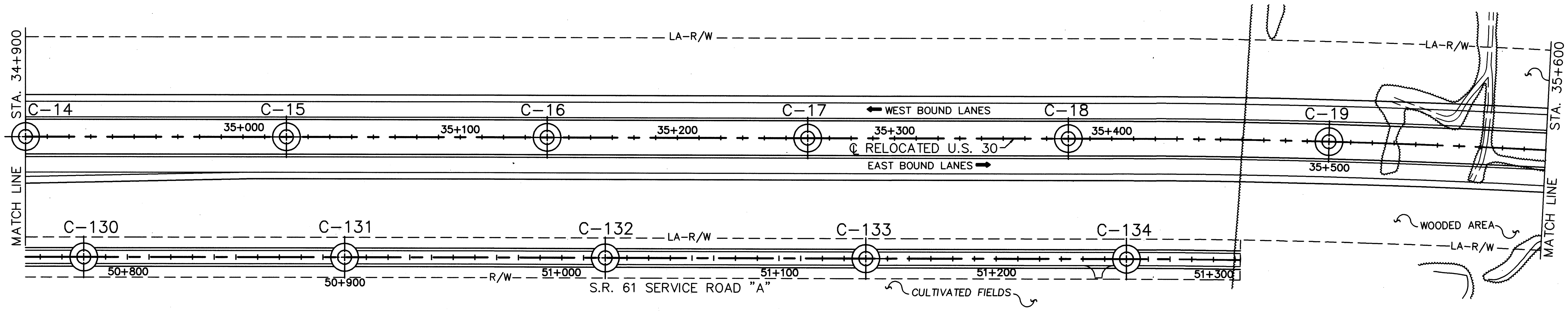
STA. 34+200 TO STA. 34+900
SOIL PROFILE

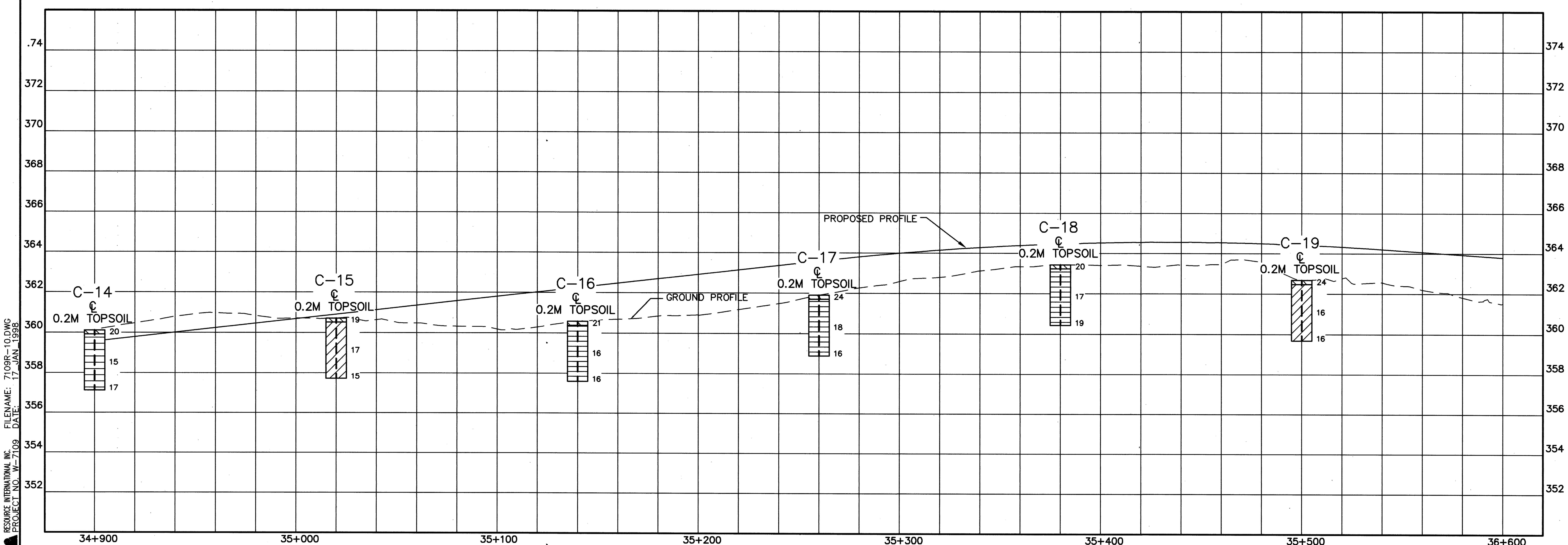
CRAWFORD/RICHLAND COUNTY
CRA/RIC-30-33.500/0.000

9/39

9/59

RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109 FILENAME: 7109R-9.DWG DATE: 17 JAN 1998





HORIZONTAL SCALE IN METERS

CALCULATED	CHECKED GPH
DATE 1/17/98	DATE 1/19/98
REVIEWED KEB	
DRAWN EMC	

STA. 34+900 TO STA. 35+600

SOIL PROFILE

CRAWFORD/RICHLAND COUNTY

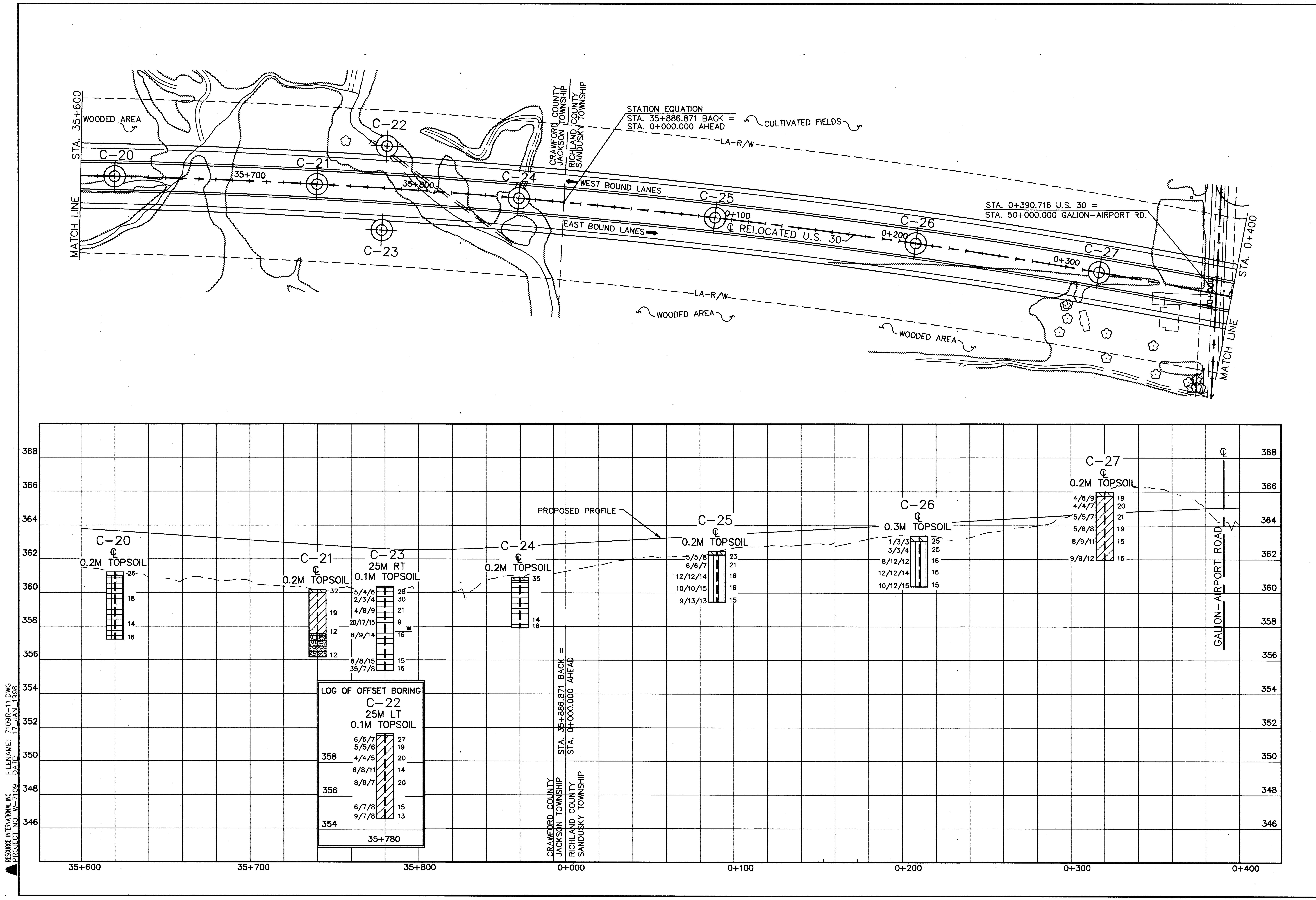
CRA/RIC-30-33.500/0.000

10/39

10/59

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-7109

FILENAME: 7109R-10.DWG
DATE: 17 JAN 1998



0 20 40
HORIZONTAL SCALE IN METERS

DRAWN	REVIEWED	DATE	CALCULATED
EMC	KEB	1/17/98	
		DATE 1/19/98	CHECKED GPH

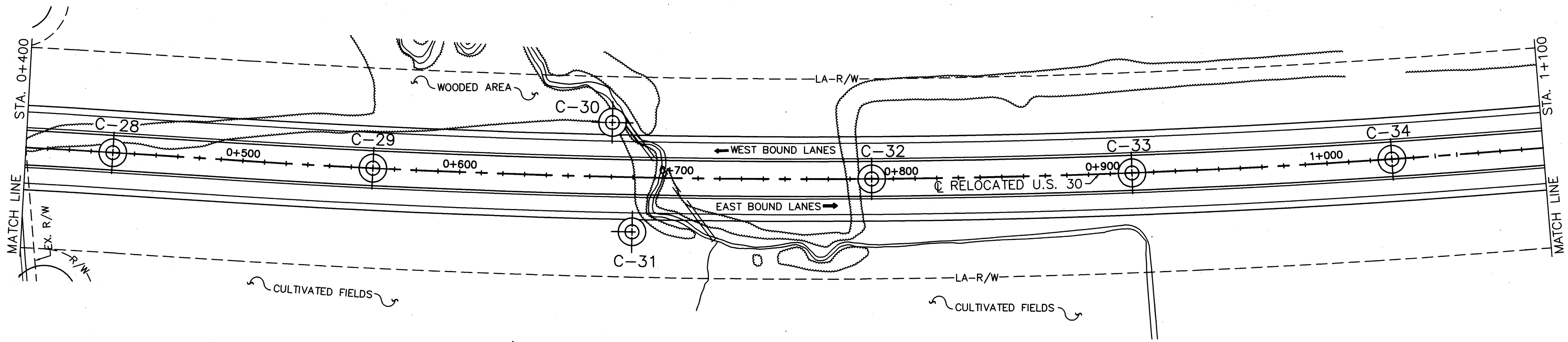
STA. 35+600 TO STA. 0+400

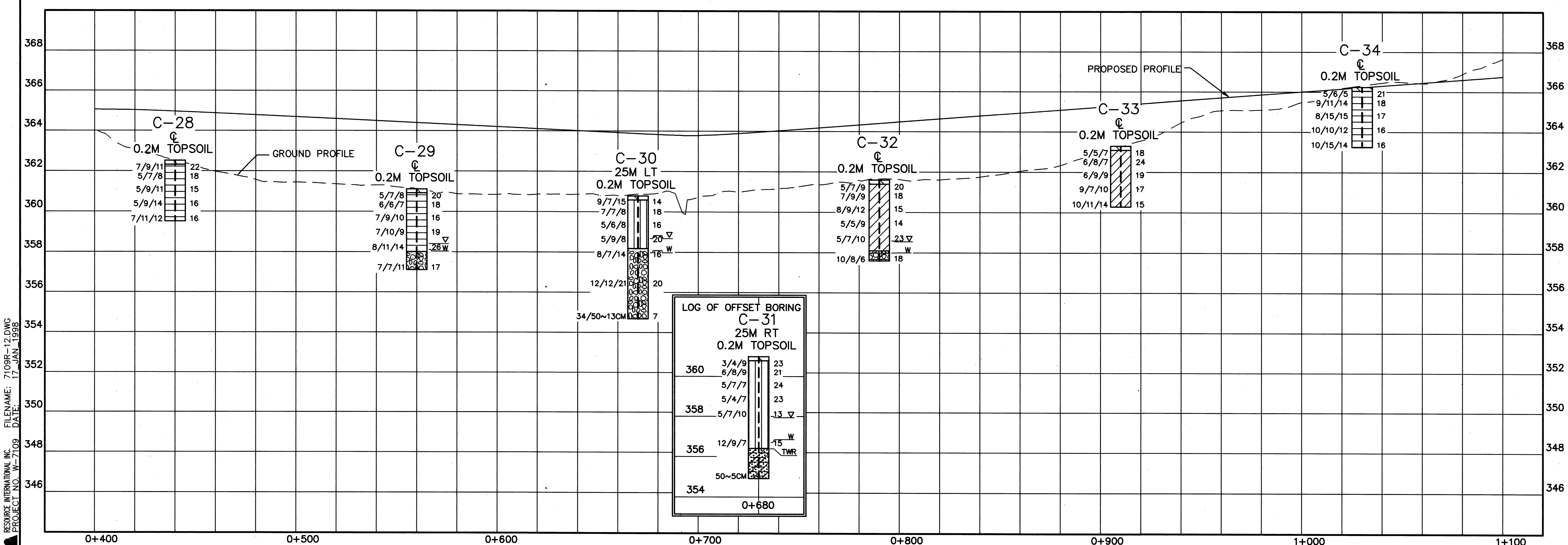
SOIL PROFILE

CRAWFORD/RICHLAND COUNTY
CRA/RIC-30-33.500/0.000

11/39

11/59





HORIZONTAL SCALE IN METERS

DRAWN	REVIEWED	DATE	CALCULATED	CHECKED	DATE
EMC	KEB	1/17/98		GPH	1/19/98

STA. 0+400 to STA. 1+100

SOIL PROFILE

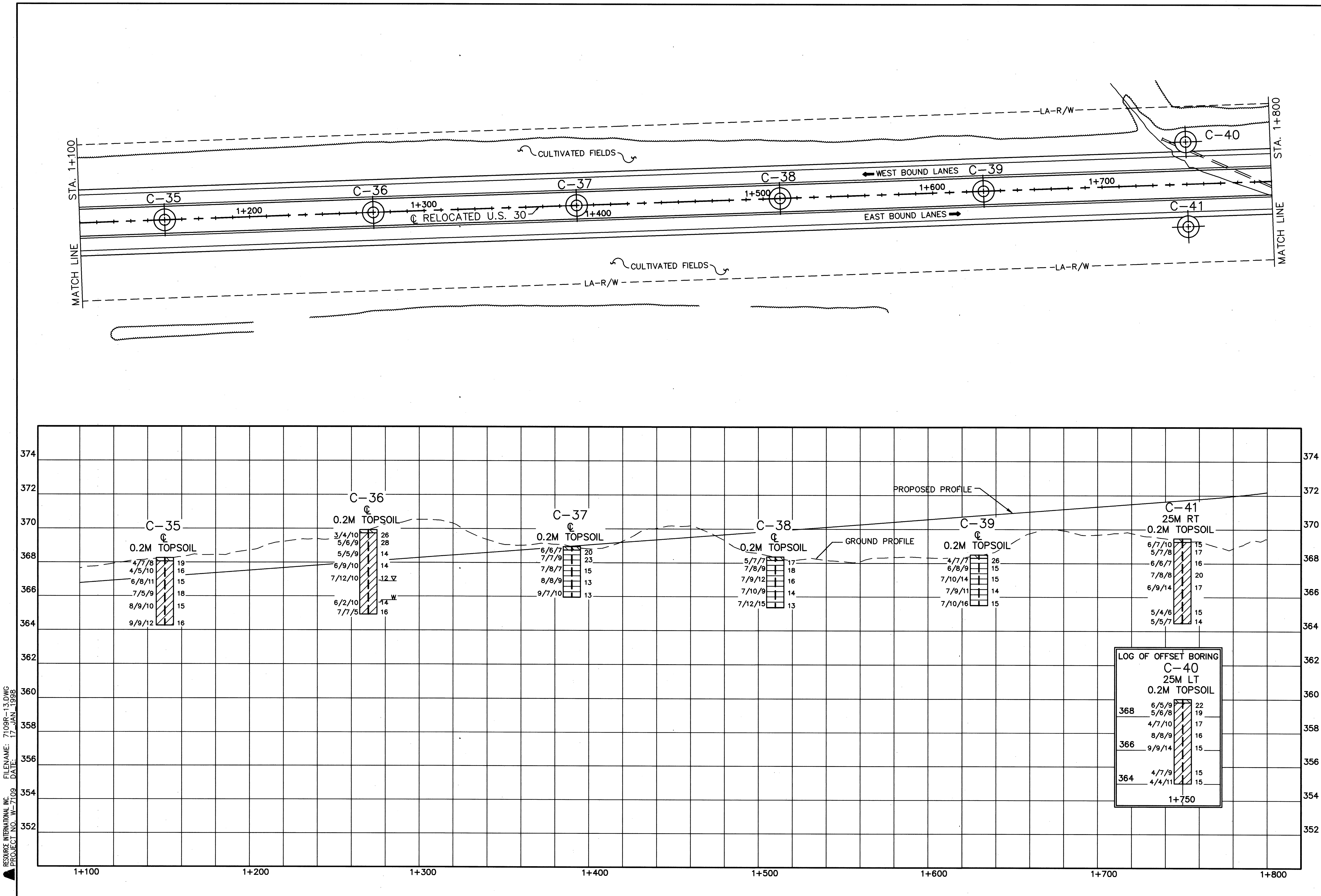
CRAWFORD/RICHLAND COUNTY

CRA/RIC-30-33.500/0.000

12/39

12/59

RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109 FILENAME: 7109R-12.DWG DATE: 17 JAN 1998



HORIZONTAL SCALE IN METERS

DRAWN	REVIEWED	DATE	CALCULATED	CHECKED	DATE
EMC	KEB	1/17/98		GPH	1/19/98

STA. 1+100 TO STA. 1+800

SOIL PROFILE

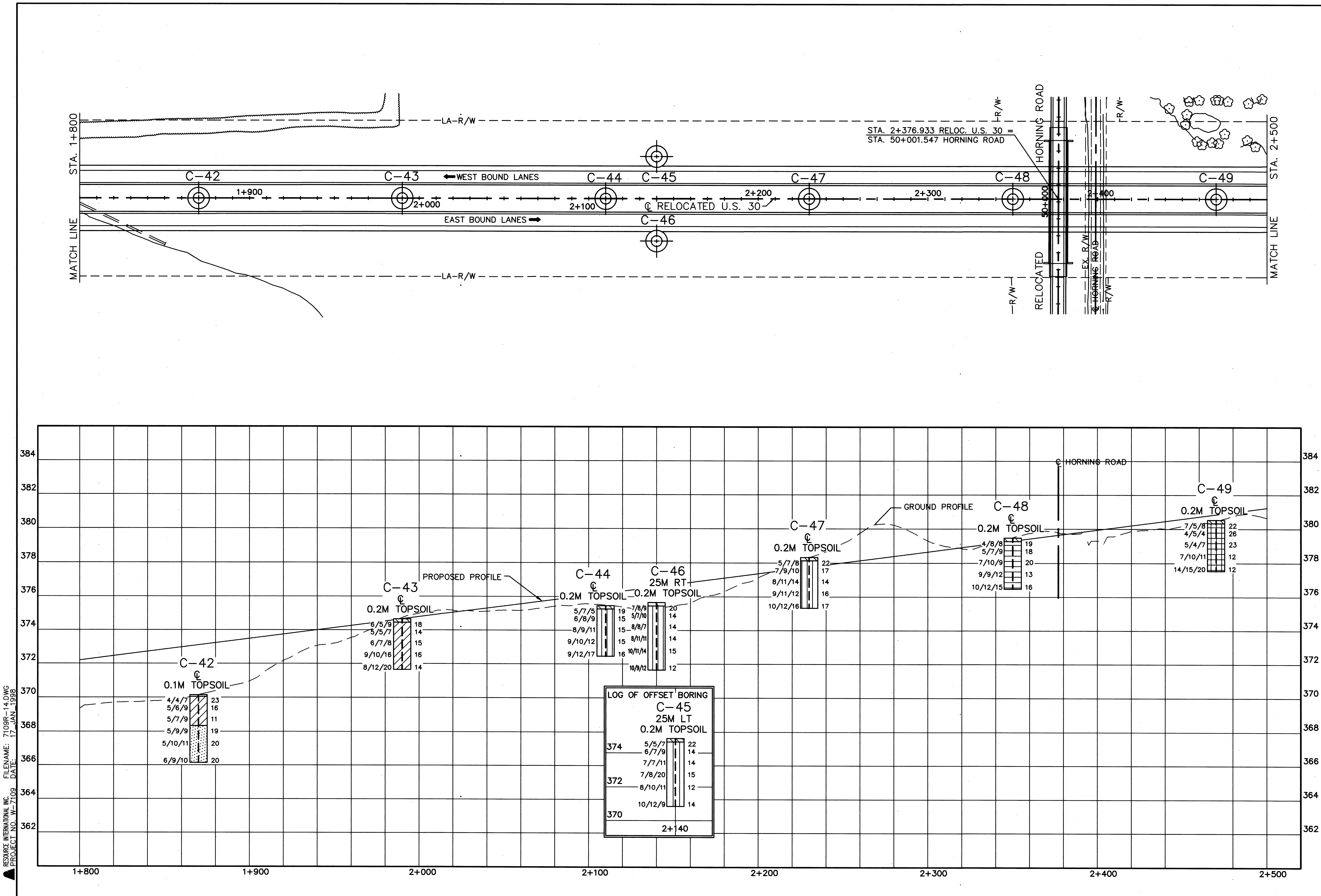
CRAWFORD/RICHLAND COUNTY

CRA/RIC-30-33.500/0.000

13/39

13/59

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-7109
FILENAME: 7109R-13.DWG
DATE: 17 JAN 1998



HORIZONTAL SCALE IN METERS

CALCULATED

CHECKED GPH

DATE 1/17/98

DATE 1/19/98

REVIEWED KEB

DRAWN EMC

STA. 1+800 TO STA. 2+500

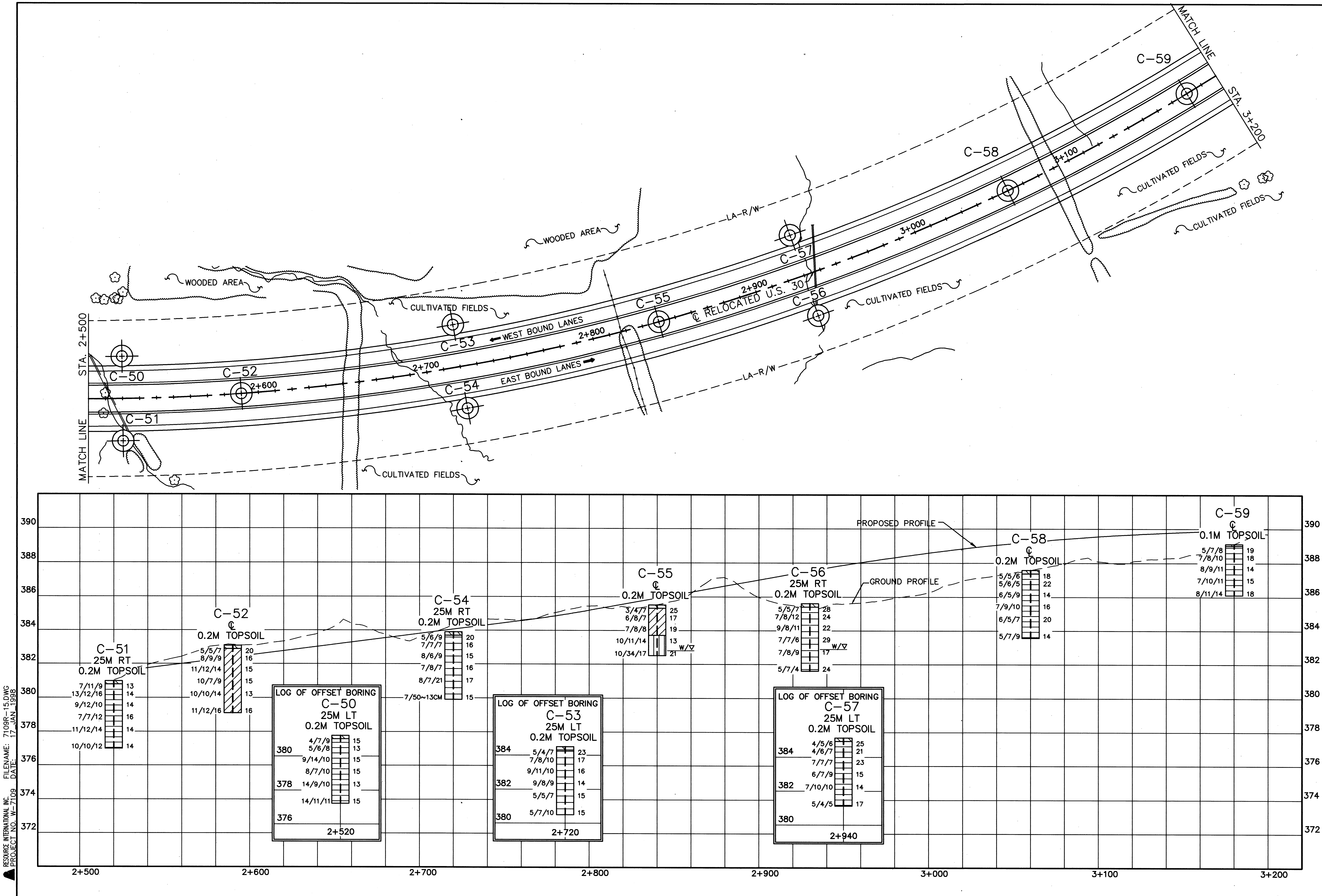
SOIL PROFILE

CRAWFORD/RICHLAND COUNTY

CRA/RIC-30-33.500/0.000

14/39

14/59



N

0 20 40
HORIZONTAL SCALE IN METERS

CALCULATED	CHECKED GPH
DATE 1/17/98	DATE 1/19/98
REVIEWED KEB	
DRAWN EMC	

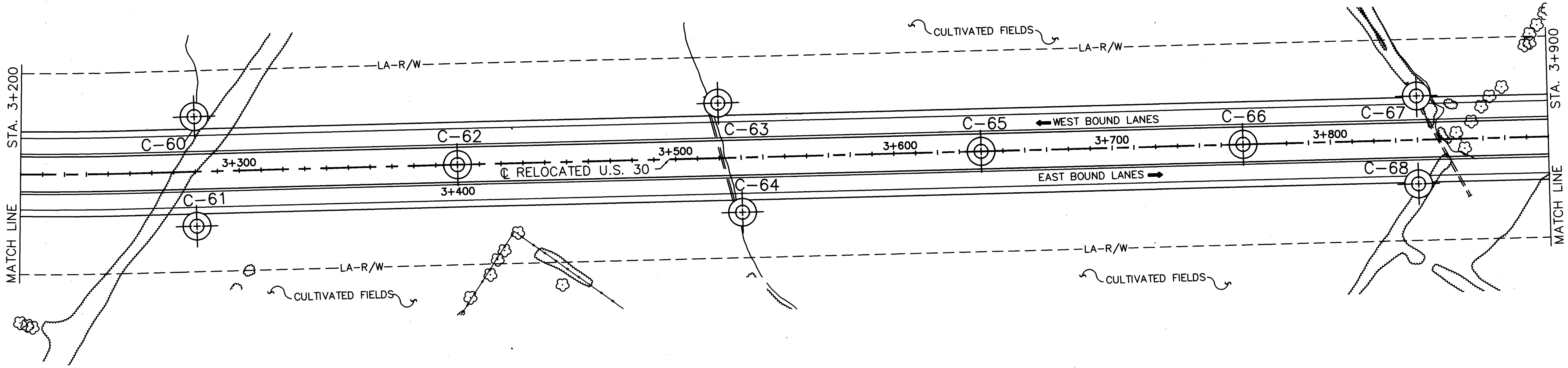
STA. 2+500 TO STA. 3+200

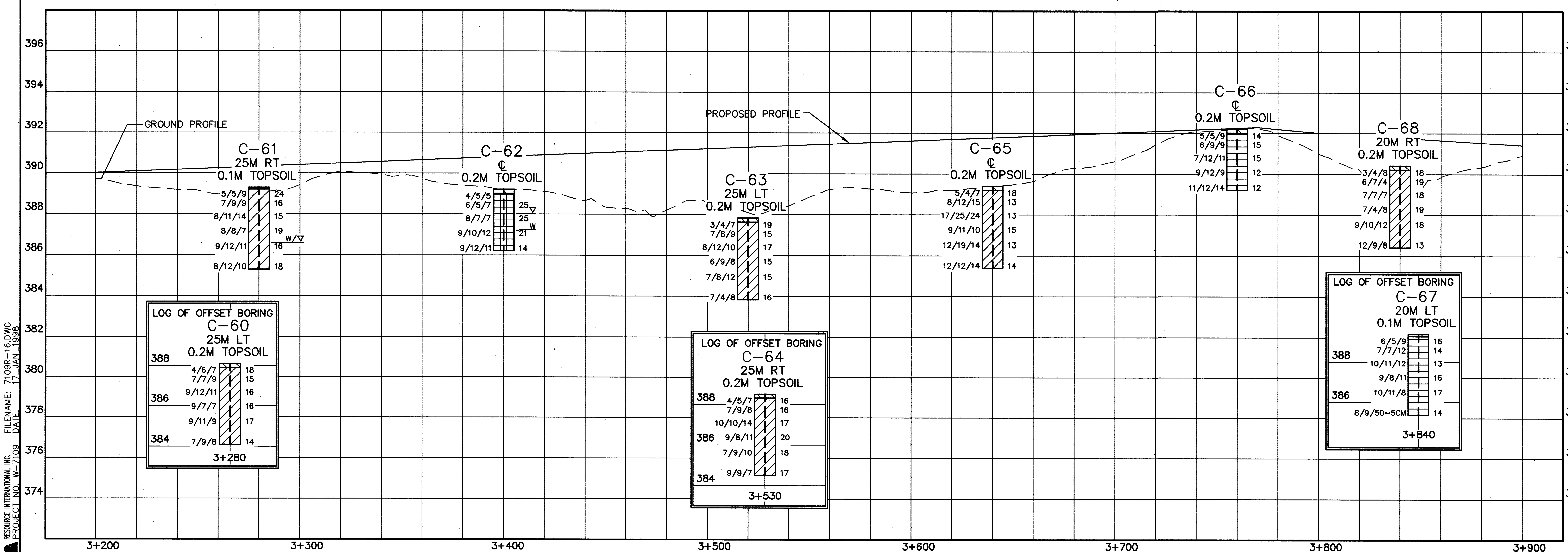
SOIL PROFILE

CRAWFORD/RICHLAND COUNTY
CRA/RIC-30-33.500/0.000

15/39

15/59





HORIZONTAL SCALE IN METERS

0 20 40

DRAWN EMC | REVIEWED KEB | DATE 1/17/98 | CALCULATED

CHECKED GPH | DATE 1/19/98

STA. 3+2000 TO STA. 3+900

SOIL PROFILE

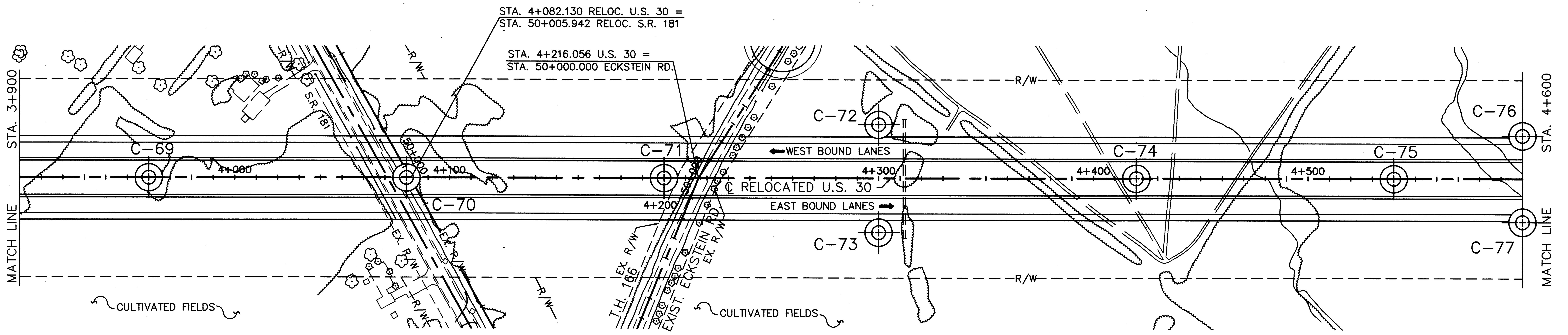
CRAWFORD/RICHLAND COUNTY

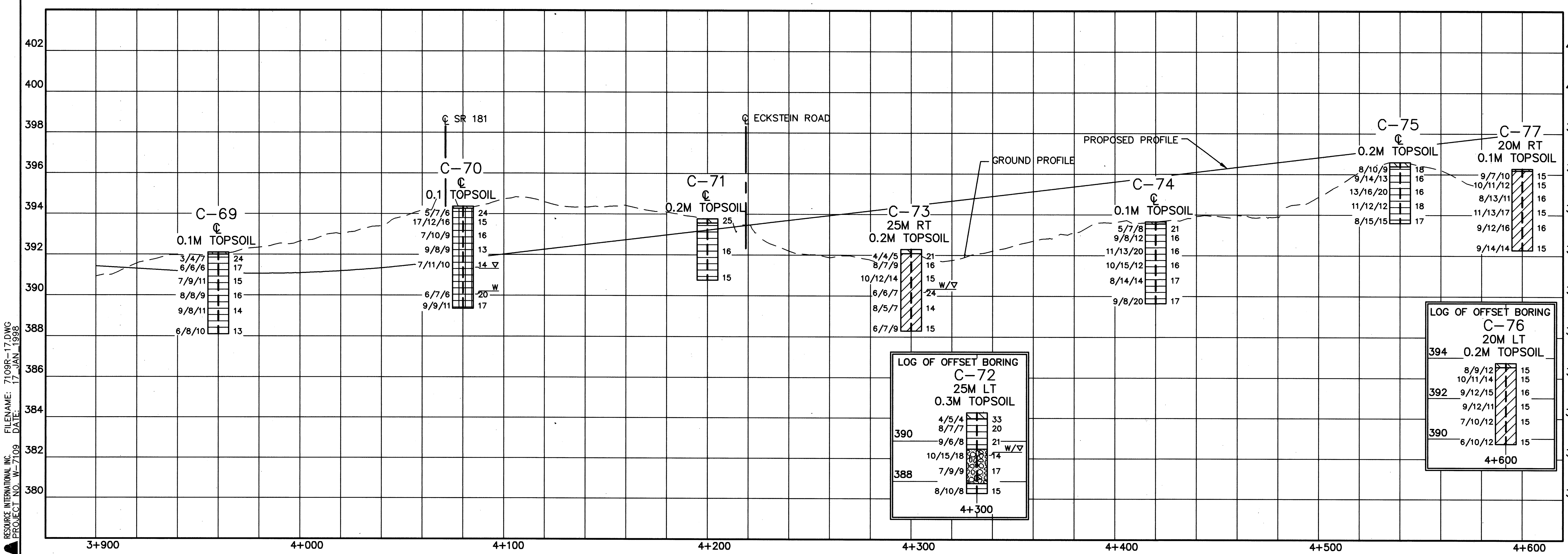
CRA/RIC-30-33.500/0.000

16/39

16/59

RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109 FILENAME: 7109R-16.DWG DATE: 17 JAN 1998





FILENAME: 7109R-17.DWG
DATE: 17 JAN 1998

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-7109

HORIZONTAL SCALE IN METERS

0 20 40

CALCULATED	CHECKED
	GPH

DATE	DATE
1/17/98	1/19/98

DRAWN	REVIEWED
EMC	KEB

STA. 3+900 TO STA. 4+600

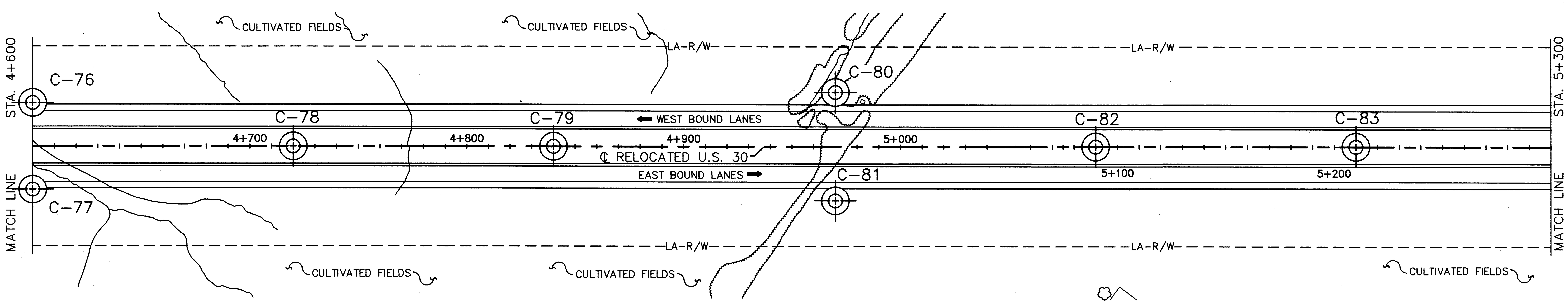
SOIL PROFILE

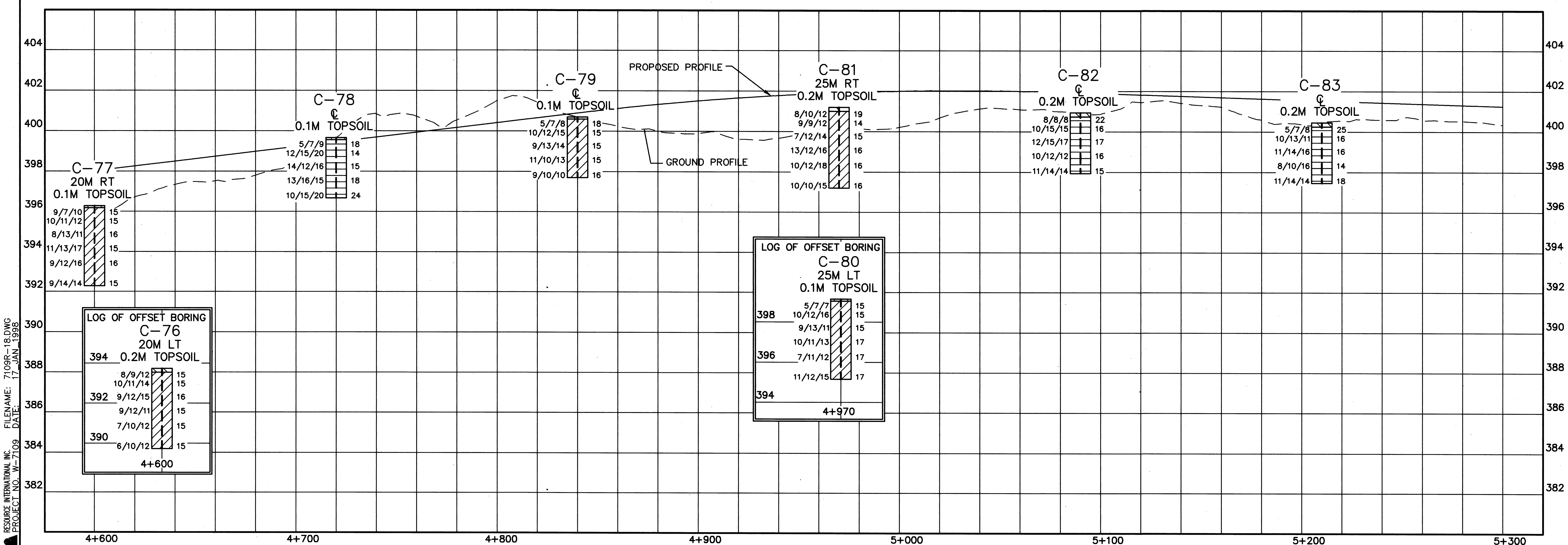
CRAWFORD/RICHLAND COUNTY

CRA/RIC-30-33.500/0.000

17/39

17/59





RESOURCE INTERNATIONAL INC.
PROJECT NO. W-7109
FILENAME: 7109R-18.DWG
DATE: 17 JAN 1998

0 20 40
HORIZONTAL SCALE IN METERS

CALCULATED		CHECKED GPH	
DATE 1/17/98		DATE 1/19/98	
REVIEWED KEB			
DRAWN EMC			

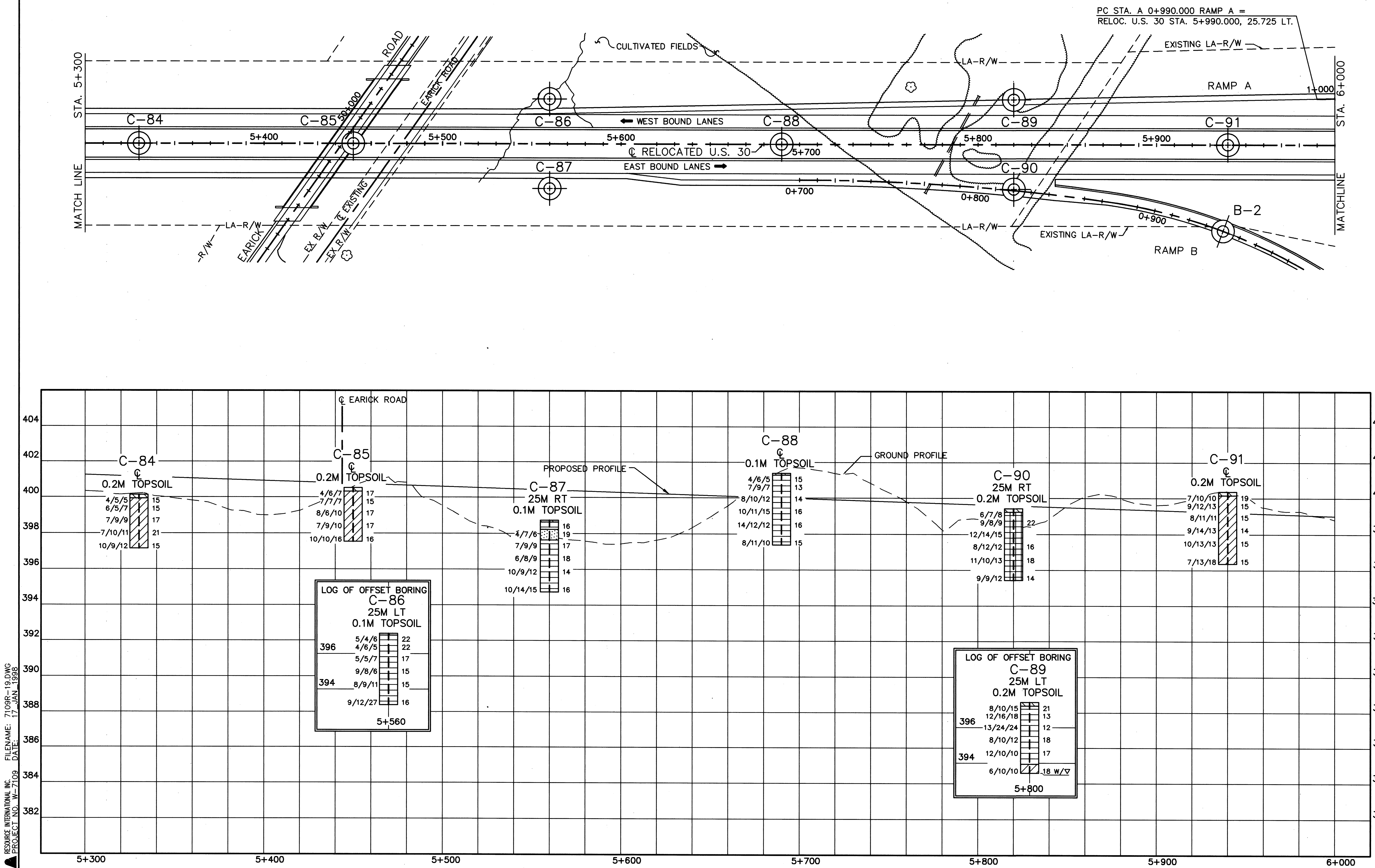
STA. 4+600 TO STA. 5+300

SOIL PROFILE

CRAWFORD/RICHLAND COUNTY
CRA/RIC-30-33.500/0.000

18/39

18/59



0 20 40 HORIZONTAL SCALE IN METERS

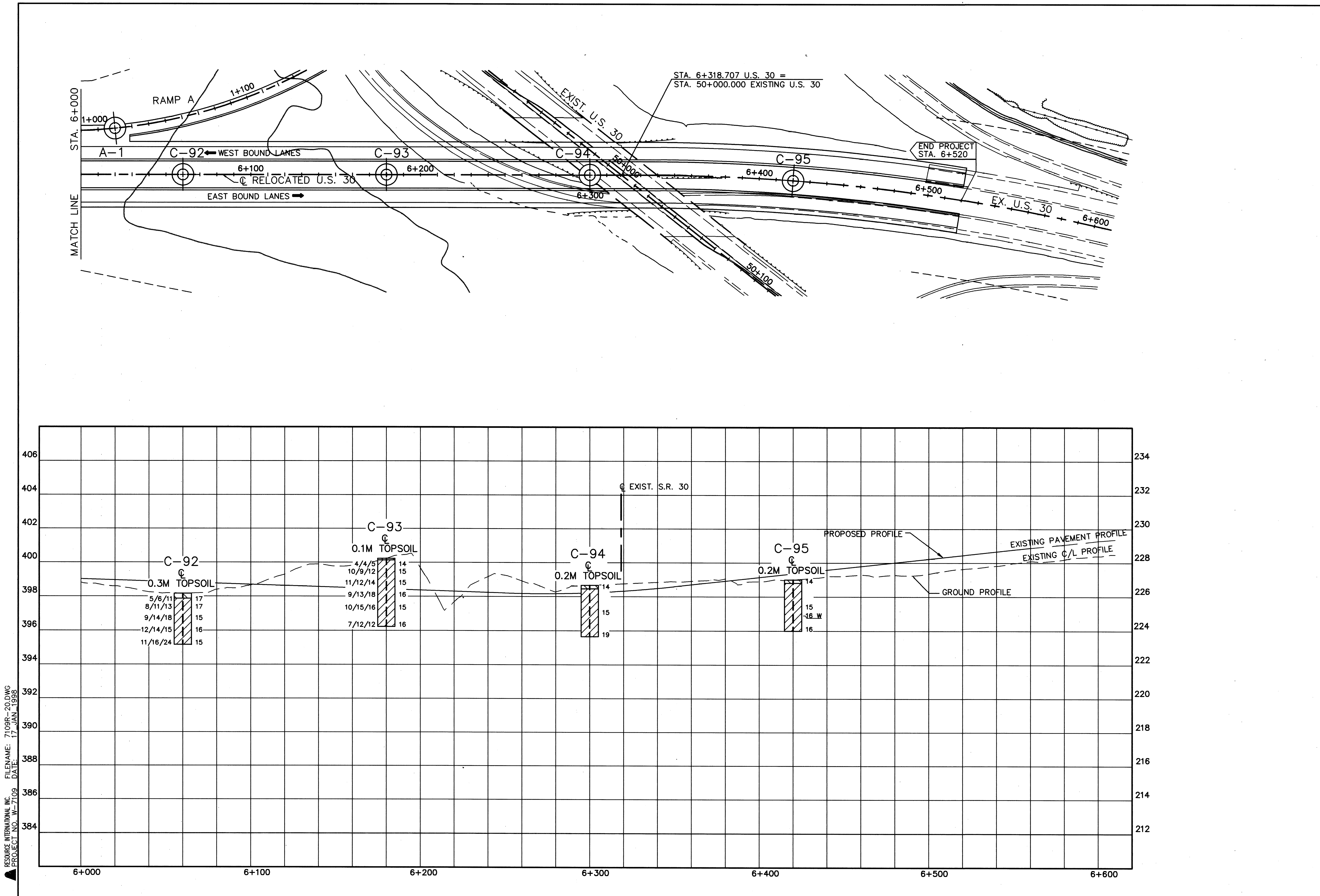
CALCULATED	DATE	REVIEWED	DRAWN
	1/17/98	KEB	EMC
CHECKED GPH	DATE 1/19/98		

STA. 5+300 TO STA. 6+000

SOIL PROFILE

CRAWFORD/RICHLAND COUNTY

CRA/RIC-30-33.500/0.000



HORIZONTAL SCALE IN METERS

DRAWN	REVIEWED	DATE	CALCULATED
EMC	KEB	1/17/98	
		DATE 1/19/98	CHECKED GPH

STA. 6+000 TO STA. 6+700

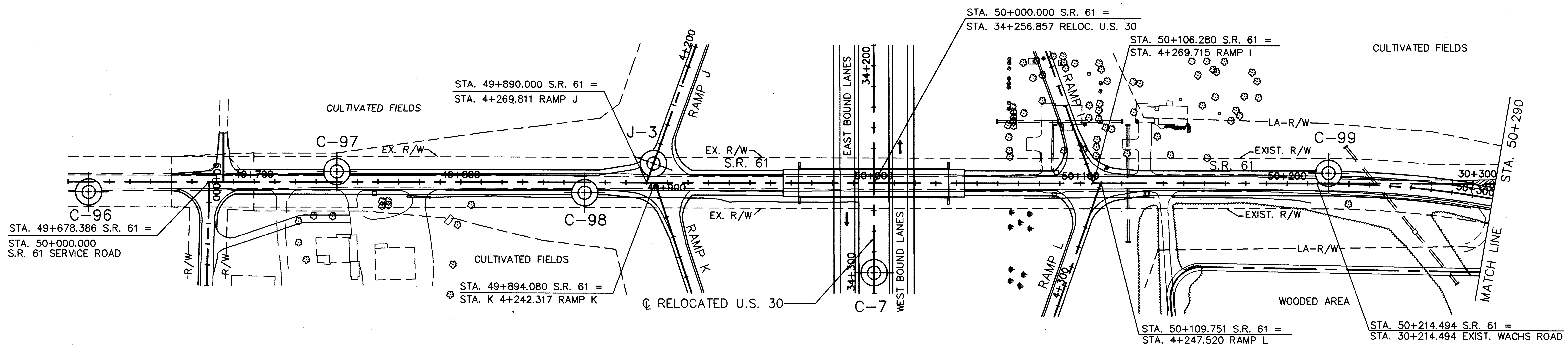
SOIL PROFILE

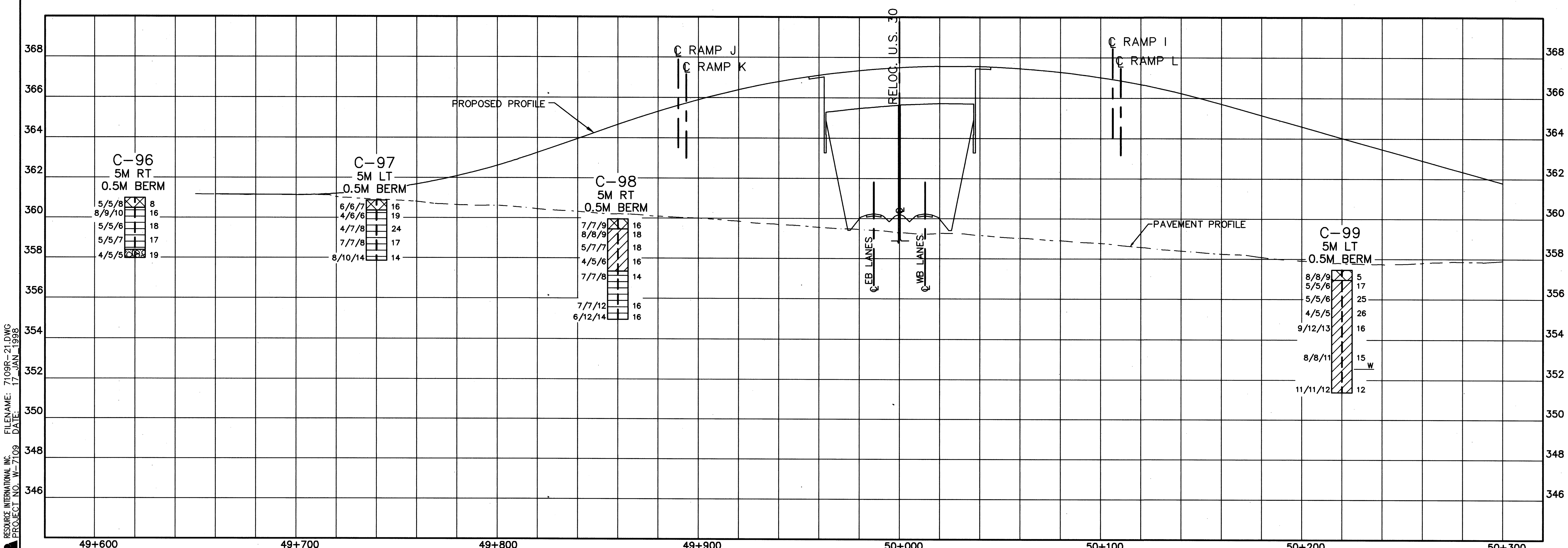
CRAWFORD/RICHLAND COUNTY

CRA/RIC-30-33.500/0.000

20/39

20/59





RESOURCE INTERNATIONAL INC.
PROJECT NO. W-7109
FILENAME: 7109R-21.DWG
DATE: 17 JAN 1998

0 20 40
HORIZONTAL SCALE IN METERS

CALCULATED	CHECKED GPH
DATE 1/17/98	DATE 1/19/98
REVIEWED KEB	
DRAWN EMC	

S.R. 61 STA. 49+600 TO STA. 50+300

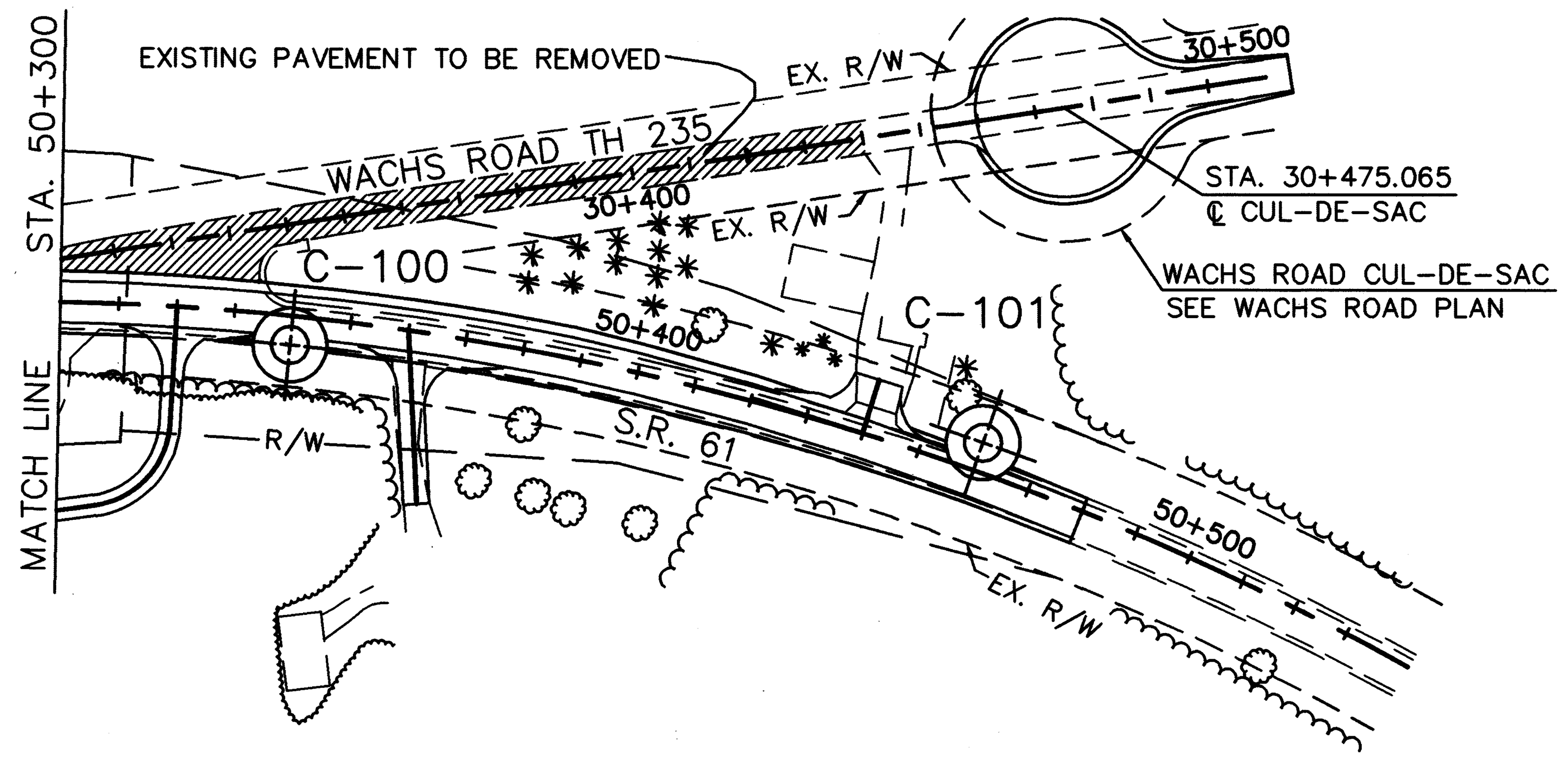
SOIL PROFILE

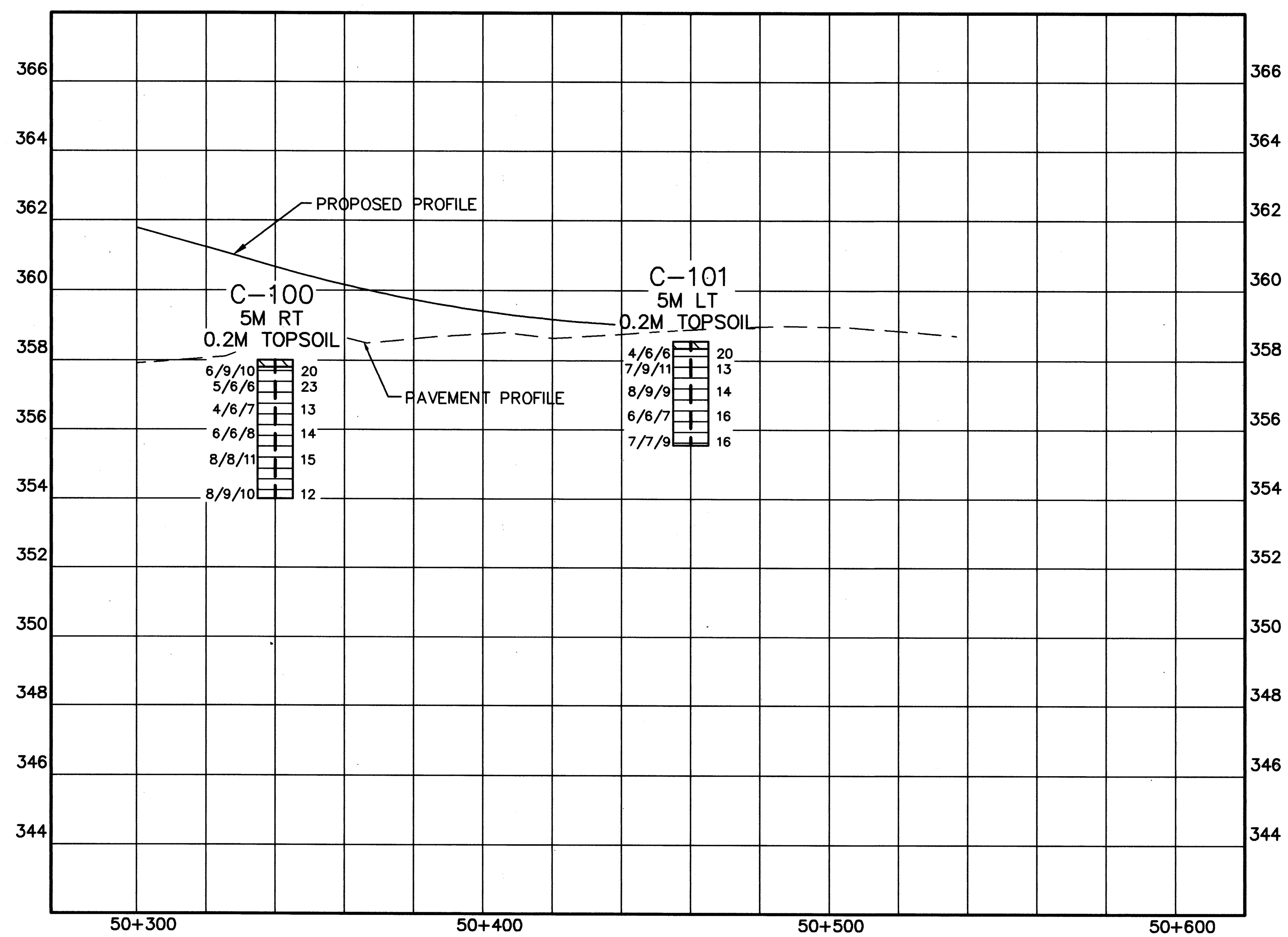
CRAWFORD/RICHLAND COUNTY

CRA/RIC-30-33.500/0.000

21/39

21/59





0 20 40
HORIZONTAL SCALE IN METERS

DRAWN	REVIEWED	DATE	CALCULATED
EMC	KEB	1/17/98	
		DATE 1/19/98	CHECKED GPH

S.R. 61 STA. 50+300 TO STA. 50+530

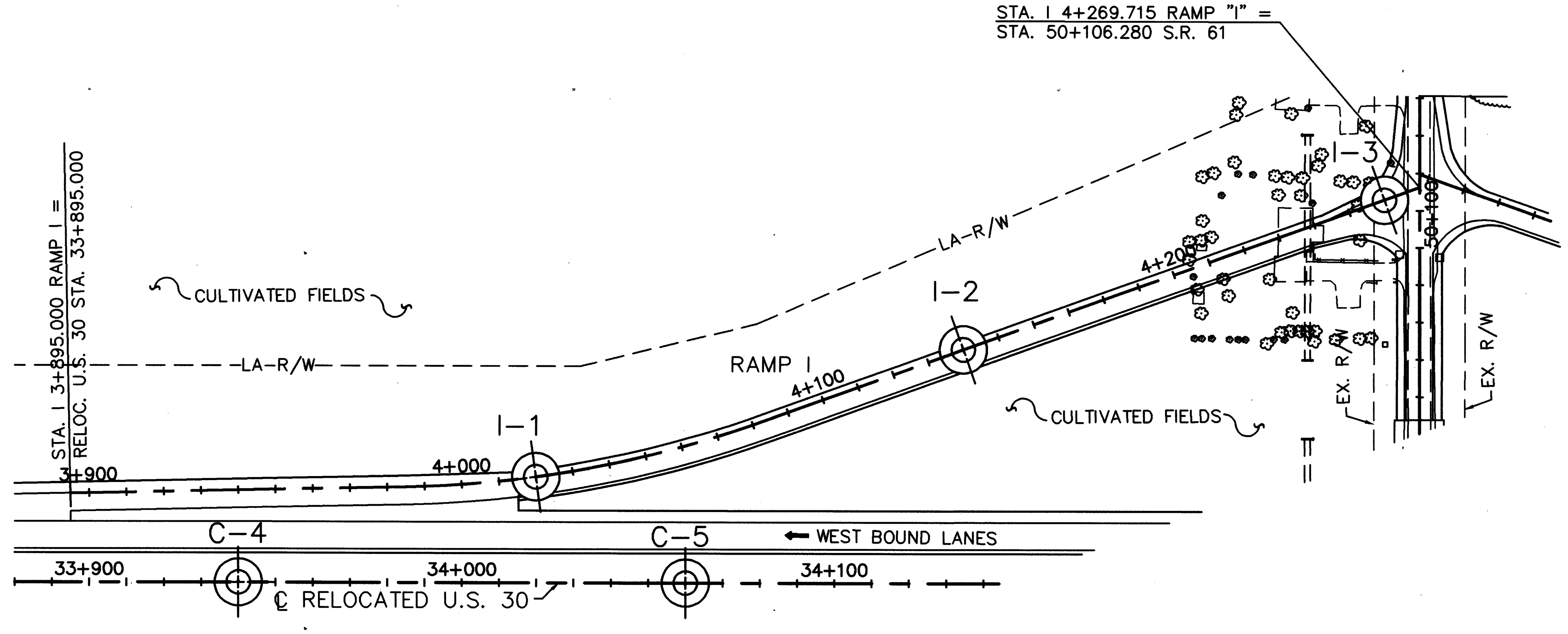
SOIL PROFILE

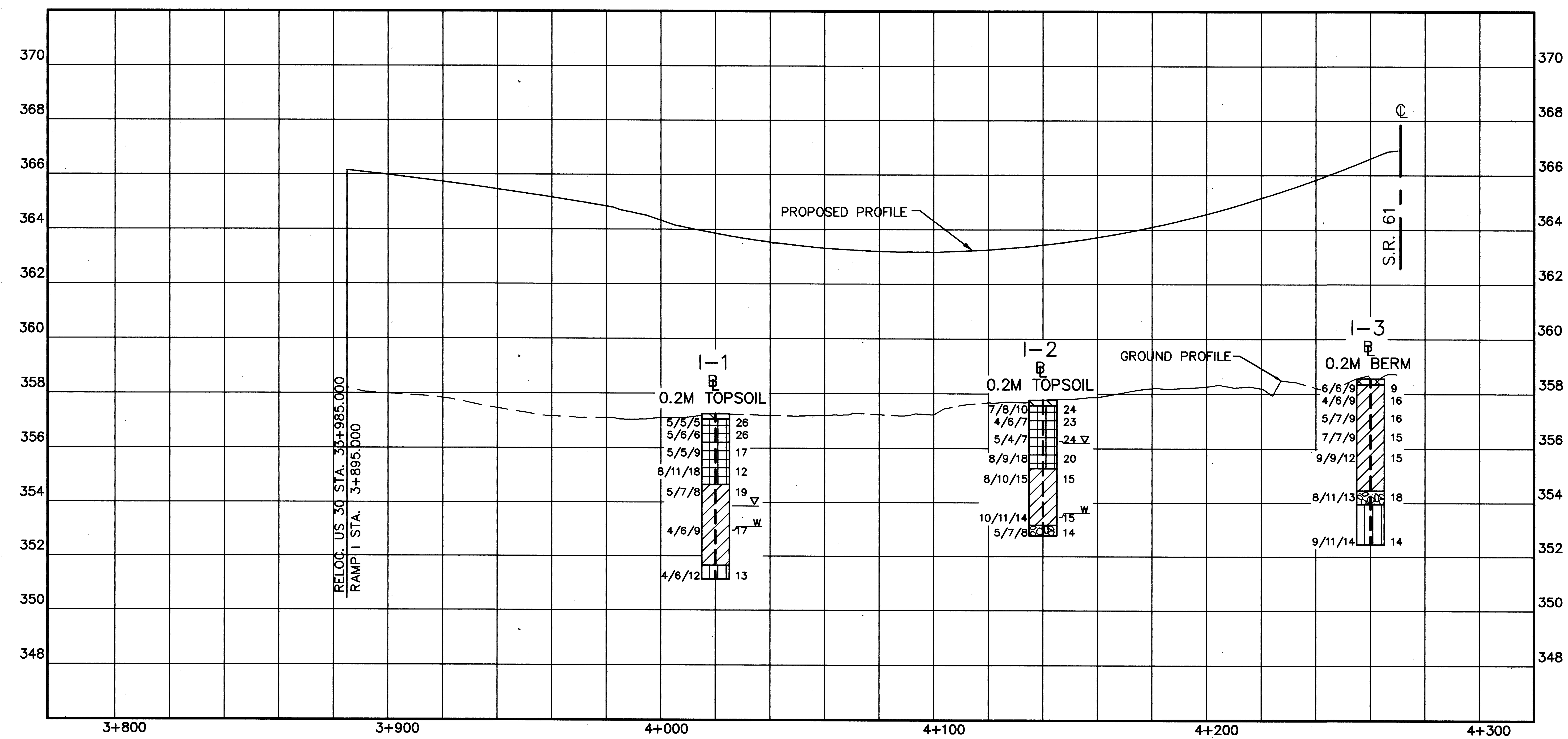
CRAWFORD/RICHLAND COUNTY
CRA/RIC-30-33.500/0.000

22/39

22/59

RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109 FILENAME: 7109R-22.DWG DATE: 17 JAN 1998





HORIZONTAL SCALE IN METERS

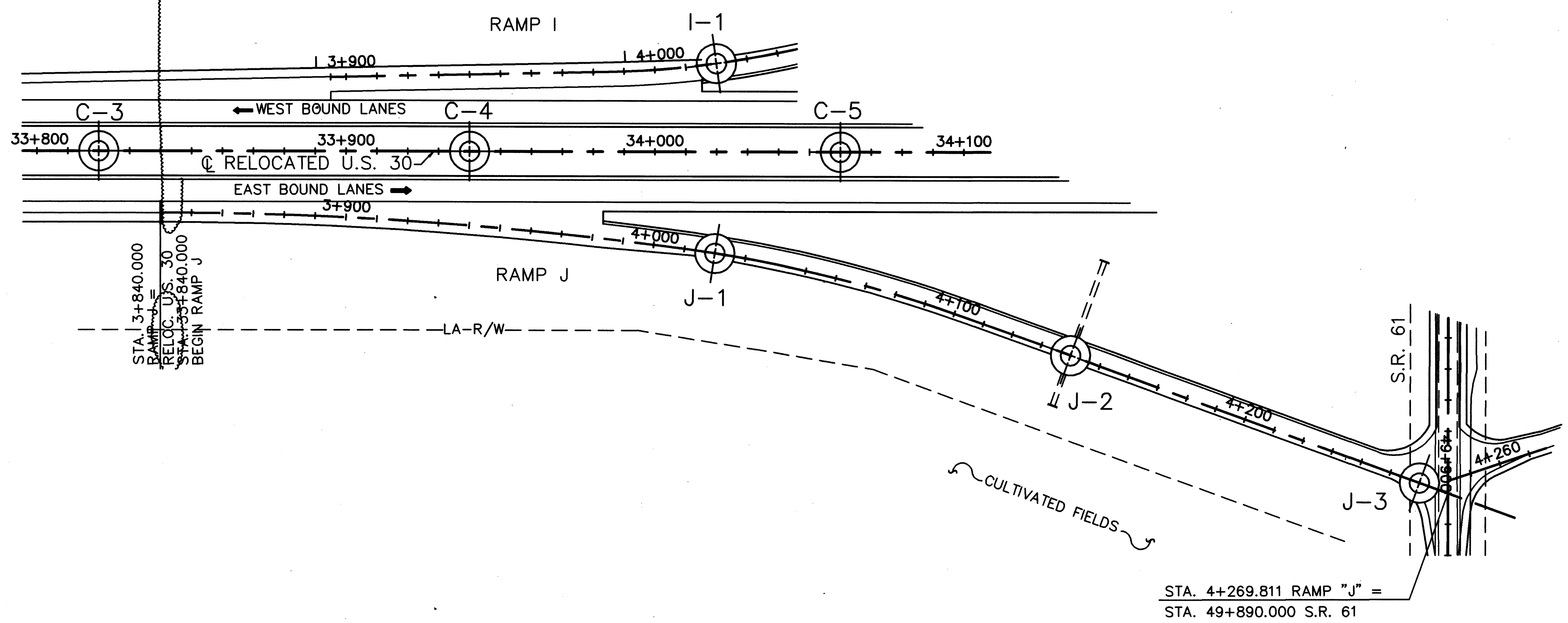
DRAWN	REVIEWED	DATE	CALCULATED
EMC	KEB	1/17/98	
		DATE 1/19/98	CHECKED GPH

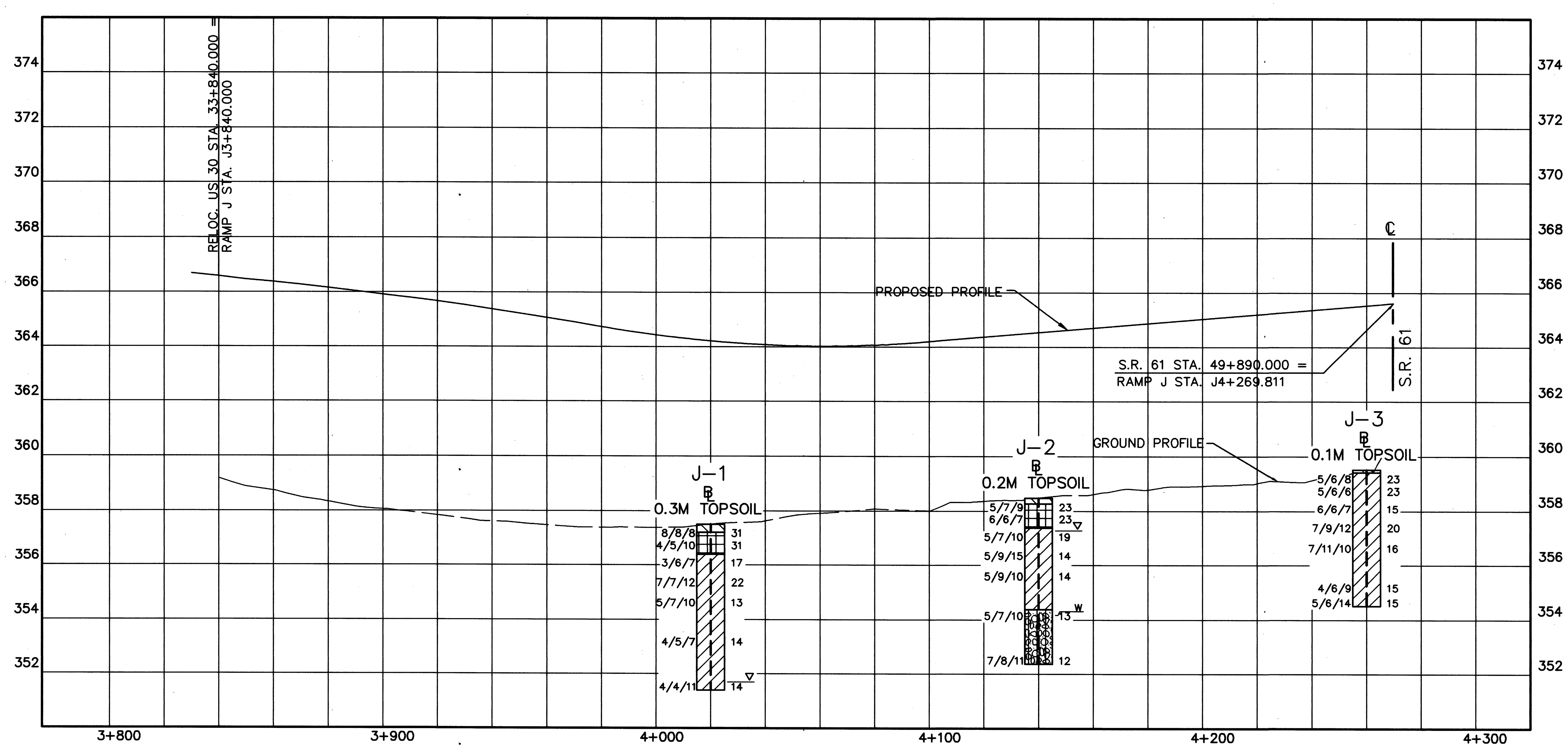
RAMP I STA. 3+895 TO STA. 4+269.715

SOIL PROFILE

CRAWFORD/RICHLAND COUNTY

CRA/RIC-30-33.500/0.000





HORIZONTAL SCALE IN METERS

DRAWN EMC	REVIEWED KEB	DATE 1/17/98	CALCULATED
		DATE 1/19/98	CHECKED GPH

RAMP J STA. 3+840 TO STA. 4+269.811

SOIL PROFILE

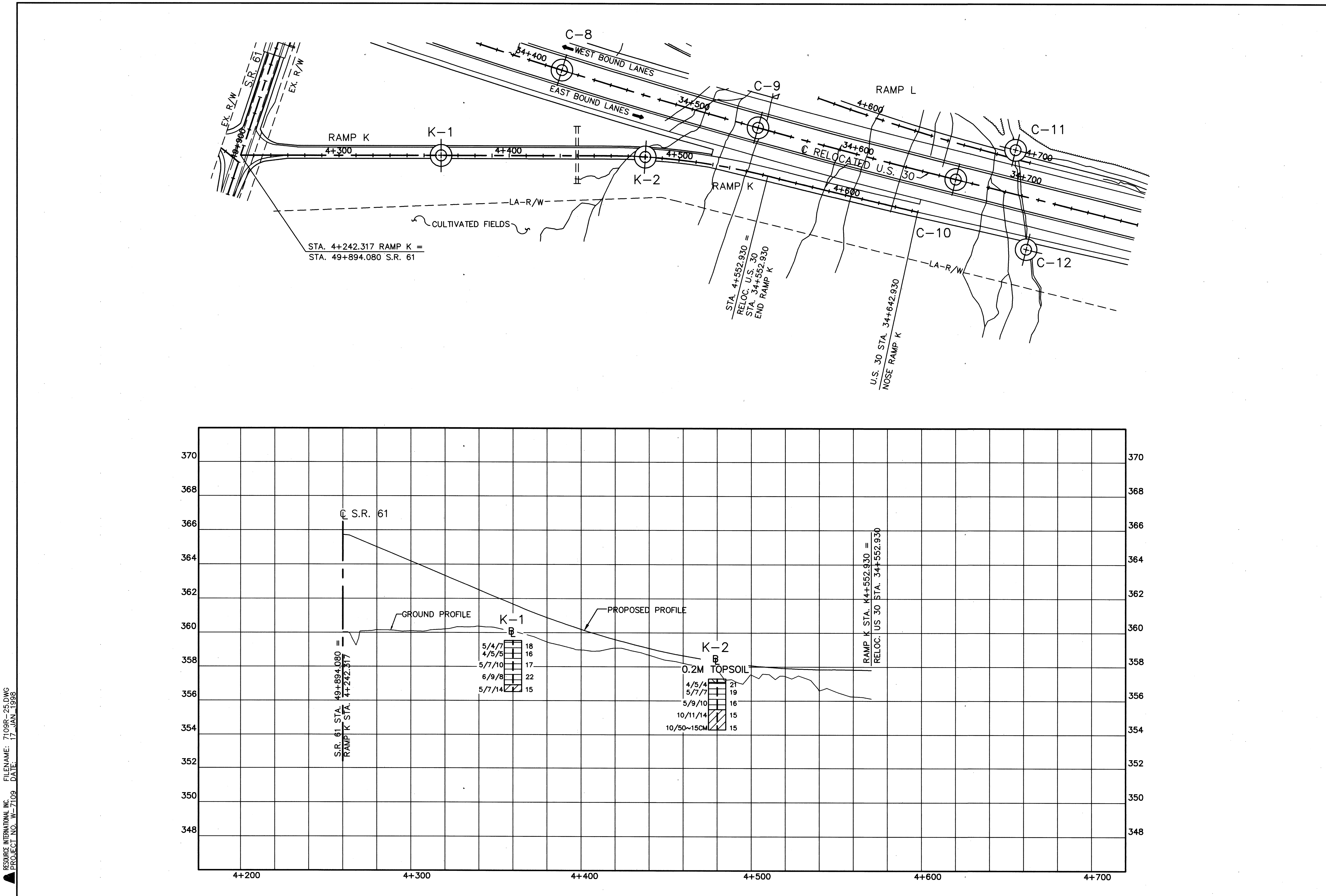
CRAWFORD/RICHLAND COUNTY

CRA/RIC-30-33.500/0.000

24/39

24/59

RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109 FILENAME: 7109R-24.DWG DATE: 17 JAN 1998



RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109 FILENAME: 7109R-25.DWG DATE: 17 JAN 1998

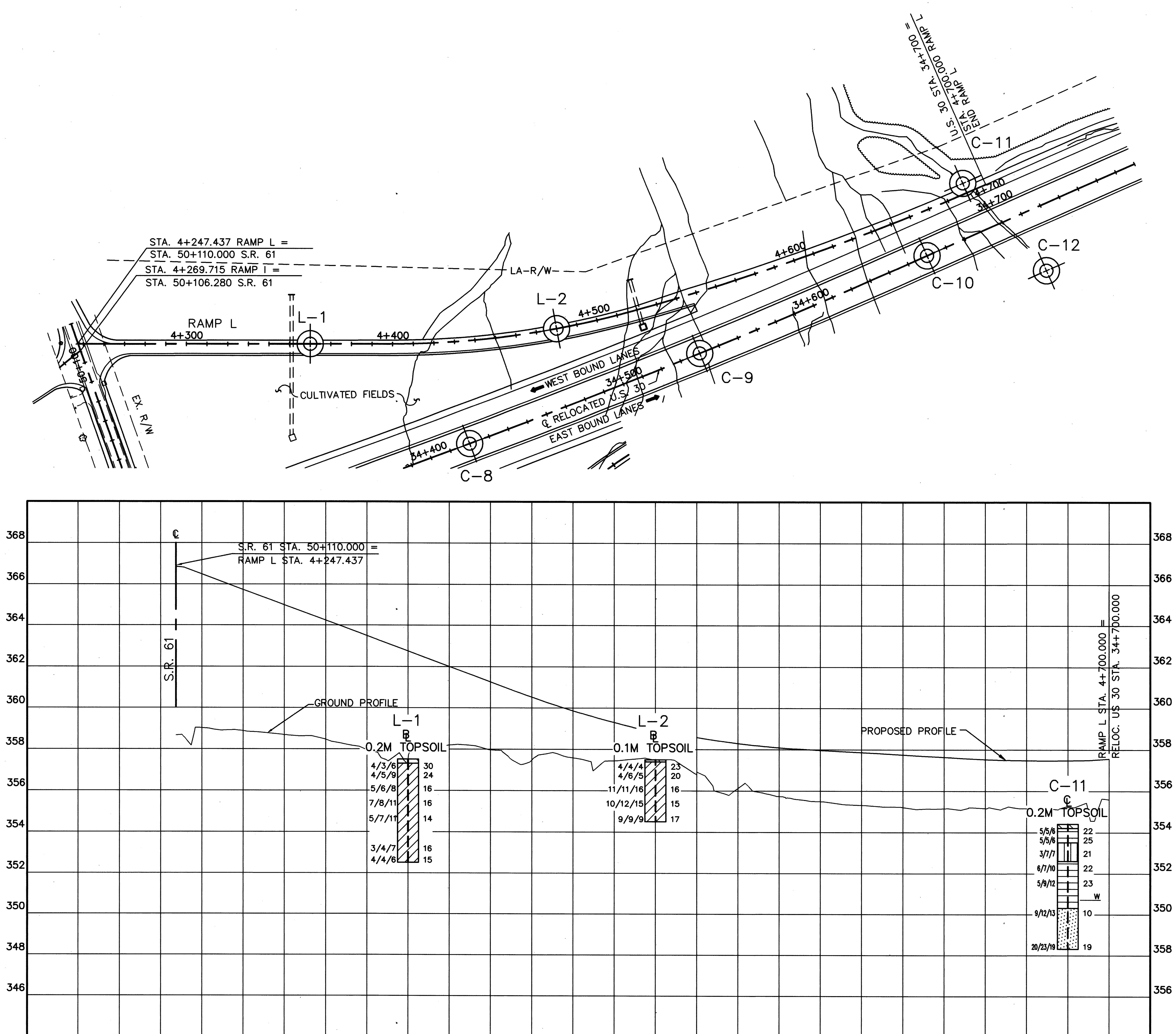
DRAWN	REVIEWED	DATE	CALCULATED
EMC	KEB	1/17/98	
		DATE 1/19/98	CHECKED GPH

RAMP K STA. 4+242.317 TO STA. 4+642.930

SOIL PROFILE

CRAWFORD/RICHLAND COUNTY

CRA/RIC-30-33.500/0.000



RESOURCE INTERNATIONAL INC.
PROJECT NO. W-7109

FILENAME: 7109R-25.DWG
DATE: 17 JAN 1998

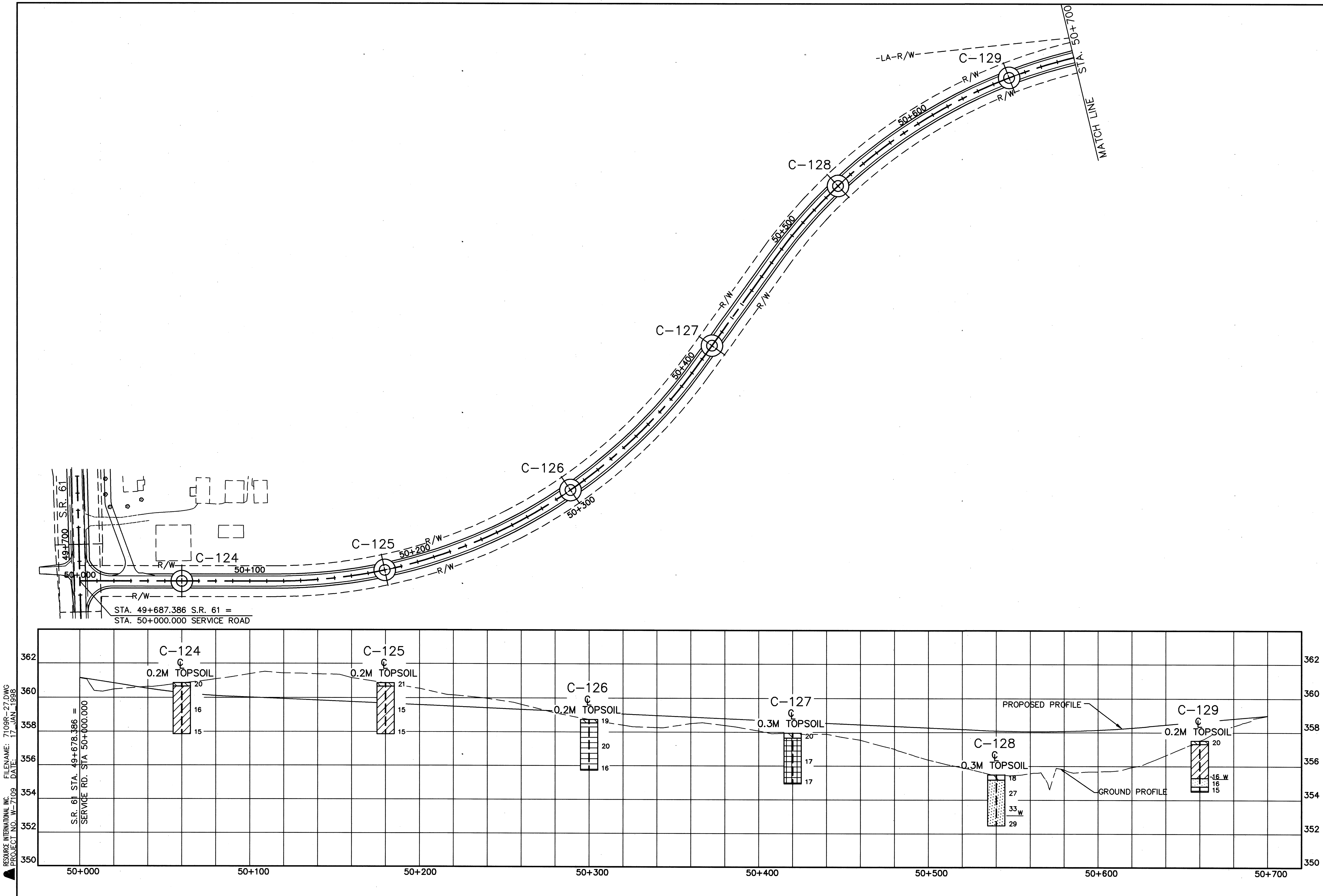
HORIZONTAL SCALE IN METERS

CALCULATED	CHECKED GPH
DATE 1/17/98	DATE 1/19/98
REVIEWED KEB	
DRAWN EMC	

RAMP L STA. 4+247.437 TO STA. 4+700

SOIL PROFILE

CRAWFORD/RICHLAND COUNTY
CRA/RIC-30-33.500/0.000



FILENAME: 7109R-27.DWG
DATE: 17 JAN 1998

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-7109

HORIZONTAL SCALE IN METERS

DRAWN	REVIEWED	DATE	CALCULATED
EMC	KEB	1/17/98	
		DATE	CHECKED
		1/19/98	GPH

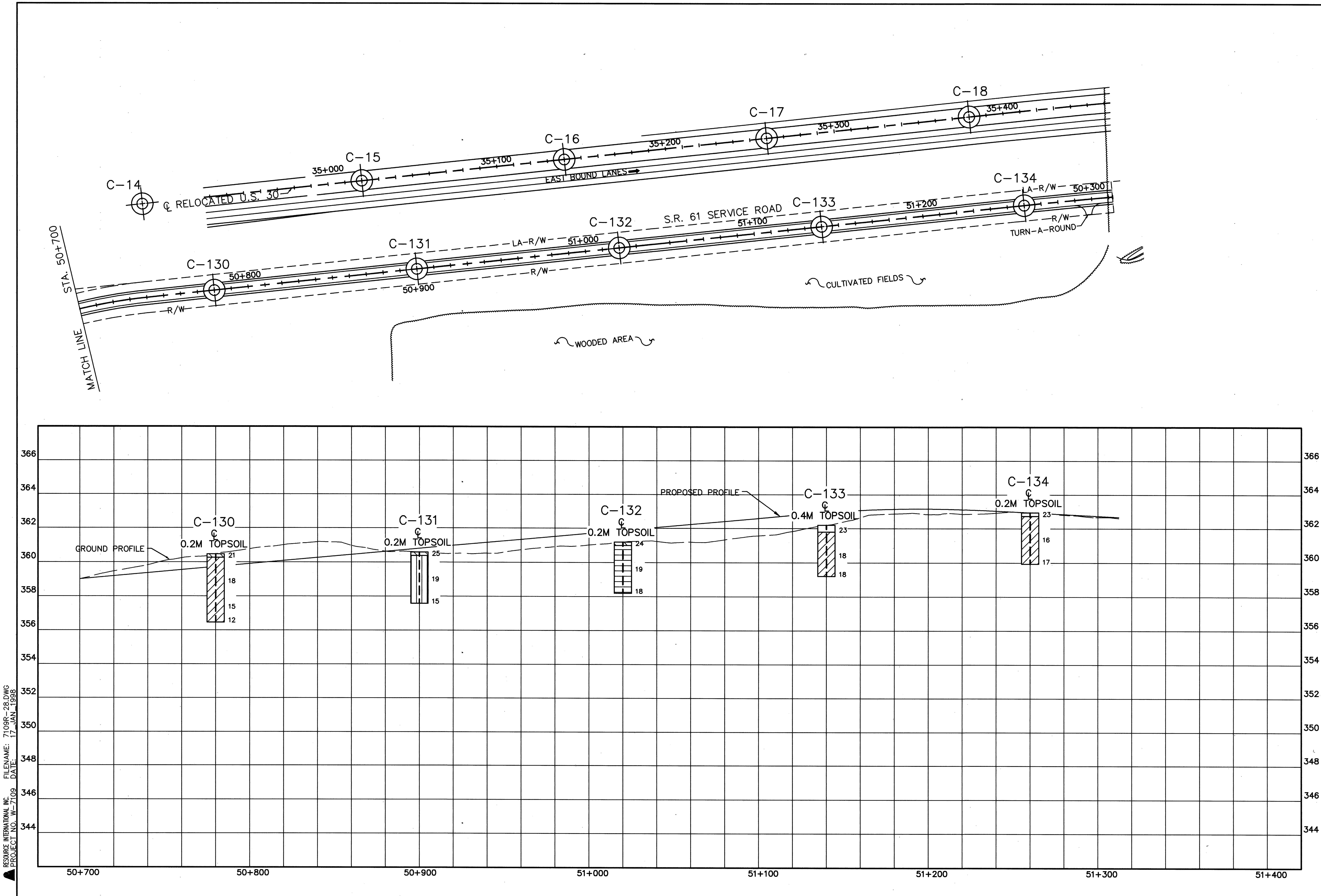
CRAWFORD/RICHLAND COUNTY S.R. 61 SERVICE ROAD STA. 50+000 TO STA. 50+700

SOIL PROFILE

CRA/RIC-30-33.500/0.000

27/39

27/59



CRAWFORD/RICHLAND COUNTY S.R. 61 SERVICE ROAD STA. 50+700 TO STA. 51+312.395

SOIL PROFILE

CRA/RIC-30-33.500/0.000

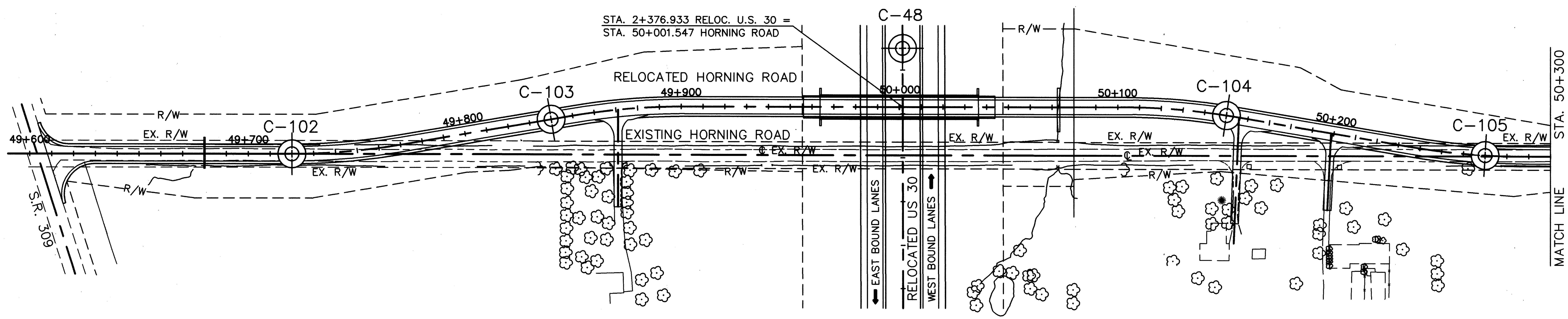
HORIZONTAL SCALE IN METERS

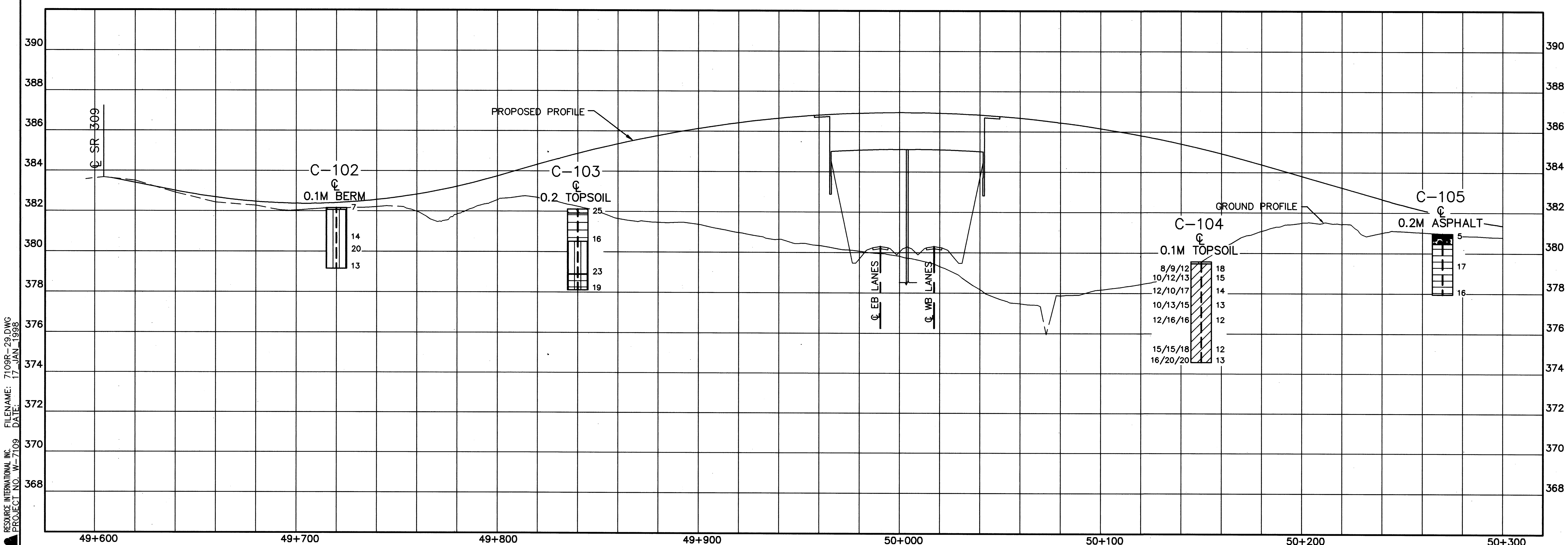
DRAWN	REVIEWED	DATE	CALCULATED
EMC	KEB	1/17/98	
		DATE	CHECKED
		1/19/98	GPH

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-7109
FILENAME: 7109R-28.DWG
DATE: 17 JAN 1998

28/39

28/59





N

0 20 40
HORIZONTAL SCALE IN METERS

DRAWN	REVIEWED	DATE	CALCULATED
EMC	KEB	1/17/98	
		DATE	CHECKED
		1/19/98	GPH

HORNING ROAD STA. 49+600 TO STA. 50+300

SOIL PROFILE

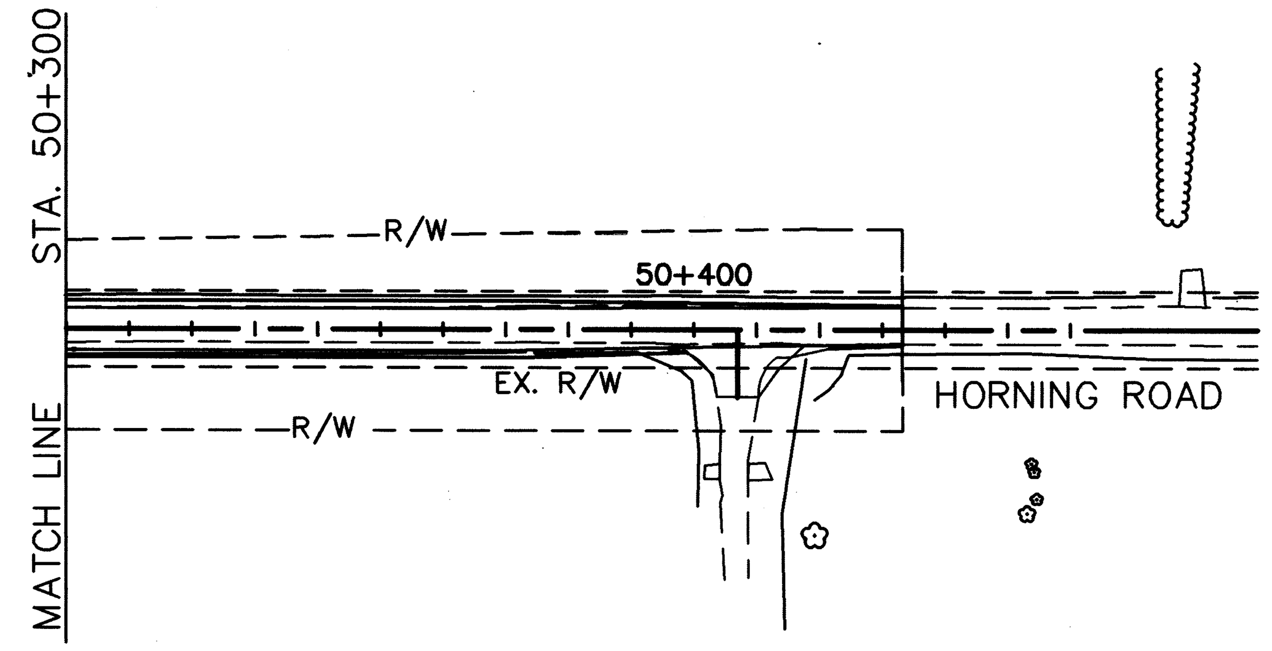
CRAWFORD/RICHLAND COUNTY

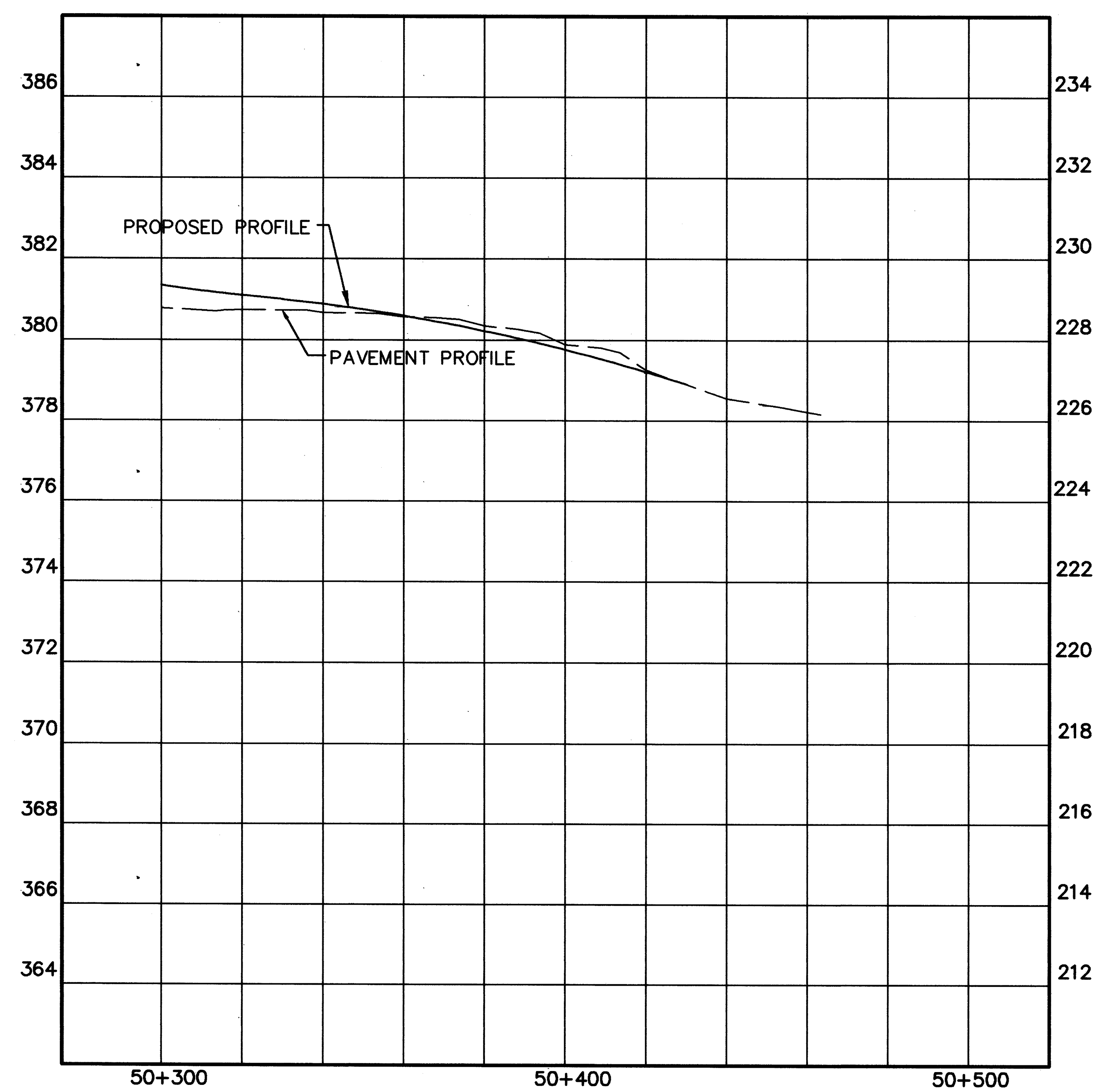
CRA/RIC-30-33.500/0.000

29/39

29
59

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-7109
FILENAME: 7109R-29.DWG
DATE: 17 JAN 1998





HORIZONTAL SCALE IN METERS 0 20 40

CALCULATED	CHECKED GPH
DATE 1/17/98	DATE 1/19/98
REVIEWED KEB	
DRAWN EMC	

HORNING ROAD STA. 50+300 TO STA. 50+460

SOIL PROFILE

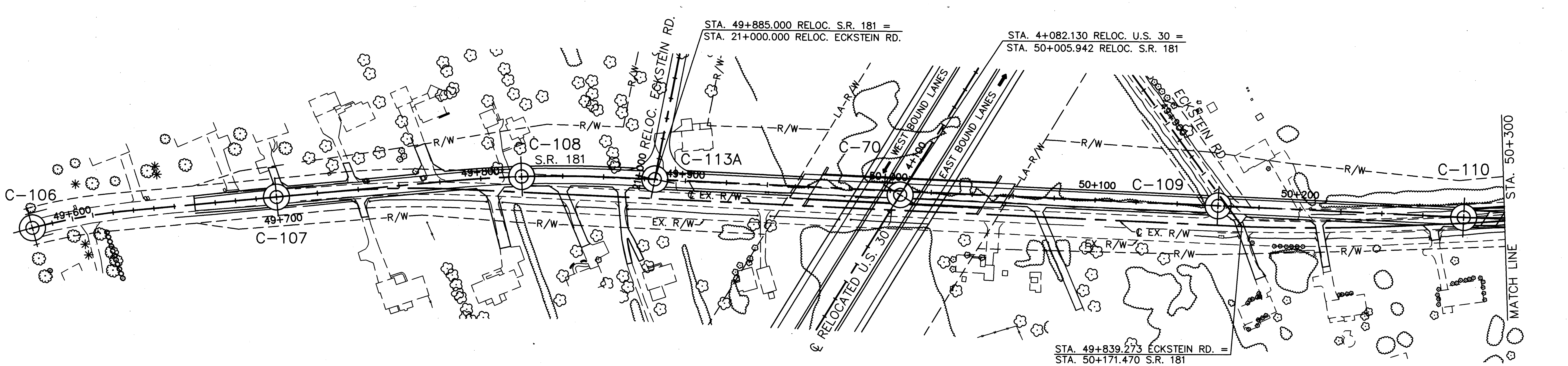
CRAWFORD/RICHLAND COUNTY

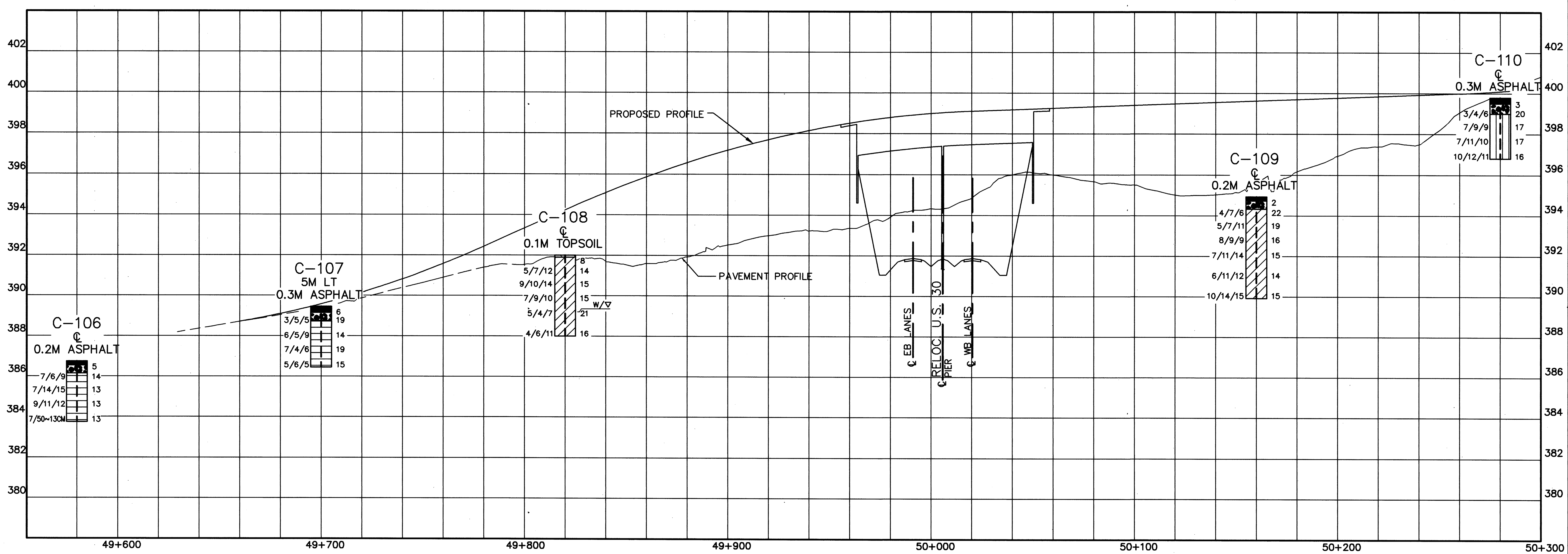
CRA/RIC-30-33.500/0.000

30/39

30/59

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-7109 FILENAME: 7109R-30.DWG DATE: 17 JAN 1998





RESOURCE INTERNATIONAL INC.
PROJECT NO. W-7109
FILENAME: 7109R-31.DWG
DATE: 17 JAN 1998

N

0 20 40
HORIZONTAL SCALE IN METERS

CALCULATED	CHECKED
	GPH

	DATE	DATE
	1/17/98	1/19/98

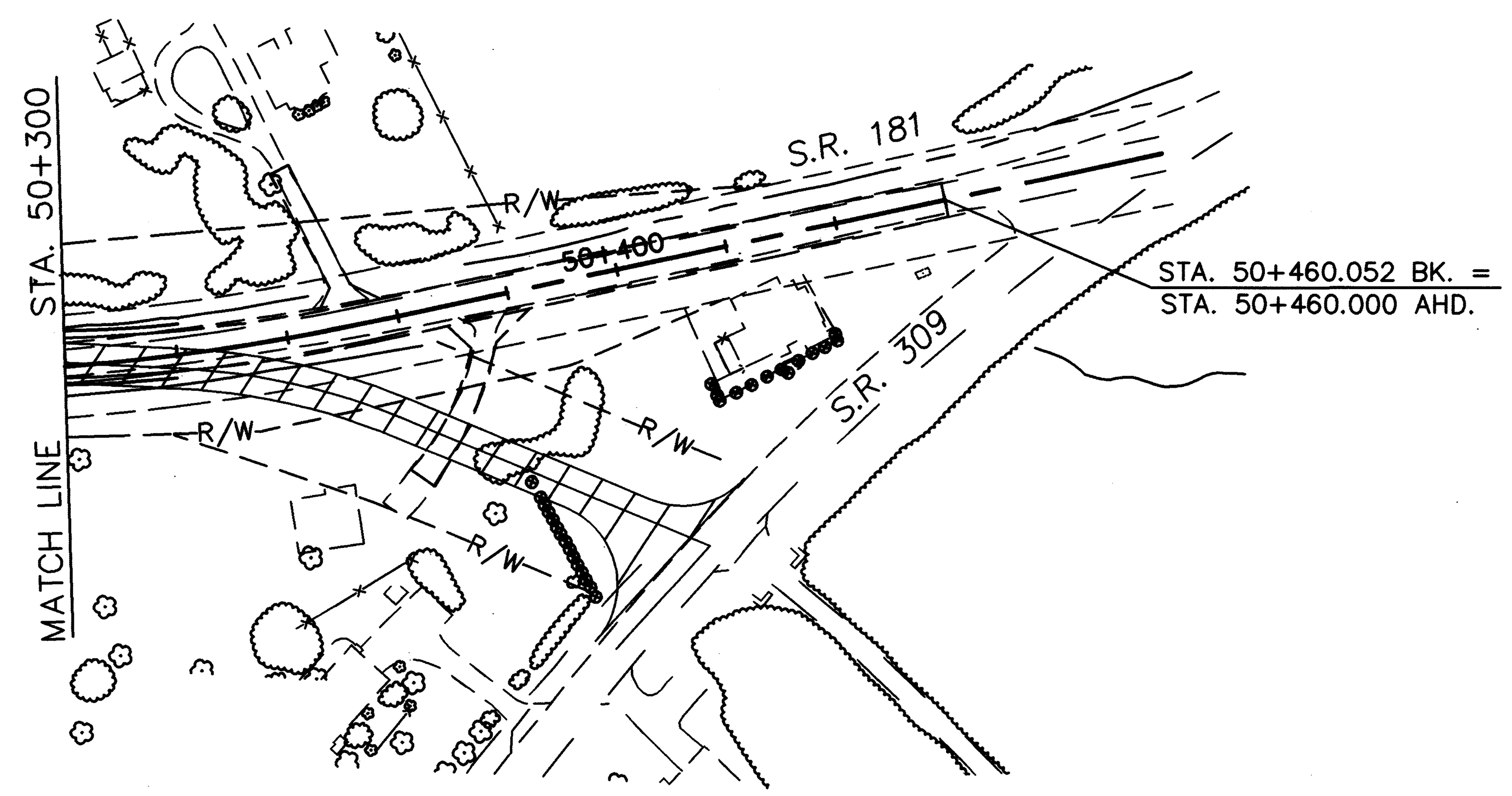
DRAWN	REVIEWED
EMC	KEB

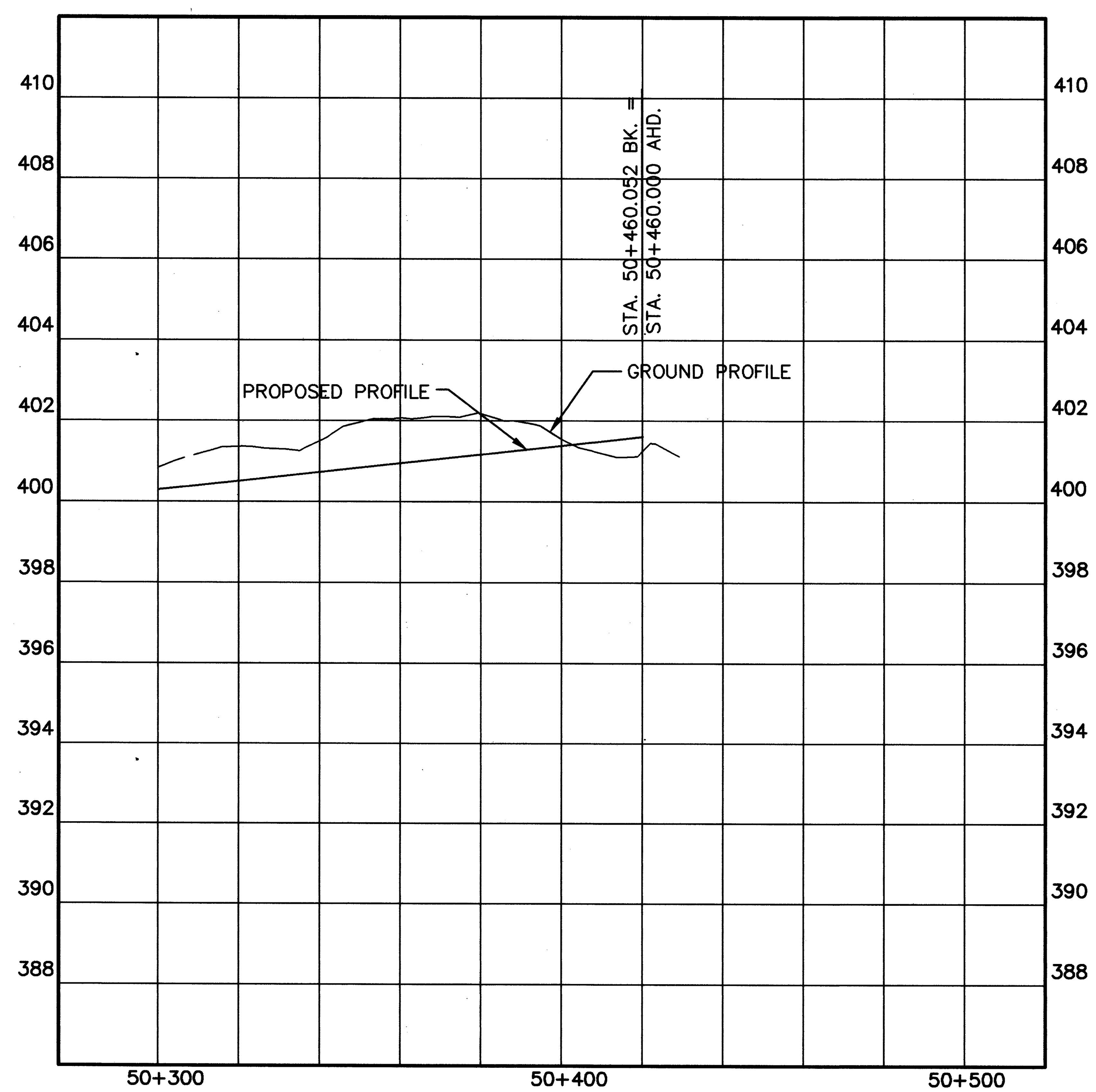
S.R. 181 STA. 49+580 TO STA. 50+300

SOIL PROFILE

CRAWFORD/RICHLAND COUNTY

CRA/RIC-30-33.500/0.000





RESOURCE INTERNATIONAL INC.
PROJECT NO. W-7109
FILENAME: 7109R-32.DWG
DATE: 17 JAN 1998

HORIZONTAL SCALE IN METERS
0 20 40

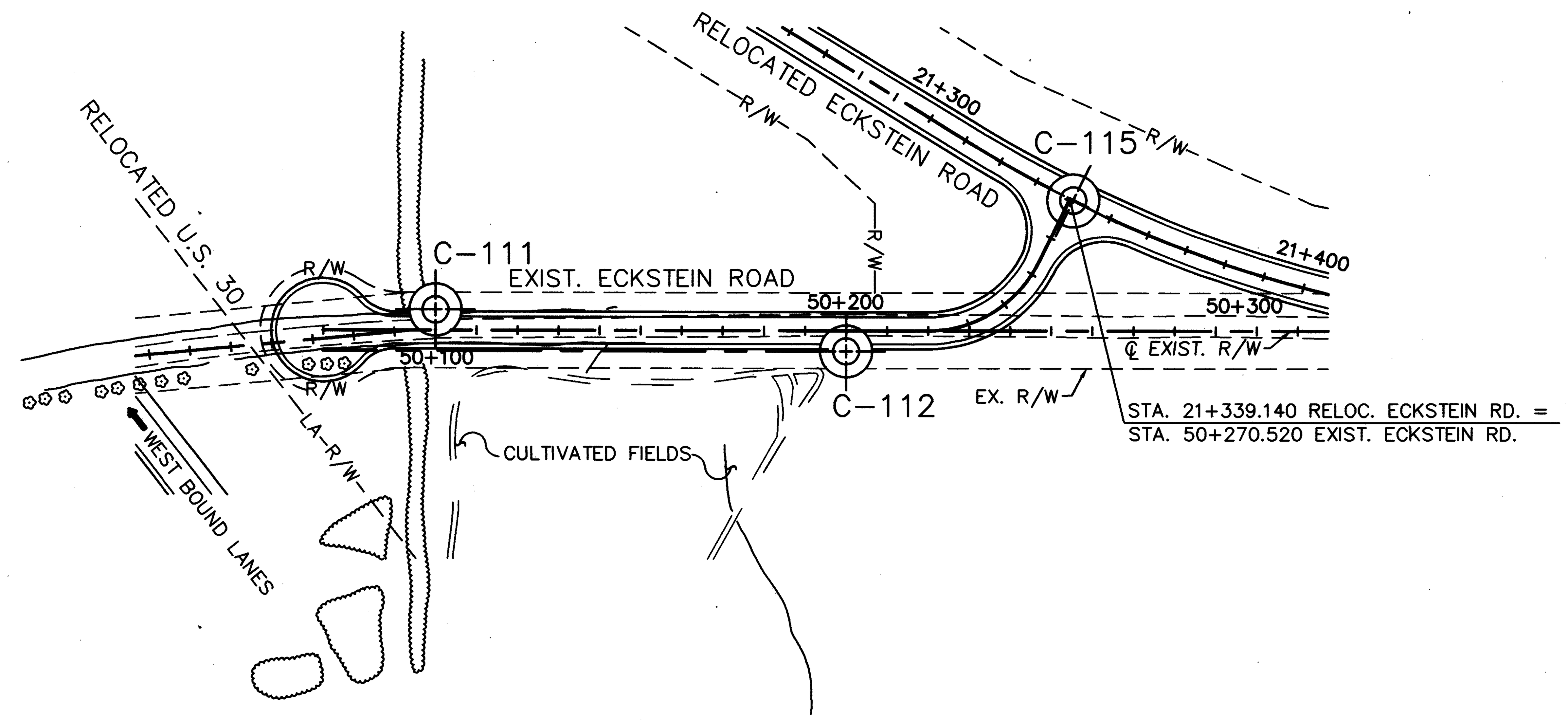
DRAWN	REVIEWED	DATE	CALCULATED
EMC	KEB	1/17/98	
		DATE 1/19/98	CHECKED GPH

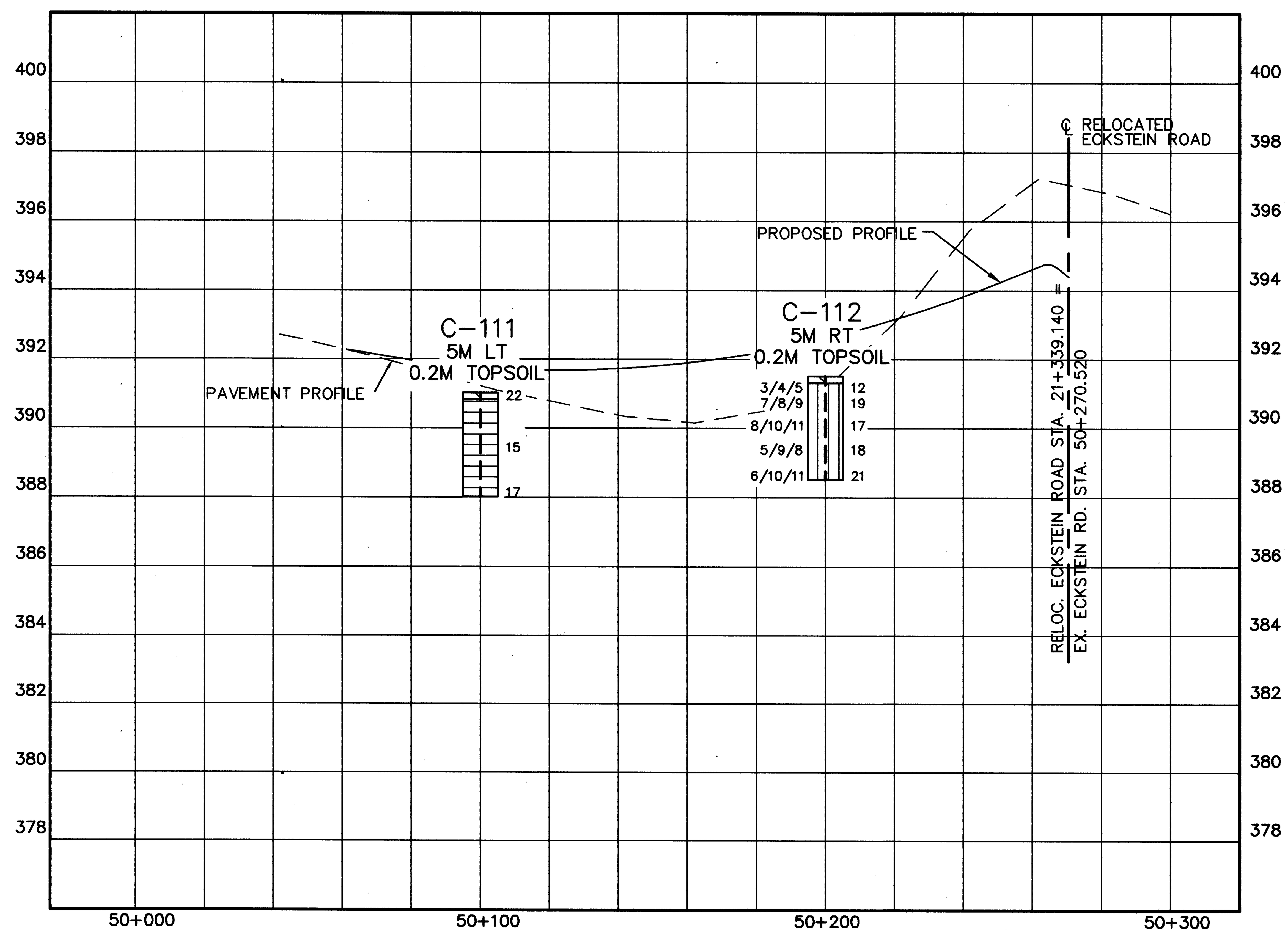
S.R. 181 STA. 50+300 TO STA. 50+460
SOIL PROFILE

CRAWFORD/RICHLAND COUNTY
CRA/RIC-30-33.500/0.000

32/39

32
59





HORIZONTAL SCALE IN METERS
0 20 40

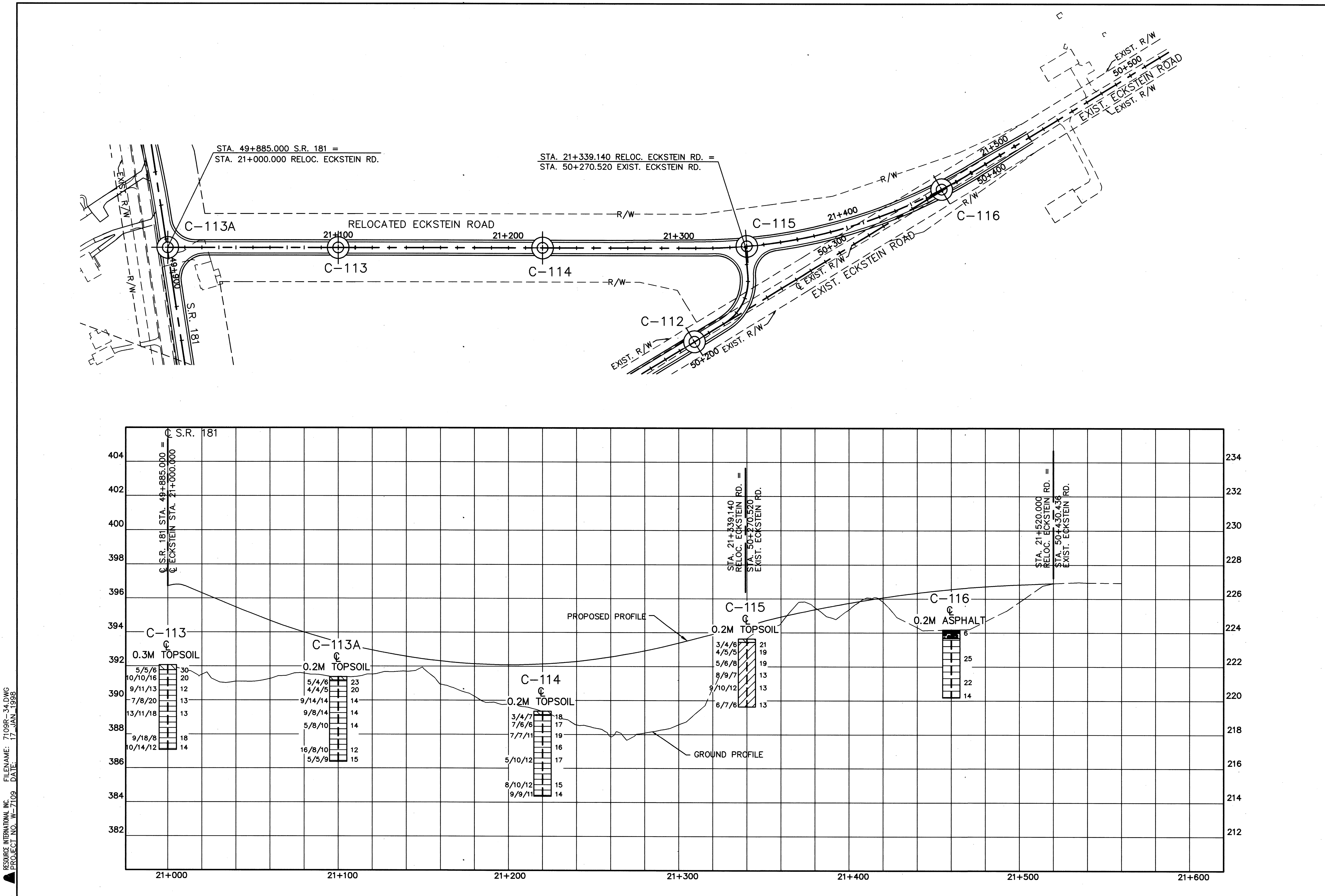
CALCULATED
CHECKED GPH
DATE 1/17/98
DATE 1/19/98
REVIEWED KEB
DRAWN EMC

CRAWFORD/RICHLAND COUNTY
EXISTING ECKSTEIN ROAD STA. 50+000 TO STA. 50+300
CRA/RIC-30-33.500/0.000
SOIL PROFILE

33/39

33/59

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-7109
FILENAME: 7109R-33.DWG
DATE: 17 JAN 1998



RESOURCE INTERNATIONAL INC.
PROJECT NO. W-7109
FILENAME: 7109R-34.DWG
DATE: 17 JAN 1998

HORIZONTAL SCALE IN METERS

DRAWN	REVIEWED	DATE	CALCULATED
EMC	KEB	1/17/98	
		DATE 1/19/98	CHECKED GPH

RELOCATED ECKSTEIN ROAD STA. 21+000 TO STA. 21+520

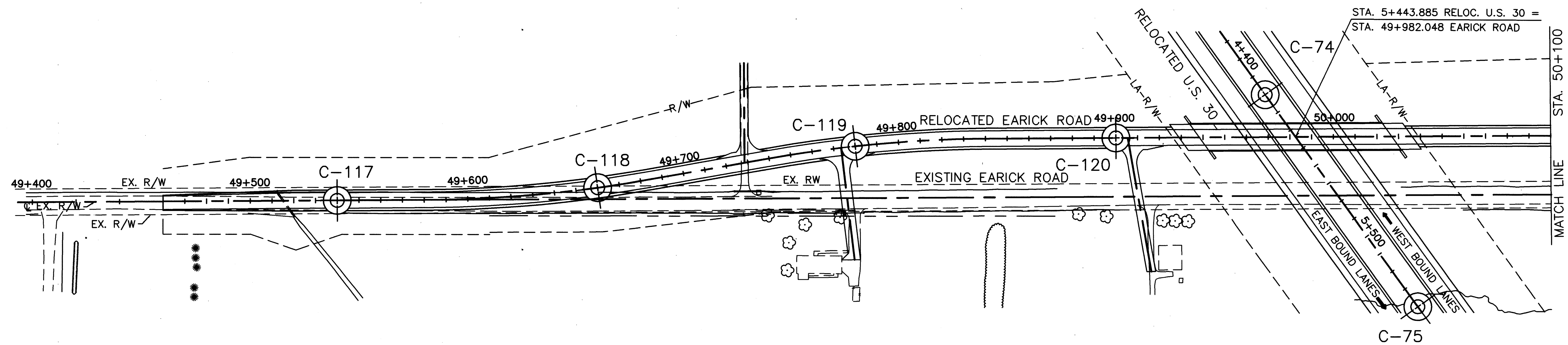
SOIL PROFILE

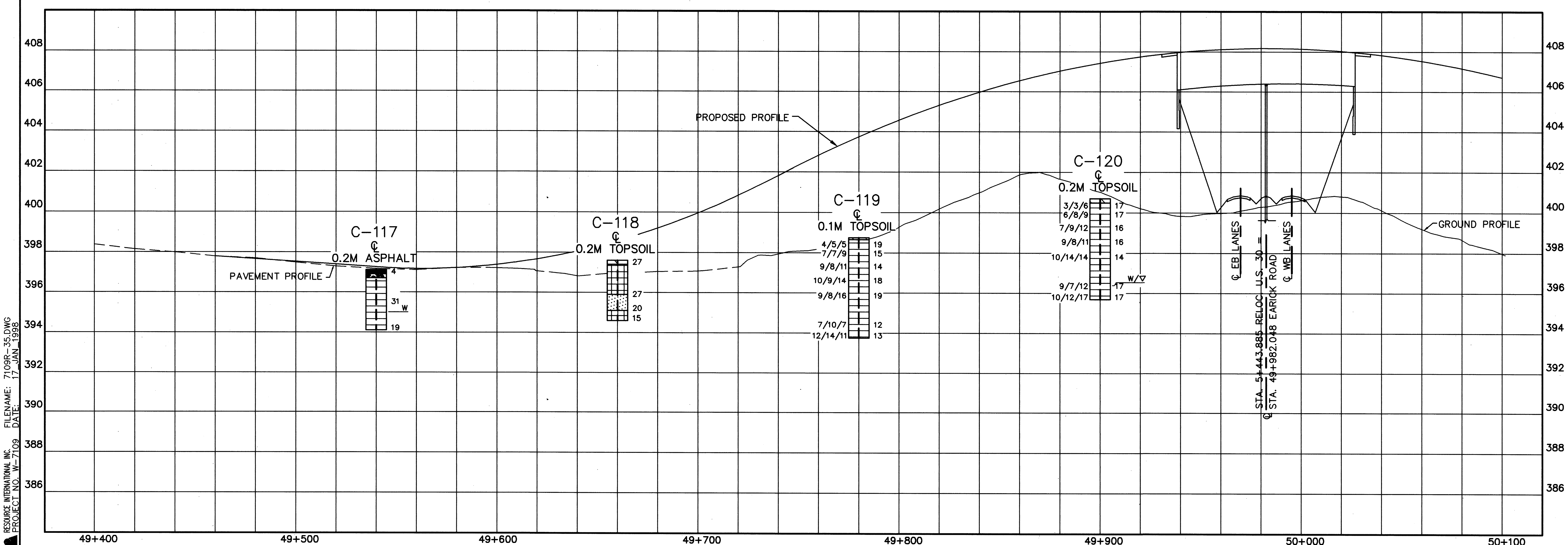
CRAWFORD/RICHLAND COUNTY

CRA/RIC-30-33.500/0.000

34/39

34/59





RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109
FILENAME: 7109R-35.DWG
DATE: 17 JAN 1998

HORIZONTAL SCALE IN METERS
0 20 40

CALCULATED	CHECKED GPH
DATE 1/17/98	DATE 1/19/98
REVIEWED KEB	
DRAWN EMC	

EARICK ROAD STA. 49+500 TO STA. 50+100

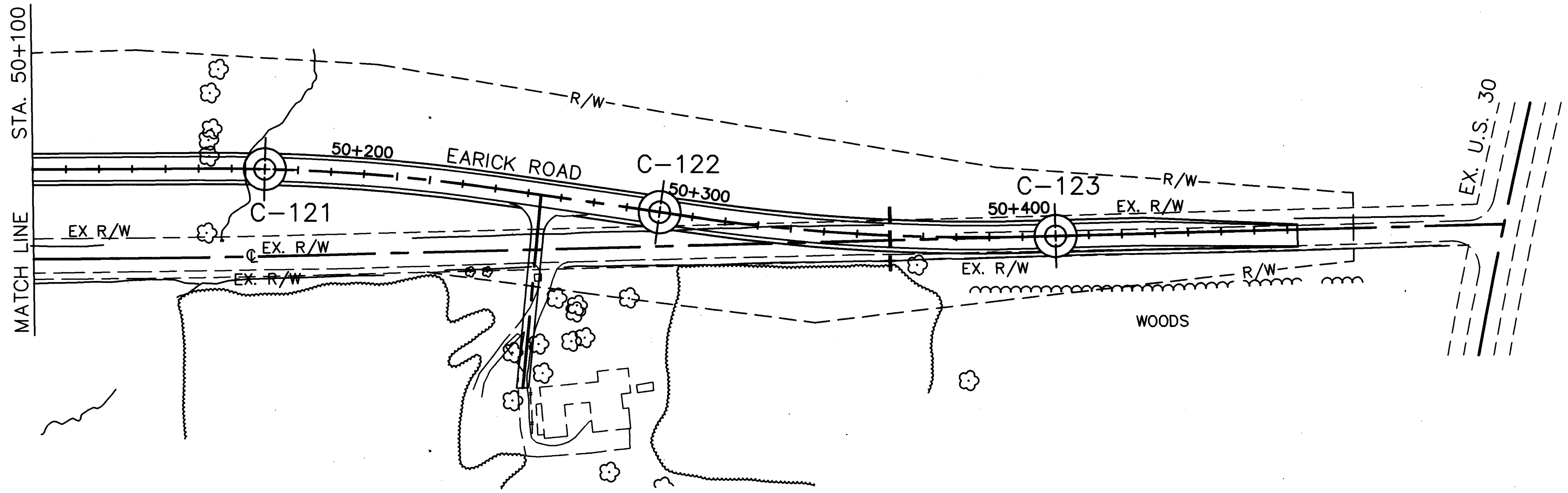
SOIL PROFILE

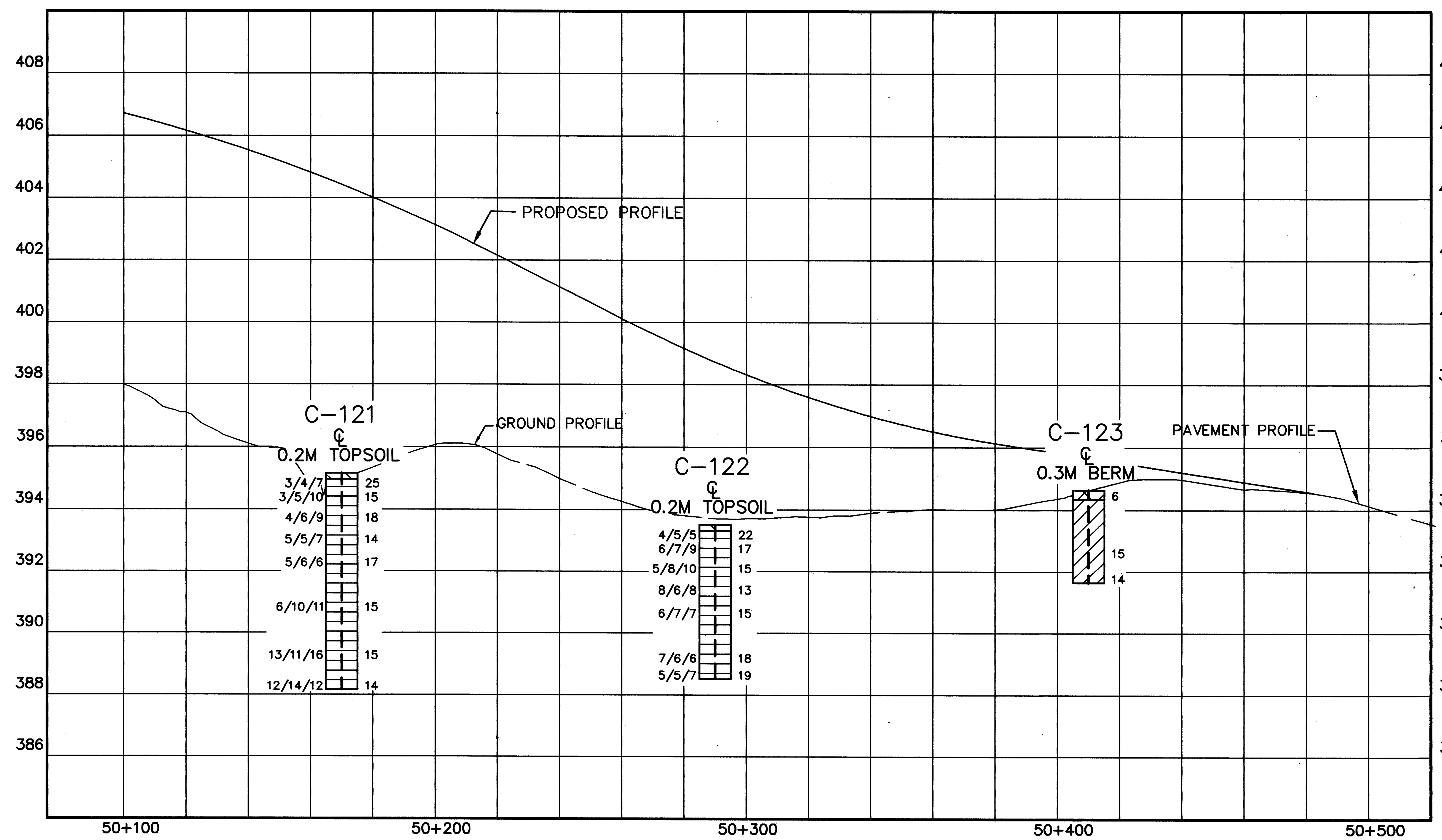
CRAWFORD/RICHLAND COUNTY

CRA/RIC-30-33.500/0.000

35/39

35/59





HORIZONTAL SCALE IN METERS (0, 20, 40)

CALCULATED	CHECKED GPH
DATE 1/17/98	DATE 1/19/98
REVIEWED KEB	
DRAWN EMC	

EARICK ROAD STA. 50+100 TO STA. 50+500

SOIL PROFILE

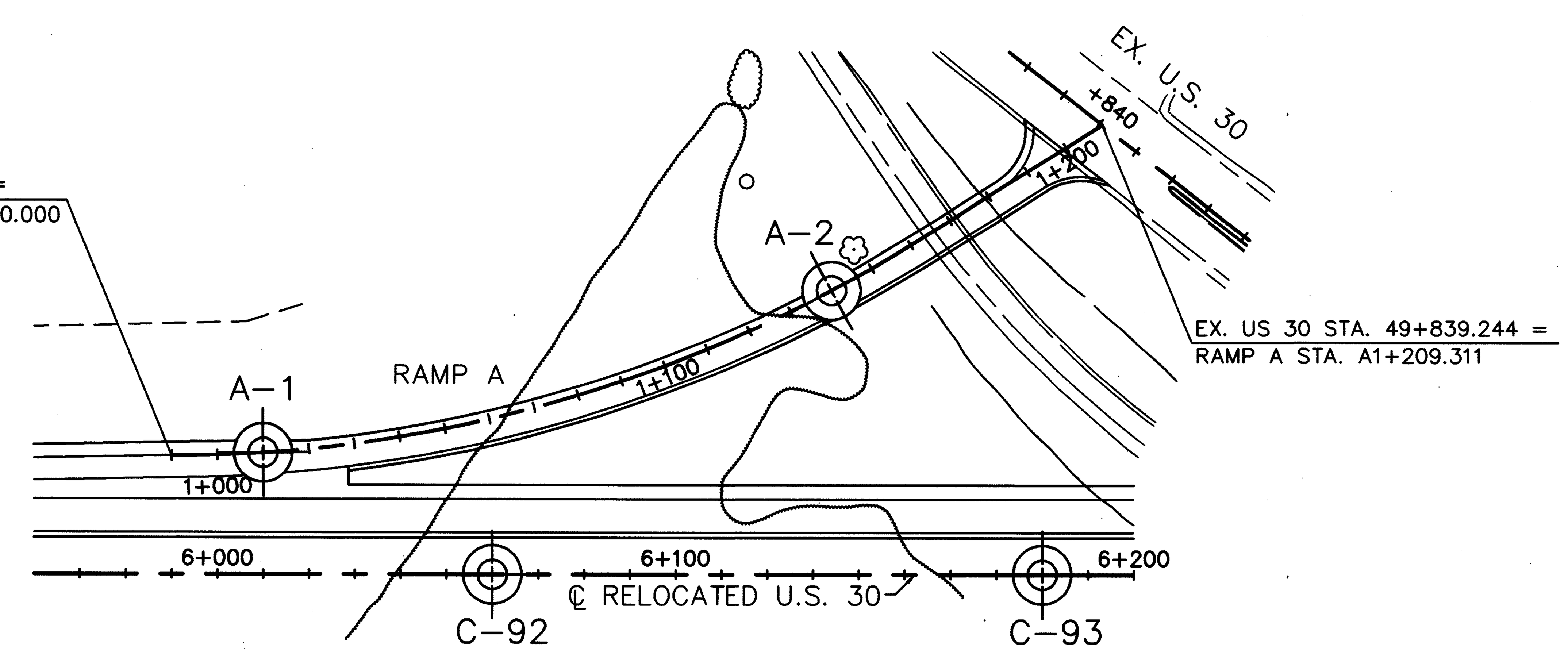
CRAWFORD/RICHLAND COUNTY

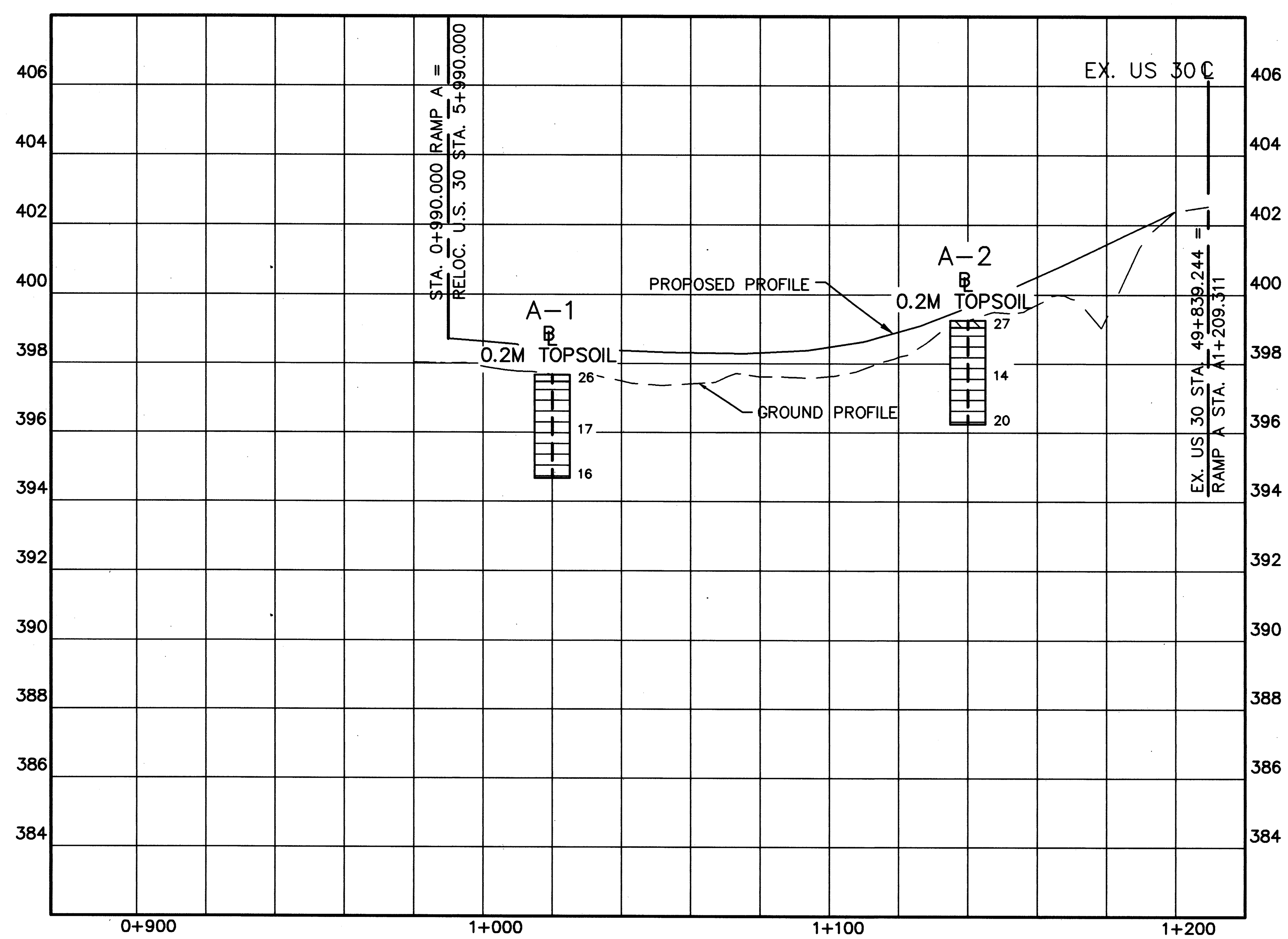
CRA/RIC-30-33.500/0.000

36/39

36/59

RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109 FILENAME: 7109R-36.DWG DATE: 17 JAN 1998





RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109 FILENAME: 7109R-37.DWG DATE: 17 JAN 1998

0 20 40 HORIZONTAL SCALE IN METERS

DRAWN	REVIEWED	DATE	CALCULATED
EMC	KEB	1/17/98	
		DATE 1/19/98	CHECKED GPH

RAMP A STA. 0+990 TO STA. 1+209.311

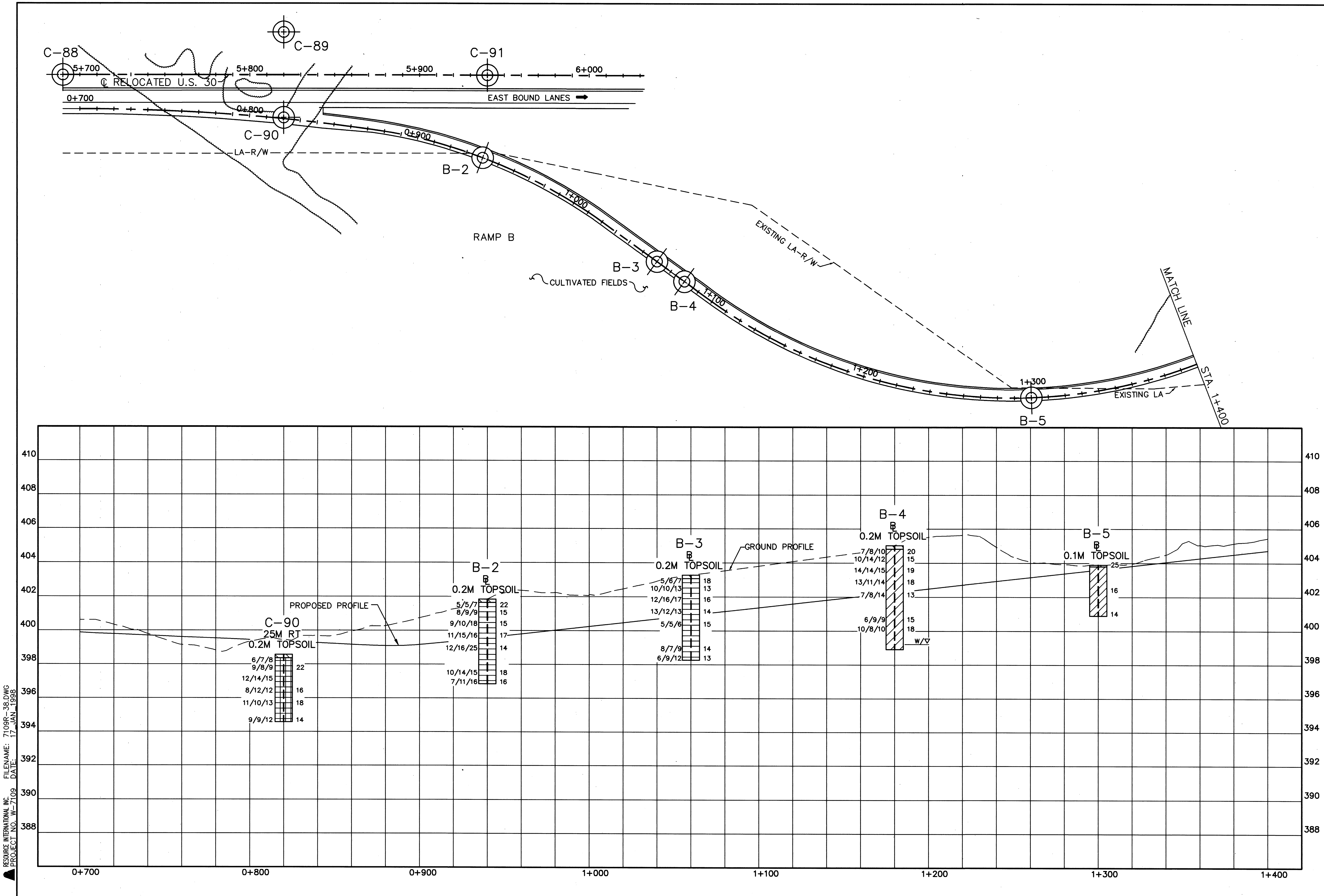
SOIL PROFILE

CRAWFORD/RICHLAND COUNTY

CRA/RIC-30-33.500/0.000

37/39

37/59



HORIZONTAL SCALE IN METERS

DRAWN	REVIEWED	DATE	CALCULATED	CHECKED	DATE
EMC	KEB	1/17/98		GPH	1/19/98

RAMP B STA. 0+700 TO STA. 1+400

SOIL PROFILE

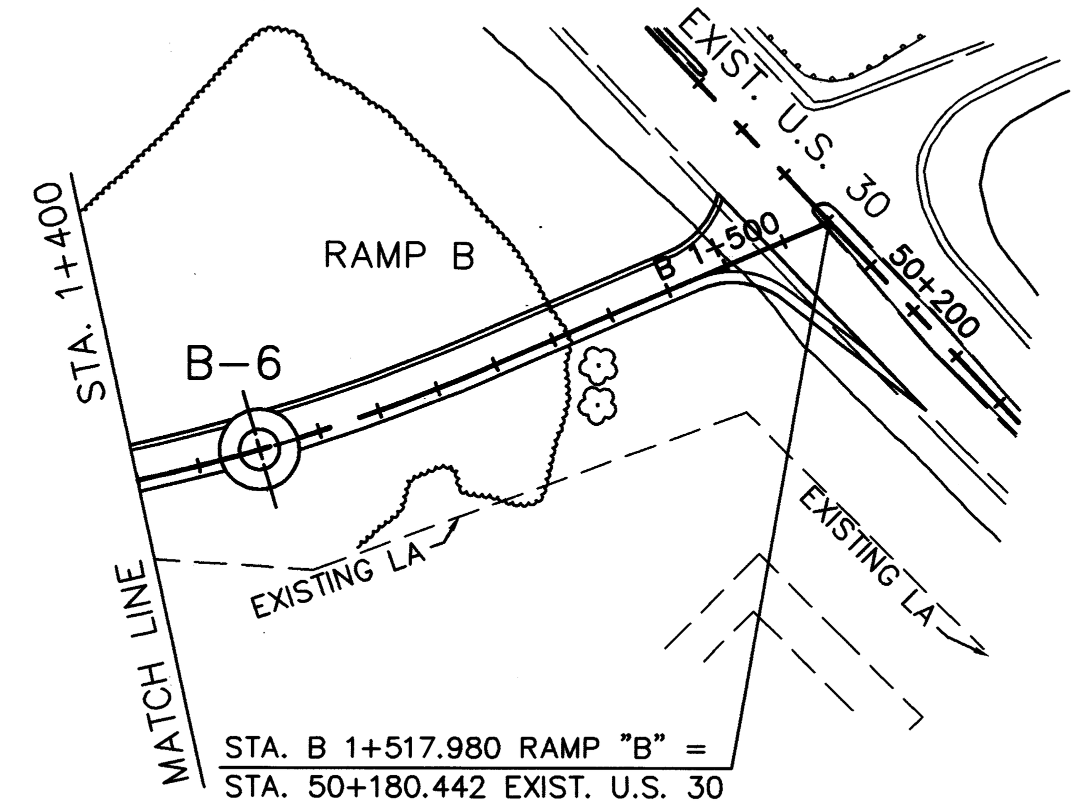
CRAWFORD/RICHLAND COUNTY

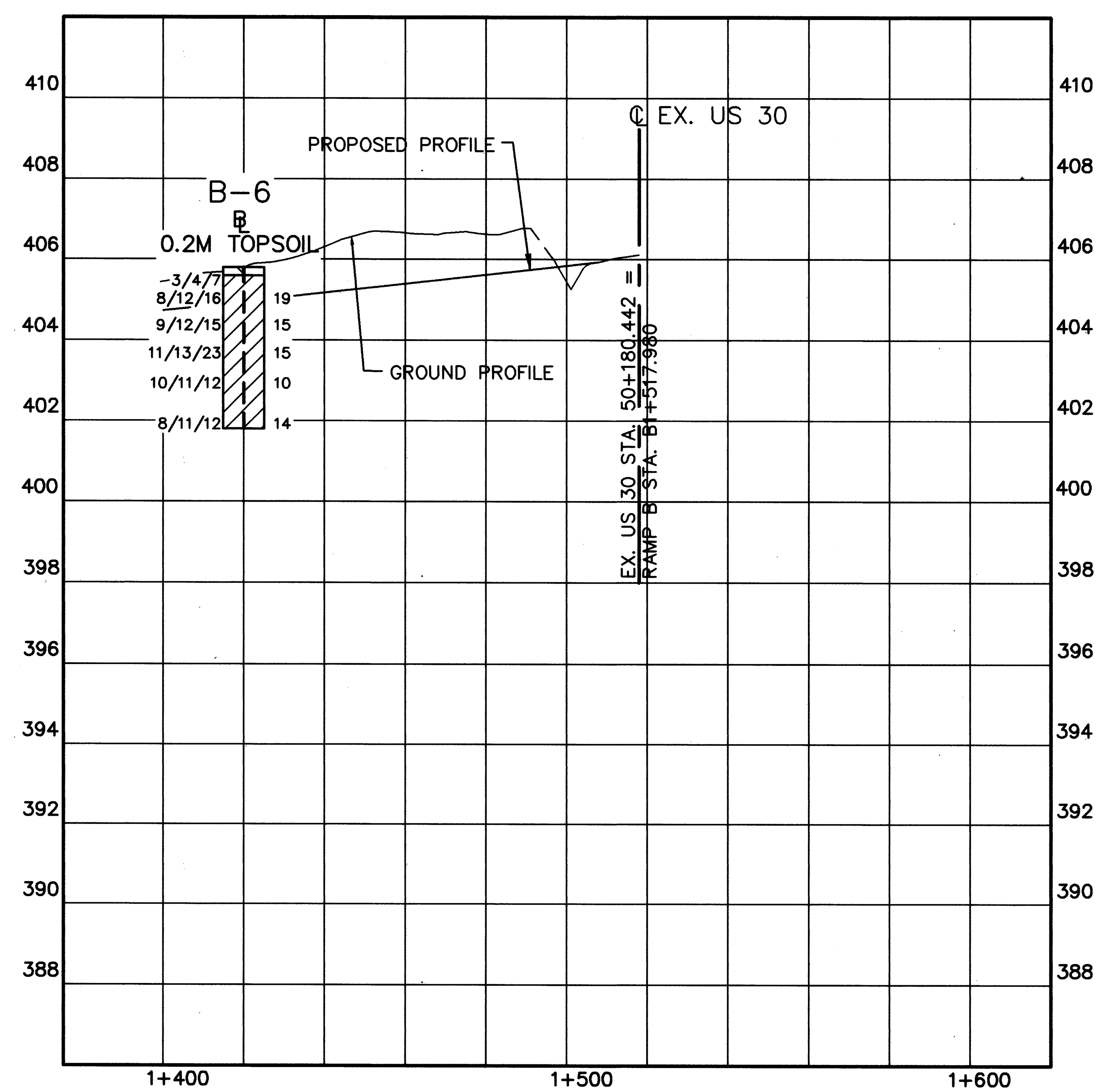
CRA/RIC-30-33.500/0.000

38/39

38/59

RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109 FILENAME: 7109R-38.DWG DATE: 17 JAN 1998





RESOURCE INTERNATIONAL INC.
PROJECT NO. W-7109
FILENAME: 7109R-39.DWG
DATE: 17 JAN 1998

HORIZONTAL SCALE IN METERS
0 20 40

CALCULATED	CHECKED GPH
DATE 1/17/98	DATE 1/19/98
REVIEWED KEB	
DRAWN EMC	

RAMP B STA. 1+400 TO STA. 1+517.980

SOIL PROFILE

CRAWFORD/RICHLAND COUNTY

CRA/RIC-30-33.500/0.000

39/39

39/59

GEOLOGY OF THE SITE

GEOLOGICALLY, THE SITE LIES ON THE GLACIATED, VERY SMOOTH, MISSISSIPPI VALLEY PLAIN. BOTH THE ILLINOIAN AND WISCONSIN GLACIERS PASSED OVER THE AREA. THE QUATERNARY GEOLOGY OF OHIO MARION QUADRANGLE, OBTAINED FROM THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR), INDICATES THE SITE TRAVERSES HIRAM AND LAKE END MORAINE TILL, DEPOSITED BY THE LATE WISCONSINAN ICE SHEET. THE TOTAL SOIL STRATA IS BETWEEN APPROXIMATELY 8.5 METERS AND 12.0 METERS THICK ACROSS THE SITE. THE UNDERLYING BEDROCK CONSISTS OF BEDFORD AND OHIO SHALES.

EXPLORATION

FOUR (4) ENGINEERING TEST BORINGS, DESIGNATED SC-1 THROUGH SC-4, WERE DRILLED AT THE STATIONS AND OFFSETS SHOWN ON THE BORING LOGS. THE BORING LOCATIONS WERE DESIGNATED AND FIELD STAKED BY REPRESENTATIVES OF RESOURCE INTERNATIONAL, INCORPORATED. BORING SC-1, DRILLED TO A DEPTH OF 13.7 METERS, WAS DRILLED IN REFERENCE TO THE CONSTRUCTION OF THE REAR (WEST) ABUTMENTS. BORING SC-2, DRILLED TO A DEPTH OF 13.7 METERS, WAS DRILLED IN REFERENCE TO THE CONSTRUCTION OF THE REAR PIERS. BOREHOLE SC-3, DRILLED TO A DEPTH OF 13.7 METERS, WAS DRILLED IN REFERENCE TO THE CONSTRUCTION OF THE FORWARD PIERS. BORING SC-4, DRILLED TO A DEPTH OF 15.2 METERS, WAS DRILLED IN REFERENCE TO THE CONSTRUCTION OF THE FORWARD (EAST) ABUTMENTS. BEDROCK WAS CORED IN ALL FOUR BORINGS. THE BORINGS WERE ADVANCED WITH A TRUCK MOUNTED ROTARY DRILLING MACHINE UTILIZING 9.5-CENTIMETER (3.75-INCH) HOLLOW STEM AUGERS TO ADVANCE THE HOLES. A DOUBLE TUBE DIAMOND BIT CORE BARREL WAS USED TO CORE THE BEDROCK ENCOUNTERED. CORING PRODUCED NX-SIZED (5.3-CENTIMETER DIAMETER) CORES, FROM WHICH THE TYPE OF ROCK AND ITS GEOLOGICAL CHARACTERISTICS WERE DETERMINED. THE DRILLING WAS PERFORMED BETWEEN SEPTEMBER 29 AND OCTOBER 3, 1997.

INVESTIGATIONAL FINDINGS AND OBSERVATIONS

THE TEST BORINGS EXHIBITED 0.1 TO 0.2-METER OF TOPSOIL AT THE GROUND SURFACE, GENERALLY DESCRIBED AS DARK BROWN SILTY CLAY WITH THE PRESENCE OF ORGANICS. THE UNDERLYING SOILS ARE EXCLUSIVELY COHESIVE, GENERALLY DESCRIBED AS BROWN TO GRAY SILTY CLAY WITH LITTLE TO SOME SAND AND VARYING PERCENTAGES OF GRAVEL. A SINGLE LAYER OF GRAY COARSE TO FINE SANDY CLAY WITH SOME SILT WAS PRESENT IN SC-1 BETWEEN 6.1 METERS AND THE TOP OF BEDROCK AT 8.6 METERS (ELEVATIONS 349.8 AND 347.3 METERS). A MORE COMPREHENSIVE DESCRIPTION OF WHAT WAS ENCOUNTERED DURING THE DRILLING PROCESS MAY BE FOUND IN THE BORING LOGS IN APPENDIX C OF THE SUBSURFACE INVESTIGATION REPORT. LABORATORY TEST RESULTS AND VISUAL INSPECTION OF REPRESENTATIVE SAMPLES INDICATE THAT THE SOILS ENCOUNTERED ARE CLASSIFIED AS ODOT A-4A, A-6A, AND A-6B.

MANY SOIL PROPERTIES, INCLUDING SOIL CONSISTENCY AND SHEAR STRENGTH (OF COHESIVE SAMPLES), ARE PRIMARILY DERIVED FROM STANDARD PENETRATION BLOW COUNTS, HAND PENETROMETER READINGS (PERFORMED ON COHESIVE SAMPLES), AND UNCONFINED COMPRESSIVE STRENGTH TESTING. STANDARD PENETRATION BLOW COUNTS RECORDED DURING THE DRILLING PROCESS RANGED FROM 8 BLOWS PER 30 CENTIMETERS TO REFUSAL, INDICATING THE PRESENCE OF STIFF TO HARD COHESIVE SOILS. REFUSAL IS DEFINED AS OBTAINING IN EXCESS OF 50 BLOWS WITH LESS THAN 15 CENTIMETERS OF PENETRATION, AND WAS ENCOUNTERED PREDOMINANTLY WITHIN THE VERY SOFT SURFICIAL SHALE BEDROCK.

LABORATORY TESTS WERE PERFORMED TO DETERMINE THE "IN-SITU" UNIT WEIGHT AND THE UNCONFINED COMPRESSIVE STRENGTH OF THE SUBSURFACE SOILS. THE UNCONFINED COMPRESSIVE STRENGTH OF THE SOILS, AS OBTAINED FROM THE HAND PENETROMETER, RANGED FROM 48 KILOPASCALS TO IN EXCESS OF 431 KILOPASCALS (THE LIMIT OF THE INSTRUMENT).

NATURAL MOISTURE CONTENTS OF THE SOIL SAMPLES TESTED RANGED FROM 9% TO 19%. THE MOISTURE CONTENTS FOR THE COHESIVE SOILS RANGED FROM 1% TO 6% BELOW THEIR CORRESPONDING PLASTIC LIMITS. IN GENERAL, THE MOISTURE CONTENTS ARE CONSIDERED TO BE AT TO SLIGHTLY ABOVE THEIR CORRESPONDING OPTIMUM MOISTURE CONTENTS (DETERMINED FROM CORRELATION CHARTS).

GROUNDWATER WAS INITIALLY ENCOUNTERED DURING THE DRILLING PROCESS ON THE DRILL ROD IN SC-2 AT 5.7 METERS (ELEVATION 350.3 METERS). DUE TO THE USE OF WASH WATER DURING THE CORING PROCESS, AN ACCURATE DEPTH TO GROUNDWATER COULD NOT BE DETERMINED UPON COMPLETION OF THE DRILLING PROCESS IN ANY OF THE BORINGS. GROUNDWATER LEVELS AND/OR THE PRESENCE OF GROUNDWATER ARE CONSIDERED TO BE DEPENDENT ON THE SEASONAL FLUCTUATIONS IN PRECIPITATION. AT THE TIME OF THIS INVESTIGATION, RECENT PRECIPITATION WAS CONSIDERED TO BE NORMAL.

LEGEND

Press and/or Drive Sample and/or Core Boring Location–Plan View.

Horizontal Bar on Boring Log indicates the Depth the Sample was Taken.

X/Y/Z — Figures Beside the Boring Log in Profile indicate the Number of Blows for Standard Penetration Test.

X = Number of Blows for First 150 Millimeters

Y = Number of Blows for Second 150 Millimeters

Z = Number of Blows for Third 150 Millimeters

TCR——— Top of Competent Rock

TWR——— Top of Weathered Rock

W——— Indicates Free Water level

Particle Size Definitions

20.32cm 7.62cm 2.0mm 0.42mm 0.074mm 0.005mm

Boulders | Cobbles | Gravel | C.Sand | F.Sand | Silt | Clay

No. 10 No. 40 No. 200

Symbol Of Rock Type

WEATHERED SHALE

SHALE

THE TOP OF BEDROCK WAS ENCOUNTERED IN THE BOREHOLES AT THE FOLLOWING ELEVATIONS:

BORING NO.	STATION	OFFSET	GROUND ELEVATION	TOP OF BEDROCK	TOP OF CORED BEDROCK
SC-1	33+593	20M RT.	355.92M	347.3M	344.0M
SC-2	33+632	37M LT.	355.96M	345.6M	343.8M
SC-3	33+644	20M RT.	356.60M	----	344.7M
SC-4	33+687	23M LT.	357.76M	346.8M	345.6M

THE BEDROCK ON THE SITE IS RELATIVELY FLAT. WITH THE EXCEPTION OF SC-3, THE SURFICIAL 1.2 METERS (SC-4) TO 3.3 METERS (SC-1) OF BEDROCK WAS AUGERABLE, DESCRIBED AS GRAY TO DARK GRAY, VERY SOFT, WEATHERED SHALE. THE UNDERLYING COMPETENT (CORED) BEDROCK IS GENERALLY DESCRIBED AS DARK GRAY TO BLACK, SOFT TO MEDIUM HARD, HIGHLY BROKEN, JOINTED, SLIGHTLY WEATHERED SHALE. THE ROCK CORE RECOVERY RANGED FROM 75% [SC-3 (RC-2)], TO 77% (SC-1), TO 100% [SC-2, SC-3 (RC-1), AND SC-4]. IN SPITE OF THE HIGH RECOVERY VALUES, THE ROCK QUALITY DESIGNATION (RQD) WAS VERY POOR TO POOR, WITH RQD VALUES OF 0% IN ALL THE CORES.

IT SHOULD BE NOTED THAT RQD VALUES FOR SHALE BEDROCK CAN BE INCONCLUSIVE DUE TO THE FISSILE NATURE OF THE MATERIAL. THIS FISSILITY CAN LEAD TO EASY BREAKAGE OF THE SHALE DURING CORING PROCEDURES. WHILE AN ATTEMPT IS MADE TO ACCOUNT FOR FRESH, MANMADE BREAKS DURING TABULATION OF THE RQD ANALYSIS, MISCALCULATIONS ARE INHERENT. THIS RESULTS IN RQD VALUES WHICH MAY NOT ACCURATELY REPRESENT THE ACTUAL IN-SITU CONDITIONS.

GENERAL INFORMATION

Borings are made by means of a truck mounted rotary drilling machine. Standard Penetration testing was performed at 0.75 to 1.5 meter intervals. The Standard Penetration Test (ASTM D 1586) is conducted by using a 63.5 kg hammer falling 760 millimeters to drive a 51 millimeter O.D. split-barrel sampler 450 millimeters. Driving resistance is recorded on the boring logs in terms of blows per 150 millimeter interval of the driving distance. The second and third intervals are added to obtain the number of blows per 300 millimeters.

The boring log sheet shows graphic plot of the information obtained, including depth and elevation of the sample, number of blows for the Standard Penetration Tests in three 150 millimeter increments, field sample number, and sample description based on laboratory tests and the Ohio Department of Transportation Classification System. Results of strength and consolidation testing, if performed, appear on separate enclosures.

At depths where materials are bouldery or gravelly to the extent that the sample cannot be driven, a wash sample is procured for visual classification to determine the general character of the material. These samples are not considered sufficiently representative to warrant laboratory testing.

Note--all available soil and bedrock information which can be conveniently shown on the structure foundation investigation sheets has been so reported. Additional subsurface investigations may have been made to study some special aspect of the project. Copies of the data, if any, may be inspected in the District Deputy Director's Office (District 3), The Soils Section of the Office of Roadway Engineering, or in The Office of Bridges at 25 South Front Street, Columbus, Ohio 43215.

The purpose of this subsurface investigation is to develop soils information specifically for foundation design purposes and is not intended to be used for construction estimating or bidding. Information shown was obtained for use in establishing design criteria for the project. The accuracy of the data presented is not guaranteed by the State of Ohio or Consultant and is not to be construed as part of the plans governing construction of the project.

RESOURCE INTERNATIONAL INC.
281 ENTERPRISE DR.
WESTERVILLE, OHIO 43081
(614) 885-1959

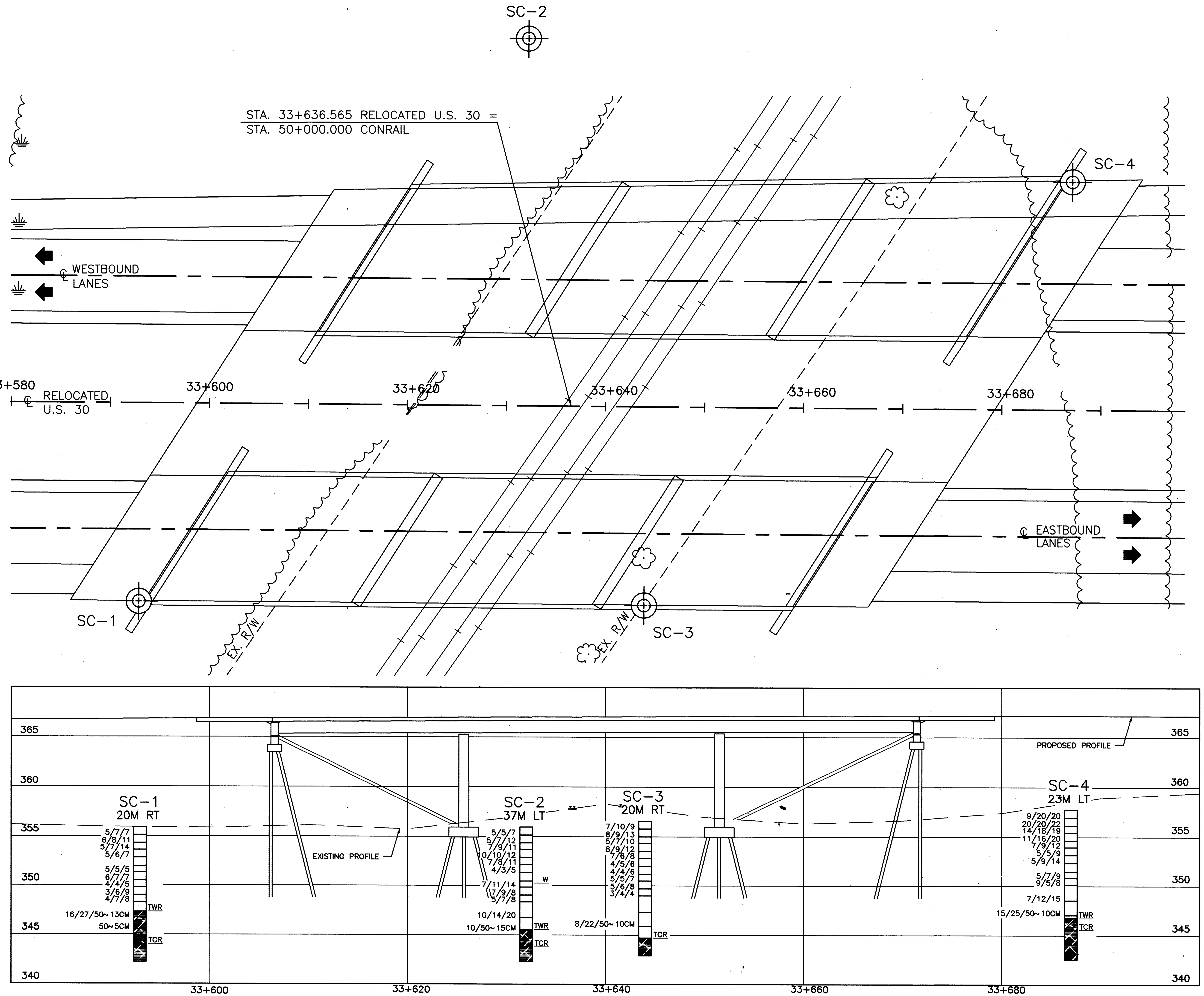
DRAWN EMC | CHECKED GPH | DATE 2/20/98 | DATE 2/23/98

STRUCTURE FOUNDATION INVESTIGATION

BRIDGE NO. RIC-30-? RELOCATED U.S. 30 OVER CONRAIL

CRA/RIC-30-33.500/0.000

RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109 FILENAME: 7109S1-1.DWG DATE: 20 FEB 1998



PROFILE SHOWN ALONG PROFILE GRADE OF EASTBOUND RELOCATED U.S. 30 OVER CONRAIL

HORIZONTAL SCALE IN METERS
0 5 10

CALCULATED EMC DATE 2/20/98
CHECKED GPH DATE 2/23/98

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. RIC-30-? RELOCATED U.S. 30 OVER CONRAIL

CRA/RIC-30-33.500/0.000

2/4

41/59

RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109 FILENAME: 710951-2.DWG DATE: 20 FEB 1998

BORING LOG: SC-1

STATION AND OFFSET: 33+593, 20M RT
SURFACE ELEVATION: 355.92M
WATER ENCOUNTERED: N/A *

DATE STARTED: 9/29/97
DATE FINISHED: 9/29/97
SAMPLER TYPE: HSA/RC

ELEV.	SAMPLE NUMBER	BLOWS PER 15 cm	REC (%)	DEPTH	SOIL DESCRIPTION	WC	ATT LIMITS LL	ATT LIMITS PI	PHYSICAL CHARACTERISTIC % AGG	% CS	% FS	% SI	% CL	ODOT CLASS
					DARK BROWN SILTY CLAY, SOME ORGANICS, LITTLE SAND (TOPSOIL). 0.1M									
355.12	SS-1	5/7/7	78%	1	BROWN TO GRAY SILTY CLAY, SOME TO LITTLE SAND, TRACE TO LITTLE GRAVEL.	16								VISUAL
354.32	SS-2	6/8/11	100%			14	28	11	7	7	14	27	45	A-6a
353.62	SS-3	5/7/14	100%	2		14								VISUAL
352.82	SS-4	5/6/7	100%	3		14								VISUAL
351.92	ST-5		100%	4		16	31	14	13	6	13	24	39	A-6a
351.32	SS-6	5/5/5	100%			17								VISUAL
350.52	SS-7	6/7/7	100%	5		16	28	11	8	6	13	32	41	A-6a
349.82	SS-8	4/4/5	94%	6	6.1M	14								VISUAL
					GRAY SANDY CLAY, SOME SILT, LITTLE GRAVEL.									
349.02	SS-9	3/6/9	100%	7		14	24	7	18	14	16	21	31	A-4a
348.32	SS-10	4/7/8	94%			15								VISUAL
				8	8.6M									
					DARK GRAY WEATHERED SHALE.									
346.72	SS-11	16/27/50~13CM	89%	9										VISUAL
				10										
345.52	SS-12	50~5CM	0%											VISUAL
				11	11.9M									
344.02	RC-1		77%	12	SHALE ; DARK GRAY TO BLACK, MEDIUM HARD, HIGHLY BROKEN, JOINTED, SLIGHTLY WEATHERED, FISSILE, CARBONACEOUS. – CORE LOSS = 23% – RQD = 0%									
				13										
342.22														

BOTTOM OF BORING = 13.7M

BORING LOG: SC-2

STATION AND OFFSET: 33+632, 37M LT
SURFACE ELEVATION: 355.96M
WATER ENCOUNTERED: SEEPAGE @ 5.7M

DATE STARTED: 10/3/97
DATE FINISHED: 10/3/97
SAMPLER TYPE: HSA/RC

ELEV.	SAMPLE NUMBER	BLOWS PER 15 cm	REC (%)	DEPTH	SOIL DESCRIPTION	WC	ATT LIMITS LL	ATT LIMITS PI	PHYSICAL CHARACTERISTIC % AGG	% CS	% FS	% SI	% CL	ODOT CLASS
					DARK BROWN SILTY CLAY, SOME ORGANICS, LITTLE SAND (TOPSOIL). 0.1M									
355.16	SS-1	5/5/7	89%	1	BROWN TO GRAY SILTY CLAY, SOME SAND, TRACE GRAVEL.	15								VISUAL
354.36	SS-2	5/7/12	100%			15	29	12	5	6	16	28	45	A-6a
353.66	SS-3	7/9/11	89%	2		16								VISUAL
352.86	SS-4	10/10/12	94%	3		15								VISUAL
352.16	SS-5	7/8/11	89%	4		15								VISUAL
351.36	SS-6	4/3/5	100%			15								VISUAL
350.46	ST-7		100%	5		17	28	12	15	12	14	23	36	A-6a
349.86	SS-8	7/11/14	89%	6		15								VISUAL
349.06	SS-9	7/9/8	100%	7		15	28	11	22	12	11	18	37	A-6a
348.36	SS-10	5/7/8	94%			16								VISUAL
				8										
346.76	SS-11	10/14/20	100%	9		14								VISUAL
				10	10.4M									
345.46	SS-12	10/50~15CM	0%		GRAY WEATHERED SHALE.									VISUAL
				11										
				12	12.2M									
343.76	RC-1		100%		SHALE ; DARK GRAY TO BLACK, SOFT, HIGHLY BROKEN, JOINTED, SLIGHTLY WEATHERED, FISSILE. – NO CORE LOSS – RQD = 0%									
				13										
342.26														

BOTTOM OF BORING = 13.7M

* AN ACCURATE DETERMINATION OF THE GROUNDWATER LEVEL UPON COMPLETION COULD NOT BE MADE DUE TO THE USE OF WASH WATER DURING THE CORING PROCESS.

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DRAWN EMC DATE 2/20/98
CHECKED GPH DATE 2/23/98

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. RIC-30-? RELOCATED U.S. 30 OVER CONRAIL

CRA/RIC-30-33.500/0.000

RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109 FILENAME: 7109S1-3.DWG DATE: 20-FEB-1998

BORING LOG: SC-3

STATION AND OFFSET: 33+644, 20M RT
SURFACE ELEVATION: 356.60M
WATER ENCOUNTERED: N/A *

DATE STARTED: 9/30/97
DATE FINISHED: 9/30/97
SAMPLER TYPE: HSA/RC

ELEV.	SAMPLE NUMBER	BLOWS PER 15 cm	REC (%)	DEPTH	SOIL DESCRIPTION	WC	ATT LIMITS LL	ATT LIMITS PI	% AGG	% CS	% FS	% SI	% CL	ODOT CLASS
					DARK BROWN SILTY CLAY, SOME SAND, LITTLE ORGANICS (TOPSOIL). 0.2M									
355.8	SS-1	7/10/9	67%	1	BROWN AND GRAY SILTY CLAY, SOME TO LITTLE SAND, SOME TO TRACE GRAVEL.	19								VISUAL
355.0	SS-2	8/9/13	100%			14	29	11	19	7	13	22	39	A-6a
354.3	SS-3	5/7/10	100%	2		14								VISUAL
353.5	SS-4	8/9/12	67%	3	3.2M	14								VISUAL
352.8	SS-5	7/6/8	83%	4	BROWN AND GRAY SILTY CLAY, SOME TO LITTLE SAND, SOME TO TRACE GRAVEL	12	23	7	13	8	14	25	32	A-4a
352.0	SS-6	4/5/6	78%			13								VISUAL
351.2	SS-7	4/4/6	100%	5		16								VISUAL
350.5	SS-8	5/5/7	67%	6		14								VISUAL
349.7	SS-9	5/6/8	100%	7		15	26	9	11	8	10	28	43	A-4a
349.0	SS-10	3/4/4	67%			14								VISUAL
				8										
347.3	ST-11		100%	9	9.5M	13	28	10	6	10	17	29	38	A-4a
				10	GRAY SILTY CLAY, TRACE GRAVEL, TRACE SAND.									
345.9	SS-12	8/22/50~10CM	100%	11		13	35	16	10	2	2	39	47	A-6b
344.7					11.9M									
	RC-1		100%	12	SHALE; DARK GRAY TO BLACK, SOFT, HIGHLY BROKEN, JOINTED, FISSILE, CARBONACEOUS, WITH INTERBEDDED COAL SEAMS. – NO CORE LOSS – RQD = 0%									
342.9	RC-2		75%	13	– CORE LOSS = 25% – RQD = 0%									

BOTTOM OF BORING = 13.7M

BORING LOG: SC-4

STATION AND OFFSET: 33+687,23M LT
SURFACE ELEVATION: 357.76M
WATER ENCOUNTERED: N/A *

DATE STARTED: 9/29/97
DATE FINISHED: 9/29/97
SAMPLER TYPE: HSA/RC

ELEV.	SAMPLE NUMBER	BLOWS PER 15 cm	REC (%)	DEPTH	SOIL DESCRIPTION	WC	ATT LIMITS LL	ATT LIMITS PI	% AGG	% CS	% FS	% SI	% CL	ODOT CLASS
					BROWN SILTY CLAY, SOME ORGANICS, LITTLE SAND, TRACE GRAVEL (TOPSOIL). 0.1M									
356.96	SS-1	9/20/20	94%	1	BROWN SILTY CLAY, LITTLE SAND, TRACE GRAVEL.	16								VISUAL
356.16	SS-2	20/20/22	89%			11								VISUAL
355.46	SS-3	14/18/19	94%	2		14								VISUAL
354.66	SS-4	11/16/20	89%	3		13	30	13	10	6	13	25	46	A-6a
353.96	AS-5	7/9/12	0%	4	4.3M	9								VISUAL
353.16	SS-6	5/5/9	39%		BROWN CLAY AND SILT, SOME SAND, LITTLE TO TRACE GRAVEL	11								VISUAL
352.36	SS-7	5/9/14	67%	5		13	25	9	12	8	16	28	36	A-4a
351.46	ST-8		100%	6										VISUAL
350.86	SS-9	5/7/9	78%	7		17								VISUAL
350.16	AS-10	9/5/8	0%	8		16								VISUAL
348.56	SS-11	7/12/15	100%	9		14	26	9	12	7	14	35	35	A-4a
				10										
347.06	SS-12	15/25/50~10CM	83%	11	11.0M									VISUAL
					DARK GRAY WEATHERED SHALE.									
				12	12.2M									
				13	SHALE; DARK GRAY TO BLACK, SOFT, HIGHLY BROKEN, SLIGHTLY WEATHERED, FISSILE, JOINTED, CARBONACEOUS. – NO CORE LOSS – RQD = 0%									
344.06														
	RC-1		100%	14										
342.56				15										

BOTTOM OF BORING = 15.2M

* AN ACCURATE DETERMINATION OF THE GROUNDWATER LEVEL UPON COMPLETION COULD NOT BE MADE DUE TO THE USE OF WASH WATER DURING THE CORING PROCESS

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DRAWN EMC DATE 2/20/98
CHECKED GPH DATE 2/23/98

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. RIC-30-? RELOCATED U.S 30 OVER CONRAIL

CRA/RIC-30-33.500/0.000

4/4

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RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109 FILENAME: 7109S1-4.DWG DATE: 20-FEB-1998

GEOLOGY OF THE SITE

GEOLOGICALLY, THE SITE LIES ON THE GLACIATED, VERY SMOOTH, MISSISSIPPI VALLEY PLAIN. BOTH THE ILLINOIAN AND WISCONSIN GLACIERS PASSED OVER THE AREA. THE QUATERNARY GEOLOGY OF OHIO MARION QUADRANGLE, OBTAINED FROM THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR), INDICATES THE SITE TRAVERSES HIRAM AND LAKE GROUND AND END MORAINE TILL, DEPOSITED BY THE LATE WISCONSINAN ICE SHEET. THE TOTAL SOIL STRATA IS BETWEEN APPROXIMATELY 8.5 METERS AND 10.5 METERS THICK ACROSS THE SITE. THE UNDERLYING BEDROCK CONSISTS OF BEDFORD AND OHIO SHALES.

EXPLORATION

THREE (3) ENGINEERING TEST BORINGS, DESIGNATED SC–5 THROUGH SC–7, WERE DRILLED AT THE STATIONS AND OFFSETS SHOWN ON THE BORING LOGS. THE BORING LOCATIONS WERE DESIGNATED AND FIELD STAKED BY REPRESENTATIVES OF RESOURCE INTERNATIONAL, INCORPORATED. BORING SC–5, DRILLED TO A DEPTH OF 13.4 METERS, WAS DRILLED IN REFERENCE TO THE CONSTRUCTION OF THE REAR (SOUTH) ABUTMENT. BORING SC–6, DRILLED TO A DEPTH OF 12.5 METERS, WAS DRILLED IN REFERENCE TO THE CONSTRUCTION OF THE PIER. BOREHOLE SC–7, DRILLED TO A DEPTH OF 13.4 METERS, WAS DRILLED IN REFERENCE TO THE CONSTRUCTION OF THE FORWARD (NORTH) ABUTMENT. BEDROCK WAS CORED IN ALL THREE BORINGS. THE BORINGS WERE ADVANCED WITH A TRUCK MOUNTED ROTARY DRILLING MACHINE UTILIZING 9.5–CENTIMETER (3.75–INCH) HOLLOW STEM AUGERS TO ADVANCE THE HOLES. A DOUBLE TUBE DIAMOND BIT CORE BARREL WAS USED TO CORE THE BEDROCK ENCOUNTERED. CORING PRODUCED NX–SIZED (5.3–CENTIMETER DIAMETER) CORES, FROM WHICH THE TYPE OF ROCK AND ITS GEOLOGICAL CHARACTERISTICS WERE DETERMINED. THE DRILLING WAS PERFORMED BETWEEN OCTOBER 15, AND OCTOBER 17, 1997.

INVESTIGATIONAL FINDINGS AND OBSERVATIONS

THE OVERBURDEN SOILS ARE PREDOMINANTLY COHESIVE, GENERALLY DESCRIBED AS BROWN TO GRAY SILTY CLAY WITH LITTLE TO SOME SAND AND SMALLER AMOUNTS OF GRAVEL (ODOT A–6A SOILS). A SINGLE LENS OF BROWN, MEDIUM PLASTICITY, CLAY WITH SOME SILT (ODOT A–7–6 SOILS) WAS PRESENT IN SC–6 IN THE TOP 4.0 METERS. BORING SC–5 EXHIBITED BROWN TO GRAY SANDY SILT WITH SOME CLAY (ODOT A–4A SOILS) BETWEEN 5.6 METERS (ELEVATION 353.0 METERS) AND THE TOP OF BEDROCK. A SINGLE LENS OF GRANULAR SOIL WAS ENCOUNTERED IN SC–6 BETWEEN 7.1 METERS (ELEVATION 352.0 METERS) AND THE TOP OF BEDROCK, DESCRIBED AS BROWN FINE GRAVEL (SHALE FRAGMENTS) WITH SOME SAND AND SOME SILTY CLAY (ODOT A–2–6 SOILS). A MORE COMPREHENSIVE DESCRIPTION OF WHAT WAS ENCOUNTERED DURING THE DRILLING PROCESS MAY BE FOUND IN THE BORING LOGS IN APPENDIX C AT THE END OF THE SUBSURFACE INVESTIGATION REPORT.

MANY SOIL PROPERTIES, INCLUDING SOIL CONSISTENCY AND SHEAR STRENGTH (OF COHESIVE SAMPLES), ARE PRIMARILY DERIVED FROM STANDARD PENETRATION BLOW COUNTS, HAND PENETROMETER READINGS (PERFORMED ON COHESIVE SAMPLES), AND UNCONFINED COMPRESSIVE STRENGTH TESTING. STANDARD PENETRATION BLOW COUNTS RECORDED DURING THE DRILLING PROCESS RANGED FROM 5 BLOWS PER 30 CENTIMETERS TO REFUSAL, INDICATING THE PRESENCE OF MEDIUM STIFF TO HARD COHESIVE SOILS AND MEDIUM DENSE TO DENSE GRANULAR SOILS. REFUSAL IS DEFINED AS OBTAINING IN EXCESS OF 50 BLOWS WITH LESS THAN 15 CENTIMETERS OF PENETRATION, AND WAS ENCOUNTERED EXCLUSIVELY WITHIN THE VERY SOFT SURFICIAL SHALE BEDROCK. THE UNCONFINED COMPRESSIVE STRENGTH OF THE SOILS, AS OBTAINED FROM THE HAND PENETROMETER, RANGED FROM 48 KILOPASCALS TO IN EXCESS OF 431 KILOPASCALS (THE LIMIT OF THE INSTRUMENT). THE LABORATORY UNCONFINED COMPRESSIVE STRENGTH TEST PERFORMED ON SAMPLE ST–7 IN SC–5 INDICATED AN "IN–SITU" UNIT WEIGHT OF 22.8 KILONEWTONS PER CUBIC METER, AND AN UNCONFINED COMPRESSIVE STRENGTH OF 190 KILOPASCALS.

NATURAL MOISTURE CONTENTS OF THE SOIL SAMPLES TESTED RANGED FROM 12% TO 30%, HOWEVER, A MAJORITY OF THE MOISTURE CONTENTS WERE LESS THAN 20%. THE MOISTURE CONTENTS FOR THE COHESIVE SOILS RANGED FROM 3% BELOW TO 11% ABOVE THEIR CORRESPONDING PLASTIC LIMITS. IN GENERAL, THE MOISTURE CONTENTS ARE CONSIDERED TO BE AT TO ABOVE THEIR CORRESPONDING OPTIMUM MOISTURE CONTENTS (DETERMINED FROM CORRELATION CHARTS).

GROUNDWATER WAS INITIALLY ENCOUNTERED DURING THE DRILLING PROCESS ON THE DRILL ROD IN SC–6 AT 7.1 METERS (ELEVATION 352.0 METERS) AND IN SC–7 AT 6.4 METERS (ELEVATION 352.8 METERS). DUE TO THE USE OF WASH WATER DURING THE CORING PROCESS, AN ACCURATE DEPTH TO GROUNDWATER COULD NOT BE DETERMINED UPON COMPLETION OF THE DRILLING PROCESS IN ANY OF THE BORINGS. THE INCONSISTENT ELEVATIONS AT WHICH GROUNDWATER WAS ENCOUNTERED INDICATES PERCHED AND/OR TRANSIENT SEAMS OF LOW VOLUME. GROUNDWATER LEVELS AND/OR THE PRESENCE OF GROUNDWATER ARE CONSIDERED TO BE DEPENDENT ON THE SEASONAL FLUCTUATIONS IN PRECIPITATION. AT THE TIME OF THIS INVESTIGATION, RECENT PRECIPITATION WAS CONSIDERED TO BE NORMAL.

LEGEND

Press and/or Drive Sample and/or Core Boring Location–Plan View.

Horizontal Bar on Boring Log indicates the Depth the Sample was Taken.

X/Y/Z — Figures Beside the Boring Log in Profile indicate the Number of Blows for Standard Penetration Test.

X = Number of Blows for First 150 Millimeters

Y = Number of Blows for Second 150 Millimeters

Z = Number of Blows for Third 150 Millimeters

TCR —— Top of Competent Rock

TWR —— Top of Weathered Rock

W —— Indicates Free Water level

Particle Size Definitions

Boulders		Cobbles		Gravel		C.Sand		F.Sand		Silt		Clay
	20.32cm		7.62cm		2.0mm (No. 10)		0.42mm (No. 40)		0.074mm (No. 200)		0.005mm	

Symbol Of Rock Type

WEATHERED SHALE

THE TOP OF BEDROCK WAS ENCOUNTERED IN THE BOREHOLES AT THE FOLLOWING ELEVATIONS:

BORING NO.	STATION	OFFSET	GROUND ELEVATION	TOP OF BEDROCK	TOP OF CORED BEDROCK
SC–5	49+964	5M LT.	358.57M	348.4M	346.7M
SC–6	50+000	5M RT.	359.14M	348.9M	348.1M
SC–7	50+036	7M RT.	359.20M	350.5M	347.3M

THE BEDROCK ON THE SITE IS RELATIVELY FLAT, SLOPING DOWNWARD SLIGHTLY TO THE SOUTH. THE SURFICIAL 0.8–METER (SC–6) TO 3.2 METERS (SC–7) OF BEDROCK WAS AUGERABLE, DESCRIBED AS GRAY, VERY SOFT, WEATHERED SHALE. THE UNDERLYING COMPETENT (CORED) BEDROCK IS GENERALLY DESCRIBED AS GRAY, SOFT, WEATHERED, FISSILE, BROKEN, JOINTED SHALE. THE ROCK CORE RECOVERY RANGED FROM 96% (SC–5) TO 100% (SC–6 AND SC–7). IN SPITE OF THE HIGH RECOVERY VALUES, THE ROCK QUALITY DESIGNATION (RQD) WAS VERY POOR, WITH RQD VALUES OF 0% IN ALL THE CORES.

GENERAL INFORMATION

Borings are made by means of a truck mounted rotary drilling machine. Standard Penetration testing was performed at 0.75 to 1.5 meter intervals. The Standard Penetration Test (ASTM D 1586) is conducted by using a 63.5 kg hammer falling 760 millimeters to drive a 51 millimeter O.D. split–barrel sampler 450 millimeters. Driving resistance is recorded on the boring logs in terms of blows per 150 millimeter interval of the driving distance. The second and third intervals are added to obtain the number of blows per 300 millimeters.

The boring log sheet shows graphic plot of the information obtained, including depth and elevation of the sample, number of blows for the Standard Penetration Tests in three 150 millimeter increments, field sample number, and sample description based on laboratory tests and the Ohio Department of Transportation Classification System. Results of strength and consolidation testing, if performed, appear on separate enclosures.

At depths where materials are bouldery or gravelly to the extent that the sample cannot be driven, a wash sample is procured for visual classification to determine the general character of the material. These samples are not considered sufficiently representative to warrant laboratory testing.

Note––all available soil and bedrock information which can be conveniently shown on the structure foundation investigation sheets has been so reported. Additional subsurface investigations may have been made to study some special aspect of the project. Copies of the data, if any, may be inspected in the District Deputy Director's Office (District 3), The Soils Section of The Office of Roadway Engineering, or in the Office of Bridges at 25 South Front Street, Columbus, Ohio 43215.

The purpose of this subsurface investigation is to develop soils information specifically for foundation design purposes and is not intended to be used for construction estimating or bidding. Information shown was obtained for use in establishing design criteria for the project. The accuracy of the data presented is not guaranteed by the State of Ohio or Consultant and is not to be construed as part of the plans governing construction of the project.

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DRAWN EMC | DATE 12/19/97
CHECKED GPH | DATE 12/22/97

STRUCTURE FOUNDATION INVESTIGATION
STATE ROUTE 61 BRIDGE OVER USR 30

CRA/RIC–30–33.543/0.000

1/3

RESOURCE INTERNATIONAL INC. PROJECT NO. W–7109 FILENAME: 7109S1–1.DWG DATE: 19 DEC 1997

EX. R/W
℄ EASTBOUND LANES
℄ CONSTRUCTION RELOCATED U.S. 30
℄ WESTBOUND LANES
+240
+260
+280
SC-5
SC-6
SC-7
℄ S.R. 61
49+960
49+980
50+000
50+020
+040
PROPOSED PROFILE
EXISTING PROFILE
SC-5 5 M LT
SC-6 5 M RT
SC-7 7 M RT
370
365
360
355
350
345
TWR
TCR
W
50+040
HORIZONTAL SCALE IN METERS
DRAWN EMC
CHECKED GPH
DATE 12/19/97
DATE 12/22/97
STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. CRA-61- OVER RELOCATED U.S. 30
CRA/RIC-30-33.500/0.000
2/3
45
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RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109
FILENAME: 710951-2.DWG DATE: 08 DEC 1997

BORING LOG: SC-5

STATION AND OFFSET: 49+964, 5 M Lt
SURFACE ELEVATION: 358.57 M
WATER ENCOUNTERED: N/A *

DATE STARTED: 10/15/97
DATE FINISHED: 10/15/97
SAMPLER TYPE: HSA/RC

ELEV.	SAMPLE NUMBER	BLOWS PER 15 cm	REC (%)	DEPTH	SOIL DESCRIPTION	WC	ATT LIMITS LL	ATT LIMITS PI	PHYSICAL CHARACTERISTIC % AGG	% CS	% FS	% SI	% CL	ODOT CLASS
					GRAY GRAVEL, TRACE SAND. 0.3									
357.87	SS-1	5/4/4	83	1	BROWN SILTY CLAY, LITTLE TO SOME SAND, TRACE GRAVEL.	17								
357.07	SS-2	2/2/3	67			27	35	15	1	4	8	39	48	A-6a
356.37	SS-3	3/6/7	67	2		16								
355.57	SS-4	6/9/13	100	3		16								
354.77	SS-5	17/14/11	44	4		16								
353.97	SS-6	5/3/4	67			15								
353.47	ST-7		100	5	5.6	14	28	11	5	9	17	26	43	A-6a
352.47	SS-8	3/3/3	100	6	BROWN TO GRAY SANDY SILT, SOME CLAY, LITTLE GRAVEL.	17	24	7	14	14	16	30	26	A-4a
351.77	SS-9	4/6/12	100	7		15								
350.97	SS-10	9/15/12	89	8		12								
349.47	SS-11	3/11/13	100	9		12								
				10	10.2									
347.97	SS-12	7/40/50~3"	22	11	GRAY WEATHERED SHALE; HARD SOIL/VERY SOFT BEDROCK.									
346.67	SS-13	50~13cm	28		11.9									
	RC-1		96	12	SHALE; GRAY, SOFT, WEATHERED, HIGHLY BROKEN, JOINTED, FISSILE.									
				13	-CORE LOSS = 4% -RQD = 0%									
345.17														

BOTTOM OF BORING = 13.4M

BORING LOG: SC-6

STATION AND OFFSET: 50+000, 5 M RT
SURFACE ELEVATION: 359.14 M
WATER ENCOUNTERED: SEEPAGE @ 7.1 M *

DATE STARTED: 10/15/97
DATE FINISHED: 10/15/97
SAMPLER TYPE: HSA/RC

ELEV.	SAMPLE NUMBER	BLOWS PER 15 cm	REC (%)	DEPTH	SOIL DESCRIPTION	WC	ATT LIMITS LL	ATT LIMITS PI	PHYSICAL CHARACTERISTIC % AGG	% CS	% FS	% SI	% CL	ODOT CLASS
					BROWN CLAY, SOME SILT, LITTLE SAND, TRACE GRAVEL.									
358.44	SS-1	6/4/4	67	1		25								
357.64	SS-2	3/3/4	33			30	42	23	3	6	10	28	53	A-7-6
356.94	SS-3	2/4/5	100	2		25								
356.14	SS-4	2/3/2	100	3		20								
355.34	SS-5	2/5/6	100	4	BROWN SILTY CLAY, LITTLE SAND, TRACE GRAVEL.	18								
354.54	SS-6	6/8/11	100			14								
353.84	SS-7	3/5/7	100	5		16	27	11	3	5	12	36	44	A-6a

BORING SC-6 IS CONTINUED ON THIS SHEET

BORING LOG SC-6 (CONTINUED)

ELEV.	SAMPLE NUMBER	BLOWS PER 15 cm	REC (%)	DEPTH	SOIL DESCRIPTION	WC	ATT LIMITS LL	ATT LIMITS PI	PHYSICAL CHARACTERISTIC % AGG	% CS	% FS	% SI	% CL	ODOT CLASS
353.04	SS-8	3/6/7	67			15								
352.34	SS-9	3/3/5	67	7	7.1	16								
351.54	SS-10	8/5/8	17	8	BROWN GRAVEL (WEATHERED SHALE FRAGMENTS), SOME SAND, SOME SILTY CLAY.	16								
349.94	SS-11	15/27/20	33	9		12			41	18	12	-29-		VISUAL
				10	10.2									
348.54	SS-12	42/50~8cm	22		GRAY WEATHERED SHALE. HARD SOIL/VERY SOFT BEDROCK. 11.0									
	RC-1		100	11	SHALE; GRAY AND BROWN, SOFT, WEATHERED, FISSILE, JOINTED, HIGHLY BROKEN.									
				12	-NO CORE LOSS -RQD = 0%									
346.64														

BOTTOM OF BORING = 12.5M

BORING LOG: SC-7

STATION AND OFFSET: 50+036, 7 M Rt.
SURFACE ELEVATION: 359.20 M
WATER ENCOUNTERED: SEEPAGE @ 6.4 M *

DATE STARTED: 10/17/97
DATE FINISHED: 10/17/97
SAMPLER TYPE: HSA/RC

ELEV.	SAMPLE NUMBER	BLOWS PER 15 cm	REC (%)	DEPTH	SOIL DESCRIPTION	WC	ATT LIMITS LL	ATT LIMITS PI	PHYSICAL CHARACTERISTIC % AGG	% CS	% FS	% SI	% CL	ODOT CLASS
					REDDISH-BROWN CLAYEY SILT, SOME SAND, SOME ORGANICS (TOPSOIL). 0.2									
358.50	SS-1	6/7/9	100	1	BROWN TO GRAY SILTY CLAY, SOME TO LITTLE SAND, TRACE GRAVEL.	14								
357.70	SS-2	9/10/14	100			16	29	11	4	7	19	-70-		A-6a
357.00	SS-3	6/10/16	100	2		14								
356.20	SS-4	6/16/17	100	3		15								
355.40	SS-5	5/8/9	100	4		15	27	12	7	5	12	34	42	A-6a
354.60	SS-6	3/4/6	56	5		14								
353.90	SS-7	3/3/6	100			15								
353.10	SS-8	5/7/11	67	6		13								
352.40	SS-9	7/9/9	100	7										
351.60	SS-10	7/8/9	67	8	8.7	13								
350.10	SS-11	11/27/50~13cm	100	9	GRAY WEATHERED SHALE. HARD SOIL/SOFT BEDROCK.									
348.80	SS-12	50~13cm	28	10										
				11	11.9									
	RC-1		100	12	SHALE; GRAY, SOFT, WEATHERED, FISSILE, JOINTED, BROKEN, CARBONACEOUS.									
				13	-NO CORE LOSS -RQD = 0%									
345.80														

BOTTOM OF BORING = 13.4M

* THE GROUNDWATER LEVEL UPON COMPLETION OF THE DRILLING PROCESS COULD NOT BE DETERMINED DUE TO THE USE OF WASH WATER DURING THE DRILLING PROCESS.

RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109 FILENAME: 7109S1-3.DWG DATE: 08-DEC-1997

RESOURCE INTERNATIONAL INC.
281 ENTERPRISE DR.
WESTERVILLE, OHIO 43081
(614) 885-1959

DRAWN EMC CHECKED GPH
DATE 12/19/97 DATE 12/22/97

STRUCTURE FOUNDATION INVESTIGATION

STATE ROUTE 61 BRIDGE OVER USR 30

CRA\RIC-30-33.543/0.000

3/3

GEOLOGY OF THE SITE

GEOLOGICALLY, THE SITE LIES ON THE GLACIATED, VERY SMOOTH, MISSISSIPPI VALLEY PLAIN. BOTH THE ILLINOIAN AND WISCONSIN GLACIERS PASSED OVER THE AREA. THE QUATERNARY GEOLOGY OF OHIO MARION QUADRANGLE, OBTAINED FROM THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR), INDICATES THE SITE TRAVERSES HIRAM AND LAKE GROUND AND END MORAINE TILL, DEPOSITED BY THE LATE WISCONSINAN ICE SHEET. THE TOTAL SOIL STRATA IS BETWEEN APPROXIMATELY 8.7 METERS AND 10.2 METERS THICK ACROSS THE SITE. THE UNDERLYING BEDROCK CONSISTS OF SANDSTONE AND SHALE OF THE WAVERLY GROUP.

EXPLORATION

THREE (3) ENGINEERING TEST BORINGS, DESIGNATED SC-8 THROUGH SC-10, WERE DRILLED AT THE STATIONS AND OFFSETS SHOWN ON THE BORING LOGS. THE BORING LOCATIONS WERE DESIGNATED AND FIELD STAKED BY REPRESENTATIVES OF RESOURCE INTERNATIONAL, INCORPORATED. BORING SC-8, DRILLED TO A DEPTH OF 13.4 METERS, WAS DRILLED IN REFERENCE TO THE CONSTRUCTION OF THE REAR (SOUTH) ABUTMENT. BORING SC-9, DRILLED TO A DEPTH OF 12.5 METERS, WAS DRILLED IN REFERENCE TO THE CONSTRUCTION OF THE PIER. BOREHOLE SC-10, DRILLED TO A DEPTH OF 10.5 METERS, WAS DRILLED IN REFERENCE TO THE CONSTRUCTION OF THE FORWARD (NORTH) ABUTMENT. BEDROCK WAS CORED IN ALL THREE BORINGS. THE BORINGS WERE ADVANCED WITH A TRUCK MOUNTED ROTARY DRILLING MACHINE UTILIZING 9.5-CENTIMETER (3.75-INCH) HOLLOW STEM AUGERS TO ADVANCE THE HOLES. A DOUBLE TUBE DIAMOND BIT CORE BARREL WAS USED TO CORE THE BEDROCK ENCOUNTERED. CORING PRODUCED NX-SIZED (5.3-CENTIMETER DIAMETER) CORES, FROM WHICH THE TYPE OF ROCK AND ITS GEOLOGICAL CHARACTERISTICS WERE DETERMINED. THE DRILLING WAS PERFORMED BETWEEN OCTOBER 13, 1997 AND OCTOBER 14, 1997.

INVESTIGATIONAL FINDINGS AND OBSERVATIONS

THE TEST BORINGS EXHIBITED 0.2 TO 0.3-METER OF TOPSOIL AT THE GROUND SURFACE, GENERALLY DESCRIBED AS DARK BROWN SILTY CLAY WITH THE PRESENCE OF ORGANICS. THE UNDERLYING SOILS ARE PREDOMINANTLY COHESIVE, GENERALLY DESCRIBED AS BROWN TO GRAY SILTY CLAY (CLAYEY SILT) WITH LITTLE TO SOME SAND AND SMALLER AMOUNTS OF GRAVEL. A SINGLE LENS OF BROWN COARSE TO FINE SANDY CLAY WITH SOME SILT WAS PRESENT IN SC-9 BETWEEN 2.6 AND 4.1 METERS (ELEVATIONS 377.2 AND 375.7 METERS). A SINGLE LENS OF GRANULAR SOIL WAS ENCOUNTERED IN SC-9 BETWEEN 5.7 AND 6.4 METERS (ELEVATION 374.1 AND 373.4 METERS), DESCRIBED AS BROWN FINE TO COARSE SAND AND FINE GRAVEL. A MORE COMPREHENSIVE DESCRIPTION OF WHAT WAS ENCOUNTERED DURING THE DRILLING PROCESS MAY BE FOUND IN THE BORING LOGS IN APPENDIX C AT THE END OF THE SUBSURFACE INVESTIGATION REPORT. LABORATORY TEST RESULTS AND VISUAL INSPECTION OF REPRESENTATIVE SAMPLES INDICATE THAT THE SOILS ENCOUNTERED ARE CLASSIFIED AS ODOT A-4A, A-6A, A-6B, AND A-1-B.

MANY SOIL PROPERTIES, INCLUDING SOIL CONSISTENCY AND SHEAR STRENGTH (OF COHESIVE SAMPLES), ARE PRIMARILY DERIVED FROM STANDARD PENETRATION BLOW COUNTS, HAND PENETROMETER READINGS (PERFORMED ON COHESIVE SAMPLES), AND UNCONFINED COMPRESSIVE STRENGTH TESTING. STANDARD PENETRATION BLOW COUNTS RECORDED DURING THE DRILLING PROCESS RANGED FROM 8 BLOWS PER 30 CENTIMETERS TO REFUSAL, INDICATING THE PRESENCE OF STIFF TO HARD COHESIVE SOILS. REFUSAL IS DEFINED AS OBTAINING IN EXCESS OF 50 BLOWS WITH LESS THAN 15 CENTIMETERS OF PENETRATION, AND WAS ENCOUNTERED EXCLUSIVELY WITHIN THE VERY SOFT SURFICIAL SHALE BEDROCK. THE UNCONFINED COMPRESSIVE STRENGTH OF THE SOILS, AS OBTAINED FROM THE HAND PENETROMETER, RANGED FROM 24 KILOPASCALS TO IN EXCESS OF 431 KILOPASCALS (THE LIMIT OF THE INSTRUMENT). THE LABORATORY UNCONFINED COMPRESSIVE STRENGTH TEST PERFORMED ON SAMPLE ST-3 IN SC-8 INDICATED AN "IN-SITU" UNIT WEIGHT OF 22.1 KILONEWTONS PER CUBIC METER, AND AN UNCONFINED COMPRESSIVE STRENGTH OF 357 KILOPASCALS.

NATURAL MOISTURE CONTENTS OF THE SOIL SAMPLES TESTED RANGED FROM 12% TO 22%, HOWEVER, A MAJORITY OF THE MOISTURE CONTENTS WERE LESS THAN 20%. THE MOISTURE CONTENTS FOR THE COHESIVE SOILS RANGED FROM 2% BELOW TO 5% ABOVE THEIR CORRESPONDING PLASTIC LIMITS. IN GENERAL, THE MOISTURE CONTENTS ARE CONSIDERED TO BE AT TO SLIGHTLY ABOVE THEIR CORRESPONDING OPTIMUM MOISTURE CONTENTS (DETERMINED FROM CORRELATION CHARTS).

GROUNDWATER WAS INITIALLY ENCOUNTERED DURING THE DRILLING PROCESS ON THE DRILL ROD IN SC-8 AT 6.1 METERS (ELEVATION 374.1 METERS), IN SC-9 AT 5.7 METERS (ELEVATION 374.1 METERS), AND IN SC-10 AT 3.3 METERS (ELEVATION 375.0 METERS). DUE TO THE USE OF WASH WATER DURING THE CORING PROCESS, AN ACCURATE DEPTH TO GROUNDWATER COULD NOT BE DETERMINED UPON COMPLETION OF THE DRILLING PROCESS IN ANY OF THE BORINGS. GROUNDWATER LEVELS AND/OR THE PRESENCE OF GROUNDWATER ARE CONSIDERED TO BE DEPENDENT ON THE SEASONAL FLUCTUATIONS IN PRECIPITATION. AT THE TIME OF THIS INVESTIGATION, RECENT PRECIPITATION WAS CONSIDERED TO BE NORMAL.

LEGEND

Press and/or Drive Sample and/or Core Boring Location—Plan View.

Horizontal Bar on Boring Log indicates the Depth the Sample was Taken.

X/Y/Z — Figures Beside the Boring Log in Profile indicate the Number of Blows for Standard Penetration Test.

X = Number of Blows for First 150 Millimeters

Y = Number of Blows for Second 150 Millimeters

Z = Number of Blows for Third 150 Millimeters

TCR—— Top of Competent Rock

TWR—— Top of Weathered Rock

W—— Indicates Free Water level

Particle Size Definitions

20.32cm 7.62cm 2.0mm 0.42mm 0.074mm 0.005mm

Boulders | Cobbles | Gravel | C.Sand | F.Sand | Silt | Clay

No. 10 No. 40 No. 200

SANDSTONE

WEATHERED SHALE

THE BEDROCK ON THE SITE IS RELATIVELY FLAT, SLOPING DOWNWARD SLIGHTLY TO THE NORTH. THE SURFICIAL 0.3-METER (SC-10) TO 1.7 METERS (SC-8) OF BEDROCK WAS AUGERABLE, DESCRIBED AS GRAY, VERY SOFT, WEATHERED SHALE. THE UNDERLYING COMPETENT (CORED) BEDROCK IN SC-9 AND SC-10 IS GENERALLY DESCRIBED AS GRAY, SOFT TO MEDIUM HARD, FINE-GRAINED, SLIGHTLY BROKEN, SLIGHTLY JOINTED SANDSTONE. THE CORED BEDROCK IN SC-8 IS DESCRIBED AS GRAY, MEDIUM HARD, FINE-GRAINED, JOINTED, HIGHLY BROKEN SANDSTONE INTERBEDDED WITH GRAY, SOFT TO MEDIUM HARD, WEATHERED, FISSILE, HIGHLY BROKEN SHALE. THE ROCK CORE RECOVERY RANGED FROM 86% (SC-8) TO 100% (SC-9 AND SC-10). IN SPITE OF THE HIGH RECOVERY VALUES, THE ROCK QUALITY DESIGNATION (RQD) WAS VERY POOR TO POOR, WITH RQD VALUES OF 0% IN SC-8, 23% IN SC-9, AND 34% IN SC-10. THE COMPRESSIVE STRENGTH OF THE SANDSTONE IN SC-9, TESTED AT ELEVATION 367.6 METERS, WAS 40.2 MEGAPASCALS.

GENERAL INFORMATION

Borings are made by means of a truck mounted rotary drilling machine. Standard Penetration testing was performed at 0.75 to 1.5 meter intervals. The Standard Penetration Test (ASTM D 1586) is conducted by using a 63.5 kg hammer falling 760 millimeters to drive a 51 millimeter O.D. split-barrel sampler 450 millimeters. Driving resistance is recorded on the boring logs in terms of blows per 150 millimeter interval of the driving distance. The second and third intervals are added to obtain the number of blows per 300 millimeters.

The boring log sheet shows graphic plot of the information obtained, including depth and elevation of the sample, number of blows for the Standard Penetration Tests in three 150 millimeter increments, field sample number, and sample description based on laboratory tests and the Ohio Department of Transportation Classification System. Results of strength and consolidation testing, if performed, appear on separate enclosures.

At depths where materials are bouldery or gravelly to the extent that the sample cannot be driven, a wash sample is procured for visual classification to determine the general character of the material. These samples are not considered sufficiently representative to warrant laboratory testing.

Note—all available soil and bedrock information which can be conveniently shown on the structure foundation investigation sheets has been so reported. Additional subsurface investigations may have been made to study some special aspect of the project. Copies of the data, if any, may be inspected in the District Deputy Director's Office (District 3), The Soils Section of the Office of Roadway Engineering or in the Office of Bridges at 25 South Front Street, Columbus, Ohio.

The purpose of this subsurface investigation is to develop soils information specifically for foundation design purposes and is not intended to be used for construction estimating or bidding. Information shown was obtained for use in establishing design criteria for the project. The accuracy of the data presented is not guaranteed by the State of Ohio or Consultant and is not to be construed as part of the plans governing construction of the project.

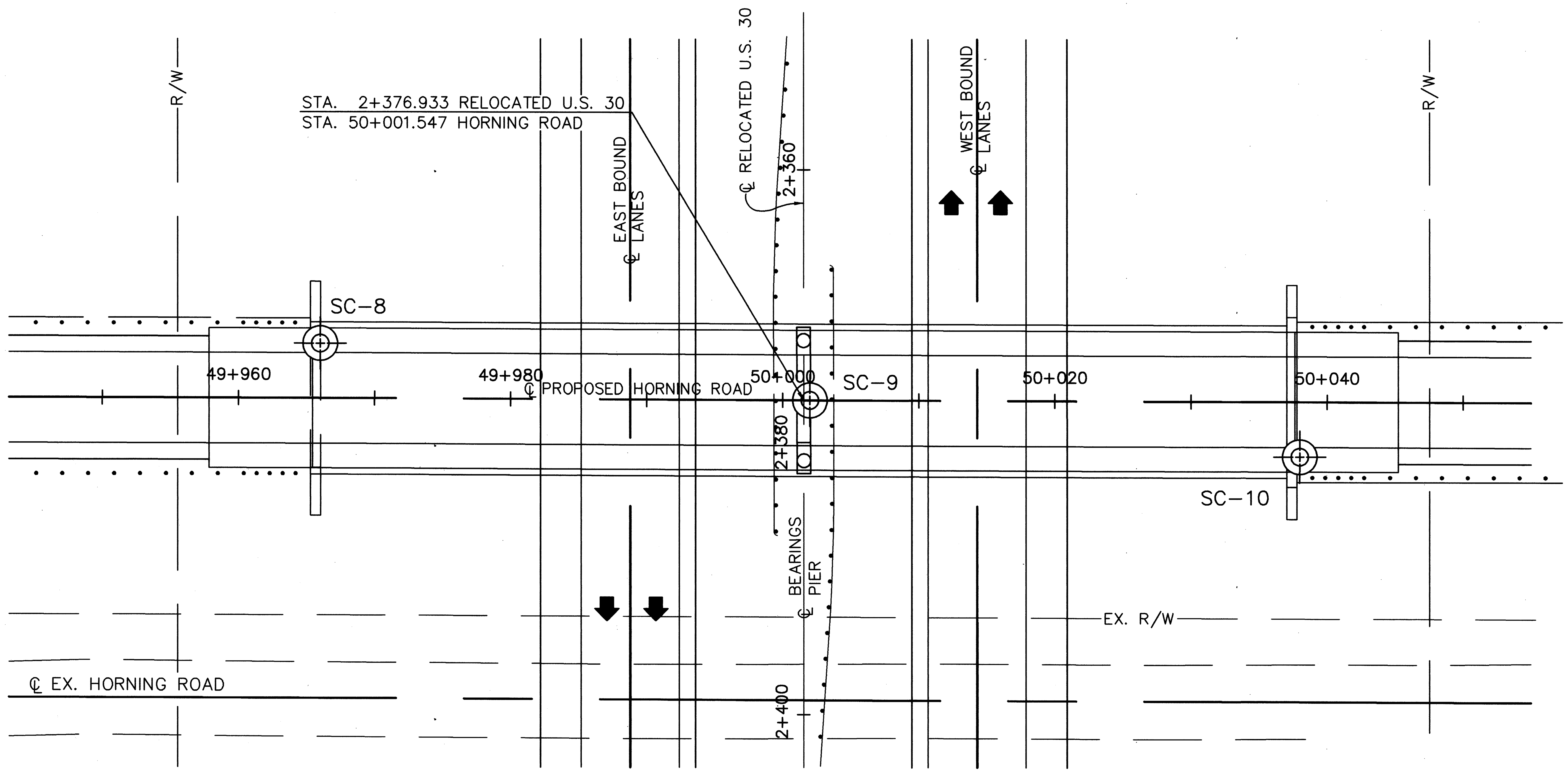
RESOURCE INTERNATIONAL INC.
281 ENTERPRISE DR.
WESTERVILLE, OHIO 43081
(614) 885-1959

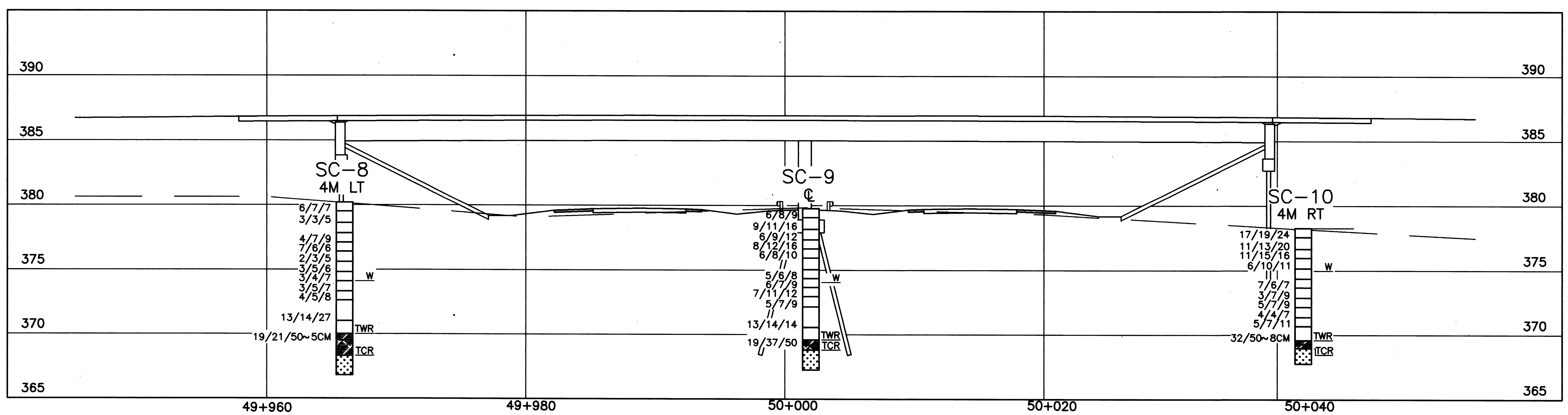
DRAWN EMC DATE 1/20/98
CHECKED GPH DATE 1/20/98

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. CRA-30-240.006 OVER RELOCATED U.S. 30

CRA/RIC-30-33.500/0.00

RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109 FILENAME: 7109S2-1.DWG DATE: 19 JAN 1998





STRUCTURE FOUNDATION INVESTIGATION

BRIDGE NO. CRA-30-240.006 OVER RELOCATED U.S. 30

HORIZONTAL SCALE IN METERS

DRAWN EMC DATE 1/19/98

CHECKED GPH DATE 1/20/98

CRA/RIC-30-33.500/0.000

2/4

48/59

RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109 FILENAME: 7109S2-2.DWG DATE: 19_JAN_1998

BORING LOG: SC-8

STATION AND OFFSET: 49+966, 4M Lt
SURFACE ELEVATION: 380.21M
WATER ENCOUNTERED: SEEPAGE @ 6.1M *

DATE STARTED: 10/13/97
DATE FINISHED: 10/13/97
SAMPLER TYPE: HSA/RC

ELEV.	SAMPLE NUMBER	BLOWS PER 15 cm	REC (%)	DEPTH	SOIL DESCRIPTION	WC	ATT LIMITS LL	ATT LIMITS PI	PHYSICAL CHARACTERISTIC % AGG	% CS	% FS	% SI	% CL	ODOT CLASS
					DARK BROWN SILTY CLAY, LITTLE SAND, LITTLE ORGANICS, TRACE GRAVEL (TOPSOIL). 0.2M									
379.51	SS-1	6/7/7	100%	1	BROWN SILTY CLAY, LITTLE SAND, TRACE GRAVEL.	20								VISUAL
378.61	SS-2	3/3/5	89%	2	1.5M BROWN CLAYEY SILT, LITTLE SAND, LITTLE GRAVEL.	20	27	12						VISUAL
377.81	ST-3		100%			14	25	11	10	3	8	58	21	A-6a
377.11	SS-4	4/7/9	89%	3		13								VISUAL
376.41	SS-5	7/6/6	33%	4	4.1M	13								VISUAL
375.61	SS-6	2/3/5	100%		BROWNISH-GRAY TO GRAY SILTY CLAY, SOME SAND, LITTLE GRAVEL.	14								VISUAL
374.81	SS-7	3/5/6	100%	5		15	22	7	10	10	17	29	34	A-4a
374.11	SS-8	3/4/7	100%	6		12								VISUAL
373.31	SS-9	3/5/7	100%	7		13								VISUAL
372.61	SS-10	4/5/8	83%	8		14								VISUAL
371.01	SS-11	13/14/27	83%	9		13								VISUAL
				10	10.2M									
369.51	SS-12	19/21/50~5CM	67%	11	GRAY HIGHLY WEATHERED SHALE.									VISUAL
					11.9M									
368.31	RC-1		14%	12	SANDSTONE (60%); GRAY, MEDIUM HARD, FINE GRAINED, JOINTED, HIGHLY BROKEN, INTERBEDDED SHALE (40%); GRAY, SOFT TO MEDIUM HARD, WEATHERED, FISSILE, HIGHLY BROKEN. - CORE LOSS = 86% - RQD = 0%									
366.81				13										

BOTTOM OF BORING = 13.4M

BORING LOG: SC-9

STATION AND OFFSET: 50+002, CL
SURFACE ELEVATION: 379.76M
WATER ENCOUNTERED: SEEPAGE @ 5.7M *

DATE STARTED: 10/14/97
DATE FINISHED: 10/14/97
SAMPLER TYPE: HSA/RC

ELEV.	SAMPLE NUMBER	BLOWS PER 15 cm	REC (%)	DEPTH	SOIL DESCRIPTION	WC	ATT LIMITS LL	ATT LIMITS PI	PHYSICAL CHARACTERISTIC % AGG	% CS	% FS	% SI	% CL	ODOT CLASS
					DARK BROWN SILTY CLAQY, SOME SAND, TRACE GRAVEL (TOPSOIL). 0.3M									
379.06	SS-1	6/8/9	67%	1	BROWN SILTY CLAY, LITTLE SAND, TRACE GRAVEL.	18	38	19	6	4	13	29	48	A-6b
378.16	SS-2	9/11/16	100%	2		14								VISUAL
377.36	SS-3	6/9/12	100%		2.6M	14								VISUAL
376.66	SS-4	8/12/16	100%	3	BROWN SANDY CLAY, SOME SILT, TRACE GRAVEL.	13	25	10	7	7	20	-66-		A-4a
375.96	SS-5	6/8/10	100%	4	4.1M	13								VISUAL
375.06	ST-6		100%	5	BROWNISH-GRAY SILTY CLAY, SOME SAND, LITTLE GRAVEL.	16	29	13	14	8	14	28	36	A-6a
374.36	SS-7	5/6/8	100%		5.7M	12								VISUAL
373.66	SS-8	6/7/9	83%	6	BROWN SAND AND GRAVEL, LITTLE SILT. 6.4M	14			49	24	12	-15-		A-1-b
372.96	SS-9	7/11/12	33%	7	BROWN SILTY CLAY, SOME SAND, LITTLE GRAVEL.	22								VISUAL
372.16	SS-10	5/7/9	67%	8		19	25	9	11	10	16	27	36	A-4a
370.56	SS-11	13/14/14	78%	9		15								VISUAL
				10	10.2M									
369.16	SS-12	19/37/50	100%		GRAY HIGHLY WEATHERED SHALE. 11.0M									VISUAL
368.76	RC-1		100%	11	SANDSTONE; GRAY, MEDIUM HARD TO SOFT, FINE GRAINED, SLIGHTLY JOINTED, BROKEN, WITH THIN SHALE INTERBEDS (LESS THAN 3.0 CM THICK). - NO CORE LOSS - RQD = 23% - qr(@ 12.2m) = 40.2 MPa									
367.26				12										

BOTTOM OF BORING = 12.5M

* AN ACCURATE DETERMINATION OF THE GROUNDWATER LEVEL UPON COMPLETION COULD NOT BE MADE DUE TO THE USE OF WASH WATER DURING THE CORING PROCESS.

RESOURCE INTERNATIONAL INC.
281 ENTERPRISE DR.
WESTERVILLE, OHIO 43081
(614) 885-1959

DRAWN EMC | DATE 1/20/98
CHECKED GPH | DATE 1/2-/98

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. CRA-30-240.006 OVER RELOCATED U.S. 30

CRA/RIC-30-33.500/0.000

3/4

RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109 FILENAME: 7109S2-3.DWG DATE: 20-JAN-1998

BORING LOG: SC-10

STATION AND OFFSET: 50+038, 4M Rt
SURFACE ELEVATION: 378.28M
WATER ENCOUNTERED: SEEPAGE @ 3.3M *

DATE STARTED: 10/14/97
DATE FINISHED: 10/14/97
SAMPLER TYPE: HSA/RC

ELEV.	SAMPLE NUMBER	BLOWS PER 15 cm	REC (%)	DEPTH	SOIL DESCRIPTION	WC	ATT LIMITS LL	ATT LIMITS PI	PHYSICAL CHARACTERISTIC % AGG	% CS	% FS	% SI	% CL	ODOT CLASS
					REDDISH-BROWN SILTY CLAY, SOME SAND, TRACE GRAVEL (TOPSOIL). 0.2M									
377.58	SS-1	17/19/24	100%	1	BROWN SILTY CLAY, LITTLE SAND, TRACE GRAVEL.	16	35	17	3	4	10	32	51	A-6b
376.68	SS-2	11/13/20	89%			15								VISUAL
375.98	SS-3	11/15/16	100%	2		14								VISUAL
375.18	SS-4	6/10/11	94%	3		12								VISUAL
374.38	ST-5		100%	4		20	37	20	6	9	14	31	40	A-6b
373.68	SS-6	7/6/7	94%			13								VISUAL
372.88	SS-7	3/7/9	100%	5		15								VISUAL
372.18	SS-8	5/7/9	100%	6		13								VISUAL
371.38	SS-9	4/4/7	100%	7		17								VISUAL
370.68	SS-10	5/7/11	56%	8	8.7M	12								VISUAL
369.28	SS-10	32/50~8CM	78%	9	GRAY HIGHLY WEATHERED SHALE. 9.0M									VISUAL
	RC-1		100%		SHALE; GRAY, SOFT, WEATHERED, FISSILE, HIGHLY BROKEN, JOINTED. 9.3M									
367.78				10	SANDSTONE; GRAY, SOFT TO MEDIUM HARD, FINE GRAINED, SLIGHTLY BROKEN, JOINTED, WITH THIN SHALE INTERBEDS (LESS THAN 3.0 CM THICK). – NO CORE LOSS – RQD = 34%									

BOTTOM OF BORING = 10.5M

* AN ACCURATE DETERMINATION OF THE GROUNDWATER LEVEL UPON COMPLETION COULD NOT BE MADE DUE TO THE USE OF WASH WATER DURING THE CORING PROCESS.

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-7109
FILENAME: 7109S2-4.DWG
DATE: 20-JAN-1998

RESOURCE INTERNATIONAL INC.
281 ENTERPRISE DR.
WESTERVILLE, OHIO 43081
(614) 885-1959

DRAWN EMC DATE 1/20/98
CHECKED GPH DATE 1/20/98

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. CRA-30-240.006 OVER RELOCATED U.S. 30

CRA/RIC-30-33.500/0.000

GEOLOGY OF THE SITE

GEOLOGICALLY, THE SITE LIES ON THE GLACIATED, VERY SMOOTH, MISSISSIPPI VALLEY PLAIN. BOTH THE ILLINOIAN AND WISCONSIN GLACIERS PASSED OVER THE AREA. THE QUATERNARY GEOLOGY OF OHIO MARION QUADRANGLE, OBTAINED FROM THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR), INDICATES THE SITE TRAVERSES HIRAM AND LAKE GROUND AND END MORAINE TILL, DEPOSITED BY THE LATE WISCONSINAN ICE SHEET. THE TOTAL SOIL STRATA IS BETWEEN APPROXIMATELY 14.8 METERS AND 18.3 METERS THICK ACROSS THE SITE. THE UNDERLYING BEDROCK CONSISTS OF SANDSTONE AND SHALE OF THE WAVERLY GROUP.

EXPLORATION

THREE (3) ENGINEERING TEST BORINGS, DESIGNATED SC-11 THROUGH SC-13, WERE DRILLED AT THE STATIONS AND OFFSETS SHOWN ON THE BORING LOGS. THE BORING LOCATIONS WERE DESIGNATED AND FIELD STAKED BY REPRESENTATIVES OF RESOURCE INTERNATIONAL, INCORPORATED. BORING SC-11, DRILLED TO A DEPTH OF 19.5 METERS, WAS DRILLED IN REFERENCE TO THE CONSTRUCTION OF THE REAR (WEST) ABUTMENT. BORING SC-12, DRILLED TO A DEPTH OF 21.3 METERS, WAS DRILLED IN REFERENCE TO THE CONSTRUCTION OF THE PIER. BOREHOLE SC-13, DRILLED TO A DEPTH OF 19.8 METERS, WAS DRILLED IN REFERENCE TO THE CONSTRUCTION OF THE FORWARD (EAST) ABUTMENT. BEDROCK WAS CORED IN ALL THREE BORINGS. THE BORINGS WERE ADVANCED WITH A TRUCK MOUNTED ROTARY DRILLING MACHINE UTILIZING HOLLOW STEM AUGERS TO ADVANCE THE HOLES. A DOUBLE TUBE DIAMOND BIT CORE BARREL WAS USED TO CORE THE BEDROCK ENCOUNTERED. CORING PRODUCED NX-SIZED (5.3-CENTIMETER DIAMETER) CORES, FROM WHICH THE TYPE OF ROCK AND ITS GEOLOGICAL CHARACTERISTICS WERE DETERMINED. THE DRILLING WAS PERFORMED BETWEEN OCTOBER 15, AND OCTOBER 30, 1997.

INVESTIGATIONAL FINDINGS AND OBSERVATIONS

TEST BORINGS SC-12 AND SC-13, DRILLED JUST NORTH OF THE STATE ROUTE 181, EXHIBITED 0.2-METER OF TOPSOIL AT THE GROUND SURFACE, DESCRIBED AS DARK BROWN SILTY CLAY WITH THE PRESENCE OF ORGANICS. BORING SC-11, DRILLED THROUGH THE EXISTING ROADWAY, EXHIBITED 23 CENTIMETERS OF ASPHALT OVERLYING 8 CENTIMETERS OF SAND AND GRAVEL BASE. THE UNDERLYING SOILS ARE PREDOMINANTLY COHESIVE, GENERALLY DESCRIBED AS BROWN SILTY CLAY (CLAYEY SILT) WITH LITTLE TO SOME SAND AND TRACE AMOUNTS OF GRAVEL. A SINGLE LAYER OF BROWN, HIGH PLASTICITY, CLAY WITH SOME SILT WAS PRESENT IN THE TOP 3.4 METERS IN SC-11. BOREHOLES SC-12 AND SC-13 EXHIBITED BROWN, NON-PLASTIC, FINE SANDY SILT (SILTY SAND) WITH VARYING PERCENTAGES OF CLAY AND FINE GRAVEL BELOW 10.2 METERS (APPROXIMATELY ELEVATION 385 METERS). A SINGLE LENS OF GRANULAR SOIL WAS ENCOUNTERED IN SC-13 BETWEEN 8.5 AND 10.2 METERS (ELEVATIONS 387.34 AND 385.64 METERS), DESCRIBED AS BROWN FINE TO COARSE SAND AND COARSE TO FINE GRAVEL WITH SOME SILTY CLAY. A MORE COMPREHENSIVE DESCRIPTION OF WHAT WAS ENCOUNTERED DURING THE DRILLING PROCESS MAY BE FOUND IN THE BORING LOGS AT THE END OF THE SUBSURFACE INVESTIGATION REPORT. LABORATORY TEST RESULTS AND VISUAL INSPECTION OF REPRESENTATIVE SAMPLES INDICATE THAT THE SOILS ENCOUNTERED ARE CLASSIFIED AS ODOT A-4a, A-6a, A-6b, AND A-1-b.

MANY SOIL PROPERTIES, INCLUDING SOIL CONSISTENCY AND SHEAR STRENGTH (OF COHESIVE SAMPLES), ARE PRIMARILY DERIVED FROM STANDARD PENETRATION BLOW COUNTS AND HAND PENETROMETER READINGS (PERFORMED ON COHESIVE SAMPLES). STANDARD PENETRATION BLOW COUNTS RECORDED DURING THE DRILLING PROCESS RANGED FROM 4 BLOWS PER 30 CENTIMETERS TO REFUSAL, INDICATING THE PRESENCE OF MEDIUM STIFF TO HARD COHESIVE SOILS AND MEDIUM DENSE GRANULAR SOILS. REFUSAL IS DEFINED AS OBTAINING IN EXCESS OF 50 BLOWS WITH LESS THAN 15 CENTIMETERS OF PENETRATION, AND WAS ENCOUNTERED EXCLUSIVELY WITHIN THE VERY SOFT SURFICIAL SHALE BEDROCK. THE UNCONFINED COMPRESSIVE STRENGTH OF THE SOILS, AS OBTAINED FROM THE HAND PENETROMETER, RANGED FROM 72 KILOPASCALS TO IN EXCESS OF 431 KILOPASCALS (THE LIMIT OF THE INSTRUMENT).

NATURAL MOISTURE CONTENTS OF THE SOIL SAMPLES TESTED RANGED FROM 11% TO 28%, HOWEVER, A MAJORITY OF THE MOISTURE CONTENTS WERE LESS THAN 20%. THE MOISTURE CONTENTS FOR THE COHESIVE SOILS RANGED FROM 3% BELOW TO 12% ABOVE THEIR CORRESPONDING PLASTIC LIMITS, AND IN THE CASE OF SAMPLE SS-6 IN BORING SC-11, THE MOISTURE CONTENT WAS 5% ABOVE ITS CORRESPONDING LIQUID LIMIT. IN GENERAL, THE MOISTURE CONTENTS ARE CONSIDERED TO BE AT TO ABOVE THEIR CORRESPONDING OPTIMUM MOISTURE CONTENTS (DETERMINED FROM CORRELATION CHARTS).

GROUNDWATER WAS INITIALLY ENCOUNTERED DURING THE DRILLING PROCESS ON THE DRILL ROD IN SC-11 AT 3.35 METERS (ELEVATION 390.6 METERS), IN SC-12 AT 4.2 METERS (ELEVATION 390.1 METERS), AND IN SC-13 AT 11.9 METERS (ELEVATION 383.9 METERS). DUE TO THE USE OF WASH WATER DURING THE CORING PROCESS, AN ACCURATE DEPTH TO GROUNDWATER COULD NOT BE DETERMINED UPON COMPLETION OF THE DRILLING PROCESS IN ANY OF THE BORINGS. GROUNDWATER LEVELS AND/OR THE PRESENCE OF GROUNDWATER ARE CONSIDERED TO BE DEPENDENT ON THE SEASONAL FLUCTUATIONS IN PRECIPITATION. AT THE TIME OF THIS INVESTIGATION, RECENT PRECIPITATION WAS CONSIDERED TO BE NORMAL.

LEGEND

Press and/or Drive Sample and/or Core Boring Location–Plan View.

Horizontal Bar on Boring Log indicates the Depth the Sample was Taken.

X/Y/Z — Figures Beside the Boring Log in Profile indicate the Number of Blows for Standard Penetration Test.

X = Number of Blows for First 150 Millimeters

Y = Number of Blows for Second 150 Millimeters

Z = Number of Blows for Third 150 Millimeters

TR——— Top of Rock

W——— Indicates Free Water level

Particle Size Definitions

Boulders	20.32cm	Cobbles	7.62cm	Gravel	2.0mm	C.Sand	0.42mm	F.Sand	0.074mm	Silt	0.005mm	Clay
					No. 10		No. 40		No. 200			

Symbol Of Rock Type

WEATHERED SHALE

SANDSTONE

BASED ON THE BORING LOGS, THE TOP OF BEDROCK FLUCTUATES WITHIN THE PROJECT AREA. THE BOREHOLES ENCOUNTERED BEDROCK AT THE FOLLOWING ELEVATIONS:

BORING NO.	STATION	OFFSET	GROUND ELEVATION	TOP OF BEDROCK	TOP OF CORED BEDROCK
SC-11	49+959	7.0M RT.	393.99M	379.0M	376.0M
SC-12	50+005	12.2M LT.	394.28M	376.0M	374.2M
SC-13	50+049	4.0M LT.	395.84M	381.0M	377.5M

BORING SC-11 EXHIBITED A 3-METER THICK LAYER OF GRAY, HIGHLY WEATHERED (AUGERABLE), SHALE OVERLYING GRAY, MEDIUM HARD TO HARD, SLIGHTLY MASSIVE, COMPETENT (CORED) SANDSTONE. BORING SC-12 EXHIBITED A 1.8-METER THICK LAYER OF GRAY, HIGHLY WEATHERED, SHALE OVERLYING GRAY, HARD SANDSTONE. BORING SC-13 EXHIBITED 3.5-METER OF GRAY, HIGHLY WEATHERED SHALE OVERLYING GRAY, HARD, SLIGHTLY BROKEN SANDSTONE. THE OVERALL QUALITY OF THE COMPETENT BEDROCK, AS INDICATED BY THE ROCK QUALITY DESIGNATION (RQD), WAS VERY POOR (FROM 0% IN ROCK CORE RC-1 IN SC-13 TO 23% IN ROCK CORE RC-1 IN SC-12). THE COMPRESSIVE STRENGTH OF THE SANDSTONE IN SC-11, TESTED AT ELEVATION 375.3 METERS, WAS 59.1 MEGAPASCALS.

GENERAL INFORMATION

Borings are made by means of a truck mounted rotary drilling machine. Standard Penetration testing was performed at 0.75 to 1.5 meter intervals. The Standard Penetration Test (ASTM D 1586) is conducted by using a 63.5 kg hammer falling 760 millimeters to drive a 51 millimeter O.D. split-barrel sampler 450 millimeters. Driving resistance is recorded on the boring logs in terms of blows per 150 millimeter interval of the driving distance. The second and third intervals are added to obtain the number of blows per 300 millimeters.

The boring log sheet shows graphic plot of the information obtained, including depth and elevation of the sample, number of blows for the Standard Penetration Tests in three 150 millimeter increments, field sample number, and sample description based on laboratory tests and the Ohio Department of Transportation Classification System. Results of strength and consolidation testing, if performed, appear on separate enclosures.

At depths where materials are bouldery or gravelly to the extent that the sample cannot be driven, a wash sample is procured for visual classification to determine the general character of the material. These samples are not considered sufficiently representative to warrant laboratory testing.

Note--all available soil and bedrock information which can be conveniently shown on the structure foundation investigation sheets has been so reported. Additional subsurface investigations may have been made to study some special aspect of the project. Copies of the data, if any, may be inspected in the District Deputy Director's Office (District 3), The Soils Section of The Office of Roadway Engineering, or in the Office of Bridges at 25 South Front Street, Columbus, Ohio 43215.

The purpose of this subsurface investigation is to develop soils information specifically for foundation design purposes and is not intended to be used for construction estimating or bidding. Information shown was obtained for use in establishing design criteria for the project. The accuracy of the data presented is not guaranteed by the State of Ohio or Consultant and is not to be construed as part of the plans governing construction of the project.

RESOURCE INTERNATIONAL INC.
281 ENTERPRISE DR.
WESTERVILLE, OHIO 43081
(614) 885-1959

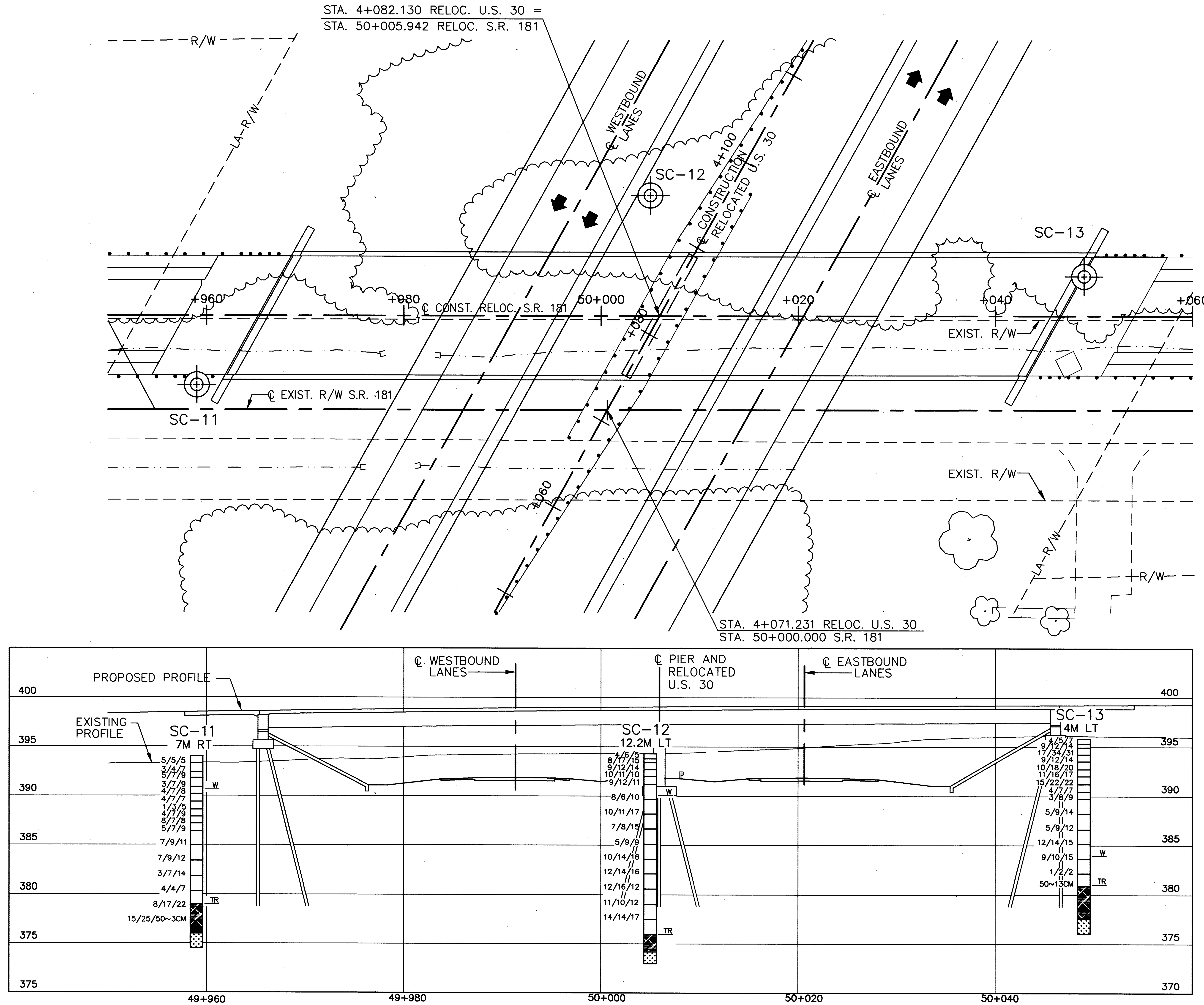
DRAWN EMC
CHECKED DLK
DATE 4/29/98
DATE 4/29/98

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. RIC-30-04075 UNDER RELOCATED S. R. 181

CRA/RIC-30-33.543/0.000

1/4

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-7109
FILENAME: 7109S5-1.DWG
DATE: 29 APR 1998



PROFILE ALONG ℄ CONSTRUCTION RELOCATED S.R. 181

HORIZONTAL SCALE IN METERS

0 5 10

DRAWN EMC DATE 4/29/98

CHECKED DLK DATE 4/29/98

STRUCTURE FOUNDATION INVESTIGATION

BRIDGE NO. RIC-30-04075 UNDER RELOCATED S. R. 181

CRA/RIC-30-33.500/0.000

2/4

52/59

RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109

FILENAME: 7109S5-2.DWG DATE: 29 APR 1998

BORING LOG: SC-11

STATION AND OFFSET: 49+959, 7M RT
SURFACE ELEVATION: 393.99M
WATER ENCOUNTERED: SEEPAGE @ 3.35M *

DATE STARTED: 10/15/97
DATE FINISHED: 10/15/97
SAMPLER TYPE: HSA/RC

ELEV.	SAMPLE NUMBER	BLOWS PER 15 cm	REC (%)	DEPTH	SOIL DESCRIPTION	WC	ATT LIMITS LL	ATT LIMITS PI	PHYSICAL CHARACTERISTIC % AGG	% CS	% FS	% SI	% CL	ODOT CLASS
					23cm – ASPHALT 0.2M									
					8cm – SAND AND GRAVEL BASE 0.3M									
393.19	SS-1	5/5/5	100%	1	BROWN CLAY, SOME SILT, TRACE SAND.	24								VISUAL
392.39	SS-2	3/4/7	89%	2		25	46	26	0	1	3	22	74	A-7-6
391.69	SS-3	5/7/9	100%			19								VISUAL
390.89	SS-4	3/7/9	100%	3	3.4M	17								VISUAL
390.19	SS-5	4/7/8	67%	4	BROWN SANDY SILT, SOME CLAY, LITTLE GRAVEL.	19								VISUAL
389.39	SS-6	4/7/7	22%	5		28	23	7	13	12	23	–52–		A-4a
388.59	SS-7	1/3/5	100%		5.4M	18								VISUAL
387.89	SS-8	4/7/9	100%	6	BROWN CLAYEY SILT, LITTLE SAND, TRACE GRAVEL	14								VISUAL
387.09	SS-9	8/7/8	100%	7		16								VISUAL
386.39	SS-10	5/7/9	67%	8		16	26	10	7	5	9	40	39	A-4a
384.99	SS-11	7/9/11	100%	9		13								VISUAL
383.29	SS-12	7/9/12	100%	10 / 11		17								VISUAL
381.79	SS-13	3/7/14	100%	12 / 13		18								VISUAL
380.29	SS-14	4/4/7	100%	14		18								VISUAL
378.69	SS-15	8/17/22	67%	15	15.0M GRAY HIGHLY WEATHERED SHALE.	13								VISUAL
377.19	SS-16	15/25/50~3CM	67%	16 / 17										VISUAL
	RC-1		83%	18 / 19	18.0M SANDSTONE (70%); GRAY, MEDIUM HARD TO HARD, FINE GRAINED, SLIGHTLY MASSIVE, INTERBEDDED SHALE (30%); DARK GRAY, SOFT TO VERY SOFT, HIGHLY WEATHERED, JOINTED, BROKEN. – CORE LOSS = 17% – RQD = 22% – qr (on sandstone @ 18.7M) = 59.1 MPa									
374.49														

BOTTOM OF BORING = 19.5M

BORING LOG: SC-12

STATION AND OFFSET: 50+005, 12.2M LT
SURFACE ELEVATION: 394.28M
WATER ENCOUNTERED: SEEPAGE @ 4.2M *

DATE STARTED: 10/28/97
DATE FINISHED: 10/28/97
SAMPLER TYPE: HSA/RC

ELEV.	SAMPLE NUMBER	BLOWS PER 15 cm	REC (%)	DEPTH	SOIL DESCRIPTION	WC	ATT LIMITS LL	ATT LIMITS PI	PHYSICAL CHARACTERISTIC % AGG	% CS	% FS	% SI	% CL	ODOT CLASS
393.78	SS-1	4/6/5	56%		DARK BROWN SILTY CLAY, SOME SAND, TRACE GRAVEL, TRACE ORGANICS (TOPSOIL). 0.2M	21								VISUAL
393.38	SS-2	8/17/15	94%	1	BROWN SILTY CLAY, LITTLE SAND, TRACE GRAVEL.	15	36	18	2	3	11	35	49	A-6b
392.68	SS-3	9/12/14	94%	2		15								VISUAL
391.98	SS-4	10/11/10	56%			13								VISUAL
391.18	SS-5	9/12/11	67%	3 / 4		11								VISUAL
389.68	SS-6	8/6/10	89%	5		14								VISUAL
388.18	SS-7	10/11/17	67%	6 / 7		16								VISUAL
386.68	SS-8	7/8/15	89%	8		13								VISUAL
385.08	SS-9	5/9/9	28%	9 / 10	10.2M	18								VISUAL
383.58	SS-10	10/14/16	94%	11	BROWN SANDY SILT, SOME GRAVEL, TRACE CLAY.	13	NP	NP	36	7	19	–38–		A-4a
382.08	SS-11	12/14/16	89%	12 / 13		14								VISUAL
380.58	SS-12	12/16/12	94%	14		15								VISUAL
378.98	SS-13	11/10/12	89%	15 / 16		15								VISUAL
377.48	SS-14	14/14/17	56%	17		18								VISUAL
				18 / 19	18.3M GRAY HIGHLY WEATHERED SHALE 19.8M									
	RC-1		65%	20 / 21	SHALE; GRAY, SOFT, HIGHLY WEATHERED, HIGHLY BROKEN, SLIGHTLY FISSILE. – CORE LOSS = 35% – RQD = 23% 20.1M SANDSTONE: GRAY, HARD, FINE GRAIN, SLIGHTLY WEATHERED, SLIGHTLY BROKEN.									
372.98														

BOTTOM OF BORING = 21.3M

* AN ACCURATE DETERMINATION OF THE GROUNDWATER LEVEL UPON COMPLETION COULD NOT BE MADE DUE TO THE USE OF WASH WATER DURING THE ROCK CORING PROCESS.

RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109
FILENAME: 7109S5-3.DWG DATE: 29-APR-1998

RESOURCE INTERNATIONAL INC.
281 ENTERPRISE DR.
WESTERVILLE, OHIO 43081
(614) 885-1959

DRAWN EMC | DATE 4/29/98
CHECKED DLK | DATE 4/29/98

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. RIC-30-04075 UNDER RELOCATED S. R. 181

CRA/RIC-30-33.500/0.000

BORING LOG: SC-13

STATION AND OFFSET: 50+049, 4M LT
SURFACE ELEVATION: 395.84M
WATER ENCOUNTERED: SEEPAGE @ 11.9M *

DATE STARTED: 10/30/97
DATE FINISHED: 10/30/97
SAMPLER TYPE: HSA/RC

ELEV.	SAMPLE NUMBER	BLOWS PER 15 cm	REC (%)	DEPTH	SOIL DESCRIPTION	WC	ATT LIMITS LL	ATT LIMITS PI	PHYSICAL CHARACTERISTIC % AGG	% CS	% FS	% SI	% CL	ODOT CLASS
395.34	SS-1	4/5/7	56%		DARK BROWN SILTY CLAY, SOME SAND, TRACE GRAVEL, TRACE ORGANICS (TOPSOIL). 0.2M	24								VISUAL
394.94	SS-2	9/12/14	89%	1	BROWN SILTY CLAY, SOME SAND, LITTLE GRAVEL.	21								VISUAL
394.24	SS-3	17/34/31	78%			14								VISUAL
393.54	SS-4	9/12/14	89%	2		15	30	14	10	10	13	22	45	A-6a
392.74	SS-5	10/18/20	94%	3		16								VISUAL
392.04	SS-6	11/16/17	100%	4		15								VISUAL
391.24	SS-7	15/22/22	67%			15								VISUAL
390.44	SS-8	4/7/7	78%	5		14								VISUAL
389.74	SS-9	3/8/9	100%	6		13								VISUAL
				7										
388.24	SS-10	5/9/14	94%	8	8.5M	13								VISUAL
					BROWN SAND AND GRAVEL, SOME SILTY CLAY.									
386.64	SS-11	5/9/12	100%	9		13								VISUAL
				10	10.2M									
					BROWN SILTY SAND, SOME CLAY, TRACE GRAVEL.									
385.14	SS-12	12/14/15	100%	11		15								VISUAL
383.64	AS-13	9/10/15	0%	12		16								VISUAL
				13										
382.14	SS-14	1/2/2	56%	14		22	NP	NP	1	2	40	35	22	A-4a
					14.8M									
380.94	SS-15	50~13CM	28%	15	GRAY HIGHLY WEATHERED SHALE.									VISUAL
				16										
				17										
				18	18.3M									
	RC-1		58%	19	SANDSTONE; GRAY, HARD, FINE-GRAINED, HIGHLY BROKEN, HIGHLY JOINTED. – CORE LOSS = 42% – RQD = 0%									
376.04														

BOTTOM OF BORING = 19.8M

* AN ACCURATE DETERMINATION OF THE GROUNDWATER LEVEL UPON COMPLETION COULD NOT BE MADE DUE TO THE USE OF WASH WATER DURING THE ROCK CORING PROCESS.

RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109
FILENAME: 7109S5-4.DWG DATE: 29-APR-1998

RESOURCE INTERNATIONAL INC.
281 ENTERPRISE DR.
WESTERVILLE, OHIO 43081
(614) 885-1959

DRAWN EMC | CHECKED DLK
DATE 4/29/98 | DATE 4/29/98

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. RIC-30-04075 UNDER RELOCATED S. R. 181

CRA/RIC-30-33.500/0.000

GEOLOGY OF THE SITE

GEOLOGICALLY, THE SITE LIES ON THE GLACIATED, GENTLY ROLLING, ALLEGHENY PLATEAU. BOTH THE ILLINOIAN AND WISCONSIN GLACIERS PASSED OVER THE AREA. THE QUATERNARY GEOLOGY OF OHIO MARION QUADRANGLE, OBTAINED FROM THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR), INDICATES THE SITE TRAVERSES HIRAM AND LAKE GROUND AND END MORAINE TILL, DEPOSITED BY THE LATE WISCONSINAN ICE SHEET. THE TOTAL SOIL STRATA IS BETWEEN APPROXIMATELY 24 METERS AND 28 METERS THICK ACROSS THE SITE. THE UNDERLYING BEDROCK CONSISTS OF SHALE OF THE WAVERLY GROUP.

EXPLORATION

THREE (3) ENGINEERING TEST BORINGS, DESIGNATED SC-14 THROUGH SC-16, WERE DRILLED AT THE STATIONS AND OFFSETS SHOWN ON THE BORING LOGS. THE BORING LOCATIONS WERE DESIGNATED AND FIELD STAKED BY REPRESENTATIVES OF RESOURCE INTERNATIONAL, INCORPORATED. BORING SC-14, DRILLED TO A DEPTH OF 28.7 METERS, WAS DRILLED IN REFERENCE TO THE CONSTRUCTION OF THE REAR (SOUTH) ABUTMENT. BORING SC-15, DRILLED TO A DEPTH OF 27.4 METERS, WAS DRILLED IN REFERENCE TO THE CONSTRUCTION OF THE PIER. BOREHOLE SC-16, DRILLED TO A DEPTH OF 29.0 METERS, WAS DRILLED IN REFERENCE TO THE CONSTRUCTION OF THE FORWARD (NORTH) ABUTMENT. THE BORINGS WERE ADVANCED WITH A TRUCK MOUNTED ROTARY DRILLING MACHINE UTILIZING 9.5-CENTIMETER (3.75-INCH) HOLLOW STEM AUGERS TO ADVANCE THE HOLES. A DOUBLE TUBE DIAMOND BIT CORE BARREL WAS USED TO CORE THE BEDROCK ENCOUNTERED IN SC-14. CORING PRODUCED NX-SIZED (5.3-CENTIMETER DIAMETER) CORES, FROM WHICH THE TYPE OF ROCK AND ITS GEOLOGICAL CHARACTERISTICS WERE DETERMINED. THE DRILLING WAS PERFORMED BETWEEN OCTOBER 21 AND OCTOBER 22, 1997.

INVESTIGATIONAL FINDINGS AND OBSERVATIONS

THE TEST BORINGS EXHIBITED 0.2-METER OF TOPSOIL AT THE GROUND SURFACE, GENERALLY DESCRIBED AS BROWN SILTY CLAY WITH THE PRESENCE OF ORGANICS. THE UNDERLYING SOILS ARE PREDOMINANTLY COHESIVE, GENERALLY DESCRIBED AS BROWN CLAYEY SILT (SILTY CLAY, CLAY AND SILT) WITH LITTLE TO SOME SAND AND TRACE AMOUNTS OF FINE GRAVEL. IN GENERAL, THE PERCENTAGE OF SILT INCREASED (PERCENTAGE OF CLAY DECREASED) WITH DEPTH THE BOREHOLES. BORING SC-14 EXHIBITED A LAYER OF BROWN, LOW-PLASTICITY, SILT WITH SOME CLAY BETWEEN 7.0 AND 10.2 METERS (ELEVATIONS 392.6 AND 389.4 METERS). A MORE COMPREHENSIVE DESCRIPTION OF WHAT WAS ENCOUNTERED DURING THE DRILLING PROCESS MAY BE FOUND IN THE BORING LOGS IN APPENDIX C AT THE END OF THE SUBSURFACE INVESTIGATION REPORT. LABORATORY TEST RESULTS AND VISUAL INSPECTION OF REPRESENTATIVE SAMPLES INDICATE THAT THE SOILS ENCOUNTERED ARE CLASSIFIED AS ODOT A-4A, A-6A, AND A-4B.

MANY SOIL PROPERTIES, INCLUDING SOIL CONSISTENCY AND SHEAR STRENGTH (OF COHESIVE SAMPLES), ARE DERIVED FROM STANDARD PENETRATION BLOW COUNTS AND HAND PENETROMETER READINGS (PERFORMED ON COHESIVE SAMPLES). STANDARD PENETRATION BLOW COUNTS RECORDED DURING THE DRILLING PROCESS RANGED FROM 8 BLOWS PER 30 CENTIMETERS TO REFUSAL, INDICATING THE PRESENCE OF STIFF TO HARD COHESIVE SOILS. REFUSAL IS DEFINED AS OBTAINING IN EXCESS OF 50 BLOWS WITH LESS THAN 15 CENTIMETERS OF PENETRATION. THE UNCONFINED COMPRESSIVE STRENGTH OF THE SOILS, AS OBTAINED FROM THE HAND PENETROMETER, RANGED FROM 144 KILOPASCALS TO IN EXCESS OF 431 KILOPASCALS (THE LIMIT OF THE INSTRUMENT). THE LABORATORY UNCONSOLIDATED, UNDRAINED TRIAXIAL COMPRESSION TEST PERFORMED ON SAMPLE ST-5 IN SC-14 INDICATED AN "IN-SITU" UNIT WEIGHT OF 21.6 KILONEWTONS PER CUBIC METER, AND AN UNCONFINED COMPRESSIVE STRENGTH OF 335.2 KILOPASCALS.

NATURAL MOISTURE CONTENTS OF THE SOIL SAMPLES TESTED RANGED FROM 9% TO 26%, HOWEVER, A MAJORITY OF THE MOISTURE CONTENTS WERE LESS THAN 20%. THE MOISTURE CONTENTS FOR THE COHESIVE SOILS RANGED FROM 2% BELOW TO 3% ABOVE THEIR CORRESPONDING PLASTIC LIMITS. IN GENERAL, THE MOISTURE CONTENTS ARE CONSIDERED TO BE AT TO SLIGHTLY ABOVE THEIR CORRESPONDING OPTIMUM MOISTURE CONTENTS (DETERMINED FROM CORRELATION CHARTS).

GROUNDWATER WAS INITIALLY ENCOUNTERED DURING THE DRILLING PROCESS ON THE DRILL ROD IN SC-14 AT 23.9 METERS (ELEVATION 375.7 METERS), IN SC-15 AT 6.4 METERS (ELEVATION 393.8 METERS), AND IN SC-16 AT 6.4 METERS (ELEVATION 394.4 METERS). DUE TO THE USE OF WASH WATER DURING THE DRILLING AND/OR CORING PROCESS, AN ACCURATE DEPTH TO GROUNDWATER COULD NOT BE DETERMINED UPON COMPLETION OF THE DRILLING PROCESS IN SC-14 AND SC-16. GROUNDWATER LEVELS AND/OR THE PRESENCE OF GROUNDWATER ARE CONSIDERED TO BE DEPENDENT ON THE SEASONAL FLUCTUATIONS IN PRECIPITATION. AT THE TIME OF THIS INVESTIGATION, RECENT PRECIPITATION WAS CONSIDERED TO BE NORMAL.

THE TOP OF BEDROCK WAS ENCOUNTERED IN THE BOREHOLES AT ELEVATIONS OF 375.7 METERS IN SC-14, 374.8 METERS IN SC-15, AND 372.3 METERS IN SC-16. THE SURFICIAL BEDROCK WAS AUGERABLE, DESCRIBED AS GRAY, VERY SOFT, HIGHLY WEATHERED SHALE. THE UNDERLYING COMPETENT (CORED) BEDROCK IN SC-14 IS DESCRIBED AS GRAY, SOFT, FISSILE, HIGHLY BROKEN, SLIGHTLY JOINTED, SHALE. THE ROCK CORE RECOVERY WAS 56%. THE ROCK QUALITY DESIGNATION (RQD) WAS VERY POOR, WITH AN RQD VALUE OF 0%.

IT SHOULD BE NOTED THAT RQD VALUES FOR SHALE BEDROCK CAN BE INCONCLUSIVE DUE TO THE FISSILE NATURE OF THE MATERIAL. THIS FISSILITY CAN LEAD TO EASY BREAKAGE OF THE SHALE DURING CORING PROCEDURES. WHILE AN ATTEMPT IS MADE TO ACCOUNT FOR FRESH, MANMADE BREAKS DURING TABULATION OF THE RQD ANALYSIS, MISCALCULATIONS ARE INHERENT. THIS RESULTS IN RQD VALUES WHICH MAY NOT ACCURATELY REPRESENT THE ACTUAL IN-SITU CONDITIONS.

LEGEND

Press and/or Drive Sample and/or Core Boring Location-Plan View.

Horizontal Bar on Boring Log indicates the Depth the Sample was Taken.

X/Y/Z — Figures Beside the Boring Log in Profile indicate the Number of Blows for Standard Penetration Test.

X = Number of Blows for First 150 Millimeters

Y = Number of Blows for Second 150 Millimeters

Z = Number of Blows for Third 150 Millimeters

TWR—— Top of Weathered Rock

TCR—— Top of Competent Rock

W—— Indicates Free Water level

Particle Size Definitions

Boulders	20.32cm	Cobbles	7.62cm	Gravel	2.0mm (No. 10)	C.Sand	0.42mm (No. 40)	F.Sand	0.074mm (No. 200)	Silt	0.005mm	Clay

Symbol Of Rock Type

WEATHERED SHALE

SHALE

GENERAL INFORMATION

Borings are made by means of a truck mounted rotary drilling machine. Standard Penetration testing was performed at 0.75 to 1.5 meter intervals. The Standard Penetration Test (ASTM D 1586) is conducted by using a 63.5 kg hammer falling 760 millimeters to drive a 51 millimeter O.D. split-barrel sampler 450 millimeters. Driving resistance is recorded on the boring logs in terms of blows per 150 millimeter interval of the driving distance. The second and third intervals are added to obtain the number of blows per 300 millimeters.

The boring log sheet shows graphic plot of the information obtained, including depth and elevation of the sample, number of blows for the Standard Penetration Tests in three 150 millimeter increments, field sample number, and sample description based on laboratory tests and the Ohio Department of Transportation Classification System. Results of strength and consolidation testing, if performed, appear on separate enclosures.

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The purpose of this subsurface investigation is to develop soils information specifically for foundation design purposes and is not intended to be used for construction estimating or bidding. Information shown was obtained for use in establishing design criteria for the project. The accuracy of the data presented is not guaranteed by the State of Ohio or Consultant and is not to be construed as part of the plans governing construction of the project.

RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109 FILENAME: 7109S3-1.DWG DATE: 06 FEB 1998

RESOURCE INTERNATIONAL INC.
281 ENTERPRISE DR.
WESTERVILLE, OHIO 43081
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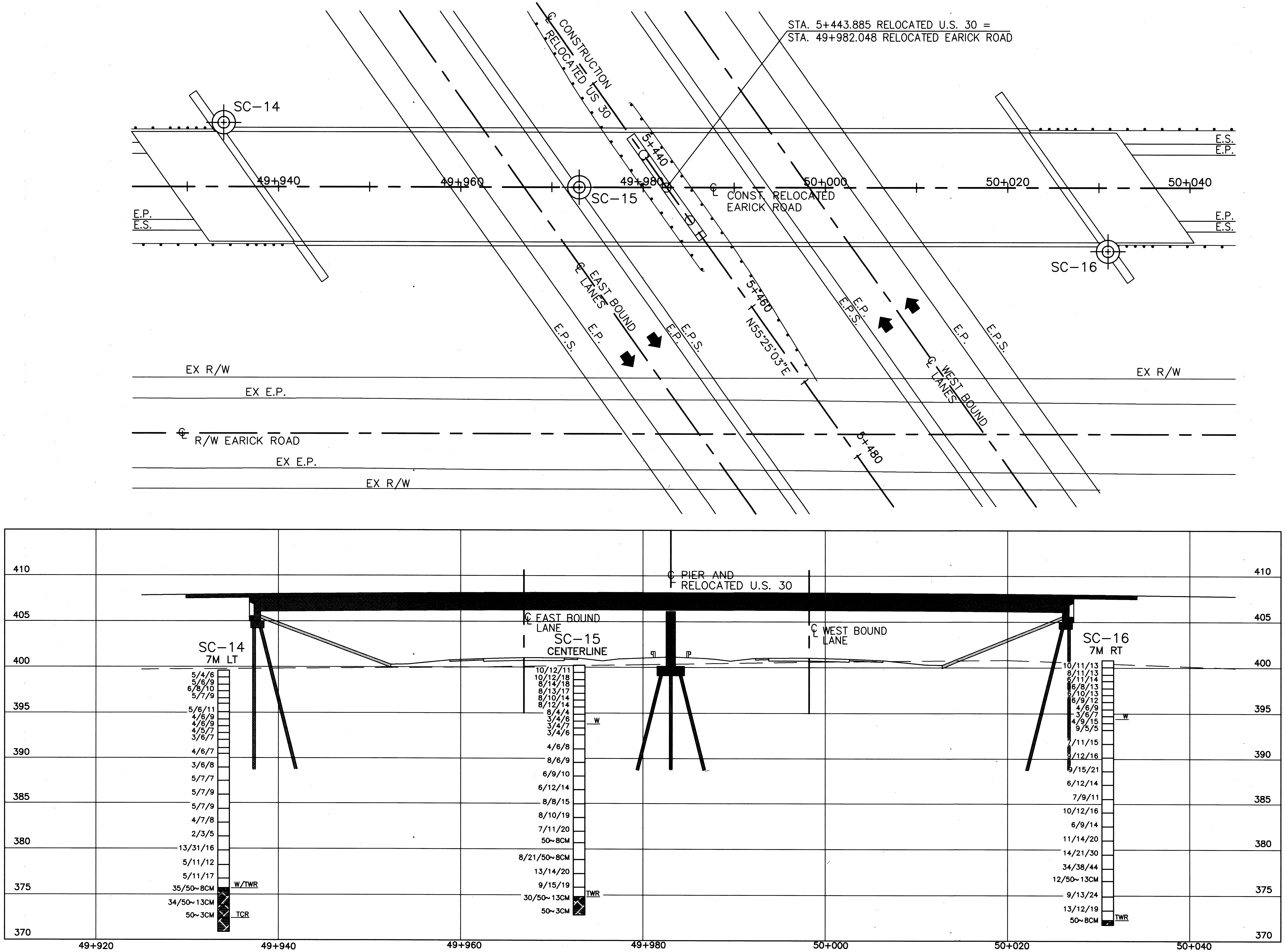
STRUCTURE FOUNDATION INVESTIGATION

CRA/RIC-30-33.543/0.000
RELOCATED EARICK ROAD OVER RELOCATED U.S. 30



HORIZONTAL SCALE IN METERS 0 5 10

CALCULATED KEB

CHECKED GPH

STRUCTURE FOUNDATION INVESTIGATION

CRA/RIC-30-33.543/0.000

RELOCATED EARICK ROAD OVER RELOCATED U.S. 30

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RESOURCE INTERNATIONAL INC.
PROJECT NO. W-7109

FILENAME: 7109S3-2.DWG
DATE: 06 FEB 1998

BORING LOG: SC-14

STATION AND OFFSET: 49+934, 7M LT
SURFACE ELEVATION: 399.6M
WATER ENCOUNTERED: SEEPAGE @ 23.9M *

DATE STARTED: 10/21/97
DATE FINISHED: 10/21/97
SAMPLER TYPE: HSA/RC

ELEV.	SAMPLE NUMBER	BLOWS PER 15 cm	REC (%)	DEPTH	SOIL DESCRIPTION	WC	ATT LIMITS LL	ATT LIMITS PI	PHYSICAL CHARACTERISTIC % AGG	% CS	% FS	% SI	% CL	ODOT CLASS
					BROWN SILTY CLAY, SOME SAND, SOME ORGANICS, TRACE GRAVEL (TOPSOIL) 0.2M									
398.9	SS-1	5/4/6	89	1	BROWN CLAY AND SILT, LITTLE SAND, TRACE GRAVEL	26								VISUAL
398.1	SS-2	5/6/9	67			22								VISUAL
397.4	SS-3	6/8/10	100	2		17								VISUAL
396.6	SS-4	5/7/9	94	3		18								VISUAL
396.0	ST-5		100			17	31	14	4	4	11	35	46	A-6a
395.1	SS-6	5/6/11	100	4		17								VISUAL
394.3	SS-7	4/6/9	100	5		17								VISUAL
393.5	SS-8	4/6/9	100	6		16								VISUAL
392.8	SS-9	4/5/7	89	7	7.0M	15								VISUAL
					BROWN SILT, SOME CLAY, LITTLE SAND, TRACE GRAVEL									
392.0	SS-10	3/6/7	100	8		16								VISUAL
391.0	ST-11		100			21	24	6	3	3	11	60	23	A-4b
390.5	SS-12	4/6/7	83	9		16								VISUAL
				10	10.2M									
					BROWN CLAYEY SILT, LITTLE SAND, TRACE GRAVEL									
389.0	SS-13	3/6/8	83	11		16								VISUAL
387.5	SS-14	5/7/7	78	12		14								VISUAL
385.9	SS-15	5/7/9	100	13		17								VISUAL
384.4	SS-16	5/7/9	100	14 15		14								VISUAL
382.9	SS-17	4/7/8	100	16 17		15	24	7	3	4	13	43	37	A-4a
381.4	SS-18	2/3/5	100	18		19	NP	NP	7	6	10	-77-		A-4a
				19	19.4M									
379.8	SS-19	13/31/16	67		BROWN SILT AND CLAY, LITTLE SAND, TRACE GRAVEL	9								VISUAL

BORING CONTINUED THIS PAGE

BORING LOG: SC-14 (CONTINUED)

ELEV.	SAMPLE NUMBER	BLOWS PER 15 cm	REC (%)	DEPTH	SOIL DESCRIPTION	WC	ATT LIMITS LL	ATT LIMITS PI	PHYSICAL CHARACTERISTIC % AGG	% CS	% FS	% SI	% CL	ODOT CLASS
378.3	SS-20	5/11/12	100	21		12								VISUAL
376.8	SS-21	5/11/17	100	22 23		13								VISUAL
					23.9M									
375.4	SS-22	35/50~8CM	67	24	GRAY WEATHERED SHALE									VISUAL
373.9	SS-23	34/50~13CM	67	25 26										VISUAL
372.5	SS-24	50~3CM	6	27	27.2M									VISUAL
	RC-1		56	28	SHALE; GRAY, SOFT, FISSILE, HIGHLY BROKEN, SLIGHTLY JOINTED – CORE LOSS = 44% – RQD = 0%									
371.0														

BOTTOM OF BORING = 28.7M

* AN ACCURATE DETERMINATION OF THE GROUNDWATER LEVEL UPON COMPLETION COULD NOT BE MADE DUE TO THE USE OF WASH WATER DURING THE CORING PROCESS

DRAWN KEB
CHECKED GPH

STRUCTURE FOUNDATION INVESTIGATION

CRA/RIC-30-33.543/0.000
RELOCATED EARICK ROAD OVER RELOCATED U.S. 30

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RESOURCE INTERNATIONAL INC.
PROJECT NO. W-7109
FILENAME: 7109S3-3.DWG
DATE: 06 FEB 1998

BORING LOG: SC-15

STATION AND OFFSET: 49+973, CENTERLINE
SURFACE ELEVATION: 400.2M
WATER ENCOUNTERED: SEEPAGE @ 6.4M *

DATE STARTED: 10/21/97
DATE FINISHED: 10/21/97
SAMPLER TYPE: HSA

ELEV.	SAMPLE NUMBER	BLOWS PER 15 cm	REC (%)	DEPTH	SOIL DESCRIPTION	WC	ATT LIMITS LL	PI	PHYSICAL CHARACTERISTIC % AGG	% CS	% FS	% SI	% CL	ODOT CLASS
					BROWN SILTY CLAY, SOME SAND, SOME ORGANICS, TRACE GRAVEL (TOPSOIL) 0.2M									
399.5	SS-1	10/12/11	67	1	BROWN CLAY AND SILT, LITTLE TO SOME SAND, TRACE GRAVEL	16								VISUAL
398.7	SS-2	10/12/18	100			14	30	14	2	6	13	34	45	A-6a
398.0	SS-3	8/14/18	100	2		15								VISUAL
397.2	SS-4	8/13/17	100	3		17								VISUAL
396.4	SS-5	8/10/14	100	4		15								VISUAL
395.7	SS-6	8/12/14	100			15								VISUAL
394.9	SS-7	8/4/4	100	5		14	26	13	8	7	21	-64-		A-6a
394.1	SS-8	3/4/6	100	6		18								VISUAL
393.4	SS-9	3/4/7	100	7		17								VISUAL
392.6	SS-10	3/4/6	100	8		17								VISUAL
391.1	SS-11	4/6/8	100	9		16								VISUAL
				10	10.2M									
389.6	SS-12	8/6/9	100	11	BROWN CLAYEY SILT, SOME SAND, TRACE GRAVEL	16								VISUAL
388.1	SS-13	6/9/10	89	12		14	23	10	6	7	14	42	31	A-4a
386.5	SS-14	6/12/14	100	13, 14		13								VISUAL
385.0	SS-15	8/8/15	100	15		13								VISUAL
383.5	SS-16	8/10/19	100	16, 17		14								VISUAL
382.0	SS-17	7/11/20	83	18		14								VISUAL
380.7	SS-18	50~8CM	17	19										VISUAL

BORING CONTINUED THIS PAGE

BORING LOG: SC-15 CONTINUED

ELEV.	SAMPLE NUMBER	BLOWS PER 15 cm	REC (%)	DEPTH	SOIL DESCRIPTION	WC	ATT LIMITS LL	PI	PHYSICAL CHARACTERISTIC % AGG	% CS	% FS	% SI	% CL	ODOT CLASS
378.9	SS-19	8/21/50~8CM	17	21	21.5M	10								VISUAL
				22	BROWN TO GRAY SILTY CLAY, SOME SAND AND GRAVEL									
377.4	SS-20	13/14/20	17	23		15								VISUAL
375.9	SS-21	9/15/19	33	24		12								VISUAL
				25	25.4M									
374.5	SS-22	30/50~13CM	61	26	GRAY HIGHLY WEATHERED SHALE									VISUAL
373.0	SS-23	50~3CM	17	27										VISUAL

BOTTOM OF BORING = 27.4M

* AN ACCURATE DETERMINATION OF THE GROUNDWATER LEVEL UPON COMPLETION COULD NOT BE MADE DUE TO THE USE OF WASH WATER DURING THE DRILLING PROCESS

DRAWN KEB CHECKED GPH

STRUCTURE FOUNDATION INVESTIGATION

CRA/RIC-30-33.543/0.000
RELOCATED EARICK ROAD OVER RELOCATED U.S. 30

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RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109
FILENAME: 7109S3-4.DWG DATE: 06 FEB 1998

BORING LOG: SC-16

STATION AND OFFSET: 50+031, 7M RT
SURFACE ELEVATION: 400.8M
WATER ENCOUNTERED: SEEPAGE @ 6.4M *

DATE STARTED: 11/1/95
DATE FINISHED: 11/1/95
SAMPLER TYPE: HSA/RC

ELEV.	SAMPLE NUMBER	BLOWS PER 15 cm	REC (%)	DEPTH	SOIL DESCRIPTION	WC	ATT LIMITS LL	ATT LIMITS PI	PHYSICAL CHARACTERISTIC % AGG	% CS	% FS	% SI	% CL	ODOT CLASS
					BROWN SILTY CLAY, SOME SAND, SOME ORGANICS, TRACE GRAVEL (TOPSOIL) 0.2M									
400.0	SS-1	10/11/13	67		BROWN SILTY CLAY, LITTLE TO SOME SAND, TRACE GRAVEL	16								VISUAL
399.3	SS-2	8/11/13	67	1		15	32	15	5	4	13	27	51	A-6a
398.6	SS-3	6/11/14	100	2		16								VISUAL
397.8	SS-4	6/8/13	83	3		18								VISUAL
397.0	SS-5	6/10/13	100			15								VISUAL
396.3	SS-6	6/9/12	100	4		19								VISUAL
395.5	SS-7	4/6/9	100	5		15								VISUAL
394.7	SS-8	3/6/7	100	6		16								VISUAL
394.0	SS-9	4/9/15	67			13								VISUAL
393.2	SS-10	9/5/5	67	7		18								VISUAL
				8										
391.7	SS-11	7/11/15	100	9		16	27	11	2	4	10	38	46	A-6a
				10										
390.2	SS-12	9/12/16	100	11		14								VISUAL
388.7	SS-13	9/15/21	100	12		0								VISUAL
				13										
387.1	SS-14	6/12/14	100	14		19								VISUAL
385.6	SS-15	7/9/11	100	15		16	26	11	10	7	18	-65-		A-6a
				16										
384.1	SS-16	10/12/16	100	17		13								VISUAL
382.6	SS-17	6/9/14	100	18		14								VISUAL
				19										
381.0	SS-18	11/14/20	94			13								VISUAL

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BORING LOG: SC-16 CONTINUED

ELEV.	SAMPLE NUMBER	BLOWS PER 15 cm	REC (%)	DEPTH	SOIL DESCRIPTION	WC	ATT LIMITS LL	ATT LIMITS PI	PHYSICAL CHARACTERISTIC % AGG	% CS	% FS	% SI	% CL	ODOT CLASS
				21										
379.5	SS-19	14/21/30	100	22	22.4M	12								VISUAL
378.0	SS-20	34/38/44	78	23	BROWN CLAYEY SILT, SOME SAND, LITTLE GRAVEL	13								VISUAL
376.6	SS-21	12/50~13CM	67	24		13	20	5	14	18	9	-59-		A-4a
				25										
374.9	SS-22	9/13/24	67	26		11								VISUAL
				27										
373.4	SS-23	13/12/19	56	28	28.5M	16								VISUAL
372.1	SS-24	50~8CM	17		GRAY HIGHLY WEATHERED SHALE									VISUAL

BOTTOM OF BORING = 29.0M

* AN ACCURATE DETERMINATION OF THE GROUNDWATER LEVEL UPON COMPLETION COULD NOT BE MADE DUE TO THE USE OF WASH WATER DURING THE DRILLING PROCESS

DRAWN KEB
CHECKED GPH

STRUCTURE FOUNDATION INVESTIGATION

CRA/RIC-30-33.543/0.000
RELOCATED EARICK ROAD OVER RELOCATED U.S. 30

RESOURCE INTERNATIONAL INC. PROJECT NO. W-7109 FILENAME: 7109S3-5.DWG DATE: 05 FEB 1998