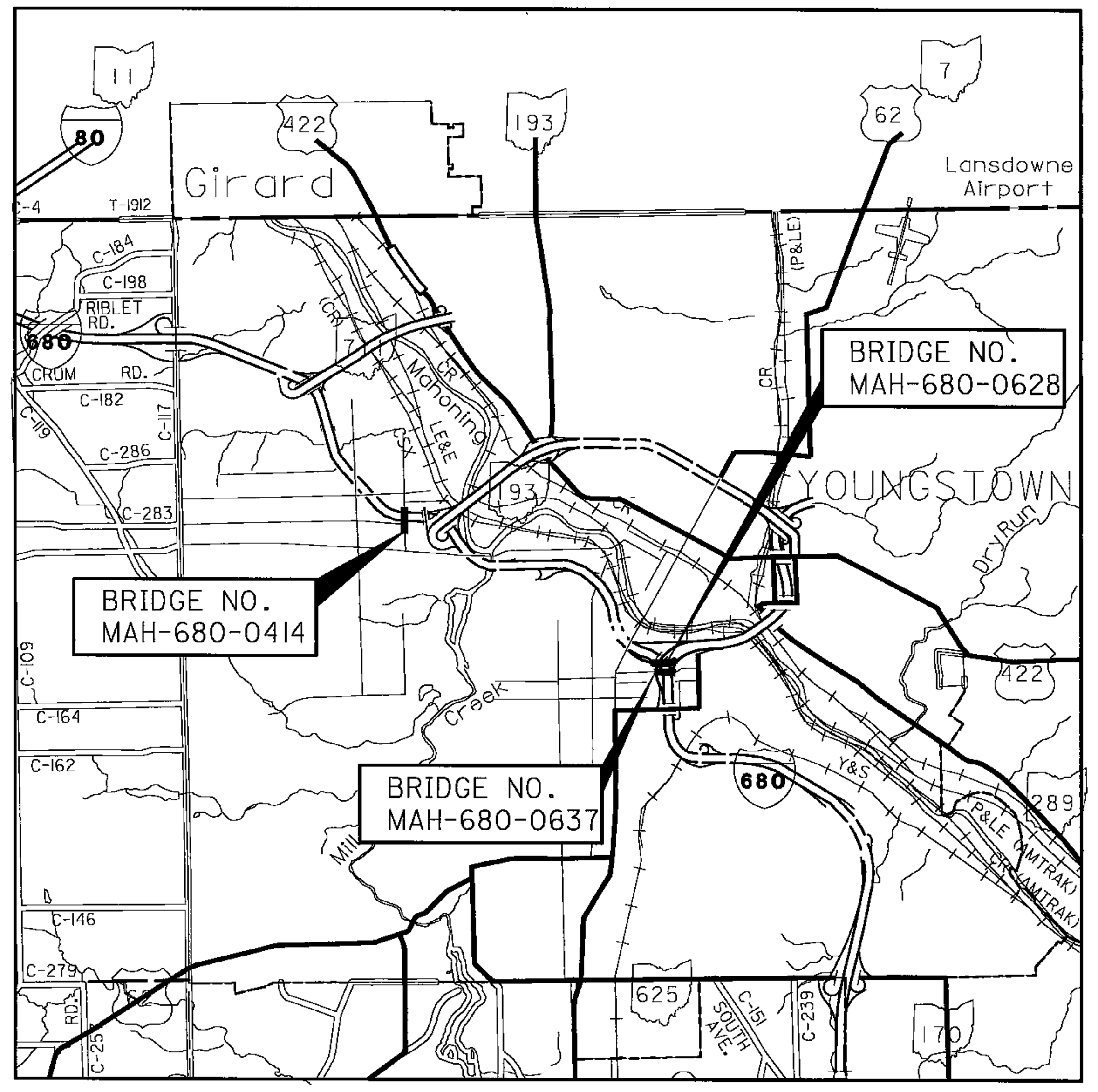
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
MAH-680-4.14, 6.28 & 6.37 PART 1
BRIDGE REHABILITATIONS
CITY OF YOUNGSTOWN
MAHONING COUNTY



LOCATION MAP

(MAH-680-0414) LAT.: N41°06'19" LON.: W80°40'58"
(MAH-680-0628) LAT.: N41°05'28" LON.: W80°39'02"
(MAH-680-0637) LAT.: N41°05'23" LON.: W80°39'01"

SCALE IN MILES
0 1 2 3 4

N

PORTION TO BE IMPROVED
INTERSTATE & DIVIDED HIGHWAY
UNDIVIDED STATE & FEDERAL ROUTES
OTHER ROADS

DESIGN DESIGNATION	4.14	6.28	6.37	680 AT 4.14	680 AT 6.28/ 6.37
CURRENT ADT (2005)	3,410	3,250	1,080	53,670	38,670
DESIGN YEAR ADT (2025)	3,570	4,080	1,200	60,620	43,690
DESIGN HOURLY VOLUME (2025)	393	449	132	6,062	4,369
DIRECTIONAL DISTRIBUTION	55%	100%	55%	55%	55%
TRUCKS (24 HOUR B&C)	4%	5%	4%	9%	13%
DESIGN SPEED	35 MPH	50 MPH	25 MPH	50 MPH	50 MPH
LEGAL SPEED	35 MPH	50 MPH	25 MPH	50 MPH	50 MPH

DESIGN EXCEPTIONS
NONE REQUIRED

DESIGN FUNCTIONAL CLASSIFICATION
MAH-680-4.14 - URBAN COLLECTOR
MAH-680-6.28 - URBAN FREEWAY
MAH-680-6.37 - URBAN LOCAL

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

PART I PLAN PREPARED BY:

TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

ENGINEERS SEAL:

STATE OF OHIO
NABIL F. FARAH
54420
REGISTERED PROFESSIONAL ENGINEER

SIGNED:
DATE: 11/2/04

INDEX OF SHEETS:

STANDARD CONSTRUCTION DRAWINGS PART 1 & 2

										SUPPLEMENTAL SPECIFICATIONS	
BP-2.1	7-16-04	GR-3.1	4-18-03	HW-2.1	7-19-02	MT-101.60	10-18-02	TC-42.20	7-16-04	802	7-19-02
BP-3.1	7-16-04	GR-3.2	4-18-03			MT-101.70	10-18-02	TC-52.10	4-20-01	832	4-17-04
BP-4.1	7-16-04	GR-4.2	10-17-03	MH-1.2	7-19-02	MT-102.10	10-18-02	TC-52.20	4-20-01	833	2-12-03
BP-5.1	7-28-00	GR-5.1	4-18-03			MT-102.20	10-18-02	TC-71.10	4-19-02	846	4-19-02
BP-7.1	7-28-00	GR-5.2	1-16-04	MT-35.10	4-20-01	MT-105.10	10-18-02	TC-73.10	1-19-01	864	7-11-00
		GR-5.3	1-16-04	MT-95.30	7-16-04	MT-105.11	10-18-02			891	3-22-04
CB-2.1	7-19-02	GR-6.1	4-18-03	MT-96.10	4-19-02	MT-110.20	10-18-02	AS-1-81	7-19-02	898	7-16-04
CB-2.2	7-19-02			MT-96.11	4-19-02			BS-1-93	7-19-02	908	4-18-03
		HL-10.11	1-16-04	MT-96.20	4-19-02	RM-1.1	4-18-03	EXJ-4-87	7-19-02	954	9-9-97
DM-1.2	7-19-02	HL-10.12	4-19-02	MT-96.21	4-19-02	RM-2.1	4-18-03	GSD-1-96	7-19-02	SPECIAL PROVISIONS	
DM-1.4	7-19-02	HL-10.13	1-17-03	MT-96.26	4-20-01	RM-4.2	4-18-03	PCB-91	7-19-02		
DM-4.1	7-19-02	HL-20.14	1-17-03	MT-97.11	4-19-02	RM-4.4	4-18-03	SBR-1-99	7-19-02		
DM-4.3	7-19-02	HL-30.11	4-19-02	MT-98.12	4-19-02			SICD-1-96	7-19-02		
DM-4.4	7-19-02	HL-30.21	4-19-02	MT-98.13	4-19-02	TC-7.65	7-18-03	VPF-1-90	7-19-02		
		HL-30.22	4-19-02	MT-98.14	4-19-02	TC-21.10	1-19-01				
F-1.1	7-16-04	HL-30.31	1-17-03	MT-98.16	4-19-02	TC-21.40	1-18-02				
F-3.1	7-28-00	HL-30.32	4-19-02	MT-98.17	10-18-02	TC-22.20	1-19-01				
		HL-50.21	4-19-02	MT-98.18	10-18-02	TC-41.20	1-19-01				
GR-1.1	7-16-04	HL-60.11	1-16-04	MT-98.19	10-18-02	TC-41.40	7-16-04				
GR-2.1	1-16-04	HL-60.12	7-20-01	MT-99.20M	1-30-95	TC-41.50	7-16-04				

PROJECT DESCRIPTION

REPLACEMENT OF 3 BRIDGE DECKS AND REHABILITATION OF SUBSTRUCTURES ON BRIDGES MAH-680-4.14, 6.28 AND 6.37 ALL OVER IR-680 IN THE CITY OF YOUNGSTOWN, OHIO. PROJECT ALSO INCREASES VERTICAL CLEARANCE ON IR-680 TO 15'-6" MINIMUM UNDER THE BRIDGES AND REMOVES SCUPPERS FROM BRIDGE DECKS.

2002 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.

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 OHIO REVISED CODE.

TRAFFIC REROUTED

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF WAYNE AVE./ PYATT ST. AND RAMP BX AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEETS 22 TO 24 .

TRAFFIC NOT REROUTED

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF STEEL ST. OR IR-680, AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

PROJECT DATA

MAH-680-	4.14	6.28	6.37
PROJECT EARTH DISTURBED AREA	0.01 AC	0.06 AC	0.09 AC
ESTIMATED CONTRACTOR EARTH DISTURBED AREA	0.03 AC	0.15 AC	0.02 AC
NOTICE IF INTENT EARTH DISTURBED AREA		4.9 AC	

APPROVED
DATE 3-16-05 DISTRICT DEPUTY DIRECTOR

APPROVED Gordon Proctor Jr.
DATE 4-21-05 DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO. **E034(746)**

PID NO. **22484**

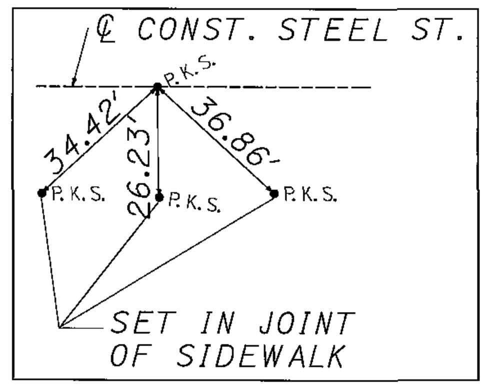
CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT **NONE**

MAH-680-4.14/ 6.28/6.37

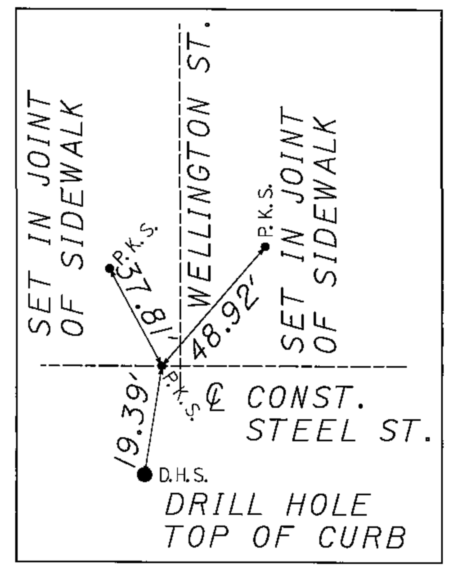
MAH-IR 680-4.14/6.28/6.37/7.24/8.34-
050353 PID - 22484
Dist 4 6/22/2005

CENTERLINE REFERENCE TIE



STEEL ST. ℄ CONST.
P.O.T. STA. 45+00
N.T.S.

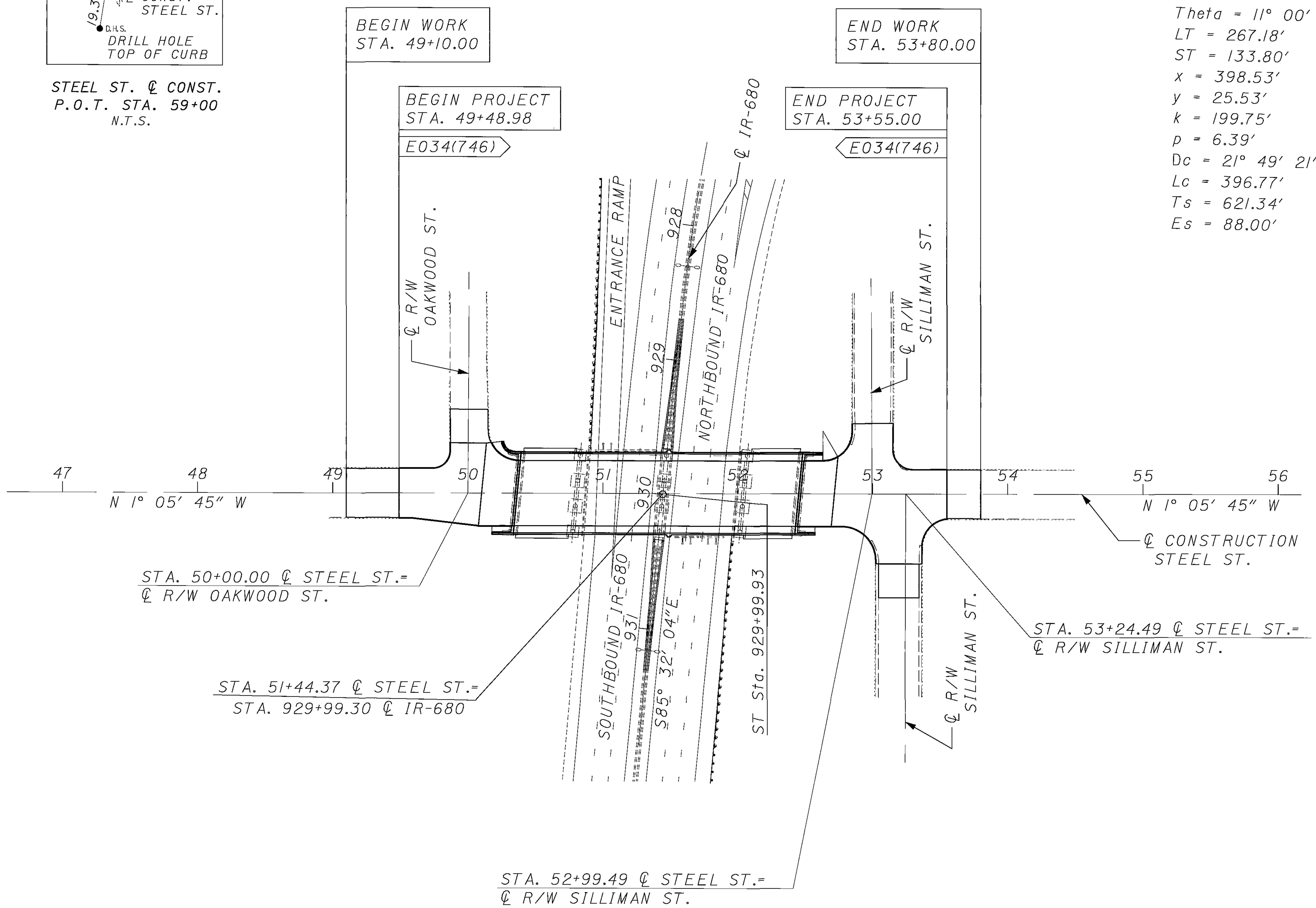
CENTERLINE REFERENCE TIE



STEEL ST. ℄ CONST.
P.O.T. STA. 59+00
N.T.S.

CURVE DATA EXISTING ℄ IR-680

P.I. Sta = 924+24.50
D = 43° 49' 21" (LT)
Dc = 5° 30' 00"
R = 1,041.74'
Ls = 400.00'
Theta = 11° 00' 00"
LT = 267.18'
ST = 133.80'
x = 398.53'
y = 25.53'
k = 199.75'
p = 6.39'
Dc = 21° 49' 21" (LT)
Lc = 396.77'
Ts = 621.34'
Es = 88.00'



CITY OF YOUNGSTOWN

HORIZONTAL SCALE IN FEET 0 25 50 100

SCHEMATIC PLAN STEEL STREET (4.14)

MAH-680-4.14/ 6.28/6.37

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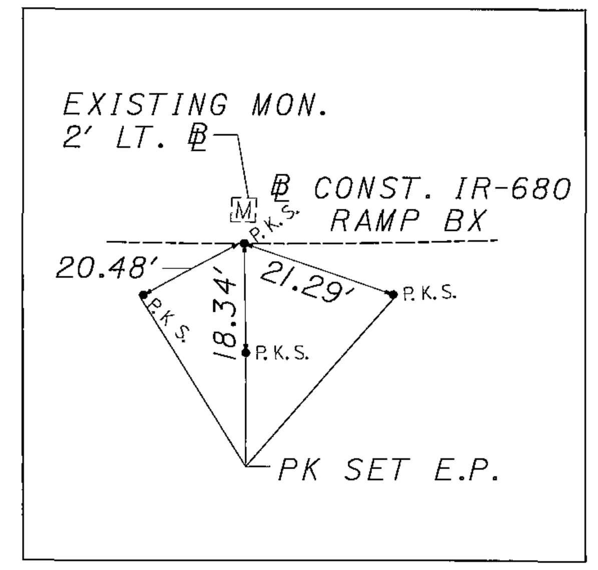
CURVE DATA EXISTING ℄ IR-680

P.I. Sta = 798+89.04
D = 68° 48' 20" (LT)
Dc = 7° 30' 00"
R = 763.94'
Ls = 400.00'
Theta = 15° 00' 00"
LT = 267.63'
ST = 134.21'
x = 397.27'
y = 34.74'
k = 199.54'
p = 8.71'
Dc = 38° 48' 20" (LT)
Lc = 517.41'
Ts = 728.64'
Es = 172.50'

CENTERLINE REFERENCE TIE



IR-680 RAMP BX ℄ CONST.
S.C. STA. 10+76.89
N.T.S.

CURVE DATA ℄ IR-680 RAMP BX

P.I. Sta = 4+43.87
D = 21° 55' 20" (LT)
Dc = 2° 30' 00"
R = 2,291.82'
T = 443.87'
L = 876.88'
E = 42.59'

P.I. Sta = 9+44.02
Ls = 19.25'
fs = 0° 49' 06"
LT = 12.84'
ST = 6.42'
x = 19.25'
y = 0.09'
k = 9.63'
p = 0.02'

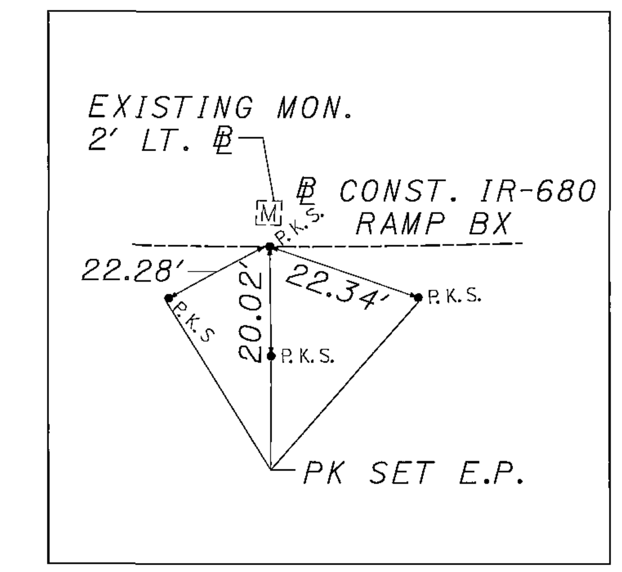
P.I. Sta = 9+90.81
D = 8° 30' 06" (LT)
Dc = 8° 30' 00"
R = 674.07'
Ls1 = 19.25'
Ls2 = 11.09'
Theta1 = 0° 49' 06"
Theta2 = 0° 28' 16"
LT1 = 12.84'
LT2 = 7.39'
ST1 = 6.42'
ST2 = 3.70'
x1 = 19.25'
x2 = 11.09'
y1 = 0.09'
y2 = 0.03'
k1 = 9.63'
k2 = 5.54'
p1 = 0.02'
p2 = 0.01'
Dc = 7° 12' 44" (LT)
Lc = 84.85'
Ts1 = 59.63'
Ts2 = 55.75'
Es = 1.87'

P.I. Sta = 10+38.98
Ls = 11.09'
fs = 0° 28' 16"
LT = 7.39'
ST = 3.70'
x = 11.09'
y = 0.03'
k = 5.54'
p = 0.01'

P.I. Sta = 14+74.80
D = 44° 15' 54" (LT)
Dc = 6° 00' 39"
R = 953.23'
Ls2 = 400.00'
Theta2 = 12° 00' 00"
LT2 = 267.28'
ST2 = 133.89'
x2 = 398.25'
y2 = 27.84'
k2 = 199.71'
p2 = 6.97'
c = 32° 15' 54" (LT)
Lc = 536.79'
Ts1 = 397.74'
Ts2 = 580.57'
Es = 79.65'

P.I. Sta = 17+47.76
Ls = 400.00'
fs = 12° 00' 00"
LT = 267.28'
ST = 133.89'
x = 398.25'
y = 27.84'
k = 199.71'
p = 6.97'

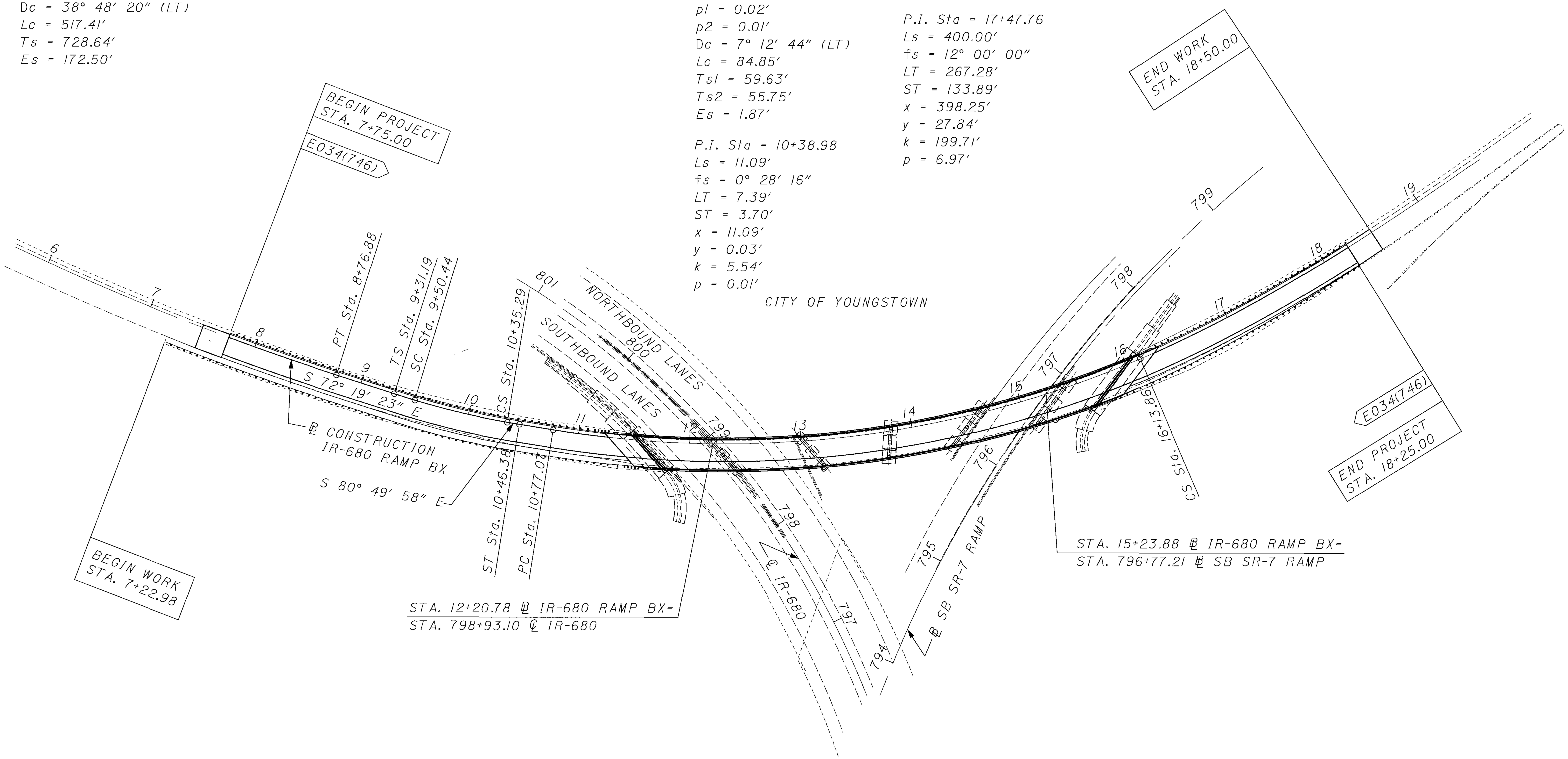
CENTERLINE REFERENCE TIE



IR-680 RAMP BX ℄ CONST.
C.S. STA. 16+13.68
N.T.S.

CURVE DATA EXISTING ℄ SB SR-7 RAMP

P.I. Sta = 798+60.89
D = 81° 27' 45" (RT)
Dc = 5° 00' 00"
R = 1,145.92'
T = 986.73'
L = 1,629.26'
E = 366.29'



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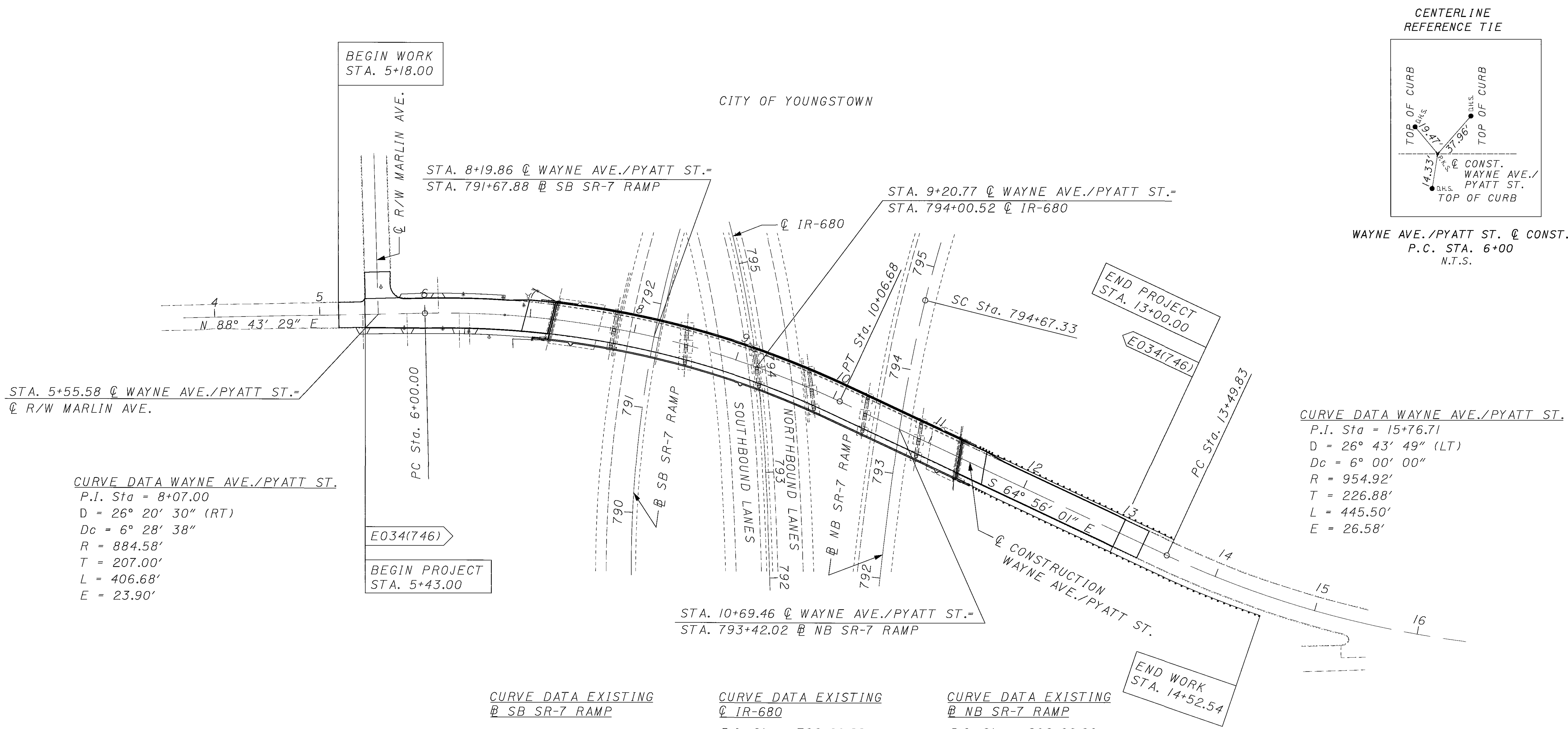
HORIZONTAL SCALE IN FEET
0 25 50 100

SCHEMATIC PLAN IR-680 RAMP BX (6.28)

MAH-680-4.14/6.28/6.37



CURVE DATA WAYNE AVE./PYATT ST.

P.I. Sta = 8+07.00
D = 26° 20' 30" (RT)
Dc = 6° 28' 38"
R = 884.58'
T = 207.00'
L = 406.68'
E = 23.90'

CURVE DATA WAYNE AVE./PYATT ST.

P.I. Sta = 15+76.71
D = 26° 43' 49" (LT)
Dc = 6° 00' 00"
R = 954.92'
T = 226.88'
L = 445.50'
E = 26.58'

CURVE DATA EXISTING ℄ SB SR-7 RAMP

P.I. Sta = 798+89.04
D = 68° 48' 20" (LT)
Dc = 7° 30' 00"
R = 763.94'
Ls = 400.00'
Theta = 15° 00' 00"
LT = 267.63'
ST = 134.21'
x = 397.27'
y = 34.74'
k = 199.54'
p = 8.71'
Dc = 38° 48' 20" (LT)
Lc = 517.41'
Ts = 728.64'
Es = 172.50'

CURVE DATA EXISTING ℄ IR-680

P.I. Sta = 798+60.89
D = 81° 27' 45" (RT)
Dc = 5° 00' 00"
R = 1,145.92'
T = 986.73'
L = 1,629.26'
E = 366.29'

CURVE DATA EXISTING ℄ NB SR-7 RAMP

P.I. Sta = 802+62.86
D = 78° 53' 57" (RT)
Dc = 5° 00' 00"
R = 1,145.92'
Ls = 300.00'
Theta = 7° 30' 00"
LT = 200.18'
ST = 100.16'
x = 299.49'
y = 13.07'
k = 149.91'
p = 3.27'
Dc = 63° 53' 57" (RT)
Lc = 1,277.99'
Ts = 1,095.53'
Es = 342.31'

0 25 50 100
HORIZONTAL SCALE IN FEET

SCHEMATIC PLAN WAYNE AVE./PYATT ST. (6.37)

MAH-680-4.14/6.28/6.37

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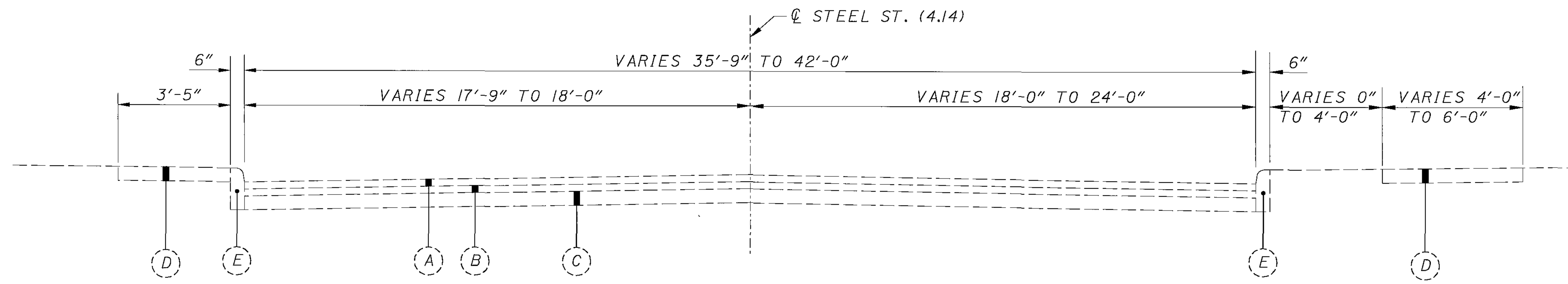
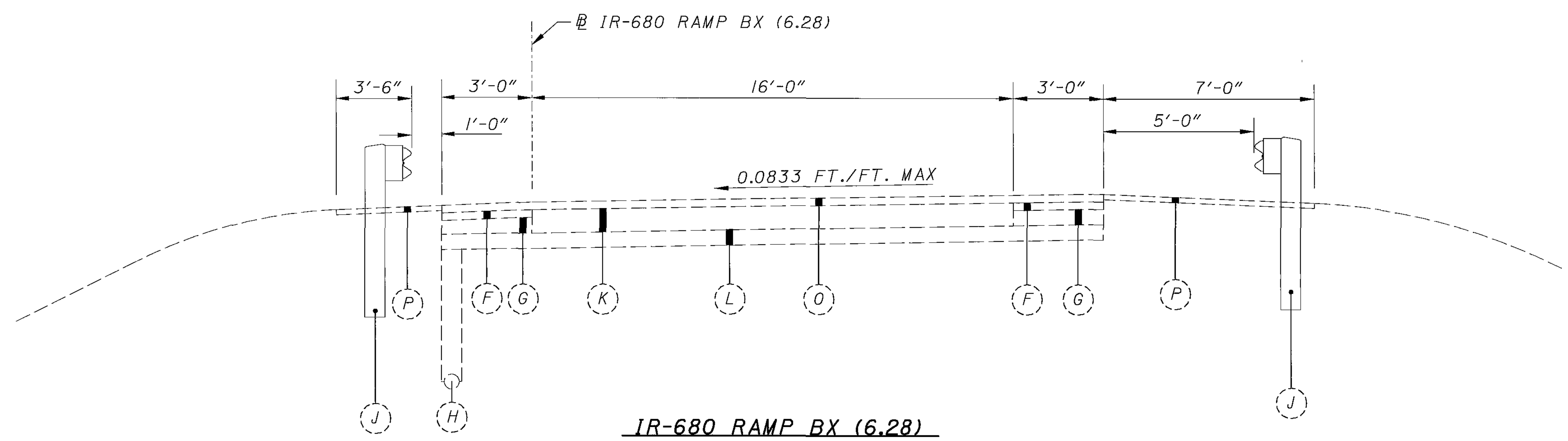
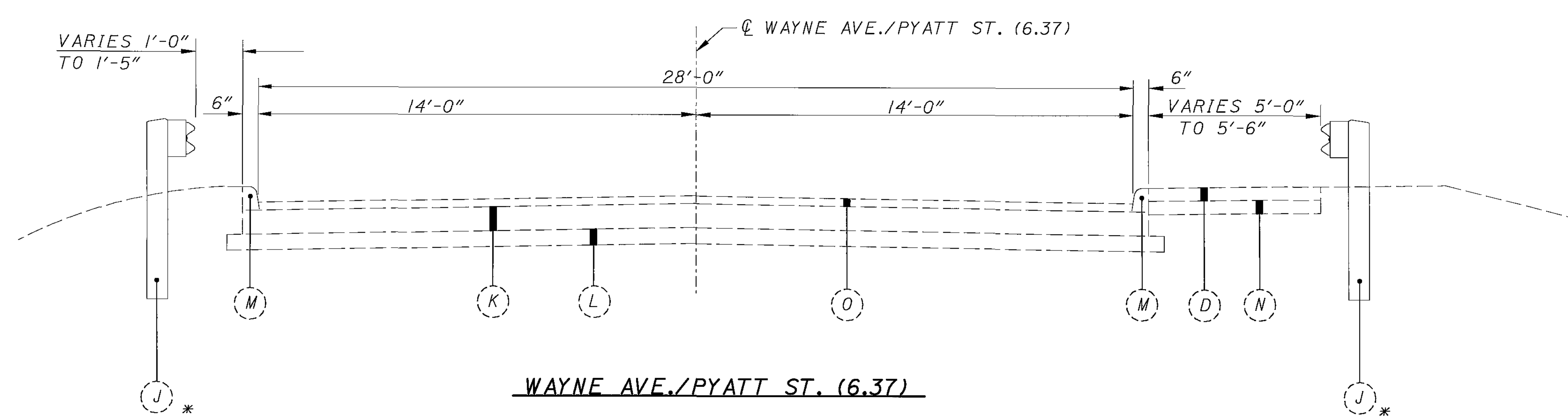


STEEL ST. (4.14)



IR-680 RAMP BX (6.28)

SUPERELEVATED



WAYNE AVE./PYATT ST. (6.37)

* EAST OF BRIDGE (ONLY)

LEGEND

- (A) MIN. 4½″ ASPHALT CONCRETE
- (B) BRICK
- (C) 6″ CONCRETE BASE
- (D) SIDEWALK
- (E) TYPE 6 CURB
- (F) WATERPROOF AGGREGATE BASE COURSE
- (G) POROUS BASE COURSE
- (H) 6″ UNDERDRAIN
- (J) GUARDRAIL
- (K) 9″ REINFORCED CONCRETE PAVEMENT
- (L) 6″ SUBBASE
- (M) TYPE 2-A CURB
- (N) 5″ CINDER FILL
- (O) MIN. 3″ ASPHALT CONCRETE
- (P) 2″ ASPHALT CONCRETE

EXISTING TYPICAL SECTIONS

MAH-680-4.14/6.28/6.37

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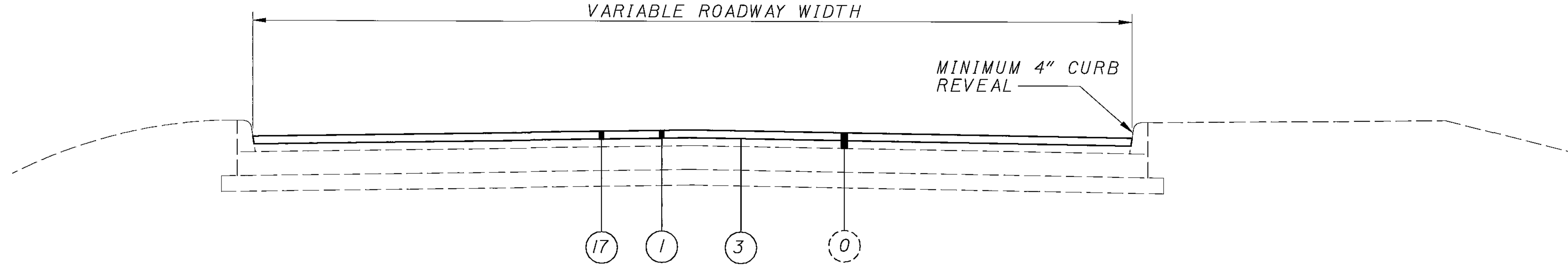
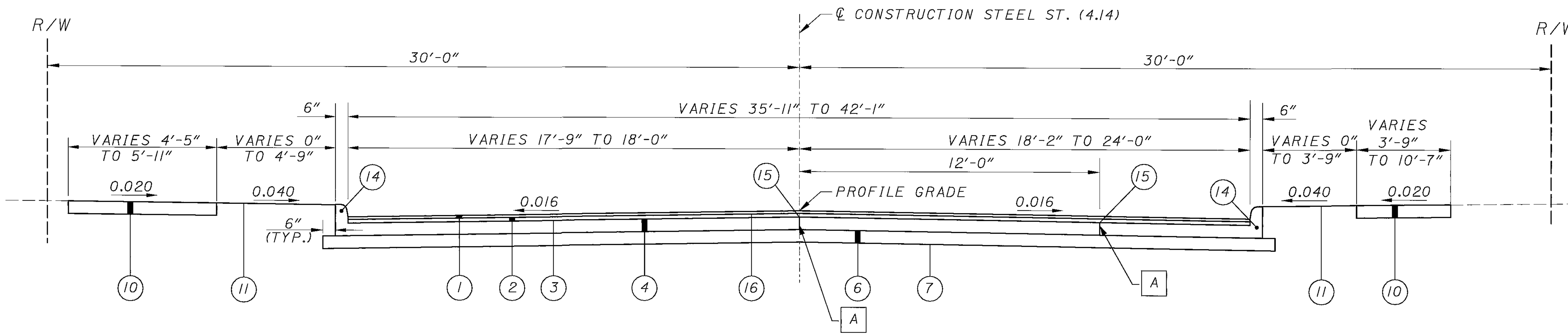


RESURFACING SECTION
(TYPICAL ALL STREETS)

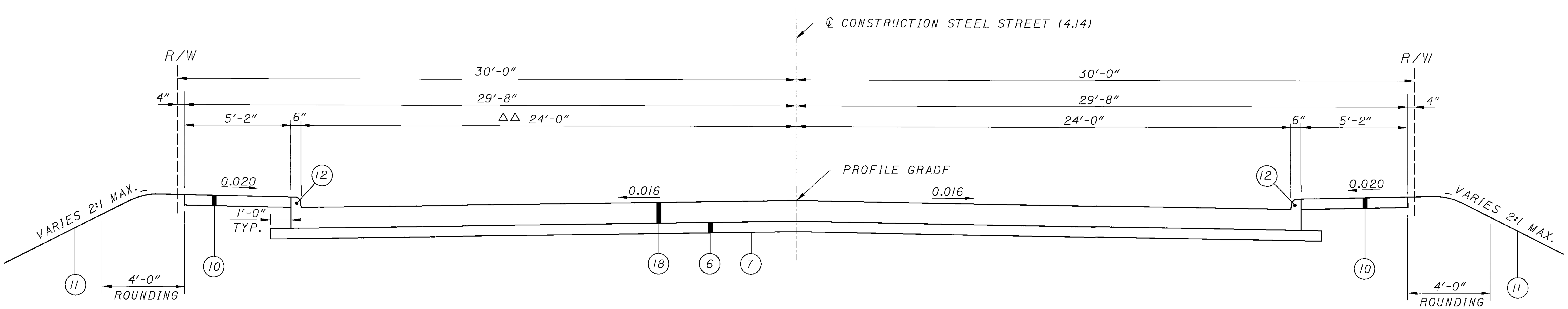


STEEL ST. (4.14)

STA. 49+48.98 TO STA. 50+10.11 = 61.13 LIN. FT.
STA. 52+71.63 TO STA. 53+55.00 = 83.37 LIN. FT.
TOTAL LENGTH = 144.50 LIN. FT.

LEGEND

1. ITEM 448 1¼″ ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22
2. ITEM 448 1¾″ ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22
3. ITEM 407 TACK COAT, 0.075 GAL/SY
4. ITEM 305 6″ CONCRETE BASE
5. ITEM 305 9″ CONCRETE BASE
6. ITEM 304 6″ AGGREGATE BASE
7. ITEM 204 SUBGRADE COMPACTION
8. ITEM 605 6″ SHALLOW PIPE UNDERDRAINS (707.31)
9. ITEM 606 GUARDRAIL, TYPE 5
10. ITEM 608 4″ CONCRETE WALK
11. ITEM 659 SEEDING & MULCHING
12. ITEM 609 CURB, TYPE 2-A
13. ITEM 609 CURB, TYPE 4-A
14. ITEM 609 CURB, TYPE 2-B
15. ITEM 409 SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS
16. ITEM 407 TACK COAT FOR INTERMEDIATE COURSE, 0.04 GAL/SY
17. ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE (T=1¼″)
18. ITEM 526 REINFORCED CONCRETE APPROACH SLAB (T=15″)
19. ITEM 448 1½″ ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, UNDER GUARDRAIL, PG64-22, AS PER PLAN
20. ITEM 606 GUARDRAIL, TYPE 5, USING 9 FOOT POSTS



CURB TRANSITIONS FROM 6″ TO 8″ REVEAL OVER APPROACH SLAB

APPROACH SLAB TYPICAL SECTION

SECTION APPLIES:
STA. 50+10.11 TO STA. 52+71.63 = 261.52 LIN. FT.
DEDUCT FOR STRUCTURE MAH-680-4.14
STA 50+35.11 TO STA. 52+46.63 = -211.52 LIN. FT.
TOTAL LENGTH = 50.00 LIN. FT.

ΔΔ VARIES TO 37′-1″ AT OAKWOOD STREET
ΔΔ VARIES TO 27′-0″ AT SILLIMEN STREET

A LONGITUDINAL JOINT PER SCD BP-2.1

NOTES:
1. SEE SHEET 5 FOR EXISTING LEGEND.
2. CURB ON APPROACH SLAB PAID FOR AS PART OF APPROACH SLAB PER CMS 526.
3. CURB HEIGHT TRANSITIONS IN APPROACH SLAB AS NEEDED.

PROPOSED TYPICAL SECTIONS STEEL ST. (4.14)

MAH-680-4.14/6.28/6.37

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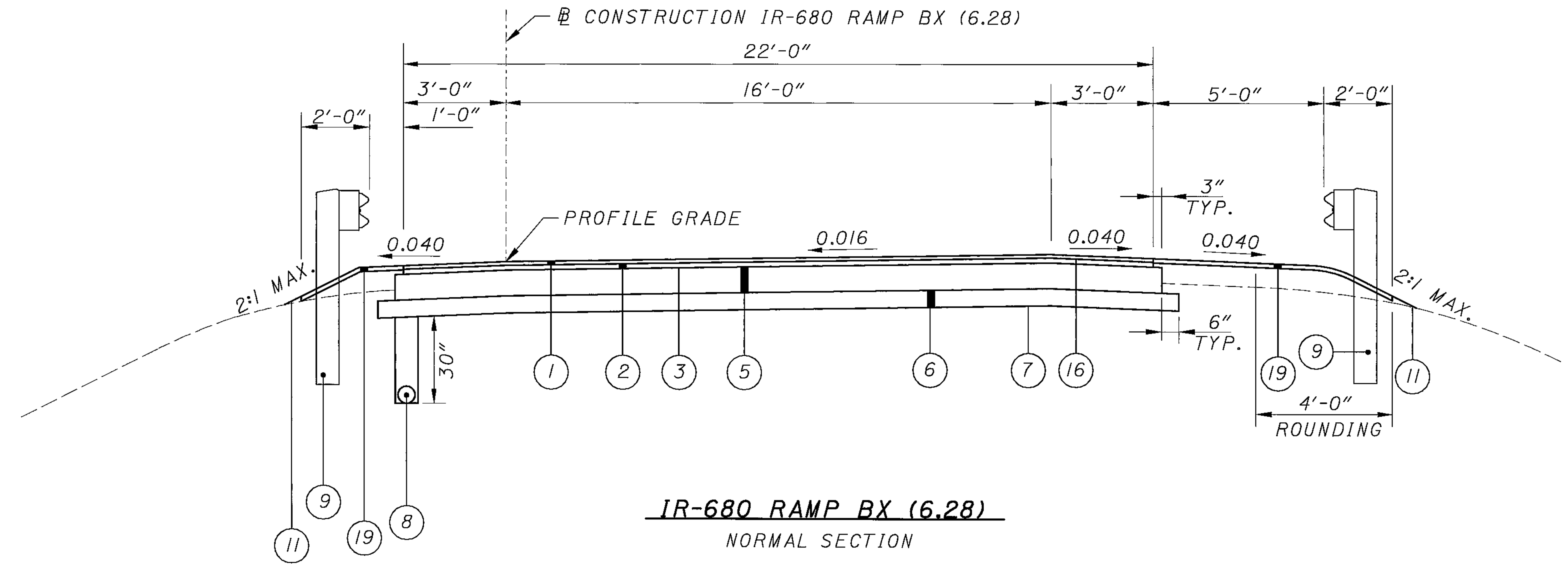
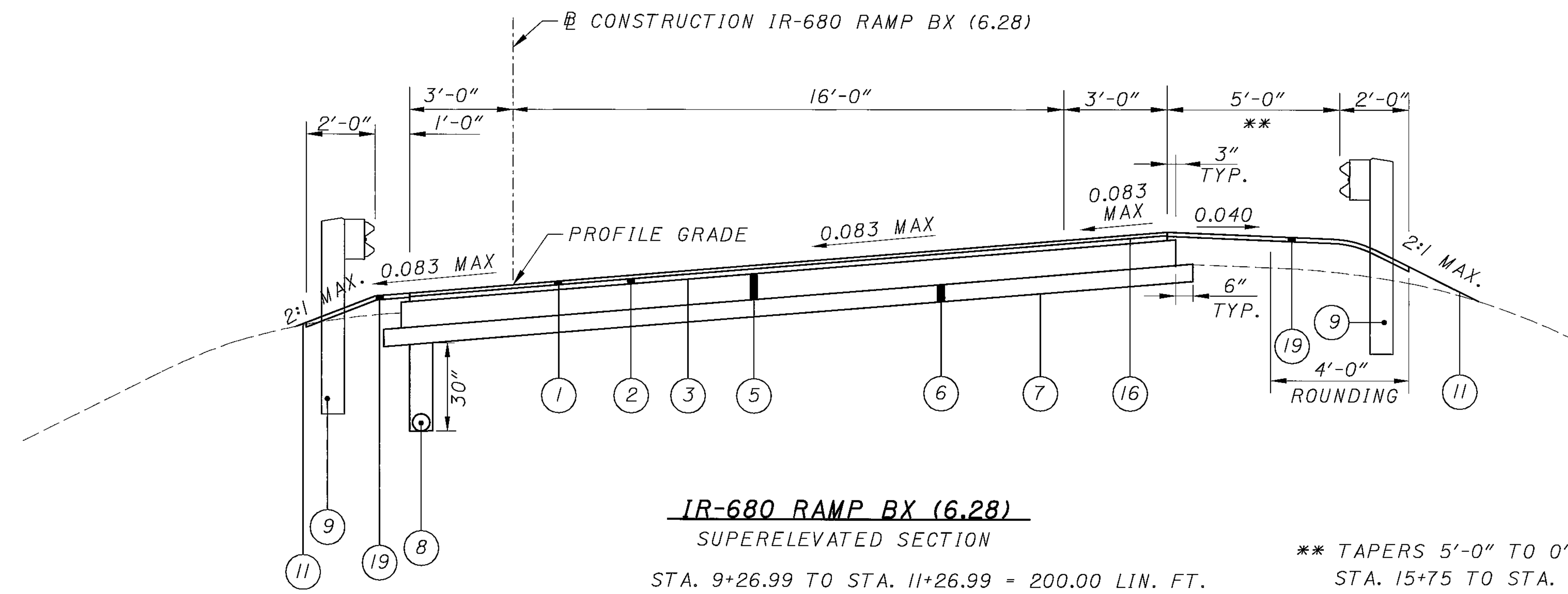


IR-680 RAMP BX (6.28)

NORMAL SECTION

STA. 7+75.00 TO STA. 9+26.99 = 161.99 LIN. FT.

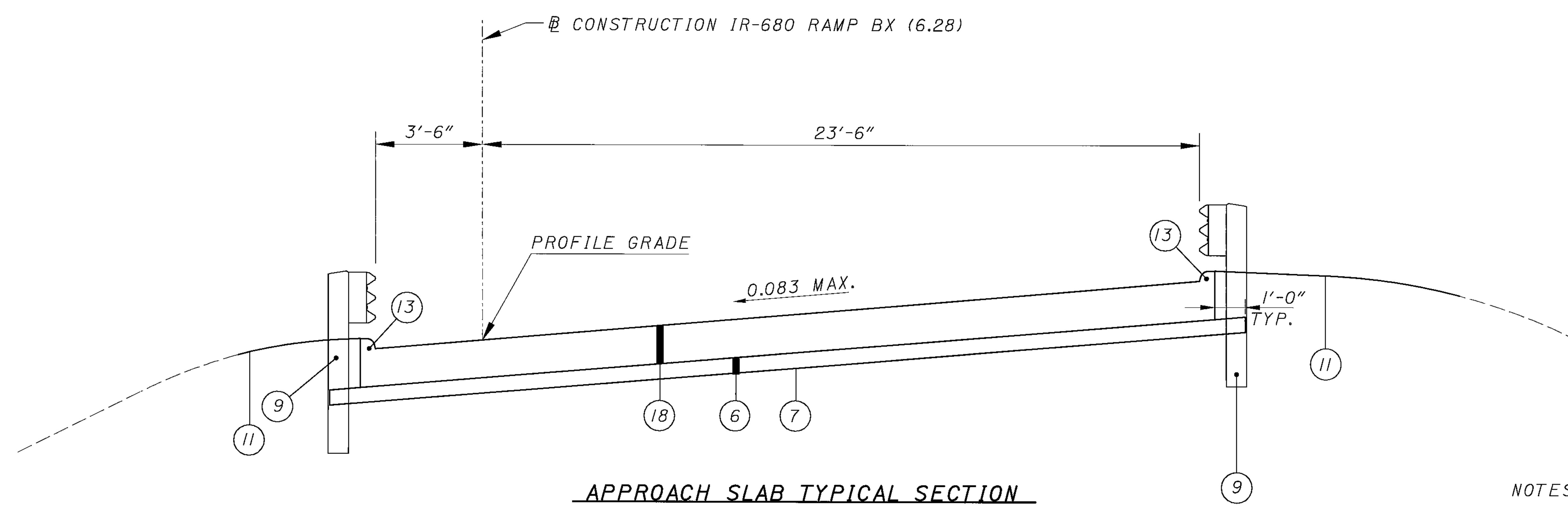


IR-680 RAMP BX (6.28)

SUPERELEVATED SECTION

STA. 9+26.99 TO STA. 11+26.99 = 200.00 LIN. FT.
STA. 16+27.29 TO STA. 18+25.00 = 197.71 LIN. FT.
TOTAL LENGTH = 397.71 LIN. FT.

** TAPERS 5'-0" TO 0'-0" FROM STA. 15+75 TO STA. 18+25



APPROACH SLAB TYPICAL SECTION

SECTION APPLIES:

STA. 11+26.99 TO STA. 16+27.29 = 500.30 LIN. FT.
DEDUCT FOR STRUCTURE MAH-680-6.28
STA 11+51.99 TO STA. 16+02.29 = -450.30 LIN. FT.
TOTAL LENGTH = 50.00 LIN. FT.

NOTES:
1. SEE SHEET 5 FOR EXISTING LEGEND. SEE SHEET 6 FOR PROPOSED LEGEND.
2. CURB ON APPROACH SLAB PAID FOR AS PART OF APPROACH SLAB PER CMS 526.
3. CURB HEIGHT TRANSITIONS IN APPROACH SLAB AS NEEDED.

PROPOSED TYPICAL SECTIONS
IR-680 RAMP BX (6.28)

MAH-680-4.14/6.28/6.37

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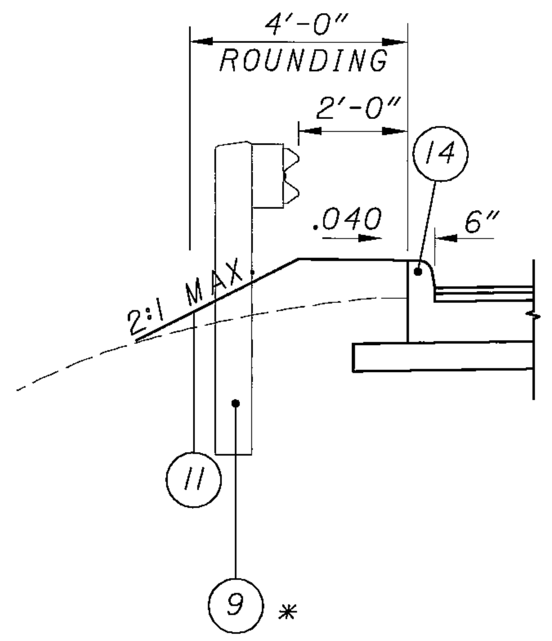
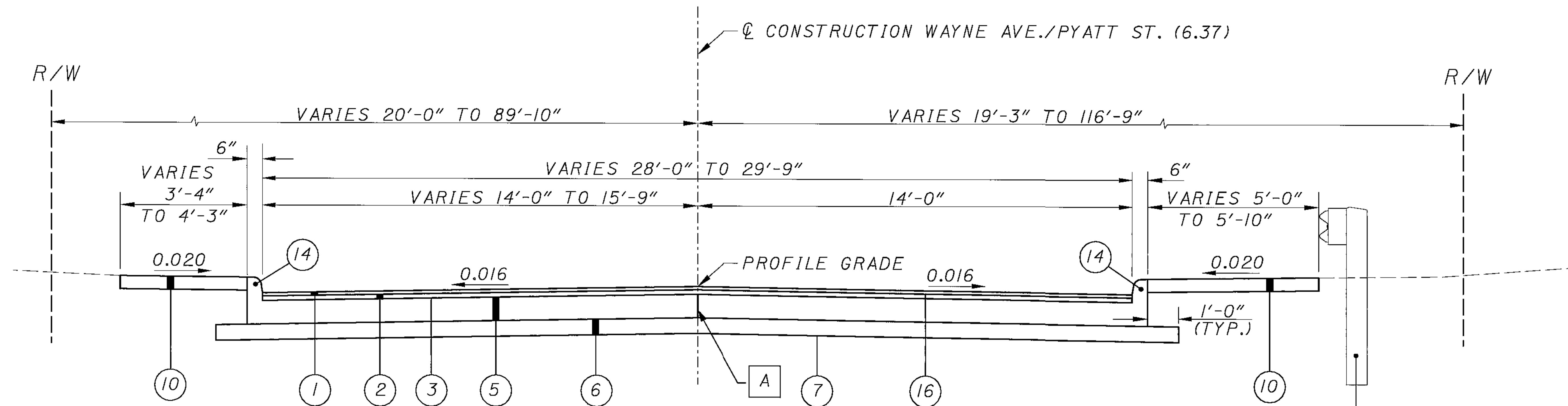


ALTERNATE SHOULDER DETAIL

* EAST OF BRIDGE (ONLY)

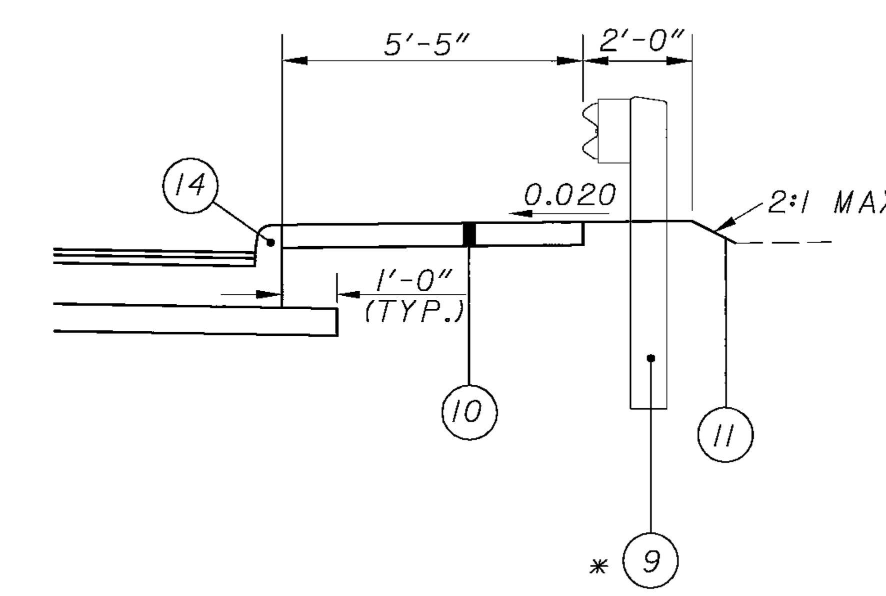
STA. 11+58.12 TO STA. 13+50.00 = 191.88 LIN. FT.



WAYNE AVE./PYATT ST. (6.37)

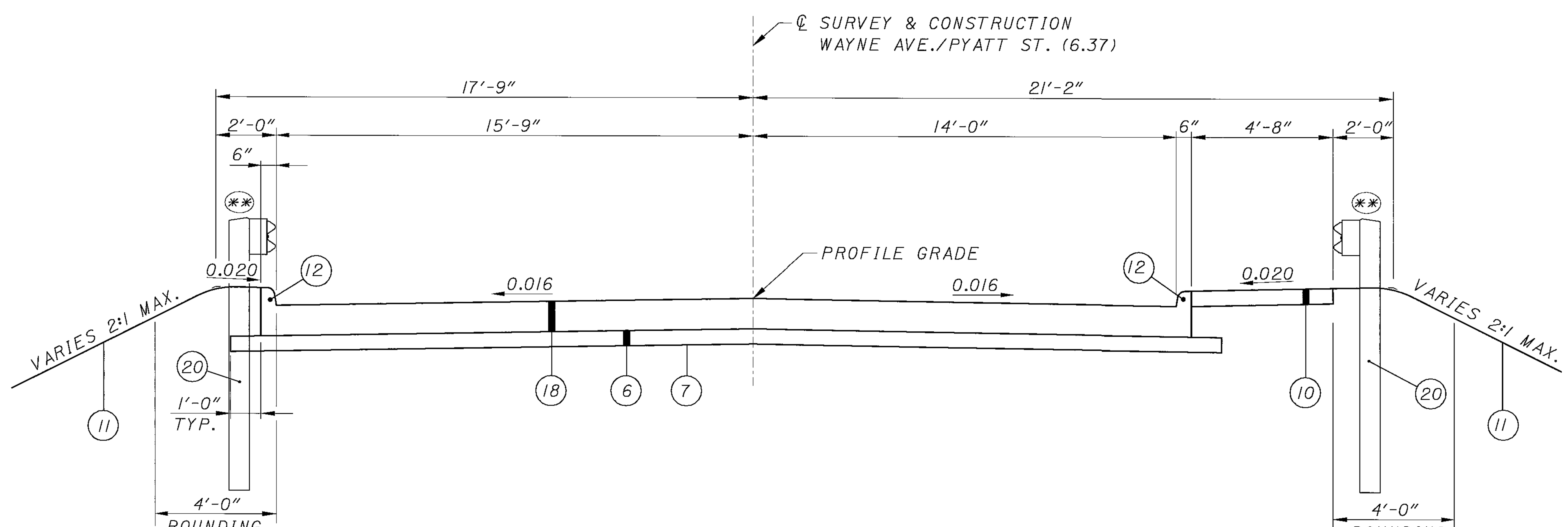
* EAST OF BRIDGE (ONLY)

STA. 5+43.00 TO STA. 6+95.37 = 152.37 LIN. FT.
STA. 11+58.12 TO STA. 13+00.00 = 141.88 LIN. FT.
TOTAL LENGTH = 294.25 LIN. FT.



ALTERNATE SHOULDER DETAIL

STA. 11+58.12 TO STA. 13+00.00 = 141.88 LIN. FT.



APPROACH SLAB TYPICAL SECTION

SECTION APPLIES:

STA. 6+95.37	TO	STA. 11+58.12	=	462.75 LIN. FT.
DEDUCT FOR STRUCTURE MAH-680-6.37				
STA. 7+20.37	TO	STA. 11+33.12	=	-412.75 LIN. FT.
		TOTAL LENGTH	=	50.00 LIN. FT.

** GUARDRAIL TRANSITIONS TO TERMINAL ASSEMBLY AT EAST SIDE OF BRIDGE (ONLY)

A LONGITUDINAL JOINT PER SCD BP-2.1

NOTES:
1. SEE SHEET 5 FOR EXISTING LEGEND. SEE SHEET 6 FOR PROPOSED LEGEND.
2. CURB ON APPROACH SLAB PAID FOR AS PART OF APPROACH SLAB PER CMS 526.
3. CURB HEIGHT TRANSITIONS IN APPROACH SLAB AS NEEDED.

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PROPOSED TYPICAL SECTIONS WAYNE AVE./PYATT ST. (6.37)

MAH-680-4.14/6.28/6.37

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:

ELECTRIC: OHIO EDISON COMPANY
730 SOUTH AVENUE
YOUNGSTOWN, OHIO 44501
ATTN: BILL SPEECE
330-740-7635

GAS: DOMINION EAST OHIO
1165 WEST RAYEN AVENUE
YOUNGSTOWN, OHIO 44502-1394
ATTN: DOMINIC ROZZO
330-742-8148

CABLE: TIME WARNER CABLE
4352 YOUNGSTOWN ROAD SE
WARREN, OHIO 44484
ATTN: DON JUGENHEIMER
330-633-9203 EXT. 7138

WATER: YOUNGSTOWN WATER DEPARTMENT
P.O. BOX 6219
YOUNGSTOWN, OHIO 44501-6219
ATTN: RANDALL COLLA
330-743-5338

WATER: MAHONING VALLEY SANITARY DISTRICT
P.O. BOX 4119
YOUNGSTOWN, OHIO 44515-0119
ATTN: MARTY KIELBASA
330-799-6315

TELEPHONE: SBC
2933 SALT SPRINGS ROAD
YOUNGSTOWN, OHIO 44509
ATTN: DAVE POST
330-270-8833

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.

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM (NAVD 88), AS DEFINED BY MONUMENTATION PROVIDED BY THE STATE.

ABBREVIATIONS

ABND ABANDONED
APP AS PER PLAN
CB CATCH BASIN
CS COMBINED SEWER
EX EXISTING
G GAS
HW HEADWALL
INV INVERT
LT LEFT
MH MANHOLE
RT RIGHT
STA STATION
U UNDERDRAIN
UNK UNKNOWN
WTR WATER
W WATER

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.

CONSTRUCTION NOISE (STEEL STREET AND WAYNE/PYATT AVENUE)

ACTIVITIES AND LAND USE ADJACENT TO STEEL STREET AND WAYNE AVE./PYATT ST. MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, ANY POWER-OPERATED CONSTRUCTION-TYPE DEVICE SHALL NOT BE OPERATED BETWEEN THE HOURS OF 10 PM AND 6 AM AT THESE SITES. IN ADDITION, ANY SUCH DEVICE SHALL NOT BE OPERATED AT ANY TIME IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

CONVERSION OF STANDARD CONSTRUCTION DRAWINGS

THE METRIC STANDARD DRAWINGS REFERENCED IN THIS PLAN SHALL BE CONVERTED TO ENGLISH UNITS USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.02 OF THE 2002 CONSTRUCTION AND MATERIALS SPECIFICATIONS. CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

EXISTING PLANS

EXISTING PLANS ENTITLED YOUNGSTOWN EXPRESSWAY SYSTEM MAH-18-17.20 MAHONING COUTY, CITY OF YOUNGSTOWN PART 1- STEEL STREET TO HAYES AVENUE FOR STEEL ST. (4.14). YOUNGSTOWN EXPRESSWAY MAH-7-14.95 MAHONING COUNTY, CITY OF YOUNGSTOWN FOR IR-680 RAMP BX (6.28) AND YOUNGSTOWN EXPRESSWAY SYSTEM MAH-7-14.80 MAHONING COUNTY, CITY OF YOUNGSTOWN PART 2- WILLIAMSON AVENUE TO HAYES AVENUE FOR WAYNE AVENUE/ PYATT STREET (6.37) MAY BE INSPECTED IN THE ODOT DISTRICT 4 OFFICE IN ARKON.

PART-WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXTREME CARE SHALL BE TAKEN TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LONGITUDINAL JOINTS SHALL BE LAPPED AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

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.

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING. ADDITIONALLY, THIS ITEM SHALL INCLUDE HERBICIDAL SPRAYING ON ABUTMENT SLOPES UNDER PROJECT BRIDGES.

MONUMENTS

MONUMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAILS AS SHOWN ON THE STANDARD CONSTRUCTION DRAWINGS AND AT THE LOCATIONS SHOWN ON SHEETS NO. 50 AND 51.

BENCHING OF FOUNDATION SLOPES

ALTHOUGH CROSS-SECTIONS INDICATE SPECIFIC DIMENSIONS FOR PROPOSED BENCHING OF THEEMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. ALL OTHER SLOPED EMBANKMENT AREAS SHALL BE BENCHED AS SET FORTH IN 203.05. NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF 203.05.

ITEM 204 - PROOF ROLLING

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

4130 SQ YD x (1HR/2000 SQ YD)
204, PROOF ROLLING 2 HOUR

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A "W-BEAM RAIL SPLICE" AS SHOWN IN AASHTO M 180. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

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 TRINITY INDUSTRY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE LENGTH OF THE ET-2000 (1997) SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF TWO 25'-0" 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 PREAPPROVED SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DWG./ REV. DATE	ODOT APPROVAL DATE
SSS265M	ET-2000 (1997) PLAN, ELEVATION AND SECTIONS	6/20/97	3/6/98
SS142	ET2000 PLUS 50'-0" PLAN, ELEVATION AND SECTION 25'-0" RAIL, SLEEVE W/PL POSTS 1-4	4/12/00	7/31/00
SS141	ET2000 PLUS PLAN, ELEVATION AND SECTION 25'-0" RAIL, HBA POSTS 1-4	2/29/00	7/31/00
SS158	ET2000 PLUS 50'-0" WITH 12'-6" PANELS AND HBA POSTS 1-4 PLAN, ELEVATION AND SECTION	5/22/00	7/31/00

CALCULATED DES CHECKED DJW

GENERAL NOTES

MAH-680-4.14/ 6.28/6.37

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2) THE SKT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 2516 MALLORY LANE, STOW, OHIO, 44224, (TELEPHONE: 330-346-0721).

THE LENGTH OF THE SKT-350 SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF FOUR 12'-6" 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. NO.	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 18" X 18".

REFER TO THE MANUFACTURER'S INSTRUCTION REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4-INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 27-3/4-INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4-INCHES ABOVE THE GROUND LINE.

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, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

PAVING UNDER GUARDRAIL

THIS OPERATION SHALL INCLUDE PREPARATION OF THE GRADED SHOULDER USING 209, LINEAR GRADING, AND PAVING UNDER THE GUARDRAIL USING 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG 64-22, UNDER GUARDRAIL, AS PER PLAN.

ITEM 209, LINEAR GRADING, SHALL CONSIST OF EXCAVATING TOPSOIL, PLACING GRANULAR MATERIAL AND APPLYING HERBICIDE AS SPECIFIED IN THE PLANS AND IN ACCORDANCE WITH THE FOLLOWING:

ALL COLLECTED DEBRIS AND TOPSOIL, INCLUDING RHIZOMES, ROOTS AND OTHER VEGETATIVE PLANT MATERIAL SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED IN 105.17.

THE REMOVED MATERIAL SHALL BE REPLACED WITH COMPACTABLE GRANULAR MATERIAL CONFORMING TO 703.16 PLACED TO GRADE AS DETAILED ON THE TYPICAL SECTION OR AS APPROVED BY THE ENGINEER.

HERBICIDE SHALL BE EPA APPROVED FOR PAVING UNDER GUARDRAIL. IT SHALL BE APPLIED TO THE PREPARED AREA AFTER FINAL LEVELING AND GRADING HAS BEEN COMPLETED. THE APPLICATION SHALL BE JUST PRIOR TO PAVING AND SHALL STRICTLY ADHERE TO THE MANUFACTURER'S INSTRUCTIONS.

EACH SUCCESSFUL BIDDER MUST BE LICENSED BY THE OHIO DEPARTMENT OF AGRICULTURE AS A COMMERCIAL APPLICATOR AND ALL PERSONS INVOLVED IN THE ACTUAL SPRAYING SHALL BE LICENSED AS COMMERCIAL OPERATORS IN THE APPROPRIATE SPRAY CATEGORY.

HERBICIDE LABEL, MATERIAL SAFETY DATA SHEET AND COPY OF APPLICATORS LICENSES SHALL BE SUBMITTED TO THE ENGINEER FOR VERIFICATION PRIOR TO COMMENCING WORK.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 209, LINEAR GRADING, AS PER PLAN.

PAVING UNDER GUARDRAIL SHALL CONSIST OF PLACING ITEM 448 TO THE DEPTH SPECIFIED USING ONE OF THE FOLLOWING METHODS:

METHOD A: 1) SET GUARDRAIL POSTS

2) PLACE ITEM 448

METHOD B: 1) PLACE ITEM 448

2) BORE ASPHALT AT POST LOCATIONS (MAY BE OMITTED IF STEEL POSTS ARE USED)

3) SET GUARDRAIL POSTS

4) PATCH AROUND POSTS. THE MATERIALS USED FOR PATCHING SHALL BE AN ASPHALT CONCRETE APPROVED BY THE ENGINEER. PATCHED AREAS SHALL BE COMPACTED USING EITHER HAND OR MECHANICAL METHODS. FINISHED SURFACES SHALL BE SMOOTH AND SLOPED TO DRAIN AWAY FROM THE POSTS.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE, WITH THE EXCEPTION OF SETTING GUARDRAIL POSTS, SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 448, ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 1, PG 64-22, UNDER GUARDRAIL, AS PER PLAN.

AIRWAY/HIGHWAY CLEARANCE FOR AIRPORTS AND HELIPORTS

THIS PROJECT HAS BEEN IDENTIFIED AS BEING WITHIN THE INFLUENCE AREA OF A PUBLIC USE AIRPORT OR HELIPORT. THE CONTRACTOR IS ADVISED THAT NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT AT MAXIMUM OPERATING HEIGHT SHALL EXCEED A HEIGHT OF 260 Ft. FOR STEEL ST. (4.14), 200 FT. FOR IR-680 RAMP BX (6.28), AND 203 FT. FOR WAYNE AVE./PYATT ST. (6.37) IF ANY TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT WILL EXCEED THIS HEIGHT, THE CONTRACTOR IS ADVISED THAT COORDINATION WITH THE FEDERAL AVIATION ADMINISTRATION (FAA) WILL BE NECESSARY PRIOR TO ERECTING SUCH TEMPORARY STRUCTURES OR OPERATING SUCH EQUIPMENT ON THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT FORM 7460-1 TO THE FAA. A COPY OF THE SUBMISSION AND TWO COPIES OF FORM 7460-1 SHALL BE FORWARDED TO THE ODOT OFFICE OF AVIATION. THE CONTRACTOR IS ADVISED THAT NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSIBLE HEIGHT, UNTIL A COPY OF THE FAA APPROVAL AND ODOT OFFICE OF AVIATION PERMIT HAS BEEN FURNISHED TO THE PROJECT ENGINEER.

THE FEDRAL AVIATION ADMINISTRATION
GREAT LAKES REGIONAL OFFICE
AIR TRAFFIC DIVISION AGL-530
2300 EAST DEVON AVENUE
DES PLAINES, ILLINOIS 60018
(847) 294-7566

OHIO DEPARTMENT OF TRANSPORTATION
OFFICE OF AVIATION
2829 WEST DUBLIN-GRANVILLE ROAD
COLUMBUS, OHIO 43235
(614) 793-5046

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.

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.

ITEM 604 - CATCH BASIN, NO. 3, AS PER PLAN
ITEM 604 - CATCH BASIN, NO. 3A, AS PER PLAN
ITEM 604 - CATCH BASIN, NO. 2-2A, AS PER PLAN

CATCH BASINS CONNECTING DIRECTLY TO THE COMBINED SEWER SYSTEM SHALL BE INSTALLED WITH A TRAP. TRAP SHALL CONSIST OF A 90 DEGREE ELBOW FITTED TO THE OUTLET PIPE, OPENING DOWNWARD. CATCH BASIN SHALL HAVE A SUMP ELEVATION OF A MINIMUM OF 2 FOOT BELOW THE LOW POINT OF THE TRAP ELBOW. ELBOW SHALL FIT SECURELY, BUT NOT BE GROUTED IN PLACE OR PERMANENTLY ATTACHED TO ALLOW FOR ITS REMOVAL BY THE CITY OF YOUNGSTOWN FOR REGULAR MAINTENANCE AND CLEANING OF THE CATCH BASIN. TRAP SHALL BE PAID FOR UNDER EACH RESPECTIVE AS PER PLAN CATCH BASIN ITEM.

ITEM 605 - 6" SHALLOW PIPE UNDERDRAINS, AS PER PLAN

UNDERDRAINS DESCRIBED AS 6"-605 SHALL BE PERFORATED CORRUGATED POLYETHYLENE DRAINAGE TUBING, PER CMS 707.31.

SANITARY WORK

THE FOLLOWING CONDUIT TYPES MAY BE USED: 707.42, 707.43, 707.44, 707.45, 707.46, 707.47, 707.51, 707.52 PS46 MIN., 706.01, 707.02 OR 706.08 WITH JOINTS AS PER 706.11 OR 706.12.

PAYMENT FOR ITEM SHALL BE INCLUDED IN THE PER FT. PRICE FOR 15" CONDUIT, TYPE B.

SODDING

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

764 SQ YD X (111 CU YD/1000 SQ YD)=85 CUYD
659, TOPSOIL 85 CU. YD.

764 SQ YD X (1 TON/7410 SQ YD)=0.10 TON
659, COMMERCIAL FERTILIZER 0.10 TON

764 SQ YD=0.16 ACRES
659, LIME 0.16 ACRES

764 SQ YD X (0.0027 M. GAL/SQ YD) X (8 APPLICATIONS)=16.50 M. GAL
659, WATER 16.50 M. GAL.

SODDING 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 SODDING AND MULCHING ARE BASED ON THESE LIMITS.

DUST CONTROL

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

(1560 + 120 CU YD) X (0.004 M. GAL/CU YD)=6.72 M. GAL
ITEM 616, WATER 6.72 M. GAL

ENDANGERED SPECIES HABITAT

THIS PROJECT IS WITHIN THE RANGE OF THE FEDERALLY ENDANGERED INDIANA BAT (MYOTIS SODALIS) AND MAY IMPACT SUMMER ROOSTING HABITAT FOR THIS SPECIES. THE SUMMER ROOSTING HABITAT FOR THE INDIANA BAT CONSISTS OF LIVING OR DEAD TREES OR SNAGS WITH EXFOLIATING, PEELING OR LOOSE BARK, SPLIT TRUNKS AND/OR BRANCHES OR CAVITIES. THEREFORE, ANY UNAVOIDABLE CUTTING OF SUCH TREES WILL BE PERFORMED ONLY AFTER SEPTEMBER 15 AND BEFORE APRIL 15.

PRIOR TO ANY REMOVAL, THE UNDERSIDE OF THE BRIDGE SHALL BE CAREFULLY EXAMINED FOR THE PRESENCE OF BATS, ESPECIALLY FROM APRIL 15 TO SEPTEMBER 15. IF ANY BATS ARE FOUND ROOSTING ON THE UNDERSIDE OF THE BRIDGE, THE US FISH AND WILDLIFE SERVICE, ECOLOGICAL SERVICES DIVISION SHOULD BE CONTACTED OR PROVIDED WITH INFORMATION.

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CALCULATED DES CHECKED DJW

GENERAL NOTES

MAH-680-4.14/ 6.28/6.37

MAINTENANCE OF TRAFFIC

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS AND RAMPS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

1. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (330) 786-3100, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.

2. CONES SHALL NOT BE ACCEPTABLE TRAFFIC CONTROL DEVICES FOR LANE RESTRICTIONS OR LANE REDUCTIONS THAT ARE IN OPERATION ONE-HALF HOUR AFTER SUNSET OR ONE HALF-HOUR BEFORE SUNRISE. ALL NIGHTTIME LANE RESTRICTIONS SHALL REQUIRE DRUMS OR BARRICADES AT A MAXIMUM SPACING OF FIFTY (50) FEET OR THE SPACING INDICATED IN THE MAINTENANCE OF TRAFFIC PLANS.

3. THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN AND SUBSEQUENTLY REMOVE ALL FLAGS, BARRICADES, SIGNS, SIGN SUPPORTS AND FURNISH AND MAINTAIN ALL FLAGGERS, WATCHERS AND INCIDENTALS RELATED THERETO.

4. ALL FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT OPERATIONS SHALL BE COMPLETED THE SAME DAY THE EXCAVATION IS MADE. IF THE CONTRACTOR CANNOT COMPLETE THE WORK, THE EXCAVATION SHALL BE BACKFILLED OR PROTECTED AS PER SHEET 15 .

5. NO FULL DEPTH BRIDGE REPAIR SHALL BE PERFORMED OVER AN OPEN LANE. A SAFETY NET OR PLATFORM SHALL BE REQUIRED TO PROTECT THE ROADWAY, RAILROAD OR STREAM DURING THE REMOVAL OF THE EXISTING CONCRETE PARAPET AND DECK. THE CONTRACTOR SHALL PROVIDE A SAFETY NET OR PLATFORM OF SUITABLE STRENGTH ON THE UNDERSIDE OF THE DECK. THE DESIGN OF THE NET OR PLATFORM SHALL CONFORM WITH OSHA REQUIREMENTS AND THE APPROVAL OF THE ENGINEER AND SHALL REMAIN IN PLACE UNTIL THE WORK HAS BEEN COMPLETED AND ACCEPTED OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL SUBMIT A DEMOLITION PLAN AND SAFETY NET OR PLATFORM DESIGN 10 DAYS PRIOR TO COMMENCING ANY DEMOLITION FOR APPROVAL BY THE ENGINEER. THE SUBMITTAL SHALL BE IN WRITING TO THE DISTRICT CONSTRUCTION ENGINEER WITH A COPY TO THE PROJECT ENGINEER.

6. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO HAVE SUCCESSIVE WORK ZONES UNLESS THE DISTANCE BETWEEN THE DRUMS, BARRICADES OR CONES EXCEEDS TWO (2) MILES RURAL OR ONE (1) MILE URBAN.

7. ONLY DURING OFF-PEAK PERIODS (ie. ANY PERIOD OTHER THAN 6-10AM AND 4-8PM) SHALL THE CONTRACTOR INSTALL AND SUBSEQUENTLY RESET ALL TRAFFIC CONTROL NECESSARY FOR THE WORK ZONE FOR EACH CONSTRUCTION PHASE.

8. IN ADDITION TO THE REQUIREMENTS OF 614 WORK ZONE PAVEMENT MARKINGS (614.11), AT THE END OF EACH DAY OF WORK, THE CONTRACTOR SHALL REPLACE (WITH WORK ZONE MARKINGS) ALL LANE, EDGE, STOP OR CHANNELIZING LINES THAT WERE REMOVED OR COVERED DURING THE PAVEMENT REMOVAL OR PLACEMENT OPERATIONS. QUANTITIES FOR SUCH PLACEMENT ARE CARRIED AS PART OF THE ITEMS LISTED UNDER 614 WORK ZONE PAVEMENT MARKINGS.

9. PRIOR TO OPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND SHOULDER WIDTH AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.

10. ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATION, 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 ITEM 614. MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

DETOUR NOTIFICATION

THE CONTRACTOR SHALL ADVISE THE ODOT DISTRICT OFFICE (330-786-3100) AND CITY OF YOUNGSTOWN EIGHTEEN (18) DAYS IN ADVANCE OF WHEN THE DETOUR ROUTE SHOULD BE IN EFFECT. ALL WORK ZONE DEVICES REQUIRED SHALL BE FURNISHED, ERECTED, MAINTAINED, AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR

ITEM 614 - MAINTAINING TRAFFIC - MAH-680-4.14 (STEEL ST.)

1. STEEL ST. TO REMAIN OPEN DURING CONSTRUCTION BY UTILIZING PART WIDTH CONSTRUCTION AND A WORK ZONE TRAFFIC SIGNAL DURING PHASE ONE. SEE SHEETS 16 TO 18 FOR MAINTENANCE OF TRAFFIC.

2. THIS ITEM INCLUDES ALL LABOR AND MATERIALS NECESSARY TO ESTABLISH, MAINTAIN AND REMOVE AND REPAIR THE VARIONS CONSTRUCTION ZONES AND DETOUR ROUTES UTILIZED FOR THE DURATION OF THIS PROJECT INCLUDING ALL NECESSARY SIGNS, PAVEMENT MARKINGS AND BARRICADES. TRAFFIC CONTROL METHODS AND DEVICES SHOULD COMPLY WITH LATEST EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

ITEM 614 - MAINTAINING TRAFFIC - MAH-680-6.28 (RAMP BX)

1. A DETOUR WILL BE ESTABLISHED FOR THIS PROJECT PRIOR TO THE COMMENCEMENT OF THE WORK. WORK ZONES AND PHASING AS INDICATED IN THE PLANS SHALL BE FOLLOWED.

2. THIS ITEM INCLUDES ALL LABOR AND MATERIALS NECESSARY TO ESTABLISH, MAINTAIN AND REMOVE AND REPAIR THE VARIONS CONSTRUCTION ZONES AND DETOUR ROUTES UTILIZED FOR THE DURATION OF THIS PROJECT INCLUDING ALL NECESSARY SIGNS, PAVEMENT MARKINGS AND BARRICADES. TRAFFIC CONTROL METHODS AND DEVICES SHOULD COMPLY WITH LATEST EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

3. ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC BETWEEN NOVEMBER 15 AND APRIL 1. NOVEMBER 14 SHALL BE CONSIDERED TO CONSTITUTE AN INTERIM COMPLETION DATE AND LIQUIDATED DAMAGES AS SPECIFIED IN 108.07 SHALL BE ASSESSED FOR EACH CALENDAR DAY THAT THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT. THE CONTRACTOR MAY CLOSE LANES PRIOR TO APRIL 1 WITH WRITTEN APPROVAL FROM THE DISTRICT CONSTRUCTION ENGINEER.

4. 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/RAMP 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. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

5. THE MAXIMUM LENGTH OF TIME FOR THE DETOUR ROUTE TO BE IN EFFECT SHALL BE ONE CONSTRUCTION SEASON (227) CONSECUTIVE DAYS. CONSTRUCTION WORK MAY BE PERFORMED BEFORE AND AFTER THE DETOUR LIMITATION DATES, BUT THERE SHALL BE NO RESTRICTIONS (LANE WIDTH REDUCTIONS, TEMPORARY ROADWAYS, OR ONE WAY TRAFFIC) TO THROUGH OR LOCAL TRAFFIC. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SCHEDULE AND PERFORM THE CONSTRUCTION WORK WITHIN THE DETOUR LIMITATION TIME. THE FAILURE OF THE CONTRACTOR TO MEET THE DETOUR LIMITATION DATES WILL CAUSE SEPARATE LIQUIDATED DAMAGES OF $1250 PER CALENDAR DAY OF OVERRUN OF DETOUR LIMITATION TIME TO BE ASSESSED. THE CONTRACTOR WILL COMPLY WITH ALL PROVISIONS OF 108.07 OF THE DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS.

6. WHERE THE PLANS CALL FOR A PERMANENT SIGN TO BE OVERLAYED, THE CONTRACTOR SHALL DO SO IN SUCH A MANNER AS TO AVOID DAMAGING THE PERMANENT SIGN WHEN THE OVERLAY IS REMOVED. THE OVERLAY SHALL BE TOTALLY OPAQUE. THE USE OF ADHESIVE TAPE APPLIED DIRECTLY TO A SIGN FACE IS STRICTLY PROHIBITED. THE OVERLAYS MAY BE RIVETED TO THE PERMANENT SIGN. THE CONTRACTOR SHALL PROVIDE ALL OF THE PLAQUES, SIGNS AND SIGN PANELS NECESSARY.

ITEM 614 - MAINTAINING TRAFFIC - MAH-680-6.37 (WAYNE/PYATT)

1. A DETOUR WILL BE ESTABLISHED FOR THIS PROJECT PRIOR TO THE COMMENCEMENT OF THE WORK. WORK ZONES AND PHASING AS INDICATED IN THE PLANS SHALL BE FOLLOWED, AND LOCAL ACCESS TO DRIVEWAYS SHALL BE MAINTAINED.

2. THIS ITEM INCLUDES ALL LABOR AND MATERIALS NECESSARY TO ESTABLISH, MAINTAIN AND REMOVE AND REPAIR THE VARIONS CONSTRUCTION ZONES AND DETOUR ROUTES UTILIZED FOR THE DURATION OF THIS PROJECT INCLUDING ALL NECESSARY SIGNS, PAVEMENT MARKINGS AND BARRICADES. TRAFFIC CONTROL METHODS AND DEVICES SHOULD COMPLY WITH LATEST EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

3. 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/RAMP 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. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

4. DAMAGED BEAM REPAIR ON WAYNE/PYATT BRIDGE ABOVE THE NB SR-7 RAMP WILL REQUIRE A ONE DAY CLOSURE OF ONE OF THE TWO LANES OF TRAFFIC ON THE RAMP, PER SCD MT-98.17 AND MT-98.18.

ITEM 614 - MAINTAINING TRAFFIC - IR-680 MAINLINE

MAH-680-4.14

1. THE NORTHBOUND LEFT LANE OF IR-680 UNDER STEEL ST. WILL BE CLOSED FOR MEDIAN BARRIER AND PIER RECONSTRUCTION. THE EXISTING LANEAGE WILL BE SHIFTED RIGHT AS DETAILED ON SHEETS 19 TO 20 .

2. IR-680 MAINLINE TRAFFIC WILL BE STOPPED FOR STEEL ST. BEAM REMOVAL AND ERECTION. LAW ENFORCEMENT OFFICERS MUST BE PROVIDED FOR THIS CLOSURE, PER NOTE, SHEET 13 . LANE CLOSURE TIMING SHALL FOLLOW GUIDELINES SET FORTH IN THIS NOTE.

3. THE NORTHBOUND SR-7 RAMP UNDER WAYNE/PYATT WILL REQUIRE A ONE DAY CLOSURE FOR BEAM REPAIR OPERATIONS. MAINTENANCE OF TRAFFIC FOR THE CLOSURE WILL BE AS PER SCD MT-98.19. RAMP CLOSURE WILL NOT OCCUR DURING HOLIDAY OR SPECIAL EVENT, AS DEFINED BELOW.

4. NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

CHRISTMAS	FOURTH OF JULY
NEW YEARS	LABOR DAY
MEMORIAL DAY	THANKSGIVING

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF THE WEEK	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

CALCULATED DES
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MAINTENANCE OF TRAFFIC NOTES

MAH-680-4.14/6.28/6.37

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY-WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA-WIDE.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN THE AMOUNT OF $1250 PER DAY IN ACCORDANCE WITH CMS 108.07.

5. 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.

6. DURATION OF LANE CLOSURES AND RESTRICTIONS ALONG MAINLINE IR-680 SHALL BE AS PER THE CURRENT PERMITTED LANE CLOSURE CHART. THE PERMITTED LANE CLOSURE CHART SHALL BE CURRENT AS OF THE DATE THIS PROJECT SELLS.

THE CHART CAN BE FOUND AT:
HTTPS://DOTAWI00.DOT.STATE.OH.US/PLCM/PLCM_WEB.JSP
SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN ACCORDANCE WITH CMS 108.07.

ITEM 614 LAW ENFORCEMENT OFFICER WITH PATROL CAR

IN ADDITION TO THE REQUIREMENTS OF 614 AND THE LATEST EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD). A UNIFORMED LAW ENFORCEMENT OFFICER AND OFFICIAL PATROL CAR WITH WORKING TOP MOUNTED EMERGENCY FLASHING LIGHTS SHOULD BE PROVIDED FOR CONTROLLING TRAFFIC AS DIRECTED BY ENGINEER FOR THE FOLLOWING TASKS:

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED.

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

DURING A TRAFFIC SIGNAL INSTALLATION.

DURING PEAK TRAFFIC TIMES (6:00AM-10:00AM AND 4:00PM TO 8:00PM). DURING THIS TIME, THREE OFFICERS IN PATROL CARS, INCLUDING ONE SUPERVISOR, SHALL PATROL THE CONSTRUCTION AREA. THE ASSIGNMENT OF THESE OFFICERS WILL BE MADE EXCLUSIVELY BY THE POST COMMANDER.

LAW ENFORCEMENT OFFICERS (L.E.O.'S) SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED. THE LEO'S ARE CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACTIONS. ALTHOUGH THEY ARE EMPLOYED BY THE CONTRACTOR, THE PROJECT ENGINEER SHALL HAVE CONTROL OVER THEIR PLACEMENT. THE OFFICIAL PATROL CAR SHALL BE A PUBLIC SAFETY VEHICLE AS REQUIRED BY THE OHIO REVISED CODE.

THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THESE SERVICES WITH:

CANFIELD PATROL POST
500 SOUTH BROAD STREET
CANFIELD, OHIO 44406
PHONE: (330) 533-6866

IF AFTER CONTACTING THE OHIO HIGHWAY PATROL, IT IS DETERMINED THAT THEY CANNOT SUPPLY THE LEO, THEN AN AUTHORIZED MUNICIPAL OR COUNTY POLICE OFFICER WITH A MARKED AND FLASHER-LIGHT EQUIPPED OFFICIAL POLICE OR PATROL CAR SHALL BE PROVIDED.

LAW ENFORCEMENT OFFICERS WITH PATROL CAR REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON AN HOURLY BASIS UNDER ITEM 614 LAW ENFORCEMENT OFFICER WITH PATROL CAR. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR 80 HOURS

THE HOURS PAID SHALL INCLUDE MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

IF THE CONTRACTOR WISHES TO UTILIZE LEO'S FOR FLAGGING AND TRAFFIC CONTROL OTHER THAN FOR THAT REQUIRED IN THESE PLANS, HE MAY DO SO AT THIS OWN EXPENSE. PAYMENT FOR THE EXCESS ABOVE THE CONTRACT REQUIREMENTS WILL BE INCLUDED UNDER ITEM 614 MAINTAINING TRAFFIC.

ITEM 614, WORK ZONE IMPACT ATTENUATOR, UNIDIRECTIONAL AND ITEM 614, WORK ZONE IMPACT ATTENUATOR, BIDIRECTIONAL

THESE ITEMS SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING IMPACT ATTENUATORS:

1. THE QUADGUARD CZ, (24 INCHES WIDE SIX-BAY) WORK ZONE IMPACT ATTENUATOR MANUFACTURED BY ENERGY ABSORPTION SYSTEMS, INC., ONE EAST WACKER DRIVE, CHICAGO, IL 60601 (TELEPHONE: 312-467-6750).

THE LENGTH OF THE SIX-BAY QUADGUARD CZ IS 20'-9". 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. NO.	DRAWING NAME	DWG./ REV. DATE	ODOT APPROVAL DATE
QSCZCVR-T4	QUADGUARD CZ SYSTEM FOR CONSTRUCTION ZONES	5/13/99 REV. J	8/27/99
35-40-10	QUADGUARD SYSTEM CONCRETE PAD, CZ, QG	11/19/97 REV. D	8/27/99
35-40-16	QUADGUARD SYSTEM BACKUP ASSEMBLY, CZ, QG	7/30/99 REV. F	8/27/99
3540512	QUADGUARD CZ SYSTEM NOISE ASSEMBLY, CZ, QG, 24, 30, 36	5/17/99	8/27/99
35-40-18	TRANSITION ASSEMBLY, 4 OFFSET, QG	6/25/99 REV. F	8/27/99
35400260	QUADGUARD SYSTEM PCMB ANCHOR ASSEMBLY	11/19/97 REV. C	8/27/99

2. THE TRACC (TRINITY ATTENUATING CRASH CUSHION) MANUFACTURED BY TRINITY INDUSTRY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE TRACC IS 21'-0" LONG AND 2'-7" WIDE. 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. NO.	DRAWING NAME	DWG./ REV. DATE	ODOT APPROVAL DATE
SS450	CRASH-CUSHION ATTENUATING TERMINAL PLAN, ELEVATION & SECTIONS	3/1/99 REV. 1	8/27/99
SS455	TRACC TRANSITION TO W-BEAM MEDIAN BARRIER PLAN, ELEVATION & SECTIONS	2/18/99	8/27/99
SS461	TRACC TRANSITION TO CONCRETE SAFETY SHAPE BARRIER PLAN, ELEVATION & SECTIONS	6/30/99 REV. 1	8/27/99
SS462	TRACC TRANSITION TO CONCRETE BARRIER SINGLE SLOPE PLAN, ELEVATION & SECTIONS	6/30/99	8/27/99

3. THE GREAT CZ IMPACT ATTENUATOR MANUFACTURED BY ENERGY ABSORPTION SYSTEMS, INC.

THIS ATTENUATOR MAY BE USED UNTIL JANUARY 1, 2007 IF THE ITEM WAS PURCHASED BEFORE OCTOBER 1, 1998 AND IS IN THE CONTRACTOR'S INVENTORY.

THE CONTRACTOR SHALL PROVIDE A REPLACEMENT UNIT WHEN AN IMPACT IS SEVERE ENOUGH TO REQUIRE COMPLETE REPLACEMENT OF THE ATTENUATOR. THE CONTRACTOR SHALL HAVE A SPARE PARTS PACKAGE AVAILABLE ON THE PROJECT SITE AT ALL TIMES WHEN AN ATTENUATOR IS IN PLACE. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF ONE COMPLETE SPARE PARTS PACKAGE FOR EVERY ONE TO SIX UNITS INSTALLED ON THE PROJECT SITE. FOR EXAMPLE, FIVE INSTALLED UNITS REQUIRE ONE SPARE PARTS PACKAGE AND SEVEN INSTALLED UNITS REQUIRE TWO SPARE PARTS PACKAGES.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS. PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 614, WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL) OR ITEM 614, WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL), EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT, MAINTAIN, REPAIR, REPLACE OR RELOCATE A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SPEARATELY SPECIFIED AS REQUIRED BY THE MANUFACTURER.

FULLY-ACTUATED OPERATION OF WORK ZONE TRAFFIC SIGNAL

THE WORK ZONE SIGNAL CONTROL REQUIRED FOR THIS PROJECT AND SHOWN ON SHEETS 16 TO 17 AND SCDS MT-96.10 OR 96.11, 96.21 AND 96.26 SHALL BE SEMI-ACTUATED AND OPERATE IN A MANNER SIMILAR TO THAT DESCRIBED IN SECTION 733.02 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

THE INITIAL CONTROLLER TIMING SHALL BE AS SHOWN ON SHEET 17

THE CONTRACTOR SHALL ALSO FURNISH, INSTALL AND MAINTAIN A MICROWAVE DETECTOR ON EACH SIDE STREET APPROACH WHICH WILL RELIABLY DETECT ALL LEGAL TRAFFIC APPROACHING (BUT NOT LEAVING) THE SIGNAL AS IT PASSES OR WAITS IN THE DESIGNATED DETECTOR ZONE SHOWN IN THE PLANS. DETECTOR DESIGNS WHICH DO NOT PROVIDE RELIABLE DETECTION, FREE FROM FALSE CALLS, SHALL BE IMMEDIATELY REPLACED BY THE CONTRACTOR.

OVERHEAD-MOUNTED WORK ZONE SIGNALS

SIGNALS SHALL BE OVERHEAD MOUNTED IN ACCORDANCE WITH THE DETAILS SHOWN ON SCD MT-96.21.

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MAINTENANCE OF TRAFFIC NOTES

MAH-680-4.14/ 6.28/6.37

CONTRACTOR'S EQUIPMENT - OPERATION AND STORAGE

A QUALIFIED FLAGGER SHALL BE EMPLOYED WHERE THE CONTRACTOR'S EQUIPMENT MUST MERGE WITH THE TRAFFIC STREAM. THE CONTRACTOR'S EQUIPMENT SHALL BE EQUIPPED WITH AT LEAST ONE AMBER FLASHING LIGHT. PAVERS, ROLLERS AND OTHER EQUIPMENT MAY BE PARKED IN AREAS ALONG THE HIGHWAY WHEN PAVING OPERATIONS ARE SCHEDULED TO CONTINUE WITHIN THE NEXT WORKDAY. OTHERWISE THE EQUIPMENT SHALL BE STORED AT A STORAGE AREA OUTSIDE THE R/W, THE LOCATION OF WHICH SHALL HAVE PRIOR APPROVAL OF THE ENGINEER. WHEN PARKING ALONG THE HIGHWAY THE EQUIPMENT SHALL BE PLACED AND DELINEATED AS PER 614.03. NO EQUIPMENT SHALL BE PARKED IN THE MEDIAN OF THE HIGHWAY. ADEQUATE BARRICADES AND LIGHTS SHALL BE PLACED ON THE PAVEMENT SIDE OF THE EQUIPMENT TO IDENTIFY THE LIMITS OF THE EQUIPMENT. ALL OTHER EQUIPMENT, INCLUDING PRIVATE VEHICLES, SHALL BE STORED AT THE APPROVED CONTRACTOR'S STORAGE AREA. NO EQUIPMENT SHALL BE PARKED ON PRIVATE PROPERTY UNLESS PRIOR APPROVAL OF THE OWNER AND THE PROJECT ENGINEER/SUPERVISOR HAS BEEN GRANTED.

TRAFFIC CONTROL INSPECTOR

THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE ENGINEER, TO CONTINUOUSLY INSPECT ALL TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS OF THE PROJECT. THE DESIGNATED INDIVIDUAL SHALL ALSO INSPECT ALL TRAFFIC DEVICES AT THE BEGINNING AND AT THE END OF EACH WORK DAY. THE DESIGNATED INDIVIDUAL OR A QUALIFIED REPRESENTATIVE SHALL ALSO BE AVAILABLE ON AN AROUND THE CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. THESE INDIVIDUALS SHALL BE EQUIPPED WITH CELLULAR PHONES AND THEIR NAMES AND PHONE NUMBERS SHALL BE GIVEN TO THE PROJECT ENGINEER AT THE PRE-CONSTRUCTION MEETING. THE DESIGNATED INDIVIDUAL MAY HAVE OTHER CONSTRUCTION RELATED DUTIES AS LONG AS IMMEDIATE ATTENTION IS GIVEN TO TRAFFIC CONTROL. PAYMENT FOR THE SERVICES OF THE TRAFFIC CONTROL INSPECTOR SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

STOPPAGE OF MAINLINE TRAFFIC

ANY TIME TRAFFIC MUST BE COMPLETELY STOPPED ON A FREEWAY OR INTERSTATE, IT SHALL BE DONE IN THE FOLLOWING MANNER: THE COMPLETE TRAFFIC STOPPAGE ON ALL LANES OF ANY DIRECTIONAL ROADWAY SHALL BE NO MORE THAN 10 MINUTES IN ANY ONE CONSECUTIVE 30 MINUTE PERIOD.

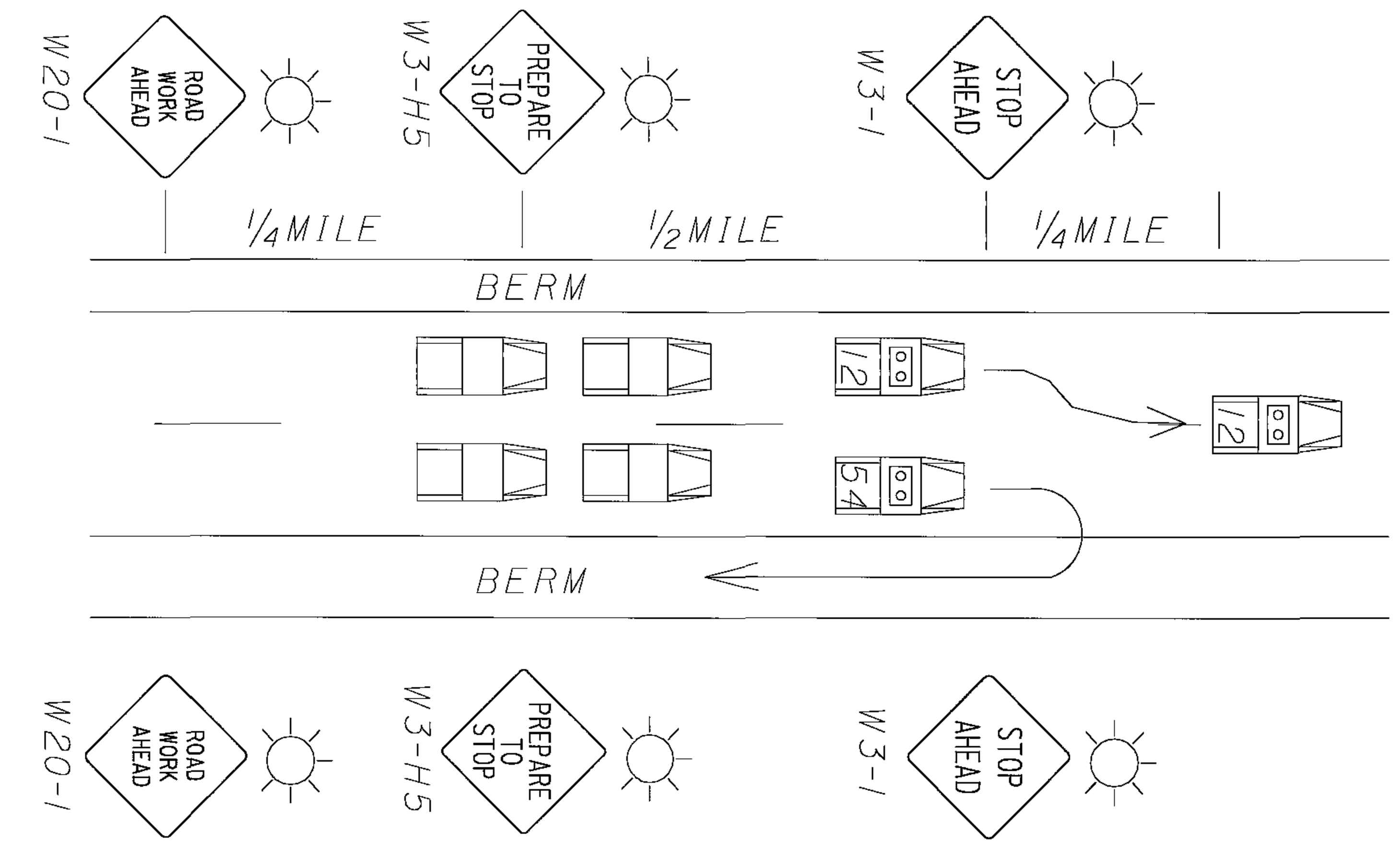
A MINIMUM OF TWO (2) LAW ENFORCEMENT OFFICERS (LEO) WITH PATROL CARS SHALL BE USED TO PACE MOTORISTS TO A STOP. THERE SHALL BE ONE LEO FOR EACH LANE ON THE FREEWAY.

AFTER TRAFFIC HAS BEEN SLOWED, ONE (1) PATROL CAR SHALL TRAVEL ALONG THE ROADWAY SHOULDER 500 FEET BEHIND THE BACKUP OF STOPPED VEHICLES. WHERE STOPPAGE OCCURS IN THE VICINITY OF FREEWAY ENTRANCES, THE CONTRACTOR SHALL PLACE FLAGGERS ON THE RAMPS TO STOP TRAFFIC. PATROL CARS SHALL HAVE FLASHING BEACONS TO PROVIDE ADEQUATE VISIBILITY TO APPROACHING MOTORISTS.

THE CONTRACTOR/PERMITEE SHALL ERECT AND MAINTAIN "ROAD WORK AHEAD" (W20-1), "PREPARE TO STOP" (W3-H5), AND "STOP AHEAD" (W3-1) SIGNS. EACH SIGN SHALL BE EQUIPPED WITH A TYPE B FLASHING BARRICADE WARNING LIGHT IN ACCORDANCE WITH SECTION 7G-6 OF THE OMUTCD. PATROL CARS AND SIGNS SHALL BE LOCATED IN ACCORDANCE WITH THE DETAIL BELOW.

A PORTABLE CHANGEABLE MESSAGE SIGN, TYPE TO BE ON ODOT'S PREAPPROVED LIST, SHALL BE PLACED 1.5 TO 2 MILES IN ADVANCE OF THE CLOSURE OR AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL NOTIFY THE ENGINEER/PERMIT OFFICE AND THE ODOT PUBLIC INFORMATION OFFICE, 330-786-3100, THREE (3) DAYS PRIOR TO ANY MAINLINE TRAFFIC STOPPAGE.



ITEM 622, PORTABLE CONCRETE BARRIER, 50", AS PER PLAN

THIS WORK SHALL CONSIST OF FURNISHING, INSTALLING, MAINTAINING, AND SUBSEQUENTLY REMOVING A 50 INCH PORTABLE CONCRETE BARRIER AT THE LOCATIONS SHOWN ON THE PLANS. FOR DETAILS, SEE SCD RM-4.1.

PORTABLE CONCRETE BARRIER, 32 INCHES HIGH WITH AN 18 INCH MINIMUM HEIGHT GLARE SCREEN MAY BE USED AT THE OPTION OF THE CONTRACTOR. THE GLARE SCREEN SHALL BE CONSTRUCTED USING ONE OF THE FOLLOWING SYSTEMS OR AN APPROVED EQUAL:

CARSONITE MODULAR GLARE SCREEN
CARSONITE INTERNATIONAL
605 BOB GIFFORD BLVD.
EARLY BRANCH, SOUTH CAROLINA 29916 — 702-883-5104 OR 800-648-7974

TRINITY GLAREFOIL
TRINITY INDUSTRY
1170 N. STATE ST.,
GIRARD, OHIO 44420 — 330-545-4373

PADDLE OR INTERMITTENT TYPE GLARE SCREENS SHALL BE DESIGNED USING A 20 DEGREE CUT-OFF ANGLE BASED ON TANGENT ALIGNMENT. THAT SPACING SHALL BE USED THROUGHOUT THE BARRIER LENGTH WITHOUT REGARD TO BARRIER CURVATURE.

THE GLARE SCREEN SYSTEM SHALL BE SECURELY FASTENED TO THE 32-INCH PORTABLE CONCRETE BARRIER USING THE HARDWARE AND PROCEDURES SPECIFIED BY THE MANUFACTURER.

PAYMENT SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO PERFORM THE WORK AND SHALL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR ITEM 622, PORTABLE CONCRETE BARRIER, 50 INCH, AS PER PLAN.

CALCULATED DES
CHECKED DJW

MAINTENANCE OF TRAFFIC NOTES

MAH-680-4.14/ 6.28/6.37

GENERAL NOTES

1. It is intended that this drawing be used for treatment of drop-offs that develop during construction operations, and that are not otherwise provided for in the construction plans. Where the plans do not provide specific items for labor, equipment, or materials to implement the drop-off treatments specified herein, they shall be included for payment in the lump sum bid for Item 614 - Maintaining Traffic.

2. While the need for certain advisory signing is noted herein, it is not intended that this be indicative of all signing that may be required to advise or warn motorist, and all requirements of the Ohio Manual of Uniform Traffic Control Devices (OMUTCD) must be fulfilled.

3. In urban or otherwise heavily developed areas where pedestrians and/or bicyclists may be present in significant numbers, additional signing and protective measures other than those shown herein may be required.

4. The drop-off treatment selected for use at any given location shall be appropriate for the prevailing conditions at the site.

5. Where concrete barrier is specified, it shall be in accordance with Standard Construction Drawing PCB - 9.1, RM-4.2 and Item 622.

6. When drums are specified for a drop-off condition, a minimum number of four drums shall be used. Spacing shall be as indicated in the plans or as specified in the OMUTCD.

7. When OW-151 (Low Shoulder) signs or OW-171 (Uneven Lanes symbol), OWP-171 (uneven lane plaque), and OC-53 (Maintain Present Lane) signs are required, they shall be placed 750' in advance of the condition, on all intersecting entrance ramps within the limits of the condition and immediately beyond all intersecting roadways within the limits of the condition. When the drop-off condition extends more than one-half mile, additional signs shall be erected at intervals of a maximum of one mile.

8. For locations, such as at ramps, lane shifts, lane closures, etc., where traffic is required to negotiate any difference in elevation between pavements, the Optional Wedge Treatment shall be provided.

9. Portable concrete barrier shall be placed on the same level as the traffic surface and shall not encroach on lane width(s) designated as the minimum required for traffic use. Where drums are used, and their presence would reduce traveled lane widths to less than 10', drums may be placed on the opposite level from that of traffic provided the drop-off depth does not exceed 5" and approval is granted by the Project Engineer.

10. Pavement Repairs (or similar work):

 a. Lengths greater than 60 feet - utilize appropriate treatment from Condition I.

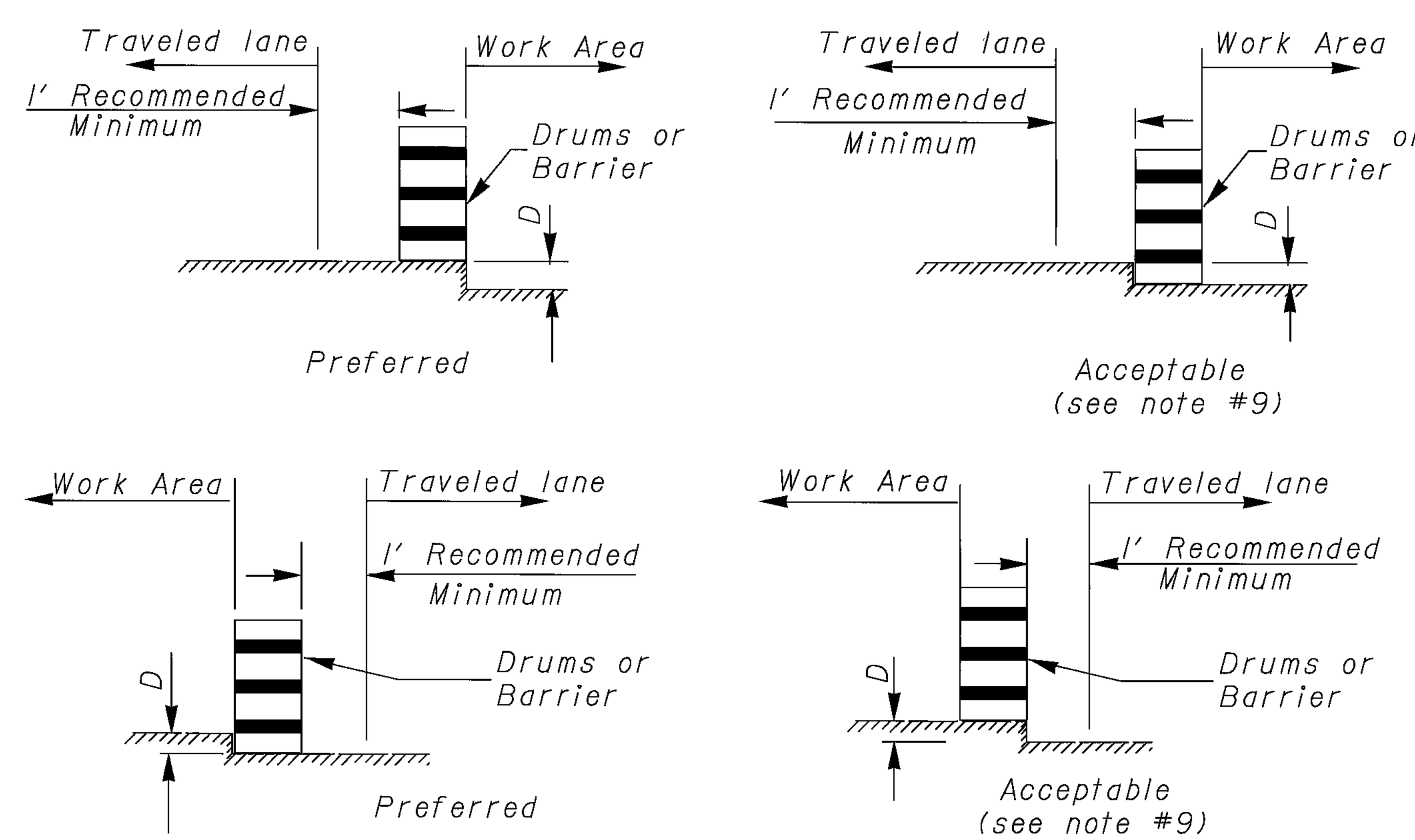
 b. Lengths of 60 feet or less - repairs shall be affected in accordance with Item 255.08. Drums may be used as a separator adjacent to the traveled lane.

CONDITION I

1. These treatments are to be used for resurfacing, pavement planing excavation, etc., between, beside or within traveled lanes.

Distance From Traveled Lane	D (in)	Treatment
1FT-12FT	≤ 1½	Erect OW-171, AND OWP-171.
1FT-12FT	1½-3	1. Lane closure utilizing drums* as shown below. (use only on 3 or more lanes) - or - 2. Optional Wedge Treatment.
1FT-12FT	3 - 5	Lane closure utilizing drums as shown below
1FT-12FT	5 - 12	Lane closure utilizing portable concrete barrier as shown below.
>12FT-20FT	12 - 24	Lane closure utilizing drums as shown below
>12FT-20FT	>24	Lane closure utilizing portable concrete barrier as shown below.

*Cones may be used for daytime only conditions.

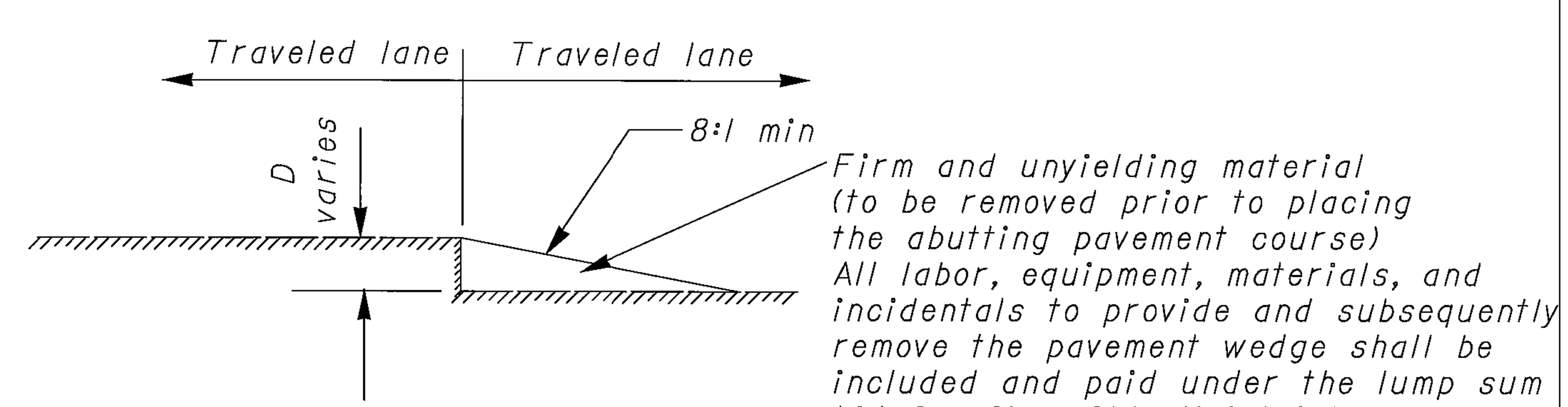


OPTIONAL WEDGE TREATMENT

(MILLING OR RESURFACING)

1. This treatment may be used when permitted for Condition I only.

2. OW-171, OWP-171, and OC-53 signs required.



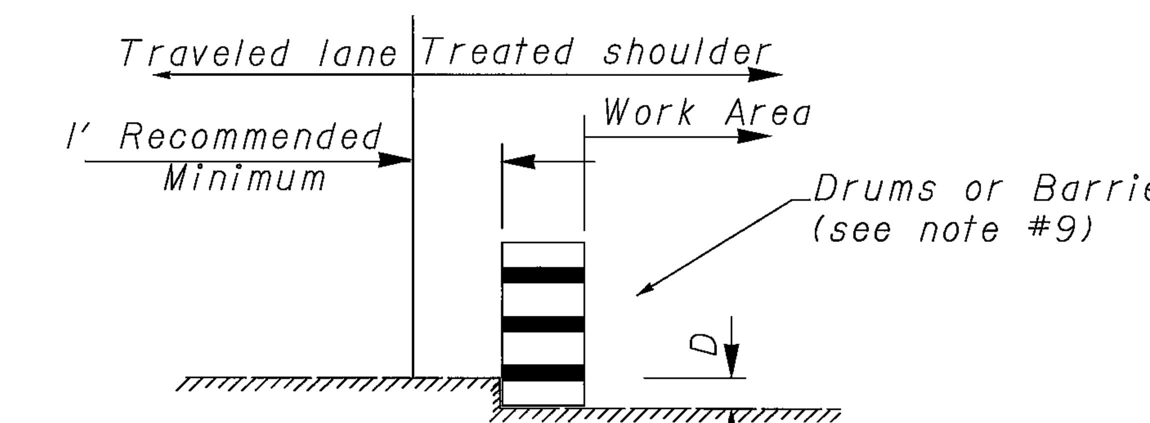
CONDITION II

DROPOFFS WITHIN GRADED SHOULDER AREA
[except for linear grading areas]

The treatments indicated below are for use in conjunction with resurfacing, planing, or excavation within the graded shoulder area.

Distance From Traveled Lane	D (in)	Treatment
1FT-12FT	≤ 1½	1.) If edgelines are present, no treatment necessary. or 2.) Erect OW-171, OWP-171, and OC-53 signs
1FT-12FT	1½- 5	1) If min. lane widths* requirements can be met, maintain lanes utilizing drums as shown below. - or - 2) If min. lane width* requirements cannot be met, close adjacent lane utilizing drums. (use only on 3 or more lanes) - or - 3) Optional shoulder treatment
>12FT-30FT	<= 24	Shoulder closure utilizing drums as shown below
>12FT-30FT	>24	Shoulder closure utilizing portable concrete barrier as shown below.

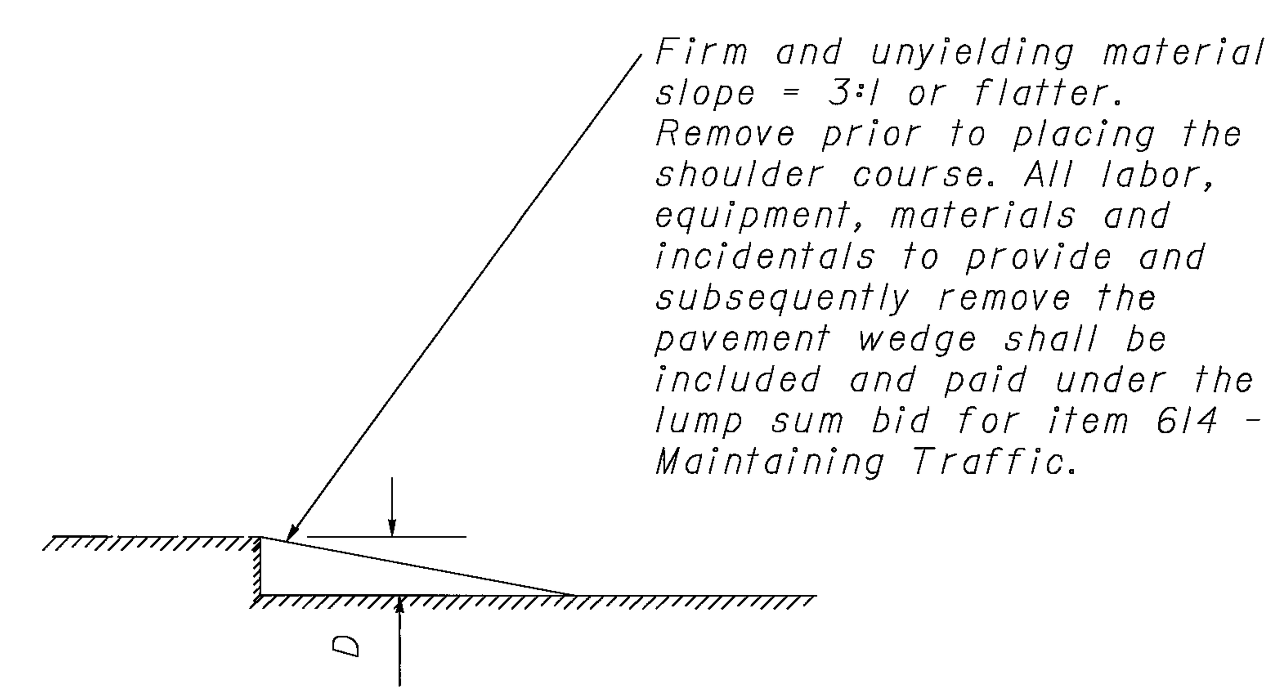
*Minimum lane widths shall be 10' unless otherwise specified in the plans.



OPTIONAL SHOULDER TREATMENT

1. This treatment shall not be used within a bituminous shoulder where a hot longitudinal joint per 401.17 is required.

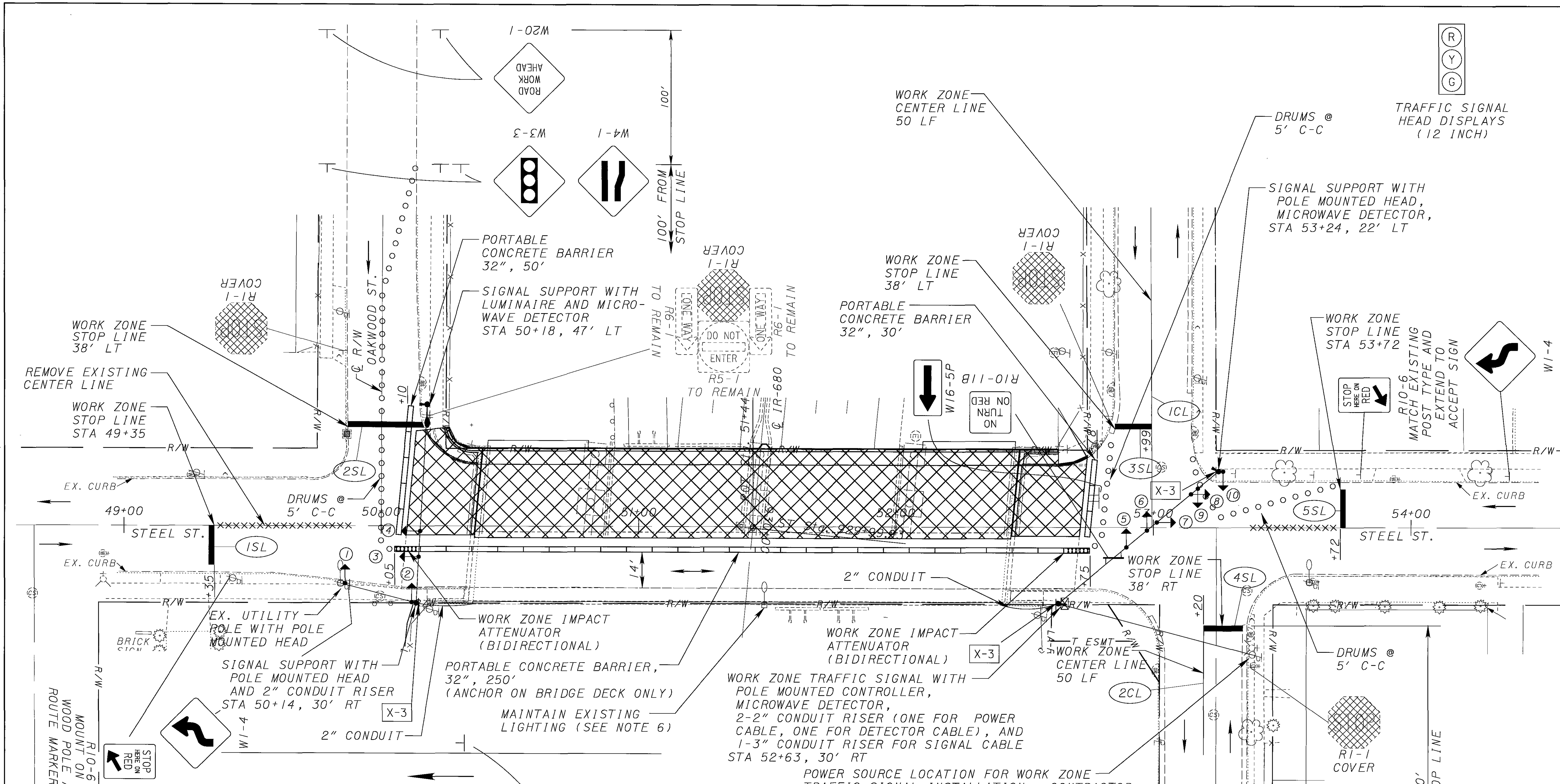
2. OW-151 signs required.

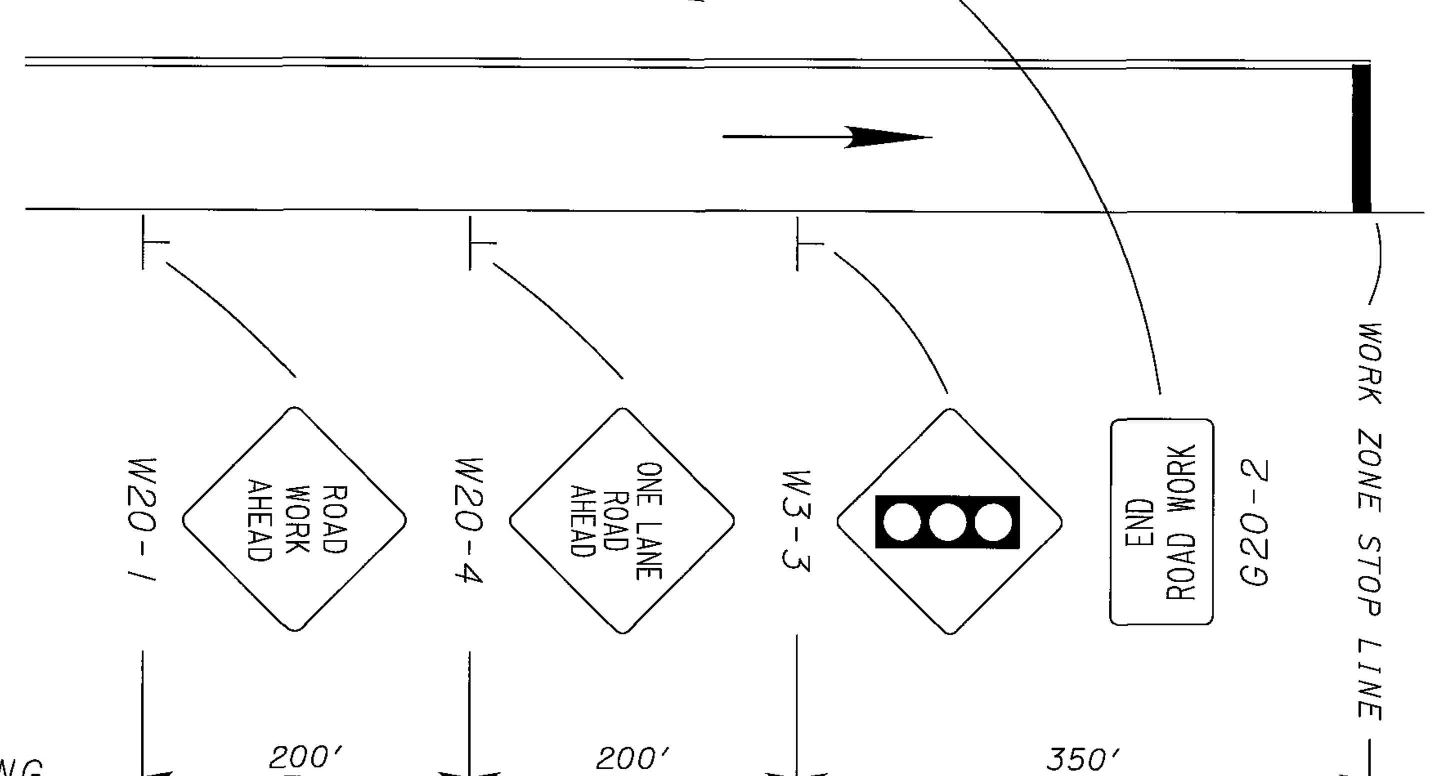


DROPOFFS IN WORK ZONES

MAH-680-4.14/6.28/6.37

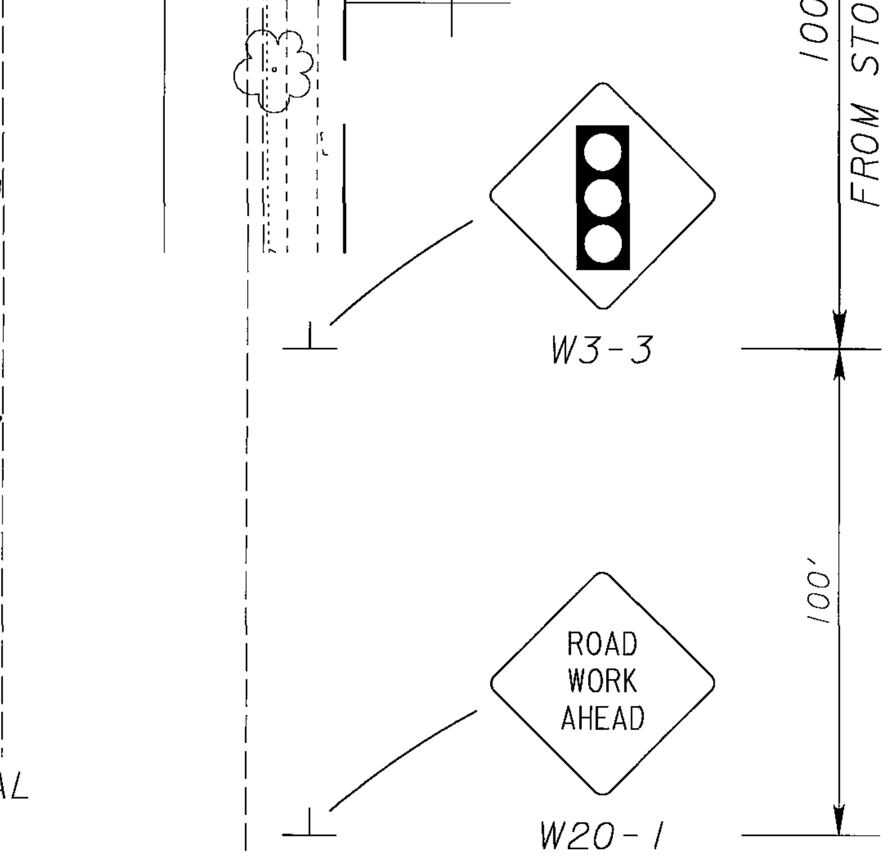
REVISED 4/27/99
I:/D4STD/TRAFFIC/MOT/DROPOFF.DGN





TYPICAL WORK ZONE ADVANCE SIGNING (SAME FOR OPPOSITE MAINLINE APPROACH)

LEGEND:
XXX REMOVE STRIPPING



NOTES:

1. STOP SIGNS ON SILLIMAN AND OAKWOOD STREETS SHALL BE COVERED IN ACCORDANCE WITH 630.10, AS LONG AS THE WORK ZONE TRAFFIC SIGNAL IS OPERATING.

2. REFERENCE APPROPRIATE SECTIONS AND FIGURES OF THE TRAFFIC ENGINEERING MANUAL; ODOT SCD MT-96.11, MT-96.20, MT-96.21 AND MT-96.26; AND TRAFFIC PLAN INSERT SHEETS 209650, 209651, 209652 AND 209654 FOR ADDITIONAL TRAFFIC CONTROL ITEMS DURING CONSTRUCTION.

3. CONTRACTOR SHALL MAINTAIN ACCESS TO SILLIMAN AND OAKWOOD STREETS DURING INTERSECTION CONSTRUCTION.

4. REFERENCE ODOT SCD MT-110.20 FOR PEDESTRIAN TREATMENT.

5. PHASE CONSTRUCTION TYPICAL SECTIONS ARE SHOWN ON STRUCTURAL SHEETS 100 & 101.

6. EXISTING BRIDGE LIGHTING TO BE MAINTAINED UNTIL SUCH TIME THAT OHIO EDISON REMOVED IT, PER SHEET 92.

HORIZONTAL SCALE IN FEET 0 20 40

CALCULATED HJF CHECKED JR

MAINTENANCE OF TRAFFIC - PHASE I STEEL ST. (4.14)

MAH-680-4.14/6.28/6.37

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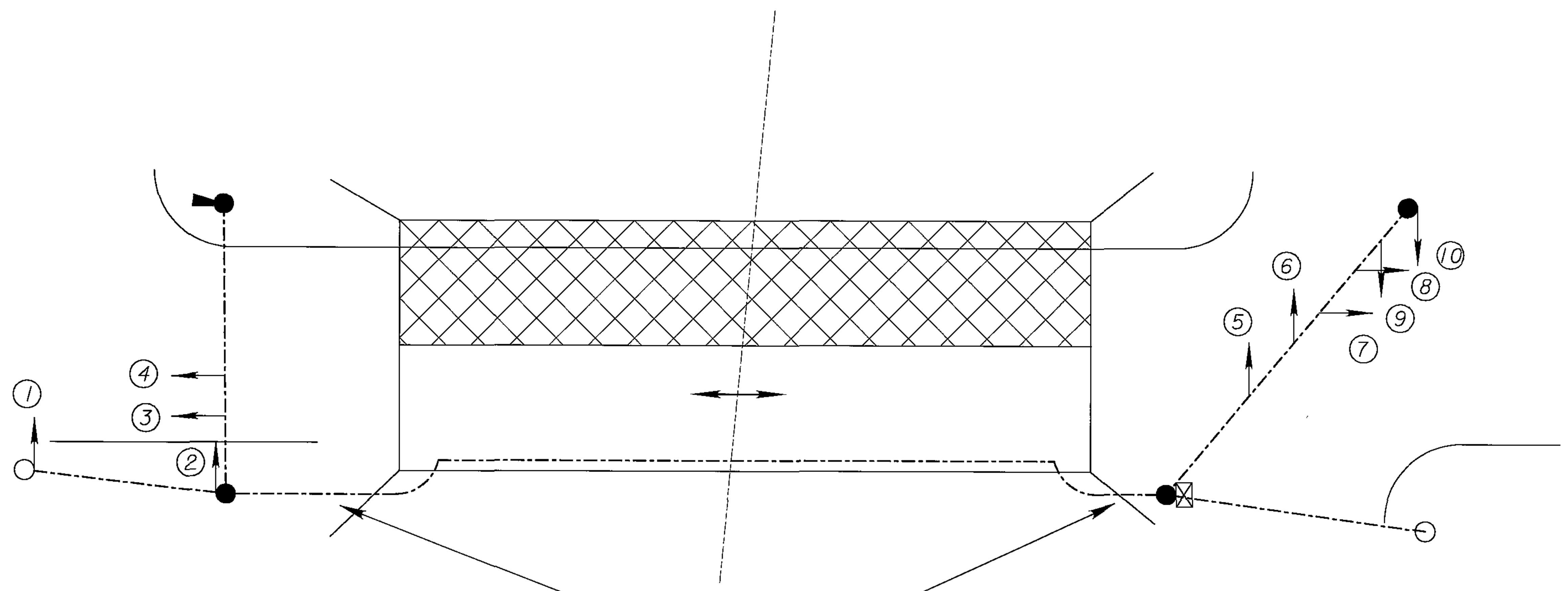
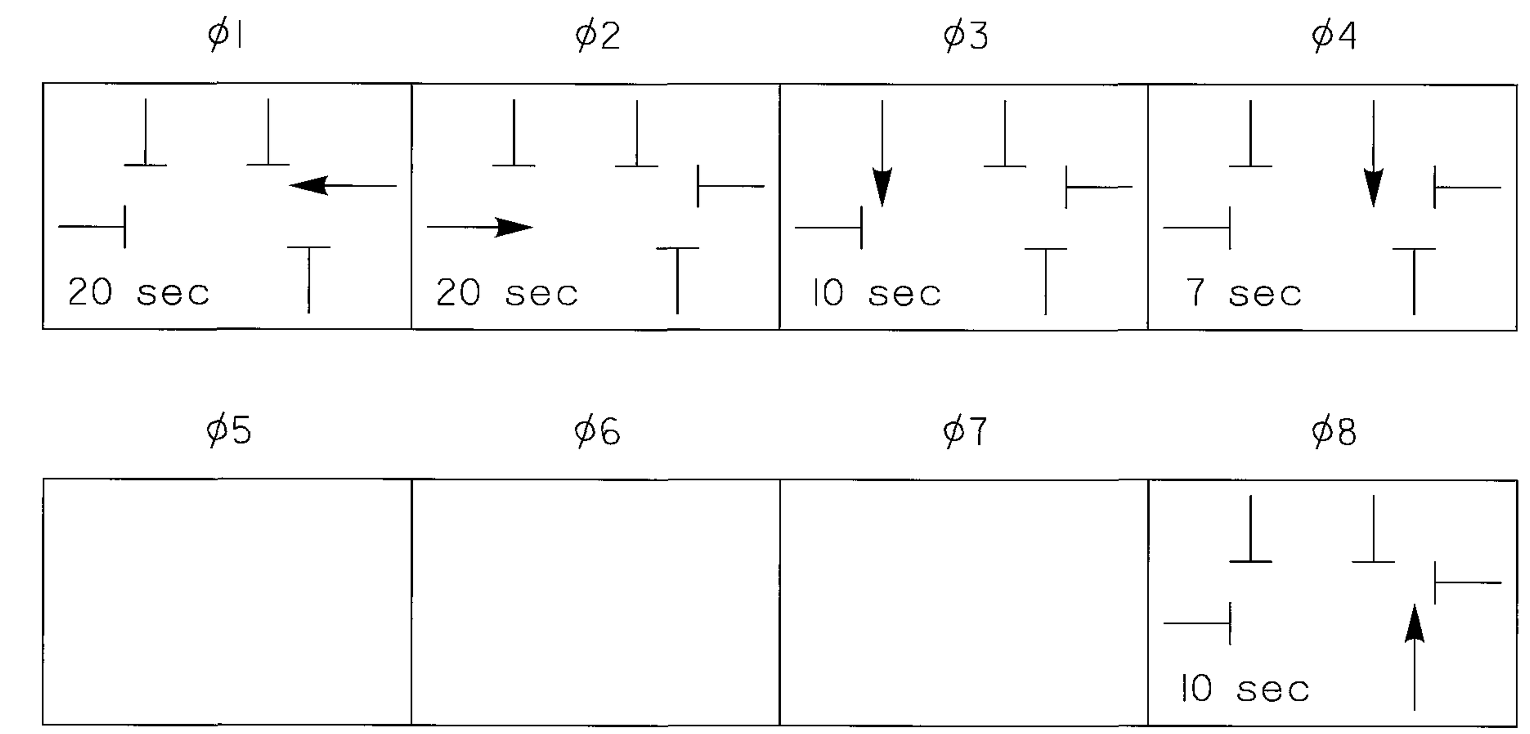
CABLE ROUTING



CABLES ADJACENT TO PEDESTRIAN ACCESS SHALL BE PLACED IN BURIED CONDUIT. CABLE RUNS BENEATH STRUCTURE WITHOUT CONDUIT SHALL BE SUPPORTED AT 10' INTERVALS AND SHALL NOT SAG LOWER THAN ANY PART OF THE BRIDGE.



NOTES:

1. PHASES 3, 4, AND 8 SHALL BE ACTUATED BY USE OF MICROWAVE DETECTORS MOUNTED ON SIGNAL SUPPORTS. DETECTORS FOR PHASES 3 AND 8 SHALL HAVE A 12-SECOND DELAY.

2. ALL ACTIVE PHASES SHALL HAVE A 3-SECOND YELLOW INTERVAL AND A 15-SECOND ALL RED INTERVAL FOR CLEARANCE TIMING.

3. ALL PHASES ARE EXCLUSIVE AND SHALL RUN INDEPENDENTLY FROM EACH OTHER. CONTROLLER START UP SHALL INITIALIZE ON PHASE 1.

4. PHASES 1 AND 2 SHALL BE PLACED ON RECALL.

PLAN SHEET NOTES:

1. ALSO REFERENCE APPROPRIATE SECTIONS AND FIGURES OF THE TRAFFIC ENGINEERING MANUAL; ODOT SCD MT-96.11, MT-96.20, MT-96.21 AND MT-96.26; AND TRAFFIC PLAN INSERT SHEETS 209650, 209651, 209652 AND 209654 FOR ADDITIONAL TRAFFIC CONTROL ITEMS DURING CONSTRUCTION.

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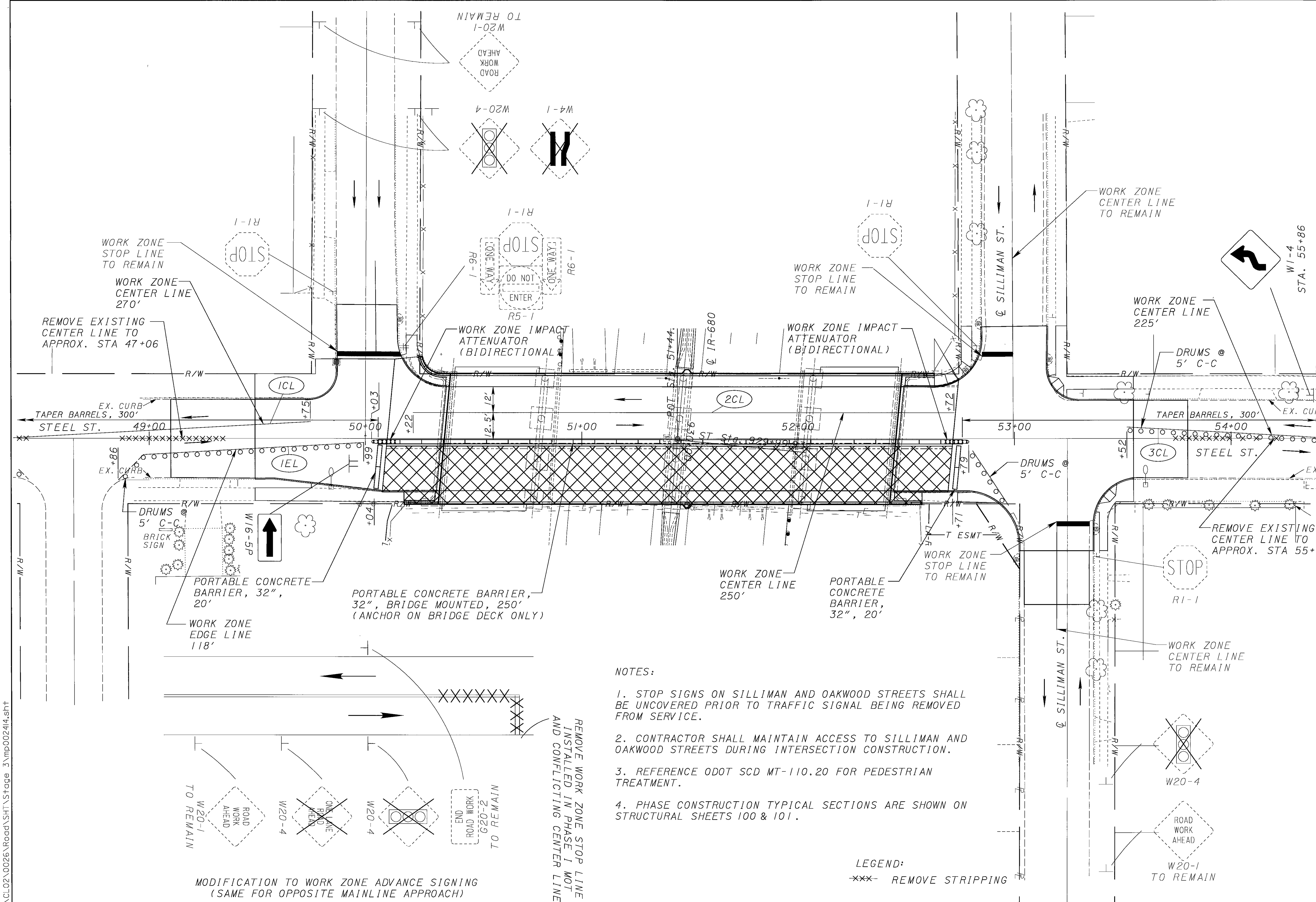
N

CALCULATED HJF
CHECKED JR

MAINTENANCE OF TRAFFIC - PHASE I
STEEL ST. (4.14)

MAH-680-4.14/6.28/6.37



NOTES:

1. STOP SIGNS ON SILLIMAN AND OAKWOOD STREETS SHALL BE UNCOVERED PRIOR TO TRAFFIC SIGNAL BEING REMOVED FROM SERVICE.

2. CONTRACTOR SHALL MAINTAIN ACCESS TO SILLIMAN AND OAKWOOD STREETS DURING INTERSECTION CONSTRUCTION.

3. REFERENCE ODOT SCD MT-110.20 FOR PEDESTRIAN TREATMENT.

4. PHASE CONSTRUCTION TYPICAL SECTIONS ARE SHOWN ON STRUCTURAL SHEETS 100 & 101.

LEGEND:

~~XXX~~ REMOVE STRIPPING

0 20 40 HORIZONTAL SCALE IN FEET

CALCULATED HJF
CHECKED JR

MAINTENANCE OF TRAFFIC - PHASE II STEEL ST. (4.14)

MAH-680-4.14/6.28/6.37

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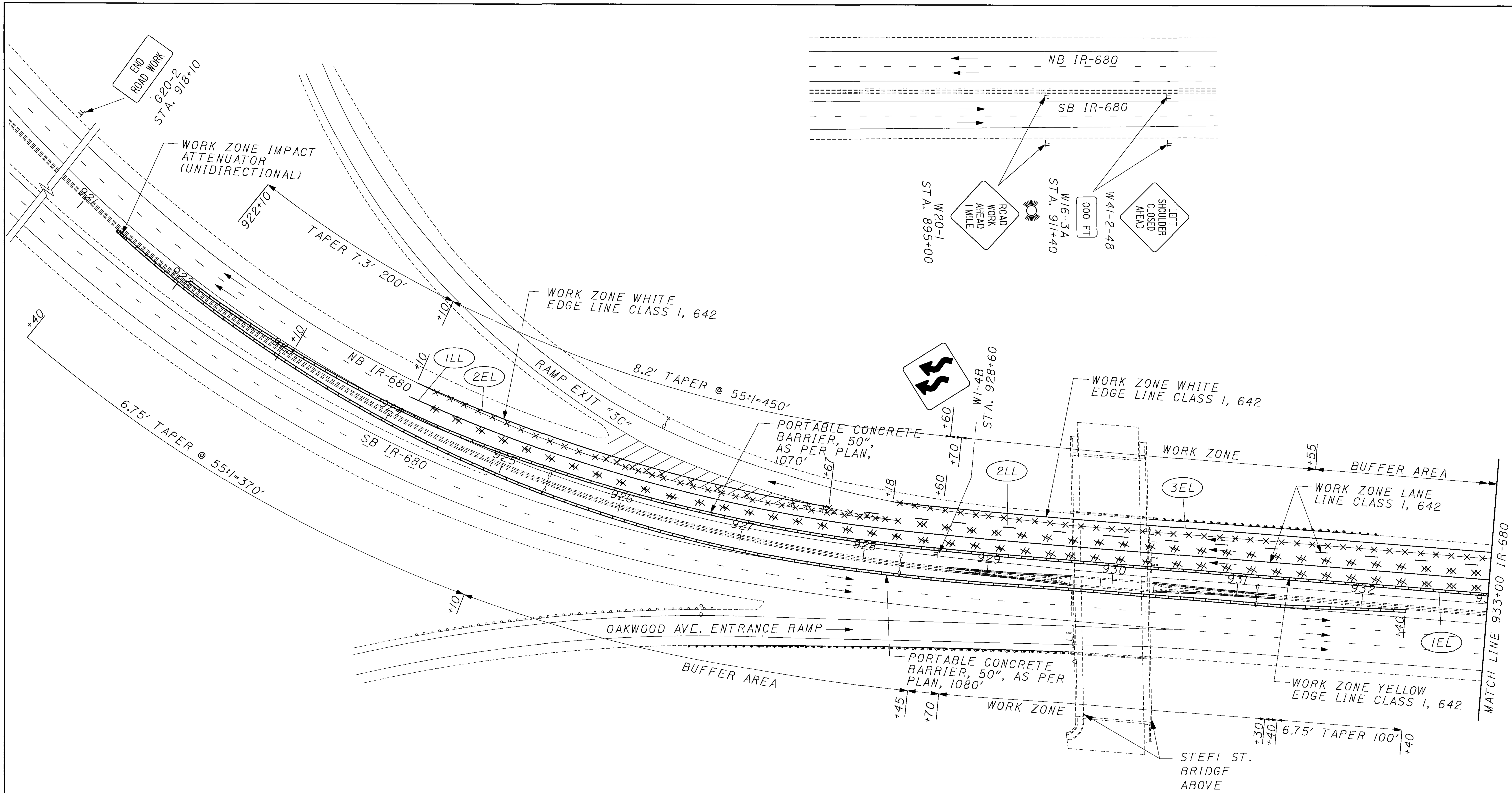
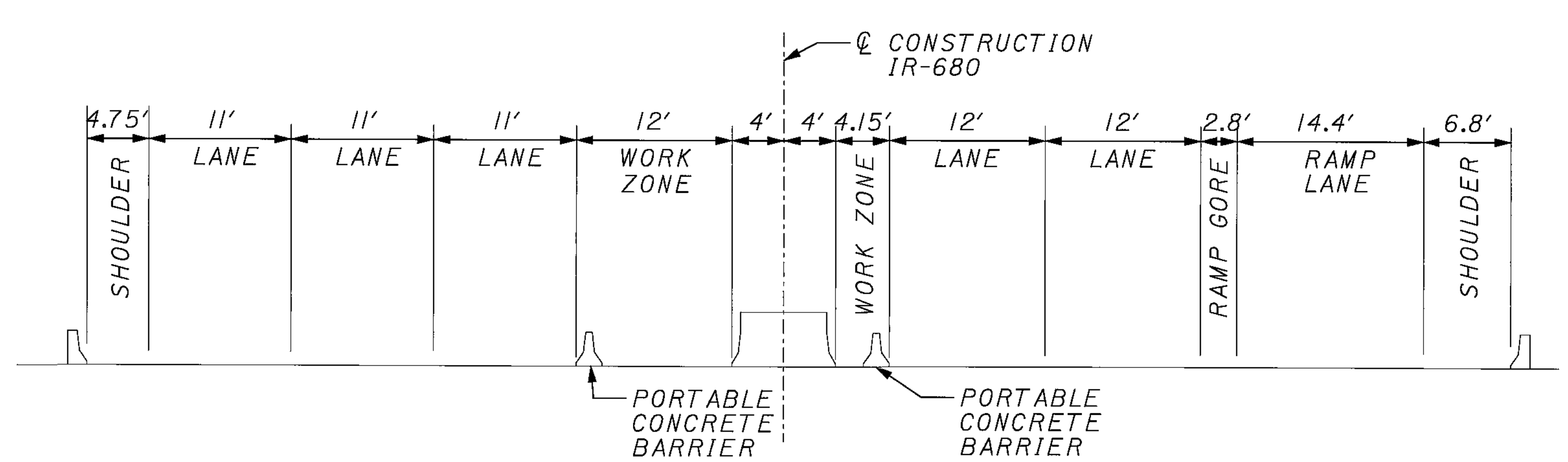




SECTION IR-680

STA. 930+00 (TYPICAL)

NOTE: ALL SIGNS ORANGE WITH BLACK LETTERING

LEGEND:

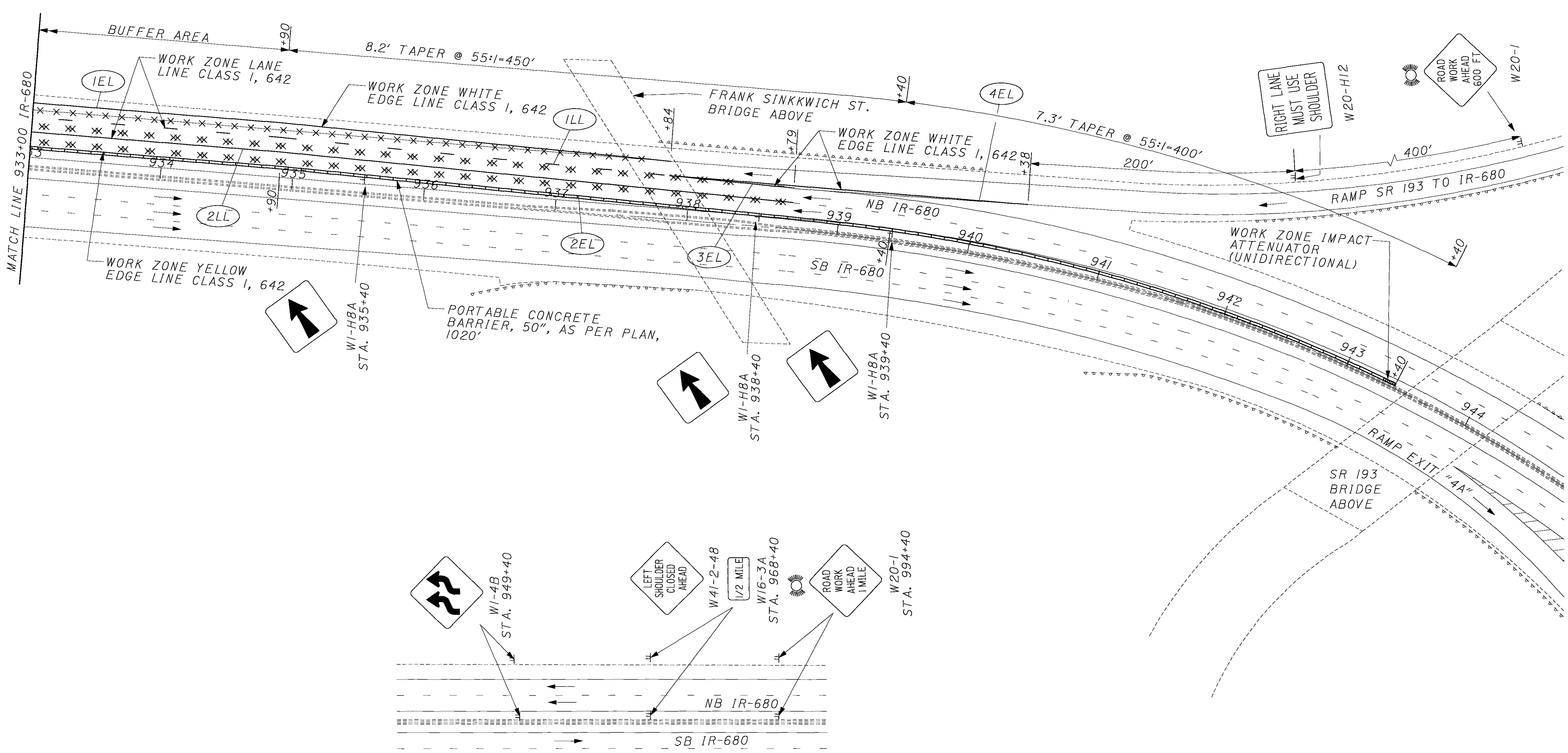
-XXX- REMOVE STRIPPING

CALCULATED DES
CHECKED DJW

MAINTENANCE OF TRAFFIC IR-680 (4.14)

STA. 918+00 TO STA. 933+00

MAH-680-4.14/6.28/6.37



NOTE: ALL SIGNS ORANGE WITH BLACK LETTERING

LEGEND:

-XXX- REMOVE STRIPPING

HORIZONTAL SCALE IN FEET: 0 20 40 80

CALCULATED DES
CHECKED DJW

MAINTENANCE OF TRAFFIC IR-680 (4.14)
STA. 933+00 TO STA. 994+50

MAH-680-4.14/6.28/6.37

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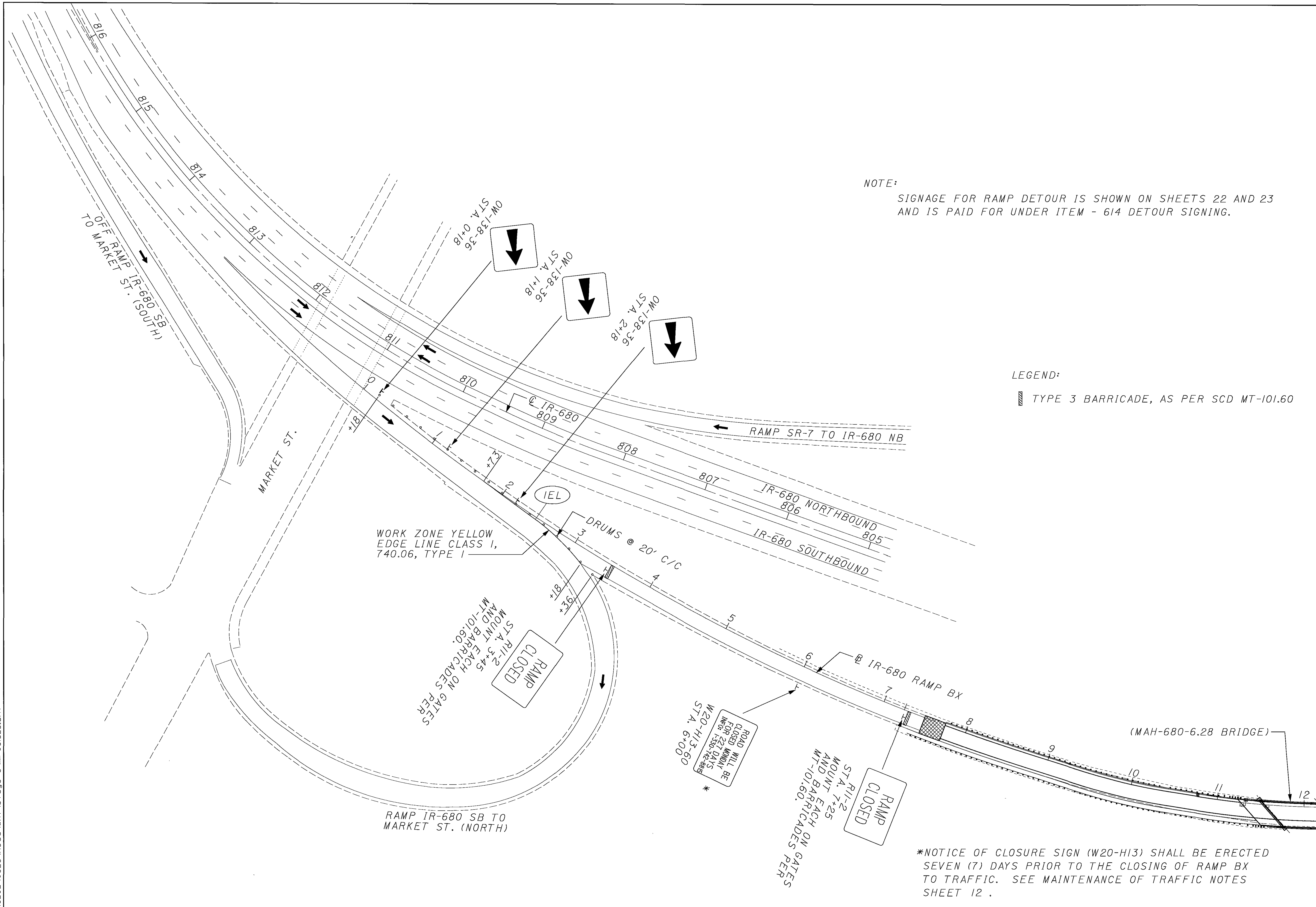

NOTE:

SIGNAGE FOR RAMP DETOUR IS SHOWN ON SHEETS 22 AND 23 AND IS PAID FOR UNDER ITEM - 614 DETOUR SIGNING.

LEGEND:

TYPE 3 BARRICADE, AS PER SCD MT-101.60

*NOTICE OF CLOSURE SIGN (W20-H13) SHALL BE ERECTED SEVEN (7) DAYS PRIOR TO THE CLOSING OF RAMP BX TO TRAFFIC. SEE MAINTENANCE OF TRAFFIC NOTES SHEET 12 .

0 25 50 100
HORIZONTAL
SCALE IN FEET

MAINTENANCE OF TRAFFIC
IR-680 RAMP BX (6.28)

MAH-680-4.14/
6.28/6.37

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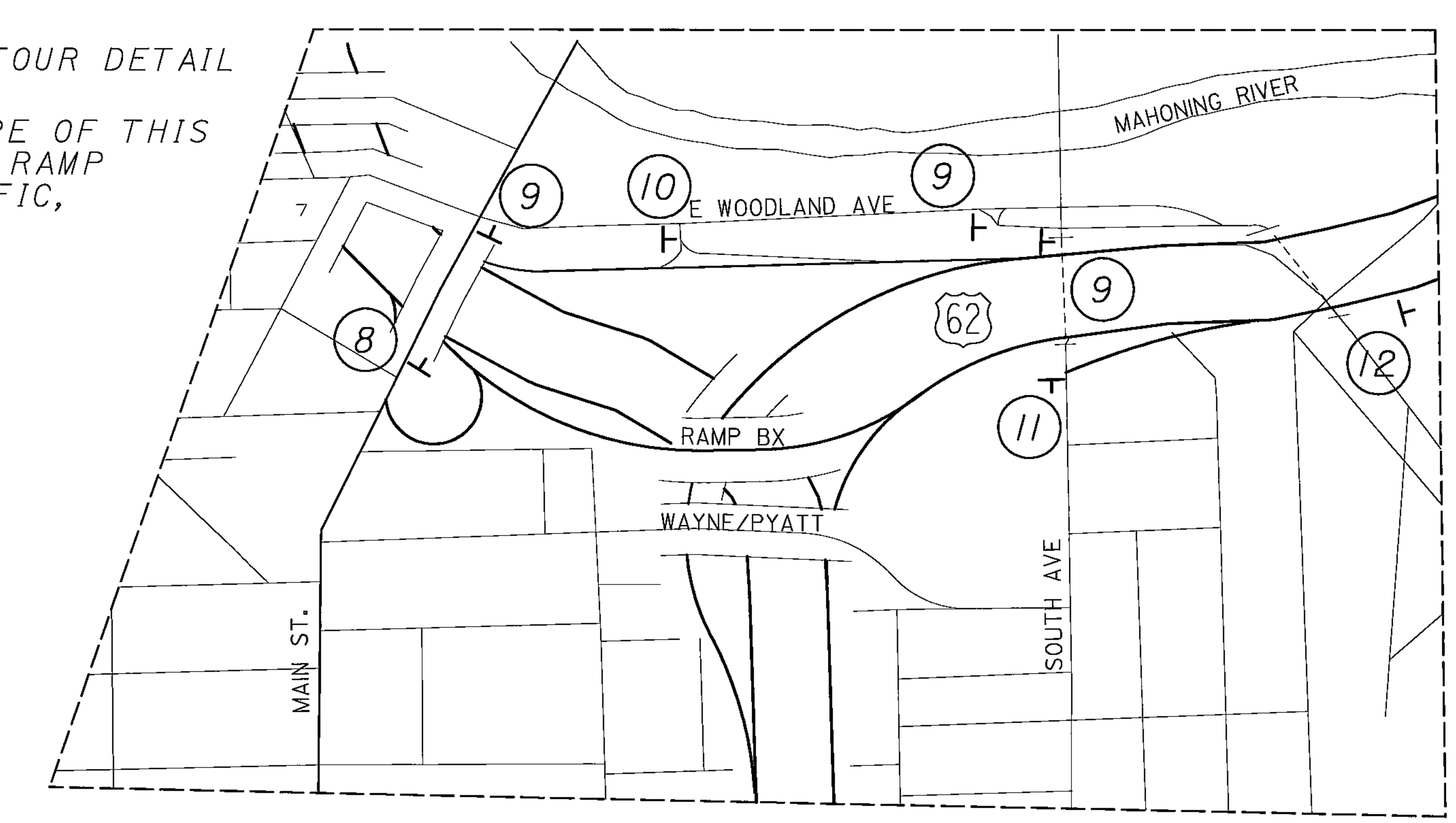
NOTE: SEE SHEET 23 FOR SIGN LEGEND

SEE LOCAL DETOUR DETAIL

DETOUR IS FOR CLOSURE OF THIS RAMP (RAMP BX). FOR RAMP MAINTENANCE OF TRAFFIC, SEE SHEET 21.

DETOUR FOR CLOSURE OF IR-680 RAMP BX



LOCAL DETOUR DETAIL

SCALE: 1" = 0.1 MILE

N

0 0.1 0.2 0.4
HORIZONTAL SCALE IN MILES

CALCULATED DES
CHECKED DJW

DETOUR PLAN IR-680 RAMP BX (6.28)

MAH-680-4.14/ 6.28/6.37

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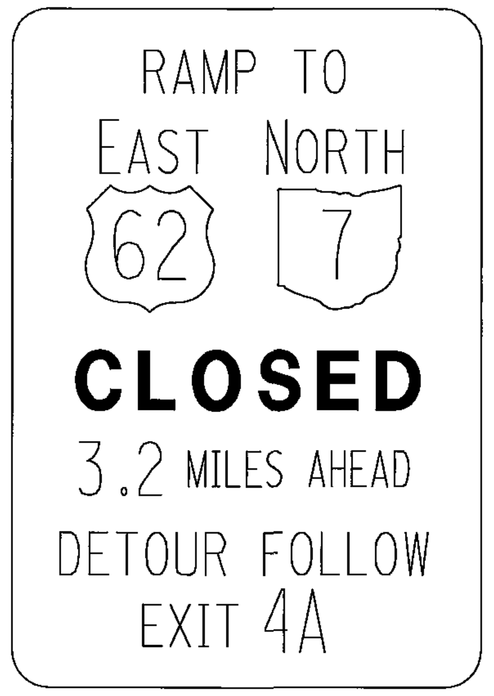
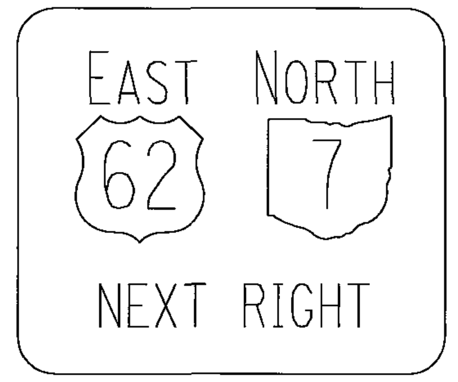
(1) ATTACH TO EXISTING OVERHEAD SIGN TRUSS, LEFT SIDE



SPECIAL
120" X 160"

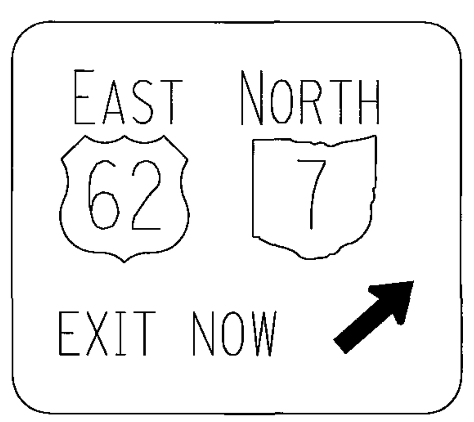
(2) ATTACH TO EXISTING GROUND MOUNTED SIGN



SPECIAL
120" X 96"

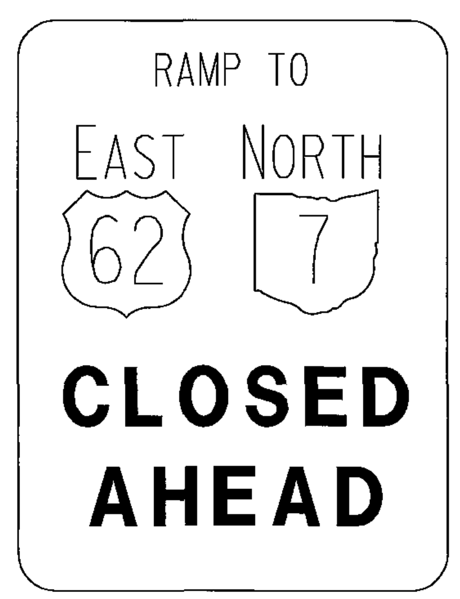
(3) ATTACH TO RIGHT SIDE OF OVERHEAD SIGN TRUSS THAT IS PROPOSED IN THESE PLANS IF CONSTRUCTED, ELSE, ATTACH TO BRIDGE PIER, RIGHT SIDE

(4) ATTACH TO EXISTING OVERHEAD SIGN TRUSS, RIGHT SIDE



SPECIAL
120" X 108"

(5) ATTACH TO EXISTING OVERHEAD SIGN TRUSS, LEFT SIDE

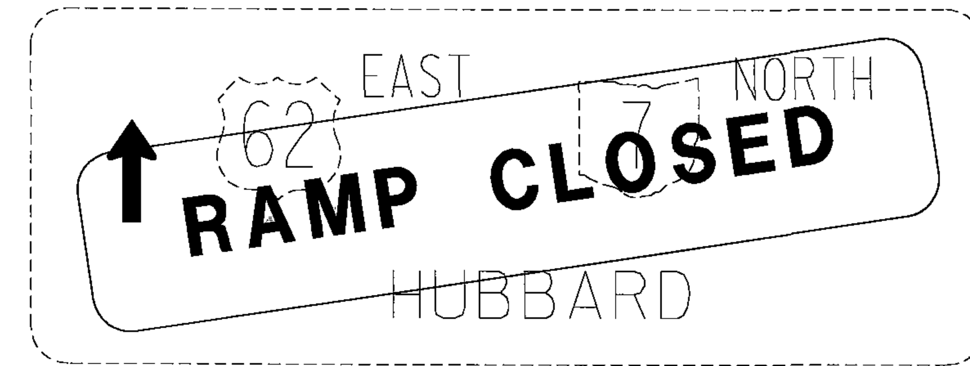


SPECIAL
120" X 140"

(6) OVERLAY EXISTING OVERHEAD SIGN

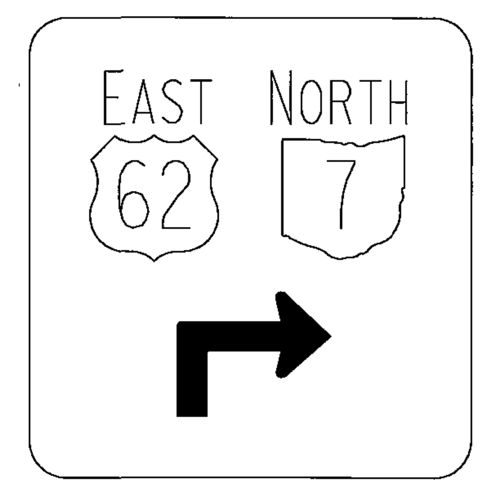
SPECIAL (OVERLAY)
96" X 30"

(7) OVERLAY EXISTING OVERHEAD SIGN



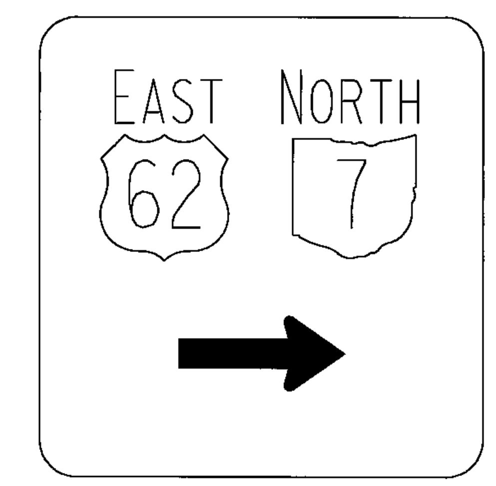
SPECIAL (OVERLAY)
160" X 30"

(8) OVERLAY EXISTING OVERHEAD SIGN



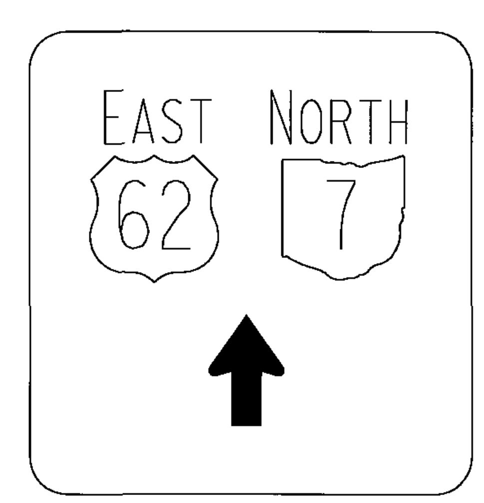
SPECIAL
120" X 108"

(9) OVERLAY EXISTING OVERHEAD SIGN



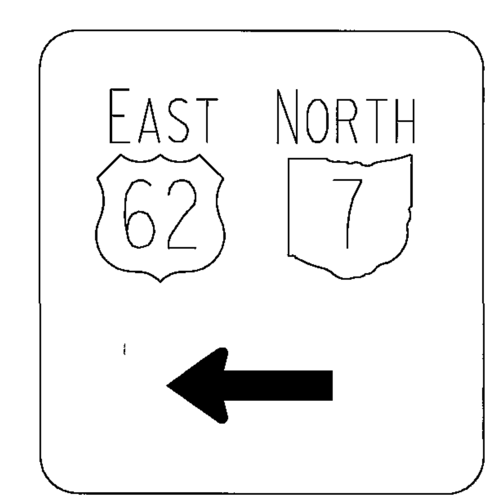
SPECIAL
120" X 108"

(10) OVERLAY EXISTING OVERHEAD SIGN



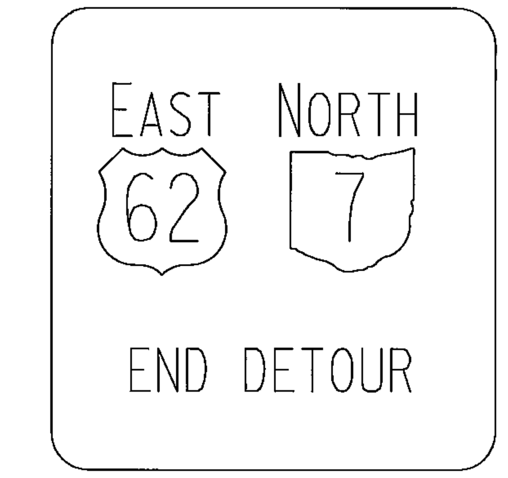
SPECIAL
120" X 108"

(11) OVERLAY EXISTING OVERHEAD SIGN



SPECIAL
120" X 108"

(12) OVERLAY EXISTING OVERHEAD SIGN



SPECIAL
120" X 108"

NOTE:
SIGNS ARE BLACK TEXT ON ORANGE BACKGROUND, EXCEPT ROUTE MARKERS

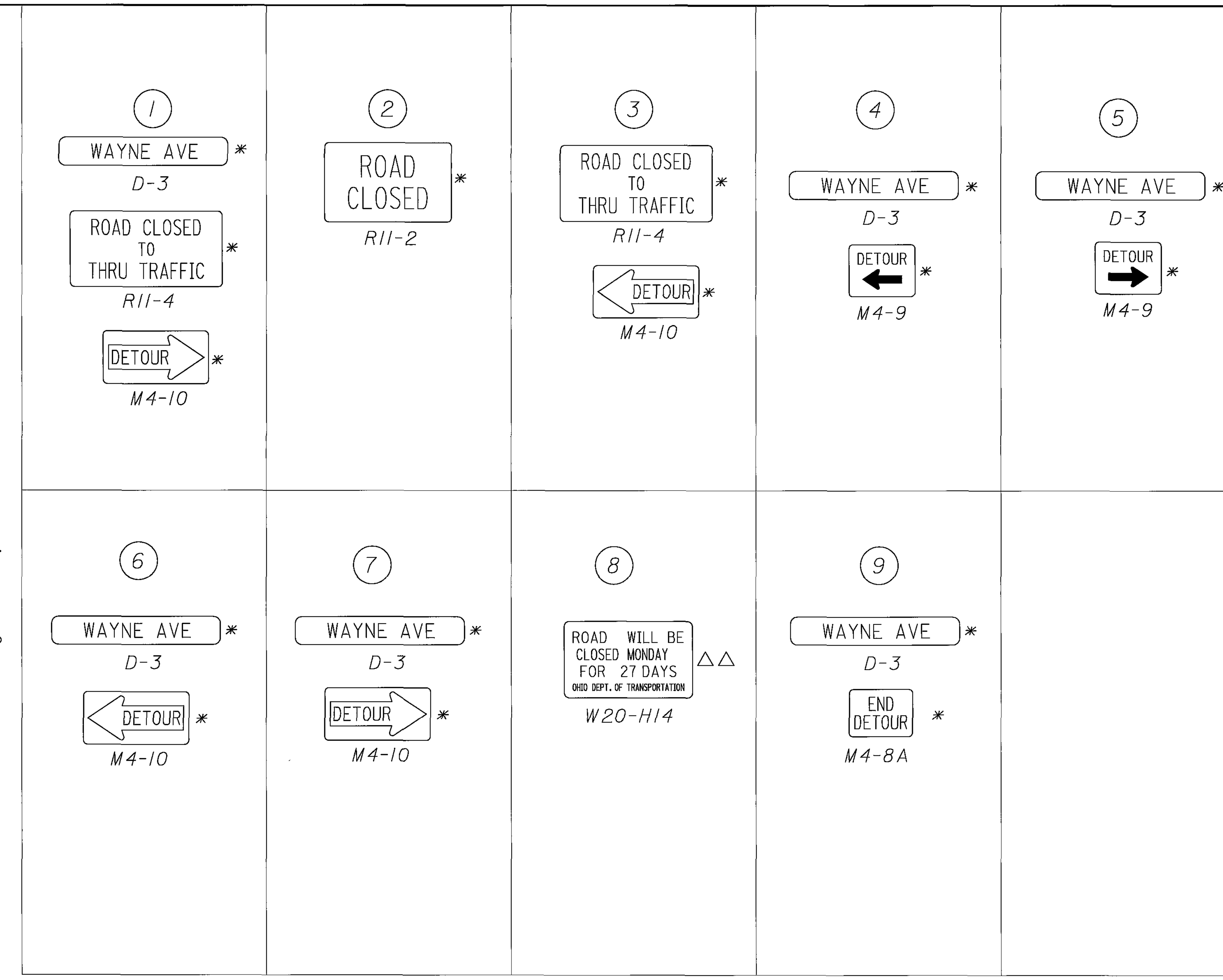
N

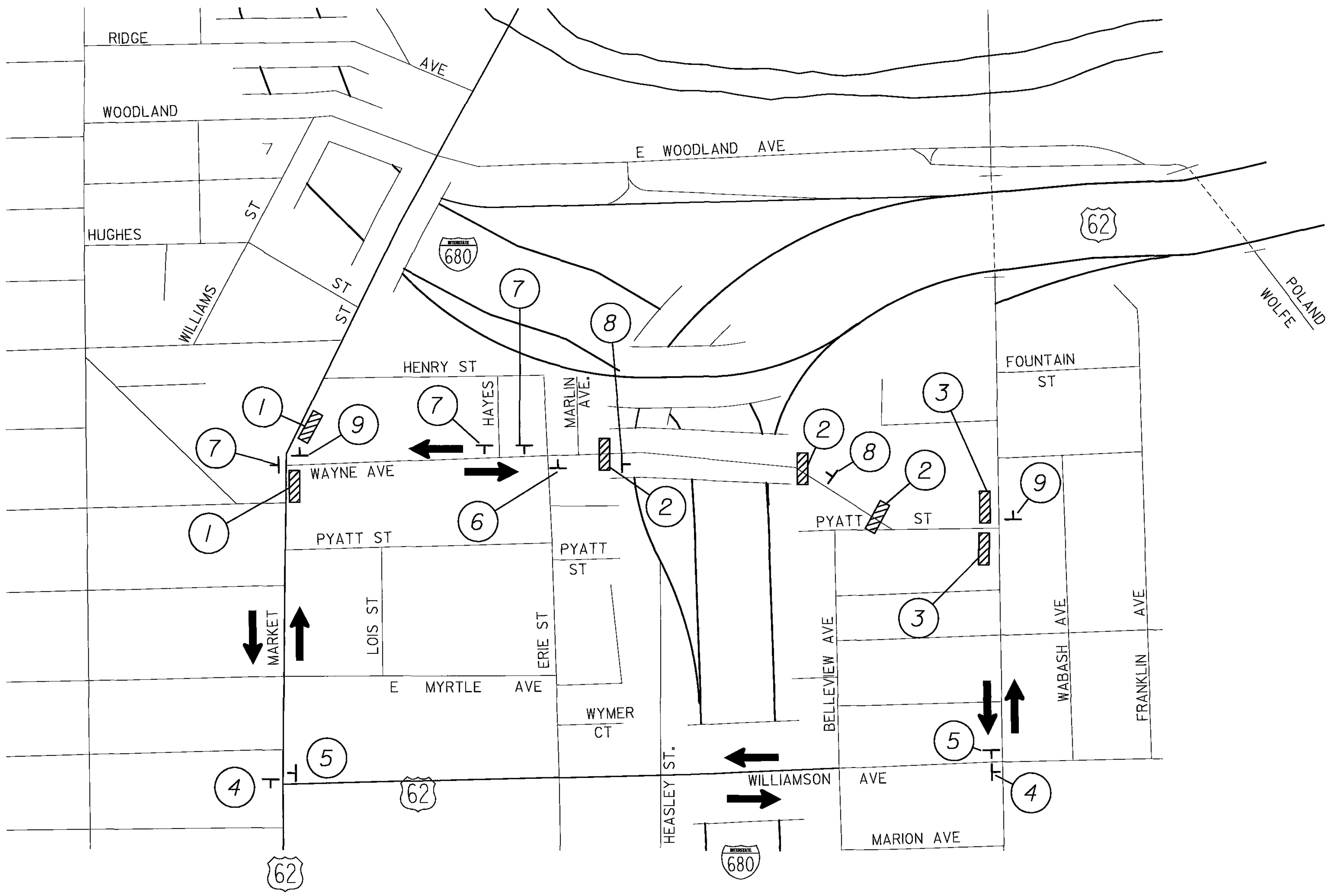
0 0.1 0.2 0.4
HORIZONTAL SCALE IN FEET

CALCULATED DES
CHECKED DJW

DETOUR PLAN IR-680 RAMP BX (6.28)

MAH-680-4.14/6.28/6.37





WAYNE AVENUE/PYATT STREET DETOUR

LEGEND:

- TYPE 3 BARRICADE
- WAYNE AVE. DETOUR
- * BLACK MESSAGE ON ORANGE BACKGROUND

△△ NOTICE OF CLOSURE SIGN (W20-H14) SHALL BE ERECTED SEVEN (7) DAYS PRIOR TO THE CLOSING OF RAMP BX TO TRAFFIC.

N

0 0.2 0.4 0.8
HORIZONTAL SCALE IN FEET

CALCULATED DES
CHECKED DJW

DETOUR PLAN
WAYNE AVENUE/PYATT STREET (6.37)

MAH-680-4.14/6.28/6.37

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SHEET NUMBER 9	11	28	29	31	32	33	34	48	65	79	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
															ROADWAY	
											201	11000	LUMP		CLEARING AND GRUBBING	
					951	1016	915				202	23000	2882	SQ YD	PAVEMENT REMOVED	
		1982	2195								202	30000	4177	SQ FT	WALK REMOVED	
		254	597								202	32000	851	FT	CURB REMOVED	
		47									202	32500	47	FT	CURB AND GUTTER REMOVED	
		54	172								202	35100	226	FT	PIPE REMOVED 24" AND UNDER	
		318	1499								202	38000	1817	FT	GUARDRAIL REMOVED	
			4								202	42206	4	EACH	ANCHOR ASSEMBLY REMOVED	
		2	6								202	47000	8	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED	
		5	3								202	58100	8	EACH	CATCH BASIN REMOVED	
			2								202	60010	2	EACH	MONUMENT ASSEMBLY REMOVED	
			85								202	75000	85	FT	FENCE REMOVED	
								402	662	516	203	10000	1580	CU YD	EXCAVATION	
								4	254	178	203	20000	436	CU YD	EMBANKMENT	
					1308	1631	1192				204	10000	4131	SQ YD	SUBGRADE COMPACTION	
2											204	45000	2	HOUR	PROOF ROLLING	
		0.23									209	60500	0.23	MILE	LINEAR GRADING	
		1	4								604	36000	5	EACH	GAS VALVE BOX ADJUSTED TO GRADE	
		2									604	38500	2	EACH	MONUMENT ASSEMBLY	
		1392									606	13000	1392	FT	GUARDRAIL, TYPE 5	
			425								606	13030	425	FT	GUARDRAIL, TYPE 5, USING 9 FOOT POSTS	
		3									606	22010	3	EACH	ANCHOR ASSEMBLY, TYPE E-98	
		1	2								606	26500	3	EACH	ANCHOR ASSEMBLY, TYPE T	
		4	2								606	35000	6	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 1	
		2									606	35100	2	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 2	
			85								607	20000	85	FT	FENCE, TYPE CL	
					2467		1891				608	10000	4358	SQ FT	4" CONCRETE WALK	
					4						608	49000	4	EACH	CURB RAMP	
	6.72										616	10000	6.72	M GAL	WATER	
															EROSION CONTROL	
	85										659	00300	85	CU YD	TOPSOIL	
								38	304	422	660	25000	764	SQ YD	SODDING STAKED	
	0.10										659	20000	0.10	TON	COMMERCIAL FERTILIZER	
	0.16										659	31000	0.16	ACRE	LIME	
	16.50										659	35000	16.50	M GAL	WATER	
											832	10000	1	EACH	STORM WATER POLLUTION PREVENTION PLAN	
											832	30000	2000	EACH	EROSION CONTROL	
															DRAINAGE	
				1							601	32200	1	CU YD	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	
				0.2							602	20000	0.2	CU YD	CONCRETE MASONRY	
				30							603	01500	30	FT	6" CONDUIT, TYPE F	
				235							603	04400	235	FT	12" CONDUIT, TYPE B	
				47							603	04600	47	FT	12" CONDUIT, TYPE C	
				74							603	05200	74	FT	12" CONDUIT, TYPE F	

CALCULATED DES
CHECKED DJW

GENERAL SUMMARY

MAH-680-4.14/6.28/6.37

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SHEET NUMBER											ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
			28	29	30	31	32	33	34	91						
															DRAINAGE (CONTINUE)	
						144					603	05900	144	FT	15" CONDUIT, TYPE B	
						3					604	00400	3	EACH	CATCH BASIN, NO. 3	
						2					604	00401	2	EACH	CATCH BASIN, NO. 3, AS PER PLAN	10
						1					604	00800	1	EACH	CATCH BASIN, NO. 3A	
						6					604	00801	6	EACH	CATCH BASIN, NO. 3A, AS PER PLAN	10
						1					604	31500	1	EACH	MANHOLE, NO. 3	
						1					604	04101	1	EACH	CATCH BASIN, NO. 2-2A, AS PER PLAN	10
						1					604	36600	1	EACH	PRECAST REINFORCED CONCRETE OUTLET	
						400					605	11101	400	FT	6" SHALLOW PIPE UNDERDRAINS, AS PER PLAN	10
															PAVEMENT	
							418	122	216		254	01000	756	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE	
							140	44	91		255	20000	275	FT	FULL DEPTH PAVEMENT SAWING	
				5			217	276	199		304	20000	697	CU YD	AGGREGATE BASE	
							961				305	10000	961	SQ YD	6" CONCRETE BASE	
								1431	948		305	13000	2379	SQ YD	9" CONCRETE BASE	
							103	115	85		407	10000	303	GALLON	TACK COAT	
							39	56	37		407	14000	132	GALLON	TACK COAT FOR INTERMEDIATE COURSE	
							168				409	30000	168	FT	SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS	
							47	68	45		448	46050	160	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22	
								49			448	46061	49	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, UNDER GUARDRAIL, PG 64-22, AS PER PLAN	10
							33	22	38		448	47020	93	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22	
				33							451	10000	33	SQ YD	6" REINFORCED CONCRETE PAVEMENT	
			299	556							609	16000	855	FT	CURB, TYPE 2-B	
			194								622	10060	194	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B	
															WATER WORK	
					1						638	10400	1	EACH	FIRE HYDRANT ADJUSTED TO GRADE	
					17						638	10800	17	EACH	VALUE BOX ADJUSTED TO GRADE	
															COMBINED SEWER	
						2					604	31500	2	EACH	MANHOLE, NO. 3	
						6					604	34500	6	EACH	MANHOLE ADJUSTED TO GRADE	
															LIGHTING	
										2	625	00500	2	EACH	CONNECTOR KIT, TYPE II	
										2	625	00600	2	EACH	CONNECTOR KIT, TYPE III	
										4	625	01500	4	EACH	CABLE SPLICING KIT	
										900	625	23000	900	FT	NO. 4 AWG 600 VOLT DISTRIBUTION CABLE	
										174	625	23400	174	FT	NO. 10 AWG POLE AND BRACKET CABLE	
										1673	625	25400	1673	FT	CONDUIT, 2", 725.04	
										56	625	29000	56	FT	TRENCH	
										8	625	29910	8	EACH	TRANSITION JUNCTION BOX	
										10	625	29921	10	EACH	STRUCTURE JUNCTION BOX, AS PER PLAN	90
										8	625	30500	8	EACH	PULL BOX, 725.09, 18"	
										3	625	33000	3	EACH	STRUCTURE GROUNDING SYSTEM	
										2	625	35010	2	EACH	REMOVE AND REERECT EXISTING LIGHT POLE	
										56	SPECIAL	62536000	56	FT	PLASTIC CAUTION TAPE	
										LUMP	SPECIAL	62540000	LUMP		MAINTAIN EXISTING LIGHTING	90

CALCULATED DES
CHECKED DJW

GENERAL SUMMARY

MAH-680-4.14/6.28/6.37

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SHEET NUMBER 13	30	83	84	85	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
									TRAFFIC CONTROL	
			65.0	66.5	630	02100	131.5	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	90
			2		630	35500	2	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-7.65, DESIGN 6	
			27.0	20.0	630	80100	47.0	SQ FT	SIGN, FLAT SHEET	
			744.0		630	80224	744.0	SQ FT	SIGN, OVERHEAD EXTRUSHEET	
			4		630	84510	4	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	
			6	4	630	84900	10	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
				1	630	85100	1	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
			6	5	630	86002	11	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
			4		630	86330	4	EACH	REMOVAL OF STRUCTURE MOUNTED SIGN AND STORAGE	
				1	630	87100	1	EACH	REMOVAL OF OVERHEAD SIGN AND REERECTION	
				1	630	89101	1	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND REERECTION, TYPE TC-12.30, AS PER PLAN	88
			4		630	89806	4	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-18.24	
			4		630	91010	4	EACH	TRANSPORTATION OF STORED SIGN, EXTRUSHEET	
			7		631	94000	7	EACH	REMOVAL OF LUMINAIRE AND STORAGE	
			2		631	94300	2	EACH	REMOVAL OF DISCONNECT SWITCH AND STORAGE	
			3		631	94408	3	EACH	REMOVAL OF SIGN WIRING AND DISPOSAL	
			2		631	94413	2	EACH	REMOVAL OF SIGN SERVICE AND DISPOSAL, AS PER PLAN	86
		0.28			642	00100	0.28	MILE	EDGE LINE, TYPE 1	
		0.29			642	00300	0.29	MILE	CENTER LINE, TYPE 1	
		25			642	00400	25	FT	CHANNELIZING LINE, TYPE 1	
		0.42			646	10000	0.42	MILE	EDGE LINE	
									MAINTENANCE OF TRAFFIC	
	2				614	12336	2	EACH	WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)	
	4				614	12338	4	EACH	WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)	
	77				614	13202	77	EACH	BARRIER REFLECTOR, TYPE A2	
	12				614	13350	12	EACH	OBJECT MARKER, ONE WAY	
	0.20				614	20200	0.20	MILE	WORK ZONE LANE LINE, CLASS I, 740.06, TYPE I	
	0.02				614	21100	0.02	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT	
	0.14				614	21200	0.14	MILE	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I	
	0.93				614	22200	0.93	MILE	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I	
	88				614	26200	88	FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	
80					614	11100	80	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR	
					614	12420	LUMP		DETOUR SIGNING (MAH-680-6.28)	
					614	12420	LUMP		DETOUR SIGNING (MAH-680-6.37)	
	120				622	40020	120	FT	PORTABLE CONCRETE BARRIER, 32"	
	3170				622	40031	3170	FT	PORTABLE CONCRETE BARRIER, 50", AS PER PLAN	14
	538				622	40040	538	FT	PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED	
					614	11000	LUMP		MAINTAINING TRAFFIC	
					619	16000	15	MONTH	FIELD OFFICE, TYPE A	
					623	10000	LUMP		CONSTRUCTION LAYOUT STAKES	
					624	10000	LUMP		MOBILIZATION	
									STRUCTURE (OVER 20')	
									STRUCTURE OVER 20' (MAH-680-4.14)	99
									STRUCTURE OVER 20' (MAH-680-6.28)	127
									STRUCTURE OVER 20' (MAH-680-6.37)	151

CALCULATED DES
CHECKED DJW

GENERAL SUMMARY

MAH-680-4.14/6.28/6.37

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REF NO.	SHEET NO.	STATION TO STATION	SIDE	202 WALK REMOVED	202 CURB AND GUTTER REMOVED	202 CURB REMOVED	202 PIPE REMOVED, 24" AND UNDER	202 GUARDRAIL REMOVED	202 BRIDGE TERMINAL ASSEMBLY REMOVED	202 CATCH BASIN REMOVED	209 LINEAR GRADING,	604 GAS VALVE BOX ADJUSTED TO GRADE	604 MONUMENT ASSEMBLY	606 GUARDRAIL, TYPE 5	606 ANCHOR ASSEMBLY, TYPE E-98	606 BRIDGE TERMINAL ASSEMBLY, TYPE 1	606 ANCHOR ASSEMBLY, TYPE T	606 BRIDGE TERMINAL ASSEMBLY, TYPE 2	609 CURB, TYPE 2-B	622 CONCRETE BARRIER, SINGLE SLOPE, TYPE B
				SQ FT	FT	FT	FT	FT	EACH	EACH	MILE	EACH	EACH	FT	EACH	EACH	EACH	EACH	FT	FT
		STEEL ST. (4.14)																		
	38	49+48.98 TO 49+86.55	LT	452																
	38	49+48.98 TO 50+32.48	RT	431																
	38	50+18.92 TO 50+37.72	LT	139																
1C	38	49+48.98 TO 49+87.05	LT																51	
2C	38	49+48.98 TO 50+07.78	RT																59	
1C	39	52+69.30 TO 53+02.49	RT																50	
2C	39	52+74.25 TO 52+84.99	LT																29	
3C	39	53+15.06 TO 53+55.00	LT																67	
4C	39	53+36.32 TO 53+55.00	RT																43	
	39	52+44.47 TO 52+91.74	RT	171																
	39	52+49.42 TO 52+80.41	LT	222																
	39	53+15.78 TO 53+55.00	LT	355																
	39	53+37.51 TO 53+55.00	LT	212																
1G	41	49+81	LT									1								
1R	38	49+48.98 TO 49+86.55	LT			52														
2R	38	49+48.98 TO 50+07.78	RT			59														
1R	39	52+69.30 TO 53+55.00	RT		31	61														
2R	39	52+74.25 TO 52+85.00	LT		16	13														
3R	39	53+15.02 TO 53+55.00	LT			69														
1R	41	49+87 TO 50+01	LT				14			1										
1R	42	52+78 TO 53+03	LT				27			1										
2R	42	53+03 TO 53+16	LT				13			1										
3R	42	53+01	RT							1										
4R	42	53+38	RT							1										
		IR-680 (4.14)																		
1CB	40	928+69 TO 929+66	℄																	97
2CB	40	930+33 TO 931+30	℄																	97
1GR	40	926+80 TO 929+74	RT											217	1	1				
2GR	40	930+27 TO 932+09	LT											101	1	1				
1R	40	926+80 TO 929+74	RT					162	1											
2R	40	930+27 TO 932+09	LT					156	1											
		IR-680 RAMP BX (6.28)																		
1GR	49 & 50	7+23.20 TO 11+62.03	RT								0.08			358	1	1				
2GR	49 & 50	7+75.00 TO 11+32.84	LT								0.06			327		1				
1GR	51	15+78.93 TO 18+25.00	RT								0.05			209			1	1		
2GR	51	16+24.71 TO 18+29.93	LT								0.04			180				1		
1M	50	10+77.07	℄										1							
1M	51	16+13.86	℄										1							
TOTALS CARRIED TO GENERAL SUMMARY				1982	47	254	54	318	2	5	0.23	1	2	1392	3	4	1	2	299	194

CALCULATED DES CHECKED DJW

ROADWAY SUBSUMMARY

MAH-680-4.14/ 6.28/6.37

28
191

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REF NO.	SHEET NO.	STATION TO STATION	SIDE	202 WALK REMOVED	202 CURB REMOVED	202 PIPE REMOVED, 24" AND UNDER	202 GUARDRAIL REMOVED	202 ANCHOR ASSEMBLY REMOVED	202 BRIDGE TERMINAL ASSEMBLY REMOVED	202 CATCH BASIN REMOVED	202 MONUMENT ASSEMBLY REMOVED	202 FENCE REMOVED	304 AGGREGATE BASE	451 6" REINFORCED CONCRETE PAVEMENT	604 GAS VALVE BOX ADJUSTED TO GRADE	606 GUARDRAIL, TYPE 5, USING 9 FOOT POSTS	606 ANCHOR ASSEMBLY, TYPE T	606 BRIDGE TERMINAL ASSEMBLY, TYPE 1	607 FENCE TYPE CL	609 CURB, TYPE 2-B
				SQ FT	FT	FT	FT	EACH	EACH	EACH	EACH	FT	CU YD	SQ YD	EACH	FT	EACH	EACH	FT	FT
		IR-680 RAMP BX, CONT. (6.28)																		
1R	49 & 50	7+23.20 TO 11+59.93	RT				358	1	1											
2R	49 & 50	7+75.00 TO 11+30.74	LT				327		1											
1R	50	10+77.07	℄								1									
1R	51	15+80.93 TO 18+25.00	RT				209	1	1											
2R	51	16+13.86	℄								1									
3R	51	15+80.93 TO 18+25.00	RT				180		1											
4R	51	17+96.01 TO 18+25.00	RT		29															
		WAYNE AVE./PYATT ST. (6.37)																		
1C	67	5+43.00 TO 6+92.92	RT																	148
2C	67	5+76.18 TO 6+98.06	LT																	124
1C	69	11+53.67 TO 13+00.00	LT																	146
2C	69	11+62.08 TO 13+00.00	RT																	138
1G	70	5+59	LT												1					
2G	70	5+90	RT												1					
3G	70	6+62 TO 6+63	RT												2					
1DR	67	5+41	RT										1	7						
2DR	67	5+83	RT										1	6						
3DR	67	6+13	LT										1	6						
4DR	67	6+32	RT										1	7						
5DR	67	6+42	RT										1	7						
1F	67	6+85 TO 7+17	RT																40	
2F	67	7+00 TO 7+22	LT																24	
1F	68	11+22 TO 11+25	LT																11	
2F	68	11+36 TO 11+40	RT																10	
1R	67	5+43 TO 6+93	RT		150															
2R	67	5+76 TO 7+10	LT		134															
3R	67	6+85 TO 7+17	RT									40								
4R	67	7+00 TO 7+22	LT									24								
1R	68	11+22 TO 11+25	LT									11								
2R	68	11+36 TO 11+40	RT									10								
3R	68	11+42.00 TO 13+49.83	LT		146		166	1	1											
4R	68 & 69	11+52.25 TO 14+52.54	RT		138		259	1	1											
1R	70	5+31	LT							1										
2R	70	5+49 TO 6+90	LT			147				1										
3R	70	6+23	LT			25				1										
1GR	68	11+39.90 TO 13+49.83	LT													166	1	1		
2GR	68 & 69	11+50.15 TO 14+52.54	RT													259	1	1		
	67	5+34.09 TO 7+18.67	RT	880																
	67	5+76.37 TO 6+87.02	LT	452																
	68	11+36.54 TO 13+00.00	RT	863																
TOTALS CARRIED TO GENERAL SUMMARY				2195	597	172	1499	4	6	3	2	85	5	33	4	425	2	2	85	556

CALCULATED DES CHECKED DJW

ROADWAY SUBSUMMARY

MAH-680-4.14/ 6.28/6.37

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REF NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	614 WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL) EACH	614 WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL) EACH	614 BARRIER REFLECTOR, TYPE A2 EACH	614 OBJECT MARKER, ONE WAY EACH	614 WORK ZONE LANE LINE, CLASS I, 740.06, TYPE I FT	614 WORK ZONE CENTER LINE, CLASS I, 642 PAINT MILE	614 WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I MILE	614 WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I MILE YELLOW	614 WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I MILE WHITE	614 WORK ZONE STOP LINE, CLASS I, 642 PAINT FT	622 PORTABLE CONCRETE BARRIER, 32" FT	622 PORTABLE CONCRETE BARRIER, 50", AS PER PLAN FT	622 PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED FT	WATER WORK 638 VALUE BOX ADJUSTED TO GRADE EACH	WATER WORK 638 FIRE HYDRANT ADJUSTED TO GRADE EACH
		STEEL ST. - PHASE I (4.14)																	
1CL	16	52+99		LT						0.01									
2CL	16	53+20		RT						0.01									
1SL	16	49+35		RT										15					
2SL	16	49+87	50+17	LT										29					
3SL	16	52+85	52+99	LT										14					
4SL	16	53+20	53+35	RT										15					
5SL	16	53+72		LT										15					
	16	50+05	52+75	LT&RT		2	6	6							80		266		
		STEEL ST. - PHASE II (4.14)																	
1CL	18	47+05	49+75	LT							0.05								
2CL	18	50+22	52+72	LT							0.05								
3CL	18	53+52	55+77	LT							0.04								
1EL	18	48+86	49+99	RT									0.02						
	18	50+03	52+79	RT		2	6	6							40		272		
		IR-680 (4.14)																	
1EL	19	924+10	933+00	LT								0.17							
2EL	19	924+10	927+67	LT									0.07						
3EL	19	928+18	933+00	LT									0.09						
1LL	19	924+10	933+00	LT									0.17						
2LL	19	927+67	933+00	LT									0.10						
	19	921+40	932+40	RT	1		22									1080			
	19	922+10	933+00	LT			22									1070			
1EL	20	933+00	937+84	LT									0.09						
2EL	20	933+00	939+40	LT								0.12							
3EL	20	937+84	938+79	LT									0.02						
4EL	20	937+84	940+38	LT									0.05						
1LL	20	933+00	937+84	LT					0.09										
2LL	20	933+00	938+79	LT					0.11										
	20	933+00	943+40	LT	1		21									1020			
		IR-680 RAMP BX (6.28)																	
1EL	21	1+73	3+18	RT								0.03							
		STEEL ST. (4.14)																	
1W	41	49+67	49+73	LT&RT														3	
2W	41	49+78	49+80	LT														3	
3W	41	50+05		RT														1	
1W	42	52+91	53+06	LT&RT														2	
2W	42	53+30	53+33	RT														2	
		WAYNE AVE./PYATT ST. (6.37)																	
1W	70	5+80	6+17	RT														2	
2W	70	6+36		LT														1	
3W	70	6+42		RT														1	
4W	70	6+73	6+97	LT														2	1
TOTALS												0.32	0.61						
TOTALS CARRIED TO GENERAL SUMMARY					2	4	77	12	0.20	0.02	0.14	0.93		88	120	3170	538	17	1

CALCULATED DES
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ESTIMATED QUANTITIES

MAH-680-4.14/6.28/6.37

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DRAINAGE SUBSUMMARY

REF NO.	SHEET NO.	STATION TO STATION	SIDE	601 ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	602 CONCRETE MASONRY	603 12" CONDUIT, TYPE B	603 6" CONDUIT, TYPE F	603 12" CONDUIT, TYPE F	603 15" CONDUIT, TYPE B	603 12" CONDUIT, TYPE C	604 PRECAST REINFORCED CONCRETE OUTLET	604 CATCH BASIN NO. 2-2A, AS PER PLAN	604 CATCH BASIN NO. 3	604 CATCH BASIN NO. 3, AS PER PLAN	604 CATCH BASIN NO. 3A	604 CATCH BASIN NO. 3A, AS PER PLAN	604 MANHOLE NO. 3	605 6" SHALLOW PIPE UNDERDRAINS, AS PER PLAN	COMBINED SEWER 604 MANHOLE NO. 3	COMBINED SEWER 604 MANHOLE ADJUSTED TO GRADE
				CU YD	CU YD	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	EACH	EACH
		STEEL ST. (4.14)																		
1CS	41	50+00	LT																1	
2CS	41	50+00	RT																	1
1CS	42	53+03	LT																	1
2CS	42	53+36	RT																	1
1D	41	49+87 TO 50+15	LT			30						1				1				
1D	42	52+81 TO 53+15	LT			38										2				
2D	42	53+02 TO 53+23	RT			22										1				
3D	42	53+36	RT			16										1				
		IR-680 RAMP BX (6.28)																		
1D	52	7+75 TO 10+00	LT				20				1							225		
1D	53	16+24 TO 16+37	RT	1	0.2					47							1			
2D	53	16+37	LT&RT			29							1							
3D	53	16+50 TO 18+25	LT				10											175		
		WAYNE AVE./PYATT ST. (6.37)																		
1CS	70	5+32 TO 5+34	LT&RT			24														
2CS	70	5+49 TO 6+19	LT						75											2
3CS	70	6+23 TO 6+24	LT&RT			28													1	
4CS	70	6+19 TO 6+90	LT						69											1
5CS	70	5+34 TO 5+54	LT			20														
1D	70	5+32 TO 5+34	LT&RT												1	1				
2D	70	6+23 TO 6+24	LT&RT											2						
1D	71	11+75 TO 12+00	LT&RT			28		74					2							
TOTALS CARRIED TO GENERAL SUMMARY				1	0.2	235	30	74	144	47	1	1	3	2	1	6	1	400	2	6

CALCULATED DES
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MAH-680-4.14/ 6.28/6.37

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SHEET NO.	STATION TO STATION	SIDE	LENGTH L	AVERAGE WIDTH W	SURFACE AREA A A=LxW	PLANIMETERED AREAS	202 PAVEMENT REMOVED	204 SUBGRADE COMPACTION	254 PAVEMENT PLANING, ASPHALT CONCRETE	255 FULL DEPTH PAVEMENT SAWING	304 AGGREGATE BASE	305 6" CONCRETE BASE	407 TACK COAT, 0.075 GAL/SY	407 TACK COAT FOR INTERMEDIATE COURSE, 0.04 GAL/SY		409 SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS	448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22	448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22	608 4" CONCRETE WALK	608 CURB RAMP
							SQ YD	SQ YD	SQ YD	FT	CU YD	SQ YD	GAL	GAL		FT	CU YD	CU YD	SQ FT	EACH
	STEEL ST. (4.14)																			
38	49+10.00 TO 49+48.98	LT&RT				1413.09			157				12							
38	49+48.98	LT&RT								37										
38	49+48.98 TO 49+86.55	LT				461.88													462	
38	49+48.98 TO 50+13.67	LT&RT				2883.06						320	24	13			16	11		
38	49+48.98 TO 50+13.67	LT&RT				2992.72		333			55									
38	49+48.98 TO 50+17.78	LT&RT				2874.86	319													
38	49+48.98 TO 50+32.22	RT				539.95													540	
38	49+86.55 TO 50+17.08	LT								31										
38	49+86.90 TO 50+17.08	LT				704.75			78				6							
38	50+07.78 TO 50+38.94	LT&RT				1465.08		163			27									
38	50+18.92 TO 50+37.37	LT				162.36													162	
38	50+16.53 TO 50+25.34	LT				171.70													172	
39	52+42.89 TO 52+74.25	LT&RT				1350.19		150			25									
39	52+44.31 TO 52+93.08	RT				273.11													273	
39	52+49.42 TO 52+81.76	LT				295.38													295	
39	52+69.30 TO 53+55.00	LT&RT				5768.83						641	48	26			31	22		
39	52+69.30 TO 53+55.00	LT&RT				5955.40		662			110									4
39	52+69.30 TO 53+55.00	LT&RT				5690.41	632													
39	52+70.47 TO 53+55.00	℄&RT														168				
39	53+01.99 TO 53+36.82	RT								35										
39	53+04.39 TO 53+34.39	RT				750.28			83				6							
39	53+15.93 TO 53+55.00	LT				353.27													353	
39	53+37.51 TO 53+55.00	RT				210.31													210	
39	53+55.00	LT&RT								37										
39	53+55.00 TO 53+80.00	LT&RT				897.25			100				7							
TOTALS CARRIED TO GENERAL SUMMARY							951	1308	418	140	217	961	103	39		168	47	33	2467	4

CALCULATED DES
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PAVEMENT CALCULATIONS

MAH-680-4.14/6.28/6.37

g:\CL02\0026\Road\SHT\Stage 3\GG001.sht

PAVEMENT CALCULATIONS

SHEET NO.	STATION TO STATION	SIDE	LENGTH L	AVERAGE WIDTH W	SURFACE AREA A A=LxW	PLANIMETERED AREAS	202 PAVEMENT REMOVED SQ YD	204 SUBGRADE COMPACTION SQ YD	254 PAVEMENT PLANING, ASPHALT CONCRETE SQ YD	255 FULL DEPTH PAVEMENT SAWING FT		304 AGGREGATE BASE CU YD	305 9" CONCRETE BASE SQ YD	407 TACK COAT, 0.075 GAL/SY GAL	407 TACK COAT FOR INTERMEDIATE COURSE, 0.04 GAL/SY GAL		448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22 CU YD	448 ASPHALT CONCRETE INTERMEDIATE COURSE,TYPE 1, UNDER GUARDRAIL PG64-22,AS PER PLAN CU YD	448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 CU YD
	IR-680 RAMP BX (6.28)																		
49	7+50.00 TO 7+75.00	LT&RT	25.00	21.91	547.75				61					5					
49	7+75.00	LT&RT								22									
49	7+75.00 TO 10+00.00	LT&RT	225.00	23.00	5175.00			575											
49	7+75.00 TO 10+00.00	LT&RT	225.00	23.50	5287.50							98							
49	7+75.00 TO 10+00.00	LT&RT	225.00	16	3600.00		400												
49	7+22.98 TO 10+00.00	RT	277.02	3.00	831.06														4
49	7+75.00 TO 10+00.00	LT&RT	225.00	22.50	5062.50								563						
49	7+75.00 TO 10+00.00	LT&RT	225.00	22.00	4950.00									41	22		27	19	
49	7+75.00 TO 10+00.00	LT	225.00	3.00	675.00														3
50	10+00.00 TO 11+26.99	LT	125.35	3.00	376.05														2
50	10+00.00 TO 11+44.04	LT&RT				3139.68		349											
50	10+00.00 TO 11+47.14	LT&RT	135.63	16	2170.08		241												
50	10+00.00 TO 11+47.14	LT&RT	135.63	23.50	3187.31							59							
50	10+00.00 TO 11+47.14	LT&RT	135.63	22.50	3051.68								339						
50	10+00.00 TO 11+47.14	LT&RT	135.63	22.00	2983.86									25	13		16	12	
50	10+00.00 TO 11+54.25	RT	150.71	7.00	1054.97														5
50	11+23.18 TO 11+75.52	LT&RT				741.76		82				14							
51	15+65.31 TO 16+33.45	LT&RT				729.58		81				13							
51	15+84.71 TO 18+25.00	RT				1029.76													5
51	15+95.35 TO 18+25.00	LT&RT				4892.00		544											
51	15+95.35 TO 18+25.00	LT&RT	211.54	23.50	4971.19							92							
51	15+95.35 TO 18+25.00	RT	211.54	16.00	3384.64														
51	15+95.35 TO 18+25.00	LT&RT	211.54	22.50	4759.65								529						
51	15+95.35 TO 18+25.00	LT&RT	211.54	22.00	4653.88					22				39	21		25	18	
51	16+00.19 TO 18+50.00	LT&RT	211.12	16	3377.92		375												
51	16+27.29 TO 18+25.00	LT	197.71	3.00	593.13														3
51	18+25.00 TO 18+50.00	LT&RT	25.00	21.79	544.75				61					5					
TOTALS CARRIED TO GENERAL SUMMARY							1016	1631	122	44		276	1431	115	56		68	49	22

CALCULATED DES
CHECKED DJW

MAH-680-4.14/6.28/6.37

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PAVEMENT CALCULATIONS

CALCULATED DES | CHECKED DJW

SHEET NO.	STATION TO STATION	SIDE	LENGTH L	AVERAGE WIDTH W	SURFACE AREA A A=LxW	PLANIMETERED AREAS	202 PAVEMENT REMOVED SQ YD	204 SUBGRADE COMPACTION SQ YD	254 PAVEMENT PLANING, ASPHALT CONCRETE SQ YD	255 FULL DEPTH PAVEMENT SAWING FT	304 AGGREGATE BASE CU YD	305 9" CONCRETE BASE SQ YD	407 TACK COAT, 0.075 GAL/SY GAL	407 TACK COAT FOR INTERMEDIATE COURSE, 0.04 GAL/SY GAL		448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22 CU YD	448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 CU YD		608 4" CONCRETE WALK SQ FT
	WAYNE AVE./PYATT ST. (6.37)																		
67	5+18.00 TO 5+43.00	LT&RT				607.60			68				5				2		
67	5+43.00	LT&RT								28									
67	5+43.00 TO 5+76.18	LT				633.02			70				5				2		
67	5+43.00 TO 5+76.18	LT								34									
67	5+43.00 TO 6+98.06	LT&RT				4674.67		519			87								
67	5+43.00 TO 6+98.06	LT&RT	152.37	28	4266.36		474												
67	5+43.00 TO 6+98.06	LT&RT				4402.91						489							
67	5+43.00 TO 6+98.06	LT&RT				4266.90							36	19		23	16		
67	5+44.26 TO 7+19.55	RT	132.81	5.00	664.05														664
67	5+76.18 TO 6+75.00	LT	98.82	3.79	332.35														332
67	6+92.92 TO 7+22.60	LT&RT				818.61		91			15								
68	11+28.68 TO 11+62.09	LT&RT				818.73		91			15								
68	11+37.23 TO 13+00.00	RT	162.77	5.50	895.24														895
68	11+53.67 TO 13+00.00	LT&RT	141.88	28	3972.64		441												
68	11+53.67 TO 13+00.00	LT&RT				3988.44							33	18		22	15		
68	11+53.67 TO 13+00.00	LT&RT				4414.96		491			82								
68	11+53.67 TO 13+00.00	LT&RT				4130.61						459							
68	13+00.00 TO 13+25.00	LT&RT				700.10			78				6				3		
68	13+00.00	LT&RT								29									
TOTALS CARRIED TO GENERAL SUMMARY							915	1192	216	91	199	948	85	37		45	38		1891

MAH-680-4.14/ 6.28/6.37

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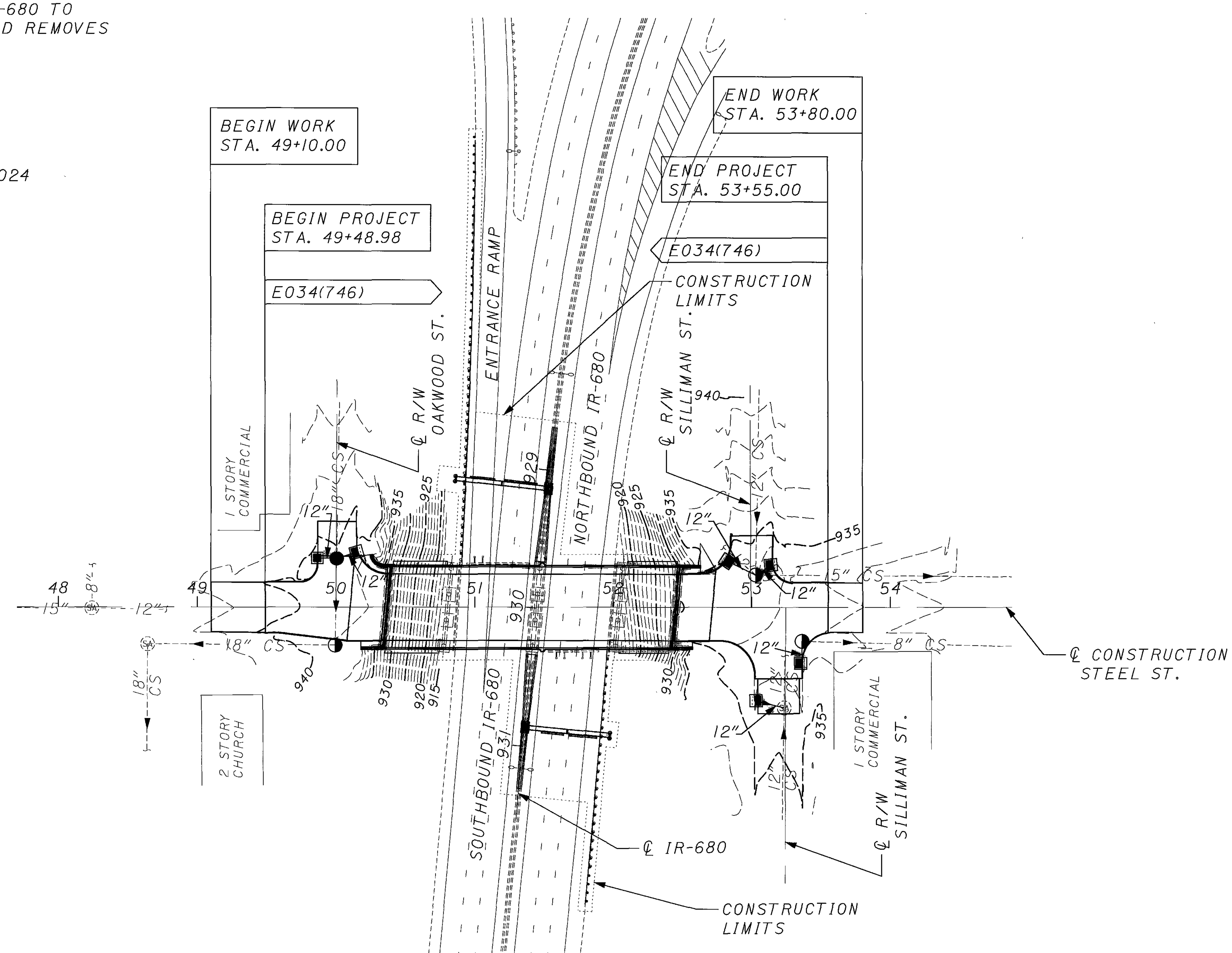
PROJECT DESCRIPTION

REPLACEMENT OF 3 BRIDGE DECKS AND REHABILITATION OF SUBSTRUCTURES ON BRIDGES MAH-680-4.14, 6.28 AND 6.37 ALL OVER IR-680 IN THE CITY OF YOUNGSTOWN, OHIO. PROJECT ALSO INCREASES VERTICAL CLEARANCE ON IR-680 TO 15'-6" MINIMUM UNDER THE BRIDGES AND REMOVES SCUPPERS FROM BRIDGE DECKS.

(MAH-680-0414) LATITUDE: N41°06'19"
LONGITUDE: W80°40'58"

NAME: YOUNGTOWN, OHIO 1994 USGS
NUMBER: USGS REF. CODE 41080-A6-TF-024



PROJECT DATA (MAH-680-4.14)	
PROJECT EARTH DISTURBED AREA: 0.01 ACRES	RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE: 0.90
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.03 ACRES	RUNOFF COEFFICIENT FOR POST-CONSTRUCTION SITE: 0.90
NOTICE OF INTENT EARTH DISTURBED AREA: 4.90 ACRES	SOIL AND WATER CONSERVATION MAPS: MAHONING CO. SHT. NO. 7
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION SITE: 1.00 ACRES	IMMEDIATE RECEIVING WATERS: MAHONING RIVER
IMPERVIOUS (PAVED) AREA FOR POST-CONSTRUCTION SITE: 1.00 ACRES	

PROJECT SITE PLAN STEEL STREET (4.14)

MAH-680-4.14/ 6.28/6.37

HORIZONTAL SCALE IN FEET

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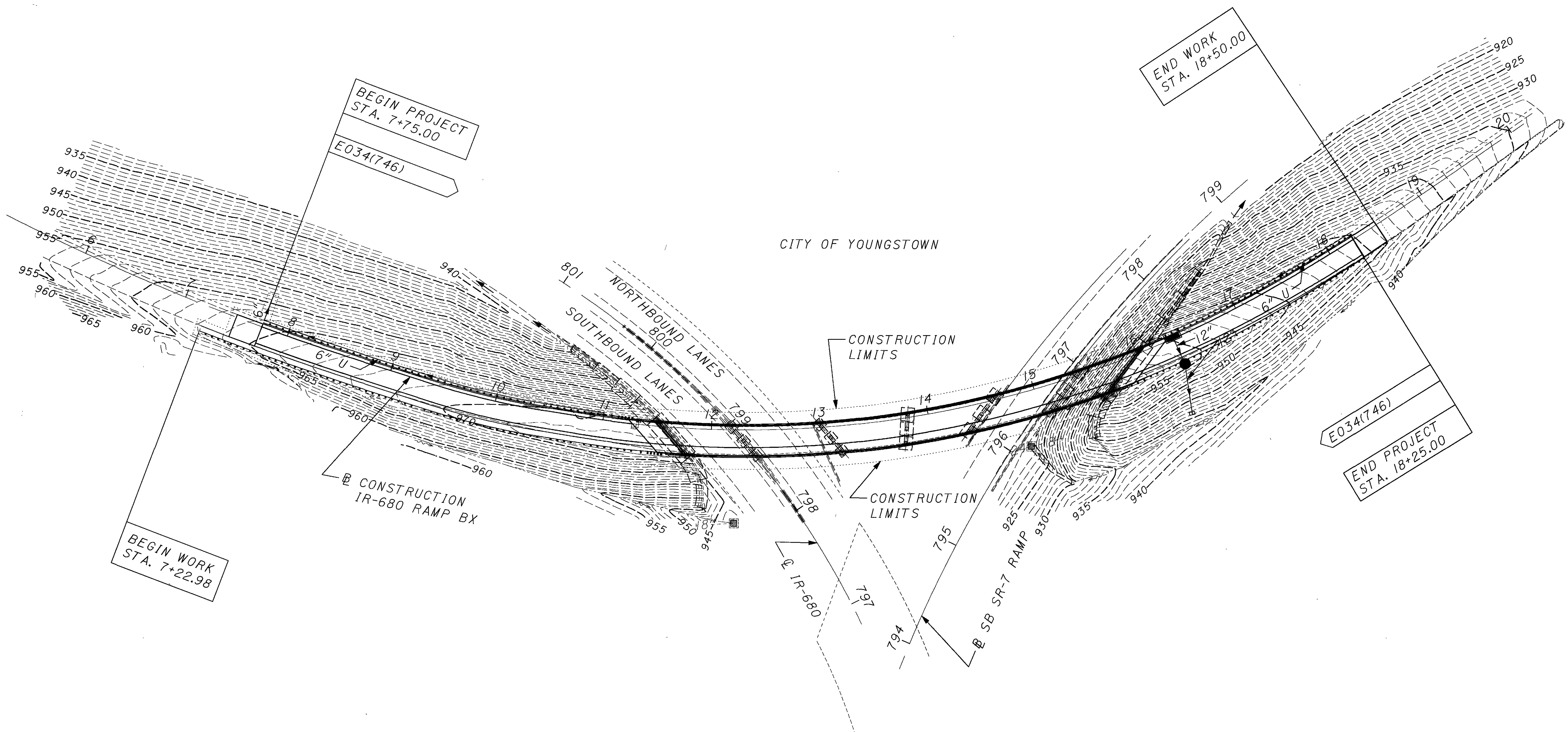
PROJECT DESCRIPTION

REPLACEMENT OF 3 BRIDGE DECKS AND REHABILITATION OF SUBSTRUCTURES ON BRIDGES MAH-680-4.14, 6.28 AND 6.37 ALL OVER IR-680 IN THE CITY OF YOUNGSTOWN, OHIO. PROJECT ALSO INCREASES VERTICAL CLEARANCE ON IR-680 TO 15'-6" MINIMUM UNDER THE BRIDGES AND REMOVES SCUPPERS FROM BRIDGE DECKS.

(MAH-680-0628) LATITUDE: N41°05'28"
LONGITUDE: W80°39'02"

NAME: YOUNGTOWN, OHIO 1994 USGS
NUMBER: USGS REF. CODE 41080-A6-TF-024

PROJECT DATA (MAH-680-6.28)	
PROJECT EARTH DISTURBED AREA: 0.06 ACRES	RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE: 0.85
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.15 ACRES	RUNOFF COEFFICIENT FOR POST-CONSTRUCTION SITE: 0.85
NOTICE OF INTENT EARTH DISTURBED AREA: 4.90 ACRES	SOIL AND WATER CONSERVATION MAPS: MAHONING CO. SHT. NO. 15
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION SITE: 0.65 ACRES	IMMEDIATE RECEIVING WATERS: MAHONING RIVER
IMPERVIOUS (PAVED) AREA FOR POST-CONSTRUCTION SITE: 0.65 ACRES	



0 25 50 100
HORIZONTAL SCALE IN FEET

PROJECT SITE PLAN IR-680 RAMP BX (6.28)

MAH-680-4.14/ 6.28/6.37

36
191

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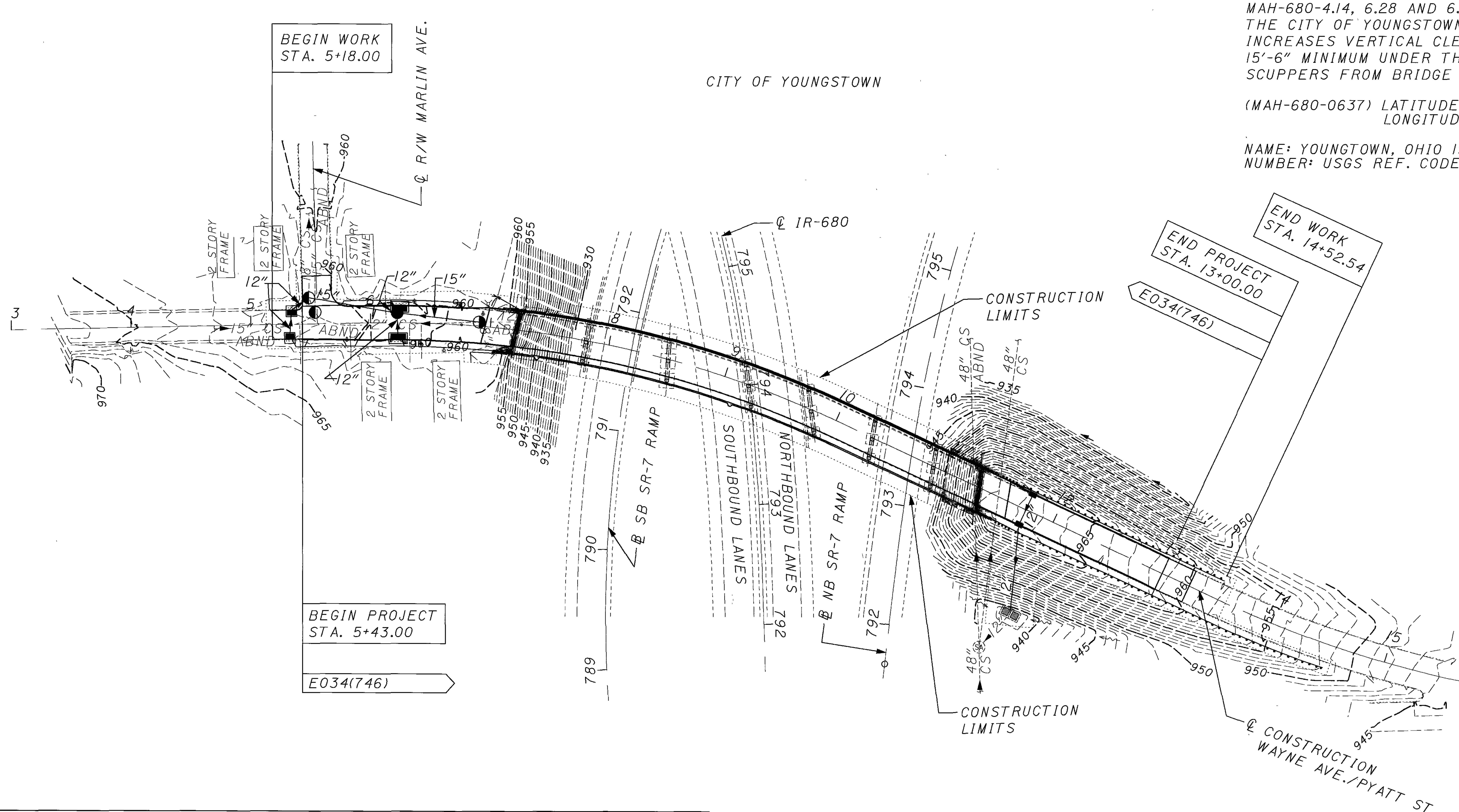
PROJECT DESCRIPTION

REPLACEMENT OF 3 BRIDGE DECKS AND REHABILITATION OF SUBSTRUCTURES ON BRIDGES MAH-680-4.14, 6.28 AND 6.37 ALL OVER IR-680 IN THE CITY OF YOUNGSTOWN, OHIO. PROJECT ALSO INCREASES VERTICAL CLEARANCE ON IR-680 TO 15'-6" MINIMUM UNDER THE BRIDGES AND REMOVES SCUPPERS FROM BRIDGE DECKS.

(MAH-680-0637) LATITUDE: N41°05'23"
LONGITUDE: W80°39'01"

NAME: YOUNGTOWN, OHIO 1994 USGS
NUMBER: USGS REF. CODE 41080-A6-TF-024



PROJECT DATA (MAH-680-6.37)	
PROJECT EARTH DISTURBED AREA: 0.09 ACRES	RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE: 0.84
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.02 ACRES	RUNOFF COEFFICIENT FOR POST-CONSTRUCTION SITE: 0.84
NOTICE OF INTENT EARTH DISTURBED AREA: 4.9 ACRES	SOIL AND WATER CONSERVATION MAPS: MAHONING CO. SHT. NO. 13
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION SITE: 0.57 ACRES	IMMEDIATE RECEIVING WATERS: MAHONING RIVER
IMPERVIOUS (PAVED) AREA FOR POST-CONSTRUCTION SITE: 0.57 ACRES	

0 25 50 100
HORIZONTAL SCALE IN FEET

PROJECT SITE PLAN WAYNE AVE./PYATT ST. (6.37)

MAH-680-4.14/ 6.28/6.37

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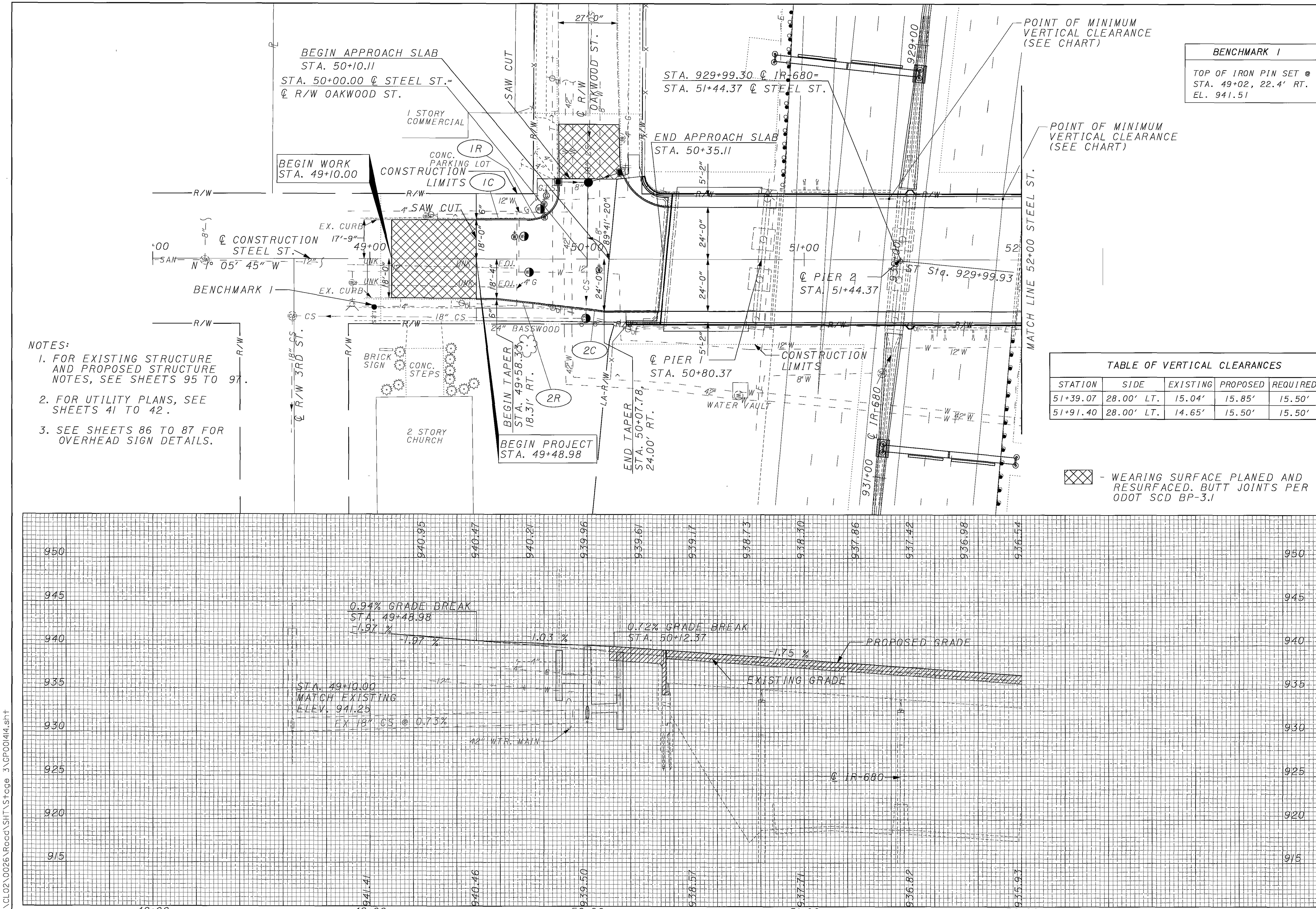

NOTES:

1. FOR EXISTING STRUCTURE AND PROPOSED STRUCTURE NOTES, SEE SHEETS 95 TO 97.
2. FOR UTILITY PLANS, SEE SHEETS 41 TO 42.
3. SEE SHEETS 86 TO 87 FOR OVERHEAD SIGN DETAILS.

BENCHMARK 1

TOP OF IRON PIN SET @ STA. 49+02, 22.4' RT. EL. 941.51

TABLE OF VERTICAL CLEARANCES

STATION	SIDE	EXISTING	PROPOSED	REQUIRED
51+39.07	28.00' LT.	15.04'	15.85'	15.50'
51+91.40	28.00' LT.	14.65'	15.50'	15.50'

- WEARING SURFACE PLANED AND RESURFACED. BUTT JOINTS PER ODOT SCD BP-3.1

HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED DES CHECKED DJW

PLAN AND PROFILE STEEL ST. (4.14)
STA. 49+00 TO STA. 52+00

MAH-680-4.14/6.28/6.37

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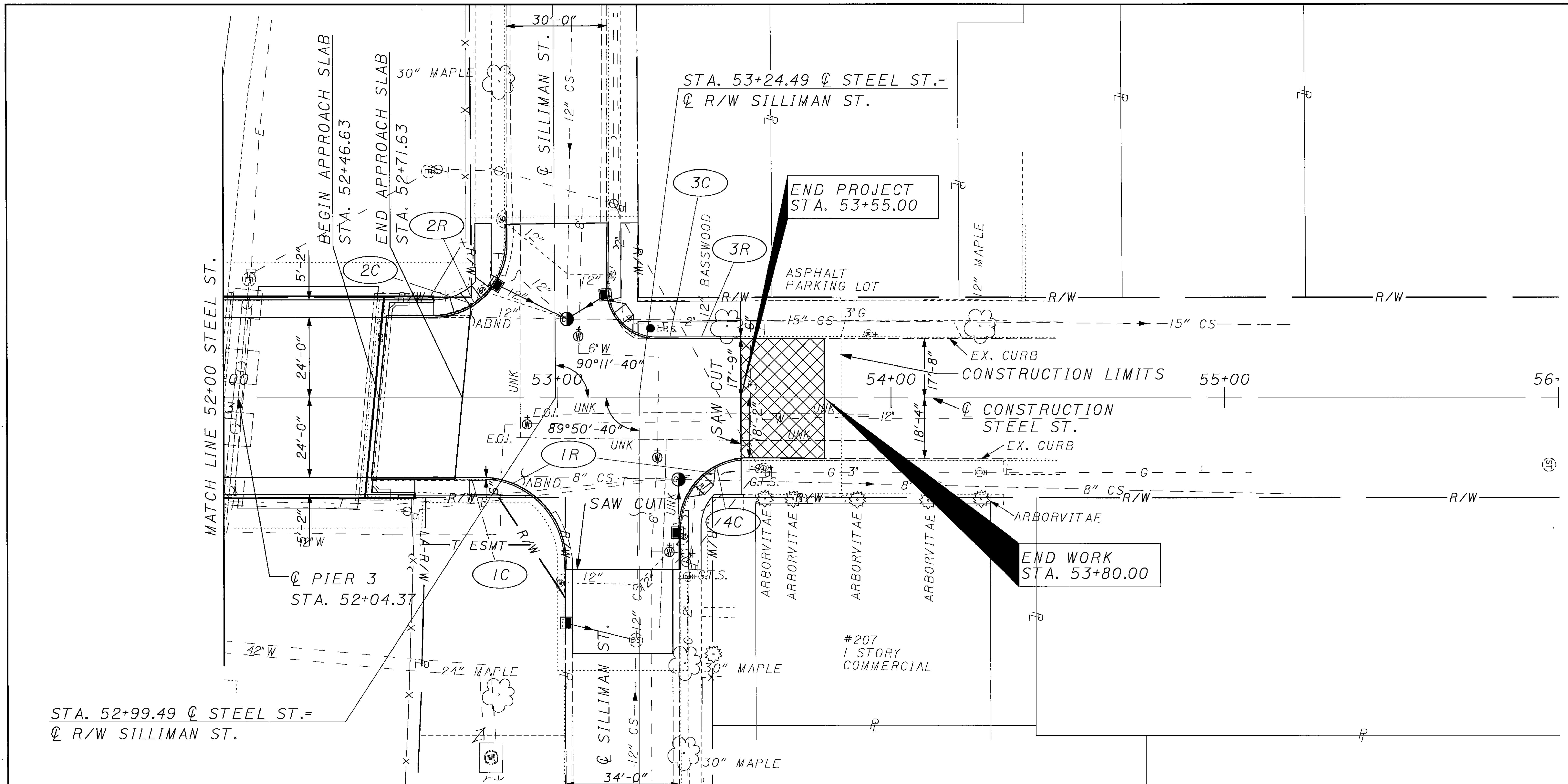


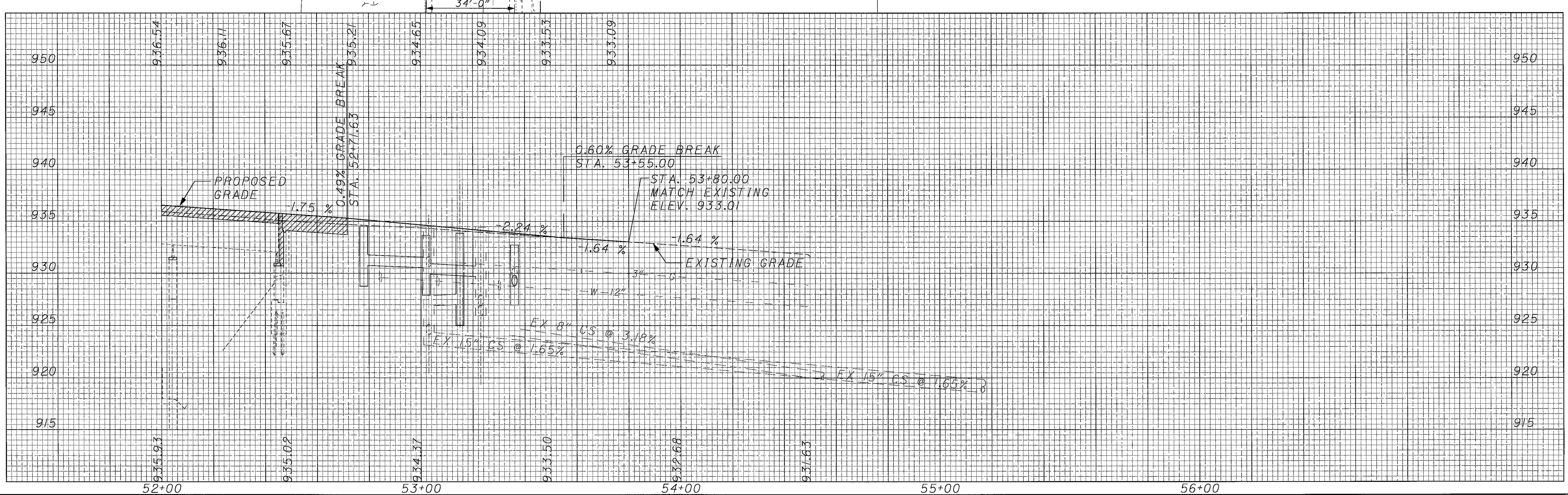
BENCHMARK 2

TOP OF IRON PIN SET @ STA. 53+28, 22.0' LT. EL. 934.11

NOTES:

1. FOR EXISTING STRUCTURE AND PROPOSED STRUCTURE NOTES, SEE SHEETS 95 TO 97.
2. FOR UTILITY PLANS, SEE SHEETS 41 TO 42.

- WEARING SURFACE PLANED AND RESURFACED. BUTT JOINTS PER ODOT SCD BP-3.1



HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED DES
CHECKED DJW

PLAN AND PROFILE STEEL ST. (4.14)
STA. 52+00 TO STA. 54+50

MAH-680-4.14/6.28/6.37

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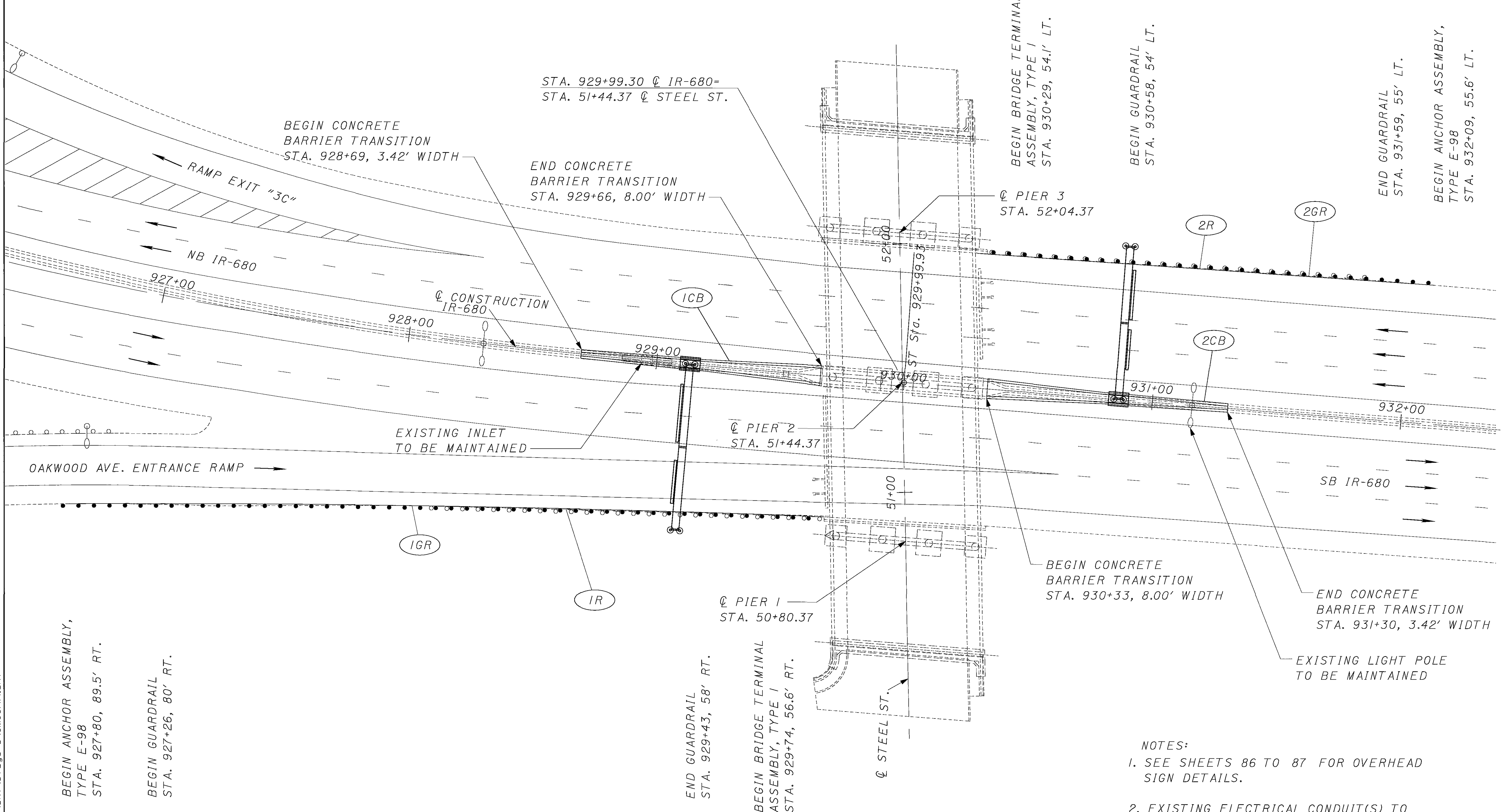

NOTES:

1. SEE SHEETS 86 TO 87 FOR OVERHEAD SIGN DETAILS.
2. EXISTING ELECTRICAL CONDUIT(S) TO BE MAINTAINED ALONG IR-680 DURING CONSTRUCTION.
3. BARRIER TRANSITION TO BE CONSTRUCTED PER SCD RM-4.4.

N

0 10 20 40
HORIZONTAL
SCALE IN FEET

CALCULATED DES
CHECKED DJW

GUARDRAIL & MEDIAN BARRIER PLAN
IR-680 AT STEEL ST. (4.14)

MAH-680-4.14/6.28/6.37

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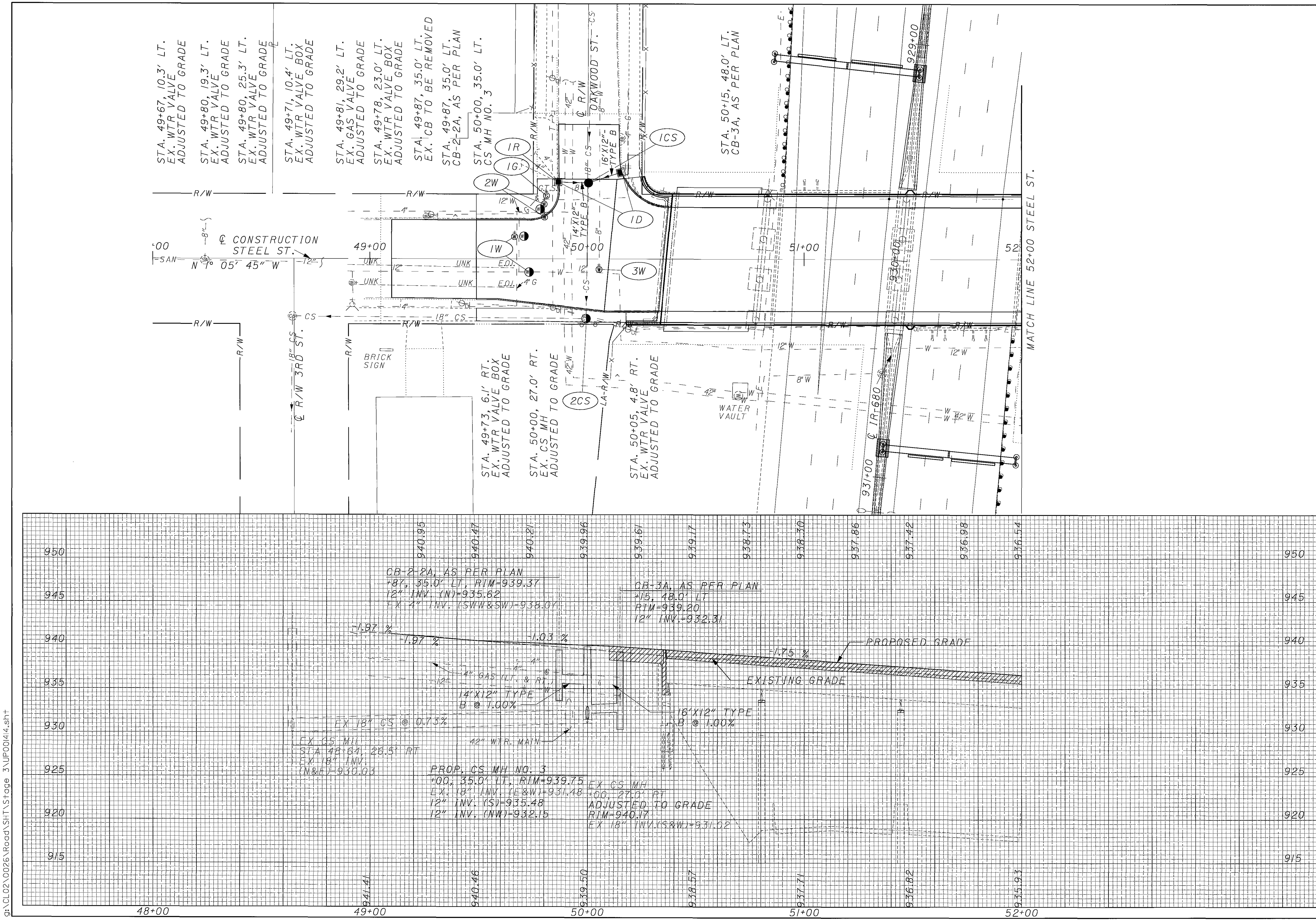

CALCULATED DES
CHECKED DJW

UTILITY PLAN AND PROFILE STEEL ST. (4.14)
STA. 49+00 TO STA. 52+00

MAH-680-4.14/6.28/6.37

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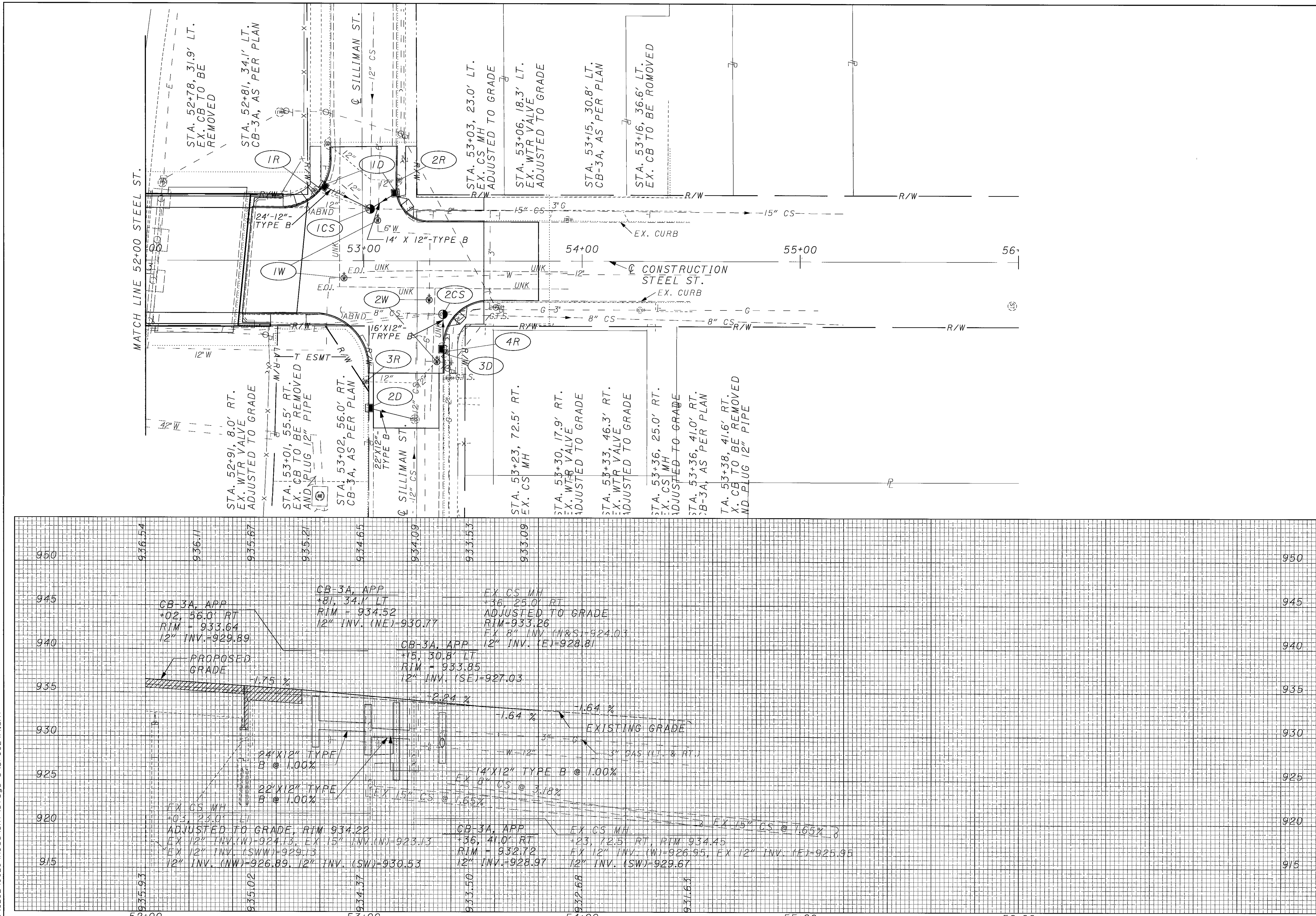

HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED DES
CHECKED DJW

UTILITY PLAN AND PROFILE STEEL ST. (4.14)
STA. 52+00 TO STA. 54+50

MAH-680-4.14/6.28/6.37

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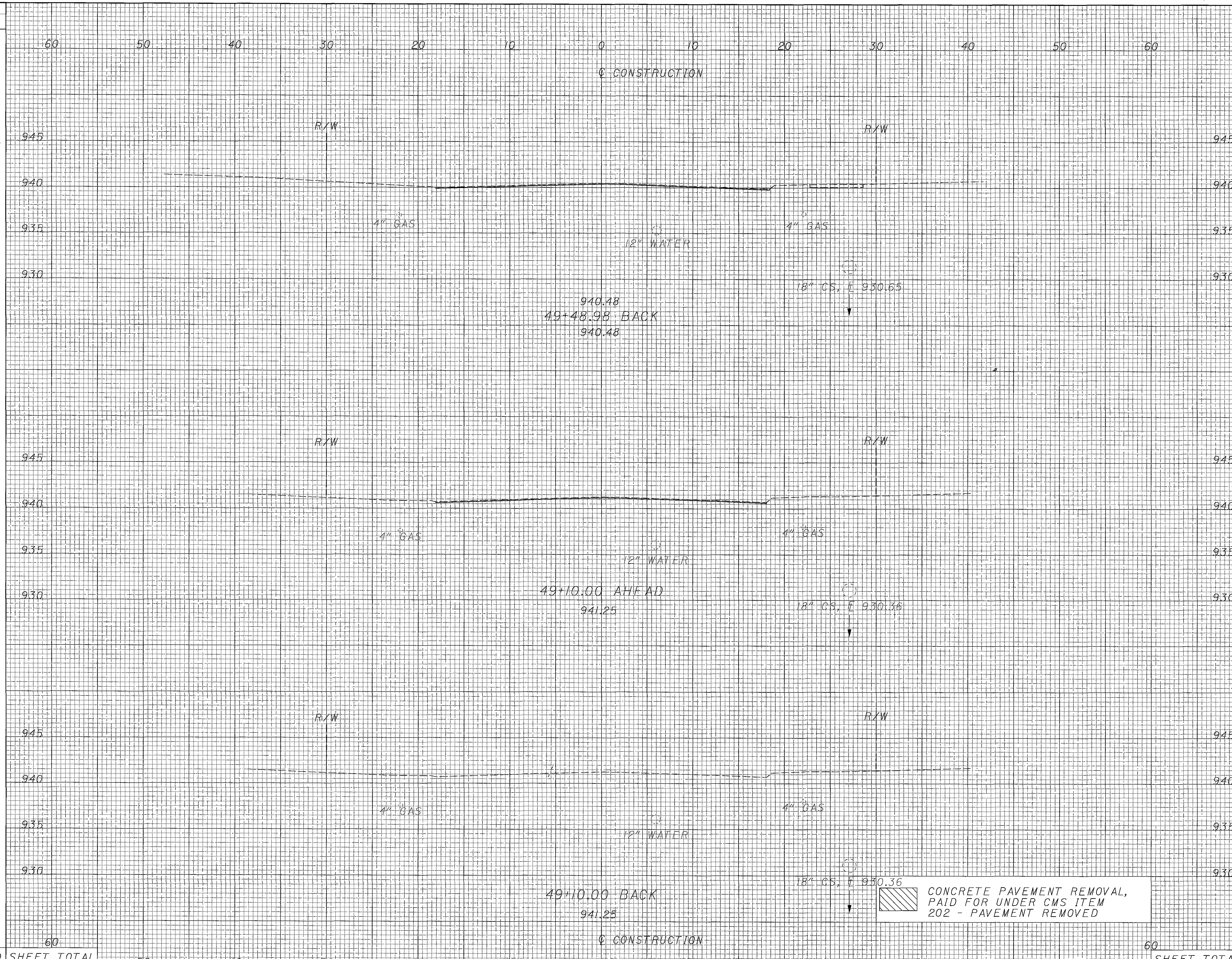
SODDING	
END WIDTH	SQ. YDS.
0	
0	
0.0	SHEET TOTAL



END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
0	0		
SHEET TOTAL		0	0

CALCULATED DES
CHECKED DJW

CROSS SECTIONS STEEL ST. (4.14)
STA. 49+10.00 TO STA. 49+48.98

MAH-680-4.14/ 6.28/6.37

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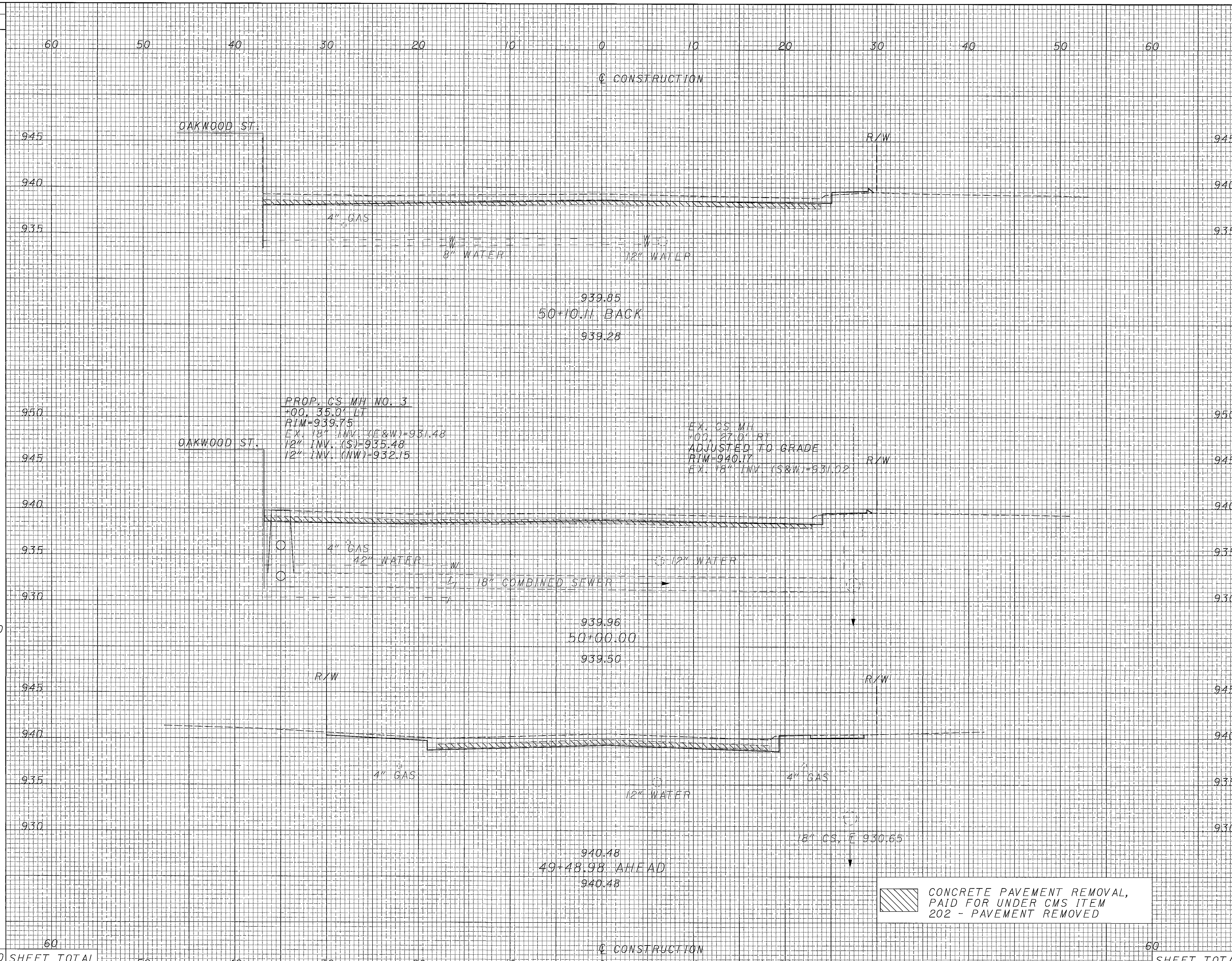
CROSS SECTIONS STEEL ST. (4.14)
STA. 49+48.98 TO STA. 50+10.11

CALCULATED DES
CHECKED DJW



SODDING END WIDTH	SODDING SQ. YDS.
0	
0.7	
	13.0
3.9	
SHEET TOTAL	13.0

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
55	1		
		103	1
54	0		
SHEET TOTAL		103	1

MAH-680-4.14/
6.28/6.37

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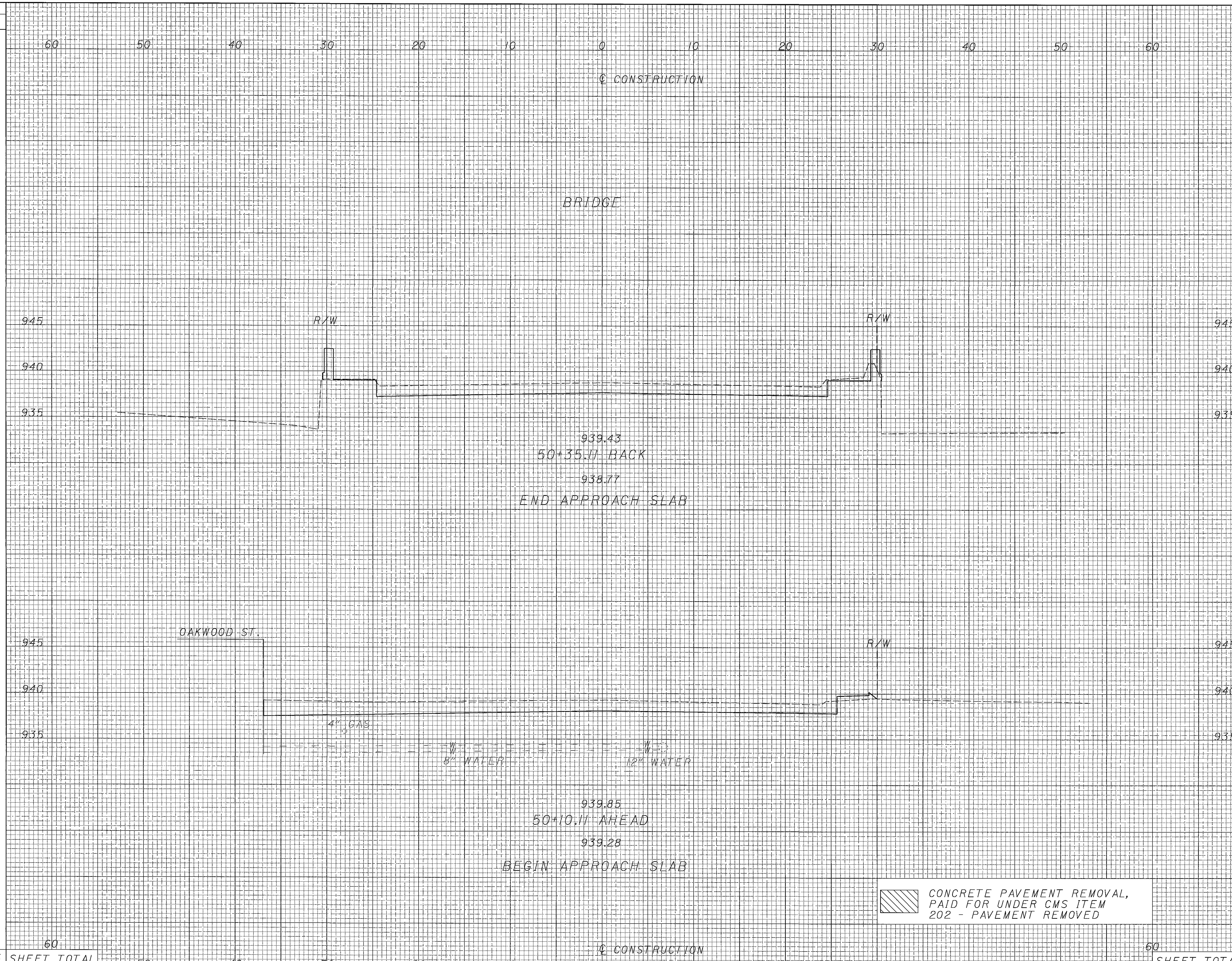


SODDING END WIDTH	SODDING SQ. YDS.
0	
	1.5
1.1	
	1.0
	2.5 SHEET TOTAL

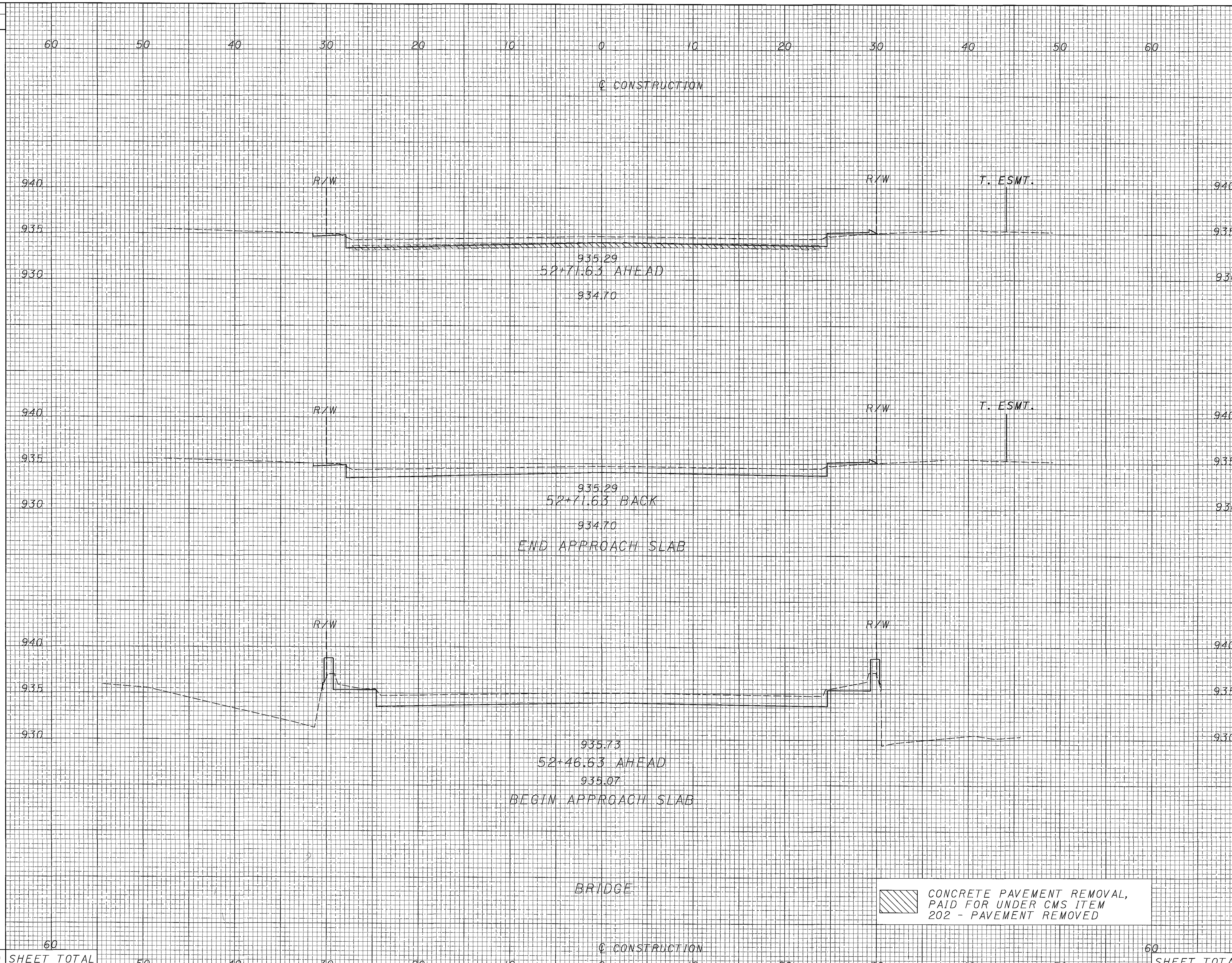
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
55	0		
		47	0
47	1		
		19	0
SHEET TOTAL		66	0

CALCULATED DES
CHECKED DJW

CROSS SECTIONS STEEL ST. (4.14)
STA. 50+10.11 TO STA. 50+35.11

MAH-680-4.14/6.28/6.37

SODDING END WIDTH	SODDING SQ. YDS.	Section	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
1.0		52+71.63 AHEAD	40	2		
					45	1
0		52+71.63 BACK				
0		52+46.63 AHEAD	58	0		
	0.0	SHEET TOTAL			45	1



CALCULATED DES
CHECKED DJW

CROSS SECTIONS STEEL ST. (4.14)
STA. 52+46.63 TO STA. 52+71.63

MAH-680-4.14/ 6.28/6.37

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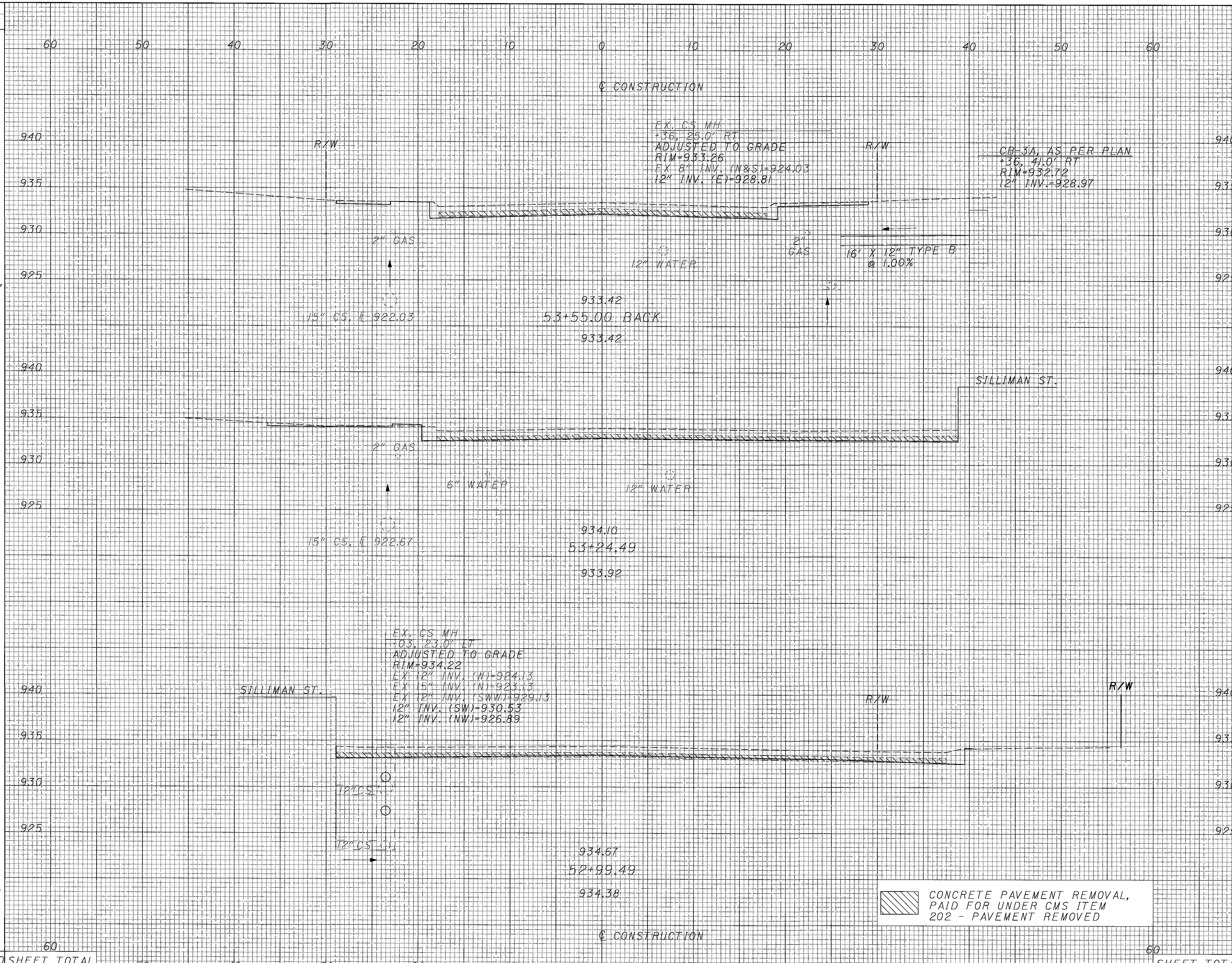
CROSS SECTIONS STEEL ST. (4.14)
STA. 52+99.49 TO STA. 53+55.00

MAH-680-4.14/6.28/6.37

CALCULATED DES
CHECKED DJW

SODDING END WIDTH	SODDING SQ. YDS.
4.3	
	12.7
3.2	
	6.0
1.1	
	3.3
	22.0 SHEET TOTAL



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
53	0		
		68	1
67	1		
		63	0
70	0		
		57	1
SHEET TOTAL		188	2

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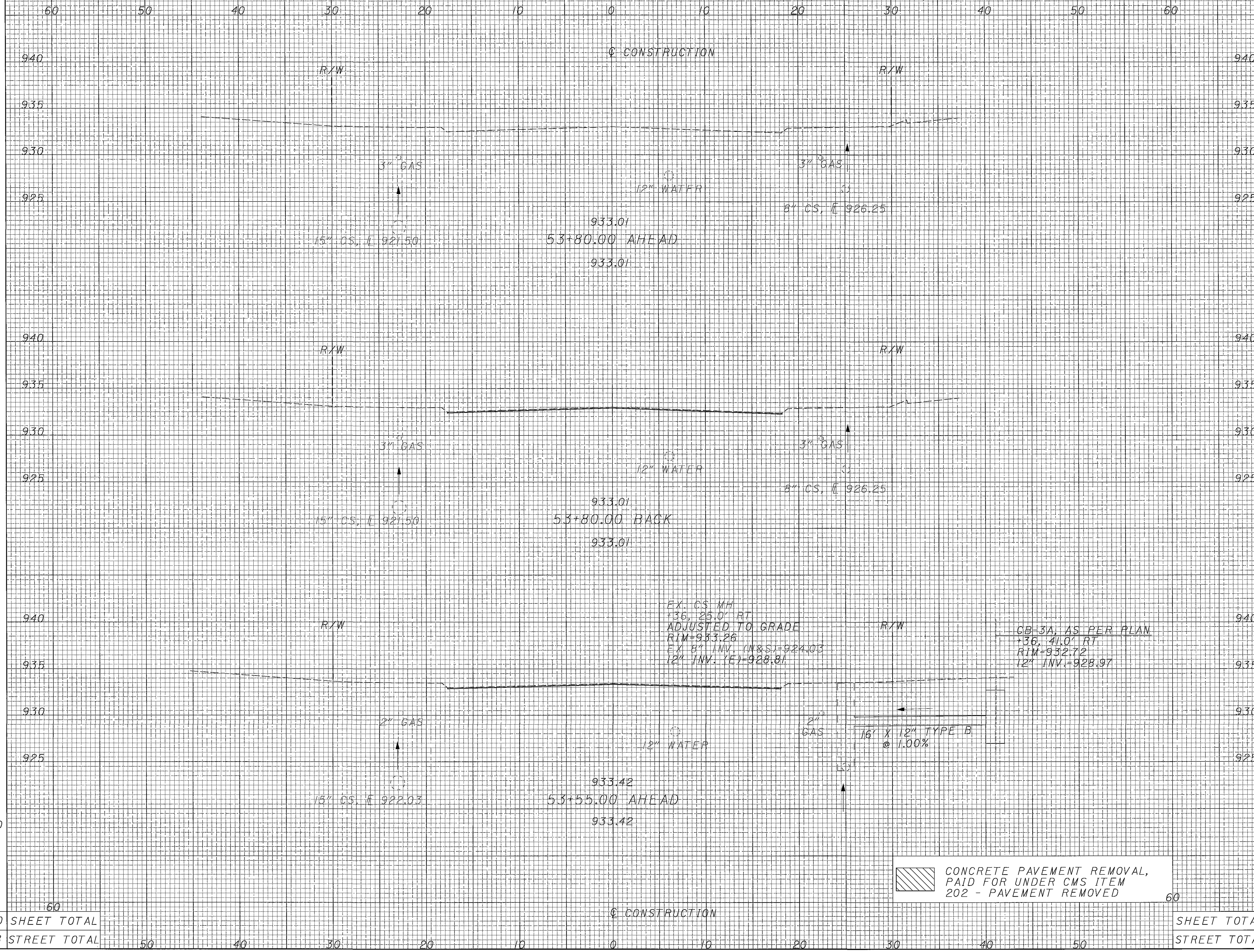
CALCULATED DES
CHECKED DJW

CROSS SECTIONS STEEL ST. (4.14)
STA. 53+55.00 TO STA. 53+80.00



SODDING END WIDTH	SODDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0					
0		0	0		
0	0.0	0	0		
SHEET TOTAL	0.0			0	0
STREET TOTAL	38			402	4

MAH-680-4.14/
6.28/6.37

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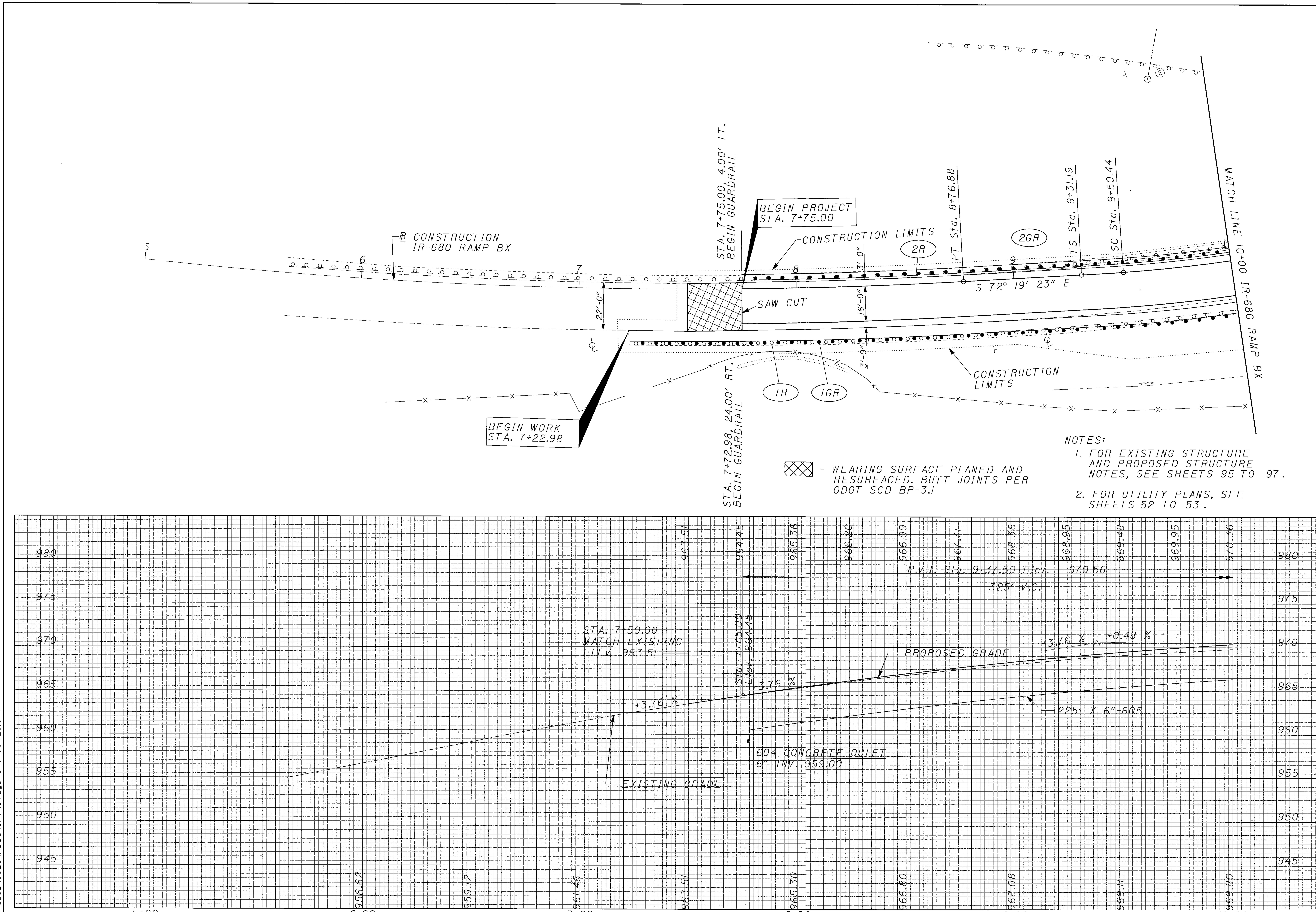

CALCULATED DES
CHECKED DJW

PLAN AND PROFILE IR-680 RAMP BX (6.28)
STA. 7+00 TO STA. 10+00

MAH-680-4.14/
6.28/6.37

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PLAN AND PROFILE IR-680 RAMP BX (6.28)
STA. 10+00 TO STA. 15+00

MAH-680-4.14/6.28/6.37

TABLE OF VERTICAL CLEARANCES

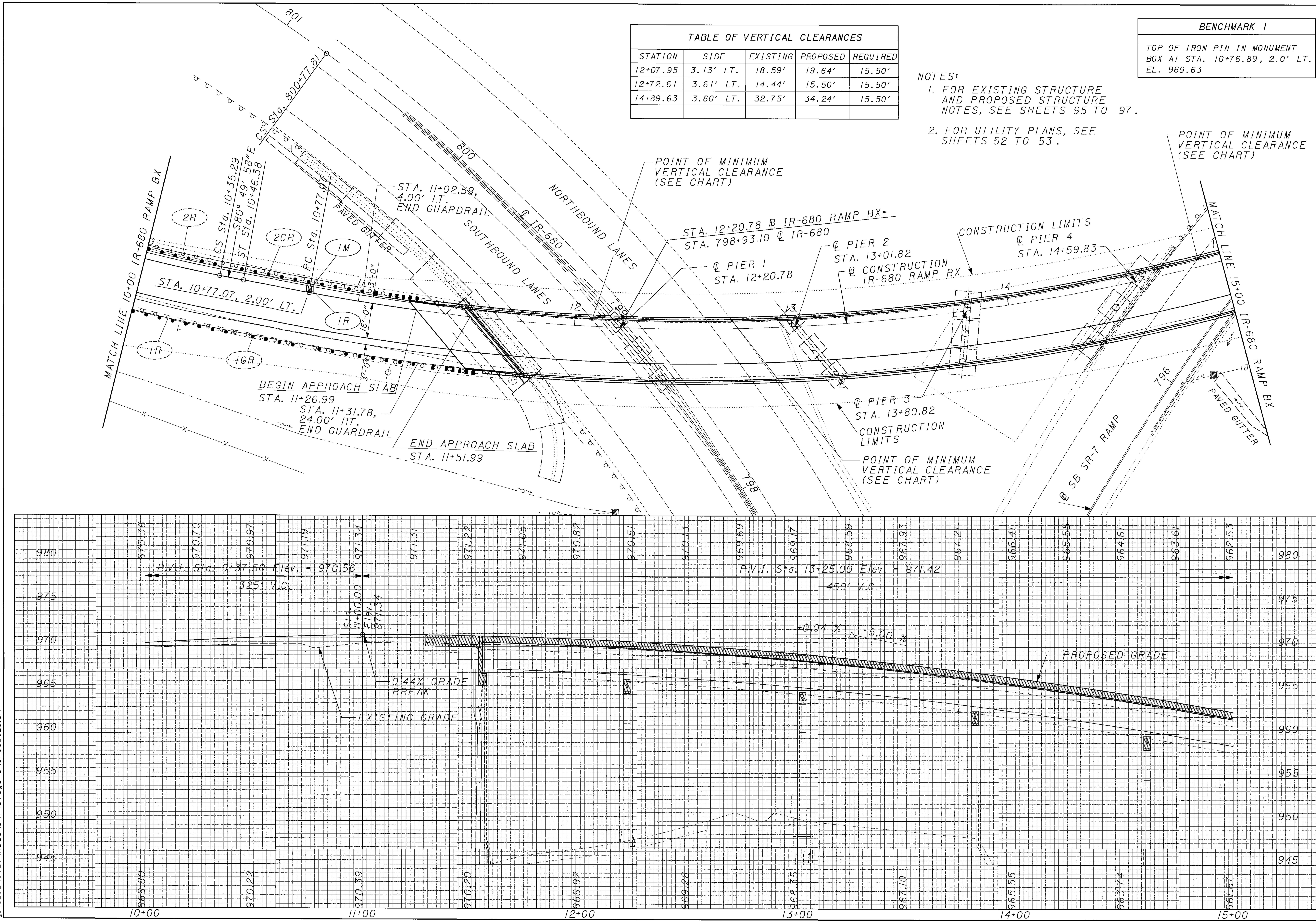
STATION	SIDE	EXISTING	PROPOSED	REQUIRED
12+07.95	3.13' LT.	18.59'	19.64'	15.50'
12+72.61	3.61' LT.	14.44'	15.50'	15.50'
14+89.63	3.60' LT.	32.75'	34.24'	15.50'

BENCHMARK 1

TOP OF IRON PIN IN MONUMENT BOX AT STA. 10+76.89, 2.0' LT. EL. 969.63

NOTES:

1. FOR EXISTING STRUCTURE AND PROPOSED STRUCTURE NOTES, SEE SHEETS 95 TO 97.
2. FOR UTILITY PLANS, SEE SHEETS 52 TO 53.



CALCULATED DES CHECKED DJW

HORIZONTAL SCALE IN FEET 0 10 20 40

50/191

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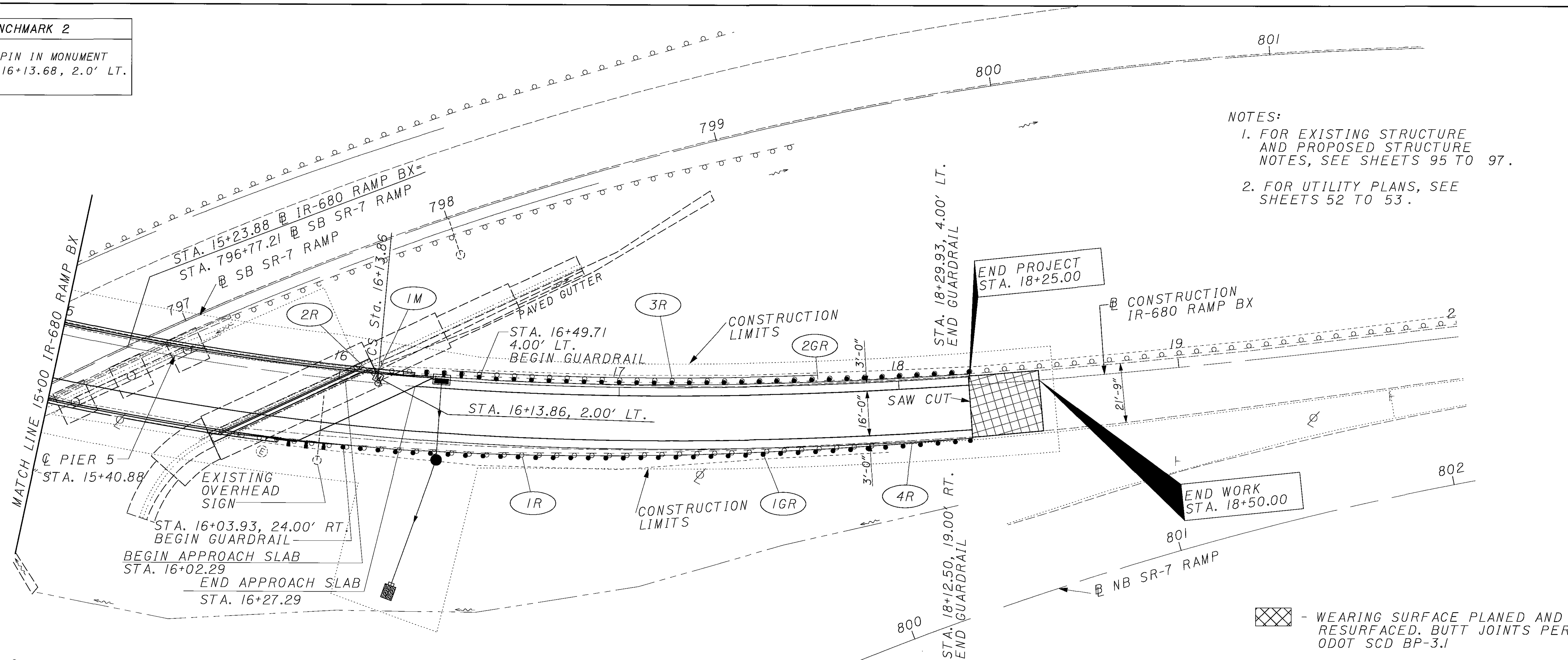
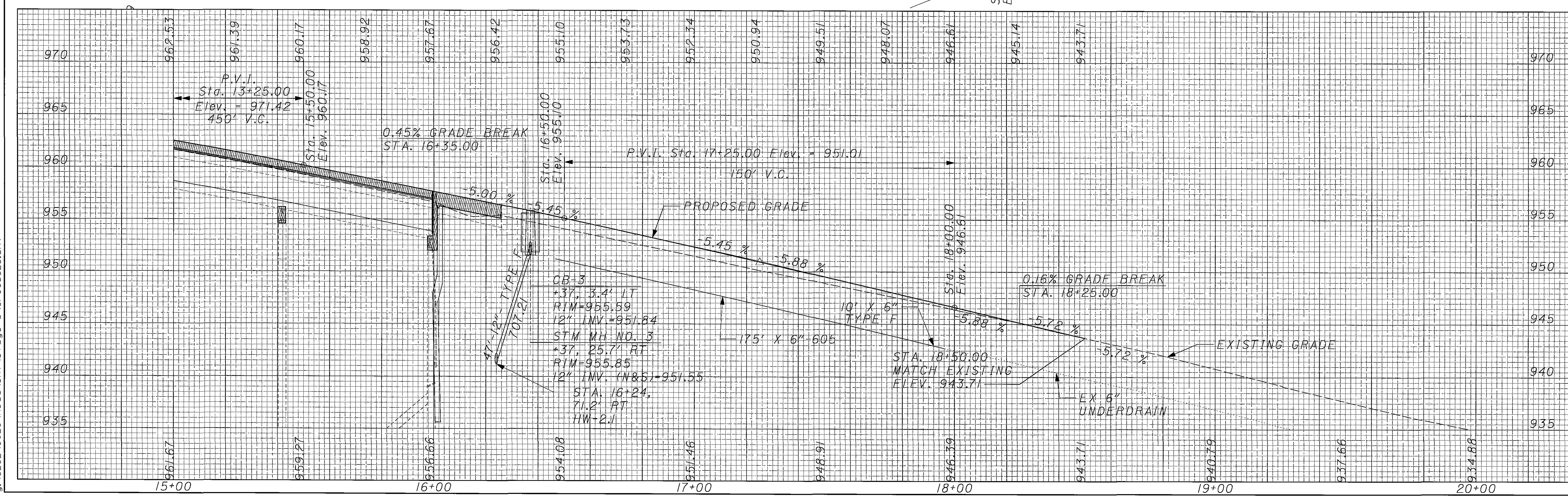
BENCHMARK 2
TOP OF IRON PIN IN MONUMENT BOX AT STA. 16+13.68, 2.0' LT. EL. 955.12

NOTES:
1. FOR EXISTING STRUCTURE AND PROPOSED STRUCTURE NOTES, SEE SHEETS 95 TO 97.
2. FOR UTILITY PLANS, SEE SHEETS 52 TO 53.



- WEARING SURFACE PLANED AND RESURFACED. BUTT JOINTS PER ODOT SCD BP-3.1



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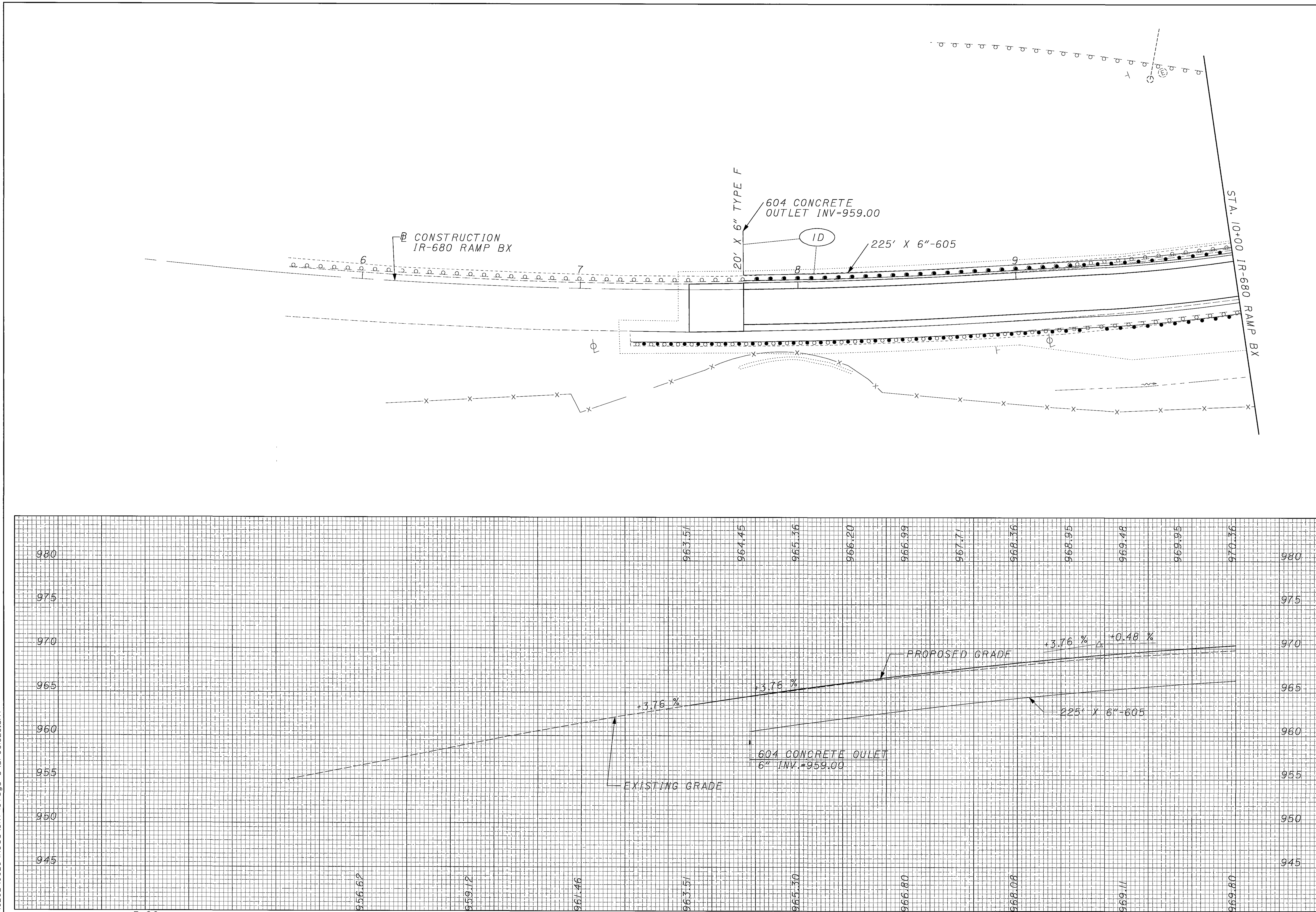
HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED DES
CHECKED DJW

PLAN AND PROFILE IR-680 RAMP BX (6.28)
STA. 15+00 TO STA. 19+00

MAH-680-4.14/6.28/6.37



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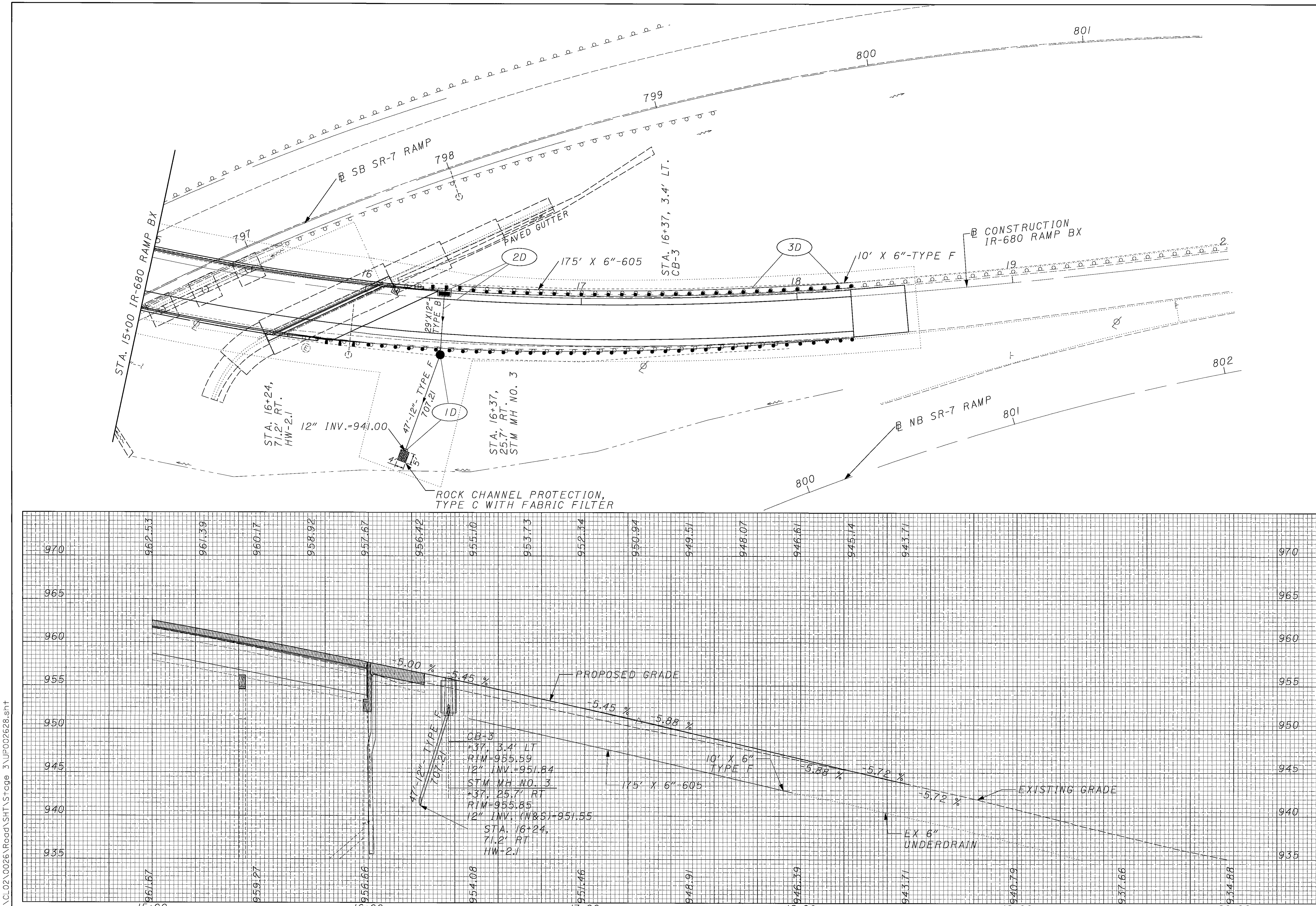
N

0 10 20 40
HORIZONTAL SCALE IN FEET

CALCULATED DES
CHECKED DJW

UTILITY PLAN AND PROFILE IR-680 RAMP BX
(6.28) STA. 7+00 TO STA. 10+00

MAH-680-4.14/6.28/6.37



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HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED DES
CHECKED DJW

UTILITY PLAN AND PROFILE IR-680 RAMP BX (6.28) STA. 15+00 TO STA. 19+00

MAH-680-4.14/6.28/6.37

SODDING	
END WIDTH	SQ. YDS.
	0
0.0	SHEET TOTAL

END AREA		VOLUME	
CUT	FILL	CUT	FILL
2	0		
SHEET TOTAL		0	0

CALCULATED DES
CHECKED DJW

CROSS SECTIONS RAMP IR-680 RAMP BX (6.28)
STA. 7+50

MAH-680-4.14/ 6.28/6.37

54
191

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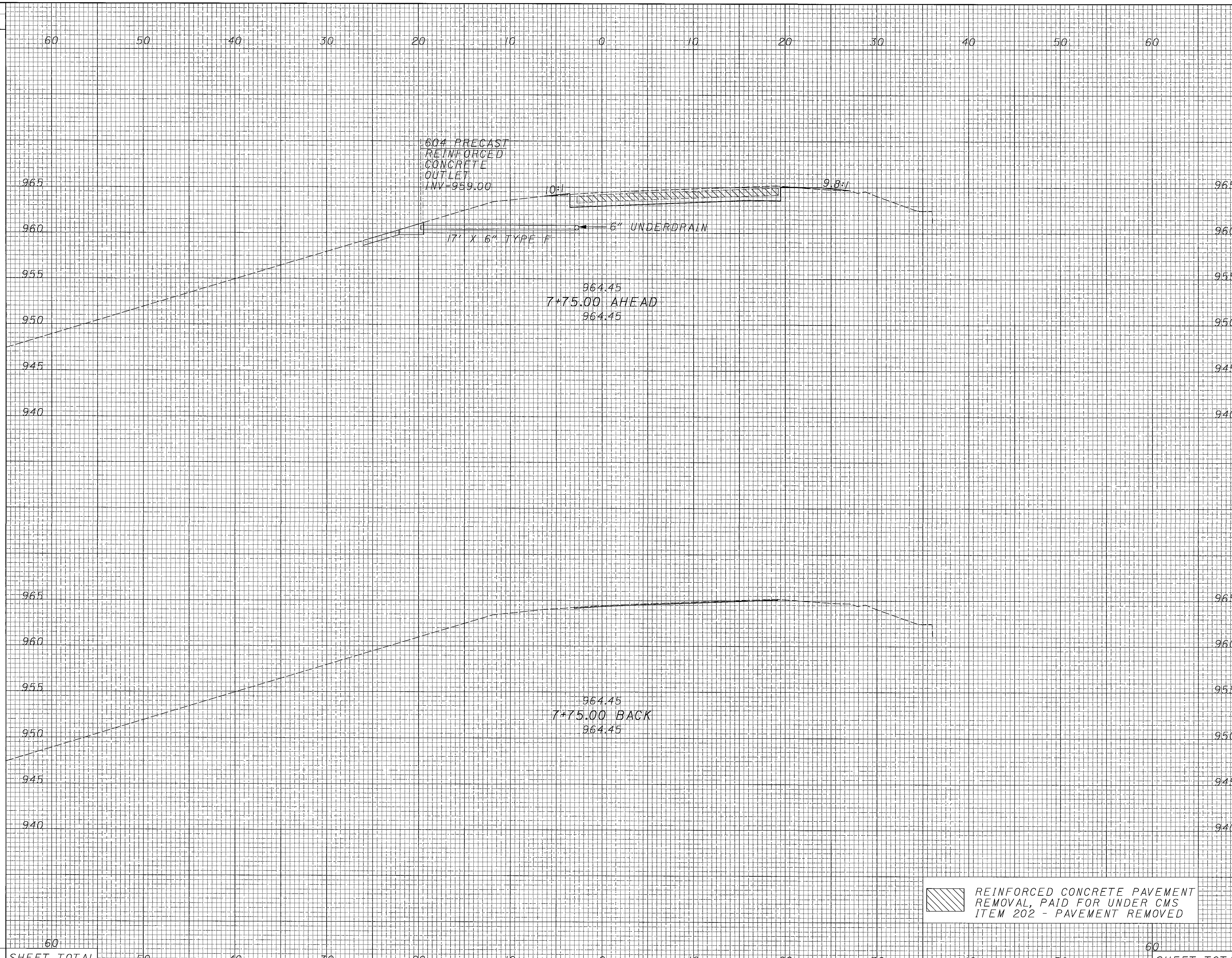
SODDING	
END WIDTH	SQ. YDS
0	
0	
0.0	SHEET TOTAL



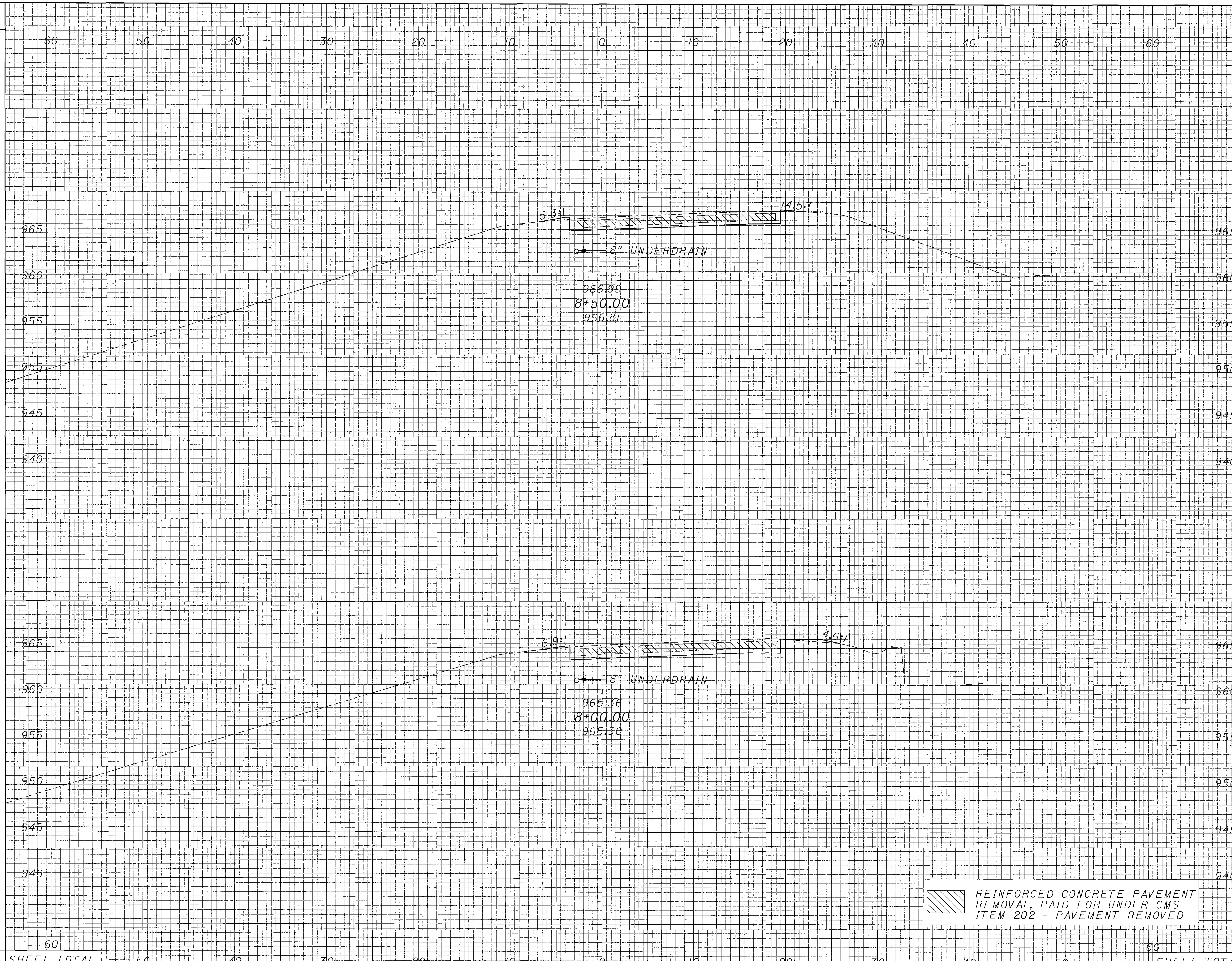
END AREA		VOLUME	
CUT	FILL	CUT	FILL
35	1		
		0	0
2	0		
		2	0
SHEET TOTAL		2	0

CALCULATED DES
CHECKED DJW

CROSS SECTIONS RAMP IR-680 RAMP BX (6.28)
STA. 7+75

MAH-680-4.14/6.28/6.37

SODDING	
END WIDTH	SQ. YDS.
	0
	0
	0.0



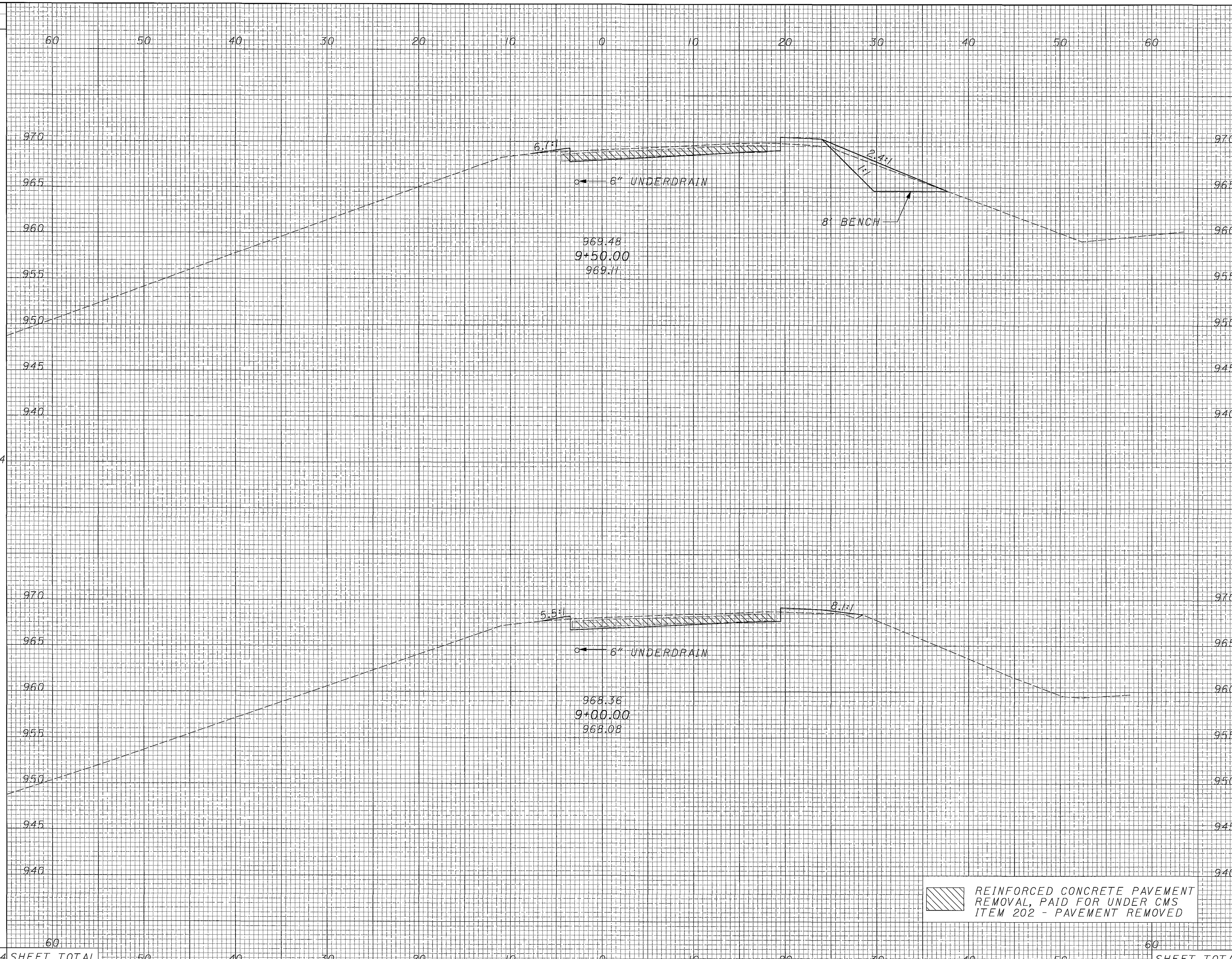
END AREA		VOLUME	
CUT	FILL	CUT	FILL
31	1		
		60	2
34	1		
		32	1
		92	3

CALCULATED DES
CHECKED DJW

CROSS SECTIONS RAMP IR-680 RAMP BX (6.28)
STA. 8+00 TO STA. 8+50

MAH-680-4.14/6.28/6.37

SODDING END WIDTH	SODDING SQ. YDS.
13.1	
	36.4
0	
SHEET TOTAL	36.4



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
43	27		
		64	29
26	4		
		53	5
SHEET TOTAL		117	34

CALCULATED DES
CHECKED DJW

CROSS SECTIONS RAMP IR-680 RAMP BX (6.28)
STA. 9+00 TO STA. 9+50

MAH-680-4.14/6.28/6.37

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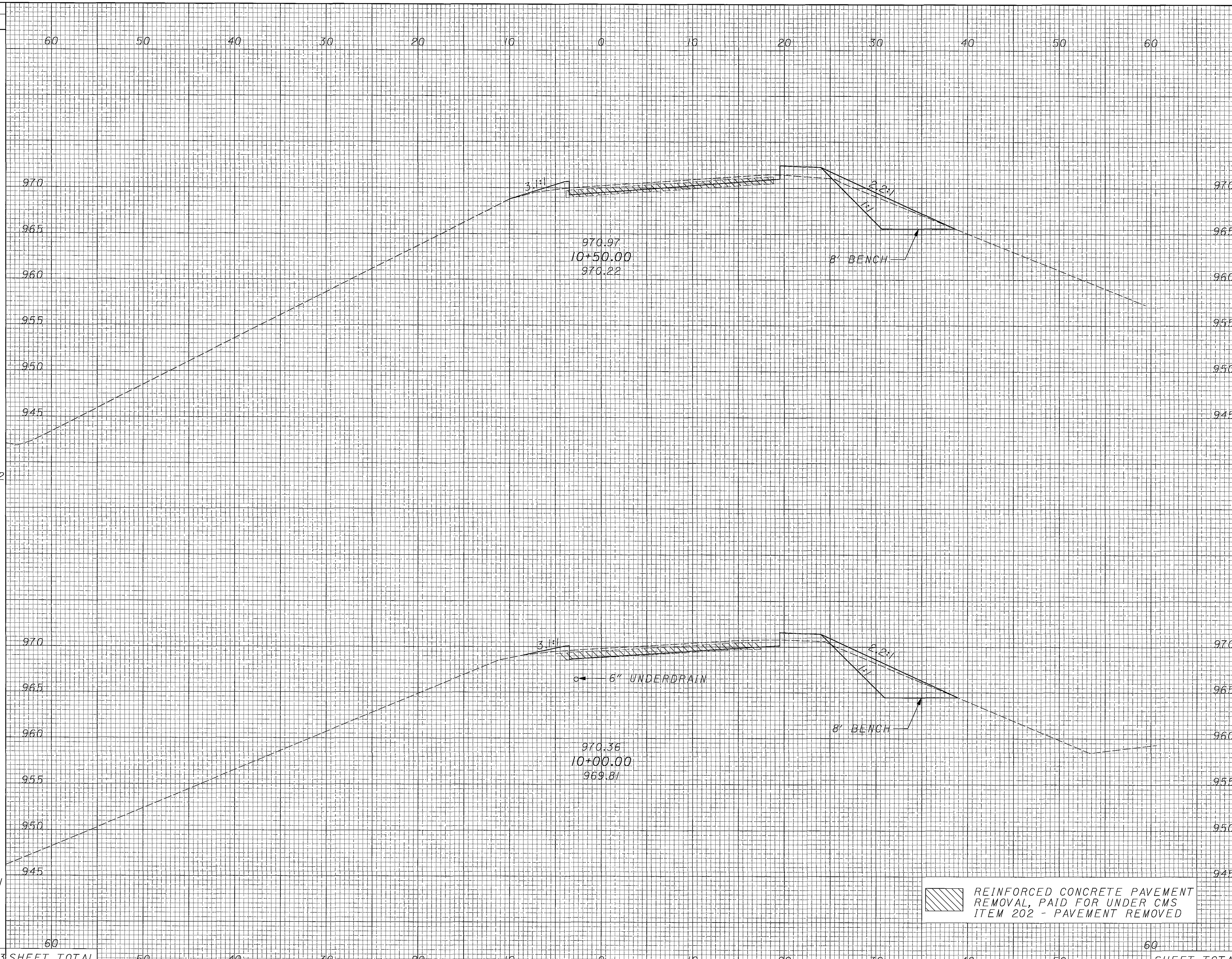
CROSS SECTIONS RAMP IR-680 RAMP BX (6.28)
STA. 10+00 TO STA. 10+50

SODDING END WIDTH	SODDING SQ. YDS.
14.6	
	82.2
15.0	
	78.1
	160.3 SHEET TOTAL



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
37	34		
		74	62
43	33		
		80	56
		154	118

CALCULATED DES
CHECKED DJW

MAH-680-4.14/6.28/6.37

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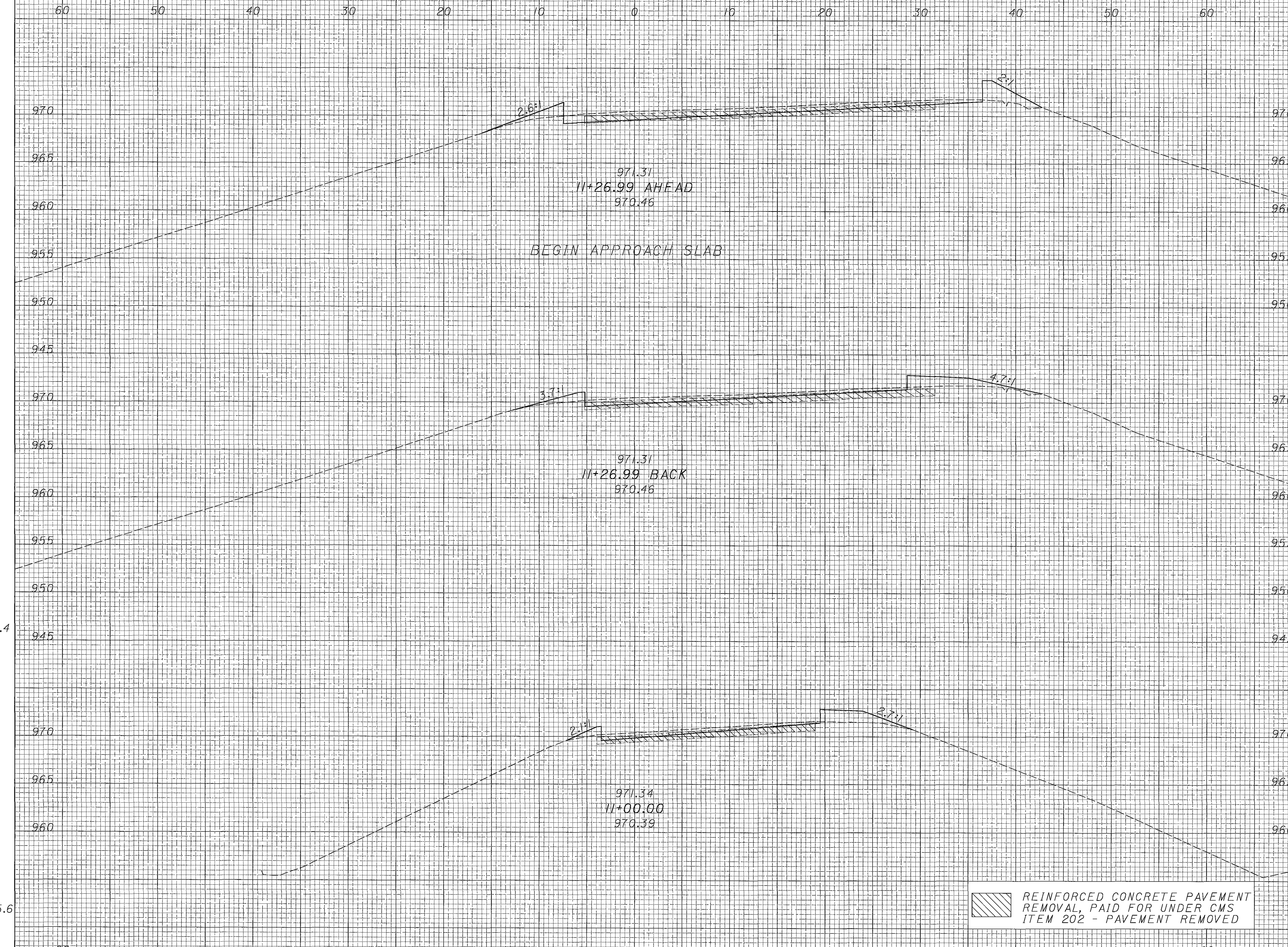
CROSS SECTIONS RAMP IR-680 RAMP BX (6.28)
STA. 11+00 TO STA. 11+26.99

Station	Sodding End Width	Sodding Sq. Yds.	End Area Cut	End Area Fill	Volume Cut	Volume Fill
11+26.99 AHEAD	16.1		29	12		
11+26.99 BACK	0.5		15	12		
		3.4			12	11
11+00.00	1.8		10	10		
		45.6			44	41
SHEET TOTAL		49.0			56	52



CALCULATED DES
CHECKED DJW

MAH-680-4.14/
6.28/6.37

59
191

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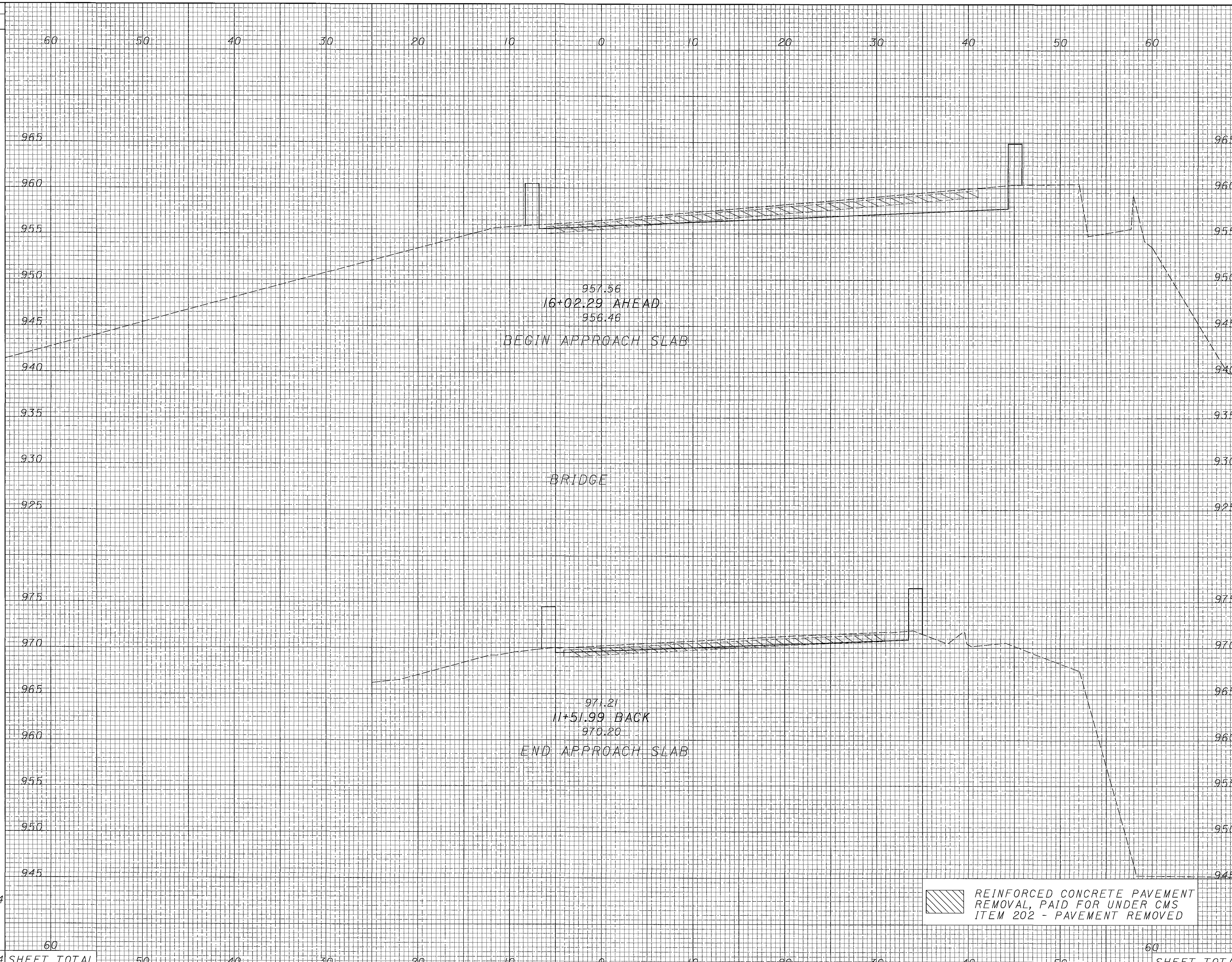
SODDING	
END WIDTH	SQ. YDS.
0.0	
0.0	
	22.4
22.4	SHEET TOTAL



END AREA		VOLUME	
CUT	FILL	CUT	FILL
75	0		
30	0		
		27	6
		27	6

CALCULATED DES
CHECKED DJW

CROSS SECTIONS RAMP IR-680 RAMP BX (6.28)
STA. 11+52.00 TO STA. 16+02.27

MAH-680-4.14/
6.28/6.37

60
191

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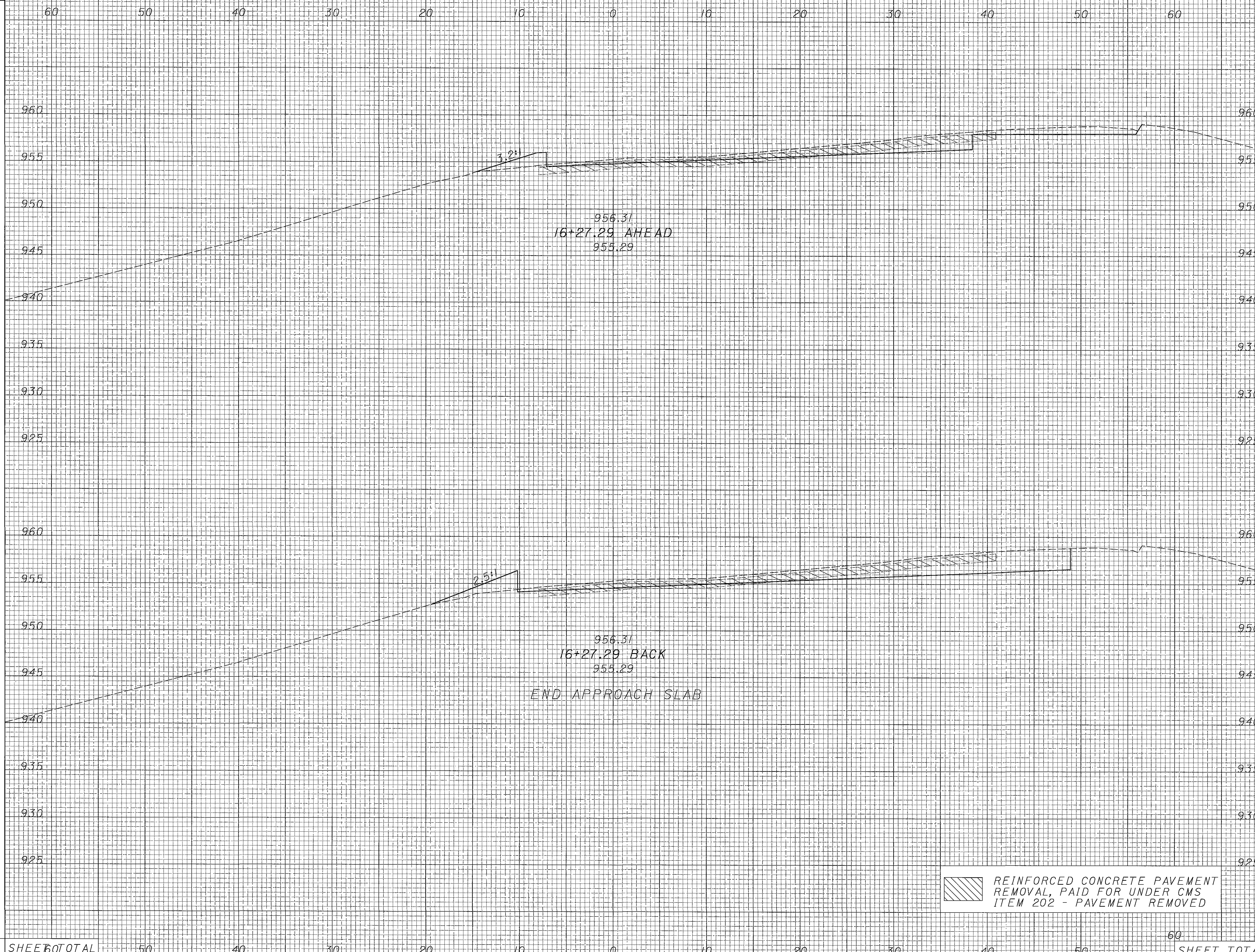
SODDING	
END WIDTH	SQ YDS.
1.7	
6.7	
	9.3
SHEET TOTAL	9.3



END AREA		VOLUME	
CUT	FILL	CUT	FILL
50	6		
75	8		
		69	4
		69	4

CALCULATED DES
CHECKED DJW

CROSS SECTIONS RAMP IR-680 RAMP BX (6.28)
STA. 11+52.00 TO STA. 16+02.29

MAH-680-4.14/6.28/6.37

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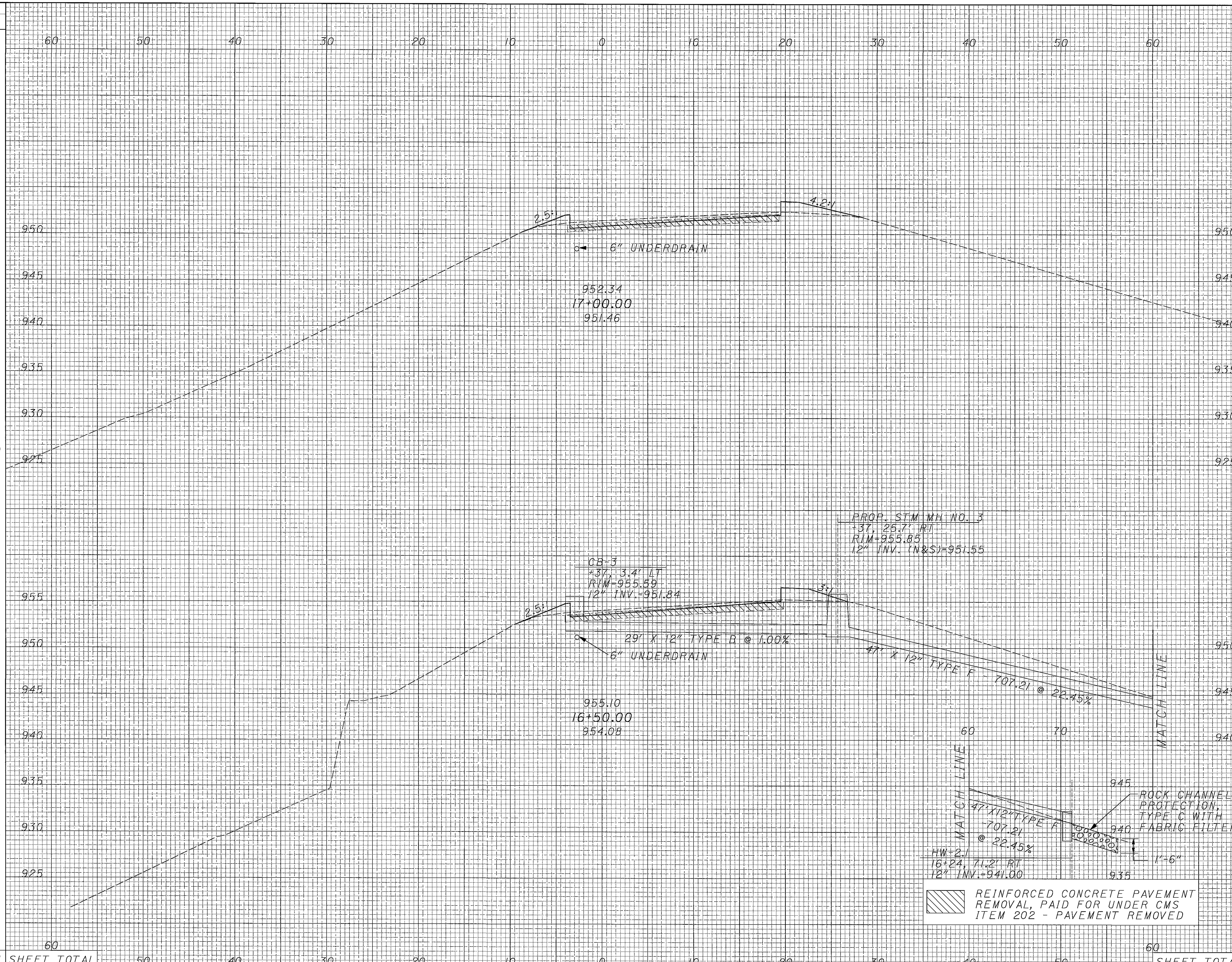
SODDING	
END WIDTH	SQ. YDS.
1.1	
	11.9
3.2	
	6.2
	18.1



END AREA		VOLUME	
CUT	FILL	CUT	FILL
12	8		
		19	16
8	9		
		24	6
		43	22

CALCULATED DES
CHECKED DJW

CROSS SECTIONS RAMP IR-680 RAMP BX (6.28)
STA. 16+50 TO STA. 17+00

MAH-680-4.14/
6.28/6.37

62
191

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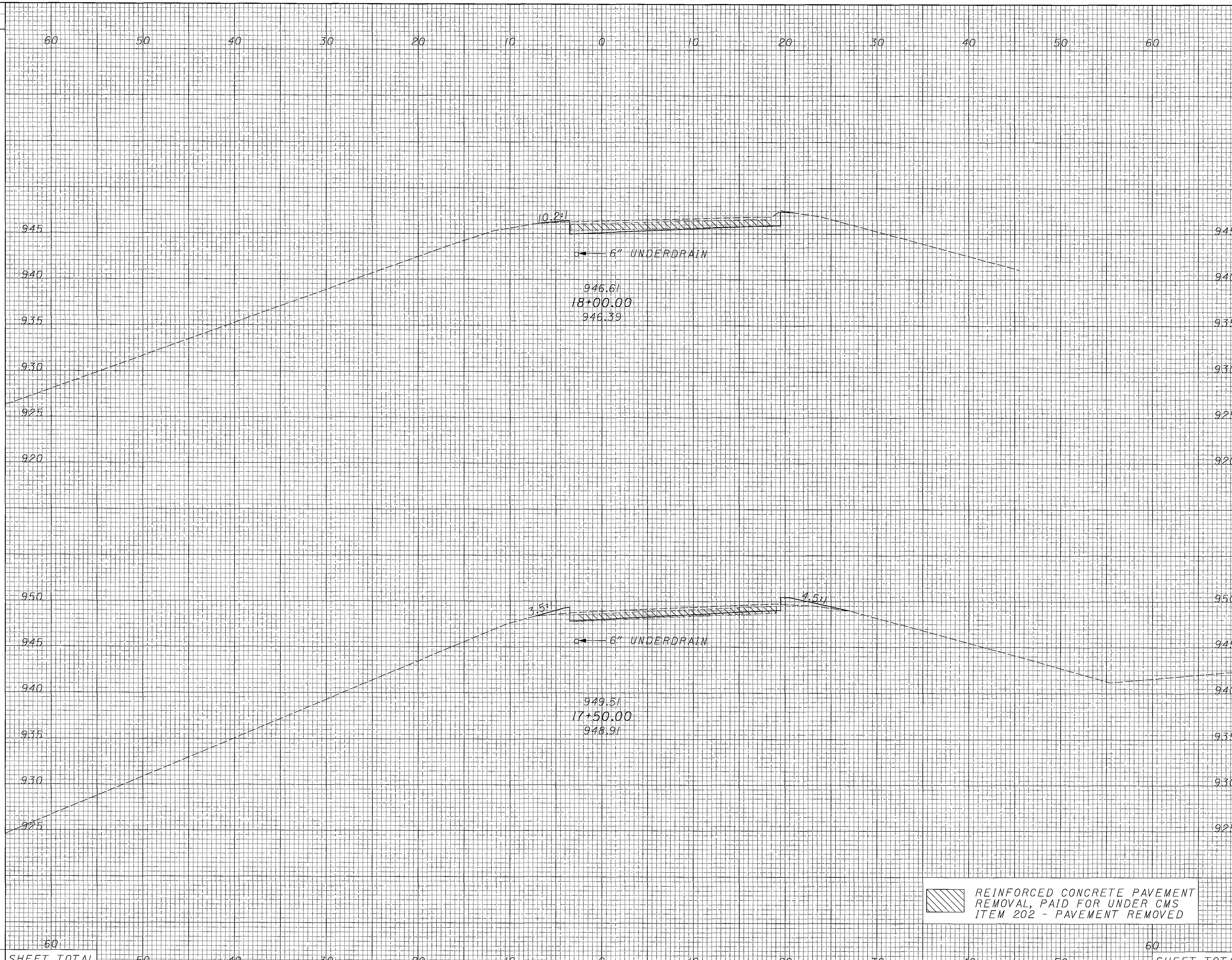
SODDING	
END WIDTH	SQ. YDS.
0.0	
	0.0
0.0	
	3.1
	3.1

SHEET TOTAL



END AREA		VOLUME	
CUT	FILL	CUT	FILL
27	0		
		43	4
19	4		
		29	11
		72	15

SHEET TOTAL

CALCULATED DES

CHECKED DJW

CROSS SECTIONS RAMP IR-680 RAMP BX (6.28)
STA. 17+50 TO STA. 18+00

MAH-680-4.14/6.28/6.37

63/191

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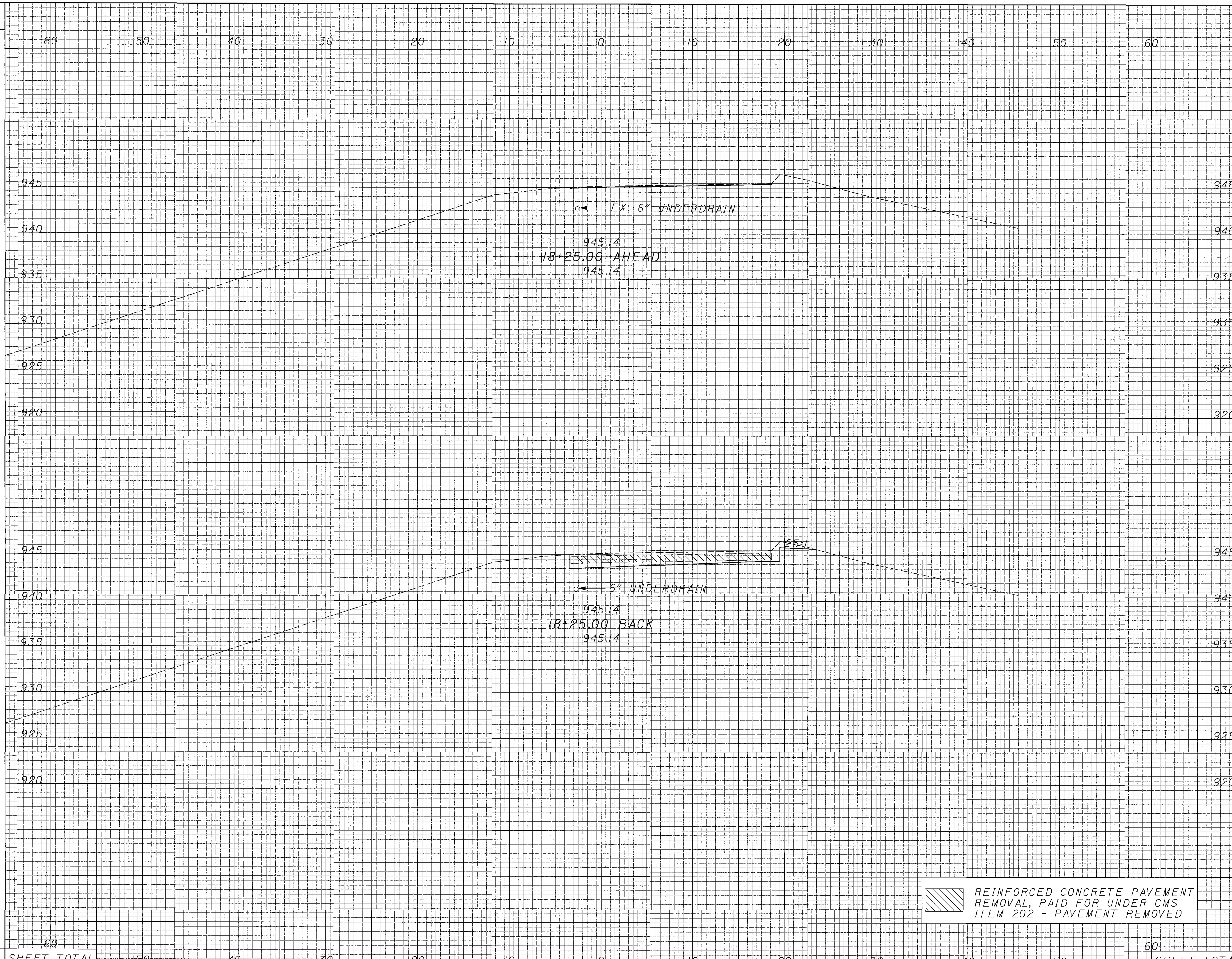

SODDING	
END WIDTH	SQ. YDS.
0.0	
	0.0
3.9	
	5.4
	5.4 SHEET TOTAL

END AREA		VOLUME	
CUT	FILL	CUT	FILL
2	0		
34	0		
		28	0
SHEET TOTAL		28	0

CALCULATED DES
CHECKED DJW

CROSS SECTIONS RAMP IR-680 RAMP BX (6.28)
STA. 18+25

MAH-680-4.14/6.28/6.37

64/191

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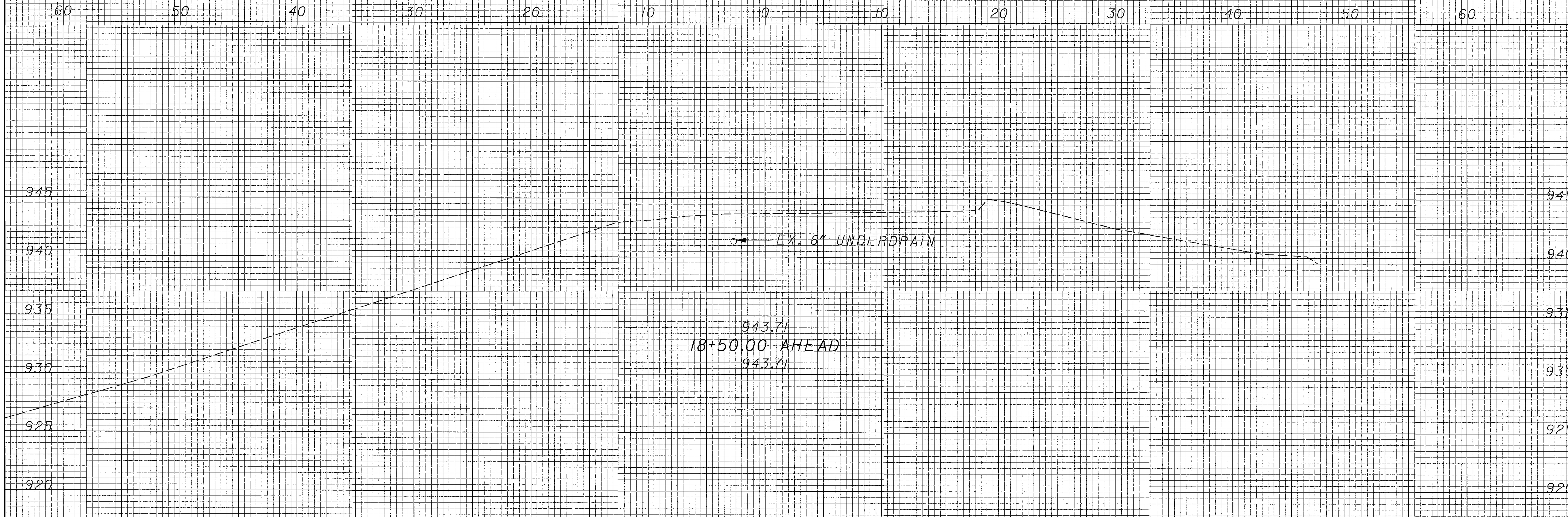
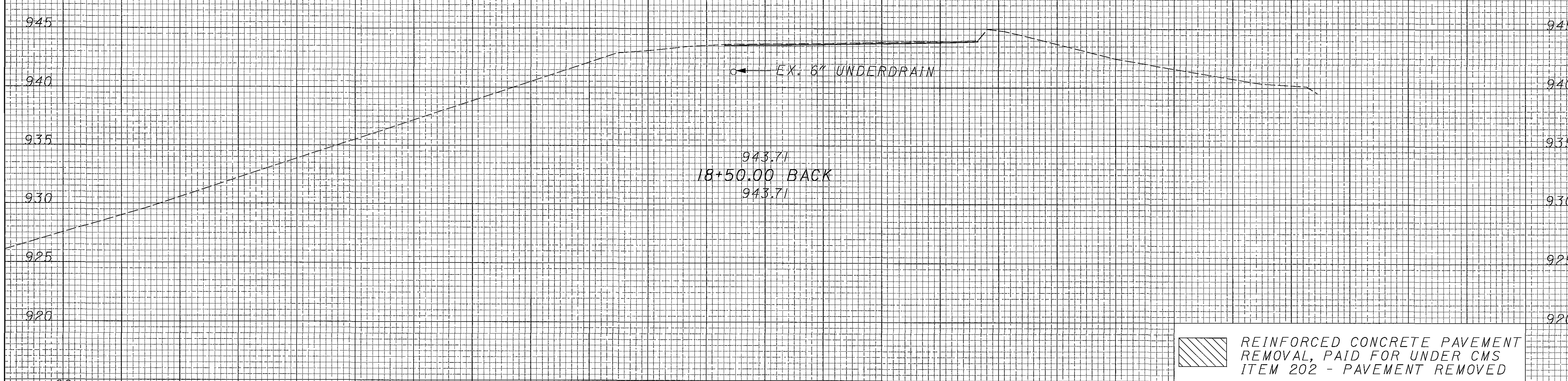
SODDING	
END WIDTH	SQ. YDS.
0.0	
	0.0
	0.0 SHEET TOTAL
	304 STREET TOTAL





REINFORCED CONCRETE PAVEMENT REMOVAL, PAID FOR UNDER CMS ITEM 202 - PAVEMENT REMOVED

END AREA		VOLUME	
CUT	FILL	CUT	FILL
2	0		
		2	0
SHEET TOTAL		2	0
STREET TOTAL		662	254

CALCULATED DES
CHECKED DJW

CROSS SECTIONS RAMP IR-680 RAMP BX (6.28)
STA. 18+50

MAH-680-4.14/6.28/6.37

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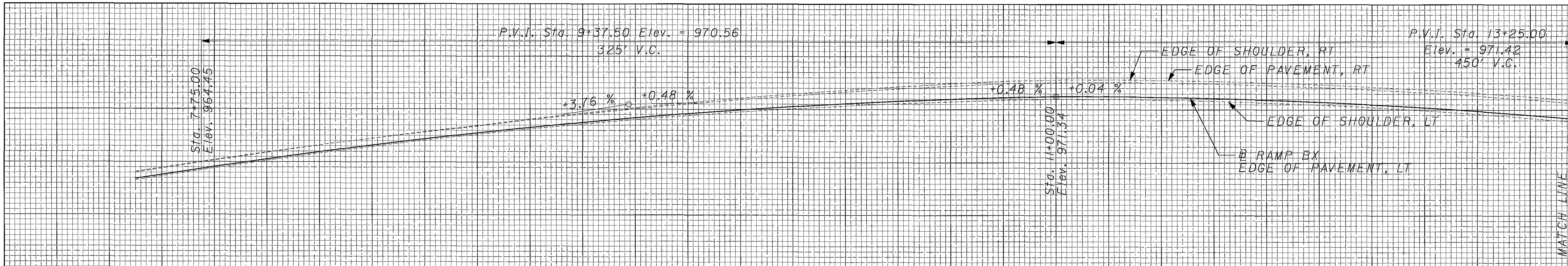
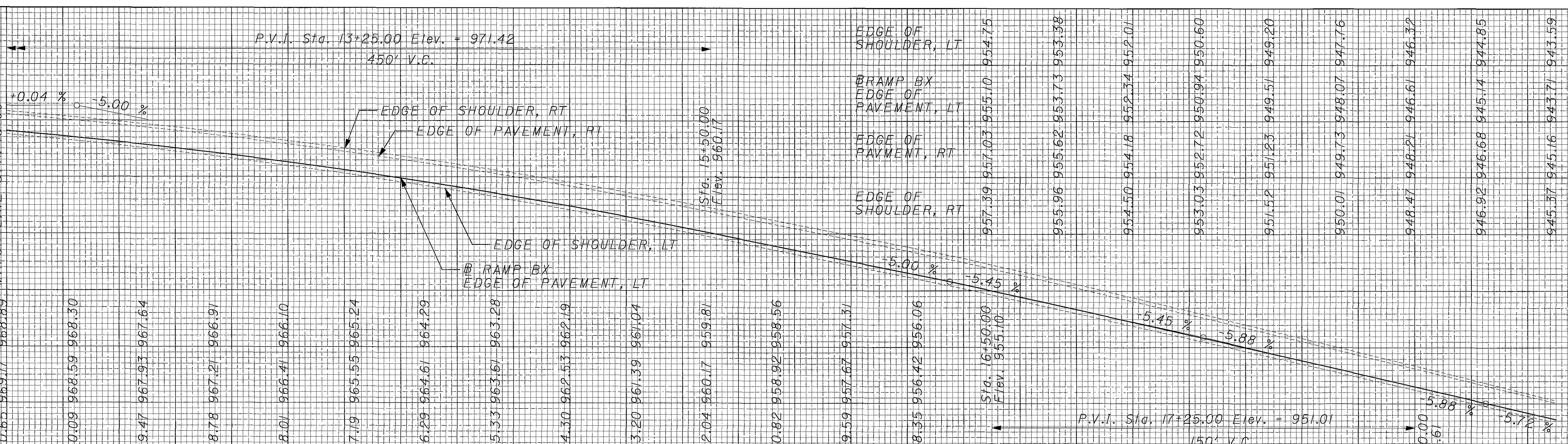


EDGE OF SHOULDER, LT	963.38	964.32	965.23	966.08	966.86	967.58	968.22	968.80	969.31	969.77	970.16	970.49	970.74	970.94	971.09	971.06	970.96	970.79	970.56	970.24	969.86	969.41	968.89
B RAMP BX EDGE OF PAVEMENT, LT	963.51	964.45	965.36	966.20	966.99	967.71	968.36	968.95	969.48	969.95	970.36	970.70	970.97	971.19	971.34	971.31	971.22	971.05	970.82	970.51	970.13	969.69	969.17
EDGE OF PAVMENT, RT	964.18	965.11	966.02	966.85	967.63	968.35	969.07	969.76	970.36	970.90	971.39	971.81	972.17	972.47	972.65	972.65	972.57	972.42	972.20	971.91	971.56	971.14	970.65
EDGE OF SHOULDER, RT	964.10	965.06	965.98	966.85	967.65	968.39	969.15	969.85	970.49	971.05	971.56	971.99	972.38	972.71	972.89	972.90	972.82	972.68	972.46	972.17	971.83	971.41	970.93

8+00 9+00 10+00 11+00 12+00



EDGE OF SHOULDER, LT	968.89	968.30	967.64	966.91	966.10	965.24	964.29	963.28	962.19	961.04	959.81	958.56	957.31	956.06	954.75	953.38	952.01	950.60	949.20	947.76	946.32	944.85	943.59
B RAMP BX EDGE OF PAVEMENT, LT	969.17	968.59	967.93	967.21	966.41	965.55	964.61	963.61	962.53	961.39	960.17	958.92	957.67	956.42	955.10	953.73	952.34	950.94	949.51	948.07	946.61	945.14	943.71
EDGE OF PAVMENT, RT	970.65	970.09	969.47	968.78	968.01	967.19	966.29	965.33	964.30	963.20	962.04	960.82	959.59	958.35	957.03	955.62	954.18	952.72	951.23	949.73	948.21	946.68	945.16
EDGE OF SHOULDER, RT	970.93	970.37	969.76	969.07	968.31	967.49	966.61	965.65	964.63	963.54	962.39	961.18	959.95	958.71	957.39	955.96	954.50	953.03	951.52	950.01	948.47	946.92	945.37

14+00 15+00 16+00 17+00 18+00

CALCULATED DES
CHECKED DJW

IR-680 RAMP BX
PAVEMENT EDGE PROFILE (6.28)

MAH-680-4.14/6.28/6.37

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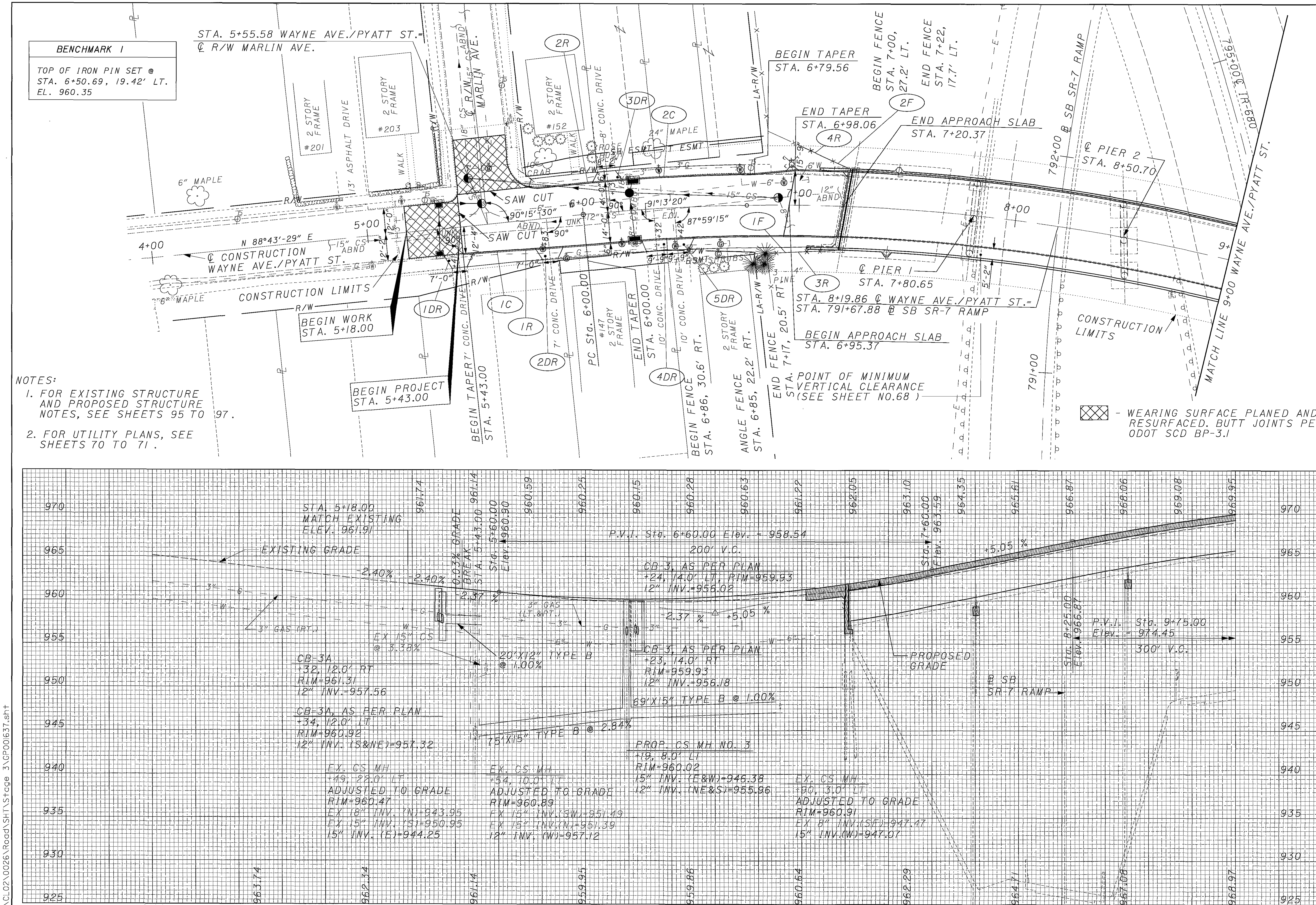

PLAN AND PROFILE WAYNE AVE./PYATT ST. (6.37) STA. 5+00 TO STA. 9+00

CALCULATED DES CHECKED DJW

MAH-680-4.14/6.28/6.37

67
191

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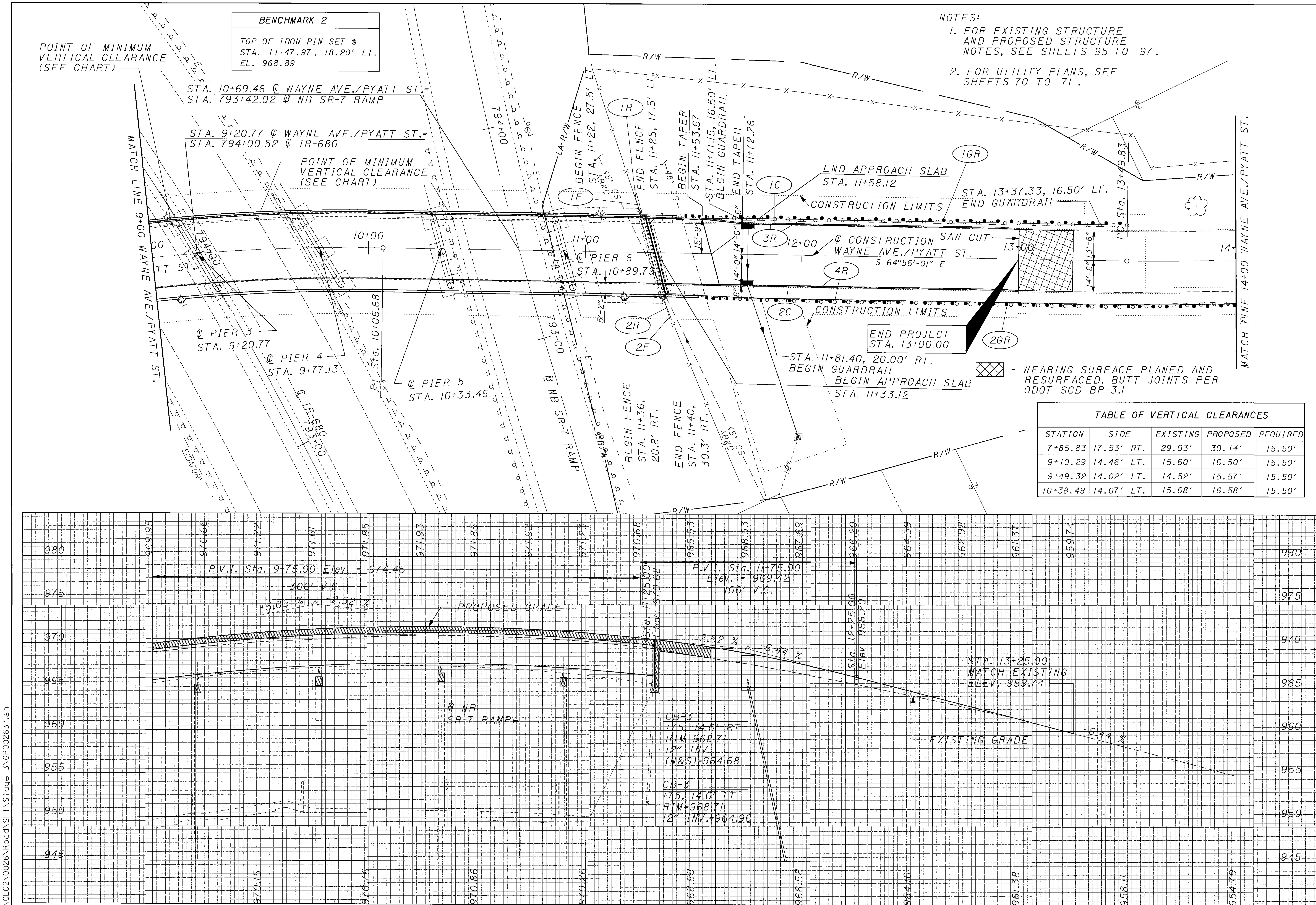

NOTES:

1. FOR EXISTING STRUCTURE AND PROPOSED STRUCTURE NOTES, SEE SHEETS 95 TO 97.
2. FOR UTILITY PLANS, SEE SHEETS 70 TO 71.

- WEARING SURFACE PLANED AND RESURFACED. BUTT JOINTS PER ODOT SCD BP-3.1

TABLE OF VERTICAL CLEARANCES

STATION	SIDE	EXISTING	PROPOSED	REQUIRED
7+85.83	17.53' RT.	29.03'	30.14'	15.50'
9+10.29	14.46' LT.	15.60'	16.50'	15.50'
9+49.32	14.02' LT.	14.52'	15.57'	15.50'
10+38.49	14.07' LT.	15.68'	16.58'	15.50'

HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED DES CHECKED DJW

PLAN AND PROFILE WAYNE AVE./PYATT ST. (6.37) STA. 9+00 TO STA. 14+00

MAH-680-4.14/6.28/6.37

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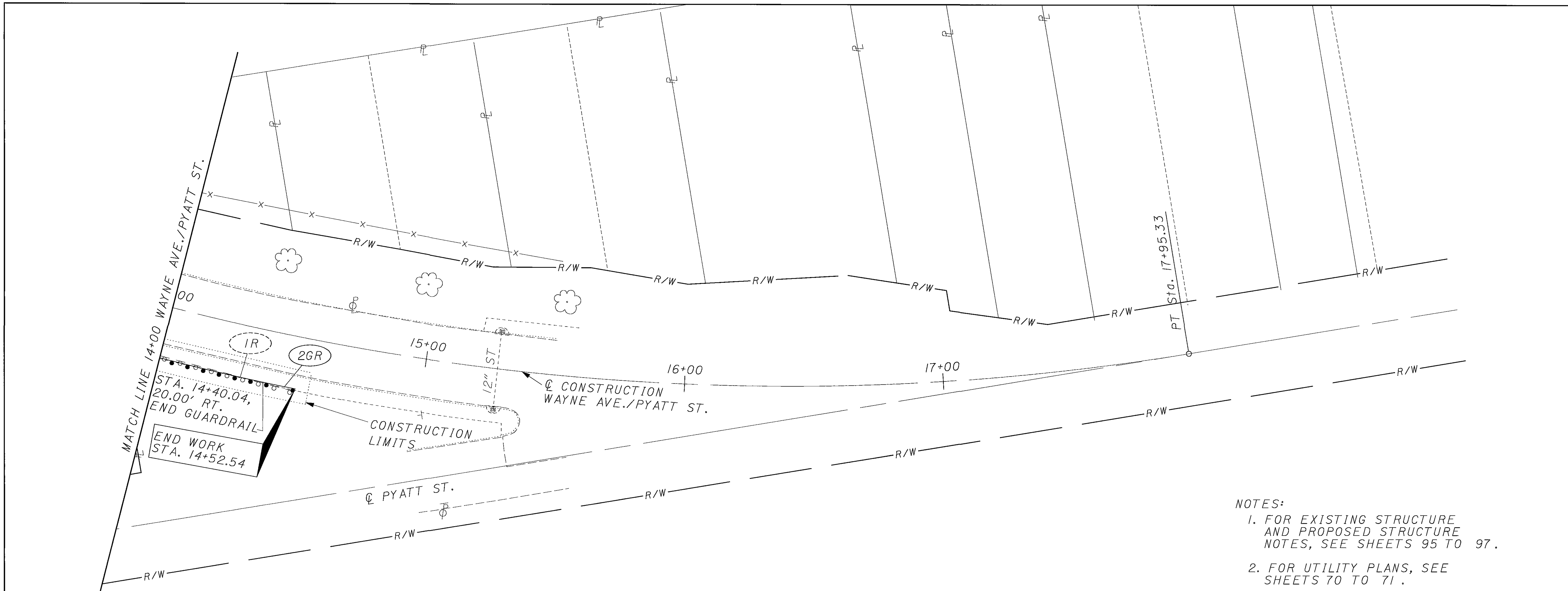
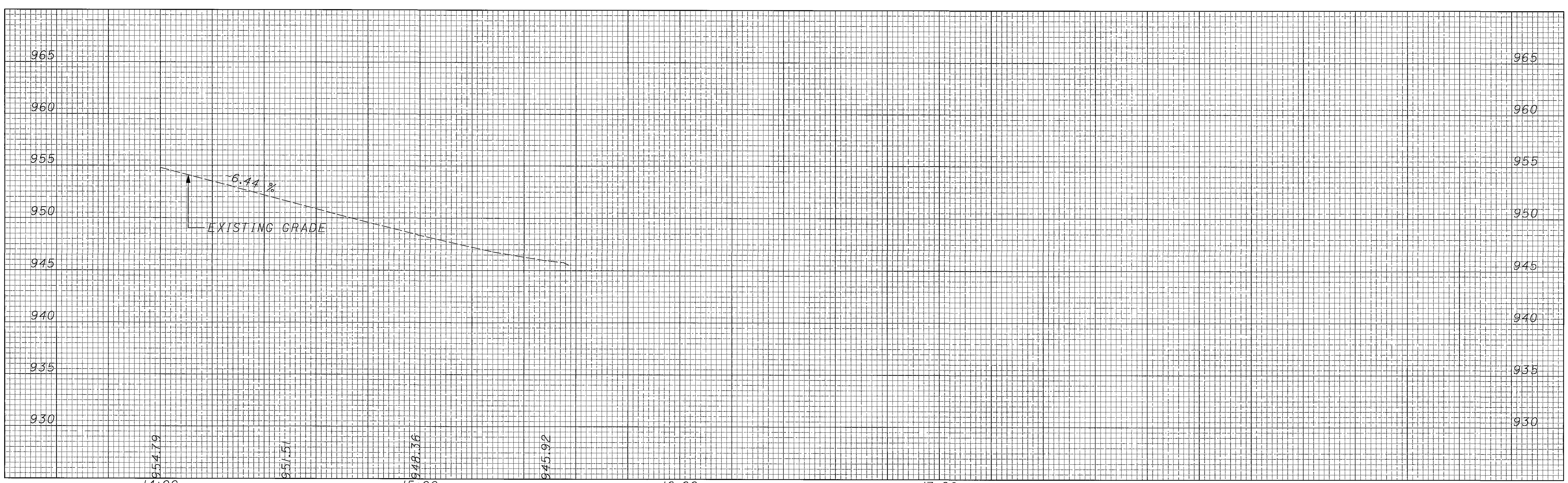


NOTES:
1. FOR EXISTING STRUCTURE AND PROPOSED STRUCTURE NOTES, SEE SHEETS 95 TO 97.
2. FOR UTILITY PLANS, SEE SHEETS 70 TO 71.

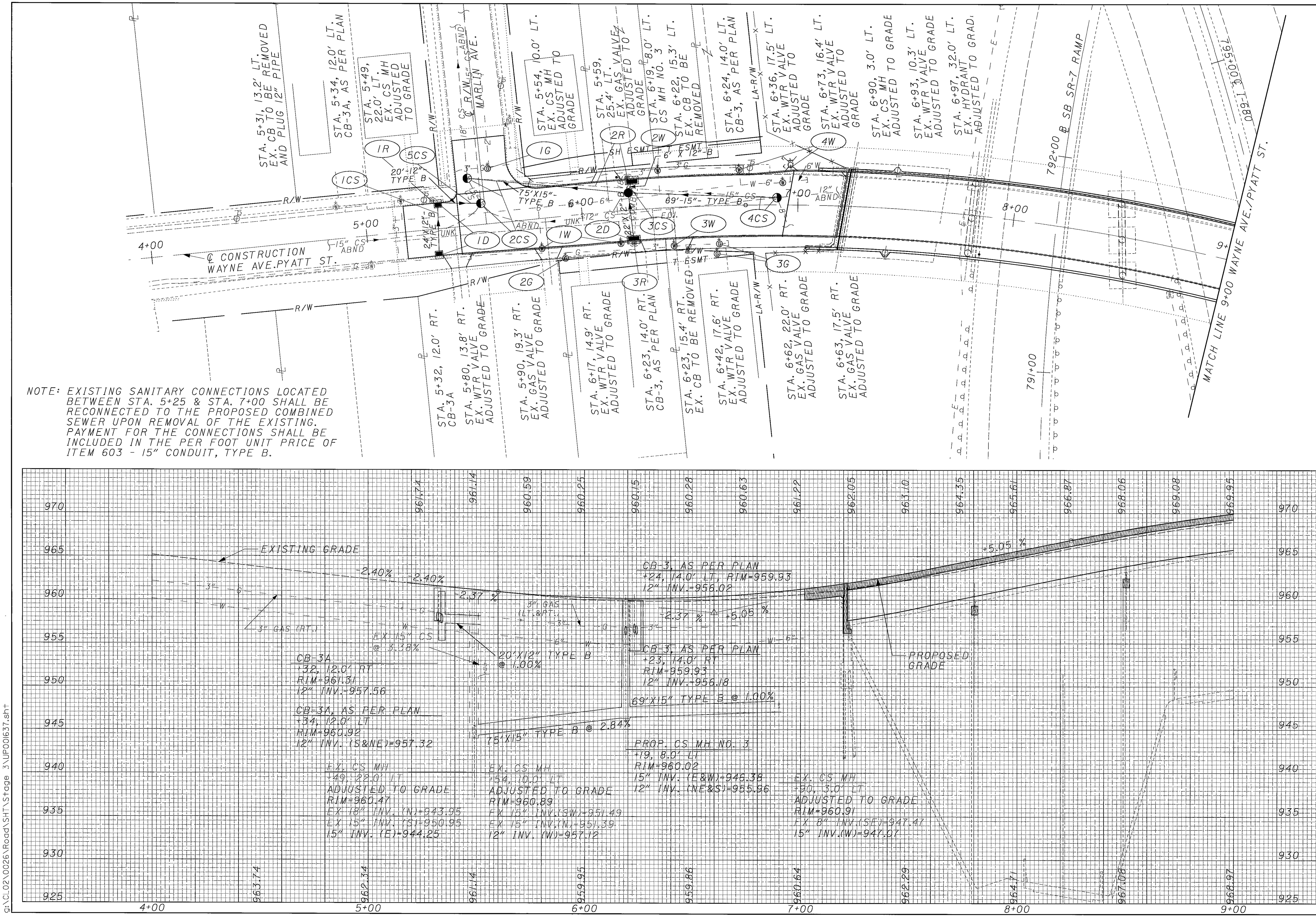


HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED DES
CHECKED DJW

PLAN AND PROFILE WAYNE AVE./PYATT ST. (6.37) STA. 14+00 TO STA. 15+00

MAH-680-4.14/6.28/6.37



UTILITY PLAN AND PROFILE WAYNE AVE./PYATT ST. (6.37) STA. 5+00 TO STA. 9+00

MAH-680-4.14/6.28/6.37

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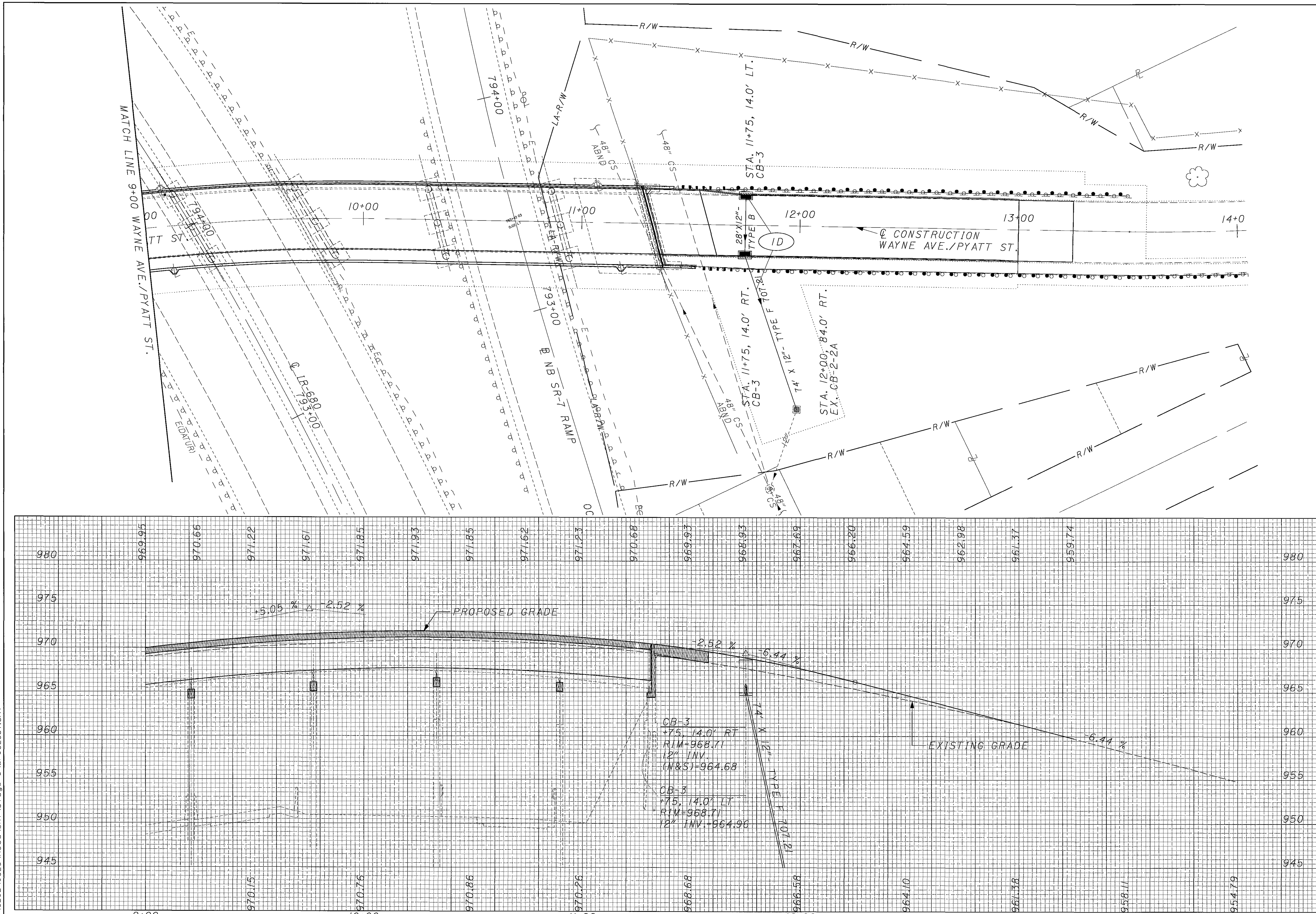

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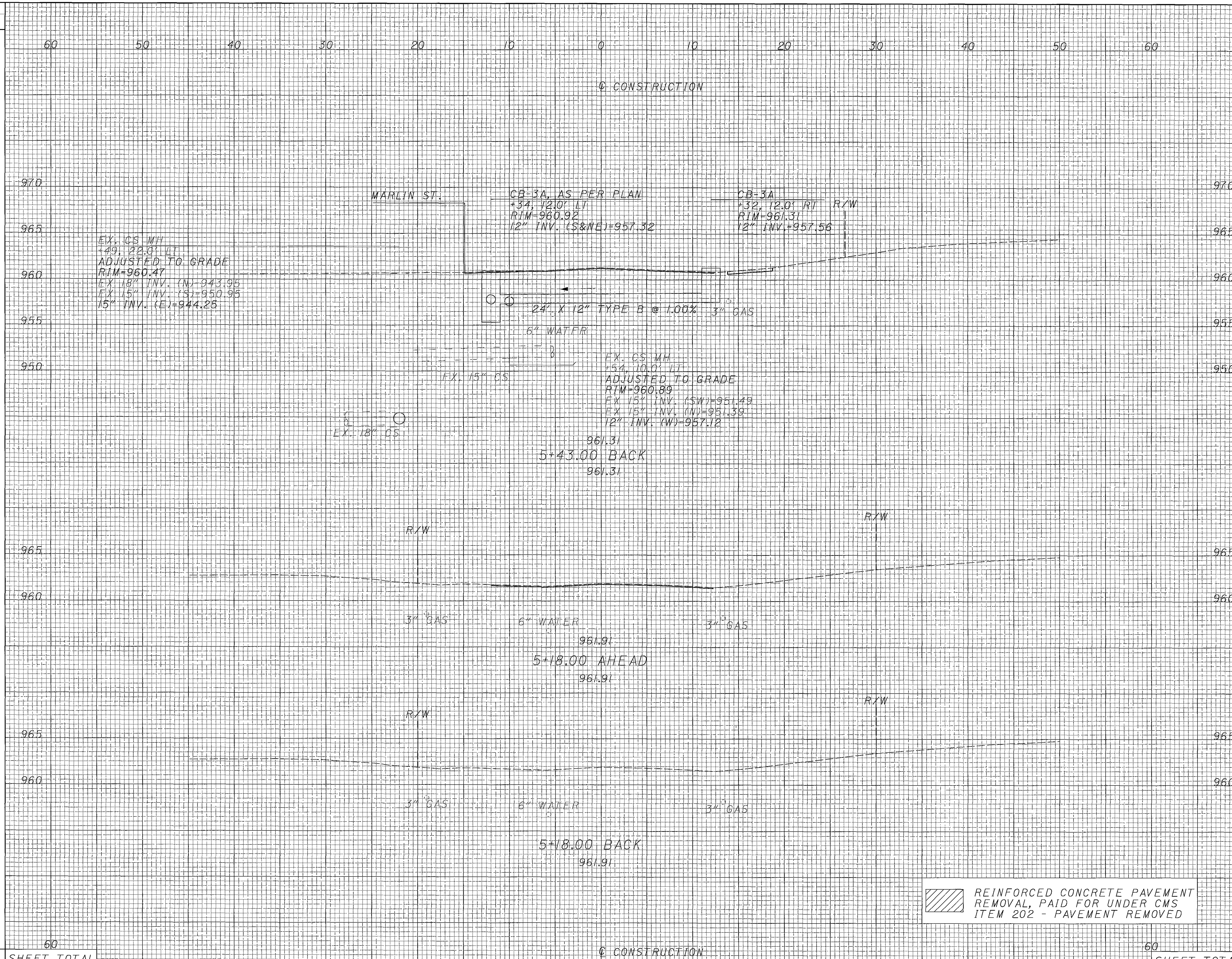
HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED DES
CHECKED DJW

UTILITY PLAN AND PROFILE WAYNE AVE./PYATT ST (6.37) STA. 9+00 TO STA. 13+75

MAH-680-4.14/6.28/6.37

SODDING	
END WIDTH	SQ. YDS.
0.0	
0.0	SHEET TOTAL



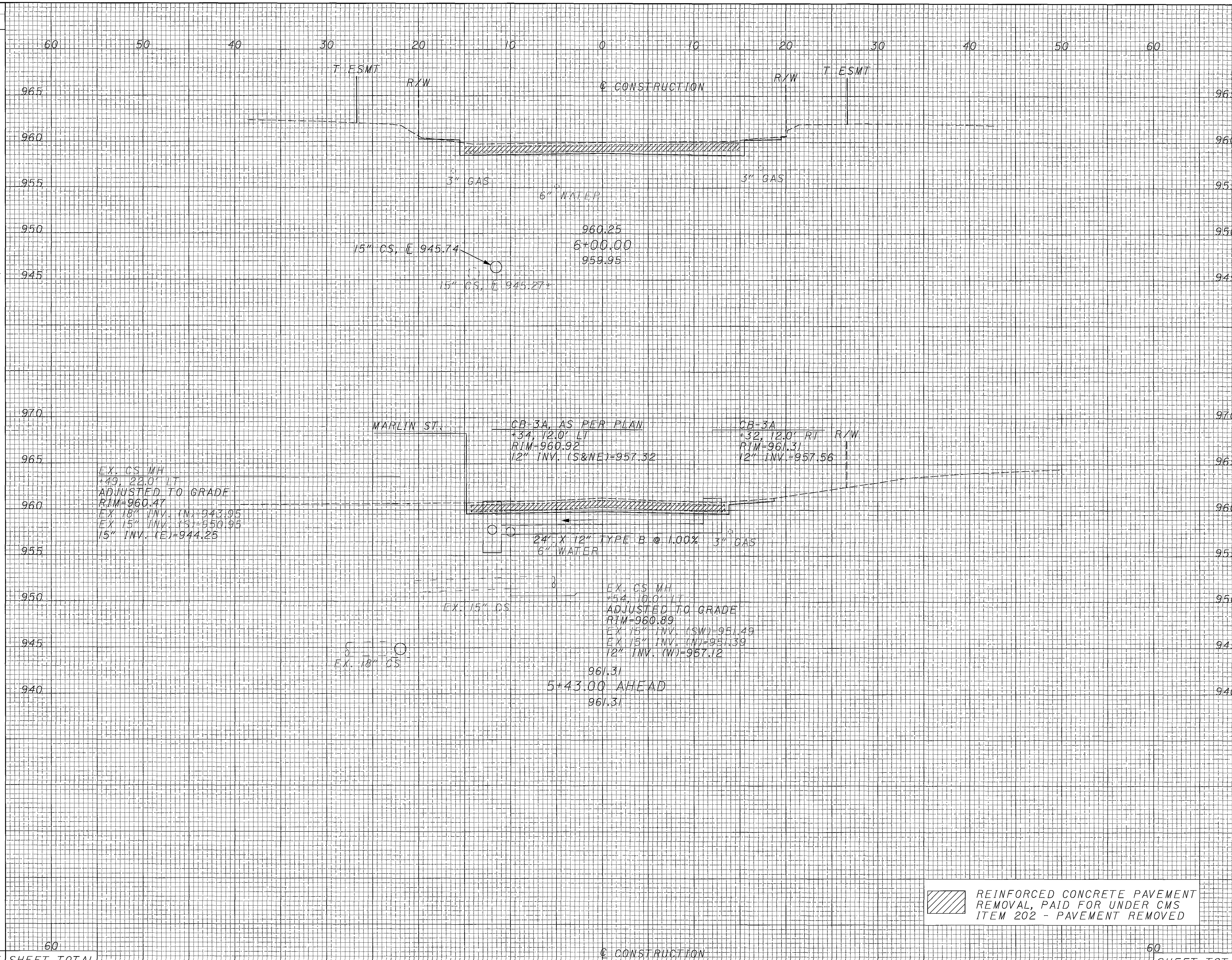
END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
		0	0

CALCULATED DES
CHECKED DJW

CROSS SECTIONS - WAYNE AVE./PYATT ST. (6.37)
STA 5+18.00 TO STA 5+43.00

MAH-680-4.14/
6.28/6.37

SODDING	
END WIDTH	SQ. YDS.
0.6	
	3.5
0.5	
SHEET TOTAL	3.5



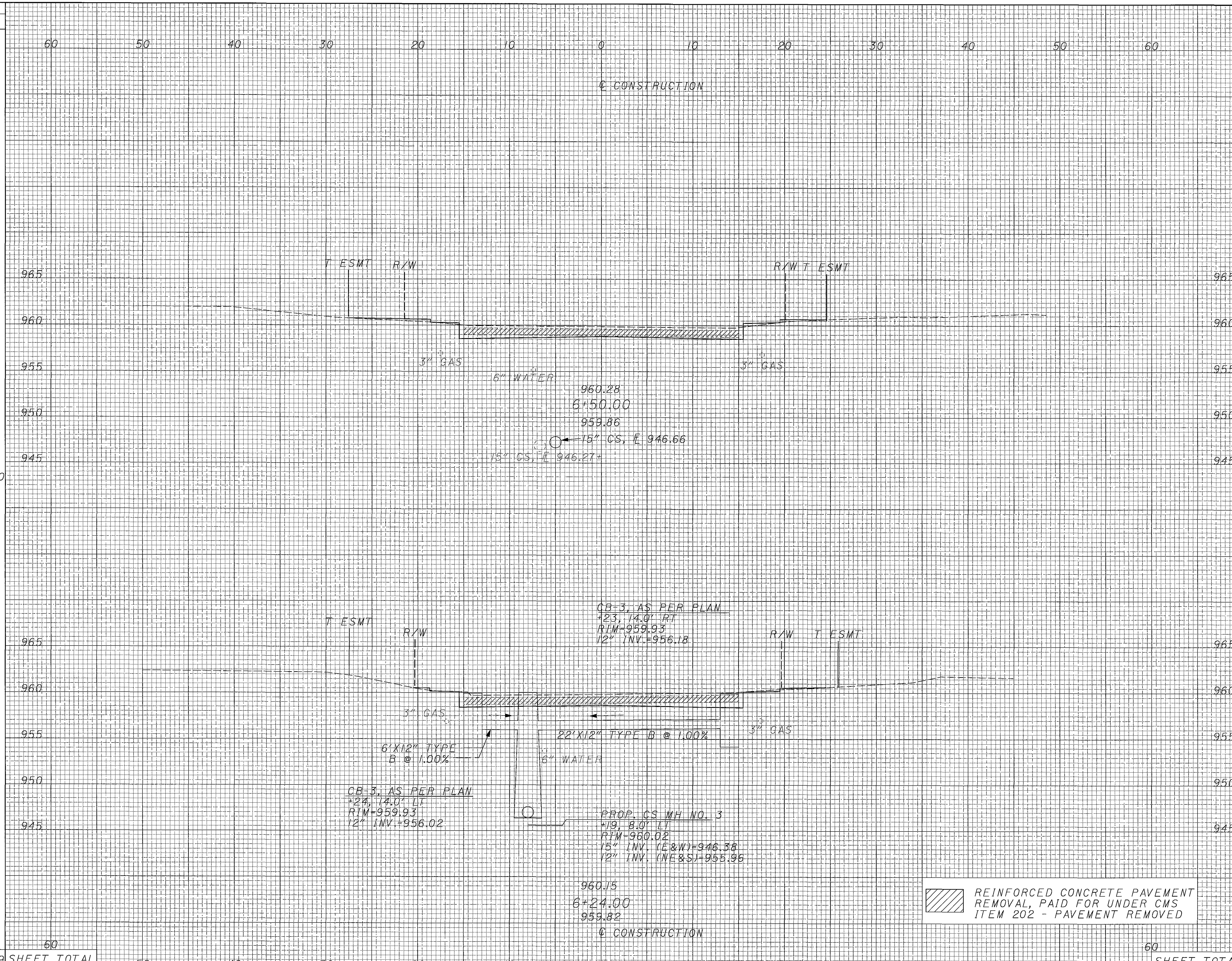
END AREA		VOLUME	
CUT	FILL	CUT	FILL
42	0		
		87	0
40	0		
SHEET TOTAL		87	0

CALCULATED DES
CHECKED DJW

CROSS SECTIONS - WAYNE AVE./PYATT ST. (6.37)
STA 5+43.00 TO STA 6+00.00

MAH-680-4.14/ 6.28/6.37

SODDING	
END WIDTH	SQ. YDS.
14.0	
	30.0
6.8	
	9.9
	39.9 SHEET TOTAL



END AREA		VOLUME	
CUT	FILL	CUT	FILL
37	3		
		38	2
42	1		
		37	0
		75	2

CALCULATED DES CHECKED DJW

CROSS SECTIONS - WAYNE AVE./PYATT ST. (6.37) STA 6+24.00 TO STA 6+50.00

MAH-680-4.14/6.28/6.37

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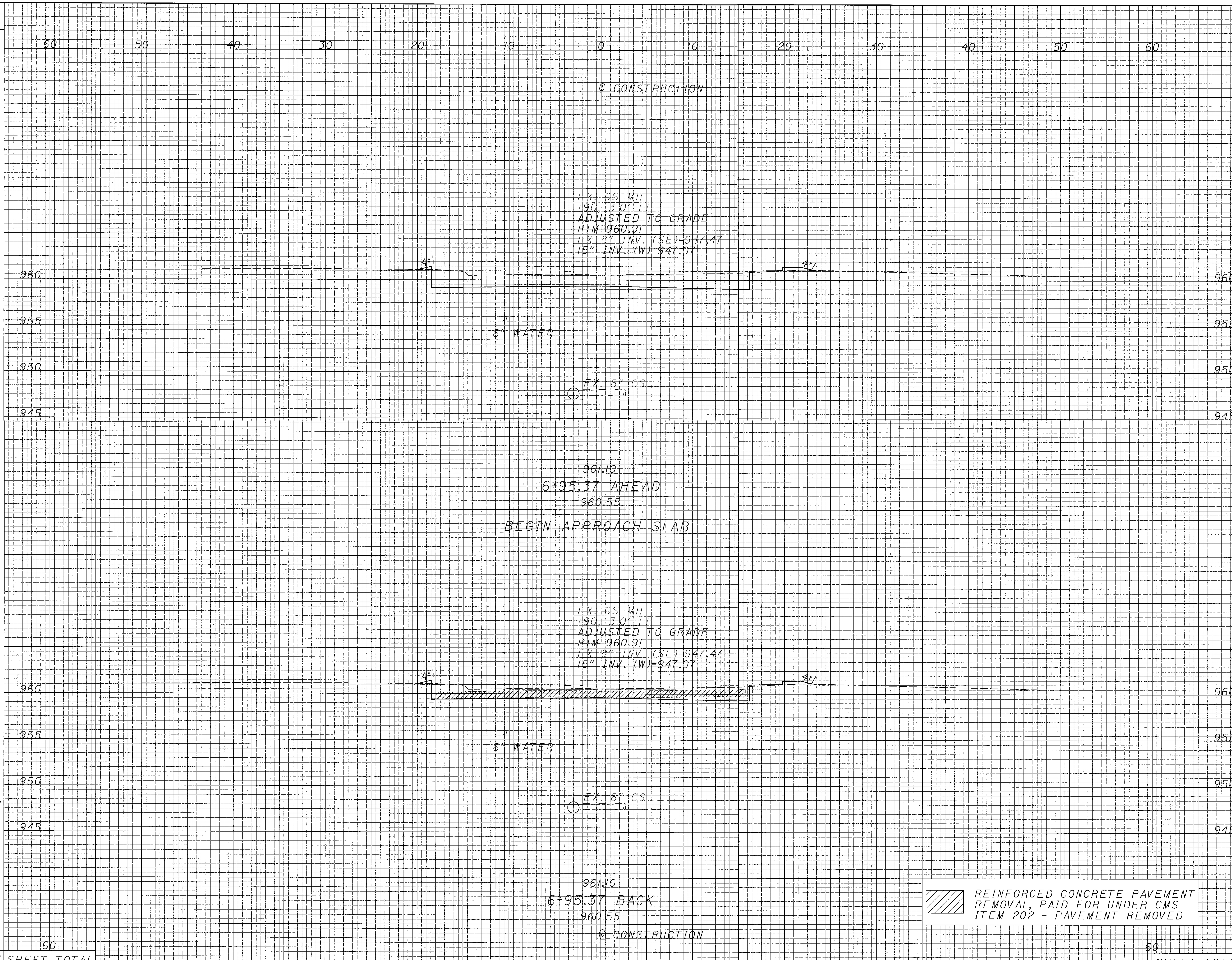
SODDING END WIDTH	SODDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
3.5		42	1		
3.5		42	1		
	44.1			66	3
SHEET TOTAL	44.1			66	3



CALCULATED DES
CHECKED DJW

CROSS SECTIONS - WAYNE AVE./PYATT ST. (6.37)
STA 6+95.37 TO STA 6+95.37

MAH-680-4.14/
6.28/6.37

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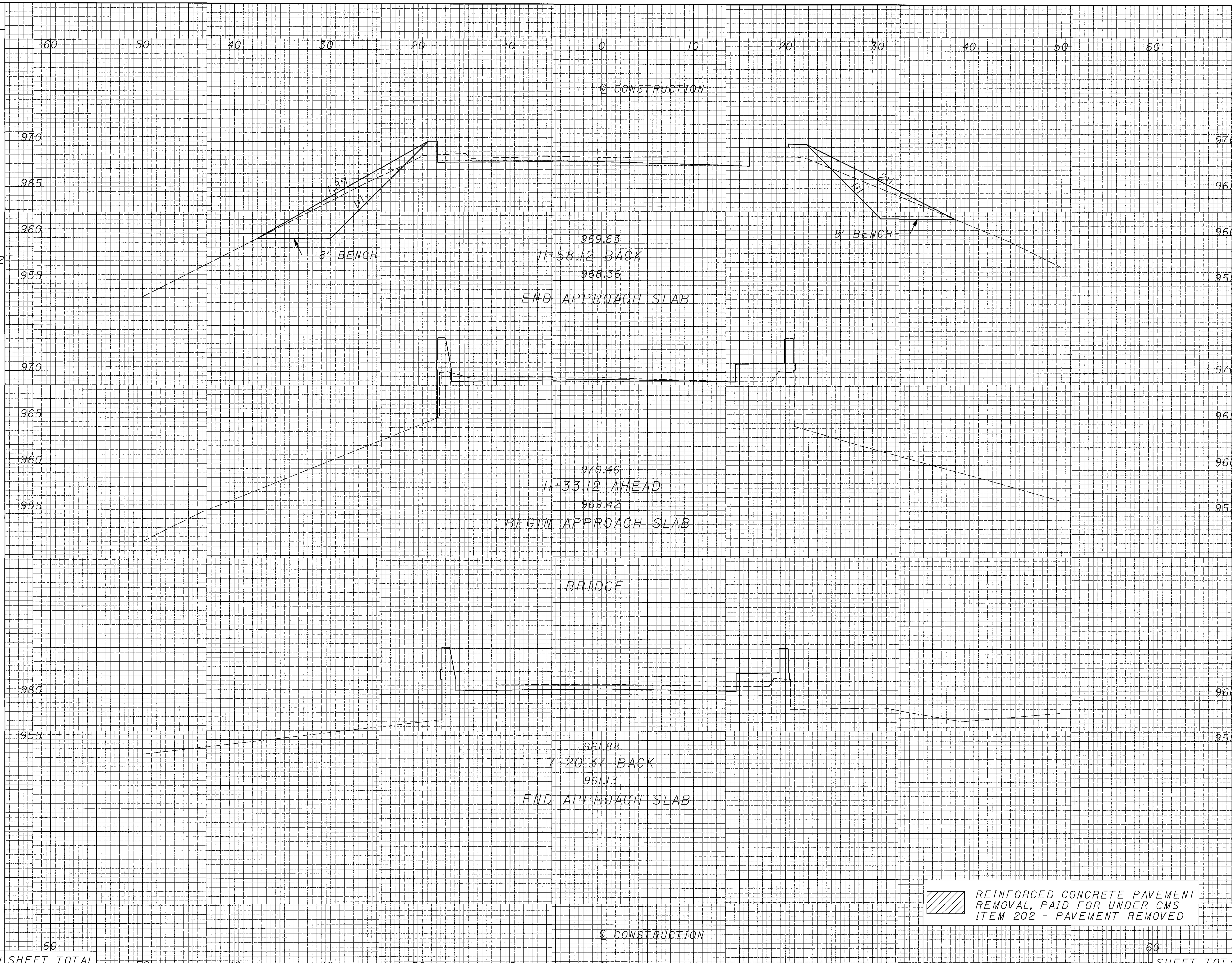
SODDING	
END WIDTH	SQ. YDS.
45.5	
	63.2
0.0	
0.0	
	4.9
	68.1



END AREA		VOLUME	
CUT	FILL	CUT	FILL
77	87		
		39	44
7	9		
17	6		
		27	3
		66	47

CALCULATED DES CHECKED DJW

CROSS SECTIONS - WAYNE AVE./PYATT ST. (6.37)
STA 7+20.37 TO STA 11+58.12

MAH-680-4.14/6.28/6.37

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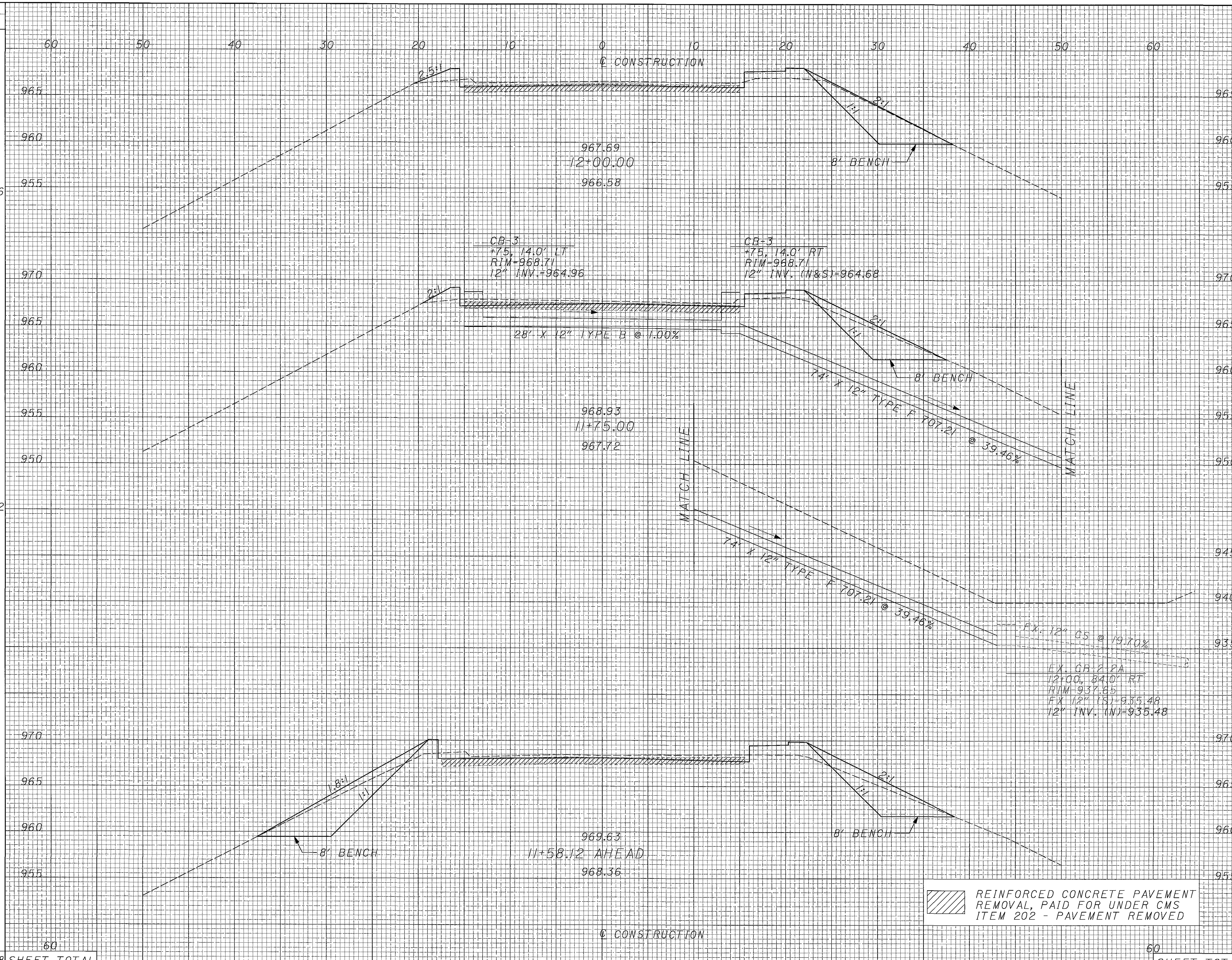
SODDING	
END WIDTH	SQ. YDS.
25.7	
	70.6
25.1	
	66.2
45.5	
	136.8 SHEET TOTAL



END AREA		VOLUME	
CUT	FILL	CUT	FILL
45	43		
		38	38
37	39		
		33	40
69	87		
		71	78

CALCULATED DES
CHECKED DJW

CROSS SECTIONS - WAYNE AVE./PYATT ST. (6.37)
STA 11+58.12 TO STA 12+00.00

MAH-680-4.14/6.28/6.37

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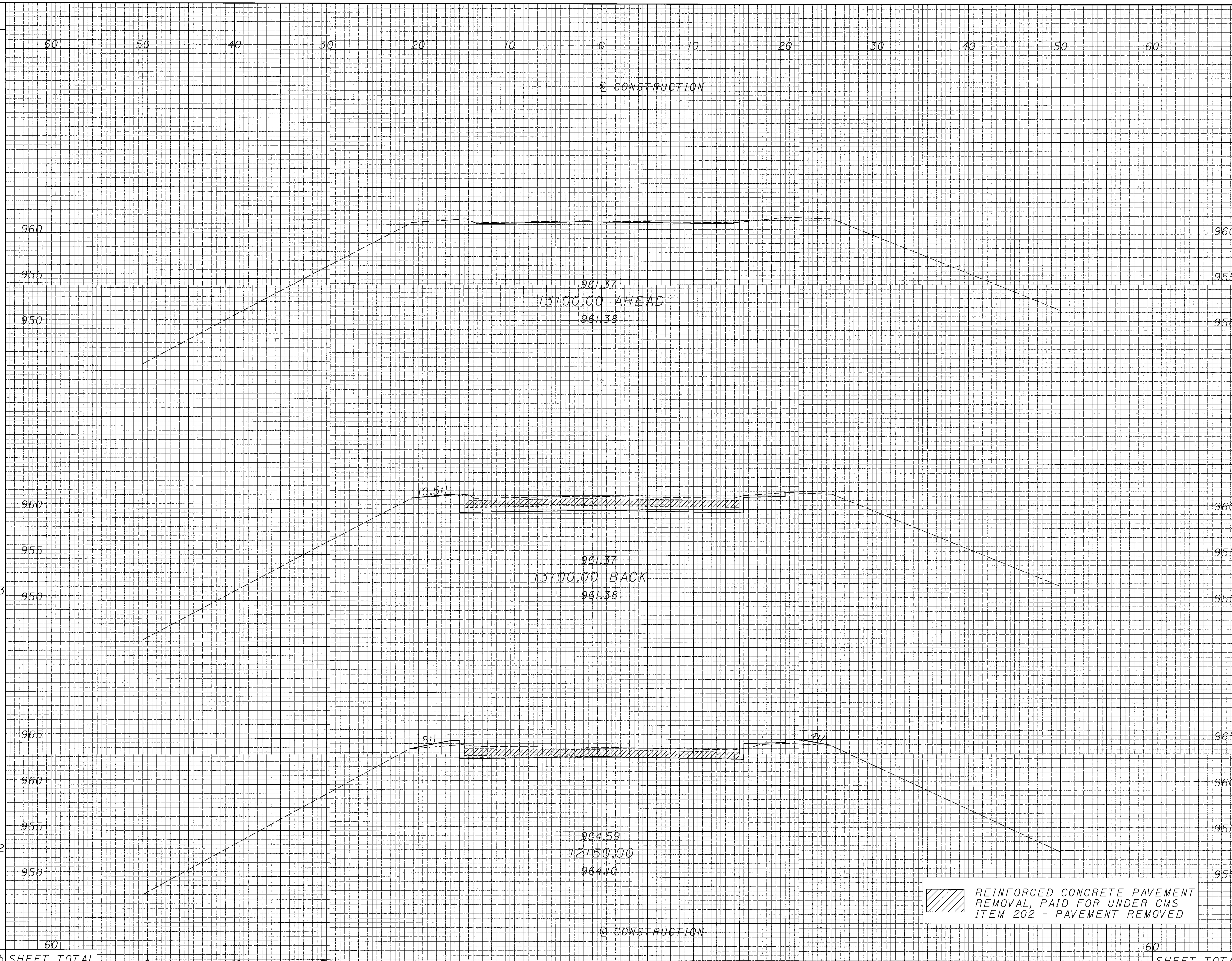
CROSS SECTIONS - WAYNE AVE./PYATT ST. (6.37)
STA 12+50.00 TO STA 13+00.00



Station	SODDING END WIDTH	SODDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
13+00.00 AHEAD	1.6		0	0		
13+00.00 BACK	1.6	30.3	50	0	78	4
12+50.00	9.3	97.2	34	4	73	44
SHEET TOTAL		127.5			151	48

CALCULATED DES
CHECKED DJW

MAH-680-4.14/6.28/6.37

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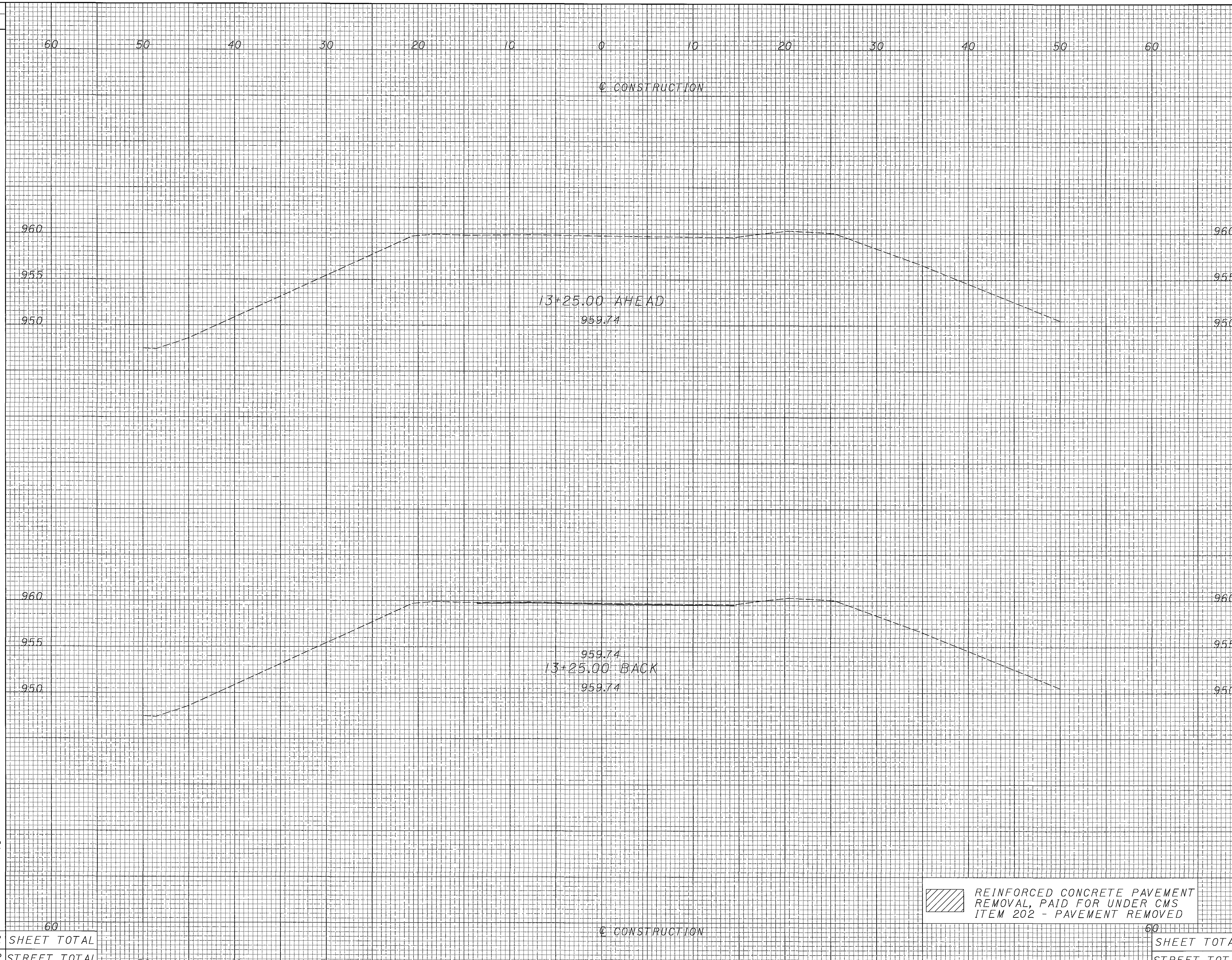
SODDING	
END WIDTH	SQ. YDS.
0.0	
	2.2
2.2	SHEET TOTAL
422	STREET TOTAL



END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
SHEET TOTAL		0	0
STREET TOTAL		516	178

CALCULATED DES
CHECKED DJW

CROSS SECTIONS - WAYNE AVE./PYATT ST. (6.37)
STA 13+25.00

MAH-680-4.14/6.28/6.37

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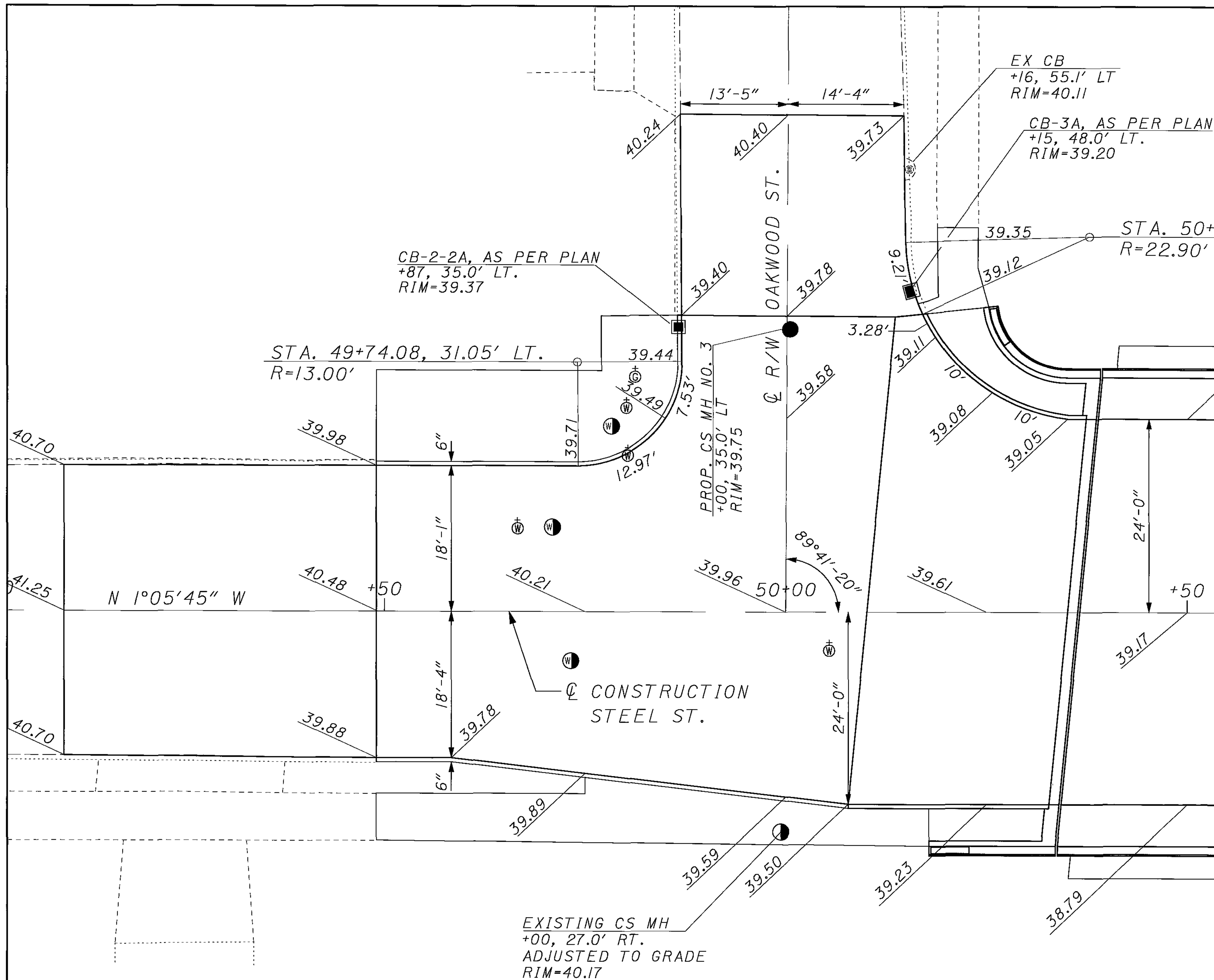
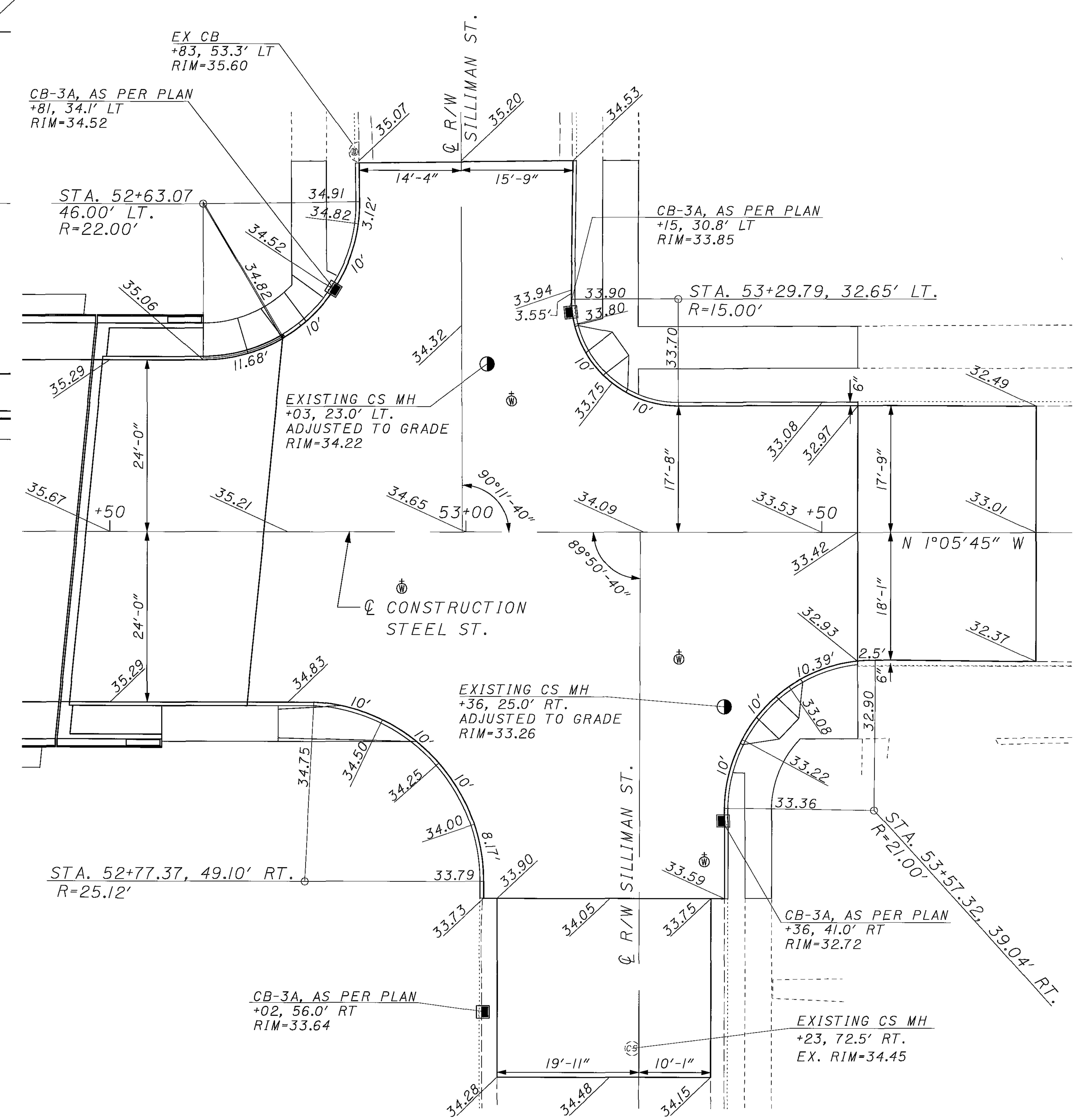


STEEL ST. & OAKWOOD ST.



STEEL ST. & SILLIMAN ST.

NOTES:

1. ALL ELEVATIONS ALONG THE CURB ARE GUTTER ELEVATIONS.
2. ALL RADII MEASURED TO FACE OF CURB.
3. ADD 900.00 TO ALL ELEVATIONS.

HORIZONTAL SCALE IN FEET

INTERSECTION DETAILS STEEL STREET (4.14)

MAH-680-4.14/6.28/6.37

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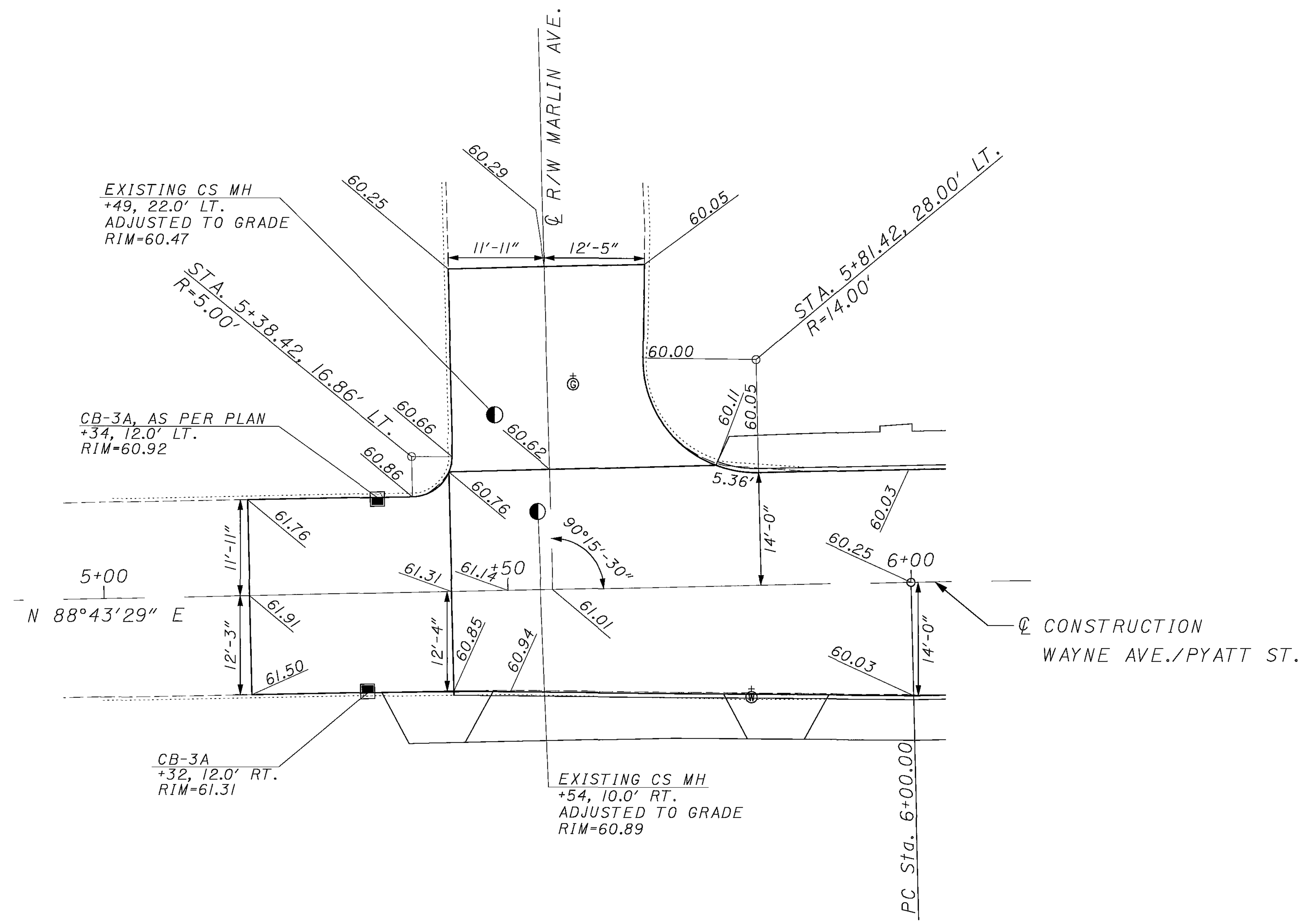
INTERSECTION DETAIL
WAYNE AVE./PYATT ST. (6.37)



WAYNE AVE./PYATT ST. & MARLIN AVE.

NOTES:

1. ALL ELEVATIONS ALONG THE CURB ARE GUTTER ELEVATIONS. ADD 6" IN AREAS TO OBTAIN TOP OF CURB ELEVATIONS AT BACK OF CURB. ADD 900.00 TO ALL ELEVATIONS.

2. ALL RADII MEASURED TO FACE OF CURB.

N

0 5 10 20
HORIZONTAL
SCALE IN FEET

MAH-680-4.14/
6.28/6.37

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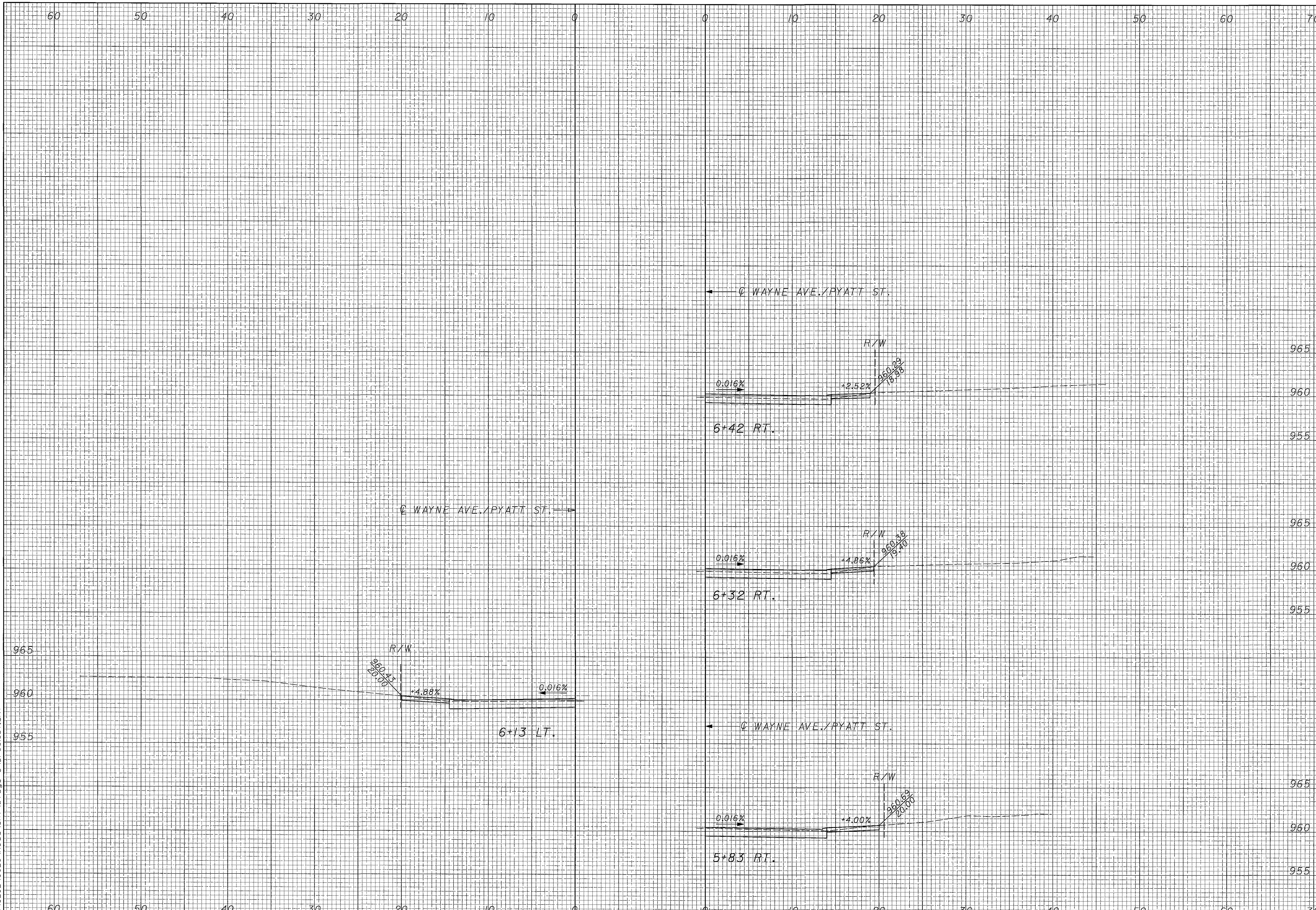

CALCULATED DES
CHECKED DJW

DRIVEWAY PROFILES
WAYNE AVE./PYATT ST. (6.37)

MAH-680-4.14/6.28/6.37

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PAVEMENT MARKING SUBSUMMARY

CALCULATED DES
CHECKED DJW

SHEET NO.	REFERENCE NO.	LOCATION	STATION FROM	STATION TO	SIDE	642 EDGE LINE, TYPE I (MILE) WHITE	642 CENTER LINE, TYPE I MILE	642 CHANNELIZING LINE, TYPE I FT	646 EDGE LINE (MILE) WHITE	646 EDGE LINE (MILE) YELLOW
STEEL ST. (4.14)										
86	1CL	STEEL ST.	47+06	49+74	℄		0.05			
86	2CL	STEEL ST.	50+37	52+72	℄		0.05			
86	3CL	STEEL ST.	53+57	55+76	℄		0.04			
86	1CH	STEEL ST.	50+03	50+03	LT			25		
18	1EL	IR-680	924+10	933+00	LT					
18	2EL	IR-680	924+10	927+67	LT					
18	3EL	IR-680	928+18	933+00	LT					
18	1LL	IR-680	924+10	933+00	LT					
18	2LL	IR-680	927+67	933+00	LT					
19	1EL	IR-680	933+00	937+84	LT					
19	2EL	IR-680	933+00	939+40	LT					
19	3EL	IR-680	937+84	938+79	LT					
19	4EL	IR-680	937+84	940+38	LT					
19	1LL	IR-680	933+00	937+84	LT					
19	2LL	IR-680	933+00	938+79	LT					
IR-680 RAMP BX (6.28)										
21	1EL	IR-680 RAMP BX	1+73	3+18	LT&RT					
88	1EL	IR-680 RAMP BX	7+50	18+50	LT					0.21
88	2EL	IR-680 RAMP BX	7+50	18+50	RT				0.21	
WAYNE AVE./PYATT ST. (6.37)										
89	1CL	WAYNE AVE/PYATT ST	5+18	5+38	℄		0.01			
89	2CL	WAYNE AVE/PYATT ST	5+81	6+95	℄		0.02			
89	3CL	WAYNE AVE/PYATT ST	6+95	11+58	℄		0.09			
89	4CL	WAYNE AVE/PYATT ST	11+58	13+25	℄		0.03			
89	1EL	WAYNE AVE/PYATT ST	5+81	6+93	RT	0.02				
89	2EL	WAYNE AVE/PYATT ST	5+81	6+97	LT	0.02				
89	3EL	WAYNE AVE/PYATT ST	6+93	11+62	RT	0.09				
89	4EL	WAYNE AVE/PYATT ST	6+97	11+55	LT	0.09				
89	5EL	WAYNE AVE/PYATT ST	11+55	13+25	LT	0.03				
89	6EL	WAYNE AVE/PYATT ST	11+62	13+25	RT	0.03				
TOTALS									0.21	0.21
TOTALS CARRIED TO GENERAL SUMMARY						0.28	0.29	25	0.42	

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SHEET NO.	REFERENCE NO.	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	630 GROUND MOUNTED SUPPORT, NO. 2 POST	630 OVERHEAD SIGN SUPPORT, TYPE TC-7.65, DESIGN 6	630 SIGN, FLAT SHEET	630 SIGN, OVERHEAD EXTRUSHEET	630 RIGID OVERHEAD SIGN SUPPORT FOUNDATION	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	630 REMOVAL OF STRUCTURE MOUNTED SIGN AND STORAGE	630 REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-18.24	630 TRANSPORTATION OF STORED SIGN, EXTRUSHEET	631 REMOVAL OF LUMINAIRE AND STORAGE	631 REMOVAL OF DISCONNECT SWITCH AND STORAGE	631 REMOVAL OF SIGN WIRING AND DISPOSAL	631 REMOVAL OF SIGN SERVICE AND DISPOSAL, AS PER PLAN
							FT	EACH	SQ FT	SQ FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
		IR-680 (4.14)																		
86	S1	IR-680	930+88	LT	E1-1	216 x 120		1		180.0	2									
					E1-5	84 x 24				14.0										
86	S2	IR-680	930+88	LT	E1-H3	276 x 132				253.0										
					E1-5	84 x 24				14.0										
86	S3	IR-680	929+12.5	RT	E6-2a	204 x 84		1		119.0	2									
86	S4	IR-680	929+12.5	RT																
					E1-H3	180 x 120				150.0										
					E1-5	84 x 24				14.0										
		STEEL ST. (4.14)																		
86	S5	STEEL ST.	50+37	LT	R8-1 (MOD)	24 x 30	13.0		5.0			1	1							
86	S6	STEEL ST.	50+14	RT	R8-1 (MOD)	24 x 30	13.0		5.0			1	1							
86	S7	STEEL ST.	52+59	RT	R8-1 (MOD)	24 x 30	13.0		5.0			1	1							
86	S8	STEEL ST.	52+65	LT	R8-1 (MOD)	24 x 30	13.0		5.0			1	1							
86	S9	STEEL ST.	53+62	LT	W8-H22 (MOD)	24 x 30	13.0		5.0			1	1							
86	S10	STEEL ST.	53+62	LT	SPECIAL (MOD)	12 x 24			2.0			1								
86		STEEL ST.	50+83	LT														1		1
86		STEEL ST.	51+03	LT										1	1	1	2		1	
86		STEEL ST.	51+27	LT										1	1	1				
86		STEEL ST.	51+62	RT										1	1	1	2		1	
86		STEEL ST.	51+81	RT										1	1	1	3		1	
86		STEEL ST.	52+62	LT														1		1
86		STEEL ST.	53+32	LT									1							
TOTALS CARRIED TO GENERAL SUMMARY							65.0	2	27.0	744.0	4	6	6	4	4	4	7	2	3	2

CALCULATED HJF
CHECKED EDR

SIGNING SUBSUMMARY

MAH-680-4.14/6.28/6.37

SHEET NO.	REFERENCE NO.	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	630 GROUND MOUNTED SUPPORT, NO. 2 POST (FT)	630 SIGN, FLAT SHEET (SQ FT)	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL (EACH)	630 REMOVAL OF GROUND MOUNTED SIGN AND REERECTION (EACH)	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL (EACH)	630 REMOVAL OF OVERHEAD SIGN AND REERECTION (EACH)	630 REMOVAL OF OVERHEAD SIGN SUPPORT AND REERECTION, TYPE TC-12.30, AS PER PLAN (EACH)
		IR-680 RAMP BX (6.28)											
88	S1	IR-680 RAMP BX	8+89	RT	SPECIAL	30" x 30"	13.0			1	1		
88	S2	IR-680 RAMP BX	10+22	RT	W8-H22	36" x 36"	13.5	9.0	1		1		
88	S3	IR-680 RAMP BX	10+45	RT	SPECIAL	24" x 30"	13.0	5.0	1		1		
88	S4	IR-680 RAMP BX	11+39	LT	OM-3	12" x 36"	13.5	3.0	1		1		
88	S5	IR-680 RAMP BX	11+68	RT	OM-3	12" x 36"	13.5	3.0	1		1		
88	S6	IR-680 RAMP BX	15+95	RT	SPEICAL	202" x 120"						1	1
TOTALS CARRIED TO GENERAL SUMMARY							66.5	20.0	4	1	5	1	1

CALCULATED DES
CHECKED DJW

SIGNING SUBSUMMARY

MAH-680-4.14/ 6.28/6.37

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SIGN LEGEND:

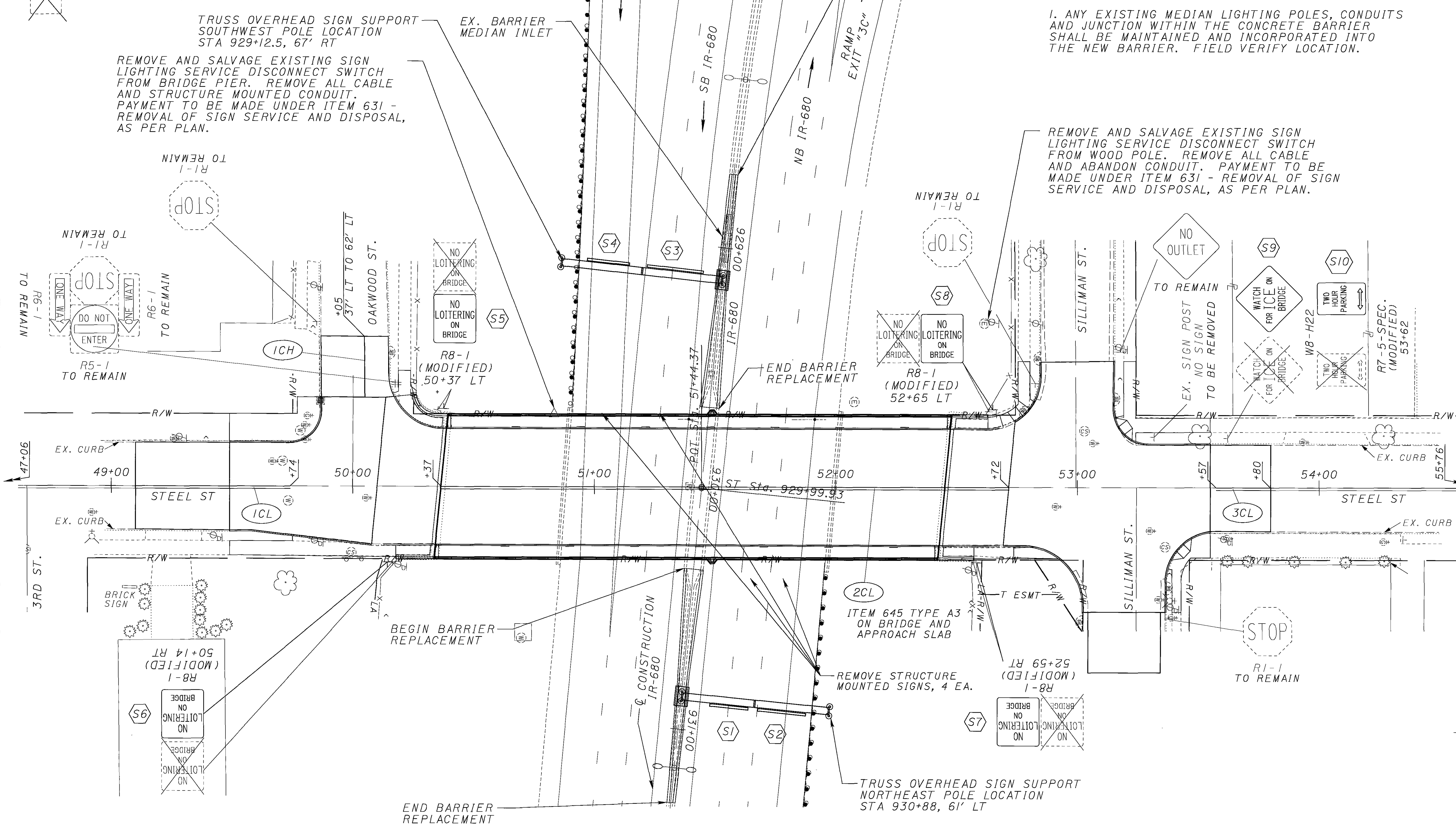
- PROPOSED SIGN
- EXISTING SIGN, TO REMAIN
- EXISTING SIGN, TO BE REMOVED

PAVEMENT MARKING LEGEND:

- CHANNELIZING LINE, CH
- CENTER LINE, CL
- EDGE LINE, EL

NOTE:

1. ANY EXISTING MEDIAN LIGHTING POLES, CONDUITS AND JUNCTION WITHIN THE CONCRETE BARRIER SHALL BE MAINTAINED AND INCORPORATED INTO THE NEW BARRIER. FIELD VERIFY LOCATION.



N

HORIZONTAL SCALE IN FEET 0 20 40

CALCULATED HJF CHECKED EDR

TRAFFIC CONTROL PLAN STEEL ST. & IR-680 (4.14)

MAH-680-4.14/6.28/6.37

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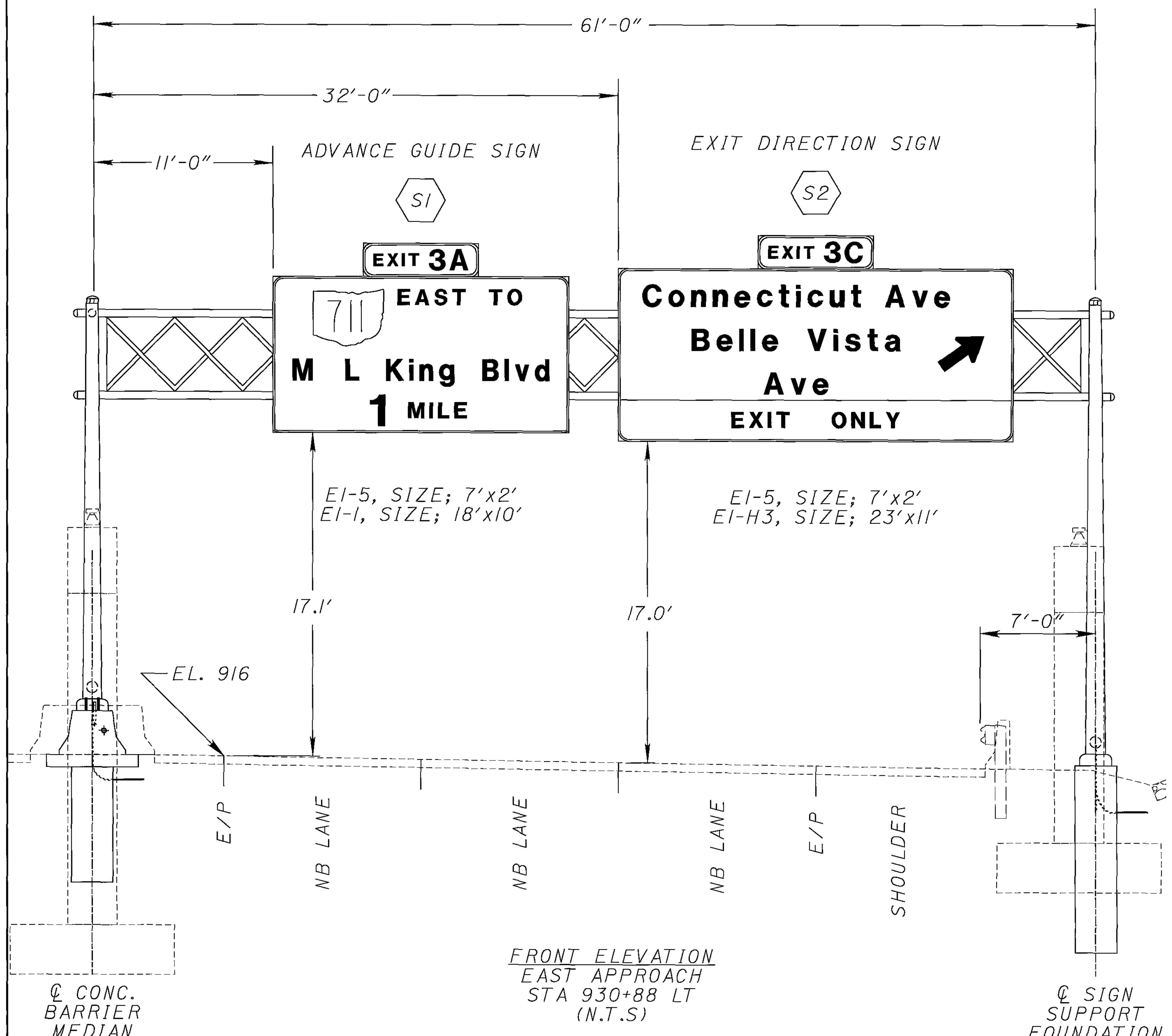
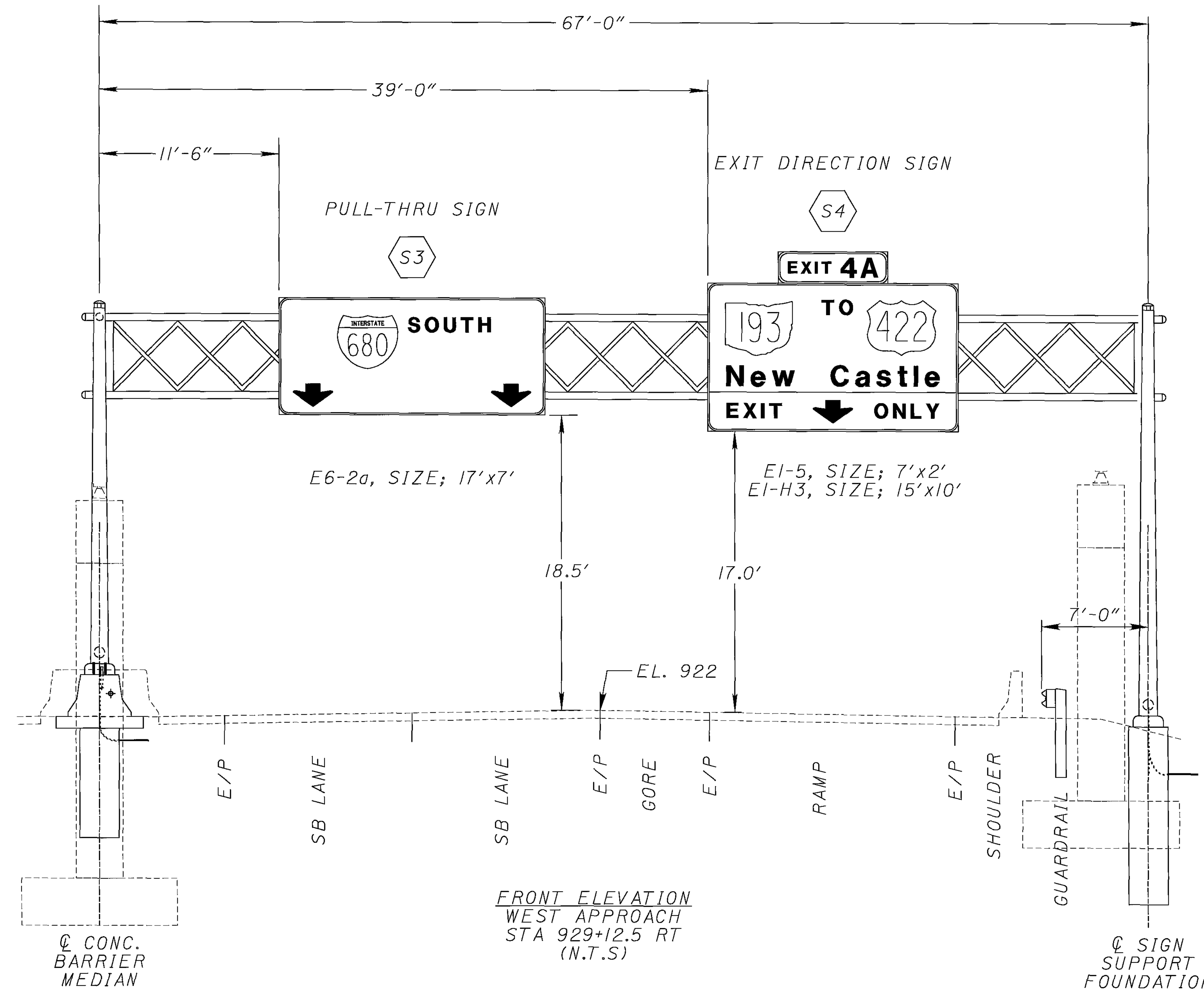


FRONT ELEVATION
EAST APPROACH
STA 930+88 LT
(N.T.S)



FRONT ELEVATION
WEST APPROACH
STA 929+12.5 RT
(N.T.S)

NOTES:

EXISTING ELEVATIONS ARE APPROXIMATE AND SHALL BE FIELD VERIFIED PRIOR TO DETERMINING POLE HEIGHTS AND ORDERING SIGN SUPPORTS.

TOP OF POLE FOUNDATIONS SHALL BE FLUSH WITH TOP OF CONCRETE MEDIAN BARRIER AS PER SCD TC-21.40.

TOP OF POLE FOUNDATIONS LOCATED BEHIND GUARDRAIL SHALL BE 0.1 FEET MINIMUM TO 0.3 FEET MAXIMUM ABOVE GRADE.

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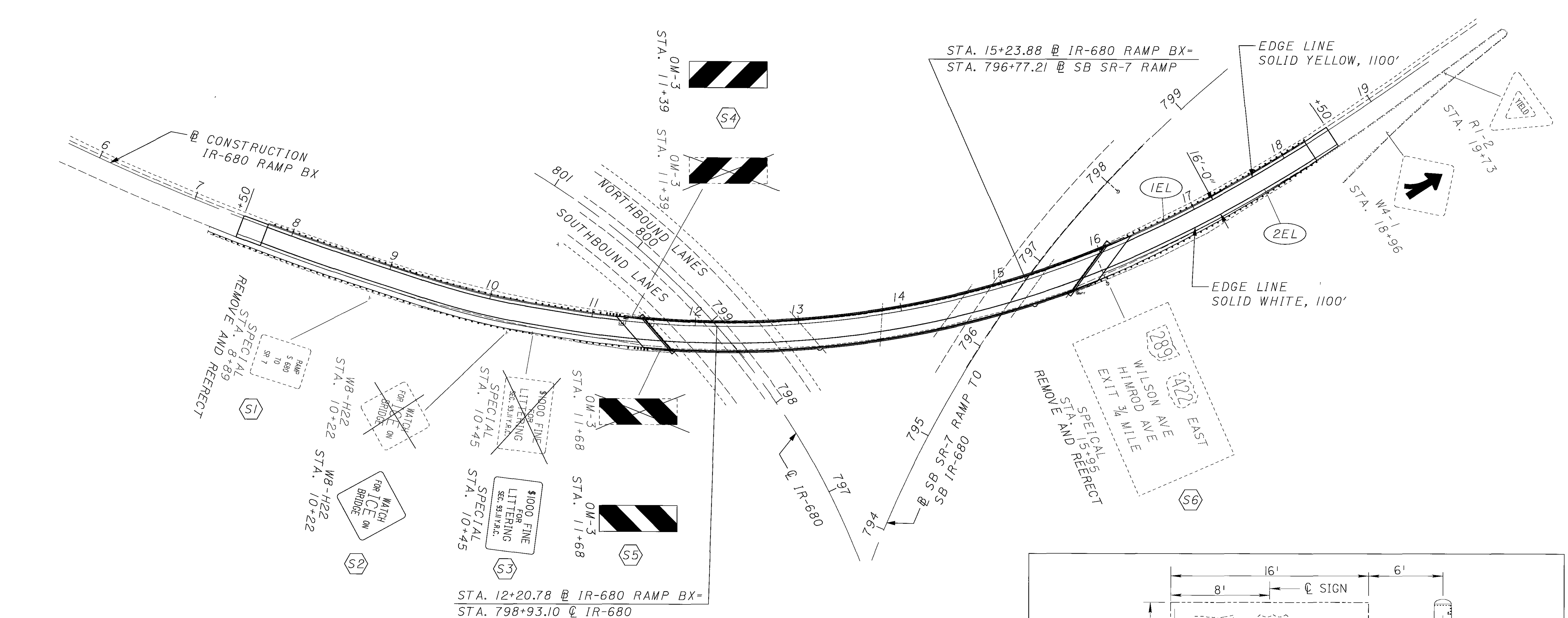
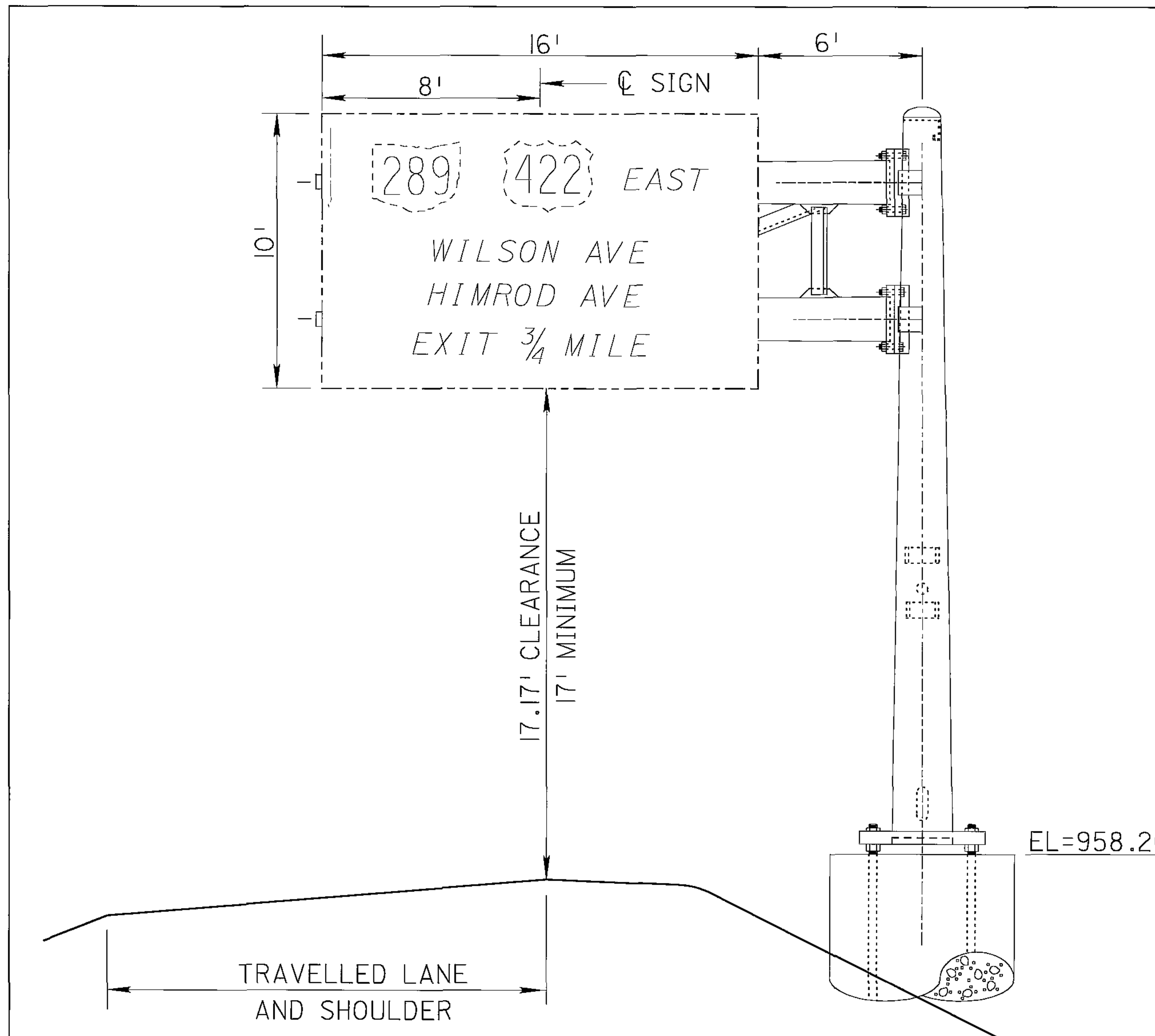
CALCULATED HJF
CHECKED EDR

TC-7.65 OVERHEAD SIGN SUPPORT DETAILS
IR-680 (4.14)

MAH-680-4.14/6.28/6.37





OVERHEAD SIGN ELEVATION DETAIL STA. 15+95

NOT TO SCALE

NOTES:

1. FOR SIGNING AND PAVEMENT MARKING LEGEND, SEE SHEET NO. 86 .

2. REMOVAL OF OVERHEAD SIGN SUPPORT AND REERECTION, TYPE TC-12.20, AS PER PLAN, SHALL INCLUDE THE REBUILDING OF THE SIGN FOUNDATION, PER SCD-21.20 TO THE FINISH ELEVATION SHOWN ON THIS SHEET.

3. ELECTRICAL SERVICE TO EXISTING OVERHEAD SIGN TO BE MAINTAINED DURING STORAGE OF SIGN AND SUPPORT. UPON RE-ERECTION OF OVERHEAD SIGN, ELECTRICIAL SERVICE SHALL BE RESTORED TO PRE-CONSTRUCTION STATE.

4. OVERHEAD SIGN SUPPORT FOUNDATION SHALL BE PER SCD TC-21.20.

HORIZONTAL SCALE IN FEET

CALCULATED DES
CHECKED DJW

TRAFFIC CONTROL PLAN IR-680 RAMP BX (6.28)

MAH-680-4.14/ 6.28/6.37

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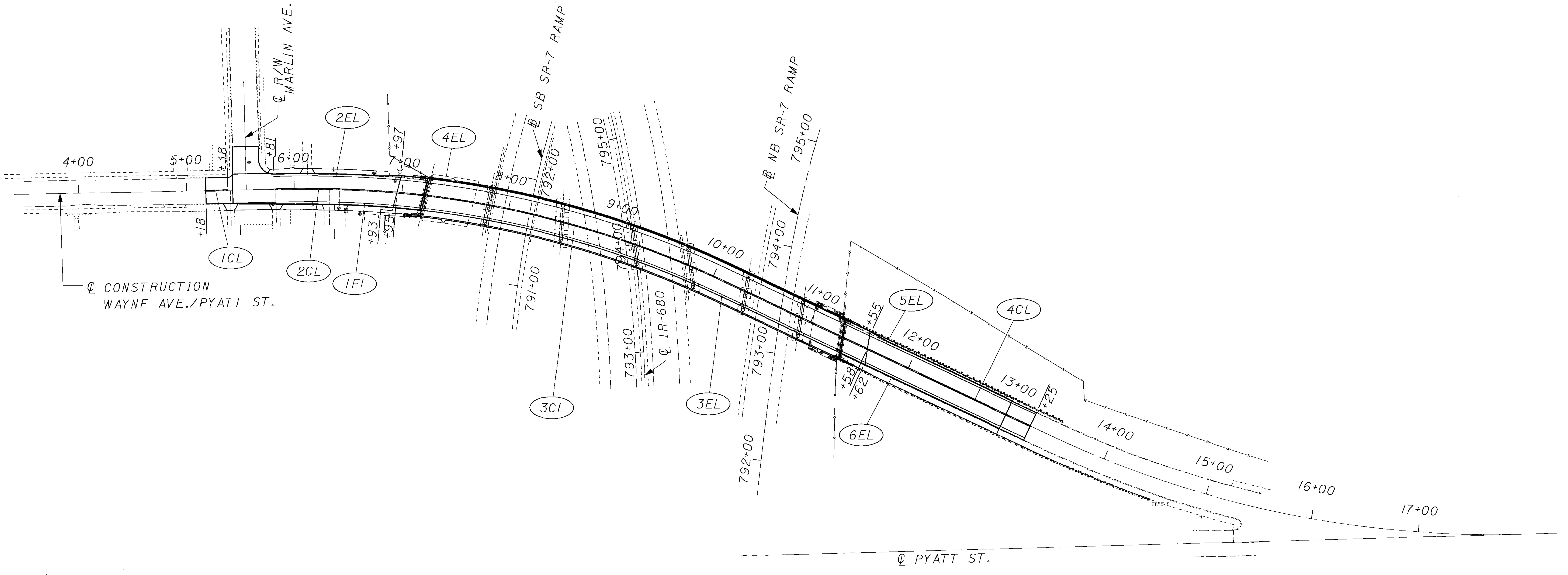

NOTES:

1. STRIPING TO BE ITEM - 645 TYPE A3 ON BRIDGE AND APPROACH SLAB.

2. FOR SIGNING AND PAVEMENT MARKING LEGEND, SEE SHEET NO. 86 .

0 25 50 100
HORIZONTAL SCALE IN FEET

CALCULATED DES
CHECKED DJW

TRAFFIC CONTROL PLAN
PLAN WAYNE AVE./PYATT ST. (6.37)

MAH-680-4.14/ 6.28/6.37

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LIGHTING

ITEM SPECIAL - MAINTAIN EXISTING LIGHTING (MAH-680-6.28)

EXISTING ROADWAYS WHICH ARE TO REMAIN OPEN TO TRAFFIC DURING CONSTRUCTION OF THIS PROJECT AND ARE LIGHTED SHALL HAVE THE LIGHTING MAINTAINED AS DESCRIBED HEREIN.

BEFORE ANY WORK IS STARTED IN THE IMMEDIATE VICINITY OF ANY EXISTING LIGHTING CIRCUITS, REPRESENTATIVES OF THE STATE, THE MAINTAINING AGENCY, AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE OF THE EXISTING ROADWAY LIGHTING CIRCUITS TO BE MAINTAINED. DURING THIS INSPECTION A WRITTEN RECORD OF THE CONDITION OF THE EXITING LIGHTING SHALL BE MADE BY THE STATE'S REPRESENTATIVE. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL LUMINAIRES WHICH ARE NOT STANDING, AND INDIVIDUAL CIRCUITS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE SIGNED BY THE REPRESENTATIVES OF THE STATE, THE MAINTAINING AGENCY, AND THE CONTRACTOR. IF, AS A RESULT OF THIS INSPECTION, IT IS DETERMINED THAT THE CONDITION OF THE EXISTING SYSTEM IS BELOW THAT REQUIRED FOR THE SAFETY OF THE TRAVELING PUBLIC, THEN THE MAINTAINING AGENCY SHALL MAKE REPAIRS NECESSARY TO RETURN THE SYSTEM TO AN ACCEPTABLE CONDITION. FOLLOWING THESE REPAIRS, THE SYSTEM SHALL AGAIN BE INSPECTED AND A REPORT MADE AND SIGNED AS OUTLINED HEREIN.

WHEN THE EXISTING SYSTEM IS IN AN ACCEPTABLE CONDITION, IT SHALL BE TURNED OVER TO THE CONTRACTOR WHO SHALL THEN BE REQUIRED TO MAINTAIN THE EXISTING LIGHTING TO THE CONDITION OUTLINED IN THIS REPORT WITH THE EXCEPTION OF KNOCKDOWNS DUE TO TRAFFIC ACCIDENTS. REPLACEMENTS OF KNOCKED DOWN UNITS SHALL BE DONE ONLY WHEN THE ENGINEER HAS DETERMINED THAT THE REPLACEMENT OF THE KNOCKED DOWN UNIT IS NECESSARY AND SHALL BE PAID SEPARATELY ON A PER UNIT BASIS. BETTERMENTS SHALL BE COVERED IN ITEMS OF WORK PERTAINING TO THE CONSTRUCTION OF PERMANENT IMPROVEMENTS. THE STATE SHALL GIVE THE CONTRACTOR ONE COPY OF THE EXISTING LIGHTING CIRCUITRY LAYOUT. WHEN THE CONTRACTOR HAS TAKEN OVER THE MAINTENANCE OF THE EXISTING SYSTEM, HE SHALL PROVIDE ALL REQUIRED LAYOUT AND LOCATING OF EXISTING LIGHTING CIRCUITS WITHIN THE PROJECT.

SHOULD THE CONTRACTOR DESIRE THE REMOVAL OF THE EXISTING LIGHTING BEFORE THE NEW LIGHTING IS OPERATIONAL, THE CONTRACTOR SHALL THEN BE RESPONSIBLE FOR ADEQUATE TEMPORARY LIGHTING OF THAT PORTION OF THE EXISTING ROADWAY AFFECTED BY THE REMOVAL OF THE EXISTING LIGHTING. TWO [2] WEEKS PRIOR TO INSTALLING SUCH LIGHTING, THE CONTRACTOR SHALL PREPARE AND SUBMIT FOUR (4) SETS OF THE TEMPORARY LIGHTING PLANS TO THE ENGINEER FOR REVIEW AND APPROVAL. THIS PLAN SHALL SHOW LOCATION OF POLES, LENGTH OF BRACKET ARMS, STYLE OF LUMINAIRES, MOUNTING HEIGHT, WIRING METHODS, AND OTHER PERTINENT INFORMATION. THE TEMPORARY LIGHTING SHALL PROVIDE AN AVERAGE INITIAL INTENSITY OF 1.2 FOOTCANDLES WITH AN AVERAGE TO MINIMUM UNIFORMITY RATIO NOT TO EXCEED 4:1. MOUNTING HEIGHT FOR TEMPORARY LUMINAIRES SHALL NOT BE LESS THAN 27 FEET AND MINIMUM OVERHEAD CONDUCTOR CLEARANCE SHALL BE 20 FEET. TEMPORARY OVERHEAD CONSTRUCTION SHALL NOT BE LESS THAN GRADE "A" FOR STRENGTH REQUIREMENTS AS DEFINED BY THE NATIONAL ELECTRIC SAFETY CODE. WOOD POLES WITH OVERHEAD WIRING MAY BE USED. HOWEVER, TEMPORARY LIGHTING SHALL MEET FEDERAL AND STATE SAFETY CRITERIA. IF BREAKAWAY POLES ARE USED TO MEET THIS CRITERIA, THEN UNDERGROUND WIRING WILL BE USED. RECONDITIONED OR USED MATERIALS MAY BE FURNISHED FOR TEMPORARY LIGHTING. ALL MATERIALS NECESSARY TO COMPLETE THE TEMPORARY LIGHTING SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. A SEPARATE POWER SERVICE WILL BE PROVIDED BY THE CONTRACTOR FOR THE TEMPORARY LIGHTING SYSTEM. THE TEMPORARY LIGHTING SHALL NOT BE SPLICED INTO EXISTING LIGHTING CIRCUITS. THE CONTRACTOR SHALL PAY ALL HOOK-UP FEES AND ELECTRICAL COSTS FOR THE TEMPORARY SYSTEM. THESE COSTS SHALL BE PAID FOR UNDER THE LUMP SUM ITEM SPECIAL MAINTAIN EXISTING LIGHTING. WHEN NO LONGER NEEDED THE TEMPORARY LIGHTING INSTALLATION SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR.

THE LUMP SUM BID FOR ITEM SPECIAL - MAINTAIN EXISTING LIGHTING, SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS, INCIDENTALS, AND TEMPORARY POWER SERVICES NECESSARY TO MAINTAIN THE EXISTING LIGHTING AS SPECIFIED HEREIN. THE UNIT BID PRICE FOR EACH ITEM SPECIAL - REPLACING EXISTING CONVENTIONAL LIGHTING UNIT, SHALL BE FULL PAYMENT FOR THE REPLACEMENT OF AN EXISTING UNIT WHICH HAS BEEN KNOCKED DOWN AFTER THE AFOREMENTIONED INSPECTION AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO PROVIDE A REPLACEMENT FOR SUCH UNIT. THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE LIGHTING GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

ITEM SPECIAL - REPLACING EXISTING LIGHTING UNIT	1	EACH
ITEM SPECIAL - MAINTAIN EXISTING LIGHTING (MAH-680-6.28)		LUMP

ITEM SPECIAL - PLASTIC CAUTION TAPE

THE LOCATION OF UNDERGROUND CONDUIT AND BURIED ELECTRICAL CABLES SHALL BE MARKED BY THE USE OF A CONTINUOUS IDENTIFYING TAPE BURIED IN THE TRENCH ABOVE THE LINE. THE IDENTIFYING TAPE SHALL BE AN INERT MATERIAL, APPROXIMATELY 6 INCHES WIDE COMPOSED OF POLYETHYLENE PLASTIC, HIGHLY RESISTANT TO ALKALIS, ACIDS, 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. TAPE SHALL BE SUPPLIED IN CONTINUOUS ROLLS WITH THE IDENTIFYING LETTERING REPEATED CONTINUOUSLY THE FULL LENGTH OF THE TAPE. IDENTIFYING TAPE SHALL BE BURIED ON THE ELECTRIC LINE TRENCH WITH ONE STRIP APPROXIMATELY 6 TO 10 INCHES BELOW THE FINAL FINISHED GRADE. THE TAPE SHALL BE PLACED IN THE TRENCH WITH THE 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. THE TAPE SHALL BE PAID FOR PER LINEAR FOOT OF ITEM SPECIAL - "PLASTIC CAUTION TAPE" COMPLETE AND IN PLACE.

ITEM 625 - REMOVE AND REERECT EXISTING LIGHT POLE, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF RE-ERECTING AN EXISTING LIGHT POLE REMOVED FROM A PREVIOUS LOCATION ON THE PROJECT SITE. THE LIGHT POLE WILL BE INSTALLED ON A NEW FOUNDATION AS INDICATED IN THE PLAN.

WHERE THE POLE WILL BE INSTALLED ON A NEW FOUNDATION, NEW ANCHOR BOLTS SHALL BE FURNISHED.

IN ADDITION, THE EXISTING LIGHT POLE IDENTIFICATION DECAL SHALL BE REMOVED, AND A NEW DECAL FOR THE NEW IDENTIFICATION NUMBER FURNISHED AND INSTALLED.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 625, "REMOVE AND REERECT EXISTING LIGHT POLE, AS PER PLAN" FOR EACH POLE RE-ERECTED WHICH SHALL INCLUDE ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 625 - STRUCTURE JUNCTION BOX, AS PER PLAN

THE JUNCTION BOX SHALL HAVE AN EMBOSSMENT IN THE BACK OF THE BOX THAT SHALL BE DRILLED AND TAPPED FOR A 1/4" - 20 CAP SCREW FOR CONNECTION OF GROUNDS.

WHEN ENCASED IN CONCRETE, THE JUNCTION BOX SHALL HAVE INWARD FLANGED COVERS AND MAY HAVE IN LIEU OF BOSSED DRILLED AND TAPPED CONNECTIONS, SLIP HOLES FIELD DRILLED TO ACCOMMODATE THE CONDUITS ENTERING THE BOX SO LONG AS EACH METALLIC CONDUIT IS EQUIPPED WITH A GROUNDING BUSHING JUMPED TO THE BOX ITSELF.

WHEN SURFACE MOUNTED, THE JUNCTION MAY HAVE IN LIEU OF BOSSED DRILLED AND TAPPED CONNECTIONS, FIELD INSTALLED HUBS TO ACCOMMODATE THE CONDUITS ENTERING THE BOX.

HIGH VOLTAGE TEST WAIVED

THE HIGH VOLTAGE TEST SHALL NOT BE PERFORMED ON THE CIRCUITS CONSTRUCTED BY THIS PROJECT, SINCE THE TEST COULD DAMAGE THE PORTION OF THE COMPLETED CIRCUIT WHICH HAS BEEN IN SERVICE PRIOR TO THIS PROJECT.

ITEM 631 - REMOVAL OF SIGN SERVICE AND DISPOSAL, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE REMOVAL AND DISPOSAL OF AN EXISTING POWER SERVICE.

INCLUDED FOR REMOVAL WILL BE ALL POWER SERVICE COMPONENTS SUCH AS THE CONDUIT RISER, WEATHER HEAD AND ALL ABOVE GRADE WIRING, CONTROL CENTER ENCLOSURE, DISCONNECT SWITCH AND ALL OTHER APPURTENANCES. THE CABLE ENCLOSED IN THE 2-INCH CONDUIT WHICH RUNS INTO THE GROUND SHALL BE CUT WHERE IT EXITS THE 2-INCH CONDUIT, APPROXIMATELY 2 FEET THE GROUND, AND SHALL BE REMOVED WITH THE 2-INCH CONDUIT. THE REMAINING BURIED CABLE SHALL BE ABANDONED. ALL DISTURBED AREAS SHALL BE RESTORED TO MATCH THE SURROUNDING AREA.

ALL POWER SERVICE COMPONENTS INCLUDING THE CONTROL CENTER, POLE, PHOTOELECTRIC CELL, 2-INCH CONDUIT, WEATHER HEAD AND ALL ABOVE-GROUND WIRING SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFF THE PROJECT SITE.

THIS ITEM WILL ALSO COMPENSATE THE CONTRACTOR FOR COORDINATING WITH THE POWER COMPANY TO INSURE THAT THE COMPANY DISCONNECTS THE SERVICE, AND THAT ITEMS WHICH BELONG TO THE POWER COMPANY AND ARE REMOVED BY THE CONTRACTOR SUCH AS THE METER BASE SHALL BE RETURNED TO THE POWER COMPANY.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 631 - REMOVAL OF SIGN SERVICE AND DISPOSAL, AS PER PLAN" PER EACH SERVICE REMOVED WHICH SHALL INCLUDE ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

LIGHTING PLAN SUB-SUMMARY

REFERENCE NO.	SHEET No.	SIDE	ROADWAY	STATION TO STATION FROM	STATION TO STATION TO	625 CONNECTOR KIT, TYPE II (EACH)	625 CONNECTOR KIT, TYPE III (EACH)	625 CABLE SPLICING KIT (EACH)	625 NO. 4 AWG 600 VOLT DISTRIBUTION CABLE (FT)	625 NO. 10 AWG POLE AND BRACKET CABLE (FT)	625 CONDUIT, 2", 725.04 (FT)	625 TRENCH (FT)	625 TRANSITION JUNCTION BOX (EACH)	625 STRUCTURE JUNCTION BOX, AS PER PLAN (EACH)	625 PULL BOX, 725.09, 18" (EACH)	625 STRUCTURE GROUNDING SYSTEM (EACH)	625 REMOVE AND REERECT EXISTING LIGHT POLE (EACH)	SPECIAL PLASTIC CAUTION TAPE (FT)	SPECIAL MAINTAIN EXISTING LIGHTING (LUMP)
				STEEL ST. (4.14)															
	92		STEEL ST.													1			
1	92	RT		50+31	50+34						5	5	1		1			5	
2	92	RT		50+34	51+48.75						115								
3	92	LT		50+37	50+39						5	5	1		1			5	
4	92	LT		50+39	51+48.75						86								
5	92	LT		51+48.75										1					
6	92	RT		51+48.75										1					
7	92	RT		51+48.75	52+42						93								
8	92	LT		51+48.75	52+48						99								
9	92	RT		54+42	52+45						5	5	1		1			5	
10	92	LT		54+48	52+51						5	5	1		1			5	
				IR-680 RAMP BX (6.28)															
	93		RAMP BX													1			LUMP
1	93	RT		11+74				2											
2	93	RT		11+74	13+18.24				325		152	4						4	
3	93	RT		13+18.24		1	1			87				1			1		
4	93	RT		13+18.24	15+24.57				445		212								
5	93	RT		15+24.57		1	1			87				1			1		
6	93	RT		15+24.80	15+76				130		55	12						12	
7	93	RT		15+76				2											
				WAYNE AVE./PYATT ST. (6.37)															
	94		WAYNE AVE. PYATT ST.													1			
1	94	RT		7+16	7+19						5	5	1		1			5	
2	94	RT		7+19	7+41.48						22								
3	94	LT		7+21	7+24						5	5	1		1			5	
4	94	LT		7+24	7+45.03						21								
5	94	RT		7+41.48										1					
6	94	RT		7+41.48	9+11.56						170								
7	94	LT		7+45.03										1					
8	94	LT		7+45.03	9+08.55						164								
9	94	LT		9+08.55										1					
10	94	LT		9+08.55	11+06.59						198								
11	94	RT		9+11.56										1					
12	94	RT		9+11.56	11+18.34						207								
13	94	LT		11+06.59										1					
14	94	LT		11+06.59	11+27						20								
15	94	RT		11+18.34										1					
16	94	RT		11+18.34	11+37						19								
17	94	LT		11+27	11+30						5	5	1		1			5	
18	94	RT		11+37	11+40						5	5	1		1			5	
TOTALS CARRIED TO GENERAL SUMMARY						2	2	4	900	174	1673	56	8	10	8	3	2	56	LUMP

CALCULATED HJF CHECKED EDR

MAH-680-4.14/6.28/6.37

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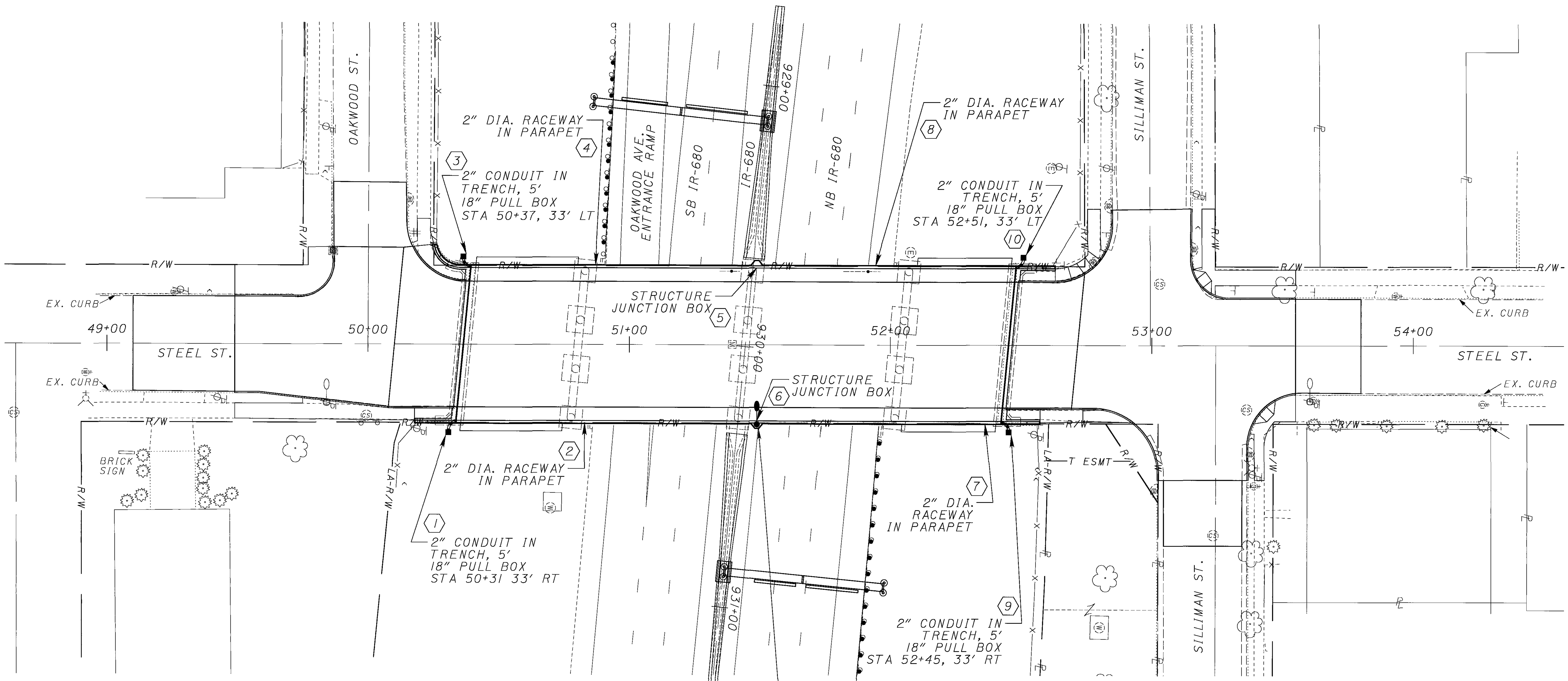

EXISTING POLE TO BE REMOVED AND REERECTED BY OTHERS. CONTRACTOR SHALL CONTACT OHIO EDISON COMPANY A MINIMUM OF FOUR WEEKS PRIOR TO ANY WORK BEING PERFORMED THAT WILL REQUIRE THE EXISTING POLE TO BE REMOVED.

PILASTER ANCHOR BOLTS SHALL BE INSTALLED TO ACCEPT EXISTING POLE BASE, SEE BRIDGE PLANS FOR DETAILS.

STA 51+40, 30.8' RT

UTILITY CONTACT

OHIO EDISON COMPANY
ATTN: BILL SPEECE
730 SOUTH AVENUE
YOUNGSTOWN, OHIO 44501
330-740-7635

LIGHTING LEGEND

- RELOCATED LIGHT POLE
- EXISTING LIGHT POLE

NOTE:

ELECTRICAL SERVICE FOR LIGHTING ON BRIDGE PROVIDED VIA AERIAL LINES MAINTAINED BY OHIO EDISON. CONDUIT PROVIDED IN PARAPETS FOR FUTURE USE SHALL CONTAIN PULL WIRE, PER CMS 625.12

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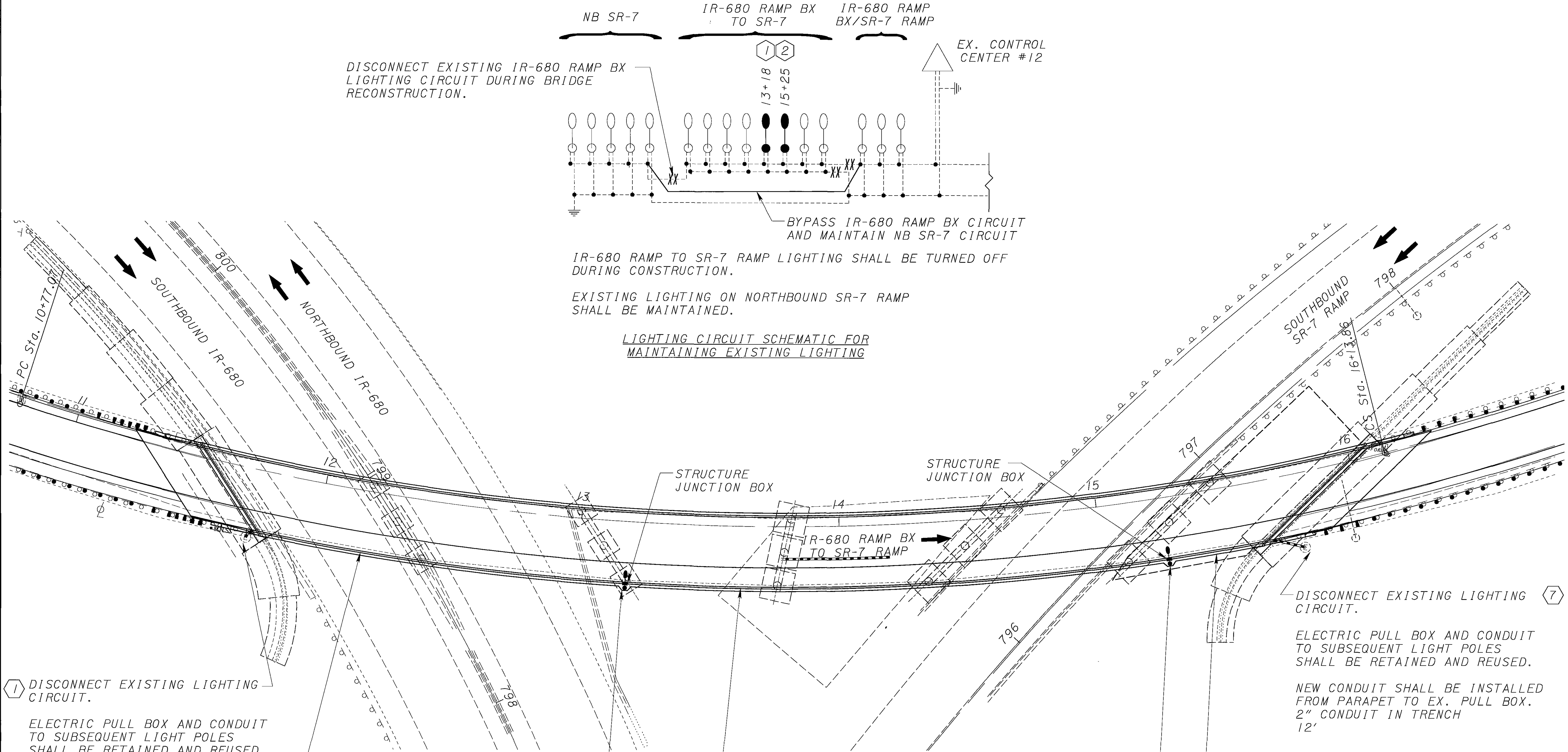
N

0 20 40
HORIZONTAL SCALE IN FEET

CALCULATED HJF
CHECKED EDR

LIGHTING PLAN STEEL ST. (4.14)

MAH-680-4.14/6.28/6.37



1 DISCONNECT EXISTING LIGHTING CIRCUIT.

ELECTRIC PULL BOX AND CONDUIT TO SUBSEQUENT LIGHT POLES SHALL BE RETAINED AND REUSED.

NEW CONDUIT SHALL BE INSTALLED FROM PARAPET TO EX. PULL BOX. 2" CONDUIT IN TRENCH 4'

2 2" DIA. RACEWAY IN PARAPET

3 REMOVE AND REERECT EXISTING POLE AND LUMINAIRE ON NEW PILASTER STA 13+18.24, 25.7' RT

4 2" DIA. RACEWAY IN PARAPET

5 REMOVE AND REERECT EXISTING POLE AND LUMINAIRE ON NEW PILASTER STA 15+24.57, 25.7' RT

6 2" DIA. RACEWAY IN PARAPET

7 DISCONNECT EXISTING LIGHTING CIRCUIT.

ELECTRIC PULL BOX AND CONDUIT TO SUBSEQUENT LIGHT POLES SHALL BE RETAINED AND REUSED.

NEW CONDUIT SHALL BE INSTALLED FROM PARAPET TO EX. PULL BOX. 2" CONDUIT IN TRENCH 12'

PLAN SHEET NOTES:

1. THE EXISTING LIGHT POLES SHALL BE REMOVED AND REERECTED ON NEW PILASTERS. INSTALL NEW POLE AND BRACKET CABLE AND CONNECTORS.

2. NEW DISTRIBUTION CABLE SHALL MATCH THE EXISTING CABLE IN THE REMAINDER OF THE CIRCUIT.

LIGHTING LEGEND

- PROPOSED CONDUIT IN TRENCH
- RELOCATED LIGHT POLE
- EXISTING LIGHT POLE
- PROPOSED JUNCTION BOX
- EXISTING PULL BOX

N

HORIZONTAL SCALE IN FEET 0 20 40

CALCULATED HJF CHECKED EDR

LIGHTING PLAN IR-680 RAMP BX (6.28)

MAH-680-4.14/6.28/6.37

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PLAN SHEET NOTES

EXISTING POLES TO BE REMOVED AND REERECTED BY OTHERS, INCLUDING AERIAL SERVICE. CONTRACTOR SHALL CONTACT OHIO EDISON COMPANY A MINIMUM OF FOUR WEEKS PRIOR TO ANY WORK BEING PERFORMED THAT WILL REQUIRE THE EXISTING POLES TO BE REMOVED.

PILASTER ANCHOR BOLTS SHALL BE INSTALLED TO ACCEPT EXISTING POLE BASE, SEE BRIDGE PLANS FOR DETAILS.

NOTE:

ELECTRICAL SERVICE FOR LIGHTING ON BRIDGE PROVIDED VIA AERIAL LINES MAINTAINED BY OHIO EDISON. CONDUIT PROVIDED IN PARAPETS FOR FUTURE USE SHALL CONTAIN PULL WIRE, PER CMS 625.12

UTILITY CONTACT

OHIO EDISON COMPANY
ATTN: BILL SPEECE
730 SOUTH AVENUE
YOUNGSTOWN, OHIO 44501
330-740-7635

LIGHTING LEGEND

RELOCATED LIGHT POLE

EXISTING LIGHT POLE

HORIZONTAL SCALE IN FEET 0 20 40

CALCULATED HJF CHECKED EDR

LIGHTING PLAN WAYNE AVE./PYATT ST. (6.37)

MAH-680-4.14/6.28/6.37

STRUCTURE GENERAL NOTES

DESIGN SPECIFICATIONS

THE NEW REHABILITATED PORTION OF THE STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002, AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING

MODIFIED SUPERSTRUCTURE: HS25, CASE II AND THE ALTERNATE MILITARY LOADING.
FUTURE WEARING SURFACE (FWS) OF 60 LBS/FT2.

DESIGN DATA

CONCRETE CLASS QSC2 - COMPRESSIVE STRENGTH 4500 psi (SUPERSTRUCTURE)
CONCRETE CLASS QSC1 - COMPRESSIVE STRENGTH 4000 psi (SUBSTRUCTURE)
REINFORCING STEEL - ASTM A615 OR A996, GRADE 60 MINIMUM YIELD STRENGTH 60,000 psi
STRUCTURAL STEEL - ASTM A709 GRADE 50 YIELD STRENGTH 50,000 psi
STRUCTURAL STEEL (EXISTING) - ASTM A373, YIELD STRENGTH 33,000 psi

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

AS-1-81	DATED (REVISED)	7-19-02
BS-1-93	DATED (REVISED)	7-19-02
EXJ-4-87	DATED (REVISED)	7-19-02
GSD-1-96	DATED (REVISED)	7-19-02
PCB-91	DATED (REVISED)	7-19-02
SBR-1-99	DATED (REVISED)	7-19-02
VPF-1-90	DATED (REVISED)	7-19-02

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

846	DATED	4-19-02
864	DATED	7-11-00
898	DATED	7-18-03
954	DATED	9-9-97

DECK PROTECTION METHOD

EPOXY COATED REINFORCING STEEL.
2½" CONCRETE COVER
QA/QC CONCRETE

MONOLITHIC WEARING SURFACE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

PROPOSED WORK

THE WORK TO BE DONE UNDER THIS CONTRACT IS AS SHOWN ON THE CONSTRUCTION PLANS AND, IN GENERAL, INCLUDES THE FOLLOWING:

MAH-680-0414

1.) PHASE REMOVAL OF EXISTING CONCRETE DECKS, APPROACH SLABS, AND PORTIONS OF THE ABUTMENTS.
2.) MODIFY, REPAIR AND PATCH EXISTING SUBSTRUCTURE UNITS.
3.) RAISE THE SUPERSTRUCTURE.
4.) REPLACE THE EXISTING EXPANSION JOINTS.
5.) REPLACE EXISTING END CROSSFRAMES AT ALL ABUTMENT LOCATIONS SHOWN ON THE PLANS.
6.) ELIMINATE ALL SCUPPERS FROM BRIDGE.
7.) REPLACE APPROACH SLABS.
8.) REMOVE BEARINGS AT ALL ABUTMENT LOCATIONS. INSTALL NEW ELASTOMERIC BEARINGS.
9.) REPLACE TWO DAMAGED BEAMS AND THE CROSSFRAMES IN TWO BAYS.
10.) PLACE NEW CONCRETE DECK AND PARAPETS.
11.) INSTALL VANDAL PROTECTION FENCING.
12.) SEAL CONCRETE SURFACES.
13.) CLEAN AND PAINT STRUCTURAL STEEL.

MAH-680-0628 AND MAH-680-0637

1.) REMOVE EXISTING CONCRETE DECKS, APPROACH SLABS, AND PORTIONS OF THE ABUTMENTS.
2.) MODIFY, REPAIR AND PATCH EXISTING SUBSTRUCTURE UNITS.
3.) RAISE THE SUPERSTRUCTURE.
4.) REPLACE THE EXISTING EXPANSION JOINTS.
5.) REPLACE EXISTING END CROSSFRAMES AT ALL ABUTMENT LOCATIONS SHOWN ON THE PLANS.
6.) REPAIR DAMAGED BEAM AT MAH-680-0637 (ONLY).
7.) ELIMINATE ALL SCUPPERS FROM BRIDGE.
8.) REPLACE APPROACH SLABS.
9.) REMOVE BEARINGS AT ALL ABUTMENT LOCATIONS. INSTALL NEW ELASTOMERIC BEARINGS.
10.) PLACE NEW CONCRETE DECK AND PARAPETS.
11.) INSTALL NEW LIGHT POLES ON MAH-680-0628 AND NEW VANDAL PROTECTION FENCING ON MAH-680-0637 (ONLY).
12.) SEAL CONCRETE SURFACES.
13.) CLEAN AND PAINT STRUCTURAL STEEL.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

DESCRIPTION: THIS WORK CONSISTS OF THE REMOVAL OF CONCRETE DECKS INCLUDING SIDEWALKS, PARAPETS, RAILINGS, DECK JOINTS AND OTHER APPURTENANCES FROM STEEL SUPPORTING SYSTEMS (BEAMS, GIRDERS, CROSS FRAMES, ETC.). THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. IN THIS RESPECT, THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE RAM TYPE OF EQUIPMENT IS PROHIBITED.

PROTECTION OF TRAFFIC: PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC ADJACENT TO AND/OR UNDER THE STRUCTURE TO THE DIRECTOR AT LEAST 30 DAYS BEFORE CONSTRUCTION BEGINS. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO ENSURE SUCH PROTECTION. MAINTAIN TEMPORARY VERTICAL CLEARANCES SPECIFIED ON THE PLANS OR IN THE PROPOSAL AT ALL TIMES EXCEPT AS OTHERWISE APPROVED BY THE DIRECTOR.

PROTECTION OF STEEL SUPPORTS SYSTEM: BEFORE DECK SLAB CUTTING IS PERMITTED, DRAW THE OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK ON THE SURFACE OF THE DECK. DRILL SMALL DIAMETER PILOT HOLES 2 INCHES OUTSIDE THESE LINES TO CONFIRM THE LOCATION OF FLANGE EDGES. DECK CUTS OVER OR WITHIN 2 INCHES OF FLANGE EDGES SHALL NOT EXTEND LOWER THAN THE BOTTOM LAYER OF DECK SLAB REINFORCING STEEL. CUTS MADE OUTSIDE 2 INCHES OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK . PERFORM WORK CAREFULLY DURING THE CUTTING OF THE DECK SLAB TO AVOID DAMAGING STEEL MEMBERS THAT ARE TO BE INCORPORATED INTO THE PROPOSED STRUCTURE.

REMOVAL METHODS: THE CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS OVER BRIDGE MEMBERS (STEEL BEAM), THE CONTRACTOR MAY USE A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS UNLESS APPROVED BY THE ENGINEER. REMOVAL METHODS OVER BRIDGE MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GOUGING THE PRIMARY STEEL MEMBERS.

DECK REMOVALS: DUE TO THE POSSIBLE PRESENCE OF WELDED ATTACHMENTS TO EXISTING STRUCTURAL STEEL (FINISHING MACHINE, SCUPPER AND FORM SUPPORTS, ETC.) PERFORM WORK CAREFULLY DURING DECK REMOVAL TO AVOID DAMAGING STRINGERS WHICH ARE TO REMAIN. REPLACE OR REPAIR STRINGERS DAMAGED BY THE REMOVAL OPERATIONS AT NO COST TO THE PROJECT. SUBMIT PROPOSED REPAIRS, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER, IN WRITING TO THE DIRECTOR AT LEAST 20 DAYS BEFORE PERFORMING REPAIR WORK.

EXTRANEOUS MEMBERS: REMOVE EXISTING EXTRANEOUS MEMBERS (i.e., FINISHING MACHINE AND FORM SUPPORTS, ETC., AND THE SUPPORT FOR SCUPPERS AND BULB ANGLES WHICH ARE TO BE REMOVED) ATTACHED BY WELDED CONNECTION TO THE DESIGNATED TENSION PORTIONS OF THE TOP FLANGES OF EXISTING STEEL MEMBERS AND GRIND THE FLANGE SURFACES SMOOTH. CAREFULLY GRIND PARALLEL TO THE FLANGES.

LOADING LIMITATIONS: NO PART OF THE STRUCTURE SHALL BE SUBJECTED TO UNIT STRESSES THAT EXCEED 136.5% OF ALLOWABLE UNIT STRESSES AS DEFINED IN THE "AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" DUE EITHER TO DEMOLITION, ERECTION OR CONSTRUCTION METHODS, OR TO THE USE OR MOVEMENT OF DEMOLITION OR ERECTION EQUIPMENT ON OR ACROSS THE STRUCTURE. SUBMIT STRUCTURAL ANALYSIS COMPUTATIONS, BY AN OHIO REGISTERED PROFFESIONAL ENGINEER, SHOWING THE ALLOWABLE STRESSES AND THE MAXIMUM STRESSES PRODUCED BY THE REMOVAL METHODS OR EQUIPMENT TO THE DIRECTOR FOR REVIEW AND APPROVAL AT LEAST 20 DAYS BEFORE CONSTRUCTION BEGINS.

MEASUREMENT & PAYMENT: THIS DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

CUT LINE CONSTRUCTION JOINT PREPARATION

SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

SUBSTRUCTURE CONCRETE REMOVAL

REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

MAINTENANCE OF TRAFFIC

MAH-680-0414 (STEEL STREET) AT THE PROJECT SITE, VEHICULAR AND PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AS SHOWN ON THE PLANS AT ALL TIMES DURING THE CONSTRUCTION PERIOD.

MAH-680-0628 AND MAH-680-0637 TRAFFIC SHALL BE DETOURED.

I-680 TRAFFIC WILL BE MAINTAINED ON INTERSTATE ROUTE 680 AT ALL TIMES EXCEPT AS PERMITTED FOR FALSEWORK, DECK REMOVAL, CROSSFRAME REPAIR AND INSTALLATION WITH A MINIMUM VERTICAL CLEARANCE OF 14'-0". FOR MAINTENANCE OF TRAFFIC NOTES AND DETAILS REFER TO THE ROADWAY PLANS, SEE SHEET 12 AND 13 FOR PERMITTED LANE CLOSURE.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

REVIEWED	DATE	DRAWN	DESIGNED	CHECKED
RER	05/28/04	CAG	NFF	BTA

STRUCTURE FILE NUMBER
REVISED

STRUCTURE GENERAL NOTES
BRIDGE No. MAH-680-0414/MAH-680-0628/MAH-680-0637

MAH-680-4.14/ 6.28/6.37

STRUCTURE GENERAL NOTES

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN

THE BACKFILL MATERIAL BEHIND THE ABUTMENTS SHALL BE TYPE B GRANULAR MATERIAL, 703.16.C PLACED AND COMPACTED IN 6 INCH LIFTS.

ITEM 509 - REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN

REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT REINFORCING STEEL BY THE NUMBER OF POUNDS ACCEPTED IN PLACE.

REPLACE ALL EXISTING REINFORCING STEEL BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY THE CONCRETE REMOVAL OPERATIONS WITH NEW EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE DEPARTMENT.

ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN

MAH-680-0628, MAH-680-0637 AND MAH-680-0414

ALL REQUIREMENTS OF 513 APPLY TO SHOP FABRICATED MEMBERS. PERFORM WORK FOR FIELD FABRICATED MEMBERS ACCORDING TO ITEM 513, EXCEPT AS MODIFIED HEREIN. THE DEPARTMENT WILL NOT REQUIRE THE CONTRACTOR PERFORMING FIELD FABRICATION TO BE PRE-QUALIFIED AS SPECIFIED IN SUPPLEMENT 1078. SUBMIT A WRITTEN LETTER OF MATERIAL ACCEPTANCE, 501.06, TO THE ENGINEER. PROVIDE SHOP DRAWINGS ACCORDING TO 513.06 AFTER COMPLETION OF FIELD FABRICATION. THE ENGINEER WILL REVIEW THE SUBMITTED DRAWINGS FOR CONCURRENCE WITH THE FINAL AS-BUILT CONDITIONS. IF NECESSARY, THE ENGINEER MAY CONTACT THE OFFICE OF STRUCTURAL ENGINEERING FOR TECHNICAL ASSISTANCE. IF THE ENGINEER IS SATISFIED WITH THE "AS-BUILT" DRAWINGS AND THE DELIVERED MATERIALS, SUPPLY A COPY OF THE DRAWINGS, STAMPED AND DATED, ALONG WITH MICROFILM, TO THE OFFICE OF STRUCTURAL ENGINEERING FOR RECORD PURPOSES.

THE FOLLOWING MEMBERS ARE INCLUDED IN THIS ITEM: BEARING PLATES, AND CROSSFRAMES.

ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN

THIS WORK CONSISTS OF RAISING OR RE-POSITIONING EXISTING STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS.

SUBMITTAL REQUIREMENTS: AN OHIO REGISTERED ENGINEER SHALL PREPARE, SEAL AND DATE PLANS FOR A JCKING SYSTEM, INCLUDE ANY TEMPORARY OR PERMANENT SUPPORTS, SUFFICIENT TO PERFORM THE WORK DESCRIBED IN THE PLANS. SUBMIT THREE SETS OF PLANS TO THE DIRECTOR FOR APPROVAL AT LEAST THIRTY (30) DAYS BEFORE ACTUAL WORK IS TO BEGIN.

JACKING SUBMITTALS SHALL INCLUDE AT LEAST THE FOLLOWING:

1.) THE SIGNATURE AND NUMBER, OR PROFESSIONAL SEAL, OF AN OHIO REGISTERED PROFFESIONAL ENGINEER WHO PREPARED THE SUBMITTAL.

2.) CALCULATIONS AND ANALYSES OF THE STRUCTURE TO DETERMINE AND DEFINE THE ACTUAL LOADING APPLIED AT THE JACKING POINTS.

3.) A DRAWING SHOWING THE PHYSICAL AND DIMENSIONAL POSITION OF THE JACKS WITH RESPECT TO THE STRUCTURE INCLUDING CLEARANCES AND CENTER OF LIFT.

4.) A SCHEMATIC LAYOUT OF JACKS, CHECK VALVES, PUMPS WITH 3 WAY RETRACTOR VALVE, PRESSURE GAGES, FLOW CONTROL VALVES, ETC. IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. ALL JACKS AT EACH ABUTMENT OR PIER SHALL BE THE SAME SIZE.

5.) ANALYSIS AND CALCULATIONS OF THE STRESSES INDUCED OR CREATED IN THE STRUCTURE AND ANY TEMPORARY OR PERMANENT SUPPORTS. DESIGN CALCULATIONS FOR ANY TEMPORARY OR PERMANENT SUPPORTS.

6.) PHYSICAL DIMENSIONS, MATERIALS, AND FABRICATION DETAILS OF ANY TEMPORARY OR PERMANENT SUPPORTS. HORIZONTAL AND VERTICAL MOVEMENT RESTRAINT SHALL BE PROVIDED.

7.) A STEP-BY-STEP PROCEDURE DETAILING ALL STEPS IN THE JACKING OPERATION.

8.) METHOD OF ATTACHMENT TO STRUCTURAL MEMBERS. WELDING TO TENSION AREAS WILL NOT BE PERMITTED.

JACKING SYSTEM REQUIREMENTS: THE ENTIRE SYSTEM INCLUDING JACKS SHALL HAVE 20% MORE CAPACITY THAN REQUIRED BASED ON CALCULATED LOADS. FOR LIFTS GREATER THAN 1 INCH, JACKS SHALL HAVE LOCKING NUTS TO POSITIVELY LOCK AND SUPPORT THE STRUCTURE DURING THE LIFT. JACKS SHALL HAVE A SWIVEL LOAD CAP, A DOMED PISTON HEAD OR SOME OTHER DEVICE TO PROTECT AGAINST THE EFFECTS OF SIDE LOAD ON THE JACK. DO NOT USE JACKS ALONE TO SUPPORT LOADS EXCEPT DURING THE ACTUAL JACKING OPERATION. USE TEMPORARY SUPPORTS, BLOCKING OR OTHER METHODS APPROVED BY THE DIRECTOR. DO NOT USE SINGLE ACTING RAMS WITH NO OVER-TRAVEL PROTECTION SYSTEM. HAVE SPARE EQUIPMENT AVAILABLE ON SITE IN ORDER TO PROCEED WITH THE JACKING IN THE EVENT OF BREAKDOWN. PROVIDE A LIST OF SPARE EQUIPMENT TO THE ENGINEER.

JACKING OPERATION REQUIREMENTS: AT A MINIMUM, A JACKING OPERATION SHALL LIFT ALL BEAMS AT ANY ONE ABUTMENT OR PIER SIMULTANEOUSLY. THE ONLY EXCEPTION IS THE SITUATION WHERE THE WORK INVOLVES REPLACING OR RE-HABILITATING INDIVIDUAL BEARINGS; NO PERMANENT SHIMMING IS REQUIRED AND THE HEIGHT OF THE LIFT SHALL NOT EXCEED 1/4 INCH. THE MAXIMUM DIFFERENTIAL JACKING HEIGHT BETWEEN ANY ADJACENT ABUTMENTS OR PIERS SHALL BE 1 INCH OR LESS. IF THIS 1 INCH LIMIT IS TO BE EXCEEDED, PROVIDE CALCULATIONS SHOWING THAT THE SUPERSTRUCTURE COMPONENTS WILL NOT BE TEMPORARIALY STRESSED BEYOND ALLOWABLE STRESSES AND THAT NO PERMANENT STRESSES WILL BE INDUCED IN THE COMPONENTS AFTER THEY OBTAIN THEIR FINAL POSITION. IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPERATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH ODOT'S PROPOSAL NOTE "CONCRETE REPAIR BY EPOXY INJECTION". THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS.

METHOD OF MEASUREMENT: THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS.

BASIS OF PAYMENT: THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516 - JACKING AND TEMPORAY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

ITEM 526 - REINFORCED CONCRETE APPROACH SLAB, T =15 INCHES, AS PER PLAN

CONCRETE FOR THIS ITEM SHALL BE CLASS QC/QA CONCRETE, CLASS QSC2. THIS ITEM SHALL INCLUDE ALL WORK AND MATERIALS NECESSARY TO CONSTRUCT THE PROPOSED APPROACH SLAB WITH PARAPETS, TRANSITION PARAPETS AND CURBING.

ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN

PRIOR TO THE SURFACE CLEANING SPECIFIED IN 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING.

UTILITY LINES

ALL EXPENSE INVOLVED IN RELOCATION (INSTALLING) THE AFFECTED UTILITY LINES SHALL BE BORNE BY THE UTILITY(IES). THE CONTRACTOR AND UTILITY(IES) ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

ITEM 514 - FIELD PAINTING OF EXISTING STRUCTURAL STEEL

THE COLOR OF THE FINISH COAT SHALL BE A BLUE COLOR MEETING FEDERAL STANDARD NUMBER 15450. IN ADDITION TO THE SURFACE AREA OF THE STEEL BEAMS TO BE PAINTED, AN ADDITIONAL FIFTEEN PERCENT OF THIS AMOUNT HAS BEEN ADDED TO THE SQUARE FOOT TOTALS TO ACCOUNT FOR INCIDENTALS SUCH AS CROSS FRAMES AND BEARINGS.

PAINTING OF 513 STEEL

THE NEW STEEL SHALL ALSO BE PREPARED AND PAINTED PER SPECIFICATION 514 IN THE FIELD AS IF IT WERE EXISTING STEEL. QUANTITIES AND PAYMENT FOR THIS WORK IS INCLUDED IN THE SQUARE FOOT UNIT PRICE BID ITEM 514.

INSPECTION OF EXISTING STRUCTURAL STEEL

THE ENGINEER WILL VISUALLY INSPECT ALL EXISTING BUTT-WELDED SPLICES AND/OR TOP FLANGE COVER PLATE FILLET WELDS TO ENSURE THE WELDS, PLATES AND BEAMS OR GIRDERS ARE FREE OF DEFECTS AND CRACKS. IF NECESSARY, REMOVE ALL DECK SLAB HAUNCH FORMS IMMEDIATELY ADJACENT TO SUCH WELDS THAT MAY INTERFERE WITH THE ENGINEER'S INSPECTION. THE INSPECTION WILL NOT TAKE PLACE UNTIL THE TOP FLANGES ARE CLEANED ACCORDING TO 511.10, BUT IT WILL BE DONE BEFORE THE DECK SLAB REINFORCEMENT IS INSTALLED. THE DEPARTMENT WILL PAY FOR THE COST ASSOCIATED WITH THIS INSPECTION WITH ITEM 511, SUPERSTRUCTURE CONCRETE. THE ENGINEER WILL REPORT ALL CRACKS FOUND TO THE OFFICE OF CONSTRUCTION ADMINISTRATION, BRIDGE CONSTRUCTION SPECIALIST, ALONG WITH SPECIFIC INFORMATION ON LOCATION OF THE CRACKS, LENGTH, AND DEPTH SO AN EVALUATION AND REPAIR OR REPLACEMENT RECOMMENDATION CAN BE MADE.

MECHANICAL CONNECTORS

AN APPROVED TYPE OF MECHANICAL CONNECTOR FOR REINFORCING BARS SHALL BE PROVIDED. INSTALLATION OF CONNECTORS SHALL CONFORM WITH MANUFACTURER'S PROCEDURES. ALL MECHANICAL CONNECTORS SHALL BE EPOXY COATED. COATING FOR BOTH CONNECTORS AND BARS SHALL CONFORM TO THE SAME SPECIFICATIONS. CONNECTORS SHALL CONFORM TO ITEM 509 AND SHALL BE CONSIDERED INCIDENTAL TO THE BID PRICE FOR ITEM 509.

CONCRETE PARAPET SAWCUT JOINTS

MAH-680-0628, MAH-680-0637 AND MAH-680-0414

AS SOON AS A CONCRETE SAW CAN BE OPERATED WITHOUT DAMAGING THE FRESHLY PLACED CONCRETE, SAWCUT 1 1/4" DEEP CONTROL JOINTS INTO THE PERIMETER OF THE CONCRETE PARAPET STARTING AND ENDING AT THE ELEVATION OF THE CONCRETE DECK. PLACE THE SAWCUTS AT A MINIMUM OF 6 FEET AND A MAXIMUM OF 10 FEET CENTERS. USE AN EDGE GUIDE, FENCE, OR JIG TO ENSURE 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 1/4 INCH. SEAL THE PERIMETER OF THE DEFLECTION CONTROL JOINT TO A MINIMUM DEPTH OF 1 INCH WITH A POLTURETHANE OR POLYMERIC MATERIAL CONFORMING TO ASTM C920, TYPE S. LEAVE THE BOTTOM 1/2 INCH OF THE INSIDE AND OUTSIDE FACE UNSEALED TO ALLOW WATER TO ESCAPE.

ASBESTOS NOTIFICATION

AN ASBESTOS SURVEY OF STEEL STREET OVER I-680 (MAH-680-0414), RAMP FROM SOUTHBOUND I-680 TO EASTBOUND U.S. 62 (MAH-680-0628), AND WAYNE/PYATT STREET OVER I-680 (MAH-680-0637) BRIDGE STRUCTURES WAS CONDUCTED BY A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST. THE SURVEY DETERMINED THAT NO ASBESTOS IS PRESENT ON THE BRIDGES.

A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OPEA) NOTIFICATION OF THE DEMOLITION AND RENOVATION FORM, PARTIALLY COMPLETED AND SIGNED BY THE BRIDGE OWNER, WILL BE PROVIDED TO THE SUCCESSFUL BIDDER. THE CONTRACTOR SHALL COMPLETE THE FORM AND SUBMIT IT TO:

MAHONING-TRUMBELL AIR POLLUTION CONTROL
OAK HILL/RENAISSANCE PLACE
SECOND FLOOR, ROOM 25
345 OAK HILL AVENUE
YOUNGSTOWN, OHIO 44502
ROBERT RAMHOFF, DIRECTOR
(330) 744-1928
FAX: (330) 744-1928

AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF THE DEMOLITION OF THE BRIDGE. THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED FORM TO THE ENGINEER. INFORMATION REQUIRED ON THE FORM WILL INCLUDE:

1.) THE CONTRACTOR'S NAME AND ADDRESS.

2.) THE SCHEDULED DATES FOR THE START AND COMPLETION OF THE BRIDGE REMOVAL.

3.) A DESCRIPTION OF THE PLANNED DEMOLITION WORK AND THE METHOD(S) TO BE USED.

A COPY OF THE OPEA FORM IS AVAILABLE FOR INSPECTION AT THE ODOT DISTRICT 4 OFFICE, 2088 SOUTH ARLINGTON STREET, AKRON, OHIO 44306.

BASIS FOR PAYMENT: THE CONTRACTOR SHALL FURNISH ALL FEES, LABOR, AND MATERIAL NECESSARY TO COMPLETE AND SUBMIT THE OPEA NOTIFICATION FORM. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

REVIEWED RER DATE 05/28/04
STRUCTURE FILE NUMBER
DRAWN CAG REVISED
DESIGNED NFF CHECKED BTA

STRUCTURE GENERAL NOTES
BRIDGE No. MAH-680-0414/MAH-680-0628/MAH-680-0637

MAH-680-4.14/6.28/6.37

G2/3

STRUCTURE GENERAL NOTES

ITEM 601 - SLOPE PROTECTION, MISC.: REPAIR/REPLACEMENT OF EXISTING CONCRETE SLOPE PROTECTION

MAH-680-0628 AND MAH-680-0637

REPAIR/REPLACE ALL EXISTING AREAS DEEMED BY THE ENGINEER TO BE IN NEED OF REPAIR. ALL REPLACEMENT WORK SHALL BE DONE ACCORDING TO ITEM 601 OF THE CMS. THE DEPARTMENT WILL MEASURE THE REPLACEMENT AREA BY THE NUMBER OF SQUARE YARDS ACCEPTED IN PLACE.

ITEM 864 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

THE CONCRETE SEALING MATERIAL SHALL BE THE "LIGHT NEUTRAL" COLOR MEETING THE FEDERAL COLOR STANDARD NO. 17778 AS PER THE DETAILS ON THE PLANS.

INDEX OF SHEETS

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
NFF	CAG	RER	05/28/04
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BTA			

STRUCTURE GENERAL NOTES
BRIDGE No. MAH-680-0414/MAH-680-0628/MAH-680-0637

MAH-680-4.14/6.28/6.37

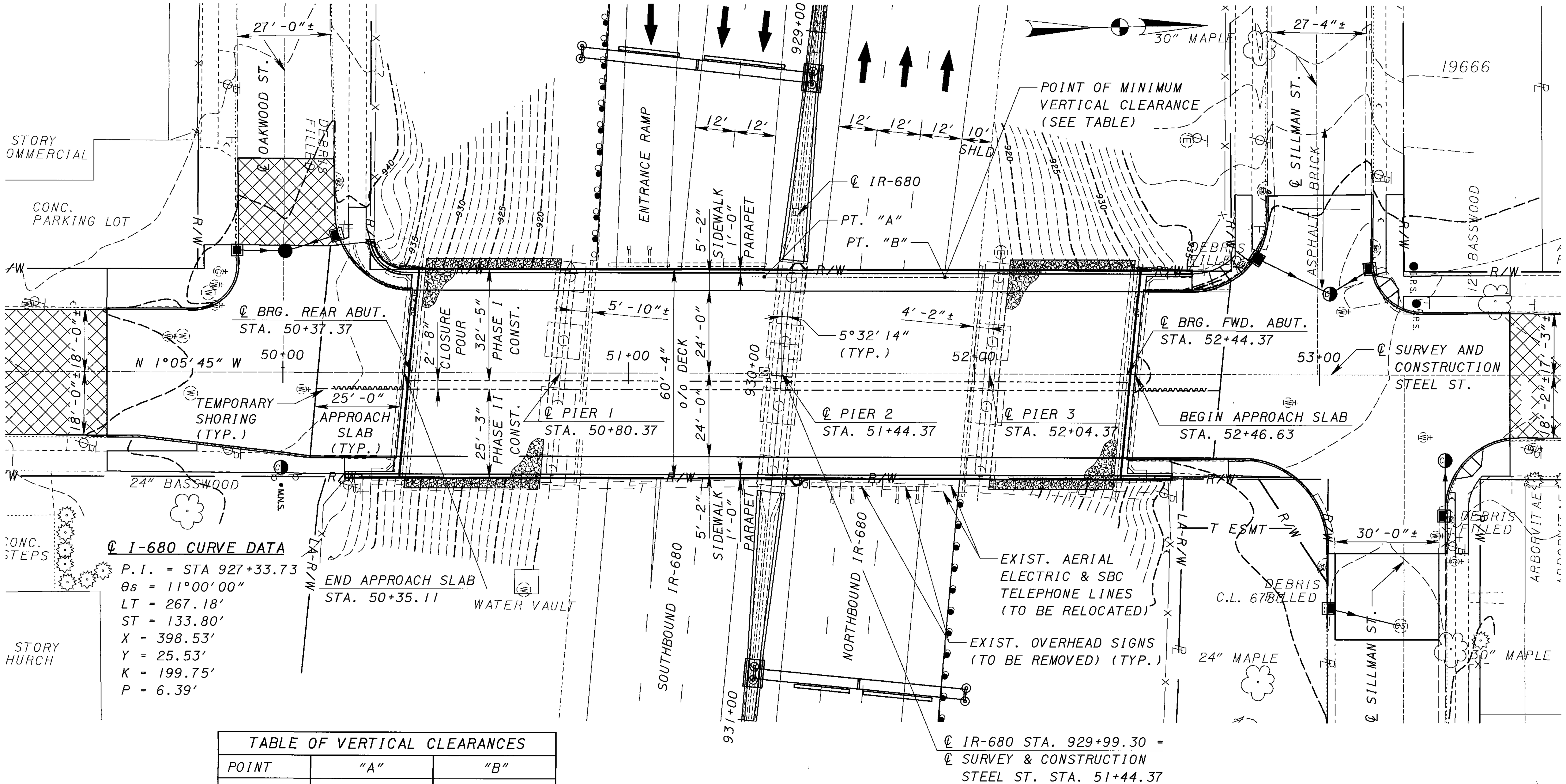
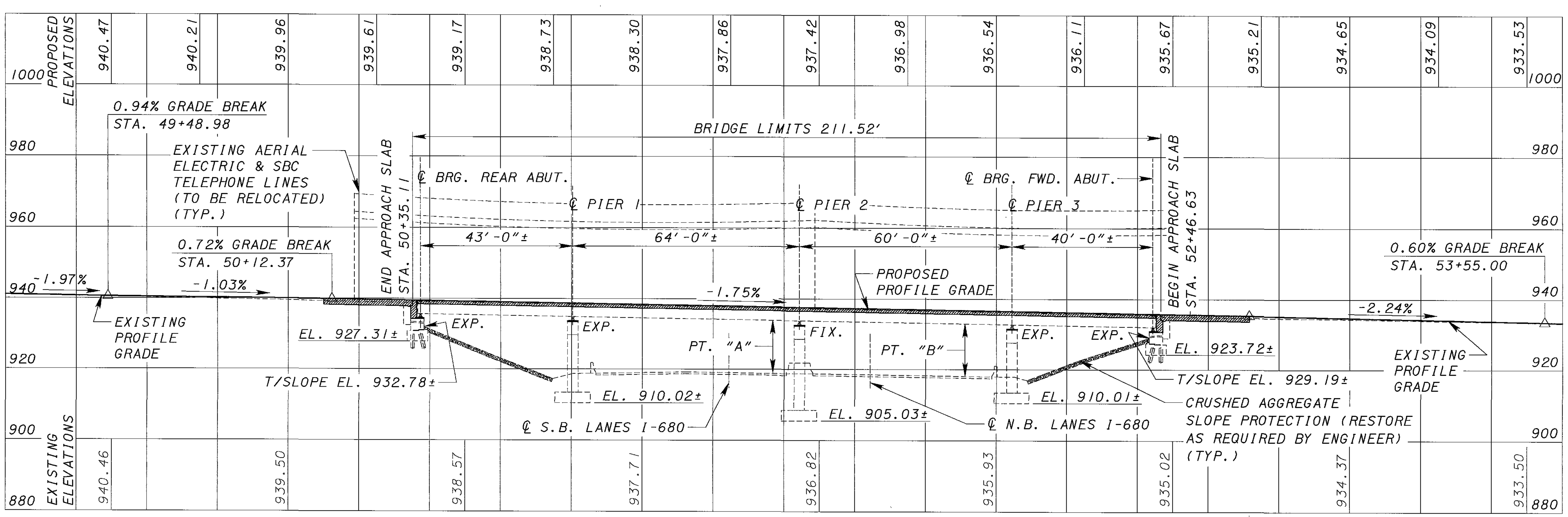


TABLE OF VERTICAL CLEARANCES		
POINT	"A"	"B"
EXISTING	15.04'	14.65'
PROPOSED	15.85'	15.50'
REQUIRED	15.50'	15.50'

PLAN



PROFILE ALONG ℄ SURVEY AND CONSTRUCTION STEEL STREET

BENCHMARK 1
TOP OF IRON PIN SET @ STA. 49+02, 22.4' RT. EL. 941.51
BENCHMARK 2
TOP OF IRON PIN SET @ STA. 53+28, 22.0' LT. EL. 934.11

TRAFFIC DATA
STEEL STREET
CURRENT YEAR (2005) = 3,410 ADT
DESIGN YEAR (2025) = 3,570 ADT
TRUCKS = 4%

EXISTING STRUCTURE

TYPE: 4 SPAN CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE
SPANS: 43'-0"±, 64'-0"±, 60'-0"±, 40'-0"± c/c BRGS
ROADWAY: 48'-0" f/f CURBS, 5'-0" SIDEWALK ON BOTH SIDES
LOADING: CF 2000 - ADEQUATE FOR AASHO ALTERNATE LOADING
SKEW: 5°32'14" L.F.
ALIGNMENT: TANGENT
WEARING SURFACE: 1" MONOLITHIC CONCRETE
APPROACH SLABS: AS-1-54 (25'-0" LONG)
DATE BUILT: 1963
STRUCTURE FILE No.: 5006813

PROPOSED STRUCTURE

PROPOSED WORK: REPLACE EXISTING DECK WITH NEW DECK, MADE COMPOSITE WITH EXISTING BEAMS, REPLACE IMPACT DAMAGED BEAMS A AND B AND CROSS FRAMES, REBUILD ABUTMENT BACKWALLS AND REPLACE EXPANSION JOINTS AND BEARINGS, RAISE SUPERSTRUCTURE, PATCH EXISTING SUBSTRUCTURE.
TYPE: 4 SPAN CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE
SPANS: 43'-0"±, 64'-0"±, 60'-0"±, 40'-0"± c/c BRGS
ROADWAY: 48'-0" f/f CURBS, 5'-2" SIDEWALK ON BOTH SIDES
LOADING: HS-25 (CASE II) AND ALTERNATE MILITARY LOADING FWS = 60 LBS/FT^2
SKEW: 5°32'14" L.F.
ALIGNMENT: TANGENT
CROWN: 0.0156
WEARING SURFACE: 1" MONOLITHIC CONCRETE
APPROACH SLABS: AS-1-81 (25'-0" LONG)
LATITUDE: N 41°06'19"
LONGITUDE: W 80°40'58"

NOTES:

1. ALL SHEETS WITH PLAN DIMENSIONS ARE SHOWN HORIZONTAL.
2. EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
3. THE PROPOSED PROFILE GRADE IS WITHIN BRIDGE LIMITS. SEE ROADWAY PLANS FOR PAVEMENT ELEVATIONS BEYOND BRIDGE LIMITS.
4. ABBREVIATIONS:

TYP. - TYPICAL	PT. - POINT
BRG. - BEARING	N.B. - NORTHBOUND
ABUT. - ABUTMENT	S.B. - SOUTHBOUND
EL. - ELEVATION	FWD. - FORWARD
STA. - STATION	EXIST. - EXISTING
FIX. - FIXED	CONST. - CONSTRUCTION
	EXP. - EXPANSION

DESIGN AGENCY
TRANSYSTEMS CORPORATION
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CLEVELAND, OHIO 44113-1901

REVIEWED RER | DATE 05/28/04 | STRUCTURE FILE NUMBER 5006813
DRAWN BTA | REVISED
DESIGNED BTA | CHECKED NFF

MAHOHING COUNTY
STA. 50+35.11
STA. 52+46.63

SITE PLAN
BRIDGE NO. MAH-680-0414
STEEL STREET OVER IR-680

MAH-680-4.14/6.28/6.37

MADE BY: BTA DATE: 3/18/04
CHECK'D BY: MLR DATE: 5/18/04

ESTIMATED QUANTITIES

STRUCTURE FILE NUMBER: 5006813

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	REAR ABUTMENT	FORWARD ABUTMENT	PIERS	SUPERSTRUCTURE	GENERAL	AS PER PLAN REFERENCE SHEET NUMBER
202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					LUMP	G1/3
202	22901	287	SQ.YD.	APPROACH SLAB REMOVED, AS PER PLAN					287	1/28
503	11100	LUMP		COFFERDAMS, CRIBS AND SHEETING					LUMP	
503	21101	379	CU.YD.	UNCLASSIFIED EXCAVATION, AS PER PLAN	200	179				G2/3
509	10000	133426	POUND	EPOXY COATED REINFORCING STEEL	8318	8100	9543	107465		
509	20001	300	POUND	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN					300	G2/3
510	10000	1520	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	404	402	714			
512	33000	4	SQ.YD.	TYPE 2 WATERPROOFING	2	2				
513	10200	8396	POUND	STRUCTURAL STEEL MEMBERS, LEVEL UF				8396		
513	10260	56769	POUND	STRUCTURAL STEEL MEMBERS, LEVEL 3				56769		
513	20000	5262	EACH	WELDED STUD SHEAR CONNECTOR				5262		
514	00050	13472	SQ.FT.	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL (SEE PROPOSAL NOTE)				13472		
514	00056	13472	SQ.FT.	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT (SEE PROPOSAL NOTE)				13472		
514	00060	17851	SQ.FT.	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT (SEE PROPOSAL NOTE)				17851		
514	00066	17851	SQ.FT.	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT (SEE PROPOSAL NOTE)				17851		
514	00504	25	MAN HOUR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL (SEE PROPOSAL NOTE)				25		
514	10000	9	EACH	FINAL INSPECTION REPAIR (SEE PROPOSAL NOTE)				9		
516	11211	118	FT.	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN	59	59				24/28
516	44000	18	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES (NEOPRENE) (7"x11½"x1.45")	9	9				
				AND LOAD PLATE (8"x12½"x1.75")						
516	44000	18	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES (NEOPRENE) (10½"x17"x2.05")			18			
				AND LOAD PLATE (11½"x18"x2.50")						
516	44100	9	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES (NEOPRENE) (10"x16"x1.83")			9			
				AND LOAD PLATE (11"x22"x2.50")						
516	47001	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN					LUMP	G2/3
518	21200	70	CU.YD.	POROUS BACKFILL WITH FILTER FABRIC	36	34				
518	40000	139	FT.	6" PERFORATED CORRUGATED PLASTIC PIPE	70	69				
518	40010	54	FT.	6" NON - PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	27	27				
519	11101	75	SQ.FT.	PATCHING CONCRETE STRUCTURES, AS PER PLAN	2	22	51			G2/3
526	25001	289	SQ.YD.	REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN	151	138				G2/3
601	21100	214	SQ.YD.	SLOPE PROTECTION, MISC.: RESTORE EXISTING CRUSHED AGGREGATE PROTECTION	87	127				
SPECIAL	607E39930	459	FT.	VANDAL PROTECTION FENCE, 12' CURVED, COATED FABRIC				459		
846	73000	115	SQ.YD.	TREATING CONCRETE BRIDGE DECKS WITH HMWM RESIN				109	6	
864	10050	305	SQ.YD.	SEALING OF CONCRETE SURFACES (NON-EPOXY)				305		
864	10100	970	SQ.YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	96	93	371	410		
898	10200	349	CU.YD.	QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (DECK)				349		
898	11000	113	CU.YD.	QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (PARAPET) (*)				113		
898	20000	112	CU.YD.	QC/QA CONCRETE, CLASS QSC1, SUBSTRUCTURE	41	40	31			

* - INCLUDES SIDEWALK

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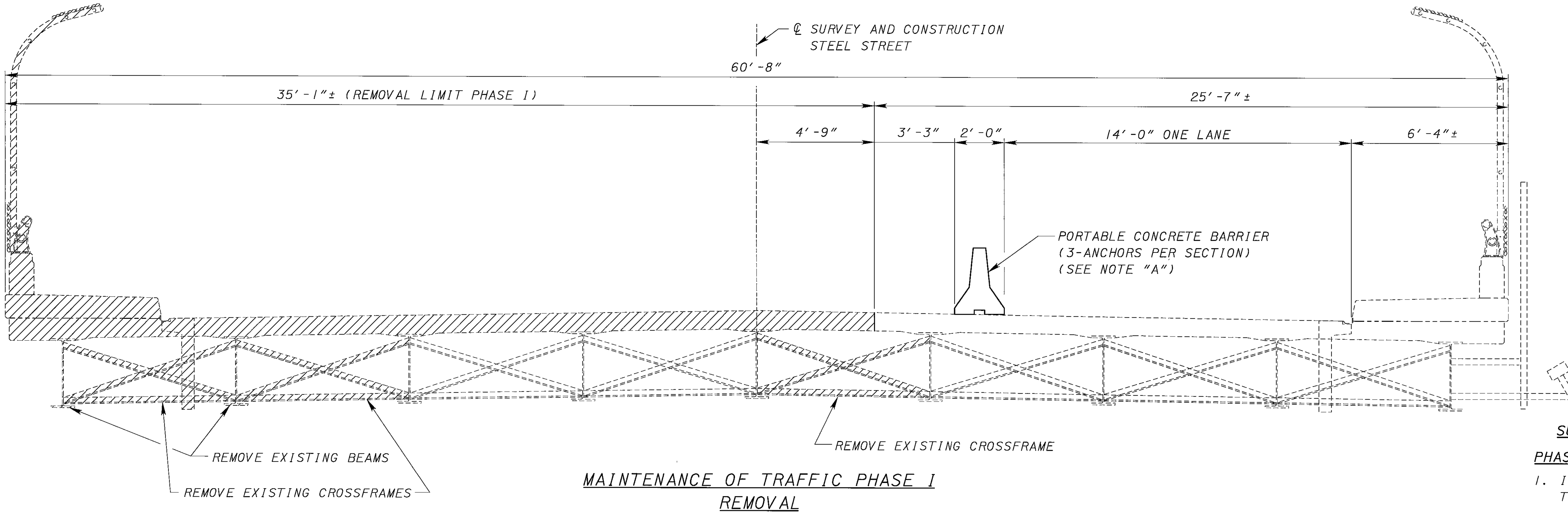
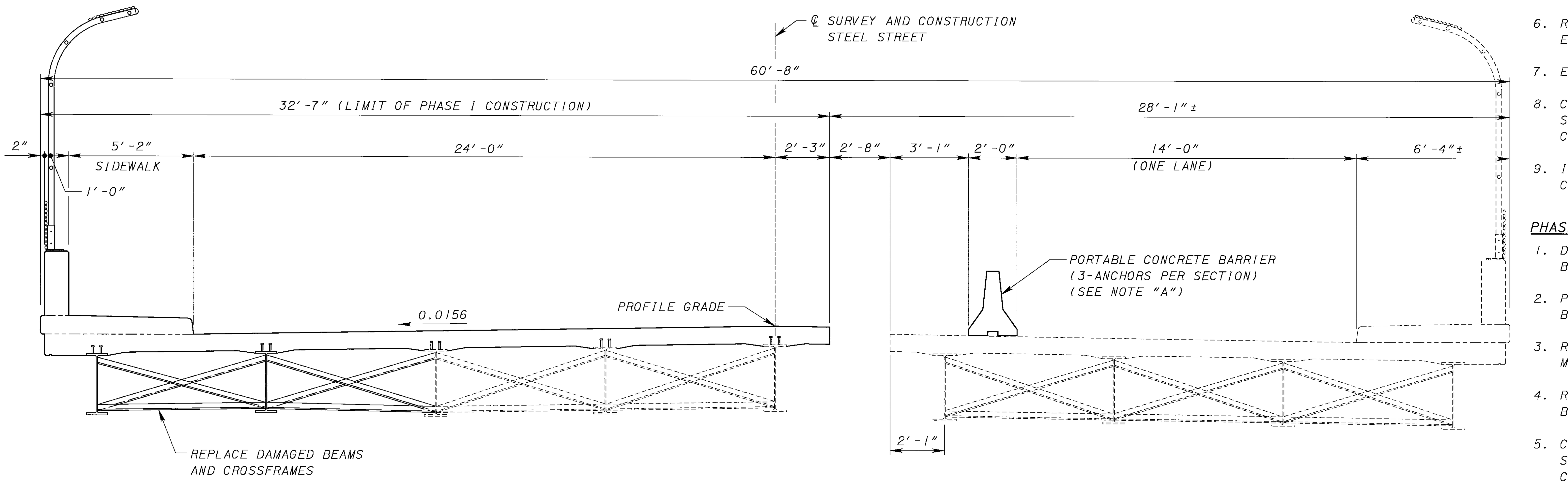
ESTIMATED QUANTITIES
BRIDGE NO. MAH-680-0414
STEEL STREET OVER IR-680

MAH-680-4.14/6.28/6.37



MAINTENANCE OF TRAFFIC PHASE I
REMOVAL

NOTE "A": ALL BARRIER SEGMENTS SHALL BE FASTENED TO THE BRIDGE DECK USING ONE INCH DIAMETER HIGH STRENGTH THROUGH BOLTS OR APPROVED RESIN ANCHORS. WHEN RESIN ANCHORS ARE USED THEY MUST BE EMBEDDED A MINIMUM OF 6½" INTO FIRM CONCRETE. ALL ANCHORS SHALL BE PLACED SYMMETRICAL ABOUT THE CENTER OF EACH SUPPORT.



MAINTENANCE OF TRAFFIC PHASE I
NEW CONSTRUCTION

LEGEND

— INDICATES AREAS TO BE REMOVED AS PER ITEM 202 - PORTION OF STRUCTURES REMOVED, AS PER PLAN

SUGGESTED CONSTRUCTION SEQUENCE:

PHASE I

1. INSTALL PORTABLE CONCRETE BARRIER AS SHOWN ON THE PLANS.
2. DIRECT TRAFFIC TOWARD EASTERLY PORTION OF THE BRIDGE.
3. PROVIDE FOR ONE LANE OF TRAFFIC ACROSS THE BRIDGE USING SIGNALIZED CLOSING.
4. REMOVE EXISTING DECK TO THE LIMIT SHOWN IN MAINTENANCE OF TRAFFIC PHASE I REMOVAL.
5. REMOVE EXISTING BEAMS AND CROSSFRAMES AT LOCATIONS SHOWN ON THE PLANS.
6. REPLACE EXISTING BEARINGS AND RESET EXISTING BEAMS TO NEW ADJUSTED PROFILE.
7. ERECT NEW BEAMS.
8. CONSTRUCT NEW DECK, SIDEWALK AND PARAPET AS SHOWN ON MAINTENANCE OF TRAFFIC PHASE I NEW CONSTRUCTION.
9. INSTALL PORTABLE CONCRETE BARRIER ON THE NEWLY CONSTRUCTED WORK.

PHASE II

1. DIRECT TRAFFIC TOWARD WESTERLY PORTION OF THE BRIDGE.
2. PROVIDE FOR TWO LANES OF TRAFFIC ACROSS THE BRIDGE (ONE LANE EACH WAY).
3. REMOVE EXISTING DECK TO THE LIMIT SHOWN IN MAINTENANCE OF TRAFFIC PHASE II REMOVAL.
4. REPLACE EXISTING BEARINGS AND RESET EXISTING BEAMS TO NEW ADJUSTED PROFILE.
5. CONSTRUCT NEW DECK, SIDEWALK AND PARAPET AS SHOWN ON MAINTENANCE OF TRAFFIC PHASE II NEW CONSTRUCTION.
6. MAKE CLOSURE BAY NEW CROSSFRAME CONNECTIONS. PLACE CLOSURE SECTION DECK CONCRETE. REWORK APPROACH ROADWAY AS REQUIRED.
7. SEAL LONGITUDINAL JOINT WITH HIGH MOLECULAR WEIGHT METHACRYLATE (HMWM).
8. RESUME NORMAL TRAFFIC.

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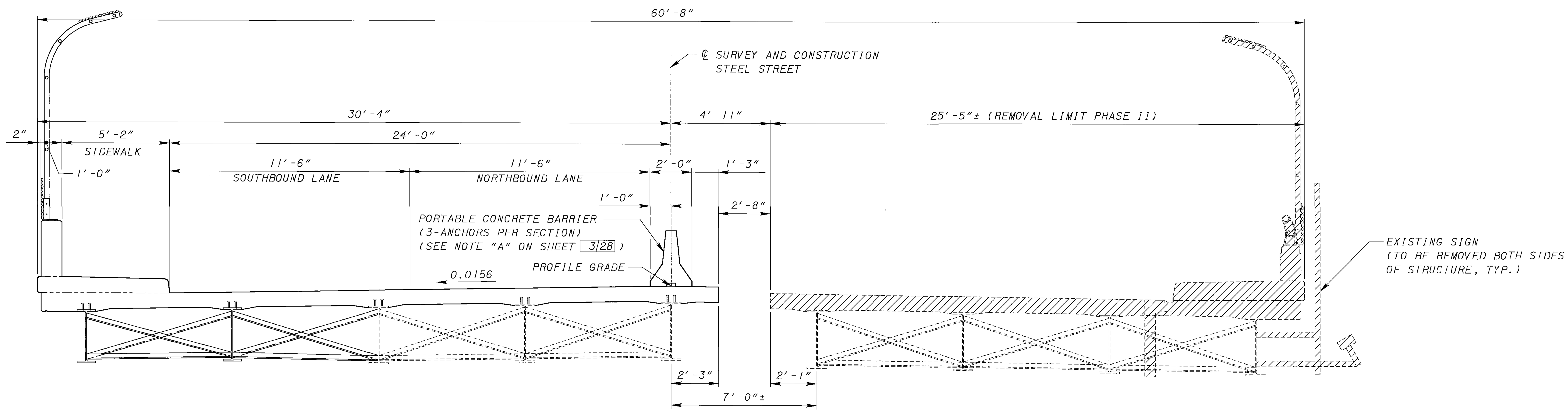
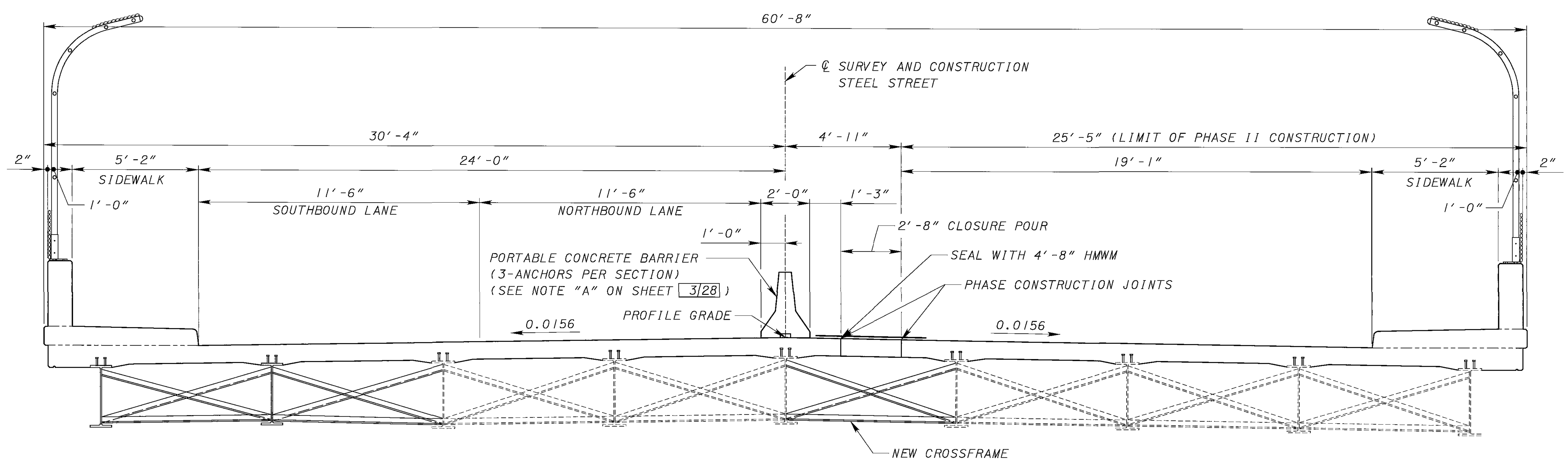
PHASE CONSTRUCTION DETAILS - PHASE I
BRIDGE NO. MAH-680-0414
STEEL STREET OVER IR-680

MAH-680-4.14/6.28/6.37



MAINTENANCE OF TRAFFIC PHASE II
REMOVAL



MAINTENANCE OF TRAFFIC PHASE II
NEW CONSTRUCTION

NOTES:

1. FOR SEQUENCING NOTES SEE SHEET 3/28.

LEGEND

— INDICATES AREAS TO BE REMOVED AS PER ITEM 202 - PORTION OF STRUCTURES REMOVED, AS PER PLAN

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55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

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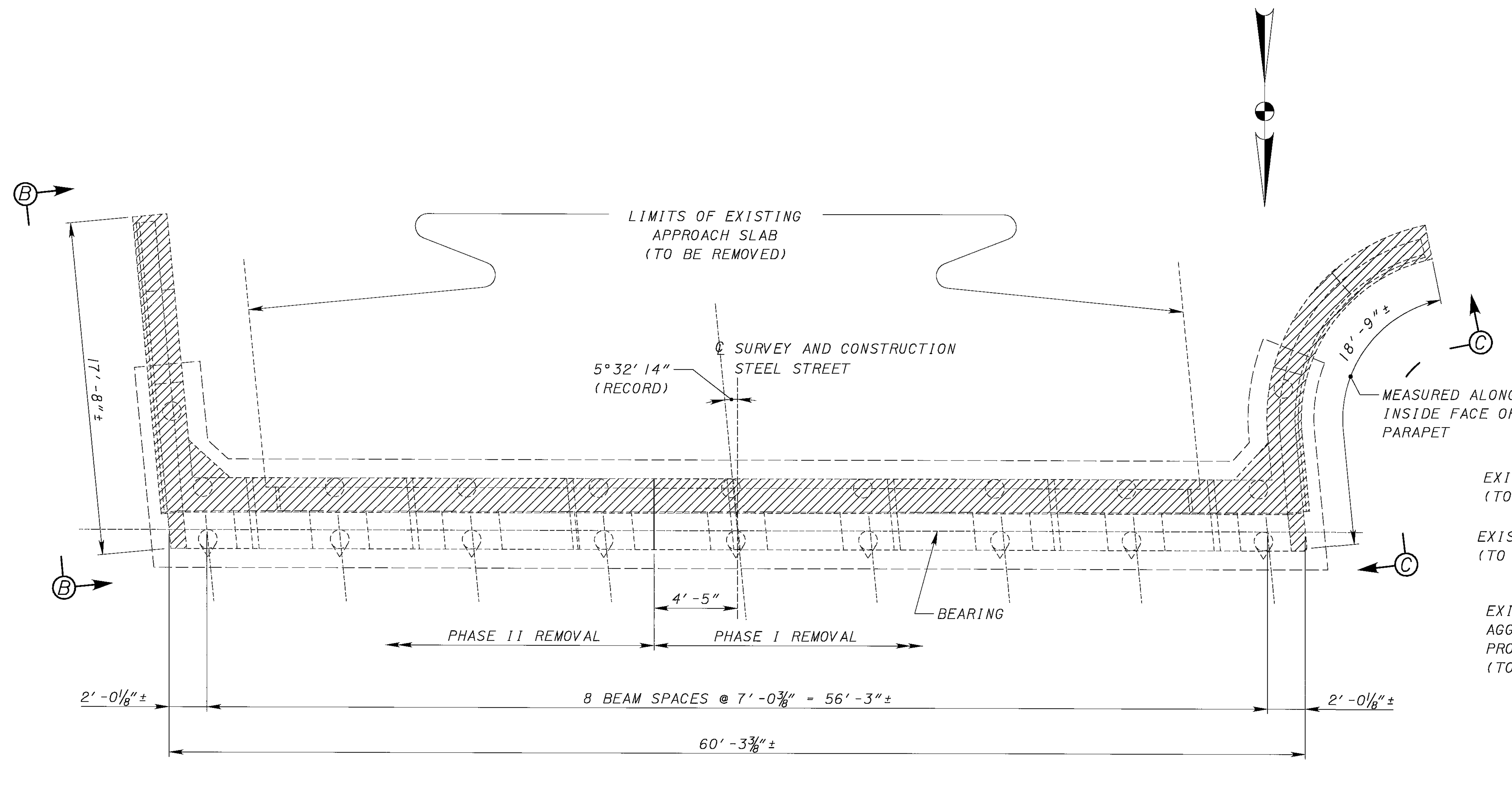
PHASE CONSTRUCTION DETAILS - PHASE II
BRIDGE NO. MAH-680-0414
STEEL STREET OVER IR-680

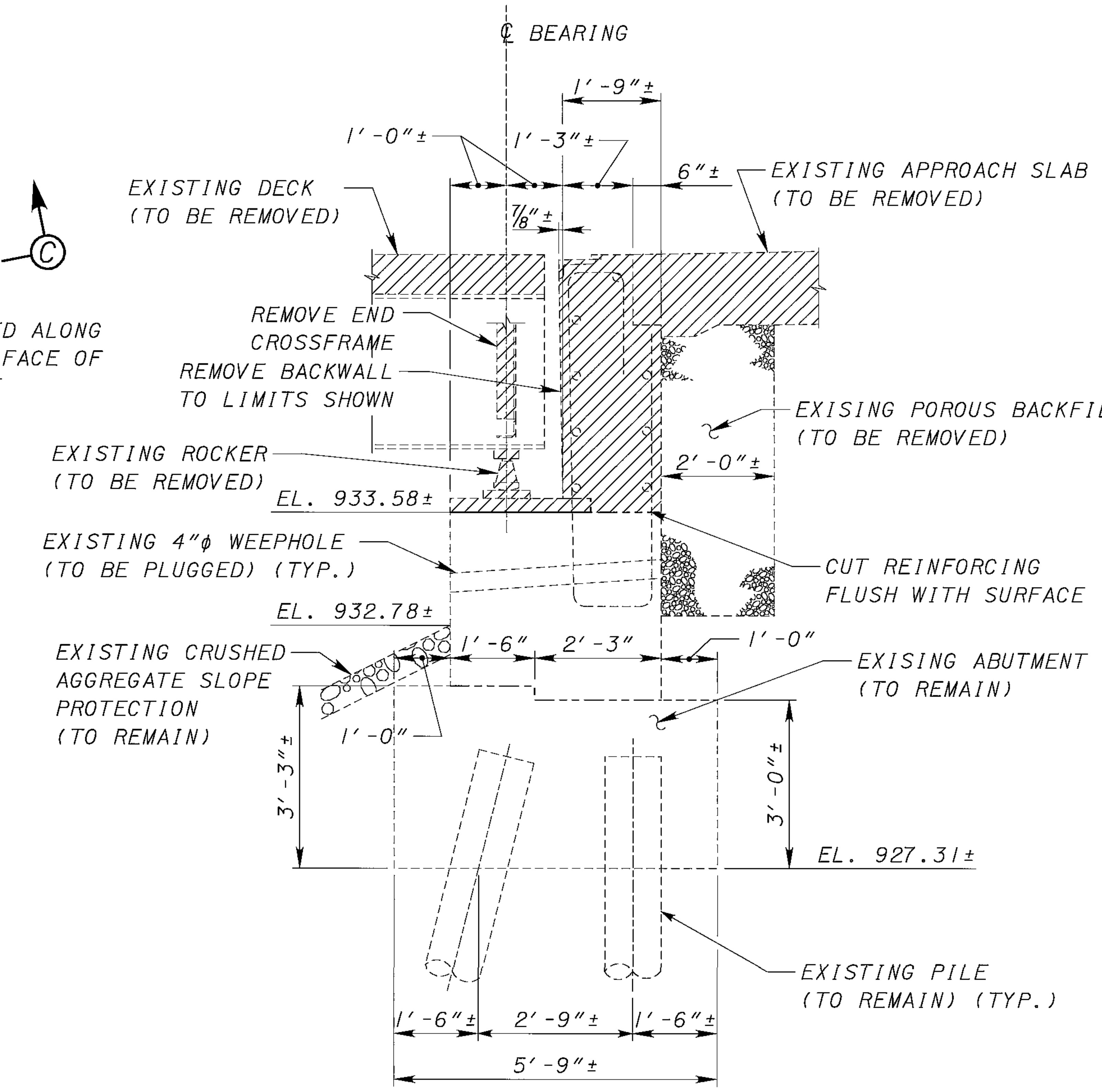
MAH-680-4.14/
6.28/6.37

4/28

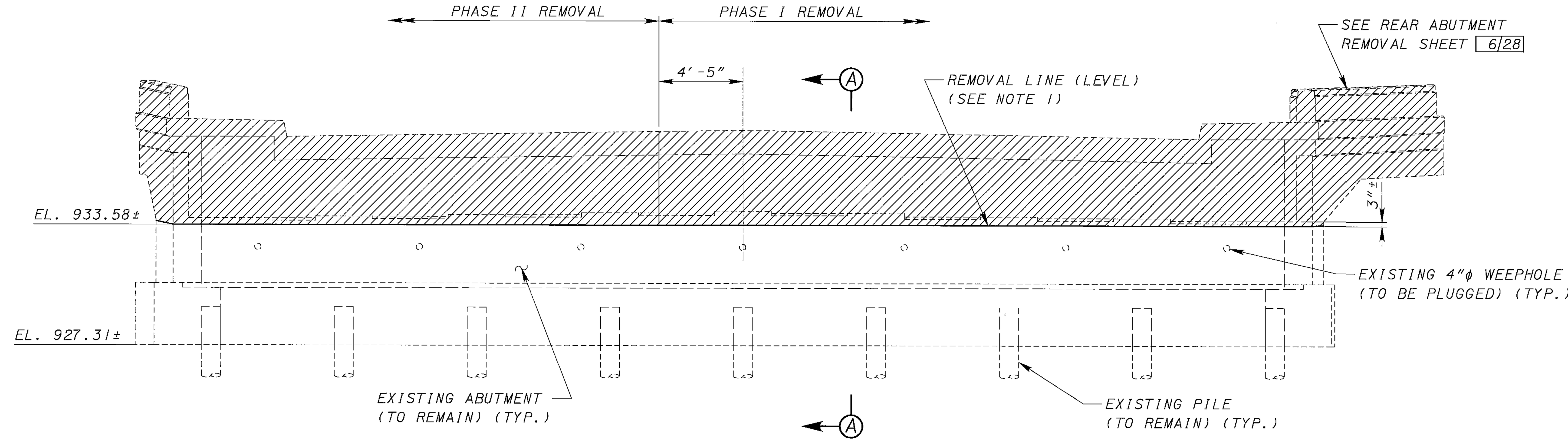
101/191



PLAN



SECTION A-A



ELEVATION

LEGEND:

▨ — INDICATES AREAS TO BE REMOVED AS PER ITEM 202 - PORTIONS OF STRUCTURES REMOVED, AS PER PLAN

NOTES:

1. PREPARE AND SCARIFY SURFACE AS PER "CUT LINE CONSTRUCTION JOINT PREPARATION", SEE GENERAL NOTE SHEET G1/3.

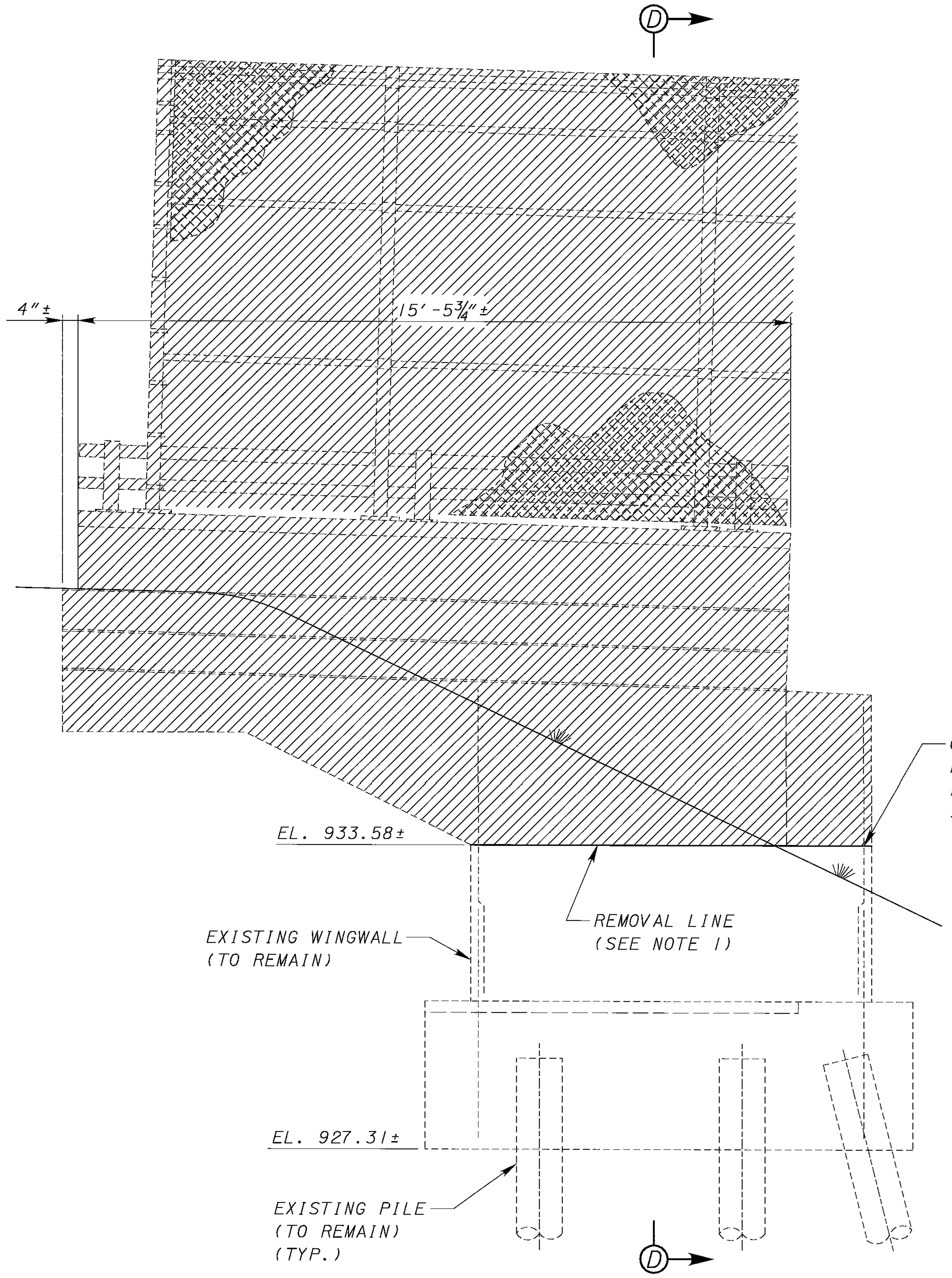
2. FOR ELEVATION B-B AND C-C, SEE SHEET 6/28.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

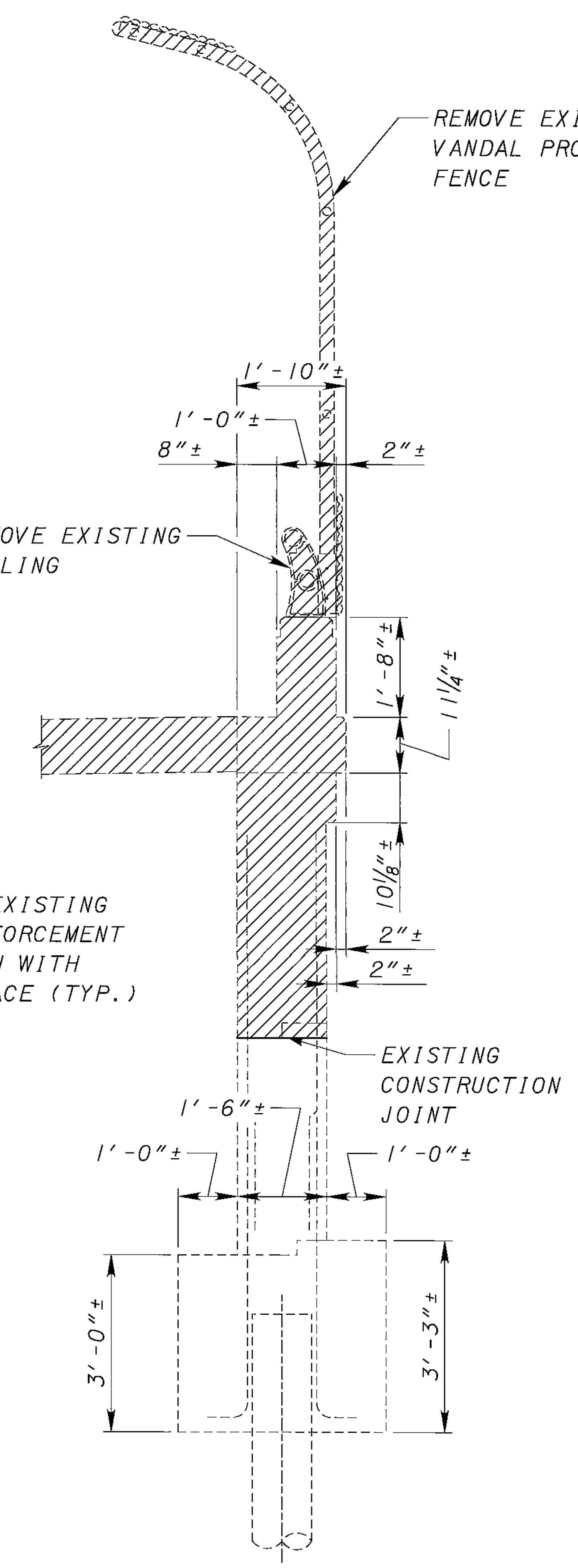
DESIGNED	DRAWN	REVIEWED	DATE
BTA	BTA	RER	05/28/04
CHECKED	REVISED	STRUCTURE FILE NUMBER	
MLR		5006813	

REAR ABUTMENT REMOVAL DETAILS
BRIDGE NO. MAH-680-0414
STEEL STREET OVER IR-680

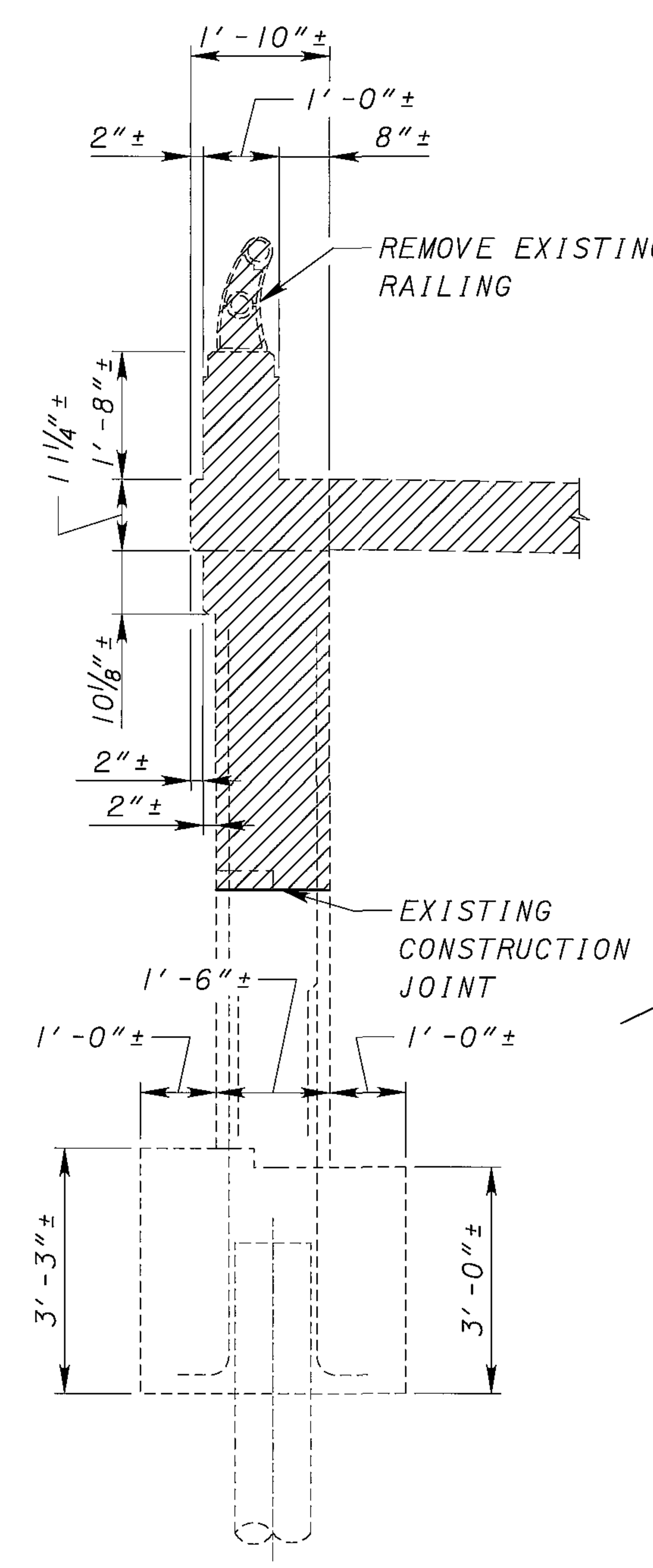
MAH-680-4.14/6.28/6.37



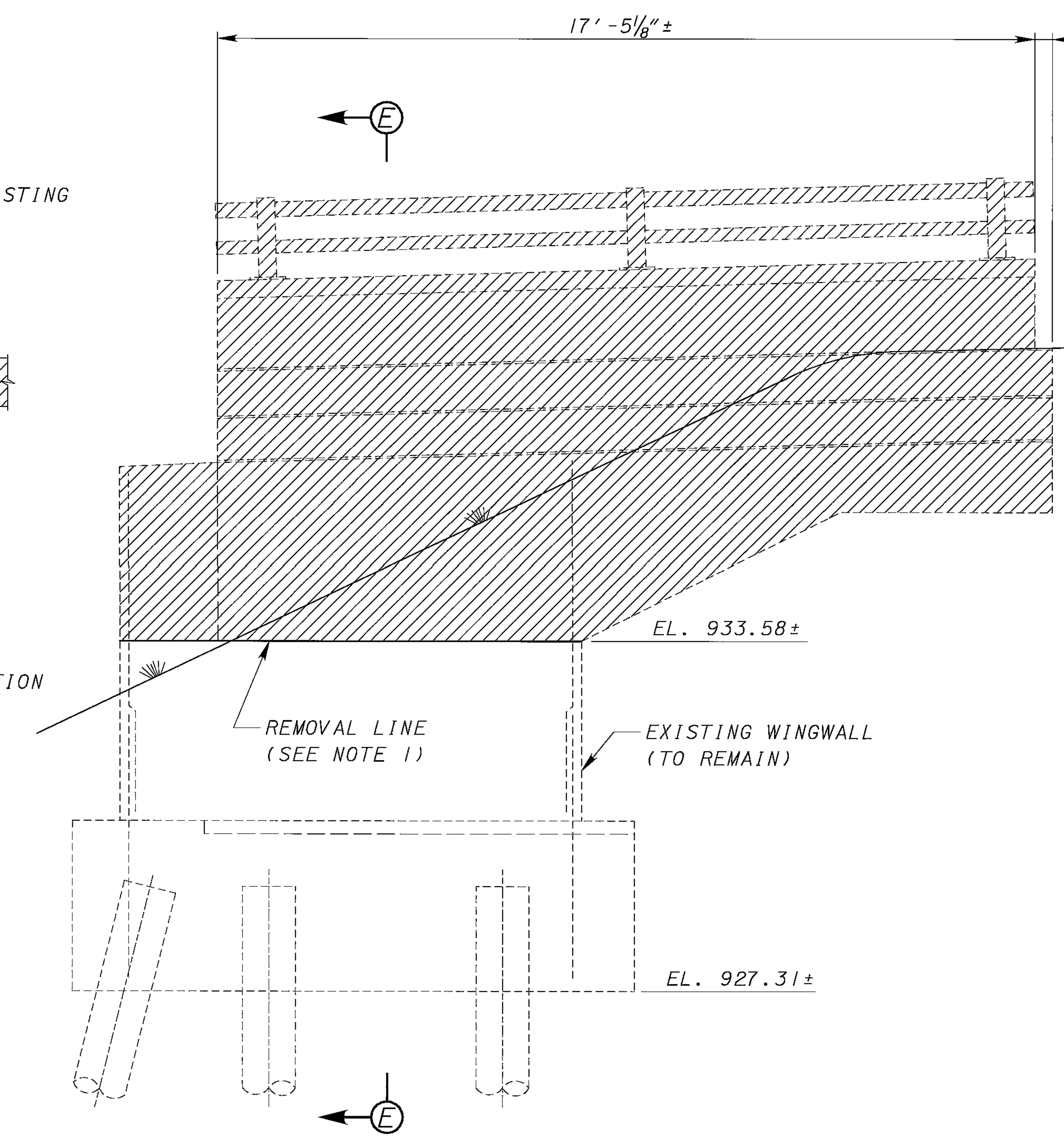
ELEVATION B-B



SECTION D-D



SECTION E-E



ELEVATION C-C

LEGEND:

— INDICATES AREAS TO BE REMOVED AS PER ITEM 202 - PORTIONS OF STRUCTURES REMOVED, AS PER PLAN

NOTES:

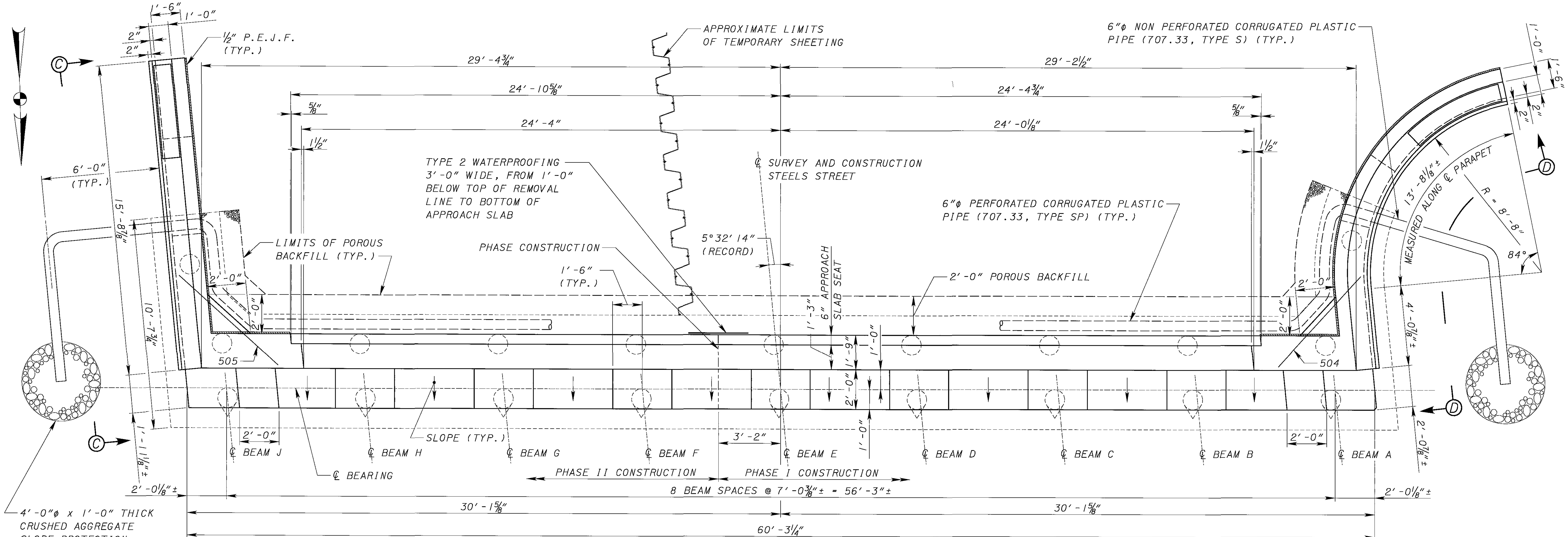
1. PREPARE AND SCARIFY SURFACE AS PER "CUT LINE CONSTRUCTION JOINT PREPARATION", SEE GENERAL NOTE SHEET G1/3.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650 CLEVELAND, OHIO

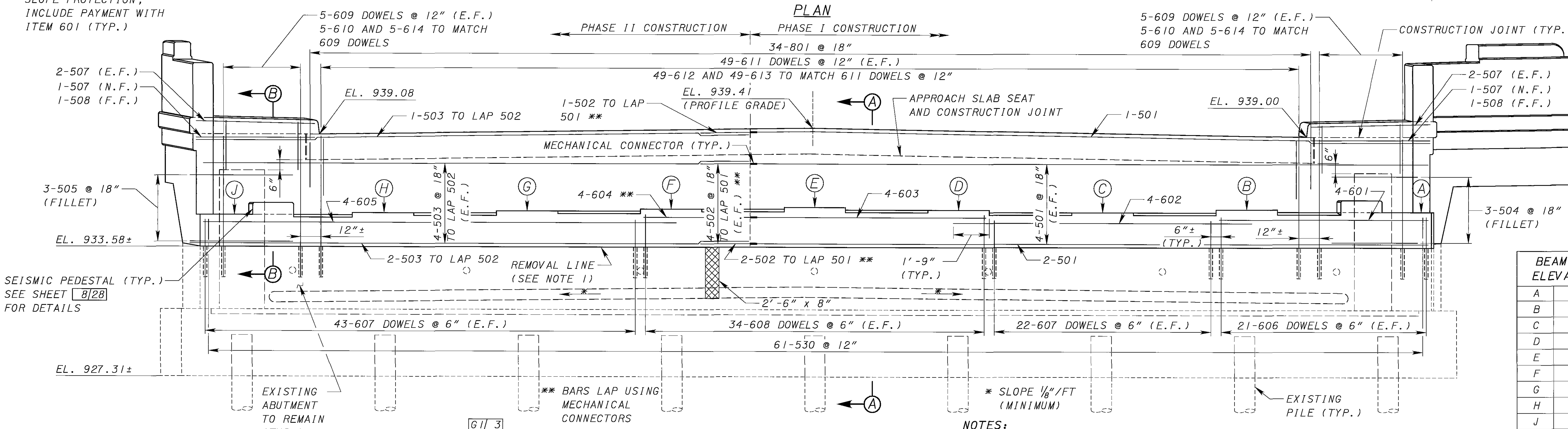
DESIGNED	DRAWN	REVIEWED	DATE
BTA	BTA	RER	05/28/04
CHECKED	REVISED	STRUCTURE FILE NUMBER	
MLR		5006813	

REAR ABUTMENT REMOVAL DETAILS
BRIDGE NO. MAH-680-0414
STEEL STREET OVER IR-680

MAH-680-4.14/6.28/6.37



PLAN



ELEVATION

BEAM SEAT ELEVATIONS	
A	935.33
B	935.45
C	935.30
D	935.42
E	935.54
F	935.45
G	935.35
H	935.25
J	935.15

NOTES:

1. PREPARE AND SCARIFY SURFACE AS PER "CUT LINE CONSTRUCTION JOINT PREPARATION", SEE GENERAL NOTE SHEET G1/3.
2. FOR SECTION A-A AND B-B, SEE SHEET 8/28.
3. FOR ELEVATION C-C AND D-D, SEE SHEET 9/28.
4. FOR REINFORCING SCHEDULE, SEE SHEET 26/28.
5. ALL REINFORCING BARS SHALL BE PREFIXED AS FOLLOWS: REAR ABUTMENT - RA
6. FOR ADDITIONAL NOTES, SEE SHEET 8/28.

BAR	REQUIRED LAP LENGTH
No. 4	1'-11"
No. 5	2'-5"
No. 6	2'-11"

LEGEND:

(crosshatch) - ITEM 519 - PATCHING CONCRETE STRUCTURES

ABBREVIATIONS:

CLR. - CLEAR
E.F. - EACH FACE
EL. - ELEVATION
F.F. - FAR FACE
MIN. - MINIMUM
N.F. - NEAR FACE
P.E.J.F. - PREFORMED EXPANSION JOINT FILLER
SPA. - SPACES
TYP. - TYPICAL

G1/3

DESIGN AGENCY: TRANSYSTEMS CORPORATION, 55 PUBLIC SQUARE, SUITE 1650, CLEVELAND, OHIO 44113-1901

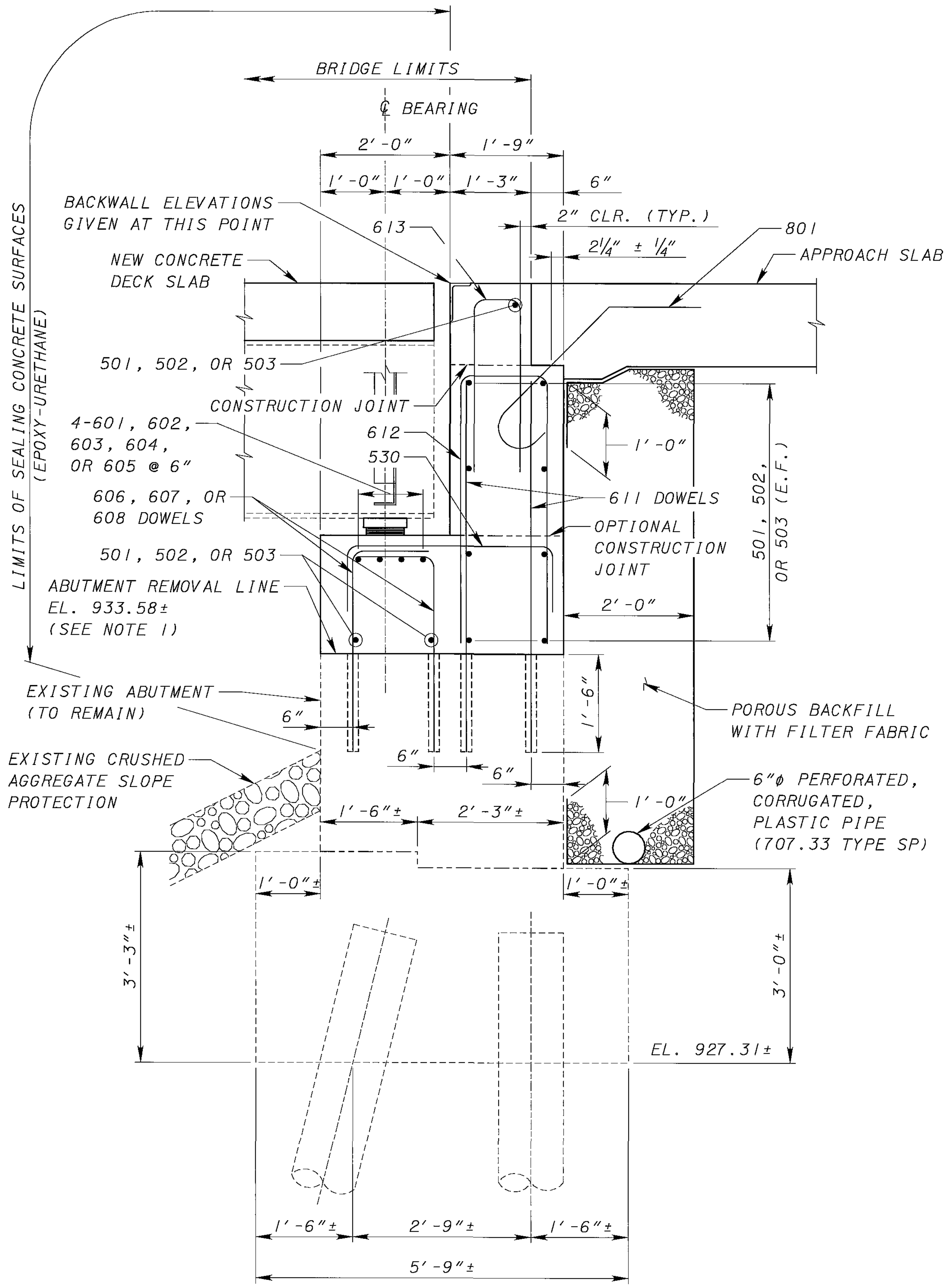
DESIGNED BTA | CHECKED MLR | DRAWN BTA | REVISED | REVIEWED RER | DATE 05/28/04 | STRUCTURE FILE NUMBER 5006813

REAR ABUTMENT DETAILS

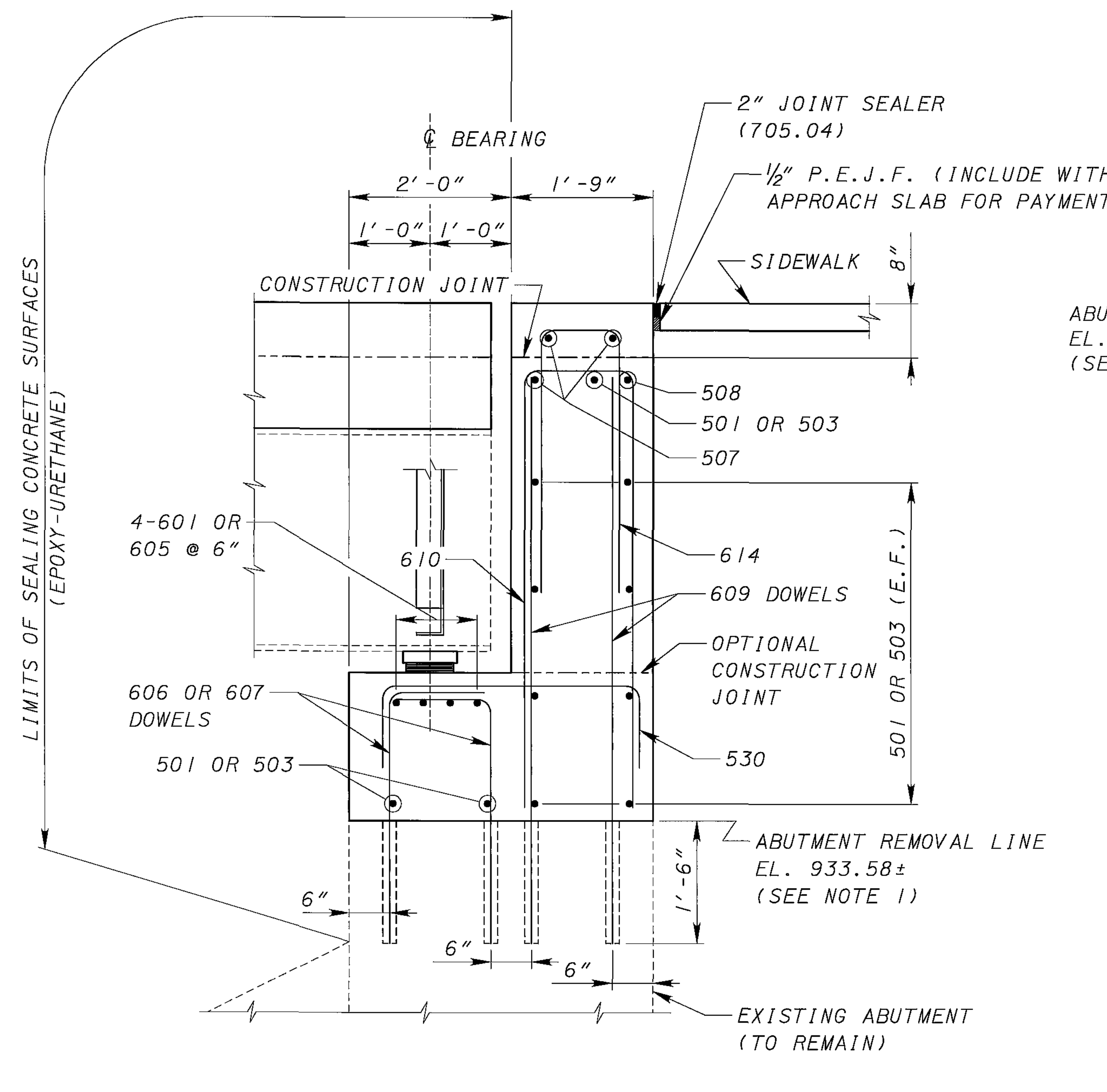
BRIDGE NO. MAH-680-0414
STEEL STREET OVER IR-680

MAH-680-4.14/6.28/6.37

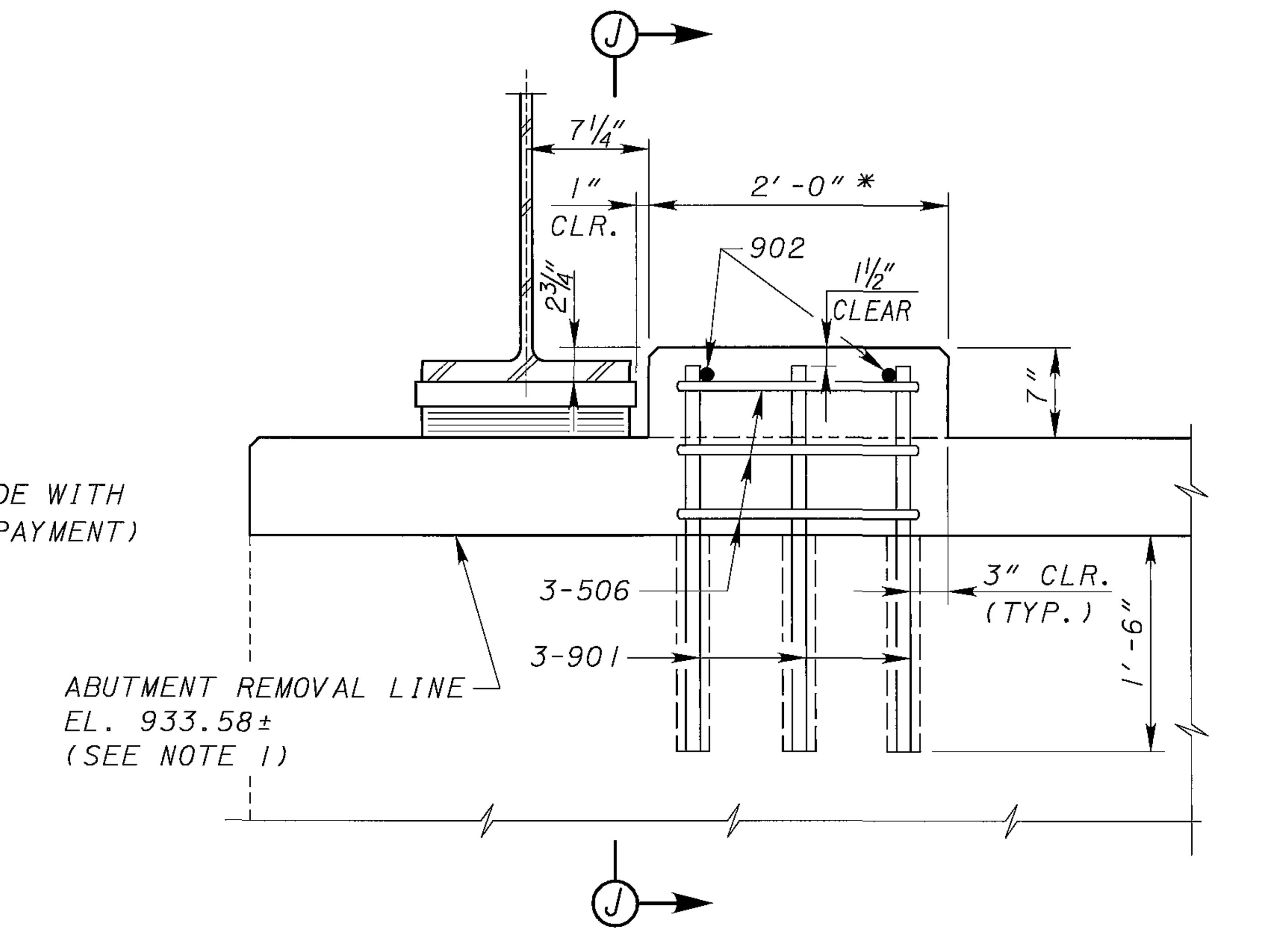
7/28



SECTION A-A

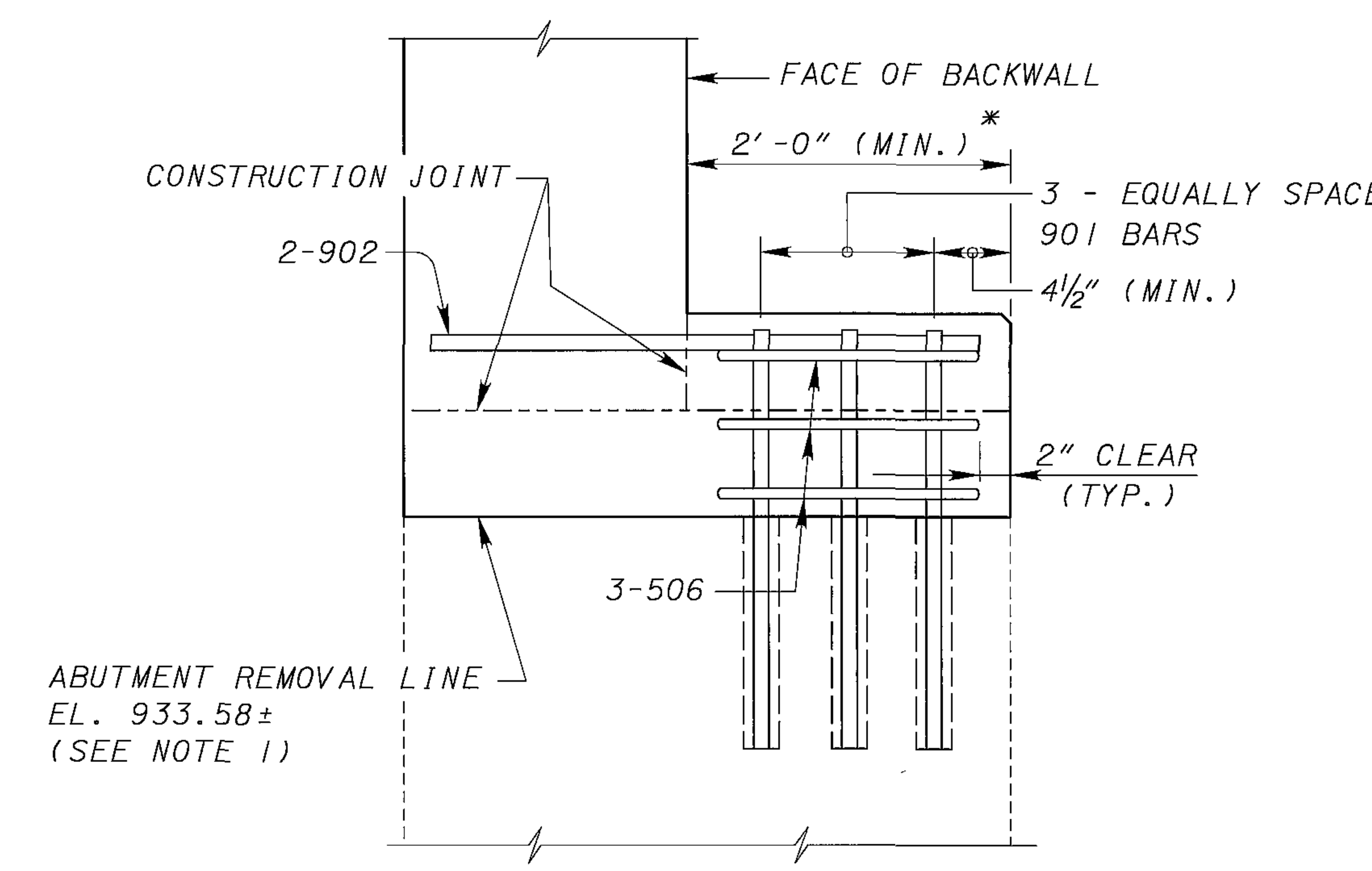


SECTION B-B



FRONT VIEW OF SEISMIC PEDESTAL

THE 2'-0" WIDTH OF THE PEDESTAL SHALL BE MEASURED PARALLEL TO THE CENTERLINE OF BEARING. THE 901 BARS SHALL BE PLACED PARALLEL TO THE CENTERLINE OF BEARING. THE 902 BARS SHALL BE PLACED PARALLEL TO THE BEAMS OR GIRDERS.



SECTION J-J

THE LOCATION OF THE MAIN REINFORCEMENT IN THE BEAM SEAT MAY BE ADJUSTED HORIZONTALLY ±1" TO ACCOMMODATE THE 901 BARS.

* - THE SURFACE OF THE BEAM SEAT IN THIS AREA SHALL BE FINISHED WITH A SERRATED TROWEL. THE SERRATIONS SHALL BE ¼" DEEP MINIMUM.

NOTES:

1. PREPARE AND SCARIFY SURFACE AS PER "CUT LINE CONSTRUCTION JOINT PREPARATION", SEE GENERAL NOTE SHEET GI/3.
2. FOR ADDITIONAL NOTES AND ABBREVIATIONS, SEE SHEET 7/28.
3. FOR REINFORCING SCHEDULE, SEE SHEET 26/28.
4. PAYMENT FOR DRILLING OR FORMING HOLES AND FURNISHING AND PLACING GROUT SHALL BE INCLUDED IN THE CONTRACT PRICES FOR ITEM 510 - DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT.
5. POROUS BACKFILL WITH FILTER FABRIC, 2'-0" THICK, SHALL EXTEND UP TO THE BOTTOM OF THE APPROACH SLAB AND LATERALLY TO THE ENDS OF THE WINGWALL FOOTINGS.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650 CLEVELAND, OHIO 44113-1901

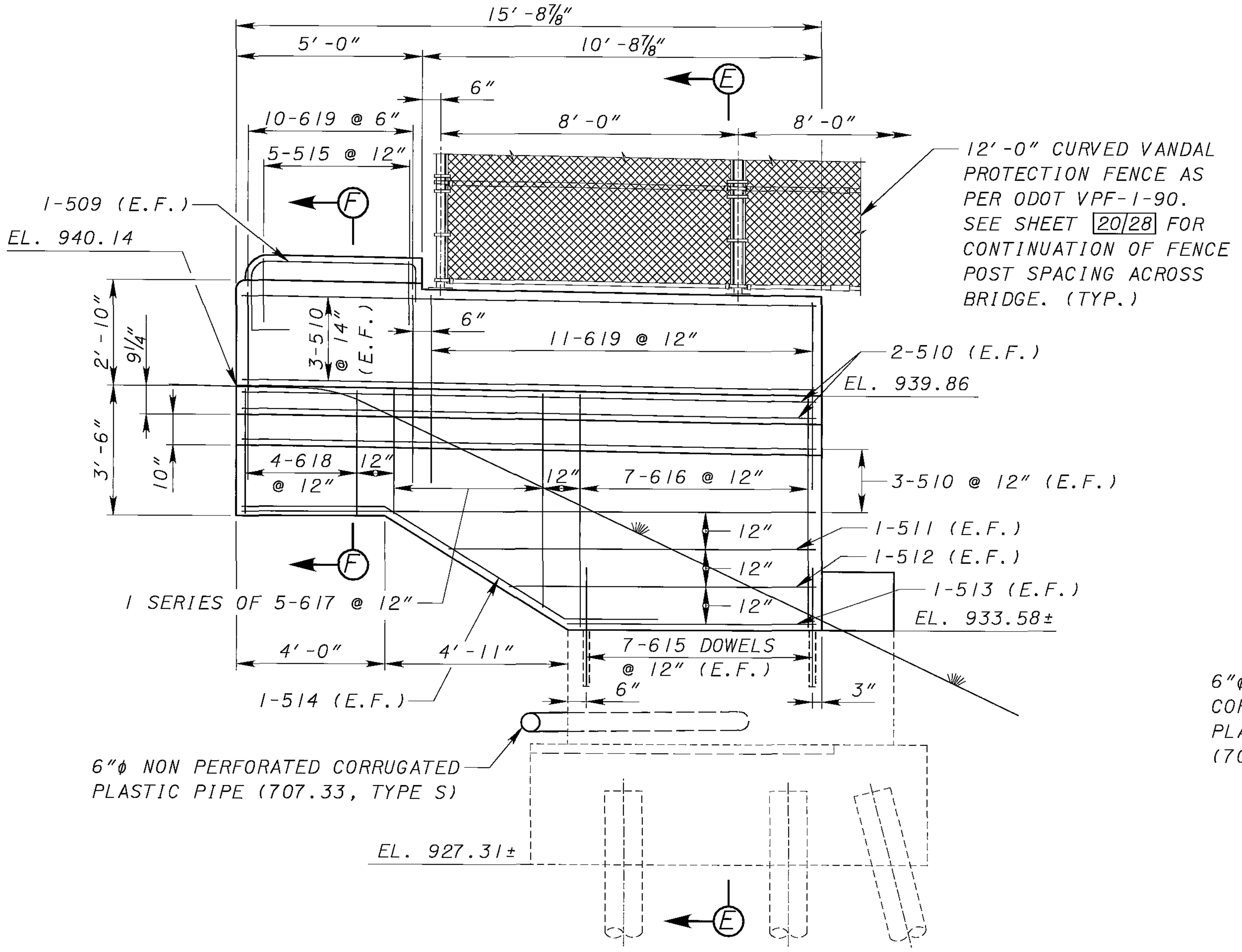
DESIGNED BTA	DRAWN BTA	REVIEWED RER	DATE 05/28/04
CHECKED MLR	REVISED	STRUCTURE FILE NUMBER 5006813	

REAR ABUTMENT DETAILS
BRIDGE NO. MAH-680-0414
STEEL STREET OVER IR-680

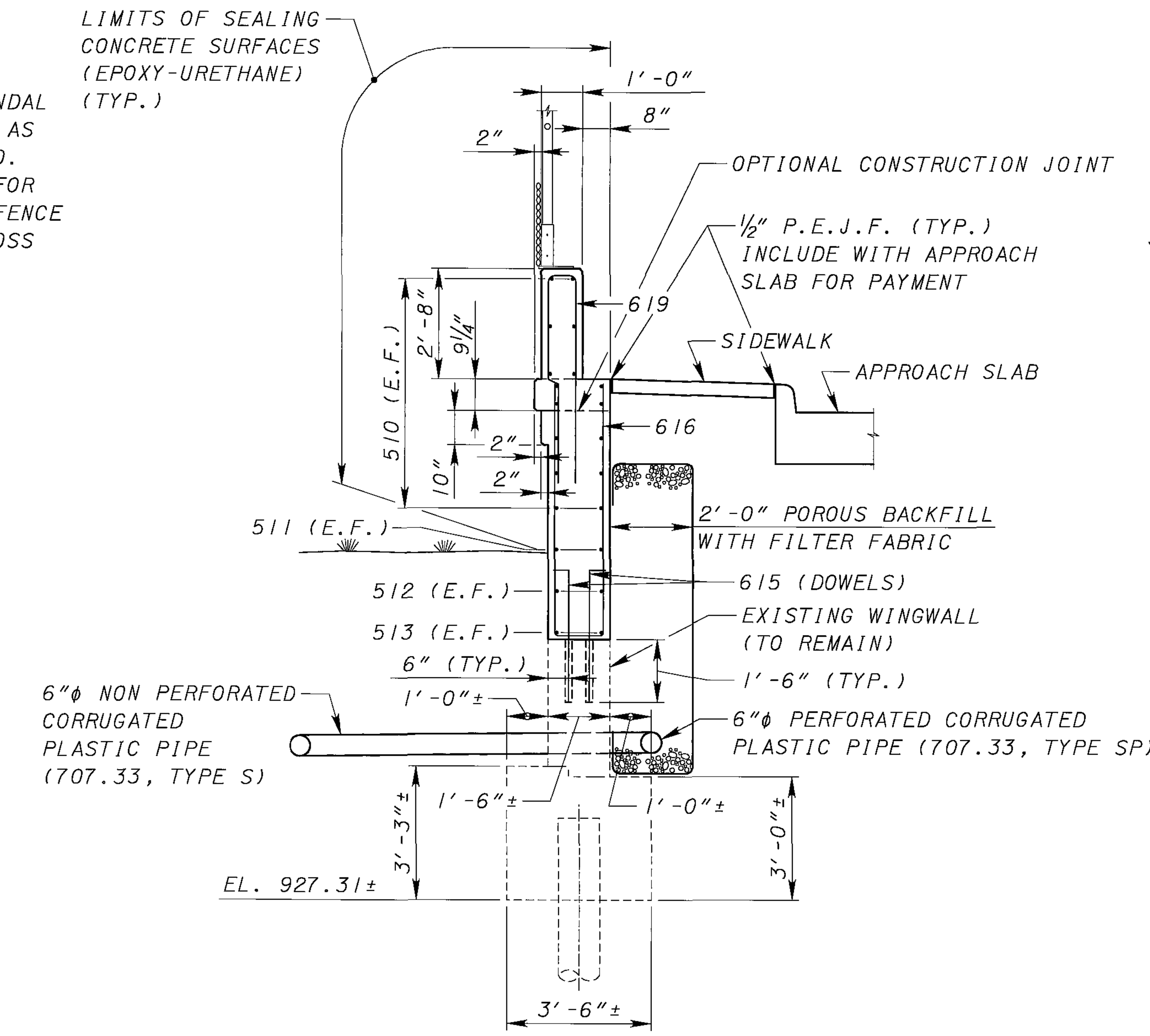
MAH-680-4.14/6.28/6.37

8/28

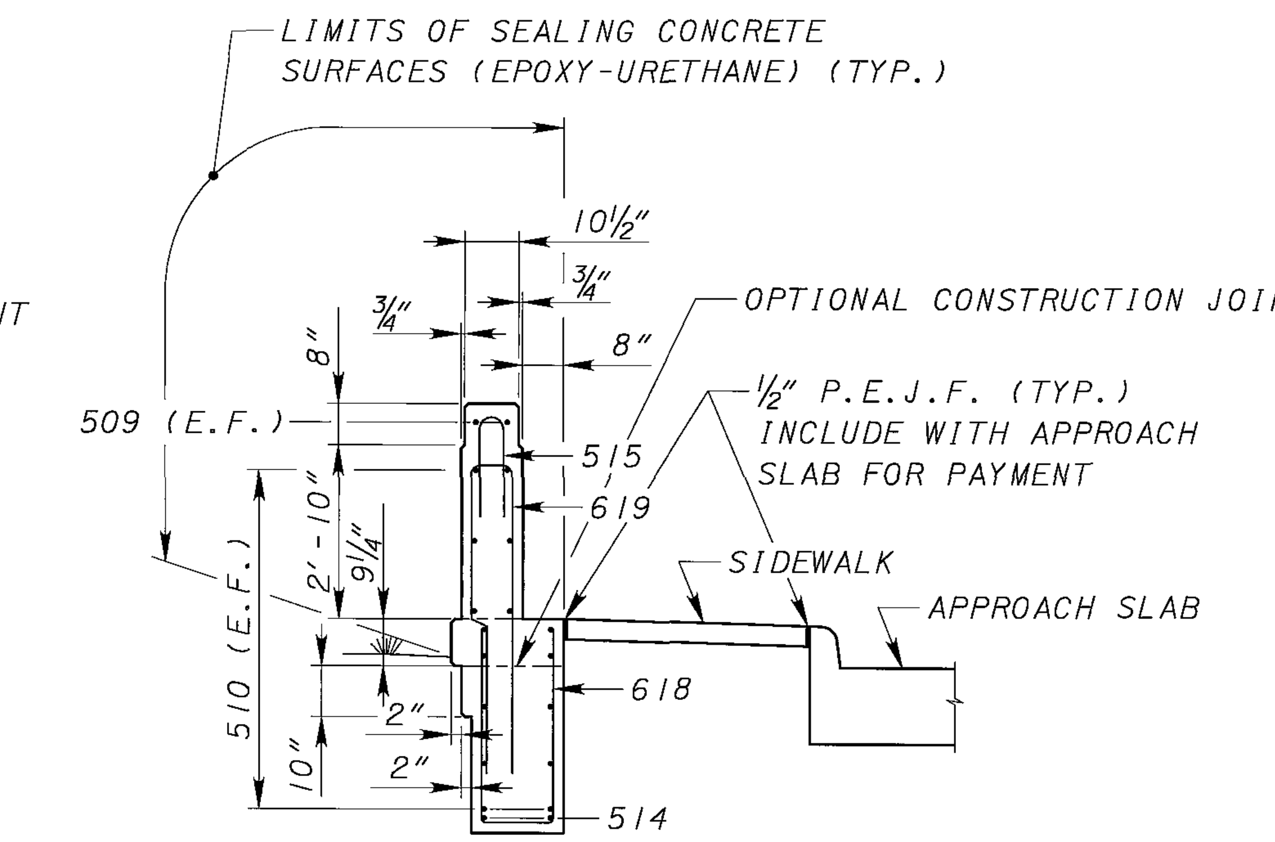
105/191



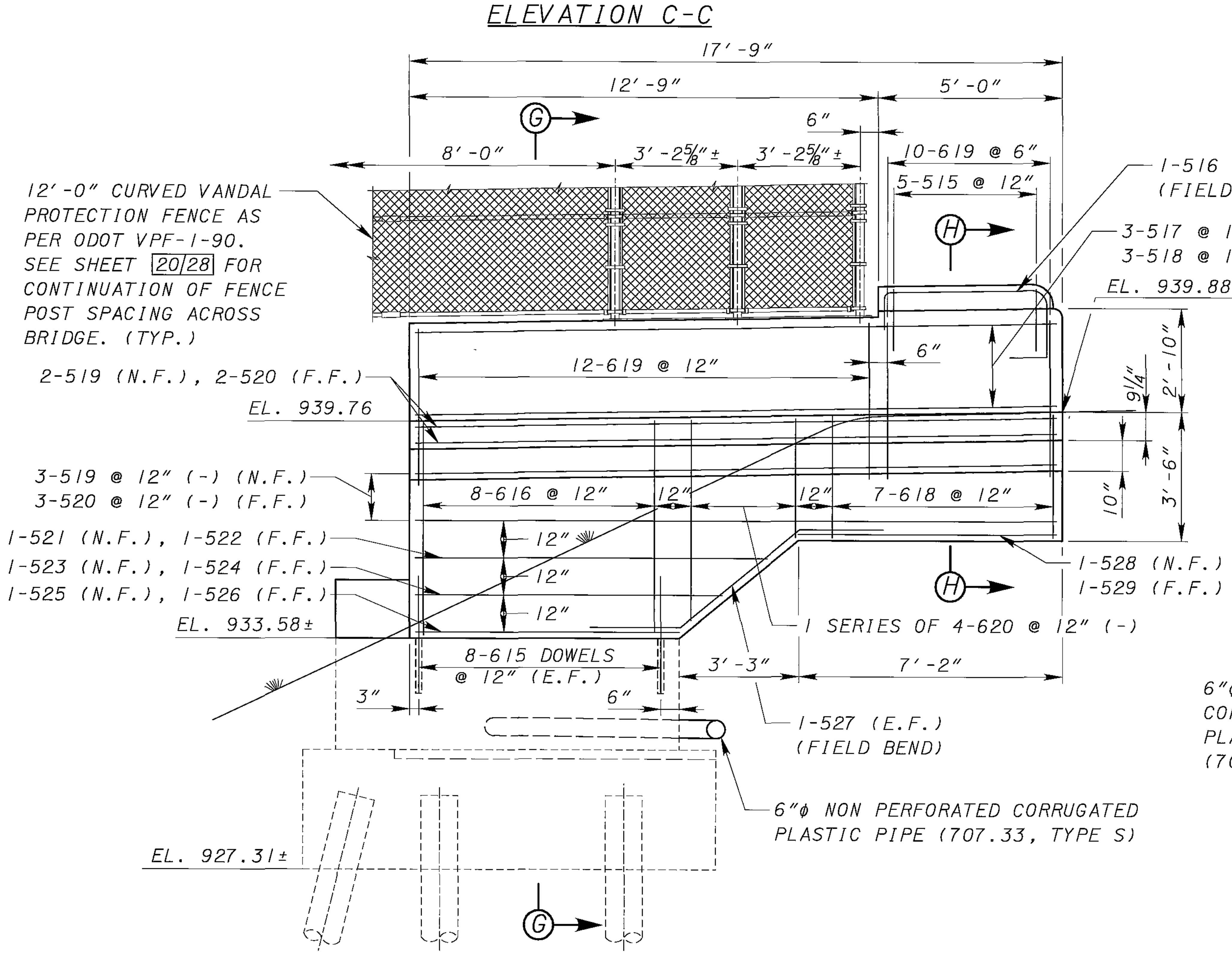
ELEVATION C-C



SECTION E-E

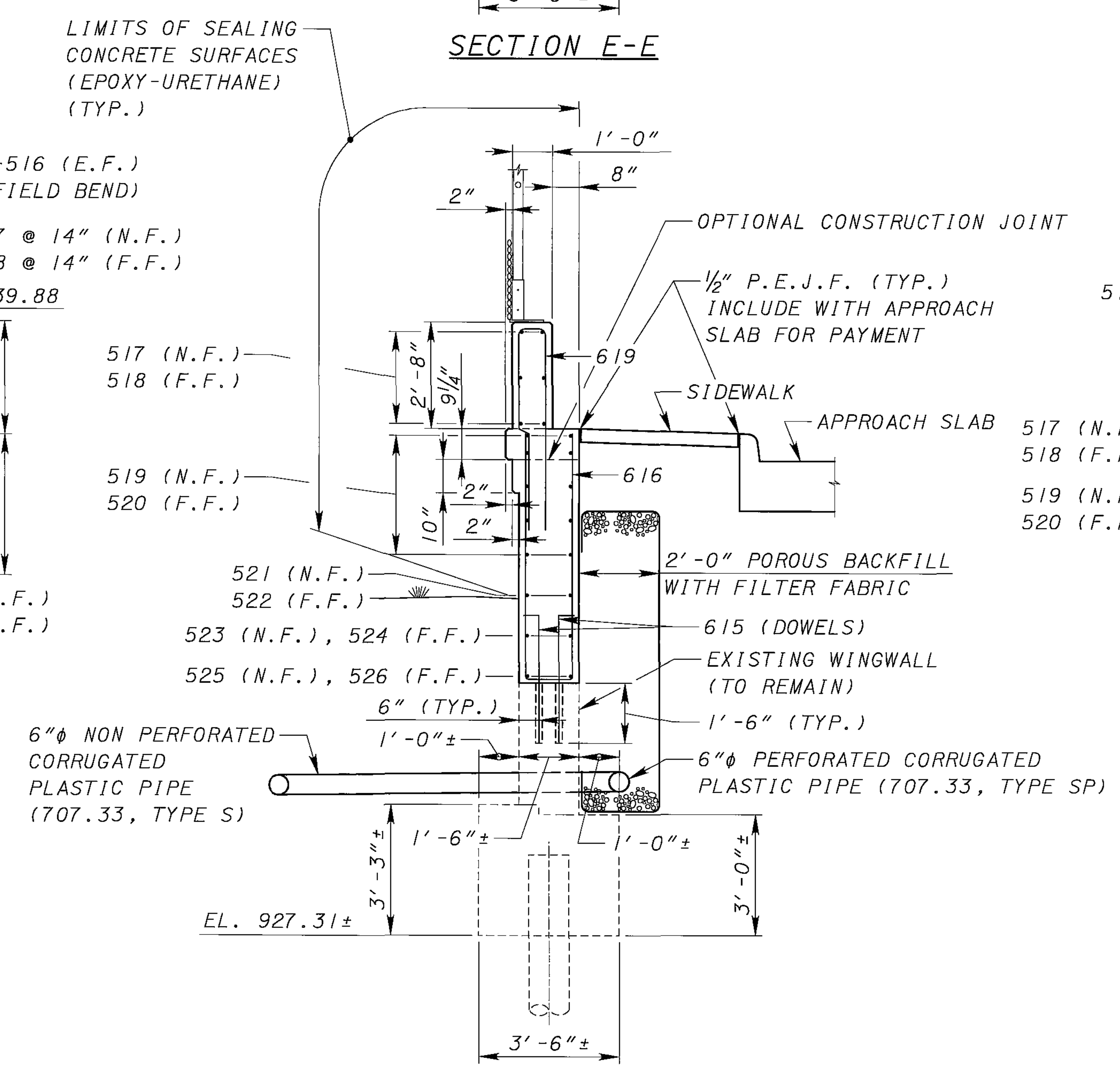


SECTION F-F

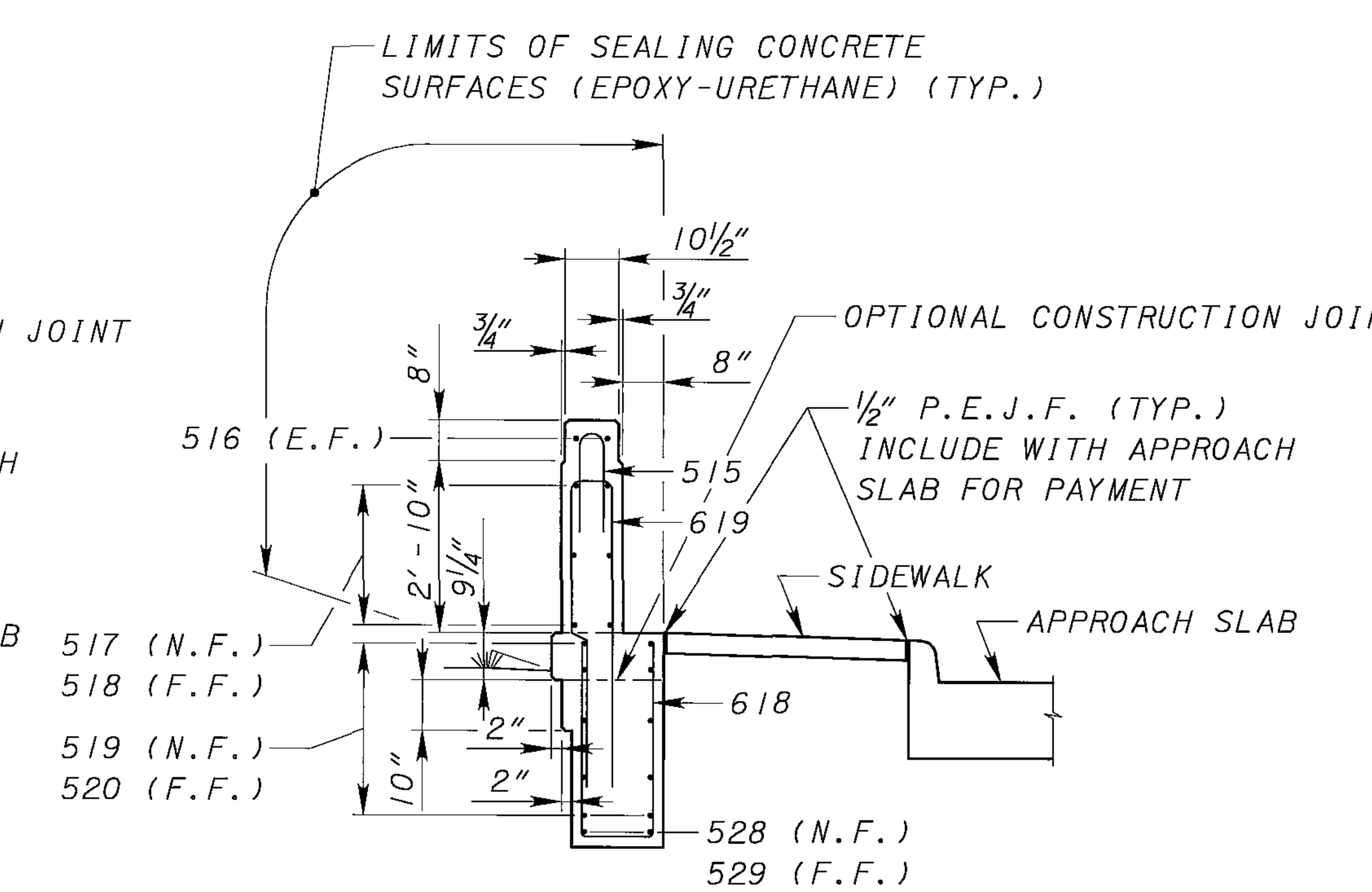


ELEVATION D-D

(DISTANCES MEASURED ALONG ℄ OF PARAPET)



SECTION G-G



SECTION H-H

NOTES:

1. ALL REINFORCING BARS SHALL BE PREFIXED AS FOLLOWS:
   REAR ABUTMENT - RA
2. FOR ADDITIONAL NOTES AND ABBREVIATIONS, SEE SHEET 8/28.
3. FOR REINFORCING SCHEDULE, SEE SHEET 26/28.
4. FOR ADDITIONAL PARAPET DETAILS NOT SHOWN REFER TO O.D.O.T. STANDARD DRAWING BR-2-98.

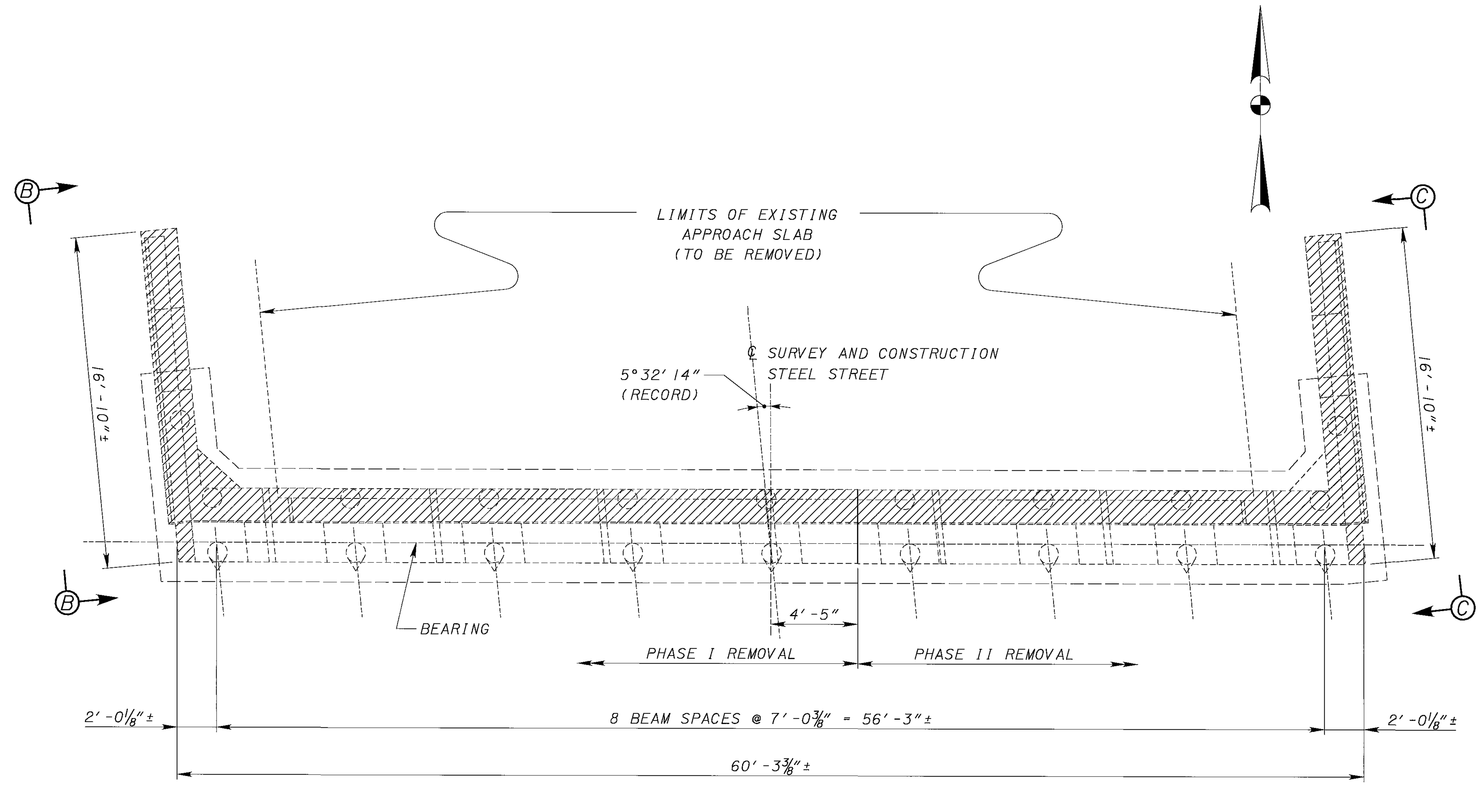
DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1900
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	BTA	RER	05/28/04
CHECKED	REVISED	STRUCTURE FILE NUMBER	
MLR		5006813	

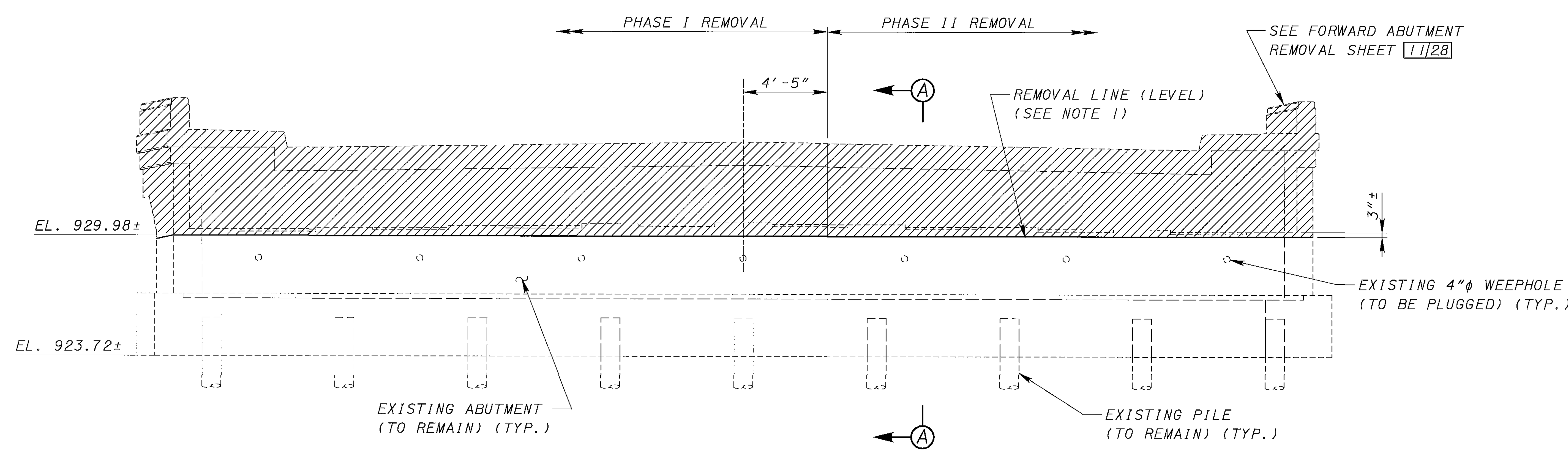
REAR ABUTMENT DETAILS
BRIDGE NO. MAH-680-0414
STEEL STREET OVER IR-680

MAH-680-4.14/6.28/6.37

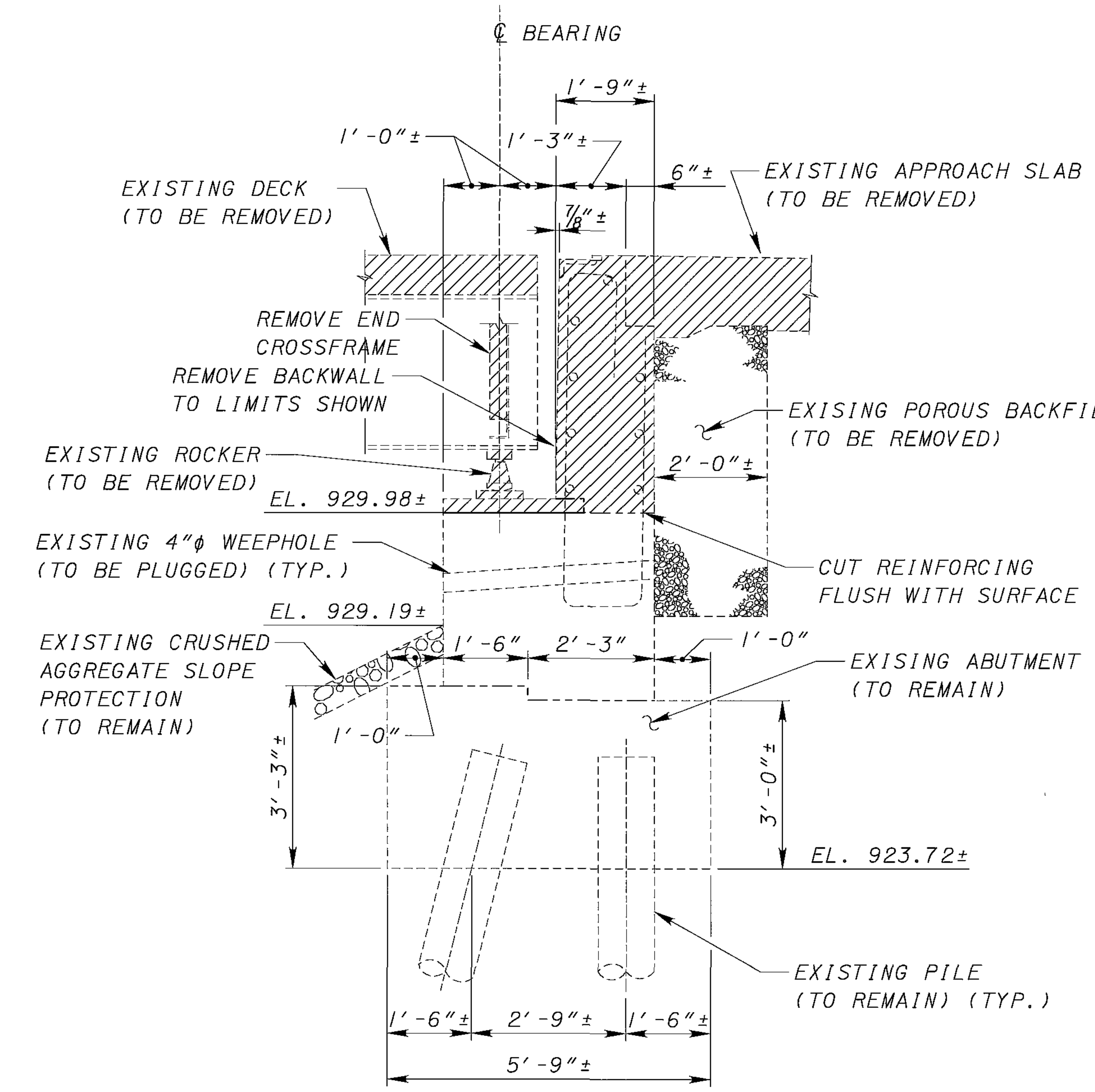
9/28



PLAN



ELEVATION



SECTION A-A

LEGEND:

— INDICATES AREAS TO BE REMOVED AS PER ITEM 202 - PORTIONS OF STRUCTURES REMOVED, AS PER PLAN

NOTES:

1. PREPARE AND SCARIFY SURFACE AS PER "CUT LINE CONSTRUCTION JOINT PREPARATION", SEE GENERAL NOTE SHEET G1/3.

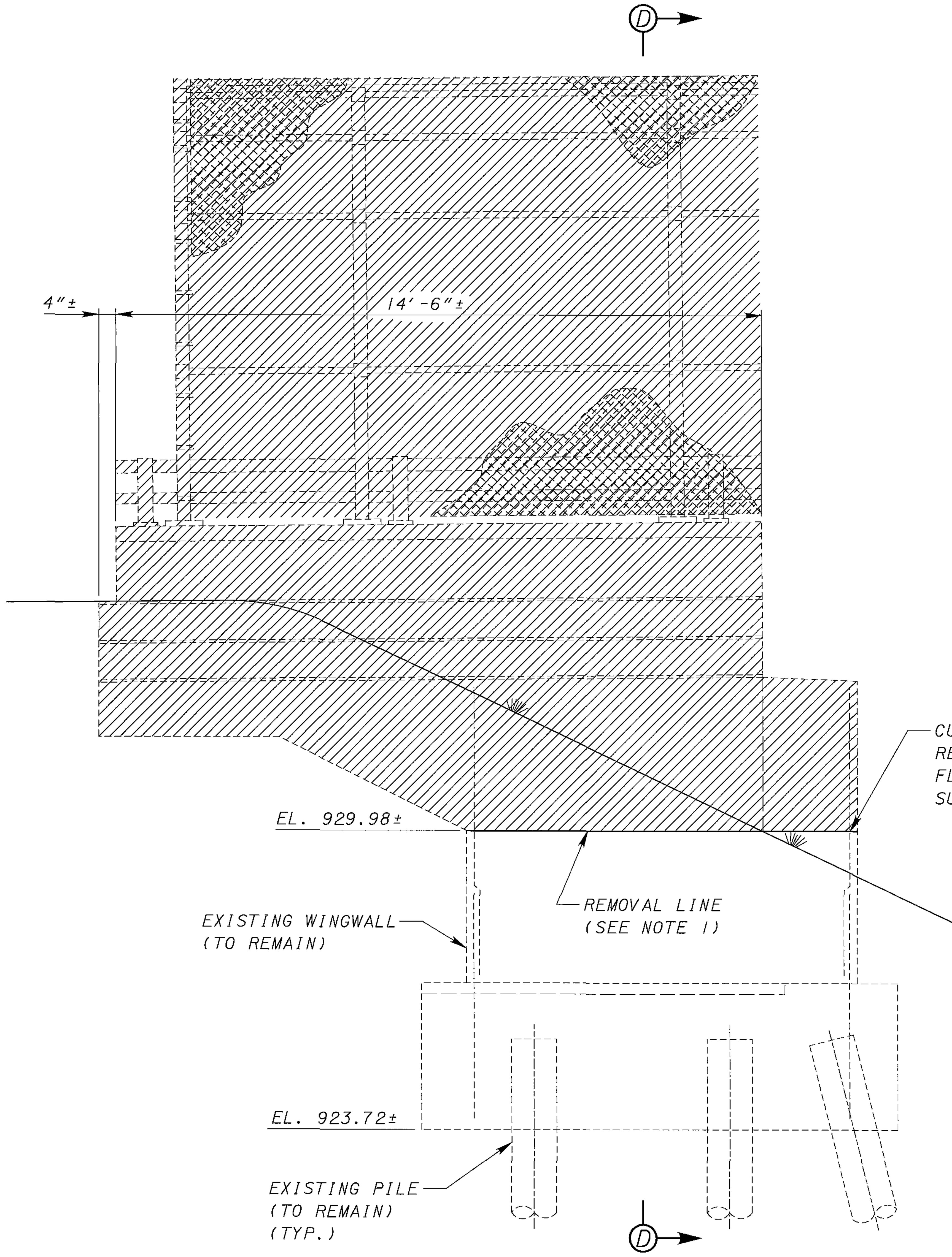
2. FOR ELEVATION B-B AND C-C, SEE SHEET 11/28.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

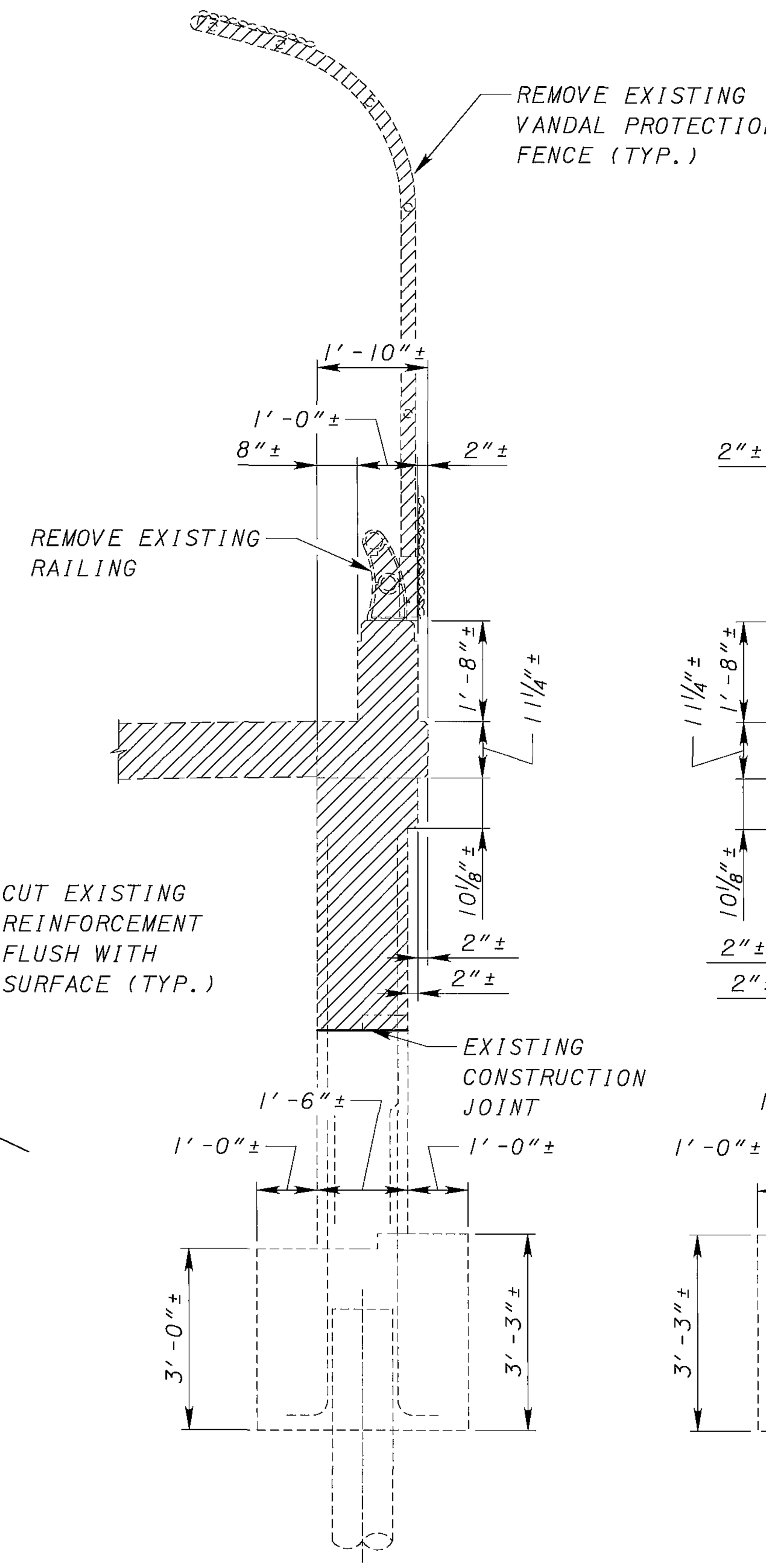
DESIGNED	DRAWN	REVIEWED	DATE
BTA	BTA	RER	05/28/04
CHECKED	REVISED	STRUCTURE FILE NUMBER	
MLR		5006813	

FORWARD ABUTMENT REMOVAL DETAILS
BRIDGE NO. MAH-680-0414
STEEL STREET OVER IR-680

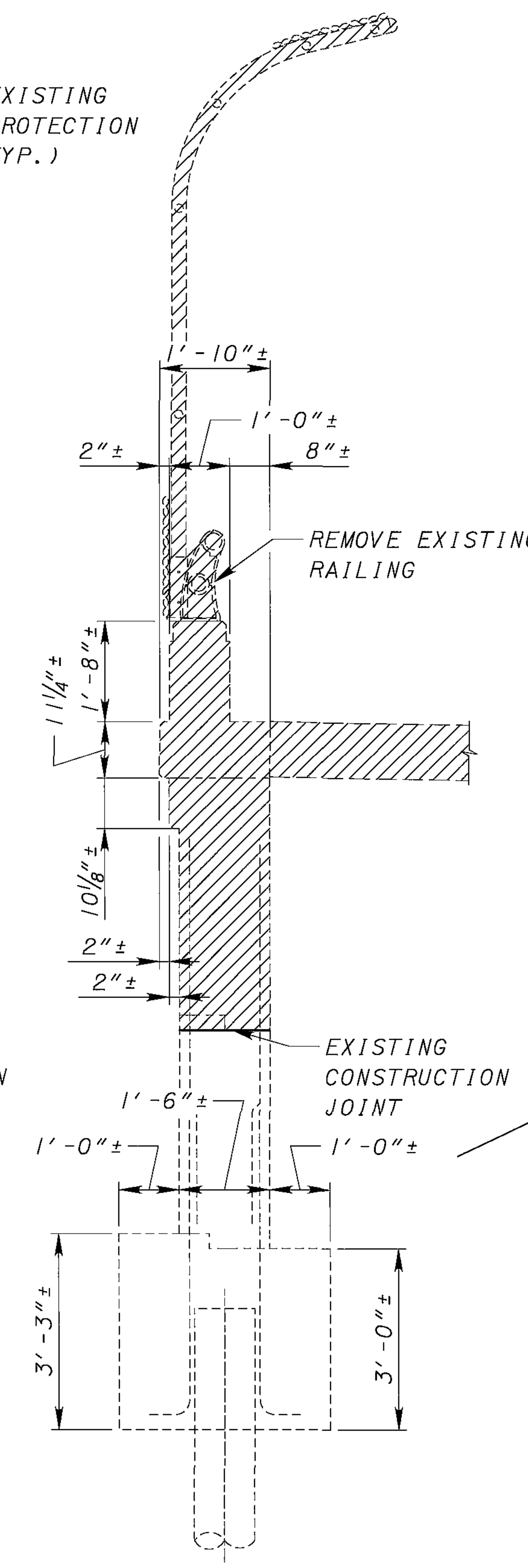
MAH-680-4.14/6.28/6.37



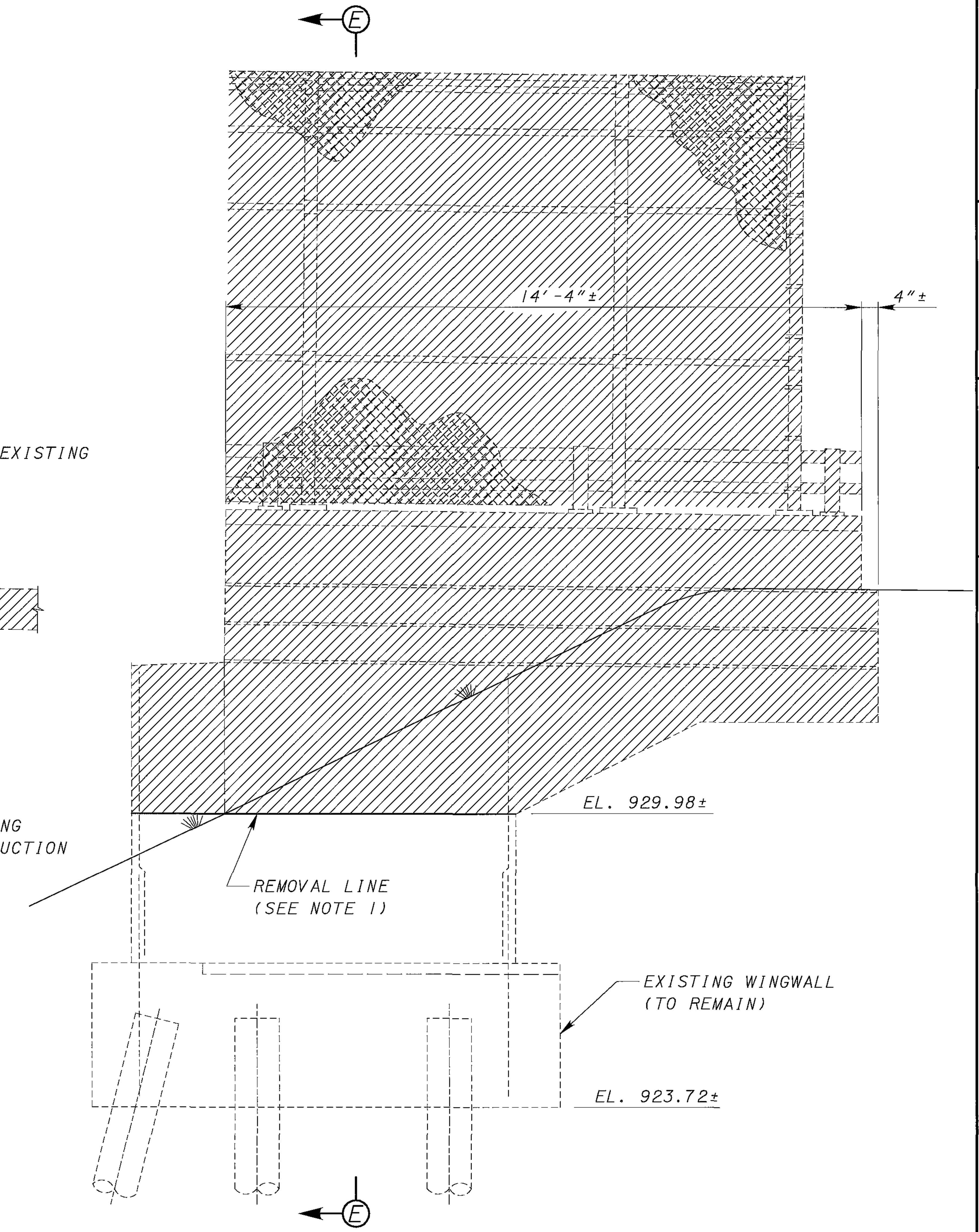
ELEVATION B-B



SECTION D-D



SECTION E-E



ELEVATION C-C

LEGEND:

— INDICATES AREAS TO BE REMOVED AS PER ITEM 202 - PORTIONS OF STRUCTURES REMOVED, AS PER PLAN

NOTES:

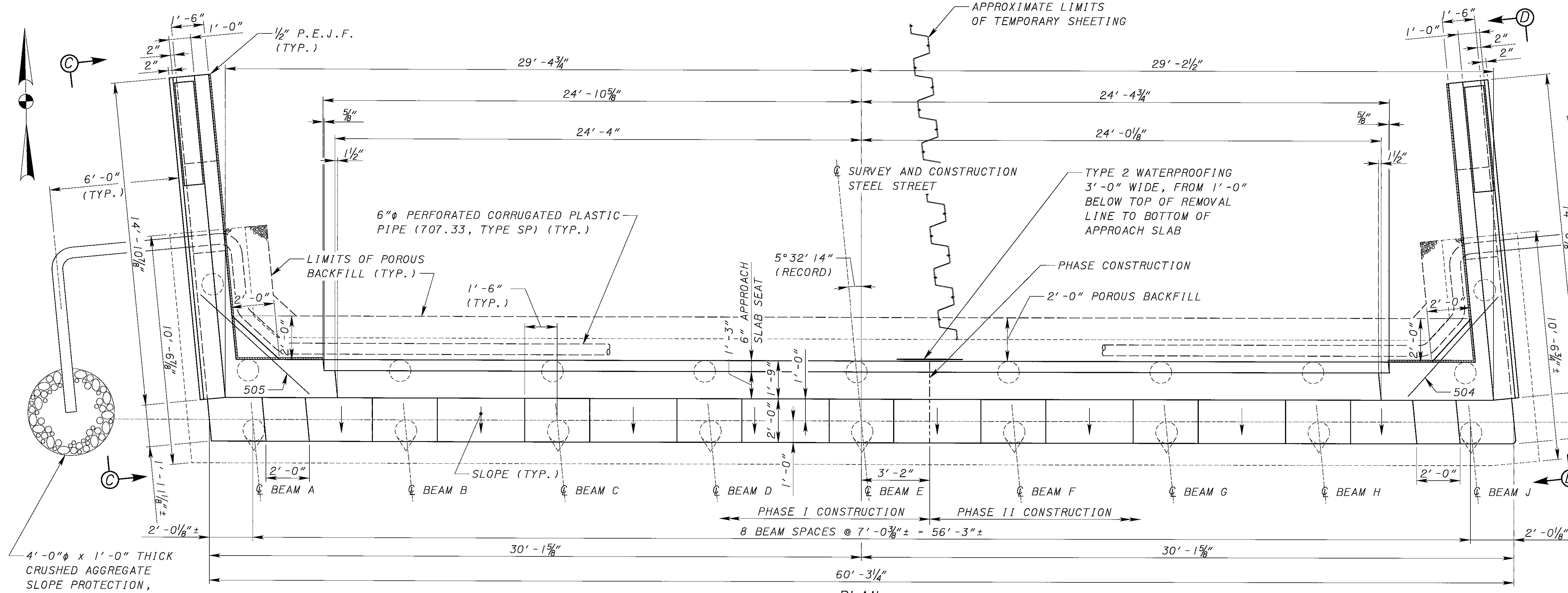
PREPARE AND SCARIFY SURFACE AS PER "CUT LINE CONSTRUCTION JOINT PREPARATION", SEE GENERAL NOTE SHEET [G1/3].

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

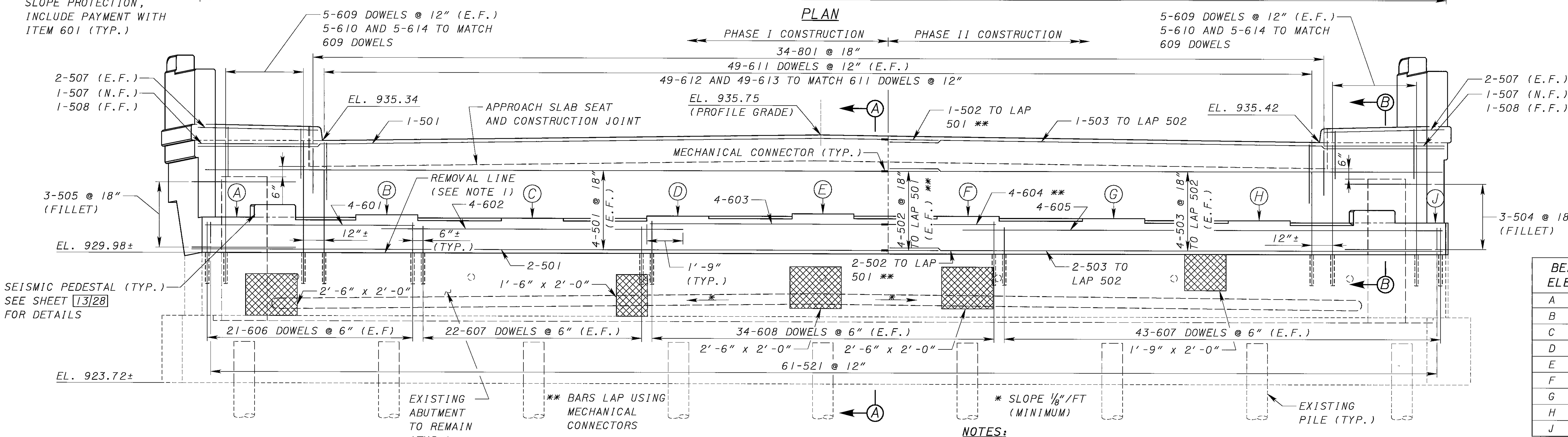
DESIGNED	DRAWN	REVIEWED	DATE
BTA	BTA	RER	05/28/04
CHECKED	REVISED	STRUCTURE FILE NUMBER	
MLR		5006813	

FORWARD ABUTMENT REMOVAL DETAILS
BRIDGE NO. MAH-680-0414
STEEL STREET OVER IR-680

MAH-680-4.14/6.28/6.37



PLAN



ELEVATION

G1/3

BEAM SEAT ELEVATIONS	
A	931.70
B	931.83
C	931.68
D	931.80
E	931.92
F	931.82
G	931.72
H	931.63
J	931.53

BAR	REQUIRED LAP LENGTH
No. 4	1'-11"
No. 5	2'-5"
No. 6	2'-11"

LEGEND:

▩ - ITEM 519 - PATCHING CONCRETE STRUCTURES

ABBREVIATIONS:

CLR. - CLEAR
E.F. - EACH FACE
EL. - ELEVATION
F.F. - FAR FACE
MIN. - MINIMUM
N.F. - NEAR FACE
P.E.J.F. - PREFORMED EXPANSION JOINT FILLER
SPA. - SPACES
TYP. - TYPICAL

NOTES:

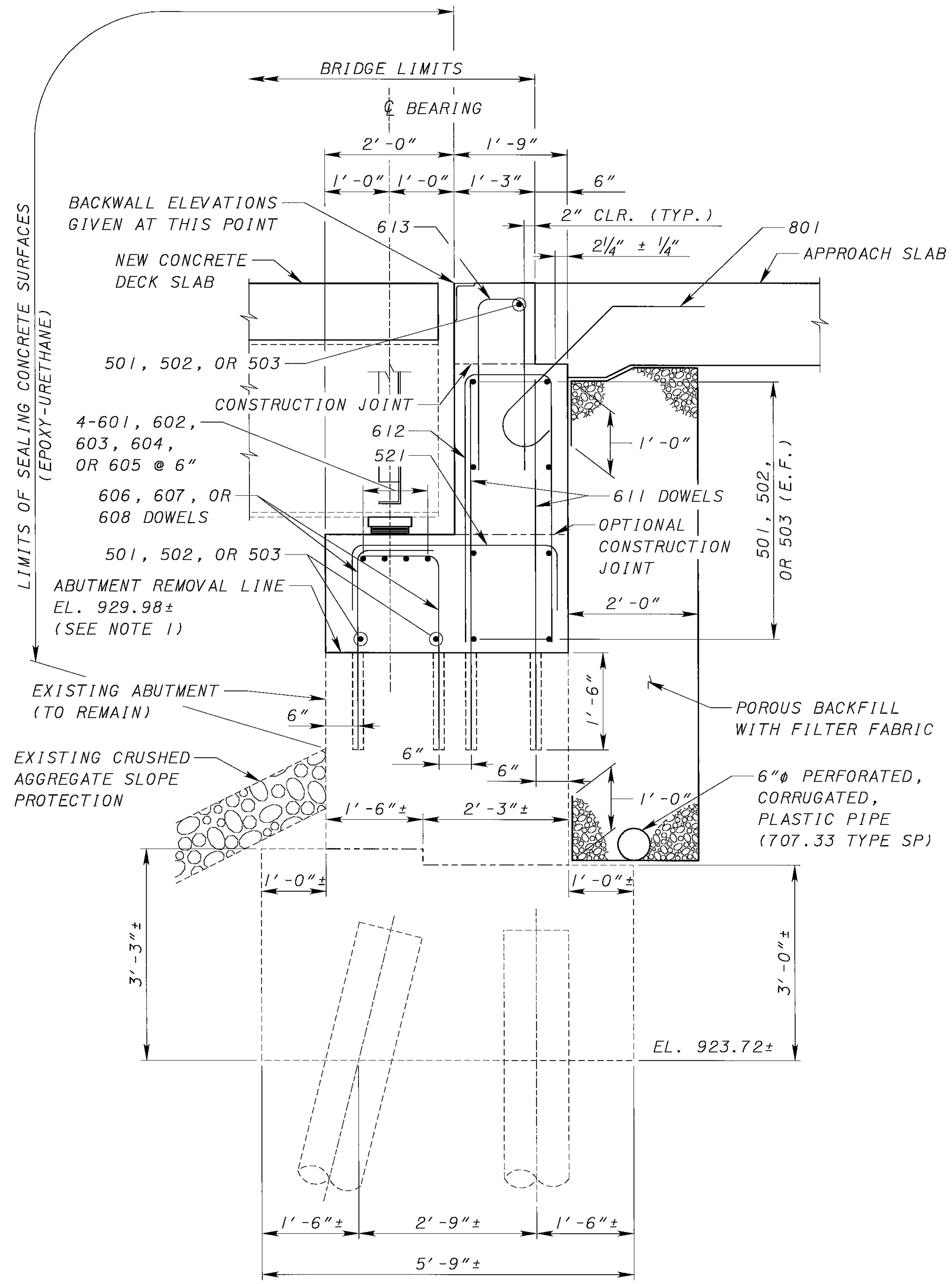
1. PREPARE AND SCARIFY SURFACE AS PER "CUT LINE CONSTRUCTION JOINT PREPARATION", SEE GENERAL NOTE SHEET G1/3.
2. FOR SECTION A-A AND B-B, SEE SHEET 13/28.
3. FOR ELEVATION C-C AND D-D, SEE SHEET 14/28.
4. FOR REINFORCING SCHEDULE, SEE SHEET 27/28.
5. ALL REINFORCING BARS SHALL BE PREFIXED AS FOLLOWS:
FORWARD ABUTMENT - FA
6. FOR ADDITIONAL NOTES, SEE SHEET 13/28.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

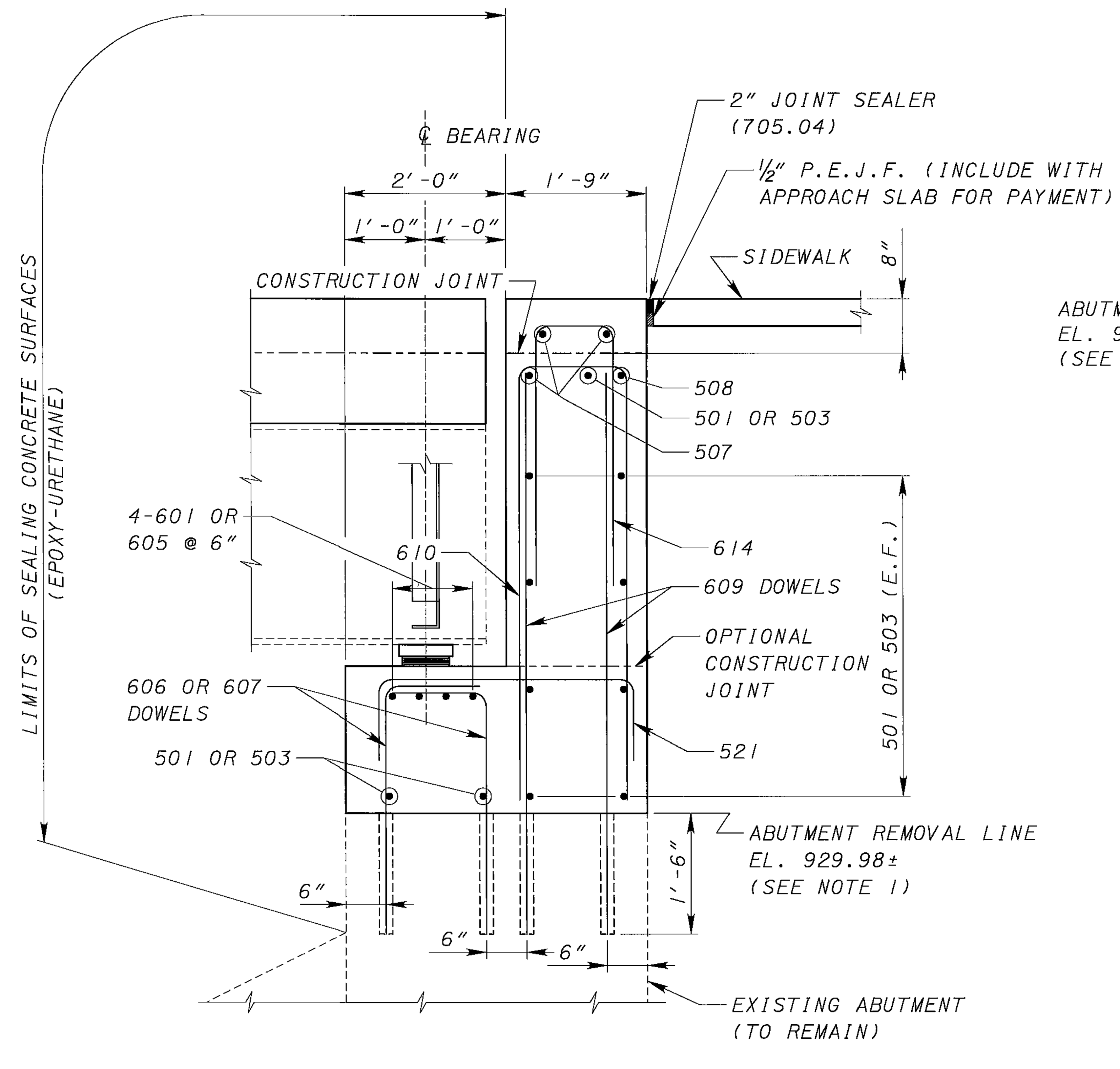
DESIGNED	DRAWN	REVIEWED	DATE
BTA	BTA	RER	05/28/04
CHECKED	REVISED	STRUCTURE FILE NUMBER	
MLR		5006813	

FORWARD ABUTMENT DETAILS
BRIDGE NO. MAH-680-0414
STEEL STREET OVER IR-680

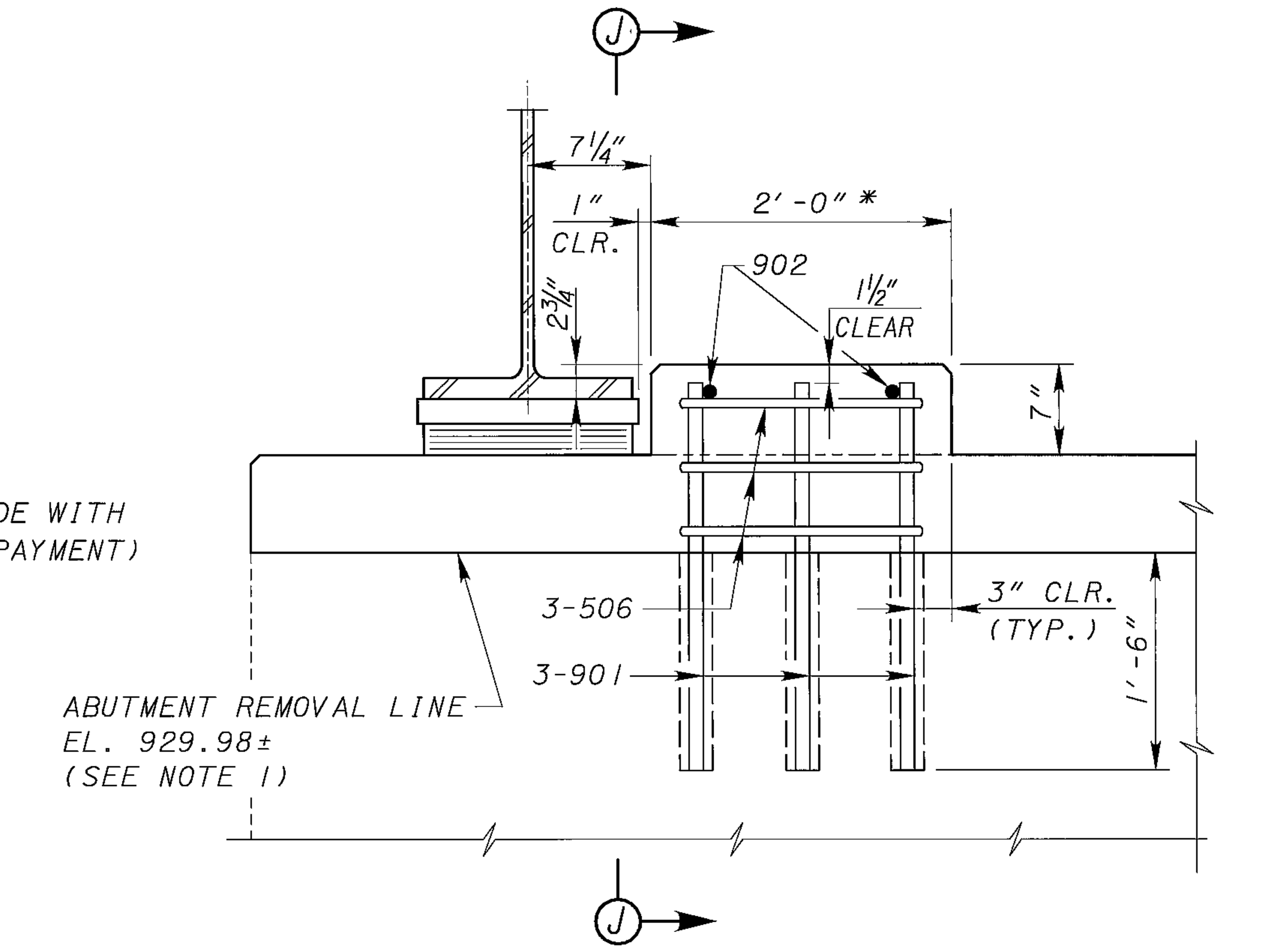
MAH-680-4.14/6.28/6.37



SECTION A-A

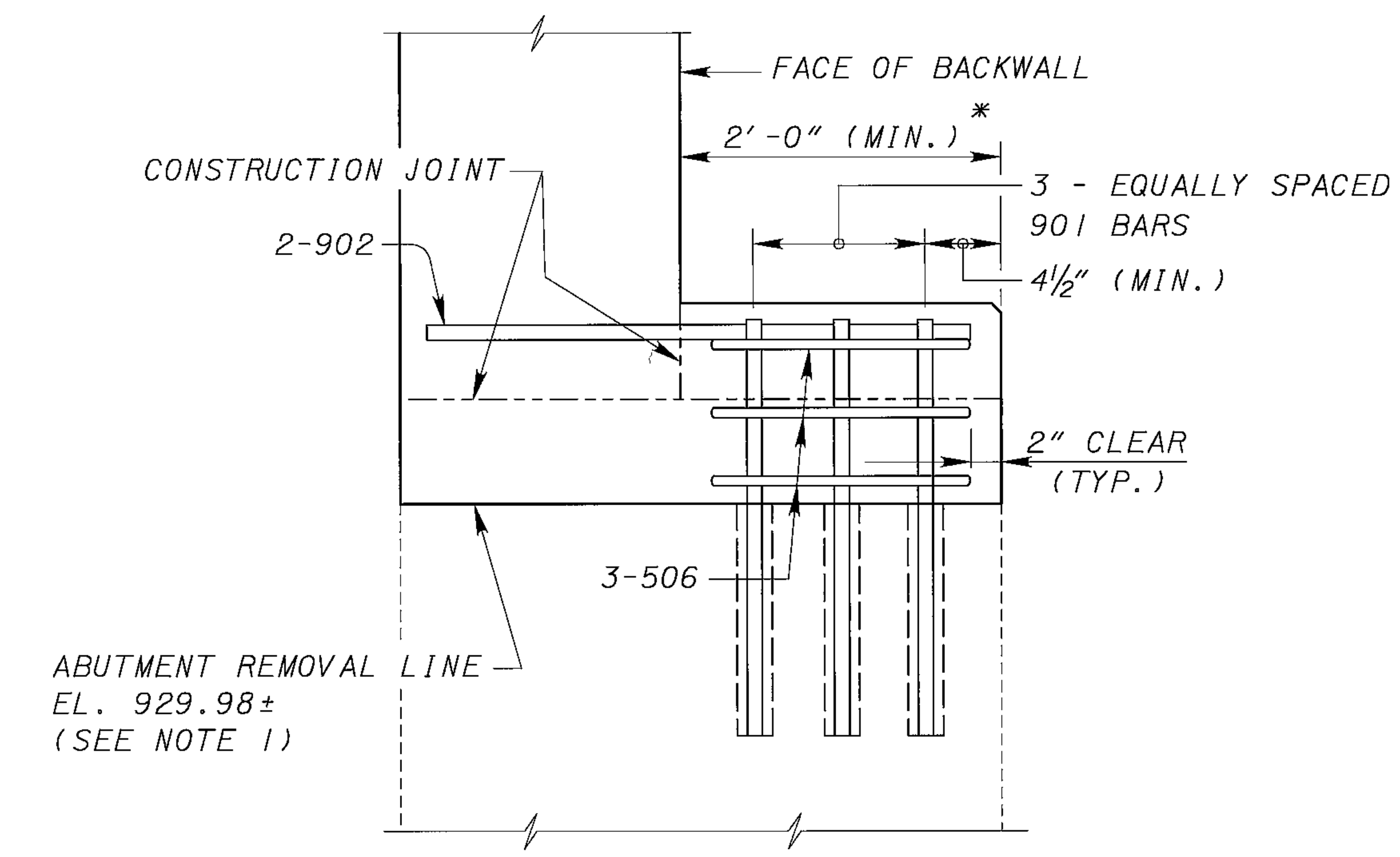


SECTION B-B



FRONT VIEW OF SEISMIC PEDESTAL

THE 2'-0" WIDTH OF THE PEDESTAL SHALL BE MEASURED PARALLEL TO THE CENTERLINE OF BEARING. THE 901 BARS SHALL BE PLACED PARALLEL TO THE CENTERLINE OF BEARING. THE 902 BARS SHALL BE PLACED PARALLEL TO THE BEAMS OR GIRDERS.



SECTION J-J

THE LOCATION OF THE MAIN REINFORCEMENT IN THE BEAM SEAT MAY BE ADJUSTED HORIZONTALLY ±1" TO ACCOMMODATE THE 901 BARS.

* - THE SURFACE OF THE BEAM SEAT IN THIS AREA SHALL BE FINISHED WITH A SERRATED TROWEL. THE SERRATIONS SHALL BE ¼" DEEP MINIMUM.

NOTES:

1. PREPARE AND SCARIFY SURFACE AS PER "CUT LINE CONSTRUCTION JOINT PREPARATION", SEE GENERAL NOTE SHEET 6/3.
2. FOR ADDITIONAL NOTES AND ABBREVIATIONS, SEE SHEET 12/28.
3. FOR REINFORCING SCHEDULE, SEE SHEET 27/28.
4. PAYMENT FOR DRILLING OR FORMING HOLES AND FURNISHING AND PLACING GROUT SHALL BE INCLUDED IN THE CONTRACT PRICES FOR ITEM 510 - DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT.
5. POROUS BACKFILL WITH FILTER FABRIC, 2'-0" THICK, SHALL EXTEND UP TO THE BOTTOM OF THE APPROACH SLAB AND LATERALLY TO THE ENDS OF THE WINGWALL FOOTINGS.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 650 CLEVELAND, OHIO 44113-1901

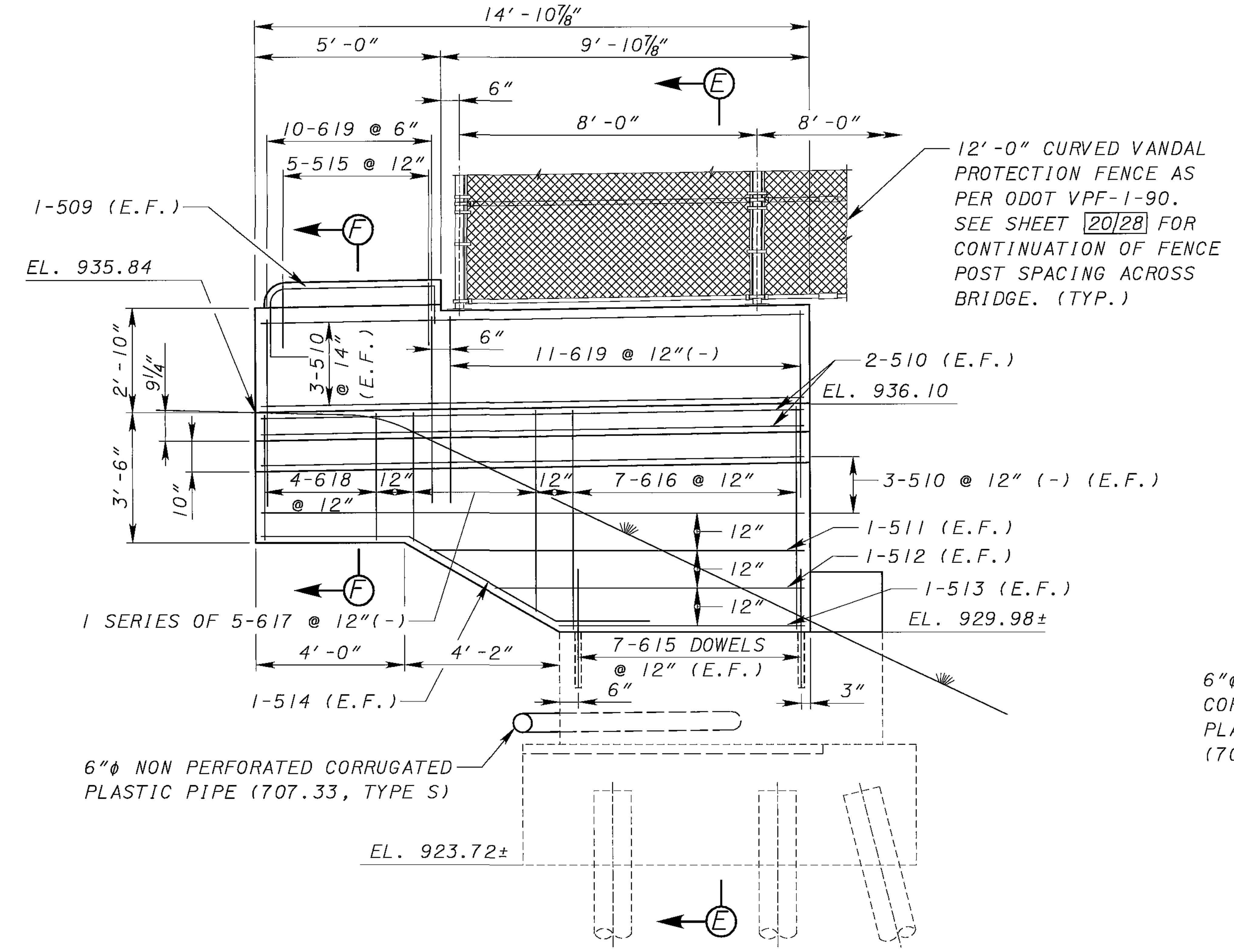
DESIGNED	DRAWN	REVIEWED	DATE
BTA	BTA	RER	05/28/04
CHECKED	REVISED	STRUCTURE FILE NUMBER	
MLR		5006813	

FORWARD ABUTMENT DETAILS
BRIDGE NO. MAH-680-0414
STEEL STREET OVER IR-680

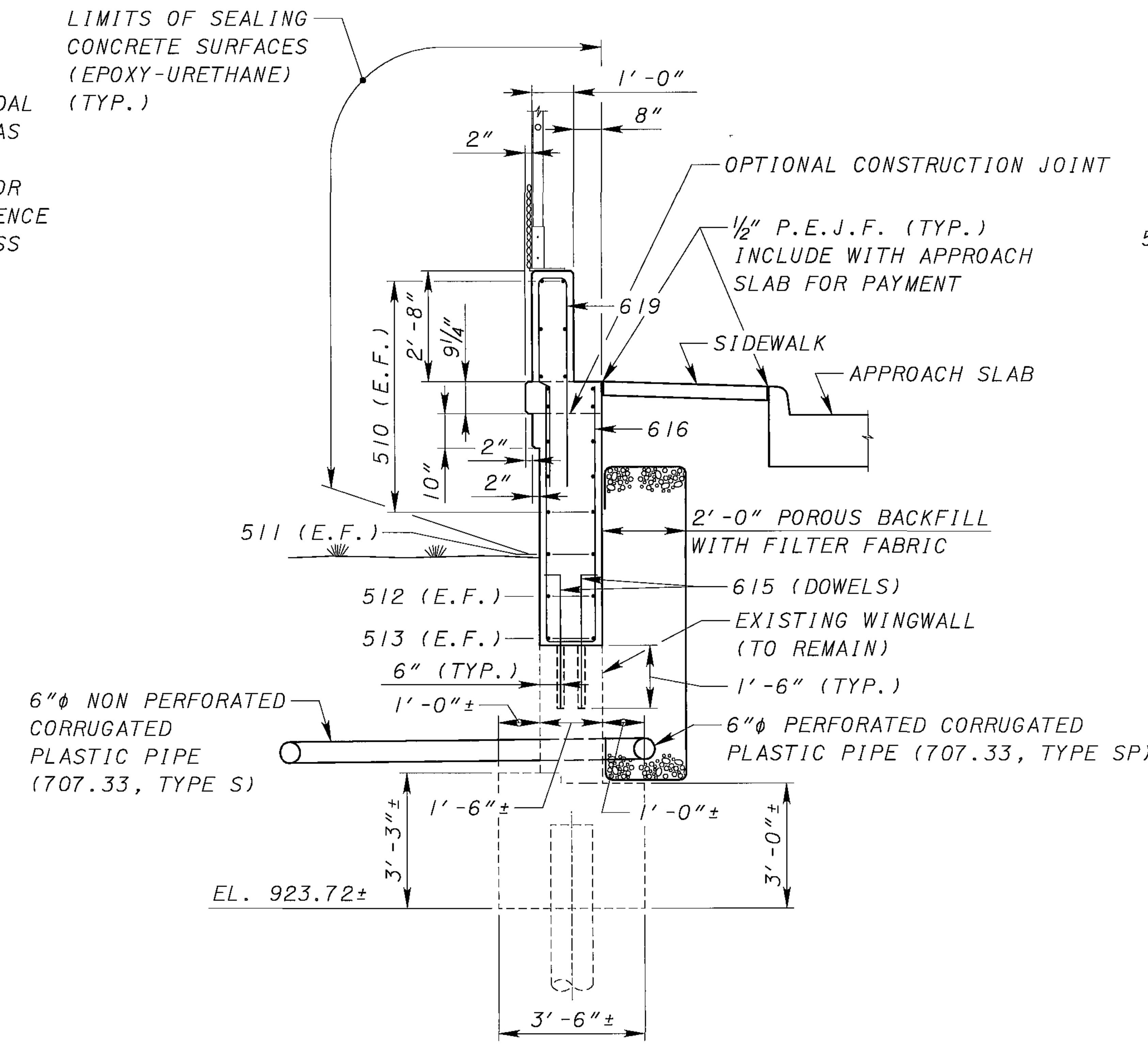
MAH-680-4.14/6.28/6.37

13/28

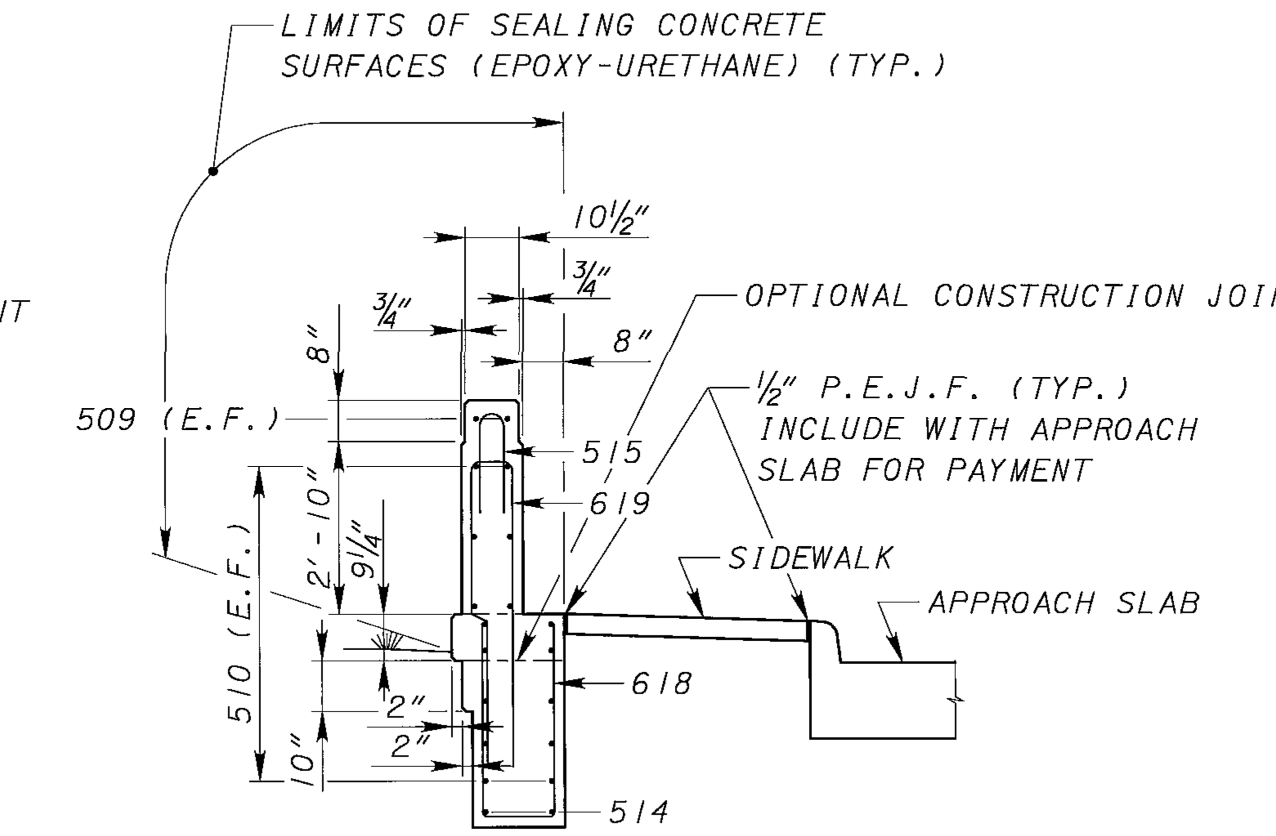
110/191



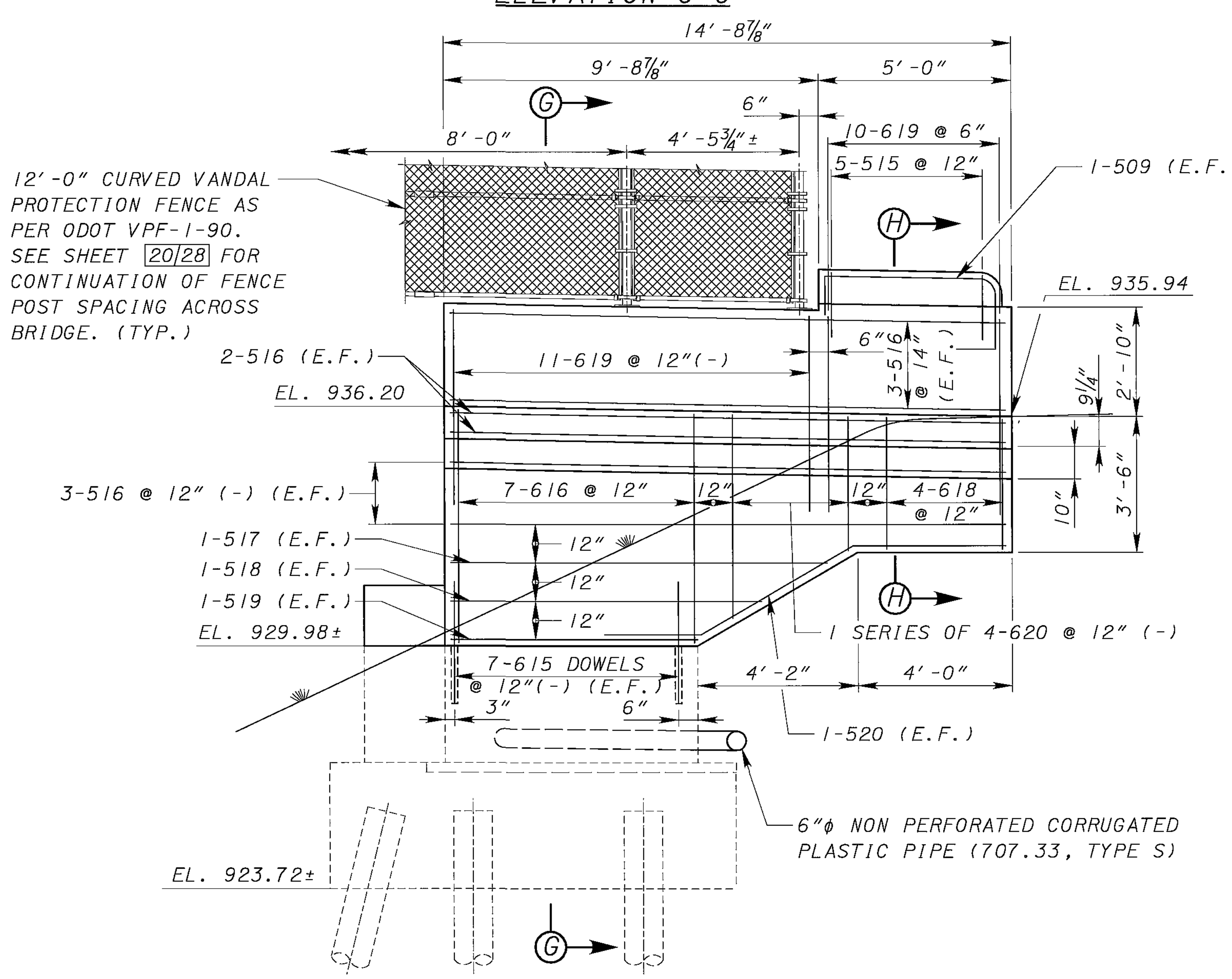
ELEVATION C-C



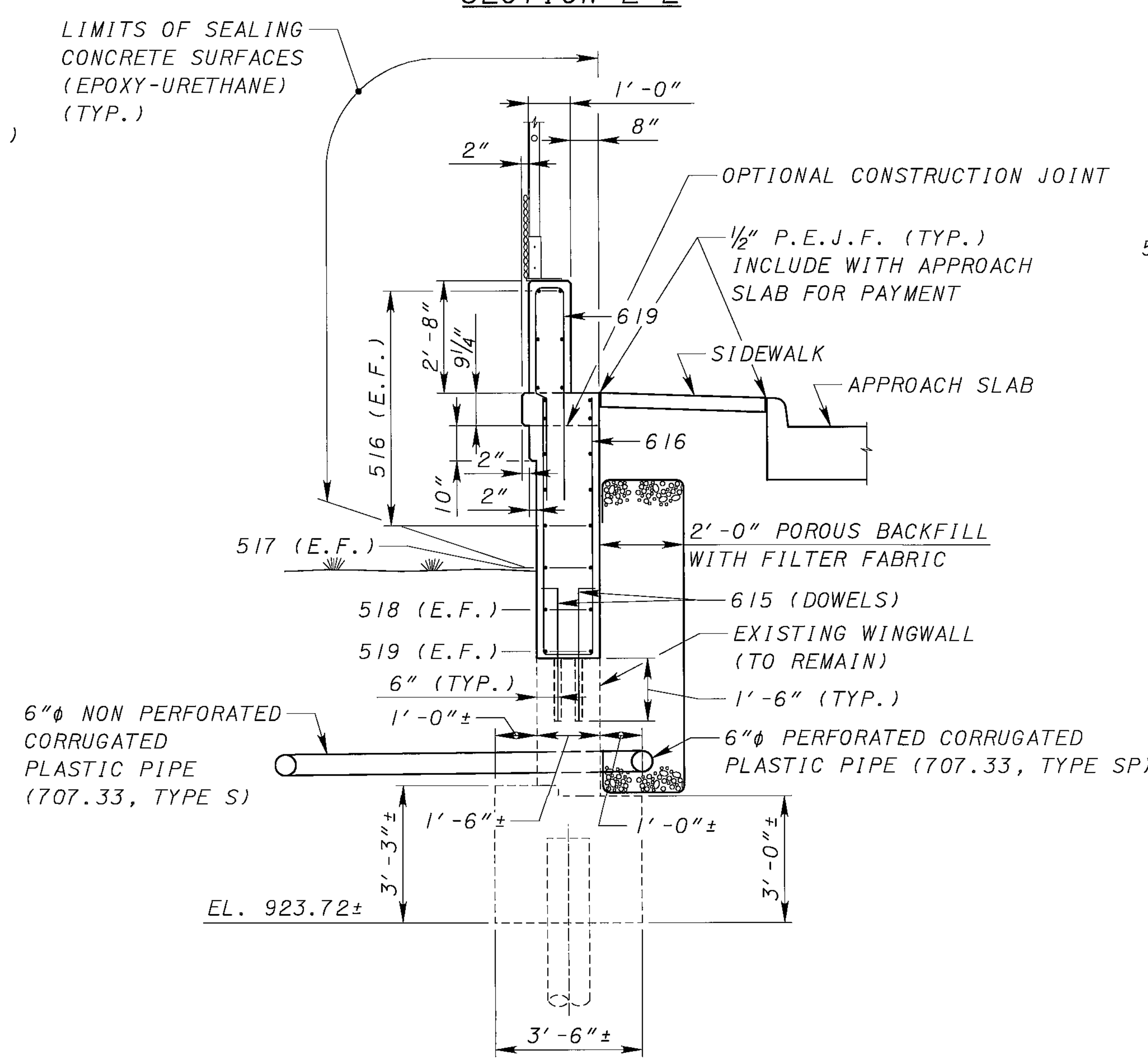
SECTION E-E



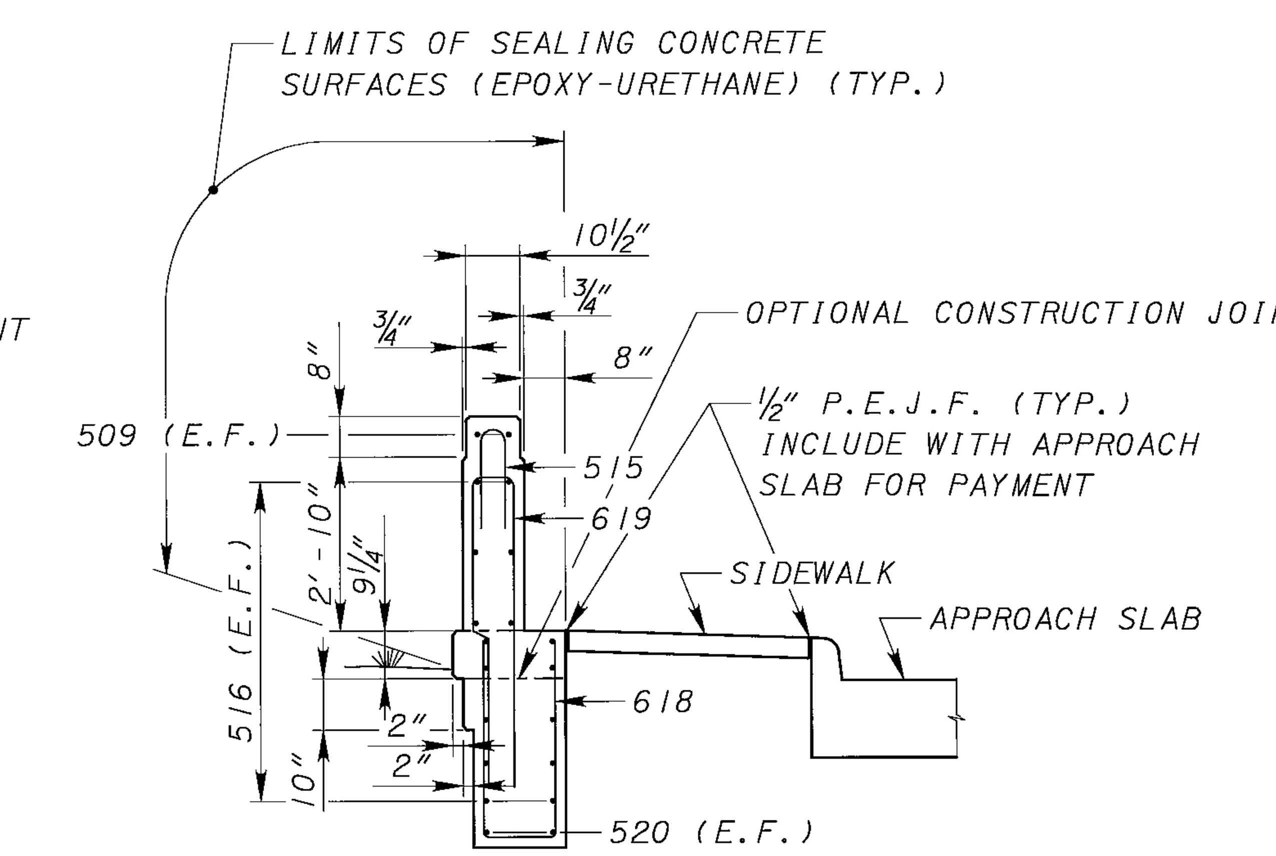
SECTION F-F



ELEVATION D-D



SECTION G-G



SECTION H-H

NOTES:

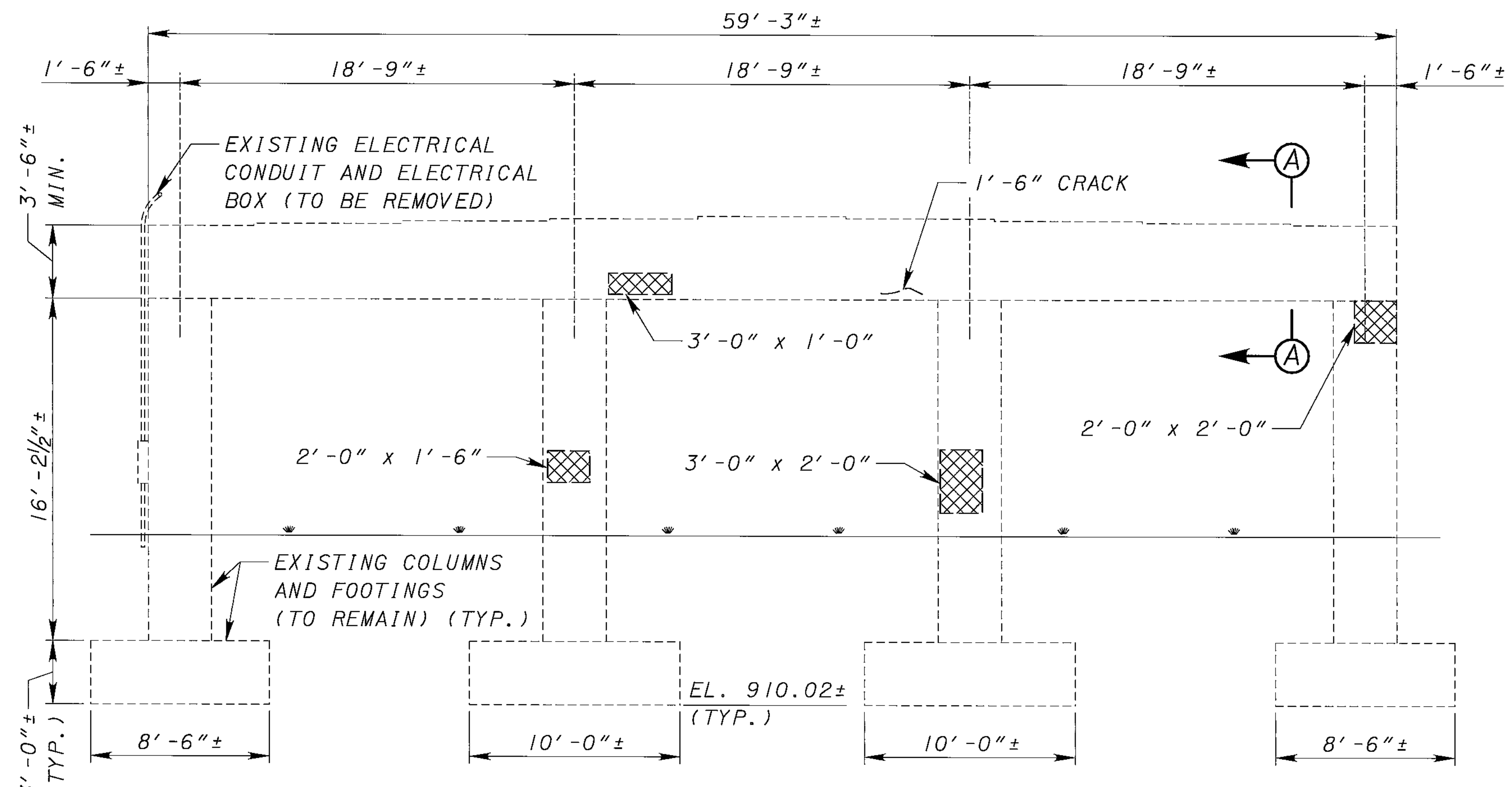
1. ALL REINFORCING BARS SHALL BE PREFIXED AS FOLLOWS:
   FORWARD ABUTMENT - FA
2. FOR ADDITIONAL NOTES AND ABBREVIATIONS, SEE SHEET 13/28.
3. FOR REINFORCING SCHEDULE, SEE SHEET 27/28.
4. FOR ADDITIONAL PARAPET DETAILS NOT SHOWN REFER TO O.D.O.T. STANDARD DRAWING BR-2-98.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650 CLEVELAND, OHIO 44113-1901

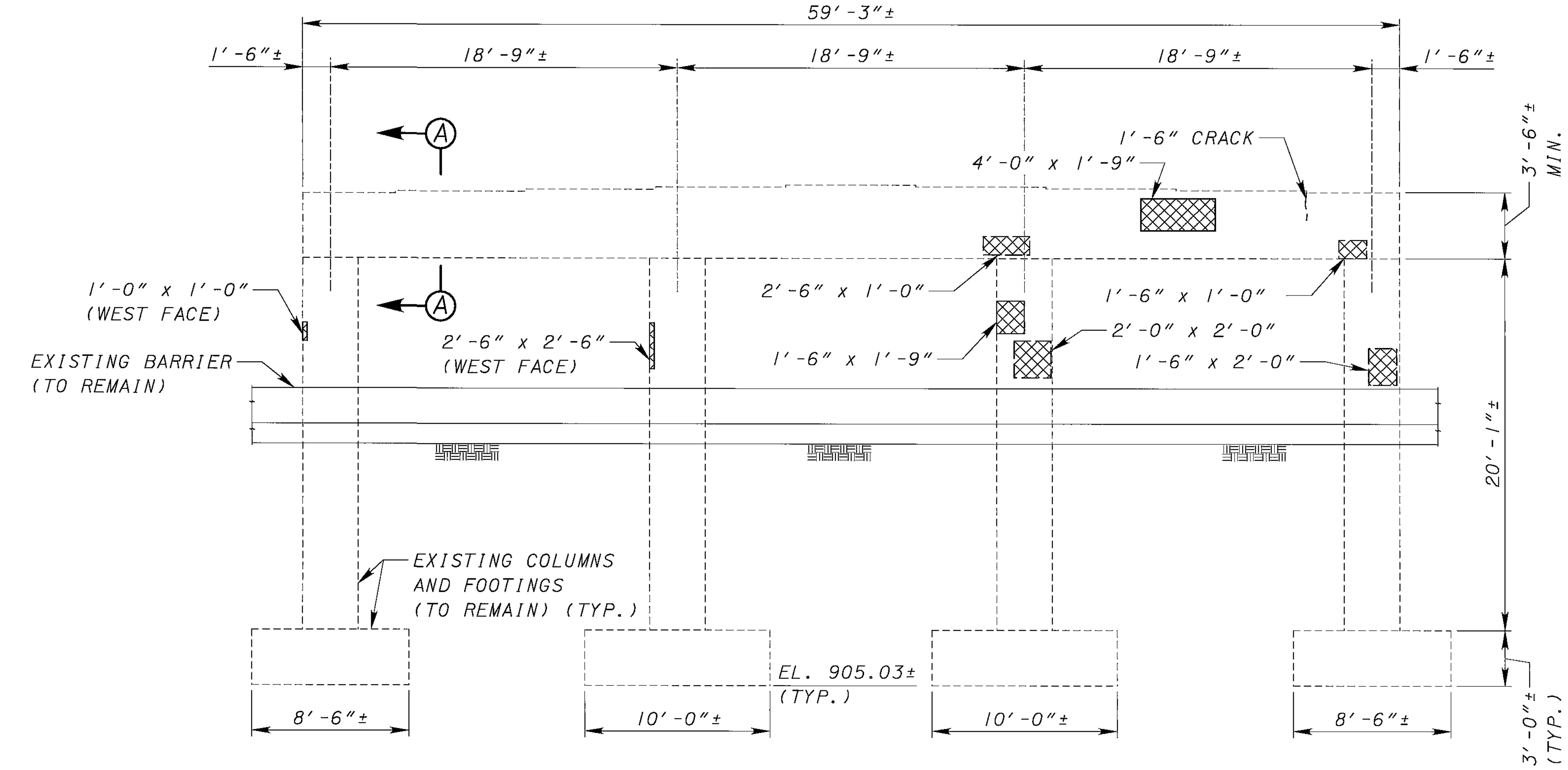
DESIGNED	DRAWN	REVIEWED	DATE
BTA	BTA	RER	05/28/04
CHECKED	REVISED	STRUCTURE FILE NUMBER	
MLR		5006813	

FORWARD ABUTMENT DETAILS
BRIDGE NO. MAH-680-0414
STEEL STREET OVER IR-680

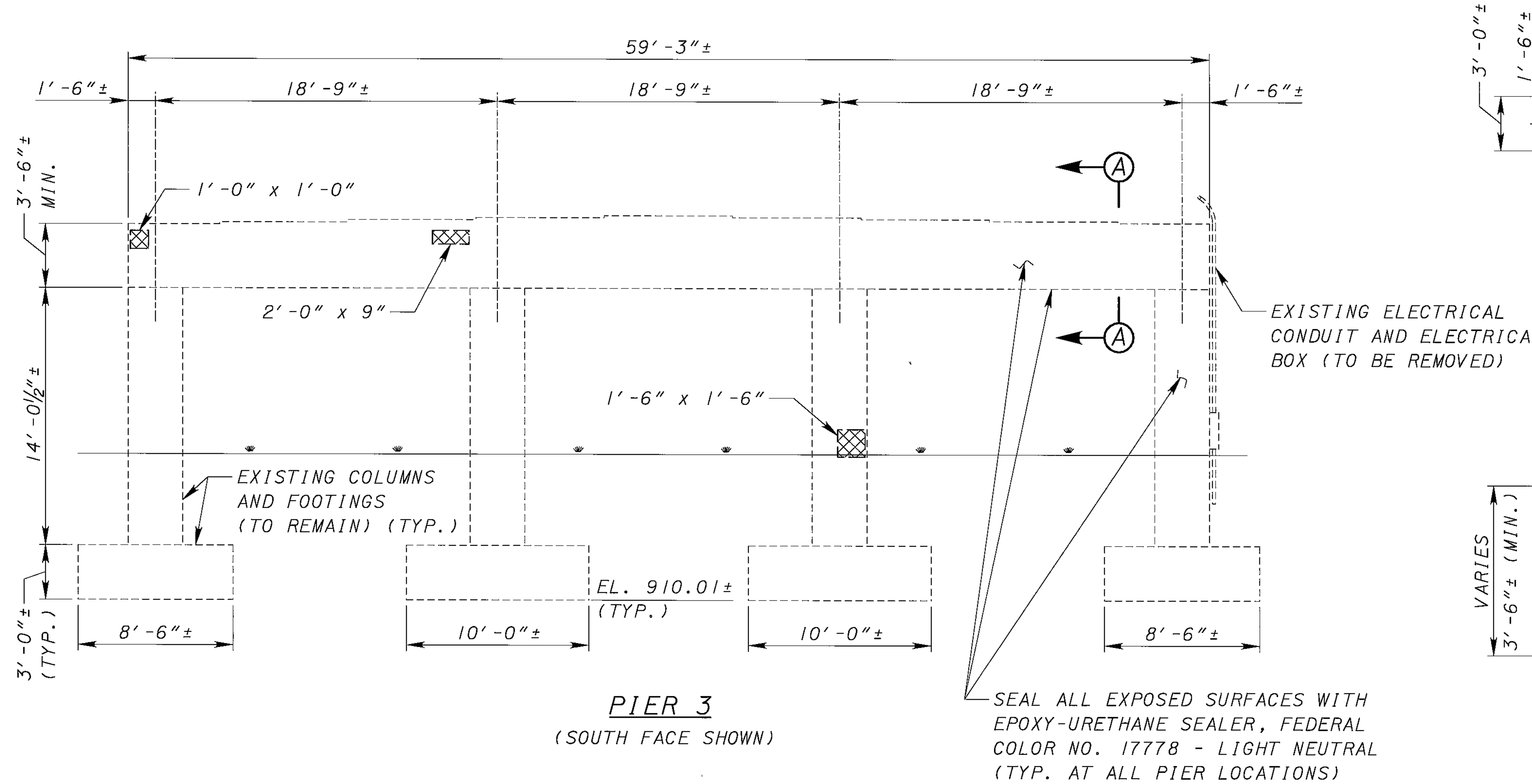
MAH-680-4.14/6.28/6.37



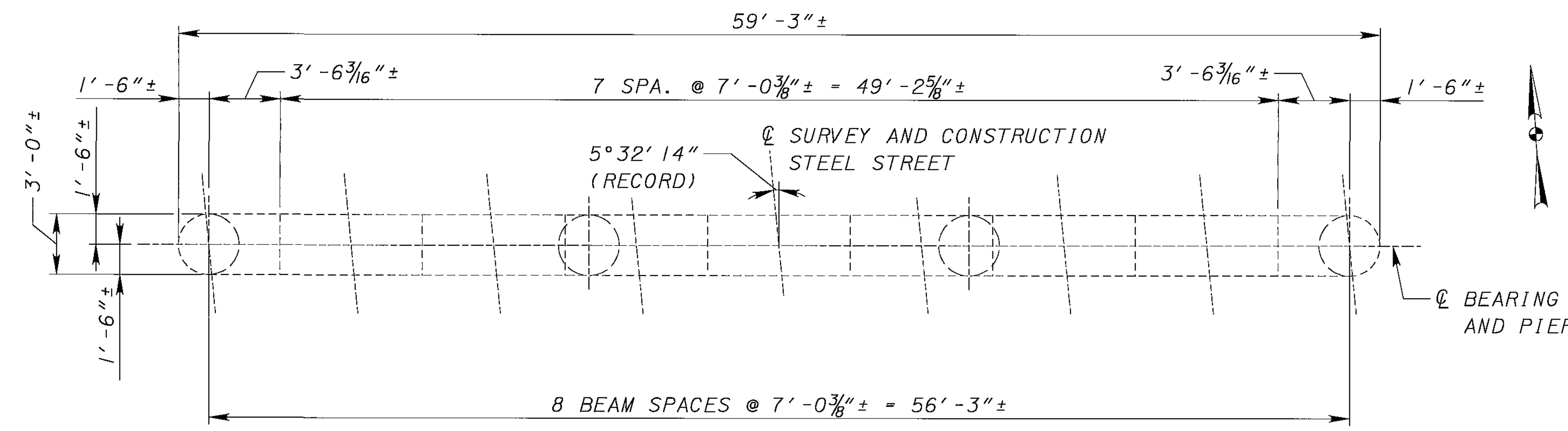
PIER 1
(SOUTH FACE SHOWN)



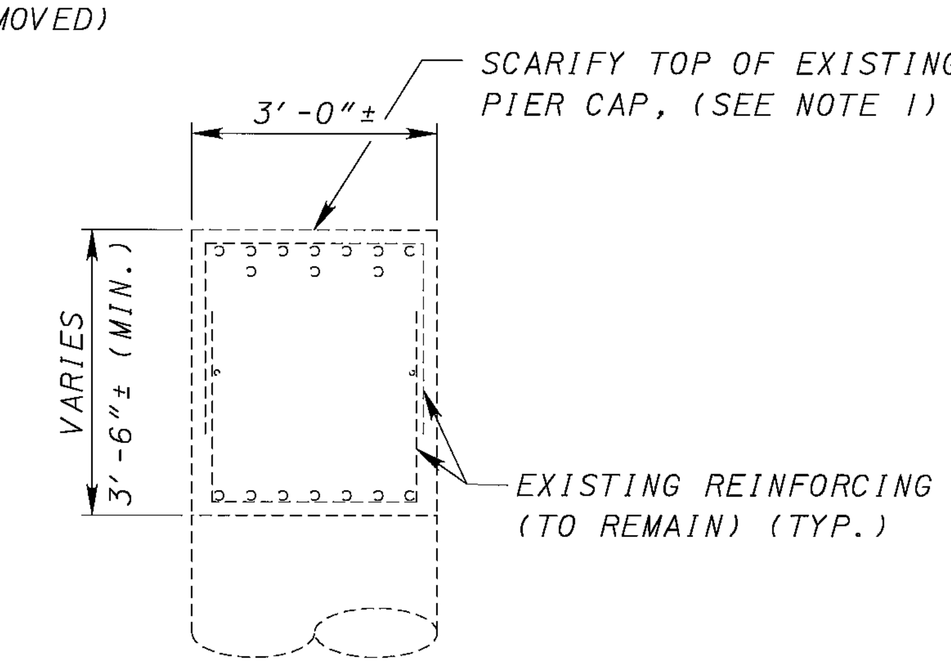
PIER 2
(SOUTH FACE SHOWN)



PIER 3
(SOUTH FACE SHOWN)



TYPICAL PIER PLAN



SECTION A-A

LEGEND

- PIER PATCHING (NORTH FACE)
- PIER PATCHING (SOUTH FACE)

NOTES:

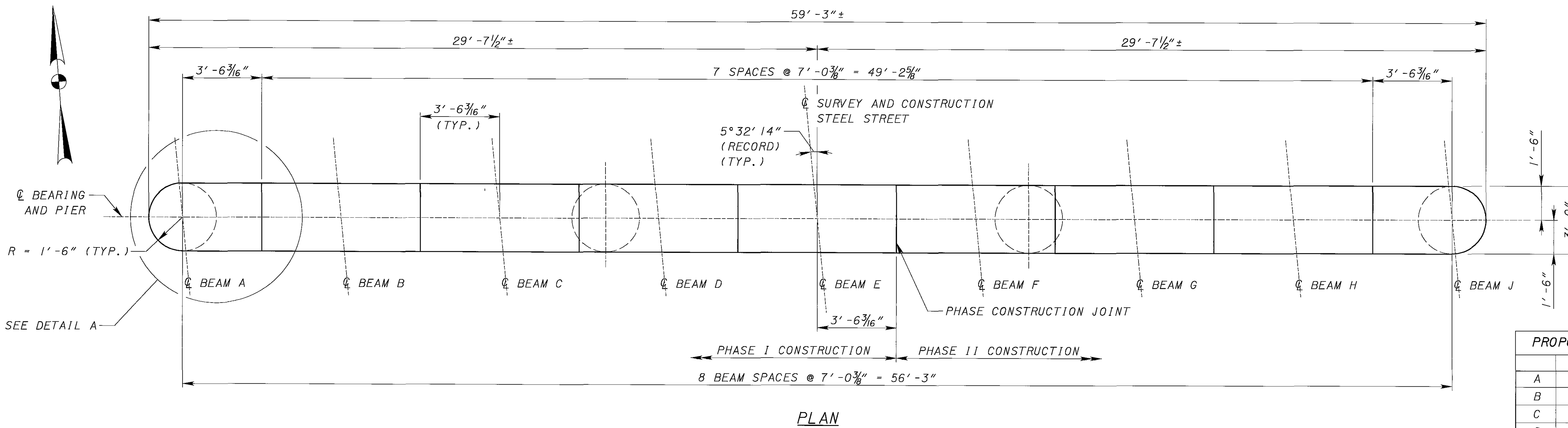
1. SURFACE SHALL BE CLEANED, FREE OF LAITANCE AND INTENTIONALLY ROUGHNED TO ¼"± AMPLITUDE. PAYMENT SHALL BE INCLUDED WITH ITEM 898.
2. FOR ADDITIONAL PIER CONSTRUCTION DETAILS, SEE SHEET 16/28.
3. FOR ADDITIONAL NOTES AND ABBREVIATIONS, SEE SHEET 16/28.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

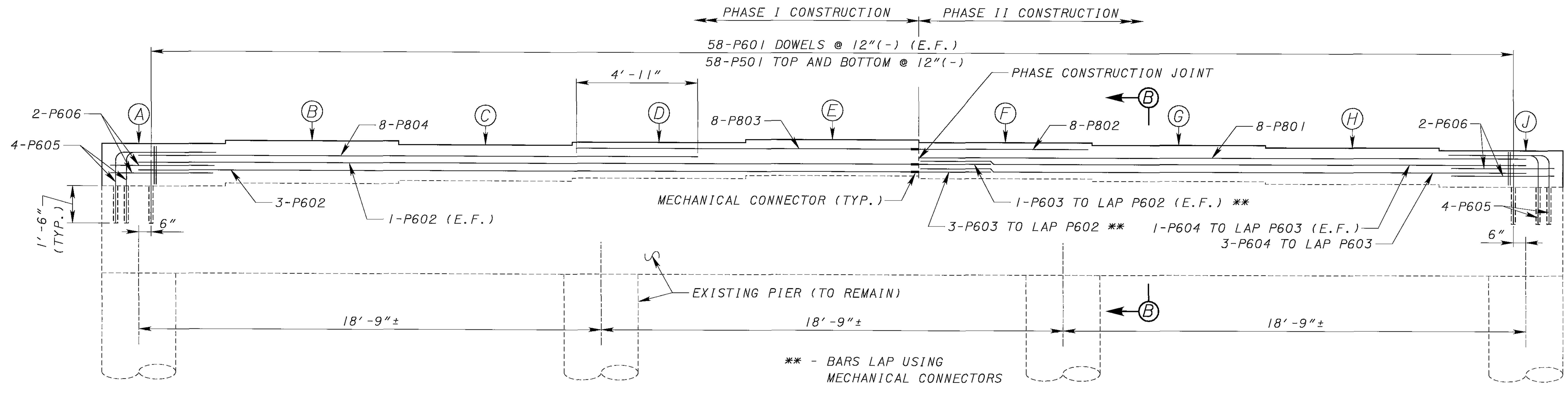
REVIEWED	DATE
RER	05/28/04
STRUCTURE FILE NUMBER	
5006813	
DRAWN BTA	REVISED
DESIGNED BTA	CHECKED MLR

PIER PATCHING DETAILS
BRIDGE NO. MAH-680-0414
STEEL STREET OVER IR-680

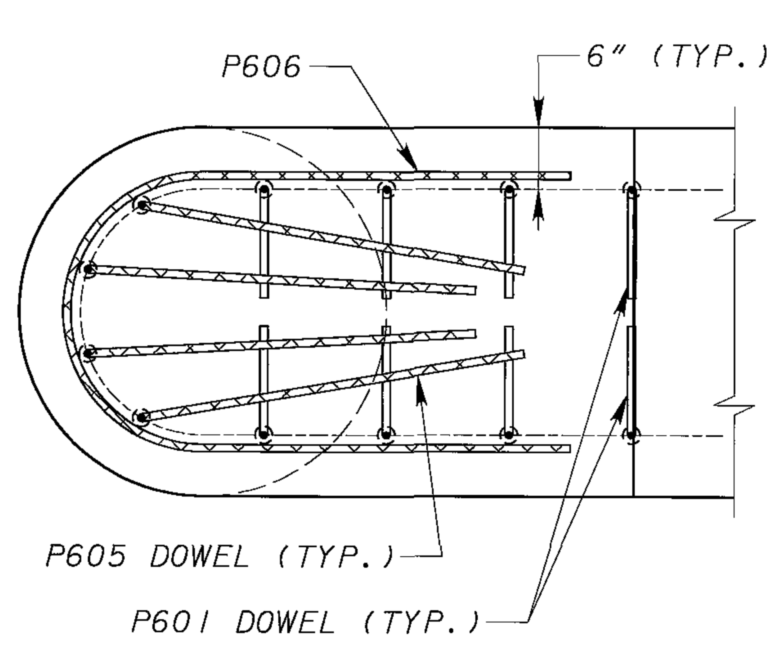
MAH-680-4.14/6.28/6.37



PLAN

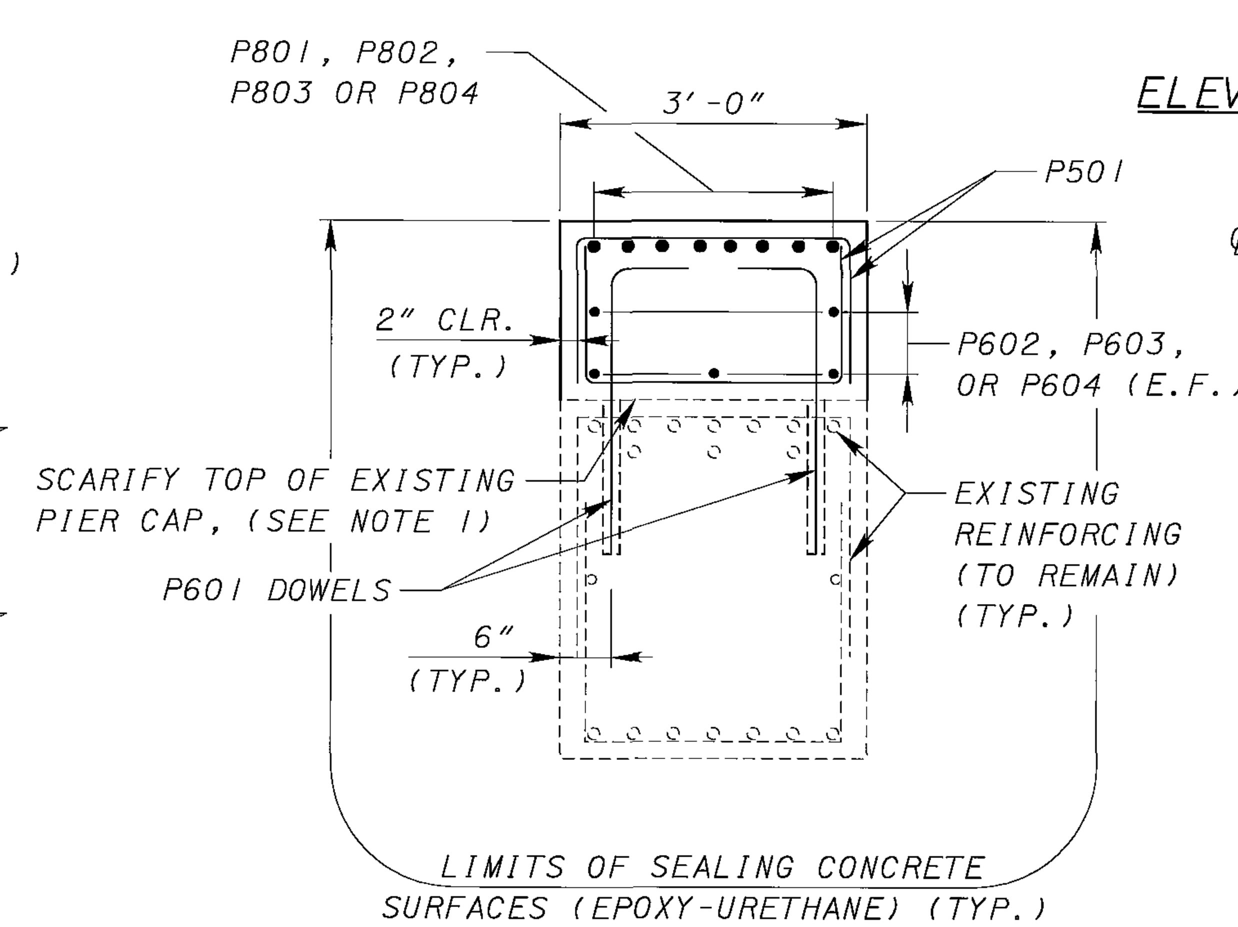


ELEVATION

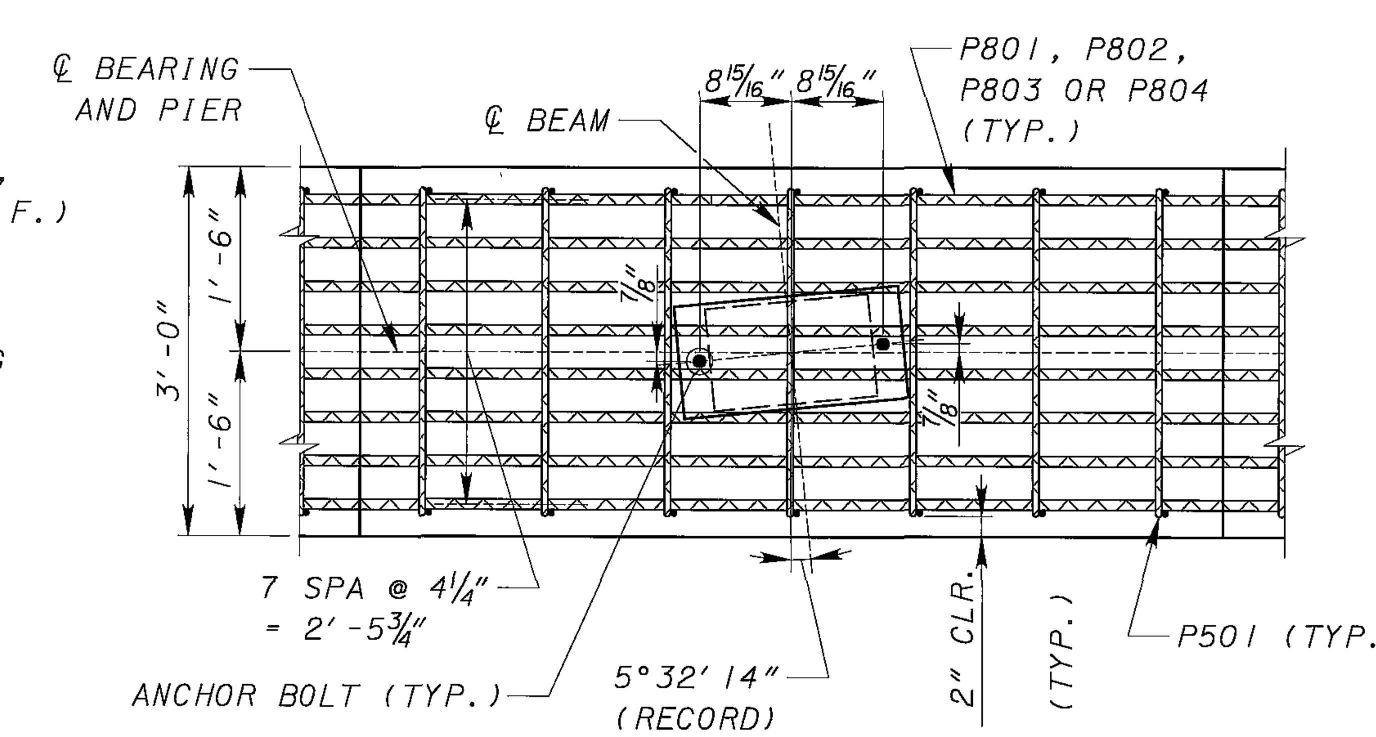


DETAIL A

(P804 BARS AND P501 STIRRUPS NOT SHOWN FOR CLARITY)



SECTION B-B



ANCHOR BOLT LAYOUT

(PIER 2 ONLY)

PROPOSED BEAM SEAT ELEVATIONS			
	PIER 1	PIER 2	PIER 3
A	934.41	933.31	932.24
B	934.54	933.44	932.37
C	934.40	933.29	932.23
D	934.52	933.41	932.35
E	934.64	933.53	932.47
F	934.54	933.43	932.37
G	934.44	933.33	932.27
H	934.35	933.24	932.18
J	934.25	933.14	932.08

EXISTING BEAM SEAT ELEVATIONS			
	PIER 1	PIER 2	PIER 3
A	932.70±	931.59±	930.54±
B	932.82±	931.71±	930.66±
C	932.95±	931.83±	930.78±
D	933.07±	931.95±	930.90±
E	933.19±	932.07±	931.02±
F	933.09±	931.97±	930.92±
G	932.99±	931.87±	930.82±
H	932.89±	931.78±	930.72±
J	932.79±	931.68±	930.63±

NOTES:

1. SURFACE SHALL BE CLEANED, FREE OF LAITANCE AND INTENTIONALLY ROUGHNED TO ¼"± AMPLITUDE. PAYMENT SHALL BE INCLUDED WITH ITEM 898.
2. FOR PIER PATCHING DETAILS, SEE SHEET 15/28.
3. ABBREVIATIONS
   TYP. - TYPICAL MIN. - MINIMUM
   E.F. - EACH FACE CLR. - CLEARANCE
4. FOR REINFORCING SCHEDULE, SEE SHEET 27/28.
5. PAYMENT FOR DRILLING OR FORMING HOLES AND FURNISHING AND PLACING GROUT SHALL BE INCLUDED IN THE CONTRACT PRICES FOR ITEM 510 - DOWELS HOLES WITH CEMENT GROUT.
6. ACCURATELY PLACE REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR THE PRESETTING OF THE BEARING ANCHORS.

DESIGN AGENCY: TRANSYSTEMS CORPORATION, 55 PUBLIC SQUARE, SUITE 1650, CLEVELAND, OHIO 44113-1901

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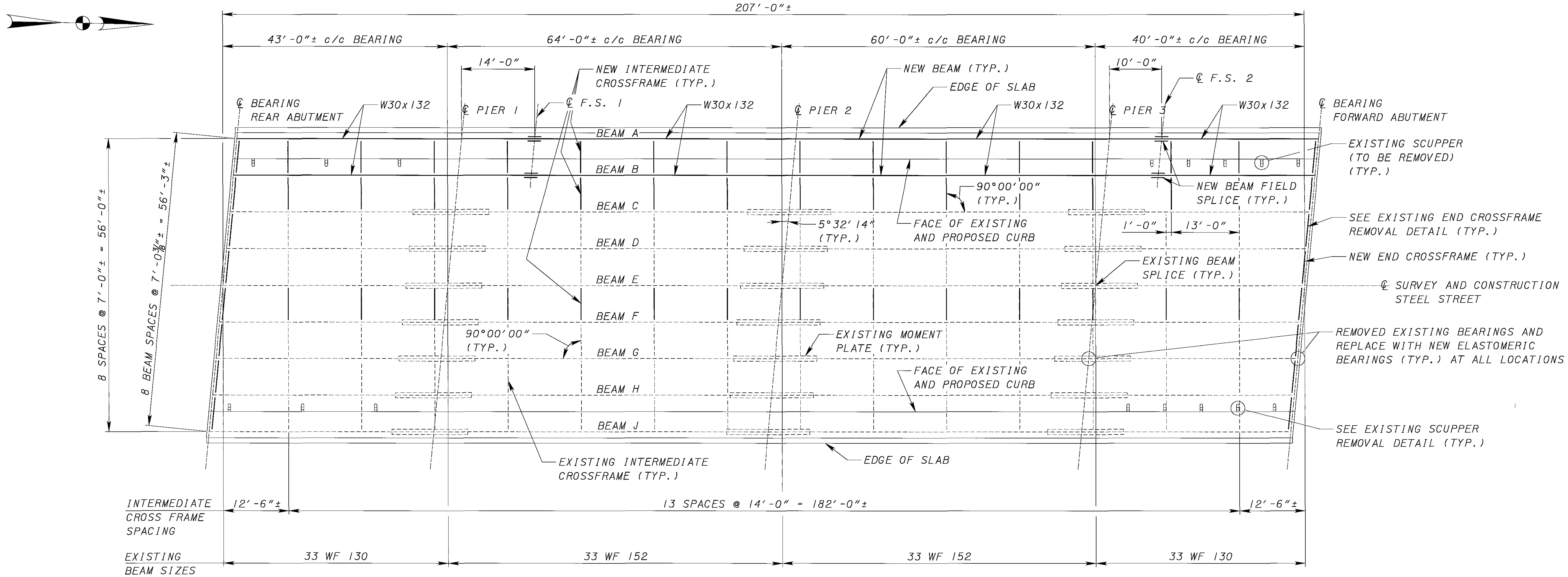
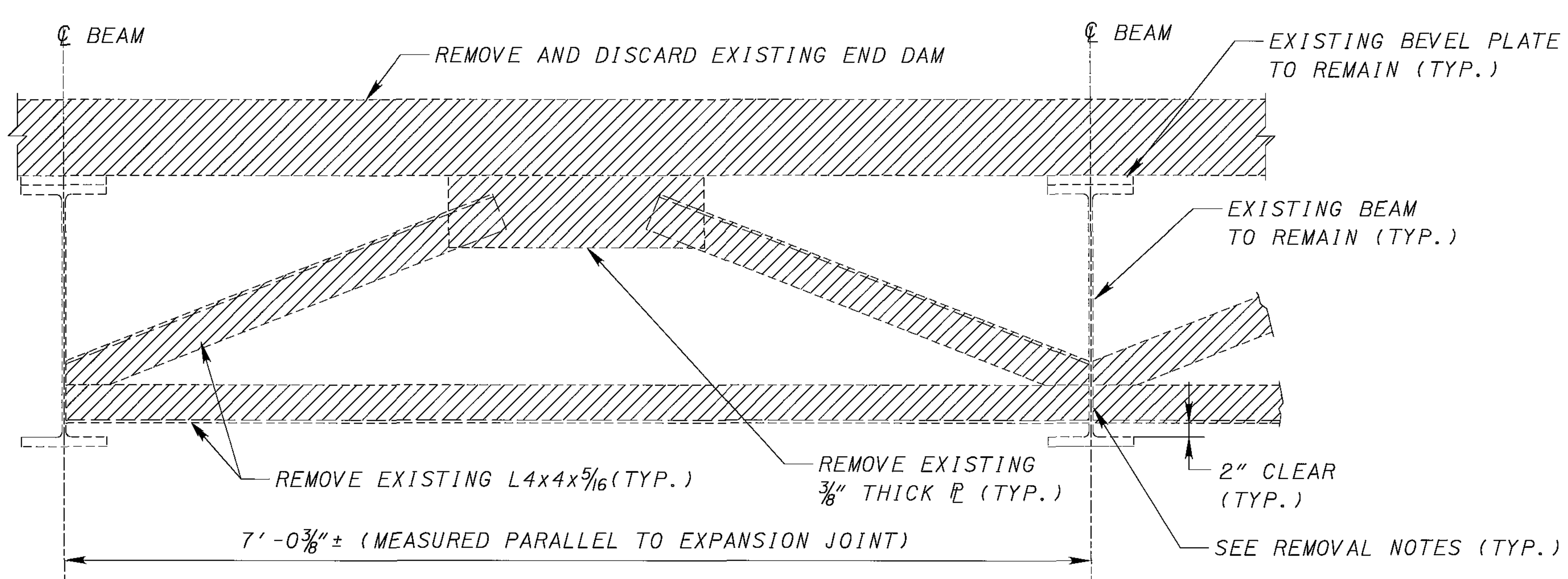
MLR		5006813	

PIER DETAILS
BRIDGE NO. MAH-680-0414
STEEL STREET OVER IR-680

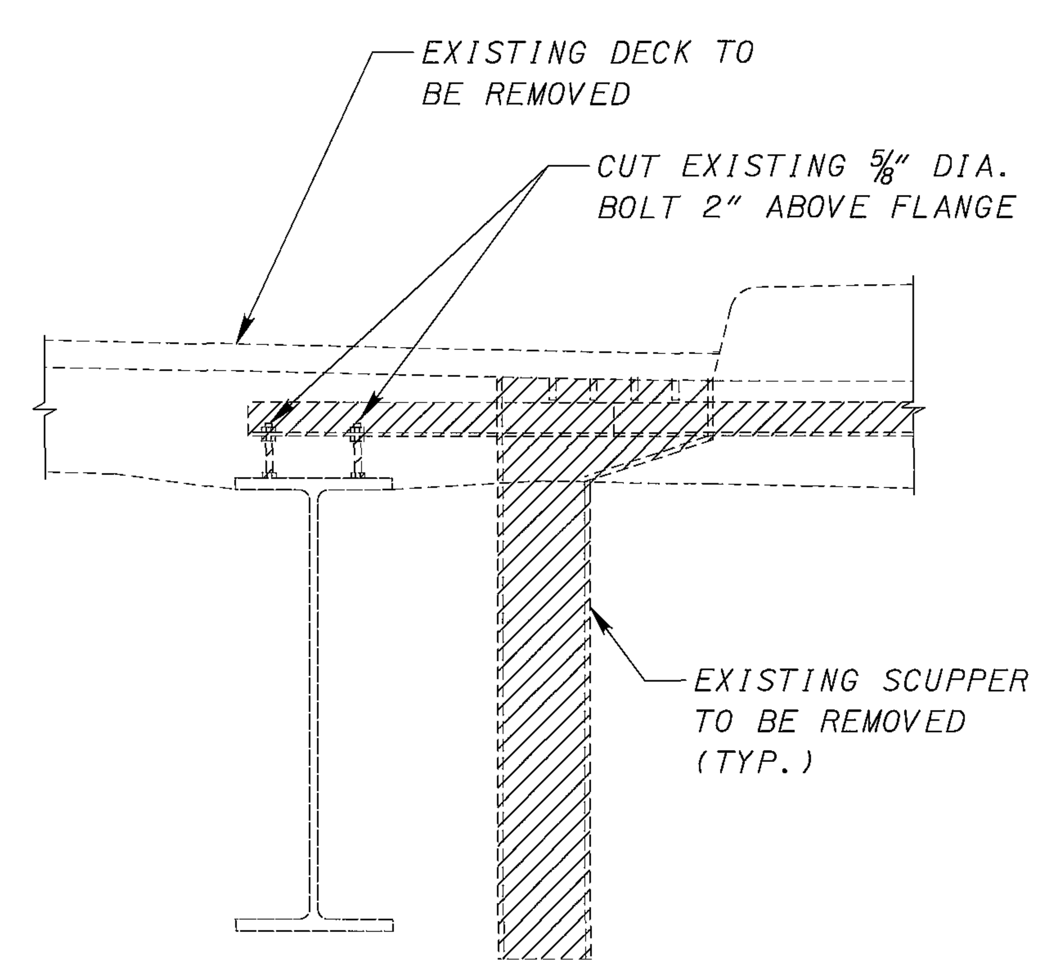
MAH-680-4.14/6.28/6.37



PLAN



EXISTING END CROSSFRAME REMOVAL DETAIL



EXISTING SCUPPER REMOVAL DETAIL

LEGEND

▨ - INDICATES REMOVAL

REMOVAL NOTES:

1. CUT THE EXISTING ANGLES CONNECTED TO THE BEAM WEB. DO NOT UNDERCUT THE WELDS OR GORGE THE BEAM WEB OR FLANGE DURING THE CUTTING OPERATION. ALL CUTTING SHALL BE DONE BY EITHER THE OXYGEN CUTTING OR THE AIR-CARBON-ARC PROCESS. CUTTING MAY BE DONE MANUALLY PROVIDED A GUIDE IS USED AND A STRAIGHT CUT IS ATTAINED. THE CONTRACTOR SHALL DEMONSTRATE TO THE ENGINEER PRIOR TO THE START OF WORK THAT HE CAN ACCOMPLISH THE WORK WITHOUT DAMAGE TO THE BEAM REGARDLESS OF THE PROCESS. AT NO TIME SHALL THE BEAM TEMPERATURE EXCEED 1100° F.
2. DETACH AND DISCARD THE EXISTING ANGLES.
3. THE SURFACES OF THE CUT FILLET WELDS SHALL BE GROUND IMMEDIATELY AFTER DISCARDING THE REMOVED PORTION. THIS GRINDING IS TO REMOVE ANY LARGE SURFACE IRREGULARITIES.
4. ANY REMAINING WELD MATERIAL OR STEEL SHALL BE GROUND SO THAT THE RESULTING WEB SURFACE IS SMOOTH. EXTREME CAUTION SHALL BE TAKEN TO MAINTAIN THE FULL WEB THICKNESS AND TO ENSURE THAT NO UNDERCUTTING, GOUGING, SCRATCHING OR OVERGRINDING OF THE WEB OCCURS.

NOTES

1. FOR DETAILS OF PROPOSED INTERMEDIATE CROSSFRAMES, REFER TO ODOT STANDARD DRAWING GSD-1-96.
2. THE NEW INTERMEDIATE CROSSFRAME BETWEEN BEAM E AND BEAM F SHOULD BE PLACED AFTER BOTH DECK SEQUENCES ARE INSTALLED.
3. FOR BEAM NOTES, SEE SHEET $\boxed{18/28}$.
4. ABBREVIATIONS:
   TYP. - TYPICAL
   DIA. - DIAMETER
   F.S. - FIELD SPLICE

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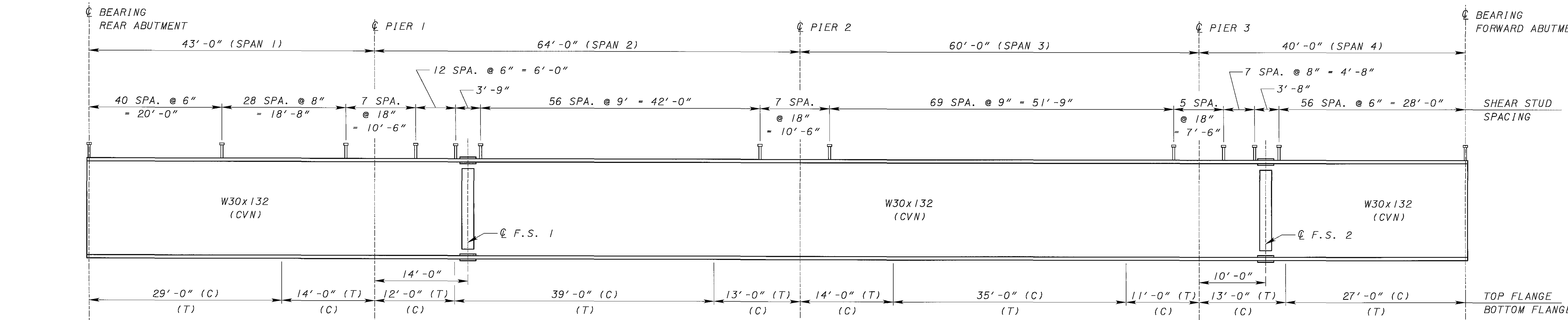
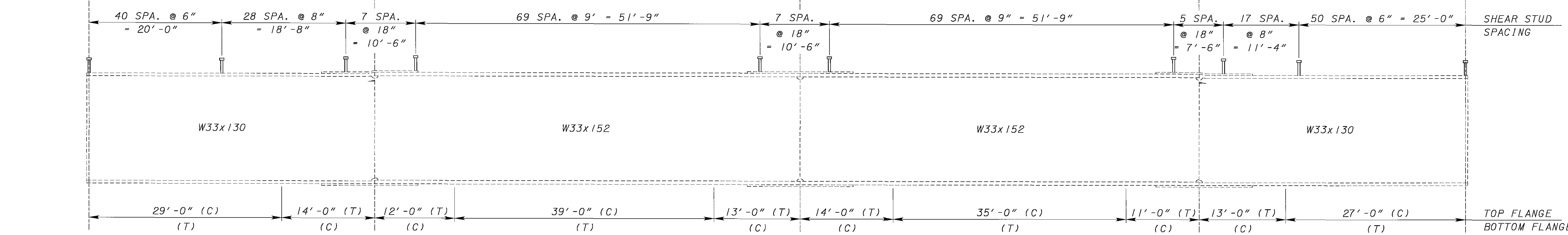
FRAMING PLAN
BRIDGE NO. MAH-680-0414
STEEL STREET OVER IR-680

MAH-680-4.14/6.28/6.37

17/28



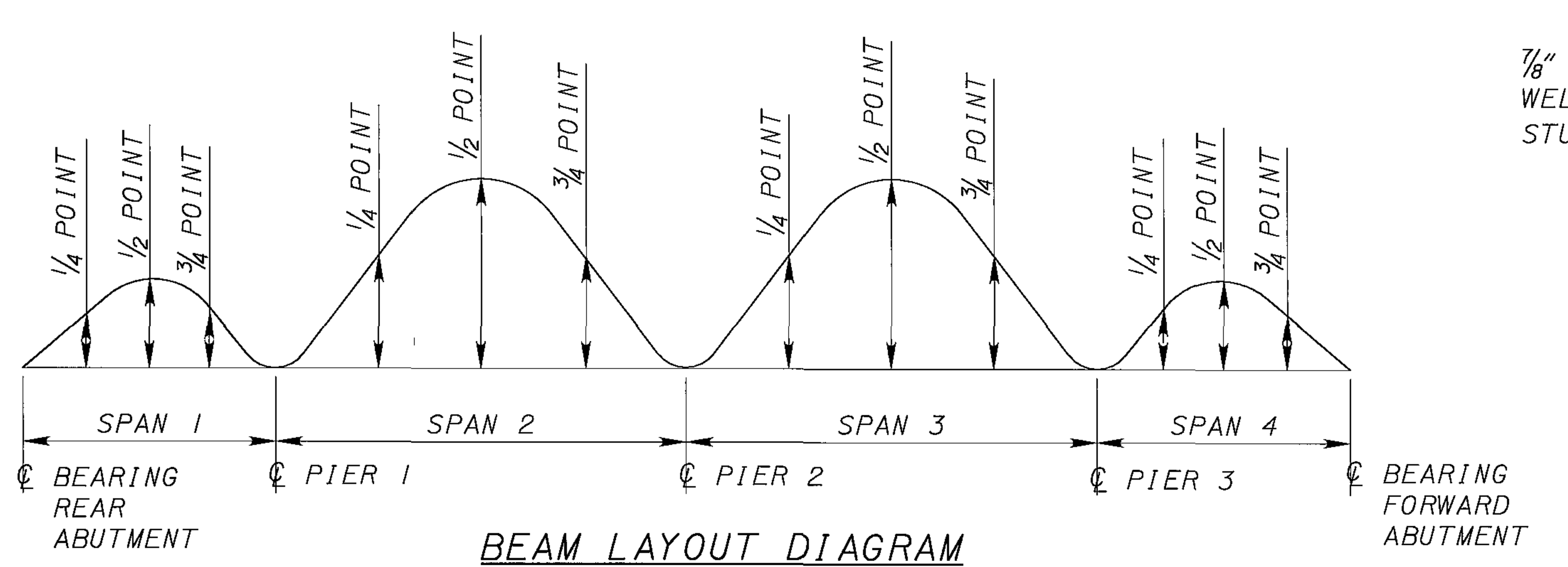
PROPOSED BEAMS A & B



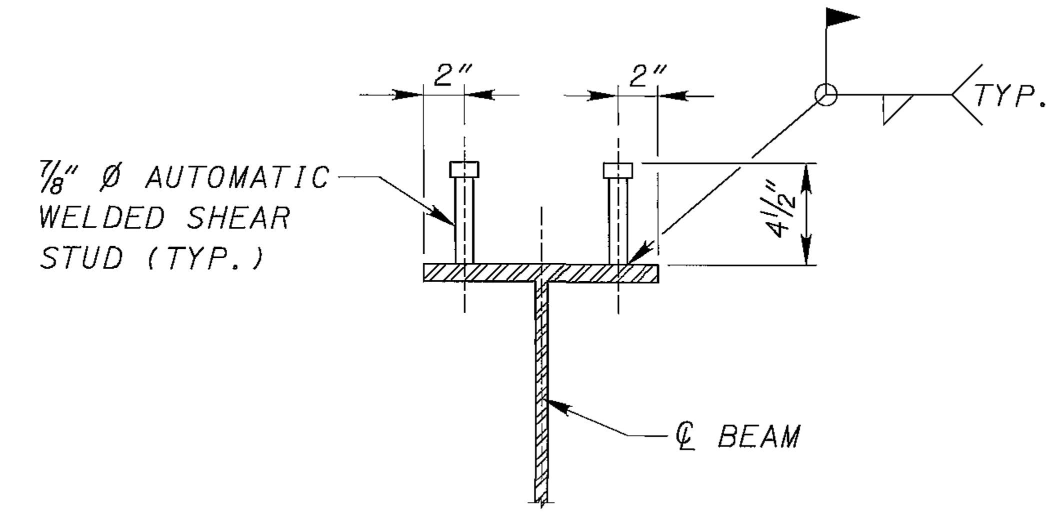
EXISTING BEAMS C THRU J

LEGEND:

(T) - DENOTES AREA OF TENSION
(C) - DENOTES AREA OF COMPRESSION

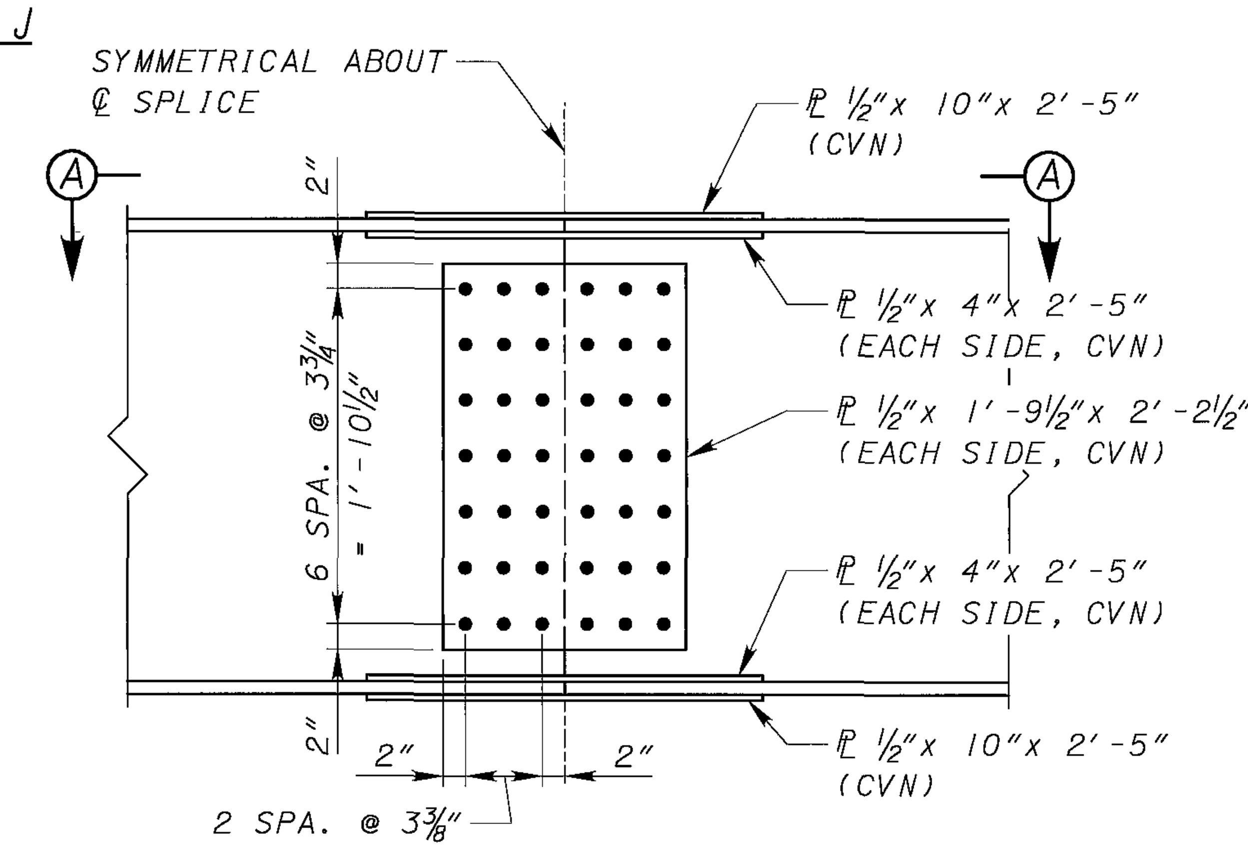


BEAM LAYOUT DIAGRAM

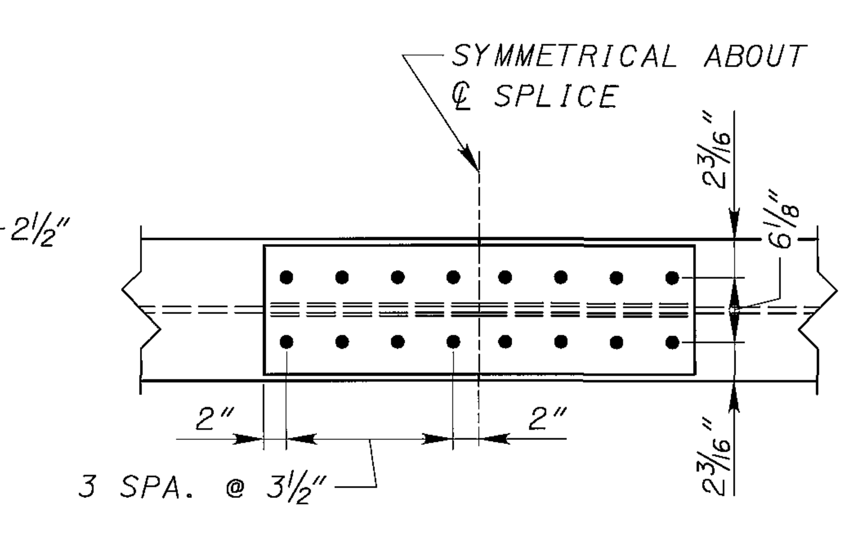


SHEAR STUD DETAIL

NOTE: STUD PLACEMENT ON FLANGE SPLICE PLATES IS NOT PERMITTED. ADJUST SPACINGS TO AVOID INTERFERENCE WITH SPLICE PLATES AND THE MOMENT PLATES



FIELD SPLICE DETAIL



SECTION A-A

(1 OUTTER AND 2 INNER PLATES REQUIRED)

CAMBER AND DEFLECTIONS

PROPOSED BEAMS A & B

POINT	SPAN 1				SPAN 2				SPAN 3				SPAN 4		
	1/4	1/2	3/4	PIER 1	1/4 F.S. 1	1/2	3/4	PIER 2	1/4	1/2	3/4	PIER 3	1/4 F.S. 2	1/2	3/4
DEFLECTION DUE TO WEIGHT OF STEEL	0	0	0	0	1/16"	1/16"	1/16"	0	0	1/16"	1/16"	0	0	0	0
DEFLECTION DUE TO REMAINING DEAD LOAD	1/16"	1/8"	0	0	5/16"	1/2"	1/4"	0	3/16"	5/16"	3/16"	0	0	1/16"	1/16"
VERTICAL CURVE ADJUSTMENT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL CAMBER	1/16"	1/8"	0	0	3/8"	9/16"	5/16"	0	3/16"	3/8"	1/4"	0	0	1/16"	1/16"

NOTES

1. ALL NEW STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 50 PAINTED.

2. WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA STRINGER FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1" FROM EDGE OF FLANGE, BE AT LEAST 2" LONG, AND BE AT LEAST 1/4" FOR THICKNESSES UP TO 3/4" OR 5/16" FOR GREATER THAN 3/4" THICK.

3. CVN: WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.

4. USE ODOT SANDARD DRAWING GSD-1-96 FOR NEW INTERMEDIATE AND END CROSSFRAMES.

5. ALL FIELD SPLICE PLATES SHALL BE ASTM A709 GRADE 50W STEEL. ALL FIELD SPLICE FASTNERS SHALL BE 1 1/8" DIAMETER HIGH STRENGTH BOLTS, ASTM A-325. FOR ADDITIONAL SPLICE DETAILS NOT SHOWN, SEE ODOT STANDARD DRAWING BS-1-93.

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STRUCTURE FILE NUMBER 5006813
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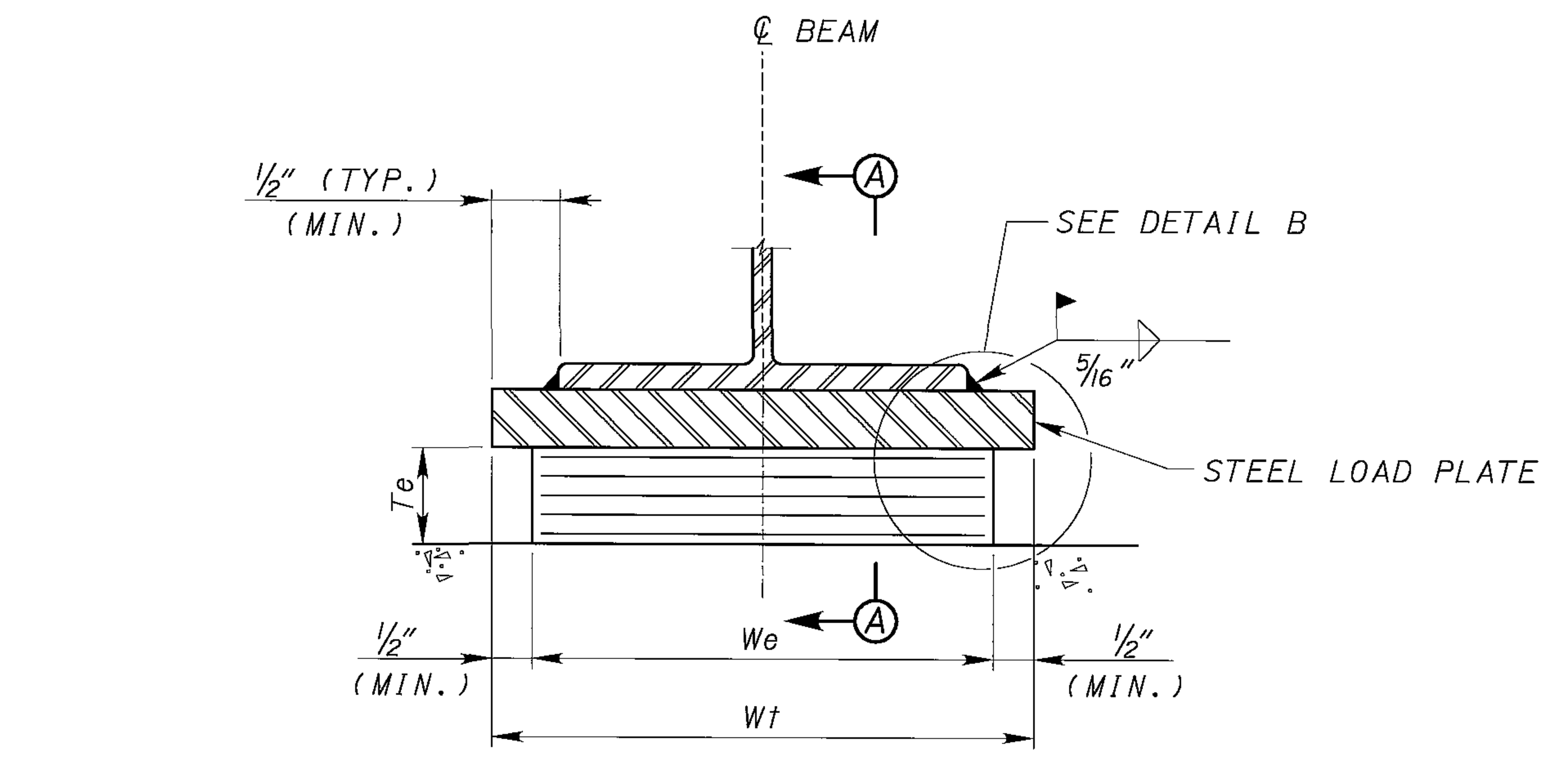
DESIGNED BTA CHECKED MLR

SUPERSTRUCTURE DETAILS
BRIDGE NO. MAH-680-0414
STEEL STREET OVER IR-680

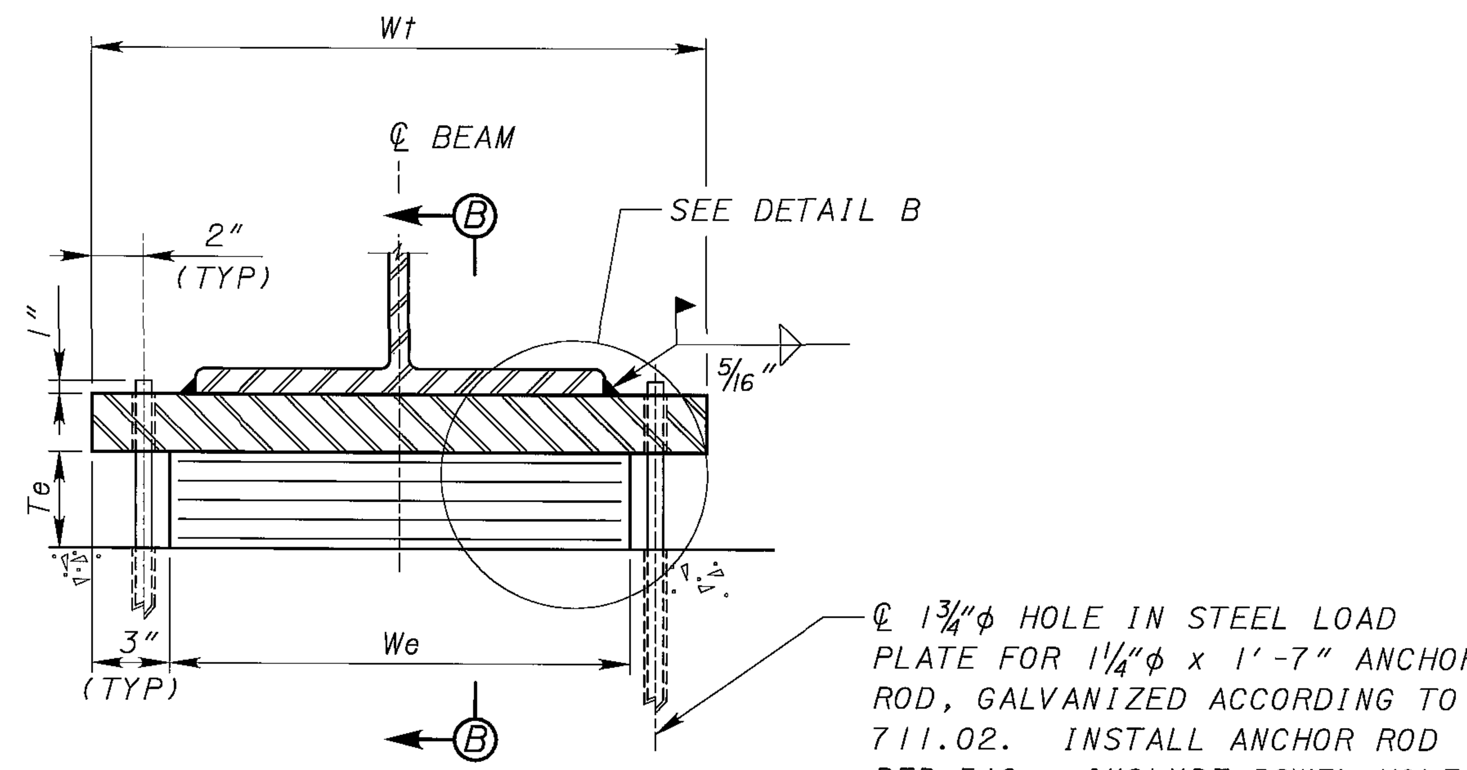
MAH-680-4.14/6.28/6.37

18/28



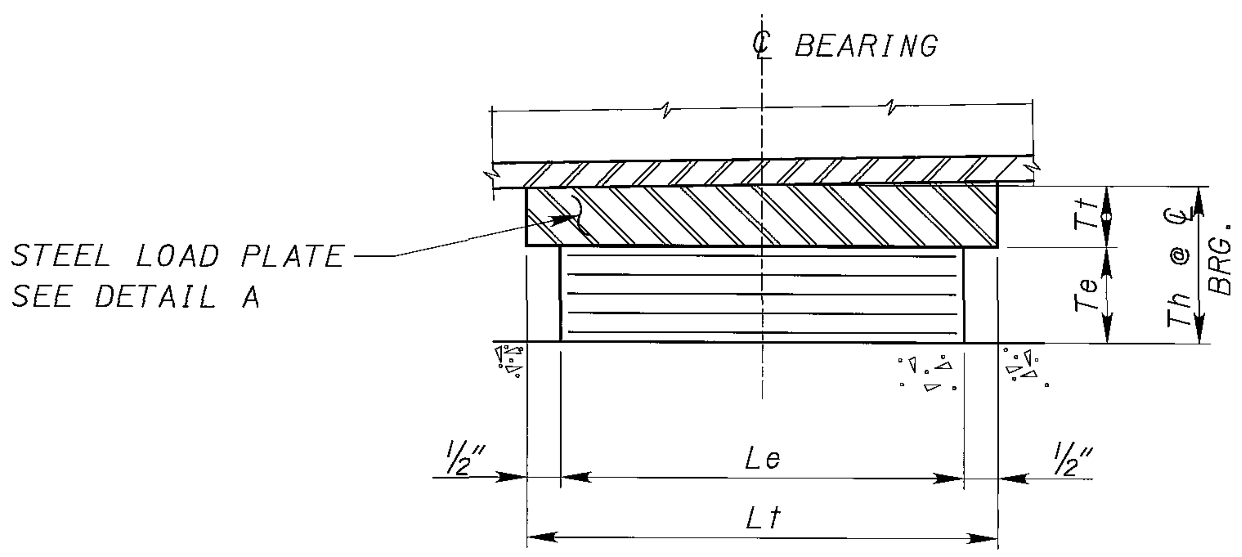
LAMINATED ELASTOMERIC

(EXPANSION BEARING)
(BOTTOM SPLICE PLATES FOR
EXISTING BEAMS, AT PIERS, NOT SHOWN)

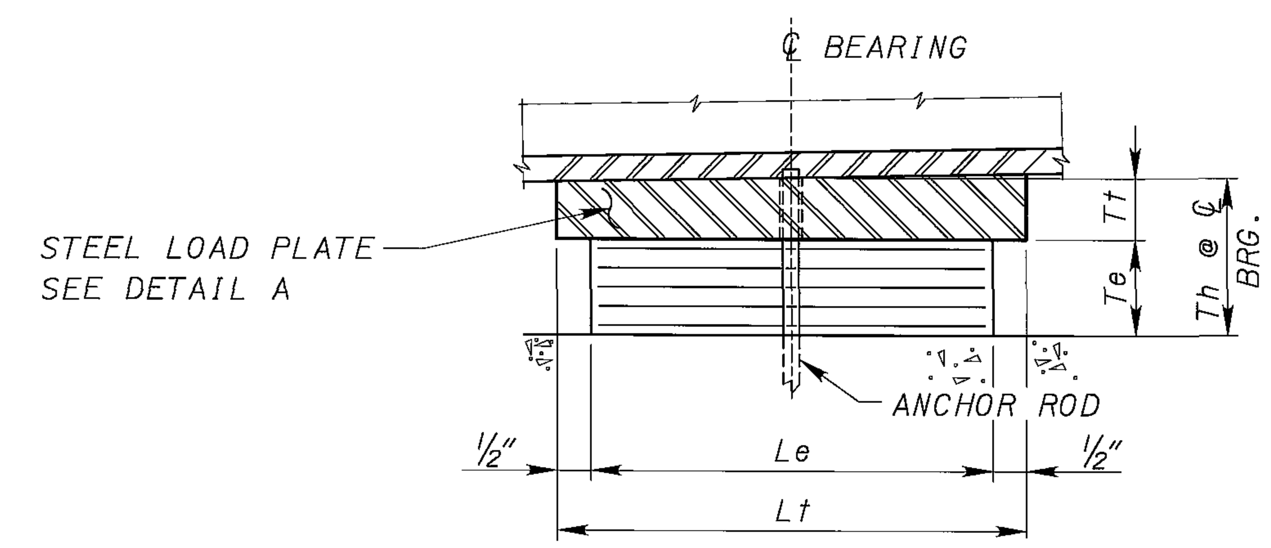


LAMINATED ELASTOMERIC

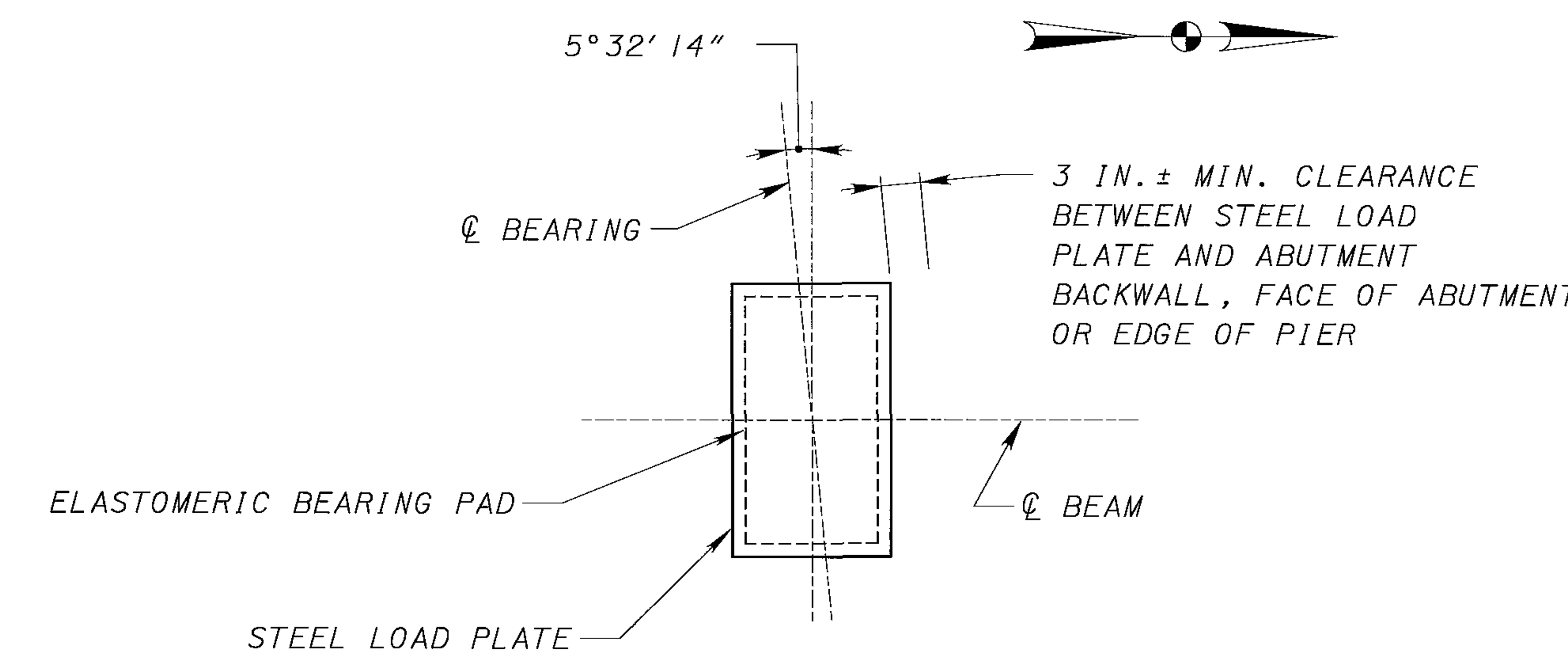
(FIXED BEARING)
(BOTTOM SPLICE PLATES FOR
EXISTING BEAMS, AT PIERS, NOT SHOWN)



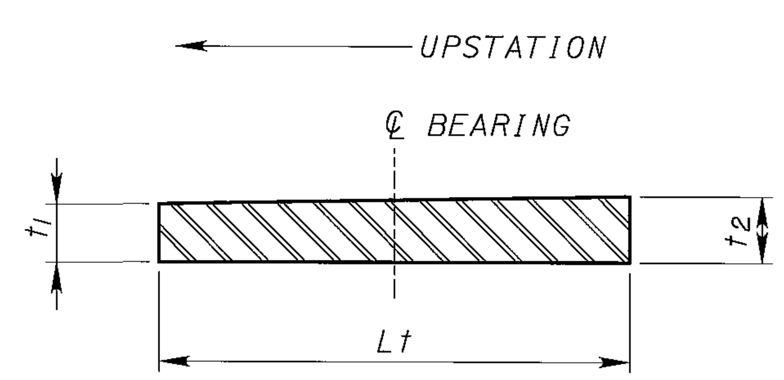
SECTION A-A



SECTION B-B

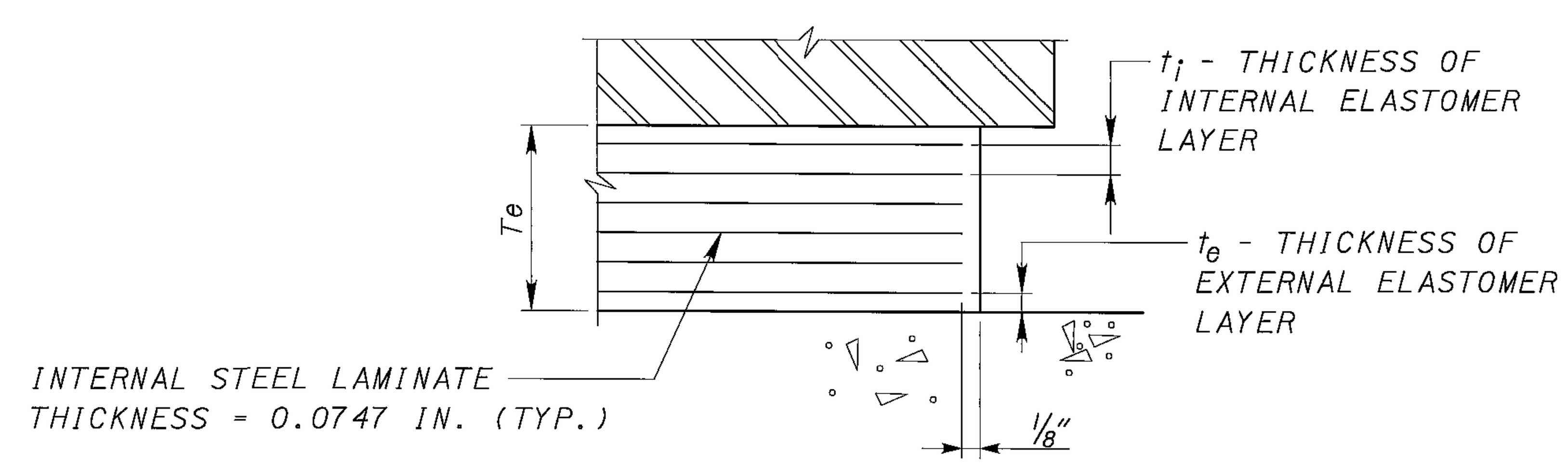


BEARING ORIENTATION PLAN



DETAIL A

(STEEL LOAD PLATE)



DETAIL B

NOTES:

1. ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION I, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.

2. THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS. CONTROL WELDING OF LOAD PLATE TO THE SUPERSTRUCTURE SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300°F AS DETERMINED BY THE USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

3. BEARING REPOSITIONING: IF THE STEEL IS ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80°F OR LOWER THAN 40°F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60°F ± 10°F, RAISE THE BEAMS TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60°F ± 10°F.

4. BASIS OF PAYMENT - THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS LABOR, TESTING, PAINTING 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).

ELASTOMERIC BEARING DATA

LOCATION	TYPE	NO. REQ'D	DL (KIP)	LL (KIP) W/O IMPACT	TOTAL LOAD (DL+LL)	Le (in.)	We (in.)	t_i (in.)	t_e (in.)	NO. OF ti's	NO. OF te's	NO. INTERNAL LAMINATES	Te (in.)	STEEL LOAD PLATE Wt (in.)	Lt (in.)	t_1 (in.)	t_2 (in.)	Tt* (in.)	Th* (in.)
REAR ABUT.	EXP	9	22.00	43.00	65.00	7.00	11.50	0.20	0.14	4	2	5	1.45	12.50	8.00	1.68	1.82	1.75	3.20
PIER No. 1	EXP	9	88.00	52.00	140.00	10.50	17.00	0.31	0.22	4	2	5	2.05	18.00	11.50	2.40	2.60	2.50	4.55
PIER No. 2	FIXED	9	95.00	52.00	147.00	10.00	16.00	0.27	0.19	4	2	5	1.83	22.00	11.00	2.40	2.60	2.50	4.33
PIER No. 3	EXP	9	88.00	52.00	140.00	10.50	17.00	0.31	0.22	4	2	5	2.05	18.00	11.50	2.40	2.60	2.50	4.55
FWD. ABUT.	EXP	9	22.00	43.00	65.00	7.00	11.50	0.20	0.14	4	2	5	1.45	12.50	8.00	1.68	1.82	1.75	3.20

* - @ ℄ BEARING

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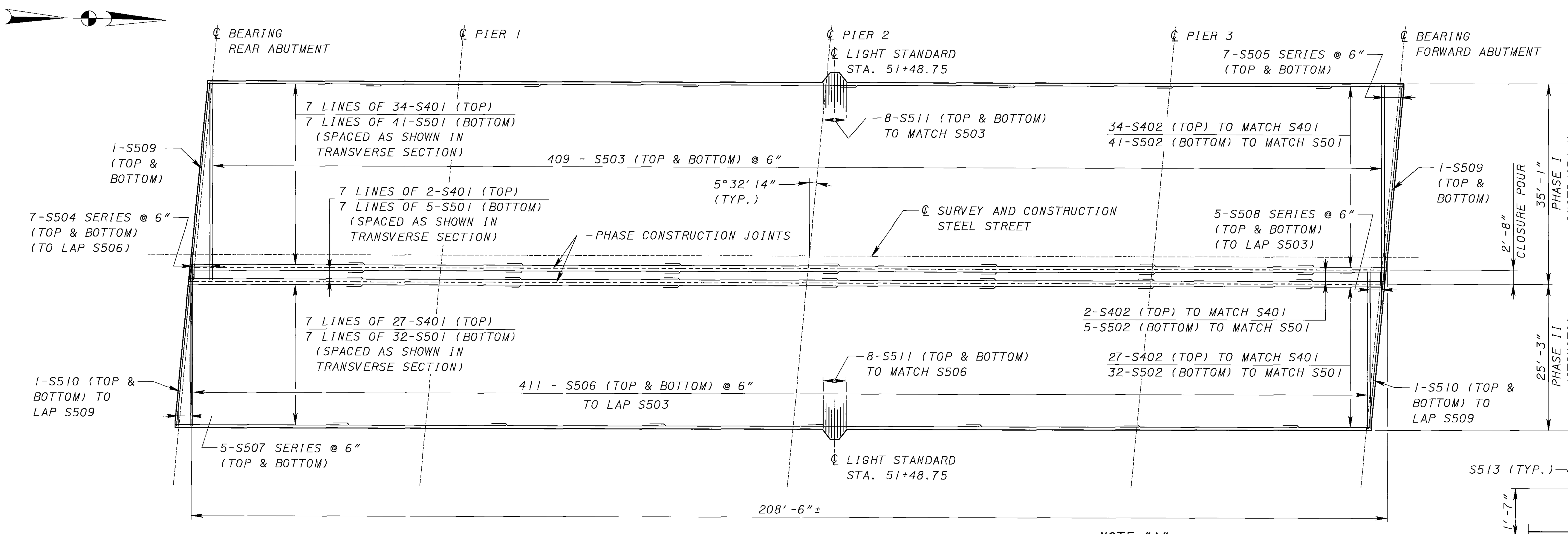
MLR		5006813	

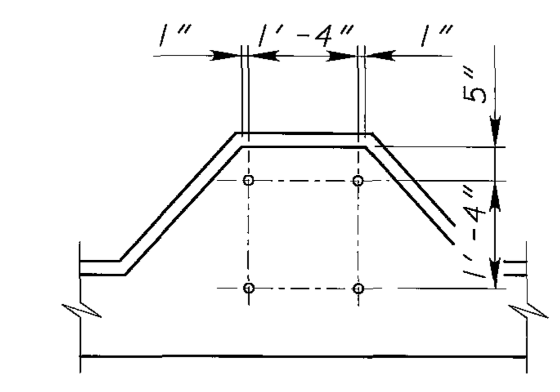
BEARING DETAILS
BRIDGE NO. MAH-680-0414
STEEL STREET OVER IR-680

MAH-680-4.14/6.28/6.37

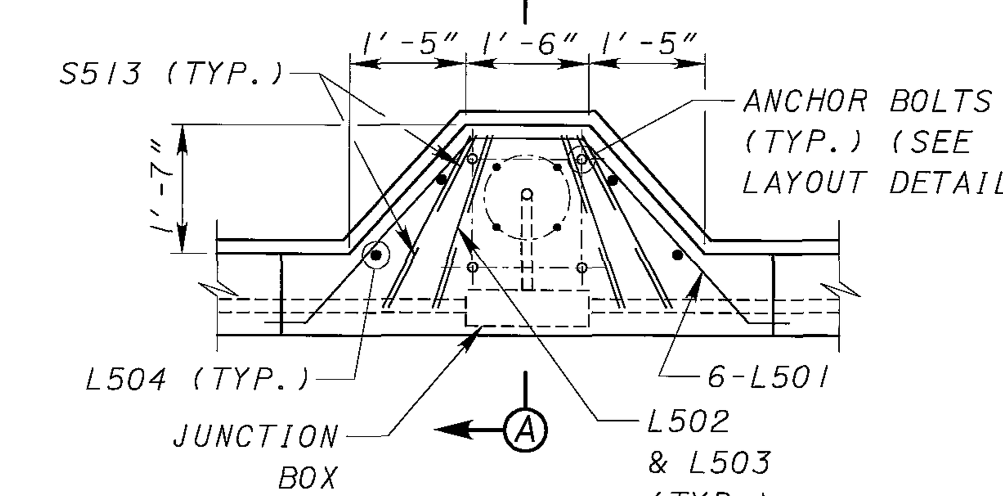
BAR	REQUIRED LAP LENGTH
No. 4	1'-11"
No. 5	2'-5"



DECK PLAN



ANCHOR BOLT LAYOUT

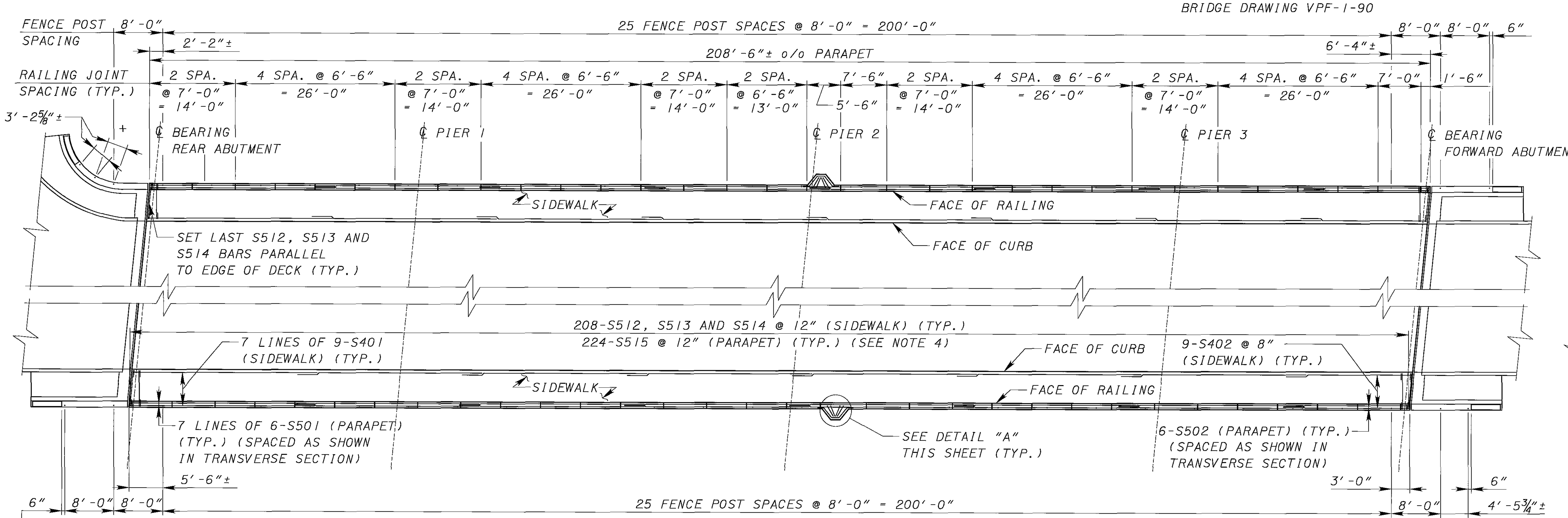


DETAIL "A"

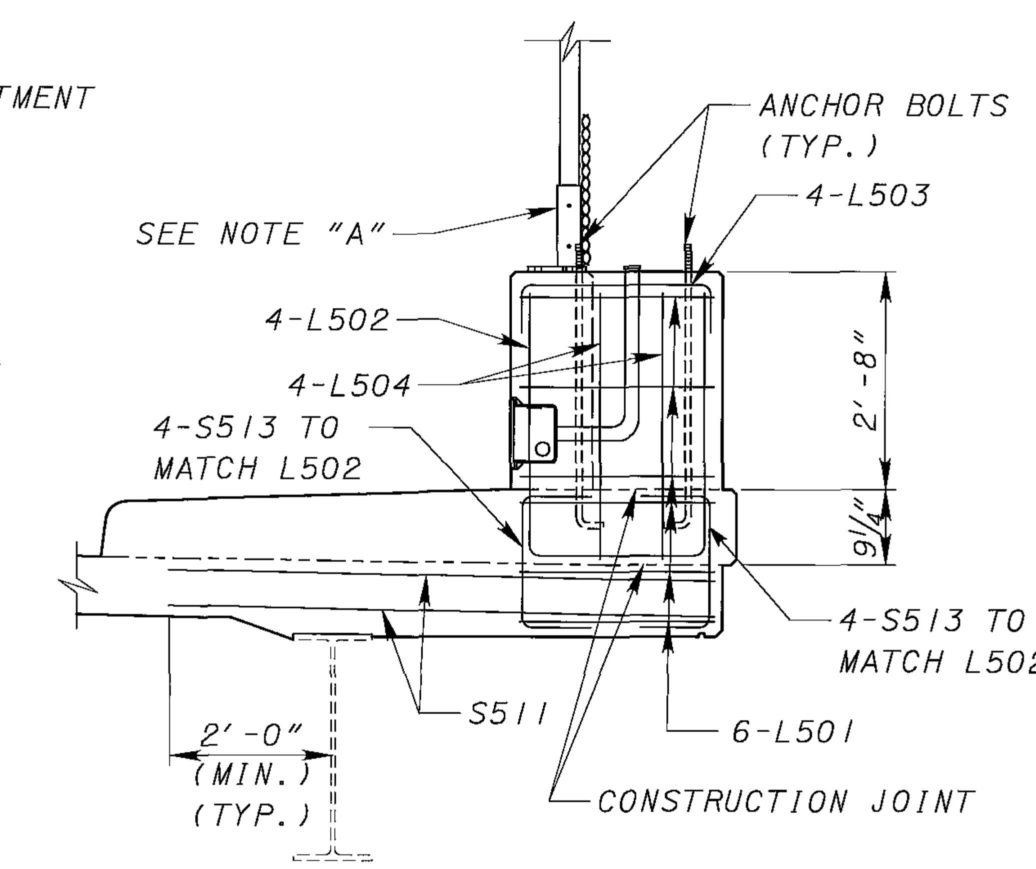
(LIGHT POLE PILASTER FOR BRIDGE WITH SIDEWALK RAILING)

NOTE "A"

PROVIDE ACCESS IN VANDAL PROTECTION FENCE AT LIGHT POLE LOCATIONS. SEE ODOT STANDARD BRIDGE DRAWING VPF-1-90

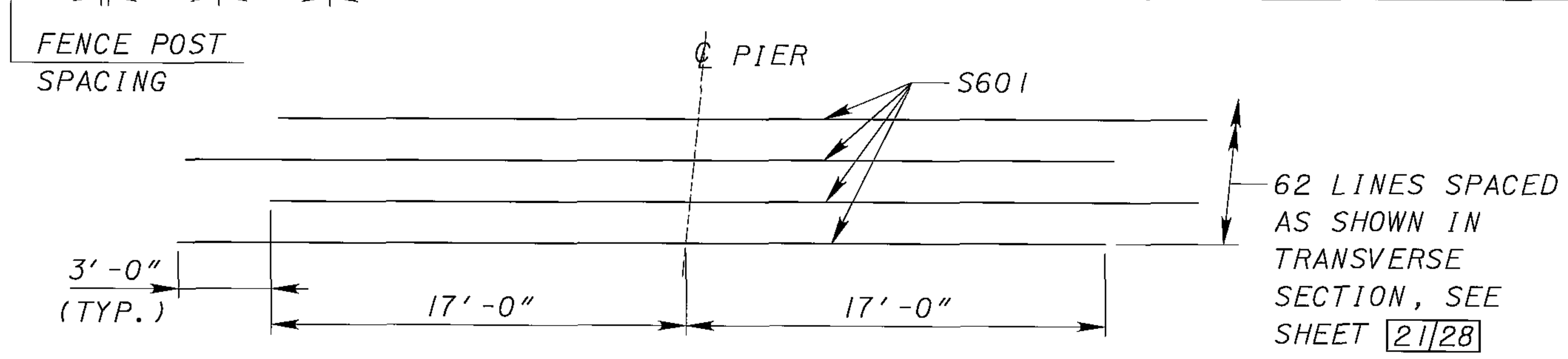


PARAPET AND RAILING PLAN



SECTION A-A

(SLAB REINFORCING NOT SHOWN FOR CLARITY)



ADDITIONAL REINFORCING OVER PIERS

NOTES

1. FOR TRANSVERSE SECTION, SEE SHEET 21/28.
2. FOR REINFORCEMENT SCHEDULE, SEE SHEET 28/28.
3. FOR SCREED ELEVATION TABLES, SEE SHEETS 22/28 & 23/28.
4. FOR VERTICAL REINFORCING SPACING IN PARAPET, SEE PARAPET PANEL DETAIL, SHEET 28/28.
5. FOR ADDITIONAL FENCE DETAILS, SEE STANDARD DRAWING VPF-1-90 AND ABUTMENT DETAILS ON SHEETS 9/28 AND 14/28.
6. FOR ADDITIONAL STRUCTURE LIGHTING DETAILS, REFER TO STANDARD DRAWING HL-10.13, HL-20.14 AND HL-30.31.
7. FOR STRUCTURE GROUNDING DETAILS, REFER TO STANDARD DRAWING HL 50.21.

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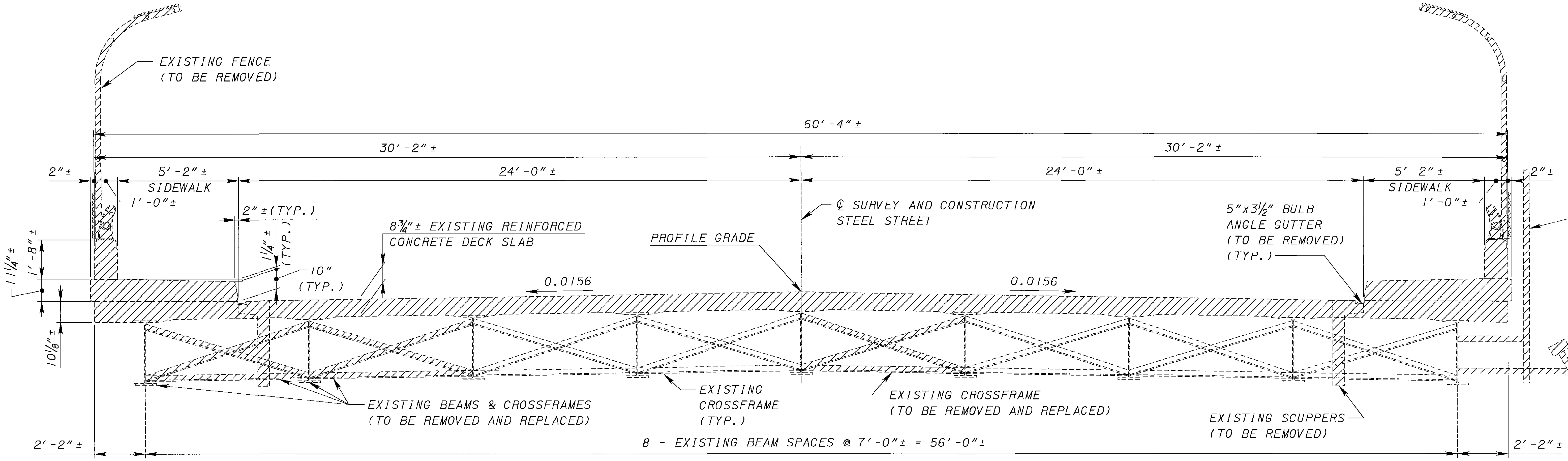
BTA	MLR	BTA		RER	05/28/04	5006813

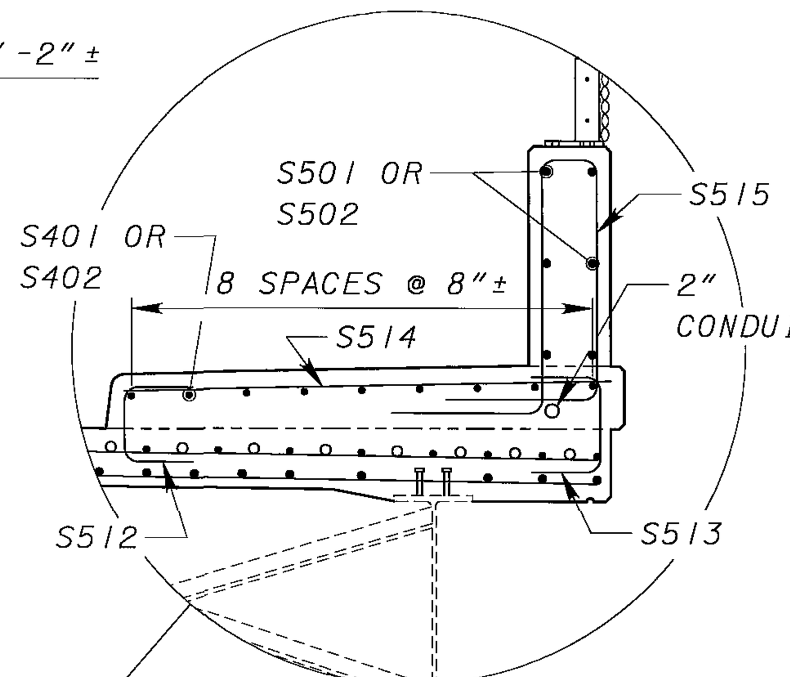
DECK AND PARAPET PLAN
BRIDGE NO. MAH-680-0414
STEEL STREET OVER IR-680

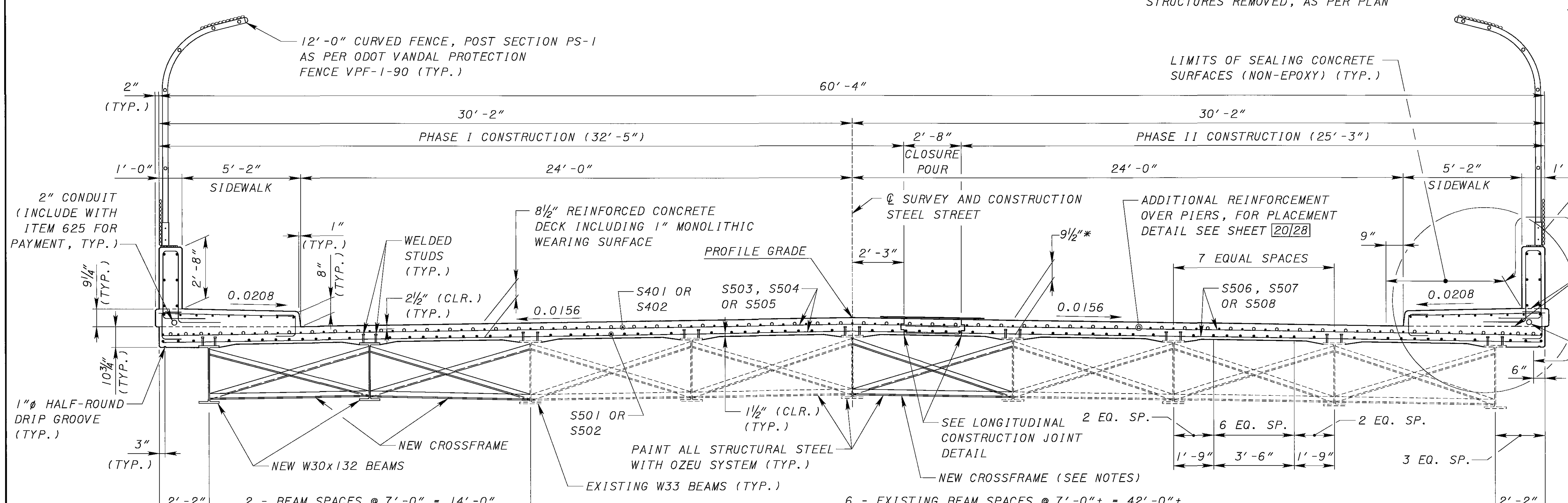
MAH-680-4.14/6.28/6.37

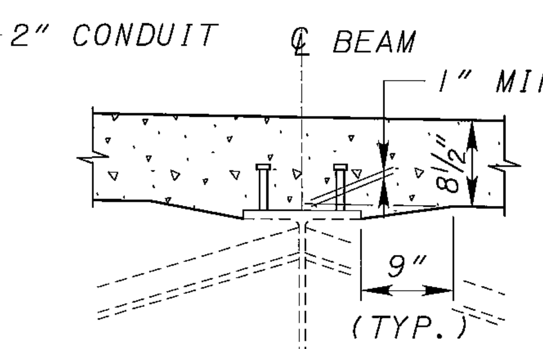


EXISTING TRANSVERSE SECTION

— INDICATES AREAS TO BE REMOVED AS PER ITEM 202 - PORTION OF STRUCTURES REMOVED, AS PER PLAN

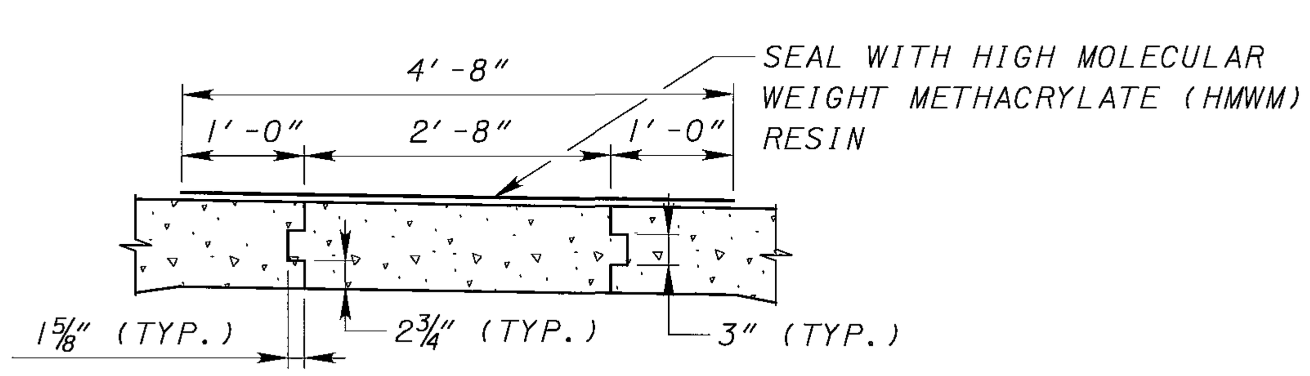






TYPICAL CONCRETE DECK HAUNCH DETAIL

(REINFORCEMENT NOT SHOWN FOR CLARITY)
(FOR TABLE OF HAUNCH THICKNESESS AT ℄ OF BEARING AT SUBSTRUCTURE LOCATIONS, SEE SHEETS 23/28 AND 24/28)



LONGITUDINAL CONSTRUCTION JOINT DETAIL

(REINFORCEMENT NOT SHOWN FOR CLARITY)

PROPOSED TRANSVERSE SECTION

NOTES

1. FOR DECK SLAB PLAN, PARAPET PLAN, LAP LENGTH TABLE AND STRUCTURE LIGHTING PEDESTAL SEE SHEET 20/28.
2. FOR REINFORCEMENT SCHEDULE, SEE SHEET 28/28.
3. FOR SCREED ELEVATION TABLES, SEE SHEETS 22/28 AND 23/28.
4. * - THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 1 INCH AND A CONSTANT HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM FLANGE OF 9 INCHES. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. THE ALLOWABLE TOLERANCE FOR THE HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM FLANGE IS ±3 INCHES.
5. INTERMEDIATE CROSS FRAMES SHALL NOT BE PERMANENTLEY ATTACHED IN THE CLOSURE POUR LOCATION UNTIL THE CONCRETE POURS ON BOTH SIDES OF THE CLOSURE POUR LOCATION HAVE BEEN COMPLETED AND CURED FOR SEVEN DAYS
6. ABREVIATIONS:

TYP. - TYPICAL	MIN. - MINIMUM
EQ. - EQUAL	ø - DIAMETER
SP. - SPACES	CLR. - CLEAR

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	BTA	RER	05/28/04
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5006813	

TRANSVERSE SECTION
BRIDGE NO. MAH-680-0414
STEEL STREET OVER IR-680

MAH-680-4.14/6.28/6.37

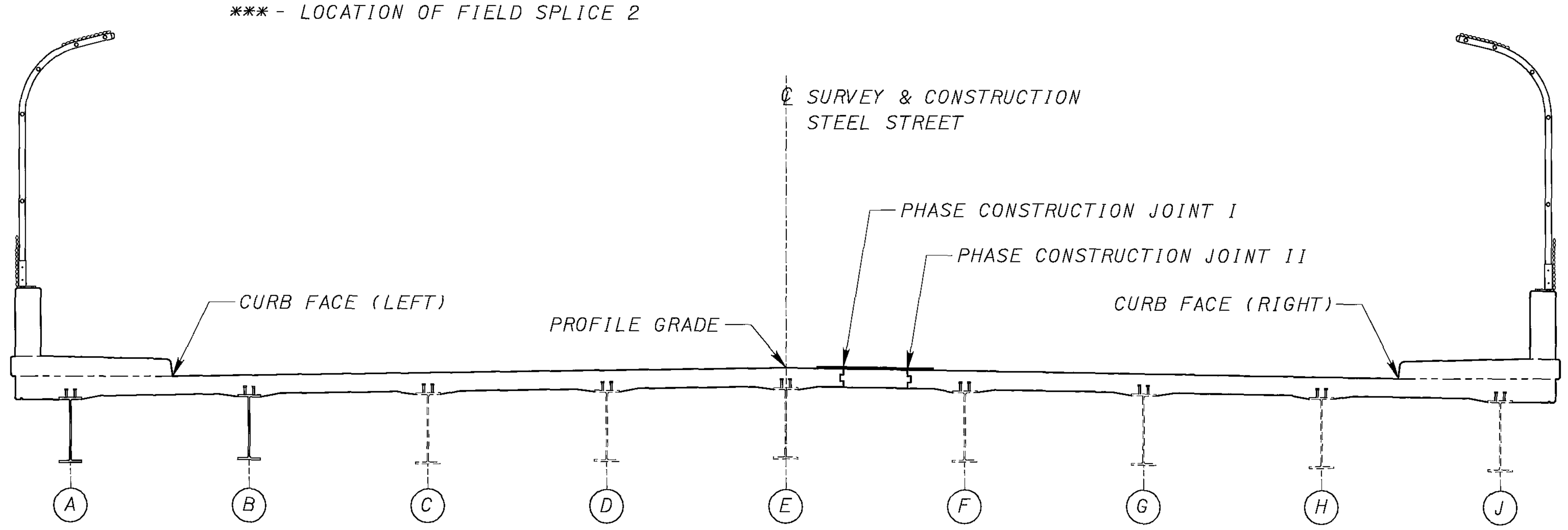
21/28

SCREED ELEVATIONS - PHASE I CONSTRUCTION

LOCATION		℄ BRG. REAR ABUT.	SPAN 1 ¼ PT.	SPAN 1 ½ PT.	SPAN 1 ¾ PT.	℄ BRG. PIER 1	SPAN 2 ¼ PT. **	SPAN 2 ½ PT.	SPAN 2 ¾ PT.	℄ BRG. PIER 2	SPAN 3 ¼ PT.	SPAN 3 ½ PT.	SPAN 3 ¾ PT.	℄ BRG. PIER 3	SPAN 4 ¼ PT. ***	SPAN 4 ½ PT.	SPAN 4 ¾ PT.	℄ BRG. FWD. ABUT.
CURB FACE (LEFT)	STATION	50+39.70	50+50.45	50+61.20	50+71.95	50+82.70	50+98.70	51+14.70	51+30.70	51+46.70	51+61.70	51+76.70	51+91.70	52+06.70	52+16.70	52+26.70	52+36.70	52+46.70
	PROFILE GRADE ELEVATION	939.35	939.16	938.98	938.79	938.60	938.32	938.04	937.76	937.48	937.22	936.96	936.69	936.43	936.26	936.08	935.91	935.73
	FINAL DECK ELEVATION	938.98	938.79	938.61	938.42	938.23	937.95	937.67	937.39	937.11	936.85	936.59	936.32	936.06	935.89	935.71	935.54	935.36
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.00	0.00	0.02	0.04	0.02	0.00	0.01	0.02	0.02	0.00	0.00	0.01	0.01	0.00
	SCREED ELEVATION	938.98	938.80	938.62	938.42	938.23	937.97	937.71	937.41	937.11	936.86	936.61	936.34	936.06	935.89	935.72	935.55	935.36
BEAM A	STATION	50+39.70	50+50.45	50+61.20	50+71.95	50+82.70	50+98.70*	51+14.70	51+30.70	51+46.70	51+61.70	51+76.70	51+91.70	52+06.70	52+16.70**	52+26.70	52+36.70	52+46.70
	PROFILE GRADE ELEVATION	939.35	939.16	938.98	938.79	938.60	938.32	938.04	937.76	937.48	937.22	936.96	936.69	936.43	936.26	936.08	935.91	935.73
	FINAL DECK ELEVATION	938.98	938.79	938.61	938.42	938.23	937.95	937.67	937.39	937.11	936.85	936.59	936.32	936.06	935.89	935.71	935.54	935.36
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.00	0.00	0.02	0.04	0.02	0.00	0.01	0.02	0.02	0.00	0.00	0.01	0.01	0.00
	SCREED ELEVATION	938.98	938.80	938.62	938.42	938.23	937.97	937.71	937.41	937.11	936.86	936.61	936.34	936.06	935.89	935.72	935.55	935.36
BEAM B	STATION	50+39.41	50+50.16	50+60.91	50+71.66	50+82.41	50+98.41*	51+14.41	51+30.41	51+46.41	51+61.41	51+76.41	51+91.41	52+06.41	52+16.41**	52+26.41	52+36.41	52+46.41
	PROFILE GRADE ELEVATION	939.36	939.17	938.98	938.79	938.61	938.33	938.05	937.77	937.49	937.22	936.96	936.70	936.44	936.26	936.09	935.91	935.74
	FINAL DECK ELEVATION	939.03	938.84	938.65	938.46	938.28	938.00	937.72	937.44	937.16	936.89	936.63	936.37	936.11	935.93	935.76	935.58	935.41
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.00	0.00	0.02	0.04	0.02	0.00	0.01	0.02	0.02	0.00	0.00	0.01	0.01	0.00
	SCREED ELEVATION	939.03	938.85	938.66	938.46	938.28	938.02	937.76	937.46	937.16	936.90	936.65	936.39	936.11	935.93	935.77	935.59	935.41
BEAM C	STATION	50+38.73	50+49.48	50+60.23	50+70.98	50+81.73	50+97.73	51+13.73	51+29.73	51+45.73	51+60.73	51+75.73	51+90.73	52+05.73	52+15.73	52+25.73	52+35.73	52+45.73
	PROFILE GRADE ELEVATION	939.37	939.18	938.99	938.81	938.62	938.34	938.06	937.78	937.50	937.23	936.97	936.71	936.45	936.27	936.10	935.92	935.75
	FINAL DECK ELEVATION	939.15	938.96	938.77	938.59	938.40	938.12	937.84	937.56	937.28	937.01	936.75	936.49	936.23	936.05	935.88	935.70	935.53
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.00	0.00	0.01	0.02	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	SCREED ELEVATION	939.15	938.97	938.78	938.59	938.40	938.13	937.86	937.57	937.28	937.02	936.76	936.50	936.23	936.05	935.88	935.70	935.53
BEAM D	STATION	50+38.05	50+48.80	50+59.55	50+70.30	50+81.05	50+97.05	51+13.05	51+29.05	51+45.05	51+60.05	51+75.05	51+90.05	52+05.05	52+15.05	52+25.05	52+35.05	52+45.05
	PROFILE GRADE ELEVATION	939.38	939.19	939.01	938.82	938.63	938.35	938.07	937.79	937.51	937.25	936.98	936.72	936.46	936.28	936.11	935.93	935.76
	FINAL DECK ELEVATION	939.27	939.08	938.90	938.71	938.52	938.24	937.96	937.68	937.40	937.14	936.87	936.61	936.35	936.17	936.00	935.82	935.65
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.00	0.00	0.01	0.02	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	SCREED ELEVATION	939.27	939.09	938.91	938.71	938.52	938.25	937.98	937.69	937.40	937.15	936.88	936.62	936.35	936.17	936.00	935.82	935.65
PROFILE GRADE AND BEAM E	STATION	50+37.37	50+48.12	50+58.87	50+69.62	50+80.37	50+96.37	51+12.37	51+28.37	51+44.37	51+59.37	51+74.37	51+89.37	52+04.37	52+14.37	52+24.37	52+34.37	52+44.37
	PROFILE GRADE ELEVATION	939.39	939.21	939.02	938.83	938.64	938.36	938.08	937.80	937.52	937.26	937.00	936.73	936.47	936.30	936.12	935.95	935.77
	FINAL DECK ELEVATION	939.39	939.21	939.02	938.83	938.64	938.36	938.08	937.80	937.52	937.26	937.00	936.73	936.47	936.30	936.12	935.95	935.77
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.00	0.00	0.01	0.02	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	SCREED ELEVATION	939.39	939.22	939.03	938.83	938.64	938.37	938.10	937.81	937.52	937.27	937.01	936.74	936.47	936.30	936.12	935.95	935.77
PHASE CONSTRUCTION JOINT I	STATION	50+37.15	50+47.90	50+58.65	50+69.40	50+80.15	50+96.15	51+12.15	51+28.15	51+44.15	51+59.15	51+74.15	51+89.15	52+04.15	52+14.15	52+24.15	52+34.15	52+44.15
	PROFILE GRADE ELEVATION	939.40	939.21	939.02	938.83	938.64	938.36	938.08	937.80	937.52	937.26	937.00	936.74	936.47	936.30	936.12	935.95	935.77
	FINAL DECK ELEVATION	939.36	939.17	938.98	938.79	938.60	938.32	938.04	937.76	937.48	937.22	936.96	936.70	936.43	936.26	936.08	935.91	935.73
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.00	0.00	0.01	0.02	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	SCREED ELEVATION	939.36	939.18	938.99	938.79	938.60	938.33	938.06	937.77	937.48	937.23	936.97	936.71	936.43	936.26	936.08	935.91	935.73

** - LOCATION OF FIELD SPLICE 1

*** - LOCATION OF FIELD SPLICE 2



TYPICAL CROSS SECTION

TABLE OF HAUNCHES
(INCHES) *

GIRDER / LOCATION	A	B	C	D	E
REAR ABUTMENT	1	1	1	1	1
PIER 1	1	1	½	½	½
PIER 2	1	1	½	½	½
PIER 3	1	1	½	½	½
FORWARD ABUTMENT	1	1	1	1	1

* - HAUNCHES LESS THAN 1" ACCOUNT FOR TOP MOMENT PLATE THICKNESSES

NOTE:

1. SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.

DESIGN AGENCY: TRANSYSTEMS CORPORATION, 55 PUBLIC SQUARE, SUITE 1650, CLEVELAND, OHIO 44113-1901

REVIEWED RER | DATE 05/28/04 | STRUCTURE FILE NUMBER 5006813

DRAWN BTA | REVISED

DESIGNED BTA | CHECKED MLR

PHASE I CONSTRUCTION SCREED ELEVATIONS

BRIDGE NO. MAH-680-0414

STEEL STREET OVER IR-680

MAH-680-4.14/6.28/6.37

22/28

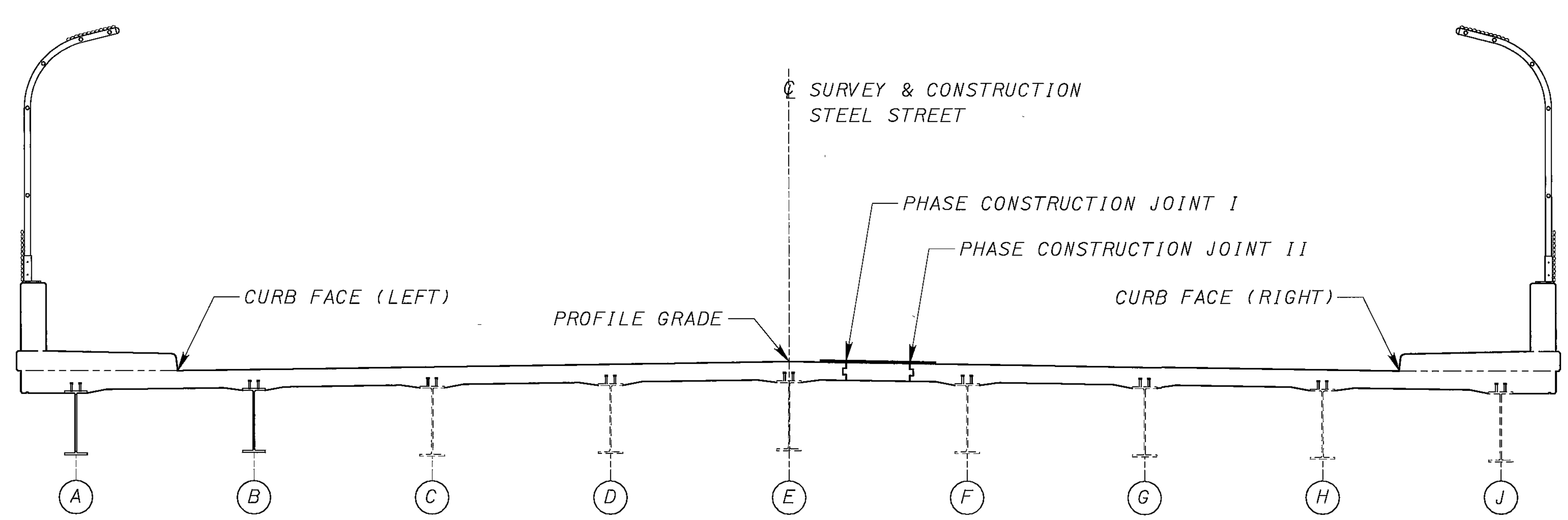
119/191

SCREED ELEVATIONS - PHASE II CONSTRUCTION

LOCATION		℄ BRG. REAR ABUT.	SPAN 1 ¼ PT.	SPAN 1 ½ PT.	SPAN 1 ¾ PT.	℄ BRG. PIER 1	SPAN 2 ¼ PT. **	SPAN 2 ½ PT.	SPAN 2 ¾ PT.	℄ BRG. PIER 2	SPAN 3 ¼ PT.	SPAN 3 ½ PT.	SPAN 3 ¾ PT.	℄ BRG. PIER 3	SPAN 4 ¼ PT. ***	SPAN 4 ½ PT.	SPAN 4 ¾ PT.	℄ BRG. FWD. ABUT.
PHASE CONSTRUCTION JOINT II	STATION	50+36.89	50+47.64	50+58.39	50+69.14	50+79.89	50+95.89	51+11.89	51+27.89	51+43.89	51+58.89	51+73.89	51+88.89	52+03.89	52+13.89	52+23.89	52+33.89	52+43.89
	PROFILE GRADE ELEVATION	939.40	939.21	939.03	938.84	938.65	938.37	938.09	937.81	937.53	937.27	937.00	936.74	936.48	936.30	936.13	935.95	935.78
	FINAL DECK ELEVATION	939.32	939.13	938.95	938.76	938.57	938.29	938.01	937.73	937.45	937.19	936.92	936.66	936.40	936.22	936.05	935.87	935.70
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.00	0.00	0.01	0.02	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	SCREED ELEVATION	939.32	939.14	938.96	938.76	938.57	938.30	938.03	937.74	937.45	937.20	936.93	936.67	936.40	936.22	936.05	935.87	935.70
BEAM F	STATION	50+36.69	50+47.44	50+58.19	50+68.94	50+79.69	50+95.69*	51+11.69	51+27.69	51+43.69	51+58.69	51+73.69	51+88.69	52+03.69	52+13.69**	52+23.69	52+33.69	52+43.69
	PROFILE GRADE ELEVATION	939.41	939.22	939.03	938.84	938.65	938.37	938.09	937.81	937.53	937.27	937.01	936.75	936.48	936.31	936.13	935.96	935.78
	FINAL DECK ELEVATION	939.30	939.11	938.92	938.73	938.54	938.26	937.98	937.70	937.42	937.16	936.90	936.64	936.37	936.20	936.02	935.85	935.67
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.00	0.00	0.01	0.02	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	SCREED ELEVATION	939.30	939.12	938.93	938.73	938.54	938.27	938.00	937.71	937.42	937.17	936.91	936.65	936.37	936.20	936.02	935.85	935.67
BEAM G	STATION	50+36.01	50+46.76	50+57.51	50+68.26	50+79.01	50+95.01*	51+11.01	51+27.01	51+43.01	51+58.01	51+73.01	51+88.01	52+03.01	52+13.01**	52+23.01	52+33.01	52+43.01
	PROFILE GRADE ELEVATION	939.42	939.23	939.04	938.85	938.66	938.38	938.10	937.82	937.54	937.28	937.02	936.76	936.49	936.32	936.14	935.97	935.79
	FINAL DECK ELEVATION	939.20	939.01	938.82	938.63	938.44	938.16	937.88	937.60	937.32	937.06	936.80	936.54	936.27	936.10	935.92	935.75	935.57
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.00	0.00	0.01	0.02	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	SCREED ELEVATION	939.20	939.02	938.83	938.63	938.44	938.17	937.90	937.61	937.32	937.07	936.81	936.55	936.27	936.10	935.92	935.75	935.57
BEAM H	STATION	50+35.33	50+46.08	50+56.83	50+67.58	50+78.33	50+94.33	51+10.33	51+26.33	51+42.33	51+57.33	51+72.33	51+87.33	52+02.33	52+12.33	52+22.33	52+32.33	52+42.33
	PROFILE GRADE ELEVATION	939.43	939.24	939.05	938.86	938.68	938.40	938.12	937.84	937.56	937.29	937.03	936.77	936.51	936.33	936.16	935.98	935.81
	FINAL DECK ELEVATION	939.10	938.91	938.72	938.53	938.35	938.07	937.79	937.51	937.23	936.96	936.70	936.44	936.18	936.00	935.83	935.65	935.48
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.00	0.00	0.01	0.02	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	SCREED ELEVATION	939.10	938.92	938.73	938.53	938.35	938.08	937.81	937.52	937.23	936.97	936.71	936.45	936.18	936.00	935.83	935.65	935.48
BEAM J	STATION	50+35.04	50+45.79	50+56.54	50+67.29	50+78.04	50+94.04	51+10.04	51+26.04	51+42.04	51+57.04	51+72.04	51+87.04	52+02.04	52+12.04	52+22.04	52+32.04	52+42.04
	PROFILE GRADE ELEVATION	939.43	939.25	939.06	938.87	938.68	938.40	938.12	937.84	937.56	937.30	937.04	936.77	936.51	936.34	936.16	935.99	935.81
	FINAL DECK ELEVATION	939.06	938.88	938.69	938.50	938.31	938.03	937.75	937.47	937.19	936.93	936.67	936.40	936.14	935.97	935.79	935.62	935.44
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.00	0.00	0.01	0.02	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	SCREED ELEVATION	939.06	938.89	938.70	938.50	938.31	938.04	937.77	937.48	937.19	936.94	936.68	936.41	936.14	935.97	935.79	935.62	935.44
CURB FACE (RIGHT)	STATION	50+35.04	50+45.79	50+56.54	50+67.29	50+78.04	50+94.04	51+10.04	51+26.04	51+42.04	51+57.04	51+72.04	51+87.04	52+02.04	52+12.04	52+22.04	52+32.04	52+42.04
	PROFILE GRADE ELEVATION	939.43	939.25	939.06	938.87	938.68	938.40	938.12	937.84	937.56	937.30	937.04	936.77	936.51	936.34	936.16	935.99	935.81
	FINAL DECK ELEVATION	939.06	938.88	938.69	938.50	938.31	938.03	937.75	937.47	937.19	936.93	936.67	936.40	936.14	935.97	935.79	935.62	935.44
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.00	0.00	0.01	0.02	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	SCREED ELEVATION	939.06	938.89	938.70	938.50	938.31	938.04	937.77	937.48	937.19	936.94	936.68	936.41	936.14	935.97	935.79	935.62	935.44

** - LOCATION OF FIELD SPLICE 1

*** - LOCATION OF FIELD SPLICE 2



TYPICAL CROSS SECTION

TABLE OF HAUNCHES

(INCHES) *

GIRDER / LOCATION	F	G	H	J
REAR ABUTMENT	1	1	1	1
PIER 1	½	½	½	½
PIER 2	½	½	½	½
PIER 3	½	½	½	½
FORWARD ABUTMENT	1	1	1	1

* - HAUNCHES LESS THAN 1" ACCOUNT FOR TOP MOMENT PLATE THICKNESSES

NOTE:

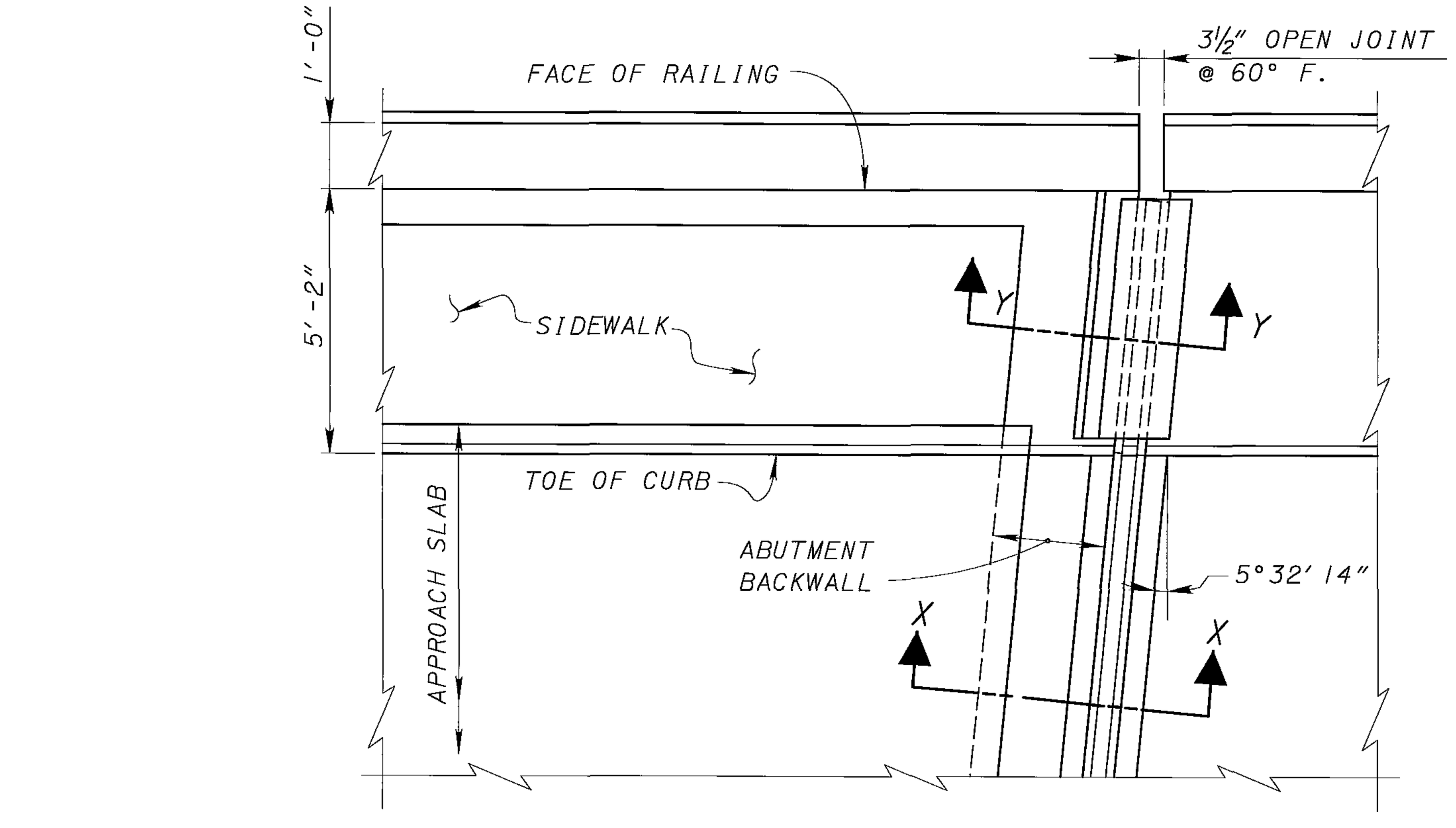
1. SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.

DESIGN AGENCY: TRANSYSTEMS CORPORATION, 55 PUBLIC SQUARE, SUITE 1650, CLEVELAND, OHIO

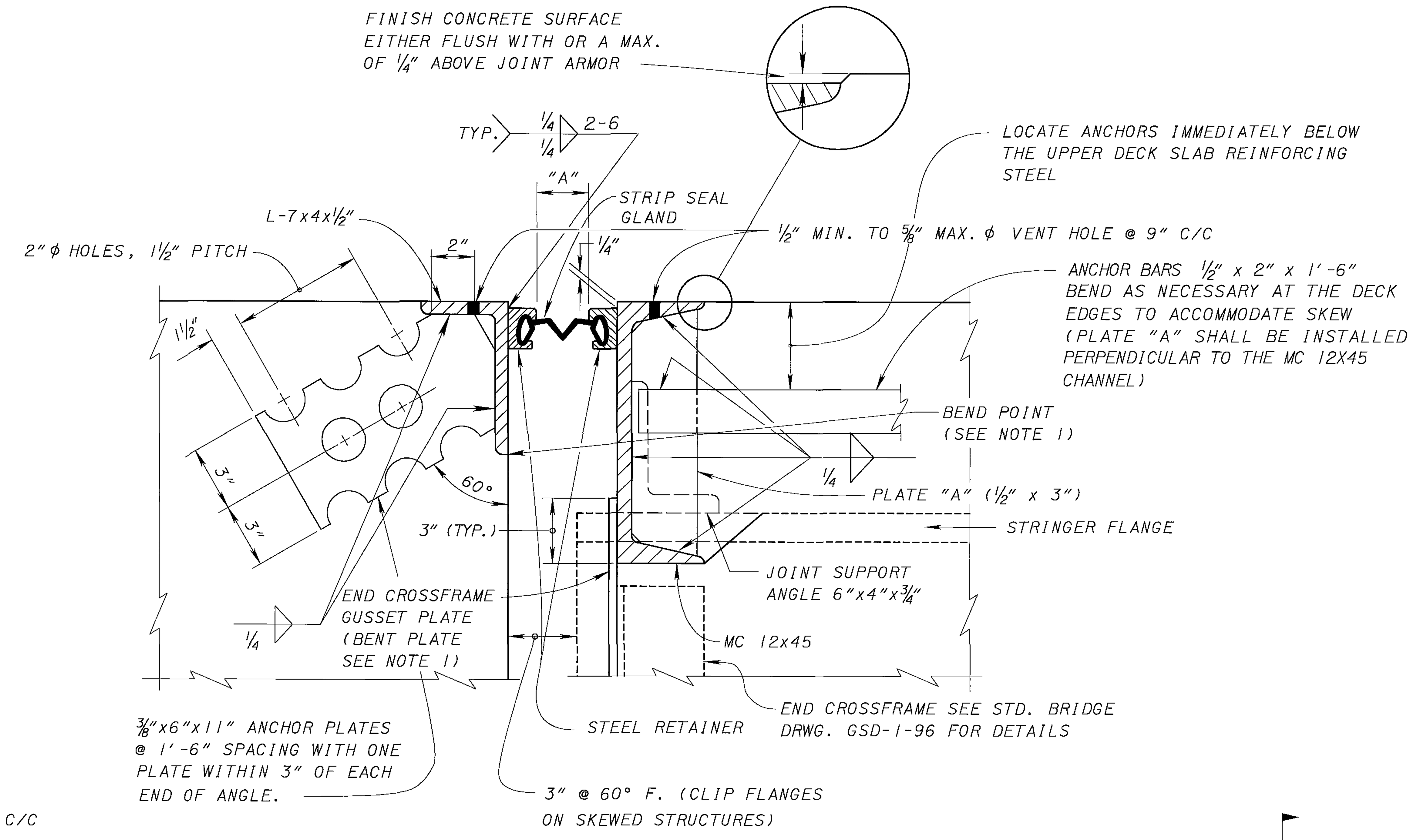
DESIGNED BTA | CHECKED MLR | DRAWN BTA | REVISED | REVIEWED RER | DATE 05/28/04 | STRUCTURE FILE NUMBER 5006813

PHASE II CONSTRUCTION SCREED ELEVATIONS
BRIDGE NO. MAH-680-0414
STEEL STREET OVER IR-680

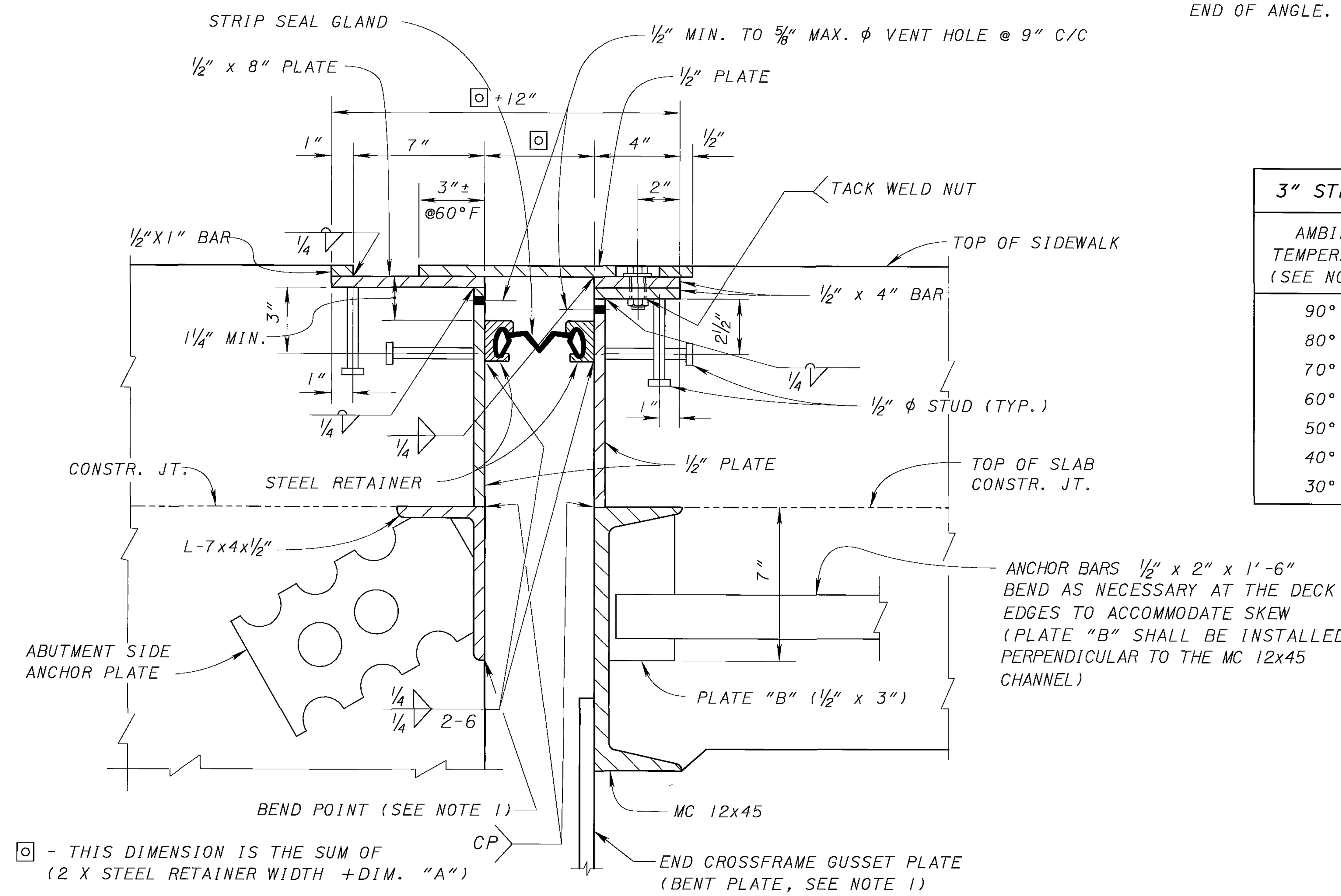
MAH-680-4.14/6.28/6.37



PART PLAN AT ABUTMENT



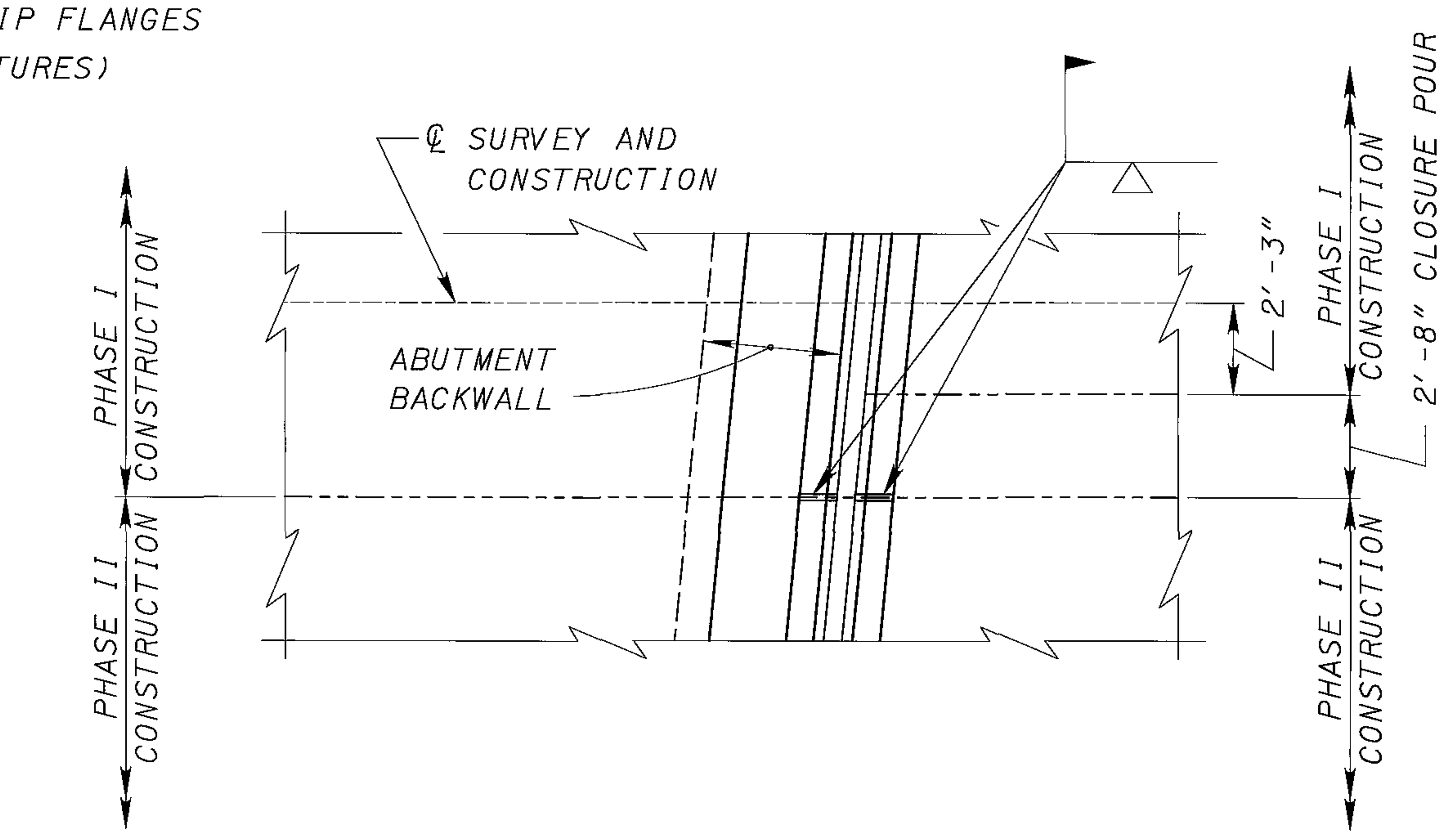
SECTION X-X



□ - THIS DIMENSION IS THE SUM OF (2 X STEEL RETAINER WIDTH + DIM. "A")

SECTION Y-Y

3" STRIP SEAL JOINT WIDTH	
AMBIENT TEMPERATURE (SEE NOTE 1)	DIMENSION "A"
90° F	1 1/2"
80° F	1 9/16"
70° F	1 11/16"
60° F	1 3/4"
50° F	1 13/16"
40° F	1 15/16"
30° F	2"



DETAIL AT PHASE CONSTRUCTION JOINT

NOTES:

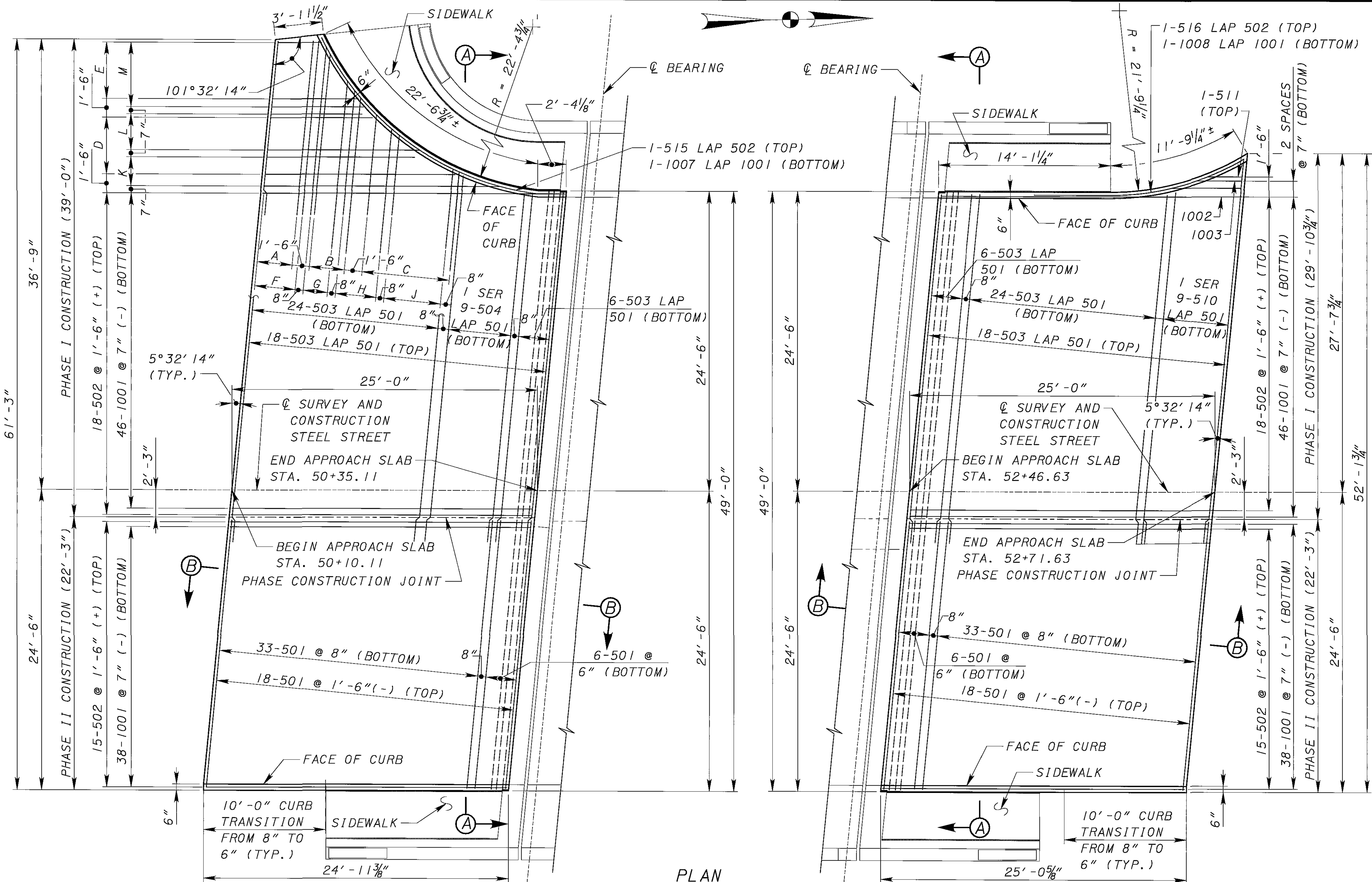
1. MINIMUM JOINT OPENING (DIMENSION "A") AT TIME OF SEAL GLAND INSTALLATION SHALL NOT BE LESS THAN 1 1/2". IF THE JOINT OPENING IS LESS, INSTALLATION SHALL BE POSTPONED UNTIL THE TEMPERATURE DROPS A SUFFICIENT AMOUNT TO ALLOW THE MINIMUM 1 1/2" OPENING.
2. FOR ADDITIONAL DETAILS AND NOTES NOT SHOWN, REFER TO ODOT STANDARD DRAWING EXJ-4-87 SHEETS 1 THRU 5.
3. THE INSTALLATION SEQUENCE OF THE EXPANSION JOINT SHALL FOLLOW THE PHASE CONSTRUCTION DETAILS SEQUENCE.
4. NO JOINTS IN STRIP SEAL ARE ALLOWED UNLESS APPROVED BY THE DIRECTOR.
5. FOR JOINT TREATMENTS IN RETAINERS AND IN ARMOR STEEL TO ALLOW FOR TRAFFIC MAINTENANCE, REFER TO ODOT STANDARD BRIDGE DRAWING EXJ-4-87 SHEET 5/5.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650 CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	BTA	RER	05/28/04
CHECKED	REVISED	STRUCTURE FILE NUMBER	
MLR		5006813	

EXPANSION JOINT REPLACEMENT DETAIL
BRIDGE NO. MAH-680-0414
STEEL STREET OVER IR-680

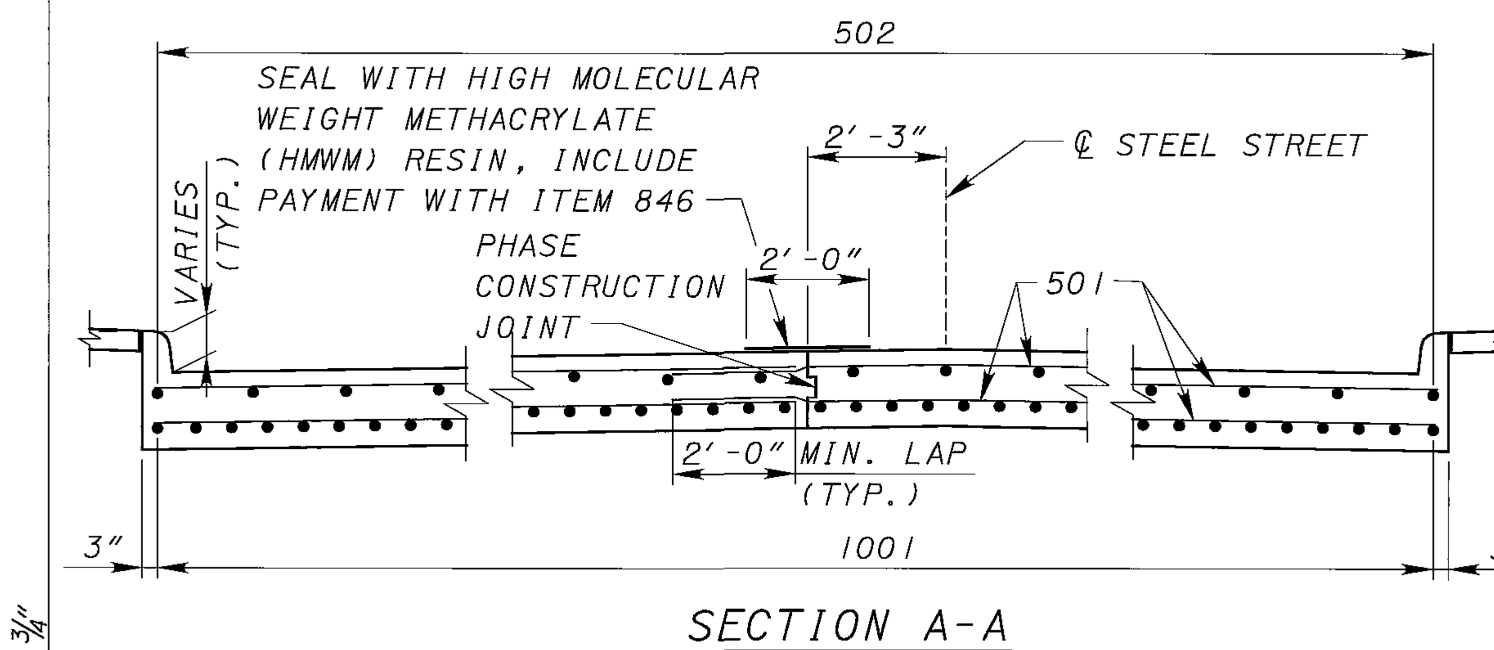
MAH-680-4.14/6.28/6.37



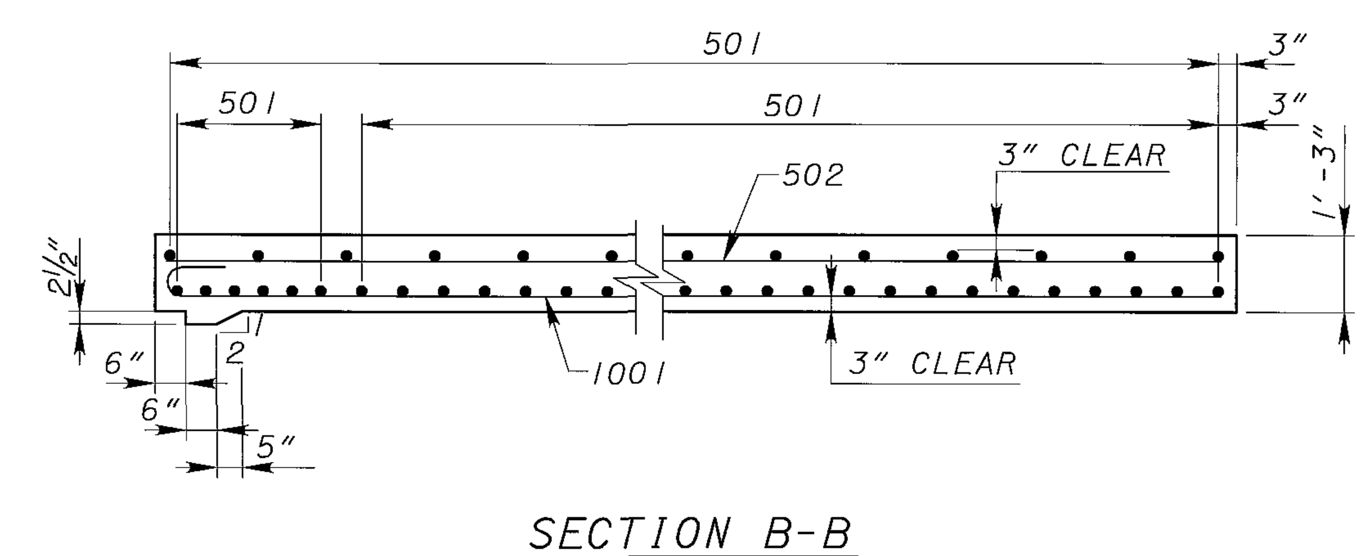
PLAN

BAR PLACEMENT

	TOP BARS		BOTTOM BARS
A	3-505 LAP 503	F	6-505 LAP 503
B	3-506 LAP 503	G	4-512 LAP 503
C	6-507 LAP 503	H	6-513 LAP 503
D	1 SER 4-508 @ 1'-6"	J	8-514 LAP 503
E	1 SER 4-509 @ 1'-6"	K	1 SER 5-1004 @ 7"
		L	1 SER 6-1005 @ 7"
		M	1 SER 10-1006 @ 7"



SECTION A-A



SECTION B-B

NOTES

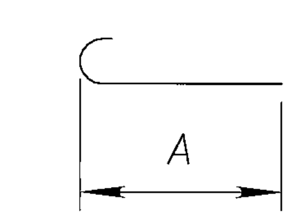
1. FOR ADDITIONAL NOTES AND DETAILS NOT SHOWN HERE SEE ODOT STANDARD BRIDGE DRAWING AS-1-81.
2. APPROACH SLAB QUANTITIES TOTAL 288 SQ. YDS.
3. ABBREVIATIONS:
   TYP. - TYPICAL
   R - RADIUS

BAR SCHEDULE

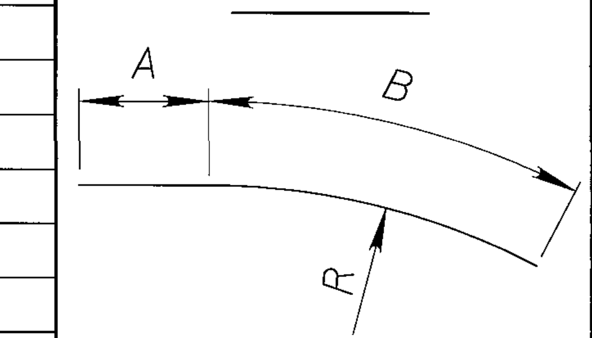
MARK	NUMBER PHASE I	NUMBER PHASE II	LENGTH	WEIGHT PHASE I	WEIGHT PHASE II	TYPE	A	B	C	D	E	R	INC.
501	114		21'-11"	2606		STR							
502	30	36	24'-6"	767	920	STR							
503		96	28'-8"		2870	STR							
		1	28'-6"										
504		SER			275	STR							2¼"
		9	30'-0"										
505		9	14'-2"		133	STR							
506		3	12'-8"		40	STR							
507		6	8'-2"		51	STR							
		1	8'-4"										
508		SER			50	STR							2'-4⅝"
		4	15'-6"										
		1	3'-6"										
509		SER			22	STR							1'-2"
		4	7'-0"										
		1	28'-10"										
510		SER			283	STR							3⅞"
		9	31'-5"										
511		1	2'-10"		3	STR							

BAR SCHEDULE

MARK	NUMBER PHASE I	NUMBER PHASE II	LENGTH	WEIGHT PHASE I	WEIGHT PHASE II	TYPE	A	B	C	D	E	R	INC.
512		4	13'-8"		57	STR							
513		6	10'-2"		64	STR							
514		8	6'-6"		54	STR							
515		1	24'-7"		26	29	2'-1"	22'-6"				22'-7¾"	
516		1	13'-5"		14	29	2'-0"	11'-5"				22'-0"	
1001	76	92	25'-11"	8475	10260	16	24'-6"						
1002		1	6'-2"		27	STR							
1003		1	6'-9"		29	STR							
		1	12'-1"										
1004		SER			337	STR							1'-9½"
		5	19'-3"										
		1	7'-5"										
1005		SER			256	STR							1'-0"
		6	12'-5"										
		1	3'-6"										
1006		SER			237	STR							5/16"
		10	7'-6"										
1007		1	24'-7"		106	29	2'-1"	22'-6"				22'-7¾"	
1008		1	17'-9"		76	29	6'-4"	11'-5"				22'-0"	



TYPE-16



TYPE-29

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650 CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	BTA	RER	05/28/04
CHECKED	REVISED	STRUCTURE FILE NUMBER	
MLR		5006813	

APPROACH SLAB DETAILS
BRIDGE NO. MAH-680-0414
STEEL STREET OVER IR-680

MAH-680-4.14/6.28/6.37

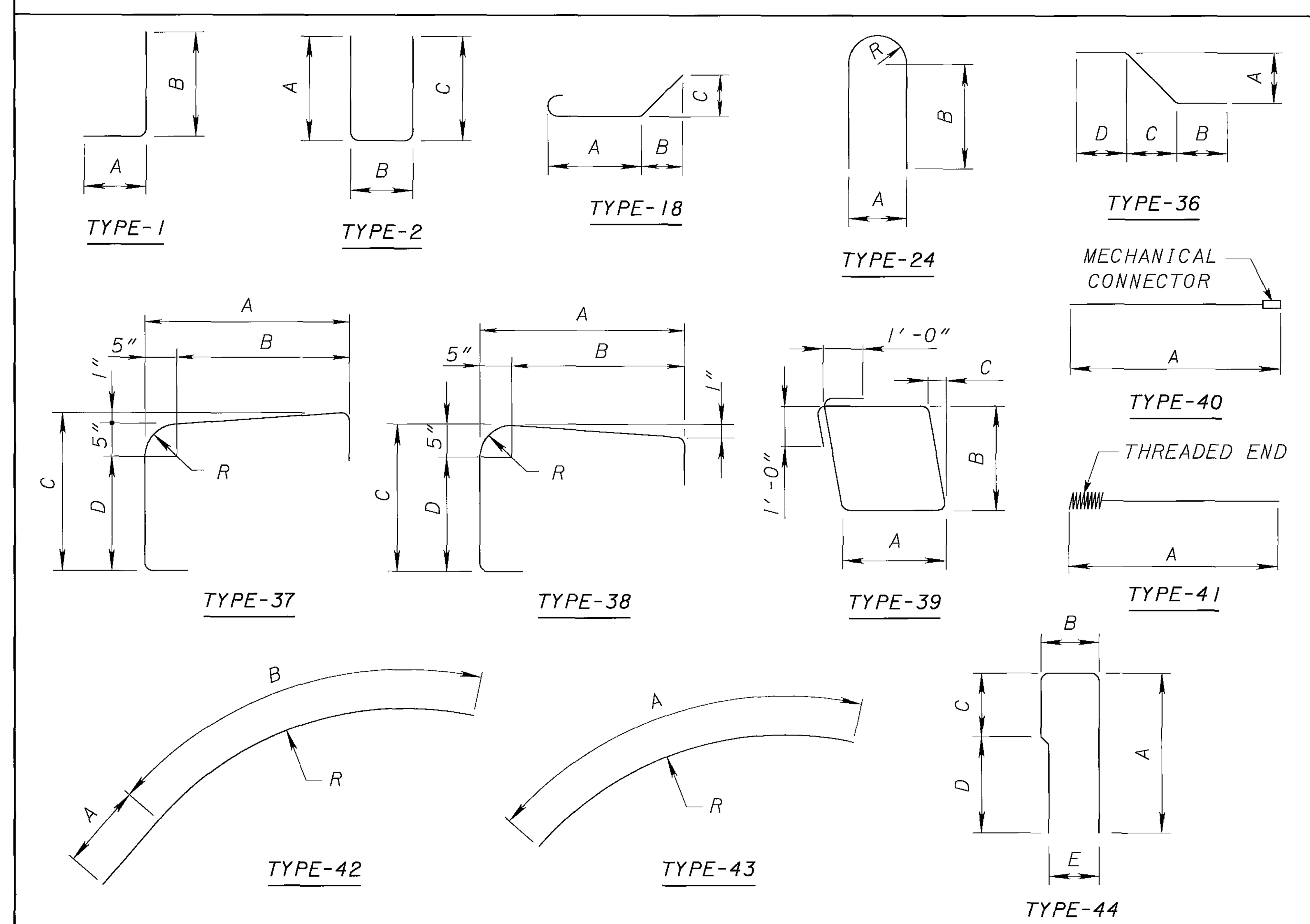
BAR SCHEDULE

MARK	NUMBER PHASE I	NUMBER PHASE II	LENGTH	WEIGHT PHASE I	WEIGHT PHASE II	TYPE	A	B	C	D	E	R	INC.
REAR ABUTMENT													
RA501	11		33'-2"	381		40	33'-2"						
RA502		11	2'-11"		33	41	2'-11"						
RA503		11	26'-10"		308	STR							
RA504	3		6'-2"	19		STR							
RA505		3	6'-9"		21	STR							
RA506	3	3	8'-1"	26	26	39	1'-8"	1'-8"	2"				
RA507	3	3	5'-10"	19	19	STR							
RA508	1	1	5'-4"	6	6	STR							
RA509		2	7'-6"		16	38	4'-5"	4'-0"	1'-11"	1'-6"		4⅜"	
RA510		16	15'-5"		257	STR							
RA511		2	10'-0"		21	STR							
RA512		2	8'-5"		18	STR							
RA513		2	6'-6"		14	STR							
RA514		2	12'-0"		25	36	3'-0"	2'-5"	4'-11"	3'-10"			
RA515	5	5	3'-7"	19	19	24	6"	1'-5"				3¼"	
RA516	2		7'-7"	16		38	4'-6"	4'-1"	1'-11"	1'-6"		4⅜"	
RA517	3		16'-11"	53		42	3'-11"	13'-0"				108"	
RA518	3		17'-11"	56		42	3'-11"	14'-0"				116"	
RA519	5		17'-2"	90		42	3'-11"	13'-3"				110"	
RA520	5		18'-11"	99		42	3'-11"	15'-0"				124"	
RA521	1		9'-3"	10		42	3'-11"	5'-4"				110"	
RA522	1		9'-11"	10		42	3'-11"	6'-0"				124"	
RA523	1		8'-2"	9		42	3'-11"	4'-3"				110"	
RA524	1		8'-8"	9		42	3'-11"	4'-9"				124"	
RA525	1		6'-11"	7		42	3'-11"	3'-0"				110"	
RA526	1		7'-4"	8		42	3'-11"	3'-5"				124"	
RA527	2		9'-1"	19		36	2'-10"	2'-5"	3'-3"	2'-5"			
RA528	1		6'-9"	7		43	6'-9"						
RA529	1		7'-7"	8		43	7'-7"						
RA530	31	30	5'-1"	162	162	2	1'-0"	3'-4"	1'-0"				
RA601	4		10'-2"	61		STR							
RA602	4		14'-7"	88		STR							
RA603	4		11'-6"	69		40							
RA604		4	5'-8"		34	41							
RA605		4	23'-2"		139	STR							
RA606	42		4'-0"	252		1	1'-3"	2'-11"					
RA607	44	86	3'-10"	253	495	1	1'-3"	2'-9"					
RA608	46	22	4'-2"	288	138	1	1'-3"	3'-1"					
RA609	10	10	6'-9"	102	102	STR							
RA610	5	5	11'-5"	86	86	2	5'-2"	1'-5"	5'-2"				
RA611	48	50	5'-6"	397	413	STR							
RA612	24	25	8'-11"	321	335	2	3'-11"	1'-5"	3'-11"				
RA613	24	25	6'-3"	225	235	2	2'-10"	11"	2'-10"				
RA614	5	5	8'-1"	61	61	2	3'-6"	1'-5"	3'-6"				
RA615	16	14	3'-10"	92	81	1	1'-0"	3'-0"					
RA616	8	7	12'-8"	152	133	2	5'-11"	1'-2"	5'-11"				
		1 SERIES	7'-10"				3'-6"		3'-6"				
RA617		OF	TO		74	2		1'-2"					6"
		5 BARS	11'-10"				5'-6"		5'-6'				
RA618	7	4	7'-2"	75	43	2	3'-2"	1'-2"	3'-2"				
RA619	22	21	10'-6"	347	331	44	5'-1"	8"	2'-6"	2'-7"	6"		

BAR SCHEDULE

MARK	NUMBER PHASE I	NUMBER PHASE II	LENGTH	WEIGHT PHASE I	WEIGHT PHASE II	TYPE	A	B	C	D	E	R	INC.
REAR ABUTMENT													
	1 SERIES		7'-2"				3'-2"		3'-2"				
RA620	OF		TO	57		2		1'-2"					9¼"±
	4 BARS		11'-10"				5'-6"		5'-6"				
RA801	17	17	5'-0"	227	227	18	2'-7"	1'-0"	1'-0"				
RA901	9	9	3'-6"	107	107	STR							
RA902	2	2	3'-5"	23	23	STR							
TOTAL WEIGHT REAR ABUTMENT = 8318 (4316 PHASE I) (4002 PHASE II)													

BAR BENDING DIAGRAMS



NOTES:

THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, RA601:

RA: LOCATION OF THE BAR IN THE STRUCTURE (REAR ABUTMENT)
6: BAR SIZE DESIGNATION NO. 6
01: SEQUENCE NUMBER

BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BAR BEND AT THE END OF THE BAR. ALL REINFORCING STEEL IS TO BE EPOXY COATED. STRAIGHT BARS ARE INDICATED BY "STR".

DESIGN AGENCY
TRANSYSTEMS CORPORATION

REVIEWED RER DATE 05/28/04
STRUCTURE FILE NUMBER 5006813
DRAWN BTA REVISED
DESIGNED BTA CHECKED MLR

REINFORCEMENT SCHEDULE
BRIDGE NO. MAH-680-0414
STEEL STREET OVER IR-680

MAH-680-4.14/6.28/6.37

26/28

123/191

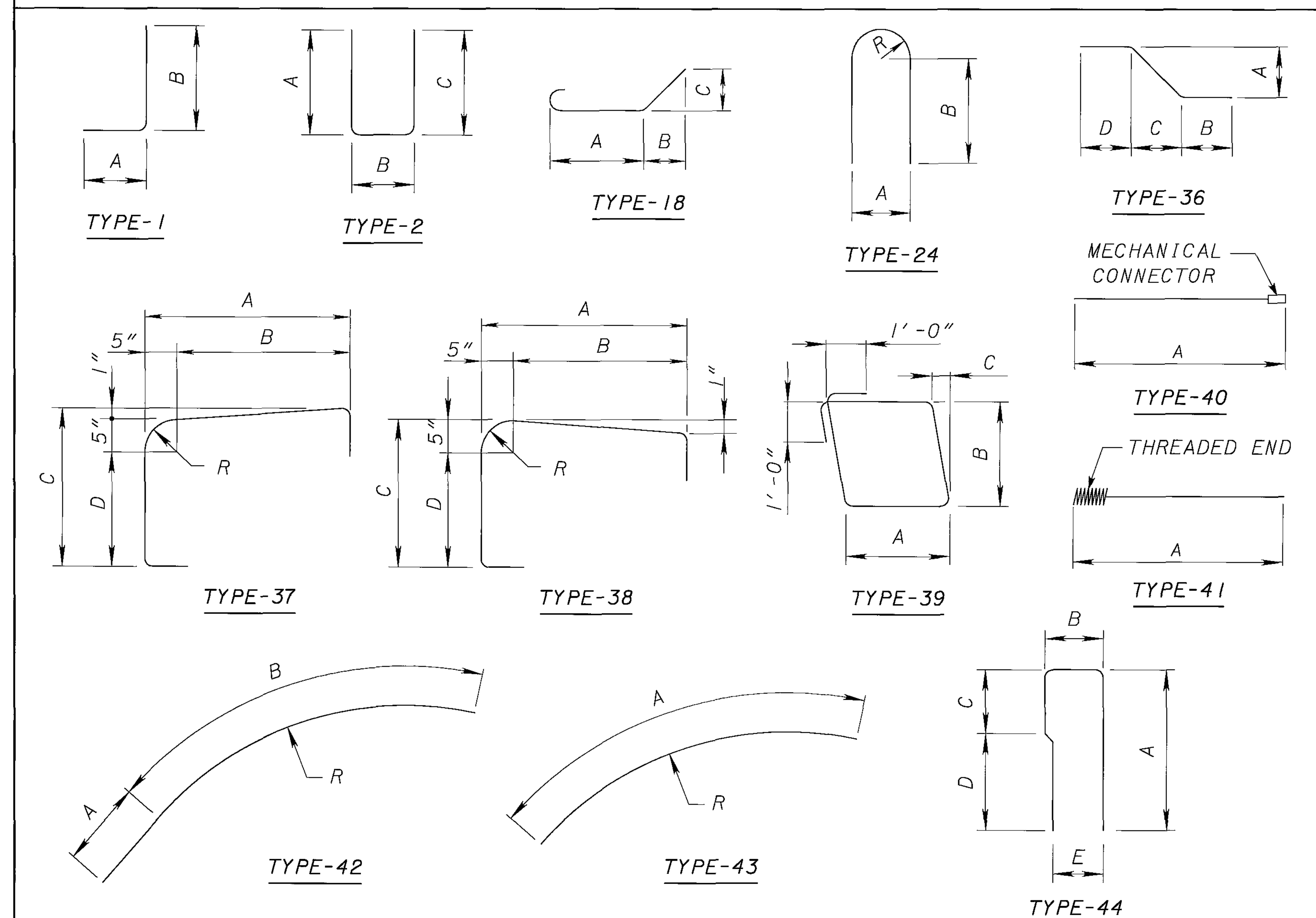
BAR SCHEDULE

MARK	NUMBER PHASE I	NUMBER PHASE II	LENGTH	WEIGHT PHASE I	WEIGHT PHASE II	TYPE	A	B	C	D	E	R	INC.
FORWARD ABUTMENT													
FA501	11		33'-2"	381		40	33'-2"						
FA502		11	2'-11"		33	41	2'-11"						
FA503		11	26'-10"		308	STR							
FA504		3	6'-2"		19	STR							
FA505	3		6'-9"	21		STR							
FA506	3	3	8'-1"	26	26	39	1'-8"	1'-8"	2"				
FA507	3	3	5'-10"	19	19	STR							
FA508	1	1	5'-4"	6	6	STR							
FA509	2	2	7'-6"	16	16	37	4'-5"	4'-0"	1'-11"	1'-6"			
FA510	16		14'-7"	243		STR							
FA511	2		10'-3"	21		STR							
FA512	2		8'-6"	18		STR							
FA513	2		6'-5"	13		STR							
FA514	2		11'-0"	23		36	2'-4½"	2'-5"	4'-2"	3'-10"			
FA515	5	5	3'-7"	19	19	24	6"	1'-5"				3¼"	
FA516		16	14'-5"		241	STR							
FA517		2	7'-6"		16	STR							
FA518		2	6'-11"		14	STR							
FA519		2	6'-3"		13	STR							
FA520		2	11'-0"		23	42	2'-6"	2'-5"	4'-2"	3'-10"			
FA521	31	30	5'-1"	162	162	2	1'-0"	3'-4"	1'-0"				
FA601	4		10'-2"	61		STR							
FA602	4		14'-7"	88		STR							
FA603	4		11'-6"	69		40							
FA604		4	5'-8"		34	41							
FA605		4	23'-2"		139	STR							
FA606	42		4'-0"	252		1	1'-3"	2'-11"					
FA607	44	86	3'-10"	253	495	1	1'-3"	2'-9"					
FA608	46	22	4'-2"	288	138	1	1'-3"	3'-1"					
FA609	10	10	6'-9"	102	102	STR							
FA610	5	5	11'-3"	85	85	2	5'-1"	1'-5"	5'-1"				
FA611	50	48	5'-5"	407	390	STR							
FA612	25	24	8'-9"	329	315	2	3'-10"	1'-5"	3'-10"				
FA613	25	24	6'-3"	235	225	2	2'-10"	11"	2'-10"				
FA614	5	5	7'-7"	57	57	2	3'-6"	11"	3'-6"				
FA615	14	14	3'-10"	81	81	1	1'-0"	3'-0"					
FA616	7	7	12'-6"	132	132	2	5'-10"	1'-2"	5'-10"				
	1 SERIES		7'-2"				3'-2"		3'-2"				
FA617	OF		TO	69		2		1'-2"					6¼"
	5 BARS		11'-4"				5'-3"		5'-3"				
FA618	4	4	7'-2"		43	2	3'-2"	1'-2"	3'-2"				
FA619	21	21	10'-6"	331	331	44	5'-1"	8"	2'-6"	2'-7"	6"		
		1 SERIES	7'-2"				3'-2"		3'-2"				
FA620		OF	TO		54	2		1'-2"					7¼"±
		4 BARS	10'-10"				5'-0"		5'-0"				
FA801	17	17	5'-0"	227	227	18	2'-7"	1'-0"	1'-0"				
FA901	9	9	3'-6"	107	107	STR							
FA902	2	2	3'-5"	23	23	STR							
TOTAL WEIGHT FORWARD ABUTMENT = 8100 (4207 PHASE I) (3893 PHASE II)													

BAR SCHEDULE

MARK	NUMBER PHASE I	NUMBER PHASE II	LENGTH	WEIGHT PHASE I	WEIGHT PHASE II	TYPE	A	B	C	D	E	R	INC.
PIER 1													
P501	58	58	4'-9"	288	288	2	1'-2"	2'-8"	1'-2"				
P601	58	58	3'-4"	291	291	1	1'-0"	2'-6"					
P602	5		31'-8"	238		40	31'-8"						
P603		5	3'-5"		26	41	3'-5"						
P604		5	24'-8"		185	STR							
P605	4	4	5'-7"	34	34	1	3'-0"	2'-9"					
P606	2	2	9'-6"	29	29	24	2'-3"	3'-0"					13½"
P801		8	24'-8"		527	STR							
P802		8	6'-8"		142	41	6'-8"						
P803	8		13'-10"	295		40	13'-10"						
P804	8		22'-8"	484		STR							
TOTAL WEIGHT PIER 1 = 3181 (1659 PHASE I) (1522 PHASE II)													

BAR BENDING DIAGRAMS



NOTES:

THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, RA601:

RA: LOCATION OF THE BAR IN THE STRUCTURE (REAR ABUTMENT)
6: BAR SIZE DESIGNATION NO. 6
01: SEQUENCE NUMBER

BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BAR BEND AT THE END OF THE BAR. ALL REINFORCING STEEL IS TO BE EPOXY COATED. STRAIGHT BARS ARE INDICATED BY "STR".

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

REVIEWED RER | DATE 05/28/04
STRUCTURE FILE NUMBER 5006813
DRAWN BTA | REVISED
DESIGNED BTA | CHECKED MLR

REINFORCEMENT SCHEDULE
BRIDGE NO. MAH-680-0414
STEEL STREET OVER IR-680

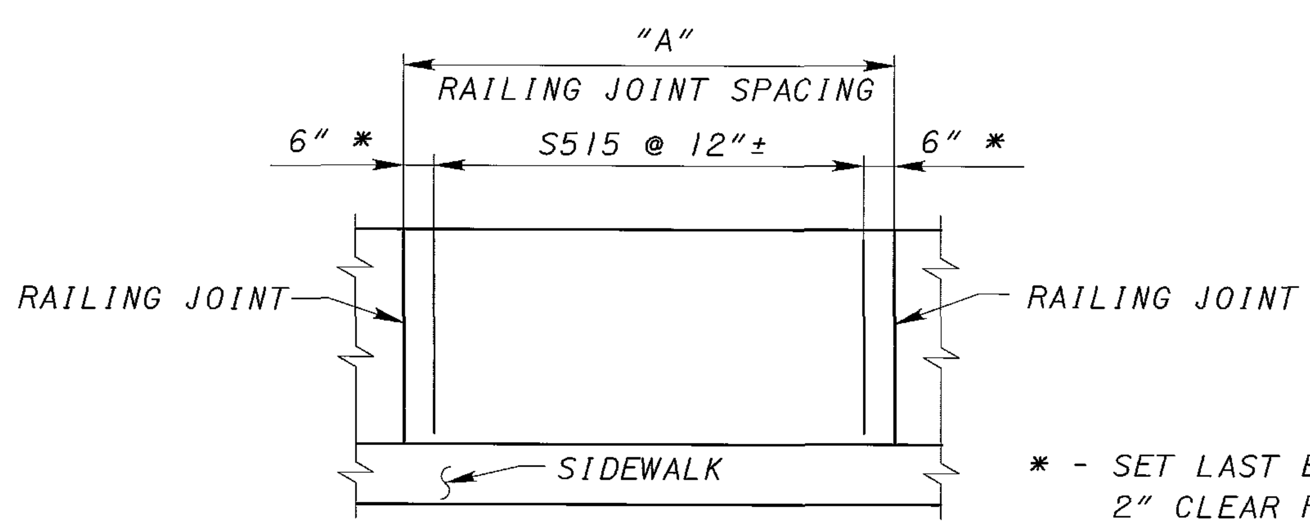
MAH-680-4.14/6.28/6.37

BAR SCHEDULE

MARK	NUMBER PHASE I	NUMBER PHASE II	LENGTH	WEIGHT PHASE I	WEIGHT PHASE II	TYPE	A	B	C	D	E	R	INC.
PIER 2													
P501	58	58	4'-9"	288	288	2	1'-2"	2'-8"	1'-2"				
P601	58	58	3'-4"	291	291	1	1'-0"	2'-6"					
P602	5		31'-8"	238		40	31'-8"						
P603		5	3'-5"		26	41	3'-5"						
P604		5	24'-8"		185	STR							
P605	4	4	5'-7"	34	34	1	3'-0"	2'-9"					
P606	2	2	9'-6"	29	29	24	2'-3"	3'-0"					13½"
P801		8	24'-8"		527	STR							
P802		8	6'-8"		142	41	6'-8"						
P803	8		13'-10"	295		40	13'-10"						
P804	8		22'-8"	484		STR							
TOTAL WEIGHT PIER 2 = 3181 (1659 PHASE I) (1522 PHASE II)													
PIER 3													
P501	58	58	4'-9"	288	288	2	1'-2"	2'-8"	1'-2"				
P601	58	58	3'-4"	291	291	1	1'-0"	2'-6"					
P602	5		31'-8"	238		40	31'-8"						
P603		5	3'-5"		26	41	3'-5"						
P604		5	24'-8"		185	STR							
P605	4	4	5'-7"	34	34	1	3'-0"	2'-9"					
P606	2	2	9'-6"	29	29	24	2'-3"	3'-0"					13½"
P801		8	24'-8"		527	STR							
P802		8	6'-8"		142	41	6'-8"						
P803	8		13'-10"	295		40	13'-10"						
P804	8		22'-8"	484		STR							
TOTAL WEIGHT PIER 3 = 3181 (1659 PHASE I) (1522 PHASE II)													

BAR SCHEDULE

MARK	NUMBER PHASE I	NUMBER PHASE II	LENGTH	WEIGHT PHASE I	WEIGHT PHASE II	TYPE	A	B	C	D	E	R	INC.
SUPERSTRUCTURE													
S401	315	252	30'-0"	6313	5050	STR							
S402	45	36	7'-11"	238	190	STR							
S501	364	266	30'-0"	11390	8323	STR							
S502	52	38	15'-1"	818	598	STR							
S503	818		34'-8"	29577		STR							
	2 SERIES		5'-2"										
S504	OF		TO	291		STR							59"
	7 BARS		34'-8"										
	2 SERIES		5'-2"										
S505	OF		TO	289		STR							58½"
	7 BARS		34'-5"										
S506		822	27'-8"		23720	STR							
		2 SERIES	5'-2"										
S507		OF	TO		170	STR							66¾"
		5 BARS	27'-5"										
		2 SERIES	5'-2"										
S508		OF	TO		171	STR							67½"
		5 BARS	27'-8"										
S509	2	2	34'-10"	73	73	STR							
S510	2	2	27'-10"	58	58	STR							
S511	16	16	3'-7"	60	60	STR							
S512	208	208	2'-6"	543	543	2	10"	1'-1"	10"				
S513	212	212	2'-10"	627	627	2	10"	1'-5"	10"				
S514	208	208	5'-10"	1266	1266	STR							
S515	224	224	9'-8"	2259	2259	28	2'-10"	1'-10"	3'-0"	8"			
S601	99	87	37'-0"	5502	4835	STR							
L501	6	6	8'-0"	50	50	21	1'-4"	2'-1"	6"	2'-1"			
L502	4	4	8'-2"	34	34	2	3'-2"	2'-1"	3'-2"				
L503	4	4	3'-0"	12	12	2	7"	2'-1"	7"				
L504	4	4	3'-2"	13	13	STR							
TOTAL WEIGHT SUPERSTRUCTURE = 107465 (59413 PHASE I) (48052 PHASE II)													

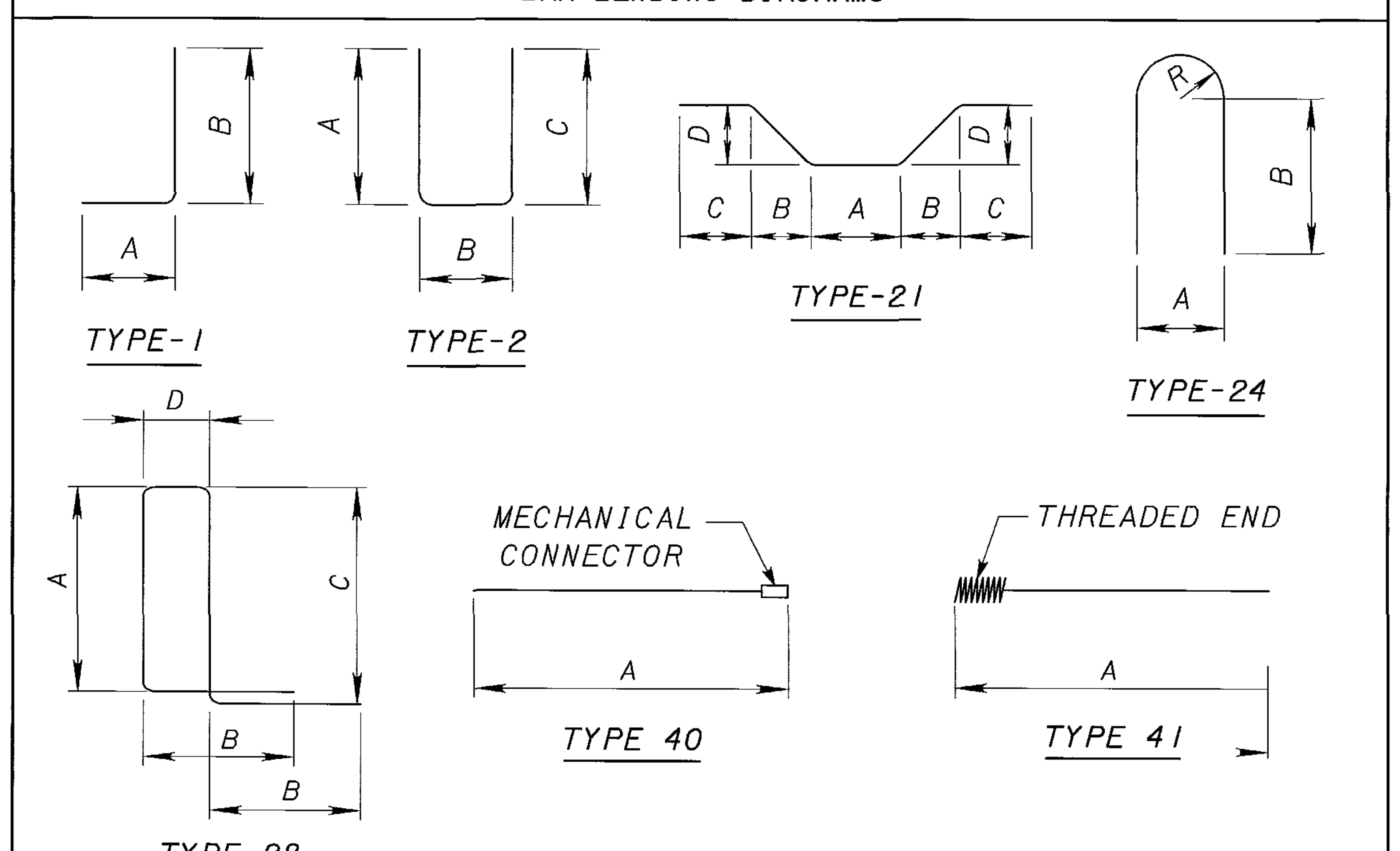


* - SET LAST BAR IN RAILING 2" CLEAR FROM EDGE OF CONCRETE

RAILING PANEL DETAIL

"A"	# OF S512
1'-6"	2
2'-2"	3
5'-6"	6
6'-6"	7
7'-0"	8
7'-6"	8

BAR BENDING DIAGRAMS



NOTES:

THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, RA601:

RA: LOCATION OF THE BAR IN THE STRUCTURE (REAR ABUTMENT)
6: BAR SIZE DESIGNATION NO. 6
01: SEQUENCE NUMBER

BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BAR BEND AT THE END OF THE BAR. ALL REINFORCING STEEL IS TO BE EPOXY COATED. STRAIGHT BARS ARE INDICATED BY "STR".

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1850 CLEVELAND, OHIO 44113-1901

REVIEWED RER | DATE 05/28/04
STRUCTURE FILE NUMBER 5006813
DRAWN BTA | REVISED
DESIGNED BTA | CHECKED MLR

REINFORCEMENT SCHEDULE
BRIDGE NO. MAH-680-0414
STEEL STREET OVER IR-680

MAH-680-4.14/6.28/6.37

28/28

STATION OF FIRST GUARDRAIL POST OFF BRIDGE

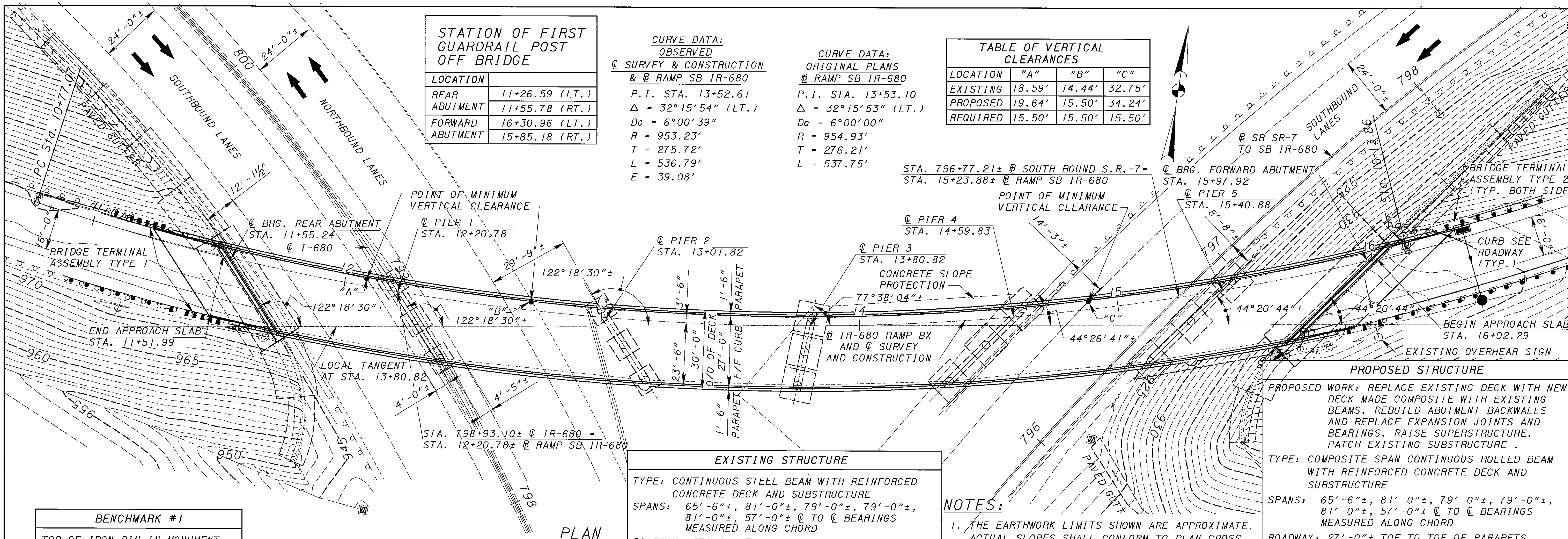
LOCATION	
REAR ABUTMENT	11+26.59 (LT.)
	11+55.78 (RT.)
FORWARD ABUTMENT	16+30.96 (LT.)
	15+85.18 (RT.)

CURVE DATA: OBSERVED
℄ SURVEY & CONSTRUCTION & ℞ RAMP SB IR-680
P.I. STA. 13+52.61
Δ = 32°15′54″ (LT.)
Dc = 6°00′39″
R = 953.23′
T = 275.72′
L = 536.79′
E = 39.08′

CURVE DATA: ORIGINAL PLANS
℞ RAMP SB IR-680
P.I. STA. 13+53.10
Δ = 32°15′53″ (LT.)
Dc = 6°00′00″
R = 954.93′
T = 276.21′
L = 537.75′

TABLE OF VERTICAL CLEARANCES

LOCATION	"A"	"B"	"C"
EXISTING	18.59′	14.44′	32.75′
PROPOSED	19.64′	15.50′	34.24′
REQUIRED	15.50′	15.50′	15.50′



EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE
SPANS: 65′-6″±, 81′-0″±, 79′-0″±, 79′-0″±, 81′-0″±, 57′-0″± ℄ TO ℄ BEARINGS MEASURED ALONG CHORD
ROADWAY: 27′-0″± TOE TO TOE OF PARAPETS
LOAD FREQUENCY: CF 2000 (57) ADEQUATE FOR A.A.S.H.T.O. ALTERNATE LOADING
SKEW: VARIABLE
WEARING SURFACE: 1″ MONOLITHIC
APPROACH SLAB: 25′-0″± LONG AS-1-67
SUPERELEVATION: .0833
ALIGNMENT: 6°00′39″± CURVE LEFT
DATE BUILT: 1970
STRUCTURAL FILE NUMBER: 5007119

PROPOSED STRUCTURE

PROPOSED WORK: REPLACE EXISTING DECK WITH NEW DECK MADE COMPOSITE WITH EXISTING BEAMS. REBUILD ABUTMENT BACKWALLS AND REPLACE EXPANSION JOINTS AND BEARINGS. RAISE SUPERSTRUCTURE. PATCH EXISTING SUBSTRUCTURE.
TYPE: COMPOSITE SPAN CONTINUOUS ROLLED BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE
SPANS: 65′-6″±, 81′-0″±, 79′-0″±, 79′-0″±, 81′-0″±, 57′-0″± ℄ TO ℄ BEARINGS MEASURED ALONG CHORD
ROADWAY: 27′-0″± TOE TO TOE OF PARAPETS
LOAD FREQUENCY: HS-25 CASE II, AND ALTERNATE MILITARY LOADING FWS = 60 LBS/FT²
SKEW: VARIABLE
WEARING SURFACE: 1″ MONOLITHIC
APPROACH SLAB: LONG AS-1-81, 25′-0″ LONG
SUPERELEVATION: .0833
ALIGNMENT: 6°00′39″± CURVE LEFT
LONGITUDE: N41°05′23″
LATITUDE: W80°39′01″

NOTES:

1. THE EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
2. THE PROPOSED PROFILE GRADE IS ONLY WITHIN THE BRIDGE LIMITS. SEE ROADWAY PLANS FOR PAVEMENT ELEVATIONS BEYOND THE BRIDGE LIMITS.
3. PROVIDE CLEARING, GRUBBING AND HERBICIDAL SPRAYING AT ALL CONCRETE SLOPE PROTECTION AREAS. INCLUDE WITH ROADWAY ITEM 201 FOR PAYMENT.

BENCHMARK #1

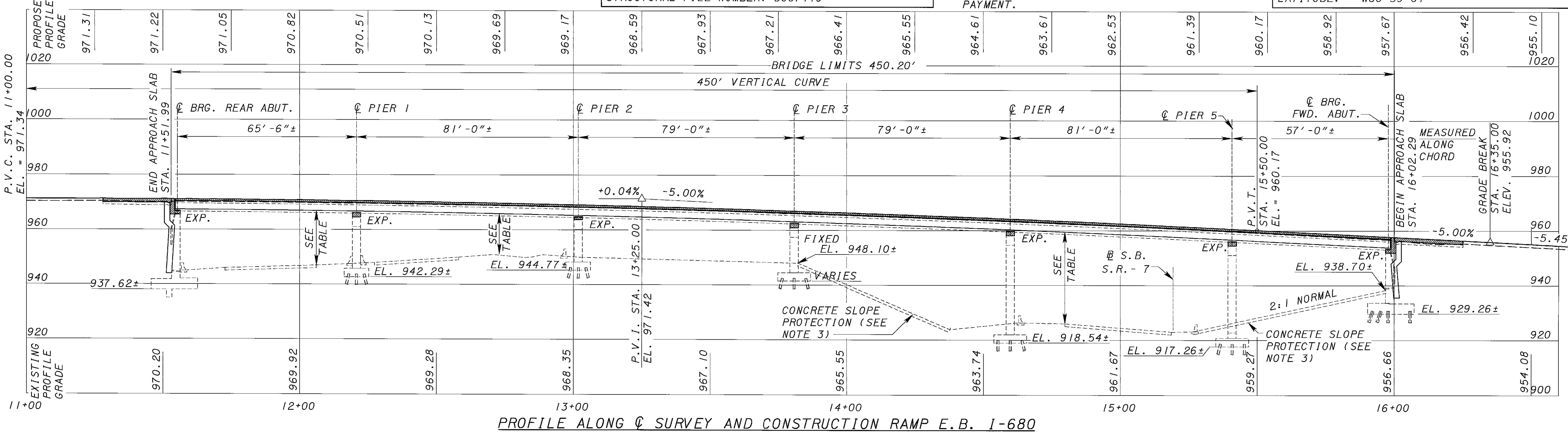
TOP OF IRON PIN IN MONUMENT BOX AT STA. 10+76.89, 2.0′ LT. EL. 969.63

BENCHMARK #2

TOP OF IRON PIN IN MONUMENT BOX AT STA. 16+13.68, 2.0′ LT. EL. 955.12

TRAFFIC DATA

IR-680 RAMP BX
DESIGN YEAR A.D.T. (2005) = 3,250
DESIGN YEAR A.D.T. (2025) = 4,080
TRUCKS = 5%



PROFILE ALONG ℄ SURVEY AND CONSTRUCTION RAMP E.B. I-680

TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650 CLEVELAND, OHIO 44113-1901

DESIGN AGENCY

DESIGNED NFF	CHECKED BTA	DRAWN RCK	REVISED	REVIEWED RER	DATE 7/1/03	STRUCTURE FILE NUMBER 5007119

MAHONING COUNTY
STA. 11+51.99
STA. 16+02.29

SITE PLAN
BRIDGE NO. MAH-680-0628
IR-680 RAMP BX OVER IR-680 AND SR-7

MAH-680-4.14/6.28/6.37

1/24

g:\CL02\0026\Bridge\mah-680-0628\628sp01.dgn

MADE BY BTA DATE 6/02/04
CHECK'D BY NFF DATE 6/08/04

ESTIMATED QUANTITIES

STRUCTURE FILE NUMBER: 5007119

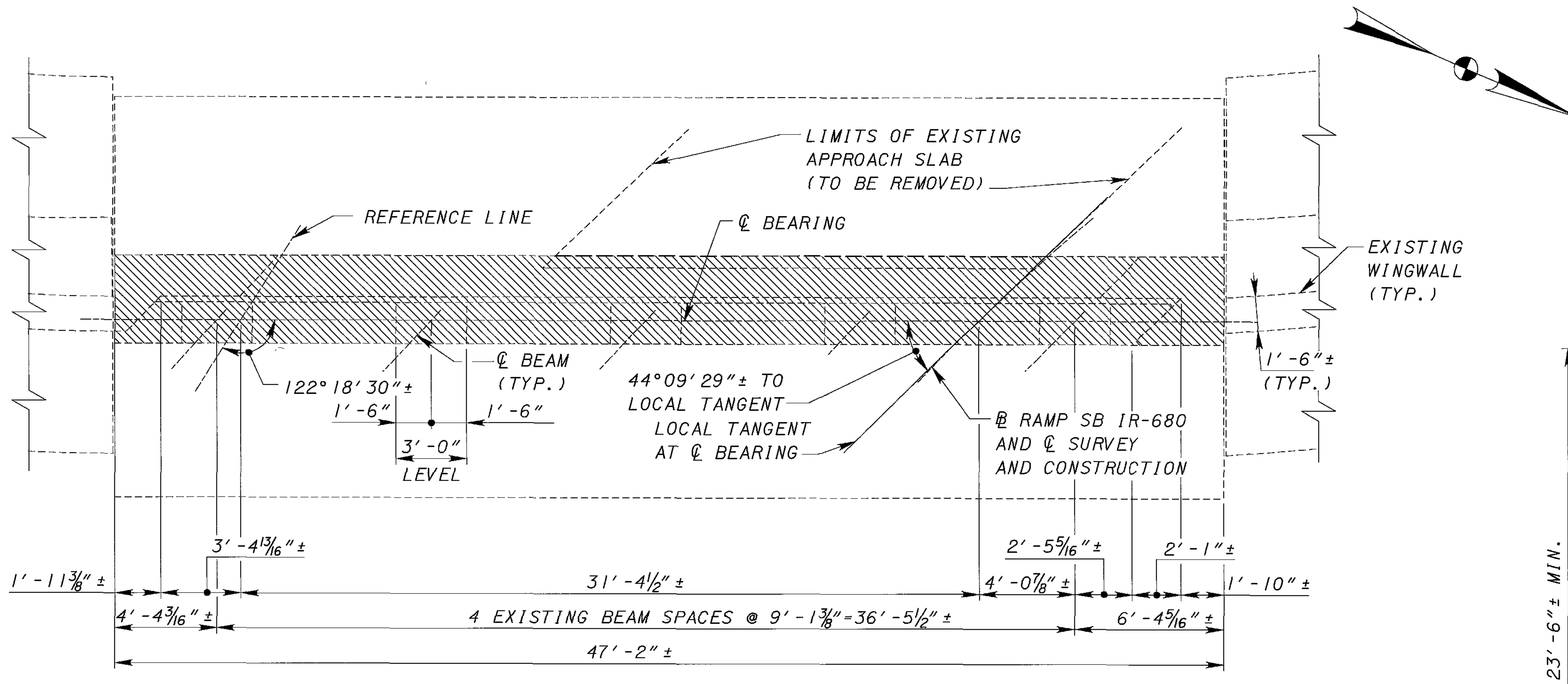
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	REAR ABUTMENT	FORWARD ABUTMENT	PIERS	SUPERSTRUCTURE	GENERAL	AS PER PLAN REFERENCE SHEET NUMBER
202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					LUMP	G1/3
202	22901	173	SQ YD	APPROACH SLAB REMOVED, AS PER PLAN					173	1/24
503	11100	LUMP		COFFERDAMS, CRIBS AND SHEETING					LUMP	
503	21101	2215	CU YD	UNCLASSIFIED EXCAVATION, AS PER PLAN	1178	1037				G2/3
509	10000	144548	POUND	EPOXY COATED REINFORCING STEEL	4654	6212	10035	123647		
509	20001	300	POUND	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN					300	G2/3
510	10000	928	EACH	DOWEL HOLES, WITH NONSHRINK, NONMETALLIC GROUT	218	282	428			
512	33000	47	SQ YD	TYPE 2 WATERPROOFING	21	26				
										G2/3
513	10201	3023	POUND	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN				3023		
513	20000	6348	EACH	WELDED STUD SHEAR CONNECTORS				6348		
514	00050	21503	SQ FT	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL (SEE PROPOSAL NOTE)				21503		
514	00056	21503	SQ FT	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT (SEE PROPOSAL NOTE)				21503		
514	00060	21841	SQ FT	FIELD PAINTING OF STRUCTURAL STEEL, INTERMEDIATE COAT (SEE PROPOSAL NOTE)				21841		
514	00066	21841	SQ FT	FIELD PAINTING OF STRUCTURAL STEEL, FINISH COAT (SEE PROPOSAL NOTE)				21841		
514	00504	36	MAN HOUR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL (SEE PROPOSAL NOTE)				36		
514	10000	5	EACH	FINAL INSPECTION REPAIR (SEE PROPOSAL NOTE)				5		
516	11210	100	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL	43	57				
516	44000	2	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES (NEOPRENE) (9½"x15"x1.72") AND LOAD PLATE (NEOPRENE) (10½"x21"x3.00")			2			
516	44000	3	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES (NEOPRENE) (10½"x18"x1.94") AND LOAD PLATE (NEOPRENE) (11½"x24"x3.00")			3			
516	44100	20	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES (NEOPRENE) (11½"x18"x2.16") AND LOAD PLATE (NEOPRENE) (12½"x19"x3.00")			20			
516	44200	10	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES (NEOPRENE) (9½"x14"x3.75") AND LOAD PLATE (NEOPRENE) (10½"x15½"x2.00")	5	5				
516	47001	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN				LUMP		G2/3
518	21200	272	CU YD	POROUS BACKFILL WITH FILTER FABRIC	139	133				
518	39900	9	FT	4" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	9					
518	40000	138	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	67	71				
518	40010	12	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS		12				
519	11101	87	SQ FT	PATCHING CONCRETE STRUCTURES, AS PER PLAN	21	63	3			G2/3
526	25001	163	SQ YD	REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN	82	81				G2/3
601	21100	37	SQ YD	SLOPE PROTECTION, MISC.: REPAIR OF EXISTING CONCRETE SLOPE PROTECTION		15	22			G3/3
864	10100	1920	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	179	164	602	975		
898	10200	386	CU YD	QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (DECK)				386		
898	11000	135	CU YD	QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (PARAPET)				135		
898	20000	131	CU YD	QC/QA CONCRETE, CLASS QSC1, SUBSTRUCTURE	31	45	56			

DESIGN AGENCY
TranSystems Corporation
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

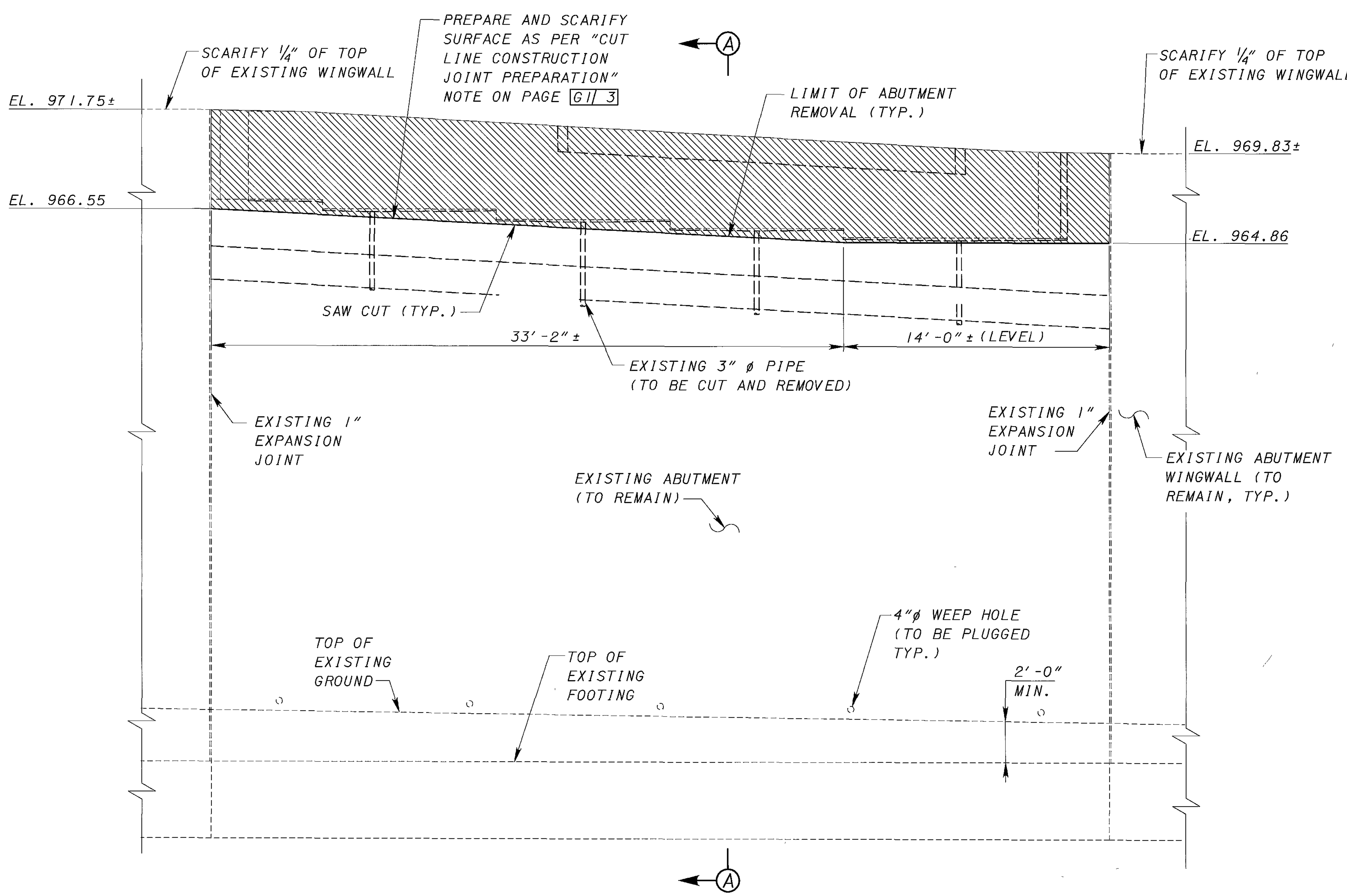
REVIEWED RER DATE 06/04/04
STRUCTURE FILE NUMBER 5007119
DRAWN RCK REVISED
DESIGNED BTA CHECKED NFF

ESTIMATED QUANTITIES
BRIDGE NO. MAH-680-0628
IR-680 RAMP BX OVER IR-680 AND SR-7

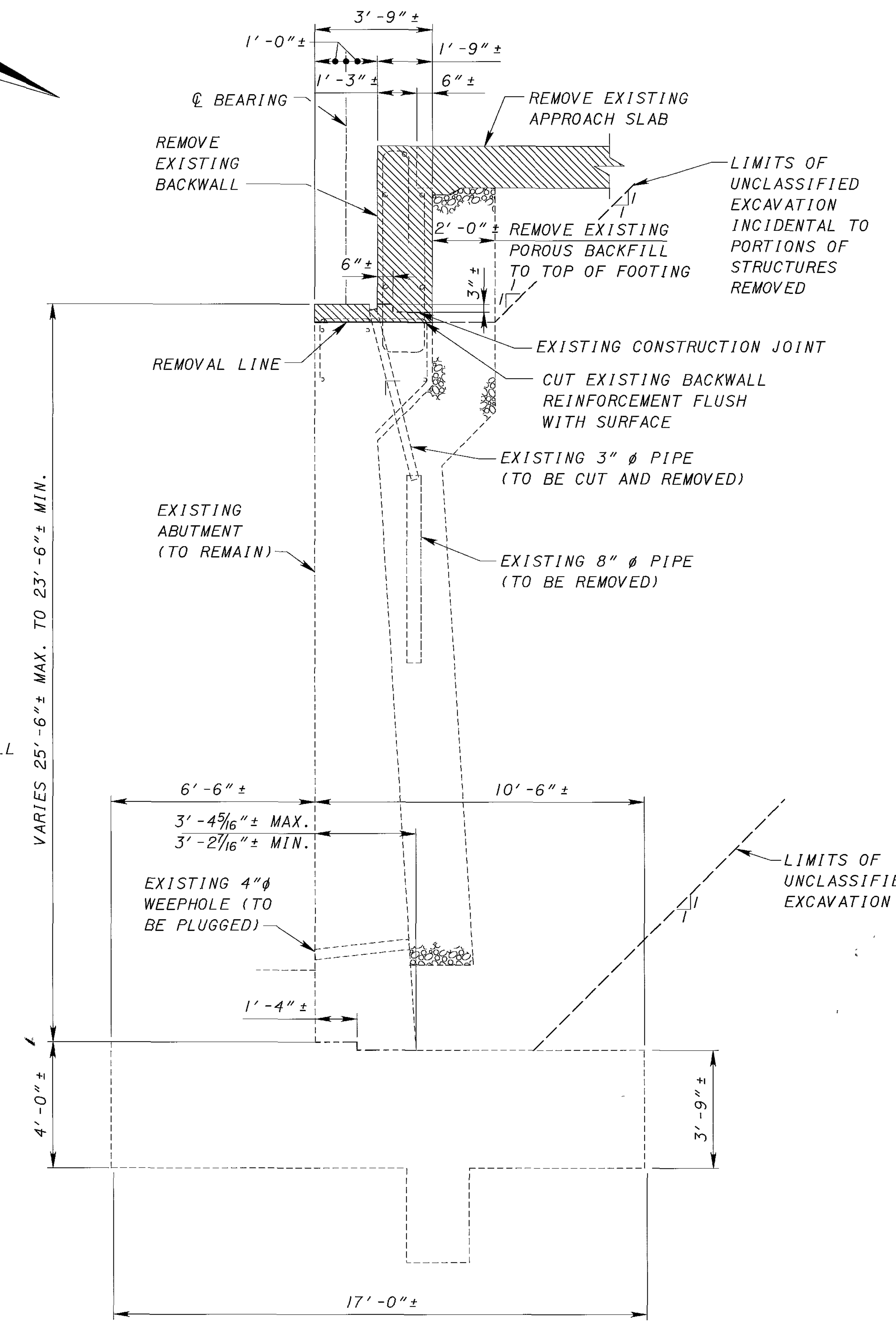
MAH-680-4.14/6.28/6.37



PLAN



ELEVATION



SECTION A-A

LEGEND:

- INDICATES AREA TO BE REMOVED AS PER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

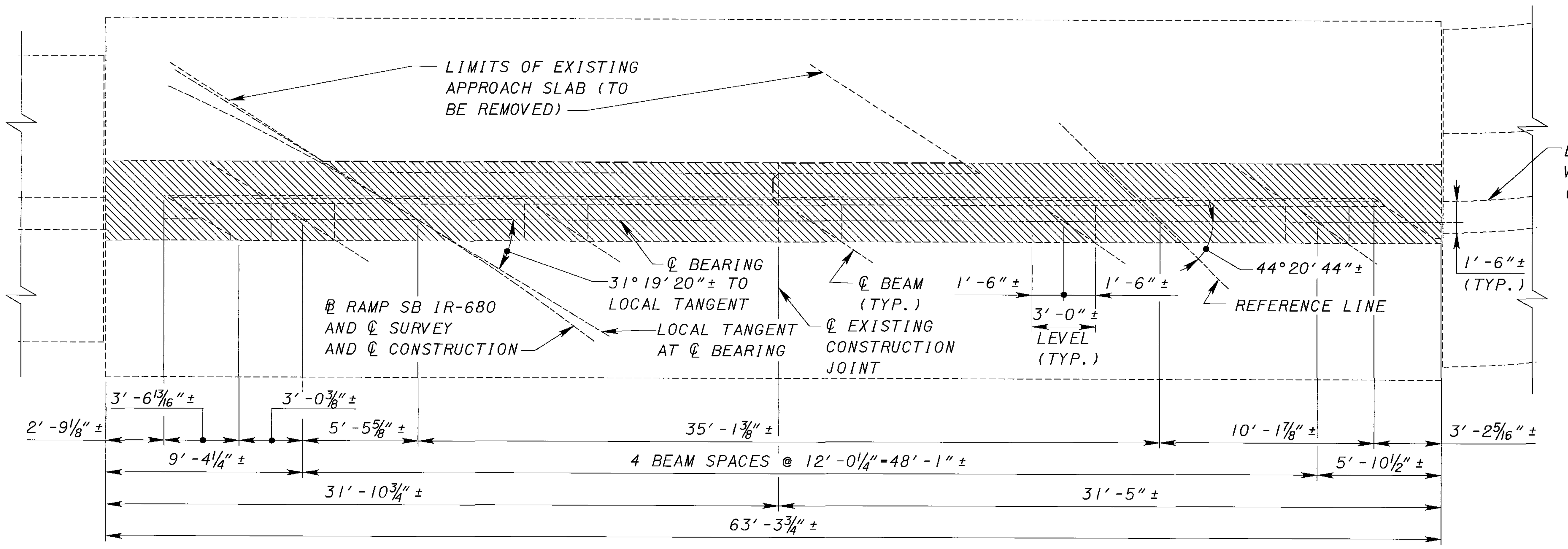
DESIGN AGENCY: TRANSYSTEMS CORPORATION, 55 PUBLIC SQUARE, SUITE 1650, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	RCK	RER	06/04/04
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5007119	

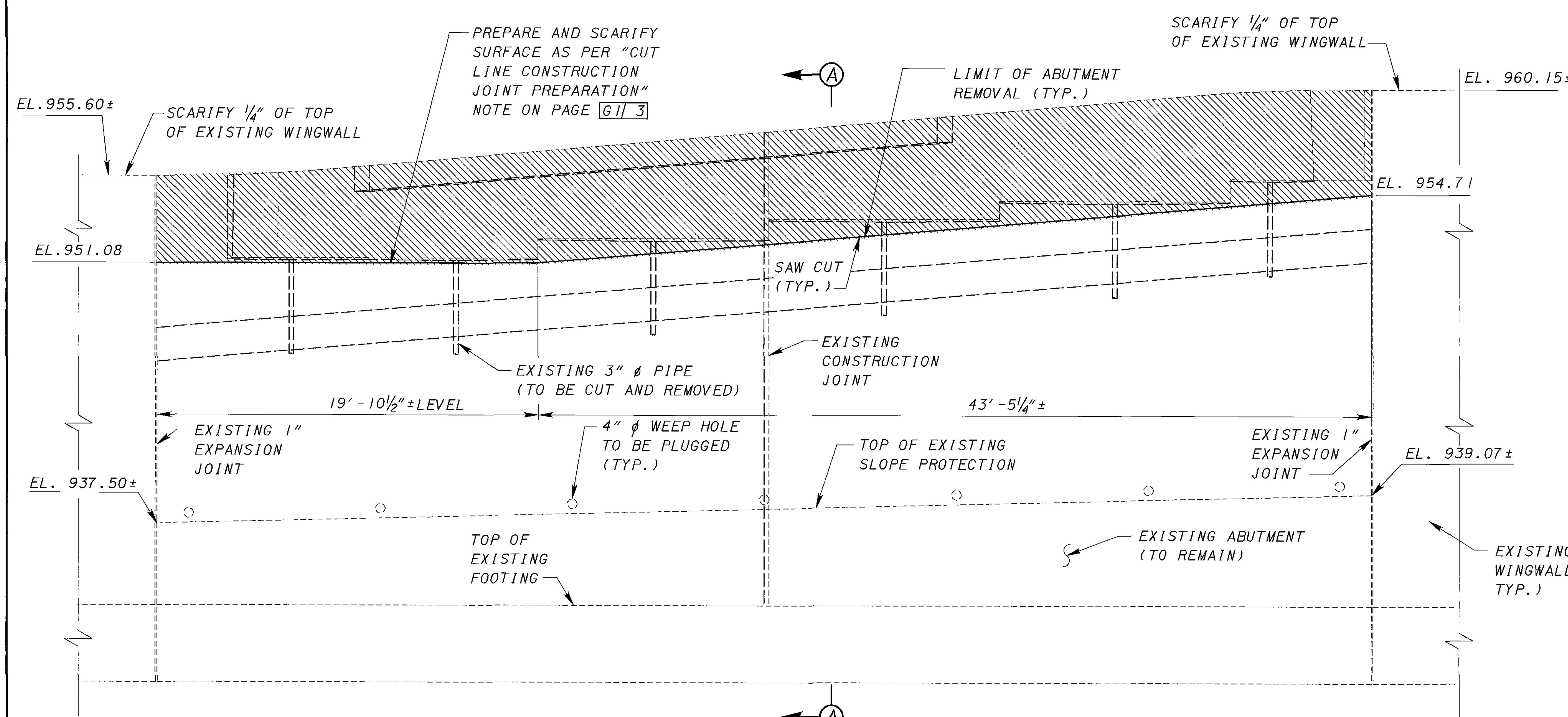
REAR ABUTMENT REMOVAL DETAILS
BRIDGE NO. MAH-680-0628
IR-680 RAMP BX OVER IR-680 AND SR-7

MAH-680-4.14/6.28/6.37

3/24

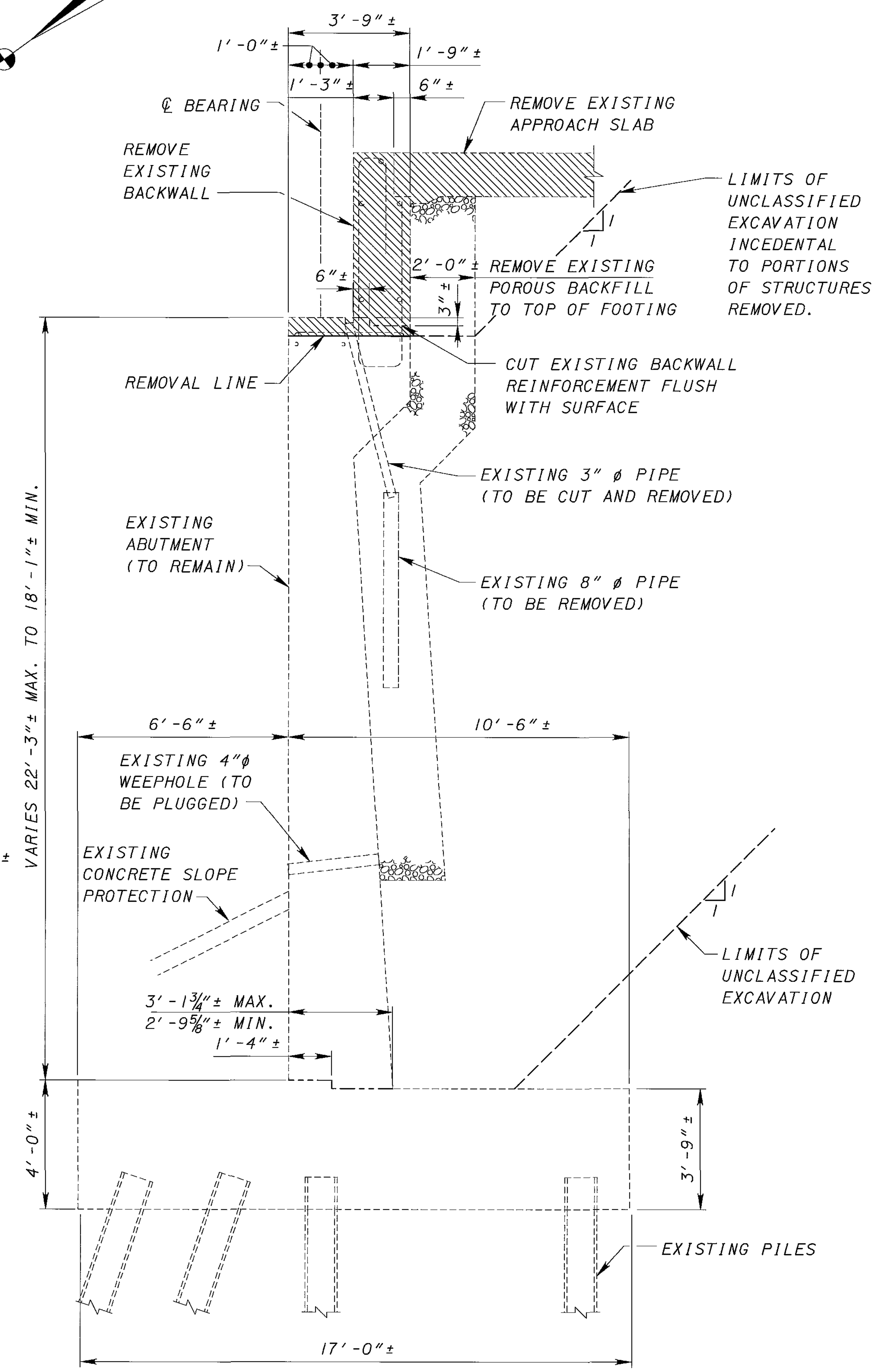


PLAN



ELEVATION

(PILES NOT SHOWN)



SECTION A-A

LEGEND:

- INDICATES AREA TO BE REMOVED AS PER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

DESIGN AGENCY: TRANSYSTEMS CORPORATION, 55 PUBLIC SQUARE, SUITE 1650, CLEVELAND, OHIO

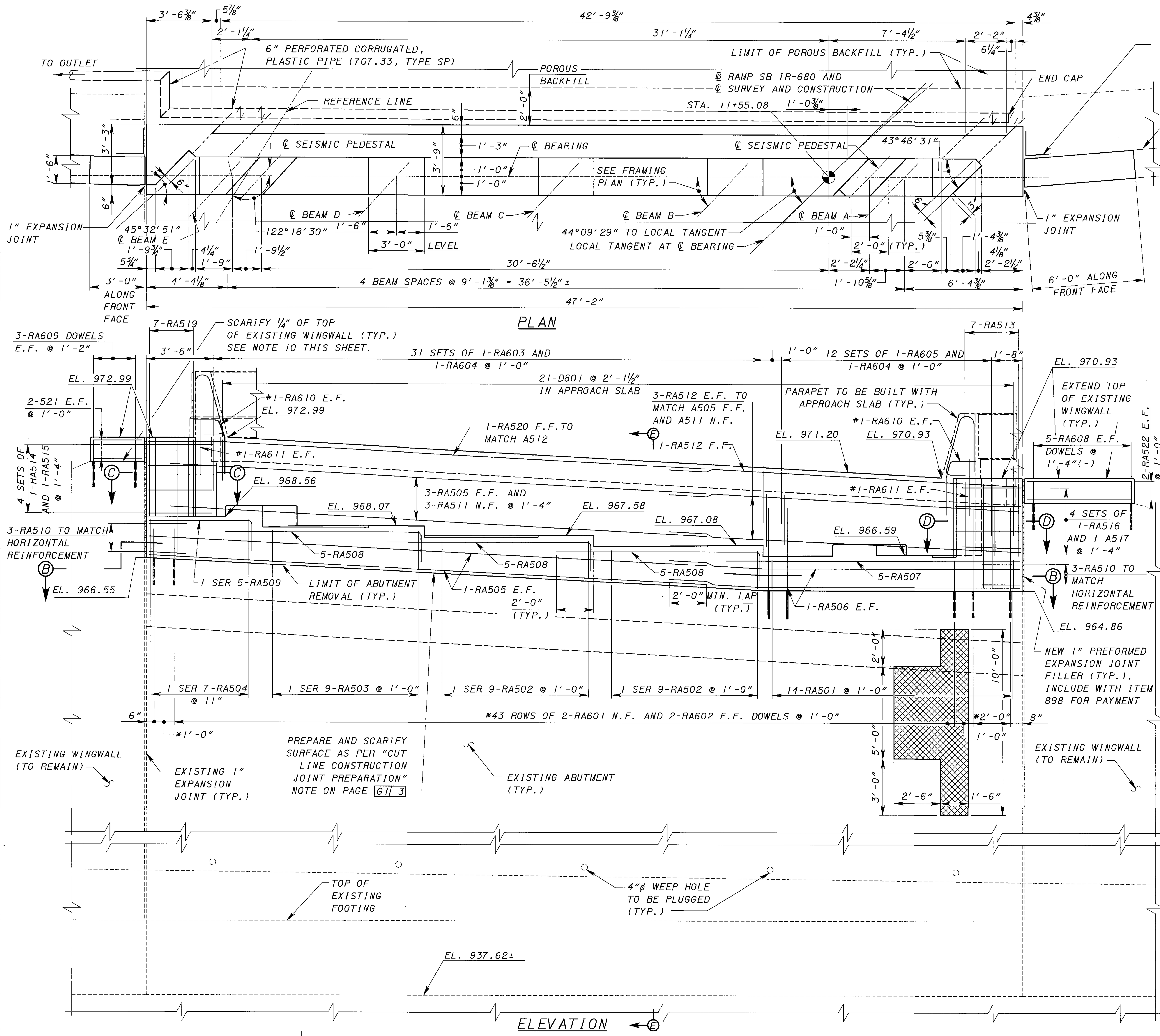
DESIGNED	DRAWN	REVIEWED	DATE
BTA	RCK	RER	06/04/04
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5007119	

FORWARD ABUTMENT REMOVAL DETAILS

BRIDGE NO. MAH-680-0628

IR-680 RAMP BX OVER IR-680 AND SR-7

MAH-680-4.14/6.28/6.37



NOTES:

1. FOR REINFORCING SCHEDULE, SEE SHEET 23/24.
2. FOR OUTLET OF 6" CORRUGATED PLASTIC PIPE SEE SHEET 8/24.
3. FOR SECTIONS B-B THRU E-E SEE SHEET 6/24.
4. FOR DETAILS OF SEISMIC PEDESTALS SEE SHEET 6/24.
5. POROUS BACKFILL WITH FILTER FABRIC, 2'-0" THICK, SHALL EXTEND UP TO THE BOTTOM OF THE APPROACH SLAB AND LATERALLY TO THE LIMITS SHOWN IN THE APPROPRIATE DRAINAGE DETAIL ON SHEET 8/24.
6. PAYMENT FOR DRILLING OR FORMING HOLES AND FURNISHING AND PLACING GROUT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM-510-DOWEL HOLES WITH NON SHRINK NON-METALIC GROUT.
7. IN ADDITION TO 511.10, DO NOT PLACE BACKWALL CONCRETE ABOVE THE OPTIONAL CONSTRUCTION JOINT AT THE APPROACH SLAB SEAT UNTIL AFTER THE DECK CONCRETE IN THE SPAN ADJACENT TO THE ABUTMENT HAS BEEN PLACED.
8. DURING INSTALLATION OF THE SUPPORT/ARMOR FOR THE SUPERSTRUCTURE SIDE OF THE EXPANSION JOINT SEAL, OBSERVE THE SEATING OF BEAMS ON BEARINGS TO ASSURE THAT POSITIVE BEARING IS MAINTAINED.
9. IF THE BEAMS SEATS ARE SEALED WITH AN EPOXY OR NON-EPOXY SEALER PRIOR TO SETTING THE BEARINGS, DO NOT APPLY SEALER TO THE CONCRETE SURFACES UNDER THE PROPOSED BEARING LOCATIONS. IF THESE LOCATIONS ARE SEALED, REMOVE THE SEALER TO THE SATISFACTION OF THE ENGINEER PRIOR TO SETTING THE BEARINGS. THE DEPARTMENT WILL NOT PAY FOR THIS REMOVAL.
10. SURFACE SHALL BE CLEANED, FREE OF LAITANCE AND INTENTIONALLY ROUGHNED TO ¼"± AMPLITUDE. PAYMENT SHALL BE INCLUDED WITH ITEM 898.

LEGEND:

INDICATES AREA TO BE PATCHED ACCORDING TO ITEM 519 PATCHING CONCRETE STRUCTURES. TOTAL ITEM 519 FOR REAR ABUTMENT 21 SQ. FT..

PLACE PARALLEL TO FACE OF BACKWALL

* SEE SECTION B-B FOR DOWEL LAYOUT

THE FOLLOWING ABBREVIATIONS ARE USED:

EL.	= ELEVATION
N.F.	= NEAR FACE
F.F.	= FAR FACE
TYP.	= TYPICAL

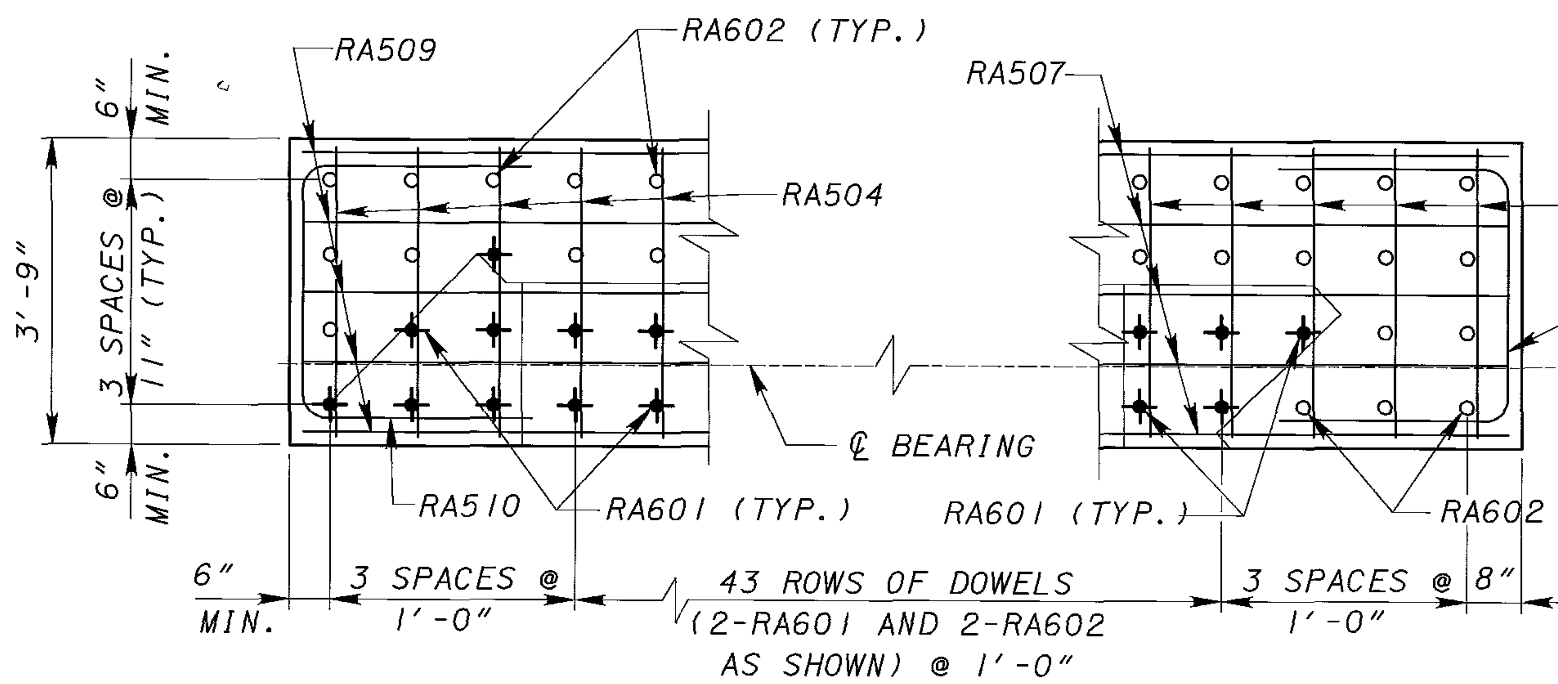
BAR MARKS ARE PREFIXED "RA" FOR REAR ABUTMENT

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

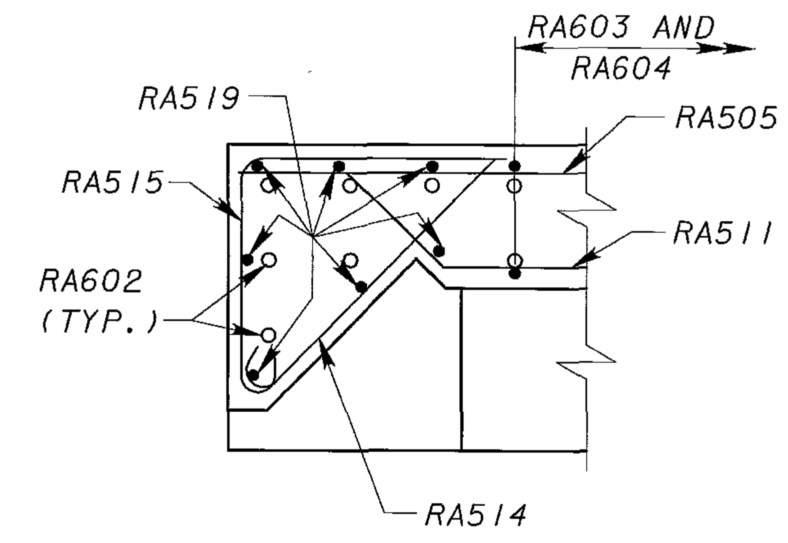
DESIGNED	CHECKED	DRAWN	REVISED	REVIEWED	DATE	STRUCTURE FILE NUMBER
BTA	NFF	RCK		RER	06/04/04	5007119

REAR ABUTMENT DETAILS
BRIDGE NO. MAH-680-0628
IR-680 RAMP BX OVER IR-680 AND SR-7

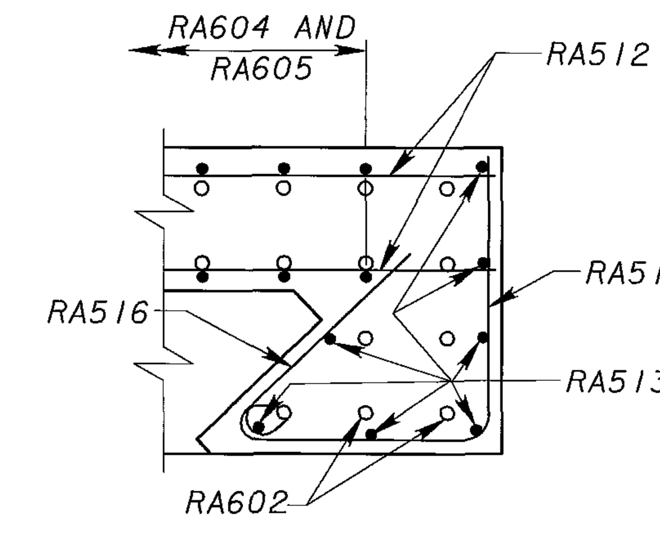
MAH-680-4.14/6.28/6.37



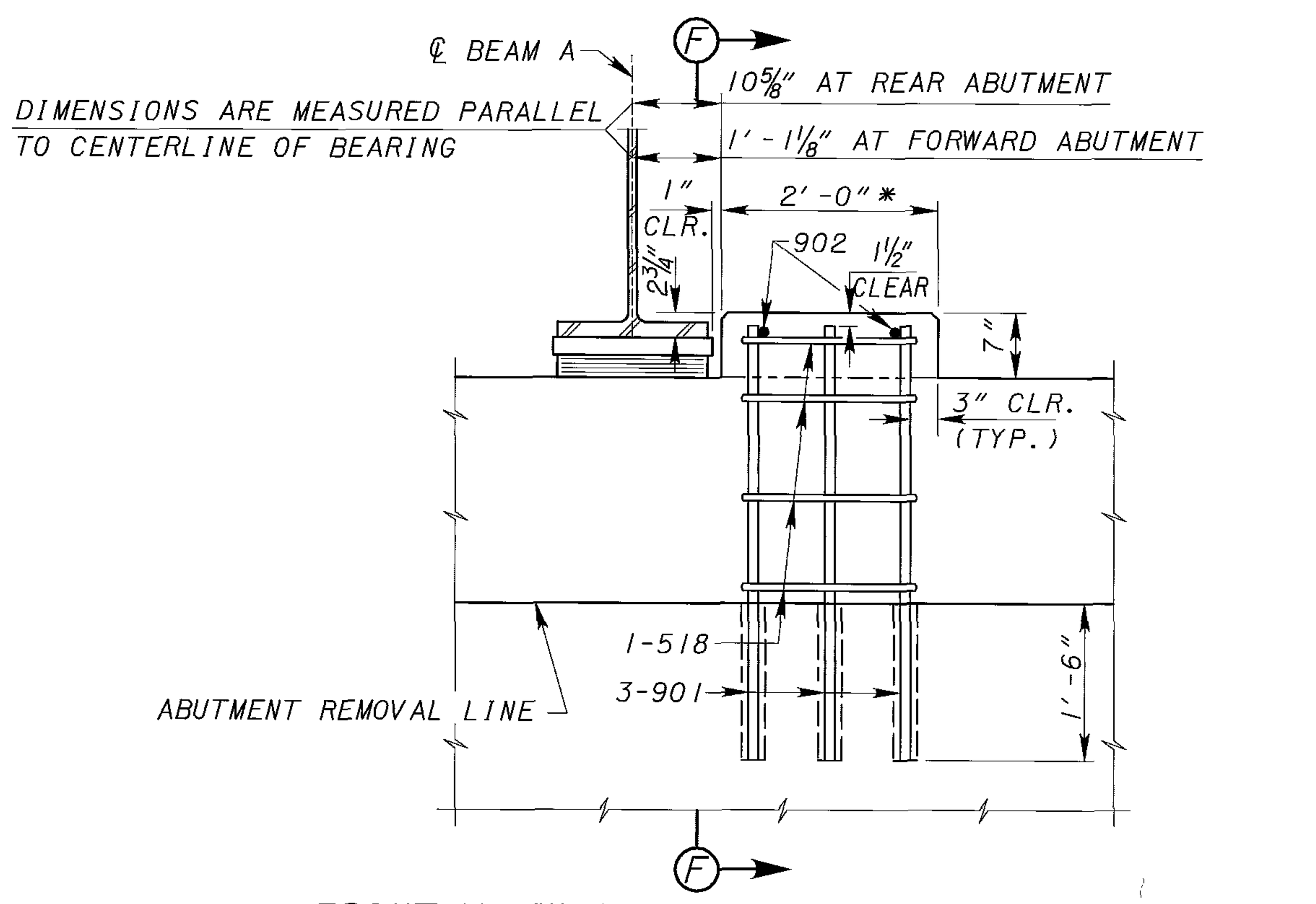
SECTION B-B



SECTION C-C

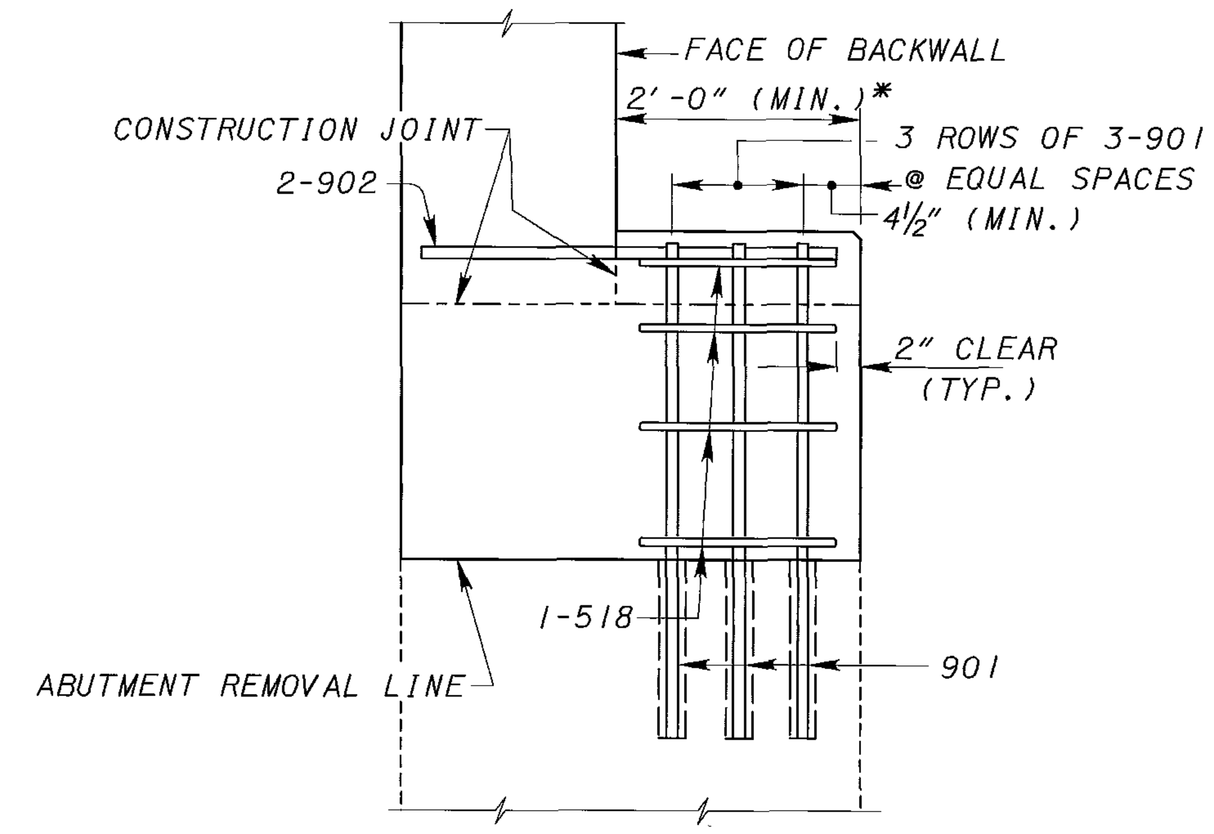


SECTION D-D



FRONT VIEW OF SEISMIC PEDESTAL AT BEAM A

THE 2'-0" WIDTH OF THE PEDESTAL SHALL BE MEASURED PARALLEL TO THE CENTERLINE OF BEARING. THE 901 BARS SHALL BE PLACED PARALLEL TO THE CENTERLINE OF BEARING. THE 902 BARS SHALL BE PLACED PARALLEL TO THE BEAMS OR GIRDERS.



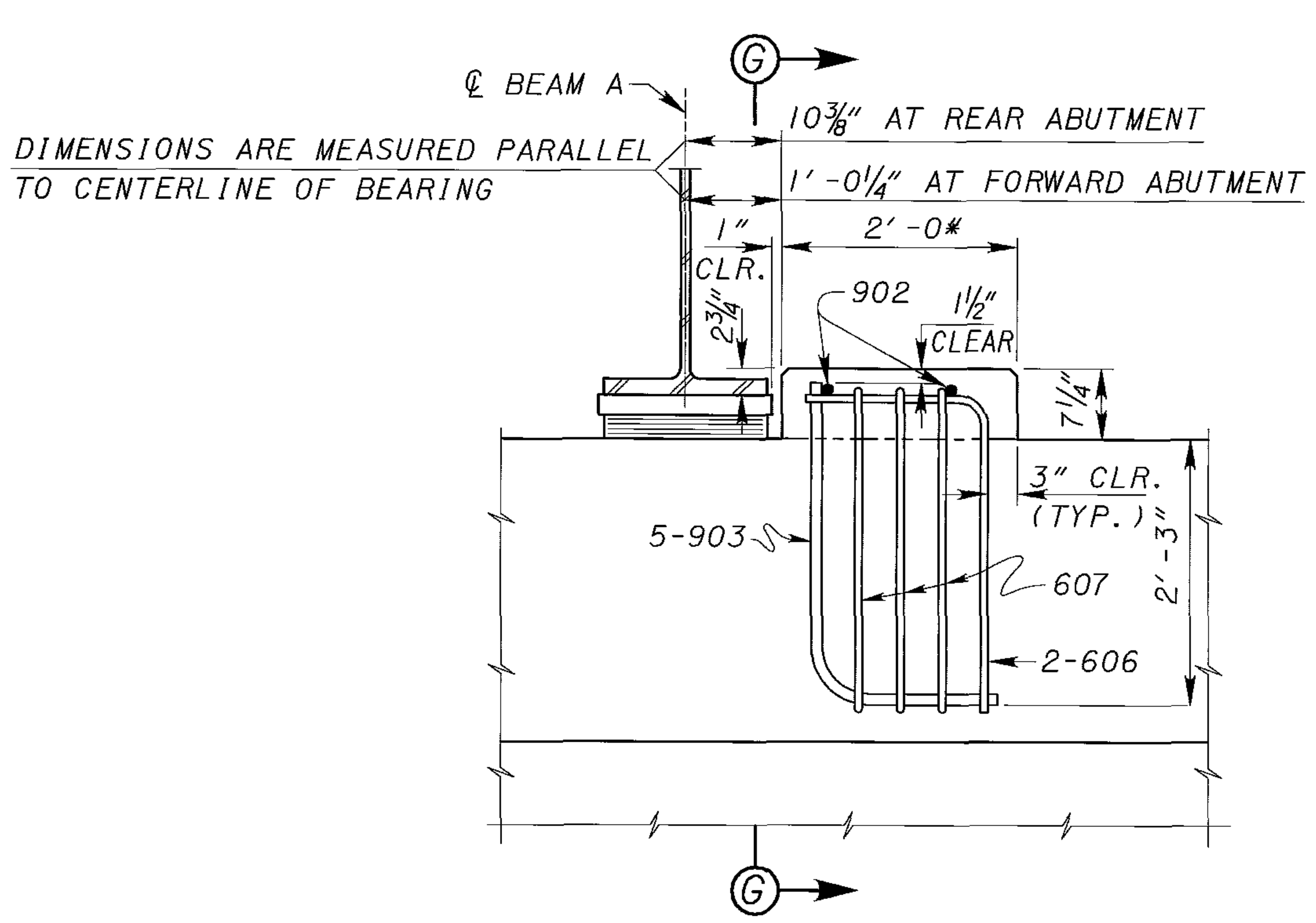
SECTION F-F

THE LOCATION OF THE MAIN REINFORCEMENT IN THE BEAM SEAT MAY BE ADJUSTED HORIZONTALLY ±1" TO ACCOMMODATE THE 901 BARS.

* - THE SURFACE OF THE BEAM SEAT IN THIS AREA SHALL BE FINISHED WITH A SERRATED TROWEL. THE SERRATIONS SHALL BE ¼" DEEP MINIMUM.

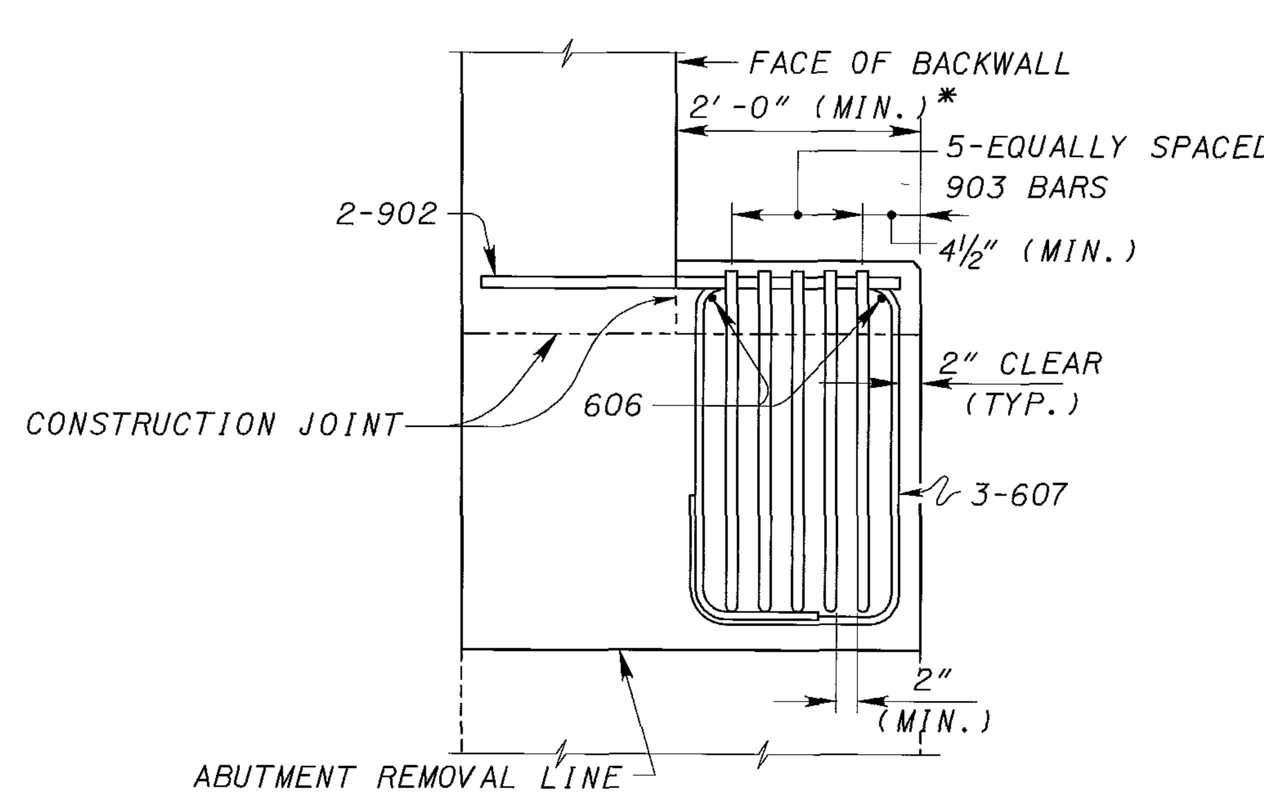
NOTE:

PREFIX BAR MARKS:
"RA" FOR REAR ABUTMENT
"FA" FOR FORWARD ABUTMENT



FRONT VIEW OF SEISMIC PEDESTAL AT BEAM E

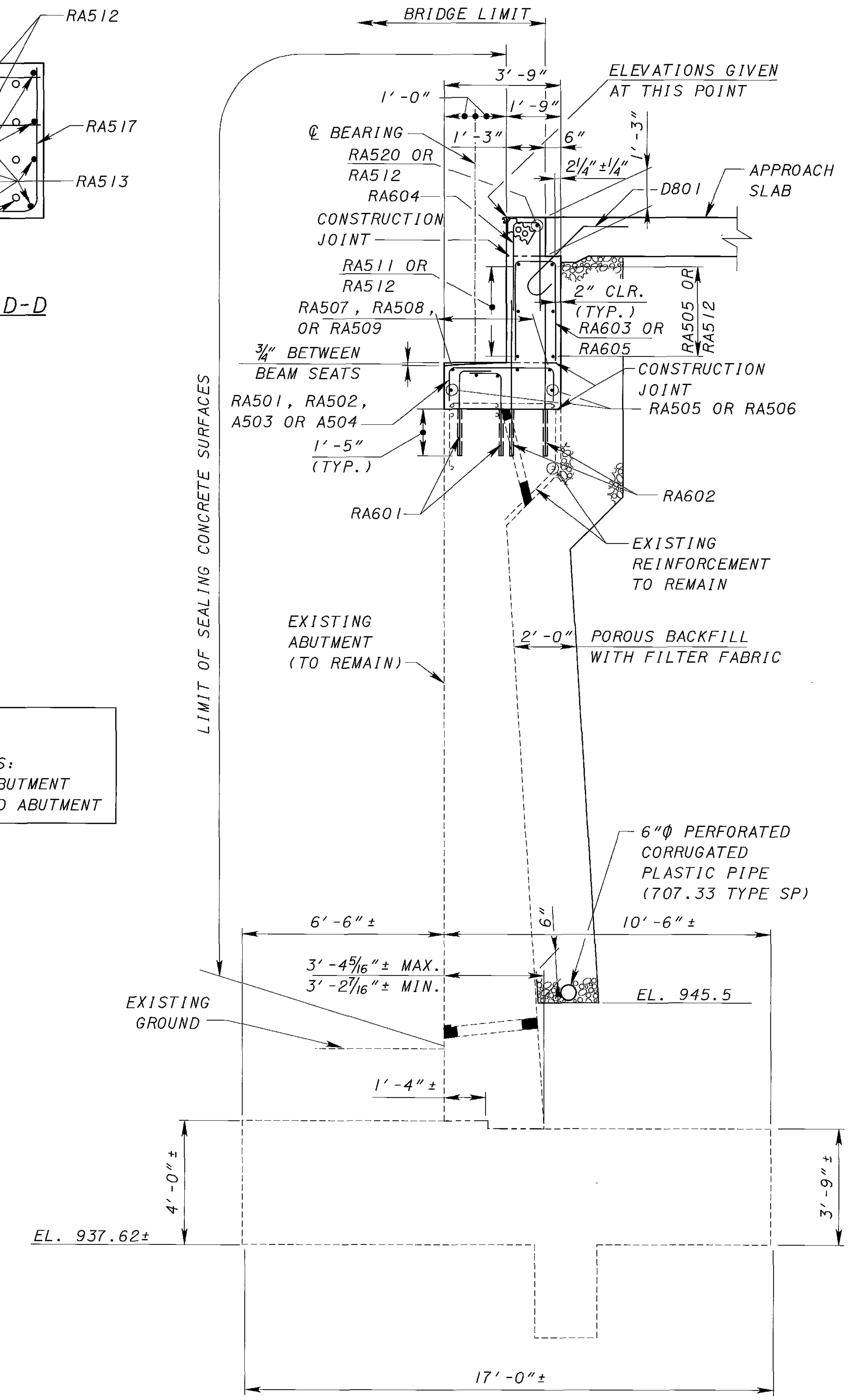
THE 2'-0" WIDTH OF THE PEDESTAL SHALL BE MEASURED PARALLEL TO THE CENTERLINE OF BEARING. THE 901 & 613 BARS SHALL BE PLACED PARALLEL TO THE CENTERLINE OF BEARING. THE 902 & 612 BARS SHALL BE PLACED PARALLEL TO THE BEAMS OR GIRDERS.



SECTION G-G

THE LOCATION OF THE MAIN REINFORCEMENT IN THE BEAM SEAT MAY BE ADJUSTED HORIZONTALLY ±1" TO ACCOMMODATE THE 901 BARS.

* - THE SURFACE OF THE BEAM SEAT IN THIS AREA SHALL BE FINISHED WITH A SERRATED TROWEL. THE SERRATIONS SHALL BE ¼" DEEP MINIMUM.



SECTION E-E

NOTE:

FOR REAR ABUTMENT DETAILS SEE SHEET 5/24.

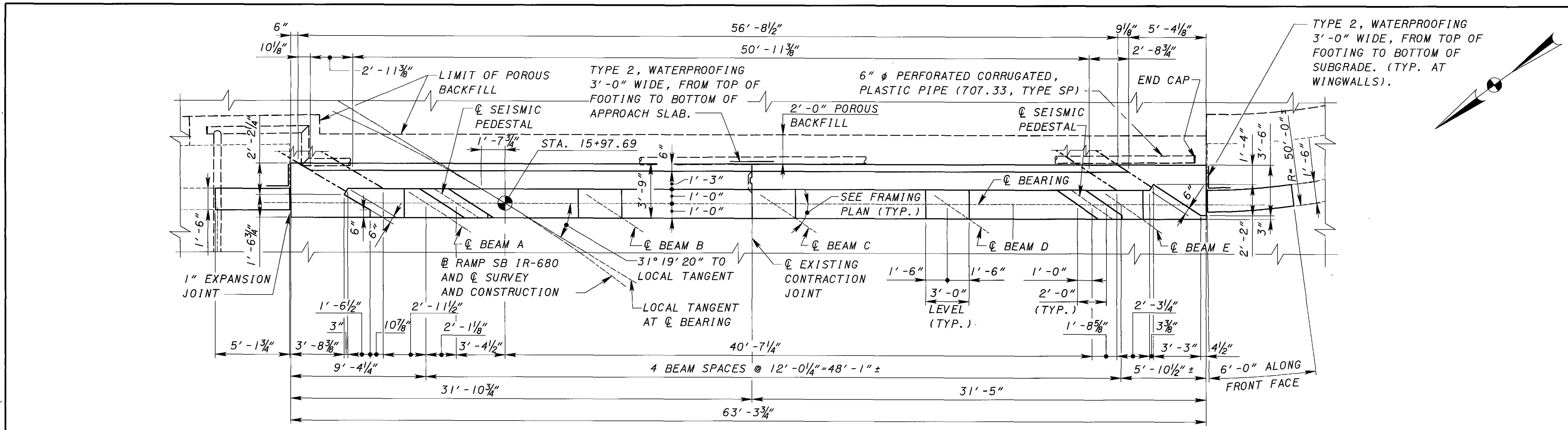
FOR FORWARD ABUTMENT DETAILS SEE SHEET 7/24.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650 CLEVELAND, OHIO 44113-1901

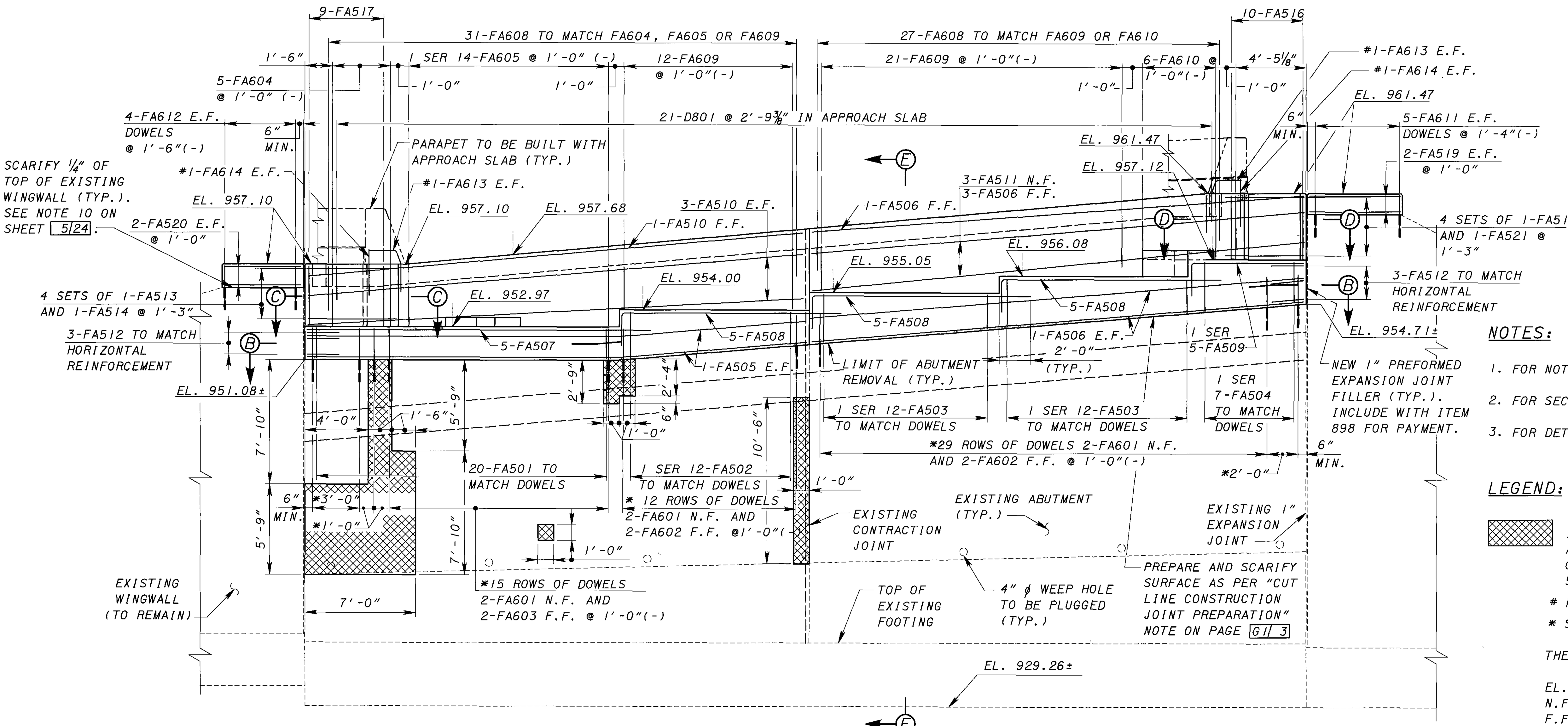
DESIGNED	DRAWN	REVIEWED	DATE
BTA	RCK	RER	06/04/04
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5007119	

REAR ABUTMENT SECTION DETAILS
BRIDGE NO. MAH-680-0628
IR-680 RAMP BX OVER IR-680 AND SR-7

MAH-680-4.14/6.28/6.37



PLAN



ELEVATION

(PILES NOT SHOWN)

NOTES:

1. FOR NOTES, SEE SHEET 5/24.
2. FOR SECTIONS B-B THRU E-E SEE SHEET 8/24.
3. FOR DETAILS OF SEISMIC PEDESTAL SEE SHEET 8/24.

LEGEND:

INDICATES AREA TO BE PATCHED ACCORDING TO ITEM 519 PATCHING CONCRETE STRUCTURES. TOTAL ITEM 519 FOR FORWARD ABUTMENT 63 SQ.FT.

\# PLACE PARALLEL TO FACE OF BACKWALL

* SEE SECTION B-B FOR DOWEL LAYOUT

THE FOLLOWING ABBREVIATIONS ARE USED:

EL.	= ELEVATION
N.F.	= NEAR FACE
F.F.	= FAR FACE
TYP.	= TYPICAL

BAR MARKS ARE PREFIXED "FA" FOR FORWARD ABUTMENT.

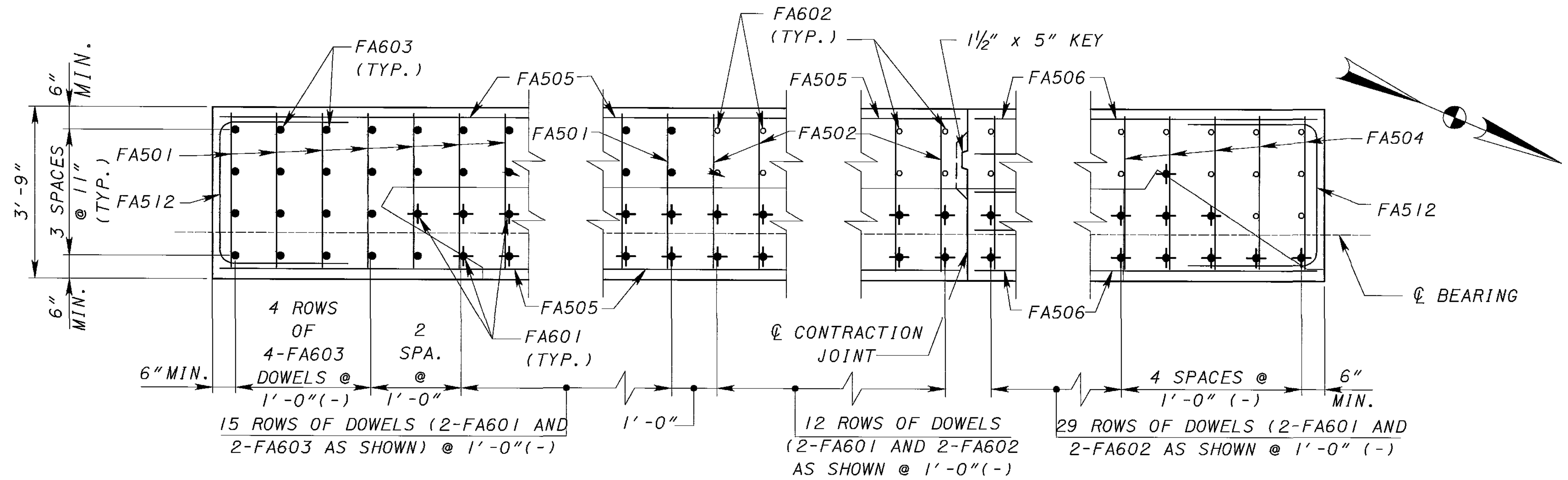
DESIGN AGENCY: TRANSYSTEMS CORPORATION

DESIGNED	DRAWN	REVIEWED	DATE
BTA	RCK	RER	06/04/04
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5007119	

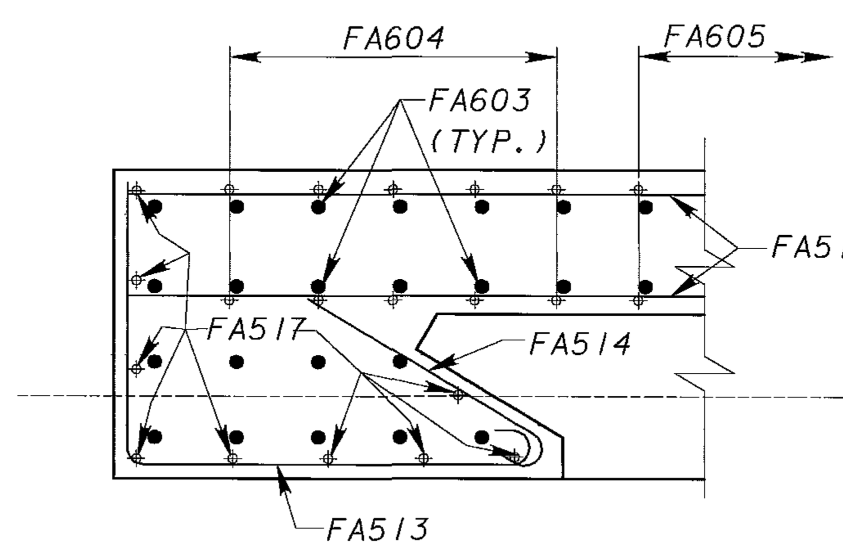
FORWARD ABUTMENT DETAILS
BRIDGE NO. MAH-680-0628
IR-680 RAMP BX OVER IR-680 AND SR-7

MAH-680-4.14/6.28/6.37

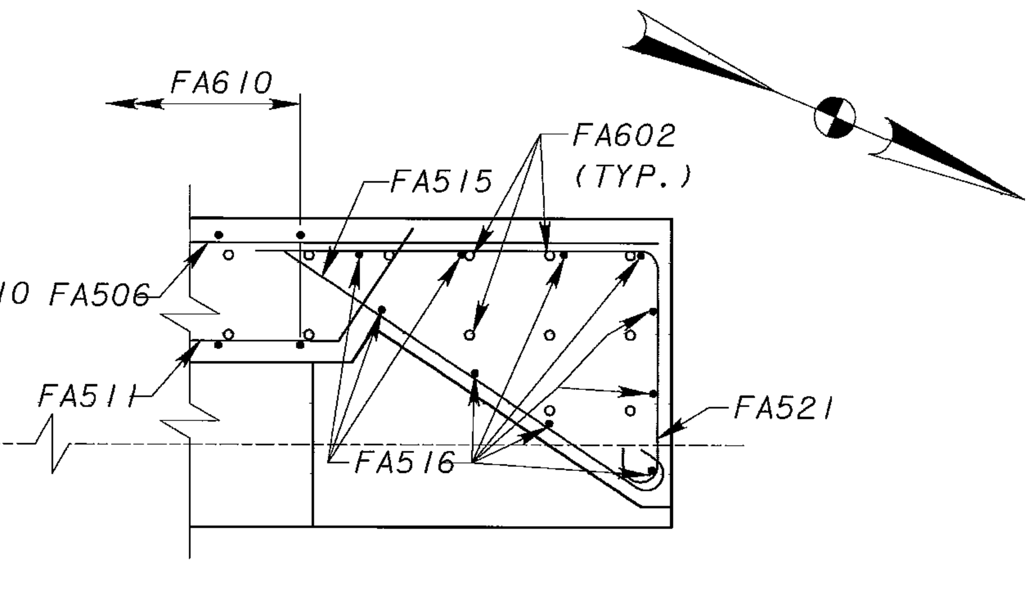
7/24



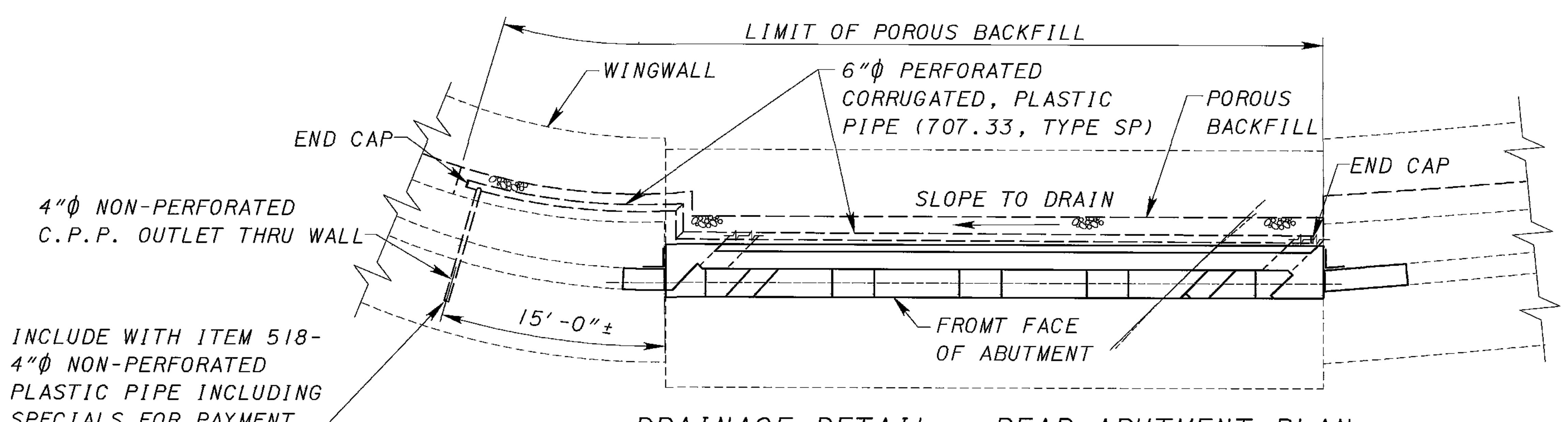
SECTION B-B



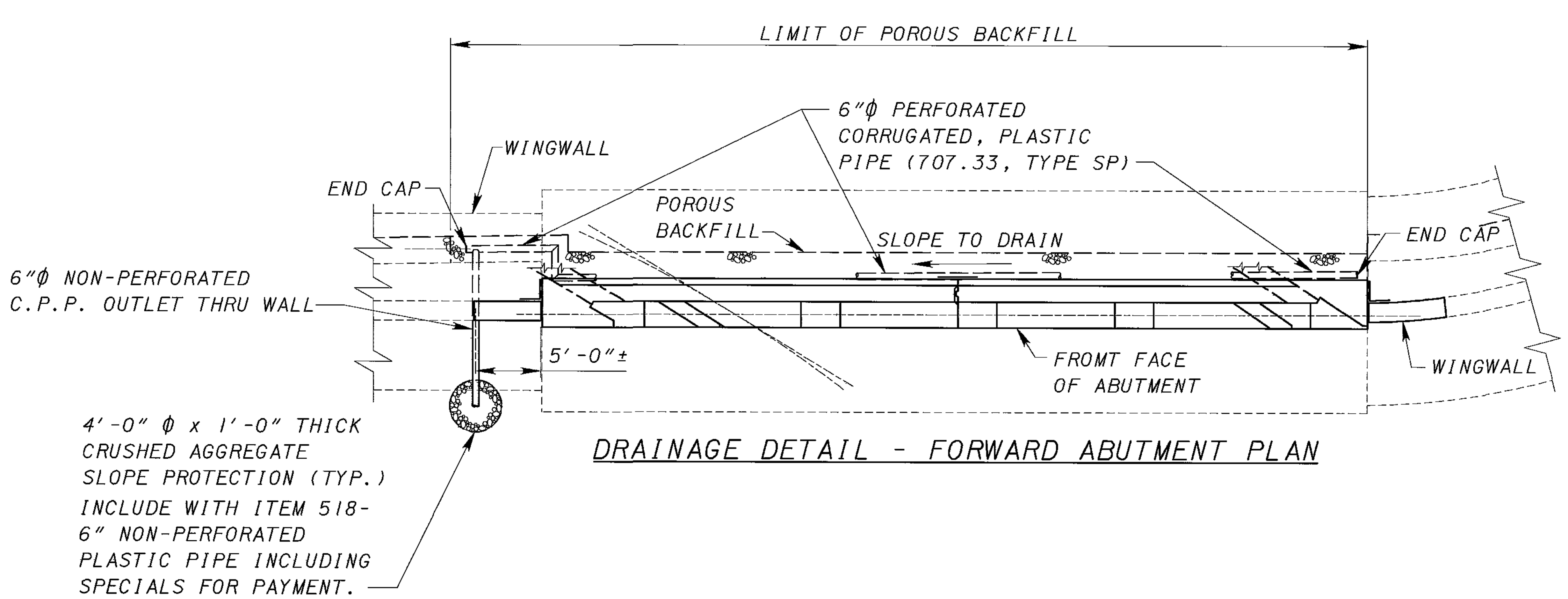
SECTION C-C



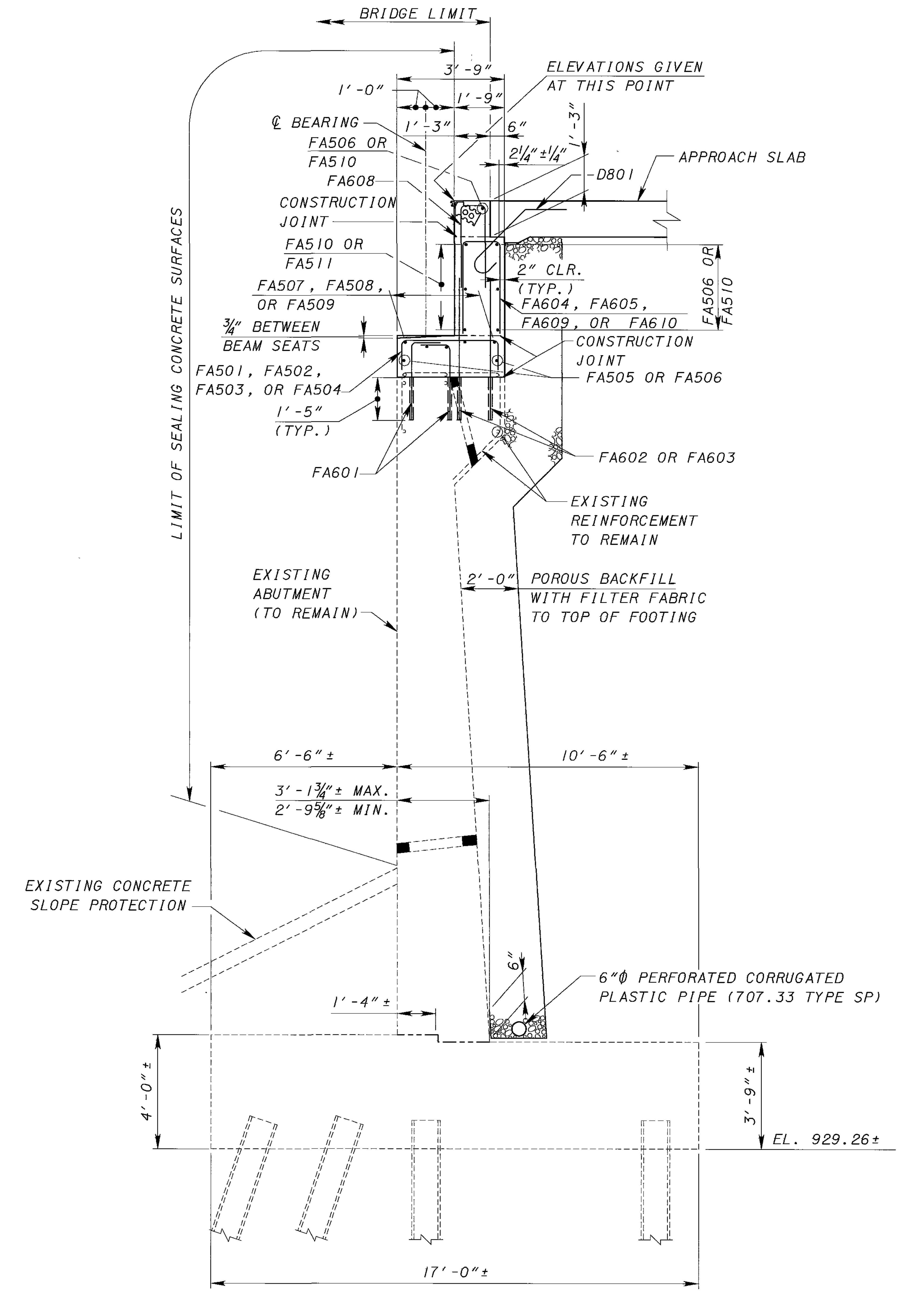
SECTION D-D



DRAINAGE DETAIL - REAR ABUTMENT PLAN



DRAINAGE DETAIL - FORWARD ABUTMENT PLAN



SECTION E-E

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	RCK	RER	06/04/04
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5007119	

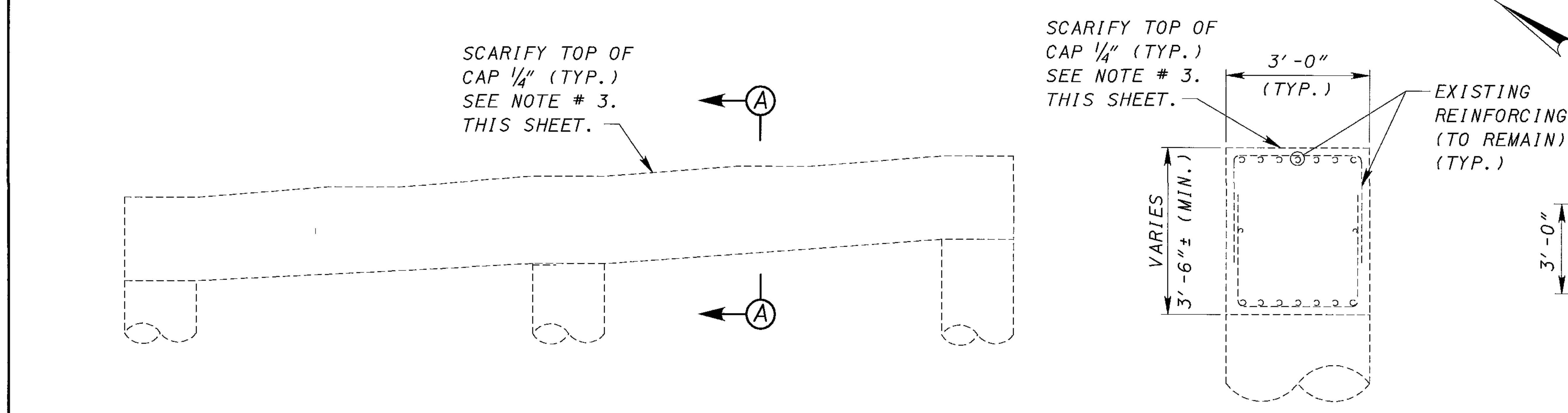
FORWARD ABUTMENT DETAILS AND DRAINAGE DETAIL

BRIDGE NO. MAH-680-0628

IR-680 RAMP BX OVER IR-680 AND SR-7

MAH-680-4.14/6.28/6.37

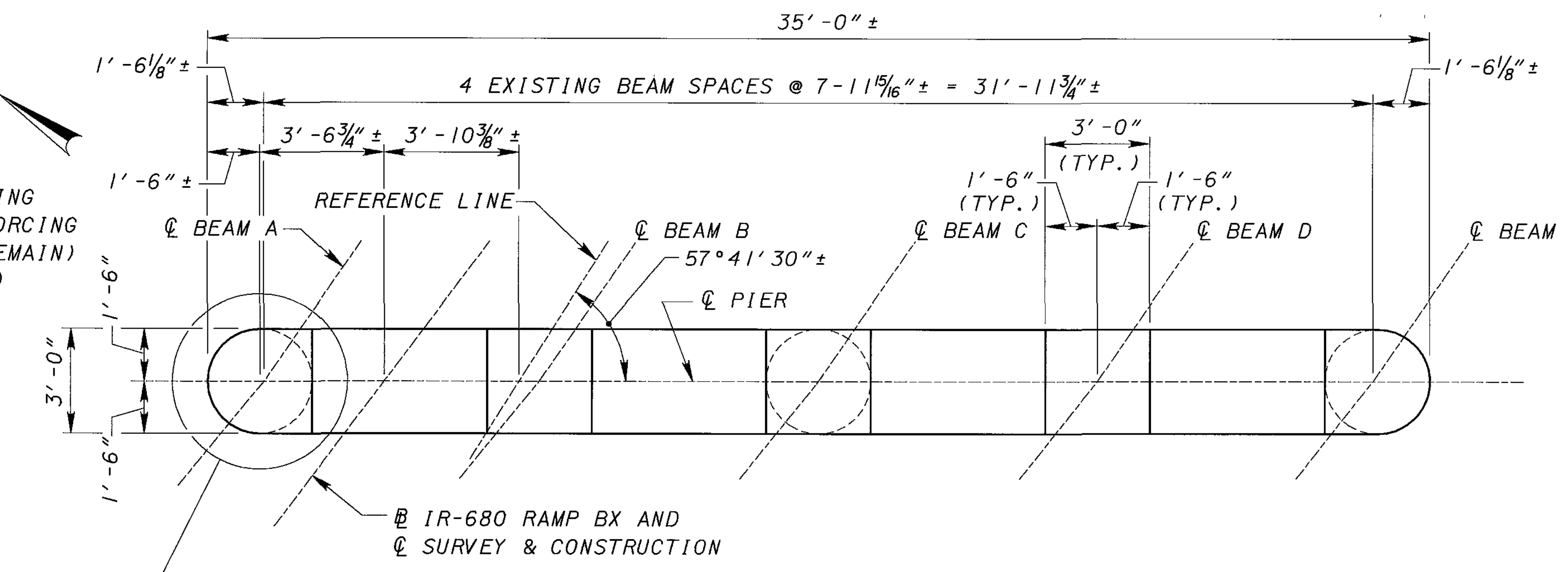
8/24



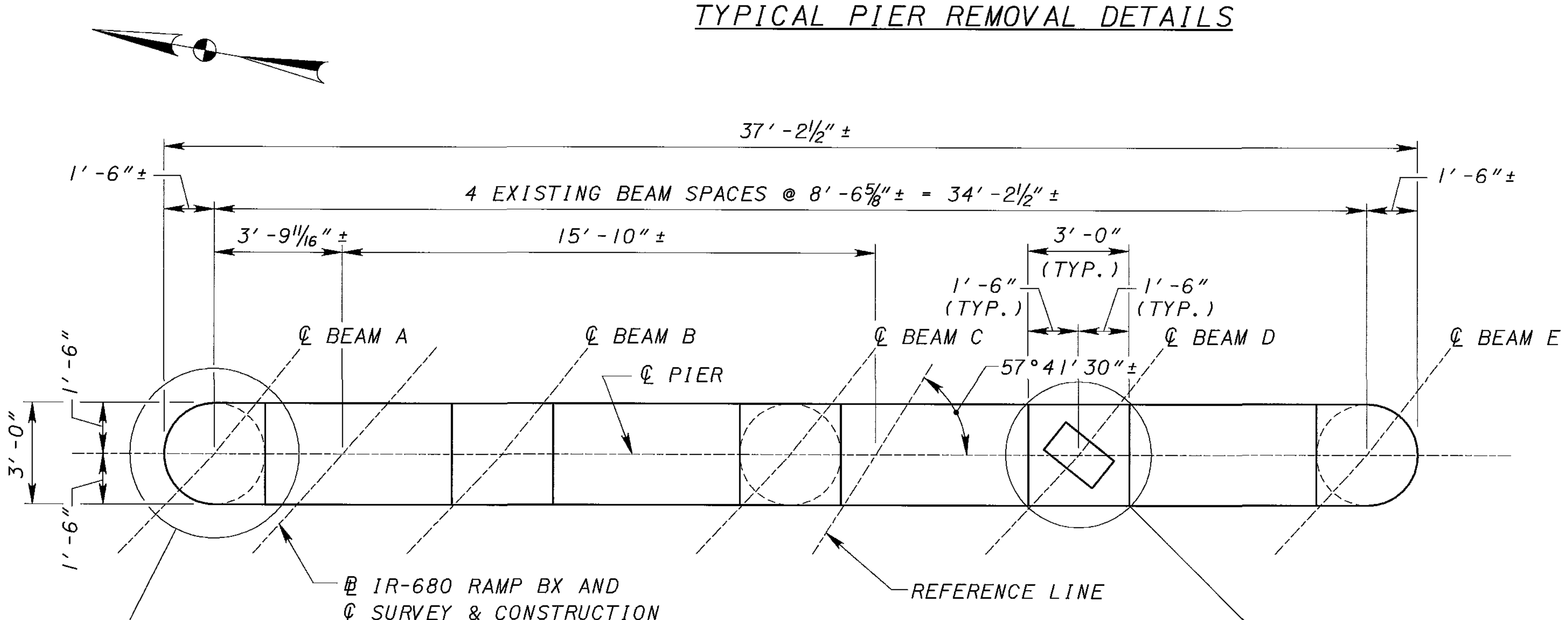
ELEVATION

SECTION A-A

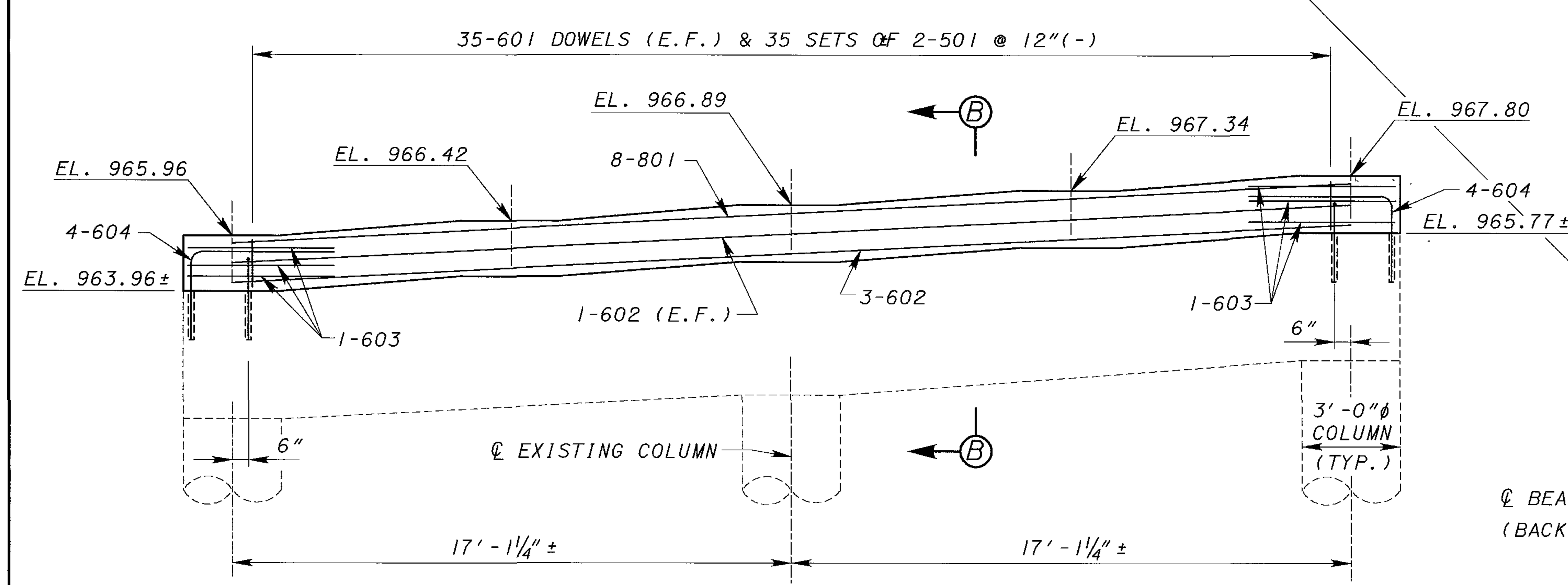
TYPICAL PIER REMOVAL DETAILS



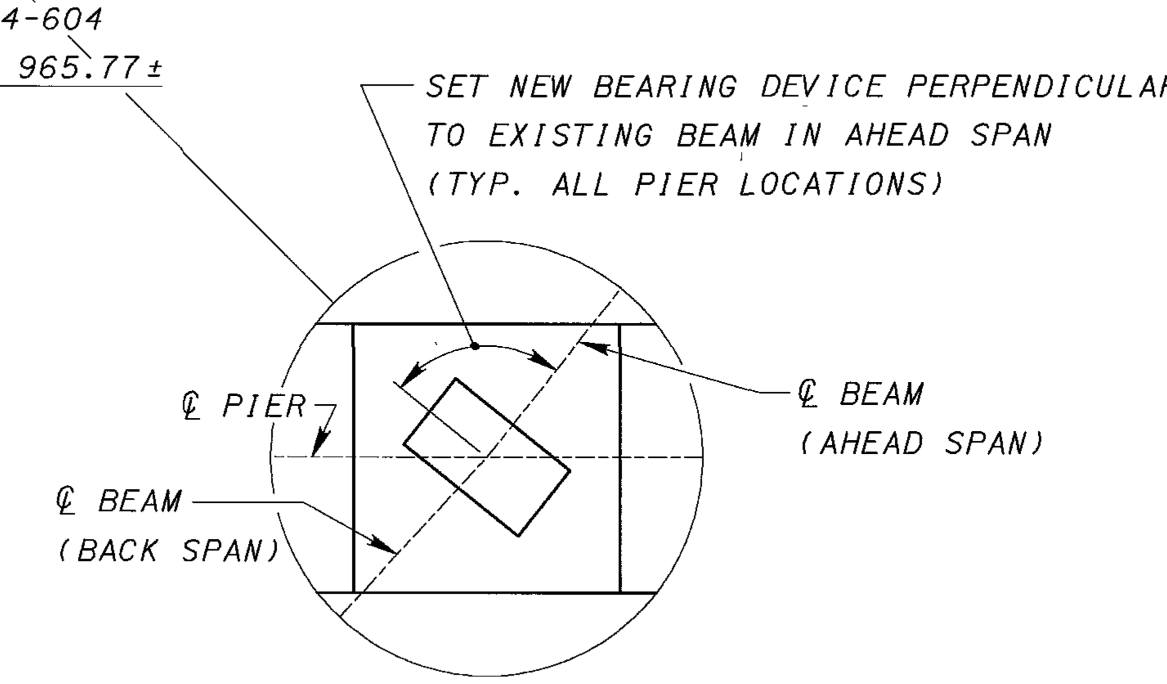
PLAN



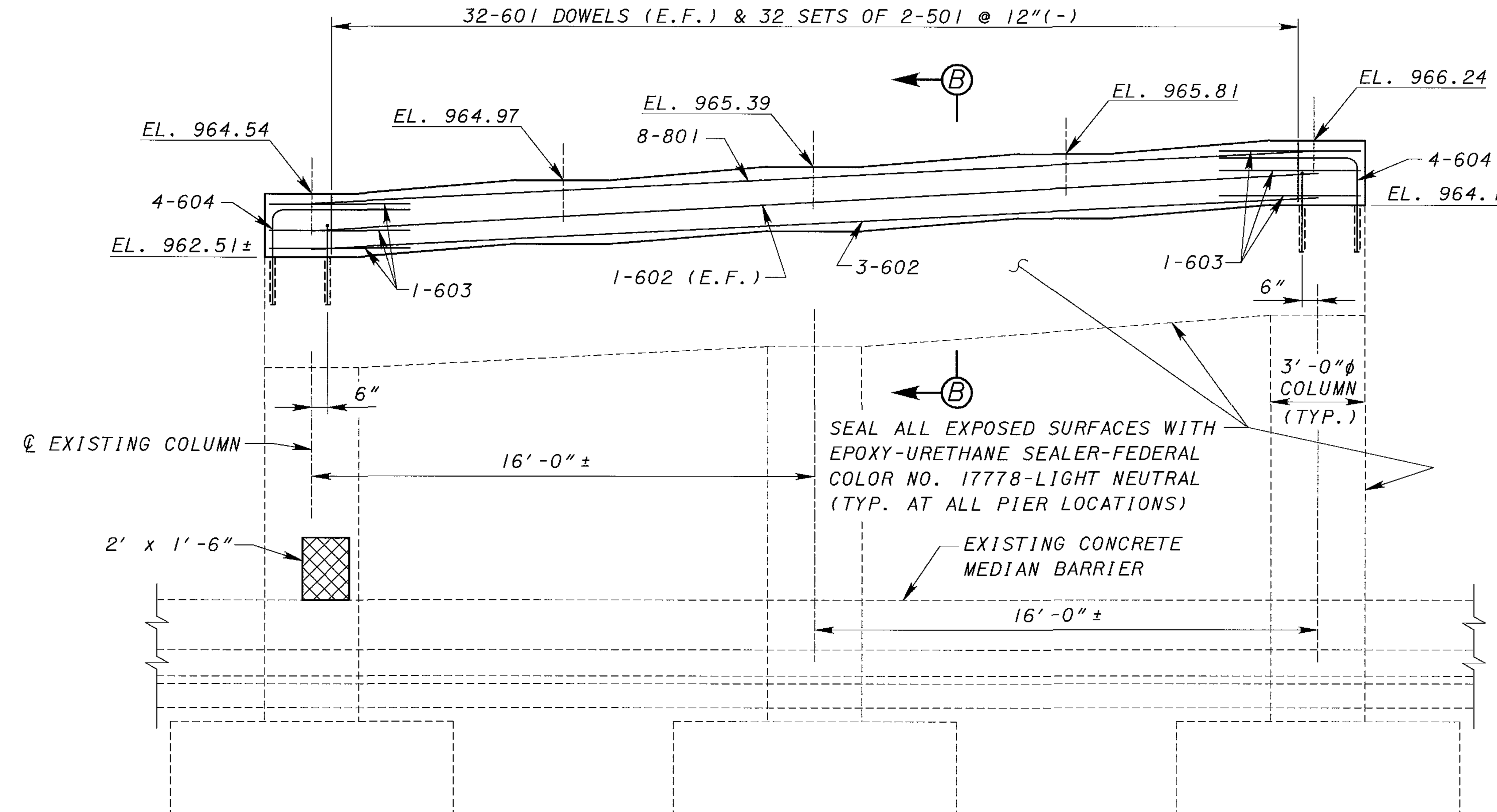
PLAN



ELEVATION
PIER 1



TYPICAL BEARING ORIENTATION PLAN



ELEVATION
PIER 2

LEGEND

- PIER PATCHING (WEST FACE). TOTAL ITEM 519 FOR PIER 2 ; 3 SQ. FT..

NOTES:

1. ALL REINFORCING BARS SHALL BE PREFIXED "P".
2. FOR DETAIL "A" AND SECTION B-B, SEE SHEET 11/24.
3. CARE SHALL BE TAKEN WHEN REMOVING EXISTING CONCRETE SO THAT ANY EXPOSED EXISTING REINFORCEMENT SHALL NOT BE DAMAGED.
4. SUFACE SHALL BE CLEANED, FREE OF LAITANCE AND INTENTIONALLY ROUGHNED TO 1/4"± AMPLITUDE. PAYMENT SHALL BE INCLUDED WITH ITEM 898.
5. ABBREVIATIONS USED:

   E.F. - EACH FACE
   MIN. - MINIMUM
   TYP. - TYPICAL

DESIGN AGENCY
TRANSYSTEMS CORPORATION

DESIGNED	DRAWN	REVIEWED	DATE
NFF	RCK	RER	06/04/04
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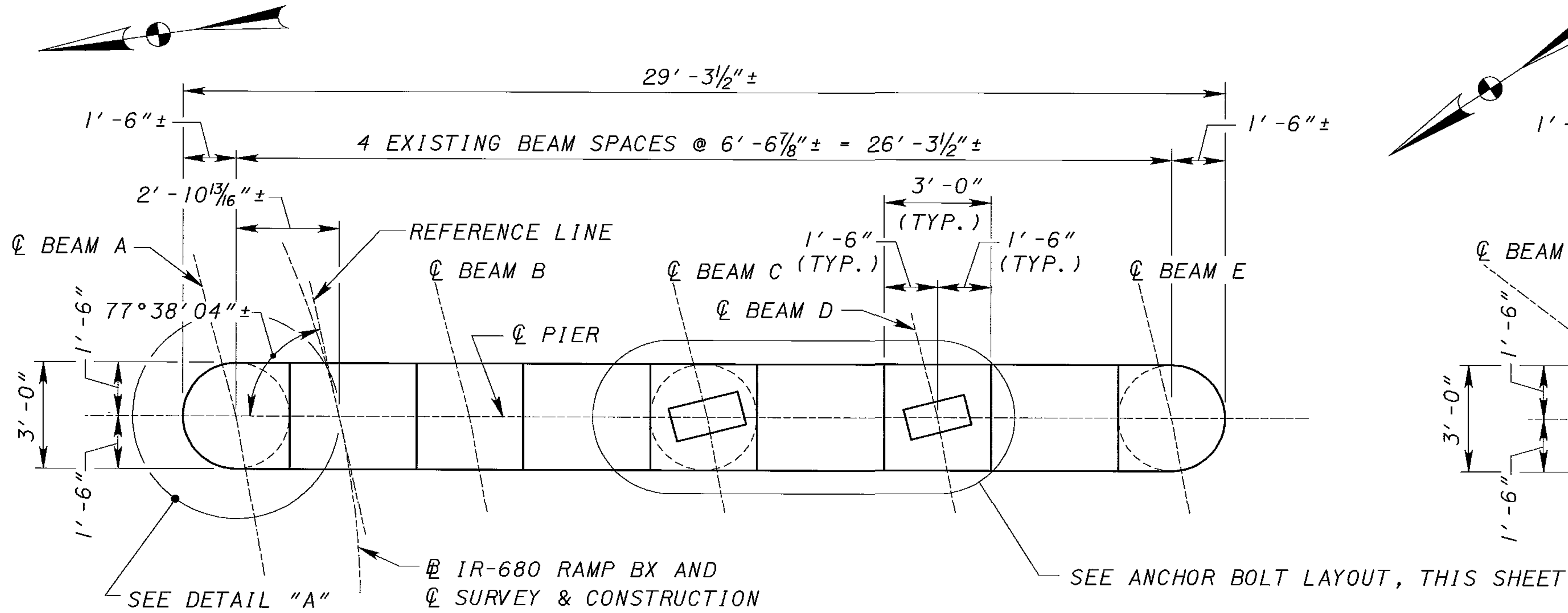
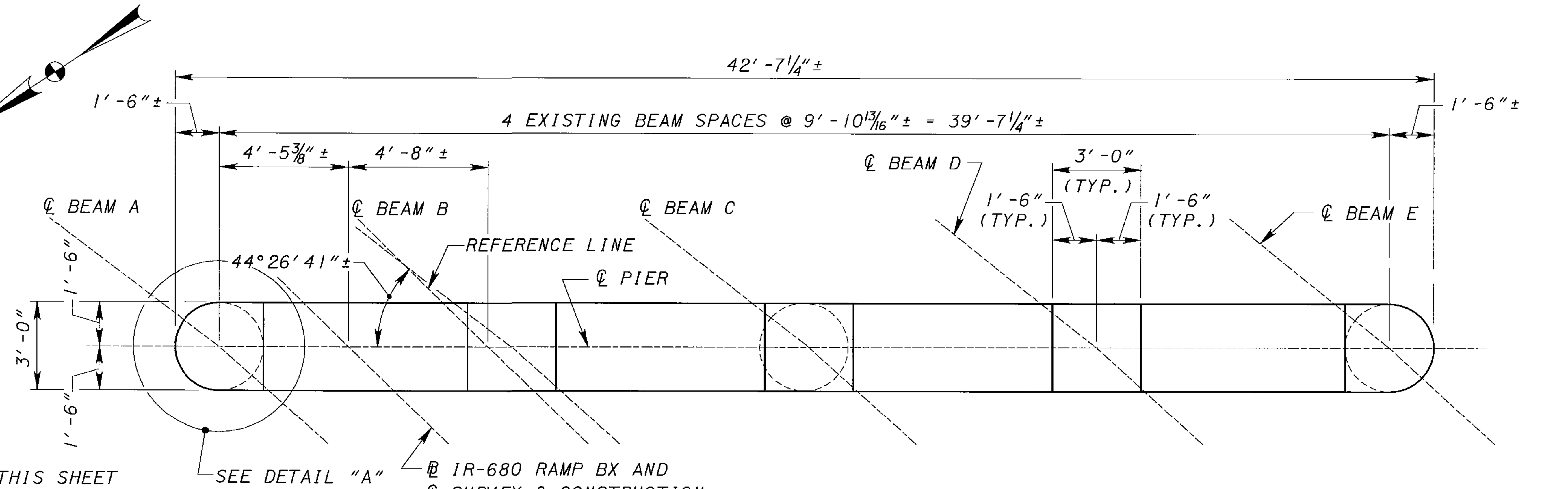
PIER DETAILS
BRIDGE NO. MAH-680-0628
IR-680 RAMP BX OVER IR-680 AND SR-7

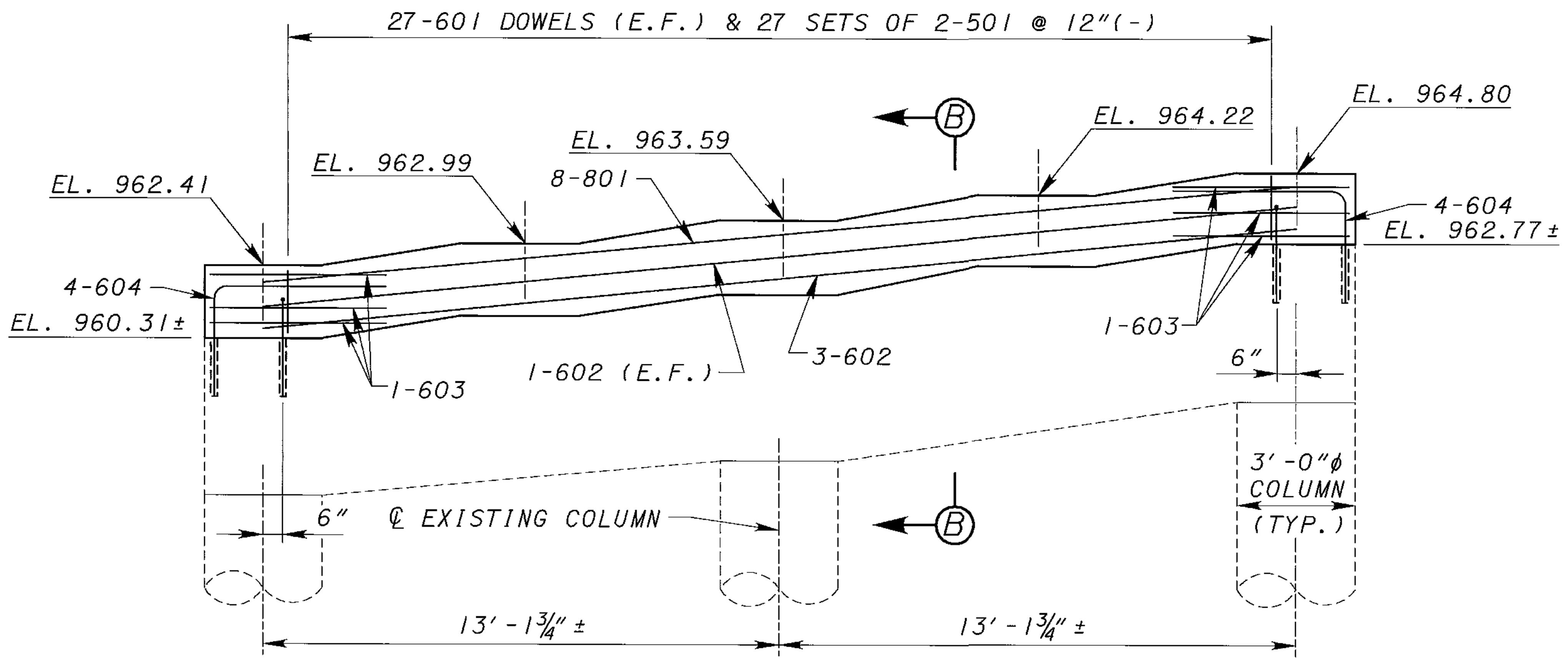
MAH-680-4.14/6.28/6.37



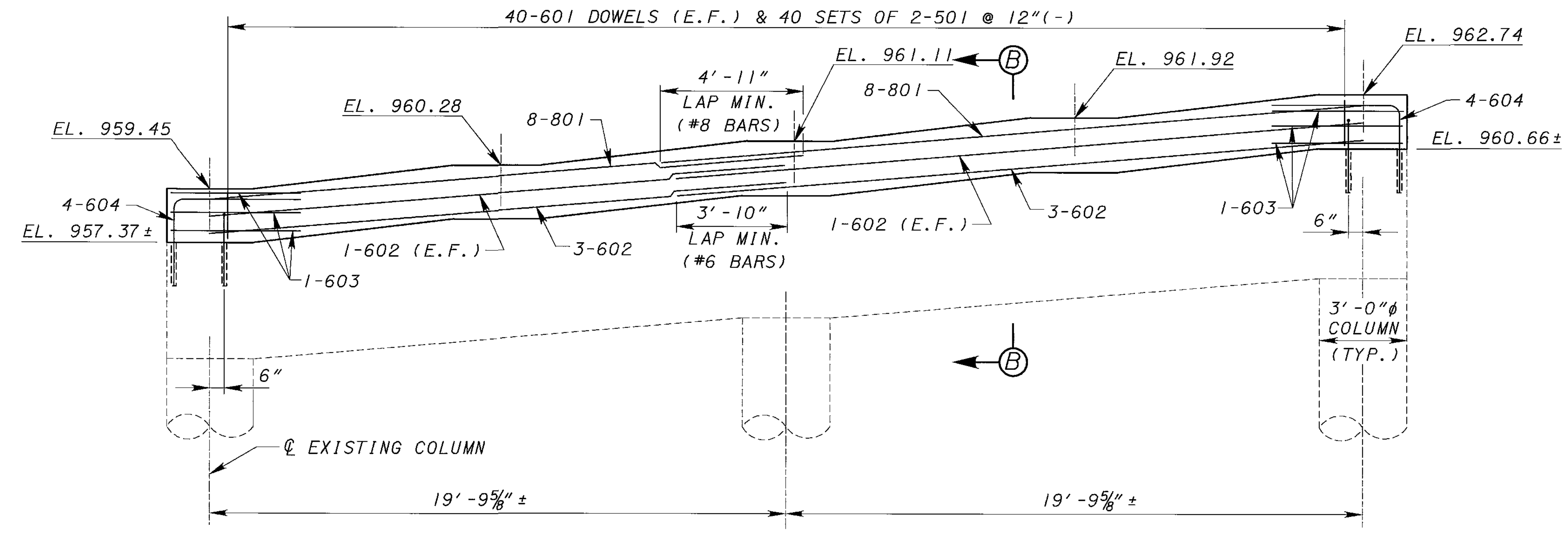
PLAN



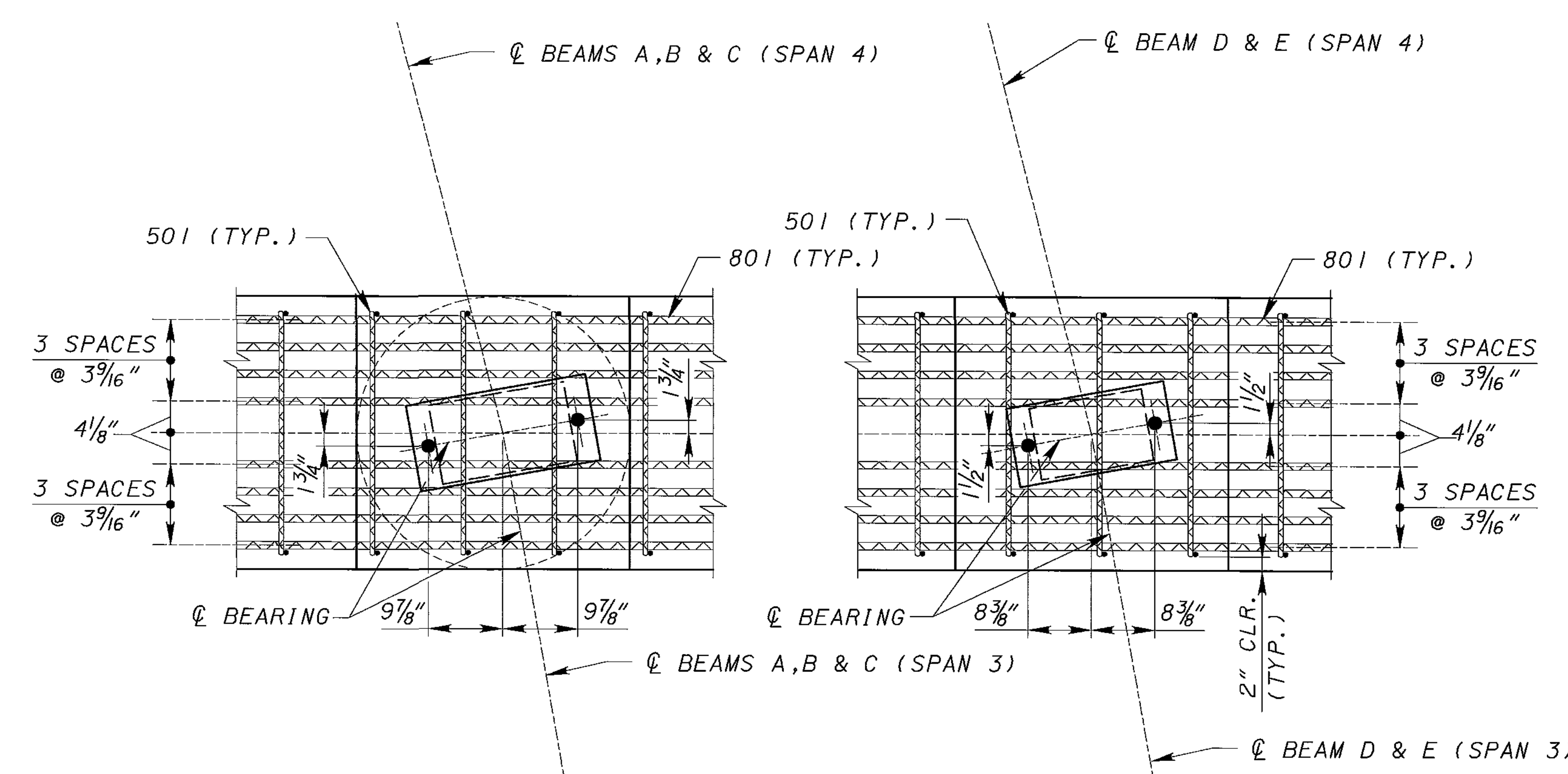
PLAN



ELEVATION
PIER 3



ELEVATION
PIER 4



ANCHOR BOLT LAYOUT
(PIER 3 ONLY)

NOTES:

1. FOR DETAIL "A" AND SECTION B-B, SEE SHEET 11/24.
2. FOR ADDITIONAL NOTES AND ABBREVIATIONS, SEE SHEET 9/24.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
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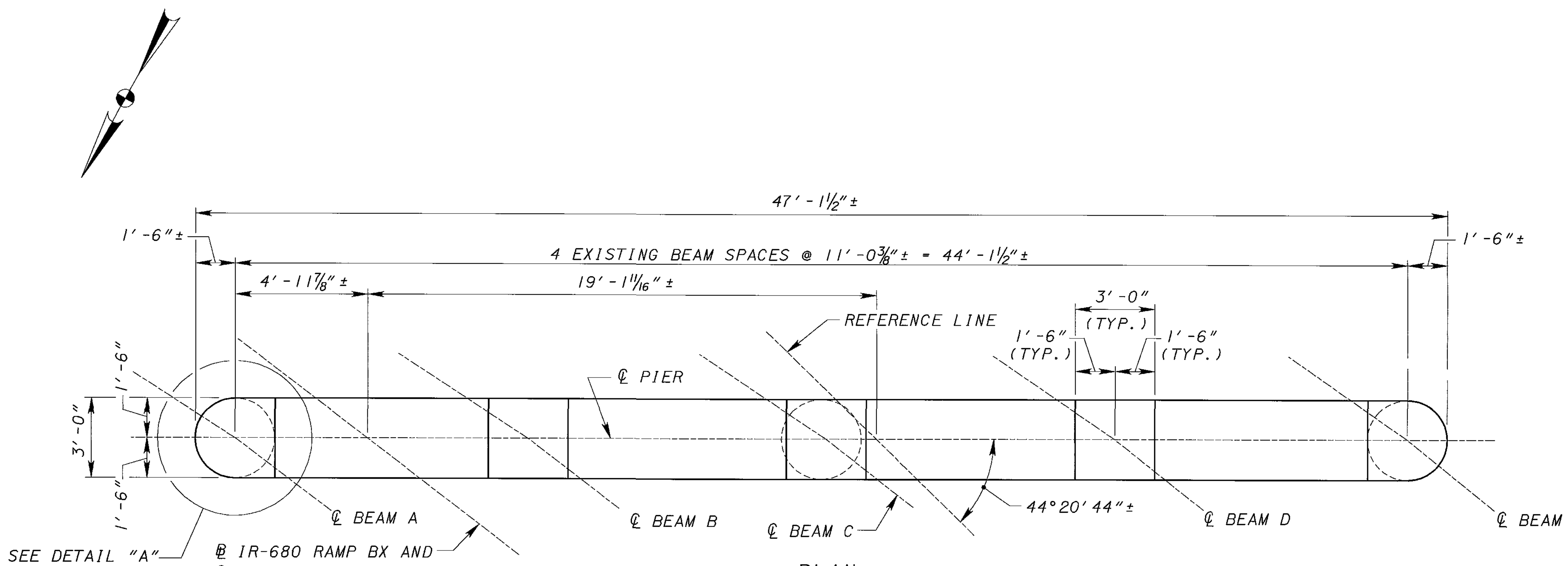
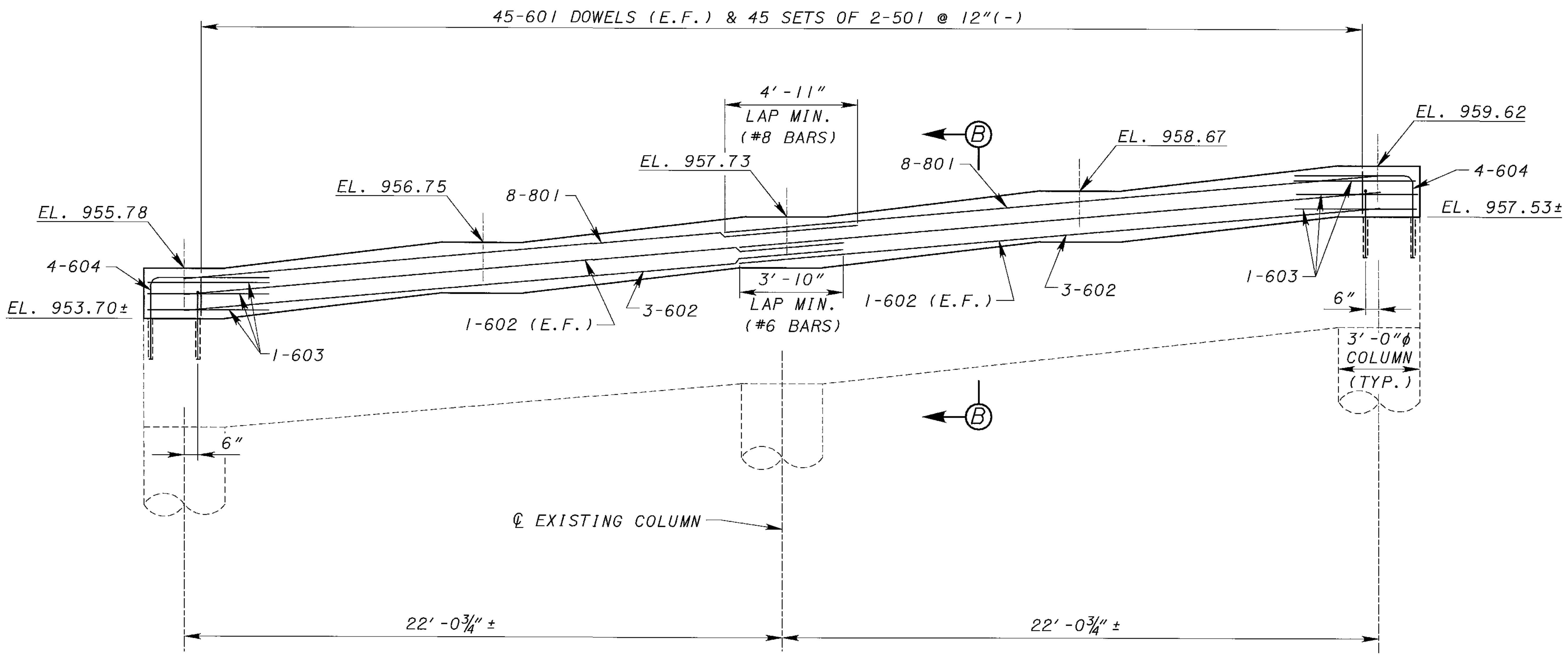
PIER DETAILS
BRIDGE NO. MAH-680-0628
IR-680 RAMP BX OVER IR-680 AND SR-7

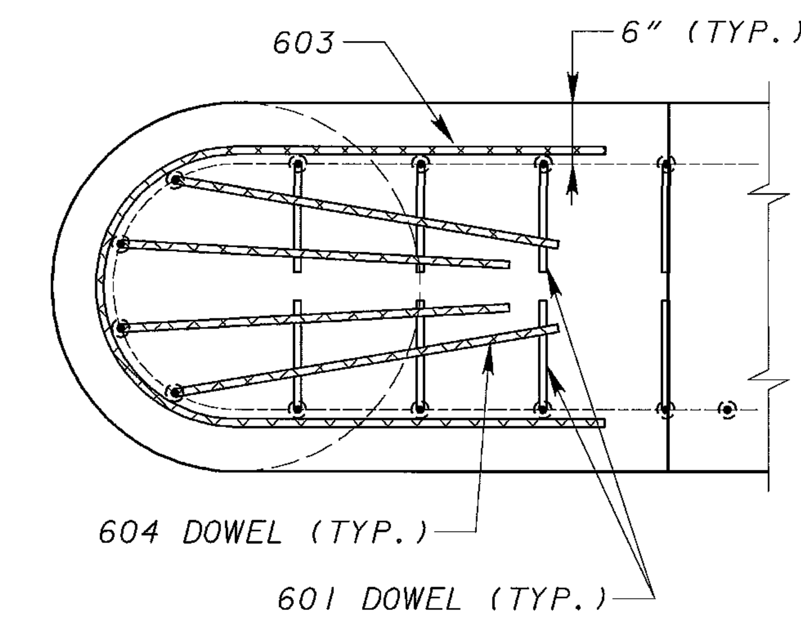
MAH-680-4.14/6.28/6.37



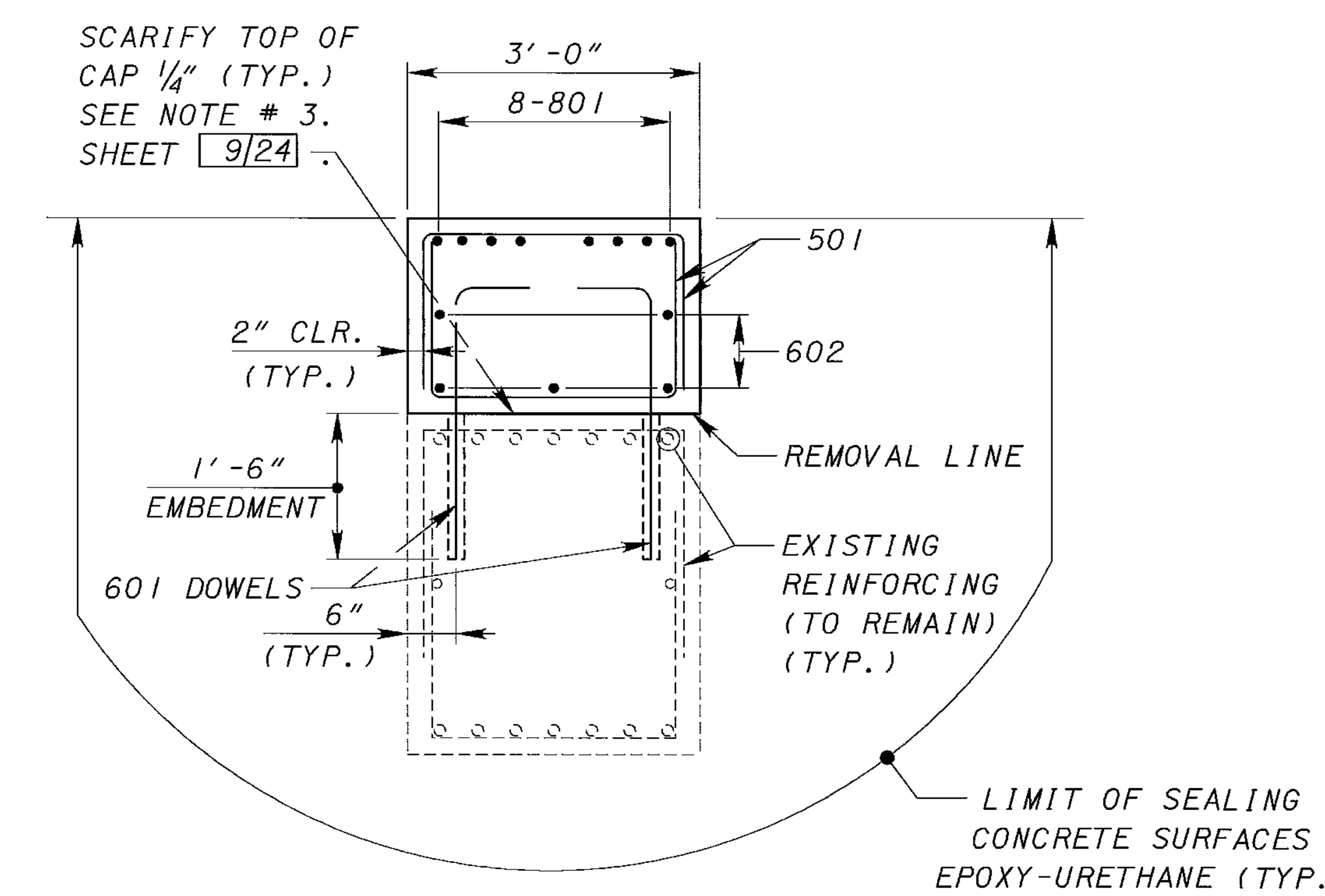
PLAN



ELEVATION
PIER 5



DETAIL A
(801 AND 501 BARS NOT SHOWN FOR CLARITY)



SECTION B-B

NOTES:

1. FOR ADDITIONAL NOTES AND ABBREVIATIONS, SEE SHEET 9/24.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
NFF	RCK	RER	06/04/04
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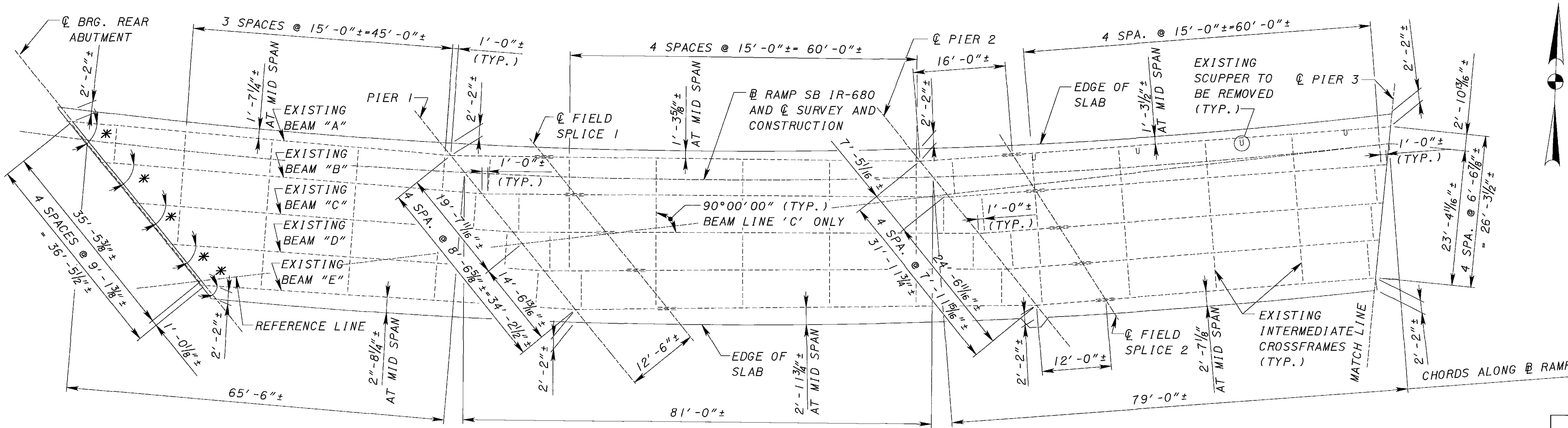
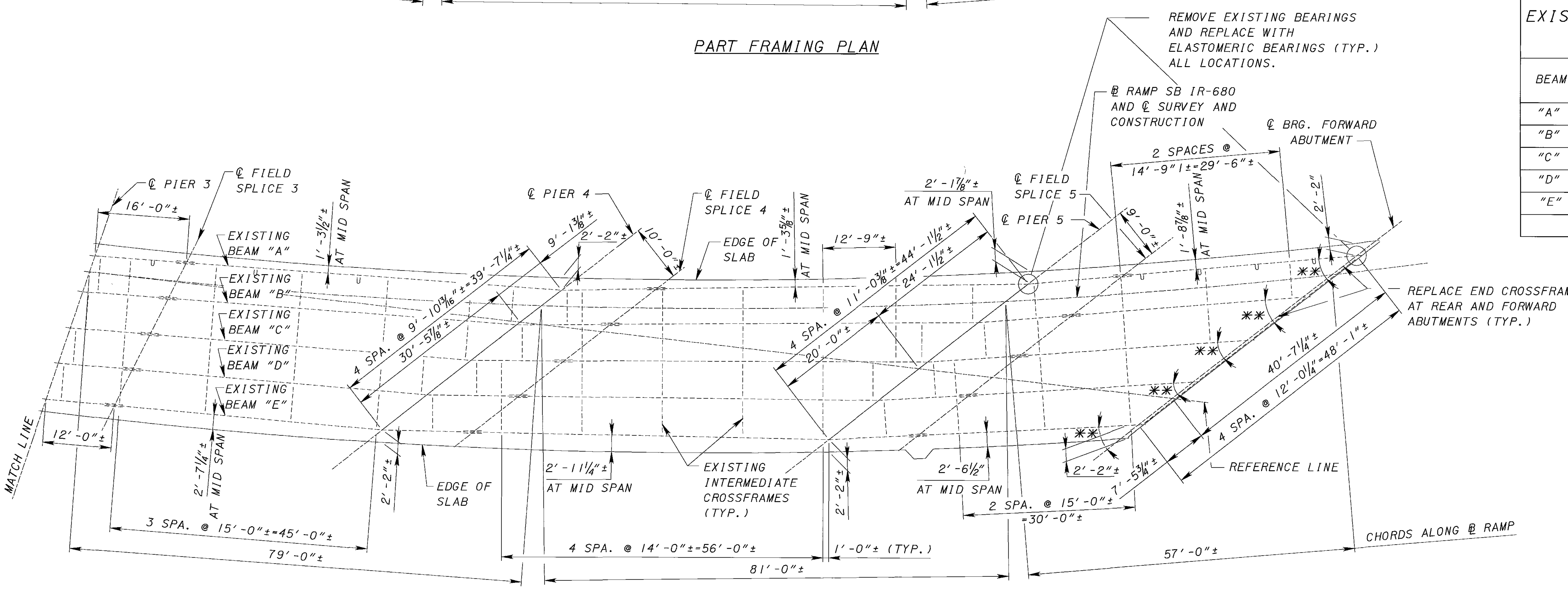
BTA		5007119	

PIER DETAILS
BRIDGE NO. MAH-680-0628
IR-680 RAMP BX OVER IR-680 AND SR-7

MAH-680-4.14/
6.28/6.37



PART FRAMING PLAN



PART FRAMING PLAN

EXISTING BEAM ANGLES AT ABUTMENTS		
BEAM	* REAR	** FORWARD
"A"	45°57'26"	32°46'13"
"B"	46°18'42"	33°18'46"
"C"	46°40'15"	33°52'17"
"D"	47°02'04"	34°26'48"
"E"	47°24'07"	35°02'21"

TABLE OF EXISTING BEAM SIZES

LOCATION	"A"	"B"	"C"	"D"	"E"
SPAN 1	36 WF 182	36 WF 182	36 WF 182	36 WF 170	36 WF 170
SPAN 2	36 WF 194	36 WF 194	36 WF 182	36 WF 182	36 WF 182
SPAN 3	36 WF 170	36 WF 170	36 WF 150	36 WF 135	36 WF 135
SPAN 4	36 WF 170	36 WF 170	36 WF 150	36 WF 135	36 WF 135
SPAN 5	36 WF 194	36 WF 194	36 WF 194	36 WF 182	36 WF 182
SPAN 6	36 WF 150	36 WF 150	36 WF 150	36 WF 150	36 WF 150

TABLE OF EXISTING BEAM LENGTHS
(℄ BEARING TO ℄ BEARING)

LOCATION	"A"	"B"	"C"	"D"	"E"
SPAN 1	65'-8 3/16"±	65'-3 1/2"±	64'-10 7/8"±	64'-6 1/4"±	64'-1 11/16"±
SPAN 2	81'-1 15/16"±	80'-9 11/16"±	80'-5 7/16"±	80'-1 1/4"±	79'-9 1/8"±
SPAN 3	81'-6 5/16"±	75'-10"±	70'-1 3/4"±	64'-5 1/2"±	58'-9 1/4"±
SPAN 4	81'-6 3/4"±	75'-10 5/8"±	70'-2 1/2"±	64'-6 7/16"±	58'-10 5/16"±
SPAN 5	81'-5 1/4"±	80'-6 5/16"±	79'-7 7/16"±	78'-8 5/8"±	77'-9 7/8"±
SPAN 6	57'-4 7/8"±	56'-6 7/8"±	55'-9"±	54'-11 3/16"±	54'-1 7/16"±

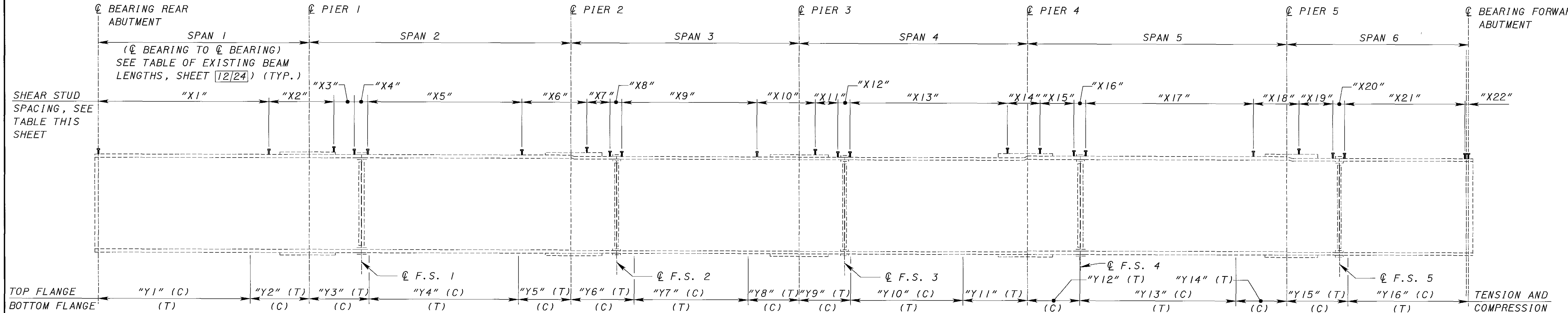
NOTES:

1. REFERENCE LINE IS A LOCAL TANGENT TO THE ℄ RAMP SB I-680 AT STA. 13+81.49
2. FOR EXISTING SCUPPER REMOVAL DETAIL, SEE SHEET 14/24.
3. FOR EXISTING END CROSSFRAME REMOVAL DETAIL, SEE SHEET 14/24.
4. FOR DETAILS OF PROPOSED END CROSSFRAMES REFER TO ODOT STANDARD DRAWING GSD-1-96.
5. FOR ADDITIONAL EXISTING INFORMATION NOT SHOWN ON THIS SHEET, REFER TO ORIGINAL PLANS SHEET 175 OF 206.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

DESIGNED	CHECKED	DRAWN	REVISED	REVIEWED	DATE	STRUCTURE FILE NUMBER
NFF	BTA	RCK		RER	06/04/04	5007119

FRAMING PLAN
BRIDGE NO. MAH-680-0628
IR-680 RAMP BX OVER IR-680 AND SR-7



EXISTING BEAM ELEVATION
(A THRU E)

TABLE OF SHEAR STUD SPACINGS

DISTANCE	BEAM "A"	BEAM "B"	BEAM "C"	BEAM "D"	BEAM "E"
"X1"	66 SPA. @ 10 = 55'-0"	70 SPA. @ 9" = 52'-5"	63 SPA. @ 10" = 52'-6"	63 SPA. @ 10" = 52'-6"	64 SPA. @ 10" = 53'-4"
"X2"	8 SPA. @ 24" = 16'-0"	8 SPA. @ 24" = 16'-0"	10 SPA. @ 24" = 20'-0"	9 SPA. @ 24" = 18'-0"	10 SPA. @ 24" = 20'-0"
"X3"	10 SPA. @ 11 = 9'-2"	13 SPA. @ 10" = 10'-10"	8 SPA. @ 10" = 6'-8"	10 SPA. @ 10" = 8'-4"	12 SPA. @ 11" = 11'-0"
"X4"	3'-6"	3'-10⅜"	3'-7"	3'-5½"	3'-6"
"X5"	56 SPA. @ 11" = 51'-4"	62 SPA. @ 10" = 51'-8"	57 SPA. @ 10" = 47'-6"	58 SPA. @ 10" = 48'-4"	55 SPA. @ 11" = 50'-5"
"X6"	9 SPA. @ 24" = 18'-0"	9 SPA. @ 24" = 18'-0"	10 SPA. @ 24" = 20'-0"	10 SPA. @ 24" = 20'-0"	7 SPA. @ 24" = 14'-0"
"X7"	9 SPA. @ 11" = 8'-3"	8 SPA. @ 10" = 6'-8"	9 SPA. @ 10" = 7'-6"	7 SPA. @ 10" = 5'-10"	10 SPA. @ 10" = 8'-4"
"X8"	3'-0⅝"	3'-0¼"	3'-0¾"	2'-4"	2'-5¾"
"X9"	53 SPA. @ 11" = 48'-7"	54 SPA. @ 10" = 45'-0"	50 SPA. @ 10" = 41'-8"	46 SPA. @ 10" = 38'-4"	47 SPA. @ 10" = 39'-2"
"X10"	10 SPA. @ 24" = 20'-0"	10 SPA. @ 24" = 20'-0"	9 SPA. @ 24" = 18'-0"	9 SPA. @ 24" = 18'-0"	4 SPA. @ 24" = 8'-0"
"X11"	10 SPA. @ 12" = 10'-0"	9 SPA. @ 10" = 7'-6"	8 SPA. @ 11" = 7'-4"	7 SPA. @ 10" = 5'-10"	11 SPA. @ 10" = 9'-2"
"X12"	2'-11⅜"	3'-4"	3'-1¾"	2'-3½"	2'-5¼"
"X13"	50 SPA. @ 12" = 50'-0"	54 SPA. @ 10" = 45'-0"	53 SPA. @ 11" = 48'-7"	47 SPA. @ 10" = 39'-2"	42 SPA. @ 10" = 35'-0"
"X14"	11 SPA. @ 24" = 22'-0"	10 SPA. @ 24" = 20'-0"	5 SPA. @ 24" = 10'-0"	9 SPA. @ 24" = 18'-0"	9 SPA. @ 24" = 18'-0"
"X15"	7 SPA. @ 12" = 7'-0"	11 SPA. @ 10" = 9'-2"	13 SPA. @ 10" = 10'-10"	9 SPA. @ 10" = 7'-6"	12 SPA. @ 11" = 11'-0"
"X16"	3'-2"	3'-1⅝"	3'-0⅜"	3'-2⅝"	3'-0½"
"X17"	53 SPA. @ 12" = 53'-0"	67 SPA. @ 10" = 55'-10"	62 SPA. @ 10" = 51'-8"	58 SPA. @ 10" = 48'-4"	59 SPA. @ 11" = 54'-1"
"X18"	6 SPA. @ 24" = 12'-0"	7 SPA. @ 24" = 14'-0"	7 SPA. @ 24" = 14'-0"	12 SPA. @ 24" = 24'-0"	6 SPA. @ 24" = 12'-0"
"X19"	16 SPA. @ 10" = 13'-4"	9 SPA. @ 10" = 7'-6"	13 SPA. @ 10" = 10'-10"	11 SPA. @ 10" = 9'-2"	10 SPA. @ 10" = 8'-4"
"X20"	3'-3⅜"	3'-1¾"	3'-0"	3'-1½"	3'-6¼"
"X21"	47 SPA. @ 10" = 39'-2"	46 SPA. @ 10" = 38'-4"	45 SPA. @ 10" = 37'-6"	45 SPA. @ 10" = 37'-6"	44 SPA. @ 10" = 36'-8"
"X22"	0	1 SPA. @ 5" = 5"	1 SPA. @ 8" = 8"	0	0

TABLE OF TENSION AND COMPRESSION ZONES

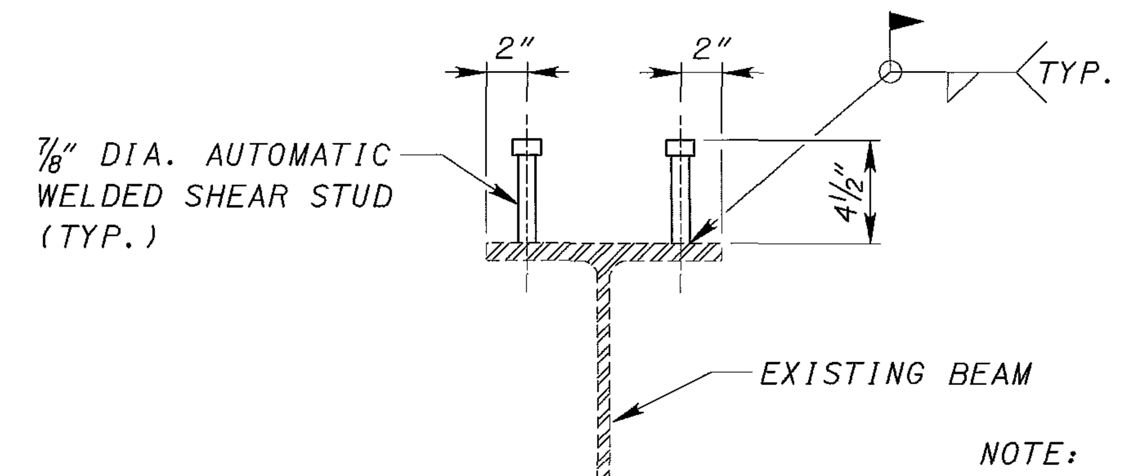
DISTANCE	BEAM "A"	BEAM "B"	BEAM "C"	BEAM "D"	BEAM "E"
"Y1"	47'-9½"±	47'-2⅞"±	46'-9⅜"±	45'-11¼"±	45'-5⅝"±
"Y2"	17'-10¾"±	18'-1⅛"±	18'-1½"±	18'-7 "±	18'-8⁵⁄₁₆"±
"Y3"	18'-6⅝"±	18'-5⅜"±	18'-4⅞"±	18'-4"±	18'-2½"±
"Y4"	44'-3¾"±	45'-4"±	45'-10⅝"±	46'-6½"±	47'-0⅛"±
"Y5"	18'-3⁹⁄₁₆"±	17'-0⅜"±	16'-2"±	15'-2¾"±	14'-6½"±
"Y6"	18'-8⁵⁄₁₆"±	18'-8½"±	19'-4¾"±	19'-4"±	20'-0¼"±
"Y7"	44'-4½"±	40'-3¾"±	35'-0⅝"±	31'-10½"±	27'-6"±
"Y8"	18'-5¾"±	16'-9¹³⁄₁₆"±	15'-8⅜"±	13'-3"±	11'-2⅞"±
"Y9"	18'-8⅜"±	16'-11⅞"±	15'-10"±	13'-3⅞"±	11'-3"±
"Y10"	43'-5"±	39'-7½"±	34'-6¾"±	31'-6¾"±	27'-5⅝"±
"Y11"	19'-5⅜"±	19'-3¼"±	19'-9¾"±	19'-7¾"±	20'-1¹¹⁄₁₆"±
"Y12"	18'-3½"±	17'-0⁹⁄₁₆"±	16'-0½"±	15'-2⅞"±	14'-6¾"±
"Y13"	47'-2¼"±	47'-8⅜"±	47'-11¾"±	47'-10⅝"±	47'-10⁵⁄₁₆"±
"Y14"	15'-11½"±	15'-9⅜"±	15'-7¼"±	15'-7⅛"±	15'-4⅞"±
"Y15"	18'-6⅝"±	18'-8¼"±	18'-9¼"±	19'-9⅞"±	18'-10⅛"±
"Y16"	38'-10¼"±	37'-10⅝"±	36'-11¾"±	36'-1⅜"±	35'-3⁵⁄₁₆"±

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.

F.S. - FIELD SPLICE



SHEAR STUD DETAIL

NOTE: STUD PLACEMENT ON FLANGE SPLICE PLATES IS NOT PERMITTED. ADJUST SPACINGS TO AVOID INTERFERENCE WITH SPLICE PLATES AND THE MOMENT PLATES.

NOTES

1. WELDED ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE MAY BE MADE TO AREAS ON THE BEAM FLANGES DESIGNATED COMPRESSION. ATTACHMENTS SHALL NOT BE MADE TO AREAS DESIGNATED TENSION. FILLET WELDS TO COMPRESSION FLANGES SHALL BE NOT CLOSER THAN 1" FROM EDGE OF FLANGE, BE MORE THAN 2" LONG AND BE NOT SMALLER THAN ¼" THICK AND ⁵⁄₁₆" FOR GREATER THAN ¾" THICK.

2. FOR FRAMING PLAN, BEAM SIZES AND TABLE OF BEAM LENGTHS, SEE SHEET 12/24.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650 CLEVELAND, OHIO 44113-1901

REVIEWED	DATE
RER	06/04/04

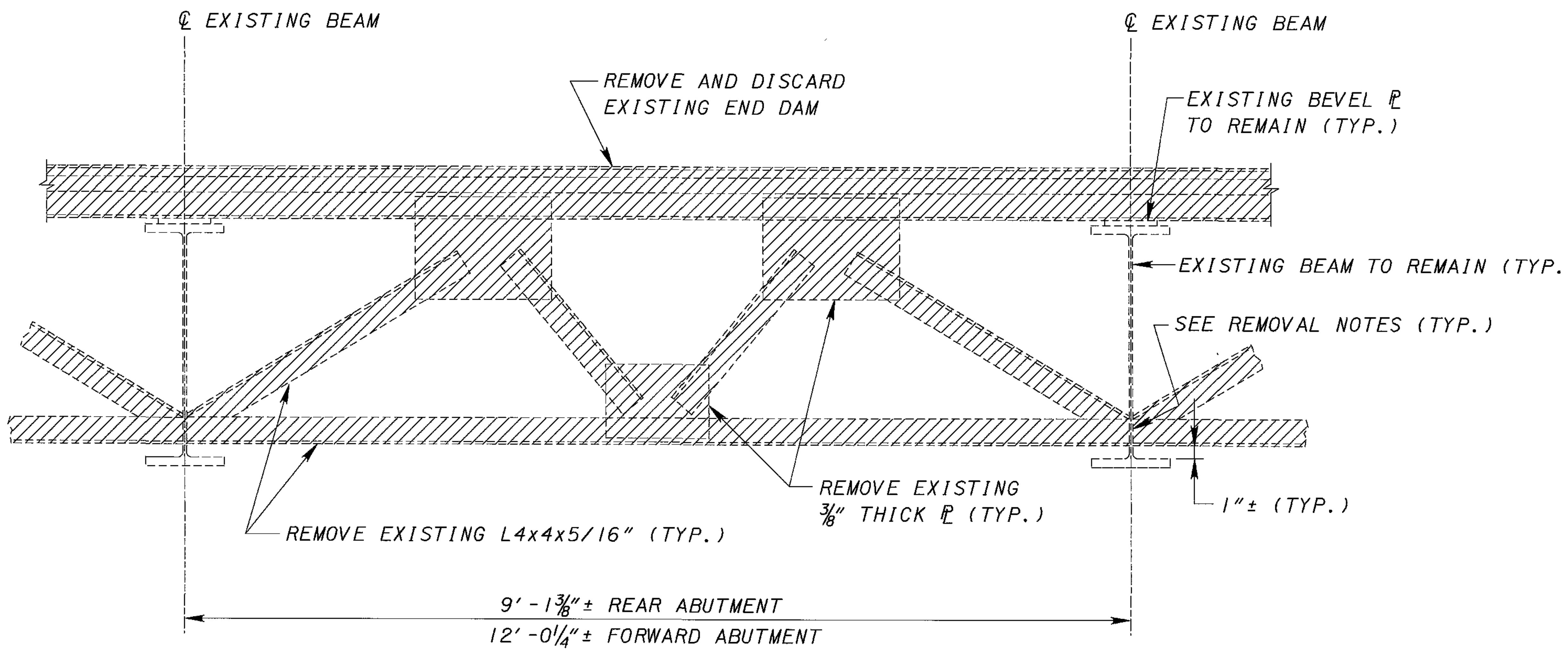
STRUCTURE FILE NUMBER 5007119

DRAWN	REVISED
RCK	

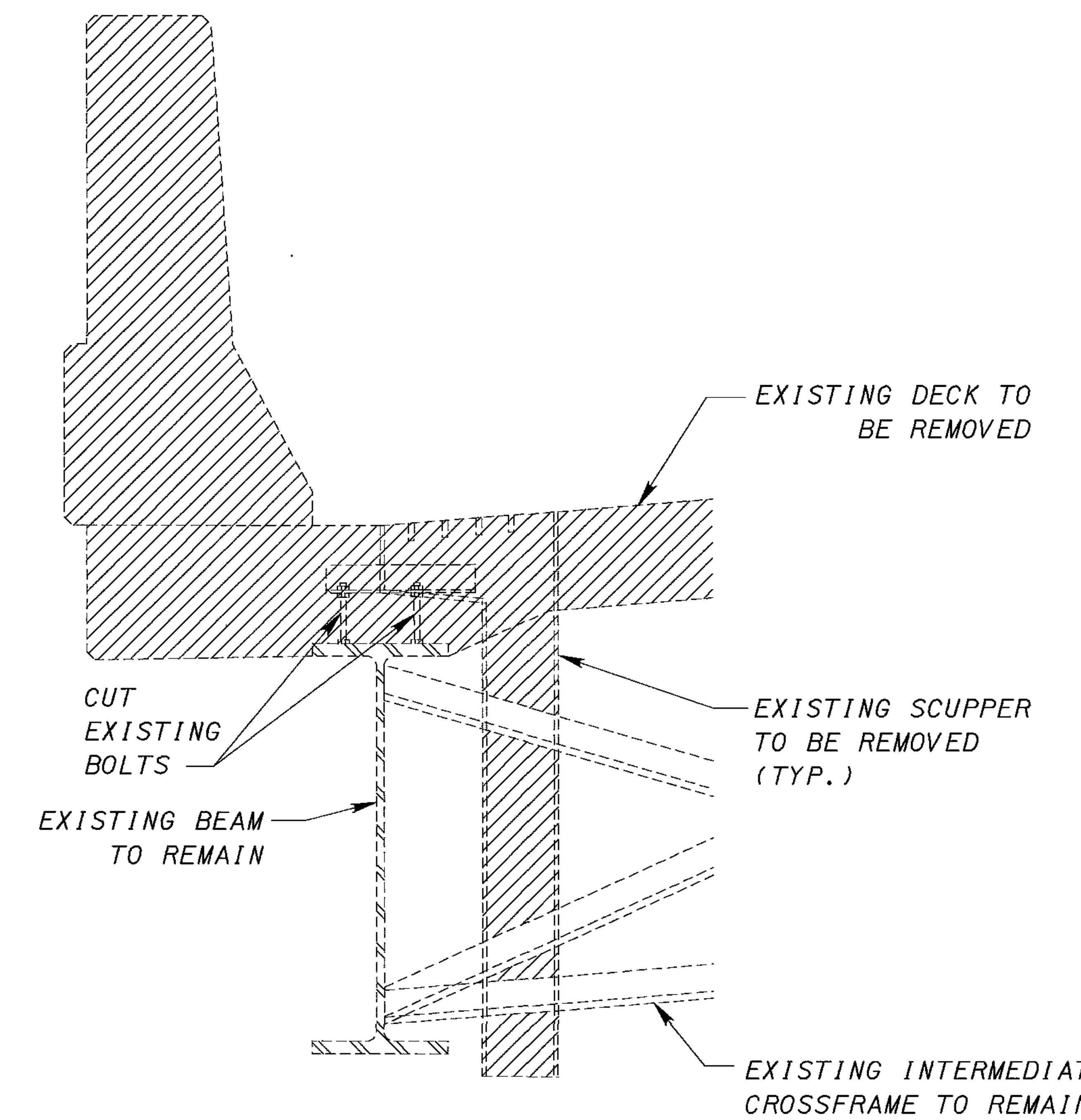
DESIGNED	CHECKED
BTA	NFF

SUPERSTRUCTURE DETAILS
BRIDGE NO. MAH-680-0628
IR-680 RAMP BX OVER IR-680 AND SR-7

MAH-680-4.14/6.28/6.37



EXISTING END CROSSFRAME REMOVAL DETAILS



EXISTING SCUPPER REMOVAL DETAIL

END CROSSFRAME REMOVAL NOTES:

1. CUT THE EXISTING ANGLES CONNECTED TO THE BEAM WEB. DO NOT UNDERCUT THE WELDS OR GORGE THE BEAM WEB OR FLANGE DURING THE CUTTING OPERATION. ALL CUTTING SHALL BE DONE BY EITHER OXYGEN CUTTING OR THE AIR-CARBON-ARC PROCESS. CUTTING MAY BE DONE MANUALLY PROVIDED A GUIDE IS USED AND STRAIGHT CUT IS ATTAINED. THE CONTRACTOR SHALL DEMONSTRATE TO THE ENGINEER PRIOR TO THE START OF WORK THAT HE CAN ACCOMPLISH THE WORK WITHOUT DAMAGE TO THE BEAM REGARDLESS OF THE PROCESS. AT NO TIME SHALL THE BEAM TEMPERATURE EXCEED 1100° F.

2. DETACH AND DISCARD THE EXISTING ANGLES.

3. THE SURFACES OF THE CUT FILLET WELDS SHALL BE GROUND IMMEDIATELY AFTER DISCARDING THE REMOVED PORTION. THIS GRINDING IS TO REMOVE ANY LARGE SURFACE IRREGULARITIES.

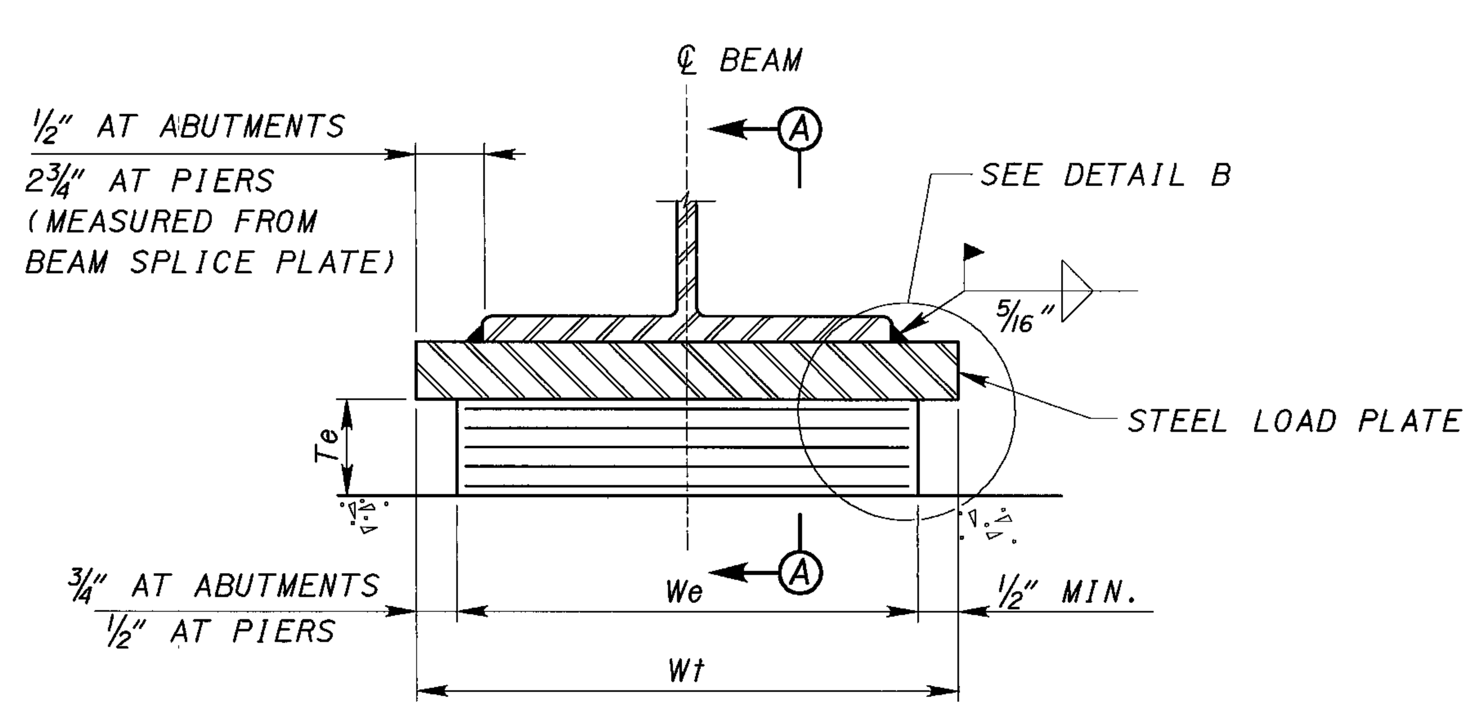
4. ANY REMAINING WELD MATERIAL OR STEEL SHALL BE GROUND SO THAT THE RESULTING WEB SURFACE IS SMOOTH. EXTREME CAUTION SHALL BE TAKEN TO MAINTAIN THE FULL WEB THICKNESS AND TO ENSURE THAT NO UNDERCUTTING, GOUGING, SCRATCHING OR OVERGRINDING OF THE WEB OCCURS

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
NFF	RCK	RER	06/04/04
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BTA		5007119	

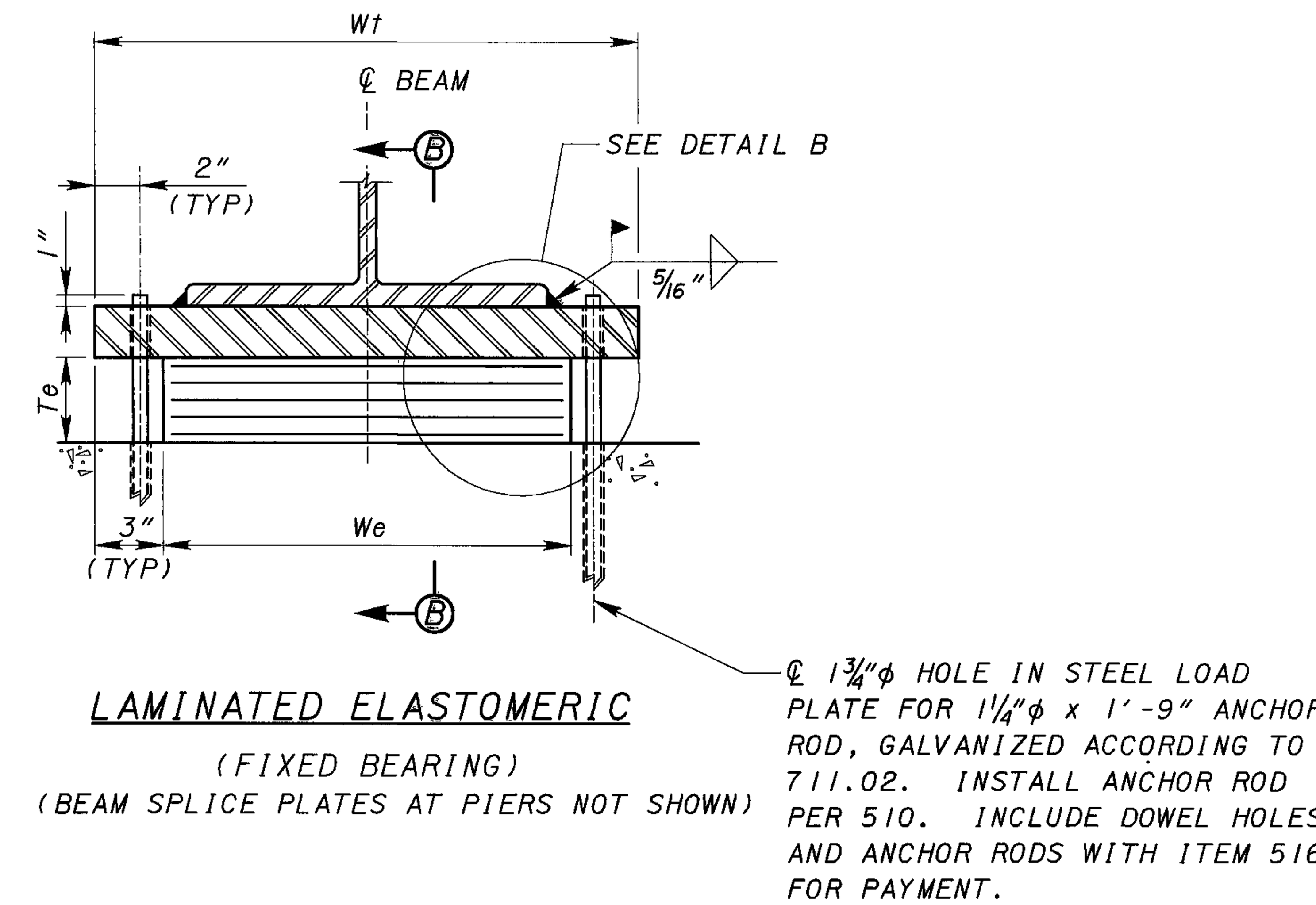
SUPERSTRUCTURE DETAILS
BRIDGE NO. MAH-680-0628
IR-680 RAMP BX OVER IR-680 AND SR-7

MAH-680-4.14/6.28/6.37



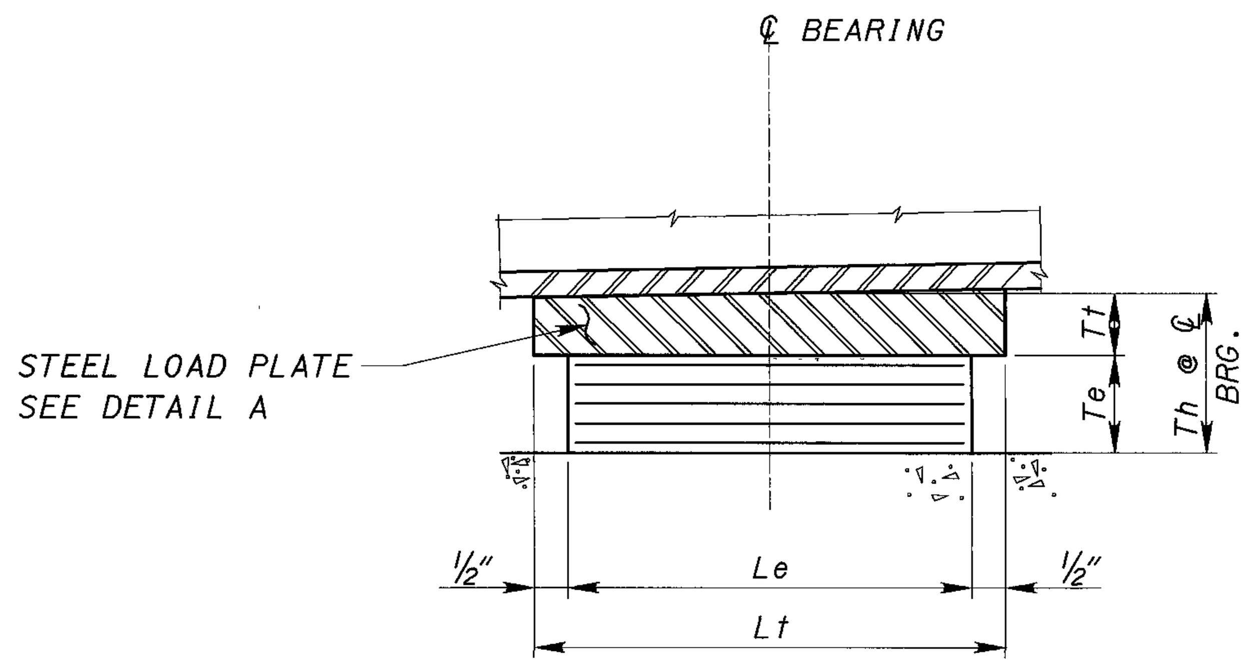
LAMINATED ELASTOMERIC

(EXPANSION BEARING)
(BEAM SPLICE PLATES AT PIERS NOT SHOWN)

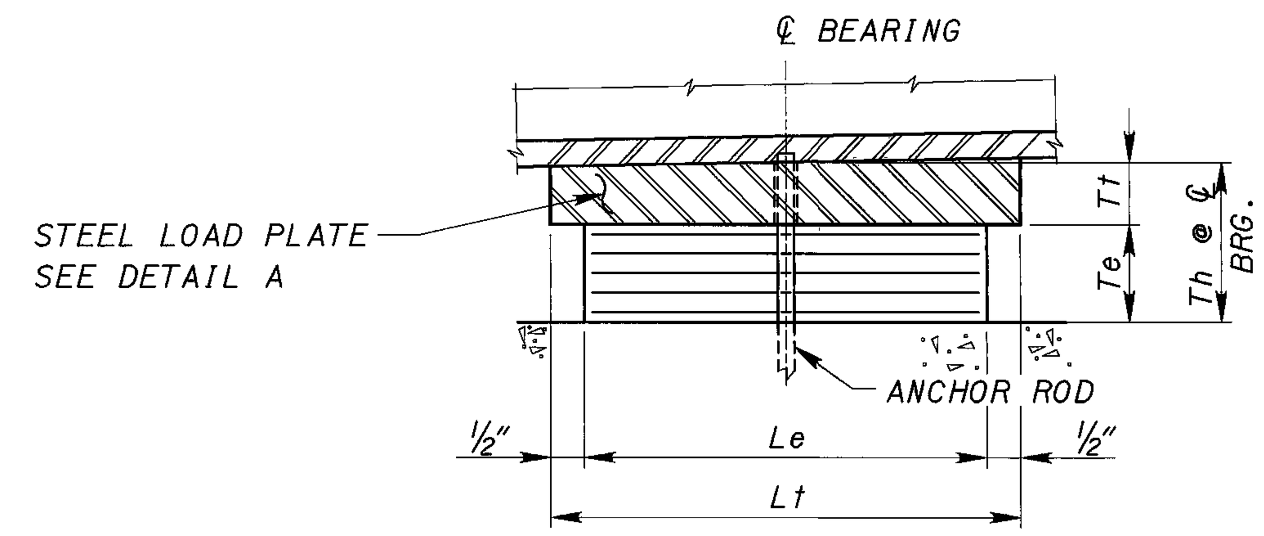


LAMINATED ELASTOMERIC

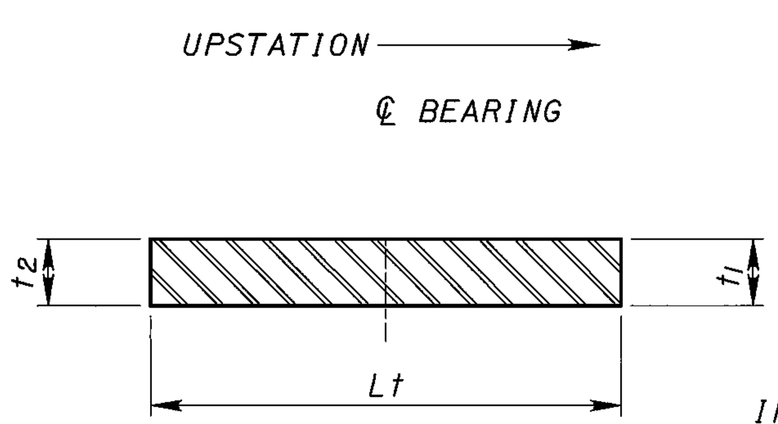
(FIXED BEARING)
(BEAM SPLICE PLATES AT PIERS NOT SHOWN)



SECTION A-A

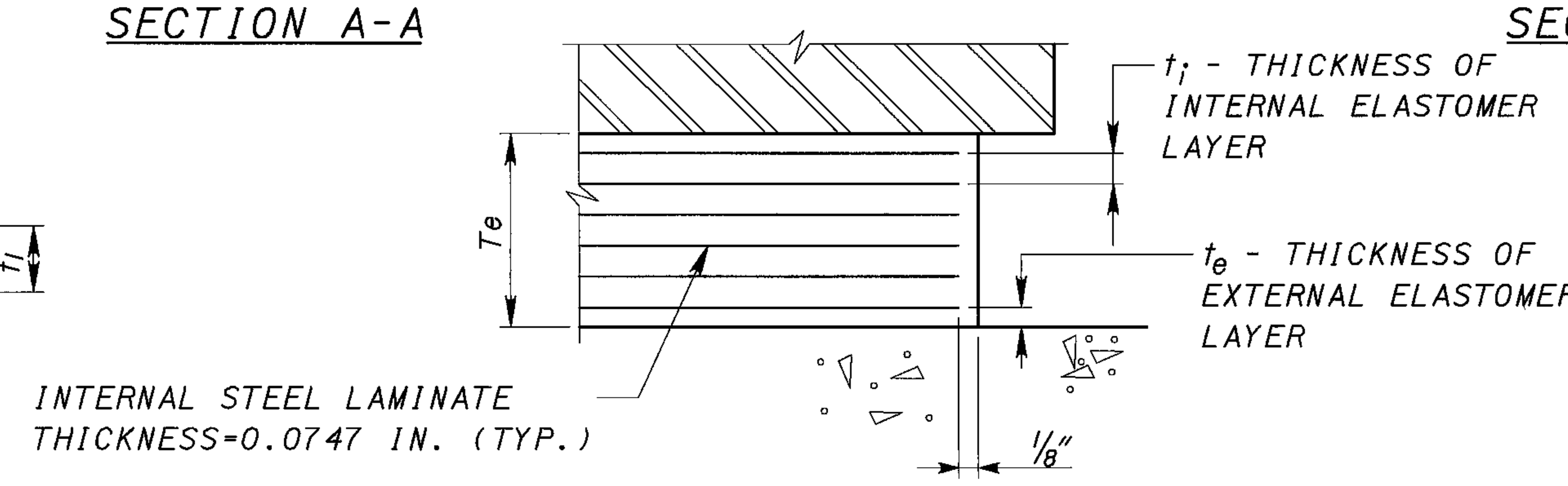


SECTION B-B



DETAIL A

(STEEL LOAD PLATE)



DETAIL B

ELASTOMERIC BEARING DATA

LOCATION	BEAMS	TYPE	NO. REQ'D	DL (KIP)	LL (KIP) WITHOUT IMPACT	TOTAL LOAD (DL+LL)	Le (in.)	We (in.)	t_i (in.)	t_e (in.)	NO. OF ti's	NO. OF te's	NO. INTERNAL LAMINATES	Te (in.)	STEEL LOAD PLATE Wt (in.)	STEEL LOAD PLATE Lt (in.)	STEEL LOAD PLATE t_1 (in.)	STEEL LOAD PLATE t_2 (in.)	Tt* (in.)	Th* (in.)
REAR ABUT.	ALL BEAMS	EXP	5	36.0	45.0	81.0	9.50	14.00	0.38	0.25	7	2	8	3.75	15.50	10.50	1.97	2.03	2.00	5.75
PIER No. 1	ALL BEAMS	EXP	5	125.0	64.0	189.0	11.50	18.00	0.33	0.23	4	2	5	2.16	19.00	12.50	2.91	3.09	3.00	5.16
PIER No. 2	ALL BEAMS	EXP	5	125.0	64.0	189.0	11.50	18.00	0.33	0.23	4	2	5	2.16	19.00	12.50	2.85	3.15	3.00	5.16
PIER No. 3	BEAMS A - C	FIXED	3	122.0	64.0	186.0	10.50	18.00	0.29	0.20	4	2	5	1.94	24.00	11.5	2.82	3.18	3.00	4.94
PIER No. 3	BEAMS D & E	FIXED	2	87.0	57.0	144.0	9.5	15.00	0.25	0.18	4	2	5	1.72	21.00	10.5	2.84	3.16	3.00	4.72
PIER No. 4	ALL BEAMS	EXP	5	125.0	64.0	189.0	11.50	18.00	0.33	0.23	4	2	5	2.16	19.00	12.50	2.75	3.25	3.00	5.16
PIER No. 5	ALL BEAMS	EXP	5	125.0	64.0	189.0	11.50	18.00	0.33	0.23	4	2	5	2.16	19.00	12.50	2.69	3.31	3.00	5.16
FWD. ABUT.	ALL BEAMS	EXP	5	36.0	45.0	81.0	9.50	14.00	0.38	0.25	7	2	8	3.75	15.50	10.50	1.79	2.21	2.00	5.75

* - @ ℄ BEARING

NOTES:

1. ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION I, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.

2. THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS. CONTROL WELDING OF LOAD PLATE TO THE SUPERSTRUCTURE SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300°F AS DETERMINED BY THE USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

3. BEARING REPOSITIONING: IF THE STEEL IS ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80°F OR LOWER THAN 40°F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60°F ± 10°F, RAISE THE BEAMS TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDERFORMED SHAPE AT 60°F ± 10°F.

4. BASIS OF PAYMENT - THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS LABOR, TESTING, PAINTING 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).

5. FOR BEARING ORIENTATION PLAN REFER TO SHEET 9/24.

DESIGN AGENCY
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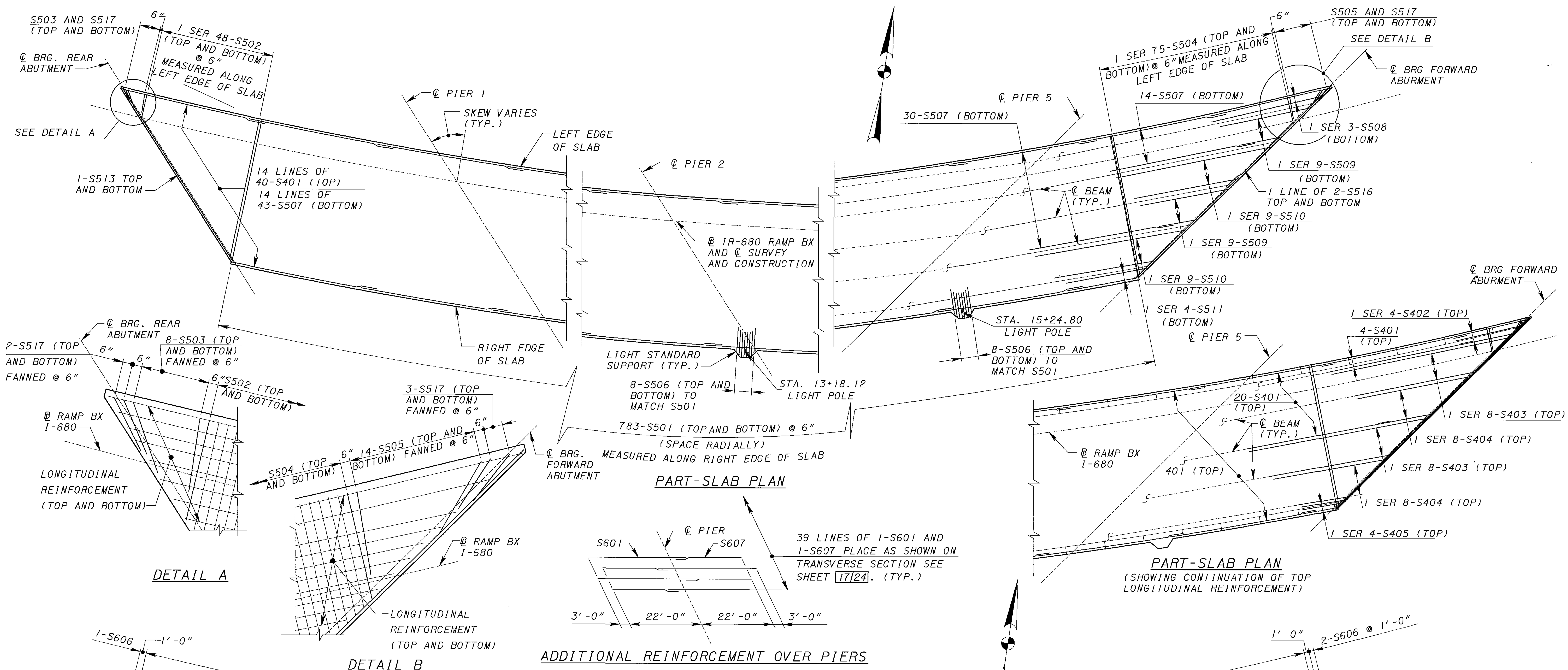
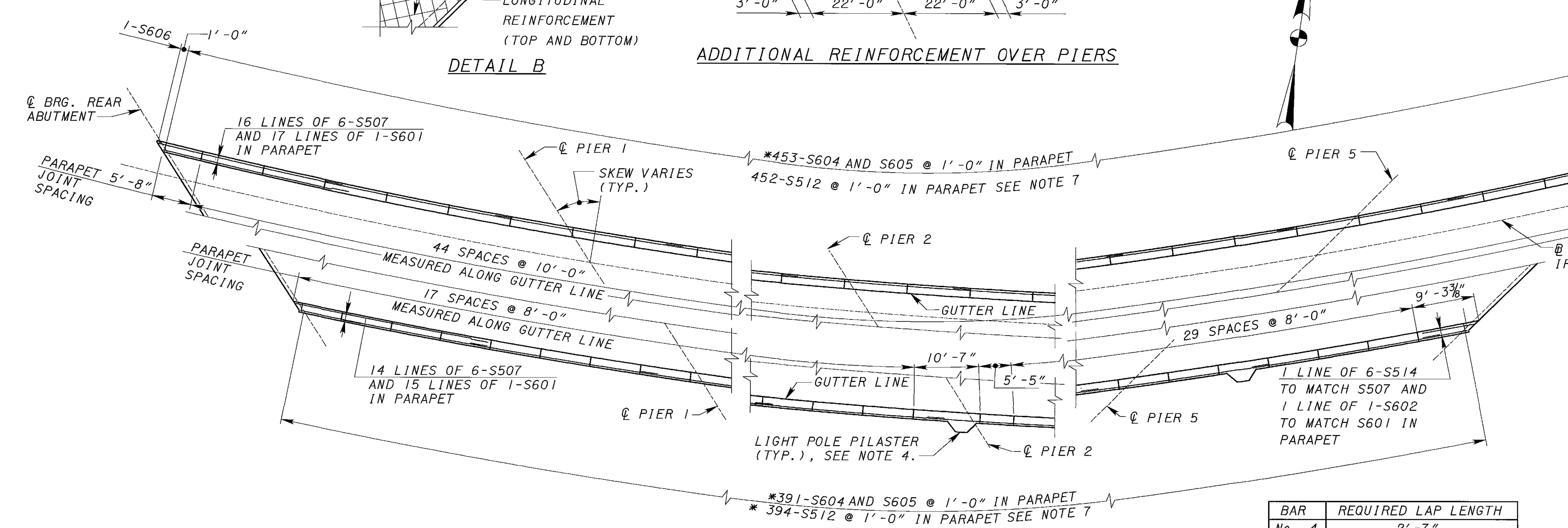
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BTA		5007119	

BEARING DETAILS
BRIDGE NO. MAH-680-0628
IR-680 RAMP BX OVER IR-680 AND SR-7

MAH-680-4.14/6.28/6.37





PART PARAPET PLAN

* MEASURED ALONG OUTSIDE FACE OF PARAPET

BAR	REQUIRED LAP LENGTH
No. 4	2'-7"
No. 5	3'-2"
No. 6	3'-10"

NOTES

1. FOR TRANSVERSE SECTION, SEE SHEET 17/24.
2. FOR REINFORCEMENT SCHEDULE, SEE SHEET 24/24.
3. FOR SCREED ELEVATIONS, SEE SHEETS 18/24 AND 19/24.
4. FOR LIGHT POLE PILASTER DETAILS SEE SHEET 17/24.
5. FOR ADDITIONAL STRUCTURAL LIGHTING DETAILS, REFER TO STANDARD DRAWING HL-10.13, HL-20.14 AND HL-30.31.
6. FOR STRUCTURE GROUNDING DETAILS, REFER TO HL-50.21.
7. FOR PLACEMENT OF VERTICAL REINFORCEMENT IN PARAPET SEE PARAPET PANEL DETAIL, SHEET 17/24.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650 CLEVELAND, OHIO 44113-1901

REVIEWED	DATE
RER	06/04/04

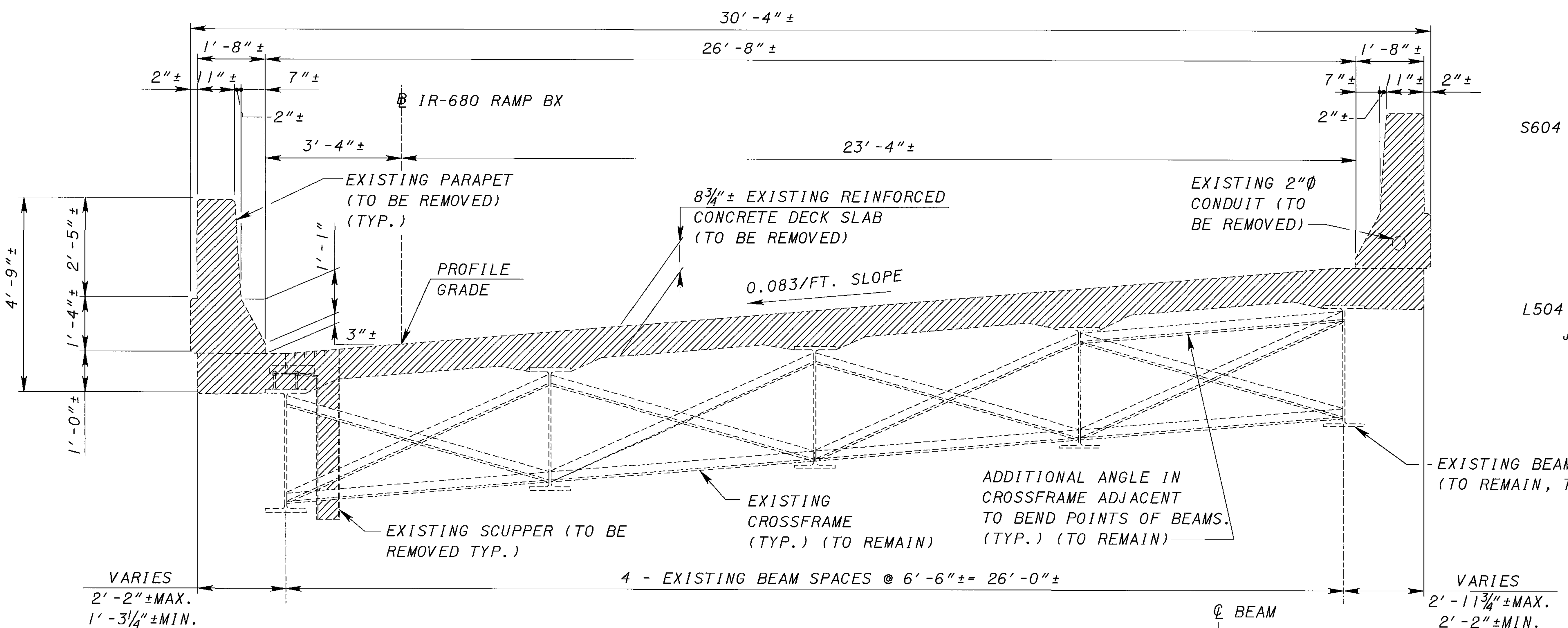
STRUCTURE FILE NUMBER 5007119

DESIGNED	DRAWN	REVISED
BTA	RCK	
CHECKED		
NFF		

DECK SLAB PLAN
BRIDGE NO. MAH-680-0628
IR-680 RAMP BX OVER IR-680 AND SR-7

MAH-680-4.14/6.28/6.37

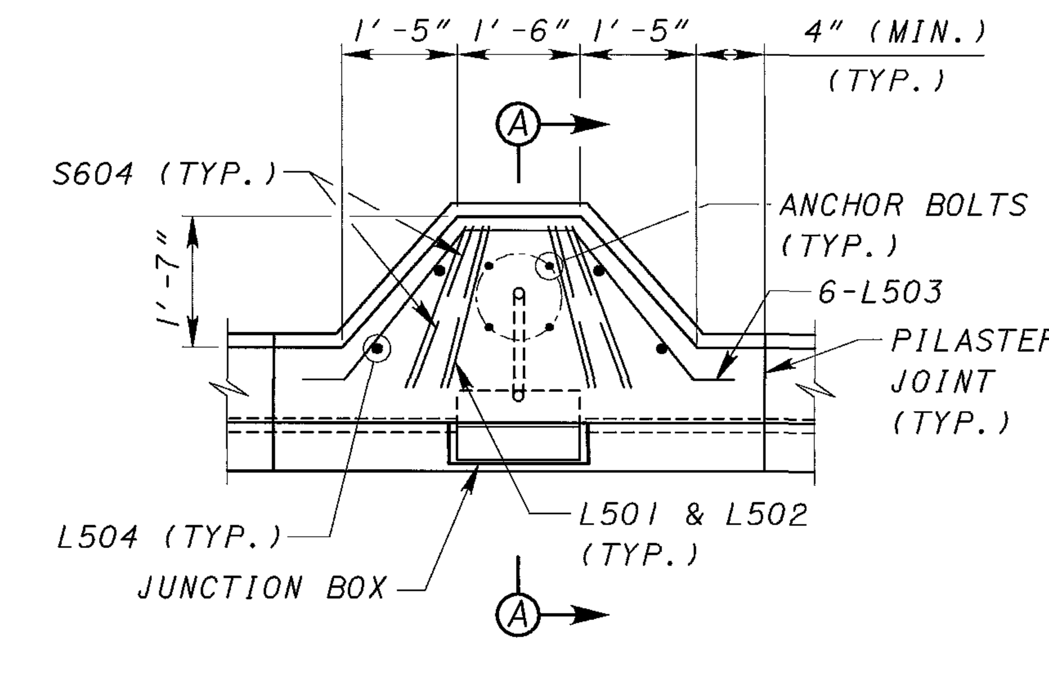
16/24



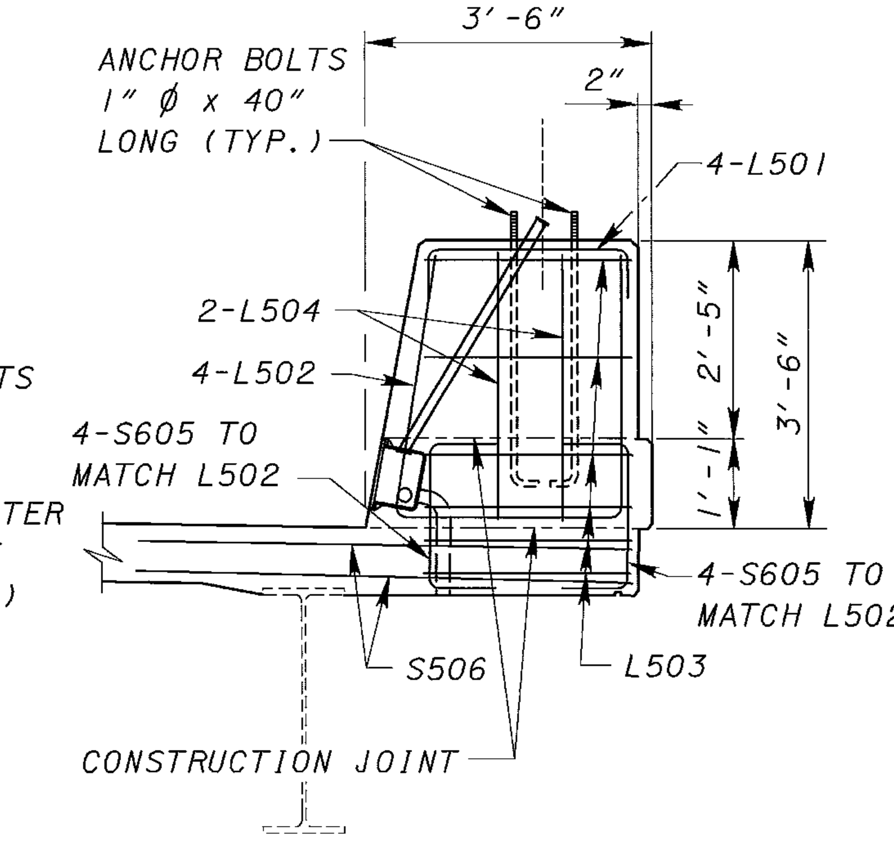
EXISTING TRANSVERSE SECTION

LEGEND

— INDICATES AREAS TO BE REMOVED AS PER ITEM 202 - PORTION OF STRUCTURES REMOVED, AS PER PLAN.

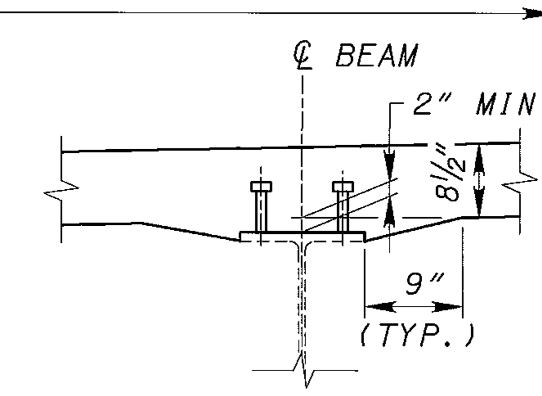


LIGHT POLE PILASTER PLAN



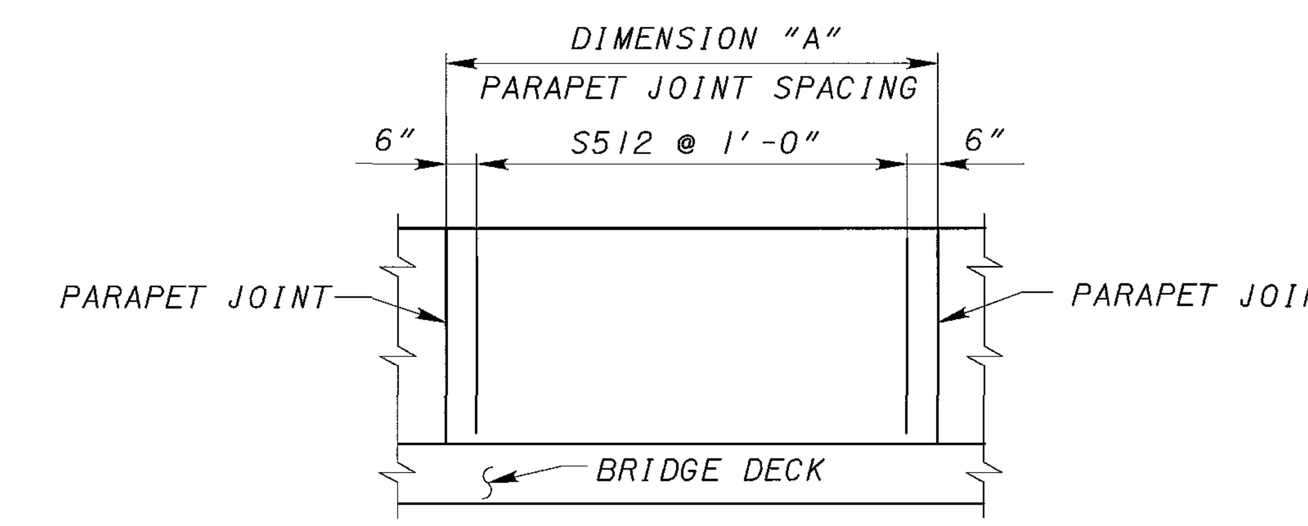
SECTION A-A

(SLAB REINFORCING NOT SHOWN FOR CLARITY)



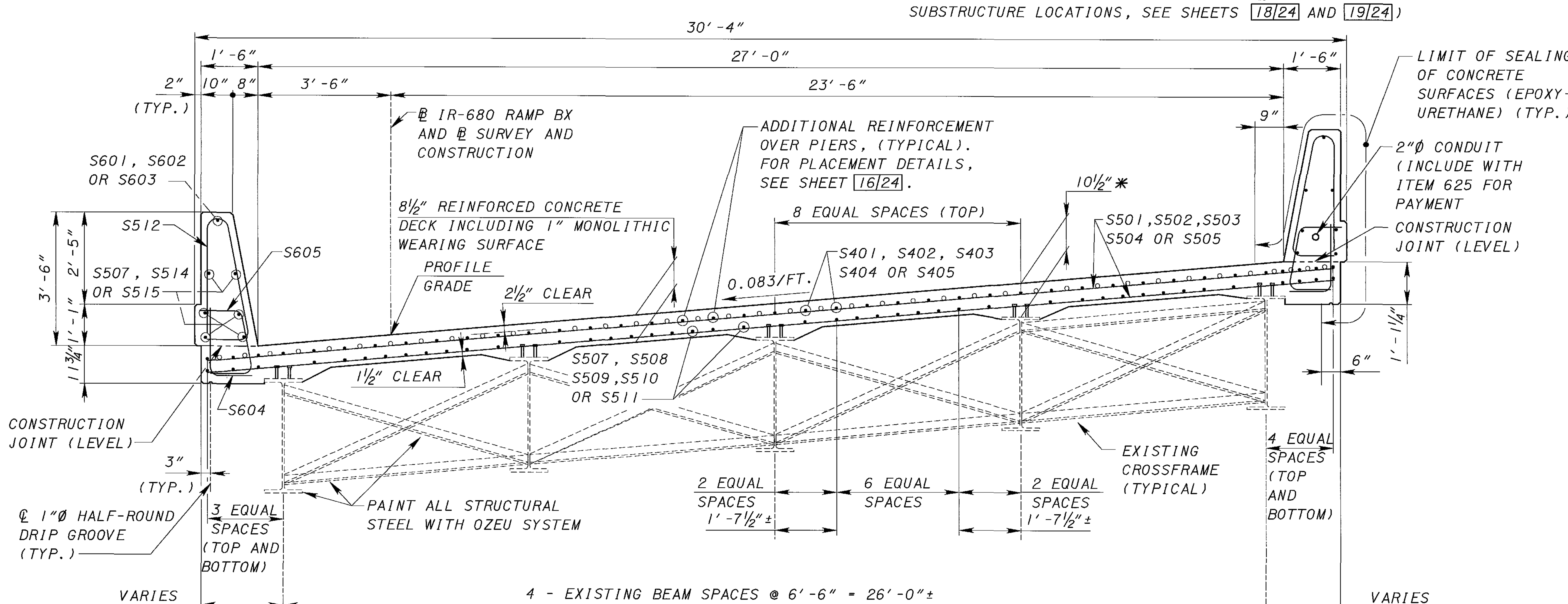
TYPICAL CONCRETE DECK HAUNCH DETAIL

(REINFORCEMENT NOT SHOWN FOR CLARITY)
(FOR TABLE OF HAUNCH THICKNESESS AT ℄ OF BEARING AT SUBSTRUCTURE LOCATIONS, SEE SHEETS 18/24 AND 19/24)



PARAPET PANEL DETAIL

DIMENSION "A"	NUMBER OF S512
5'-5"	6
6'-1½"	6
6'-2"	6
8'-0"	8
9'-11¼"	9
10'-0"	10
10'-7"	11



PROPOSED TRANSVERSE SECTION

NOTES:

1. * DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM/GIRDER HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 3¼" INCHES AND A CONSTANT HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM/GIRDER FLANGE OF 9 INCHES. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. THE ALLOWABLE TOLERANCE FOR THE HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM/GIRDER FLANGE IS ± 3 INCHES.

   THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM/GIRDER, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH 511.24.

2. FOR REINFORCING SCHEDULE, SEE SHEET 24/24.

3. FOR FRAMING PLAN SEE SHEET 12/24.

DESIGN AGENCY
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NFF	BTA	RCK	RER	06/04/04

REVISED
STRUCTURE FILE NUMBER 5007119

TRANSVERSE SECTION
BRIDGE NO. MAH-680-0628
IR-680 RAMP BX OVER IR-680 AND SR-7

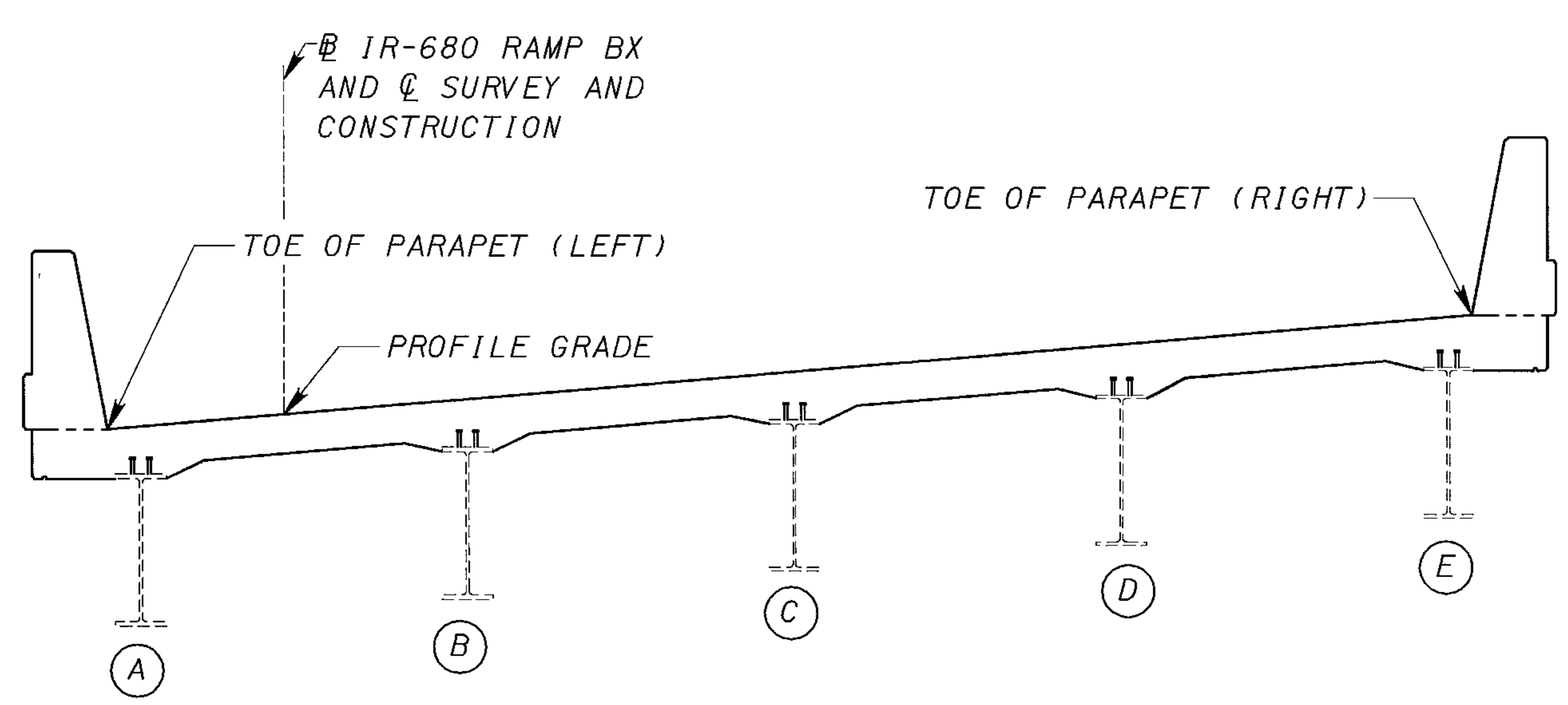
MAH-680-4.14/6.28/6.37

17/24

142/191

SCREED ELEVATIONS - SPANS 1 THRU 3

LOCATION		℄ BRG. REAR ABUT.	SPAN 1			℄ BRG. PIER 1	SPAN 2				℄ BRG. PIER 2	SPAN 3				℄ BRG. PIER 3
			1/4 PT.	1/2 PT.	3/4 PT.		F.S. 1	1/4 PT.	1/2 PT.	3/4 PT.		F.S. 2	1/4 PT.	1/2 PT.	3/4 PT.	
TOE OF PARAPET (LEFT)	STATION	11+51.61	11+68.11	11+84.62	12+01.12	12+17.62	12+34.40	12+38.00	12+58.39	12+78.77	12+99.16	13+15.64	13+19.77	13+40.38	13+60.98	13+81.59
	PROFILE GRADE ELEVATION	971.21	971.11	970.97	970.81	970.61	970.38	970.33	970.00	969.62	969.20	968.82	968.72	968.20	967.63	967.01
	FINAL DECK ELEVATION	970.92	970.82	970.68	970.52	970.32	970.09	970.04	969.71	969.33	968.91	968.53	968.43	967.91	967.34	966.72
	DEAD LOAD DEFLECTION	0.00	0.02	0.03	0.01	0.00	0.01	0.02	0.03	0.02	0.00	0.00	0.01	0.02	0.01	0.00
	SCREED ELEVATION	970.92	970.84	970.71	970.53	970.32	970.10	970.06	969.74	969.35	968.91	968.53	968.44	967.93	967.35	966.72
BEAM A	STATION	11+52.33	11+68.80	11+85.28	12+01.76	12+18.23	12+34.50	12+38.57	12+58.94	12+79.31	12+99.66	13+15.70	13+20.09	13+40.55	13+61.01	13+81.45
	PROFILE GRADE ELEVATION	971.21	971.10	970.97	970.80	970.60	970.38	970.32	969.99	969.61	969.19	968.82	968.72	968.20	967.63	967.02
	FINAL DECK ELEVATION	970.97	970.83	970.68	970.53	970.37	970.10	970.03	969.70	969.32	968.95	968.54	968.42	967.90	967.34	966.78
	DEAD LOAD DEFLECTION	0.00	0.02	0.03	0.01	0.00	0.01	0.02	0.03	0.02	0.00	0.00	0.01	0.02	0.01	0.00
	SCREED ELEVATION	970.97	970.85	970.71	970.54	970.37	970.11	970.05	969.73	969.34	968.95	968.54	968.43	967.92	967.35	966.78
PROFILE GRADE	STATION	11+55.26	11+71.64	11+88.02	12+04.40	12+20.78	12+37.45	12+41.04	12+61.29	12+81.55	13+01.80	13+17.65	13+21.56	13+41.31	13+61.07	13+80.82
	PROFILE GRADE ELEVATION	971.19	971.08	970.94	970.77	970.57	970.34	970.28	969.95	969.57	969.14	968.77	968.68	968.18	967.63	967.04
	FINAL DECK ELEVATION	971.19	971.08	970.94	970.77	970.57	970.34	970.28	969.95	969.57	969.14	968.77	968.68	968.18	967.63	967.04
	DEAD LOAD DEFLECTION	0.00	0.02	0.03	0.01	0.00	0.01	0.02	0.03	0.02	0.00	0.00	0.01	0.02	0.01	0.00
	SCREED ELEVATION	971.19	971.10	970.97	970.78	970.57	970.35	970.30	969.98	969.59	969.14	968.77	968.69	968.20	967.64	967.04
BEAM B	STATION	11+58.87	11+75.13	11+90.89	12+07.42	12+23.94	12+40.03	12+44.06	12+64.20	12+84.35	13+04.47	13+19.41	13+23.36	13+42.26	13+61.16	13+80.05
	PROFILE GRADE ELEVATION	971.17	971.05	970.91	970.74	970.53	970.30	970.24	969.90	969.51	969.08	968.73	968.64	968.15	967.63	967.06
	FINAL DECK ELEVATION	971.46	971.31	971.16	971.00	970.82	970.55	970.48	970.12	969.75	969.37	968.99	968.88	968.38	967.87	967.36
	DEAD LOAD DEFLECTION	0.00	0.02	0.03	0.01	0.00	0.01	0.02	0.03	0.02	0.00	0.00	0.01	0.02	0.01	0.00
	SCREED ELEVATION	971.46	971.33	971.19	971.01	970.82	970.56	970.50	970.15	969.77	969.37	968.99	968.89	968.40	967.88	967.36
BEAM C	STATION	11+65.32	11+81.38	11+97.45	12+13.51	12+29.57	12+45.50	12+49.48	12+69.40	12+89.32	13+09.22	13+23.13	13+26.57	13+43.93	13+61.30	13+78.65
	PROFILE GRADE ELEVATION	971.13	971.00	970.85	970.66	970.45	970.21	970.15	969.80	969.41	968.97	968.64	968.56	968.11	967.62	967.10
	FINAL DECK ELEVATION	971.95	971.80	971.63	971.46	971.28	971.00	970.93	970.56	970.19	969.81	969.44	969.35	968.89	968.42	967.94
	DEAD LOAD DEFLECTION	0.00	0.02	0.03	0.01	0.00	0.01	0.02	0.03	0.02	0.00	0.00	0.01	0.02	0.01	0.00
	SCREED ELEVATION	971.95	971.82	971.66	971.47	971.28	971.01	970.95	970.59	970.21	969.81	969.44	969.36	968.91	968.43	967.94
BEAM D	STATION	11+71.69	11+87.54	12+03.41	12+19.27	12+35.13	12+50.87	12+54.82	12+74.52	12+94.22	13+13.91	13+26.69	13+29.75	13+45.60	13+61.45	13+77.29
	PROFILE GRADE ELEVATION	971.08	970.95	970.78	970.59	970.37	970.13	970.06	969.70	969.31	968.86	968.55	968.48	968.06	967.62	967.15
	FINAL DECK ELEVATION	972.45	972.28	972.10	971.92	971.73	971.44	971.37	971.00	970.62	970.23	969.89	969.81	969.38	968.95	968.51
	DEAD LOAD DEFLECTION	0.00	0.02	0.03	0.01	0.00	0.01	0.02	0.03	0.02	0.00	0.00	0.01	0.02	0.01	0.00
	SCREED ELEVATION	972.45	972.30	972.13	971.93	971.73	971.45	971.39	971.03	970.64	970.23	969.89	969.82	969.40	968.96	968.51
BEAM E	STATION	11+77.97	11+93.62	12+09.29	12+24.96	12+40.62	12+56.19	12+60.09	12+79.57	12+99.06	13+18.53	13+30.25	13+32.88	13+47.24	13+61.59	13+75.94
	PROFILE GRADE ELEVATION	971.03	970.89	970.71	970.52	970.29	970.04	969.97	969.61	969.20	968.75	968.46	968.40	968.02	967.61	967.19
	FINAL DECK ELEVATION	972.93	972.76	972.57	972.39	972.19	971.89	971.82	971.44	971.05	970.65	970.34	970.27	969.88	969.49	969.09
	DEAD LOAD DEFLECTION	0.00	0.02	0.03	0.01	0.00	0.01	0.02	0.03	0.02	0.00	0.00	0.01	0.02	0.01	0.00
	SCREED ELEVATION	972.93	972.78	972.60	972.40	972.19	971.90	971.84	971.47	971.07	970.65	970.34	970.28	969.90	969.50	969.09
TOE OF PARAPET (RIGHT)	STATION	11+78.59	11+94.24	12+09.89	12+25.53	12+41.18	12+57.16	12+60.64	12+80.10	12+99.56	13+19.02	13+30.78	13+33.21	13+47.41	13+61.60	13+75.80
	PROFILE GRADE ELEVATION	971.03	970.88	970.71	970.51	970.28	970.02	969.96	969.60	969.19	968.74	968.45	968.39	968.01	967.61	967.19
	FINAL DECK ELEVATION	972.98	972.84	972.67	972.47	972.24	971.98	971.92	971.55	971.15	970.70	970.41	970.35	969.97	969.57	969.15
	DEAD LOAD DEFLECTION	0.00	0.02	0.03	0.01	0.00	0.01	0.02	0.03	0.02	0.00	0.00	0.01	0.02	0.01	0.00
	SCREED ELEVATION	972.98	972.86	972.70	972.48	972.24	971.99	971.94	971.58	971.17	970.70	970.41	970.36	969.99	969.58	969.15



TYPICAL CROSS SECTION

TABLE OF HAUNCHES
(INCHES) *

GIRDER / LOCATION	A	B	C	D	E
REAR ABUTMENT	2	2	2	2	2
PIER 1	1 7/16	1 7/16	1 7/16	1 3/8	1 3/8
PIER 2	1 3/8	1 3/8	1 3/16	1 3/16	1 3/16
PIER 3	1 3/8	1 3/8	1 3/16	1 7/16	1 7/16

* - HAUNCHES LESS THAN 2" ACCOUNT FOR TOP MOMENT PLATE THICKNESSES

NOTE:

1. SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

REVIEWED RER DATE 06/04/04
STRUCTURE FILE NUMBER 5007119
DRAWN BTA REVISED
DESIGNED BTA CHECKED NFF

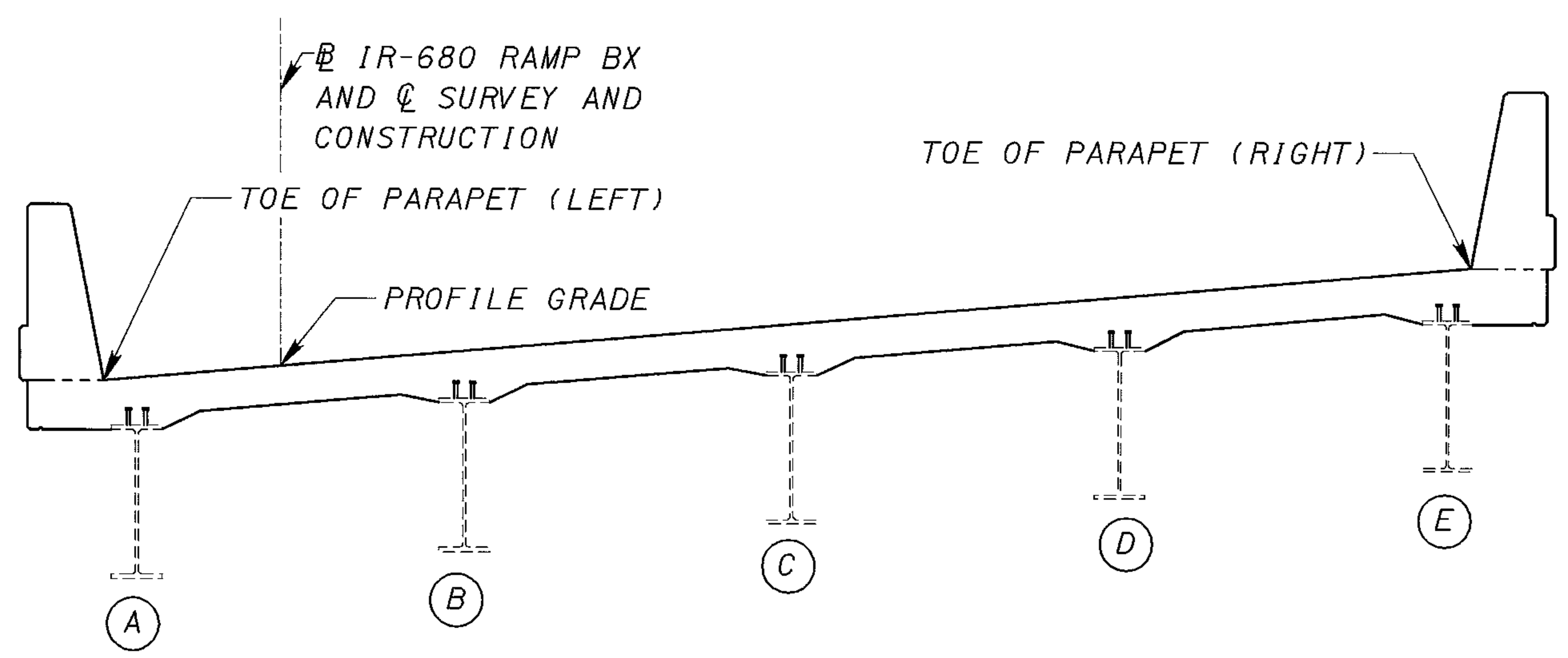
SCREED ELEVATIONS - SPANS 1 THRU 3
BRIDGE NO. MAH-680-0628
IR-680 RAMP BX OVER IR-680 AND SR-7

MAH-680-4.14/6.28/6.37

18/24

SCREED ELEVATIONS - SPANS 4 THRU 6

LOCATION		℄ BRG. PIER 3	SPAN 4 F.S. 3	SPAN 4 ¼ PT.	SPAN 4 ½ PT.	SPAN 4 ¾ PT.	℄ BRG. PIER 4	SPAN 5 F.S. 4	SPAN 5 ¼ PT.	SPAN 5 ½ PT.	SPAN 5 ¾ PT.	℄ BRG. PIER 5	SPAN 6 F.S. 5	SPAN 6 ¼ PT.	SPAN 6 ½ PT.	SPAN 6 ¾ PT.	℄ BRG. FWD. ABUT.
TOE OF PARAPET (LEFT)	STATION	13+81.59	13+97.53	14+02.21	14+22.83	14+43.45	14+64.08	14+80.04	14+84.55	15+05.02	15+25.49	15+45.97	15+60.41	15+62.15	15+74.85	15+89.29	16+03.73
	PROFILE GRADE ELEVATION	967.01	966.50	966.35	965.63	964.87	964.06	963.40	963.21	962.32	961.37	960.38	959.65	959.56	958.93	958.21	957.48
	FINAL DECK ELEVATION	966.72	966.21	966.05	965.34	964.58	963.77	963.11	962.92	962.02	961.08	960.09	959.36	959.27	958.64	957.91	957.19
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.01	0.01	0.00	0.02	0.02	0.04	0.02	0.00	0.00	0.00	0.01	0.01	0.00
	SCREED ELEVATION	966.72	966.22	966.06	965.35	964.59	963.77	963.13	962.94	962.06	961.10	960.09	959.36	959.27	958.65	957.92	957.19
BEAM A	STATION	13+81.45	13+97.49	14+01.91	14+22.37	14+42.83	14+63.28	14+79.92	14+83.70	15+04.13	15+24.57	15+44.99	15+59.38	15+61.66	15+73.78	15+88.18	16+02.57
	PROFILE GRADE ELEVATION	967.02	966.50	966.36	965.65	964.90	964.09	963.41	963.25	962.36	961.42	960.43	959.70	959.59	958.98	958.26	957.54
	FINAL DECK ELEVATION	966.78	966.22	966.06	965.36	964.60	963.86	963.12	962.96	962.06	961.12	960.19	959.44	959.32	958.71	958.00	957.31
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.01	0.01	0.00	0.02	0.02	0.04	0.02	0.00	0.00	0.00	0.01	0.01	0.00
	SCREED ELEVATION	966.78	966.23	966.07	965.37	964.61	963.86	963.14	962.98	962.10	961.14	960.19	959.44	959.32	958.72	958.01	957.31
PROFILE GRADE	STATION	13+80.82	13+96.17	14+00.58	14+20.33	14+40.09	14+59.84	14+75.65	14+80.10	15+00.35	15+20.61	15+40.86	15+55.11	15+56.87	15+69.37	15+83.62	15+97.87
	PROFILE GRADE ELEVATION	967.04	966.55	966.40	965.72	965.00	964.23	963.59	963.40	962.52	961.60	960.63	959.91	959.83	959.20	958.49	957.78
	FINAL DECK ELEVATION	967.04	966.55	966.40	965.72	965.00	964.23	963.59	963.40	962.52	961.60	960.63	959.91	959.83	959.20	958.49	957.78
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.01	0.01	0.00	0.02	0.02	0.04	0.02	0.00	0.00	0.00	0.01	0.01	0.00
	SCREED ELEVATION	967.04	966.56	966.41	965.73	965.01	964.23	963.61	963.42	962.56	961.62	960.63	959.91	959.83	959.21	958.50	957.78
BEAM B	STATION	13+80.05	13+94.98	13+98.94	14+17.86	14+36.77	14+55.67	14+72.02	14+75.73	14+95.80	15+15.87	15+35.93	15+50.04	15+52.29	15+64.17	15+78.30	15+92.43
	PROFILE GRADE ELEVATION	967.06	966.59	966.46	965.81	965.12	964.40	963.74	963.58	962.73	961.82	960.87	960.17	960.06	959.46	958.76	958.05
	FINAL DECK ELEVATION	967.36	966.84	966.70	966.04	965.37	964.69	963.98	963.82	962.94	962.06	961.16	960.43	960.31	959.71	959.01	958.33
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.01	0.01	0.00	0.02	0.02	0.04	0.02	0.00	0.00	0.00	0.01	0.01	0.00
	SCREED ELEVATION	967.36	966.85	966.71	966.05	965.38	964.69	964.00	963.84	962.98	962.08	961.16	960.43	960.31	959.72	959.02	958.33
BEAM C	STATION	13+78.65	13+92.47	13+96.01	14+13.39	14+30.77	14+48.04	14+64.10	14+67.84	14+87.55	15+07.26	15+26.85	15+40.64	15+42.83	15+54.44	15+68.24	15+82.03
	PROFILE GRADE ELEVATION	967.10	966.67	966.55	965.97	965.35	964.70	964.06	963.91	963.08	962.21	961.31	960.64	960.54	959.95	959.26	958.57
	FINAL DECK ELEVATION	967.94	967.47	967.35	966.75	966.14	965.53	964.85	964.69	963.84	962.99	962.13	961.44	961.33	960.74	960.06	959.39
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.01	0.01	0.00	0.02	0.02	0.04	0.02	0.00	0.00	0.00	0.01	0.01	0.00
	SCREED ELEVATION	967.94	967.48	967.36	966.76	966.15	965.53	964.87	964.71	963.88	963.01	962.13	961.44	961.33	960.75	960.07	959.39
BEAM D	STATION	13+77.29	13+90.06	13+93.15	14+09.02	14+24.88	14+40.75	14+56.53	14+60.09	14+79.45	14+98.82	15+18.16	15+31.66	15+33.80	15+45.17	15+58.67	15+72.18
	PROFILE GRADE ELEVATION	967.15	966.74	966.64	966.12	965.56	964.97	964.36	964.22	963.43	962.59	961.72	961.08	960.98	960.42	959.74	959.06
	FINAL DECK ELEVATION	968.51	968.08	967.98	967.43	966.89	966.33	965.68	965.53	964.72	963.90	963.07	962.41	962.31	961.74	961.06	960.42
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.01	0.01	0.00	0.02	0.02	0.04	0.02	0.00	0.00	0.00	0.01	0.01	0.00
	SCREED ELEVATION	968.51	968.09	967.99	967.44	966.90	966.33	965.70	965.55	964.76	963.92	963.07	962.41	962.31	961.75	961.07	960.42
BEAM E	STATION	13+75.94	13+87.65	13+90.31	14+04.68	14+19.06	14+33.48	14+48.94	14+52.43	14+71.44	14+90.46	15+09.45	15+22.66	15+24.76	15+35.88	15+49.10	15+62.31
	PROFILE GRADE ELEVATION	967.19	966.82	966.74	966.26	965.77	965.25	964.66	964.53	963.76	962.96	962.12	961.51	961.41	960.87	960.22	959.55
	FINAL DECK ELEVATION	969.09	968.70	968.61	968.13	967.64	967.15	966.52	966.38	965.60	964.81	964.02	963.38	963.28	962.75	962.10	961.46
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.01	0.01	0.00	0.02	0.02	0.04	0.02	0.00	0.00	0.00	0.01	0.01	0.00
	SCREED ELEVATION	969.09	968.71	968.62	968.14	967.65	967.15	966.54	966.40	965.64	964.83	964.02	963.38	963.28	962.76	962.11	961.46
TOE OF PARAPET (RIGHT)	STATION	13+75.80	13+87.30	13+90.01	14+04.23	14+18.45	14+32.67	14+47.58	14+51.64	14+70.62	14+89.60	15+08.57	15+21.76	15+23.44	15+34.96	15+48.15	15+61.34
	PROFILE GRADE ELEVATION	967.19	966.83	966.75	966.28	965.79	965.28	964.71	964.56	963.80	963.00	962.16	961.55	961.47	960.92	960.27	959.60
	FINAL DECK ELEVATION	969.15	968.79	968.70	968.24	967.75	967.23	966.67	966.51	965.75	964.95	964.11	963.51	963.43	962.88	962.23	961.56
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.01	0.01	0.00	0.02	0.02	0.04	0.02	0.00	0.00	0.00	0.01	0.01	0.00
	SCREED ELEVATION	969.15	968.80	968.71	968.25	967.76	967.23	966.69	966.53	965.79	964.97	964.11	963.51	963.43	962.89	962.24	961.56



TYPICAL CROSS SECTION

TABLE OF HAUNCHES
(INCHES) *

GIRDER / LOCATION	A	B	C	D	E
PIER 3	1⅜	1⅜	1 3/16	1 7/16	1 7/16
PIER 4	1⅜	1 7/16	1¼	1¼	1¼
PIER 5	1⅜	1⅜	1⅜	1⅜	1⅜
FORWARD ABUTMENT	2	2	2	2	2

* - HAUNCHES LESS THAN 2" ACCOUNT FOR TOP MOMENT PLATE THICKNESSES

NOTE:

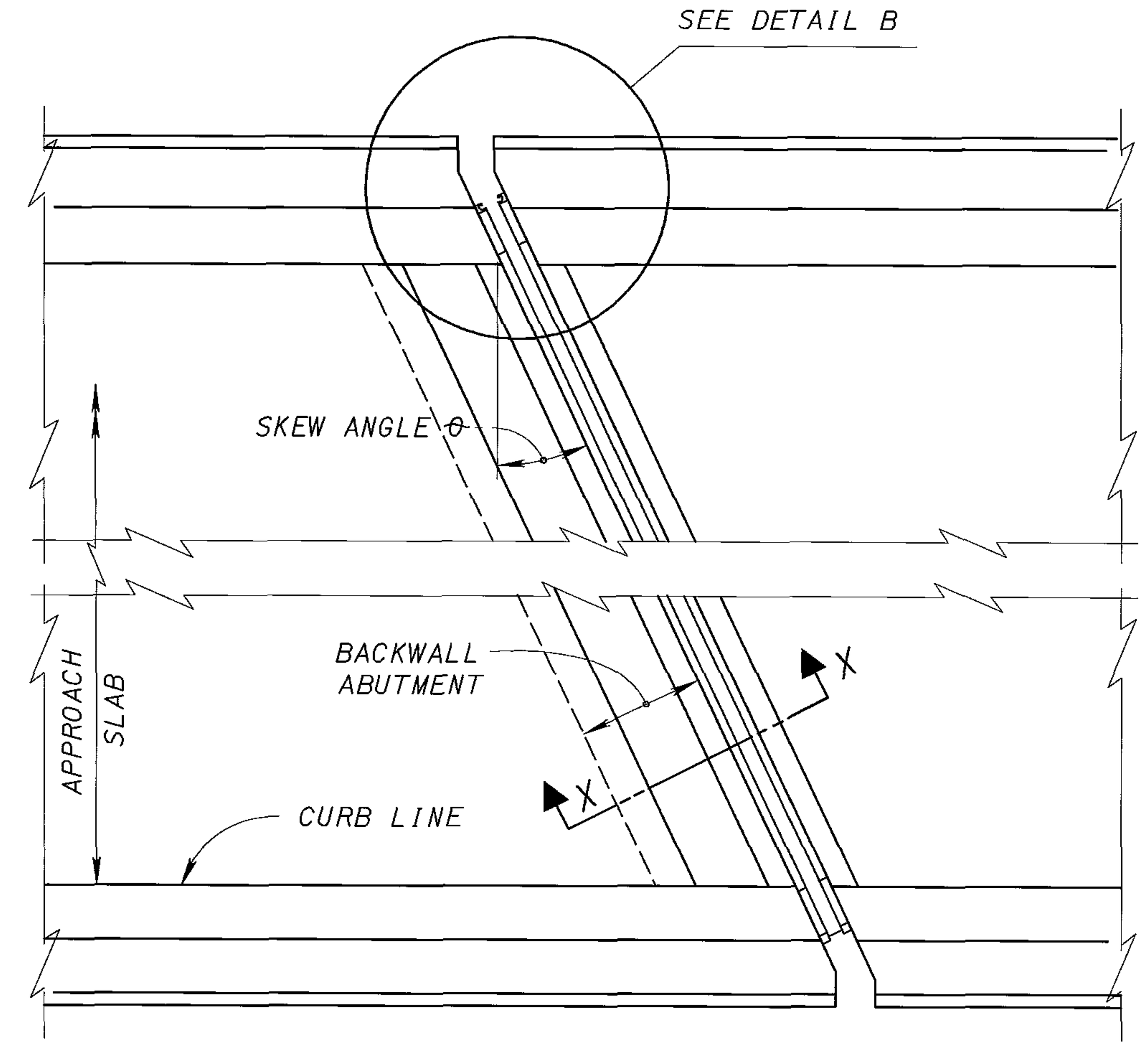
1. SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650 CLEVELAND, OHIO 44113-1901

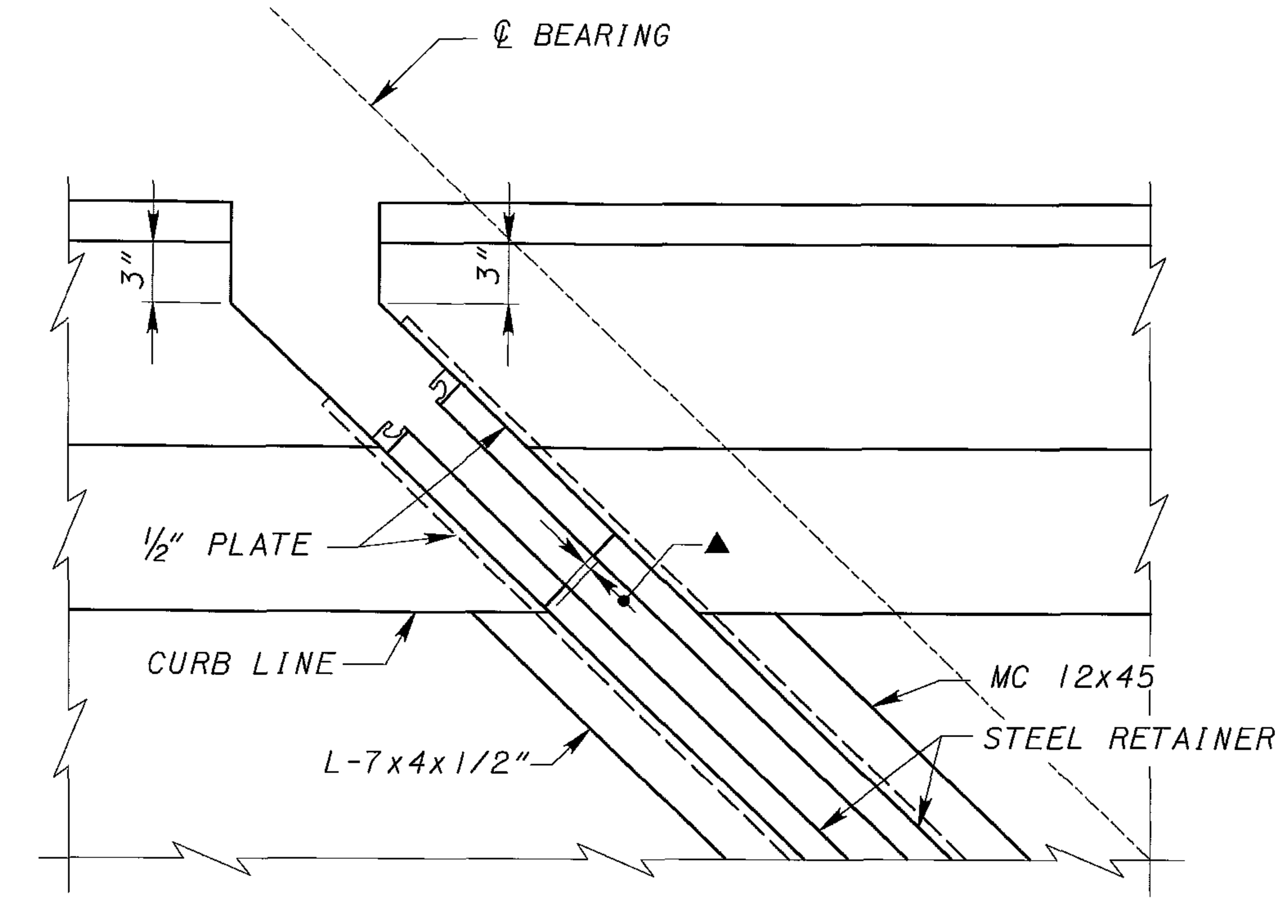
REVIEWED RER DATE 06/04/04
STRUCTURE FILE NUMBER 5007119
DRAWN BTA REVISED
DESIGNED BTA CHECKED NFF

SCREED ELEVATIONS - SPANS 4 THRU 6
BRIDGE NO. MAH-680-0628
IR-680 RAMP BX OVER IR-680 AND SR-7

MAH-680-4.14/6.28/6.37

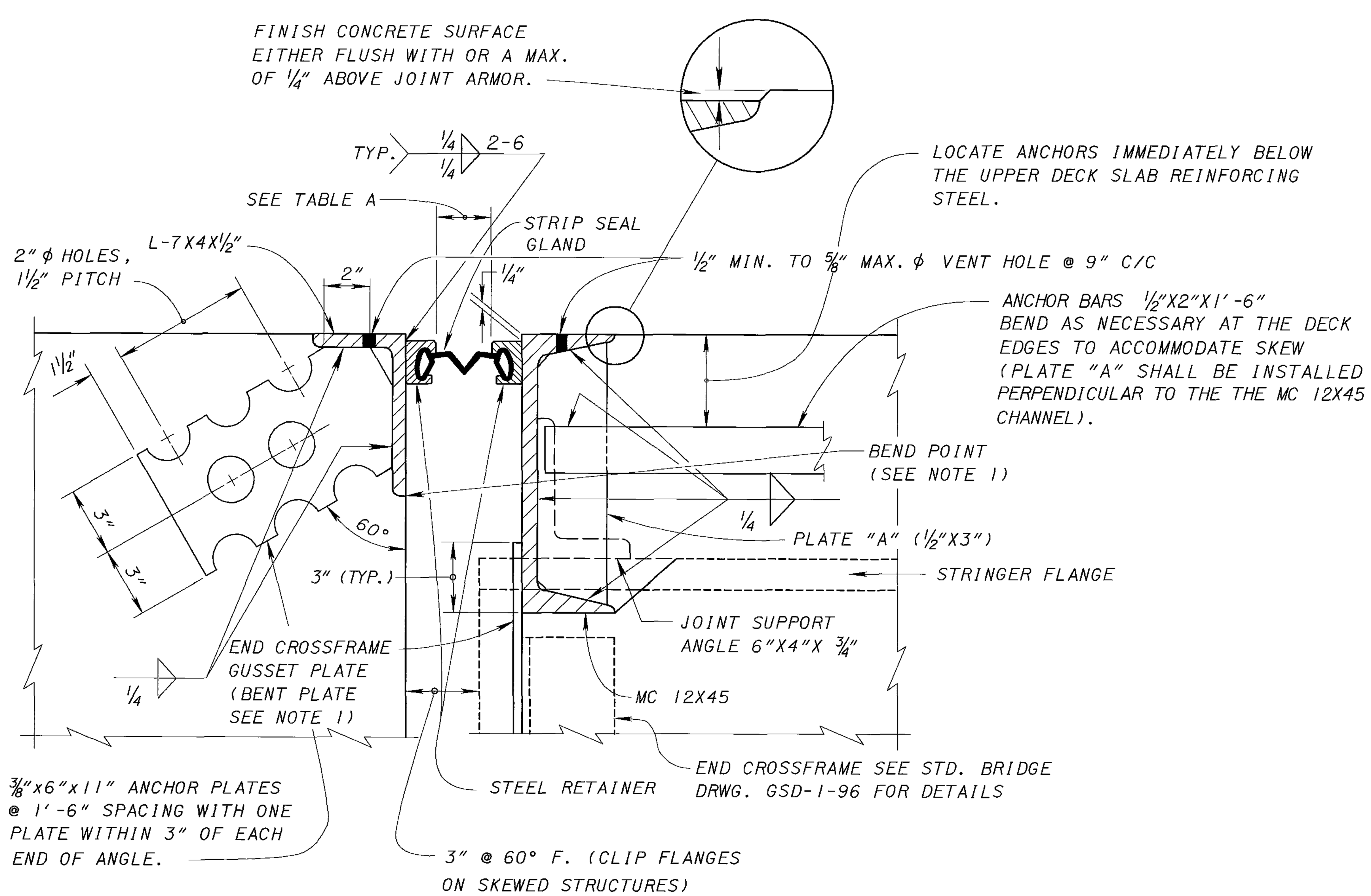


PLAN AT ABUTMENT



DETAIL B

4" STRIP SEAL JOINT WIDTH	
AMBIENT TEMPERATURE	DIMENSION "A"
90° F	1⅞"
80° F	2"
70° F	2⅛"
60° F	2¼"
50° F	2⅜"
40° F	2½"
30° F	2⅝"



SECTION X-X

NOTES:

1. THE ROADWAY GRADE AT THE FORWARD ABUTMENT IS GREATER THAN 2%, THEREFORE THIS END CROSSFRAME GUSSET PLATE SHOULD BE BENT TO BE NORMAL TO THE ROADWAY GRADE. IN ADDITION, THE L-7X4X½" ANGLE IN THE BACKWALL SHALL BE ROTATED ABOUT THE BEND POINT TO PLACE THE JOINT ARMOR PERPENDICULAR TO THE ROADWAY GRADE.

2. FOR ADDITIONAL DETAILS AND NOTES, REFER TO ODOT STANDARD DRAWING EXJ-4-87 SHEETS 1 THRU 5.

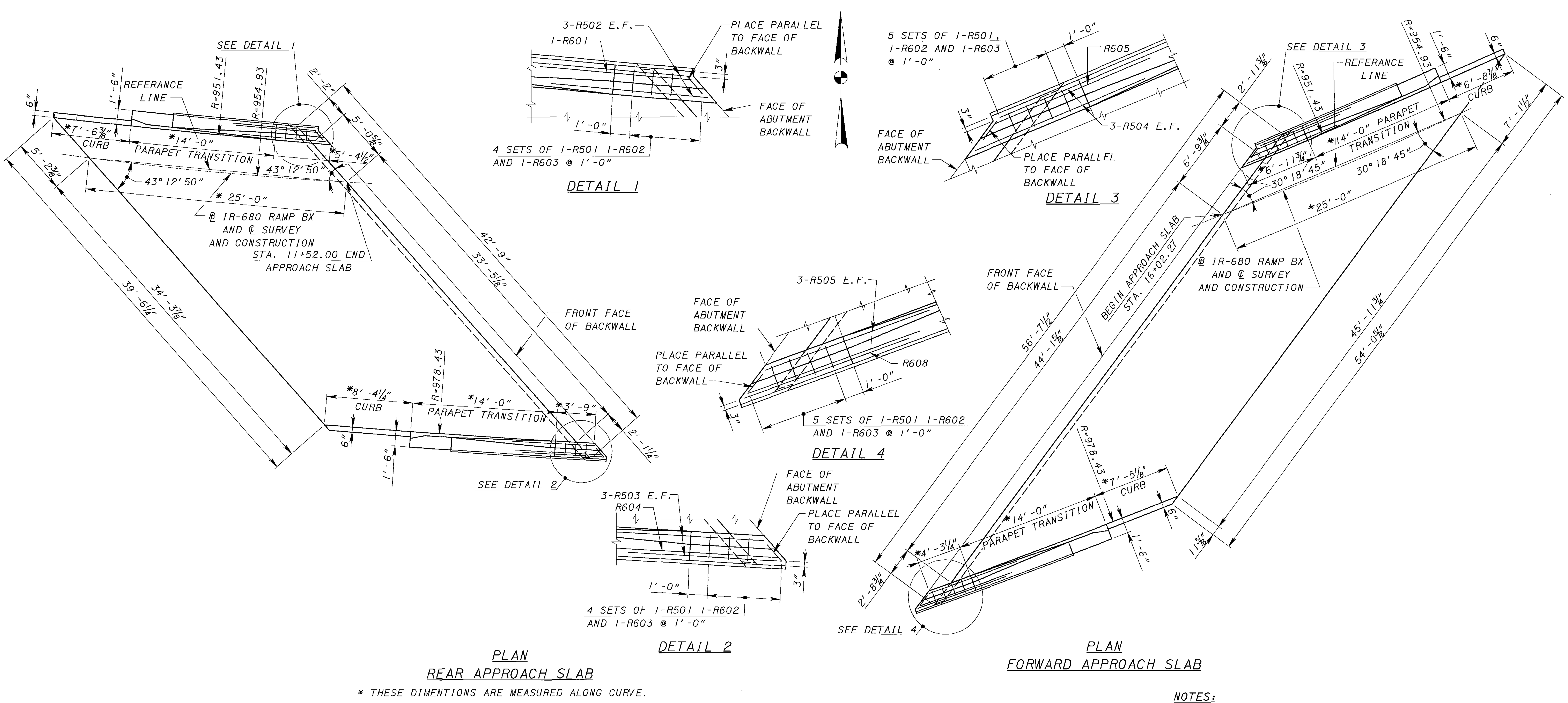
DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
NFF	RCK	RER	06/04/04
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BTA		5007119	

EXPANSION JOINT REPLACEMENT DETAIL
BRIDGE NO. MAH-680-0628
IR-680 RAMP BX OVER IR-680 AND SR-7

MAH-680-4.14/
6.28/6.37

20/24



NOTES:

1.) FOR THE STRUCTURE GENERAL NOTES, SEE SHEET $\boxed{G2/3}$.

2.) FOR APPROACH SLAB PARAPET DETAIL SEE SHEET $\boxed{22/24}$.

3.) THE REFERANCE LINE IS A CHORD LINE BETWEEN THE INTERSETION OF THE CENTERLINE OF CONSTRUCTION AND THE ENDS OF THE APPROACH SLAB.

4.) FOR ADDITIONAL NOTES, DETAILS, SECTIONS AND REINFORCING BARS NOT SHOWN HERE SEE STATE OF OHIO STANDARD BRIDGE DRAWING, REINFORCED CONCRETE APPROACH SLABS, AS-1-81, SHEET 1, 2 AND 3.

5.) FOR BRIDGE TERMINAL ASSEMBLY ADDITIONAL NOTES AND DETAILS NOT SHOWN HERE, SEE STATE OF OHIO STANDARD CONSTRUCTION DRAWING, BRIDGE TERMINAL ASSEMBLY, TYPE 1 AND TYPE 2, GR-3.1.

7.) APPROACH SLAB QUANTITIES TOTAL 163 SQ. YDS.

6.) FOR CURB TYPE, REFER TO ROADWAY DRAWINGS.

DESIGN AGENCY: TRANSYSTEMS CORPORATION

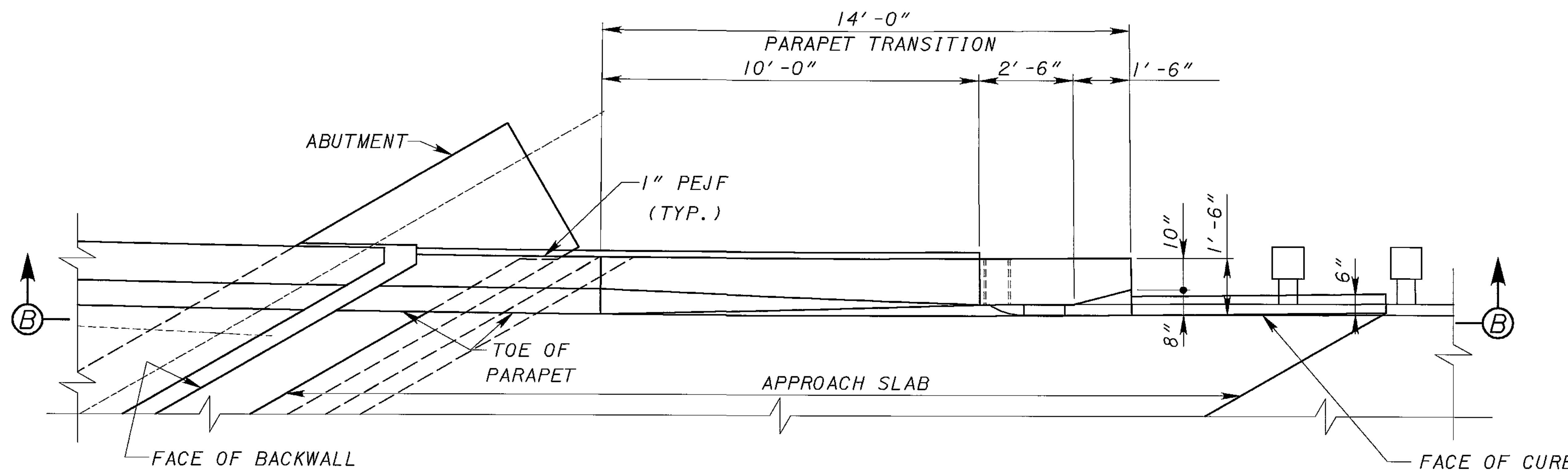
DESIGNED BTA | DRAWN RCK | REVIEWED RER | DATE 06/04/04 | CHECKED NEF | REVISED | STRUCTURE FILE NUMBER 5007119

APPROACH SLAB PLAN
BRIDGE NO. MAH-680-0628
IR-680 RAMP BX OVER IR-680 AND SR-7

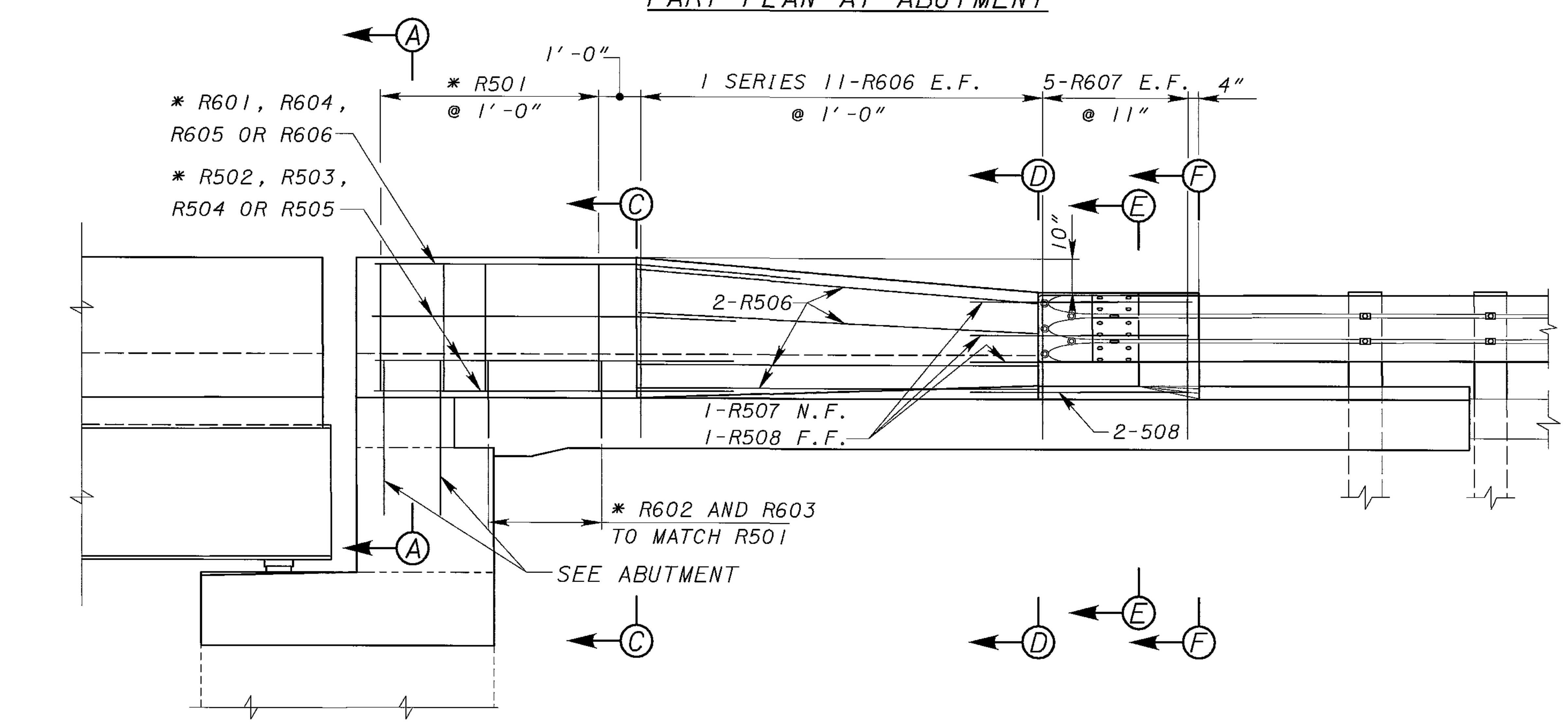
MAH-680-4.14/6.28/6.37

21/24

146/191



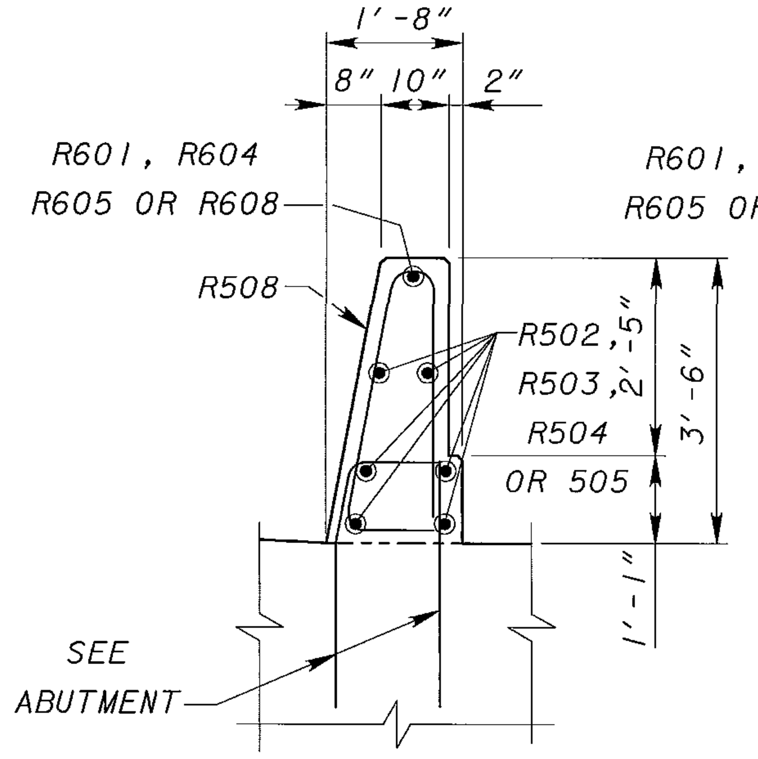
PART PLAN AT ABUTMENT



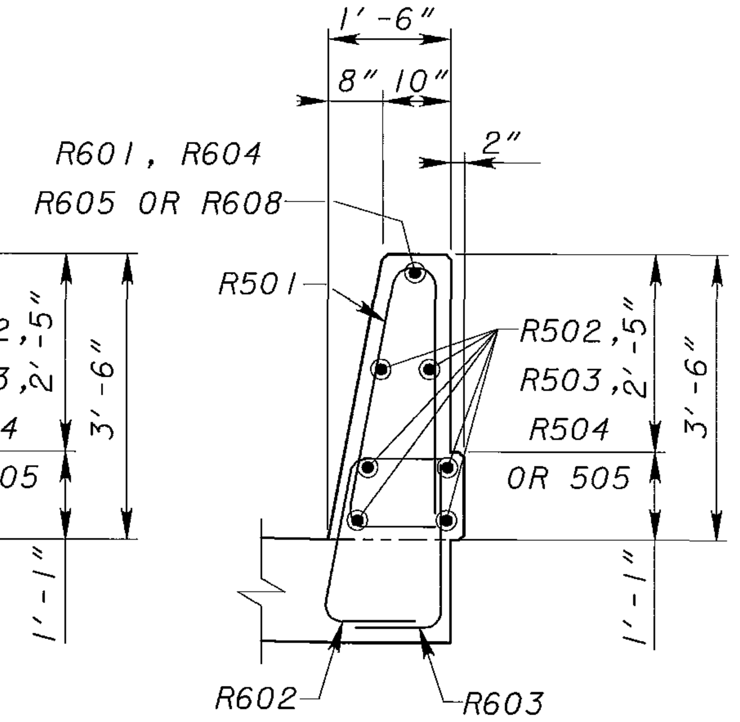
SECTION B-B

PARAPET TRANSITION DETAIL

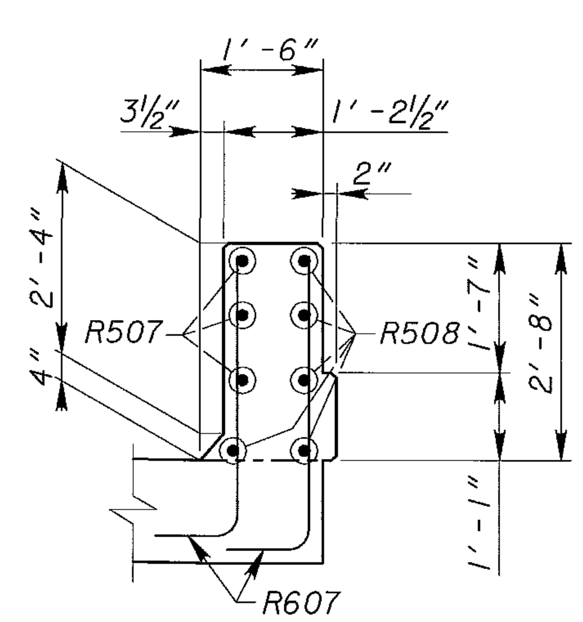
* SEE APPROACH SLAB PLANS



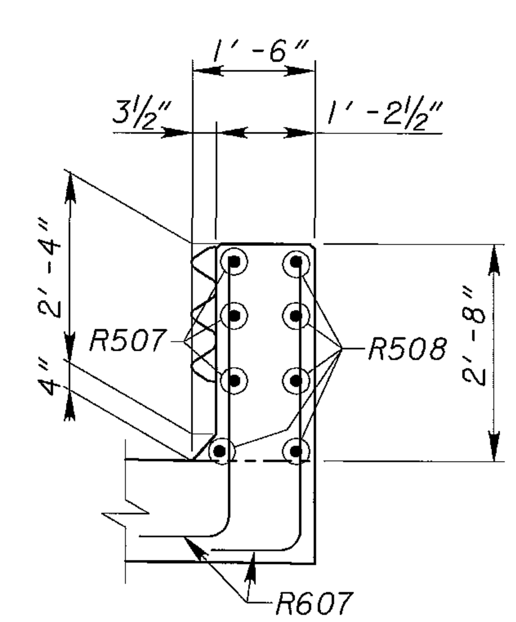
SECTION A-A



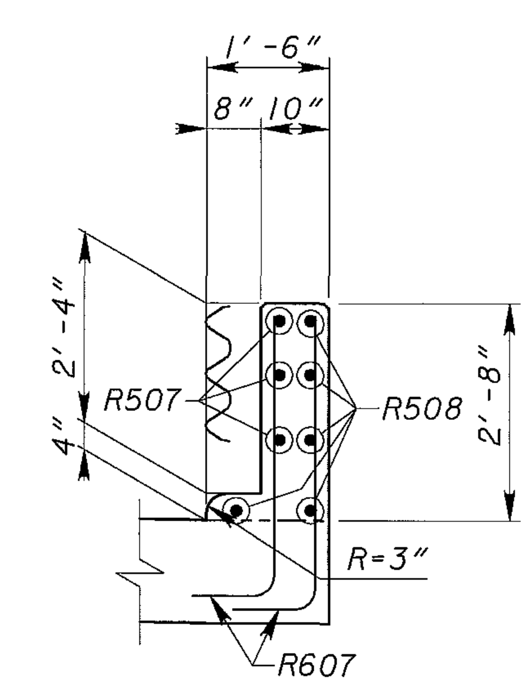
SECTION C-C



SECTION D-D



SECTION E-E

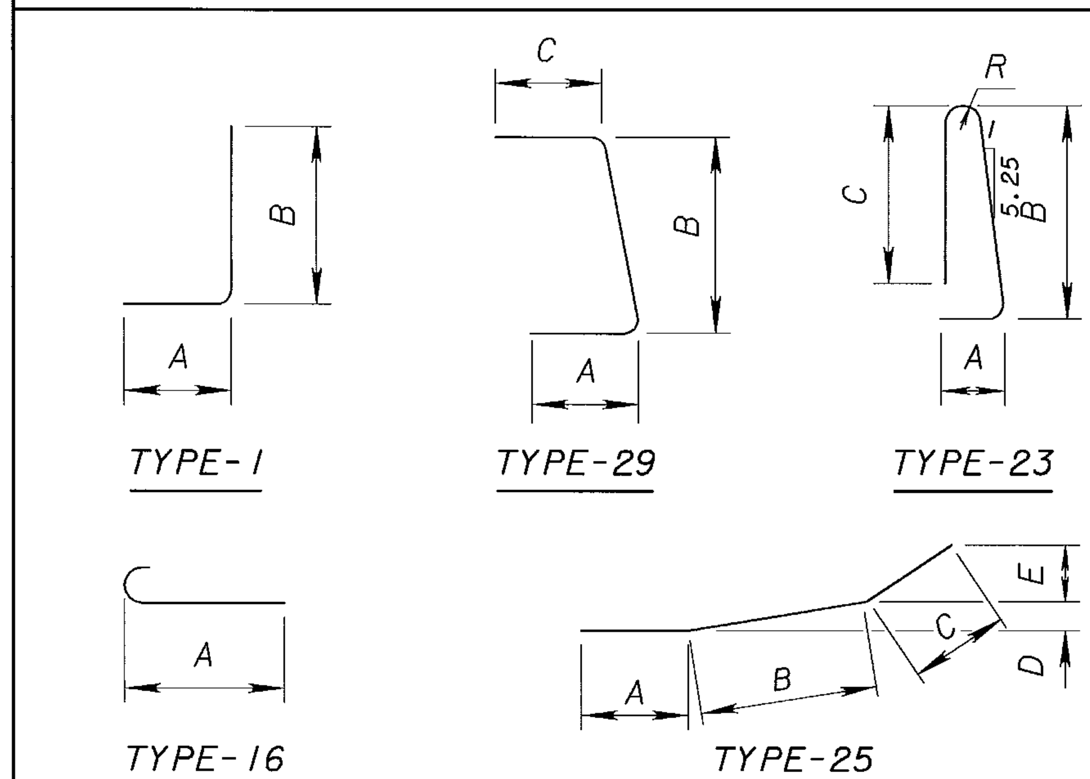


SECTION F-F

REINFORCING BAR LIST

MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
R501	18	7'-6"	141	23	1'-1"	3'-2"	3'-0"			2¾"	
R502	6	8'-4"	52	STR							
R503	6	7'-9"	48	STR							
R504	6	9'-11"	62	STR							
R505	6	8'-0"	50	STR							
R506	32	10'-0"	334	STR							
R507	12	5'-6"	69	25	1'-8"	2'-5"	1'-5"	1½"	5"		
R508	20	5'-6"	115	STR							
R601	1	8'-6"	13	STR							
R602	18	4'-0"	108	29	1'-1"	2'-0"	1'-1"				
R603	18	3'-4"	90	1	1'-1"	2'-0"					
R604	1	8'-2"	12	STR							
R605	1	10'-2"	15	STR							
	4	5'-6"				4'-5"					
R606	SERIES		336	1	1'-1"						1
	11	4'-8"				3'-7"					
R607	40	4'-8"	187	1	1'-1"						
R608	1	7'-6"	11	STR							

BAR BENDING DIAGRAMS



FIELD BEND BARS WHERE NECESSARY

NOTES:

1.) FOR APPROACH SLAB PLANS SEE SHEET 21/24.

2.) FOR THE STRUCTURE GENERAL NOTES, SEE SHEET G2/3.

3.) THE PARAPET TRANSITION SHALL BE HIGH PERFORMANCE CONCRETE AND THE REINFORCING STEEL SHALL BE EPOXY COATED. THE COST OF THE CONCRETE AND THE REINFORCING STEEL SHALL BE INCLUDED WITH ITEM 526 - REINFORCED CONCRETE APPROACH SLAB, AS PER PLAN, FOR PAYMENT.

4.) FOR BRIDGE TERMINAL ASSEMBLY ADDITIONAL NOTES AND DETAILS NOT SHOWN HERE, SEE STATE OF OHIO STANDARD CONSTRUCTION DRAWING, BRIDGE TERMINAL ASSEMBLY, TYPE 1 AND TYPE 2 GR-3.1.

5.) SEALING OF CONCRETE SURFACES SHALL BE INCLUDED WITH ITEMS 864 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE).

6.) ABBREVIATIONS:
N.F. - NEAR FACE
F.F. - FAR FACE
E.F. - EACH FACE

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901
DESIGNED BTA
CHECKED NFF
DRAWN RCK
REVISED
REVIEWED RER
DATE 06/04/04

STRUCTURE FILE NUMBER 5007119

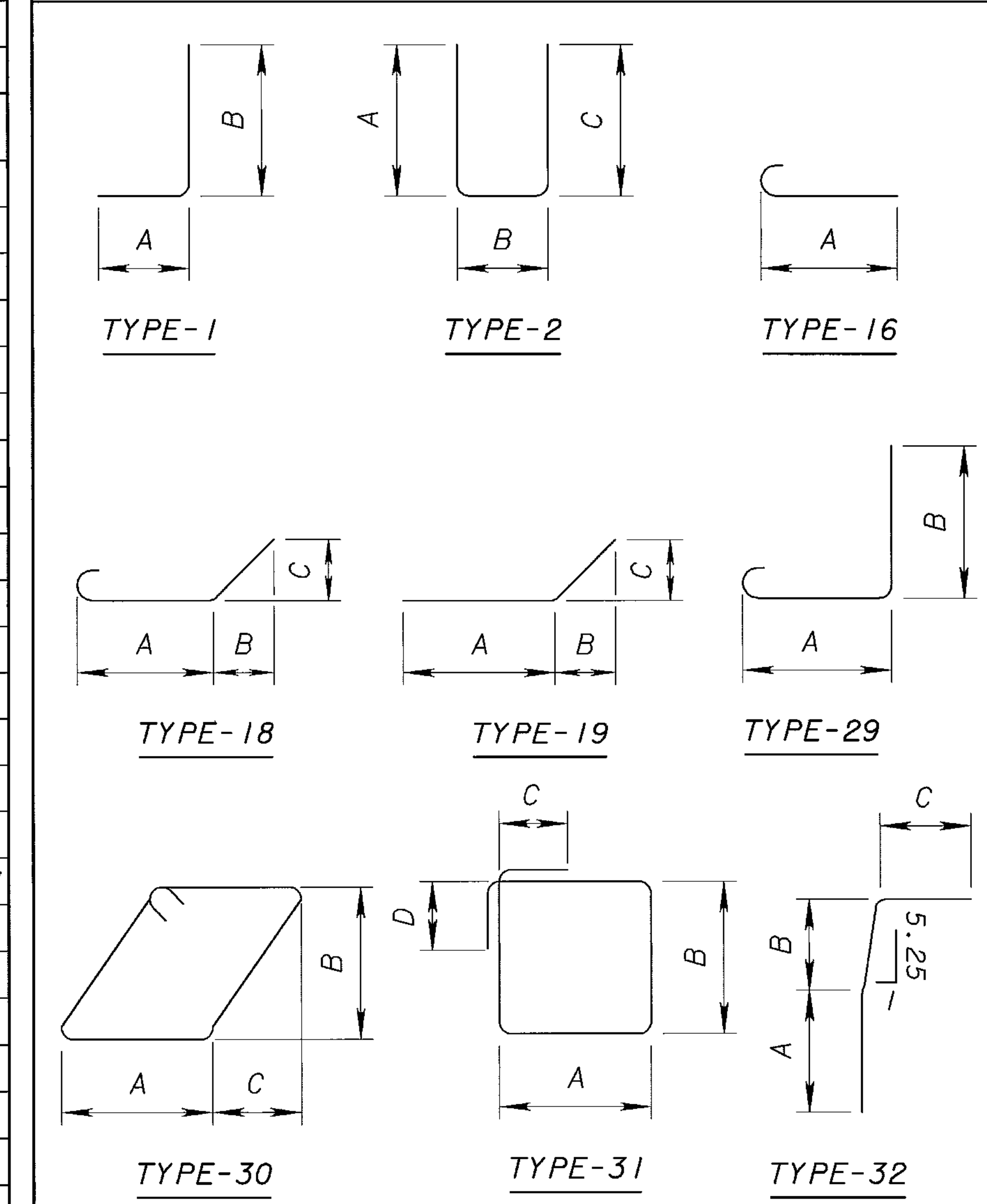
APPROACH SLAB PARAPET DETAILS
BRIDGE NO. MAH-680-0628
IR-680 RAMP BX OVER IR-680 AND US-7

MAH-680-4.14/6.28/6.37

BAR SCHEDULE											
MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
REAR ABUTMENT											
RA501	14	6′-6″	95	2	1′-8″	3′-5″	1′-8″				
	2 SERIES	7′-6″			2′-2″		2′-2″				
RA502	OF	TO	133	2	TO	3′-5″	TO				1 1/4″
	9 BARS	6′-8″			1′-9″		1′-9″				
	1 SERIES	7′-8″			2′-3″		2′-3″				
RA503	OF	TO	68	2	TO	3′-5″	TO				1 1/4″
	9 BARS	6′-10″			1′-10″		1′-10″				
	1 SERIES	7′-8″			2′-3″		2′-3″				
RA504	OF	TO	54	2	TO	3′-5″	TO				1″
	7 BARS	7′-2″			2′-0″		2′-0″				
RA505	7	30′-0″	219	STR.							
RA506	4	18′-11″	79	19	13′-10″	5′-1″	3 1/8″				
RA507	5	15′-10″	83	STR.							
RA508	15	12′-11″	202	1	2′-0″	11′-0″					
	1 SERIES	7′-11″			2′-0″	6′-0″					
RA509	OF	TO	49	1	TO	TO					9 1/4″
	5 BARS	11′-0″			2′-0″	9′-2″					
RA510	6	7′-0″	44	2	2′-0″	3′-3″	2′-0″				
RA511	3	29′-1″	91	19	27′-6″	1′-2″	1′-2″				
RA512	7	18′-10″	138	STR.							
RA513	7	3′-11″	29	STR.							
RA514	4	4′-9″	20	16	4′-2″						
RA515	4	6′-10″	29	29	2′-11″	3′-5″					
RA516	4	3′-11″	16	16	3′-4″						
RA517	4	6′-11″	29	29	3′-0″	3′-5″					
RA518	4	8′-3″	34	30	1′-8″	1′-8″	1′-7 9/16″				
RA519	7	4′-0″	29	STR.							
RA520	1	30′-0″	31	19	24′-6″	5′-6″	3 5/8″				
RA521	4	2′-8″	11	STR.							
RA522	4	5′-8″	24	STR.							
RA601	93	3′-10″	535	1	1′-0″	3′-0″					
RA602	103	5′-10″	902	STR.							
RA603	31	6′-9″	314	2	2′-10″	1′-5″	2′-10″				
RA604	43	6′-9″	436	2	3′-1″	11″	3′-1″				
RA605	12	6′-5″	116	2	2′-8″	1′-5″	2′-8″				
RA606	4	4′-0″	24	1	1′-7″	2′-7″					
RA607	6	11′-0″	99	31	2′-3″	2′-8″	1′-0″	1′-0″			
RA608	10	2′-4″	35	STR.							
RA609	6	2′-5″	22	STR.							
RA610	4	3′-10″	23	32	2′-0″	11″	1′-1″				
RA611	4	2′-11″	18	STR.							
RA801	21	6′-0″	336	18	3′-9″	1′-0″	1′-0″				
RA901	9	3′-10″	117	STR.							
RA902	4	4′-8″	63	STR.							
RA903	8	3′-11″	107	1	1′-7″	2′-7″					
TOTAL WEIGHT REAR ABUTMENT = 4654											

BAR SCHEDULE											
MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
FORWARD ABUTMENT											
FA501	20	6′-10″	143	2	1′-10″	3′-5″	1′-10″				
	1 SERIES	8′-10″			2′-10″		2′-10″				
FA502	OF	TO	100	2	TO	3′-5″	TO				7/8″
	12 BARS	7′-2″			2′-0″		2′-0″				
	2 SERIES	9′-2″			3′-0″		3′-0″				
FA503	OF	TO	207	2	TO	3′-5″	TO				1″
	12 BARS	7′-4″			2′-1″		2′-1″				
	1 SERIES	9′-6″			3′-2″		3′-2″				
FA504	OF	TO	64	2	TO	3′-5″	TO				2 11/16″
	7 BARS	8′-2″			2′-6″		2′-6″				
FA505	4	31′-8″	132	19	19′-9″	11′-10″	1′-0″				
FA506	8	31′-2″	260	STR.							
FA507	5	21′-9″	113	STR.							
FA508	15	15′-7″	244	1	2′-0″	13′-10″					
	1 SERIES	9′-4″			2′-0″	7′-5″					
FA509	OF	TO	61	1	TO	TO					1′-1 3/4″
	5 BARS	13′-11″			2′-0″	12′-0″					
FA510	7	31′-8″	231	STR.							
FA511	3	29′-0″	91	19	27′-5″	11″	1′-5″				
FA512	6	7′-0″	44	2	2′-0″	3′-3″	2′-0″				
FA513	4	9′-6″	40	29	5′-0″	3′-5″					
FA514	4	4′-0″	17	16	3′-5″						
FA515	4	6′-3″	26	16	5′-8″						
FA516	10	3′-11″	41	STR.							
FA517	9	3′-8″	34	STR.							
FA518	4	10′-3″	43	30	1′-8″	1′-8″	2′-8 7/8″				
FA519	4	5′-8″	24	STR.							
FA520	4	4′-9″	20	STR.							
FA521	4	8′-5″	35	29	3′-1″	4′-11″					
FA601	120	3′-10″	691	1	1′-0″	3′-0″					
FA602	91	7′-4″	1002	STR.							
FA603	49	6′-0″	442	STR.							
FA604	5	5′-9″	43	2	2′-4″	1′-5″	2′-4″				
	1 SERIES	6′-1″			2′-6″		2′-6″				
FA605	OF	TO	151	2	TO	1′-5″	TO				2″
	14 BARS	8′-3″			3′-7″		3′-7″				
FA606	4	4′-0″	24	1	1′-7″	2′-7″					
FA607	6	11′-0″	99	31	2′-3″	2′-8″	1′-0″	1′-0″			
FA608	58	7′-1″	617	2	3′-3″	11″	3′-3″				
FA609	33	6′-3″	310	2	2′-7″	1′-5″	2′-7″				
FA610	6	5′-7″	50	2	2′-3″	1′-5″	2′-3″				
FA611	8	2′-7″	31	STR.							
FA612	6	2′-9″	25	STR.							
FA613	4	3′-10″	23	32	2′-0″	11″	1′-1″				
FA614	4	2′-11″	18	STR.							
FA801	21	7′-3″	407	18	5′-0″	1′-0″	1′-0″				
FA901	9	4′-0″	122	STR.							
FA902	4	5′-11″	80	STR.							
FA903	8	3′-11″	107	1	1′-7″	2′-7″					
TOTAL WEIGHT FORWARD ABUTMENT = 6212											

BAR BENDING DIAGRAMS



NOTES:

THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, RA601:

RA: LOCATION OF THE BAR IN THE STRUCTURE (REAR ABUTMENT)
6: BAR SIZE DESIGNATION NO. 6
01: SEQUENCE NUMBER

BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BAR BEND AT THE END OF THE BAR. ALL REINFORCING STEEL IS TO BE EPOXY COATED. STRAIGHT BARS ARE INDICATED BY "STR".

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

DESIGNED BTA | CHECKED NFF | DRAWN RCK | REVISED | REVIEWED RER | DATE | STRUCTURE FILE NUMBER 5007119

REINFORCEMENT SCHEDULE
BRIDGE NO. MAH-680-0628
IR-680 RAMP BX OVER IR-680 AND US-7

MAH-680-4.14/6.28/6.37

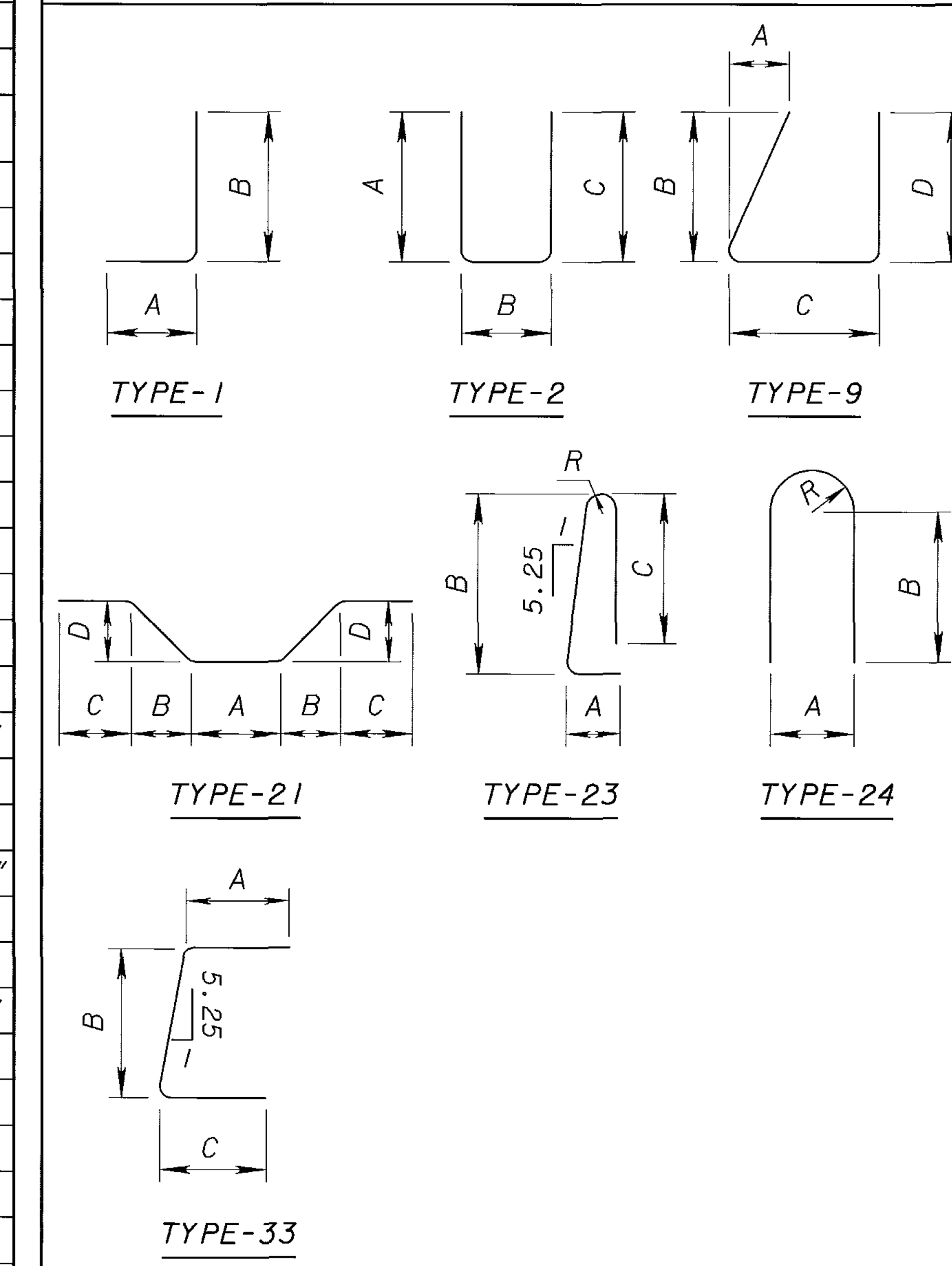
BAR SCHEDULE

MARK	NUMBER	LENGTH	WEIGHT	TYPE	A	B	C	D	E	R	INC.
PIER 1											
P501	70	5′-6″	402	2	1′-8″	2′-8″	1′-8″				
P601	70	3′-4″	350	1	1′-0″	2′-6″					
P602	5	34′-3″	257	STR.							
P603	6	9′-6″	86	24	2′-3″	3′-0″					
P604	8	6′-8″	80	1	3′-6″	3′-0″					
P801	8	34′-3″	732	STR.							
PIER 2											
P501	64	5′-6″	367	2	1′-8″	2′-8″	1′-8″				
P601	64	3′-4″	320	1	1′-0″	2′-6″					
P602	5	32′-0″	240	STR.							
P603	6	9′-6″	86	24	2′-3″	3′-0″					
P604	8	6′-8″	80	1	3′-6″	3′-0″					
P801	8	32′-0″	684	STR.							
PIER 3											
P501	54	5′-6″	310	2	1′-8″	2′-8″	1′-8″				
P601	54	3′-4″	270	1	1′-0″	2′-6″					
P602	5	26′-4″	198	STR.							
P603	6	9′-6″	86	24	2′-3″	3′-0″					
P604	8	6′-2″	74	1	3′-6″	2′-10″					
P801	8	26′-4″	562	STR.							
PIER 4											
P501	80	5′-6″	459	2	1′-8″	2′-8″	1′-8″				
P601	80	3′-4″	401	1	1′-0″	2′-6″					
P602	10	21′-10″	328	STR.							
P603	6	9′-6″	86	24	2′-3″	3′-0″					
P604	8	6′-8″	80	1	3′-6″	3′-0″					
P801	16	22′-4″	954	STR.							
PIER 5											
P501	90	5′-6″	516	2	1′-8″	2′-8″	1′-8″				
P601	90	3′-4″	451	1	1′-0″	2′-6″					
P602	10	24′-0″	360	STR.							
P603	6	9′-6″	86	24	2′-3″	3′-0″					
P604	8	6′-8″	80	1	3′-6″	3′-0″					
P801	16	24′-7″	1050	STR.							
TOTAL WEIGHT PIERS =											10035
SUPERSTRUCTURE											
S401	584	30′-0″	11703	STR.							
	1 SERIES	12′-0″									
S402	OF	TO	37	STR.							1′-4″
	4 BARS	16′-0″									
	2 SERIES	25′-2″									
S403	OF	TO	333	STR.							1′-8$\frac{9}{16}$″
	8 BARS	37′-2″									
	2 SERIES	14′-10″									
S404	OF	TO	205	STR.							1′-3″
	8 BARS	23′-7″									
	1 SERIES	7′-0″									
S405	OF	TO	21	STR.							8″
	4 BARS	9′-0″									

BAR SCHEDULE

MARK	NUMBER	LENGTH	WEIGHT	TYPE	A	B	C	D	E	R	INC.
SUPERSTRUCTURE											
S501	1566	29′-8″	48456	STR.							
	2 SERIES	5′-3″									
S502	OF	TO	1715	STR.							6$\frac{1}{16}$″
	48 BARS	29′-0″									
S503	16	3′-9″	63	STR.							
	2 SERIES	5′-6″									
S504	OF	TO	2699	STR.							3$\frac{13}{16}$″
	75 BARS	29′-0″									
S505	28	4′-4″	126	STR.							
S506	32	4′-9″	159	STR.							
S507	824	30′-0″	25783	STR.							
	1 SERIES	23′-0″									
S508	OF	TO	76	STR.							1′-2″
	3 BARS	25′-4″									
	2 SERIES	9′-7″									
S509	OF	TO	265	STR.							1′-1$\frac{5}{8}$″
	9 BARS	18′-8″									
	2 SERIES	22′-3″									
S510	OF	TO	512	STR.							1′-3″
	9 BARS	32′-3″									
	1 SERIES	14′-4″									
S511	OF	TO	65	STR.							10″
	4 BARS	16′-10″									
S512	846	7′-5″	6544	23	1′-1″	3′-2″	3′-0″			2$\frac{3}{4}$″	
S513	2	42′′-2″	88	STR.							
S514	6	17′-6″	110	STR.							
S515	5	25′-5″	159	STR.							
S517	10	3′-0″	31	STR.							
S601	227	30′-0″	10229	STR.							
S602	1	4′-6″	7	STR.							
S603	1	14′-2″	21	STR.							
S604	844	2′-6″	3169	1	1′-1″	1′-7″					
S605	860	3′-7″	4629	29	1′-1″	1′-7″	1′-1″				
S606	3	4′-11″	22	1	1′-1″	4′-0″					
S607	195	20′-10″	6102	STR.							
LIGHT POLE PILASTER											
L501	8	2′-10″	24	2	7″	1′-10″	7″				
L502	8	8′-5″	70	9	6 1/2″	3′-2″	2′-4″	3′-2″			
L503	12	7′-3″	91	21	1′-4″	1′-10″	6″	1′-10″			
L504	8	3′-2″	26	STR.							
TOTAL WEIGHT SUPERSTRUCTURE = 123663											

BAR BENDING DIAGRAMS



NOTES:

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DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
BTA	RCK	RER	
CHECKED	REVISED	STRUCTURE FILE NUMBER	
NFF		5007119	

REINFORCEMENT SCHEDULE
BRIDGE NO. MAH-680-0628
IR-680 RAMP BX OVER IR-680 AND SR-7

MAH-680-4.14/6.28/6.37

24/24

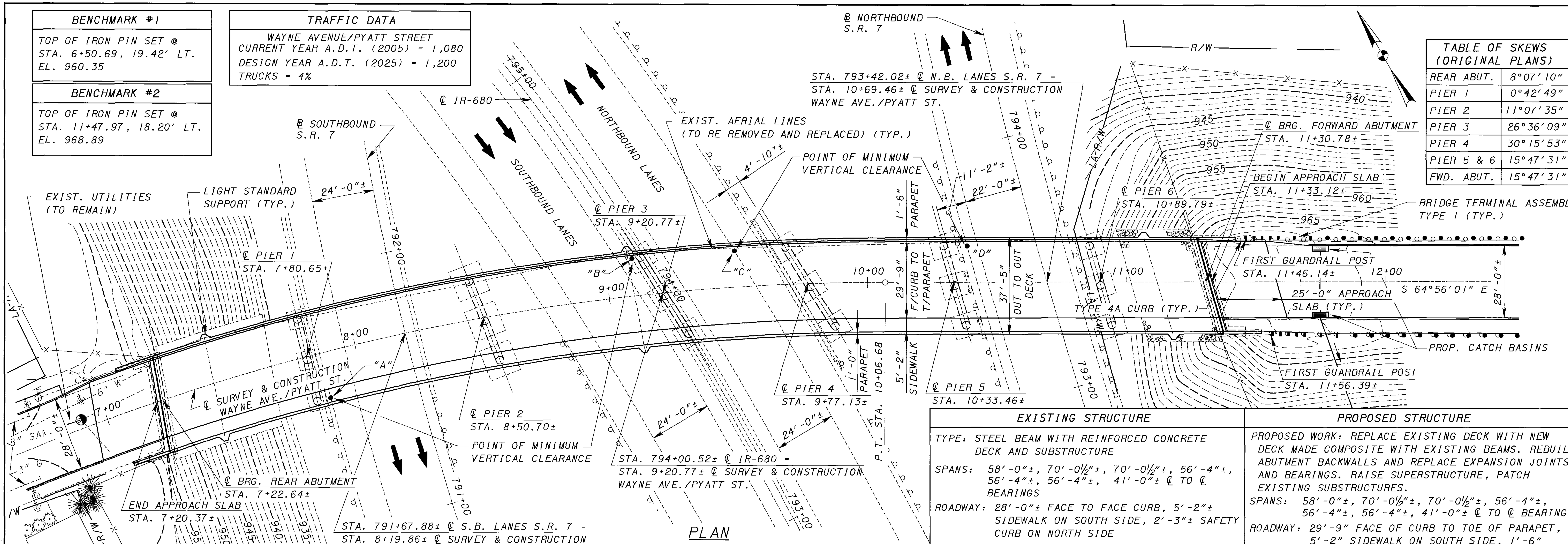
149/191

BENCHMARK #1
TOP OF IRON PIN SET @ STA. 6+50.69, 19.42' LT. EL. 960.35

BENCHMARK #2
TOP OF IRON PIN SET @ STA. 11+47.97, 18.20' LT. EL. 968.89

TRAFFIC DATA
WAYNE AVENUE/PYATT STREET
CURRENT YEAR A.D.T. (2005) = 1,080
DESIGN YEAR A.D.T. (2025) = 1,200
TRUCKS = 4%

TABLE OF SKEWS (ORIGINAL PLANS)	
REAR ABUT.	8°07'10"
PIER 1	0°42'49"
PIER 2	11°07'35"
PIER 3	26°36'09"
PIER 4	30°15'53"
PIER 5 & 6	15°47'31"
FWD. ABUT.	15°47'31"



PLAN

NOTES:

1. THE EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
2. THE PROPOSED PROFILE GRADE IS ONLY WITHIN THE BRIDGE LIMITS. SEE ROADWAY PLANS FOR PAVEMENT ELEVATIONS BEYOND THE BRIDGE LIMITS.
3. PROVIDE CLEARING, GRUBBING AND HERBICIDAL SPRAYING AT ALL CONCRETE SLOPE PROTECTION AREAS. INCLUDE WITH ROADWAY ITEM 201 FOR PAYMENT.

TABLE OF VERTICAL CLEARANCES				
LOCATION	"A"	"B"	"C"	"D"
EXISTING	29.03'	15.60'	14.52'	15.68'
PROPOSED	30.10'	16.46'	15.57'	16.58'
REQUIRED	15.50'	15.50'	15.50'	15.50'

CURVE DATA: (OBSERVED)
℄ SURVEY & CONSTRUCTION
WAYNE AVE./PYATT ST.

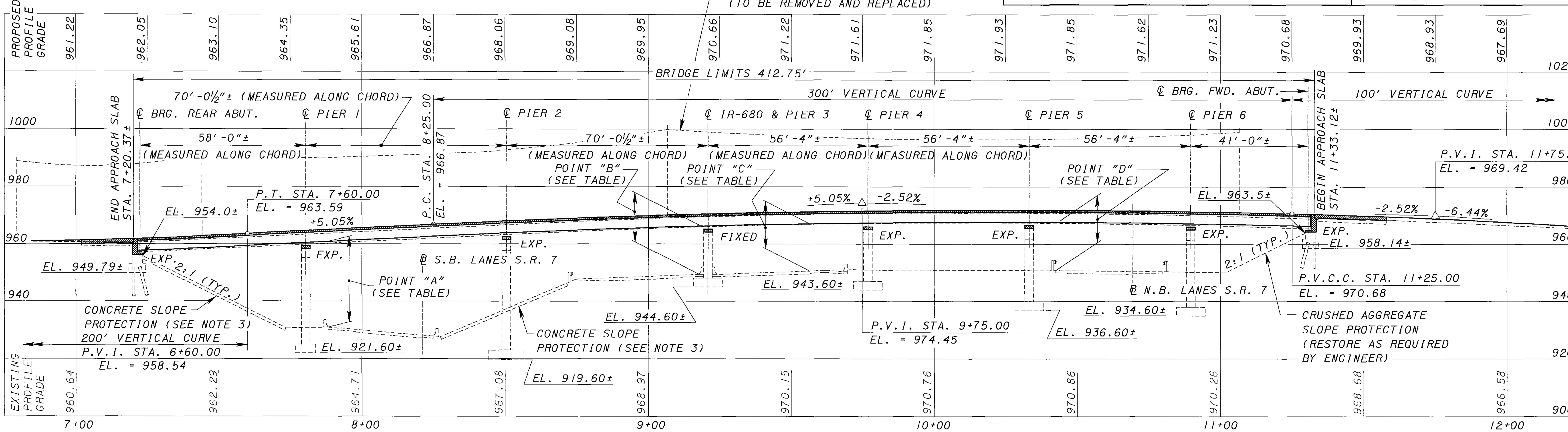
P.I. STA. 8+07.00
Δ = 26°20'30" (RT.)
Dc = 6°28'38"
R = 884.58'
T = 207.00'
L = 406.68'
E = 23.90'

CURVE DATA: (ORIGINAL PLANS)
℄ SURVEY & CONSTRUCTION
WAYNE AVE./PYATT ST.

Δ = 26°25'52"
Dc = 6°30'00"
R = 881.47'
T = 207.00'
L = 406.69'

EXISTING STRUCTURE
TYPE: STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE
SPANS: 58'-0"±, 70'-0½"±, 70'-0½"±, 56'-4"±, 56'-4"±, 56'-4"±, 41'-0"± ℄ TO ℄ BEARINGS
ROADWAY: 28'-0"± FACE TO FACE CURB, 5'-2"± SIDEWALK ON SOUTH SIDE, 2'-3"± SAFETY CURB ON NORTH SIDE
LOAD FREQUENCY: CF 400
SKEW: VARIABLE RIGHT FORWARD
WEARING SURFACE: 1" MONOLITHIC
APPROACH SLAB: 25'-0"± LONG AS-1-54
SUPERELEVATION: NONE
ALIGNMENT: 6°30'00"± CURVE TO TANGENT
DATE BUILT: 1963
STRUCTURE FILE No.: 5007178

PROPOSED STRUCTURE
PROPOSED WORK: REPLACE EXISTING DECK WITH NEW DECK MADE COMPOSITE WITH EXISTING BEAMS. REBUILD ABUTMENT BACKWALLS AND REPLACE EXPANSION JOINTS AND BEARINGS. RAISE SUPERSTRUCTURE, PATCH EXISTING SUBSTRUCTURES.
SPANS: 58'-0"±, 70'-0½"±, 70'-0½"±, 56'-4"±, 56'-4"±, 56'-4"±, 41'-0"± ℄ TO ℄ BEARINGS
ROADWAY: 29'-9" FACE OF CURB TO TOE OF PARAPET, 5'-2" SIDEWALK ON SOUTH SIDE, 1'-6" PARAPET ON NORTH SIDE
LOADING: HS25 CASE II AND ALTERNATE MILITARY LOADING; FUTURE WEARING SURFACE = 60 LBS./FT.^{2}
SKEW: VARIABLE (RIGHT FORWARD)
ALIGNMENT: 6°30'00"± CURVE TO TANGENT
WEARING SURFACE: 1" MONOLITHIC CONCRETE
APPROACH SLAB: AS-1-81 (25'-0" LONG)
CROWN: 0.0156
LONGITUDE: W 80°39'01"
LATITUDE: N 41°05'23"



PROFILE ALONG ℄ SURVEY AND CONSTRUCTION WAYNE-PYATT STREET

DESIGN AGENCY: TRANSYSTEMS CORPORATION, 55 PUBLIC SQUARE, SUITE 1650, CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
NFF	CAG	RER	06/11/04
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BTA		5007178	

MAHONING COUNTY
STA. 7+20.37±
STA. 11+33.12±

SITE PLAN

BRIDGE NO. MAH-680-0637
WAYNE AVENUE/PYATT STREET OVER IR-680

MAH-680-4.14/6.28/6.37

1/28

MADE BY NFF DATE 5/29/04
CHECK'D BY BTA DATE 6/04/04

ESTIMATED QUANTITIES

STRUCTURE FILE NUMBER: 5007178

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	REAR ABUTMENT	FORWARD ABUTMENT	PIERS	SUPERSTRUCTURE	GENERAL	AS PER PLAN REFERENCE SHEET NUMBER
202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					LUMP	G1/3
202	22901	204	SQ YD	APPROACH SLAB REMOVED, AS PER PLAN					204	1/28
503	11100	LUMP		COFFERDAMS, CRIBS AND SHEETING					LUMP	
503	21101	215	CU YD	UNCLASSIFIED EXCAVATION, AS PER PLAN	104	111				G2/3
509	10000	179712	POUND	EPOXY COATED REINFORCING STEEL	5749	6088	10468	157407		
509	20001	300	POUND	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN					300	G2/3
510	10000	1014	EACH	DOWEL HOLES, WITH NONSHRINK, NONMETALLIC GROUT	274	280	460			
513	10201	1511	POUND	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN				1511		G2/3
513	20000	4746	EACH	WELDED STUD SHEAR CONNECTORS				4746		
513	95020	LUMP		STRUCTURAL STEEL, MISC.: MECHANICAL STRAIGHTENING OF DAMAGED STRUCTURAL STEEL				LUMP		
514	00050	21126	SQ FT	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL (SEE PROPOSAL NOTE)				21126		
514	00056	21126	SQ FT	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT (SEE PROPOSAL NOTE)				21126		
514	00060	21416	SQ FT	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, INTERMEDIATE COAT (SEE PROPOSAL NOTE)				21416		
514	00066	21416	SQ FT	FIELD PAINTING OF STRUCTURAL STEEL, FINISH COAT (SEE PROPOSAL NOTE)				21416		
514	00504	35	MAN HOUR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL (SEE PROPOSAL NOTE)				35		
514	10000	5	EACH	FINAL INSPECTION REPAIR (SEE PROPOSAL NOTE)				5		
516	11210	75	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL	37	38				
516	44000	5	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES (NEOPRENE) (10½"x18"x1.94") AND LOAD PLATE (NEOPRENE) (11½"x24"x3.00")			5			
516	44100	15	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES (NEOPRENE) (10½"x17"x2.05") AND LOAD PLATE (NEOPRENE) (11½"x18"x2.75")			15			
516	44100	10	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES (NEOPRENE) (11½"x18"x2.16") AND LOAD PLATE (NEOPRENE) (12½"x19"x3.00")			10			
516	44200	10	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES (NEOPRENE) (9½"x14"x3.32") AND LOAD PLATE (NEOPRENE) (10½"x15"x2.00")	5	5				
516	47001	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN				LUMP		G2/3
518	21200	56	CU YD	POROUS BACKFILL WITH FILTER FABRIC	26	30				
518	40000	99	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	49	50				
518	40010	54	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	27	27				
519	11101	26	SQ FT	PATCHING CONCRETE STRUCTURES, AS PER PLAN	2	7	17			G2/3
526	25001	170	SQ YD	REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN	85	85				G2/3
601	21100	51	SQ YD	SLOPE PROTECTION, MISC.: REPAIR OF EXISTING CONCRETE SLOPE PROTECTION	26		25			G3/3
601	21100	15	SQ YD	SLOPE PROTECTION, MISC.: RESTORE EXISTING CRUSHED AGGREGATE SLOPE PROTECTION		15				
SPECIAL	60739900	406	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC				406		
SPECIAL	60739930	429	FT	VANDAL PROTECTION FENCE, 12' CURVED, COATED FABRIC				429		
864	10050	301	SQ YD	SEALING OF CONCRETE SURFACES (NON-EPOXY)				301		
864	10100	1067	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	53	57	484	473		
898	10200	230	CU YD	QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (DECK)				230		
898	11000	166	CU YD	QC/QA CONCRETE, CLASS QSC2, SUPERSTRUCTURE (PARAPET) (*)				166		
898	20000	105	CU YD	QC/QA CONCRETE, CLASS QSC1, SUBSTRUCTURE	28	31	46			

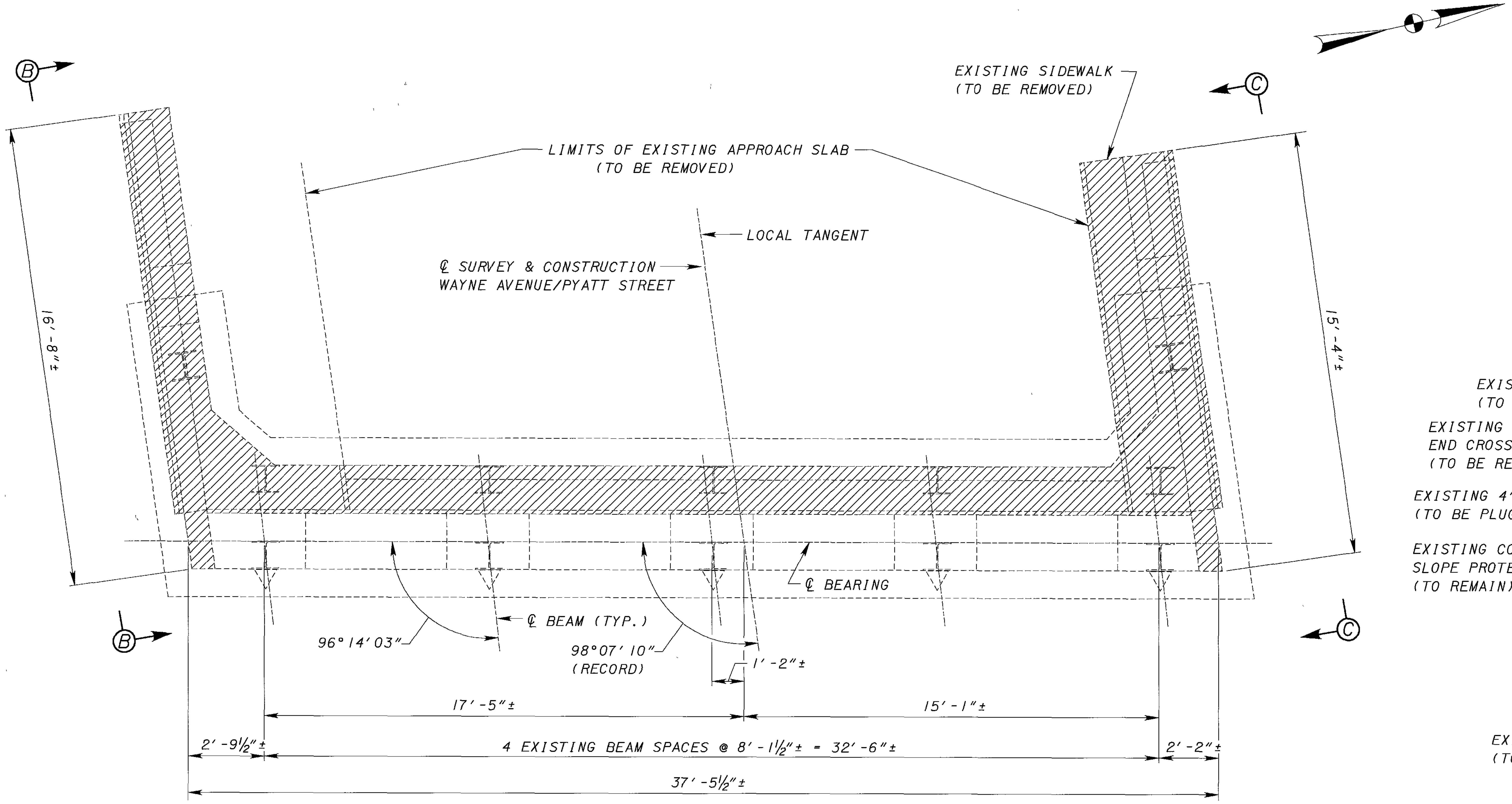
* - INCLUDES SIDEWALK

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

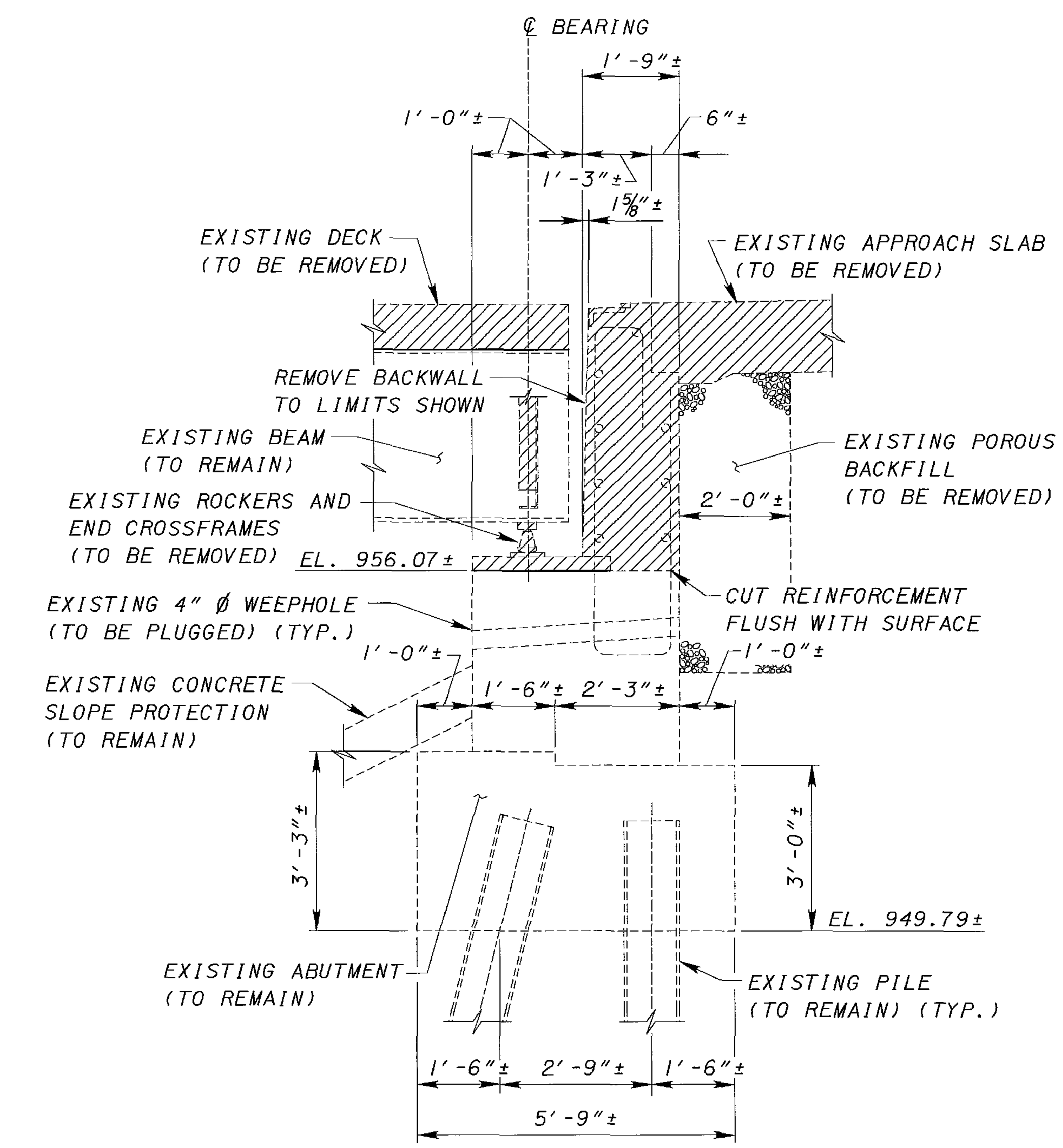
REVIEWED RER DATE 06/11/04
STRUCTURE FILE NUMBER 5007178
DRAWN BTA REVISED
DESIGNED BTA CHECKED NFF

ESTIMATED QUANTITIES
BRIDGE NO. MAH-680-0637
WAYNE AVENUE/PYATT STREET OVER IR-680

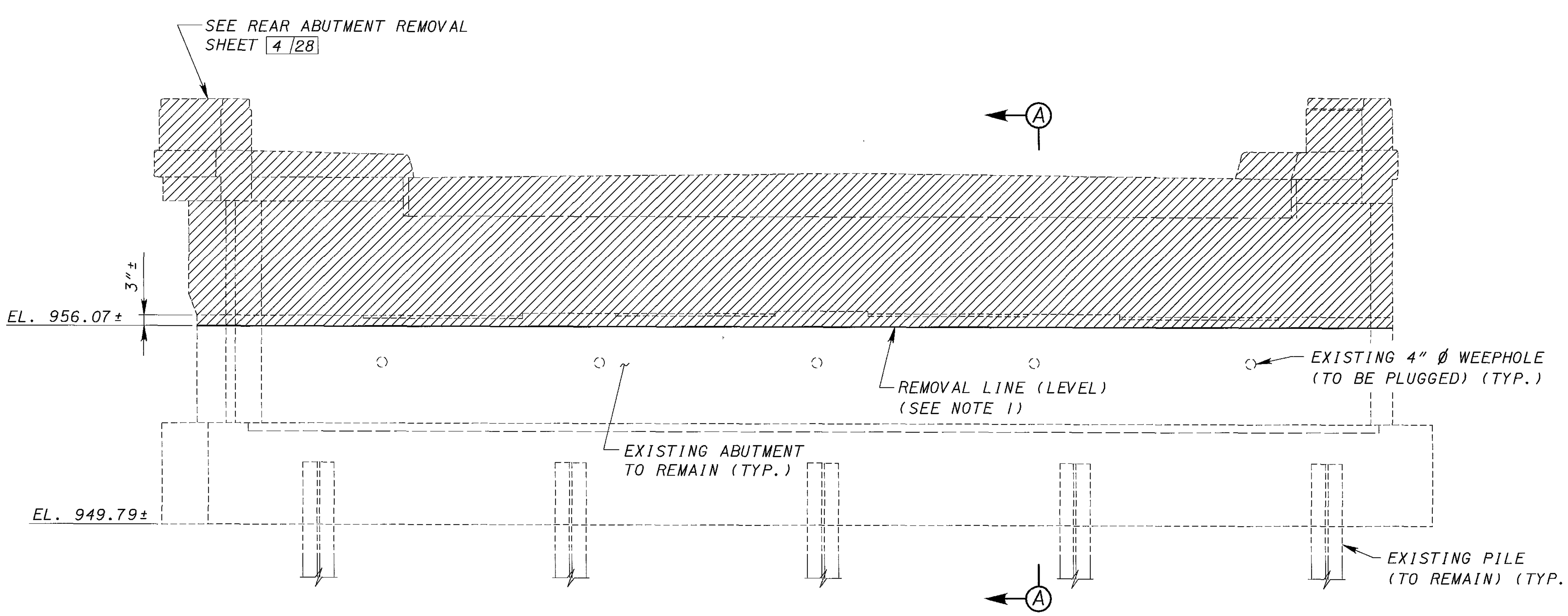
MAH-680-4.14/6.28/6.37



PLAN



SECTION A-A



ELEVATION

LEGEND:

— INDICATES AREAS TO BE REMOVED AS PER ITEM 202 - PORTIONS OF STRUCTURES REMOVED, AS PER PLAN

NOTES:

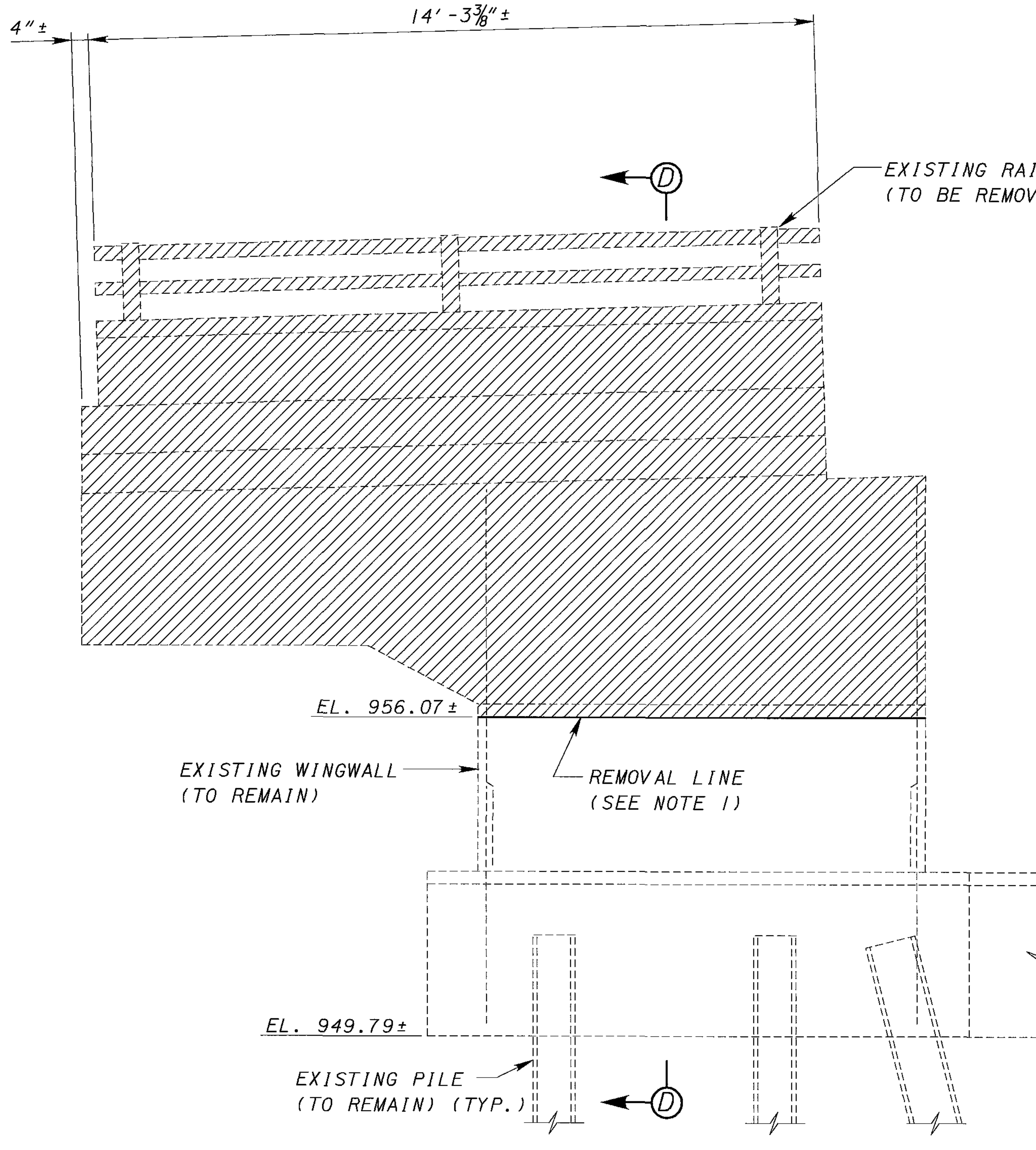
1. PREPARE AND SCARIFY SURFACE AS PER "CUT LINE CONSTRUCTION JOINT PREPARATION", SEE GENERAL NOTE SHEET G1/3.
2. FOR ELEVATION B-B AND C-C, SEE SHEET 4/28.
3. ABBREVIATIONS:
   EL. - ELEVATION
   TYP. - TYPICAL

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

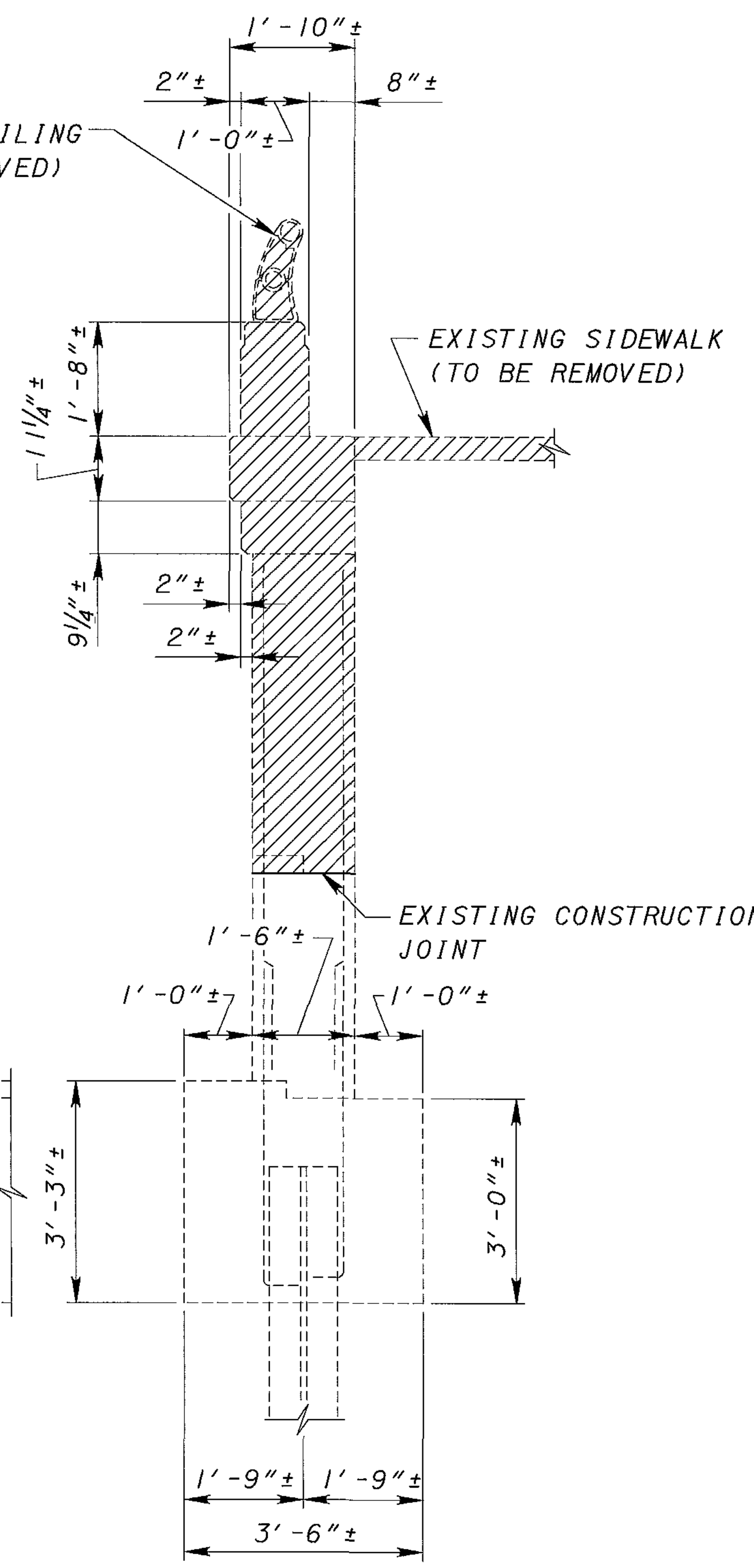
DESIGNED	DRAWN	REVIEWED	DATE
NFF	CAG	RER	06/11/04
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BTA		5007178	

REAR ABUTMENT REMOVAL DETAILS
BRIDGE NO. MAH-680-0637
WAYNE AVENUE/PYATT STREET OVER IR-680

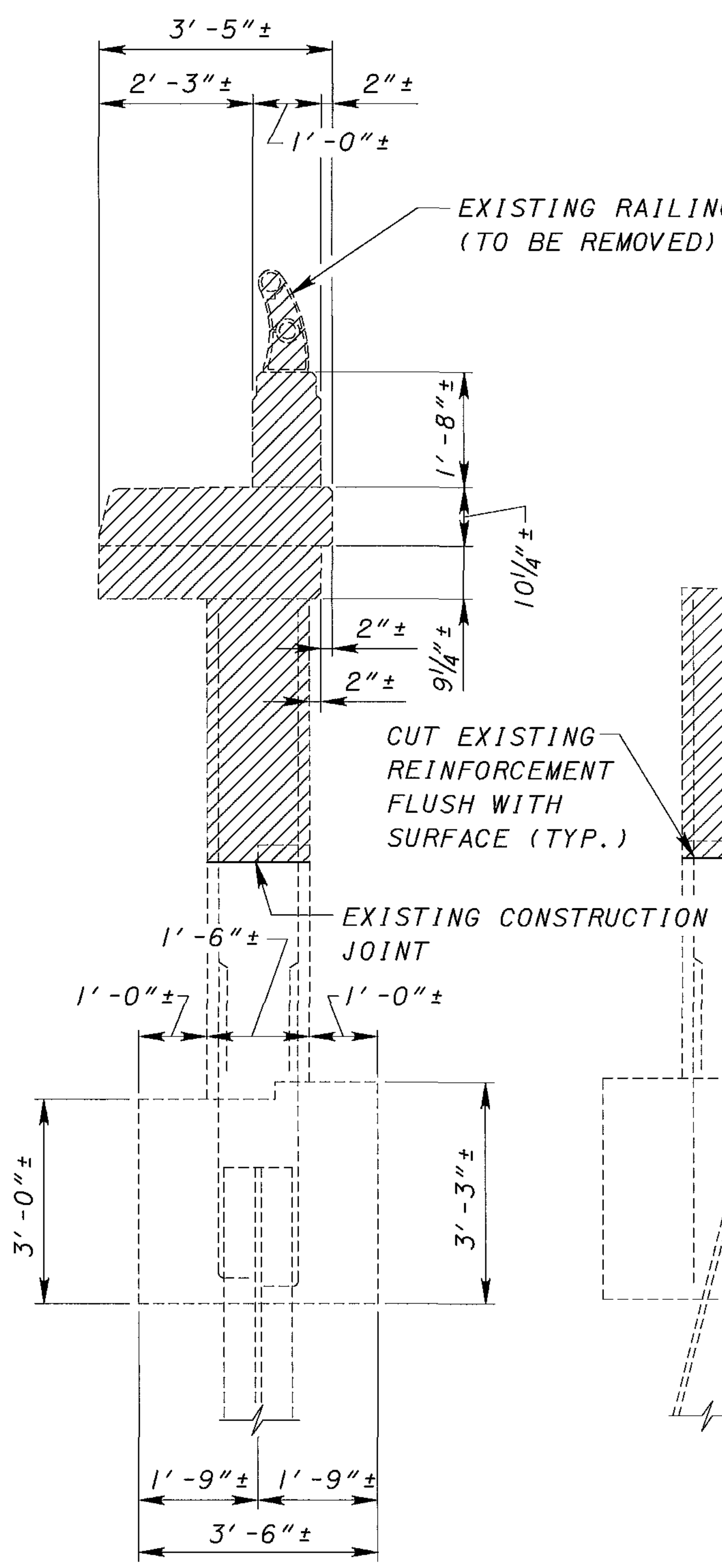
MAH-680-4.14/6.28/6.37



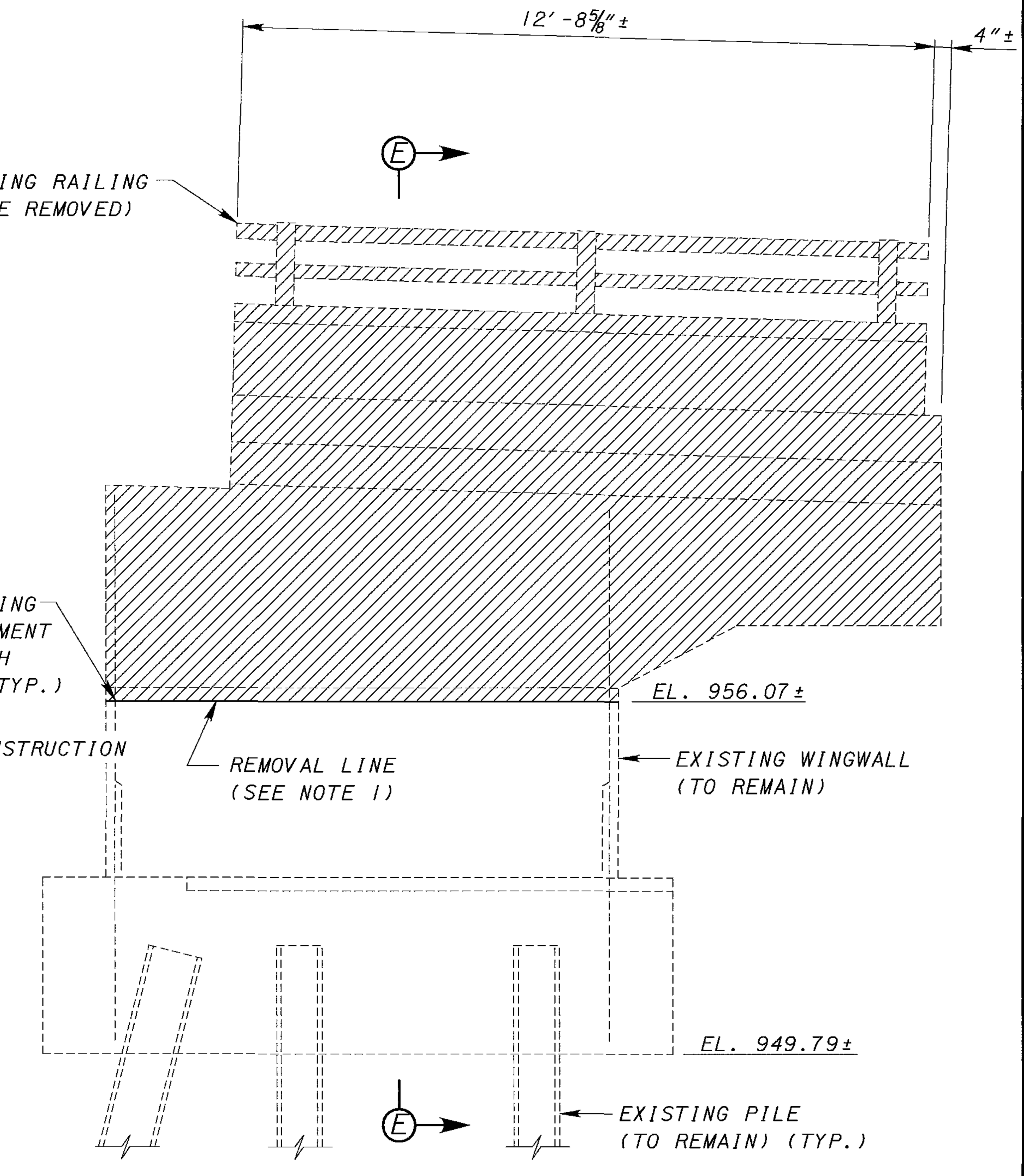
ELEVATION B-B



SECTION D-D



SECTION E-E



ELEVATION C-C

LEGEND:

— INDICATES AREAS TO BE REMOVED AS PER ITEM 202 - PORTIONS OF STRUCTURES REMOVED, AS PER PLAN

NOTES:

1. PREPARE AND SCARIFY SURFACE AS PER "CUT LINE CONSTRUCTION JOINT PREPARATION", SEE GENERAL NOTE SHEET $\boxed{G1/3}$.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

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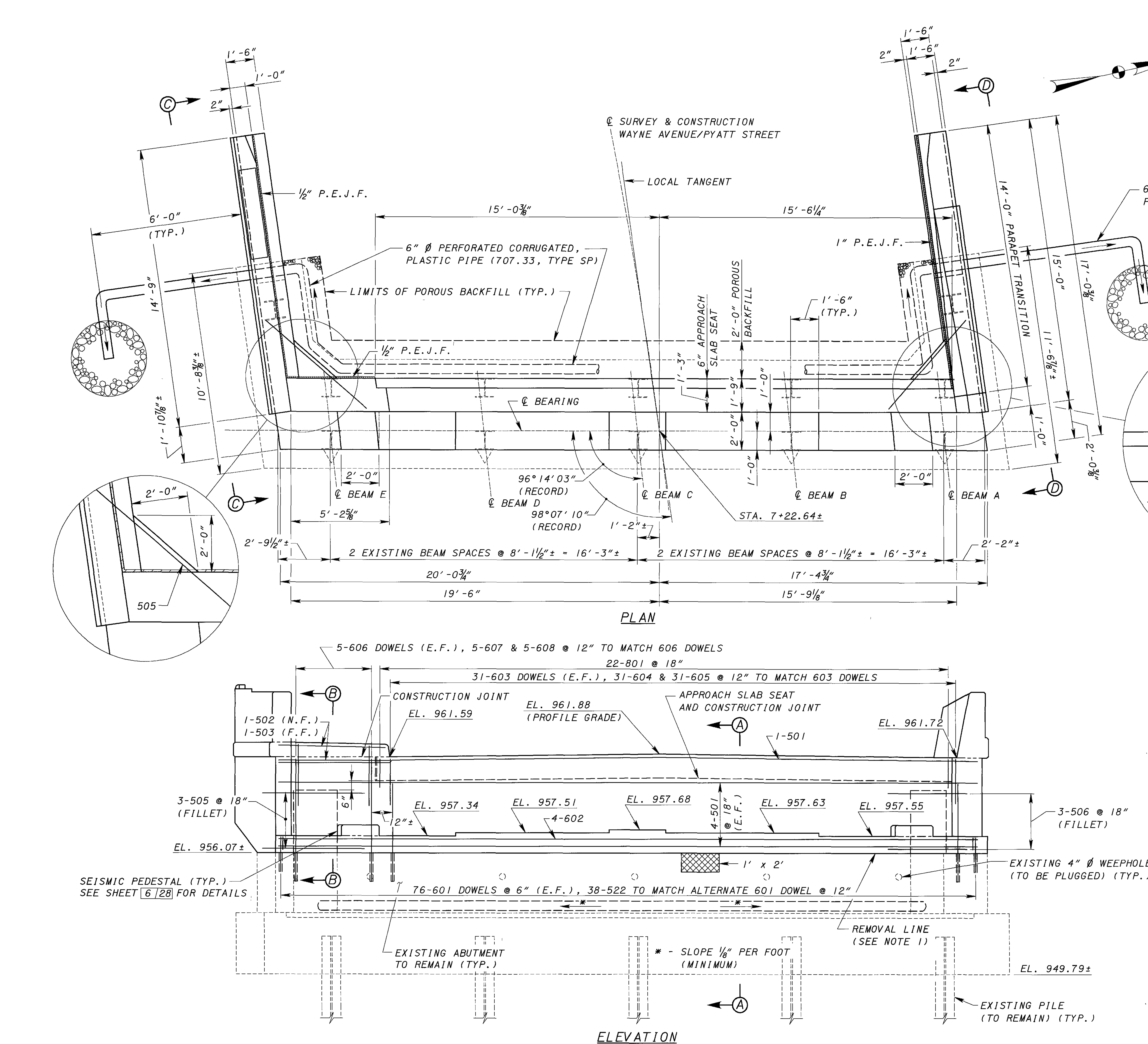
REAR ABUTMENT REMOVAL DETAILS
BRIDGE NO. MAH-680-0637
WAYNE AVENUE/PYATT STREET OVER IR-680

MAH-680-4.14/6.28/6.37

4/28



NOTES:

1. PREPARE AND SCARIFY SURFACE AS PER "CUT LINE CONSTRUCTION JOINT PREPARATION", SEE GENERAL NOTE SHEET G1/3.
2. ALL REINFORCING BAR MARKS SHALL BE PREFIXED AS FOLLOWS:
   REAR ABUTMENT - RA
3. FOR REINFORCING SCHEDULE, SEE SHEET 27/28.
4. POROUS BACKFILL WITH FILTER FABRIC, 2′-0″ THICK SHALL EXTEND UP TO THE BOTTOM OF THE APPROACH SLAB AND LATERALLY TO THE ENDS OF THE WINGWALL FOOTINGS.
5. FOR SECTION A-A AND B-B, SEE SHEET 6/28.
6. FOR ELEVATION C-C AND D-D, SEE SHEET 7/28.
7. PAYMENT FOR DRILLING OR FORMING HOLES AND FURNISHING AND PLACING GROUT SHALL BE INCLUDED IN THE CONTRACT PRICES FOR ITEM 510 - DOWEL HOLES WITH NONMETALLIC GROUT.
8. THE FOLLOWING ABBREVIATIONS ARE USED:
   CLR. - CLEAR
   E.F. - EACH FACE
   EL. - ELEVATION
   F.F. - FAR FACE
   MIN. - MINIMUM
   N.F. - NEAR FACE
   P.E.J.F. = PREFORMED EXPANSION JOINT FILLER
   SPA. - SPACES
   TYP. - TYPICAL

LEGEND:

— ITEM 519 - PATCHING CONCRETE STRUCTURES

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650 CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
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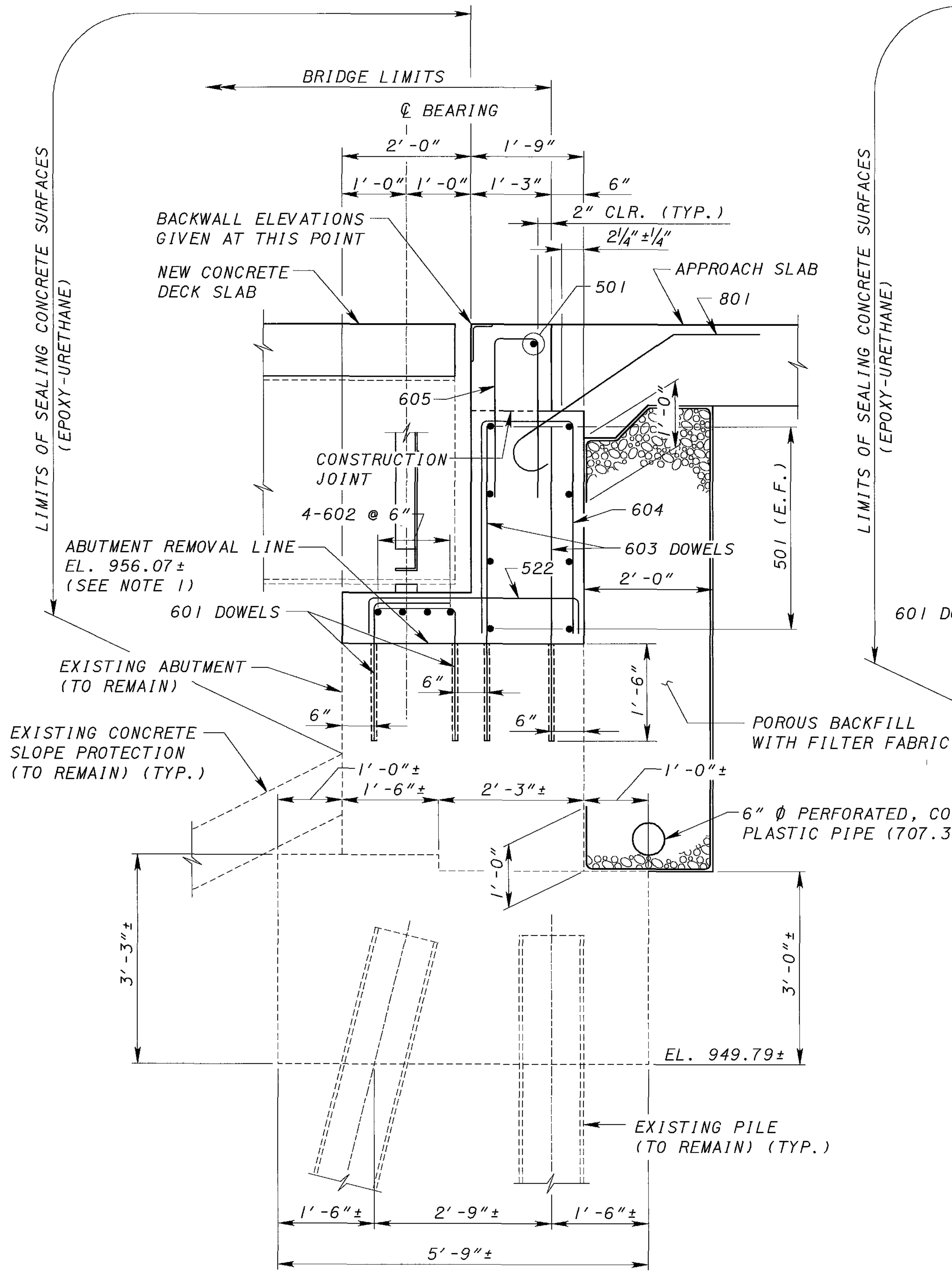
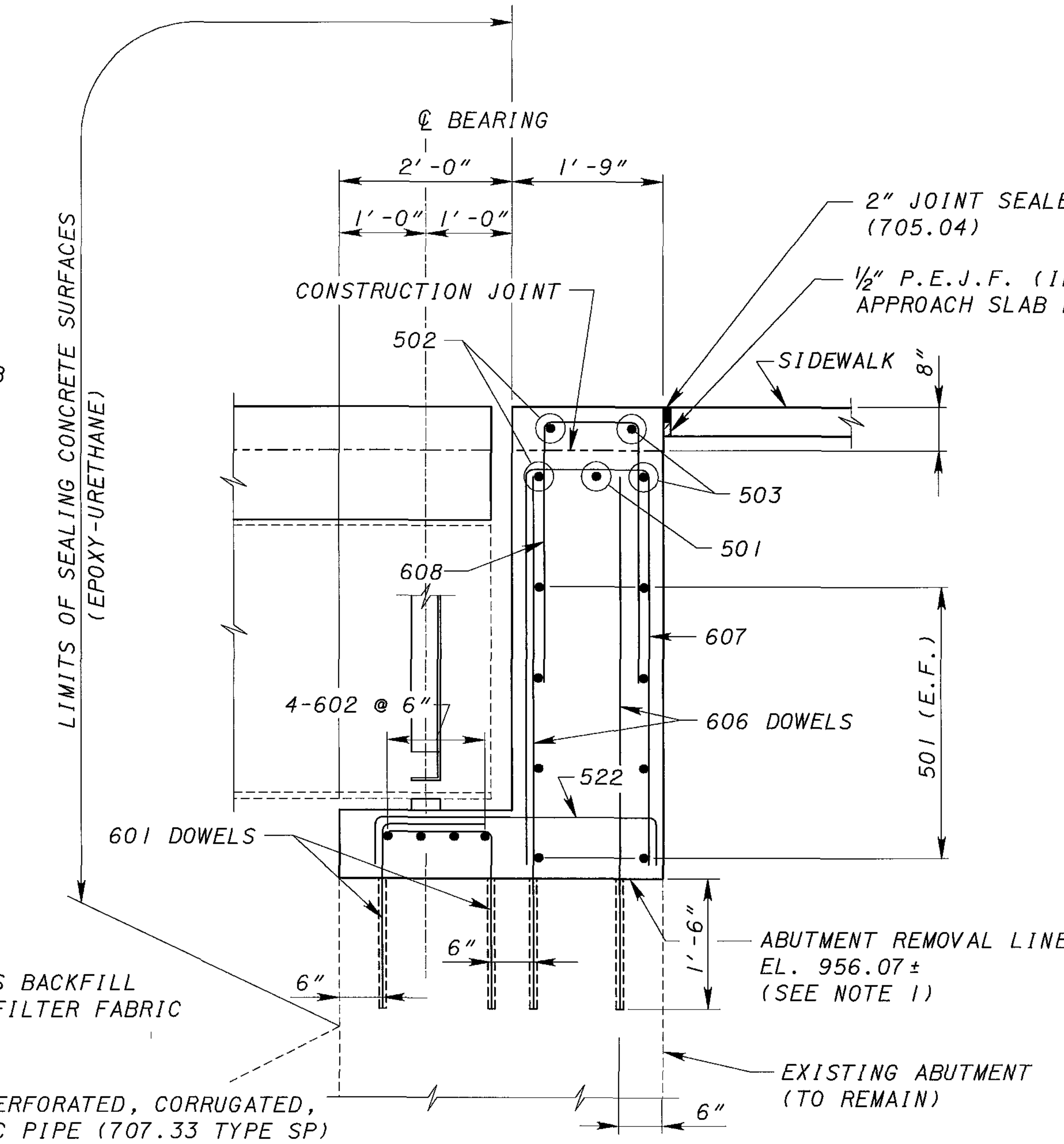
REAR ABUTMENT DETAILS
BRIDGE NO. MAH-680-0637
WAYNE AVENUE/PYATT STREET OVER IR-680

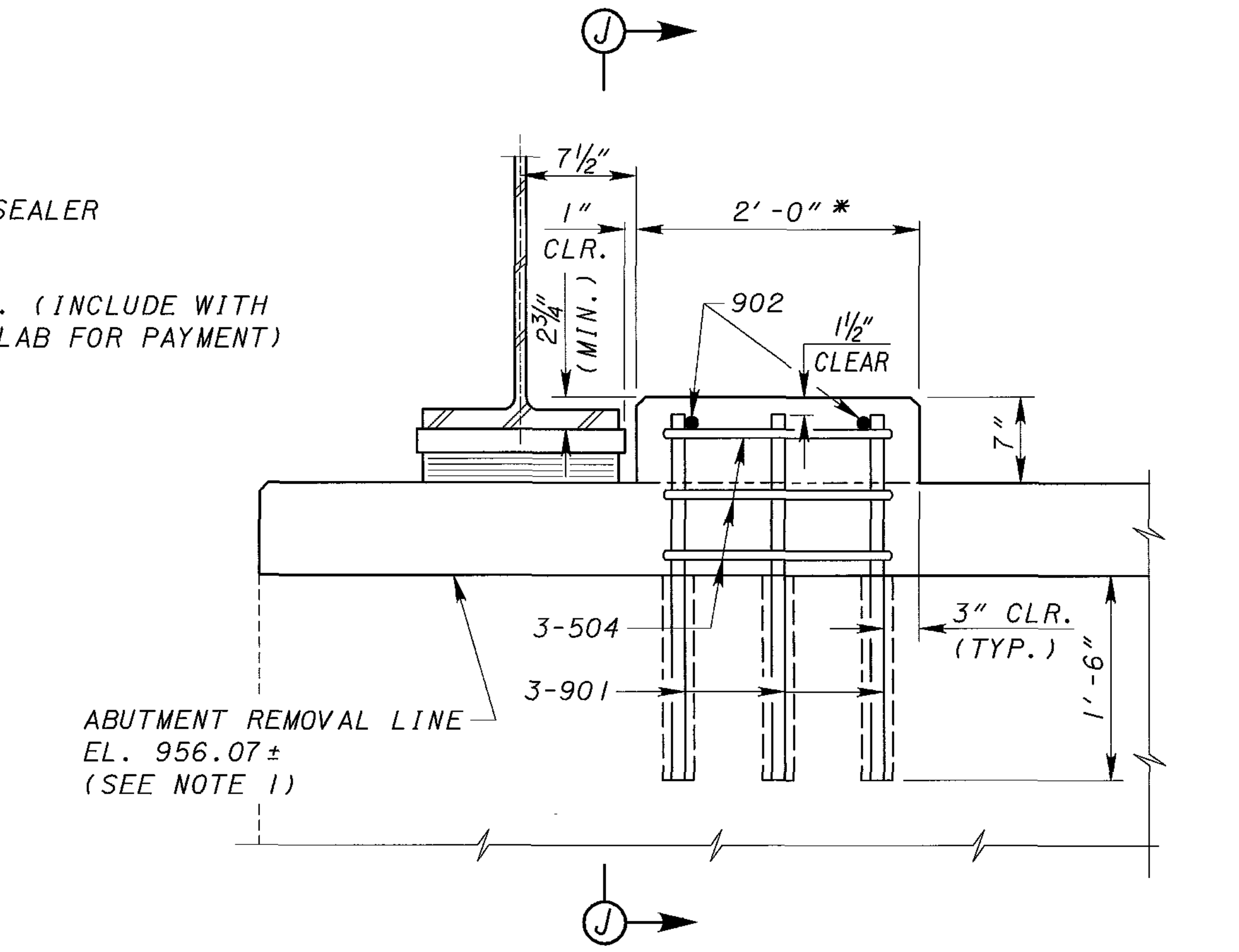
MAH-680-4.14/6.28/6.37



SECTION A-A

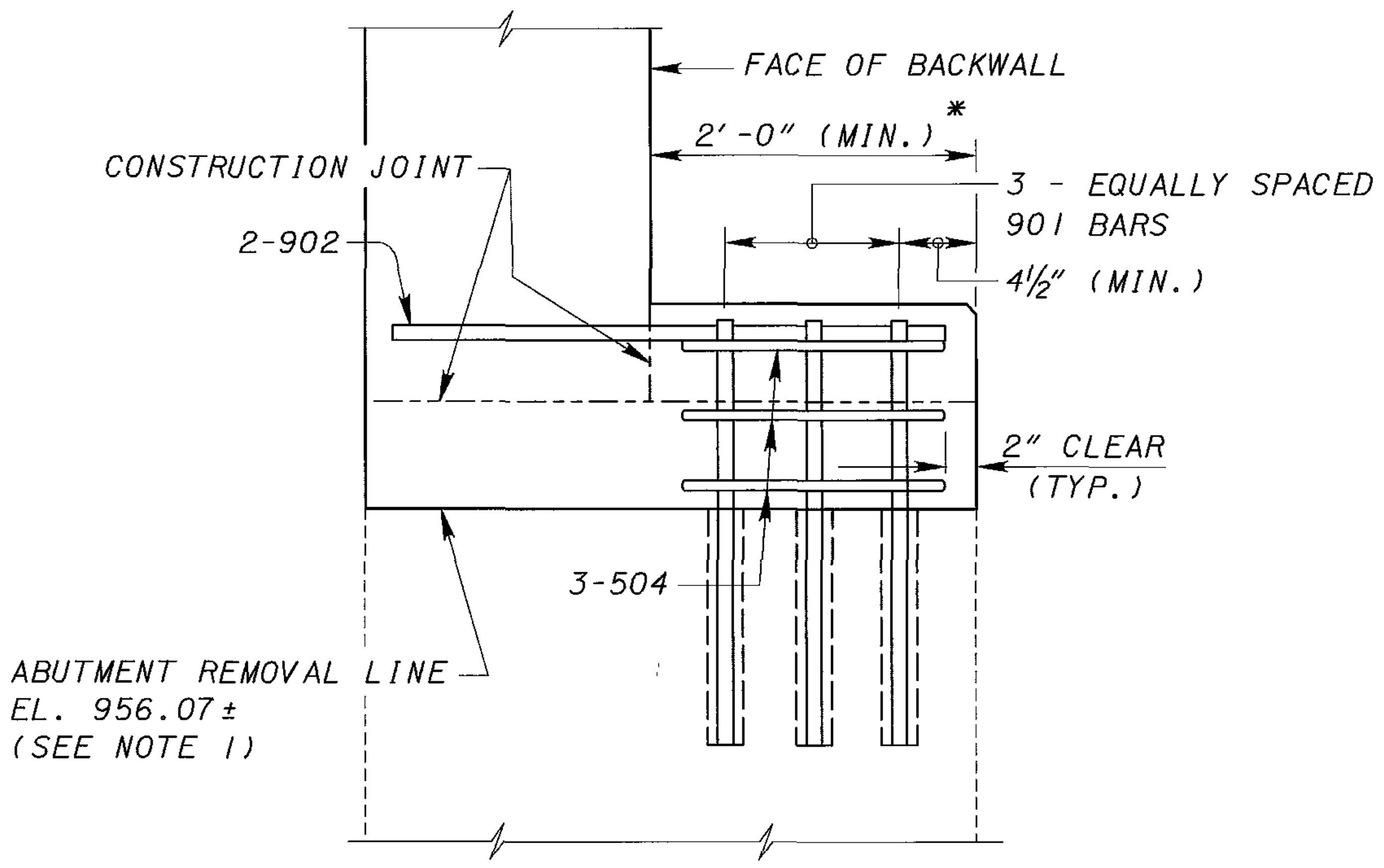


SECTION B-B



FRONT VIEW OF SEISMIC PEDESTAL

THE 2'-0" WIDTH OF THE PEDESTAL SHALL BE MEASURED PARALLEL TO THE CENTERLINE OF BEARING. THE 901 BARS SHALL BE PLACED PARALLEL TO THE CENTERLINE OF BEARING. THE 902 BARS SHALL BE PLACED PARALLEL TO THE BEAMS OR GIRDERS.



SECTION J-J

THE LOCATION OF THE MAIN REINFORCEMENT IN THE BEAM SEAT MAY BE ADJUSTED HORIZONTALLY ±1" TO ACCOMMODATE THE 901 BARS.

* - THE SURFACE OF THE BEAM SEAT IN THIS AREA SHALL BE FINISHED WITH A SERRATED TROWEL. THE SERRATIONS SHALL BE $\frac{1}{4}$" DEEP MINIMUM.

NOTES:

1. PREPARE AND SCARIFY SURFACE AS PER "CUT LINE CONSTRUCTION JOINT PREPARATION", SEE GENERAL NOTE SHEET GI/3.
2. FOR ADDITIONAL NOTES AND ABBREVIATIONS, SEE SHEET 5/28.
3. ALL REINFORCING BAR MARKS SHALL BE PREFIXED AS FOLLOWS: REAR ABUTMENT - RA

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

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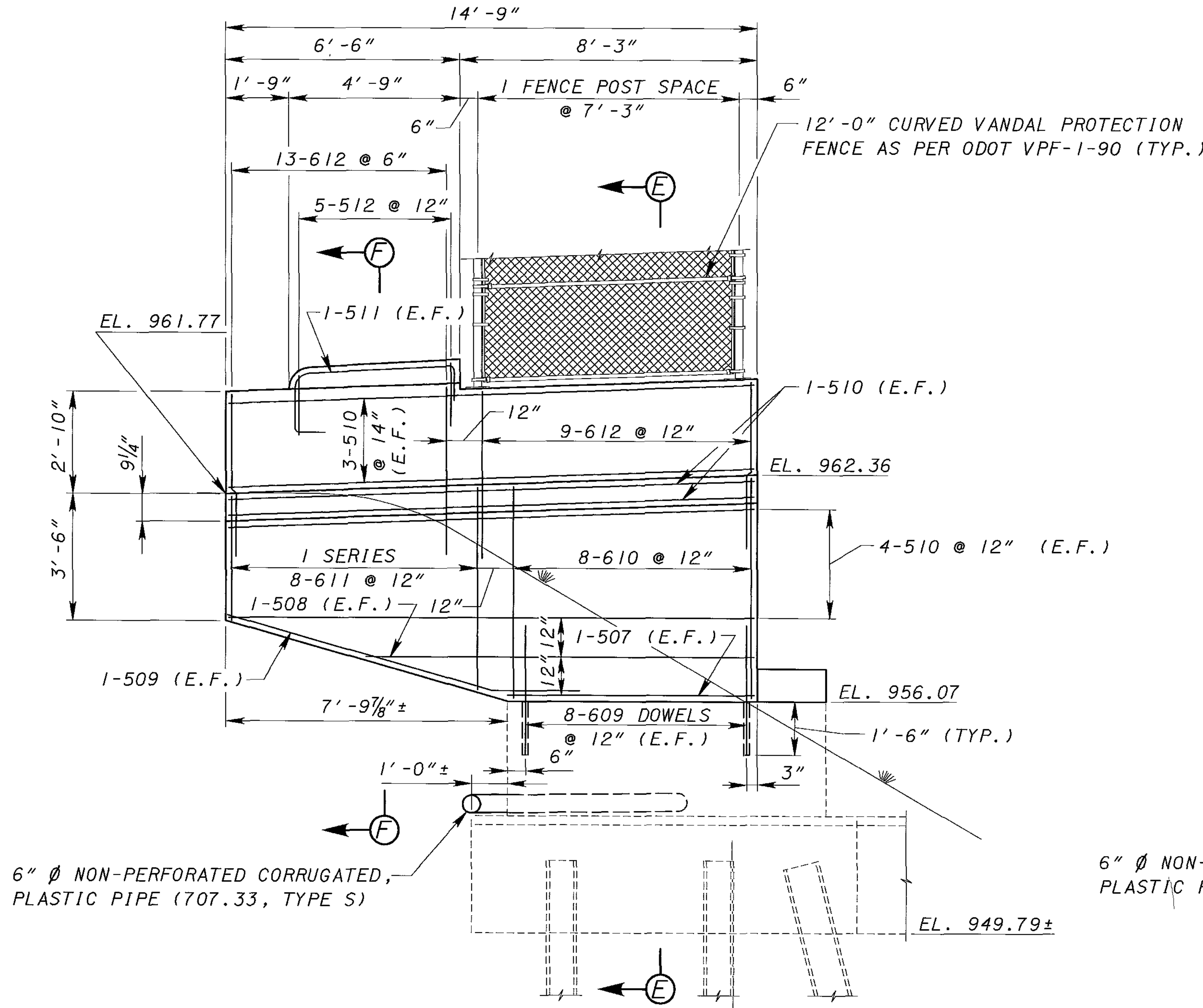
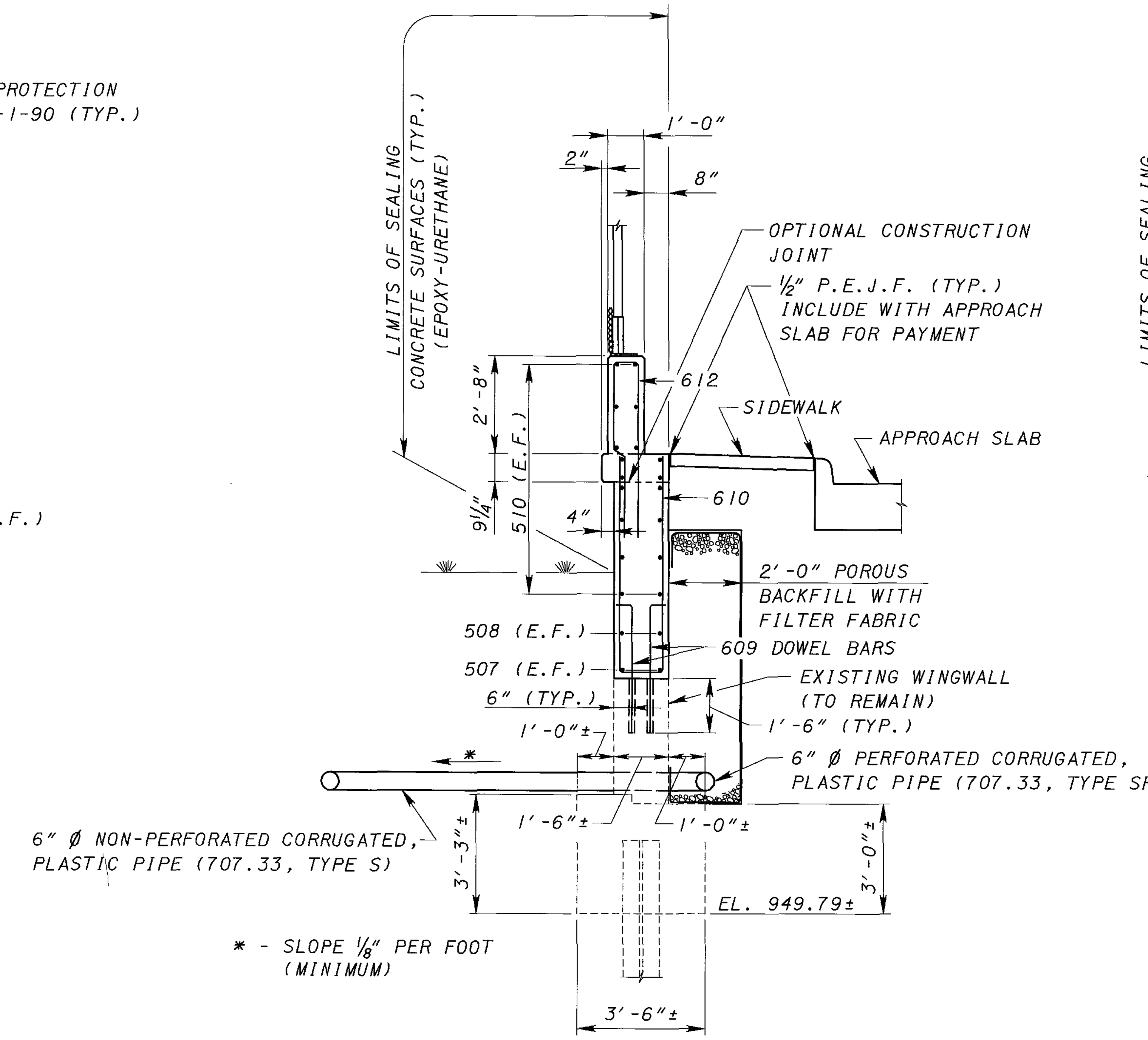
REAR ABUTMENT DETAILS
BRIDGE NO. MAH-680-0637
WAYNE AVENUE/PYATT STREET OVER IR-680

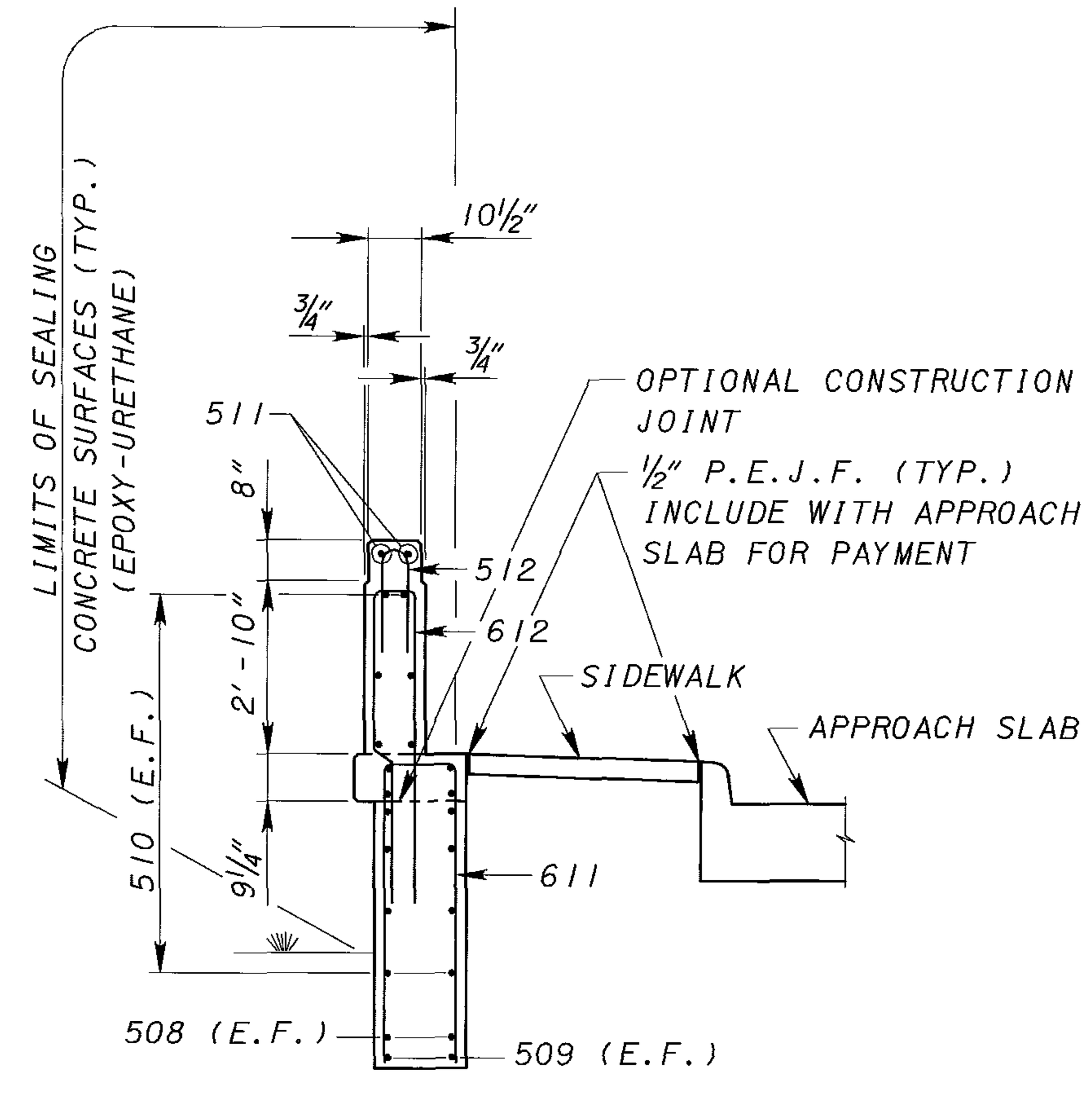
MAH-680-4.14/6.28/6.37



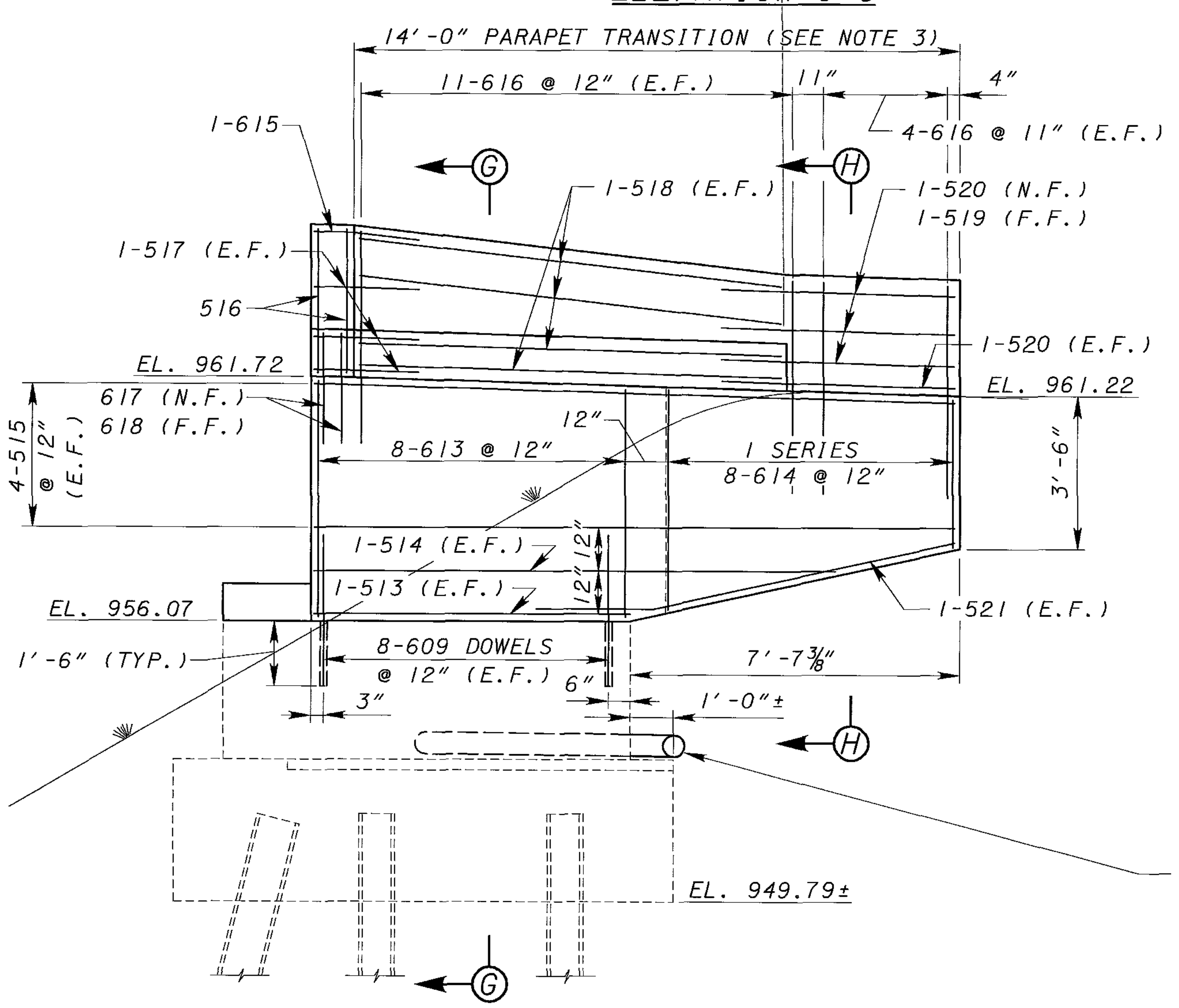
ELEVATION C-C



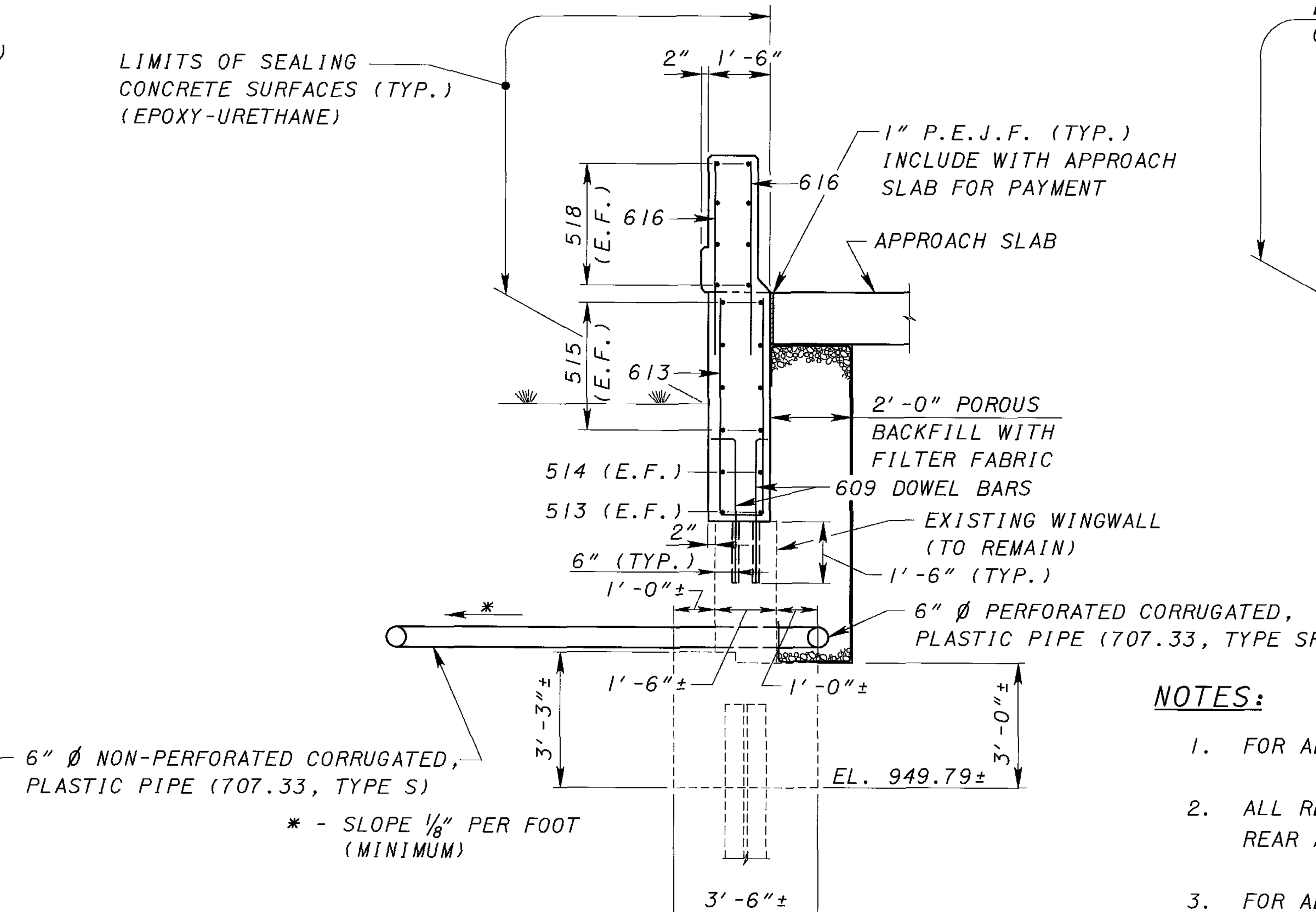
SECTION E-E



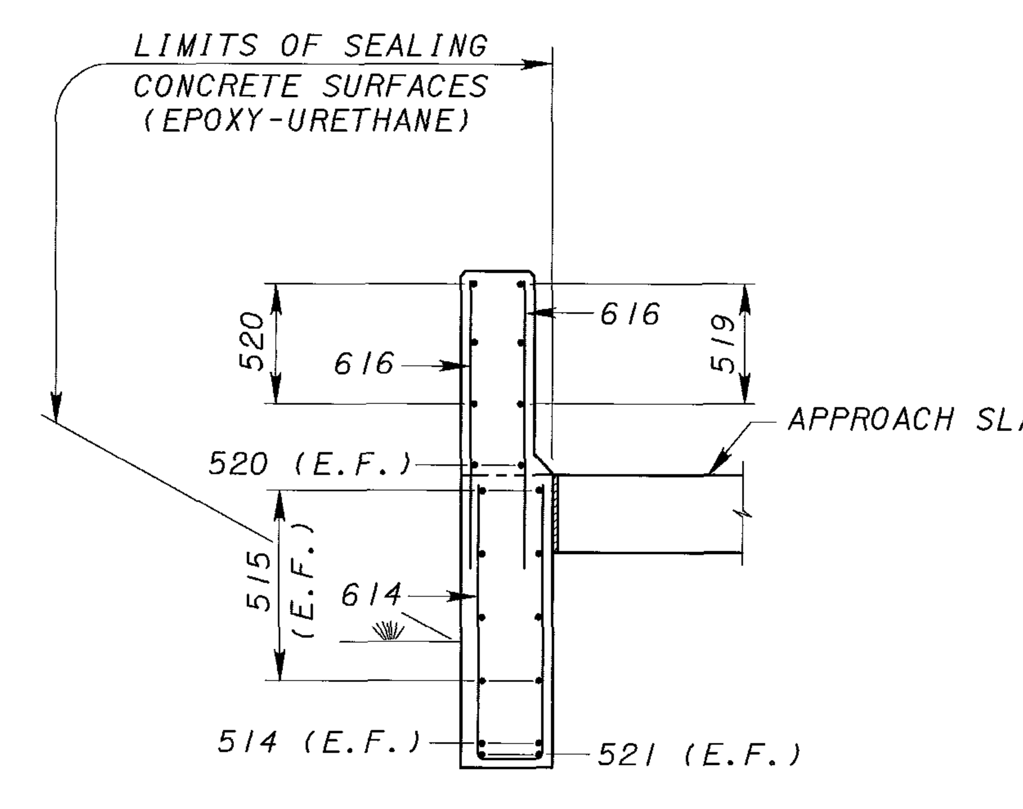
SECTION F-F



ELEVATION D-D



SECTION G-G



SECTION H-H

NOTES:

1. FOR ADDITIONAL NOTES AND ABBREVIATIONS, SEE SHEET 5/28.
2. ALL REINFORCING BAR MARKS SHALL BE PREFIXED AS FOLLOWS: REAR ABUTMENT - RA
3. FOR ADDITIONAL PARAPET DETAILS AND SECTIONS NOT SHOWN REFER TO O.D.O.T. STANDARD DRAWINGS BR-2-98 AND SBR-1-99.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650 CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
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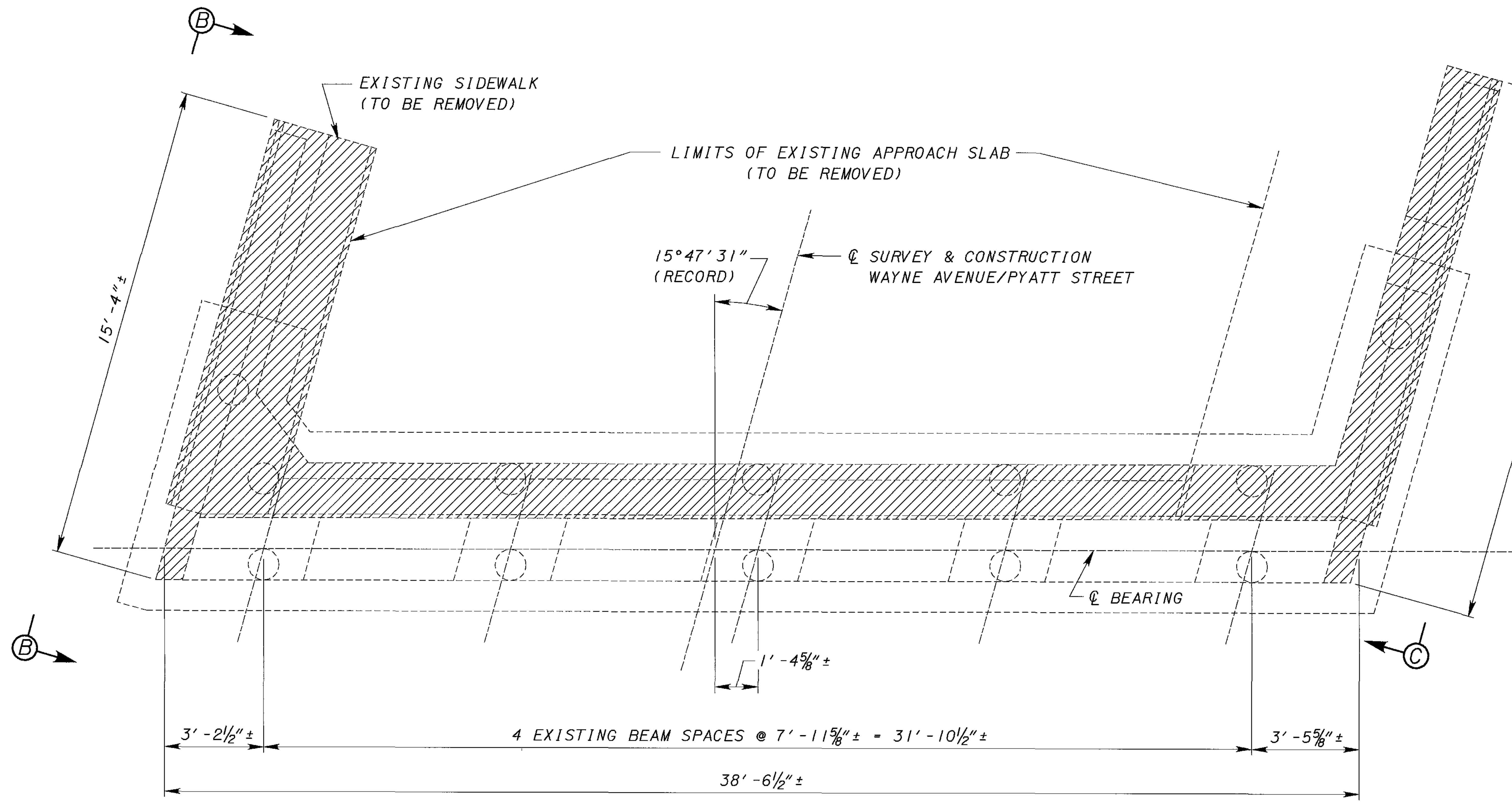
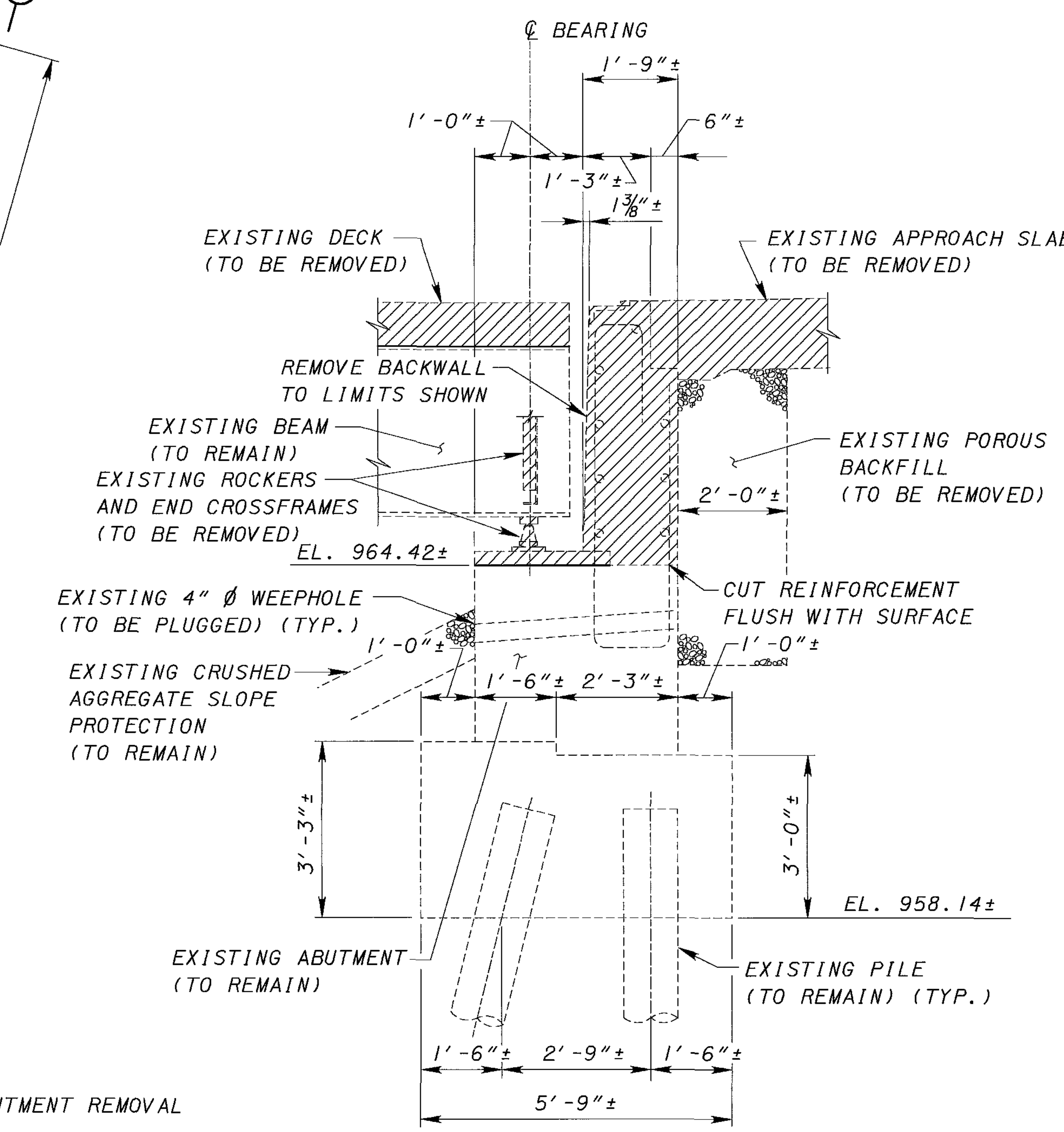
REAR ABUTMENT DETAILS
BRIDGE NO. MAH-680-0637
WAYNE AVENUE/PYATT STREET OVER IR-680

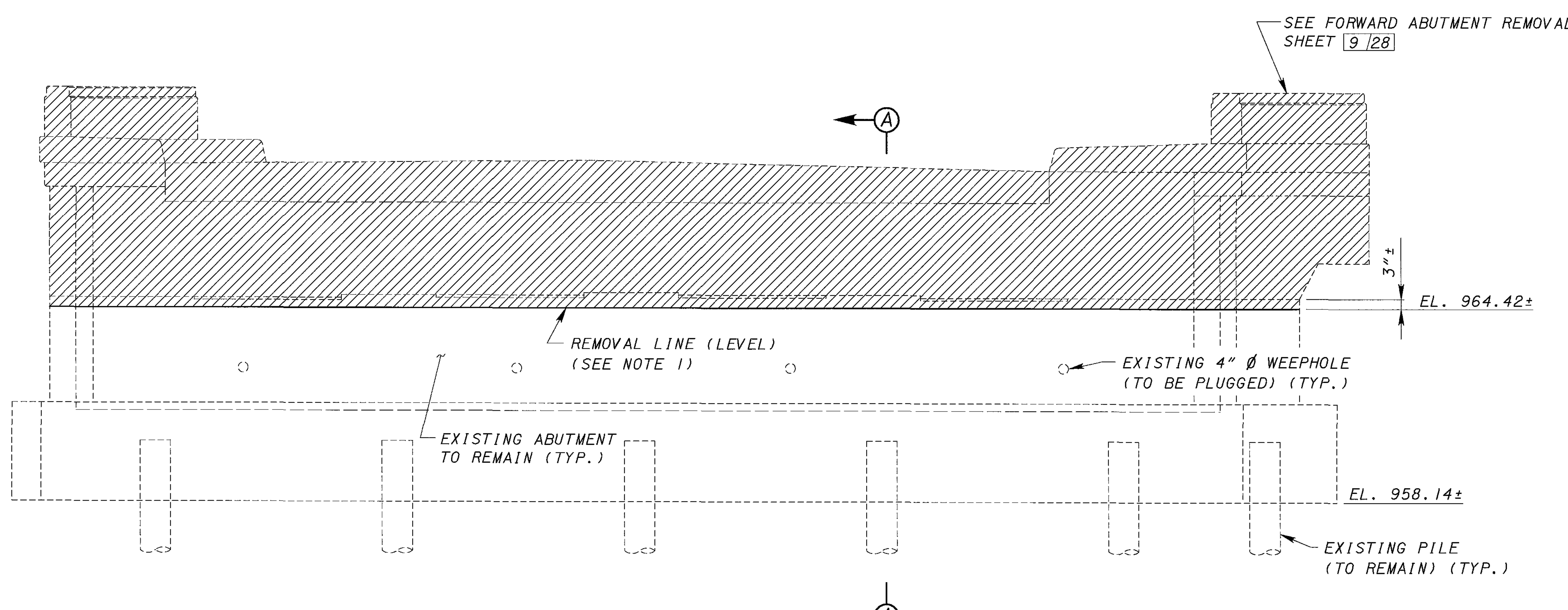
MAH-680-4.14/6.28/6.37



PLAN



SECTION A-A



ELEVATION

LEGEND:

– INDICATES AREAS TO BE REMOVED AS PER ITEM 202 - PORTIONS OF STRUCTURES REMOVED, AS PER PLAN

NOTES:

1. PREPARE AND SCARIFY SURFACE AS PER "CUT LINE CONSTRUCTION JOINT PREPARATION", SEE GENERAL NOTE SHEET GI/3.
2. FOR ELEVATION B-B AND C-C, SEE SHEET 9/28.
3. ABBREVIATIONS:
   EL. - ELEVATION
   TYP. - TYPICAL

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
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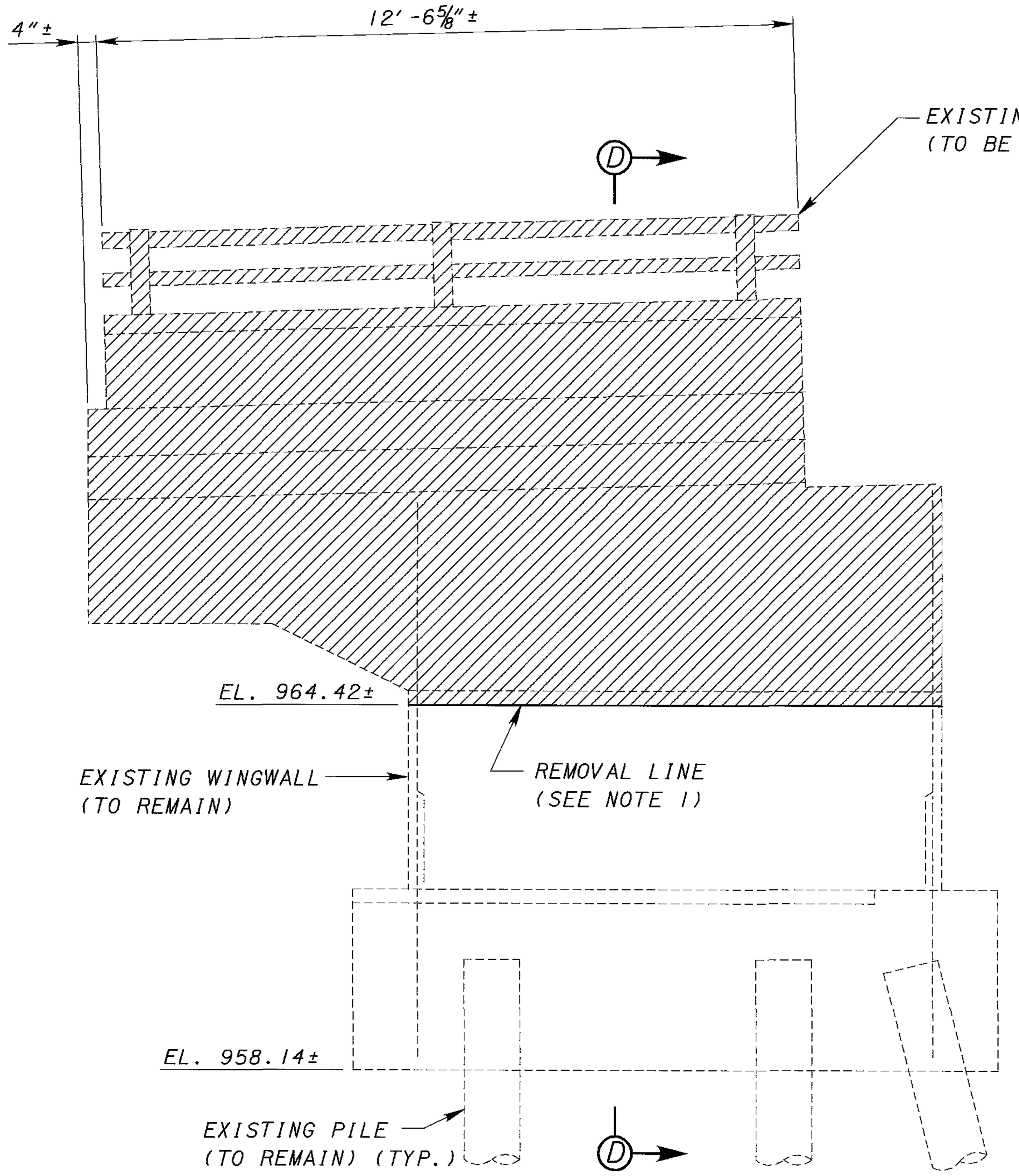
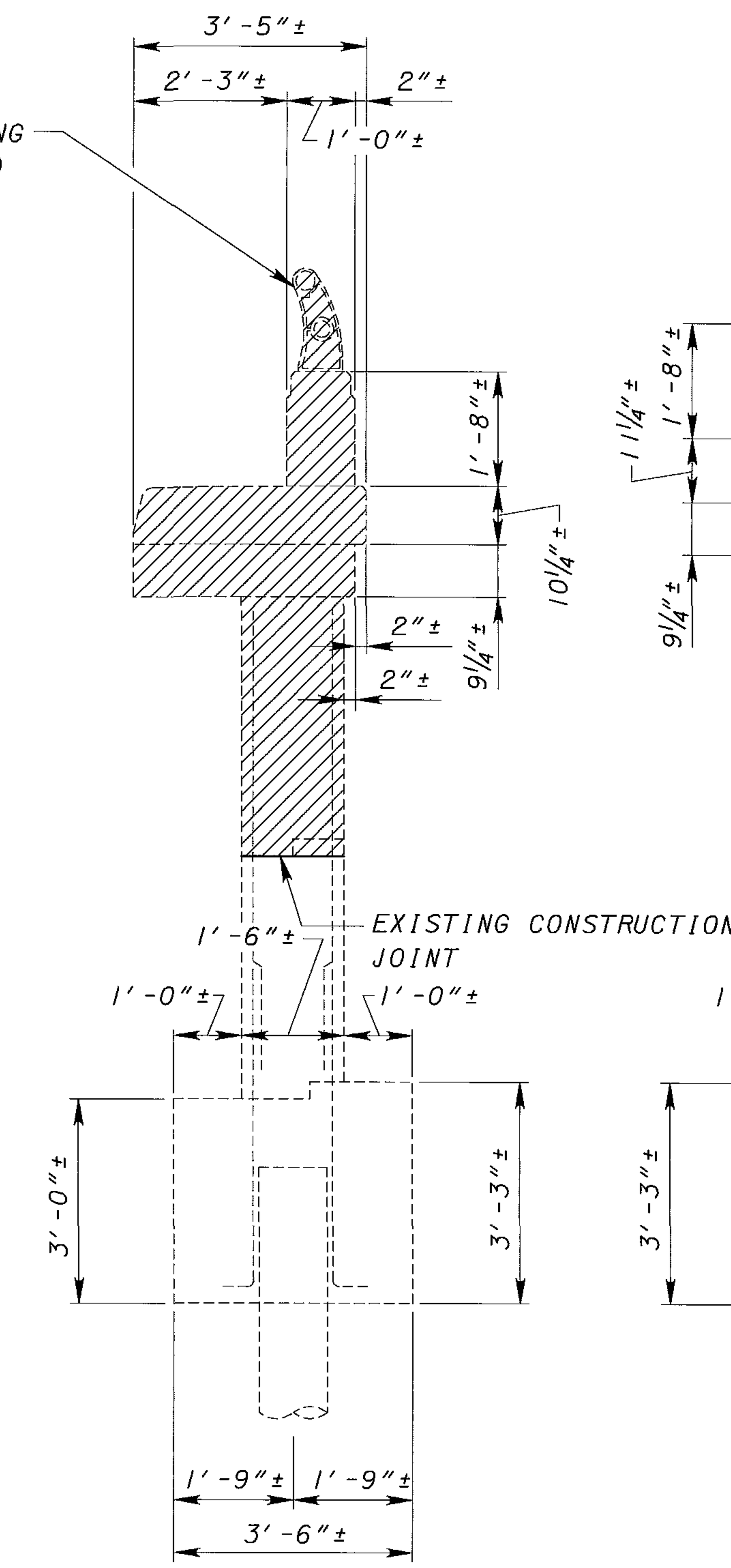
FORWARD ABUTMENT REMOVAL DETAILS
BRIDGE NO. MAH-680-0637
WAYNE AVENUE/PYATT STREET OVER IR-680

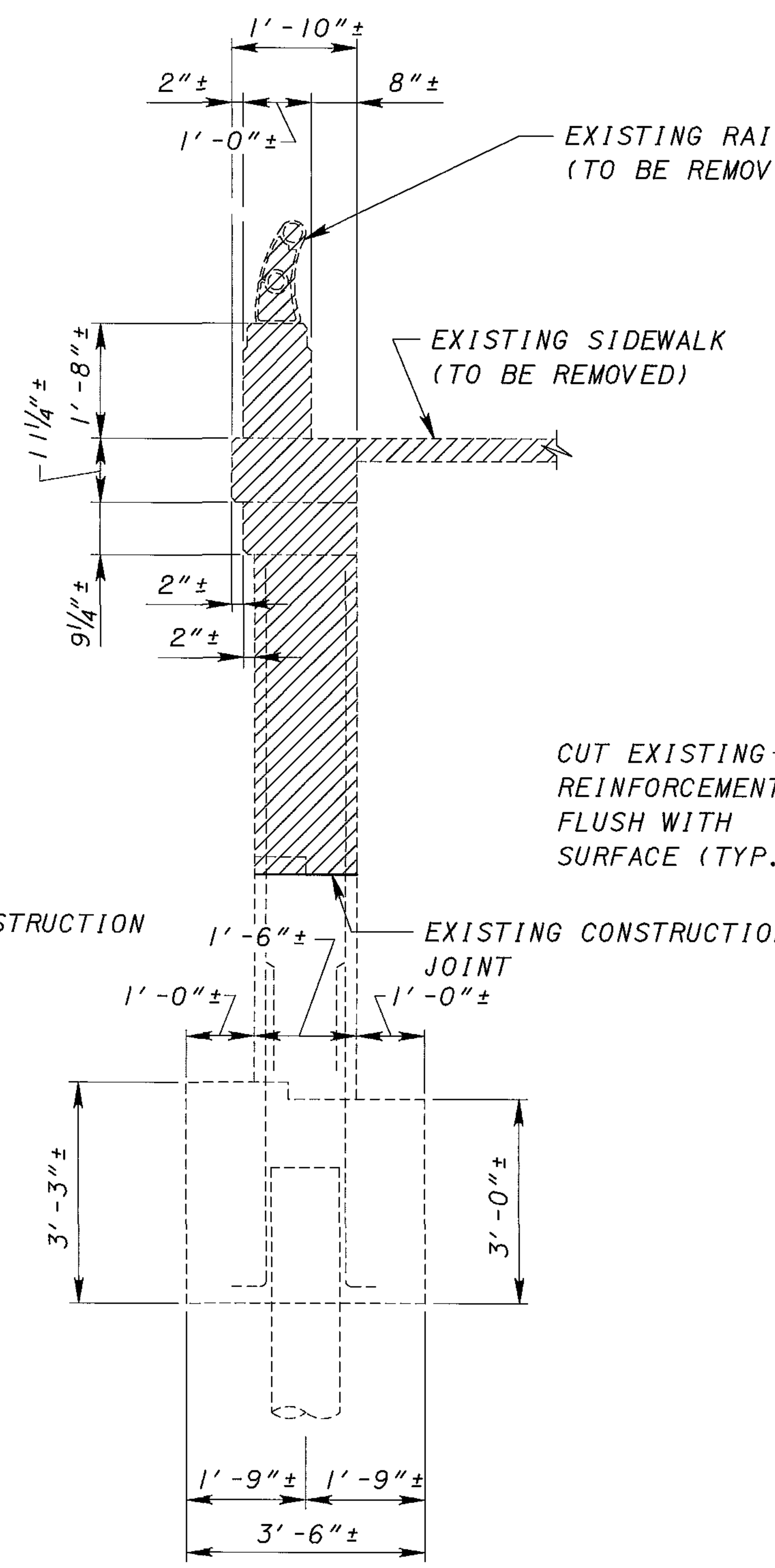
MAH-680-4.14/6.28/6.37



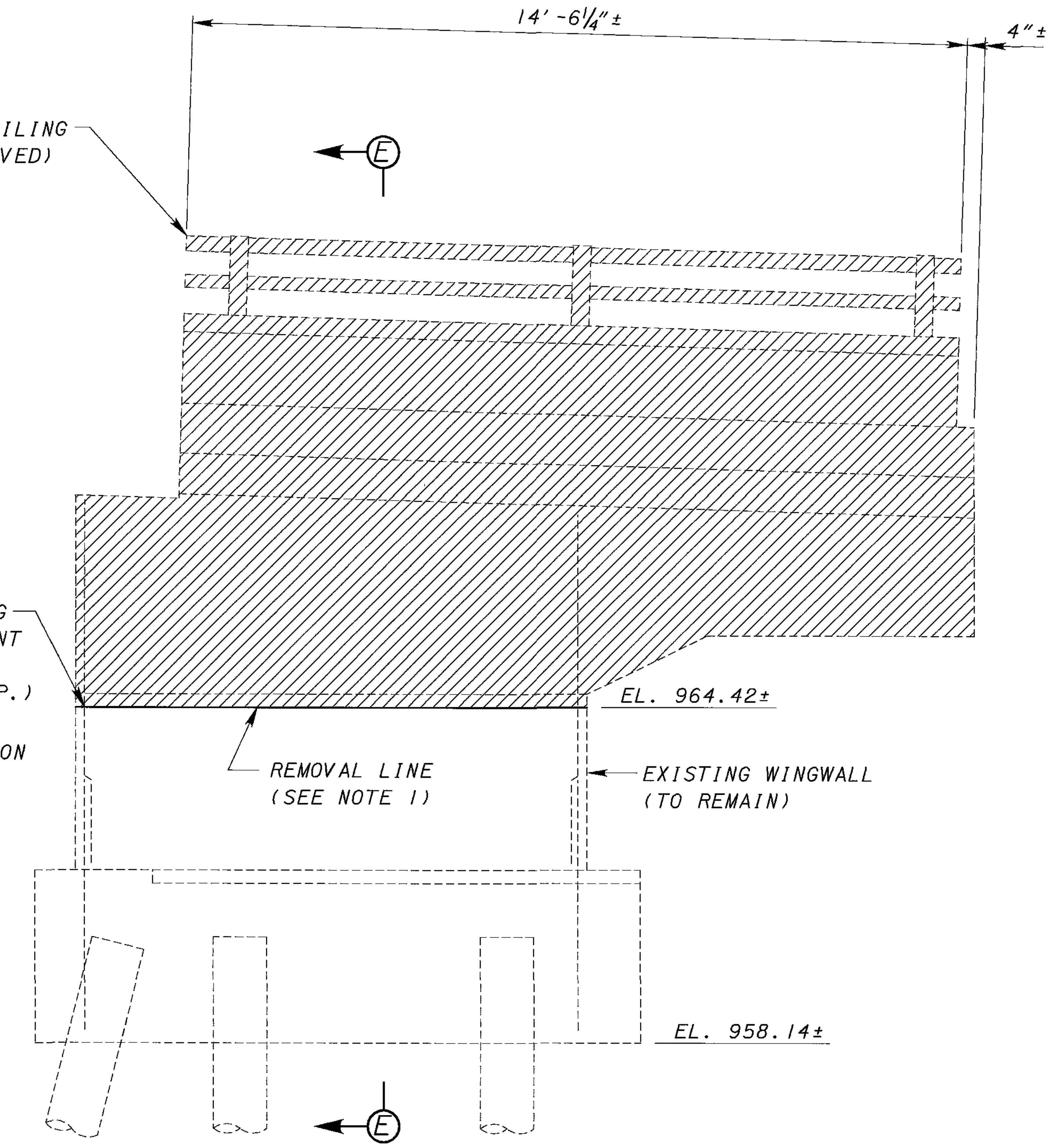
ELEVATION B-B



SECTION D-D



SECTION E-E



ELEVATION C-C

LEGEND:

— INDICATES AREAS TO BE REMOVED AS PER ITEM 202 - PORTIONS OF STRUCTURES REMOVED, AS PER PLAN

NOTES:

1. PREPARE AND SCARIFY SURFACE AS PER "CUT LINE CONSTRUCTION JOINT PREPARATION", SEE GENERAL NOTE SHEET $\boxed{GI/3}$.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

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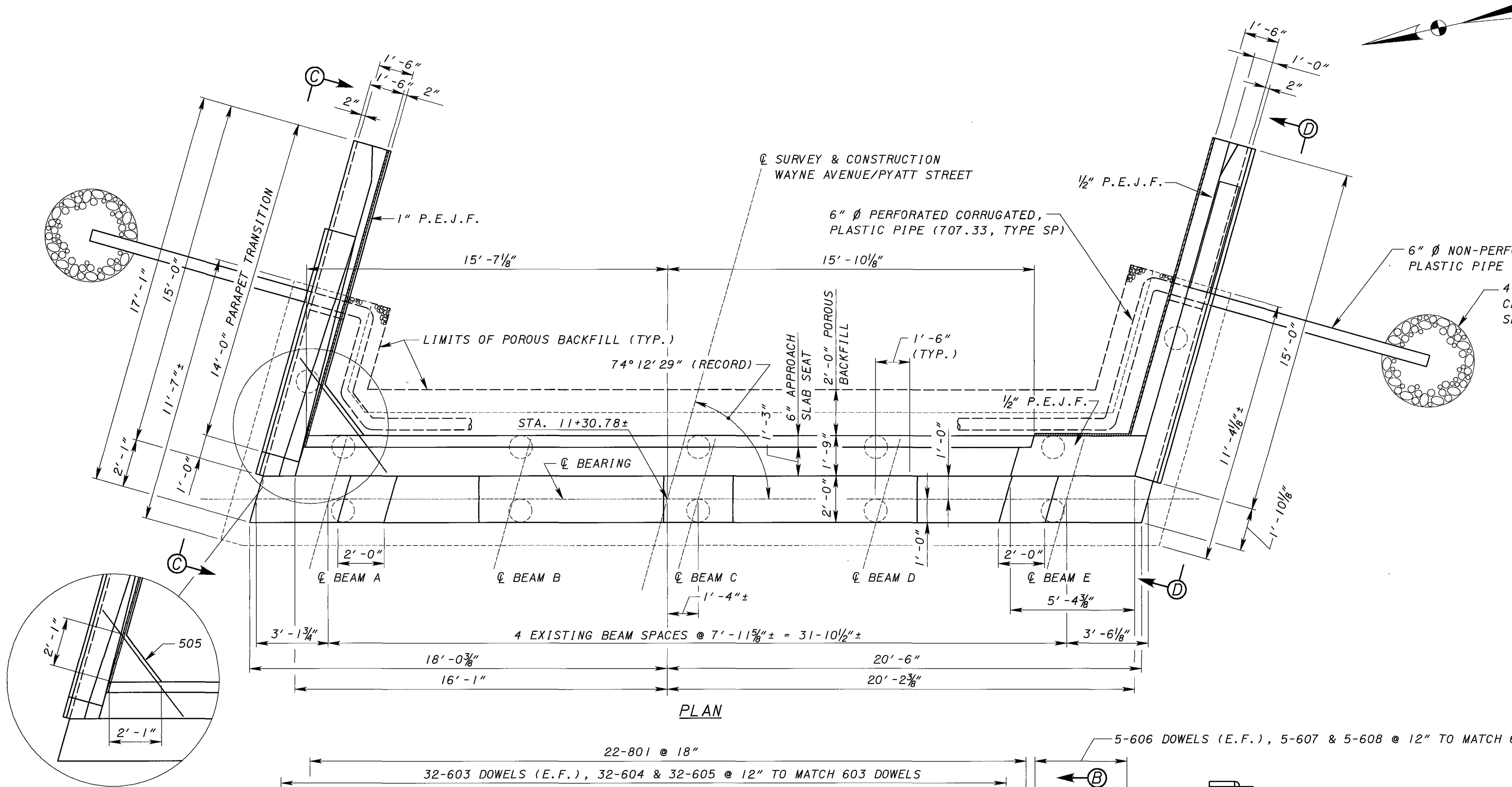
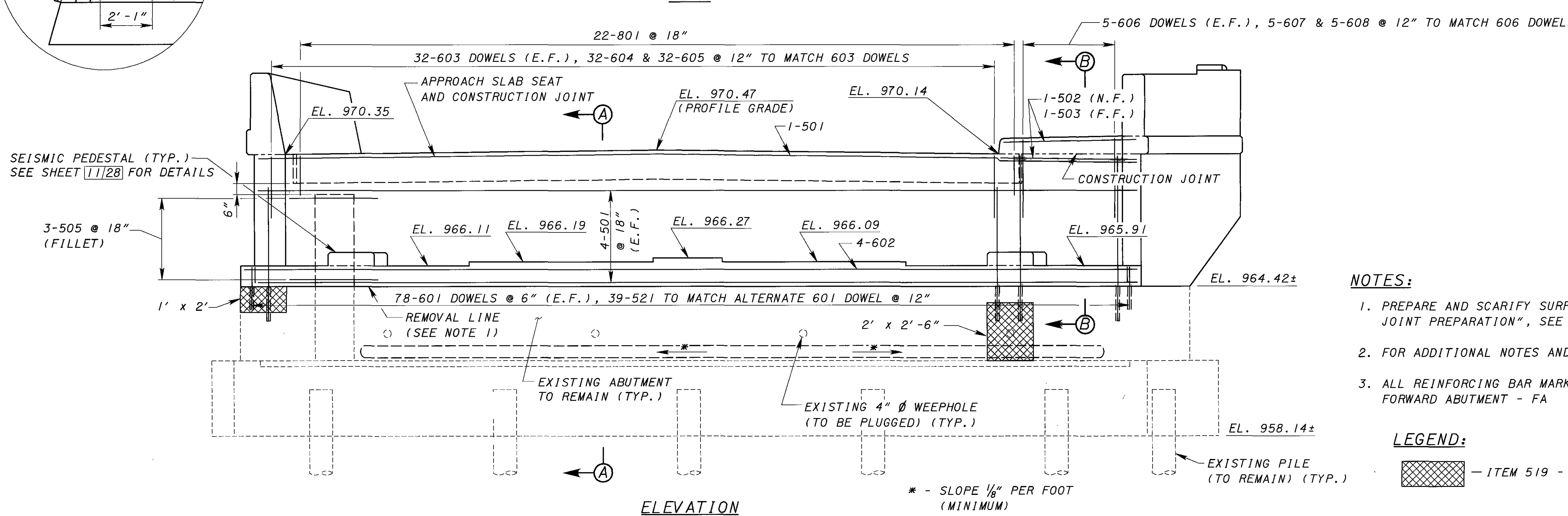
BTA		5007178	

FORWARD ABUTMENT REMOVAL DETAILS
BRIDGE NO. MAH-680-0637
WAYNE AVENUE/PYATT STREET OVER IR-680

MAH-680-4.14/6.28/6.37





NOTES:

1. PREPARE AND SCARIFY SURFACE AS PER "CUT LINE CONSTRUCTION JOINT PREPARATION", SEE GENERAL NOTE SHEET G1/3.
2. FOR ADDITIONAL NOTES AND ABBREVIATIONS, SEE SHEET 5/28.
3. ALL REINFORCING BAR MARKS SHALL BE PREFIXED AS FOLLOWS: FORWARD ABUTMENT - FA

LEGEND:

— ITEM 519 - PATCHING CONCRETE STRUCTURES

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650 CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
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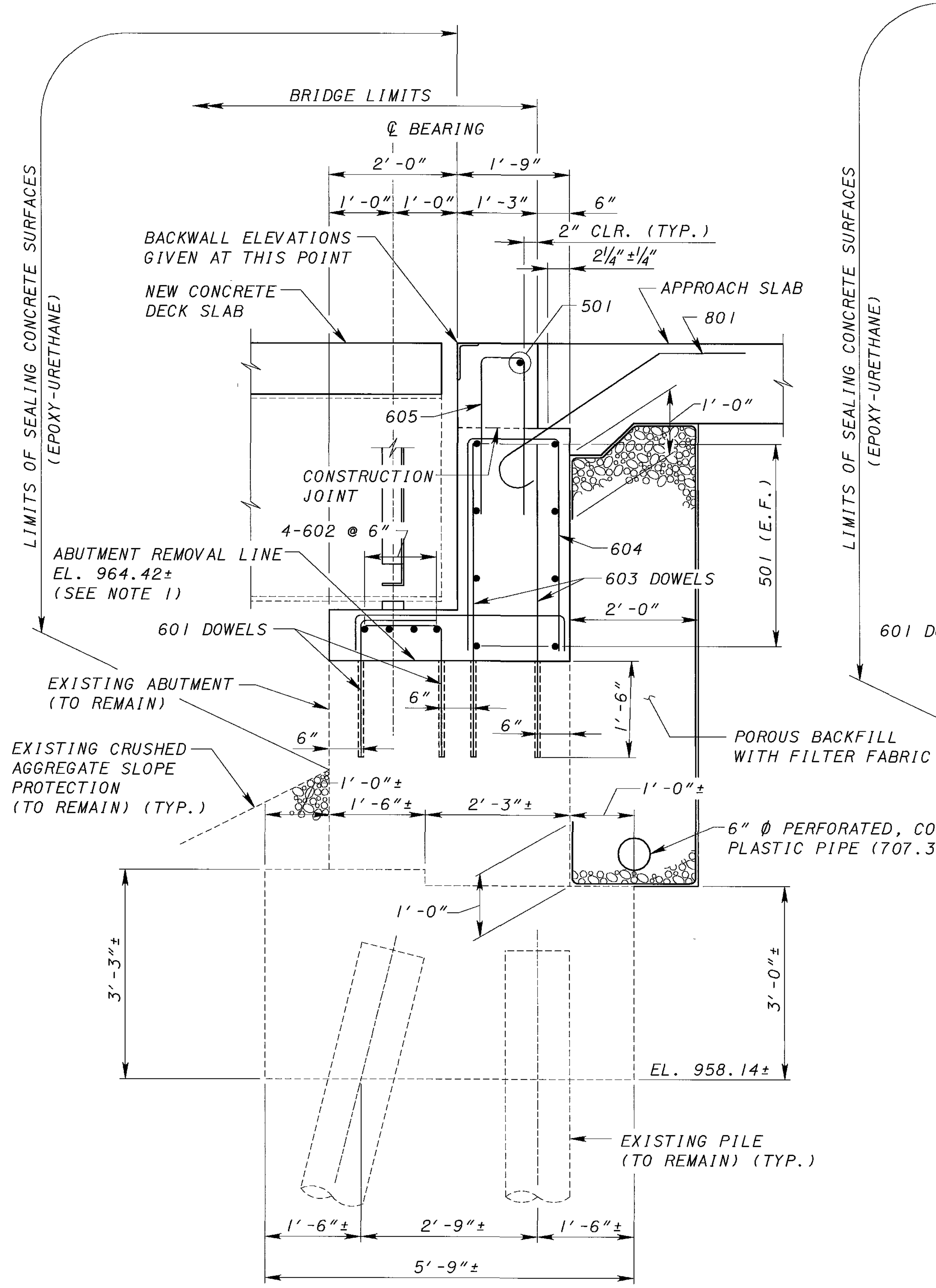
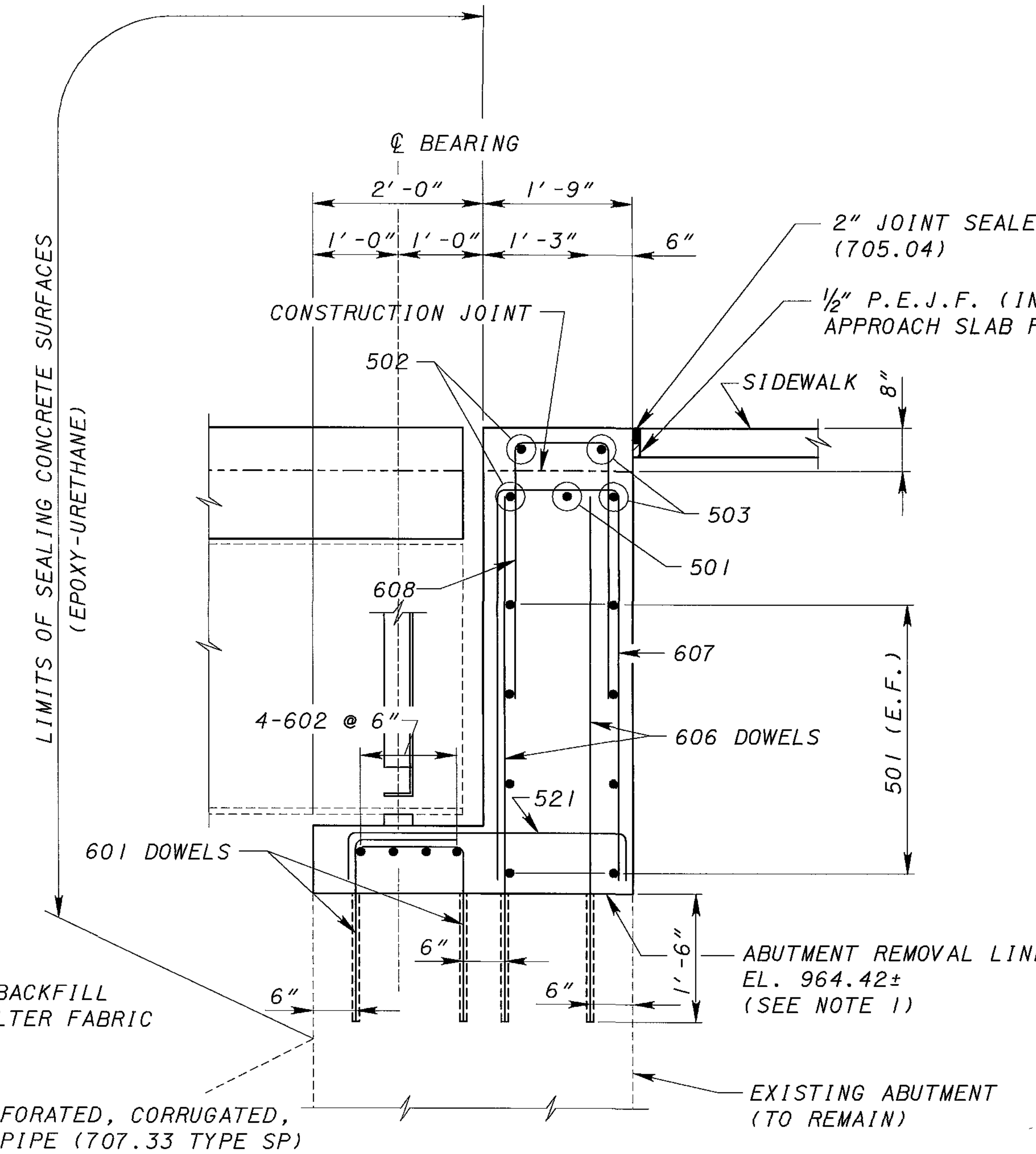
FORWARD ABUTMENT DETAILS
BRIDGE NO. MAH-680-0637
WAYNE AVENUE/PYATT STREET OVER IR-680

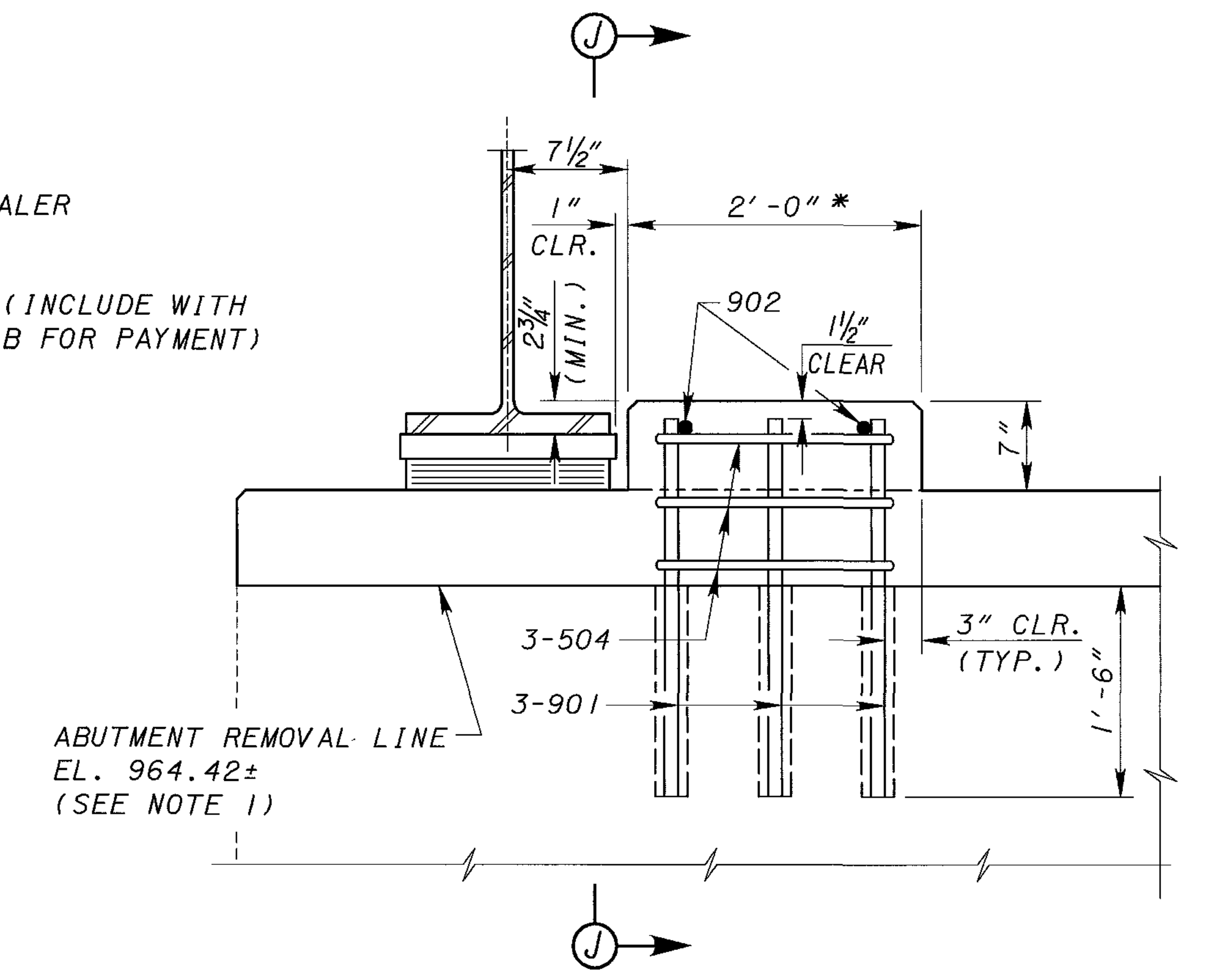
MAH-680-4.14/6.28/6.37



SECTION A-A

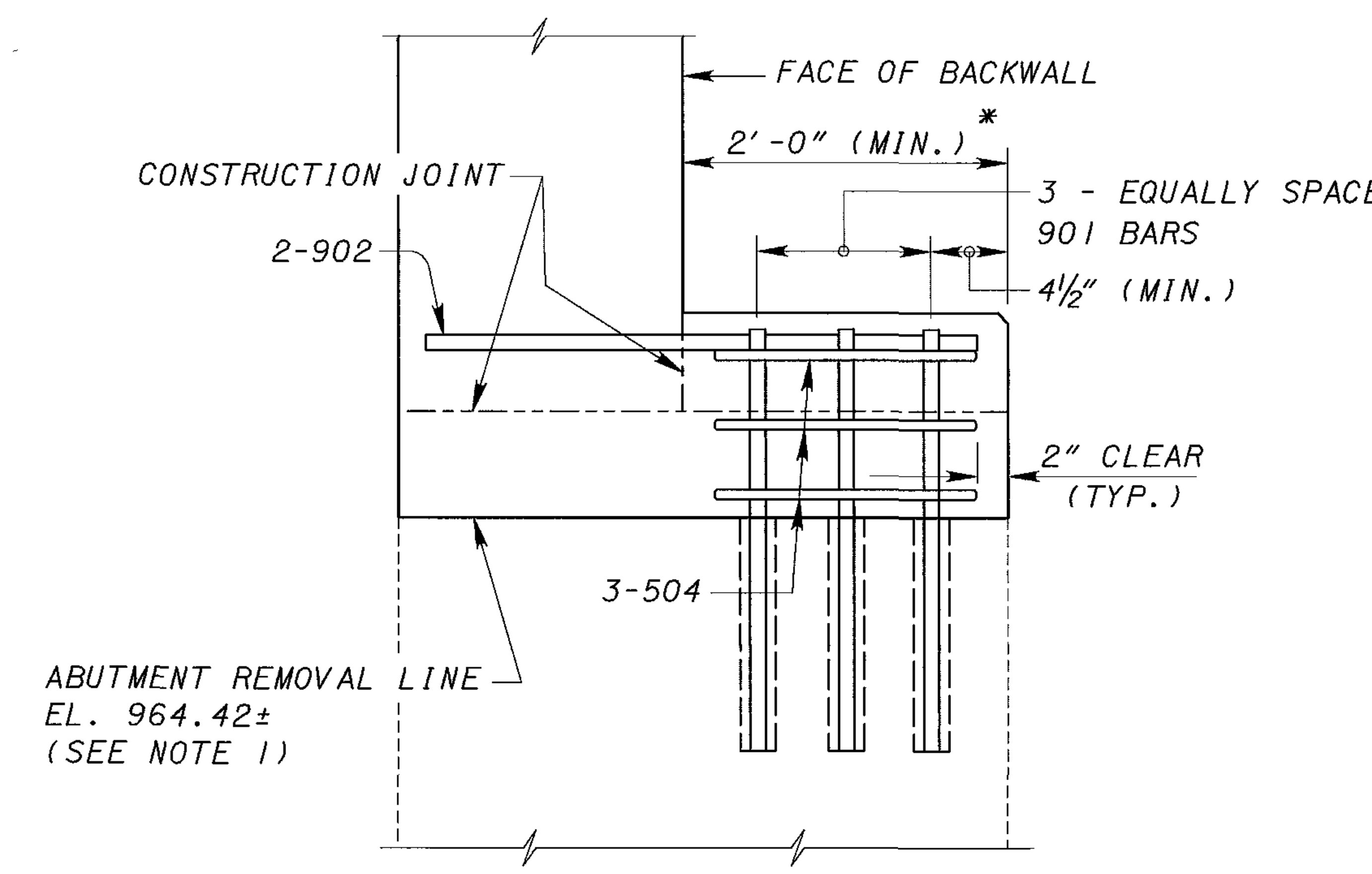


SECTION B-B



FRONT VIEW OF SEISMIC PEDESTAL

THE 2'-0" WIDTH OF THE PEDESTAL SHALL BE MEASURED PARALLEL TO THE CENTERLINE OF BEARING. THE 901 BARS SHALL BE PLACED PARALLEL TO THE CENTERLINE OF BEARING. THE 902 BARS SHALL BE PLACED PARALLEL TO THE BEAMS OR GIRDERS.



SECTION J-J

THE LOCATION OF THE MAIN REINFORCEMENT IN THE BEAM SEAT MAY BE ADJUSTED HORIZONTALLY ±1" TO ACCOMMODATE THE 901 BARS.

* - THE SURFACE OF THE BEAM SEAT IN THIS AREA SHALL BE FINISHED WITH A SERRATED TROWEL. THE SERRATIONS SHALL BE ¼" DEEP MINIMUM.

NOTES:

1. PREPARE AND SCARIFY SURFACE AS PER "CUT LINE CONSTRUCTION JOINT PREPARATION", SEE GENERAL NOTE SHEET 6/3.
2. FOR ADDITIONAL NOTES AND ABBREVIATIONS, SEE SHEET 5/28.
3. ALL REINFORCING BAR MARKS SHALL BE PREFIXED AS FOLLOWS: FORWARD ABUTMENT - FA

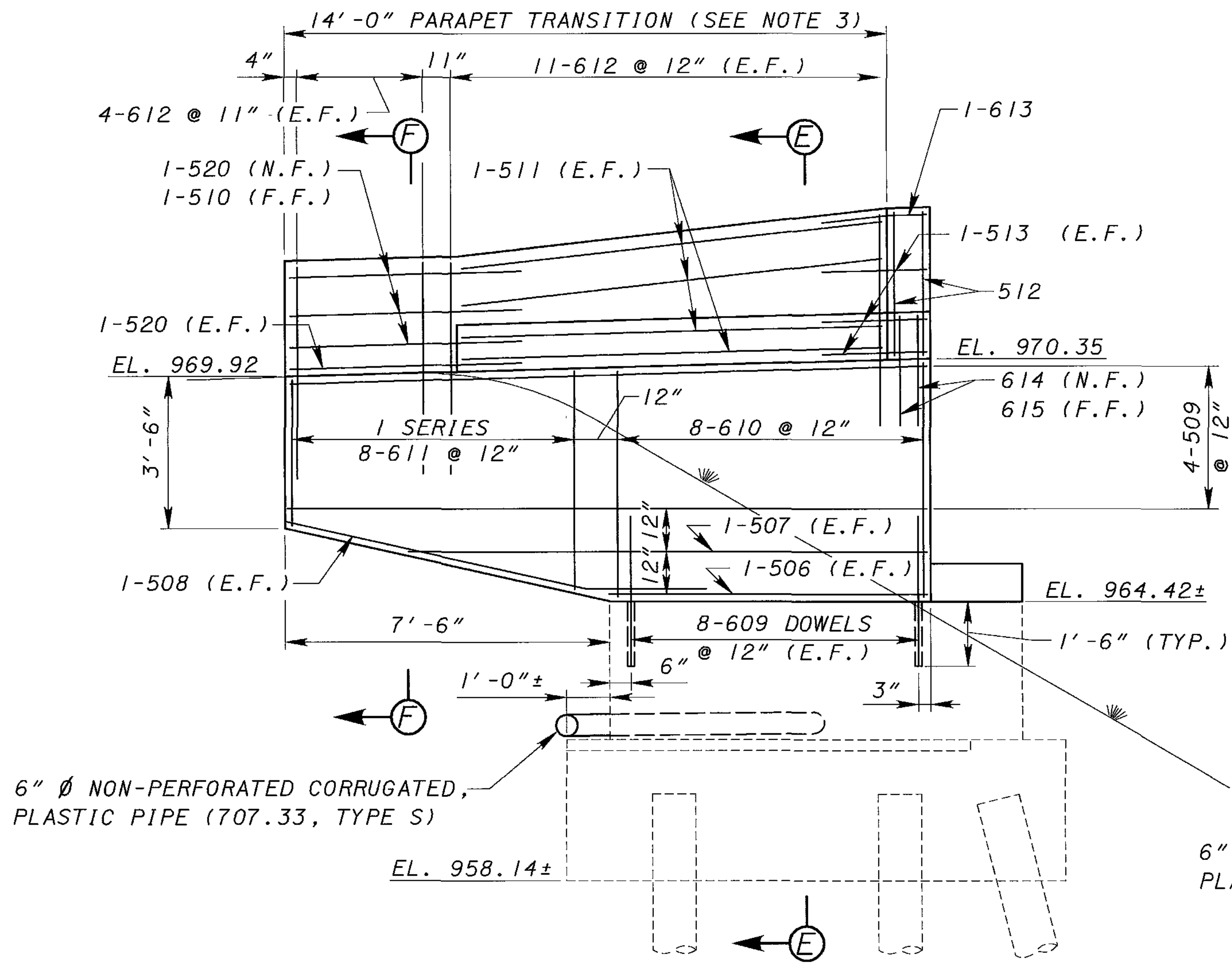
DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650 CLEVELAND, OHIO 44113-1901

DESIGNED NFF	DRAWN CAG	REVIEWED RER	DATE 06/11/04
CHECKED BTA	REVISED	STRUCTURE FILE NUMBER 5007178	

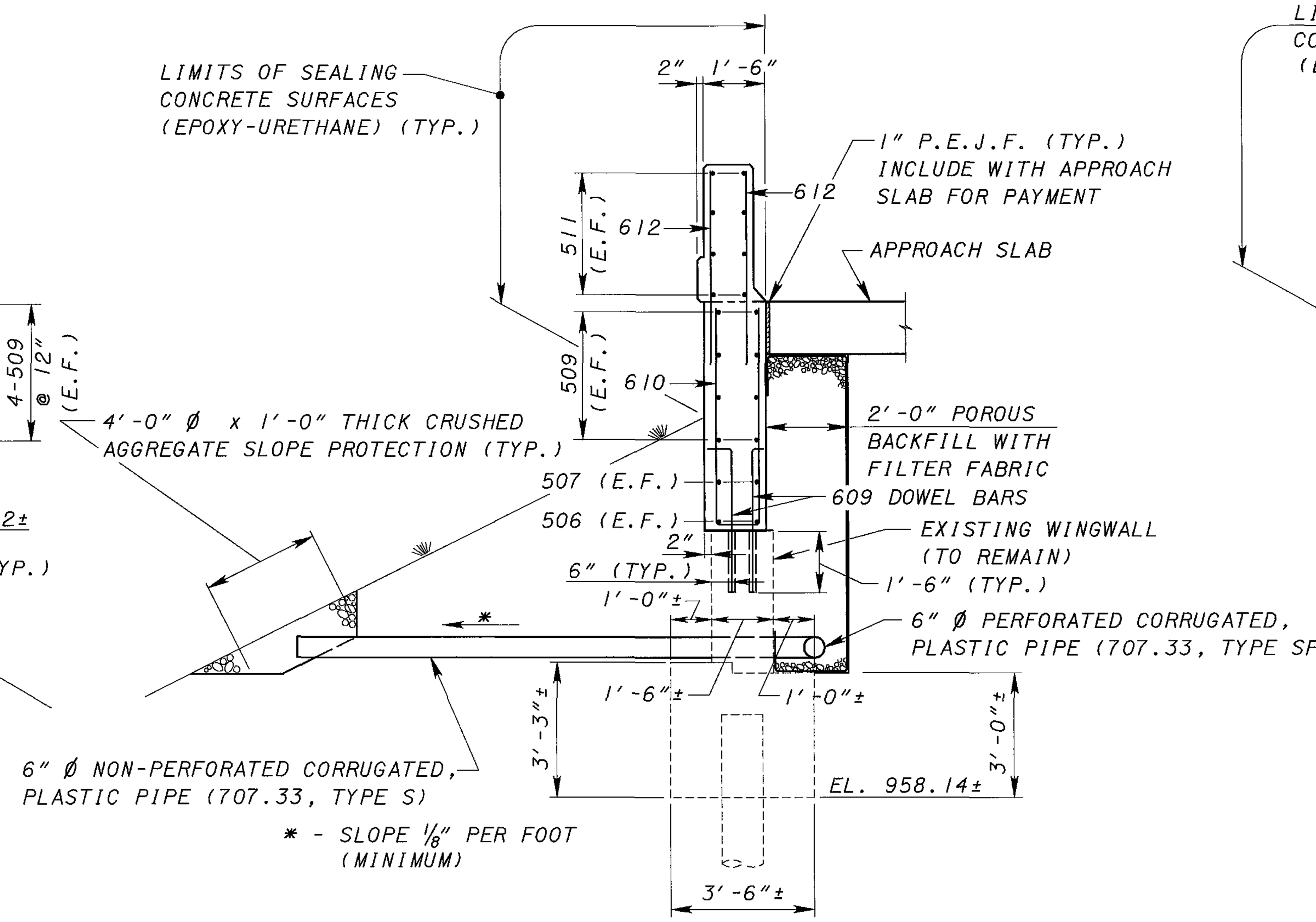
FORWARD ABUTMENT DETAILS
BRIDGE NO. MAH-680-0637
WAYNE AVENUE/PYATT STREET OVER IR-680

MAH-680-4.14/6.28/6.37

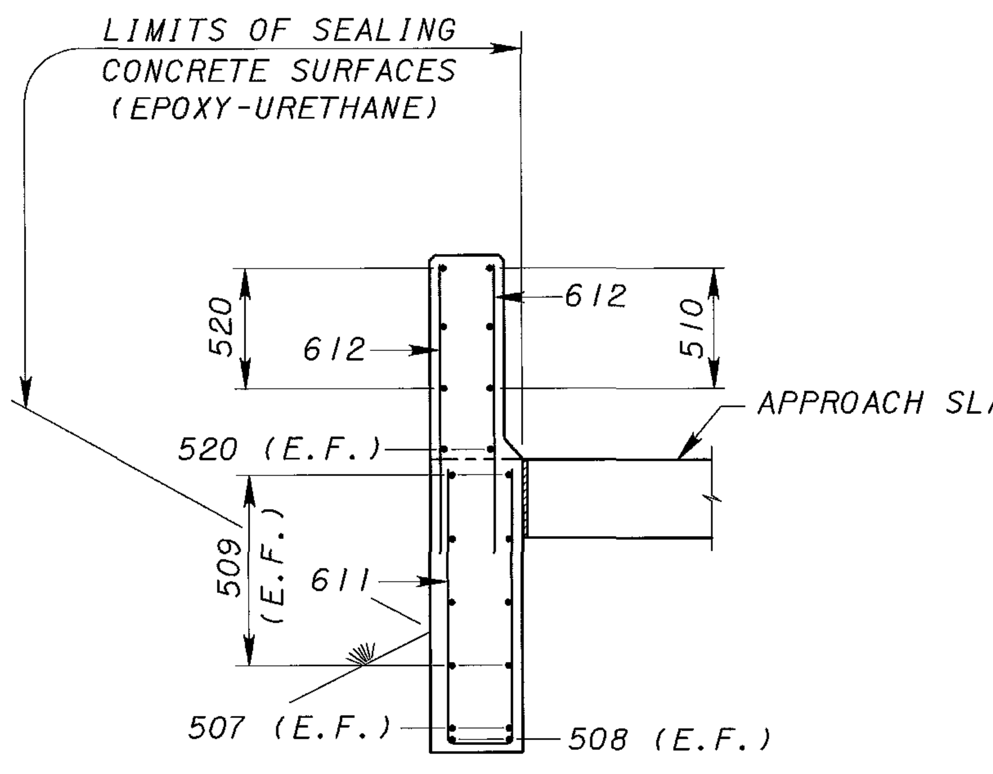
11/28



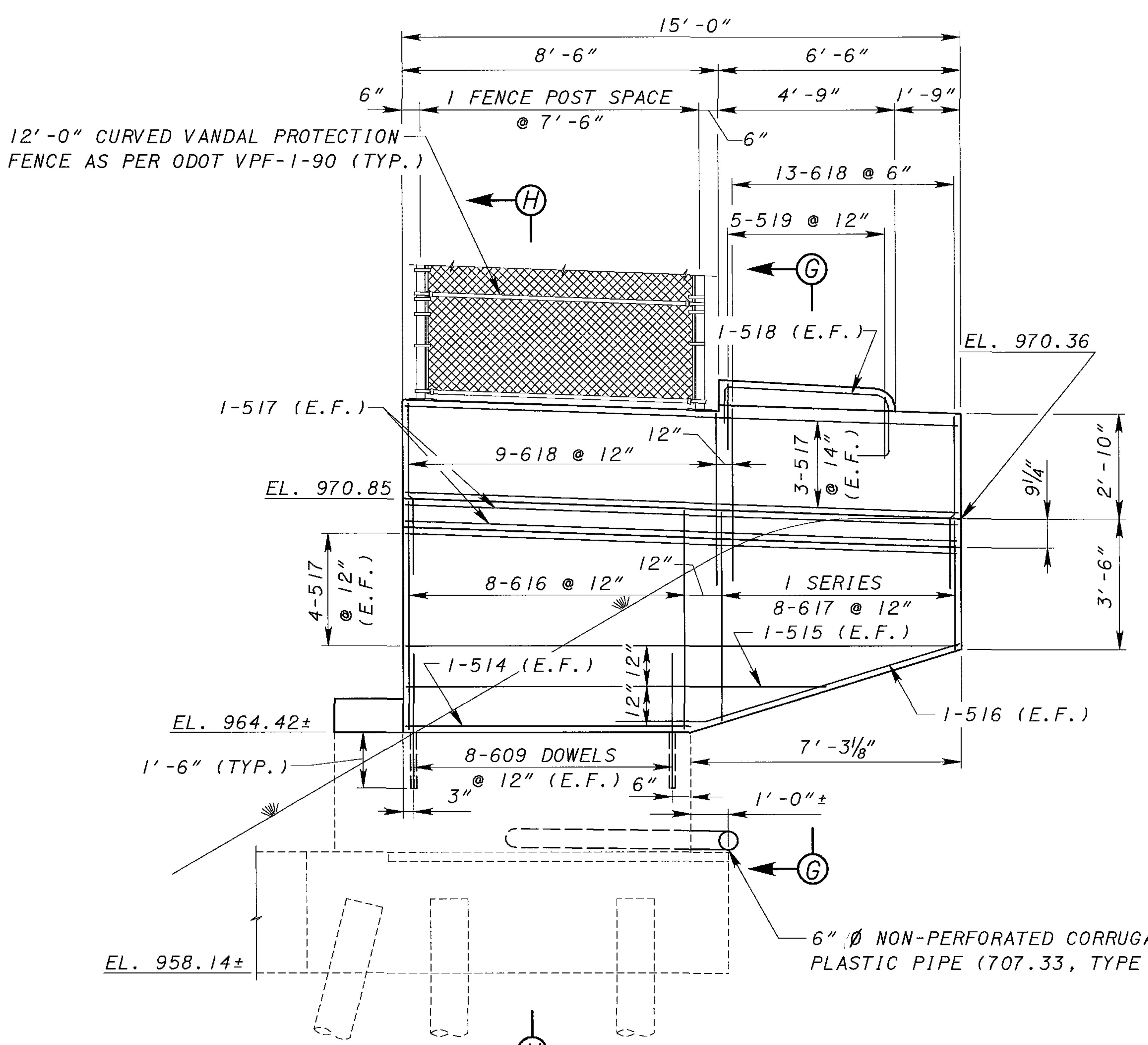
ELEVATION C-C



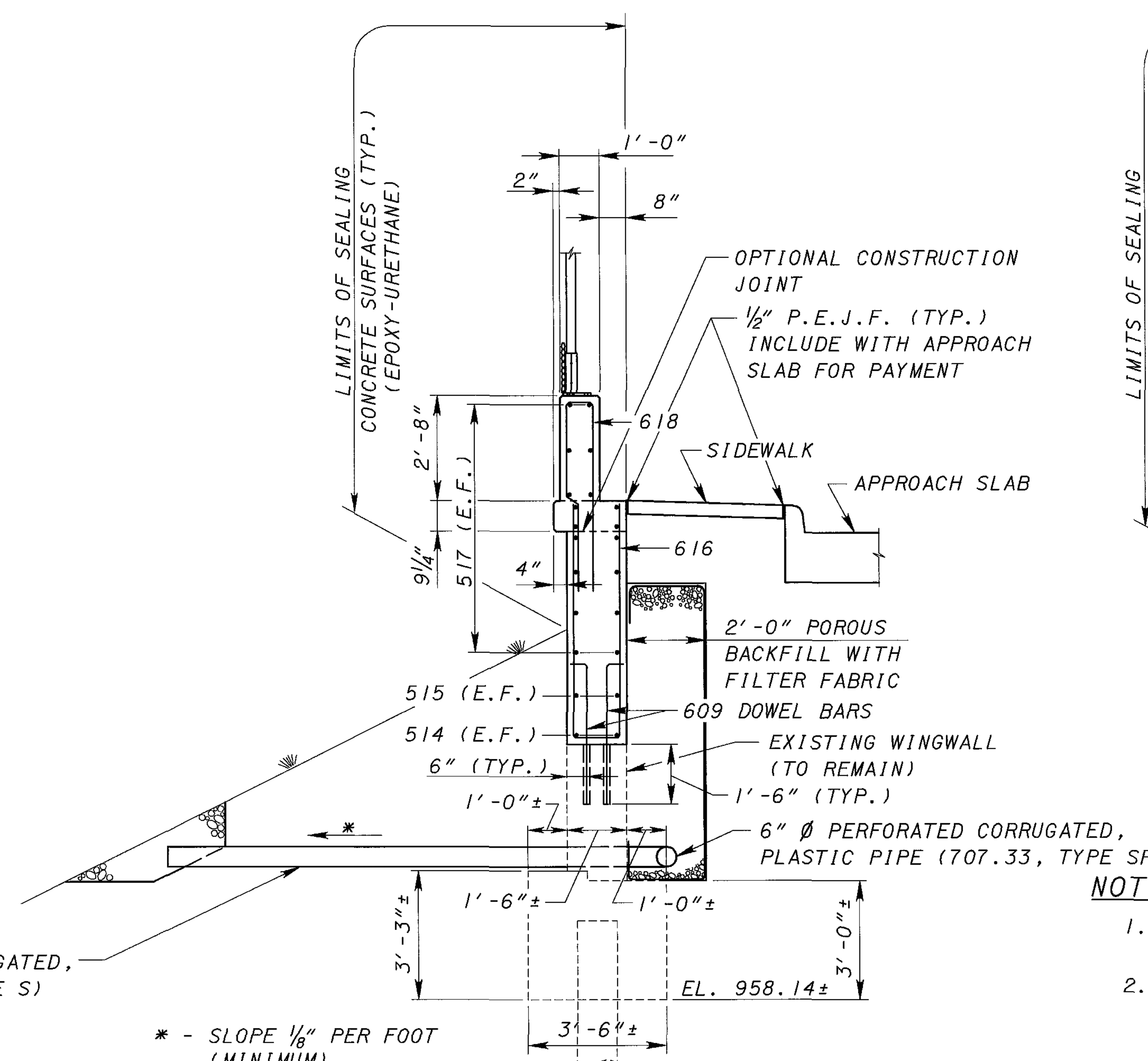
SECTION E-E



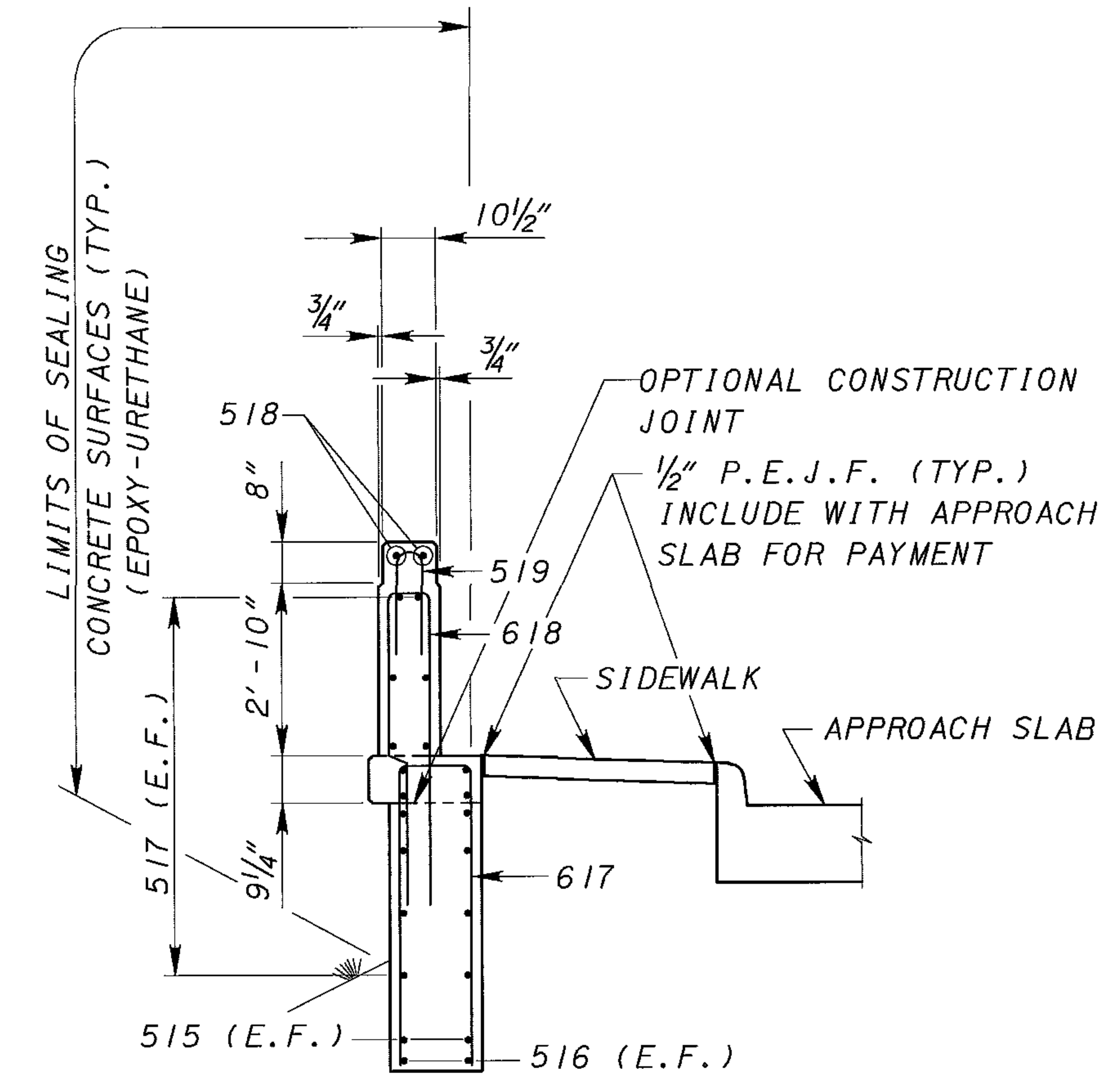
SECTION F-F



ELEVATION D-D



SECTION G-G



SECTION H-H

NOTES:

1. FOR ADDITIONAL NOTES AND ABBREVIATIONS, SEE SHEET 5/28.
2. ALL REINFORCING BAR MARKS SHALL BE PREFIXED AS FOLLOWS: FORWARD ABUTMENT - FA
3. FOR ADDITIONAL PARAPET DETAILS AND SECTIONS NOT SHOWN REFER TO O.D.O.T. STANDARD DRAWINGS BR-2-98 AND SBR-1-99.

DESIGN AGENCY: TRANSYSTEMS CORPORATION, 55 PUBLIC SQUARE, SUITE 1650, CLEVELAND, OHIO 44113-1901

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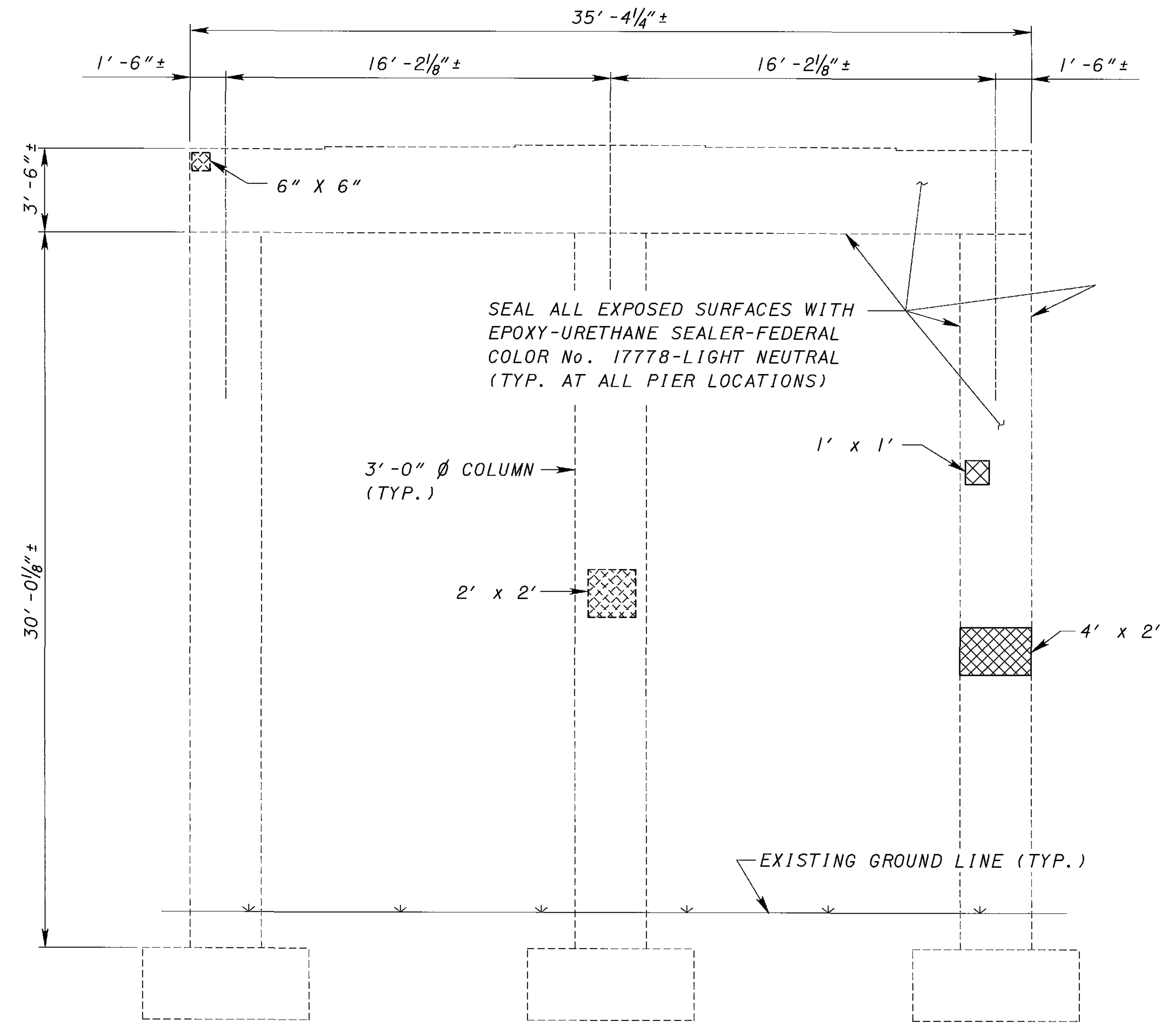
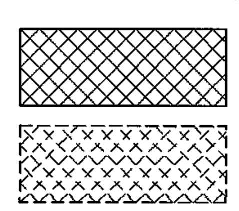
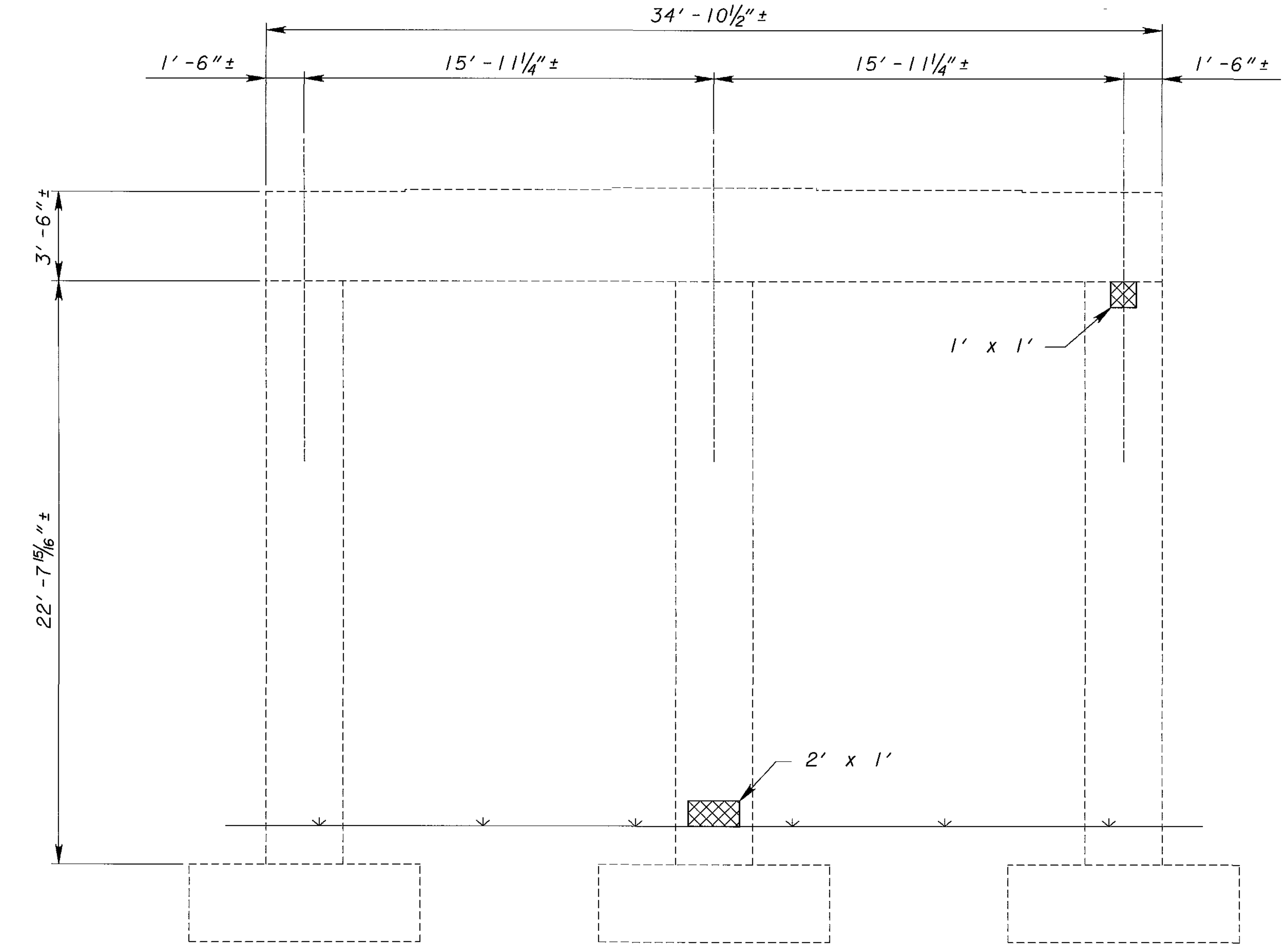
FORWARD ABUTMENT DETAILS
BRIDGE NO. MAH-680-0637
WAYNE AVENUE/PYATT STREET OVER IR-680

MAH-680-4.14/6.28/6.37

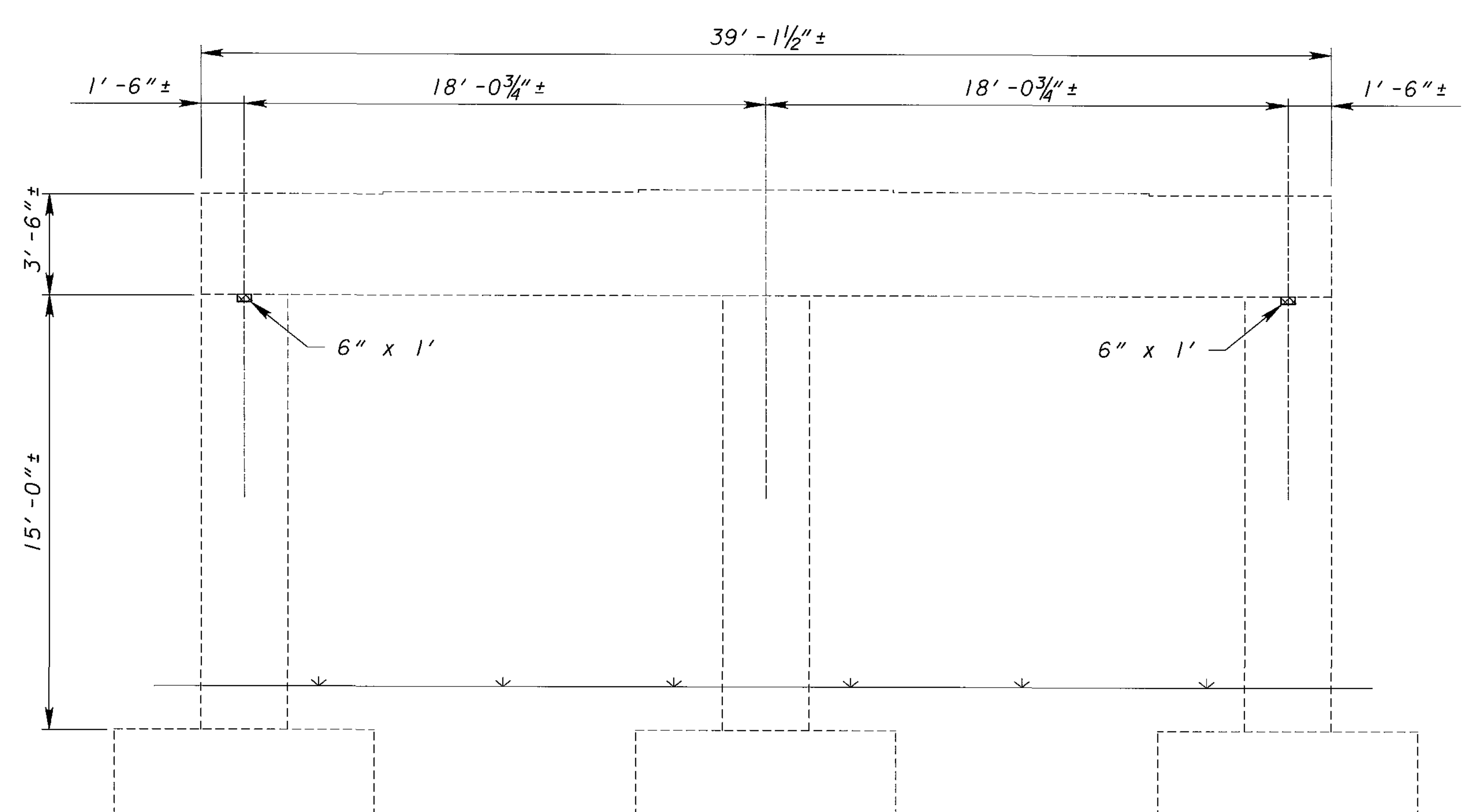


PIER 1
(WEST FACE SHOWN)





PIER 5
(WEST FACE SHOWN)



PIER 4
(WEST FACE SHOWN)

NOTES:

1. FOR ADDITIONAL PIER CONSTRUCTION DETAILS, SEE SHEET 14/28 & 15/28.

2. FOR ADDITIONAL NOTES AND ABBREVIATIONS, SEE SHEET 5/28.

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TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

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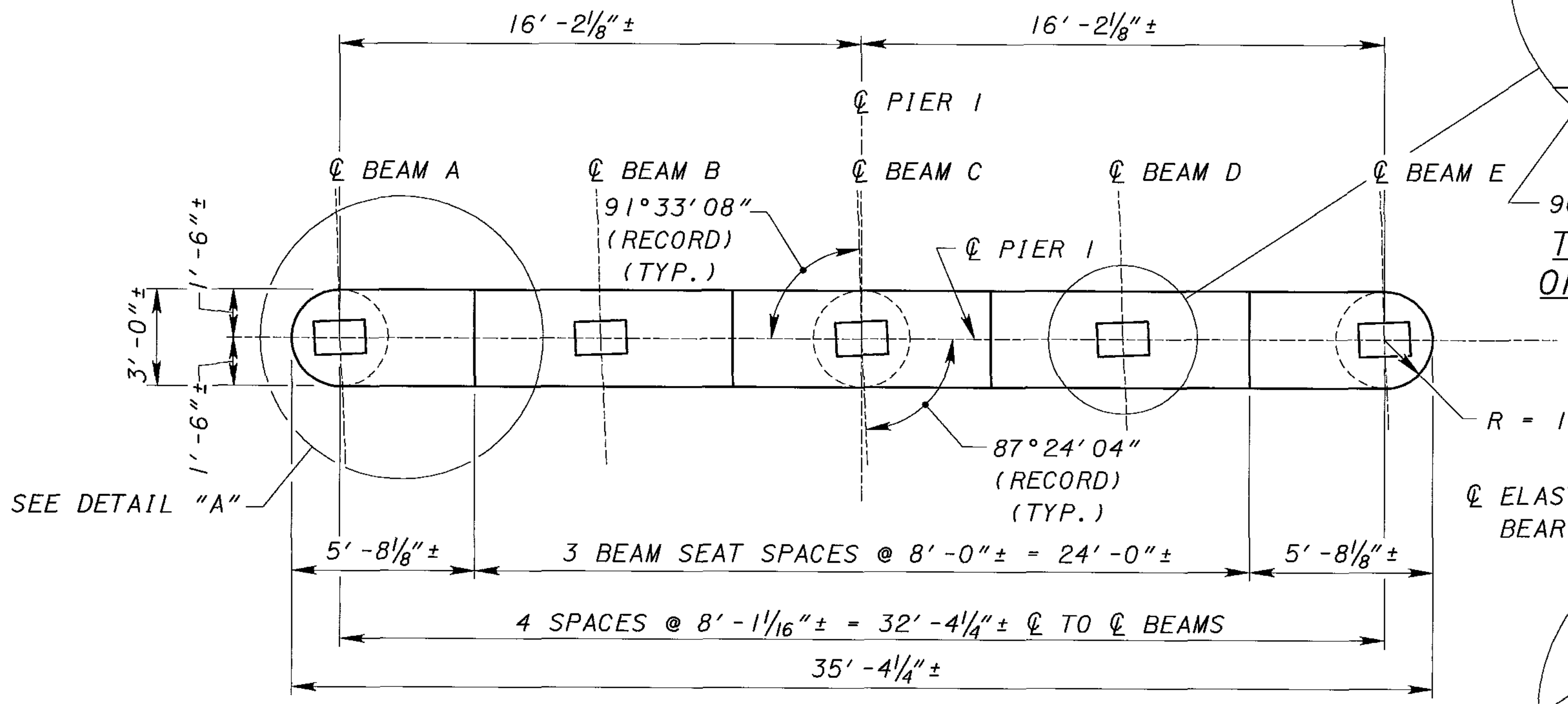
BTA		5007178	

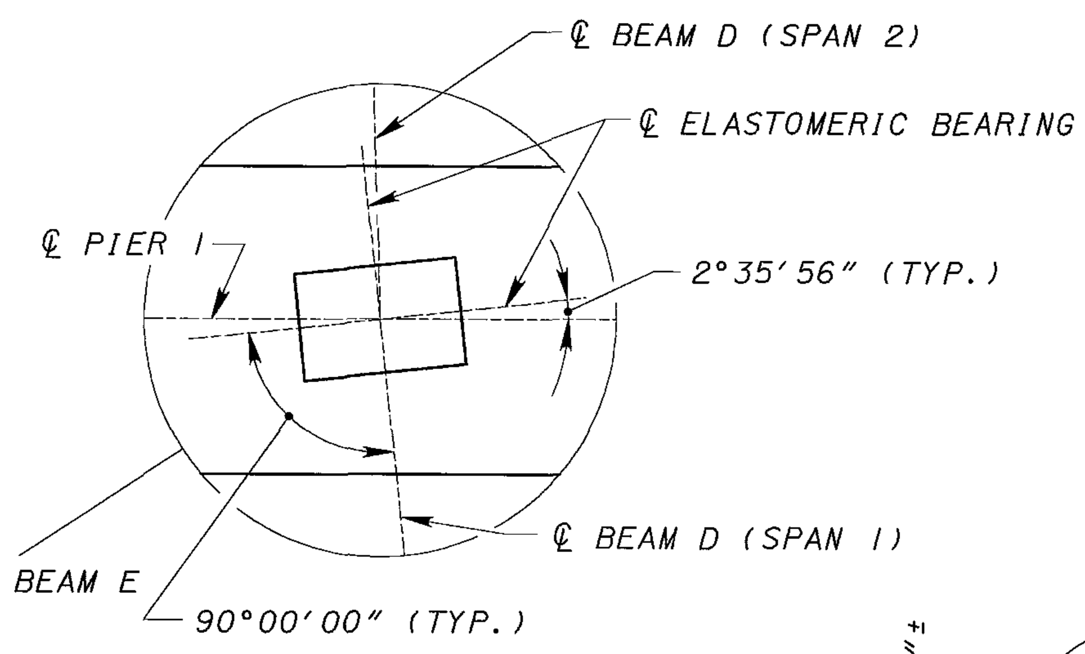
PIER PATCHING DETAILS
BRIDGE NO. MAH-680-0637
WAYNE AVENUE/PYATT STREET OVER IR-680

MAH-680-4.14/6.28/6.37

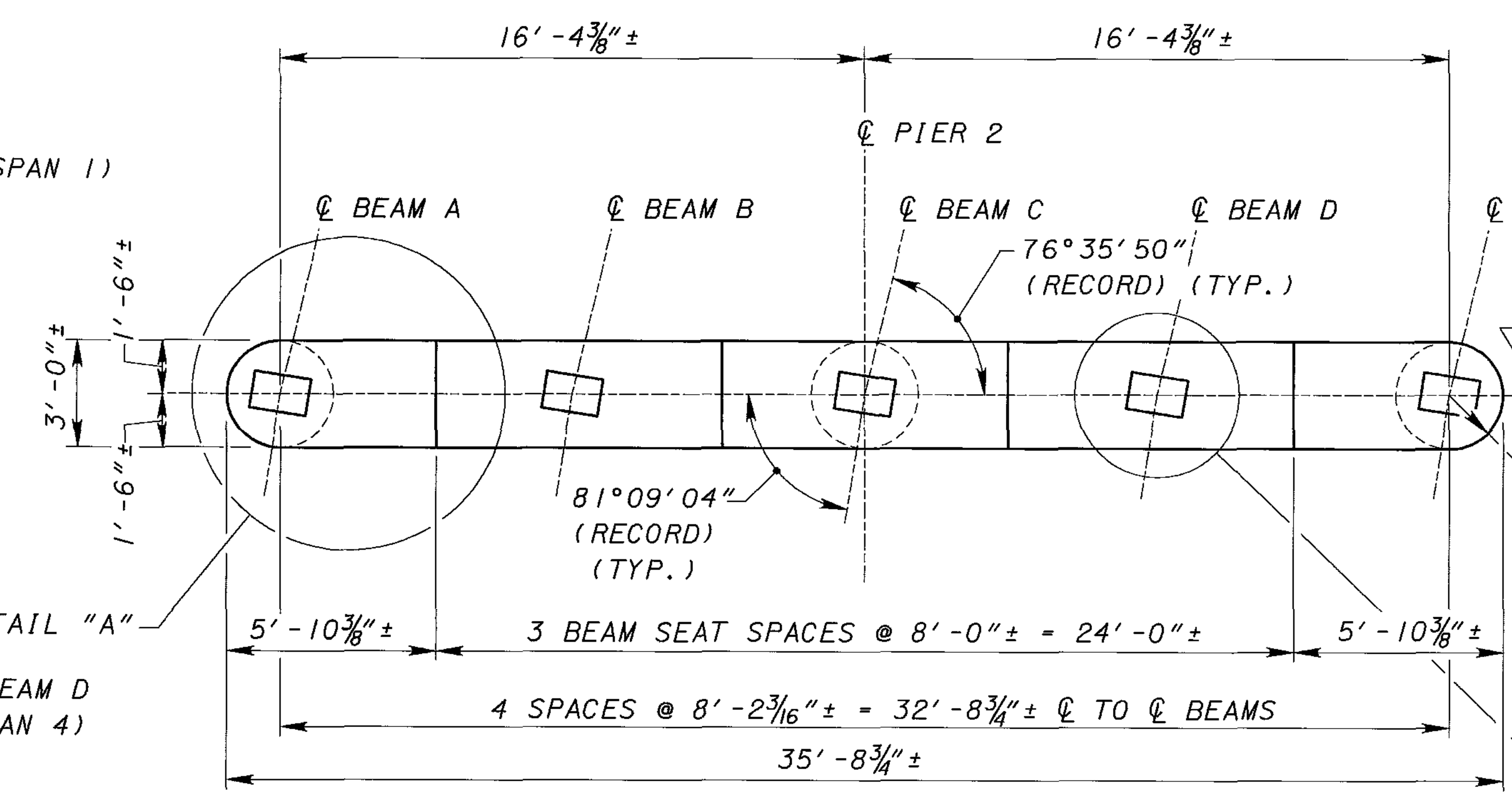
13/28



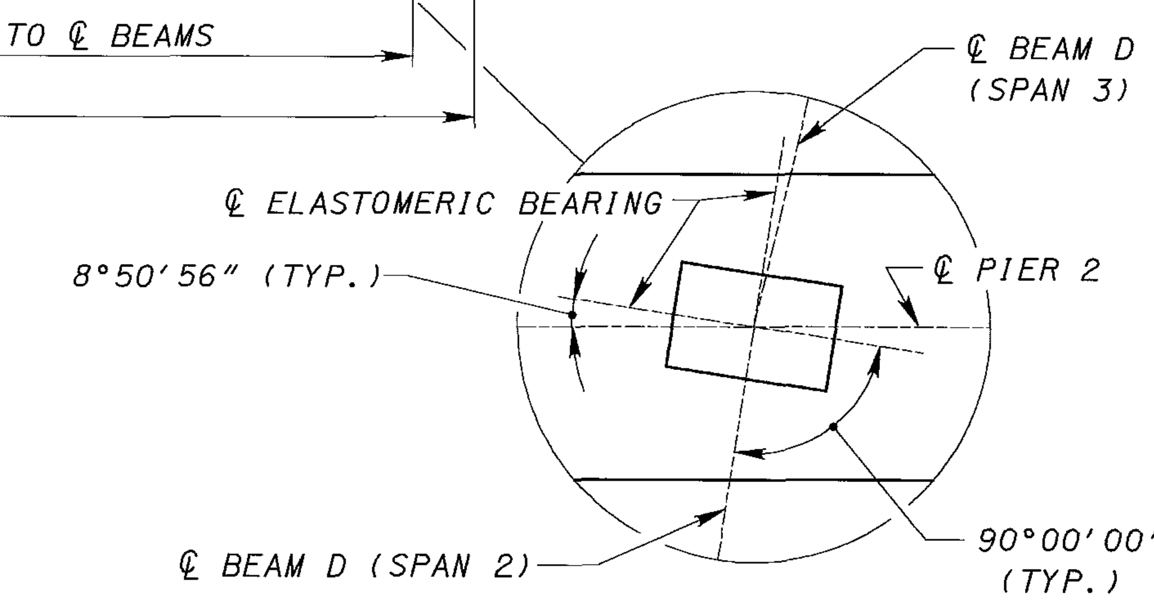
PLAN - PIER 1



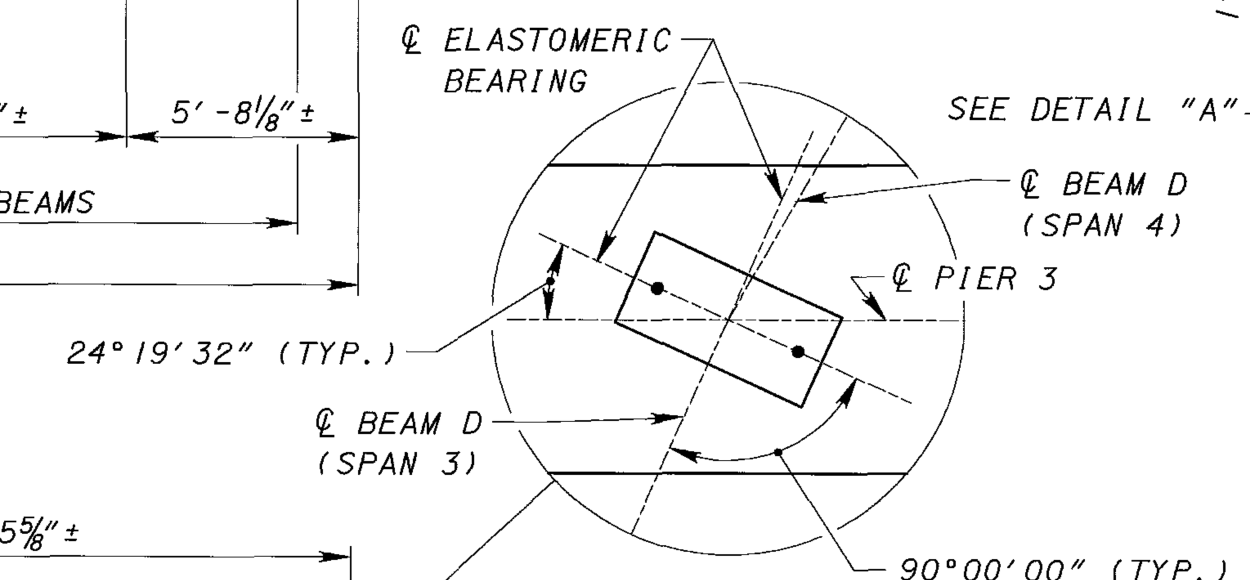
TYPICAL BEARING ORIENTATION PLAN
(PIER 1)



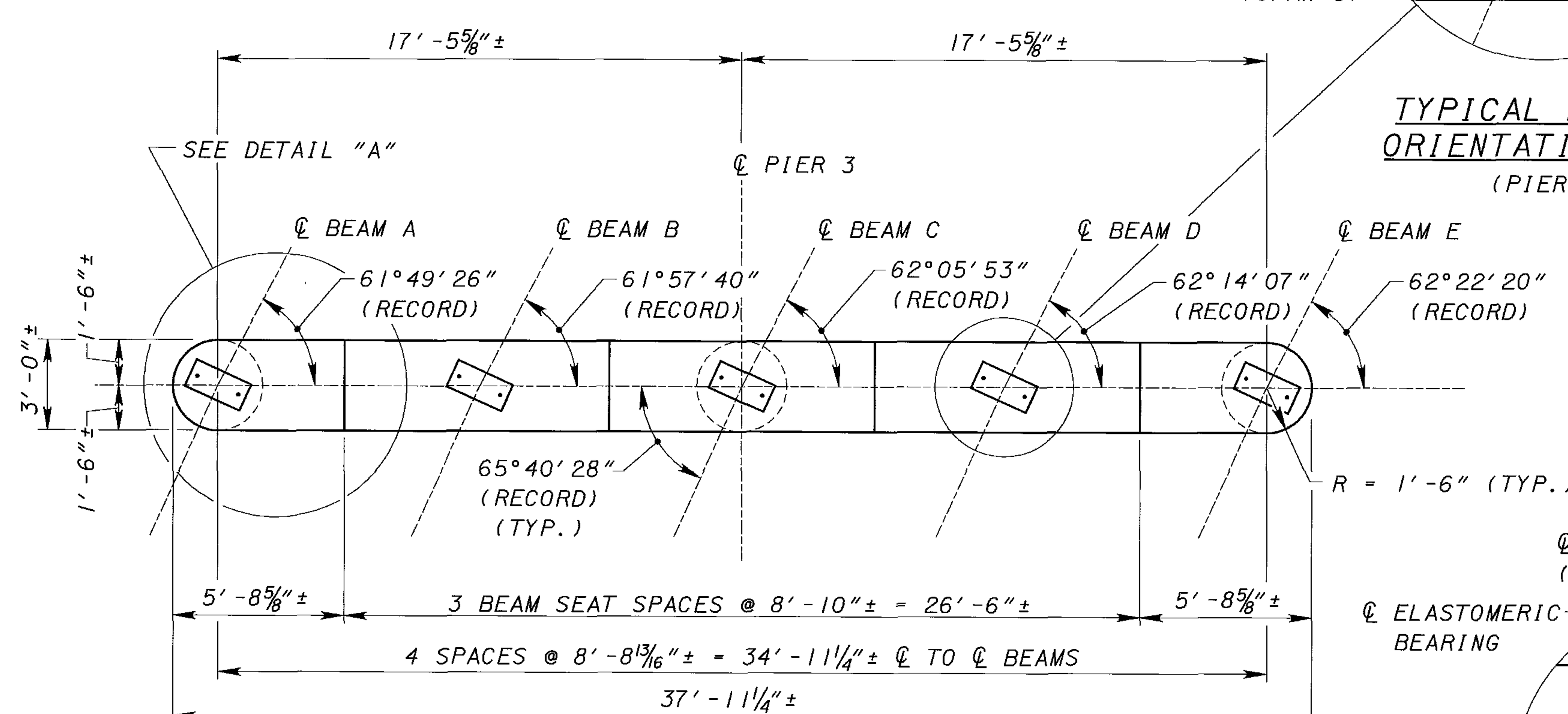
PLAN - PIER 2



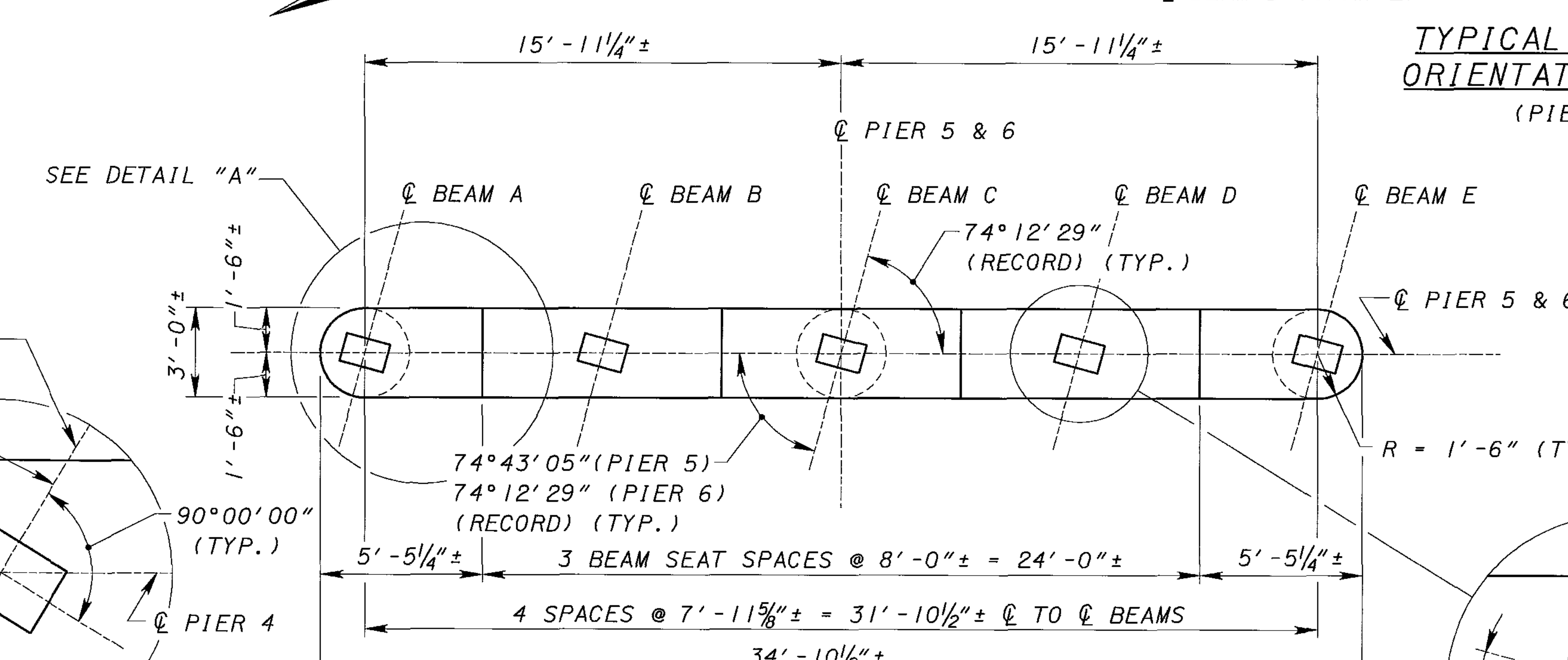
TYPICAL BEARING ORIENTATION PLAN
(PIER 2)



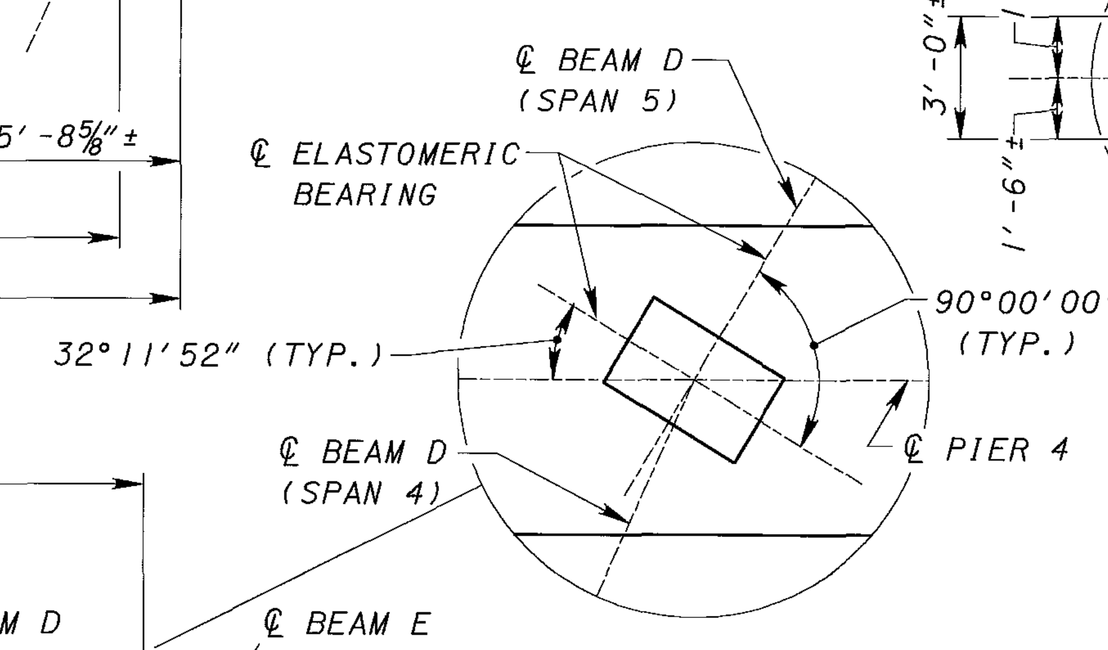
TYPICAL BEARING ORIENTATION PLAN
(PIER 3)



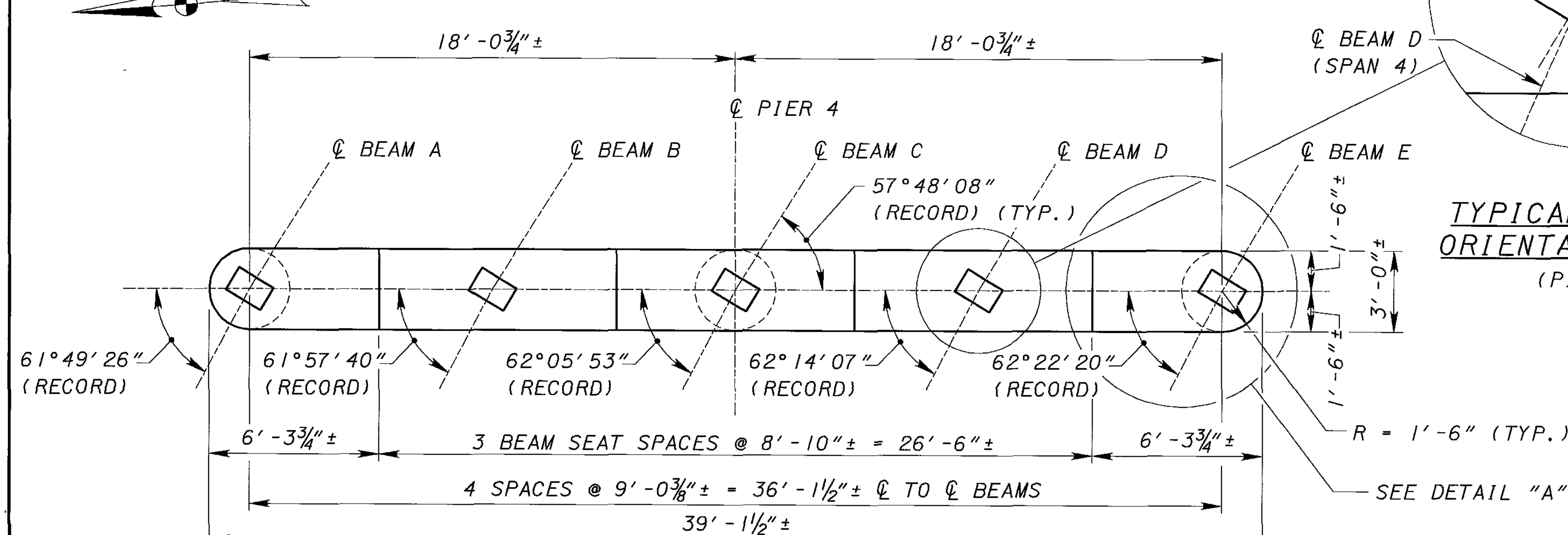
PLAN - PIER 3



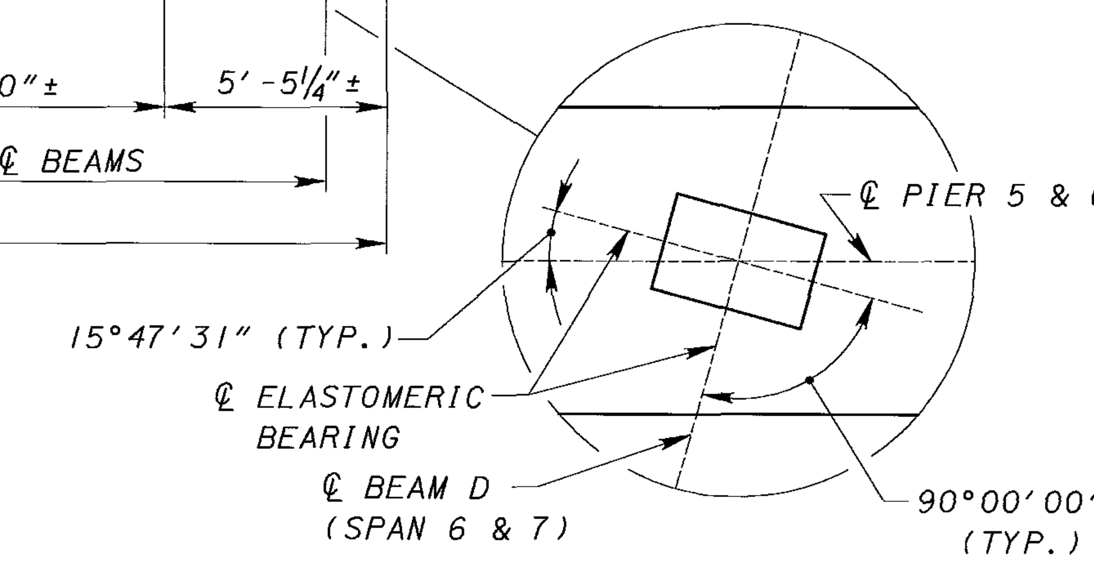
PLAN - PIER 5 & 6



TYPICAL BEARING ORIENTATION PLAN
(PIER 4)



PLAN - PIER 4



TYPICAL BEARING ORIENTATION PLAN
(PIER 5 & 6)

NOTES:

1. FOR PIER PATCHING DETAILS, SEE SHEET 13/28.
2. FOR ABBREVIATIONS, SEE SHEET 5/28.
3. FOR ADDITIONAL PIER CONSTRUCTION DETAILS, SEE SHEET 15/28.
4. FOR DETAIL "A", SEE SHEET 15/28.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
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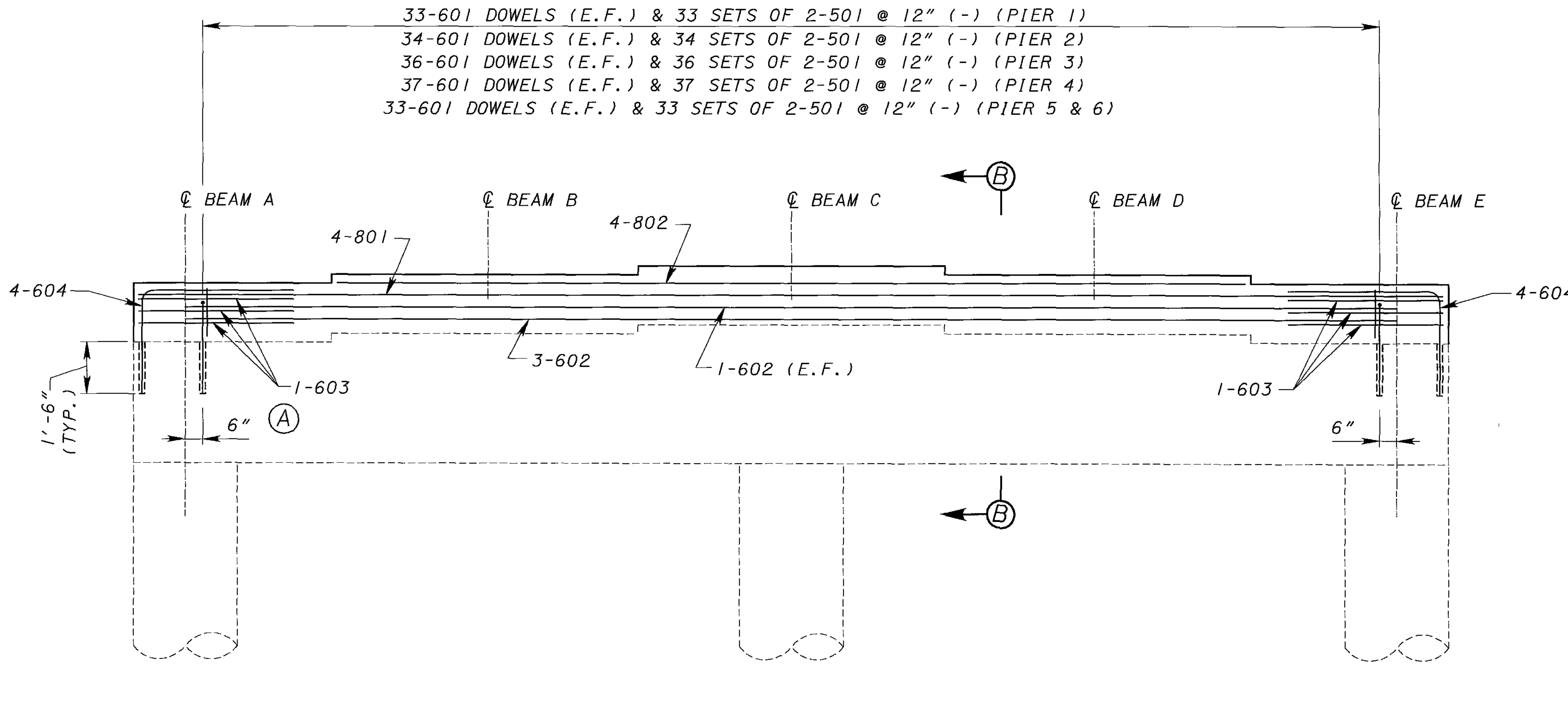
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BTA		5007178	

PIER DETAILS
BRIDGE NO. MAH-680-0637
WAYNE AVENUE/PYATT STREET OVER IR-680

MAH-680-4.14/6.28/6.37

14/28

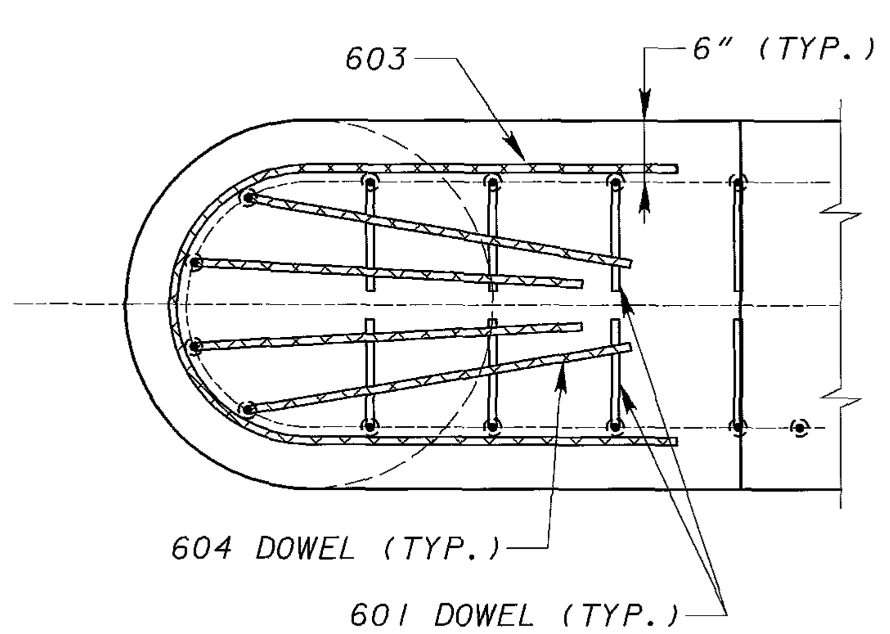
163/191



ELEVATION

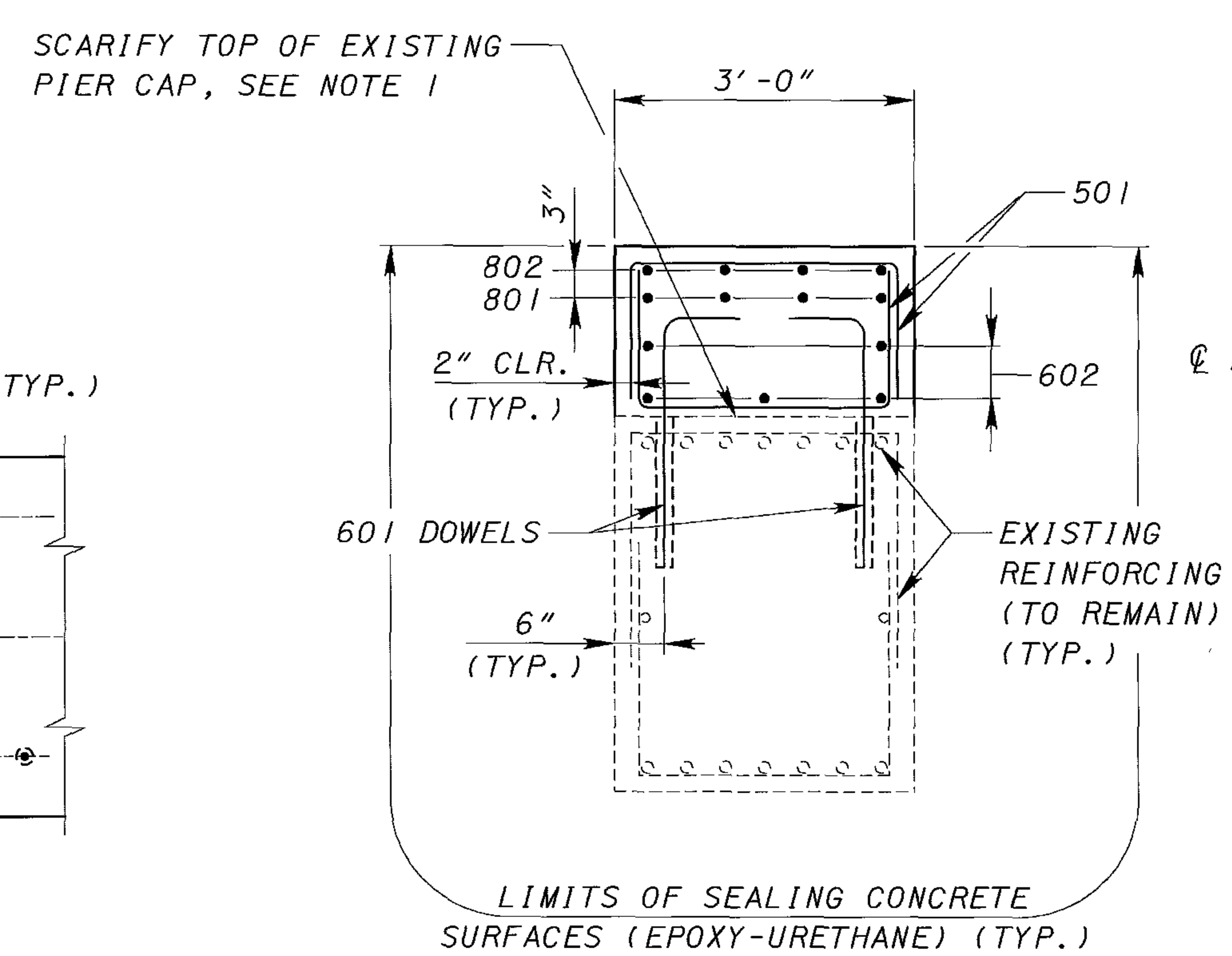
PROPOSED BEAM SEAT ELEVATIONS						
	PIER 1	PIER 2	PIER 3	PIER 4	PIER 5	PIER 6
℄ BEAM A	960.12	963.41	965.85	967.09	967.49	967.07
℄ BEAM B	960.24	963.62	966.08	967.27	967.61	967.16
℄ BEAM C	960.33	963.78	966.27	967.41	967.68	967.20
℄ BEAM D	960.20	963.72	966.25	967.34	967.56	967.04
℄ BEAM E	960.07	963.67	966.23	967.27	967.43	966.89

EXISTING BEAM SEAT ELEVATIONS						
	PIER 1	PIER 2	PIER 3	PIER 4	PIER 5	PIER 6
℄ BEAM A	958.27±	961.69±	964.08±	965.01±	965.82±	965.43±
℄ BEAM B	958.39±	961.88±	964.30±	965.35±	965.93±	965.51±
℄ BEAM C	958.47±	962.03±	964.40±	965.56±	966.01±	965.56±
℄ BEAM D	958.34±	961.97±	964.47±	965.57±	965.88±	965.40±
℄ BEAM E	958.21±	961.92±	964.45±	965.58±	965.76±	965.25±

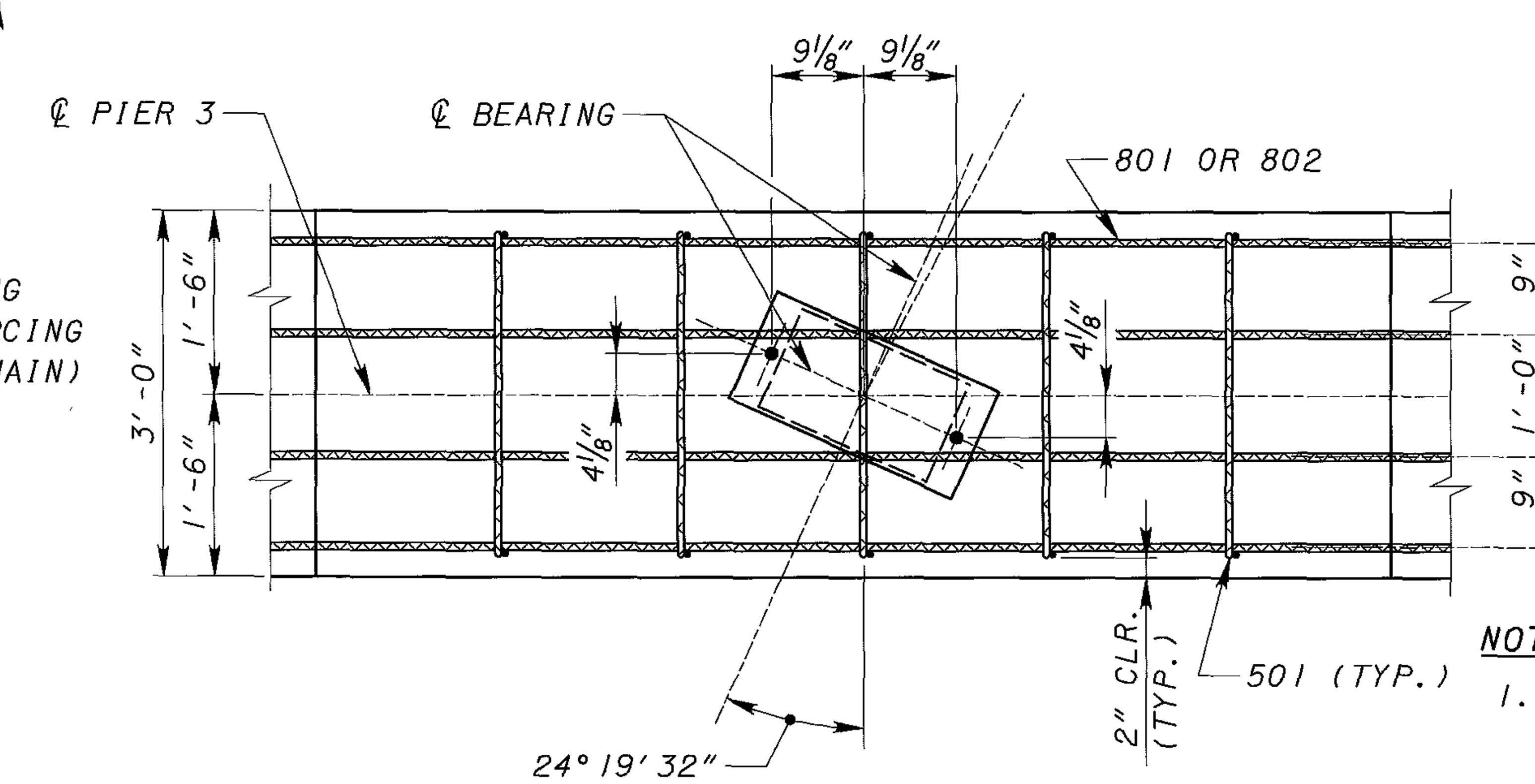


DETAIL A

(801 AND 501 BARS NOT SHOWN FOR CLARITY)



SECTION B-B



ANCHOR BOLT LAYOUT

(PIER 3 ONLY)

NOTES:

1. SURFACE SHALL BE CLEANED, FREE OF LAITANCE AND INTENTIONALLY ROUGHNED TO 1/4"± AMPLITUDE. PAYMENT SHALL BE INCLUDED WITH ITEM 898.
2. FOR PIER PATCHING DETAILS, SEE SHEET 13/28.
3. FOR ABBREVIATIONS, SEE SHEET 5/28.
4. ALL REINFORCING BARS SHALL BE PREFIXED "P".
5. FOR REINFORCING SCHEDULE, SEE SHEET 28/28.
6. PAYMENT FOR DRILLING OR FORMING HOLES AND FURNISHING AND PLACING GROUT SHALL BE INCLUDED IN THE CONTRACT PRICES FOR ITEM 510 - DOWELS HOLES WITH NONSHRINK, NONMETALLIC GROUT.
7. ACCURATELY PLACE REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR THE PRESETTING OF THE BEARING ANCHORS.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650 CLEVELAND, OHIO 44113-1901

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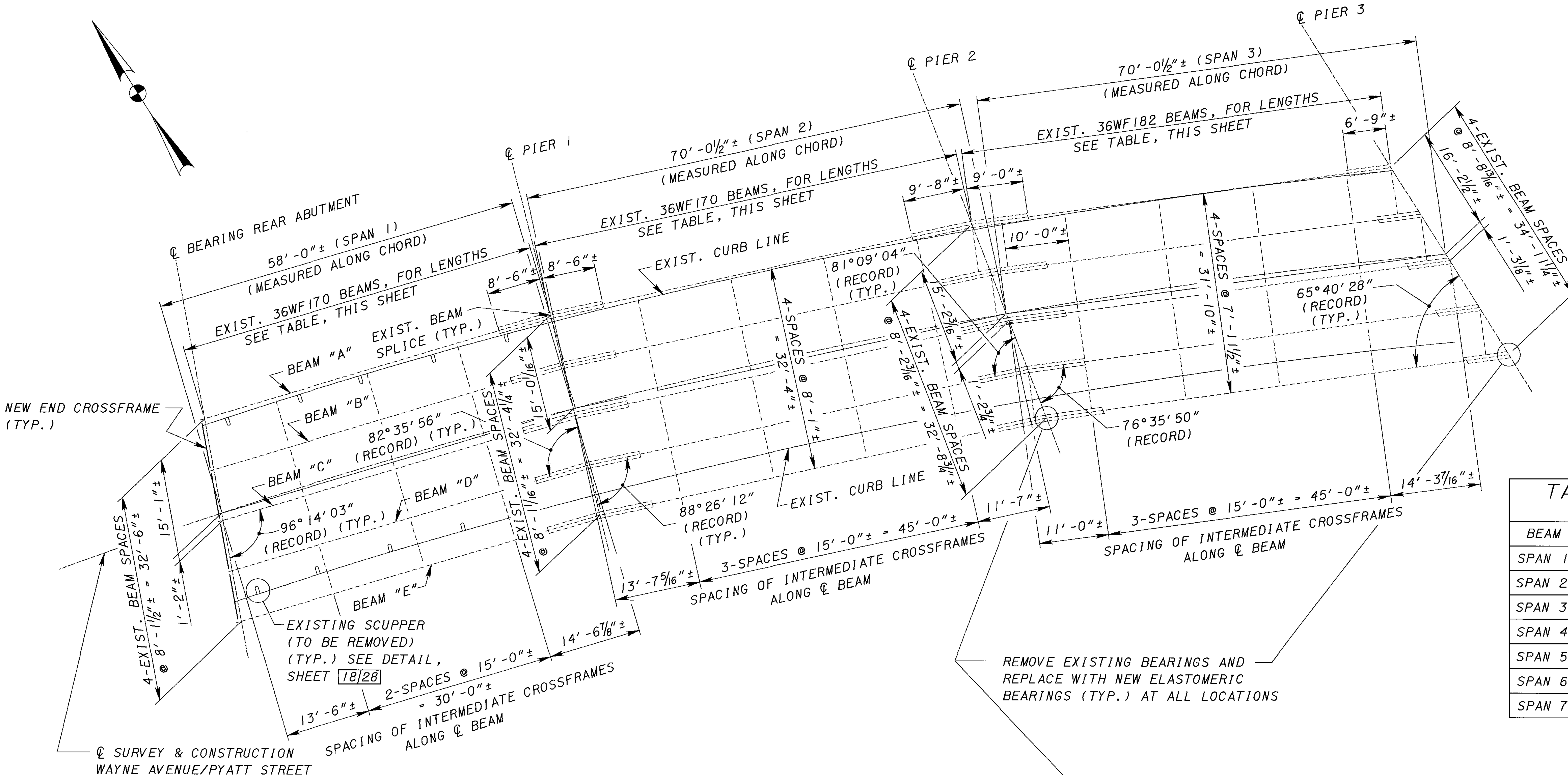
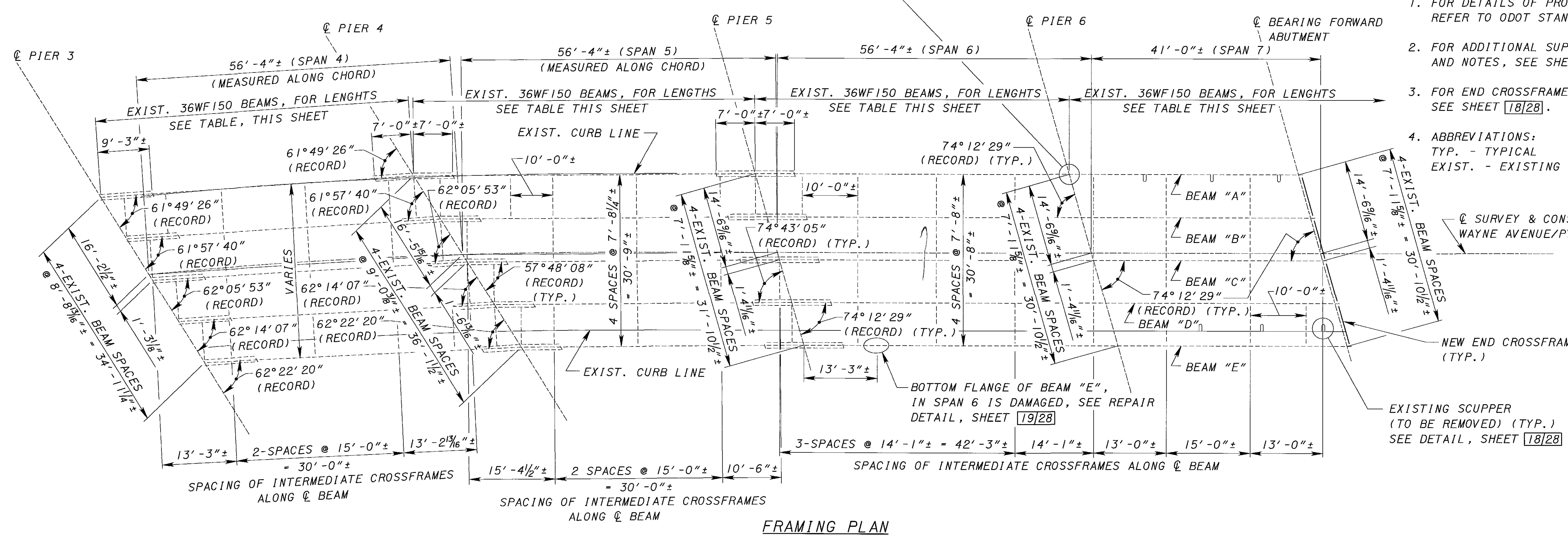
PIER DETAILS
BRIDGE NO. MAH-680-0637
WAYNE AVENUE/PYATT STREET OVER IR-680

MAH-680-4.14/6.28/6.37





FRAMING PLAN

TABLE OF EXISTING BEAM LENGTHS

(℄ BEARING TO ℄ BEARING)

BEAM	"A"	"B"	"C"	"D"	"E"
SPAN 1	57'-0½"±	57'-6 11/16"±	58'-0⅞"±	58'-7 1/16"±	59'-1¼"±
SPAN 2	68'-1⅜"±	69'-1⅞"±	70'-2 5/16"±	71'-2¾"±	72'-3 3/16"±
SPAN 3	66'-10⅝"±	68'-7 1/16"±	70'-3 7/16"±	71'-11⅞"±	73'-8¼"±
SPAN 4	56'-2⅜"±	56'-4 1/16"±	56'-5 13/16"±	56'-7 9/16"±	56'-9¼"±
SPAN 5	61'-1 15/16"±	58'-6 3/16"±	55'-10½"±	53'-2¾"±	50'-7"±
SPAN 6	56'-4"±	56'-4"±	56'-4"±	56'-4"±	56'-4"±
SPAN 7	41'-0"±	41'-0"±	41'-0"±	41'-0"±	41'-0"±

NOTES:

1. FOR DETAILS OF PROPOSED END CROSSFRAMES, REFER TO ODOT STANDARD DRAWING GSD-1-96.
2. FOR ADDITIONAL SUPERSTRUCTURE DETAILS AND NOTES, SEE SHEETS 19/28 AND 22/28.
3. FOR END CROSSFRAME REMOVAL DETAIL, SEE SHEET 18/28.
4. ABBREVIATIONS:
   TYP. - TYPICAL
   EXIST. - EXISTING

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TRANSYSTEMS CORPORATION

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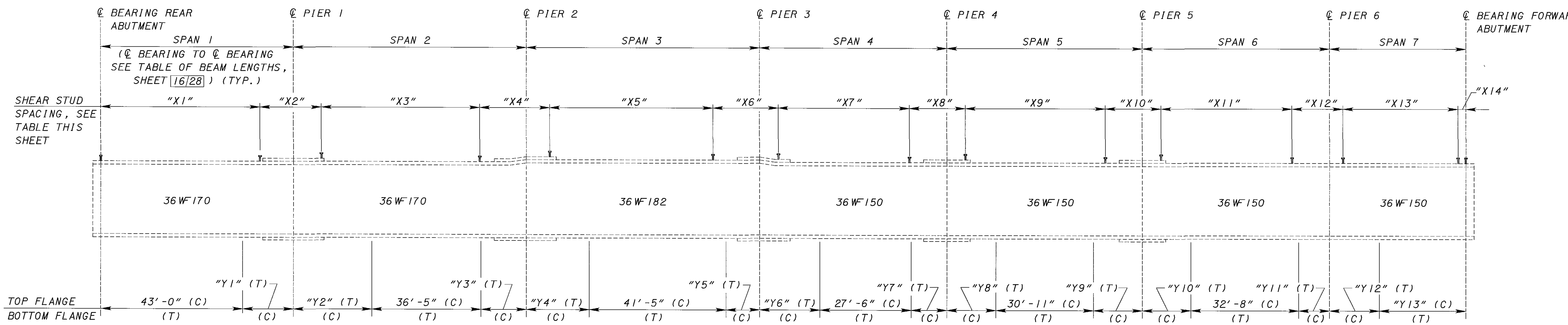
FRAMING PLAN
BRIDGE NO. MAH-680-0637
WAYNE AVENUE/PYATT STREET OVER IR-680

MAH-680-4.14/6.28/6.37



EXISTING BEAM ELEVATION
(A THRU E)

LEGEND:

(T) - DENOTES AREA OF TENSION IN THE TOP FLANGE. THE BOTTOM FLANGE IN THESE AREAS IS IN COMPRESSION.

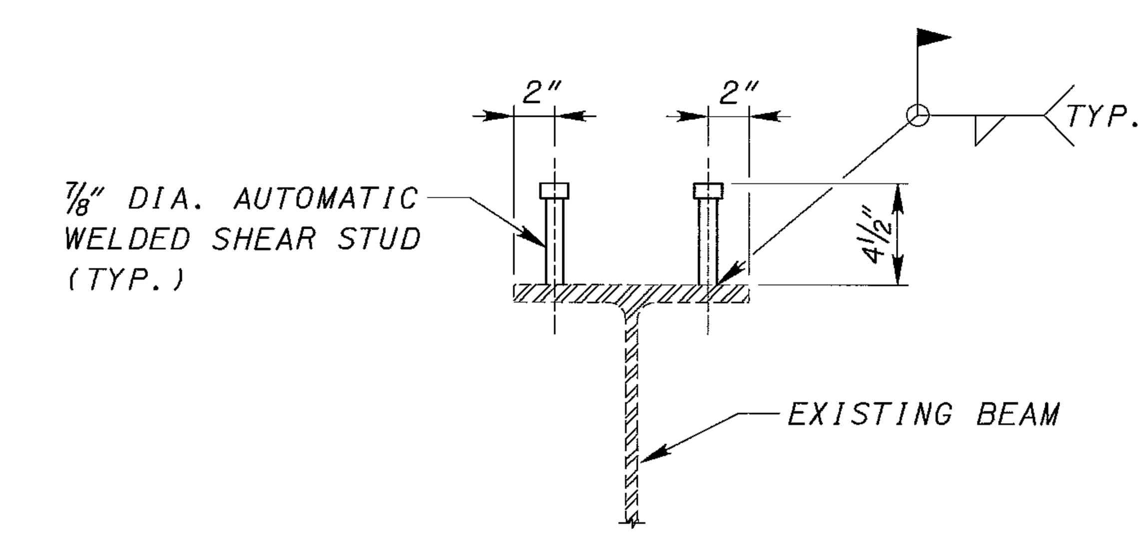
(C) - DENOTES AREA OF COMPRESSION IN THE TOP FLANGE. THE BOTTOM FLANGE IN THESE AREAS IS IN TENSION.

TABLE OF TENSION AND COMPRESSION
(EXISTING BEAMS A THRU E)

BEAM	"A"	"B"	"C"	"D"	"E"
"Y1"	14'-0 1/2" ±	14'-6 11/16" ±	15'-0 7/8" ±	15'-7 1/16" ±	16'-1 1/4" ±
"Y2"	17'-8" ±	17'-2" ±	16'-7 5/16" ±	16'-1 9/16" ±	15'-7 3/8" ±
"Y3"	14'-0 3/8" ±	15'-6 7/8" ±	17'-2" ±	18'-8 3/16" ±	20'-2 13/16" ±
"Y4"	18'-11 1/2" ±	17'-4 3/4" ±	15' 10 3/16" ±	14'-3 1/2" ±	12'-8 7/8" ±
"Y5"	6'-6 1/8" ±	9'-9 5/16" ±	13'-0 1/4" ±	16'-3 3/8" ±	19'-6 3/8" ±
"Y6"	23'-0 1/2" ±	19'-9 1/16" ±	16'-6 3/16" ±	13'-3 3/8" ±	10'-0 1/4" ±
"Y7"	5'-7 7/8" ±	9'-1" ±	12'-5 5/8" ±	15'-10 3/16" ±	19'-3" ±
"Y8"	18'-4 1/2" ±	14'-11 3/4" ±	11'-7" ±	8'-2 1/8" ±	4'-9 7/16" ±
"Y9"	11'-10 7/16" ±	12'-7 7/16" ±	13'-4 1/2" ±	14'-1 5/8" ±	14'-10 9/16" ±
"Y10"	14'-6" ±	13'-9 1/8" ±	13'-0" ±	12'-3" ±	11'-6" ±
"Y11"	9'-2" ±	9'-10 7/8" ±	10'-8" ±	11'-5" ±	12'-2" ±
"Y12"	12'-11" ±	12'-1 3/4" ±	11'-4 3/4" ±	10'-7 3/4" ±	9'-10 5/8" ±
"Y13"	28'-1" ±	28'-10 1/4" ±	29'-7 1/4" ±	30'-4 1/4" ±	31'-1 3/8" ±

TABLE OF EXISTING MOMENT PLATE SIZES

LOCATIONS	TOP MOMENT PLATES	BOTTOM MOMENT PLATES
PIER 1	10 1/2"x1/2"x17'-0"	13 1/2"x9/16"x17'-0"
PIER 2	10 1/2"x5/8"x18'-8"	13 1/2"x5/8"x18'-8"
PIER 3	10 1/2"x1/2"x16'-0"	13 1/2"x9/16"x16'-0"
PIER 4	10 1/2"x1/2"x14'-0"	13 1/2"x1/2"x14'-0"
PIER 5	10 1/2"x1/2"x14'-0"	13 1/2"x1/2"x14'-0"
PIER 6	–	–



SHEAR STUD DETAIL

NOTE: STUD PLACEMENT ON FLANGE SPLICE PLATES IS NOT PERMITTED. ADJUST SPACINGS TO AVOID INTERFERENCE WITH SPLICE PLATES AND CONNECTION BOLTS.

TABLE OF SHEAR STUD SPACING
(EXISTING BEAMS A THRU E)

BEAM	"A"	"B"	"C"	"D"	"E"
"X1"	68 SPA. @ 8" = 45'-4"	70 SPA. @ 8" = 46'-8"	70 SPA. @ 8" = 46'-8"	71 SPA. @ 8" = 47'-4"	71 SPA. @ 8" = 47'-4"
"X2"	10 SPA. @ 22" = 18'-4"	10 SPA. @ 22" = 18'-4"	9 SPA. @ 24" = 18'-0"	10 SPA. @ 22" = 18'-4"	10 SPA. @ 22" = 18'-4"
"X3"	65 SPA. @ 9" = 48'-9"	64 SPA. @ 9" = 48'-0"	66 SPA. @ 9" = 49'-6"	67 SPA. @ 9" = 50'-3"	67 SPA. @ 9" = 50'-3"
"X4"	10 SPA. @ 24" = 20'-0"	10 SPA. @ 24" = 20'-0"	10 SPA. @ 24" = 20'-0"	10 SPA. @ 24" = 20'-0"	10 SPA. @ 24" = 20'-0"
"X5"	61 SPA. @ 9" = 45'-9"	65 SPA. @ 9" = 48'-9"	67 SPA. @ 9" = 50'-3"	69 SPA. @ 9" = 51'-9"	73 SPA. @ 9" = 54'-9"
"X6"	10 SPA. @ 22" = 18'-4"	10 SPA. @ 24" = 20'-0"	10 SPA. @ 24" = 20'-0"	10 SPA. @ 24" = 20'-0"	11 SPA. @ 22" = 20'-2"
"X7"	54 SPA. @ 9" = 40'-6"	52 SPA. @ 9" = 39'-0"	53 SPA. @ 9" = 39'-9"	53 SPA. @ 9" = 39'-9"	52 SPA. @ 9" = 39'-0"
"X8"	9 SPA. @ 22" = 16'-6"	10 SPA. @ 20" = 16'-8"	9 SPA. @ 22" = 16'-6"	10 SPA. @ 20" = 16'-8"	9 SPA. @ 22" = 16'-6"
"X9"	61 SPA. @ 9" = 45'-9"	56 SPA. @ 9" = 42'-0"	54 SPA. @ 9" = 40'-6"	49 SPA. @ 9" = 36'-9"	46 SPA. @ 9" = 34'-6"
"X10"	8 SPA. @ 24" = 16'-0"	8 SPA. @ 24" = 16'-0"	9 SPA. @ 22" = 16'-6"	8 SPA. @ 24" = 16'-0"	9 SPA. @ 22" = 16'-6"
"X11"	52 SPA. @ 9" = 39'-0"	53 SPA. @ 9" = 39'-9"	53 SPA. @ 9" = 39'-9"	53 SPA. @ 9" = 39'-9"	54 SPA. @ 9" = 40'-6"
"X12"	8 SPA. @ 24" = 16'-0"	7 SPA. @ 24" = 14'-0"	7 SPA. @ 24" = 14'-0"	7 SPA. @ 24" = 14'-0"	7 SPA. @ 24" = 14'-0"
"X13"	54 SPA. @ 8" = 36'-0"	57 SPA. @ 8" = 38'-0"	55 SPA. @ 8" = 36'-8"	57 SPA. @ 8" = 38'-0"	56 SPA. @ 8" = 37'-4"
"X14"	1 SPA. @ 5 13/16" ±	1 SPA. @ 3 7/8" ±	1 SPA. @ 1 15/16" ±	1 SPA. @ 5" ±	1 SPA. @ 7" ±

NOTES

1. WELDED ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE MAY BE MADE TO AREAS ON THE BEAM FLANGES DESIGNATED COMPRESSION. ATTACHMENTS SHALL NOT BE MADE TO AREAS DESIGNATED TENSION. FILLET WELDS TO COMPRESSION FLANGES SHALL BE NOT CLOSER THAN 1" FROM EDGE OF FLANGE, BE MORE THAN 2" LONG AND BE NOT SMALLER THAN 1/4" THICK AND 5/16" FOR GREATER THAN 3/4" THICK.
2. FOR FRAMING PLAN AND TABLE OF BEAM LENGTHS, SEE SHEET 16/28.

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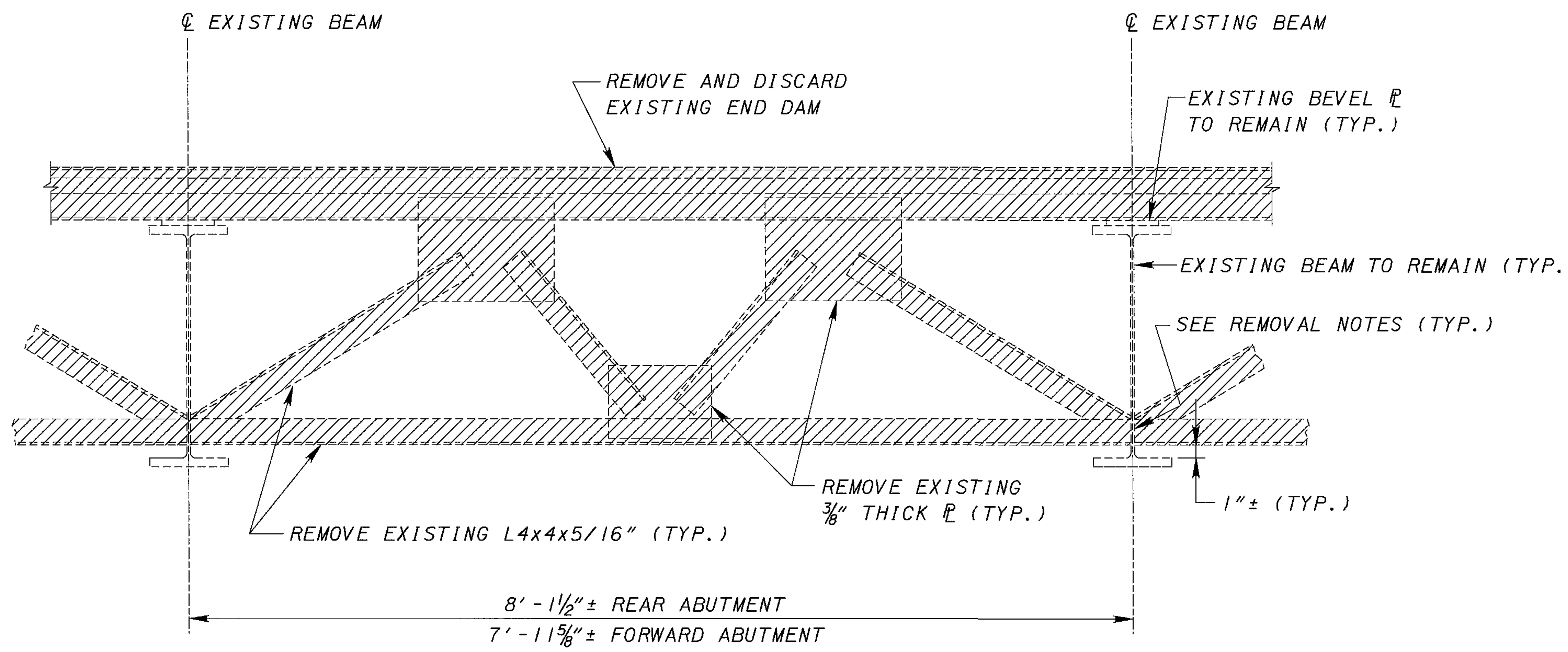
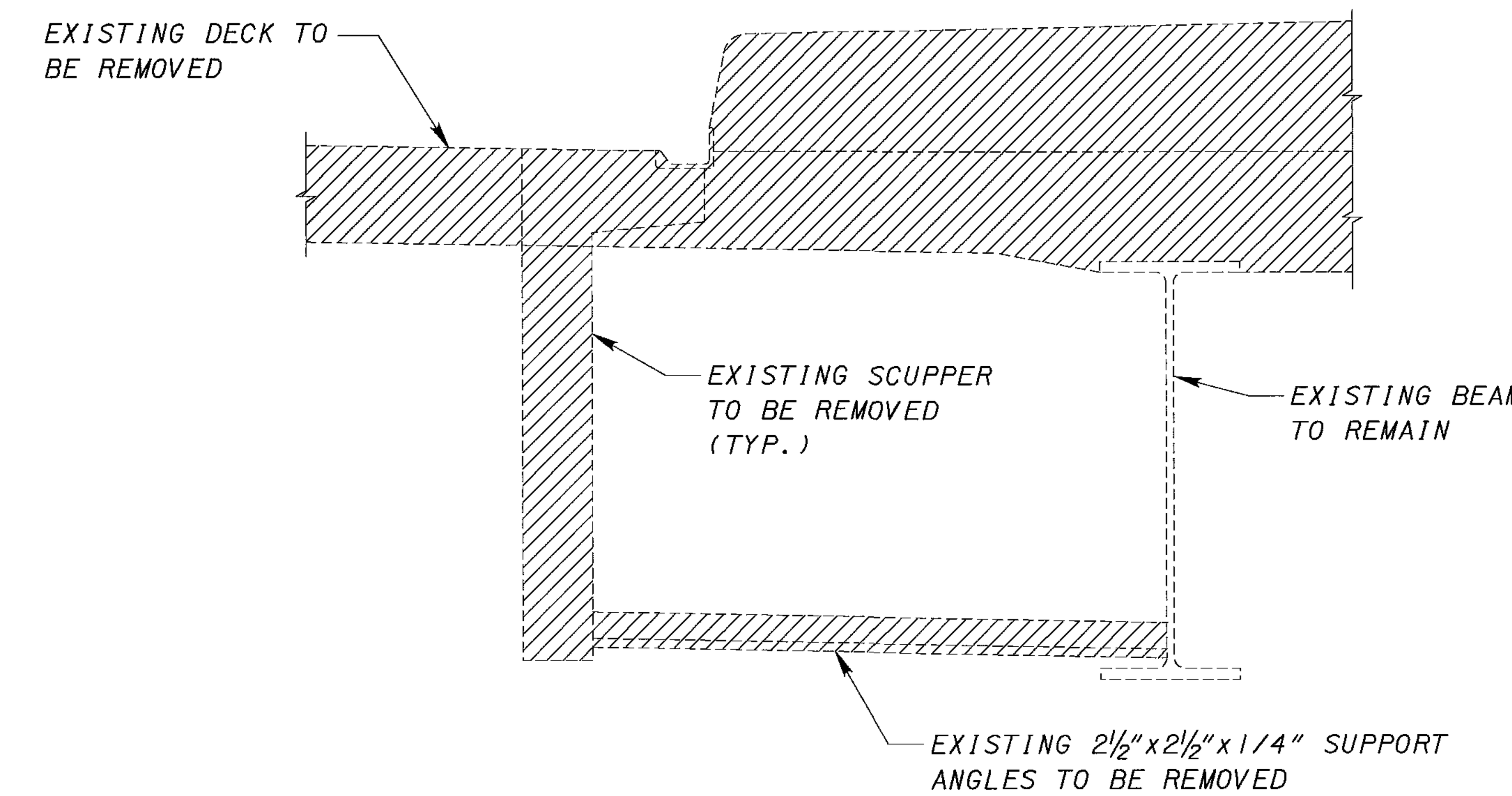
BTA		5007178	

SUPERSTRUCTURE DETAILS
BRIDGE NO. MAH-680-0637
WAYNE AVENUE/PYATT STREET OVER IR-680

MAH-680-4.14/6.28/6.37



EXISTING END CROSSFRAME REMOVAL DETAILS



EXISTING SCUPPER REMOVAL DETAIL

REMOVAL NOTES:

1. CUT THE EXISTING ANGLES CONNECTED TO THE BEAM WEB. DO NOT UNDERCUT THE WELDS OR GORGE THE BEAM WEB OR FLANGE DURING THE CUTTING OPERATION. ALL CUTTING SHALL BE DONE BY EITHER OXYGEN CUTTING OR THE AIR-CARBON-ARC PROCESS. CUTTING MAY BE DONE MANUALLY PROVIDED A GUIDE IS USED AND STRAIGHT CUT IS ATTAINED. THE CONTRACTOR SHALL DEMONSTRATE TO THE ENGINEER PRIOR TO THE START OF WORK THAT HE CAN ACCOMPLISH THE WORK WITHOUT DAMAGE TO THE BEAM REGARDLESS OF THE PROCESS. AT NO TIME SHALL THE BEAM TEMPERATURE EXCEED 1100° F.

2. DETACH AND DISCARD THE EXISTING ANGLES.

3. THE SURFACES OF THE CUT FILLET WELDS SHALL BE GROUND IMMEDIATELY AFTER DISCARDING THE REMOVED PORTION. THIS GRINDING IS TO REMOVE ANY LARGE SURFACE IRREGULARITIES.

4. ANY REMAINING WELD MATERIAL OR STEEL SHALL BE GROUND SO THAT THE RESULTING WEB SURFACE IS SMOOTH. EXTREME CAUTION SHALL BE TAKEN TO MAINTAIN THE FULL WEB THICKNESS AND TO ENSURE THAT NO UNDERCUTTING, GOUGING, SCRATCHING OR OVERGRINDING OF THE WEB OCCURS.

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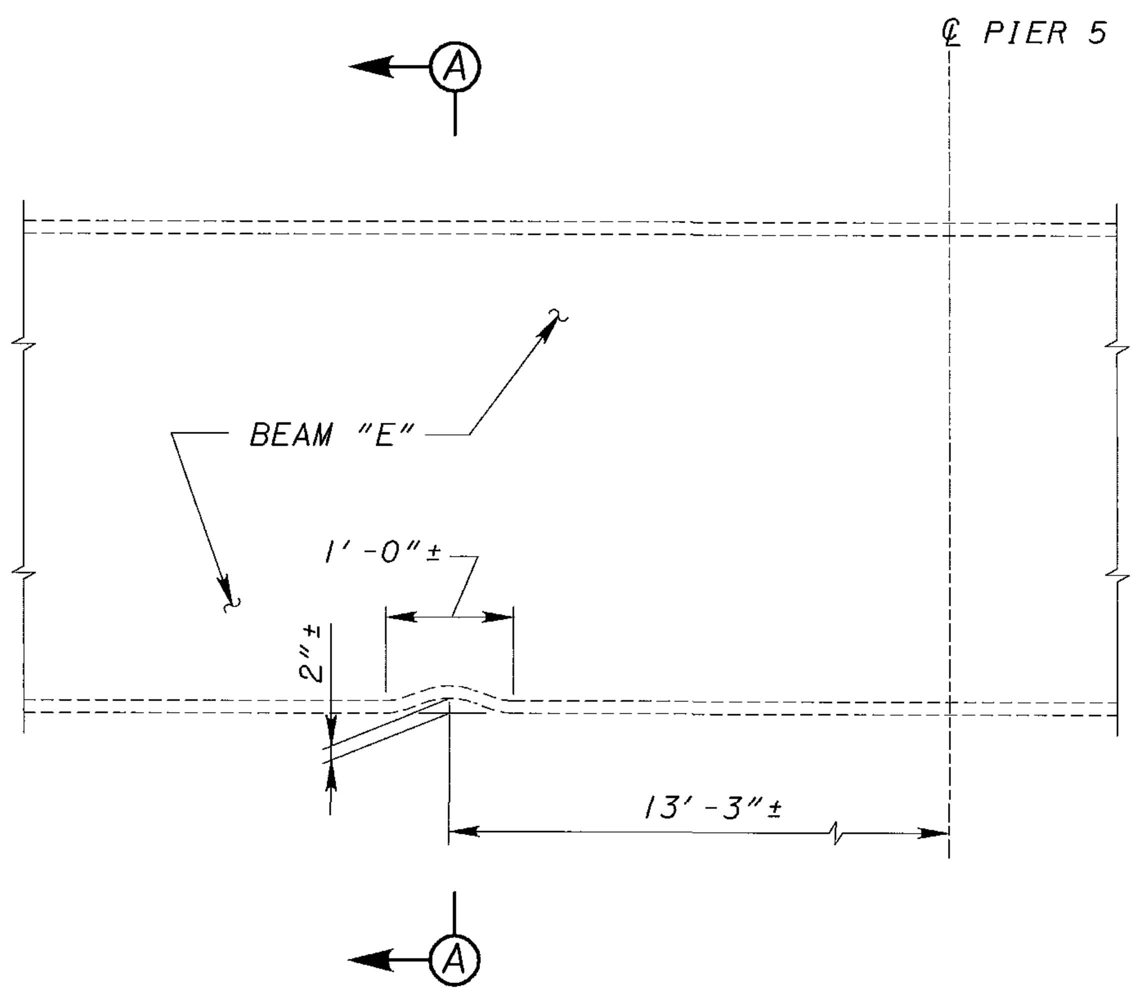
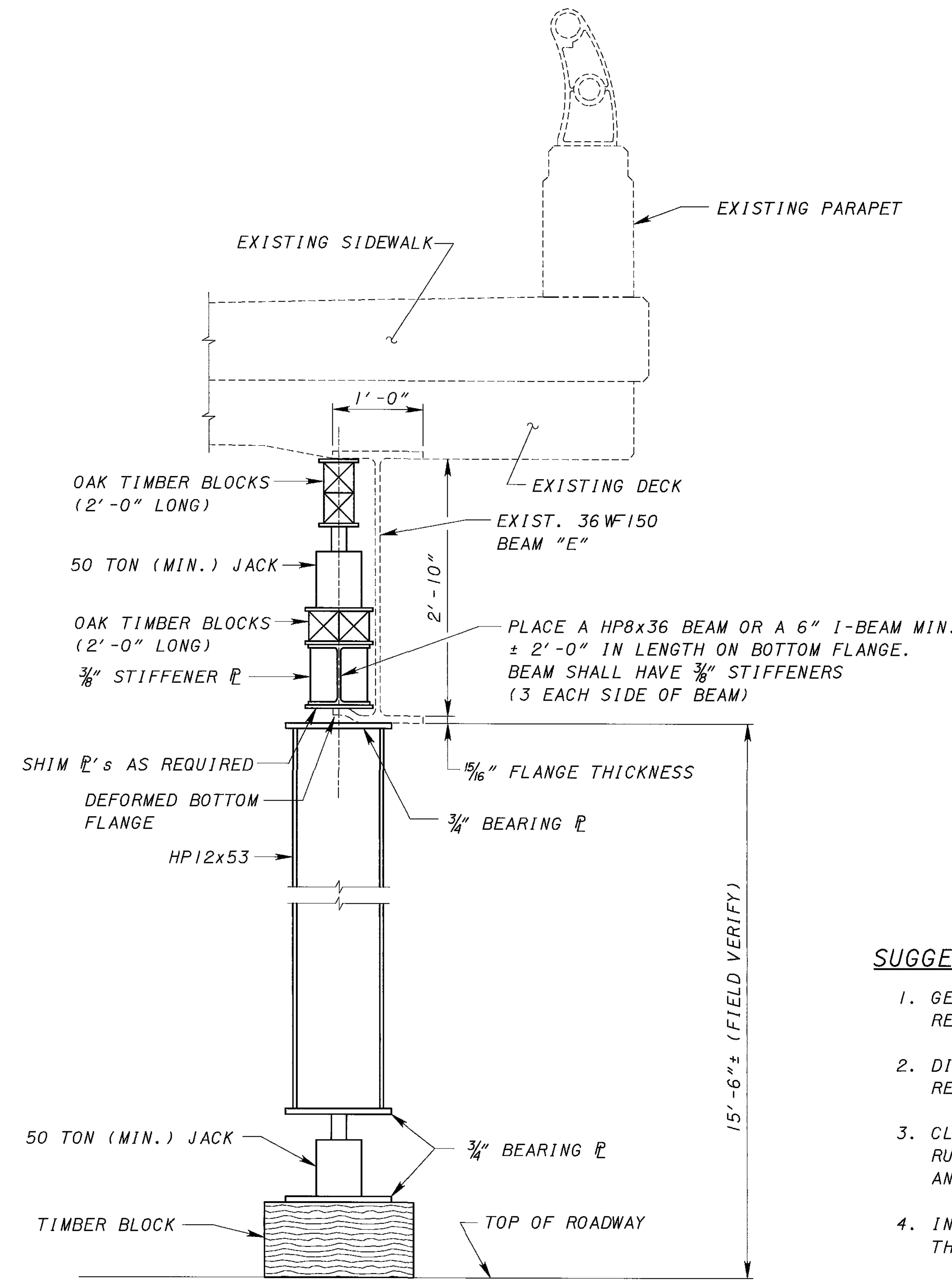
MAH-680-4.14/6.28/6.37



ELEVATION

(SHOWING APPROXIMATE LOCATION OF DAMAGED BEAM REPAIR)



SECTION A-A

DAMAGED BEAM REPAIR DETAIL

(SUGGESTED BEAM STRAIGHTENING METHOD)

SUGGESTED BEAM STRAIGHTENING PROCEDURE:

1. GENERALLY THE CONTRACTOR SHALL CONDUCT HIS OPERATION AS TO MAKE THE PROPOSED REPAIR WITH A MINIMUM OF HAZARD, DELAY AND INCONVENIENCE TO THE MOTORISTS.
2. DIRECT RAMP TRAFFIC TO A SINGLE LANE THROUGH TRAFFIC (FOR MORE DETAILS REFER TO ROADWAY PLANS).
3. CLEAN THE AREA TO BE STRAIGHTENED BY PENCIL SANDBLASTING THE PAINT, RUST AND DIRT FROM STEEL SURFACES. THE CLEANED STEEL SHALL INCLUDE TOP AND BOTTOM PORTIONS OF BOTTOM FLANGE.
4. INSTALL THE TEMPORARY SHORING AT THE DAMAGED LOCATION AS SHOWN ON THE PLANS.
5. PERFORM THE BEAM STRAIGHTENING AND RESTORE EXISTING DAMAGED BOTTOM FLANGE TO ITS ORIGINAL POSITION. (NOTE THAT THIS PROCEDURE SHOULD BE DONE PRIOR TO REMOVAL OF EXISTING DECK).
6. THE CONTRACTOR AND THE ENGINEER SHALL CAREFULLY VISUALLY INSPECT THE AREA. ADDITIONALLY, THE AREA SHALL BE NON-DESTRUCTIVELY TESTED USING DYE PENETRANT OR MAGNETIC PARTICLE EXAMINATION SO THAT THE ENGINEER CAN INSPECT FOR CRACKS.
7. ANY CRACKS FOUND SHALL BE REPORTED TO THE OHIO DEPARTMENT OF TRANSPORTATION, OFFICE OF STRUCTURAL ENGINEERING FOR FURTHER EVALUATION, REPAIR METHODS AND TECHNICAL ASSISTANCE.

THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITY AT THE CONTRACT PRICE BID FOR ITEM 513 - STRUCTURAL STEEL, MISC.: MECHANICAL STRAIGHTENING OF DAMAGED STRUCTURAL STEEL. AT NO ADDITIONAL COST TO THE STATE, THE CONTRACTOR MAY MODIFY OR PROPOSE AN ALTERNATE TO STRAIGHTEN THE DAMAGED BEAM. AN OHIO REGISTERED ENGINEER SHALL PREPARE, SEAL AND DATE PLANS FOR A NEW ALTERNATE STRAIGHTENING SYSTEM, INCLUDING ANY TEMPORARY SUPPORT SUFFICIENT TO PERFORM THE WORK DESCRIBED IN THE PLANS. SUBMIT THREE SETS OF THESE PLANS TO THE DIRECTOR FOR APPROVAL AT LEAST THIRTY (30) DAYS BEFORE ACTUAL WORK IS TO BEGIN.

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CLEVELAND, OHIO 44113-1901

DESIGNED NFF | DRAWN CAG | REVIEWED RER | DATE 06/11/04
CHECKED BTA | REVISED | STRUCTURE FILE NUMBER 5007178

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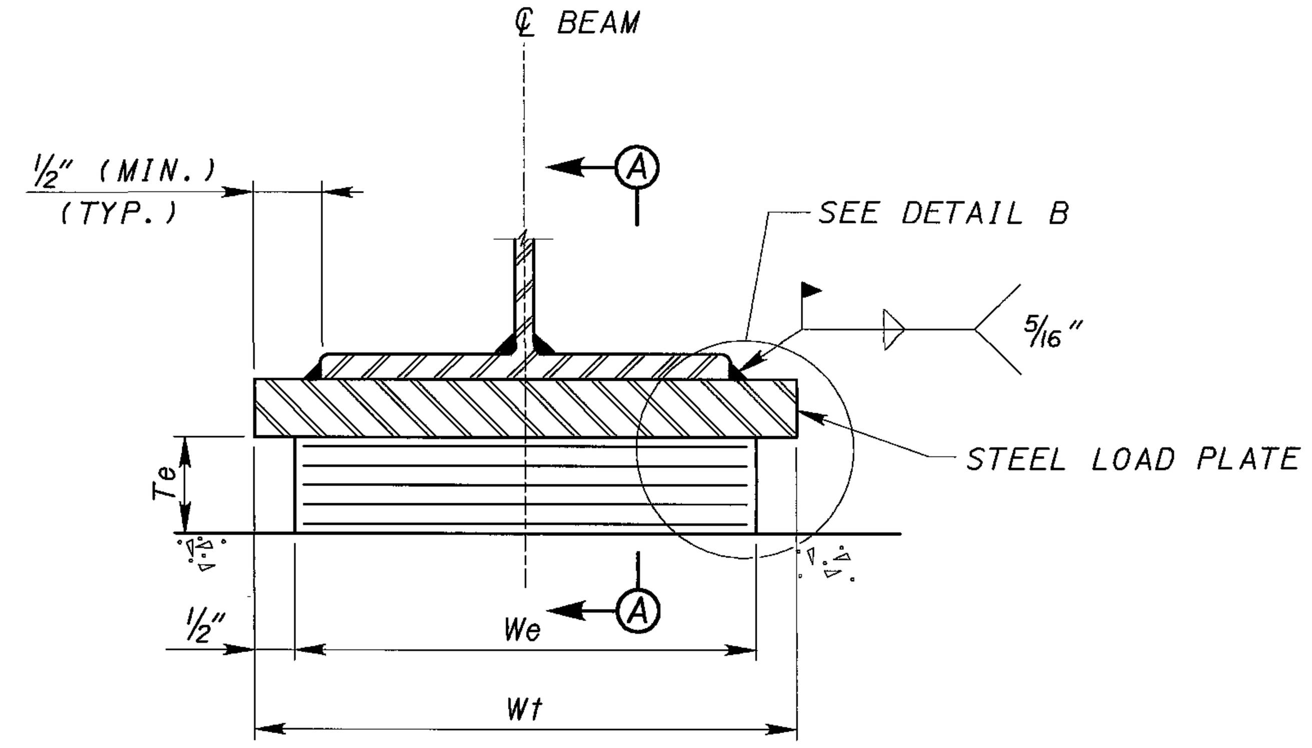
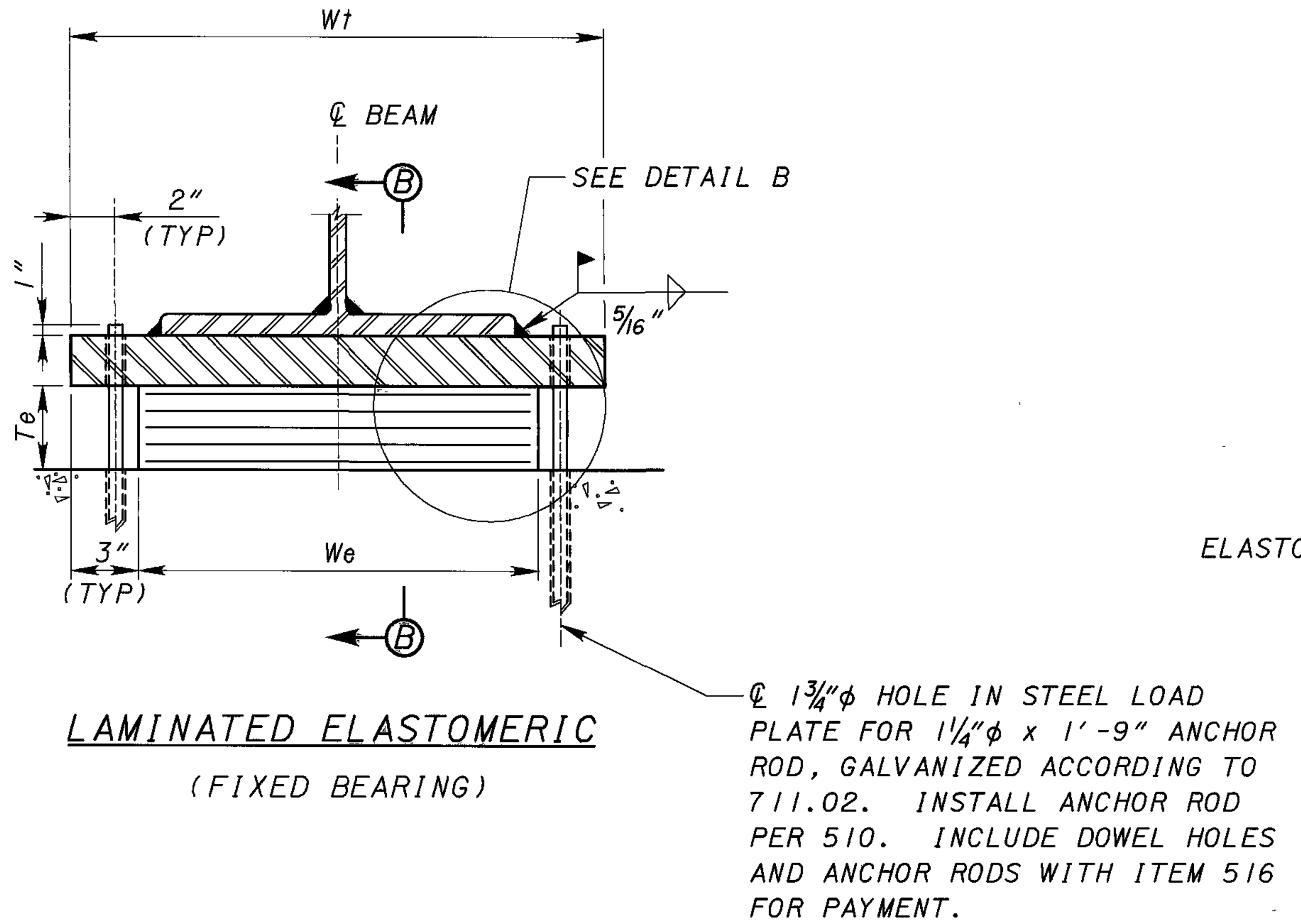


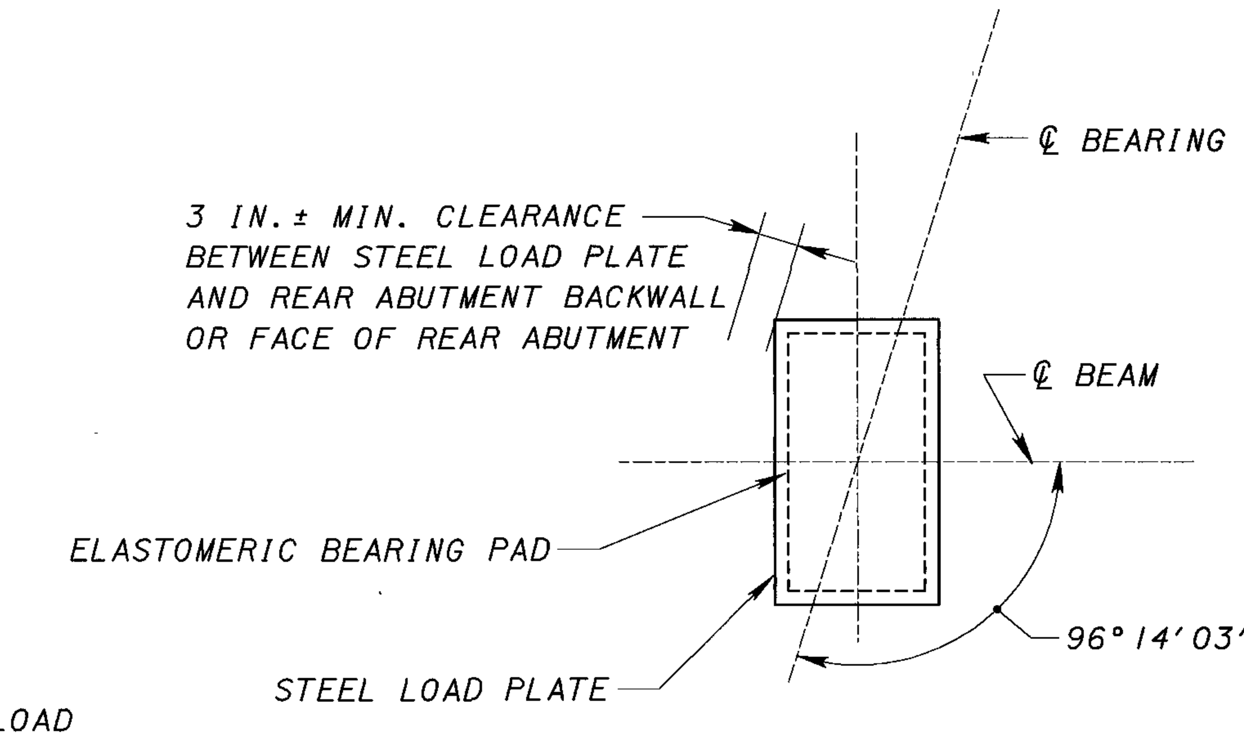
LAMINATED ELASTOMERIC

(EXPANSION BEARING)

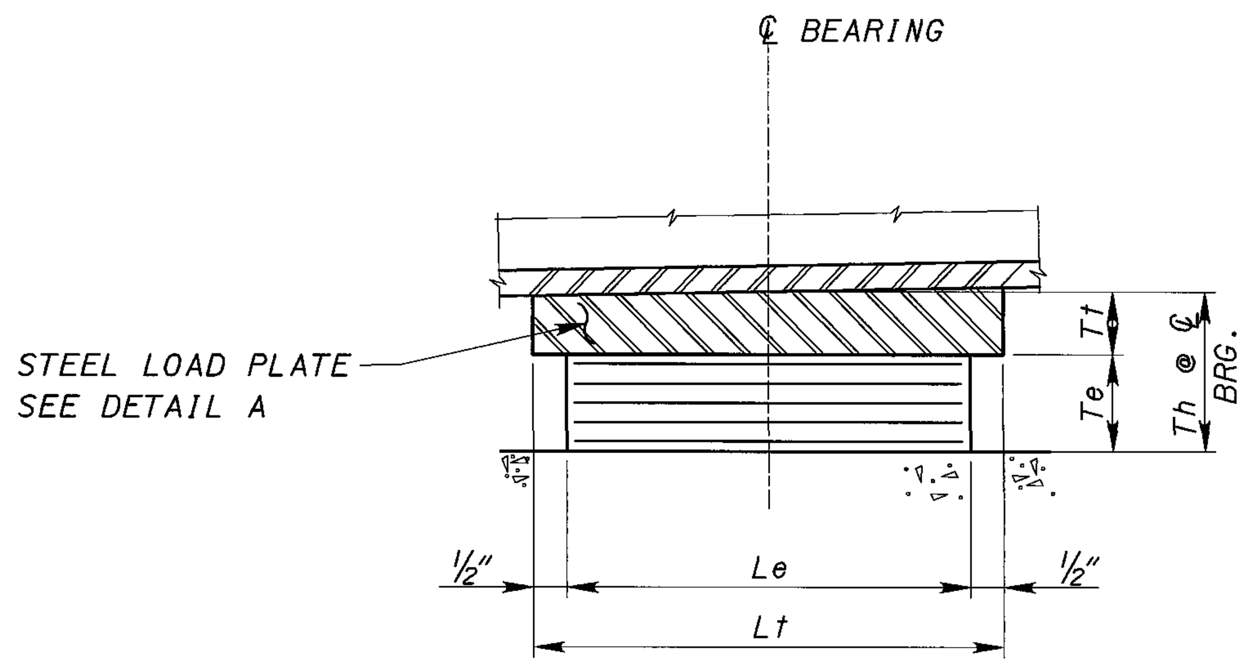


LAMINATED ELASTOMERIC

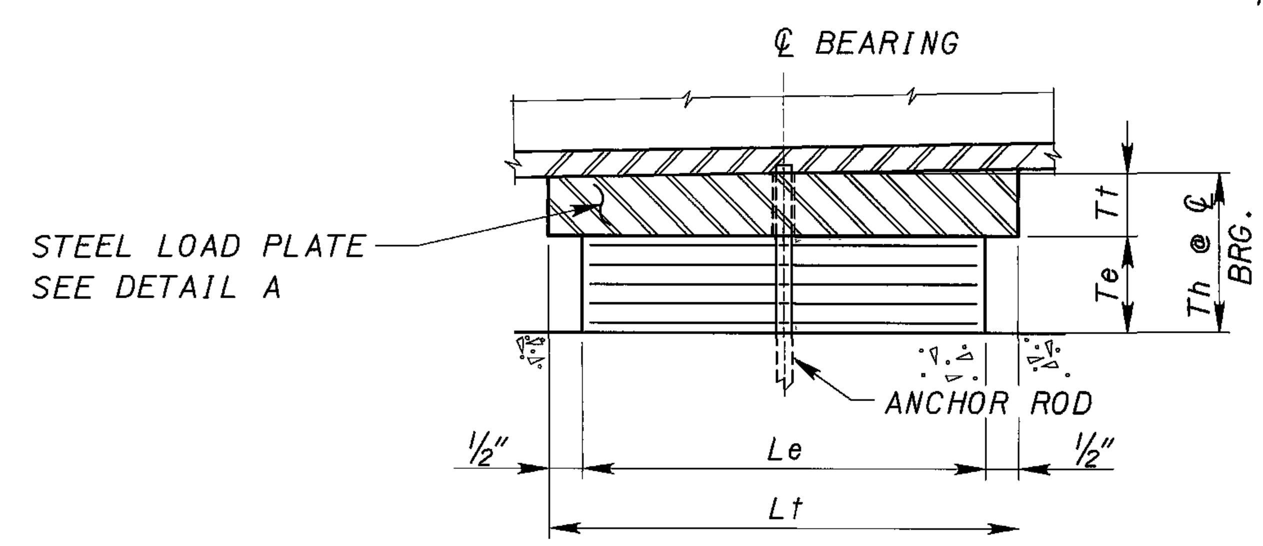
(FIXED BEARING)



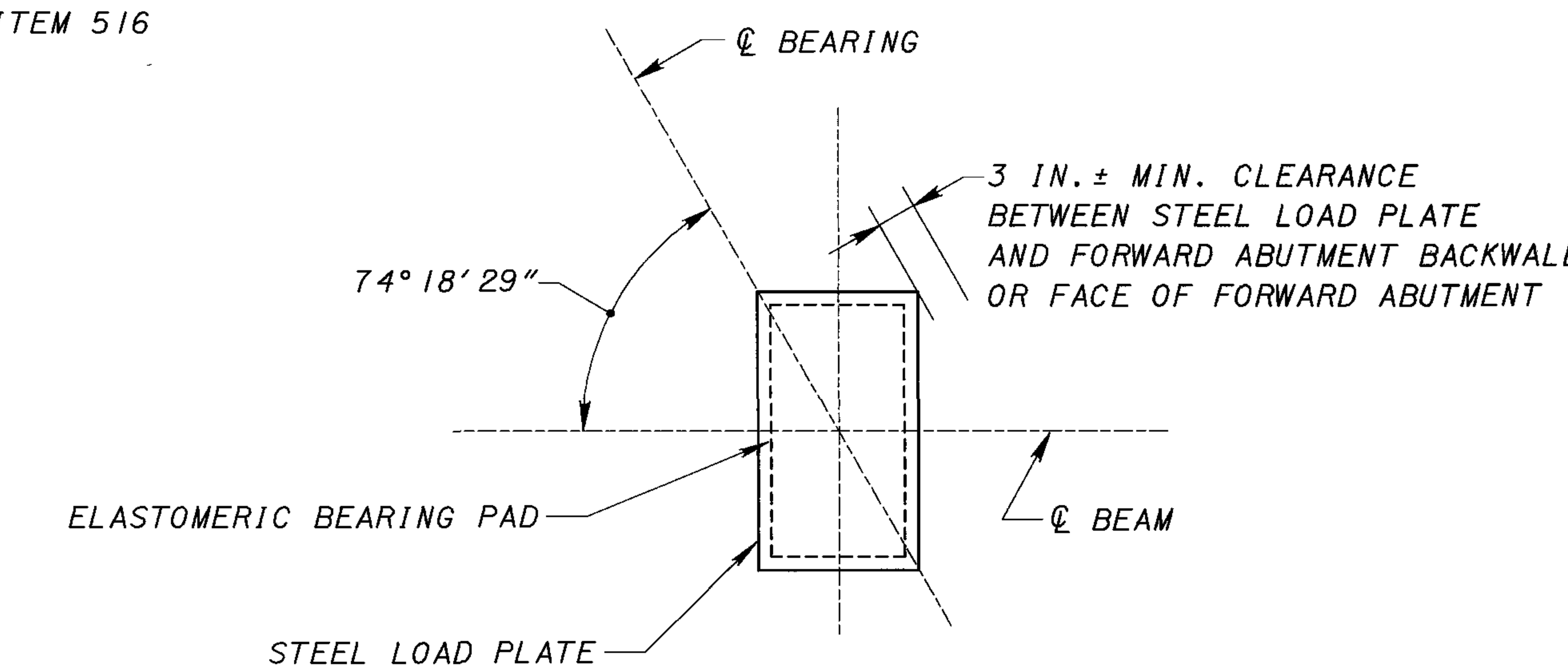
REAR ABUTMENT



SECTION A-A



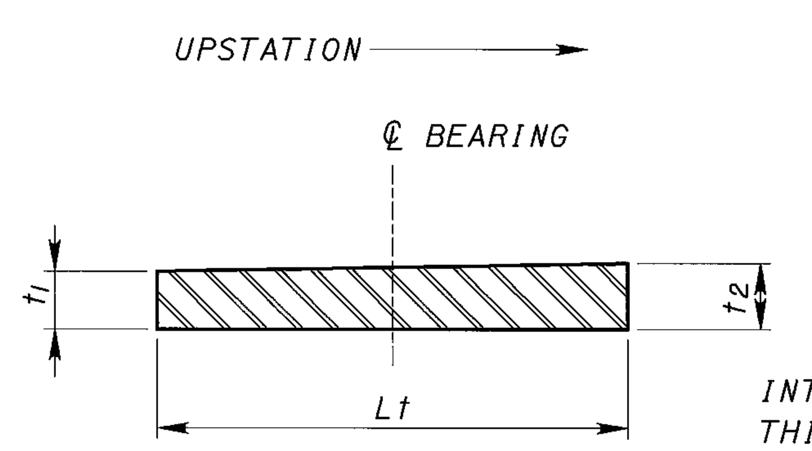
SECTION B-B



FORWARD ABUTMENT

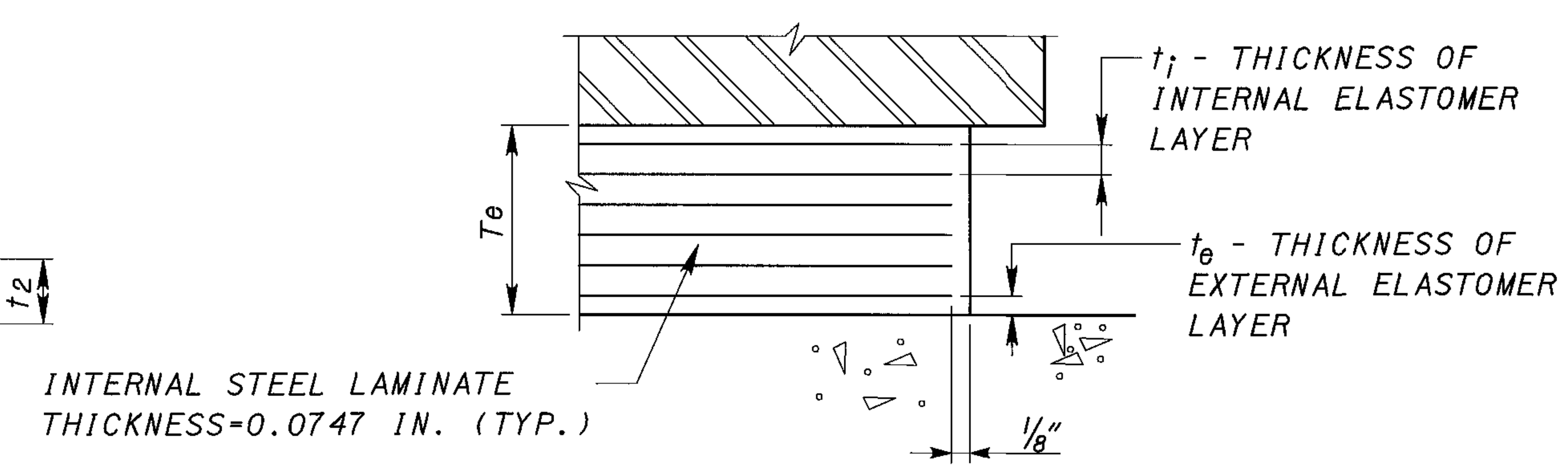
BEARING ORIENTATION PLAN

FOR BEARING ORIENTATION ON PIERS, SEE PIER DETAIL SHEET 14/28



DETAIL A

(STEEL LOAD PLATE)



DETAIL B

ELASTOMERIC BEARING DATA																				
														STEEL LOAD PLATE						
LOCATION	TYPE	NO. REQ'D	DL (KIP)	LL (KIP) WITHOUT IMPACT	TOTAL LOAD (DL+LL)	Le (in.)	We (in.)	t_i (in.)	t_e (in.)	NO. OF ti's	NO. OF te's	NO. INTERNAL LAMINATES	Te (in.)	Wt (in.)	Lt (in.)	t_1 (in.)	t_2 (in.)	Tt* (in.)	Th* (in.)
REAR ABUT.	EXP	5	38.00	52.00	90.00	9.50	14.00	0.38	0.26	6	2	7	3.32	15.00	10.50	1.81	2.19	2.00	5.32
PIER No. 1	EXP	5	127.00	65.00	192.00	11.50	18.00	0.33	0.23	4	2	5	2.16	19.00	12.50	2.68	3.32	3.00	5.16
PIER No. 2	EXP	5	129.00	66.00	195.00	11.50	18.00	0.33	0.23	4	2	5	2.16	19.00	12.50	2.72	3.27	3.00	5.16
PIER No. 3	FIXED	5	114.00	64.00	178.00	10.50	18.00	0.29	0.20	4	2	5	1.94	24.00	11.50	2.85	3.15	3.00	4.94
PIER No. 4	EXP	5	94.00	60.00	154.00	10.50	17.00	0.31	0.22	4	2	5	2.05	18.00	11.50	2.68	2.82	2.75	4.80
PIER No. 5	EXP	5	102.00	59.00	161.00	10.50	17.00	0.31	0.22	4	2	5	2.05	18.00	11.50	2.76	2.74	2.75	4.80
PIER No. 6	EXP	5	93.00	59.00	152.00	10.50	17.00	0.31	0.22	4	2	5	2.05	18.00	11.41	2.84	2.66	2.75	4.80
FWD. ABUT.	EXP	5	26.00	49.00	75.00	9.50	14.00	0.38	0.26	6	2	7	3.32	15.00	10.50	2.14	1.86	2.00	5.32

* - @ ℄ BEARING

NOTES:

1. ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION I, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.

2. THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS. CONTROL WELDING OF LOAD PLATE TO THE SUPERSTRUCTURE SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300°F AS DETERMINED BY THE USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

3. BEARING REPOSITIONING: IF THE STEEL IS ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80°F OR LOWER THAN 40°F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60°F ± 10°F, RAISE THE BEAMS TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDERFORMED SHAPE AT 60°F ± 10°F.

4. BASIS OF PAYMENT - THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS LABOR, TESTING, PAINTING 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).

DESIGN AGENCY: TRANSYSTEMS CORPORATION, 55 PUBLIC SQUARE, SUITE 1850, CLEVELAND, OHIO 44113-1901

REVIEWED: RER | DATE: 06/11/04 | STRUCTURE FILE NUMBER: 5007178

DRAWN: BTA | REVISED:

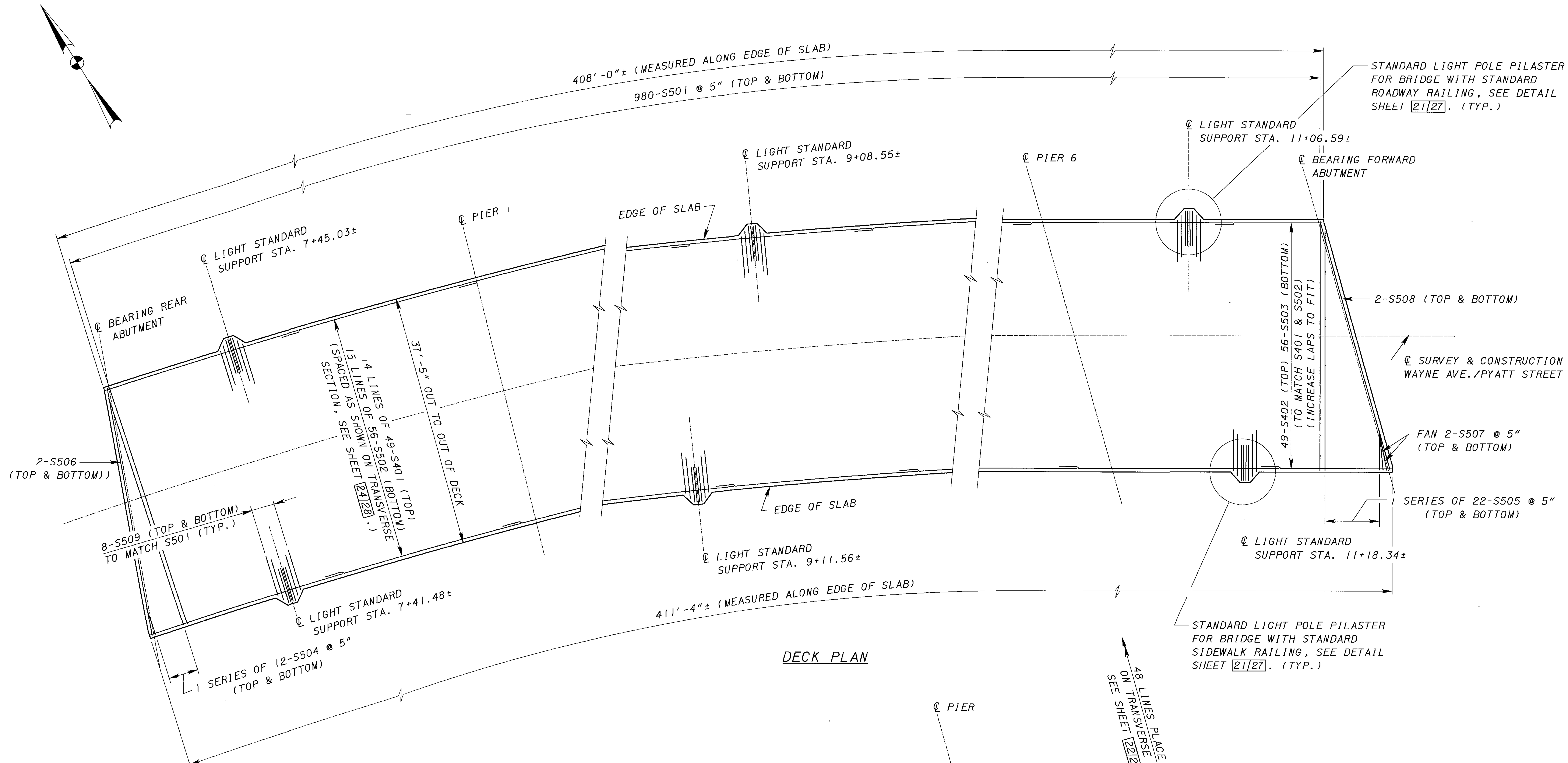
DESIGNED: BTA | CHECKED: NFF

BEARING DETAILS

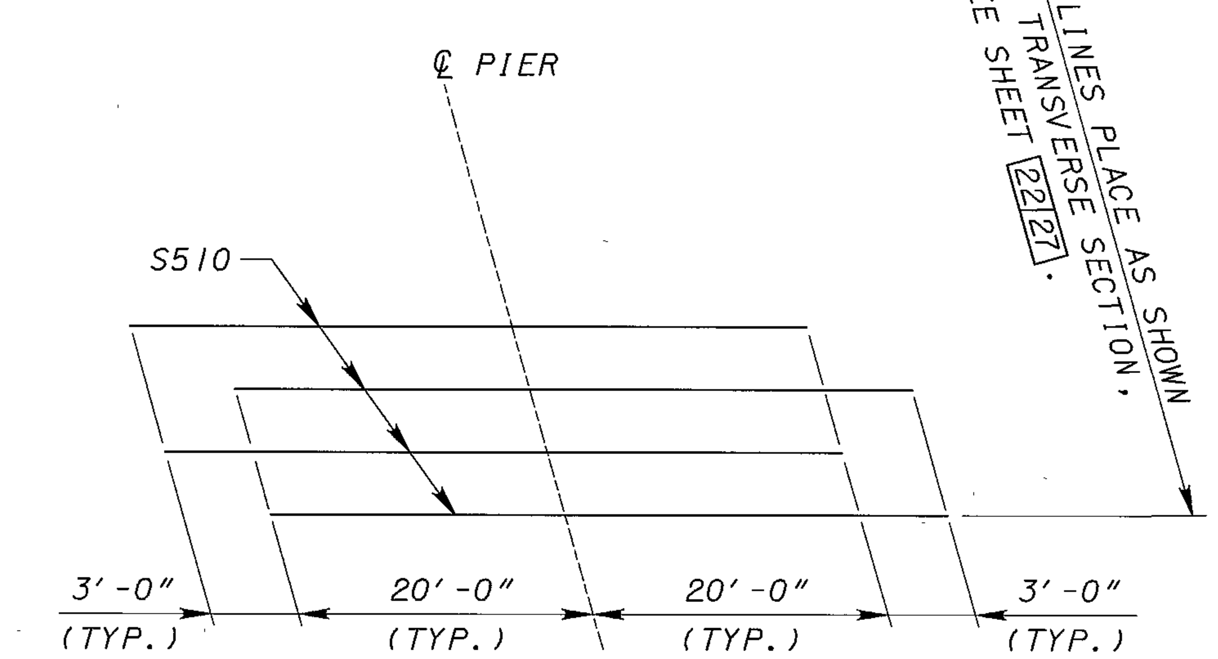
BRIDGE NO. MAH-680-0637

WAYNE AVENUE/PYATT STREET OVER IR-680

MAH-680-4.14/6.28/6.37



DECK PLAN



ADDITIONAL REINFORCEMENT OVER PIERS

BAR	REQUIRED LAP LENGTH
No. 4	2'-7"
No. 5	3'-2"

NOTES

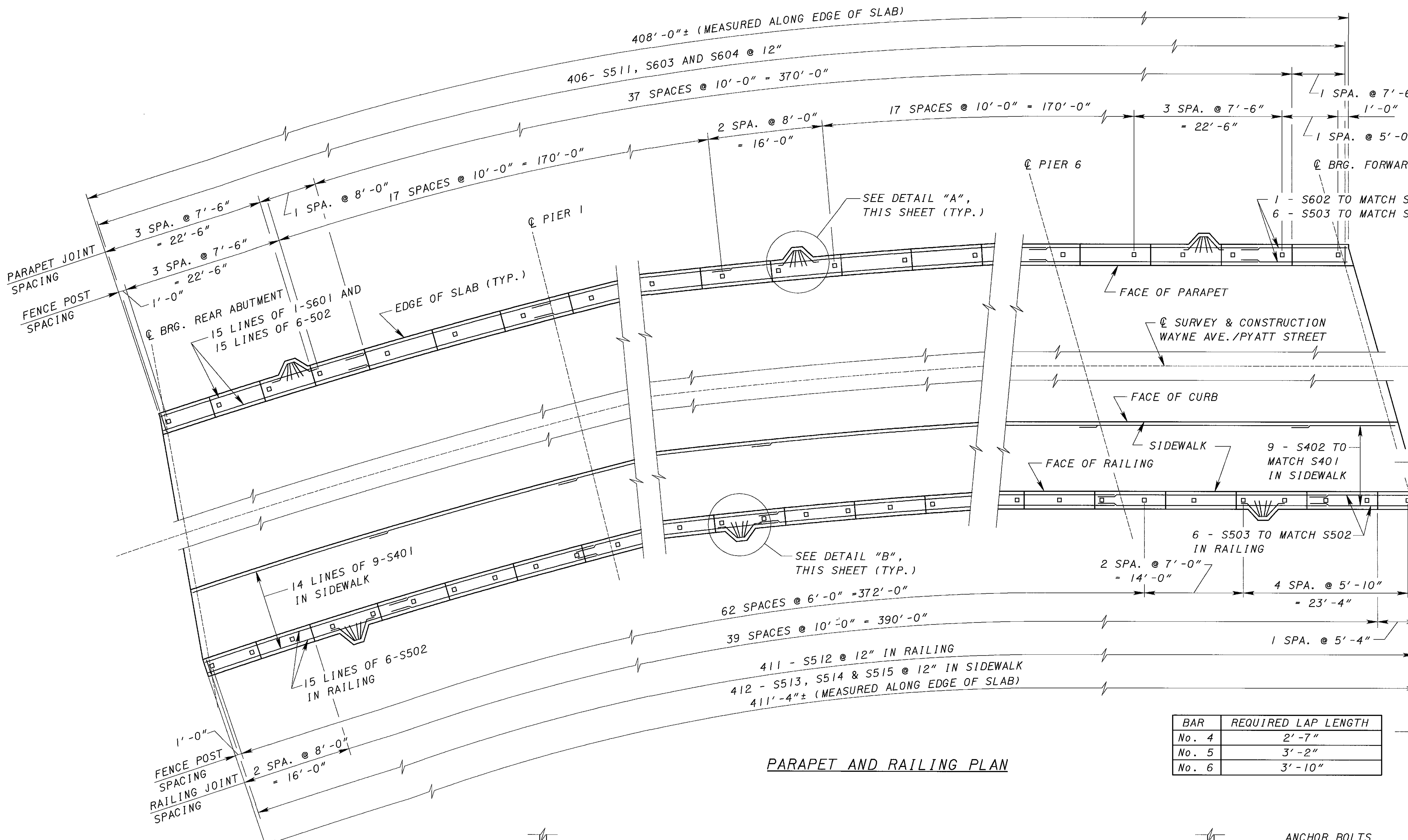
1. FOR TRANSVERSE SECTION, SEE SHEET 23/28
2. FOR REINFORCEMENT SCHEDULE, SEE SHEET 28/28.
3. FOR SCREED ELEVATION TABLES, SEE SHEETS 24/28 TO 25/28.
4. FOR ADDITIONAL STRUCTURE LIGHTING DETAILS, REFER TO STANDARD DRAWING HL-10.13, HL-20.14 AND HL-30.31.
5. FOR STRUCTURE GROUNDING DETAILS, REFER TO HL 50.21

DESIGN AGENCY
TRANSYSTEMS CORPORATION

DESIGNED	DRAWN	REVIEWED	DATE
NFF	CAG	RER	06/11/04
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BTA		5007178	

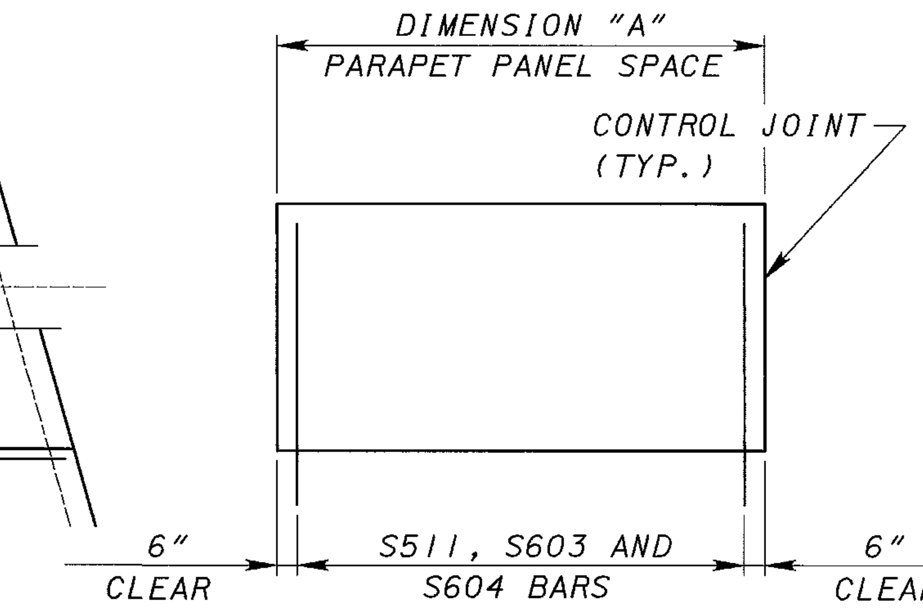
DECK PLAN
BRIDGE NO. MAH-680-0637
WAYNE AVENUE/PYATT STREET OVER IR-680

MAH-680-4.14/6.28/6.37

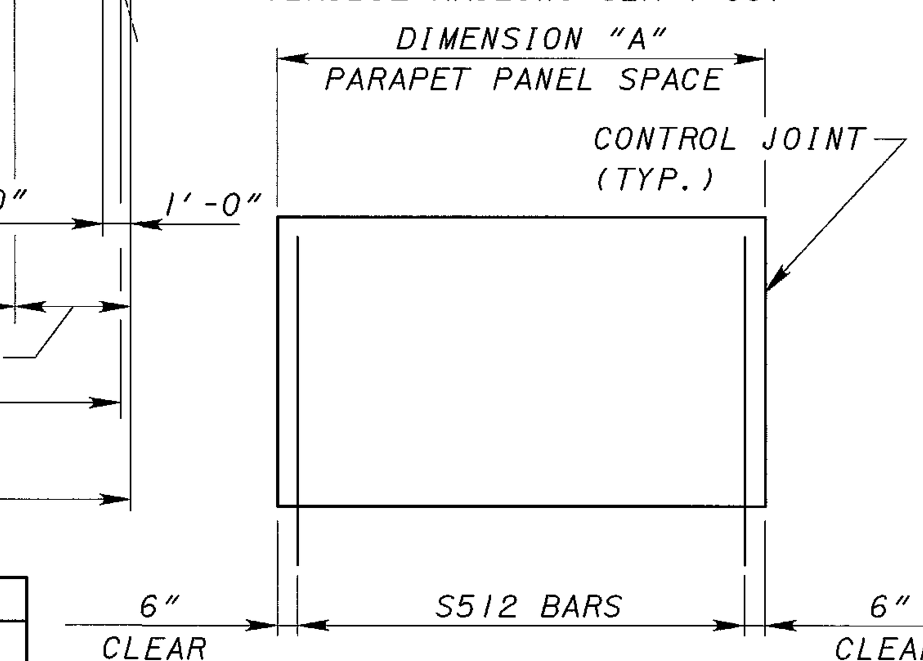


PARAPET AND RAILING PLAN

BAR	REQUIRED LAP LENGTH
No. 4	2'-7"
No. 5	3'-2"
No. 6	3'-10"

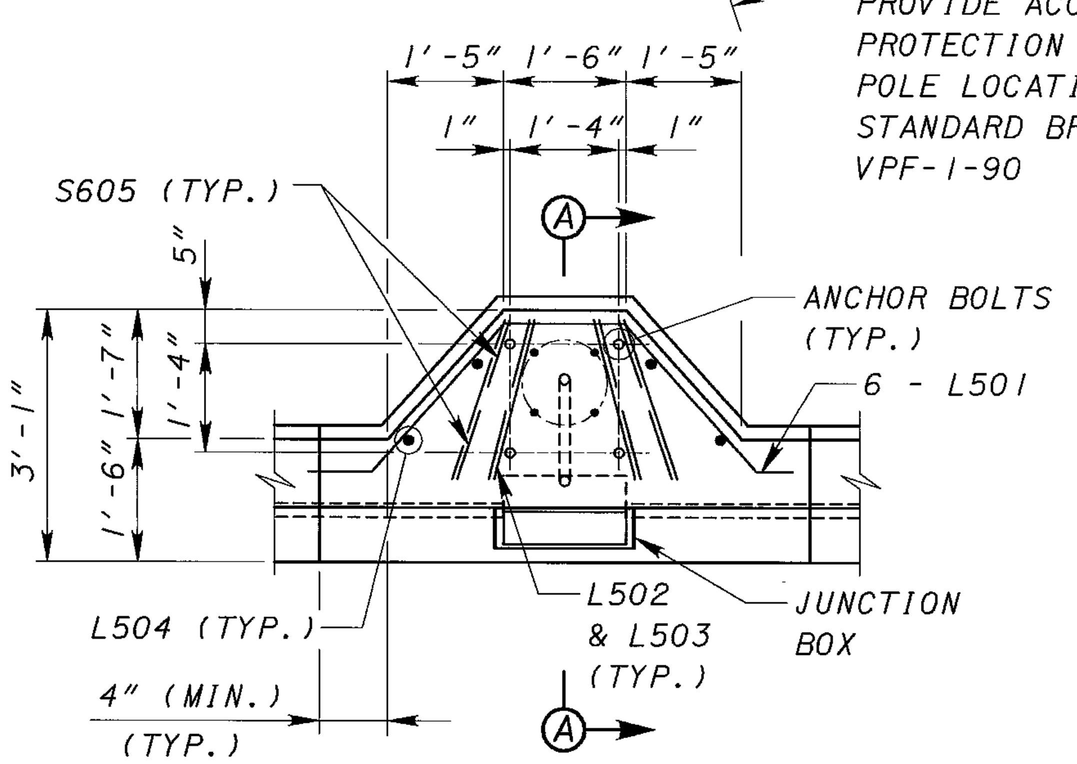


PARAPET PANEL SPACE
(BRIDGE RAILING SBR-1-99)

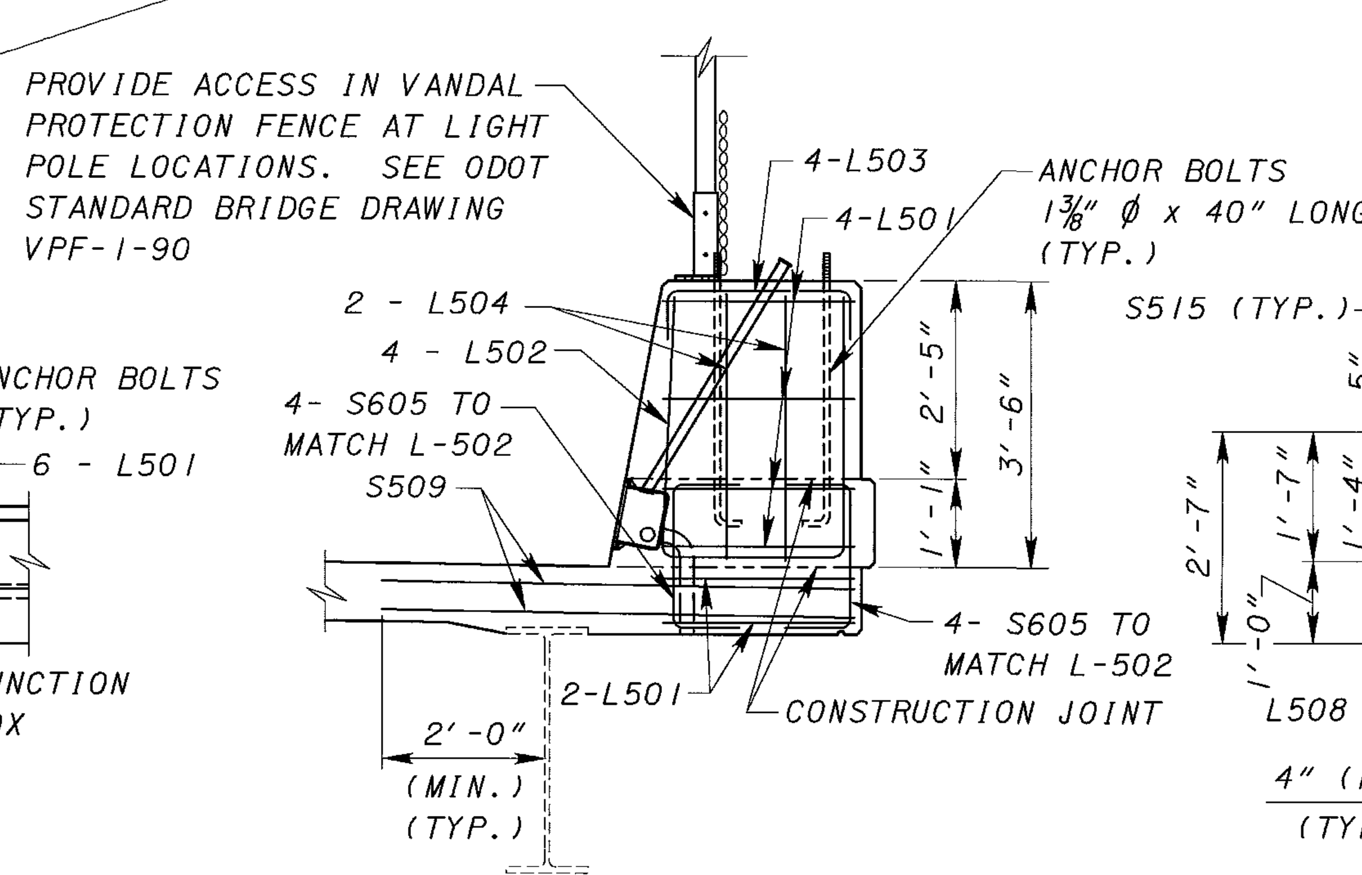


PARAPET PANEL SPACE
(BRIDGE SIDEWALK RAILING BR-2-98)

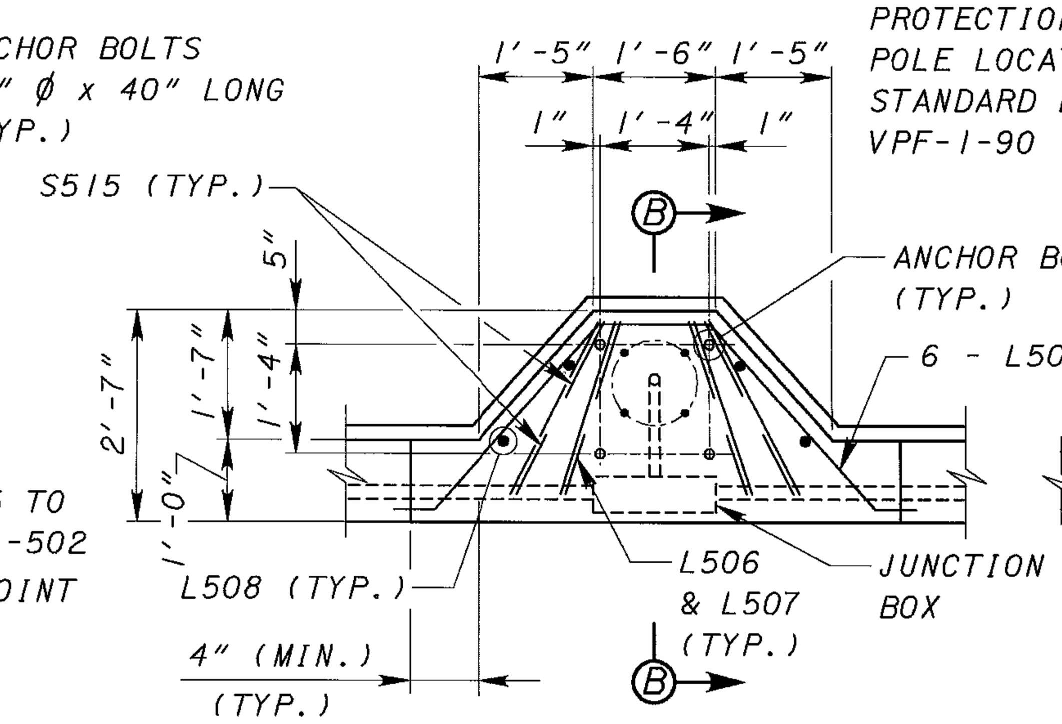
DIMENSION "A"	# OF BARS
5'-4"	6 BARS @ 12" (-)
5'-0"	5 BARS @ 12"
7'-6"	8 BARS @ 12" (-)
8'-0"	8 BARS @ 12"
10'-0"	10 BARS @ 12"



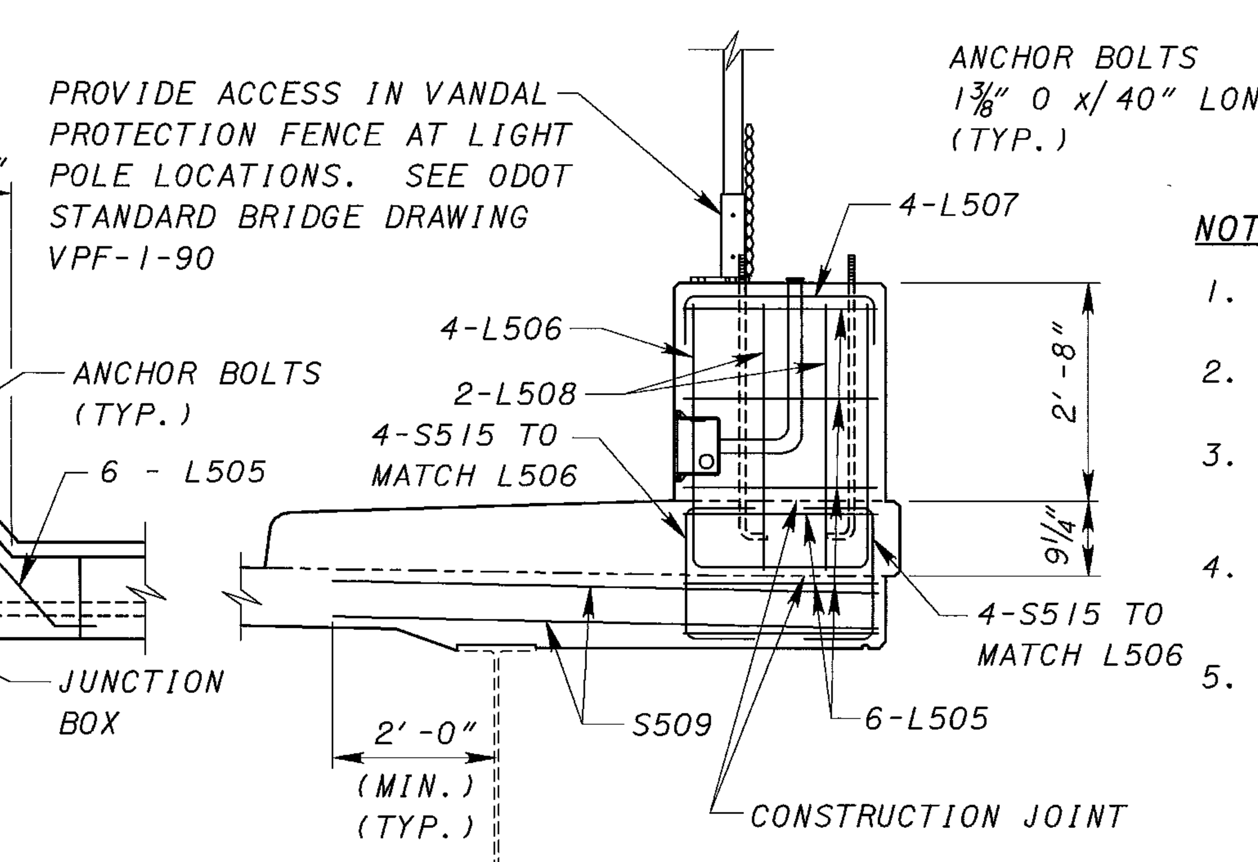
DETAIL "A"
(LIGHT POLE PILASTER FOR BRIDGE WITH STANDARD ROADWAY RAILING)



SECTION A-A
(SLAB REINFORCING NOT SHOWN FOR CLARITY)



DETAIL "A"
(LIGHT POLE PILASTER FOR BRIDGE WITH STANDARD ROADWAY RAILING)



SECTION B-B
(SLAB REINFORCING NOT SHOWN FOR CLARITY)

NOTES

1. FOR TRANSVERSE SECTION, SEE SHEET 23/28
2. FOR REINFORCEMENT SCHEDULE, SEE SHEET 28/28.
3. FOR SCREED ELEVATION TABLES, SEE SHEETS 24/28 & 25/28.
4. FOR LOCATION OF LIGHT STANDARD SUPPORTS, SEE SHEET 21/28.
5. FOR ADDITIONAL FENCE DETAILS, SEE STANDARD DRAWING VPF-1-90.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650 CLEVELAND, OHIO 44113-1901

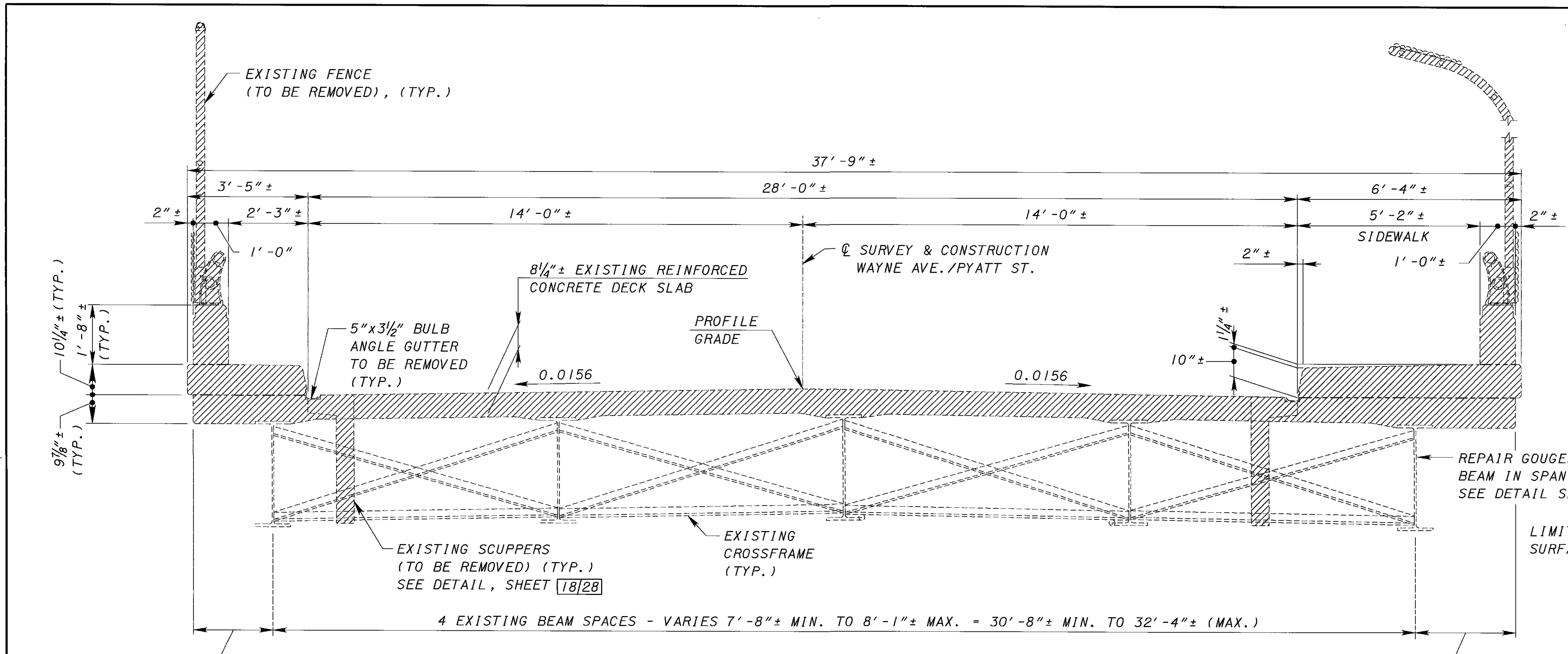
DESIGNED	DRAWN	REVIEWED	DATE
NFF	CAG	RER	06/11/04
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BTA		5007178	

PARAPET AND RAILING DETAILS
BRIDGE NO. MAH-680-0637
WAYNE AVENUE/PYATT STREET OVER IR-680

MAH-680-4.14/6.28/6.37

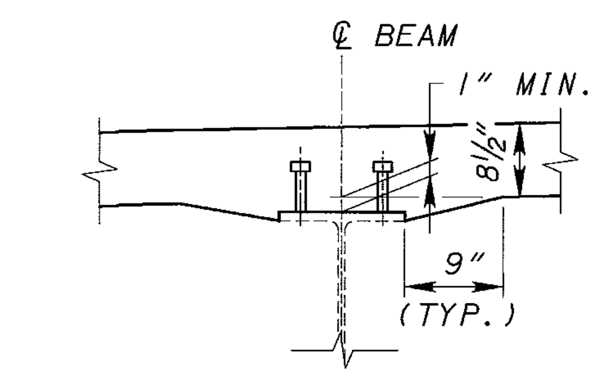
22/28

171/191



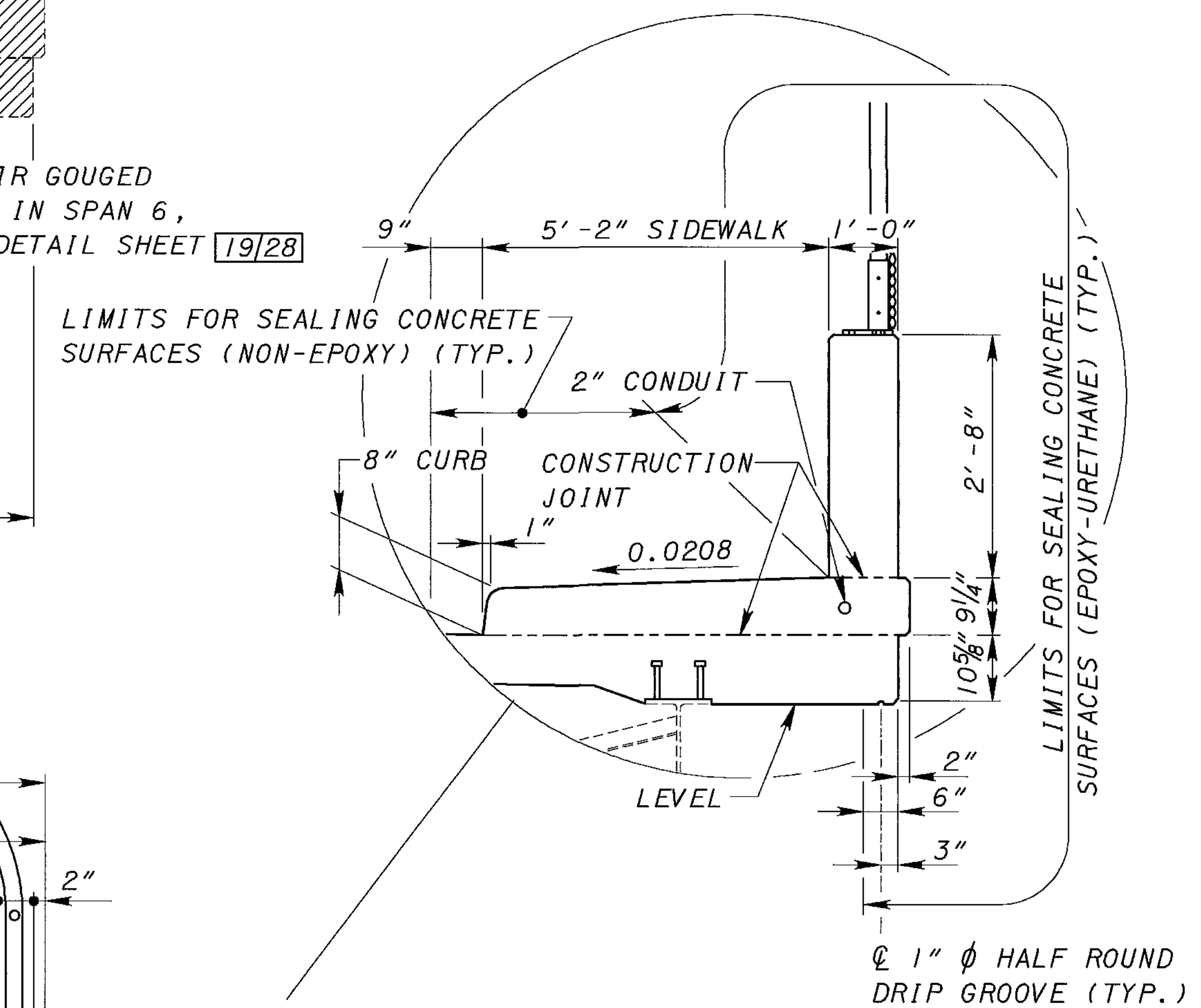
EXISTING TRANSVERSE SECTION

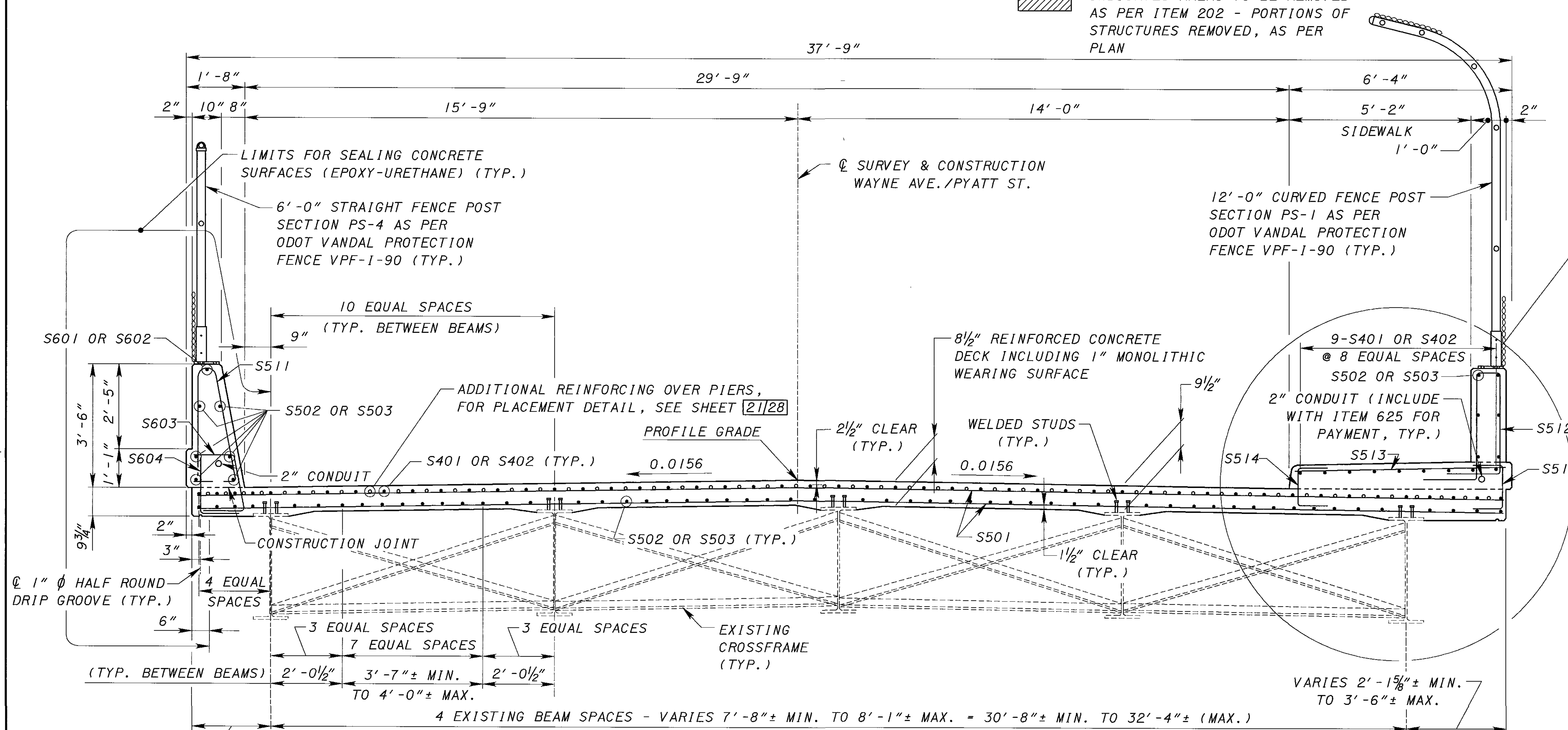
—INDICATES AREAS TO BE REMOVED AS PER ITEM 202 - PORTIONS OF STRUCTURES REMOVED, AS PER PLAN



TYPICAL CONCRETE DECK HAUNCH DETAIL

(REINFORCEMENT NOT SHOWN FOR CLARITY)
(FOR TABLE OF HAUNCH THICKNESSES AT ℄ OF BEARING AT SUBSTRUCTURE LOCATIONS, SEE SHEETS 24/28 AND 25/28)





PROPOSED TRANSVERSE SECTION

NOTES:

1. THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 1½ INCHES AND A CONSTANT HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM FLANGE OF 9 INCHES. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. THE ALLOWABLE TOLERANCE FOR THE HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM FLANGE IS ± 3 INCHES.
2. THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH 511.24.
3. THE TRANSVERSE DECK REINFORCING BARS SHALL BE FIELD BENT TO CONFORM TO THE ROADWAY CROWN. FIELD BENDING SHALL BE INCLUDED WITH ITEM 898 - QC/QA CONCRETE FOR STRUCTURES FOR PAYMENT.
4. FOR REINFORCING SCHEDULE, SEE SHEET 28/28.
5. FOR FRAMING PLAN, SEE SHEET 16/28.
6. FOR DECK PLAN, SEE SHEET 21/28.
7. FOR PARAPET AND SIDEWALK DETAILS, SEE SHEET 22/28.
8. FOR SCREED ELEVATIONS, SEE SHEETS 24/28 AND 25/28.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

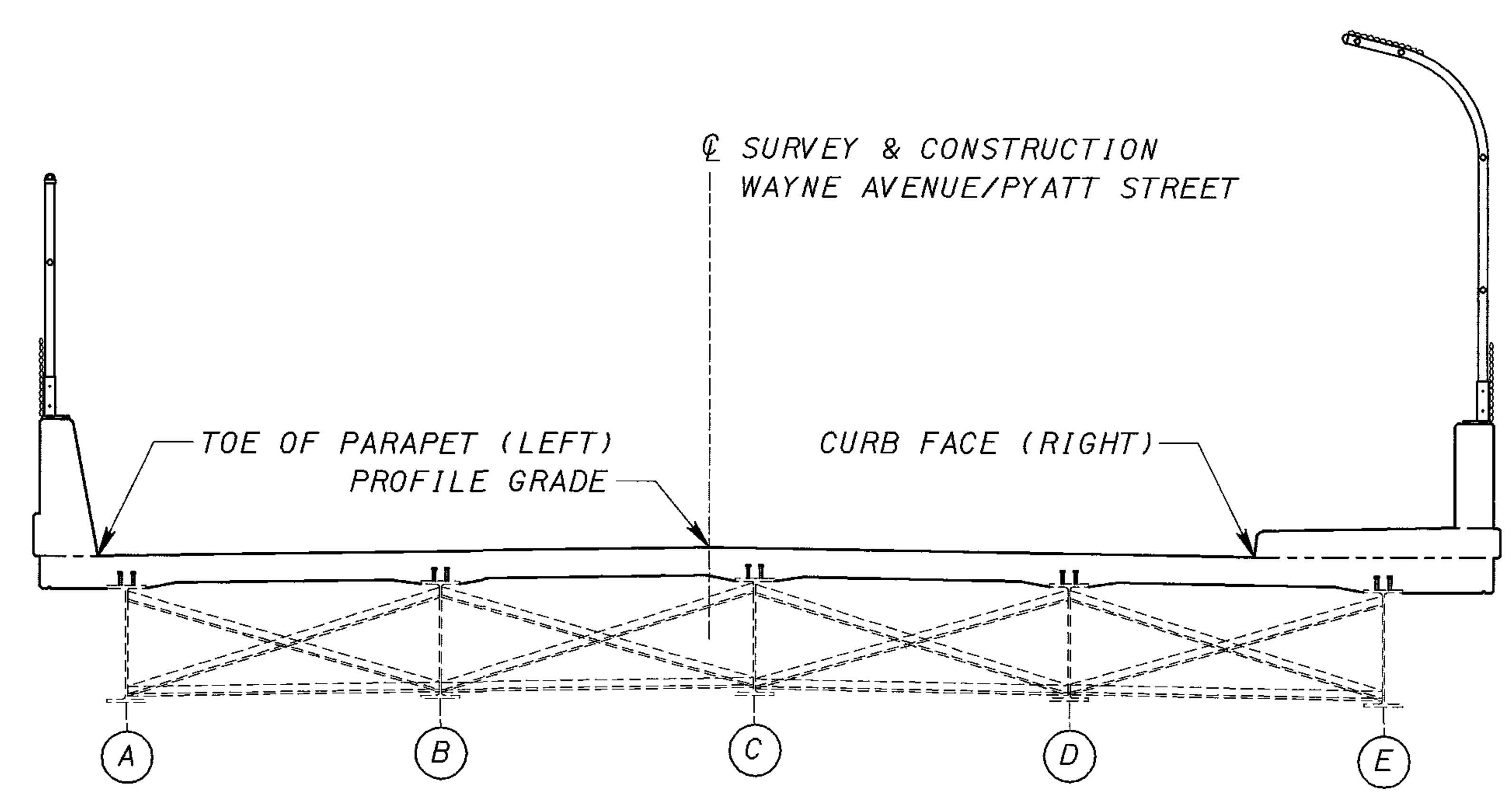
DESIGNED	DRAWN	REVIEWED	DATE
NFF	CAG	RER	06/11/04
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BTA		5007178	

TRANSVERSE SECTION
BRIDGE NO. MAH-680-0637
WAYNE AVENUE/PYATT STREET OVER IR-680

MAH-680-4.14/6.28/6.37

SCREED ELEVATIONS - SPANS 1 THRU 4

LOCATION		℄ BRG. REAR ABUT.	SPAN 1 ¼ PT.	SPAN 1 ½ PT.	SPAN 1 ¾ PT.	℄ BRG. PIER 1	SPAN 2 ¼ PT.	SPAN 2 ½ PT.	SPAN 2 ¾ PT.	℄ BRG. PIER 2	SPAN 3 ¼ PT.	SPAN 3 ½ PT.	SPAN 3 ¾ PT.	℄ BRG. PIER 3	SPAN 4 ¼ PT.	SPAN 4 ½ PT.	SPAN 4 ¾ PT.	℄ BRG. PIER 4
TOE OF PARAPET (LEFT)	STATION	7+24.85	7+38.84	7+52.84	7+66.84	7+80.83	7+97.54	8+14.25	8+30.95	8+47.66	8+64.01	8+30.35	8+96.70	9+13.05	9+26.82	9+40.60	9+54.37	9+68.14
	PROFILE GRADE ELEVATION	962.03	962.59	963.23	963.94	964.64	965.49	966.33	967.17	967.95	968.65	967.14	969.84	970.34	970.71	971.02	971.29	971.52
	FINAL DECK ELEVATION	961.79	962.35	962.98	963.69	964.40	965.24	966.08	966.92	967.71	968.40	966.89	969.60	970.09	970.46	970.78	971.05	971.27
	DEAD LOAD DEFLECTION	0.00	0.02	0.02	0.01	0.00	0.01	0.02	0.01	0.00	0.01	0.03	0.02	0.00	0.00	0.01	0.00	0.00
	SCREED ELEVATION	961.79	962.37	963.00	963.70	964.40	965.25	966.10	966.93	967.71	968.41	966.92	969.62	970.09	970.46	970.79	971.05	971.27
BEAM A	STATION	7+24.71	7+38.73	7+52.76	7+66.79	7+80.81	7+97.56	8+14.32	8+31.08	8+47.82	8+64.26	8+80.72	8+97.18	9+13.63	9+27.45	9+41.27	9+55.10	9+68.93
	PROFILE GRADE ELEVATION	962.03	962.59	963.22	963.93	964.64	965.49	966.33	967.17	967.96	968.66	969.29	969.86	970.36	970.72	971.04	971.31	971.53
	FINAL DECK ELEVATION	961.80	962.36	963.00	963.70	964.41	965.26	966.11	966.95	967.73	968.44	969.07	969.64	970.13	970.50	970.82	971.09	971.30
	DEAD LOAD DEFLECTION	0.00	0.02	0.02	0.01	0.00	0.01	0.02	0.01	0.00	0.01	0.03	0.02	0.00	0.00	0.01	0.00	0.00
	SCREED ELEVATION	961.80	962.38	963.02	963.71	964.41	965.27	966.13	966.96	967.73	968.45	969.10	969.66	970.13	970.50	970.83	971.09	971.30
BEAM B	STATION	7+23.60	7+37.71	7+52.00	7+66.29	7+80.57	7+97.89	8+15.05	8+32.22	8+49.37	8+66.38	8+83.41	9+00.43	9+17.45	9+31.42	9+45.41	9+59.40	9+73.38
	PROFILE GRADE ELEVATION	961.99	962.55	963.19	963.91	964.63	965.50	966.37	967.23	968.03	968.75	969.39	969.96	970.46	970.82	971.12	971.38	971.59
	FINAL DECK ELEVATION	961.88	962.45	963.09	963.81	964.52	965.40	966.27	967.13	967.92	968.65	969.30	969.87	970.36	970.72	971.03	971.28	971.49
	DEAD LOAD DEFLECTION	0.00	0.02	0.02	0.01	0.00	0.01	0.02	0.01	0.00	0.01	0.03	0.02	0.00	0.00	0.01	0.00	0.00
	SCREED ELEVATION	961.88	962.47	963.11	963.82	964.52	965.41	966.29	967.14	967.92	968.66	969.33	969.89	970.36	970.72	971.04	971.28	971.49
PROFILE GRADE	STATION	7+22.64	7+37.14	7+51.65	7+66.15	7+80.65	7+98.16	8+15.68	8+33.19	8+50.70	8+68.22	8+85.74	9+03.25	9+20.77	9+34.86	9+48.95	9+63.04	9+77.13
	PROFILE GRADE ELEVATION	961.95	962.52	963.17	963.90	964.63	965.52	966.40	967.28	968.09	968.82	969.47	970.05	970.55	970.90	971.19	971.44	971.64
	FINAL DECK ELEVATION	961.95	962.52	963.17	963.90	964.63	965.52	966.40	967.28	968.09	968.82	969.47	970.05	970.55	970.90	971.19	971.44	971.64
	DEAD LOAD DEFLECTION	0.00	0.02	0.02	0.01	0.00	0.01	0.02	0.01	0.00	0.01	0.03	0.02	0.00	0.00	0.01	0.00	0.00
	SCREED ELEVATION	961.95	962.54	963.19	963.91	964.63	965.53	966.42	967.29	968.09	968.83	969.50	970.07	970.55	970.90	971.20	971.44	971.64
BEAM C	STATION	7+22.48	7+37.01	7+51.56	7+66.10	7+80.63	7+98.20	8+15.79	8+33.37	8+68.54	8+86.14	9+03.75	9+21.34	9+21.34	9+35.47	9+49.62	9+63.76	9+77.91
	PROFILE GRADE ELEVATION	961.95	962.52	963.17	963.90	964.63	965.52	966.41	967.29	968.83	969.49	970.07	970.57	970.57	970.91	971.21	971.45	971.64
	FINAL DECK ELEVATION	961.93	962.49	963.14	963.87	964.61	965.49	966.38	967.26	968.81	969.46	970.04	970.54	970.55	970.89	971.18	971.43	971.62
	DEAD LOAD DEFLECTION	0.00	0.02	0.02	0.01	0.00	0.01	0.02	0.01	0.00	0.01	0.03	0.02	0.00	0.00	0.01	0.00	0.00
	SCREED ELEVATION	961.93	962.51	963.16	963.88	964.61	965.50	966.40	967.27	968.81	969.47	970.07	970.56	970.55	970.89	971.19	971.43	971.62
BEAM D	STATION	7+21.32	7+36.12	7+50.93	7+65.74	7+80.54	7+98.54	8+16.54	8+34.55	8+52.55	8+70.73	8+88.93	9+07.12	9+25.30	9+39.60	9+53.90	9+68.21	9+82.51
	PROFILE GRADE ELEVATION	961.90	962.48	963.14	963.88	964.63	965.54	966.45	967.34	968.17	968.92	969.59	970.17	970.67	971.00	971.29	971.52	971.70
	FINAL DECK ELEVATION	961.76	962.33	962.98	963.73	964.48	965.38	966.29	967.19	968.02	968.77	969.43	970.02	970.53	970.86	971.14	971.37	971.55
	DEAD LOAD DEFLECTION	0.00	0.02	0.02	0.01	0.00	0.01	0.02	0.01	0.00	0.01	0.03	0.02	0.00	0.00	0.01	0.00	0.00
	SCREED ELEVATION	961.76	962.35	963.00	963.74	964.48	965.39	966.31	967.20	968.02	968.78	969.46	970.04	970.53	970.86	971.15	971.37	971.55
FACE OF CURB (RIGHT)	STATION	7+20.65	7+35.61	7+50.57	7+65.53	7+80.50	7+98.76	8+17.02	8+35.27	8+53.53	8+72.13	8+90.73	9+09.35	9+27.94	9+42.33	9+56.72	9+71.10	9+85.48
	PROFILE GRADE ELEVATION	961.88	962.46	963.12	963.87	964.63	965.55	966.47	967.38	968.21	968.97	969.65	970.23	970.73	971.06	971.34	971.56	971.73
	FINAL DECK ELEVATION	961.66	962.24	962.90	963.65	964.41	965.33	966.25	967.16	967.99	968.75	969.43	970.02	970.52	970.84	971.12	971.34	971.51
	DEAD LOAD DEFLECTION	0.00	0.02	0.02	0.01	0.00	0.01	0.02	0.01	0.00	0.01	0.03	0.02	0.00	0.00	0.01	0.00	0.00
	SCREED ELEVATION	961.66	962.26	962.92	963.66	964.41	965.34	966.27	967.17	967.99	968.76	969.46	970.04	970.52	970.84	971.13	971.34	971.51
BEAM E	STATION	7+20.15	7+35.22	7+50.30	7+65.38	7+80.45	7+98.87	8+17.32	8+35.76	8+54.18	8+72.97	8+91.77	9+10.56	9+29.33	9+43.79	9+58.26	9+72.74	9+87.21
	PROFILE GRADE ELEVATION	961.86	962.44	963.11	963.86	964.62	965.55	966.48	967.40	968.24	969.00	969.68	970.27	970.77	971.09	971.36	971.58	971.74
	FINAL DECK ELEVATION	961.64	962.22	962.89	963.64	964.40	965.33	966.27	967.18	968.02	968.79	969.46	970.05	970.55	970.87	971.14	971.36	971.53
	DEAD LOAD DEFLECTION	0.00	0.02	0.02	0.01	0.00	0.01	0.02	0.01	0.00	0.01	0.03	0.02	0.00	0.00	0.01	0.00	0.00
	SCREED ELEVATION	961.64	962.24	962.91	963.65	964.40	965.34	966.29	967.19	968.02	968.80	969.49	970.07	970.55	970.87	971.15	971.36	971.53



TYPICAL CROSS SECTION

TABLE OF HAUNCHES
(INCHES) *

GIRDER / LOCATION	A	B	C	D	E
REAR ABUTMENT	1	1	1	1	1
PIER 1	½	½	½	½	½
PIER 2	⅜	⅜	⅜	⅜	⅜
PIER 3	½	½	½	½	½
PIER 4	½	½	½	½	½

* - HAUNCHES LESS THAN 1" ACCOUNT FOR TOP MOMENT PLATE THICKNESSES

NOTE:

1. SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

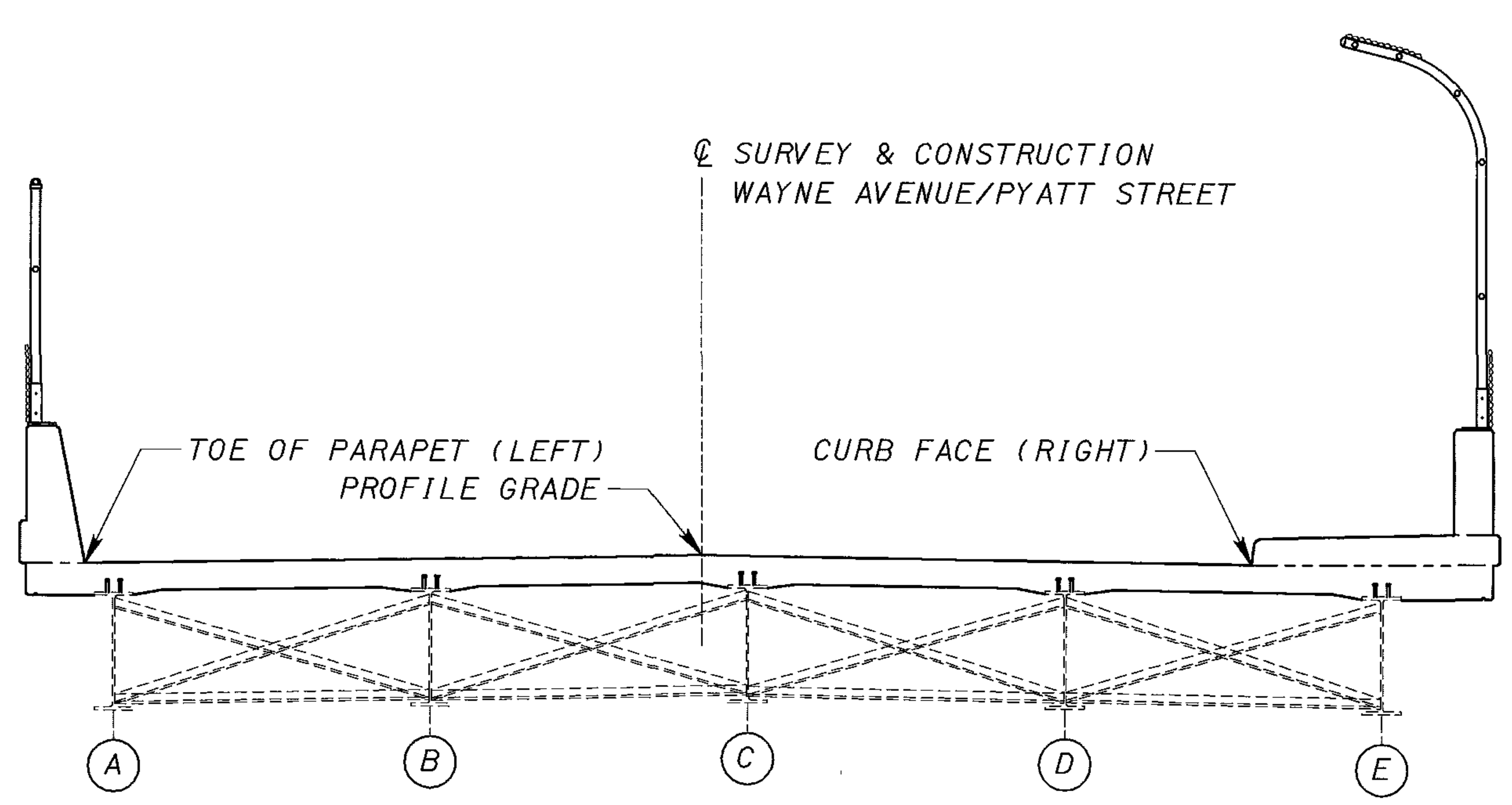
DESIGNED BTA	DRAWN BTA	REVIEWED RER	DATE 06/11/04
CHECKED NFF	REVISED	STRUCTURE FILE NUMBER 5007178	

SCREED ELEVATIONS - SPANS 1 THRU 4
BRIDGE NO. MAH-680-0637
WAYNE AVENUE/PYATT STREET OVER IR-680

MAH-680-4.14/6.28/6.37

SCREED ELEVATIONS - SPANS 5 THRU 7

LOCATION		℄ BRG. PIER 4	SPAN 5 ¼ PT.	SPAN 5 ½ PT.	SPAN 5 ¾ PT.	℄ BRG. PIER 5	SPAN 6 ¼ PT.	SPAN 6 ½ PT.	SPAN 6 ¾ PT.	℄ BRG. PIER 6	SPAN 7 ¼ PT.	SPAN 7 ½ PT.	SPAN 7 ¾ PT.	℄ BRG. FWD. ABUT.
TOE OF PARAPET (LEFT)	STATION	9+68.14	9+83.26	9+97.88	10+13.62	10+29.01	10+43.10	10+57.18	10+71.26	10+85.35	10+95.60	11+05.85	11+16.10	11+26.35
	PROFILE GRADE ELEVATION	971.52	971.70	971.83	971.91	971.92	971.89	971.80	971.66	971.47	971.30	971.10	970.88	970.65
	FINAL DECK ELEVATION	971.27	971.46	971.59	971.66	971.68	971.64	971.55	971.41	971.22	971.05	970.86	970.64	970.40
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.00
	SCREED ELEVATION	971.27	971.47	971.60	971.67	971.68	971.65	971.56	971.42	971.22	971.05	970.87	970.65	970.40
BEAM A	STATION	9+68.93	9+83.97	9+99.03	10+14.20	10+29.49	10+43.57	10+57.65	10+71.74	10+85.82	10+96.07	11+06.32	11+16.57	11+26.82
	PROFILE GRADE ELEVATION	971.53	971.71	971.84	971.91	971.92	971.88	971.79	971.65	971.46	971.29	971.09	970.87	970.63
	FINAL DECK ELEVATION	971.30	971.49	971.62	971.69	971.70	971.66	971.57	971.43	971.24	971.07	970.87	970.65	970.41
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.00
	SCREED ELEVATION	971.30	971.50	971.63	971.70	971.70	971.67	971.58	971.44	971.24	971.07	970.88	970.66	970.41
BEAM B	STATION	9+73.38	9+87.90	10+02.43	10+17.03	10+31.66	10+45.74	10+59.82	10+73.91	10+87.99	10+98.24	11+08.49	11+18.74	11+28.99
	PROFILE GRADE ELEVATION	971.59	971.75	971.86	971.92	971.92	971.87	971.77	971.63	971.43	971.25	971.05	970.82	970.58
	FINAL DECK ELEVATION	971.49	971.65	971.76	971.82	971.82	971.77	971.67	971.53	971.33	971.15	970.95	970.72	970.48
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.00
	SCREED ELEVATION	971.49	971.66	971.77	971.83	971.82	971.78	971.68	971.54	971.33	971.15	970.96	970.73	970.48
PROFILE GRADE	STATION	9+77.13	9+91.21	10+05.30	10+19.38	10+33.46	10+47.54	10+61.63	10+75.71	10+89.79	11+00.04	11+10.29	11+20.53	11+30.78
	PROFILE GRADE ELEVATION	971.64	971.78	971.88	971.92	971.92	971.86	971.76	971.60	971.40	971.22	971.01	970.78	970.53
	FINAL DECK ELEVATION	971.64	971.78	971.88	971.92	971.92	971.86	971.76	971.60	971.40	971.22	971.01	970.78	970.53
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.00
	SCREED ELEVATION	971.64	971.79	971.89	971.93	971.92	971.87	971.77	971.61	971.40	971.22	971.02	970.79	970.53
BEAM C	STATION	9+77.91	9+91.89	10+05.89	10+19.86	10+33.82	10+47.91	10+61.99	10+76.07	10+90.16	11+00.41	11+10.66	11+20.91	11+31.16
	PROFILE GRADE ELEVATION	971.64	971.79	971.88	971.92	971.92	971.86	971.75	971.60	971.39	971.21	971.00	970.77	970.52
	FINAL DECK ELEVATION	971.62	971.76	971.86	971.90	971.90	971.84	971.73	971.58	971.37	971.19	970.98	970.75	970.50
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.00
	SCREED ELEVATION	971.62	971.77	971.87	971.91	971.90	971.85	971.74	971.59	971.37	971.19	970.99	970.76	970.50
BEAM D	STATION	9+82.51	9+95.96	10+09.38	10+22.69	10+35.99	10+50.08	10+64.16	10+78.24	10+92.33	11+02.58	11+12.83	11+23.08	11+33.33
	PROFILE GRADE ELEVATION	971.70	971.82	971.89	971.93	971.91	971.85	971.73	971.57	971.36	971.17	970.96	970.72	970.46
	FINAL DECK ELEVATION	971.55	971.67	971.75	971.78	971.77	971.71	971.59	971.43	971.22	971.03	970.82	970.58	970.32
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.00
	SCREED ELEVATION	971.55	971.68	971.76	971.79	971.77	971.72	971.60	971.44	971.22	971.03	970.83	970.59	970.32
FACE OF CURB (RIGHT)	STATION	9+85.48	9+98.59	10+11.62	10+24.52	10+37.43	10+51.51	10+65.59	10+79.68	10+93.76	11+04.01	11+14.26	11+24.51	11+34.76
	PROFILE GRADE ELEVATION	971.73	971.84	971.90	971.93	971.91	971.84	971.72	971.55	971.33	971.14	970.92	970.68	970.42
	FINAL DECK ELEVATION	971.51	971.62	971.68	971.71	971.69	971.62	971.50	971.33	971.11	970.92	970.70	970.46	970.20
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.00
	SCREED ELEVATION	971.51	971.63	971.69	971.72	971.69	971.63	971.51	971.34	971.11	970.92	970.71	970.47	970.20
BEAM E	STATION	9+87.21	10+00.10	10+12.87	10+25.52	10+38.16	10+52.25	10+66.33	10+80.41	10+94.50	11+04.75	11+15.00	11+25.25	11+35.50
	PROFILE GRADE ELEVATION	971.74	971.85	971.91	971.93	971.90	971.83	971.71	971.54	971.32	971.13	970.91	970.67	970.39
	FINAL DECK ELEVATION	971.53	971.63	971.69	971.71	971.69	971.61	971.49	971.32	971.10	970.91	970.69	970.45	970.18
	DEAD LOAD DEFLECTION	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.00
	SCREED ELEVATION	971.53	971.64	971.70	971.72	971.69	971.62	971.50	971.33	971.10	970.91	970.70	970.46	970.18



TYPICAL CROSS SECTION

TABLE OF HAUNCHES
(INCHES) *

GIRDER / LOCATION	A	B	C	D	E
PIER 4	½	½	½	½	½
PIER 5	½	½	½	½	½
PIER 6	1	1	1	1	1
FORWARD ABUTMENT	1	1	1	1	1

* - HAUNCHES LESS THAN 1" ACCOUNT FOR TOP MOMENT PLATE THICKNESSES

NOTE:

1. SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650 CLEVELAND, OHIO 44113-1901

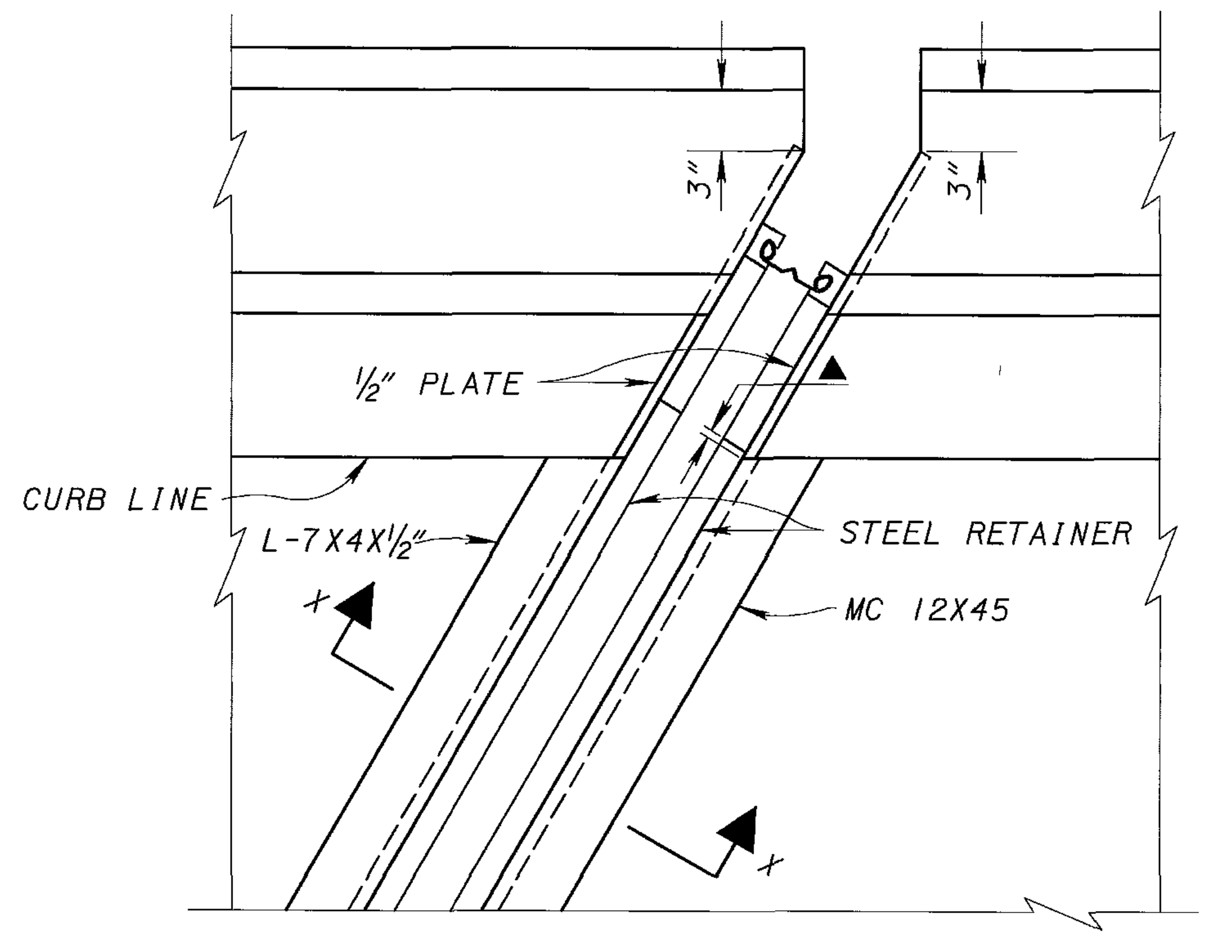
REVIEWED RER | DATE 06/11/04
STRUCTURE FILE NUMBER 5007178
DRAWN BTA | REVISED
DESIGNED BTA | CHECKED NFF

SCREED ELEVATIONS - SPANS 5 THRU 7
BRIDGE NO. MAH-680-0637
WAYNE AVENUE/PYATT STREET OVER IR-680

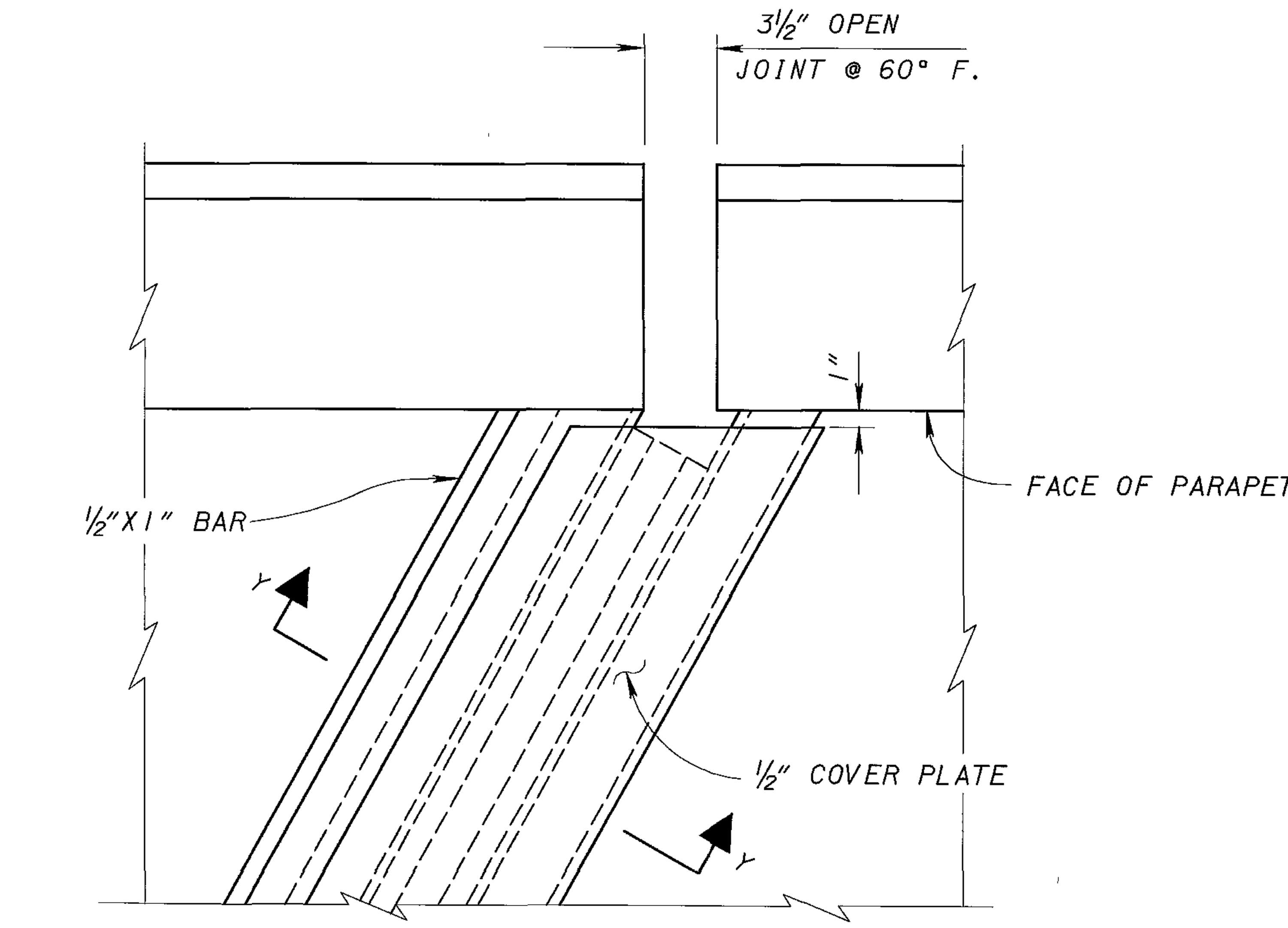
MAH-680-4.14/6.28/6.37

25/28

174/191



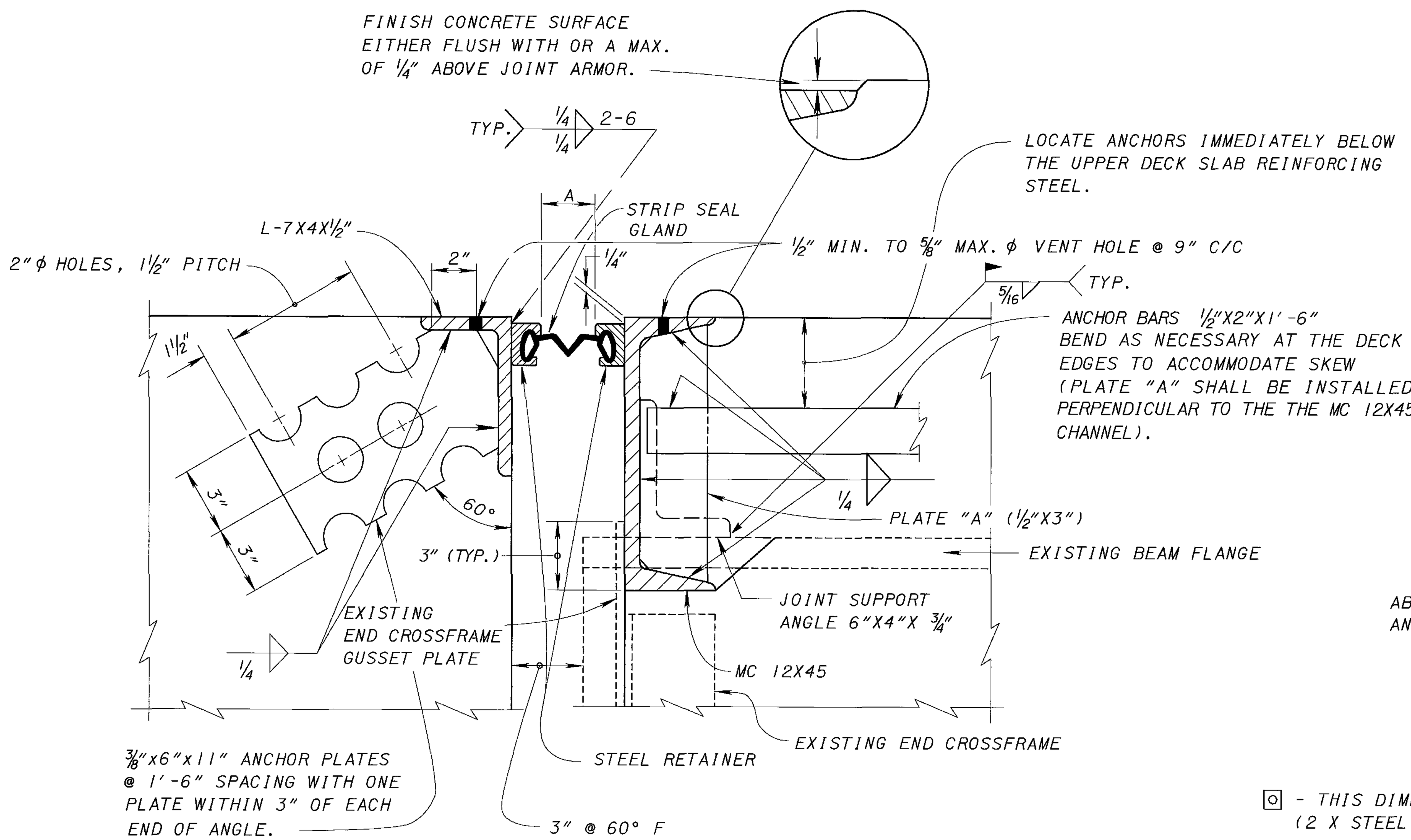
DETAIL AT PARAPET



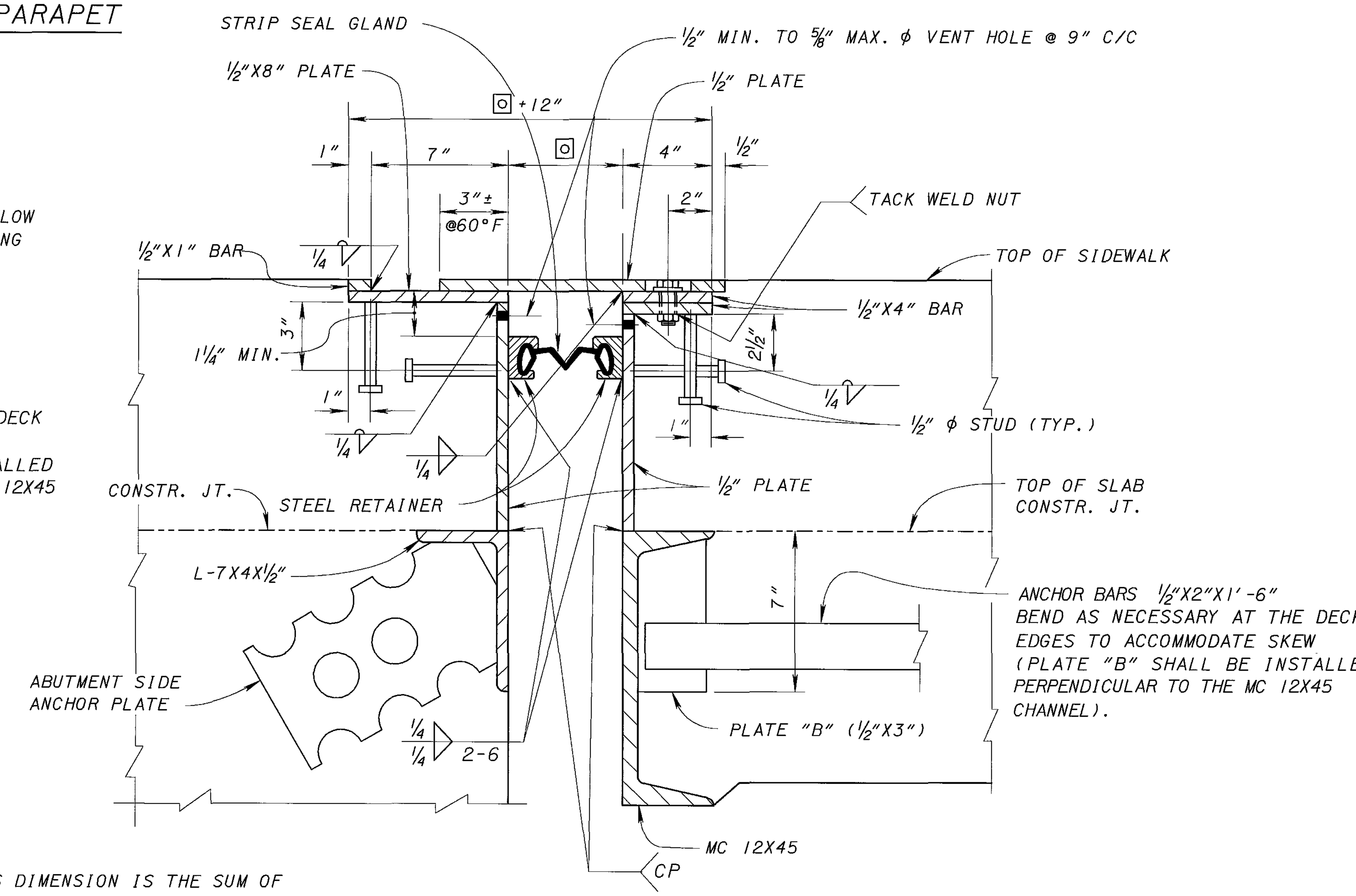
DETAIL AT SIDEWALK PARAPET

3" STRIP SEAL JOINT WIDTH	
AMBIENT TEMP.	DIMENSION "A"
90° F	1¼"
80° F	1 7/16"
70° F	1 9/16"
60° F	1¾"
50° F	1 15/16"
40° F	2 1/16"
30° F	2¼"

NOTE:
MINIMUM JOINT OPENING (DIMENSION "A") AT TIME OF SEAL GLAND INSTALLATION SHALL NOT BE LESS THAN 1¼". IF THE JOINT OPENING IS LESS, INSTALLATION SHALL BE POSTPONED UNTIL THE TEMPERATURE DROPS A SUFFICIENT AMOUNT TO ALLOW THE MINIMUM 1¼" OPENING.



SECTION X-X



▫ - THIS DIMENSION IS THE SUM OF (2 X STEEL RETAINER WIDTH +DIM. "A").

SECTION Y-Y

NOTES:

1. FOR ADDITIONAL DETAILS NOT SHOWN, REFER TO ODOT STANDARD BRIDGE DRAWING EXJ-4-87.

2. NO JOINTS IN STRIP SEALS ARE ALLOWED UNLESS APPROVED BY THE DIRECTOR.

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
NFF	CAG	RER	06/11/04
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BTA		5007178	

EXPANSION JOINT REPLACEMENT DETAIL
BRIDGE NO. MAH-680-0637
WAYNE AVENUE/PYATT STREET OVER IR-680

MAH-680-4.14/6.28/6.37

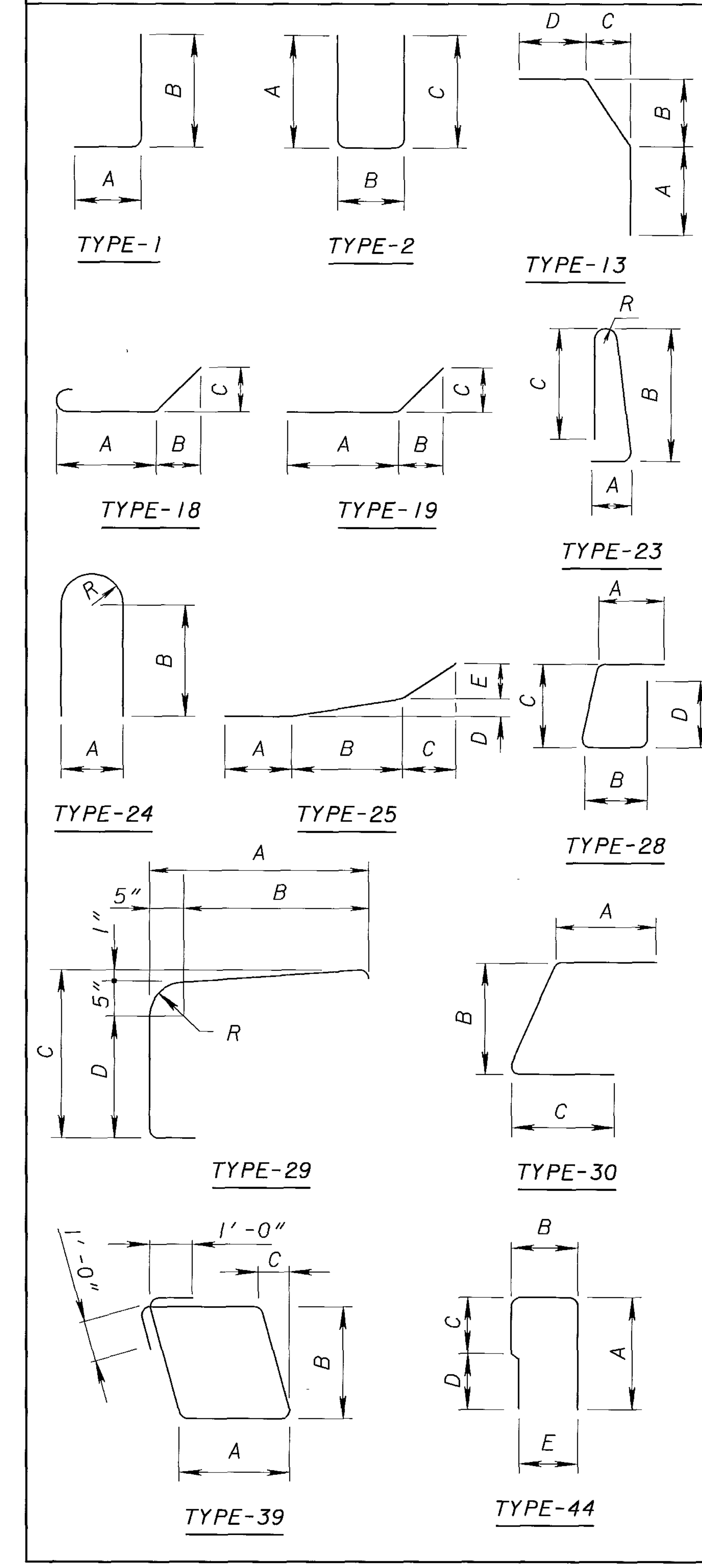
BAR SCHEDULE

MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
REAR ABUTMENT											
RA501	9	37'-2"	349	STR.							
RA502	2	5'-10"	12	STR.							
RA503	2	5'-4"	11	STR.							
RA504	6	8'-1"	51	39	1'-8"	1'-8"	0'-2"				
RA505	3	7'-1"	22	STR.							
RA506	3	6'-2"	19	STR.							
RA507	2	6'-9"	14	STR.							
RA508	2	10'-9"	22	STR.							
RA509	2	10'-3"	21	19	8'-0"	2'-4"	0'-8"				
RA510	18	14'-5"	271	STR.							
RA511	2	7'-6"	16	29	4'-5"	4'-0"	1'-11"	1'-5"		4 3/8"	
RA512	5	3'-7"	19	24	0'-6"	1'-5"				3 1/4"	
RA513	2	7'-2"	15	STR.							
RA514	2	12'-3"	26	STR.							
RA515	8	14'-8"	122	STR.							
RA516	2	7'-5"	15	23	1'-1"	3'-2"	3'-0"			2 3/4"	
RA517	6	3'-2"	20	STR.							
RA518	8	10'-0"	83	STR.							
RA519	3	5'-6"	17	25	1'-8"	2'-5"	1'-4"	0'-1 1/2"	0'-5"		
RA520	5	5'-6"	29	STR.							
RA521	2	10'-0"	21	19	7'-8"	2'-4"	0'-6"				
RA522	38	5'-2"	205	2	1'-2"	3'-5"	1'-0"				
RA601	152	3'-9"	856	1	1'-3"	2'-9"					
RA602	4	37'-2"	223	STR.							
RA603	62	5'-6"	512	STR.							
RA604	31	8'-11"	415	2	3'-11"	1'-5"	3'-11"				
RA605	31	6'-3"	291	2	2'-10"	0'-11"	2'-10"				
RA606	10	7'-1"	106	STR.							
RA607	5	11'-5"	86	2	5'-2"	1'-5"	5'-2"				
RA608	5	7'-3"	54	2	3'-1"	1'-5"	3'-1"				
RA609	32	4'-4"	208	1	1'-0"	3'-6"					
RA610	8	12'-6"	150	2	5'-10"	1'-2"	5'-10"				
	1 SERIES	7'-2"			3'-2"		3'-2"				
RA611	OF	TO	116	2	TO	1'-2"	TO				4 1/4"
	8 BARS	12'-2"			5'-8"		5'-8"				
RA612	22	10'-5"	344	44	5'-1"	0'-7"	2'-6"	2'-7"	0'-5"		
RA613	8	11'-0"	132	2	5'-1"	1'-2"	5'-1"				
	1 SERIES	7'-2"			3'-2"		3'-2"				
RA614	OF	TO	107	2	TO	1'-2"	TO				3 1/4"
	8 BARS	10'-8"			4'-11"		4'-11"				
RA615	1	3'-5"	5	STR.							
RA616	30	5'-4"	240	STR.							
RA617	2	2'-11"	9	STR.							
RA618	2	3'-11"	12	13	2'-0"	0'-11"	0'-1 1/2"	1'-1"			
RA801	22	4'-11"	289	18	2'-7"	1'-0"	1'-0"				
RA901	18	2'-9"	168	STR.							
RA902	4	3'-5"	46	STR.							
TOTAL WEIGHT REAR ABUTMENT - 5749											

BAR SCHEDULE

MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
FORWARD ABUTMENT											
FA501	9	38'-2"	358	STR.							
FA502	2	6'-0"	13	STR.							
FA503	2	5'-6"	11	STR.							
FA504	6	8'-1"	51	39	1'-8"	1'-8"	0'-5"				
FA505	3	6'-2"	19	STR.							
FA506	2	7'-4"	15	STR.							
FA507	2	11'-8"	24	STR.							
FA508	2	10'-0"	21	19	7'-7"	2'-4"	0'-7"				
FA509	8	14'-8"	122	STR.							
FA510	3	5'-6"	17	25	1'-8"	2'-5"	1'-4"	0'-1 1/2"	0'-5"		
FA511	8	10'-0"	83	STR.							
FA512	2	7'-5"	15	23	1'-1"	3'-2"	3'-0"			2 3/4"	
FA513	6	3'-2"	20	STR.							
FA514	2	7'-7"	16	STR.							
FA515	2	11'-3"	23	STR.							
FA516	2	9'-9"	20	19	7'-5"	2'-4"	0'-9"				
FA517	18	14'-8"	275	STR.							
FA518	2	7'-6"	16	29	4'-5"	4'-0"	1'-11"	1'-5"		4 3/8"	
FA519	5	3'-7"	19	24	0'-6"	1'-5"				3 1/4"	
FA520	5	5'-6"	29	STR.							
FA521	39	5'-2"	210	2	1'-0"	3'-5"	1'-0"				
FA601	156	4'-5"	1035	1	1'-2"	3'-3"					
FA602	4	38'-2"	229	STR.							
FA603	64	5'-9"	553	STR.							
FA604	32	9'-11"	477	2	4'-5"	1'-5"	4'-5"				
FA605	32	6'-3"	300	2	2'-10"	0'-11"	2'-10"				
FA606	10	7'-3"	109	STR.							
FA607	5	11'-11"	89	2	5'-5"	1'-5"	5'-5"				
FA608	5	7'-3"	54	2	3'-1"	1'-5"	3'-1"				
FA609	32	4'-4"	208	1	1'-0"	3'-6"					
FA610	8	11'-10"	142	2	5'-6"	1'-2"	5'-6"				
	1 SERIES	7'-2"			3'-2"		3'-2"				
FA611	OF	TO	112	2	TO	1'-2"	TO				3 3/4"
	8 BARS	11'-6"			5'-4"		5'-4"				
FA612	30	5'-4"	240	STR.							
FA613	1	3'-5"	5	STR.							
FA614	2	2'-11"	9	STR.							
FA615	2	3'-11"	12	13	2'-0"	0'-11"	0'-1 1/2"	1'-1"			
FA616	8	12'-10"	154	2	6'-0"	1'-2"	6'-0"				
	1 SERIES	7'-2"			3'-2"		3'-2"				
FA617	OF	TO	113	2	TO	1'-2"	TO				3 3/4"
	8 BARS	11'-8"			5'-5"		5'-5"				
FA618	22	10'-5"	344	44	5'-1"	0'-7"	2'-6"	2'-7"	0'-5"		
FA801	22	5'-0"	294	18	2'-8"	1'-0"	1'-0"				
FA901	18	3'-0"	184	STR.							
FA902	4	3'-6"	48	STR.							
TOTAL WEIGHT FORWARD ABUTMENT - 6088											

BAR BENDING DIAGRAMS



NOTES:

THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, RA601:

RA: LOCATION OF THE BAR IN THE STRUCTURE (REAR ABUTMENT)
6: BAR SIZE DESIGNATION NO. 6
01: SEQUENCE NUMBER

BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BAR BEND AT THE END OF THE BAR. ALL REINFORCING STEEL IS TO BE EPOXY COATED. STRAIGHT BARS ARE INDICATED BY "STR".

DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

DESIGNED	DRAWN	REVIEWED	DATE
NFF	CAG	RER	06/11/04
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BTA		5007178	

REINFORCING SCHEDULE
BRIDGE NO. MAH-680-0637
WAYNE AVENUE/PYATT STREET OVER IR-680

MAH-680-4.14/6.28/6.37

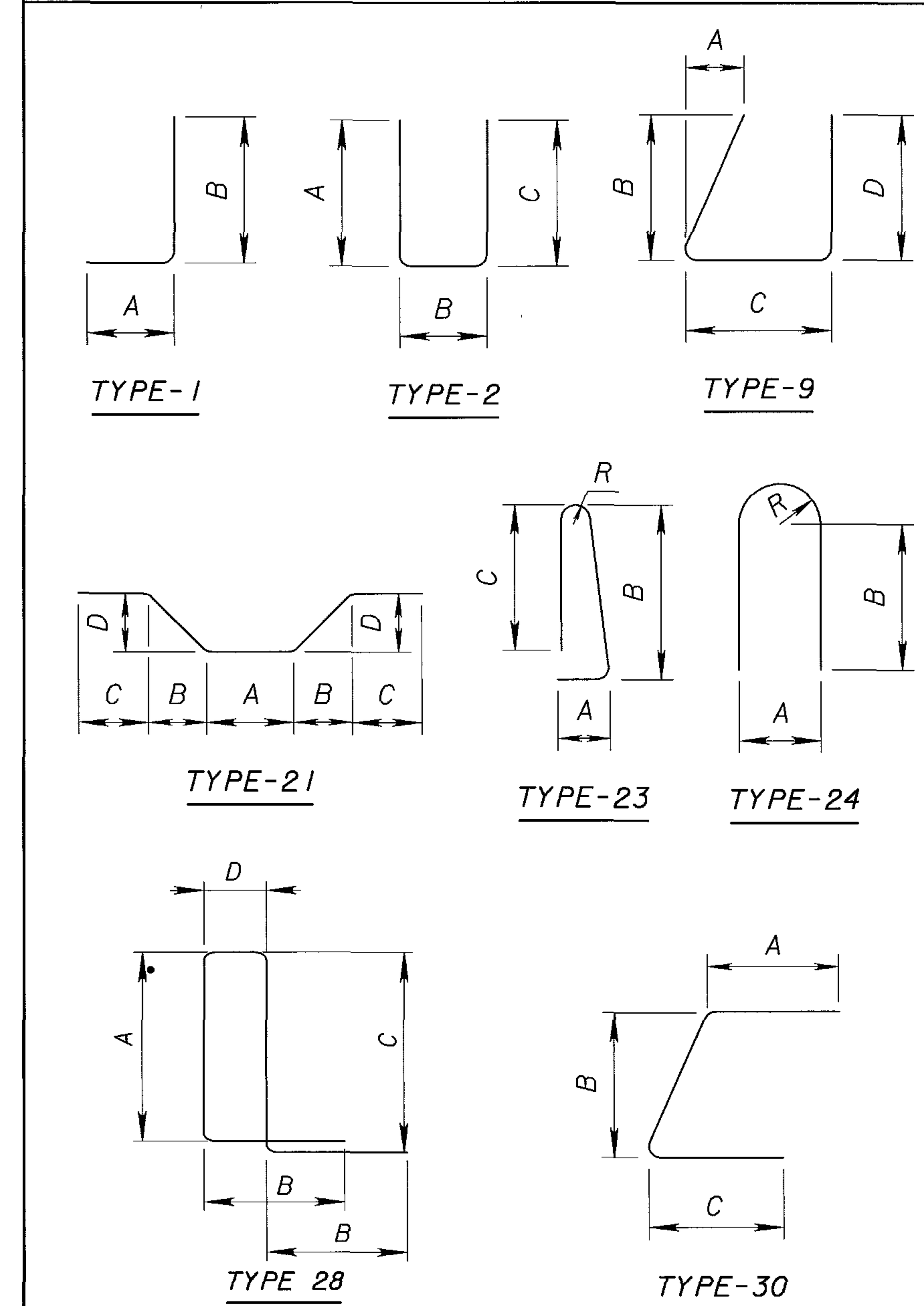
BAR SCHEDULE

MARK	NUMBER	LENGTH	WEIGHT	TYPE	A	B	C	D	E	R	INC.
PIER 1											
P501	66	5'-5"	373	2	1'-6"	2'-8"	1'-6"				
P601	66	3'-4"	330	1	1'-0"	2'-6"					
P602	5	32'-4"	243	STR.							
P603	6	9'-6"	86	24	2'-3"	3'-0"				13½"	
P604	8	6'-0"	72	1	3'-0"	3'-2"					
P801	4	32'-4"	345	STR.							
P802	4	23'-8"	253	STR.							
TOTAL WEIGHT PIER 1 = 1702											
PIER 2											
P501	68	5'-3"	372	2	1'-5"	2'-8"	1'-5"				
P601	68	3'-4"	340	1	1'-0"	2'-6"					
P602	5	32'-9"	246	STR.							
P603	6	9'-6"	86	24	2'-3"	3'-0"				13½"	
P604	8	5'-11"	71	1	3'-0"	3'-1"					
P801	4	32'-9"	350	STR.							
P802	4	23'-8"	253	STR.							
TOTAL WEIGHT PIER 2 = 1718											
PIER 3											
P501	72	5'-3"	394	2	1'-5"	2'-8"	1'-5"				
P601	72	3'-4"	360	1	1'-0"	2'-6"					
P602	5	35'-0"	263	STR.							
P603	6	9'-6"	86	24	2'-3"	3'-0"				13½"	
P604	8	5'-11"	71	1	3'-0"	3'-1"					
P801	4	35'-0"	374	STR.							
P802	4	26'-2"	279	STR.							
TOTAL WEIGHT PIER 3 = 1827											
PIER 4											
P501	74	5'-5"	418	2	1'-6"	2'-8"	1'-6"				
P601	74	3'-4"	370	1	1'-0"	2'-6"					
P602	5	36'-2"	272	STR.							
P603	6	9'-6"	86	24	2'-3"	3'-0"				13½"	
P604	8	5'-10"	70	1	3'-0"	3'-0"					
P801	4	36'-2"	386	STR.							
P802	4	26'-2"	279	STR.							
TOTAL WEIGHT PIER 4 = 1881											
PIER 5											
P501	66	5'-1"	350	2	1'-4"	2'-8"	1'-4"				
P601	66	3'-4"	330	1	1'-0"	2'-6"					
P602	5	31'-11"	240	STR.							
P603	6	9'-6"	86	24	2'-3"	3'-0"				13½"	
P604	8	5'-10"	70	1	3'-0"	3'-0"					
P801	4	31'-11"	341	STR.							
802	4	23'-8"	253	STR.							
TOTAL WEIGHT PIER 5 = 1670											

BAR SCHEDULE

MARK	NUMBER	LENGTH	WEIGHT	TYPE	A	B	C	D	E	R	INC.
PIER 6											
P501	66	5'-1"	350	2	1'-4"	2'-8"	1'-4"				
P601	66	3'-4"	330	1	1'-0"	2'-6"					
P602	5	31'-11"	240	STR.							
P603	6	9'-6"	86	24	2'-3"	3'-0"				13½"	
P604	8	5'-10"	70	1	3'-0"	3'-0"					
P801	4	31'-11"	341	STR.							
802	4	23'-8"	253	STR.							
TOTAL WEIGHT PIER 5 = 1670											
SUPERSTRUCTURE											
S401	812	30'-0"	16272	STR.							
S402	58	27'-6"	1065	STR.							
S501	1960	37'-1"	75809	STR.							
S502	1020	30'-0"	31916	STR.							
S503	68	8'-10"	626	STR.							
	2 SERIES	2'-7"									
S504	OF	TO	472	STR.							
	12 BARS	35'-2"									
	2 SERIES	4'-7"									
S505	OF	TO	920	STR.							
	22 BARS	35'-6"									
S506	4	37'-6"	156	STR.							
S507	2	4'-7"	10	STR.							
S508	4	37'-7"	157	STR.							
S509	96	5'-6"	551	STR.							
S510	288	40'-3"	12090	STR.							
S511	412	7'-5"	3187	23	1'-1"	3'-2"	3'-0"			2¾"	
S512	410	9'-11"	4241	28	2'-10"	1'-10"	3'-0"	8"			
S513	412	6'-0"	2578	STR.							
S514	412	2'-5"	1038	2	10"	1'-0"	10"				
S515	436	2'-8"	1213	2	10"	1'-3"	10"				
S601	15	30'-0"	676	STR.							
S602	1	15'-6"	23	STR.							
S603	412	3'-5"	2114	30	1'-1"	1'-7"	1'-1"				
S604	412	2'-6"	1547	1	1'-1"	1'-7"					
S605	24	2'-8"	96	2	10"	1'-3"	10"				
L501	18	7'-3"	136	21	1'-4"	1'-10"	6"	1'-10"			
L502	12	8'-6"	106	9	6"	3'-2"	2'-4"	3'-2"			
L503	12	3'-3"	41	2	10"	1'-10"	10"				
L504	12	3'-2"	40	STR.							
L505	18	8'-0"	150	21	1'-4"	2'-1"	6"	2'-1"			
L506	12	7'-8"	96	2	2'-11"	2'-1"	2'-11"				
L507	12	3'-6"	44	2	10"	2'-1"	10"				
L508	12	2'-11"	37	STR.							
TOTAL WEIGHT SUPERSTRUCTURE = 157407											

BAR BENDING DIAGRAMS



NOTES:

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6: BAR SIZE DESIGNATION NO. 6
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DESIGN AGENCY
TRANSYSTEMS CORPORATION
55 PUBLIC SQUARE, SUITE 1650
CLEVELAND, OHIO 44113-1901

REVIEWED RER | DATE 06/11/04 | STRUCTURE FILE NUMBER 5007178
DRAWN CAG | REVISED
DESIGNED NFF | CHECKED BTA

REINFORCING SCHEDULE
BRIDGE NO. MAH-680-0637
WAYNE AVENUE/PYATT STREET OVER IR-680

MAH-680-4.14/6.28/6.37

TOTAL NUMBER OF :

1 OWNERSHIPS　0 OWNERSHIPS WITH STRUCTURES INVOLVED
1 PARCELS　0 OWNERSHIPS WITH "P" ITEMS
0 TOTAL TAKES

NET RESIDUE = RECORD AREA - TOTAL PRO - NET TAKE

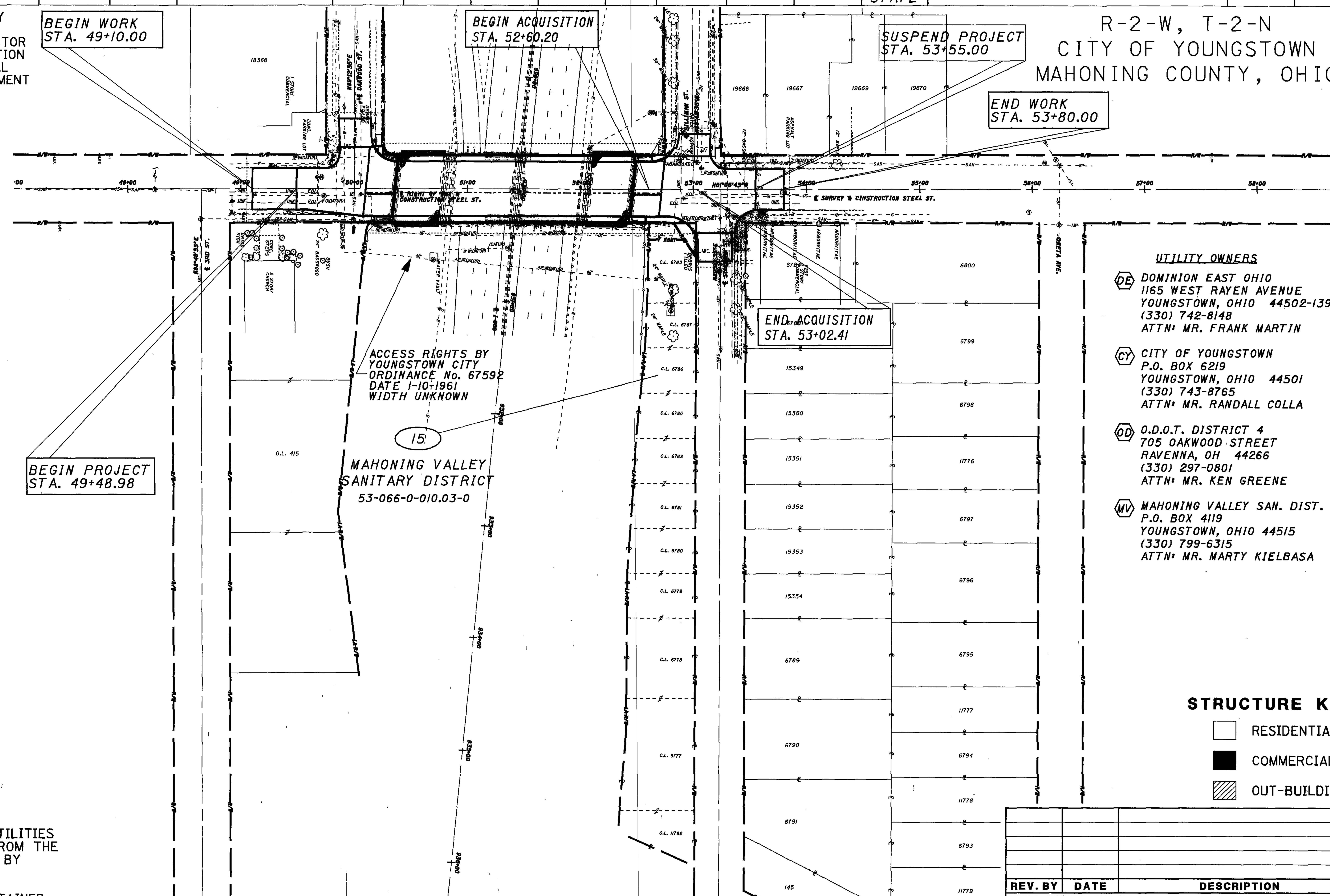
GRANTEE:
ALL RIGHT OF WAY ACQUIRED IN THE NAME OF
STATE OF OHIO, DEPARTMENT OF TRANSPORTATION
UNLESS OTHERWISE SHOWN.

ALL AREAS IN ACRES

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
12-14	NUMBER NOT USED													STATE			
15-WD	MAHONING VALLEY SANITARY DISTRICT	10	1056	659	53-066-0-010.03-0	0.704	0	0.007	0	0.007			0.697				
15-T							0	0.009	0	0.009					GRADING		
														STATE			

NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR UNLESS NOTED OTHERWISE. UPON COMPLETION OF THE WORK REQUIRED FOR SUCH REMOVAL AND SUBSEQUENT RECLAMATION, THE EASEMENT SHALL BE VACATED IMMEDIATELY.

NOTE: ALL TEMPORARY PARCELS TO BE OF 12 MONTH DURATION.



CONVENTIONAL SIGNS

County Line
Township Line
Section Line
Corporation Line or
Fence Line (existing) (proposed)
Center Line
Trees, Stumps (to be removed)
Utility Poles: Telephone, Power, Light
Right of Way (only) R/W
Standard Highway Ease. SH
Temp. Right of Way T ESMT
Exist. Right of Way R/W
Exist. Stand. High. Ease. Ex SH
Exist. Channel Ease. Ex CH
Exist. Utility Ease. U ESMT
Property Line (in existing fence)
Railroad or
Guardrail (existing) (proposed)
Construction Limits Construction Limits

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

REFERENCE POINT INFORMATION IS CONTAINED IN THE CONSTRUCTION PLAN.

STRUCTURE KEY
RESIDENTIAL
COMMERCIAL
OUT-BUILDING

REV. BY	DATE	DESCRIPTION
FIELD REVIEW BY: JPS		DATE: 3/31/2004
OWNERSHIP VERIFIED BY: JF		DATE: 3/30/2004
DATE COMPLETED: 04/02/2004		

SCALE IN FEET 0 25 50 100

PID NO. 22484

R/W DESIGNER JPS　R/W REVIEWER WJS

SUMMARY/PROPERTY MAP
STEEL STREET

MAH-680-4.14/6.37

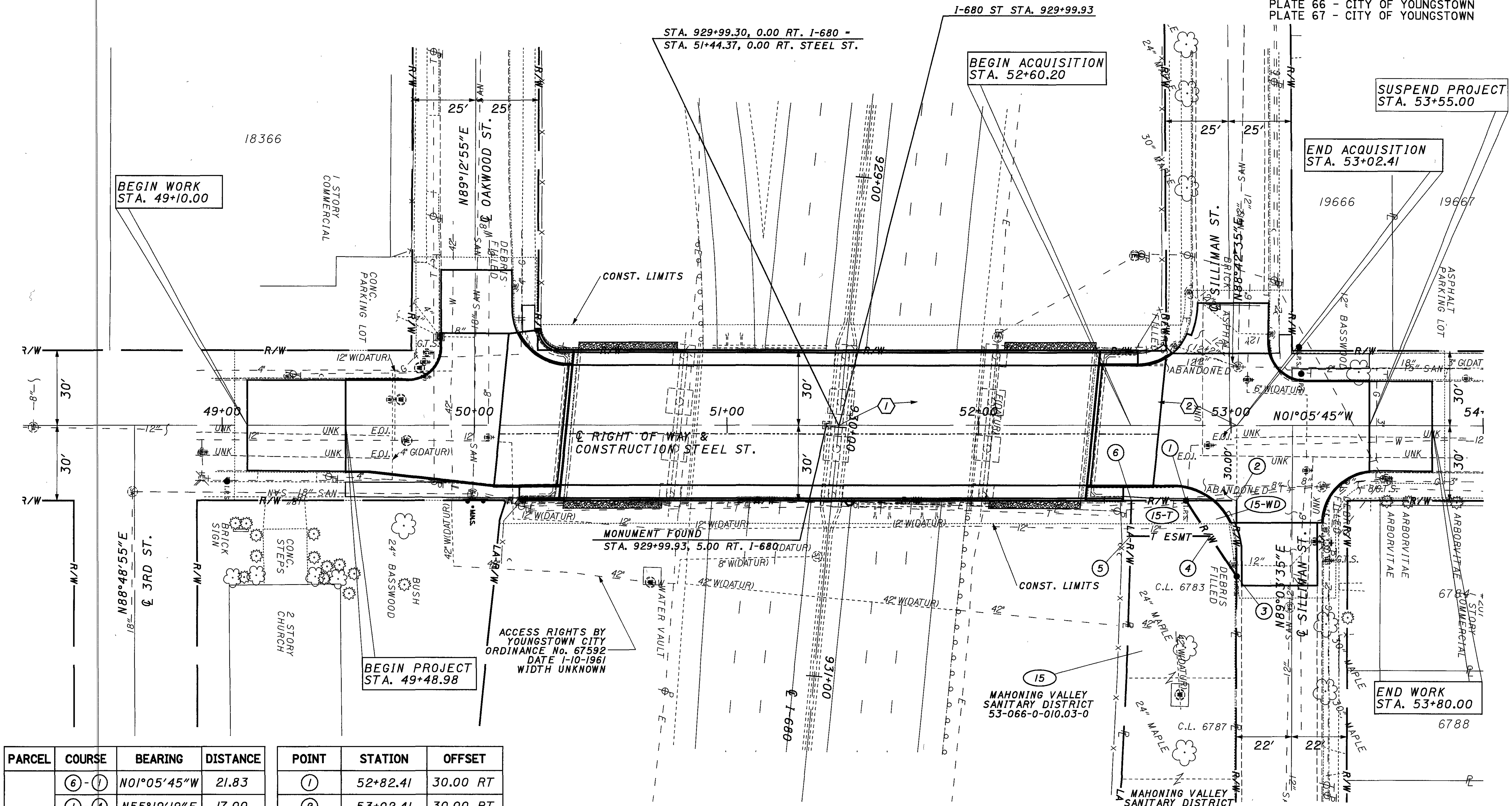
DATE: 22-Mar-04 08:38
FILE: J:\Job\1045_Mah-680-4.14\Plan_Sheets\24_Right_of_Way\03_PR_Map\1045A-RMI.dgn
SCALE: 1=50E

T-2-N , R-2-W
CITY OF YOUNGSTOWN
MAHONING COUNTY, OHIO

BASIS FOR BEARINGS:

THE BASIS OF BEARING IS BASED UPON THE OHIO NORTH ZONE STATE PLANE COORDINATES NAD83(95) DATUM. THE BEARINGS SHOWN ARE FOR PROJECT USE ONLY.

NOTE: THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
RECORD PLATS
VOL. 55 PG. 2 - THE MAHONING VALLEY SANITARY DISTRICT RIGHT OF WAY PLAT
MAHONING COUNTY RECORD DEEDS
MAHONING COUNTY TAX MAPS
PLATE 66 - CITY OF YOUNGSTOWN
PLATE 67 - CITY OF YOUNGSTOWN



PARCEL	COURSE	BEARING	DISTANCE
15-T	6-1	N01°05'45"W	21.83
	1-4	N55°19'19"E	17.00
	4-5	S01°05'45"E	31.61
	5-6	N89°34'33"W	14.17
15-WD	1-2	N01°05'45"W	20.00
	2-3	N89°03'35"E	30.00
	3-1	S55°19'19"W	36.01

POINT	STATION	OFFSET
1	52+82.41	30.00 RT
2	53+02.41	30.00 RT
3	53+02.33	60.00 RT
4	52+91.81	44.16 RT
5	52+60.20	44.16 RT
6	52+60.58	30.00 RT

LEAD IN DISTANCES

1-2	N 01°05'45"W	158.04'
2-2	N 88°54'15"E	30.00'

STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- OUT-BUILDING

MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- I.P.S. IRON PIN SET W/ ID CAP

REV. BY	DATE	DESCRIPTION

DATE COMPLETED: 04/02/2004

SCALE IN FEET 0 10 20 40

PID NO. 22484

R/W DESIGNER JPS
R/W REVIEWER WJS

RIGHT OF WAY PLAN - STEEL ST.
STA. 5+00 TO STA. 8+00

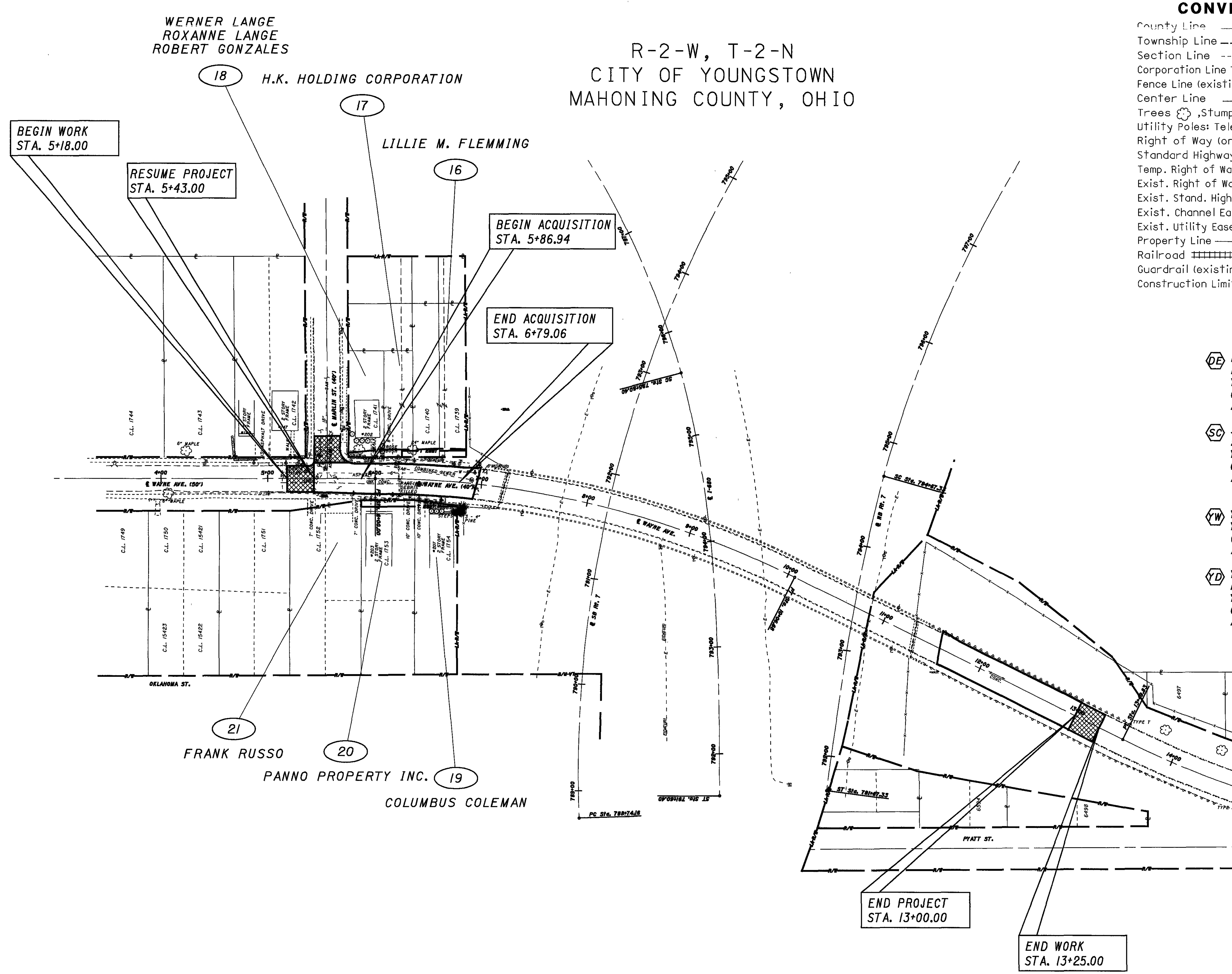
MAH-680-4.14/6.37

10 / 14

187/191

DATE: 24-Feb-04 08:42
FILE: J:\Job\1045_Mah-680-4.14\Plan_Sheets\24_Right_of_Way\05_Plan_Sheets\1045A-RPI.dgn
SCALE: 1 = 20E

R-2-W, T-2-N
CITY OF YOUNGSTOWN
MAHONING COUNTY, OHIO



CONVENTIONAL SIGNS

County Line
Township Line
Section Line
Corporation Line or
Fence Line (existing) (proposed)
Center Line
Trees, Stumps (to be removed)
Utility Poles: Telephone, Power, Light
Right of Way (only) R/W
Standard Highway Ease. SH
Temp. Right of Way T ESMT
Exist. Right of Way R/W
Exist. Stand. High. Ease. Ex SH
Exist. Channel Ease. Ex CH
Exist. Utility Ease. U ESMT
Property Line (in existing fence)
Railroad or
Guardrail (existing) (proposed)
Construction Limits Construction Limits

UTILITY OWNERS

DE DOMINION EAST OHIO
1165 WEST RAYEN AVENUE
YOUNGSTOWN, OHIO 44502-1394
(330) 742-8148
ATTN: MR. DOMINIC ROZZO

SC SBC
2933 SALT SPRINGS ROAD
YOUNGSTOWN, OHIO 44509
(330) 270-8833
ATTN: MR. DAVID POST
MS. SABRENA LAMPLEY

YW YOUNGSTOWN WASTE WATER
YOUNGSTOWN, OHIO 44515
(330) 742-8818
ATTN: MR. TOM MIRANTE

YD YOUNGSTOWN WATER DEPARTMENT
P.O. BOX 6219
YOUNGSTOWN, OHIO 44501-6219
(330) 743-5338
ATTN: MR. RANDALL COLLA

STRUCTURE KEY

RESIDENTIAL
COMMERCIAL
OUT-BUILDING

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

REFERENCE POINT INFORMATION IS CONTAINED IN THE CONSTRUCTION PLAN.

REV. BY	DATE	DESCRIPTION

DATE COMPLETED: 04/02/2004

DATE: 20-Jan-04 09:13
FILE: J:\Job\1045_MAH-680-6.37\Plan_Sheets\24_Right_of_Way\03_PR_Map\1045A-RMA.dgn
SCALE: 1=50E

N

0 25 50 100 SCALE IN FEET

PID NO. 22484

R/W DESIGNER JPS
R/W REVIEWER WJS

PROPERTY MAP
WAYNE AVENUE / PYATT STREET

MAH-680-4.14/6.37

188/191

TOTAL NUMBER OF :
2 OWNERSHIPS 0 OWNERSHIPS WITH STRUCTURES INVOLVED
2 PARCELS 0 OWNERSHIPS WITH "P" ITEMS
0 TOTAL TAKES

NET RESIDUE = RECORD AREA - TOTAL PRO - NET TAKE

ALL AREAS IN ACRES

GRANTEE:
ALL RIGHT OF WAY ACQUIRED IN THE NAME OF
STATE OF OHIO, DEPARTMENT OF TRANSPORTATION
UNLESS OTHERWISE SHOWN.

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
16	LILLIE M. FLEMING	3	OR 4450	85	53-046-0-260.00-0	0.066								STATE	STATE OF OHIO HIGHWAY EASEMENT		
					53-046-0-256.00-0	0.017									EASEMENT VOL. 9 PG. 570		
					53-046-0-255.00-0	0.083											
					GRAND TOTAL	0.166									NO TAKE		
17	HK HOLDING CORPORATION	3	1196	319	53-046-0-253.00-0	0.023									STATE OF OHIO HIGHWAY EASEMENT		
					53-046-0-250.00-0	0.039									EASEMENT VOL. 9 PG. 614		
					GRAND TOTAL	0.062											
															NO TAKE		
18	WERNER LANGE	3	1501	760	53-046-0-249.00-0	0.076									STATE OF OHIO HIGHWAY EASEMENT		
	ROXANNE LANGE (FEE OWNER)														EASEMENT VOL. 10 PG. 157		
	ROBERT GONZALES (LAND OWNER)																
															LAND CONTRACT		
															VOL. OR 708 PG. 348		
															NO TAKE		
19-T	COLUMBUS COLEMAN	3	OR 3424	11	53-046-0-264.00-0	0.077	0	0.003	0	0.003			0.077		TO CONSTRUCT DRIVE AND GRADING		
20-T	PANNO PROPERTY INC.	3	OR 5160	518	53-046-0-265.00-0	0.108	0	0.007	0	0.007			0.108		TO CONSTRUCT DRIVE AND GRADING		
21	FRANK RUSSO	3	OR 4496	326	53-046-0-266.00-0	0.083								STATE	NO TAKE		

NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR UNLESS NOTED OTHERWISE. UPON COMPLETION OF THE WORK REQUIRED FOR SUCH REMOVAL AND SUBSEQUENT RECLAMATION, THE EASEMENT SHALL BE VACATED IMMEDIATELY.

NOTE: ALL TEMPORARY PARCELS TO BE OF 12 MONTH DURATION.

REV. BY	DATE	DESCRIPTION

FIELD REVIEW BY: JPS DATE: 3/31/
OWNERSHIP VERIFIED BY: JF DATE: 3/30/
DATE COMPLETED: 04/02/2004

FEDERAL PROJECT NO.
PID NO. 22484
STATE JOB NO.
R/W DESIGNER JPS
R/W REVIEWER WJS

SUMMARY OF ADDITIONAL RIGHT OF WAY
WAYNE AVENUE / PYATT STREET

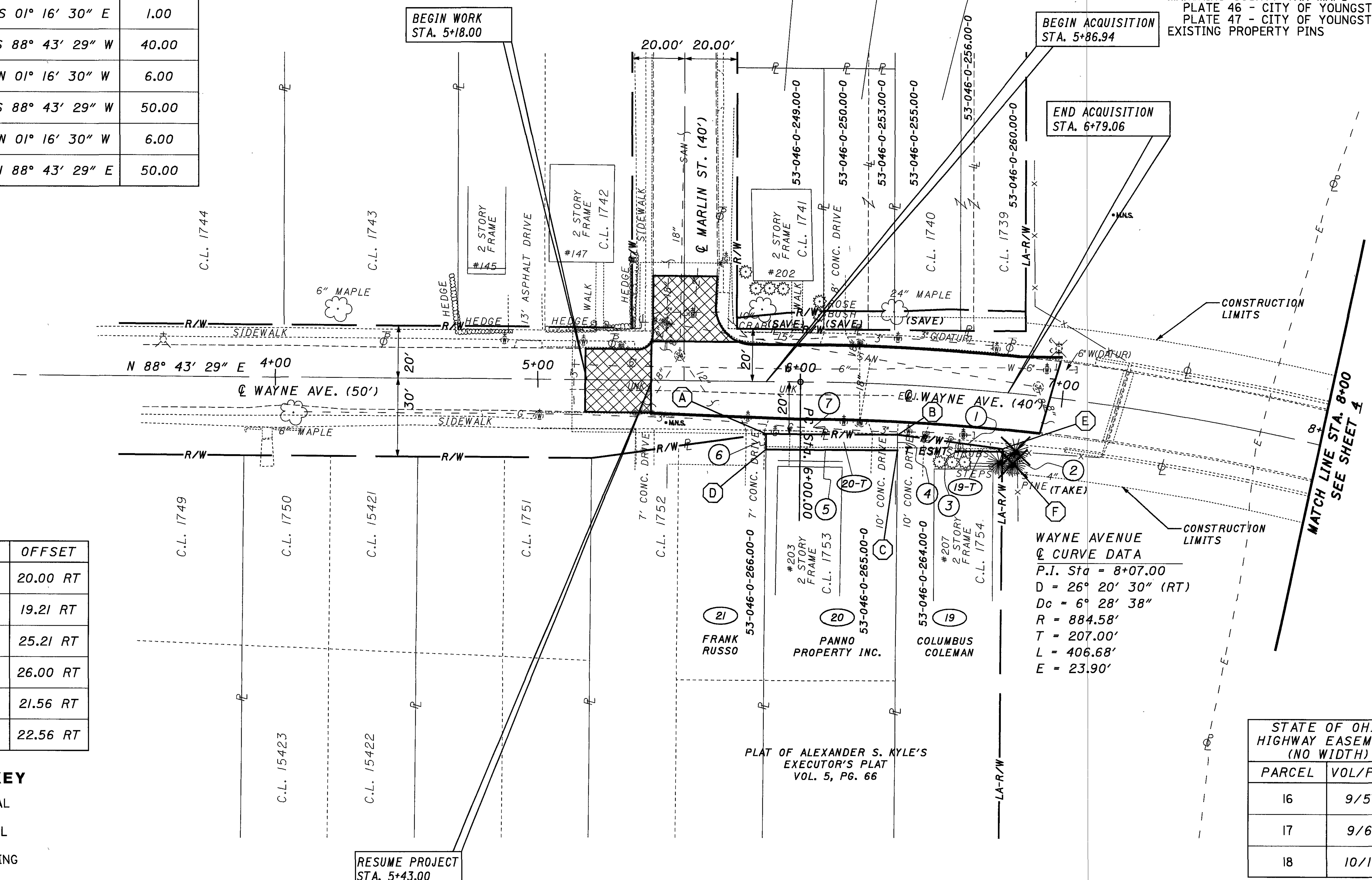
MAH-680-4.14/6.37

DATE: 21-Jan-04 08:13
FILE: J:\Job\1045_MAH-680-6.37\Plan_Sheets\24_Right_of_Way\04_Summary\1045A-RSA.dgn
SCALE: 1= IE

T-2-N , R-2-W
CITY OF YOUNGSTOWN
MAHONING COUNTY, OHIO

NOTE: THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
RECORD PLATS
VOL. 2 PG. 59 - A.S. KYLE'S ADDITION
VOL. 5 PG 66 - PLAT OF ALEXANDER S. KYLE'S EXECUTOR'S
MAHONING COUNTY RECORD DEEDS
MAHONING COUNTY TAX MAPS
PLATE 46 - CITY OF YOUNGSTOWN
PLATE 47 - CITY OF YOUNGSTOWN
EXISTING PROPERTY PINS

SYMBOL	BEARING	DISTANCE
1	S 84° 09' 01" E	40.31
2	S 01° 16' 30" E	1.00
3	S 88° 43' 29" W	40.00
4	N 01° 16' 30" W	6.00
5	S 88° 43' 29" W	50.00
6	N 01° 16' 30" W	6.00
7	N 88° 43' 29" E	50.00



WAYNE AVENUE
℄ CURVE DATA
P.I. Sta = 8+07.00
D = 26° 20' 30" (RT)
Dc = 6° 28' 38"
R = 884.58'
T = 207.00'
L = 406.68'
E = 23.90'

SYMBOL	STATION	OFFSET
A	5+86.94	20.00 RT
B	6+37.77	19.21 RT
C	6+38.03	25.21 RT
D	5+86.94	26.00 RT
E	6+78.97	21.56 RT
F	6+79.06	22.56 RT

STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- OUT-BUILDING

STATE OF OHIO HIGHWAY EASEMENT (NO WIDTH)	
PARCEL	VOL/PAGE
16	9/570
17	9/614
18	10/157

BASIS FOR BEARINGS:

THE BASIS OF BEARING IS BASED UPON THE OHIO NORTH ZONE STATE PLANE COORDINATES NAD83(95) DATUM. THE BEARINGS SHOWN ARE FOR PROJECT USE ONLY.

DATE: 21-Jan-04 09:31
FILE: J:\Job\1045_MAH-680-6.37\Plan_Sheets\24_Right_of_Way\05_Plan_Sheets\1045A-RPA.dgn
SCALE: 1 = 20E

REV. BY	DATE	DESCRIPTION

DATE COMPLETED: 04/02/2004

SCALE IN FEET

PID NO. 22484

R/W DESIGNER JPS
R/W REVIEWER WJS

RIGHT OF WAY PLAN WAYNE-PYATT
STA. 5+00 TO STA. 8+00

MAH-680-4.14/6.37

T-2-N , R-2-W
CITY OF YOUNGSTOWN
MAHONING COUNTY, OHIO

NOTE: THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
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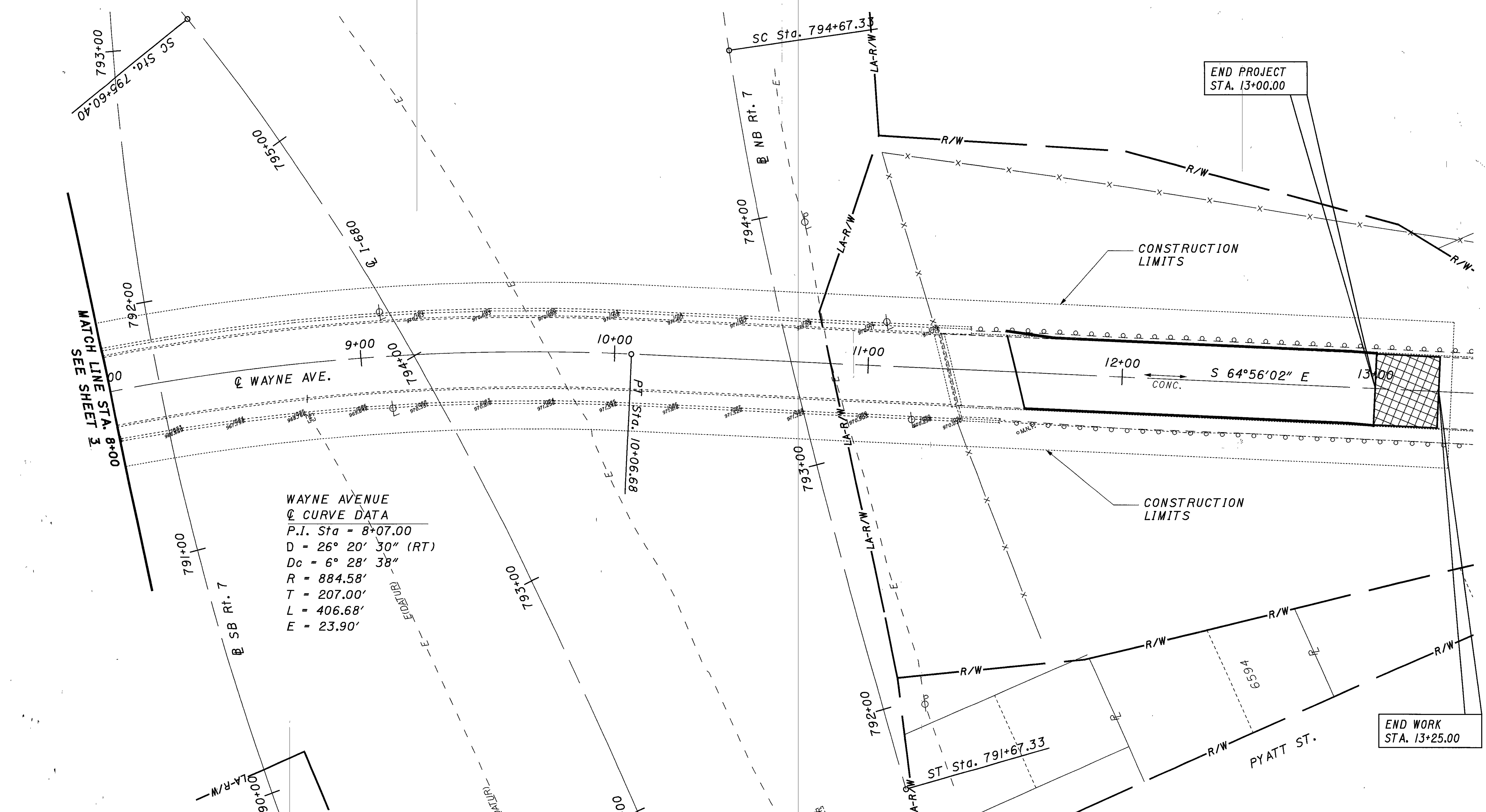
PLATE 46 - CITY OF YOUNGSTOWN
PLATE 47 - CITY OF YOUNGSTOWN
EXISTING PROPERTY PINS



BASIS FOR BEARINGS:

THE BASIS OF BEARING IS BASED UPON THE OHIO NORTH ZONE STATE PLANE COORDINATES NAD83(95) DATUM. THE BEARINGS SHOWN ARE FOR PROJECT USE ONLY.

REV. BY	DATE	DESCRIPTION

DATE COMPLETED: 04/02/2004

DATE: 20-Jan-04 09:13
FILE: J:\Job\1045_MAH-680-6.37\Plan_Sheets\24_Right_of_Way\05_Plan_Sheets\1045A-RPB.dgn
SCALE: 1= 20E

SCALE IN FEET 0 10 20 40

PID NO. 22484

R/W DESIGNER JPS
R/W REVIEWER WJS

RIGHT OF WAY PLAN WAYNE-PYATT
STA. 8+00 TO STA. 13+25

MAH-680-4.14/6.37

TOTAL NUMBER OF :

1 OWNERSHIPS 0 OWNERSHIPS WITH STRUCTURES INVOLVED
1 PARCELS 0 OWNERSHIPS WITH "P" ITEMS
0 TOTAL TAKES

NET RESIDUE = RECORD AREA - TOTAL PRO - NET TAKE

GRANTEE:
ALL RIGHT OF WAY ACQUIRED IN THE NAME OF
STATE OF OHIO, DEPARTMENT OF TRANSPORTATION
UNLESS OTHERWISE SHOWN.

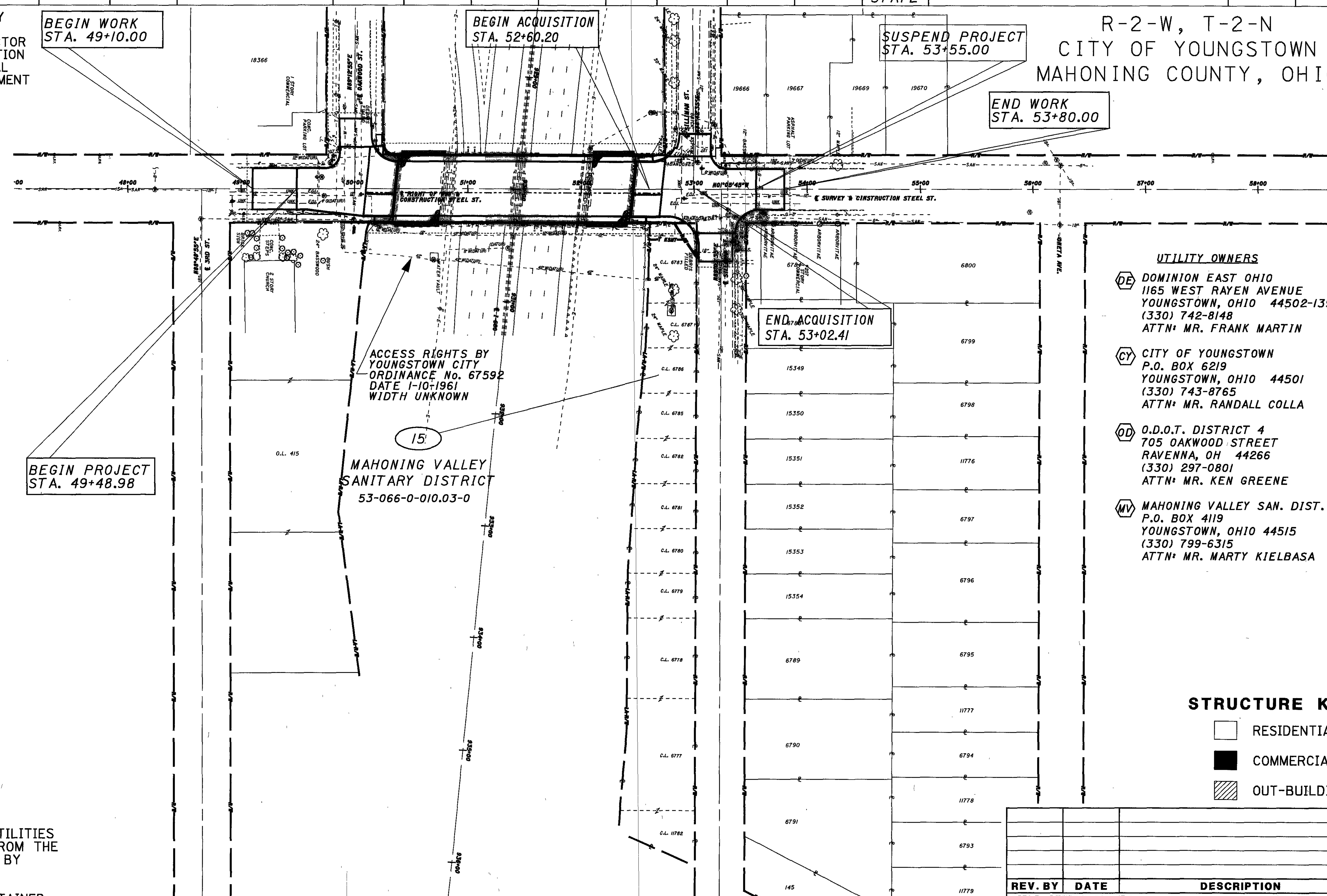
ALL AREAS IN ACRES

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
12-14	NUMBER NOT USED													STATE			
15-WD	MAHONING VALLEY SANITARY DISTRICT	10	1056	659	53-066-0-010.03-0	0.704	0	0.007	0	0.007			0.697				
15-T							0	0.009	0	0.009					GRADING		
														STATE			

NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR UNLESS NOTED OTHERWISE. UPON COMPLETION OF THE WORK REQUIRED FOR SUCH REMOVAL AND SUBSEQUENT RECLAMATION, THE EASEMENT SHALL BE VACATED IMMEDIATELY.

NOTE: ALL TEMPORARY PARCELS TO BE OF 12 MONTH DURATION.

R-2-W, T-2-N
CITY OF YOUNGSTOWN
MAHONING COUNTY, OHIO



UTILITY OWNERS

DE DOMINION EAST OHIO
1165 WEST RAYEN AVENUE
YOUNGSTOWN, OHIO 44502-1394
(330) 742-8148
ATTN: MR. FRANK MARTIN

CY CITY OF YOUNGSTOWN
P.O. BOX 6219
YOUNGSTOWN, OHIO 44501
(330) 743-8765
ATTN: MR. RANDALL COLLA

OD O.D.O.T. DISTRICT 4
705 OAKWOOD STREET
RAVENNA, OH 44266
(330) 297-0801
ATTN: MR. KEN GREENE

MV MAHONING VALLEY SAN. DIST.
P.O. BOX 4119
YOUNGSTOWN, OHIO 44515
(330) 799-6315
ATTN: MR. MARTY KIELBASA

CONVENTIONAL SIGNS

County Line
Township Line
Section Line
Corporation Line or
Fence Line (existing) (proposed)
Center Line
Trees, Stumps (to be removed)
Utility Poles: Telephone, Power, Light
Right of Way (only) R/W
Standard Highway Ease. SH
Temp. Right of Way T ESMT
Exist. Right of Way R/W
Exist. Stand. High. Ease. Ex SH
Exist. Channel Ease. Ex CH
Exist. Utility Ease. U ESMT
Property Line (in existing fence)
Railroad or
Guardrail (existing) (proposed)
Construction Limits Construction Limits

STRUCTURE KEY

RESIDENTIAL
COMMERCIAL
OUT-BUILDING

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

REFERENCE POINT INFORMATION IS CONTAINED IN THE CONSTRUCTION PLAN.

REV. BY	DATE	DESCRIPTION
FIELD REVIEW BY: JPS		DATE: 3/31/2004
OWNERSHIP VERIFIED BY: JF		DATE: 3/30/2004
DATE COMPLETED: 04/02/2004		

SCALE IN FEET 0 25 50 100

PID NO. 22484

R/W DESIGNER JPS
R/W REVIEWER WJS

SUMMARY/PROPERTY MAP
STEEL STREET

MAH-680-4.14/6.37

186/191

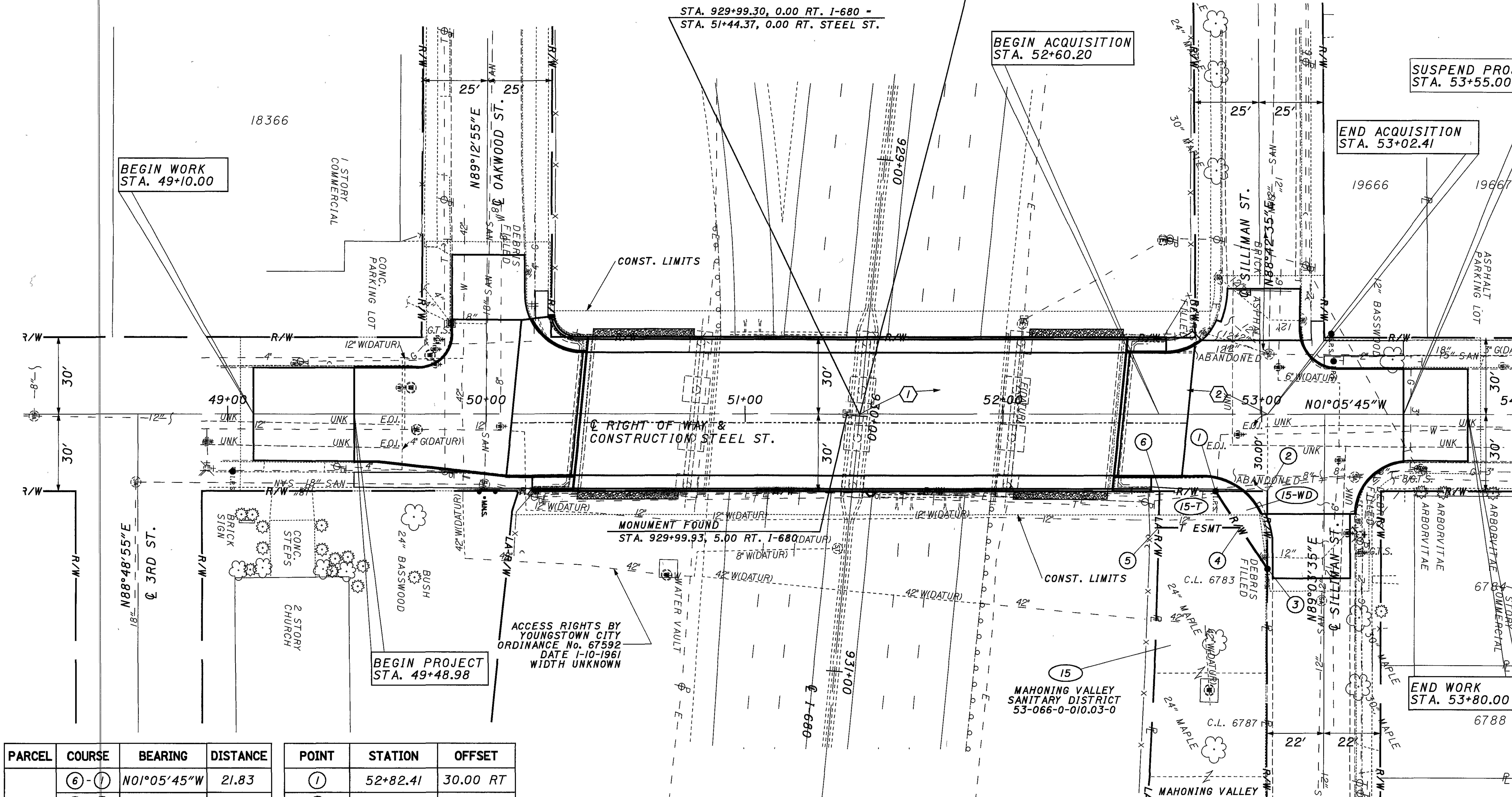
DATE: 22-Mar-04 08:38
FILE: J:\Job\1045_Mah-680-4.14\Plan_Sheets\24_Right_of_Way\03_PR_Map\1045A-RMI.dgn
SCALE: 1=50E

T-2-N , R-2-W
CITY OF YOUNGSTOWN
MAHONING COUNTY, OHIO

BASIS FOR BEARINGS:

THE BASIS OF BEARING IS BASED UPON THE OHIO NORTH ZONE STATE PLANE COORDINATES NAD83(95) DATUM. THE BEARINGS SHOWN ARE FOR PROJECT USE ONLY.

NOTE: THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
RECORD PLATS
VOL. 55 PG. 2 - THE MAHONING VALLEY SANITARY DISTRICT RIGHT OF WAY PLAT
MAHONING COUNTY RECORD DEEDS
MAHONING COUNTY TAX MAPS
PLATE 66 - CITY OF YOUNGSTOWN
PLATE 67 - CITY OF YOUNGSTOWN



PARCEL	COURSE	BEARING	DISTANCE
15-T	6-1	N01°05'45"W	21.83
	1-4	N55°19'19"E	17.00
	4-5	S01°05'45"E	31.61
	5-6	N89°34'33"W	14.17
15-WD	1-2	N01°05'45"W	20.00
	2-3	N89°03'35"E	30.00
	3-1	S55°19'19"W	36.01

POINT	STATION	OFFSET
1	52+82.41	30.00 RT
2	53+02.41	30.00 RT
3	53+02.33	60.00 RT
4	52+91.81	44.16 RT
5	52+60.20	44.16 RT
6	52+60.58	30.00 RT

LEAD IN DISTANCES

1-2	N 01°05'45"W	158.04'
2-2	N 88°54'15"E	30.00'

STRUCTURE KEY
RESIDENTIAL
COMMERCIAL
OUT-BUILDING

MONUMENT LEGEND
EXISTING R/W MONUMENT BOX
I.P.S. IRON PIN SET W/ ID CAP

REV. BY	DATE	DESCRIPTION

DATE COMPLETED: 04/02/2004

SCALE IN FEET 0 10 20 40

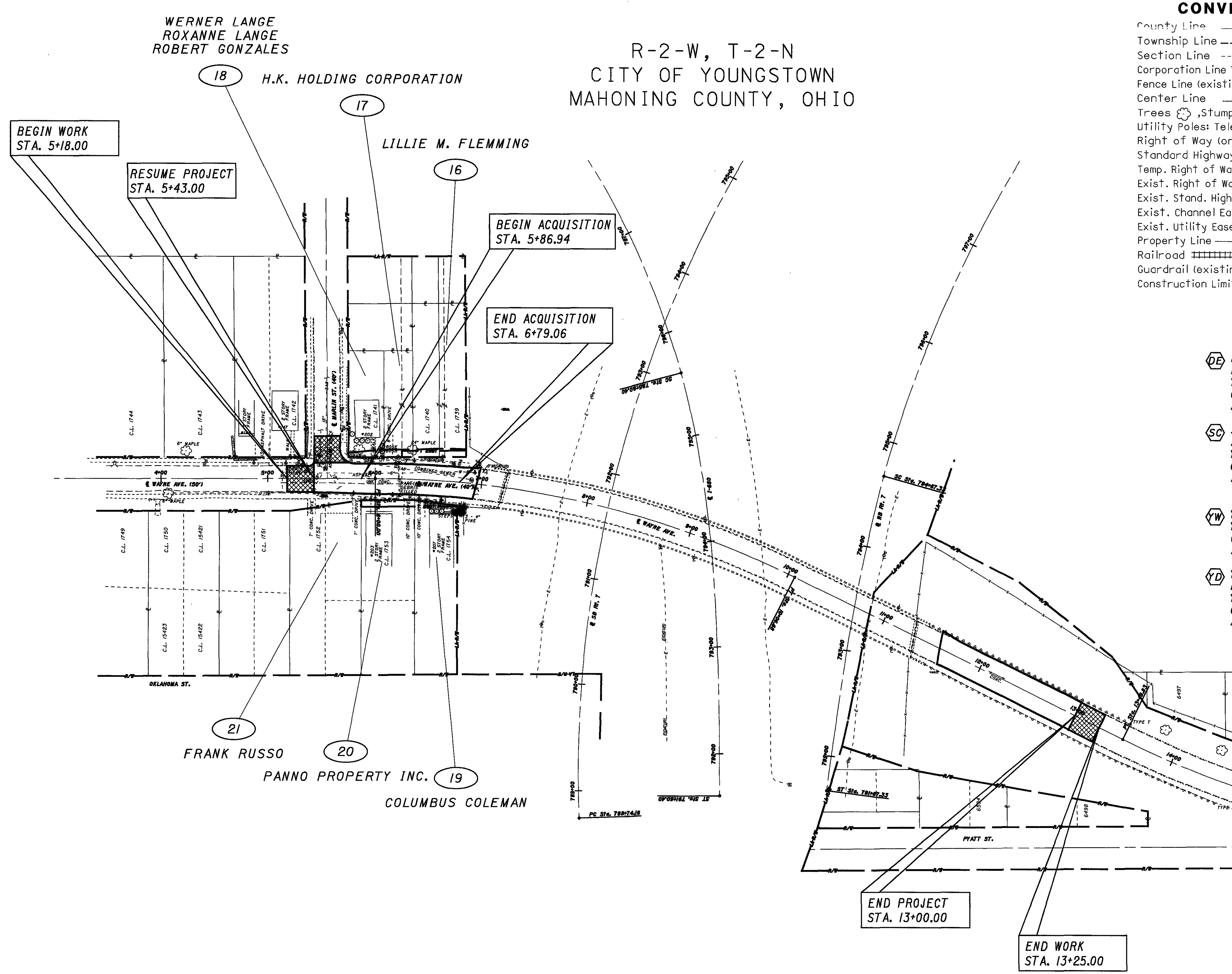
PID NO. 22484
R/W DESIGNER JPS
R/W REVIEWER WJS

RIGHT OF WAY PLAN - STEEL ST.
STA. 5+00 TO STA. 8+00

MAH-680-4.14/6.37

DATE: 24-Feb-04 08:42
FILE: J:\Job\1045_Mah-680-4.14\Plan_Sheets\24_Right_of_Way\05_Plan_Sheets\1045A-RP1.dgn
SCALE: 1 = 20E

R-2-W, T-2-N
CITY OF YOUNGSTOWN
MAHONING COUNTY, OHIO



CONVENTIONAL SIGNS

- County Line
- Township Line
- Section Line
- Corporation Line or
- Fence Line (existing) (proposed)
- Center Line
- Trees, Stumps (to be removed)
- Utility Poles: Telephone, Power, Light
- Right of Way (only) R/W
- Standard Highway Ease. SH
- Temp. Right of Way T ESMT
- Exist. Right of Way R/W
- Exist. Stand. High. Ease. Ex SH
- Exist. Channel Ease. Ex CH
- Exist. Utility Ease. U ESMT
- Property Line (in existing fence)
- Railroad or
- Guardrail (existing) (proposed)
- Construction Limits Construction Limits

UTILITY OWNERS

DE DOMINION EAST OHIO
1165 WEST RAYEN AVENUE
YOUNGSTOWN, OHIO 44502-1394
(330) 742-8148
ATTN: MR. DOMINIC ROZZO

SC SBC
2933 SALT SPRINGS ROAD
YOUNGSTOWN, OHIO 44509
(330) 270-8833
ATTN: MR. DAVID POST
MS. SABRENA LAMPLEY

YW YOUNGSTOWN WASTE WATER
YOUNGSTOWN, OHIO 44515
(330) 742-8818
ATTN: MR. TOM MIRANTE

YD YOUNGSTOWN WATER DEPARTMENT
P.O. BOX 6219
YOUNGSTOWN, OHIO 44501-6219
(330) 743-5338
ATTN: MR. RANDALL COLLA

STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- OUT-BUILDING

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

REFERENCE POINT INFORMATION IS CONTAINED IN THE CONSTRUCTION PLAN.

REV. BY	DATE	DESCRIPTION

DATE COMPLETED: 04/02/2004

DATE: 20-Jan-04 09:13
FILE: J:\Job\1045_MAH-680-6.37\Plan_Sheets\24_Right_of_Way\03_PR_Map\1045A-RMA.dgn
SCALE: 1= 50E

SCALE IN FEET 0 25 50 100

PID NO. 22484

R/W DESIGNER JPS
R/W REVIEWER WJS

PROPERTY MAP
WAYNE AVENUE / PYATT STREET

MAH-680-4.14/6.37

TOTAL NUMBER OF :
2 OWNERSHIPS 0 OWNERSHIPS WITH STRUCTURES INVOLVED
2 PARCELS 0 OWNERSHIPS WITH "P" ITEMS
0 TOTAL TAKES

NET RESIDUE = RECORD AREA - TOTAL PRO - NET TAKE

ALL AREAS IN ACRES

GRANTEE:
ALL RIGHT OF WAY ACQUIRED IN THE NAME OF
STATE OF OHIO, DEPARTMENT OF TRANSPORTATION
UNLESS OTHERWISE SHOWN.

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
16	LILLIE M. FLEMING	3	OR 4450	85	53-046-0-260.00-0	0.066								STATE	STATE OF OHIO HIGHWAY EASEMENT		
					53-046-0-256.00-0	0.017									EASEMENT VOL. 9 PG. 570		
					53-046-0-255.00-0	0.083											
					GRAND TOTAL	0.166									NO TAKE		
17	HK HOLDING CORPORATION	3	1196	319	53-046-0-253.00-0	0.023									STATE OF OHIO HIGHWAY EASEMENT		
					53-046-0-250.00-0	0.039									EASEMENT VOL. 9 PG. 614		
					GRAND TOTAL	0.062											
															NO TAKE		
18	WERNER LANGE	3	1501	760	53-046-0-249.00-0	0.076									STATE OF OHIO HIGHWAY EASEMENT		
	ROXANNE LANGE (FEE OWNER)														EASEMENT VOL. 10 PG. 157		
	ROBERT GONZALES (LAND OWNER)																
															LAND CONTRACT		
															VOL. OR 708 PG. 348		
															NO TAKE		
19-T	COLUMBUS COLEMAN	3	OR 3424	11	53-046-0-264.00-0	0.077	0	0.003	0	0.003			0.077		TO CONSTRUCT DRIVE AND GRADING		
20-T	PANNO PROPERTY INC.	3	OR 5160	518	53-046-0-265.00-0	0.108	0	0.007	0	0.007			0.108		TO CONSTRUCT DRIVE AND GRADING		
21	FRANK RUSSO	3	OR 4496	326	53-046-0-266.00-0	0.083								STATE	NO TAKE		

NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR UNLESS NOTED OTHERWISE. UPON COMPLETION OF THE WORK REQUIRED FOR SUCH REMOVAL AND SUBSEQUENT RECLAMATION, THE EASEMENT SHALL BE VACATED IMMEDIATELY.

NOTE: ALL TEMPORARY PARCELS TO BE OF 12 MONTH DURATION.

REV. BY	DATE	DESCRIPTION
FIELD REVIEW BY: JPS		DATE: 3/31/
OWNERSHIP VERIFIED BY: JF		DATE: 3/30/
DATE COMPLETED: 04/02/2004		

DATE: 21-Jan-04 08:13
FILE: J:\Job\1045_MAH-680-6.37\Plan_Sheets\24_Right_of_Way\04_Summary\1045A-RSA.dgn
SCALE: 1=1E

FEDERAL PROJECT NO.

PID NO. 22484

STATE JOB NO.

R/W DESIGNER JPS
R/W REVIEWER WJS

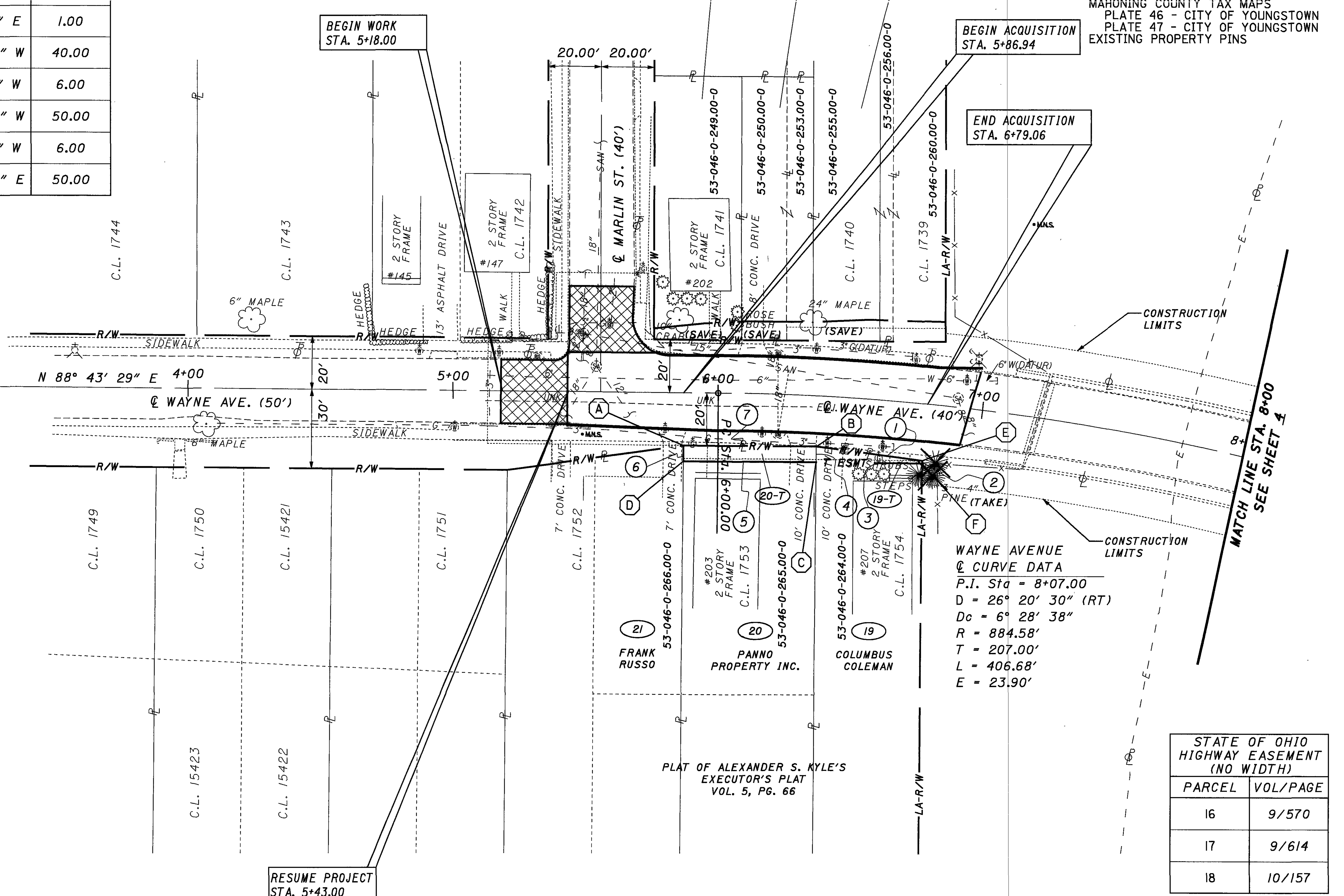
SUMMARY OF ADDITIONAL RIGHT OF WAY
WAYNE AVENUE / PYATT STREET

MAH-680-4.14/6.37

T-2-N , R-2-W
CITY OF YOUNGSTOWN
MAHONING COUNTY, OHIO

SYMBOL	BEARING	DISTANCE
1	S 84° 09′ 01″ E	40.31
2	S 01° 16′ 30″ E	1.00
3	S 88° 43′ 29″ W	40.00
4	N 01° 16′ 30″ W	6.00
5	S 88° 43′ 29″ W	50.00
6	N 01° 16′ 30″ W	6.00
7	N 88° 43′ 29″ E	50.00

NOTE: THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
RECORD PLATS
VOL. 2 PG. 59 - A.S. KYLE'S ADDITION
VOL. 5 PG 66 - PLAT OF ALEXANDER S. KYLE'S EXECUTOR'S
MAHONING COUNTY RECORD DEEDS
MAHONING COUNTY TAX MAPS
PLATE 46 - CITY OF YOUNGSTOWN
PLATE 47 - CITY OF YOUNGSTOWN
EXISTING PROPERTY PINS



SYMBOL	STATION	OFFSET
A	5+86.94	20.00 RT
B	6+37.77	19.21 RT
C	6+38.03	25.21 RT
D	5+86.94	26.00 RT
E	6+78.97	21.56 RT
F	6+79.06	22.56 RT

STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- OUT-BUILDING

STATE OF OHIO HIGHWAY EASEMENT (NO WIDTH)	
PARCEL	VOL/PAGE
16	9/570
17	9/614
18	10/157

BASIS FOR BEARINGS:

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REV. BY	DATE	DESCRIPTION

DATE COMPLETED: 04/02/2004

SCALE IN FEET 0 10 20 40

PID NO. 22484

R/W DESIGNER JPS
R/W REVIEWER WJS

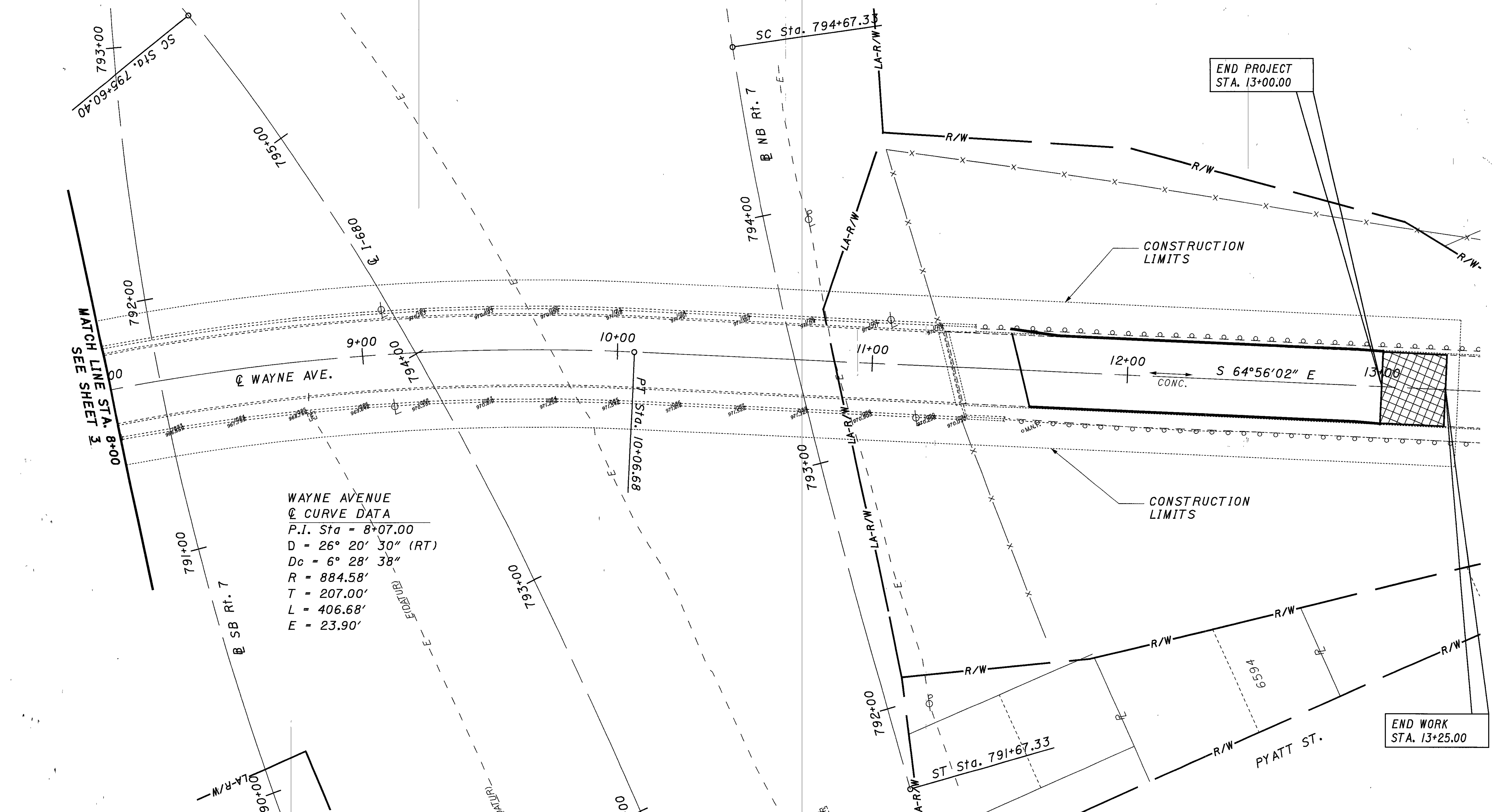
RIGHT OF WAY PLAN WAYNE-PYATT
STA.5+00 TO STA.8+00

MAH-680-4.14/6.37

DATE: 21-Jan-04 09:31
FILE: J:\Job\1045_MAH-680-6.37\Plan_Sheets\24_Right_of_Way\05_Plan_Sheets\1045A-RPA.dgn
SCALE: 1"= 20E

T-2-N , R-2-W
CITY OF YOUNGSTOWN
MAHONING COUNTY, OHIO

NOTE: THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:
RECORD PLATS
VOL. 2 PG. 59 - A.S. KYLE'S ADDITION
VOL. 5 PG 66 - PLAT OF ALEXANDER S. KYLE'S EXECUTOR'S
MAHONING COUNTY RECORD DEEDS
MAHONING COUNTY TAX MAPS
PLATE 46 - CITY OF YOUNGSTOWN
PLATE 47 - CITY OF YOUNGSTOWN
EXISTING PROPERTY PINS



BASIS FOR BEARINGS:

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REV. BY	DATE	DESCRIPTION

DATE COMPLETED: 04/02/2004

SCALE IN FEET 0 10 20 40

PID NO. 22484

R/W DESIGNER JPS
R/W REVIEWER WJS

RIGHT OF WAY PLAN WAYNE-PYATT
STA. 8+00 TO STA. 13+25

MAH-680-4.14/6.37

14/14

191/191

DATE: 20-Jan-04 09:13
FILE: J:\Job\1045_MAH-680-6.37\Plan_Sheets\24_Right_of_Way\05_Plan_Sheets\1045A-RPB.dgn
SCALE: 1= 20E