STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

LAK-90-21.40/
ATB-90-0.00

LEROY TOWNSHIP
PERRY TOWNSHIP
MADISON TOWNSHIP
MADISON VILLAGE
LAKE COUNTY
HARPERSFIELD TOWNSHIP
ASHTABULA COUNTY

LOCATION MAP

LATITUDE: N 41°44'50" LONGITUDE: W 81°04'36"

SCALE IN MILES

0 1 2 3 4

N

PORTION TO BE IMPROVED
INTERSTATE HIGHWAY
STATE & FEDERAL ROUTES
COUNTY & TOWNSHIP ROADS
OTHER ROADS

DESIGN DESIGNATION

CURRENT ADT (2010)	40,850
DESIGN YEAR ADT (2030)	48,350
DESIGN HOURLY VOLUME (2030)	4,835
DIRECTIONAL DISTRIBUTION	57%
TRUCKS (24 HOUR B&C)	27%
DESIGN SPEED	70 MPH
LEGAL SPEED	65 MPH

DESIGN FUNCTIONAL CLASSIFICATION:
RURAL INTERSTATE

DESIGN EXCEPTIONS

NONE

UNDERGROUND UTILITIES

CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG

CALL
1-800-362-2764
(TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS PROTECTIVE
SERVICE CALL: **1-800-925-0988**

PLAN PREPARED BY:
OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT 5 PRODUCTION
9600 JACKSONTOWN RD. SE
JACKSONTOWN, OHIO 43030
(740) 323-4400

ENGINEERS SEAL:

STATE OF OHIO
Heather Ann Gilbert
E-66643
REGISTERED PROFESSIONAL ENGINEER

SIGNED: Heather A. Gilbert
DATE: 07/13/09

INDEX OF SHEETS:

(SHEET 17, 18, 77, 78, 79, 80, 491 NOT USED)

STANDARD CONSTRUCTION DRAWINGS

BP-2.1	7-18-08	GR-5.2	1-16-04	MT-95.30	7-17-09	TC-65.10	1-21-05	HL-60.12	10-19-07
BP-2.2	7-18-08	GR-5.3	1-16-04	MT-95.40	7-17-09	TC-65.11	1-21-05	HL-60.31	1-19-07
BP-3.1	10-19-07	GR-6.2	4-18-03	MT-95.70	7-17-09	TC-72.20	10-16-09		
BP-6.1	7-28-00			MT-95.82	9-05-06	TC-73.10	1-19-01		
BP-9.1	4-15-05	RM-4.1	10-20-06	MT-98.10	7-17-09				
		RM-4.2	10-19-07	MT-98.11	7-17-09	HL-10.11	4-17-09		
CB-3.1	7-15-05	RM-4.5	10-16-09	MT-98.21	7-17-09	HL-10.12	1-19-07		
		RM-4.6	10-16-09	MT-98.28	7-17-09	HL-10.13	10-16-09		
HW-2.2	4-21-06			MT-98.29	7-17-09	HL-20.11	1-19-07		
		DM-1.1	4-21-06	MT-100.00	1-16-09	HL-30.11	10-16-09		
		DM-1.2	10-21-05	MT-101.60	4-17-09	HL-30.21	1-19-07		
GR-1.1	7-16-04	DM-1.4	4-21-06	MT-101.70	1-16-09	HL-30.22	4-17-09		
GR-2.1	1-16-04	DM-4.3	4-17-09	MT-101.90	1-16-09	HL-40.10	1-19-07		
GR-3.1	10-16-09	DM-4.4	4-17-09	MT-102.10	7-17-09	HL-40.20	1-19-07		
GR-3.2	10-16-09	DM-5.1	7-19-02	MT-102.20	4-17-09	HL-50.11	1-19-07		
GR-4.2	1-19-07	MT-35.10	4-20-01	MT-105.10	1-16-09	HL-60.11	1-19-07		

SUPPLEMENTAL SPECIFICATIONS

800	10-16-09
802	1-16-09
832	5-05-09
837	4-18-08
937	4-20-07

SPECIAL PROVISIONS

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF RECONSTRUCTING 7 MILES OF I. R. 90. THE EXISTING PAVEMENT WILL BE REPLACED AND THE OUTSIDE SHOULDERS WILL BE WIDENED TO 12 FEET.
THE RAMP PAVEMENTS AT S.R. 528 WILL BE REPLACED.

PROJECT EARTH DISTURBED AREA:	170 ACRES
ESTIMATED CONTRACTOR EARTH DISTRUBED AREA:	19 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	189 ACRES

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.

2008 SPECIFICATIONS

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

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH IN THE PLANS AND ESTIMATES.

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

APPROVED [signature]
DATE 11/5/09 DISTRICT DEPUTY DIRECTOR

APPROVED [signature]
DATE 12-28-09 DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO. E080604

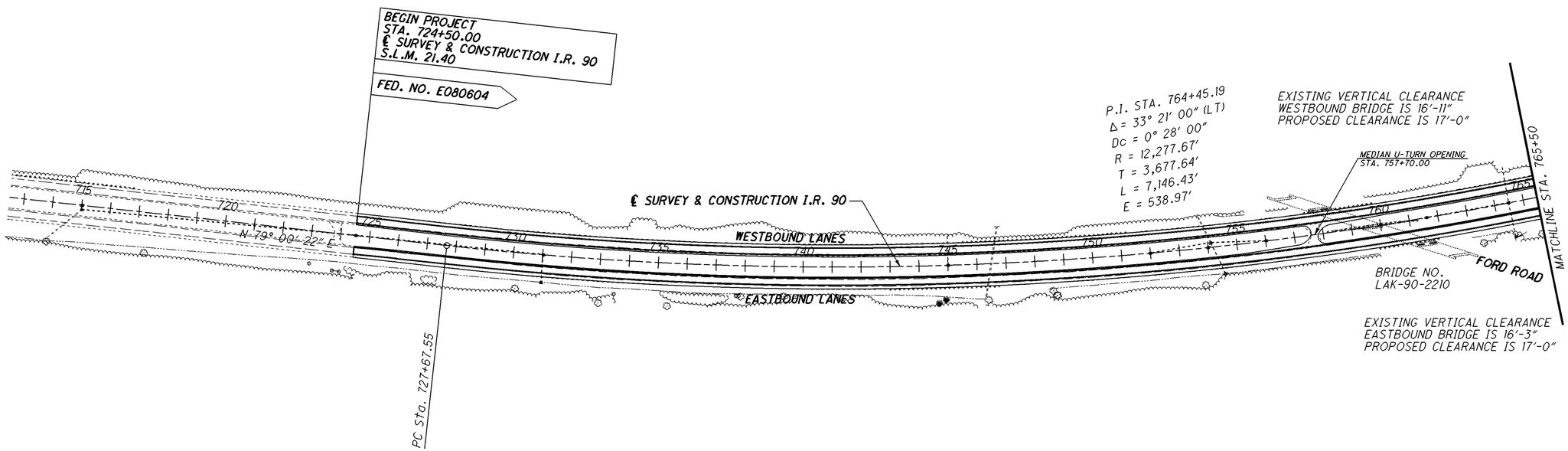
PID NO. 75477

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT NONE

LAK-90-21.40
ATB-90-0.00

LAK / ATB - 90 - 21.40
100054 PID 75477
DIST 12 2/25/2010
7/10/09
75477_IR90_TitleSht.dgn



N

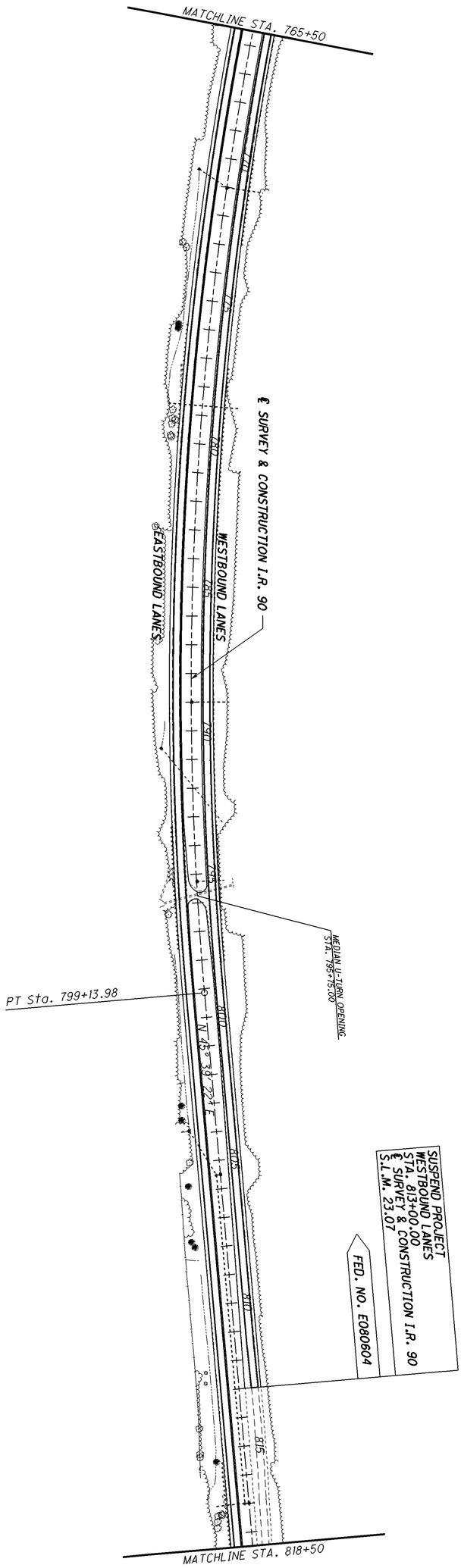
0 200 400
HORIZONTAL SCALE IN FEET

CALCULATED M.M.
CHECKED J.C.

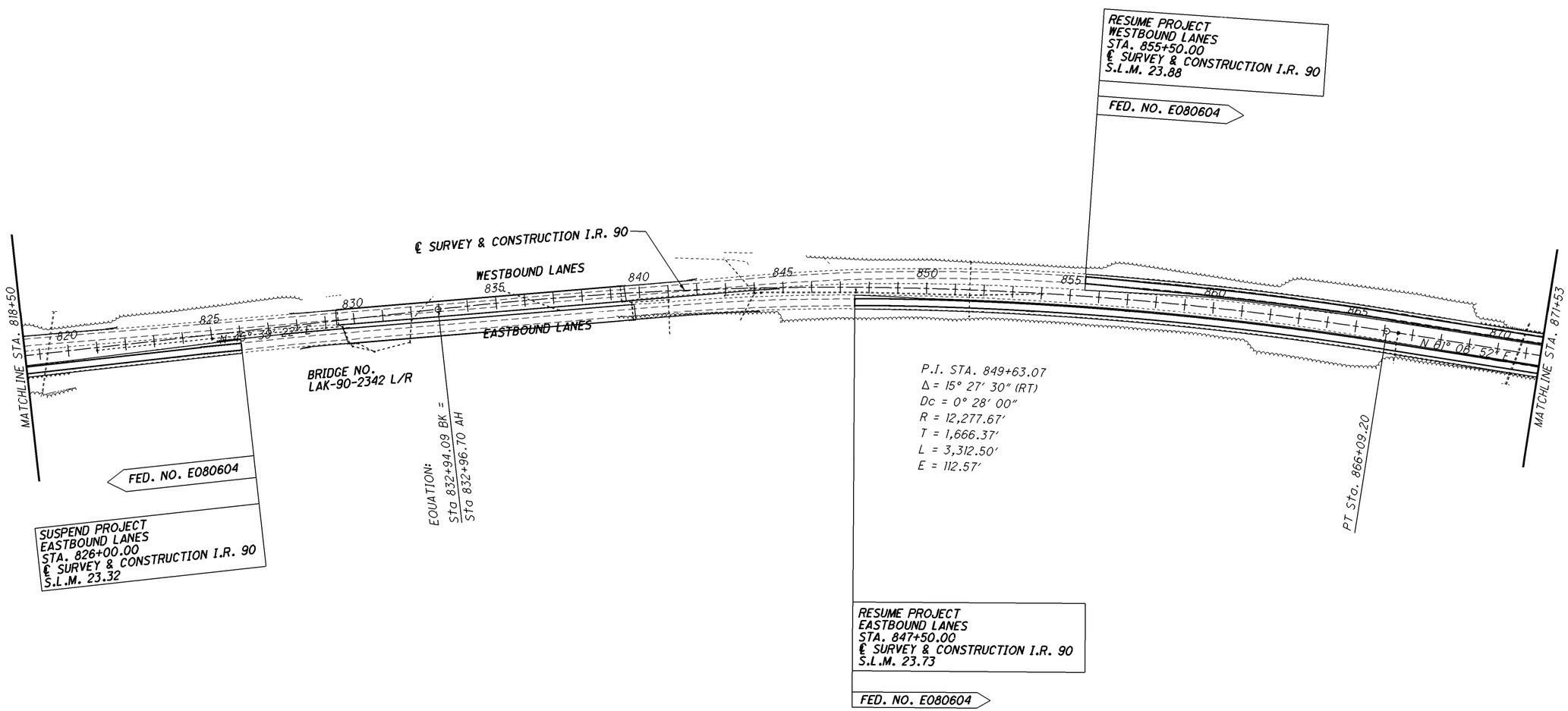
SCHEMATIC PLAN
STA. 724+50 TO STA. 765+50

LAK-90-21.40
ATB-90-0.00

75477_SCHEM01.DGN 04/09/08



3 / 498	LAK-90-21.40 ATB-90-0.00	SCHEMATIC PLAN STA. 765+50 TO STA. 818+50	CALCULATED M.M. CHECKED J.C.	0 200 400 HORIZONTAL SCALE IN FEET



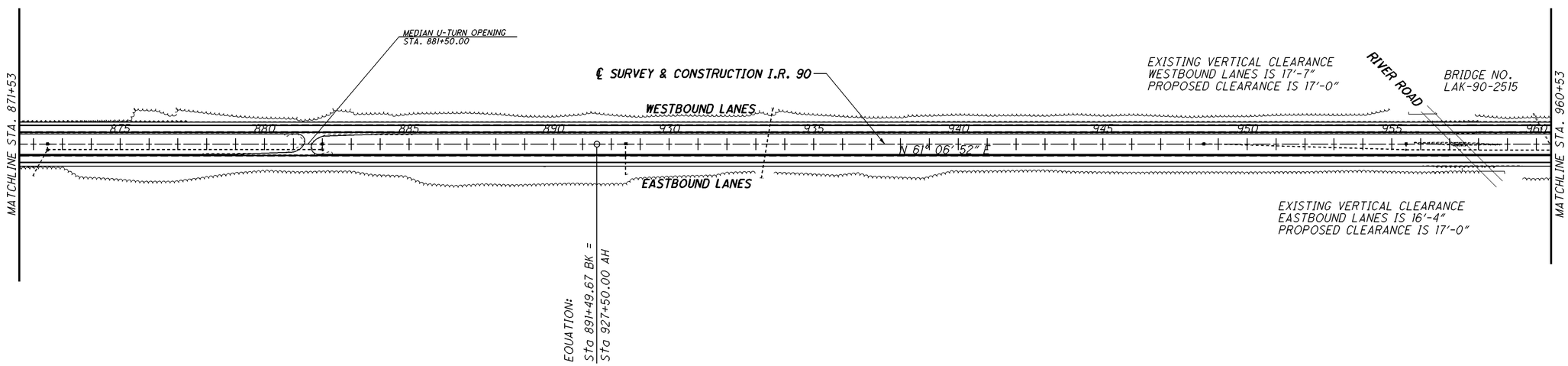
HORIZONTAL SCALE IN FEET
0 200 400

CALCULATED M.M.
CHECKED J.C.

SCHEMATIC PLAN
STA. 818+50 TO STA. 871+53

LAK-90-21.40
ATB-90-0.00

75477_SCHEM03.DGN 04/09/08



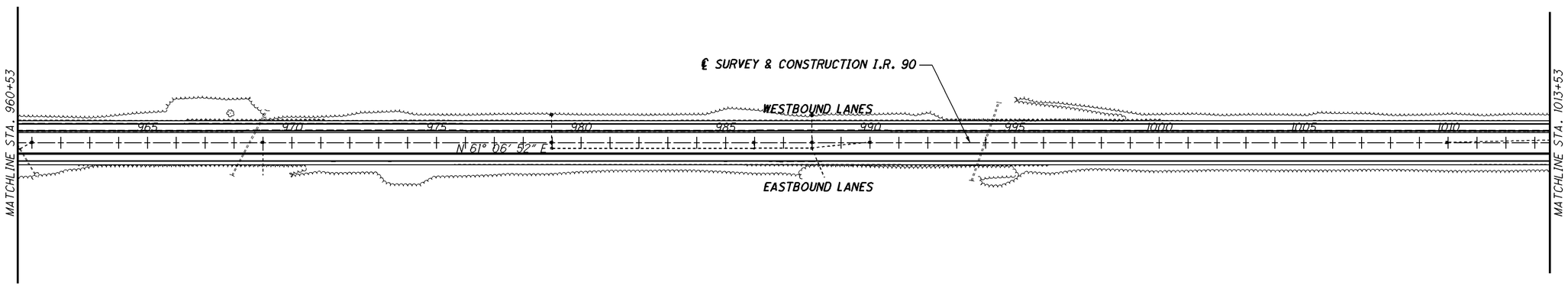
HORIZONTAL SCALE IN FEET
0 200 400

CALCULATED M.M.
CHECKED J.C.

SCHEMATIC PLAN
STA. 871+53 TO STA. 960+53

LAK-90-21.40
ATB-90-0.00

75477_SCHEM04.DGN 04/09/08



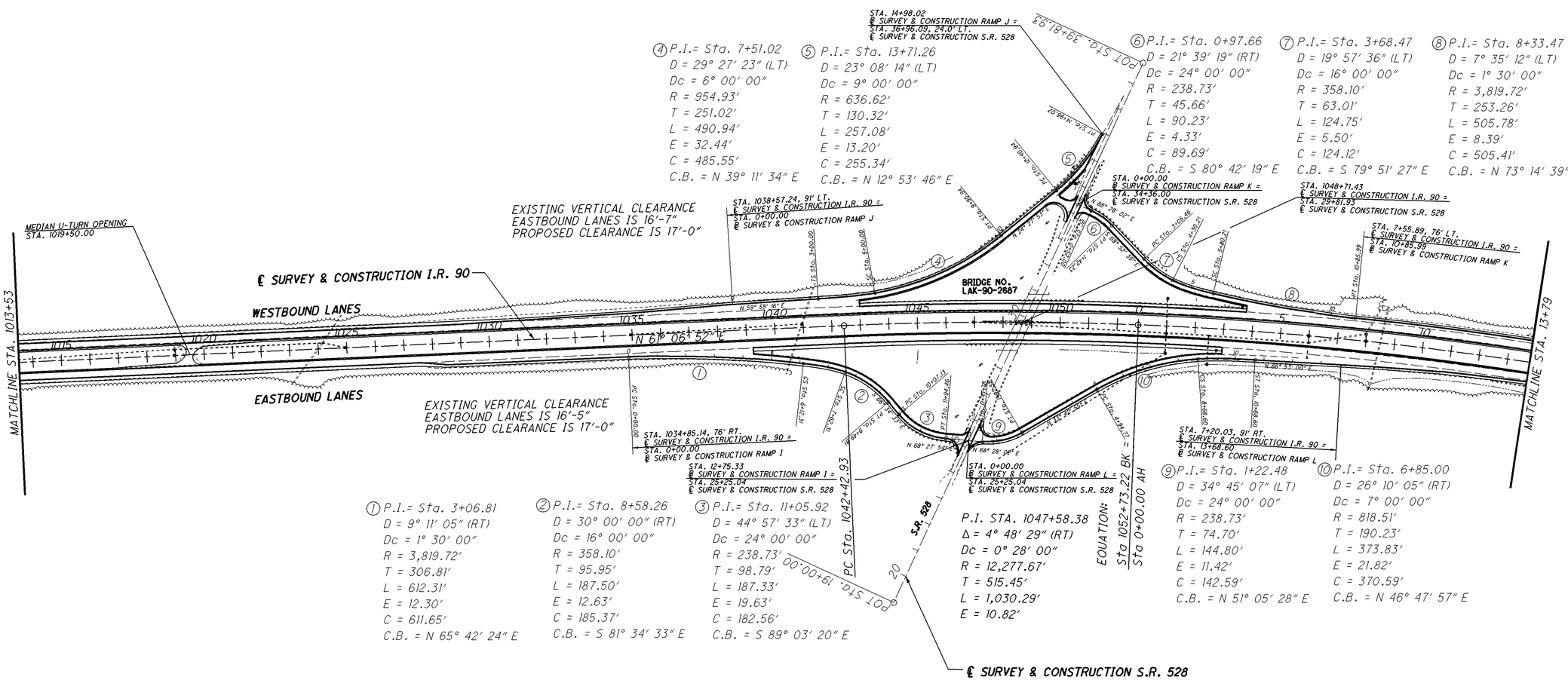
HORIZONTAL SCALE IN FEET
0 200 400

CALCULATED M.M.
CHECKED J.C.

SCHEMATIC PLAN
STA. 960+53 TO STA. 1013+53

LAK-90-21.40
ATB-90-0.00

75477_SCHEMO5.DGN 04/09/08



① P.I.= Sta. 3+06.81
D = 9° 11′ 05″ (RT)
Dc = 1° 30′ 00″
R = 3,819.72′
T = 306.81′
L = 612.31′
E = 12.30′
C = 611.65′
C.B. = N 65° 42′ 24″ E

② P.I.= Sta. 8+58.26
D = 30° 00′ 00″ (RT)
Dc = 16° 00′ 00″
R = 358.10′
T = 95.95′
L = 187.50′
E = 12.63′
C = 185.37′
C.B. = S 81° 34′ 33″ E

③ P.I.= Sta. 11+05.92
D = 44° 57′ 33″ (LT)
Dc = 24° 00′ 00″
R = 238.73′
T = 98.79′
L = 187.33′
E = 19.63′
C = 182.56′
C.B. = S 89° 03′ 20″ E

④ P.I.= Sta. 7+51.02
D = 29° 27′ 23″ (LT)
Dc = 6° 00′ 00″
R = 954.93′
T = 251.02′
L = 490.94′
E = 32.44′
C = 485.55′
C.B. = N 39° 11′ 34″ E

⑤ P.I.= Sta. 13+71.26
D = 23° 08′ 14″ (LT)
Dc = 9° 00′ 00″
R = 636.62′
T = 130.32′
L = 257.08′
E = 13.20′
C = 255.34′
C.B. = N 12° 53′ 46″ E

⑥ P.I.= Sta. 0+97.66
D = 21° 39′ 19″ (RT)
Dc = 24° 00′ 00″
R = 238.73′
T = 45.66′
L = 90.23′
E = 4.33′
C = 89.69′
C.B. = S 80° 42′ 19″ E

⑦ P.I.= Sta. 3+68.47
D = 19° 57′ 36″ (LT)
Dc = 16° 00′ 00″
R = 358.10′
T = 63.01′
L = 124.75′
E = 5.50′
C = 124.12′
C.B. = S 79° 51′ 27″ E

⑧ P.I.= Sta. 8+33.47
D = 7° 35′ 12″ (LT)
Dc = 1° 30′ 00″
R = 3,819.72′
T = 253.26′
L = 505.78′
E = 8.39′
C = 505.41′
C.B. = N 73° 14′ 39″ E

P.I. STA. 1047+58.38
Δ = 4° 48′ 29″ (RT)
Dc = 0° 28′ 00″
R = 12,277.67′
T = 515.45′
L = 1,030.29′
E = 10.82′

⑨ P.I.= Sta. 1+22.48
D = 34° 45′ 07″ (LT)
Dc = 24° 00′ 00″
R = 238.73′
T = 74.70′
L = 144.80′
E = 11.42′
C = 142.59′
C.B. = N 51° 05′ 28″ E

⑩ P.I.= Sta. 6+85.00
D = 26° 10′ 05″ (RT)
Dc = 7° 00′ 00″
R = 818.51′
T = 190.23′
L = 373.83′
E = 21.82′
C = 370.59′
C.B. = N 46° 47′ 57″ E

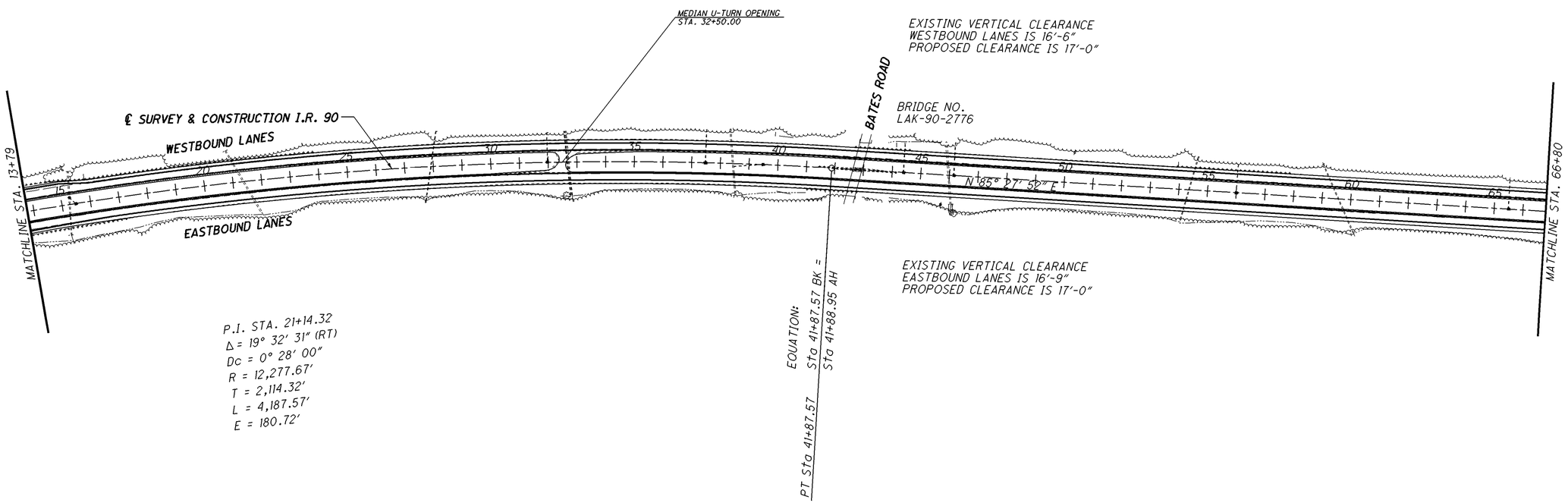
HORIZONTAL SCALE IN FEET
0 200 400

CALCULATED M.M.
CHECKED J.C.

SCHEMATIC PLAN
STA. 1013+53 TO STA. 13+79

LAK-90-21.40
ATB-90-0.00

75477_SCHEM06.DGN 04/09/08



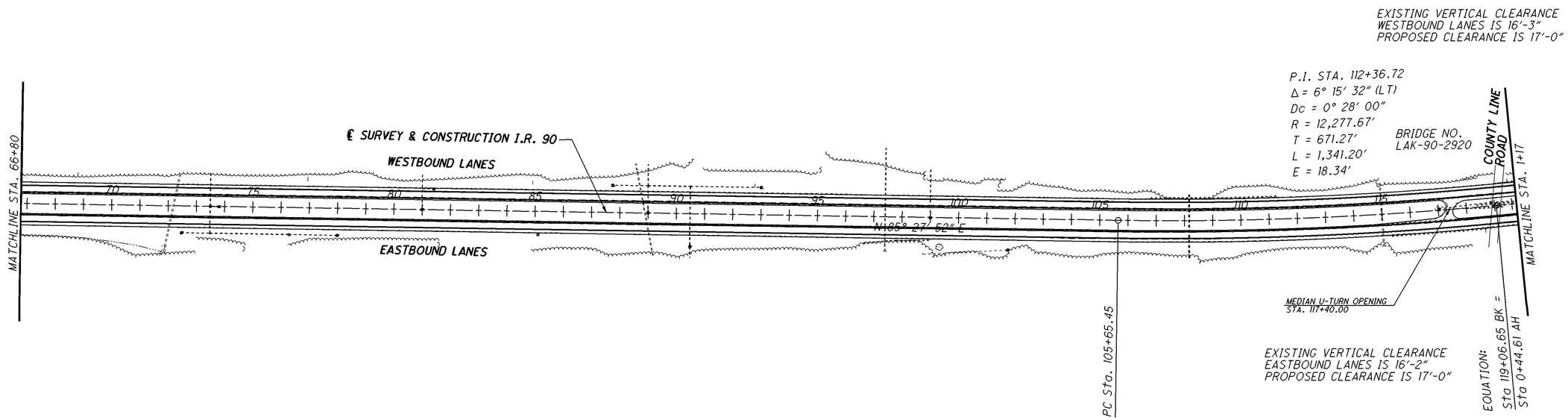
HORIZONTAL SCALE IN FEET
0 200 400

CALCULATED M.M.
CHECKED J.C.

SCHEMATIC PLAN
STA. 13+79 TO STA. 66+80

LAK-90-21.40
ATB-90-0.00

75477_SCHEM07.DGN 04/09/08



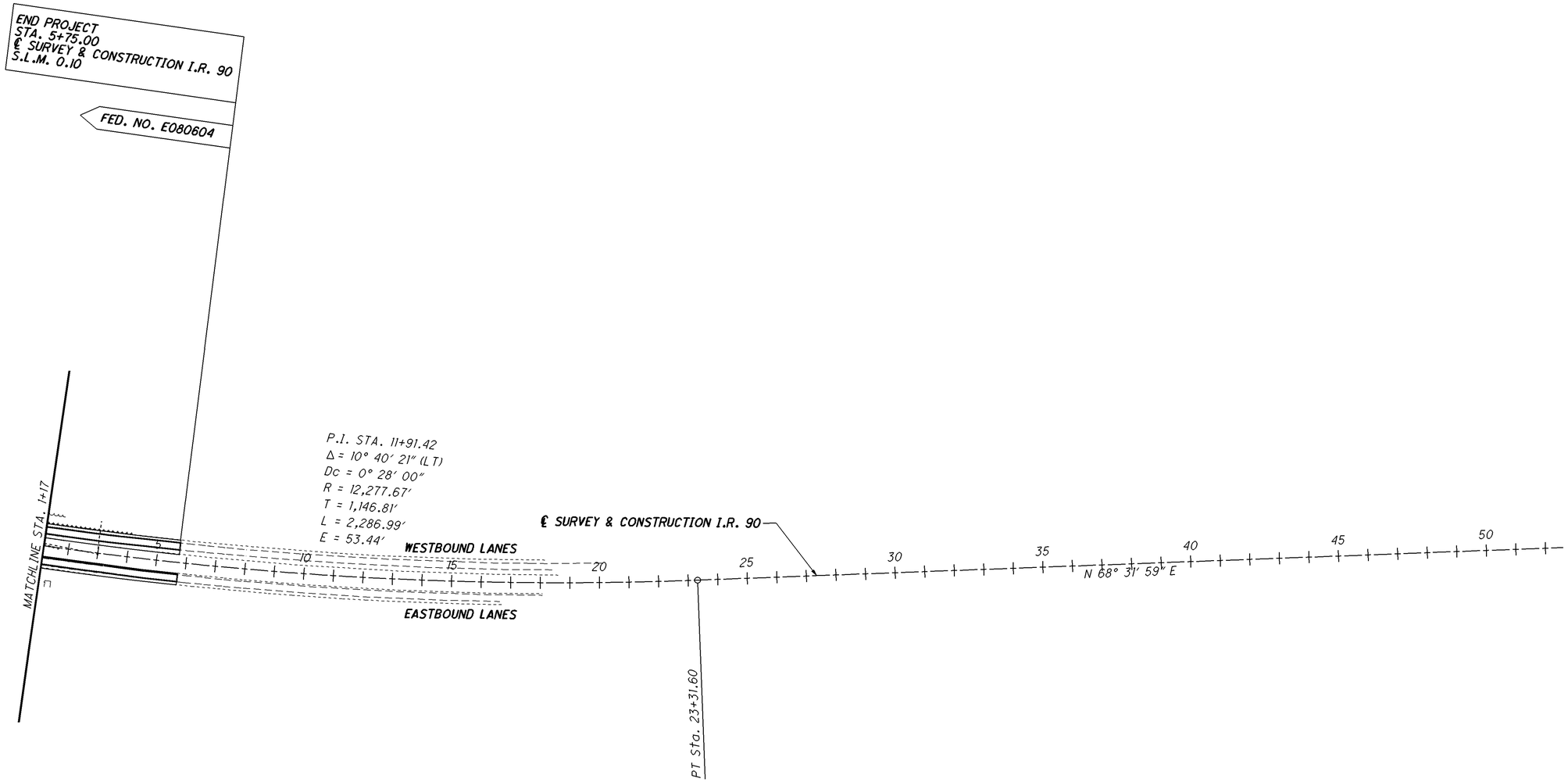
HORIZONTAL SCALE IN FEET
0 200 400

CALCULATED M.M.
CHECKED J.C.

SCHEMATIC PLAN
STA. 66+80 TO STA. 1+17

LAK-90-21.40
ATB-90-0.00

75477_SCHEM08.DGN 04/09/08



HORIZONTAL SCALE IN FEET
0 200 400

CALCULATED M.M.
CHECKED J.C.

SCHEMATIC PLAN
STA. 1+17 TO STA. 5+75

LAK-90-21.40
ATB-90-0.00

75477_SCHEM09.DGN 04/09/08

EXISTING CENTERLINE REFERENCE MONUMENTS

POINT REF.	STATE PLANE GRID NORTHING	STATE PLANE GRID EASTING	CENTERLINE I.R. 90	OFFSET	SIDE	ELEVATION	DESCRIPTION
7904	754,012.96	2,346,863.21	796+16.10	81.18	RT	841.67	HUB
8118	755,646.09	2,348,545.71	819+58.91	85.61	RT	810.49	HUB
13406	755,810.11	2,348,476.92	820+24.36	79.78	LT	811.50	HUB
13505	754,081.28	2,346,698.50	795+41.61	80.83	LT	842.25	HUB
15359	761,717.82	2,357,889.41	967+87.25	79.79	RT	830.70	HUB
2297	750,083.32	2,336,036.48	679+31.98	0.64	RT	811.59	CMON
2299	750,401.81	2,337,675.83	696+01.98	0.62	RT	830.01	CMON
2305	751,487.69	2,342,549.95	746+00.41	0.75	RT	852.47	CMON
2306	751,799.26	2,343,340.81	754+50.54	1.16	RT	850.04	CMON
2308	752,609.76	2,344,888.79	771+99.27	0.09	LT	857.30	CMON
2309	753,110.04	2,345,636.79	780+99.35	0.09	LT	857.38	CMON
2310	753,664.05	2,346,346.45	789+99.86	0.11	LT	846.17	CMON
2311	754,278.02	2,347,023.39	799+13.98	0.05	LT	834.39	CMON
2312	754,897.26	2,347,657.13	808+00.03	0.05	RT	822.63	CMON
2313	755,456.61	2,348,229.39	843+95.16	17.49	LT	812.52	CMON
2318	758,141.82	2,351,312.36	856+99.87	0.11	RT	801.20	CMON
2319	758,611.01	2,352,092.90	866+10.78	0.00	CL	805.27	CMON
2320	759,040.68	2,352,871.46	875+00.00	0.12	LT	807.60	CMON
2321	759,427.15	2,353,571.83	882+99.96	0.19	LT	812.90	CMON
2322	759,837.67	2,354,315.79	927+50.00	0.25	LT	822.94	CMON
2323	760,248.33	2,355,059.82	935+99.84	0.41	LT	832.27	CMON
2324	760,683.24	2,355,847.94	944+99.99	0.50	LT	834.76	CMON
2325	761,118.18	2,356,636.06	954+00.17	0.62	LT	831.44	CMON
2326	761,504.29	2,357,335.63	961+99.22	0.76	LT	829.64	CMON
2327	761,890.73	2,358,036.01	969+99.13	0.79	LT	827.05	CMON
2328	762,277.24	2,358,736.62	977+99.28	0.78	LT	823.57	CMON
2329	762,711.50	2,359,524.13	986+98.59	0.60	LT	821.52	CMON
2330	763,097.97	2,360,224.85	994+98.82	0.49	LT	822.49	CMON
2333	764,449.78	2,362,675.51	1022+97.59	0.30	LT	806.61	CMON
2334	764,932.10	2,363,549.68	1032+95.99	0.33	LT	802.92	CMON
2335	765,389.48	2,364,379.22	1042+43.27	0.09	LT	799.82	CMON
2336	765,848.51	2,365,300.88	1052+73.22	0.00	CL	796.85	CMON
2337	766,185.32	2,366,135.49	9+00.20	0.01	RT	794.67	CMON
2338	766,486.65	2,367,088.15	18+99.66	0.13	LT	797.86	CMON
2339	766,512.31	2,367,184.86	19+99.71	0.08	RT	797.60	CMON
2340	766,650.53	2,367,768.39	25+99.46	0.29	RT	795.43	CMON
2341	766,791.14	2,368,555.93	33+99.59	0.32	LT	789.71	CMON
2343	766,942.44	2,370,147.78	50+00.32	0.02	RT	792.17	CMON
2344	767,021.49	2,371,144.98	60+00.65	0.07	RT	796.08	CMON
2348	767,337.67	2,375,131.55	99+99.74	0.12	RT	810.32	CMON
2353	767,654.90	2,377,469.69	5+00.00	0.00	CL	808.78	CMON
6146	756,422.42	2,349,209.54	829+76.28	5.59	LT	801.88	CMON
6147	757,385.74	2,350,248.53	843+95.16	17.49	LT	798.41	CMON
6000	750,437.65	2,338,383.01	703+03.01	100.30	RT	836.98	IPINS
6003	750,797.13	2,340,145.96	721+02.17	83.62	RT	848.24	IPINS
6004	750,893.86	2,340,741.97	727+05.68	102.33	RT	851.36	IPINS
6005	751,019.79	2,341,325.38	732+98.17	101.53	RT	854.70	IPINS
6006	751,214.93	2,341,987.10	739+82.76	85.11	RT	857.79	IPINS
6007	751,378.48	2,342,488.37	745+06.49	83.42	RT	855.74	IPINS
6008	751,575.49	2,343,059.01	751+05.59	98.80	RT	854.02	IPINS
6009	751,890.97	2,343,575.29	757+01.89	13.20	RT	852.29	IPINS

EXISTING CENTERLINE REFERENCE MONUMENTS

POINT REF.	STATE PLANE GRID NORTHING	STATE PLANE GRID EASTING	CENTERLINE I.R. 90	OFFSET	SIDE	ELEVATION	DESCRIPTION
6010	752,088.81	2,344,149.88	763+02.52	88.23	RT	856.21	IPINS
6011	752,381.88	2,344,675.82	769+00.42	85.68	RT	858.86	IPINS
6012	752,700.95	2,345,192.60	775+03.62	85.64	RT	861.57	IPINS
6013	753,103.38	2,345,644.79	781+01.93	81.74	RT	858.47	IPINS
6014	753,398.98	2,346,178.31	787+02.89	98.08	RT	852.80	IPINS
6015	753,800.63	2,346,629.54	793+02.44	81.40	RT	845.57	IPINS
6016	754,263.08	2,347,019.67	799+00.88	8.04	RT	835.80	IPINS
6017	754,648.61	2,347,540.11	805+42.54	96.09	RT	829.96	IPINS
6018	755,033.15	2,347,944.17	811+00.29	103.50	RT	822.80	IPINS
6019	755,427.54	2,348,324.48	816+47.93	87.27	RT	814.40	IPINS
6020	755,957.63	2,348,718.45	823+00.20	16.45	LT	806.22	IPINS
6021	756,374.98	2,349,147.79	828+98.95	14.84	LT	801.14	IPINS
6024	757,552.35	2,350,506.34	847+00.59	12.65	RT	798.80	IPINS
6025	757,911.83	2,350,986.04	853+00.57	7.88	RT	802.12	IPINS
6026	758,165.92	2,351,537.69	859+03.44	101.40	RT	805.86	IPINS
6027	758,472.03	2,352,040.68	864+97.05	95.95	RT	805.89	IPINS
6028	758,777.16	2,352,561.61	871+01.45	80.94	RT	809.55	IPINS
6029	759,065.80	2,353,085.88	876+99.92	81.45	RT	812.34	IPINS
6030	759,345.44	2,353,618.44	883+01.31	93.88	RT	815.14	IPINS
6031	759,641.08	2,354,140.17	889+00.93	87.04	RT	822.10	IPINS
6032	759,880.84	2,354,569.63	929+93.11	84.57	RT	828.70	IPINS
6034	760,460.66	2,355,628.59	942+00.42	88.42	RT	838.24	IPINS
6035	760,819.98	2,356,112.37	947+97.58	7.51	RT	834.45	IPINS
6036	761,034.88	2,356,687.69	954+05.13	97.26	RT	834.86	IPINS
6038	761,688.72	2,357,690.84	965+99.32	9.35	RT	828.62	IPINS
6039	761,914.26	2,358,256.83	972+03.85	85.27	RT	828.91	IPINS
6040	762,207.67	2,358,780.03	978+03.69	81.11	RT	827.82	IPINS
6041	762,494.06	2,359,300.99	983+98.18	82.00	RT	826.07	IPINS
6042	762,783.58	2,359,828.65	990+00.04	83.39	RT	825.03	IPINS
6043	763,074.59	2,360,355.09	996+01.56	82.90	RT	827.05	IPINS
6044	763,351.76	2,360,886.09	1002+00.39	96.71	RT	826.26	IPINS
6045	763,655.10	2,361,408.35	1008+04.21	83.40	RT	822.80	IPINS
6046	763,944.25	2,361,933.66	1014+03.84	83.98	RT	817.86	IPINS
6047	764,234.72	2,362,457.78	1020+03.07	82.83	RT	812.24	IPINS
6048	764,584.56	2,362,942.93	1025+96.84	10.87	RT	807.04	IPINS
6049	764,801.97	2,363,513.47	1032+01.43	96.11	RT	806.29	IPINS
6050	765,078.38	2,364,047.37	1038+02.43	112.00	RT	804.04	IPINS
6051	765,375.64	2,364,565.92	1044+01.37	101.20	RT	803.66	IPINS
6052	765,638.02	2,365,101.83	1050+03.21	108.03	RT	801.46	IPINS
6053	765,859.53	2,365,627.51	3+05.71	119.43	RT	796.97	IPINS
6054	766,060.95	2,366,183.58	9+03.18	133.32	RT	796.54	IPINS
6055	766,295.10	2,366,735.55	15+06.33	85.93	RT	799.56	IPINS
6056	766,459.07	2,367,307.99	21+05.95	82.45	RT	802.07	IPINS
6057	766,588.89	2,367,887.73	27+04.18	84.86	RT	798.68	IPINS
6058	766,684.29	2,368,476.03	33+04.52	93.66	RT	793.64	IPINS
6059	766,768.66	2,369,063.22	39+02.05	84.19	RT	791.28	IPINS
6060	766,818.63	2,369,703.25	45+47.39	88.28	RT	793.76	IPINS
6061	766,868.10	2,370,259.89	51+06.21	82.99	RT	796.69	IPINS
6062	766,981.80	2,370,843.44	56+96.92	15.79	RT	796.90	IPINS
6063	766,964.09	2,371,451.38	63+01.55	81.51	RT	801.27	IPINS
6064	767,006.18	2,372,052.45	69+04.07	87.09	RT	803.92	IPINS

CALCULATED M.M.
CHECKED H.G.

I.R. 90 CENTERLINE MONUMENTATION

LAK-90-21.40
ATB-90-0.00

EXISTING CENTERLINE REFERENCE MONUMENTS

POINT REF.	STATE PLANE GRID NORTHING	STATE PLANE GRID EASTING	CENTERLINE I.R. 90	OFFSET	SIDE	ELEVATION	DESCRIPTION
6065	767,036.14	2,372,651.98	75+04.09	104.63	RT	805.36	IPINS
6066	767,080.63	2,373,248.40	81+02.15	107.45	RT	807.59	IPINS
6067	767,137.96	2,373,845.18	87+01.61	97.49	RT	810.12	IPINS
6068	767,190.93	2,374,442.91	93+01.65	91.95	RT	812.44	IPINS
6069	767,242.63	2,375,031.40	98+92.39	86.95	RT	813.61	IPINS
6070	767,290.97	2,375,637.62	105+00.53	86.69	RT	815.78	IPINS
6071	767,354.22	2,376,243.18	111+05.70	83.49	RT	816.59	IPINS
6072	767,417.00	2,376,836.48	116+97.22	108.46	RT	814.04	IPINS
6073	767,481.89	2,377,137.85	1+40.76	99.73	RT	813.00	IPINS
6074	767,556.81	2,376,509.98	113+97.33	81.34	LT	815.77	IPINS
6075	767,417.56	2,375,927.47	107+99.77	14.35	LT	815.35	IPINS
6076	767,440.97	2,375,322.32	101+98.09	87.77	LT	815.85	IPINS
6077	767,412.38	2,374,722.92	95+98.30	106.67	LT	812.63	IPINS
6078	767,362.77	2,374,127.38	90+00.70	104.30	LT	809.42	IPINS
6079	767,310.68	2,373,530.90	84+01.97	99.55	LT	808.95	IPINS
6080	767,249.82	2,372,932.86	78+00.98	86.17	LT	807.05	IPINS
6081	767,198.92	2,372,340.70	72+06.65	82.26	LT	804.77	IPINS
6082	767,154.53	2,371,734.97	65+99.31	85.90	LT	801.90	IPINS
6083	767,102.63	2,371,141.16	60+03.26	81.12	LT	800.09	IPINS
6086	766,966.30	2,369,330.88	41+86.49	88.37	LT	791.48	IPINS
6087	766,898.96	2,368,743.88	35+99.69	81.82	LT	792.41	IPINS
6088	766,805.78	2,368,147.77	30+00.23	79.64	LT	797.02	IPINS
6089	766,623.44	2,367,569.47	23+99.49	16.01	LT	798.93	IPINS
6090	766,538.98	2,366,970.94	18+00.94	81.78	LT	801.14	IPINS
6091	766,373.92	2,366,392.05	12+03.32	93.89	LT	798.92	IPINS
6092	766,174.25	2,365,823.15	6+05.07	99.35	LT	797.84	IPINS
6093	765,950.49	2,365,262.63	0+06.62	108.71	LT	799.53	IPINS
6094	765,691.53	2,364,736.64	1046+98.51	100.42	LT	801.10	IPINS
6095	765,337.77	2,364,238.24	1040+94.85	22.92	LT	802.96	IPINS
6096	765,044.13	2,363,719.99	1034+99.23	16.15	LT	804.19	IPINS
6097	764,813.80	2,363,154.48	1028+92.81	87.66	LT	807.45	IPINS
6098	764,467.35	2,362,666.12	1022+97.86	20.22	LT	808.93	IPINS
6099	764,176.54	2,362,143.05	1016+99.38	18.27	LT	813.53	IPINS
6100	763,942.31	2,361,589.21	1011+01.31	80.71	LT	820.38	IPINS
6101	763,598.04	2,361,092.33	1004+99.94	19.30	LT	824.73	IPINS
6102	763,360.53	2,360,531.31	998+93.99	82.35	LT	827.69	IPINS
6103	763,016.03	2,360,037.92	992+95.57	19.04	LT	824.42	IPINS
6104	762,727.52	2,359,515.68	986+98.93	18.70	LT	823.93	IPINS
6105	762,505.20	2,358,951.14	980+97.24	96.75	LT	826.29	IPINS
6106	762,202.18	2,358,433.79	974+97.87	81.35	LT	829.36	IPINS
6107	761,911.55	2,357,905.54	968+94.95	82.05	LT	830.18	IPINS
6108	761,568.93	2,357,414.03	962+99.09	19.48	LT	831.39	IPINS
6109	761,253.77	2,356,702.86	955+24.15	87.07	LT	834.38	IPINS
6110	761,041.30	2,356,331.00	950+95.92	80.66	LT	836.74	IPINS
6111	760,753.47	2,355,805.66	944+96.90	82.42	LT	838.27	IPINS
6112	760,462.83	2,355,279.22	938+95.56	82.24	LT	838.12	IPINS
6113	760,173.96	2,354,750.77	932+93.32	84.59	LT	832.43	IPINS
6114	759,911.23	2,354,275.18	891+49.65	84.28	LT	826.33	IPINS
6115	759,643.95	2,353,792.20	885+97.65	83.56	LT	819.46	IPINS
6116	759,350.33	2,353,265.69	879+94.81	80.81	LT	814.04	IPINS
6117	759,063.43	2,352,746.36	874+01.49	80.47	LT	811.02	IPINS

EXISTING CENTERLINE REFERENCE MONUMENTS

POINT REF.	STATE PLANE GRID NORTHING	STATE PLANE GRID EASTING	CENTERLINE I.R. 90	OFFSET	SIDE	ELEVATION	DESCRIPTION
6118	758,779.79	2,352,216.40	868+00.45	105.33	LT	807.40	IPINS
6119	758,492.10	2,351,685.55	861+99.91	99.53	LT	805.00	IPINS
6121	757,821.79	2,350,677.02	849+98.20	99.32	LT	801.10	IPINS
6125	756,213.35	2,348,881.92	825+95.84	85.08	LT	804.46	IPINS
6126	755,748.98	2,348,501.88	819+99.48	18.61	LT	809.58	IPINS
6127	755,367.10	2,348,023.69	813+90.58	79.74	LT	819.54	IPINS
6128	754,951.86	2,347,597.76	807+95.73	80.49	LT	827.14	IPINS
6129	754,488.72	2,347,213.37	801+97.12	17.95	LT	832.53	IPINS
6130	754,082.62	2,346,790.91	796+10.64	19.07	LT	841.13	IPINS
6131	753,740.34	2,346,288.90	790+04.99	95.54	LT	848.33	IPINS
6132	753,366.69	2,345,821.30	784+01.66	96.23	LT	856.07	IPINS
6133	752,949.59	2,345,264.66	777+01.07	81.74	LT	862.43	IPINS
6134	752,691.28	2,344,840.77	772+01.22	94.68	LT	858.72	IPINS
6135	752,388.75	2,344,327.39	766+00.71	92.32	LT	856.73	IPINS
6136	752,123.34	2,343,801.53	760+07.01	99.67	LT	854.71	IPINS
6137	751,866.44	2,343,263.02	754+05.68	93.39	LT	852.14	IPINS
6138	751,634.21	2,342,716.18	748+07.45	79.98	LT	855.46	IPINS
6139	751,446.37	2,342,145.77	742+02.75	89.15	LT	856.45	IPINS
6140	751,292.68	2,341,568.60	736+00.85	103.50	LT	856.29	IPINS
6142	751,017.09	2,340,406.79	724+00.15	82.56	LT	850.17	IPINS
6143	750,919.04	2,339,814.32	717+99.85	99.30	LT	845.89	IPINS
6144	750,788.16	2,339,232.59	712+03.84	81.76	LT	842.92	IPINS
6145	750,671.52	2,338,634.67	705+94.65	81.29	LT	839.44	IPINS
6148	750,588.37	2,339,065.67	710+01.89	82.54	RT	841.62	IPINS
6149	750,684.67	2,339,552.73	714+98.51	80.53	RT	844.78	IPINS
6153	767,029.19	2,369,940.97	48+01.02	102.82	LT	794.85	IPINS
6154	751,141.21	2,340,997.02	730+04.96	89.56	LT	852.01	IPINS
6155	761,326.78	2,357,211.87	960+05.11	94.89	RT	830.52	IPINS
6156	767,051.43	2,370,485.71	53+45.82	81.91	LT	797.64	IPINS
6157	760,177.98	2,355,098.77	935+99.96	80.00	RT	836.16	IPINS

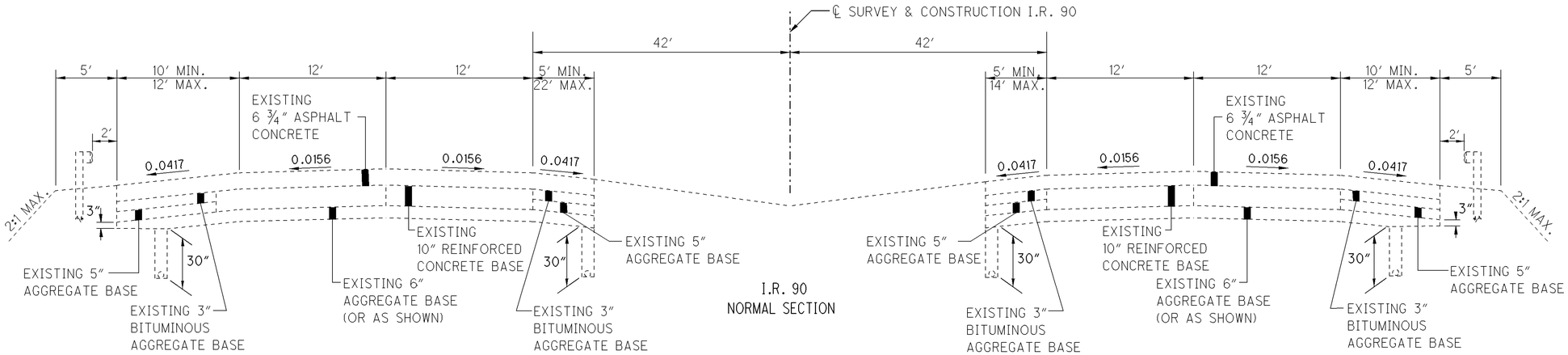
CALCULATED M.M.
CHECKED H.G.

I.R. 90 CENTERLINE MONUMENTATION

LAK-90-21.40
ATB-90-0.00

TYPICAL SECTIONS

EXISTING TYPICAL



SUSPEND PROJECT
WESTBOUND LANES
STA. 813+00.00
RESUME PROJECT
WESTBOUND LANES
STA. 855+50.00

SUSPEND PROJECT
EASTBOUND LANES
STA. 826+00.00
RESUME PROJECT
EASTBOUND LANES
STA. 847+50.00

WESTBOUND LANES
SECTION APPLIES:

STA. 724+50.00 TO STA. 813+00.00 = 8,850.00 FT.
STA. 855+50.00 TO STA. 891+49.67 (BK.) = 3,599.67 FT.
STA. 927+50.00 (AH.) TO STA. 1052+73.22 (BK.) = 12,523.22 FT.
STA. 0+00.00 (AH.) TO STA. 41+87.57 (BK.) = 4,187.57 FT.
STA. 41+88.95 (AH.) TO STA. 119+06.65 (BK.) = 7,717.70 FT.
STA. 0+44.61 (AH.) TO STA. 5+75.00 = 530.39 FT.

TOTAL 37,408.55 FT.

STATION EQUATION:
STA. 832+94.09 (BACK) =
STA. 832+96.70 (AHEAD)

STATION EQUATION:
STA. 891+49.67 (BACK) =
STA. 927+50.00 (AHEAD)

STATION EQUATION:
STA. 1052+73.22 (BACK) =
STA. 0+00.00 (AHEAD)

STATION EQUATION:
STA. 41+87.57 (BACK) =
STA. 41+88.95 (AHEAD)

STATION EQUATION:
STA. 119+06.65 (BACK) =
STA. 0+44.61 (AHEAD)

EASTBOUND LANES
SECTION APPLIES:

STA. 724+50.00 TO STA. 826+00.00 = 10,150.00 FT.
STA. 847+50.00 TO STA. 891+49.67 (BK.) = 4,399.67 FT.
STA. 927+50.00 (AH.) TO STA. 1052+73.22 (BK.) = 12,523.22 FT.
STA. 0+00.00 (AH.) TO STA. 41+87.57 (BK.) = 4,187.57 FT.
STA. 41+88.95 (AH.) TO STA. 119+06.65 (BK.) = 7,717.70 FT.
STA. 0+44.61 (AH.) TO STA. 5+75.00 = 530.39 FT.

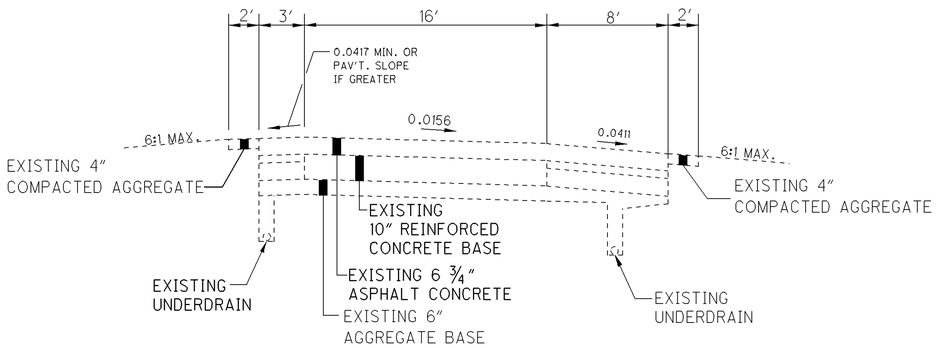
TOTAL 39,508.55 FT.

EXISTING TYPICAL SECTION

LAK-90-21.40
ATB-90-0.00

TYPICAL SECTIONS

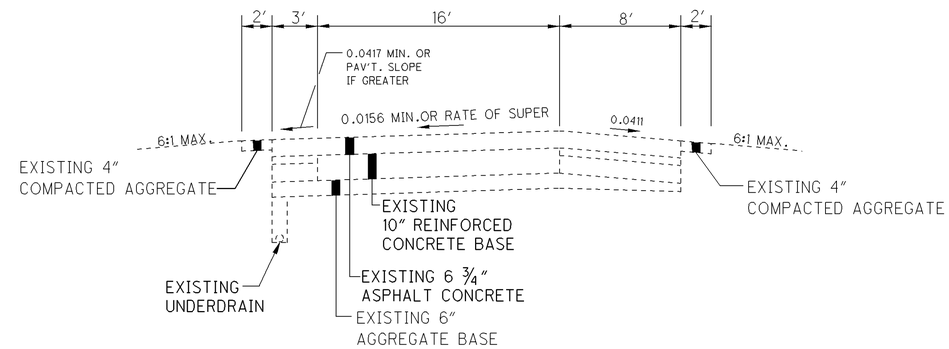
EXISTING TYPICAL - RAMPS



NORMAL SECTION

SECTION APPLIES:

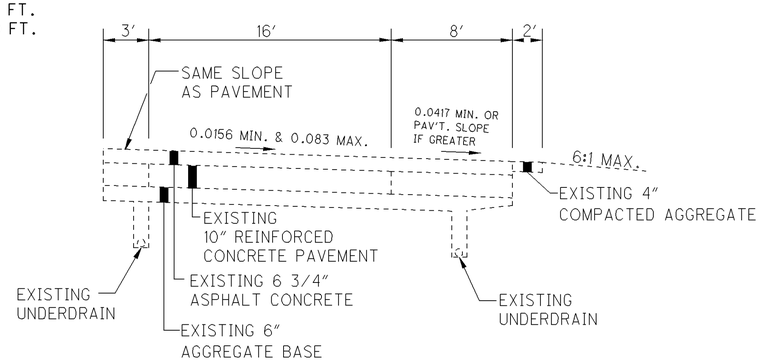
(RAMP I) - STA. 4+53.07 TO STA. 6+25.00 = 171.93 FT.
(RAMP I) - STA. 10+25.00 TO STA. 12+63.00 = 238.00 FT.
(RAMP J) - STA. 10+75.00 TO STA. 13+61.60 = 286.60 FT.
(RAMP K) - STA. 0+12.00 TO STA. 1+50.00 = 138.00 FT.
(RAMP K) - STA. 6+00.00 TO STA. 6+90.23 = 90.23 FT.
(RAMP L) - STA. 0+12.00 TO STA. 4+25.00 = 413.00 FT.



SUPERELEVATED SECTION

SECTION APPLIES:

(RAMP J) - STA. 4+80.00 TO STA. 10+75.00 = 595.00 FT.



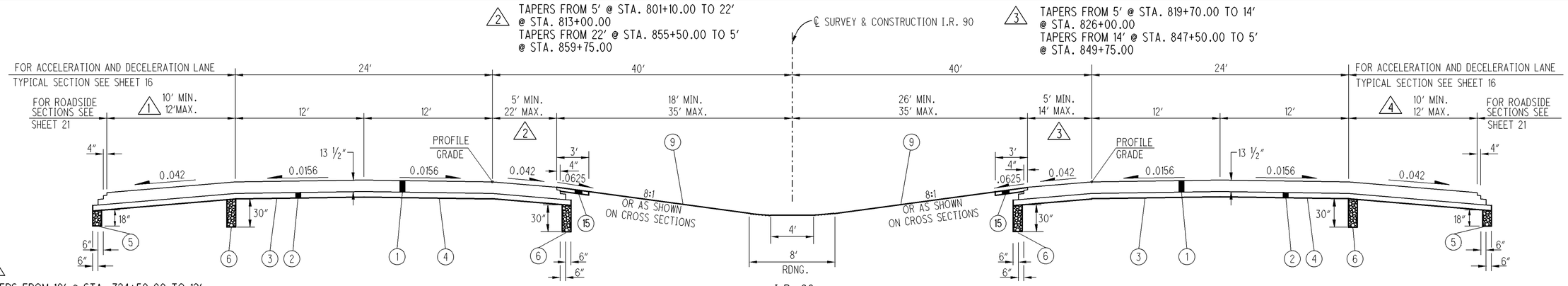
SUPERELEVATED SECTION

SECTION APPLIES:

(RAMP I) - STA. 6+25.00 TO STA. 10+25.00 = 400.00 FT.
(RAMP K) - STA. 1+50.00 TO STA. 6+00.00 = 450.00 FT.
(RAMP L) - STA. 4+25.00 TO STA. 9+25.00 = 500.00 FT.

EXISTING TYPICAL SECTION - RAMPS

LAK-90-21.40
ATB-90-0.00



1 TAPERS FROM 10' @ STA. 724+50.00 TO 12' @ STA. 726+00.00
TAPERS FROM 12' @ STA. 811+50.00 TO 10' @ STA. 813+00.00
TAPERS FROM 10' @ STA. 855+50.00 TO 12' @ STA. 857+50.00

WESTBOUND LANES
SECTION APPLIES:

STA. 724+50.00 TO STA. 726+75.45 = 225.45 FT.
STA. 800+06.08 TO STA. 813+00.00 = 1,293.92 FT.
STA. 855+50.00 TO STA. 891+49.67 (BK.) = 3,599.67 FT.
STA. 927+50.00 (AH.) TO STA. 1041+50.83 = 11,400.83 FT.
STA. 42+78.64 TO STA. 104+73.35 = 6,194.71 FT.

TOTAL 22,714.58 FT.

SUSPEND PROJECT WESTBOUND LANES STA. 813+00.00
RESUME PROJECT WESTBOUND LANES STA. 855+50.00

I.R. 90
NORMAL SECTION

STATION EQUATION:
STA. 832+94.09 (BACK) =
STA. 832+96.70 (AHEAD)

STATION EQUATION:
STA. 891+49.67 (BACK) =
STA. 927+50.00 (AHEAD)

SUSPEND PROJECT EASTBOUND LANES STA. 826+00.00
RESUME PROJECT EASTBOUND LANES STA. 847+50.00

EASTBOUND LANES
SECTION APPLIES:

STA. 724+50.00 TO STA. 726+75.45 = 225.45 FT.
STA. 800+06.08 TO STA. 826+00.00 = 2,593.92 FT.
STA. 847+50.00 TO STA. 891+49.67 (BK.) = 4,399.67 FT.
STA. 927+50.00 (AH.) TO STA. 1041+50.83 = 11,400.83 FT.
STA. 42+78.64 TO STA. 104+73.35 = 6,194.71 FT.

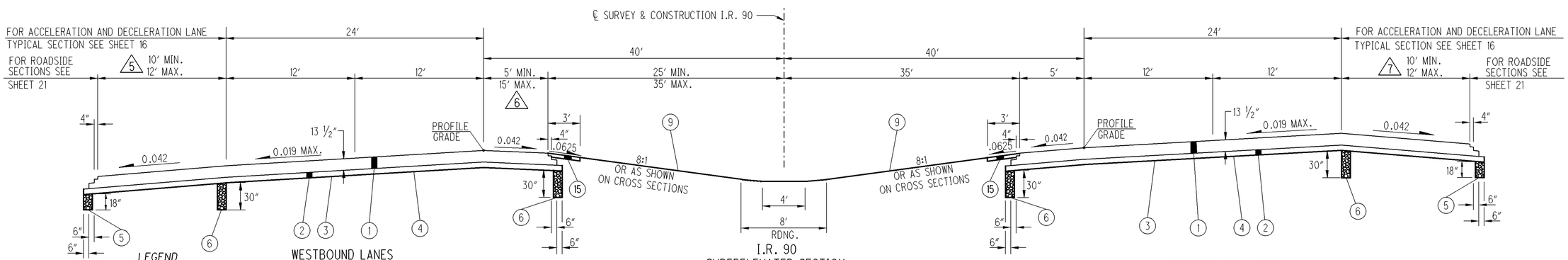
TOTAL 24,814.58 FT.

4 TAPERS FROM 10' @ STA. 724+50.00 TO 12' @ STA. 726+00.00
TAPERS FROM 12' @ STA. 824+60.00 TO 10' @ STA. 826+00.00
TAPERS FROM 10' @ STA. 847+50.00 TO 12' @ STA. 848+50.00

5 TAPERS FROM 12' @ STA. 3+25.00 TO 10' @ STA. 5+75.00

6 TAPERS FROM 5' @ STA. 3+25.00 TO 15' @ STA. 5+75.00

7 TAPERS FROM 12' @ STA. 3+25.00 TO 10 @ STA. 5+75.00



WESTBOUND LANES

I.R. 90
SUPERELEVATED SECTION
SECTION APPLIES:

STA. 726+75.45 TO STA. 800+06.08 = 7,330.63 FT.
STA. 1041+50.83 TO STA. 1052+73.22 (BK.) = 1,122.39 FT.
STA. 0+00.00 (AH.) TO STA. 41+87.57 (BK.) = 4,187.57 FT.
STA. 41+88.95 (AH.) TO STA. 42+78.64 = 89.69 FT.
STA. 104+73.35 TO STA. 119+06.65 (BK.) = 1,433.30 FT.
STA. 0+44.61 (AH.) TO STA. 5+75.00 = 530.39 FT.

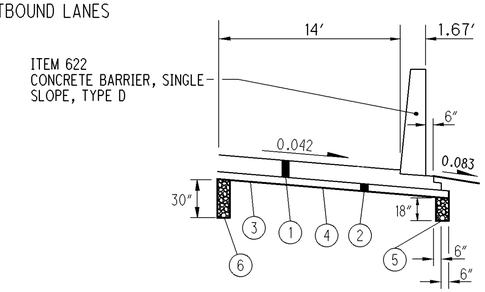
TOTAL 14,693.97 FT.

STATION EQUATION:
STA. 1052+73.22 (BACK) =
STA. 0+00.00 (AHEAD)

STATION EQUATION:
STA. 119+06.65 (BACK) =
STA. 0+44.61 (AHEAD)

STATION EQUATION:
STA. 41+87.57 (BACK) =
STA. 41+88.95 (AHEAD)

EASTBOUND LANES



ITEM 622
CONCRETE BARRIER, SINGLE SLOPE, TYPE D

(SEE PLAN & PROFILE SHEETS FOR LOCATIONS)

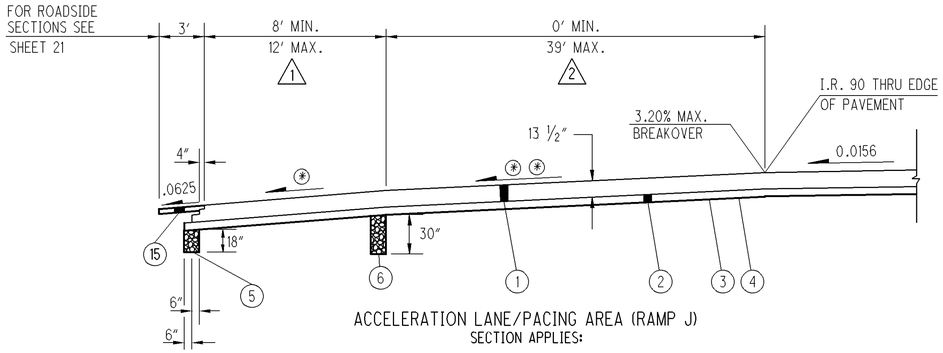
LEGEND

1. ITEM 880 ASPHALT CONCRETE (7 YEAR WARRANTY) ---> THE FOLLOWING ITEM HAS BEEN REVISED TO A NON-WARRANTY ITEM AND SHALL COMPRISE OF THE FOLLOWING:
   - ITEM 302 - 10.5" ASPHALT CONCRETE BASE, PG64-22
   - ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE
   - ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN
   - ITEM 442 - 1.75" ASPHALT CONCERET INETRMEDIATE COURSE, 19MM, TYPE A (446)
2. ITEM 304 6" AGGREGATE BASE
3. ITEM 204 PROOF ROLLING
4. ITEM 206 CEMENT STABILZED SUBGRADE, 12 INCHES DEEP
5. ITEM 605 6" BASE PIPE UNDERDRAINS (18" DEPTH) WITH FABRIC WRAP, AS PER PLAN
6. ITEM 605 6" SHALLOW PIPE UNDERDRAINS (30" DEPTH) WITH FABRIC WRAP, AS PER PLAN
7. ITEM 606 GUARDRAIL, TYPE 5
8. ITEM 204 SUBGRADE COMPACTION
9. ITEM 659 SEEDING AND MULCHING, CLASS 2
10. ITEM 452 12 1/2" THICK NON-REINFORCED CONCRETE PAVEMENT
11. STANDARD LONGITUDINAL JOINT
13. ITEM 448 3" ASPHALT CONCRETE INTERMEDAITE COURSE, TYPE 1, PG64-22 (UNDER GUARDRAIL)
14. ITEM 209 LINEAR GRADING, AS PER PLAN
15. ITEM 617 4" COMPACTED AGGREGATE, AS PER PLAN A

75477_IR90ML_PTS.DGN 1/10/08

PROPOSED TYPICAL SECTIONS - I.R. 90
ASPHALT CONCRETE

LAK-90-21.40
ATB-90-0.00



ACCELERATION LANE/PACING AREA (RAMP J)
SECTION APPLIES:

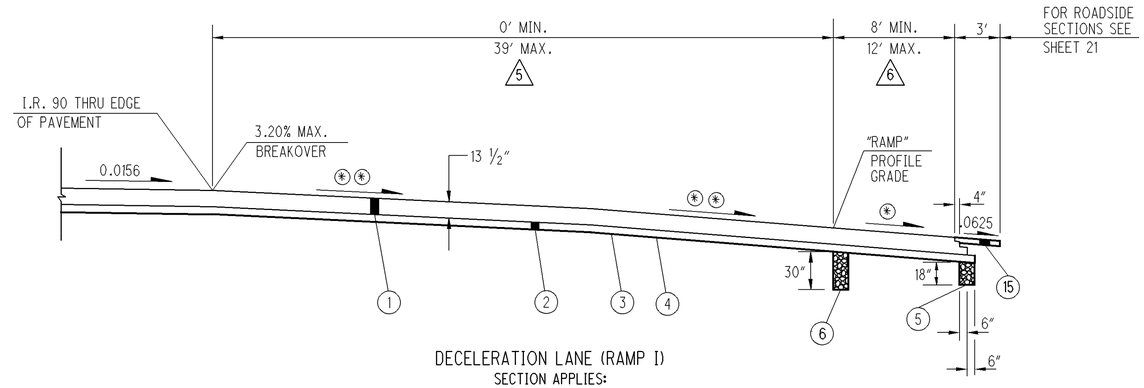
STA. 1029+07.24 TO STA. 1043+01.34 = 1,394.10 FT.
TOTAL 1,394.10 FT.

△1 TAPERS FROM 12′-0″ @ STA. 1029+07.24 TO 8′-0″ @ STA. 1031+07.24. 8′-0″ FROM STA. 1031+07.24 TO STA. 1043+01.34

△2 TAPERS FROM 0′-0″ @ STA. 1029+07.24 TO 39′-0″ @ STA. 1043+01.34

(*) - 0.042 OR RATE OF SUPERELEVATION, WHICHEVER IS GREATER.

(*)(*) - SLOPES VARY, SEE PAVEMENT DETAIL SHEETS 455-462.

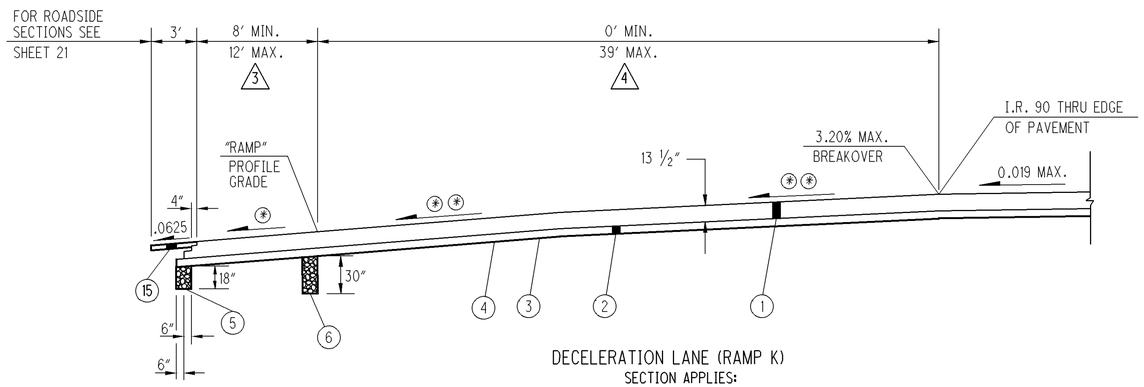


DECELERATION LANE (RAMP I)
SECTION APPLIES:

STA. 1027+50.00 TO STA. 1039+22.36 = 1,172.36 FT.
TOTAL 1,172.36 FT.

△5 TAPERS FROM 0′-0″ @ STA. 1027+50.00 TO 12′-0″ @ STA. 1028+50.00 12′-0″ FROM STA. 1028+50.00 TO STA. 1034+85.14 TAPERS FROM 12′ @ STA. 1034+85.14 TO 39′-0″ @ STA. 1039+22.36

△6 TAPERS FROM 12′-0″ @ STA. 1027+50.00 TO 8′-0″ @ STA. 1028+50.00

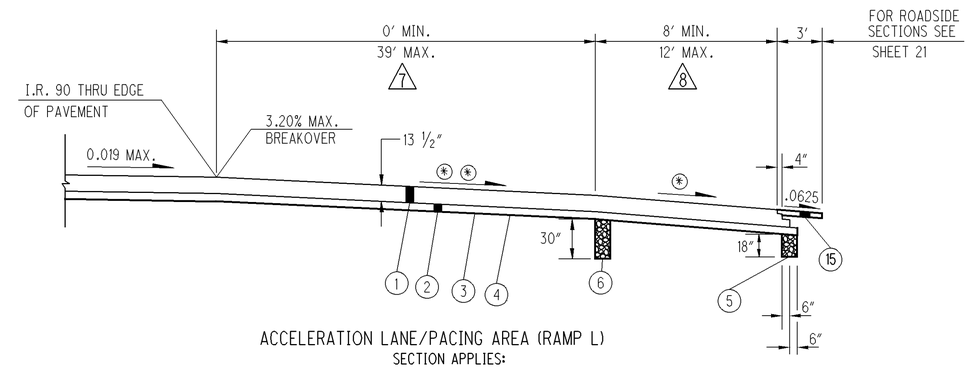


DECELERATION LANE (RAMP K)
SECTION APPLIES:

STA. 3+76.44 TO STA. 16+00.00 = 1,223.56 FT.
TOTAL 1,223.56 FT.

△3 TAPERS FROM 8′-0″ @ STA. 15+00.00 TO 12′-0″ @ STA. 16+00.00

△4 TAPERS FROM 39′-0″ @ STA. 3+76.44 TO 12′-0″ @ STA. 7+55.89. 12′-0″ FROM STA. 7+55.89 TO STA. 15+00.00. TAPERS FROM 12′-0″ @ STA. 15+00.00 TO 0′-0″ @ STA. 16+00.00



ACCELERATION LANE/PACING AREA (RAMP L)
SECTION APPLIES:

STA. 2+98.57 TO STA. 16+70.13 = 1,371.56 FT.
TOTAL 1,371.56 FT.

△7 TAPERS FROM 39′-0″ @ STA. 2+98.57 TO 0′-0″ @ STA. 16+70.13

△8 TAPERS FROM 8′-0″ @ STA. 14+70.13 TO 12′-0″ @ STA. 16+70.13

LEGEND

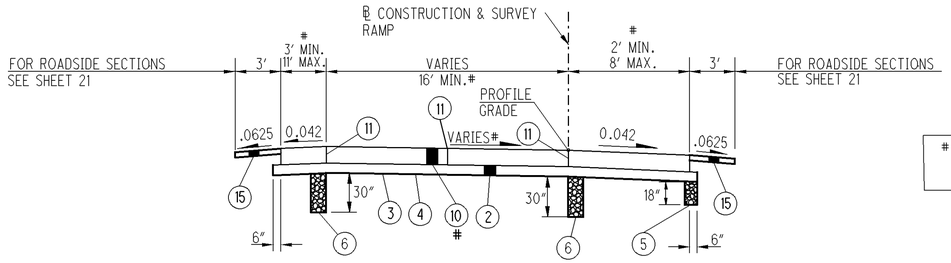
1. *ITEM 880 ASPHALT CONCRETE (7 YEAR WARRANTY)*
2. *ITEM 304 6″ AGGREGATE BASE*
3. *ITEM 204 PROOF ROLLING*
4. *ITEM 206 CEMENT STABILZED SUBGRADE, 12 INCHES DEEP*
5. *ITEM 605 6″ BASE PIPE UNDERDRAINS (18″ DEPTH) WITH FABRIC WRAP, AS PER PLAN*
6. *ITEM 605 6″ SHALLOW PIPE UNDERDRAINS (30″ DEPTH) WITH FABRIC WRAP, AS PER PLAN*
7. *ITEM 606 GUARDRAIL, TYPE 5*
8. *ITEM 204 SUBGRADE COMPACTION*
9. *ITEM 659 SEEDING AND MULCHING, CLASS 2*
10. *ITEM 452 12 1/2″ THICK NON-REINFORCED CONCRETE PAVEMENT*
11. *STANDARD LONGITUDINAL JOINT*

THE FOLLOWING ITEM HAS BEEN REVISED TO A NON-WARRANTY ITEM AND SHALL COMPRISE OF THE FOLLOWING:
ITEM 302 - 10.5" ASPHALT CONCRETE BASE, PG64-22
ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE
ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN
ITEM 442 - 1.75" ASPHALT CONCERET INETRMEDIATE COURSE, 19MM, TYPE A (446)

13. *ITEM 448 3″ ASPHALT CONCRETE INTERMEDAITE COURSE, TYPE 1, PG64-22 (UNDER GUARDRAIL)*
14. *ITEM 209 LINEAR GRADING, AS PER PLAN*
15. *ITEM 617 4″ COMPACTED AGGREGATE, AS PER PLAN A*

PROPOSED TYPICAL SECTIONS ACCELERATION AND DECELERATION LANES ASPHALT CONCRETE

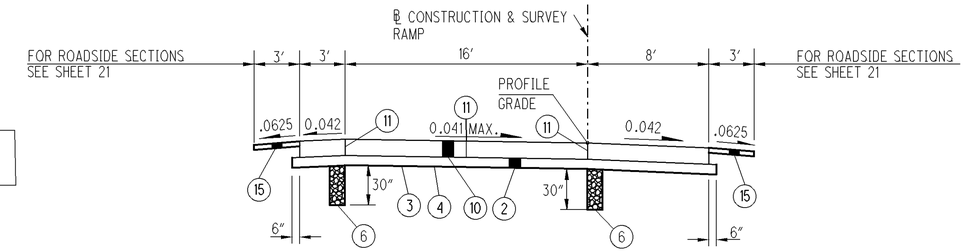
LAK-90-21.40
ATB-90-0.00



NORMAL SECTION
SECTION APPLIES:

(RAMP I) - STA. 12+00.00 TO STA. 12+62.90 = 69.20 FT. - (VARIES)
(RAMP L) - STA. 0+12.79 TO STA. 1+00.00 = 87.21 FT. - (0.039 MAX.)

PAVEMENT SLOPE AND WIDTH VARIES
SEE PAVEMENT DETAIL SHEETS
455-462



NORMAL SECTION
SECTION APPLIES:

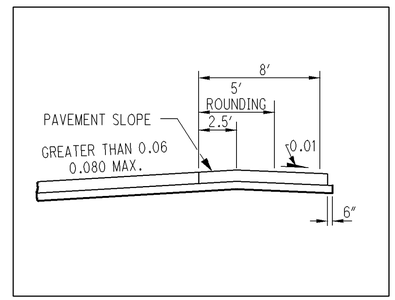
(RAMP I) - STA. 4+36.31 TO STA. 7+31.30 = 294.99 FT. - (0.041 MAX.)
(RAMP L) - STA. 3+50.00 TO STA. 3+76.56 = 26.56 FT. - (0.011 MAX.)

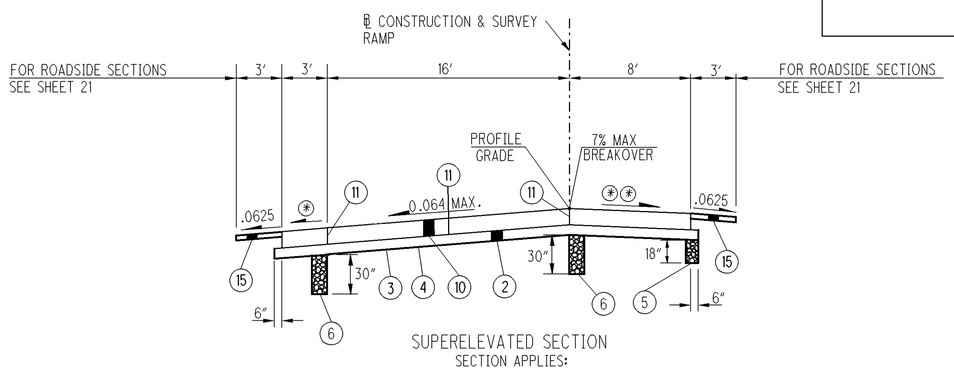
NOTE:
ITEM 452 12 1/2″ NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN
(SEE GENERAL NOTE, SHEET 26)
WILL BE USED AT THE FOLLOWING LOCATIONS:

(RAMP I) - STA. 11+50.00 TO STA. 12+62.90
(RAMP L) - STA. 0+12.79 TO STA. 1+00.00

(*) - 0.042 OR RATE OF SUPERELEVATION, WHICHEVER IS GREATER.

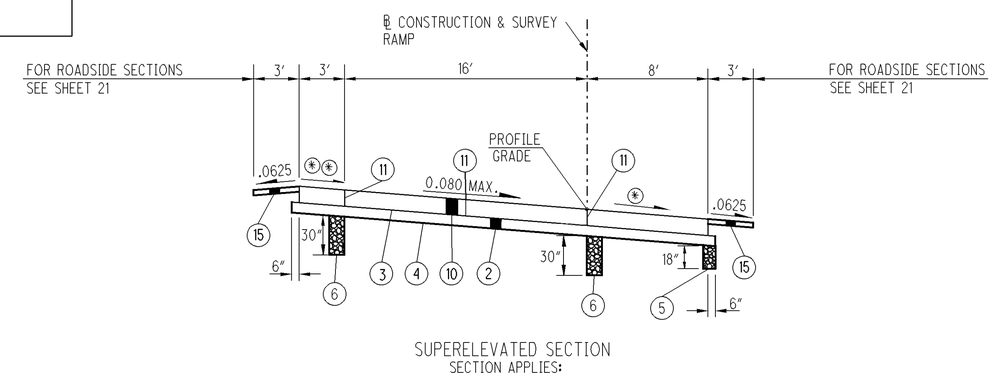
(*)(*) - SLOPES VARY, SEE SUPERELEVATION SHEETS 109 & 112.





SUPERELEVATED SECTION
SECTION APPLIES:

(RAMP I) - STA. 11+00.00 TO STA. 12+00.00 = 100.00 FT. - (0.063 MAX.)
(RAMP L) - STA. 1+00.00 TO STA. 3+50.00 = 250.00 FT. - (0.064 MAX.)



SUPERELEVATED SECTION
SECTION APPLIES:

(RAMP I) - STA. 7+31.30 TO STA. 11+00.00 = 368.70 FT. - (0.079 MAX.)
(RAMP L) - STA. 3+76.56 TO STA. 9+51.10 = 574.54 FT. - (0.080 MAX.)

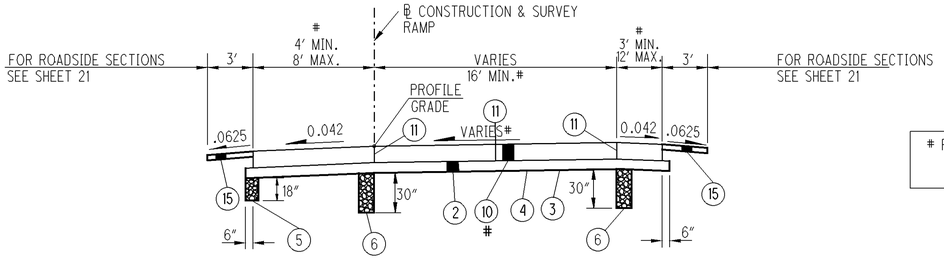
LEGEND

1. *ITEM 880 ASPHALT CONCRETE (7 YEAR WARRANTY)* ---> THE FOLLOWING ITEM HAS BEEN REVISED TO A NON-WARRANTY ITEM AND SHALL COMPRISE OF THE FOLLOWING:
   ITEM 302 - 10.5" ASPHALT CONCRETE BASE, PG64-22
   ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE
   ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN
   ITEM 442 - 1.75" ASPHALT CONCERET INETRMEDIATE COURSE, 19MM, TYPE A (446)
2. *ITEM 304 6″ AGGREGATE BASE*
3. *ITEM 204 PROOF ROLLING*
4. *ITEM 206 CEMENT STABILZED SUBGRADE, 12 INCHES DEEP*
5. *ITEM 605 6″ BASE PIPE UNDERDRAINS (18″ DEPTH) WITH FABRIC WRAP, AS PER PLAN*
6. *ITEM 605 6″ SHALLOW PIPE UNDERDRAINS (30″ DEPTH) WITH FABRIC WRAP, AS PER PLAN*
7. *ITEM 606 GUARDRAIL, TYPE 5*
8. *ITEM 204 SUBGRADE COMPACTION*
9. *ITEM 659 SEEDING AND MULCHING, CLASS 2*
10. *ITEM 452 12 1/2″ THICK NON-REINFORCED CONCRETE PAVEMENT*
11. *STANDARD LONGITUDINAL JOINT*

13. *ITEM 448 3″ ASPHALT CONCRETE INTERMEDAITE COURSE, TYPE 1, PG64-22 (UNDER GUARDRAIL)*
14. *ITEM 209 LINEAR GRADING, AS PER PLAN*
15. *ITEM 617 4″ COMPACTED AGGREGATE, AS PER PLAN A*

PROPOSED TYPICAL SECTIONS
RAMPS I & L

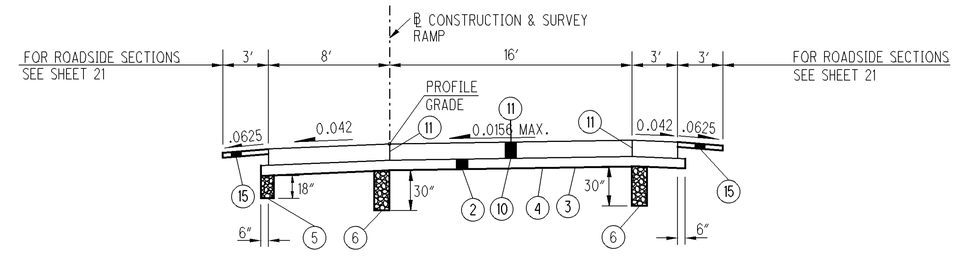
LAK-90-21.40
ATB-90-0.00



NORMAL SECTION
SECTION APPLIES:

(RAMP K) - STA. 0+10.84 TO STA. 2+25.00 = 214.16 FT. (0.022 MAX.)

PAVEMENT SLOPE AND WIDTH VARIES SEE PAVEMENT DETAIL SHEETS 455-462



NORMAL SECTION
SECTION APPLIES:

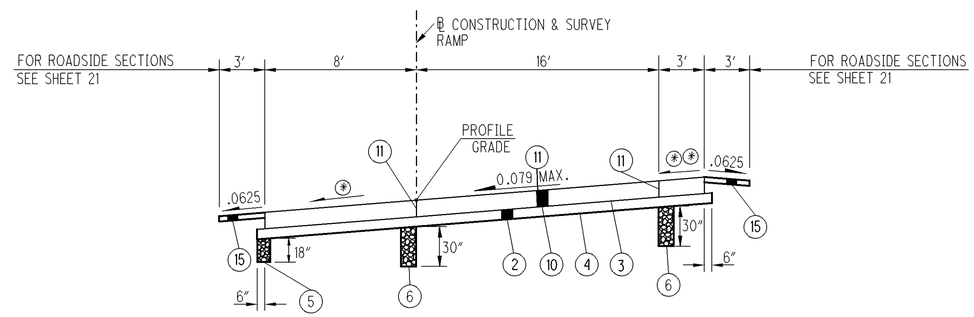
(RAMP J) - STA. 11+02.76 TO STA. 11+71.35 = 68.59 FT. (0.011 MAX.)

(*) - 0.042 OR RATE OF SUPERELEVATION, WHICHEVER IS GREATER.

(**) - SLOPES VARY, SEE SUPERELEVATION SHEETS 110-111.

NOTE:
ITEM 452 12 1/2″ NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN
(SEE GENERAL NOTE, SHEET 26)
WILL BE USED AT THE FOLLOWING LOCATION:

(RAMP K) - STA. 0+10.84 TO STA. 1+00.00



SUPERELEVATED SECTION
SECTION APPLIES:

(RAMP J) - STA. 4+43.51 TO STA. 11+02.76 = 659.25 FT. (0.077 MAX.)
(RAMP J) - STA. 11+71.35 TO STA. 14+98.02 = 326.67 FT. (0.064 MAX.)
(RAMP K) - STA. 2+25.00 TO STA. 7+04.88 = 479.88 FT. (0.079 MAX.)

LEGEND

1. *ITEM 880 ASPHALT CONCRETE (7 YEAR WARRANTY)* ---> THE FOLLOWING ITEM HAS BEEN REVISED TO A NON-WARRANTY ITEM AND SHALL COMPRISE OF THE FOLLOWING:
   ITEM 302 - 10.5" ASPHALT CONCRETE BASE, PG64-22
   ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE
   ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN
   ITEM 442 - 1.75" ASPHALT CONCERET INETRMEDIATE COURSE, 19MM, TYPE A (446)
2. *ITEM 304 6″ AGGREGATE BASE*
3. *ITEM 204 PROOF ROLLING*
4. *ITEM 206 CEMENT STABILZED SUBGRADE, 12 INCHES DEEP*
5. *ITEM 605 6″ BASE PIPE UNDERDRAINS (18″ DEPTH) WITH FABRIC WRAP, AS PER PLAN*
6. *ITEM 605 6″ SHALLOW PIPE UNDERDRAINS (30″ DEPTH) WITH FABRIC WRAP, AS PER PLAN*
7. *ITEM 606 GUARDRAIL, TYPE 5*
8. *ITEM 204 SUBGRADE COMPACTION*
9. *ITEM 659 SEEDING AND MULCHING, CLASS 2*
10. *ITEM 452 12 1/2″ THICK NON-REINFORCED CONCRETE PAVEMENT*
11. *STANDARD LONGITUDINAL JOINT*

13. *ITEM 448 3″ ASPHALT CONCRETE INTERMEDAITE COURSE, TYPE 1, PG64-22 (UNDER GUARDRAIL)*
14. *ITEM 209 LINEAR GRADING, AS PER PLAN*
15. *ITEM 617 4″ COMPACTED AGGREGATE, AS PER PLAN A*

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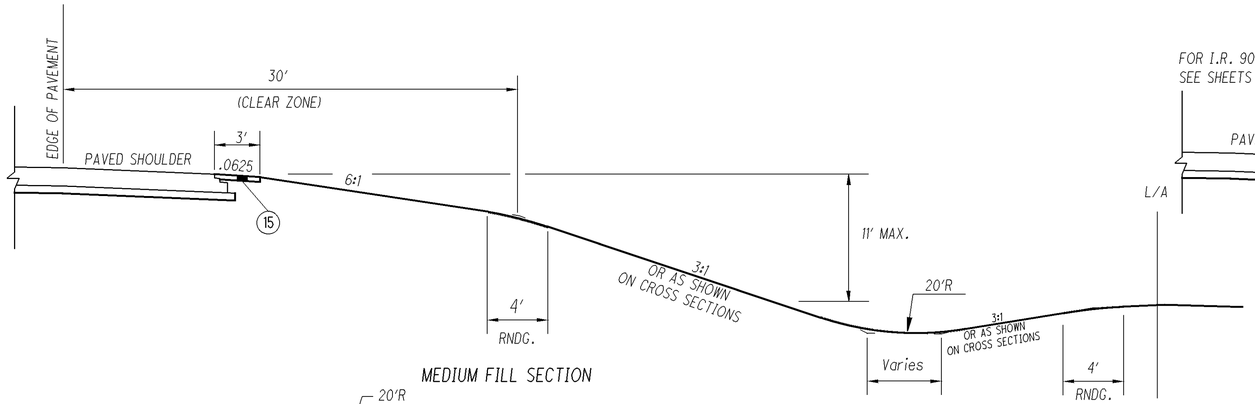
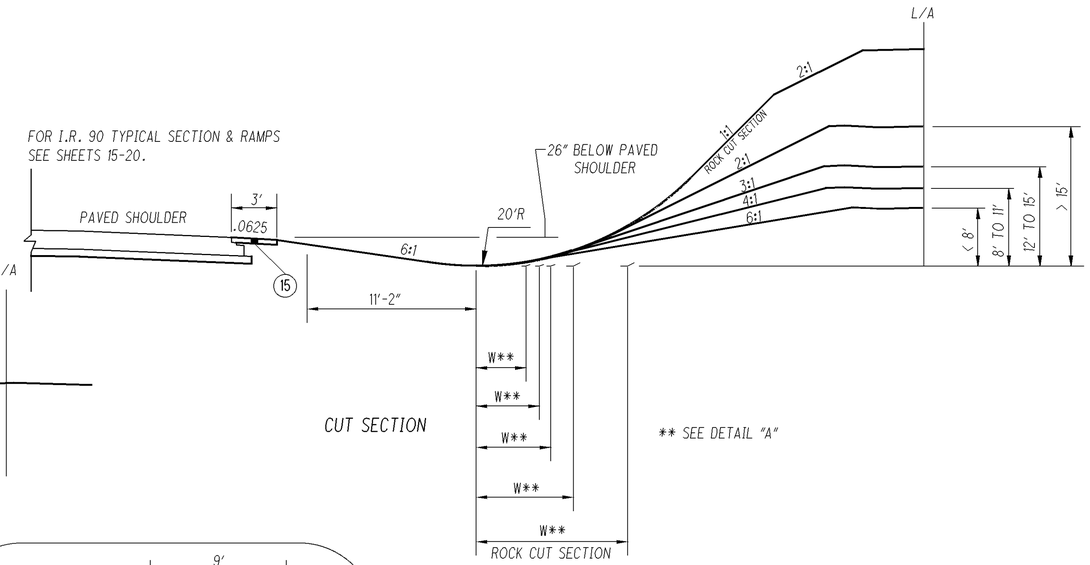
PROPOSED TYPICAL SECTIONS RAMPS J & K

LAK-90-21.40 ATB-90-0.00

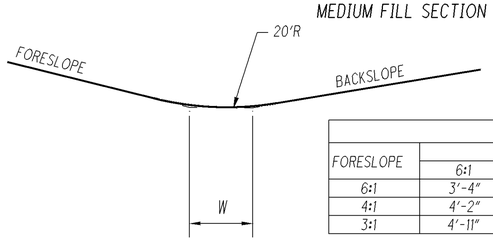


MEDIUM FILL SECTION

SEE DETAIL "A"

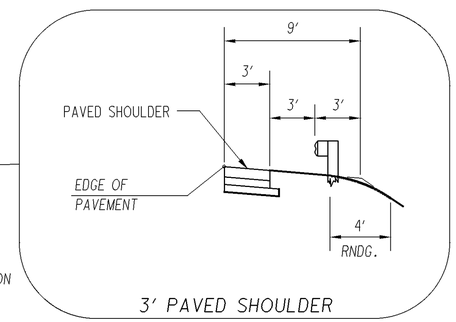


CUT SECTION

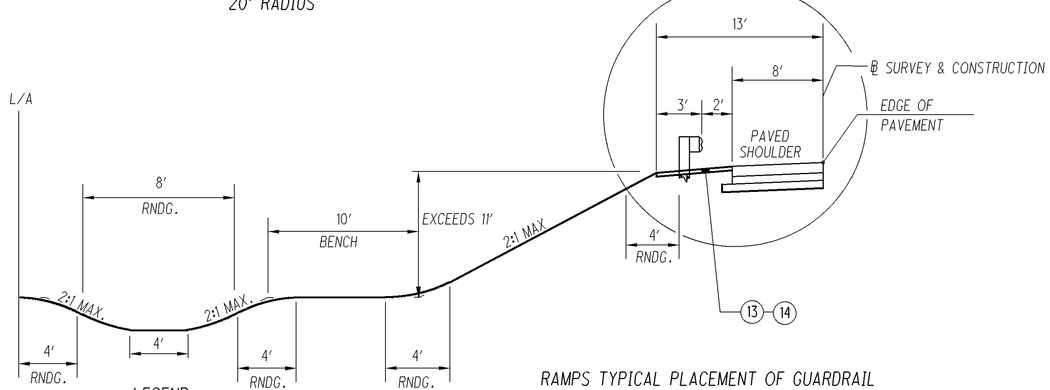


DETAIL "A"
20' RADIUS

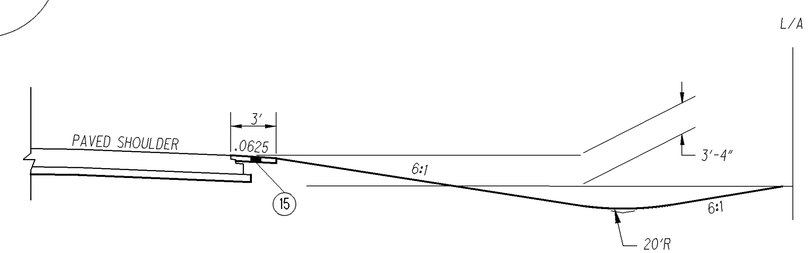
FORESLOPE	W BACKSLOPE 6:1	4:1	3:1	2:1	1:1
6:1	3'-4"	4'-2"	4'-11"	6'-5"	10'
4:1	4'-2"	5'-0"	5'-9"		
3:1	4'-11"	5'-9"	6'-6"		



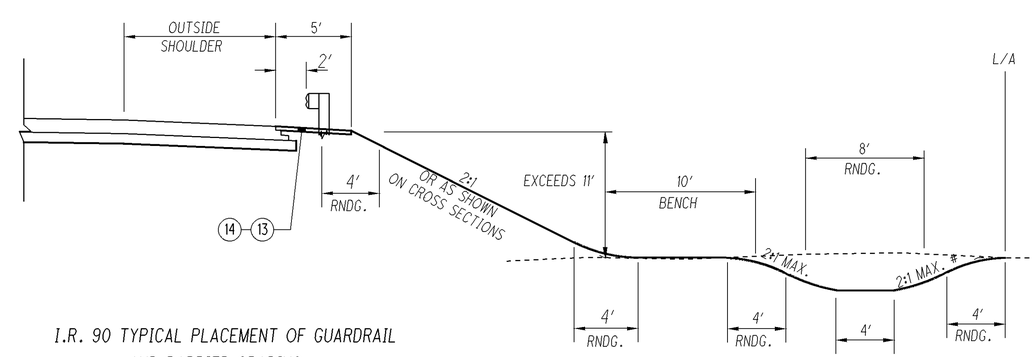
3' PAVED SHOULDER



RAMPS TYPICAL PLACEMENT OF GUARDRAIL
AND BARRIER GRADING



LOW FILL SECTION



I.R. 90 TYPICAL PLACEMENT OF GUARDRAIL
AND BARRIER GRADING

OR AS SHOWN ON THE CROSS SECTIONS.

LEGEND

1. ITEM 880 ASPHALT CONCRETE (7 YEAR WARRANTY) ---> THE FOLLOWING ITEM HAS BEEN REVISED TO A NON-WARRANTY ITEM AND SHALL COMPRISE OF THE FOLLOWING:
   ITEM 302 - 10.5" ASPHALT CONCRETE BASE, PG64-22
   ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE
   ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN
   ITEM 442 - 1.75" ASPHALT CONCERET INETRMEDIATE COURSE, 19MM, TYPE A (446)
2. ITEM 304 6" AGGREGATE BASE
3. ITEM 204 PROOF ROLLING
4. ITEM 206 CEMENT STABILZED SUBGRADE, 12 INCHES DEEP
5. ITEM 605 6" BASE PIPE UNDERDRAINS (18" DEPTH) WITH FABRIC WRAP, AS PER PLAN
6. ITEM 605 6" SHALLOW PIPE UNDERDRAINS (30" DEPTH) WITH FABRIC WRAP, AS PER PLAN
7. ITEM 606 GUARDRAIL, TYPE 5
8. ITEM 204 SUBGRADE COMPACTION
9. ITEM 659 SEEDING AND MULCHING, CLASS 2
10. ITEM 452 12 1/2" THICK NON-REINFORCED CONCRETE PAVEMENT
11. STANDARD LONGITUDINAL JOINT

13. ITEM 448 3" ASPHALT CONCRETE INTERMEDAITE COURSE, TYPE 1, PG64-22 (UNDER GUARDRAIL)
14. ITEM 209 LINEAR GRADING, AS PER PLAN
15. ITEM 617 4" COMPACTED AGGREGATE, AS PER PLAN A

PROPOSED TYPICAL SECTIONS GRADING DETAILS

LAK-90-21.40
ATB-90-0.00

GENERAL

EXISTING TYPICAL SECTION

EXISTING TYPICAL SECTIONS HAVE BEEN TAKEN FROM THE RECORDS AND ARE BELIEVED TO REPRESENT THE EXITING PAVEMENT, BUT THE STATE OF OHIO DOES NOT GUARANTEE THE ACCURACY OF THE SAME.

FOR FURTHER INFORMATION IN REGARD TO THE EXISTING TYPICAL SECTIONS, THE CONTRACTOR SHALL REFER TO THE PREVIOUS CONSTRUCTION PLANS.

THESE PLANS MAY BE REVIEWED AT THE:

OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT 12 OFFICE
5500 TRANSPORTATION BOULEVARD
GARFIELD HEIGHTS, OHIO 44125

CONTINGENCY QUANTITIES

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

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR SHALL COOPERATE AND COORDINATE OPERATIONS WITH THE CONTRACTORS ON OTHER PROJECTS THAT MAY BE IN FORCE DURING THE LIFE OF THE CONTRACT. NO WAIVER OF ANY PROVISIONS OF 105.07 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS IS INTENDED.

ALTERNATE METHODS

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

RIGHT-OF-WAY

ALL WORK SHALL BE PERFORMED WITHIN THE EXISTING RIGHT-OF-WAY OR EASEMENTS.

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.

ROUNDING

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

UNDERGROUND UTILITIES

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.

UTILITIES

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

AMERITECH
13630 LORAIN AVE. 4TH FLOOR
CLEVELAND, OH 44111
(216) 476-6142

THE ILLUMINATING CO.
6896 MILLER RD.
BRECKSVILLE, OH 44141
(440) 546-8748

OHIO DEPARTMENT OF TRANSPORTATION
5500 TRANSPORTATION BLVD.
GARFIELD HEIGHTS, OH 44125
(216) 581-2100

CONSUMERS OHIO WATER
LAKE ERIE DIVISION
8644 STATION ST.
MENTOR, OH 44060-4316
(440) 255-3421

LAKETRAN
555 LAKESHORE BLVD.
PAINESVILLE, OH 44077
(440) 350-1000

EAST OHIO GAS CO.
1201 E. 55TH ST.
CLEVELAND, OH 44103
(216) 736-6755

LAKE COUNTY DEPARTMENT OF UTILITIES
ADMINISTRATION BUILDING
105 MAIN ST.
PAINESVILLE, OH 44060
(216) 350-2649

ITEM 623 CONSTRUCTION LAYOUT STAKES, AS PER PLAN

PRIOR TO THE RECONSTRUCTION OF PAVEMENT BENEATH ALL OVERHEAD STRUCTURES, A LICENSED SURVEYOR SHALL MEASURE THE VERTICAL CLEARANCES AND DOCUMENT THE MEASUREMENTS ON AN APPROVED OHIO DEPARTMENT OF TRANSPORTATION FORM AVAILABLE FROM THE DISTRICT BRIDGE OFFICE. THE MEASUREMENTS SHALL BE TAKEN AT THE LOCATIONS INDICATED ON THE APPROVED ODOT FORM AND SUBMITTED TO THE PROJECT ENGINEER. AFTER THE NEW PAVING HAS BEEN COMPLETE, A REGISTERED SURVEYOR AGAIN SHALL TAKE VERTICAL CLEARANCE MEASUREMENTS AT LOCATIONS INDICATED ON THE APPROVED ODOT FORM. THESE FINAL MEASUREMENTS SHALL BE RECORDED ON THE FORM AND SUBMITTED TO THE PROJECT ENGINEER AND THE DISTRICT BRIDGE ENGINEER. THE RECORD SHALL BEAR THE STAMP OR SEAL OF THE LICENSED SURVEYOR WHO HAS TAKEN THE MEASUREMENTS AND WILL VERIFY THAT VERTICAL CLEARANCES HAVE BEEN MET.

ELEVATION DATUM

ALL ELEVATIONS ARE OPTOMETRICAL HEIGHTS USING THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) AND THE GEOID03 GEOID. HORIZONTAL POSITIONS ARE BASED ON THE OHIO STATE PLANE NORTH ZONE, A LAMVERT CONFORMAL CONIC MAP PROJECTION, THE NORTH AMERICAN DATUM OF 1983 ADJUSTED TO THE NATIONAL SPATIAL REFERENCE SYSTEM OF 2007 (NAD 83(NSRN 2007)), AND THE GRS80 ELLIPSOID.

INDIANA BAT

THE PROJECT IS WITHIN THE RANGE OF THE FEDERALLY ENDANGERED INDIANA BAT (MYOTIS SODALIS). THE PROJECT MAY IMPACT SUMMER AND BROOD REARING HABITATS FOR THIS SPECIES (I.E., LIVING OR STANDING TREES OR SNAGS WITH EXFOLIATING, LOOSE OR PEELING BARK, SPLIT TRUNKS AND/OR BRANCHES, CAVITIES). TO PREVENT HARM TO THESE BATS, THE REMOVAL OF ANY POTENTIAL ROOST TREES MUST BE COMPLETED BETWEEN SEPTEMBER 15TH AND APRIL 15TH. ALL BAT TREE CUTTING MUST BE COMPLETED BEFORE THE APRIL 15TH DEADLINE.

STAGING AREAS

THERE ARE NO SPECIFIC AREAS GIVEN IN THE PLANS FOR THE CONTRACTOR TO USE AS A STAGING AREA(S). IF THE CONTRACTOR WANTS TO USE AN AREA(S) FOR STAGING, REGARDLESS IF IT FALLS WITHIN THE PROJECT LIMITS OR NOT, THE CONTRACTOR IS TO CONTACT JILL POWERS AT (216) 584-2195 AT DISTRICT 12 IN ORDER TO APPLY FOR A PERMIT AS PER SECTION 107.02 OF THE CMS.

THE CONTRACTOR IS NOT PERMITTED TO USE THE BACK PORTION OF THE ORIGINAL REST AREAS, THAT WAS FORMALLY THE PINIC AREA, FOR A STAGING AREA. TREES WILL BE PLANTED IN THESE AREAS AS PART OF PROJECT D12-FEN-FY2010 PID 84897 WHICH IS UNDER CONTRACT DURING THIS PROJECT. THE FRONT AREA OF THE REST AREA IS STILL AVAILABLE FOR USE.

NO CONCRETE OR ASPHALT PLANTS ARE ALLOWED. NO CRUSHING OPERATIONS ARE ALLOWED. THE CONTRACTOR SHALL NOT UTILIZE THIS PROJECT'S STAGING AREA FOR OTHER PROJECTS. THE CONTRACTOR SHALL NOT STOCKPILE MATERIAL ON TOP OF EXISTING DRAINAGE PIPES AND UNDERGROUND UTILITIES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE REGULATORY REQUIREMENTS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RESTORATION OF THE STAGING AREA(S). IN ADDITION TO SECTION 104.04 OF THE CMS, RESTORATION WORK SHALL INCLUDE, AT NO ADDITIONAL COST TO THE STATE:

1. REMOVAL OF AT LEAST 4 INCHES OF MATERIAL AND REPLACEMENT WITH TOPSOIL PER ITEM 659.
2. SEED AND MULCH THE AREA PER ITEM 659
3. REPLACEMENT OF ALL TREES REMOVED BY CONTRACTOR ON CALIPER-INCH BASIS WITH ONE (1) YEAR WARRANTY

IF THE PROJECT ENGINEER DEEMS THAT ALL THE CONDITIONS OF R/W USE ARE NOT MET, THEN 10% OF THE CONTRACT BID AMOUNT FOR MOBILIZATION SHALL BE WITHHELD UNTIL ALL THE CONDITIONS OF THE R/W USE ARE SATISFIED.

CALCULATED
CHECKED

GENERAL NOTES

LAK-90-21.40
ATB-90-0.00

ROADWAY

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

ITEM 202 GUARDRAIL REMOVED

THIS ITEM WILL INCLUDE BOTH STANDARD AND BARRIER TYPE RAILS INCLUDING ANCHOR ASSEMBLIES AND TERMINAL ASSEMBLIES.

GUARDRAIL PROTECTION

NO SIGN SUPPORTS WILL BE ERECTED BEFORE NECESSARY GUARDRAIL PROTECTION IS IN PLACE. SIMILARLY EXISTING GUARDRAIL WHICH PROTECTS AN OBSTRUCTION OR SLOPE WHICH IS TO BE UPGRADED TO ELIMINATE GUARDRAIL, WILL NOT BE REMOVED UNTIL THAT WORK HAS BEEN COMPLETED. EXISTING GUARDRAIL WHICH IS SCHEDULED TO BE REPLACED WITH TYPE 5 GUARDRAIL, WILL NOT REMOVED UNTIL THE NEW GUARDRAIL IS READY TO BE INSTALLED. UNDER NO CIRCUMSTANCES WILL ANT HAZARD BE WITHOUT GUARDRAIL PROTECTION FOR MORE THAN 24 HOURS.

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.

LOCATION OF GUARDRAIL

THE LOCATIONS OF GUARDRAIL RUNS, AS SHOWN IN THESE PLANS, ARE SUBJECT TO ADJUSTMENT PRIOR TO FINAL ACCEPTANCE. THE ENGINEER WILL BE SATISFIED THAT ALL INSTALLATIONS WILL AFFORD MAXIMUM PROTECTION FOR TRAFFIC.

ITEM 203 ROADWAY, MISC.: DITCH CLEANOUT

THIS WORK WILL CONSIST OF RE-ESTABLISHING THE CROSS-SECTION OF AN EXISTING DITCH. SURPLUS OR UNSUITABLE MATERIALS, AS DETERMINED BY THE ENGINEER, SHALL BE DISPOSED OF AS PER 105.16 & 105.17. EMBANKMENT REQUIRED FOR ERODED CONDITIONS SHALL MEET THE REQUIREMENTS OF 203.06.

THE ORIGINAL DITCH CROSS SECTION AND GRADE SHALL BE RE-ESTABLISHED, AS SHOWN ON THE PREVIOUS CONSTRUCTION PLANS REFERENCED IN THE EXISTING TYPICAL SECTION. THE DITCHES SHALL BE SEEDED AND MULCHED AS PER ITEM 659, INCLUDING FERTILIZER. THE LOCATIONS FOR THIS WORK WILL BE AS DIRECTED BY THE PROJECT ENGINEER.

MEASUREMENT OF THE DITCH CLEANOUT SHALL BE AT THE ACTUAL CUBIC YARD MEASURED BY THE PROJECT ENGINEER.

IN ADDITION, THIS ITEM SHALL INCLUDE THE INSTALLATION OF ITEM 670 DITCH EROSION PROTECTION IN ALL DISTURBED DITCHES. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE FOR THE DITCH CLEANOUT. THIS ITEM SHALL BE PLACED WITHIN 7 DAYS OF THE DITCH OPERATION. THE 7 DAY LIMIT SHALL BEGIN WHEN THE CONTRACTOR FINISHES A CONTINUOUS CLEANOUT LENGTH AND MOVES TO ANOTHER LOCATION.

ALL MATERIALS REMOVED FROM THE DITCHES MUST BE IMMEDIATELY REMOVED TO AN UPLAND SITE AND STABILIZED (I.E. SEEDED) TO PREVENT REDISTRIBUTION INTO ANY WATERS OF THE UNITED STATES. (IMMEDIATE REMOVAL IS DEFINED BY THE CORPS AS DEPOSITING THE REMOVED MATERIALS DIRECTLY INTO A TRUCK AND REMOVING THE MATERIAL FROM THE SITE: PLACEMENT OF THE REMOVED MATERIALS INTO A WETLAND OR ON BANKS OF A STREAM EVEN TEMPORARILY IS CONSIDERED A FILL AND REQUIRES A PERMIT ACTION).

PAYMENT FOR THE ABOVE WORK, INCLUDING EARTHWORK, SEEDING, MULCHING, FERTILIZER AND ALL LABOR, EQUIPMENT AND INCIDENTALS SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 203 ROADWAY, MISC.: DITCH CLEANOUT.

THE FOLLOWING QUANTITY IS PROVIDED FOR USE AS DIRECTED BY THE PROJECT ENGINEER TO PERFORM THE ABOVE DETAILED WORK.

ITEM 203 ROADWAY, MISC.: DITCH CLEANOUT 400 CU.YD.

ITEM 206 CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED TO BE USED AS PER ITEM 206 AT THE DIRECTION OF THE PROJECT ENGINEER. THE FOLLOWING LOCATIONS WILL BE CEMENT STABILIZED:

RAMPS @ I.R. 90 & S.R. 528

RAMP I - 2,891 SQ.YD.
RAMP J - 3,686 SQ.YD.
RAMP K - 2,411 SQ.YD.
RAMP L - 3,307 SQ.YD.
TOTAL 12,295 SQ.YD.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO PERFORM THE STABILIZATION OF THE SUBGRADE FOR THE RAMPS AS LISTED ABOVE:

ITEM 206 CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP 12,295 SQ.YD.
ITEM 206 CEMENT 366 TON
ITEM 206 CURING COAT 12,295 SQ.YD.
ITEM 206 CONTRACTOR DESIGNED CHEMICALLY STABILIZED SUBGRADE LUMP

CALCULATION:

CEMENT @ 59.4 LBS./S.Y.
12,295 S.Y. x 59.4 LBS. = 730,323 LBS. ÷ 2000 = 366 TON

ITEM 206 CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED TO BE USED AS PER ITEM 206 AT THE DIRECTION OF THE PROJECT ENGINEER. THE FOLLOWING LOCATIONS WILL BE CEMENT STABILIZED:

MAINLINE - I.R. 90 - 389,069 SQ.YD.
(ALTERNATE A) - TOTAL 389,069 SQ.YD.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO PERFORM THE STABILIZATION OF THE SUBGRADE FOR THE MAINLINE OF I.R. 90 - (ALTERNATE A).

ITEM 206 CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP 389,069 SQ.YD.
ITEM 206 CEMENT 11,556 TON
ITEM 206 CURING COAT 389,069 SQ.YD.
ITEM 206 CONTRACTOR DESIGNED CHEMICALLY STABILIZED SUBGRADE LUMP

CALCULATION:

CEMENT @ 59.4 LBS./S.Y.
389,069 S.Y. x 59.4 LBS. = 23,110,699 LBS. ÷ 2000 = 11,556 TON

ITEM 202 PAVEMENT REMOVED, ASPHALT
ITEM 202 PAVEMENT REMOVED

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED TO BE USED AS DIRECTED BY THE PROJECT ENGINEER TO REMOVE THE EXISTING ASPHALT AND OR CONCRETE PAVEMENT ON THIS PROJECT.

THIS ITEM OF WORK SHALL CONSIST OF REMOVING THE EXISTING PAVEMENT COMPLETELY.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 202 PAVEMENT REMOVED, ASPHALT OR PAVEMENT REMOVED PER SQUARE YARD OF PAVEMENT REMOVED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER AS PER ITEM 202.

ITEM 202 PAVEMENT REMOVED 223,717 SQ.YD.
ITEM 202 PAVEMENT REMOVED, ASPHALT 132,469 SQ.YD.

CALCULATIONS:

ITEM 202 PAVEMENT REMOVED
(EX. 10" REINFORCED CONCRETE PAVEMENT AND 6 3/4" ASPHALT CONCRETE)

EXISTING I.R. 90 - (EASTBOUND & WESTBOUND LANES)

EASTBOUND LANES = 39,508.55'
WESTBOUND LANES = 37,408.55'
TOTAL = 76,917.10'

(76,917.10' x 24.0') ÷ 9 = 205,113 SQ.YD.

EXISTING RAMPS - (RAMPS I, J, K, L)

TOTAL LENGTH OF RAMPS - 3,496'

(3,496.0' x 16.0') ÷ 9 = 6,216 SQ.YD.

ADDITIONAL AREAS: EXISTING ACCELERATION/DECELERATION LANES

RAMP I = (1,202' x 19.5' AVG.) ÷ 9 = 2,605 SQ.YD.
RAMP J = (1,685' x 19.5' AVG.) ÷ 9 = 3,651 SQ.YD.
RAMP K = (1,200' x 19.5' AVG.) ÷ 9 = 2,600 SQ.YD.
RAMP L = (1,630' x 19.5' AVG.) ÷ 9 = 3,532 SQ.YD.

SUBTOTAL = 12,388 SQ.YD.

TOTAL ITEM 202 PAVEMENT REMOVED = (205,113 + 6,216 + 12,388)
= 223,717 SQ. YD.

ITEM 202 PAVEMENT REMOVED, ASPHALT
(EX. 9 3/4" ASPHALT CONCRETE SHOULDERS)

EXISTING I.R. 90 - (EASTBOUND & WESTBOUND SHOULDERS)

EASTBOUND SHOULDERS (5' MED. & 10' OUTSIDE) = 39,508.55'
WESTBOUND SHOULDERS (5' MED. & 10' OUTSIDE) = 37,408.55'
TOTAL = 76,917.10'

(76,917.10' x 15.0') ÷ 9 = 128,196 SQ.YD.

EXISTING RAMP SHOULDERS (3' INSIDE & 8' OUTSIDE) - (RAMPS I, J, K, L)

TOTAL LENGTH OF RAMPS - 3,496'

(3,496.0' x 11.0') ÷ 9 = 4,273 SQ.YD.

TOTAL ITEM 202 PAVEMENT REMOVED, ASPHALT = (128,196 + 4,273)
= 132,469 SQ. YD.

CALCULATED
CHECKED

GENERAL NOTES

LAK-90-21.40
ATB-90-0.00

ROADWAY

Item 606 – Anchor Assembly, Type E-98

This item shall consist of furnishing and installing either of the following guardrail end terminals, or an approved equal as listed on Roadway Engineering's web page at **www.dot.state.oh.us/drrc/** under Roadside Safety Devices for approved guardrail end treatments:

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" [15.24 m] inclusive of two 25'-0" [7.62 m] long rail elements. Installation shall be at the locations specified in the plans, in accordance with the manufacturer's specifications as detailed on the following pre-approved shop drawings:

DWG. #	Drawing Name	DWG./REV. Date	ODOT Approval Date
SS373	ET-PLUS-50'-0" with 25' or 12'-6" Panels, 7 SYT Posts & 1 HBA Post Plan, Elevation & Sections	1/20/09	1/23/09
SS142	ET-2000 Plus 50'-0" Plan, Elevation, & Section 25'-0" Rail, Sleeve w/PL Posts 1-4	4/12/00	7/31/00
SS141	ET-2000 Plus Plan, Elevation, & Section 25'-0" Rail, HBA Posts 1-4	2/29/00	7/31/00
SS158	ET-2000 Plus 50'-0" with 12'-6" Panels & HBA Posts 1-4 Plan, Elevation, & Section	5/22/00	7/31/00

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" [15.24 m] inclusive of four 12'-6" [7.62 m] long rail elements. Installation shall be at the locations specified in the plans, in accordance with the manufacturer's specifications as detailed on the following pre-approved shop drawings:

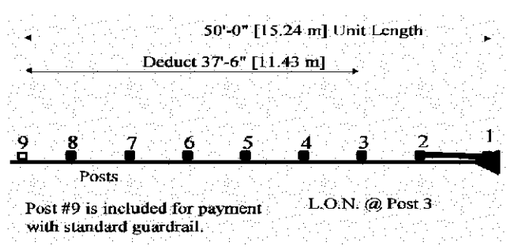
DWG. #	Drawing Name	DWG./REV. Date	ODOT Approval Date
SKT-4M	Sequential Kinking Terminal (SKT-350) Assembly with 4 Foundation Tubes	12/11/97	3/6/98
SKT Hinge CRT	Sequential Kinking Terminal SKT Assembly, Hinge CRT System	4/30/06	5/23/06
SKT-SP-S-375	SKT Terminal, 27-3/4" Top of Rail, Single Anchor, 7 Post System	3/04/09	3/30/09

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" [450 mm x 450 mm], or 12" [300 mm] x 18" [450 mm] if applied to a rectangular ET-2000 "Plus" extruder head.

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 tubes should be an appropriate depth below the level line in order to maintain the finished guardrail height of 27-3/4-inches [706 mm] 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 [100 mm] 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 AS PER PLAN, AND PAVING UNDER THE GUARDRAIL USING 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I, PG 64-22, UNDER GUARDRAIL, AS PER PLAN.

ITEM 209, LINEAR GRADING AS PER PLAN, 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 I, PG 64-22, UNDER GUARDRAIL, AS PER PLAN.

ITEM SPECIAL - MISC.: WIRELESS ROADWAY MOUNTED SENSOR REMOVAL AND INSTALLATION

THIS WORK SHALL CONSIST OF REMOVING THE EXISTING SENSORS AND CANISTERS AND THEN INSTALLING THE ORIGINAL SENSORS IN NEW CANISTERS AT THE LOCATIONS SHOWN ON SHEET 154. AFTER REMOVAL, THE SENSORS SHALL BE SAFELY STORED BY THE ENGINEER FOR REINSTALLATION UPON COMPLETION OF THE PAVEMENT REPLACMENT.
THE CONTRACTOR SHALL NOTE THE LOCATION OF THE EXISTING SENSORS AND REINSTALL THEM AT APPROXIMATELY THE SAME LOCATION.
INSTALLATION OF THE CANISTERS AND SENSORS SHALL BE IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.
THE FOLLOWING CANISTERS SHALL BE USED WITH THE SENSORS AND PAID FOR UNDER THIS ITEM OF WORK:

NU METRICS - G4/G8 WX CANISTER / PART NO. 90000034

M. H. Corbin, Inc.
8420 Estates Ct.
Plain City, Ohio 43064
Maxwell H. Corbin, III
800-380-1718

THE ENGINEER SHALL CONTACT PAUL ENSINGER, DISTRICT 4 ROADWAY SERVICES (330) 786-3135 FIVE (5) WORKING DAYS PRIOR TO REMOVAL AND INSTALLATION OF THE SENSORS.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PEFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED FOR PAYMENT UNDER ITEM SPECIAL - MISC.: WIRELESS ROADWAY MOUNTED SENSOR REMOVAL AND INSTALLATION.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM SPECIAL - MISC.: WIRELESS ROADWAY MOUNTED SENSOR REMOVAL AND INSTALLATION 4 EACH

ITEM SPECIAL - MISC.: WIRELESS ROADWAY MOUNTED SENSOR COMMISSIONING

THIS ITEM SHALL BE USED TO ENSURE THE WIRELESS ROADWAY MOUNTED SENSORS COMMUNICATE WITH THE CPU IN THE CONTROLLER CABINET. THE ITEM SHALL INCLUDE THE CALIBRATION AND TESTING OF THE NEWLY INSTALLED SENSORS PER THE MANUFACTURERS SPECIFICATIONS.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM SPECIAL - MISC.: WIRELESS ROADWAY MOUNTED SENSOR COMMISSIONING 4 EACH

CALCULATED
CHECKED

GENERAL NOTES

LAK-90-21.40
ATB-90-0.00

DRAINAGE & EROSION CONTROL

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

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

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

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

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

TOPSOIL

TOPSOIL WILL BE STRIPPED FROM AREAS TO BE EXCAVATED OR FILLED. ADDITIONAL SUITABLE MATERIAL WILL BE REQUIRED TO FILL THE TOPSOIL STRIP AREA IN EMBANKMENT AREAS. TOPSOIL STRIPPING AND ANY STOCKPILING INCLUDING ALL LABOR, EQUIPMENT AND MATERIALS WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT BID ITEM 203 EMBANKMENT. NO ADDITIONAL COMPENSATION WILL BE PROVIDED.

ITEM 202 PIPE REMOVED, 24" AND UNDER

THE FOLLOWING QUANTITY HAS BEEN PROVIDED TO BE USED AS DIRECTED BY THE PROJECT ENGINEER TO REMOVE THE EXISTING UNDERDRAINS ON THIS PROJECT. FOR LOCATIONS OF EXISTING UNDERDRAINS, SEE EXISTING TYPICAL SECTIONS.

THIS ITEM OF WORK SHALL CONSIST OF REMOVING THE EXISTING UNDERDRAINS COMPLETELY.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 202 PIPE REMOVED, 24" AND UNDER PER FOOT OF EXISTING UNDERDRAINS REMOVED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER AS PER ITEM 202.

ITEM 202 PIPE REMOVED, 24" AND UNDER 160,827.00 FT.

CALCULATIONS:

EXISTING I.R. 90 - (EASTBOUND & WESTBOUND LANES)

EASTBOUND LANES = 39,508.55 FT. x 2 = 79,017.10 FT.
WESTBOUND LANES = 37,408.55 FT. x 2 = 74,817.10 FT.

EXISTING RAMPS - (RAMPS I, J, K, L)
3,498.0 FT. x 2 = 6,992.0 FT.

TOTAL = 160,826.20 FT.

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 CONTRACTORS 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

ITEM 604 SPECIAL - MISCELLANEOUS METAL

EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CASTINGS OF THE REQUIRED TYPE, SIZE AND STRENGTH (HEAVY OR LIGHT DUTY) FOR THE PARTICULAR STRUCTURE IN QUESTION. ALL MATERIALS SHALL MEET THE REQUIREMENTS ITEM 604 AND SHALL HAVE PRIOR APPROVAL OF THE PROJECT ENGINEER.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE PROJECT ENGINEER.

ITEM SPECIAL - MISCELLANEOUS METAL 5,000 LB.

ITEM 605 8" SHALLOW PIPE UNDERDRAINS (30" DEEP) WITH FABRIC WRAP, AS PER PLAN
ITEM 605 8" BASE PIPE UNDERDRAINS (18" DEEP) WITH FABRIC WRAP, AS PER PLAN
ITEM 605 8" UNCLASSIFIED PIPE UNDERDRAIN WITH FABRIC WRAP, AS PER PLAN

THE SIZE OF THE UNDERDRAIN PIPE WILL NOT BE REDUCED FROM THE SIZE SPECIFIED IN THE PLANS/PROPOSAL.

SEEDING AND MULCHING

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

ITEM 659, REPAIR SEEDING AND MULCHING 22,451 SQ. YD
5% OF PERMANENT SEEDED AREA
.05 X 449,016 SQ.YD. = 22,451 SQ. YD.

ITEM 659, INTER-SEEDING 22,451 SQ. YD.
5% OF PERMANENT SEEDED AREA
.05 X 449,016 SQ.YD. = 22,451 SQ. YD.

ITEM 659, TOPSOIL 49,890 CU. YD.
449,016 SQ.YD. X ((4/12)+3) = 49,890 CU.YD.

ITEM 659, SOIL ANALYSIS TEST 5 EACH
49,890 CU.YD. + 10,000 = 4.9 EACH

ITEM 659, COMMERCIAL FERTILIZER 61 TON
1 TON 7410 SQ.YD. OF PERMANENT SEEDED AREA
449,016 SQ.YD. + 7410 = 60.6 TON

ITEM 659, LIME 93 ACRES
449,016 SQ.YD. + 4840 = 92.8 ACRES

ITEM 659, WATER 2425 M. GAL.
0.0054 M.GAL. PER SQ.YD. OF PERMANENT SEEDED AREA
449,016 SQ.YD. X 0.0054 = 2,424.7 M. GAL.

ITEM 659, MOWING 1,011 M. SQ. FT.
0.00225 M.SQ.FT. PER SQ.YD. OF THE PERMANENT SEEDED AREA
449,016 SQ.YD. X 0.00225 = 1,010.3 M.SQ.FT.

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

CALCULATED
CHECKED

GENERAL NOTES

LAK-90-21.40
ATB-90-0.00

PAVEMENT

ITEM 617 COMPACTED AGGREGATE, AS PER PLAN A
ITEM 617 COMPACTED AGGREGATE, AS PER PLAN B

THIS ITEM WILL BE USED ALONG ALL THE SHOULDERS. MATERIAL WILL BE LIMITED TO ASPHALT GRINDINGS.

THE ACTUAL DEPTH USED WILL BE 4 INCHES. WATER, IF NEEDED WILL BE APPLIED AS PER 617 AND INCLUDED FOR PAYMENT UNDER ITEM 617 COMPACTED AGGREGATE, AS PER PLAN A OR B.

CONTRACTION AND/OR EXPANSION JOINTS

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN CONTRACTION AND EXPANSION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. IN ALL CASES, THE PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES INCLUDING THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS IS IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2 AND THE SPECIFICATIONS.

ITEM 618 RUMBLE STRIPS, (ASPHALT CONCRETE)

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE INSTALLATION OF ITEM 618 RUMBLE STRIPS, (ASPHALT CONCRETE), AS PER STANDARD CONSTRUCTION DRAWING BP-9.1.

ITEM 618 RUMBLE STRIPS, (ASPHALT CONCRETE) 29.14 MILE

ASPHALT CONCRETE

INDIVIDUAL LIFT THICKNESSES AND STEP WIDTHS SHOWN IN THE PLAN ARE THE PLAN LINES AND DIMENSIONS USED FOR QUANTITY CALCULATION. THEY ARE NOT THE REQUIRED LIFTS OR STEPS FOR ACTUAL CONSTRUCTION BUT NO ADJUSTMENT WILL BE MADE TO THE PLAN QUANTITY DUE TO DIFFERENT LIFT THICKNESSES AND/OR STEP WIDTHS WHEN A UNIFORM THICKNESS IS SPECIFIED.

ITEM 452 - 12.5" NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN A

IN ADDITION TO THE REQUIREMENTS OF ITEM 452 AND STANDARD DRAWING BP-2.2, ALL CONTRACTION AND EXPANSION JOINTS IN THE SHOULDERS SHALL BE CONSTRUCTED WITH DOWEL BARS.

ALL REFERENCES TO ITEM 452 - 12 1/2" NON-REINFORCED CONCRETE PAVEMENT IN THESE PLANS SHALL READ ITEM 452 - 12.5" NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN A

ITEM 452 - 12.5" NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN B

THIS ITEM WILL BE USED IN THE AREA OF THE RAMPS, AS FOLLOWS:
RAMP I - STA. 11+50.00 TO STA. 12+62.90
RAMP K - STA. 0+10.84 TO STA. 1+00.00
RAMP L - STA. 0+12.79 TO STA. 1+00.00

ITEM 452 12.5" NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN B WILL BE USED TO CONSTRUCT THE RAMPS IN THESE AREAS AS DIRECTED BY THE PROJECT ENGINEER. THE CONCRETE FOR THE AREAS WILL BE CLASS MS, AS PER 499.05 (B).

IN ADDITION TO THE REQUIREMENTS OF ITEM 452 AND STANDARD DRAWING BP-2.2, ALL CONTRACTION AND EXPANSION JOINTS IN THE SHOULDERS SHALL BE CONSTRUCTED WITH DOWEL BARS.

ALL REFERENCES TO ITEM 452 - 12 1/2" NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN IN THESE PLANS SHALL READ ITEM 452 - 12.5" NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN B.

ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN

THE COARSE AGGREGATE FOR THIS ITEM SHALL BE LIMITED TO A BLEND OF AIR COOLED BLAST FURNACE SLAG (ACBFS) OR TRAP ROCK FROM ONTARIO AND LIMESTONE. THE CONTRACTOR SHALL USE A MINIMUM OF 50% OF ACBFS OR TRAP ROCK FROM ONTARIO WITH LIMESTONE COMPRISING THE REMAINING PERCENTAGE.

WHEN ACBFS IS USED FOR A FRACTION OF THE COARSE AGGREGATE, ALL REQUIREMENTS OF 442 APPLY, EXCEPT USE AN NDES OF 50, AN NMAX OF 75 AND PROVIDE A TOTAL ASPHALT BINDER CONTENT GREATER THAN OR EQUAL TO 6.5 PERCENT. THESE REQUIREMENTS DO NOT APPLY IF ACBFS MAKES UP 100% OF THE COARSE AGGREGATE.

TRAFFIC CONTROL

ITEM 620 DELINEATOR INSTALLED, BY TYPE, BY SUPPORT

FLEXIBLE POSTS SHALL BE INSTALLEDD SO THAT THE FACE OF THE REFLECTOR, OTHER THAN RED IS 90 DEGREES TO THE CENTERLINE FACING APPROACHING TRAFFIC AND TO SUCH A DEPTH THAT THE TOPS OF THE INSTALLED REFLECTORS SHALL BE 4 FEET PLUS OR MINUS ABOVE THE ELEVATION OF THE ADJACENT EDGE OF PAVEMENT. SEE STANDARD CONSTRUCTION DRAWING TC-61.10 FOR ADDITIONAL DETAILS.

ITEM 646 LANE LINE, AS PER PLAN

THE WIDTH OF THE LANE LINE WILL BE 6".

ITEM 621 RAISED PAVEMENT MARKER REMOVED

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE REMOVAL AND DISPOSAL OF THE EXISTING RAISED PAVEMENT MARKERS, AS DIRECTED BY THE PROJECT ENGINEER

ITEM 621 RAISED PAVEMENT MARKER REMOVED 759 EACH

SHEET NUMBER	SURVEY AND CONSTRUCTION I.R. 90	WIDTH	LENGTH	614 WORK ZONE IMPACT ATTENUATOR, UNIDIRECTIONAL	614 WORK ZONE IMPACT ATTENUATOR, BIDIRECTIONAL	614 BARRIER REFLECTOR, TYPE A	614 BARRIER REFLECTOR, TYPE B 1-WAY (WHITE)	614 BARRIER REFLECTOR, TYPE B 1-WAY (YELLOW)	614 OBJECT MARKER, ONE WAY	614 OBJECT MARKER, TWO WAY	614 WORK ZONE LANE LINE, CLASS I, 642 PAINT, AS PER PLAN	614 WORK ZONE EDGE LINE, CLASS I, 642 PAINT, AS PER PLAN (WHITE)	614 WORK ZONE EDGE LINE, CLASS I, 642 PAINT, AS PER PLAN (YELLOW)	614 WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT	614 WORK ZONE DOTTED LINE, CLASS I, 642 PAINT	614 WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 642 PAINT	614 WORK ZONE STOP LINE, CLASS I, 642 PAINT	614 WORK ZONE CROSSOVER LIGHTING SYSTEM	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	615 ROADS FOR MAINTAINING TRAFFIC	617 COMPACTED AGGREGATE, AS PER PLAN B	622 PORTABLE CONCRETE BARRIER, 32 INCH	622 PORTABLE CONCRETE BARRIER, 50 INCH, AS PER PLAN	622 PORTABLE CONCRETE BARRIER, "Y" CONNECTOR	642 REMOVAL OF PAVEMENT MARKING
		FT.	FT.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	MILE	MILE	MILE	FEET	FEET	FEET	FEET	EACH	SY		CY	FT.	FT.	EACH	MILE
	I.R. 90 PRE-PHASE 1																								
40	TEMPORARY CROSSOVER 1	18'	831									0.16	0.16					1	1,093		45				0.04
41	TEMPORARY CROSSOVER 2	18'	831									0.16	0.16						1,208		45				0.04
42	TEMPORARY CROSSOVER 3	18'	837									0.16	0.16					1	839		45				0.04
43	TEMPORARY CROSSOVER 4	18'	837									0.16	0.16						1,008		45				0.04
37, 38	STA. 715+00.00 TO STA. 118+00.00 I.R. 90 WB	17'	36,517																70,515		2,679				
37, 39	STA. 714+00.00 TO STA. 19+55.50 I.R. 90 WB		44,089									8.35	8.35												
37, 39	STA. 710+76.21 TO STA. 15+50.00 I.R. 90 EB		45,547									8.63	8.63						858						
37, 38	STA. 724+50.15 TO STA. 118+00 I.R. 90 EB	4'	36,772																16,343						
	I.R. 90 PHASE 1																								
44, 45	STA. 721+39.85 TO STA. 12+62.85 I.R. 90 WB		42,657			135	38	1,708		854	8.30	16.18	16.18										42,657		25.05
44, 45	STA. 717+79.70 TO STA. 5+75.00 I.R. 90 EB		42,330	1		130	19	847	847			8.22	8.15	300		60			71			42,480		1	8.55
	I.R. 90 PHASE 2																								
46, 47	STA. 721+52.50 TO STA. 5+75.00 I.R. 90 EB		41,957	1			840	19	7			8.22	8.20									41,957			
	I.R. 90 PHASE 3																								
48, 49	STA. 724+50.00 TO STA. 12+63.60 I.R. 90 WB		42,348	1			19	847	847			8.22	8.16									42,548		1	
48, 49	STA. 716+35.40 TO STA. 9+51.20 I.R. 90 EB		42,850				38	1,714		857	8.13	16.02	16.02	300		60							42,850		
	I.R. 90 PHASE 4																								
50, 51	STA. 724+50.00 TO STA. 8+50.95 I.R. 90 WB		41,934	1			839	19				8.17	8.15									41,935			
	RAMP I																								
52	**PHASE 1** STA. 1+90.80 TO STA. 11+50.00		960	1		4	8	20				0.35	0.28		390		63		415			1,340		1	0.20
53	**PHASE 2** STA. 3+47.20 TO STA. 11+50.00		803	1			17					0.39	0.31		390		28					803			
	RAMP J																								
54	**PHASE 1** STA. 4+42.25 TO STA. 14+96.20		1,054	1	2	10	11	23				0.40	0.33		390		47		489			1,637		1	0.35
55	**PHASE 2** STA. 4+43.50 TO STA. 14+96.20		1,053		1		22					0.37	0.29		390							1,053			
	RAMP K																								
56	**PHASE 1** STA. 1+00.00 TO STA. 8+44.85		745	1		8	5	15				0.30	0.23		390		36		362			975		1	0.20
57	**PHASE 2** STA. 1+00.00 TO STA. 7+75.50		676	1			14					0.29	0.22		390		34					676			
	RAMP L																								
58	**PHASE 1** STA. 1+00.00 TO STA. 9+31.80		832	1			9	17				0.36	0.29		390				508			1,256			0.20
59	**PHASE 2** STA. 1+00.00 TO STA. 9+31.80		832	1			17					0.35	0.20		390							832			
	SUB-TOTALS						1,896	5,229				85.46	84.63												
	TOTALS (CARRIED TO GENERAL SUMMARY)			11	3	287	7,125		1,701	1,711	16.43	170.09		600	3,120	120	208	2	93,709	LUMP	2,859	177,492	85,507	5	35

CALCULATED HG
CHECKED JC

I.R. 90 & RAMPS MAINTENANCE OF TRAFFIC SUB-SUMMARY

LAK-90-21.40
ATB-90-0.00

ITEM 614 MAINTAINING TRAFFIC

THE INTENT OF THIS PROJECT IS TO RECONSTRUCT THE PAVEMENT ON I.R. 90 AND THE RAMPS AT THE S.R. 528 INTERCHANGE WHILE MAINTAINING TWO LANES OF TRAFFIC IN EACH DIRECTION.

GENERAL

TWO (2) LANES OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON I.R. 90, EXCEPT FOR MINIMUM PERIODS, AS NOTED IN THE "PERMITTED LANE CLOSURE" NOTE WHEN ONE LANE OF TRAFFIC IN EACH DIRECTION WILL BE PERMITTED.

I.R. 90 PAVEMENT REPLACEMENT WILL REQUIRE FOUR (4) SEPARATE PHASES AS DETAILED ON THE M.O.T. PLAN SHEETS.

WHENEVER CROSSOVERS ARE USED FOR MAINTAINING TRAFFIC, A WORK ZONE CROSSOVER LIGHTING SYSTEM AS PER MT-100 SHALL BE INSTALLED. EACH CROSSOVER LIGHTING SYSTEM SHALL BE PAID FOR SEPARATELY UNDER ITEM 614 - WORK ZONE CROSSOVER LIGHTING SYSTEM.

MAINTAINING TRAFFIC NOTIFICATION:

SINCE FUNCTIONAL TRAFFIC CONTROL IS A MAJOR CONCERN ON THIS PROJECT, IT IS ESSENTIAL THAT THE MOTORING PUBLIC BE ADEQUATELY FOREWARNED OF FUTURE LANE CLOSURES OR TRAFFIC CONSTRICTIONS. THEREFORE, THE CONTRACTOR SHALL SUBMIT A WRITTEN SCHEDULE TO THE ENGINEER, RESPONSIBLE LAW ENFORCEMENT AGENCIES AND THE ODOT - DISTRICT 12 - PUBLIC INFORMATION OFFICE (216-584-2007) INDICATING THE LOCATIONS AND DATES OF THE LANE CLOSURES OR TRAFFIC CONSTRICTIONS AT LEAST 3 DAYS PRIOR TO THE IMPLEMENTATION OF ANY SUCH TRAFFIC DISRUPTION.

ADDITIONALLY, PROVIDE NOTICE TO THE FOLLOWING ENTITIES:

LAKE COUNTY MANAGER: (440) 354-2191	LEROY TOWNSHIP: (440) 254-4236
MADISON TOWNSHIP: (440) 428-5128	PERRY TOWNSHIP: (440) 259-5140
LAKETRAN: (800) 400-1300	HIGHWAY PATROL (CHARDON): (440) 286-6612

TWO LANE TRAFFIC WIDTH REQUIREMENTS:

UNLESS SPECIFICALLY STATED OR SHOWN IN THE PLANS, TWO LANES OF TRAFFIC SHALL CONSIST OF A MINIMUM OF TWO 11'-0" WIDE LANES PLUS 12" MINIMUM BUFFER TO PORTABLE CONCRETE BARRIER (PCB) AND 2' MINIMUM OFFSET TO DRUMS, OR EDGES OF PAVED SURFACES. THUS THE MINIMUM TWO LANE TRAFFIC WIDTH SHALL BE LIMITED TO 25'-0" CLEAR WIDTH.

PERMITTED LANE CLOSURES:

ALL LANE CLOSURES ON I.R. 90 MAY ONLY BE IMPLEMENTED AT THE TIMES PERMITTED BY THE "DISTRICT 12 PERMITTED LANE CLOSURE TIMES" LIST, WHICH IS LOCATED ON THE ODOT WEB SITE:

www.dot.state.oh.us/dist12/workzone/laneclo.htm

THE LATEST REVISION, AT 14 DAYS PRIOR TO THE BID DATE, SHALL BE IN EFFECT FOR THIS PROJECT.

NO LANE OR TEMPORARY SHOULDER CLOSURES SHALL BE IN PLACE WHEN NO WORK IS BEING PERFORMED.

IF LANE CLOSURES ARE IN PLACE OUTSIDE THE SPECIFIED TIME, LIQUIDATED DAMAGES IN THE AMOUNT OF $100.00 PER MINUTE SHALL BE ASSESSED THE CONTRACTOR FOR EACH MINUTE THE LANE REMAINS CLOSED.

LANE CLOSURES ANALYSIS FOR ADDITIONAL LANE CLOSURE TIMES:

IF THE CONTRACTOR WOULD LIKE TO CLOSE LANES OUTSIDE THE TIME PERMITTED THERE MUST FIRST BE A LANE CLOSURE ANALYSIS. A LANE CLOSURE ANALYSIS SHALL BE DONE AND DOCUMENTED IN THE FOLLOWING MANNER:

LANES MAY BE CLOSED IF THE HOURLY COUNTS ARE LESS THAN THE COUNTS GIVEN BELOW. IF THE ADDITIONAL HOURS ARE ON A WEEKDAY, THE COUNT MUST BE DONE ON A WEEKDAY. SAME FOR A WEEKEND.

FOR 1 OUT OF 2 LANES CLOSED:

TWO HOURLY COUNTS SHALL BE DONE FOR THE ADDITIONAL TIMES THE CONTRACTOR WOULD LIKE TO CLOSE AN ADDITIONAL LANE. IF THE HOURLY COUNT IS UNDER 1100 VEHICLES PER HOUR FOR WEEKDAYS AND 1400 VEHICLES PER HOUR FOR WEEKENDS, THEN THE CONTRACTOR MAY CLOSE A LANE DURING HOURS THAT MEET THIS CRITERIA.

THE TRAFFIC COUNTS SHALL BE TURNED INTO THE WORK ZONE TRAFFIC CONTROL ENGINEER FOR APPROVAL OF THE NEW TIMES. IF A BACK UP (STOP AND GO TRAFFIC) OR DELAY (SPEEDS BELOW 40 MPH) OCCURS DURING THE NEW CLOSURE TIMES, THE CONTRACTOR SHALL DO ANOTHER ANALYSIS. IF A TRAFFIC BACKUP OR DELAY OCCURS AFTER THE SECOND ANALYSIS, THE CONTRACTOR SHALL NOT CLOSE THE LANES FOR THE ADDITIONAL HOURS.

TRUCK MOUNTED ATTENUATOR:

WHEN THE CONTRACTOR IS SETTING SHORT TERM WORK ZONES AND THE SHOULDERS (RIGHT OR LEFT SHOULDER) ARE LESS THAN 10 FEET IN WIDTH AND ARE ON A ROAD WITH SPEEDS 45 MPH OR HIGHER, A TRUCK MOUNTED ATTENUATOR (TMA) MUST TRAIL THE OPERATION OF SETTING THE ADVANCE WARNING SIGNS UP OR TAKING THEM DOWN. THIS SAME TRUCK MUST HAVE A TYPE B FLASHING ARROW PANEL MOUNTED ON IT FACING THE REAR OF THE TRUCK.

THE TMA MUST BRING A VEHICLE WEIGHING 1800 TO 4500 POUNDS AND TRAVELLING AT 60 MPH TO A SAFE, CONTROLLED STOP, PER NCHRP 350 CRITERIA. THE MANUFACTURER'S SPECIFICATION MUST BE FOLLOWED CONCERNING THE SIZE OF THE TRUCK AND THE CONNECTIONS TO THE TMA.

PAVEMENT WORK AREA DEFINITION:

THROUGHOUT THESE NOTES, THE PAVEMENT WORK AREAS WHICH ARE TO BE COMPLETED AND LIMITS OF THAT WORK IS DESCRIBED. ALTHOUGH NOT SPECIFICALLY STATED, ALL ASSOCIATED DRAINAGE WORK, GRADING, INSTALLATION OF EROSION CONTROL ITEMS, TRAFFIC CONTROL WORK, LIGHTING WORK, GUARDRAIL OR BARRIER WORK, ETC. IS ALSO TO BE PERFORMED DURING EACH PHASE OF CONSTRUCTION.

INTERIM COMPLETION REQUIREMENTS

OCTOBER 31, 2010 FOR SEASON 1 AND OCTOBER 31, 2011 FOR SEASON 2 WILL CONSTITUTE INTERIM COMPLETION DATES.
THE CONTRACTOR WILL HAVE TO COMPLETE ALL ITEMS OF WORK TO REOPEN TO TRAFFIC BOTH DIRECTIONS OF I.R. 90 RETURNED TO THE ORIGINAL TWO LANES SAME DIRECTION EACH SIDE DURING THE WINTER MONTHS.

REVISED SEQUENCE OF CONSTRUCTION

TO AVOID CONFLICT WITH A CONCURRENT BRIDGE PROJECT, WITHIN THE PROJECT LIMTS, THE PHASING FOR THIS PROJECT SHALL BE REVISED AS FOLLOWS:

PHASE 3 AND 4 AS SHOWN IN THESE PLANS SHALL OCCUR PRIOR TO PHASE 1 AND 2. INSTEAD OF TEMPORARY PAVEMENT BEING BUILT ADJACENT TO THE WB LANES TO MAINTAIN TRAFFIC IT SHALL BE BUILT ADJACENT TO THE EB LANES TO MAINTAIN TRAFFIC.

THE FOLLOWING SEQUENCE OF CONSTRUCTION SHALL BE USED:

PRE-PHASE

RECONSTRUCT AND CONSTRUCT TEMPORARY PAVEMENT FOR THE INSIDE AND OUTSIDE SHOULDERS FOR WB AND EB LANES. IN THE WB LANES, MILL AND FILL OUTSIDE RUMBLE STRIPS. CONSTRUCT ALL I.R. 90 CROSSOVERS AS SHOWN ON PRE-PHASE 1 M.O.T. PLAN SHEETS. CLOSE THE ADJACENT LANE TO THESE WORK ITEMS USING DRUMS, NON-RUSH HOURS, AS PER THE "PERMITTED LANE CLOSURE" NOTE. INSTALL TEMPORARY CROSSOVER LIGHTING.

SEQUENCE 1

AFTER COMPLETING THE WORK REQUIRED BY PRE-PHASE 1, SHIFT TRAFFIC PATTERNS AS SHOWN ON THE PHASE 3 M.O.T. PLAN SHEETS. THE EB LANES MAINTAIN TWO EB TRAFFIC LANES AND ONE WB CONTRA FLOW LANE. THE WB LANES MAINTAIN ONE WB TRAFFIC LANE WHILE CONSTRUCTING THE INSIDE PORTION OF THE WB LANES. CONSTRUCT TEMPORARY PAVEMENT AS SHOWN ON PHASE 3 M.O.T. PLAN SHEETS.

WHILE TRUCK TRAFFIC IS DETOURED AS STATED IN THE PLANS, CONSTRUCT THE RAMP THROATS FOR RAMPS I, K AND L TO PROPOSED DIMENSIONS.

ONCE THROATS ARE CONSTRUCTED AND WHILE RAMP TRAFFIC IS MAINTAINED ON THE WB OUTSIDE TRAFFIC LANE, CONSTRUCT RAMPS J AND K AS SHOWN ON THE PHASE 1 AND PHASE 2 RAMP M.O.T. PLAN SHEETS. CONSTRUCT TEMPORARY PAVEMENT AS SHOWN ON THE PHASE 1 M.O.T. PLAN SHEETS FOR RAMPS J AND K.

SEQUENCE 2

AFTER COMPLETING THE WORK REQUIRED BY SEQUENCE 1 AND MAINTAINING THE CURRENT TRAFFIC FLOW ON THE EB LANES, SHIFT THE ONE WB TRAFFIC LANE TO THE NEWLY CONSTRUCTED INSIDE PAVEMENT AND CONSTRUCT THE OUTSIDE PORTION OF THE WB LANES.

SEQUENCE 3

SWITCH EB AND WB TRAFFIC LANE PATTERNS. THE WB LANES MAINTAIN TWO WB TRAFFIC LANES AND ONE EB CONTRA FLOW LANE. THE EB LANES MAINTAIN ONE EB TRAFFIC LANE WHILE CONSTRUCTING THE INSIDE PORTION OF THE EB LANES.

WHILE RAMP TRAFFIC IS MAINTAINED ON THE EB OUTSIDE TRAFFIC LANE, CONSTRUCT RAMPS I AND L AS SHOWN ON THE PHASE 1 AND PHASE 2 RAMP M.O.T. PLAN SHEETS. CONSTRUCT TEMPORARY PAVEMENT AS SHOWN ON THE PHASE 1 M.O.T. PLAN SHEETS FOR RAMPS I AND L.

SEQUENCE 4

AFTER COMPLETING THE WORK REQUIRED BY SEQUENCE 3 AND MAINTAINING THE CURRENT TRAFFIC FLOW ON THE WB LANES, SHIFT THE ONE EB TRAFFIC LANE TO THE NEWLY CONSTRUCTED INSIDE PAVEMENT AND CONSTRUCT THE OUTSIDE PORTION OF THE EB LANES.

DUE TO THE ABOVE CHANGE IN SEQUENCING, THE FOLLOWING ADDITIONAL QUANTITY SHALL BE USED TO CONSTRUCT THE TEMPORARY PAVEMENT ON THE INSIDE AND OUTSIDE SHOULDERS OF THE EB PAVEMENT NEAR THE GRAND RIVER BRIDGE THAT WAS NOT REQUIRED IN THE ORIGINAL SEQUENCING.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A . . . . 4300 SQ. YD.

COVERING OF SIGNS

WHEN THE MESSAGE OF A PERMANENT SIGN CONFLICTS WITH A LONG TERM CLOSURE DURING A PHASE OF CONSTRUCTION, THE SIGN WILL BE COVERED. THE CONTRACTOR WILL DO SO IN SUCH A MANNER AS TO AVOID DAMAGING THE PERMANENT SIGN WHEN THE COVERING IS REMOVED. THE COVERING WILL BE TOTALLY OPAQUE. THE USE OF ADHESIVE TAPE APPLIED DIRECTLY TO A SIGN IS STRICTLY PROHIBITED.

CONSTRUCTION TRAFFIC

ALL CONSTRUCTION TRAFFIC WILL USE ACCEPTABLE TRUCK ROUTES TO ACCESS THE CONSTRUCTION AREA. USE OF LOCAL RESIDENTIAL STREETS IS STRICTLY PROHIBITED UNLESS ALLOWED IN WRITING BY THE LOCAL ENFORCEMENT AUTHORITY.

GENERAL

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THRU VEHICULAR ACCESS AT ALL TIMES THROUGHOUT THE PROJECT AREA. THE PROJECT WILL BE CONSTRUCTED IN PHASES IN ORDER TO MINIMIZE TRAFFIC DISRUPTION AND INCONVENIENCE TO THE GENERAL PUBLIC. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING ALL EQUIPMENT, MATERIALS AND MANPOWER NEEDED TO ADEQUATELY MAINTAIN TRAFFIC AS PROVIDED FOR IN THE PLANS AND SPECIFICATIONS.

THE CONTRACTOR IS REMINDED THAT, IN THE CONDUCT OF THIS PROJECT, HIS SEQUENCE OF OPERATIONS WILL BE PLANNED IN SUCH A WAY AS TO MINIMIZE THE NUMBER OF LANE REDUCTIONS AND/OR LANE WIDTH REDUCTIONS REQUIRED TO MAINTAIN TRAFFIC THROUGH THE PROJECT.

PERMITTED LANE CLOSURES WILL BE AS SHOWN ON THE "SCHEDULE OF THRU LANES TO BE MAINTAINED TABLE." THE TIME LIMITS SHOWN IN THIS TABLE WILL BE ADHERED TO OR LIQUIDATED DAMAGES WILL BE ACCESSED.

SUSPENSION OF WORK

IF THE CONTRACTOR FAILS TO COMPLY WITH THE PROVISIONS FOR TRAFFIC CONTROL AS SET FORTH IN THESE PLANS OR WITH PROVISIONS OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THE ENGINEER WILL SUSPEND WORK UNTIL THE CONTRACTOR COMPLIES WITH THE NECESSARY REQUIREMENTS.

HOLIDAY CLOSURES

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES, EXCEPT FOR THE LONGTERM LANE CLOSURE SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

CHRISTMAS	NEW YEARS	MOTHERS DAY
MEMORIAL DAY	FOURTH OF JULY	EASTER
LABOR DAY	THANKSGIVING	

THE PERIOD OF TIME THAT THE LANES ARE 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 12:00N MONDAY
MONDAY	12:00N FRIDAY	THROUGH 12:00N TUESDAY
TUESDAY	12:00N MONDAY	THROUGH 12:00N WEDNESDAY
WEDNESDAY	12:00N TUESDAY	THROUGH 12:00N THURSDAY
THURSDAY	12:00N WEDNESDAY	THROUGH 12:00N MONDAY
FRIDAY	12:00N THURSDAY	THROUGH 12:00N MONDAY
SATURDAY	12:00N FRIDAY	THROUGH 12:00N MONDAY

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 ACCORDANCE WITH TABLE 108.07-1.

CALCULATED H.G.
CHECKED J.C.

MAINTENANCE OF TRAFFIC
GENERAL NOTES

LAK-90-21.40
ATB-90-0.00

ITEM 614, WORK ZONE SPEED LIMIT SIGN
ITEM 614, SPEED ZONE AHEAD SYMBOL SIGN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, COVER DURING SUSPENSION OF WORK, AND SUBSEQUENTLY REMOVE WORK ZONE SPEED LIMIT (R2-1) SPEED LIMIT SIGNS AND SUPPORTS WITHIN THE WORK LIMITS IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

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

THE WORK ZONE SPEED LIMIT SIGNS MAY BE ERECTED OR UNCOVERED NO MORE THAN FOUR HOURS BEFORE THE ACTUAL START OF WORK. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN FOUR HOURS FOLLOWING RESTORATION OF ALL LANES TO TRAFFIC WITH NO RESTRICTIONS, OR SOONER AS DIRECTED BY THE ENGINEER. TEMPORARY SIGN COVERING AND UNCOVERING DUE TO TEMPORARY LANE RESTORATIONS SHALL BE GUIDED BY THE FOUR-HOUR LIMITATIONS STATED ABOVE. SUCH LANE RESTORATIONS SHOULD BE EXPECTED TO REMAIN IN EFFECT FOR 30 OR MORE DAYS, SUCH AS DURING WINTER SHUT-DOWNS. CLEANUP WORK AND OTHER WORK BEYOND THE SHOULDER SUCH AS SEEDING, TO BE PERFORMED AFTER RESTORATION OF ALL FULL-WIDTH LANES AND SHOULDERS TO TRAFFIC, DOES NOT CONSTITUTE A CONDITION WARRANTING A SPEED REDUCTION. THEREFORE, WHEN ACTIVITY IS LIMITED TO SUCH WORK, THE SPEED LIMIT IN EFFECT SHALL BE THE NORMAL SPEED LIMIT FOR THE SITE.

CONSTRUCTION AND MATERIALS SPECIFICATIONS, ITEM 614, PARAGRAPH 614.02(B) INDICATES THAT THE TWO DIRECTIONS OF A DIVIDED HIGHWAY ARE CONSIDERED SEPARATE HIGHWAY SECTIONS. THEREFORE, IF THE WORK ON A MULTI-LANE DIVIDED HIGHWAY IS LIMITED TO ONLY ONE DIRECTION, SPEED REDUCTION IN THE DIRECTION OF THE WORK DOES NOT AUTOMATICALLY CONSTITUTE SPEED REDUCTION IN THE OPPOSITE DIRECTION. SPEED LIMIT REDUCTION IN THE OPPOSITE DIRECTION, IN SUCH CASE, IS APPROPRIATE ONLY IF CONDITIONS ARE EXPECTED TO HAVE AN IMPACT ON THE DIRECTIONAL TRAFFIC FLOW, AS DIRECTED BY THE ENGINEER.

(THE CONTRACTOR SHALL ERECT A WORK ZONE SPEED LIMIT SIGN IN ADVANCE OF ANY LANE RESTRICTION EXPECTED TO LAST AT LEAST 30 CONSECUTIVE CALENDAR DAYS, OR AS DIRECTED BY THE ENGINEER. THE SIGN SHALL BE MOUNTED ON BOTH SIDES OF A DIRECTIONAL ROADWAY OF DIVIDED HIGHWAYS. THE FIRST WORK ZONE SPEED LIMIT SIGN SHALL BE PLACED APPROXIMATELY 500 FEET IN ADVANCE OF THE LANE REDUCTION OR SHIFT TAPER OR OTHER ROADWAY OR SHOULDER RESTRICTION. ON UNDIVIDED HIGHWAYS THE SIGN SHALL BE MOUNTED ON THE RIGHT SIDE, APPROXIMATELY 250 FEET IN ADVANCE OF SUCH RESTRICTIONS. THE SIGN SHALL BE REPEATED, EVERY 1 MILE FOR 55 MPH ZONES AND EVERY ONE-HALF MILE FOR 50 MPH AND 45 MPH ZONES. THESE SIGNS SHALL ALSO BE ERECTED IMMEDIATELY AFTER EACH OPEN ENTRANCE RAMP WITHIN THE ZONE.

ON PROJECTS FOR WHICH THE ACTIVITY OR ROADWAY RESTRICTION IS LIMITED TO ONE SECTION OF THE PROJECT FOR AT LEAST THIRTY DAYS AND THEN IS MOVED TO ANOTHER SECTION OF THE PROJECT UPON COMPLETION OF WORK IN THE FIRST SECTION, THE SPEED LIMIT REDUCTION SHALL BE LIMITED TO ONLY THE ACTIVE PORTION OF THE PROJECT AT THE GIVEN TIME. SIGNING FOR A SPEED LIMIT REDUCTION, AS WELL AS ALL OTHER ADVANCE CONSTRUCTION SIGNING, SHALL BE RELOCATED WHEN THE CONCENTRATION OF ACTIVITY IS RELOCATED.

ON PROJECTS FOR WHICH SPEED REDUCTION IS CALLED FOR ON MORE THAN ONE ROADWAY, THE DISPLAY OF REDUCED SPEED LIMIT SIGNING ON A GIVEN ROADWAY SHALL BE DEPENDANT ON THE SCHEDULING OF WORK ACTIVITY ON THE GIVEN ROAD- WAY.

SPEED REDUCTION SIGNS (W3-5) SHALL BE ERECTED IN ADVANCE OF THE SPEED REDUCTION, APPROXIMATELY 1250 FEET ON MULTI-LANE HIGHWAYS AND 500 FEET ON 2-LANE HIGHWAYS.

A SIGN(S) TO INDICATE THE RESUMPTION OF THE STATUTORY SPEED LIMIT SHALL BE ERECTED AT THE END OF ANY REDUCED SPEED ZONE, TYPICALLY AT THE POINT WHERE ROADWAY AND SHOULDER WIDTHS RETURN TO NORMAL. ON UNDIVIDED ROADWAYS, THE R2-1 (SPEED LIMIT) SIGN SHALL BE USED. ON DIVIDED HIGHWAYS WHERE THE SPEED LIMIT VARIES BY VEHICLE TYPE, THE R2-1 (SPEED LIMIT) SIGN AND THE R2-H2A (TRUCK SPEED LIMIT) SIGNS SHALL BE MOUNTED SIDE-BY-SIDE ON SEPARATE SUPPORTS. THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED, BUT GOOD CONDITION, PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE RETROREFLECTORIZED WITH TYPE G SHEETING COMPLYING WITH THE REQUIREMENTS OF CMS 730.19.

WORK ZONE SPEED LIMIT SIGNS SHALL BE MOUNTED ON TWO ITEM 630, GROUND MOUNTED SUPPORTS, NO. 3 POSTS.

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

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE IN PLACE, WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, COVERING DURING SUSPENSION OF WORK, AND REMOVING THE SIGNS AND SUPPORTS. SPEED LIMIT SIGNING FOR THE POINT OF RESUMPTION OF THE STATUTORY SPEED LIMIT SHALL BE PAID FOR AS WORK ZONE SPEED LIMIT SIGNS. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, WORK ZONE SPEED LIMIT SIGN 24 EACH
ITEM 614, SPEED ZONE AHEAD SYMBOL SIGN 14 EACH

ITEM 614, WORK ZONE CROSSOVER LIGHTING SYSTEM

THIS WORK SHALL CONSIST OF FURNISHING, ERECTING, OPERATING MAINTAINING AND REMOVING A WORK ZONE LIGHTING SYSTEM FOR A SINGLE CROSSOVER, OR OVERLAPPING A PAIR OF CROSSOVERS. THE SYSTEM SHALL BE AS SHOWN ON SCD MT-100.00. THE CONTRACTOR SHALL ARRANGE FOR AND PAY FOR POWER. ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH APPLICABLE PORTIONS OF 625 AND 725 EXCEPT: THE PERFORMANCE TEST OF 625.19F, AND CERTIFIED DRAWING REQUIREMENT OF 625.04, ARE WAIVED AND USED MATERIALS IN GOOD CONDITION ARE ACCEPTABLE.

POLES WHICH ARE NOT PROTECTED BY GUARDRAIL OR PORTABLE CONCRETE BARRIER SHALL BE LOCATED OUTSIDE THE CLEAR ZONE, AND SHOULD BE LOCATED AT LEAST 30 FT (PREFERABLY 40 FEET) FROM THE EDGE OF PAVEMENT WHEN POSSIBLE. ADDITIONAL POLE LINES, CABLES AND APPURTENANCES NECESSARY TO FURNISH POWER TO THE LIGHTING SYSTEM SHALL BE INCLUDED IN THIS ITEM. SERVICE POLES SHALL BE POSITIONED WITH THE SAME CONSTRAINTS AS THE LIGHTING POLES AS A MINIMUM.

PAYMENT WILL BE MADE AT THE UNIT PRICE PER EACH FOR ITEM 614, WORK ZONE CROSSOVER LIGHTING SYSTEM THROUGHOUT ALL PHASES OF WORK WHEN THE CROSSOVER ROADWAYS ARE USED.

ITEM 614, BARRIER REFLECTORS AND/OR OBJECT MARKERS

BARRIER REFLECTORS AND/OR OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE CONCRETE BARRIER USED FOR TRAFFIC CONTROL. BARRIER REFLECTORS, OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO CMS 626, EX-CEPT THAT THE SPACING SHALL BE 50 FEET.

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

THIS WORK SHALL CONSIST OF FURNISHING, MAINTAINING, AND SUBSEQUENTLY REMOVING A 50-INCH PORTABLE CONCRETE BARRIER (PCB) AT THE LOCATIONS SHOWN ON THE PLANS. FOR DETAILS SEE SCD RM-4.1. PLEASE NOTE THAT SCD RM-4.1 WAS UPDATED 10-20-06 TO PROVIDE A PCB WHICH IS COMPATIBLE WITH NCHRP 350 CRITERIA.

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 CON-STRUCTED USING ONE OF THE SCREENS PROVIDED ON THE APPROVED LIST, AVAILABLE ON THE OFFICE OF MATERIAL MANAGEMENT WEB PAGE. THE APPROVED LIST OF GLARE SCREENS CAN BE FOUND ON THE ODOT WEBSITE BY CLICKING ON THE SERVICES MENU, THEN CLICKING ON MATERIALS MANAGE-MENT, AND CHOOSING THE APPROVED LIST LINK.

PADDLE OR INTERMITTENT TYPE GLARE SCREENS SHALL BE DESIGNED USING A 20 DEGREE CUT-OFF ANGLE BASED ON TAN-GENT 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 HARD-WARE AND PROCEDURES SPECIFIED BY THE MANUFACTURER.

FOR DIRECTIONS ON HOW TO INSTALL THE GLARE SCREEN AND THE BARRIER, SEE THE MANUFACTURERS INSTRUCTIONS.

PAYMENT SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIP-MENT 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.

ITEM 614, WORK ZONE PAVEMENT MARKING, CLASS I, AS PER PLAN

THE WORK ZONE PAVEMENT MARKINGS, EDGE LINE AND LANE LINE, SHALL BE 6" WIDE.

WORK ZONE BRIDGE PROTECTION

PROTECTION FOR THE GRAND RIVER BRIDGE PARAPETS WILL BE NEEDED DURING PHASES 1 THROUGH 2 AND PHASES 3 THROUGH 4 MAINTENANCE OF TRAFFIC FOR THE CONTRA FLOW TRAFFIC SCHEME. THE FOLLOWING ITEMS OF WORK SHALL BE USED TO PROVIDE PROTECTION AND SHALL BE CARRIED TO THE GENERAL SUMMARY:

ITEM 614 WORK ZONE IMPACT ATTENUATOR
(UNIDIRECTIONAL) . . . . . 2 EACH

ITEM 614 PORTABLE CONCRETE BARRIER,
32 INCH . . . . . 400 FT

ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL OR BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ONE OF THE FOLLOWING IMPACT ATTENUATORS:

1. THE QUADGUARD CZ, (24 INCHES WIDE SIX-BAY) WORK ZONE IMPACT ATTENUATOR MANUFACTURED BY ENERGY ABSORPTION SYSTEMS, INC., 35 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:

DRAWING NUMBER: QSCZCVR-T4 DRAWING NAME: QUADGUARD CZ SYSTEM FOR CONSTRUCTION ZONES REVISION DATE: 5/13/99 REV. J ODOT APPROVAL DATE: 8/27/99

DRAWING NUMBER: 35-40-10 DRAWING NAME: QUADGUARD SYSTEM CONCRETE PAD, CZ, QG REVISION DATE: 11/19/97 REV. D ODOT APPROVAL DATE: 8/27/99

DRAWING NUMBER: 35-40-16 DRAWING NAME: QUADGUARD SYSTEM BACKUP ASSEMBLY, CZ, QG REVISION DATE: 7/30/99 REV. F ODOT APPROVAL DATE: 8/27/99

DRAWING NUMBER: 354051Z DRAWING NAME: QUADGUARD CZ SYSTEM NOSE ASSEMBLY, CZ, QG, 24, 30, 36 REVISION DATE: 5/17/99 ODOT APPROVAL DATE: 8/27/99

DRAWING NUMBER: 35-40-18 DRAWING NAME: TRANSITION ASSEMBLY, 4 OFFSET, QG REVISION DATE: 6/25/99 REV. F ODOT APPROVAL DATE: 8/27/99

DRAWING NUMBER: 35400260 DRAWING NAME: QUADGUARD SYSTEM PCMB ANCHOR ASSEMBLY REVISION DATE: 11/19/97 REV. C ODOT APPROVAL DATE: 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:

DRAWING NUMBER: SS450 DRAWING NAME: CRASH-CUSHION ATTENUATING TERMINAL PLAN, ELEVATION & SECTIONS REVISION DATE: 3/12/99 REV. 1 ODOT APPROVAL DATE: 8/27/99

DRAWING NUMBER: SS455 DRAWING NAME: TRACC TRANSITION TO W-BEAM MEDIAN BARRIER PLAN, ELEVATION & SECTIONS REVISION DATE: 2/18/99 ODOT APPROVAL DATE: 8/27/99

DRAWING NUMBER: SS461 DRAWING NAME: TRACC TRANSITION TO CONCRETE SAFETY SHAPE BARRIER PLAN, ELEVATION & SECTIONS REVISION DATE: 6/30/99 REV. 1 ODOT APPROVAL DATE: 8/27/99

DRAWING NUMBER: SS462 DRAWING NAME: TRACC TRANSITION TO CONCRETE BARRIER SINGLE SLOPE PLAN, ELEVATION & SECTIONS REVISION DATE: 6/30/99 ODOT APPROVAL DATE: 8/27/99

3. THE BARRIER SYSTEMS, INC. TAU-II IMPACT ATTENUATOR, DISTRIBUTED BY ROAD SYSTEMS INC., SALES SUPPORT, 2183 ELM TRACE, AUSTINTOWN, OH 44515, (TELEPHONE 330-799-9291)

THE TAU-II FOR THIS NOTE IS A PARALLEL 8-BAY UNIT (24' LONG AND 35" WIDE). INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIEDIN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DRAWING NUMBER: A040416 DRAWING NAME: UNIVERSAL TAU-II PARTS LIST REVISION DATE: 4/22/04 ODOT APPROVAL DATE: 10/16/04

DRAWING NUMBER: A040420 DRAWING NAME: UNIVERSAL TAU-II FOUNDATION, FLUSH MOUNT BACKSTOP REVISION DATE: 4/28/04 ODOT APPROVAL DATE: 10/16/04

DRAWING NUMBER: A040105 DRAWING NAME: UNIVERSAL TAU-II FOUNDATION, PCB BACKSTOP (REFERENCED ON A04020) REVISION DATE: 1/07/04 ODOT APPROVAL DATE: 10/16/04

DRAWING NUMBER: B040239 DRAWING NAME: APPLICATION, FLUSH MOUNT BACKSTOP (TYPICAL FOR PARALLEL 60 MPH UNIT) REVISION DATE: 4/21/04 ODOT APPROVAL DATE: 10/16/04

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

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

WORK ZONE INCREASED PENALTIES SIGN (R11-H5A)

R11-H5A-48 SIGNS SHALL BE FURNISHED, ERECTED, AND MAINTAINED IN GOOD CONDITION AND/OR REPLACED AS NECESSARY AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. SIGNS SHALL BE MOUNTED AT THE APPROPRIATE OFFSETS AND ELEVATIONS AS PRESCRIBED BY THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THEY SHALL BE MAINTAINED ON SUPPORTS MEETING CURRENT SAFETY CRITERIA.

THE SIGNS MAY BE ERECTED OR UNCOVERED NO MORE THAN FOUR HOURS BEFORE THE ACTUAL START OF WORK. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN FOUR HOURS FOLLOWING RESTORATION OF ALL LANES TO TRAFFIC WITH NO RESTRICTIONS, OR SOONER AS DIRECTED BY THE ENGINEER. TEMPORARY SIGN COVERING AND UNCOVERING DUE TO TEMPORARY LANE RESTORATIONS SHALL BE GUIDED BY THE FOUR- HOUR LIMITATIONS STATED ABOVE. SUCH LANE RESTORATIONS SHOULD BE EXPECTED TO REMAIN IN EFFECT FOR 30 OR MORE CONSECUTIVE CALENDAR DAYS, SUCH AS DURING WINTER SHUT- DOWNS.

(THE SIGNS ON THE MAINLINE SHALL BE DUAL MOUNTED UNLESS NOT PHYSICALLY POSSIBLE. THE FIRST SIGN SHALL BE PLACED BETWEEN THE ROAD WORK AHEAD (W20-1)SIGN AND THE NEXT SIGN IN THE SEQUENCE. SIGNS SHALL BE ERECTED ON EACH ENTRANCE RAMP AND EVERY 2 MILES THROUGH THE CONSTRUCTION WORK LIMITS. SIGNS ON THE MAINLINE SHALL BE R11- H5A-48. SIGNS USED ON THE RAMPS SHALL BE R11-H5A-24. R11-H5A-24 SIGNS MAY BE USED IN THE MEDIAN IN LIEU OF R11-H5A-48 SIGNS IF IT IS NOT PHYSICALLY POSSIBLE TO PROVIDE R11-H5A-48 SIGNS IN THE MEDIAN.)

THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED, BUT GOOD, CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE RETROREFLECTORIZED WITH TYPE G SHEETING COMPLYING WITH THE REQUIREMENTS OF CMS 730.19.

WORK ZONE INCREASED PENALITIES SIGNS AND SUPPORTS WILL BE MEASURED AS THE NUMBER OF SIGN INSTALLATIONS, INCLUDING THE SIGN AND NECESSARY SUPPORTS. IF A SIGN AND SUPPORT COMBINATION IS REMOVED AND REERECTED AT ANOTHER LOCATION AS DIRECTED BY THE ENGINEER, IT SHALL BE CONSIDERED ANOTHER UNIT.

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

ITEM 614, WORK ZONE INCREASED PENALITIES SIGN 14 EACH

DUST CONTROL

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

ITEM 616, WATER 497 M. GAL

0.004 M.GAL. PER CU.YD. OF THE TOTAL EARTHWORK
18,819 (EMBANKMENT) + 105,257 (EXCAVATION) = 124,076
124,076 CU.YD. X 0.004 = 496.3 M.GAL.

ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC, AS PER PLAN (A)

THIS ITEM SHALL BE USED TO REPAIR HOLES IN THE ROADWAY SURFACE AND BERMS. IT SHALL BE TEH CONTRACTORS RESPONSIBILITY TO MONITOR THE ROADWAY TO DETERMINE WHEN THE HOLES SHALL BE PATCHED. THE CONTRACTOR MUST NOTIFY THE ENGINEER FOR HIS/HER APPROVAL.

THE CONTRATOR WILL BE RESPONSIBLE FOR DAMAGES TO MOTORIST VEHICLES IF THE HOLES ARE NOT FILLED IN A REASONABLE AMOUNT OF TIME.

THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE ROADWAY AND BERMS (IN THE DIRECTION WORK IS BEING PERFORMED) FROM THE FIRST DAY OF WORK UNTIL CONSTRUCTION IS COMPLETE. THIS INCLUDES PERIODS WHEN WORK IS SUSPENDED.

THE CONTRACTOR HAS A MAXIMUM TIME OF 2 HOURS AFTER HE HAS BEEN INFORMED OF A POTHOLE, BY PROJECT PERSONNEL, TO TAKE CORRECTIVE ACTION. IF THE CONTRACTOR FAILS TO TAKE ACTION TO FIX THE POT HOLE WITHIN THE 2 HOUR LIMIT, THE CONTRACTOR SHALL BE CHARGED A LIQUIDATED DAMAGE OF $1000 PER OCCURENCE.

THE PROCEDURE FOR PATCHING A HOLE IS:

REMOVE ALL LOOSE AND DISINTEGRATED ASPHALT OR CONCRETE TO AN EXTENT TO EXPOSE SOUND CONCRETE OR ASPHALT. THE PERIMETER OF ALL REMOVAL AREAS SHALL BE VERTICAL.

THE SURFACE TO BE PATCHED MUST BE CLEANED AND DRIED.

THE ENTIRE SURFACE SHALL BE TACK COATED, INCLUDING THE VERTICAL FACES.

ASPHALT CONCRETE SHALL BE IN ACCORDANCE TO ITEM 448 OR AS DETERMINED BY THE ENGINEER. IT SHALL BE PLACED IN 2 INCH LIFTS AND COMPACTED TO THE LEVEL OF THE WEARING SURFACE.

DURING WINTER MONTHS ONLY WHEN ASPHALT IS NTO AVAILABLE OR AT THE DIRECTION OF THE ENGINEER COLD MIX MAY BE USED. COMPACTION EQUIPMENT MUST BE APPROVED BY THE ENGINEER.

ALL TRAFFIC CONTROL NEEDED FOR THIS ITEM OF WORK SHALL BE INCLUDED IN THIS ITEM OF WORK.

ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING
TRAFFIC, AS PER PLAN (A) . . . . . 200 CU.YD.

ITEM 630 - SIGNING MISC.: ADDITIONAL SIGNS, GROUND MOUNTED AS DIRECTED BY THE ENGINEER

WHEN ADDITIONAL SIGNING IS NEEDED TO MAINTAIN TRAFFIC, THE CONTRACTOR SHALL FURNISH THE SIGN OR SIGNS AS DIRECTED BY THE ENGINEER. THESE SIGNS SHALL BE GROUND MOUNTED AND MEET ALL THE SPECIFICATIONS OF THE PLAN, PROPOSAL AND CURRENT YEAR CMS.

PAYMENT FOR THIS ITEM SHALL INCLUDE BUT NOT BE LIMITED TO THE COST TO FURNISH AND ERECT THE SIGN, INCLUDING DRIVE POSTS OR OTHER APPROVED METHODS OF SUPPORT, MAINTAINING THE SIGN AND REMOVAL OF THE SIGN.

THE FOLLOWING QUANTITY SHALL BE CARRIED TO THE GENERAL SUMMARY:

ITEM 630 - SIGNING MISC.: ADDITIONAL SIGNS,
GROUND MOUNTED, AS DIRECTED BY
THE ENGINEER . . . . . .600 SQ.FT.

CALCULATED H.G.
CHECKED J.C.

MAINTENANCE OF TRAFFIC
GENERAL NOTES

LAK-90-21.40
ATB-90-0.00

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN, ON SITE, FOR THE DURATION OF THE PROJECT. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS MAINTAINED BY THE DIRECTOR (OFFICE OF MATERIALS MANAGEMENT). THE APPROVED LIST OF PORTABLE CHANGEABLE MESSAGE SIGNS CAN BE FOUND ON THE ODOT WEBSITE BY CLICKING ON THE SERVICES MENU, THEN CLICKING ON MATERIALS MANAGEMENT. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 650 FT. AND 475 FT., RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. PCMS TRAILERS SHOULD BE DELINEATED ON A PERMANENT BASIS BY AFFIXING RETROREFLECTIVE MATERIAL, IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER AS SEEN BY ONCOMING ROAD USERS.

THE
THE PLACEMENT, OPERATION, MAINTENANCE AND ALL
ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CON- TRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED, FACING AWAY FROM ALL TRAFFIC, AND SHALL DISPLAY ONE OR MORE YELLOW RETROREFLECTIVE SHEETING SURFACES OF 9-INCH BY 15-INCH MINIMUM SIZE FACING TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

(THE CONTRACTOR SHALL IMPLEMENT A SYSTEM WHEREBY CHANGEABLE MESSAGES WILL BE IMPLEMENTED WITHIN 2 HOURS FOLLOWING TELEPHONE NOTIFICATION FROM THE PROJECT ENGINEER TO A DESIGNATED PHONE.)

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PREPROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PREPROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ONBOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

(THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL (IN ACTIVE CELLULAR PHONE AREAS) ALLOW REMOTE SIGN ACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES. ONE REMOTE DATA INPUT DEVICE (LAPTOP COMPUTER PLUS MODEM OR EQUIVALENT) SHALL BE FURNISHED FOR USE BY THE DISTRICT TRAFFIC ENGINEER, OR EQUIVALENT, AND SHALL BE INSURED AGAINST THEFT.)

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF CMS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER- DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 120 SIGN-MONTH
(4 SIGNS x 27 MONTHS = 108 SIGN-MONTHS)
(6 SIGNS x 2 MONTHS = 12 SIGN-MONTHS)

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED IN THIS NOTE WILL NOT GENERALLY BE PERMITTED AT PROJECT COST UNLESS PRIOR APPROVAL HAS BEEN OBTAINED FROM THE ENGINEER. LEOS SHOULD NOT BE USED WHERE THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD) INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR CONTROLLING TRAFFIC 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. IN GENERAL, LEOS SHOULD BE POSITIONED AT THE POINT OF LANE RESTRICTION OR ROAD CLOSURE AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH INTERSECTIONS IN WORK ZONES.

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

DURING A TRAFFIC SIGNAL INSTALLATION OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

ROUTINE PATROLLING THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) AS SPECIFIED IN THE PLANS.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORISTS ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A LIST OF THE APPROPRIATE LAW ENFORCEMENT AGENCY(S), INCLUDING ADDRESS AND TELEPHONE NUMBER.

THE LEO SHOULD REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING THE SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF THE SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHOULD NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF THE SHIFT.

LAW ENFORCEMENT OFFICERS WITH PATROL CAR REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR). THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 250 HOURS

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

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR.

ITEM 614, REPLACEMENT SIGN

FLATSHEET SIGNS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT SIGNS SHALL BE NEW. OTHER MATERIALS MAY BE IN USED, BUT GOOD, CONDITION SUBJECT TO APPROVAL BY THE ENGINEER.

PAYMENT FOR THE NEW SIGNS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT SIGN, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF DAMAGED SIGNS, HARDWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

AN ESTIMATED QUANTITY OF 10 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

EARTHWORK FOR MAINTAINING TRAFFIC

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE PLAN FOR INFORMATION ONLY:

EXCAVATION FOR MAINTAINING TRAFFIC 36,657 CU. YD.
EMBANKMENT FOR MAINTAINING TRAFFIC 7,877 CU.YD.

WHEN UNDERCUTS ARE NECESSARY FOR MAINLINE PAVEMENT OR EMBANKMENT CONSTRUCTION, EVALUATE THE NEED FOR TEMPORARY ROAD UNDERCUTS IF WITHIN A CLOSE PROXIMITY TO THE MAINLINE UNDERCUTS. A GEOTECHNICAL EVALUATION SHOULD BE CONSIDERED TO DETERMINE IF THE EXISTING SOIL CONDITIONS ARE ADEQUATE TO SUPPORT THE TEMPORARY ROAD. ADDITIONAL SOIL BORINGS ALONG THE TEMPORARY ROAD ARE NOT NORMALLY REQUIRED.

Item 614 - Maintaining Traffic (Replacement Drums)

Drums furnished by the Contractor in accordance with the requirements of the plans, specifications and proposal which become damaged by traffic for reasons beyond the control of the Contractor shall be replaced in kind when ordered by the Engineer. Replacement drums shall be new.

Payment for the new drums shall be included in the lump sum contract price for Item 614 Maintaining Traffic, and shall include the cost of removing and disposing of the damaged drum, and providing and maintaining the replacement drum in accordance with the contract requirements for the original drum.

WORKSITE TRAFFIC SUPERVISOR

SUBJECT TO APPROVAL OF THE ENGINEER, THE CONTRACTOR SHALL EMPLOY AND IDENTIFY (SOMEONE OTHER THAN THE SUPERINTENDENT) A CERTIFIED WORKSITE TRAFFIC SUPER- VISOR (WTS) BEFORE STARTING WORK IN THE FIELD. THE WTS MAY BE CERTIFIED FROM ONE OF THE FOLLOWING ORGANIZA- TIONS:

1. AMERICAN TRAFFIC SAFETY SERVICE ASSOCIATION (ATSSA), PHONE NUMBER 1-800-272-8772, CERTIFIED TRAFFIC CON- TROL SUPERVISOR (TCS).

2. NATIONAL HIGHWAY INSTITUTE, DESIGN AND OPERATION OF WORK ZONE TRAFFIC CONTROL, PHONE NUMBER 1-703- 235-0528.

3. THE OHIO CONTRACTORS ASSOCIATION, TRAFFIC CONTROL SUPERVISOR (OCA/TCS) WORK ZONE CLASS, ONLY IF TAKEN AFTER MAY 5, 2004, PHONE NUMBER 1-614-599-7915.

4. OHIO LABORERS TRAINING, TRAFFIC CONTROL SUPERVISORS CLASS, PHONE NUMBER 1-740-599-7915.

A COPY OF EACH WTSS CERTIFICATION AND 24-HOUR CONTACT INFORMATION SHALL BE PROVIDED TO THE ENGINEER AT THE PRECONSTRUCTION CONFERENCE. IF THE DESIGNATED WTS WILL NOT BE AVAILABLE FULL TIME (24/7) THE CONTRACTOR MAY DESIGNATE AN ALTERNATE WTS TO BE AVAILABLE WHEN THE PRIMARY IS OFF DUTY. EACH WTS SHALL HAVE A CURRENT WTS CERTIFICATION (WITH AN EXPIRATION DATE NO MORE THAN 5 YEARS FROM THE DATE OF ISSUE) FROM ANY OF THE APPROVED ORGANIZATIONS.

THE WTS POSITION HAS THE RESPONSIBILITY OF MONITORING AND CORRECTING TRAFFIC CONTROL DEFICIENCIES FOR THE ENTIRE WORK ZONE. THE DUTIES OF THE WTS ARE AS FOLLOWS:

1. BE AVAILABLE ON A 24-HOUR PER DAY BASIS, AND BE ABLE TO BE ON SITE FOR ALL EMERGENCY TRAFFIC CONTROL NEEDS WITHIN ONE HOUR OF NOTIFICATION BY POLICE OR PROJECT STAFF AND BE PREPARED TO EFFECT CORRECTIVE MEASURES IMMEDIATELY ON EXISTING WORK ZONE TRAFFIC CONTROL DEVICES.

2. ATTEND PRECONSTRUCTION MEETING AND ALL PROJECT MEETINGS WHERE TRAFFIC CONTROL MANAGEMENT IS DISCUSSED.

3. BE AVAILABLE FOR MEETINGS OR DISCUSSIONS WITH THE ENGINEER UPON REQUEST OR WITHIN 36 HOURS.

4. BE AWARE OF, AND COORDINATE IF NECESSARY, ALL TRAFFIC CONTROL OPERATIONS, INCLUDING THOSE OF SUBCONTRACTORS AND SUPPLIERS.

5. COORDINATE PROJECT ACTIVITIES WITH ALL LAW ENFORCEMENT OFFICERS (LEOS). A WTS SHALL ALSO BE THE MAIN CONTACT PERSON WITH THE LEOS WHILE THEY ARE ON THE PROJECT.

6. COORDINATE MEETINGS WITH ODOT PERSONNEL, LEOS AND OTHER APPLICABLE ENTITIES BEFORE EACH PLAN PHASE SWITCH TO DISCUSS WORK ZONE TRAFFIC CONTROL.

7. ENSURE COMPLIANCE WITH THE CONTRACT DOCUMENTS FOR SIGNS, BARRICADES, TEMPORARY CONCRETE BARRIER, PAVEMENT MARKINGS, PORTABLE MESSAGE SIGNS, AND OTHER TRAFFIC CONTROL DEVICES ON A DAILY BASIS; AND FACILITATE ANY CORRECTIVE ACTION NECESSARY.

8. NOTIFY THE CONTRACTOR OF THE NEED FOR CLEANING AND MAINTENANCE OF ALL TRAFFIC CONTROL DEVICES, INCLUDING THE COVERING AND REMOVAL OF INAPPLICABLE SIGNS.

9. INSPECT, EVALUATE, PROPOSE NECESSARY MODIFICATIONS TO, AND DOCUMENT THE EFFECTIVENESS OF, THE TRAFFIC CONTROL DEVICES AND/OR TRAFFIC OPERATIONS ON A DAILY BASIS (7 DAYS A WEEK). IN ADDITION, A WEEKLY NIGHT INSPECTION OF THE WORK ZONE SETUP FOR DAYTIME WORK OPERATIONS; AND ONE DAYTIME INSPECTION PER WEEK FOR NIGHTTIME PROJECTS. THIS SHALL INCLUDE (BUT NOT BE LIMITED TO) DOCUMENTATION ON THE FOLLOWING PROJECT EVENTS:

A. INITIAL TRAFFIC CONTROL SETUP (DAY AND NIGHT REVIEW).

B. DAILY TRAFFIC CONTROL SETUP AND REMOVAL.

C. WHEN CONSTRUCTION STAGING CAUSES A CHANGE IN THE TRAFFIC CONTROL SETUP.

D. CRASH OCCURRENCES WITHIN THE CONSTRUCTION AREA.

E. REMOVAL OF TRAFFIC CONTROL DEVICES AT THE END OF A PHASE OR PROJECT.

F. ALL OTHER EMERGENCY TRAFFIC CONTROL NEEDS.

10. COMPLETE THE DEPARTMENT APPROVED LONG TERM INSPECTION FORM (CA-D-8) AFTER EACH INSPECTION AS REQUIRED IN # 9 AND SUBMIT IT TO THE ENGINEER THE FOLLOWING WORK DAY. THESE REPORTS SHALL INCLUDE A CHECKLIST OF ALL TRAFFIC CONTROL MAINTENANCE ITEMS TO BE REVIEWED. A COPY OF THE FORM WILL BE PROVIDED AT THE PRE-CONSTRUCTION MEETING. ANY DEFICIENCIES OBSERVED SHALL BE NOTED, ALONG WITH RECOMMENDED CORRECTIVE ACTIONS AND THE DATES BY WHICH SUCH CORRECTIONS WERE, OR WILL BE, COMPLETED. A COPY OF THIS DOCUMENT CAN BE FOUND IN THE DEPARTMENT OF TRANSPORTATION CONSTRUCTION INSPECTION FORMS MANUAL DATED 10/15/06 OR CURRENT REVISION.

11. VERIFY THAT ALL FLAGGING OPERATIONS ARE BEING CONDUCTED PER THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

12. HAVE COPIES OF THE ODOT TEMPORARY TRAFFIC CONTROL MANUAL AND APPLICABLE STANDARDS AND SPECIFICATIONS INCLUDED IN THE CONTRACT DOCUMENTS AVAILABLE AT ALL TIMES ON THE PROJECT.

THE DEPARTMENT WILL NOT PAY THE UNIT PRICE BID FOR THE WTS FOR ANY DAY ON WHICH THE CONTRACTOR FAILS TO PERFORM THE DUTIES SET FORTH ABOVE. SHOULD THE CONTRACTOR'S FAILURE TO PERFORM ANY OF THE DUTIES DESCRIBED ABOVE RESULT IN A MAINTENANCE OF TRAFFIC SAFETY ISSUE, THE DEPARTMENT WILL DEDUCT THE PRORATED DAILY AMOUNT FOR ITEM 614 MAINTENANCE OF TRAFFIC FROM THE CONTRACTORS NEXT SCHEDULED ESTIMATE.

IF THREE OR MORE FAILURES TO PERFORM THE DUTIES SET FORTH ABOVE OCCUR, THE WTS SHALL BE IMMEDIATELY REMOVED FROM THE WORK IN ACCORDANCE WITH C&MS 108.05.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED FOR THE WORKSITE TRAFFIC SUPERVISOR:

ITEM 614 WORKSITE TRAFFIC SUPERVISOR 27 MONTHS

REMOVAL OF RUMBLE STRIPS

PRIOR TO SHIFTING TRAFFIC ONTO AN EXISTING PAVED SHOULDER WITH RUMBLE GROOVES, THE CONTRACTOR SHALL MILL THE RUMBLE GROOVES (2' x 1.5") ON I.R.90 MAINLINE SHOULDERS AND AT CROSSOVERS AS PER ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE AND FILL THE MILLED AREA WITH ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC. THE COSTS OF REMOVAL AND PLACEMENT SHALL BE INCLUDED UNER ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC, AS PER PLAN.

THE FOLLOWING ITEM SHALL BE USED FOR THIS PURPOSE:
(6,600' X 2' X 1.5")/27 = 62 CU.YD.

ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC, AS PER PLAN . . . . . 62 CU.YD.

ITEM 206 CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED TO BE USED AS PER ITEM 206 AT THE DIRECTION OF THE PROJECT ENGINEER. THE FOLLOWING LOCATIONS WILL BE CEMENT STABILIZED:

I.R. 90

TEMPORARY CROSSOVER 1 - 1,093 SQ.YD.
TEMPORARY CROSSOVER 2 - 1,208 SQ.YD.
TEMPORARY CROSSOVER 3 - 839 SQ.YD.
TEMPORARY CROSSOVER 4 - 1,008 SQ.YD.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO PERFORM THE STABILIZATION OF THE SUBGRADE AS LISTED ABOVE:

ITEM 206 CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP 4,148 SQ.YD.
ITEM 206 CEMENT 123 TON
ITEM 206 CURING COAT 4,148 SQ.YD.
ITEM 206 CONTRACTOR DESIGNED CHEMICALLY STABILIZED SUBGRADE LUMP

CALCULATION:

CEMENT @ 59.4 LBS./S.Y.
4,148 S.Y. x 59.4 LBS. = 246,391 LBS. ÷ 2000 = 123 TON

MOT for Construction of the Acceleration/Deceleration Lanes at S.R. 528

The following quantities shall be used to maintain S.R. 528 ramp traffic while constructing the outside phases. These items of work shall be used along with Standard Construction Drawings MT-98.10, MT 98.11 and MT-98.21.

The following quantities have been carried to the General Summary:

Item 614 - Work Zone Lane Line, Class I, 642 Paint, As Per Plan . . . . . 0.30 Mile

Item 614 - Work Zone Edge Line, Class I, 642 Paint, As Per Plan . . . . . 4.49 Mile

Item 614 - Work Zone Dotted Line, Class I, 642 Paint . . . . . 5,560 Ft.

Item 614 - Work Zone Impact Attenuator (Unidirectional) Over 45 MPH, 24" Wide Hazard . . . . . 10 Each

Item 614 - Barrier Reflector, Type B . . . . . 226 Each

Item 614 - Object Marker, One Way . . . . . 226 Each

Item 622 - Portable Concrete Barrier, "Y" Connector . . . . . 4 Each

Item 622 - Portable Concrete Barrier, 32" . . . . . 11,080 Ft.

Temporary Pavement Markings During Winter Shutdown

The following quantities shall be used to place temporary pavement markings on the I.R. 90 mainline and S.R. 528 ramps during the winter shutdown when traffic is shifted back to the original configiration.

The following quantities have been carried to the Genaral Summary:

Item 614 - Work Zone Edge Line, Class I, 642 Paint, As Per Plan (White) . . . . . 17.11 Mile
Item 614 - Work Zone Edge Line, Class I, 642 Paint, As Per Plan (Yellow) . . . . . 16.93 Mile

Item 614 - Work Zone Lane Line, Class I, 642 Paint, As Per Plan . . . . . 16.49 Mile

Item 614 - Work Zone Channelizing Line, Class I, 642 Paint . . . . . 2,278 Ft.

Item 614 - Work Zone Stop Line, Class I, 642 Paint . . . . . 90 Ft.

Work Zone Raised Pavement Markers

The following quantities shall be used to place Work Zone RPM's on the I.R. 90 mainline, S.R. 528 ramps, and crossovers in Phases 1-4. Work Zone RPM's shall be installed on lane shifts, crossovers, the mainline lane lines while in the contra flow scheme, and ramps per Plan Insert Sheets and Standard Construction Drawings referenced in this plan.

The following quantities have been carried to the Genaral Summary:

Item 614 - Work Zone Raised Pavement Marker (White) . . . . . 2,209 Each

Item 614 - Work Zone Raised Pavment Marker (Yellow) . . . . . 1,258 Each

CALCULATED H.G.
CHECKED J.C.

MAINTENANCE OF TRAFFIC
GENERAL NOTES

LAK-90-21.40
ATB-90-0.00

S.R. 528 RAMP TRUCK TRAFFIC RESTRICTIONS

THE FOLLOWING DETOURS ON THIS SHEET AND SHEET 34 SHALL BE USED FOR TRUCK TRAFFIC ONLY. DURING CONSTRUCTION OF THE THROATS OF RAMPS I, K AND L AT THE INTERSECTIONS WITH S.R. 528, TRUCK TRAFFIC WILL BE REQUIRED TO USE THE DESIGNATED DETOURS BETWEEN FRIDAY AT 6:00 PM TO MONDAY AT 6:00 AM.

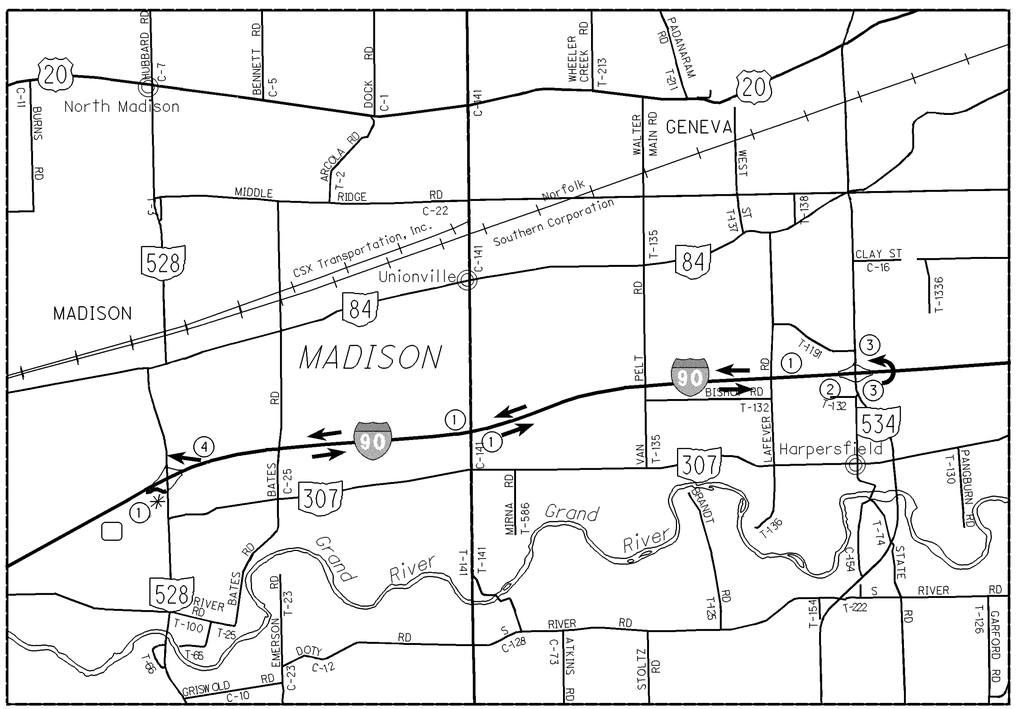
NOTE:
ALL DETOUR SIGNING SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR. PAYMENT SHALL BE INCLUSIVE IN THE LUMP SUM BID FOR ITEM 614 DETOUR SIGNING.

NOTE:
ALL SIGNS SHALL BE TYPE "H" FLOURESCENT SHEETING.

DETOUR ROUTE

MAINLINE I.R. 90 EASTBOUND EXIT RAMP (RAMP I)

DETOUR TO S.R. 534 EXIT, LOOP BACK VIA I.R. 90 WB



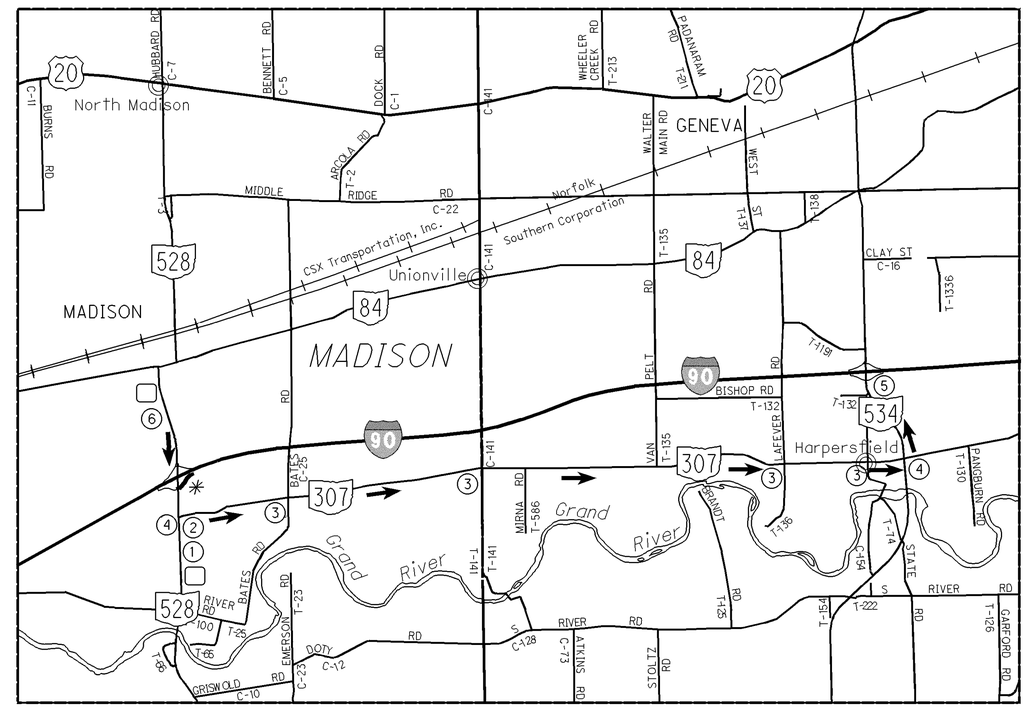
PORTABLE CHANGEABLE MESSAGE BOARD

①	②	③	④
DETOUR	DETOUR	DETOUR	DETOUR
528	528	528	528
↑	↗	←	↗
TRUCK	TRUCK	TRUCK	TRUCK
M4-8-24	M4-8-24	M4-8-24	M4-8-24
M1-H5-30-3	M1-H5-30-3	M1-H5-30-3	M1-H5-30-3
M6-3-24	M6-2R-24	M6-1L-24	M6-2R-24
M4-4-24	M4-4-24	M4-4-24	M4-4-24

* LEO SHOULD BE PRESENT AT THE TOP OF THE RAMPS UNDER CONSTRUCTION TO FACILITATE TRAFFIC.

MAINLINE I.R. 90 EASTBOUND ENTRANCE RAMP (RAMP L)

DETOUR SOUTH TO S.R. 307 EASTBOUND TO S.R. 534 NORTHBOUND TO I.R. 90



PORTABLE CHANGEABLE MESSAGE BOARD

①	②	③	④	⑤	⑥
DETOUR	DETOUR	DETOUR	DETOUR	DETOUR	DETOUR
EAST	EAST	EAST	EAST	EAST	EAST
INTERSTATE 90	INTERSTATE 90	INTERSTATE 90	INTERSTATE 90	INTERSTATE 90	INTERSTATE 90
↱	→	↑	←	↗	↰
TRUCK	TRUCK	TRUCK	TRUCK	TRUCK	TRUCK
M4-8-24	M4-8-24	M4-8-24	M4-8-24	M4-8-24	M4-8-24
M3-2-24	M3-2-24	M3-2-24	M3-2-24	M3-2-24	M3-2-24
M1-1-30-2	M1-1-30-2	M1-1-30-2	M1-1-30-2	M1-1-30-2	M1-1-30-2
M5-1R-21	M6-1R-21	M6-3-21	M6-1L-21	M6-2R-21	M5-1L-21
M4-4-24	M4-4-24	M4-4-24	M4-4-24	M4-4-24	M4-4-24

CALCULATED M.M.
CHECKED H.G.

S.R. 528 RAMPS I & L TRUCK DETOURS

LAK-90-21.40
ATB-90-0.00

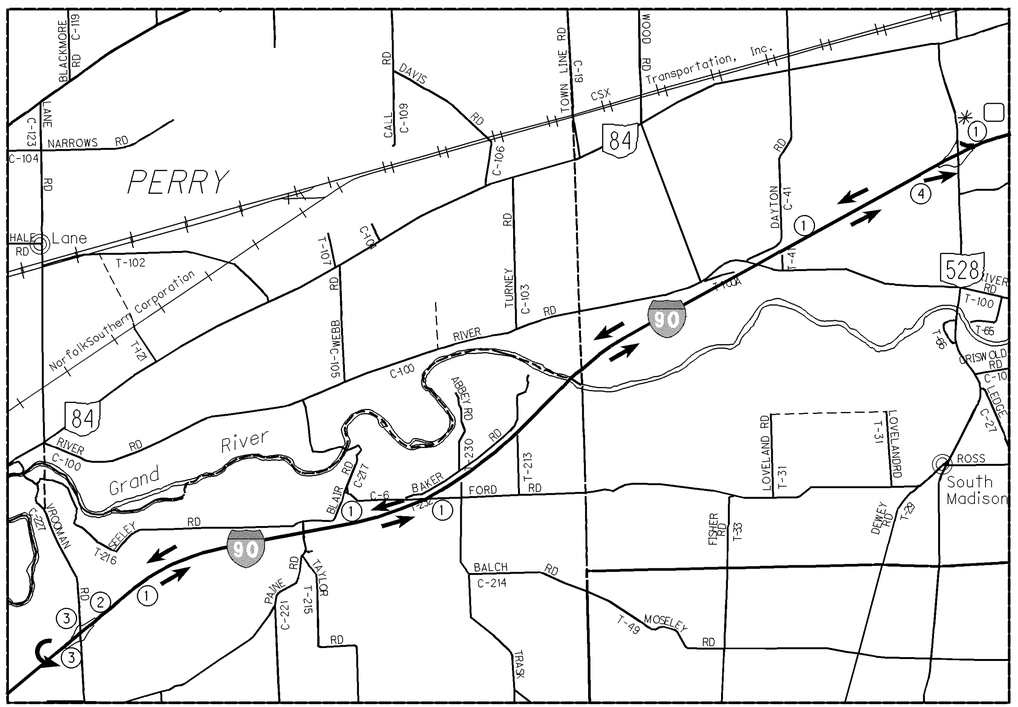
NOTE:
ALL DETOUR SIGNING SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR. PAYMENT SHALL BE INCLUSIVE IN THE LUMP SUM BID FOR ITEM 614 DETOUR SIGNING.

NOTE:
ALL SIGNS SHALL BE TYPE "H" FLOURESCENT SHEETING.

DETOUR ROUTE

MAINLINE I.R. 90 WESTBOUND EXIT RAMP (RAMP K)

DETOUR TO VROOMAN RD. EXIT, LOOP BACK VIA I.R. 90 EB

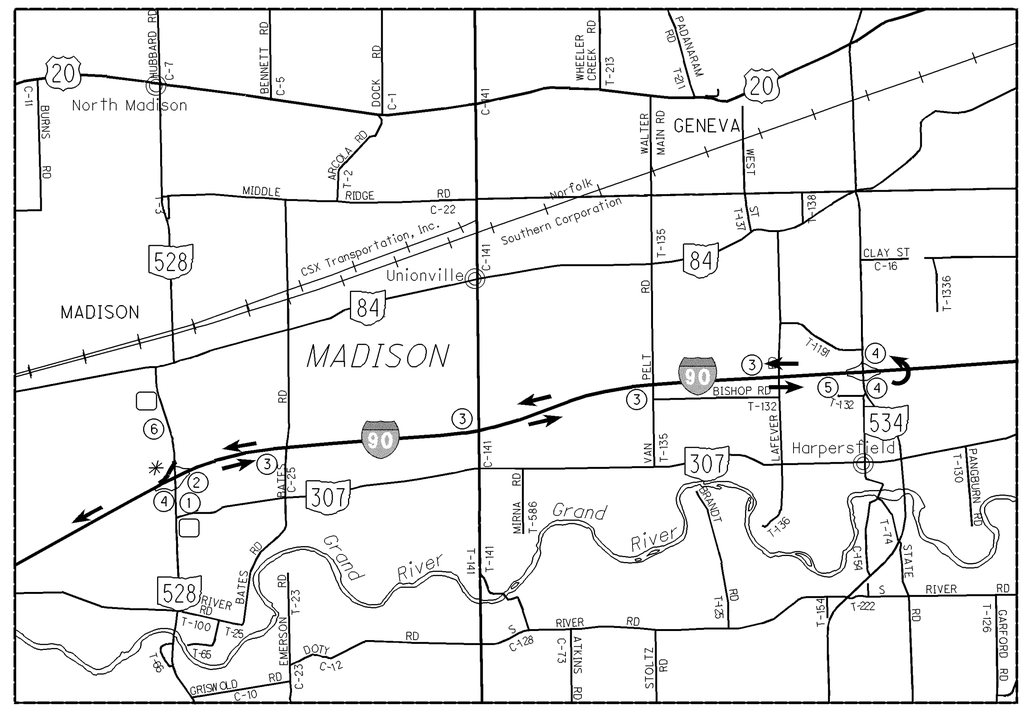


PORTABLE CHANGEABLE MESSAGE BOARD

1	2	3	4
DETOUR 528 TRUCK	DETOUR 528 TRUCK	DETOUR 528 TRUCK	DETOUR 528 TRUCK
M4-8-24	M4-8-24	M4-8-24	M4-8-24
M1-H5-30-3	M1-H5-30-3	M1-H5-30-3	M1-H5-30-3
M6-3-24	M6-2R-24	M6-1L-24	M6-2R-24
M4-4-24	M4-4-24	M4-4-24	M4-4-24

MAINLINE I.R. 90 WESTBOUND ENTRANCE RAMP (RAMP J)

DETOUR TO I.R. 90 EB TO S.R. 534, LOOP BACK VIA I.R. 90 WB



PORTABLE CHANGEABLE MESSAGE BOARD

1	2	3	4	5	6
DETOUR WEST INTERSTATE 90 TRUCK	DETOUR WEST INTERSTATE 90 TRUCK	DETOUR WEST INTERSTATE 90 TRUCK	DETOUR WEST INTERSTATE 90 TRUCK	DETOUR WEST INTERSTATE 90 TRUCK	DETOUR WEST INTERSTATE 90 TRUCK
M4-8-24	M4-8-24	M4-8-24	M4-8-24	M4-8-24	M4-8-24
M3-4-24	M3-4-24	M3-4-24	M3-4-24	M3-4-24	M3-4-24
M1-1-30-2	M1-1-30-2	M1-1-30-2	M1-1-30-2	M1-1-30-2	M1-1-30-2
M5-1R-21	M6-1R-21	M6-3-21	M6-1L-21	M6-2R-21	M5-1L-21
M4-4-24	M4-4-24	M4-4-24	M4-4-24	M4-4-24	M4-4-24

* LEO SHOULD BE PRESENT AT THE TOP OF THE RAMPS UNDER CONSTRUCTION TO FACILITATE TRAFFIC.

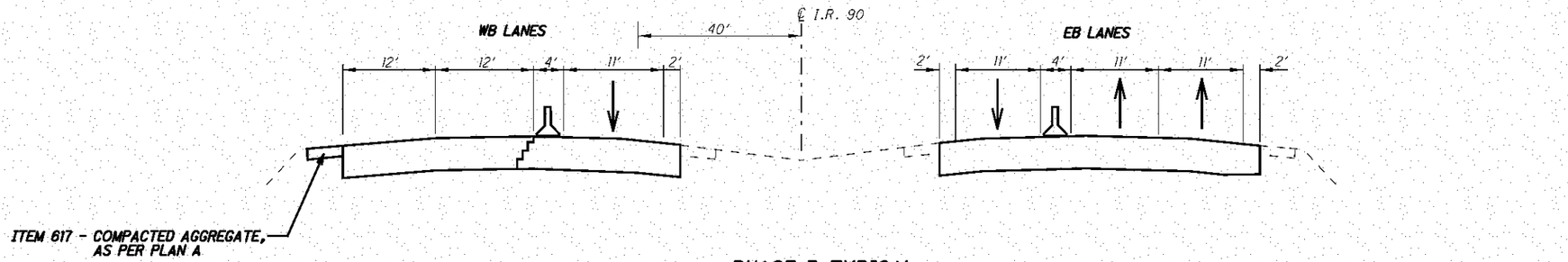
CALCULATED M.M.
CHECKED H.G.

S.R. 528 RAMPS J & K TRUCK DETOURS

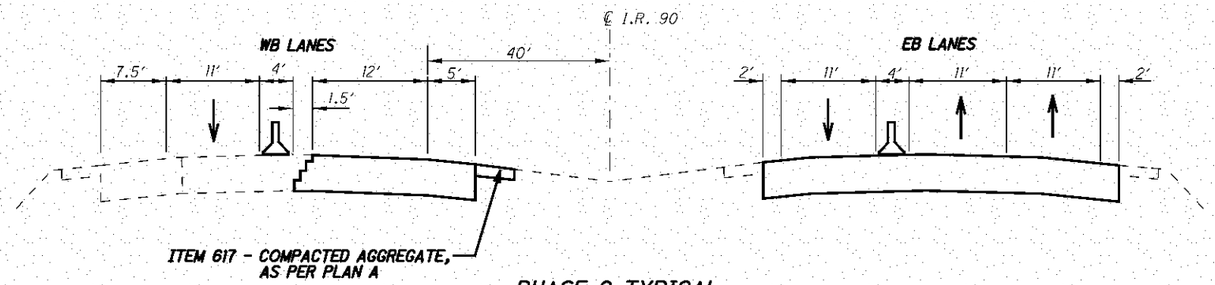
LAK-90-21.40
ATB-90-0.00

75477_RTD002.DGN 07/07/2009

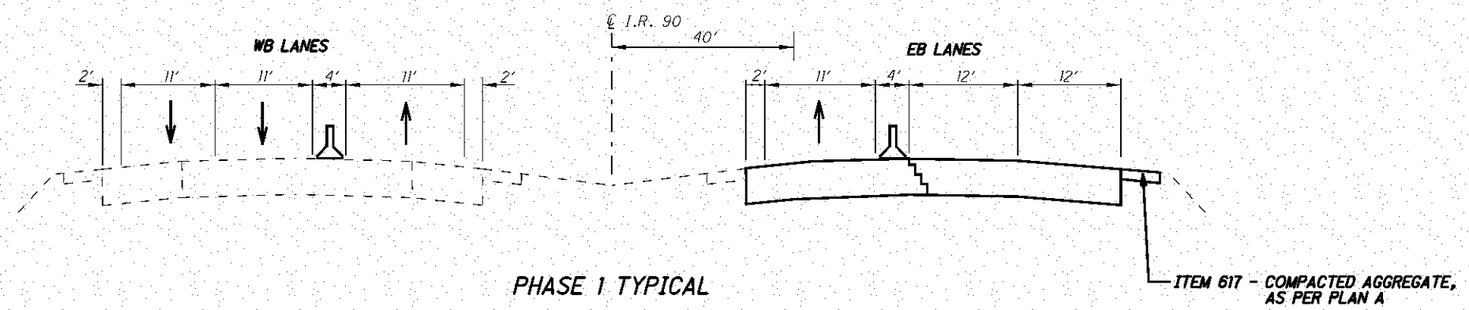
PHASE 4 TYPICAL



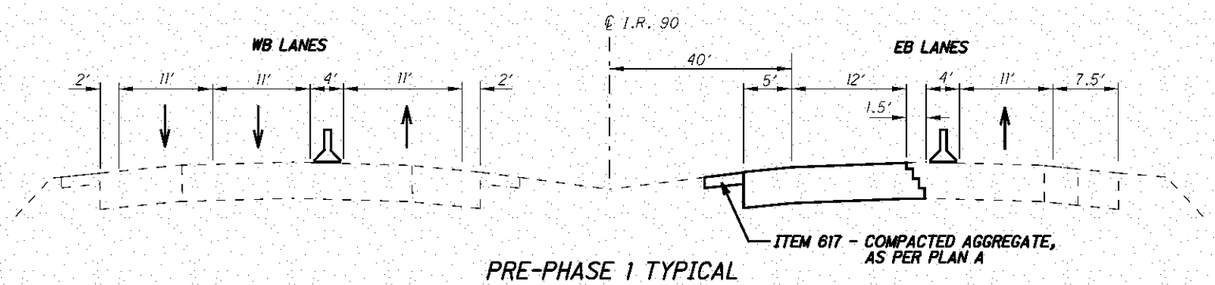
PHASE 3 TYPICAL



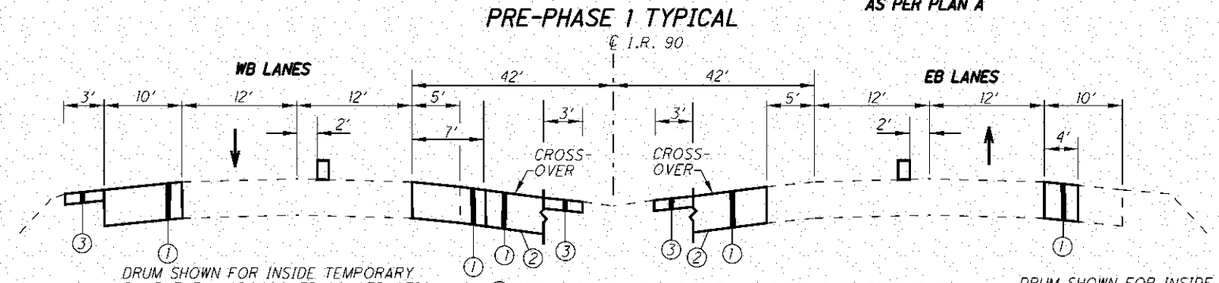
PHASE 2 TYPICAL



PHASE 1 TYPICAL



PRE-PHASE 1 TYPICAL



DRUM SHOWN FOR INSIDE TEMPORARY PAVEMENT & CROSSOVER CONSTRUCTION

REVERSE FOR OUTSIDE TEMPORARY PAVEMENT.

1. ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
2. ITEM 615 - ROADS FOR MAINTAINING TRAFFIC
3. ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN B

DRUM SHOWN FOR INSIDE CROSSOVER CONSTRUCTION

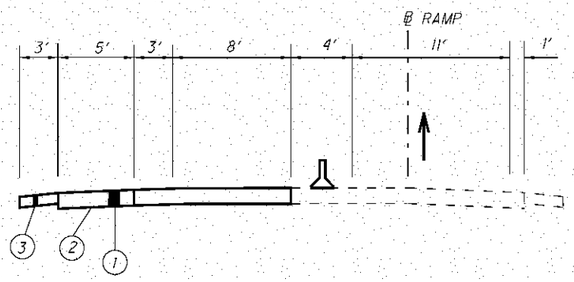
REVERSE FOR OUTSIDE TEMPORARY PAVEMENT.

CALCULATED H.G.
CHECKED J.C.

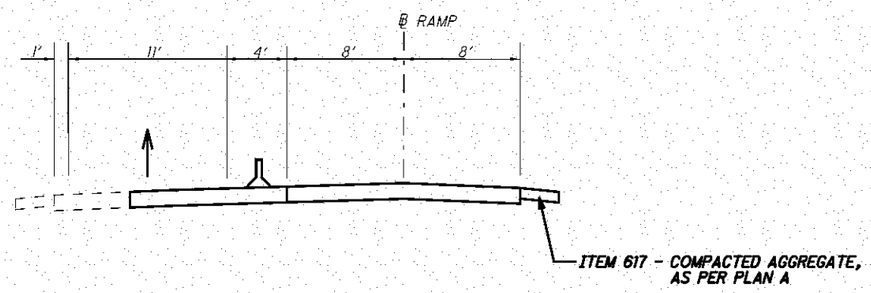
I.R. 90 MAINTENANCE OF TRAFFIC PLAN SHEET
MAINLINE TYPICALS

LAK-90-21.40
ATB-90-0.00

PHASE 1 TYPICAL



PHASE 2 TYPICAL



(1) ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A

(2) ITEM 615 - ROADS FOR MAINTAINING TRAFFIC

(3) ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN B

CALCULATED J.C.
CHECKED S.D.

I.R. 90 MAINTENANCE OF TRAFFIC PLAN SHEET
RAMP TYPICALS

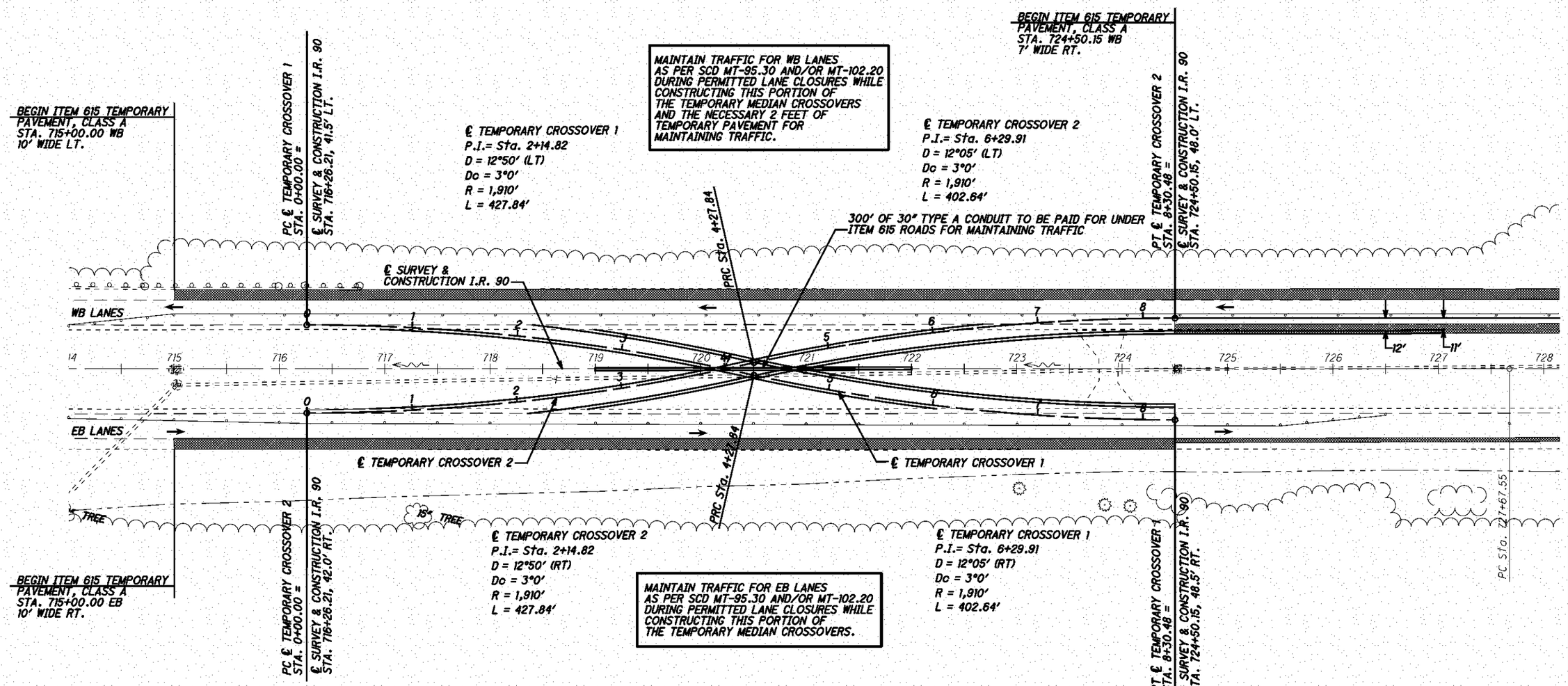
LAK-90-21.40
ATB-90-0.00

75477mot001.dgn 04/15/08

SEE SHEETS 40 & 41 FOR TEMPORARY CROSSOVER 1 & 2 PROFILES

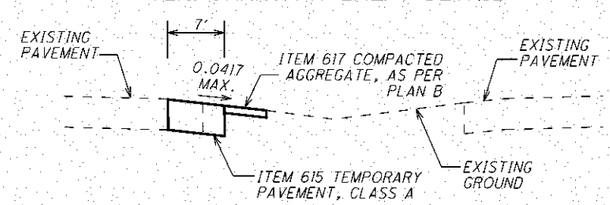
NOTE:
INSTALL TEMPORARY CROSSOVER LIGHTING SYSTEM AS PER SCD MT-100.

DUE TO THE "REVISED SEQUENCE OF CONSTRUCTION" AS DESCRIBED IN THE NOTE ON SHEET 28, THE TEMPORARY PAVEMENT SHALL BE BUILT ADJACENT TO THE EB LANES AS OPPOSED TO THE WB LANES AS SHOWN ON THIS SHEET.



WORK AREA
DRUMS
PORTABLE CONCRETE BARRIER
IMPACT ATTENUATOR (IA)
PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A

TEMPORARY PAVEMENT DETAIL



HORIZONTAL SCALE IN FEET 0 50 100

CALCULATED H.G.
CHECKED J.C.

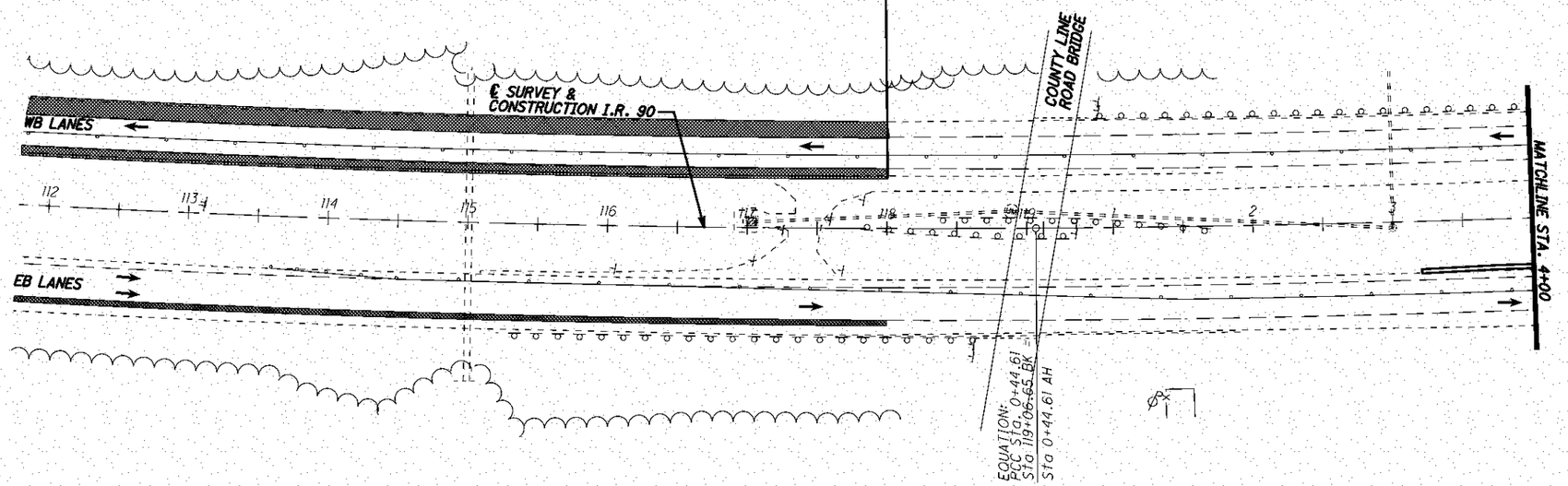
I.R. 90 MAINTENANCE OF TRAFFIC PLAN SHEET PRE-PHASE 1

LAK-90-21.40
ATB-90-0.00

190_MOT_001ABEGIN.DGN 02/19/09

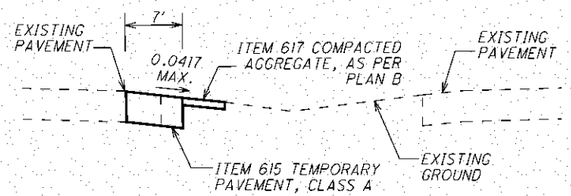
DUE TO THE "REVISED SEQUENCE OF CONSTRUCTION" AS DESCRIBED IN THE NOTE ON SHEET 28, THE TEMPORARY PAVEMENT SHALL BE BUILT ADJACENT TO THE EB LANES AS OPPOSED TO THE WB LANES AS SHOWN ON THIS SHEET.

MAINTAIN TRAFFIC FOR WB LANES AS PER SCD MT-95.30 AND/OR MT-102.20 DURING PERMITTED LANE CLOSURES WHILE CONSTRUCTING THIS PORTION OF THE NECESSARY 2 FEET OF TEMPORARY PAVEMENT FOR MAINTAINING TRAFFIC.



MAINTAIN TRAFFIC FOR WB LANES AS PER SCD MT-95.30 AND/OR MT-102.20 DURING PERMITTED LANE CLOSURES WHILE CONSTRUCTING THIS PORTION OF THE TEMPORARY MEDIAN CROSSOVERS.

TEMPORARY PAVEMENT DETAIL



- WORK AREA
- DRUMS
- PORTABLE CONCRETE BARRIER
- IMPACT ATTENUATOR (IA)
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A

I90_MOT_001AEnd01.dgn 02/19/09

HORIZONTAL SCALE IN FEET 0 50 100

CALCULATED H.G.
CHECKED J.C.

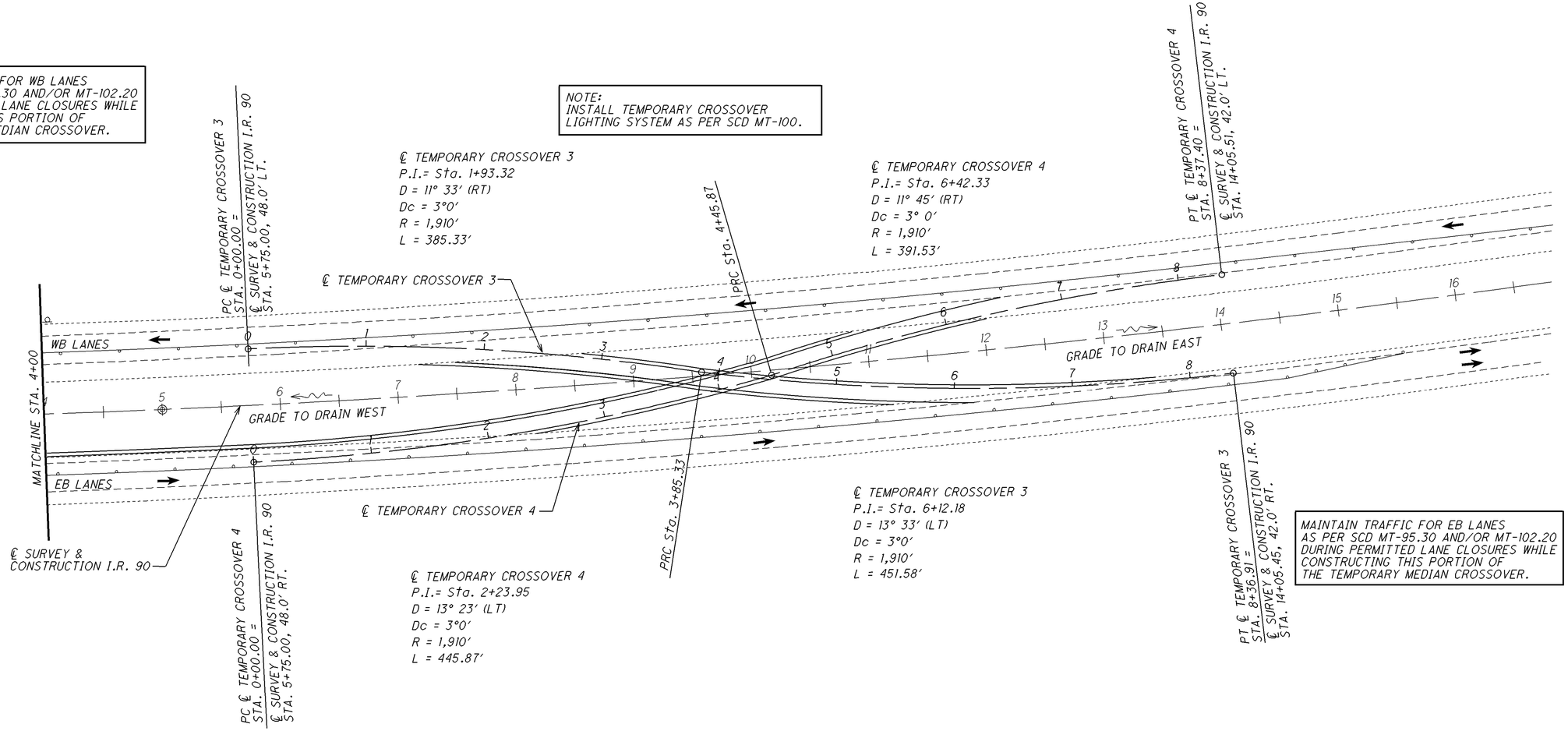
I.R. 90 MAINTENANCE OF TRAFFIC PLAN SHEET PRE-PHASE 1

LAK-90-21.40
ATB-90-0.00

SEE SHEETS 42 & 43 FOR TEMPORARY CROSSOVER 3 & 4 PROFILES

MAINTAIN TRAFFIC FOR WB LANES AS PER SCD MT-95.30 AND/OR MT-102.20 DURING PERMITTED LANE CLOSURES WHILE CONSTRUCTING THIS PORTION OF THE TEMPORARY MEDIAN CROSSOVER.

NOTE:
INSTALL TEMPORARY CROSSOVER LIGHTING SYSTEM AS PER SCD MT-100.



MAINTAIN TRAFFIC FOR EB LANES AS PER SCD MT-95.30 AND/OR MT-102.20 DURING PERMITTED LANE CLOSURES WHILE CONSTRUCTING THIS PORTION OF THE TEMPORARY MEDIAN CROSSOVER.

WORK AREA
DRUMS
PORTABLE CONCRETE BARRIER
IMPACT ATTENUATOR (IA)
PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A

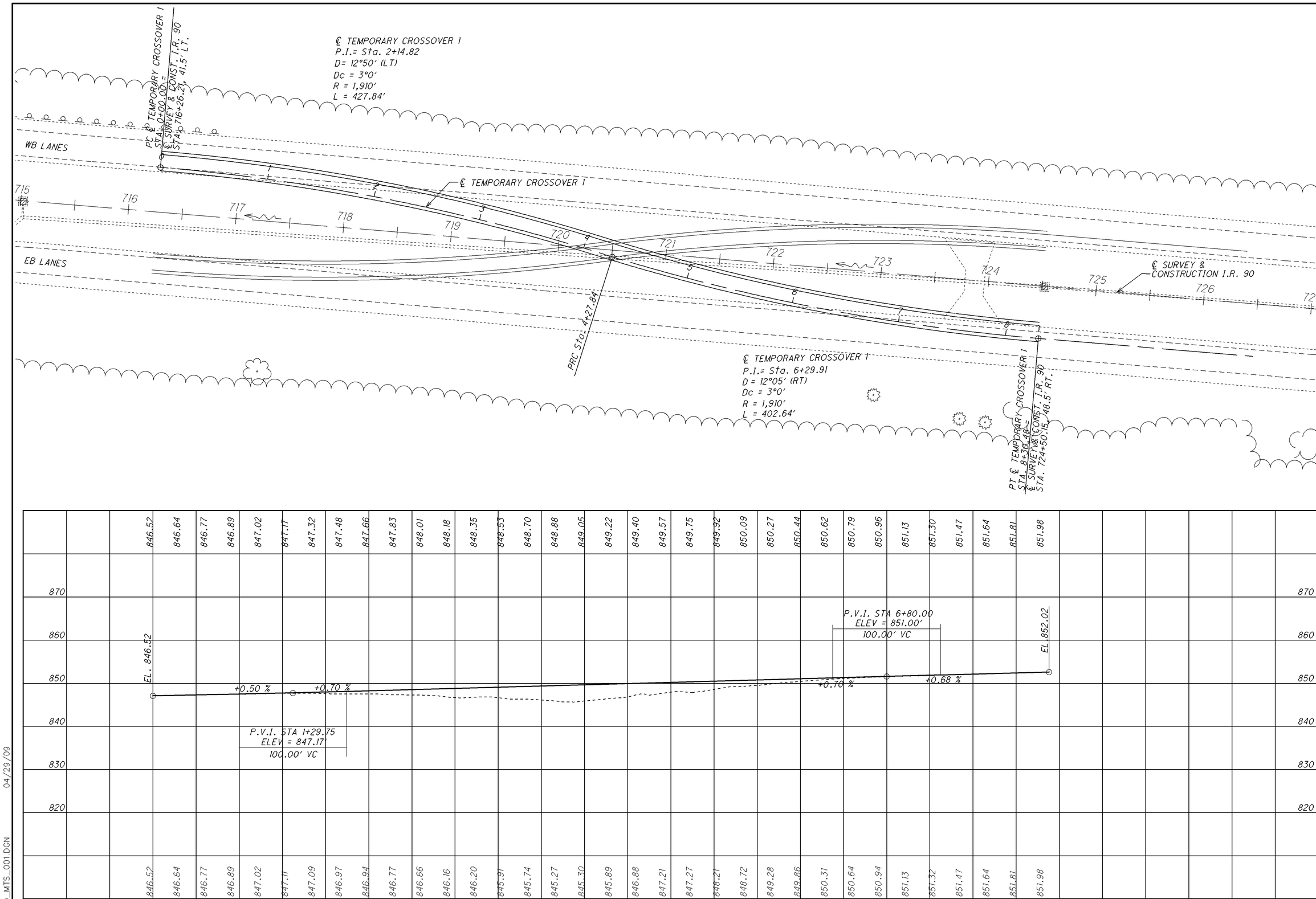
HORIZONTAL SCALE IN FEET 0 50 100

CALCULATED H.G.
CHECKED J.C.

I.R. 90 MAINTENANCE OF TRAFFIC PLAN SHEET PRE-PHASE 1

LAK-90-21.40
ATB-90-0.00

I90_MOT_001AEnd02.dgn 02/19/09



HORIZONTAL SCALE IN FEET
0 40 80

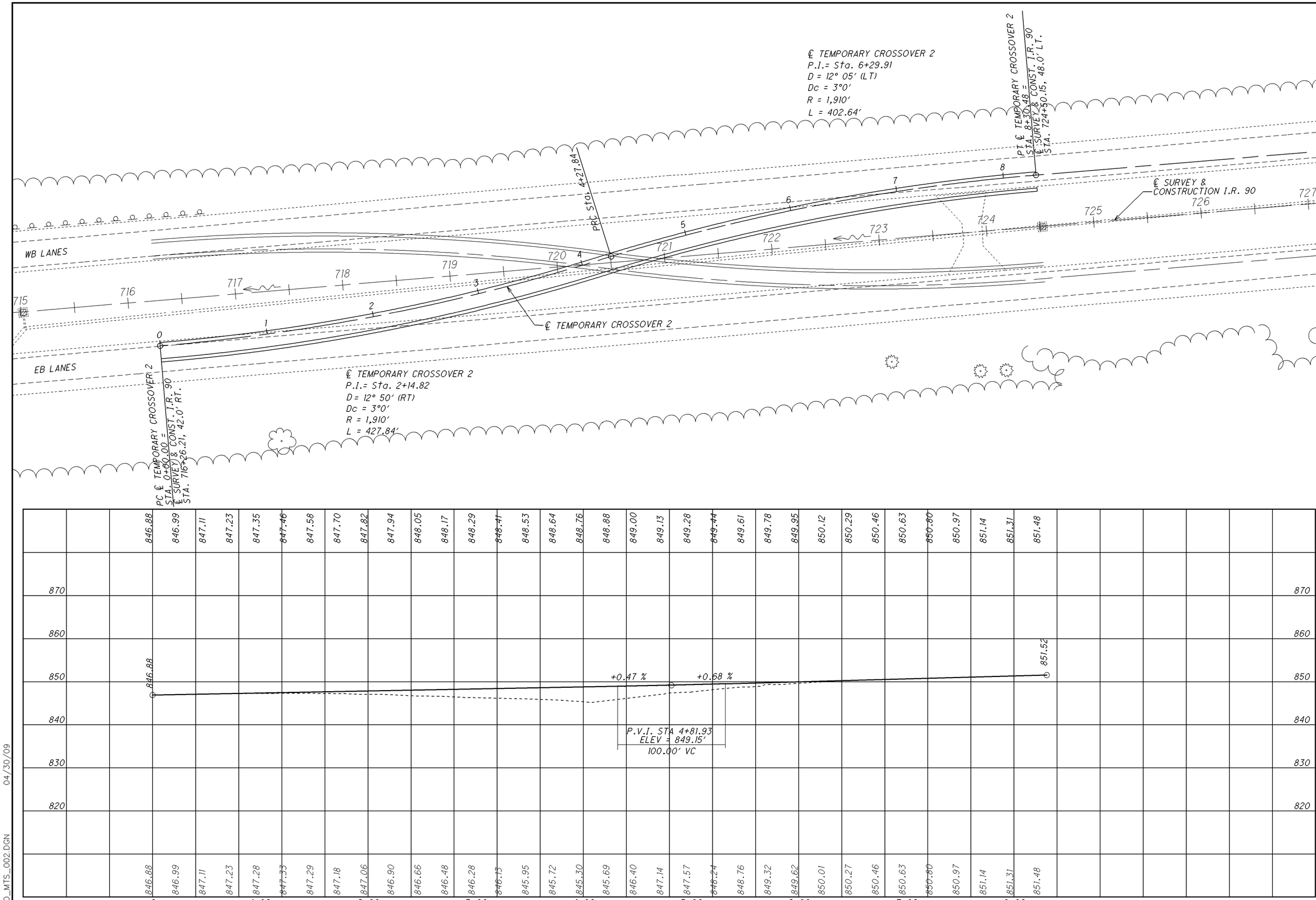
CALCULATED HG
CHECKED JC

I.R. 90 MAINTENANCE OF TRAFFIC CROSSOVER PROFILE
TEMPORARY CROSSOVER 1

LAK-90-21.40
ATB-90-0.00

04/29/09

90_MTS_001.DGN



HORIZONTAL SCALE IN FEET
0 40 80

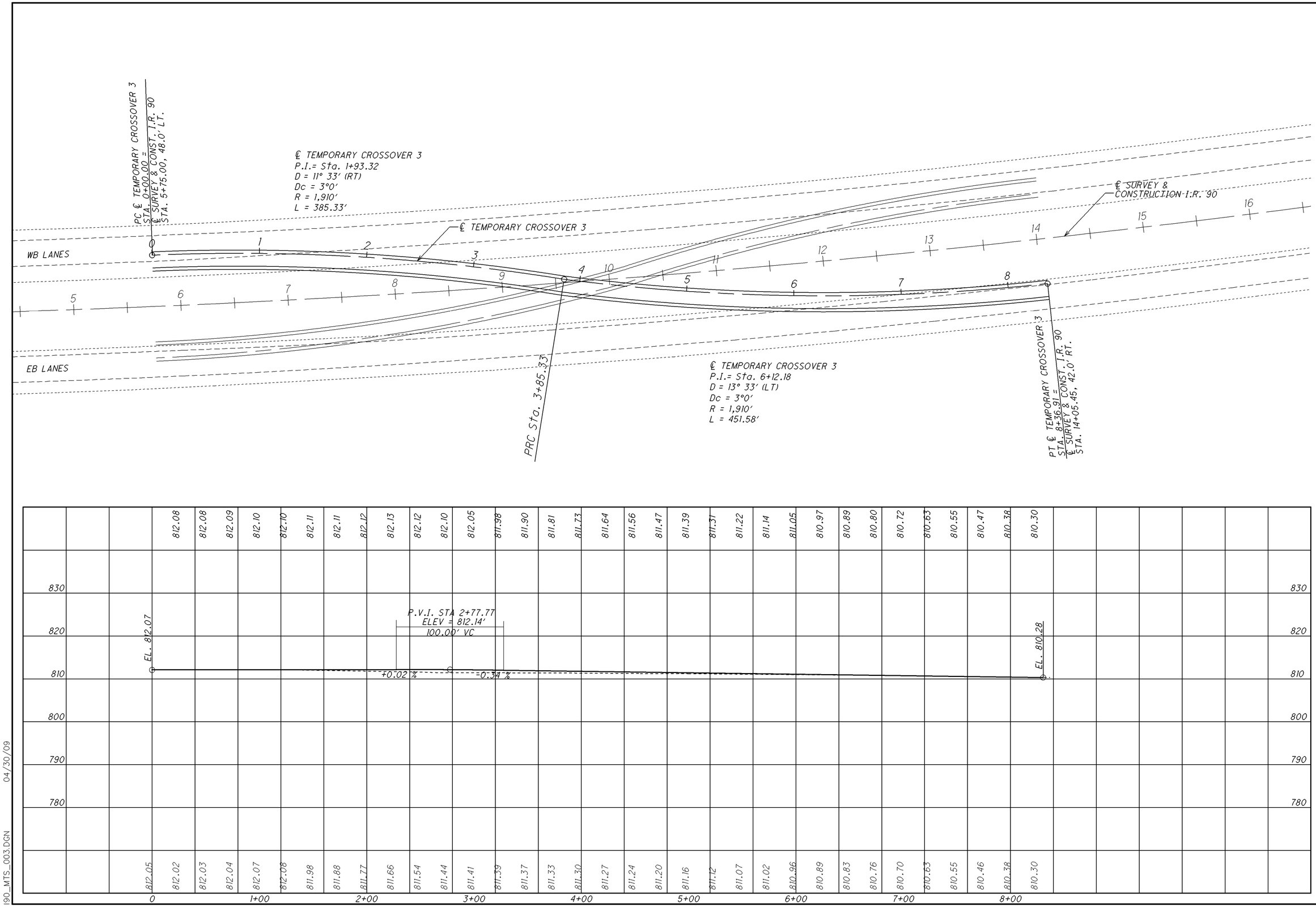
CALCULATED HG
CHECKED JC

I.R. 90 MAINTENANCE OF TRAFFIC CROSSOVER PROFILE
TEMPORARY CROSSOVER 2

LAK-90-21.40
ATB-90-0.00

04/30/09

190_MTS_002.DGN



HORIZONTAL SCALE IN FEET
0 40 80

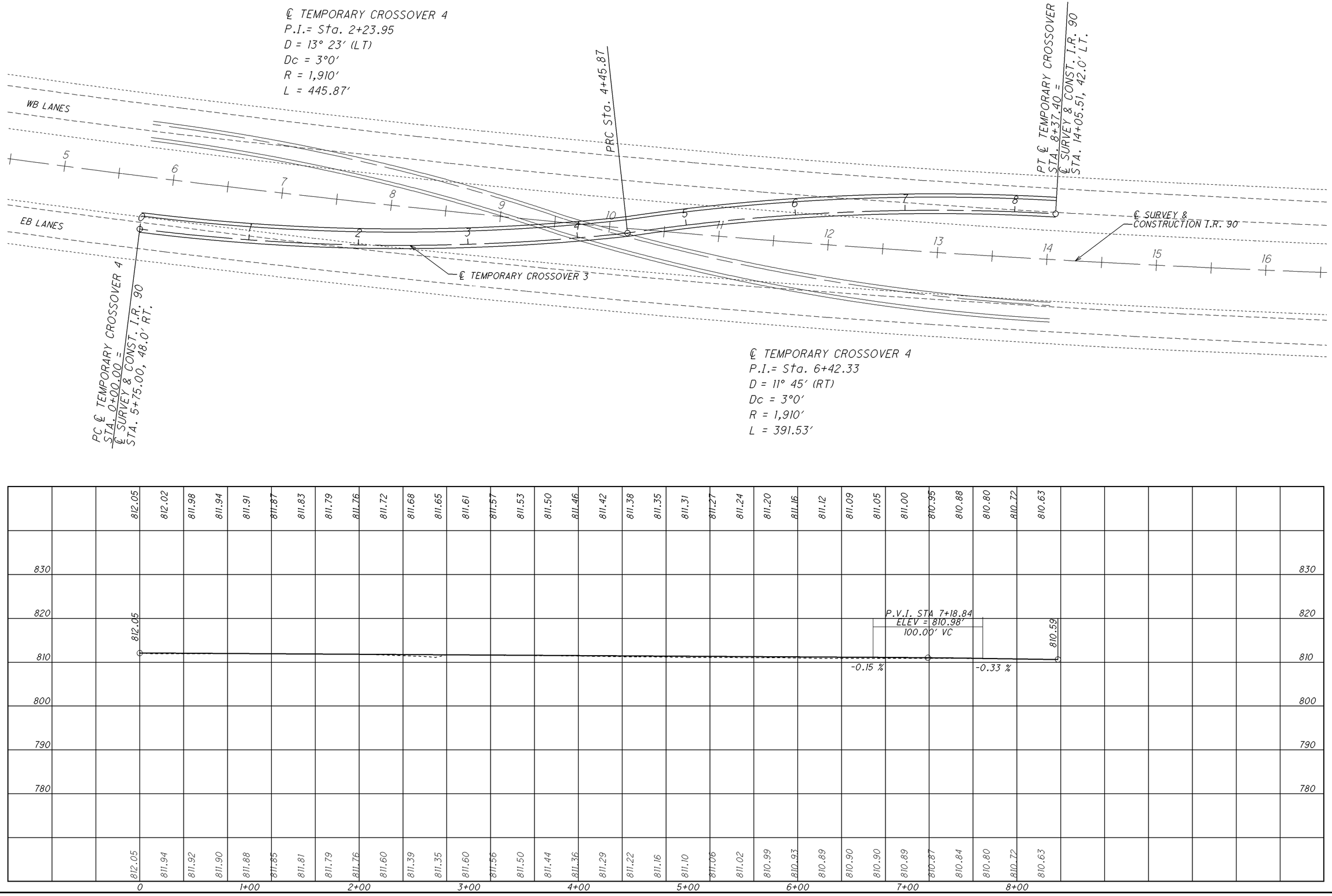
CALCULATED HG
CHECKED JC

I.R. 90 MAINTENANCE OF TRAFFIC CROSSOVER PROFILE TEMPORARY CROSSOVER 3

LAK-90-21.40
ATB-90-0.00

04/30/09

90_MTS_003.DGN

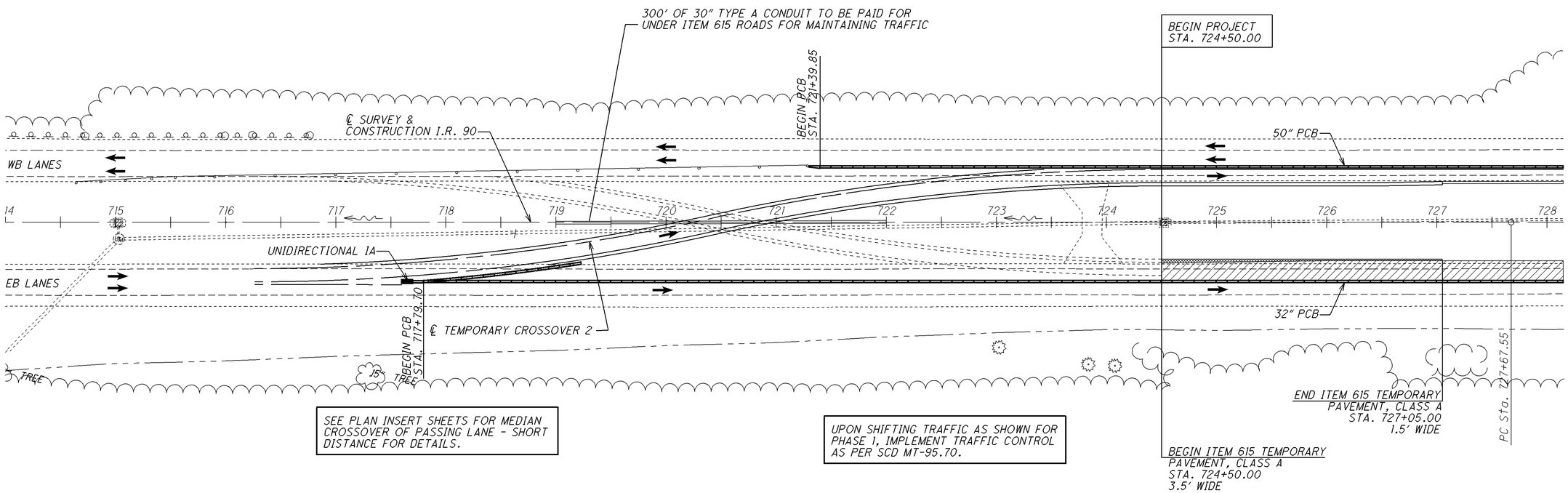


HORIZONTAL SCALE IN FEET

CALCULATED HG
CHECKED JC

I.R. 90 MAINTENANCE OF TRAFFIC CROSSOVER PROFILE
TEMPORARY CROSSOVER 4

LAK-90-21.40
ATB-90-0.00



WORK AREA

DRUMS

PORTABLE CONCRETE BARRIER

IMPACT ATTENUATOR (IA)

PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A

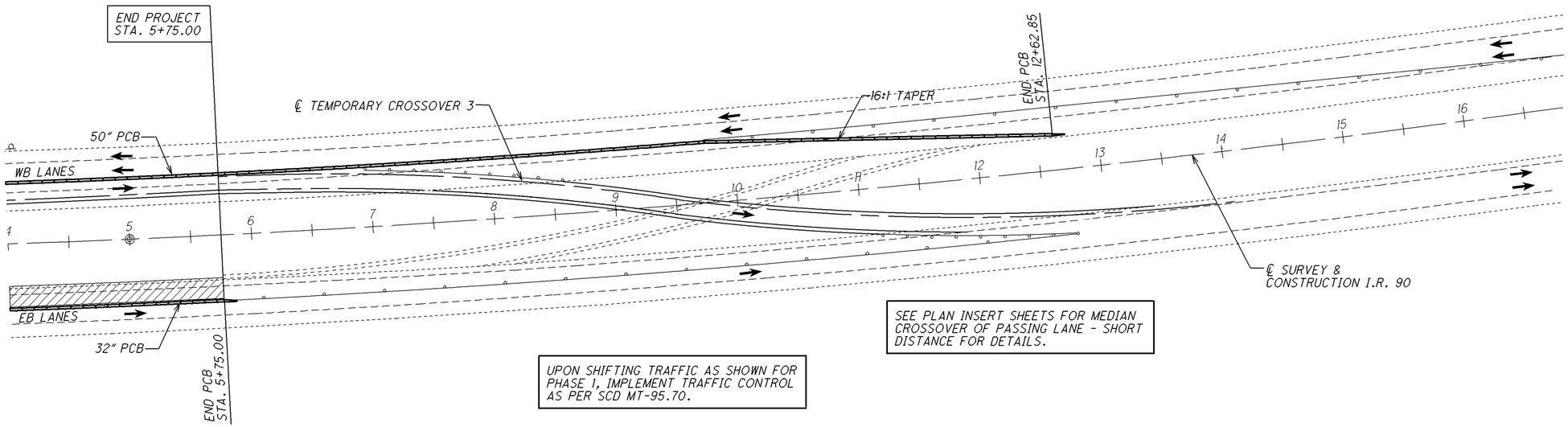
N

0 50 100
HORIZONTAL SCALE IN FEET

CALCULATED H.G.
CHECKED J.C.

I.R. 90 MAINTENANCE OF TRAFFIC PLAN SHEET PHASE 1

LAK-90-21.40
ATB-90-0.00



SEE PLAN INSERT SHEETS FOR MEDIAN CROSSOVER OF PASSING LANE - SHORT DISTANCE FOR DETAILS.

UPON SHIFTING TRAFFIC AS SHOWN FOR PHASE 1, IMPLEMENT TRAFFIC CONTROL AS PER SCD MT-95.70.

WORK AREA

DRUMS

PORTABLE CONCRETE BARRIER

IMPACT ATTENUATOR (IA)

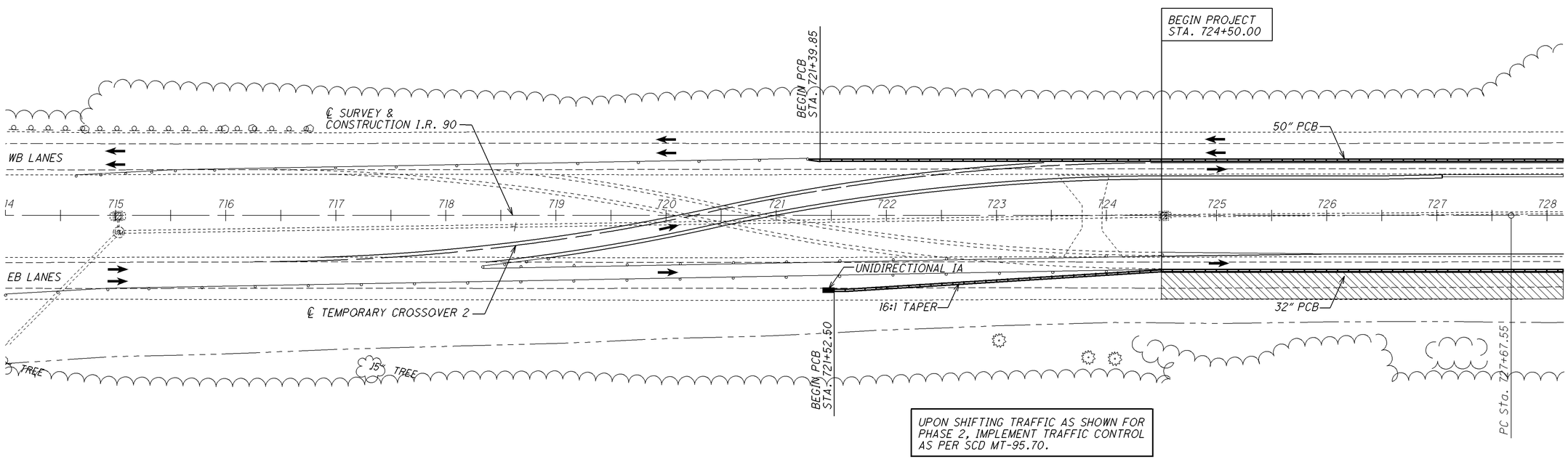
PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A

HORIZONTAL SCALE IN FEET
0 50 100

CALCULATED H.G.
CHECKED J.C.

I.R. 90 MAINTENANCE OF TRAFFIC PLAN SHEET PHASE 1

LAK-90-21.40
ATB-90-0.00



WORK AREA

DRUMS

PORTABLE CONCRETE BARRIER

IMPACT ATTENUATOR (IA)

PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A

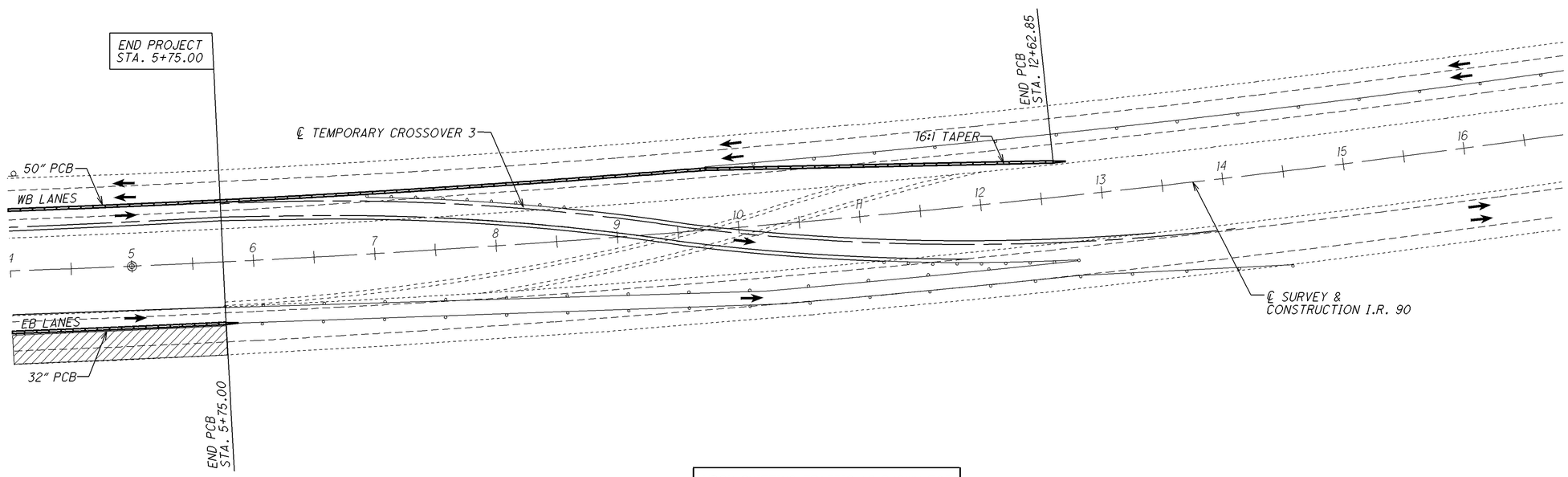
N

0 50 100
HORIZONTAL SCALE IN FEET

CALCULATED H.G.
CHECKED J.C.

I.R. 90 MAINTENANCE OF TRAFFIC PLAN SHEET PHASE 2

LAK-90-21.40
ATB-90-0.00



UPON SHIFTING TRAFFIC AS SHOWN FOR PHASE 2, IMPLEMENT TRAFFIC CONTROL AS PER SCD MT-95.70.

WORK AREA

DRUMS

PORTABLE CONCRETE BARRIER

IMPACT ATTENUATOR (IA)

PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A

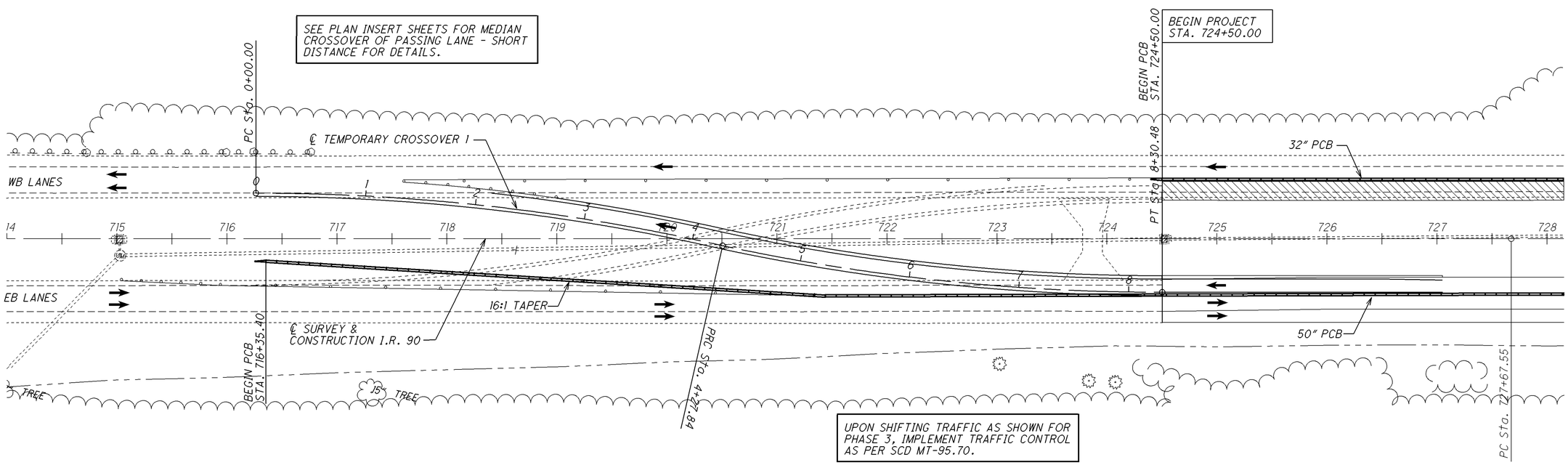
N

HORIZONTAL SCALE IN FEET
0 50 100

CALCULATED H.G.
CHECKED J.C.

I.R. 90 MAINTENANCE OF TRAFFIC PLAN SHEET PHASE 2

LAK-90-21.40
ATB-90-0.00



WORK AREA

DRUMS

PORTABLE CONCRETE BARRIER

IMPACT ATTENUATOR (IA)

PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A

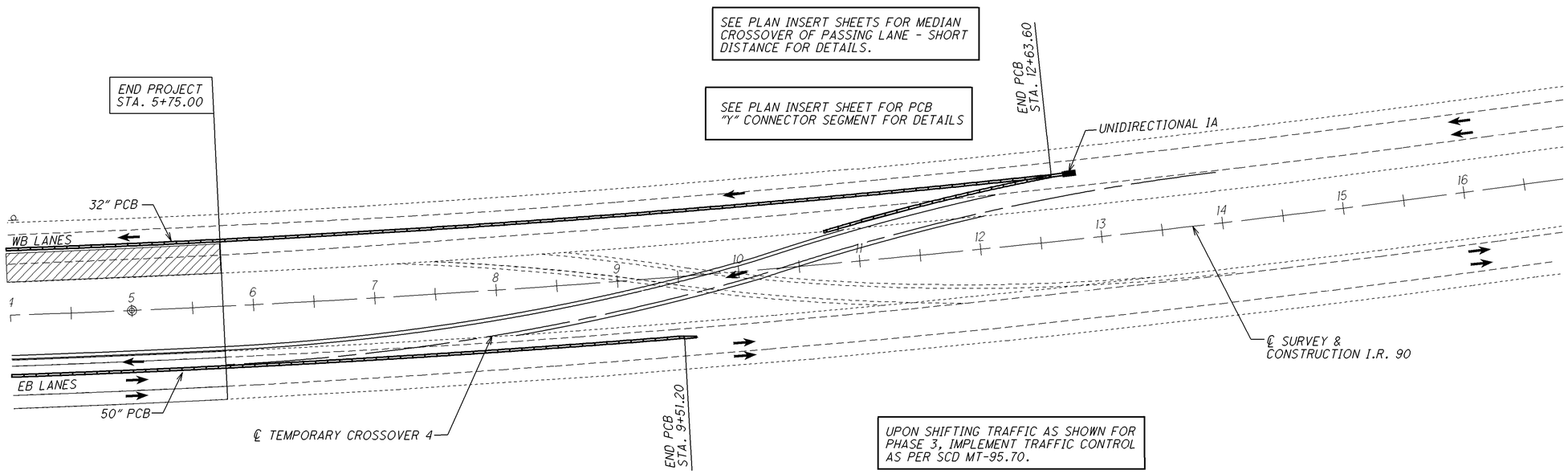
N

HORIZONTAL SCALE IN FEET
0 50 100

CALCULATED H.G.
CHECKED J.C.

I.R. 90 MAINTENANCE OF TRAFFIC PLAN SHEET PHASE 3

LAK-90-21.40
ATB-90-0.00



UPON SHIFTING TRAFFIC AS SHOWN FOR PHASE 3, IMPLEMENT TRAFFIC CONTROL AS PER SCD MT-95.70.

WORK AREA

DRUMS

PORTABLE CONCRETE BARRIER

IMPACT ATTENUATOR (IA)

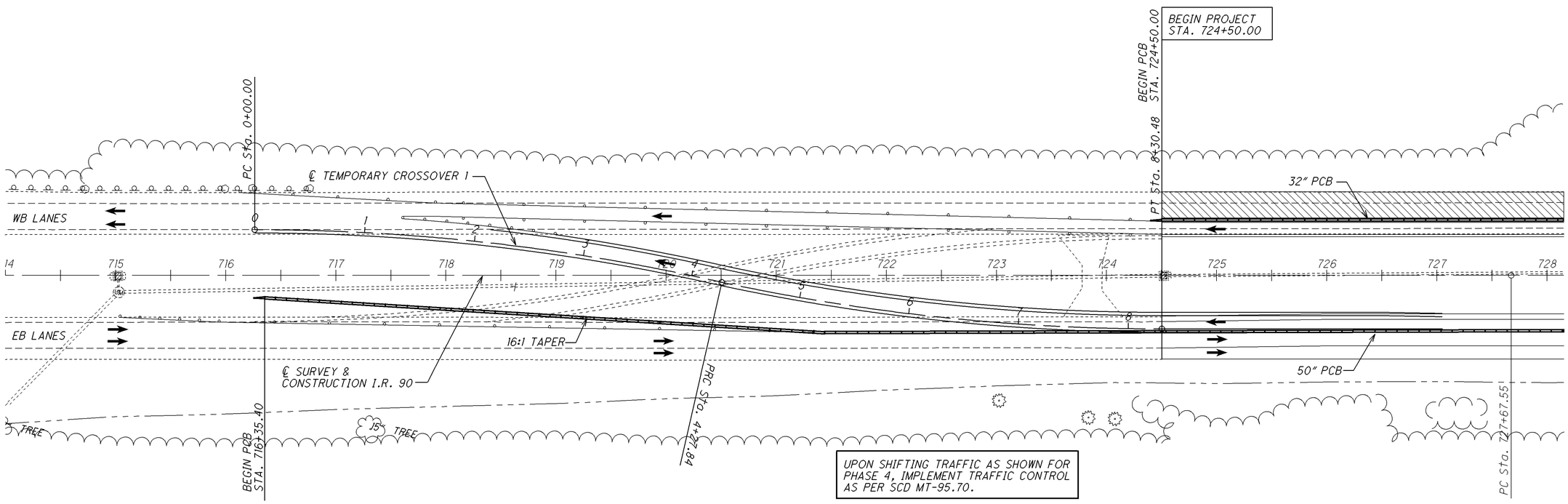
PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A

HORIZONTAL SCALE IN FEET 0 50 100

CALCULATED H.G.
CHECKED J.C.

I.R. 90 MAINTENANCE OF TRAFFIC PLAN SHEET PHASE 3

LAK-90-21.40
ATB-90-0.00



UPON SHIFTING TRAFFIC AS SHOWN FOR PHASE 4, IMPLEMENT TRAFFIC CONTROL AS PER SCD MT-95.70.

WORK AREA

DRUMS

PORTABLE CONCRETE BARRIER

IMPACT ATTENUATOR (IA)

PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A

HORIZONTAL SCALE IN FEET

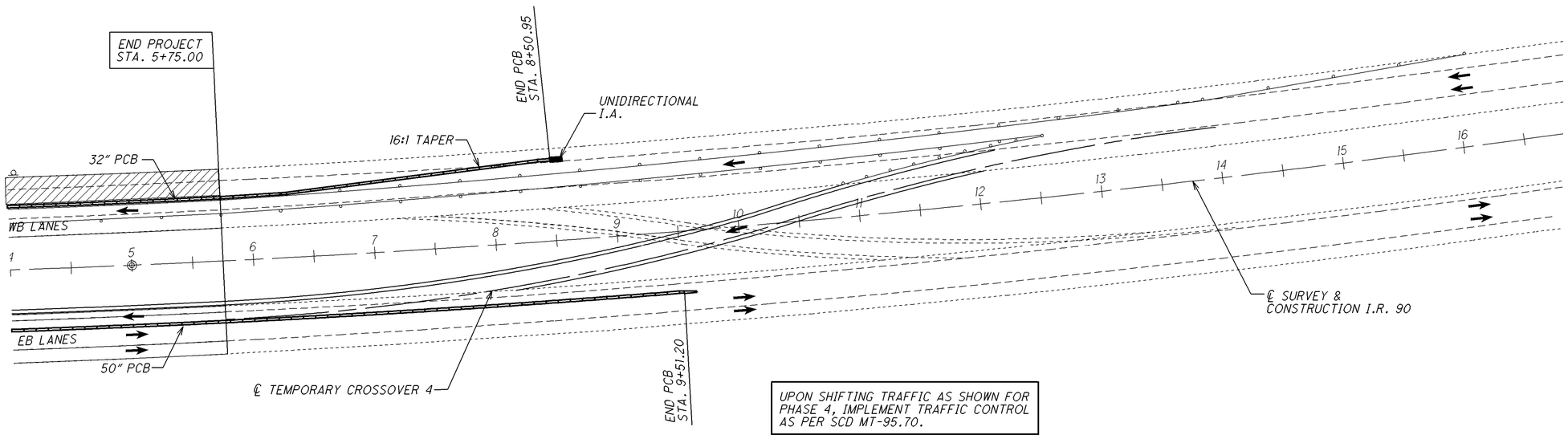
0 50 100

CALCULATED H.G.

CHECKED J.C.

I.R. 90 MAINTENANCE OF TRAFFIC PLAN SHEET PHASE 4

LAK-90-21.40
ATB-90-0.00



UPON SHIFTING TRAFFIC AS SHOWN FOR PHASE 4, IMPLEMENT TRAFFIC CONTROL AS PER SCD MT-95.70.

WORK AREA

DRUMS

PORTABLE CONCRETE BARRIER

IMPACT ATTENUATOR

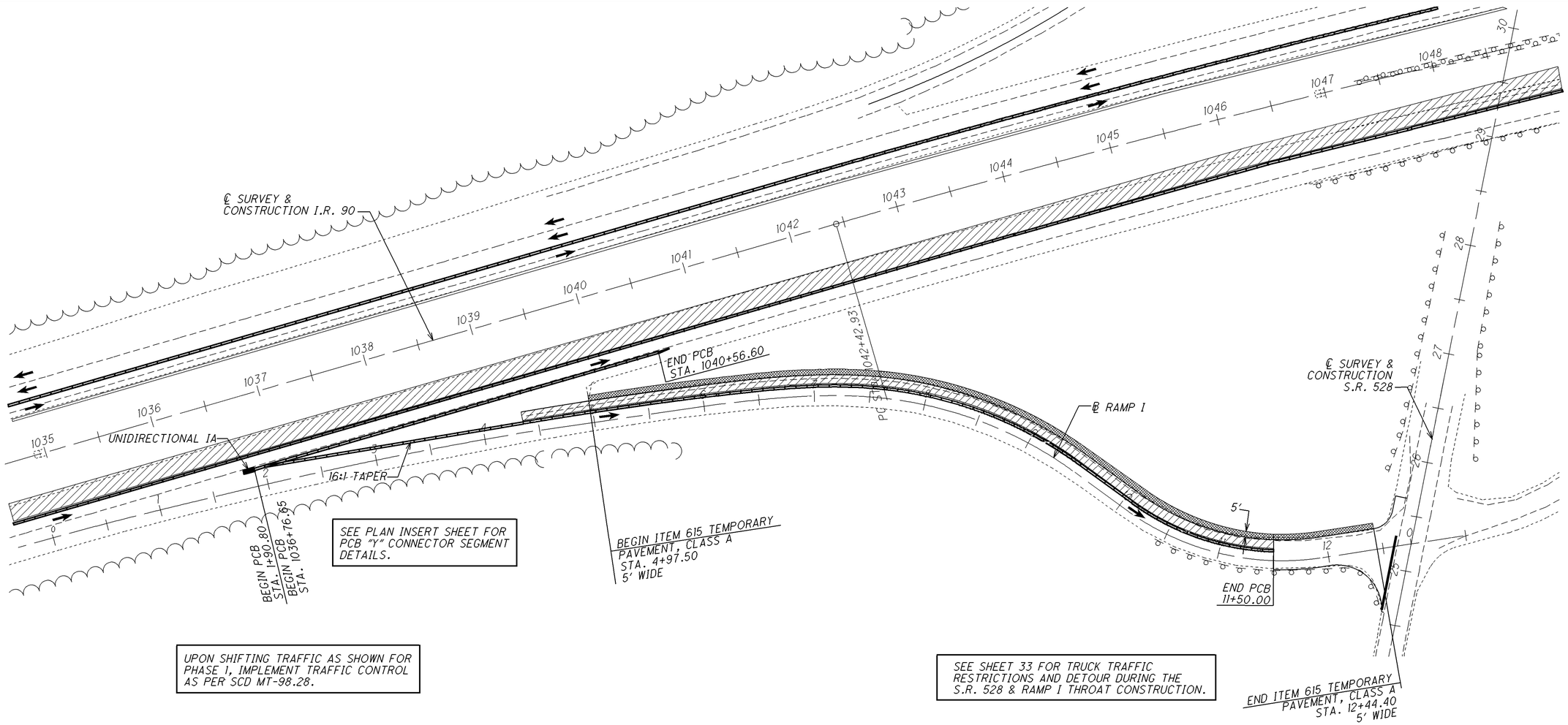
PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A

HORIZONTAL SCALE IN FEET
0 50 100

CALCULATED H.G.
CHECKED J.C.

I.R. 90 MAINTENANCE OF TRAFFIC PLAN SHEET PHASE 4

LAK-90-21.40
ATB-90-0.00



SEE PLAN INSERT SHEET FOR PCB "Y" CONNECTOR SEGMENT DETAILS.

UPON SHIFTING TRAFFIC AS SHOWN FOR PHASE 1, IMPLEMENT TRAFFIC CONTROL AS PER SCD MT-98.28.

SEE SHEET 33 FOR TRUCK TRAFFIC RESTRICTIONS AND DETOUR DURING THE S.R. 528 & RAMP I THROAT CONSTRUCTION.

WORK AREA

DRUMS

PORTABLE CONCRETE BARRIER

IMPACT ATTENUATOR (IA)

PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A

N

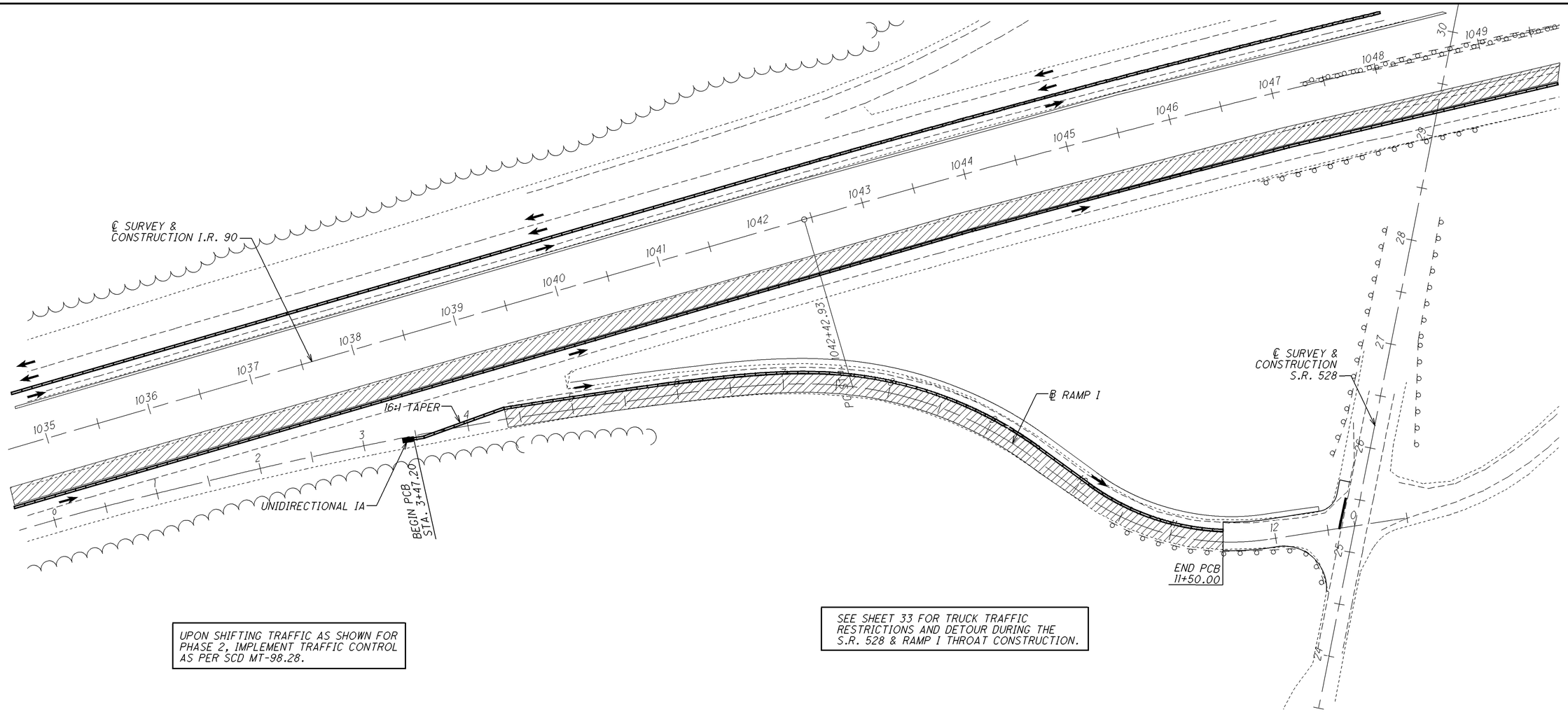
0 50 100
HORIZONTAL SCALE IN FEET

CALCULATED H.G.
CHECKED J.C.

RAMP I MAINTENANCE OF TRAFFIC PLAN SHEET PHASE 1

LAK-90-21.40
ATB-90-0.00

Ramp1_MOT_001.dgn 02/26/09



UPON SHIFTING TRAFFIC AS SHOWN FOR PHASE 2, IMPLEMENT TRAFFIC CONTROL AS PER SCD MT-98.28.

SEE SHEET 33 FOR TRUCK TRAFFIC RESTRICTIONS AND DETOUR DURING THE S.R. 528 & RAMP I THROAT CONSTRUCTION.

WORK AREA

DRUMS

PORTABLE CONCRETE BARRIER

IMPACT ATTENUATOR (IA)

PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A

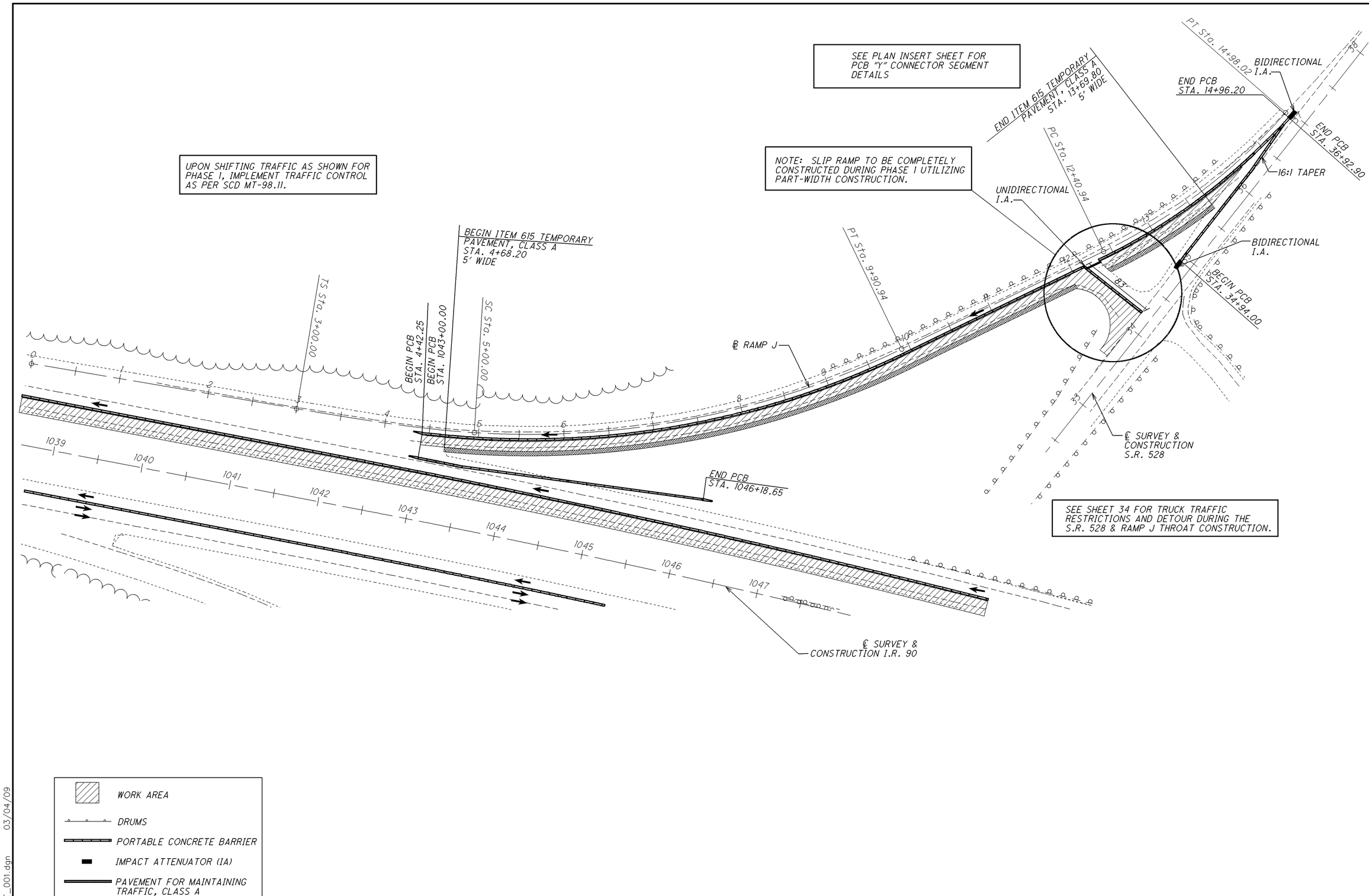
HORIZONTAL SCALE IN FEET 0 50 100

CALCULATED H.G.
CHECKED J.C.

RAMP I MAINTENANCE OF TRAFFIC PLAN SHEET PHASE 2

LAK-90-21.40
ATB-90-0.00

Rampl_MOT_002.dgn 03/02/09



HORIZONTAL SCALE IN FEET
0 50 100

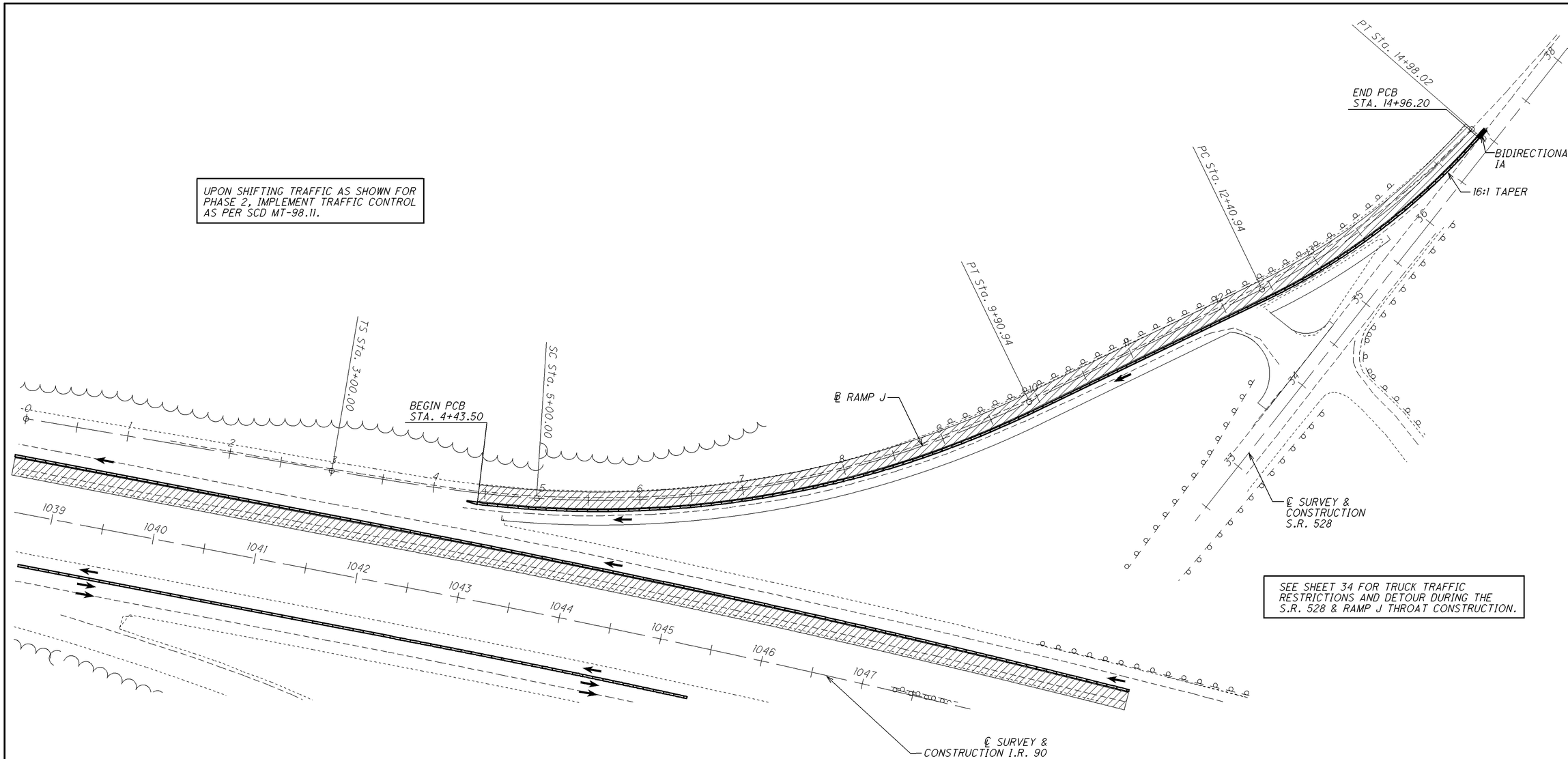
CALCULATED H.G.
CHECKED J.C.

RAMP J MAINTENANCE OF TRAFFIC PLAN SHEET PHASE 1

LAK-90-21.40
ATB-90-0.00

RampJ_MOT_001.dgn 03/04/09

UPON SHIFTING TRAFFIC AS SHOWN FOR PHASE 2, IMPLEMENT TRAFFIC CONTROL AS PER SCD MT-98.11.



SEE SHEET 34 FOR TRUCK TRAFFIC RESTRICTIONS AND DETOUR DURING THE S.R. 528 & RAMP J THROAT CONSTRUCTION.

WORK AREA

DRUMS

PORTABLE CONCRETE BARRIER

IMPACT ATTENUATOR (IA)

PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A

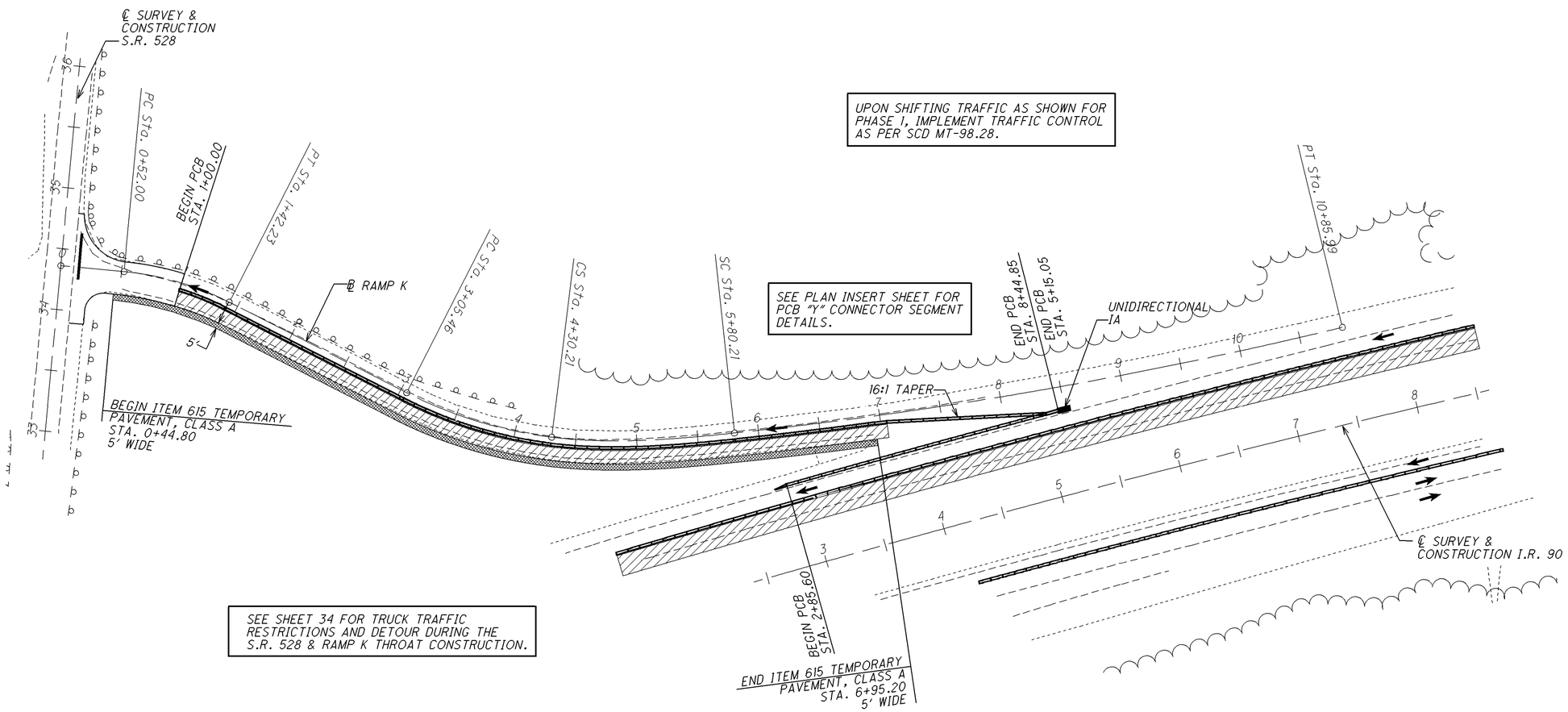
HORIZONTAL SCALE IN FEET 0 50 100

CALCULATED H.G.
CHECKED J.C.

RAMP J MAINTENANCE OF TRAFFIC PLAN SHEET PHASE 2

LAK-90-21.40
ATB-90-0.00

RampJ_MOT_002.dgn 03/04/09



UPON SHIFTING TRAFFIC AS SHOWN FOR PHASE 1, IMPLEMENT TRAFFIC CONTROL AS PER SCD MT-98.28.

SEE PLAN INSERT SHEET FOR PCB "Y" CONNECTOR SEGMENT DETAILS.

SEE SHEET 34 FOR TRUCK TRAFFIC RESTRICTIONS AND DETOUR DURING THE S.R. 528 & RAMP K THROAT CONSTRUCTION.

WORK AREA

DRUMS

PORTABLE CONCRETE BARRIER

IMPACT ATTENUATOR (IA)

PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A

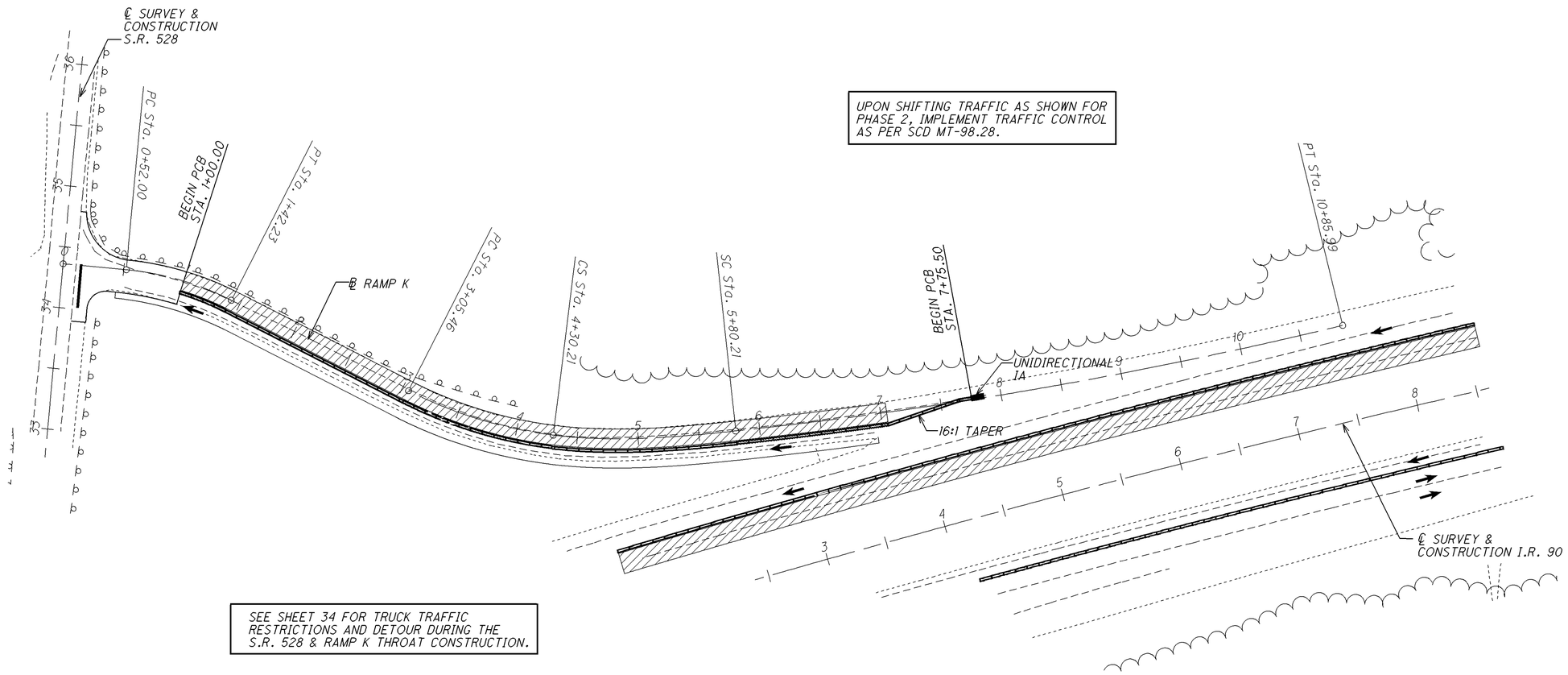
HORIZONTAL SCALE IN FEET 0 50 100

CALCULATED H.G.
CHECKED J.C.

RAMP K MAINTENANCE OF TRAFFIC PLAN SHEET PHASE 1

LAK-90-21.40
ATB-90-0.00

RampK_MOT_001.DGN 03/04/09



UPON SHIFTING TRAFFIC AS SHOWN FOR PHASE 2, IMPLEMENT TRAFFIC CONTROL AS PER SCD MT-98.28.

SEE SHEET 34 FOR TRUCK TRAFFIC RESTRICTIONS AND DETOUR DURING THE S.R. 528 & RAMP K THROAT CONSTRUCTION.

- WORK AREA
- DRUMS
- PORTABLE CONCRETE BARRIER
- IMPACT ATTENUATOR (IA)
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A

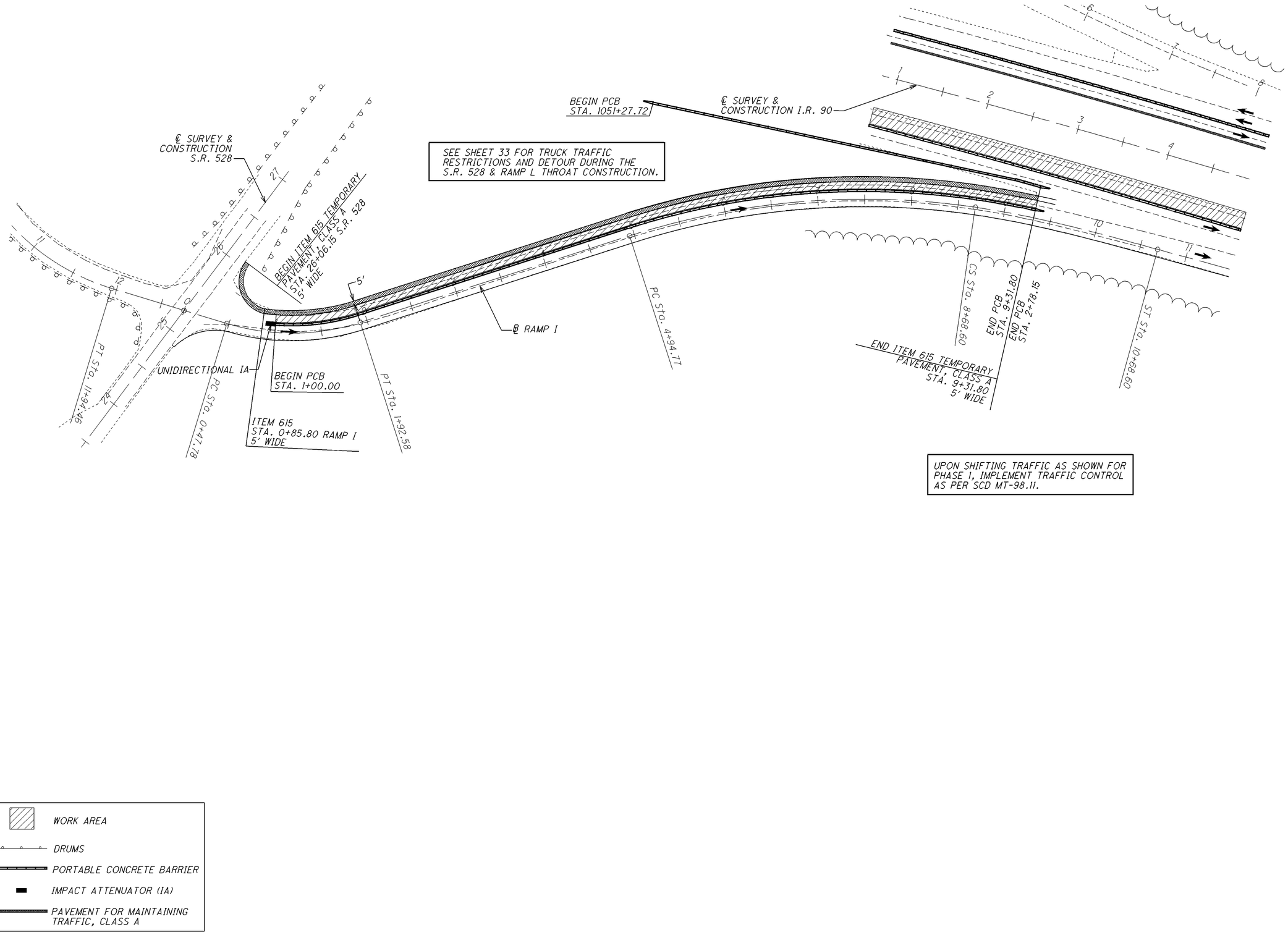
HORIZONTAL SCALE IN FEET 0 50 100

CALCULATED H.G.
CHECKED J.C.

RAMP K MAINTENANCE OF TRAFFIC PLAN SHEET PHASE 2

LAK-90-21.40
ATB-90-0.00

RampK_MOT_002.DGN 03/04/09



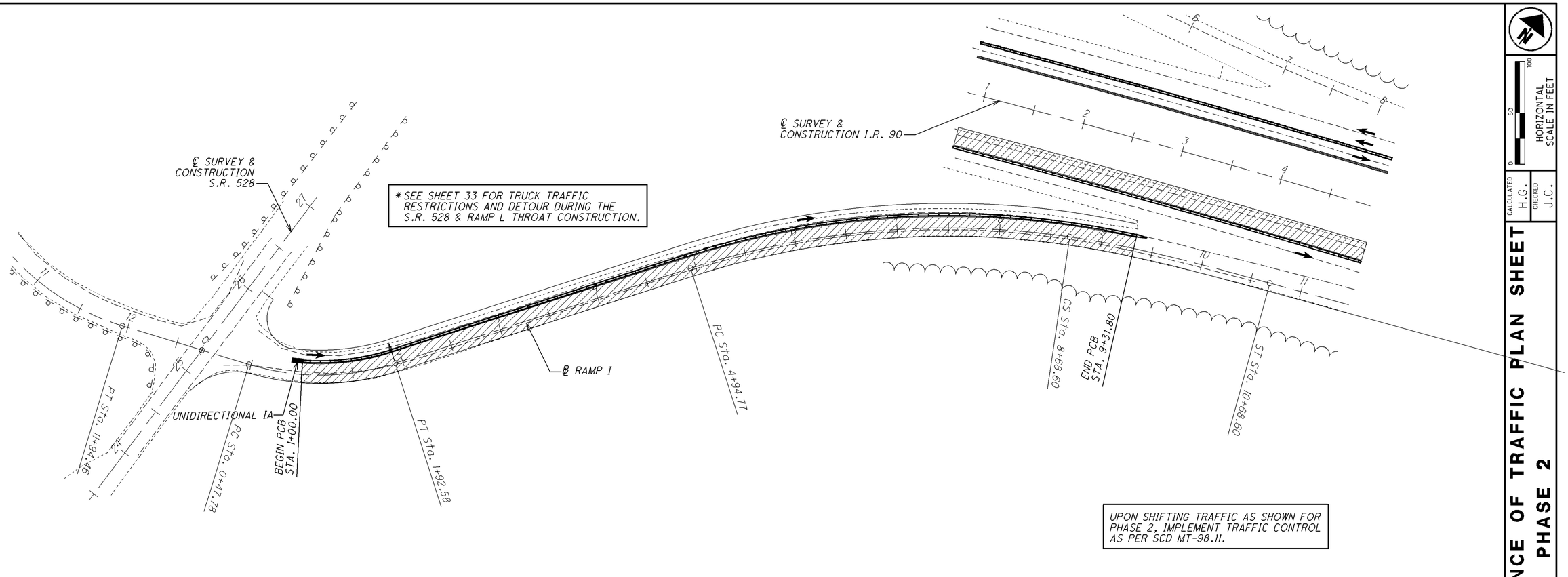
HORIZONTAL SCALE IN FEET
0 50 100

CALCULATED H.G.
CHECKED J.C.

RAMP L MAINTENANCE OF TRAFFIC PLAN SHEET
PHASE 1

LAK-90-21.40
ATB-90-0.00

RampL_MOT_001.dgn 03/03/09



WORK AREA

DRUMS

PORTABLE CONCRETE BARRIER

IMPACT ATTENUATOR (IA)

PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A

HORIZONTAL SCALE IN FEET 0 50 100

CALCULATED H.G.
CHECKED J.C.

RAMP L MAINTENANCE OF TRAFFIC PLAN SHEET PHASE 2

LAK-90-21.40
ATB-90-0.00

RampL_MOT_002.dgn 03/03/09

LEGEND

- WORK AREA
- DRUMS
- PORTABLE CONCRETE BARRIER (PCB)
- PCB WITH GLARE SCREEN
- TAPERED END
- ATTENUATOR
- PCB "Y" CONNECTING SEGMENT
- REMOVE EXISTING MARKINGS
- DIRECTION OF TRAVEL

TABLE I (SIGN SPACING)

ROAD TYPE	DISTANCE BETWEEN SIGNS FT(m)		
	A	B	C
FREEWAY & EXPRESSWAY	1000 (300)	1500 (450)	2640 (800)

TABLE II

SPEED LIMIT (mph)	TAPER RATE MINIMUM	PCB FLARE RATE MINIMUM	MAXIMUM DRUM SPACING FT (m)		CLEAR ZONE WIDTH (E) FT (m)
			Taper sec.	Tangent sec.	
25	11:1	8:1	25 (7.5)	40 (12)	15 (5)
30	15:1	8:1	30 (9)	40 (12)	15 (5)
35	21:1	10:1	35 (10.5)	40 (12)	15 (5)
40	27:1	11:1	40 (12)	80 (24)	15 (5)
45	45:1	13:1	45 (13.5)	80 (24)	19 (6)
50	50:1	14:1	50 (15)	80 (24)	19 (6)
55	55:1	16:1	55 (16.5)	80 (24)	23 (7)
60	60:1	17:1	60 (18)	120 (36)	30 (9)
65	65:1	19:1	65 (19.5)	120 (36)	30 (9)

OFFICE OF TRAFFIC ENGINEERING

DESIGNED SHB | REVIEWED LAM

REVISION DATE 07-17-09 | CHECKED

PIS NUMBER 209573

PLAN INSERT SHEET

MEDIAN CROSSOVER OF EXPRESS LANE LONG DISTANCE

LAK-90-21.40
ATB-90-0.00

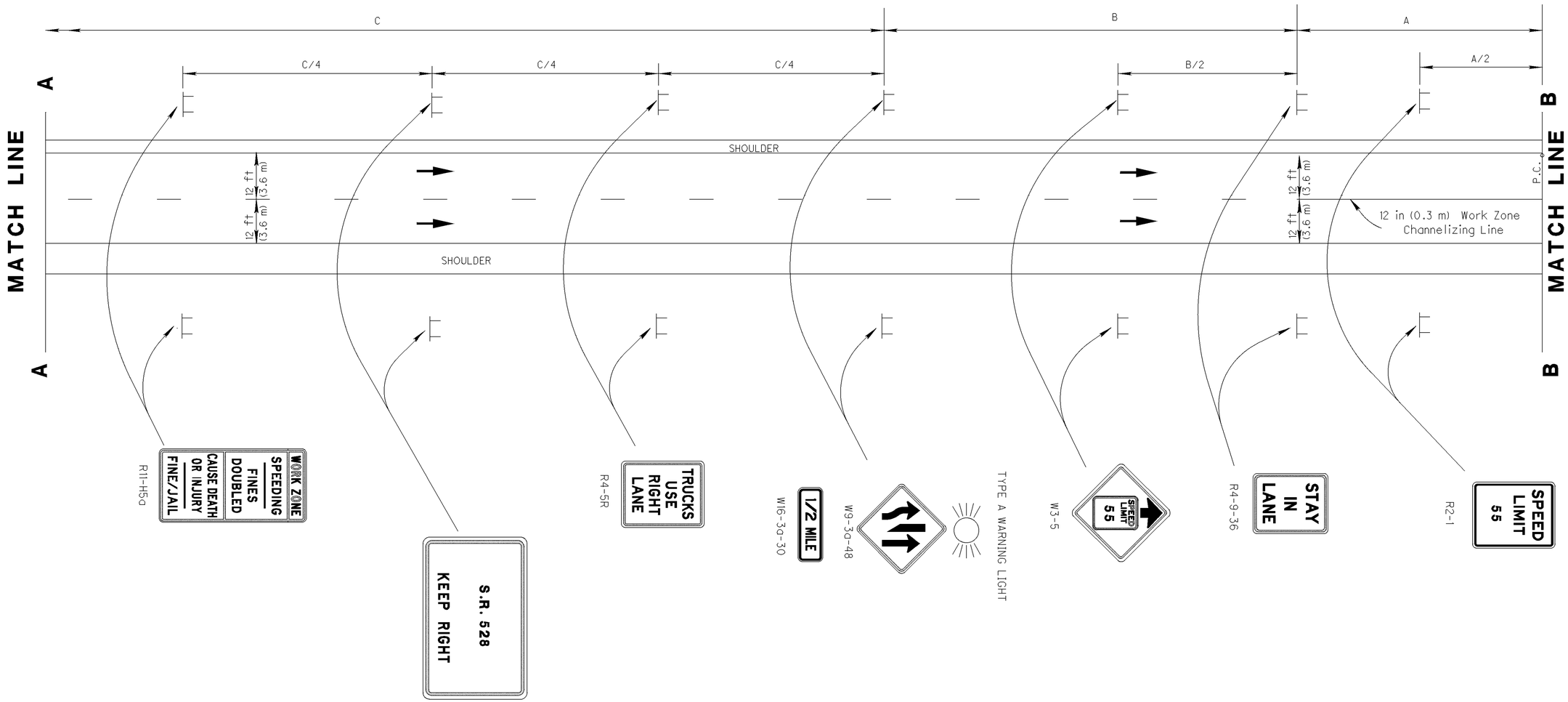


TABLE I (SIGN SPACING)

ROAD TYPE	DISTANCE BETWEEN SIGNS FT(m)		
	A	B	C
FREEWAY & EXPRESSWAY	1000 (300)	1500 (450)	2640 (800)

TABLE II

SPEED LIMIT (mph)	TAPER RATE MINIMUM	PCB FLARE RATE MINIMUM	MAXIMUM DRUM SPACING FT (m)		CLEAR ZONE WIDTH (E) FT (m)
			Taper sec.	Tangent sec.	
25	11:1	8:1	25 (7.5)	40 (12)	15 (5)
30	15:1	8:1	30 (9)	40 (12)	15 (5)
35	21:1	10:1	35 (10.5)	40 (12)	15 (5)
40	27:1	11:1	40 (12)	80 (24)	15 (5)
45	45:1	13:1	45 (13.5)	80 (24)	19 (6)
50	50:1	14:1	50 (15)	80 (24)	19 (6)
55	55:1	16:1	55 (16.5)	80 (24)	23 (7)
60	60:1	17:1	60 (18)	120 (36)	30 (9)
65	65:1	19:1	65 (19.5)	120 (36)	30 (9)

OFFICE OF TRAFFIC ENGINEERING

DESIGNED SHB | REVIEWED LAM

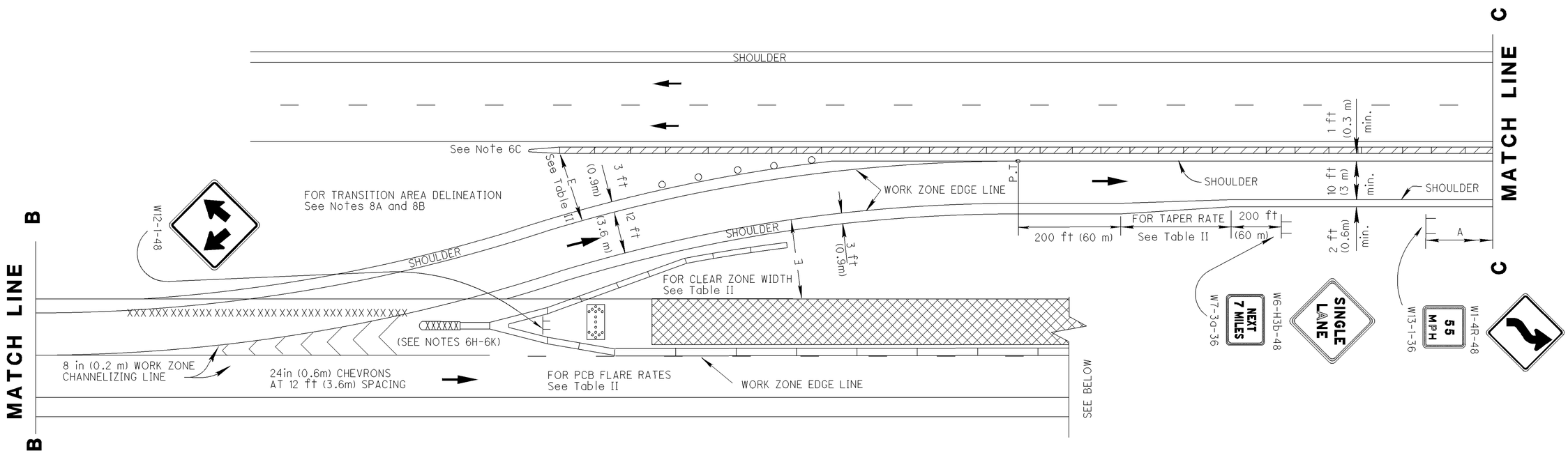
REVISION DATE 07-17-09 | CHECKED

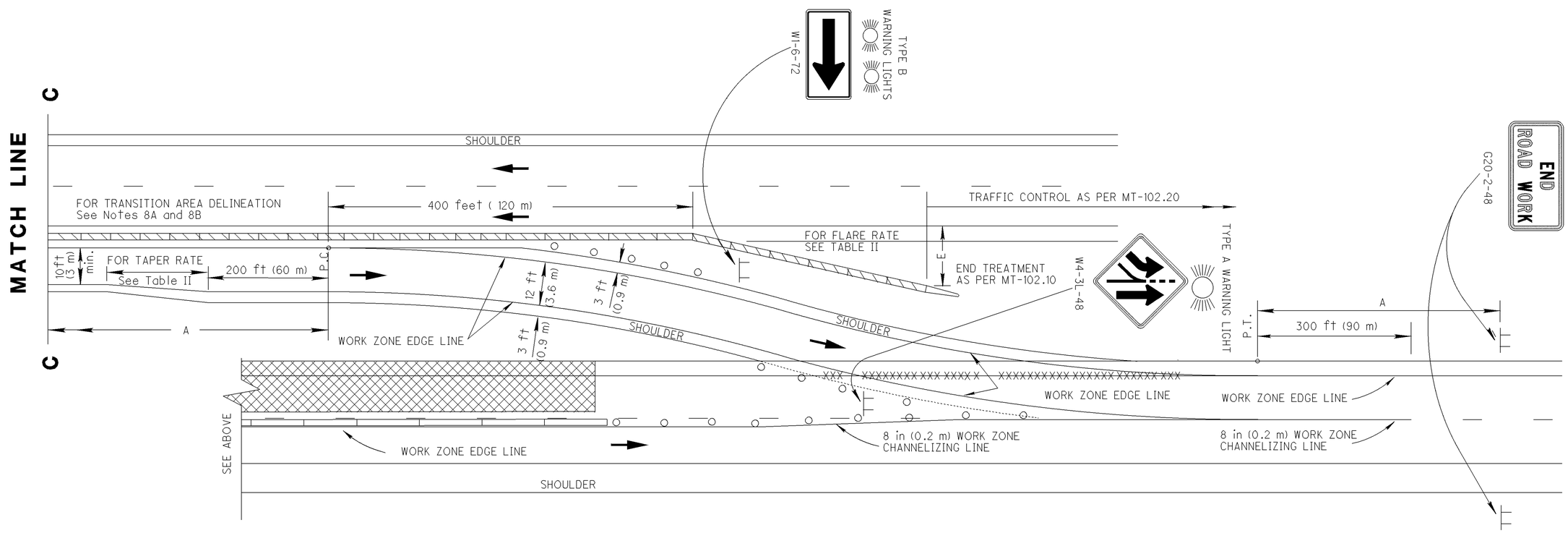
PIS NUMBER 209573

PLAN INSERT SHEET

MEDIAN CROSSOVER OF EXPRESS LANE LONG DISTANCE

LAK-90-21.40
ATB-90-0.00





OFFICE OF TRAFFIC ENGINEERING

DESIGNED SHB | REVIEWED LAM

REVISION DATE 07-17-09 | CHECKED

PIS NUMBER 209573

PLAN INSERT SHEET

MEDIAN CROSSOVER OF EXPRESS LANE
LONG DISTANCE

LAK-90-21.40
ATB-90-0.00

3 / 4

59C / 498

GENERAL NOTES:

GENERAL

1A. This Standard Construction Drawing presents information which is applicable to crossover design. Additional information, applicable to Maintenance of Traffic on multilane highways can be found on the MT-95.30 and MT-95.40 series drawings, on MT-95.50 and on the MT-102 series drawings.

1B. Standard Construction Drawing MT-101.70 shall be used with this drawing.

DESIGN SPEED

2. The design speed used for taper rates should typically be the permanent legal speed. However, on construction projects for which the speed limit is reduced, the reduced speed may be used in determining the taper rate when the taper is not the first active construction area within the project.

TAPERS

3. The minimum acceptable length of taper shall be determined by multiplying the width of offset by the taper rate. The taper rate is provided in Table II.

SIGNING

4A. The advisory speed plaque (W13-1) shall be used when specified in the plans.

4B. The spacing between work zone signs, as shown in Table I, are minimums. Maximum spacing should not be greater than 1.5 times the distances shown in Table I.

4C. Sign spacing should be adjusted to avoid conflict with existing signs. Minimum spacing to existing signs shall be 200 feet (60m) for speeds of 45 mph or less and a minimum of 400 feet (120m) for speeds 50 mph or greater.

4D. Sign locations should be adjusted to provide adequate sight distance for the existing vertical and horizontal roadway alignment.

4E. If the tangent distance along the temporary diversion is less than 2000 feet (600 m), place the second Reverse Curve (W1-4) sign at the mid-point of the tangent.

4F. If the tangent distance along the temporary diversion is 600 feet (180 m) or less, then the double Reverse Curve sign (W24-1) may be used in place of the first Reverse Curve sign, eliminating the need for the second Reverse Curve sign.

4G. The W6-H3b sign shall be provided along directional single-lane roadways over 3 miles (4.8 km). Spacing of the W6-H3b shall be at approximatly 1 mile (1.6 km).

4H. Diagramatic guide signs and interchange guide signs shall be provided as detailed in the plans.

4J. The guide signs shall have white legends on green background, similar to the D2 and E6 series signs and the E4-H1 sign. However, these signs shall be flat sheet signs on sign posts. The size of the signs shall be as specified in the plans.

4K. Signing for exit ramps located within the limits of the crossover lane should be as shown in the plan. Signing shall specify which exits are not accessable from the crossover lane.

4L. Additional information shall be provided in the form of fixed signs and/or changeable message boards as called for in the plans.

4M. Sign spacing on major conventional highways shall be as called for in Table I for freeway & expressway spacing unless otherwise determined by the Engineer.

PAVEMENT MARKING

5A. The existing conflicting pavement markings and reflectors from the raised pavement markers shall be removed and the appropriate color work zone edge lines shall be applied.

5B. Work zone edge lines shall be provided along the tangent section when called for in the plans.

5C. Work zone pavement markings which would conflict with the final traffic lanes shall be removable (CMS 740.06 Type I) tape unless the area will be resurfaced prior to project completion.

5D. After completion of the work, pavement markings other than CMS 740.06, Type I shall be removed in accordance with CMS 614.11I. The original markings and raised pavement marker reflectors shall be restored at no additional cost unless separately itemized in the plans.

5E. Edge lines shall be of the appropriate color for the direction of travel. If the temporary edge lines are located on the same alignment as existing lines, the temporary lines may be painted over top of the existing lines (with subsequent over painting if necessary during the life of the work stage to maintain day and night color) if other than on the final surface. If on the final surface, all marking shall be removable tape as per 5C above.

5F. A 12 inch (0.3 m) channelizing line shall be provided in between the crossover lane and the through lane in advance of the "exit" gore, as shown on sheet 2 of 4. All other channelizing lines shown on this drawing shall be of standard 8 inch (0.2 m) width.

5G. If the intended location of the beginning of the channelizing line, as called for in the detail, is on a curve, then the beginning of the channelizing line should be relocated upstream a distance of 500 feet (150 m).

5H. If the beginning of the channelizing line would be located near an exit ramp, then the beginning of the channelizing line shall be relocated upstream a distance of 1000 feet in advance of the beginning of the exit ramp deceleration lane.

PORTABLE CONCRETE BARRIER

6A. The portable concrete barrier (PCB) near the exiting crossover, shall extend straight on the permanent roadway to 400 feet (120 m) beyond the PC of the crossover. The PCB shall then be flared at the rate specified in Table II.

6B. The PCB shall be 32 inches (813 mm), fitted with glare screen, or may be 50 inches (1270 mm) high if NCHRP 350 compliant.

6C. PCB end treatment shall be by impact attenuator if located within the clear zone of approaching traffic.

6D. PCB end treatment may be by tapered ends if located beyond the clear zone of approaching traffic.

6E. When used, impact attenuators shall be installed parallel to traffic. The last full section of PCB, adjacent to the impact attenuator shall be located parallel to traffic. For installation procedures, refer to manufacturer's installation instructions.

6F. No reflectors or other channelizing devices shall be permitted on the face of the PCB facing the exiting crossover, from PC to end of barrier.

6G. Where portable concrete barrier (PCB) is provided at the gore, the impact attenuators shall be installed parallel to mainline traffic.

6H. Where the impact attenuator is intended to apply to two barriers within the gore, one from the through lane and one from the crossover, the two barriers shall be joined to form one unit using a PCB "Y" connecting segment. For the "Y" details, see Roadway Plan Insert Sheet "Portable Concrete Barrier 'Y' Connector Segment".

PCB cont.

Contractors may choose to install a wide impact attenuator in lieu of utlizing the concrete "Y" segment. For example, a wide impact attenuator at a minimum of 48 inches (1200 mm) wide and rated for the design speed of the roadway could be installed in place of the aforementioned (1) work zone impact attenuator (2) PCB "Y" connector segment and (3) one standard PCB section. However, if contractors use this connection method, the wider impact attenuator must still be crashworthy in accordance with NCHRP Report 350, or MASH-08 and installed as per manufacturer's instructions.

The contractor shall repair or replace a damaged unit within 24 hours of a damaging impact.

6J. Where a PCB "Y" connecting segment is provided, one standard section of PCB shall be provided between the "Y" connecting segment and the impact atenuator.

6K. Connection of the Impact attenuator to the PCB shall be by positive connection. Appropriate crashworthy transitions between the impact attenuator and the first PCB shall be installed.

6L. Where PCB is located beyond the edge of the paved shoulder, the cross slope within the clear zone, including the surface on which the PCB is placed, shall be graded at 10:1 or flatter. If the cross slope is steeper than 10:1, the PCB shall be terminated on the paved shoulder. The PCB shall be extended along the paved shoulder as necessary to satisfy the length of need, and then terminated using an impact attenuator.

6M. For installation procedures for the PCB and for the impact attenuator, refer to manufacturers' installation instructions.

6N. For details on delineation of Portable Concrete Barrier, see Standard Construction Drawing MT-101.70.

6O. PCB shall also be provided along the crossover where the work is within the clear zone of the crossover. The PCB within the gore, along the right side of the crossover lane should be flared as per Table II, with the upstream end of the PCB placed adjacent to the mainline PCB.

DRUMS

7A. Drums along the crossover curves shall be spaced at 20 feet (6 m) center-to-center.

7B. Drums used to close off a crossover shall be spaced at 10 feet (3 m) center-to-center.

7C. All other drum spacing shall be as per Table II.

7D. Drums located along the crossover ramps should be placed on the aggregate shoulder as much as possible in order to maximize the width of pavement open to traffic.

TRANSITION AREA DELINEATION

8A. Transition area delineation shall be provided, as called for in Plan Insert Sheets 209930 or 209931, or as otherwise called for in the plans.

8B. Additionally, RPMs at 20 feet (6 m) spacing shall be provided beside the channelizing line located between the crossover lane and the through lanes.

LIGHTING

9. Work zone lighting shall be provided as per Standard Construction Drawing MT-100.00.

GEOMETIRCS

10. Geometrics of the crossover shall be as called for in the plans.

EXISTING LONGITUDINAL RUMBLE STRIPS

11. Existing longitudinal rumble strips, located within the alignment of the crossover, shall be eliminated by pavement planing and resurfacing.

OFFICE OF TRAFFIC ENGINEERING

DESIGNED SHB | REVIEWED LAM

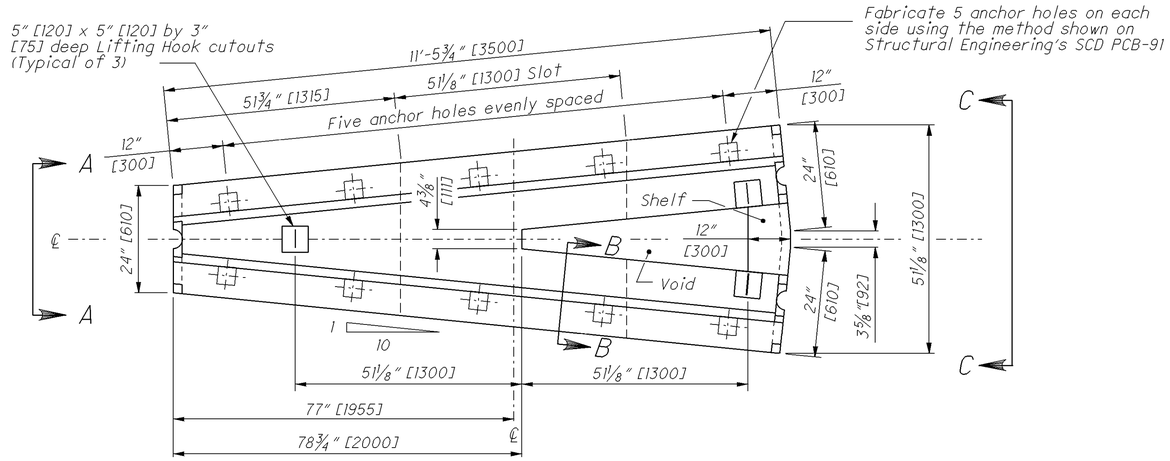
REVISION DATE 07-17-09 | CHECKED

PIS NUMBER 209573

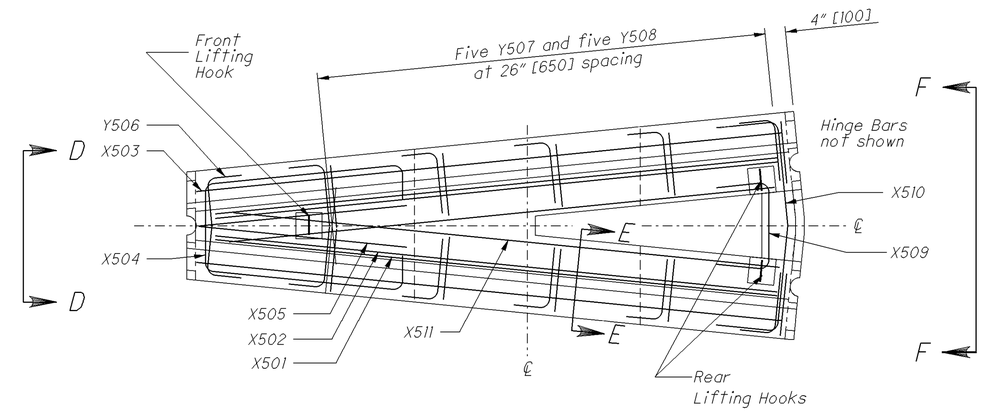
PLAN INSERT SHEET

MEDIAN CROSSOVER OF EXPRESS LANE
LONG DISTANCE

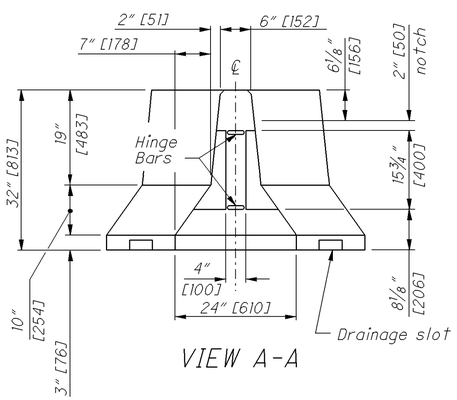
LAK-90-21.40
ATB-90-0.00



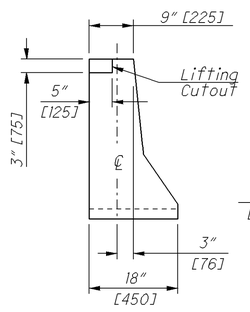
PLAN



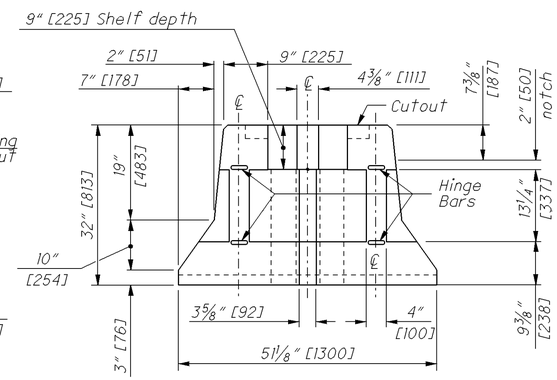
REINFORCING PLAN VIEW



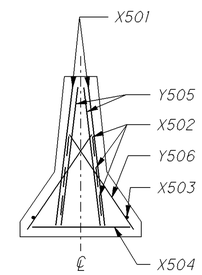
VIEW A-A



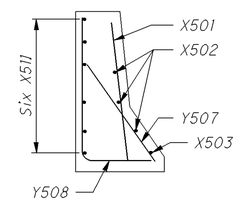
SECTION B-B



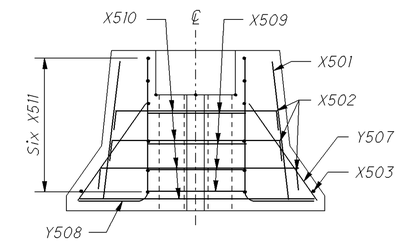
VIEW C-C



VIEW D-D

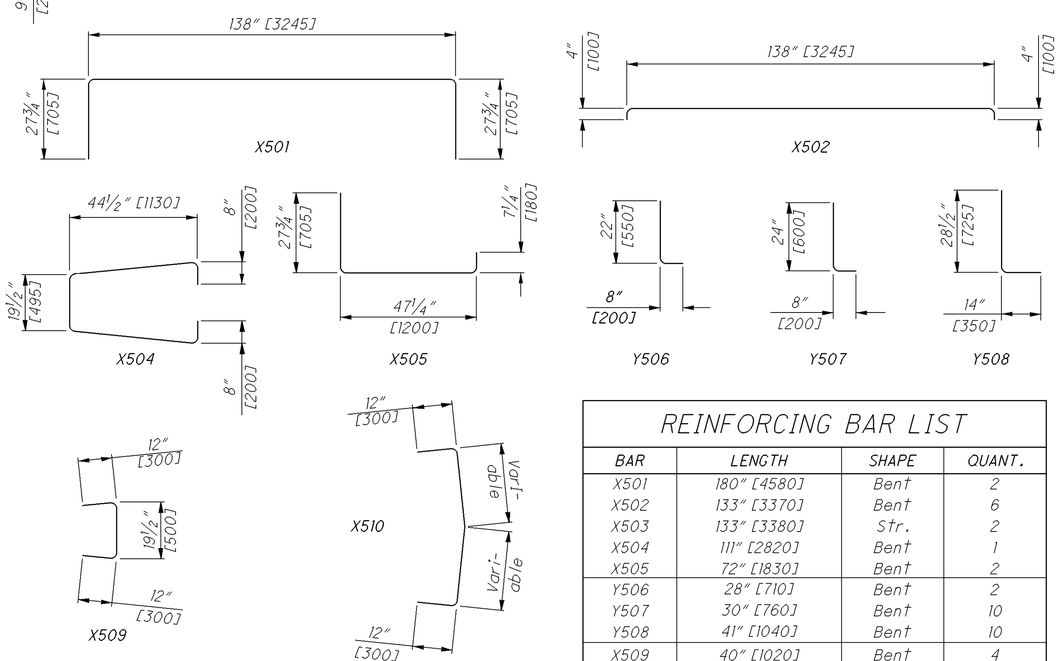


SECTION E-E



VIEW F-F

REINFORCING DETAILS



BENDING DIAGRAMS

NOTES

GENERAL: This barrier segment is used to split one run of portable concrete barrier into dual runs. Attach directly to ODOT's 32" [813] PCB; however, other approved barrier shapes may be connected to this segment by the use of an appropriate transition unit. Attach at least one standard PCB segment in between this "Y" and an Impact Attenuator. Its field application is shown in MOT plans and on MT standard drawings. Do not use this barrier in an unanchored configuration next to bridge deck edges or similiar dropoffs, anchor according to method shown on PCBDD or other approved method.

BARRIER DETAILS: Use **SCD RM-4.2** for details not shown here, including the geometry of this pin and loop segment matches in every way the design of the end connections shown on the HINGED CONNECTION and JOINT CONNECTION Details (the alternate J-J Hooks connection design is permitted). Additionally, barrier edges may be radiused or chamfered as per the LEGEND Note, barrier is to be permanently marked as mentioned in the MARKINGS Note, and delineate as per the REFLECTORIZATION Note.

MATERIAL SPECIFICATIONS: The minimum design strength of the concrete is 4,000 psi and meets the requirements of CMS 499. For reinforcing steel, use ASTM A615 Grade 60 black steel and provide 2" [50] min. rebar cover. Material specifications for the Hinge and Reinforcing Bars, as well as the Connecting Hardware may be found on **SCD RM-4.2**. For additional material specifications not shown here, see **SCD RM-4.2** and CMS 622.

HANDLING: The fabricator is responsible for the design of a lifting system for handling segments. As a minimum, use three lifting points at the locations suggested in the Plan views, and design with a lifting factor of safety of 4. Any protrusions from the lifting hook design is not to affect the crash worthiness of the barrier. The calculations shall be signed, sealed and dated by a Registered Engineer and include these calculations with the Manufacturing Drawings required by Supplement 1073.12. Refer to Part 5 of the PCI Handbook. Approximate segment weight is 8,500 lbs [3850 kg].

PAYMENT: Payment will be made under **Item 622 - Portable Concrete Barrier, "Y" Connector, Each,** and will include all forms, materials and labor to cast this segment.

ALTERNATE METHOD: Contractors may choose to use a wide Impact Attenuators in lieu of the concrete "Y" alternate. The chosen unit will be a Type 2 or 3 Impact attenuator matching the product previously called for on the project plans at the expected installation location.

REINFORCING BAR LIST

BAR	LENGTH	SHAPE	QUANT.
X501	180" [4580]	Bent	2
X502	133" [3370]	Bent	6
X503	133" [3380]	Str.	2
X504	111" [2820]	Bent	1
X505	72" [1830]	Bent	2
Y506	28" [710]	Bent	2
Y507	30" [760]	Bent	10
Y508	41" [1040]	Bent	10
X509	40" [1020]	Bent	4
X510	Varies	Bent	4
X511	124" [3150]	Str.	12

OFFICE OF ROADWAY ENGINEERING

DESIGNED | REVIEWED | REVISION DATE 11-30-07 | CHECKED

PLAN INSERT SHEET

PCB "Y" CONNECTOR SEGMENT

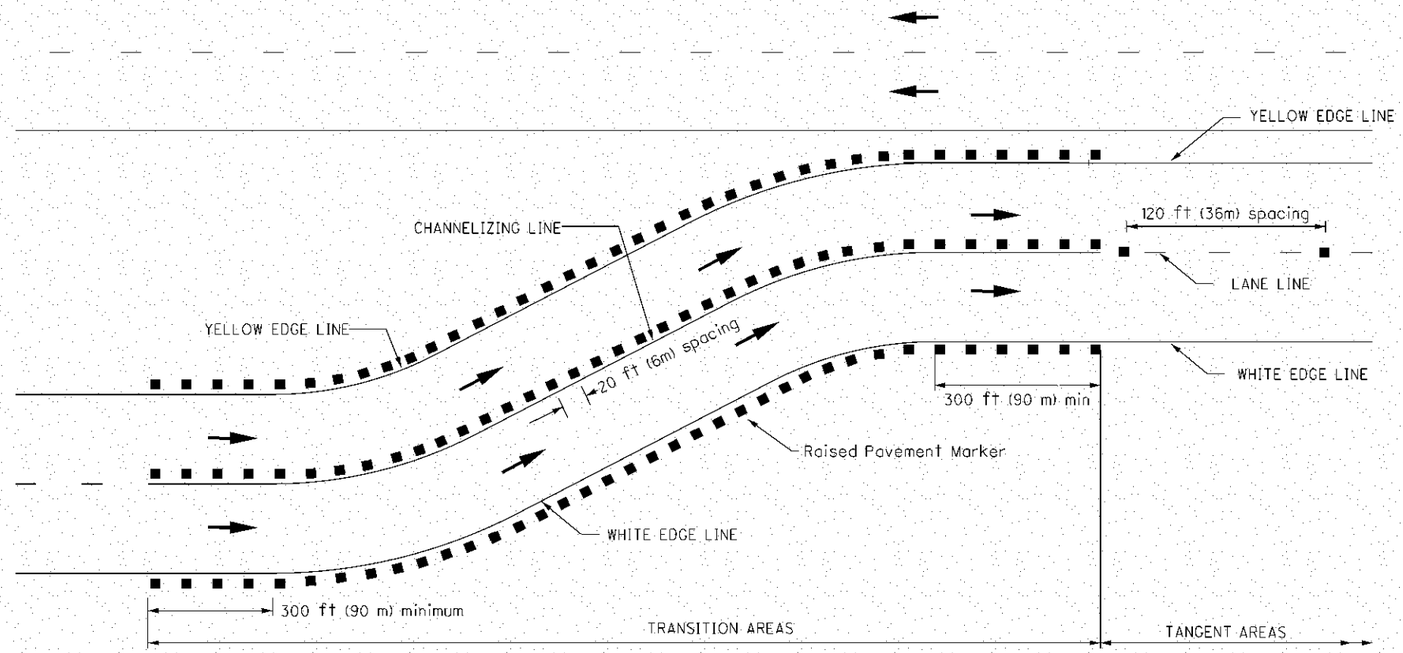
LAK-90-21.40
ATB-90-0.00

1/1

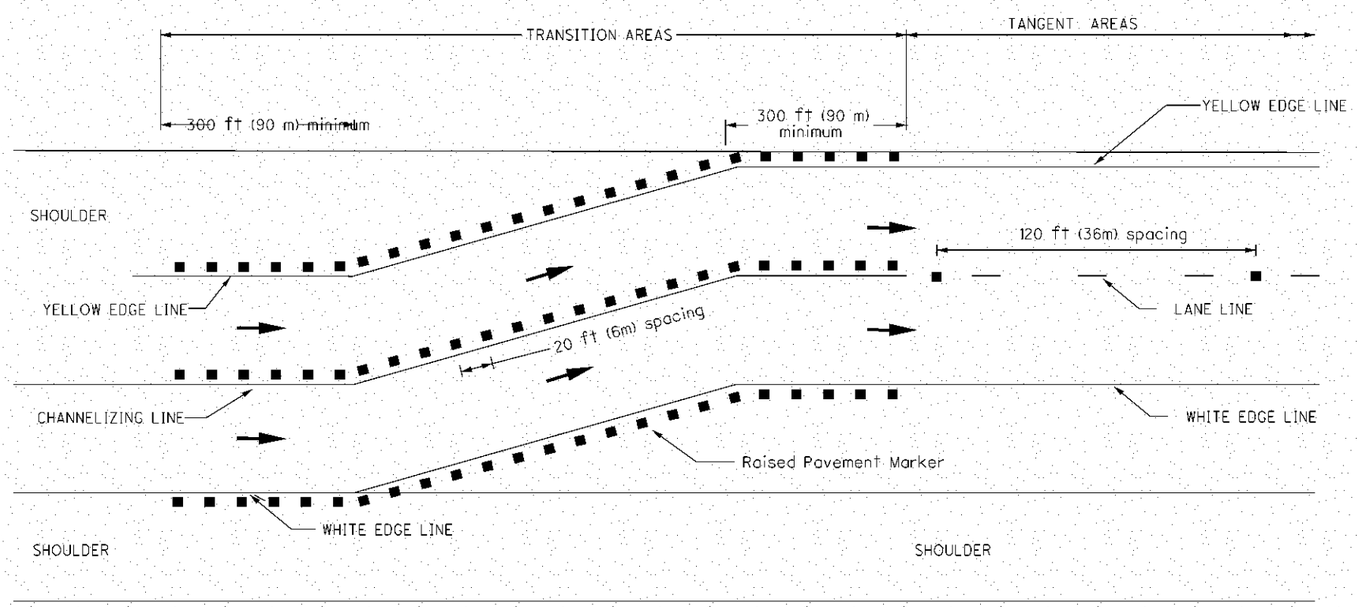
59E
498

07/09/09

PCB_Y_PIS[1].dgn



WORK ZONE DELINEATION FOR CROSSOVERS



WORK ZONE DELINEATION FOR LANE SHIFTS

LEGEND

- RPM
- DIRECTION OF TRAVEL

NOTES

1. This drawing presents delineation procedures for freeways and expressways on asphalt surfaces. Procedures are provided for transition areas and for tangent areas. The procedures for transition areas apply to crossovers and to lane shifts of 4 feet (1.2 m) or greater. Delineation of transition areas for shifts of less than 4 inches (1.2 m)shall be as per the tangent area delineation.

2. Raised Pavement Markers shall meet the following seasonal specifications:

   a) Raised Pavement Markers in place during the normal construction season may be either 621 Raised Pavement Markers or 614 Work Zone Raised Pavement Markers (WZRPMs). The normal construction season with regard to use of WZRPMs shall be the period from April 1 through October 15.

   b) At locations where it is intended that Raised Pavement Markers will winter over, 621 Raised Pavement Markers shall be provided.

   c) At locations where it is intended that work will continue beyond October 15 but will be completed prior to the beginning of snow-plowing season, 614 WZRPMs may remain in place until such time. Snow-plowing season shall be as specified in the plans. If snow-plowing season is not specified in the plans, it shall be assumed that snow-plowing season runs from October 16 through March 31. If project delays, not the fault of ODOT, cause work to extend into the snow-plowing season, the contractor shall be responsible for replacing WZRPMs with 621 Raised Pavement Markers, as determined by the Engineer, at the contrator's expense.

3. All material furnished shall be listed on the Department's Prequalified Lists.

4. The geometrics of the crossover shall be as shown in the plans. Additional details are provided in Standard Construction Drawing MT-95.70.

5. See Standard Construction Drawings MT-102.10 and MT-102.20 for more details concerning lane shifts.

6. Spacing of raised pavement markers (RPMs) shall be at 20 feet (6 m) center-to-center for all long-line marking within transition areas. Within tangent areas RPMs shall be provided only along the lane lines, spaced at 120 foot (36 m) center-to-center.

7. The RPMs shall be 1-way, facing oncomming traffic, and shall be white or yellow to match the color of the associated line marking.

8. Along the edge lines, the RPMs shall be offset a maximum of 4 inches (100 mm) to the outside of the lines. Along the channelizing lines, the RPMs shall be offset to the left of the lines by no more than 1 inch (25 mm). Along the lane lines the RPMs shall be centered between dashes.

9. The RPMs shall be removed when they are no longer appropriate.

10. Holes resulting from removal of 621 RPMs shall be filled as per 621.08. If removal of the 621 RPMs does not take place immediately after the highlighted alignment becomes invalid, the reflectors within the 621 RPMs shall be removed.

11. Following removal of 621 RPMs resurfacing of the transition shall be performed. The resurfacing shall be performed at the time the surface course is being applied. In preparation for resurfacing, the existing pavement shall be removed to a depth necessary to match the level of the intermediate course of the proposed pavement.

OFFICE OF TRAFFIC ENGINEERING

DESIGNED | REVIEWED LAM

REVISION DATE 4/17/09 | CHECKED

PID NUMBER 209930

PLAN INSERT SHEET

WORK ZONE DELINEATION ON ASPHALT SURFACES

SHEET NUMBER																ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
23	24	25	32	66	76	80	83	420	427	437	445	454	466A	466B	466C						
																				ROADWAY	
LUMP																201	11000	LUMP		CLEARING AND GRUBBING	
													2			202	20010	2	EACH	HEADWALL REMOVED	
223,717																202	23000	223,717	SQ. YD.	PAVEMENT REMOVED	
132,469																202	23010	132,469	SQ. YD.	PAVEMENT REMOVED, ASPHALT	
				88												202	30700	88	FT.	CONCRETE BARRIER REMOVED	
		160,827											65			202	35100	160,892	FT.	PIPE REMOVED, 24" AND UNDER	
				17,195												202	38000	17,195	FT.	GUARDRAIL REMOVED	
														100		202	75200	100	FT	FENCE REMOVED FOR REUSE	
														LUMP		202	98000	LUMP		REMOVAL MISC.: CONCRETE GUTTER	
															LUMP	202	98000	LUMP		REMOVAL MISC.: RIPRAP USING 6" REINFORCED CONCRETE SLAB	
								103,911	358	688	255	353		20		203	10000	105,585	CU. YD.	EXCAVATION	
								21,732	77	259	96	695	475			203	20000	23,334	CU. YD.	EMBANKMENT	
400																203	98000	400	CU. YD.	ROADWAY, MISC.: DITCH CLEANOUT	
					129		4									204	45000	133	HOUR	PROOF ROLLING	
11,922			123													206	10500	12,045	TON	CEMENT	
401,364			4,148													206	11000	405,512	SQ. YD.	CURING COAT	
401,364			4,148													206	15000	405,512	SQ. YD.	CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP	
LUMP			LUMP													206	30000	LUMP		CONTRACTOR DESIGNED CHEMICALLY STABILIZED SUBGRADE	
				3.1												209	60501	3.1	MILE	LINEAR GRADING, AS PER PLAN	24
				15,250												606	13000	15,250	FT.	GUARDRAIL, TYPE 5	
				10												606	22000	10	EACH	ANCHOR ASSEMBLY, TYPE B-98	
				32												606	22010	32	EACH	ANCHOR ASSEMBLY, TYPE E-98	
				34												606	26500	34	EACH	ANCHOR ASSEMBLY, TYPE T	
				10												606	35000	10	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 1	
				1												606	35100	1	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 2	
														100		607	23004	100	FT	FENCE REBUILT, TYPE CLT	
				455												622	10160	455	FT.	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	
				11												622	25000	11	EACH	CONCRETE BARRIER END SECTION, TYPE D	
	4															SPECIAL	69098000	* 4	EACH	SPECIAL MISC.: WIRELESS ROADWAY MOUNTED SENSOR REMOVAL AND INSTALLATION	24
	4															SPECIAL	69098000	* 4	EACH	SPECIAL MISC.: WIRELESS ROADWAY MOUNTED SENSOR COMMISSIONING	24

* 100% STATE FUNDED

CALCULATED

CHECKED

GENERAL SUMMARY

LAK-90-21.40
ATB-90-0.00

SHEET NUMBER															ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
25	67	68	69	70	71	72	420	427	437	445	454	466A	466B	466C						
																			EROSION CONTROL	
														25	601	11000	25	SQ YD	RIPRAP USING 6" REINFORCED CONCRETE SLAB	
												4			601	32200	4	CU YD	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	
													10		601	34200	10	CU YD	ROCK CHANNEL PROTECTION, TYPE C WITHOUT FILTER	
5															659	00100	5	EACH	SOIL ANALYSIS TEST	
49,890															659	00300	49,890	CU YD	TOPSOIL	
							434,353	3,269	4,224	1,893	5,277				659	00510	449,016	SQ. YD.	SEEDING AND MULCHING, CLASS 2	
22,451															659	14000	22,451	SQ. YD.	REPAIR SEEDING AND MULCHING	
22,451															659	15000	22,451	SQ. YD.	INTER-SEEDING	
61															659	20000	61	TON	COMMERCIAL FERTILIZER	
93															659	31000	93	ACRE	LIME	
2,425															659	35000	2,425	M. GAL.	WATER	
1,011															659	40000	1,011	M. SQ. FT.	MOWING	
						5,182									670	00700	5,182	SQ. YD.	DITCH EROSION PROTECTION	
															832	15000	LUMP		STORM WATER POLLUTION PREVENTION PLAN	
															832	30000	1,200,000	EACH	EROSION CONTROL	
																			DRAINAGE	
												0.7			602	20000	0.7	CU YD	CONCRETE MASONRY	
	315	368	678	506	307	160						15			603	00900	2,349	FT.	6" CONDUIT, TYPE B, 707.03, 707.41, 707.42 OR 707.45	
	1,164	732	751	943	1,143	138									603	01500	4,871	FT.	6" CONDUIT, TYPE F	
						152						15			603	06100	167	FT.	15" CONDUIT, TYPE C	
												35			603	10600	35	FT	24" CONDUIT, TYPE C	
						2									604	01200	2	EACH	CATCH BASIN, NO. 4	
	12	15	9	13	11	6						1			604	36600	67	EACH	PRECAST REINFORCED CONCRETE OUTLET	
5,000															604	50000	5,000	LB.	SPECIAL - MISCELLANEOUS METAL	25
	35,443	25,864	29,708	30,615	27,857	8,205									605	11111	157,692	FT.	6" SHALLOW PIPE UNDERDRAINS (30" DEEP) WITH FABRIC WRAP, AS PER PLAN	25
	600		450	1,050		522									605	13411	2,622	FT.	6" UNCLASSIFIED PIPE UNDERDRAINS WITH FABRIC WRAP, AS PER PLAN	25
	18,742	14,074	15,101	14,376	14,413	4,596									605	14021	81,302	FT.	6" BASE PIPE UNDERDRAINS (18" DEEP) WITH FABRIC WRAP, AS PER PLAN	25
														274	837	10001	274	FT	36" LINER PIPE, AS PER PLAN A	466C
													248		837	10001	248	FT	48" LINER PIPE, AS PER PLAN B	466B
													34	29	837	20000	63	CU YD	BACKFILL FOR LINER PIPE	

CALCULATED

CHECKED

GENERAL SUMMARY

LAK-90-21.40
ATB-90-0.00

SHEET NUMBER													ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	26	66		76			83											
																	PAVEMENT	
				109,084									302	46000	109,084	CU YD	ASPHALT CONCRETE BASE, PG64-22	
				64,370			1,918						304	20000	66,288	CU. YD.	AGGREGATE BASE	
				18,171									407	14000	18,171	GALLON	TACK COAT FOR INTERMEDIATE COURSE	
				15,132									442	10001	15,132	CU YD	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN	26
				17,666									442	10100	17,666	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)	
		743											448	46061	743	CU. YD.	ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 1, PG64-22 UNDER GUARDRAIL, AS PER PLAN	24
							9,377						452	15005	9,377	SQ YD	12.5" NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN A	26
							1,736						452	15005	1,736	SQ YD	12.5" NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN B	26
		200											609	24000	200	FT.	CURB, TYPE 4-A	
				5,729			275						617	10101	6,004	CU. YD.	COMPACTED AGGREGATE, AS PER PLAN A	26
	29.14												618	40600	29.14	MILE	RUMBLE STRIPS, (ASPHALT CONCRETE)	

CALCULATED

CHECKED

GENERAL SUMMARY

LAK-90-21.40
ATB-90-0.00

SHEET NUMBER														ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
			497		498														
																		LIGHTING	
			7		7									625	00500	14	EACH	CONNECTOR KIT, TYPE II	
			7		7									625	00600	14	EACH	CONNECTOR KIT, TYPE III	
			12		9									625	01500	21	EACH	CABLE SPLICING KIT	
			7		7									625	10490	14	EACH	LIGHT POLE, CONVENTIONAL, DESIGN AT14B40.0	
			7		7									625	14200	14	EACH	LIGHT POLE FOUNDATION, 24" x 10' DEEP	495
			210											625	23300	210	FT.	NO. 2 AWG 5000 VOLT DISTRIBUTION CABLE	
			1,155		1,155									625	23400	2,310	FT.	NO. 10 AWG. POLE AND BRACKET CABLE	
			2,790		3,550									625	24330	6,340	FT.	1-1/2" DUCT CABLE WITH THREE NO. 2 AWG 5000 VOLT CABLES	
			200		180									625	25500	380	FT.	CONDUIT, 3", 725.04	
					40									625	25900	40	FT.	CONDUIT, 3", JACKED OR DRILLED, 725.04	
			7		7									625	26251	14	EACH	LUMINAIRE CONVENTIONAL, AS PER PLAN	495
			2,700		3,380									625	29002	6,080	FT.	TRENCH, 24" DEEP	
			3		5									625	30700	8	EACH	PULL BOX, 725.08, 18"	
			1											625	30706	1	EACH	PULL BOX, 725.08, 24"	
			8		7									625	32000	15	EACH	GROUND ROD	
			1											625	34000	1	EACH	POWER SERVICE	

CALCULATED

CHECKED

GENERAL SUMMARY

LAK-90-21.40
ATB-90-0.00

SHEET NUMBER											ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	26	66		490		492										
															TRAFFIC CONTROL	
				195		102					620	00500	297	EACH	DELINEATOR, POST MOUNTED	
				672		87					621	00100	759	EACH	RPM	
	759										621	54000	759	EACH	RAISED PAVEMENT MARKER REMOVED	
		249									626	00100	249	EACH	BARRIER REFLECTOR	
				29.02		1.64					646	10000	30.66	MILE	EDGE LINE	
				14.80							646	10101	14.80	MILE	LANE LINE, AS PER PLAN	26
				586		1,692					646	10300	2,278	FT.	CHANNELIZING LINE	
						90					646	10400	90	FT.	STOP LINE	

CALCULATED

CHECKED

GENERAL SUMMARY

LAK-90-21.40
ATB-90-0.00

SHEET NUMBER 27	28	29	30	31	32	33	34			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
														MAINTENANCE OF TRAFFIC	
				250						614	11110	250	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
					27					614	11500	27	MONTH	WORKSITE TRAFFIC SUPERVISOR	
11		2			10					614	12346	23	EACH	WORK ZONE IMPACT ATTENUATOR, (UNIDIRECTIONAL) OVER 45 MPH, 24" WIDE HAZARDS	
3										614	12348	3	EACH	WORK ZONE IMPACT ATTENUATOR, (BIDIRECTIONAL) OVER 45 MPH, 24" WIDE HAZARDS	
		14								614	12410	14	EACH	SPEED ZONE AHEAD SYMBOL SIGN	
						LUMP	LUMP			614	12420	LUMP		DETOUR SIGNING	
		24								614	12470	24	EACH	WORK ZONE SPEED LIMIT SIGN	
			14							614	12484	14	EACH	WORK ZONE INCREASED PENALTIES SIGN	
				10						614	12500	10	EACH	REPLACEMENT SIGN	
2										614	12756	2	EACH	WORK ZONE CROSSOVER LIGHTING SYSTEM	
					3,467					614	12800	3,467	EACH	WORK ZONE RAISED PAVEMENT MARKER	
					62					614	13001	62	CU. YD.	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC, AS PER PLAN	32
			200							614	13001	200	CU. YD.	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC, AS PER PLAN (A)	30
287										614	13200	287	EACH	BARRIER REFLECTOR, TYPE A	
7,125					226					614	13300	7,351	EACH	BARRIER REFLECTOR, TYPE B	
1,701					226					614	13350	1,927	EACH	OBJECT MARKER, ONE WAY	
1,711										614	13360	1,711	EACH	OBJECT MARKER, TWO WAY	
				120						614	18601	120	SIGN MNTH	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	31
16.43					16.79					614	20101	33.22	MILE	WORK ZONE LANE LINE, CLASS I, 642 PAINT, AS PER PLAN	29
170.09					38.53					614	22101	208.62	MILE	WORK ZONE EDGE LINE, CLASS I, 642 PAINT, AS PER PLAN	29
600					2,278					614	23200	2,878	FT.	WORK ZONE CHANNELIZING LINE, CLASS 1, 642 PAINT	
3,120					5,560					614	24200	8,680	FT.	WORK ZONE DOTTED LINE, CLASS I, 642 PAINT	
120										614	25200	120	FT.	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 642 PAINT	
208					90					614	26200	298	FT.	WORK ZONE STOP LINE, CLASS I, 642 PAINT	
LUMP										615	10000	LUMP		ROADS FOR MAINTAINING TRAFFIC	
93,709	4,300									615	20000	98,009	SQ. YD.	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
			497							616	10000	497	M. GAL.	WATER	
2,859										617	10101	2,859	CU. YD.	COMPACTED AGGREGATE, AS PER PLAN B	26
177,492		400			11,080					622	40020	188,972	FT.	PORTABLE CONCRETE BARRIER, 32"	
85,507										622	40031	85,507	FT.	PORTABLE CONCRETE BARRIER, 50", AS PER PLAN	29
5					4					622	40100	9	EACH	PORTABLE CONCRETE BARRIER, "Y", CONNECTOR	
			600							630	97800	600	SQ. FT.	SIGNING, MISC.: ADDITIONAL SIGNS, GROUND MOUNTED, AS DIRECTED BY THE ENGINEER	30
35										642	30030	35	MILE	REMOVAL OF PAVEMENT MARKING	
										SPECIAL	10810000	LUMP		CPM PROGRESS SCHEDULE	
										614	11000	LUMP		MAINTAINING TRAFFIC	
										619	16020	27	MONTH	FIELD OFFICE, TYPE C	
										623	10001	LUMP		CONSTRUCTION LAYOUT STAKES, AS PER PLAN	22
										624	10000	LUMP		MOBILIZATION	

CALCULATED CHECKED

GENERAL SUMMARY

LAK-90-21.40
ATB-90-0.00

REFERENCE NO.	SHEET NO.	SURVEY AND CONSTRUCTION (STATION TO STATION)	202 CONCRETE BARRIER REMOVED	202 GUARDRAIL REMOVED	209 LINEAR GRADING, AS PER PLAN	448 AASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22 (UNDER GUARDRAIL), AS PER PLAN	606 GUARDRAIL, TYPE 5	606 ANCHOR ASSEMBLY, TYPE B-98	606 ANCHOR ASSEMBLY, TYPE E-98	606 ANCHOR ASSEMBLY, TYPE T	606 BRIDGE TERMINAL ASSEMBLY, TYPE 1	606 BRIDGE TERMINAL ASSEMBLY, TYPE 2	606 CONCRETE BARRIER SINGLE SLOPE, TYPE D	606 CONCRETE BARRIER END SECTION, TYPE D	609 CURB, TYPE 4A	626 BARRIER REFLECTOR, TYPE A (WHITE)	626 BARRIER REFLECTOR, TYPE A (YELLOW)	626 BARRIER REFLECTOR, TYPE B (WHITE)	
			FT.	FT.	MILE	CU YD	FT	EACH	EACH	EACH	EACH	EACH	FT	EACH	FT	EACH	EACH	EACH	
		EASTBOUND I.R. 90																	
1-GR		743+00.00 TO 747+00.00		380	0.076	18.52	337.5		1	1						5			
2-GR		759+54.10 TO 761+81.00		215	0.034	6.94	100.0		1		1		65	1	20	3		2	
3-GR		775+50.00 TO 780+50.00		413	0.095	23.15	437.5		1	1						6			
4-GR		793+00.00 TO 798+00.00		429	0.095	23.15	437.5		1	1						6			
5-GR		815+50.00 TO 820+00.00		450	0.085	20.83	387.5		1	1						5			
6-GR		866+50.00 TO 874+50.00		570	0.152	37.04	737.5		1	1						9			
7-GR		933+00.00 TO 937+00.00			0.076	18.52	337.5		1	1						5			
8-GR		956+42.60 TO 970+47.00		216	0.263	61.92	1,275.0		1	1	1	1	43	2	20	14		2	
9-GR		962+59.00 TO 970+60.20		801															
10-GR		985+50.00 TO 996+50.00		1,053	0.208	50.93	1,037.5		1	1						11			
11-GR		1046+47.10 TO 1048+76.00		216	0.028	6.94	100.0		1		1		53	1	20	3		2	
12-GR		12+50.00 TO 17+50.00		470	0.095	23.15	437.5		1	1						6			
13-GR		40+97.22 TO 42+80.00		195	0.026	6.37	87.5		1		1		32	1	20	3		2	
14-GR		96+50.00 TO 99+00.00		126	0.047	11.57	187.5		1	1						4			
15-GR		115+03.60 TO 0+48.00	44.0	346	0.074	16.78	312.5		1		1		32	1	20	5		2	
		WESTBOUND I.R. 90																	
16-GR		745+50.00 TO 751+50.00		571	0.114	27.78	537.5		1	1						7			
17-GR		757+60.00 TO 760+00.40		246	0.031	7.52	112.5		1		1		66	1	20	3		2	
18-GR		770+00.00 TO 773+00.00		316	0.057	13.89	237.5		1	1						4			
19-GR		777+00.00 TO 783+50.00		603	0.123	30.09	587.5		1	1						8			
20-GR		792+50.00 TO 798+00.00		479	0.104	25.46	487.5		1	1						7			
21-GR		869+00.00 TO 878+00.00		804	0.170	41.67	837.5		1	1						10			
22-GR		956+32.00 TO 958+02.40		203	0.021	5.21	62.5		1		1		46	1	20	3		2	
23-GR		966+00.00 TO 971+00.00		479	0.095	23.15	437.5		1	1						6			
24-GR		991+50.00 TO 1000+00.00		742	0.161	39.35	787.5		1	1						10			
25-GR		1048+78.00 TO 1051+06.40		228	0.031	7.52	112.5		1		1		54	1	20	3		2	
26-GR		13+50.00 TO 24+00.00		1,041	0.199	48.61	987.5		1	1						12			
27-GR		42+78.00 TO 44+96.90		203	0.038	9.26	150.0		1		1		32	1	20	3		2	
28-GR		54+00.00 TO 58+00.00		403	0.076	18.52	337.5		1	1						5			
29-GR		106+50.00 TO 111+50.00		454	0.095	23.15	437.5		1	1						6			
30-GR		119+04.00 TO 3+98.40	44.0	321	0.085	20.83	400.0		1		1		32	1	20	6		2	
		MEDIAN I.R. 90																	
31-GR		758+18.00 TO 761+13.00		608			287.5	2		2							6		
32-GR		956+18.00 TO 958+52.00		612			200.0	2		2							6		
33-GR		1047+22.00 TO 1050+08.00		578			262.5	2		2							6		
34-GR		41+56.00 TO 44+02.00		554			200.0	2		2							6		
35-GR		117+84.00 TO 1+68.00		356			200.0	2		2							6		
		RAMP I																	
36-GR		10+50.00 TO 23+72.69 (SR 528)		227	0.059	14.47	250.0		1	1						5			
		RAMP J																	
37-GR		9+00.00 TO 14+00.00		502	0.095	23.15	437.5		1	1						6			
		RAMP K																	
38-GR		34+90.86 (SR 528) TO 4+00.00		398	0.078	19.10	362.5		1							5			
		RAMP L																	
39-GR		23+68.67 (SR 528) TO 2+50.00		387	0.073	17.94	325.0			2						5			
		TOTALS (CARRIED TO GENERAL SUMMARY)	**88.0**	**17,195.0**	**3.1**	**742.5**	**15,250.0**	**10.0**	**32.0**	**34.0**	**10.0**	**1.0**	**455.0**	**11.0**	**200.0**	**199.0**	**30.0**	**20.0**	

CALCULATED C. Y.
CHECKED

GUARDRAIL SUBSUMMARY

LAK-90-21.40
ATB-90-0.00

UNDERDRAIN QUANTITIES

SHEET NO.	MARK	STATION FROM	STATION TO	SIDE	603 6" CONDUIT TYPE B 707.33,707.41,707.42 OR 707.45 FOOT	603 6" CONDUIT TYPE F FOOT	603	604 PRECAST REINFORCED CONCRETE OUTLET EACH	605	605 6" BASE PIPE UNDERDRAIN WITH FABRIC WRAP A.P.P. (18" DEEP) FOOT	605 6" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP A.P.P. (30" DEEP) FOOT	605 6" UNCLASSIFIED PIPE UNDERDRAIN WITH FABRIC WRAP A.P.P. FOOT	605	605	BENDS AND BRANCHES (FOR INFO. ONLY) 6" X 6" TEE EACH	6" X 45° BEND EACH	6" X 90° BEND EACH	6" X 6" WYE EACH	6" X 6" CROSS EACH	6" CAP EACH						
		I.R. 90																								
122-123	1-UD	724+50	730+96	WB						646										1						
122-123	2-UD	724+50	730+96	WB							646									1						
122-123	3-UD	724+50	730+96	WB							646									1						
122-123	4-UD	724+50	731+32	EB							682									1						
122-123	5-UD	724+50	731+30	EB							680									1						
122-123	6-UD	724+50	731+18	EB						668										1						
123-124	7-UD	731+00	745+50	WB		37		2		1450							2	2								
123-124	8-UD	731+00	745+50	WB	25						1450						2									
123-124	9-UD	731+02	744+67	WB		84					1365					1	1									
123-124	10-UD	731+36	745+01	EB		82					1365					1	1									
123-124	11-UD	731+34	744+50	EB	30						1316					1	1									
123-124	12-UD	731+21	744+50	EB		39		1		1329						1	1	2								
124-125	13-UD	745+54	754+00	WB		25.5		1		846							1	1		1						
124-125	14-UD	745+54	754+00	WB	12.5						846						1			1						
124-125	15-UD	744+70	752+01	WB		35					731						1			1						
124-125	16-UD	745+06	752+01	EB		33					695						1			1						
124-125	17-UD	744+54	763+96	EB	12.5						1792	150			1					2						
124-125	18-UD	744+54	763+96	EB		20				1792		150							1	2						
125-126	19-UD	754+04	764+96	WB	12.5					992		100			1					2						
125-126	20-UD	754+04	764+96	WB	30.5						992	100							1	2						
125	21-UD	752+05	761+58	WB		34					853	100							1	2						
125-126	22-UD	761+62	764+80	WB		34.2					318						1			1						
125	23-UD	752+05	761+92	EB		33.4					987				1					2						
125-126	24-UD	761+96	764+80	EB		48.3					284					1				1						
125-126	25-UD	764+00	770+88	EB	12.5						688						1			1						
125-126	26-UD	764+00	770+76	EB		19		1		676							1	1		1						
126	27-UD	765+00	771+96	WB		25		1		696							1	1		1						
126	28-UD	765+00	771+96	WB	12.5						696						1			1						
126	29-UD	764+894	771+32	WB		48					648					1				1						
126	30-UD	764+84	770+98	EB		49					614					1				1						
126-127	31-UD	772+00	782+50	WB		55		2		1050							2	2								
126-127	32-UD	772+00	782+50	WB	25						1050						2									
126-127	33-UD	771+36	788+68	WB		95					1732					2										
126-127	34-UD	771+02	789+00	EB		70					1798					1	1									
126-128	35-UD	770+92	790+60	EB	30.5						1968					1	1									
126-128	36-UD	770+79	790+60	EB		69				1981						1	1	2								
127	37-UD	782+54	788+50	WB		26		1		596							1	1		1						
127	38-UD	782+54	788+50	WB	12.5						596						1			1						
127-128	39-UD	788+54	793+50	WB		16		1		496							1	1		1						
127-128	40-UD	788+54	793+50	WB	12.5						496					1	1			1						
127-128	41-UD	788+72	794+94	WB		47					622						1			1						
127-128	42-UD	789+05	795+27	EB		26.6					622						1			1						
128	43-UD	790+64	795+50	EB	12.5						486						1			1						
128	44-UD	790+64	795+50	EB		10		1		486							1	1		1						
128-129	45-UD	793+54	805+50	WB	13					1196							1			1						
128-129	46-UD	793+54	805+50	WB	25						1196				1					1						
128-129	47-UD	796+36	805+50	WB	11						914				1					1						
128-129	48-UD	802+92	805+50	WB		27				258					1					1						
128-129	49-UD	795+54	803+91	EB	12.5						837						1			1						
128-129	50-UD	795+54	803+91	EB		20				837							1	1		1						
128-129	51-UD	796+11	805+52	EB		20					941						1			1						
129	52-UD	805+54	813+00	WB						746										1						
129	53-UD	805+54	813+00	WB							746									1						
129	54-UD	805+54	813+00	WB							746									1						
129	55-UD	805+54	813+00	WB						746										1						
129-130	56-UD	805+56	817+00	EB		20					1144						1			1						
129	57-UD	803+95	816+50	EB	12.5						1255						1			1						
129	58-UD	803+95	816+50	EB		16		1		1255							1	1		1						
TOTALS CARRIED TO GENEREAL SUMMARY					315.0	1,164.0		12.0		18,742.0	35,443.0	600.0			6.0	13.0	39.0	16.0	3.0	52.0						

CALCULATED R.J.G. 12-6-05
CHECKED T.M.P. 12-6-05
DRAWN H.A.M. 12-6-05

I.R. 90 UNDERDRAIN QUANTITIES

LAK-90-21.40
ATB-90-0.00

UD00001.dgs (DESIGN)

UNDERDRAIN QUANTITIES

SHEET NO.	MARK	STATION FROM	STATION TO	SIDE	603 6" CONDUIT TYPE B 707.33,707.41,707.42 OR 707.45 FOOT	603 6" CONDUIT TYPE F FOOT	603	604 PRECAST REINFORCED CONCRETE OUTLET EACH	605	605 6" BASE PIPE UNDERDRAIN WITH FABRIC WRAP A.P.P. (18" DEEP) FOOT	605 6" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP A.P.P. (30" DEEP) FOOT	605 6" UNCLASSIFIED PIPE UNDERDRAIN WITH FABRIC WRAP A.P.P. FOOT	605	605	BENDS AND BRANCHES (FOR INFO. ONLY) 6" X 6" TEE EACH	6" X 45° BEND EACH	6" X 90° BEND EACH	6" X 6" WYE EACH	6" X 6" CROSS EACH	6" CAP EACH
		I.R. 90																		
130	59-UD	816+54	820+00	EB	12.5						346						1			1
130	60-UD	816+54	820+00	EB		19		1		346							1	1		1
130	61-UD	817+04	821+00	EB		23					396						1			1
130	62-UD	820+04	826+00	EB							596									1
130	63-UD	820+04	826+00	EB						596										1
130	64-UD	821+04	825+04	EB		13				400							1	1		1
130	65-UD	821+04	825+04	EB	14.5						400						1			1
130	66-UD	825+08	826+00	EB						92										1
130	67-UD	825+08	826+00	EB							92									1
132	282-UD	847+50	849+00	EB						150										1
132	68-UD	847+50	851+77	EB							427									1
132	69-UD	847-50	851+64	EB						414										1
132	70-UD	847+50	853+97	EB							647									1
132-133	71-UD	851+81	865+46	EB	18						1365					1				1
132-133	72-UD	851+68	865+46	EB		25				1378						1		1		1
132-133	73-UD	854+01	866+80	EB		32					1279						1			1
133	74-UD	855+50	866+46	WB						1096										1
133	75-UD	855+80	866+46	WB							1096									1
133	76-UD	855+50	859+00	WB						350										1
133	77-UD	855+50	866+46	WB							1096									1
133-134	78-UD	866+50	870+46	WB		24		1			396						1	1		1
133-134	79-UD	866+50	870+46	WB	12.5					396							1			1
133-134	80-UD	866+50	872+46	WB		34					596						1			1
133-134	81-UD	866+84	872+60	EB		49					576					1				1
133-134	82-UD	865+50	868+96	EB	12.5						346						1			1
133-134	83-UD	865+50	868+96	EB		24		1		346							1	1		1
134	84-UD	NOT USED																		
134	85-UD	870+50	876+46	WB		11		1			596						1	1		1
134	86-UD	870+50	876+46	WB	12.5					596							1			1
134	87-UD	872+50	881+14	WB		34					864						1			1
134	88-UD	869+00	873+96	EB	12.5						496						1			1
134	89-UD	869+00	873+96	EB		10		1		496							1	1		1
134	90-UD	872+64	880+89	EB		21					825					1				1
134	91-UD	874+00	878+96	EB	12.5						496						1			1
134	92-UD	874+00	878+96	EB		12		1		496							1	1		1
134	93-UD	876+50	881+46	WB		17		1			496						1			1
134	94-UD	876+50	881+46	WB	12.5					496							1	1		1
134-135	95-UD	879+00	885+46	EB	12.5						646						1			1
134-135	96-UD	879+00	885+46	EB		20		1		646							1	1		1
135	97-UD	881+50	886+96	WB		26		1			546						1	1		1
135	98-UD	881+50	886+96	WB	12.5					546							1			1
135	99-UD	882+25	928+46	WB		38					1021					1				1
135	100-UD	882+15	928+81	EB		22					1066					1				1
135	101-UD	885+50	890+46	EB	12.5						496						1			1
135	102-UD	885+50	890+46	EB		22		1		496							1	1		1
135-136	103-UD	887+00	935+46	WB		26		1			1246						1	1		1
135-136	104-UD	887+00	935+46	WB	12.5					1246							1			1
135-136	105-UD	890+50	931+46	EB	12.5						496						1			1
135-136	106-UD	890+50	931+46	EB		22		1		496							1	1		1
135-136	107-UD	928+83	935+50	WB		33					663						1			1
135-136	108-UD	928+85	936+46	EB		50					761					1				1
136-137	109-UD	935+50	948+50	WB	12.5	19		1		1300							2	1		
136-137	110-UD	935+50	948+50	WB	43						1300				2					
136-137	111-UD	935+50	948+50	WB	31	34					1300				1		1			
136-137	112-UD	936+50	948+50	EB	31	35					1200				1		1			
136-137	113-UD	936+50	948+50	EB	43						1200				2					
136-137	114-UD	936+50	948+50	EB	12.5	14		1		1200							2	1		
136	283-UD	931+50	936+46	EB	12.5						496						1			1
136	284-UD	931+50	936+46	EB		23		1		496							1	1		1
TOTALS CARRIED TO GENEREAL SUMMARY					368.0	732.0		15.0		14,074.0	25,864.0				6.0	7.0	39.0	17.0		52.0

CALCULATED R.J.C. 12-6-05
CHECKED D.R.S. 12-6-05
DRAWN H.A.M. 12-6-05

I.R. 90 UNDERDRAIN QUANTITIES

LAK-90-21.40
ATB-90-0.00

UD00001.dgs (DESIGN)

UNDERDRAIN QUANTITIES

SHEET NO.	MARK	STATION FROM	STATION TO	SIDE	603 6" CONDUIT TYPE B 707.33,707.41,707.42 OR 707.45 FOOT	603 6" CONDUIT TYPE F FOOT	603	604 PRECAST REINFORCED CONCRETE OUTLET EACH	605	605 6" BASE PIPE UNDERDRAIN WITH FABRIC WRAP A.P.P. (18" DEEP) FOOT	605 6" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP A.P.P. (30" DEEP) FOOT	605 6" UNCLASSIFIED PIPE UNDERDRAIN WITH FABRIC WRAP A.P.P. FOOT	605	605	BENDS AND BRANCHES (FOR INFO. ONLY) 6" X 6" TEE EACH	6" X 45° BEND EACH	6" X 90° BEND EACH	6" X 6" WYE EACH	6" X 6" CROSS EACH	6" CAP EACH
		I.R. 90																		
137	115-UD	948+54	955+50	WB	12.5					696							1			1
137	116-UD	948+54	955+50	WB	31						696				1					1
137	117-UD	948+54	955+50	WB		33					696				1					1
137	118-UD	948+54	955+50	EB		14					696				1					1
137	119-UD	948+54	955+50	EB	31						696				1					1
137	120-UD	948+54	955+50	EB	12.5					969							1			1
137-138	121-UD	955+54	961+00	WB	12.5					546							1			1
137-38	122-UD	955+54	961+00	WB	31						546				1					1
137-138	123-UD	955+54	961+00	WB		34					546				1					1
137-138	124-UD	955+54	960+00	EB	31						296	150			1					1
137-138	125-UD	955+54	960+00	EB	12.5						296	150							1	1
137-138	126-UD	955+54	960+00	EB		34		1		296		150							1	1
138	127-UD	961+04	966+00	WB		16		1		496							1			1
138	128-UD	961+04	966+00	WB	12.5						496						1	1		1
138	129-UD	961+04	969+00	WB		33					796						1			1
138	130-UD	960+00	965+50	EB	31						550						1			
138	131-UD	960+00	965+50	EB	12.5						550				1					
138	132-UD	960+00	965+50	EB		11		1		550							1	1		
138-139	133-UD	966+04	971+00	WB		15		1		496							1	1		1
138-139	134-UD	966+04	971+00	WB	12.5						496						1			1
138-139	135-UD	969+04	978+65	WB		48					961					1				1
138	136-UD	965+54	968+64	EB		50					310					1				1
138-139	137-UD	965+54	971+00	EB	12.5						546						1			1
138-139	138-UD	965+54	971+00	EB		12		1		546							1	1		1
139	139-UD	971+04	978+79	WB		29				775						1		1		1
139	140-UD	971+04	978+66	WB	18						762					1				1
	141-UD	NOT USED																		
138-139	142-UD	968+68	979+00	EB		15					1032				1					1
139	143-UD	971+04	979+00	EB	31						796				1					1
139	144-UD	971+04	979+00	EB	12.5					796							1			1
139-140	145-UD	978+83	987+80	WB		28				897					1	1		1		1
139-140	146-UD	978+70	987+80	WB	12.5						910						1			1
139-140	147-UD	978+69	987+66	WB		47					897					1				1
139-140	148-UD	979+04	988+00	EB		16					896								1	1
139-140	149-UD	979+04	988+00	EB	31						896								1	1
139-140	150-UD	979+04	988+00	EB	12.5					896					1					1
140	151-UD	987+84	994+46	WB		28				662					1	1		1		2
140	152-UD	987+84	994+46	WB	12.5						662							1		2
140	153-UD	987+70	994+46	WB		47					676				1	1				1
140	154-UD	988+00	994+46	EB							646									1
140	155-UD	988+00	994+46	EB							646									1
140	156-UD	988+00	994+46	EB						646										1
140-142	157-UD	994+50	1010+00	WB	12.5	11		1		1550							2	1		
140-142	158-UD	994+50	1010+00	WB	43.5						1550				2					
140-142	159-UD	994+50	1010+00	WB	31	34					1550				1		1			
140-142	160-UD	994+50	1010+00	EB	31	34					1550				1		1			
140-142	161-UD	994+50	1010+00	EB	43.5						1550				2					
140-142	162-UD	994+50	1010+00	EB	12.5	12		1		1550							2	1		
142	163-UD	1010+04	1018+97	WB	12.5					893							1			1
142	164-UD	1010+04	1018+97	WB	31						893				1					1
142	165-UD	1010+04	1018+97	WB		14					893				1					1
142	166-UD	1010+04	1018+97	EB		28					893				1					1
142	167-UD	1010+04	1018+97	EB	38						893				1					1
142	168-UD	1010+04	1018+97	EB	12.5					893							1			1
142-143	169-UD	1019+01	1024+00	WB		19		1		499							1	1		1
142-143	170-UD	1019+01	1024+00	WB	12.5						499						1			1
142-143	171-UD	1020+10	1024+95	WB		34					485						1			1
142-143	172-UD	1019+84	1024+95	EB		34					511						1			1
142-143	173-UD	1019+01	1023+50	EB	12.5						449						1			1
142-143	174-UD	1019+01	1023+50	EB		21		1		449							1	1		1
TOTALS CARRIED TO GENEREAL SUMMARY					678.0	751.0		9.0		15,101.0	29,708.0	450.0			24.0	8.0	28.0	12.0	4.0	52.0

CALCULATED R.J.C. 12-6-05
CHECKED H.A.M. 12-6-05

I.R. 90 UNDERDRAIN QUANTITIES

LAK-90-21.40
ATB-90-0.00

UD00001.dgs (DESIGN)

UNDERDRAIN QUANTITIES

SHEET NO.	MARK	STATION FROM	STATION TO	SIDE	603: 6" CONDUIT TYPE B 707.33,707.41,707.42 OR 707.45 (FOOT)	603: 6" CONDUIT TYPE F (FOOT)	603:	604: PRECAST REINFORCED CONCRETE OUTLET (EACH)	605:	605: 6" BASE PIPE UNDERDRAIN WITH FABRIC WRAP A.P.P. (18" DEEP) (FOOT)	605: 6" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP A.P.P. (30" DEEP) (FOOT)	605: 6" UNCLASSIFIED PIPE UNDERDRAIN WITH FABRIC WRAP A.P.P. (FOOT)	605:	605:	BENDS AND BRANCHES (FOR INFO. ONLY): 6" X 6" TEE (EACH)	6" X 45° BEND (EACH)	6" X 90° BEND (EACH)	6" X 6" WYE (EACH)	6" X 6" CROSS (EACH)	6" CAP (EACH)								
		I.R. 90																										
143-144	175-UD	1024+04	1035+00	WB	8					1096							1			1								
143-144	176-UD	1024+04	1035+00	WB	43						1096				1					1								
143-144	177-UD	1024+99	1035+00	WB		34					1096				1					1								
143-144	178-UD	1024+99	1035+00	EB		35					1146				1					1								
143-144	179-UD	1023+54	1035+00	EB	44						1146				1					1								
143-144	180-UD	1023+54	1035+00	EB	8					1146							1			1								
144	181-UD	1035+04	5+00 RAMP J	WB		21		1		854							1	1		1								
144	182-UD	1035+04	5+00 RAMP J	WB	8						854						1			1								
144	183-UD	1035+04	1040+96	WB		23					592						1			1								
144	184-UD	1035+04	1040+96	EB		46					592						1			1								
421	185-UD	SEE RAMP I																										
421	186-UD	SEE RAMP I																										
144-146	285-UD	1041+00	15+36	WB		60					2710				1				1	2								
144-146	286-UD	1041+00	15+78	EB		53					2752				2					2								
428-429	187-UD	SEE RAMP J																										
144-145	188-UD	1043+01	3+60	WB	12.5	10				1333					1					1								
144-145	189-UD	1043+01	3+60	WB	45						1333						1		1	1								
144-145	190-UD	1039+23	2+98	EB	43.5						1649				1		1	2		1								
144-145	191-UD	1039+23	2+98	EB	30					1649					1		1	1		1								
438	192-UD	SEE RAMP K																										
438	193-UD	SEE RAMP K																										
438	194-UD	SEE RAMP K																										
146	195-UD	8+00	13+46	EB	8						546				1					1								
146	196-UD	8+00	13+46	EB		31		1		546					1			1		1								
146	197-UD	13+00	18+46	WB		20		1		546							1	1		1								
146	198-UD	13+00	18+46	WB	8						546							1		1								
146	199-UD	13+50	19+96	EB	8						646						1			1								
146	200-UD	13+50	19+96	EB		24		1		646							1	1		1								
146-147	201-UD	15+40	31+64	WB		64					1624					2												
146-147	202-UD	15+40	32+00	EB		74					1660					1	1											
146-147	203-UD	18+50	27+00	WB		35		2		850							2	2										
146-147	204-UD	18+50	27+00	WB	25						850						2											
146-147	205-UD	20+00	28+00	EB	25						800						2											
146-147	206-UD	20+00	28+00	EB		57		2		800							2	2										
147	207-UD	27+04	32+50	WB		20		1		546							1	1		1								
147	208-UD	27+04	32+50	WB	12.5						546						1			1								
147	209-UD	28+04	33+00	EB	12.5						496						1			1								
147	210-UD	28+04	33+00	EB		31		1		496							1	1		1								
147-148	211-UD	32+54	38+00	WB		20		1		546							1	1		1								
147-148	212-UD	32+54	38+00	WB	12.5						546						1			1								
147-148	213-UD	33+11	37+14	WB		50					403					1				1								
147-148	214-UD	32+86	37+49	EB		34					463						1			1								
147-148	215-UD	33+04	38+00	EB	12.5						496						1			1								
147-148	216-UD	33+04	38+00	EB		19		1		496							1	1		1								
148	217-UD	38+04	44+46	WB	12.5					642										2								
148	218-UD	38+04	44+46	WB	30						642				1				1	2								
148	219-UD	37+18	46+47	WB		35					929								1	2								
148	220-UD	37+53	46+12	EB		35					459	400							1	2								
148	221-UD	38+04	46+12	EB	30						408	400							1	2								
148	222-UD	38+04	46+12	EB	12.5					558		250			1					2								
148-149	223-UD	44+50	53+46	WB		27		1		896							1	1		1								
148-149	224-UD	44+50	53+46	WB	12.5						896						1			1								
148-149	225-UD	46+50	56+32	WB		50					982					1				1								
148-149	226-UD	46+16	55+97	EB		35					981				1					1								
148-149	227-UD	46+16	53+46	EB	30						730				1					1								
148-149	228-UD	46+16	53+46	EB	12.5					730							1			1								
TOTALS CARRIED TO GENEREAL SUMMARY					506.0	943.0		13.0		14,376.0	30,615.0	1,050.0			16.0	5.0	33.0	17.0	6.0	52.0								

CALCULATED R.J.C. 12-6-05
CHECKED H.A.M. 12-6-05

I.R. 90 UNDERDRAIN QUANTITIES

LAK-90-21.40
ATB-90-0.00

UD00001.dgs (DESIGN)

UNDERDRAIN QUANTITIES

SHEET NO.	MARK	STATION FROM	STATION TO	SIDE	603: 6" CONDUIT TYPE B 707.33,707.41,707.42 OR 707.45 (FOOT)	603: 6" CONDUIT TYPE F (FOOT)	604: PRECAST REINFORCED CONCRETE OUTLET (EACH)	605: 6" BASE PIPE UNDERDRAIN WITH FABRIC WRAP A.P.P. (18" DEEP) (FOOT)	605: 6" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP A.P.P. (30" DEEP) (FOOT)	605: 6" UNCLASSIFIED PIPE UNDERDRAIN WITH FABRIC WRAP A.P.P. (FOOT)	BENDS AND BRANCHES (FOR INFO. ONLY): 6" X 6" TEE (EACH)	6" X 45° BEND (EACH)	6" X 90° BEND (EACH)	6" X 6" WYE (EACH)	6" X 6" CROSS (EACH)	6" CAP (EACH)
		I.R. 90														
149	229-UD	53+50	58+46	WB		20	1	496					1	1		1
149	230-UD	53+50	58+46	WB	12.5				496				1			1
149-150	231-UD	53+50	65+46	EB	12.5				1196				1			1
149-150	232-UD	53+50	65+46	EB		21	1	1196					1	1		1
149-150	233-UD	56+36	65+80	WB		51			944			1				1
149-150	234-UD	56+00	65+46	EB		34			946				1			1
149-150	235-UD	58+50	65+80	WB		20	1	730					1	1		1
149-150	236-UD	58+50	65+80	WB	12.5				730				1			1
150-151	237-UD	65+84	73+96	WB	12.5			812					1			1
150-151	238-UD	65+84	73+96	WB	32				812		1					1
150-151	239-UD	65+84	74+12	WB		47			828		1	1				1
150-151	240-UD	65+50	74+09	EB		35			859				1	1		1
150	241-UD	65+50	72+44	EB	30				694		1					1
150	242-UD	65+50	72+44	EB	12.5			694					1			1
150-151	243-UD	72+48	77+96	EB	12.5				548				1			1
150-151	244-UD	72+48	77+96	EB		21		548					1	1		1
151	245-UD	74+00	87+70	WB		32	1	1370					1	1		1
151	246-UD	74+00	87+70	WB	12.5				1370				1			1
151	247-UD	74+16	81+31	WB		51			715			1				1
151	248-UD	74+14	81+30	EB		47			716			1				1
151-152	249-UD	78+00	90+98	EB	12.5				1298				1			1
151-152	250-UD	78+00	90+86	EB		21		1286					1	1		1
151-152	251-UD	81+35	89+30	WB		50			795			1				1
151-152	252-UD	81+34	89+30	EB		48			796			1				1
152	253-UD	87+74	92+96	WB		20		522					1	1		1
152	254-UD	87+74	92+96	WB	12.5				522				1			1
152-153	255-UD	89+34	99+32	WB		48			998			1				1
152-153	256-UD	89+35	99+29	EB		50			994			1				1
152	257-UD	91+03	97+46	EB	17				643			1				1
152	258-UD	90+91	97+46	EB		58		655				1		1		1
152-153	259-UD	93+00	102+47	WB		22		947					1	1		1
152-153	260-UD	93+00	102+47	WB	12.5				947				1			1
152-153	261-UD	97+50	101+46	EB	12.5				396				1			1
152-153	262-UD	97+50	101+46	EB		24	1	396					1	1		1
153-154	263-UD	99+37	117+04	WB		83			1767			1	1			
153-154	264-UD	99+33	117+04	EB		73			1771			1	1			
153-154	265-UD	101+50	114+00	EB	25				1250				2			
153-154	266-UD	101+50	114+00	EB		48	2	1250					2	2		
153-154	267-UD	102+50	114+00	WB		73	2		1150				2	2		
153-154	268-UD	102+50	114+00	WB	25			1150					2			
154	269-UD	114+04	4+50	WB		46	1	908					1	1		1
154	270-UD	114+04	4+50	WB	12.5				908				1			1
154	271-UD	114+04	5+50	EB	12.5				1008				1			1
154	272-UD	114+04	5+50	EB		26	1	1008					1	1		1
154	273-UD	117+76	3+00	EB		31			386				1			1
154	274-UD	118+01	2+68	WB		43			329			1	1	1		1
154	275-UD	4+54	5+75	WB				121								1
154	276-UD	4+54	5+75	WB					121							1
154	277-UD	2+72	5+75	WB					303							1
154	278-UD	2+72	5+75	WB				303								1
154	279-UD	3+04	5+75	EB					271							1
154	280-UD	5+54	5+75	EB					21							1
154	281-UD	5+54	5+75	EB				21								1
154	287-UD	118+01	2+68	WB	15				329				1			1
TOTALS CARRIED TO GENEREAL SUMMARY					306.5	1,143.0	11.0	14,413.0	27,857.0		3.0	13.0	39.0	18.0		48.0

CALCULATED R.J.C. 12-6-05
CHECKED M.A.M. 12-6-05

I.R. 90 UNDERDRAIN QUANTITIES

LAK-90-21.40
ATB-90-0.00

UD00001.dgs (DESIGN)

RAMP UNDERDRAIN QUANTITIES & MAINLINE STORM SEWER AND DITCH EROSION QUANTITIES

SHEET NO.	MARK	STATION FROM	STATION TO	SIDE	603 6" CONDUIT TYPE B 707.33,707.41,707.42 OR 707.45	603 6" CONDUIT TYPE F	603 15" CONDUIT TYPE C	604 PRECAST REINFORCED CONCRETE OUTLET (P.R.C.O.)	604 CATCH BASIN #4	605 6" BASE PIPE UNDERDRAIN WITH FABRIC WRAP A.P.P. (18" DEEP)	605 6" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP A.P.P. (30" DEEP)	605 6" UNCLASSIFIED PIPE UNDERDRAIN WITH FABRIC WRAP A.P.P.	BENDS AND BRANCHES (FOR INFO. ONLY) 6" X 6" TEE	6" X 45° BEND	6" X 90° BEND	6" X 6" WYE	6" X 6" CROSS	6" CAP	670 DITCH EROSION PROTECTION
					FOOT	FOOT	FOOT	EACH	EACH	FOOT	FOOT	FOOT	EACH	EACH	EACH	EACH	EACH	EACH	SQ. YDS.
		RAMP I																	
421	185-UD	0+16	11+98	RT	8						1182						1	2	
421	186-UD	0+16	12+39	RT		20		1		1223			1			1		2	
421	288-UD	4+50	12+67	LT	20						832				1			1	
		RAMP J																	
428-429	187-UD	4+44	11+76	RT	20						654	76	1					2	
428	289-UD	NOT USED																	
428	290-UD	NOT USED																	
428-429	302-UD	5+04	14+00	MED		34		2		696		200			1	1	1	2	
428-429	303-UD	5+04	14+00	RT	16						650	246			1		1	2	
		RAMP K																	
439	192-UD	6+04	12+96	LT		22		1		692			1			1		1	
439	193-UD	6+04	12+96	LT	8						692		1					1	
439	194-UD	6+04	6+83	RT		10					799			1				1	
439	291-UD	0+16	6+00	LT		19		1		602					1	1		1	
439	292-UD	0+52	6+00	LT	8						548		1					1	
439	293-UD	0+23	6+00	RT	20						600				1			1	
		RAMP L																	
447	294-UD	0+50	3+00	LT	20						288				1			1	
447	295-UD	0+48	3+00	RT	8						252		1					1	
447	296-UD	0+00	3+00	RT		16		1		323					1	1		1	
447	297-UD	3+04	9+51	LT	20						647		1					1	
447	298-UD	3+04	8+79	RT	12						575			1				1	
447	299-UD	3+04	8-87	RT		17				583				1		1		1	
447	300-UD	8-83	13+69	RT							486		1					1	
447	301-UD	8+92	13+69	RT						477								1	
		STORM SEWER QUANTITIES																	
		I.R. 90																	
145	1-SS	1049+50		RT					1										
148	2-SS	39+48	41+00	MED			152		1										
TOTALS CARRIED TO GENEREAL SUMMARY					160.0	138.0	152.0	6.0	2.0	4,596.0	8,205.0	522.0	8.0	3.0	7.0	6.0	3.0	25.0	5,181.3

SHEET	MARK	STATION	SIDE	LENGTH	WIDTH
		EROSION CONTROL I.R. 90			
125	1-EP	756+00 - 757+50	MED	150	7.5
125	2-EP	760+11 - 761+61	LT	150	7.5
125	3-EP	760+11 - 761+61	RT	150	7.5
125	4-EP	761+61 - 763+11	MED	150	9.0
126	5-EP	764+50 - 766+00	MED	150	9.0
126	6-EP	771+00 - 772+50	MED	150	9.0
127	7-EP	787+50 - 789+00	MED	150	9.0
128	8-EP	793+77 - 795+50	MED	173	9.0
129	9-EP	804+00 - 805+50	MED	150	9.0
133	10-EP	866+50 - 868+00	MED	150	9.0
134	11-EP	872+50 - 874+00	MED	150	9.0
135	12-EP	882+00 - 883+500	MED	150	9.0
135	13-EP	928+50 - 930+00	MED	150	9.0
137	14-EP	947+00 - 948+50	MED	150	9.0
137	15-EP	954+00 - 955+50	MED	150	9.0
137	16-EP	955+50 - 956+00	LT	150	7.5
137	17-EP	955+50 - 956+00	RT	150	7.5
138	18-EP	959+50 - 961+00	MED	150	9.0
138	19-EP	967+50 - 969+00	MED	150	9.0
139	20-EP	977+50 - 979+00	MED	150	9.0
140	21-EP	984+50 - 986+00	MED	150	9.0
140	22-EP	986+00 - 988+00	MED	150	9.0
140	23-EP	988+00 - 990+00	MED	200	9.0
140	24-EP	990+00 - 991+50	MED	150	9.0
144	25-EP	1045+50 - 1047+00	MED	150	9.0
144	26-EP	1047+00 - 1048+50	LT	150	7.5
144	27-EP	1047+00 - 1049+50	RT	250	7.5
145	28-EP	4+50 - 6+00	MED	150	9.0
148	29-EP	39+50 - 41+00	MED	150	7.5
148	30-EP	41+00 - 42+50	LT	150	7.5
148	31-EP	41+00 - 42+50	RT	150	7.5
150	32-EP	71+00 - 72+50	RT	150	7.5
151	33-EP	78+00 - 79+50	RT	150	7.5
152	34-EP	93+00 - 94+50	LT	150	7.5
145	35-EP	1052+23 - 1+00	LT	150	7.5
145	36-EP	1+00 - 2+50	LT	150	7.5

CALCULATED R.J.C. 12-6-05
CHECKED
DRAWN H.A.M. 12-6-05

RAMP UNDERDRAIN QUANTITIES, MAINLINE STORM SEWER AND DITCH EROSION CONTROL QUANTITIES

LAK-90-21.40
ATB-90-0.00

UDO0001.dgs (DESIGN)

Mainline I.R. 90 Asphalt Concrete Pavement Calculations

STATION	LENGTH	PAVEMENT WIDTH	PAVEMENT AREA	204 PROOF ROLLING	206 CEMENT STABILIZED SUBGRADE, 12" DEEP	304 6" AGGREGATE BASE	617 COMPACTED AGGREGATE, AS PER PLAN A	302 10.5" ASPHALT CONCRETE BASE	407 TACK COAT FOR INTERMEDIATE COURSE @ 0.050 GAL/SY	442 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)	442 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN
	FT	FT	SQ YD	HOUR	SQ YD	CU YD	CU YD	CU YD	GALLON	CU YD	CU YD
I.R. 90 EASTBOUND LANES											
724+50.00 TO 826+00.00	10,150.00	24.0	27,066.67	9.02	27,066.67	4,511.11		7,894.44	1,353.33	1,315.74	1,127.78
826+00.00 TO 832+94.09	694.09	SUSPEND PROJECT STA. 826+00.00									
832+96.70 TO 847+50.00	1,453.30	RESUME PROJECT STA. 847+50.00									
847+50.00 TO 891+49.67	4,399.67	24.0	11,732.45	3.91	11,732.45	1,955.41		3,421.97	586.62	570.33	488.85
927+50.00 TO 1052+73.22	12,523.22	24.0	33,395.25	11.13	33,395.25	5,565.88		9,740.28	1,669.76	1,623.38	1,391.47
0+0.00 TO 41+87.57	4,187.57	24.0	11,166.85	3.72	11,166.85	1,861.14		3,257.00	558.34	542.63	465.29
41+88.95 TO 119+06.65	7,717.70	24.0	20,580.53	6.86	20,580.53	3,430.09		6,002.66	1,029.03	1,000.44	857.52
0+44.61 TO 5+75.00	530.39	24.0	1,414.37	0.47	1,414.37	235.73		412.53	70.72	68.75	58.93
DECELERATION LANES											
1027+50.00 TO 1028+50.00	100.00	6.0 (Avg.)	66.67	0.02	66.67	11.11		19.44	3.33	3.24	2.78
1028+50.00 TO 1034+85.14	635.14	12.0	846.85	0.28	846.85	141.14		247.00	42.34	41.17	35.29
1034+85.14 TO 1039+22.38	437.22	COMPUTER CALCULATED AREA	1,070.57	0.36	1,070.57	178.43		312.25	53.53	52.04	44.61
ACCELERATION LANES											
2+96.57 TO 16+70.13	1,371.56	COMPUTER CALCULATED AREA	2,709.27	0.90	2,709.27	451.55		790.20	135.48	131.70	112.89
EASTBOUND MAINLINE I.R. 90 TOTALS				36.68	110,049.49	18,341.58		32,087.77	5,502.47	5,349.83	4,585.40
I.R. 90 WESTBOUND LANES											
724+50.00 TO 813+00.00	8,850.00	24.0	23,600.00	7.87	23,600.00	3,933.33		6,883.33	1,180.00	1,147.22	983.33
813+00.00 TO 832+94.09	1,994.09	SUSPEND PROJECT STA. 813+00.00									
832+96.70 TO 855+50.00	2,253.30	RESUME PROJECT STA. 855+50.00									
855+50.00 TO 891+49.67	3,599.67	24.0	9,599.12	3.20	9,599.12	1,599.85		2,799.74	479.96	466.62	399.96
927+50.00 TO 1052+73.22	12,523.22	24.0	33,395.25	11.13	33,395.25	5,565.88		9,740.28	1,669.76	1,623.38	1,391.47
0+0.00 TO 41+87.57	4,187.57	24.0	11,166.85	3.72	11,166.85	1,861.14		3,257.00	558.34	542.63	465.29
41+88.95 TO 119+06.65	7,717.70	24.0	20,580.53	6.86	20,580.53	3,430.09		6,002.66	1,029.03	1,000.44	857.52
0+44.61 TO 5+75.00	530.39	24.0	1,414.37	0.47	1,414.37	235.73		412.53	70.72	68.75	58.93
DECELERATION LANES											
3+76.44 TO 7+55.89	379.45	COMPUTER CALCULATED AREA	933.43	0.31	933.43	155.57		272.25	46.67	45.38	38.89
7+55.89 TO 15+00.00	744.11	12.0	992.15	0.33	992.15	165.36		289.38	49.61	48.23	41.34
15+00.00 TO 16+00.00	100.00	6.0 (Avg.)	66.67	0.02	66.67	11.11		19.44	3.33	3.24	2.78
ACCELERATION LANES											
1029+07.24 TO 1035+07.24	600.00	6.0 (Avg.)	400.00	0.13	400.00	66.67		116.67	20.00	19.44	16.67
1035+07.24 TO 1038+57.24	350.00	19.5 (Avg.)	758.33	0.25	758.33	126.39		221.18	37.92	36.86	31.60
1038+57.24 TO 1043+01.34	444.10	COMPUTER CALCULATED AREA	1,572.81	0.52	1,572.81	262.14		458.74	78.64	76.46	65.53
WESTBOUND MAINLINE I.R. 90 TOTALS				34.83	104,479.52	17,413.25		30,473.19	5,223.98	5,078.86	4,353.31
MEDIAN U-TURNS											
757+50.00		COMPUTER CALCULATED AREA	490.27	0.17	525.44	86.94	12.35	147.28	24.51	23.83	20.43
795+75.00		COMPUTER CALCULATED AREA	490.27	0.17	525.44	86.94	12.35	147.28	24.51	23.83	20.43
881+50.00		COMPUTER CALCULATED AREA	490.27	0.17	525.44	86.94	12.35	147.28	24.51	23.83	20.43
1019+50.00		COMPUTER CALCULATED AREA	490.27	0.17	525.44	86.94	12.35	147.28	24.51	23.83	20.43
32+50.00		COMPUTER CALCULATED AREA	490.27	0.17	525.44	86.94	12.35	147.28	24.51	23.83	20.43
117+40.00		COMPUTER CALCULATED AREA	490.27	0.17	525.44	86.94	12.35	147.28	24.51	23.83	20.43
MEDIAN U-TURN TOTALS				1.04	3,152.64	521.64	74.10	883.68	147.08	143.00	122.57
EASTBOUND MAINLINE I.R. 90 TOTALS				36.68	110,049.49	18,341.58		32,087.77	5,502.47	5,349.83	4,585.40
WESTBOUND MAINLINE I.R. 90 TOTALS				34.83	104,479.52	17,413.25		30,473.19	5,223.98	5,078.86	4,353.31
MEDIAN U-TURN TOTALS				1.04	3,152.64	521.64	74.10	883.68	147.08	143.00	122.57
I.R. 90 MAINLINE AND MEDIANS TOTALS CARRIED TO SHEET 76				*72.55*	*217,681.65*	*36,276.48*	*74.10*	*63,454.64*	*10,873.53*	*10,571.49*	*9,061.28*

CALCULATED C.Y.
CHECKED

I.R. 90 MAINLINE ASPHALT CONCRETE PAVEMENT CALCULATIONS (ALTERNATE A)

LAK-90-21.40
ATB-90-0.00

Eastbound I.R. 90 Asphalt Concrete Shoulder Pavement Calculations

STATION			SIDE	LENGTH	PAVEMENT WIDTH	PAVEMENT AREA	204 PROOF ROLLING	206 CEMENT STABILIZED SUBGRADE, 12" DEEP	304 6" AGGREGATE BASE	617 COMPACTED AGGREGATE, AS PER PLAN A			302 10.5" ASPHALT CONCRETE BASE	407 TACK COAT FOR INTERMEDIATE COURSE @ 0.060 GAL/SY	442 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)	442 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN							
			LT/RT/MED	FT	FT	SQ YD	HOUR	SQ YD	CU YD	CU YD			CU YD	GALLON	CU YD	CU YD							
I.R. 90 EASTBOUND LANES																							
724+50.00	TO	755+08.62	MED	3058.62	5.0	1,699.23	0.72	2,209.00	358.73	113.28			556.97	84.96	82.80	70.80							
755+08.62	TO	757+08.62	MED	200.00	8.5 (Avg.)	188.89	0.07	222.22	36.42	7.41			59.10	9.44	9.18	7.87							
757+08.62	TO	758+05.99	MED	97.37	MEDIAN U-TURN OPENING																		
758+05.99	TO	793+13.61	MED	3507.62	5.0	1,948.68	0.82	2,533.28	411.39	129.91			638.73	97.43	94.73	81.19							
793+13.61	TO	795+13.61	MED	200.00	8.5 (Avg.)	188.89	0.07	222.22	36.42	7.41			59.10	9.44	9.18	7.87							
795+13.61	TO	796+10.99	MED	97.38	MEDIAN U-TURN OPENING																		
796+10.99	TO	819+70.00	MED	2359.01	5.0	1,310.56	0.55	1,703.73	276.67	87.37			429.57	65.53	63.71	54.61							
819+70.00	TO	826+00.00	MED	630.00	9.5 (Avg.)	665.00	0.25	770.00	126.39	23.33			206.60	33.25	32.33	27.71							
826+00.00	TO	832+94.09	MED	694.09	SUSPEND PROJECT STA. 826+00.00																		
832+96.70	TO	847+50.00	MED	1453.30	RESUME PROJECT STA. 847+50.00																		
847+50.00	TO	849+75.00	MED	225.00	9.5 (Avg.)	237.50	0.09	275.00	45.14	8.33			73.78	11.88	11.55	9.90							
849+75.00	TO	878+88.68	MED	2913.68	5.0	1,618.71	0.68	2,104.32	341.73	107.91			530.58	80.94	78.69	67.45							
878+88.68	TO	880+88.68	MED	200.00	8.5 (Avg.)	188.89	0.07	222.22	36.42	7.41			59.10	9.44	9.18	7.87							
880+88.68	TO	881+86.00	MED	97.32	MEDIAN U-TURN OPENING																		
881+86.00	TO	891+49.67	MED	963.67	5.0	535.37	0.23	695.98	113.02	35.69			175.48	28.77	26.03	22.31							
927+50.00	TO	1018+87.59	MED	8837.59	5.0	4,965.33	2.10	6,454.83	1,048.24	331.02			1,627.52	248.27	241.37	206.89							
1018+87.59	TO	1018+87.59	MED	200.00	8.5 (Avg.)	188.89	0.07	222.22	36.42	7.41			59.10	9.44	9.18	7.87							
1018+87.59	TO	1019+84.91	MED	97.32	MEDIAN U-TURN OPENING																		
1019+84.91	TO	1052+73.22	MED	3288.31	5.0	1,826.84	0.77	2,374.89	385.67	121.79			598.80	91.34	88.80	76.12							
0+0.00	TO	29+88.75	MED	2988.75	5.0	1,660.42	0.70	2,158.54	350.53	110.69			544.25	83.02	80.71	69.18							
29+88.75	TO	31+88.75	MED	200.00	8.5 (Avg.)	188.89	0.07	222.22	36.42	7.41			59.10	9.44	9.18	7.87							
31+88.75	TO	32+86.00	MED	97.25	MEDIAN U-TURN OPENING																		
32+86.00	TO	41+87.57	MED	901.57	5.0	500.87	0.21	651.13	105.74	33.39			164.17	25.04	24.35	20.87							
41+88.95	TO	114+78.61	MED	7289.66	5.0	4,049.81	1.71	5,264.75	854.96	269.99			1,327.44	202.49	196.87	168.74							
114+78.76	TO	116+78.61	MED	199.85	8.5 (Avg.)	188.75	0.07	222.06	36.39	7.40			59.06	9.44	9.18	7.86							
116+78.61	TO	117+75.99	MED	97.38	MEDIAN U-TURN OPENING																		
117+75.99	TO	119+06.65	MED	130.66	5.0	72.59	0.03	94.37	15.32	4.84			23.79	3.63	3.53	3.02							
0+44.61	TO	5+75.00	MED	530.39	5.0	294.66	0.12	383.06	62.21	19.64			96.58	14.73	14.32	12.28							
724+50.00	TO	726+00.00	RT	150.00	11.0 (Avg.)	183.33	0.07	208.33	34.26	5.56			56.48	9.17	8.91	7.64							
726+00.00	TO	824+60.00	RT	9860.00	12.0	13,146.67	4.87	14,790.00	2,434.57	365.19			4,032.25	657.33	639.07	547.78							
824+60.00	TO	826+00.00	RT	140.00	11.0 (Avg.)	171.11	0.06	194.44	31.98	5.19			52.72	8.56	8.32	7.13							
826+00.00	TO	832+94.09	RT	694.09	SUSPEND PROJECT STA. 826+00.00																		
832+96.70	TO	847+50.00	RT	1453.30	RESUME PROJECT STA. 847+50.00																		
847+50.00	TO	848+50.00	RT	100.00	11.0 (Avg.)	122.22	0.05	138.89	22.84	3.70			37.85	6.11	5.94	5.09							
848+50.00	TO	891+49.67	RT	4299.67	12.0	5,732.89	2.12	6,449.51	1,061.65	158.25			1,758.35	286.64	278.68	238.87							
927+50.00	TO	1027+50.00	RT	10000.00	12.0	13,333.33	4.94	15,000.00	2,469.14	370.37			4,089.51	666.67	648.15	555.56							
1027+50.00	TO	1028+50.00	RT	100.00	10.0 (Avg.)	111.11	0.04	127.78	20.99	3.70			34.41	5.56	5.40	4.63							
1028+50.00	TO	1034+85.14	RT	635.14	8.0	564.57	0.22	670.43	109.78	23.52			177.41	28.23	27.44	23.52							
0+0.00	TO	4+36.34	RT (RAMP D)	436.34	8.0	387.86	0.15	460.58	75.42	16.16			121.88	19.39	18.85	16.16							
1039+22.36	TO	1052+73.22	RT	1350.86	12.0	1,801.15	0.67	2,026.29	333.55	50.03			552.44	90.06	87.56	75.05							
0+0.00	TO	2+96.57	RT	296.57	12.0	396.09	0.15	447.86	73.72	11.06			122.10	19.90	19.35	16.59							
9+51.10	TO	13+68.60	RT (RAMP L)	417.50	8.0	371.11	0.14	440.69	72.16	15.46			116.62	18.56	18.04	15.46							
7+20.03	TO	14+70.13	RT	750.10	8.0	666.76	0.26	791.77	129.85	27.78			209.52	33.34	32.41	27.78							
14+70.13	TO	16+70.13	RT	200.00	10.0 (Avg.)	222.22	0.08	255.56	41.98	7.41			68.83	11.11	10.80	9.26							
16+70.13	TO	41+87.57	RT	2517.44	12.0	3,356.59	1.24	3,776.16	621.59	83.24			1,029.51	167.83	163.17	139.86							
41+88.95	TO	119+06.65	RT	7717.70	12.0	10,290.27	3.81	11,576.55	1,905.60	285.84			3,156.16	514.51	500.22	428.76							
0+44.61	TO	3+25.00	RT	280.39	12.0	373.85	0.14	420.59	69.23	10.38			114.67	18.69	18.17	15.58							
3+25.00	TO	4+85.00	RT	140.00	11.0 (Avg.)	171.11	0.06	194.44	31.98	5.19			52.72	8.56	8.32	7.13							
4+85.00	TO	5+75.00	RT	110.00	10.0	122.22	0.05	140.56	23.09	4.07			37.85	6.11	5.94	5.09							
EASTBOUND I.R. 90 SHOULDERS TOTALS CARRIED TO SHEET 76							28.55	87,116.58	14,277.37	2,904.74			23,169.93	3,702.26	3,599.42	3,085.22							

CALCULATED C.Y.
CHECKED

I.R. 90 MAINLINE SHOULDERS
ASPHALT CONCRETE CALCULATIONS
(ALTERNATE A)

LAK-90-21.40
ATB-90-0.00

IR90_PCS_002.DGN 05/20/09

Westbound I.R. 90 Asphalt Concrete Shoulder Pavement Calculations

STATION			SIDE	LENGTH	PAVEMENT WIDTH	PAVEMENT AREA	204 PROOF ROLLING	206 CEMENT STABILIZED SUBGRADE, 12" DEEP	304 6" AGGREGATE BASE	617 COMPACTED AGGREGATE, AS PER PLAN A			302 10.5" ASPHALT CONCRETE BASE	407 TACK COAT FOR INTERMEDIATE COURSE @ 0.050 GAL/SY	442 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)	442 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN							
			LT/RT/MED	FT	FT	SQ YD	HOUR	SQ YD	CU YD	CU YD			CU YD	GALLON	CU YD	CU YD							
I.R. 90 WESTBOUND LANES																							
724+50.00	TO	757+33.99	MED	3,283.99	5.0	1,824.44	0.77	2,371.77	365.16	121.63			598.01	91.22	88.69	76.02							
757+33.99	TO	758+31.26	MED	97.27	MEDIAN U-TURN OPENING																		
758+31.26	TO	760+31.26	MED	200.00	8.5 (Avg.)	188.89	0.07	222.22	36.42	7.41			59.10	9.44	9.16	7.87							
760+31.26	TO	795+38.99	MED	3,507.73	5.0	1,948.74	0.82	2,533.36	411.40	129.92			638.75	97.44	94.73	81.20							
795+38.99	TO	796+36.25	MED	97.26	MEDIAN U-TURN OPENING																		
796+36.25	TO	798+36.25	MED	200.00	8.5 (Avg.)	188.89	0.07	222.22	36.42	7.41			59.10	9.44	9.16	7.87							
798+36.25	TO	801+10.00	MED	273.75	5.0	152.08	0.06	197.71	32.11	10.14			49.85	7.60	7.39	6.34							
801+10.00	TO	813+00.00	MED	1,190.00	13.5 (Avg.)	1,785.00	0.65	1,983.33	326.88	44.07			544.50	89.25	88.77	74.38							
813+00.00	TO	832+94.09	MED	1,994.09	SUSPEND PROJECT STA. 813+00.00																		
832+96.70	TO	855+50.00	MED	2,253.30	RESUME PROJECT STA. 855+50.00																		
855+50.00	TO	859+75.00	MED	425.00	13.5 (Avg.)	637.50	0.23	708.33	116.74	15.74			194.46	31.88	30.99	26.56							
859+75.00	TO	881+14.00	MED	2,138.00	5.0	1,188.33	0.50	1,544.83	250.87	79.22			389.51	59.42	57.77	49.51							
881+14.00	TO	882+11.32	MED	97.32	MEDIAN U-TURN OPENING																		
882+11.32	TO	884+11.32	MED	200.00	8.5 (Avg.)	188.89	0.07	222.22	36.42	7.41			59.10	9.44	9.16	7.87							
884+11.32	TO	891+49.67	MED	738.35	5.0	410.19	0.17	533.25	88.60	27.35			134.45	20.51	19.94	17.09							
927+50.00	TO	1019+12.91	MED	9,162.91	5.0	5,090.51	2.15	6,617.88	1,074.66	338.37			1,668.55	254.53	247.46	212.10							
1019+12.91	TO	1020+10.23	MED	97.32	MEDIAN U-TURN OPENING																		
1020+10.23	TO	1022+10.23	MED	200.00	8.5 (Avg.)	188.89	0.07	222.22	36.42	7.41			59.10	9.44	9.16	7.87							
1022+10.23	TO	1052+73.22	MED	3,062.99	5.0	1,701.66	0.72	2,212.16	359.24	113.44			557.77	85.06	82.72	70.90							
0+0.00	TO	32+14.01	MED	3,214.01	5.0	1,785.56	0.75	2,321.23	376.85	119.04			585.27	89.28	86.80	74.40							
32+14.01	TO	33+11.39	MED	97.38	MEDIAN U-TURN OPENING																		
33+11.39	TO	35+11.39	MED	200.00	8.5 (Avg.)	188.89	0.07	222.22	36.42	7.41			59.10	9.44	9.16	7.87							
35+11.39	TO	41+87.57	MED	676.18	5.0	375.66	0.16	488.35	79.31	25.04			123.13	18.78	18.28	15.65							
41+88.95	TO	117+04.00	MED	7,515.05	5.0	4,175.03	1.76	5,427.54	881.39	278.34			1,368.48	208.75	202.95	173.96							
117+04.00	TO	118+01.25	MED	97.25	MEDIAN U-TURN OPENING																		
118+01.25	TO	119+06.65	MED	105.40	12.1 (Avg.)	141.53	0.05	159.10	26.19	3.90			43.39	7.08	6.88	5.90							
0+44.61	TO	5+75.00	MED	530.39	13.6 (Avg.)	800.59	0.29	888.99	146.53	19.84			244.15	40.03	38.92	33.36							
							0.00																
724+50.00	TO	726+00.00	LT	150.00	11.0 (Avg.)	183.33	0.07	208.33	34.28	5.56			56.48	9.17	8.91	7.64							
726+00.00	TO	811+60.00	LT	8,560.00	12.0	11,413.33	4.23	12,840.00	2,113.58	317.04			3,500.82	570.67	554.81	475.56							
811+60.00	TO	813+00.00	LT	140.00	11.0 (Avg.)	171.11	0.06	194.44	31.98	5.19			52.72	8.56	8.32	7.13							
813+00.00	TO	832+94.09	LT	1,994.09	SUSPEND PROJECT STA. 813+00.00																		
832+96.70	TO	855+50.00	LT	2,253.30	RESUME PROJECT STA. 855+50.00																		
855+50.00	TO	857+50.00	LT	200.00	11.0 (Avg.)	244.44	0.09	277.78	45.68	7.41			75.31	12.22	11.88	10.19							
857+50.00	TO	891+49.67	LT	3,399.67	12.0	4,532.89	1.68	5,099.51	839.42	125.91			1,390.30	226.84	220.35	188.87							
927+50.00	TO	1029+07.24	LT	10,157.24	12.0	13,542.99	5.02	15,235.86	2,507.96	376.19			4,153.81	677.15	658.34	564.29							
1029+07.24	TO	1031+07.24	LT	200.00	10.0 (Avg.)	222.22	0.08	255.56	41.98	7.41			68.83	11.11	10.80	9.26							
1031+07.24	TO	1038+57.24	LT	750.00	8.0	666.67	0.28	791.67	129.63	27.78			208.48	33.33	32.41	27.78							
0+0.00	TO	4+43.51	LT (RAMP J)	443.51	8.0	394.23	0.15	468.15	76.66	16.43			123.88	19.71	19.16	16.43							
1043+01.34	TO	1052+73.22	LT	971.88	12.0	1,295.84	0.48	1,457.82	238.97	36.00			387.45	64.79	62.99	53.99							
0+0.00	TO	3+76.44	LT	376.44	12.0	501.92	0.19	564.66	92.95	13.94			153.95	25.10	24.40	20.91							
7+04.88	TO	10+85.99	LT (RAMP K)	381.11	8.0	338.78	0.13	402.28	65.87	14.12			106.45	16.94	16.47	14.12							
7+55.89	TO	15+00.00	LT	744.11	8.0	661.43	0.28	785.45	128.61	27.58			207.85	33.07	32.15	27.56							
15+00.00	TO	16+00.00	LT	100.00	10.0 (Avg.)	111.11	0.04	127.78	20.99	3.70			34.41	5.56	5.40	4.63							
16+00.00	TO	41+87.57	LT	2,587.57	12.0	3,450.09	1.28	3,881.36	638.91	85.84			1,058.19	172.50	167.71	143.75							
41+88.95	TO	119+06.65	LT	7,717.70	12.0	10,290.27	3.81	11,576.55	1,905.60	285.84			3,158.16	514.51	500.22	428.76							
0+44.61	TO	3+25.00	LT	280.39	12.0	373.85	0.14	420.59	69.23	10.38			114.67	18.68	18.17	15.58							
3+25.00	TO	4+65.00	LT	140.00	11.0 (Avg.)	171.11	0.06	194.44	31.98	5.19			52.72	8.56	8.32	7.13							
4+65.00	TO	5+75.00	LT	110.00	10.0	122.22	0.05	140.56	23.09	4.07			37.85	6.11	5.94	5.09							
WESTBOUND I.R. 90 SHOULDERS TOTALS CARRIED TO SHEET 76							*27.55*	*84,021.50*	*13,774.46*	*2,749.42*			*22,386.92*	*3,582.46*	*3,482.94*	*2,985.38*							

CALCULATED C.Y.
CHECKED

I.R. 90 MAINLINE SHOULDERS
ASPHALT CONCRETE CALCULATIONS
(ALTERNATE A)

LAK-90-21.40
ATB-90-0.00

IR90_PCS_003.DGN 05/27/09

Westbound I.R. 90 Asphalt Conorete Shoulder Pavement Calculations

STATION	SIDE	LENGTH	PAVEMENT WIDTH	PAVEMENT AREA	204 PROOF ROLLING	206 CEMENT STABILIZED SUBGRADE, 12" DEEP	304 6" AGGREGATE BASE	617 COMPACTED AGGREGATE, AS PER PLAN A			302 10.5" ASPHALT CONCRETE BASE	407 TACK COAT FOR INTERMEDIATE COURSE @ 0.060 GAL/SY	442 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)	442 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN							
	LT/RT/MED	FT	FT	SQ YD	HOUR	SQ YD	CU YD	CU YD			CU YD	GALLON	CU YD	CU YD							
EXTRA QUANTITY FOR ASPHALT PAVEMENT UNDER CONCRETE BARRIER																					
EASTBOUND I.R. 90																					
759+54.10 TO 761+81.00		79.00	3.67	32.21	0.01	32.21	5.37				9.40	1.61	1.57								
956+42.60 TO 970+47.00		71.00	3.67	28.95	0.01	28.95	4.83				8.44	1.45	1.41								
1046+47.10 TO 1048+76.00		67.00	3.67	27.32	0.01	27.32	4.55				7.97	1.37	1.33								
40+97.22 TO 42+80.00		46.00	3.67	18.76	0.01	18.76	3.13				5.47	0.94	0.91								
115+03.60 TO 0+48.00		46.00	3.67	18.76	0.01	18.76	3.13				5.47	0.94	0.91								
WESTBOUND I.R. 90																					
757+60.00 TO 760+00.40		80.00	3.67	32.62	0.01	32.62	5.44				9.51	1.63	1.59								
956+32.00 TO 958+02.40		60.00	3.67	24.47	0.01	24.47	4.08				7.14	1.22	1.19								
1048+78.00 TO 1051+06.40		68.00	3.67	27.73	0.01	27.73	4.62				8.09	1.39	1.35								
42+78.00 TO 44+96.90		46.00	3.67	18.76	0.01	18.76	3.13				5.47	0.94	0.91								
119+04.00 TO 3+98.40		46.00	3.67	18.76	0.01	18.76	3.13				5.47	0.94	0.91								
EXTRA QUANTITY FOR ASPHALT PAVEMENT FOR CONCRETE BARRRIER TOTALS					0.11	248.34	41.39				72.43	12.42	12.07								
I.R. 90 MAINLINE AND MEDIANS TOTALS CARRIED FROM SHEET 73					72.55	217,881.65	36,276.48	74.10			63,454.84	10,873.53	10,571.49	9,061.28							
EASTBOUND I.R. 90 SHOULDERS TOTALS CARRIED FROM SHEET 74					28.55	87,116.58	14,277.37	2,904.74			23,169.93	3,702.26	3,589.42	3,085.22							
WESTBOUND I.R. 90 SHOULDERS TOTALS CARRIED FROM SHEET 75					27.55	84,021.50	13,774.46	2,749.42			22,386.82	3,582.46	3,482.84	2,985.38							
EXTRA QUANTITY FOR ASPHALT PAVEMENT FOR CONCRETE BARRRIER TOTALS CARRIED FROM SHEET 76					0.11	248.34	41.39	0.00			72.43	12.42	12.07	0.00							
TOTALS CARRIED TO GENERAL SUMMARY					129	389,069	64,370	5,729			109,084	18,171	17,666	15,132							

CALCULATED C.Y.
CHECKED

I.R. 90 MAINLINE ASPHALT CONCRETE PAVEMENT CALCULATIONS (ALTERNATE A)

LAK-90-21.40
ATB-90-0.00

STATION			LENGTH	PAVEMENT WIDTH	PAVEMENT AREA	204 PROOF ROLLING	206 CEMENT STABILIZED SUBGRADE, 12" DEEP	304 6" AGGREGATE BASE	452 12 1/2" THICK NON-REINFORCED CONCRETE PAVEMENT
			FT	FT	SQ YD	HOUR	SQ YD	CU YD	SQ YD
RAMP I									
4+36.34	TO	11+98.25	761.91	16.0	1,354.51	0.45	1,354.51	225.75	1,354.51
11+98.25	TO	12+62.98	64.73	COMPUTER CALCULATED AREA	241.82	0.08	241.82	40.30	241.82
RAMP I SUBTOTAL						0.53	1,596.33	266.05	1,596.33
RAMP J									
4+43.51	TO	13+63.55	920.04	16.0	1,635.63	0.55	1,635.63	272.60	1,635.63
13+63.55	TO	14+98.02	134.47	COMPUTER CALCULATED AREA	79.90	0.03	79.90	13.32	79.90
RAMP J SPUR				COMPUTER CALCULATED AREA	269.77	0.09	269.77	44.96	269.77
RAMP J SUBTOTAL						0.66	1,985.30	330.88	1,985.30
RAMP K									
0+10.84	TO	0+55.17	44.33	COMPUTER CALCULATED AREA	148.08	0.05	148.08	24.68	148.08
0+55.17	TO	7+04.88	649.71	16.0	1,155.04	0.39	1,155.04	192.51	1,155.04
RAMP K SUBTOTAL						0.43	1,303.12	217.19	1,303.12
RAMP L									
0+12.79	TO	0+85.77	72.98	COMPUTER CALCULATED AREA	253.95	0.08	253.95	42.33	253.95
0+85.77	TO	9+51.10	865.33	16.0	1,538.36	0.51	1,538.36	256.39	1,538.36
RAMP L SUBTOTAL						0.60	1,792.31	298.72	1,792.31
RAMP I SUBTOTAL CARRIED TO SHEET 83						0.53	1,596.33	266.05	1,596.33
RAMP J SUBTOTAL CARRIED TO SHEET 83						0.66	1,985.30	330.88	1,985.30
RAMP K SUBTOTAL CARRIED TO SHEET 83						0.43	1,303.12	217.19	1,303.12
RAMP L SUBTOTAL CARRIED TO SHEET 83						0.60	1,792.31	298.72	1,792.31

CALCULATED C. Y.
CHECKED

I.R. 90 & S.R. 528 RAMPS CONCRETE PAVEMENT CALCULATIONS

LAK-90-21.40
ATB-90-0.00

STATION	SIDE	LENGTH	SHOULDER WIDTH	PAVEMENT AREA	204 PROOF ROLLING	206 CEMENT STABILIZED SUBGRADE, 12" DEEP	304 6" AGGREGATE BASE	452 12 1/2" NON-REINFORCED CONCRETE PAVEMENT	617 COMPACTED AGGREGATE, AS PER PLAN A
	LT/RT/MED	FT	FT	SQ YD	HOUR	SQ YD	CU YD	SQ YD	CU YD
RAMP I									
4+36.34 TO 12+41.12	LT	804.78	3.0	268.26	0.10	402.39	52.16	268.26	29.81
12+41.12 TO 25+65 (SR 528)	LT	COMPUTER CALCULATED AREA		29.60	0.01	36.40	5.32	29.60	2.39
4+36.34 TO 11+98.25	RT	761.91	8.0	677.25	0.24	804.24	119.93	677.25	28.22
11+98.25 TO 24+60 (SR 528)	RT	COMPUTER CALCULATED AREA		39.11	0.01	51.35	7.21	39.11	4.34
RAMP I SHOULDER TOTALS					0.37	1,294.38	184.62	1,014.22	64.76
RAMP J									
4+43.51 TO 14+98.02	LT	1,054.51	8.0	937.34	0.33	1,113.09	165.99	937.34	39.06
4+43.51 TO 11+76.97	RT	733.46	3.0	244.49	0.10	366.73	47.54	244.49	27.17
12+43.80 TO 13+63.55	RT	119.75	3.0	39.92	0.02	59.88	7.76	39.92	4.44
RAMP J SPUR									
11+76.97 TO 33+60 (SR 528)	RT	COMPUTER CALCULATED AREA		95.19	0.03	113.41	16.89	95.19	6.45
12+43.80 TO 34+65 (SR 528)	RT	COMPUTER CALCULATED AREA		34.89	0.01	46.89	6.50	34.89	4.04
RAMP J SHOULDER TOTALS					0.49	1,700.00	244.68	1,351.83	81.15
RAMP K									
34+80 (SR 528) TO 0+55.17	LT	COMPUTER CALCULATED AREA		43.90	0.02	53.66	7.87	43.90	3.46
0+55.17 TO 7+04.88	LT	649.71	8.0	577.52	0.20	685.81	102.27	577.52	24.06
33+90 (SR 528) TO 0+40.91	RT	COMPUTER CALCULATED AREA		29.57	0.01	35.82	5.28	29.57	2.14
0+40.91 TO 7+05.27	RT	664.36	3.0	221.45	0.09	332.18	43.06	221.45	24.61
RAMP K SHOULDER TOTALS					0.32	1,107.47	158.48	872.44	54.27
RAMP L									
26+10 (SR 528) TO 0+90.28	LT	COMPUTER CALCULATED AREA		62.47	0.02	75.11	11.12	62.47	4.45
0+90.28 TO 9+51.10	LT	860.82	3.0	286.94	0.11	430.41	55.79	286.94	31.88
TO									
24+80 (SR 528) TO 0+53.34	RT	COMPUTER CALCULATED AREA		49.25	0.02	61.12	8.87	49.25	4.27
0+53.34 TO 9+51.10	RT	897.76	8.0	798.01	0.28	947.64	141.31	798.01	33.25
RAMP L SHOULDER TOTALS					0.43	1,514.28	217.10	1,196.67	73.85
RAMP I SHOULDER TOTALS					0.37	1,294.38	184.62	1,014.22	64.76
RAMP J SHOULDER TOTALS					0.49	1,700.00	244.68	1,351.83	81.15
RAMP K SHOULDER TOTALS					0.32	1,107.47	158.48	872.44	54.27
RAMP L SHOULDER TOTALS					0.43	1,514.28	217.10	1,196.67	73.85
RAMP SHOULDER TOTALS CARRIED TO SHEET 83					**1.61**	**5,616.12**	**804.88**	**4,435.16**	**274.02**

CALCULATED C. Y.
CHECKED

I.R. 90 & S.R. 528 RAMP SHOULDERS CONCRETE PAVEMENT CALCULATIONS

LAK-90-21.40
ATB-90-0.00

IR90_PCS_010.DGN 05/21/09

STATION	SIDE	LENGTH	SHOULDER WIDTH	PAVEMENT AREA	204 PROOF ROLLING	206 CEMENT STABILIZED SUBGRADE, 12" DEEP	304 6" AGGREGATE BASE	452 12 1/2" NON-REINFORCED CONCRETE PAVEMENT	452 12 1/2" NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN	617 COMPACTED AGGREGATE, AS PER PLAN A
	LT/RT/MED	FT	FT	SQ YD	HOUR	SQ YD	CU YD	SQ YD	SQ YD	CU YD
RAMP I										
RAMP I SUBTOTAL CARRIED FROM SHEET 81					0.53	1,596.33	266.05	1,596.33		
RAMP I SUBTOTAL CARRIED FROM SHEET 82					0.37	1,294.38	184.62	1,014.22		64.76
*AREA DEDUCTED FOR ITEM 452 12 1/2" NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN								-477.00	477.00	
RAMP I TOTALS CARRIED TO THIS SHEET					0.90	2,890.71	450.68	2,133.55	477.00	64.76
RAMP J										
RAMP J SUBTOTAL CARRIED FROM SHEET 81					0.66	1,985.30	330.88	1,985.30		
RAMP J SUBTOTAL CARRIED FROM SHEET 82					0.49	1,700.00	244.68	1,351.83		81.15
*AREA DEDUCTED FOR ITEM 452 12 1/2" NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN								-470.00	470.00	
RAMP J TOTALS CARRIED TO THIS SHEET					1.15	3,685.30	575.56	2,867.13	470.00	81.15
RAMP K										
RAMP K SUBTOTAL CARRIED FROM SHEET 81					0.43	1,303.12	217.19	1,303.12		
RAMP K SUBTOTAL CARRIED FROM SHEET 82					0.32	1,107.47	158.48	872.44		54.27
*AREA DEDUCTED FOR ITEM 452 12 1/2" NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN								-360.00	360.00	
RAMP K TOTALS CARRIED TO THIS SHEET					0.75	2,410.59	375.67	1,815.56	360.00	54.27
RAMP L										
RAMP L SUBTOTAL CARRIED FROM SHEET 81					0.60	1,792.31	298.72	1,792.31		
RAMP L SUBTOTAL CARRIED FROM SHEET 82					0.43	1,514.28	217.10	1,196.67		73.85
*AREA DEDUCTED FOR ITEM 452 12 1/2" NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN								-429.00	429.00	
RAMP L TOTALS CARRIED TO THIS SHEET					1.03	3,306.59	515.82	2,559.98	429.00	73.85
RAMP I TOTALS CARRIED FROM THIS SHEET					0.90	2,890.71	450.68	2,133.55	477.00	64.76
RAMP J TOTALS CARRIED FROM THIS SHEET					1.15	3,685.30	575.56	2,867.13	470.00	81.15
RAMP K TOTALS CARRIED FROM THIS SHEET					0.75	2,410.59	375.67	1,815.56	360.00	54.27
RAMP L TOTALS CARRIED FROM THIS SHEET					1.03	3,306.59	515.82	2,559.98	429.00	73.85
TOTALS CARRIED TO GENERAL SUMMARY					**4**	**12,294**	**1,918**	**9,377**	**1,736**	**275**

CALCULATED C. Y.
CHECKED

I.R. 90 & S.R. 528 RAMPS
CONCRETE PAVEMENT CALCULATIONS

LAK-90-21.40
ATB-90-0.00

IR90_PCS_011.DGN 05/21/09

I.R. 90 EASTBOUND LANES CURVE P.I. STATION 764+45.19

BASELINE SURVEY & CONSTRUCTION	LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	PROFILE GRADE	LEFT PAVEMENT WIDTH	LEFT PAVEMENT SLOPE	CENTER OF LANES	RIGHT PAVEMENT WIDTH	RIGHT PAVEMENT SLOPE	RIGHT EDGE OF PAVEMENT	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	COMMENTS
726+75.45	852.61	5.00	-0.040	852.81	12.00	0.016	853.00	12.00	-0.016	852.81	-0.040	12.00	852.33	END NORMAL CROWN
727+00.00	852.75	5.00	-0.040	852.95	12.00	0.016	853.15	12.00	-0.008	853.04	-0.040	12.00	852.56	
727+25.00	852.91	5.00	-0.040	853.11	12.00	0.016	853.30	12.00	-0.001	853.29	-0.040	12.00	852.81	
727+50.00	853.06	5.00	-0.040	853.26	12.00	0.016	853.45	12.00	0.007	853.53	-0.040	12.00	853.05	
727+67.55	853.16	5.00	-0.040	853.36	12.00	0.016	853.55	12.00	0.012	853.70	-0.040	12.00	853.22	P.C. STA. 727+67.55
727+75.00	853.21	5.00	-0.040	853.41	12.00	0.016	853.60	12.00	0.015	853.77	-0.040	12.00	853.29	
727+89.45	853.29	5.00	-0.040	853.49	12.00	0.019	853.72	12.00	0.019	853.95	-0.040	12.00	853.47	BEGIN FULL SUPERELEVATION
728+00.00	853.36	5.00	-0.040	853.56	12.00	0.019	853.79	12.00	0.019	854.01	-0.040	12.00	853.53	
728+25.00	853.51	5.00	-0.040	853.71	12.00	0.019	853.94	12.00	0.019	854.17	-0.040	12.00	853.69	
728+50.00	853.66	5.00	-0.040	853.86	12.00	0.019	854.09	12.00	0.019	854.32	-0.040	12.00	853.84	
728+75.00	853.81	5.00	-0.040	854.01	12.00	0.019	854.24	12.00	0.019	854.47	-0.040	12.00	853.99	
729+00.00	853.96	5.00	-0.040	854.16	12.00	0.019	854.39	12.00	0.019	854.62	-0.040	12.00	854.14	
729+25.00	854.11	5.00	-0.040	854.31	12.00	0.019	854.54	12.00	0.019	854.77	-0.040	12.00	854.29	
729+50.00	854.26	5.00	-0.040	854.46	12.00	0.019	854.69	12.00	0.019	854.92	-0.040	12.00	854.44	
729+75.00	854.42	5.00	-0.040	854.62	12.00	0.019	854.84	12.00	0.019	855.07	-0.040	12.00	854.59	
730+00.00	854.57	5.00	-0.040	854.77	12.00	0.019	854.99	12.00	0.019	855.22	-0.040	12.00	854.74	
730+25.00	854.72	5.00	-0.040	854.92	12.00	0.019	855.15	12.00	0.019	855.37	-0.040	12.00	854.89	
730+50.00	854.87	5.00	-0.040	855.07	12.00	0.019	855.30	12.00	0.019	855.52	-0.040	12.00	855.04	
730+75.00	855.02	5.00	-0.040	855.22	12.00	0.019	855.45	12.00	0.019	855.68	-0.040	12.00	855.20	
731+00.00	855.17	5.00	-0.040	855.37	12.00	0.019	855.60	12.00	0.019	855.83	-0.040	12.00	855.35	
731+25.00	855.32	5.00	-0.040	855.52	12.00	0.019	855.75	12.00	0.019	855.98	-0.040	12.00	855.50	
731+50.00	855.47	5.00	-0.040	855.67	12.00	0.019	855.90	12.00	0.019	856.13	-0.040	12.00	855.65	
731+75.00	855.62	5.00	-0.040	855.82	12.00	0.019	856.05	12.00	0.019	856.28	-0.040	12.00	855.80	
732+00.00	855.78	5.00	-0.040	855.98	12.00	0.019	856.20	12.00	0.019	856.43	-0.040	12.00	855.95	
732+25.00	855.93	5.00	-0.040	856.13	12.00	0.019	856.35	12.00	0.019	856.58	-0.040	12.00	856.10	
732+50.00	856.08	5.00	-0.040	856.28	12.00	0.019	856.51	12.00	0.019	856.73	-0.040	12.00	856.25	
732+75.00	856.23	5.00	-0.040	856.43	12.00	0.019	856.66	12.00	0.019	856.88	-0.040	12.00	856.40	
733+00.00	856.38	5.00	-0.040	856.58	12.00	0.019	856.81	12.00	0.019	857.04	-0.040	12.00	856.56	
733+25.00	856.53	5.00	-0.040	856.73	12.00	0.019	856.96	12.00	0.019	857.19	-0.040	12.00	856.71	
733+50.00	856.68	5.00	-0.040	856.88	12.00	0.019	857.11	12.00	0.019	857.34	-0.040	12.00	856.86	
733+75.00	856.83	5.00	-0.040	857.03	12.00	0.019	857.26	12.00	0.019	857.49	-0.040	12.00	857.01	
734+00.00	856.98	5.00	-0.040	857.18	12.00	0.019	857.41	12.00	0.019	857.64	-0.040	12.00	857.16	
734+25.00	857.13	5.00	-0.040	857.33	12.00	0.019	857.56	12.00	0.019	857.79	-0.040	12.00	857.31	
734+50.00	857.29	5.00	-0.040	857.49	12.00	0.019	857.71	12.00	0.019	857.94	-0.040	12.00	857.46	
734+75.00	857.44	5.00	-0.040	857.64	12.00	0.019	857.86	12.00	0.019	858.09	-0.040	12.00	857.61	
735+00.00	857.59	5.00	-0.040	857.79	12.00	0.019	858.02	12.00	0.019	858.24	-0.040	12.00	857.76	
735+25.00	857.73	5.00	-0.040	857.93	12.00	0.019	858.16	12.00	0.019	858.39	-0.040	12.00	857.91	
735+50.00	857.87	5.00	-0.040	858.07	12.00	0.019	858.30	12.00	0.019	858.53	-0.040	12.00	858.05	
735+75.00	858.00	5.00	-0.040	858.20	12.00	0.019	858.43	12.00	0.019	858.66	-0.040	12.00	858.18	
736+00.00	858.11	5.00	-0.040	858.31	12.00	0.019	858.54	12.00	0.019	858.77	-0.040	12.00	858.29	
736+25.00	858.22	5.00	-0.040	858.42	12.00	0.019	858.65	12.00	0.019	858.88	-0.040	12.00	858.40	
736+50.00	858.32	5.00	-0.040	858.52	12.00	0.019	858.75	12.00	0.019	858.98	-0.040	12.00	858.50	
736+75.00	858.41	5.00	-0.040	858.61	12.00	0.019	858.84	12.00	0.019	859.07	-0.040	12.00	858.59	
737+00.00	858.49	5.00	-0.040	858.69	12.00	0.019	858.92	12.00	0.019	859.15	-0.040	12.00	858.67	
737+25.00	858.56	5.00	-0.040	858.76	12.00	0.019	858.99	12.00	0.019	859.22	-0.040	12.00	858.74	
737+50.00	858.62	5.00	-0.040	858.82	12.00	0.019	859.05	12.00	0.019	859.28	-0.040	12.00	858.80	
737+75.00	858.67	5.00	-0.040	858.87	12.00	0.019	859.10	12.00	0.019	859.33	-0.040	12.00	858.85	
738+00.00	858.71	5.00	-0.040	858.91	12.00	0.019	859.14	12.00	0.019	859.37	-0.040	12.00	858.89	
738+25.00	858.74	5.00	-0.040	858.94	12.00	0.019	859.17	12.00	0.019	859.40	-0.040	12.00	858.92	
738+50.00	858.76	5.00	-0.040	858.96	12.00	0.019	859.19	12.00	0.019	859.42	-0.040	12.00	858.94	
738+75.00	858.77	5.00	-0.040	858.97	12.00	0.019	859.20	12.00	0.019	859.43	-0.040	12.00	858.95	
739+00.00	858.77	5.00	-0.040	858.97	12.00	0.019	859.20	12.00	0.019	859.43	-0.040	12.00	858.95	
739+25.00	858.76	5.00	-0.040	858.96	12.00	0.019	859.19	12.00	0.019	859.42	-0.040	12.00	858.94	
739+50.00	858.74	5.00	-0.040	858.94	12.00	0.019	859.17	12.00	0.019	859.40	-0.040	12.00	858.92	
739+75.00	858.72	5.00	-0.040	858.92	12.00	0.019	859.15	12.00	0.019	859.38	-0.040	12.00	858.90	
740+00.00	858.68	5.00	-0.040	858.88	12.00	0.019	859.11	12.00	0.019	859.34	-0.040	12.00	858.86	
740+25.00	858.63	5.00	-0.040	858.83	12.00	0.019	859.06	12.00	0.019	859.29	-0.040	12.00	858.81	
740+50.00	858.57	5.00	-0.040	858.77	12.00	0.019	859.00	12.00	0.019	859.23	-0.040	12.00	858.75	
740+75.00	858.51	5.00	-0.040	858.71	12.00	0.019	858.94	12.00	0.019	859.17	-0.040	12.00	858.69	
741+00.00	858.43	5.00	-0.040	858.63	12.00	0.019	858.86	12.00	0.019	859.09	-0.040	12.00	858.61	
741+25.00	858.35	5.00	-0.040	858.55	12.00	0.019	858.78	12.00	0.019	859.01	-0.040	12.00	858.53	
741+50.00	858.27	5.00	-0.040	858.47	12.00	0.019	858.70	12.00	0.019	858.93	-0.040	12.00	858.45	
741+75.00	858.19	5.00	-0.040	858.39	12.00	0.019	858.62	12.00	0.019	858.85	-0.040	12.00	858.37	
742+00.00	858.10	5.00	-0.040	858.30	12.00	0.019	858.53	12.00	0.019	858.76	-0.040	12.00	858.28	
742+25.00	858.03	5.00	-0.040	858.23	12.00	0.019	858.46	12.00	0.019	858.69	-0.040	12.00	858.21	
742+50.00	857.95	5.00	-0.040	858.15	12.00	0.019	858.38	12.00	0.019	858.61	-0.040	12.00	858.13	
742+75.00	857.87	5.00	-0.040	858.07	12.00	0.019	858.30	12.00	0.019	858.53	-0.040	12.00	858.05	
743+00.00	857.79	5.00	-0.040	857.99	12.00	0.019	858.22	12.00	0.019	858.45	-0.040	12.00	857.97	

CALCULATED C.Y.
CHECKED

SUPERELEVATION TABLE (I.R. 90 EASTBOUND LANES)

LAK-90-21.40
ATB-90-0.00

I.R. 90 EASTBOUND LANES CURVE P.I. STATION 764+45.19

BASELINE SURVEY & CONSTRUCTION	LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	PROFILE GRADE	LEFT PAVEMENT WIDTH	LEFT PAVEMENT SLOPE	CENTER OF LANES	RIGHT PAVEMENT WIDTH	RIGHT PAVEMENT SLOPE	RIGHT EDGE OF PAVEMENT	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	COMMENTS
743+25.00	857.71	5.00	-0.040	857.91	12.00	0.019	858.14	12.00	0.019	858.37	-0.040	12.00	857.89	
743+50.00	857.63	5.00	-0.040	857.83	12.00	0.019	858.06	12.00	0.019	858.29	-0.040	12.00	857.81	
743+75.00	857.55	5.00	-0.040	857.75	12.00	0.019	857.98	12.00	0.019	858.21	-0.040	12.00	857.73	
744+00.00	857.47	5.00	-0.040	857.67	12.00	0.019	857.90	12.00	0.019	858.13	-0.040	12.00	857.65	
744+25.00	857.38	5.00	-0.040	857.58	12.00	0.019	857.81	12.00	0.019	858.04	-0.040	12.00	857.56	
744+50.00	857.30	5.00	-0.040	857.50	12.00	0.019	857.73	12.00	0.019	857.96	-0.040	12.00	857.48	
744+75.00	857.22	5.00	-0.040	857.42	12.00	0.019	857.65	12.00	0.019	857.88	-0.040	12.00	857.40	
745+00.00	857.14	5.00	-0.040	857.34	12.00	0.019	857.57	12.00	0.019	857.80	-0.040	12.00	857.32	
745+25.00	857.06	5.00	-0.040	857.26	12.00	0.019	857.49	12.00	0.019	857.72	-0.040	12.00	857.24	
745+50.00	856.98	5.00	-0.040	857.18	12.00	0.019	857.41	12.00	0.019	857.64	-0.040	12.00	857.16	
745+75.00	856.90	5.00	-0.040	857.10	12.00	0.019	857.33	12.00	0.019	857.56	-0.040	12.00	857.08	
746+00.00	856.82	5.00	-0.040	857.02	12.00	0.019	857.25	12.00	0.019	857.48	-0.040	12.00	857.00	
746+25.00	856.74	5.00	-0.040	856.94	12.00	0.019	857.17	12.00	0.019	857.40	-0.040	12.00	856.92	
746+50.00	856.66	5.00	-0.040	856.86	12.00	0.019	857.09	12.00	0.019	857.32	-0.040	12.00	856.84	
746+75.00	856.58	5.00	-0.040	856.78	12.00	0.019	857.01	12.00	0.019	857.24	-0.040	12.00	856.76	
747+00.00	856.50	5.00	-0.040	856.70	12.00	0.019	856.93	12.00	0.019	857.16	-0.040	12.00	856.68	
747+25.00	856.42	5.00	-0.040	856.62	12.00	0.019	856.85	12.00	0.019	857.08	-0.040	12.00	856.60	
747+50.00	856.34	5.00	-0.040	856.54	12.00	0.019	856.77	12.00	0.019	857.00	-0.040	12.00	856.52	
747+75.00	856.26	5.00	-0.040	856.46	12.00	0.019	856.69	12.00	0.019	856.92	-0.040	12.00	856.44	
748+00.00	856.18	5.00	-0.040	856.38	12.00	0.019	856.61	12.00	0.019	856.84	-0.040	12.00	856.36	
748+25.00	856.09	5.00	-0.040	856.29	12.00	0.019	856.52	12.00	0.019	856.75	-0.040	12.00	856.27	
748+50.00	856.01	5.00	-0.040	856.21	12.00	0.019	856.44	12.00	0.019	856.67	-0.040	12.00	856.19	
748+75.00	855.93	5.00	-0.040	856.13	12.00	0.019	856.36	12.00	0.019	856.59	-0.040	12.00	856.11	
749+00.00	855.85	5.00	-0.040	856.05	12.00	0.019	856.28	12.00	0.019	856.51	-0.040	12.00	856.03	
749+25.00	855.77	5.00	-0.040	855.97	12.00	0.019	856.20	12.00	0.019	856.43	-0.040	12.00	855.95	
749+50.00	855.69	5.00	-0.040	855.89	12.00	0.019	856.12	12.00	0.019	856.35	-0.040	12.00	855.87	
749+75.00	855.61	5.00	-0.040	855.81	12.00	0.019	856.04	12.00	0.019	856.27	-0.040	12.00	855.79	
750+00.00	855.53	5.00	-0.040	855.73	12.00	0.019	855.96	12.00	0.019	856.19	-0.040	12.00	855.71	
750+25.00	855.45	5.00	-0.040	855.65	12.00	0.019	855.88	12.00	0.019	856.11	-0.040	12.00	855.63	
750+50.00	855.37	5.00	-0.040	855.57	12.00	0.019	855.80	12.00	0.019	856.03	-0.040	12.00	855.55	
750+75.00	855.29	5.00	-0.040	855.49	12.00	0.019	855.72	12.00	0.019	855.95	-0.040	12.00	855.47	
751+00.00	855.21	5.00	-0.040	855.41	12.00	0.019	855.64	12.00	0.019	855.87	-0.040	12.00	855.39	
751+25.00	855.13	5.00	-0.040	855.33	12.00	0.019	855.56	12.00	0.019	855.79	-0.040	12.00	855.31	
751+50.00	855.05	5.00	-0.040	855.25	12.00	0.019	855.48	12.00	0.019	855.71	-0.040	12.00	855.23	
751+75.00	854.97	5.00	-0.040	855.17	12.00	0.019	855.40	12.00	0.019	855.63	-0.040	12.00	855.15	
752+00.00	854.89	5.00	-0.040	855.09	12.00	0.019	855.32	12.00	0.019	855.55	-0.040	12.00	855.07	
752+25.00	854.80	5.00	-0.040	855.00	12.00	0.019	855.23	12.00	0.019	855.46	-0.040	12.00	854.98	
752+50.00	854.72	5.00	-0.040	854.92	12.00	0.019	855.15	12.00	0.019	855.38	-0.040	12.00	854.90	
752+75.00	854.64	5.00	-0.040	854.84	12.00	0.019	855.07	12.00	0.019	855.30	-0.040	12.00	854.82	
753+00.00	854.56	5.00	-0.040	854.76	12.00	0.019	854.99	12.00	0.019	855.22	-0.040	12.00	854.74	
753+25.00	854.49	5.00	-0.040	854.69	12.00	0.019	854.92	12.00	0.019	855.15	-0.040	12.00	854.67	
753+50.00	854.44	5.00	-0.040	854.64	12.00	0.019	854.87	12.00	0.019	855.10	-0.040	12.00	854.62	
753+75.00	854.41	5.00	-0.040	854.61	12.00	0.019	854.84	12.00	0.019	855.07	-0.040	12.00	854.59	
754+00.00	854.39	5.00	-0.040	854.59	12.00	0.019	854.82	12.00	0.019	855.05	-0.040	12.00	854.57	
754+25.00	854.40	5.00	-0.040	854.60	12.00	0.019	854.83	12.00	0.019	855.06	-0.040	12.00	854.58	
754+50.00	854.42	5.00	-0.040	854.62	12.00	0.019	854.85	12.00	0.019	855.08	-0.040	12.00	854.60	
754+75.00	854.47	5.00	-0.040	854.67	12.00	0.019	854.90	12.00	0.019	855.13	-0.040	12.00	854.65	
755+00.00	854.53	5.00	-0.040	854.73	12.00	0.019	854.96	12.00	0.019	855.19	-0.040	12.00	854.71	
755+25.00	854.59	5.57	-0.040	854.81	12.00	0.019	855.04	12.00	0.019	855.27	-0.040	12.00	854.79	
755+50.00	854.62	6.45	-0.040	854.88	12.00	0.019	855.11	12.00	0.019	855.34	-0.040	12.00	854.86	
755+75.00	854.66	7.32	-0.040	854.95	12.00	0.019	855.18	12.00	0.019	855.41	-0.040	12.00	854.93	
756+00.00	854.70	8.20	-0.040	855.03	12.00	0.019	855.26	12.00	0.019	855.49	-0.040	12.00	855.01	
756+25.00	854.74	9.07	-0.040	855.10	12.00	0.019	855.33	12.00	0.019	855.56	-0.040	12.00	855.08	
756+50.00	854.77	9.95	-0.040	855.17	12.00	0.019	855.40	12.00	0.019	855.63	-0.040	12.00	855.15	MEDIAN U-TURN OPENING STA. 757+70.00
756+75.00	854.81	10.82	-0.040	855.24	12.00	0.019	855.47	12.00	0.019	855.70	-0.040	12.00	855.22	
757+00.00	854.85	11.70	-0.040	855.32	12.00	0.019	855.55	12.00	0.019	855.78	-0.040	12.00	855.30	
757+25.00	854.81	14.50	-0.040	855.39	12.00	0.019	855.62	12.00	0.019	855.85	-0.040	12.00	855.37	
757+50.00	854.23	30.74	-0.040	855.46	12.00	0.019	855.69	12.00	0.019	855.92	-0.040	12.00	855.44	
757+75.00	SEE CROSS SECTION		-0.040	855.53	12.00	0.019	855.76	12.00	0.019	855.99	-0.040	12.00	855.51	
758+00.00	855.35	5.73	-0.040	855.58	12.00	0.019	855.81	12.00	0.019	856.04	-0.040	12.00	855.56	
758+25.00	855.40	5.00	-0.040	855.60	12.00	0.019	855.83	12.00	0.019	856.06	-0.040	12.00	855.58	
758+50.00	855.42	5.00	-0.040	855.62	12.00	0.019	855.85	12.00	0.019	856.08	-0.040	12.00	855.60	
758+75.00	855.41	5.00	-0.040	855.61	12.00	0.019	855.84	12.00	0.019	856.07	-0.040	12.00	855.59	
759+00.00	855.39	5.00	-0.040	855.59	12.00	0.019	855.82	12.00	0.019	856.05	-0.040	12.00	855.57	
759+25.00	855.35	5.00	-0.040	855.55	12.00	0.019	855.78	12.00	0.019	856.01	-0.040	12.00	855.53	
759+50.00	855.29	5.00	-0.040	855.49	12.00	0.019	855.72	12.00	0.019	855.95	-0.040	12.00	855.47	
759+75.00	855.21	5.00	-0.040	855.41	12.00	0.019	855.64	12.00	0.019	855.87	-0.040	12.00	855.39	
760+00.00	855.12	5.00	-0.040	855.32	12.00	0.019	855.55	12.00	0.019	855.78	-0.040	12.00	855.30	

CALCULATED C.Y.
CHECKED

SUPERELEVATION TABLE (I.R. 90 EASTBOUND LANES)

LAK-90-21.40
ATB-90-0.00

I.R. 90 EASTBOUND LANES CURVE P.I. STATION 764+45.19

BASELINE SURVEY & CONSTRUCTION	LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	PROFILE GRADE	LEFT PAVEMENT WIDTH	LEFT PAVEMENT SLOPE	CENTER OF LANES	RIGHT PAVEMENT WIDTH	RIGHT PAVEMENT SLOPE	RIGHT EDGE OF PAVEMENT	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	COMMENTS
760+25.00	855.03	5.00	-0.040	855.23	12.00	0.019	855.46	12.00	0.019	855.69	-0.040	12.00	855.21	
760+50.00	854.98	5.00	-0.040	855.18	12.00	0.019	855.41	12.00	0.019	855.64	-0.040	12.00	855.16	
760+75.00	854.96	5.00	-0.040	855.16	12.00	0.019	855.39	12.00	0.019	855.62	-0.040	12.00	855.14	
761+00.00	854.98	5.00	-0.040	855.18	12.00	0.019	855.41	12.00	0.019	855.64	-0.040	12.00	855.16	
761+25.00	855.03	5.00	-0.040	855.23	12.00	0.019	855.46	12.00	0.019	855.69	-0.040	12.00	855.21	
761+50.00	855.11	5.00	-0.040	855.31	12.00	0.019	855.54	12.00	0.019	855.77	-0.040	12.00	855.29	
761+75.00	855.23	5.00	-0.040	855.43	12.00	0.019	855.66	12.00	0.019	855.89	-0.040	12.00	855.41	
762+00.00	855.38	5.00	-0.040	855.58	12.00	0.019	855.81	12.00	0.019	856.04	-0.040	12.00	855.56	
762+25.00	855.57	5.00	-0.040	855.77	12.00	0.019	856.00	12.00	0.019	856.23	-0.040	12.00	855.75	
762+50.00	855.79	5.00	-0.040	855.99	12.00	0.019	856.22	12.00	0.019	856.45	-0.040	12.00	855.97	
762+75.00	856.05	5.00	-0.040	856.25	12.00	0.019	856.48	12.00	0.019	856.71	-0.040	12.00	856.23	
763+00.00	856.34	5.00	-0.040	856.54	12.00	0.019	856.77	12.00	0.019	857.00	-0.040	12.00	856.52	
763+25.00	856.63	5.00	-0.040	856.83	12.00	0.019	857.06	12.00	0.019	857.29	-0.040	12.00	856.81	
763+50.00	856.91	5.00	-0.040	857.11	12.00	0.019	857.34	12.00	0.019	857.57	-0.040	12.00	857.09	
763+75.00	857.18	5.00	-0.040	857.38	12.00	0.019	857.61	12.00	0.019	857.84	-0.040	12.00	857.36	
764+00.00	857.42	5.00	-0.040	857.62	12.00	0.019	857.85	12.00	0.019	858.08	-0.040	12.00	857.60	
764+25.00	857.65	5.00	-0.040	857.85	12.00	0.019	858.08	12.00	0.019	858.31	-0.040	12.00	857.83	
764+50.00	857.87	5.00	-0.040	858.07	12.00	0.019	858.30	12.00	0.019	858.53	-0.040	12.00	858.05	
764+75.00	858.06	5.00	-0.040	858.26	12.00	0.019	858.49	12.00	0.019	858.72	-0.040	12.00	858.24	
765+00.00	858.24	5.00	-0.040	858.44	12.00	0.019	858.67	12.00	0.019	858.90	-0.040	12.00	858.42	
765+25.00	858.41	5.00	-0.040	858.61	12.00	0.019	858.84	12.00	0.019	859.07	-0.040	12.00	858.59	
765+50.00	858.55	5.00	-0.040	858.75	12.00	0.019	858.98	12.00	0.019	859.21	-0.040	12.00	858.73	
765+75.00	858.68	5.00	-0.040	858.88	12.00	0.019	859.11	12.00	0.019	859.34	-0.040	12.00	858.86	
766+00.00	858.79	5.00	-0.040	858.99	12.00	0.019	859.22	12.00	0.019	859.45	-0.040	12.00	858.97	
766+25.00	858.90	5.00	-0.040	859.10	12.00	0.019	859.33	12.00	0.019	859.56	-0.040	12.00	859.08	
766+50.00	859.00	5.00	-0.040	859.20	12.00	0.019	859.43	12.00	0.019	859.66	-0.040	12.00	859.18	
766+75.00	859.11	5.00	-0.040	859.31	12.00	0.019	859.54	12.00	0.019	859.77	-0.040	12.00	859.29	
767+00.00	859.21	5.00	-0.040	859.41	12.00	0.019	859.64	12.00	0.019	859.87	-0.040	12.00	859.39	
767+25.00	859.31	5.00	-0.040	859.51	12.00	0.019	859.74	12.00	0.019	859.97	-0.040	12.00	859.49	
767+50.00	859.42	5.00	-0.040	859.62	12.00	0.019	859.85	12.00	0.019	860.08	-0.040	12.00	859.60	
767+75.00	859.52	5.00	-0.040	859.72	12.00	0.019	859.95	12.00	0.019	860.18	-0.040	12.00	859.70	
768+00.00	859.63	5.00	-0.040	859.83	12.00	0.019	860.06	12.00	0.019	860.29	-0.040	12.00	859.81	
768+25.00	859.73	5.00	-0.040	859.93	12.00	0.019	860.16	12.00	0.019	860.39	-0.040	12.00	859.91	
768+50.00	859.83	5.00	-0.040	860.03	12.00	0.019	860.26	12.00	0.019	860.49	-0.040	12.00	860.01	
768+75.00	859.94	5.00	-0.040	860.14	12.00	0.019	860.37	12.00	0.019	860.60	-0.040	12.00	860.12	
769+00.00	860.04	5.00	-0.040	860.24	12.00	0.019	860.47	12.00	0.019	860.70	-0.040	12.00	860.22	
769+25.00	860.15	5.00	-0.040	860.35	12.00	0.019	860.58	12.00	0.019	860.81	-0.040	12.00	860.33	
769+50.00	860.25	5.00	-0.040	860.45	12.00	0.019	860.68	12.00	0.019	860.91	-0.040	12.00	860.43	
769+75.00	860.35	5.00	-0.040	860.55	12.00	0.019	860.78	12.00	0.019	861.01	-0.040	12.00	860.53	
770+00.00	860.46	5.00	-0.040	860.66	12.00	0.019	860.89	12.00	0.019	861.12	-0.040	12.00	860.64	
770+25.00	860.56	5.00	-0.040	860.76	12.00	0.019	860.99	12.00	0.019	861.22	-0.040	12.00	860.74	
770+50.00	860.67	5.00	-0.040	860.87	12.00	0.019	861.10	12.00	0.019	861.33	-0.040	12.00	860.85	
770+75.00	860.77	5.00	-0.040	860.97	12.00	0.019	861.20	12.00	0.019	861.43	-0.040	12.00	860.95	
771+00.00	860.87	5.00	-0.040	861.07	12.00	0.019	861.30	12.00	0.019	861.53	-0.040	12.00	861.05	
771+25.00	860.98	5.00	-0.040	861.18	12.00	0.019	861.41	12.00	0.019	861.64	-0.040	12.00	861.16	
771+50.00	861.08	5.00	-0.040	861.28	12.00	0.019	861.51	12.00	0.019	861.74	-0.040	12.00	861.26	
771+75.00	861.19	5.00	-0.040	861.39	12.00	0.019	861.62	12.00	0.019	861.85	-0.040	12.00	861.37	
772+00.00	861.29	5.00	-0.040	861.49	12.00	0.019	861.72	12.00	0.019	861.95	-0.040	12.00	861.47	
772+25.00	861.39	5.00	-0.040	861.59	12.00	0.019	861.82	12.00	0.019	862.05	-0.040	12.00	861.57	
772+50.00	861.50	5.00	-0.040	861.70	12.00	0.019	861.93	12.00	0.019	862.16	-0.040	12.00	861.68	
772+75.00	861.60	5.00	-0.040	861.80	12.00	0.019	862.03	12.00	0.019	862.26	-0.040	12.00	861.78	
773+00.00	861.70	5.00	-0.040	861.90	12.00	0.019	862.13	12.00	0.019	862.36	-0.040	12.00	861.88	
773+25.00	861.81	5.00	-0.040	862.01	12.00	0.019	862.24	12.00	0.019	862.47	-0.040	12.00	861.99	
773+50.00	861.91	5.00	-0.040	862.11	12.00	0.019	862.34	12.00	0.019	862.57	-0.040	12.00	862.09	
773+75.00	862.02	5.00	-0.040	862.22	12.00	0.019	862.45	12.00	0.019	862.68	-0.040	12.00	862.20	
774+00.00	862.12	5.00	-0.040	862.32	12.00	0.019	862.55	12.00	0.019	862.78	-0.040	12.00	862.30	
774+25.00	862.22	5.00	-0.040	862.42	12.00	0.019	862.65	12.00	0.019	862.88	-0.040	12.00	862.40	
774+50.00	862.33	5.00	-0.040	862.53	12.00	0.019	862.76	12.00	0.019	862.99	-0.040	12.00	862.51	
774+75.00	862.43	5.00	-0.040	862.63	12.00	0.019	862.86	12.00	0.019	863.09	-0.040	12.00	862.61	
775+00.00	862.54	5.00	-0.040	862.74	12.00	0.019	862.97	12.00	0.019	863.20	-0.040	12.00	862.72	
775+25.00	862.64	5.00	-0.040	862.84	12.00	0.019	863.07	12.00	0.019	863.30	-0.040	12.00	862.82	
775+50.00	862.74	5.00	-0.040	862.94	12.00	0.019	863.17	12.00	0.019	863.40	-0.040	12.00	862.92	
775+75.00	862.85	5.00	-0.040	863.05	12.00	0.019	863.28	12.00	0.019	863.51	-0.040	12.00	863.03	
776+00.00	862.95	5.00	-0.040	863.15	12.00	0.019	863.38	12.00	0.019	863.61	-0.040	12.00	863.13	
776+25.00	863.05	5.00	-0.040	863.25	12.00	0.019	863.48	12.00	0.019	863.71	-0.040	12.00	863.23	
776+50.00	863.13	5.00	-0.040	863.33	12.00	0.019	863.56	12.00	0.019	863.79	-0.040	12.00	863.31	
776+75.00	863.19	5.00	-0.040	863.39	12.00	0.019	863.62	12.00	0.019	863.85	-0.040	12.00	863.37	
777+00.00	863.23	5.00	-0.040	863.43	12.00	0.019	863.66	12.00	0.019	863.89	-0.040	12.00	863.41	

CALCULATED C.Y. CHECKED

SUPERELEVATION TABLE (I.R. 90 EASTBOUND LANES)

LAK-90-21.40
ATB-90-0.00

I.R. 90 EASTBOUND LANES CURVE P.I. STATION 764+45.19

BASELINE SURVEY & CONSTRUCTION	LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	PROFILE GRADE	LEFT PAVEMENT WIDTH	LEFT PAVEMENT SLOPE	CENTER OF LANES	RIGHT PAVEMENT WIDTH	RIGHT PAVEMENT SLOPE	RIGHT EDGE OF PAVEMENT	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	COMMENTS
777+25.00	863.25	5.00	-0.040	863.45	12.00	0.019	863.68	12.00	0.019	863.91	-0.040	12.00	863.43	
777+50.00	863.26	5.00	-0.040	863.46	12.00	0.019	863.69	12.00	0.019	863.92	-0.040	12.00	863.44	
777+75.00	863.25	5.00	-0.040	863.45	12.00	0.019	863.68	12.00	0.019	863.91	-0.040	12.00	863.43	
778+00.00	863.23	5.00	-0.040	863.43	12.00	0.019	863.66	12.00	0.019	863.89	-0.040	12.00	863.41	
778+25.00	863.18	5.00	-0.040	863.38	12.00	0.019	863.61	12.00	0.019	863.84	-0.040	12.00	863.36	
778+50.00	863.12	5.00	-0.040	863.32	12.00	0.019	863.55	12.00	0.019	863.78	-0.040	12.00	863.30	
778+75.00	863.04	5.00	-0.040	863.24	12.00	0.019	863.47	12.00	0.019	863.70	-0.040	12.00	863.22	
779+00.00	862.95	5.00	-0.040	863.15	12.00	0.019	863.38	12.00	0.019	863.61	-0.040	12.00	863.13	
779+25.00	862.83	5.00	-0.040	863.03	12.00	0.019	863.26	12.00	0.019	863.49	-0.040	12.00	863.01	
779+50.00	862.70	5.00	-0.040	862.90	12.00	0.019	863.13	12.00	0.019	863.36	-0.040	12.00	862.88	
779+75.00	862.55	5.00	-0.040	862.75	12.00	0.019	862.98	12.00	0.019	863.21	-0.040	12.00	862.73	
780+00.00	862.39	5.00	-0.040	862.59	12.00	0.019	862.82	12.00	0.019	863.05	-0.040	12.00	862.57	
780+25.00	862.20	5.00	-0.040	862.40	12.00	0.019	862.63	12.00	0.019	862.86	-0.040	12.00	862.38	
780+50.00	862.00	5.00	-0.040	862.20	12.00	0.019	862.43	12.00	0.019	862.66	-0.040	12.00	862.18	
780+75.00	861.78	5.00	-0.040	861.98	12.00	0.019	862.21	12.00	0.019	862.44	-0.040	12.00	861.96	
781+00.00	861.55	5.00	-0.040	861.75	12.00	0.019	861.98	12.00	0.019	862.21	-0.040	12.00	861.73	
781+25.00	861.29	5.00	-0.040	861.49	12.00	0.019	861.72	12.00	0.019	861.95	-0.040	12.00	861.47	
781+50.00	861.02	5.00	-0.040	861.22	12.00	0.019	861.45	12.00	0.019	861.68	-0.040	12.00	861.20	
781+75.00	860.73	5.00	-0.040	860.93	12.00	0.019	861.16	12.00	0.019	861.39	-0.040	12.00	860.91	
782+00.00	860.43	5.00	-0.040	860.63	12.00	0.019	860.86	12.00	0.019	861.09	-0.040	12.00	860.61	
782+25.00	860.11	5.00	-0.040	860.31	12.00	0.019	860.54	12.00	0.019	860.77	-0.040	12.00	860.29	
782+50.00	859.80	5.00	-0.040	860.00	12.00	0.019	860.23	12.00	0.019	860.46	-0.040	12.00	859.98	
782+75.00	859.49	5.00	-0.040	859.69	12.00	0.019	859.92	12.00	0.019	860.15	-0.040	12.00	859.67	
783+00.00	859.17	5.00	-0.040	859.37	12.00	0.019	859.60	12.00	0.019	859.83	-0.040	12.00	859.35	
783+25.00	858.86	5.00	-0.040	859.06	12.00	0.019	859.29	12.00	0.019	859.52	-0.040	12.00	859.04	
783+50.00	858.54	5.00	-0.040	858.74	12.00	0.019	858.97	12.00	0.019	859.20	-0.040	12.00	858.72	
783+75.00	858.23	5.00	-0.040	858.43	12.00	0.019	858.66	12.00	0.019	858.89	-0.040	12.00	858.41	
784+00.00	857.91	5.00	-0.040	858.11	12.00	0.019	858.34	12.00	0.019	858.57	-0.040	12.00	858.09	
784+25.00	857.60	5.00	-0.040	857.80	12.00	0.019	858.03	12.00	0.019	858.26	-0.040	12.00	857.78	
784+50.00	857.29	5.00	-0.040	857.49	12.00	0.019	857.72	12.00	0.019	857.95	-0.040	12.00	857.47	
784+75.00	856.97	5.00	-0.040	857.17	12.00	0.019	857.40	12.00	0.019	857.63	-0.040	12.00	857.15	
785+00.00	856.66	5.00	-0.040	856.86	12.00	0.019	857.09	12.00	0.019	857.32	-0.040	12.00	856.84	
785+25.00	856.34	5.00	-0.040	856.54	12.00	0.019	856.77	12.00	0.019	857.00	-0.040	12.00	856.52	
785+50.00	856.03	5.00	-0.040	856.23	12.00	0.019	856.46	12.00	0.019	856.69	-0.040	12.00	856.21	
785+75.00	855.71	5.00	-0.040	855.91	12.00	0.019	856.14	12.00	0.019	856.37	-0.040	12.00	855.89	
786+00.00	855.40	5.00	-0.040	855.60	12.00	0.019	855.83	12.00	0.019	856.06	-0.040	12.00	855.58	
786+25.00	855.09	5.00	-0.040	855.29	12.00	0.019	855.52	12.00	0.019	855.75	-0.040	12.00	855.27	
786+50.00	854.77	5.00	-0.040	854.97	12.00	0.019	855.20	12.00	0.019	855.43	-0.040	12.00	854.95	
786+75.00	854.46	5.00	-0.040	854.66	12.00	0.019	854.89	12.00	0.019	855.12	-0.040	12.00	854.64	
787+00.00	854.14	5.00	-0.040	854.34	12.00	0.019	854.57	12.00	0.019	854.80	-0.040	12.00	854.32	
787+25.00	853.83	5.00	-0.040	854.03	12.00	0.019	854.26	12.00	0.019	854.49	-0.040	12.00	854.01	
787+50.00	853.51	5.00	-0.040	853.71	12.00	0.019	853.94	12.00	0.019	854.17	-0.040	12.00	853.69	
787+75.00	853.20	5.00	-0.040	853.40	12.00	0.019	853.63	12.00	0.019	853.86	-0.040	12.00	853.38	
788+00.00	852.89	5.00	-0.040	853.09	12.00	0.019	853.32	12.00	0.019	853.55	-0.040	12.00	853.07	
788+25.00	852.57	5.00	-0.040	852.77	12.00	0.019	853.00	12.00	0.019	853.23	-0.040	12.00	852.75	
788+50.00	852.26	5.00	-0.040	852.46	12.00	0.019	852.69	12.00	0.019	852.92	-0.040	12.00	852.44	
788+75.00	851.94	5.00	-0.040	852.14	12.00	0.019	852.37	12.00	0.019	852.60	-0.040	12.00	852.12	
789+00.00	851.63	5.00	-0.040	851.83	12.00	0.019	852.06	12.00	0.019	852.29	-0.040	12.00	851.81	
789+25.00	851.31	5.00	-0.040	851.51	12.00	0.019	851.74	12.00	0.019	851.97	-0.040	12.00	851.49	
789+50.00	851.00	5.00	-0.040	851.20	12.00	0.019	851.43	12.00	0.019	851.66	-0.040	12.00	851.18	
789+75.00	850.69	5.00	-0.040	850.89	12.00	0.019	851.12	12.00	0.019	851.35	-0.040	12.00	850.87	
790+00.00	850.37	5.00	-0.040	850.57	12.00	0.019	850.80	12.00	0.019	851.03	-0.040	12.00	850.55	
790+25.00	850.06	5.00	-0.040	850.26	12.00	0.019	850.49	12.00	0.019	850.72	-0.040	12.00	850.24	
790+50.00	849.74	5.00	-0.040	849.94	12.00	0.019	850.17	12.00	0.019	850.40	-0.040	12.00	849.92	
790+75.00	849.43	5.00	-0.040	849.63	12.00	0.019	849.86	12.00	0.019	850.09	-0.040	12.00	849.61	
791+00.00	849.11	5.00	-0.040	849.31	12.00	0.019	849.54	12.00	0.019	849.77	-0.040	12.00	849.29	
791+25.00	848.80	5.00	-0.040	849.00	12.00	0.019	849.23	12.00	0.019	849.46	-0.040	12.00	848.98	
791+50.00	848.49	5.00	-0.040	848.69	12.00	0.019	848.92	12.00	0.019	849.15	-0.040	12.00	848.67	
791+75.00	848.17	5.00	-0.040	848.37	12.00	0.019	848.60	12.00	0.019	848.83	-0.040	12.00	848.35	
792+00.00	847.86	5.00	-0.040	848.06	12.00	0.019	848.29	12.00	0.019	848.52	-0.040	12.00	848.04	
792+25.00	847.54	5.00	-0.040	847.74	12.00	0.019	847.97	12.00	0.019	848.20	-0.040	12.00	847.72	
792+50.00	847.23	5.00	-0.040	847.43	12.00	0.019	847.66	12.00	0.019	847.89	-0.040	12.00	847.41	
792+75.00	846.91	5.00	-0.040	847.11	12.00	0.019	847.34	12.00	0.019	847.57	-0.040	12.00	847.09	
793+00.00	846.60	5.00	-0.040	846.80	12.00	0.019	847.03	12.00	0.019	847.26	-0.040	12.00	846.78	
793+25.00	846.27	5.40	-0.040	846.49	12.00	0.019	846.72	12.00	0.019	846.95	-0.040	12.00	846.47	
793+50.00	845.92	6.27	-0.040	846.17	12.00	0.019	846.40	12.00	0.019	846.63	-0.040	12.00	846.15	
793+75.00	845.57	7.15	-0.040	845.86	12.00	0.019	846.09	12.00	0.019	846.32	-0.040	12.00	845.84	
794+00.00	845.22	8.02	-0.040	845.54	12.00	0.019	845.77	12.00	0.019	846.00	-0.040	12.00	845.52	

CALCULATED C.Y.
CHECKED

SUPERELEVATION TABLE (I.R. 90 EASTBOUND LANES)

LAK-90-21.40
ATB-90-0.00

I.R. 90 EASTBOUND LANES CURVE P.I. STATION 764+45.19

BASELINE SURVEY & CONSTRUCTION	LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	PROFILE GRADE	LEFT PAVEMENT WIDTH	LEFT PAVEMENT SLOPE	CENTER OF LANES	RIGHT PAVEMENT WIDTH	RIGHT PAVEMENT SLOPE	RIGHT EDGE OF PAVEMENT	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	COMMENTS
794+25.00	844.87	8.90	-0.040	845.23	12.00	0.019	845.46	12.00	0.019	845.69	-0.040	12.00	845.21	
794+50.00	844.52	9.77	-0.040	844.91	12.00	0.019	845.14	12.00	0.019	845.37	-0.040	12.00	844.89	MEDIAN U-TURN OPENING STA. 795+75.00
794+75.00	844.17	10.65	-0.040	844.60	12.00	0.019	844.83	12.00	0.019	845.06	-0.040	12.00	844.58	
795+00.00	843.83	11.52	-0.040	844.29	12.00	0.019	844.52	12.00	0.019	844.75	-0.040	12.00	844.27	
795+25.00	843.44	13.19	-0.040	843.97	12.00	0.019	844.20	12.00	0.019	844.43	-0.040	12.00	843.95	
795+50.00	842.63	25.74	-0.040	843.66	12.00	0.019	843.89	12.00	0.019	844.12	-0.040	12.00	843.64	
795+75.00	SEE CROSS SECTION		-0.040	843.34	12.00	0.019	843.57	12.00	0.019	843.80	-0.040	12.00	843.32	
796+00.00	842.73	7.55	-0.040	843.03	12.00	0.019	843.26	12.00	0.019	843.49	-0.040	12.00	843.01	
796+25.00	842.51	5.00	-0.040	842.71	12.00	0.019	842.94	12.00	0.019	843.17	-0.040	12.00	842.69	
796+50.00	842.20	5.00	-0.040	842.40	12.00	0.019	842.63	12.00	0.019	842.86	-0.040	12.00	842.38	
796+75.00	841.89	5.00	-0.040	842.09	12.00	0.019	842.32	12.00	0.019	842.55	-0.040	12.00	842.07	
797+00.00	841.57	5.00	-0.040	841.77	12.00	0.019	842.00	12.00	0.019	842.23	-0.040	12.00	841.75	
797+25.00	841.26	5.00	-0.040	841.46	12.00	0.019	841.69	12.00	0.019	841.92	-0.040	12.00	841.44	
797+50.00	840.94	5.00	-0.040	841.14	12.00	0.019	841.37	12.00	0.019	841.60	-0.040	12.00	841.12	
797+75.00	840.63	5.00	-0.040	840.83	12.00	0.019	841.06	12.00	0.019	841.29	-0.040	12.00	840.81	
798+00.00	840.31	5.00	-0.040	840.51	12.00	0.019	840.74	12.00	0.019	840.97	-0.040	12.00	840.49	
798+25.00	840.00	5.00	-0.040	840.20	12.00	0.019	840.43	12.00	0.019	840.66	-0.040	12.00	840.18	
798+50.00	839.69	5.00	-0.040	839.89	12.00	0.019	840.12	12.00	0.019	840.35	-0.040	12.00	839.87	
798+75.00	839.37	5.00	-0.040	839.57	12.00	0.019	839.80	12.00	0.019	840.03	-0.040	12.00	839.55	
798+92.08	839.16	5.00	-0.040	839.36	12.00	0.019	839.59	12.00	0.019	839.82	-0.040	12.00	839.34	END FULL SUPERELEVATION
799+00.00	839.06	5.00	-0.040	839.26	12.00	0.017	839.46	12.00	0.017	839.66	-0.040	12.00	839.18	
799+13.98	838.88	5.00	-0.040	839.08	12.00	0.016	839.27	12.00	0.012	839.42	-0.040	12.00	838.94	P.T. STA. 799+13.98
799+25.00	838.74	5.00	-0.040	838.94	12.00	0.016	839.13	12.00	0.009	839.24	-0.040	12.00	838.76	
799+50.00	838.43	5.00	-0.040	838.63	12.00	0.016	838.82	12.00	0.001	838.84	-0.040	12.00	838.36	
799+75.00	838.11	5.00	-0.040	838.31	12.00	0.016	838.50	12.00	-0.006	838.42	-0.040	12.00	837.94	
800+00.00	837.80	5.00	-0.040	838.00	12.00	0.016	838.19	12.00	-0.014	838.02	-0.040	12.00	837.54	
800+06.08	837.72	5.00	-0.040	837.92	12.00	0.016	838.11	12.00	-0.016	837.92	-0.040	12.00	837.44	BEGIN NORMAL CROWN

CALCULATED C.Y.
CHECKED

SUPERELEVATION TABLE (I.R. 90 EASTBOUND LANES)

LAK-90-21.40
ATB-90-0.00

I.R. 90 WESTBOUND LANES CURVE P.I. STATION 764+45.19

LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	LEFT EDGE OF PAVEMENT	LEFT PAVEMENT WIDTH	LEFT PAVEMENT SLOPE	CENTER OF LANES	RIGHT PAVEMENT WIDTH	RIGHT PAVEMENT SLOPE	PROFILE GRADE	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	BASELINE SURVEY & CONSTRUCTION	COMMENTS
852.33	12.00	-0.040	852.81	12.00	-0.016	853.00	12.00	0.016	852.81	-0.040	5.00	852.61	726+75.45	END NORMAL CROWN
852.38	12.00	-0.040	852.86	12.00	-0.016	853.05	12.00	0.008	852.95	-0.040	5.00	852.75	727+00.00	
852.45	12.00	-0.040	852.93	12.00	-0.016	853.12	12.00	0.001	853.11	-0.040	5.00	852.91	727+25.00	
852.50	12.00	-0.040	852.98	12.00	-0.016	853.17	12.00	-0.007	853.26	-0.040	5.00	853.06	727+50.00	
852.54	12.00	-0.040	853.02	12.00	-0.016	853.21	12.00	-0.012	853.36	-0.040	5.00	853.16	727+67.55	PC STA. 727+67.55
852.56	12.00	-0.040	853.04	12.00	-0.016	853.23	12.00	-0.015	853.41	-0.040	5.00	853.21	727+75.00	
852.56	12.00	-0.040	853.04	12.00	-0.019	853.27	12.00	-0.019	853.49	-0.040	5.00	853.29	727+89.45	BEGIN FULL SUPERELEVATION
852.62	12.00	-0.040	853.10	12.00	-0.019	853.33	12.00	-0.019	853.56	-0.040	5.00	853.36	728+00.00	
852.77	12.00	-0.040	853.25	12.00	-0.019	853.48	12.00	-0.019	853.71	-0.040	5.00	853.51	728+25.00	
852.92	12.00	-0.040	853.40	12.00	-0.019	853.63	12.00	-0.019	853.86	-0.040	5.00	853.66	728+50.00	
853.08	12.00	-0.040	853.56	12.00	-0.019	853.78	12.00	-0.019	854.01	-0.040	5.00	853.81	728+75.00	
853.23	12.00	-0.040	853.71	12.00	-0.019	853.93	12.00	-0.019	854.16	-0.040	5.00	853.96	729+00.00	
853.38	12.00	-0.040	853.86	12.00	-0.019	854.09	12.00	-0.019	854.31	-0.040	5.00	854.11	729+25.00	
853.53	12.00	-0.040	854.01	12.00	-0.019	854.24	12.00	-0.019	854.46	-0.040	5.00	854.26	729+50.00	
853.68	12.00	-0.040	854.16	12.00	-0.019	854.39	12.00	-0.019	854.62	-0.040	5.00	854.42	729+75.00	
853.83	12.00	-0.040	854.31	12.00	-0.019	854.54	12.00	-0.019	854.77	-0.040	5.00	854.57	730+00.00	
853.98	12.00	-0.040	854.46	12.00	-0.019	854.69	12.00	-0.019	854.92	-0.040	5.00	854.72	730+25.00	
854.13	12.00	-0.040	854.61	12.00	-0.019	854.84	12.00	-0.019	855.07	-0.040	5.00	854.87	730+50.00	
854.28	12.00	-0.040	854.76	12.00	-0.019	854.99	12.00	-0.019	855.22	-0.040	5.00	855.02	730+75.00	
854.43	12.00	-0.040	854.91	12.00	-0.019	855.14	12.00	-0.019	855.37	-0.040	5.00	855.17	731+00.00	
854.59	12.00	-0.040	855.07	12.00	-0.019	855.29	12.00	-0.019	855.52	-0.040	5.00	855.32	731+25.00	
854.74	12.00	-0.040	855.22	12.00	-0.019	855.44	12.00	-0.019	855.67	-0.040	5.00	855.47	731+50.00	
854.89	12.00	-0.040	855.37	12.00	-0.019	855.60	12.00	-0.019	855.82	-0.040	5.00	855.62	731+75.00	
855.04	12.00	-0.040	855.52	12.00	-0.019	855.75	12.00	-0.019	855.98	-0.040	5.00	855.78	732+00.00	
855.19	12.00	-0.040	855.67	12.00	-0.019	855.90	12.00	-0.019	856.13	-0.040	5.00	855.93	732+25.00	
855.34	12.00	-0.040	855.82	12.00	-0.019	856.05	12.00	-0.019	856.28	-0.040	5.00	856.08	732+50.00	
855.49	12.00	-0.040	855.97	12.00	-0.019	856.20	12.00	-0.019	856.43	-0.040	5.00	856.23	732+75.00	
855.64	12.00	-0.040	856.12	12.00	-0.019	856.35	12.00	-0.019	856.58	-0.040	5.00	856.38	733+00.00	
855.79	12.00	-0.040	856.27	12.00	-0.019	856.50	12.00	-0.019	856.73	-0.040	5.00	856.53	733+25.00	
855.95	12.00	-0.040	856.43	12.00	-0.019	856.65	12.00	-0.019	856.88	-0.040	5.00	856.68	733+50.00	
856.10	12.00	-0.040	856.58	12.00	-0.019	856.80	12.00	-0.019	857.03	-0.040	5.00	856.83	733+75.00	
856.25	12.00	-0.040	856.73	12.00	-0.019	856.96	12.00	-0.019	857.18	-0.040	5.00	856.98	734+00.00	
856.40	12.00	-0.040	856.88	12.00	-0.019	857.11	12.00	-0.019	857.33	-0.040	5.00	857.13	734+25.00	
856.55	12.00	-0.040	857.03	12.00	-0.019	857.26	12.00	-0.019	857.49	-0.040	5.00	857.29	734+50.00	
856.70	12.00	-0.040	857.18	12.00	-0.019	857.41	12.00	-0.019	857.64	-0.040	5.00	857.44	734+75.00	
856.85	12.00	-0.040	857.33	12.00	-0.019	857.56	12.00	-0.019	857.79	-0.040	5.00	857.59	735+00.00	
856.99	12.00	-0.040	857.47	12.00	-0.019	857.70	12.00	-0.019	857.93	-0.040	5.00	857.73	735+25.00	
857.13	12.00	-0.040	857.61	12.00	-0.019	857.84	12.00	-0.019	858.07	-0.040	5.00	857.87	735+50.00	
857.26	12.00	-0.040	857.74	12.00	-0.019	857.97	12.00	-0.019	858.20	-0.040	5.00	858.00	735+75.00	
857.37	12.00	-0.040	857.85	12.00	-0.019	858.08	12.00	-0.019	858.31	-0.040	5.00	858.11	736+00.00	
857.48	12.00	-0.040	857.96	12.00	-0.019	858.19	12.00	-0.019	858.42	-0.040	5.00	858.22	736+25.00	
857.58	12.00	-0.040	858.06	12.00	-0.019	858.29	12.00	-0.019	858.52	-0.040	5.00	858.32	736+50.00	
857.67	12.00	-0.040	858.15	12.00	-0.019	858.38	12.00	-0.019	858.61	-0.040	5.00	858.41	736+75.00	
857.75	12.00	-0.040	858.23	12.00	-0.019	858.46	12.00	-0.019	858.69	-0.040	5.00	858.49	737+00.00	
857.82	12.00	-0.040	858.30	12.00	-0.019	858.53	12.00	-0.019	858.76	-0.040	5.00	858.56	737+25.00	
857.88	12.00	-0.040	858.36	12.00	-0.019	858.59	12.00	-0.019	858.82	-0.040	5.00	858.62	737+50.00	
857.93	12.00	-0.040	858.41	12.00	-0.019	858.64	12.00	-0.019	858.87	-0.040	5.00	858.67	737+75.00	
857.97	12.00	-0.040	858.45	12.00	-0.019	858.68	12.00	-0.019	858.91	-0.040	5.00	858.71	738+00.00	
858.00	12.00	-0.040	858.48	12.00	-0.019	858.71	12.00	-0.019	858.94	-0.040	5.00	858.74	738+25.00	
858.02	12.00	-0.040	858.50	12.00	-0.019	858.73	12.00	-0.019	858.96	-0.040	5.00	858.76	738+50.00	
858.03	12.00	-0.040	858.51	12.00	-0.019	858.74	12.00	-0.019	858.97	-0.040	5.00	858.77	738+75.00	
858.03	12.00	-0.040	858.51	12.00	-0.019	858.74	12.00	-0.019	858.97	-0.040	5.00	858.77	739+00.00	
858.02	12.00	-0.040	858.50	12.00	-0.019	858.73	12.00	-0.019	858.96	-0.040	5.00	858.76	739+25.00	
858.00	12.00	-0.040	858.48	12.00	-0.019	858.71	12.00	-0.019	858.94	-0.040	5.00	858.74	739+50.00	
857.98	12.00	-0.040	858.46	12.00	-0.019	858.69	12.00	-0.019	858.92	-0.040	5.00	858.72	739+75.00	
857.94	12.00	-0.040	858.42	12.00	-0.019	858.65	12.00	-0.019	858.88	-0.040	5.00	858.68	740+00.00	
857.89	12.00	-0.040	858.37	12.00	-0.019	858.60	12.00	-0.019	858.83	-0.040	5.00	858.63	740+25.00	
857.83	12.00	-0.040	858.31	12.00	-0.019	858.54	12.00	-0.019	858.77	-0.040	5.00	858.57	740+50.00	
857.77	12.00	-0.040	858.25	12.00	-0.019	858.48	12.00	-0.019	858.71	-0.040	5.00	858.51	740+75.00	
857.69	12.00	-0.040	858.17	12.00	-0.019	858.40	12.00	-0.019	858.63	-0.040	5.00	858.43	741+00.00	
857.61	12.00	-0.040	858.09	12.00	-0.019	858.32	12.00	-0.019	858.55	-0.040	5.00	858.35	741+25.00	
857.53	12.00	-0.040	858.01	12.00	-0.019	858.24	12.00	-0.019	858.47	-0.040	5.00	858.27	741+50.00	
857.45	12.00	-0.040	857.93	12.00	-0.019	858.16	12.00	-0.019	858.39	-0.040	5.00	858.19	741+75.00	
857.37	12.00	-0.040	857.85	12.00	-0.019	858.08	12.00	-0.019	858.31	-0.040	5.00	858.11	742+00.00	
857.29	12.00	-0.040	857.77	12.00	-0.019	858.00	12.00	-0.019	858.23	-0.040	5.00	858.03	742+25.00	
857.21	12.00	-0.040	857.69	12.00	-0.019	857.92	12.00	-0.019	858.15	-0.040	5.00	857.95	742+50.00	
857.13	12.00	-0.040	857.61	12.00	-0.019	857.84	12.00	-0.019	858.07	-0.040	5.00	857.87	742+75.00	
857.05	12.00	-0.040	857.53	12.00	-0.019	857.76	12.00	-0.019	857.99	-0.040	5.00	857.79	743+00.00	

CALCULATED C.Y.
CHECKED

SUPERELEVATION TABLE (I.R. 90 WESTBOUND LANES)

LAK-90-21.40
ATB-90-0.00

I.R. 90 WESTBOUND LANES CURVE P.I. STATION 764+45.19

LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	LEFT EDGE OF PAVEMENT	LEFT PAVEMENT WIDTH	LEFT PAVEMENT SLOPE	CENTER OF LANES	RIGHT PAVEMENT WIDTH	RIGHT PAVEMENT SLOPE	PROFILE GRADE	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	BASELINE SURVEY & CONSTRUCTION	COMMENTS
856.97	12.00	-0.040	857.45	12.00	-0.019	857.68	12.00	-0.019	857.91	-0.040	5.00	857.71	743+25.00	
856.89	12.00	-0.040	857.37	12.00	-0.019	857.60	12.00	-0.019	857.83	-0.040	5.00	857.63	743+50.00	
856.81	12.00	-0.040	857.29	12.00	-0.019	857.52	12.00	-0.019	857.75	-0.040	5.00	857.55	743+75.00	
856.73	12.00	-0.040	857.21	12.00	-0.019	857.44	12.00	-0.019	857.67	-0.040	5.00	857.47	744+00.00	
856.64	12.00	-0.040	857.12	12.00	-0.019	857.35	12.00	-0.019	857.58	-0.040	5.00	857.38	744+25.00	
856.56	12.00	-0.040	857.04	12.00	-0.019	857.27	12.00	-0.019	857.50	-0.040	5.00	857.30	744+50.00	
856.48	12.00	-0.040	856.96	12.00	-0.019	857.19	12.00	-0.019	857.42	-0.040	5.00	857.22	744+75.00	
856.40	12.00	-0.040	856.88	12.00	-0.019	857.11	12.00	-0.019	857.34	-0.040	5.00	857.14	745+00.00	
856.32	12.00	-0.040	856.80	12.00	-0.019	857.03	12.00	-0.019	857.26	-0.040	5.00	857.06	745+25.00	
856.24	12.00	-0.040	856.72	12.00	-0.019	856.95	12.00	-0.019	857.18	-0.040	5.00	856.98	745+50.00	
856.16	12.00	-0.040	856.64	12.00	-0.019	856.87	12.00	-0.019	857.10	-0.040	5.00	856.90	745+75.00	
856.08	12.00	-0.040	856.56	12.00	-0.019	856.79	12.00	-0.019	857.02	-0.040	5.00	856.82	746+00.00	
856.00	12.00	-0.040	856.48	12.00	-0.019	856.71	12.00	-0.019	856.94	-0.040	5.00	856.74	746+25.00	
855.92	12.00	-0.040	856.40	12.00	-0.019	856.63	12.00	-0.019	856.86	-0.040	5.00	856.66	746+50.00	
855.84	12.00	-0.040	856.32	12.00	-0.019	856.55	12.00	-0.019	856.78	-0.040	5.00	856.58	746+75.00	
855.76	12.00	-0.040	856.24	12.00	-0.019	856.47	12.00	-0.019	856.70	-0.040	5.00	856.50	747+00.00	
855.68	12.00	-0.040	856.16	12.00	-0.019	856.39	12.00	-0.019	856.62	-0.040	5.00	856.42	747+25.00	
855.60	12.00	-0.040	856.08	12.00	-0.019	856.31	12.00	-0.019	856.54	-0.040	5.00	856.34	747+50.00	
855.52	12.00	-0.040	856.00	12.00	-0.019	856.23	12.00	-0.019	856.46	-0.040	5.00	856.26	747+75.00	
855.44	12.00	-0.040	855.92	12.00	-0.019	856.15	12.00	-0.019	856.38	-0.040	5.00	856.18	748+00.00	
855.35	12.00	-0.040	855.83	12.00	-0.019	856.06	12.00	-0.019	856.29	-0.040	5.00	856.09	748+25.00	
855.27	12.00	-0.040	855.75	12.00	-0.019	855.98	12.00	-0.019	856.21	-0.040	5.00	856.01	748+50.00	
855.19	12.00	-0.040	855.67	12.00	-0.019	855.90	12.00	-0.019	856.13	-0.040	5.00	855.93	748+75.00	
855.11	12.00	-0.040	855.59	12.00	-0.019	855.82	12.00	-0.019	856.05	-0.040	5.00	855.85	749+00.00	
855.03	12.00	-0.040	855.51	12.00	-0.019	855.74	12.00	-0.019	855.97	-0.040	5.00	855.77	749+25.00	
854.95	12.00	-0.040	855.43	12.00	-0.019	855.66	12.00	-0.019	855.89	-0.040	5.00	855.69	749+50.00	
854.87	12.00	-0.040	855.35	12.00	-0.019	855.58	12.00	-0.019	855.81	-0.040	5.00	855.61	749+75.00	
854.79	12.00	-0.040	855.27	12.00	-0.019	855.50	12.00	-0.019	855.73	-0.040	5.00	855.53	750+00.00	
854.71	12.00	-0.040	855.19	12.00	-0.019	855.42	12.00	-0.019	855.65	-0.040	5.00	855.45	750+25.00	
854.63	12.00	-0.040	855.11	12.00	-0.019	855.34	12.00	-0.019	855.57	-0.040	5.00	855.37	750+50.00	
854.55	12.00	-0.040	855.03	12.00	-0.019	855.26	12.00	-0.019	855.49	-0.040	5.00	855.29	750+75.00	
854.47	12.00	-0.040	854.95	12.00	-0.019	855.18	12.00	-0.019	855.41	-0.040	5.00	855.21	751+00.00	
854.39	12.00	-0.040	854.87	12.00	-0.019	855.10	12.00	-0.019	855.33	-0.040	5.00	855.13	751+25.00	
854.31	12.00	-0.040	854.79	12.00	-0.019	855.02	12.00	-0.019	855.25	-0.040	5.00	855.05	751+50.00	
854.23	12.00	-0.040	854.71	12.00	-0.019	854.94	12.00	-0.019	855.17	-0.040	5.00	854.97	751+75.00	
854.15	12.00	-0.040	854.63	12.00	-0.019	854.86	12.00	-0.019	855.09	-0.040	5.00	854.89	752+00.00	
854.06	12.00	-0.040	854.54	12.00	-0.019	854.77	12.00	-0.019	855.00	-0.040	5.00	854.80	752+25.00	
853.98	12.00	-0.040	854.46	12.00	-0.019	854.69	12.00	-0.019	854.92	-0.040	5.00	854.72	752+50.00	
853.90	12.00	-0.040	854.38	12.00	-0.019	854.61	12.00	-0.019	854.84	-0.040	5.00	854.64	752+75.00	
853.82	12.00	-0.040	854.30	12.00	-0.019	854.53	12.00	-0.019	854.76	-0.040	5.00	854.56	753+00.00	
853.74	12.00	-0.040	854.22	12.00	-0.019	854.45	12.00	-0.019	854.68	-0.040	5.00	854.48	753+25.00	
853.65	12.00	-0.040	854.13	12.00	-0.019	854.36	12.00	-0.019	854.59	-0.040	5.00	854.39	753+50.00	
853.53	12.00	-0.040	854.01	12.00	-0.019	854.24	12.00	-0.019	854.47	-0.040	5.00	854.27	753+75.00	
853.41	12.00	-0.040	853.89	12.00	-0.019	854.12	12.00	-0.019	854.35	-0.040	5.00	854.15	754+00.00	
853.29	12.00	-0.040	853.77	12.00	-0.019	854.00	12.00	-0.019	854.23	-0.040	5.00	854.03	754+25.00	
853.14	12.00	-0.040	853.62	12.00	-0.019	853.85	12.00	-0.019	854.08	-0.040	5.00	853.88	754+50.00	
852.98	12.00	-0.040	853.46	12.00	-0.019	853.69	12.00	-0.019	853.92	-0.040	5.00	853.72	754+75.00	
852.82	12.00	-0.040	853.30	12.00	-0.019	853.53	12.00	-0.019	853.76	-0.040	5.00	853.56	755+00.00	
852.67	12.00	-0.040	853.15	12.00	-0.019	853.38	12.00	-0.019	853.61	-0.040	5.00	853.41	755+25.00	
852.54	12.00	-0.040	853.02	12.00	-0.019	853.25	12.00	-0.019	853.48	-0.040	5.00	853.28	755+50.00	
852.45	12.00	-0.040	852.93	12.00	-0.019	853.16	12.00	-0.019	853.39	-0.040	5.00	853.19	755+75.00	
852.39	12.00	-0.040	852.87	12.00	-0.019	853.10	12.00	-0.019	853.33	-0.040	5.00	853.13	756+00.00	
852.35	12.00	-0.040	852.83	12.00	-0.019	853.06	12.00	-0.019	853.29	-0.040	5.00	853.09	756+25.00	
852.35	12.00	-0.040	852.83	12.00	-0.019	853.06	12.00	-0.019	853.29	-0.040	5.00	853.09	756+50.00	
852.38	12.00	-0.040	852.86	12.00	-0.019	853.09	12.00	-0.019	853.32	-0.040	5.00	853.12	756+75.00	
852.45	12.00	-0.040	852.93	12.00	-0.019	853.16	12.00	-0.019	853.39	-0.040	5.00	853.19	757+00.00	
852.54	12.00	-0.040	853.02	12.00	-0.019	853.25	12.00	-0.019	853.48	-0.040	5.00	853.28	757+25.00	
852.66	12.00	-0.040	853.14	12.00	-0.019	853.37	12.00	-0.019	853.60	-0.040	10.77	853.17	757+50.00	
852.81	12.00	-0.040	853.29	12.00	-0.019	853.52	12.00	-0.019	853.75	-0.040	SEE CROSS-SECTION		757+75.00	
853.00	12.00	-0.040	853.48	12.00	-0.019	853.71	12.00	-0.019	853.94	-0.040	21.75	853.07	758+00.00	
853.21	12.00	-0.040	853.69	12.00	-0.019	853.92	12.00	-0.019	854.15	-0.040	12.36	853.66	758+25.00	
853.46	12.00	-0.040	853.94	12.00	-0.019	854.17	12.00	-0.019	854.40	-0.040	11.34	853.95	758+50.00	
853.73	12.00	-0.040	854.21	12.00	-0.019	854.44	12.00	-0.019	854.67	-0.040	10.47	854.25	758+75.00	MEDIAN U-TURN OPENING STA. 757+70.00
854.04	12.00	-0.040	854.52	12.00	-0.019	854.75	12.00	-0.019	854.98	-0.040	9.59	854.60	759+00.00	
854.35	12.00	-0.040	854.83	12.00	-0.019	855.06	12.00	-0.019	855.29	-0.040	8.72	854.94	759+25.00	
854.65	12.00	-0.040	855.13	12.00	-0.019	855.36	12.00	-0.019	855.59	-0.040	7.84	855.28	759+50.00	
854.92	12.00	-0.040	855.40	12.00	-0.019	855.63	12.00	-0.019	855.86	-0.040	6.93	855.58	759+75.00	
855.18	12.00	-0.040	855.66	12.00	-0.019	855.89	12.00	-0.019	856.12	-0.040	6.09	855.88	760+00.00	

CALCULATED C.Y.
CHECKED

SUPERELEVATION TABLE (I.R. 90 WESTBOUND LANES)

LAK-90-21.40
ATB-90-0.00

I.R. 90 WESTBOUND LANES CURVE P.I. STATION 764+45.19

LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	LEFT EDGE OF PAVEMENT	LEFT PAVEMENT WIDTH	LEFT PAVEMENT SLOPE	CENTER OF LANES	RIGHT PAVEMENT WIDTH	RIGHT PAVEMENT SLOPE	PROFILE GRADE	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	BASELINE SURVEY & CONSTRUCTION	COMMENTS
855.41	12.00	-0.040	855.89	12.00	-0.019	856.12	12.00	-0.019	856.35	-0.040	5.22	856.14	760+25.00	
855.63	12.00	-0.040	856.11	12.00	-0.019	856.34	12.00	-0.019	856.57	-0.040	5.00	856.37	760+50.00	
855.83	12.00	-0.040	856.31	12.00	-0.019	856.54	12.00	-0.019	856.77	-0.040	5.00	856.57	760+75.00	
856.00	12.00	-0.040	856.48	12.00	-0.019	856.71	12.00	-0.019	856.94	-0.040	5.00	856.74	761+00.00	
856.16	12.00	-0.040	856.64	12.00	-0.019	856.87	12.00	-0.019	857.10	-0.040	5.00	856.90	761+25.00	
856.30	12.00	-0.040	856.78	12.00	-0.019	857.01	12.00	-0.019	857.24	-0.040	5.00	857.04	761+50.00	
856.42	12.00	-0.040	856.90	12.00	-0.019	857.13	12.00	-0.019	857.36	-0.040	5.00	857.16	761+75.00	
856.52	12.00	-0.040	857.00	12.00	-0.019	857.23	12.00	-0.019	857.46	-0.040	5.00	857.26	762+00.00	
856.61	12.00	-0.040	857.09	12.00	-0.019	857.32	12.00	-0.019	857.55	-0.040	5.00	857.35	762+25.00	
856.70	12.00	-0.040	857.18	12.00	-0.019	857.41	12.00	-0.019	857.64	-0.040	5.00	857.44	762+50.00	
856.79	12.00	-0.040	857.27	12.00	-0.019	857.50	12.00	-0.019	857.73	-0.040	5.00	857.53	762+75.00	
856.88	12.00	-0.040	857.36	12.00	-0.019	857.59	12.00	-0.019	857.82	-0.040	5.00	857.62	763+00.00	
856.98	12.00	-0.040	857.46	12.00	-0.019	857.69	12.00	-0.019	857.92	-0.040	5.00	857.72	763+25.00	
857.07	12.00	-0.040	857.55	12.00	-0.019	857.78	12.00	-0.019	858.01	-0.040	5.00	857.81	763+50.00	
857.16	12.00	-0.040	857.64	12.00	-0.019	857.87	12.00	-0.019	858.10	-0.040	5.00	857.90	763+75.00	
857.26	12.00	-0.040	857.74	12.00	-0.019	857.97	12.00	-0.019	858.20	-0.040	5.00	858.00	764+00.00	
857.35	12.00	-0.040	857.83	12.00	-0.019	858.06	12.00	-0.019	858.29	-0.040	5.00	858.09	764+25.00	
857.45	12.00	-0.040	857.93	12.00	-0.019	858.16	12.00	-0.019	858.39	-0.040	5.00	858.19	764+50.00	
857.55	12.00	-0.040	858.03	12.00	-0.019	858.26	12.00	-0.019	858.49	-0.040	5.00	858.29	764+75.00	
857.65	12.00	-0.040	858.13	12.00	-0.019	858.36	12.00	-0.019	858.59	-0.040	5.00	858.39	765+00.00	
857.75	12.00	-0.040	858.23	12.00	-0.019	858.46	12.00	-0.019	858.69	-0.040	5.00	858.49	765+25.00	
857.85	12.00	-0.040	858.33	12.00	-0.019	858.56	12.00	-0.019	858.79	-0.040	5.00	858.59	765+50.00	
857.95	12.00	-0.040	858.43	12.00	-0.019	858.66	12.00	-0.019	858.89	-0.040	5.00	858.69	765+75.00	
858.05	12.00	-0.040	858.53	12.00	-0.019	858.76	12.00	-0.019	858.99	-0.040	5.00	858.79	766+00.00	
858.16	12.00	-0.040	858.64	12.00	-0.019	858.87	12.00	-0.019	859.10	-0.040	5.00	858.90	766+25.00	
858.26	12.00	-0.040	858.74	12.00	-0.019	858.97	12.00	-0.019	859.20	-0.040	5.00	859.00	766+50.00	
858.37	12.00	-0.040	858.85	12.00	-0.019	859.08	12.00	-0.019	859.31	-0.040	5.00	859.11	766+75.00	
858.47	12.00	-0.040	858.95	12.00	-0.019	859.18	12.00	-0.019	859.41	-0.040	5.00	859.21	767+00.00	
858.57	12.00	-0.040	859.05	12.00	-0.019	859.28	12.00	-0.019	859.51	-0.040	5.00	859.31	767+25.00	
858.68	12.00	-0.040	859.16	12.00	-0.019	859.39	12.00	-0.019	859.62	-0.040	5.00	859.42	767+50.00	
858.78	12.00	-0.040	859.26	12.00	-0.019	859.49	12.00	-0.019	859.72	-0.040	5.00	859.52	767+75.00	
858.89	12.00	-0.040	859.37	12.00	-0.019	859.60	12.00	-0.019	859.83	-0.040	5.00	859.63	768+00.00	
858.99	12.00	-0.040	859.47	12.00	-0.019	859.70	12.00	-0.019	859.93	-0.040	5.00	859.73	768+25.00	
859.09	12.00	-0.040	859.57	12.00	-0.019	859.80	12.00	-0.019	860.03	-0.040	5.00	859.83	768+50.00	
859.20	12.00	-0.040	859.68	12.00	-0.019	859.91	12.00	-0.019	860.14	-0.040	5.00	859.94	768+75.00	
859.30	12.00	-0.040	859.78	12.00	-0.019	860.01	12.00	-0.019	860.24	-0.040	5.00	860.04	769+00.00	
859.41	12.00	-0.040	859.89	12.00	-0.019	860.12	12.00	-0.019	860.35	-0.040	5.00	860.15	769+25.00	
859.51	12.00	-0.040	859.99	12.00	-0.019	860.22	12.00	-0.019	860.45	-0.040	5.00	860.25	769+50.00	
859.61	12.00	-0.040	860.09	12.00	-0.019	860.32	12.00	-0.019	860.55	-0.040	5.00	860.35	769+75.00	
859.72	12.00	-0.040	860.20	12.00	-0.019	860.43	12.00	-0.019	860.66	-0.040	5.00	860.46	770+00.00	
859.82	12.00	-0.040	860.30	12.00	-0.019	860.53	12.00	-0.019	860.76	-0.040	5.00	860.56	770+25.00	
859.93	12.00	-0.040	860.41	12.00	-0.019	860.64	12.00	-0.019	860.87	-0.040	5.00	860.67	770+50.00	
860.03	12.00	-0.040	860.51	12.00	-0.019	860.74	12.00	-0.019	860.97	-0.040	5.00	860.77	770+75.00	
860.13	12.00	-0.040	860.61	12.00	-0.019	860.84	12.00	-0.019	861.07	-0.040	5.00	860.87	771+00.00	
860.24	12.00	-0.040	860.72	12.00	-0.019	860.95	12.00	-0.019	861.18	-0.040	5.00	860.98	771+25.00	
860.34	12.00	-0.040	860.82	12.00	-0.019	861.05	12.00	-0.019	861.28	-0.040	5.00	861.08	771+50.00	
860.45	12.00	-0.040	860.93	12.00	-0.019	861.16	12.00	-0.019	861.39	-0.040	5.00	861.19	771+75.00	
860.55	12.00	-0.040	861.03	12.00	-0.019	861.26	12.00	-0.019	861.49	-0.040	5.00	861.29	772+00.00	
860.65	12.00	-0.040	861.13	12.00	-0.019	861.36	12.00	-0.019	861.59	-0.040	5.00	861.39	772+25.00	
860.76	12.00	-0.040	861.24	12.00	-0.019	861.47	12.00	-0.019	861.70	-0.040	5.00	861.50	772+50.00	
860.86	12.00	-0.040	861.34	12.00	-0.019	861.57	12.00	-0.019	861.80	-0.040	5.00	861.60	772+75.00	
860.96	12.00	-0.040	861.44	12.00	-0.019	861.67	12.00	-0.019	861.90	-0.040	5.00	861.70	773+00.00	
861.07	12.00	-0.040	861.55	12.00	-0.019	861.78	12.00	-0.019	862.01	-0.040	5.00	861.81	773+25.00	
861.17	12.00	-0.040	861.65	12.00	-0.019	861.88	12.00	-0.019	862.11	-0.040	5.00	861.91	773+50.00	
861.28	12.00	-0.040	861.76	12.00	-0.019	861.99	12.00	-0.019	862.22	-0.040	5.00	862.02	773+75.00	
861.38	12.00	-0.040	861.86	12.00	-0.019	862.09	12.00	-0.019	862.32	-0.040	5.00	862.12	774+00.00	
861.48	12.00	-0.040	861.96	12.00	-0.019	862.19	12.00	-0.019	862.42	-0.040	5.00	862.22	774+25.00	
861.59	12.00	-0.040	862.07	12.00	-0.019	862.30	12.00	-0.019	862.53	-0.040	5.00	862.33	774+50.00	
861.69	12.00	-0.040	862.17	12.00	-0.019	862.40	12.00	-0.019	862.63	-0.040	5.00	862.43	774+75.00	
861.80	12.00	-0.040	862.28	12.00	-0.019	862.51	12.00	-0.019	862.74	-0.040	5.00	862.54	775+00.00	
861.90	12.00	-0.040	862.38	12.00	-0.019	862.61	12.00	-0.019	862.84	-0.040	5.00	862.64	775+25.00	
862.00	12.00	-0.040	862.48	12.00	-0.019	862.71	12.00	-0.019	862.94	-0.040	5.00	862.74	775+50.00	
862.11	12.00	-0.040	862.59	12.00	-0.019	862.82	12.00	-0.019	863.05	-0.040	5.00	862.85	775+75.00	
862.21	12.00	-0.040	862.69	12.00	-0.019	862.92	12.00	-0.019	863.15	-0.040	5.00	862.95	776+00.00	
862.31	12.00	-0.040	862.79	12.00	-0.019	863.02	12.00	-0.019	863.25	-0.040	5.00	863.05	776+25.00	
862.39	12.00	-0.040	862.87	12.00	-0.019	863.10	12.00	-0.019	863.33	-0.040	5.00	863.13	776+50.00	
862.44	12.00	-0.040	862.92	12.00	-0.019	863.15	12.00	-0.019	863.38	-0.040	5.00	863.18	776+75.00	
862.49	12.00	-0.040	862.97	12.00	-0.019	863.20	12.00	-0.019	863.43	-0.040	5.00	863.23	777+00.00	

CALCULATED C.Y.
CHECKED

SUPERELEVATION TABLE (I.R. 90 WESTBOUND LANES)

LAK-90-21.40
ATB-90-0.00

I.R. 90 WESTBOUND LANES CURVE P.I. STATION 764+45.19

LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	LEFT EDGE OF PAVEMENT	LEFT PAVEMENT WIDTH	LEFT PAVEMENT SLOPE	CENTER OF LANES	RIGHT PAVEMENT WIDTH	RIGHT PAVEMENT SLOPE	PROFILE GRADE	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	BASELINE SURVEY & CONSTRUCTION	COMMENTS
862.51	12.00	-0.040	862.99	12.00	-0.019	863.22	12.00	-0.019	863.45	-0.040	5.00	863.25	777+25.00	
862.52	12.00	-0.040	863.00	12.00	-0.019	863.23	12.00	-0.019	863.46	-0.040	5.00	863.26	777+50.00	
862.51	12.00	-0.040	862.99	12.00	-0.019	863.22	12.00	-0.019	863.45	-0.040	5.00	863.25	777+75.00	
862.48	12.00	-0.040	862.96	12.00	-0.019	863.19	12.00	-0.019	863.42	-0.040	5.00	863.22	778+00.00	
862.43	12.00	-0.040	862.91	12.00	-0.019	863.14	12.00	-0.019	863.37	-0.040	5.00	863.17	778+25.00	
862.37	12.00	-0.040	862.85	12.00	-0.019	863.08	12.00	-0.019	863.31	-0.040	5.00	863.11	778+50.00	
862.29	12.00	-0.040	862.77	12.00	-0.019	863.00	12.00	-0.019	863.23	-0.040	5.00	863.03	778+75.00	
862.19	12.00	-0.040	862.67	12.00	-0.019	862.90	12.00	-0.019	863.13	-0.040	5.00	862.93	779+00.00	
862.07	12.00	-0.040	862.55	12.00	-0.019	862.78	12.00	-0.019	863.01	-0.040	5.00	862.81	779+25.00	
861.94	12.00	-0.040	862.42	12.00	-0.019	862.65	12.00	-0.019	862.88	-0.040	5.00	862.68	779+50.00	
861.79	12.00	-0.040	862.27	12.00	-0.019	862.50	12.00	-0.019	862.73	-0.040	5.00	862.53	779+75.00	
861.62	12.00	-0.040	862.10	12.00	-0.019	862.33	12.00	-0.019	862.56	-0.040	5.00	862.36	780+00.00	
861.43	12.00	-0.040	861.91	12.00	-0.019	862.14	12.00	-0.019	862.37	-0.040	5.00	862.17	780+25.00	
861.23	12.00	-0.040	861.71	12.00	-0.019	861.94	12.00	-0.019	862.17	-0.040	5.00	861.97	780+50.00	
861.00	12.00	-0.040	861.48	12.00	-0.019	861.71	12.00	-0.019	861.94	-0.040	5.00	861.74	780+75.00	
860.76	12.00	-0.040	861.24	12.00	-0.019	861.47	12.00	-0.019	861.70	-0.040	5.00	861.50	781+00.00	
860.51	12.00	-0.040	860.99	12.00	-0.019	861.22	12.00	-0.019	861.45	-0.040	5.00	861.25	781+25.00	
860.23	12.00	-0.040	860.71	12.00	-0.019	860.94	12.00	-0.019	861.17	-0.040	5.00	860.97	781+50.00	
859.94	12.00	-0.040	860.42	12.00	-0.019	860.65	12.00	-0.019	860.88	-0.040	5.00	860.68	781+75.00	
859.63	12.00	-0.040	860.11	12.00	-0.019	860.34	12.00	-0.019	860.57	-0.040	5.00	860.37	782+00.00	
859.31	12.00	-0.040	859.79	12.00	-0.019	860.02	12.00	-0.019	860.25	-0.040	5.00	860.05	782+25.00	
858.99	12.00	-0.040	859.47	12.00	-0.019	859.70	12.00	-0.019	859.93	-0.040	5.00	859.73	782+50.00	
858.67	12.00	-0.040	859.15	12.00	-0.019	859.38	12.00	-0.019	859.61	-0.040	5.00	859.41	782+75.00	
858.35	12.00	-0.040	858.83	12.00	-0.019	859.06	12.00	-0.019	859.29	-0.040	5.00	859.09	783+00.00	
858.03	12.00	-0.040	858.51	12.00	-0.019	858.74	12.00	-0.019	858.97	-0.040	5.00	858.77	783+25.00	
857.71	12.00	-0.040	858.19	12.00	-0.019	858.42	12.00	-0.019	858.65	-0.040	5.00	858.45	783+50.00	
857.39	12.00	-0.040	857.87	12.00	-0.019	858.10	12.00	-0.019	858.33	-0.040	5.00	858.13	783+75.00	
857.07	12.00	-0.040	857.55	12.00	-0.019	857.78	12.00	-0.019	858.01	-0.040	5.00	857.81	784+00.00	
856.75	12.00	-0.040	857.23	12.00	-0.019	857.46	12.00	-0.019	857.69	-0.040	5.00	857.49	784+25.00	
856.43	12.00	-0.040	856.91	12.00	-0.019	857.14	12.00	-0.019	857.37	-0.040	5.00	857.17	784+50.00	
856.11	12.00	-0.040	856.59	12.00	-0.019	856.82	12.00	-0.019	857.05	-0.040	5.00	856.85	784+75.00	
855.79	12.00	-0.040	856.27	12.00	-0.019	856.50	12.00	-0.019	856.73	-0.040	5.00	856.53	785+00.00	
855.47	12.00	-0.040	855.95	12.00	-0.019	856.18	12.00	-0.019	856.41	-0.040	5.00	856.21	785+25.00	
855.16	12.00	-0.040	855.64	12.00	-0.019	855.87	12.00	-0.019	856.10	-0.040	5.00	855.90	785+50.00	
854.84	12.00	-0.040	855.32	12.00	-0.019	855.55	12.00	-0.019	855.78	-0.040	5.00	855.58	785+75.00	
854.52	12.00	-0.040	855.00	12.00	-0.019	855.23	12.00	-0.019	855.46	-0.040	5.00	855.26	786+00.00	
854.20	12.00	-0.040	854.68	12.00	-0.019	854.91	12.00	-0.019	855.14	-0.040	5.00	854.94	786+25.00	
853.88	12.00	-0.040	854.36	12.00	-0.019	854.59	12.00	-0.019	854.82	-0.040	5.00	854.62	786+50.00	
853.56	12.00	-0.040	854.04	12.00	-0.019	854.27	12.00	-0.019	854.50	-0.040	5.00	854.30	786+75.00	
853.24	12.00	-0.040	853.72	12.00	-0.019	853.95	12.00	-0.019	854.18	-0.040	5.00	853.98	787+00.00	
852.92	12.00	-0.040	853.40	12.00	-0.019	853.63	12.00	-0.019	853.86	-0.040	5.00	853.66	787+25.00	
852.60	12.00	-0.040	853.08	12.00	-0.019	853.31	12.00	-0.019	853.54	-0.040	5.00	853.34	787+50.00	
852.28	12.00	-0.040	852.76	12.00	-0.019	852.99	12.00	-0.019	853.22	-0.040	5.00	853.02	787+75.00	
851.96	12.00	-0.040	852.44	12.00	-0.019	852.67	12.00	-0.019	852.90	-0.040	5.00	852.70	788+00.00	
851.64	12.00	-0.040	852.12	12.00	-0.019	852.35	12.00	-0.019	852.58	-0.040	5.00	852.38	788+25.00	
851.32	12.00	-0.040	851.80	12.00	-0.019	852.03	12.00	-0.019	852.26	-0.040	5.00	852.06	788+50.00	
851.00	12.00	-0.040	851.48	12.00	-0.019	851.71	12.00	-0.019	851.94	-0.040	5.00	851.74	788+75.00	
850.68	12.00	-0.040	851.16	12.00	-0.019	851.39	12.00	-0.019	851.62	-0.040	5.00	851.42	789+00.00	
850.36	12.00	-0.040	850.84	12.00	-0.019	851.07	12.00	-0.019	851.30	-0.040	5.00	851.10	789+25.00	
850.04	12.00	-0.040	850.52	12.00	-0.019	850.75	12.00	-0.019	850.98	-0.040	5.00	850.78	789+50.00	
849.73	12.00	-0.040	850.21	12.00	-0.019	850.44	12.00	-0.019	850.67	-0.040	5.00	850.47	789+75.00	
849.41	12.00	-0.040	849.89	12.00	-0.019	850.12	12.00	-0.019	850.35	-0.040	5.00	850.15	790+00.00	
849.09	12.00	-0.040	849.57	12.00	-0.019	849.80	12.00	-0.019	850.03	-0.040	5.00	849.83	790+25.00	
848.77	12.00	-0.040	849.25	12.00	-0.019	849.48	12.00	-0.019	849.71	-0.040	5.00	849.51	790+50.00	
848.45	12.00	-0.040	848.93	12.00	-0.019	849.16	12.00	-0.019	849.39	-0.040	5.00	849.19	790+75.00	
848.13	12.00	-0.040	848.61	12.00	-0.019	848.84	12.00	-0.019	849.07	-0.040	5.00	848.87	791+00.00	
847.81	12.00	-0.040	848.29	12.00	-0.019	848.52	12.00	-0.019	848.75	-0.040	5.00	848.55	791+25.00	
847.49	12.00	-0.040	847.97	12.00	-0.019	848.20	12.00	-0.019	848.43	-0.040	5.00	848.23	791+50.00	
847.17	12.00	-0.040	847.65	12.00	-0.019	847.88	12.00	-0.019	848.11	-0.040	5.00	847.91	791+75.00	
846.85	12.00	-0.040	847.33	12.00	-0.019	847.56	12.00	-0.019	847.79	-0.040	5.00	847.59	792+00.00	
846.53	12.00	-0.040	847.01	12.00	-0.019	847.24	12.00	-0.019	847.47	-0.040	5.00	847.27	792+25.00	
846.21	12.00	-0.040	846.69	12.00	-0.019	846.92	12.00	-0.019	847.15	-0.040	5.00	846.95	792+50.00	
845.89	12.00	-0.040	846.37	12.00	-0.019	846.60	12.00	-0.019	846.83	-0.040	5.00	846.63	792+75.00	
845.57	12.00	-0.040	846.05	12.00	-0.019	846.28	12.00	-0.019	846.51	-0.040	5.00	846.31	793+00.00	
845.25	12.00	-0.040	845.73	12.00	-0.019	845.96	12.00	-0.019	846.19	-0.040	5.00	845.99	793+25.00	
844.93	12.00	-0.040	845.41	12.00	-0.019	845.64	12.00	-0.019	845.87	-0.040	5.00	845.67	793+50.00	
844.61	12.00	-0.040	845.09	12.00	-0.019	845.32	12.00	-0.019	845.55	-0.040	5.00	845.35	793+75.00	
844.30	12.00	-0.040	844.78	12.00	-0.019	845.01	12.00	-0.019	845.24	-0.040	5.00	845.04	794+00.00	

CALCULATED C.Y.
CHECKED

SUPERELEVATION TABLE (I.R. 90 WESTBOUND LANES)

LAK-90-21.40
ATB-90-0.00

I.R. 90 WESTBOUND LANES CURVE P.I. STATION 764+45.19

LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	LEFT EDGE OF PAVEMENT	LEFT PAVEMENT WIDTH	LEFT PAVEMENT SLOPE	CENTER OF LANES	RIGHT PAVEMENT WIDTH	RIGHT PAVEMENT SLOPE	PROFILE GRADE	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	BASELINE SURVEY & CONSTRUCTION	COMMENTS
843.98	12.00	-0.040	844.46	12.00	-0.019	844.69	12.00	-0.019	844.92	-0.040	5.00	844.72	794+25.00	
843.66	12.00	-0.040	844.14	12.00	-0.019	844.37	12.00	-0.019	844.60	-0.040	5.00	844.40	794+50.00	
843.34	12.00	-0.040	843.82	12.00	-0.019	844.05	12.00	-0.019	844.28	-0.040	5.00	844.08	794+75.00	
843.02	12.00	-0.040	843.50	12.00	-0.019	843.73	12.00	-0.019	843.96	-0.040	5.00	843.76	795+00.00	
842.70	12.00	-0.040	843.18	12.00	-0.019	843.41	12.00	-0.019	843.64	-0.040	5.00	843.44	795+25.00	
842.38	12.00	-0.040	842.86	12.00	-0.019	843.09	12.00	-0.019	843.32	-0.040	7.54	843.02	795+50.00	
842.06	12.00	-0.040	842.54	12.00	-0.019	842.77	12.00	-0.019	843.00	-0.040	SEE CROSS-SECTION		795+75.00	
841.74	12.00	-0.040	842.22	12.00	-0.019	842.45	12.00	-0.019	842.68	-0.040	25.65	841.65	796+00.00	
841.42	12.00	-0.040	841.90	12.00	-0.019	842.13	12.00	-0.019	842.36	-0.040	13.16	841.83	796+25.00	
841.10	12.00	-0.040	841.58	12.00	-0.019	841.81	12.00	-0.019	842.04	-0.040	11.52	841.58	796+50.00	
840.78	12.00	-0.040	841.26	12.00	-0.019	841.49	12.00	-0.019	841.72	-0.040	10.64	841.29	796+75.00	MEDIAN U-TURN OPENING STA. 795+75.00
840.46	12.00	-0.040	840.94	12.00	-0.019	841.17	12.00	-0.019	841.40	-0.040	9.77	841.01	797+00.00	
840.14	12.00	-0.040	840.62	12.00	-0.019	840.85	12.00	-0.019	841.08	-0.040	8.89	840.72	797+25.00	
839.82	12.00	-0.040	840.30	12.00	-0.019	840.53	12.00	-0.019	840.76	-0.040	8.02	840.44	797+50.00	
839.50	12.00	-0.040	839.98	12.00	-0.019	840.21	12.00	-0.019	840.44	-0.040	7.14	840.15	797+75.00	
839.18	12.00	-0.040	839.66	12.00	-0.019	839.89	12.00	-0.019	840.12	-0.040	6.27	839.87	798+00.00	
838.87	12.00	-0.040	839.35	12.00	-0.019	839.58	12.00	-0.019	839.81	-0.040	5.39	839.59	798+25.00	
838.55	12.00	-0.040	839.03	12.00	-0.019	839.26	12.00	-0.019	839.49	-0.040	5.00	839.29	798+50.00	
838.23	12.00	-0.040	838.71	12.00	-0.019	838.94	12.00	-0.019	839.17	-0.040	5.00	838.97	798+75.00	
838.01	12.00	-0.040	838.49	12.00	-0.019	838.72	12.00	-0.019	838.95	-0.040	5.00	838.75	798+92.08	END FULL SUPERELEVATION
837.97	12.00	-0.040	838.45	12.00	-0.017	838.65	12.00	-0.017	838.85	-0.040	5.00	838.65	799+00.00	
837.85	12.00	-0.040	838.33	12.00	-0.016	838.52	12.00	-0.012	838.67	-0.040	5.00	838.47	799+13.98	PT STA. 799+13.98
837.75	12.00	-0.040	838.23	12.00	-0.016	838.42	12.00	-0.009	838.53	-0.040	5.00	838.33	799+25.00	
837.52	12.00	-0.040	838.00	12.00	-0.016	838.20	12.00	-0.001	838.21	-0.040	5.00	838.01	799+50.00	
837.30	12.00	-0.040	837.78	12.00	-0.016	837.97	12.00	0.006	837.89	-0.040	5.00	837.69	799+75.00	
837.07	12.00	-0.040	837.55	12.00	-0.016	837.74	12.00	0.014	837.57	-0.040	5.00	837.37	800+00.00	
837.01	12.00	-0.040	837.49	12.00	-0.016	837.68	12.00	0.016	837.49	-0.040	5.00	837.29	800+06.08	BEGIN NORMAL CROWN

CALCULATED C.Y.
CHECKED

SUPERELEVATION TABLE (I.R. 90 WESTBOUND LANES)

LAK-90-21.40
ATB-90-0.00

I.R. 90 EASTBOUND LANES CURVE P.I. STATION 849+63.07

BASELINE SURVEY & CONSTRUCTION	LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	PROFILE GRADE	LEFT PAVEMENT WIDTH	LEFT PAVEMENT SLOPE	CENTER OF LANES	RIGHT PAVEMENT WIDTH	RIGHT PAVEMENT SLOPE	RIGHT EDGE OF PAVEMENT	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	COMMENTS
2847+41.76	800.83	14.00	-0.040	801.39	12.00	-0.028	801.05	12.00	-0.028	800.72	-0.040	10.00	800.32	END NORMAL CROWN
2847+50.00	800.89	13.67	-0.040	801.44	12.00	-0.028	801.10	12.00	-0.028	800.77	-0.040	10.17	800.36	
2847+69.62	801.00	12.88	-0.040	801.52	12.00	-0.028	801.18	12.00	-0.028	800.85	-0.040	10.56	800.43	
2847+75.00	801.03	12.67	-0.040	801.54	12.00	-0.027	801.21	12.00	-0.025	800.91	-0.040	10.67	800.49	
2847+88.34	801.10	12.13	-0.040	801.59	12.00	-0.025	801.29	12.00	-0.025	800.99	-0.040	10.94	800.55	P.C.C. STA. 2847+88.34
2848+00.00	801.17	11.66	-0.040	801.64	12.00	-0.023	801.36	12.00	-0.021	801.11	-0.040	11.17	800.66	
2848+25.00	801.31	10.66	-0.040	801.74	12.00	-0.019	801.51	12.00	-0.019	801.29	-0.040	11.67	800.82	
2848+32.02	801.36	10.37	-0.040	801.77	12.00	-0.018	801.56	12.00	-0.018	801.35	-0.040	11.81	800.88	
2848+50.00	801.45	9.65	-0.040	801.84	12.00	-0.018	801.63	12.00	-0.018	801.42	-0.040	12.00	800.94	BEGIN FULL SUPERELEVATION
2848+75.00	801.59	8.65	-0.040	801.94	12.00	-0.018	801.73	12.00	-0.018	801.52	-0.040	12.00	801.04	
2849+00.00	801.73	7.64	-0.040	802.04	12.00	-0.018	801.83	12.00	-0.018	801.62	-0.040	12.00	801.14	
2849+25.00	801.87	6.64	-0.040	802.14	12.00	-0.018	801.93	12.00	-0.018	801.72	-0.040	12.00	801.24	
2849+50.00	802.01	5.63	-0.040	802.24	12.00	-0.018	802.03	12.00	-0.018	801.82	-0.040	12.00	801.34	
2849+75.00	802.14	5.00	-0.040	802.34	12.00	-0.018	802.13	12.00	-0.018	801.92	-0.040	12.00	801.44	
2850+00.00	802.23	5.00	-0.040	802.43	12.00	-0.018	802.22	12.00	-0.018	802.01	-0.040	12.00	801.53	
2850+25.00	802.33	5.00	-0.040	802.53	12.00	-0.018	802.32	12.00	-0.018	802.11	-0.040	12.00	801.63	
2850+50.00	802.43	5.00	-0.040	802.63	12.00	-0.018	802.42	12.00	-0.018	802.21	-0.040	12.00	801.73	
2850+75.00	802.53	5.00	-0.040	802.73	12.00	-0.018	802.52	12.00	-0.018	802.31	-0.040	12.00	801.83	
2851+00.00	802.63	5.00	-0.040	802.83	12.00	-0.018	802.62	12.00	-0.018	802.41	-0.040	12.00	801.93	
2851+25.00	802.73	5.00	-0.040	802.93	12.00	-0.018	802.72	12.00	-0.018	802.51	-0.040	12.00	802.03	
2851+50.00	802.83	5.00	-0.040	803.03	12.00	-0.018	802.82	12.00	-0.018	802.61	-0.040	12.00	802.13	
2851+75.00	802.93	5.00	-0.040	803.13	12.00	-0.018	802.92	12.00	-0.018	802.71	-0.040	12.00	802.23	
2852+00.00	803.03	5.00	-0.040	803.23	12.00	-0.018	803.02	12.00	-0.018	802.81	-0.040	12.00	802.33	
2852+25.00	803.13	5.00	-0.040	803.33	12.00	-0.018	803.12	12.00	-0.018	802.91	-0.040	12.00	802.43	
2852+50.00	803.23	5.00	-0.040	803.43	12.00	-0.018	803.22	12.00	-0.018	803.01	-0.040	12.00	802.53	
2852+75.00	803.33	5.00	-0.040	803.53	12.00	-0.018	803.32	12.00	-0.018	803.11	-0.040	12.00	802.63	
2853+00.00	803.43	5.00	-0.040	803.63	12.00	-0.018	803.42	12.00	-0.018	803.21	-0.040	12.00	802.73	
2853+25.00	803.53	5.00	-0.040	803.73	12.00	-0.018	803.52	12.00	-0.018	803.31	-0.040	12.00	802.83	
2853+50.00	803.63	5.00	-0.040	803.83	12.00	-0.018	803.62	12.00	-0.018	803.41	-0.040	12.00	802.93	
2853+75.00	803.72	5.00	-0.040	803.92	12.00	-0.018	803.71	12.00	-0.018	803.50	-0.040	12.00	803.02	
2854+00.00	803.82	5.00	-0.040	804.02	12.00	-0.018	803.81	12.00	-0.018	803.60	-0.040	12.00	803.12	
2854+25.00	803.92	5.00	-0.040	804.12	12.00	-0.018	803.91	12.00	-0.018	803.70	-0.040	12.00	803.22	
2854+50.00	804.02	5.00	-0.040	804.22	12.00	-0.018	804.01	12.00	-0.018	803.80	-0.040	12.00	803.32	
2854+75.00	804.12	5.00	-0.040	804.32	12.00	-0.018	804.11	12.00	-0.018	803.90	-0.040	12.00	803.42	
2855+00.00	804.22	5.00	-0.040	804.42	12.00	-0.018	804.21	12.00	-0.018	804.00	-0.040	12.00	803.52	
2855+25.00	804.32	5.00	-0.040	804.52	12.00	-0.018	804.31	12.00	-0.018	804.10	-0.040	12.00	803.62	
2855+50.00	804.42	5.00	-0.040	804.62	12.00	-0.018	804.41	12.00	-0.018	804.20	-0.040	12.00	803.72	
2855+75.00	804.52	5.00	-0.040	804.72	12.00	-0.018	804.51	12.00	-0.018	804.30	-0.040	12.00	803.82	
2856+00.00	804.62	5.00	-0.040	804.82	12.00	-0.018	804.61	12.00	-0.018	804.40	-0.040	12.00	803.92	
2856+25.00	804.72	5.00	-0.040	804.92	12.00	-0.018	804.71	12.00	-0.018	804.50	-0.040	12.00	804.02	
2856+50.00	804.82	5.00	-0.040	805.02	12.00	-0.018	804.81	12.00	-0.018	804.60	-0.040	12.00	804.12	
2856+75.00	804.92	5.00	-0.040	805.12	12.00	-0.018	804.91	12.00	-0.018	804.70	-0.040	12.00	804.22	
2857+00.00	805.02	5.00	-0.040	805.22	12.00	-0.018	805.01	12.00	-0.018	804.80	-0.040	12.00	804.32	
2857+25.00	805.12	5.00	-0.040	805.32	12.00	-0.018	805.11	12.00	-0.018	804.90	-0.040	12.00	804.42	
2857+50.00	805.22	5.00	-0.040	805.42	12.00	-0.018	805.21	12.00	-0.018	805.00	-0.040	12.00	804.52	
2857+75.00	805.32	5.00	-0.040	805.52	12.00	-0.018	805.31	12.00	-0.018	805.10	-0.040	12.00	804.62	
2858+00.00	805.41	5.00	-0.040	805.61	12.00	-0.018	805.40	12.00	-0.018	805.19	-0.040	12.00	804.71	
2858+25.00	805.51	5.00	-0.040	805.71	12.00	-0.018	805.50	12.00	-0.018	805.29	-0.040	12.00	804.81	
2858+50.00	805.61	5.00	-0.040	805.81	12.00	-0.018	805.60	12.00	-0.018	805.39	-0.040	12.00	804.91	
2858+75.00	805.71	5.00	-0.040	805.91	12.00	-0.018	805.70	12.00	-0.018	805.49	-0.040	12.00	805.01	
2859+00.00	805.81	5.00	-0.040	806.01	12.00	-0.018	805.80	12.00	-0.018	805.59	-0.040	12.00	805.11	
2859+25.00	805.91	5.00	-0.040	806.11	12.00	-0.018	805.90	12.00	-0.018	805.69	-0.040	12.00	805.21	
2859+50.00	806.01	5.00	-0.040	806.21	12.00	-0.018	806.00	12.00	-0.018	805.79	-0.040	12.00	805.31	
2859+75.00	806.11	5.00	-0.040	806.31	12.00	-0.018	806.10	12.00	-0.018	805.89	-0.040	12.00	805.41	
2860+00.00	806.21	5.00	-0.040	806.41	12.00	-0.018	806.20	12.00	-0.018	805.99	-0.040	12.00	805.51	
2860+25.00	806.31	5.00	-0.040	806.51	12.00	-0.018	806.30	12.00	-0.018	806.09	-0.040	12.00	805.61	
2860+50.00	806.41	5.00	-0.040	806.61	12.00	-0.018	806.40	12.00	-0.018	806.19	-0.040	12.00	805.71	
2860+75.00	806.51	5.00	-0.040	806.71	12.00	-0.018	806.50	12.00	-0.018	806.29	-0.040	12.00	805.81	
2861+00.00	806.61	5.00	-0.040	806.81	12.00	-0.018	806.60	12.00	-0.018	806.39	-0.040	12.00	805.91	
2861+25.00	806.71	5.00	-0.040	806.91	12.00	-0.018	806.70	12.00	-0.018	806.49	-0.040	12.00	806.01	
2861+50.00	806.81	5.00	-0.040	807.01	12.00	-0.018	806.80	12.00	-0.018	806.59	-0.040	12.00	806.11	
2861+75.00	806.90	5.00	-0.040	807.10	12.00	-0.018	806.89	12.00	-0.018	806.68	-0.040	12.00	806.20	
2862+00.00	807.00	5.00	-0.040	807.20	12.00	-0.018	806.99	12.00	-0.018	806.78	-0.040	12.00	806.30	
2862+25.00	807.10	5.00	-0.040	807.30	12.00	-0.018	807.09	12.00	-0.018	806.88	-0.040	12.00	806.40	
2862+50.00	807.20	5.00	-0.040	807.40	12.00	-0.018	807.19	12.00	-0.018	806.98	-0.040	12.00	806.50	
2862+75.00	807.30	5.00	-0.040	807.50	12.00	-0.018	807.29	12.00	-0.018	807.08	-0.040	12.00	806.60	
2863+00.00	807.40	5.00	-0.040	807.60	12.00	-0.018	807.39	12.00	-0.018	807.18	-0.040	12.00	806.70	
2863+25.00	807.50	5.00	-0.040	807.70	12.00	-0.018	807.49	12.00	-0.018	807.28	-0.040	12.00	806.80	

CALCULATED C.Y.
CHECKED

SUPERELEVATION TABLE (I.R. 90 EASTBOUND LANES)

LAK-90-21.40
ATB-90-0.00

I.R. 90 EASTBOUND LANES CURVE P.I. STATION 849+63.07

BASELINE SURVEY & CONSTRUCTION	LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	PROFILE GRADE	LEFT PAVEMENT WIDTH	LEFT PAVEMENT SLOPE	CENTER OF LANES	RIGHT PAVEMENT WIDTH	RIGHT PAVEMENT SLOPE	RIGHT EDGE OF PAVEMENT	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	COMMENTS
2863+50.00	807.60	5.00	-0.040	807.80	12.00	-0.018	807.59	12.00	-0.018	807.38	-0.040	12.00	806.90	
2863+75.00	807.70	5.00	-0.040	807.90	12.00	-0.018	807.69	12.00	-0.018	807.48	-0.040	12.00	807.00	
2864+00.00	807.80	5.00	-0.040	808.00	12.00	-0.018	807.79	12.00	-0.018	807.58	-0.040	12.00	807.10	
2864+25.00	807.90	5.00	-0.040	808.10	12.00	-0.018	807.89	12.00	-0.018	807.68	-0.040	12.00	807.20	
2864+50.00	808.00	5.00	-0.040	808.20	12.00	-0.018	807.99	12.00	-0.018	807.78	-0.040	12.00	807.30	
2864+75.00	808.10	5.00	-0.040	808.30	12.00	-0.018	808.09	12.00	-0.018	807.88	-0.040	12.00	807.40	
2865+00.00	808.20	5.00	-0.040	808.40	12.00	-0.018	808.19	12.00	-0.018	807.98	-0.040	12.00	807.50	
2865+25.00	808.30	5.00	-0.040	808.50	12.00	-0.018	808.29	12.00	-0.018	808.08	-0.040	12.00	807.60	
2865+50.00	808.40	5.00	-0.040	808.60	12.00	-0.018	808.39	12.00	-0.018	808.18	-0.040	12.00	807.70	
2865+66.88	808.46	5.00	-0.040	808.66	12.00	-0.018	808.44	12.00	-0.018	808.23	-0.040	12.00	807.75	
2865+73.55	808.49	5.00	-0.040	808.69	12.00	-0.016	808.50	12.00	-0.016	808.31	-0.040	12.00	807.83	
2865+75.00	808.49	5.00	-0.040	808.69	12.00	-0.016	808.50	12.00	-0.016	808.31	-0.040	12.00	807.83	
2865+96.88	808.58	5.00	-0.040	808.78	12.00	-0.009	808.67	12.00	-0.016	808.48	-0.040	12.00	808.00	PC STA. 2865+96.88 & STATION EQUATION
866+13.21	808.58	5.00	-0.040	808.78	12.00	-0.009	808.67	12.00	-0.016	808.48	-0.040	12.00	808.00	
866+25.00	808.64	5.00	-0.040	808.84	12.00	-0.005	808.78	12.00	-0.016	808.59	-0.040	12.00	808.11	
866+43.21	808.70	5.00	-0.040	808.90	12.00	0.000	808.90	12.00	-0.016	808.71	-0.040	12.00	808.23	
866+50.00	808.74	5.00	-0.040	808.94	12.00	0.003	808.98	12.00	-0.016	808.78	-0.040	12.00	808.30	
866+75.00	808.84	5.00	-0.040	809.04	12.00	0.011	809.17	12.00	-0.016	808.98	-0.040	12.00	808.50	
866+91.21	808.89	5.00	-0.040	809.09	12.00	0.016	809.28	12.00	-0.016	809.09	-0.040	12.00	808.61	

CALCULATED C.Y.
CHECKED

SUPERELEVATION TABLE (I.R. 90 EASTBOUND LANES)

LAK-90-21.40
ATB-90-0.00

I.R. 90 WESTBOUND LANES CURVE P.I. STATION 849+63.07

LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	LEFT EDGE OF PAVEMENT	LEFT PAVEMENT WIDTH	LEFT PAVEMENT SLOPE	CENTER OF LANES	RIGHT PAVEMENT WIDTH	RIGHT PAVEMENT SLOPE	PROFILE GRADE	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	BASELINE SURVEY & CONSTRUCTION	COMMENTS
804.80	10.00	-0.040	805.20	12.00	0.028	804.86	12.00	0.028	804.53	-0.040	22.00	803.65	1855+52.68	END NORMAL CROWN
804.79	10.15	-0.040	805.20	12.00	0.025	804.90	12.00	0.025	804.60	-0.040	21.39	803.74	1855+68.11	PCC STATION
804.79	10.22	-0.040	805.20	12.00	0.024	804.91	12.00	0.024	804.63	-0.040	21.11	803.79	1855+75.00	
804.78	10.47	-0.040	805.20	12.00	0.020	804.96	12.00	0.020	804.73	-0.040	20.12	803.93	1856+00.00	
804.78	10.59	-0.040	805.20	12.00	0.018	804.99	12.00	0.018	804.77	-0.040	19.65	803.98	1856+11.79	END FULL SUPERELEVATION
804.81	10.72	-0.040	805.24	12.00	0.018	805.03	12.00	0.018	804.82	-0.040	19.12	804.06	1856+25.00	
804.90	10.97	-0.040	805.34	12.00	0.018	805.13	12.00	0.018	804.92	-0.040	18.12	804.20	1856+50.00	
804.99	11.22	-0.040	805.44	12.00	0.018	805.23	12.00	0.018	805.02	-0.040	17.13	804.33	1856+75.00	
805.08	11.47	-0.040	805.54	12.00	0.018	805.33	12.00	0.018	805.12	-0.040	16.13	804.47	1857+00.00	
805.17	11.72	-0.040	805.64	12.00	0.018	805.43	12.00	0.018	805.22	-0.040	15.14	804.61	1857+25.00	
805.26	12.00	-0.040	805.74	12.00	0.018	805.53	12.00	0.018	805.32	-0.040	14.14	804.75	1857+50.00	
805.36	12.00	-0.040	805.84	12.00	0.018	805.63	12.00	0.018	805.42	-0.040	13.15	804.89	1857+75.00	
805.46	12.00	-0.040	805.94	12.00	0.018	805.73	12.00	0.018	805.52	-0.040	12.15	805.03	1858+00.00	
805.56	12.00	-0.040	806.04	12.00	0.018	805.83	12.00	0.018	805.62	-0.040	11.16	805.17	1858+25.00	
805.66	12.00	-0.040	806.14	12.00	0.018	805.93	12.00	0.018	805.72	-0.040	10.16	805.31	1858+50.00	
805.76	12.00	-0.040	806.24	12.00	0.018	806.03	12.00	0.018	805.82	-0.040	9.16	805.45	1858+75.00	
805.86	12.00	-0.040	806.34	12.00	0.018	806.13	12.00	0.018	805.92	-0.040	8.17	805.59	1859+00.00	
805.96	12.00	-0.040	806.44	12.00	0.018	806.23	12.00	0.018	806.02	-0.040	7.17	805.73	1859+25.00	
806.06	12.00	-0.040	806.54	12.00	0.018	806.33	12.00	0.018	806.12	-0.040	6.18	805.87	1859+50.00	
806.16	12.00	-0.040	806.64	12.00	0.018	806.43	12.00	0.018	806.22	-0.040	5.18	806.01	1859+75.00	
806.25	12.00	-0.040	806.73	12.00	0.018	806.52	12.00	0.018	806.31	-0.040	5.00	806.11	1860+00.00	
806.35	12.00	-0.040	806.83	12.00	0.018	806.62	12.00	0.018	806.41	-0.040	5.00	806.21	1860+25.00	
806.45	12.00	-0.040	806.93	12.00	0.018	806.72	12.00	0.018	806.51	-0.040	5.00	806.31	1860+50.00	
806.55	12.00	-0.040	807.03	12.00	0.018	806.82	12.00	0.018	806.61	-0.040	5.00	806.41	1860+75.00	
806.65	12.00	-0.040	807.13	12.00	0.018	806.92	12.00	0.018	806.71	-0.040	5.00	806.51	1861+00.00	
806.75	12.00	-0.040	807.23	12.00	0.018	807.02	12.00	0.018	806.81	-0.040	5.00	806.61	1861+25.00	
806.85	12.00	-0.040	807.33	12.00	0.018	807.12	12.00	0.018	806.91	-0.040	5.00	806.71	1861+50.00	
806.95	12.00	-0.040	807.43	12.00	0.018	807.22	12.00	0.018	807.01	-0.040	5.00	806.81	1861+75.00	
807.05	12.00	-0.040	807.53	12.00	0.018	807.32	12.00	0.018	807.11	-0.040	5.00	806.91	1862+00.00	
807.15	12.00	-0.040	807.63	12.00	0.018	807.42	12.00	0.018	807.21	-0.040	5.00	807.01	1862+25.00	
807.25	12.00	-0.040	807.73	12.00	0.018	807.52	12.00	0.018	807.31	-0.040	5.00	807.11	1862+50.00	
807.35	12.00	-0.040	807.83	12.00	0.018	807.62	12.00	0.018	807.41	-0.040	5.00	807.21	1862+75.00	
807.45	12.00	-0.040	807.93	12.00	0.018	807.72	12.00	0.018	807.51	-0.040	5.00	807.31	1863+00.00	
807.55	12.00	-0.040	808.03	12.00	0.018	807.82	12.00	0.018	807.61	-0.040	5.00	807.41	1863+25.00	
807.65	12.00	-0.040	808.13	12.00	0.018	807.92	12.00	0.018	807.71	-0.040	5.00	807.51	1863+50.00	
807.75	12.00	-0.040	808.23	12.00	0.018	808.02	12.00	0.018	807.81	-0.040	5.00	807.61	1863+75.00	
807.84	12.00	-0.040	808.32	12.00	0.018	808.11	12.00	0.018	807.90	-0.040	5.00	807.70	1864+00.00	
807.94	12.00	-0.040	808.42	12.00	0.018	808.21	12.00	0.018	808.00	-0.040	5.00	807.80	1864+25.00	
808.04	12.00	-0.040	808.52	12.00	0.018	808.31	12.00	0.018	808.10	-0.040	5.00	807.90	1864+50.00	
808.14	12.00	-0.040	808.62	12.00	0.018	808.41	12.00	0.018	808.20	-0.040	5.00	808.00	1864+75.00	
808.24	12.00	-0.040	808.72	12.00	0.018	808.51	12.00	0.018	808.30	-0.040	5.00	808.10	1865+00.00	
808.34	12.00	-0.040	808.82	12.00	0.018	808.61	12.00	0.018	808.40	-0.040	5.00	808.20	1865+25.00	
808.44	12.00	-0.040	808.92	12.00	0.018	808.71	12.00	0.018	808.50	-0.040	5.00	808.30	1865+50.00	
808.54	12.00	-0.040	809.02	12.00	0.018	808.81	12.00	0.018	808.60	-0.040	5.00	808.40	1865+75.00	
808.61	12.00	-0.040	809.09	12.00	0.018	808.88	12.00	0.018	808.66	-0.040	5.00	808.46	1865+90.60	BEGIN TRANSITION
806.59	12.00	-0.040	807.07	12.00	0.016	806.88	12.00	0.016	806.69	-0.040	5.00	806.49	1865+97.27	NORMAL CROWN RIGHT SLOPE
808.59	12.00	-0.040	809.07	12.00	0.015	808.89	12.00	0.016	808.70	-0.040	5.00	808.50	1866+00.00	
808.60	12.00	-0.040	809.08	12.00	0.009	808.97	12.00	0.016	808.78	-0.040	5.00	808.58	1866+20.60	STATION EQUATION AND PT STATION
808.60	12.00	-0.040	809.08	12.00	0.009	808.97	12.00	0.016	808.78	-0.040	5.00	808.58	866+13.19	
808.61	12.00	-0.040	809.09	12.00	0.005	809.03	12.00	0.016	808.84	-0.040	5.00	808.64	866+25.00	
808.61	12.00	-0.040	809.09	12.00	0.000	809.09	12.00	0.016	808.90	-0.040	5.00	808.70	866+43.19	
808.61	12.00	-0.040	809.09	12.00	-0.003	809.13	12.00	0.016	808.94	-0.040	5.00	808.74	866+50.00	
808.61	12.00	-0.040	809.09	12.00	-0.011	809.23	12.00	0.016	809.04	-0.040	5.00	808.84	866+75.00	
808.65	12.00	-0.040	809.13	12.00	-0.016	809.32	12.00	0.016	809.13	-0.040	5.00	808.93	866+91.19	END SUPERELEVATION TRANSITION

CALCULATED C. Y.
CHECKED

SUPERELEVATION TABLE (I.R. 90 WESTBOUND LANES)

LAK-90-21.40
ATB-90-0.00

I.R. 90 EASTBOUND LANES CURVE P.I. STATION 1047+58.38

BASELINE SURVEY & CONSTRUCTION	LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	PROFILE GRADE	LEFT PAVEMENT WIDTH	LEFT PAVEMENT SLOPE	CENTER OF LANES	RIGHT PAVEMENT WIDTH	RIGHT PAVEMENT SLOPE	RIGHT EDGE OF PAVEMENT	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	COMMENTS
1041+50.83	804.59	5.00	-0.040	804.79	12.00	0.016	804.98	12.00	-0.016	804.79	-0.040	12.00	804.31	END NORMAL CROWN
1041+75.00	804.52	5.00	-0.040	804.72	12.00	0.008	804.82	12.00	-0.016	804.62	-0.040	12.00	804.14	
1042+00.00	804.44	5.00	-0.040	804.64	12.00	0.000	804.64	12.00	-0.016	804.45	-0.040	12.00	803.97	
1042+25.00	804.37	5.00	-0.040	804.57	12.00	-0.007	804.49	12.00	-0.016	804.29	-0.040	12.00	803.81	
1042+42.93	804.27	6.00	-0.040	804.51	12.00	-0.012	804.37	12.00	-0.016	804.17	-0.040	12.00	803.69	P.C. STA.1042+42.93
1042+50.00	804.29	5.00	-0.040	804.49	12.00	-0.014	804.32	12.00	-0.016	804.13	-0.040	12.00	803.65	
1042+64.81	804.25	5.00	-0.040	804.45	12.00	-0.019	804.22	12.00	-0.019	803.99	-0.040	12.00	803.51	BEGIN FULL SUPERELEVATION
1042+75.00	804.22	5.00	-0.040	804.42	12.00	-0.019	804.19	12.00	-0.019	803.96	-0.040	12.00	803.48	
1043+00.00	804.14	5.00	-0.040	804.34	12.00	-0.019	804.11	12.00	-0.019	803.88	-0.040	12.00	803.40	
1043+25.00	804.07	5.00	-0.040	804.27	12.00	-0.019	804.04	12.00	-0.019	803.81	-0.040	12.00	803.33	
1043+50.00	804.00	5.00	-0.040	804.20	12.00	-0.019	803.97	12.00	-0.019	803.74	-0.040	12.00	803.26	
1043+75.00	803.92	5.00	-0.040	804.12	12.00	-0.019	803.89	12.00	-0.019	803.66	-0.040	12.00	803.18	
1044+00.00	803.85	5.00	-0.040	804.05	12.00	-0.019	803.82	12.00	-0.019	803.59	-0.040	12.00	803.11	
1044+25.00	803.77	5.00	-0.040	803.97	12.00	-0.019	803.74	12.00	-0.019	803.51	-0.040	12.00	803.03	
1044+50.00	803.70	5.00	-0.040	803.90	12.00	-0.019	803.67	12.00	-0.019	803.44	-0.040	12.00	802.96	
1044+75.00	803.62	5.00	-0.040	803.82	12.00	-0.019	803.59	12.00	-0.019	803.36	-0.040	12.00	802.88	
1045+00.00	803.53	5.00	-0.040	803.73	12.00	-0.019	803.50	12.00	-0.019	803.27	-0.040	12.00	802.79	
1045+25.00	803.42	5.00	-0.040	803.62	12.00	-0.019	803.39	12.00	-0.019	803.16	-0.040	12.00	802.68	
1045+50.00	803.31	5.00	-0.040	803.51	12.00	-0.019	803.28	12.00	-0.019	803.05	-0.040	12.00	802.57	
1045+75.00	803.18	5.00	-0.040	803.38	12.00	-0.019	803.15	12.00	-0.019	802.92	-0.040	12.00	802.44	
1046+00.00	803.04	5.00	-0.040	803.24	12.00	-0.019	803.01	12.00	-0.019	802.78	-0.040	12.00	802.30	
1046+25.00	802.89	5.00	-0.040	803.09	12.00	-0.019	802.86	12.00	-0.019	802.63	-0.040	12.00	802.15	
1046+50.00	802.73	5.00	-0.040	802.93	12.00	-0.019	802.70	12.00	-0.019	802.47	-0.040	12.00	801.99	
1046+75.00	802.57	5.00	-0.040	802.77	12.00	-0.019	802.54	12.00	-0.019	802.31	-0.040	12.00	801.83	
1047+00.00	802.40	5.00	-0.040	802.60	12.00	-0.019	802.37	12.00	-0.019	802.14	-0.040	12.00	801.66	
1047+25.00	802.23	5.00	-0.040	802.43	12.00	-0.019	802.20	12.00	-0.019	801.97	-0.040	12.00	801.49	
1047+50.00	802.08	5.00	-0.040	802.28	12.00	-0.019	802.05	12.00	-0.019	801.82	-0.040	12.00	801.34	
1047+75.00	801.95	5.00	-0.040	802.15	12.00	-0.019	801.92	12.00	-0.019	801.69	-0.040	12.00	801.21	
1048+00.00	801.84	5.00	-0.040	802.04	12.00	-0.019	801.81	12.00	-0.019	801.58	-0.040	12.00	801.10	
1048+25.00	801.76	5.00	-0.040	801.96	12.00	-0.019	801.73	12.00	-0.019	801.50	-0.040	12.00	801.02	
1048+50.00	801.70	5.00	-0.040	801.90	12.00	-0.019	801.67	12.00	-0.019	801.44	-0.040	12.00	800.96	
1048+75.00	801.66	5.00	-0.040	801.86	12.00	-0.019	801.63	12.00	-0.019	801.40	-0.040	12.00	800.92	
1049+00.00	801.65	5.00	-0.040	801.85	12.00	-0.019	801.62	12.00	-0.019	801.39	-0.040	12.00	800.91	
1049+25.00	801.65	5.00	-0.040	801.85	12.00	-0.019	801.62	12.00	-0.019	801.39	-0.040	12.00	800.91	
1049+50.00	801.69	5.00	-0.040	801.89	12.00	-0.019	801.66	12.00	-0.019	801.43	-0.040	12.00	800.95	
1049+75.00	801.75	5.00	-0.040	801.95	12.00	-0.019	801.72	12.00	-0.019	801.49	-0.040	12.00	801.01	
1050+00.00	801.81	5.00	-0.040	802.01	12.00	-0.019	801.78	12.00	-0.019	801.55	-0.040	12.00	801.07	
1050+25.00	801.86	5.00	-0.040	802.06	12.00	-0.019	801.83	12.00	-0.019	801.60	-0.040	12.00	801.12	
1050+50.00	801.89	5.00	-0.040	802.09	12.00	-0.019	801.86	12.00	-0.019	801.63	-0.040	12.00	801.15	
1050+75.00	801.91	5.00	-0.040	802.11	12.00	-0.019	801.88	12.00	-0.019	801.65	-0.040	12.00	801.17	
1051+00.00	801.91	5.00	-0.040	802.11	12.00	-0.019	801.88	12.00	-0.019	801.65	-0.040	12.00	801.17	
1051+25.00	801.89	5.00	-0.040	802.09	12.00	-0.019	801.86	12.00	-0.019	801.63	-0.040	12.00	801.15	
1051+50.00	801.86	5.00	-0.040	802.06	12.00	-0.019	801.83	12.00	-0.019	801.60	-0.040	12.00	801.12	
1051+75.00	801.82	5.00	-0.040	802.02	12.00	-0.019	801.79	12.00	-0.019	801.56	-0.040	12.00	801.08	
1052+00.00	801.76	5.00	-0.040	801.96	12.00	-0.019	801.73	12.00	-0.019	801.50	-0.040	12.00	801.02	
1052+25.00	801.68	5.00	-0.040	801.88	12.00	-0.019	801.65	12.00	-0.019	801.42	-0.040	12.00	800.94	
1052+50.00	801.60	5.00	-0.040	801.80	12.00	-0.019	801.57	12.00	-0.019	801.34	-0.040	12.00	800.86	
1052+73.22 BACK	801.52	5.00	-0.040	801.72	12.00	-0.019	801.49	12.00	-0.019	801.26	-0.040	12.00	800.78	P.C.C. STA. 1052+73.22
0+00.00 AHEAD	801.52	5.00	-0.040	801.72	12.00	-0.019	801.49	12.00	-0.019	801.26	-0.040	12.00	800.78	
0+25.00	801.44	5.00	-0.040	801.64	12.00	-0.019	801.41	12.00	-0.019	801.18	-0.040	12.00	800.70	
0+50.00	801.35	5.00	-0.040	801.55	12.00	-0.019	801.32	12.00	-0.019	801.09	-0.040	12.00	800.61	
0+75.00	801.27	5.00	-0.040	801.47	12.00	-0.019	801.24	12.00	-0.019	801.01	-0.040	12.00	800.53	
1+00.00	801.19	5.00	-0.040	801.39	12.00	-0.019	801.16	12.00	-0.019	800.93	-0.040	12.00	800.45	
1+25.00	801.10	5.00	-0.040	801.30	12.00	-0.019	801.07	12.00	-0.019	800.84	-0.040	12.00	800.36	
1+50.00	801.02	5.00	-0.040	801.22	12.00	-0.019	800.99	12.00	-0.019	800.76	-0.040	12.00	800.28	
1+75.00	800.94	5.00	-0.040	801.14	12.00	-0.019	800.91	12.00	-0.019	800.68	-0.040	12.00	800.20	
2+00.00	800.85	5.00	-0.040	801.05	12.00	-0.019	800.82	12.00	-0.019	800.59	-0.040	12.00	800.11	
2+25.00	800.77	5.00	-0.040	800.97	12.00	-0.019	800.74	12.00	-0.019	800.51	-0.040	12.00	800.03	
2+50.00	800.69	5.00	-0.040	800.89	12.00	-0.019	800.66	12.00	-0.019	800.43	-0.040	12.00	799.95	
2+75.00	800.60	5.00	-0.040	800.80	12.00	-0.019	800.57	12.00	-0.019	800.34	-0.040	12.00	799.86	
3+00.00	800.52	5.00	-0.040	800.72	12.00	-0.019	800.49	12.00	-0.019	800.26	-0.040	12.00	799.78	
3+21.97	800.45	5.00	-0.040	800.65	12.00	-0.019	800.42	12.00	SEE SHEET XX FOR PAVEMENT DETAILS					BEGIN ACCELERATION LANE
3+25.00	800.44	5.00	-0.040	800.64	12.00	-0.019	800.41	12.00						
3+50.00	800.35	5.00	-0.040	800.55	12.00	-0.019	800.32	12.00						
3+75.00	800.27	5.00	-0.040	800.47	12.00	-0.019	800.24	12.00						
4+00.00	800.19	5.00	-0.040	800.39	12.00	-0.019	800.16	12.00						
4+25.00	800.10	5.00	-0.040	800.30	12.00	-0.019	800.07	12.00						
4+50.00	800.02	5.00	-0.040	800.22	12.00	-0.019	799.99	12.00						

CALCULATED C.Y.
CHECKED

SUPERELEVATION TABLE (I.R. 90 EASTBOUND LANES)

LAK-90-21.40
ATB-90-0.00

I.R. 90 EASTBOUND LANES CURVE P.I. STATION 1047+58.38

BASELINE SURVEY & CONSTRUCTION	LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	PROFILE GRADE	LEFT PAVEMENT WIDTH	LEFT PAVEMENT SLOPE	CENTER OF LANES	RIGHT PAVEMENT WIDTH	RIGHT PAVEMENT SLOPE	RIGHT EDGE OF PAVEMENT	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	COMMENTS
4+75.00	799.94	5.00	-0.040	800.14	12.00	-0.019	799.91	12.00						
5+00.00	799.85	5.00	-0.040	800.05	12.00	-0.019	799.82	12.00						
5+25.00	799.77	5.00	-0.040	799.97	12.00	-0.019	799.74	12.00						
5+50.00	799.68	5.00	-0.040	799.88	12.00	-0.019	799.65	12.00						
5+75.00	799.60	5.00	-0.040	799.80	12.00	-0.019	799.57	12.00						
6+00.00	799.52	5.00	-0.040	799.72	12.00	-0.019	799.49	12.00						
6+25.00	799.43	5.00	-0.040	799.63	12.00	-0.019	799.40	12.00						
6+50.00	799.35	5.00	-0.040	799.55	12.00	-0.019	799.32	12.00						
6+75.00	799.27	5.00	-0.040	799.47	12.00	-0.019	799.24	12.00						
7+00.00	799.18	5.00	-0.040	799.38	12.00	-0.019	799.15	12.00						
7+25.00	799.10	5.00	-0.040	799.30	12.00	-0.019	799.07	12.00						
7+50.00	799.02	5.00	-0.040	799.22	12.00	-0.019	798.99	12.00						
7+75.00	798.97	5.00	-0.040	799.17	12.00	-0.019	798.94	12.00						
8+00.00	798.95	5.00	-0.040	799.15	12.00	-0.019	798.92	12.00						
8+25.00	798.96	5.00	-0.040	799.16	12.00	-0.019	798.93	12.00						
8+50.00	799.01	5.00	-0.040	799.21	12.00	-0.019	798.98	12.00						
8+75.00	799.08	5.00	-0.040	799.28	12.00	-0.019	799.05	12.00						
9+00.00	799.16	5.00	-0.040	799.36	12.00	-0.019	799.13	12.00						
9+25.00	799.23	5.00	-0.040	799.43	12.00	-0.019	799.20	12.00						
9+50.00	799.31	5.00	-0.040	799.51	12.00	-0.019	799.28	12.00						
9+75.00	799.39	5.00	-0.040	799.59	12.00	-0.019	799.36	12.00						
10+00.00	799.46	5.00	-0.040	799.66	12.00	-0.019	799.43	12.00						
10+25.00	799.54	5.00	-0.040	799.74	12.00	-0.019	799.51	12.00						
10+50.00	799.62	5.00	-0.040	799.82	12.00	-0.019	799.59	12.00						
10+75.00	799.69	5.00	-0.040	799.89	12.00	-0.019	799.66	12.00						
11+00.00	799.77	5.00	-0.040	799.97	12.00	-0.019	799.74	12.00						
11+25.00	799.85	5.00	-0.040	800.05	12.00	-0.019	799.82	12.00						
11+50.00	799.93	5.00	-0.040	800.13	12.00	-0.019	799.90	12.00						
11+75.00	800.00	5.00	-0.040	800.20	12.00	-0.019	799.97	12.00						
12+00.00	800.08	5.00	-0.040	800.28	12.00	-0.019	800.05	12.00						
12+25.00	800.16	5.00	-0.040	800.36	12.00	-0.019	800.13	12.00						
12+50.00	800.23	5.00	-0.040	800.43	12.00	-0.019	800.20	12.00						
12+75.00	800.31	5.00	-0.040	800.51	12.00	-0.019	800.28	12.00						
13+00.00	800.39	5.00	-0.040	800.59	12.00	-0.019	800.36	12.00						
13+25.00	800.46	5.00	-0.040	800.66	12.00	-0.019	800.43	12.00						
13+50.00	800.54	5.00	-0.040	800.74	12.00	-0.019	800.51	12.00						
13+75.00	800.62	5.00	-0.040	800.82	12.00	-0.019	800.59	12.00						
14+00.00	800.69	5.00	-0.040	800.89	12.00	-0.019	800.66	12.00						
14+25.00	800.77	5.00	-0.040	800.97	12.00	-0.019	800.74	12.00						
14+50.00	800.85	5.00	-0.040	801.05	12.00	-0.019	800.82	12.00						
14+75.00	800.92	5.00	-0.040	801.12	12.00	-0.019	800.89	12.00						
15+00.00	801.00	5.00	-0.040	801.20	12.00	-0.019	800.97	12.00						
15+25.00	801.08	5.00	-0.040	801.28	12.00	-0.019	801.05	12.00						
15+50.00	801.15	5.00	-0.040	801.35	12.00	-0.019	801.12	12.00						
15+75.00	801.23	5.00	-0.040	801.43	12.00	-0.019	801.20	12.00						
16+00.00	801.31	5.00	-0.040	801.51	12.00	-0.019	801.28	12.00						
16+25.00	801.38	5.00	-0.040	801.58	12.00	-0.019	801.35	12.00						
16+50.00	801.46	5.00	-0.040	801.66	12.00	-0.019	801.43	12.00						
16+70.03	801.52	5.00	-0.040	801.72	12.00	-0.019	801.49	12.00						END ACCELERATION LANE
16+75.00	801.54	5.00	-0.040	801.74	12.00	-0.019	801.51	12.00	-0.019	801.28	-0.040	12.00	800.80	
17+00.00	801.61	5.00	-0.040	801.81	12.00	-0.019	801.58	12.00	-0.019	801.35	-0.040	12.00	800.87	
17+25.00	801.69	5.00	-0.040	801.89	12.00	-0.019	801.66	12.00	-0.019	801.43	-0.040	12.00	800.95	
17+50.00	801.77	5.00	-0.040	801.97	12.00	-0.019	801.74	12.00	-0.019	801.51	-0.040	12.00	801.03	
17+75.00	801.84	5.00	-0.040	802.04	12.00	-0.019	801.81	12.00	-0.019	801.58	-0.040	12.00	801.10	
18+00.00	801.92	5.00	-0.040	802.12	12.00	-0.019	801.89	12.00	-0.019	801.66	-0.040	12.00	801.18	
18+25.00	802.00	5.00	-0.040	802.20	12.00	-0.019	801.97	12.00	-0.019	801.74	-0.040	12.00	801.26	
18+50.00	802.08	5.00	-0.040	802.28	12.00	-0.019	802.05	12.00	-0.019	801.82	-0.040	12.00	801.34	
18+75.00	802.15	5.00	-0.040	802.35	12.00	-0.019	802.12	12.00	-0.019	801.89	-0.040	12.00	801.41	
19+00.00	802.23	5.00	-0.040	802.43	12.00	-0.019	802.20	12.00	-0.019	801.97	-0.040	12.00	801.49	
19+25.00	802.31	5.00	-0.040	802.51	12.00	-0.019	802.28	12.00	-0.019	802.05	-0.040	12.00	801.57	
19+50.00	802.38	5.00	-0.040	802.58	12.00	-0.019	802.35	12.00	-0.019	802.12	-0.040	12.00	801.64	
19+75.00	802.46	5.00	-0.040	802.66	12.00	-0.019	802.43	12.00	-0.019	802.20	-0.040	12.00	801.72	
20+00.00	802.54	5.00	-0.040	802.74	12.00	-0.019	802.51	12.00	-0.019	802.28	-0.040	12.00	801.80	
20+25.00	802.60	5.00	-0.040	802.80	12.00	-0.019	802.57	12.00	-0.019	802.34	-0.040	12.00	801.86	
20+50.00	802.66	5.00	-0.040	802.86	12.00	-0.019	802.63	12.00	-0.019	802.40	-0.040	12.00	801.92	
20+75.00	802.70	5.00	-0.040	802.90	12.00	-0.019	802.67	12.00	-0.019	802.44	-0.040	12.00	801.96	
21+00.00	802.72	5.00	-0.040	802.92	12.00	-0.019	802.69	12.00	-0.019	802.46	-0.040	12.00	801.98	
21+25.00	802.73	5.00	-0.040	802.93	12.00	-0.019	802.70	12.00	-0.019	802.47	-0.040	12.00	801.99	

CALCULATED C. Y.
CHECKED

SUPERELEVATION TABLE (I.R. 90 EASTBOUND LANES)

LAK-90-21.40
ATB-90-0.00

I.R. 90 EASTBOUND LANES CURVE P.I. STATION 1047+58.38

BASELINE SURVEY & CONSTRUCTION	LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	PROFILE GRADE	LEFT PAVEMENT WIDTH	LEFT PAVEMENT SLOPE	CENTER OF LANES	RIGHT PAVEMENT WIDTH	RIGHT PAVEMENT SLOPE	RIGHT EDGE OF PAVEMENT	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	COMMENTS
21+50.00	802.72	5.00	-0.040	802.92	12.00	-0.019	802.69	12.00	-0.019	802.46	-0.040	12.00	801.98	
21+75.00	802.70	5.00	-0.040	802.90	12.00	-0.019	802.67	12.00	-0.019	802.44	-0.040	12.00	801.96	
22+00.00	802.66	5.00	-0.040	802.86	12.00	-0.019	802.63	12.00	-0.019	802.40	-0.040	12.00	801.92	
22+25.00	802.60	5.00	-0.040	802.80	12.00	-0.019	802.57	12.00	-0.019	802.34	-0.040	12.00	801.86	
22+50.00	802.54	5.00	-0.040	802.74	12.00	-0.019	802.51	12.00	-0.019	802.28	-0.040	12.00	801.80	
22+75.00	802.45	5.00	-0.040	802.65	12.00	-0.019	802.42	12.00	-0.019	802.19	-0.040	12.00	801.71	
23+00.00	802.35	5.00	-0.040	802.55	12.00	-0.019	802.32	12.00	-0.019	802.09	-0.040	12.00	801.61	
23+25.00	802.24	5.00	-0.040	802.44	12.00	-0.019	802.21	12.00	-0.019	801.98	-0.040	12.00	801.50	
23+50.00	802.10	5.00	-0.040	802.30	12.00	-0.019	802.07	12.00	-0.019	801.84	-0.040	12.00	801.36	
23+75.00	801.96	5.00	-0.040	802.16	12.00	-0.019	801.93	12.00	-0.019	801.70	-0.040	12.00	801.22	
24+00.00	801.80	5.00	-0.040	802.00	12.00	-0.019	801.77	12.00	-0.019	801.54	-0.040	12.00	801.06	
24+25.00	801.63	5.00	-0.040	801.83	12.00	-0.019	801.60	12.00	-0.019	801.37	-0.040	12.00	800.89	
24+50.00	801.46	5.00	-0.040	801.66	12.00	-0.019	801.43	12.00	-0.019	801.20	-0.040	12.00	800.72	
24+75.00	801.29	5.00	-0.040	801.49	12.00	-0.019	801.26	12.00	-0.019	801.03	-0.040	12.00	800.55	
25+00.00	801.12	5.00	-0.040	801.32	12.00	-0.019	801.09	12.00	-0.019	800.86	-0.040	12.00	800.38	
25+25.00	800.95	5.00	-0.040	801.15	12.00	-0.019	800.92	12.00	-0.019	800.69	-0.040	12.00	800.21	
25+50.00	800.78	5.00	-0.040	800.98	12.00	-0.019	800.75	12.00	-0.019	800.52	-0.040	12.00	800.04	
25+75.00	800.61	5.00	-0.040	800.81	12.00	-0.019	800.58	12.00	-0.019	800.35	-0.040	12.00	799.87	
26+00.00	800.44	5.00	-0.040	800.64	12.00	-0.019	800.41	12.00	-0.019	800.18	-0.040	12.00	799.70	
26+25.00	800.28	5.00	-0.040	800.48	12.00	-0.019	800.25	12.00	-0.019	800.02	-0.040	12.00	799.54	
26+50.00	800.11	5.00	-0.040	800.31	12.00	-0.019	800.08	12.00	-0.019	799.85	-0.040	12.00	799.37	
26+75.00	799.94	5.00	-0.040	800.14	12.00	-0.019	799.91	12.00	-0.019	799.68	-0.040	12.00	799.20	
27+00.00	799.77	5.00	-0.040	799.97	12.00	-0.019	799.74	12.00	-0.019	799.51	-0.040	12.00	799.03	
27+25.00	799.60	5.00	-0.040	799.80	12.00	-0.019	799.57	12.00	-0.019	799.34	-0.040	12.00	798.86	
27+50.00	799.43	5.00	-0.040	799.63	12.00	-0.019	799.40	12.00	-0.019	799.17	-0.040	12.00	798.69	
27+75.00	799.26	5.00	-0.040	799.46	12.00	-0.019	799.23	12.00	-0.019	799.00	-0.040	12.00	798.52	
28+00.00	799.09	5.00	-0.040	799.29	12.00	-0.019	799.06	12.00	-0.019	798.83	-0.040	12.00	798.35	
28+25.00	798.92	5.00	-0.040	799.12	12.00	-0.019	798.89	12.00	-0.019	798.66	-0.040	12.00	798.18	
28+50.00	798.75	5.00	-0.040	798.95	12.00	-0.019	798.72	12.00	-0.019	798.49	-0.040	12.00	798.01	
28+75.00	798.58	5.00	-0.040	798.78	12.00	-0.019	798.55	12.00	-0.019	798.32	-0.040	12.00	797.84	
29+00.00	798.42	5.00	-0.040	798.62	12.00	-0.019	798.39	12.00	-0.019	798.16	-0.040	12.00	797.68	
29+25.00	798.25	5.00	-0.040	798.45	12.00	-0.019	798.22	12.00	-0.019	797.99	-0.040	12.00	797.51	
29+50.00	798.08	5.00	-0.040	798.28	12.00	-0.019	798.05	12.00	-0.019	797.82	-0.040	12.00	797.34	
29+75.00	797.91	5.00	-0.040	798.11	12.00	-0.019	797.88	12.00	-0.019	797.65	-0.040	12.00	797.17	
30+00.00	797.72	5.39	-0.040	797.94	12.00	-0.019	797.71	12.00	-0.019	797.48	-0.040	12.00	797.00	MEDIAN U-TURN OPENING STA. 32+50.00
30+25.00	797.52	6.27	-0.040	797.77	12.00	-0.019	797.54	12.00	-0.019	797.31	-0.040	12.00	796.83	
30+50.00	797.31	7.14	-0.040	797.60	12.00	-0.019	797.37	12.00	-0.019	797.14	-0.040	12.00	796.66	
30+75.00	797.11	8.02	-0.040	797.43	12.00	-0.019	797.20	12.00	-0.019	796.97	-0.040	12.00	796.49	
31+00.00	796.90	8.89	-0.040	797.26	12.00	-0.019	797.03	12.00	-0.019	796.80	-0.040	12.00	796.32	
31+25.00	796.70	9.77	-0.040	797.09	12.00	-0.019	796.86	12.00	-0.019	796.63	-0.040	12.00	796.15	
31+50.00	796.50	10.64	-0.040	796.93	12.00	-0.019	796.70	12.00	-0.019	796.47	-0.040	12.00	795.99	
31+75.00	796.30	11.52	-0.040	796.76	12.00	-0.019	796.53	12.00	-0.019	796.30	-0.040	12.00	795.82	
32+00.00	796.06	13.16	-0.040	796.59	12.00	-0.019	796.36	12.00	-0.019	796.13	-0.040	12.00	795.65	
32+25.00	795.39	25.65	-0.040	796.42	12.00	-0.019	796.19	12.00	-0.019	795.96	-0.040	12.00	795.48	
32+50.00	SEE CROSS SECTION		-0.040	796.25	12.00	-0.019	796.02	12.00	-0.019	795.79	-0.040	12.00	795.31	
32+75.00	795.78	7.54	-0.040	796.08	12.00	-0.019	795.85	12.00	-0.019	795.62	-0.040	12.00	795.14	
33+00.00	795.71	5.00	-0.040	795.91	12.00	-0.019	795.68	12.00	-0.019	795.45	-0.040	12.00	794.97	
33+25.00	795.54	5.00	-0.040	795.74	12.00	-0.019	795.51	12.00	-0.019	795.28	-0.040	12.00	794.80	
33+50.00	795.37	5.00	-0.040	795.57	12.00	-0.019	795.34	12.00	-0.019	795.11	-0.040	12.00	794.63	
33+75.00	795.20	5.00	-0.040	795.40	12.00	-0.019	795.17	12.00	-0.019	794.94	-0.040	12.00	794.46	
34+00.00	795.03	5.00	-0.040	795.23	12.00	-0.019	795.00	12.00	-0.019	794.77	-0.040	12.00	794.29	
34+25.00	794.87	5.00	-0.040	795.07	12.00	-0.019	794.84	12.00	-0.019	794.61	-0.040	12.00	794.13	
34+50.00	794.70	5.00	-0.040	794.90	12.00	-0.019	794.67	12.00	-0.019	794.44	-0.040	12.00	793.96	
34+75.00	794.53	5.00	-0.040	794.73	12.00	-0.019	794.50	12.00	-0.019	794.27	-0.040	12.00	793.79	
35+00.00	794.36	5.00	-0.040	794.56	12.00	-0.019	794.33	12.00	-0.019	794.10	-0.040	12.00	793.62	
35+25.00	794.19	5.00	-0.040	794.39	12.00	-0.019	794.16	12.00	-0.019	793.93	-0.040	12.00	793.45	
35+50.00	794.02	5.00	-0.040	794.22	12.00	-0.019	793.99	12.00	-0.019	793.76	-0.040	12.00	793.28	
35+75.00	793.85	5.00	-0.040	794.05	12.00	-0.019	793.82	12.00	-0.019	793.59	-0.040	12.00	793.11	
36+00.00	793.68	5.00	-0.040	793.88	12.00	-0.019	793.65	12.00	-0.019	793.42	-0.040	12.00	792.94	
36+25.00	793.51	5.00	-0.040	793.71	12.00	-0.019	793.48	12.00	-0.019	793.25	-0.040	12.00	792.77	
36+50.00	793.34	5.00	-0.040	793.54	12.00	-0.019	793.31	12.00	-0.019	793.08	-0.040	12.00	792.60	
36+75.00	793.17	5.00	-0.040	793.37	12.00	-0.019	793.14	12.00	-0.019	792.91	-0.040	12.00	792.43	
37+00.00	793.01	5.00	-0.040	793.21	12.00	-0.019	792.98	12.00	-0.019	792.75	-0.040	12.00	792.27	
37+25.00	792.84	5.00	-0.040	793.04	12.00	-0.019	792.81	12.00	-0.019	792.58	-0.040	12.00	792.10	
37+50.00	792.67	5.00	-0.040	792.87	12.00	-0.019	792.64	12.00	-0.019	792.41	-0.040	12.00	791.93	
37+75.00	792.50	5.00	-0.040	792.70	12.00	-0.019	792.47	12.00	-0.019	792.24	-0.040	12.00	791.76	
38+00.00	792.33	5.00	-0.040	792.53	12.00	-0.019	792.30	12.00	-0.019	792.07	-0.040	12.00	791.59	
38+25.00	792.16	5.00	-0.040	792.36	12.00	-0.019	792.13	12.00	-0.019	791.90	-0.040	12.00	791.42	

CALCULATED C. Y.
CHECKED

SUPERELEVATION TABLE (I.R. 90 EASTBOUND LANES)

LAK-90-21.40
ATB-90-0.00

I.R. 90 EASTBOUND LANES CURVE P.I. STATION 1047+58.38

BASELINE SURVEY & CONSTRUCTION	LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	PROFILE GRADE	LEFT PAVEMENT WIDTH	LEFT PAVEMENT SLOPE	CENTER OF LANES	RIGHT PAVEMENT WIDTH	RIGHT PAVEMENT SLOPE	RIGHT EDGE OF PAVEMENT	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	COMMENTS
38+50.00	791.99	5.00	-0.040	792.19	12.00	-0.019	791.96	12.00	-0.019	791.73	-0.040	12.00	791.25	
38+75.00	791.82	5.00	-0.040	792.02	12.00	-0.019	791.79	12.00	-0.019	791.56	-0.040	12.00	791.08	
39+00.00	791.65	5.00	-0.040	791.85	12.00	-0.019	791.62	12.00	-0.019	791.39	-0.040	12.00	790.91	
39+25.00	791.48	5.00	-0.040	791.68	12.00	-0.019	791.45	12.00	-0.019	791.22	-0.040	12.00	790.74	
39+50.00	791.31	5.00	-0.040	791.51	12.00	-0.019	791.28	12.00	-0.019	791.05	-0.040	12.00	790.57	
39+75.00	791.16	5.00	-0.040	791.36	12.00	-0.019	791.13	12.00	-0.019	790.90	-0.040	12.00	790.42	
40+00.00	791.04	5.00	-0.040	791.24	12.00	-0.019	791.01	12.00	-0.019	790.78	-0.040	12.00	790.30	
40+25.00	790.96	5.00	-0.040	791.16	12.00	-0.019	790.93	12.00	-0.019	790.70	-0.040	12.00	790.22	
40+50.00	790.91	5.00	-0.040	791.11	12.00	-0.019	790.88	12.00	-0.019	790.65	-0.040	12.00	790.17	
40+75.00	790.89	5.00	-0.040	791.09	12.00	-0.019	790.86	12.00	-0.019	790.63	-0.040	12.00	790.15	
41+00.00	790.91	5.00	-0.040	791.11	12.00	-0.019	790.88	12.00	-0.019	790.65	-0.040	12.00	790.17	
41+25.00	790.96	5.00	-0.040	791.16	12.00	-0.019	790.93	12.00	-0.019	790.70	-0.040	12.00	790.22	
41+50.00	791.05	5.00	-0.040	791.25	12.00	-0.019	791.02	12.00	-0.019	790.79	-0.040	12.00	790.31	
41+63.26	791.11	5.00	-0.040	791.31	12.00	-0.019	791.08	12.00	-0.019	790.85	-0.040	12.00	790.37	END FULL SUPERELEVATION
41+75.00	791.17	5.00	-0.040	791.37	12.00	-0.016	791.18	12.00	-0.016	790.99	-0.040	12.00	790.51	
41+87.57 BACK	791.24	5.00	-0.040	791.44	12.00	-0.012	791.30	12.00	-0.016	791.10	-0.040	12.00	790.62	P.T. STA. 41+87.57
41+88.95 AHEAD	791.24	5.00	-0.040	791.44	12.00	-0.012	791.30	12.00	-0.016	791.10	-0.040	12.00	790.62	
42+00.00	791.31	5.00	-0.040	791.51	12.00	-0.009	791.40	12.00	-0.016	791.21	-0.040	12.00	790.73	
42+25.00	791.50	5.00	-0.040	791.70	12.00	-0.002	791.68	12.00	-0.016	791.49	-0.040	12.00	791.01	
42+50.00	791.72	5.00	-0.040	791.92	12.00	0.006	791.99	12.00	-0.016	791.80	-0.040	12.00	791.32	
42+75.00	791.95	5.00	-0.040	792.15	12.00	0.014	792.32	12.00	-0.016	792.13	-0.040	12.00	791.65	
42+78.64	791.99	5.00	-0.040	792.19	12.00	0.016	792.38	12.00	-0.016	792.18	-0.040	12.00	791.70	BEGIN NORMAL CROWN

CALCULATED C.Y.
CHECKED

SUPERELEVATION TABLE (I.R. 90 EASTBOUND LANES)

LAK-90-21.40
ATB-90-0.00

I.R. 90 WESTBOUND LANES CURVE P.I. STATION 1047+58.38

LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	LEFT EDGE OF PAVEMENT	LEFT PAVEMENT WIDTH	LEFT PAVEMENT SLOPE	CENTER OF LANES	RIGHT PAVEMENT WIDTH	RIGHT PAVEMENT SLOPE	PROFILE GRADE	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	BASELINE SURVEY & CONSTRUCTION	COMMENTS
SEE SHEET XX FOR PAVEMENT DETAILS			804.79	12.00	-0.016	804.98	12.00	0.016	804.79	-0.040	5.00	804.59	1041+50.83	END NORMAL CROWN
			804.82	12.00	-0.008	804.91	12.00	0.016	804.72	-0.040	5.00	804.52	1041+75.00	
			804.83	12.00	0.000	804.83	12.00	0.016	804.64	-0.040	5.00	804.44	1042+00.00	
			804.84	12.00	0.007	804.76	12.00	0.016	804.57	-0.040	5.00	804.37	1042+25.00	
			804.86	12.00	0.012	804.71	12.00	0.016	804.52	-0.040	5.00	804.32	1042+42.93	PC STA.1042+42.93
			804.87	12.00	0.014	804.69	12.00	0.016	804.50	-0.040	5.00	804.30	1042+50.00	
			804.91	12.00	0.019	804.68	12.00	0.019	804.45	-0.040	5.00	804.25	1042+64.81	BEGIN FULL SUPERELEVATION
			804.88	12.00	0.019	804.65	12.00	0.019	804.42	-0.040	5.00	804.22	1042+75.00	
			804.84	12.00	0.019	804.61	12.00	0.019	804.38	-0.040	5.00	804.18	1042+87.94	END ACCELERATION LANE
804.33	12.00	-0.040	804.81	12.00	0.019	804.58	12.00	0.019	804.35	-0.040	5.00	804.15	1043+00.00	
804.25	12.00	-0.040	804.73	12.00	0.019	804.50	12.00	0.019	804.27	-0.040	5.00	804.07	1043+25.00	
804.18	12.00	-0.040	804.66	12.00	0.019	804.43	12.00	0.019	804.20	-0.040	5.00	804.00	1043+50.00	
804.09	12.00	-0.040	804.57	12.00	0.019	804.34	12.00	0.019	804.11	-0.040	5.00	803.91	1043+75.00	
803.98	12.00	-0.040	804.46	12.00	0.019	804.23	12.00	0.019	804.00	-0.040	5.00	803.80	1044+00.00	
803.84	12.00	-0.040	804.32	12.00	0.019	804.09	12.00	0.019	803.86	-0.040	5.00	803.66	1044+25.00	
803.68	12.00	-0.040	804.16	12.00	0.019	803.93	12.00	0.019	803.70	-0.040	5.00	803.50	1044+50.00	
803.50	12.00	-0.040	803.98	12.00	0.019	803.75	12.00	0.019	803.52	-0.040	5.00	803.32	1044+75.00	
803.29	12.00	-0.040	803.77	12.00	0.019	803.54	12.00	0.019	803.31	-0.040	5.00	803.11	1045+00.00	
803.05	12.00	-0.040	803.53	12.00	0.019	803.30	12.00	0.019	803.07	-0.040	5.00	802.87	1045+25.00	
802.79	12.00	-0.040	803.27	12.00	0.019	803.04	12.00	0.019	802.81	-0.040	5.00	802.61	1045+50.00	
802.52	12.00	-0.040	803.00	12.00	0.019	802.77	12.00	0.019	802.54	-0.040	5.00	802.34	1045+75.00	
802.25	12.00	-0.040	802.73	12.00	0.019	802.50	12.00	0.019	802.27	-0.040	5.00	802.07	1046+00.00	
801.97	12.00	-0.040	802.45	12.00	0.019	802.22	12.00	0.019	801.99	-0.040	5.00	801.79	1046+25.00	
801.70	12.00	-0.040	802.18	12.00	0.019	801.95	12.00	0.019	801.72	-0.040	5.00	801.52	1046+50.00	
801.43	12.00	-0.040	801.91	12.00	0.019	801.68	12.00	0.019	801.45	-0.040	5.00	801.25	1046+75.00	
801.16	12.00	-0.040	801.64	12.00	0.019	801.41	12.00	0.019	801.18	-0.040	5.00	800.98	1047+00.00	
800.89	12.00	-0.040	801.37	12.00	0.019	801.14	12.00	0.019	800.91	-0.040	5.00	800.71	1047+25.00	
800.61	12.00	-0.040	801.09	12.00	0.019	800.86	12.00	0.019	800.63	-0.040	5.00	800.43	1047+50.00	
800.37	12.00	-0.040	800.85	12.00	0.019	800.62	12.00	0.019	800.39	-0.040	5.00	800.19	1047+75.00	
800.15	12.00	-0.040	800.63	12.00	0.019	800.40	12.00	0.019	800.17	-0.040	5.00	799.97	1048+00.00	
799.97	12.00	-0.040	800.45	12.00	0.019	800.22	12.00	0.019	799.99	-0.040	5.00	799.79	1048+25.00	
799.82	12.00	-0.040	800.30	12.00	0.019	800.07	12.00	0.019	799.84	-0.040	5.00	799.64	1048+50.00	
799.71	12.00	-0.040	800.19	12.00	0.019	799.96	12.00	0.019	799.73	-0.040	5.00	799.53	1048+75.00	
799.63	12.00	-0.040	800.11	12.00	0.019	799.88	12.00	0.019	799.65	-0.040	5.00	799.45	1049+00.00	
799.58	12.00	-0.040	800.06	12.00	0.019	799.83	12.00	0.019	799.60	-0.040	5.00	799.40	1049+25.00	
799.57	12.00	-0.040	800.05	12.00	0.019	799.82	12.00	0.019	799.59	-0.040	5.00	799.39	1049+50.00	
799.59	12.00	-0.040	800.07	12.00	0.019	799.84	12.00	0.019	799.61	-0.040	5.00	799.41	1049+75.00	
799.65	12.00	-0.040	800.13	12.00	0.019	799.90	12.00	0.019	799.67	-0.040	5.00	799.47	1050+00.00	
799.73	12.00	-0.040	800.21	12.00	0.019	799.98	12.00	0.019	799.75	-0.040	5.00	799.55	1050+25.00	
799.86	12.00	-0.040	800.34	12.00	0.019	800.11	12.00	0.019	799.88	-0.040	5.00	799.68	1050+50.00	
800.00	12.00	-0.040	800.48	12.00	0.019	800.25	12.00	0.019	800.02	-0.040	5.00	799.82	1050+75.00	
800.15	12.00	-0.040	800.63	12.00	0.019	800.40	12.00	0.019	800.17	-0.040	5.00	799.97	1051+00.00	
800.29	12.00	-0.040	800.77	12.00	0.019	800.54	12.00	0.019	800.31	-0.040	5.00	800.11	1051+25.00	
800.44	12.00	-0.040	800.92	12.00	0.019	800.69	12.00	0.019	800.46	-0.040	5.00	800.26	1051+50.00	
800.58	12.00	-0.040	801.06	12.00	0.019	800.83	12.00	0.019	800.60	-0.040	5.00	800.40	1051+75.00	
800.71	12.00	-0.040	801.19	12.00	0.019	800.96	12.00	0.019	800.73	-0.040	5.00	800.53	1052+00.00	
800.80	12.00	-0.040	801.28	12.00	0.019	801.05	12.00	0.019	800.82	-0.040	5.00	800.62	1052+25.00	
800.88	12.00	-0.040	801.36	12.00	0.019	801.13	12.00	0.019	800.90	-0.040	5.00	800.70	1052+50.00	
800.93	12.00	-0.040	801.41	12.00	0.019	801.18	12.00	0.019	800.95	-0.040	5.00	800.75	1052+73.22 BACK	back and pcc station
800.93	12.00	-0.040	801.41	12.00	0.019	801.18	12.00	0.019	800.95	-0.040	5.00	800.75	0+00.00 AHEAD	ahead
800.95	12.00	-0.040	801.43	12.00	0.019	801.20	12.00	0.019	800.97	-0.040	5.00	800.77	0+25.00	
800.96	12.00	-0.040	801.44	12.00	0.019	801.21	12.00	0.019	800.98	-0.040	5.00	800.78	0+50.00	
800.94	12.00	-0.040	801.42	12.00	0.019	801.19	12.00	0.019	800.96	-0.040	5.00	800.76	0+75.00	
800.89	12.00	-0.040	801.37	12.00	0.019	801.14	12.00	0.019	800.91	-0.040	5.00	800.71	1+00.00	
800.83	12.00	-0.040	801.31	12.00	0.019	801.08	12.00	0.019	800.85	-0.040	5.00	800.65	1+25.00	
800.76	12.00	-0.040	801.24	12.00	0.019	801.01	12.00	0.019	800.78	-0.040	5.00	800.58	1+50.00	
800.69	12.00	-0.040	801.17	12.00	0.019	800.94	12.00	0.019	800.71	-0.040	5.00	800.51	1+75.00	
800.63	12.00	-0.040	801.11	12.00	0.019	800.88	12.00	0.019	800.65	-0.040	5.00	800.45	2+00.00	
800.56	12.00	-0.040	801.04	12.00	0.019	800.81	12.00	0.019	800.58	-0.040	5.00	800.38	2+25.00	
800.49	12.00	-0.040	800.97	12.00	0.019	800.74	12.00	0.019	800.51	-0.040	5.00	800.31	2+50.00	
800.43	12.00	-0.040	800.91	12.00	0.019	800.68	12.00	0.019	800.45	-0.040	5.00	800.25	2+75.00	
800.36	12.00	-0.040	800.84	12.00	0.019	800.61	12.00	0.019	800.38	-0.040	5.00	800.18	3+00.00	
800.29	12.00	-0.040	800.77	12.00	0.019	800.54	12.00	0.019	800.31	-0.040	5.00	800.11	3+25.00	
800.23	12.00	-0.040	800.71	12.00	0.019	800.48	12.00	0.019	800.25	-0.040	5.00	800.05	3+50.00	
800.16	12.00	-0.040	800.64	12.00	0.019	800.41	12.00	0.019	800.18	-0.040	5.00	799.98	3+75.00	
SEE SHEET XX FOR PAVEMENT DETAILS			800.62	12.00	0.019	800.39	12.00	0.019	800.16	-0.040	5.00	799.96	3+84.07	BEGIN DECELERATION LANE
			800.58	12.00	0.019	800.35	12.00	0.019	800.12	-0.040	5.00	799.92	4+00.00	
			800.51	12.00	0.019	800.28	12.00	0.019	800.05	-0.040	5.00	799.85	4+25.00	

CALCULATED C.Y.
CHECKED

SUPERELEVATION TABLE (I.R. 90 WESTBOUND LANES)

LAK-90-21.40
ATB-90-0.00

I.R. 90 WESTBOUND LANES CURVE P.I. STATION 1047+58.38

LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	LEFT EDGE OF PAVEMENT	LEFT PAVEMENT WIDTH	LEFT PAVEMENT SLOPE	CENTER OF LANES	RIGHT PAVEMENT WIDTH	RIGHT PAVEMENT SLOPE	PROFILE GRADE	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	BASELINE SURVEY & CONSTRUCTION	COMMENTS
			800.44	12.00	0.019	800.21	12.00	0.019	799.98	-0.040	5.00	799.78	4+50.00	
			800.38	12.00	0.019	800.15	12.00	0.019	799.92	-0.040	5.00	799.72	4+75.00	
			800.31	12.00	0.019	800.08	12.00	0.019	799.85	-0.040	5.00	799.65	5+00.00	
			800.24	12.00	0.019	800.01	12.00	0.019	799.78	-0.040	5.00	799.58	5+25.00	
			800.18	12.00	0.019	799.95	12.00	0.019	799.72	-0.040	5.00	799.52	5+50.00	
			800.11	12.00	0.019	799.88	12.00	0.019	799.65	-0.040	5.00	799.45	5+75.00	
			800.04	12.00	0.019	799.81	12.00	0.019	799.58	-0.040	5.00	799.38	6+00.00	
			799.98	12.00	0.019	799.75	12.00	0.019	799.52	-0.040	5.00	799.32	6+25.00	
			799.91	12.00	0.019	799.68	12.00	0.019	799.45	-0.040	5.00	799.25	6+50.00	
			799.84	12.00	0.019	799.61	12.00	0.019	799.38	-0.040	5.00	799.18	6+75.00	
			799.78	12.00	0.019	799.55	12.00	0.019	799.32	-0.040	5.00	799.12	7+00.00	
			799.71	12.00	0.019	799.48	12.00	0.019	799.25	-0.040	5.00	799.05	7+25.00	
			799.65	12.00	0.019	799.42	12.00	0.019	799.19	-0.040	5.00	798.99	7+50.00	
			799.61	12.00	0.019	799.38	12.00	0.019	799.15	-0.040	5.00	798.95	7+75.00	
			799.60	12.00	0.019	799.37	12.00	0.019	799.14	-0.040	5.00	798.94	8+00.00	
			799.62	12.00	0.019	799.39	12.00	0.019	799.16	-0.040	5.00	798.96	8+25.00	
			799.67	12.00	0.019	799.44	12.00	0.019	799.21	-0.040	5.00	799.01	8+50.00	
			799.74	12.00	0.019	799.51	12.00	0.019	799.28	-0.040	5.00	799.08	8+75.00	
			799.82	12.00	0.019	799.59	12.00	0.019	799.36	-0.040	5.00	799.16	9+00.00	
			799.89	12.00	0.019	799.66	12.00	0.019	799.43	-0.040	5.00	799.23	9+25.00	
			799.97	12.00	0.019	799.74	12.00	0.019	799.51	-0.040	5.00	799.31	9+50.00	
			800.05	12.00	0.019	799.82	12.00	0.019	799.59	-0.040	5.00	799.39	9+75.00	
			800.12	12.00	0.019	799.89	12.00	0.019	799.66	-0.040	5.00	799.46	10+00.00	
			800.20	12.00	0.019	799.97	12.00	0.019	799.74	-0.040	5.00	799.54	10+25.00	
			800.28	12.00	0.019	800.05	12.00	0.019	799.82	-0.040	5.00	799.62	10+50.00	
			800.35	12.00	0.019	800.12	12.00	0.019	799.89	-0.040	5.00	799.69	10+75.00	
			800.43	12.00	0.019	800.20	12.00	0.019	799.97	-0.040	5.00	799.77	11+00.00	
			800.51	12.00	0.019	800.28	12.00	0.019	800.05	-0.040	5.00	799.85	11+25.00	
			800.59	12.00	0.019	800.36	12.00	0.019	800.13	-0.040	5.00	799.93	11+50.00	
			800.66	12.00	0.019	800.43	12.00	0.019	800.20	-0.040	5.00	800.00	11+75.00	
			800.74	12.00	0.019	800.51	12.00	0.019	800.28	-0.040	5.00	800.08	12+00.00	
			800.82	12.00	0.019	800.59	12.00	0.019	800.36	-0.040	5.00	800.16	12+25.00	
			800.89	12.00	0.019	800.66	12.00	0.019	800.43	-0.040	5.00	800.23	12+50.00	
			800.97	12.00	0.019	800.74	12.00	0.019	800.51	-0.040	5.00	800.31	12+75.00	
			801.05	12.00	0.019	800.82	12.00	0.019	800.59	-0.040	5.00	800.39	13+00.00	
			801.12	12.00	0.019	800.89	12.00	0.019	800.66	-0.040	5.00	800.46	13+25.00	
			801.20	12.00	0.019	800.97	12.00	0.019	800.74	-0.040	5.00	800.54	13+50.00	
			801.28	12.00	0.019	801.05	12.00	0.019	800.82	-0.040	5.00	800.62	13+75.00	
			801.35	12.00	0.019	801.12	12.00	0.019	800.89	-0.040	5.00	800.69	14+00.00	
			801.43	12.00	0.019	801.20	12.00	0.019	800.97	-0.040	5.00	800.77	14+25.00	
			801.51	12.00	0.019	801.28	12.00	0.019	801.05	-0.040	5.00	800.85	14+50.00	
			801.58	12.00	0.019	801.35	12.00	0.019	801.12	-0.040	5.00	800.92	14+75.00	
			801.66	12.00	0.019	801.43	12.00	0.019	801.20	-0.040	5.00	801.00	15+00.00	
			801.74	12.00	0.019	801.51	12.00	0.019	801.28	-0.040	5.00	801.08	15+25.00	
			801.81	12.00	0.019	801.58	12.00	0.019	801.35	-0.040	5.00	801.15	15+50.00	
			801.89	12.00	0.019	801.66	12.00	0.019	801.43	-0.040	5.00	801.23	15+75.00	
801.49	12.00	-0.040	801.97	12.00	0.019	801.74	12.00	0.019	801.51	-0.040	5.00	801.31	16+00.00	END DECELERATION LANE
801.56	12.00	-0.040	802.04	12.00	0.019	801.81	12.00	0.019	801.58	-0.040	5.00	801.38	16+25.00	
801.64	12.00	-0.040	802.12	12.00	0.019	801.89	12.00	0.019	801.66	-0.040	5.00	801.46	16+50.00	
801.72	12.00	-0.040	802.20	12.00	0.019	801.97	12.00	0.019	801.74	-0.040	5.00	801.54	16+75.00	
801.79	12.00	-0.040	802.27	12.00	0.019	802.04	12.00	0.019	801.81	-0.040	5.00	801.61	17+00.00	
801.87	12.00	-0.040	802.35	12.00	0.019	802.12	12.00	0.019	801.89	-0.040	5.00	801.69	17+25.00	
801.95	12.00	-0.040	802.43	12.00	0.019	802.20	12.00	0.019	801.97	-0.040	5.00	801.77	17+50.00	
802.02	12.00	-0.040	802.50	12.00	0.019	802.27	12.00	0.019	802.04	-0.040	5.00	801.84	17+75.00	
802.10	12.00	-0.040	802.58	12.00	0.019	802.35	12.00	0.019	802.12	-0.040	5.00	801.92	18+00.00	
802.18	12.00	-0.040	802.66	12.00	0.019	802.43	12.00	0.019	802.20	-0.040	5.00	802.00	18+25.00	
802.26	12.00	-0.040	802.74	12.00	0.019	802.51	12.00	0.019	802.28	-0.040	5.00	802.08	18+50.00	
802.33	12.00	-0.040	802.81	12.00	0.019	802.58	12.00	0.019	802.35	-0.040	5.00	802.15	18+75.00	
802.41	12.00	-0.040	802.89	12.00	0.019	802.66	12.00	0.019	802.43	-0.040	5.00	802.23	19+00.00	
802.49	12.00	-0.040	802.97	12.00	0.019	802.74	12.00	0.019	802.51	-0.040	5.00	802.31	19+25.00	
802.56	12.00	-0.040	803.04	12.00	0.019	802.81	12.00	0.019	802.58	-0.040	5.00	802.38	19+50.00	
802.64	12.00	-0.040	803.12	12.00	0.019	802.89	12.00	0.019	802.66	-0.040	5.00	802.46	19+75.00	
802.72	12.00	-0.040	803.20	12.00	0.019	802.97	12.00	0.019	802.74	-0.040	5.00	802.54	20+00.00	
802.78	12.00	-0.040	803.26	12.00	0.019	803.03	12.00	0.019	802.80	-0.040	5.00	802.60	20+25.00	
802.84	12.00	-0.040	803.32	12.00	0.019	803.09	12.00	0.019	802.86	-0.040	5.00	802.66	20+50.00	
802.88	12.00	-0.040	803.36	12.00	0.019	803.13	12.00	0.019	802.90	-0.040	5.00	802.70	20+75.00	
802.90	12.00	-0.040	803.38	12.00	0.019	803.15	12.00	0.019	802.92	-0.040	5.00	802.72	21+00.00	
802.91	12.00	-0.040	803.39	12.00	0.019	803.16	12.00	0.019	802.93	-0.040	5.00	802.73	21+25.00	

CALCULATED C.Y.
CHECKED

SUPERELEVATION TABLE (I.R. 90 WESTBOUND LANES)

LAK-90-21.40
ATB-90-0.00

I.R. 90 WESTBOUND LANES CURVE P.I. STATION 1047+58.38

LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	LEFT EDGE OF PAVEMENT	LEFT PAVEMENT WIDTH	LEFT PAVEMENT SLOPE	CENTER OF LANES	RIGHT PAVEMENT WIDTH	RIGHT PAVEMENT SLOPE	PROFILE GRADE	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	BASELINE SURVEY & CONSTRUCTION	COMMENTS
802.90	12.00	-0.040	803.38	12.00	0.019	803.15	12.00	0.019	802.92	-0.040	5.00	802.72	21+50.00	
802.88	12.00	-0.040	803.36	12.00	0.019	803.13	12.00	0.019	802.90	-0.040	5.00	802.70	21+75.00	
802.84	12.00	-0.040	803.32	12.00	0.019	803.09	12.00	0.019	802.86	-0.040	5.00	802.66	22+00.00	
802.78	12.00	-0.040	803.26	12.00	0.019	803.03	12.00	0.019	802.80	-0.040	5.00	802.60	22+25.00	
802.72	12.00	-0.040	803.20	12.00	0.019	802.97	12.00	0.019	802.74	-0.040	5.00	802.54	22+50.00	
802.63	12.00	-0.040	803.11	12.00	0.019	802.88	12.00	0.019	802.65	-0.040	5.00	802.45	22+75.00	
802.53	12.00	-0.040	803.01	12.00	0.019	802.78	12.00	0.019	802.55	-0.040	5.00	802.35	23+00.00	
802.42	12.00	-0.040	802.90	12.00	0.019	802.67	12.00	0.019	802.44	-0.040	5.00	802.24	23+25.00	
802.28	12.00	-0.040	802.76	12.00	0.019	802.53	12.00	0.019	802.30	-0.040	5.00	802.10	23+50.00	
802.14	12.00	-0.040	802.62	12.00	0.019	802.39	12.00	0.019	802.16	-0.040	5.00	801.96	23+75.00	
801.98	12.00	-0.040	802.46	12.00	0.019	802.23	12.00	0.019	802.00	-0.040	5.00	801.80	24+00.00	
801.81	12.00	-0.040	802.29	12.00	0.019	802.06	12.00	0.019	801.83	-0.040	5.00	801.63	24+25.00	
801.64	12.00	-0.040	802.12	12.00	0.019	801.89	12.00	0.019	801.66	-0.040	5.00	801.46	24+50.00	
801.47	12.00	-0.040	801.95	12.00	0.019	801.72	12.00	0.019	801.49	-0.040	5.00	801.29	24+75.00	
801.30	12.00	-0.040	801.78	12.00	0.019	801.55	12.00	0.019	801.32	-0.040	5.00	801.12	25+00.00	
801.13	12.00	-0.040	801.61	12.00	0.019	801.38	12.00	0.019	801.15	-0.040	5.00	800.95	25+25.00	
800.96	12.00	-0.040	801.44	12.00	0.019	801.21	12.00	0.019	800.98	-0.040	5.00	800.78	25+50.00	
800.79	12.00	-0.040	801.27	12.00	0.019	801.04	12.00	0.019	800.81	-0.040	5.00	800.61	25+75.00	
800.62	12.00	-0.040	801.10	12.00	0.019	800.87	12.00	0.019	800.64	-0.040	5.00	800.44	26+00.00	
800.46	12.00	-0.040	800.94	12.00	0.019	800.71	12.00	0.019	800.48	-0.040	5.00	800.28	26+25.00	
800.29	12.00	-0.040	800.77	12.00	0.019	800.54	12.00	0.019	800.31	-0.040	5.00	800.11	26+50.00	
800.12	12.00	-0.040	800.60	12.00	0.019	800.37	12.00	0.019	800.14	-0.040	5.00	799.94	26+75.00	
799.95	12.00	-0.040	800.43	12.00	0.019	800.20	12.00	0.019	799.97	-0.040	5.00	799.77	27+00.00	
799.78	12.00	-0.040	800.26	12.00	0.019	800.03	12.00	0.019	799.80	-0.040	5.00	799.60	27+25.00	
799.61	12.00	-0.040	800.09	12.00	0.019	799.86	12.00	0.019	799.63	-0.040	5.00	799.43	27+50.00	
799.44	12.00	-0.040	799.92	12.00	0.019	799.69	12.00	0.019	799.46	-0.040	5.00	799.26	27+75.00	
799.27	12.00	-0.040	799.75	12.00	0.019	799.52	12.00	0.019	799.29	-0.040	5.00	799.09	28+00.00	
799.10	12.00	-0.040	799.58	12.00	0.019	799.35	12.00	0.019	799.12	-0.040	5.00	798.92	28+25.00	
798.93	12.00	-0.040	799.41	12.00	0.019	799.18	12.00	0.019	798.95	-0.040	5.00	798.75	28+50.00	
798.76	12.00	-0.040	799.24	12.00	0.019	799.01	12.00	0.019	798.78	-0.040	5.00	798.58	28+75.00	
798.60	12.00	-0.040	799.08	12.00	0.019	798.85	12.00	0.019	798.62	-0.040	5.00	798.42	29+00.00	
798.43	12.00	-0.040	798.91	12.00	0.019	798.68	12.00	0.019	798.45	-0.040	5.00	798.25	29+25.00	
798.26	12.00	-0.040	798.74	12.00	0.019	798.51	12.00	0.019	798.28	-0.040	5.00	798.08	29+50.00	
798.09	12.00	-0.040	798.57	12.00	0.019	798.34	12.00	0.019	798.11	-0.040	5.00	797.91	29+75.00	
797.92	12.00	-0.040	798.40	12.00	0.019	798.17	12.00	0.019	797.94	-0.040	5.00	797.74	30+00.00	
797.75	12.00	-0.040	798.23	12.00	0.019	798.00	12.00	0.019	797.77	-0.040	5.00	797.57	30+25.00	
797.58	12.00	-0.040	798.06	12.00	0.019	797.83	12.00	0.019	797.60	-0.040	5.00	797.40	30+50.00	
797.41	12.00	-0.040	797.89	12.00	0.019	797.66	12.00	0.019	797.43	-0.040	5.00	797.23	30+75.00	
797.24	12.00	-0.040	797.72	12.00	0.019	797.49	12.00	0.019	797.26	-0.040	5.00	797.06	31+00.00	
797.07	12.00	-0.040	797.55	12.00	0.019	797.32	12.00	0.019	797.09	-0.040	5.00	796.89	31+25.00	
796.91	12.00	-0.040	797.39	12.00	0.019	797.16	12.00	0.019	796.93	-0.040	5.00	796.73	31+50.00	
796.74	12.00	-0.040	797.22	12.00	0.019	796.99	12.00	0.019	796.76	-0.040	5.00	796.56	31+75.00	
796.57	12.00	-0.040	797.05	12.00	0.019	796.82	12.00	0.019	796.59	-0.040	5.00	796.39	32+00.00	
796.40	12.00	-0.040	796.88	12.00	0.019	796.65	12.00	0.019	796.42	-0.040	7.56	796.12	32+25.00	
796.23	12.00	-0.040	796.71	12.00	0.019	796.48	12.00	0.019	796.25	-0.040	SEE CROSS-SECTION		32+50.00	
796.06	12.00	-0.040	796.54	12.00	0.019	796.31	12.00	0.019	796.08	-0.040	25.74	795.05	32+75.00	
795.89	12.00	-0.040	796.37	12.00	0.019	796.14	12.00	0.019	795.91	-0.040	13.19	795.38	33+00.00	
795.72	12.00	-0.040	796.20	12.00	0.019	795.97	12.00	0.019	795.74	-0.040	11.52	795.28	33+25.00	
795.55	12.00	-0.040	796.03	12.00	0.019	795.80	12.00	0.019	795.57	-0.040	10.65	795.14	33+50.00	MEDIAN U-TURN OPENING STA. 32+50.00
795.38	12.00	-0.040	795.86	12.00	0.019	795.63	12.00	0.019	795.40	-0.040	9.77	795.01	33+75.00	
795.21	12.00	-0.040	795.69	12.00	0.019	795.46	12.00	0.019	795.23	-0.040	8.90	794.87	34+00.00	
795.05	12.00	-0.040	795.53	12.00	0.019	795.30	12.00	0.019	795.07	-0.040	8.02	794.75	34+25.00	
794.88	12.00	-0.040	795.36	12.00	0.019	795.13	12.00	0.019	794.90	-0.040	7.15	794.61	34+50.00	
794.71	12.00	-0.040	795.19	12.00	0.019	794.96	12.00	0.019	794.73	-0.040	6.27	794.48	34+75.00	
794.54	12.00	-0.040	795.02	12.00	0.019	794.79	12.00	0.019	794.56	-0.040	5.40	794.34	35+00.00	
794.37	12.00	-0.040	794.85	12.00	0.019	794.62	12.00	0.019	794.39	-0.040	5.00	794.19	35+25.00	
794.20	12.00	-0.040	794.68	12.00	0.019	794.45	12.00	0.019	794.22	-0.040	5.00	794.02	35+50.00	
794.03	12.00	-0.040	794.51	12.00	0.019	794.28	12.00	0.019	794.05	-0.040	5.00	793.85	35+75.00	
793.86	12.00	-0.040	794.34	12.00	0.019	794.11	12.00	0.019	793.88	-0.040	5.00	793.68	36+00.00	
793.69	12.00	-0.040	794.17	12.00	0.019	793.94	12.00	0.019	793.71	-0.040	5.00	793.51	36+25.00	
793.52	12.00	-0.040	794.00	12.00	0.019	793.77	12.00	0.019	793.54	-0.040	5.00	793.34	36+50.00	
793.35	12.00	-0.040	793.83	12.00	0.019	793.60	12.00	0.019	793.37	-0.040	5.00	793.17	36+75.00	
793.19	12.00	-0.040	793.67	12.00	0.019	793.44	12.00	0.019	793.21	-0.040	5.00	793.01	37+00.00	
793.02	12.00	-0.040	793.50	12.00	0.019	793.27	12.00	0.019	793.04	-0.040	5.00	792.84	37+25.00	
792.85	12.00	-0.040	793.33	12.00	0.019	793.10	12.00	0.019	792.87	-0.040	5.00	792.67	37+50.00	
792.68	12.00	-0.040	793.16	12.00	0.019	792.93	12.00	0.019	792.70	-0.040	5.00	792.50	37+75.00	
792.51	12.00	-0.040	792.99	12.00	0.019	792.76	12.00	0.019	792.53	-0.040	5.00	792.33	38+00.00	
792.34	12.00	-0.040	792.82	12.00	0.019	792.59	12.00	0.019	792.36	-0.040	5.00	792.16	38+25.00	

CALCULATED C.Y.
CHECKED

SUPERELEVATION TABLE (I.R. 90 WESTBOUND LANES)

LAK-90-21.40
ATB-90-0.00

I.R. 90 WESTBOUND LANES CURVE P.I. STATION 1047+58.38

LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	LEFT EDGE OF PAVEMENT	LEFT PAVEMENT WIDTH	LEFT PAVEMENT SLOPE	CENTER OF LANES	RIGHT PAVEMENT WIDTH	RIGHT PAVEMENT SLOPE	PROFILE GRADE	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	BASELINE SURVEY & CONSTRUCTION	COMMENTS
792.17	12.00	-0.040	792.65	12.00	0.019	792.42	12.00	0.019	792.19	-0.040	5.00	791.99	38+50.00	
792.00	12.00	-0.040	792.48	12.00	0.019	792.25	12.00	0.019	792.02	-0.040	5.00	791.82	38+75.00	
791.83	12.00	-0.040	792.31	12.00	0.019	792.08	12.00	0.019	791.85	-0.040	5.00	791.65	39+00.00	
791.66	12.00	-0.040	792.14	12.00	0.019	791.91	12.00	0.019	791.68	-0.040	5.00	791.48	39+25.00	
791.49	12.00	-0.040	791.97	12.00	0.019	791.74	12.00	0.019	791.51	-0.040	5.00	791.31	39+50.00	
791.34	12.00	-0.040	791.82	12.00	0.019	791.59	12.00	0.019	791.36	-0.040	5.00	791.16	39+75.00	
791.22	12.00	-0.040	791.70	12.00	0.019	791.47	12.00	0.019	791.24	-0.040	5.00	791.04	40+00.00	
791.14	12.00	-0.040	791.62	12.00	0.019	791.39	12.00	0.019	791.16	-0.040	5.00	790.96	40+25.00	
791.09	12.00	-0.040	791.57	12.00	0.019	791.34	12.00	0.019	791.11	-0.040	5.00	790.91	40+50.00	
791.07	12.00	-0.040	791.55	12.00	0.019	791.32	12.00	0.019	791.09	-0.040	5.00	790.89	40+75.00	
791.09	12.00	-0.040	791.57	12.00	0.019	791.34	12.00	0.019	791.11	-0.040	5.00	790.91	41+00.00	
791.14	12.00	-0.040	791.62	12.00	0.019	791.39	12.00	0.019	791.16	-0.040	5.00	790.96	41+25.00	
791.23	12.00	-0.040	791.71	12.00	0.019	791.48	12.00	0.019	791.25	-0.040	5.00	791.05	41+50.00	
791.29	12.00	-0.040	791.77	12.00	0.019	791.54	12.00	0.019	791.31	-0.040	5.00	791.11	41+63.26	END FULL SUPERELEVATION
791.27	12.00	-0.040	791.75	12.00	0.016	791.56	12.00	0.016	791.37	-0.040	5.00	791.17	41+75.00	
791.30	12.00	-0.040	791.78	12.00	0.012	791.63	12.00	0.016	791.44	-0.040	5.00	791.24	41+87.57 BACK	back and pt station
791.30	12.00	-0.040	791.78	12.00	0.012	791.63	12.00	0.016	791.44	-0.040	5.00	791.24	41+88.95 AHEAD	ahead
791.33	12.00	-0.040	791.81	12.00	0.009	791.70	12.00	0.016	791.51	-0.040	5.00	791.31	42+00.00	
791.39	12.00	-0.040	791.87	12.00	-0.002	791.89	12.00	0.016	791.70	-0.040	5.00	791.50	42+25.00	
791.56	12.00	-0.040	792.04	12.00	-0.006	792.11	12.00	0.016	791.92	-0.040	5.00	791.72	42+50.00	
791.69	12.00	-0.040	792.17	12.00	-0.014	792.34	12.00	0.016	792.15	-0.040	5.00	791.95	42+75.00	
791.71	12.00	-0.040	792.19	12.00	-0.016	792.38	12.00	0.016	792.19	-0.040	5.00	791.99	42+78.64	BEGIN NORMAL CROWN

CALCULATED C.Y.
CHECKED

SUPERELEVATION TABLE (I.R. 90 WESTBOUND LANES)

LAK-90-21.40
ATB-90-0.00

I.R. 90 EASTBOUND LANES CURVE P.I. STATION 112+36.72

BASELINE SURVEY & CONSTRUCTION	LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	PROFILE GRADE	LEFT PAVEMENT WIDTH	LEFT PAVEMENT SLOPE	CENTER OF LANES	RIGHT PAVEMENT WIDTH	RIGHT PAVEMENT SLOPE	RIGHT EDGE OF PAVEMENT	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	COMMENTS
104+73.35	816.65	5.00	-0.040	816.85	12.00	0.016	817.04	12.00	-0.016	816.85	-0.040	12.00	816.37	END NORMAL CROWN
104+75.00	816.66	5.00	-0.040	816.86	12.00	0.016	817.05	12.00	-0.015	816.87	-0.040	12.00	816.39	
105+00.00	816.75	5.00	-0.040	816.95	12.00	0.016	817.14	12.00	-0.007	817.06	-0.040	12.00	816.58	
105+25.00	816.84	5.00	-0.040	817.04	12.00	0.016	817.23	12.00	0.001	817.24	-0.040	12.00	816.76	
105+50.00	816.93	5.00	-0.040	817.13	12.00	0.016	817.32	12.00	0.008	817.41	-0.040	12.00	816.93	
105+65.45	816.98	5.00	-0.040	817.18	12.00	0.016	817.37	12.00	0.013	817.53	-0.040	12.00	817.05	PC STA. 105+65.45
105+75.00	817.02	5.00	-0.040	817.22	12.00	0.019	817.45	12.00	0.019	817.68	-0.040	12.00	817.20	
105+87.33	817.06	5.00	-0.040	817.26	12.00	0.019	817.49	12.00	0.019	817.72	-0.040	12.00	817.24	BEGIN FULL SUPERELEVATION
106+00.00	817.11	5.00	-0.040	817.31	12.00	0.019	817.54	12.00	0.019	817.77	-0.040	12.00	817.29	
106+25.00	817.20	5.00	-0.040	817.40	12.00	0.019	817.63	12.00	0.019	817.86	-0.040	12.00	817.38	
106+50.00	817.28	5.00	-0.040	817.48	12.00	0.019	817.71	12.00	0.019	817.94	-0.040	12.00	817.46	
106+75.00	817.37	5.00	-0.040	817.57	12.00	0.019	817.80	12.00	0.019	818.03	-0.040	12.00	817.55	
107+00.00	817.44	5.00	-0.040	817.64	12.00	0.019	817.87	12.00	0.019	818.10	-0.040	12.00	817.62	
107+25.00	817.51	5.00	-0.040	817.71	12.00	0.019	817.94	12.00	0.019	818.17	-0.040	12.00	817.69	
107+50.00	817.56	5.00	-0.040	817.76	12.00	0.019	817.99	12.00	0.019	818.22	-0.040	12.00	817.74	
107+75.00	817.60	5.00	-0.040	817.80	12.00	0.019	818.03	12.00	0.019	818.26	-0.040	12.00	817.78	
108+00.00	817.64	5.00	-0.040	817.84	12.00	0.019	818.07	12.00	0.019	818.30	-0.040	12.00	817.82	
108+25.00	817.66	5.00	-0.040	817.86	12.00	0.019	818.09	12.00	0.019	818.32	-0.040	12.00	817.84	
108+50.00	817.67	5.00	-0.040	817.87	12.00	0.019	818.10	12.00	0.019	818.33	-0.040	12.00	817.85	
108+75.00	817.68	5.00	-0.040	817.88	12.00	0.019	818.11	12.00	0.019	818.34	-0.040	12.00	817.86	
109+00.00	817.67	5.00	-0.040	817.87	12.00	0.019	818.10	12.00	0.019	818.33	-0.040	12.00	817.85	
109+25.00	817.65	5.00	-0.040	817.85	12.00	0.019	818.08	12.00	0.019	818.31	-0.040	12.00	817.83	
109+50.00	817.63	5.00	-0.040	817.83	12.00	0.019	818.06	12.00	0.019	818.29	-0.040	12.00	817.81	
109+75.00	817.59	5.00	-0.040	817.79	12.00	0.019	818.02	12.00	0.019	818.25	-0.040	12.00	817.77	
110+00.00	817.54	5.00	-0.040	817.74	12.00	0.019	817.97	12.00	0.019	818.20	-0.040	12.00	817.72	
110+25.00	817.48	5.00	-0.040	817.68	12.00	0.019	817.91	12.00	0.019	818.14	-0.040	12.00	817.66	
110+50.00	817.41	5.00	-0.040	817.61	12.00	0.019	817.84	12.00	0.019	818.07	-0.040	12.00	817.59	
110+75.00	817.34	5.00	-0.040	817.54	12.00	0.019	817.77	12.00	0.019	818.00	-0.040	12.00	817.52	
111+00.00	817.27	5.00	-0.040	817.47	12.00	0.019	817.70	12.00	0.019	817.93	-0.040	12.00	817.45	
111+25.00	817.19	5.00	-0.040	817.39	12.00	0.019	817.62	12.00	0.019	817.85	-0.040	12.00	817.37	
111+50.00	817.12	5.00	-0.040	817.32	12.00	0.019	817.55	12.00	0.019	817.78	-0.040	12.00	817.30	
111+75.00	817.05	5.00	-0.040	817.25	12.00	0.019	817.48	12.00	0.019	817.71	-0.040	12.00	817.23	
112+00.00	816.97	5.00	-0.040	817.17	12.00	0.019	817.40	12.00	0.019	817.63	-0.040	12.00	817.15	
112+25.00	816.90	5.00	-0.040	817.10	12.00	0.019	817.33	12.00	0.019	817.56	-0.040	12.00	817.08	
112+50.00	816.83	5.00	-0.040	817.03	12.00	0.019	817.26	12.00	0.019	817.49	-0.040	12.00	817.01	
112+75.00	816.75	5.00	-0.040	816.95	12.00	0.019	817.18	12.00	0.019	817.41	-0.040	12.00	816.93	
113+00.00	816.68	5.00	-0.040	816.88	12.00	0.019	817.11	12.00	0.019	817.34	-0.040	12.00	816.86	
113+25.00	816.61	5.00	-0.040	816.81	12.00	0.019	817.04	12.00	0.019	817.27	-0.040	12.00	816.79	
113+50.00	816.53	5.00	-0.040	816.73	12.00	0.019	816.96	12.00	0.019	817.19	-0.040	12.00	816.71	
113+75.00	816.46	5.00	-0.040	816.66	12.00	0.019	816.89	12.00	0.019	817.12	-0.040	12.00	816.64	
114+00.00	816.39	5.00	-0.040	816.59	12.00	0.019	816.82	12.00	0.019	817.05	-0.040	12.00	816.57	
114+25.00	816.31	5.00	-0.040	816.51	12.00	0.019	816.74	12.00	0.019	816.97	-0.040	12.00	816.49	
114+50.00	816.24	5.00	-0.040	816.44	12.00	0.019	816.67	12.00	0.019	816.90	-0.040	12.00	816.42	
114+75.00	816.16	5.00	-0.040	816.36	12.00	0.019	816.59	12.00	0.019	816.82	-0.040	12.00	816.34	
115+00.00	816.02	5.75	-0.040	816.25	12.00	0.019	816.48	12.00	0.019	816.71	-0.040	12.00	816.23	MEDIAN U-TURN OPENING STA. 117+40.00
115+25.00	815.86	6.62	-0.040	816.12	12.00	0.019	816.35	12.00	0.019	816.58	-0.040	12.00	816.10	
115+50.00	815.67	7.50	-0.040	815.97	12.00	0.019	816.20	12.00	0.019	816.43	-0.040	12.00	815.95	
115+75.00	815.47	8.37	-0.040	815.80	12.00	0.019	816.03	12.00	0.019	816.26	-0.040	12.00	815.78	
116+00.00	815.23	9.25	-0.040	815.60	12.00	0.019	815.83	12.00	0.019	816.06	-0.040	12.00	815.58	
116+25.00	814.98	10.12	-0.040	815.38	12.00	0.019	815.61	12.00	0.019	815.84	-0.040	12.00	815.36	
116+50.00	814.69	11.00	-0.040	815.13	12.00	0.019	815.36	12.00	0.019	815.59	-0.040	12.00	815.11	
116+75.00	814.40	11.87	-0.040	814.87	12.00	0.019	815.10	12.00	0.019	815.33	-0.040	12.00	814.85	
117+00.00	813.93	16.33	-0.040	814.58	12.00	0.019	814.81	12.00	0.019	815.04	-0.040	12.00	814.56	
117+25.00	812.77	37.38	-0.040	814.27	12.00	0.019	814.50	12.00	0.019	814.73	-0.040	12.00	814.25	
117+50.00	SEE CROSS SECTION		-0.040	813.94	12.00	0.019	814.17	12.00	0.019	814.40	-0.040	12.00	813.92	
117+75.00	813.41	5.02	-0.040	813.61	12.00	0.019	813.84	12.00	0.019	814.07	-0.040	12.00	813.59	
118+00.00	813.11	5.00	-0.040	813.31	12.00	0.019	813.54	12.00	0.019	813.77	-0.040	12.00	813.29	
118+25.00	812.84	5.00	-0.040	813.04	12.00	0.019	813.27	12.00	0.019	813.50	-0.040	12.00	813.02	
118+50.00	812.60	5.00	-0.040	812.80	12.00	0.019	813.03	12.00	0.019	813.26	-0.040	12.00	812.78	
118+75.00	812.38	5.00	-0.040	812.58	12.00	0.019	812.81	12.00	0.019	813.04	-0.040	12.00	812.56	
119+00.00	812.20	5.00	-0.040	812.40	12.00	0.019	812.63	12.00	0.019	812.86	-0.040	12.00	812.38	
119+06.65 BACK	812.15	5.00	-0.040	812.35	12.00	0.019	812.58	12.00	0.019	812.81	-0.040	12.00	812.33	BACK
0+44.61 AHEAD	812.15	5.00	-0.040	812.35	12.00	0.019	812.58	12.00	0.019	812.81	-0.040	12.00	812.33	AHEAD & PCC STATION
0+50.00	812.12	5.00	-0.040	812.32	12.00	0.019	812.55	12.00	0.019	812.78	-0.040	12.00	812.30	
0+75.00	811.98	5.00	-0.040	812.18	12.00	0.019	812.41	12.00	0.019	812.64	-0.040	12.00	812.16	
1+00.00	811.86	5.00	-0.040	812.06	12.00	0.019	812.29	12.00	0.019	812.52	-0.040	12.00	812.04	
1+25.00	811.78	5.00	-0.040	811.98	12.00	0.019	812.21	12.00	0.019	812.44	-0.040	12.00	811.96	
1+50.00	811.73	5.00	-0.040	811.93	12.00	0.019	812.16	12.00	0.019	812.39	-0.040	12.00	811.91	

CALCULATED C.Y. CHECKED

SUPERELEVATION TABLE (I.R. 90 EASTBOUND LANES)

LAK-90-21.40
ATB-90-0.00

I.R. 90 EASTBOUND LANES CURVE P.I. STATION 112+36.72

BASELINE SURVEY & CONSTRUCTION	LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	PROFILE GRADE	LEFT PAVEMENT WIDTH	LEFT PAVEMENT SLOPE	CENTER OF LANES	RIGHT PAVEMENT WIDTH	RIGHT PAVEMENT SLOPE	RIGHT EDGE OF PAVEMENT	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	COMMENTS
1+75.00	811.70	5.00	-0.040	811.90	12.00	0.019	812.13	12.00	0.019	812.36	-0.040	12.00	811.88	
2+00.00	811.70	5.00	-0.040	811.90	12.00	0.019	812.13	12.00	0.019	812.36	-0.040	12.00	811.88	
2+25.00	811.70	5.00	-0.040	811.90	12.00	0.019	812.13	12.00	0.019	812.36	-0.040	12.00	811.88	
2+50.00	811.71	5.00	-0.040	811.91	12.00	0.019	812.14	12.00	0.019	812.37	-0.040	12.00	811.89	
2+75.00	811.71	5.00	-0.040	811.91	12.00	0.019	812.14	12.00	0.019	812.37	-0.040	12.00	811.89	
3+00.00	811.71	5.00	-0.040	811.91	12.00	0.019	812.14	12.00	0.019	812.37	-0.040	12.00	811.89	
3+25.00	811.71	5.00	-0.040	811.91	12.00	0.019	812.14	12.00	0.019	812.37	-0.040	12.00	811.89	
3+50.00	811.72	5.00	-0.040	811.92	12.00	0.019	812.15	12.00	0.019	812.38	-0.040	11.64	811.91	
3+75.00	811.72	5.00	-0.040	811.92	12.00	0.019	812.15	12.00	0.019	812.38	-0.040	11.29	811.92	
4+00.00	811.72	5.00	-0.040	811.92	12.00	0.019	812.15	12.00	0.019	812.38	-0.040	10.93	811.94	
4+25.00	811.73	5.00	-0.040	811.93	12.00	0.019	812.16	12.00	0.019	812.39	-0.040	10.57	811.96	
4+50.00	811.73	5.00	-0.040	811.93	12.00	0.019	812.16	12.00	0.019	812.39	-0.040	10.21	811.98	
4+75.00	811.73	5.00	-0.040	811.93	12.00	0.019	812.16	12.00	0.019	812.39	-0.040	10.00	811.99	
5+00.00	811.74	5.00	-0.040	811.94	12.00	0.019	812.17	12.00	0.019	812.40	-0.040	10.00	812.00	
5+25.00	811.74	5.00	-0.040	811.94	12.00	0.019	812.17	12.00	0.019	812.40	-0.040	10.00	812.00	
5+50.00	811.74	5.00	-0.040	811.94	12.00	0.019	812.17	12.00	0.019	812.40	-0.040	10.00	812.00	
5+75.00	811.75	5.00	-0.040	811.95	12.00	0.019	812.18	12.00	0.019	812.41	-0.040	10.00	812.01	MEET EXISTING IR 90

CALCULATED C. Y.
CHECKED

SUPERELEVATION TABLES (I.R. 90 EASTBOUND LANES)

LAK-90-21.40
ATB-90-0.00

I.R. 90 WESTBOUND LANES CURVE P.I. STATION 112+36.72

LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	LEFT EDGE OF PAVEMENT	LEFT PAVEMENT WIDTH	LEFT PAVEMENT SLOPE	CENTER OF LANES	RIGHT PAVEMENT WIDTH	RIGHT PAVEMENT SLOPE	PROFILE GRADE	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	BASELINE SURVEY & CONSTRUCTION	COMMENTS
816.37	12.00	-0.040	816.85	12.00	-0.016	817.04	12.00	0.016	816.85	-0.040	5.00	816.65	104+73.35	END NORMAL CROWN
816.37	12.00	-0.040	816.85	12.00	-0.016	817.05	12.00	0.015	816.86	-0.040	5.00	816.66	104+75.00	
816.36	12.00	-0.040	816.84	12.00	-0.016	817.03	12.00	0.007	816.95	-0.040	5.00	816.75	105+00.00	
816.36	12.00	-0.040	816.84	12.00	-0.016	817.03	12.00	-0.001	817.04	-0.040	5.00	816.84	105+25.00	
816.37	12.00	-0.040	816.85	12.00	-0.016	817.04	12.00	-0.008	817.13	-0.040	5.00	816.93	105+50.00	
816.35	12.00	-0.040	816.83	12.00	-0.016	817.02	12.00	-0.013	817.18	-0.040	5.00	816.98	105+65.45	PC STA. 105+65.45
816.28	12.00	-0.040	816.76	12.00	-0.019	816.99	12.00	-0.019	817.22	-0.040	5.00	817.02	105+75.00	
816.32	12.00	-0.040	816.80	12.00	-0.019	817.03	12.00	-0.019	817.26	-0.040	5.00	817.06	105+87.33	BEGIN FULL SUPERELEVATION
816.37	12.00	-0.040	816.85	12.00	-0.019	817.08	12.00	-0.019	817.31	-0.040	5.00	817.11	106+00.00	
816.46	12.00	-0.040	816.94	12.00	-0.019	817.17	12.00	-0.019	817.40	-0.040	5.00	817.20	106+25.00	
816.54	12.00	-0.040	817.02	12.00	-0.019	817.25	12.00	-0.019	817.48	-0.040	5.00	817.28	106+50.00	
816.63	12.00	-0.040	817.11	12.00	-0.019	817.34	12.00	-0.019	817.57	-0.040	5.00	817.37	106+75.00	
816.70	12.00	-0.040	817.18	12.00	-0.019	817.41	12.00	-0.019	817.64	-0.040	5.00	817.44	107+00.00	
816.77	12.00	-0.040	817.25	12.00	-0.019	817.48	12.00	-0.019	817.71	-0.040	5.00	817.51	107+25.00	
816.82	12.00	-0.040	817.30	12.00	-0.019	817.53	12.00	-0.019	817.76	-0.040	5.00	817.56	107+50.00	
816.86	12.00	-0.040	817.34	12.00	-0.019	817.57	12.00	-0.019	817.80	-0.040	5.00	817.60	107+75.00	
816.90	12.00	-0.040	817.38	12.00	-0.019	817.61	12.00	-0.019	817.84	-0.040	5.00	817.64	108+00.00	
816.92	12.00	-0.040	817.40	12.00	-0.019	817.63	12.00	-0.019	817.86	-0.040	5.00	817.66	108+25.00	
816.93	12.00	-0.040	817.41	12.00	-0.019	817.64	12.00	-0.019	817.87	-0.040	5.00	817.67	108+50.00	
816.94	12.00	-0.040	817.42	12.00	-0.019	817.65	12.00	-0.019	817.88	-0.040	5.00	817.68	108+75.00	
816.93	12.00	-0.040	817.41	12.00	-0.019	817.64	12.00	-0.019	817.87	-0.040	5.00	817.67	109+00.00	
816.91	12.00	-0.040	817.39	12.00	-0.019	817.62	12.00	-0.019	817.85	-0.040	5.00	817.65	109+25.00	
816.89	12.00	-0.040	817.37	12.00	-0.019	817.60	12.00	-0.019	817.83	-0.040	5.00	817.63	109+50.00	
816.85	12.00	-0.040	817.33	12.00	-0.019	817.56	12.00	-0.019	817.79	-0.040	5.00	817.59	109+75.00	
816.80	12.00	-0.040	817.28	12.00	-0.019	817.51	12.00	-0.019	817.74	-0.040	5.00	817.54	110+00.00	
816.74	12.00	-0.040	817.22	12.00	-0.019	817.45	12.00	-0.019	817.68	-0.040	5.00	817.48	110+25.00	
816.67	12.00	-0.040	817.15	12.00	-0.019	817.38	12.00	-0.019	817.61	-0.040	5.00	817.41	110+50.00	
816.60	12.00	-0.040	817.08	12.00	-0.019	817.31	12.00	-0.019	817.54	-0.040	5.00	817.34	110+75.00	
816.53	12.00	-0.040	817.01	12.00	-0.019	817.24	12.00	-0.019	817.47	-0.040	5.00	817.27	111+00.00	
816.45	12.00	-0.040	816.93	12.00	-0.019	817.16	12.00	-0.019	817.39	-0.040	5.00	817.19	111+25.00	
816.38	12.00	-0.040	816.86	12.00	-0.019	817.09	12.00	-0.019	817.32	-0.040	5.00	817.12	111+50.00	
816.31	12.00	-0.040	816.79	12.00	-0.019	817.02	12.00	-0.019	817.25	-0.040	5.00	817.05	111+75.00	
816.23	12.00	-0.040	816.71	12.00	-0.019	816.94	12.00	-0.019	817.17	-0.040	5.00	816.97	112+00.00	
816.16	12.00	-0.040	816.64	12.00	-0.019	816.87	12.00	-0.019	817.10	-0.040	5.00	816.90	112+25.00	
816.09	12.00	-0.040	816.57	12.00	-0.019	816.80	12.00	-0.019	817.03	-0.040	5.00	816.83	112+50.00	
816.01	12.00	-0.040	816.49	12.00	-0.019	816.72	12.00	-0.019	816.95	-0.040	5.00	816.75	112+75.00	
815.94	12.00	-0.040	816.42	12.00	-0.019	816.65	12.00	-0.019	816.88	-0.040	5.00	816.68	113+00.00	
815.87	12.00	-0.040	816.35	12.00	-0.019	816.58	12.00	-0.019	816.81	-0.040	5.00	816.61	113+25.00	
815.79	12.00	-0.040	816.27	12.00	-0.019	816.50	12.00	-0.019	816.73	-0.040	5.00	816.53	113+50.00	
815.72	12.00	-0.040	816.20	12.00	-0.019	816.43	12.00	-0.019	816.66	-0.040	5.00	816.46	113+75.00	
815.65	12.00	-0.040	816.13	12.00	-0.019	816.36	12.00	-0.019	816.59	-0.040	5.00	816.39	114+00.00	
815.57	12.00	-0.040	816.05	12.00	-0.019	816.28	12.00	-0.019	816.51	-0.040	5.00	816.31	114+25.00	
815.50	12.00	-0.040	815.98	12.00	-0.019	816.21	12.00	-0.019	816.44	-0.040	5.00	816.24	114+50.00	
815.42	12.00	-0.040	815.90	12.00	-0.019	816.13	12.00	-0.019	816.36	-0.040	5.00	816.16	114+75.00	
815.31	12.00	-0.040	815.79	12.00	-0.019	816.02	12.00	-0.019	816.25	-0.040	5.00	816.05	115+00.00	
815.18	12.00	-0.040	815.66	12.00	-0.019	815.89	12.00	-0.019	816.12	-0.040	5.00	815.92	115+25.00	
815.03	12.00	-0.040	815.51	12.00	-0.019	815.74	12.00	-0.019	815.97	-0.040	5.00	815.77	115+50.00	
814.86	12.00	-0.040	815.34	12.00	-0.019	815.57	12.00	-0.019	815.80	-0.040	5.00	815.60	115+75.00	
814.66	12.00	-0.040	815.14	12.00	-0.019	815.37	12.00	-0.019	815.60	-0.040	5.00	815.40	116+00.00	
814.44	12.00	-0.040	814.92	12.00	-0.019	815.15	12.00	-0.019	815.38	-0.040	5.00	815.18	116+25.00	
814.19	12.00	-0.040	814.67	12.00	-0.019	814.90	12.00	-0.019	815.13	-0.040	5.00	814.93	116+50.00	
813.93	12.00	-0.040	814.41	12.00	-0.019	814.64	12.00	-0.019	814.87	-0.040	5.00	814.67	116+75.00	
813.64	12.00	-0.040	814.12	12.00	-0.019	814.35	12.00	-0.019	814.58	-0.040	5.00	814.38	117+00.00	
813.33	12.00	-0.040	813.81	12.00	-0.019	814.04	12.00	-0.019	814.27	-0.040	16.40	813.61	117+25.00	
813.00	12.00	-0.040	813.48	12.00	-0.019	813.71	12.00	-0.019	813.94	-0.040	SEE CROSS-SECTION		117+50.00	
812.67	12.00	-0.040	813.15	12.00	-0.019	813.38	12.00	-0.019	813.61	-0.040	18.67	812.86	117+75.00	
812.37	12.00	-0.040	812.85	12.00	-0.019	813.08	12.00	-0.019	813.31	-0.040	12.01	812.83	118+00.00	
812.10	12.00	-0.040	812.58	12.00	-0.019	812.81	12.00	-0.019	813.04	-0.040	11.17	812.59	118+25.00	
811.86	12.00	-0.040	812.34	12.00	-0.019	812.57	12.00	-0.019	812.80	-0.040	10.29	812.39	118+50.00	
811.64	12.00	-0.040	812.12	12.00	-0.019	812.35	12.00	-0.019	812.58	-0.040	9.42	812.20	118+75.00	
811.46	12.00	-0.040	811.94	12.00	-0.019	812.17	12.00	-0.019	812.40	-0.040	8.54	812.06	119+00.00	
811.41	12.00	-0.040	811.89	12.00	-0.019	812.12	12.00	-0.019	812.35	-0.040	8.31	812.02	119+06.65	BACK
811.41	12.00	-0.040	811.89	12.00	-0.019	812.12	12.00	-0.019	812.35	-0.040	8.31	812.02	0+44.61	AHEAD & PCC STATION
811.38	12.00	-0.040	811.86	12.00	-0.019	812.09	12.00	-0.019	812.32	-0.040	8.12	812.00	0+50.00	
811.24	12.00	-0.040	811.72	12.00	-0.019	811.95	12.00	-0.019	812.18	-0.040	7.25	811.89	0+75.00	
811.12	12.00	-0.040	811.60	12.00	-0.019	811.83	12.00	-0.019	812.06	-0.040	6.37	811.81	1+00.00	
811.04	12.00	-0.040	811.52	12.00	-0.019	811.75	12.00	-0.019	811.98	-0.040	5.50	811.76	1+25.00	
810.99	12.00	-0.040	811.47	12.00	-0.019	811.70	12.00	-0.019	811.93	-0.040	5.00	811.73	1+50.00	

CALCULATED C.Y. CHECKED

SUPERELEVATION TABLES (I.R. 90 WESTBOUND LANES)

LAK-90-21.40
ATB-90-0.00

I.R. 90 WESTBOUND LANES CURVE P.I. STATION 112+36.72

LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	LEFT EDGE OF PAVEMENT	LEFT PAVEMENT WIDTH	LEFT PAVEMENT SLOPE	CENTER OF LANES	RIGHT PAVEMENT WIDTH	RIGHT PAVEMENT SLOPE	PROFILE GRADE	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	BASELINE SURVEY & CONSTRUCTION	COMMENTS
810.96	12.00	-0.040	811.44	12.00	-0.019	811.67	12.00	-0.019	811.90	-0.040	5.00	811.70	1+75.00	
810.96	12.00	-0.040	811.44	12.00	-0.019	811.67	12.00	-0.019	811.90	-0.040	5.00	811.70	2+00.00	
810.96	12.00	-0.040	811.44	12.00	-0.019	811.67	12.00	-0.019	811.90	-0.040	5.00	811.70	2+25.00	
810.97	12.00	-0.040	811.45	12.00	-0.019	811.68	12.00	-0.019	811.91	-0.040	5.00	811.71	2+50.00	
810.97	12.00	-0.040	811.45	12.00	-0.019	811.68	12.00	-0.019	811.91	-0.040	5.00	811.71	2+75.00	
810.97	12.00	-0.040	811.45	12.00	-0.019	811.68	12.00	-0.019	811.91	-0.040	5.00	811.71	3+00.00	
810.97	12.00	-0.040	811.45	12.00	-0.019	811.68	12.00	-0.019	811.91	-0.040	5.00	811.71	3+25.00	
811.00	11.64	-0.040	811.46	12.00	-0.019	811.69	12.00	-0.019	811.92	-0.040	6.00	811.68	3+50.00	
811.01	11.29	-0.040	811.46	12.00	-0.019	811.69	12.00	-0.019	811.92	-0.040	7.00	811.64	3+75.00	
811.03	10.93	-0.040	811.46	12.00	-0.019	811.69	12.00	-0.019	811.92	-0.040	8.00	811.60	4+00.00	
811.05	10.57	-0.040	811.47	12.00	-0.019	811.70	12.00	-0.019	811.93	-0.040	9.00	811.57	4+25.00	
811.07	10.21	-0.040	811.47	12.00	-0.019	811.70	12.00	-0.019	811.93	-0.040	10.00	811.53	4+50.00	
811.07	10.00	-0.040	811.47	12.00	-0.019	811.70	12.00	-0.019	811.93	-0.040	11.00	811.49	4+75.00	
811.08	10.00	-0.040	811.48	12.00	-0.019	811.71	12.00	-0.019	811.94	-0.040	12.00	811.46	5+00.00	
811.08	10.00	-0.040	811.48	12.00	-0.019	811.71	12.00	-0.019	811.94	-0.040	13.00	811.42	5+25.00	
811.08	10.00	-0.040	811.48	12.00	-0.019	811.71	12.00	-0.019	811.94	-0.040	14.00	811.38	5+50.00	
811.09	10.00	-0.040	811.49	12.00	-0.019	811.72	12.00	-0.019	811.95	-0.040	15.00	811.35	5+75.00	MEET EXISTING IR 90

CALCULATED C.Y.
CHECKED

SUPERELEVATION TABLE (I.R. 90 WESTBOUND LANES)

LAK-90-21.40
ATB-90-0.00

RAMP I

BASELINE SURVEY & CONSTRUCTION	LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	LEFT EDGE OF PAVEMENT	PAVEMENT WIDTH	PAVEMENT SLOPE	PROFILE GRADE	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	COMMENTS
4+36.31	804.99	3.0	-0.029	805.08	16.0	0.041	804.42	-0.041	8.0	804.09	BEGIN RAMP I
4+50.00	804.96	3.0	-0.029	805.05	16.0	0.041	804.39	-0.041	8.0	804.06	
4+75.00	804.93	3.0	-0.029	805.02	16.0	0.041	804.36	-0.041	8.0	804.03	
5+00.00	804.97	3.0	-0.029	805.06	16.0	0.041	804.40	-0.041	8.0	804.07	
5+25.00	805.07	3.0	-0.029	805.16	16.0	0.041	804.50	-0.041	8.0	804.17	
5+50.00	805.24	3.0	-0.029	805.33	16.0	0.041	804.67	-0.041	8.0	804.34	
5+75.00	805.48	3.0	-0.029	805.57	16.0	0.041	804.91	-0.041	8.0	804.58	
6+00.00	805.79	3.0	-0.029	805.88	16.0	0.041	805.22	-0.041	8.0	804.89	
6+25.00	806.16	3.0	-0.029	806.25	16.0	0.041	805.59	-0.041	8.0	805.26	
6+50.00	806.59	3.0	-0.029	806.68	16.0	0.041	806.02	-0.041	8.0	805.69	
6+75.00	807.09	3.0	-0.029	807.18	16.0	0.041	806.52	-0.041	8.0	806.19	
7+00.00	807.66	3.0	-0.029	807.75	16.0	0.041	807.09	-0.041	8.0	806.76	
7+25.00	808.30	3.0	-0.029	808.39	16.0	0.041	807.73	-0.041	8.0	807.40	
7+31.30	808.47	3.0	-0.029	808.56	16.0	0.041	807.90	-0.041	8.0	807.57	BEGIN ROTATION
7+50.00	809.14	3.0	-0.022	809.20	16.0	0.048	808.43	-0.048	8.0	808.04	
7+75.00	810.09	3.0	-0.012	810.13	16.0	0.058	809.20	-0.058	8.0	808.74	
8+00.00	811.31	3.0	0.068	811.11	16.0	0.068	810.03	-0.068	8.0	809.49	
8+25.00	812.40	3.0	0.077	812.17	16.0	0.077	810.93	-0.077	8.0	810.31	
8+29.49	812.60	3.0	0.079	812.36	16.0	0.079	811.10	-0.079	8.0	810.47	BEGIN MAXIMUM SUPER
8+50.00	813.40	3.0	0.079	813.16	16.0	0.079	811.90	-0.079	8.0	811.27	
8+75.00	814.40	3.0	0.079	814.16	16.0	0.079	812.90	-0.079	8.0	812.27	
8+82.63	814.71	3.0	0.079	814.47	16.0	0.079	813.21	-0.079	8.0	812.58	END MAXIMUM SUPER
9+00.00	815.27	3.0	0.072	815.06	16.0	0.072	813.90	-0.072	8.0	813.32	
9+25.00	816.09	3.0	0.063	815.90	16.0	0.063	814.90	-0.063	8.0	814.40	
9+50.00	816.70	3.0	-0.017	816.75	16.0	0.053	815.90	-0.053	8.0	815.48	
9+75.00	817.51	3.0	-0.027	817.59	16.0	0.043	816.90	-0.043	8.0	816.55	
10+00.00	818.33	3.0	-0.036	818.44	16.0	0.034	817.90	-0.040	8.0	817.58	
10+25.00	819.16	3.0	-0.040	819.28	16.0	0.024	818.90	-0.040	8.0	818.58	
10+50.00	820.01	3.0	-0.040	820.13	16.0	0.014	819.90	-0.040	8.0	819.58	
10+75.00	820.85	3.0	-0.040	820.97	16.0	0.005	820.90	-0.040	8.0	820.58	
11+00.00	821.70	3.0	-0.040	821.82	16.0	-0.005	821.90	-0.040	8.0	821.58	
11+25.00	822.47	3.0	-0.040	822.59	16.0	-0.015	822.83	-0.040	8.0	822.51	
11+50.00	823.12	3.0	-0.040	823.24	16.0	-0.024	823.63	-0.040	8.0	823.31	
11+67.00	823.47	3.0	-0.040	823.59	16.0	-0.031	824.09	-0.040	8.0	823.77	REACH MINIMUM SUPER
11+75.00	823.71	3.0	-0.040	823.83	16.0	-0.028	824.28	-0.040	8.0	823.96	
12+00.00	824.37	3.0	-0.040	824.49	16.0	-0.019	824.80	-0.040	8.0	824.48	
12+25.00											SEE INTERSECTION DETAIL SHEETS 455-462
12+50.00											
12+53.09											

CALCULATED C.Y.
CHECKED

SUPERELEVATION TABLE (RAMP I)

LAK-90-21.40
ATB-90-0.00

RAMP J

BASELINE SURVEY & CONSTRUCTION	LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	PROFILE GRADE	PAVEMENT WIDTH	PAVEMENT SLOPE	RIGHT EDGE OF PAVEMENT	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	COMMENTS
4+43.51	802.29	8.0	-0.077	802.91	16.0	0.077	804.14	-0.010	3.0	804.11	BEGIN RAMP J
4+50.00	802.20	8.0	-0.077	802.82	16.0	0.077	804.05	0.077	3.0	804.28	
4+75.00	801.83	8.0	-0.077	802.45	16.0	0.077	803.68	0.077	3.0	803.91	
5+00.00	801.47	8.0	-0.077	802.09	16.0	0.077	803.32	0.077	3.0	803.55	BEGIN MAXIMUM SUPER
5+25.00	801.15	8.0	-0.077	801.77	16.0	0.077	803.00	0.077	3.0	803.23	
5+50.00	800.92	8.0	-0.077	801.54	16.0	0.077	802.77	0.077	3.0	803.00	
5+75.00	800.78	8.0	-0.077	801.40	16.0	0.077	802.63	0.077	3.0	802.86	
6+00.00	800.73	8.0	-0.077	801.35	16.0	0.077	802.58	0.077	3.0	802.81	
6+25.00	800.77	8.0	-0.077	801.39	16.0	0.077	802.62	0.077	3.0	802.85	
6+50.00	800.90	8.0	-0.077	801.52	16.0	0.077	802.75	0.077	3.0	802.98	
6+75.00	801.12	8.0	-0.077	801.74	16.0	0.077	802.97	0.077	3.0	803.20	
7+00.00	801.43	8.0	-0.077	802.05	16.0	0.077	803.28	0.077	3.0	803.51	
7+25.00	801.83	8.0	-0.077	802.45	16.0	0.077	803.68	0.077	3.0	803.91	
7+50.00	802.32	8.0	-0.077	802.94	16.0	0.077	804.17	0.077	3.0	804.40	
7+75.00	802.90	8.0	-0.077	803.52	16.0	0.077	804.75	0.077	3.0	804.98	
8+00.00	803.57	8.0	-0.077	804.19	16.0	0.077	805.42	0.077	3.0	805.65	
8+25.00	804.29	8.0	-0.077	804.91	16.0	0.077	806.14	0.077	3.0	806.37	
8+50.00	805.01	8.0	-0.077	805.63	16.0	0.077	806.86	0.077	3.0	807.09	
8+75.00	805.72	8.0	-0.077	806.34	16.0	0.077	807.57	0.077	3.0	807.80	
9+00.00	806.44	8.0	-0.077	807.06	16.0	0.077	808.29	0.077	3.0	808.52	
9+07.87	806.66	8.0	-0.077	807.28	16.0	0.077	808.51	0.077	3.0	808.74	END MAXIMUM SUPER
9+25.00	807.20	8.0	-0.072	807.77	16.0	0.072	808.92	0.072	3.0	809.13	
9+50.00	807.93	8.0	-0.064	808.44	16.0	0.064	809.46	0.064	3.0	809.65	
9+75.00	808.56	8.0	-0.056	809.01	16.0	0.056	809.91	-0.014	3.0	809.86	
10+00.00	809.09	8.0	-0.048	809.48	16.0	0.048	810.25	-0.022	3.0	810.19	
10+25.00	809.54	8.0	-0.040	809.86	16.0	0.040	810.51	-0.030	3.0	810.42	
10+50.00	809.82	8.0	-0.040	810.14	16.0	0.033	810.66	-0.037	3.0	810.55	
10+75.00	810.00	8.0	-0.040	810.32	16.0	0.025	810.72	-0.045	3.0	810.58	
11+00.00	810.08	8.0	-0.040	810.40	16.0	0.017	810.67	-0.040	3.0	810.55	
11+02.76	810.08	8.0	-0.040	810.40	16.0	0.016	810.66	-0.040	3.0	810.54	BEGIN NORMAL CROWN
11+25.00	810.06	8.0	-0.040	810.38	16.0	0.016	810.64	-0.040	3.0	810.52	
11+50.00	809.95	8.0	-0.040	810.27	16.0	0.016	810.53	-0.040	3.0	810.41	
11+71.35	809.78	8.0	-0.040	810.10	16.0	0.016	810.36	-0.040	3.0	810.24	END NORMAL CROWN
11+75.00	809.74	8.0	-0.040	810.06	16.0	0.017	810.34	-0.040	3.0	810.22	
12+00.00	809.44	8.0	-0.040	809.76	16.0	0.027	810.19				SEE INTERSECTION DETAIL SHEETS 455-462
12+25.00	809.03	8.0	-0.040	809.35	16.0	0.037	809.94				
12+50.00	808.48	8.0	-0.047	808.85	16.0	0.047	809.59	-0.023	3.0	809.52	
12+75.00	807.80	8.0	-0.056	808.25	16.0	0.056	809.15	-0.014	3.0	809.11	
12+95.06	807.19	8.0	-0.064	807.70	16.0	0.064	808.72	0.064	3.0	808.92	BEGIN MAXIMUM SUPER
13+00.00	807.04	8.0	-0.064	807.55	16.0	0.064	808.57	0.064	3.0	808.77	
13+25.00	806.25	8.0	-0.064	806.76	16.0	0.064	807.78	0.064	3.0	807.98	
13+50.00	805.41	8.0	-0.064	805.92	16.0	0.064	806.94	0.064	3.0	807.14	
13+75.00	804.57	8.0	-0.064	805.08	16.0	0.064	806.10	0.064	3.0	806.30	
14+00.00	803.72	8.0	-0.064	804.23	16.0	0.064	805.25	0.064	3.0	805.45	
14+25.00											SEE INTERSECTION DETAIL SHEETS 455-462
14+50.00											
14+75.00											
14+98.02											

CALCULATED C.Y.
CHECKED

SUPERELEVATION TABLE (RAMP J)

LAK-90-21.40
ATB-90-0.00

RAMP K

BASELINE SURVEY & CONSTRUCTION	LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	PROFILE GRADE	PAVEMENT WIDTH	PAVEMENT SLOPE	RIGHT EDGE OF PAVEMENT	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	COMMENTS
0+10.84	SEE INTERSECTION DETAIL SHEETS 455-462										BEGIN RAMP K
0+25.00											
0+50.00											
0+75.00	809.58	8.0	-0.040	809.90	16.0	0.009	810.04	-0.040	3.0	809.92	
1+00.00	809.22	8.0	-0.040	809.54	16.0	-0.001	809.52	-0.040	3.0	809.40	
1+25.00	808.83	8.0	-0.040	809.15	16.0	-0.011	808.97	-0.040	3.0	808.85	
1+32.00	808.72	8.0	-0.040	809.04	16.0	-0.014	808.82	-0.040	3.0	808.70	REACH MINIMUM SUPER
1+50.00	808.42	8.0	-0.040	808.74	16.0	-0.007	808.63	-0.040	3.0	808.51	
1+75.00	807.98	8.0	-0.040	808.30	16.0	0.003	808.34	-0.040	3.0	808.22	
2+00.00	807.51	8.0	-0.040	807.83	16.0	0.012	808.03	-0.040	3.0	807.91	
2+25.00	807.02	8.0	-0.040	807.34	16.0	0.022	807.69	-0.040	3.0	807.57	
2+50.00	806.51	8.0	-0.040	806.83	16.0	0.032	807.34	-0.038	3.0	807.22	
2+75.00	805.96	8.0	-0.041	806.29	16.0	0.041	806.95	-0.029	3.0	806.86	
3+00.00	805.31	8.0	-0.051	805.72	16.0	0.051	806.53	-0.019	3.0	806.48	
3+25.00	804.65	8.0	-0.061	805.13	16.0	0.061	806.10	0.061	3.0	806.28	
3+50.00	803.97	8.0	-0.070	804.53	16.0	0.070	805.65	0.070	3.0	805.86	
3+72.64	803.35	8.0	-0.079	803.98	16.0	0.079	805.24	0.079	3.0	805.48	BEGIN MAXIMUM SUPER
3+75.00	803.29	8.0	-0.079	803.92	16.0	0.079	805.18	0.079	3.0	805.42	
4+00.00	802.69	8.0	-0.079	803.32	16.0	0.079	804.58	0.079	3.0	804.82	
4+25.00	802.11	8.0	-0.079	802.74	16.0	0.079	804.00	0.079	3.0	804.24	
4+30.21	802.00	8.0	-0.079	802.63	16.0	0.079	803.89	0.079	3.0	804.13	
4+50.00	801.62	8.0	-0.075	802.22	16.0	0.075	803.41	0.075	3.0	803.64	
4+75.00	801.20	8.0	-0.069	801.75	16.0	0.069	802.86	0.069	3.0	803.06	
5+00.00	800.82	8.0	-0.064	801.33	16.0	0.064	802.35	0.064	3.0	802.54	
5+25.00	800.49	8.0	-0.058	800.96	16.0	0.058	801.89	-0.012	3.0	801.85	
5+50.00	800.23	8.0	-0.053	800.65	16.0	0.053	801.49	-0.017	3.0	801.44	
5+75.00	800.00	8.0	-0.047	800.38	16.0	0.047	801.13	-0.023	3.0	801.07	
5+80.21	799.97	8.0	-0.046	800.34	16.0	0.046	801.08	-0.024	3.0	801.00	END MAXIMUM SUPER
6+00.00	799.81	8.0	-0.046	800.18	16.0	0.046	800.92	-0.024	3.0	800.84	
6+25.00	799.65	8.0	-0.046	800.02	16.0	0.046	800.76	-0.024	3.0	800.68	
6+50.00	799.54	8.0	-0.046	799.91	16.0	0.046	800.65	-0.024	3.0	800.57	
6+75.00	799.49	8.0	-0.046	799.86	16.0	0.046	800.60	-0.024	3.0	800.52	
6+78.40	799.49	8.0	-0.046	799.86	16.0	0.046	800.60	-0.024	3.0	800.52	REACH SUPER ON IR 90
7+00.00	799.49	8.0	-0.046	799.86	16.0	0.046	800.60	-0.024	3.0	800.52	

CALCULATED C.Y.
CHECKED

SUPERELEVATION TABLE (RAMP K)

LAK-90-21.40
ATB-90-0.00

RAMP L

BASELINE SURVEY & CONSTRUCTION	LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	LEFT EDGE OF PAVEMENT	PAVEMENT WIDTH	PAVEMENT SLOPE	PROFILE GRADE	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	COMMENTS
0+17.50	SEE INTERSECTION DETAIL SHEETS 455-462										BEGIN RAMP L
0+25.00											
0+50.00											
0+75.00	824.25	3.0	-0.040	824.37	16.0	-0.029	824.83	-0.040	8.0	824.51	
1+00.00	823.54	3.0	-0.040	823.66	16.0	-0.039	824.28	-0.040	8.0	823.96	
1+25.00	822.98	3.0	0.049	822.84	16.0	-0.049	823.62	-0.049	8.0	823.23	
1+50.00	822.11	3.0	0.058	821.93	16.0	-0.058	822.86	-0.058	8.0	822.40	
1+65.00	821.52	3.0	0.064	821.33	16.0	-0.064	822.35	-0.064	8.0	821.84	MINIMUM SUPER REACH
1+75.00	821.21	3.0	0.060	821.03	16.0	-0.060	821.99	-0.060	8.0	821.51	
2+00.00	820.37	3.0	0.050	820.21	16.0	-0.050	821.02	-0.050	8.0	820.62	
2+25.00	819.46	3.0	0.041	819.34	16.0	-0.041	819.99	-0.041	8.0	819.66	
2+50.00	818.35	3.0	-0.040	818.47	16.0	-0.031	818.96	-0.040	8.0	818.64	
2+75.00	817.47	3.0	-0.040	817.59	16.0	-0.021	817.93	-0.040	8.0	817.61	
3+00.00	816.60	3.0	-0.040	816.72	16.0	-0.011	816.90	-0.040	8.0	816.58	
3+25.00	815.73	3.0	-0.040	815.85	16.0	-0.002	815.88	-0.040	8.0	815.56	
3+50.00	814.86	3.0	-0.040	814.98	16.0	0.008	814.85	-0.040	8.0	814.53	
3+70.42	814.15	3.0	-0.040	814.27	16.0	0.016	814.01	-0.040	8.0	813.69	BEGIN NORMAL CROWN
3+75.00	813.96	3.0	-0.040	814.08	16.0	0.016	813.82	-0.040	8.0	813.50	
3+76.56	813.90	3.0	-0.040	814.02	16.0	0.016	813.76	-0.040	8.0	813.44	END NORMAL CROWN
4+00.00	813.04	3.0	-0.040	813.16	16.0	0.023	812.79	-0.040	8.0	812.47	
4+25.00	812.14	3.0	-0.039	812.26	16.0	0.031	811.76	-0.040	8.0	811.44	
4+50.00	811.27	3.0	-0.031	811.36	16.0	0.039	810.74	-0.040	8.0	810.42	
4+75.00	810.39	3.0	-0.023	810.46	16.0	0.047	809.71	-0.047	8.0	809.34	
5+00.00	809.51	3.0	-0.015	809.55	16.0	0.055	808.68	-0.055	8.0	808.24	
5+25.00	808.84	3.0	0.062	808.65	16.0	0.062	807.65	-0.062	8.0	807.15	
5+50.00	807.96	3.0	0.070	807.74	16.0	0.070	806.62	-0.070	8.0	806.06	
5+75.00	807.11	3.0	0.078	806.88	16.0	0.078	805.63	-0.078	8.0	805.01	
5+81.03	806.92	3.0	0.080	806.68	16.0	0.080	805.40	-0.080	8.0	804.76	BEGIN MAXIMUM SUPER
6+00.00	806.22	3.0	0.080	805.98	16.0	0.080	804.70	-0.080	8.0	804.06	
6+25.00	805.37	3.0	0.080	805.13	16.0	0.080	803.85	-0.080	8.0	803.21	
6+50.00	804.58	3.0	0.080	804.34	16.0	0.080	803.06	-0.080	8.0	802.42	
6+75.00	803.86	3.0	0.080	803.62	16.0	0.080	802.34	-0.080	8.0	801.70	
7+00.00	803.21	3.0	0.080	802.97	16.0	0.080	801.69	-0.080	8.0	801.05	
7+25.00	802.62	3.0	0.080	802.38	16.0	0.080	801.10	-0.080	8.0	800.46	
7+50.00	802.11	3.0	0.080	801.87	16.0	0.080	800.59	-0.080	8.0	799.95	
7+75.00	801.66	3.0	0.080	801.42	16.0	0.080	800.14	-0.080	8.0	799.50	
8+00.00	801.29	3.0	0.080	801.05	16.0	0.080	799.77	-0.080	8.0	799.13	
8+25.00	800.98	3.0	0.080	800.74	16.0	0.080	799.46	-0.080	8.0	798.82	
8+50.00	800.74	3.0	0.080	800.50	16.0	0.080	799.22	-0.080	8.0	798.58	
8+68.60	800.60	3.0	0.080	800.36	16.0	0.080	799.08	-0.080	8.0	798.44	END MAXIMUM SUPER
8+75.00	800.52	3.0	0.078	800.29	16.0	0.078	799.04	-0.078	8.0	798.42	
9+00.00	800.27	3.0	0.070	800.06	16.0	0.070	798.94	-0.070	8.0	798.38	
9+25.00	800.08	3.0	0.062	799.90	16.0	0.062	798.90	-0.062	8.0	798.40	
9+50.00	799.76	3.0	-0.016	799.81	16.0	0.054	798.94	-0.054	8.0	798.51	
9+51.10	799.76	3.0	-0.016	799.80	16.0	0.054	798.94	-0.054	8.0	798.51	END RAMP L

CALCULATED C.Y.
CHECKED

SUPERELEVATION TABLE (RAMP L)

LAK-90-21.40
ATB-90-0.00

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF RECONSTRUCTING 7 MILES OF I.R. 90. THE EXISTING PAVEMENT WILL BE REPLACED AND THE OUTSIDE SHOULDERS WILL BE WIDENED TO 12 FEET. IN ADDITION, THE RAMP PAVEMENT AT S.R. 528 WILL BE REPLACED.

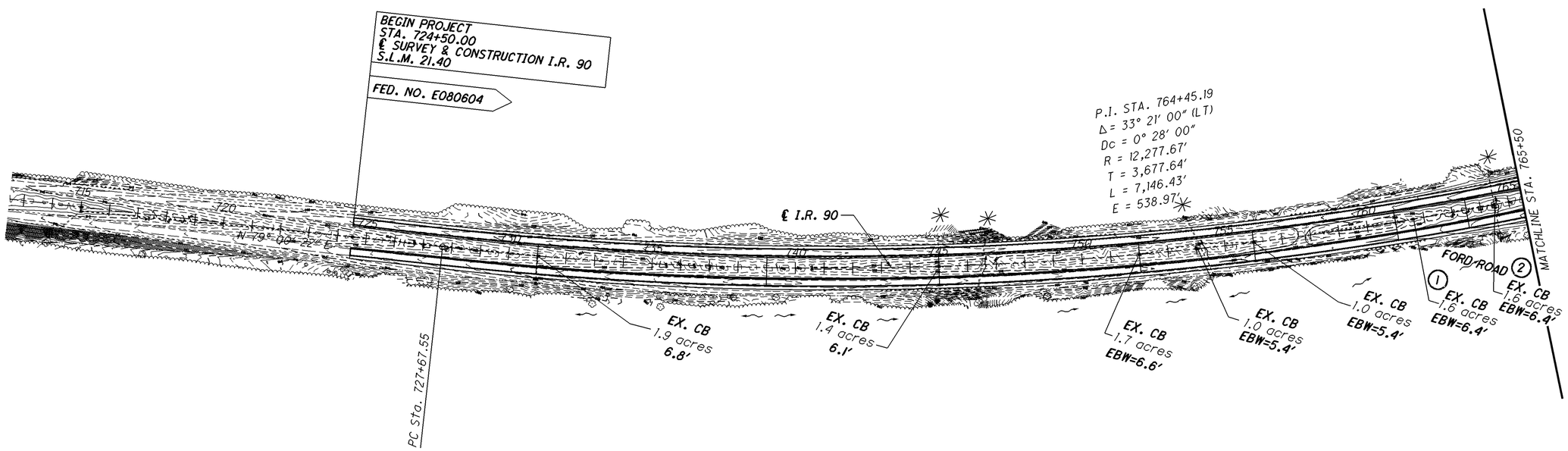
USGS QUADRANT NO.
41081-F1-TF-024 THOMPSON, OHIO
41081-F2-TF-024 PAINESVILLE, OHIO
41081-G1-TF-024 MADISON, OHIO

LONGITUDE: * 81°04′36″
LATITUDE: * 41°44′50″

* LONGITUDE AND LATITUDE TO APPROX. CENTER OF PROJECT

PROJECT DATA

TOTAL AREA (RIGHT-OF-WAY) . . . . . 300 ac	RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE 0.60
PROJECT EARTH DISTURBED AREA . . . . . 170 ac	RUNOFF COEFFICIENT FOR POST-CONSTRUCTION SITE 0.61
ESTIMATED CONTRACTOR EARTH DISTURBED AREA . . . . . 19 ac	SOIL AND WATER CONSERVATION MAP . . . . . SOIL SURVEY OF LAKE COUNTY
NOTICE OF INTENT EARTH DISTURBED AREA . . . . . 189 ac	IMMEDIATE RECEIVING WATERS . . . . GRAND RIVER, ARCOLA CREEK
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION AREA . . . . . 78 ac	SUBSEQUENT RECEIVING WATERS . . . LAKE ERIE
IMPERVIOUS (PAVED) AREA FOR POST-CONSTRUCTION AREA . . . . . 82 ac	



PROJECT INFORMATION		TREATED MEDIAN DITCH WIDTH PROVIDED
PROJECT EARTH DISTURBED AREA	170 ACRES	
20% PROJECT EARTH DISTURBED AREA	34 ACRES	
TOTAL ODOT R/W DRAINAGE AREA BEING TREATED	37.5 ACRES	
1 ODOT R/W DRAINAGE AREA BEING TREATED	1.6 ACRES	7′
2 ODOT R/W DRAINAGE AREA BEING TREATED	1.6 ACRES	7′

SEE I.R. 90 CROSS-SECTIONS FOR TREATED MEDIAN DITCH WIDTH PROVIDED

✳ DENOTES OUTFALL LOCATION

HORIZONTAL SCALE IN FEET 0 200 400

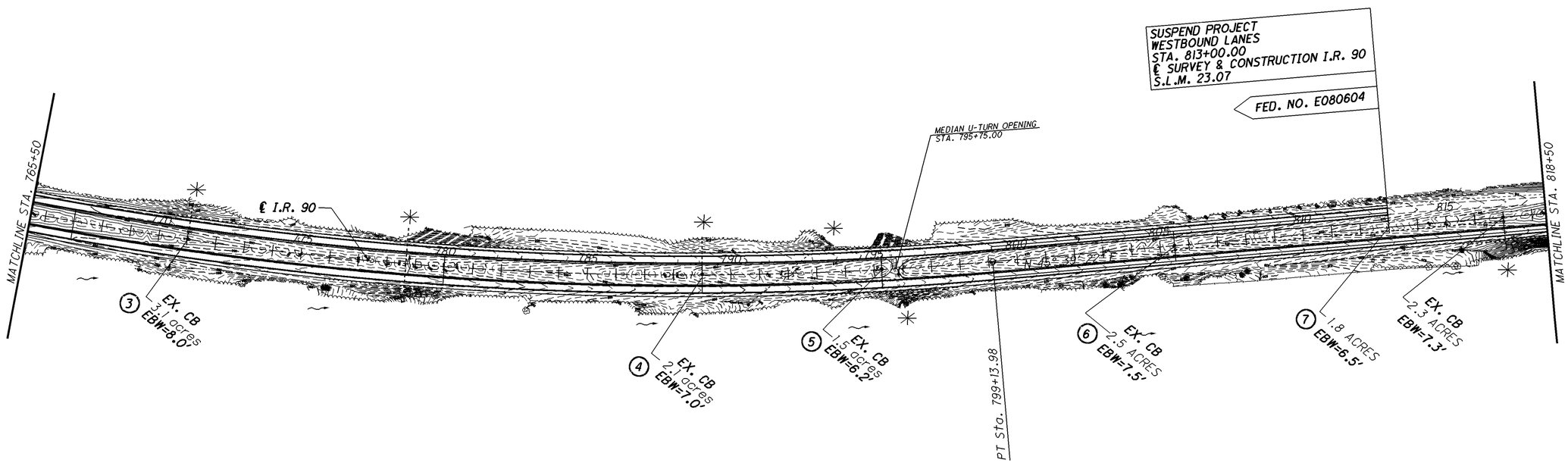
CALCULATED R.G. CHECKED H.G.

PROJECT SITE PLAN
STA. 726+00 TO STA. 765+50

LAK-90-21.40
ATB-90-0.00

PROJECT INFORMATION		TREATED MEDIAN DITCH WIDTH PROVIDED
PROJECT EARTH DISTURBED AREA	170 ACRES	
20% PROJECT EARTH DISTURBED AREA	34 ACRES	
TOTAL ODOT R/W DRAINAGE AREA BEING TREATED	37.5 ACRES	
3 ODOT R/W DRAINAGE AREA BEING TREATED	1.6 ACRES	7'
4 ODOT R/W DRAINAGE AREA BEING TREATED	2.7 ACRES	7'
5 ODOT R/W DRAINAGE AREA BEING TREATED	1.5 ACRES	7'
6 ODOT R/W DRAINAGE AREA BEING TREATED	2.5 ACRES	7'
7 ODOT R/W DRAINAGE AREA BEING TREATED	1.8 ACRES	7'

SEE I.R. 90 CROSS-SECTIONS FOR TREATED MEDIAN DITCH WIDTH PROVIDED



✳ DENOTES OUTFALL LOCATION

HORIZONTAL SCALE IN FEET 0 200 400

CALCULATED R.G.
CHECKED H.G.

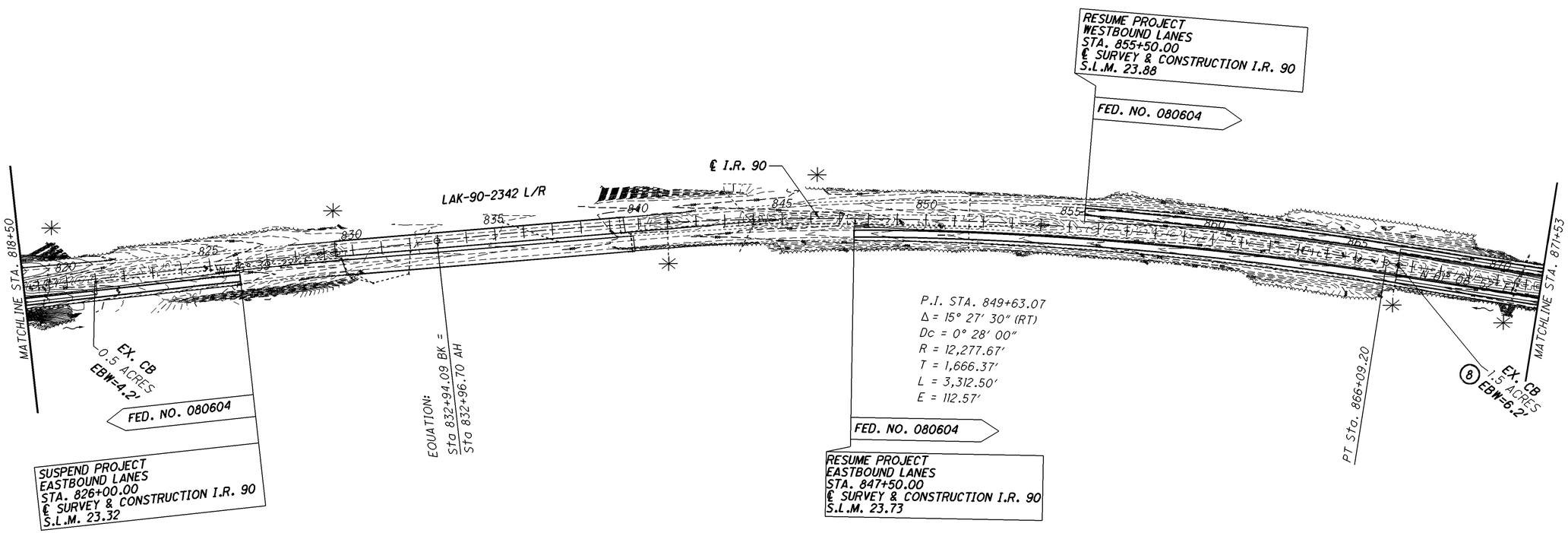
PROJECT SITE PLAN
STA. 765+50 TO STA. 818+50

LAK-90-21.40
ATB-90-0.00

75477_psp02.dgn 04/23/08

PROJECT INFORMATION		TREATED MEDIAN DITCH WIDTH PROVIDED
PROJECT EARTH DISTURBED AREA	170 ACRES	
20% PROJECT EARTH DISTURBED AREA	34 ACRES	
TOTAL ODOT R/W DRAINAGE AREA BEING TREATED	37.5 ACRES	
(8) ODOT R/W DRAINAGE AREA BEING TREATED	1.5 ACRES	7'

SEE I.R. 90 CROSS-SECTIONS FOR TREATED MEDIAN DITCH WIDTH PROVIDED



✳ DENOTES OUTFALL LOCATION

HORIZONTAL SCALE IN FEET
0 200 400

CALCULATED R.G.
CHECKED H.G.

PROJECT SITE PLAN
STA. 818+50 TO STA. 871+53

LAK-90-21.40
ATB-90-0.00

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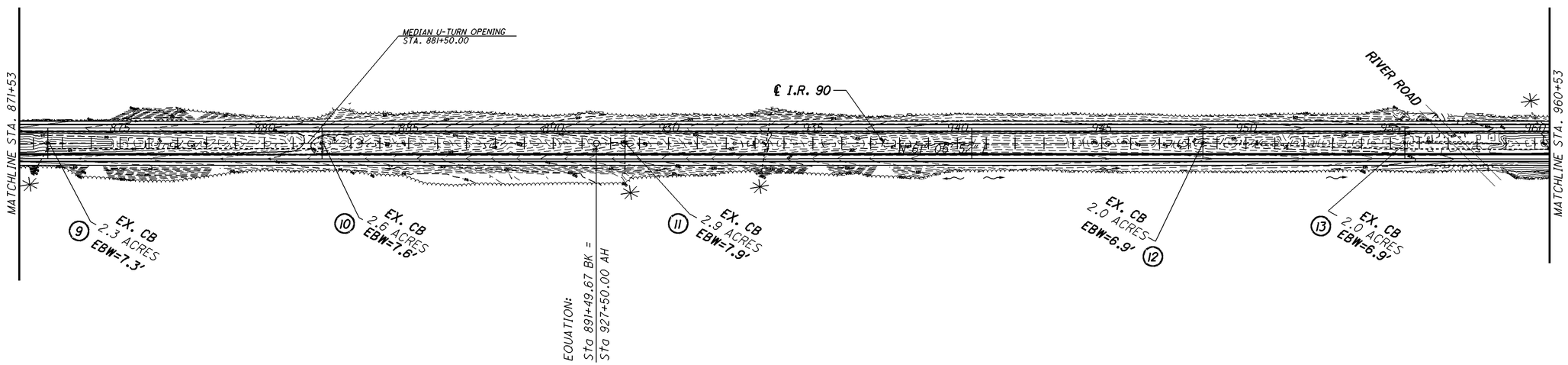
PROJECT INFORMATION		TREATED MEDIAN DITCH WIDTH PROVIDED
PROJECT EARTH DISTURBED AREA	170 ACRES	
20% PROJECT EARTH DISTURBED AREA	34 ACRES	
TOTAL ODOT R/W DRAINAGE AREA BEING TREATED	37.5 ACRES	
9 ODOT R/W DRAINAGE AREA BEING TREATED	2.3 ACRES	7'
10 ODOT R/W DRAINAGE AREA BEING TREATED	2.6 ACRES	7'
11 ODOT R/W DRAINAGE AREA BEING TREATED	2.9 ACRES	7'
12 ODOT R/W DRAINAGE AREA BEING TREATED	2.0 ACRES	7'
13 ODOT R/W DRAINAGE AREA BEING TREATED	2.0 ACRES	7'

SEE I.R. 90 CROSS-SECTIONS FOR TREATED MEDIAN DITCH WIDTH PROVIDED



✳ DENOTES OUTFALL LOCATION

HORIZONTAL SCALE IN FEET
0 200 400

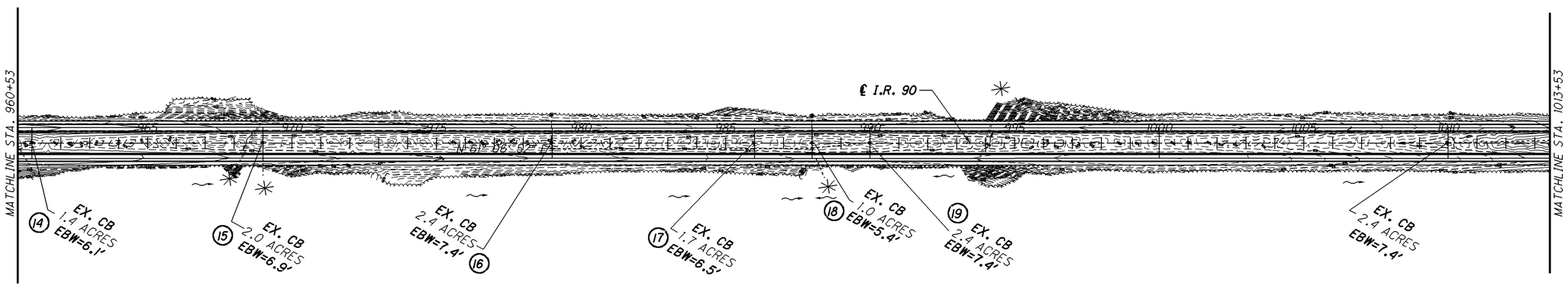
CALCULATED R.G.
CHECKED H.G.

PROJECT SITE PLAN
STA. 871+53 TO STA. 960+53

LAK-90-21.40
ATB-90-0.00

PROJECT INFORMATION		TREATED MEDIAN DITCH WIDTH PROVIDED
PROJECT EARTH DISTURBED AREA	170 ACRES	
20% PROJECT EARTH DISTURBED AREA	34 ACRES	
TOTAL ODOT R/W DRAINAGE AREA BEING TREATED	37.5 ACRES	
(14) ODOT R/W DRAINAGE AREA BEING TREATED	1.4 ACRES	7'
(15) ODOT R/W DRAINAGE AREA BEING TREATED	2.0 ACRES	7'
(16) ODOT R/W DRAINAGE AREA BEING TREATED	2.4 ACRES	7'
(17) ODOT R/W DRAINAGE AREA BEING TREATED	1.7 ACRES	7'
(18) ODOT R/W DRAINAGE AREA BEING TREATED	1.0 ACRE	7'
(19) ODOT R/W DRAINAGE AREA BEING TREATED	2.4 ACRES	7'

SEE I.R. 90 CROSS-SECTIONS FOR TREATED MEDIAN DITCH WIDTH PROVIDED



✳ DENOTES OUTFALL LOCATION

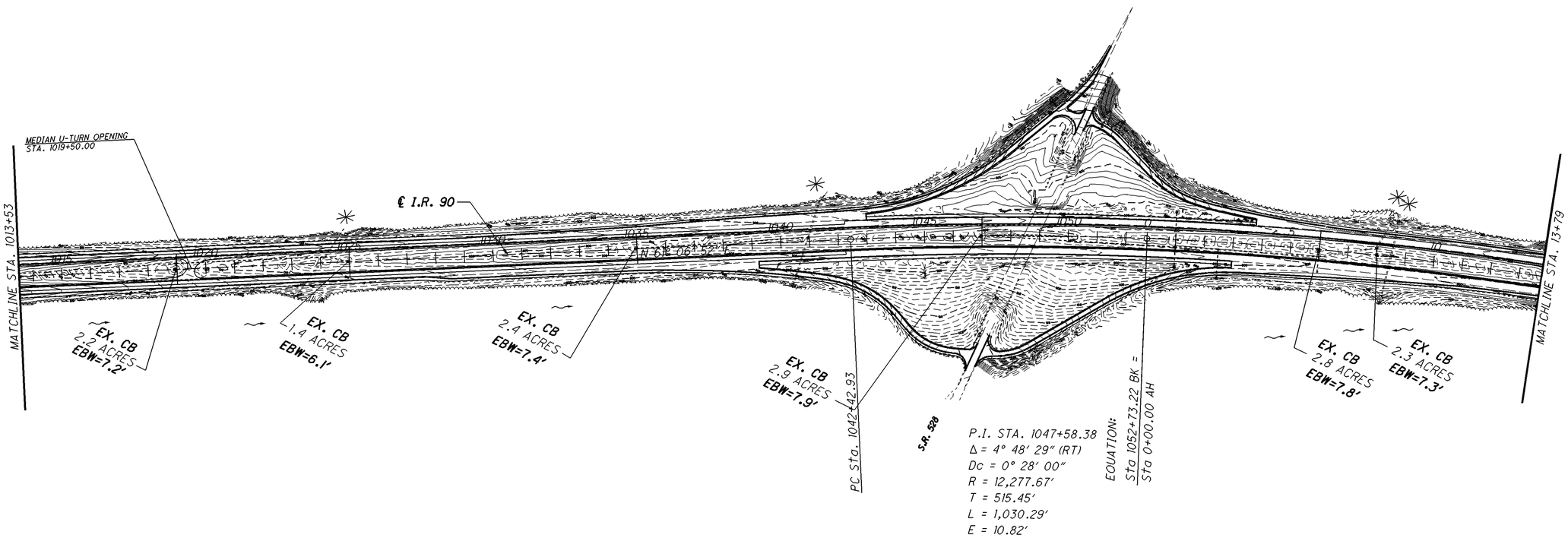
N

HORIZONTAL SCALE IN FEET
0 200 400

CALCULATED R.G.
CHECKED H.G.

PROJECT SITE PLAN
STA. 960+53 TO STA. 1013+53

LAK-90-21.40
ATB-90-0.00



✳ DENOTES OUTFALL LOCATION

HORIZONTAL SCALE IN FEET
0 200 400

CALCULATED R.G.
CHECKED H.G.

PROJECT SITE PLAN
STA. 1013+53 TO STA. 13+79

LAK-90-21.40
ATB-90-0.00

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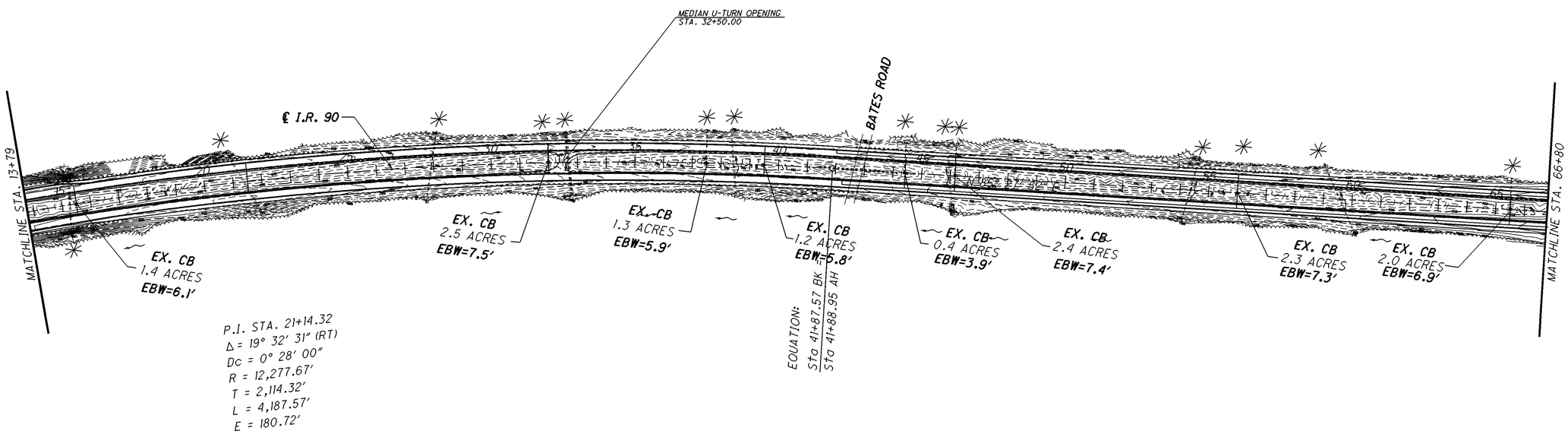

✳ DENOTES OUTFALL LOCATION

HORIZONTAL SCALE IN FEET
0 200 400

CALCULATED R.G.
CHECKED H.G.

PROJECT SITE PLAN
STA. 13+79 TO STA. 66+80

LAK-90-21.40
ATB-90-0.00

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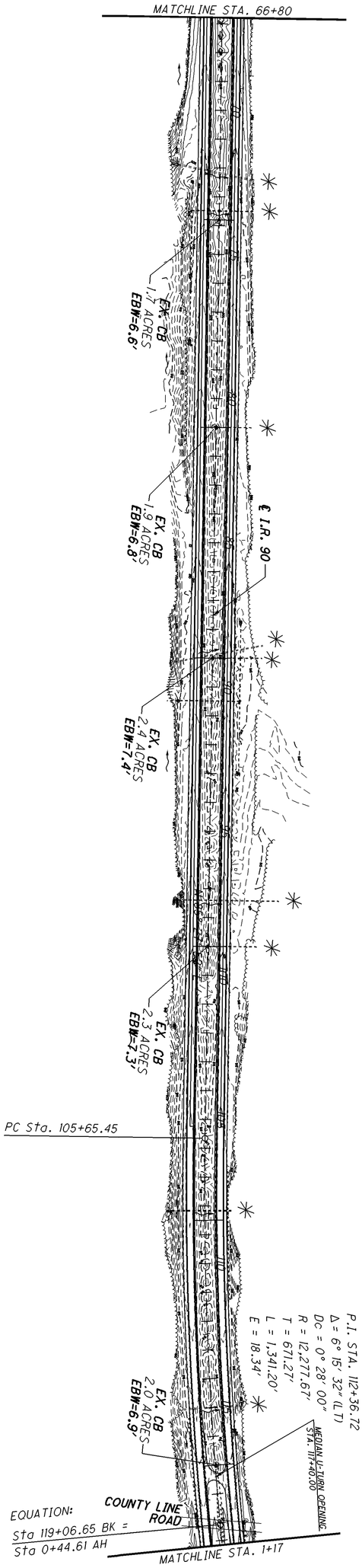
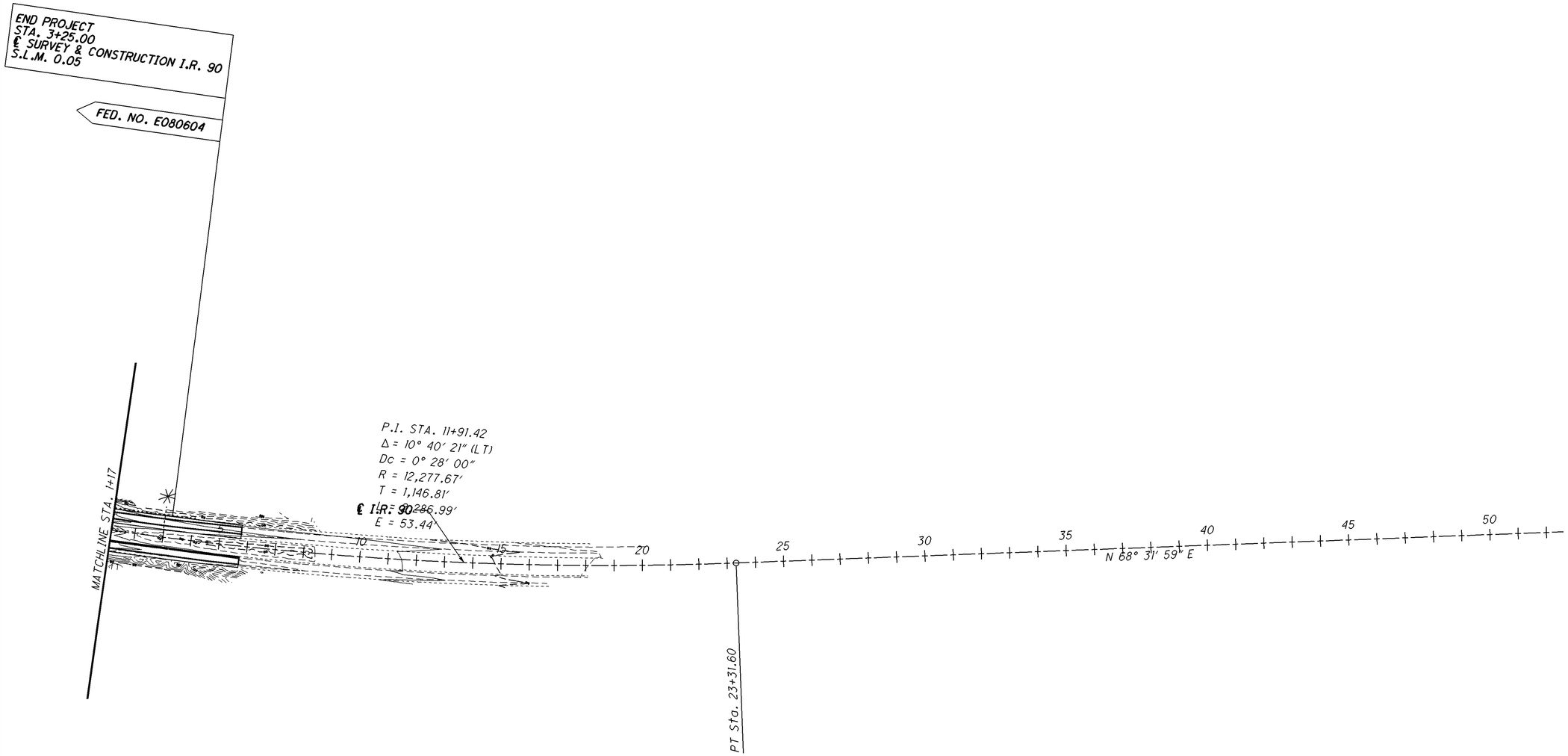
✳ DENOTES OUTFALL LOCATION



120 / 498	LAK-90-21.40 ATB-90-0.00	PROJECT SITE PLAN STA. 66+80 TO STA. 1+17	CALCULATED R.G. CHECKED H.G.	0 200 400 HORIZONTAL SCALE IN FEET



✳ DENOTES OUTFALL LOCATION

HORIZONTAL SCALE IN FEET
0 200 400

CALCULATED R.G.
CHECKED H.G.

PROJECT SITE PLAN
STA. 1+17 TO STA. 3+25

LAK-90-21.40
ATB-90-0.00

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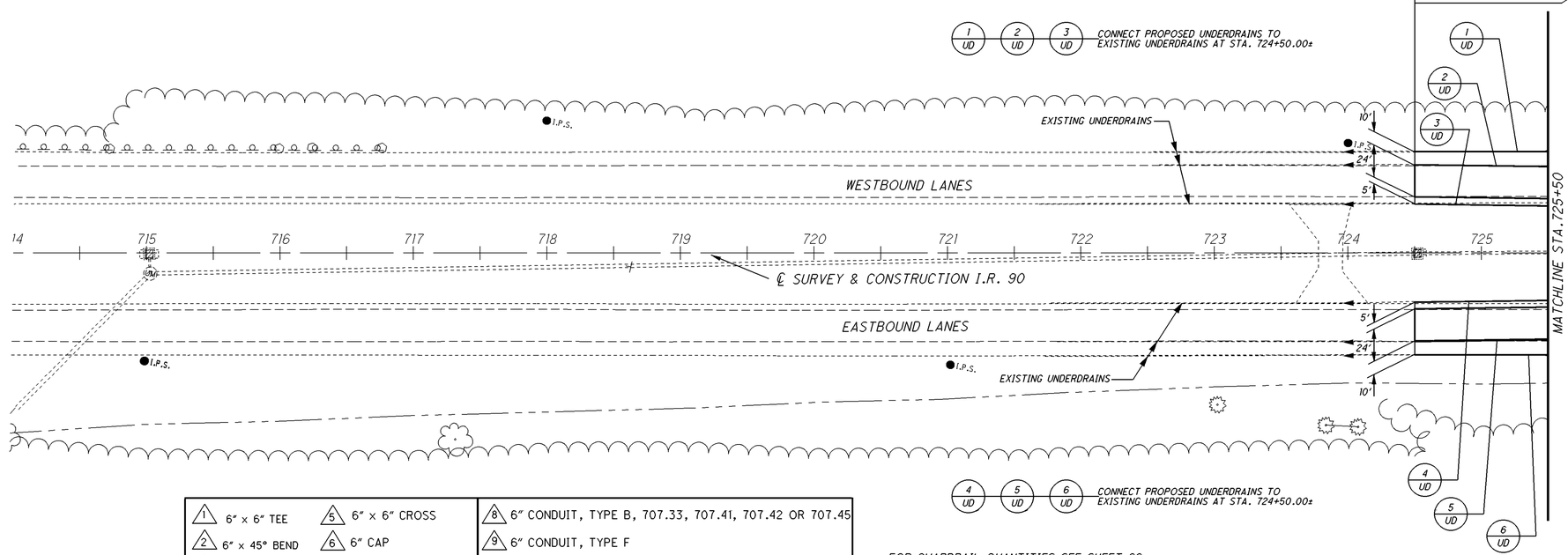
BEGIN PROJECT
STA. 724+50.00
℄ SURVEY & CONSTRUCTION I.R. 90
S.L.M. 21.40

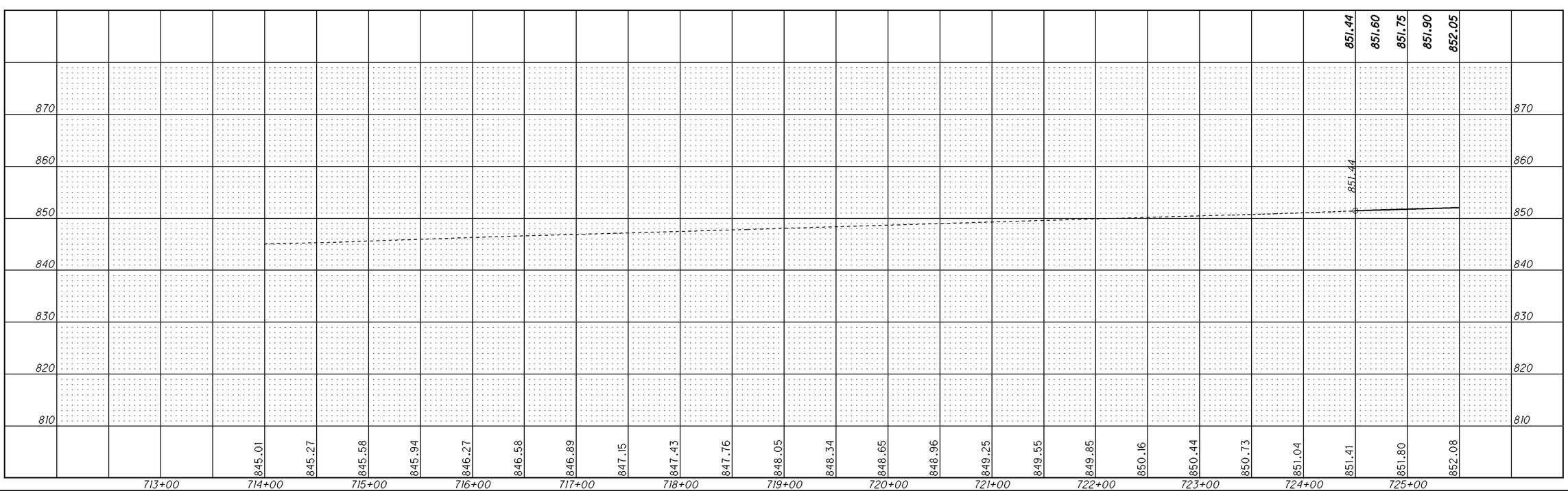
FED. NO. E080604



1 6" x 6" TEE	5 6" x 6" CROSS
2 6" x 45° BEND	6 6" CAP
3 6" x 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET
4 6" x 6" WYE	

8 6" CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45
9 6" CONDUIT, TYPE F

FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.



HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED M.M.
CHECKED J.C.

PLAN AND PROFILE I.R. 90 STA. 714+00 TO STA. 725+50

LAK-90-21.40
ATB-90-0.00

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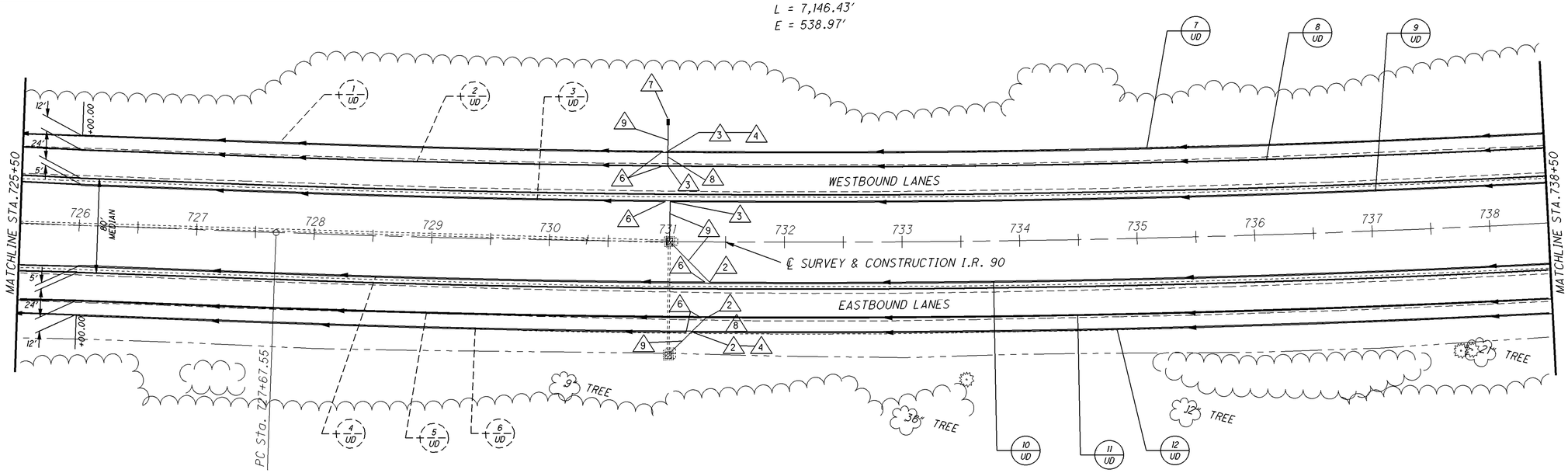
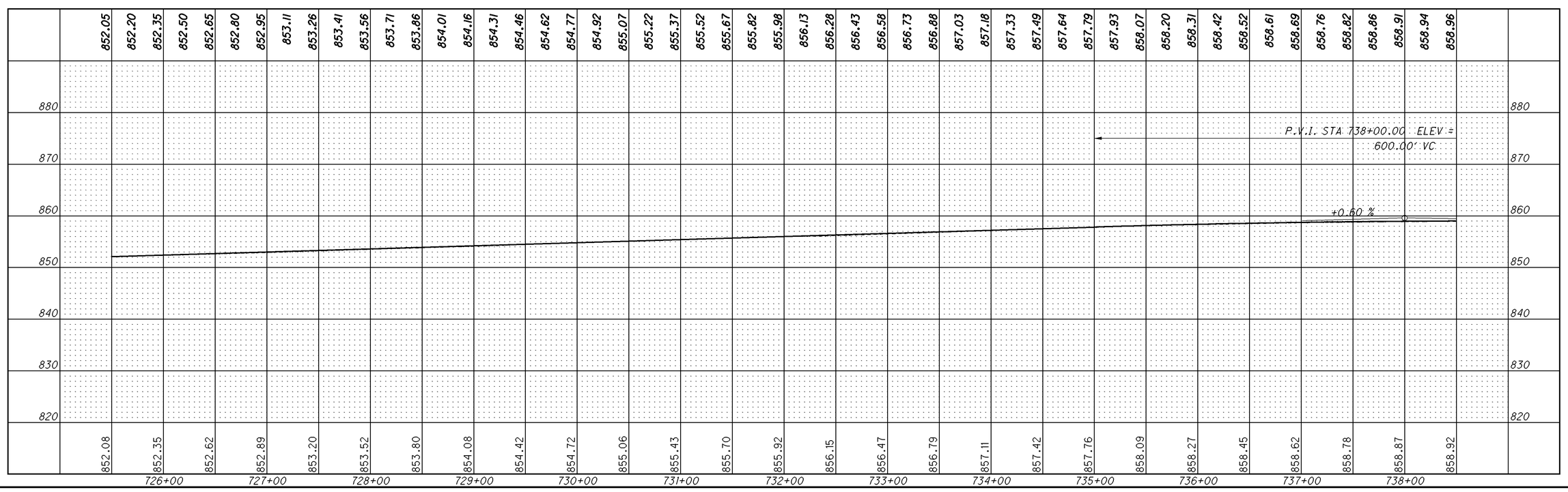
1 6" x 6" TEE	5 6" x 6" CROSS
2 6" x 45° BEND	6 6" CAP
3 6" x 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET
4 6" x 6" WYE	

8 6" CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45
9 6" CONDUIT, TYPE F

P.I. STA. 764+45.19
Δ = 33° 21' 00" (LT)
Dc = 0° 28' 00"
R = 12,277.67'
T = 3,677.64'
L = 7,146.43'
E = 538.97'



FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.



HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED M.M.
CHECKED J.C.

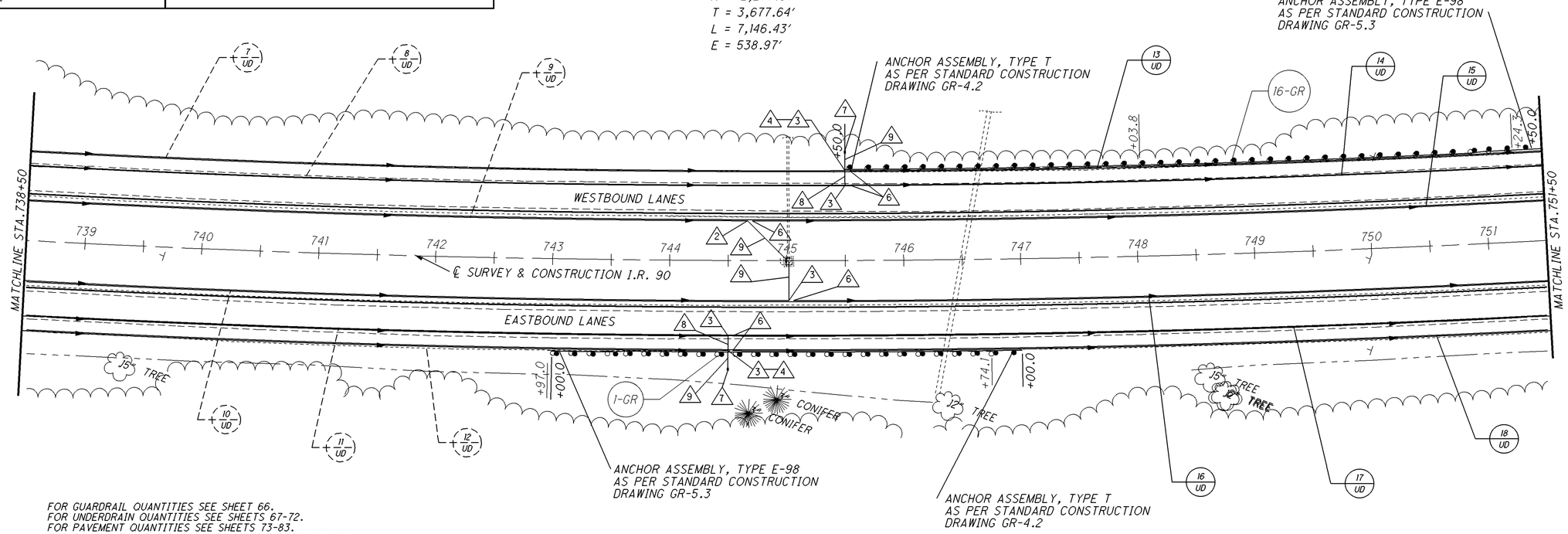
PLAN AND PROFILE I.R. 90
STA. 725+50 TO STA. 738+50

LAK-90-21.40
ATB-90-0.00

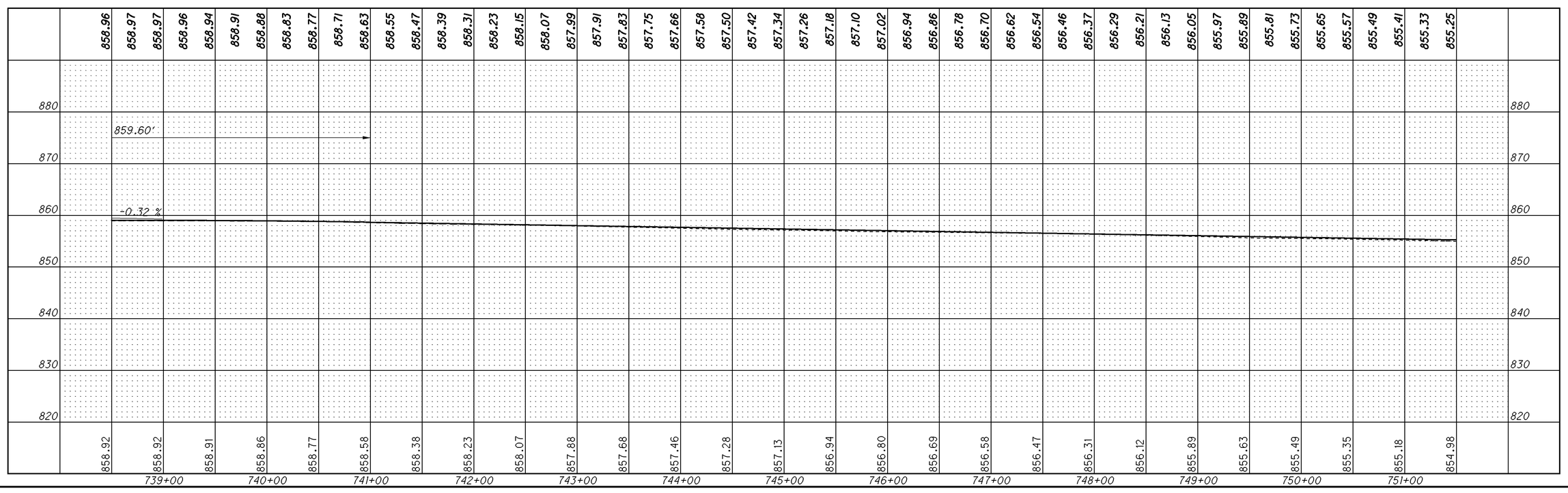
75477ppp002.dgn 03/13/08

1 6" x 6" TEE	5 6" x 6" CROSS	8 6" CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45	
2 6" x 45° BEND	6 6" CAP	9 6" CONDUIT, TYPE F	
3 6" x 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET		
4 6" x 6" WYE			

P.I. STA. 764+45.19
Δ = 33° 21′ 00″ (LT)
Dc = 0° 28′ 00″
R = 12,277.67′
T = 3,677.64′
L = 7,146.43′
E = 538.97′



FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-798.



CALCULATED M.M.
CHECKED J.C.

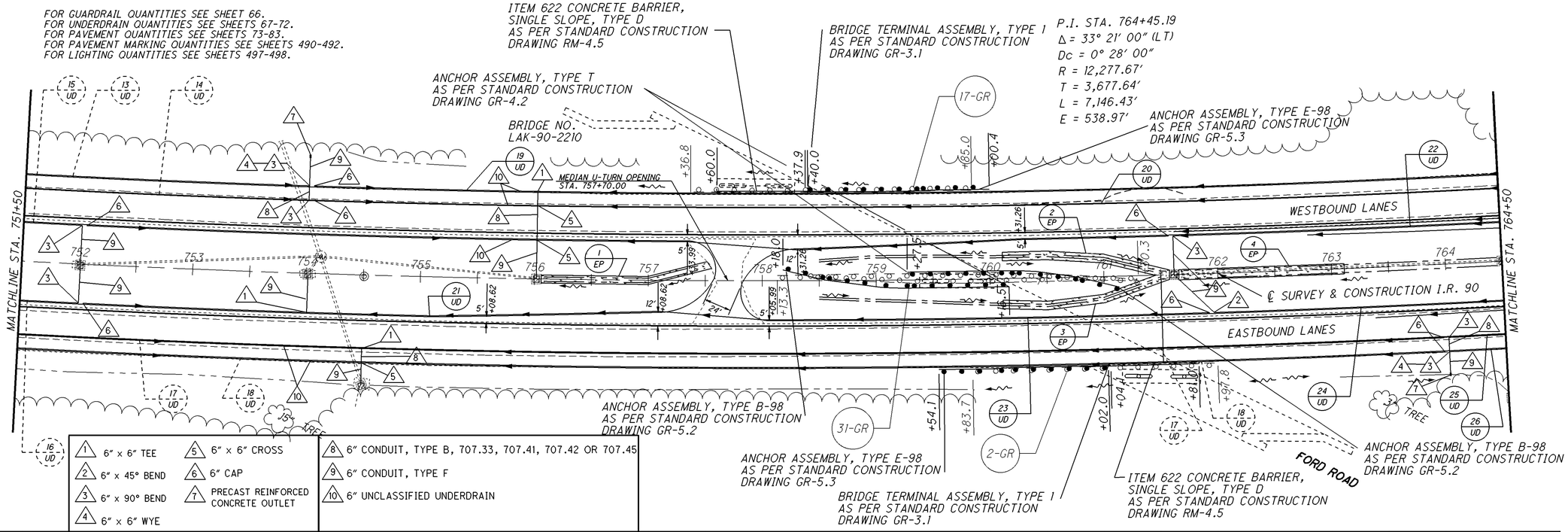
HORIZONTAL SCALE IN FEET 0 25 50 100

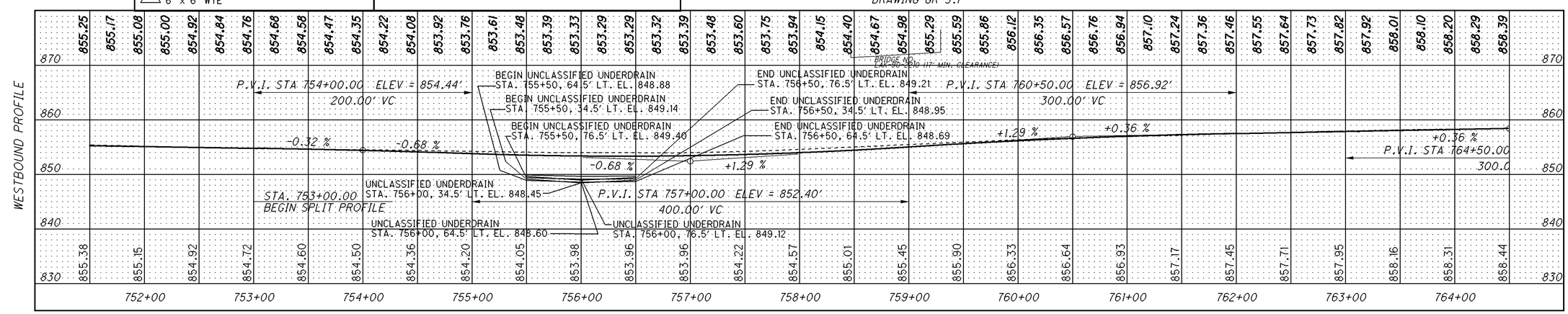
PLAN AND PROFILE I.R. 90
STA. 738+50 TO STA. 751+50

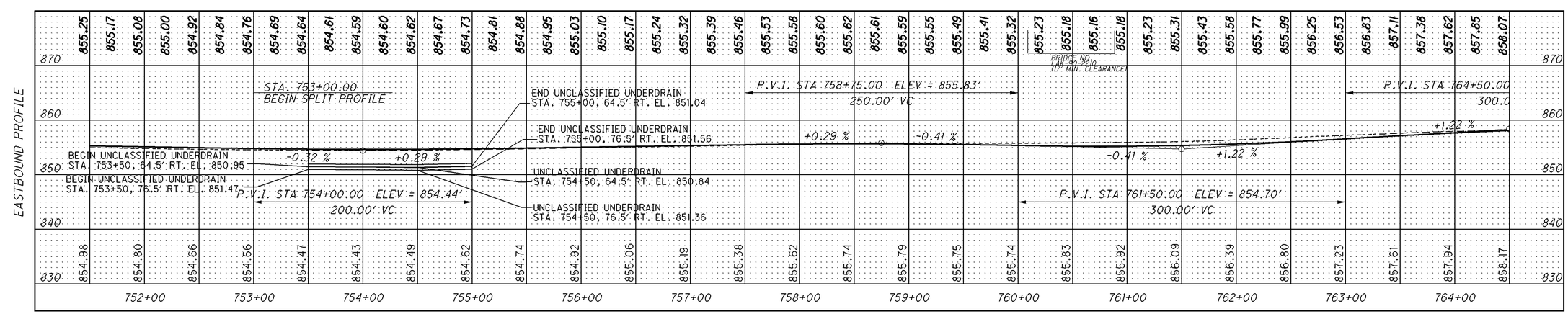
LAK-90-21.40
ATB-90-0.00

75477ppp03.dgn 03/13/08

FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.







HORIZONTAL SCALE IN FEET 0 25 50 100

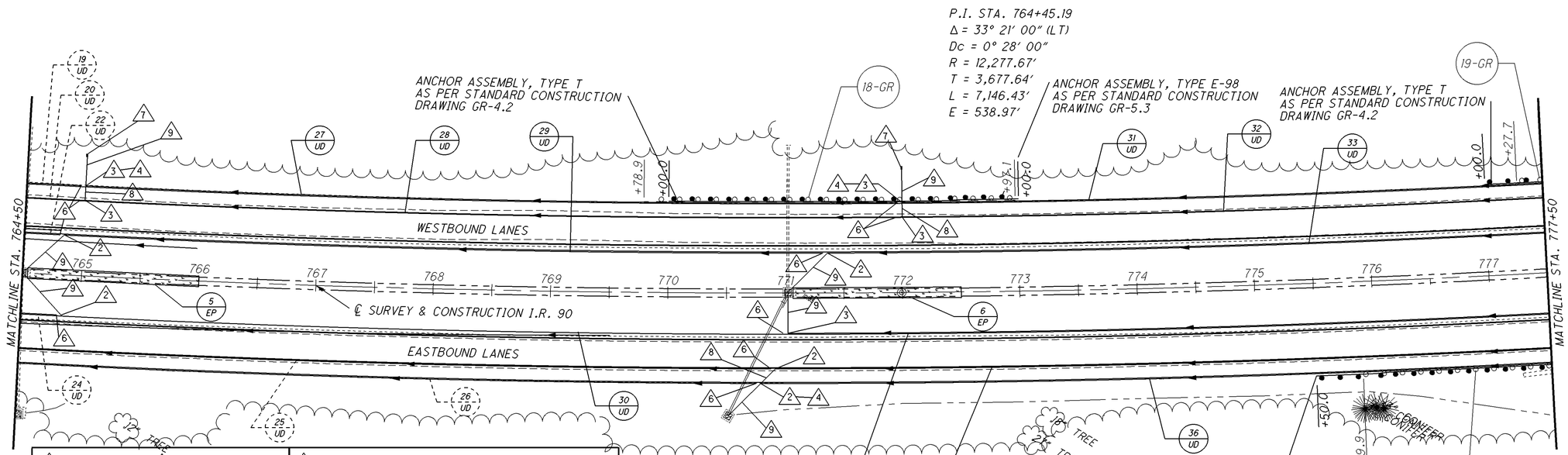
CALCULATED

CHECKED J.C.

PLAN AND PROFILE I.R. 90 STA. 751+50 TO STA. 764+50

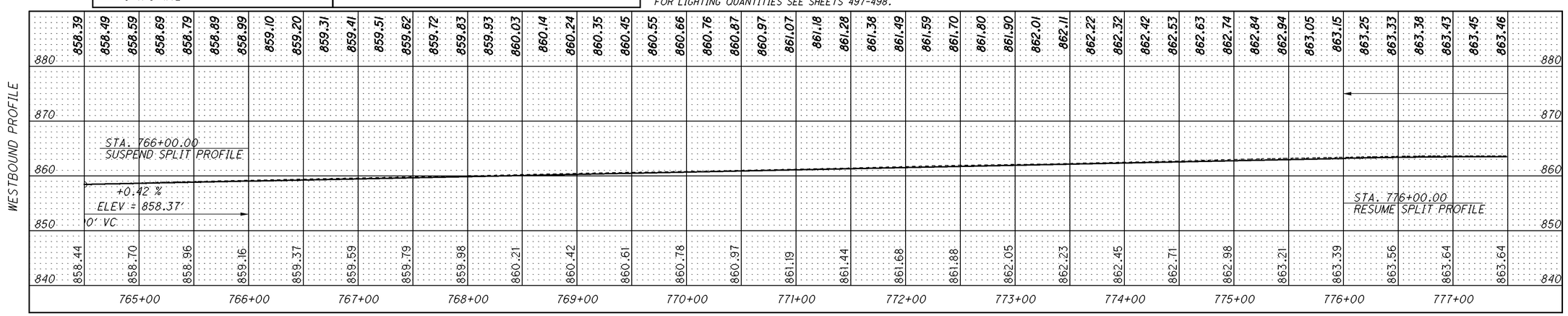
LAK-90-21.40
ATB-90-0.00

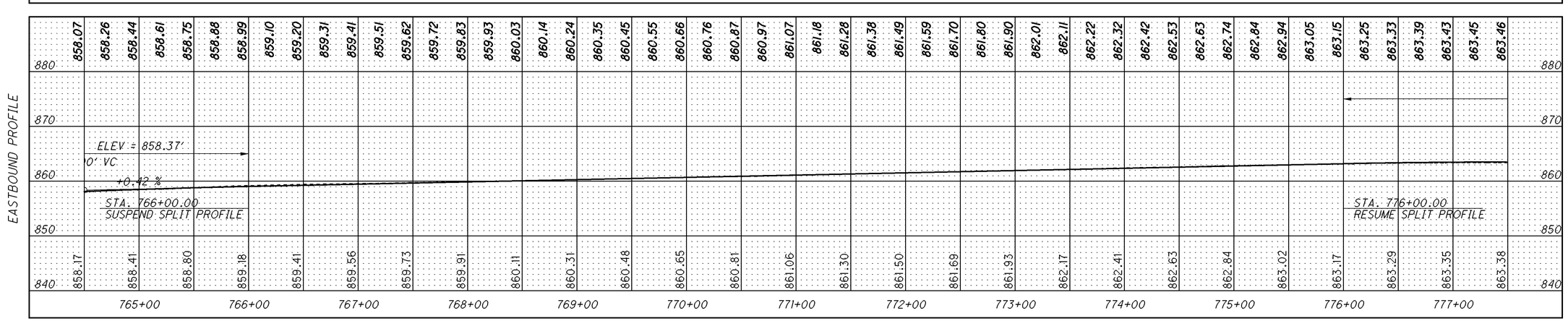
75477ppp04.dgn 03/13/08



1 6″ x 6″ TEE	5 6″ x 6″ CROSS
2 6″ x 45° BEND	6 6″ CAP
3 6″ x 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET
4 6″ x 6″ WYE	
8 6″ CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45	
9 6″ CONDUIT, TYPE F	

FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.





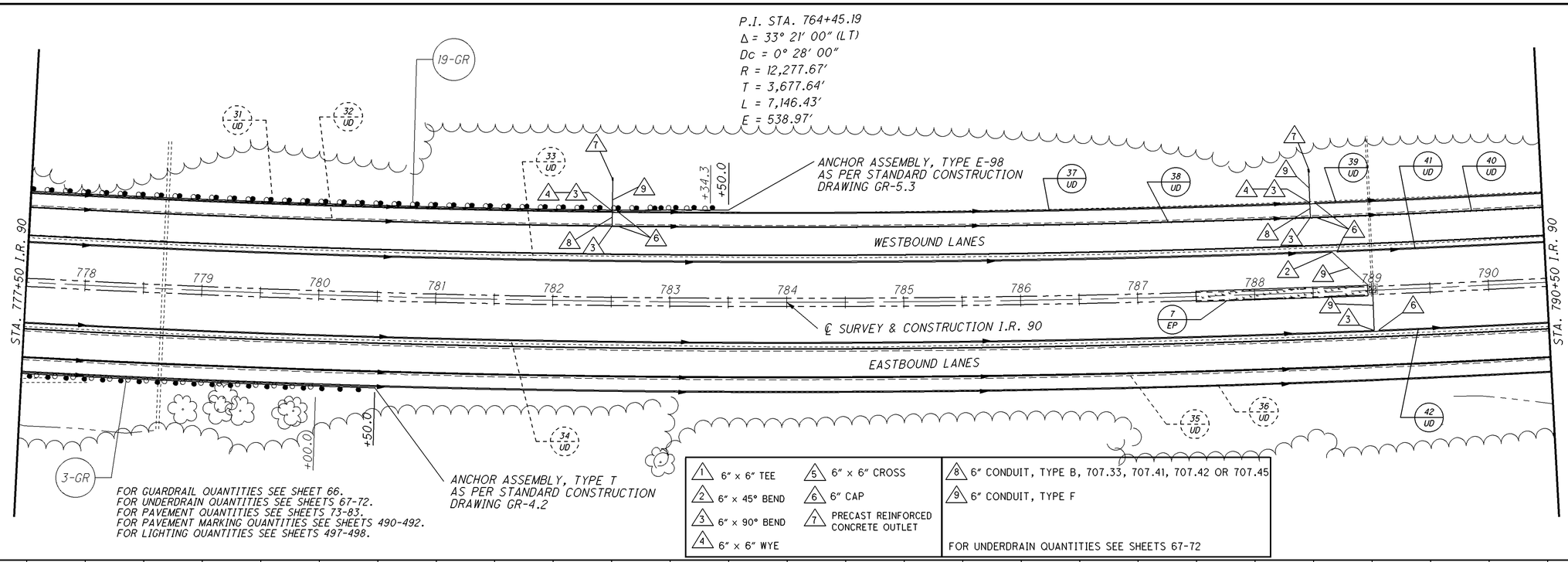
HORIZONTAL SCALE IN FEET
0 25 50 100

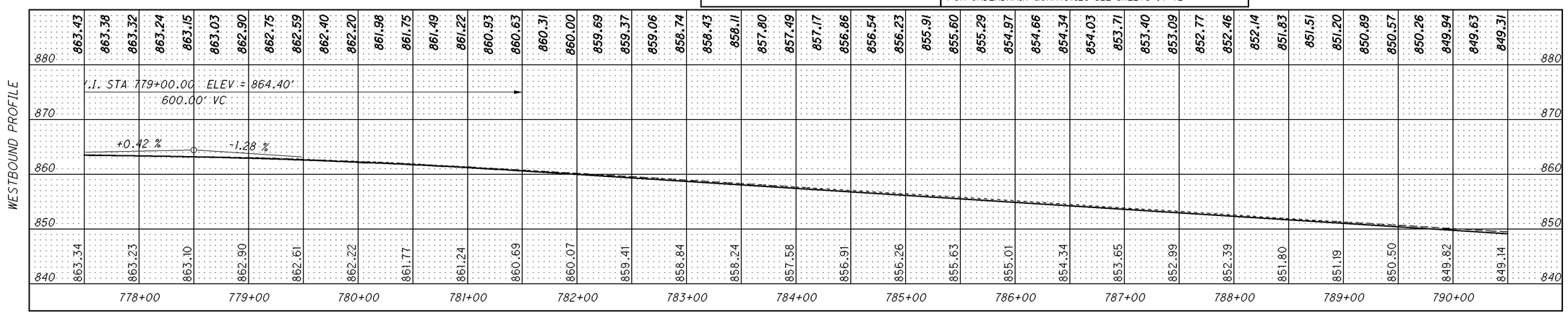
CALCULATED
CHECKED J.C.

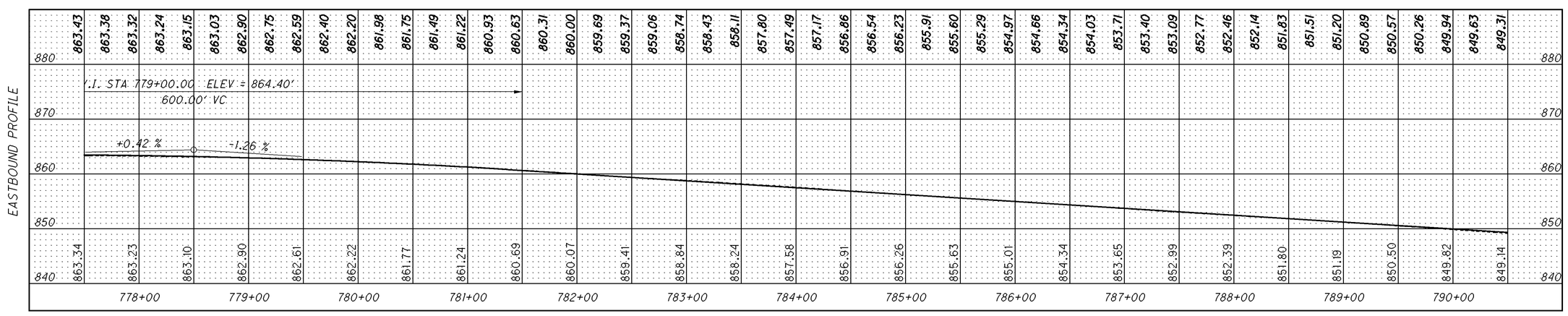
PLAN AND PROFILE I.R. 90
STA.764+50 TO STA.777+50

LAK-90-21.40
ATB-90-0.00

75477ppp005.dgn 03/13/08







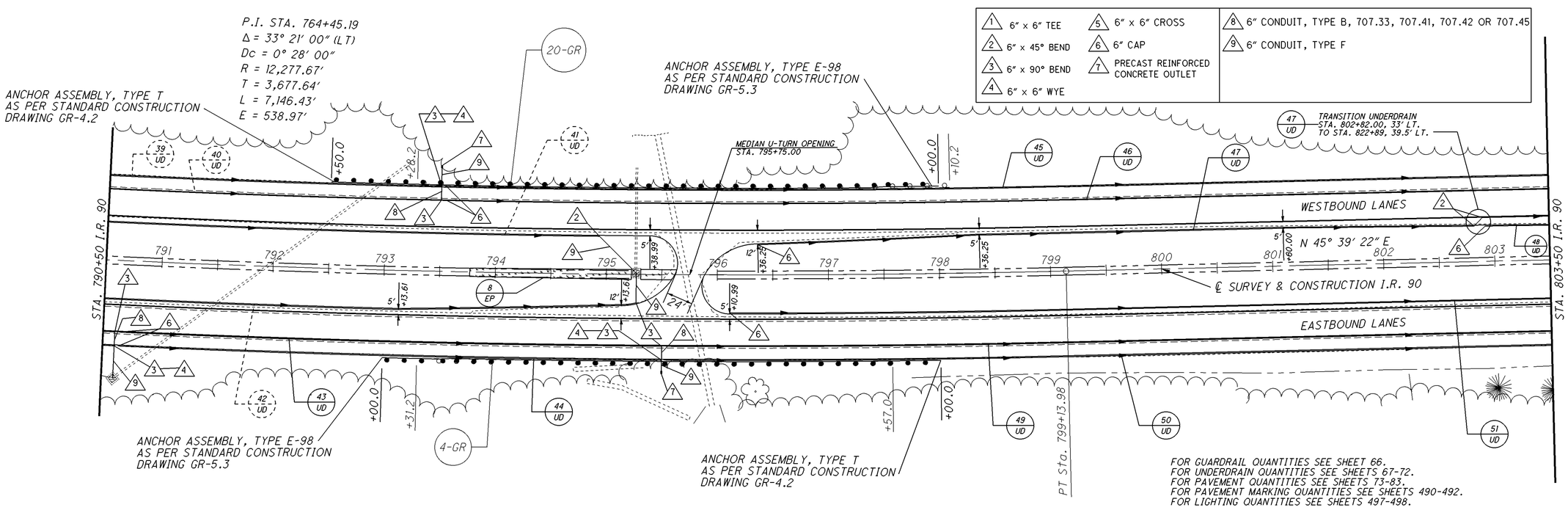
HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED
CHECKED J.C.

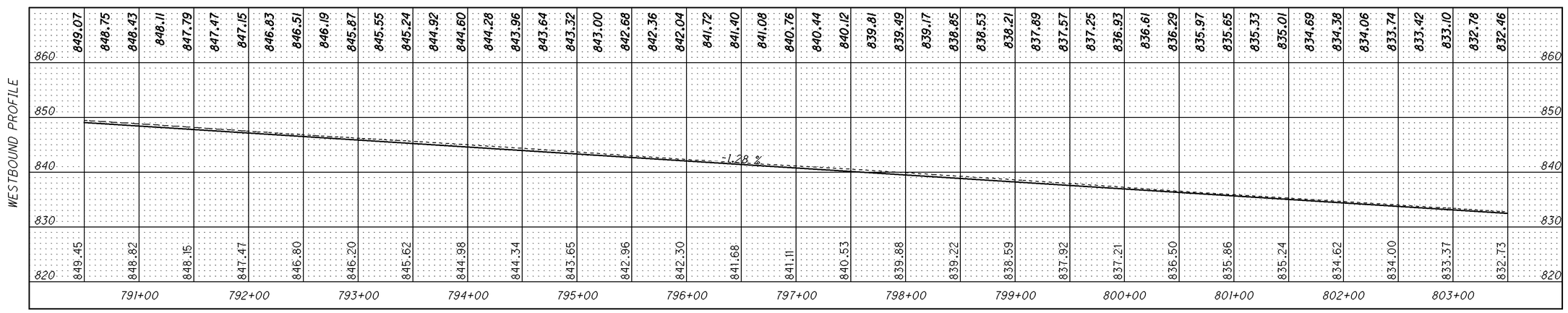
PLAN AND PROFILE I.R. 90
STA. 777+50 TO STA. 790+50

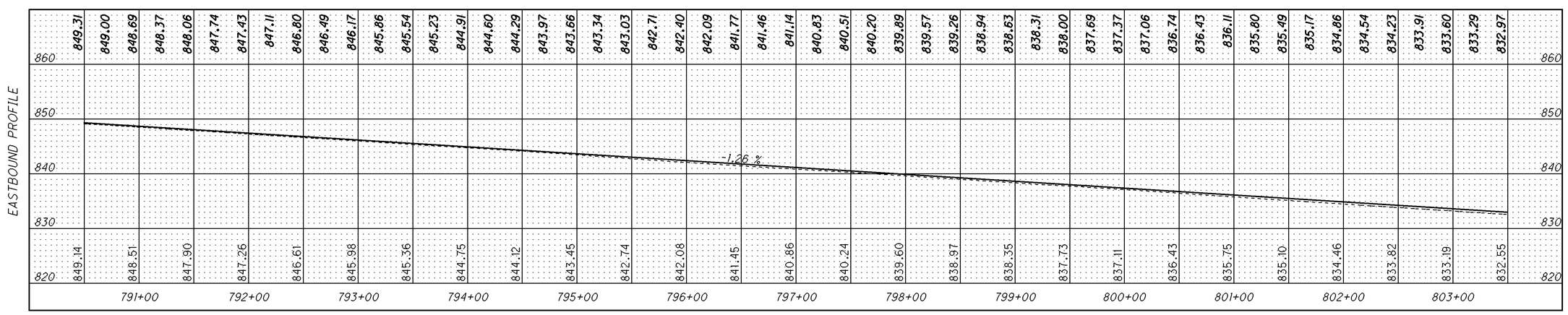
LAK-90-21.40
ATB-90-0.00

75477ppp006.dgn 06/30/08



FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.





HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED
CHECKED J.C.

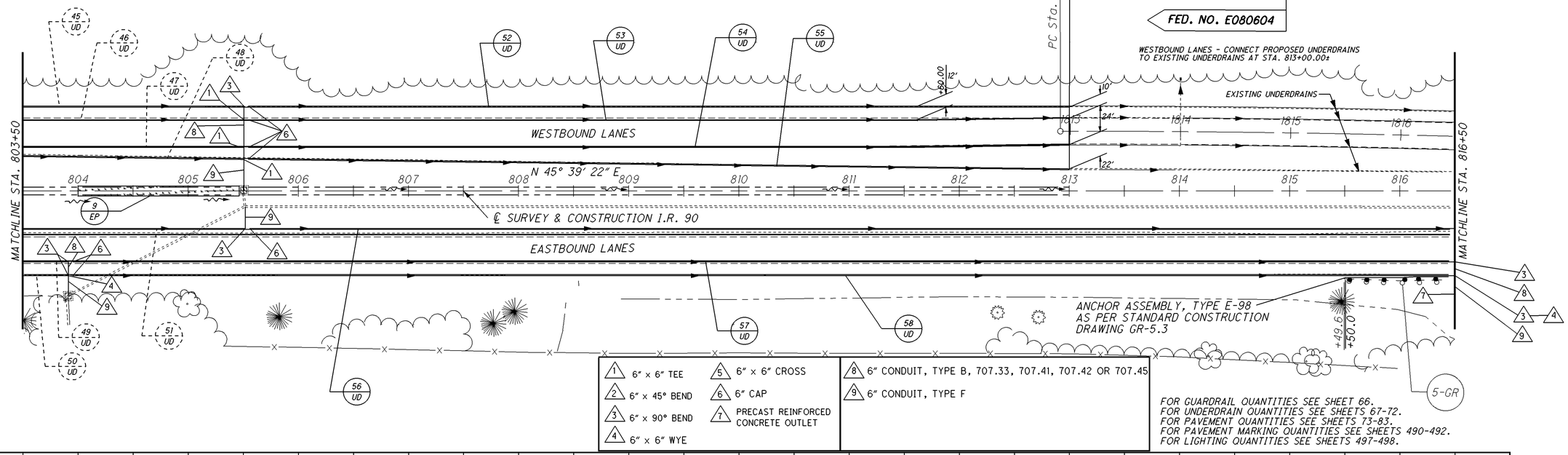
PLAN AND PROFILE I.R. 90
STA. 790+50 TO STA. 803+50

LAK-90-21.40
ATB-90-0.00

75477ppp007.dgn 06/30/08

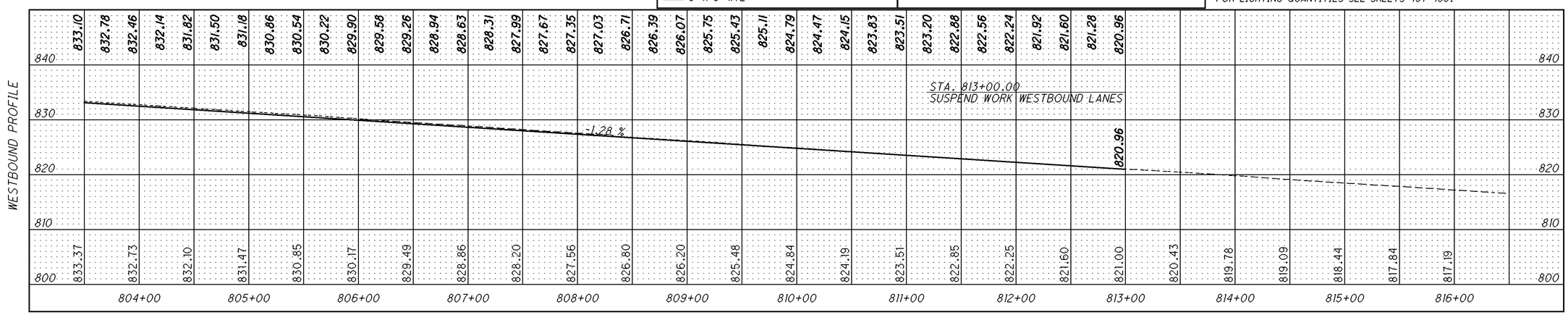
SUSPEND PROJECT
WESTBOUND LANES
STA. 813+00.00
℄ SURVEY & CONSTRUCTION I.R. 90
S.L.M. 23.07

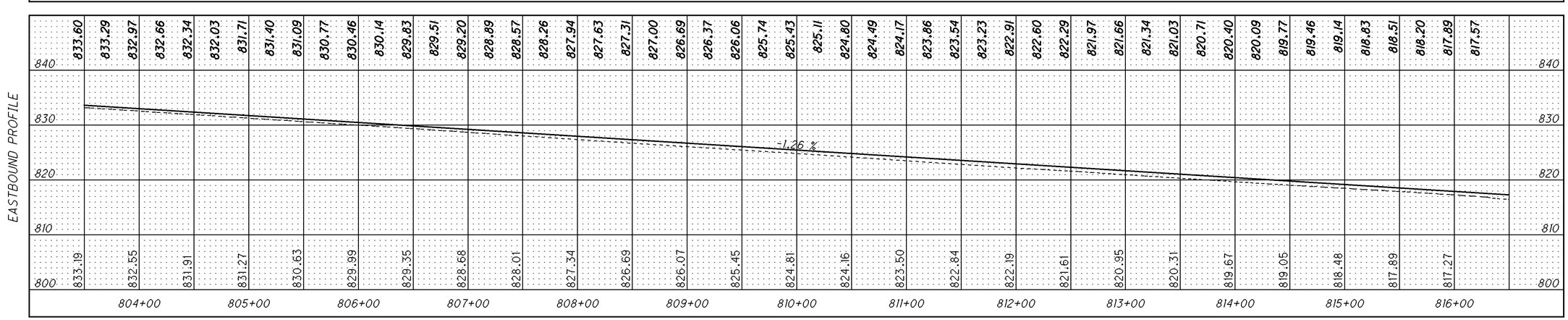
FED. NO. E080604



1 6" x 6" TEE
2 6" x 45° BEND
3 6" x 90° BEND
4 6" x 6" WYE
5 6" x 6" CROSS
6 6" CAP
7 PRECAST REINFORCED CONCRETE OUTLET
8 6" CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45
9 6" CONDUIT, TYPE F

FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.





HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED
CHECKED J.C.

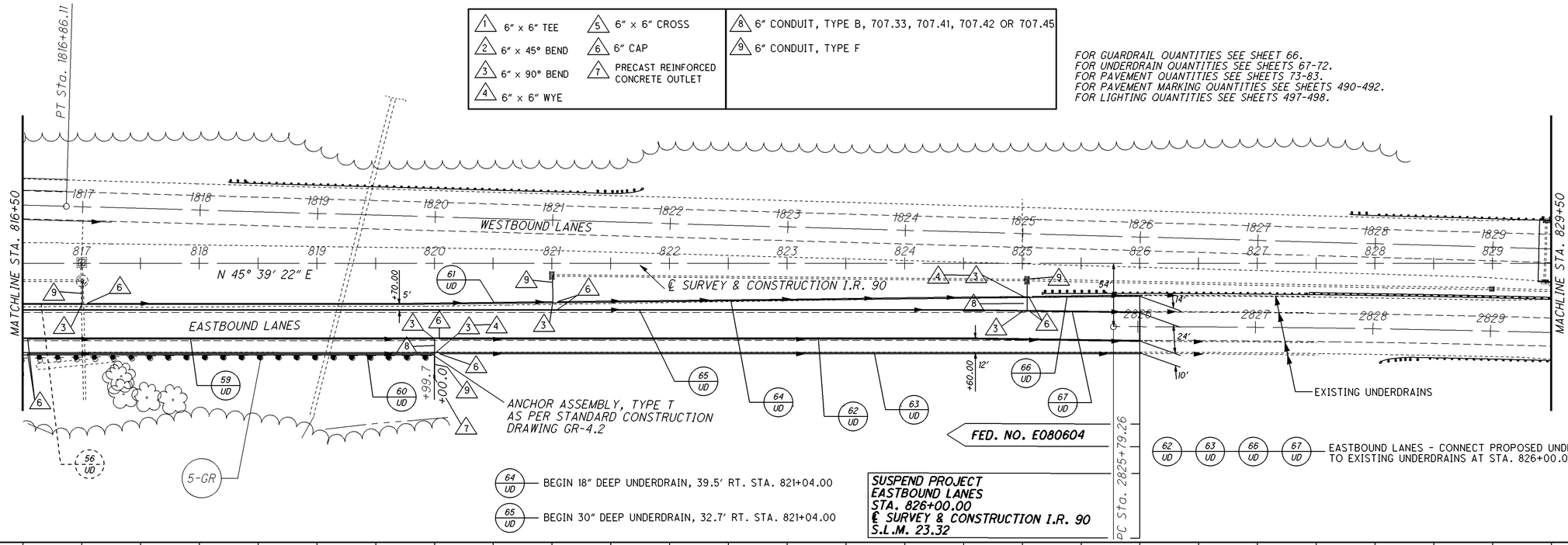
PLAN AND PROFILE I.R. 90
STA. 803+50 TO STA. 816+50

LAK-90-21.40
ATB-90-0.00

75477ppp008.dgn 06/18/08

1 6" x 6" TEE	5 6" x 6" CROSS	8 6" CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45	
2 6" x 45° BEND	6 6" CAP	9 6" CONDUIT, TYPE F	
3 6" x 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET		
4 6" x 6" WYE			

FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.

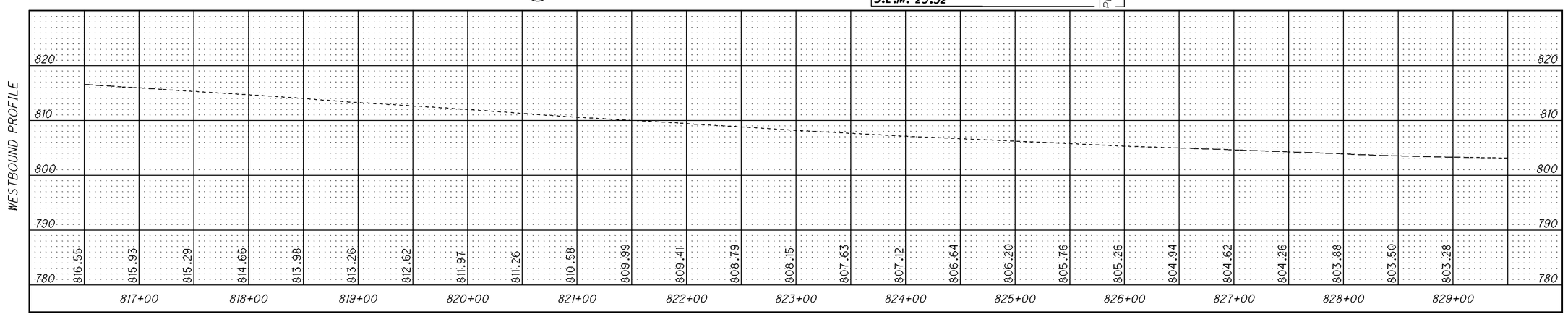


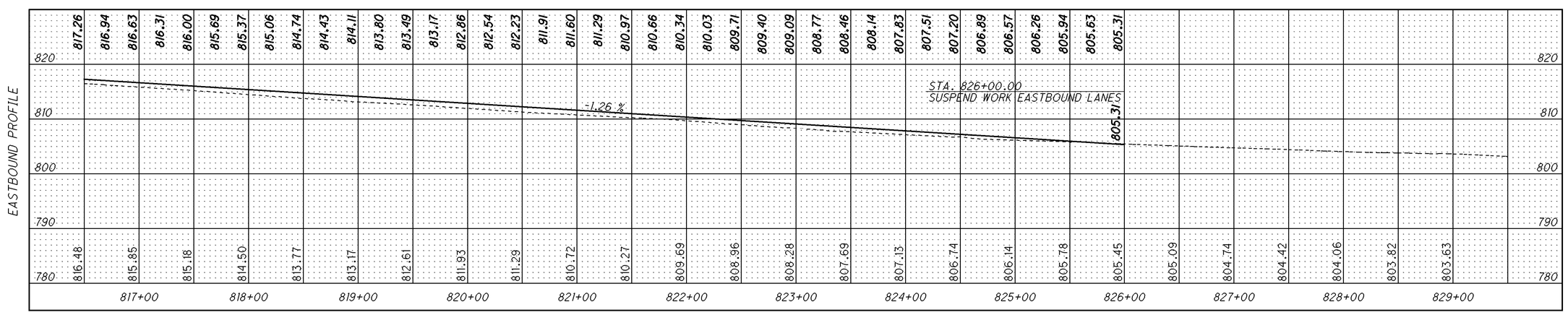
64 UD — BEGIN 18" DEEP UNDERDRAIN, 39.5' RT. STA. 821+04.00

65 UD — BEGIN 30" DEEP UNDERDRAIN, 32.7' RT. STA. 821+04.00

SUSPEND PROJECT
EASTBOUND LANES
STA. 826+00.00
℄ SURVEY & CONSTRUCTION I.R. 90
S.L.M. 23.32

62 UD 63 UD 66 UD 67 UD — EASTBOUND LANES - CONNECT PROPOSED UNDERDRAINS TO EXISTING UNDERDRAINS AT STA. 826+00.00±





HORIZONTAL SCALE IN FEET
0 25 50 100

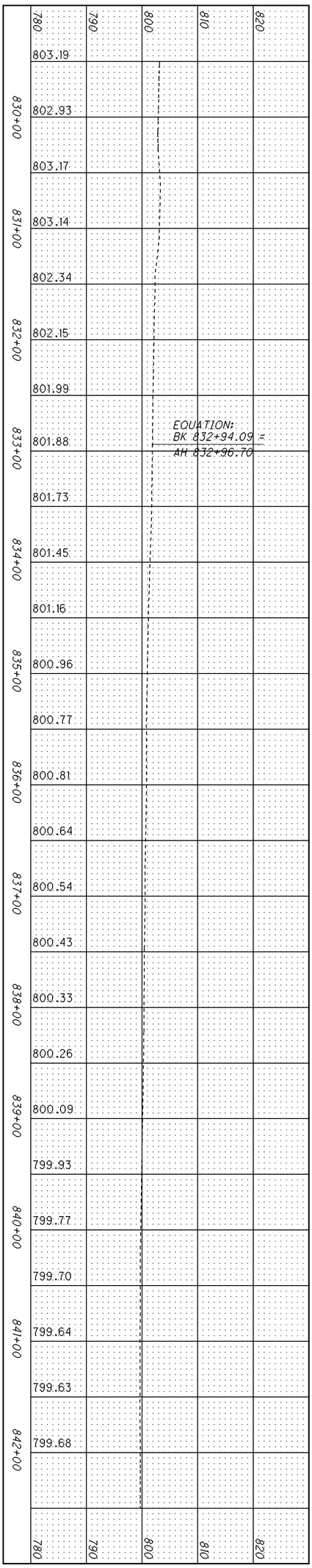
CALCULATED
CHECKED J.C.

PLAN AND PROFILE I.R. 90
STA. 816+50 TO STA. 829+50

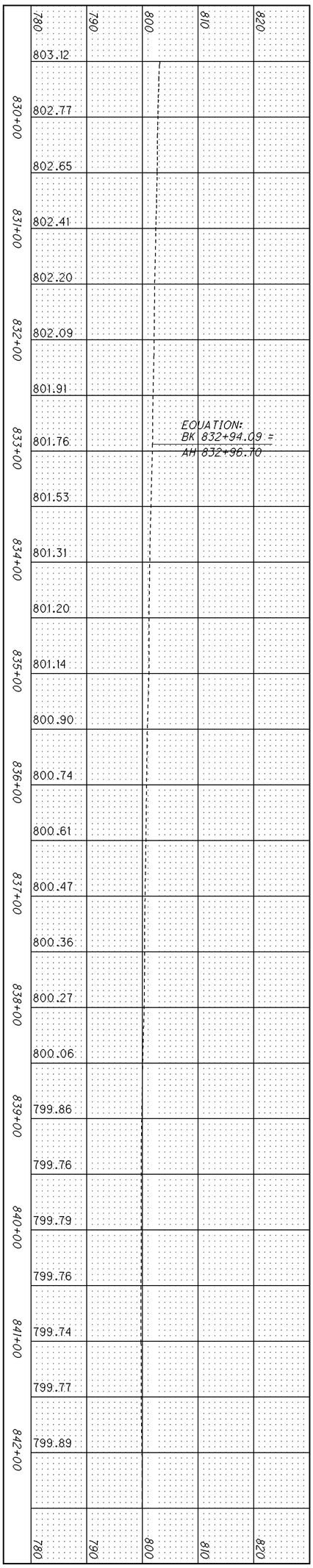
LAK-90-21.40
ATB-90-0.00

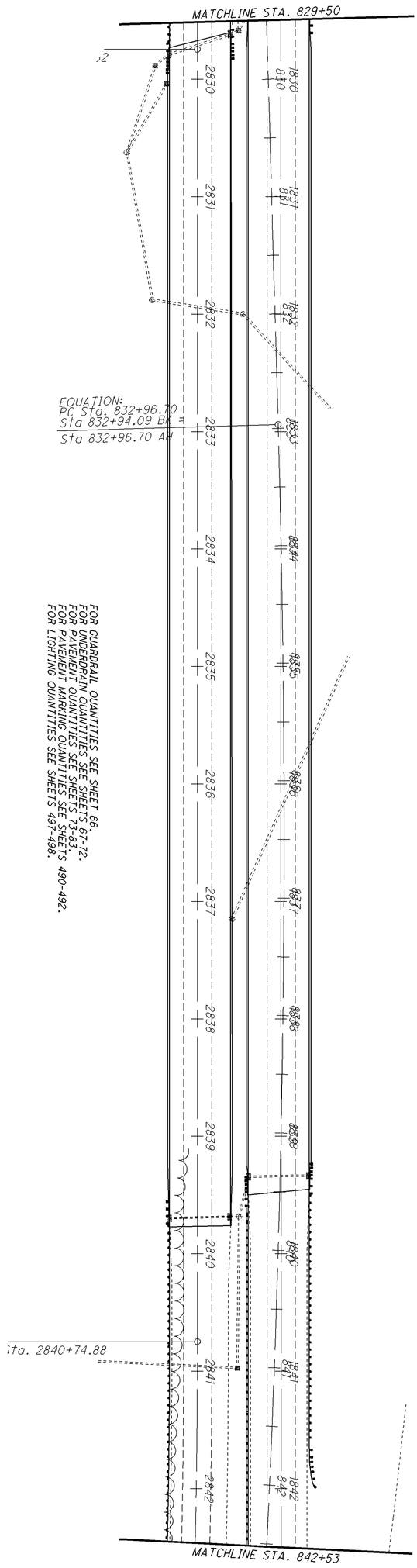
75477ppp009.dgn 06/18/08

EASTBOUND PROFILE



WESTBOUND PROFILE





131 / 498	LAK-90-21.40 ATB-90-0.00	PLAN AND PROFILE I.R. 90 STA. 829+50 TO STA. 842+53	CALCULATED CHECKED J.C.	0 50 25 100 HORIZONTAL SCALE IN FEET

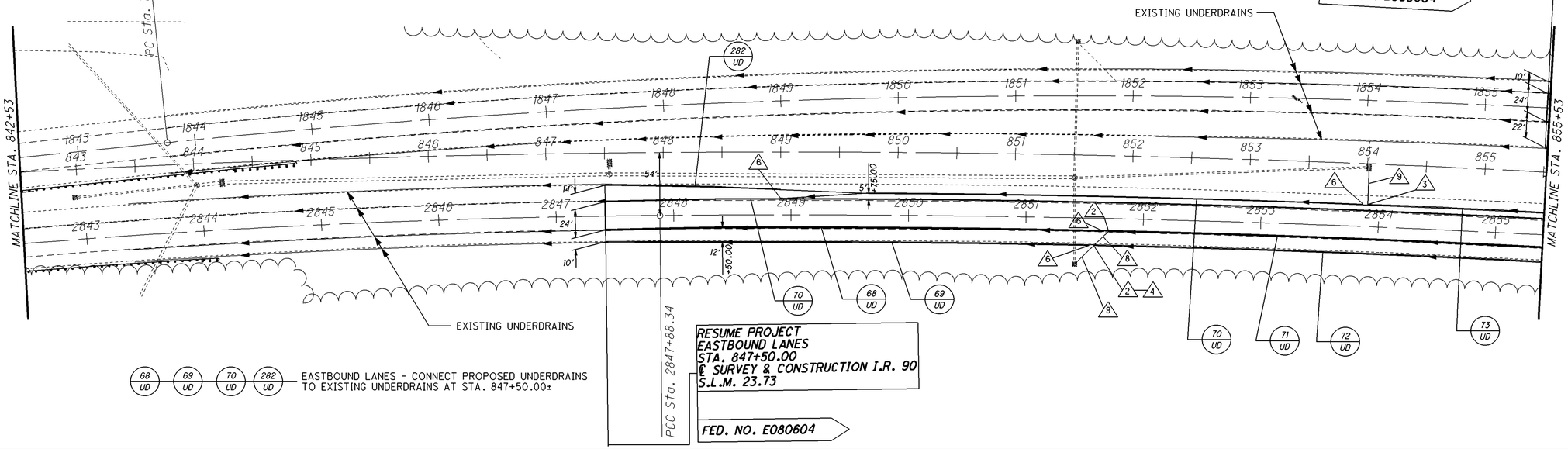
1 6" x 6" TEE	5 6" x 6" CROSS
2 6" x 45° BEND	6 6" CAP
3 6" x 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET
4 6" x 6" WYE	

8 6" CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45
9 6" CONDUIT, TYPE F

FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.

RESUME PROJECT
WESTBOUND LANES
STA. 855+50.00
℄ SURVEY & CONSTRUCTION I.R. 90
S.L.M. 23.87

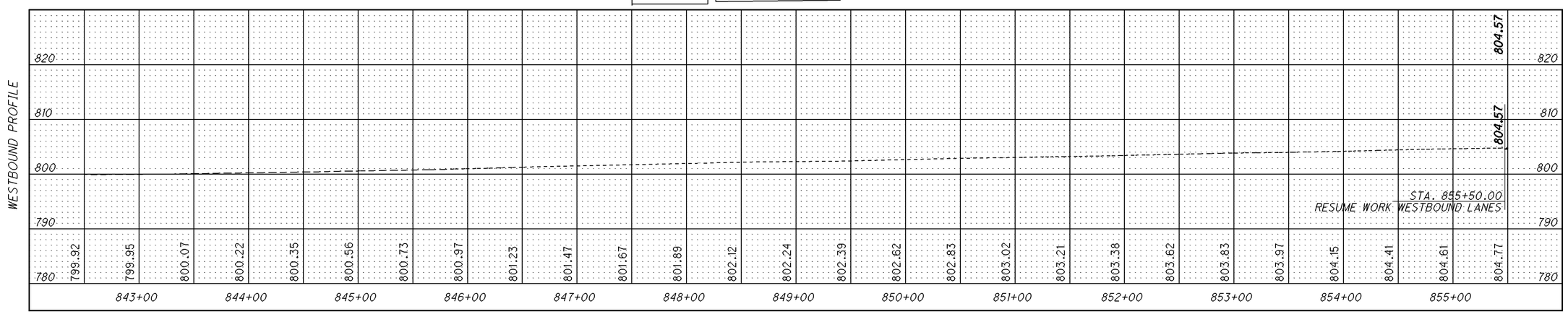
FED. NO. E080604

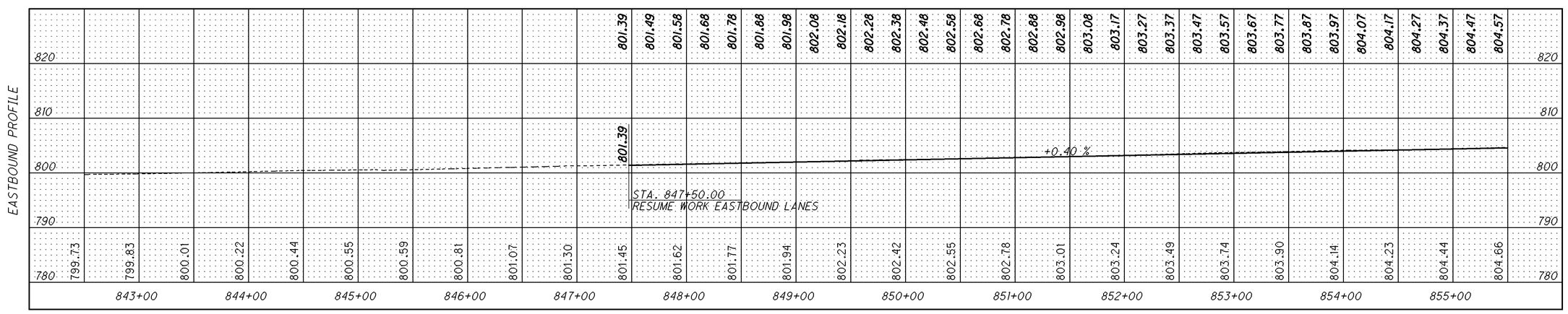


68 UD 69 UD 70 UD 282 UD — EASTBOUND LANES - CONNECT PROPOSED UNDERDRAINS TO EXISTING UNDERDRAINS AT STA. 847+50.00±

RESUME PROJECT
EASTBOUND LANES
STA. 847+50.00
℄ SURVEY & CONSTRUCTION I.R. 90
S.L.M. 23.73

FED. NO. E080604





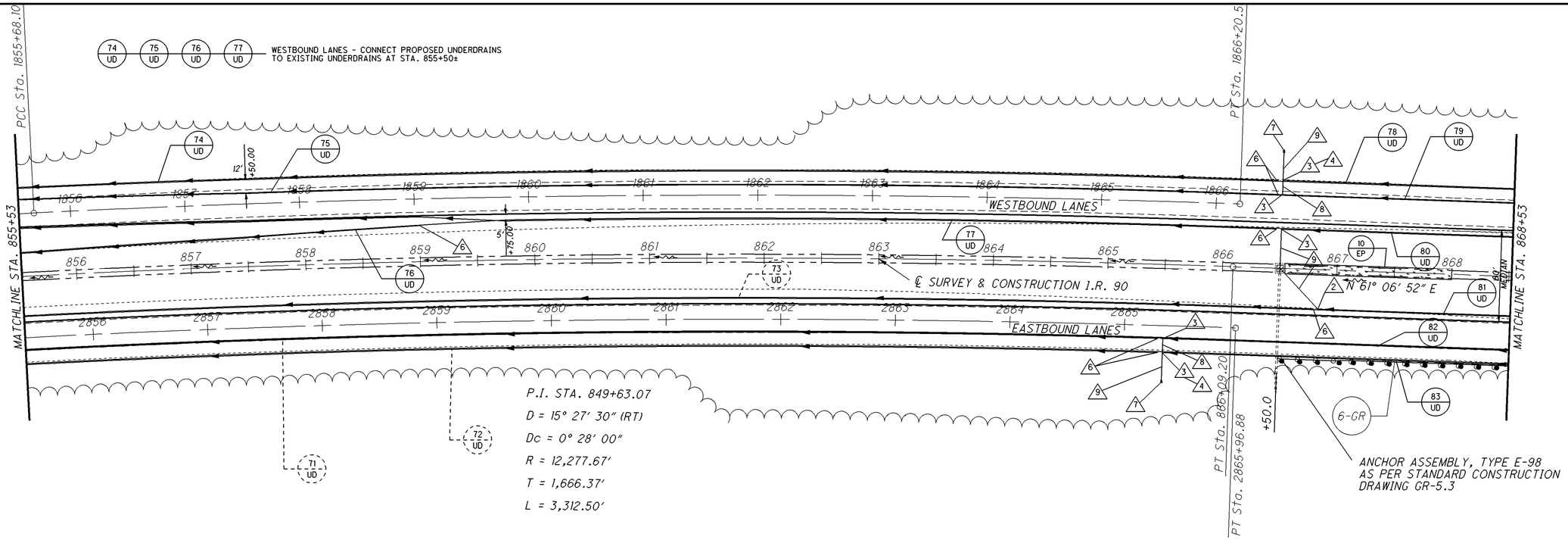
HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED
CHECKED J.C.

PLAN AND PROFILE I.R. 90
STA. 842+53 TO STA. 855+53

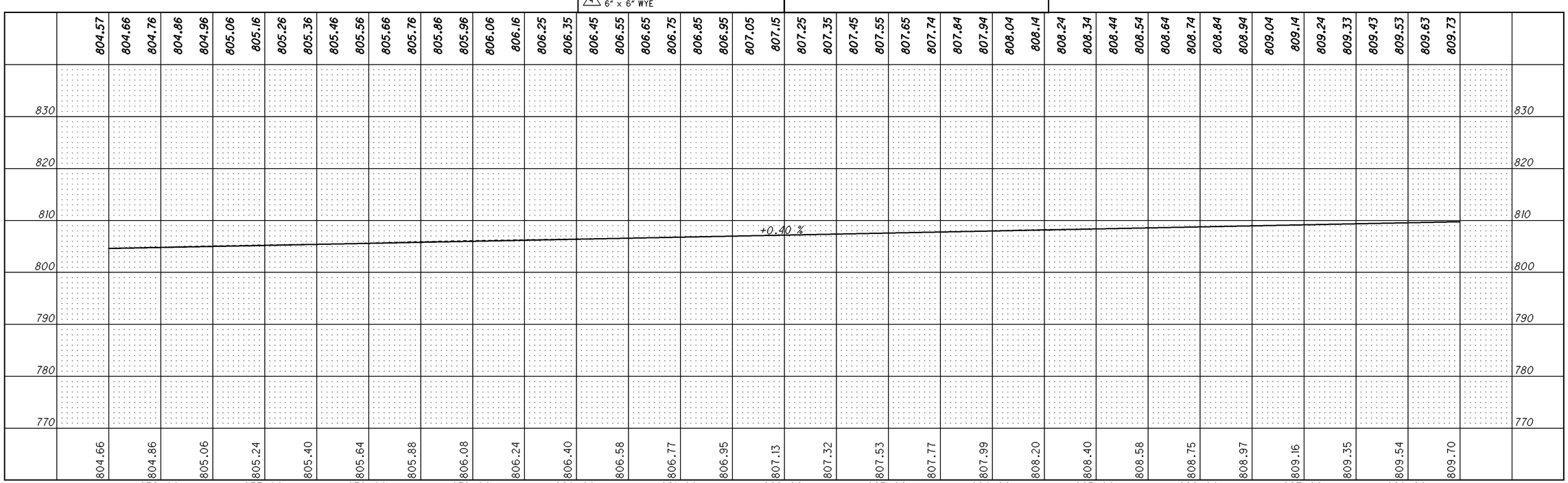
LAK-90-21.40
ATB-90-0.00

75477ppp011.dgn 06/18/08



1. 6" x 6" TEE
2. 6" x 45° BEND
3. 6" x 90° BEND
4. 6" x 6" WYE
5. 6" x 6" CROSS
6. 6" CAP
7. PRECAST REINFORCED CONCRETE OUTLET
8. 6" CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45
9. 6" CONDUIT, TYPE F

FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.



PLAN AND PROFILE I.R. 90
STA. 855+53 TO STA. 868+53

HORIZONTAL SCALE IN FEET 0 25 50 100

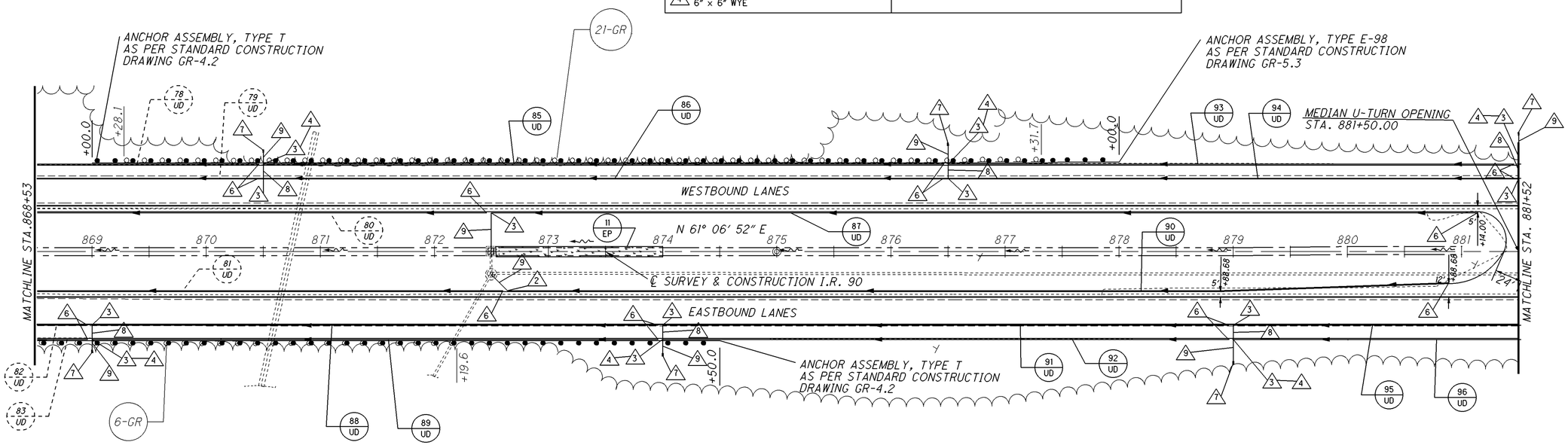
CALCULATED

CHECKED J.C.

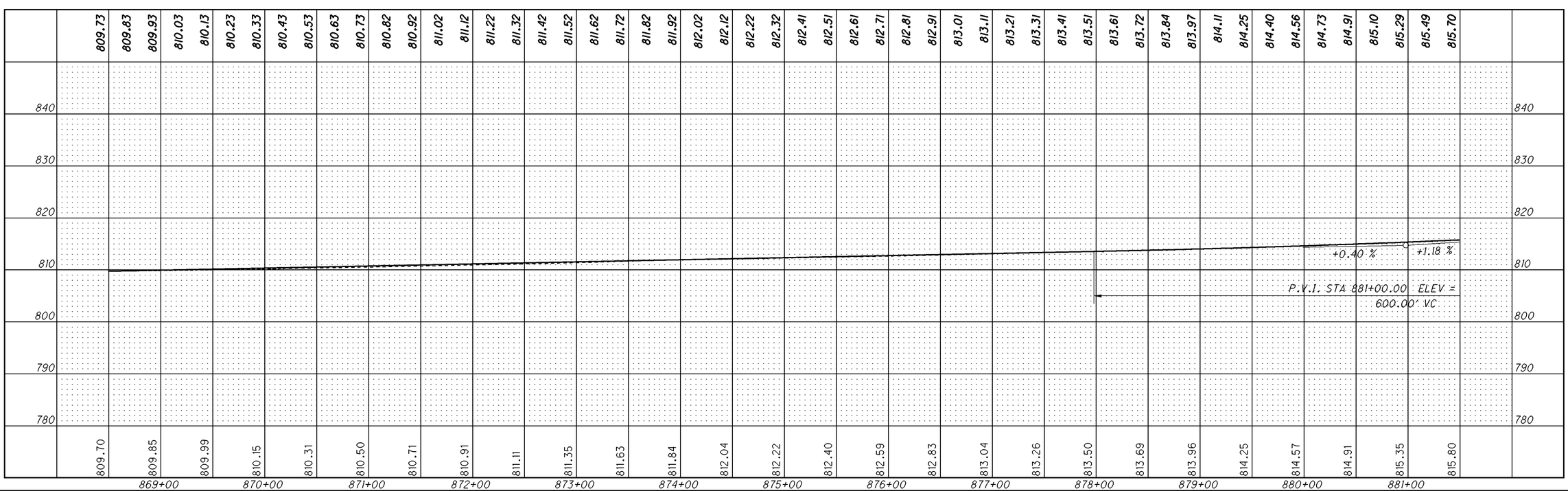
LAK-90-21.40
ATB-90-0.00

75477ppp012.dgn 06/18/08

1 6" x 6" TEE	5 6" x 6" CROSS	8 6" CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45
2 6" x 45° BEND	6 6" CAP	9 6" CONDUIT, TYPE F
3 6" x 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET	
4 6" x 6" WYE		



FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.



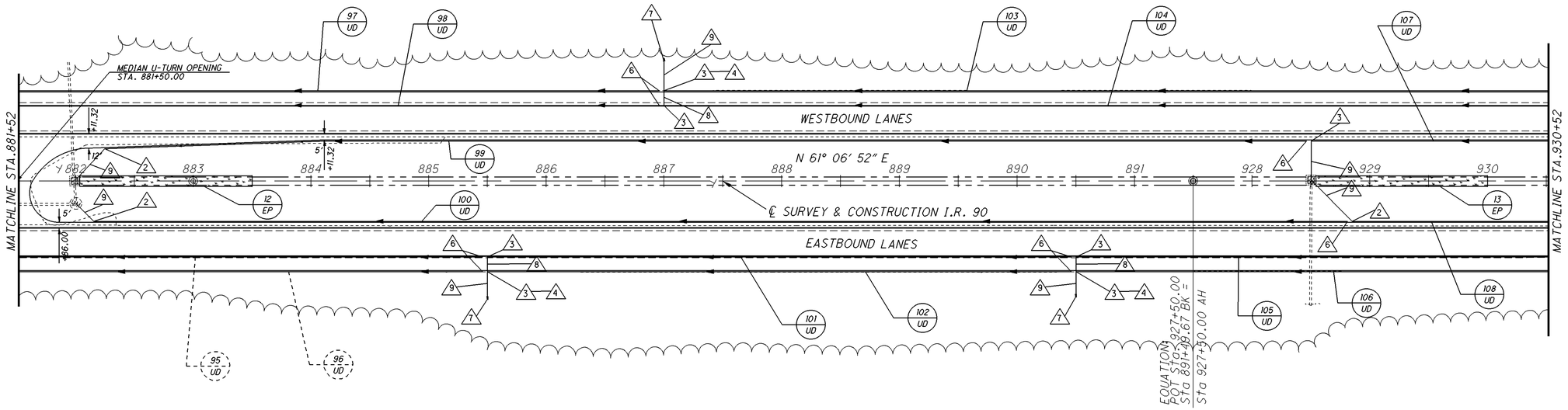
HORIZONTAL SCALE IN FEET
0 50 100

CALCULATED M.M.
CHECKED J.C.

PLAN AND PROFILE I.R. 90
STA. 868+53 TO STA. 881+52

LAK-90-21.40
ATB-90-0.00

75477ppp013.dgn 03/17/08

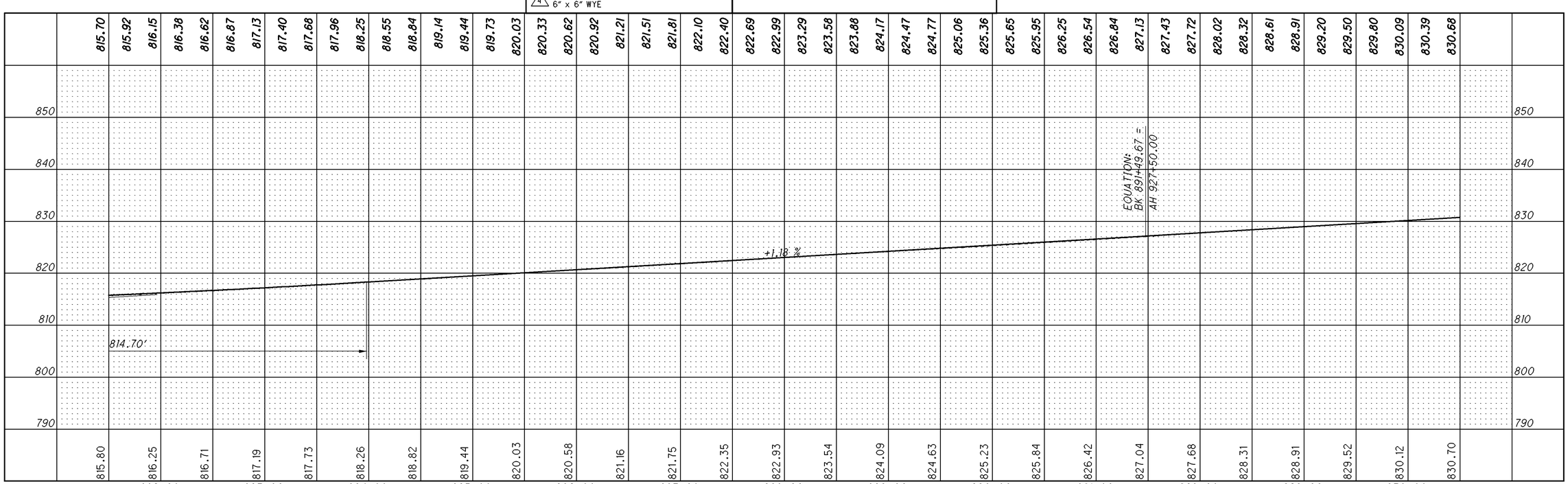


1 6″ x 6″ TEE	5 6″ x 6″ CROSS
2 6″ x 45° BEND	6 6″ CAP
3 6″ x 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET
4 6″ x 6″ WYE	

8 6″ CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45

9 6″ CONDUIT, TYPE F

FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.



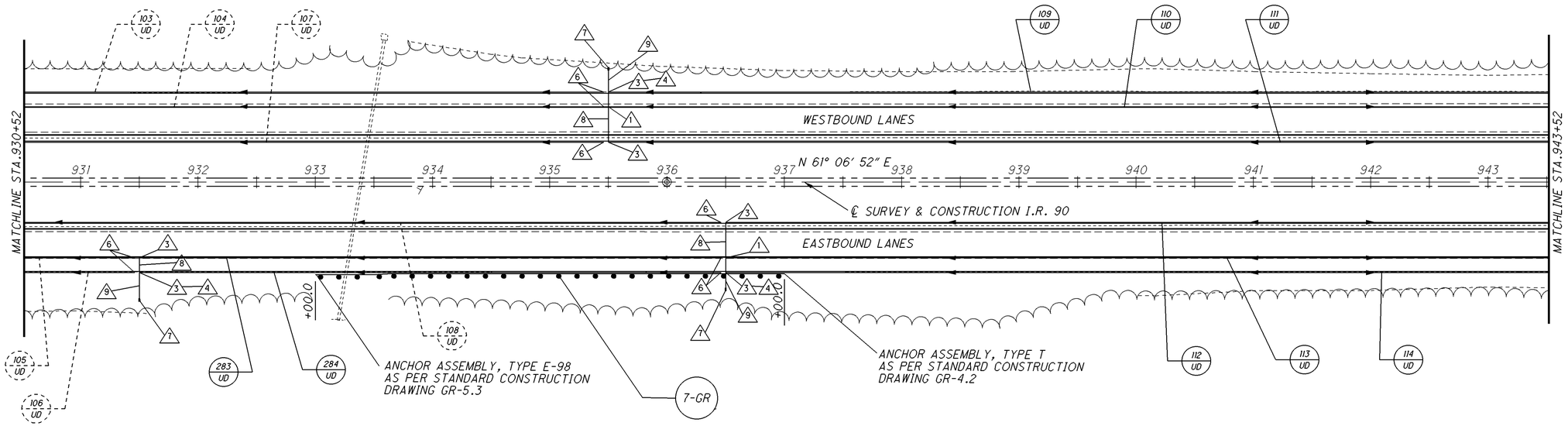
HORIZONTAL SCALE IN FEET
0 50 100

CALCULATED M.M.
CHECKED J.C.

PROFILE I.R. 90
STA. 881+52 TO STA. 930+52

LAK-90-21.40
ATB-90-0.00

75477ppp014.dgn 03/17/08

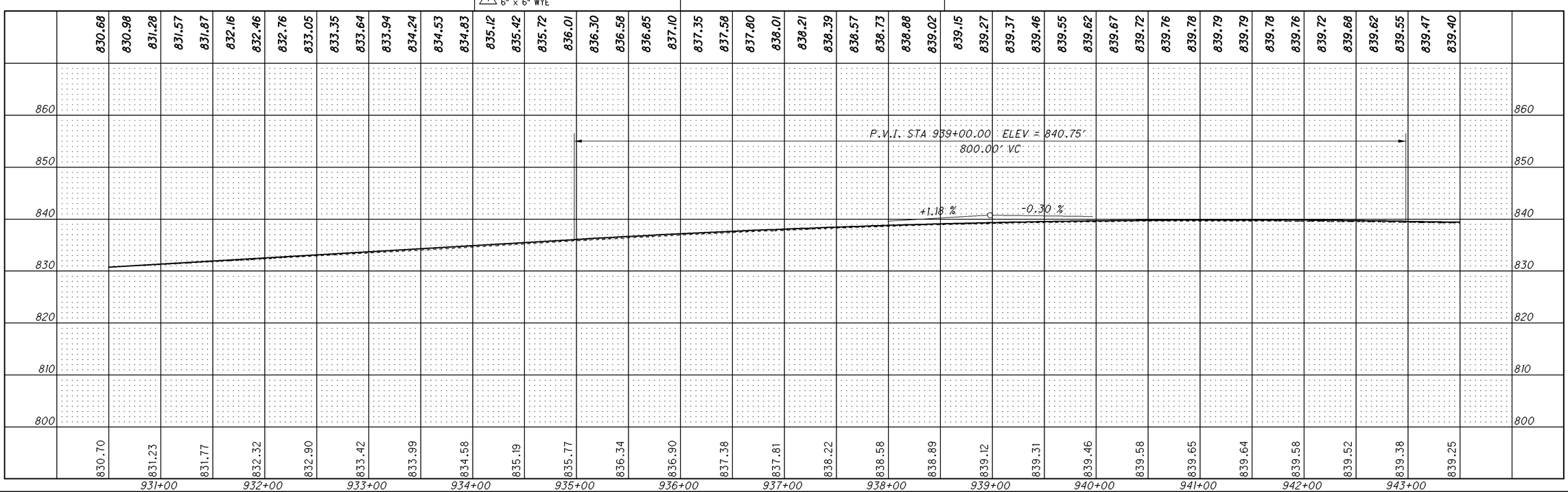


6″ × 6″ TEE	5 6″ × 6″ CROSS
2 6″ × 45° BEND	6 6″ CAP
3 6″ × 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET
4 6″ × 6″ WYE	

8 6″ CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45

9 6″ CONDUIT, TYPE F

FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.



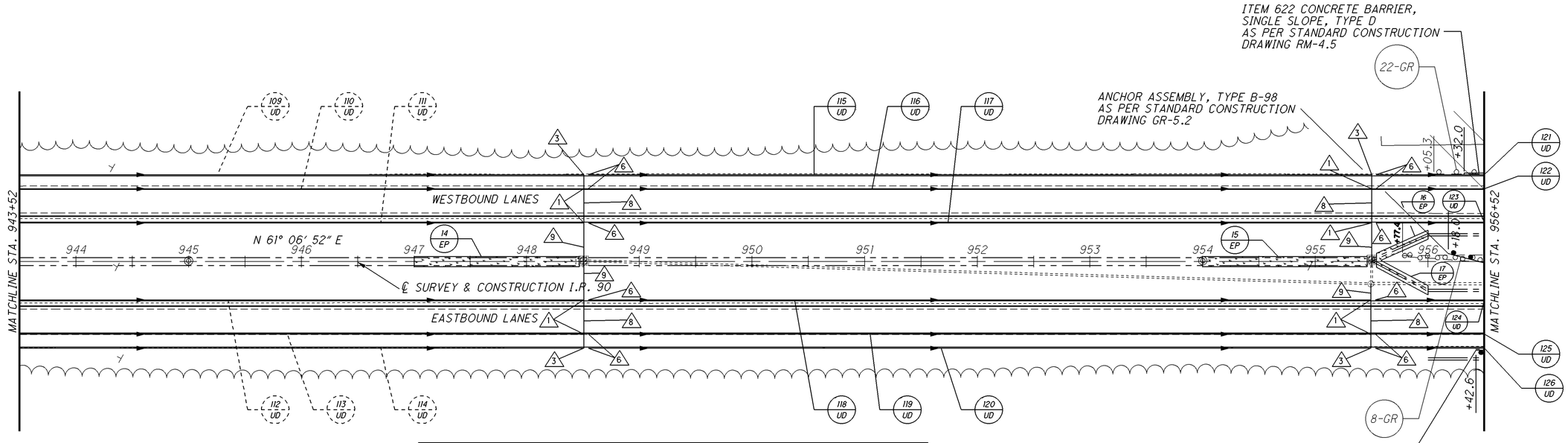
HORIZONTAL SCALE IN FEET
0 50 100

CALCULATED M.M.
CHECKED J.C.

PLAN AND PROFILE I.R. 90
STA. 930+52 TO STA. 943+52

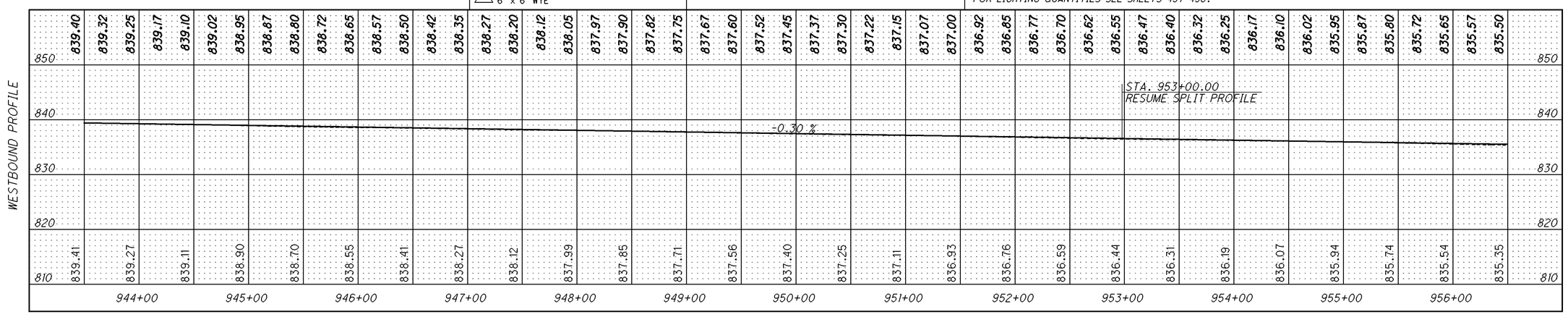
LAK-90-21.40
ATB-90-0.00

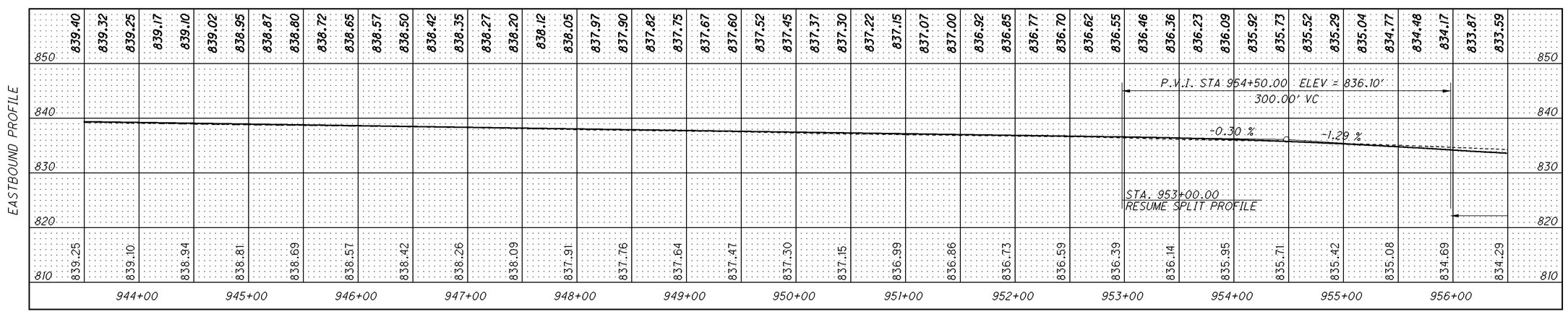
75477ppp015.dgn 03/17/08



1 6" x 6" TEE	5 6" x 6" CROSS
2 6" x 45° BEND	6 6" CAP
3 6" x 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET
4 6" x 6" WYE	
8 6" CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45	
9 6" CONDUIT, TYPE F	

FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.





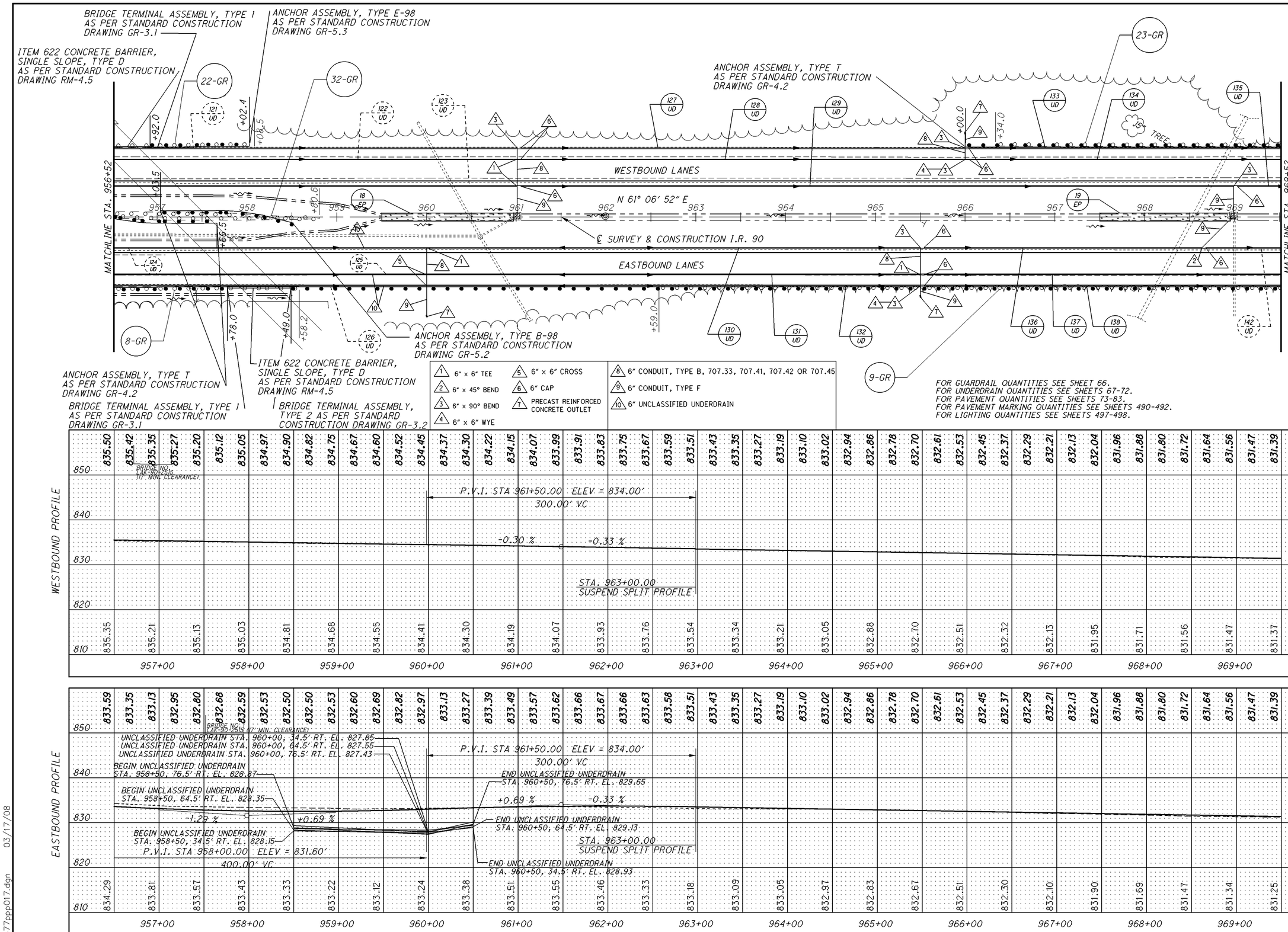
HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED
CHECKED J.C.

PLAN AND PROFILE I.R. 90
STA. 943+52 TO STA. 956+52

LAK-90-21.40
ATB-90-0.00

75477ppp016.dgn 03/17/08



HORIZONTAL SCALE IN FEET

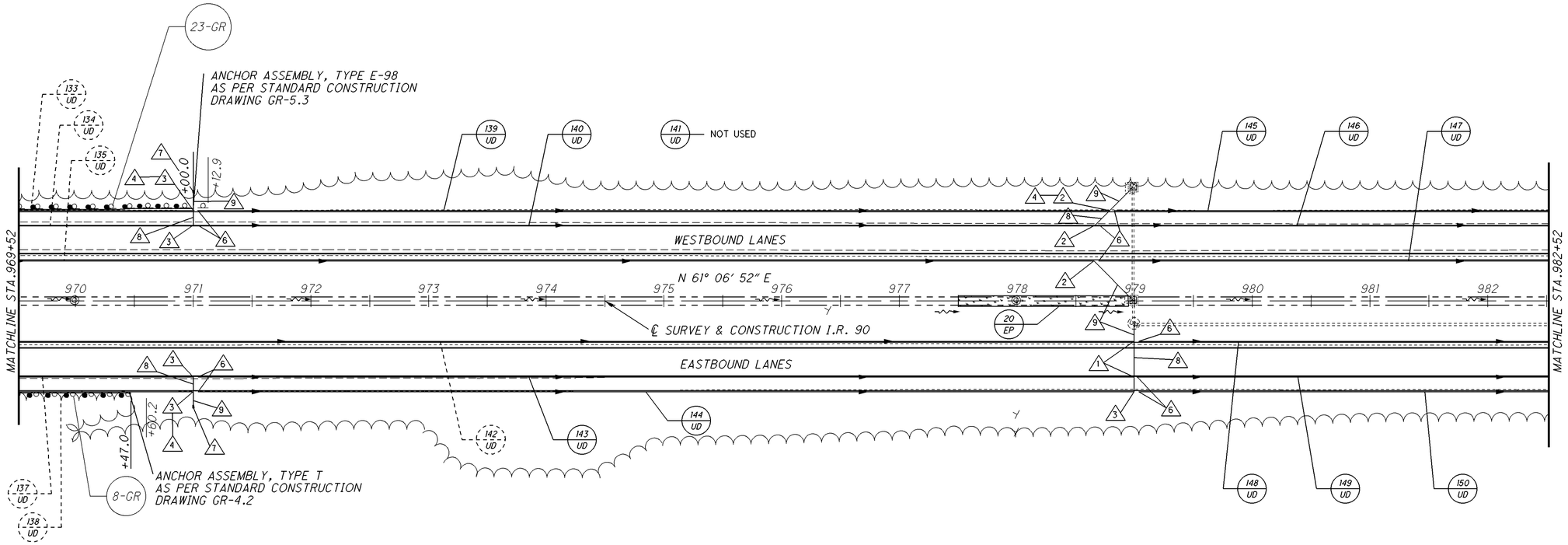
CALCULATED

CHECKED J.C.

PLAN AND PROFILE I.R. 90 STA. 956+52 TO STA. 969+52

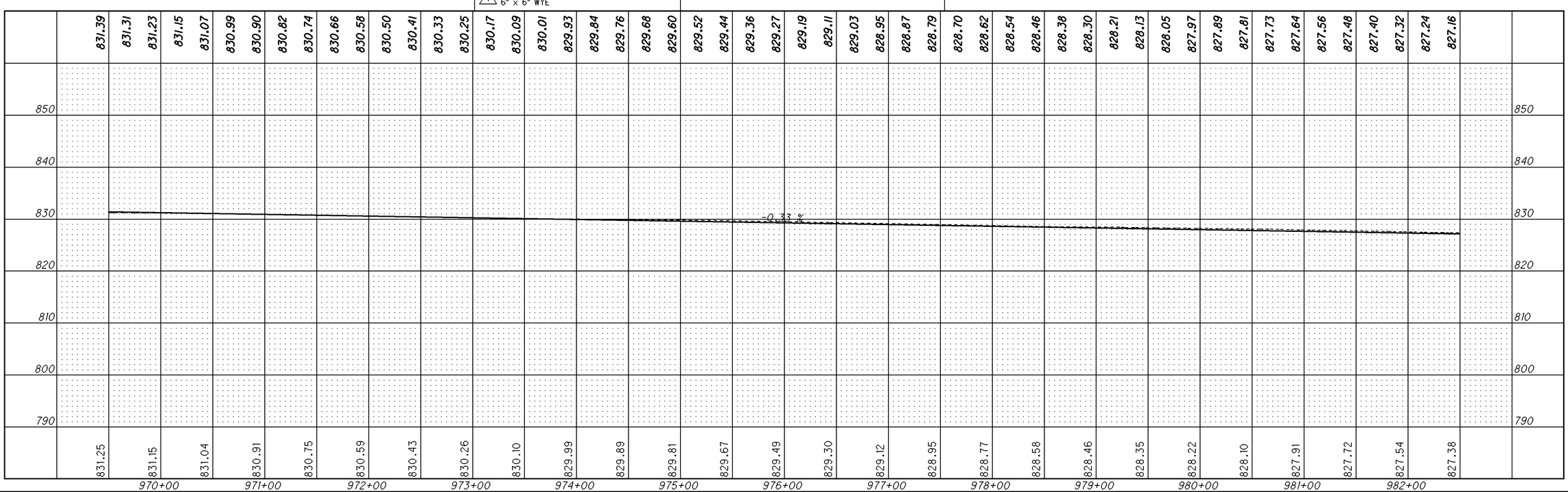
LAK-90-21.40
ATB-90-0.00

75477ppp017.dgn 03/17/08



1 6″ x 6″ TEE
2 6″ x 45° BEND
3 6″ x 90° BEND
4 6″ x 6″ WYE
5 6″ x 6″ CROSS
6 6″ CAP
7 PRECAST REINFORCED CONCRETE OUTLET
8 6″ CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45
9 6″ CONDUIT, TYPE F

FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.



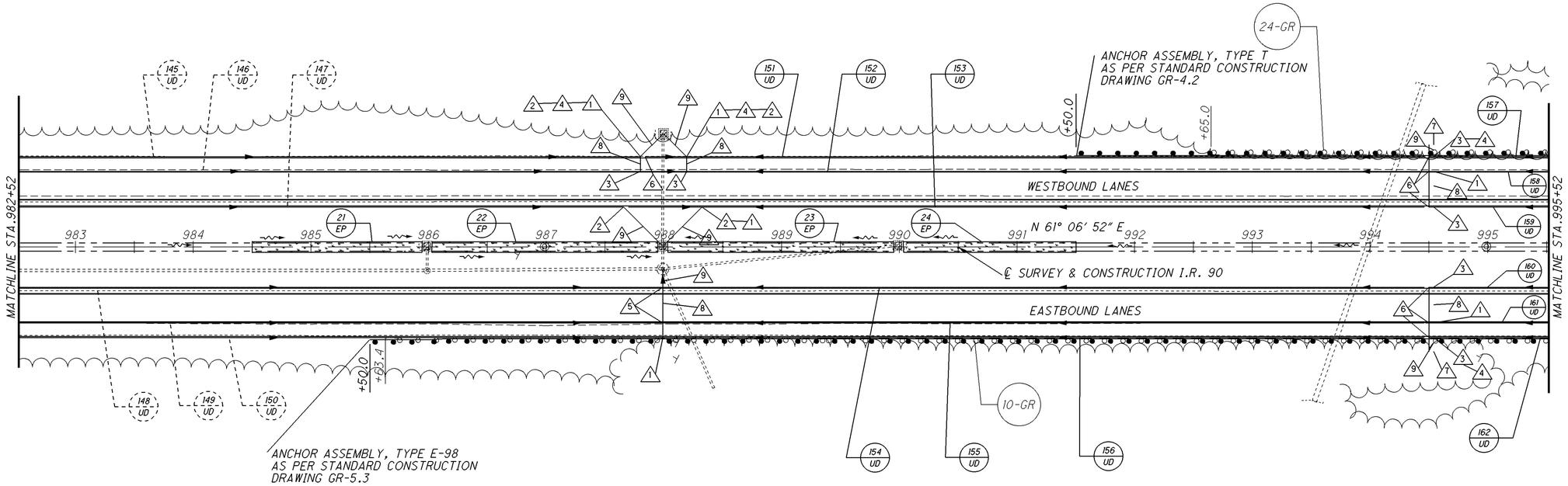
CALCULATED M.M.
CHECKED J.C.

HORIZONTAL SCALE IN FEET
0 25 50 100

PLAN AND PROFILE I.R. 90
STA. 969+52 TO STA. 982+52

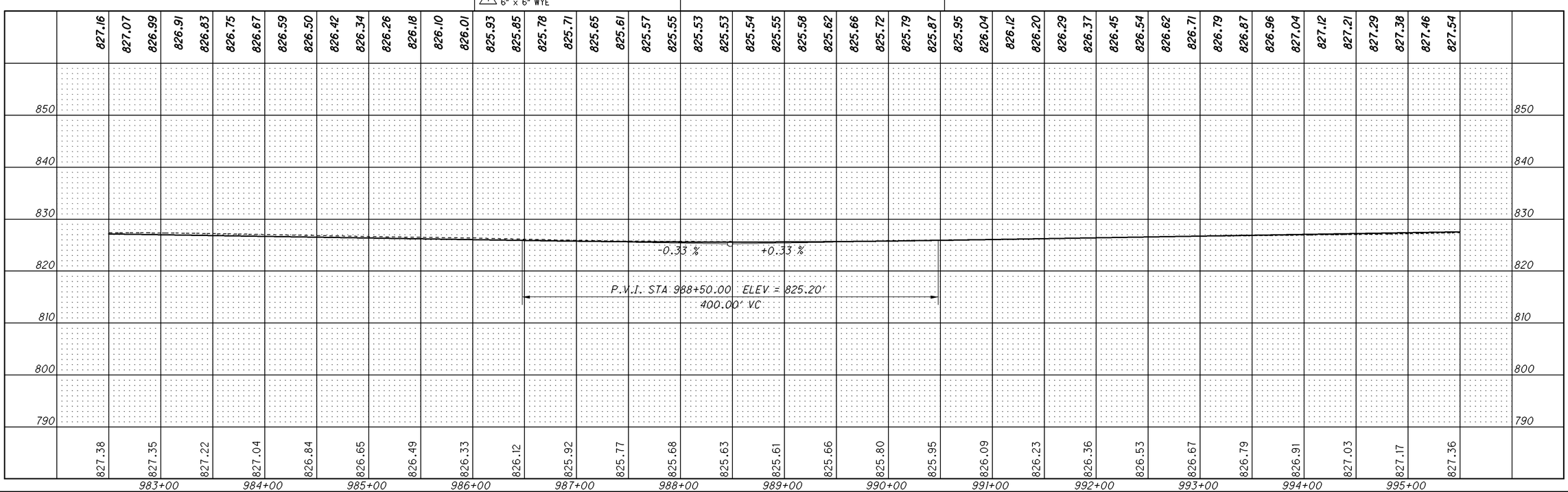
LAK-90-21.40
ATB-90-0.00

75477ppp018.dgn 03/17/08



1 6" x 6" TEE	5 6" x 6" CROSS
2 6" x 45° BEND	6 6" CAP
3 6" x 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET
4 6" x 6" WYE	
8 6" CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45	
9 6" CONDUIT, TYPE F	

FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.



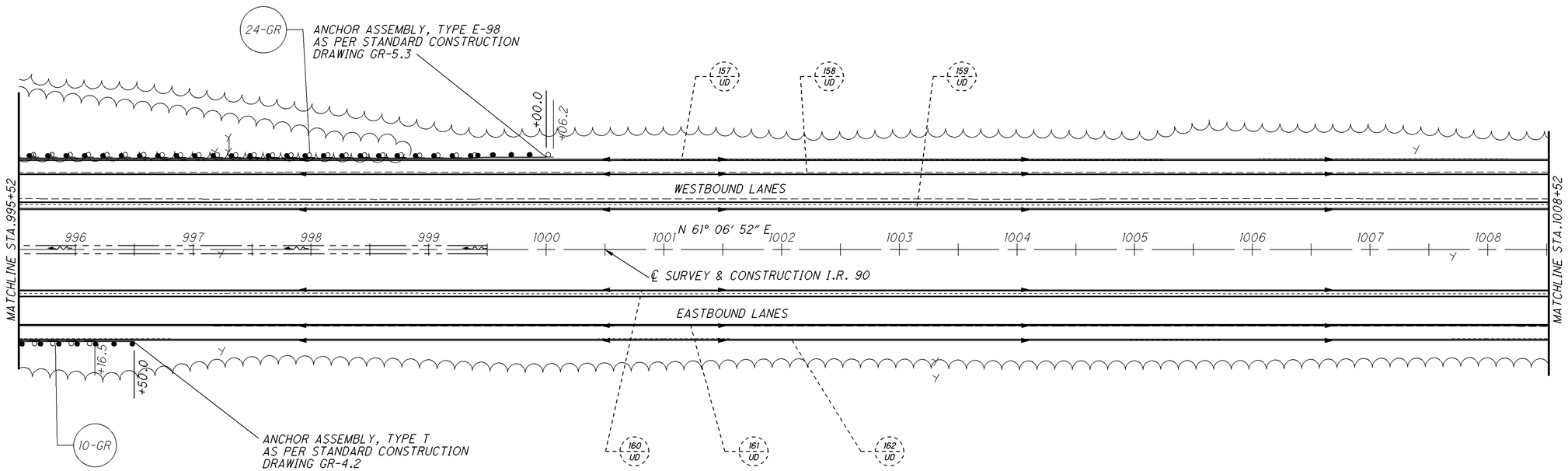
HORIZONTAL SCALE IN FEET
0 50 100

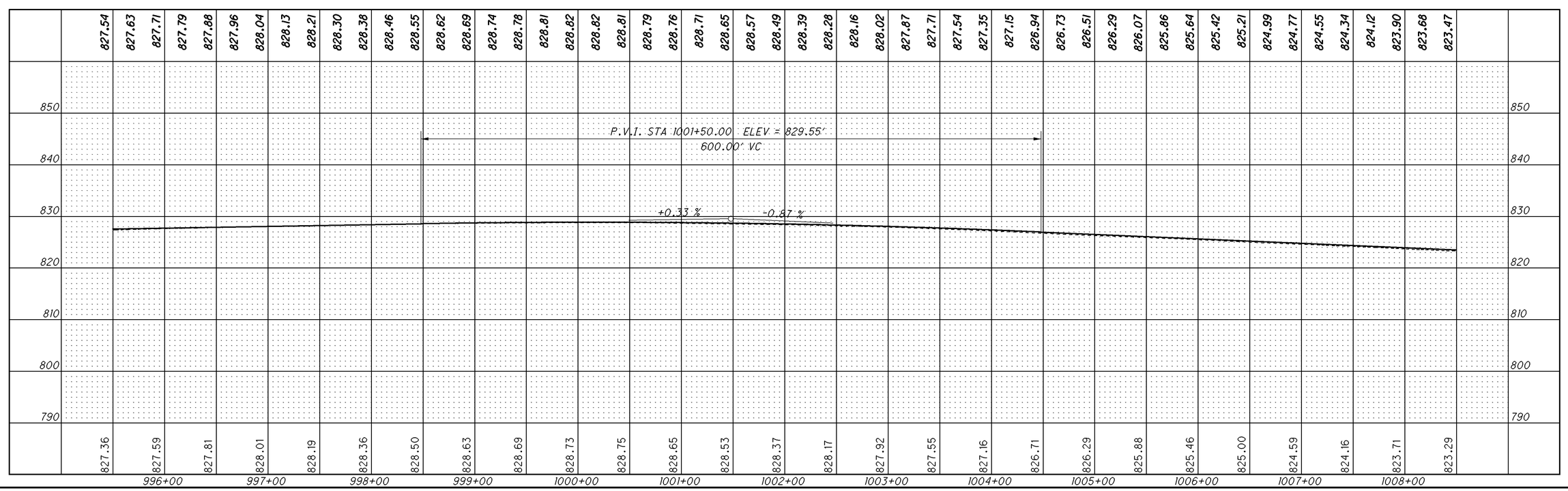
CALCULATED M.M.
CHECKED J.C.

PLAN AND PROFILE I.R. 90
STA. 982+52 TO STA. 995+52

LAK-90-21.40
ATB-90-0.00

FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.





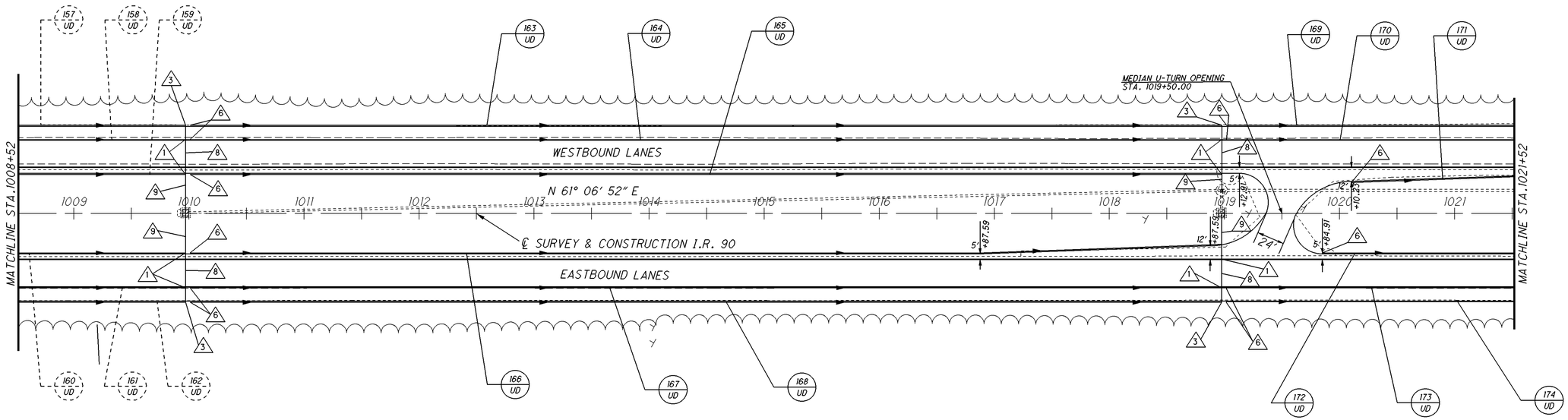
HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED M.M.
CHECKED J.C.

PLAN AND PROFILE I.R. 90
STA. 995+52 TO STA. 1009+52

LAK-90-21.40
ATB-90-0.00

75477ppp020.dgn 03/17/08

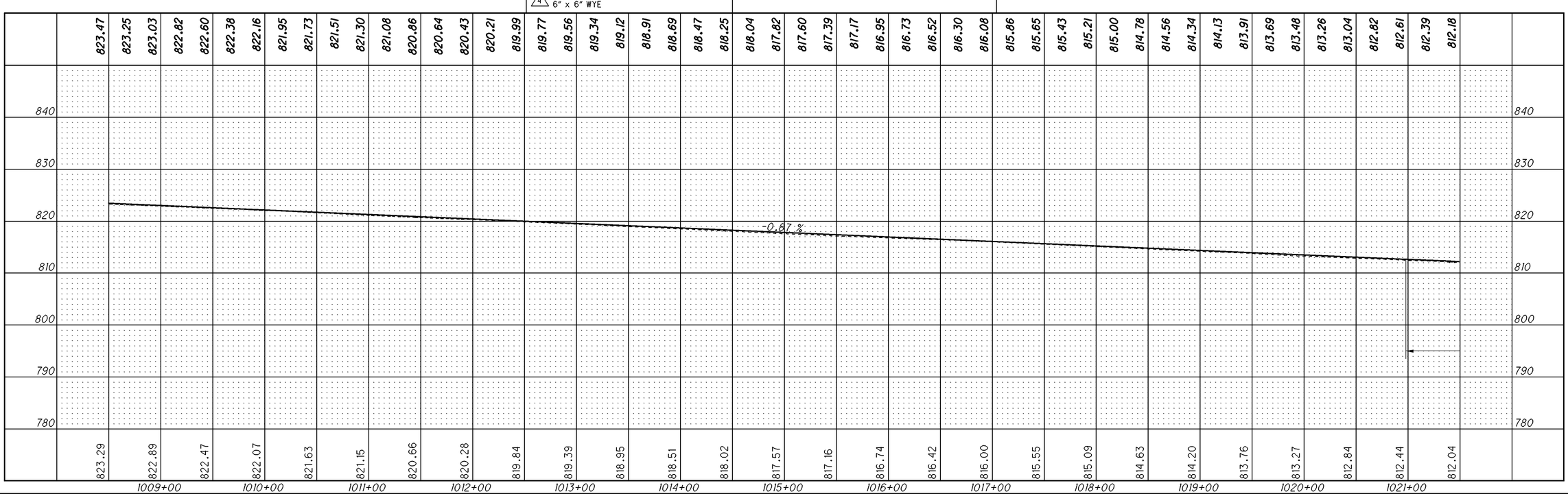


1 6" x 6" TEE	5 6" x 6" CROSS
2 6" x 45° BEND	6 6" CAP
3 6" x 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET
4 6" x 6" WYE	

8 6" CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45

9 6" CONDUIT, TYPE F

FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.



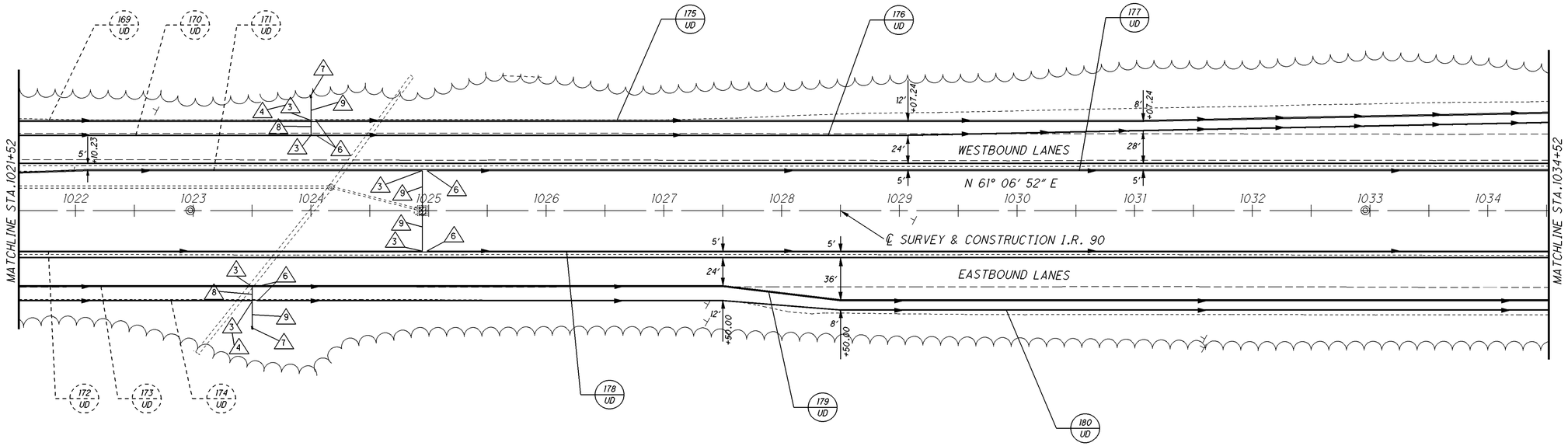
HORIZONTAL SCALE IN FEET
0 50 100

CALCULATED M.M.
CHECKED J.C.

PLAN AND PROFILE I.R. 90
STA. 1008+52 TO STA. 1021+52

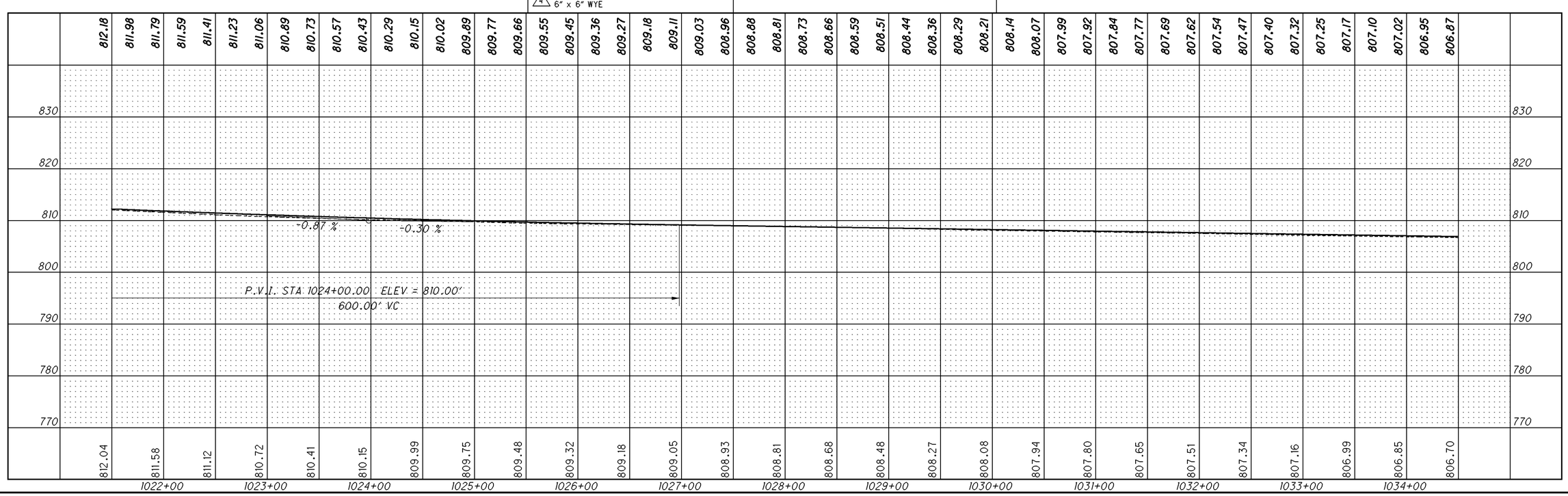
LAK-90-21.40
ATB-90-0.00

75477ppp021.dgn 03/18/08



1 6″ x 6″ TEE	5 6″ x 6″ CROSS
2 6″ x 45° BEND	6 6″ CAP
3 6″ x 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET
4 6″ x 6″ WYE	
8 6″ CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45	
9 6″ CONDUIT, TYPE F	

FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.



HORIZONTAL SCALE IN FEET
0 50 100

CALCULATED M.M.
CHECKED J.C.

PLAN AND PROFILE I.R. 90 STA. 1021+52 TO STA. 1034+52

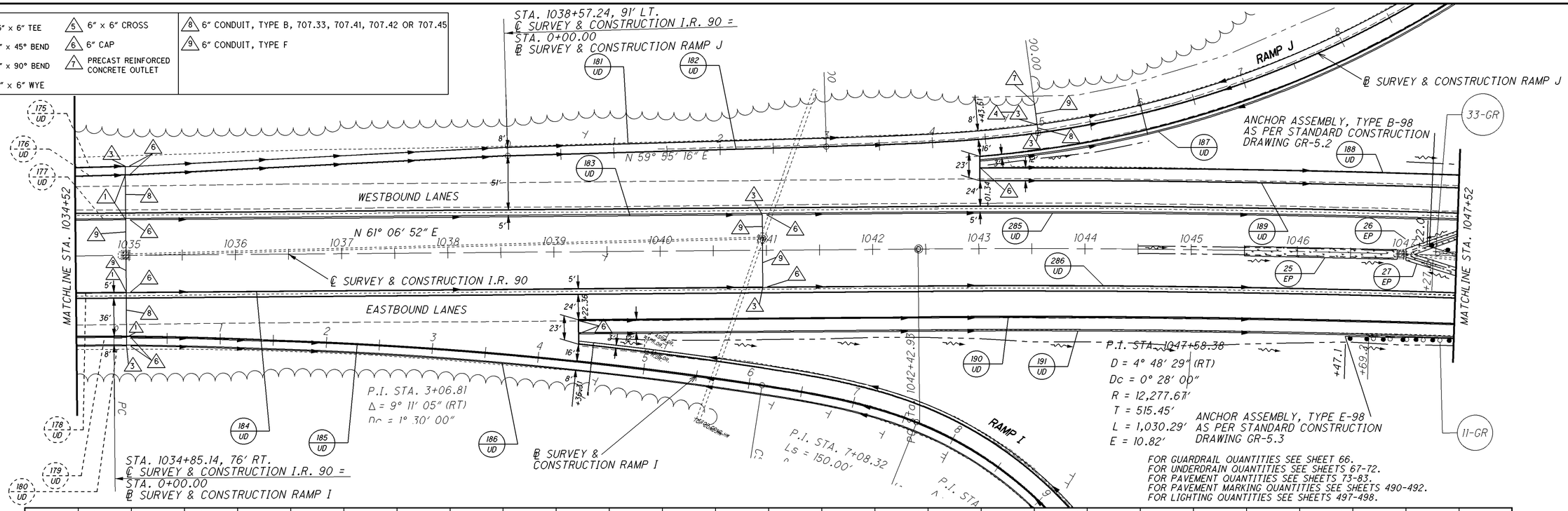
LAK-90-21.40
ATB-90-0.00

75477ppp022.dgn 03/18/08

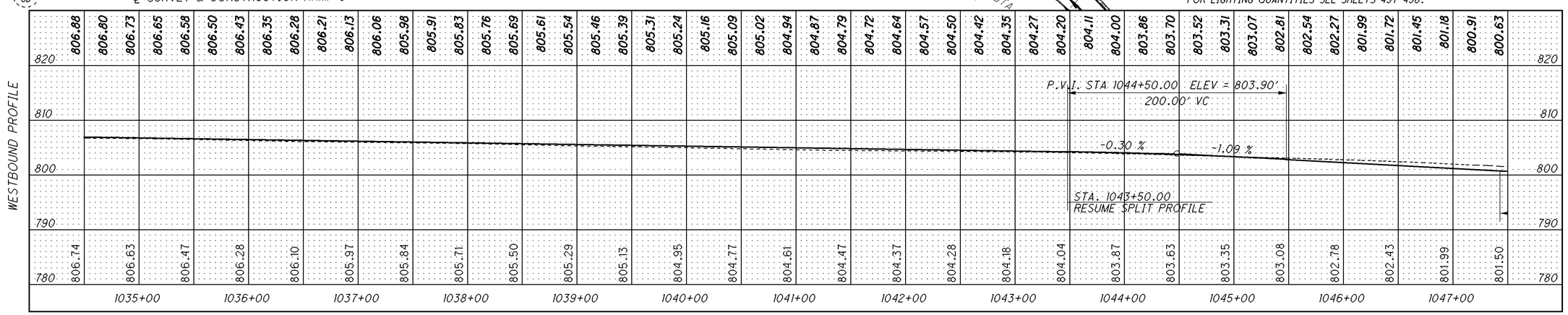
1 6" x 6" TEE	5 6" x 6" CROSS
2 6" x 45° BEND	6 6" CAP
3 6" x 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET
4 6" x 6" WYE	

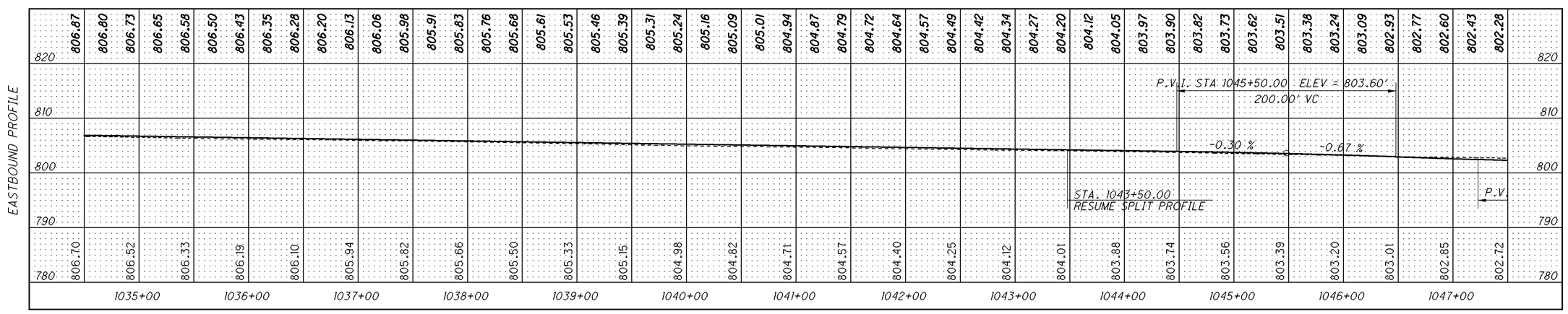
8 6" CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45

9 6" CONDUIT, TYPE F



FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.





HORIZONTAL SCALE IN FEET 0 25 50 100

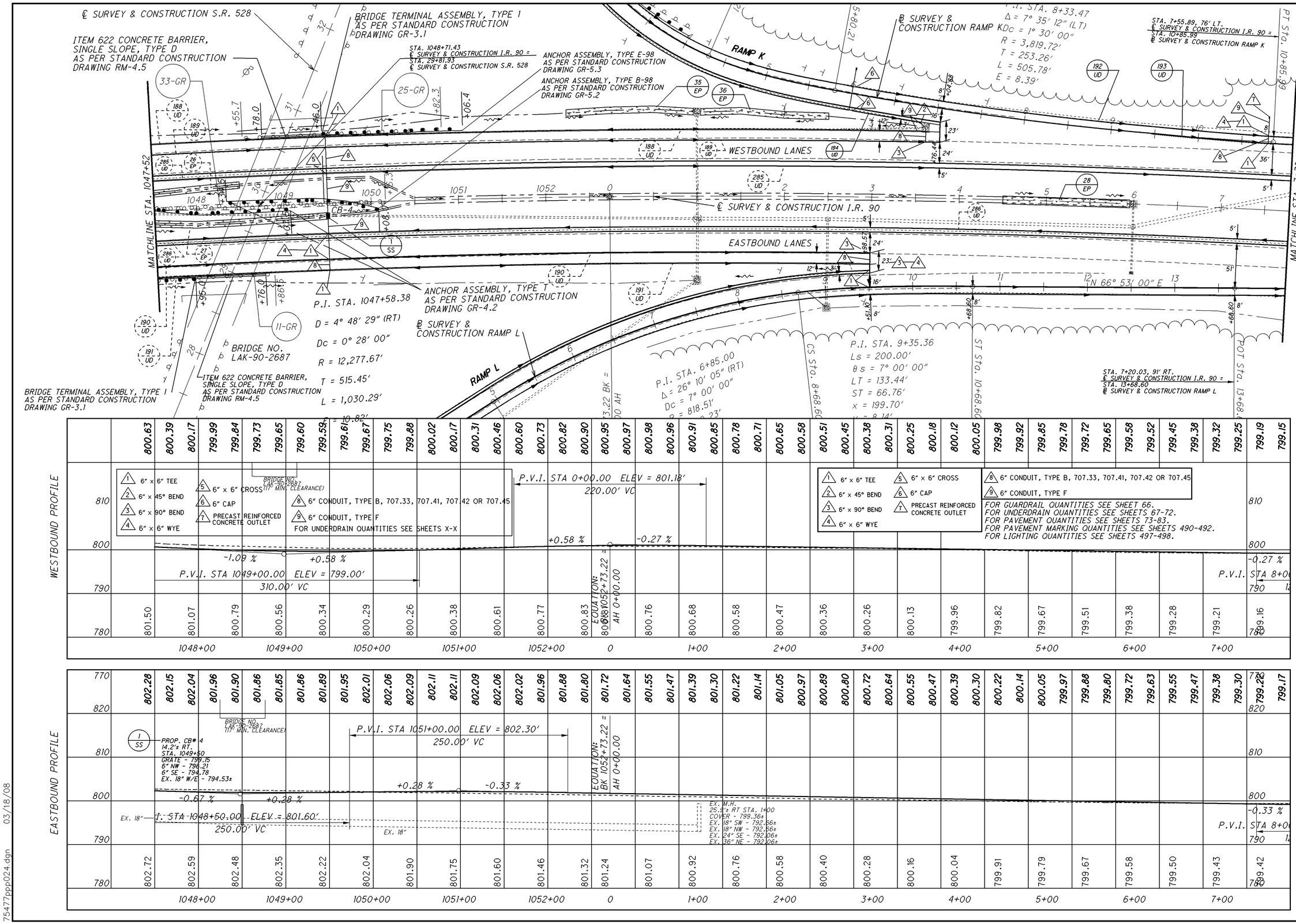
CALCULATED

CHECKED J.C.

PLAN AND PROFILE I.R. 90
STA. 1034+52 TO STA. 1047+52

LAK-90-21.40
ATB-90-0.00

75477ppp023.dgn 03/18/08



HORIZONTAL SCALE IN FEET

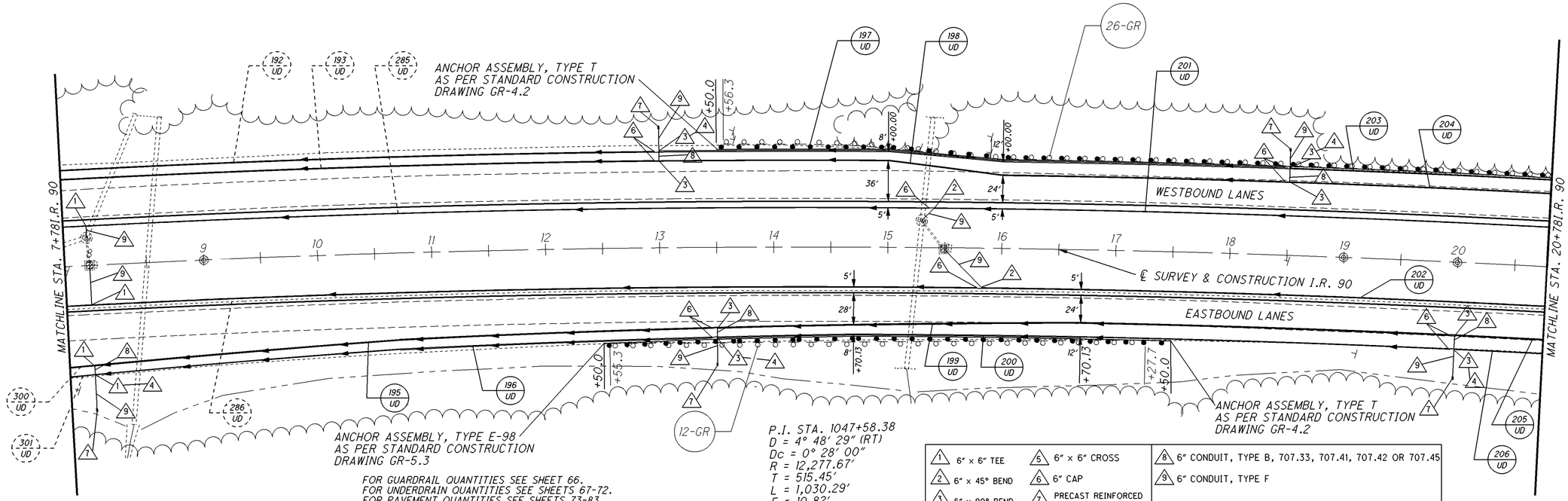
CALCULATED

CHECKED J.C.

PLAN AND PROFILE I.R. 90 STA. 1047+52 TO STA. 7+78

LAK-90-21.40
ATB-90-0.00

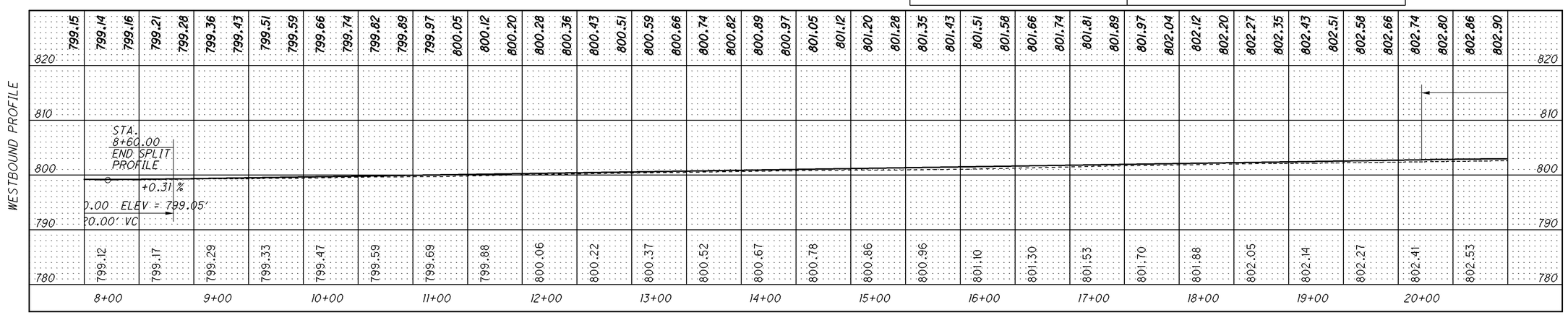
75477ppp024.dgn 03/18/08

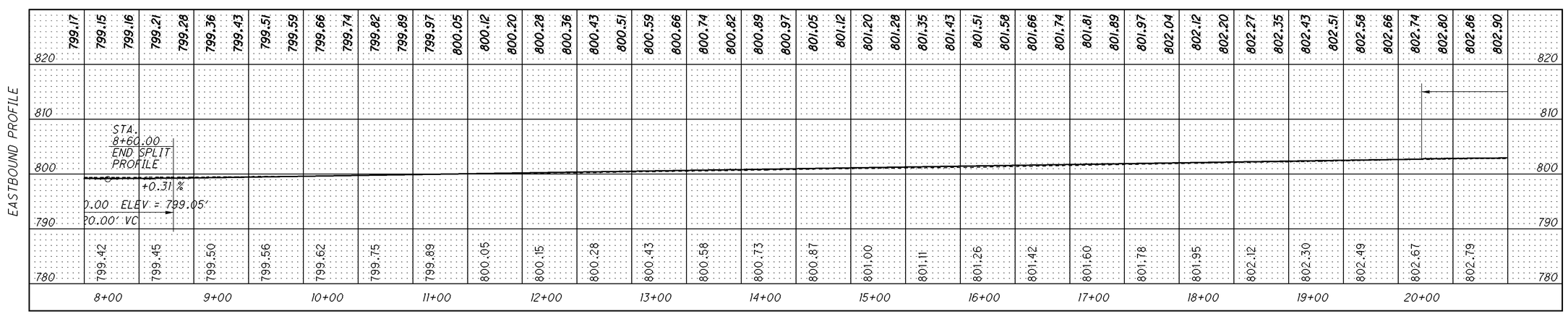


P.I. STA. 1047+58.38
D = 4° 48′ 29″ (RT)
Dc = 0° 28′ 00″
R = 12,277.67′
T = 515.45′
L = 1,030.29′
E = 10.82′

FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.

1 6″ x 6″ TEE	5 6″ x 6″ CROSS
2 6″ x 45° BEND	6 6″ CAP
3 6″ x 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET
4 6″ x 6″ WYE	
8 6″ CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45	
9 6″ CONDUIT, TYPE F	





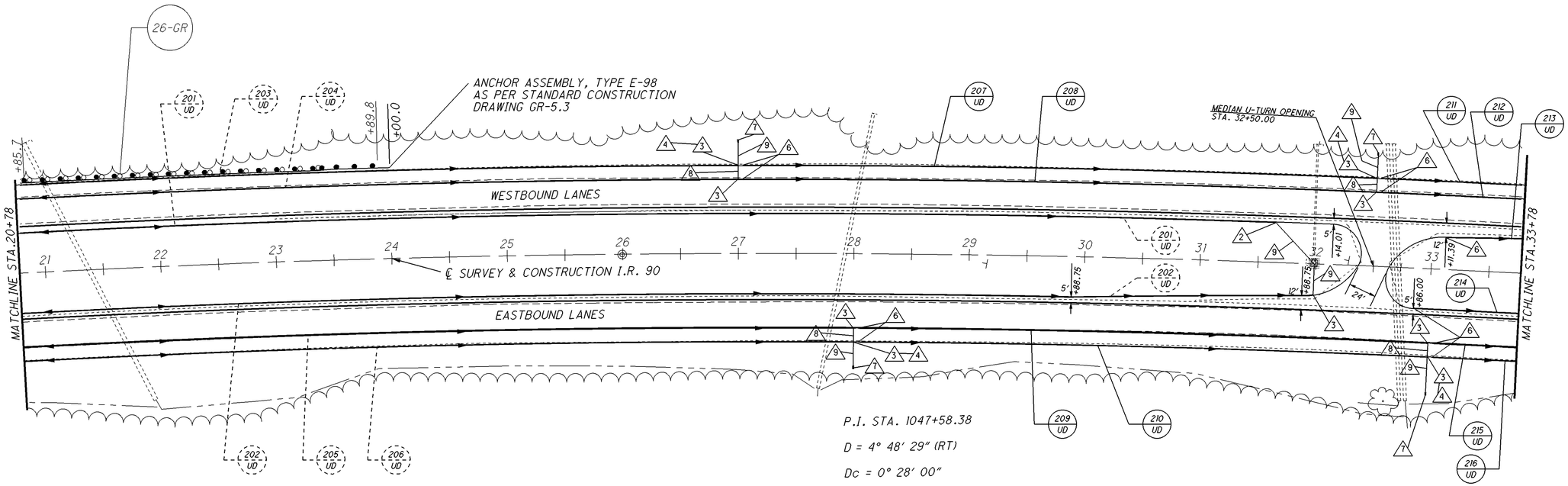
HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED
CHECKED J.C.

PLAN AND PROFILE I.R. 90
STA. 7+78 TO STA. 20+78

LAK-90-21.40
ATB-90-0.00

75477ppp025.dgn 03/18/08



P.I. STA. 1047+58.38

D = 4° 48′ 29″ (RT)

Dc = 0° 28′ 00″

R = 12,277.67′

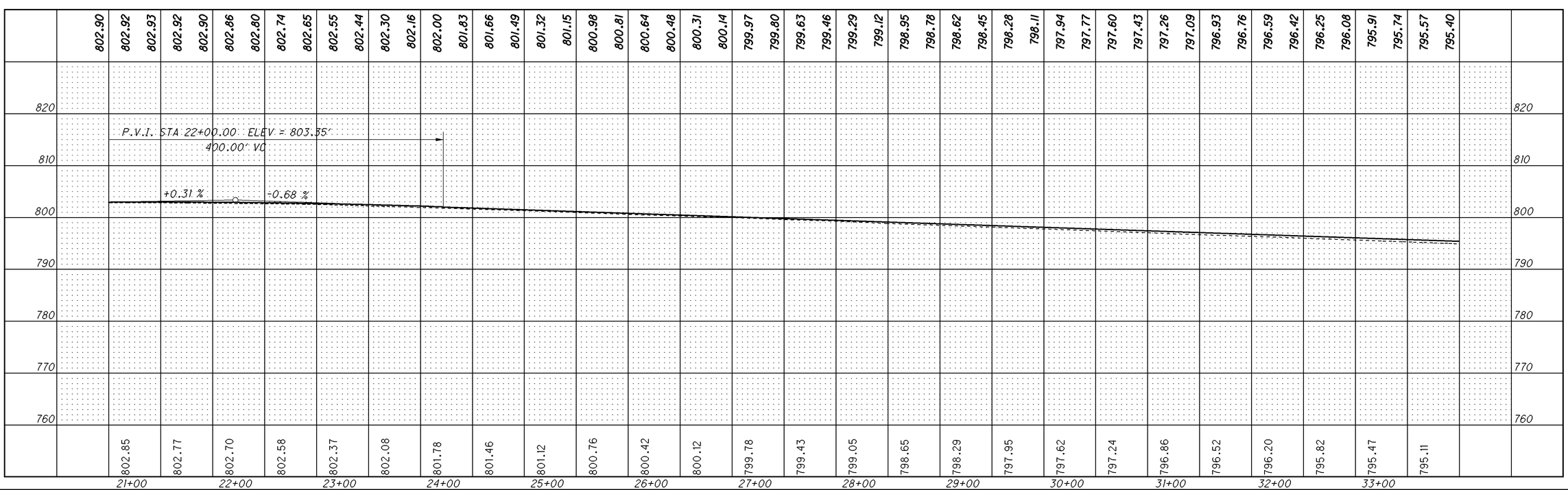
T = 515.45′

L = 1,030.29′

E = 10.82′

FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.

1 6″ × 6″ TEE	5 6″ × 6″ CROSS
2 6″ × 45° BEND	6 6″ CAP
3 6″ × 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET
4 6″ × 6″ WYE	
8 6″ CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45	
9 6″ CONDUIT, TYPE F	



HORIZONTAL SCALE IN FEET
0 50 100

CALCULATED M.M.
CHECKED J.C.

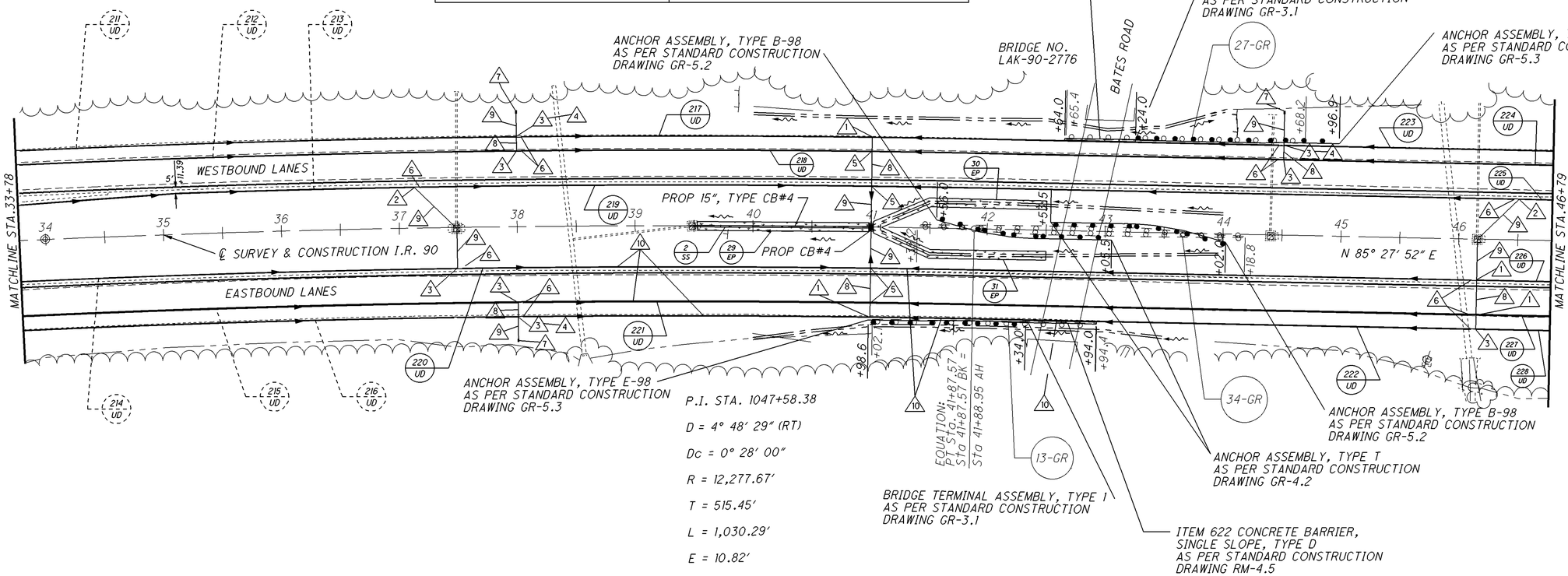
PLAN AND PROFILE I.R. 90
STA. 20+78 TO STA. 33+78

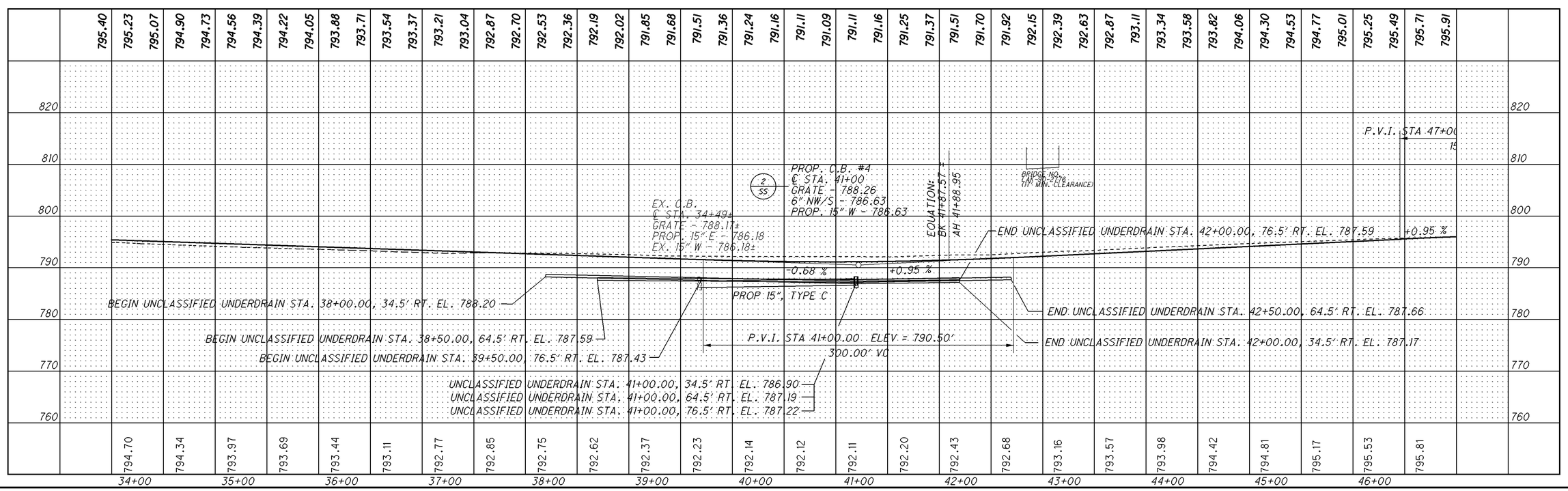
LAK-90-21.40
ATB-90-0.00

75477ppp026.dgn 03/18/08

FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.

1 6" x 6" TEE	5 6" x 6" CROSS	8 6" CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45
2 6" x 45° BEND	6 6" CAP	9 6" CONDUIT, TYPE F
3 6" x 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET	10 6" UNCLASSIFIED UNDRDRAIN
4 6" x 6" WYE		





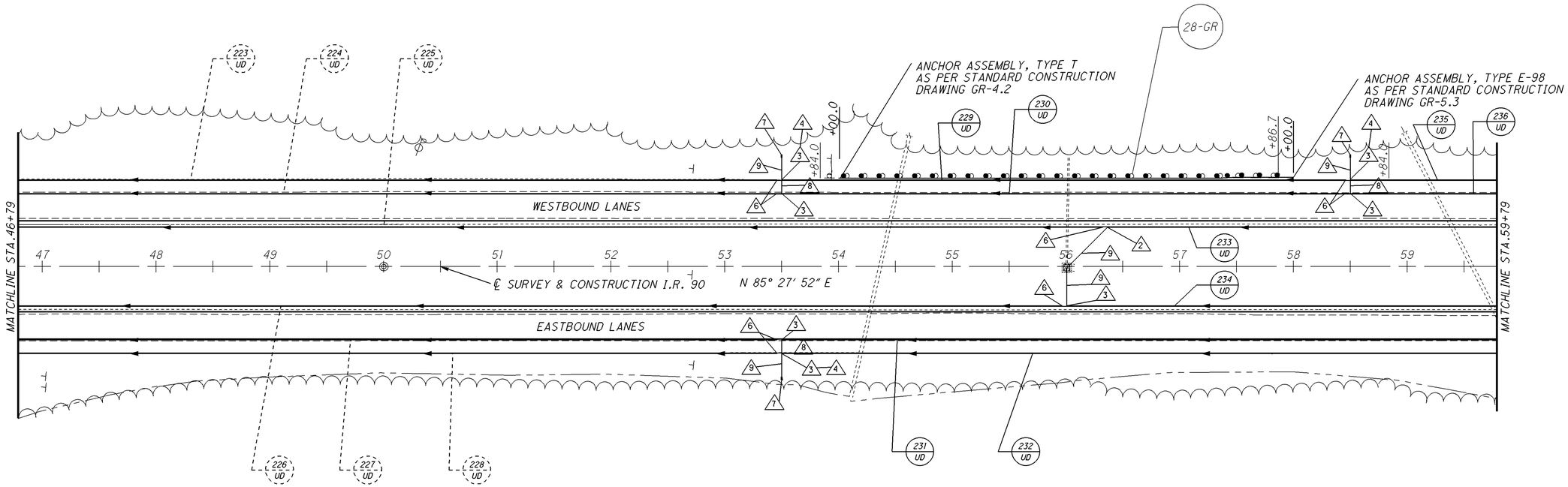
HORIZONTAL SCALE IN FEET 0 50 100

CALCULATED M.M. CHECKED J.C.

PLAN AND PROFILE I.R. 90 STA. 33+78 TO STA. 46+79

LAK-90-21.40
ATB-90-0.00

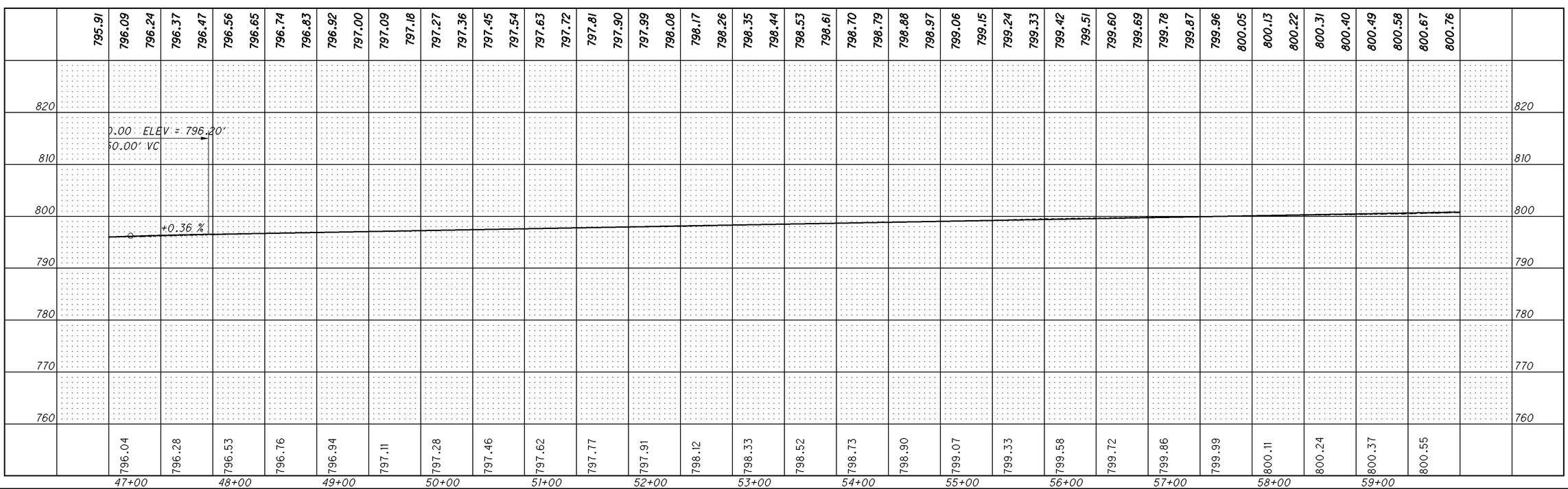
75477ppp027.dgn 03/18/08



1 6″ × 6″ TEE	5 6″ × 6″ CROSS
2 6″ × 45° BEND	6 6″ CAP
3 6″ × 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET
4 6″ × 6″ WYE	

8 6″ CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45
9 6″ CONDUIT, TYPE F

FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.



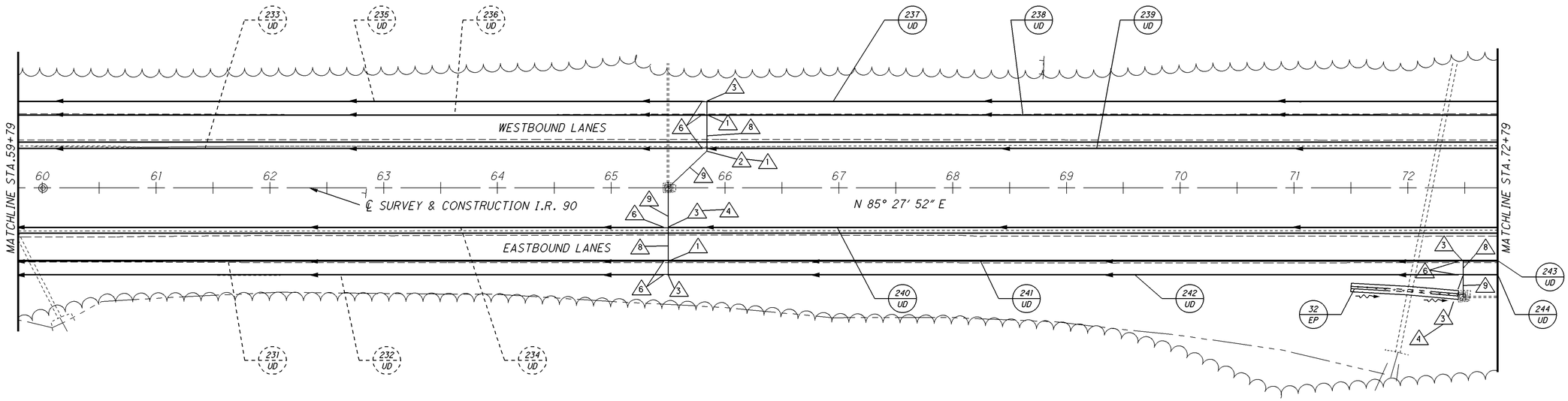
HORIZONTAL SCALE IN FEET
0 50 100

CALCULATED M.M.
CHECKED J.C.

PLAN AND PROFILE I.R. 90
STA. 46+79 TO STA. 59+79

LAK-90-21.40
ATB-90-0.00

75477ppp028.dgn 03/18/08

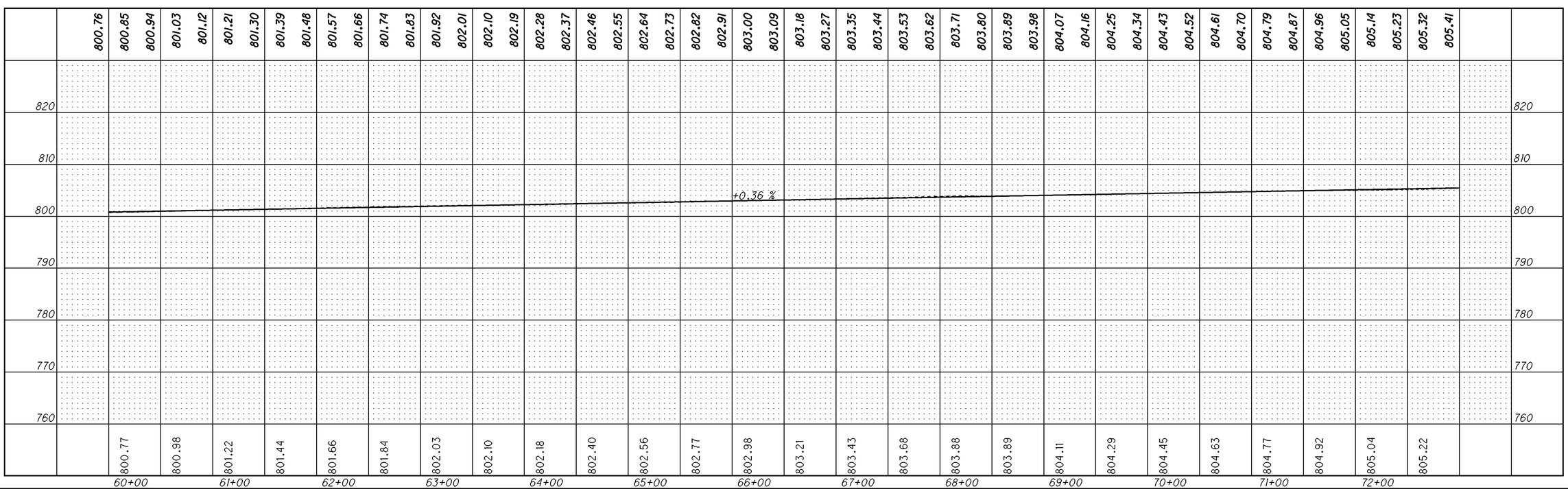


1 6″ × 6″ TEE	5 6″ × 6″ CROSS
2 6″ × 45° BEND	6 6″ CAP
3 6″ × 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET
4 6″ × 6″ WYE	

8 6″ CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45

9 6″ CONDUIT, TYPE F

FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.



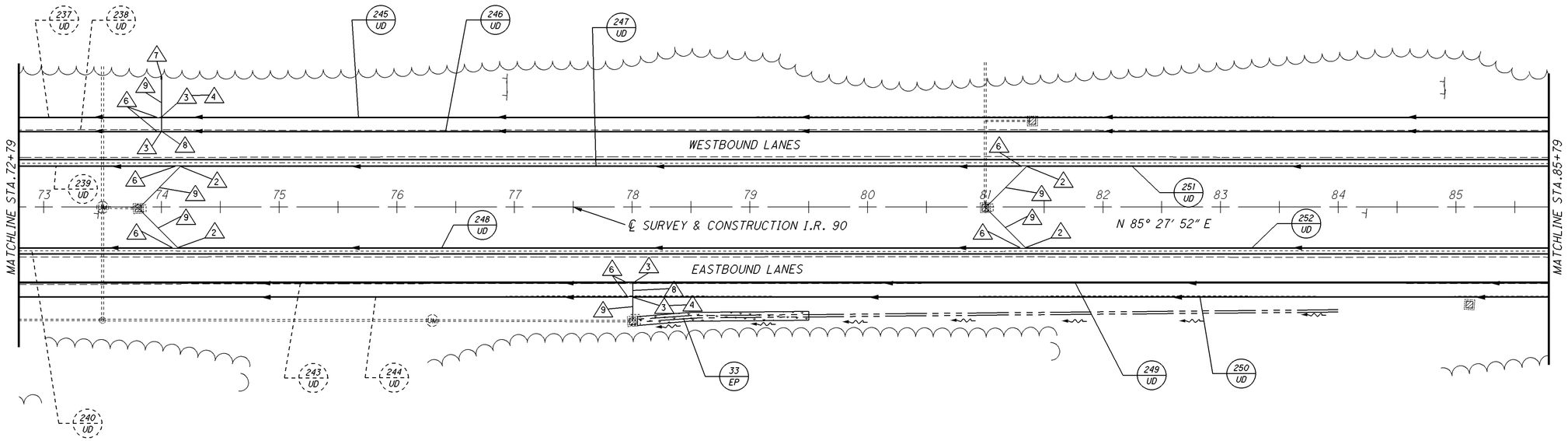
HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED M.M.
CHECKED J.C.

PLAN AND PROFILE I.R. 90 STA. 59+79 TO STA. 72+79

LAK-90-21.40
ATB-90-0.00

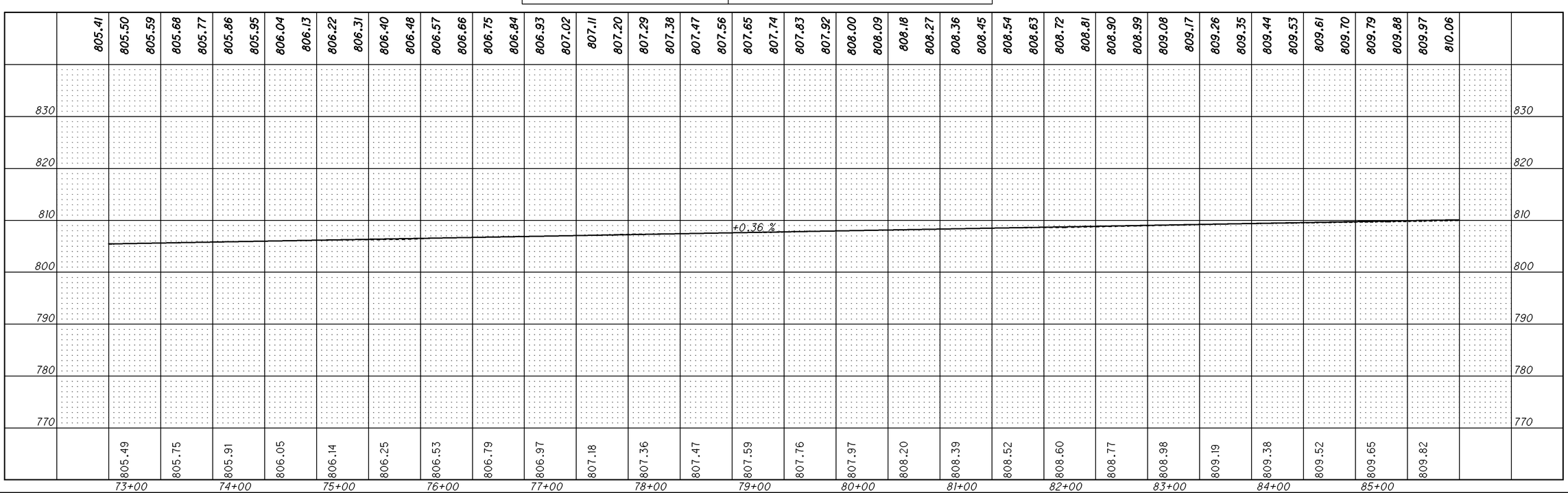
75477ppp029.dgn 03/18/08



1 6″ x 6″ TEE	5 6″ x 6″ CROSS
2 6″ x 45° BEND	6 6″ CAP
3 6″ x 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET
4 6″ x 6″ WYE	

8 6″ CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45
9 6″ CONDUIT, TYPE F

FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.



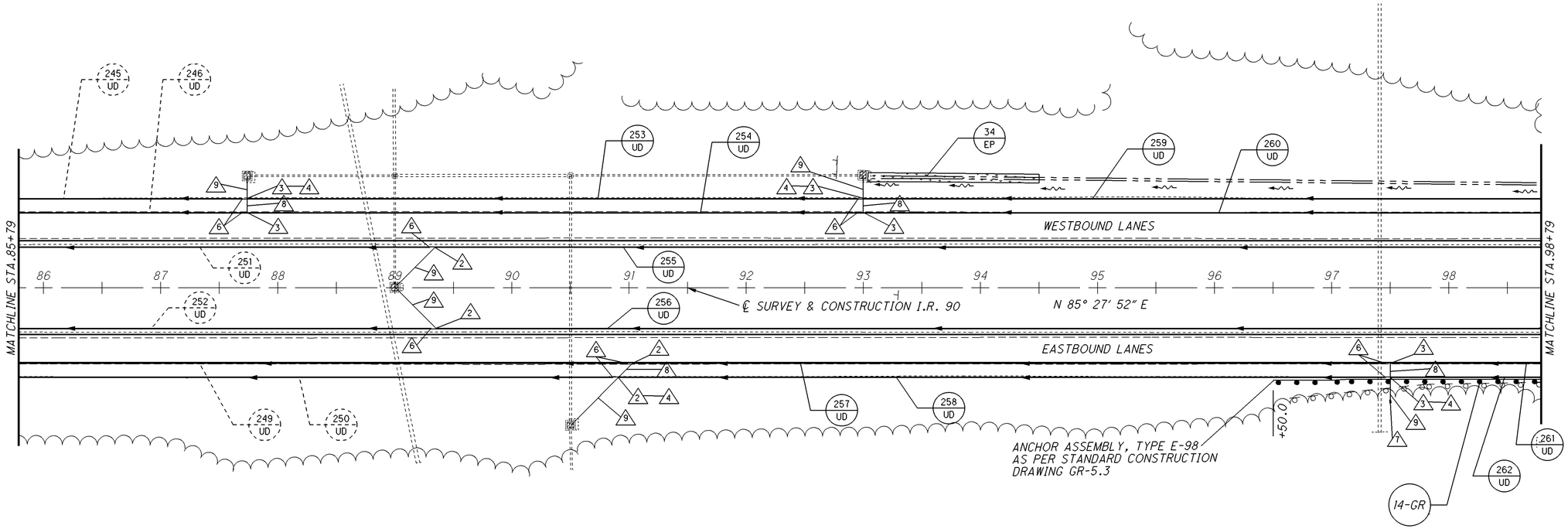
HORIZONTAL SCALE IN FEET
0 50 100

CALCULATED M.M.
CHECKED J.C.

PLAN AND PROFILE I.R. 90 STA. 72+79 TO STA. 85+79

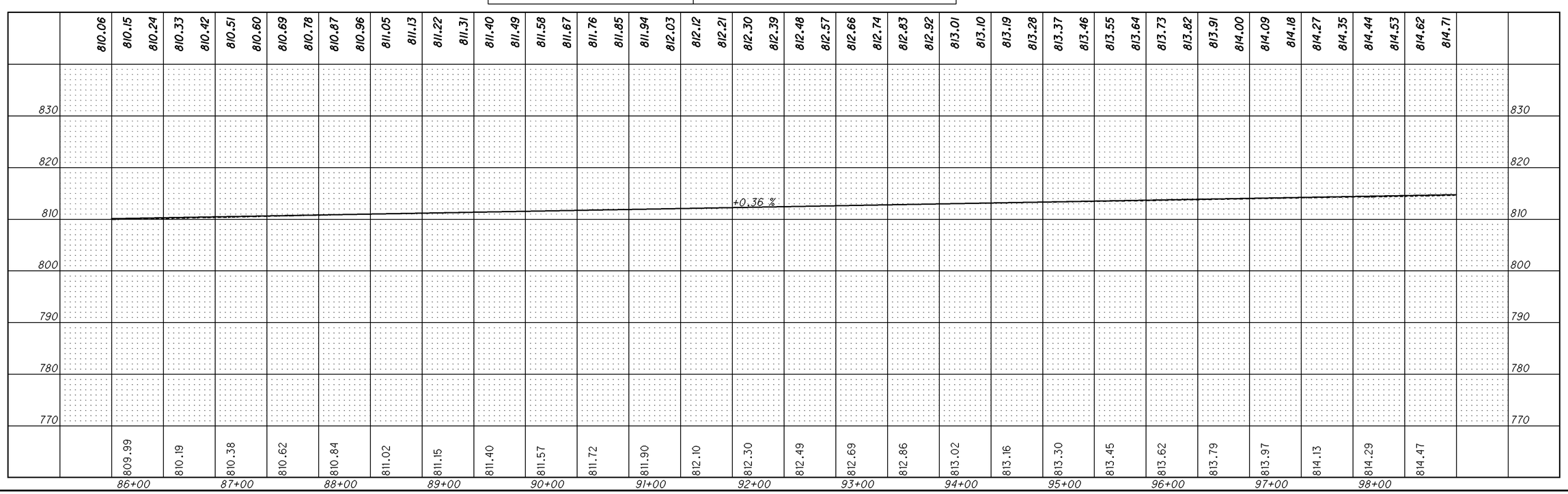
LAK-90-21.40
ATB-90-0.00

75477ppp030.dgn 03/18/08



1 6″ x 6″ TEE	5 6″ x 6″ CROSS
2 6″ x 45° BEND	6 6″ CAP
3 6″ x 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET
4 6″ x 6″ WYE	
8 6″ CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45	
9 6″ CONDUIT, TYPE F	

FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.



PLAN AND PROFILE I.R. 90
STA. 85+79 TO STA. 98+79

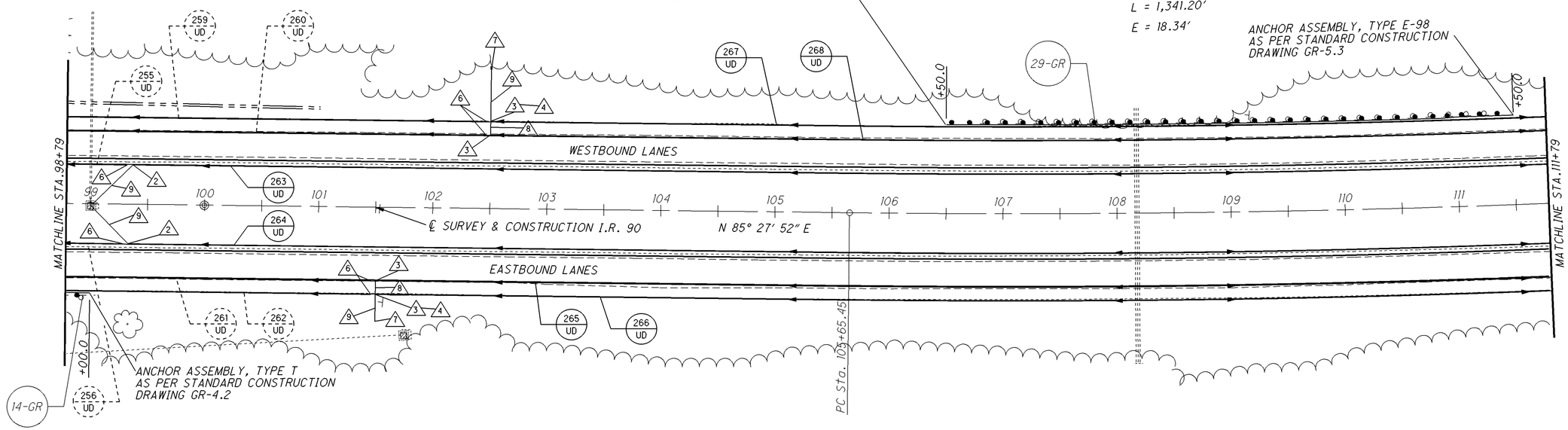
CALCULATED M.M.
CHECKED J.C.

HORIZONTAL SCALE IN FEET
0 50 100

LAK-90-21.40
ATB-90-0.00

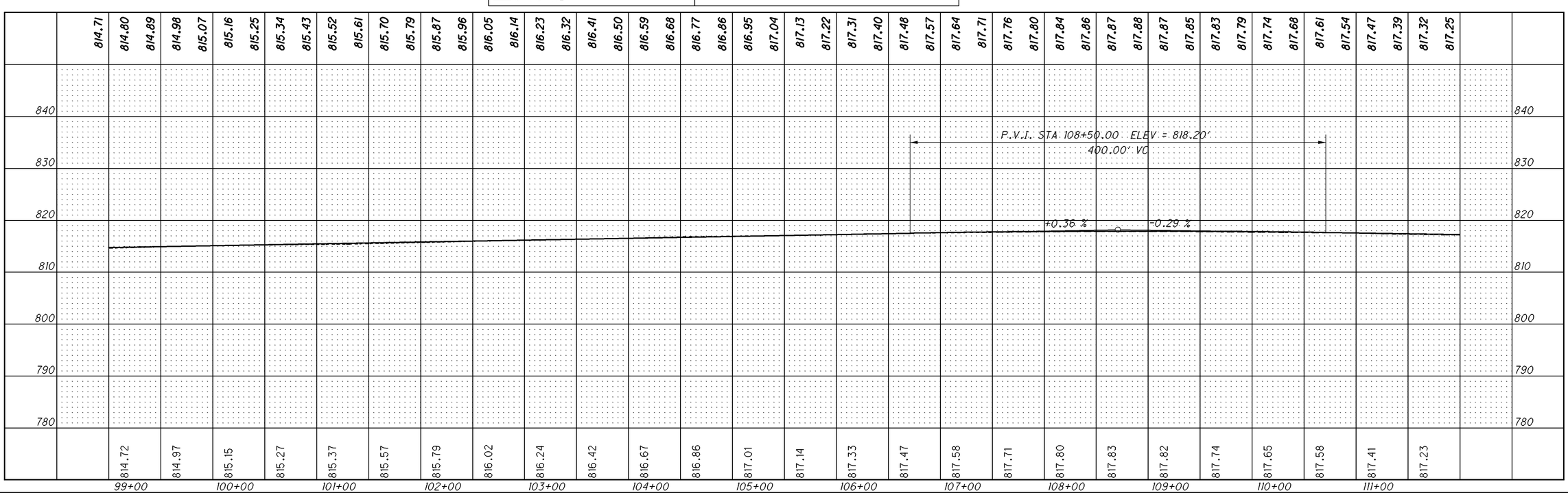
75477ppp031.dgn 03/18/08

P.I. STA. 112+36.72
D = 6° 15′ 32″ (LT)
Dc = 0° 28′ 00″
R = 12,277.67′
T = 671.27′
L = 1,341.20′
E = 18.34′



1 6″ × 6″ TEE	5 6″ × 6″ CROSS
2 6″ × 45° BEND	6 6″ CAP
3 6″ × 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET
4 6″ × 6″ WYE	8 6″ CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45
	9 6″ CONDUIT, TYPE F

FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.



HORIZONTAL SCALE IN FEET
0 50 100

CALCULATED M.M.
CHECKED J.C.

PLAN AND PROFILE I.R. 90 STA. 98+79 TO STA. 111+79

LAK-90-21.40
ATB-90-0.00

75477ppp032.dgn 03/18/08

NOTE:
EXISTING RWIS WEATHER STATION PAVEMENT SENSORS LOCATED IN THE EASTBOUND AND WESTBOUND LANES OF I.R. 90 WILL BE REPLACED AT THE EXISITNG LOCATIONS IN THE PAVEMENT. FOR DETAILS OF THE RWIS WEATHER STATION PAVEMENT SENSORS, SEE SHEET 24.

P.I. STA. 112+36.72
Δ = 6° 15′ 32″ (LT)
Dc = 0° 28′ 00″
R = 12,277.67′
T = 671.27′
L = 1,341.20′
E = 18.34′

ITEM 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE D AS PER STANDARD CONSTRUCTION DRAWING RM-4.5

275 UD, 276 UD, 277 UD, 278 UD — CONNECT PROPOSED UNDERDRAINS TO EXISTING UNDERDRAINS AT STA. 5+75.00±

P.I. STA. 11+91.42
Δ = 10° 40′ 21″ (LT)
Dc = 0° 28′ 00″
R = 12,277.67′
T = 1,146.81′
L = 2,286.99′
E = 53.44′

FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.

BRIDGE TERMINAL ASSEMBLY, TYPE 1 AS PER STANDARD CONSTRUCTION DRAWING GR-3.1

ANCHOR ASSEMBLY, TYPE E-98 AS PER STANDARD CONSTRUCTION DRAWING GR-5.3

ANCHOR ASSEMBLY, TYPE B-98 AS PER STANDARD CONSTRUCTION DRAWING GR-5.2

COUNTY LINE ROAD

BRIDGE NO. LAK-90-2920

35-GR, 30-GR, 15-GR

MEDIAN U-TURN OPENING STA. 117+40.00

MATCHLINE STA. 111+79

WESTBOUND LANES

℄ SURVEY & CONSTRUCTION I.R. 90

EASTBOUND LANES

MEDIAN

ANCHOR ASSEMBLY, TYPE E-98 AS PER STANDARD CONSTRUCTION DRAWING GR-5.3

ANCHOR ASSEMBLY, TYPE B-98 AS PER STANDARD CONSTRUCTION DRAWING GR-5.2

ANCHOR ASSEMBLY, TYPE T AS PER STANDARD CONSTRUCTION DRAWING GR-4.2

EQUATION: PC Sta 0+44.61 = Sta 119+06.65 BK = Sta 0+44.61 AH

BRIDGE TERMINAL ASSEMBLY, TYPE 1 AS PER STANDARD CONSTRUCTION DRAWING GR-3.1

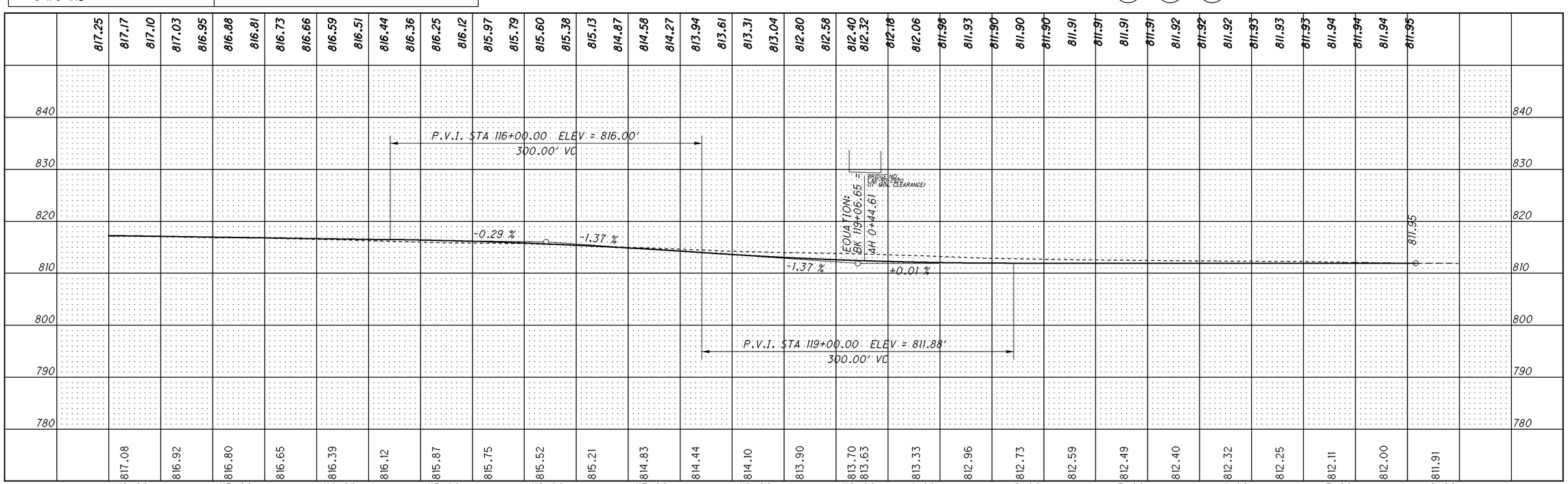
ITEM 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE D AS PER STANDARD CONSTRUCTION DRAWING RM-4.5

END PROJECT
STA. 5+75.00
℄ SURVEY & CONSTRUCTION I.R. 90
S.L.M. 0.10

FED. NO. E080604

279 UD, 280 UD, 281 UD — CONNECT PROPOSED UNDERDRAINS TO EXISTING UNDERDRAINS AT STA. 5+75.00±

1 6″ × 6″ TEE	5 6″ × 6″ CROSS
2 6″ × 45° BEND	6 6″ CAP
3 6″ × 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET
4 6″ × 6″ WYE	8 6″ CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45
	9 6″ CONDUIT, TYPE F



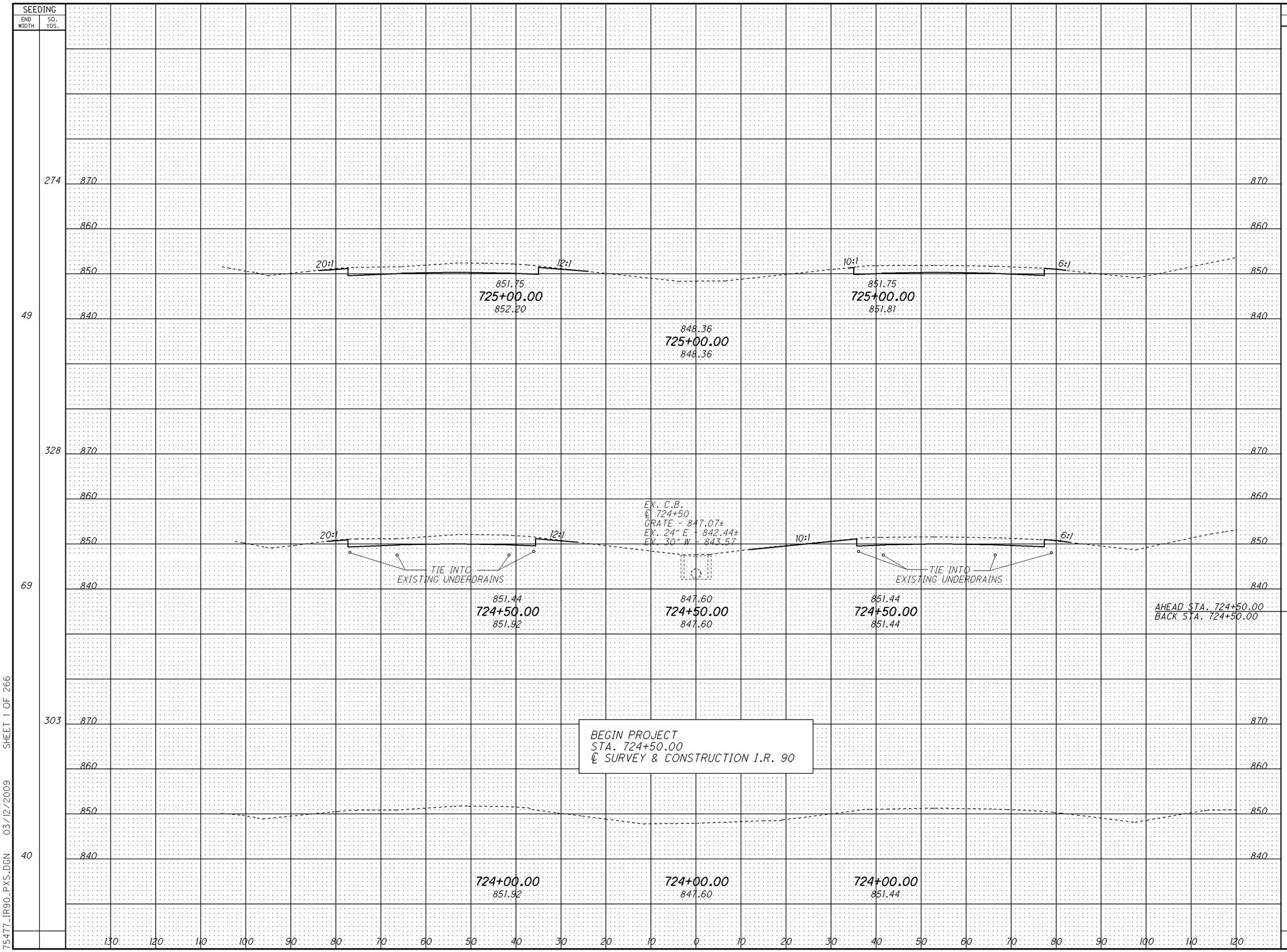
HORIZONTAL SCALE IN FEET 0 50 100

CALCULATED M.M.
CHECKED J.C.

PLAN AND PROFILE I.R. 90
STA. 111+79 TO STA. 6+16

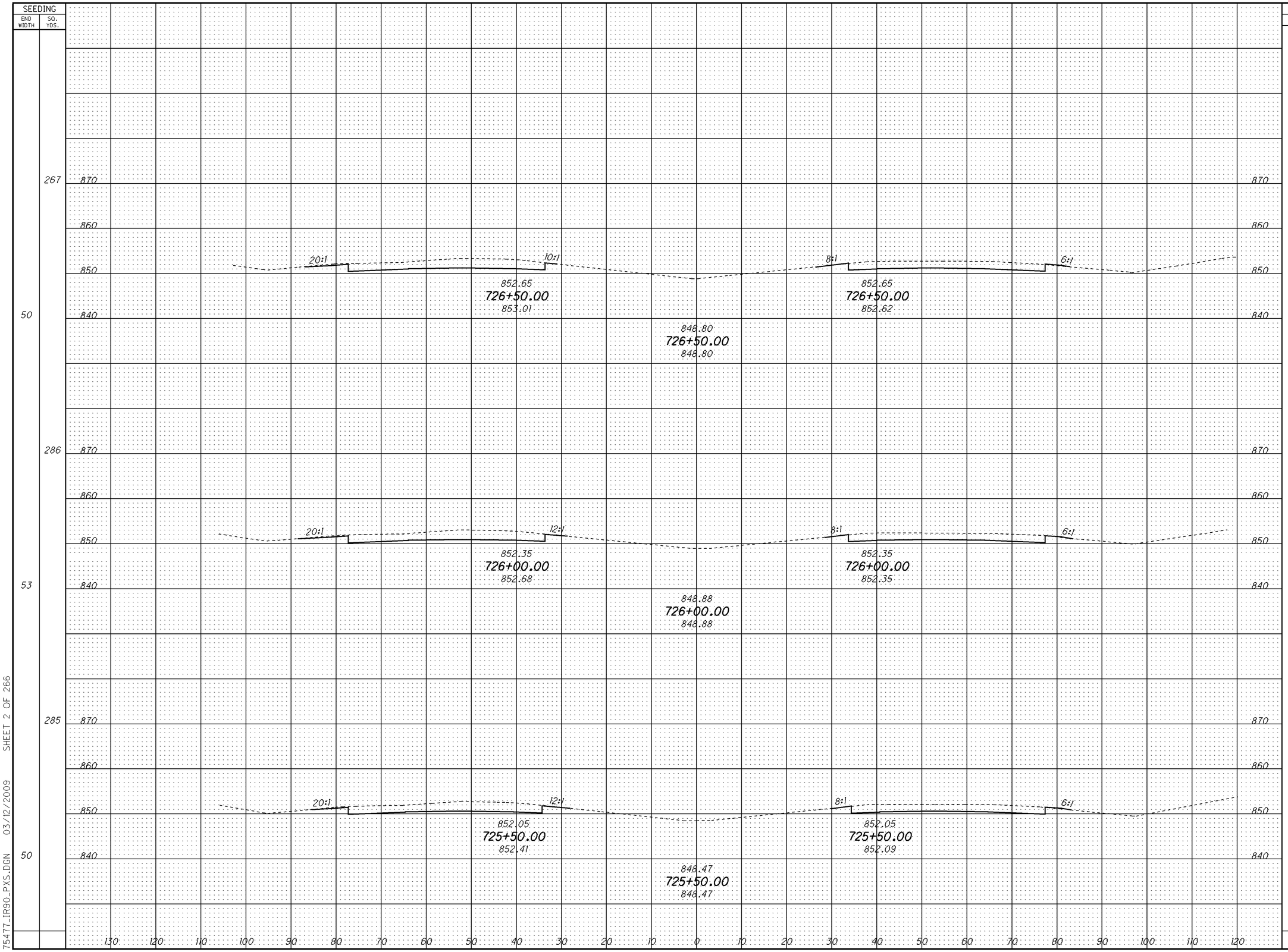
LAK-90-21.40
ATB-90-0.00

75477ppp033.dgn 03/18/08



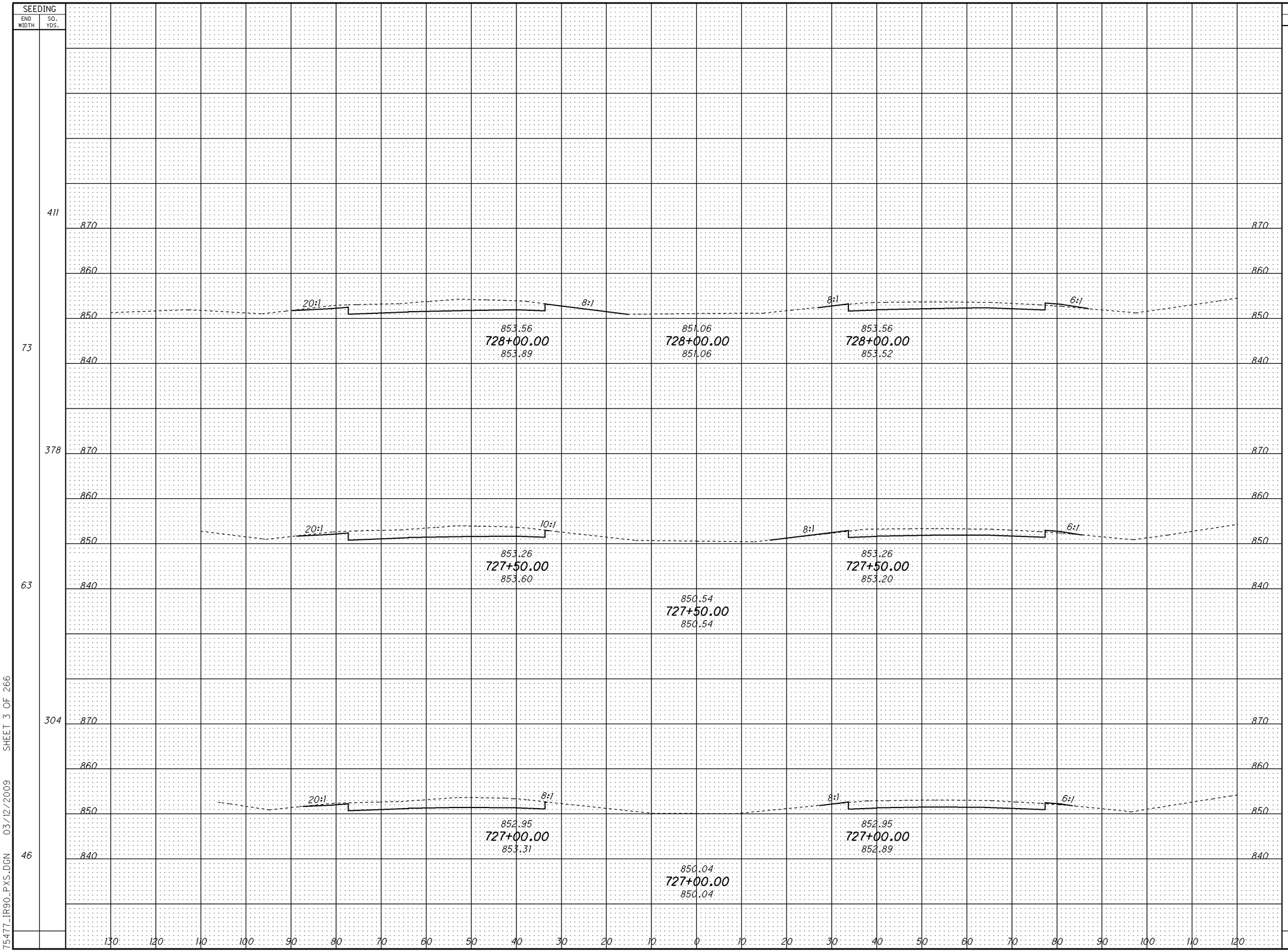
CROSS SECTIONS
STA. 724+00.00 TO STA. 725+00.00

LAK-90-21.40
ATB-90-0.00



CROSS SECTIONS
STA. 725+50.00 TO STA. 726+50.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
157	5	288	8
154	4	282	5
151	1	278	2

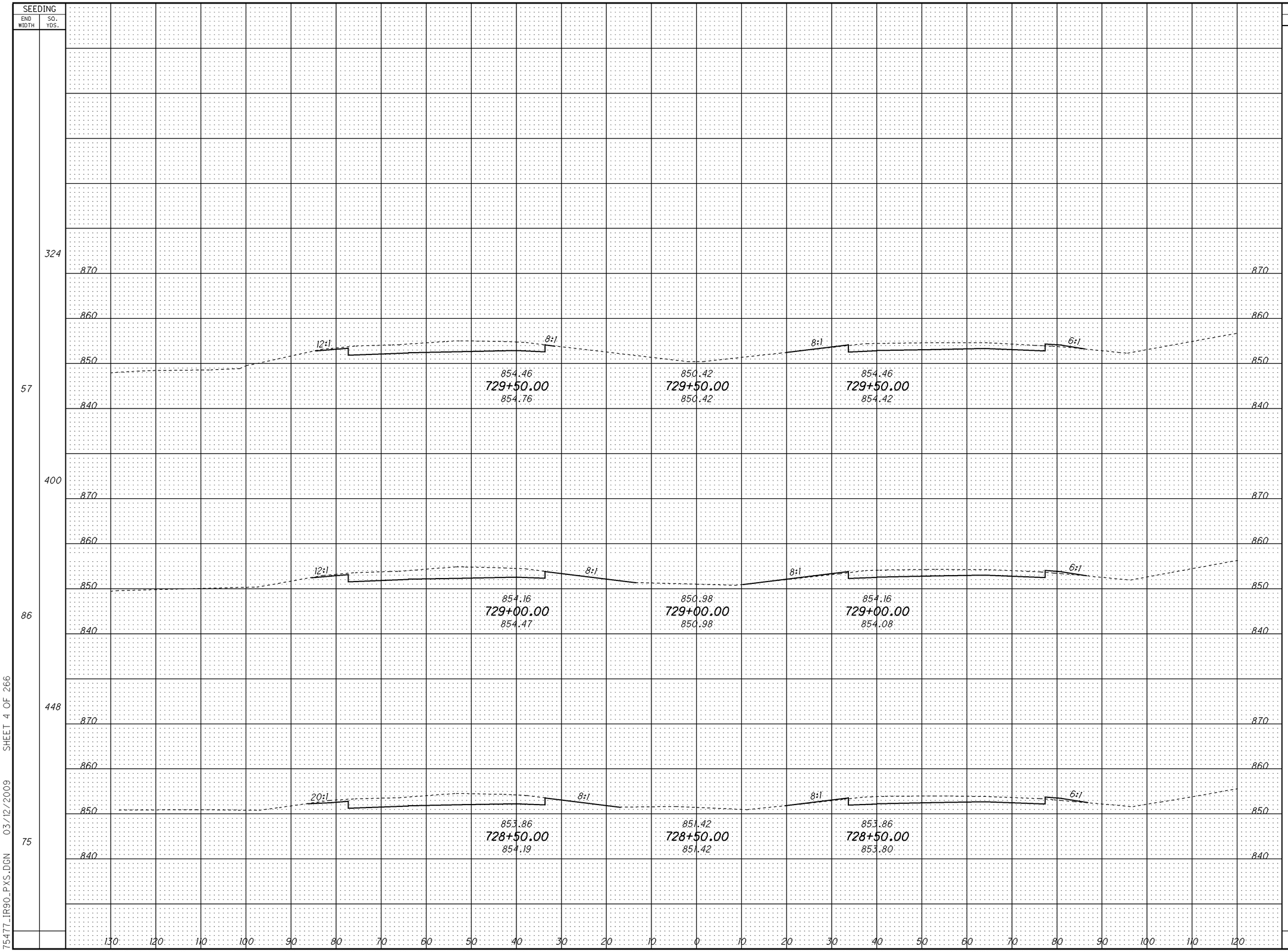
CALCULATED

CHECKED

CROSS SECTIONS

STA. 727+00.00 TO STA. 728+00.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
57	324	153	4	283	11
86	400	153	8	285	13
75	448	154	6	288	9

CALCULATED

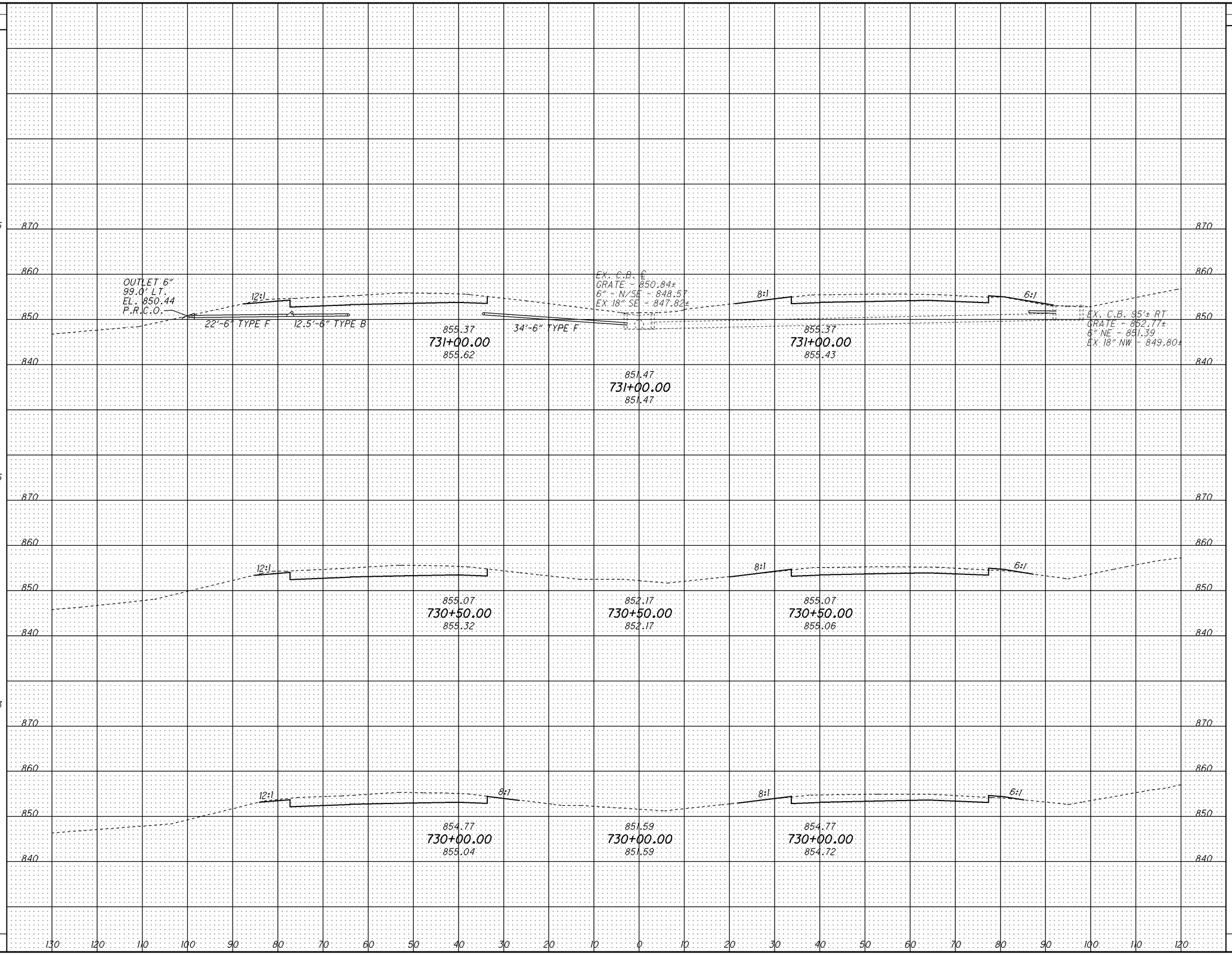
CHECKED

CROSS SECTIONS

STA. 728+50.00 TO STA. 729+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
64	325	156	3	288	7
57	335	154	4	285	7
60	323	153	3	283	7



CALCULATED

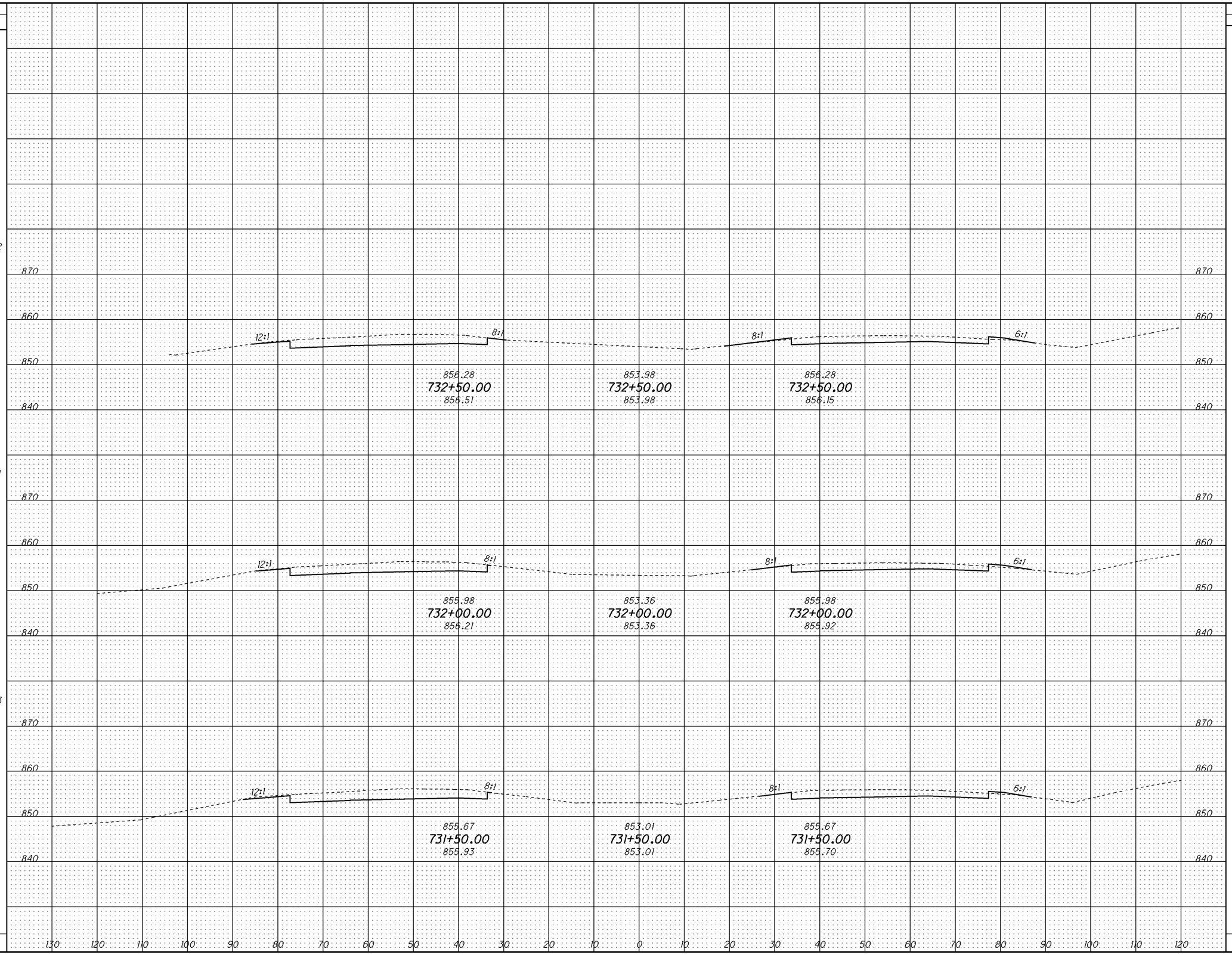
CHECKED

CROSS SECTIONS

STA. 730+00.00 TO STA. 731+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
63	382	146	5	272	9
52	321	148	4	278	6
53	293	152	3	286	6

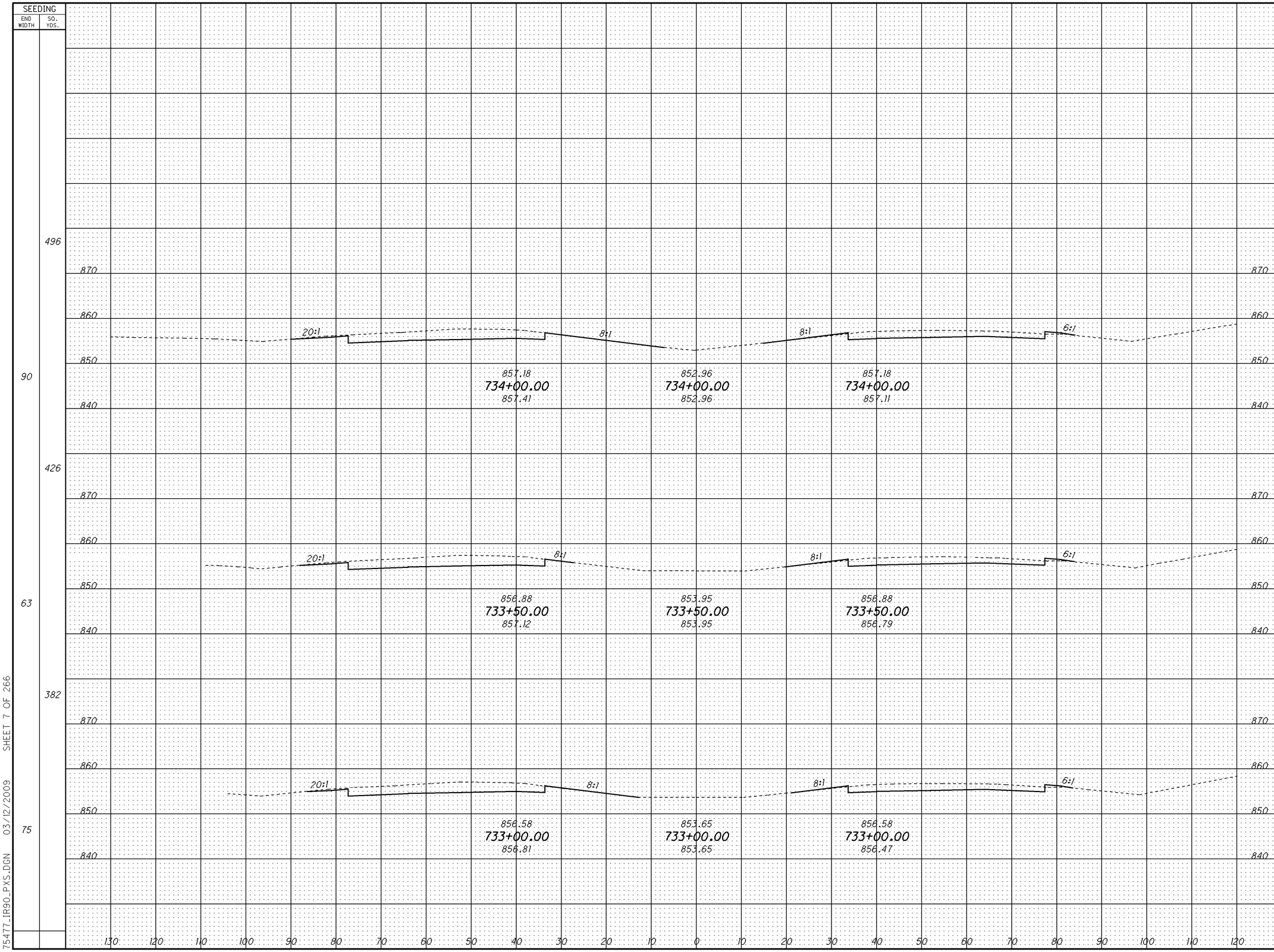


CALCULATED

CHECKED

CROSS SECTIONS
STA. 731+50.00 TO STA. 732+50.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
148	7	275	11
149	4	275	9
148	6	272	10

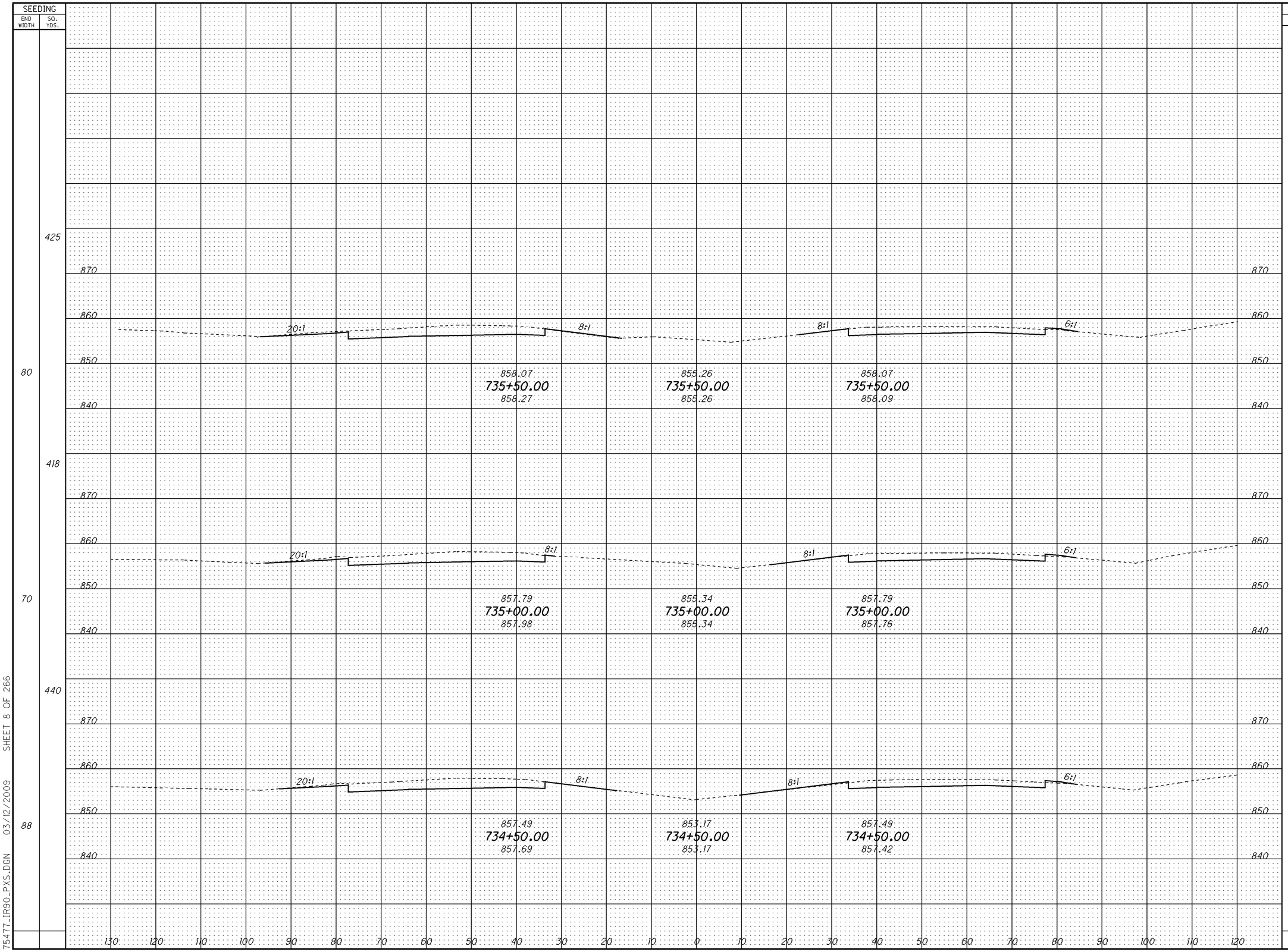
CALCULATED

CHECKED

CROSS SECTIONS

STA. 733+00.00 TO STA. 734+00.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
151	5		
		280	8
151	4		
		279	9
149	6		
		276	13

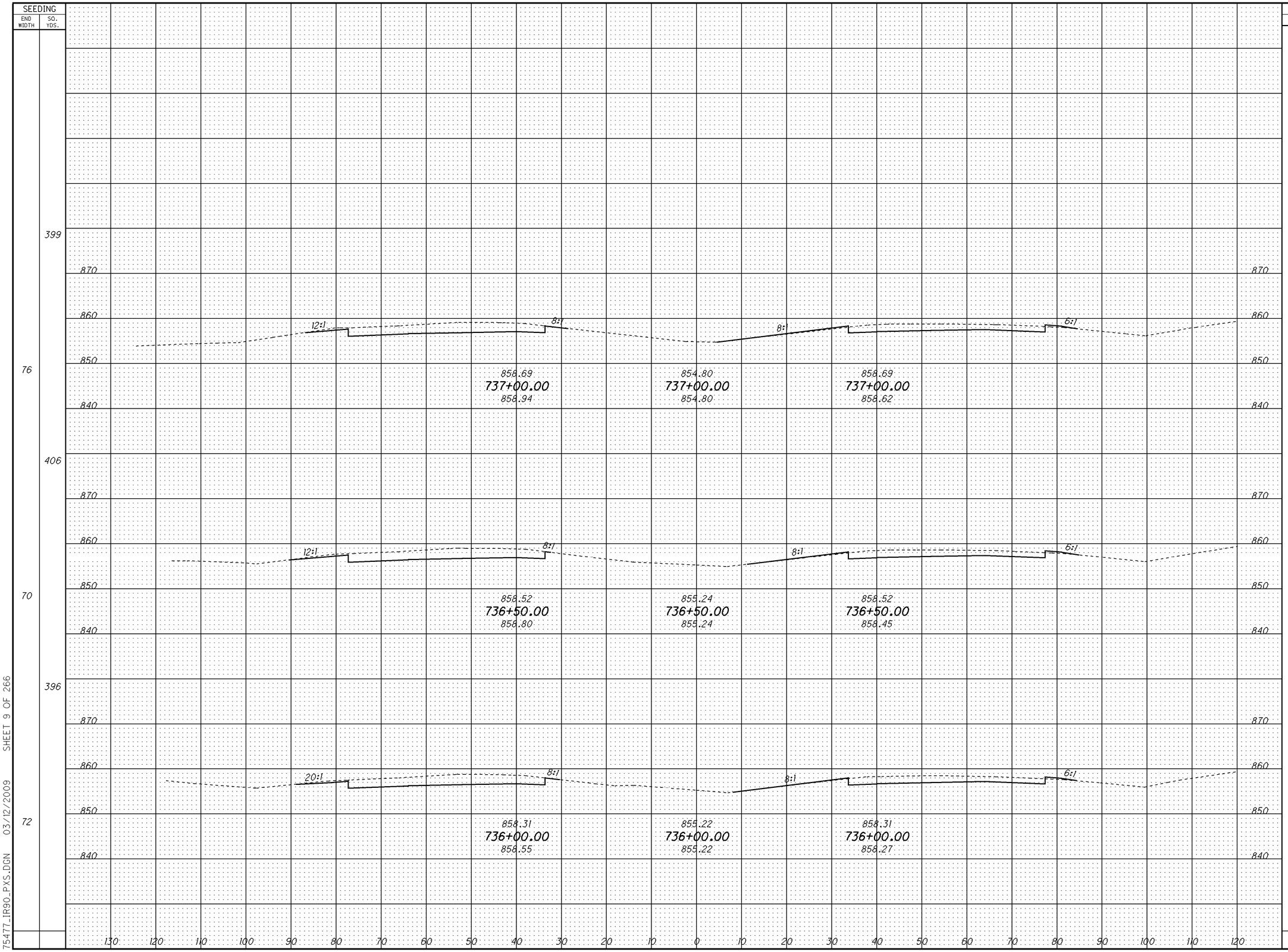
CALCULATED

CHECKED

CROSS SECTIONS

STA. 734+50.00 TO STA. 735+50.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
148	6		
		221	6
90	0		
		221	4
148	5		
		277	9

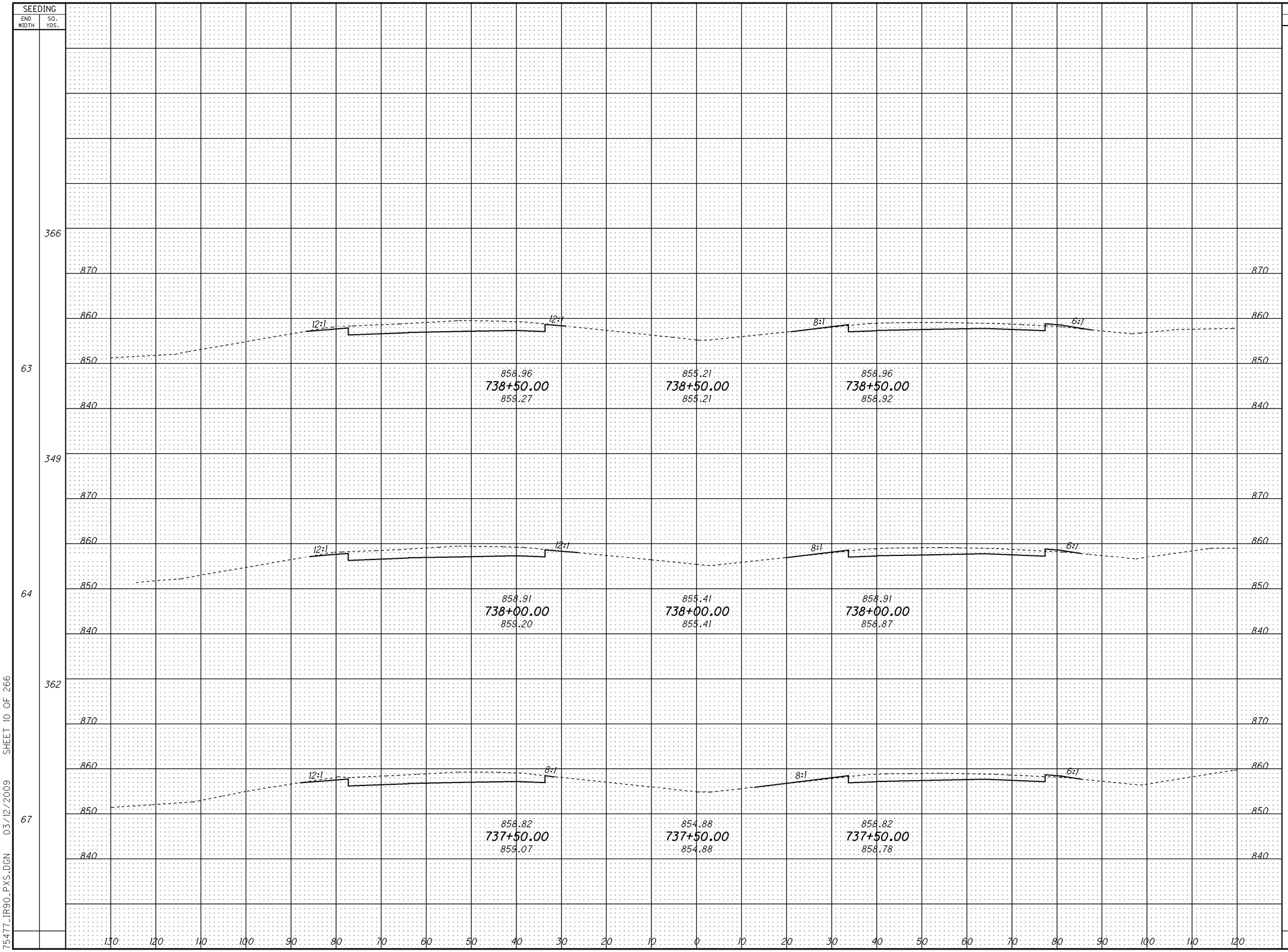
CALCULATED

CHECKED

CROSS SECTIONS

STA. 736+00.00 TO STA. 737+00.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
154	5		
		285	8
154	4		
		283	8
152	5		
		278	11

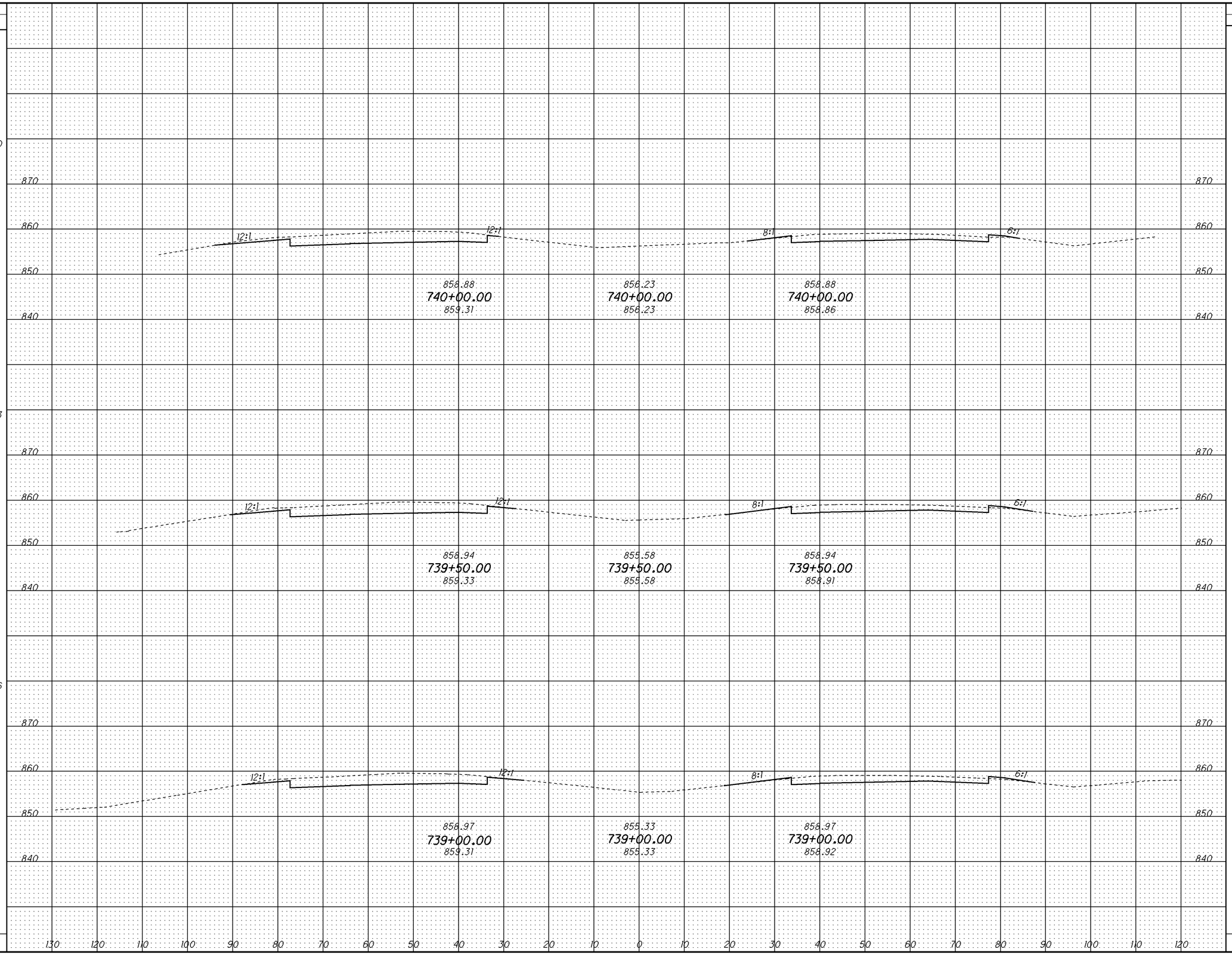
CALCULATED

CHECKED

CROSS SECTIONS

STA. 737+50.00 TO STA. 738+50.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
61	340	162	3	298	6
69	363	160	4	292	8
69	386	156	5	287	9

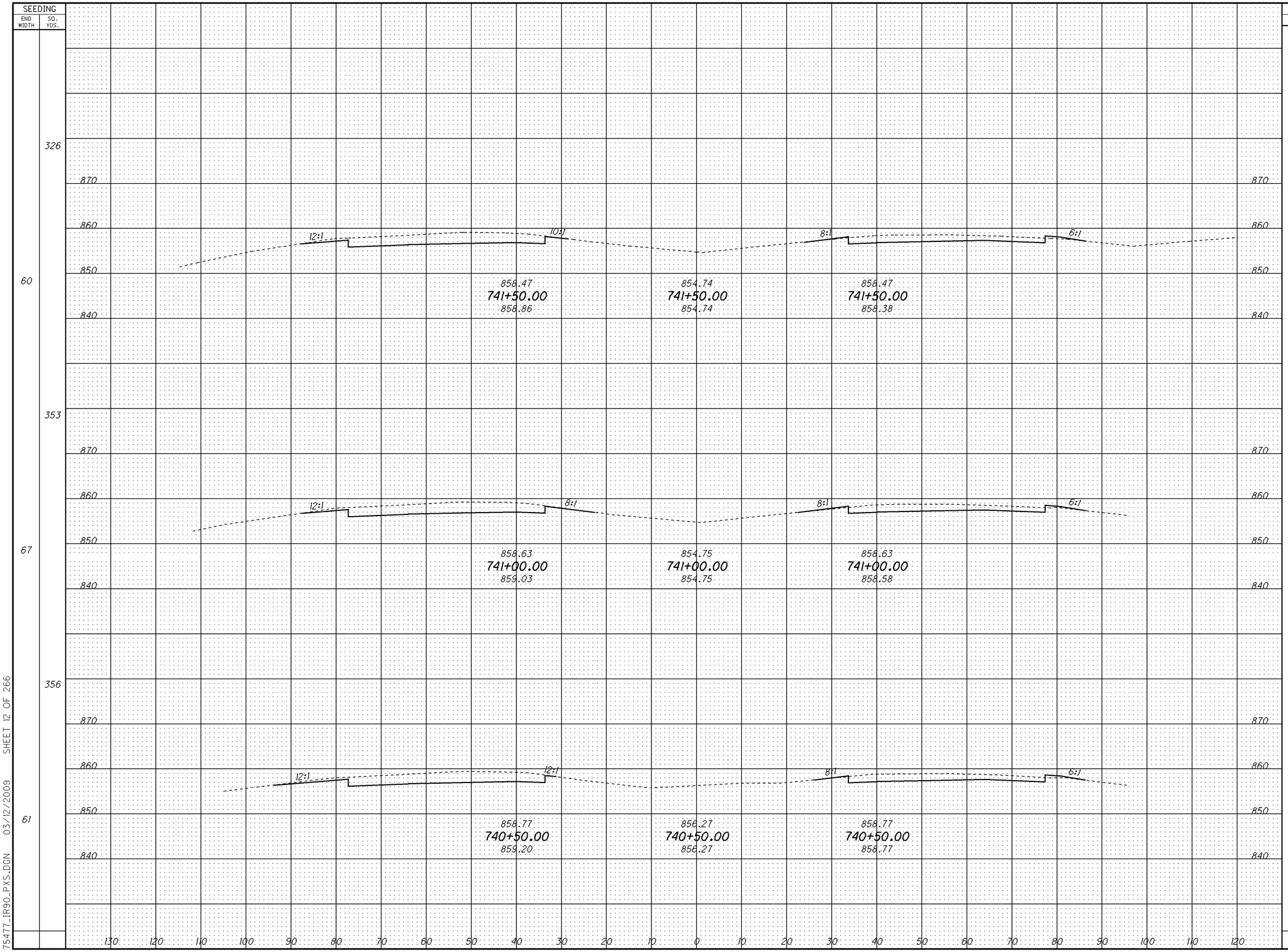
CALCULATED

CHECKED

CROSS SECTIONS

STA. 739+00.00 TO STA. 740+00.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
155	4	286	7
155	4	290	6
158	3	297	6

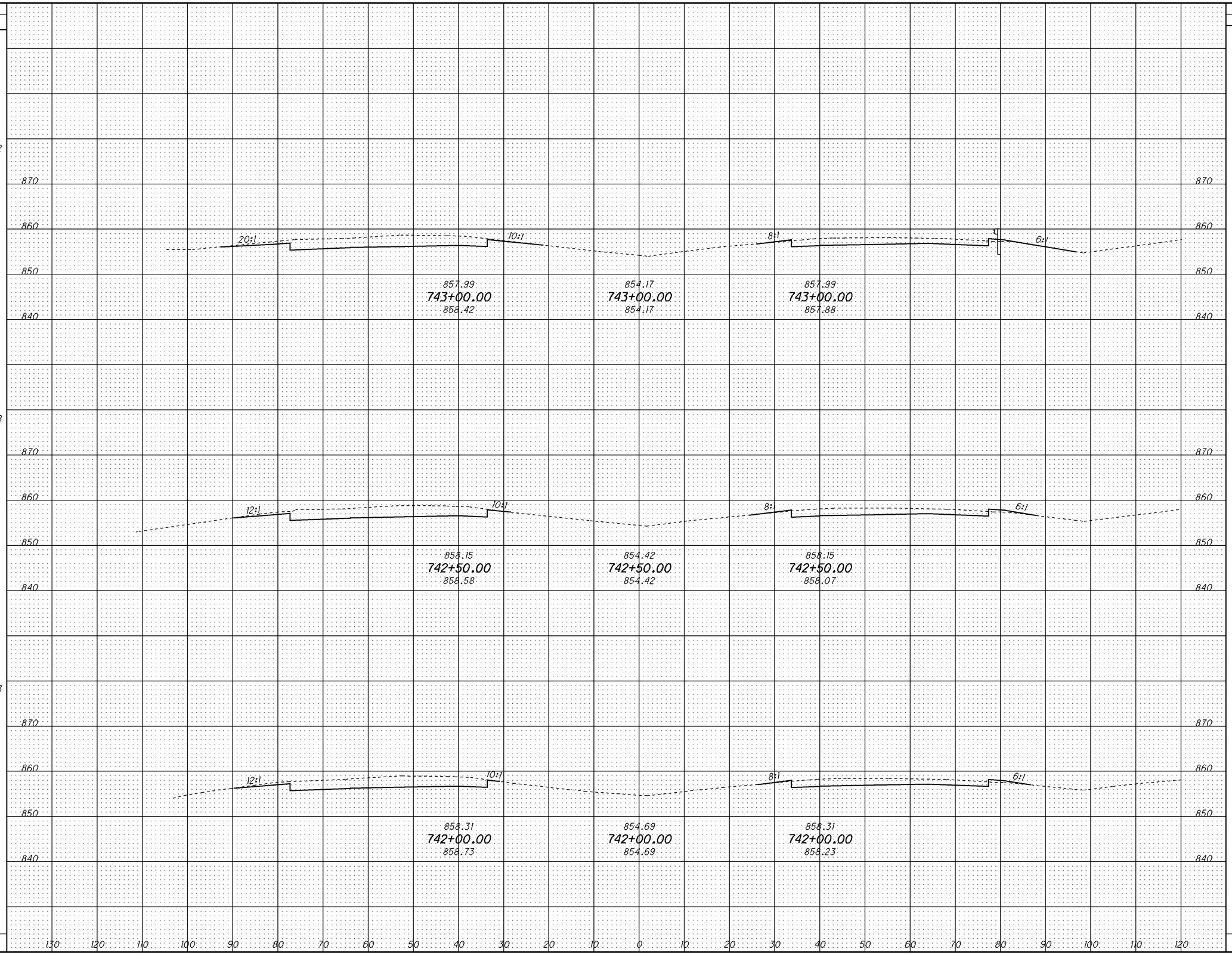
CALCULATED

CHECKED

CROSS SECTIONS
STA. 740+50.00 TO STA. 741+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
80	452	162	4	297	8
63	398	159	4	291	8
57	333	156	4	287	8



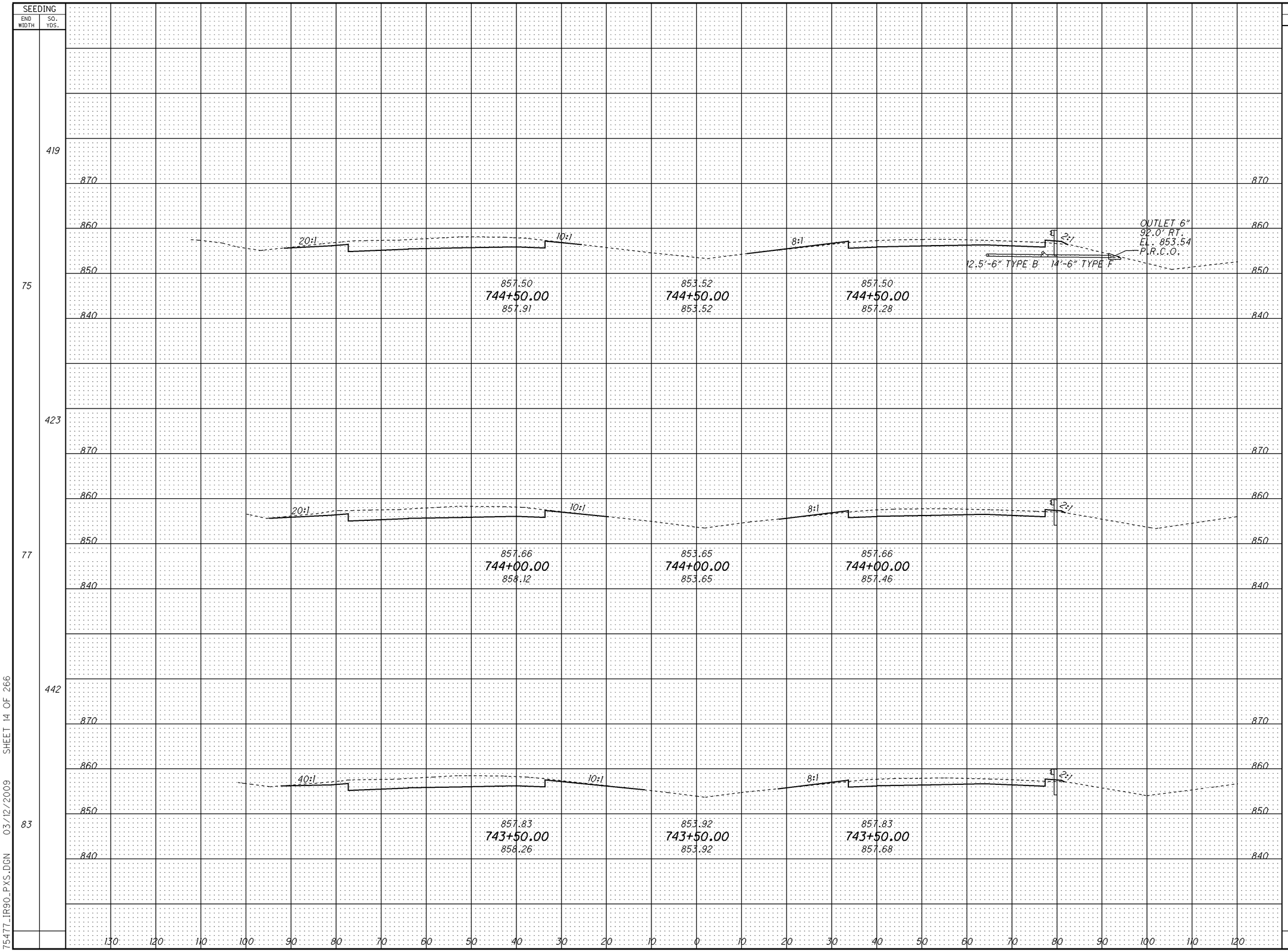
CALCULATED

CHECKED

CROSS SECTIONS

STA. 742+00.00 TO STA. 743+00.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
156	7	294	10
161	4	300	8
162	4	300	8

CALCULATED

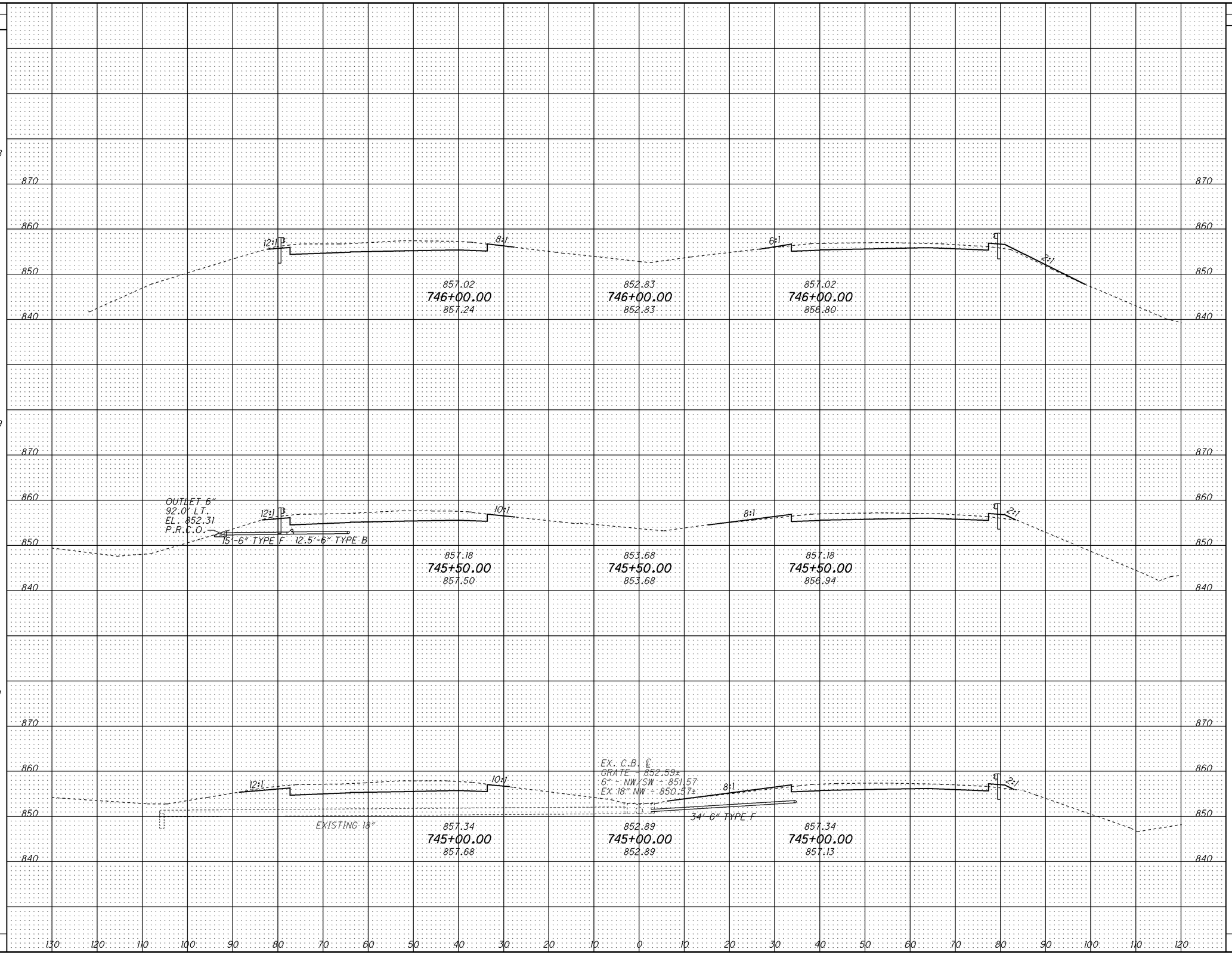
CHECKED

CROSS SECTIONS

STA. 743+50.00 TO STA. 744+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
67	348	141	10	266	17
62	381	146	8	276	16
75	359	152	9	285	15

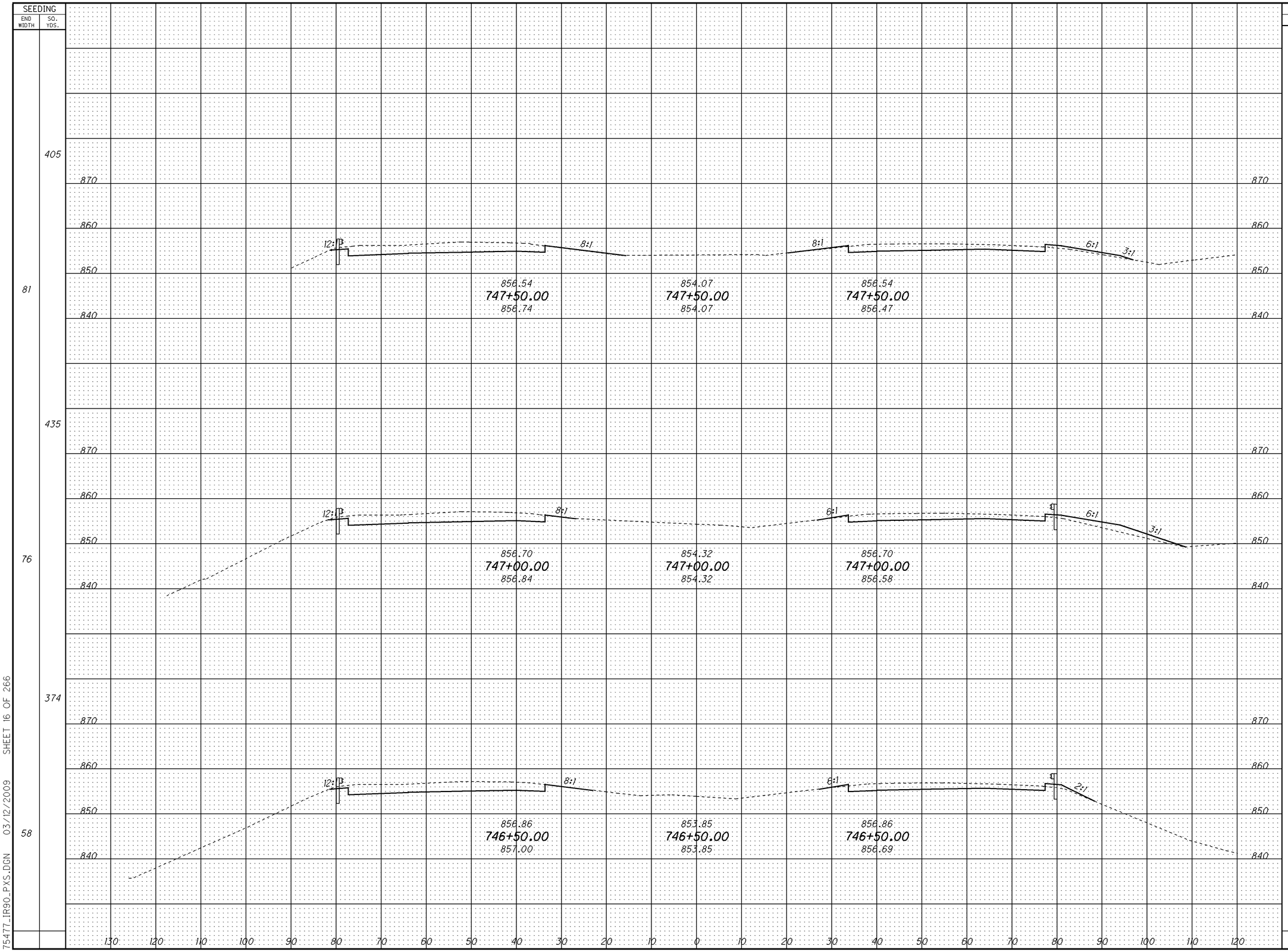


CALCULATED

CHECKED

CROSS SECTIONS
STA. 745+00.00 TO STA. 746+00.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
145	13	266	40
143	30	261	34
139	7	260	16

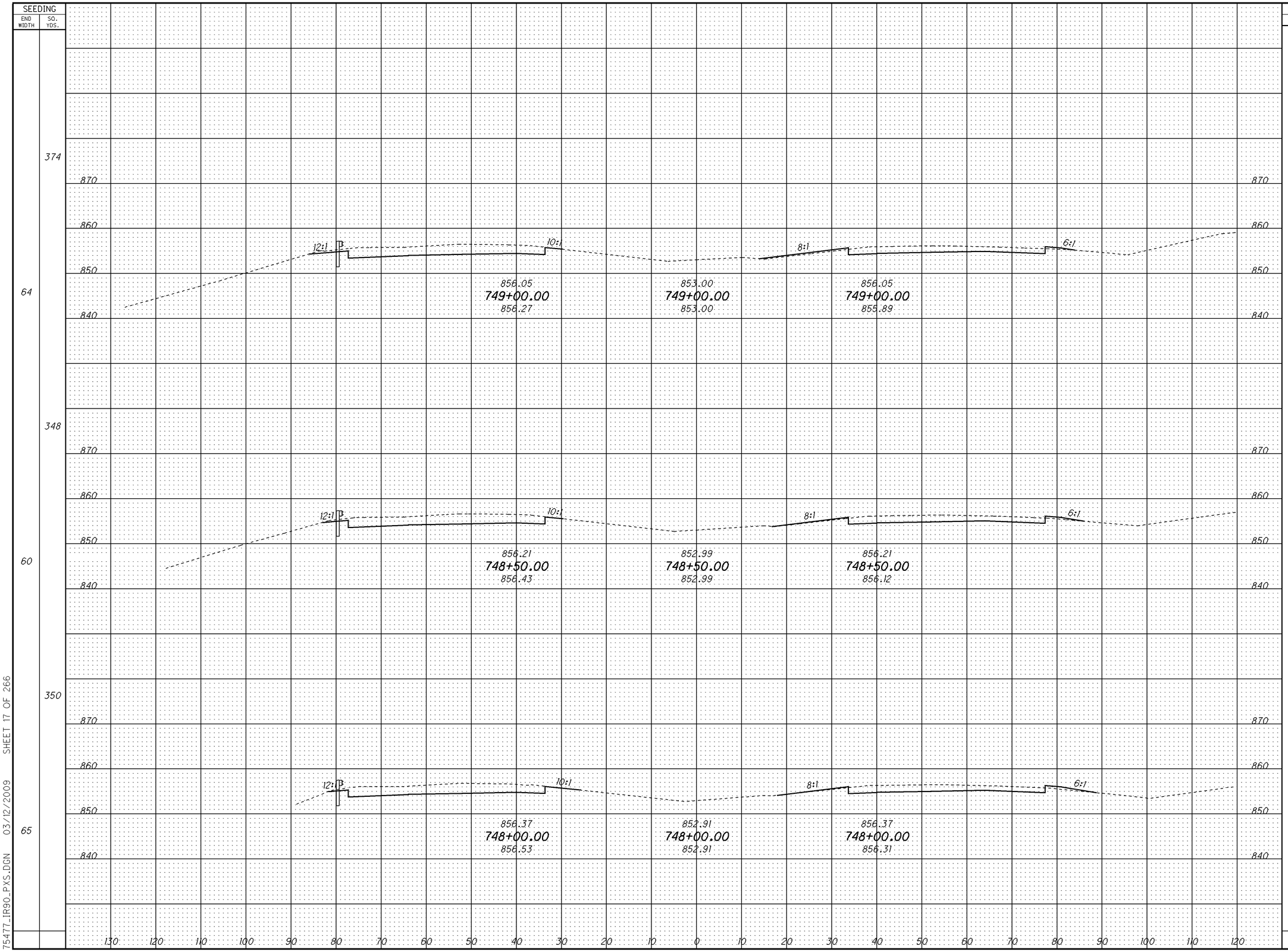
CALCULATED

CHECKED

CROSS SECTIONS

STA. 746+50.00 TO STA. 747+50.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
147	8	273	13
147	6	271	11
145	6	268	17

CALCULATED

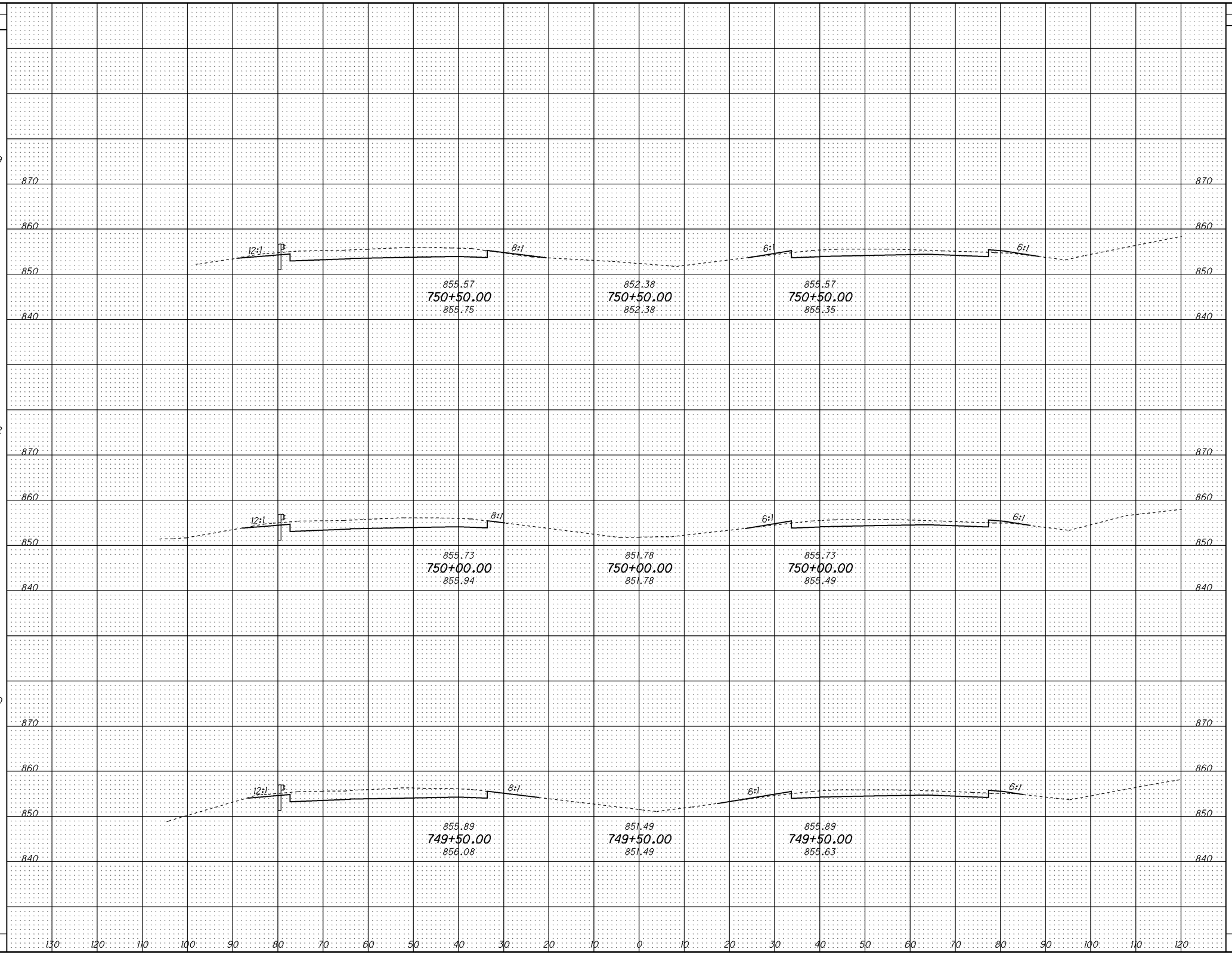
CHECKED

CROSS SECTIONS

STA. 748+00.00 TO STA. 749+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
72	429	142	7	264	12
59	362	143	5	265	11
71	360	143	7	269	14



CALCULATED

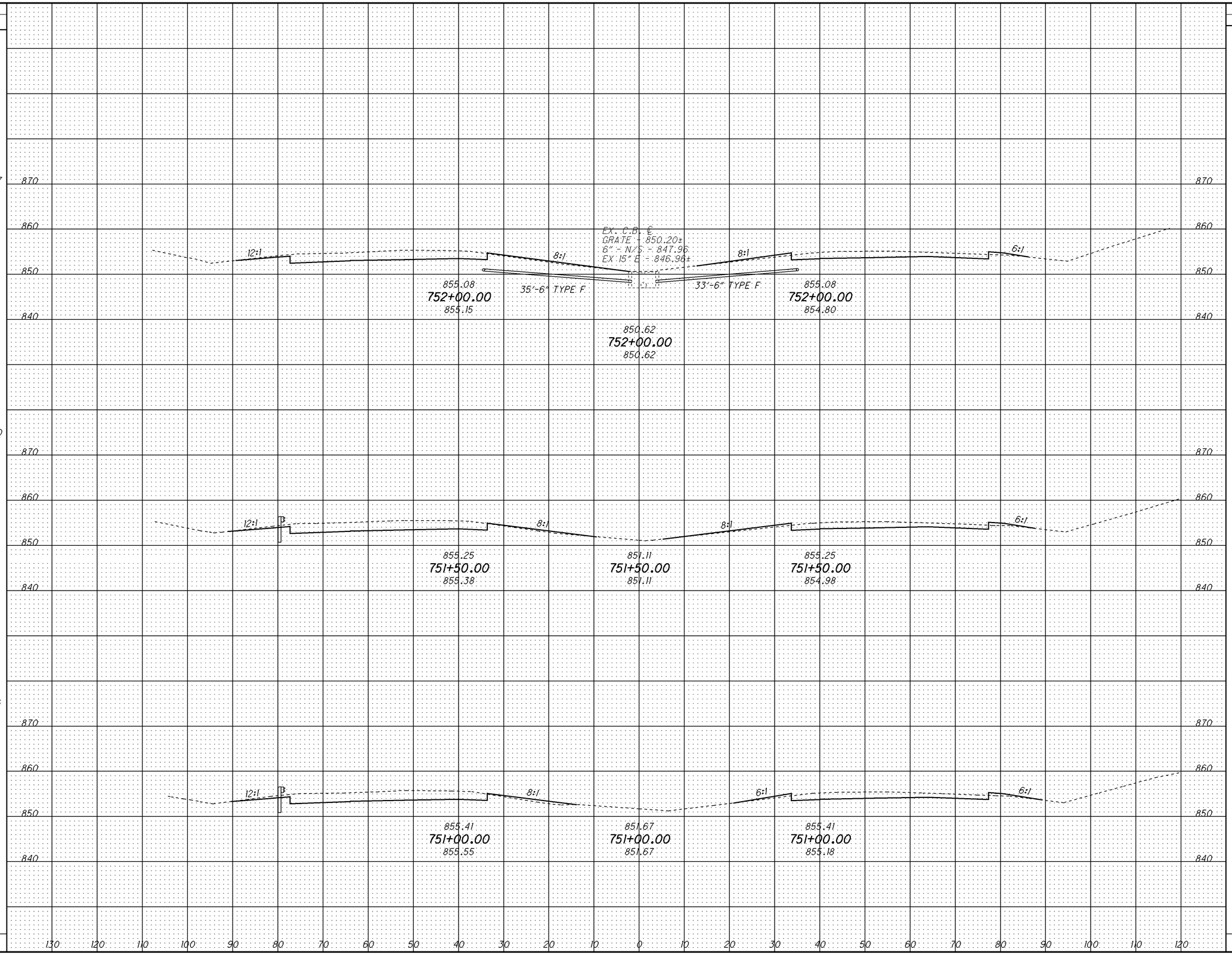
CHECKED

CROSS SECTIONS

STA. 749+50.00 TO STA. 750+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
99	537	134	17	252	31
103	560	138	17	258	30
84	516	140	15	262	21



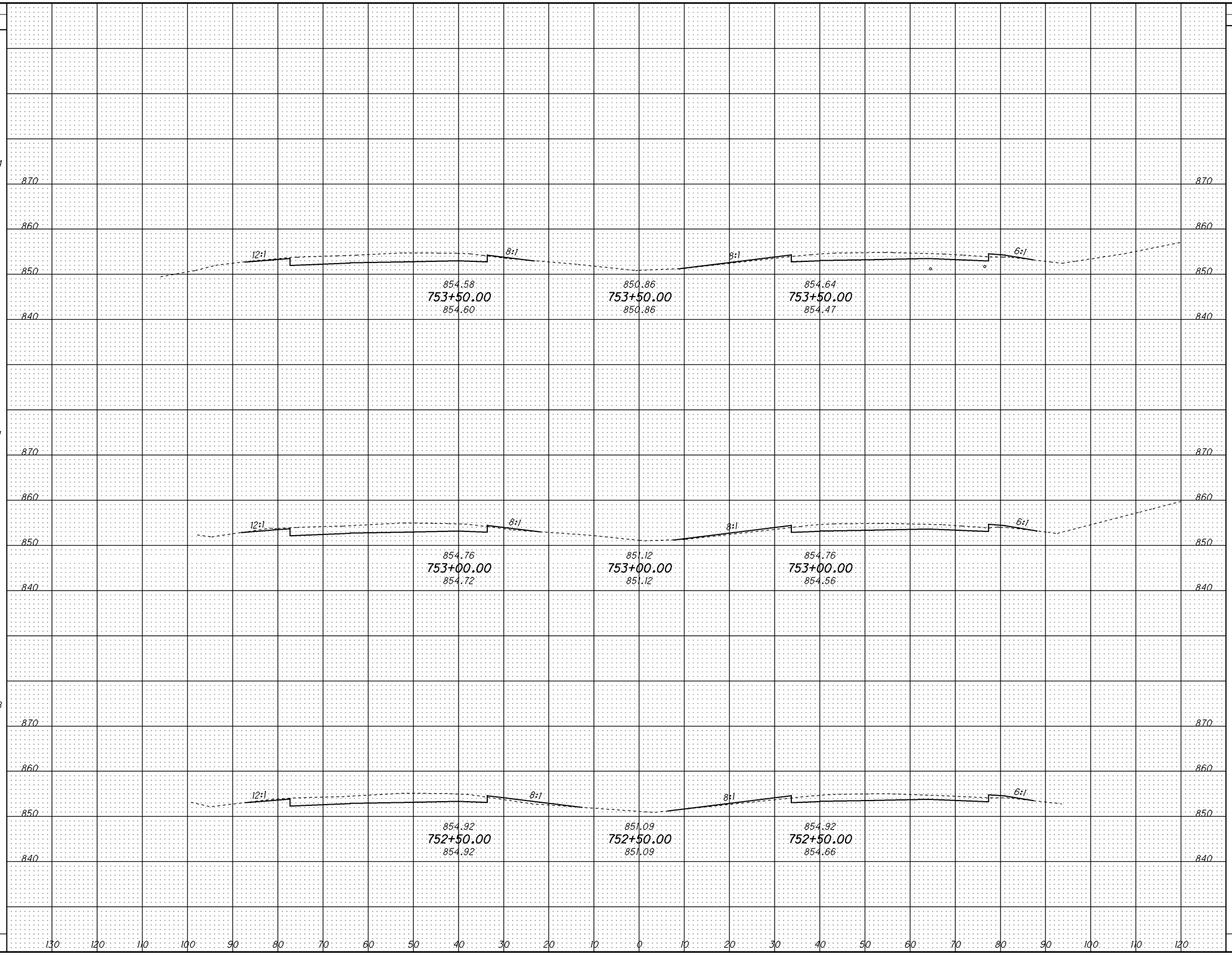
CALCULATED

CHECKED

CROSS SECTIONS
STA. 751+00.00 TO STA. 752+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
81	424	135	11	248	25
85	461	132	16	243	32
94	498	130	18	245	33



CALCULATED

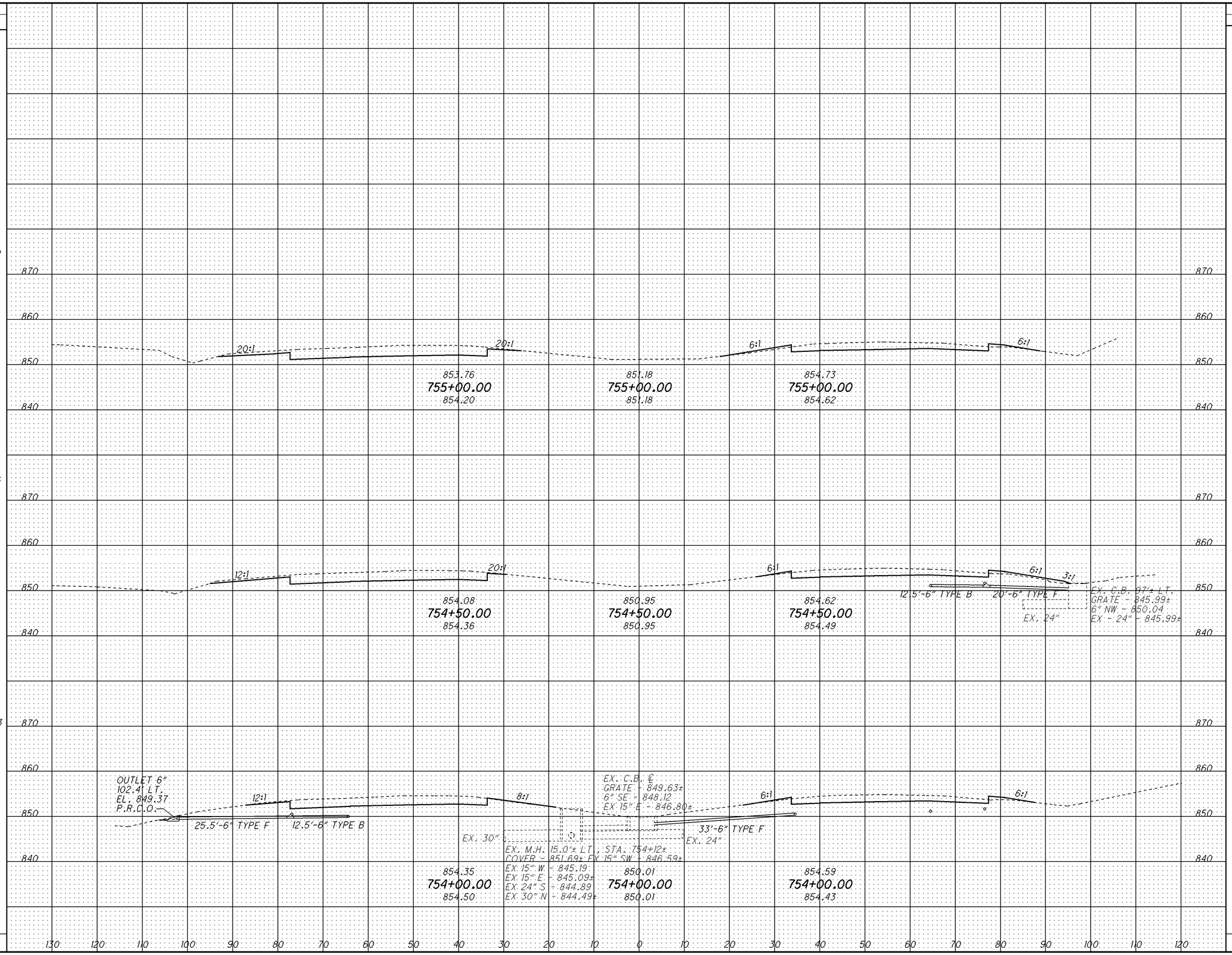
CHECKED

CROSS SECTIONS

STA. 752+50.00 TO STA. 753+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
76	419	163	8	294	17
74	416	154	10	274	15
72	403	141	7	256	17

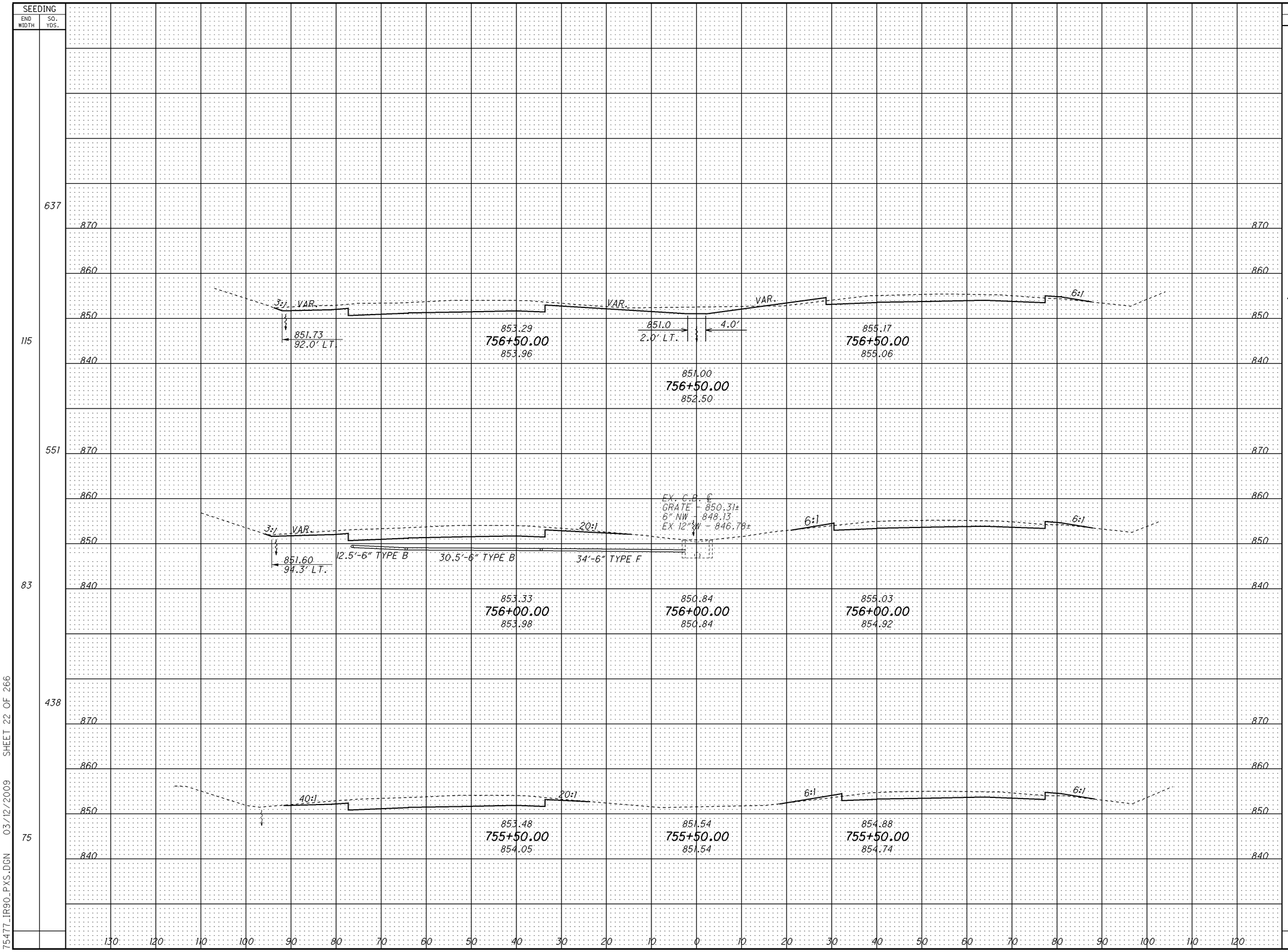


CALCULATED

CHECKED

CROSS SECTIONS
STA. 754+00.00 TO STA. 755+00.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
223	11	377	16
184	6	325	13
167	8	305	15

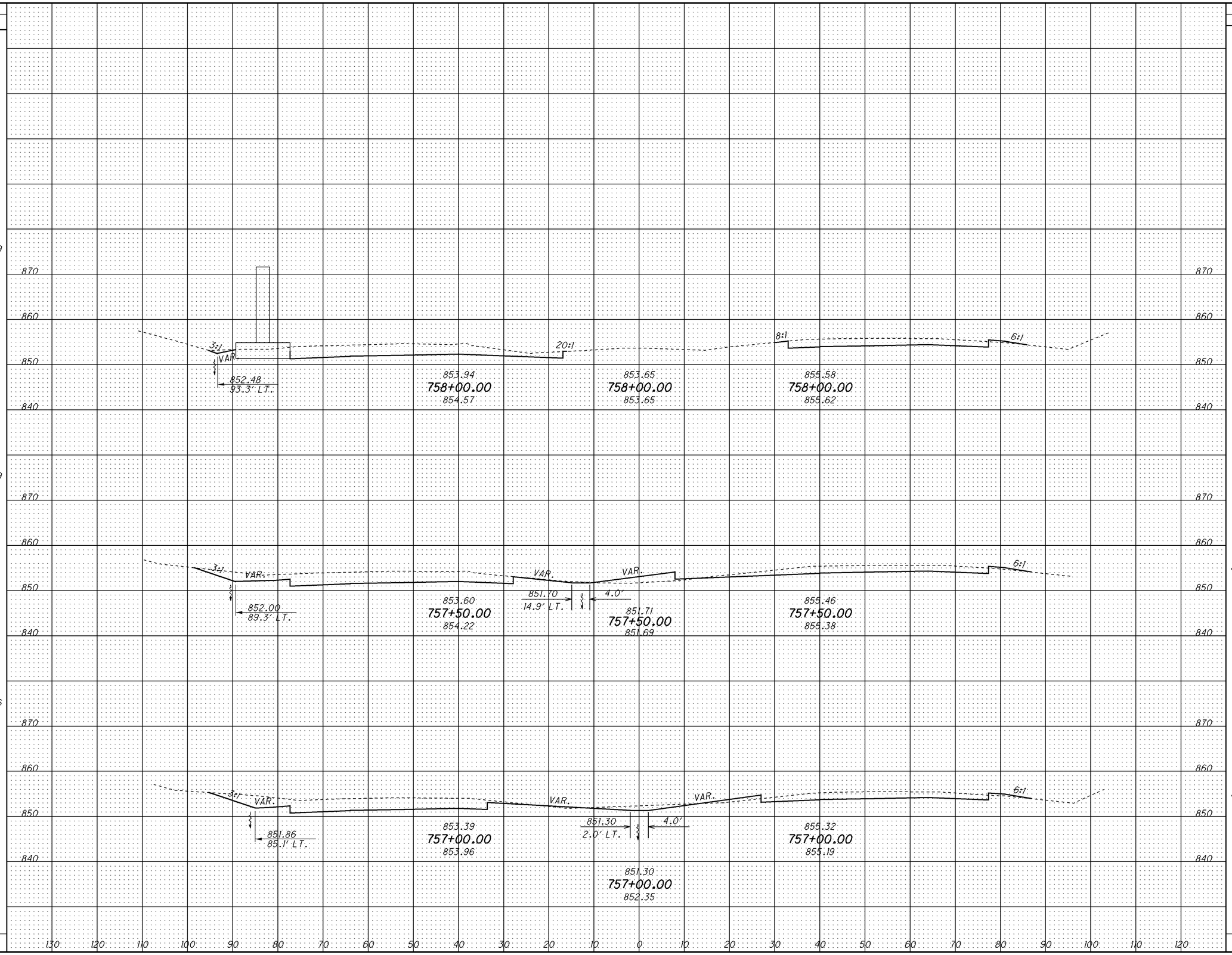
CALCULATED

CHECKED

CROSS SECTIONS
STA. 755+50.00 TO STA. 756+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
44	429	194	2	383	26
92	379	220	26	412	35
115	576	225	12	414	21



CALCULATED

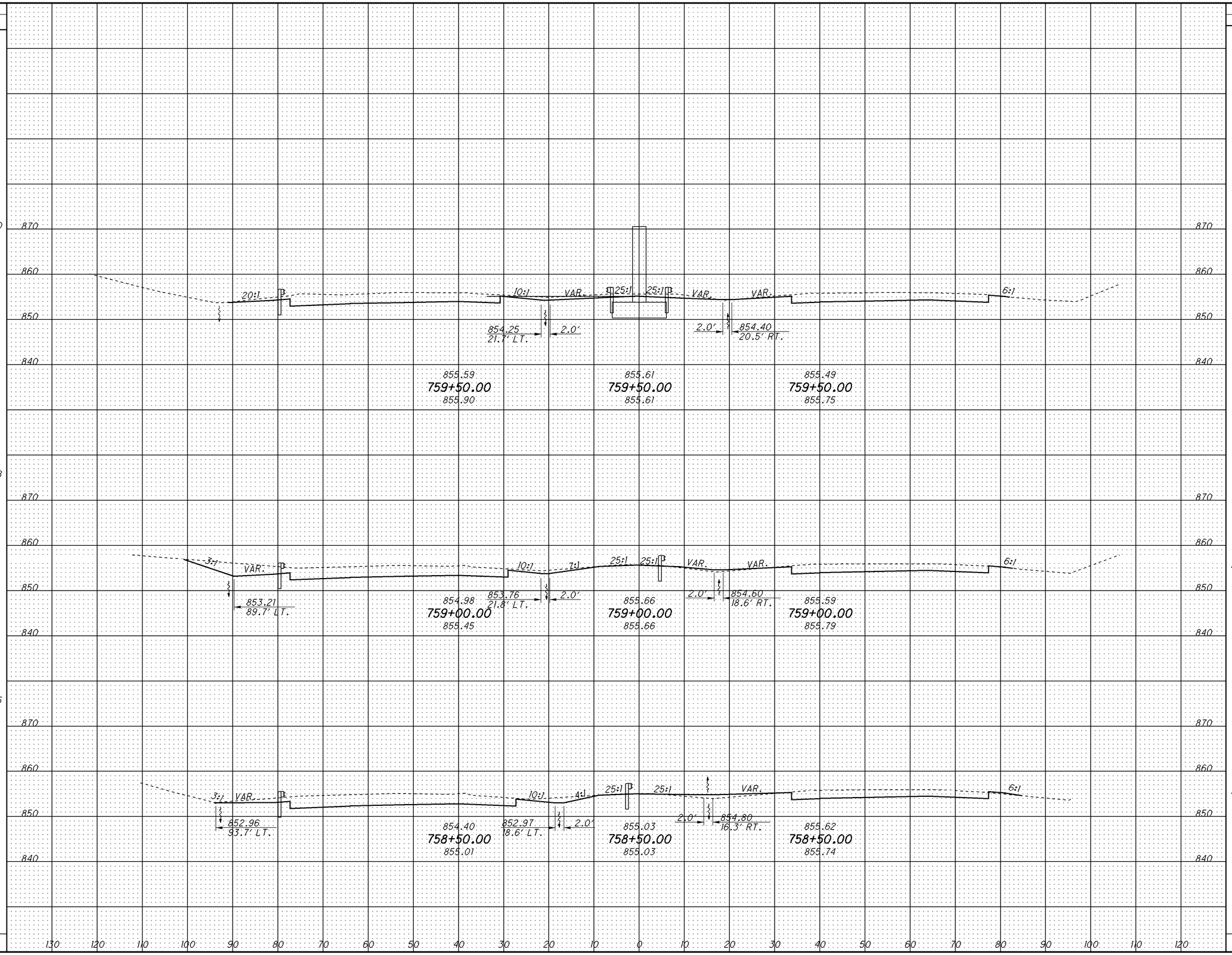
CHECKED

CROSS SECTIONS

STA. 757+00.00 TO STA. 758+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
108	650	216	0	439	1
118	628	258	1	450	2
111	635	228	1	391	3



CALCULATED

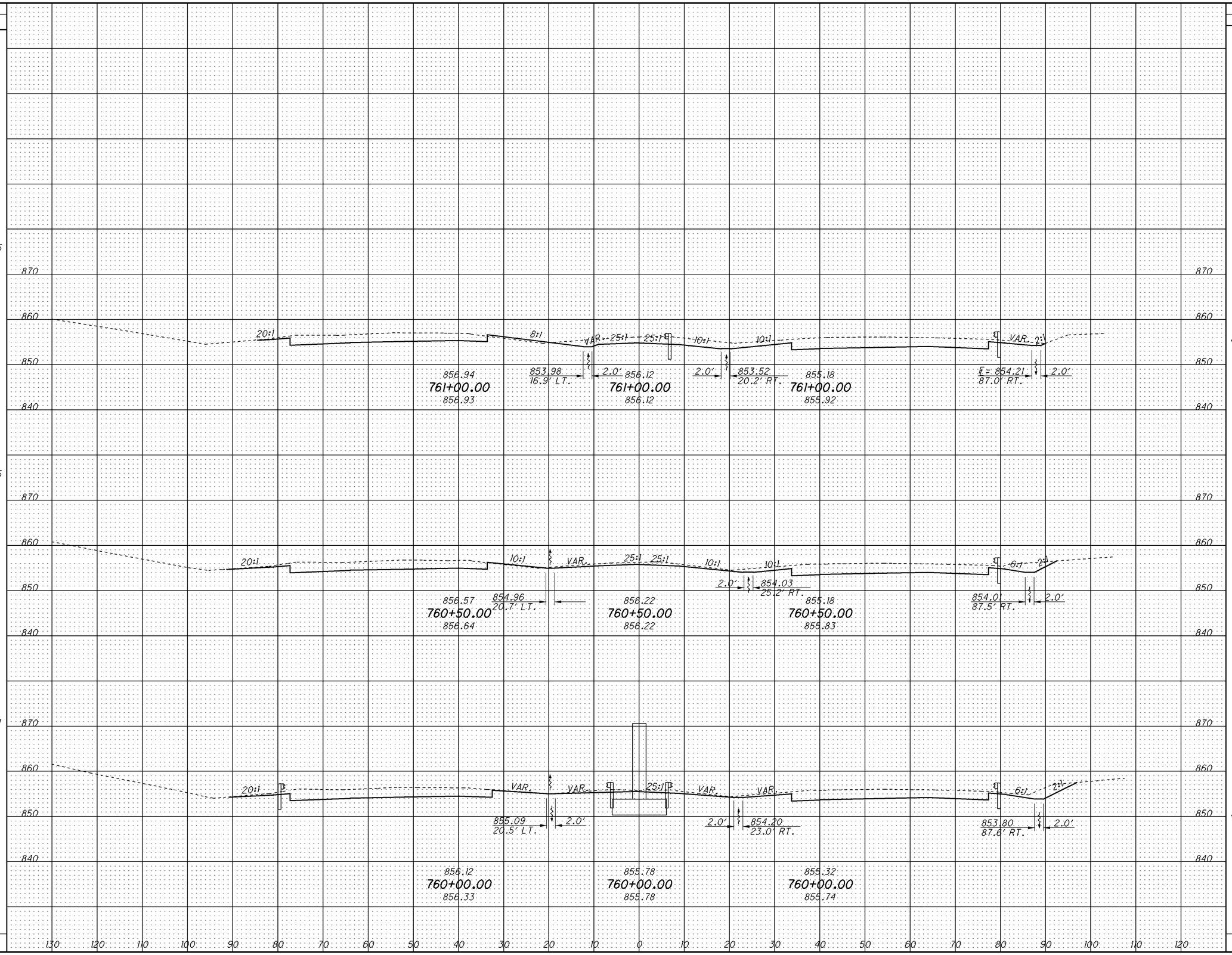
CHECKED

CROSS SECTIONS

STA. 758+50.00 TO STA. 759+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
113	645	247	5	433	6
122	655	221	2	417	2
126	691	229	0	413	0



CALCULATED

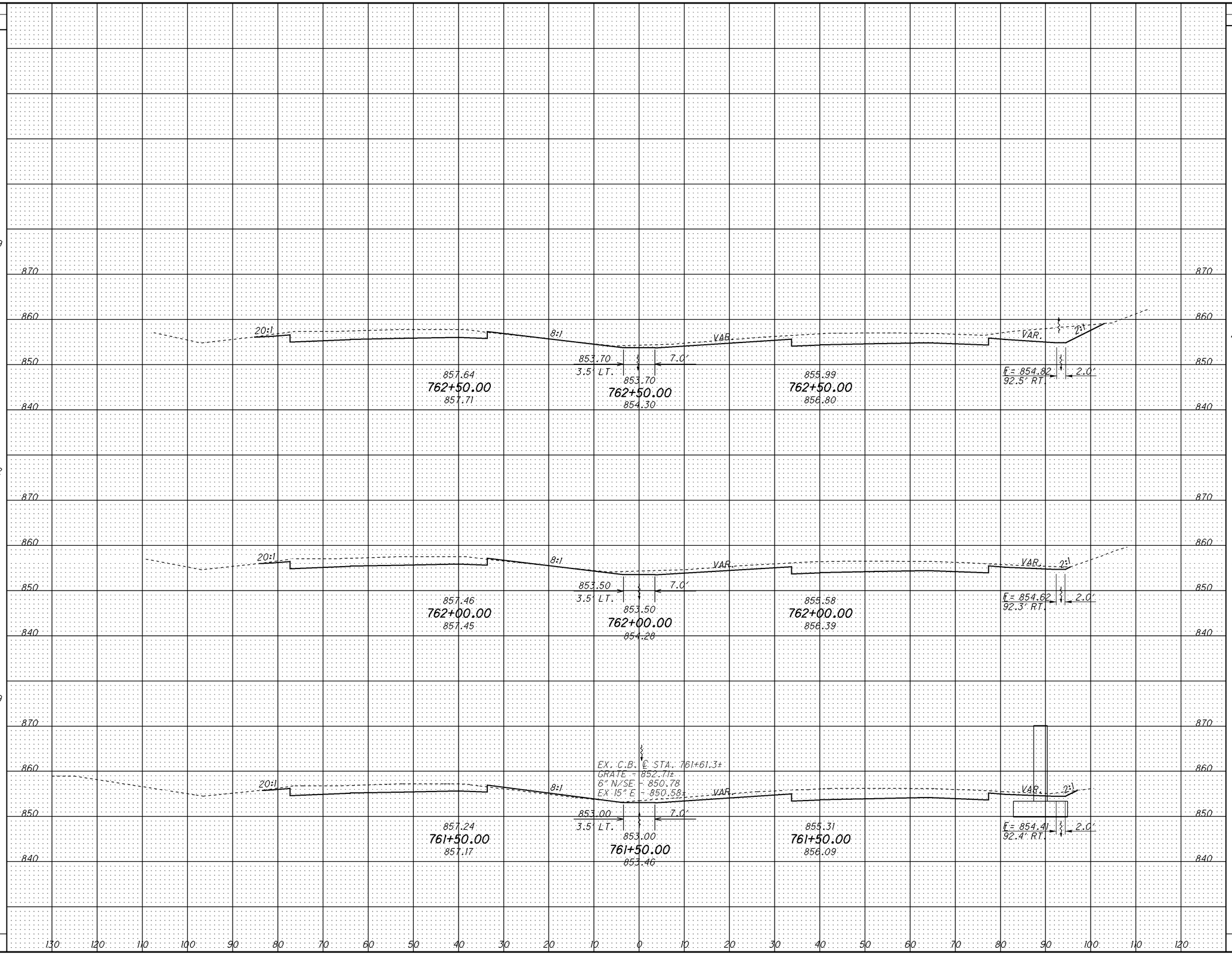
CHECKED

CROSS SECTIONS

STA. 760+00.00 TO STA. 761+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
127	709	267	2	450	4
118	682	219	2	400	9
119	659	213	7	426	11



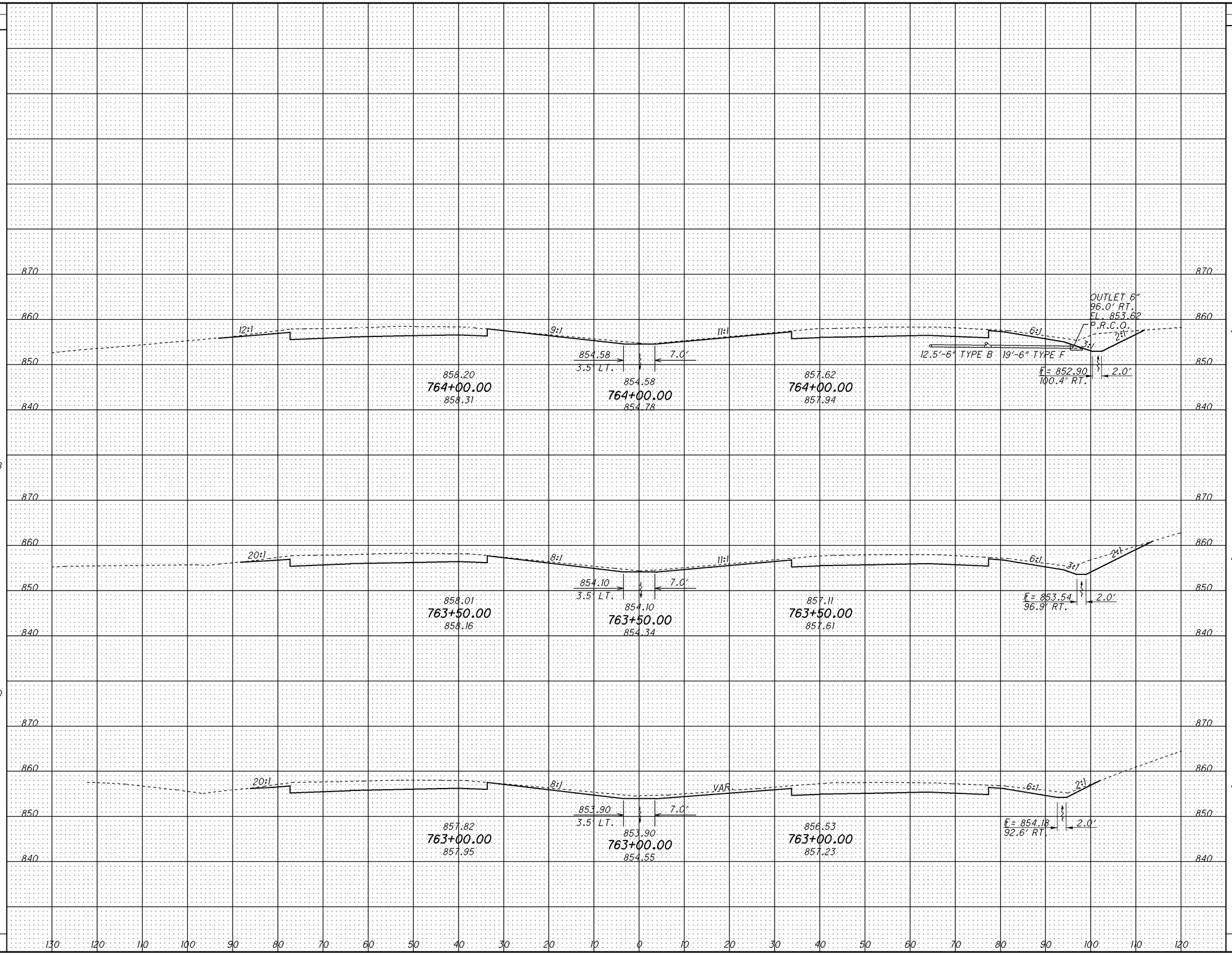
CALCULATED

CHECKED

CROSS SECTIONS
STA. 761+50.00 TO STA. 762+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
145	711	233	0	442	0
143	798	245	0	448	0
127	750	239	0	469	2



CALCULATED

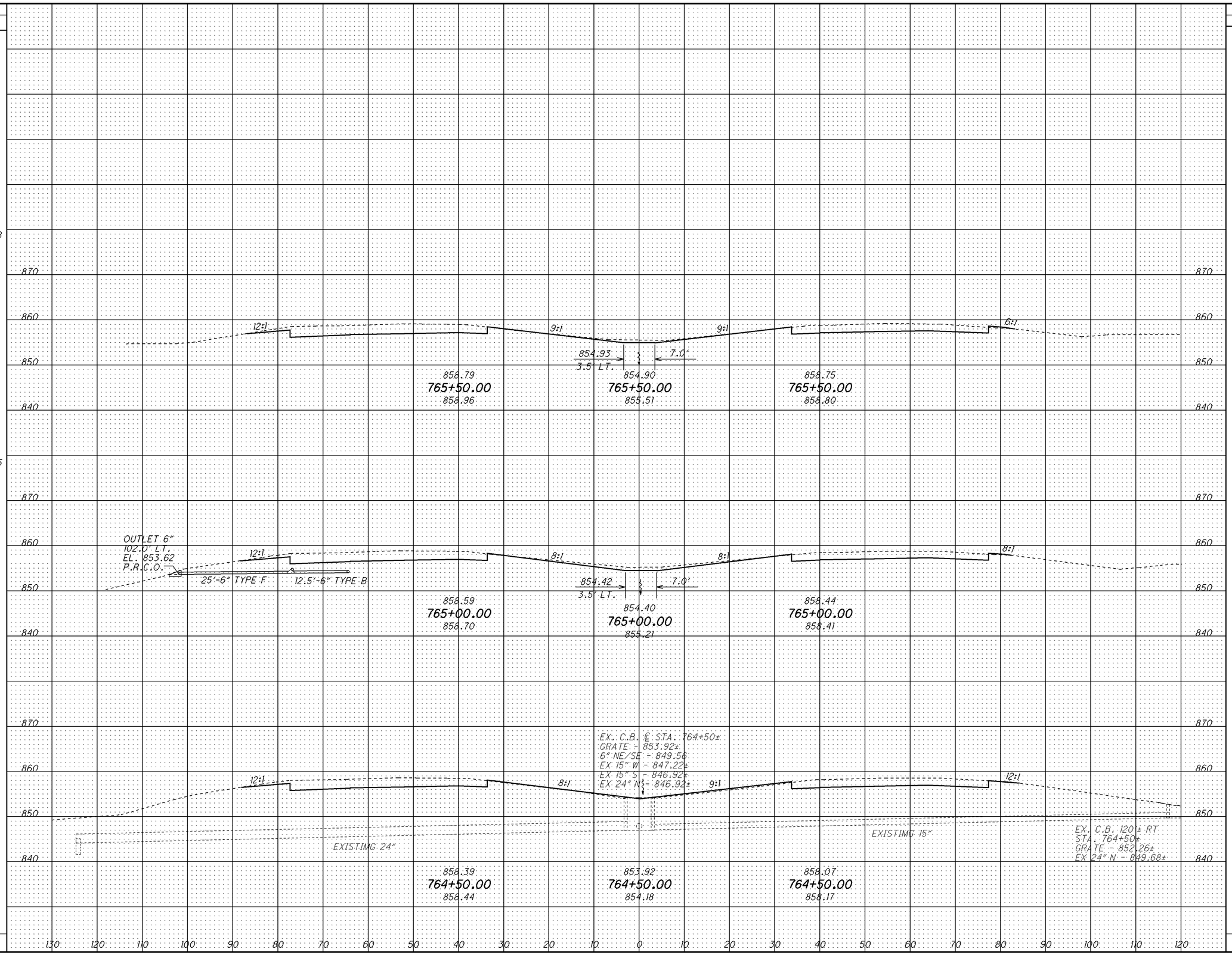
CHECKED

CROSS SECTIONS

STA. 763+00.00 TO STA. 764+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME		
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	
108	628	173	3			
110	605	181	2	328	4	
110	611	162	14	318	15	
				366	13	



CALCULATED

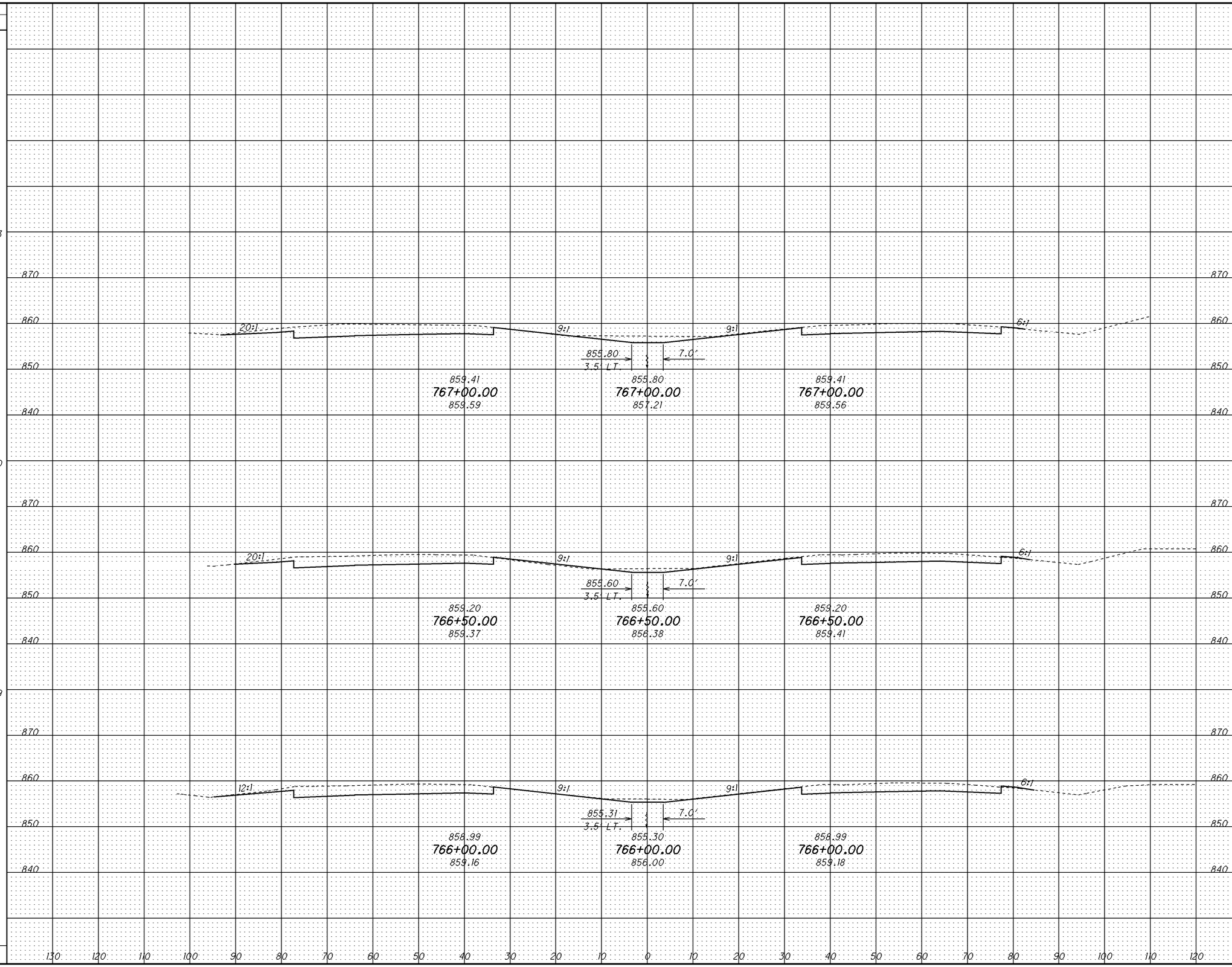
CHECKED

CROSS SECTIONS

STA. 764+50.00 TO STA. 765+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
114	633	212	2	366	7
113	630	184	6	337	7
118	639	180	2	327	4



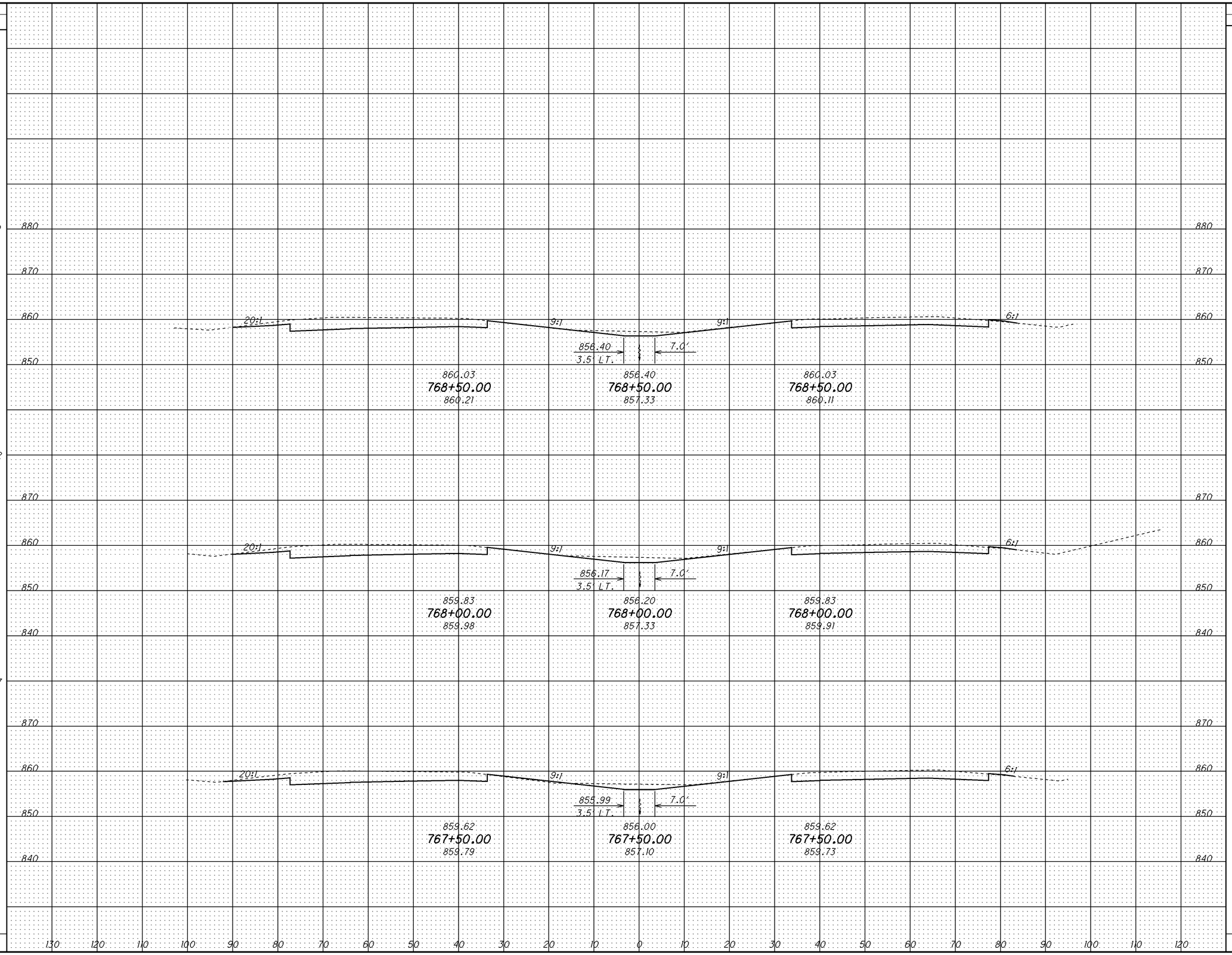
CALCULATED

CHECKED

CROSS SECTIONS

STA. 766+00.00 TO STA. 767+00.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
112	619	192	2	362	3
112	622	199	1	369	5
113	627	199	5	380	6

CALCULATED

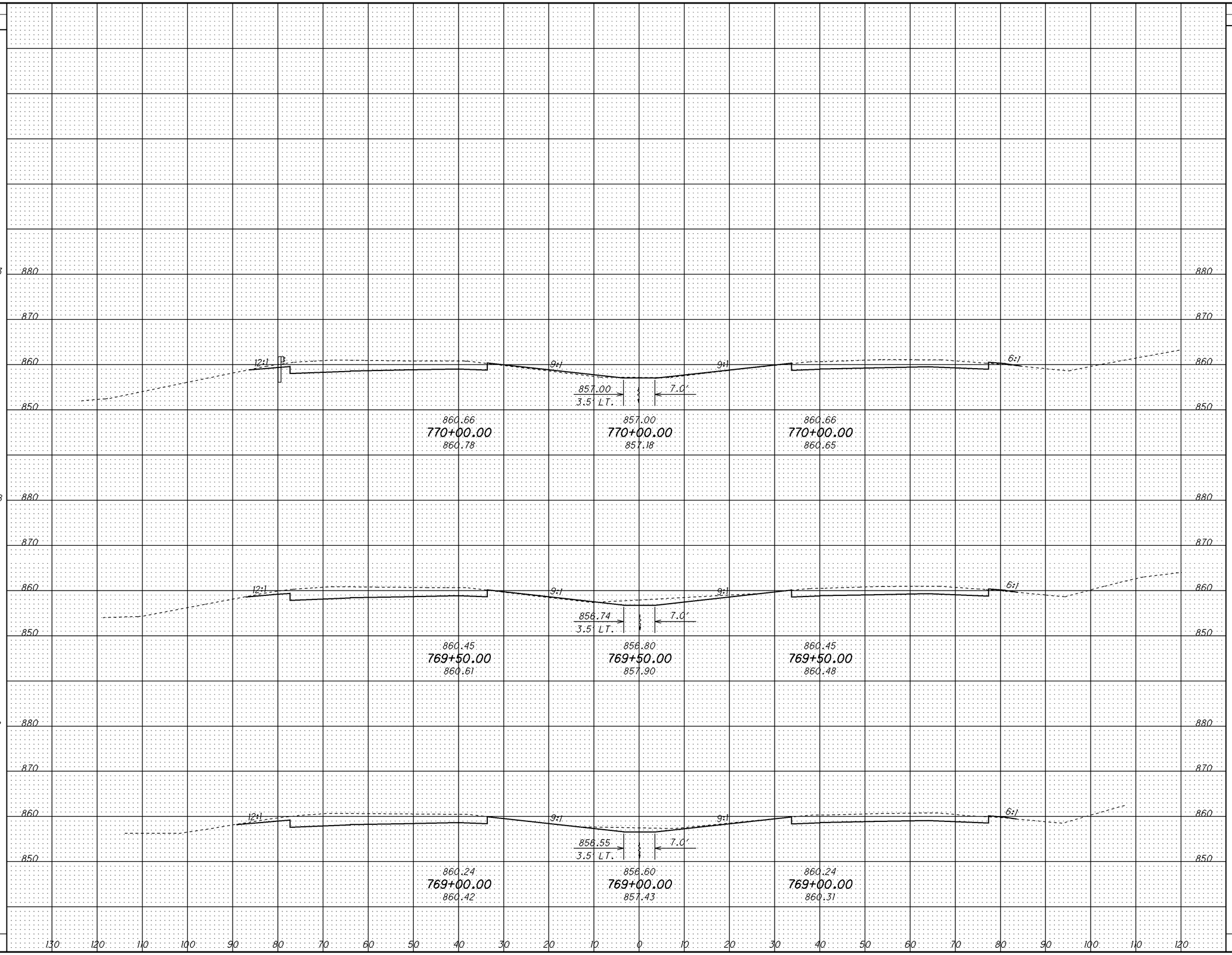
CHECKED

CROSS SECTIONS

STA. 767+50.00 TO STA. 768+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
110	633	170	12	340	16
109	608	198	5	358	6
111	612	189	1	353	4



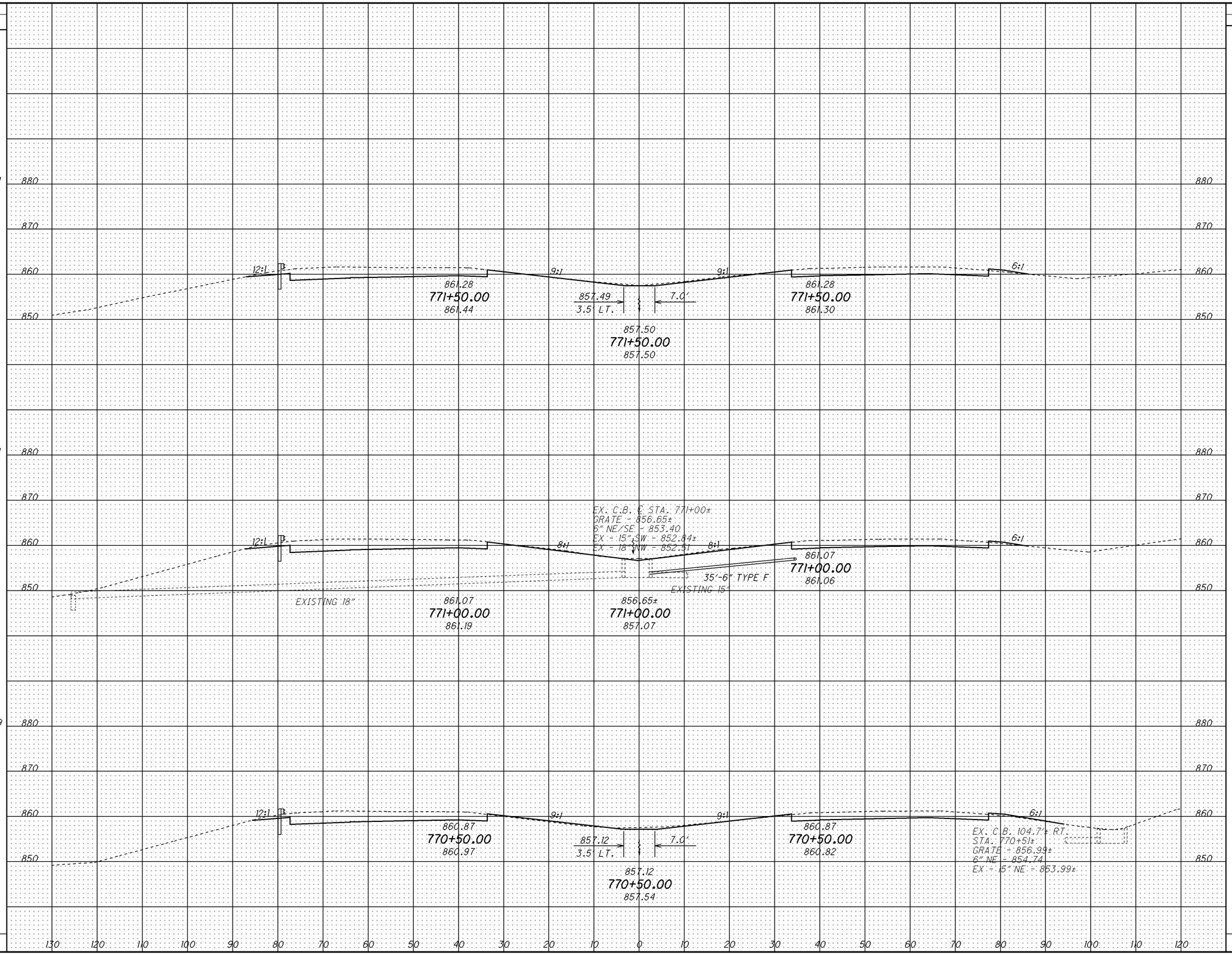
CALCULATED

CHECKED

CROSS SECTIONS
STA. 769+00.00 TO STA. 770+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
111	631	175	3	322	5
111	621	173	3	318	11
118	639	170	9	315	20

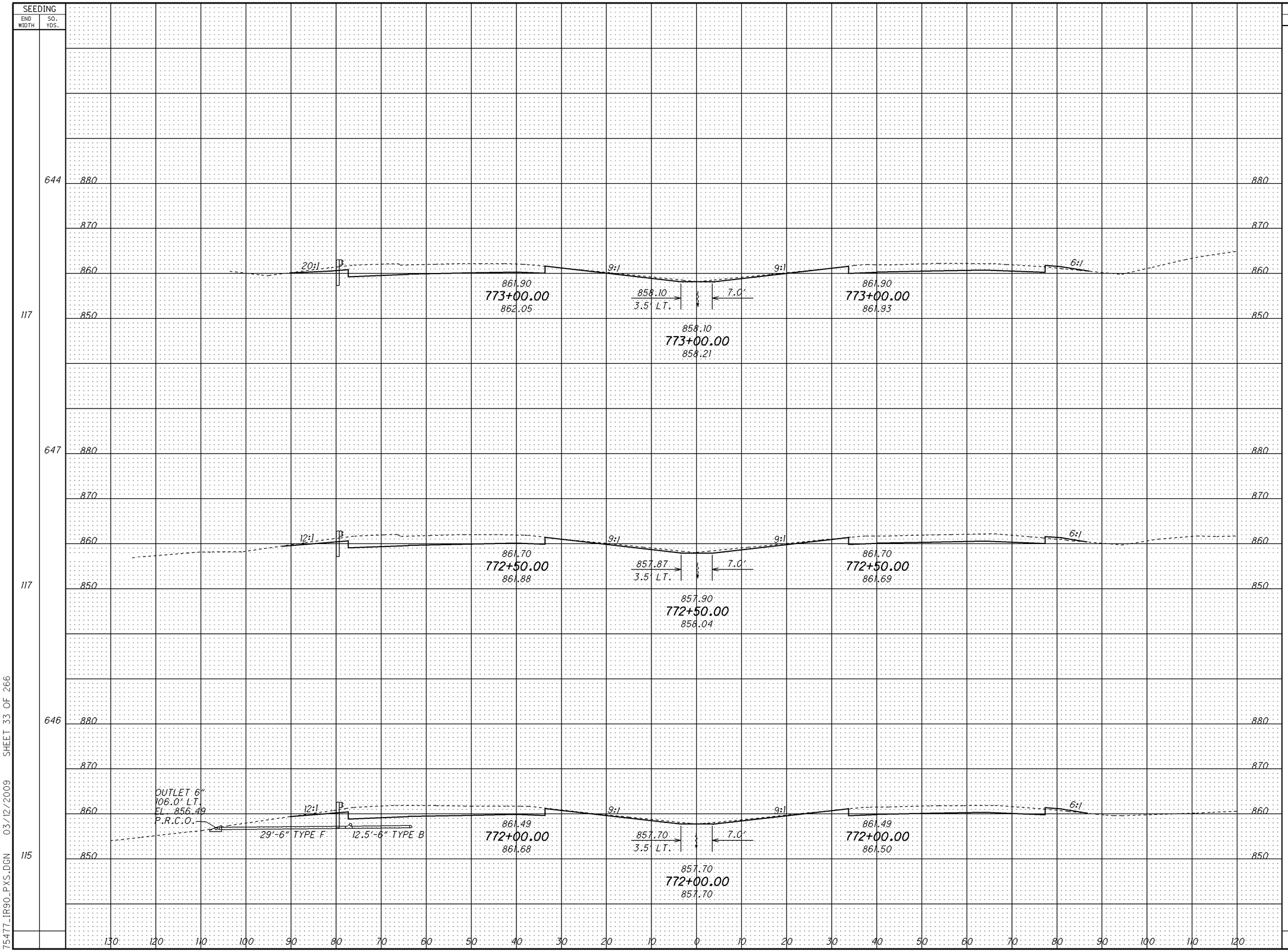


CALCULATED

CHECKED

CROSS SECTIONS
STA. 770+50.00 TO STA. 771+50.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
179	3	337	5
185	3	339	5
180	3	329	5

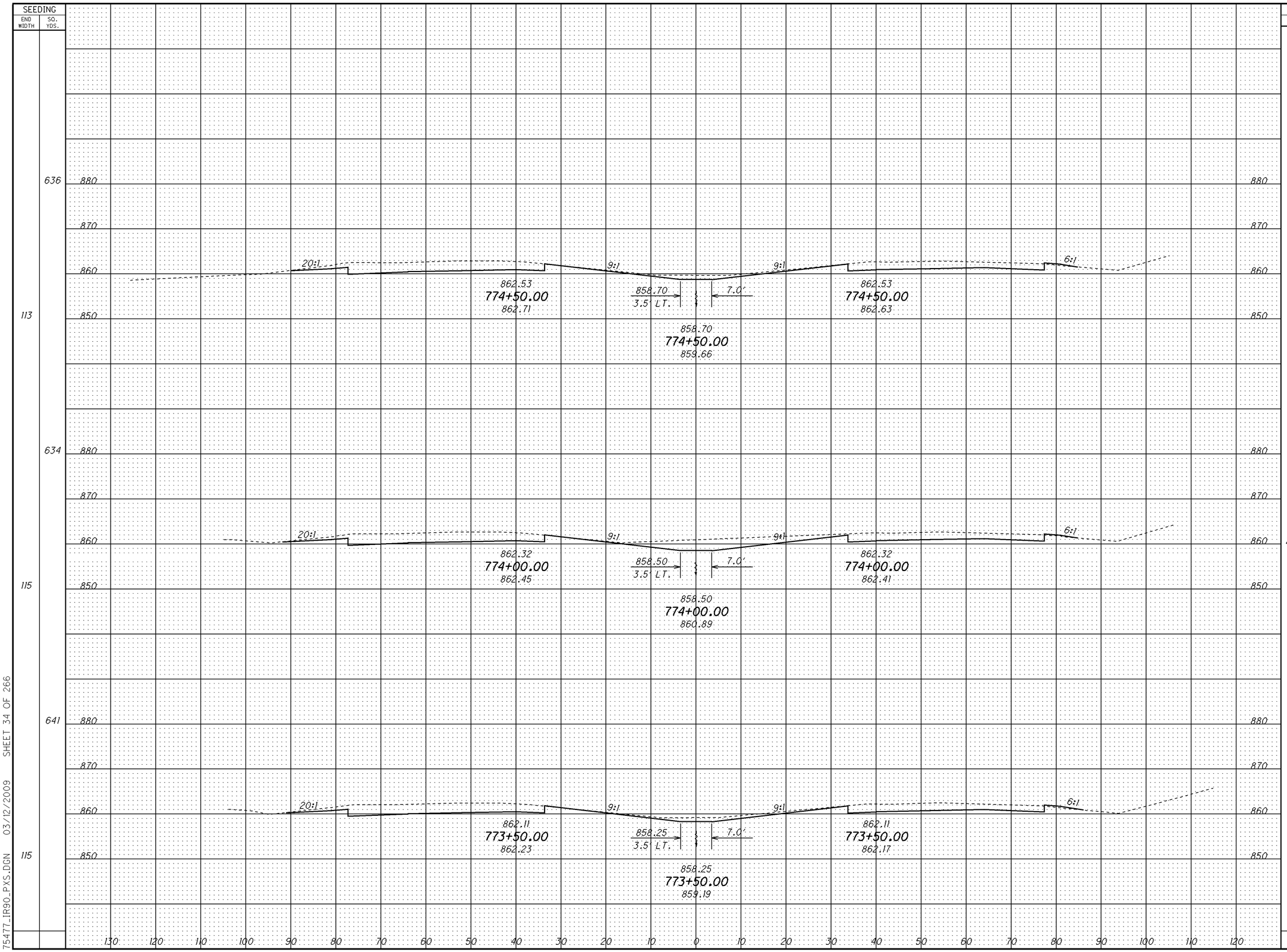
CALCULATED

CHECKED

CROSS SECTIONS

STA. 772+00.00 TO STA. 773+00.00

LAK-90-21.40
ATB-90-0.00



CROSS SECTIONS
STA. 773+50.00 TO STA. 774+50.00

LAK-90-21.40
ATB-90-0.00

188
498

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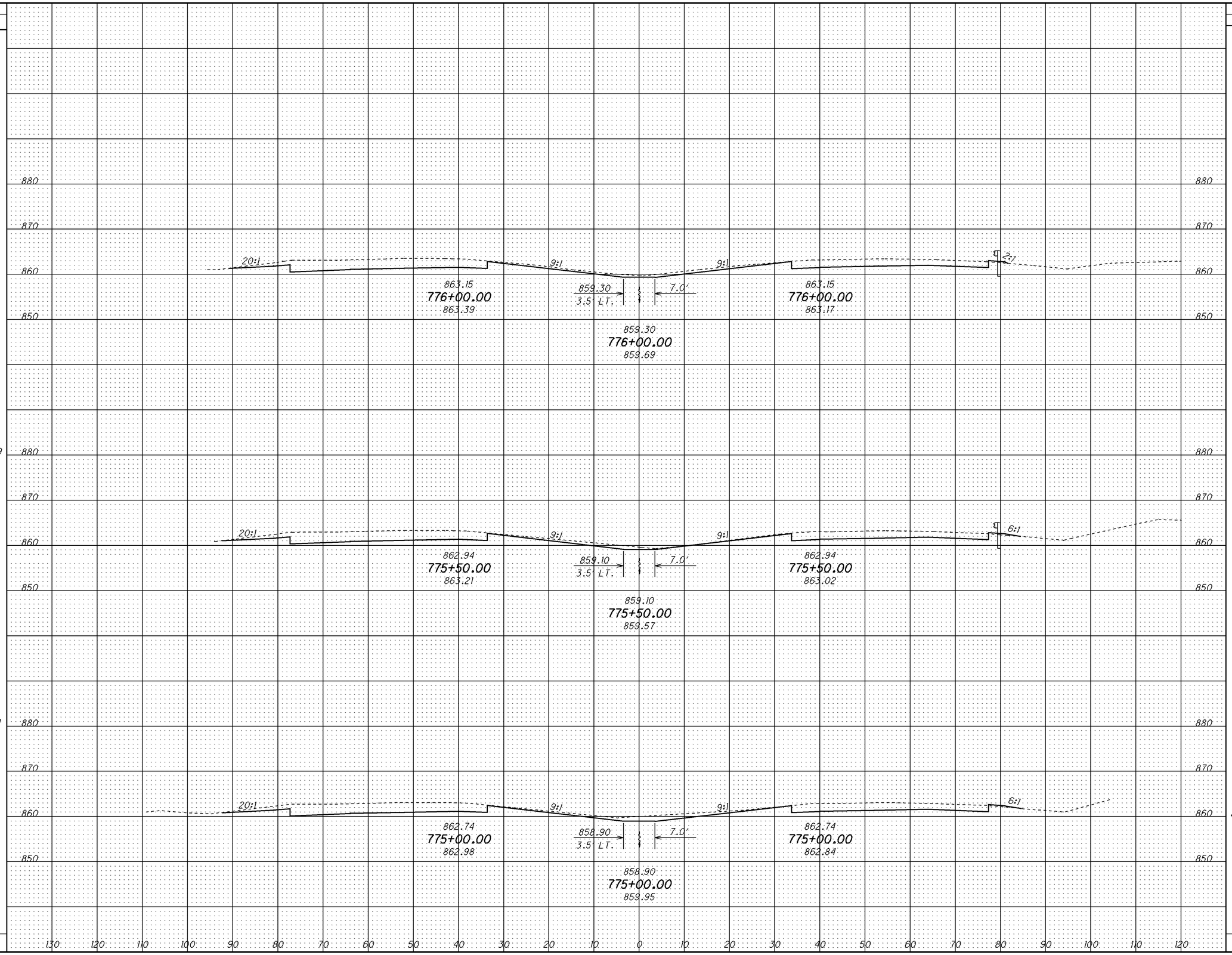
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
111	611	191	1	350	2
116	629	187	1	358	3
116	641	200	2	357	3



CALCULATED

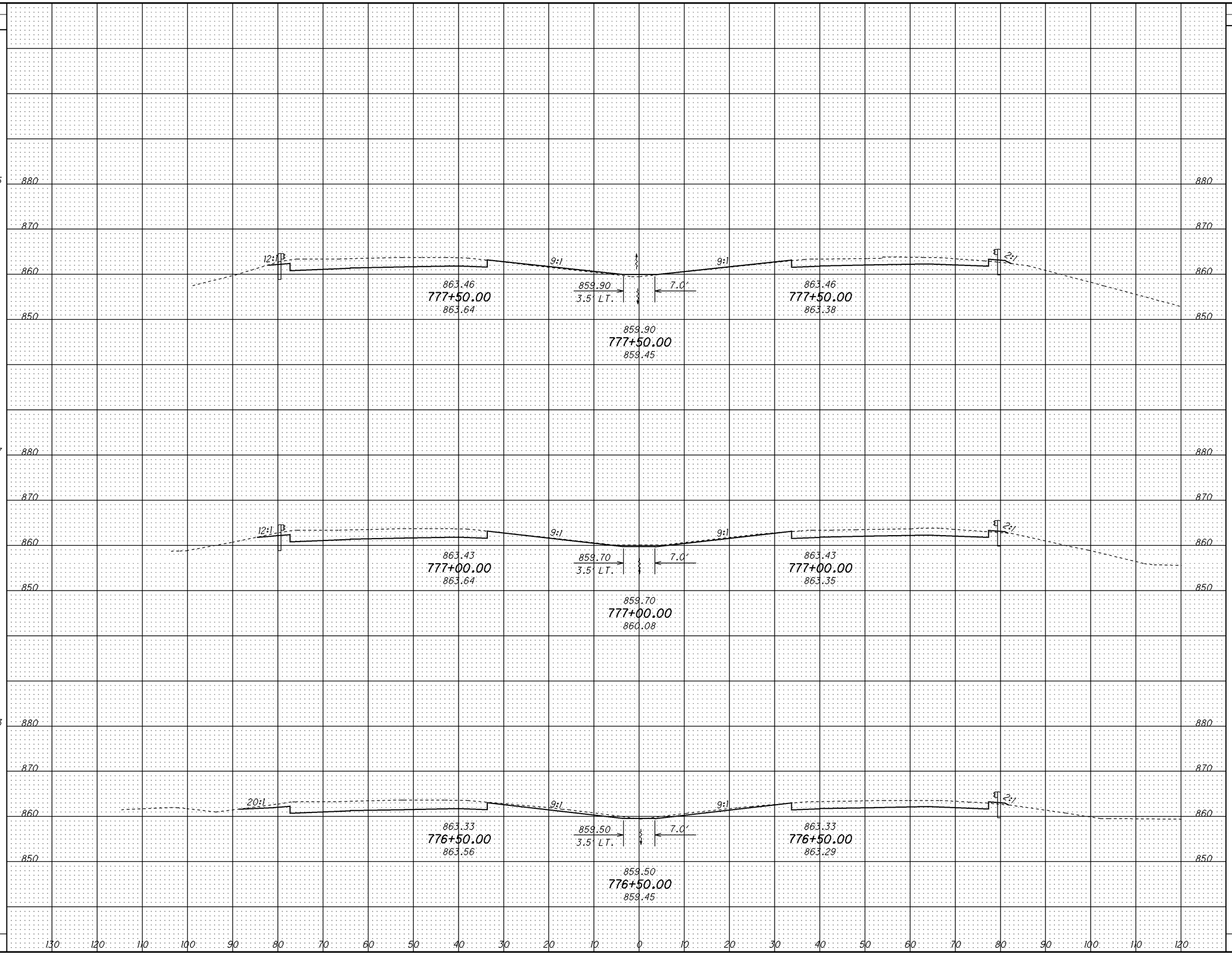
CHECKED

CROSS SECTIONS

STA. 775+00.00 TO STA. 776+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
103	575	156	14	300	14
105	577	169	1	324	3
109	593	181	1	345	2



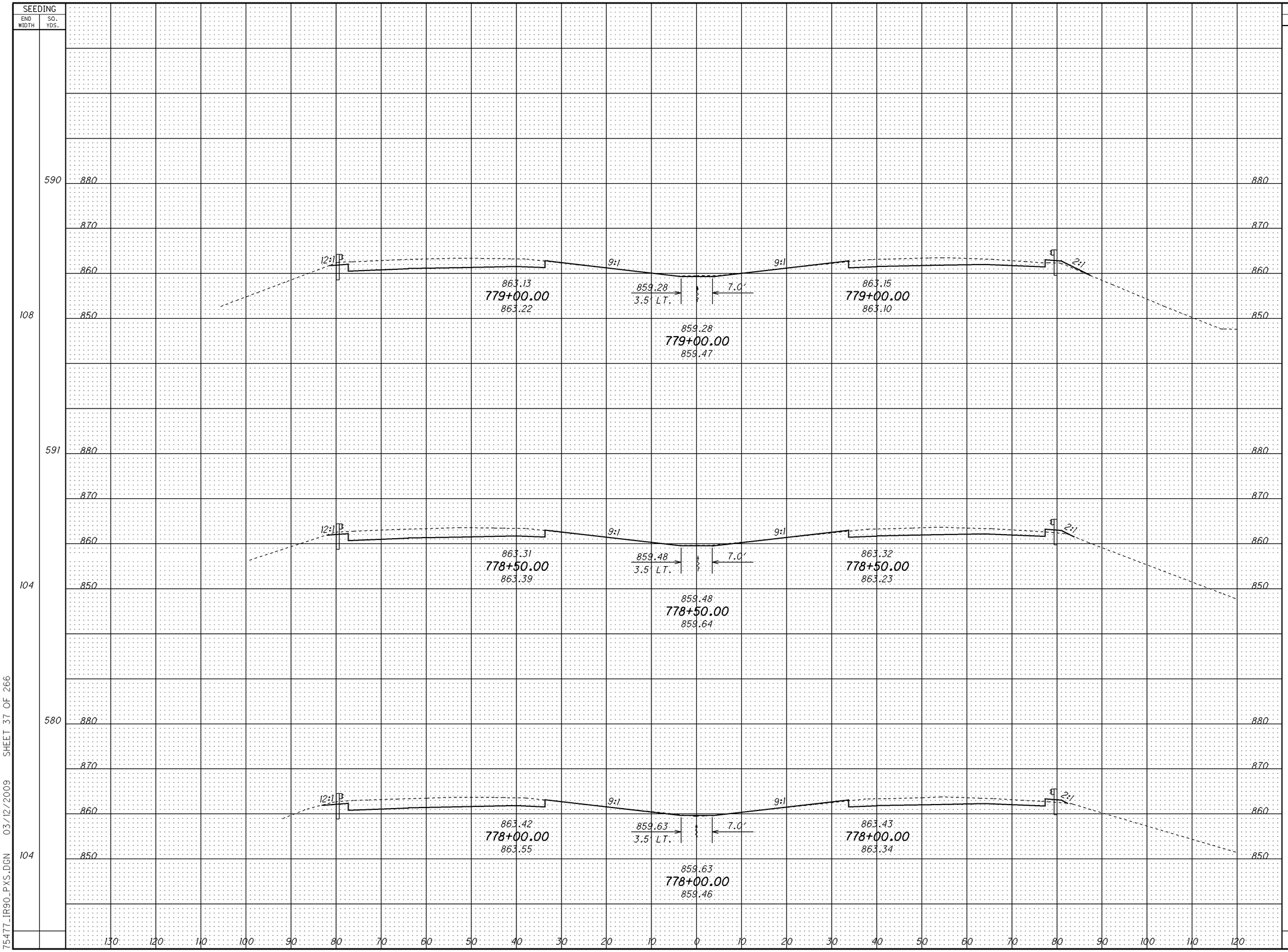
CALCULATED

CHECKED

CROSS SECTIONS

STA. 776+50.00 TO STA. 777+50.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
150	7	277	13
149	7	278	12
151	7	284	19

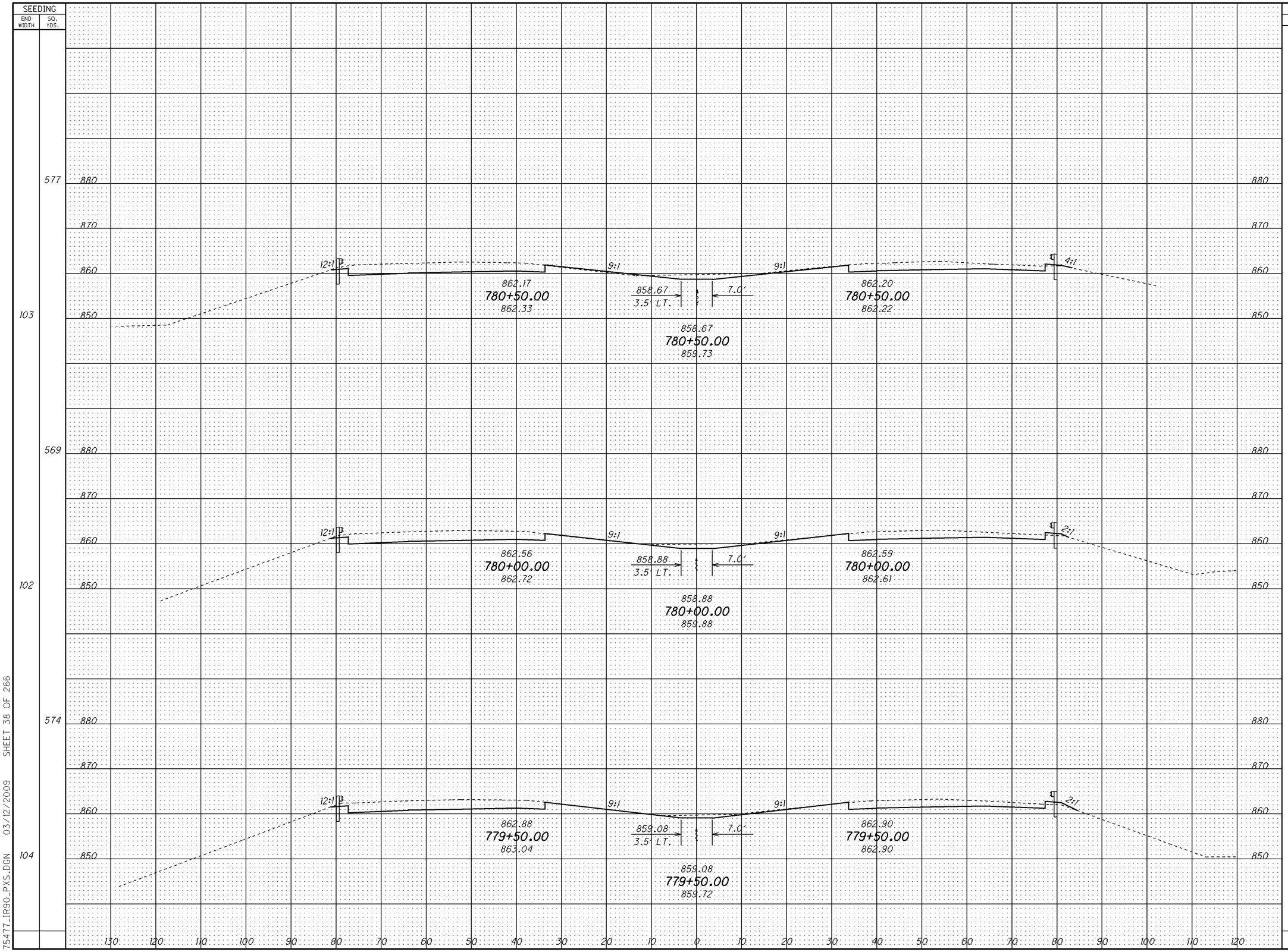
CALCULATED

CHECKED

CROSS SECTIONS

STA. 778+00.00 TO STA. 779+00.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
175	5	319	8
170	4	305	7
160	3	287	10

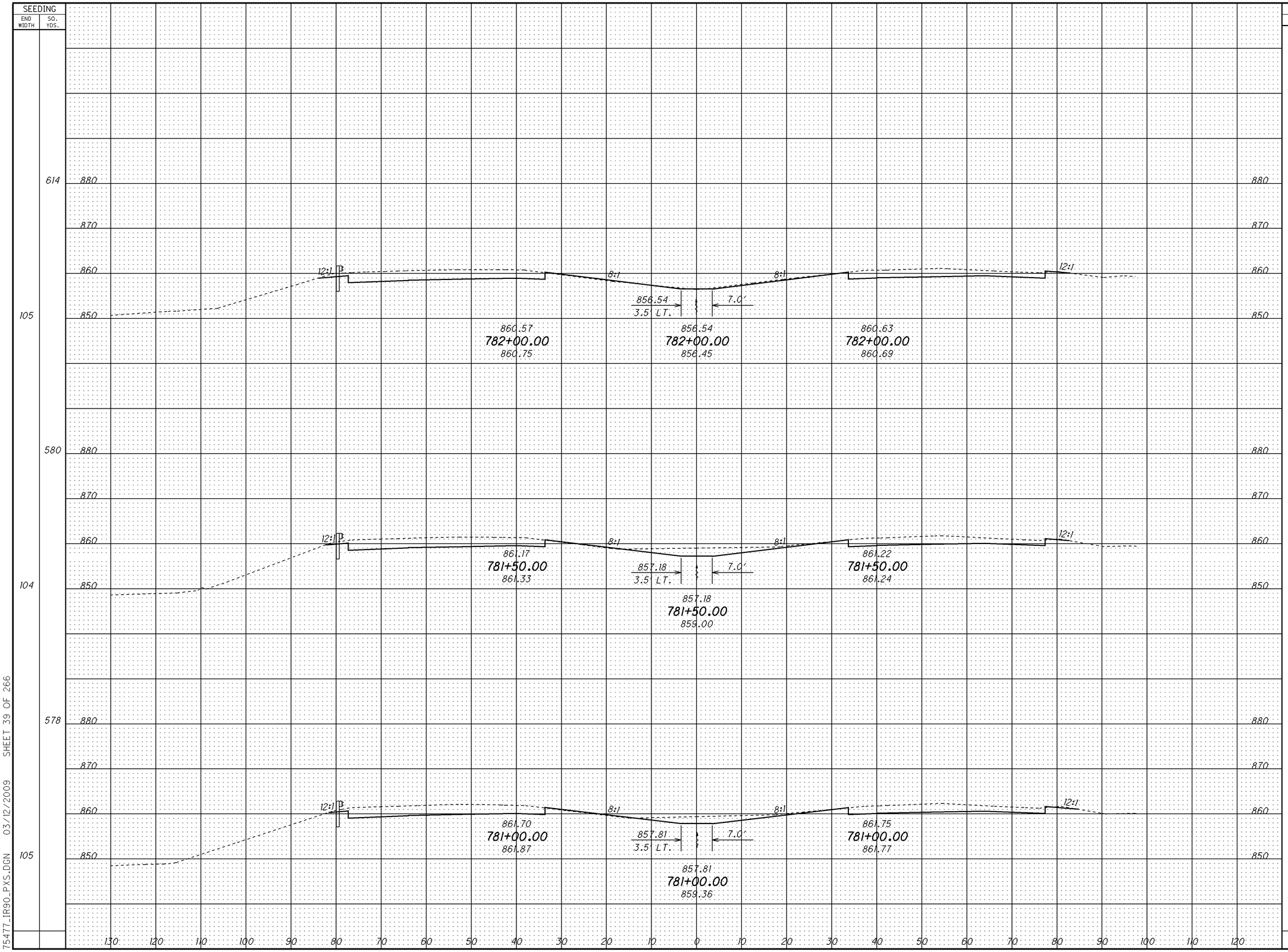
CALCULATED

CHECKED

CROSS SECTIONS

STA. 779+50.00 TO STA. 780+50.00

LAK-90-21.40
ATB-90-0.00



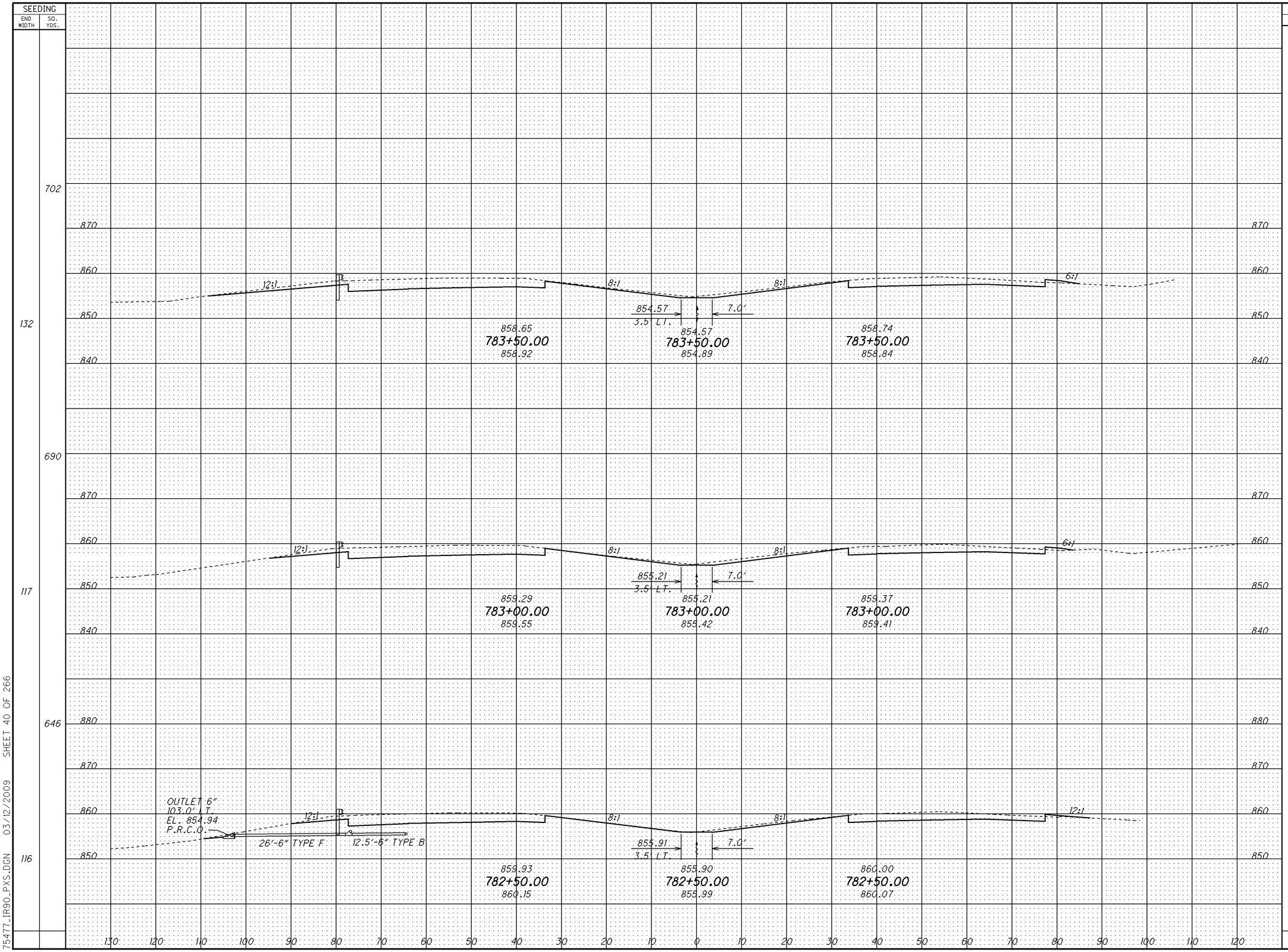
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
162	4		
		334	6
198	3		
		362	5
192	3		
		340	7

CALCULATED

CHECKED

CROSS SECTIONS
STA. 781+00.00 TO STA. 782+00.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
192	3		
183	3		
		347	5
175	2		
		331	5
		312	6

CALCULATED

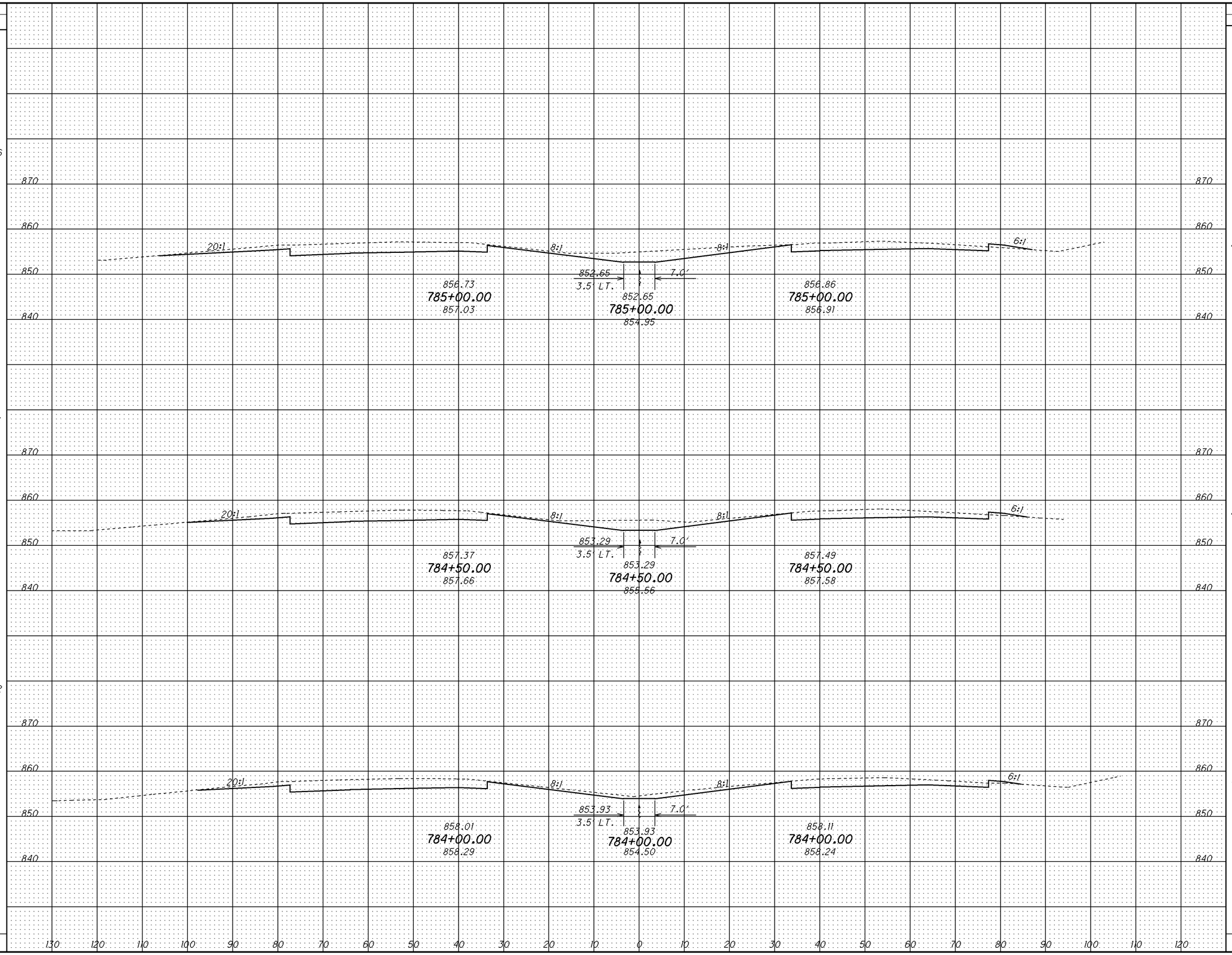
CHECKED

CROSS SECTIONS

STA. 782+50.00 TO STA. 783+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
132	706	249	4	443	7
124	713	229	3	398	5
121	682	201	2	364	5



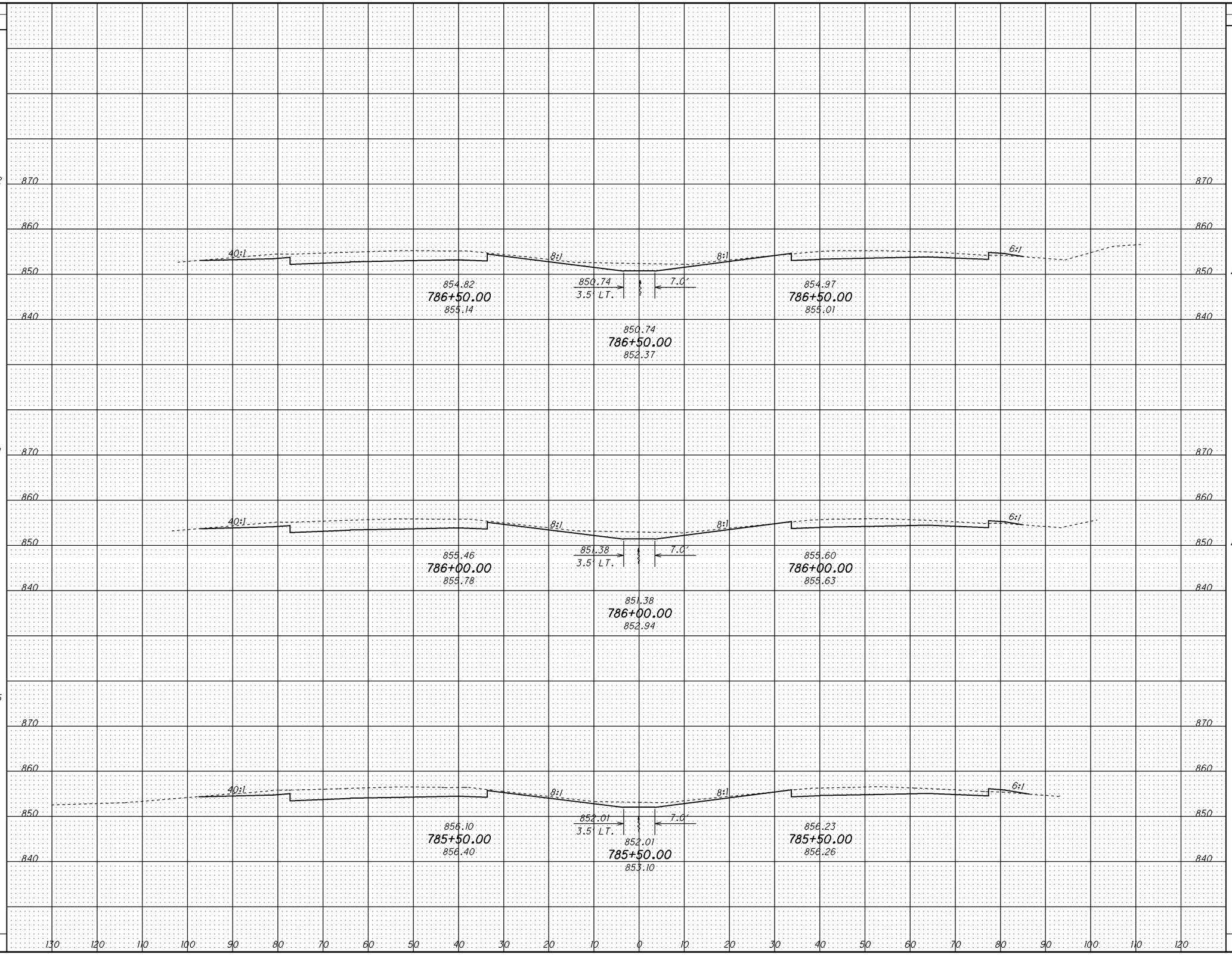
CALCULATED

CHECKED

CROSS SECTIONS
STA. 784+00.00 TO STA. 785+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
120	672	207	3	382	5
121	671	206	3	371	6
123	675	195	4	412	7



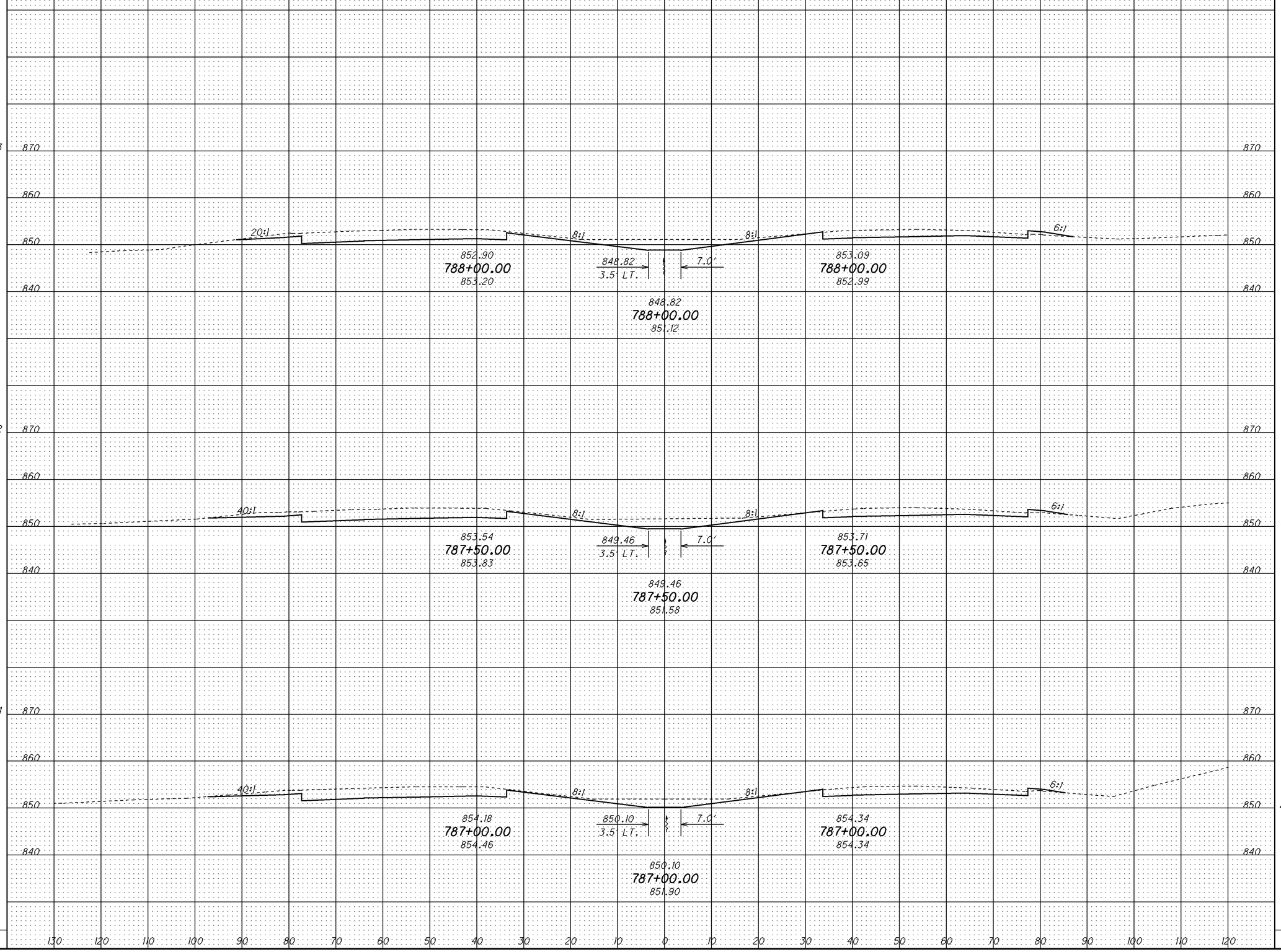
CALCULATED

CHECKED

CROSS SECTIONS
STA. 785+50.00 TO STA. 786+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
116	633	219	5	406	8
121	662	219	4	394	6
121	674	206	3	382	6



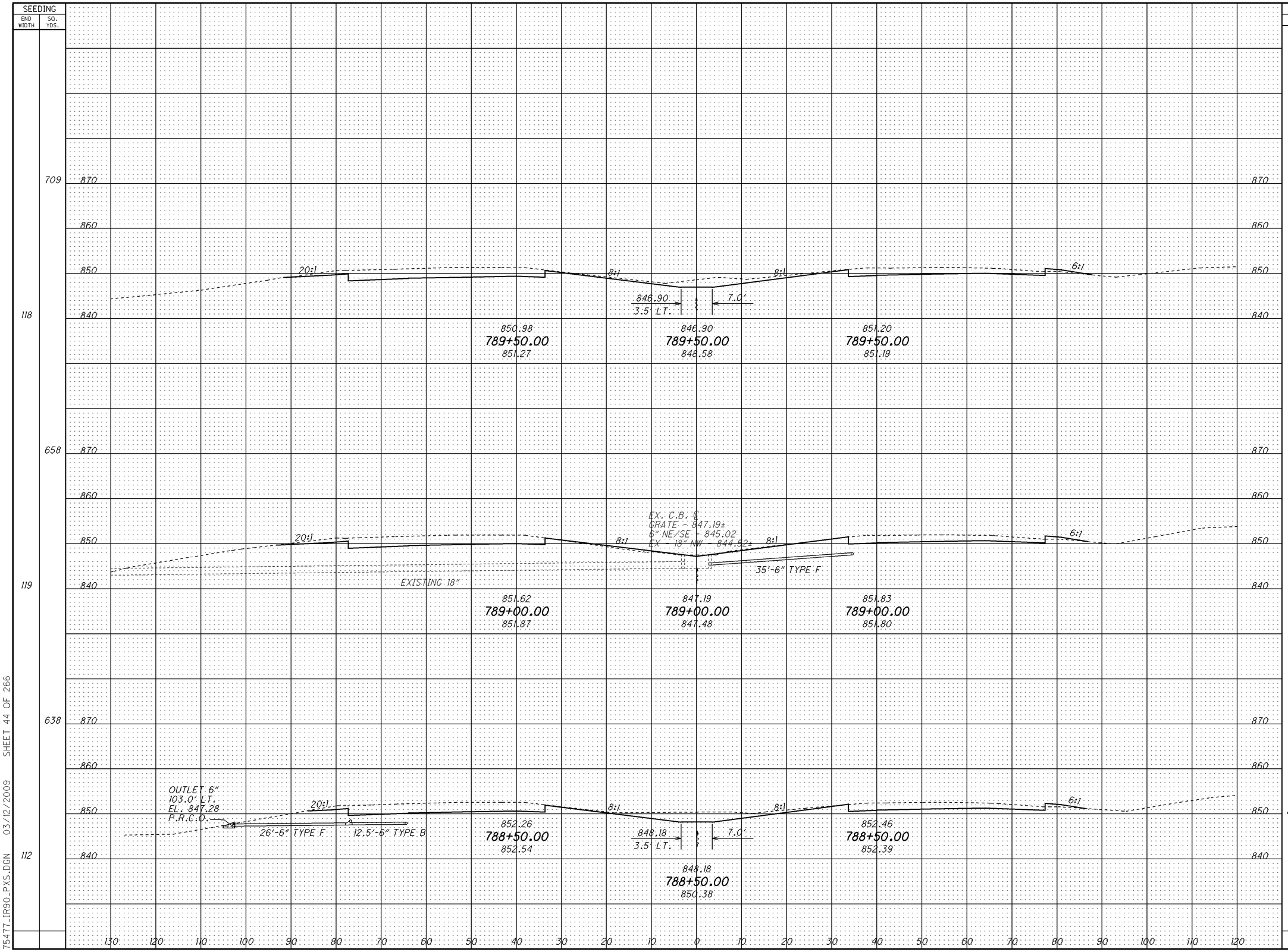
CALCULATED

CHECKED

CROSS SECTIONS

STA. 787+00.00 TO STA. 788+00.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
198	3	329	15
158	13	337	15
206	4	394	8

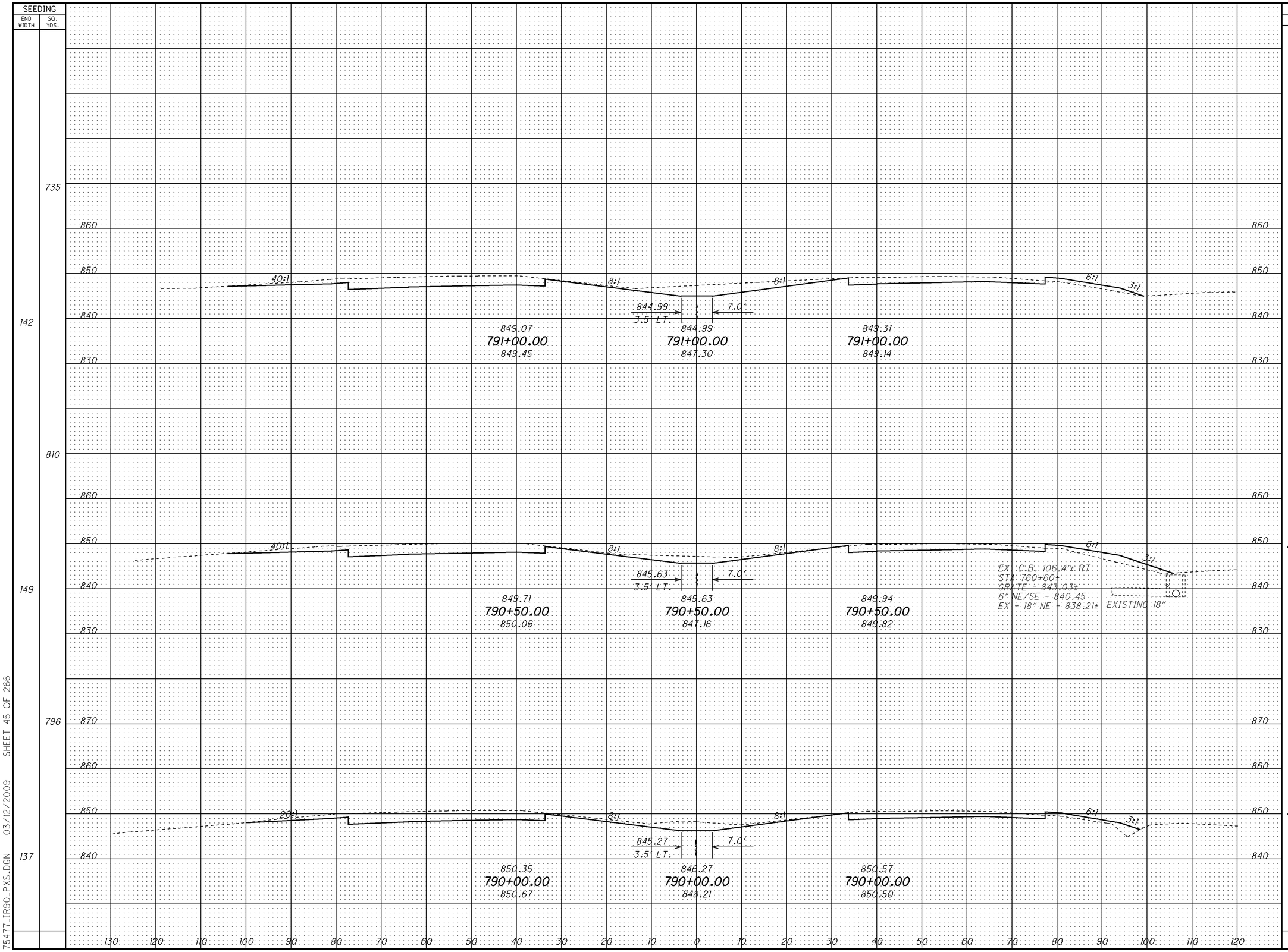
CALCULATED

CHECKED

CROSS SECTIONS

STA. 788+50.00 TO STA. 789+50.00

LAK-90-21.40
ATB-90-0.00

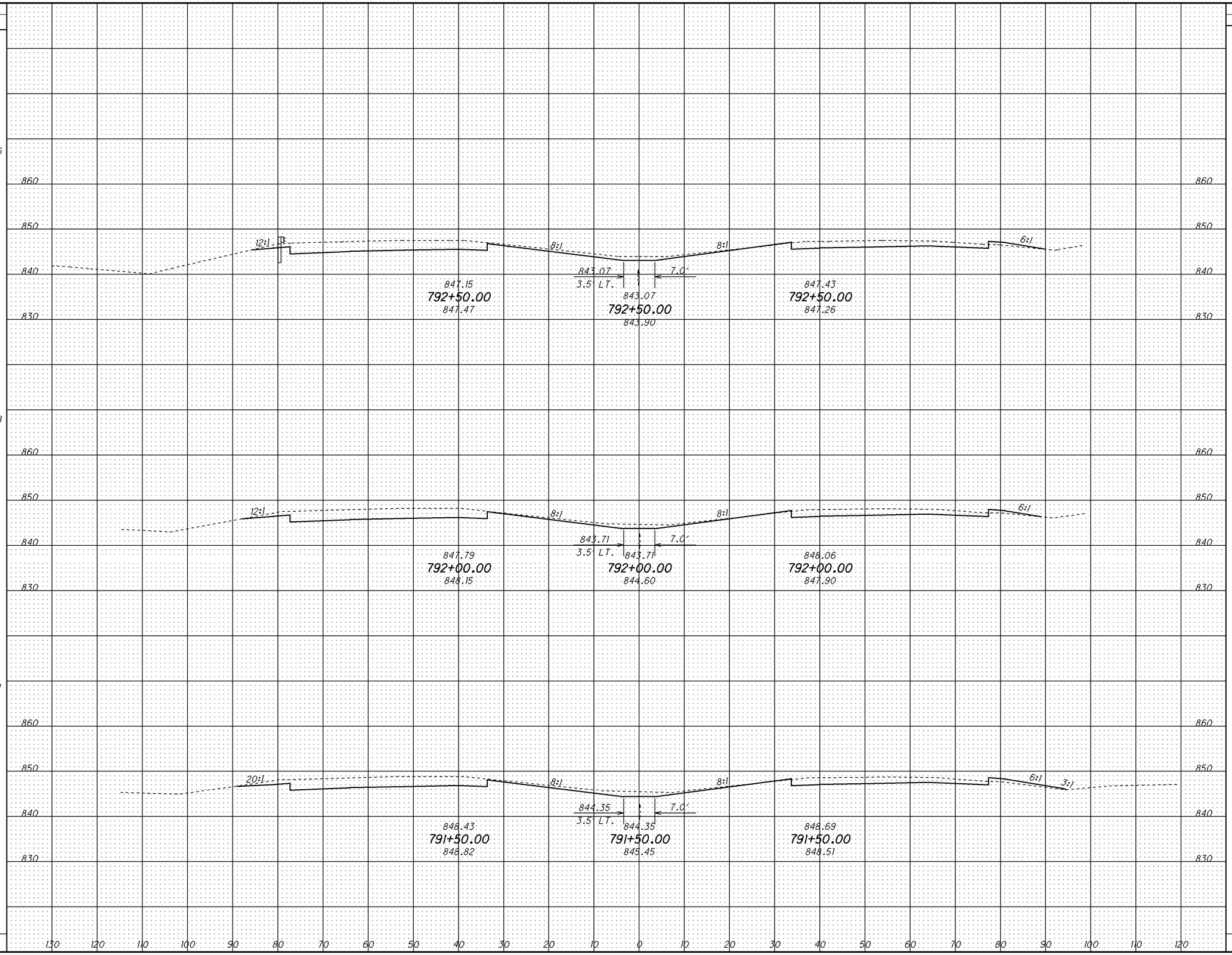


CROSS SECTIONS

STA. 790+00.00 TO STA. 791+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
114	636	178	6	326	12
115	638	175	6	332	15
122	661	183	10	383	24



CALCULATED

CHECKED

CROSS SECTIONS
STA. 791+50.00 TO STA. 792+50.00

LAK-90-21.40
ATB-90-0.00

200
498

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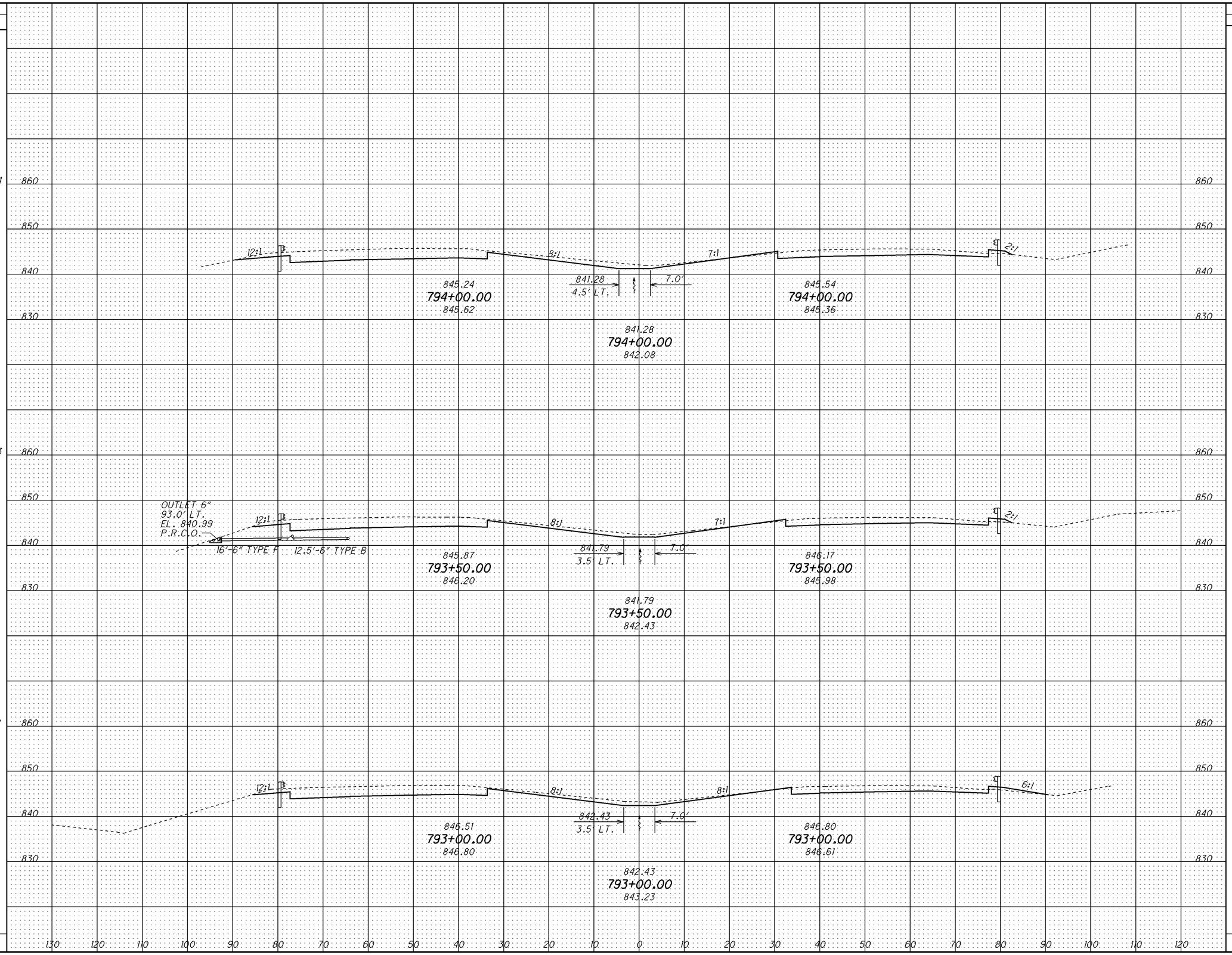
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
108	584	195	6	349	10
106	593	183	5	335	11
115	612	179	6	331	12



CALCULATED

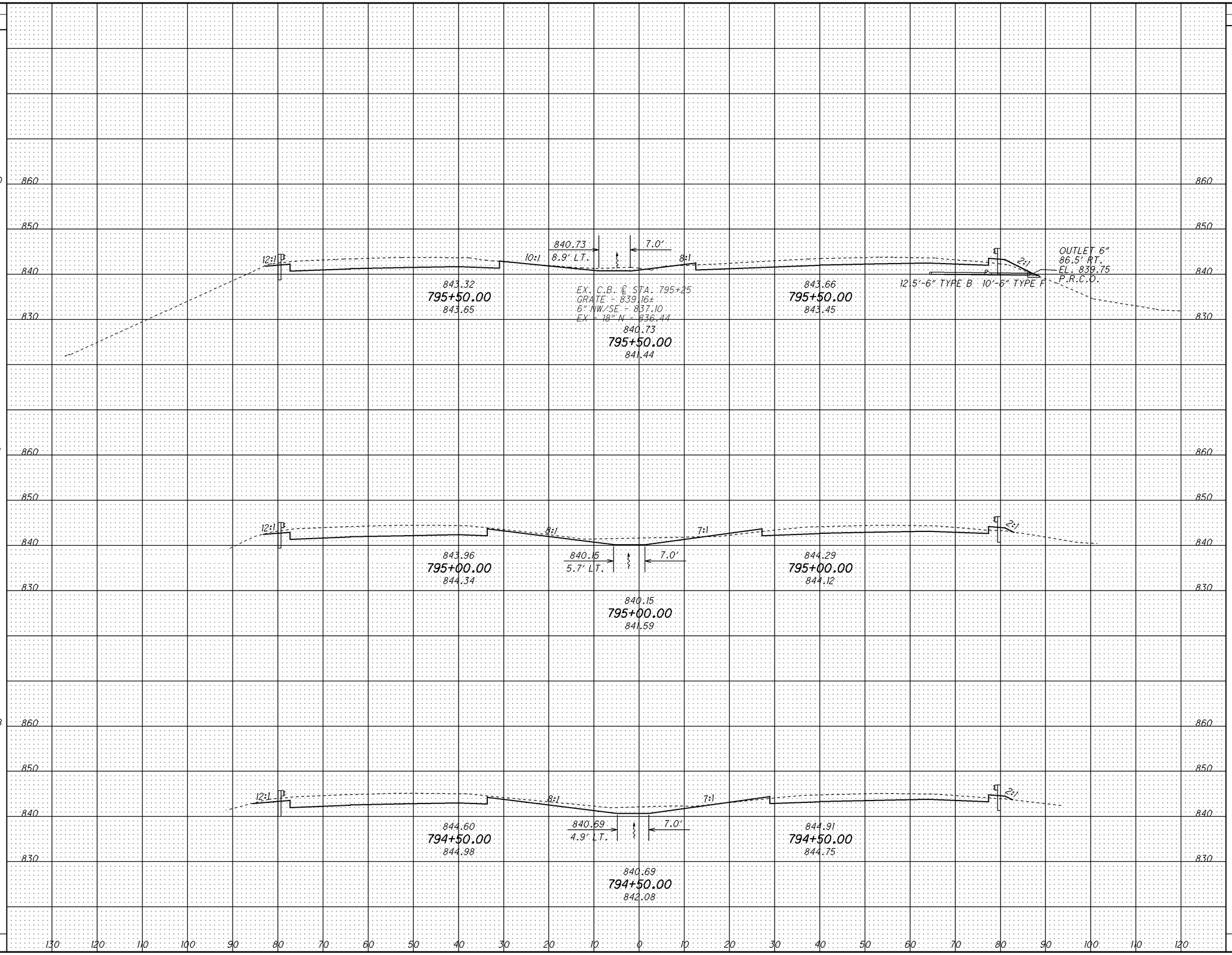
CHECKED

CROSS SECTIONS

STA. 793+00.00 TO STA. 794+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
86	570	189	9	355	17
98	514	194	10	366	14
102	558	201	6	367	11



CALCULATED

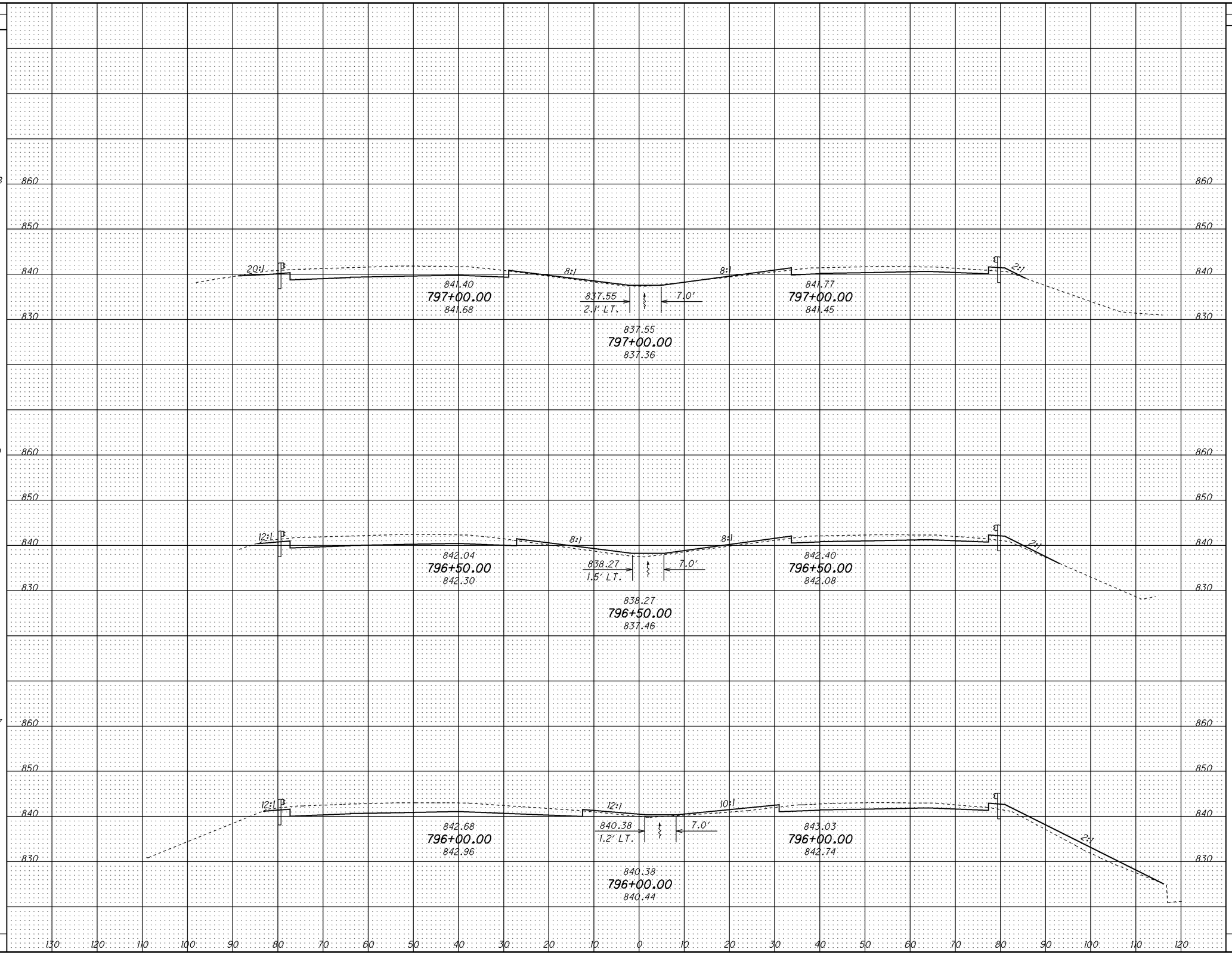
CHECKED

CROSS SECTIONS

STA. 794+50.00 TO STA. 795+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
108	608	155	18	286	54
111	637	154	40	310	90
119	610	181	57	342	61



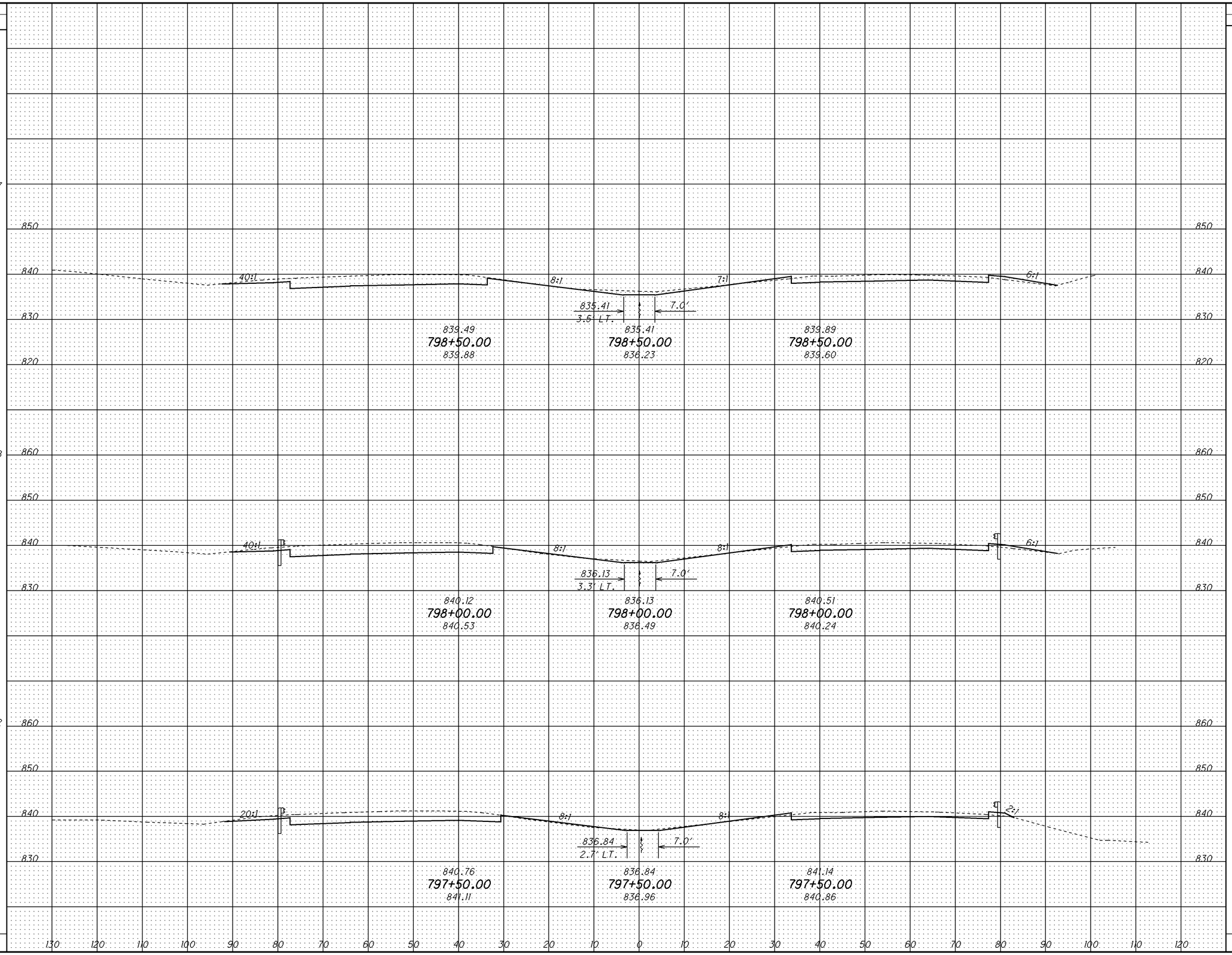
CALCULATED

CHECKED

CROSS SECTIONS

STA. 796+00.00 TO STA. 797+00.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
171	11	311	22
164	13	302	24
162	13	293	29

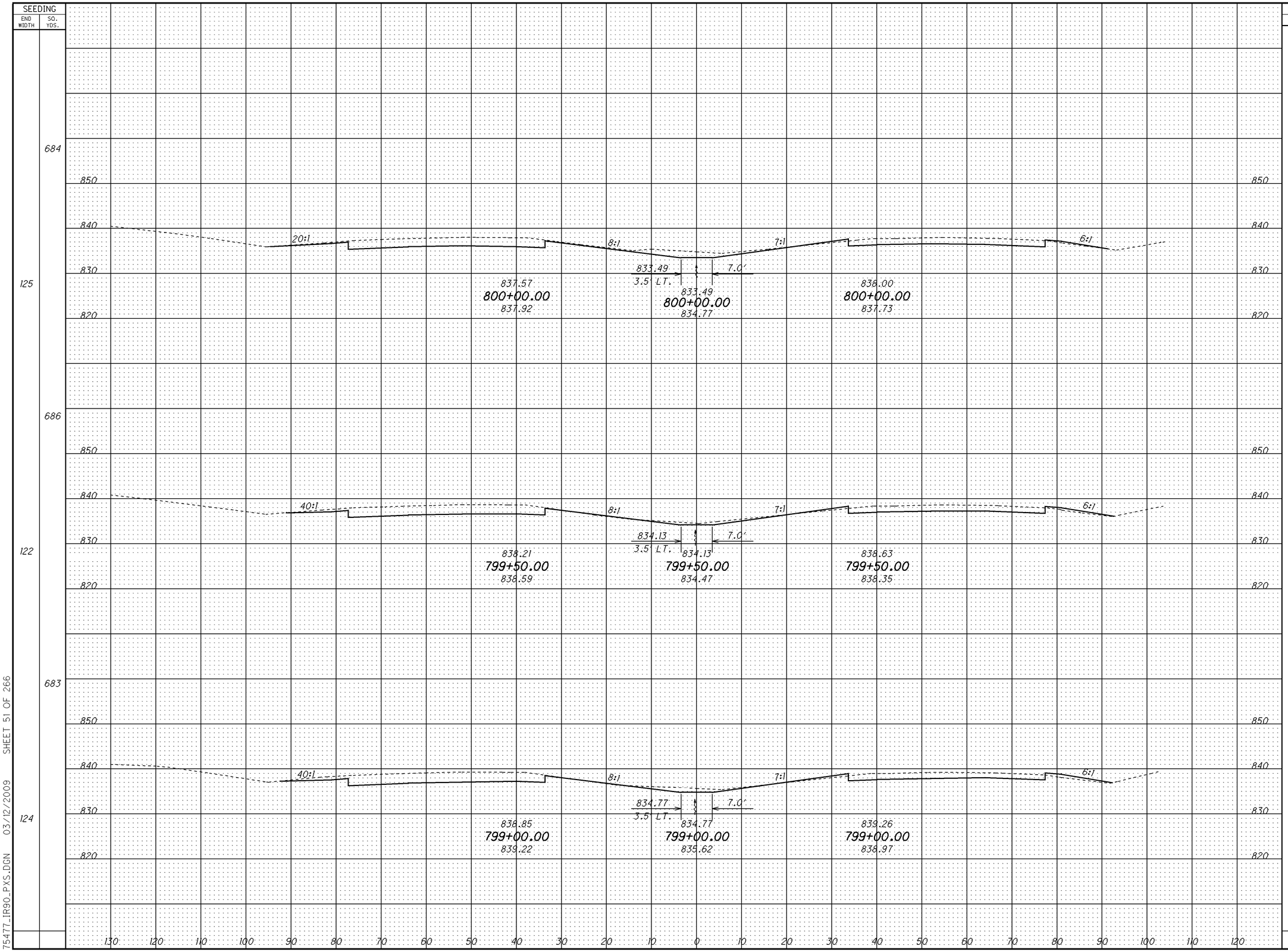
CALCULATED

CHECKED

CROSS SECTIONS

STA. 797+50.00 TO STA. 798+50.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
172	7	307	16
159	11	303	22
168	13	314	22

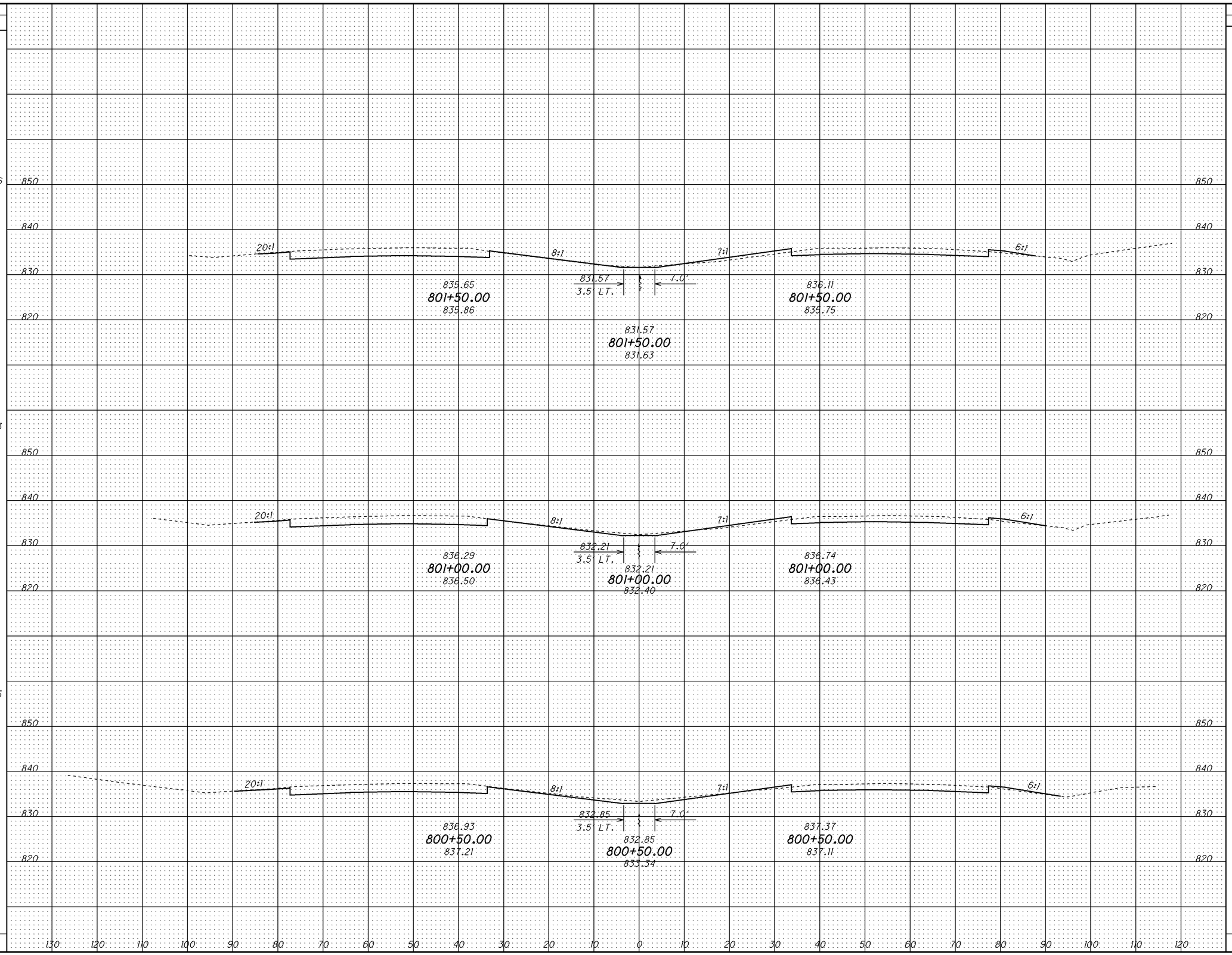
CALCULATED

CHECKED

CROSS SECTIONS
STA. 799+00.00 TO STA. 800+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME		
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	
110	606	133	20	254	33	801+50.00
114	623	141	15	276	21	801+00.00
122	655	156	7	304	13	800+50.00



CALCULATED

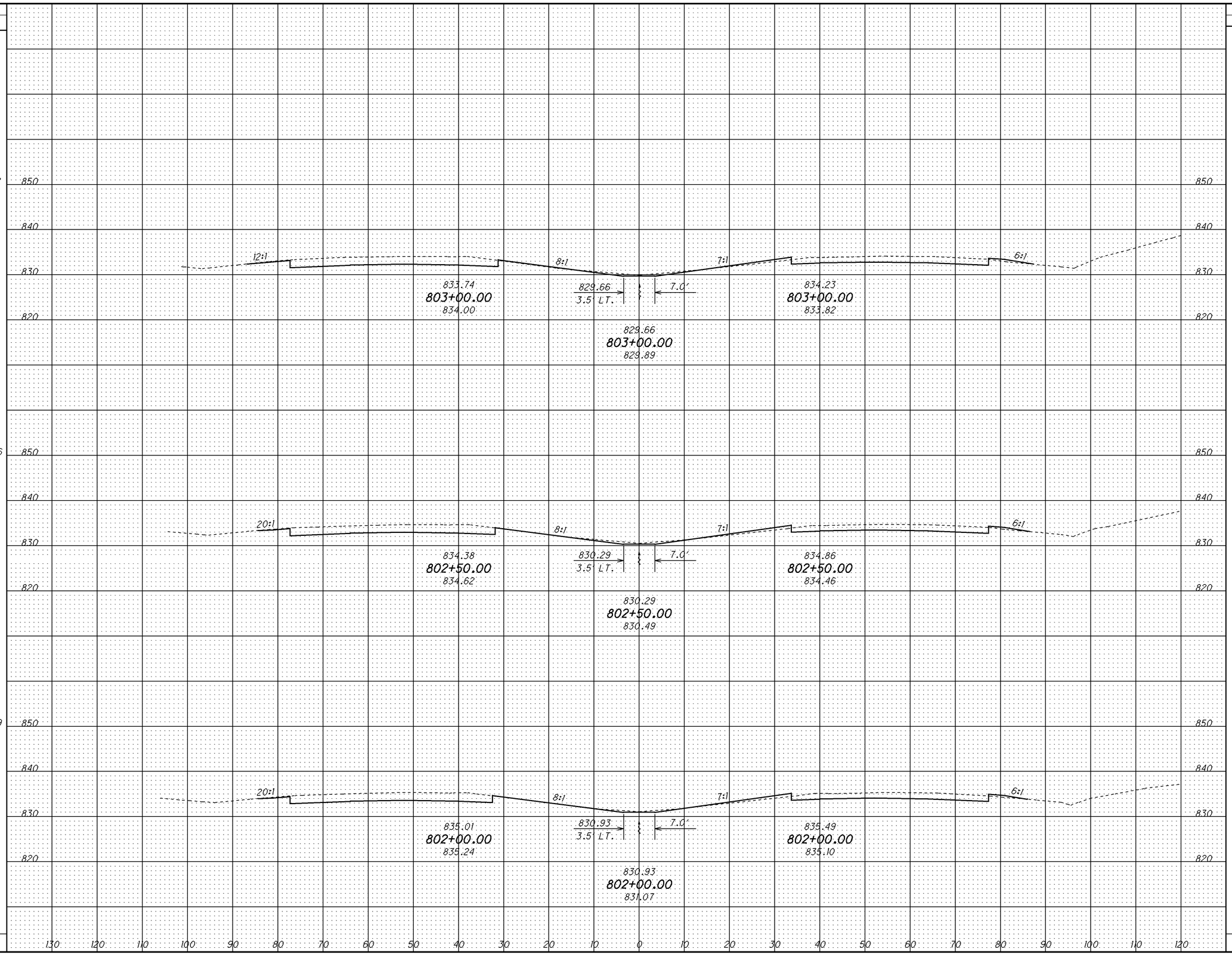
CHECKED

CROSS SECTIONS

STA. 800+50.00 TO STA. 801+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
111	612	146	12	265	23
108	606	140	13	255	23
107	599	135	12	249	31



CALCULATED

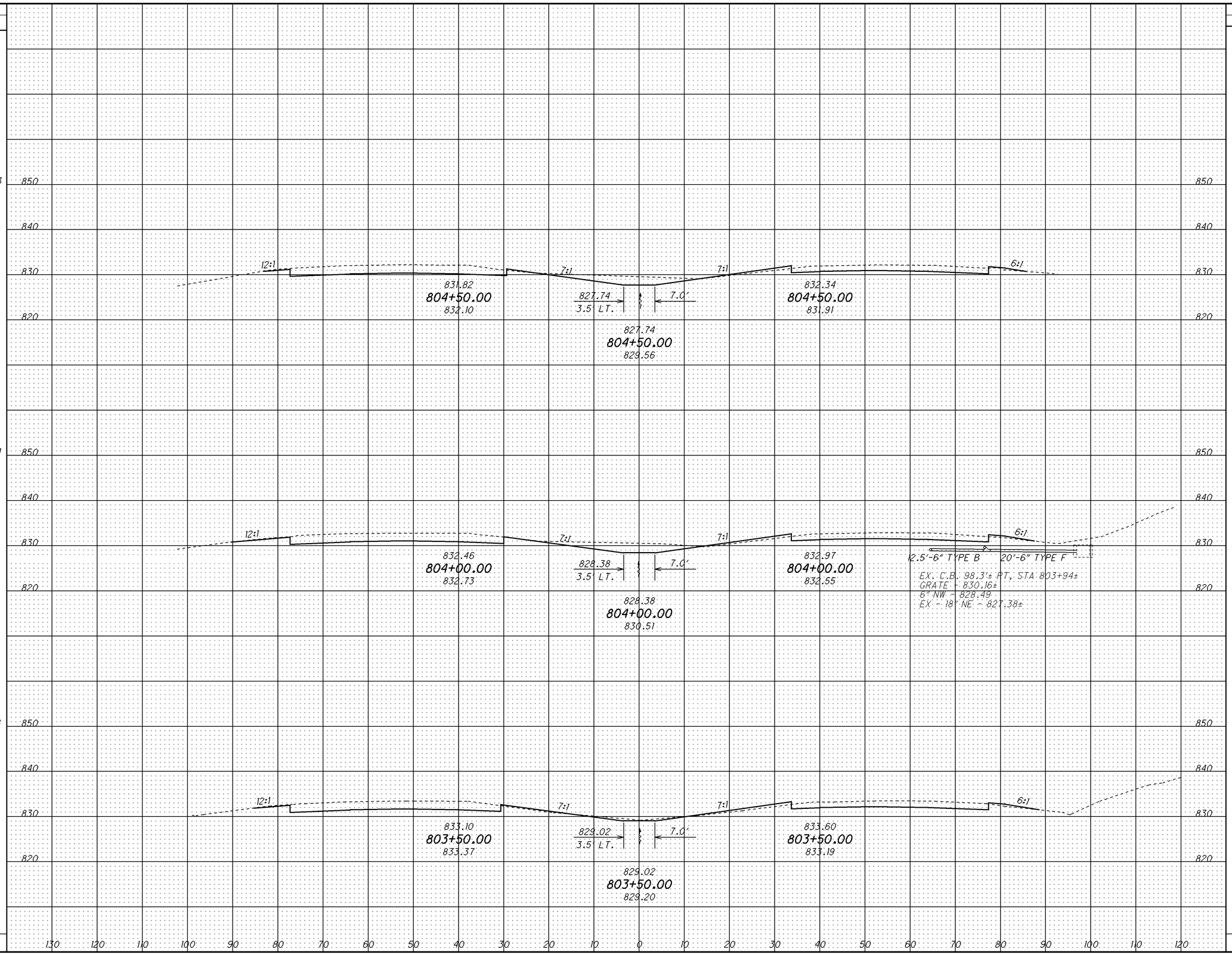
CHECKED

CROSS SECTIONS

STA. 802+00.00 TO STA. 803+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
103	573	179	11	340	22
113	601	188	13	310	27
110	618	147	17	272	26



CALCULATED

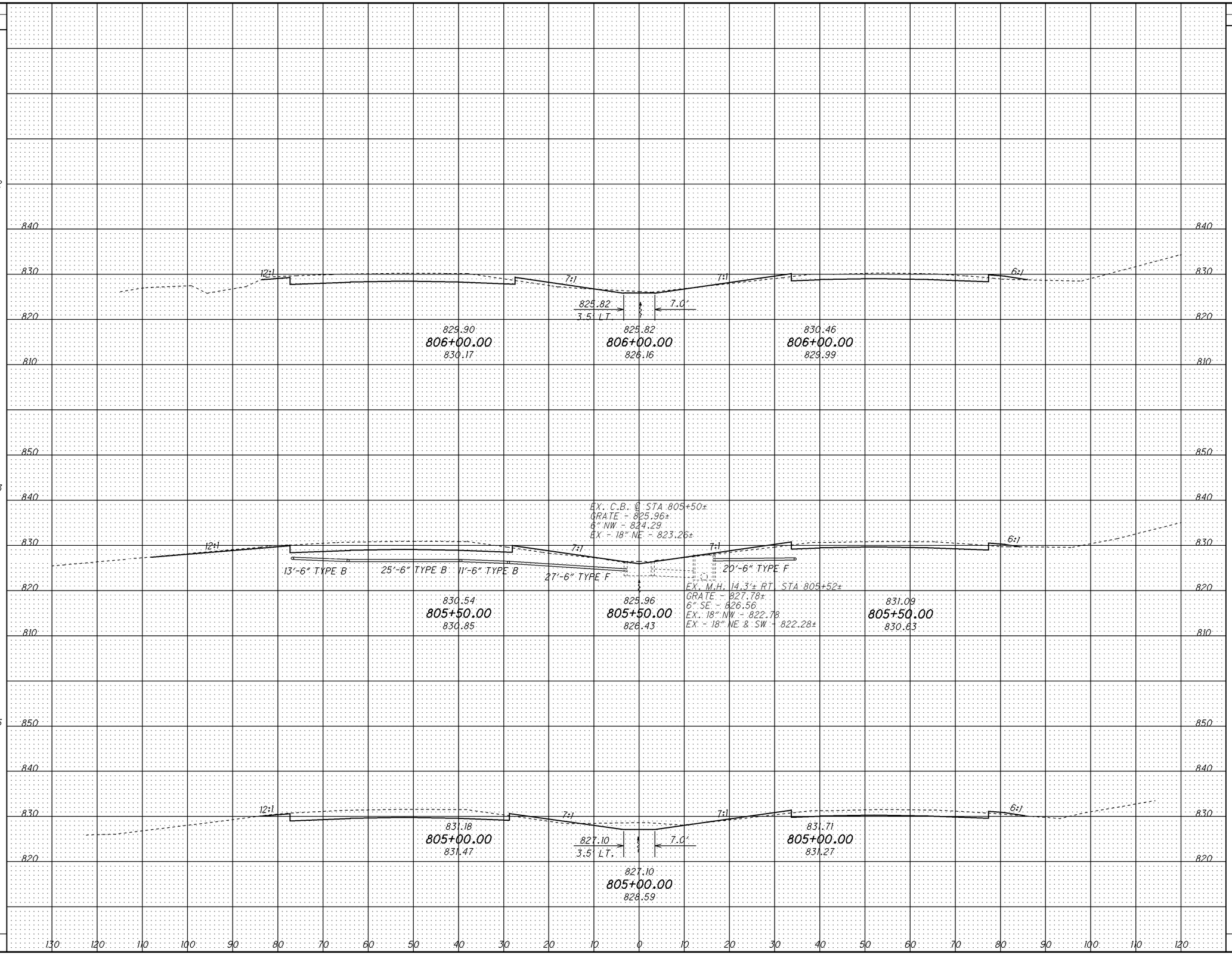
CHECKED

CROSS SECTIONS

STA. 803+50.00 TO STA. 804+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
102	582	144	23	265	43
126	633	142	24	281	39
103	635	161	18	315	27



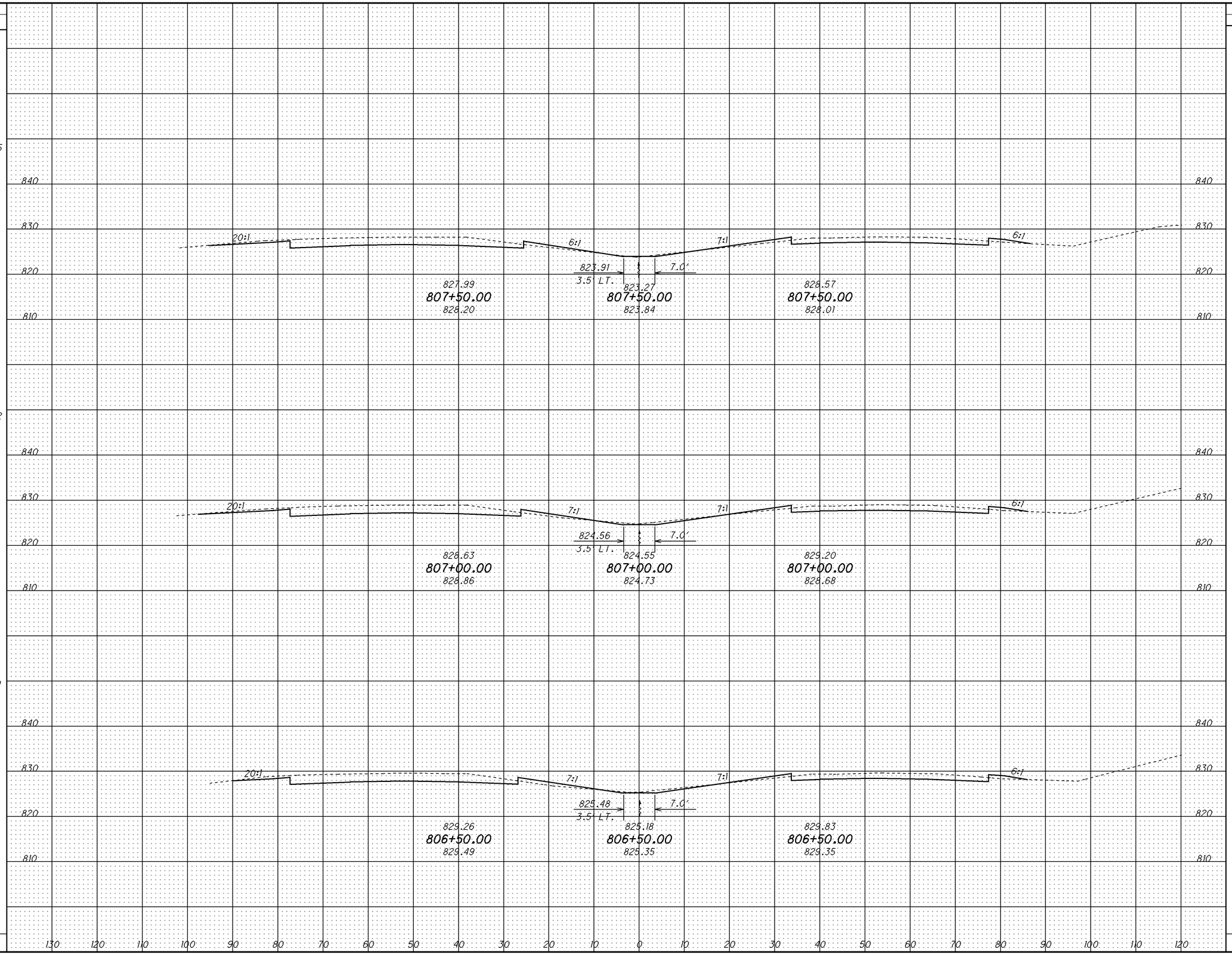
CALCULATED

CHECKED

CROSS SECTIONS
STA. 805+00.00 TO STA. 806+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
113	605	140	20	265	35
115	632	146	18	270	36
107	619	145	21	267	41



CALCULATED

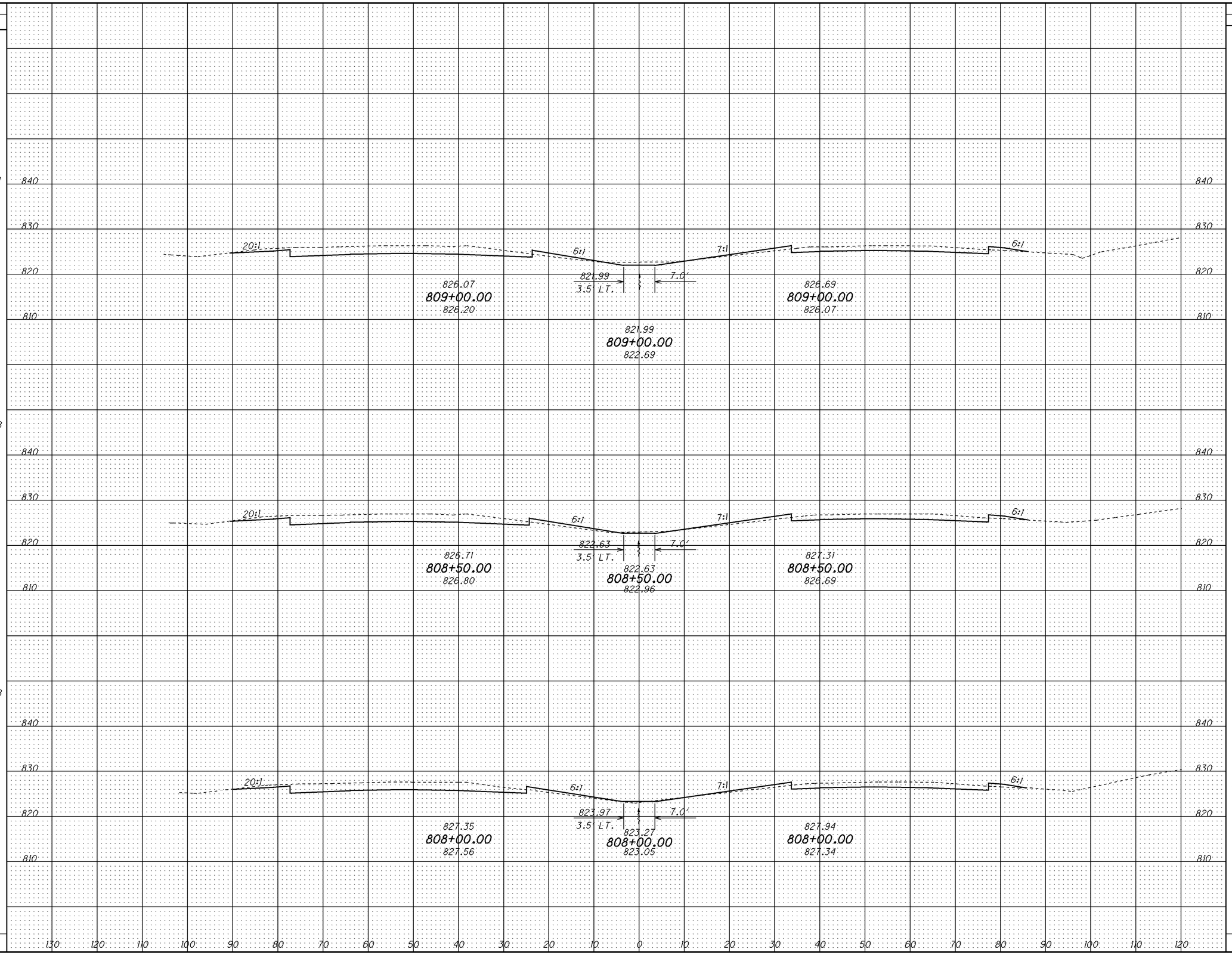
CHECKED

CROSS SECTIONS

STA. 806+50.00 TO STA. 807+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
106	571	146	22	267	44
106	588	142	26	258	46
105	588	137	24	257	40



CALCULATED

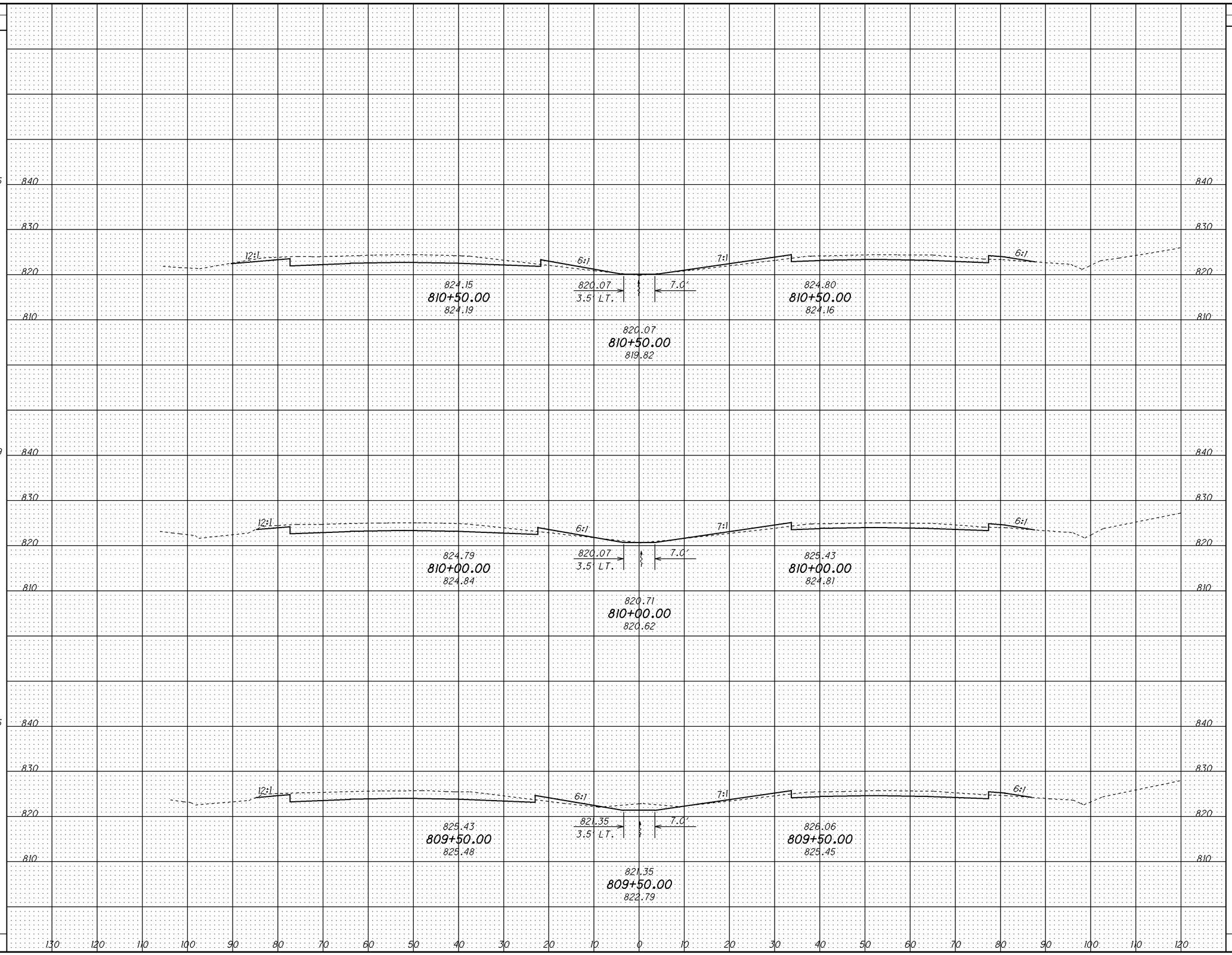
CHECKED

CROSS SECTIONS

STA. 808+00.00 TO STA. 809+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME		
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	
105	565	135	30	250	49	809+50.00 TO STA. 810+50.00
100	569	136	24	265	43	
99	555	150	23	274	42	



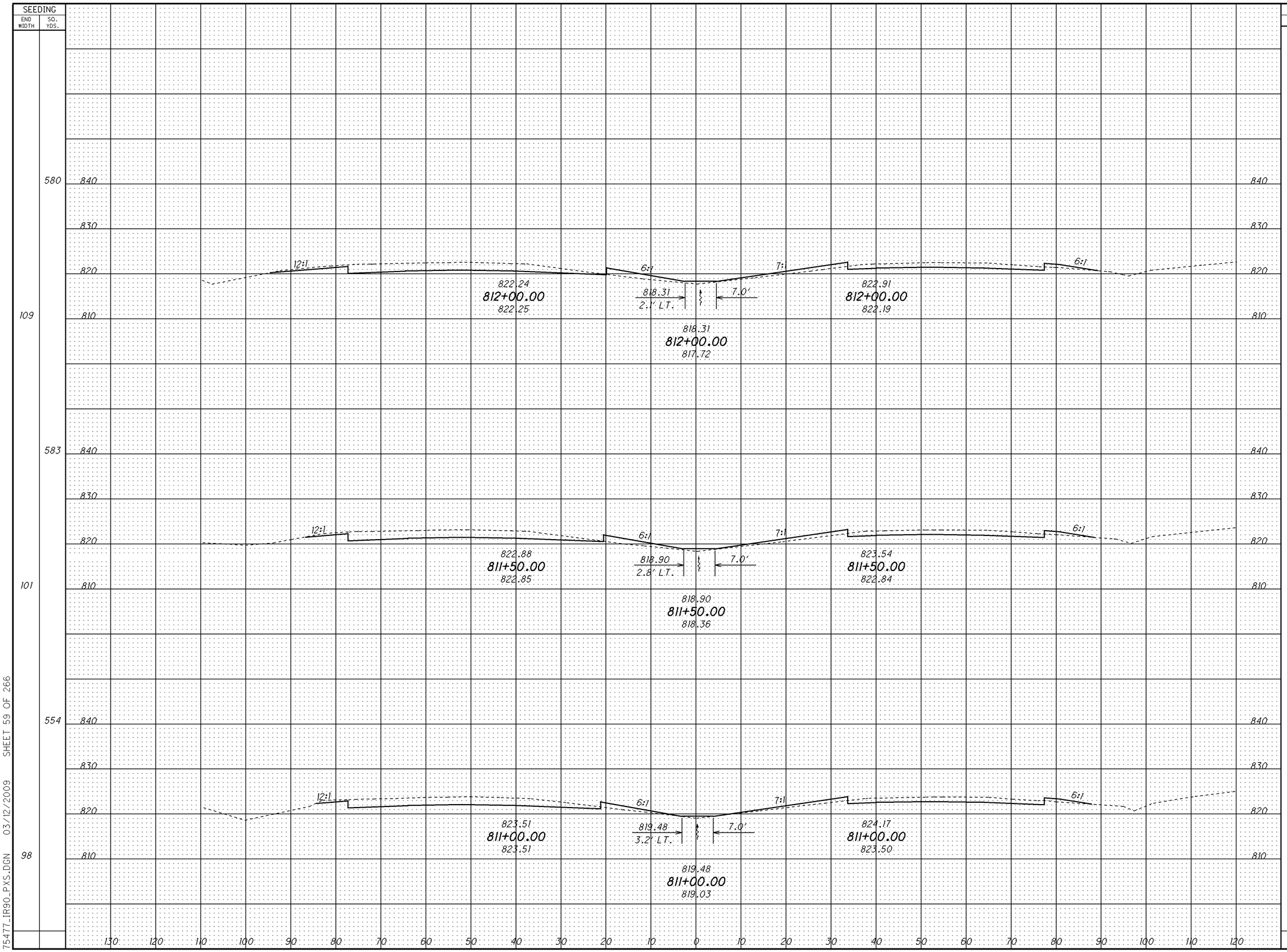
CALCULATED

CHECKED

CROSS SECTIONS

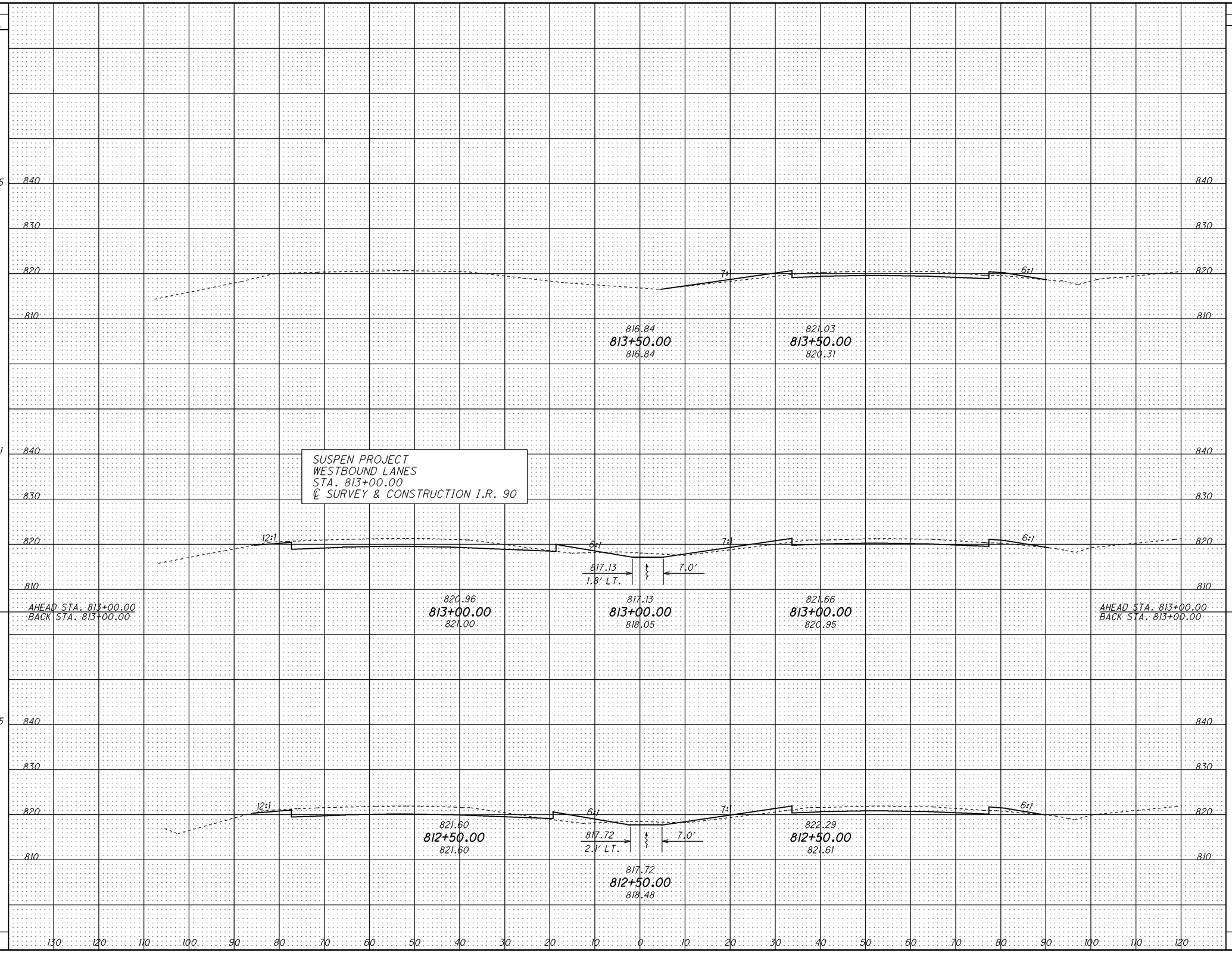
STA. 809+50.00 TO STA. 810+50.00

LAK-90-21.40
ATB-90-0.00



CROSS SECTIONS
STA. 811+00.00 TO STA. 812+00.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
65	365	41	19		
	361			77	37
65		42	21		
100	555	140	31	255	63
100		135	37	247	74

CALCULATED

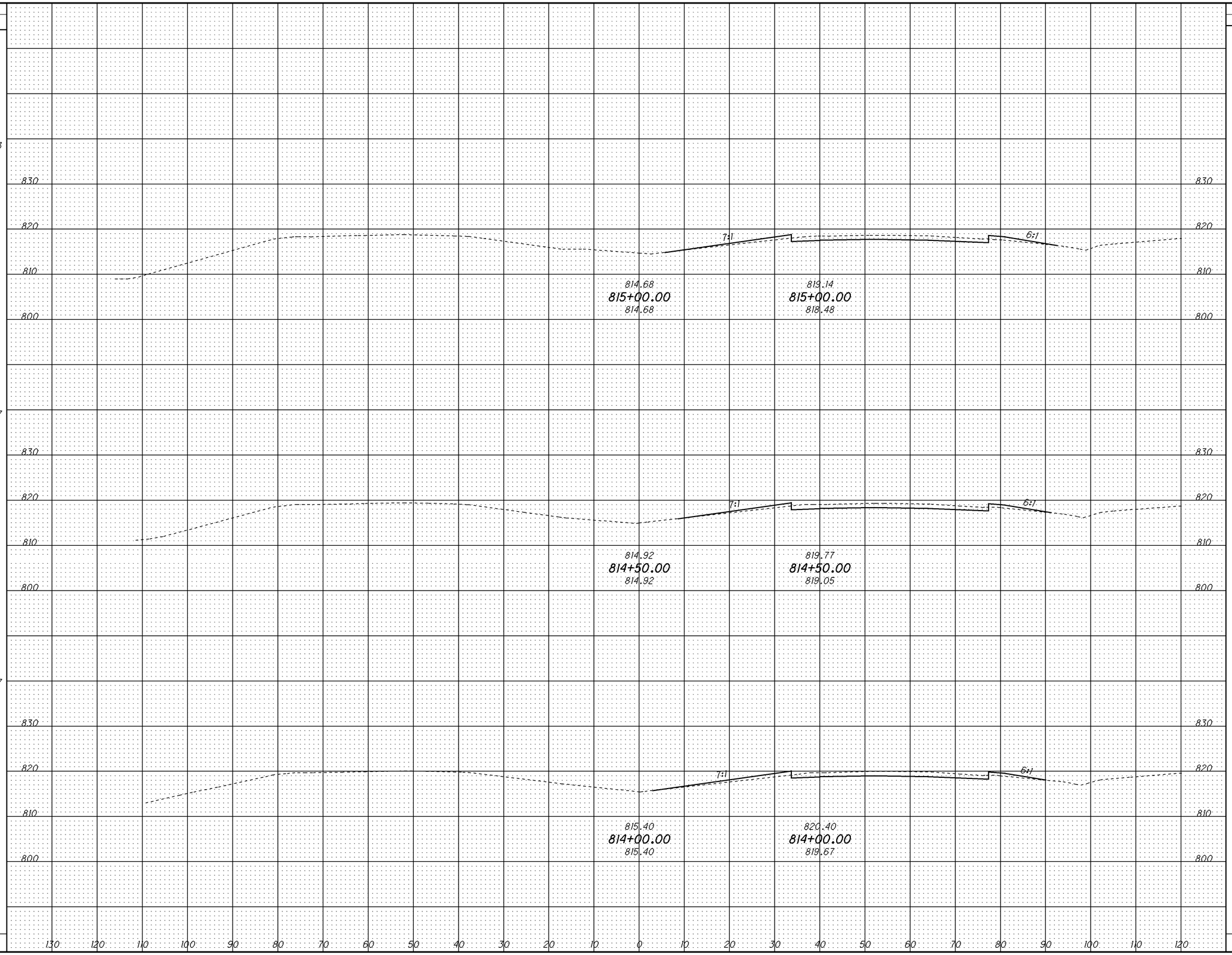
CHECKED

CROSS SECTIONS

STA. 812+50.00 TO STA. 813+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
66	373	39	18	73	32
62	357	40	16	74	33
67	357	41	20	76	35



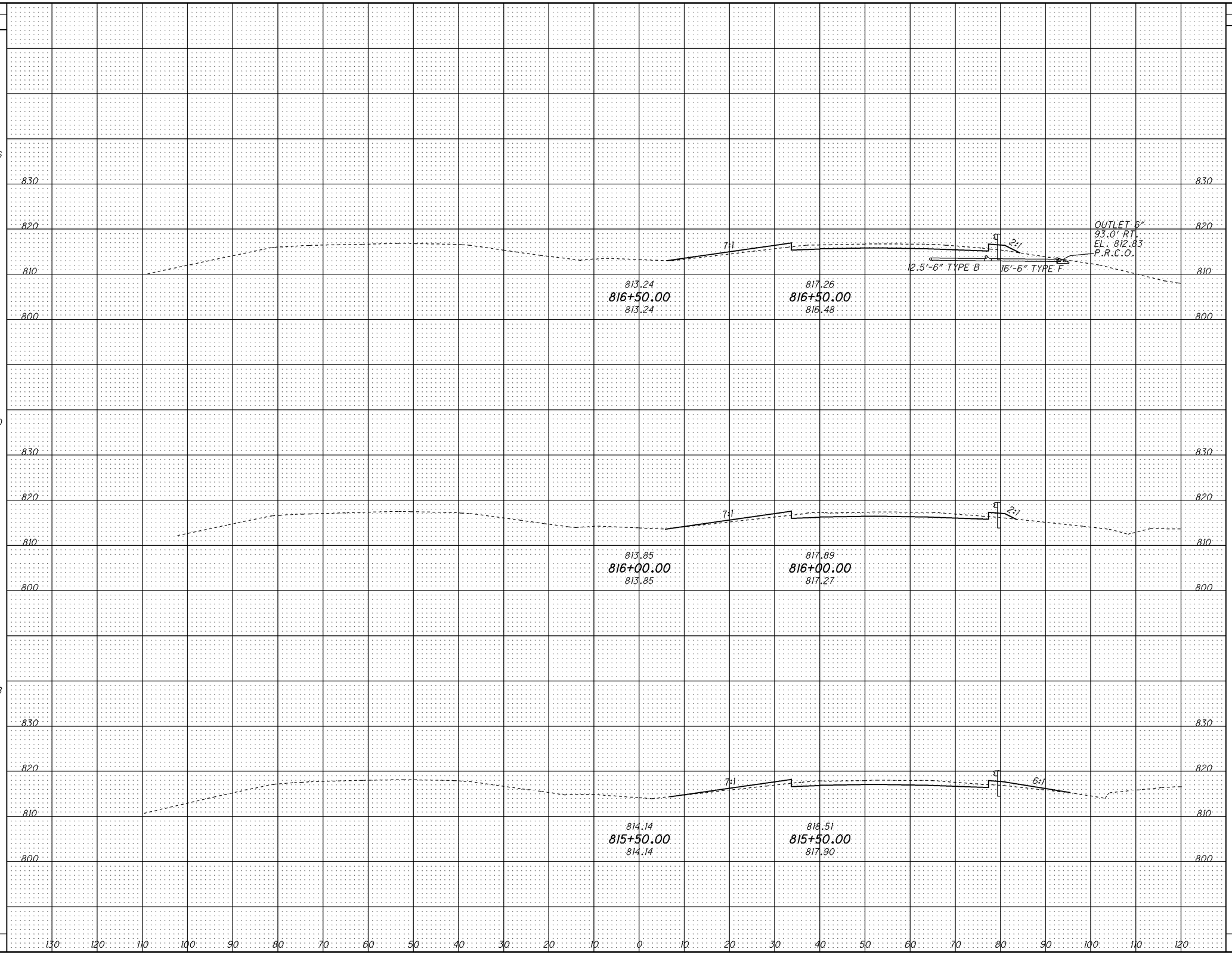
CALCULATED

CHECKED

CROSS SECTIONS
STA. 814+00.00 TO STA. 815+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
58	326	38	20	72	35
57	320	40	17	73	36
68	348	39	21	73	37



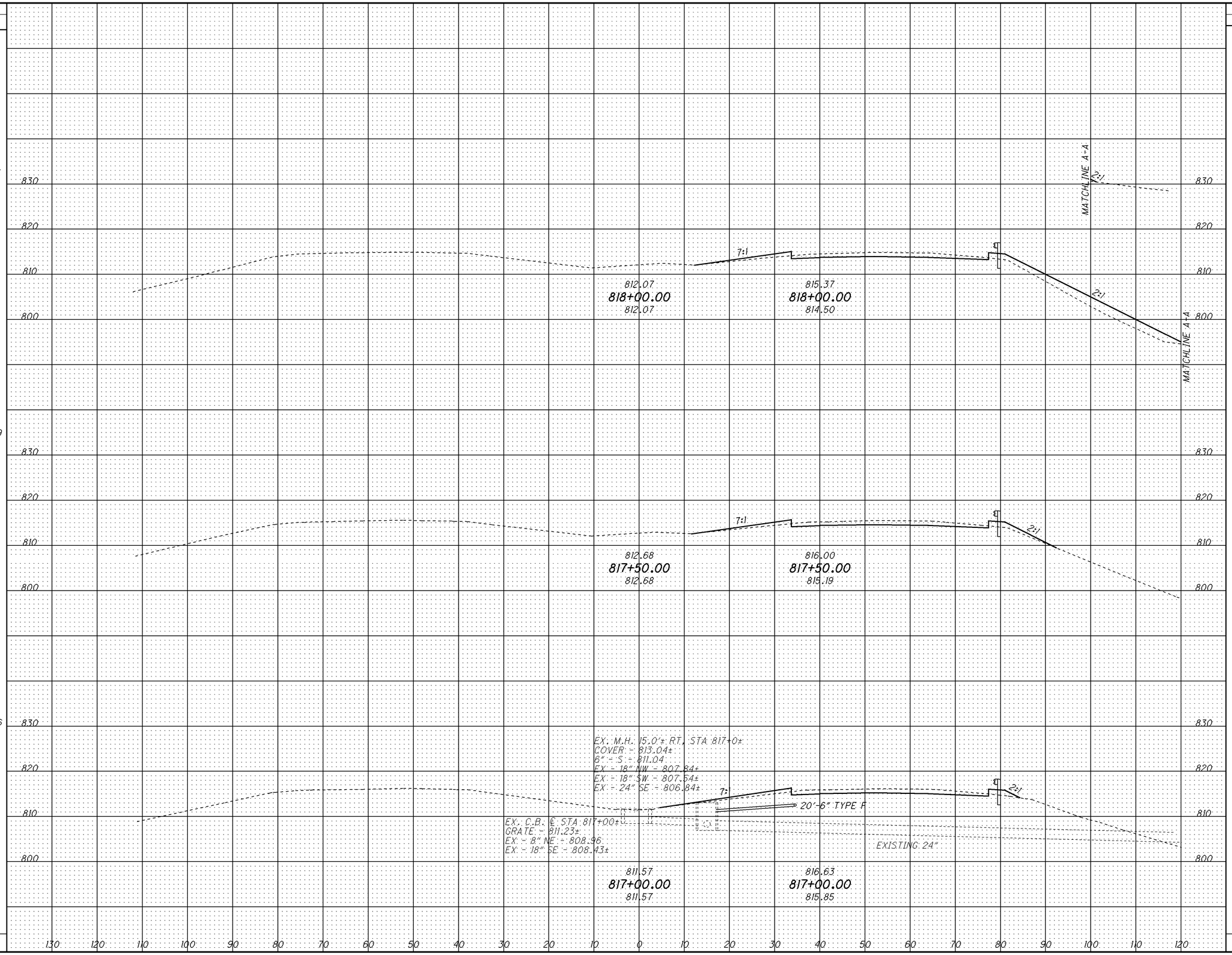
CALCULATED

CHECKED

CROSS SECTIONS
STA. 815+50.00 TO STA. 816+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
93	515	34	83	65	96
61	429	37	20	69	36
59	336	38	19	70	36



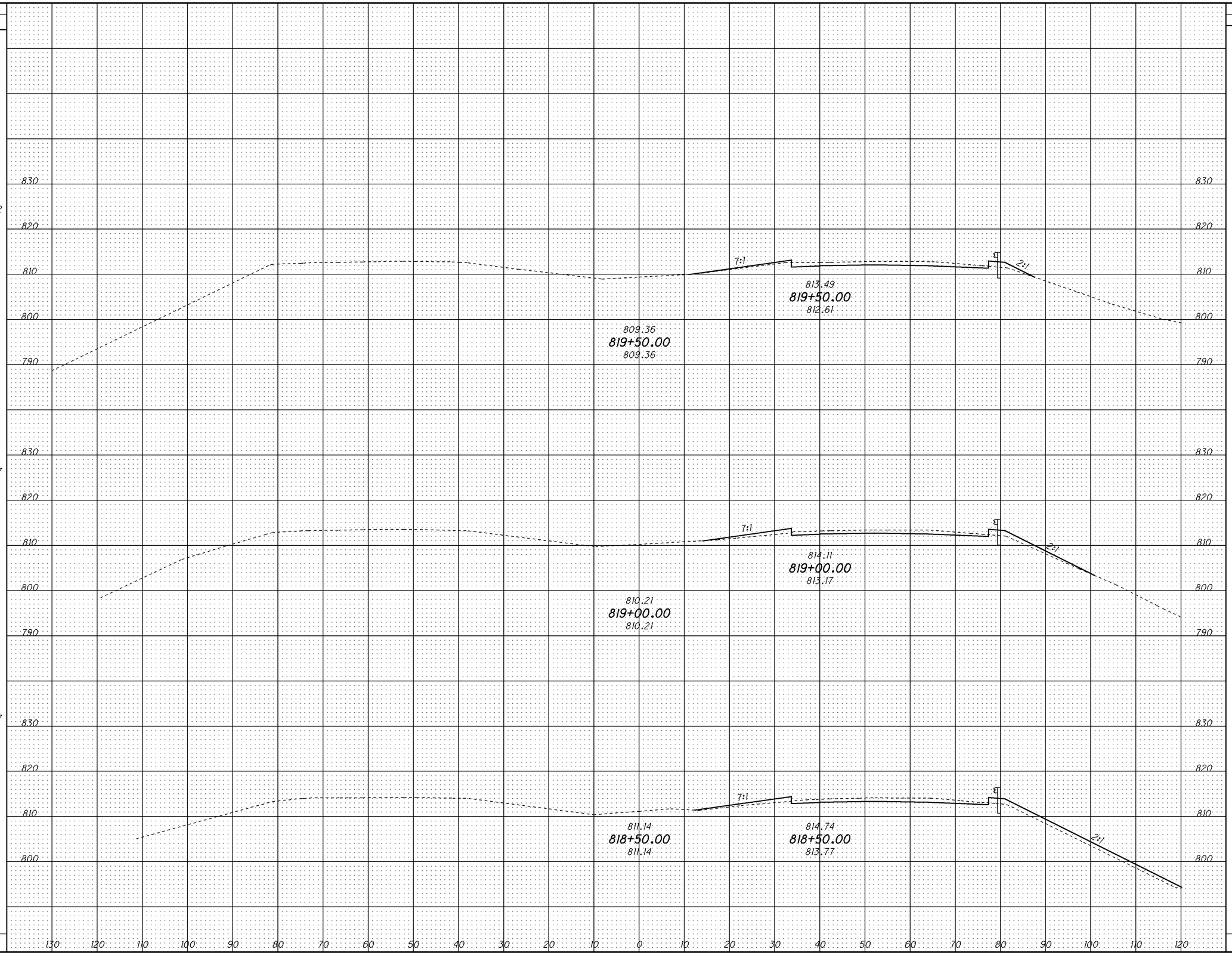
CALCULATED

CHECKED

CROSS SECTIONS
STA. 817+00.00 TO STA. 818+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
57	332	34	14	60	38
68	347	31	28	58	73
92	447	31	52	61	125

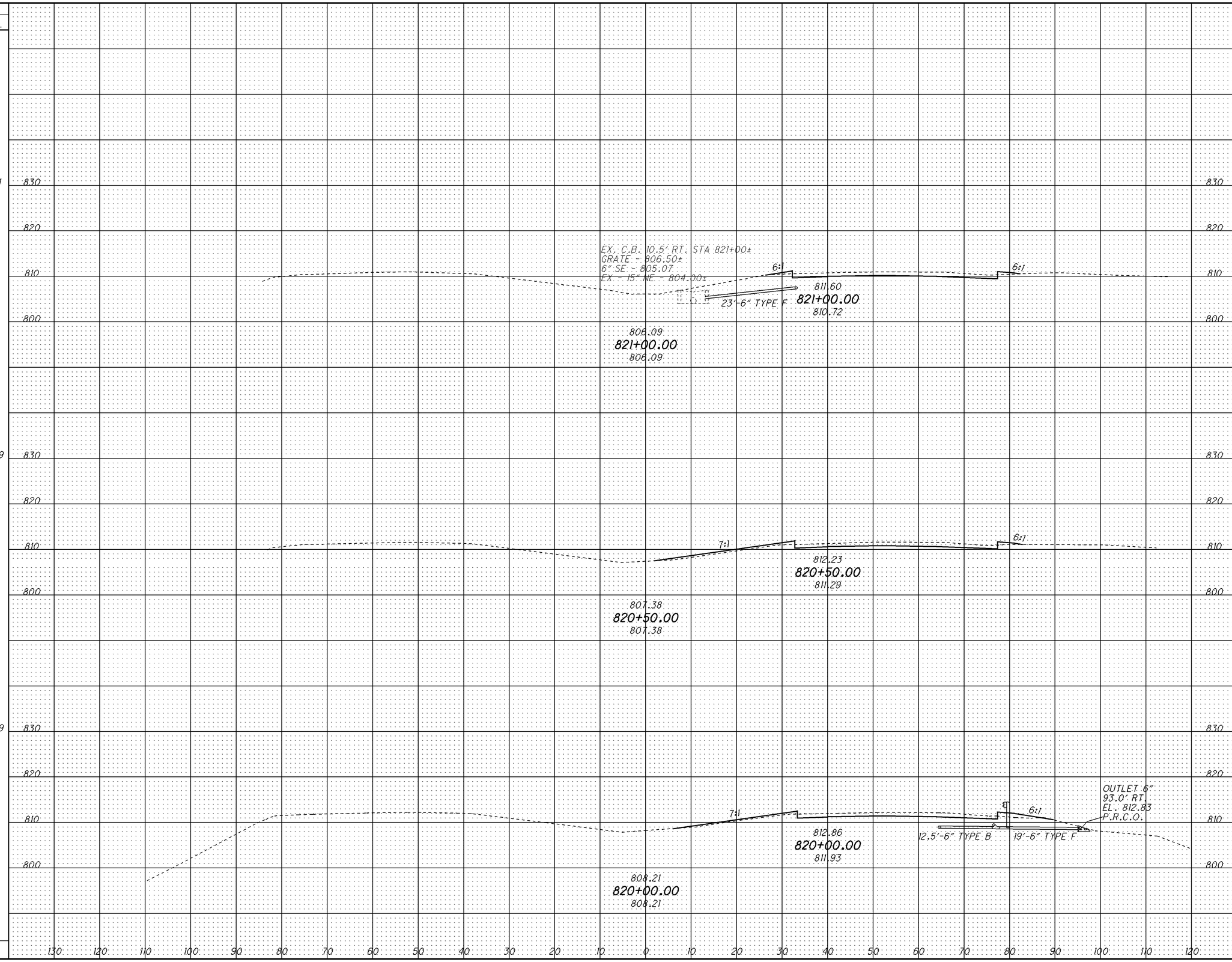


CALCULATED

CHECKED

CROSS SECTIONS
STA. 818+50.00 TO STA. 819+50.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
34	191	38	4	67	17
59	259	35	15	65	28
63	339	35	15	63	27

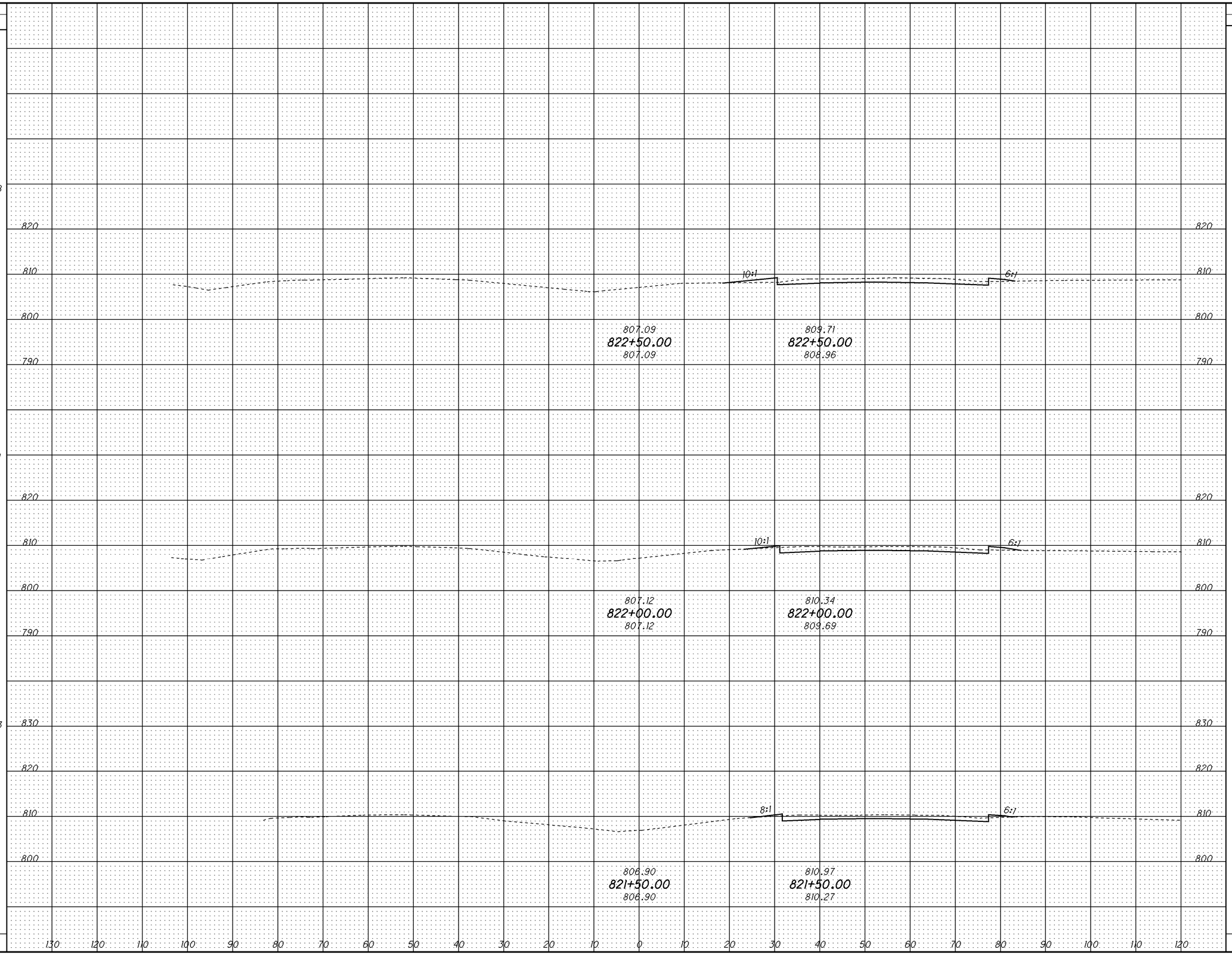
CALCULATED

CHECKED

CROSS SECTIONS

STA. 820+00.00 TO STA. 821+00.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
41	228	41	9	77	13
38	203	42	5	77	8
35	219	41	4	73	7

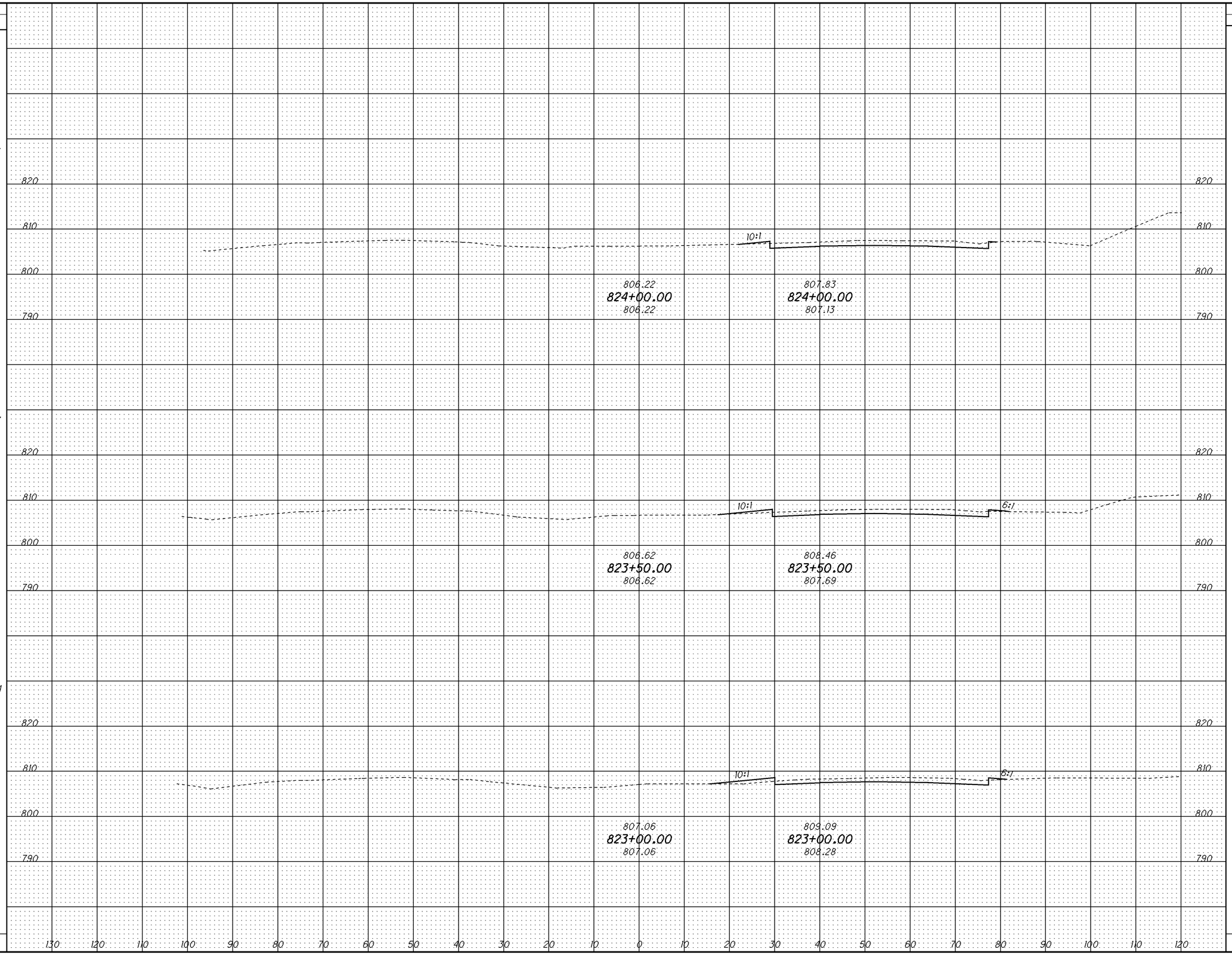
CALCULATED

CHECKED

CROSS SECTIONS
STA. 821+50.00 TO STA. 822+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
31	175	53	2	94	7
39	197	48	5	85	13
41	224	44	9	79	17



CALCULATED

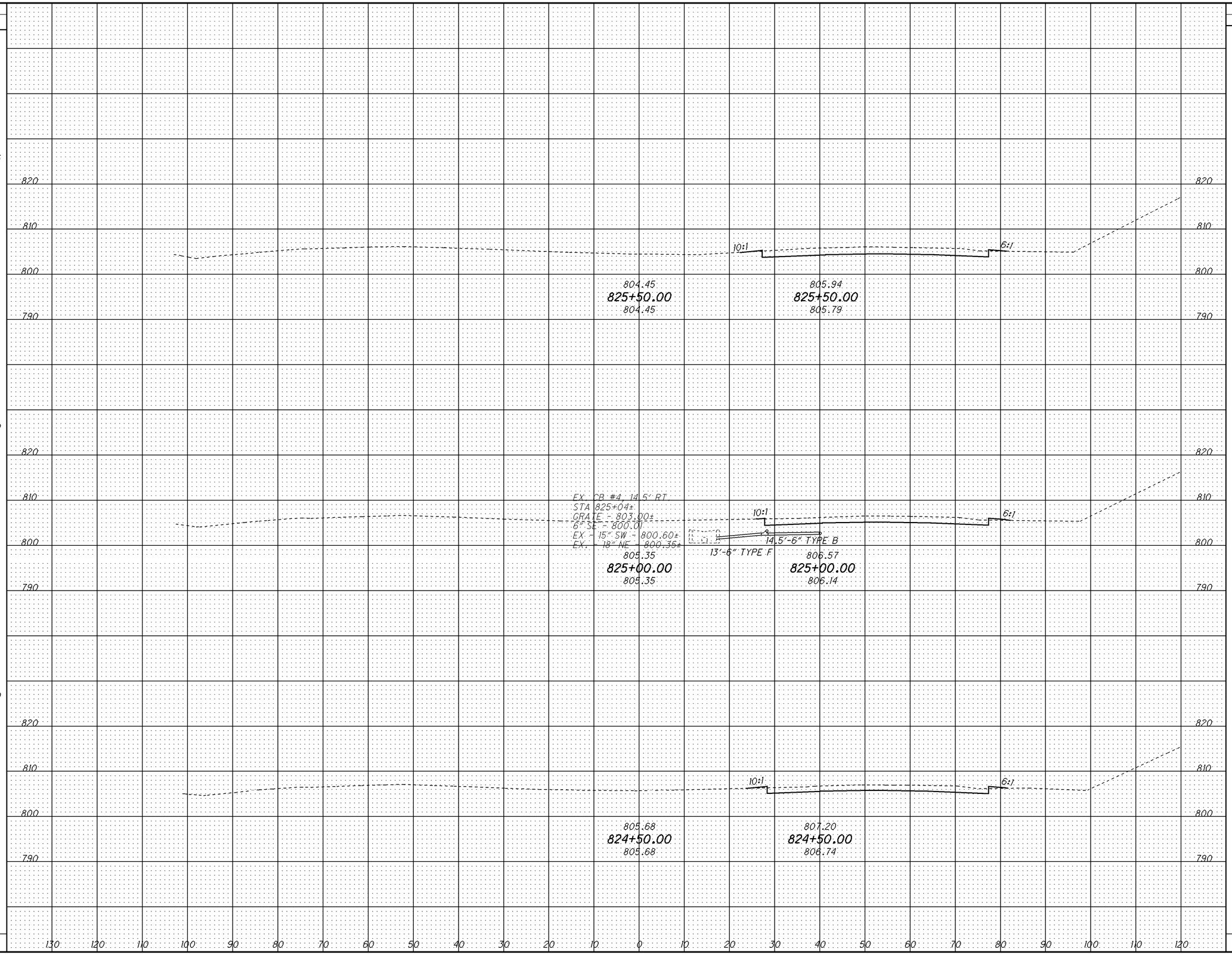
CHECKED

CROSS SECTIONS

STA. 823+00.00 TO STA. 824+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
31	176	75	1		
				130	2
29	169	66	1		
				116	3
32	170	59	2		
				104	4

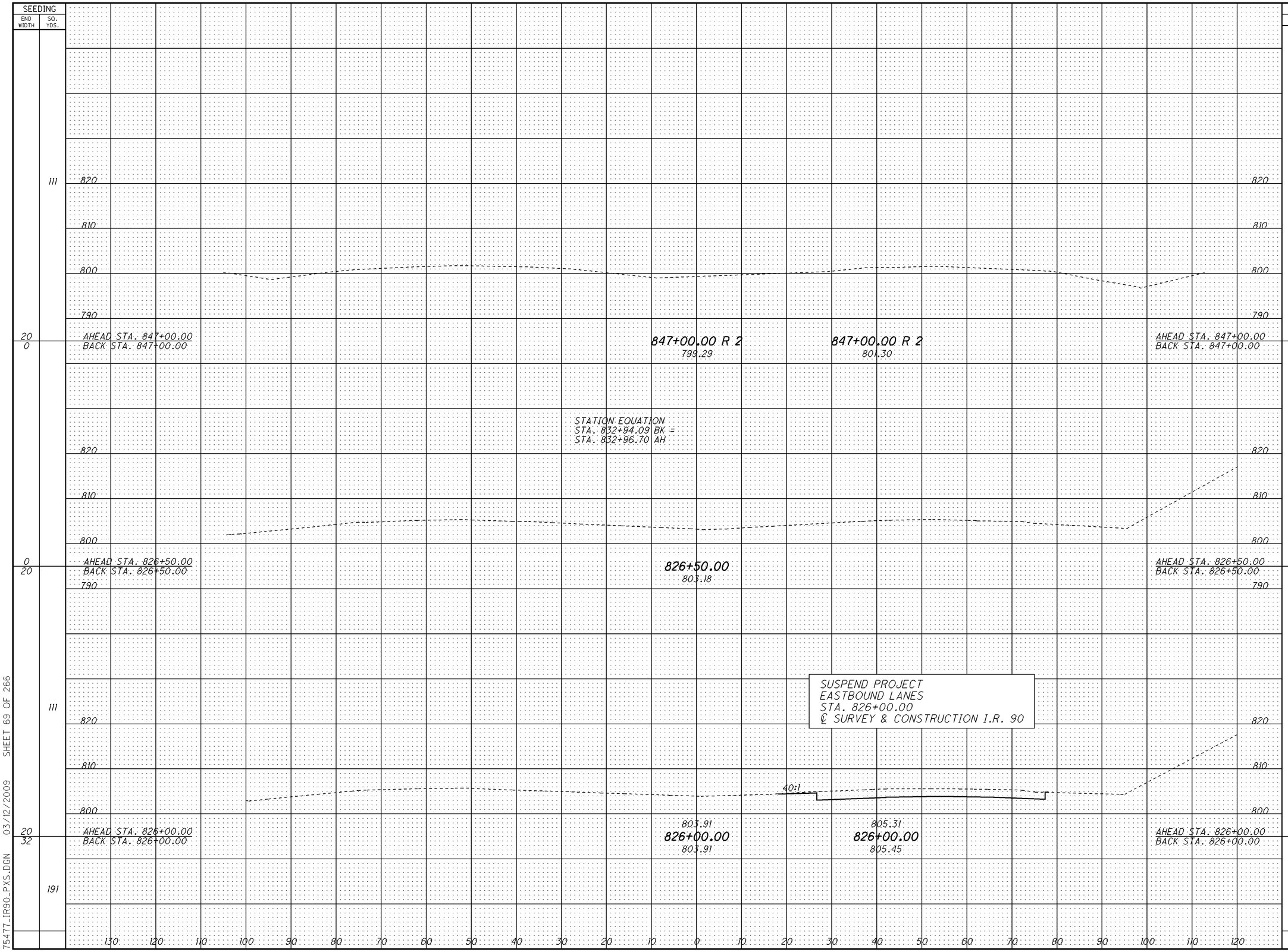


CALCULATED

CHECKED

CROSS SECTIONS
STA. 824+50.00 TO STA. 825+50.00

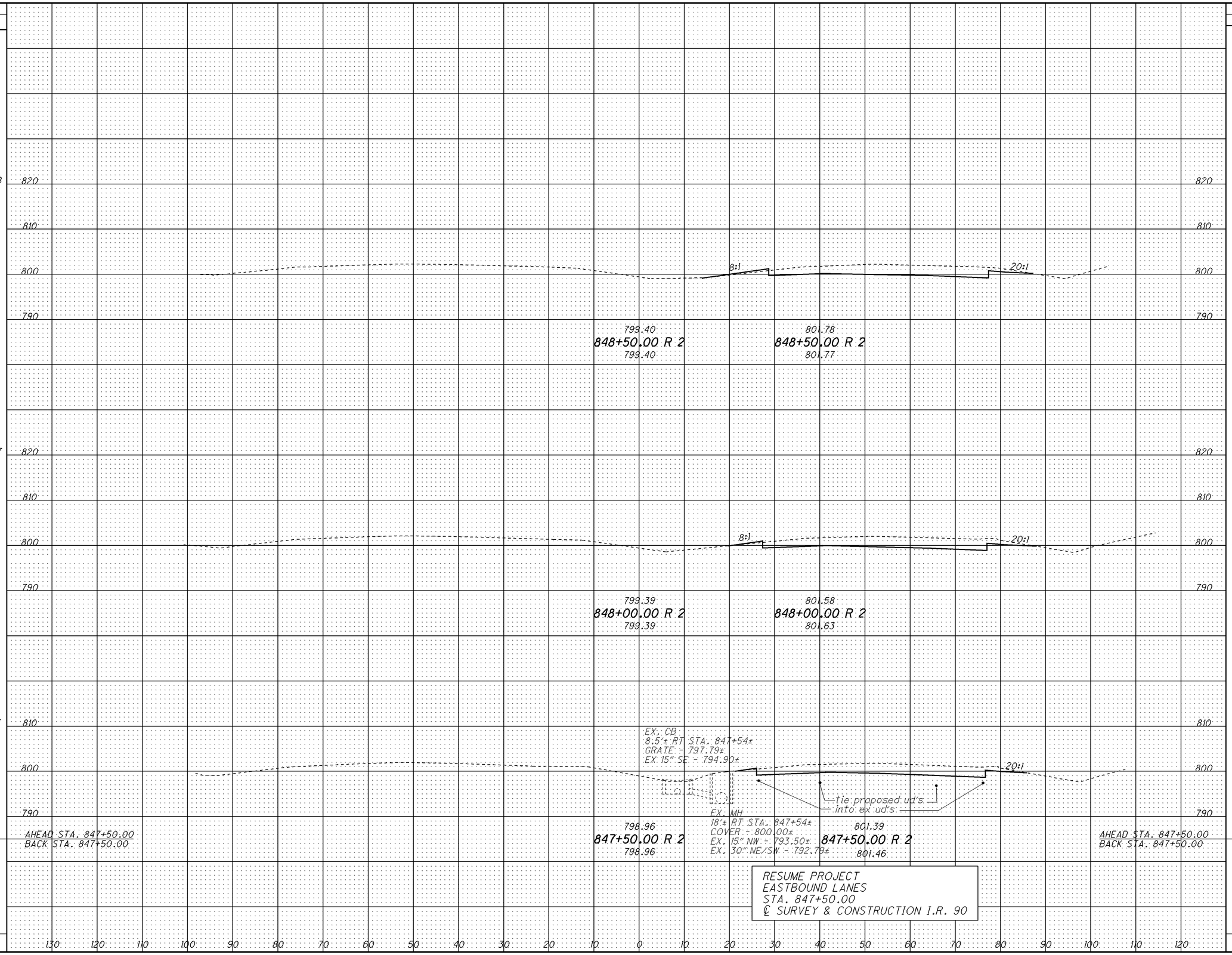
LAK-90-21.40
ATB-90-0.00



CROSS SECTIONS
STA. 826+00.00 TO STA. 847+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
47	288	101	4	194	5
41	247	109	1	198	2
37	217	105	1	0	2
20		0	1		

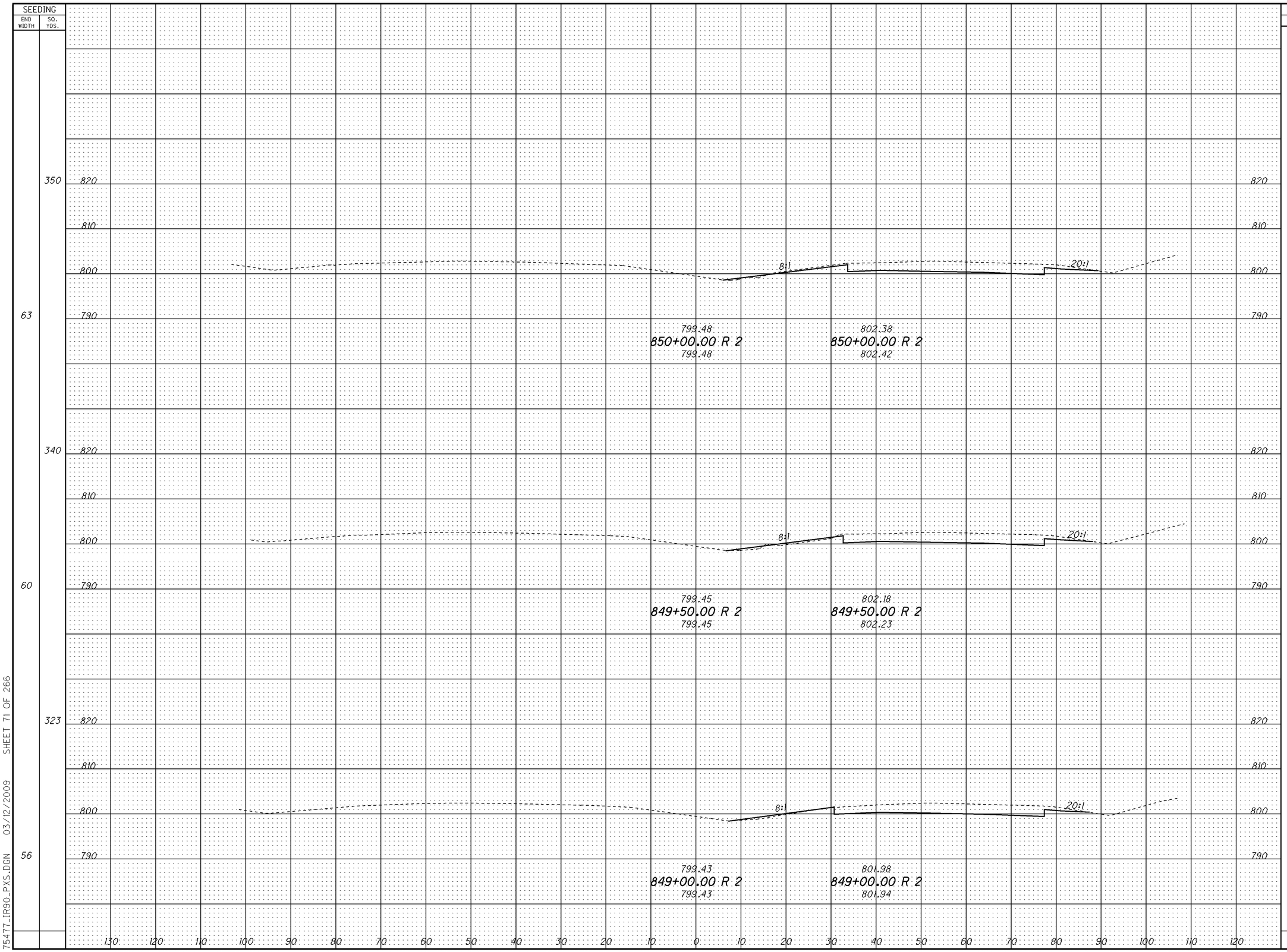


CALCULATED

CHECKED

CROSS SECTIONS
STA. 847+50.00 TO STA. 848+50.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
101	2	185	9
99	8	184	12
99	5	186	9

CALCULATED

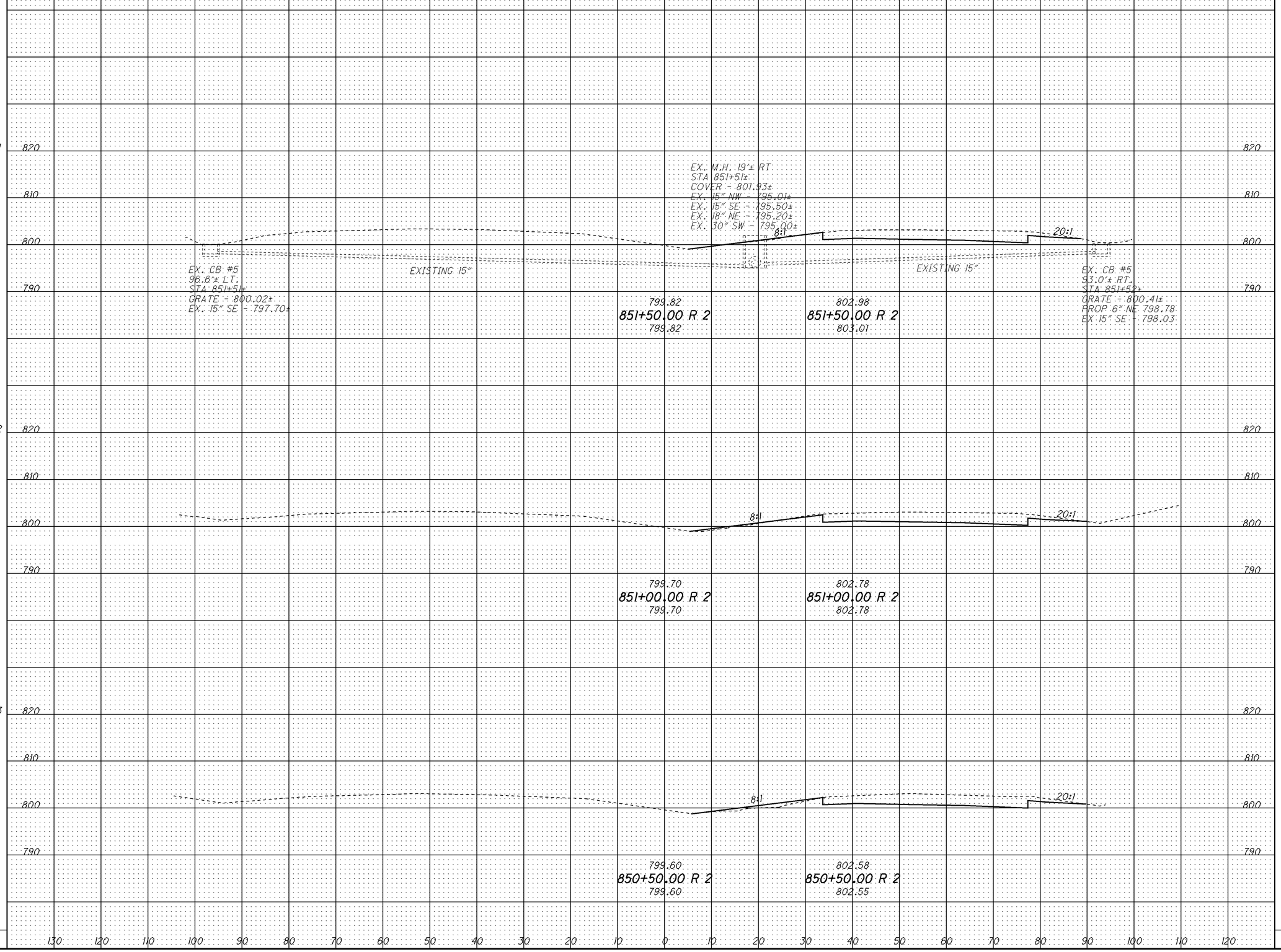
CHECKED

CROSS SECTIONS

STA. 849+00.00 TO STA. 850+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
63	351	93	3	176	7
64	352	97	4	180	15
63	353	97	12	184	13



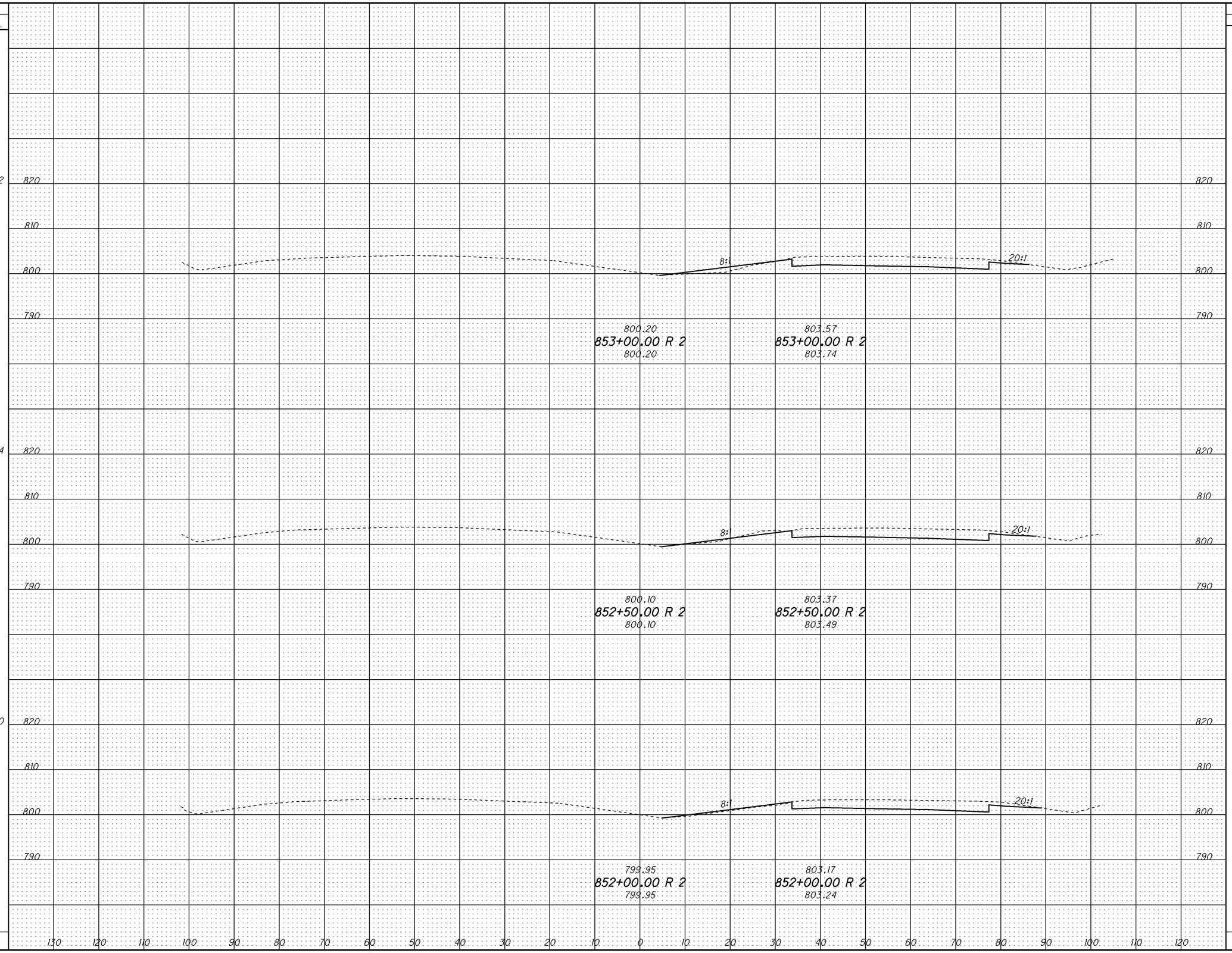
CALCULATED

CHECKED

CROSS SECTIONS

STA. 850+50.00 TO STA. 851+50.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
61	342	93	14	175	16
62	344	96	4	175	10
63	350	93	7	172	9

CALCULATED

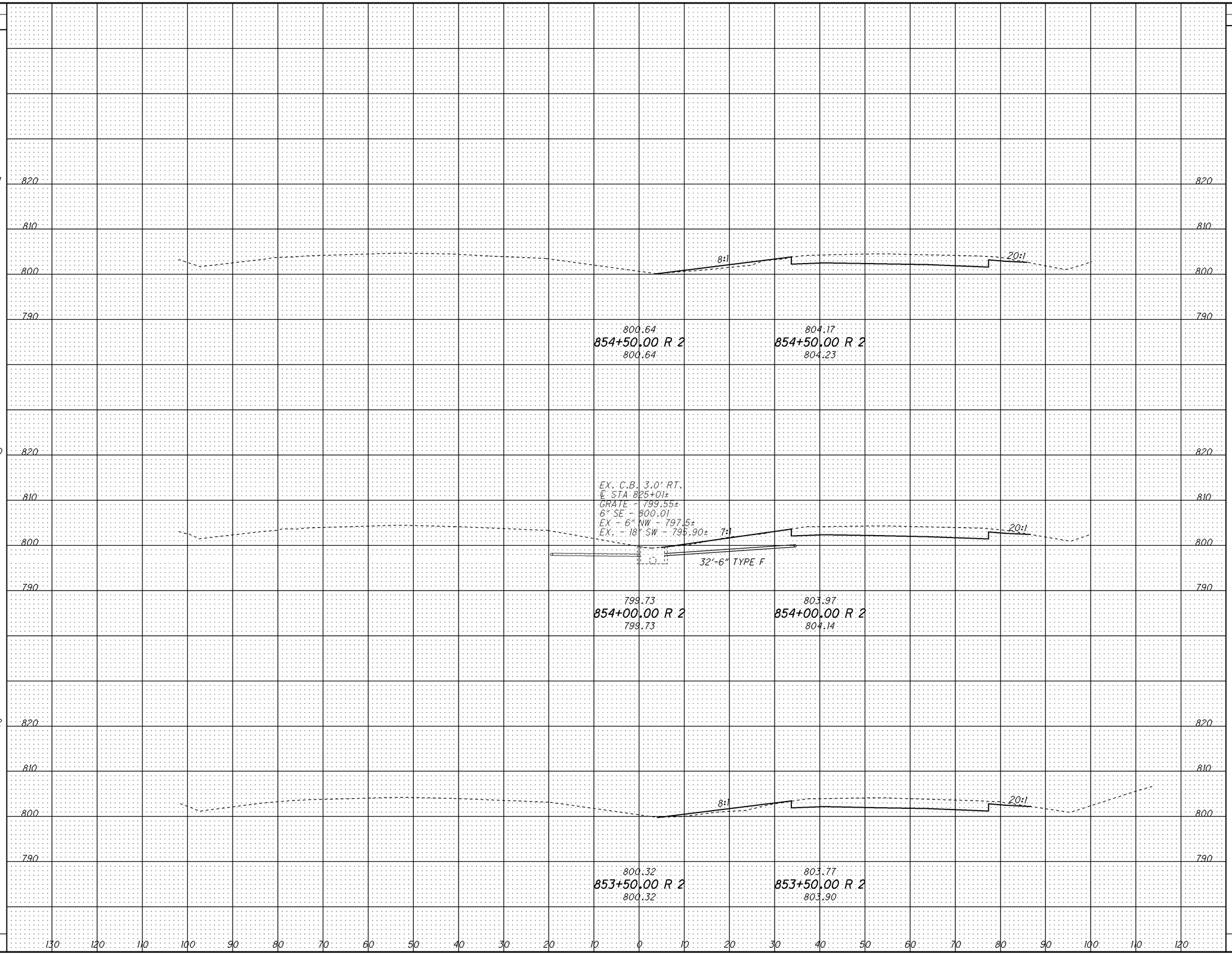
CHECKED

CROSS SECTIONS

STA. 852+00.00 TO STA. 853+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
61	341	95	12	177	14
61	342	96	3	174	16
62	340	92	14	171	26



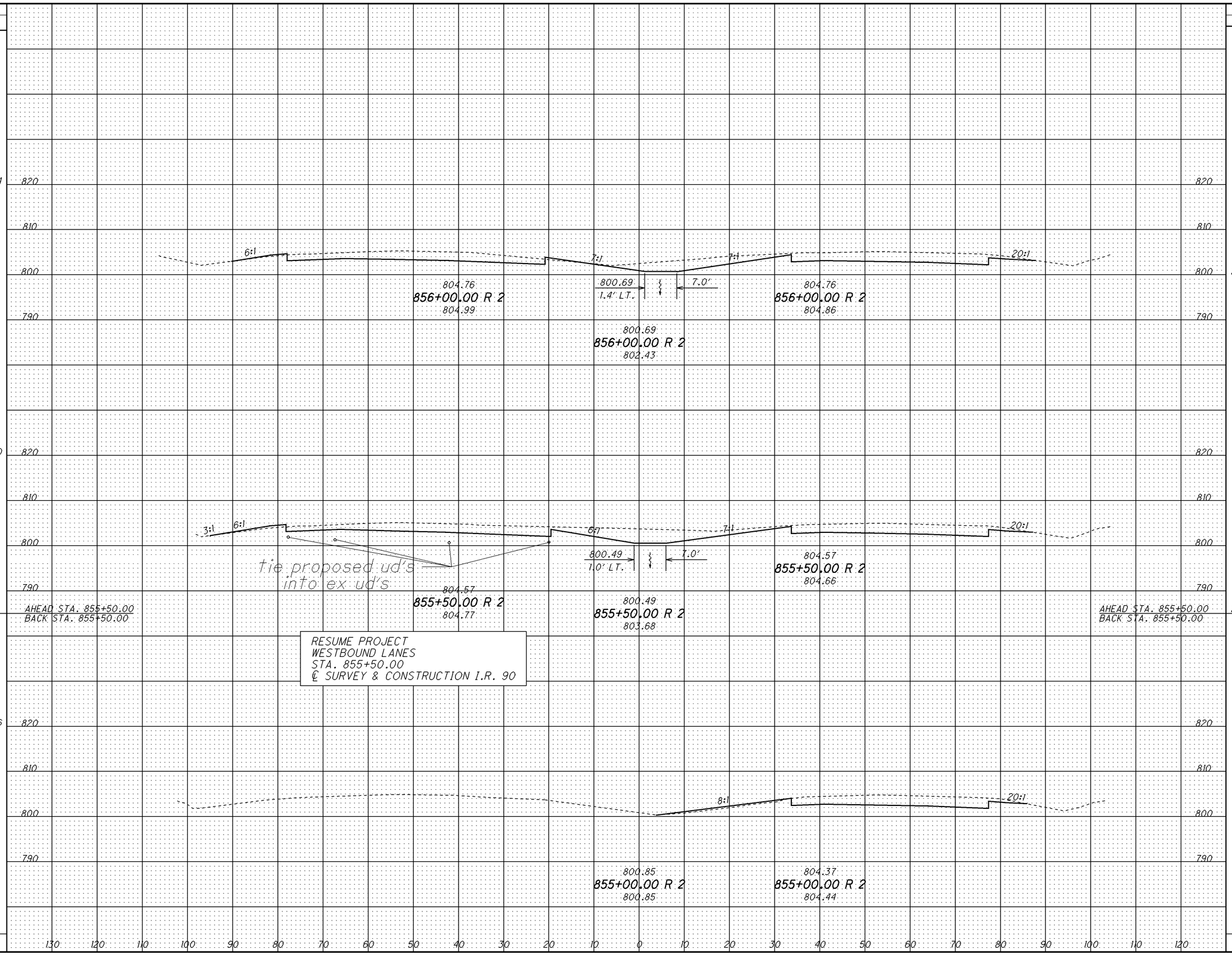
CALCULATED

CHECKED

CROSS SECTIONS
STA. 853+50.00 TO STA. 854+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
103	574	246	5	492	9
105	580	286	5	177	8
60	336	96	0		
61		95	9	177	20



CALCULATED

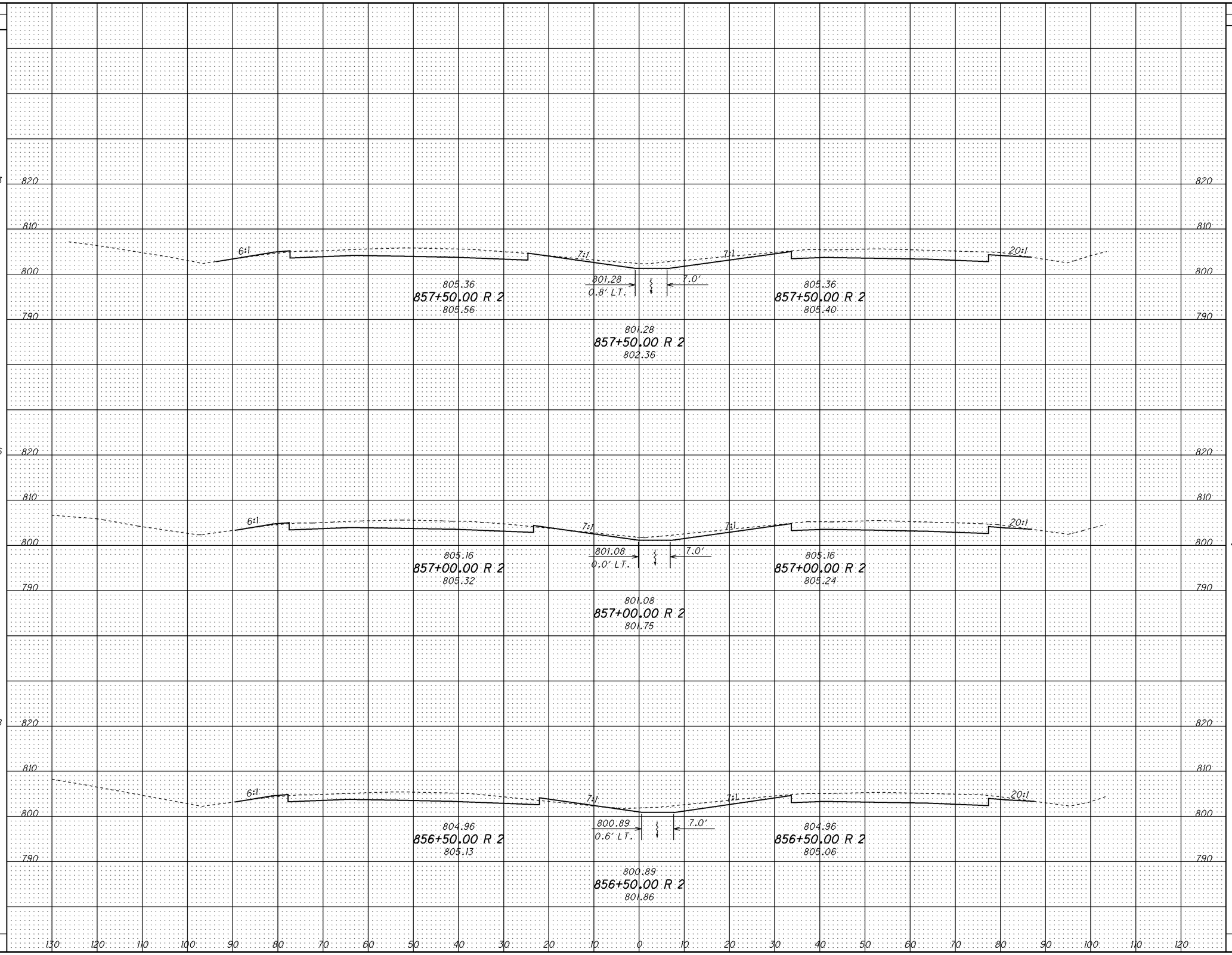
CHECKED

CROSS SECTIONS

STA. 855+00.00 TO STA. 856+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
110	623	214	3	387	6
104	596	204	3	387	9
104	578	214	7	426	10



CALCULATED

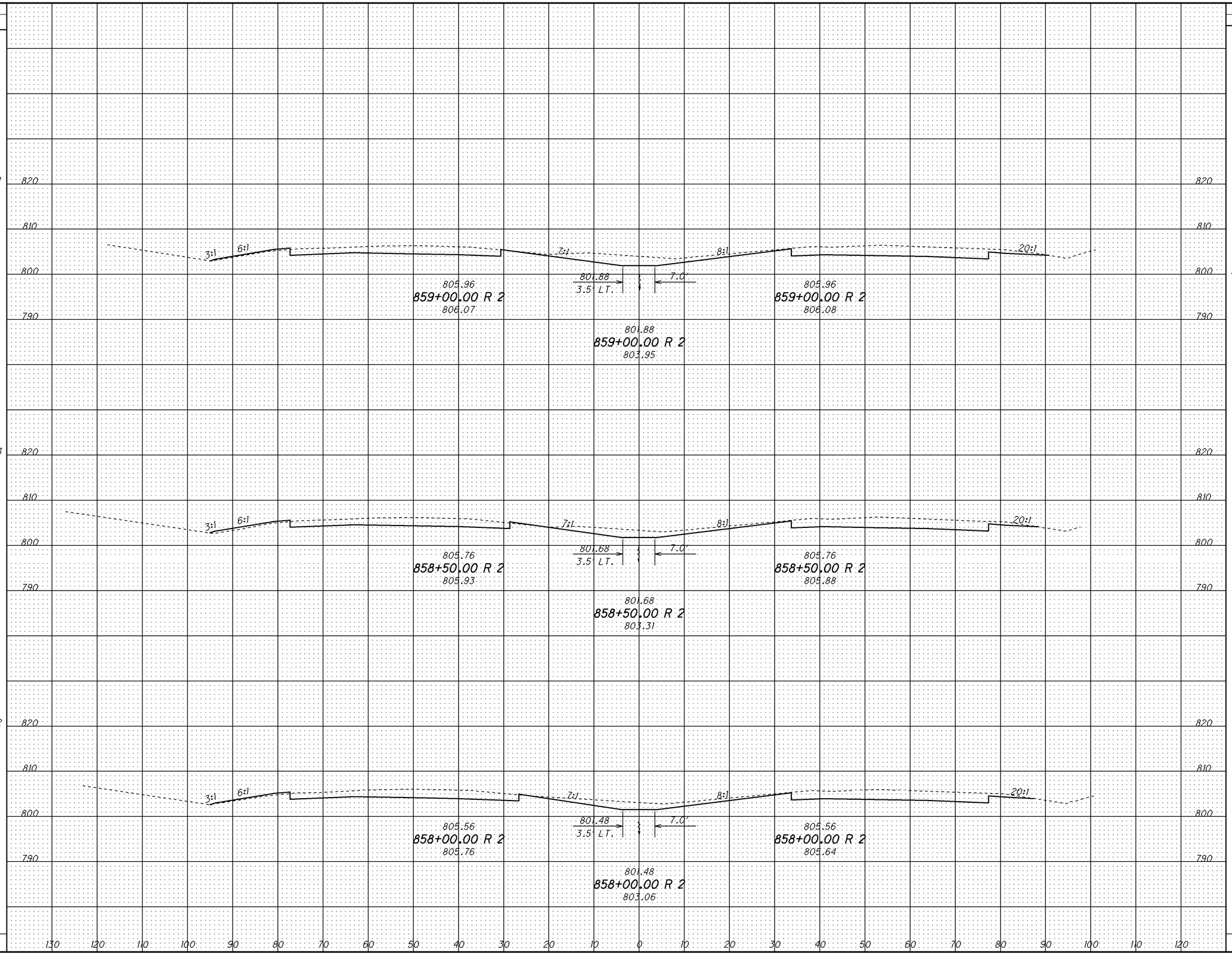
CHECKED

CROSS SECTIONS

STA. 856+50.00 TO STA. 857+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
122	681	228	6	412	14
118	663	216	10	401	14
115	642	217	6	399	8



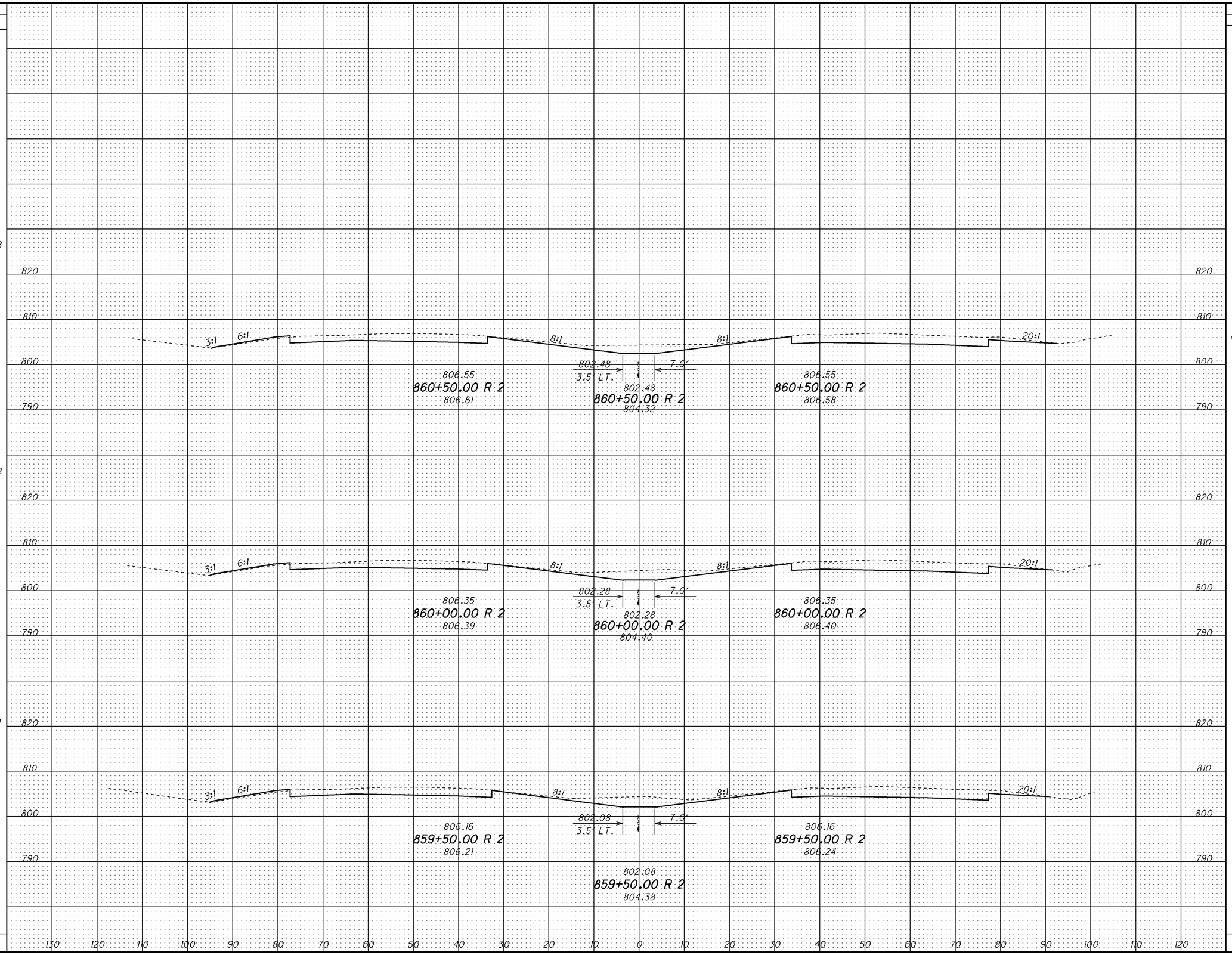
CALCULATED

CHECKED

CROSS SECTIONS

STA. 858+00.00 TO STA. 859+00.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
126	698	207	5	386	10
126	698	210	5	393	10
124	691	214	6	409	11

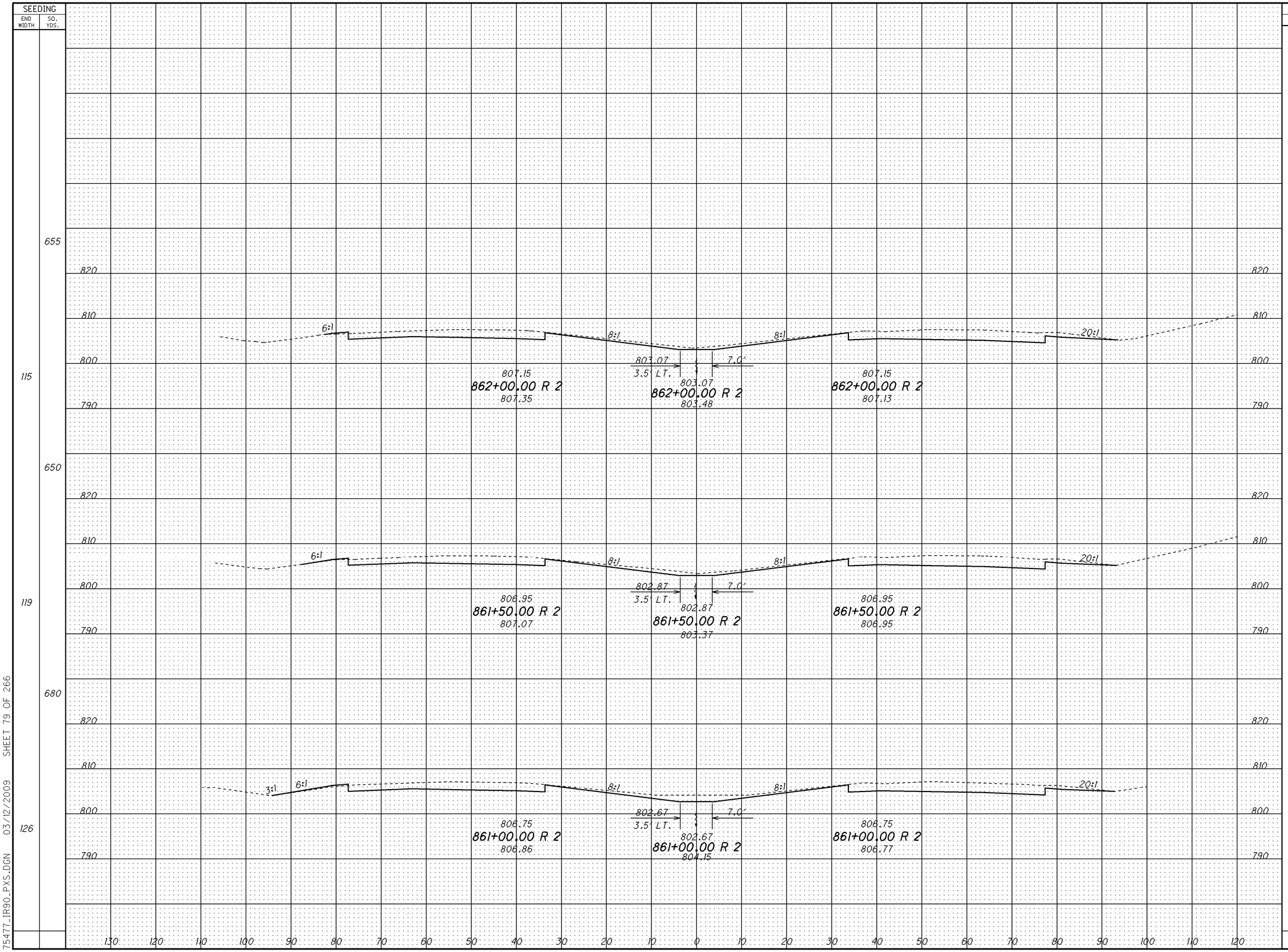
CALCULATED

CHECKED

CROSS SECTIONS

STA. 859+50.00 TO STA. 860+50.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
191	1	356	3
194	2	366	5
201	4	378	8

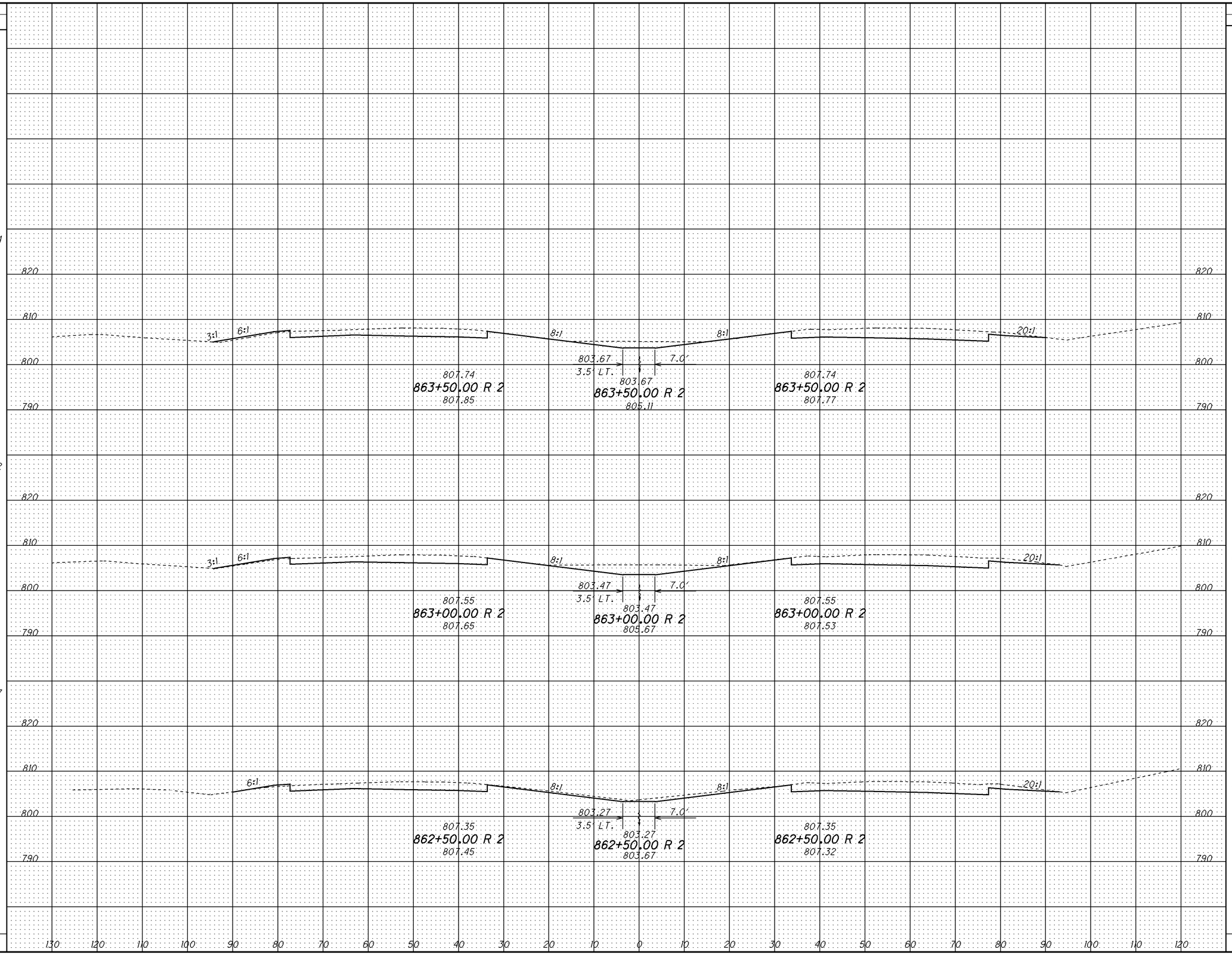
CALCULATED

CHECKED

CROSS SECTIONS
STA. 861+00.00 TO STA. 862+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
123	684	188	9	375	13
126	687	217	5	374	7
121	692	187	3	350	4



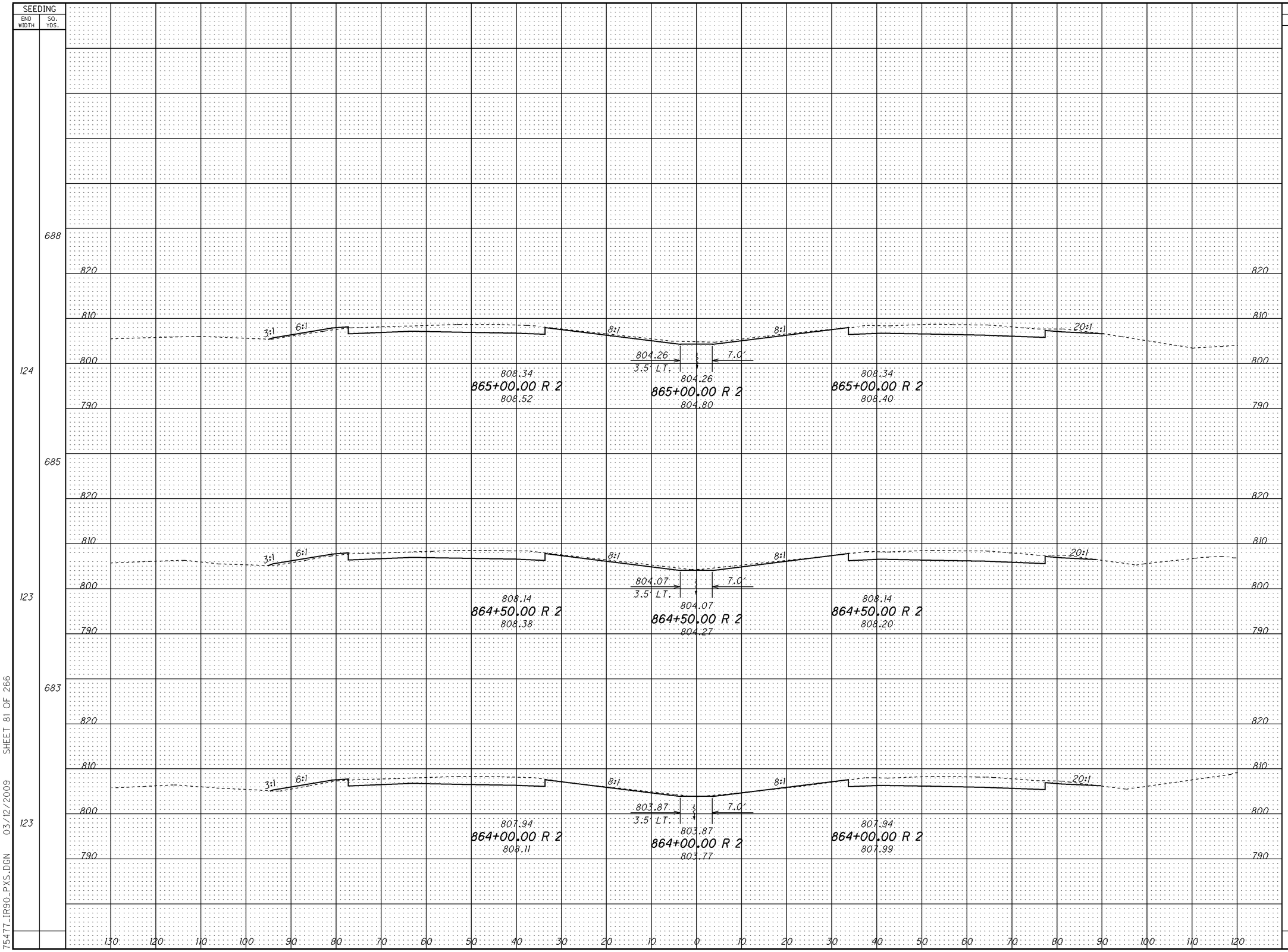
CALCULATED

CHECKED

CROSS SECTIONS

STA. 862+50.00 TO STA. 863+50.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
175	7		
		323	14
174	8		
		313	18
164	11		
		326	19

CALCULATED

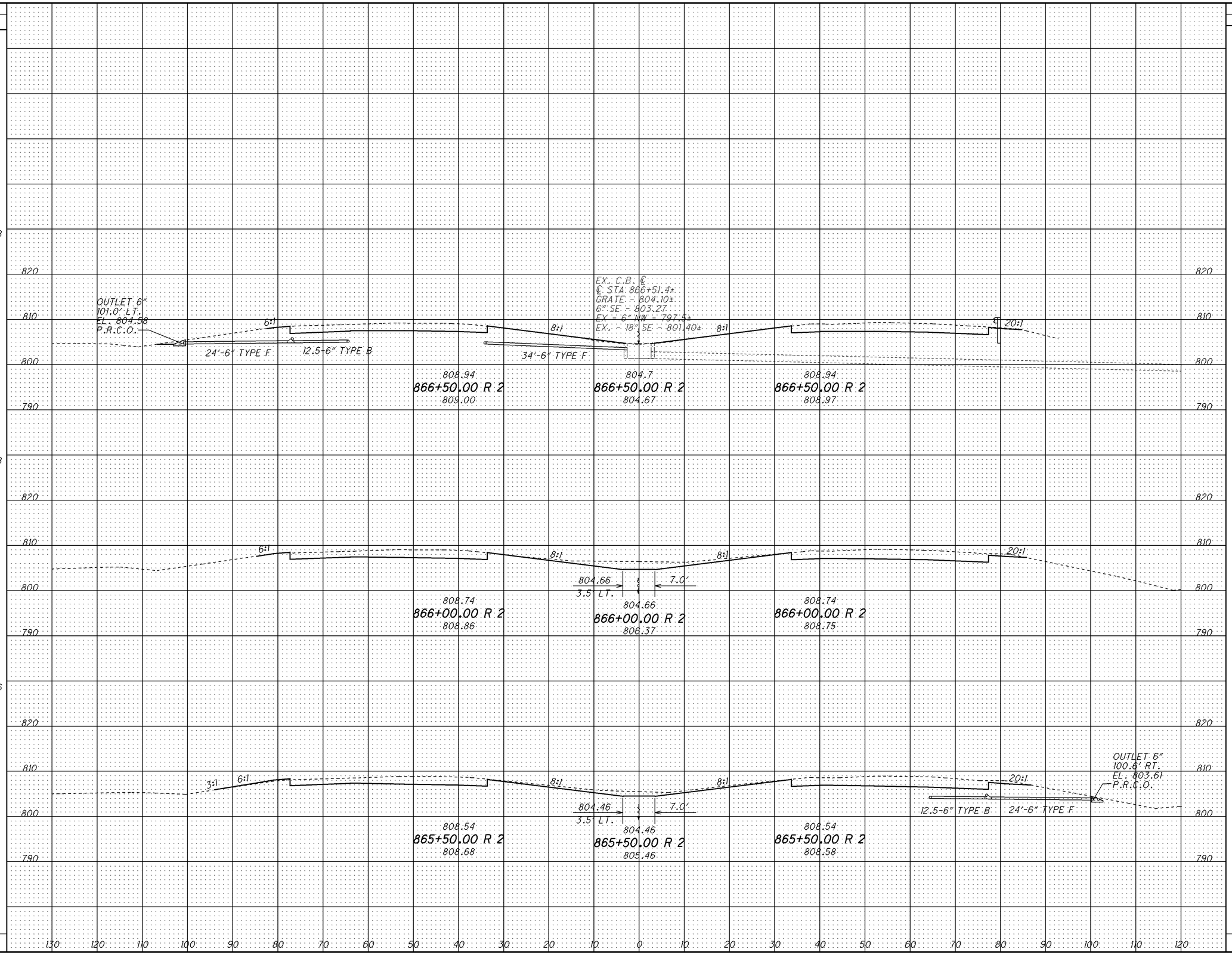
CHECKED

CROSS SECTIONS

STA. 864+00.00 TO STA. 865+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
99	558	149	7	321	7
109	578	198	1	354	5
124	646	184	4	332	10



CALCULATED

CHECKED

CROSS SECTIONS

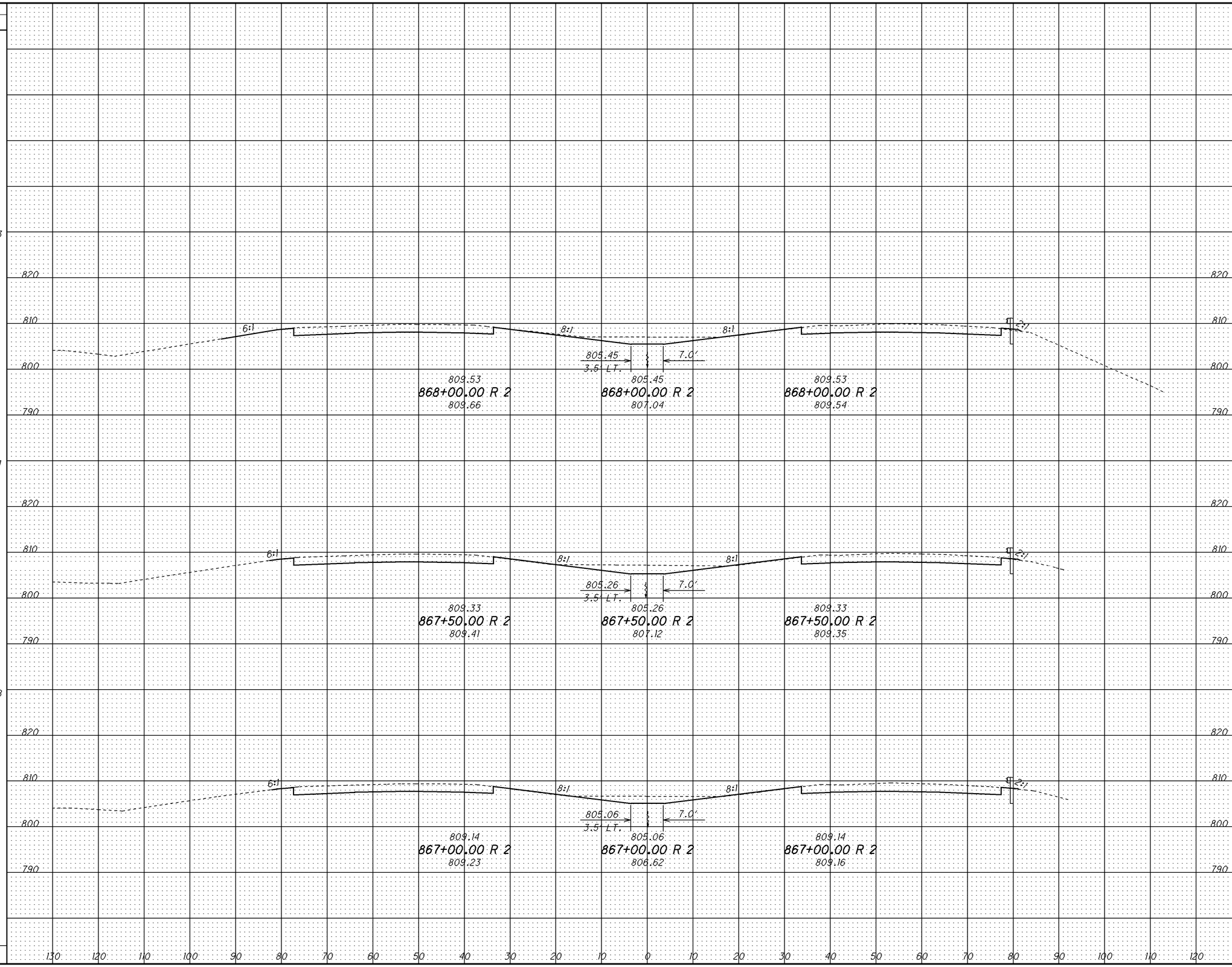
STA. 865+50.00 TO STA. 866+50.00

LAK-90-21.40
ATB-90-0.00

236
498

75477_IR90_PXS.DGN 03/12/2009 SHEET 82 OF 266

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
114	643	180	4	342	8
103	568	189	5	339	10
101	601	177	5	303	11



CALCULATED

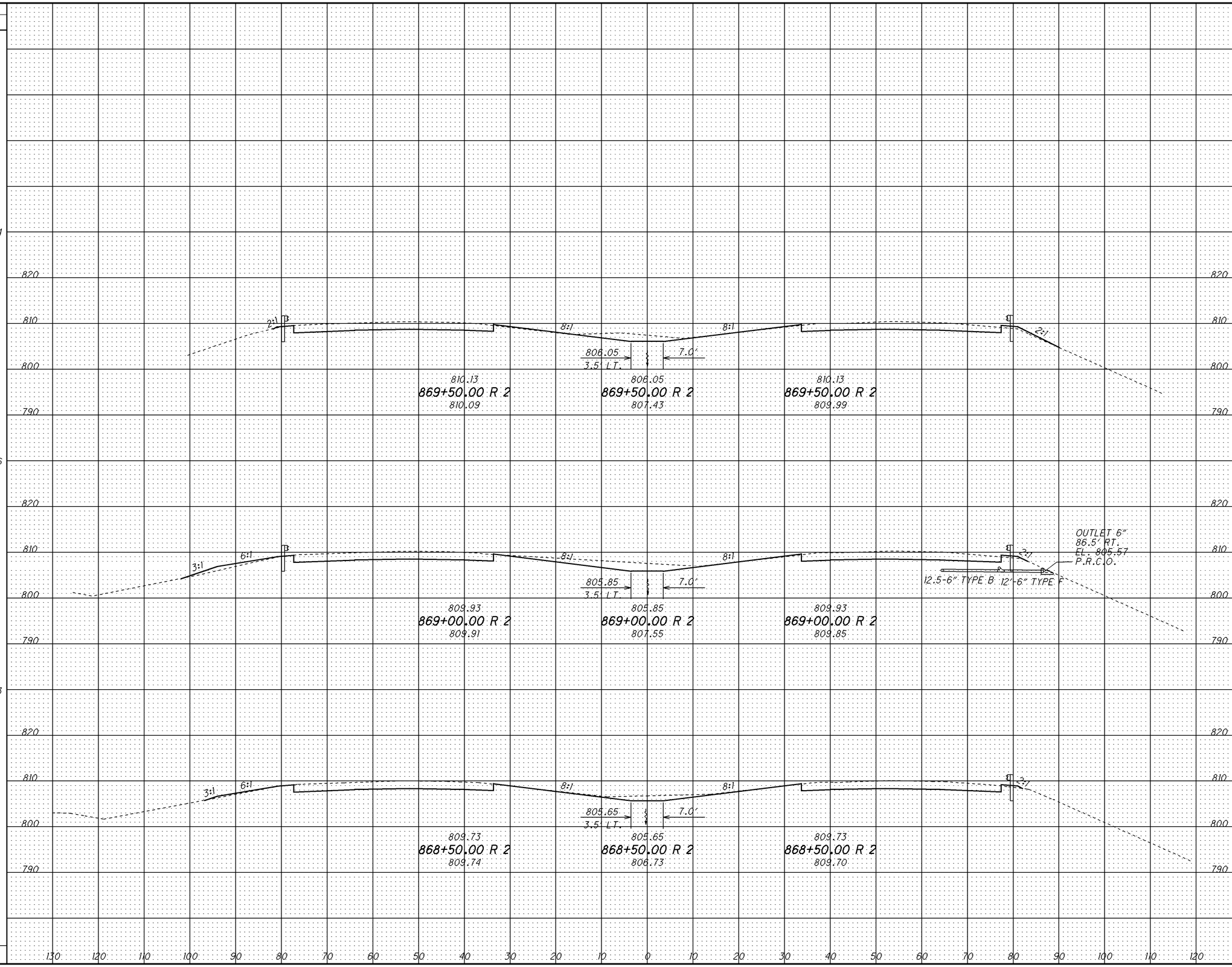
CHECKED

CROSS SECTIONS

STA. 867+00.00 TO STA. 868+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME		
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	
111	634	161	10	320	23	869+50.00
125	656	185	15	322	20	869+00.00
117	673	163	7	318	10	868+50.00



CALCULATED

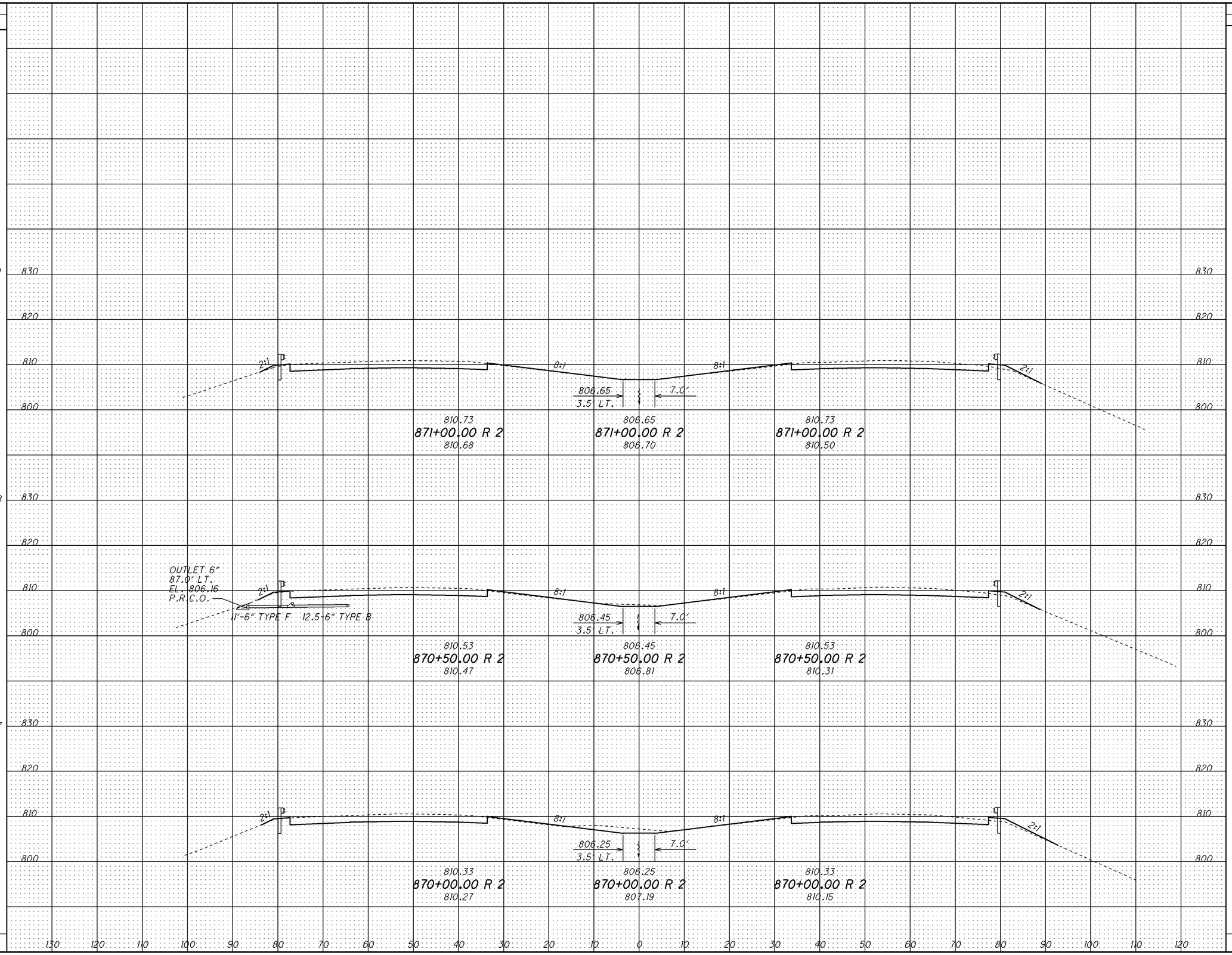
CHECKED

CROSS SECTIONS

STA. 868+50.00 TO STA. 869+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
113	631	130	16	244	29
113	628	134	15	263	28
116	637	150	15	288	23

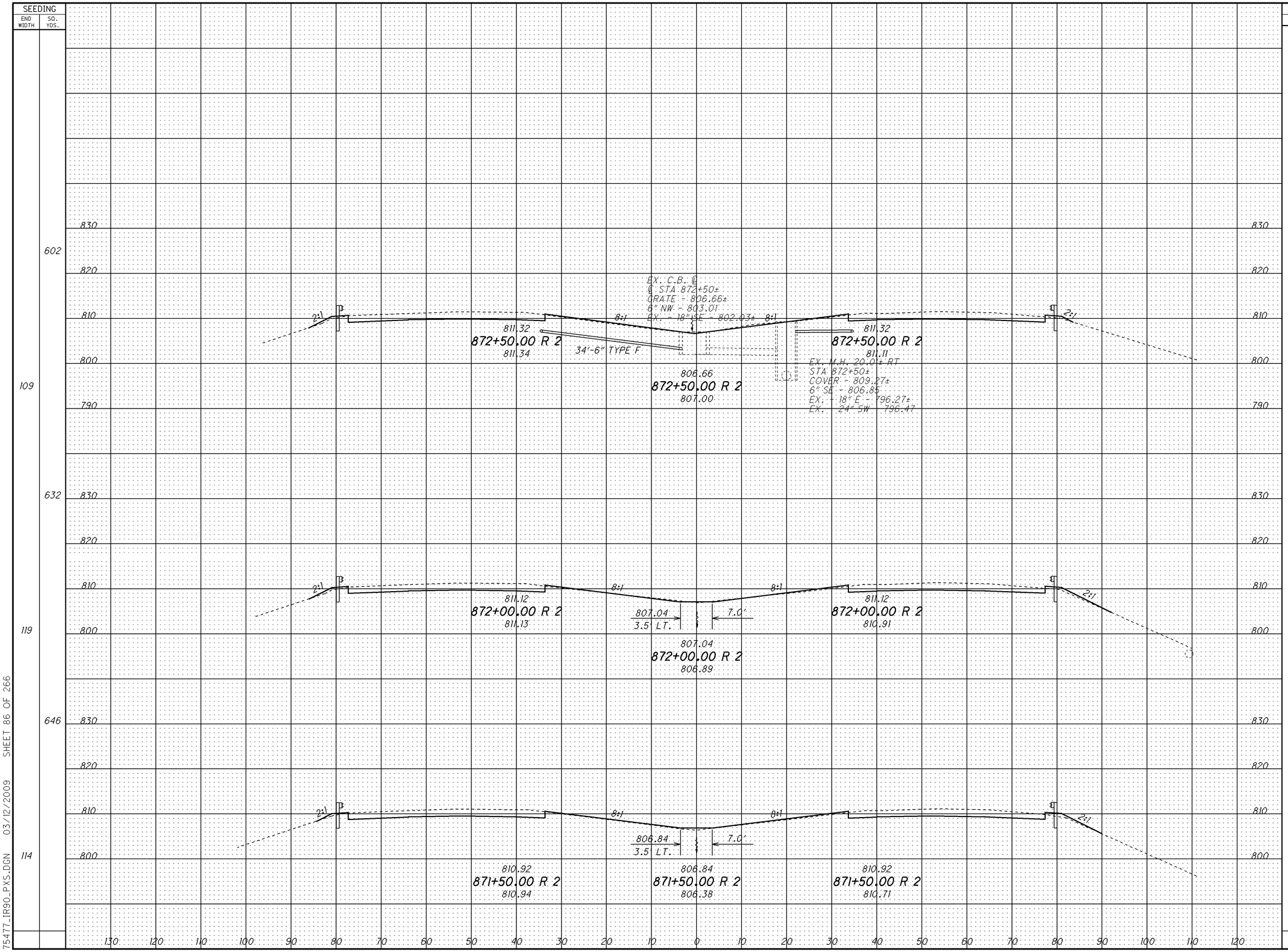


CALCULATED

CHECKED

CROSS SECTIONS
STA. 870+00.00 TO STA. 871+00.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
134	15	246	29
132	16	242	34
130	20	241	34

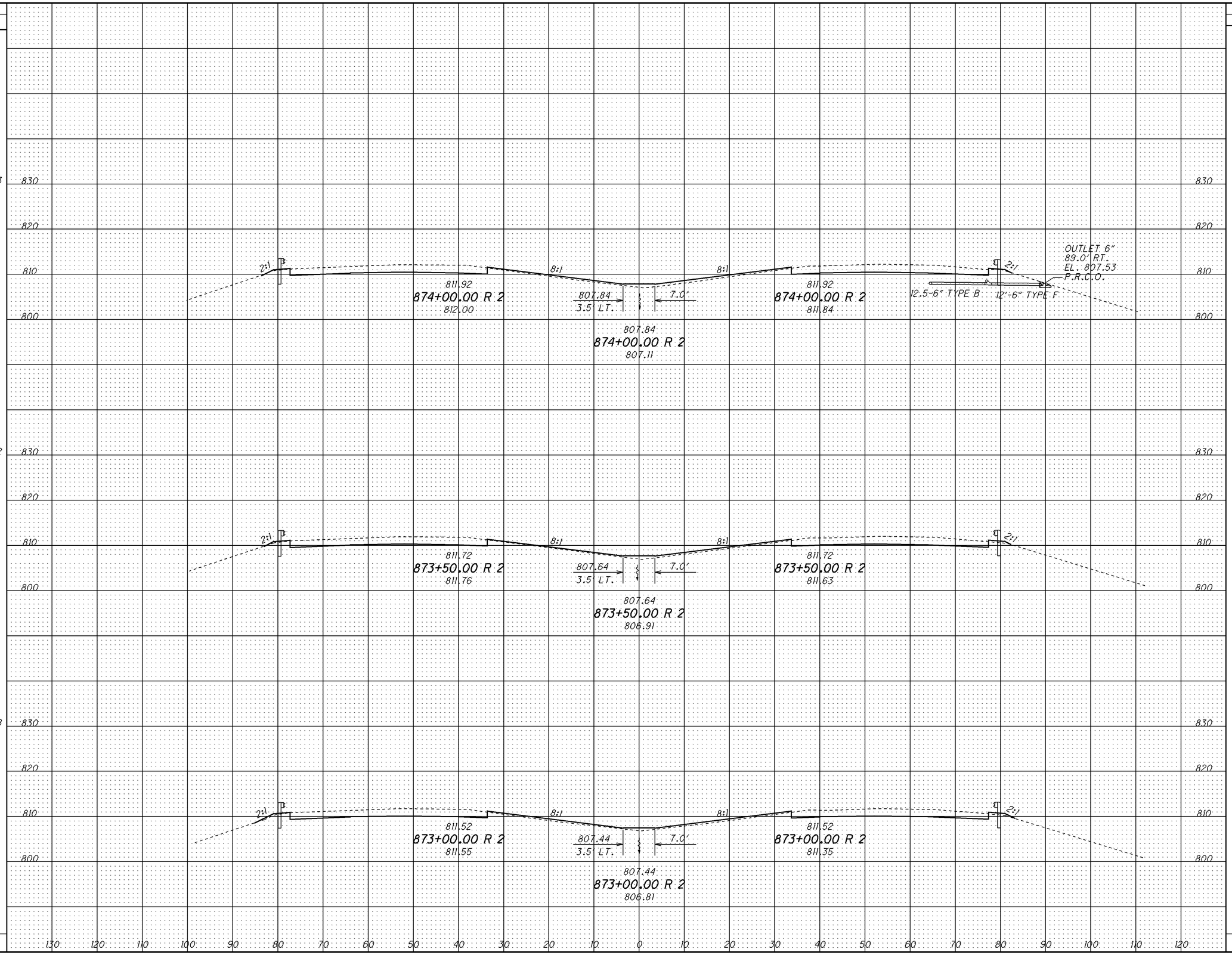
CALCULATED

CHECKED

CROSS SECTIONS
STA. 871+50.00 TO STA. 872+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
105	673	137	32	252	53
105	582	135	26	248	53
108	588	132	31	246	43



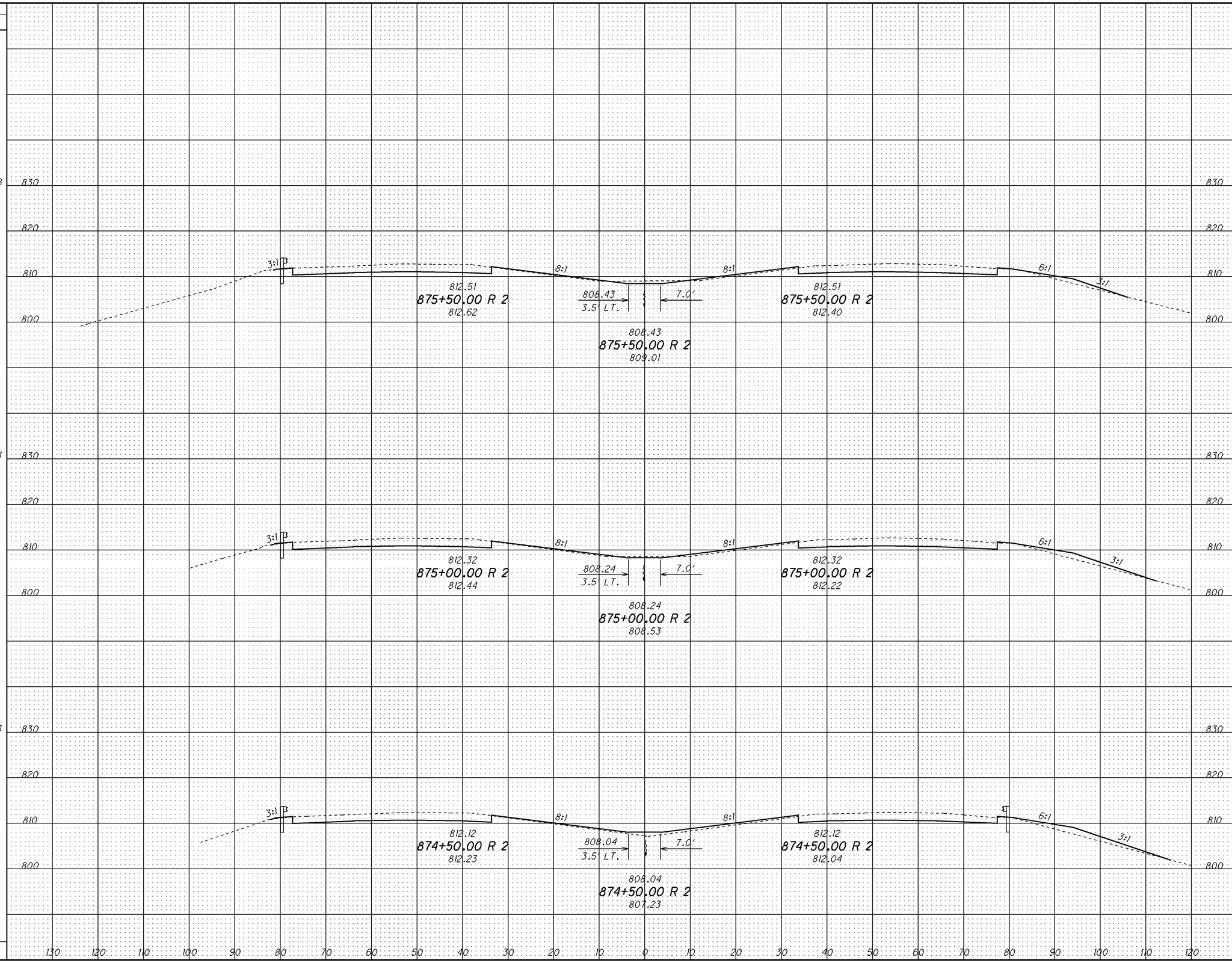
CALCULATED

CHECKED

CROSS SECTIONS

STA. 873+00.00 TO STA. 874+00.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
146	27	267	61
142	39	259	86
138	54	254	79

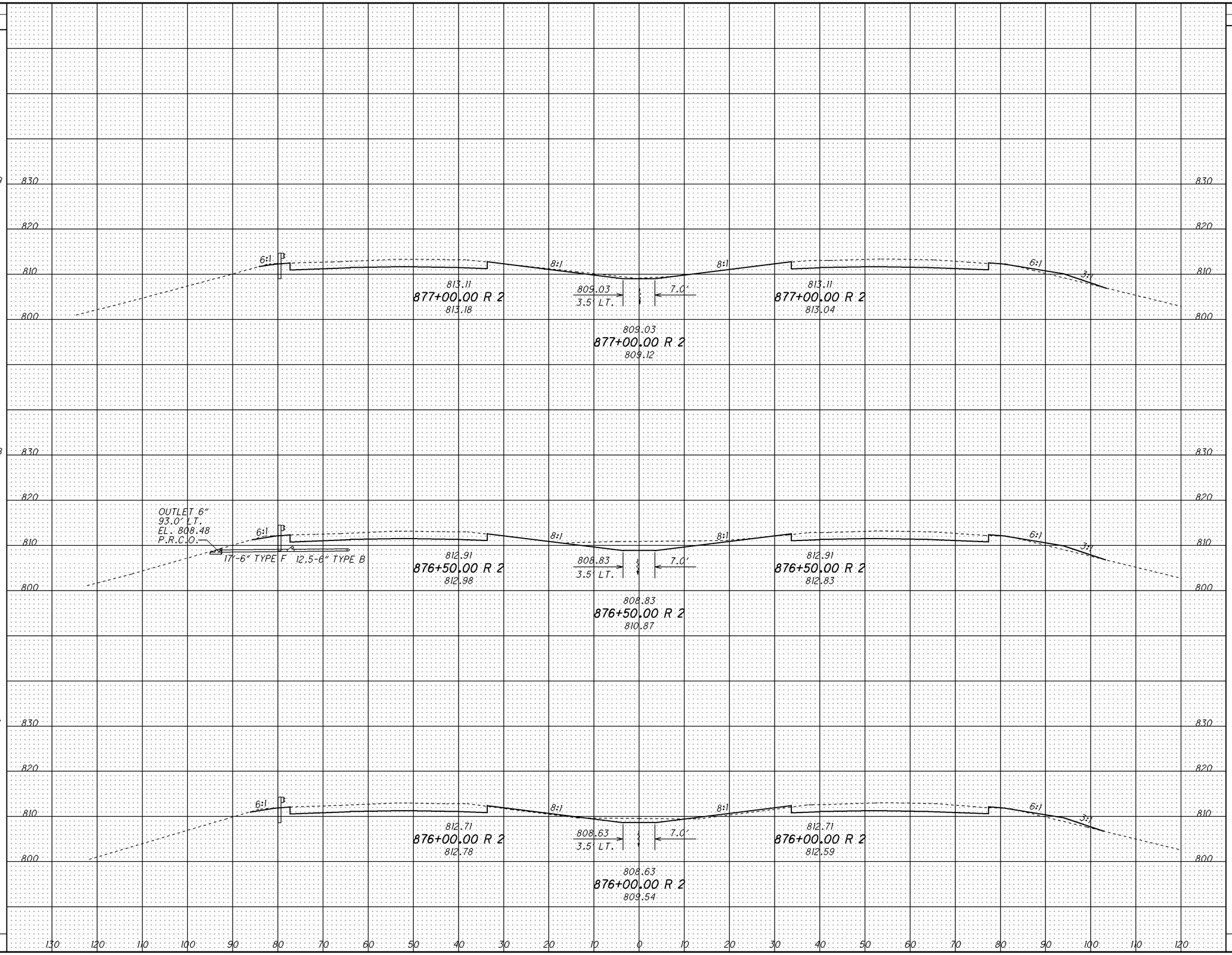
CALCULATED

CHECKED

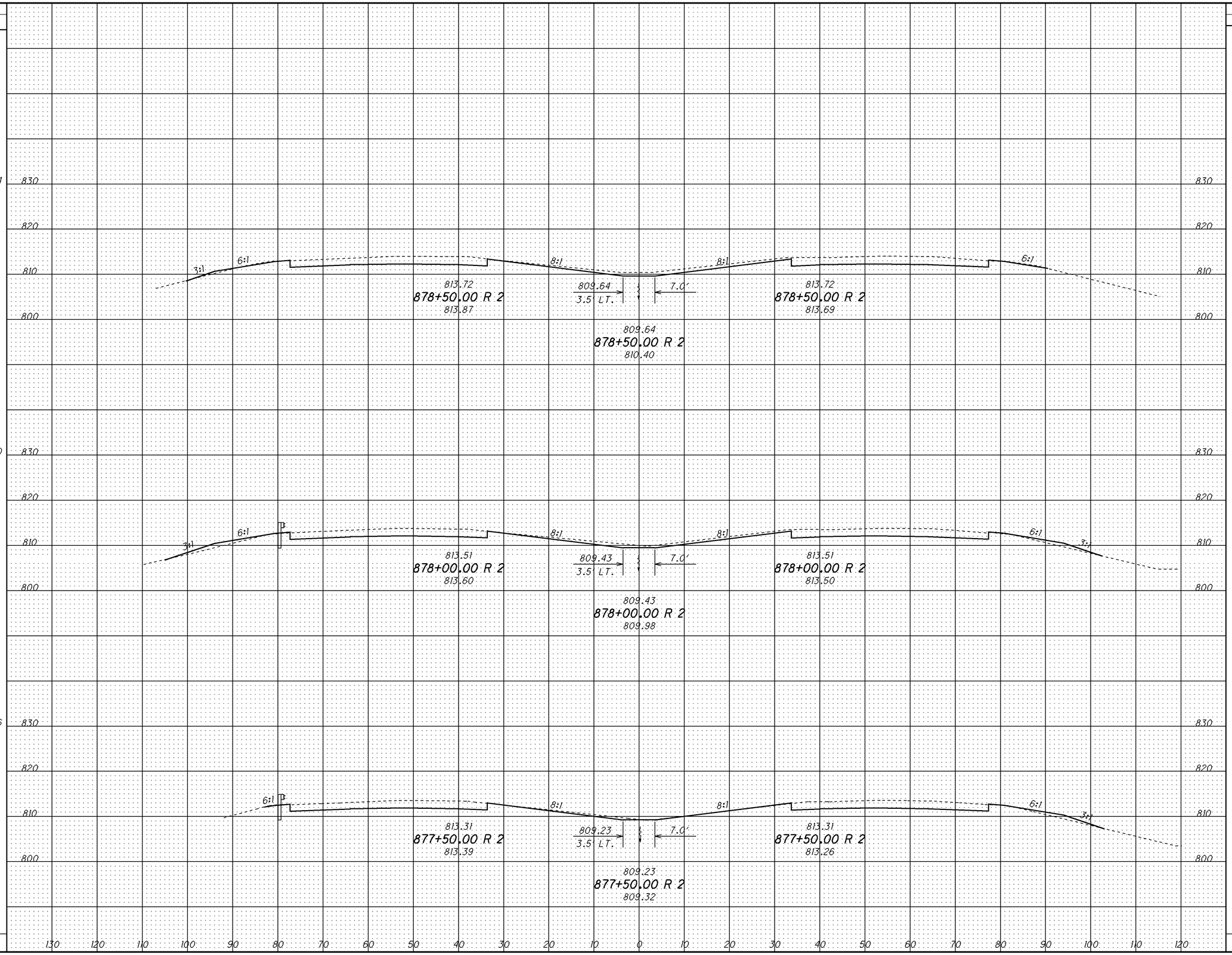
CROSS SECTIONS

STA. 874+50.00 TO STA. 875+50.00

LAK-90-21.40
ATB-90-0.00


SEEDING
END WIDTH
SQ. YDS.
126
699
128
708
128
712
128
830
820
810
800
6:1
8:1
3:1
813.11
877+00.00 R 2
813.18
809.03
3.5' LT.
7.0'
809.12
813.04
OUTLET 6"
93.0' LT.
EL. 808.48
P.R.C.O.
17'-6" TYPE F
12.5-6" TYPE B
812.91
876+50.00 R 2
812.98
808.83
810.87
812.83
812.71
876+00.00 R 2
812.78
808.63
809.54
812.59
130
120
110
100
90
80
70
60
50
40
30
20
10
0
END AREA
CUT
FILL
146
10
186
11
152
22
VOLUME
308
20
313
31
276
45
CALCULATED
CHECKED
CROSS SECTIONS
STA. 876+00.00 TO STA. 877+00.00
LAK-90-21.40
ATB-90-0.00
243
498
75477_IR90_PXS.DGN 03/12/2009 SHEET 89 OF 266

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
130	674	177	4	321	23
147	756	170	21	292	30
125	770	146	12	270	20



CALCULATED

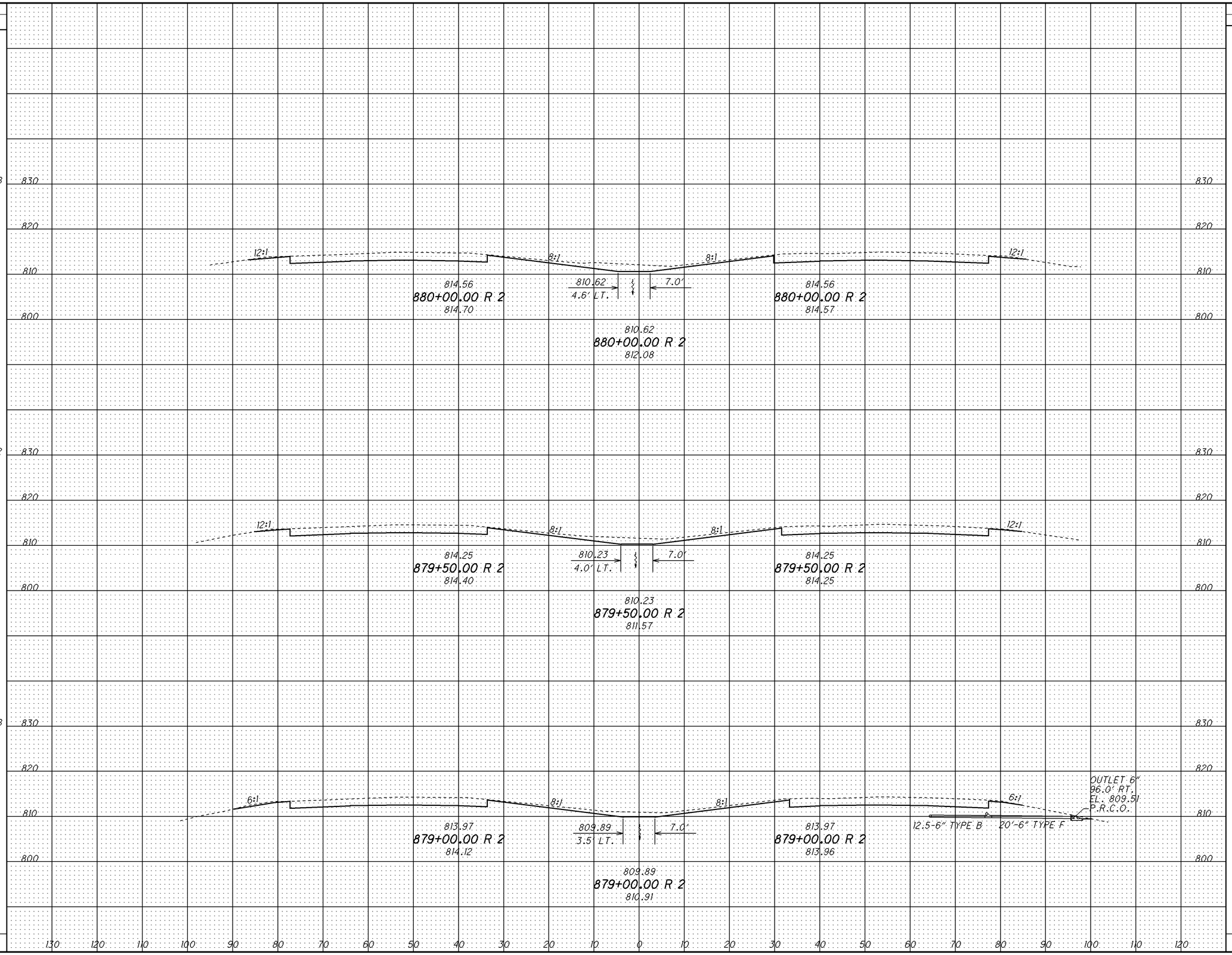
CHECKED

CROSS SECTIONS

STA. 877+50.00 TO STA. 878+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
107	608	199	0	365	0
106	592	195	0	352	0
113	608	185	0	335	4



CALCULATED

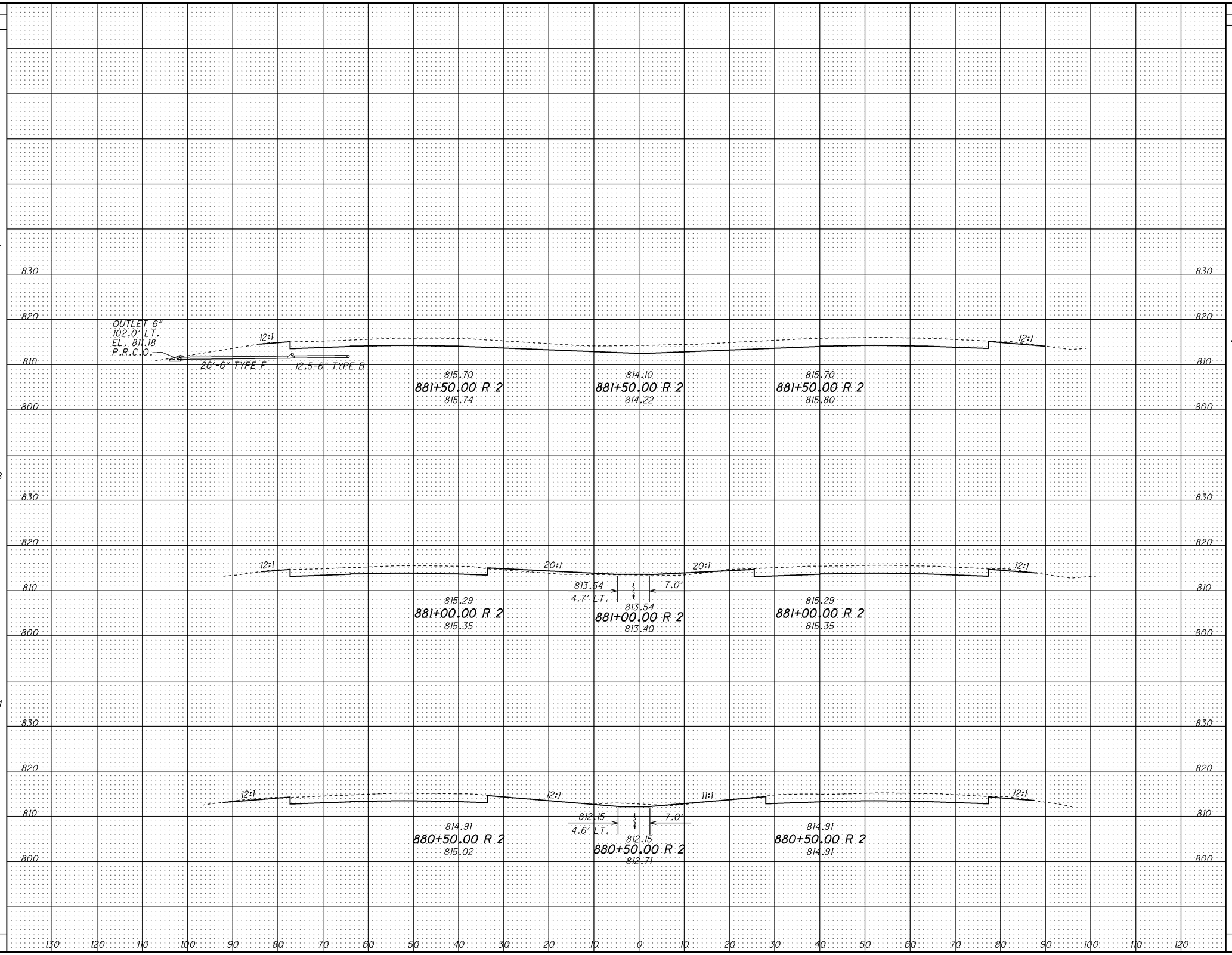
CHECKED

CROSS SECTIONS

STA. 879+00.00 TO STA. 880+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
42	413	247	0	378	15
102	398	161	16	305	17
112	594	168	2	340	1



CALCULATED

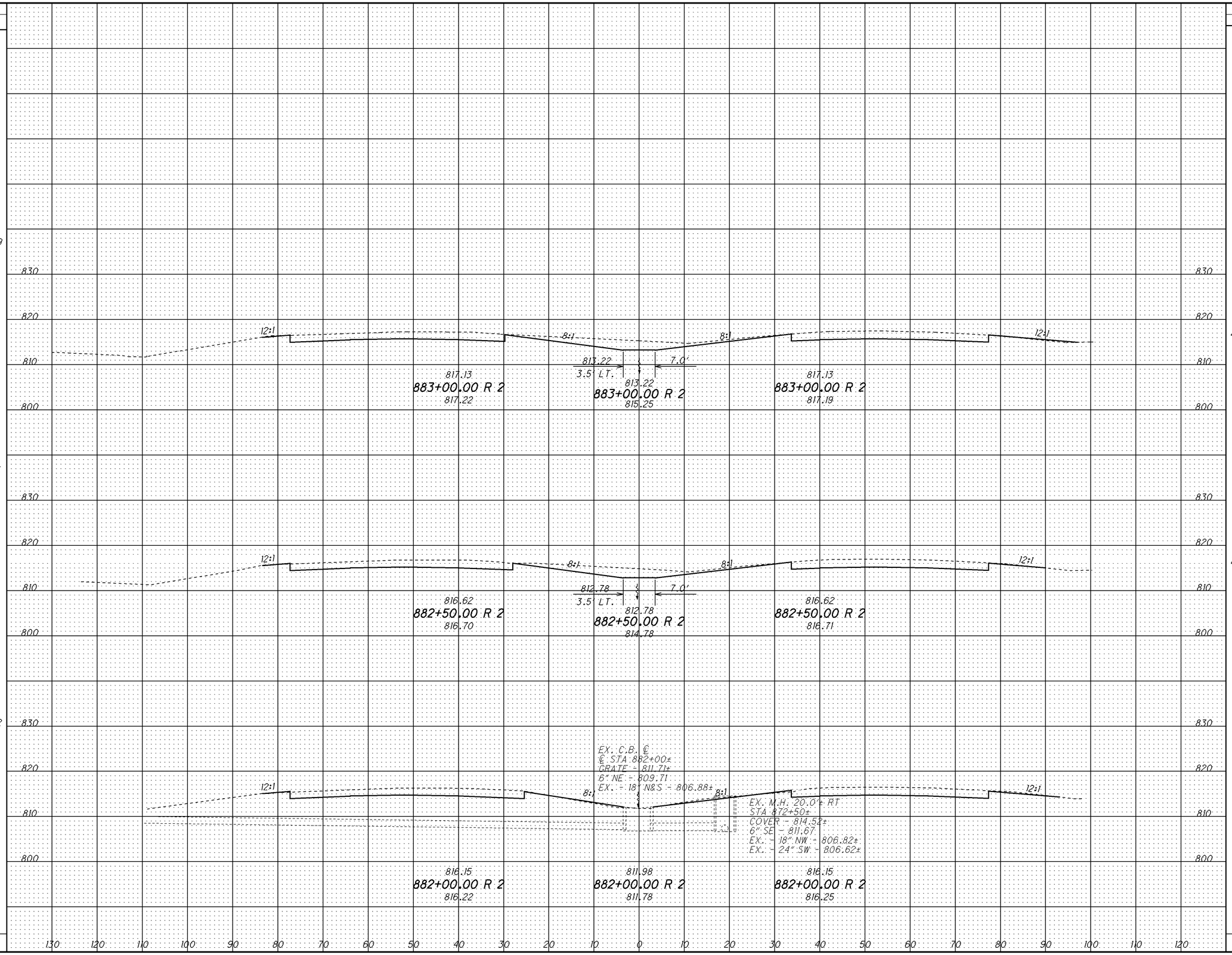
CHECKED

CROSS SECTIONS

STA. 880+50.00 TO STA. 881+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME		
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	
115	609	207	3	385	3	883+00.00
106	615	209	0	343	16	882+50.00
106	592	162	17	378	16	882+00.00



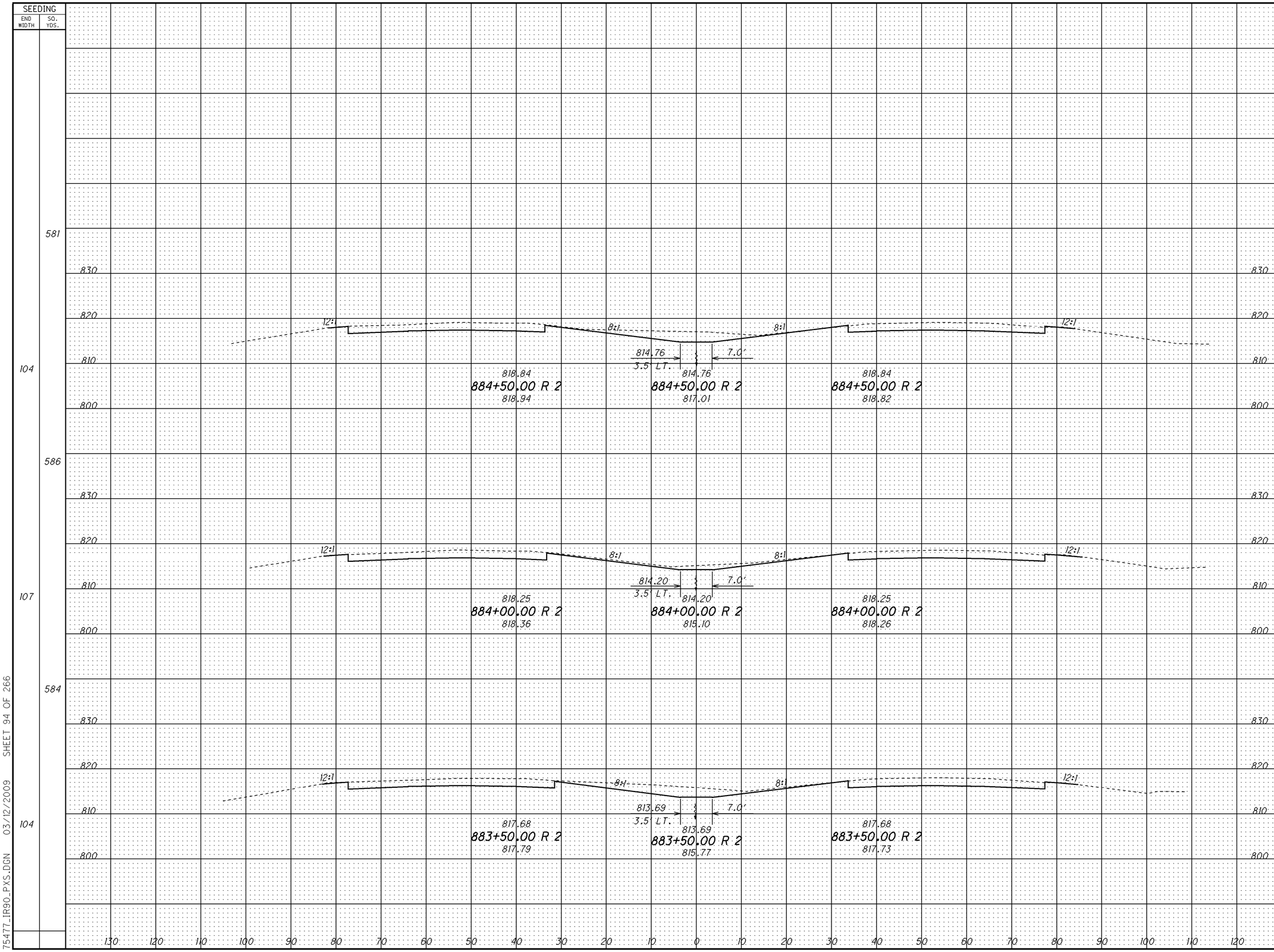
CALCULATED

CHECKED

CROSS SECTIONS

STA. 882+00.00 TO STA. 883+00.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
196	1		
		337	2
167	1		
		347	1
208	1		
		383	3

CALCULATED

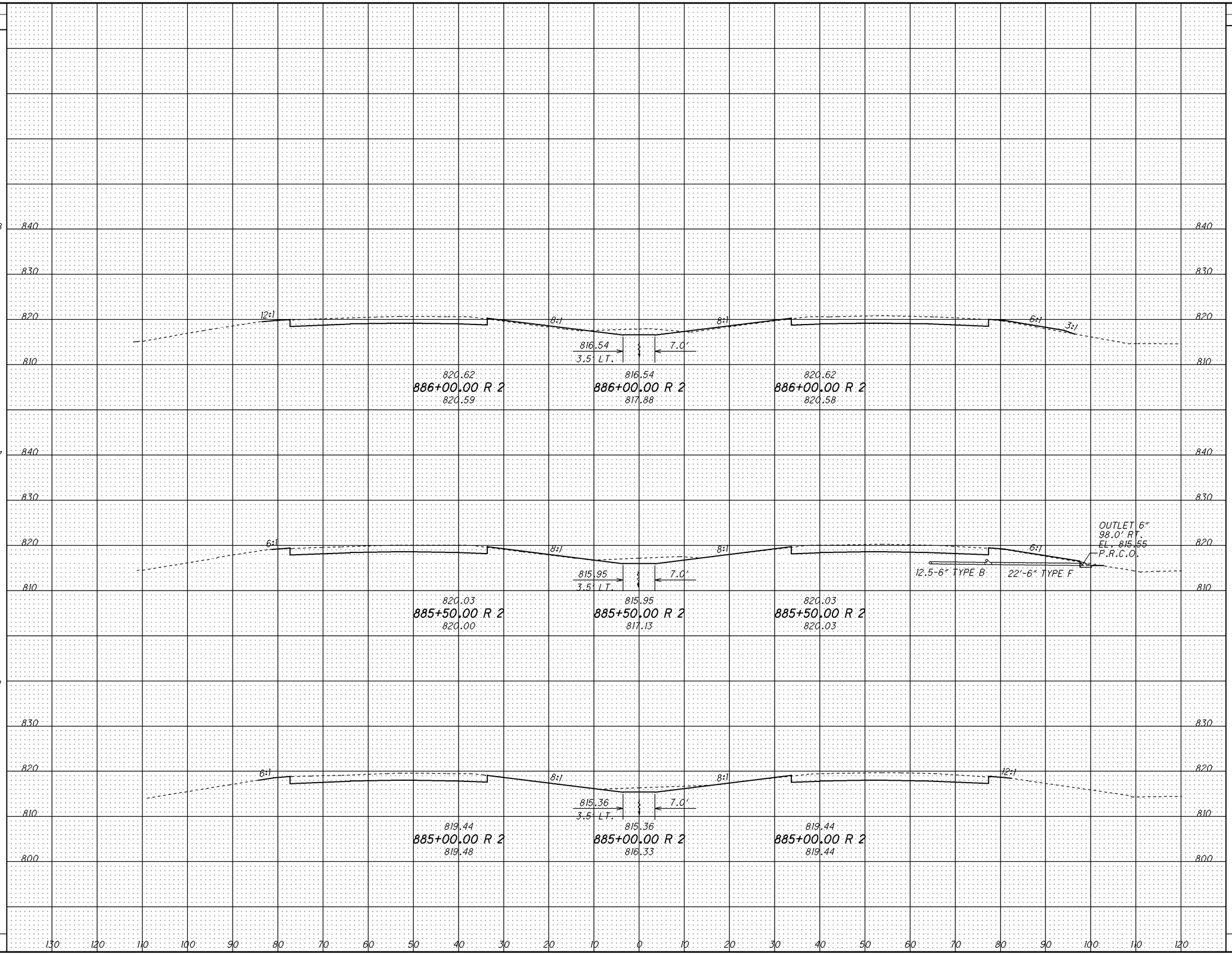
CHECKED

CROSS SECTIONS

STA. 883+50.00 TO STA. 884+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME		
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	
119	668	151	17	282	24	886+00.00 R 2
118	657	153	9	284	12	885+50.00 R 2
106	619	153	4	324	5	885+00.00 R 2



CALCULATED

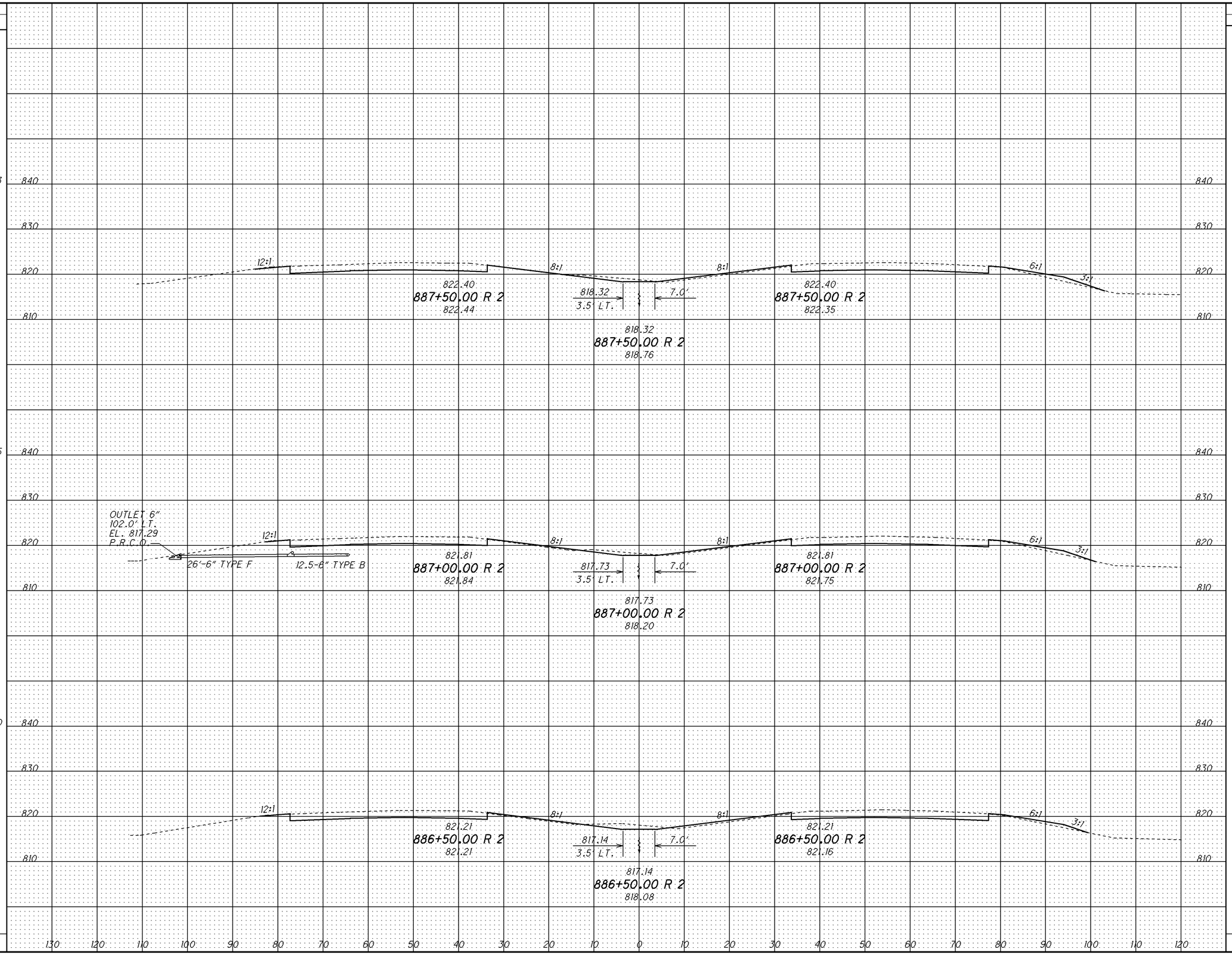
CHECKED

CROSS SECTIONS

STA. 885+00.00 TO STA. 886+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
127	723	145	24	268	44
123	695	144	23	271	44
122	680	148	25	277	39



CALCULATED

CHECKED

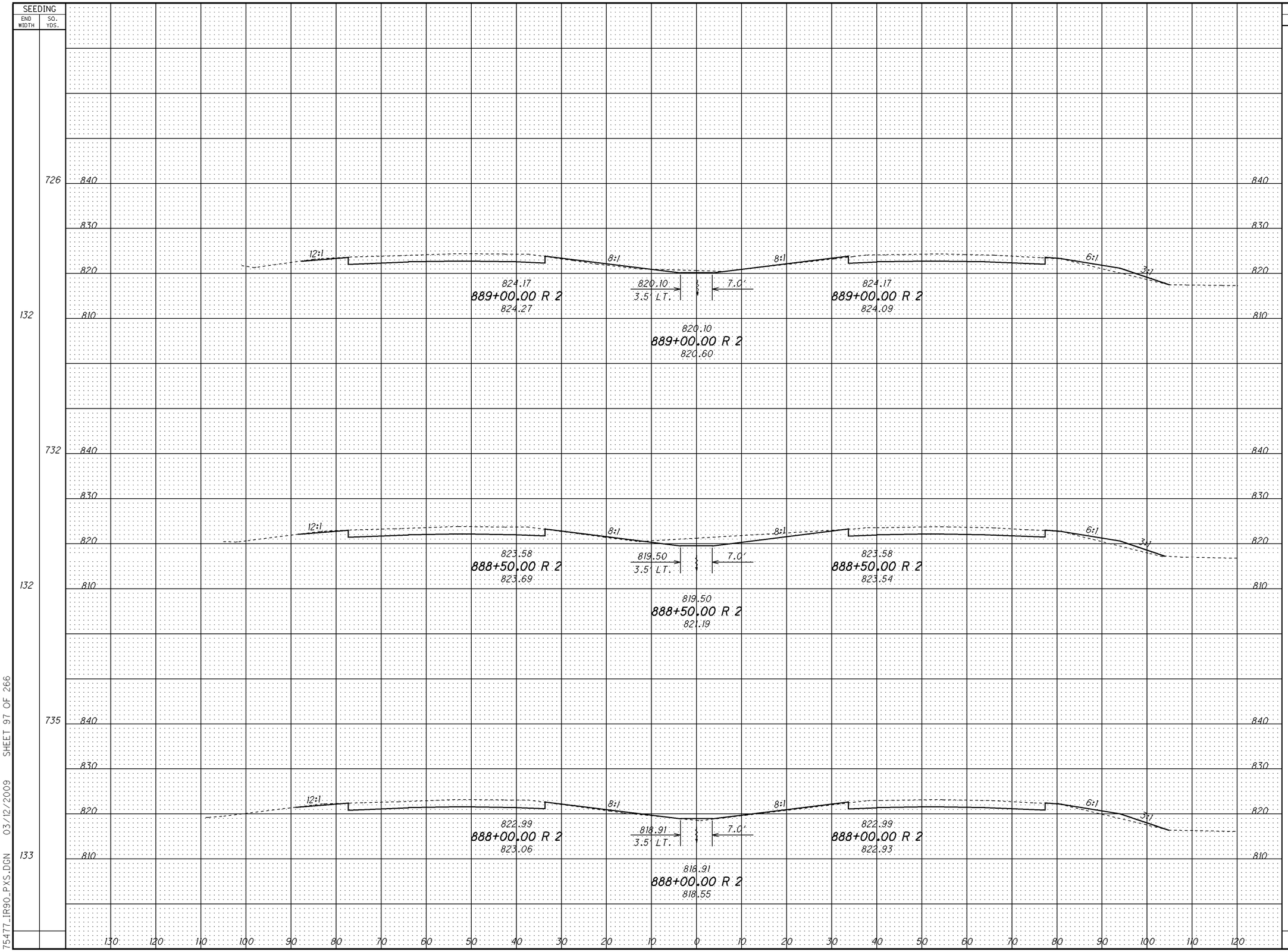
CROSS SECTIONS

STA. 886+50.00 TO STA. 887+50.00

LAK-90-21.40
ATB-90-0.00

250
498

75477_IR90_PXS.DGN 03/12/2009 SHEET 96 OF 266



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
143	24	302	39
183	18	297	42
138	27	262	47

CALCULATED

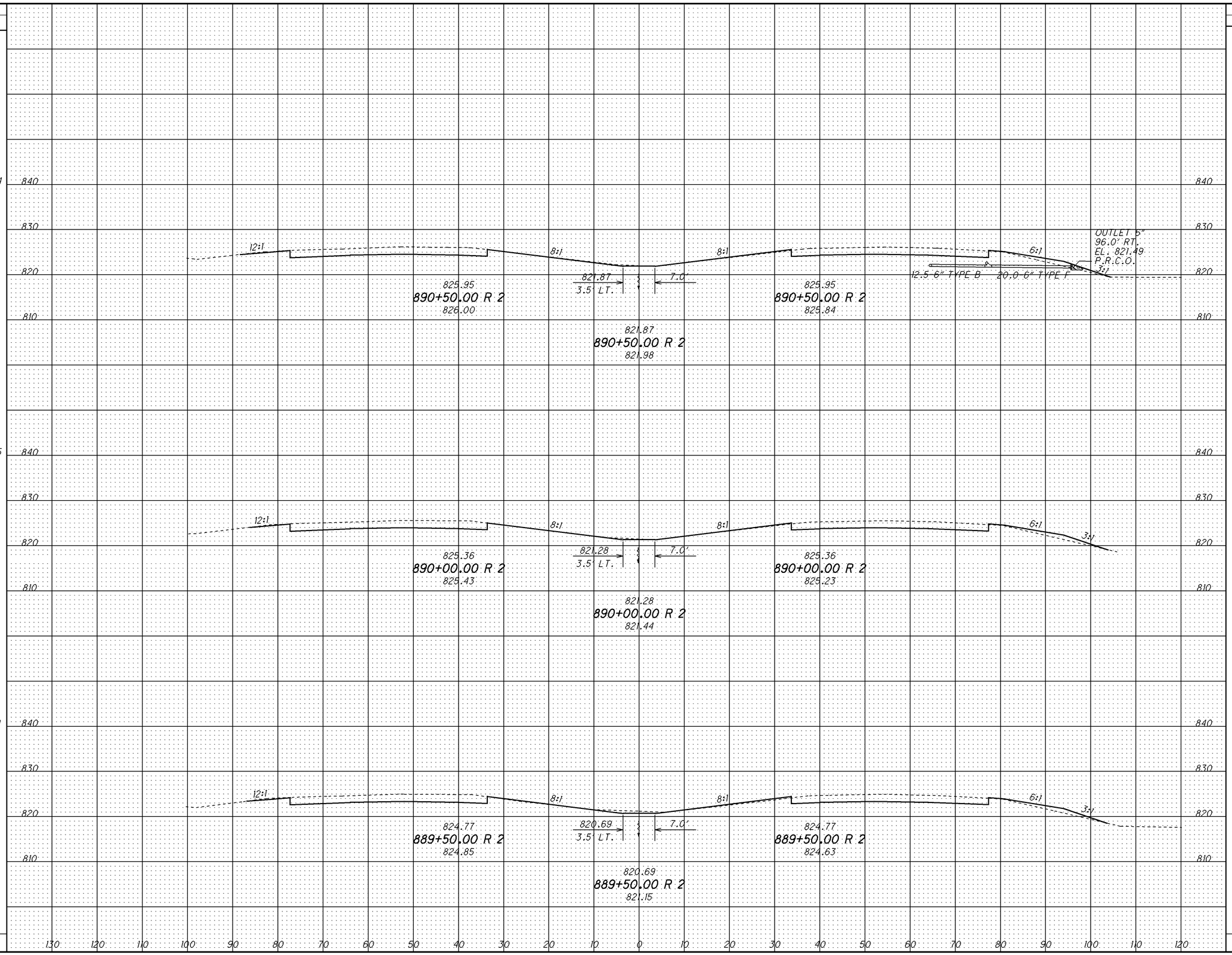
CHECKED

CROSS SECTIONS

STA. 888+00.00 TO STA. 889+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
132	734	139	19	257	34
129	725	138	18	259	37
130	719	142	22	264	43



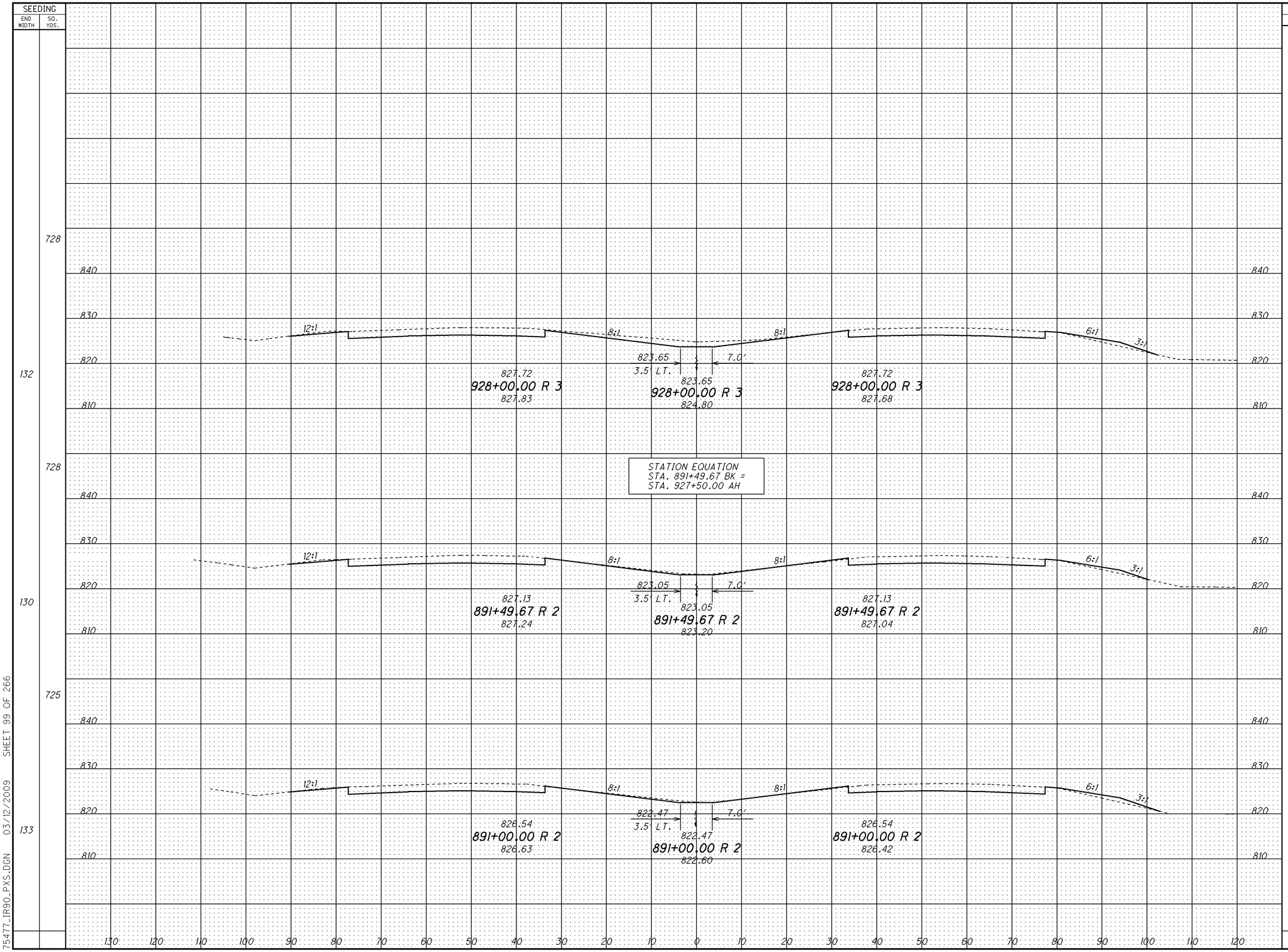
CALCULATED

CHECKED

CROSS SECTIONS

STA. 889+50.00 TO STA. 890+50.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
183	11		
		305	20
146	12		
		267	25
144	15		
		262	32

CALCULATED

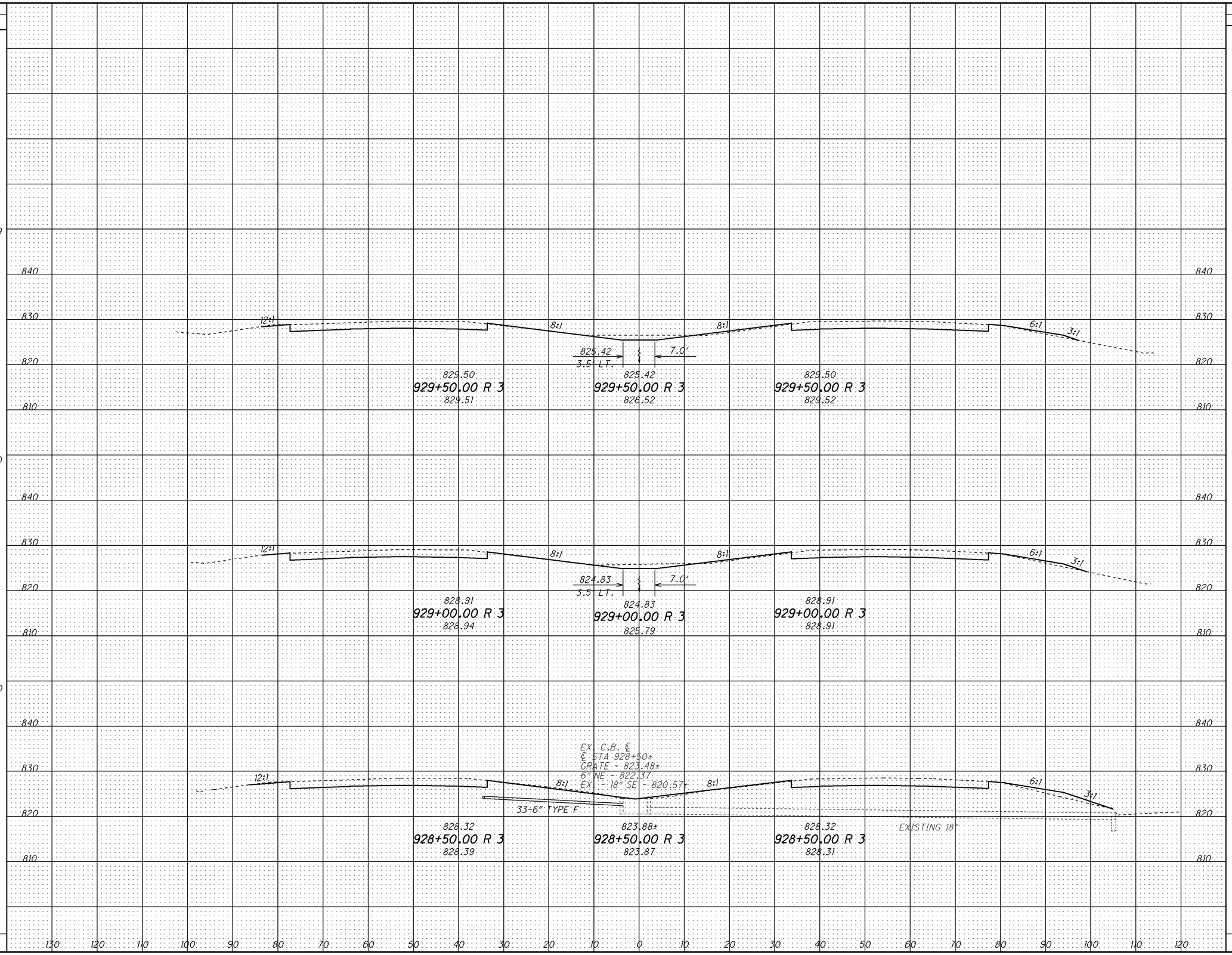
CHECKED

CROSS SECTIONS

STA. 891+00.00 TO STA. 928+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
120	659	153	14		
122	670	151	16	282	27
131	700	143	24	272	36
				301	31



CALCULATED

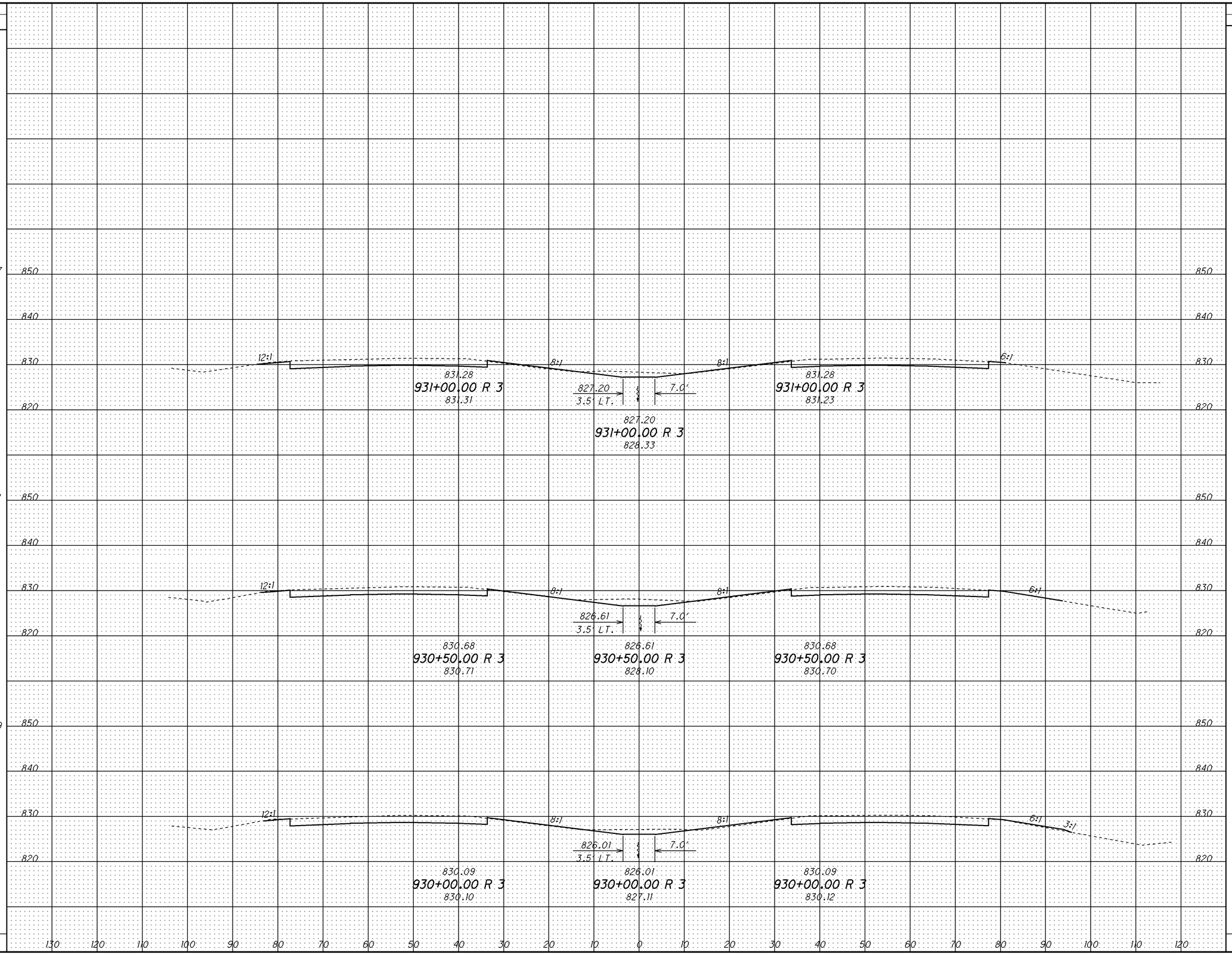
CHECKED

CROSS SECTIONS

STA. 928+50.00 TO STA. 929+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
104	627	155	10	293	17
116	612	161	9	292	21
117	649	154	14	284	26



CALCULATED

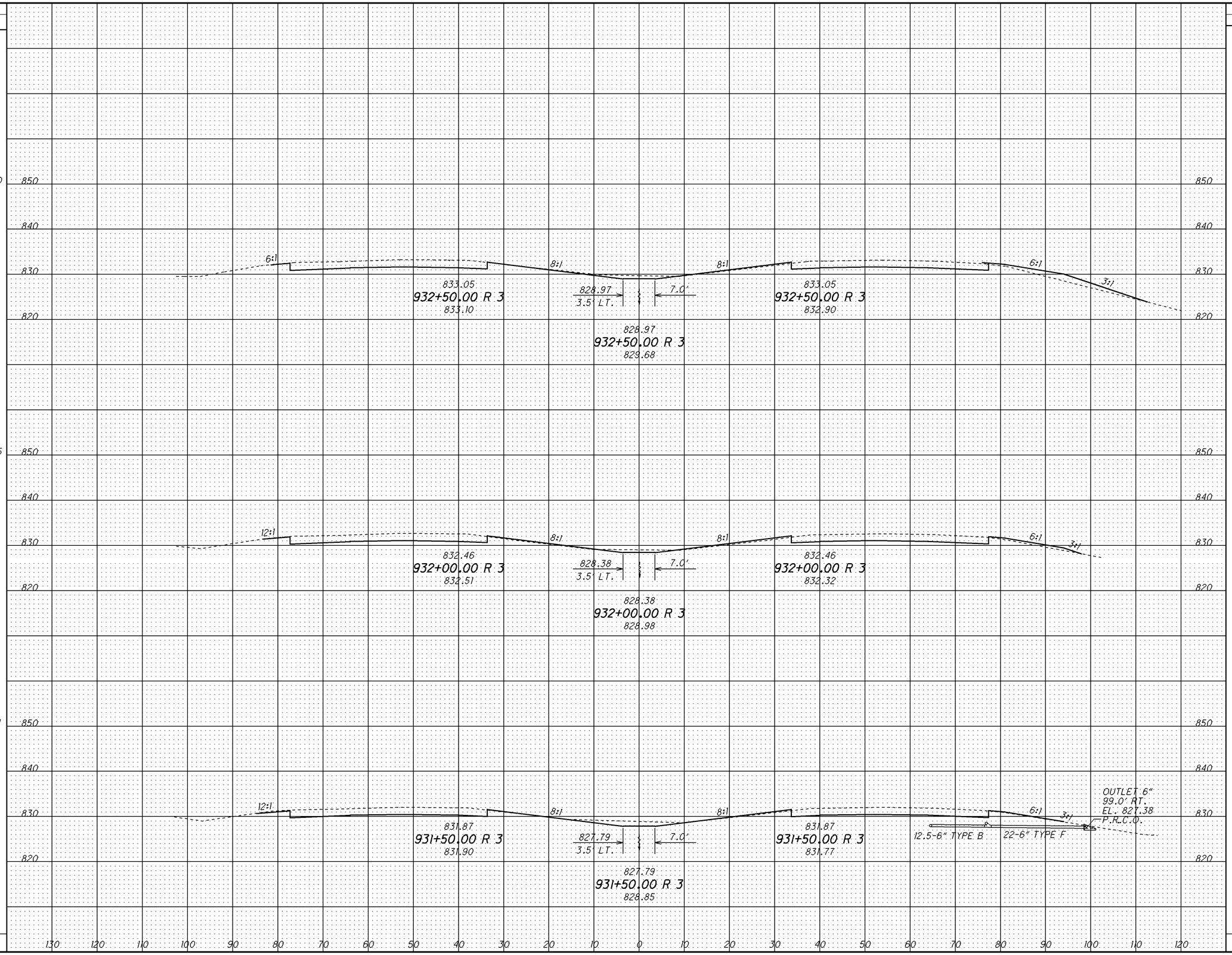
CHECKED

CROSS SECTIONS

STA. 930+00.00 TO STA. 931+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME		
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	
134	760	143	35	263	52	931+50.00 TO STA. 932+50.00
120	705	141	21	274	26	
122	671	154	8	287	16	



CALCULATED

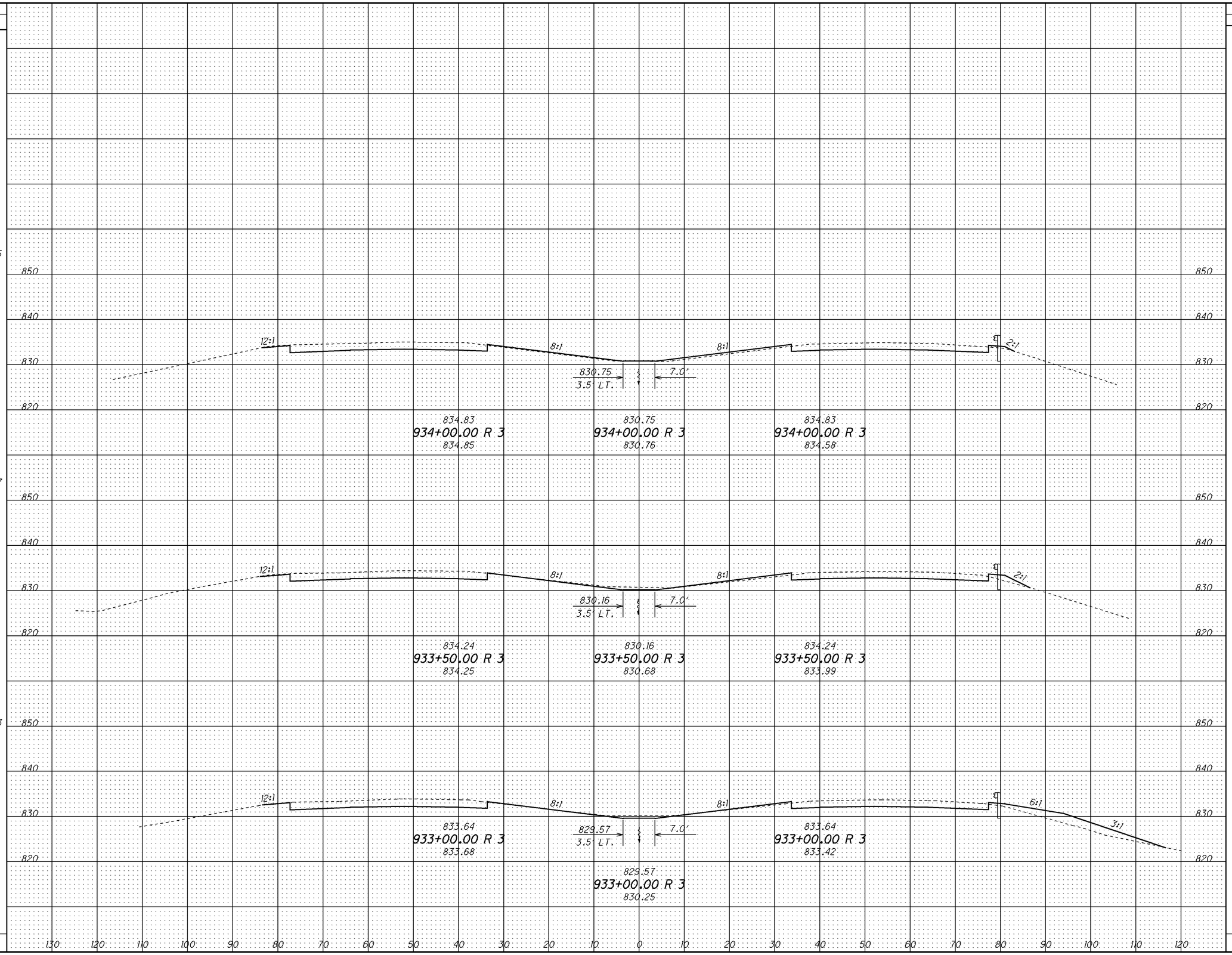
CHECKED

CROSS SECTIONS

STA. 931+50.00 TO STA. 932+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME		
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	
106	585	130	20	246	34	933+00.00 TO STA. 934+00.00
109	597	136	16	255	65	
140	693	140	54	261	82	



CALCULATED

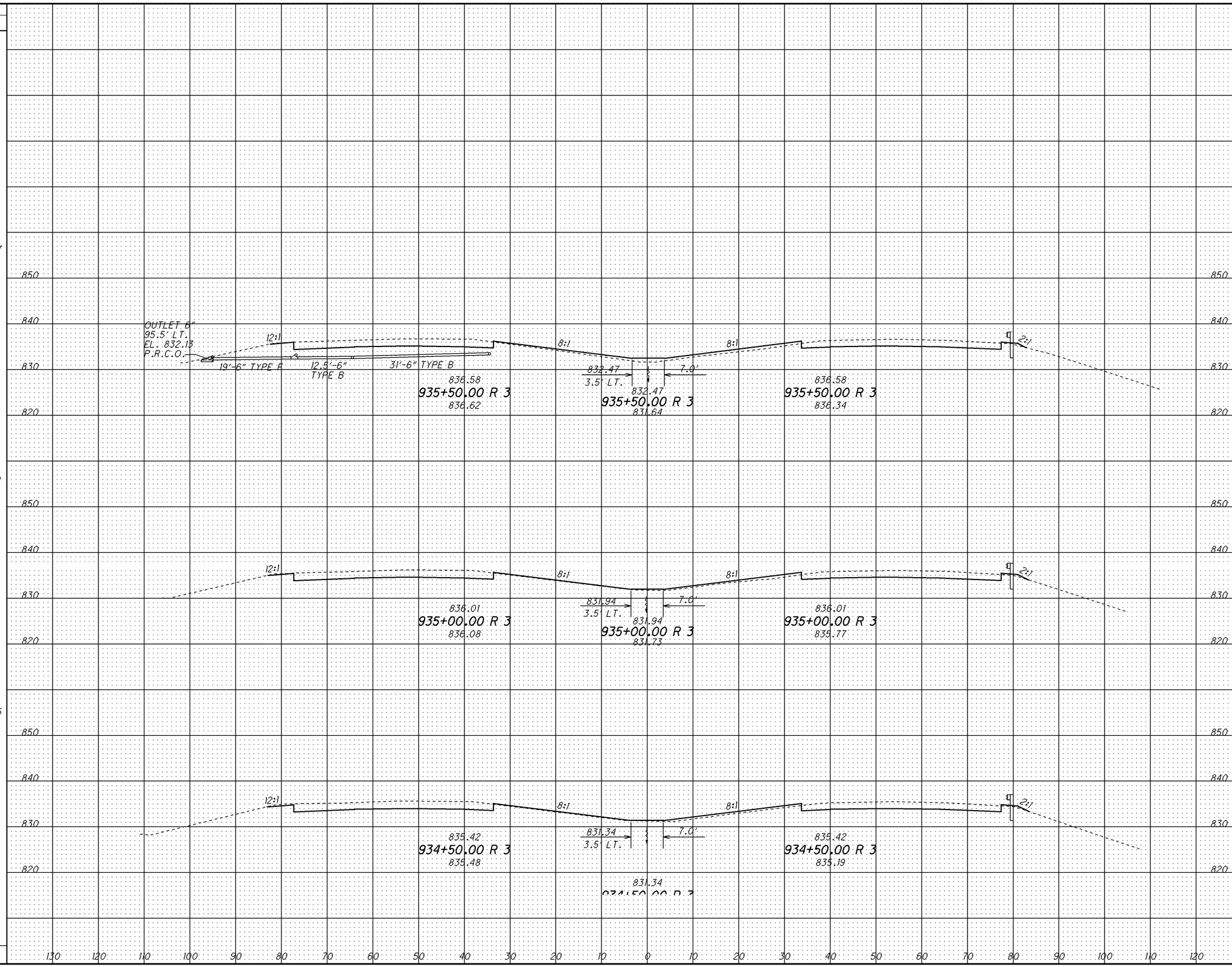
CHECKED

CROSS SECTIONS

STA. 933+00.00 TO STA. 934+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME		
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	
104	577	129	38	241	55	935+50.00
105	581	131	21	245	39	935+00.00
105	585	134	22	244	39	934+50.00



CALCULATED

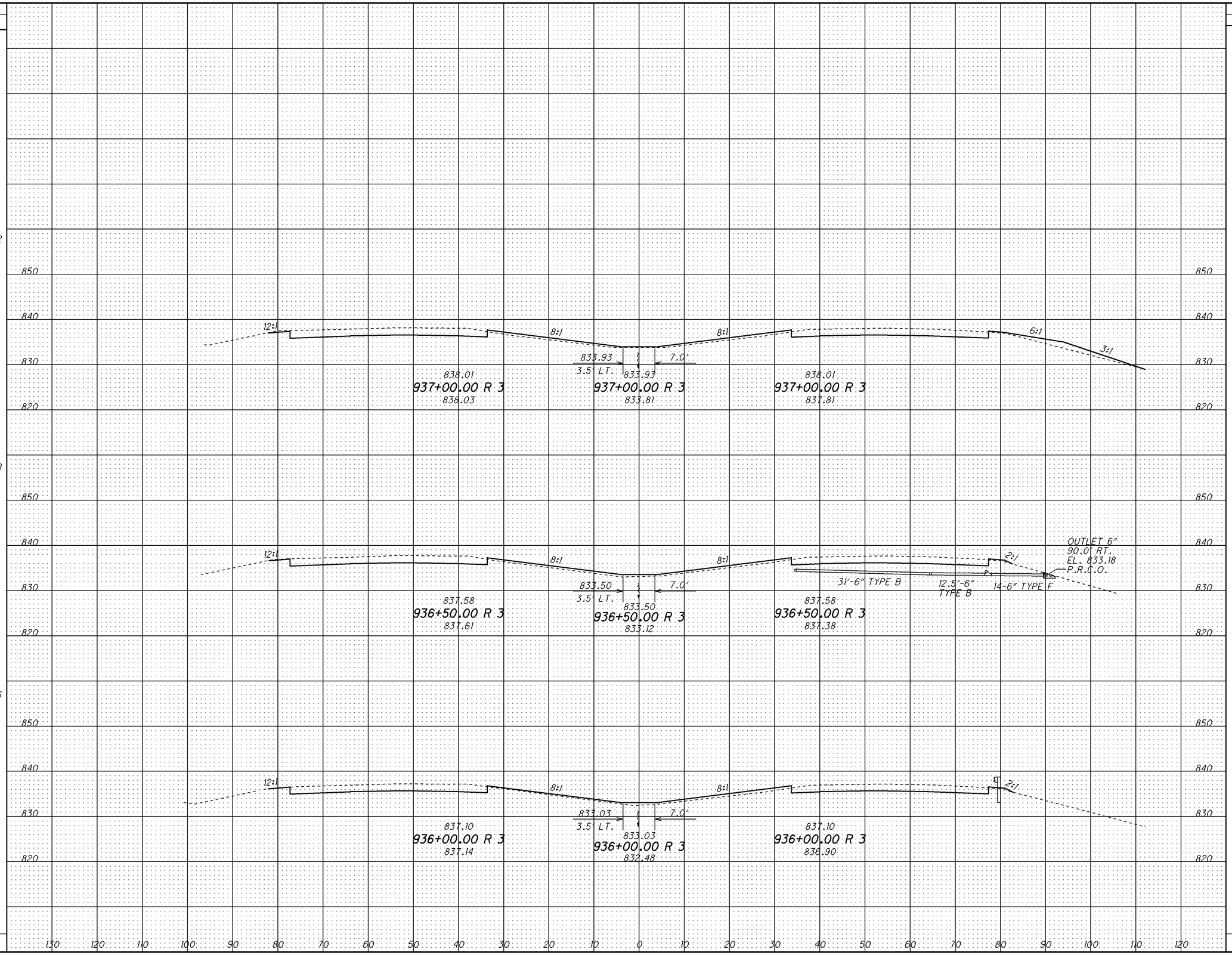
CHECKED

CROSS SECTIONS

STA. 934+50.00 TO STA. 935+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
133	742	131	54	242	81
103	658	130	34	241	60
103	575	130	31	240	64



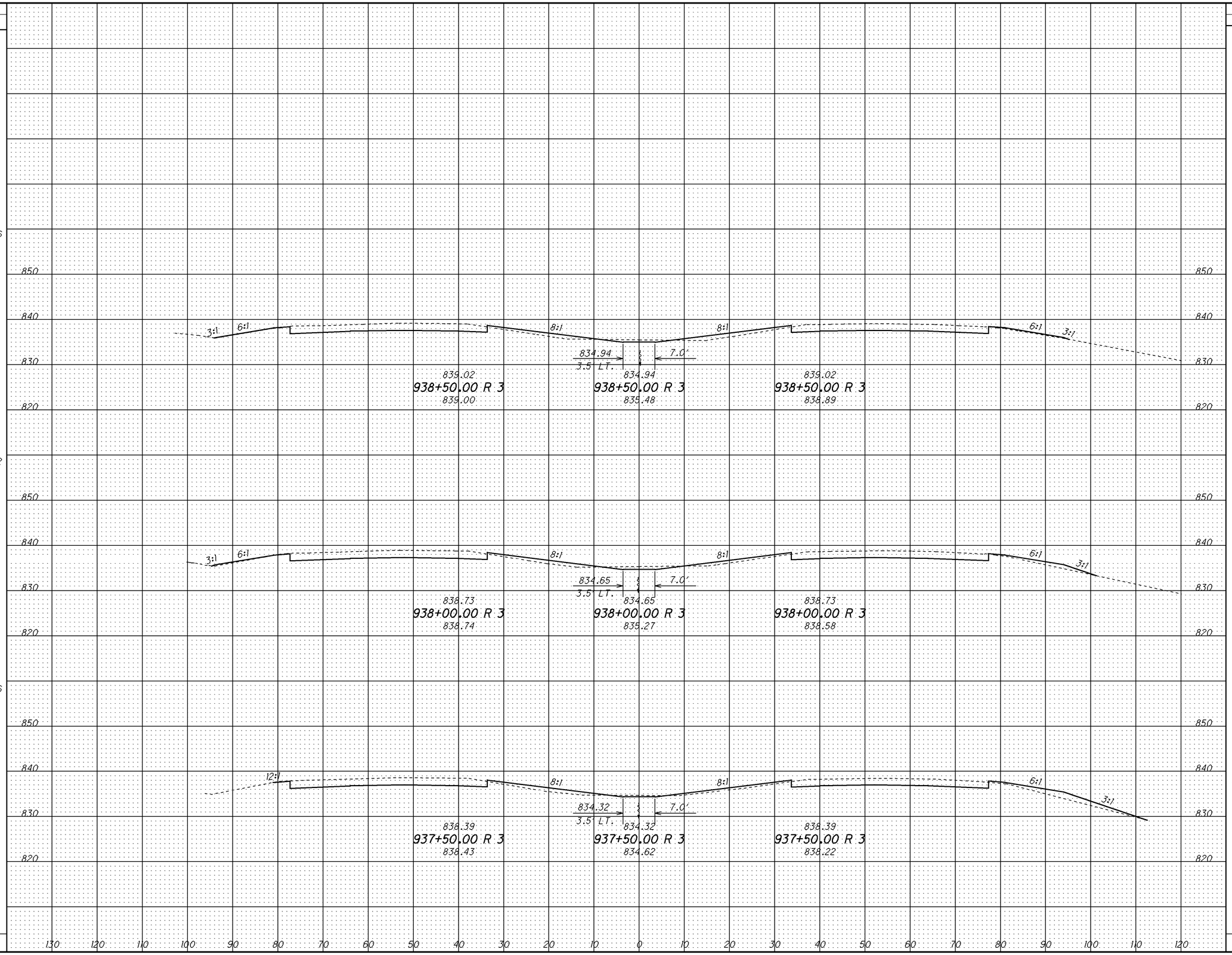
CALCULATED

CHECKED

CROSS SECTIONS

STA. 936+00.00 TO STA. 937+00.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
129	666	138	38	258	74
135	732	141	42	255	90
133	746	134	55	245	101

CALCULATED

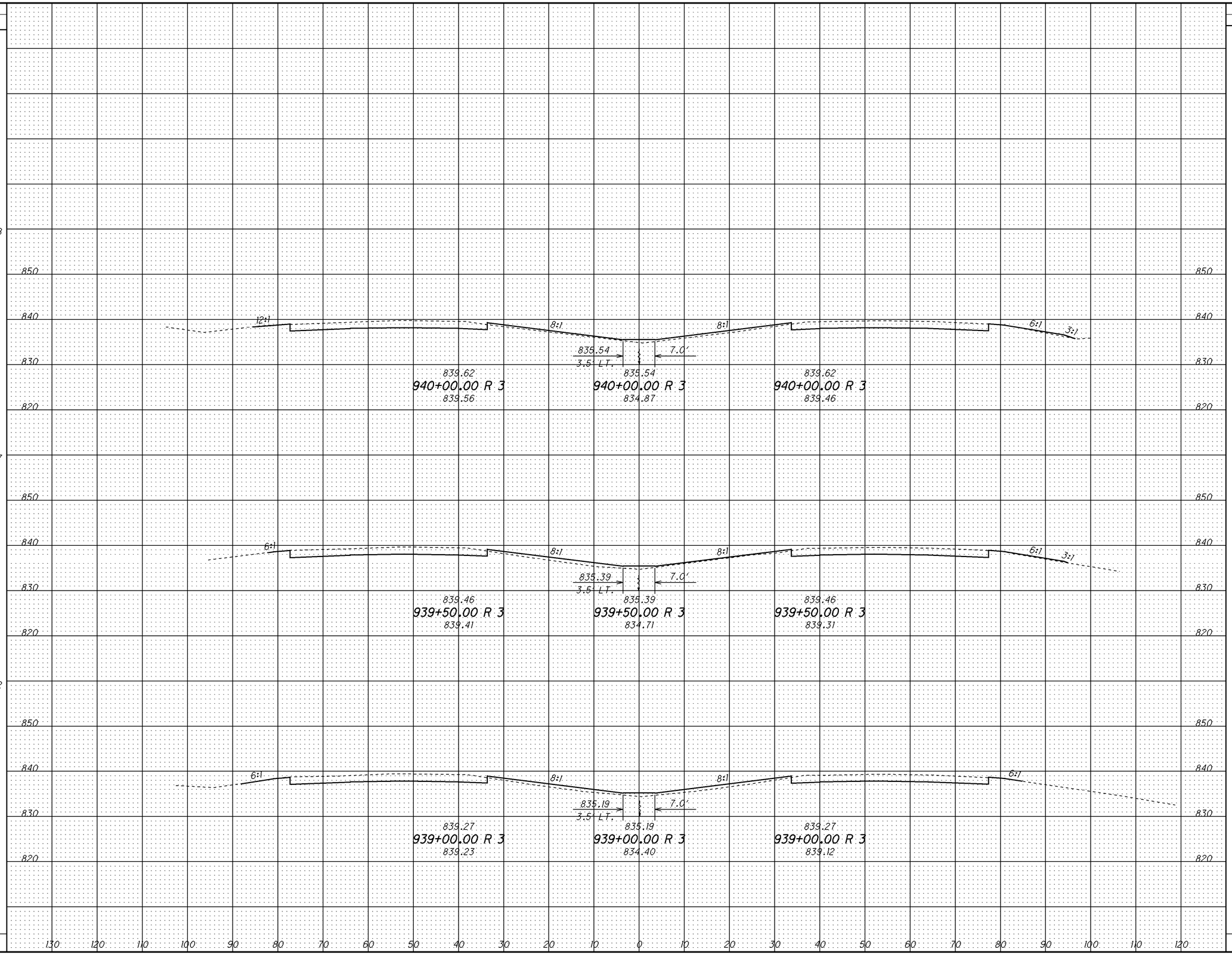
CHECKED

CROSS SECTIONS

STA. 937+50.00 TO STA. 938+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
121	668	131	33	244	63
115	632	132	35	244	74
111	657	131	45	249	77



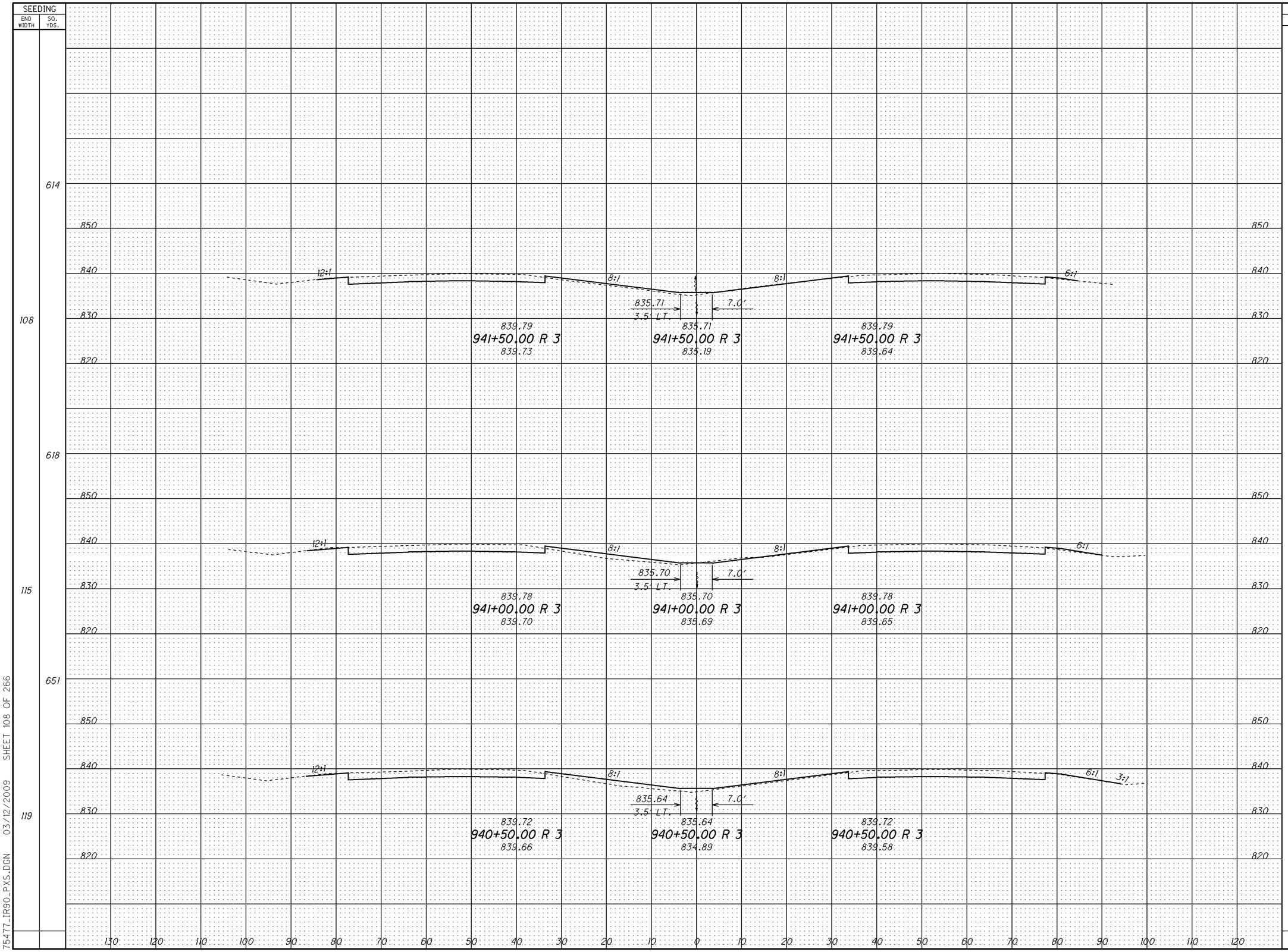
CALCULATED

CHECKED

CROSS SECTIONS

STA. 939+00.00 TO STA. 940+00.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
133	18		
		249	45
136	30		
		249	67
133	43		
		244	70

CALCULATED

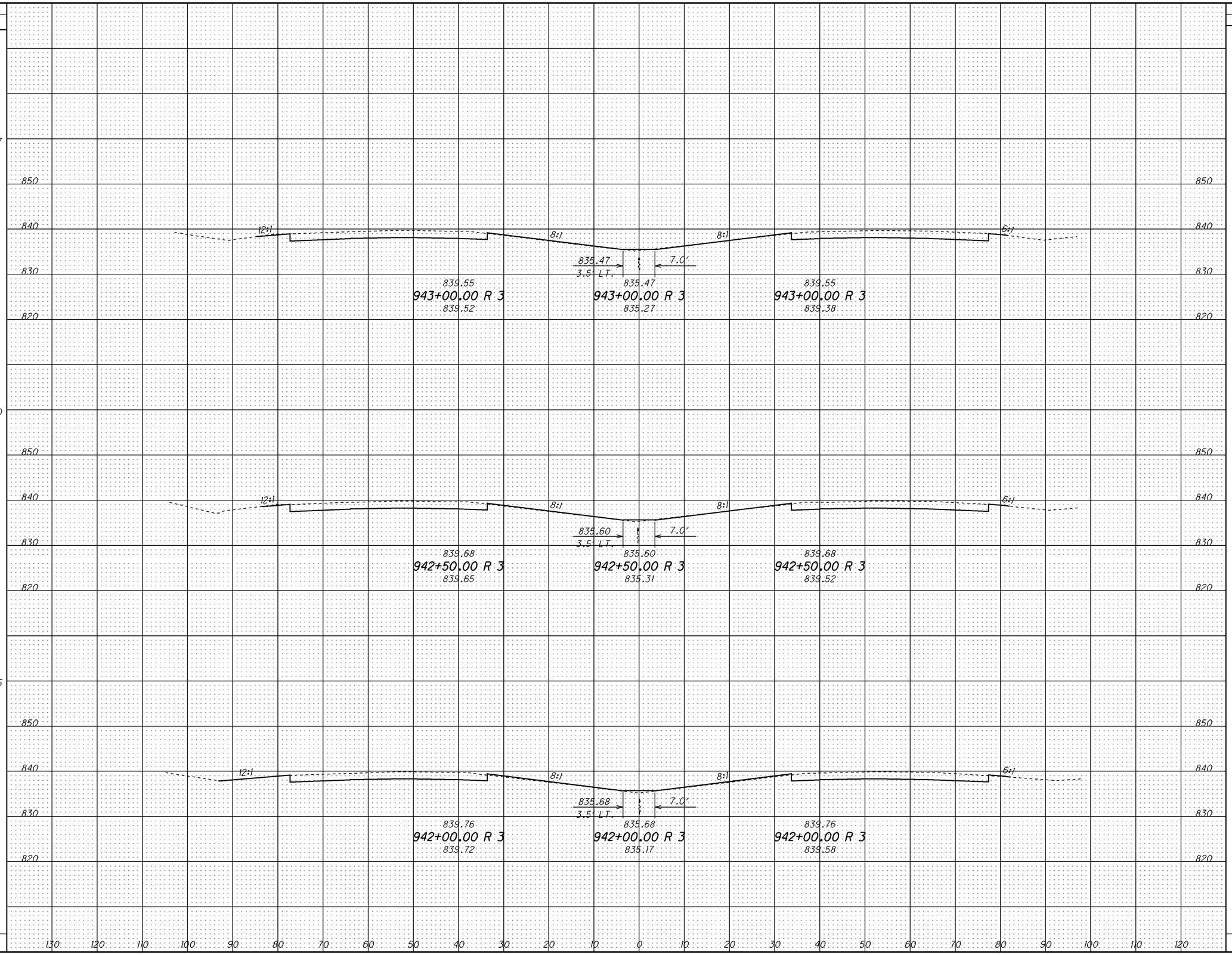
CHECKED

CROSS SECTIONS

STA. 940+50.00 TO STA. 941+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
105	587	137	8	252	16
104	580	135	10	248	23
113	605	132	15	246	31



CALCULATED

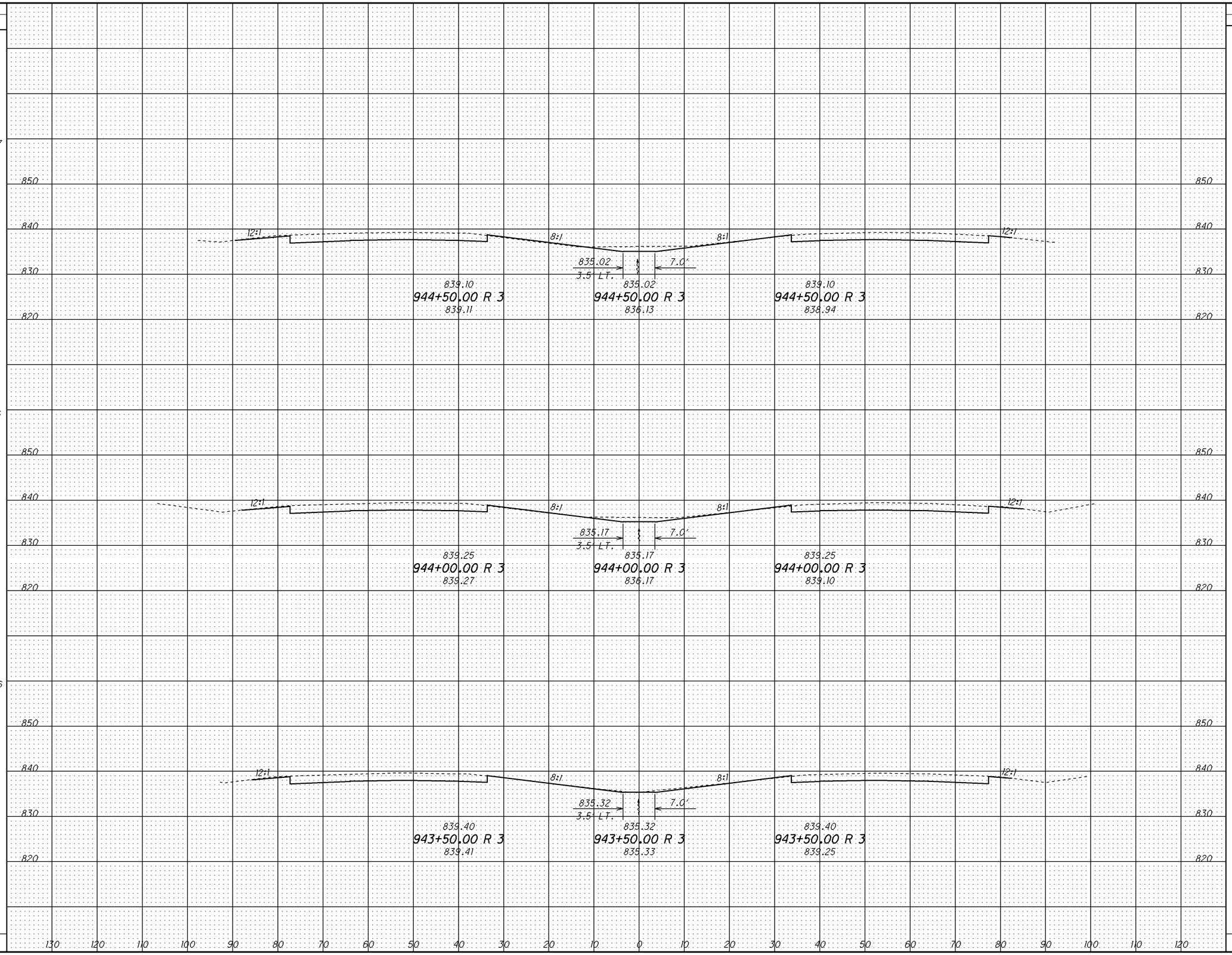
CHECKED

CROSS SECTIONS

STA. 942+00.00 TO STA. 943+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.
111	647
111	616
111	606
107	



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
160	6	293	10
156	5	278	7
144	3	260	10

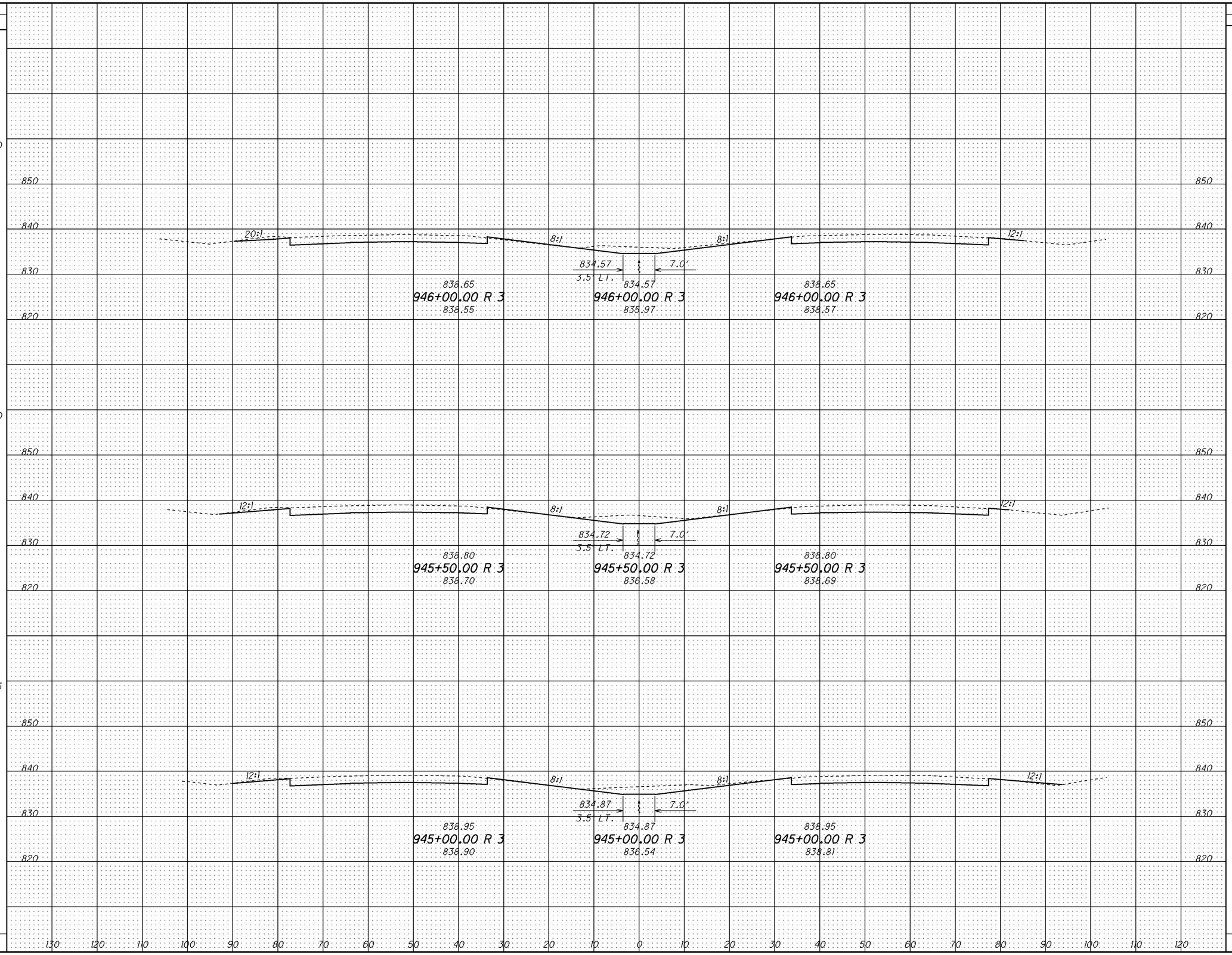
CALCULATED

CHECKED

CROSS SECTIONS
STA. 943+50.00 TO STA. 944+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME		
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	
113	620	170	5	316	8	946+00.00
113	630	172	3	323	8	945+50.00
122	655	177	6	312	11	945+00.00



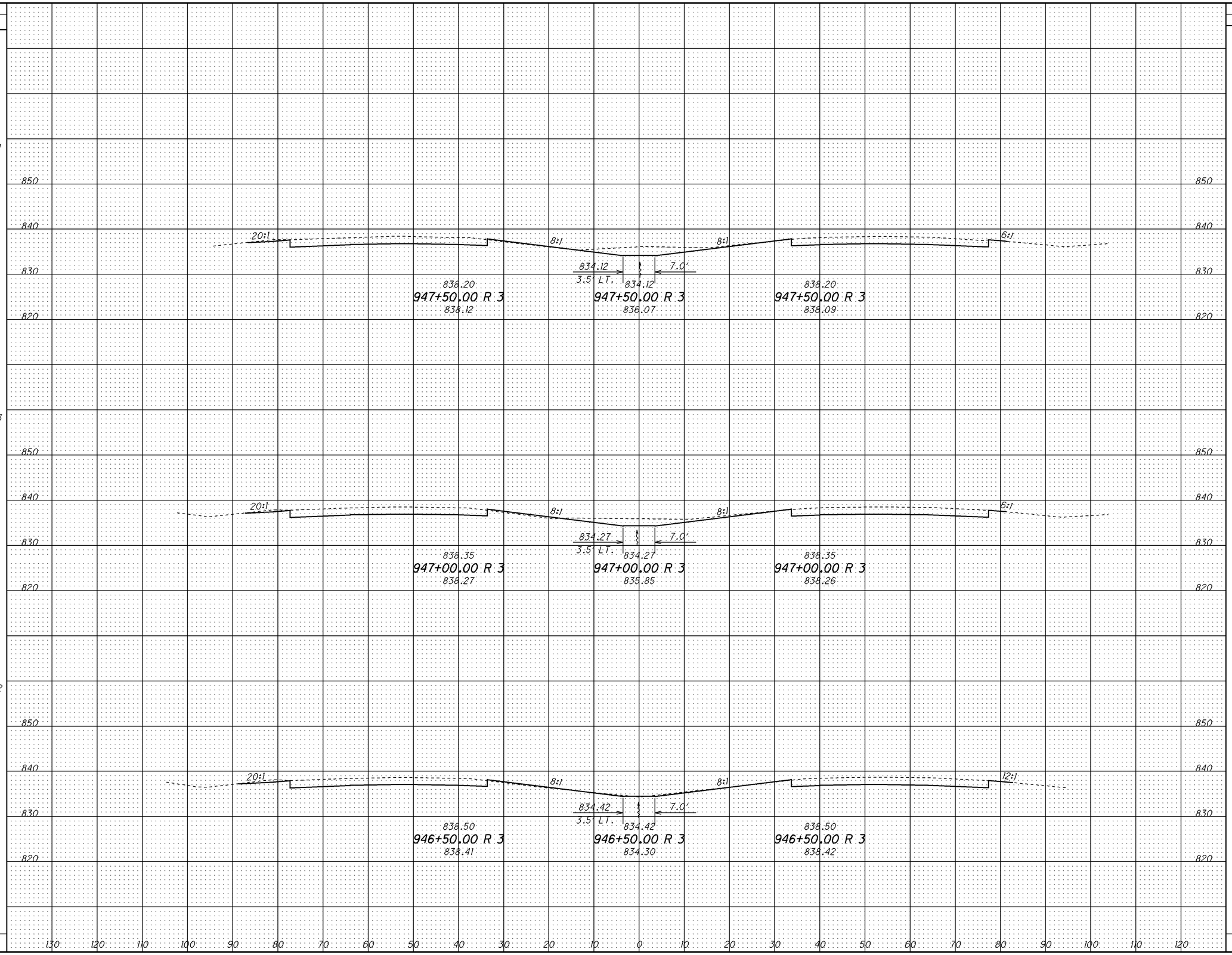
CALCULATED

CHECKED

CROSS SECTIONS

STA. 945+00.00 TO STA. 946+00.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
173	5		
		321	9
173	6		
		293	11
143	7		
		290	11

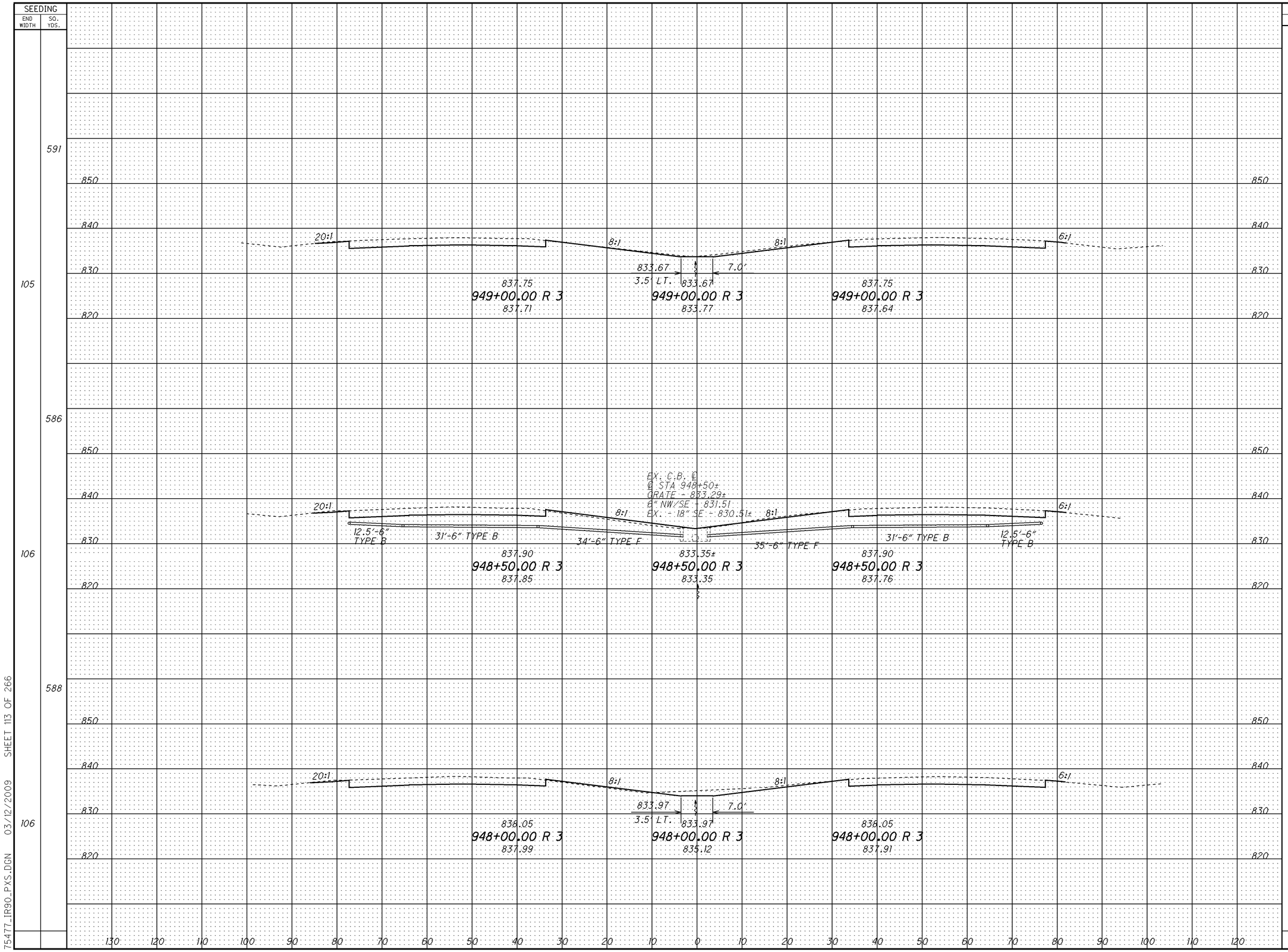
CALCULATED

CHECKED

CROSS SECTIONS

STA. 946+50.00 TO STA. 947+50.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
151	1	272	16
143	16	283	22
163	8	311	11

CALCULATED

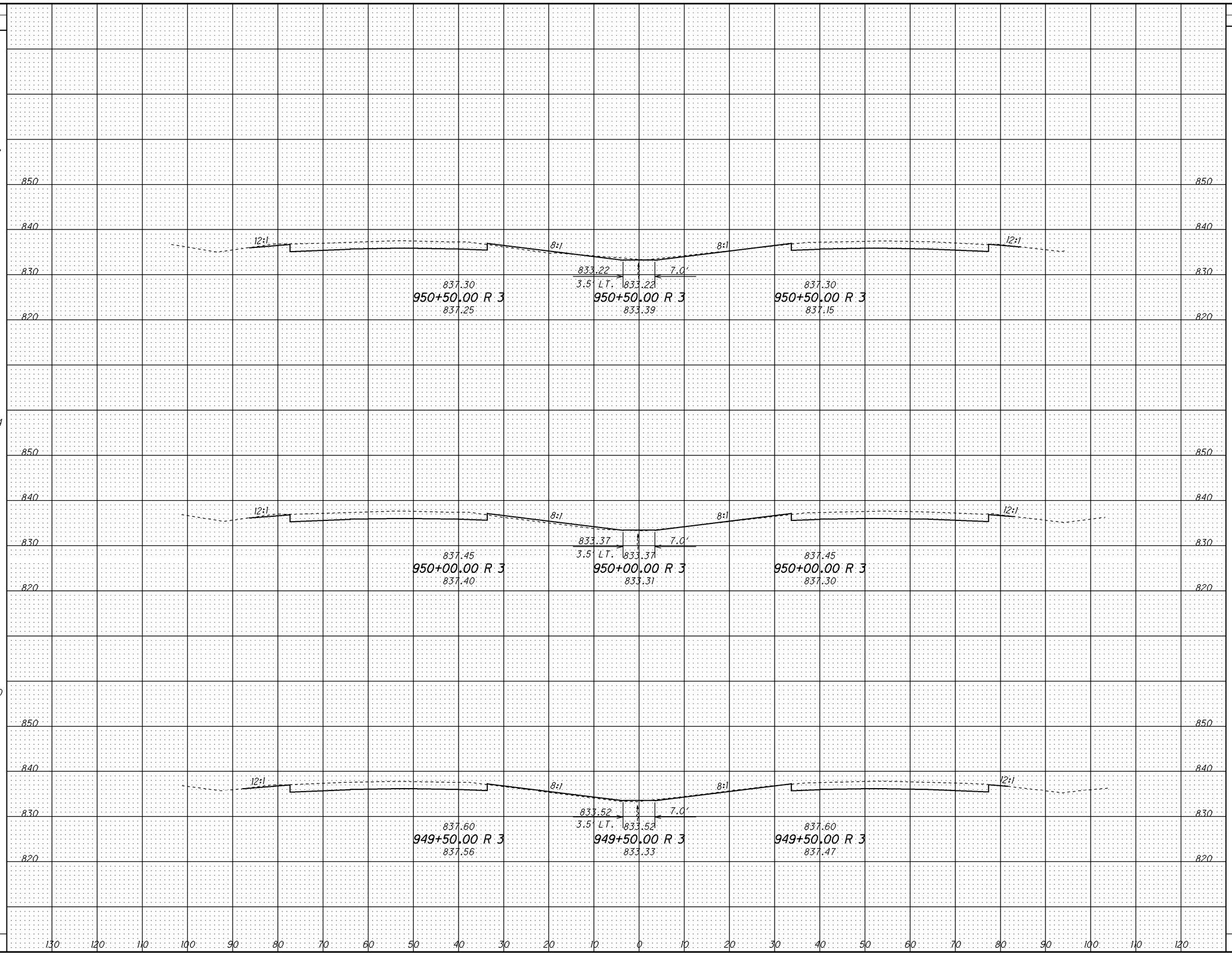
CHECKED

CROSS SECTIONS

STA. 948+00.00 TO STA. 949+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
110	612	143	9	262	23
108	604	140	15	262	23
108	600	143	9	272	10



CALCULATED

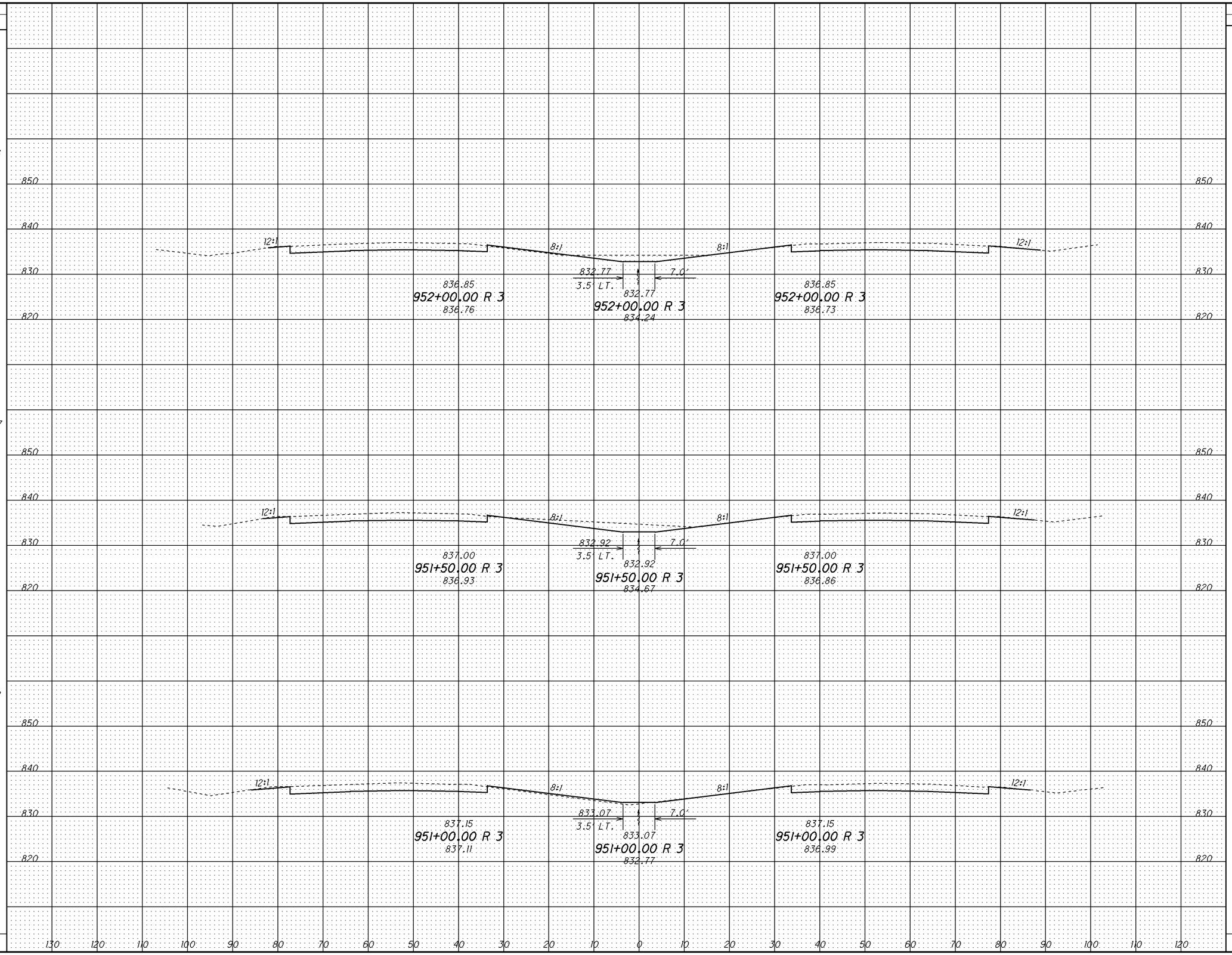
CHECKED

CROSS SECTIONS

STA. 949+50.00 TO STA. 950+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
109	613	163	7	318	8
109	607	181	2	296	15
111	612	139	14	261	22



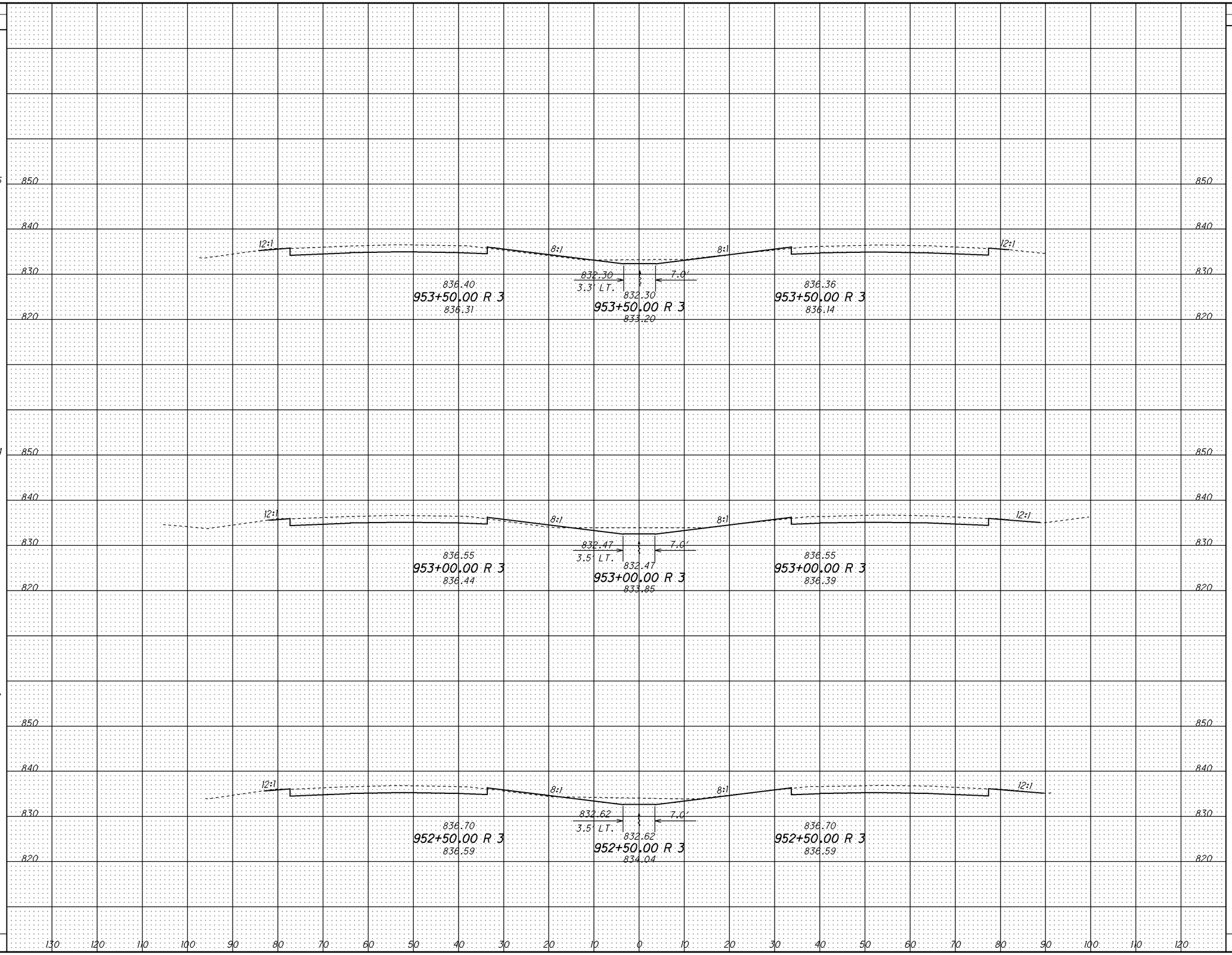
CALCULATED

CHECKED

CROSS SECTIONS
STA. 951+00.00 TO STA. 952+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME		
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	
105	585	144	9	279	19	953+50.00
109	594	157	11	294	16	953+00.00
111	612	161	6	300	12	952+50.00



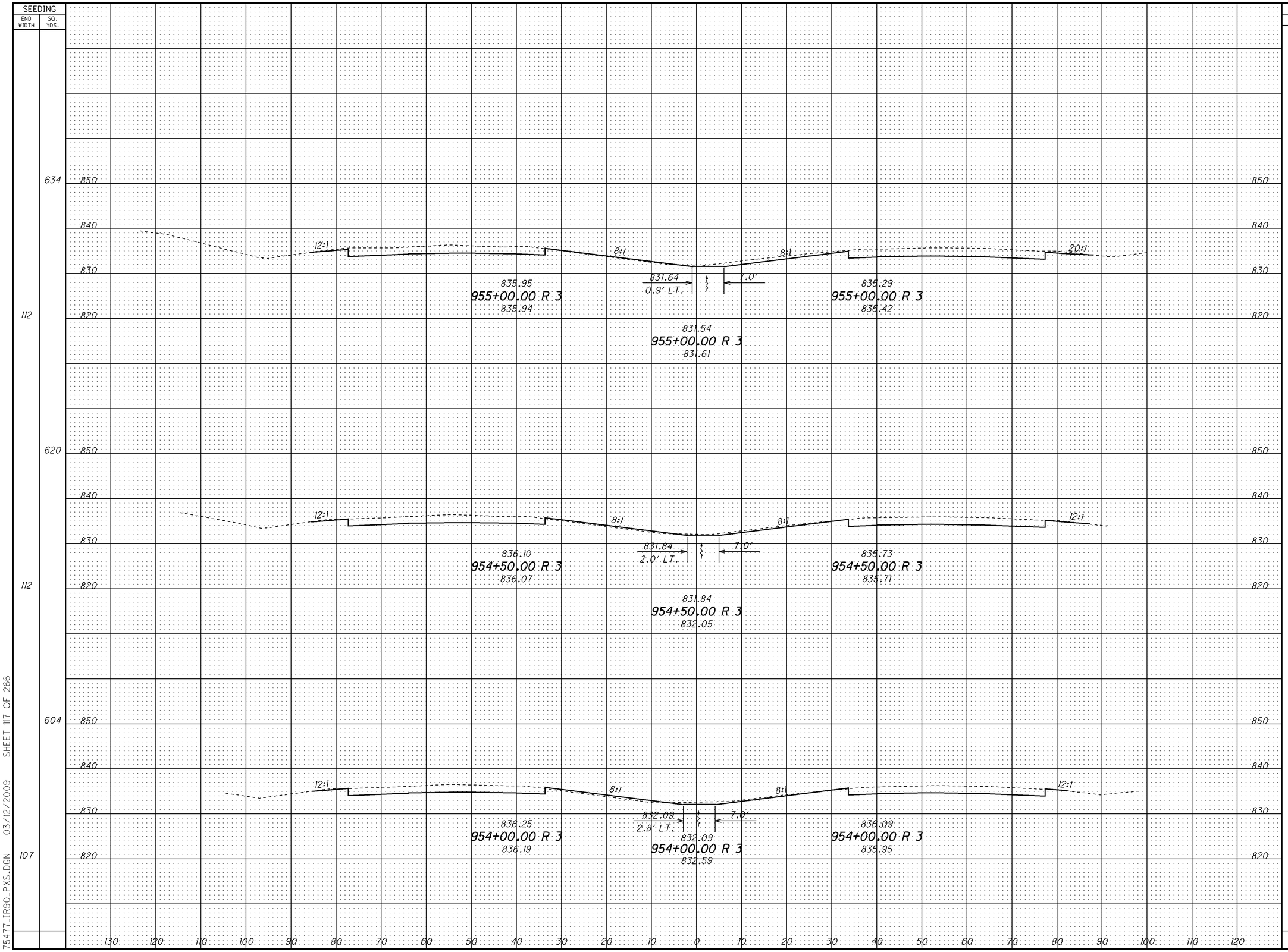
CALCULATED

CHECKED

CROSS SECTIONS

STA. 952+50.00 TO STA. 953+50.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
171	6	298	14
150	8	273	19
145	12	268	20

CALCULATED

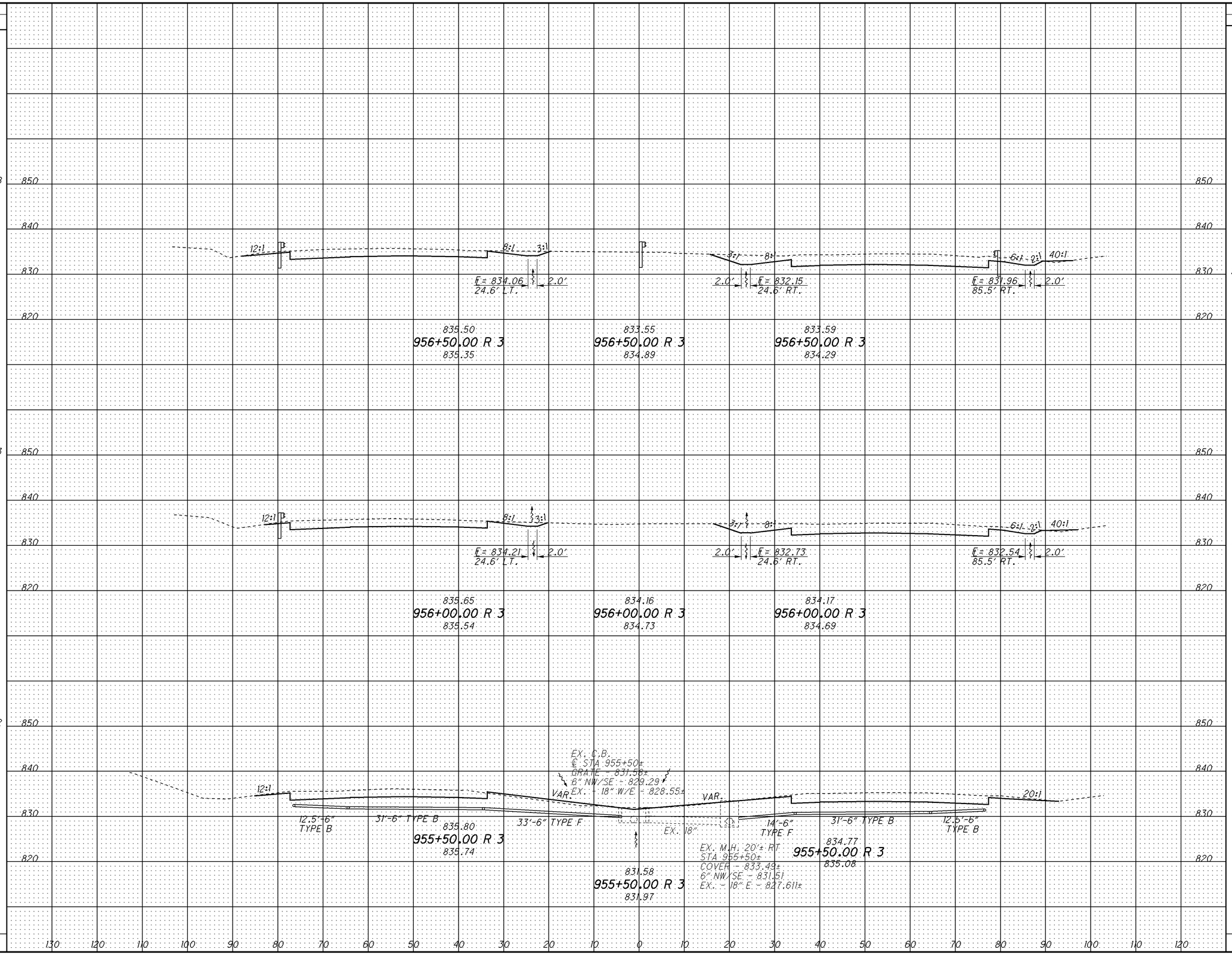
CHECKED

CROSS SECTIONS

STA. 954+00.00 TO STA. 955+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
88	468	224	1	402	3
82	473	210	1	349	15
116	552	166	15	312	20



CALCULATED

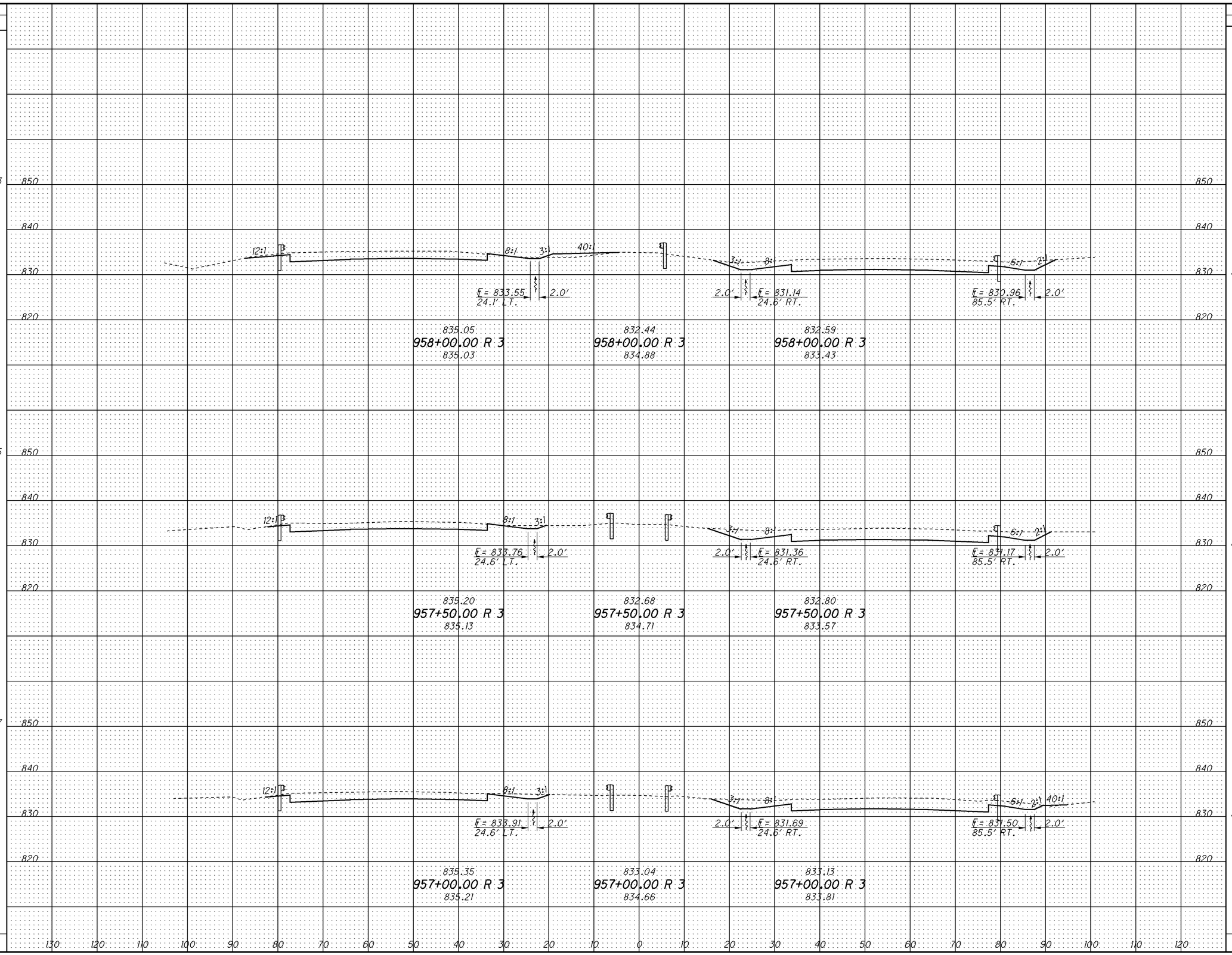
CHECKED

CROSS SECTIONS

STA. 955+50.00 TO STA. 956+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
98	563	222	10	413	10
77	485	224	0	414	1
80	437	223	1	414	2



CALCULATED

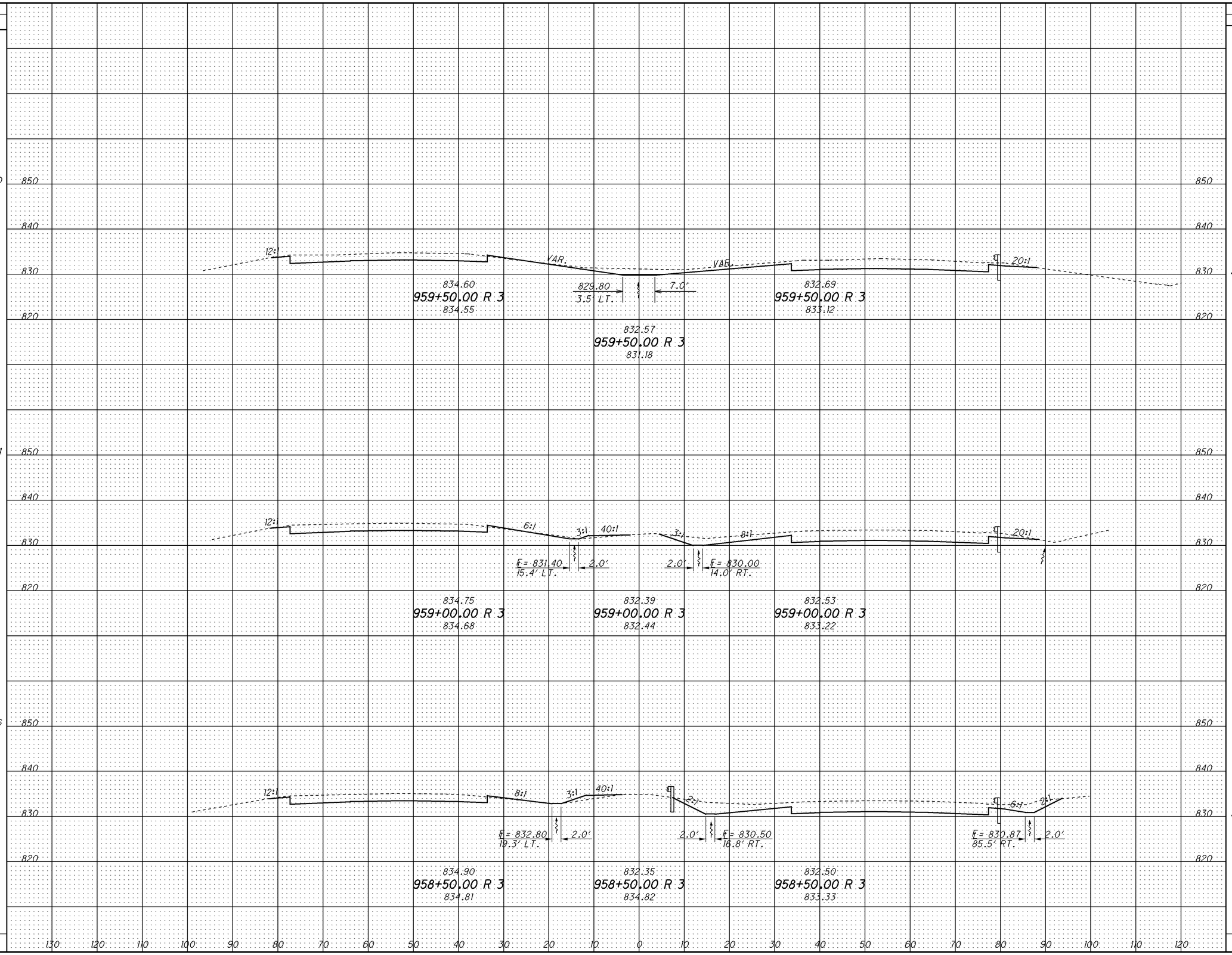
CHECKED

CROSS SECTIONS

STA. 957+00.00 TO STA. 958+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
108	590	204	2	386	6
103	584	213	5	417	12
105	576	238	8	426	17



CALCULATED

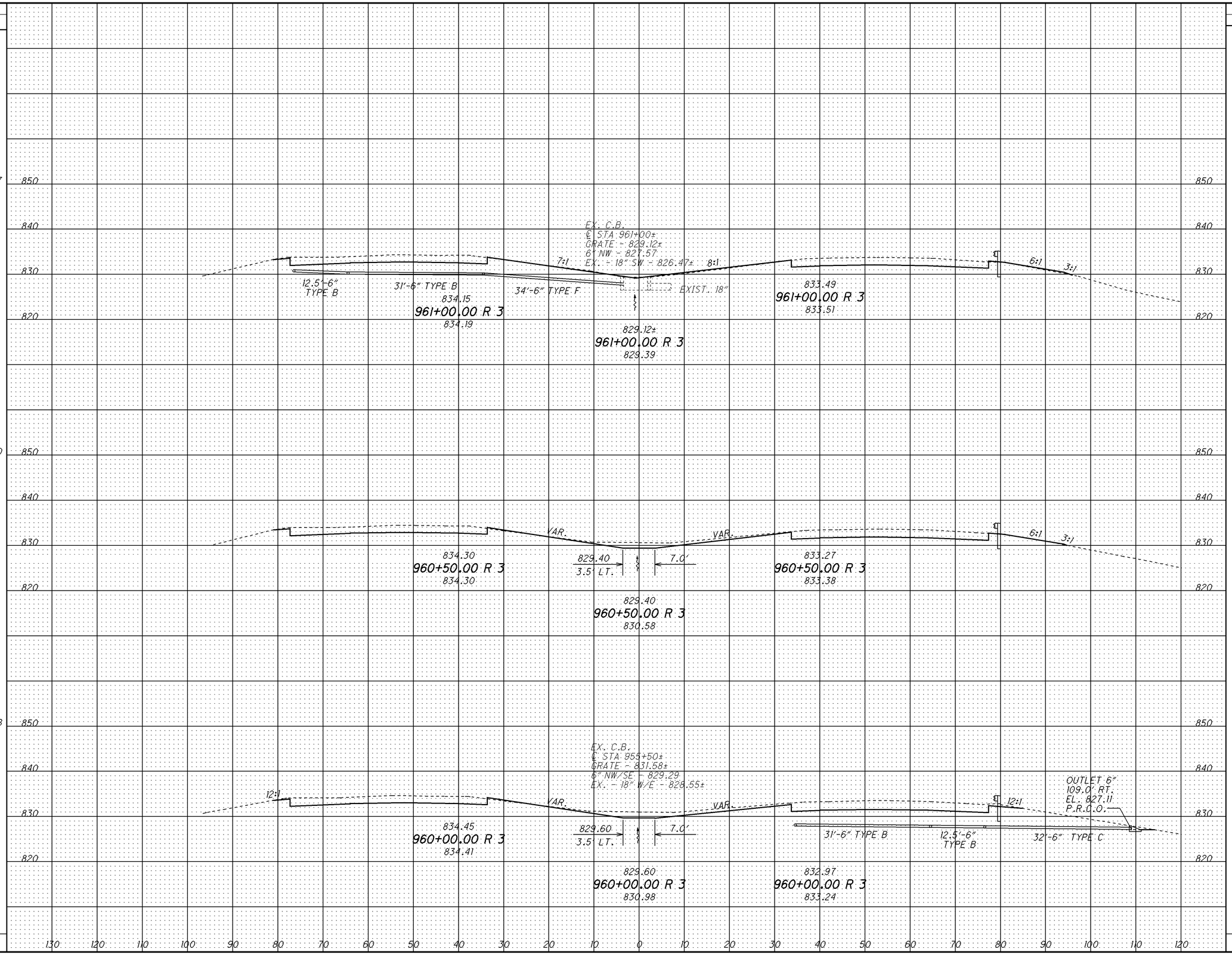
CHECKED

CROSS SECTIONS

STA. 958+50.00 TO STA. 959+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME		
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	
115	677	141	11	289	13	961+00.00
114	640	171	2	337	4	960+50.00
104	608	192	1	367	3	960+00.00



CALCULATED

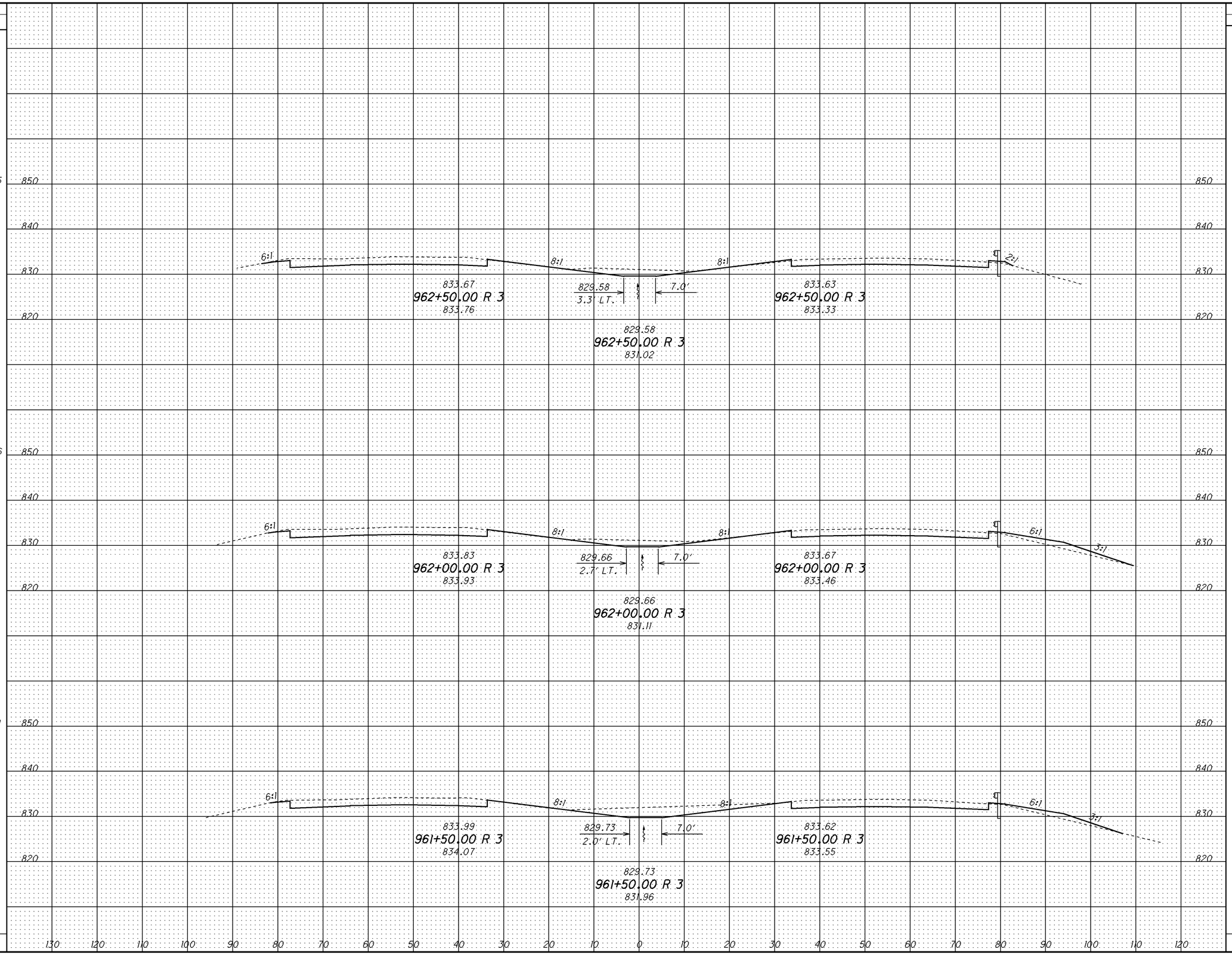
CHECKED

CROSS SECTIONS

STA. 960+00.00 TO STA. 961+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
105	585	156	7	293	32
131	656	160	28	332	45
128	719	198	21	314	29



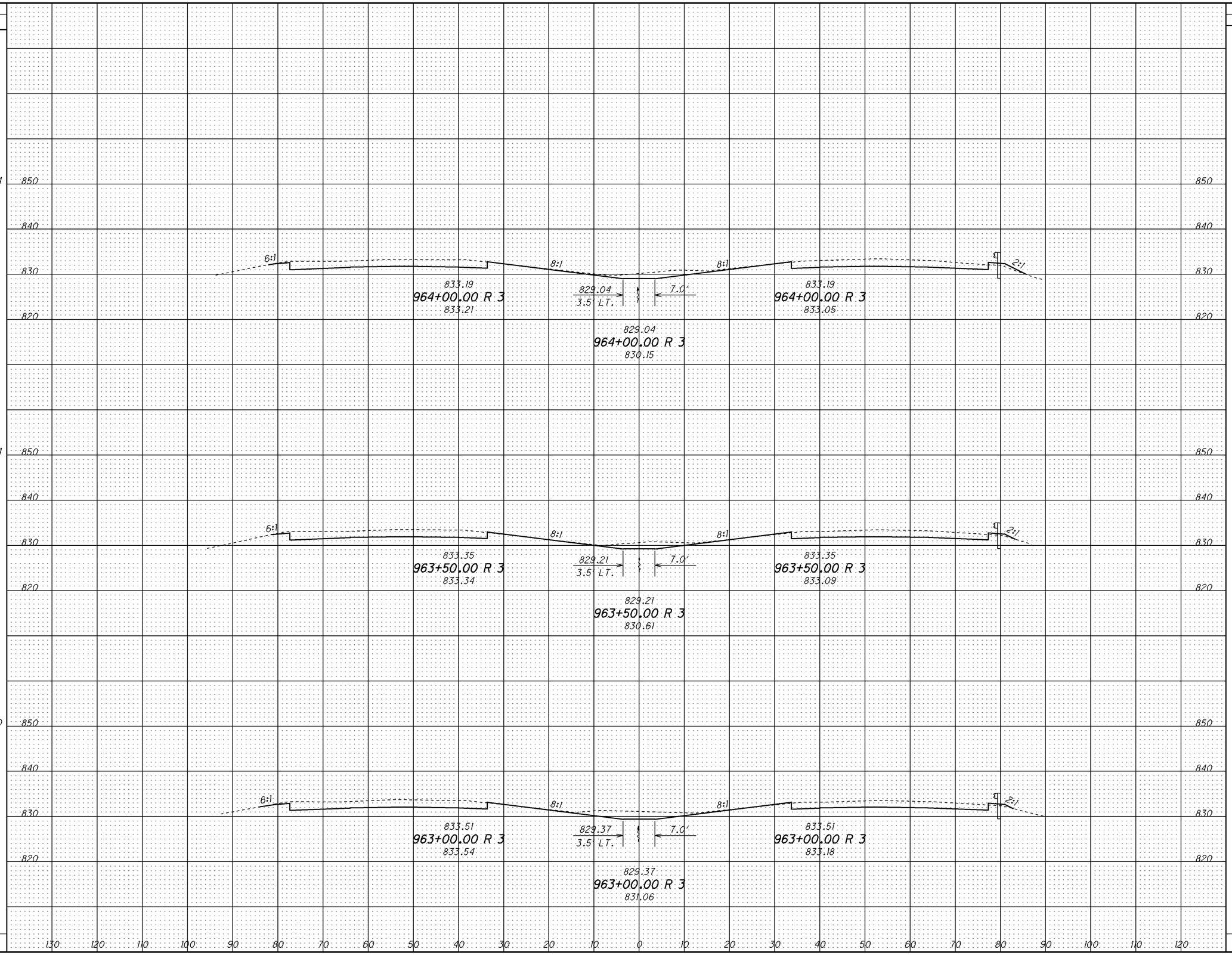
CALCULATED

CHECKED

CROSS SECTIONS
STA. 961+50.00 TO STA. 962+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
107	594	156	5	286	9
104	584	153	5	292	8
105	580	162	4	295	10



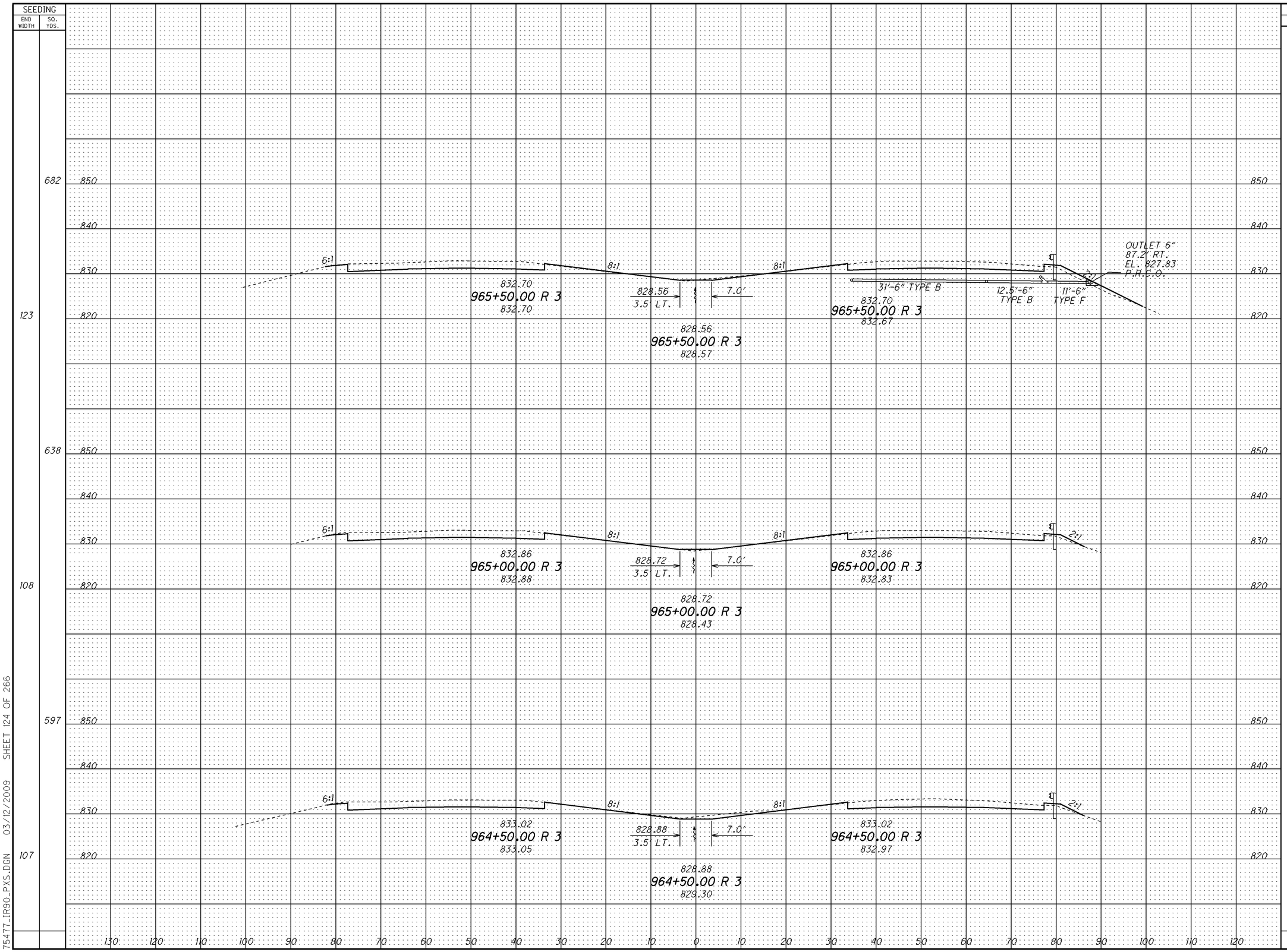
CALCULATED

CHECKED

CROSS SECTIONS

STA. 963+00.00 TO STA. 964+00.00

LAK-90-21.40
ATB-90-0.00

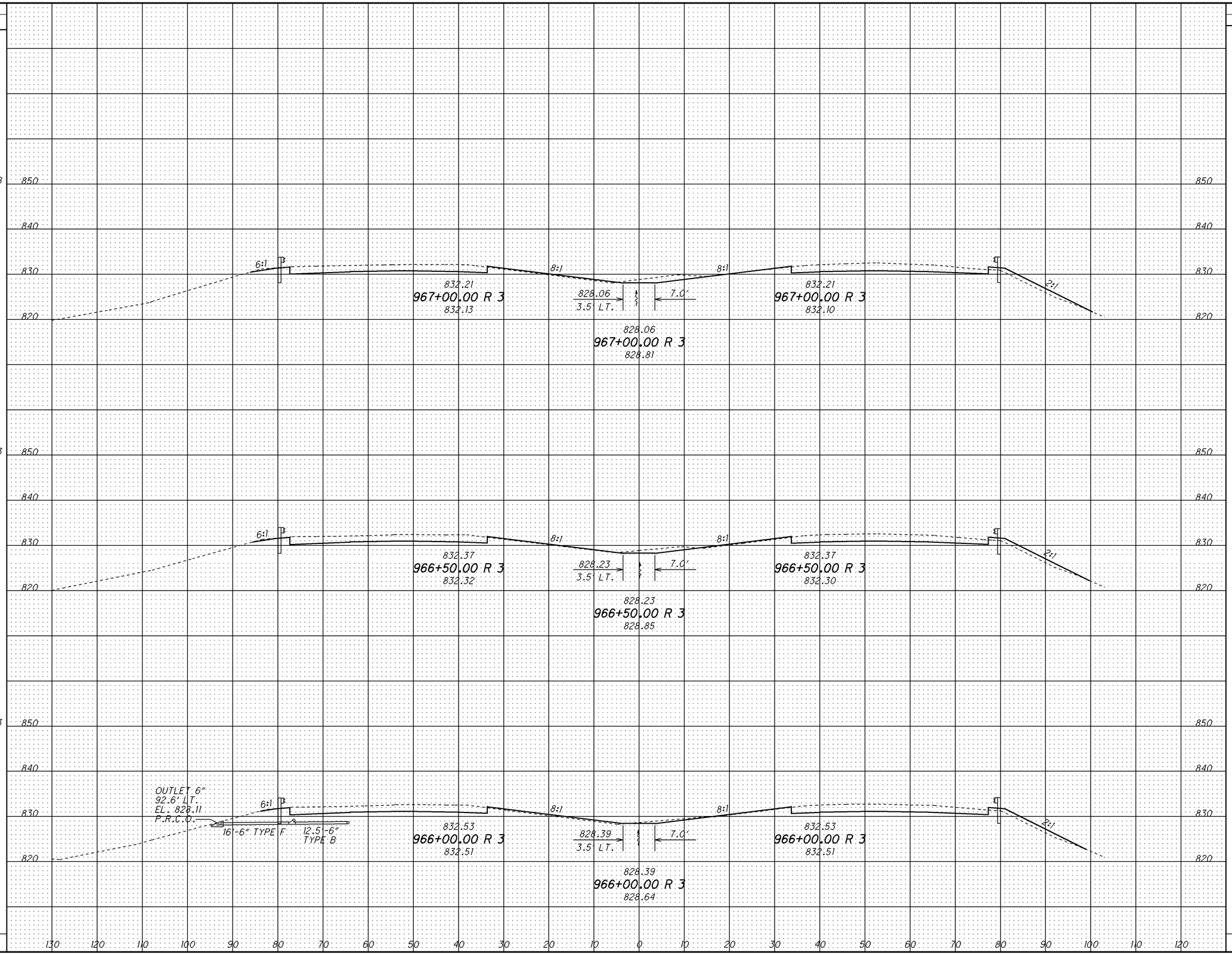


SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
123	682	135	21	248	29
108	638	133	10	258	15
107	597	145	6	279	10

CROSS SECTIONS
STA. 964+50.00 TO STA. 965+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME		
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	
127	708	144	25	262	46	967+00.00 R 3
126	703	139	24	254	46	966+50.00 R 3
123	693	135	25	250	43	966+00.00 R 3



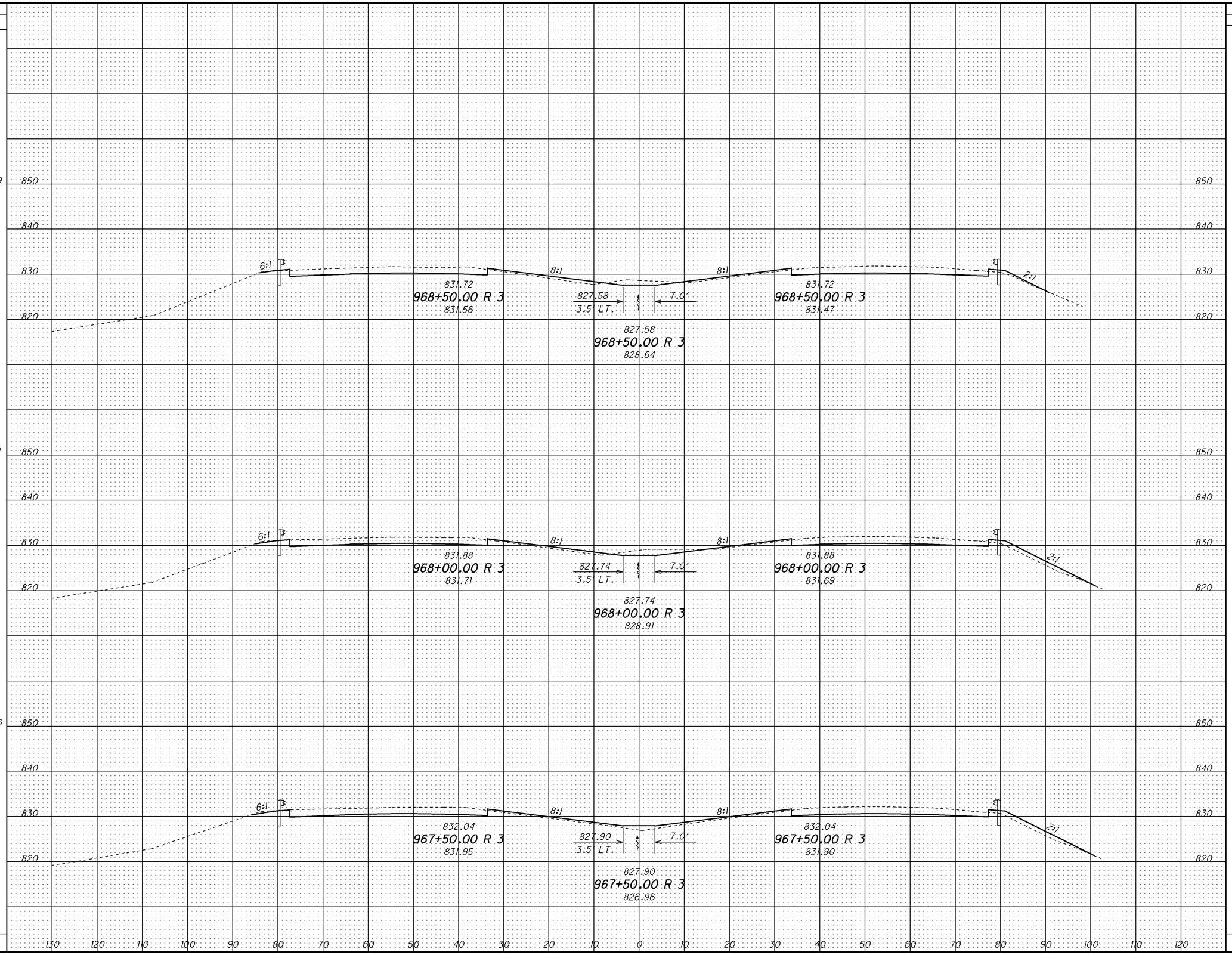
CALCULATED

CHECKED

CROSS SECTIONS
STA. 966+00.00 TO STA. 967+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
114	629	132	27	249	57
127	671	137	35	242	75
127	706	124	46	248	66



CALCULATED

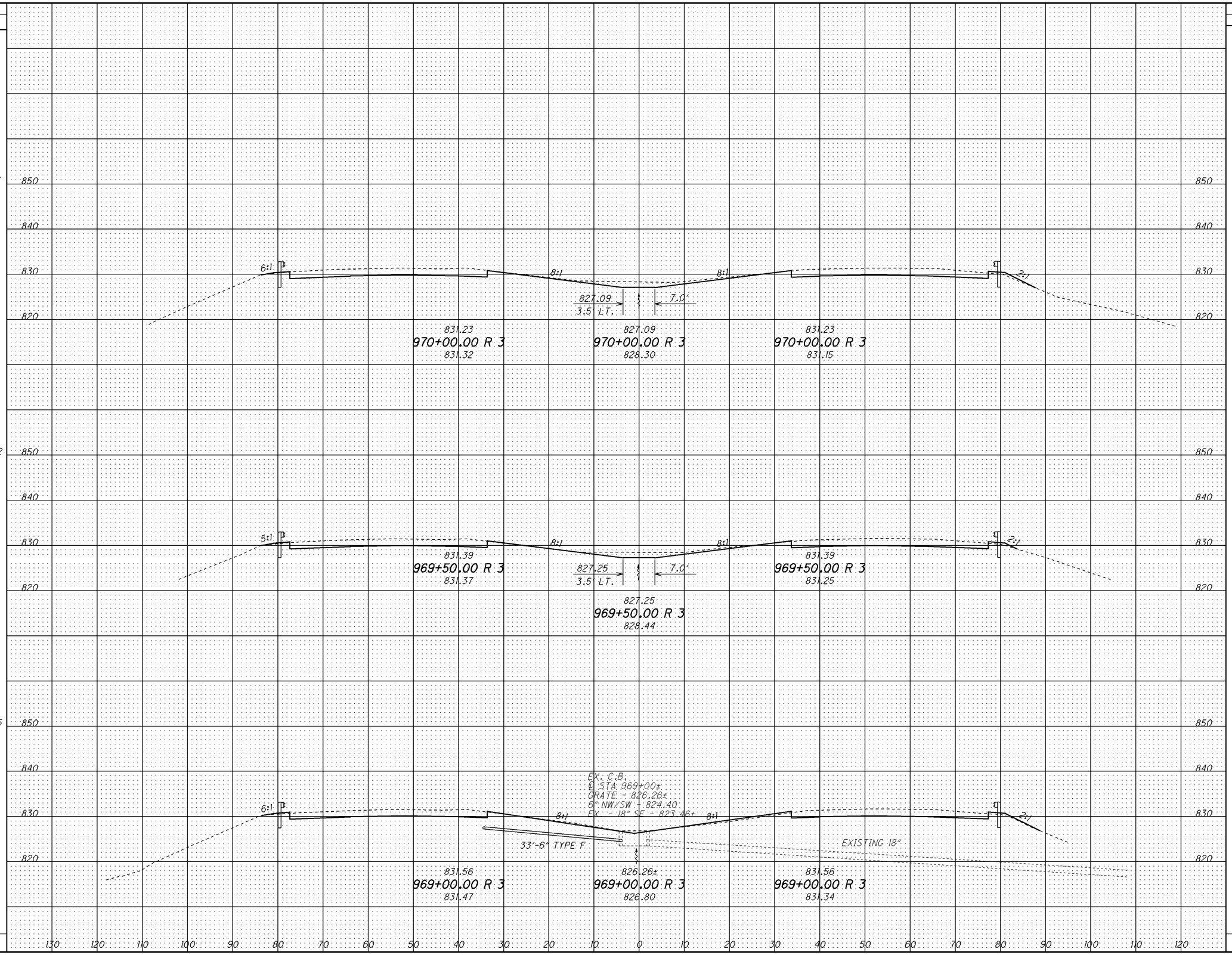
CHECKED

CROSS SECTIONS

STA. 967+50.00 TO STA. 968+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME		
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	
111	615	163	5	293	10	970+00.00 R 3
106	602	153	6	262	18	969+50.00 R 3
112	605	129	14	242	38	969+00.00 R 3



CALCULATED

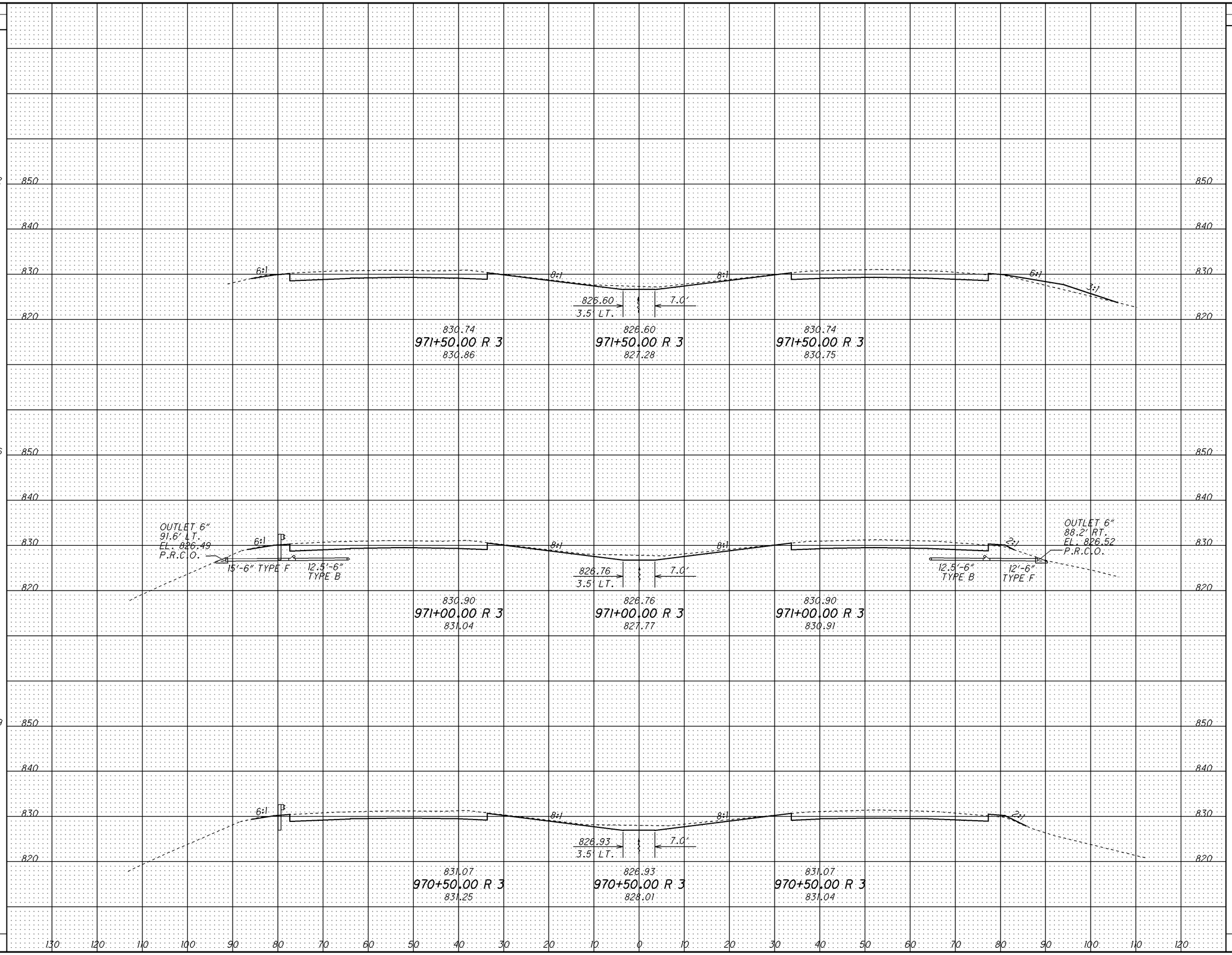
CHECKED

CROSS SECTIONS

STA. 969+00.00 TO STA. 970+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
131	722	160	16	303	16
109	666	167	2	309	4
110	609	166	3	305	7



CALCULATED

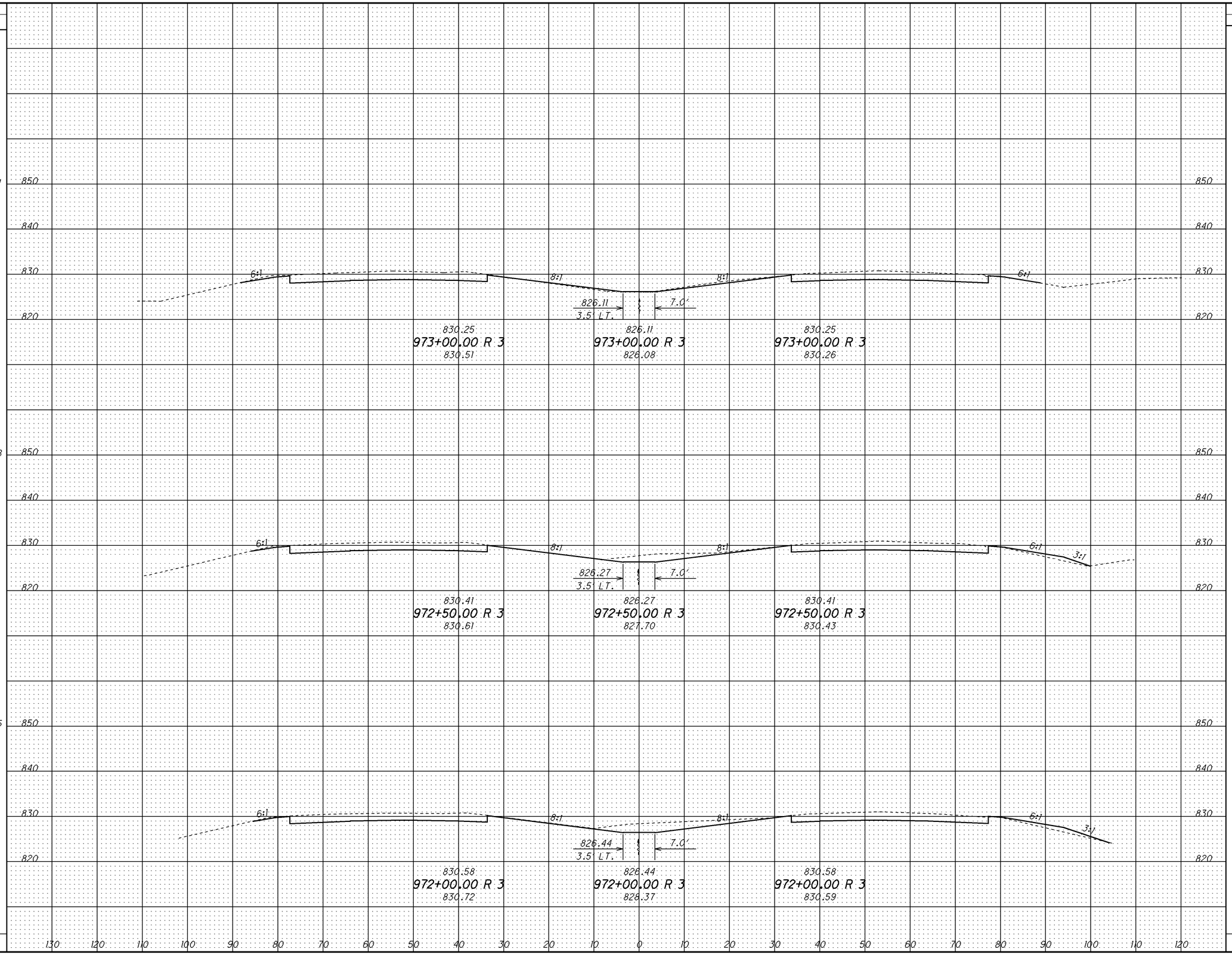
CHECKED

CROSS SECTIONS

STA. 970+50.00 TO STA. 971+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME		
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	
116	651	163	5	319	14	973+00.00 R 3
125	668	182	10	347	21	972+50.00 R 3
129	705	193	13	327	27	972+00.00 R 3



CALCULATED

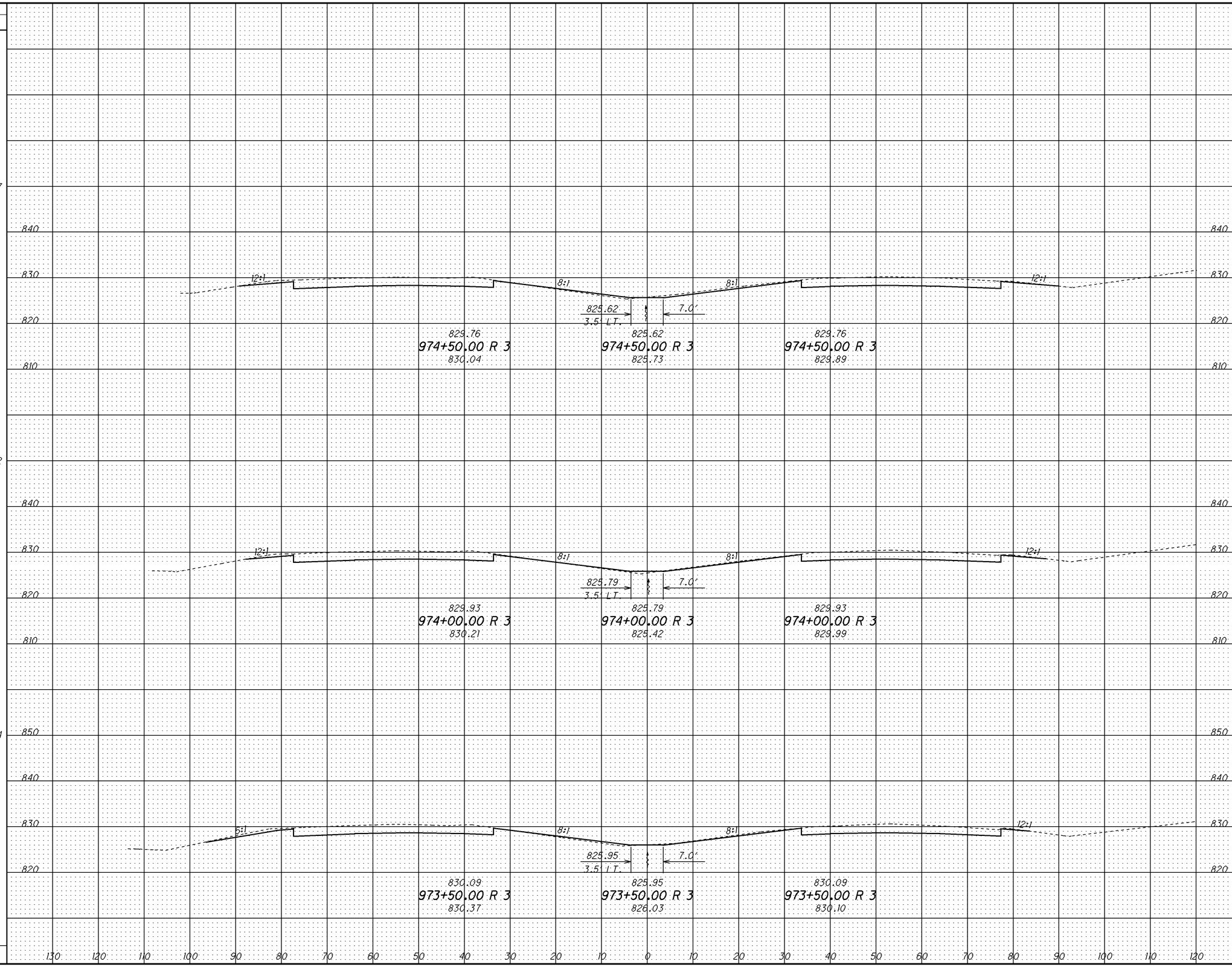
CHECKED

CROSS SECTIONS

STA. 972+00.00 TO STA. 973+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
117	657	172	7	309	11
113	642	162	5	301	11
119	644	164	7	302	11



CALCULATED

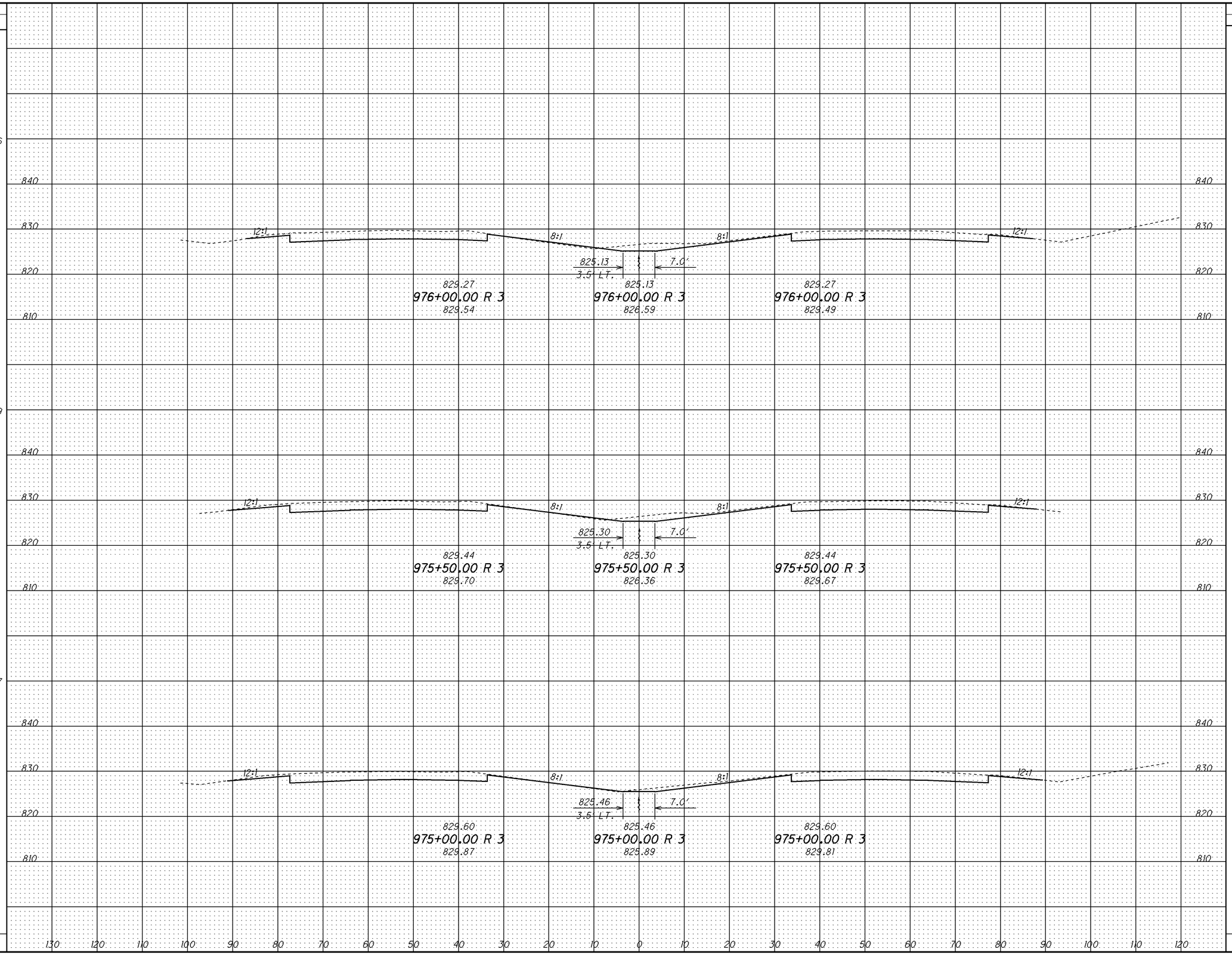
CHECKED

CROSS SECTIONS

STA. 973+50.00 TO STA. 974+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME		
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	
112	636	191	5			975+00.00 TO STA. 976+00.00
117	639	192	3	355	7	
119	657	182	2	346	4	
				328	8	



CALCULATED

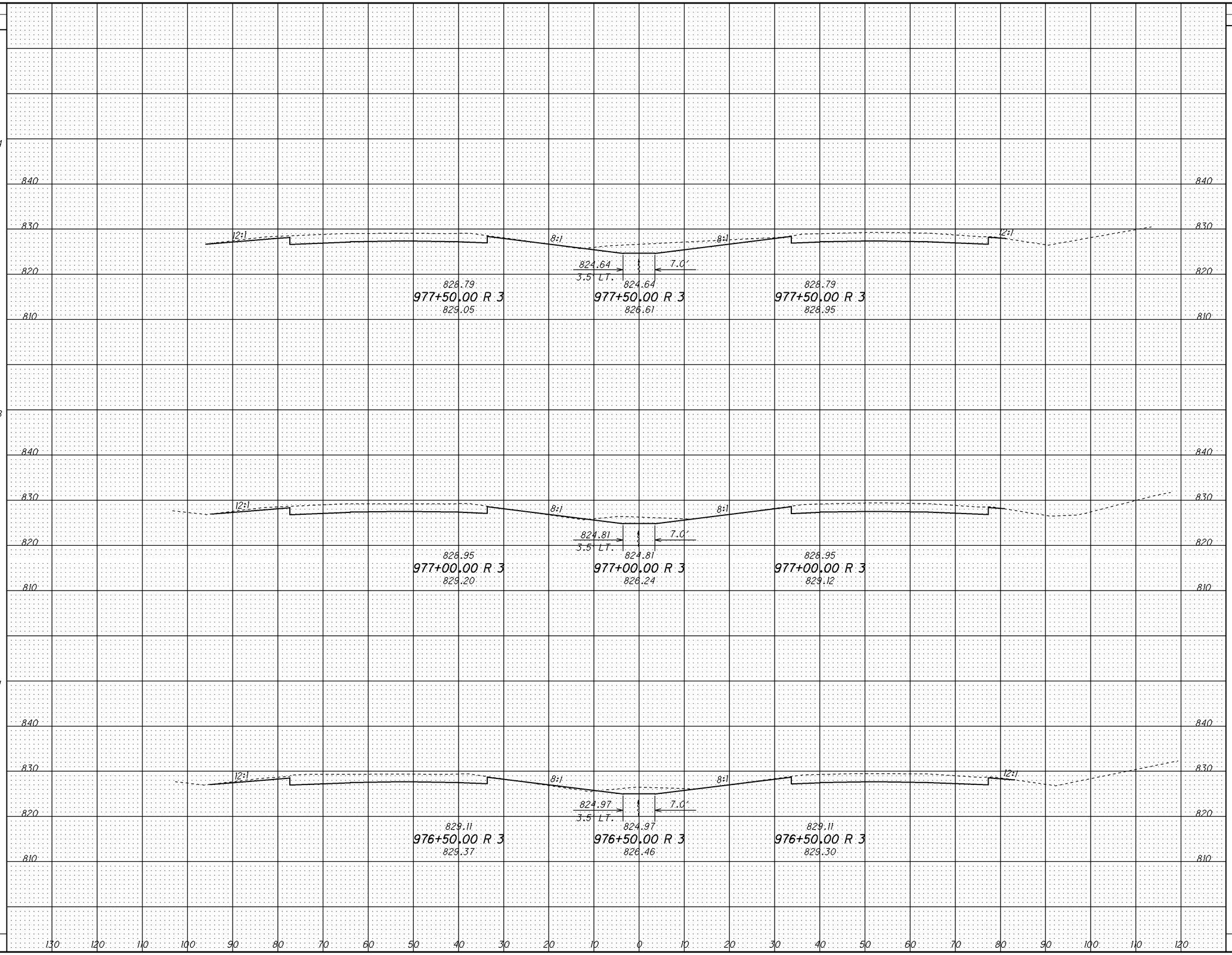
CHECKED

CROSS SECTIONS

STA. 975+00.00 TO STA. 976+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
115	644	218	1	373	4
114	638	185	3	342	7
116	641	185	5	348	9



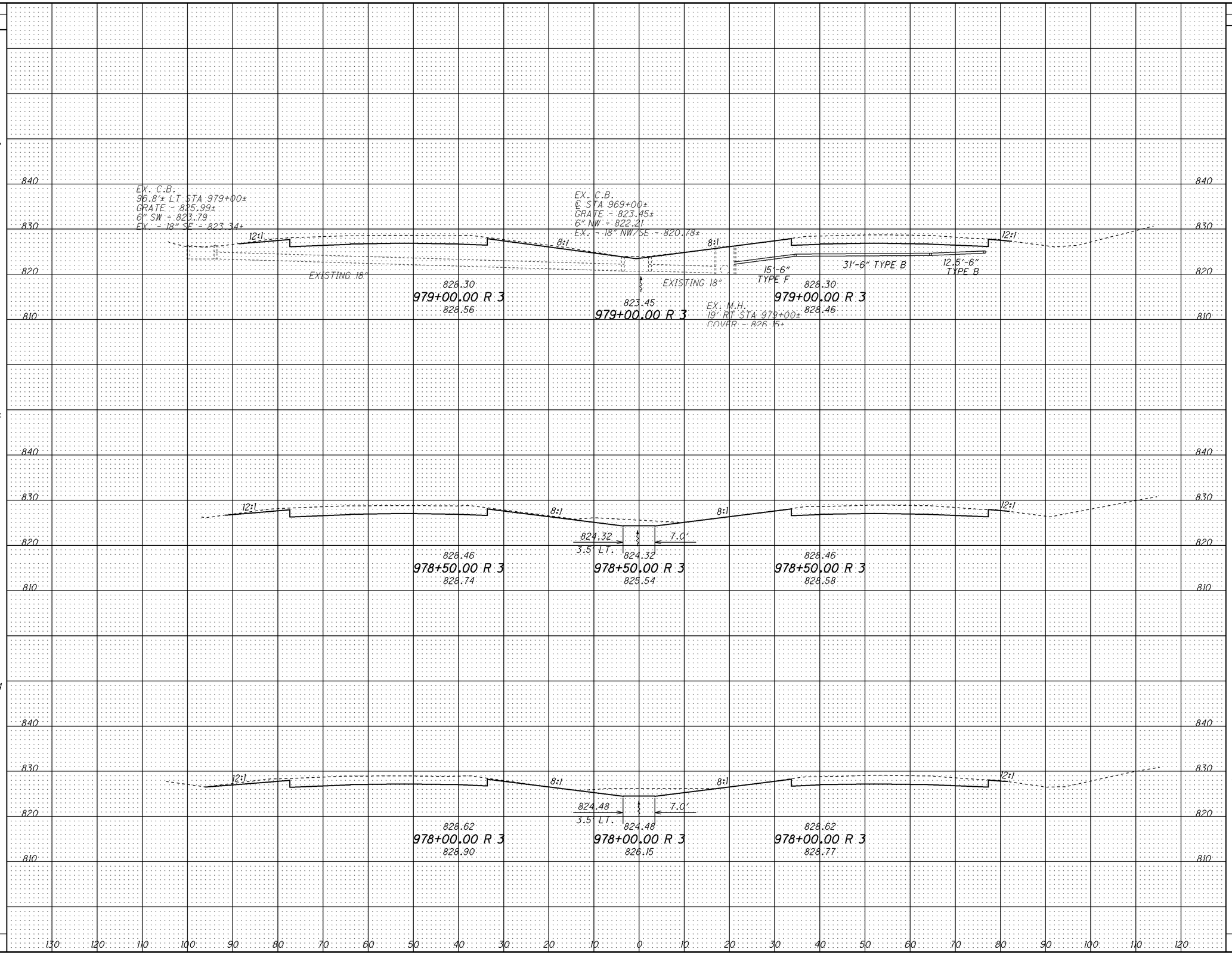
CALCULATED

CHECKED

CROSS SECTIONS
STA. 976+50.00 TO STA. 977+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
110	612	172	1	335	2
112	634	190	0	361	1
116	616	201	1	387	2

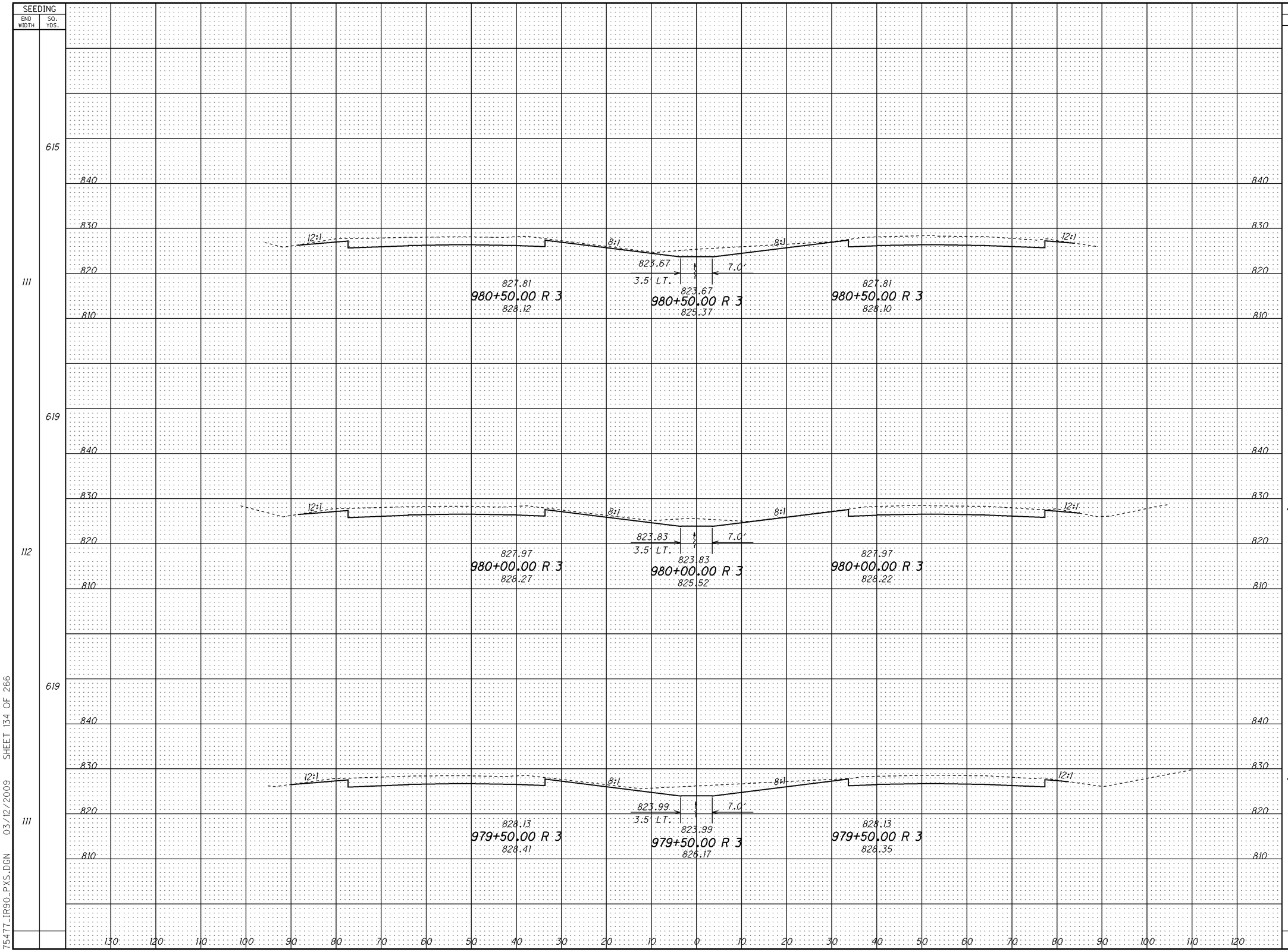


CALCULATED

CHECKED

CROSS SECTIONS
STA. 978+00.00 TO STA. 979+00.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
218	0		
		389	0
202	0		
		405	0
236	0		
		378	1

CALCULATED

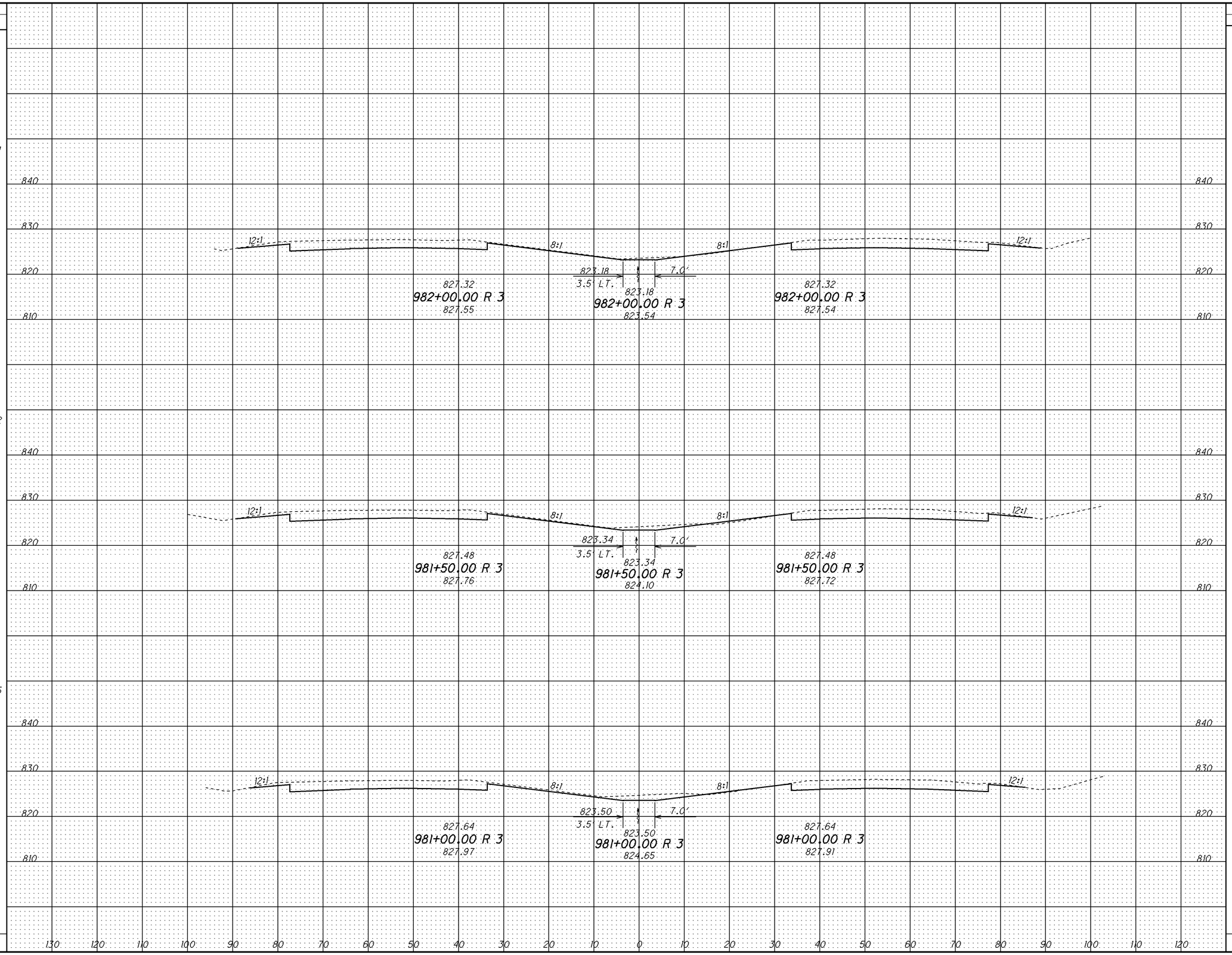
CHECKED

CROSS SECTIONS

STA. 979+50.00 TO STA. 980+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME		
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	
116	641	182	2	342	7	982+00.00
115	642	188	5	355	7	981+50.00
110	625	196	2	383	2	981+00.00

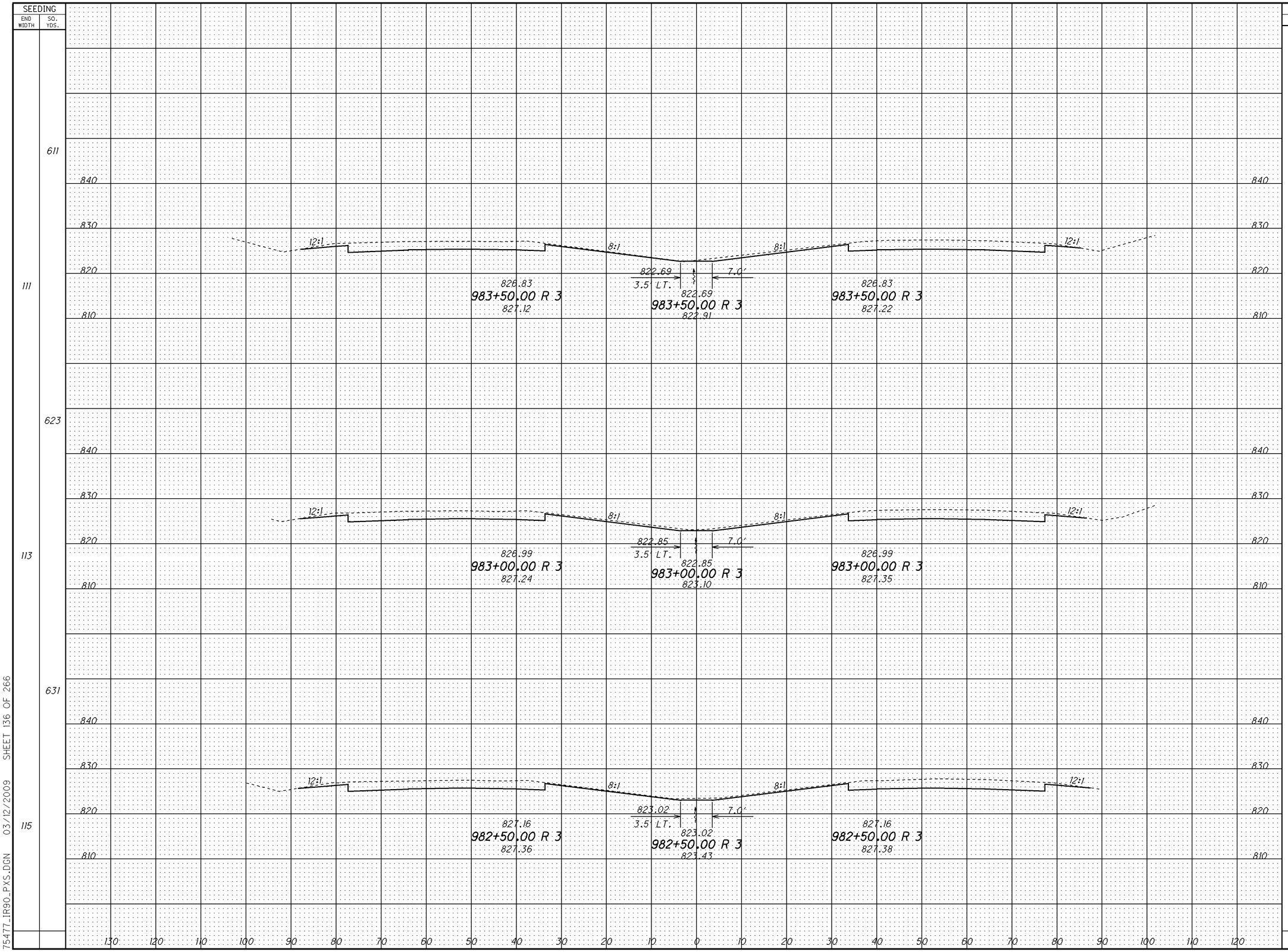


CALCULATED

CHECKED

CROSS SECTIONS
STA. 981+00.00 TO STA. 982+00.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
193	0	360	0
196	0	352	0
185	0	339	2

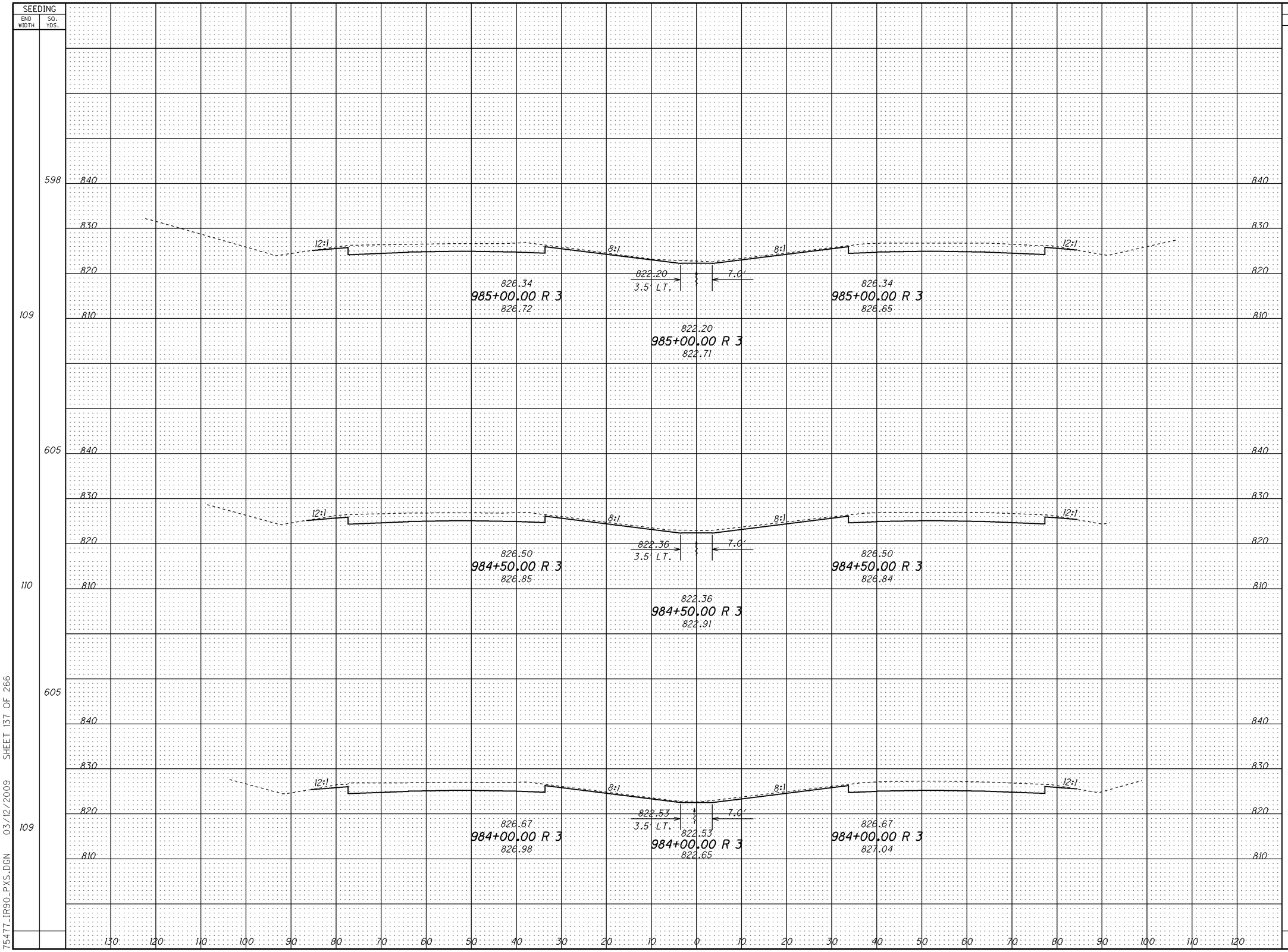
CALCULATED

CHECKED

CROSS SECTIONS

STA. 982+50.00 TO STA. 983+50.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
188	0	357	0
198	0	363	0
195	0	359	0

CALCULATED

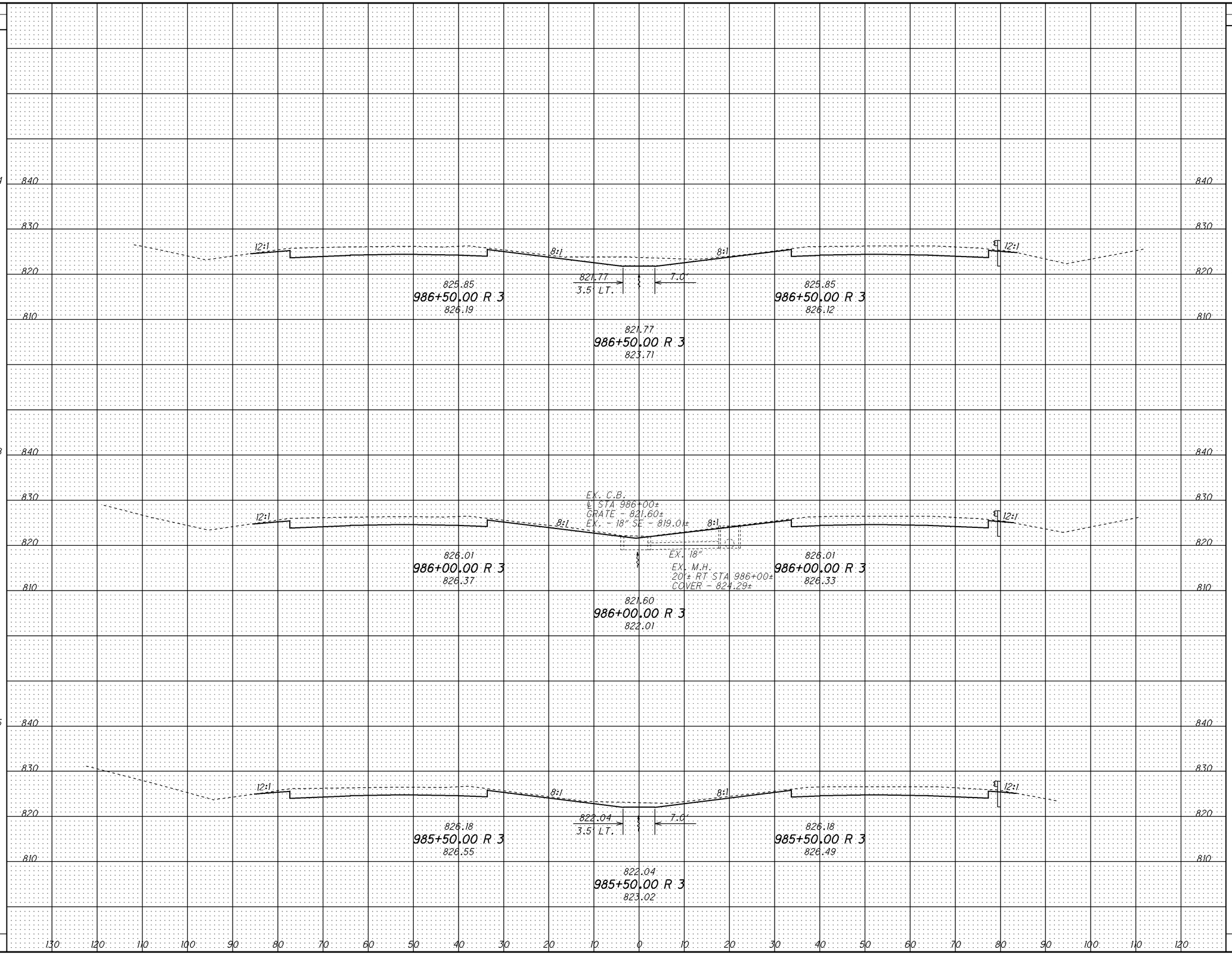
CHECKED

CROSS SECTIONS

STA. 984+00.00 TO STA. 985+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
108	604	217	0	373	0
107	598	187	0	355	0
107	595	197	0	356	0



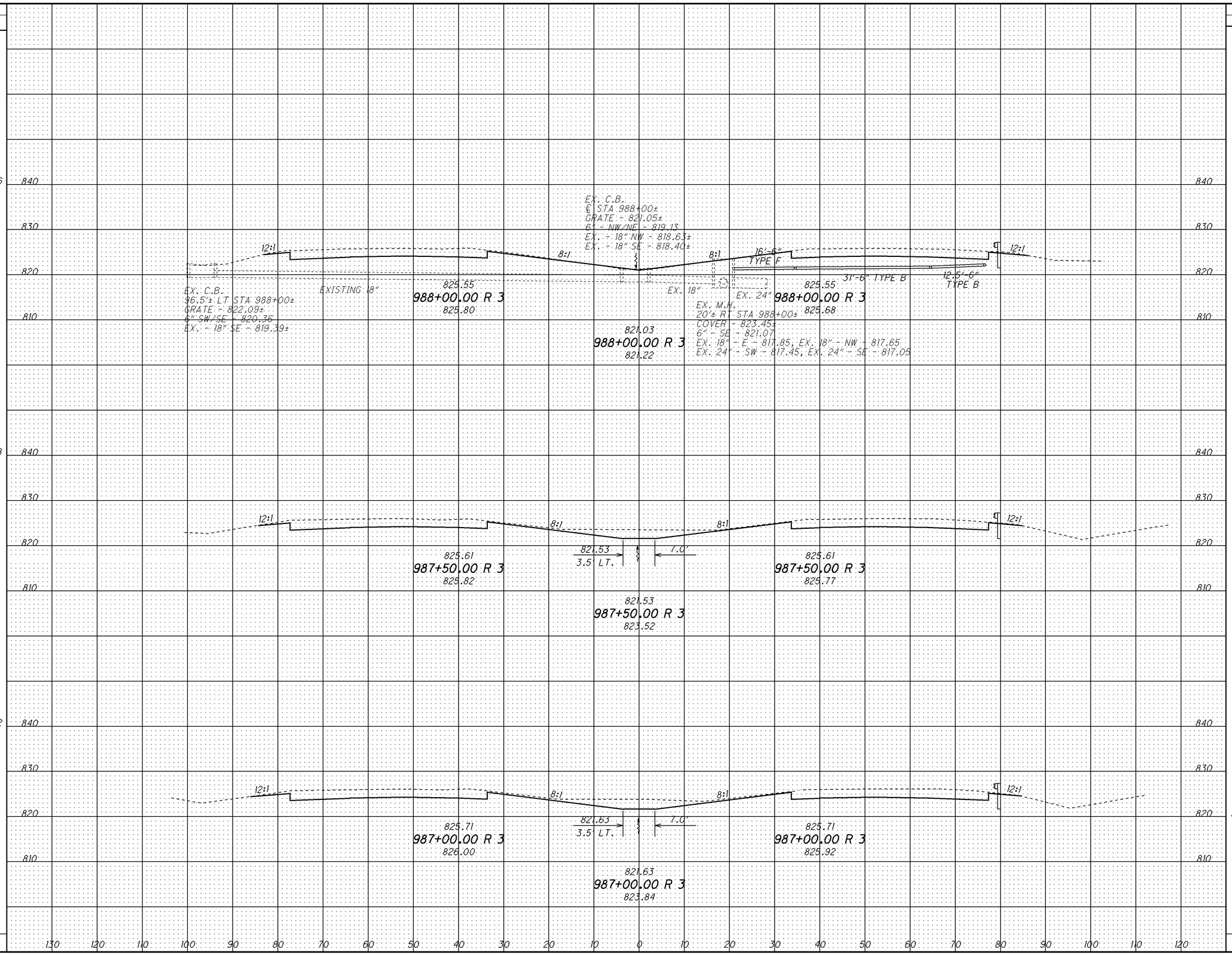
CALCULATED

CHECKED

CROSS SECTIONS
STA. 985+50.00 TO STA. 986+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME		
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	
107	606	162	4	347	4	
108	598	213	0	404	0	
109	602	223	0	407	0	



CALCULATED

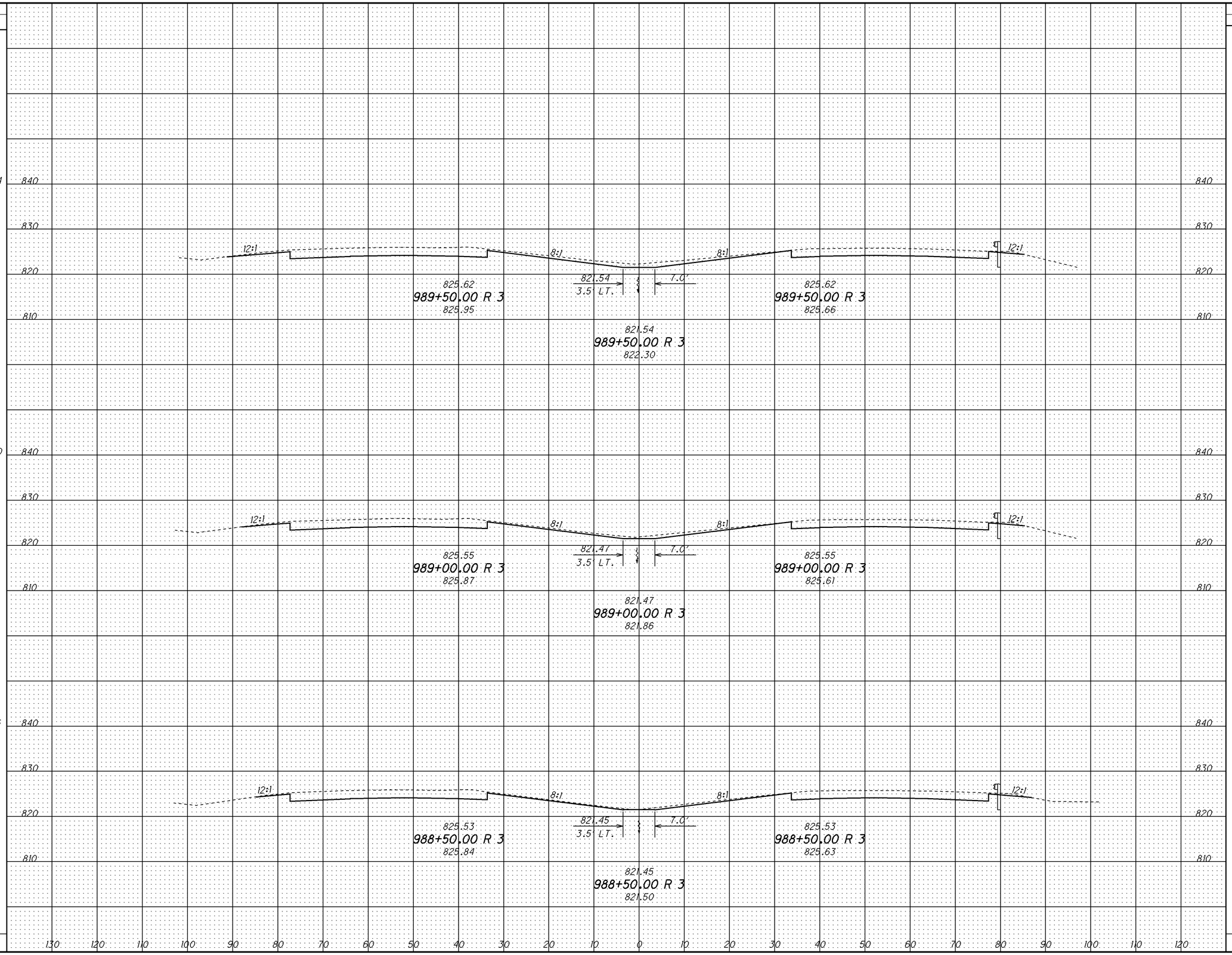
CHECKED

CROSS SECTIONS

STA. 987+00.00 TO STA. 988+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
116	644	192	0	345	0
112	630	181	0	326	0
110	616	172	0	309	4



CALCULATED

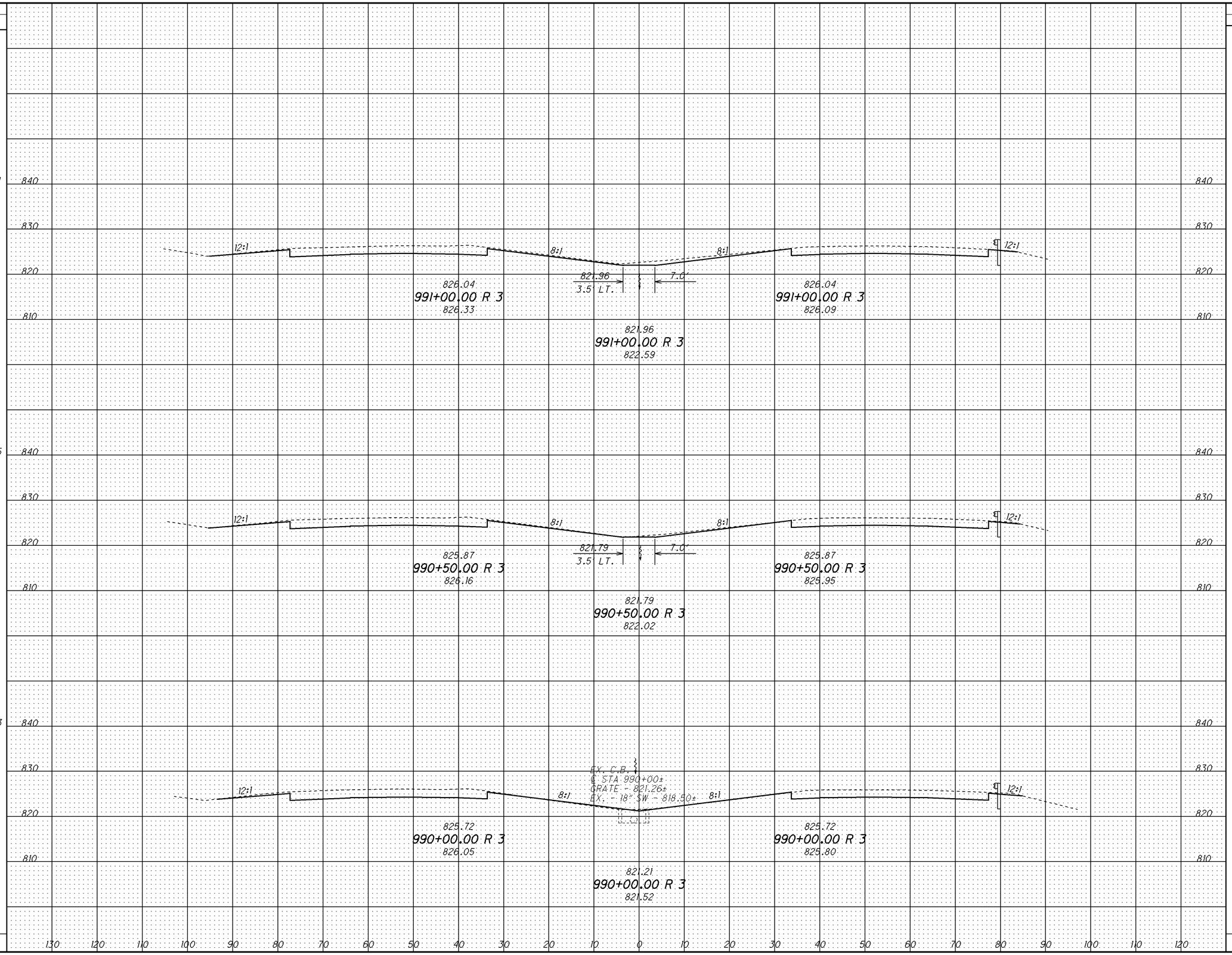
CHECKED

CROSS SECTIONS

STA. 988+50.00 TO STA. 989+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
117	621	175	0	313	1
119	655	163	1	297	6
117	653	158	6	324	6



CALCULATED

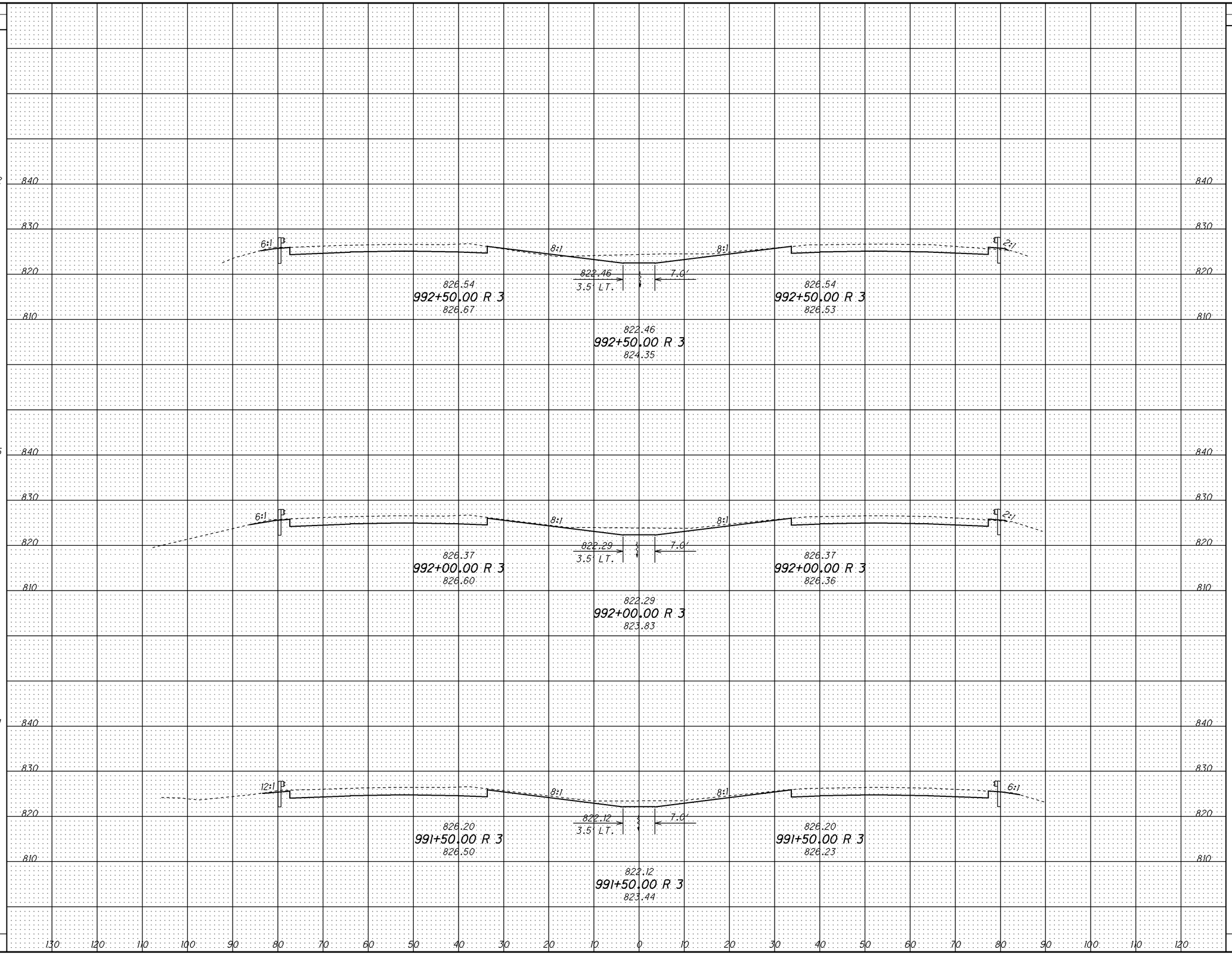
CHECKED

CROSS SECTIONS

STA. 990+00.00 TO STA. 991+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
104	572	182	6	334	6
107	585	179	1	336	1
107	591	184	0	332	0



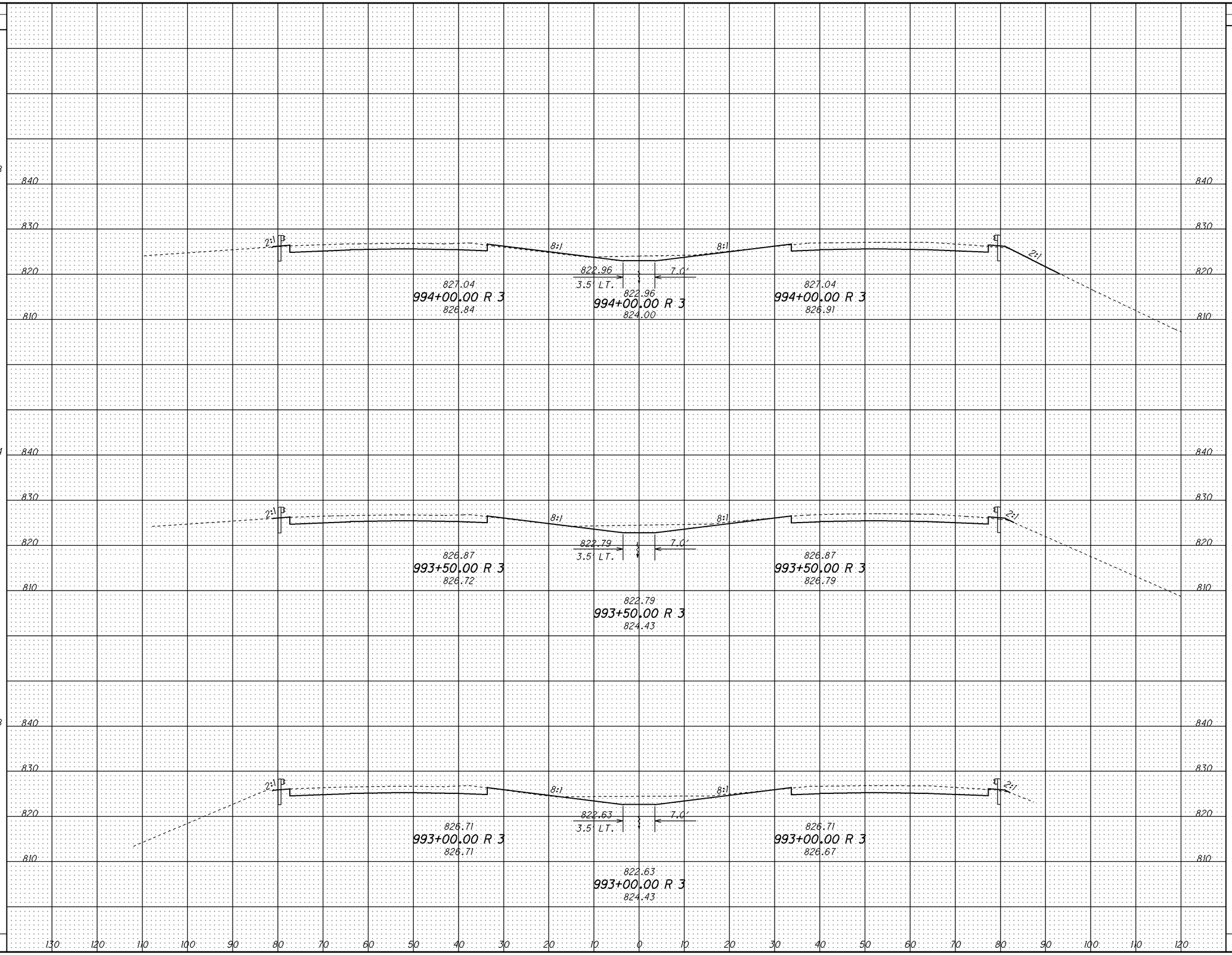
CALCULATED

CHECKED

CROSS SECTIONS
STA. 991+50.00 TO STA. 992+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
115	658	140	8	281	13
102	604	164	5	312	9
101	568	174	4	329	9



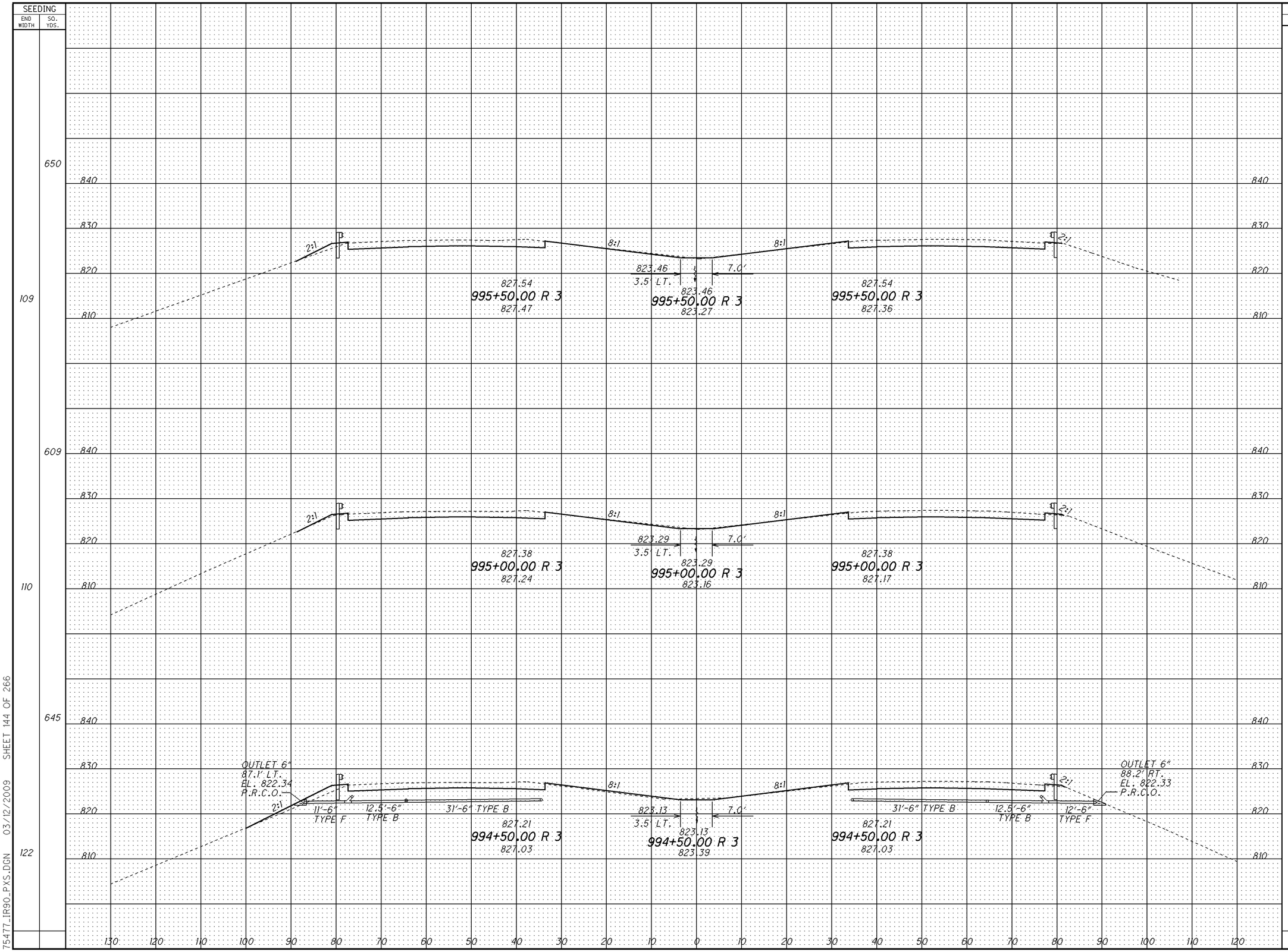
CALCULATED

CHECKED

CROSS SECTIONS

STA. 993+00.00 TO STA. 994+00.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
127	12		
		232	19
124	8		
		228	38
122	33		
		243	38

CALCULATED

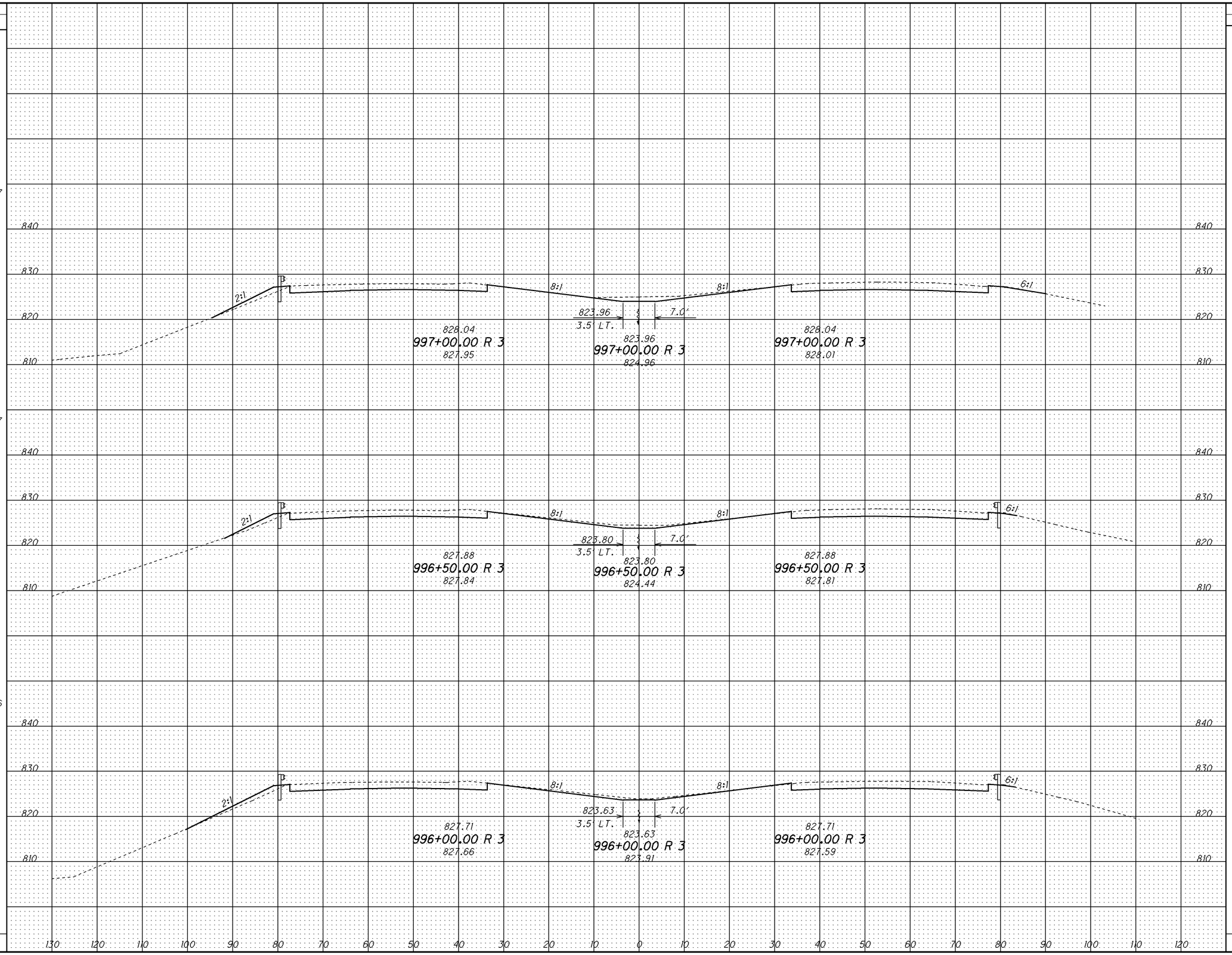
CHECKED

CROSS SECTIONS

STA. 994+50.00 TO STA. 995+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME		
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	
124	697	152	15	276	25	997+00.00 R 3
115	667	146	12	268	26	996+50.00 R 3
125	666	143	16	249	26	996+00.00 R 3



CALCULATED

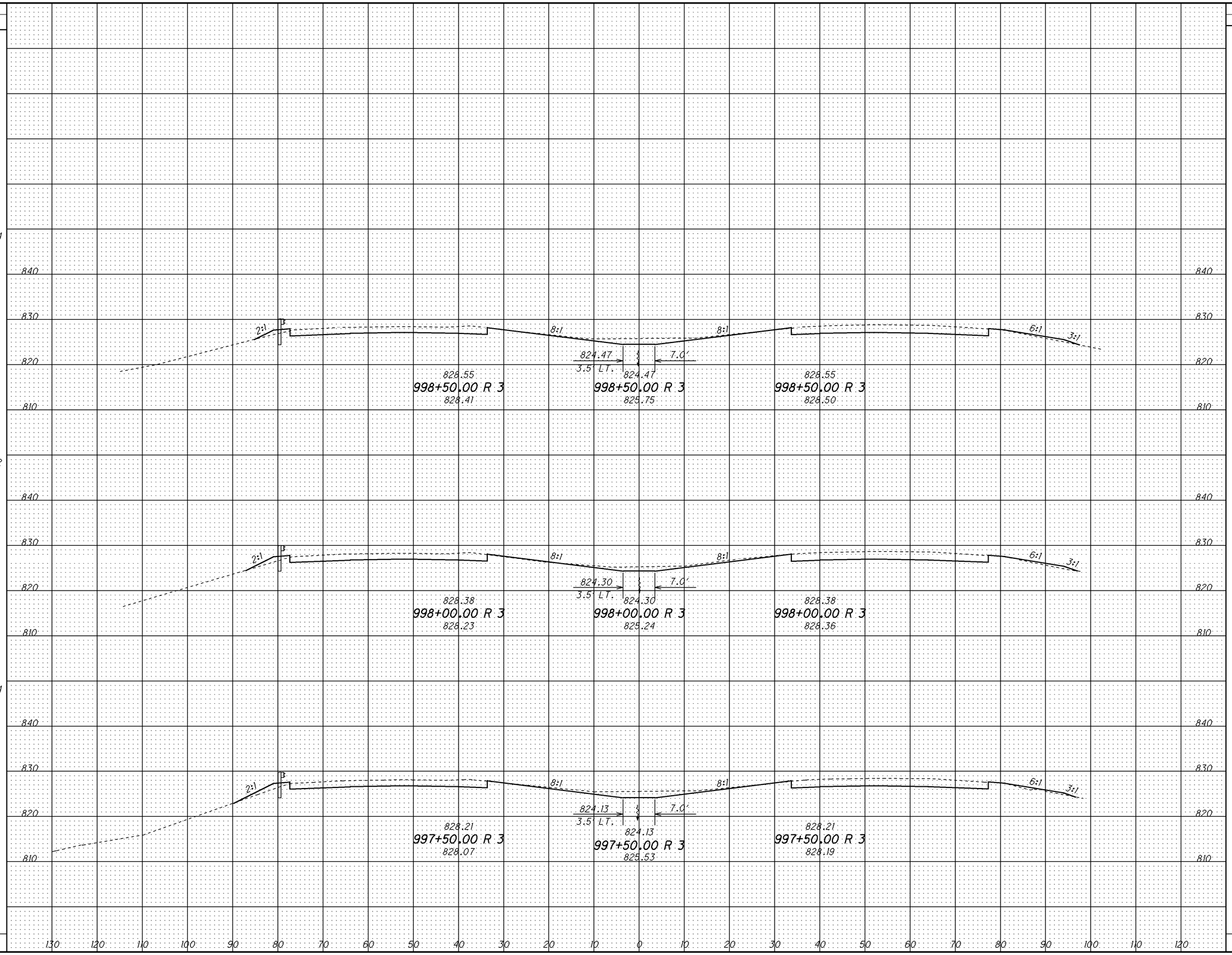
CHECKED

CROSS SECTIONS

STA. 996+00.00 TO STA. 997+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME		
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	
122	664	156	11	285	24	998+50.00
124	682	152	15	290	27	998+00.00
126	694	162	14	291	27	997+50.00



CALCULATED

CHECKED

CROSS SECTIONS

STA. 997+50.00 TO STA. 998+50.00

LAK-90-21.40
ATB-90-0.00

300
498

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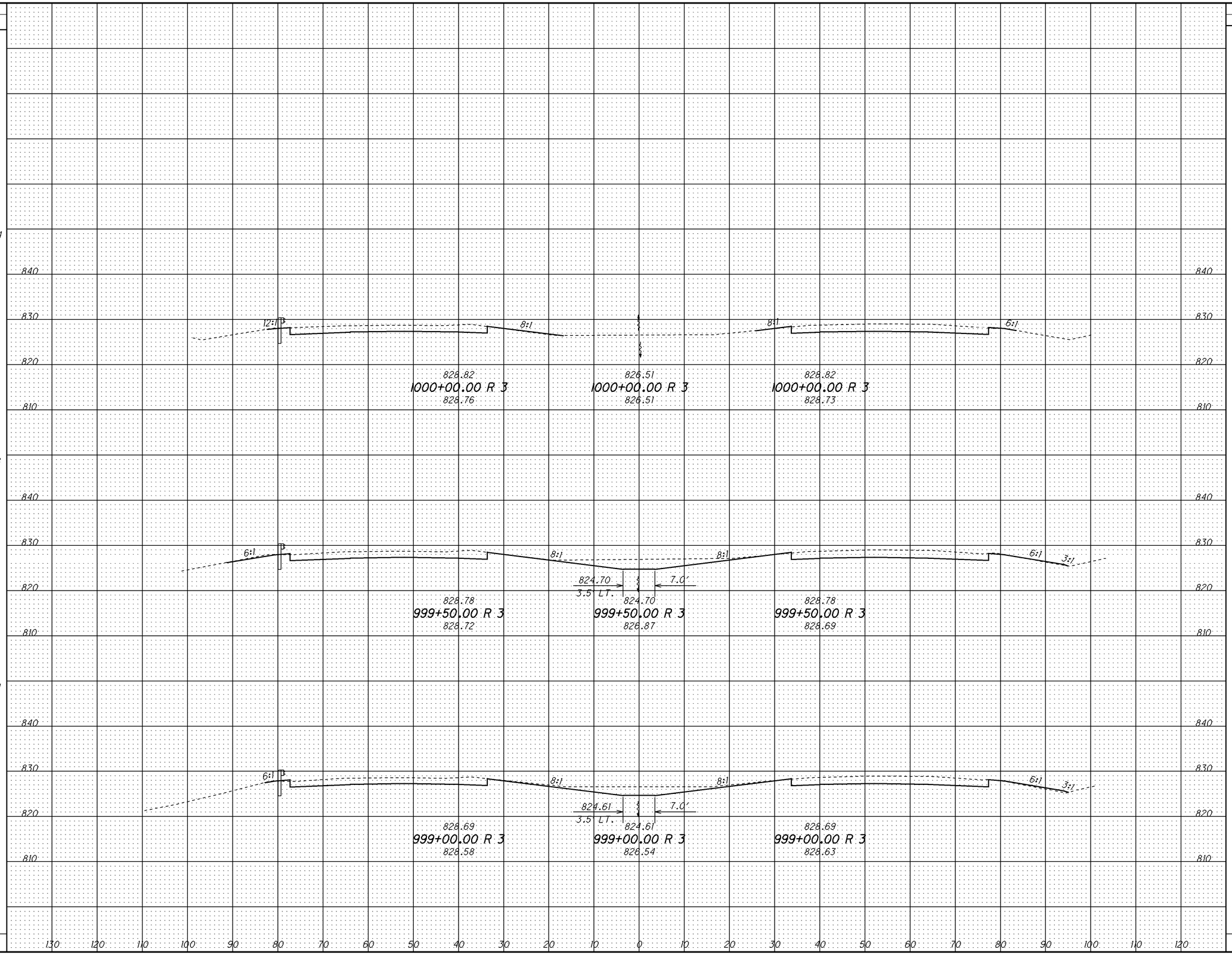
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
62	324	132	4		
125	518	186	2	294	6
117	671	178	4	338	6
				310	15



CALCULATED

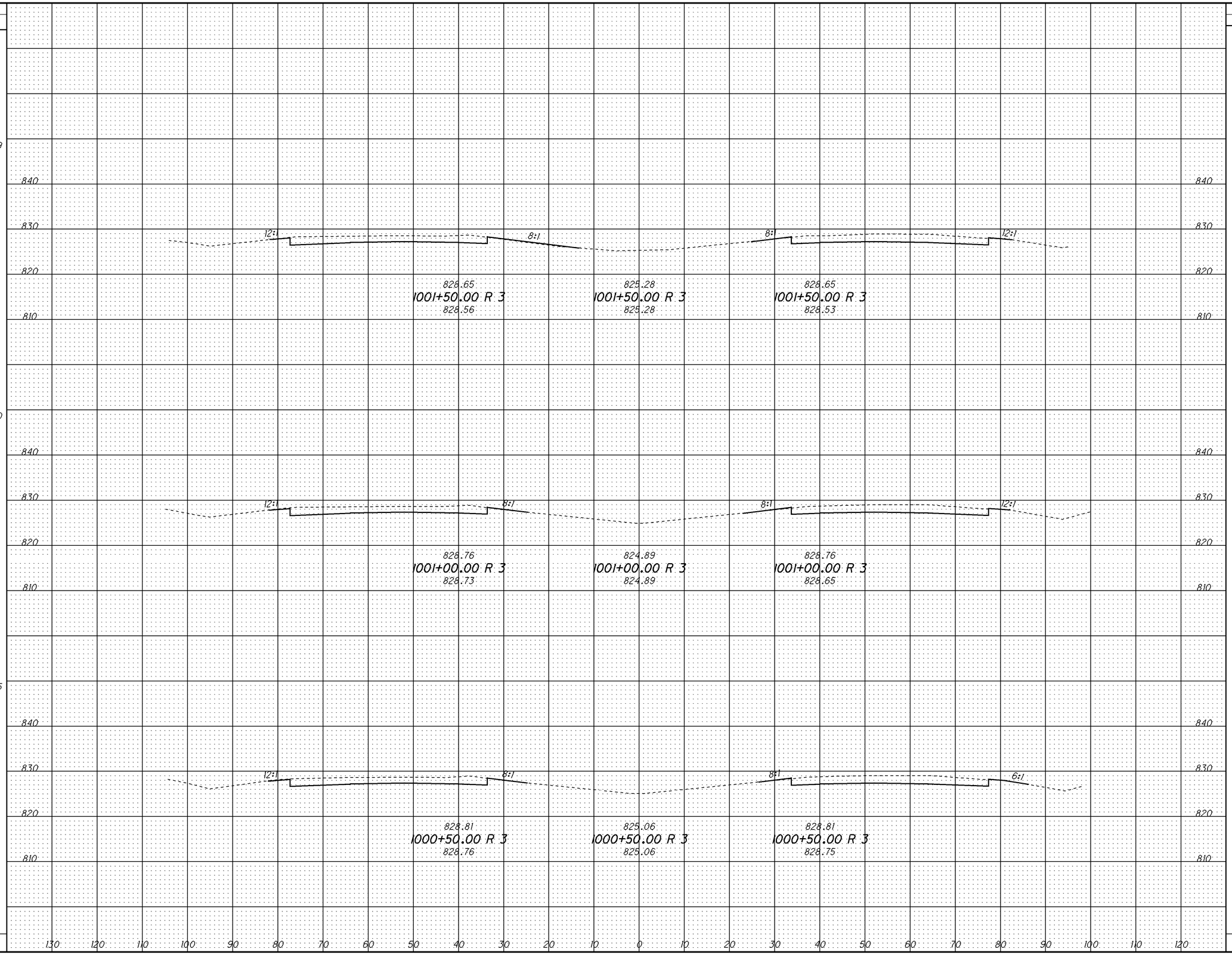
CHECKED

CROSS SECTIONS

STA. 999+00.00 TO STA. 1000+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
65	369	135	5	250	7
54	330	135	2	250	4
55	305	135	2	247	5



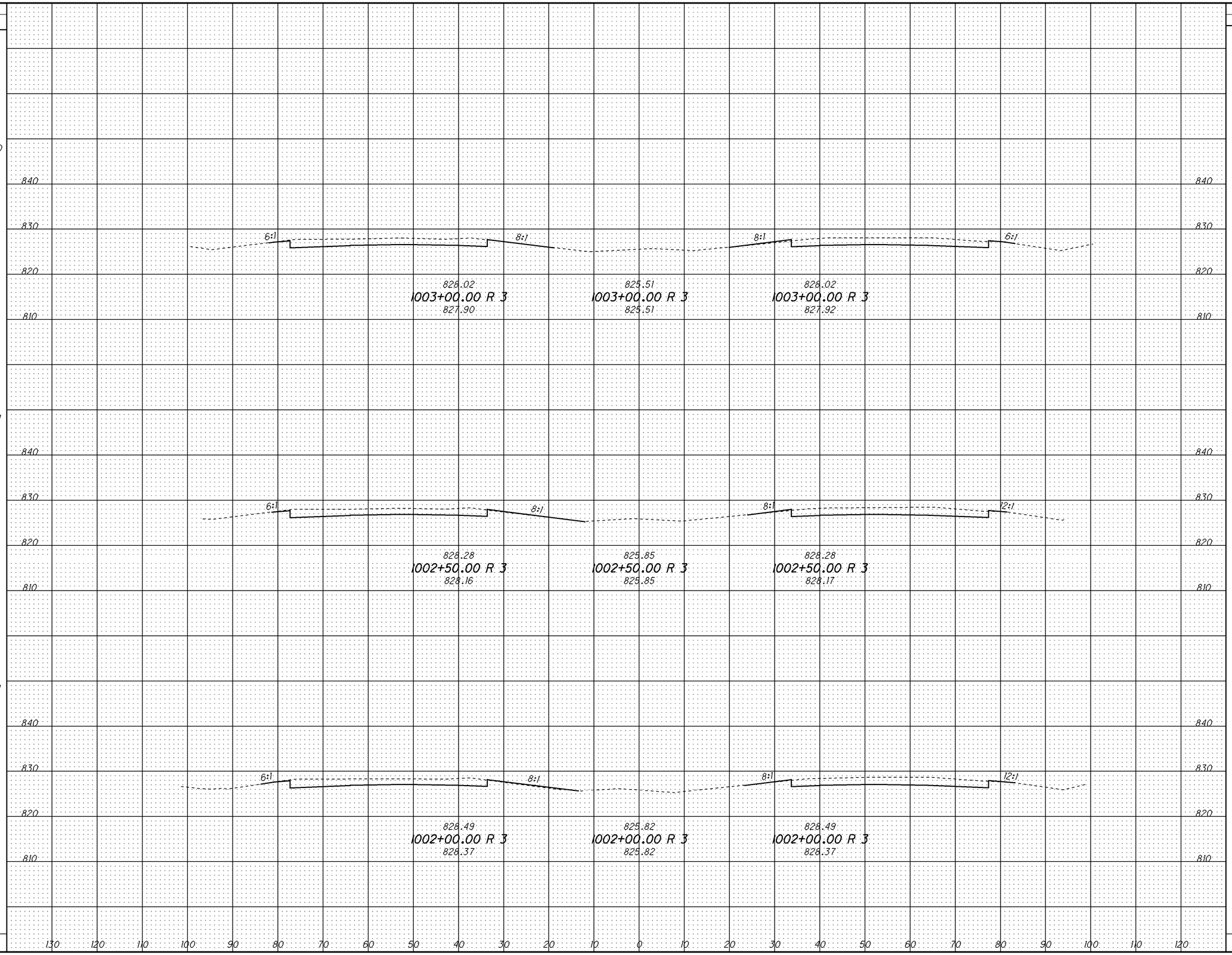
CALCULATED

CHECKED

CROSS SECTIONS

STA. 1000+50.00 TO STA. 1001+50.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
64	350	131	4	243	8
66	361	132	4	246	9
68	371	133	5	248	9

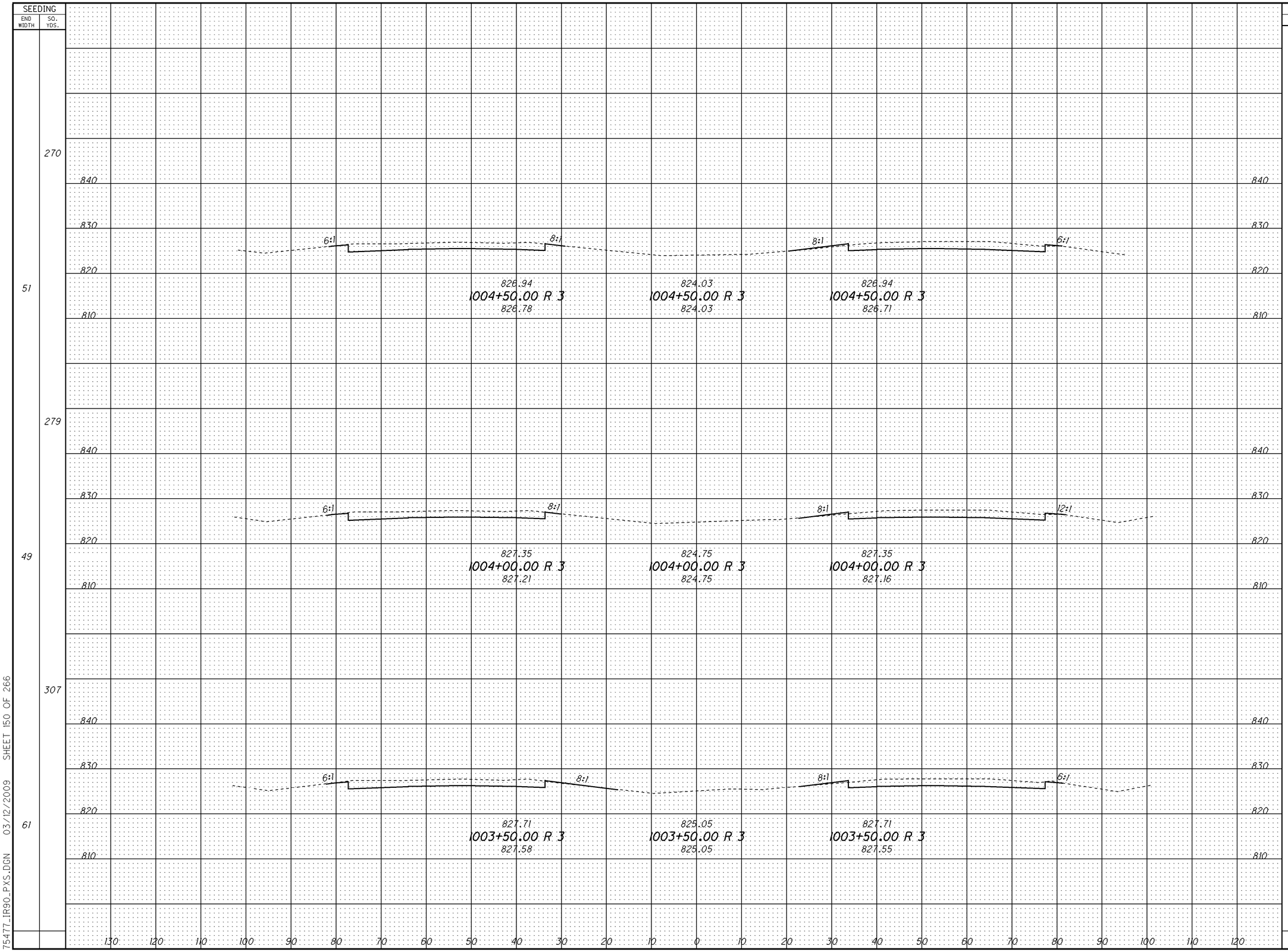
CALCULATED

CHECKED

CROSS SECTIONS

STA. 1002+00.00 TO STA. 1003+00.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
128	4		
		240	6
130	3		
		242	7
131	4		
		242	8

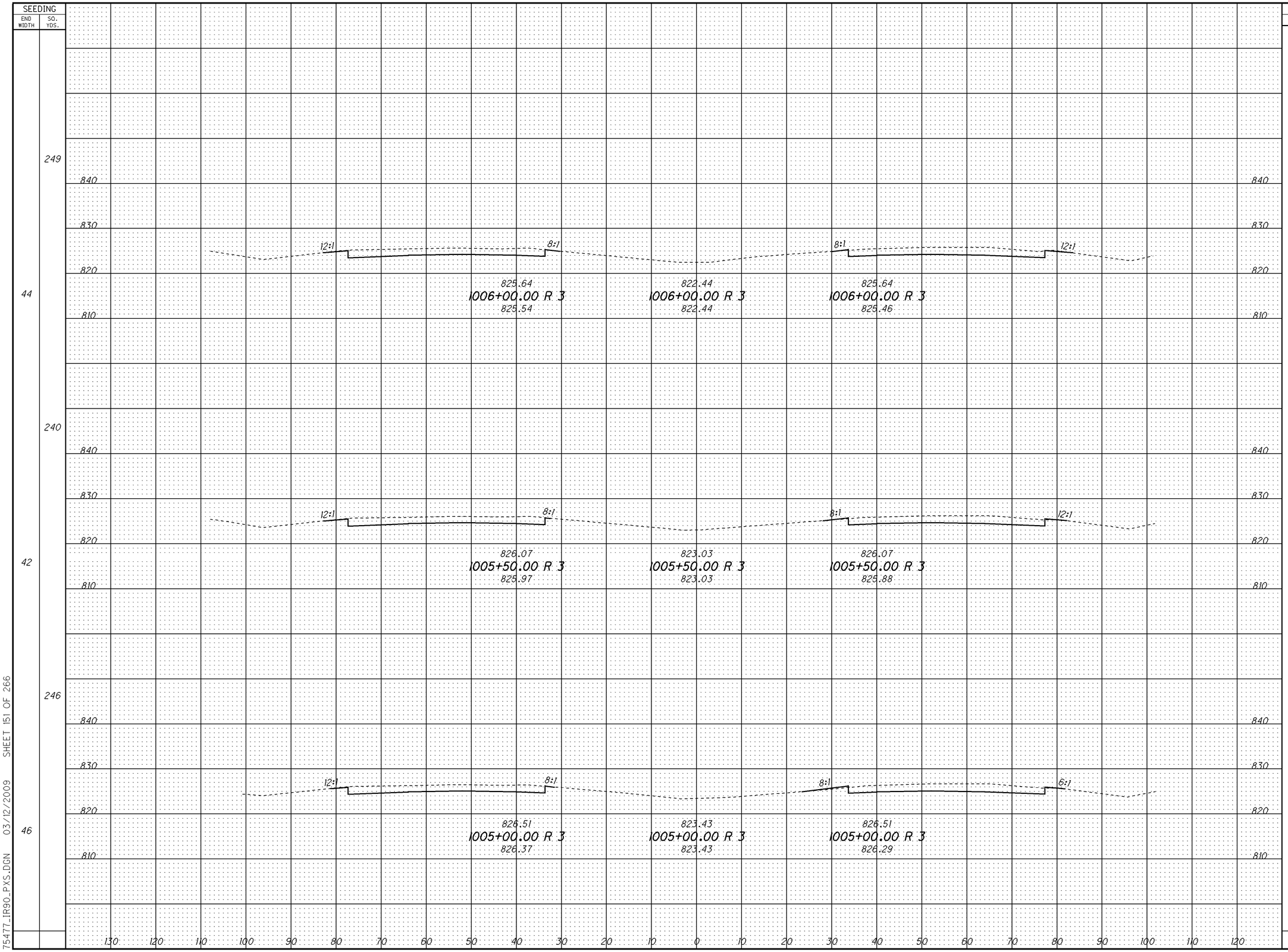
CALCULATED

CHECKED

CROSS SECTIONS

STA. 1003+50.00 TO STA. 1004+50.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
133	1		
133	1	246	1
131	3	245	3
		240	6

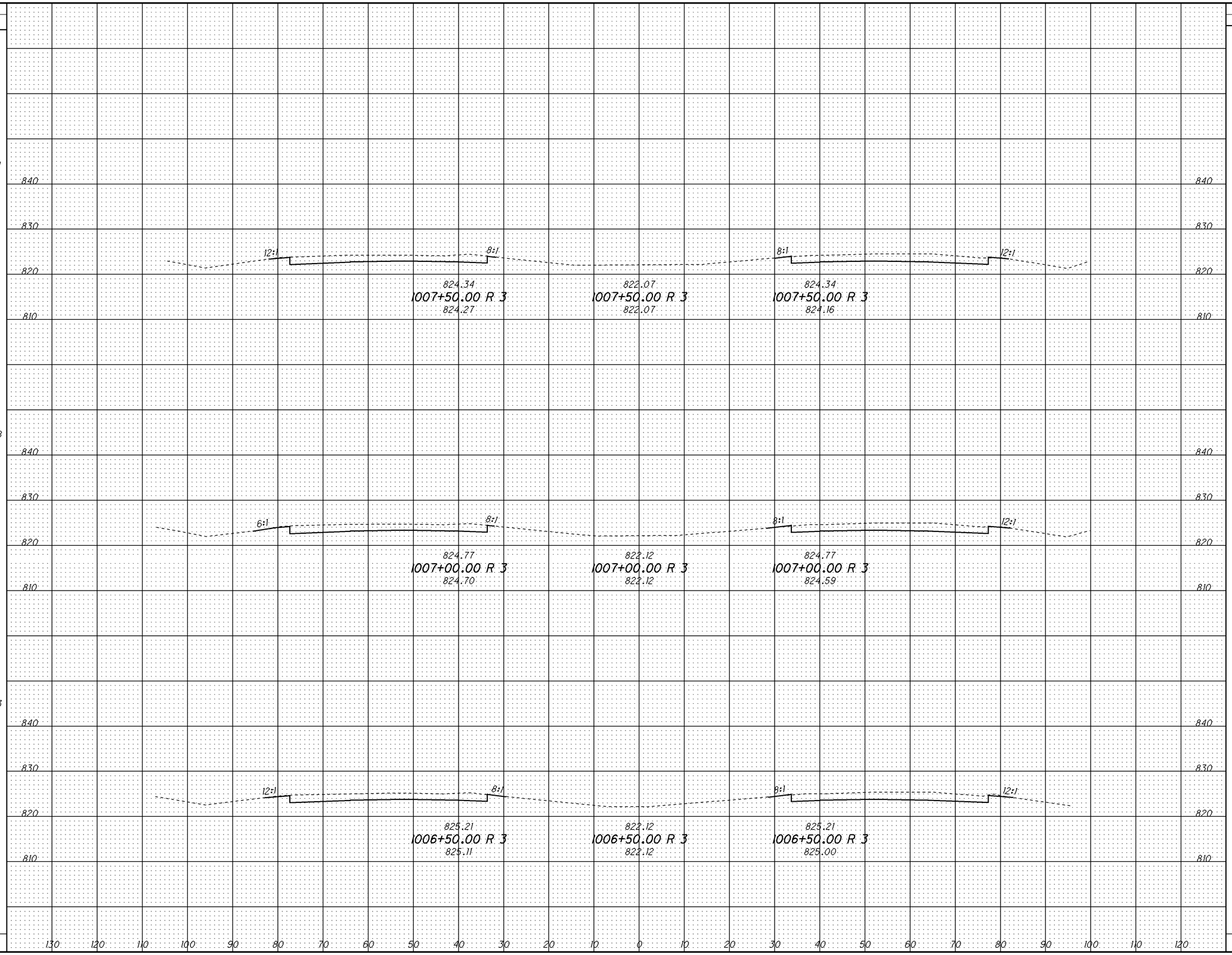
CALCULATED

CHECKED

CROSS SECTIONS
STA. 1005+00.00 TO STA. 1006+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
40	251	133	0	248	1
45	238	135	1	249	2
45	253	134	1	247	1



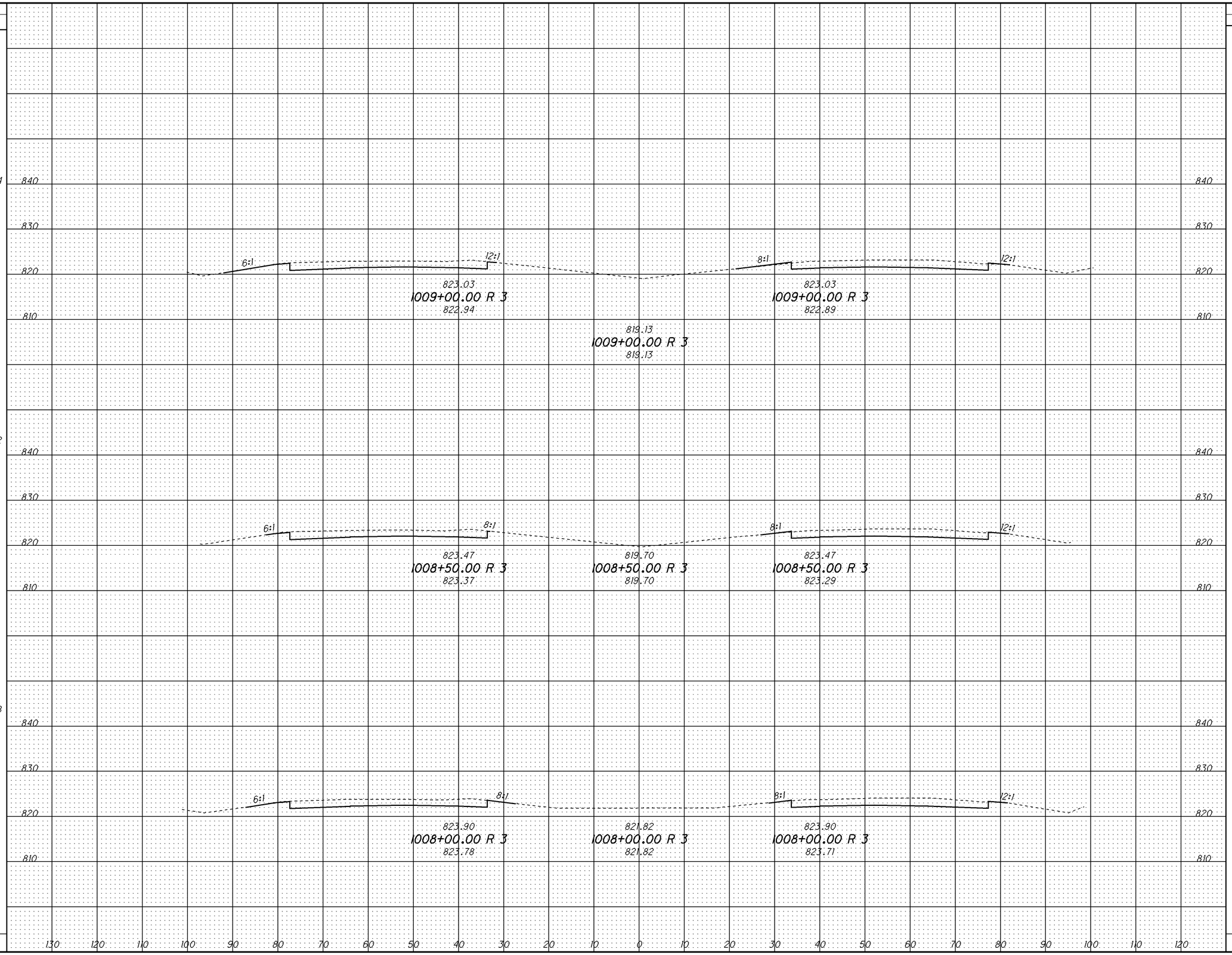
CALCULATED

CHECKED

CROSS SECTIONS

STA. 1006+50.00 TO STA. 1007+50.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
60	304	133	2	246	3
43	282	133	1	245	2
51	258	132	1	245	2

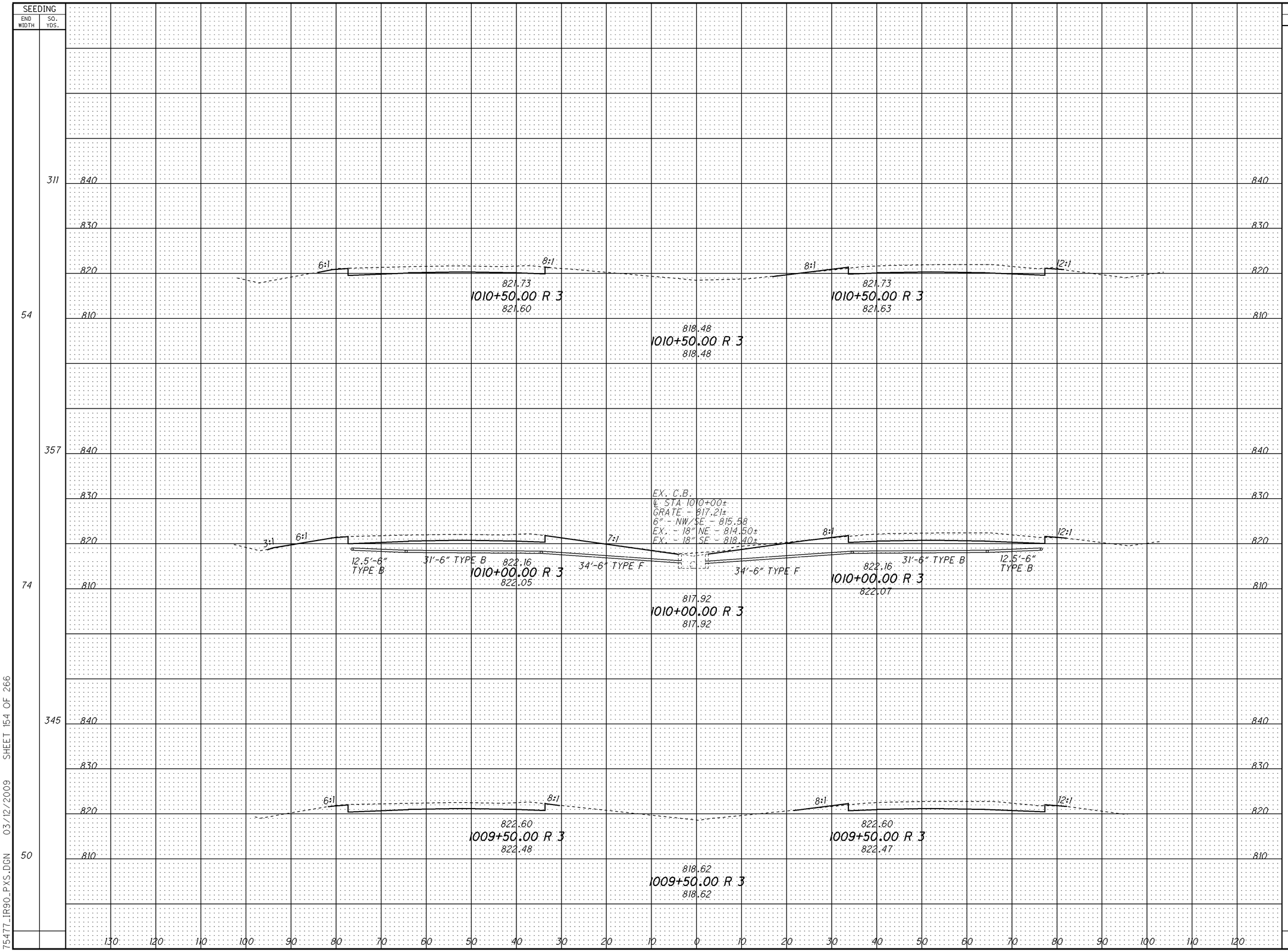
CALCULATED

CHECKED

CROSS SECTIONS

STA. 1008+00.00 TO STA. 1009+00.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
134	3		
		246	7
133	4		
		245	6
132	2		
		246	4

CALCULATED

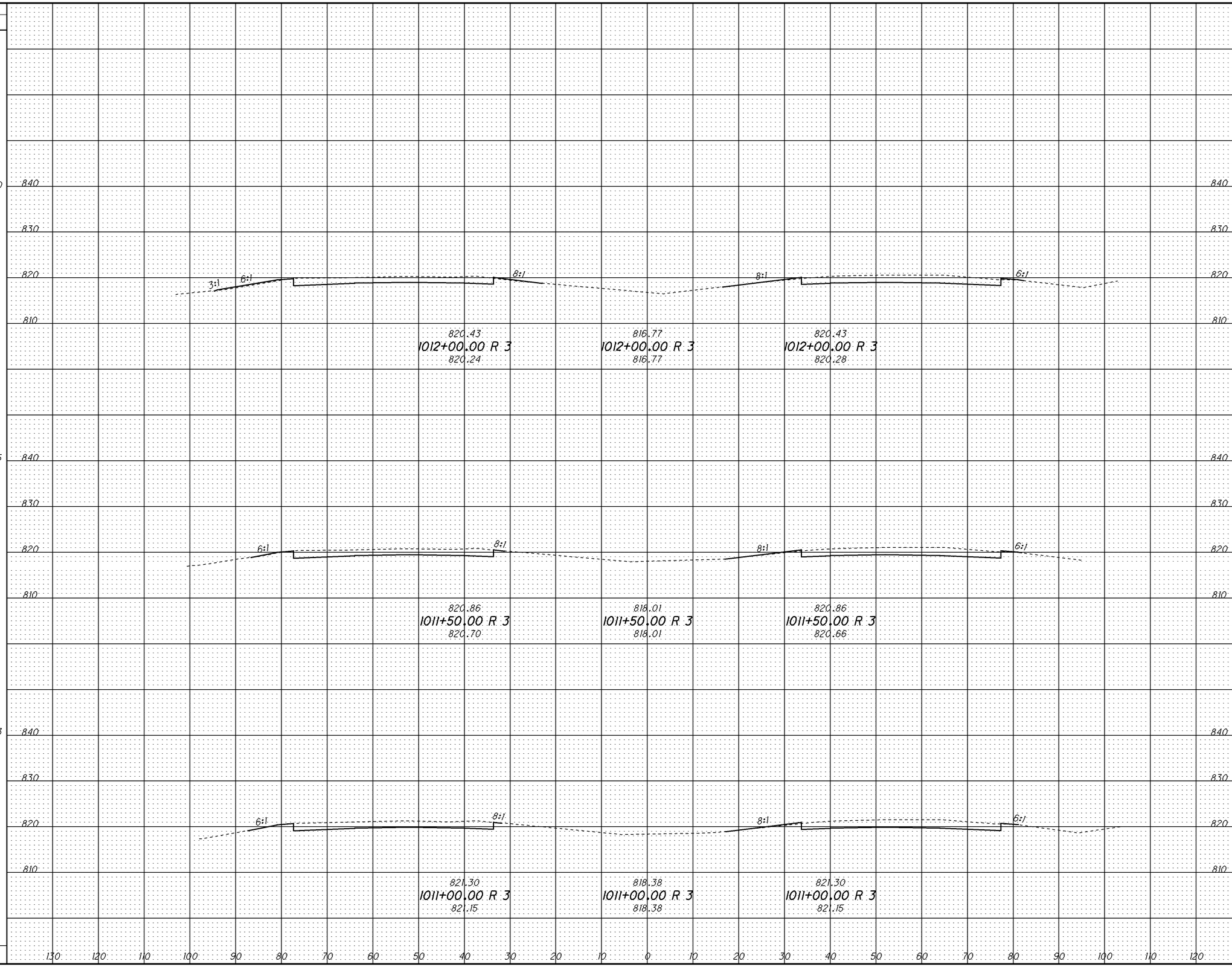
CHECKED

CROSS SECTIONS

STA. 1009+50.00 TO STA. 1010+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
76	430	127	9	236	12
59	375	128	4	242	7
58	323	133	3	246	6



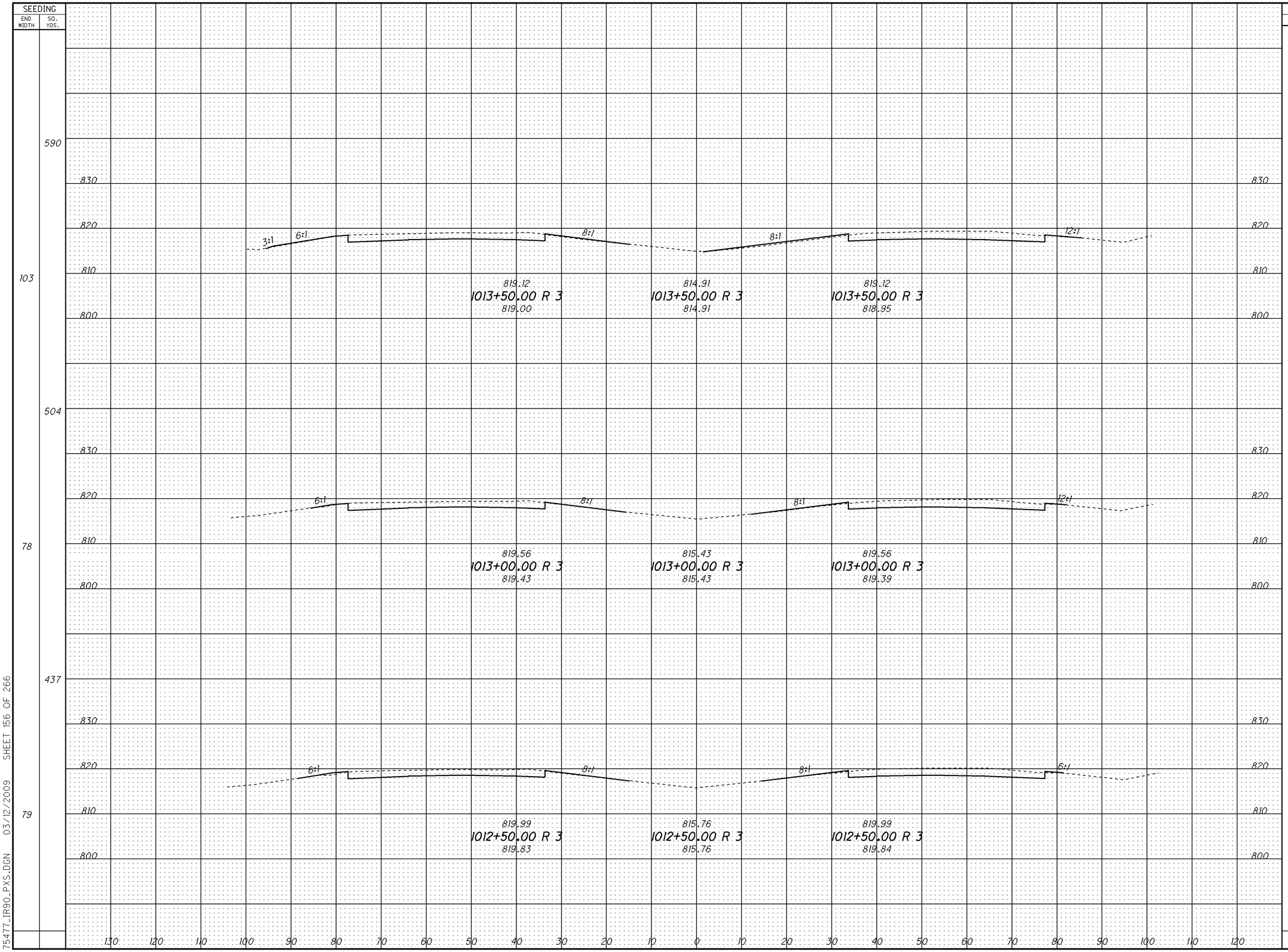
CALCULATED

CHECKED

CROSS SECTIONS

STA. 1011+00.00 TO STA. 1012+00.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
132	16		
		242	21
129	7		
		238	13
127	8		
		235	15

CALCULATED

CHECKED

CROSS SECTIONS
STA. 1012+50.00 TO STA. 1013+50.00

LAK-90-21.40
ATB-90-0.00

310
498

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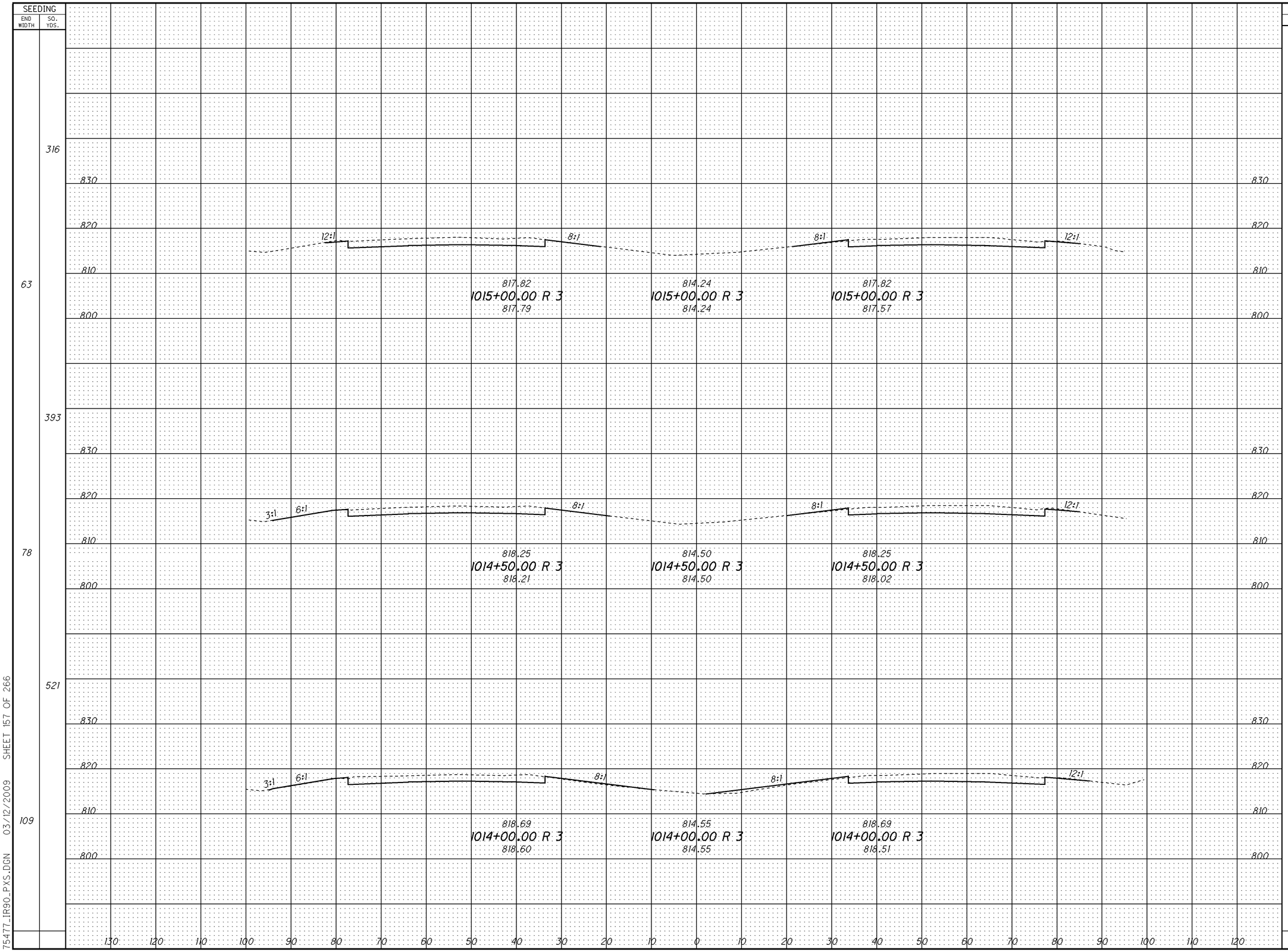


END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
135	3	249	6
134	4	249	21
135	19	247	33

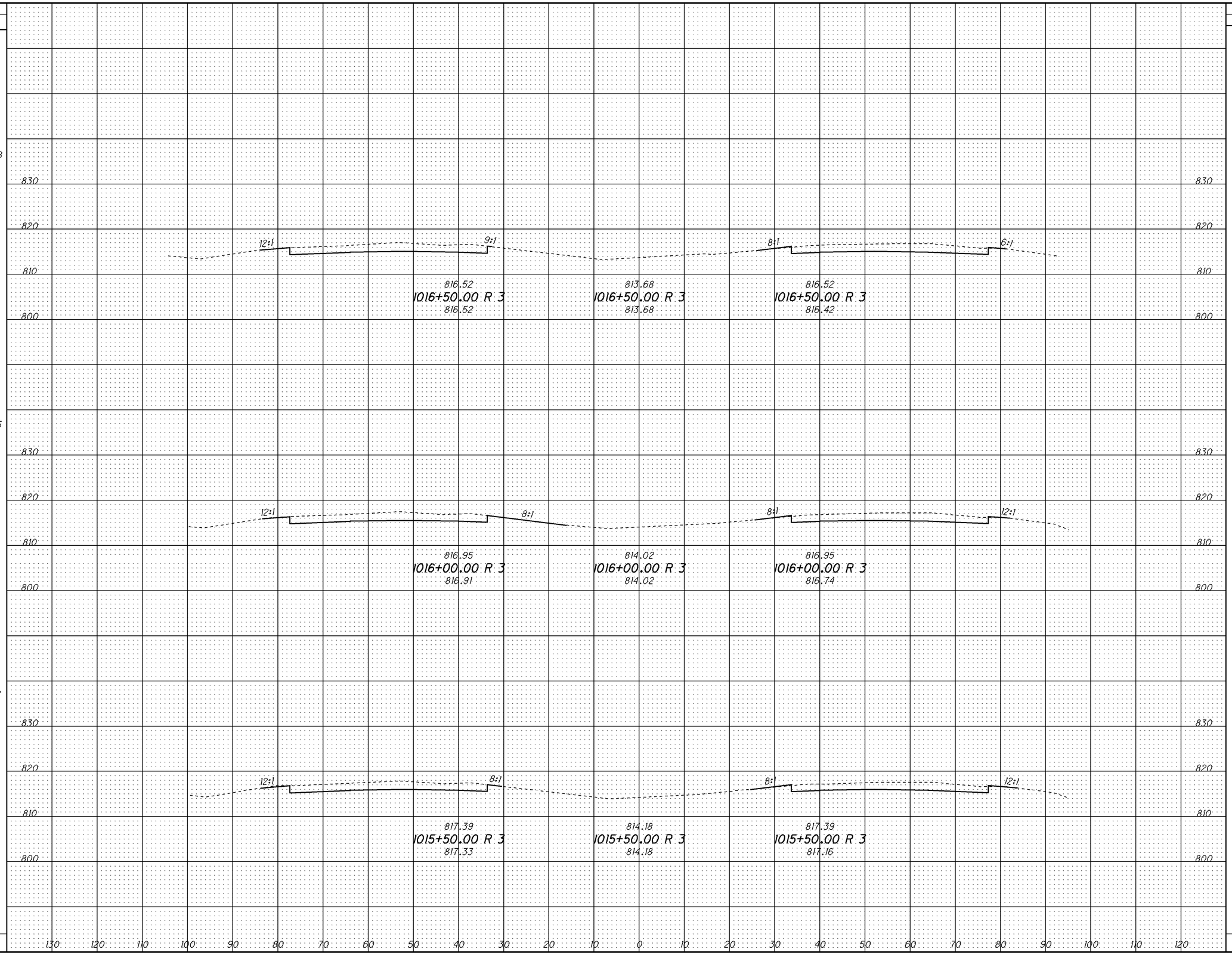
CALCULATED

CHECKED

CROSS SECTIONS
STA. 1014+00.00 TO STA. 1015+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
44	308	142	1	261	3
62	295	140	2	258	4
50	312	139	2	254	4



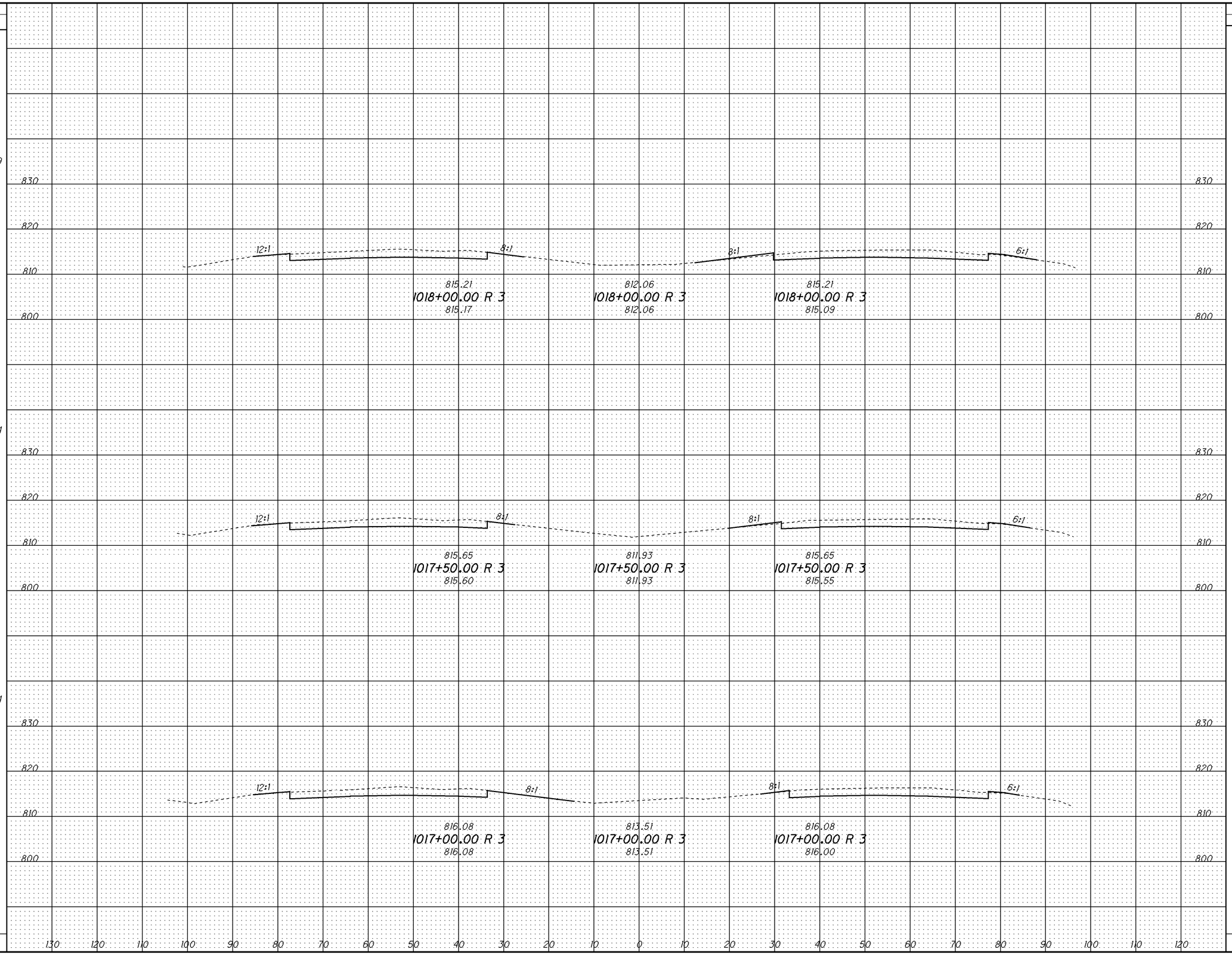
CALCULATED

CHECKED

CROSS SECTIONS
STA. 1015+50.00 TO STA. 1016+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
70	449	140	7	259	10
61	364	140	4	259	7
66	354	140	3	261	4



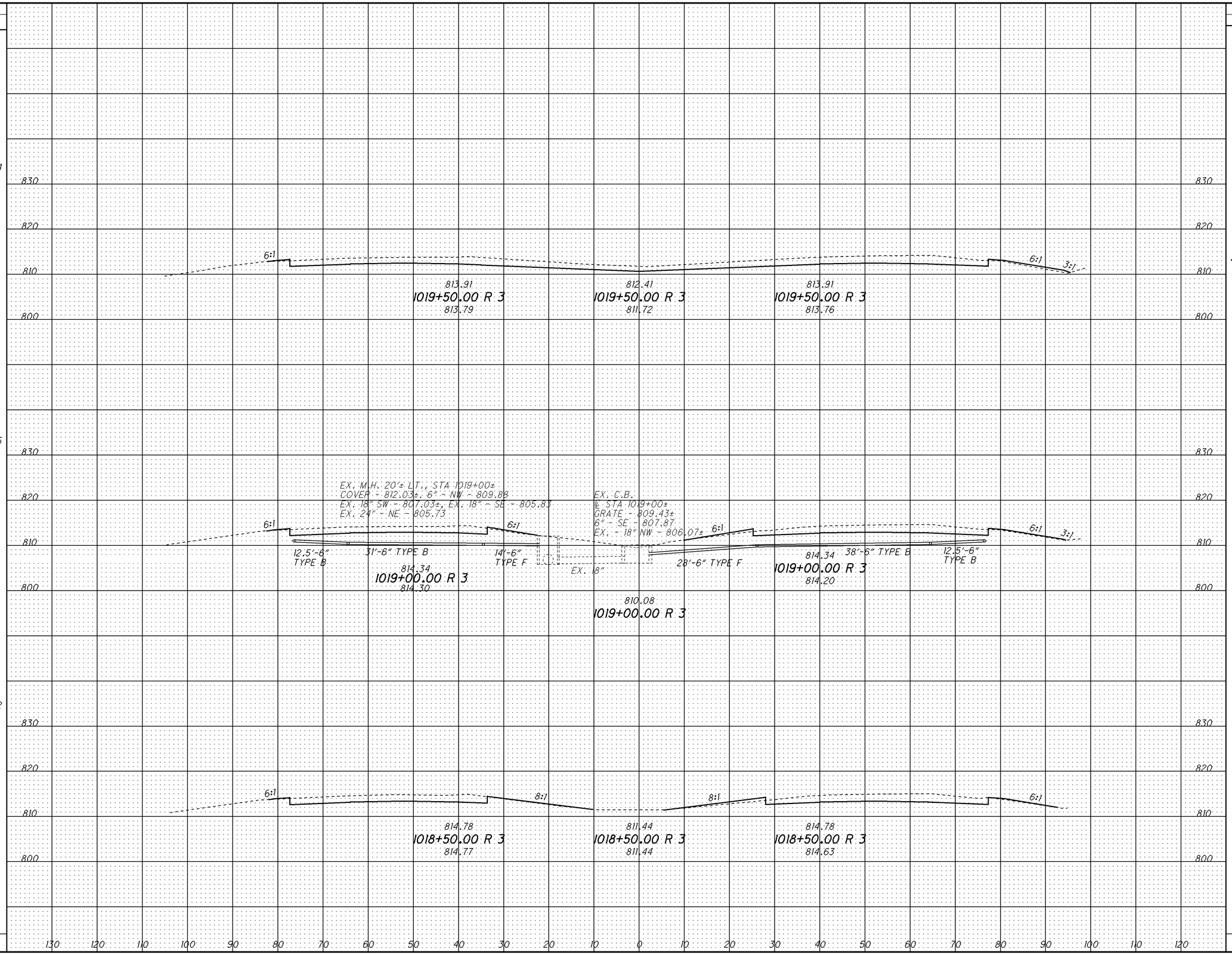
CALCULATED

CHECKED

CROSS SECTIONS
STA. 1017+00.00 TO STA. 1018+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
46	344	207	7	319	17
75	335	138	12	255	24
92	462	138	14	257	19



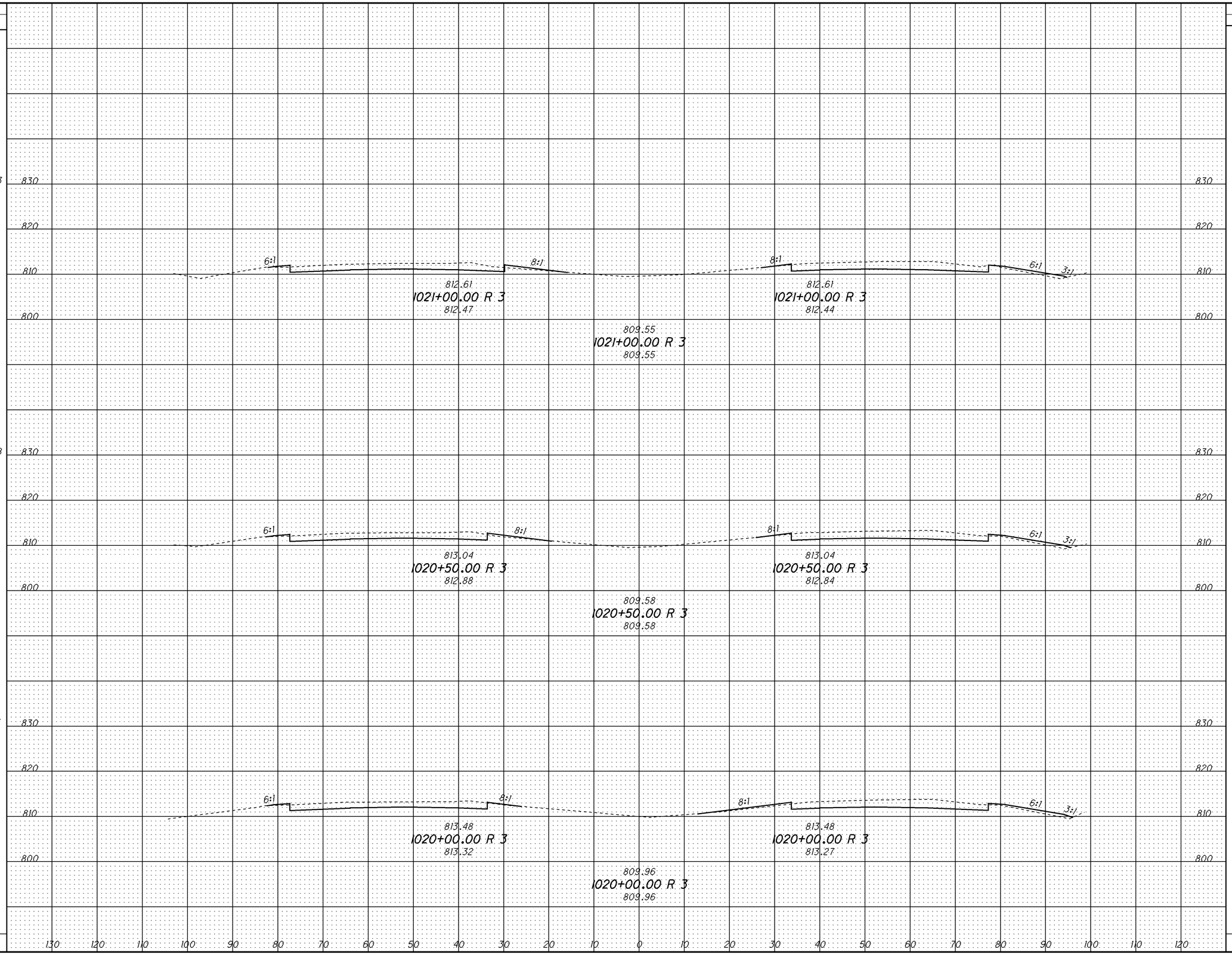
CALCULATED

CHECKED

CROSS SECTIONS
STA. 1018+50.00 TO STA. 1019+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
69	393	128	14	233	27
71	415	123	15	229	29
78	388	124	17	306	22



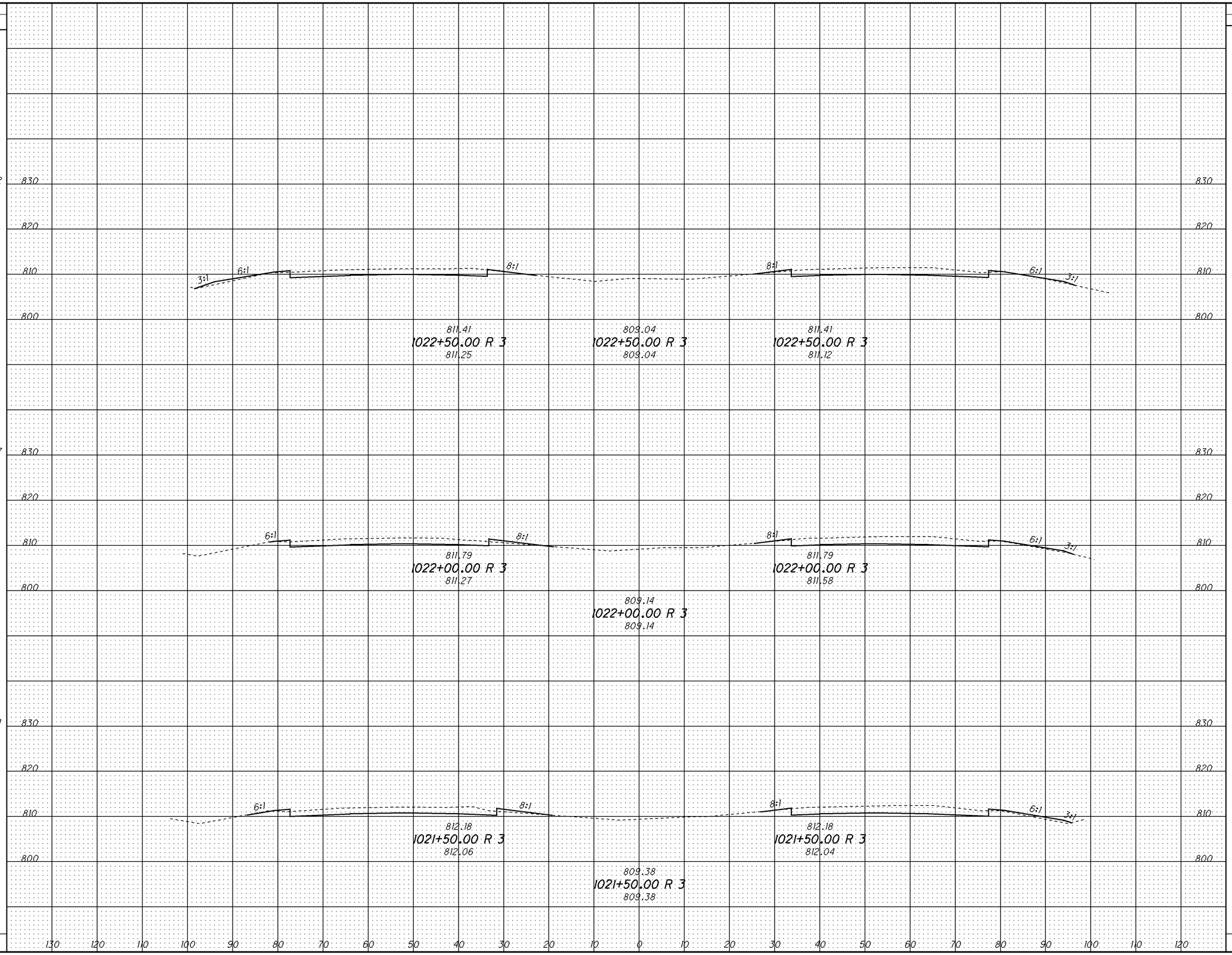
CALCULATED

CHECKED

CROSS SECTIONS
STA. 1020+00.00 TO STA. 1021+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
86	522	118	13	221	21
72	437	120	10	229	22
73	401	127	13	236	25



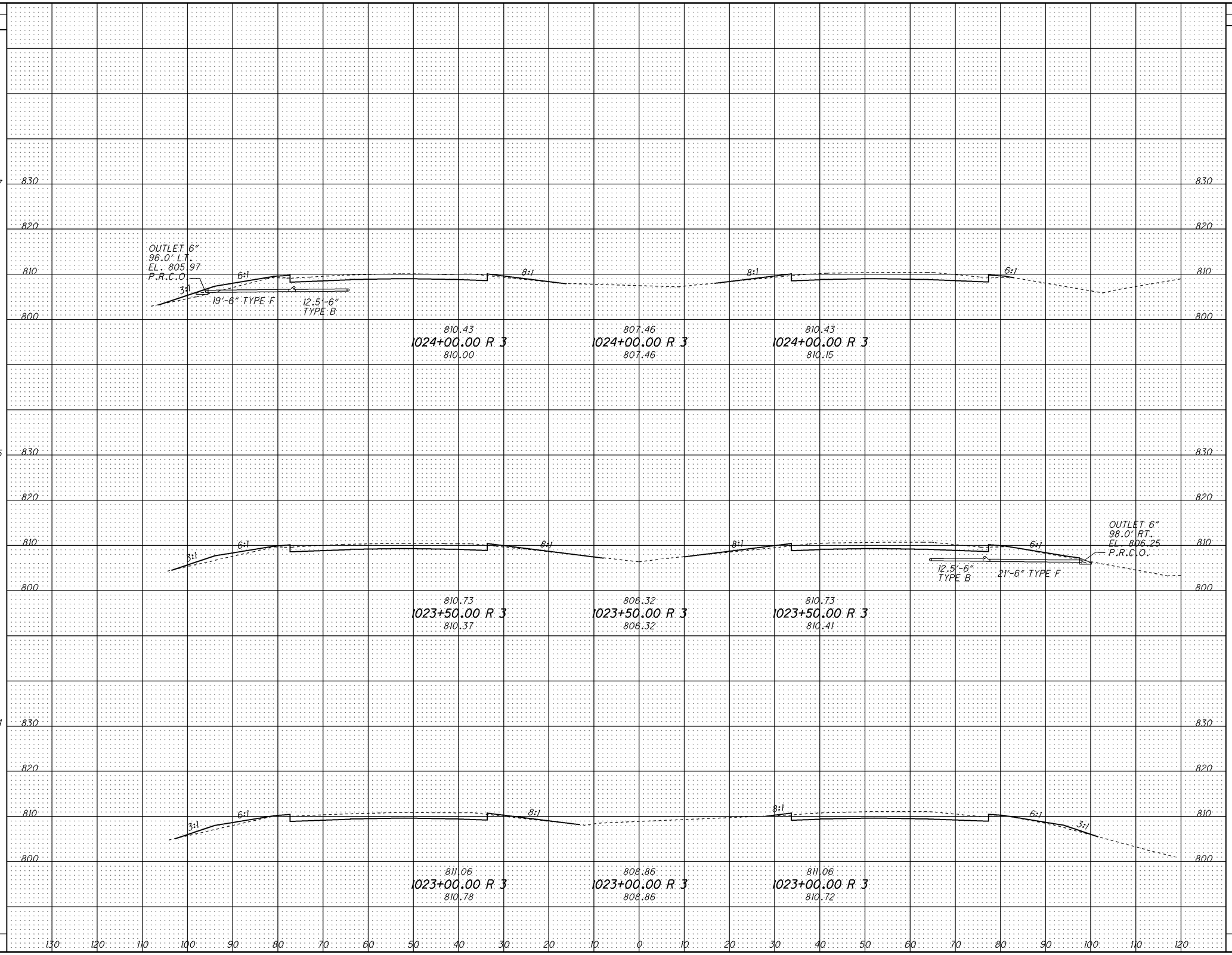
CALCULATED

CHECKED

CROSS SECTIONS
STA. 1021+50.00 TO STA. 1022+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.
95	507
122	605
102	624



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
107	31	199	56
108	30	205	49
113	23	215	33

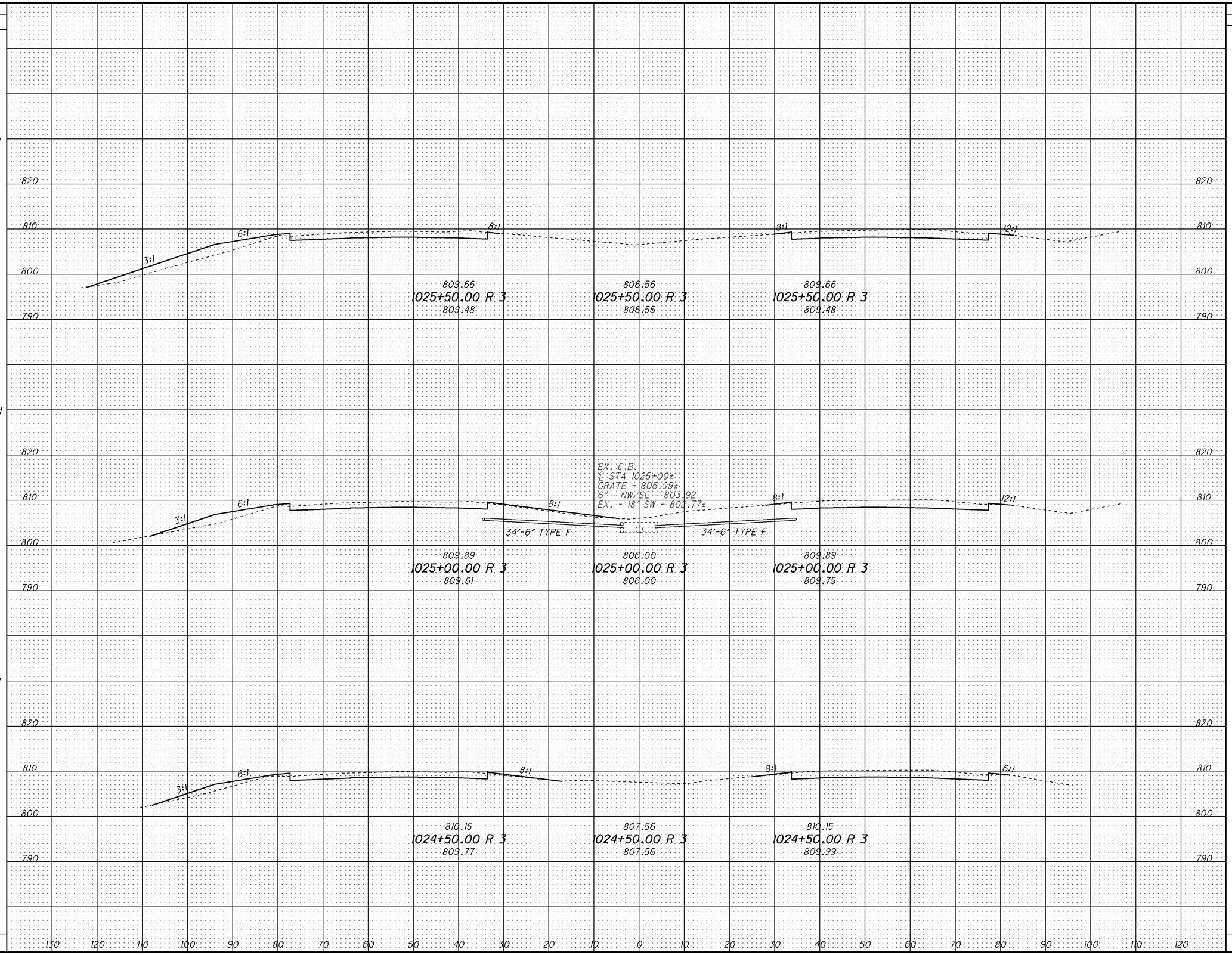
CALCULATED

CHECKED

CROSS SECTIONS
STA. 1023+00.00 TO STA. 1024+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
84	451	123	65	224	102
97	504	119	45	216	69
87	512	113	30	204	56



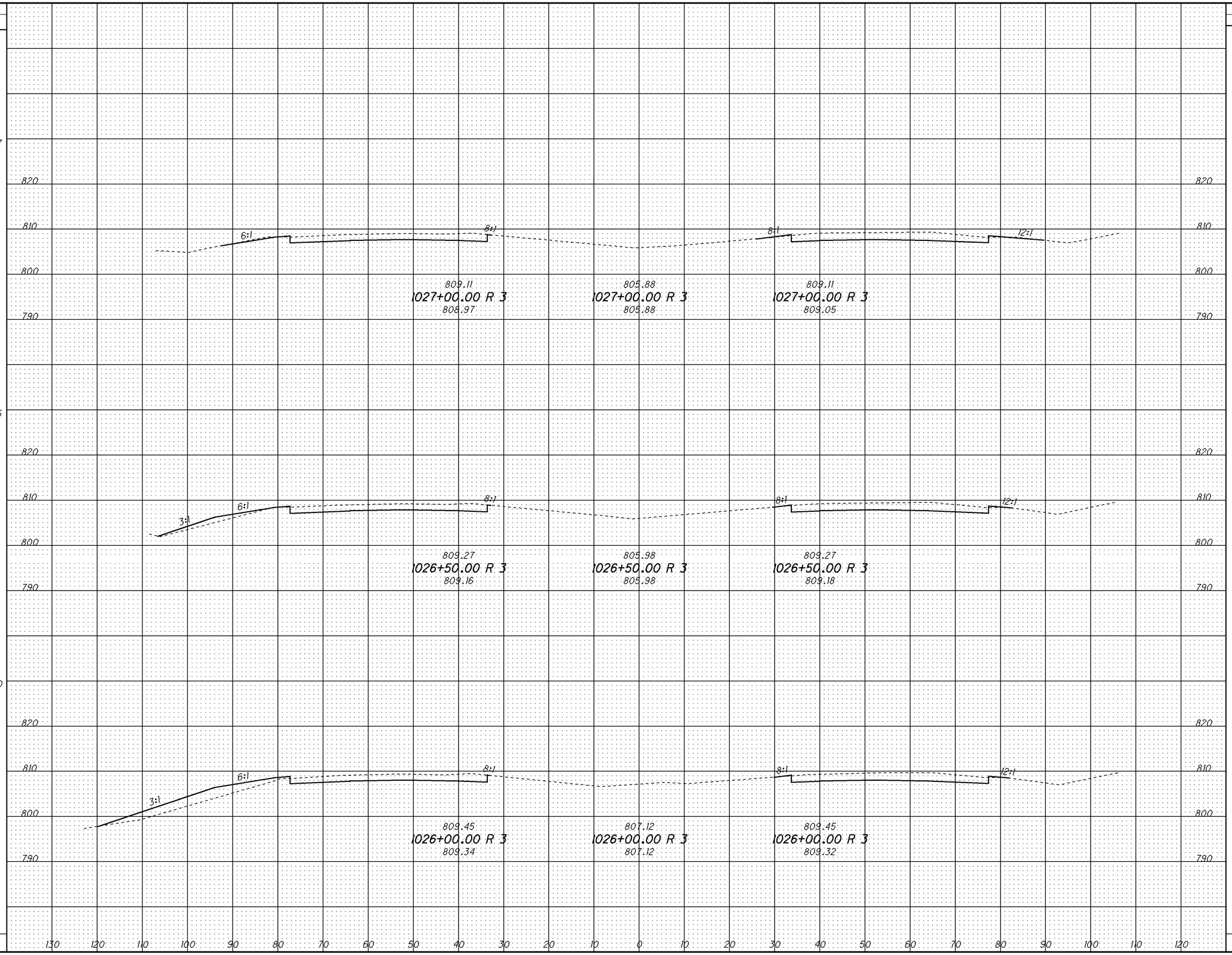
CALCULATED

CHECKED

CROSS SECTIONS
STA. 1024+50.00 TO STA. 1025+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
62	327	131	2	241	19
66	355	130	18	238	77
78	400	128	65	232	120



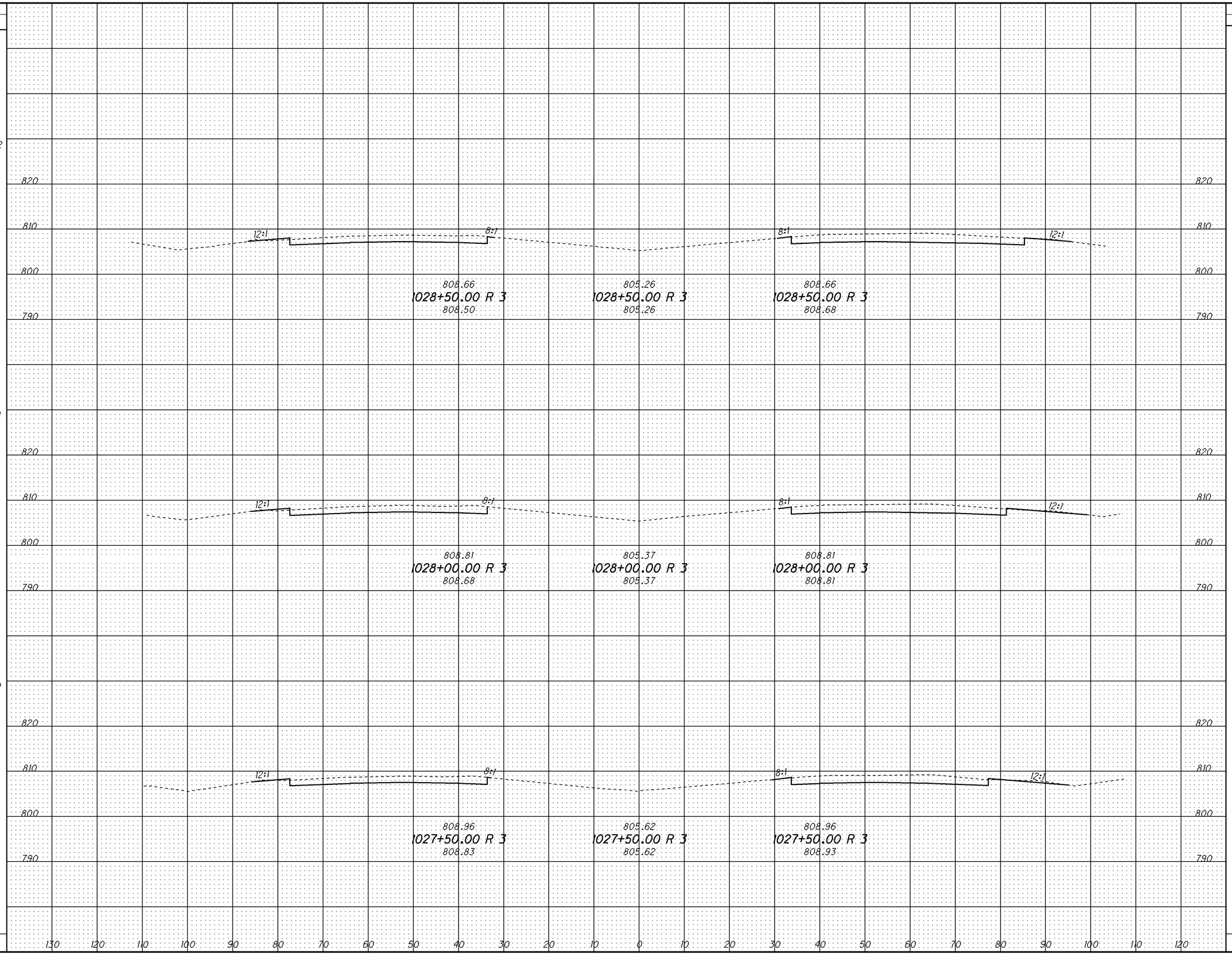
CALCULATED

CHECKED

CROSS SECTIONS

STA. 1026+00.00 TO STA. 1027+00.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
49	302	150	3	271	5
55	291	143	2	256	4
56	310	134	2	245	4

CALCULATED

CHECKED

CROSS SECTIONS

STA. 1027+50.00 TO STA. 1028+50.00

LAK-90-21.40
ATB-90-0.00

320
498

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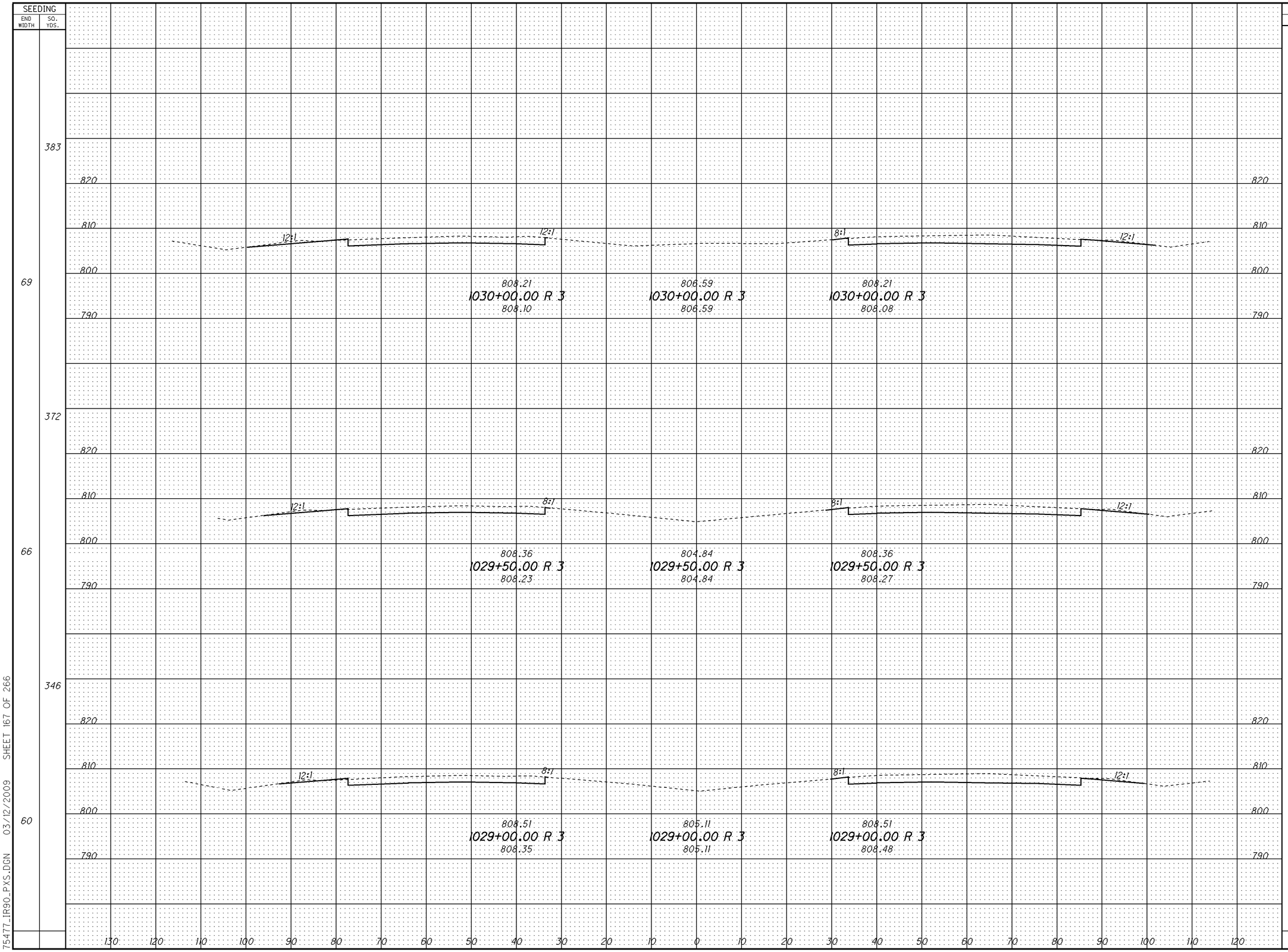


SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
69	383	152	1	284	2
66	372	154	1	287	3
60	346	156	2	283	4

CALCULATED

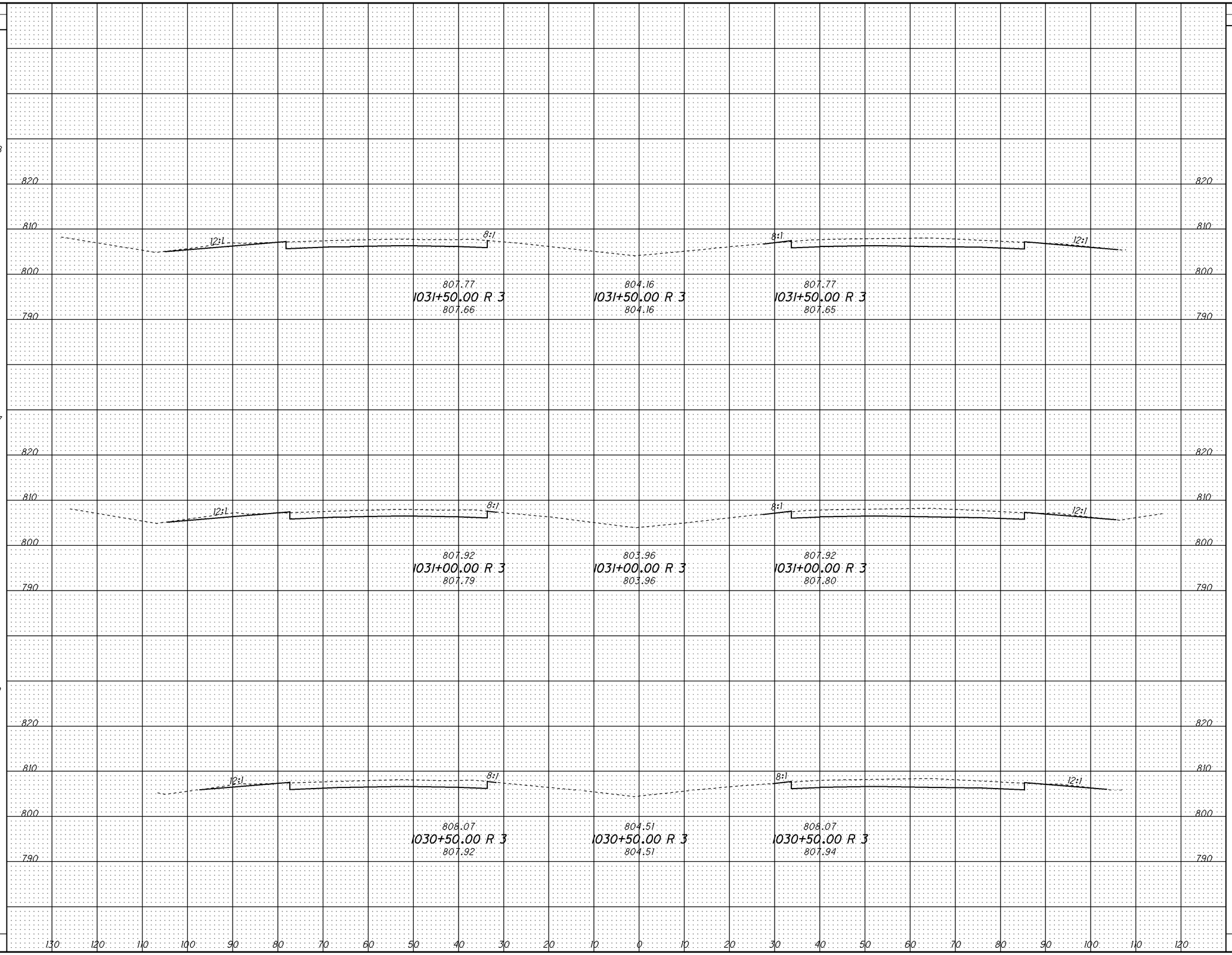
CHECKED

CROSS SECTIONS

STA. 1029+00.00 TO STA. 1030+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
80	448	155	1	288	3
81	447	156	2	285	2
70	419	152	1	282	2



CALCULATED

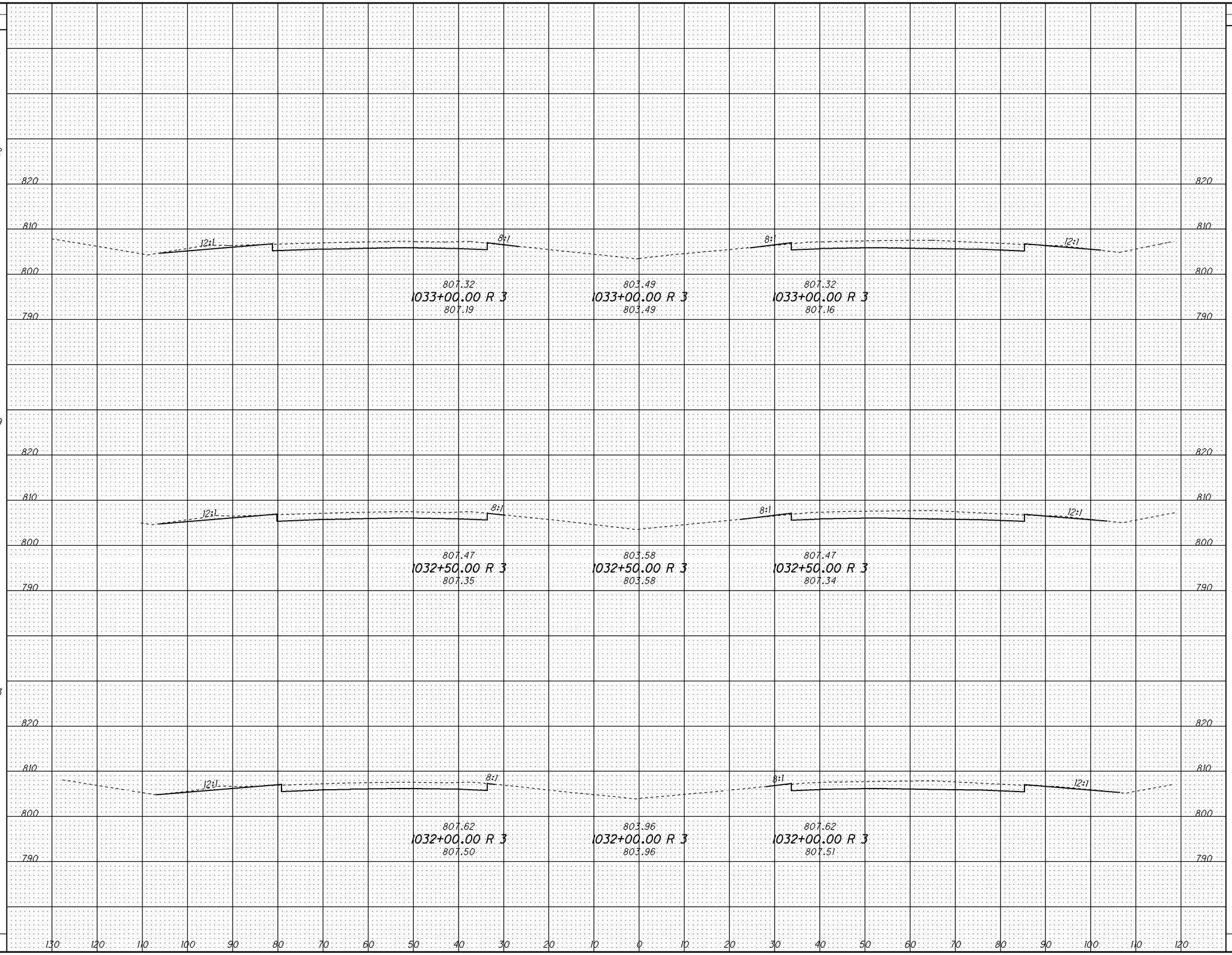
CHECKED

CROSS SECTIONS

STA. 1030+50.00 TO STA. 1031+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
84	482	158	3	292	5
85	469	157	3	289	4
82	463	155	1	287	2



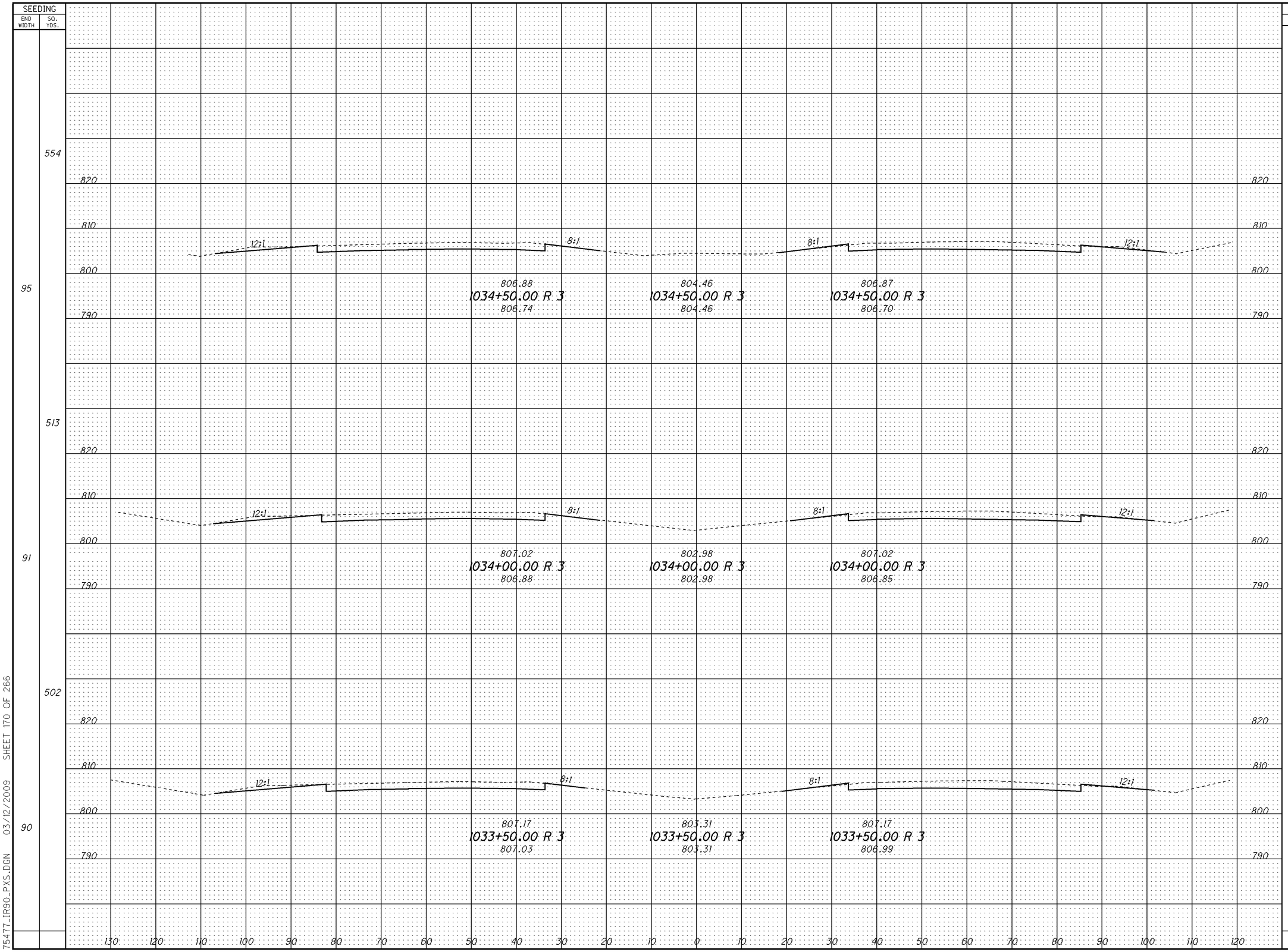
CALCULATED

CHECKED

CROSS SECTIONS

STA. 1032+00.00 TO STA. 1033+00.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
95	554	161	4	296	7
91	513	159	4	294	8
90	502	158	4	293	6

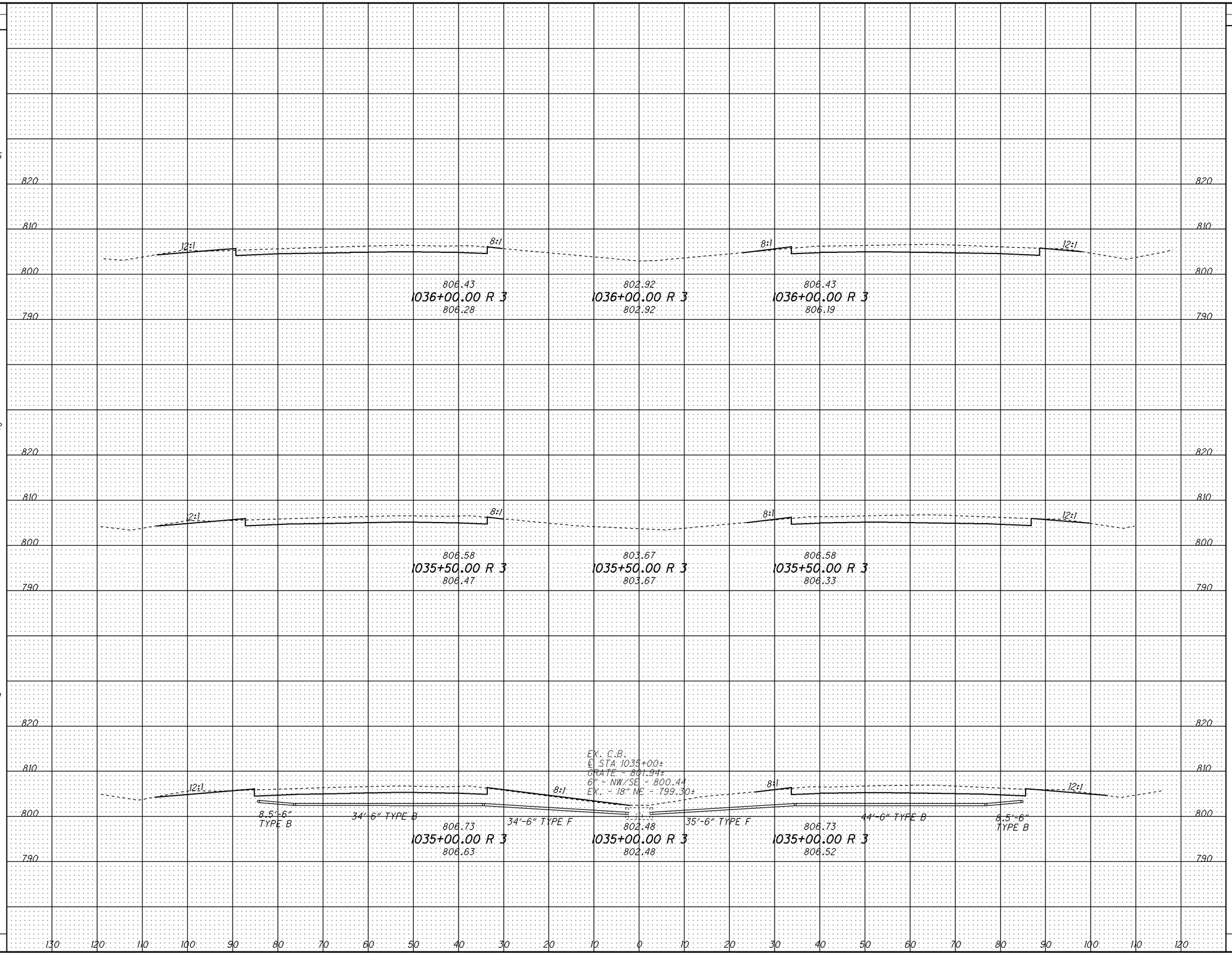
CALCULATED

CHECKED

CROSS SECTIONS
STA. 1033+50.00 TO STA. 1034+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
67	355	161	4	297	7
71	382	159	3	297	11
106	491	161	9	298	12



CALCULATED

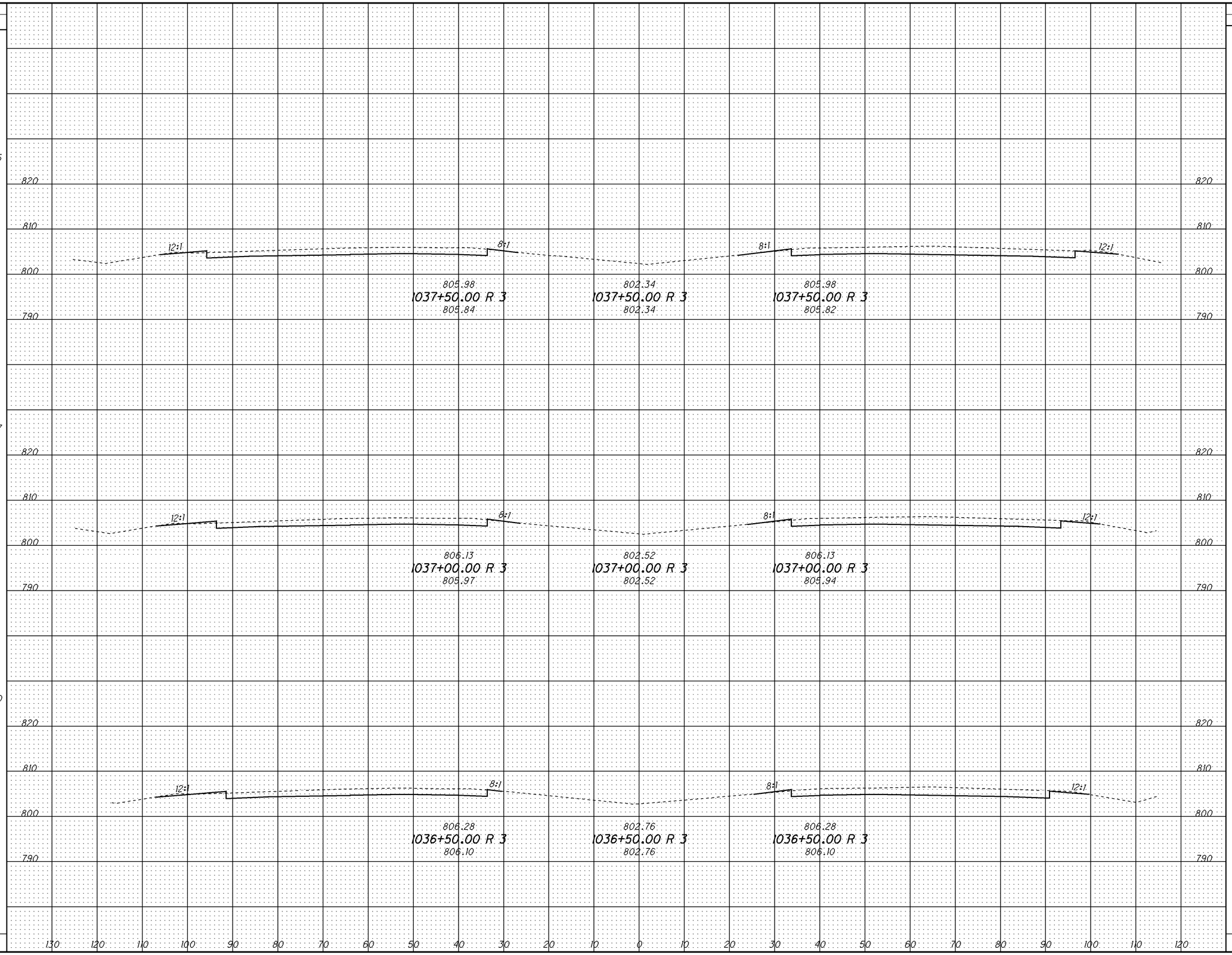
CHECKED

CROSS SECTIONS

STA. 1035+00.00 TO STA. 1036+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
64	355	186	4	336	7
64	357	177	4	322	7
62	350	171	3	308	7



CALCULATED

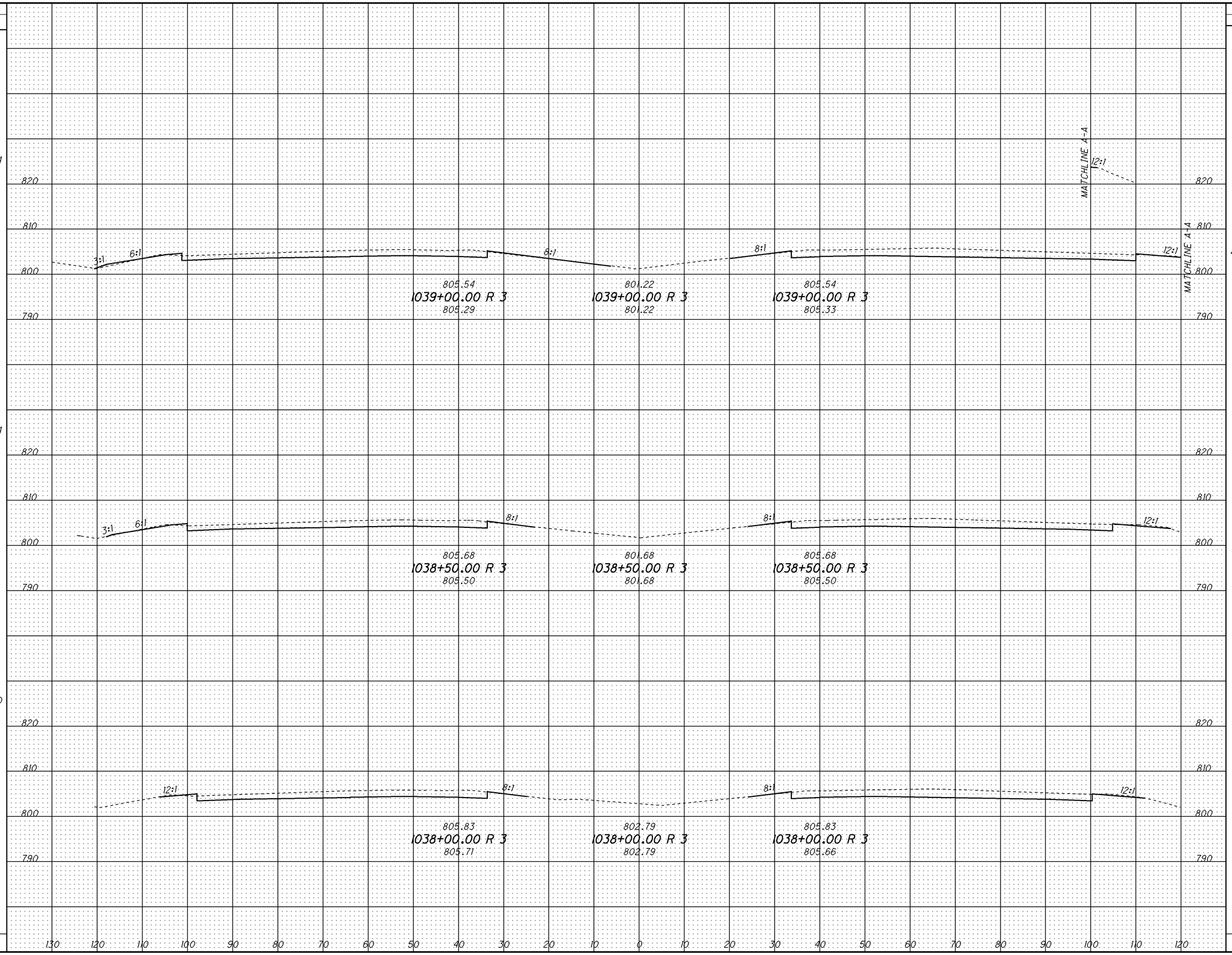
CHECKED

CROSS SECTIONS

STA. 1036+50.00 TO STA. 1037+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
98	594	200	10	367	13
76	484	196	4	358	7
64	390	190	3	348	6



CALCULATED

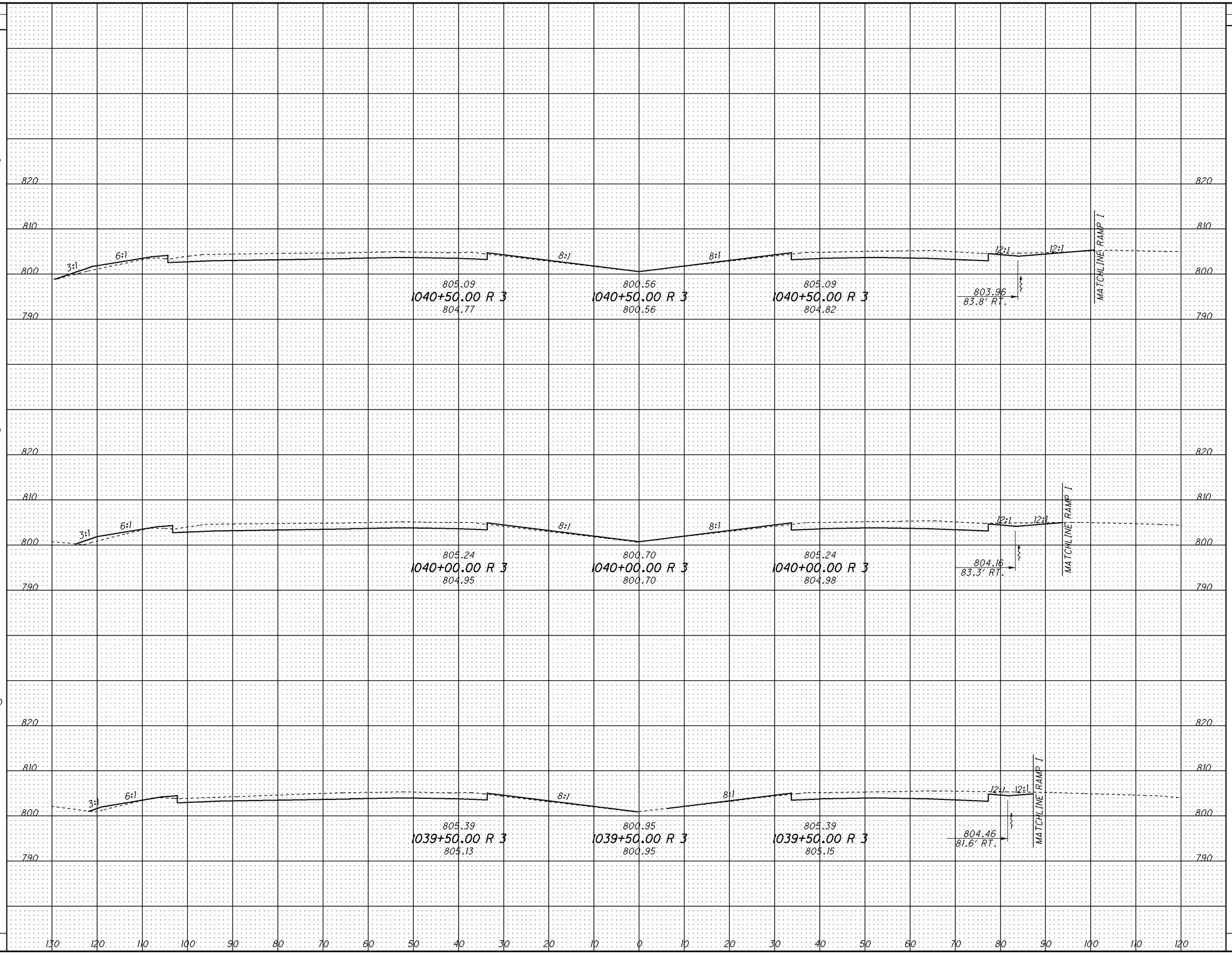
CHECKED

CROSS SECTIONS

STA. 1038+00.00 TO STA. 1039+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
142	712	164	28	303	51
132	761	164	27	297	43
116	690	157	20	331	27



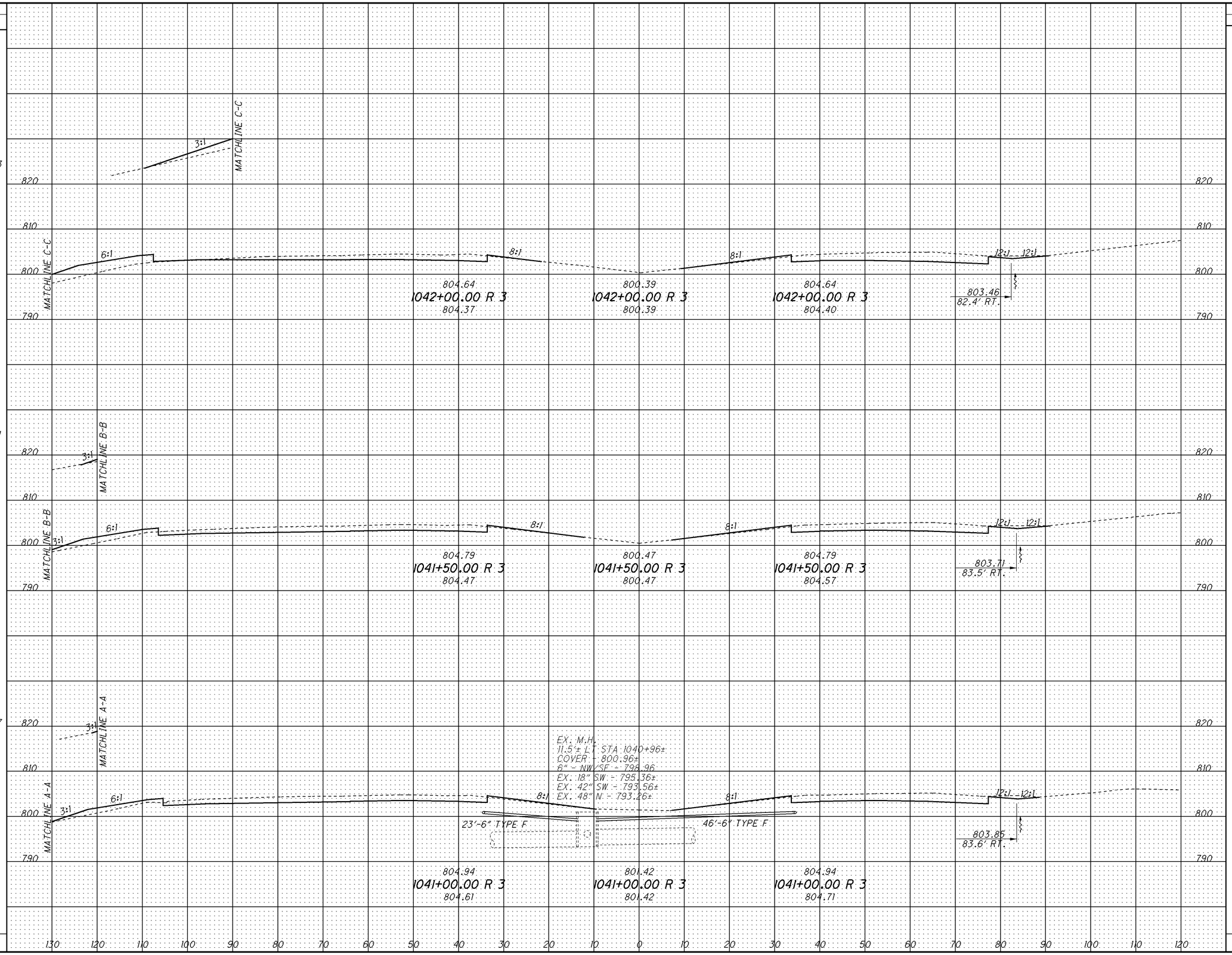
CALCULATED

CHECKED

CROSS SECTIONS
STA. 1039+50.00 TO STA. 1040+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
119	643	137	76	271	103
115	651	155	36	290	61
113	637	158	31	297	54



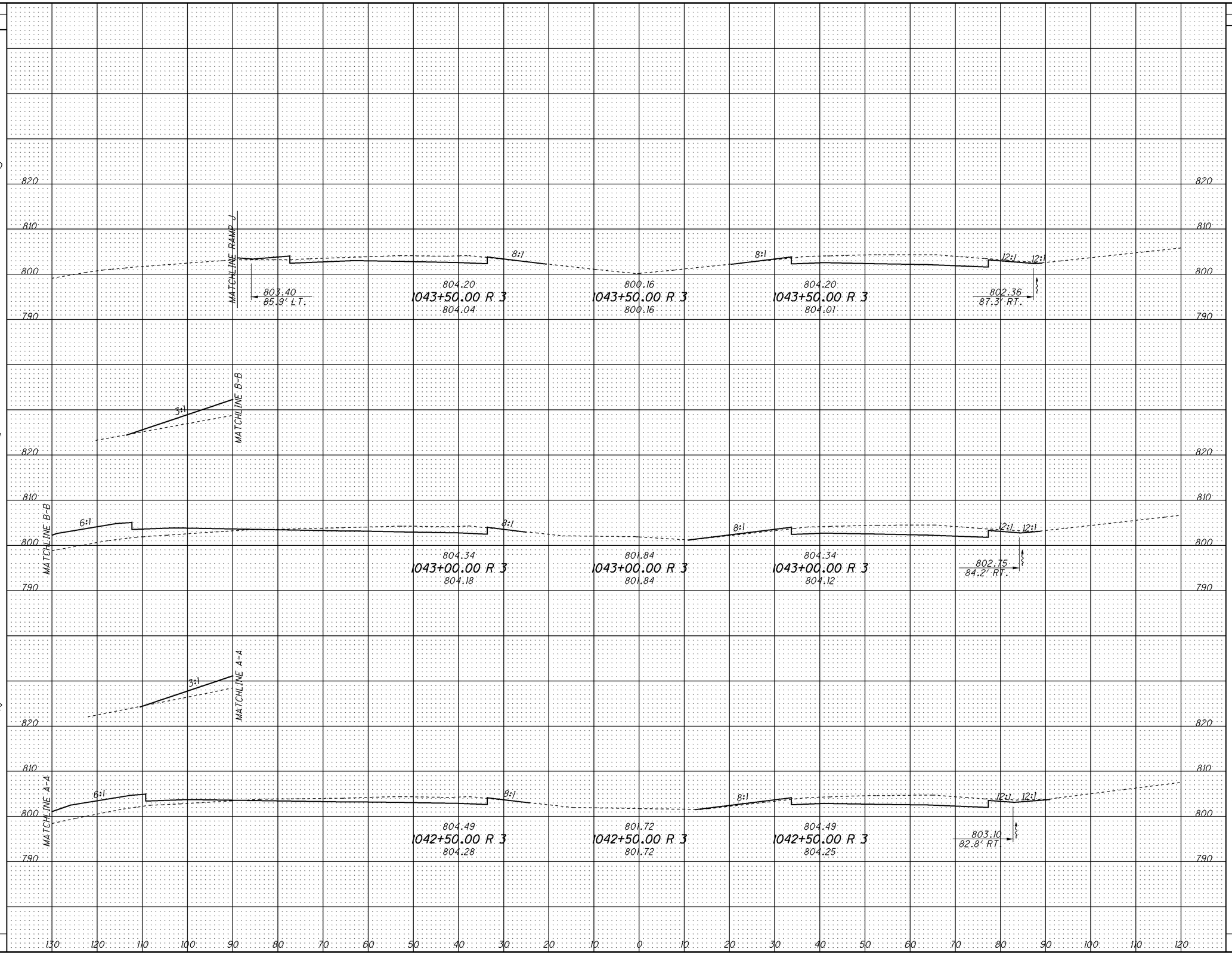
CALCULATED

CHECKED

CROSS SECTIONS
STA. 1041+00.00 TO STA. 1042+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
76	430	133	9	243	140
111	521	130	142	244	235
113	622	133	111	250	173



CALCULATED

CHECKED

CROSS SECTIONS

STA. 1042+50.00 TO STA. 1043+50.00

LAK-90-21.40
ATB-90-0.00

330
498

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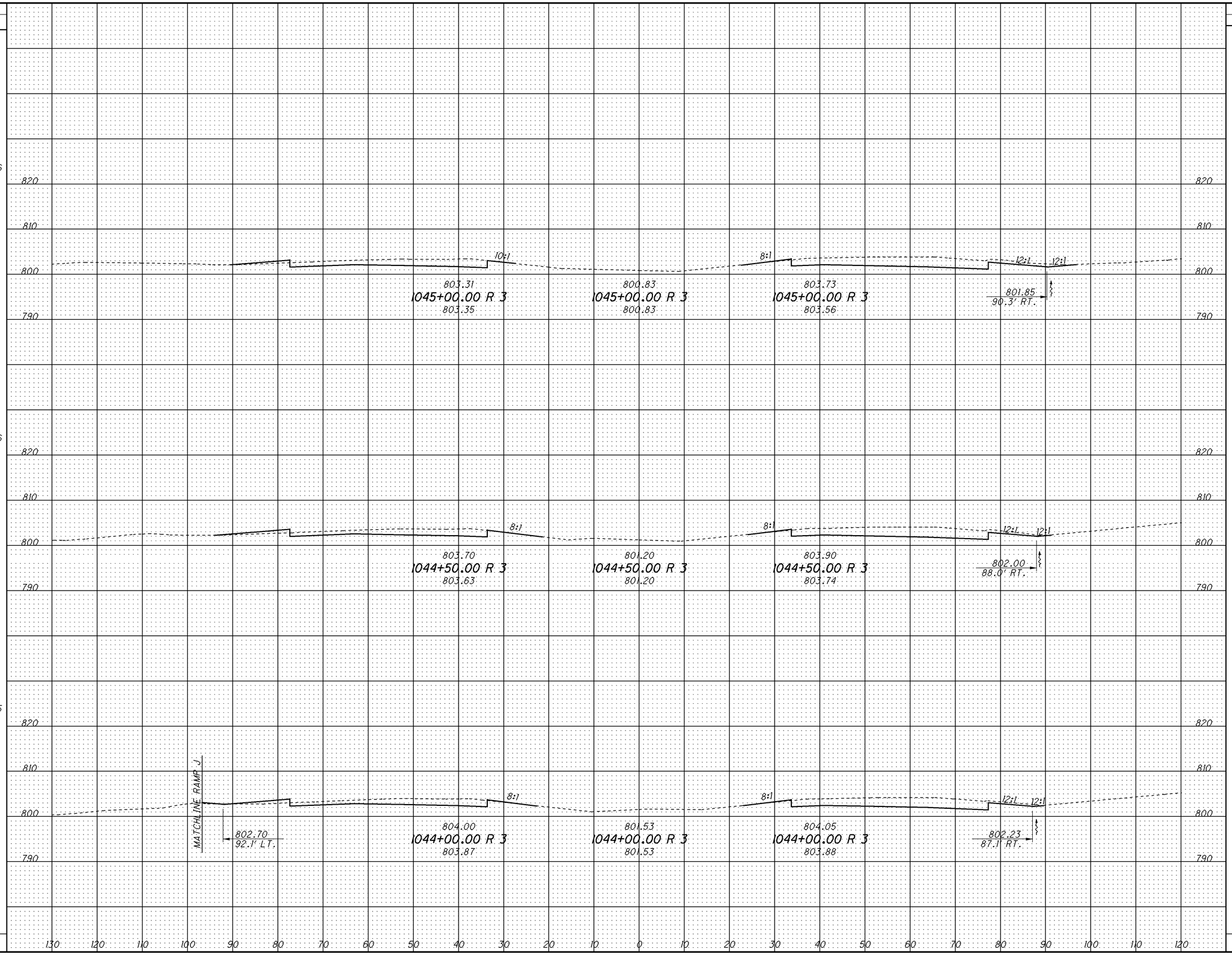
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
75	546	147	6	265	14
78	426	138	9	253	18
79	435	135	10	248	18



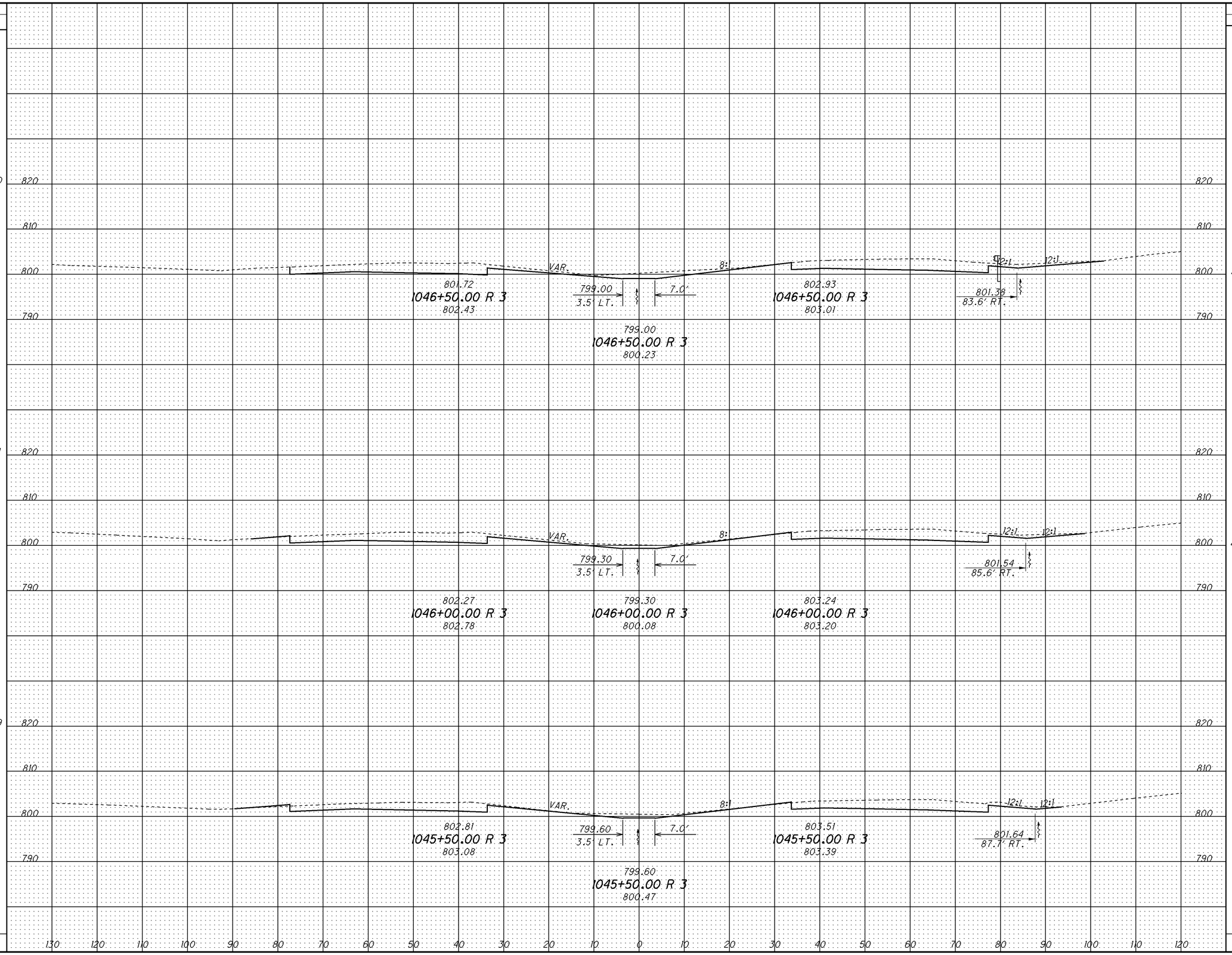
CALCULATED

CHECKED

CROSS SECTIONS
STA. 1044+00.00 TO STA. 1045+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
118	650	232	0	400	1
123	671	200	1	348	5
122	679	176	4	299	9



CALCULATED

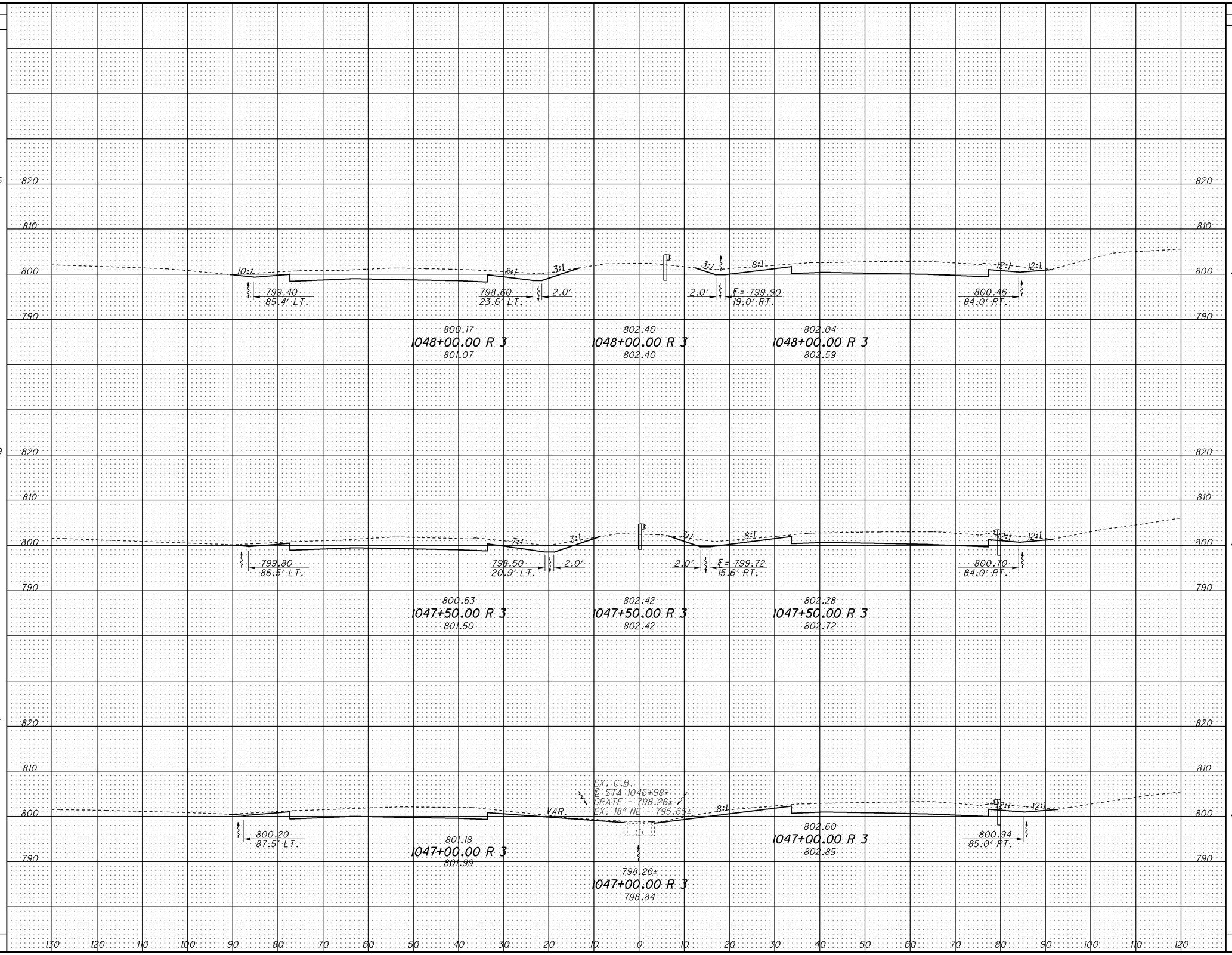
CHECKED

CROSS SECTIONS

STA. 1045+50.00 TO STA. 1046+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
95	526	273	0	505	0
107	559	272	0	473	0
116	615	239	0	436	0



CALCULATED

CHECKED

CROSS SECTIONS

STA. 1047+00.00 TO STA. 1048+00.00

LAK-90-21.40
ATB-90-0.00

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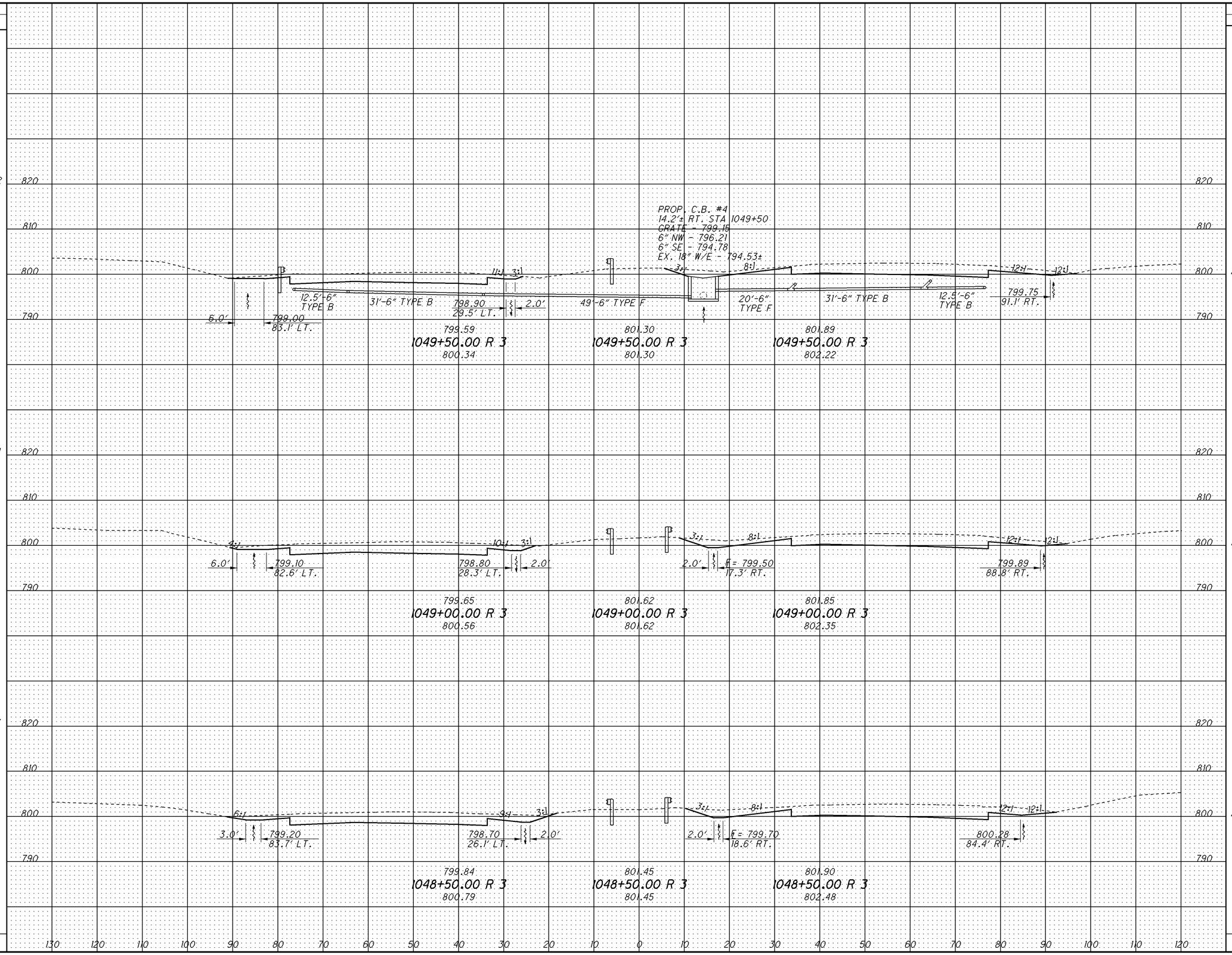
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
95	562	247	0	482	0
92	521	274	0	522	0
94	517	290	0	522	0

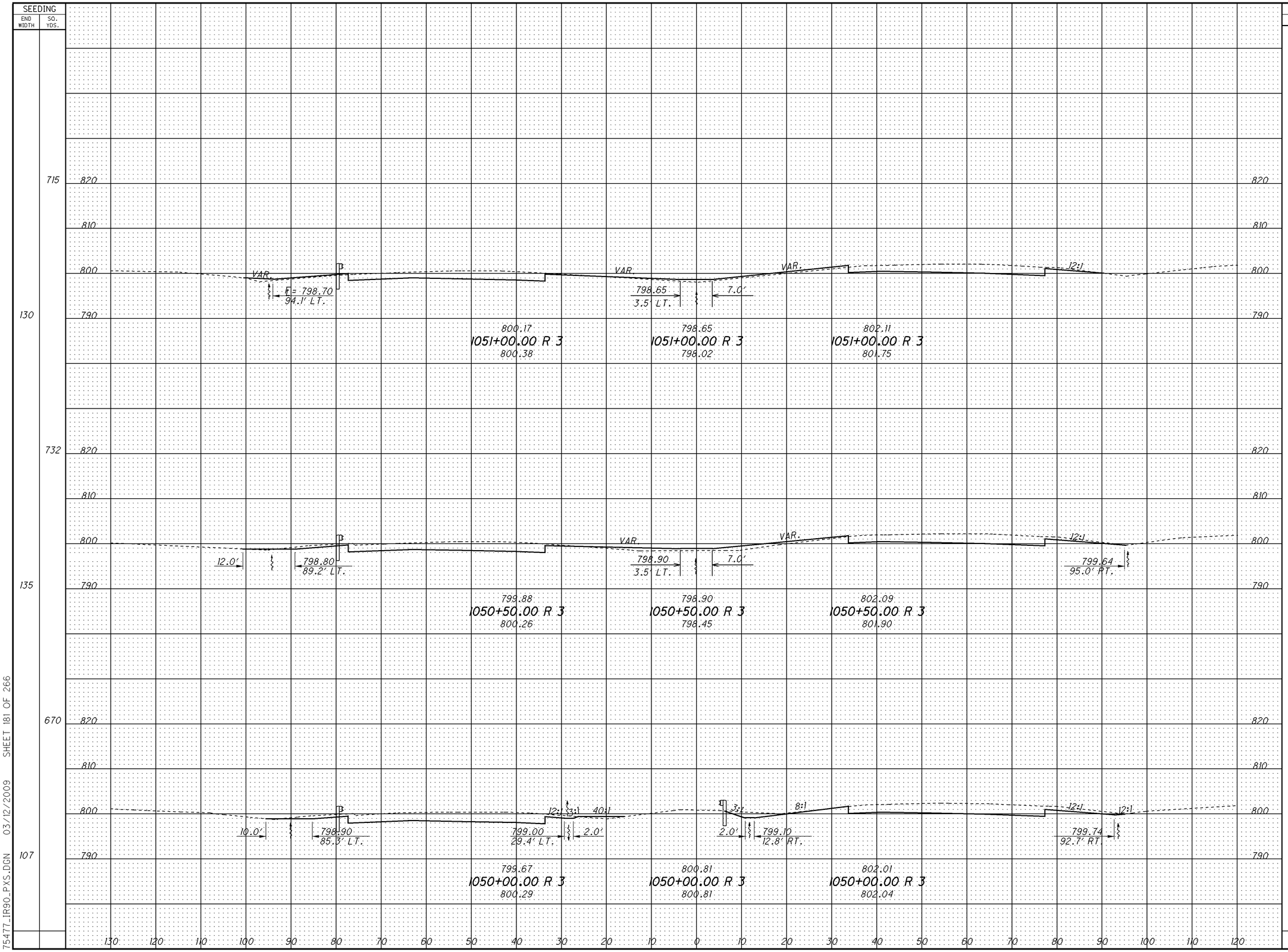


CALCULATED

CHECKED

CROSS SECTIONS
STA. 1048+50.00 TO STA. 1049+50.00

LAK-90-21.40
ATB-90-0.00



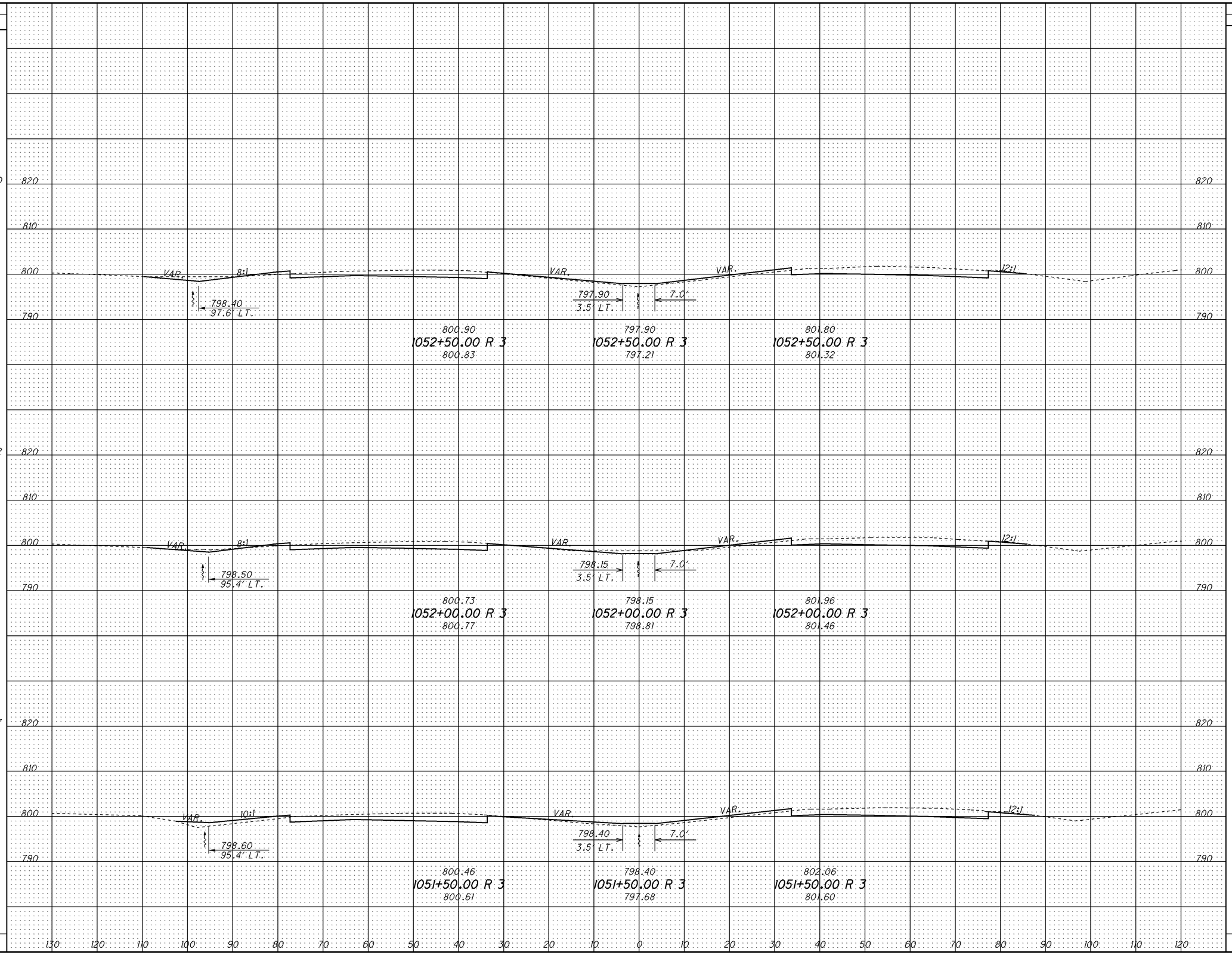
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
130	715	148	23	296	44
135	732	171	25	353	26
107	670	210	3	422	3

CALCULATED

CHECKED

CROSS SECTIONS
STA. 1050+00.00 TO STA. 1051+00.00

LAK-90-21.40
ATB-90-0.00



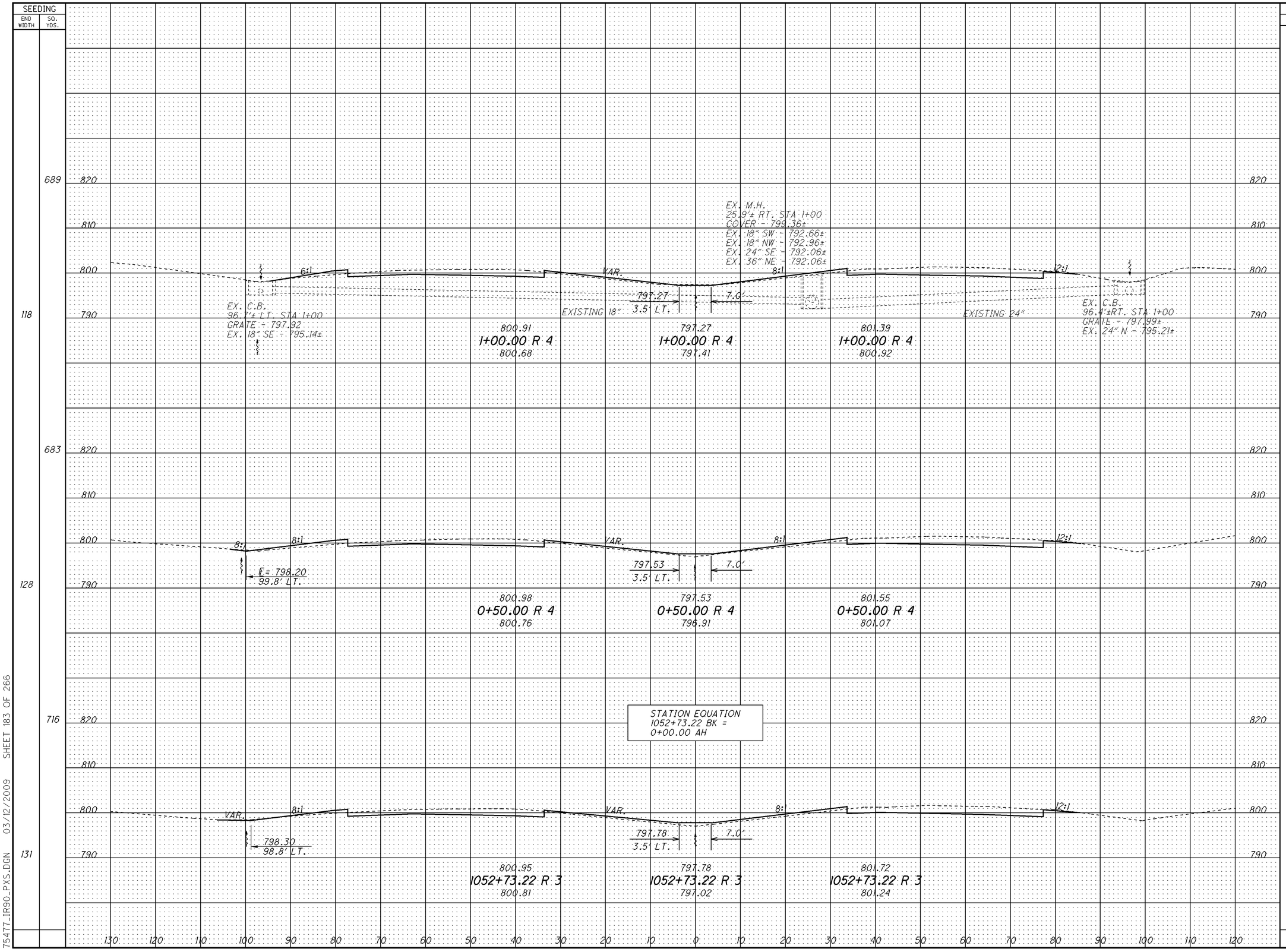
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
134	340	134	29	253	41
133	742	139	15	254	53
129	727	135	42	262	61

CALCULATED

CHECKED

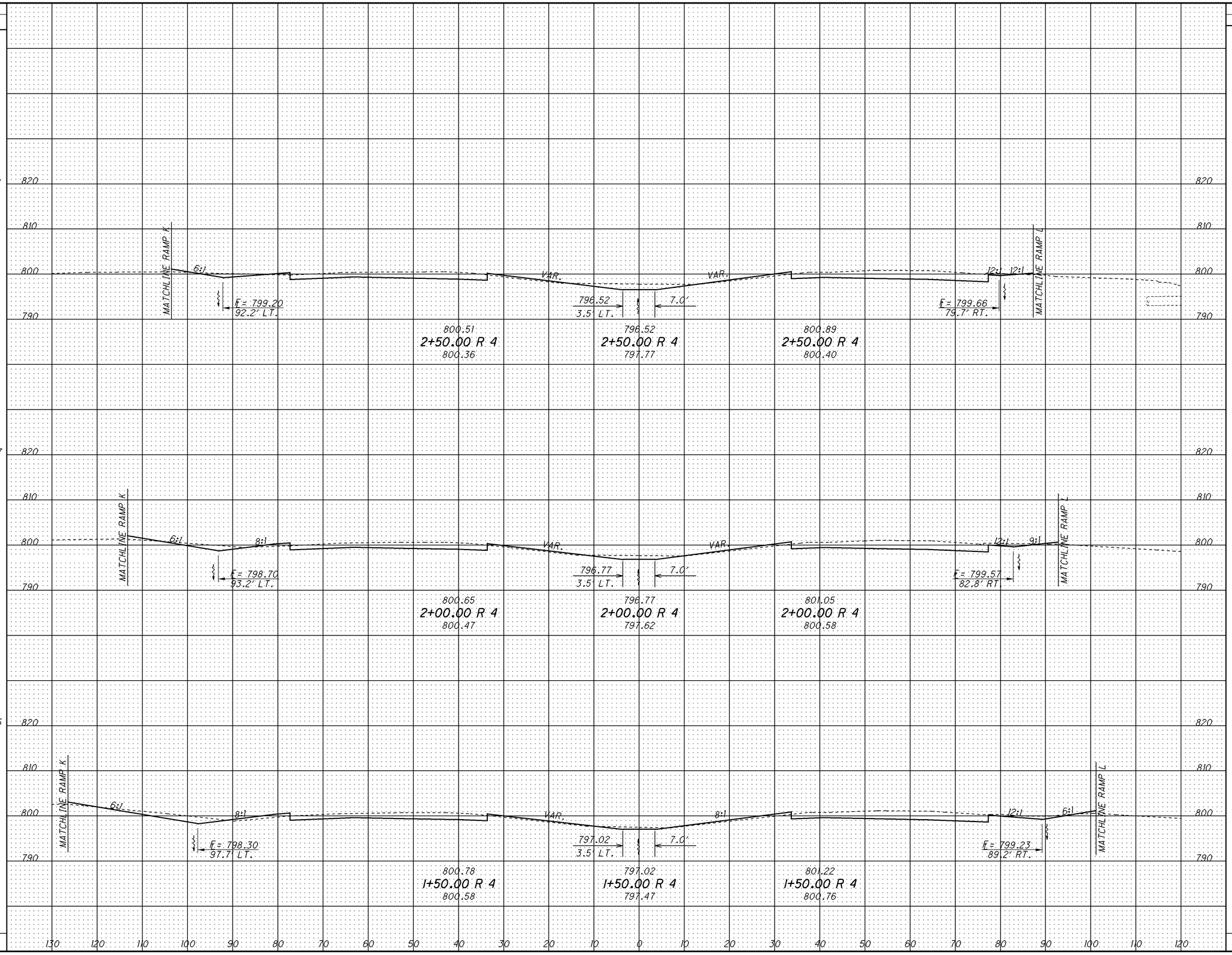
CROSS SECTIONS
STA. 1051+50.00 TO STA. 1052+50.00

LAK-90-21.40
ATB-90-0.00



CROSS SECTIONS
STA. 1052+73.22 TO STA. 1+00.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
131	718	156	19	284	40
146	767	151	24	283	49
173	885	155	29	257	55

CALCULATED

CHECKED

CROSS SECTIONS
STA. 1+50.00 TO STA. 2+50.00

LAK-90-21.40
ATB-90-0.00

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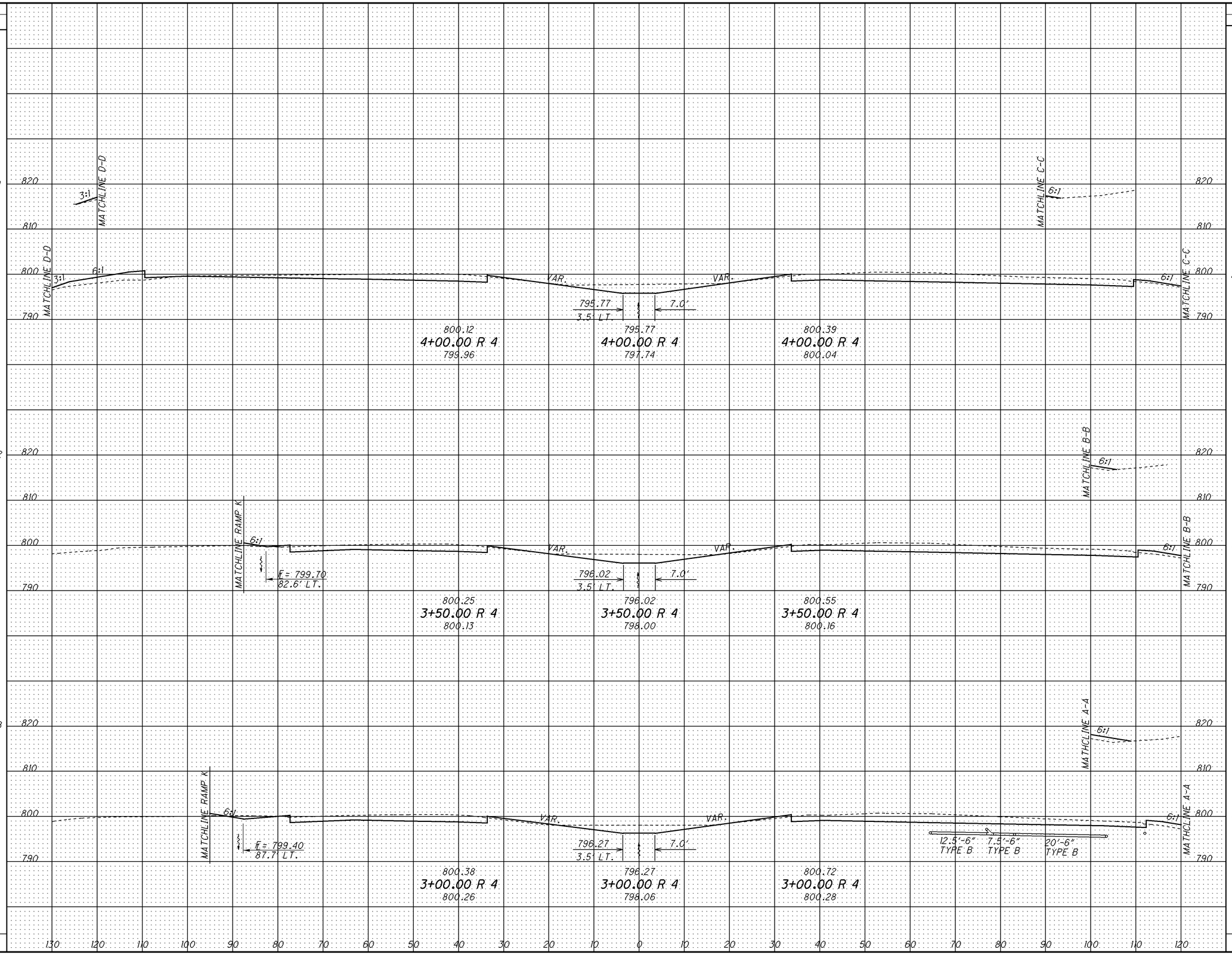
SEEDING		END AREA		VOLUME		
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	
133	719	224	42	408	56	4+00.00 R 4
119	702	217	18	397	38	3+50.00 R 4
128	688	212	23	340	39	3+00.00 R 4



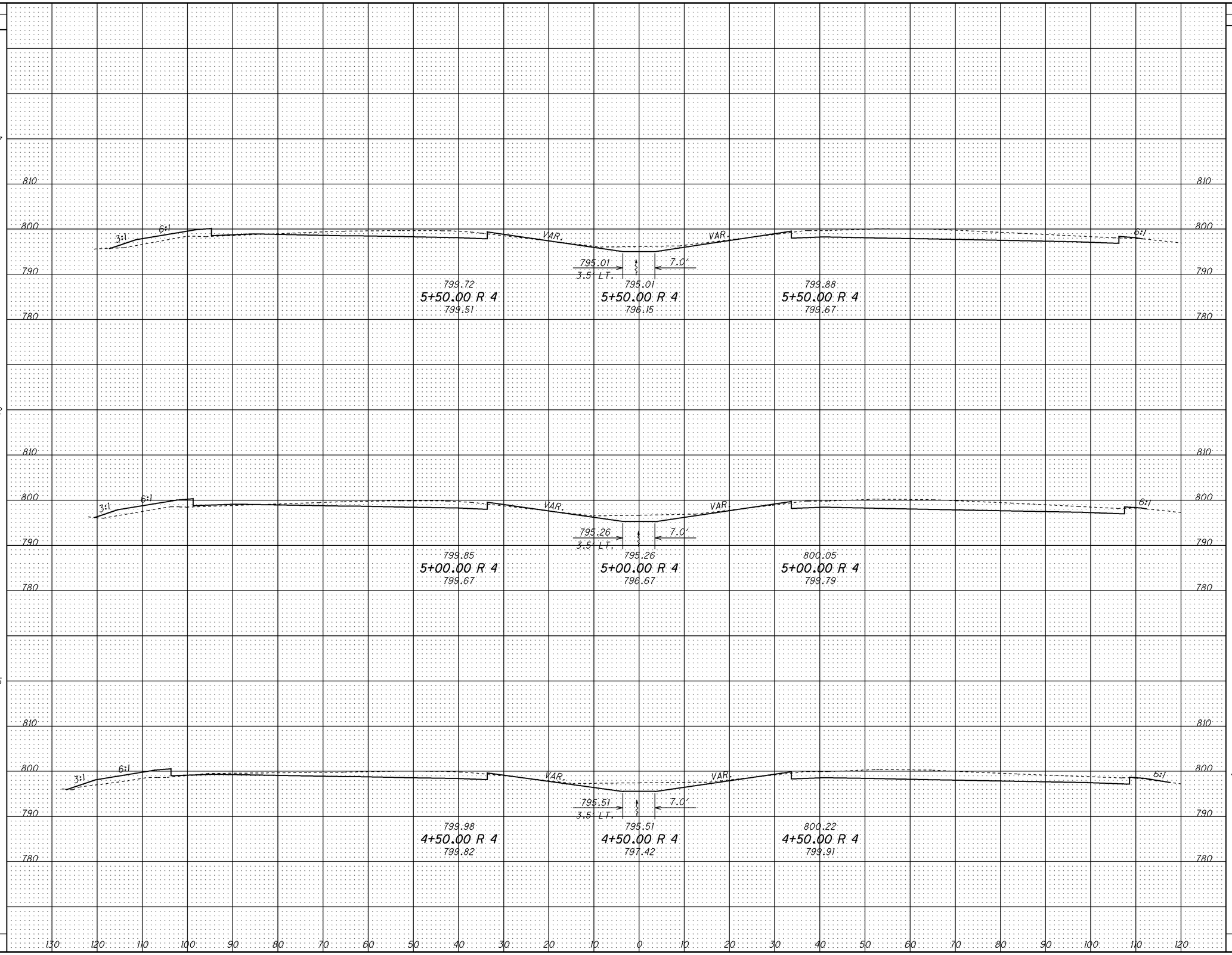
CALCULATED

CHECKED

CROSS SECTIONS
STA. 3+00.00 TO STA. 4+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
122	657	193	36	363	69
120	672	199	38	390	67
126	685	222	34	413	71



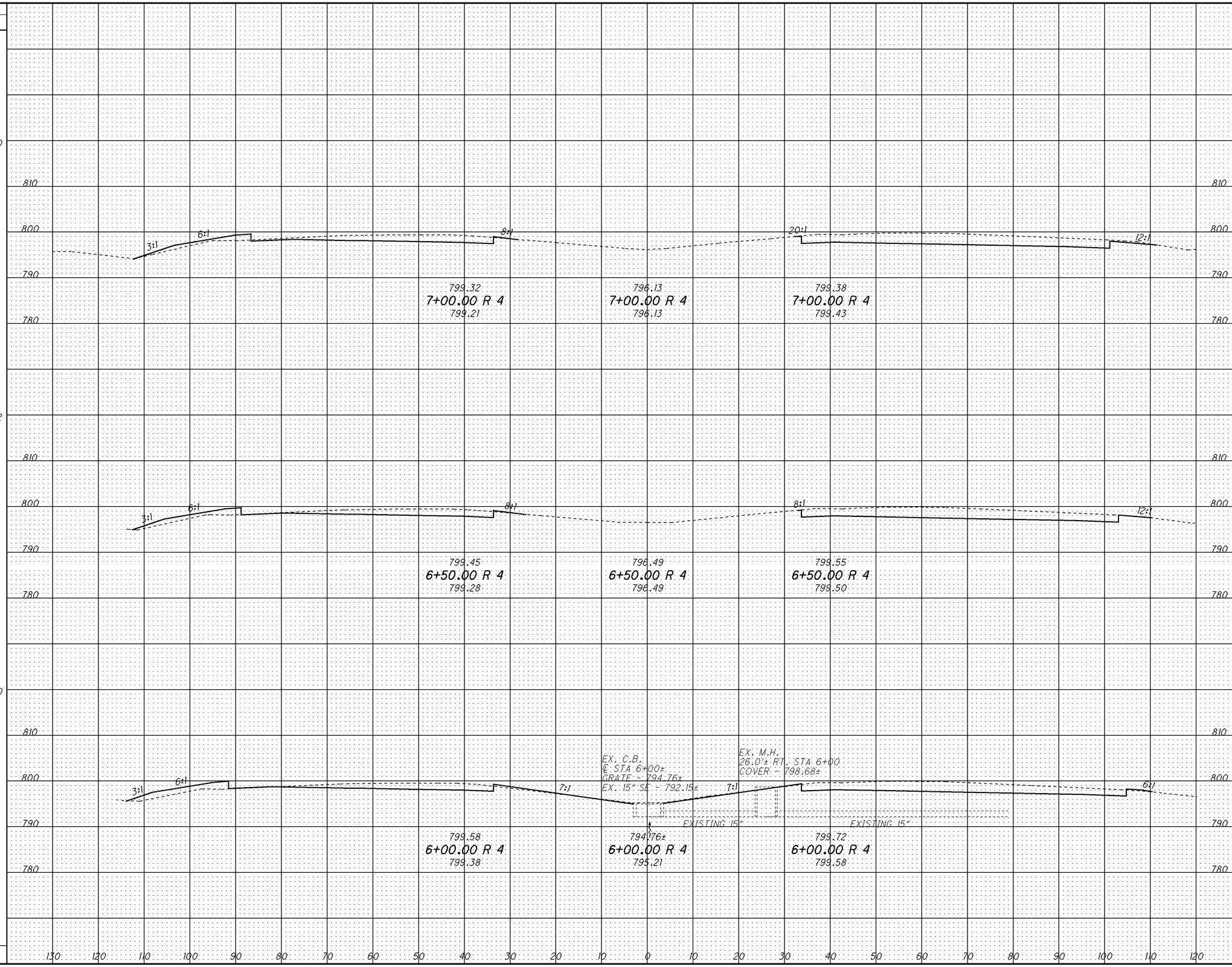
CALCULATED

CHECKED

CROSS SECTIONS
STA. 4+50.00 TO STA. 5+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
70	390	197	19	351	40
65	372	183	24	334	54
115	500	178	34	344	65



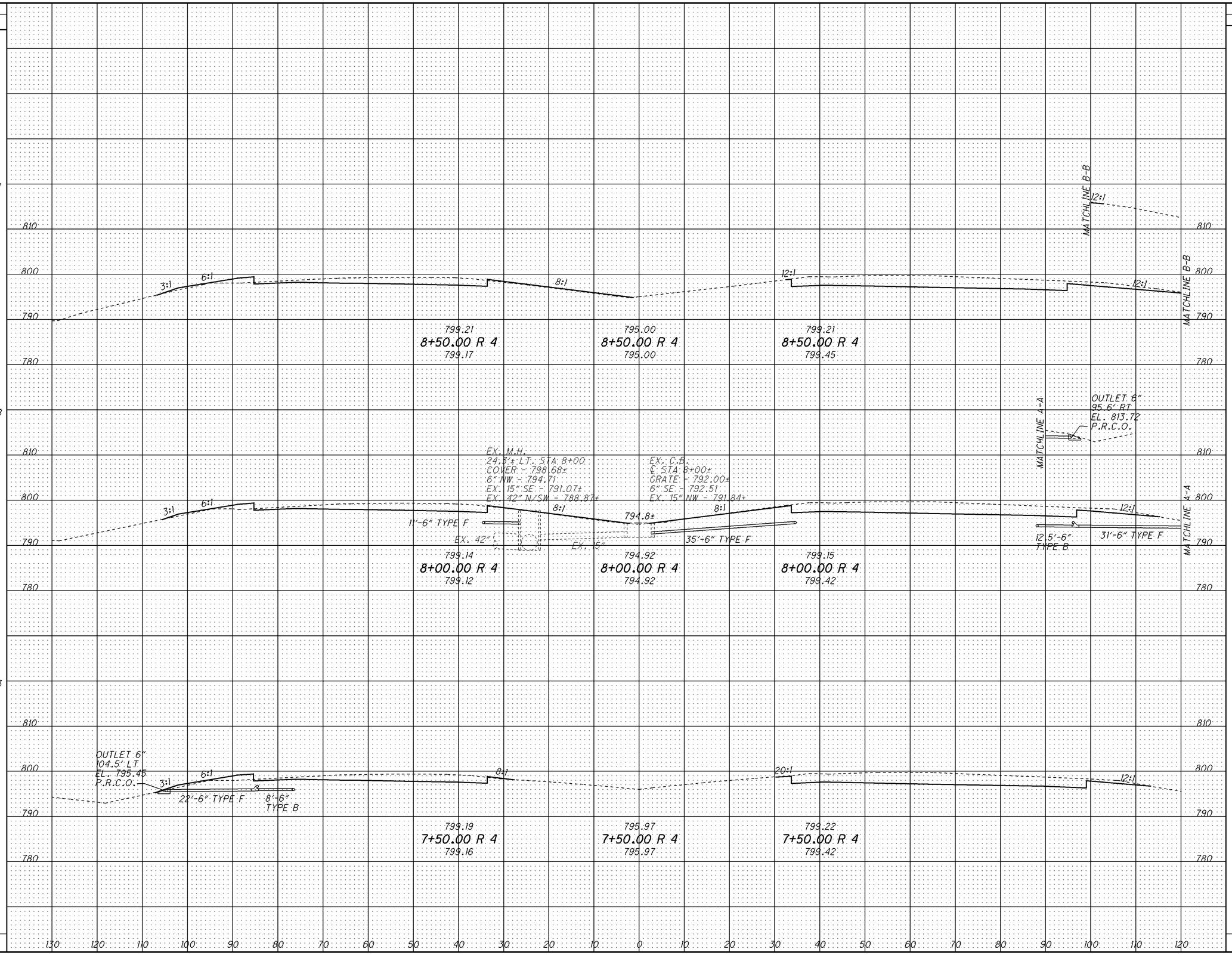
CALCULATED

CHECKED

CROSS SECTIONS
STA. 6+00.00 TO STA. 7+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
109	551	210	17	392	32
128	658	213	17	392	29
71	553	210	14	376	31



CALCULATED

CHECKED

CROSS SECTIONS
STA. 7+50.00 TO STA. 8+50.00

LAK-90-21.40
ATB-90-0.00

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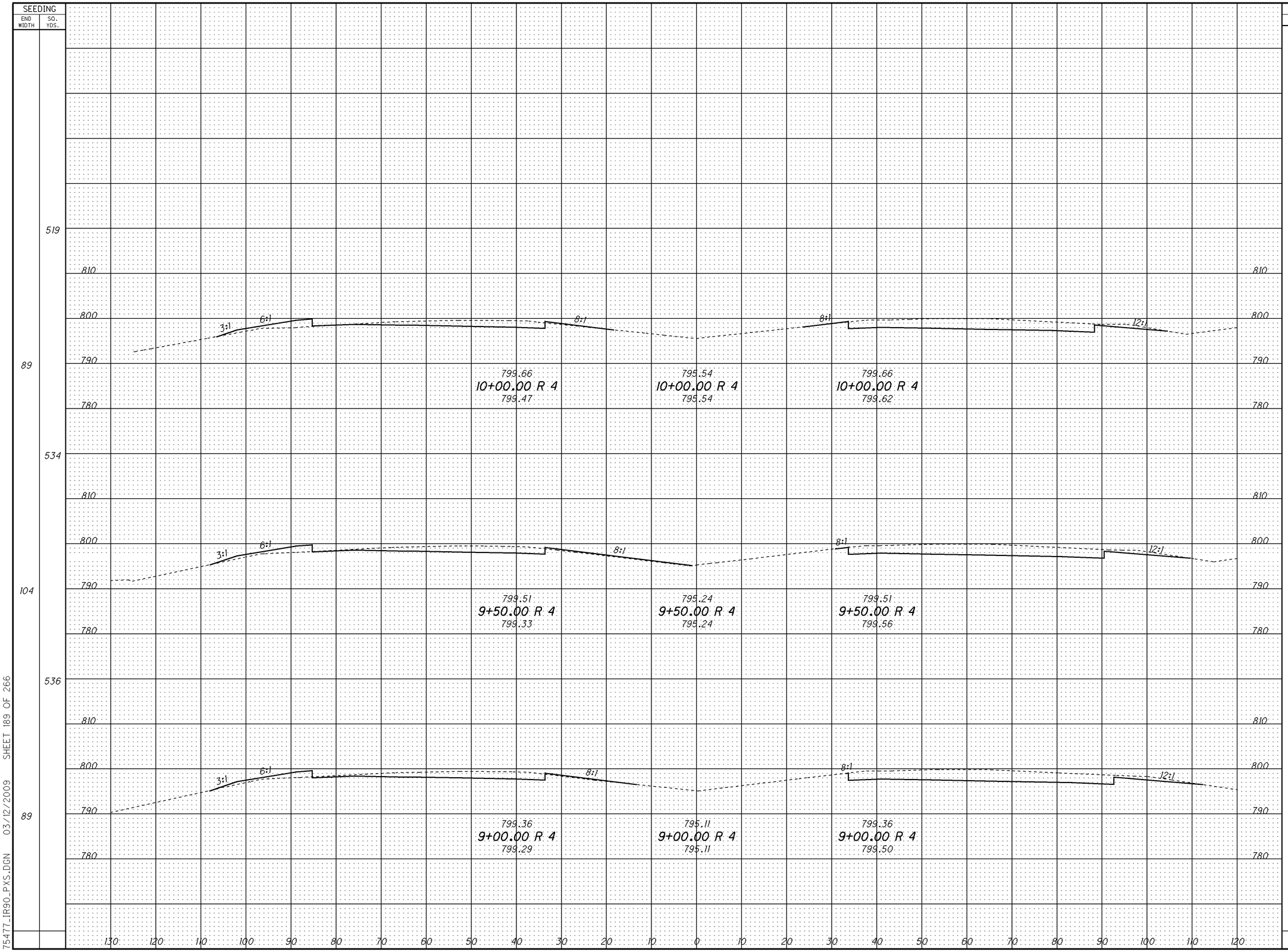


SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
89	519	160	24	308	46
104	534	172	26	334	42
89	536	189	19	370	34

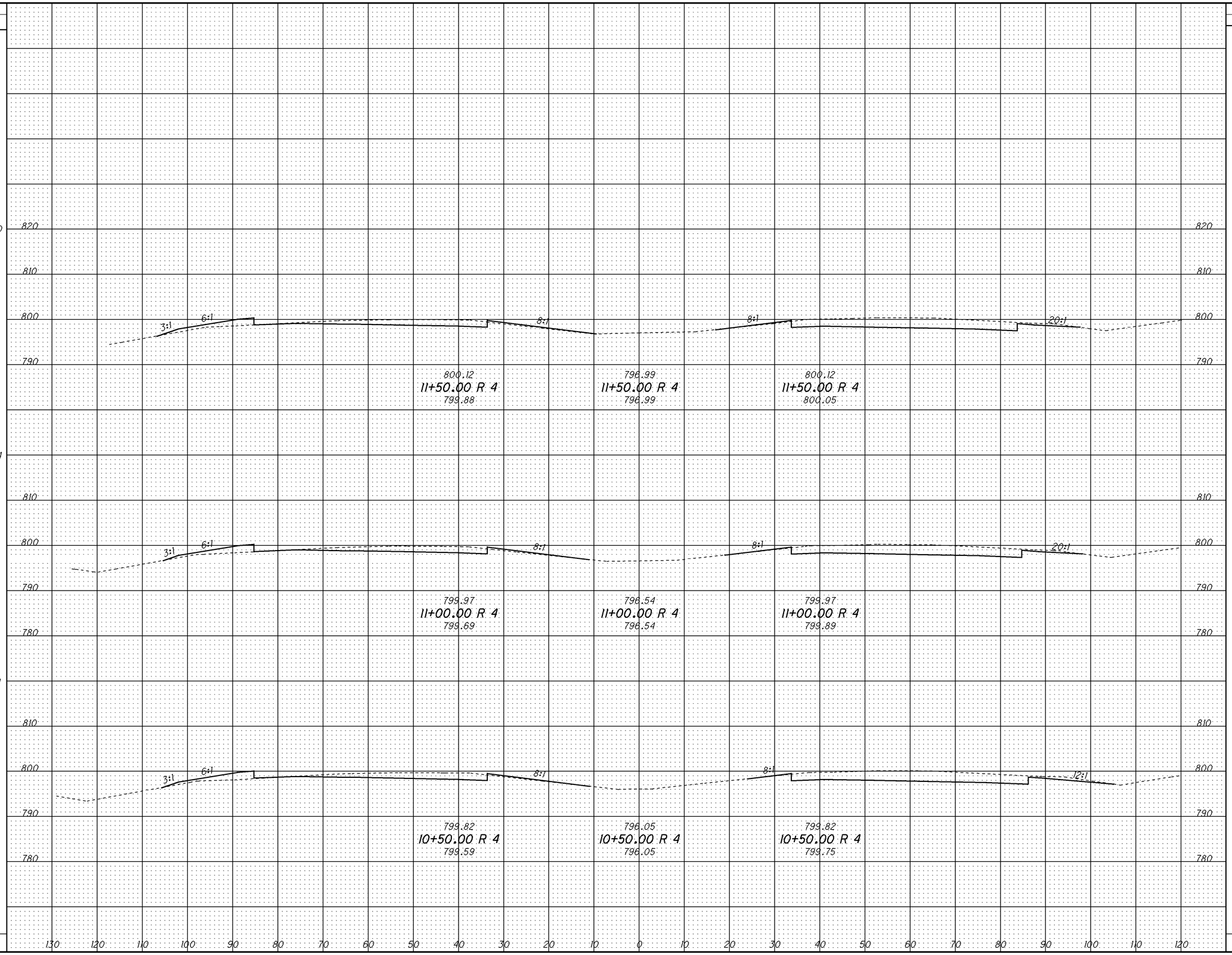
CALCULATED

CHECKED

CROSS SECTIONS
STA. 9+00.00 TO STA. 10+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
103	560	144	28	267	49
97	554	144	25	275	47
97	541	153	25	290	45

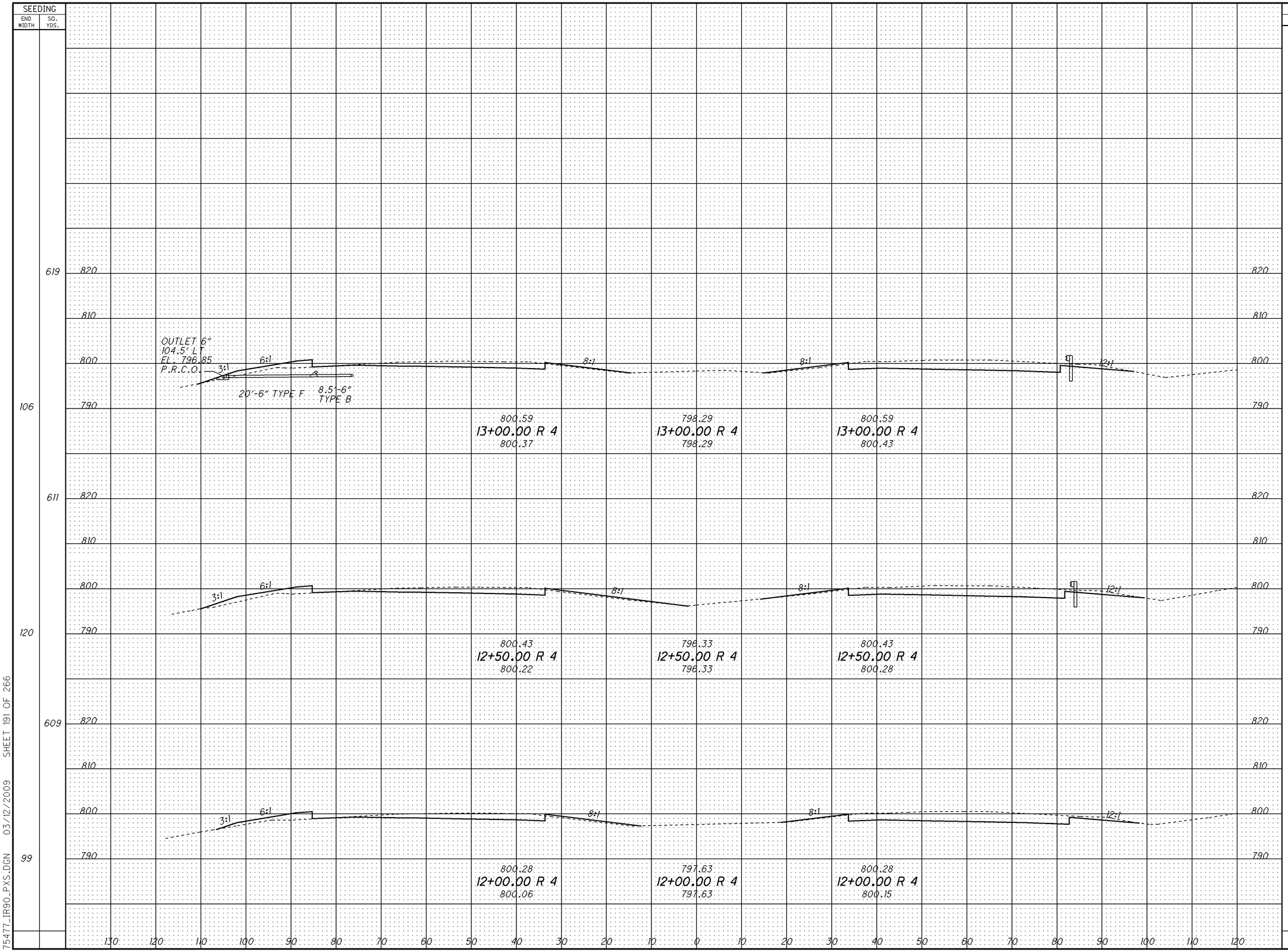


CALCULATED

CHECKED

CROSS SECTIONS
STA. 10+50.00 TO STA. 11+50.00

LAK-90-21.40
ATB-90-0.00



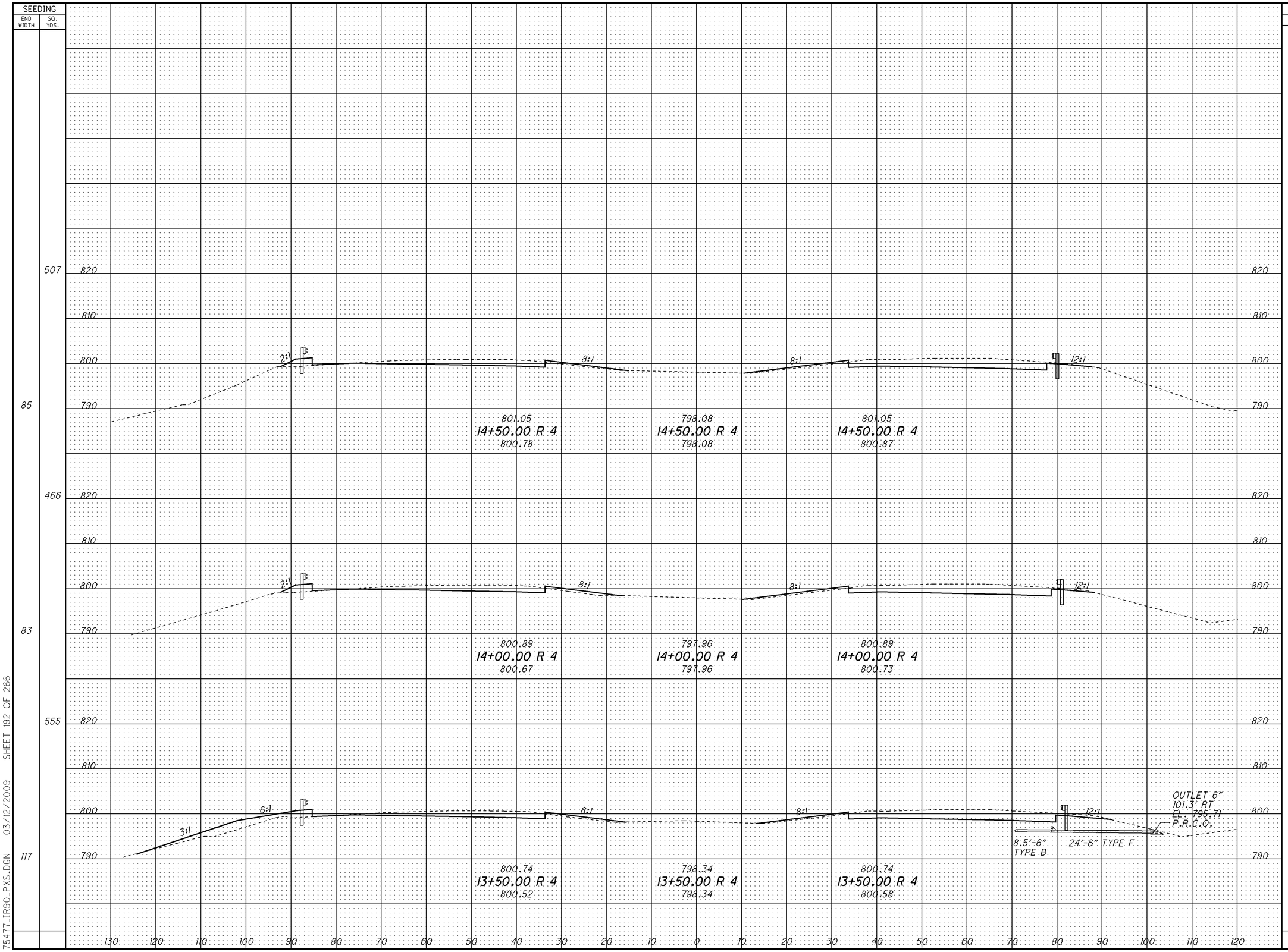
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
143	35		
		268	67
146	38		
		269	62
145	30		
		267	53

CALCULATED

CHECKED

CROSS SECTIONS
STA. 12+00.00 TO STA. 13+00.00

LAK-90-21.40
ATB-90-0.00



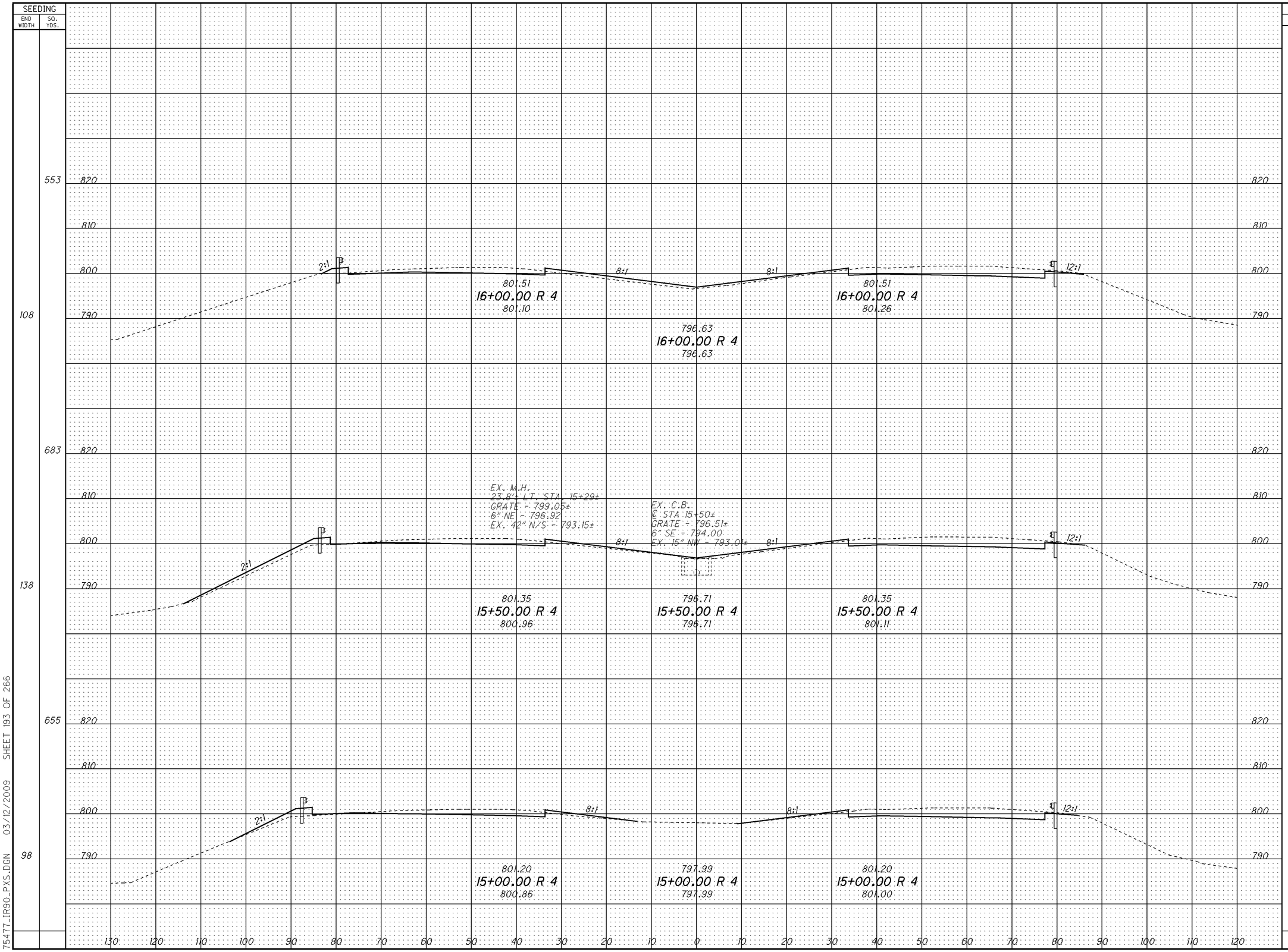
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
125	24		
		236	47
130	27		
		247	80
137	60		
		260	87

CALCULATED

CHECKED

CROSS SECTIONS
STA. 13+50.00 TO STA. 14+50.00

LAK-90-21.40
ATB-90-0.00



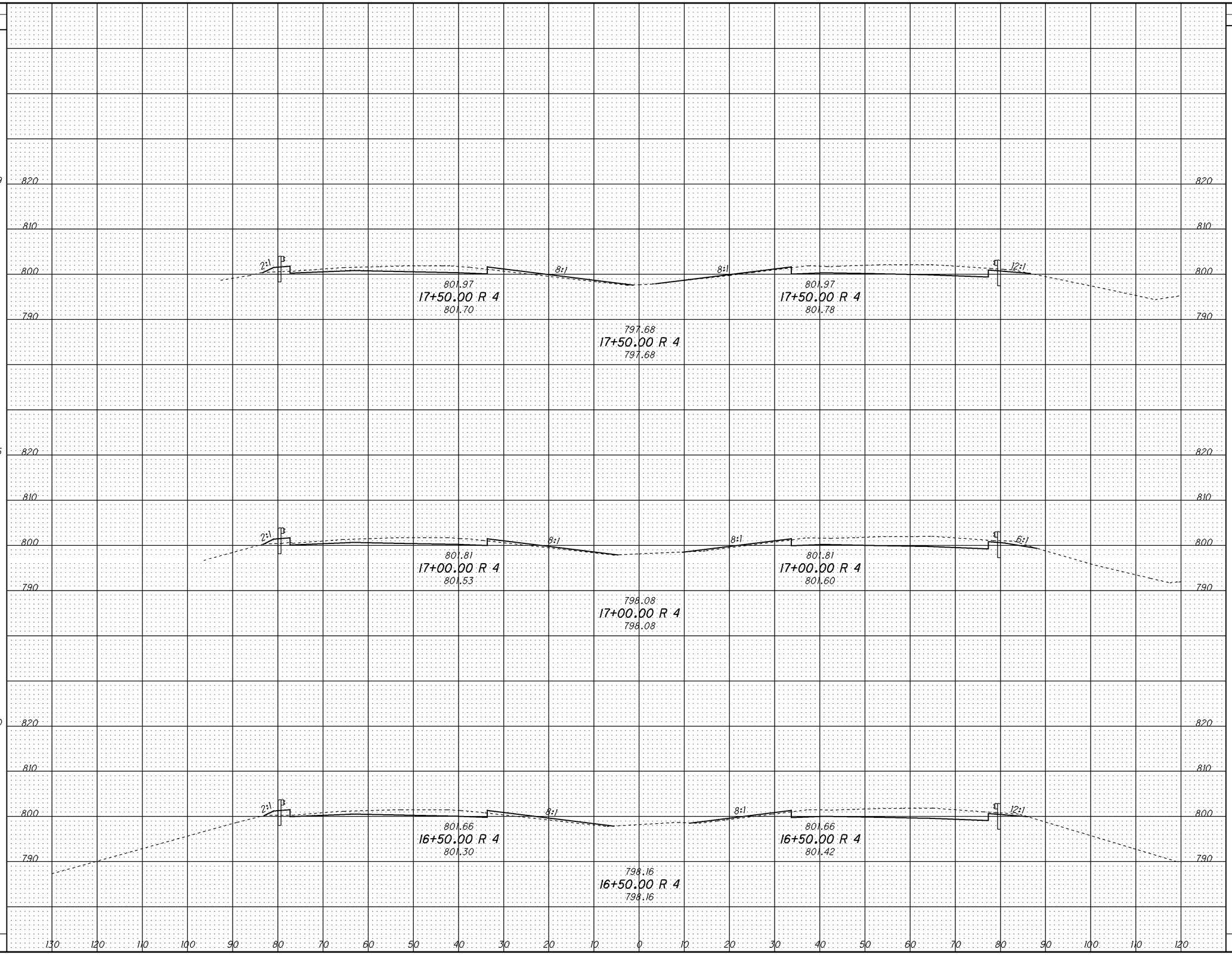
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
121	42	221	91
118	56	220	81
120	32	227	52

CALCULATED

CHECKED

CROSS SECTIONS
STA. 15+00.00 TO STA. 16+00.00

LAK-90-21.40
ATB-90-0.00



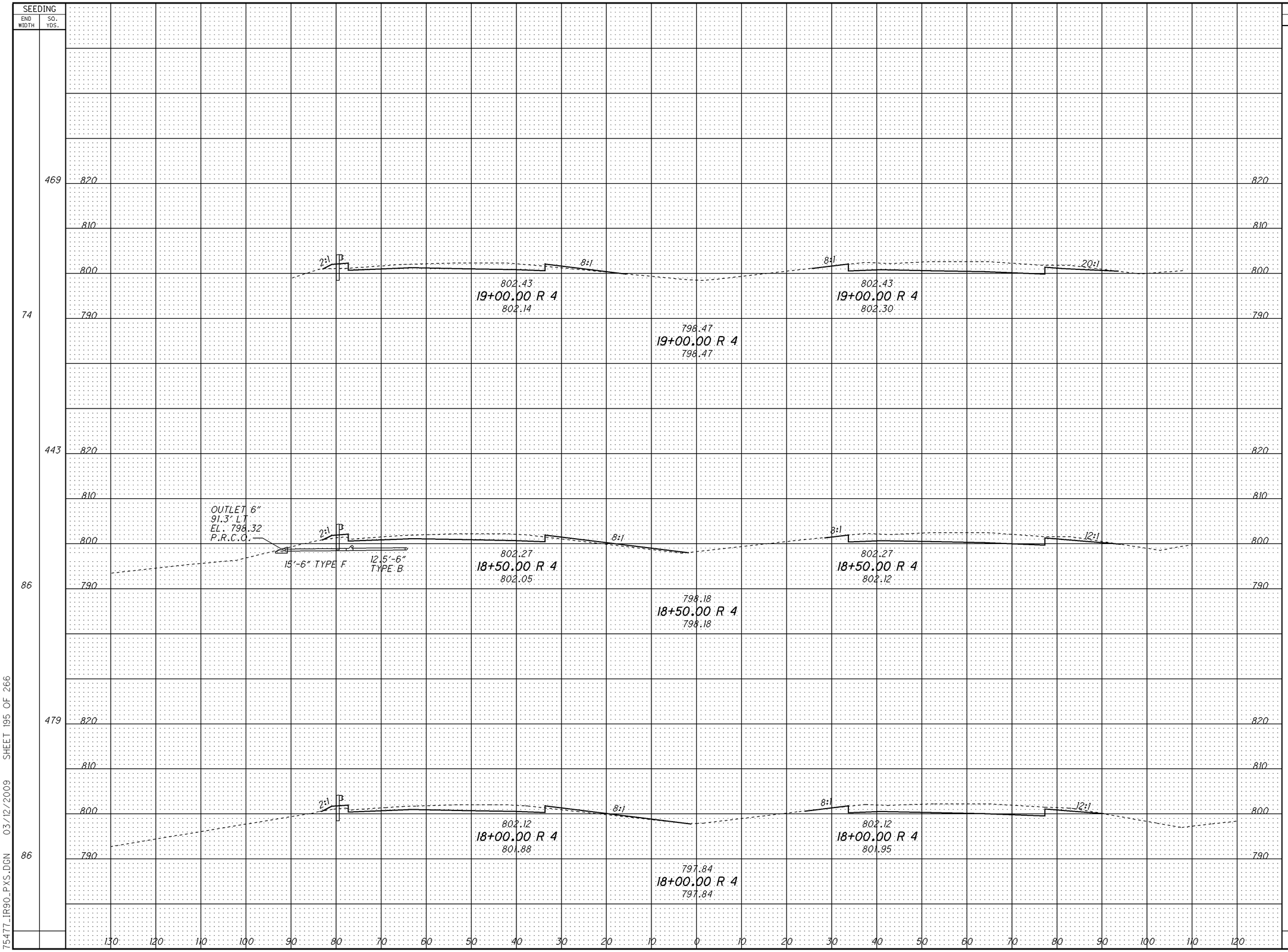
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
104	529	128	23	238	42
96	555	129	23	234	44
91	520	124	25	227	62

CALCULATED

CHECKED

CROSS SECTIONS
STA. 16+50.00 TO STA. 17+50.00

LAK-90-21.40
ATB-90-0.00



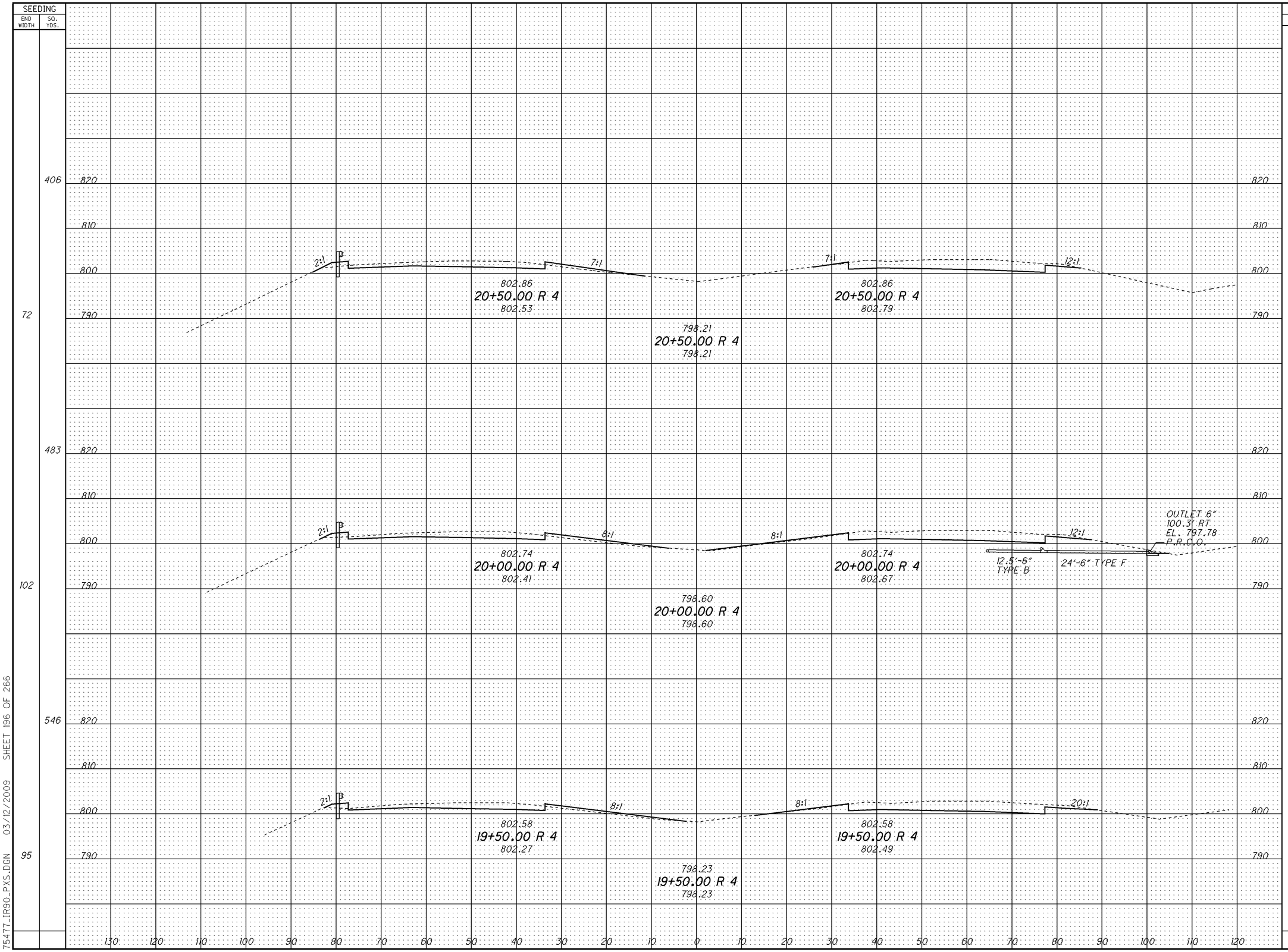
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
74	469	136	10	251	24
86	443	135	16	247	27
86	479	132	14	241	34

CALCULATED

CHECKED

CROSS SECTIONS
STA. 18+00.00 TO STA. 19+00.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
133	15	246	36
133	24	247	42
134	21	249	29

CALCULATED

CHECKED

CROSS SECTIONS
STA. 19+50.00 TO STA. 20+50.00

LAK-90-21.40
ATB-90-0.00

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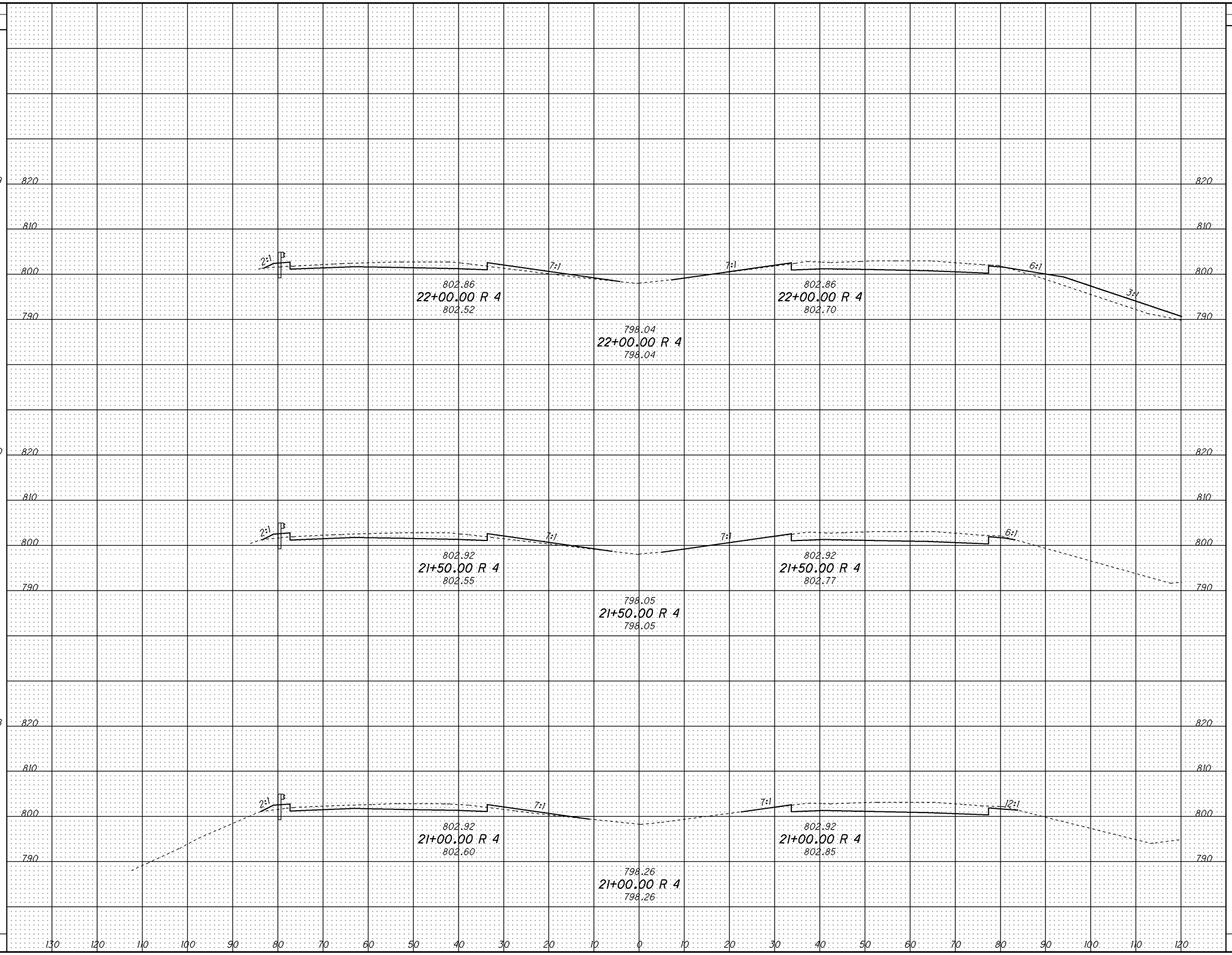
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
135	729	126	79	234	90
95	468	127	18	241	30
74	640	133	14	246	27

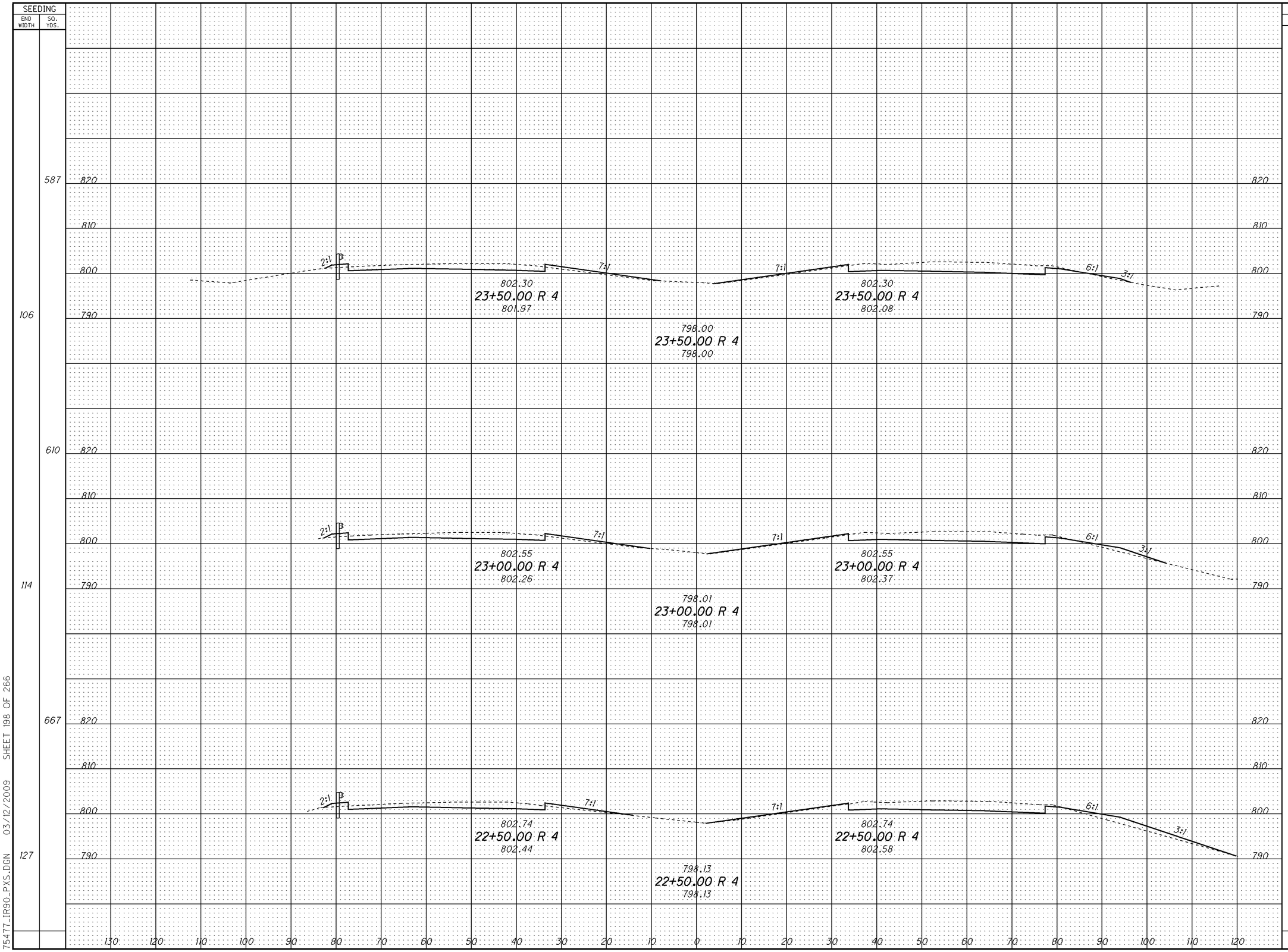


CALCULATED

CHECKED

CROSS SECTIONS
STA. 21+00.00 TO STA. 22+00.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
133	22	244	46
131	28	240	67
128	44	235	114

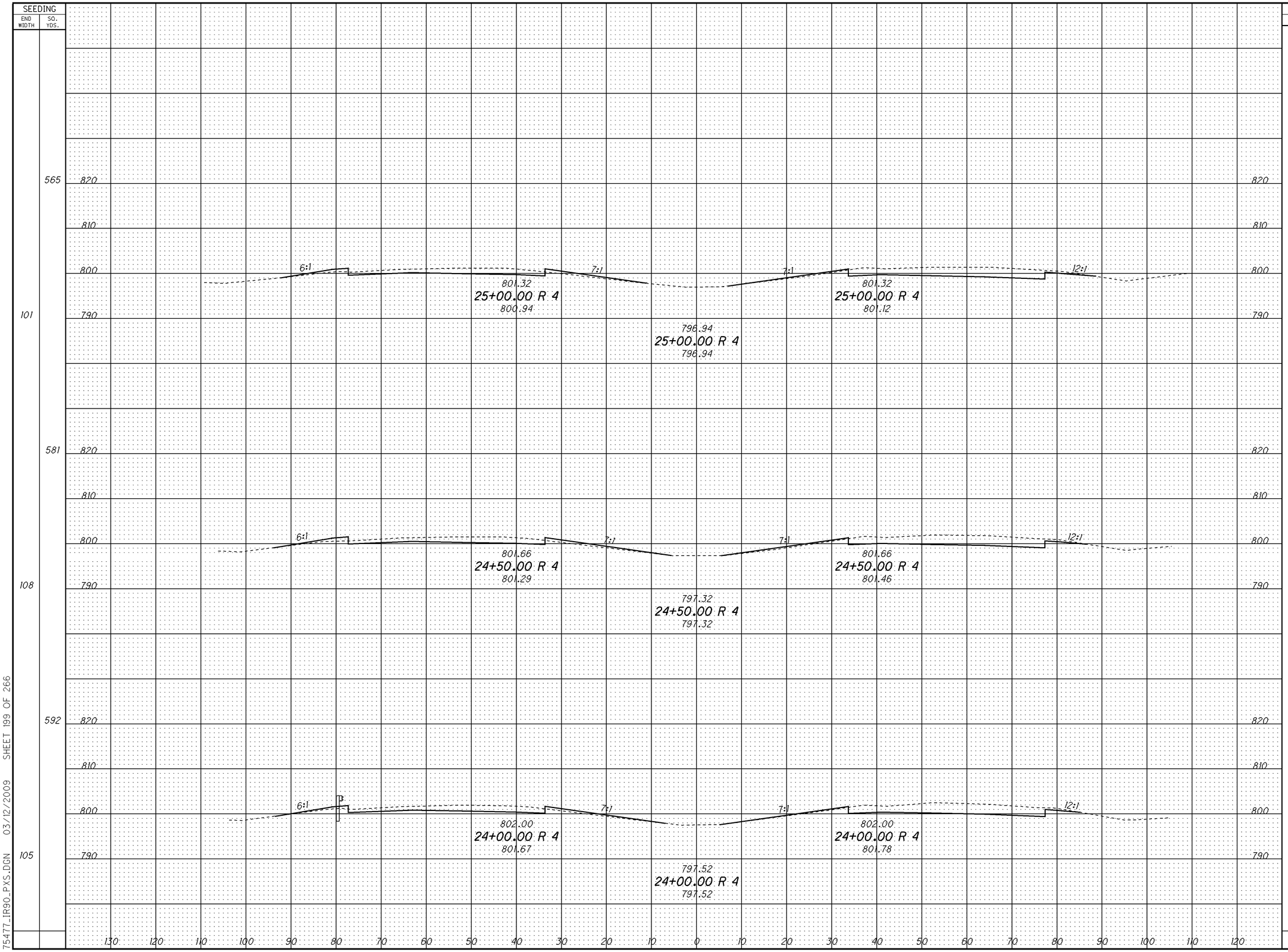
CALCULATED

CHECKED

CROSS SECTIONS

STA. 22+50.00 TO STA. 23+50.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
129	19	240	39
131	23	244	39
133	19	246	38

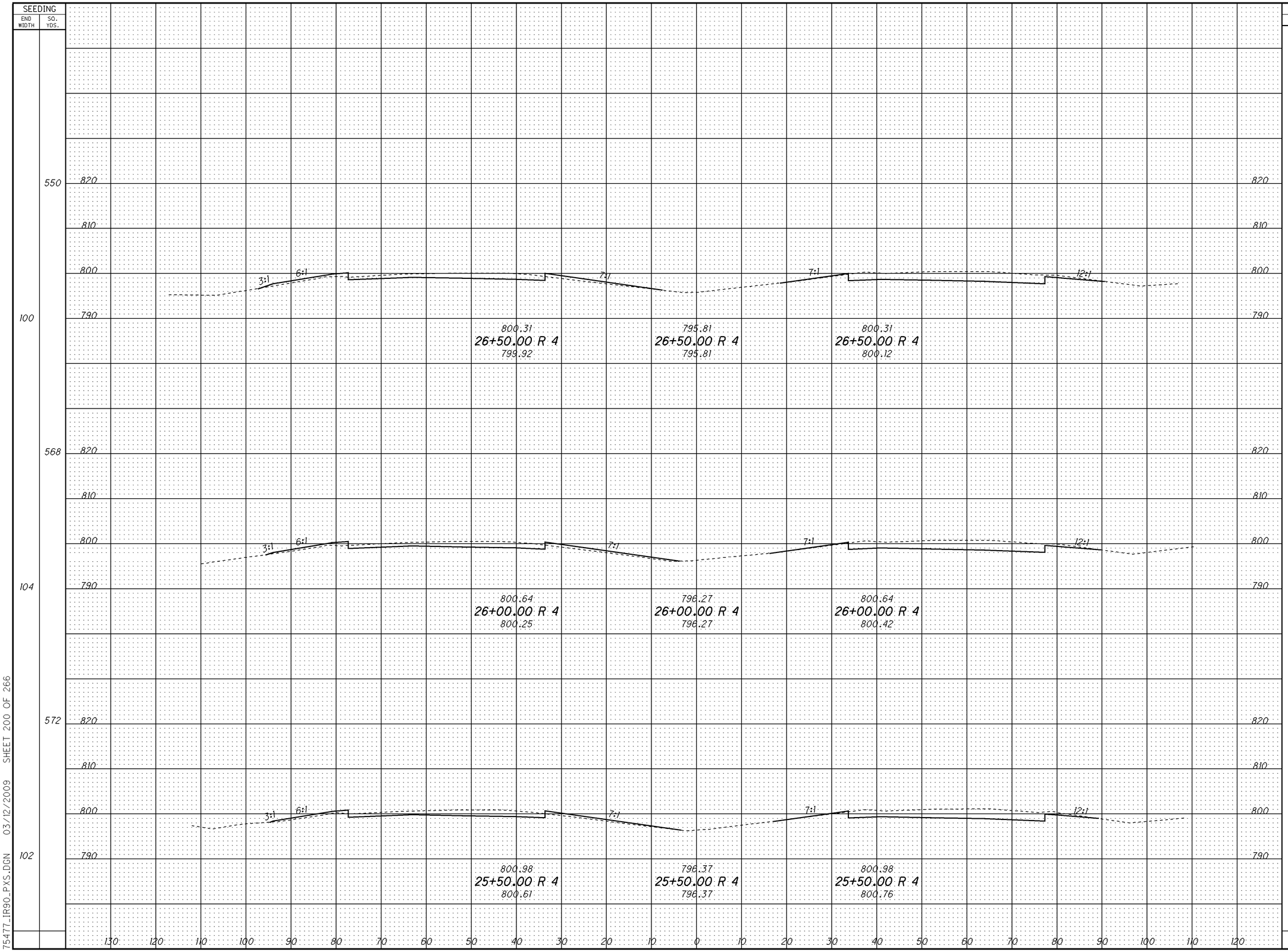
CALCULATED

CHECKED

CROSS SECTIONS

STA. 24+00.00 TO STA. 25+00.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
100	550	127	23	234	44
104	568	127	25	236	42
102	572	129	20	238	37

CALCULATED

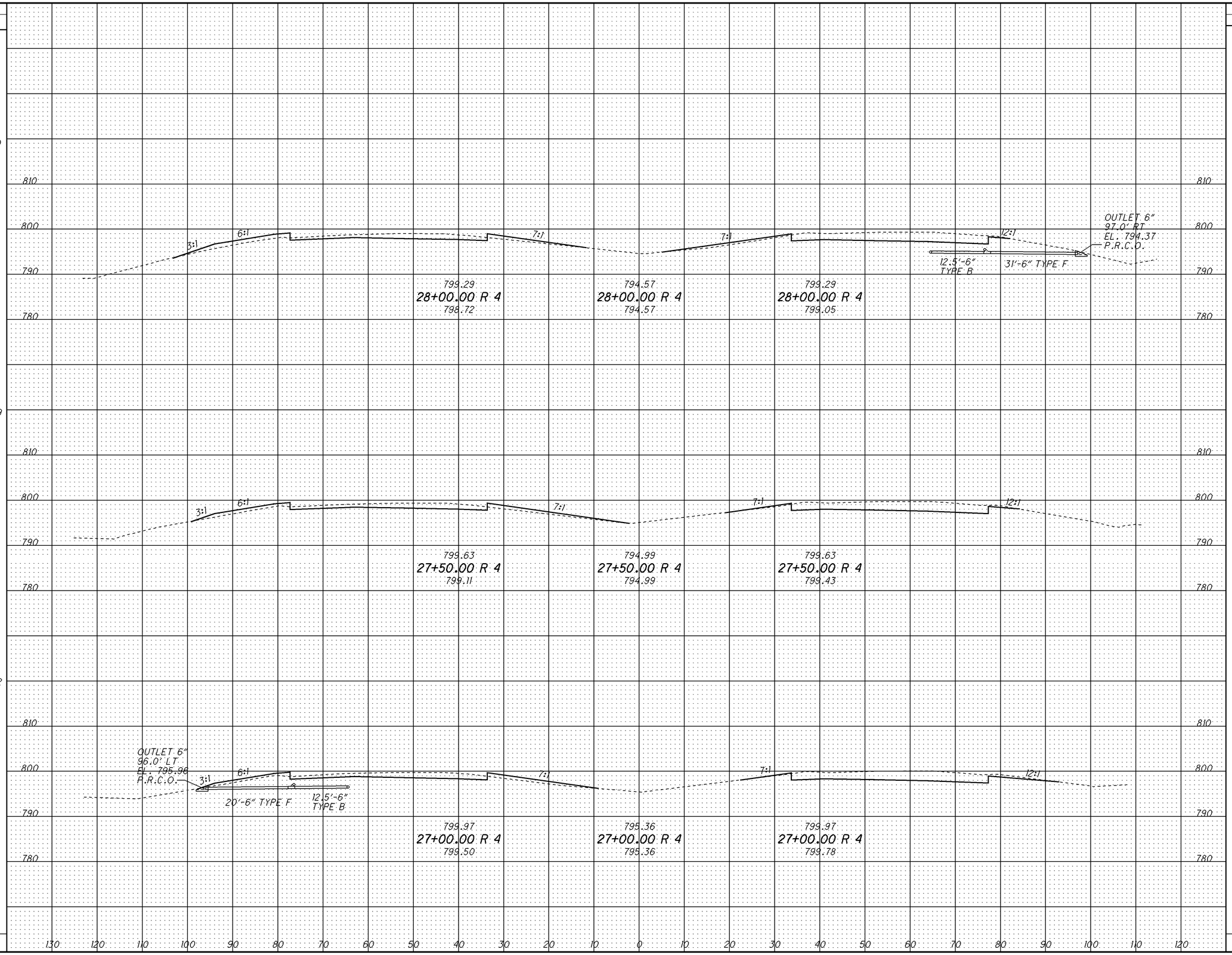
CHECKED

CROSS SECTIONS

STA. 25+50.00 TO STA. 26+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
107	610	116	41	218	66
101	579	120	30	227	51
98	552	125	25	233	44



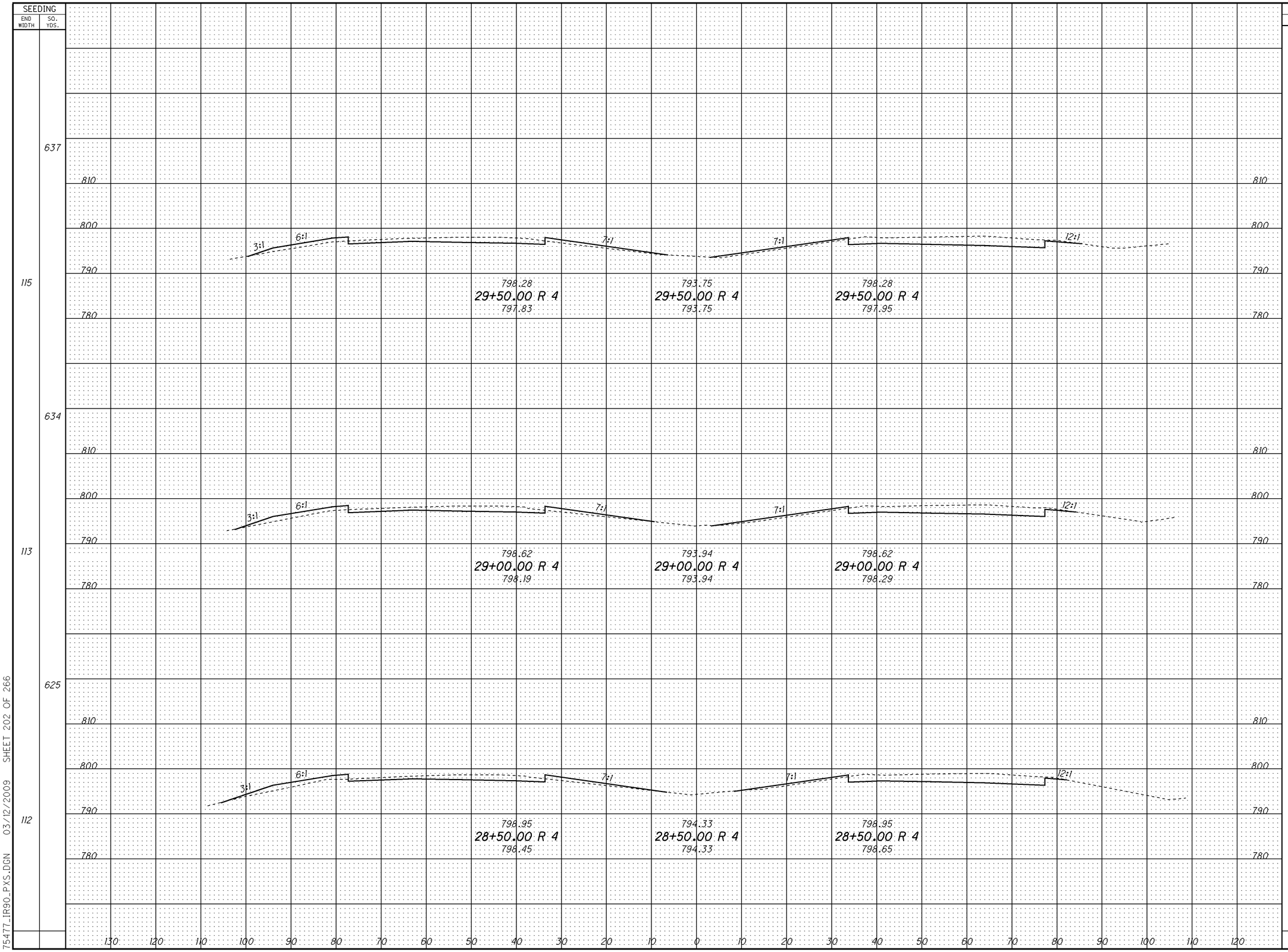
CALCULATED

CHECKED

CROSS SECTIONS

STA. 27+00.00 TO STA. 28+00.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
115	44	213	83
114	46	210	84
113	45	212	80

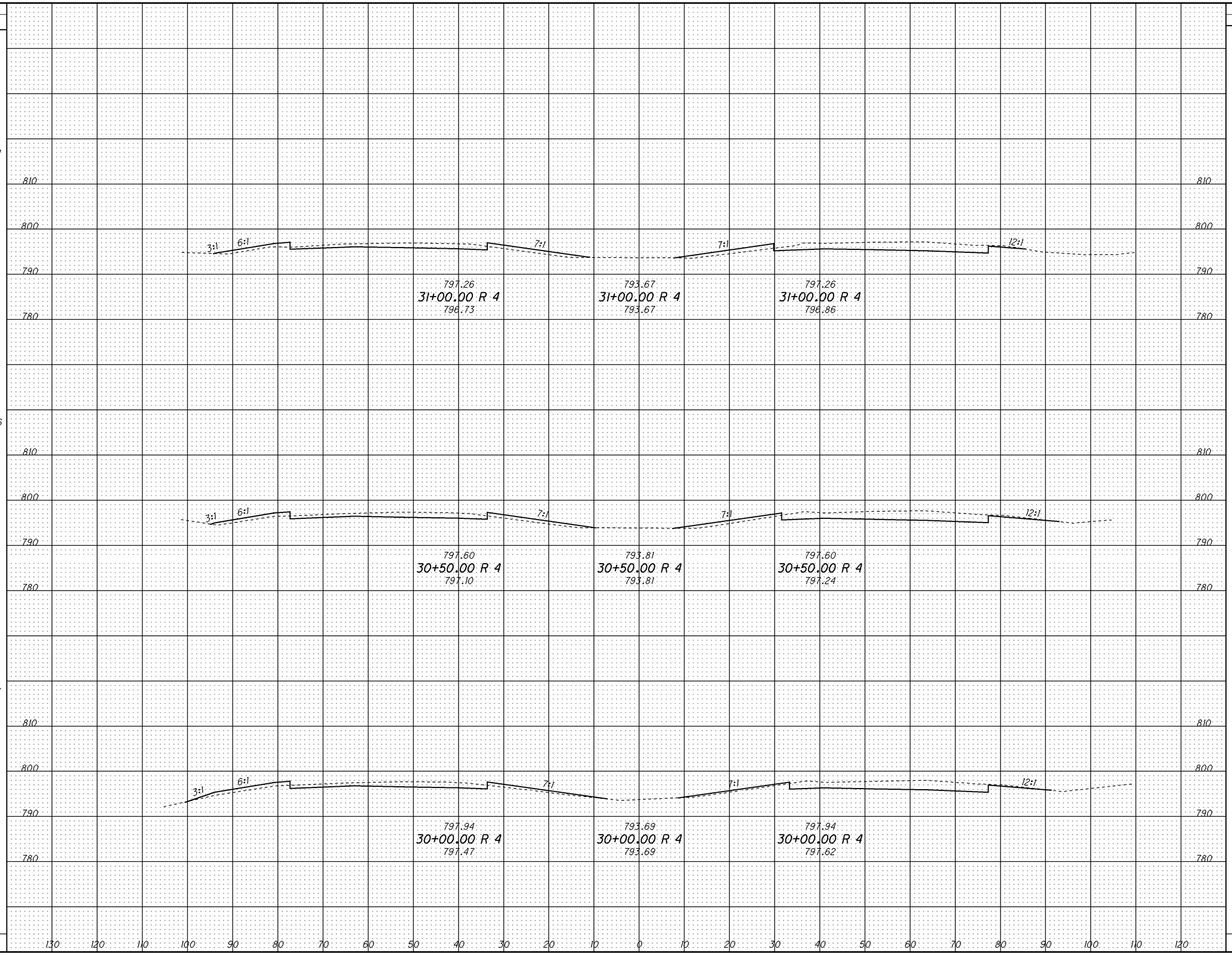
CALCULATED

CHECKED

CROSS SECTIONS

STA. 28+50.00 TO STA. 29+50.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
96	591	112	43	213	80
108	566	119	43	219	71
114	617	118	34	216	72

CALCULATED

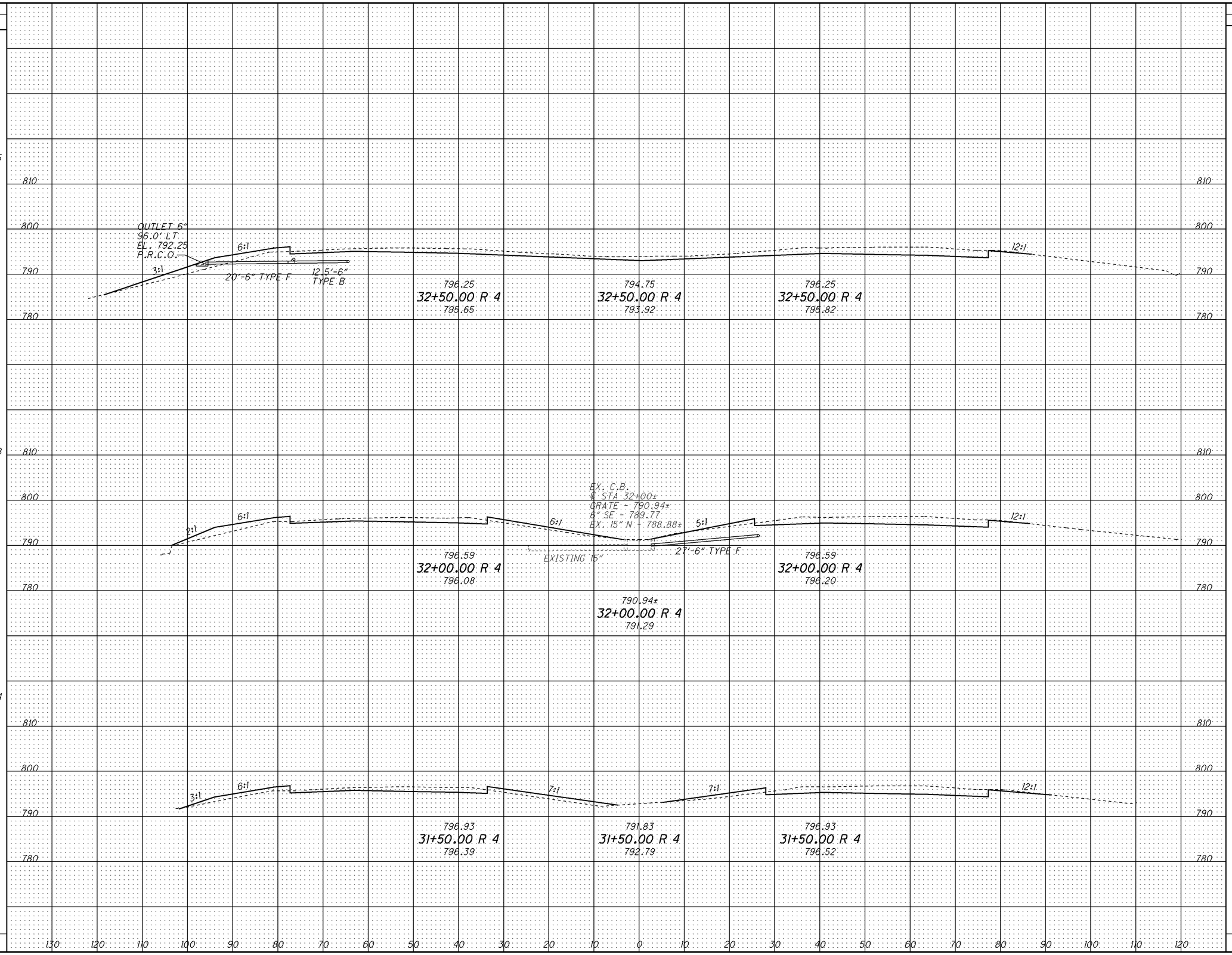
CHECKED

CROSS SECTIONS

STA. 30+00.00 TO STA. 31+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
75	525	154	47	246	93
115	528	112	54	206	103
117	644	111	57	206	92



CALCULATED

CHECKED

CROSS SECTIONS
STA. 31+50.00 TO STA. 32+50.00

LAK-90-21.40
ATB-90-0.00

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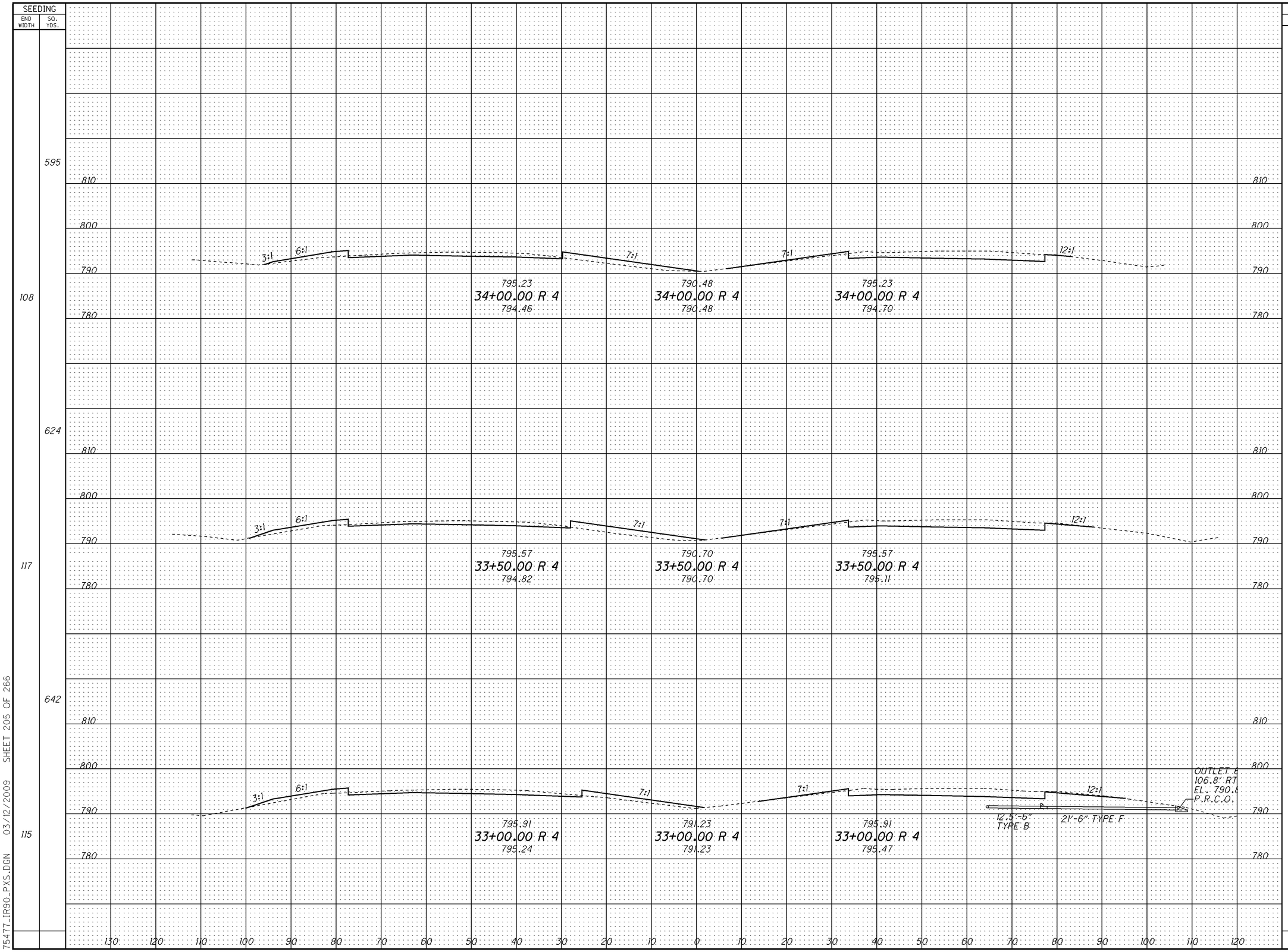


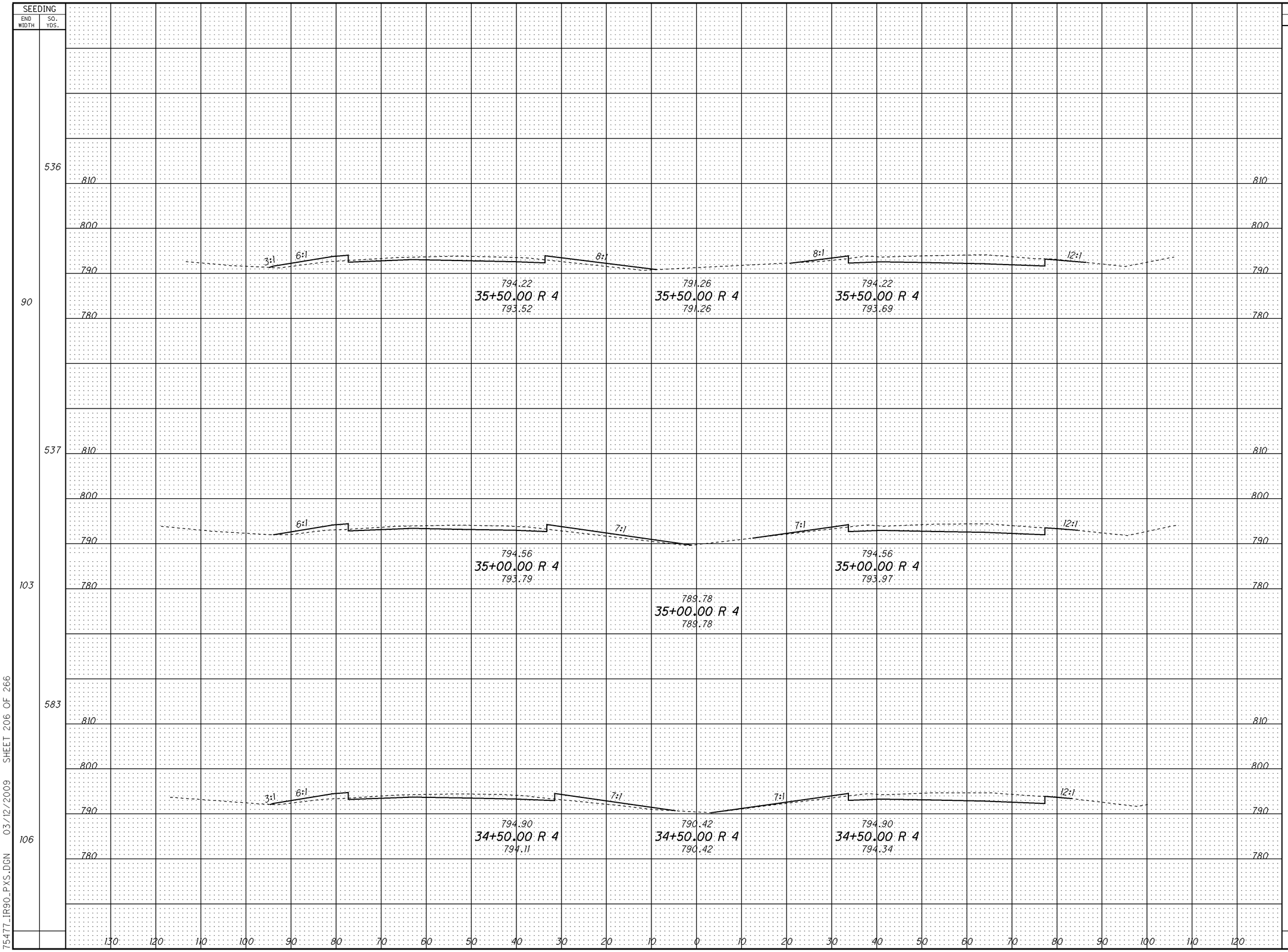
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
96	50		
		181	99
100	57		
		191	92
107	42		
		242	82

CALCULATED

CHECKED

CROSS SECTIONS
STA. 33+00.00 TO STA. 34+00.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
101	37		
		184	71
98	39		
		180	75
97	42		
		179	85

CALCULATED

CHECKED

CROSS SECTIONS
STA. 34+50.00 TO STA. 35+50.00

LAK-90-21.40
ATB-90-0.00

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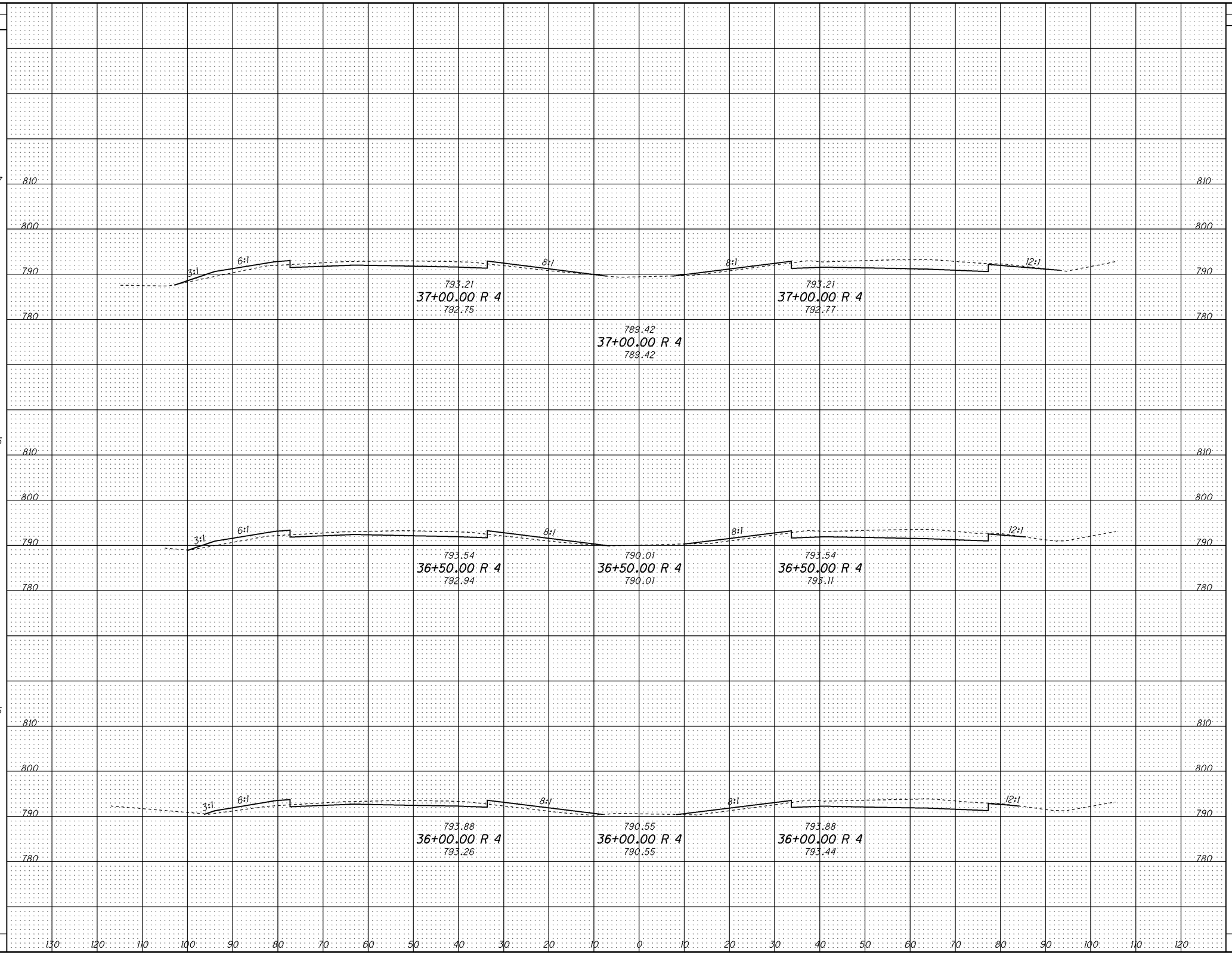
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
121	607	120	40	213	78
108	635	110	45	200	86
103	585	106	48	192	79



CALCULATED

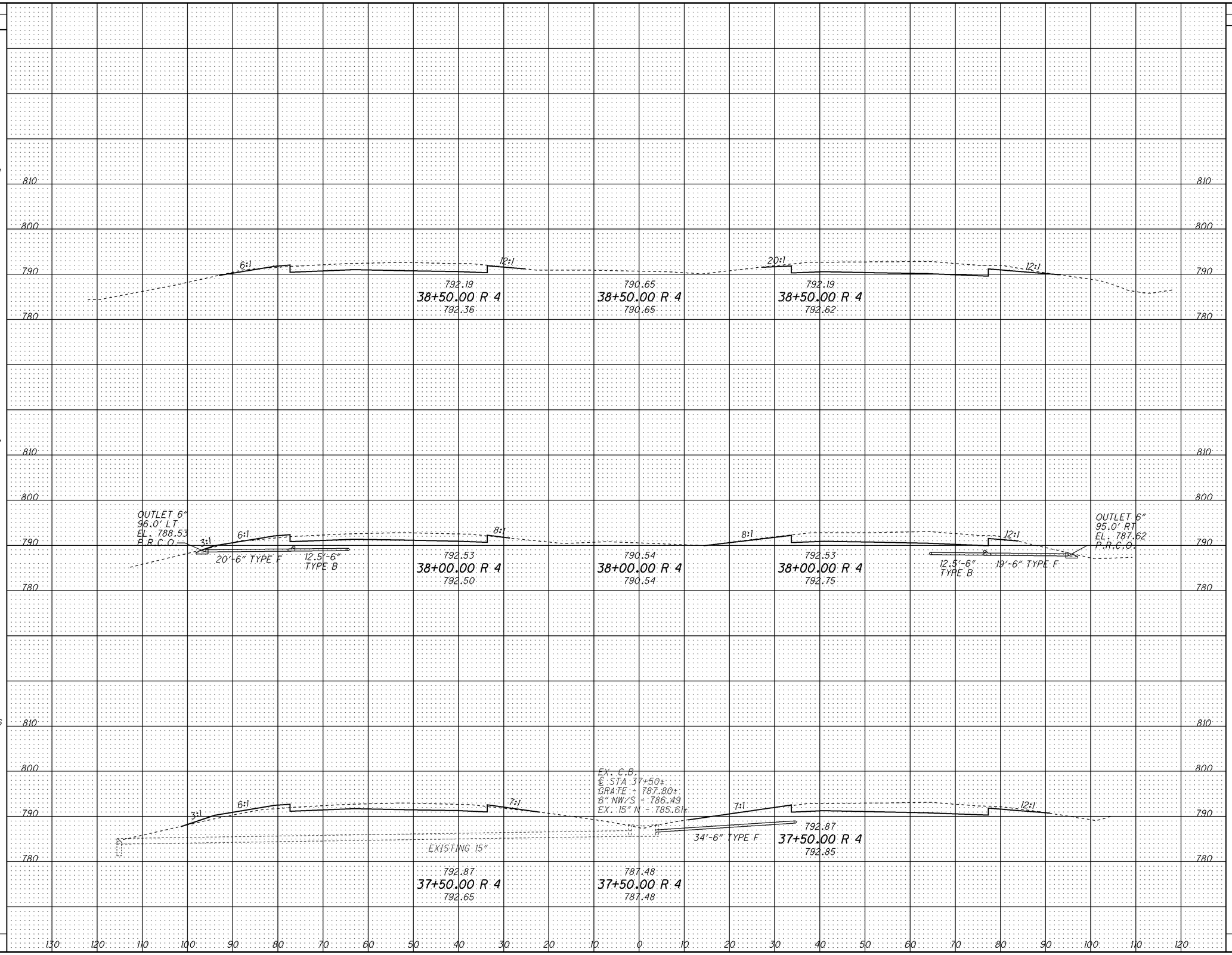
CHECKED

CROSS SECTIONS

STA. 36+00.00 TO STA. 37+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
72	371	185	2		
				320	7
77	412	161	6		
				281	22
98	486	142	18		
				243	53



CALCULATED

CHECKED

CROSS SECTIONS

STA. 37+50.00 TO STA. 38+50.00

LAK-90-21.40
ATB-90-0.00

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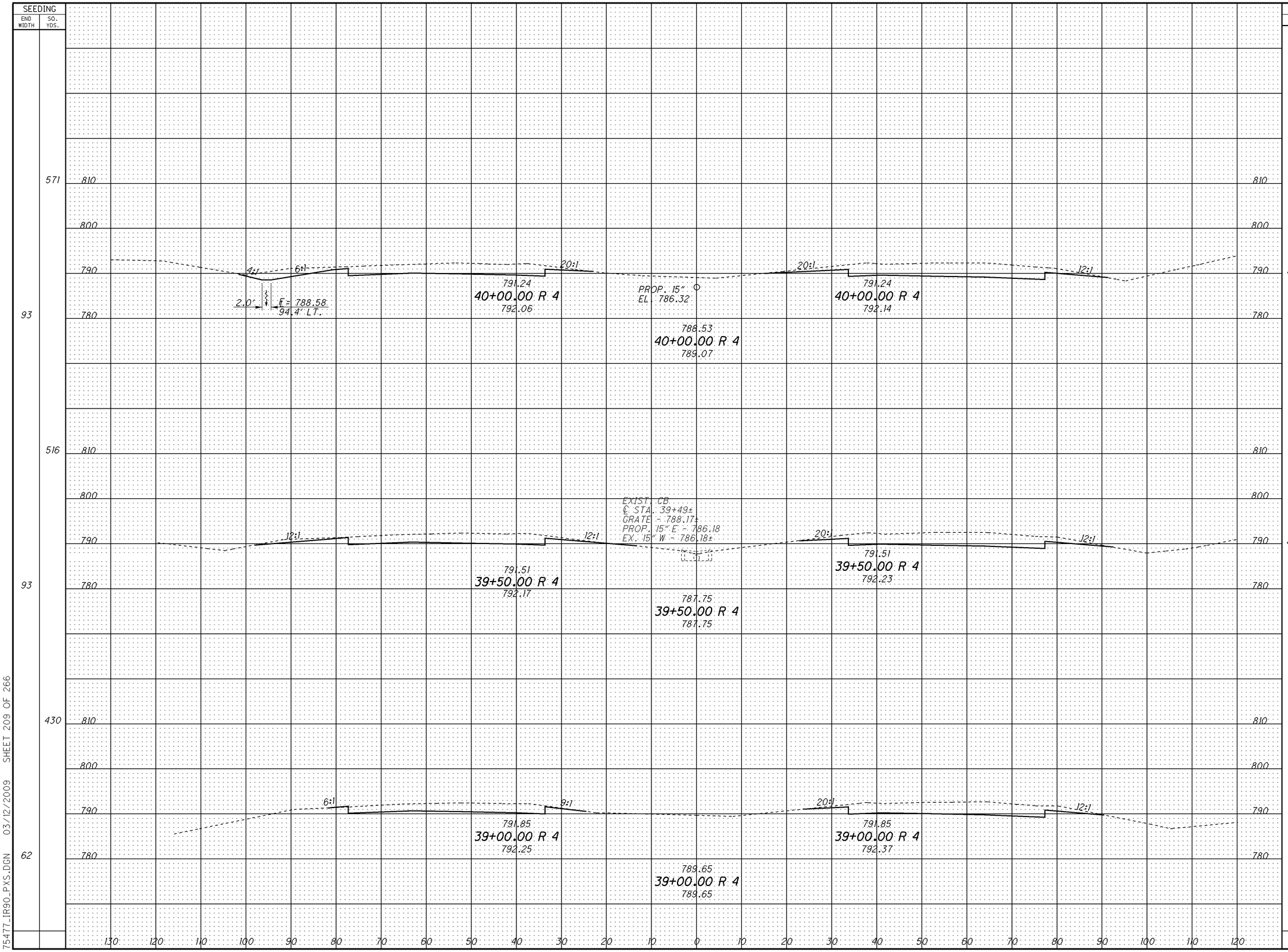
498



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
93	571	268	0	461	0
93	430	230	0	397	1
62	516	199	1	355	2

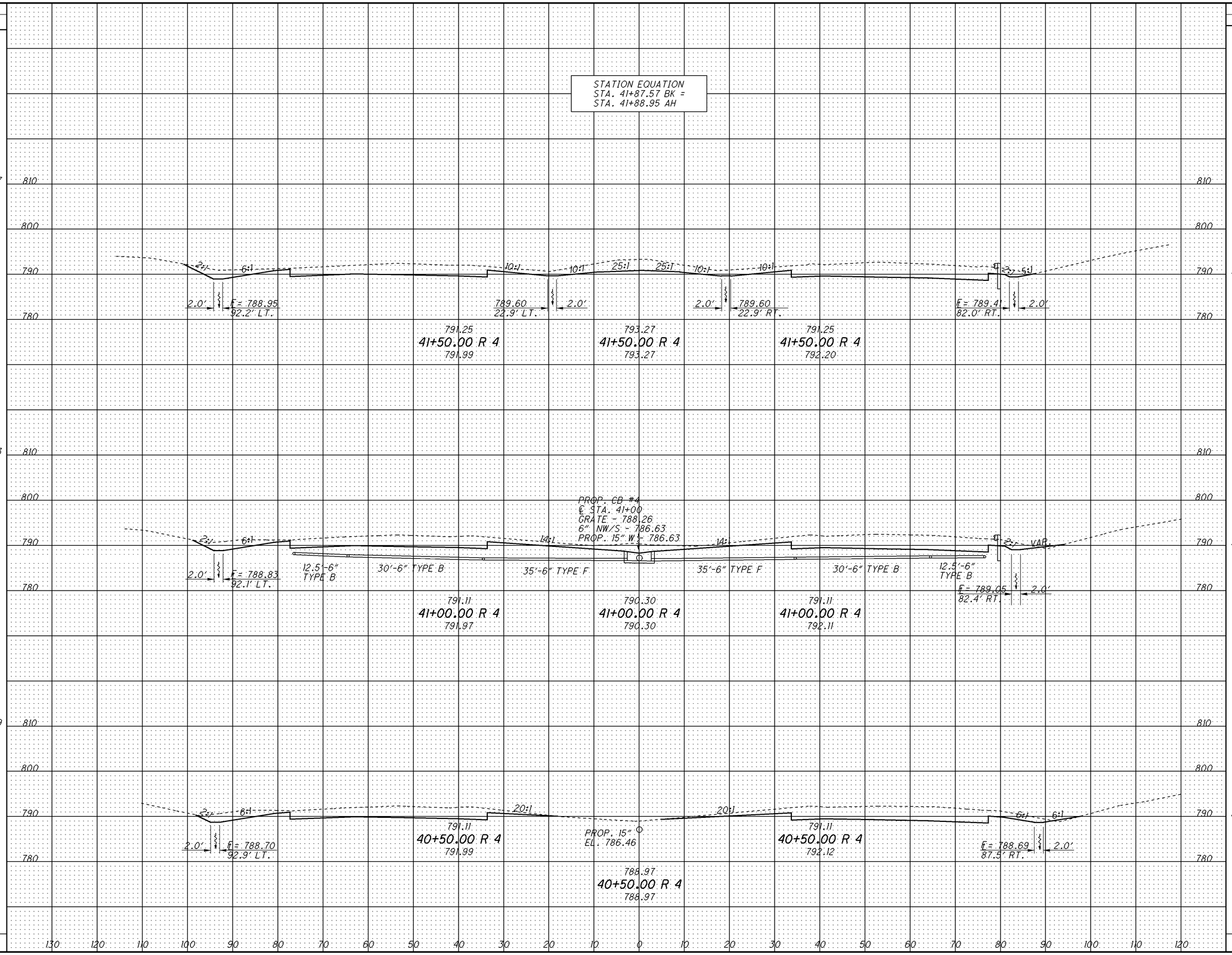
CALCULATED

CHECKED

CROSS SECTIONS
STA. 39+00.00 TO STA. 40+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
128	697	359	0	638	2
133	723	330	3	573	6
113	679	289	4	516	4



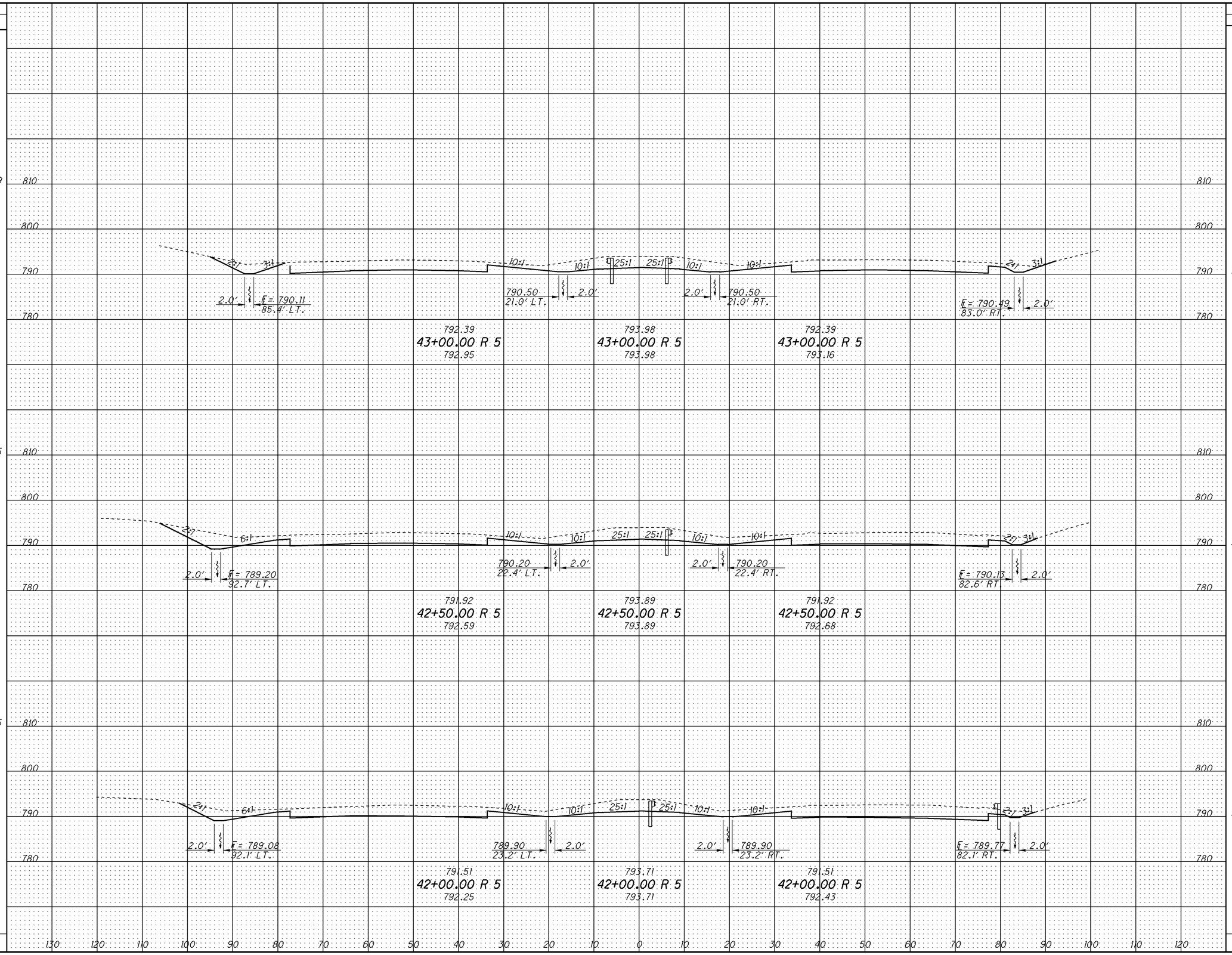
CALCULATED

CHECKED

CROSS SECTIONS
STA. 40+50.00 TO STA. 41+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
126	699	358	0	690	0
135	725	387	0	699	0
130	735	368	0	654	0

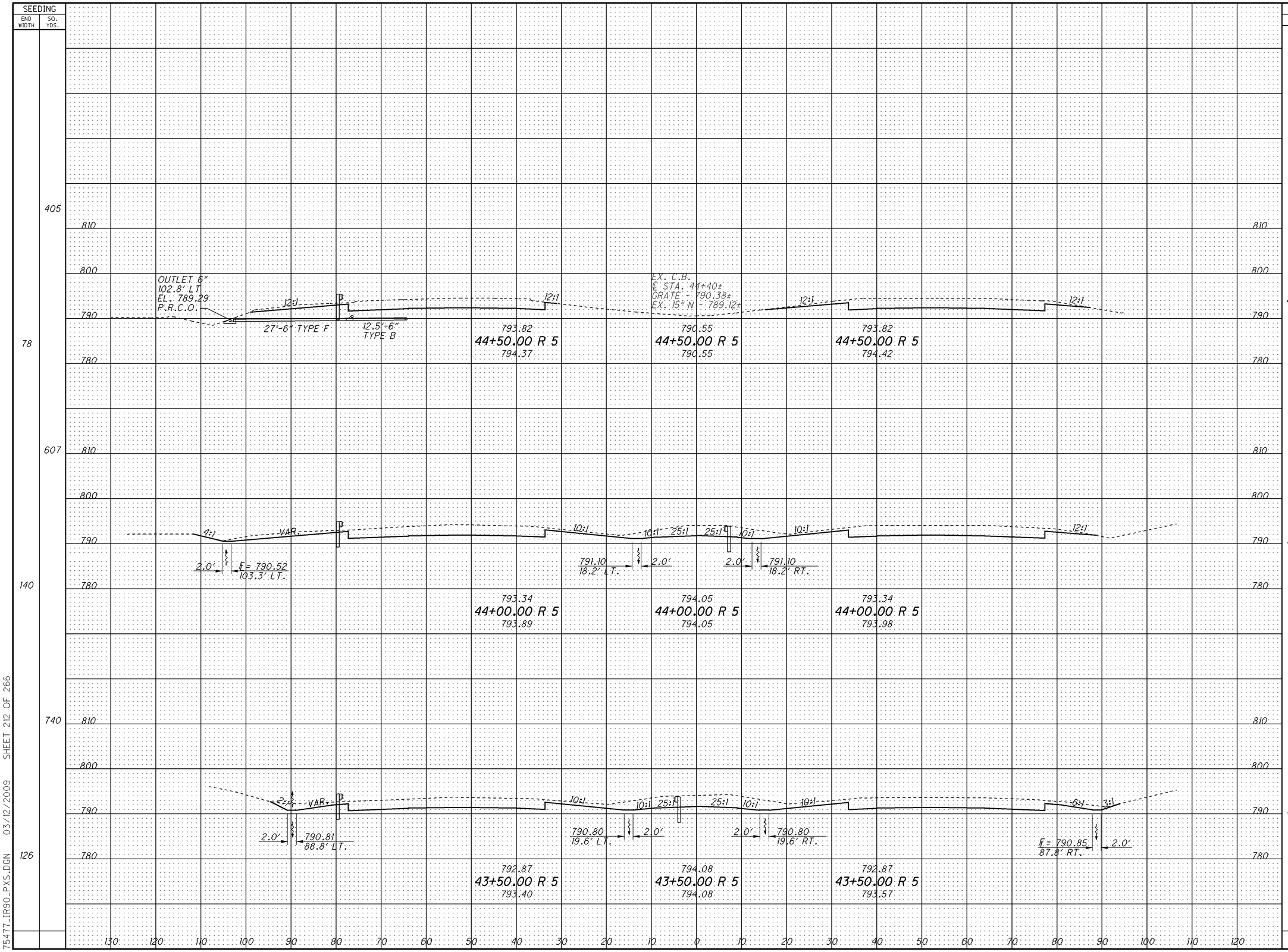


CALCULATED

CHECKED

CROSS SECTIONS
STA. 42+00.00 TO STA. 43+00.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
206	0	474	11
306	12	598	11
340	0	646	0

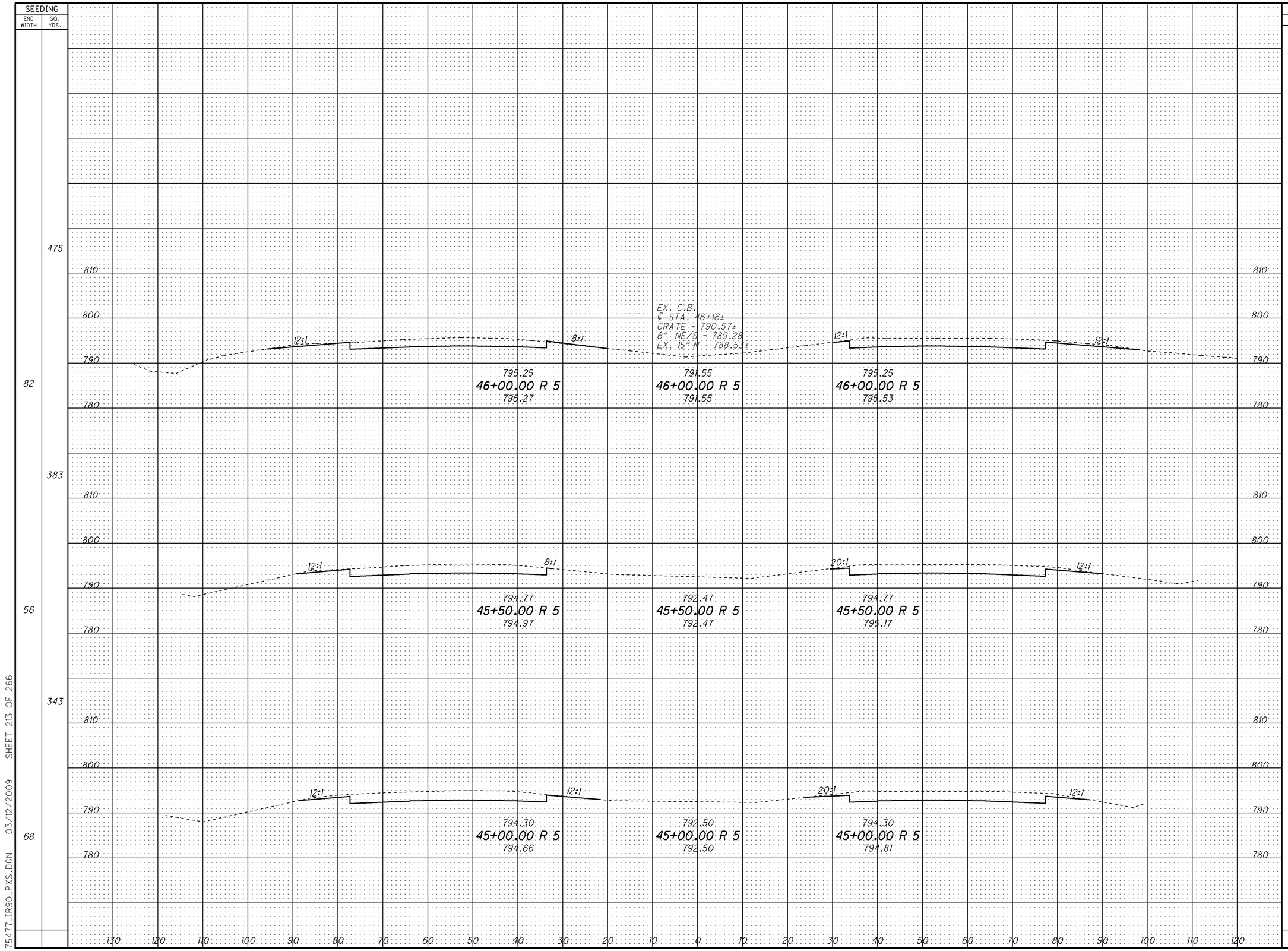
CALCULATED

CHECKED

CROSS SECTIONS

STA. 43+50.00 TO STA. 44+50.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
82	475	165	2	315	2
56	383	175	0	339	0
68	343	191	0	368	0

CALCULATED

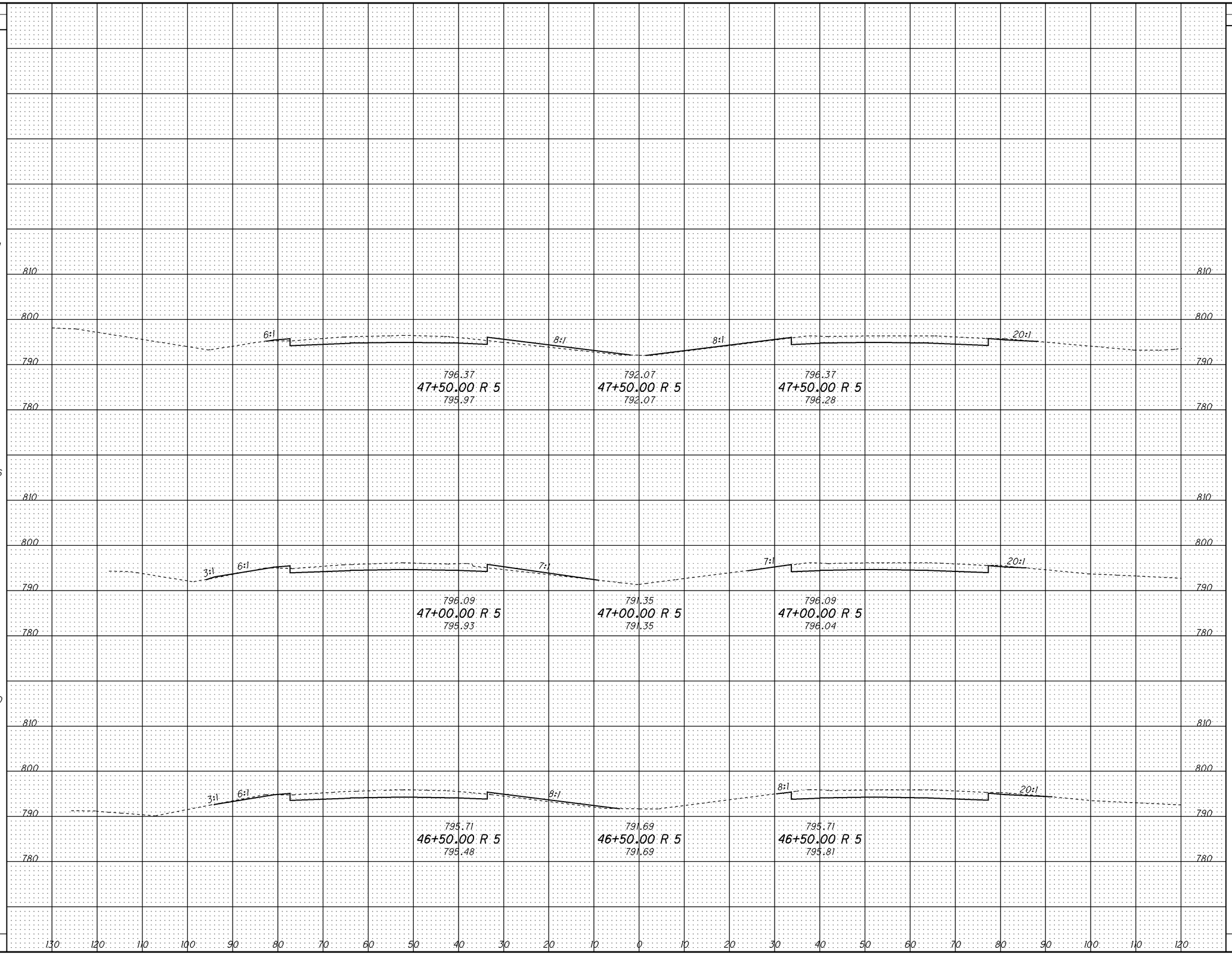
CHECKED

CROSS SECTIONS

STA. 45+00.00 TO STA. 46+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
106	571	127	21	234	32
87	536	126	13	247	24
89	490	141	12	284	13



CALCULATED

CHECKED

CROSS SECTIONS

STA. 46+50.00 TO STA. 47+50.00

LAK-90-21.40
ATB-90-0.00

368
498

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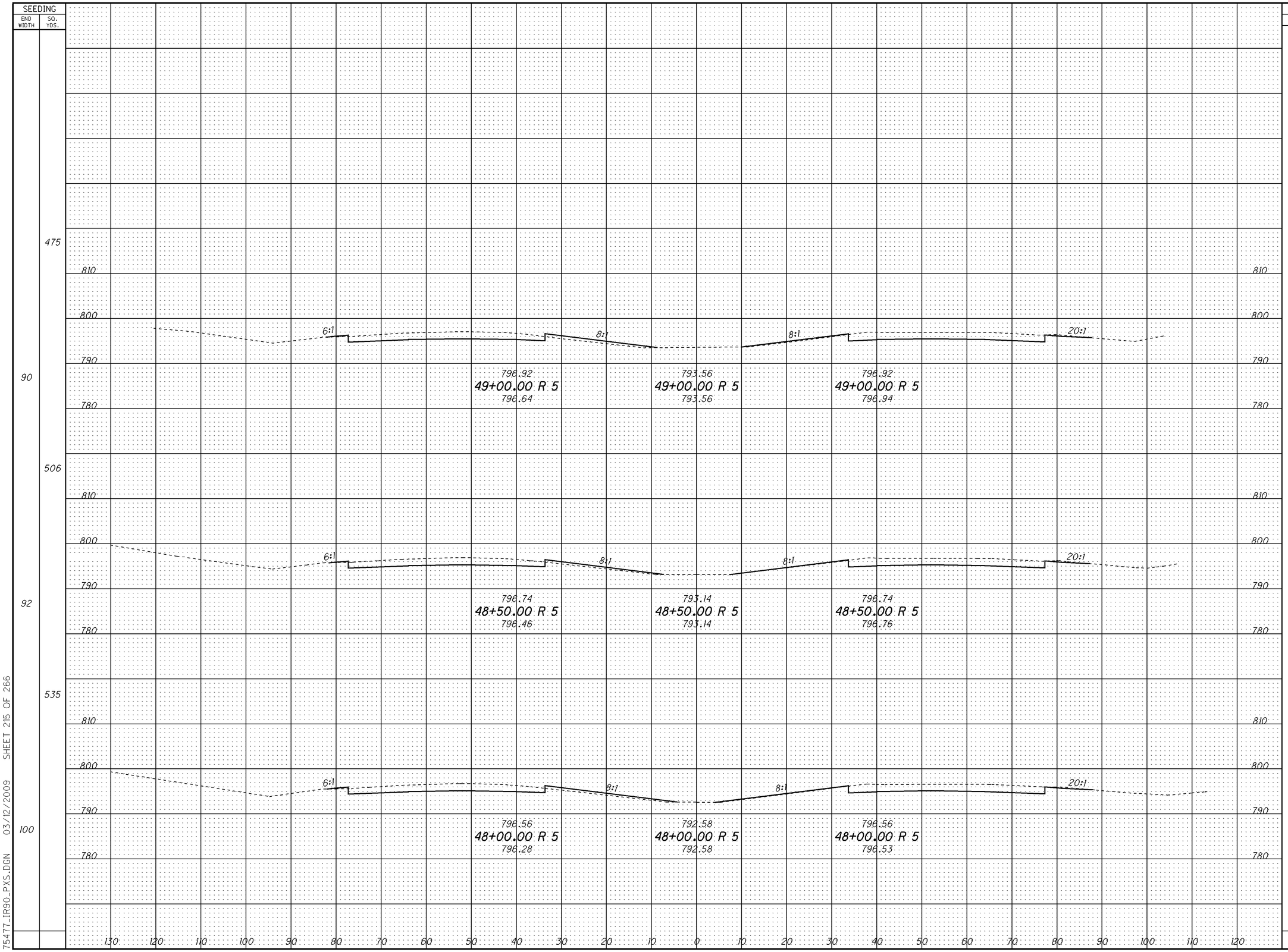


SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
90	475	130	19	242	30
92	506	131	14	242	29
100	535	131	18	238	36

CALCULATED

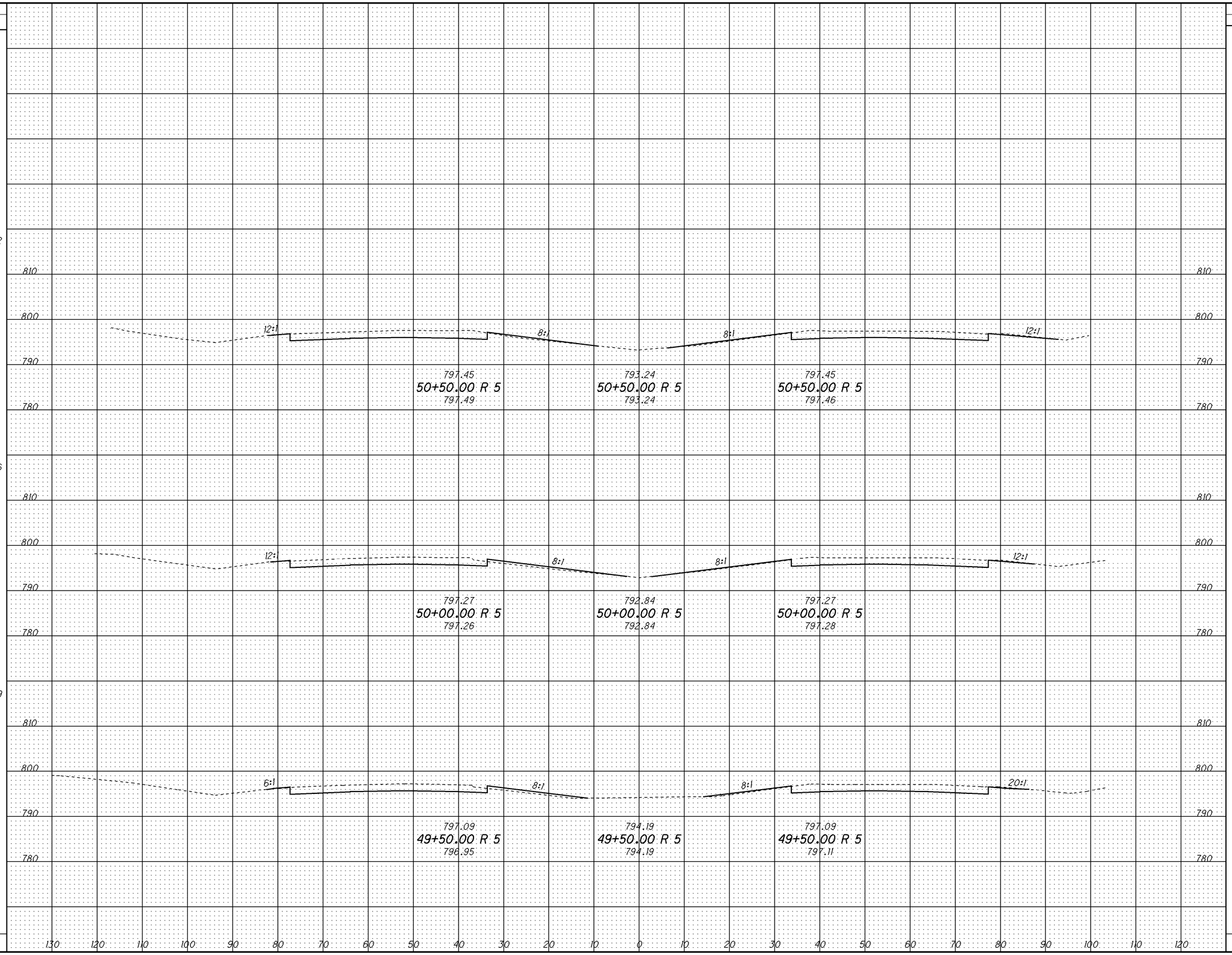
CHECKED

CROSS SECTIONS

STA. 48+00.00 TO STA. 49+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
98	532	134	11	247	26
102	556	133	17	246	30
81	509	133	16	244	32



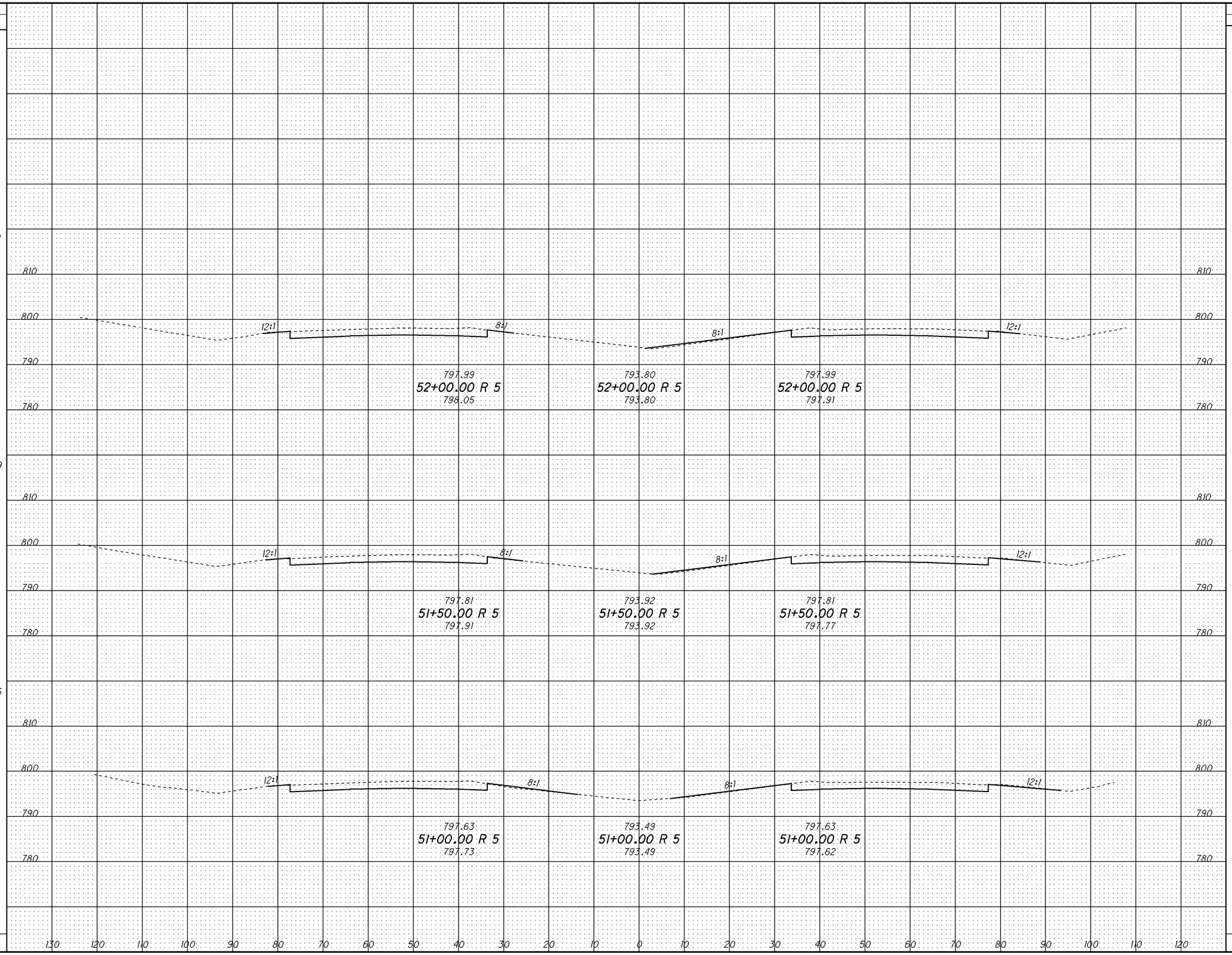
CALCULATED

CHECKED

CROSS SECTIONS

STA. 49+50.00 TO STA. 50+50.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
76	414	132	9	246	16
81	439	133	8	248	15
94	485	135	8	249	17

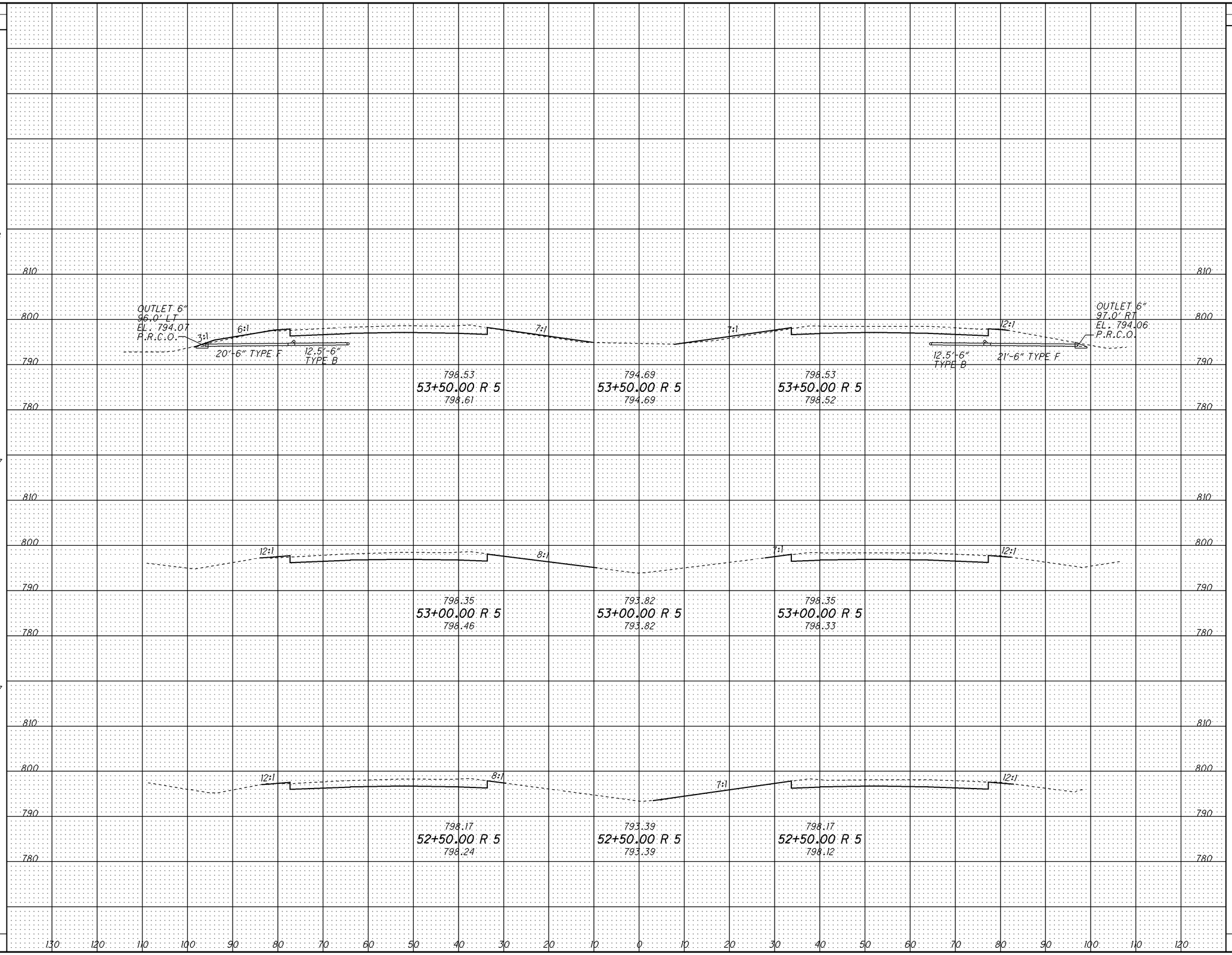
CALCULATED

CHECKED

CROSS SECTIONS
STA. 51+00.00 TO STA. 52+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
101	618	130	17	243	18
67	467	133	2	245	4
72	387	132	3	244	11



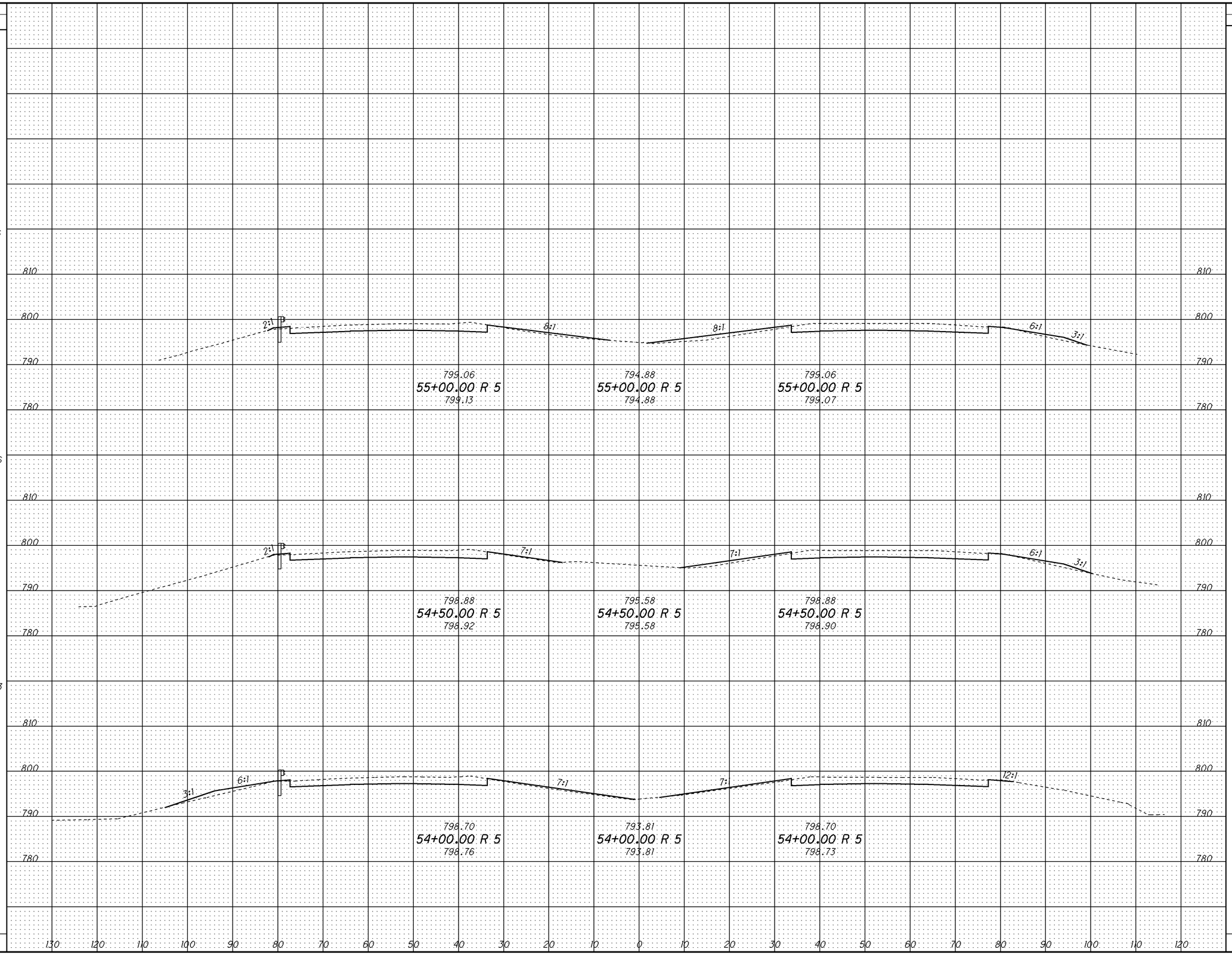
CALCULATED

CHECKED

CROSS SECTIONS
STA. 52+50.00 TO STA. 53+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
112	616	129	36	239	55
95	576	128	24	239	49
122	603	129	29	240	43



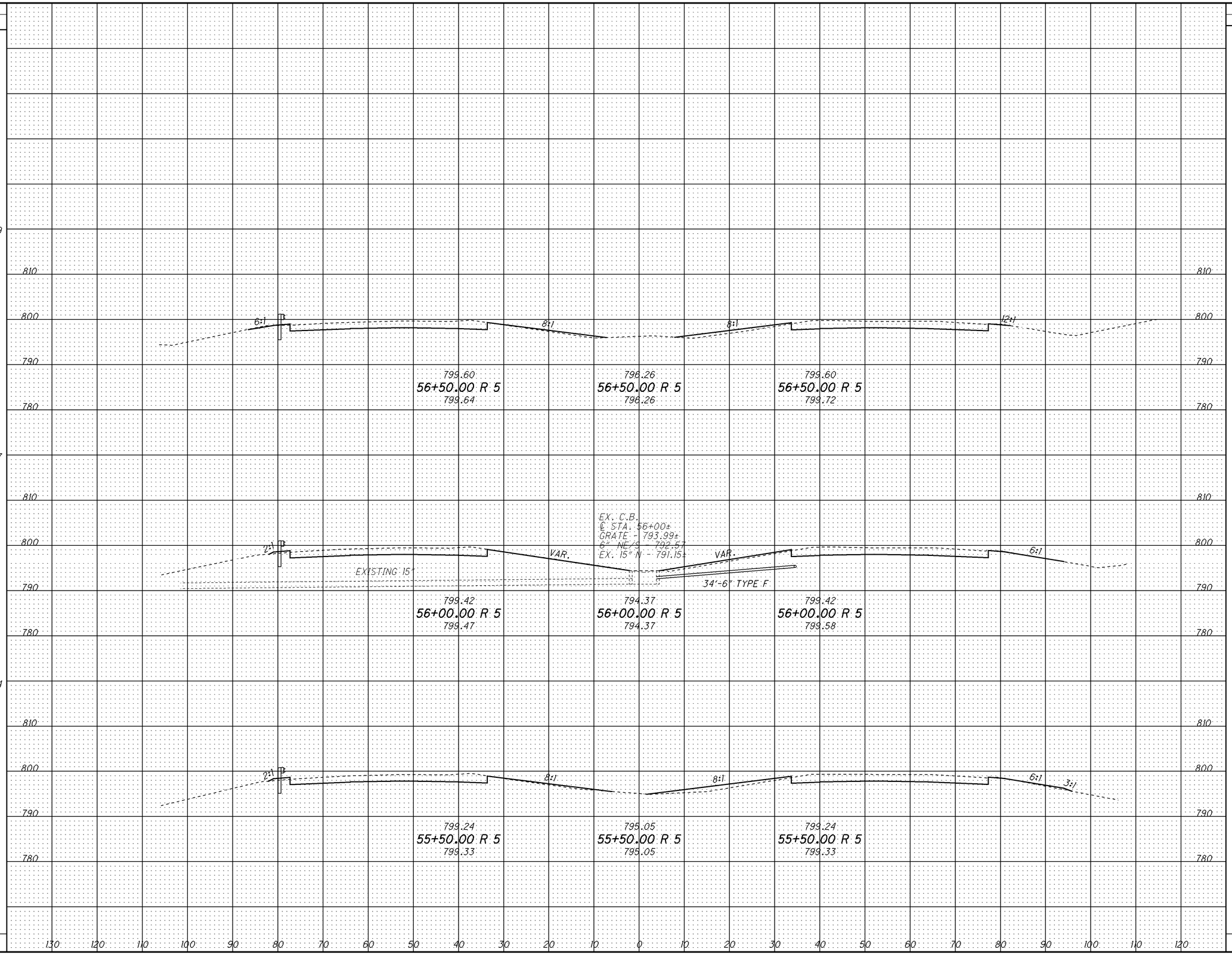
CALCULATED

CHECKED

CROSS SECTIONS
STA. 54+00.00 TO STA. 55+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
92	539	133	21	247	33
108	557	134	14	246	42
109	604	131	31	241	62



CALCULATED

CHECKED

CROSS SECTIONS
STA. 55+50.00 TO STA. 56+50.00

LAK-90-21.40
ATB-90-0.00

374
498

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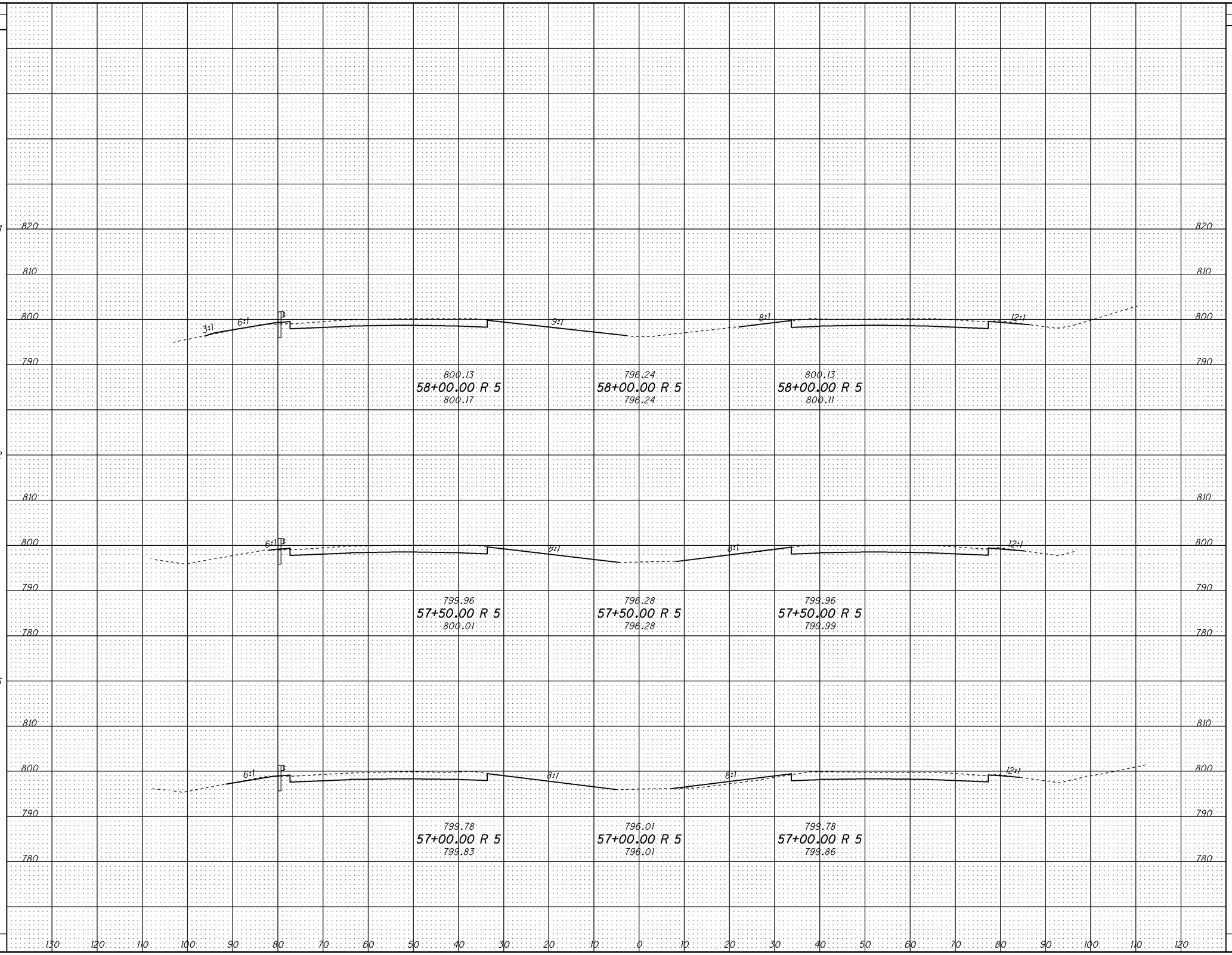
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
96	574	131	4	246	8
93	532	135	4	250	16
102	525	136	13	249	31

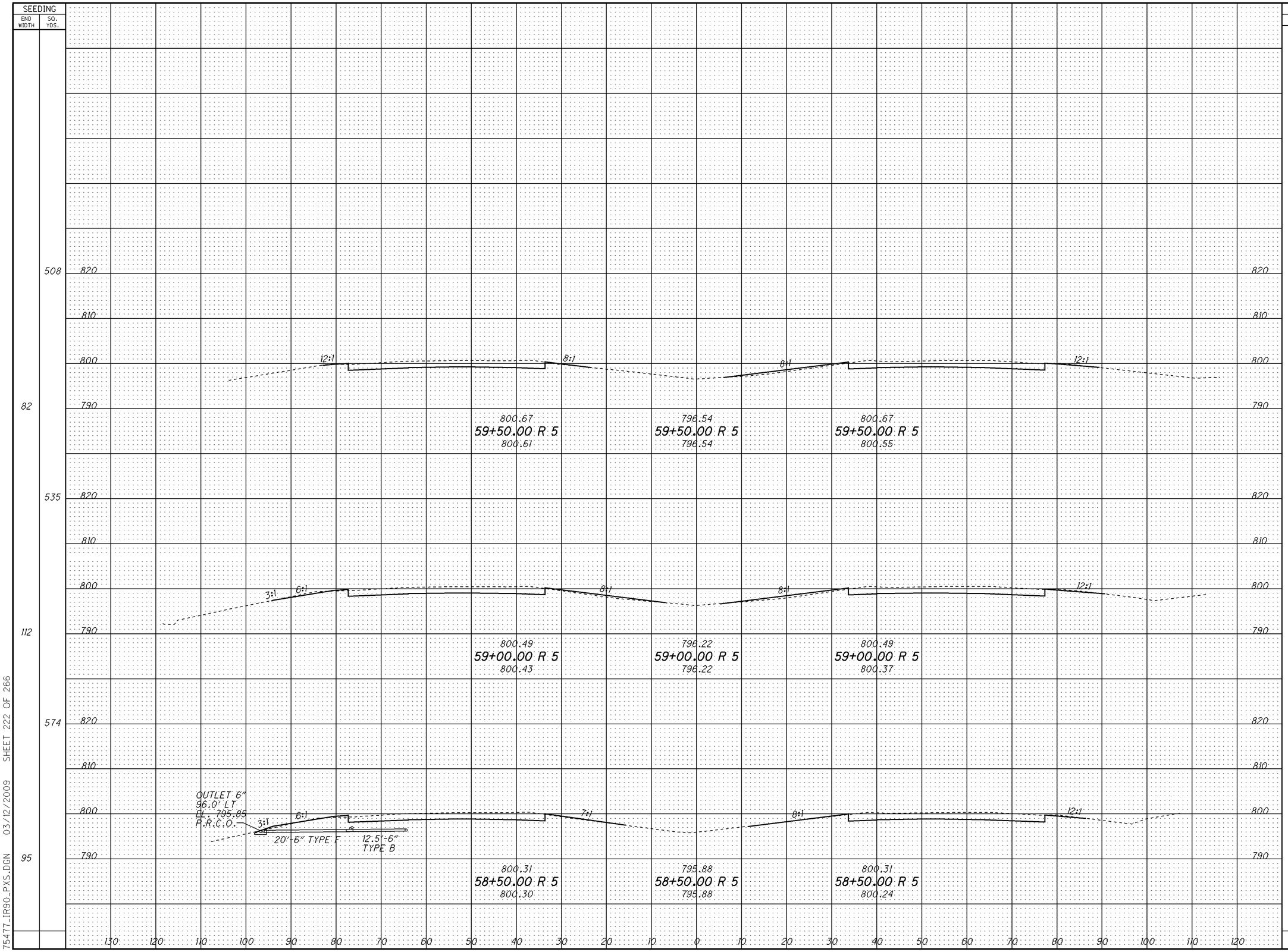


CALCULATED

CHECKED

CROSS SECTIONS
STA. 57+00.00 TO STA. 58+00.00

LAK-90-21.40
ATB-90-0.00



CROSS SECTIONS
STA. 58+50.00 TO STA. 59+50.00

LAK-90-21.40
ATB-90-0.00

376
498

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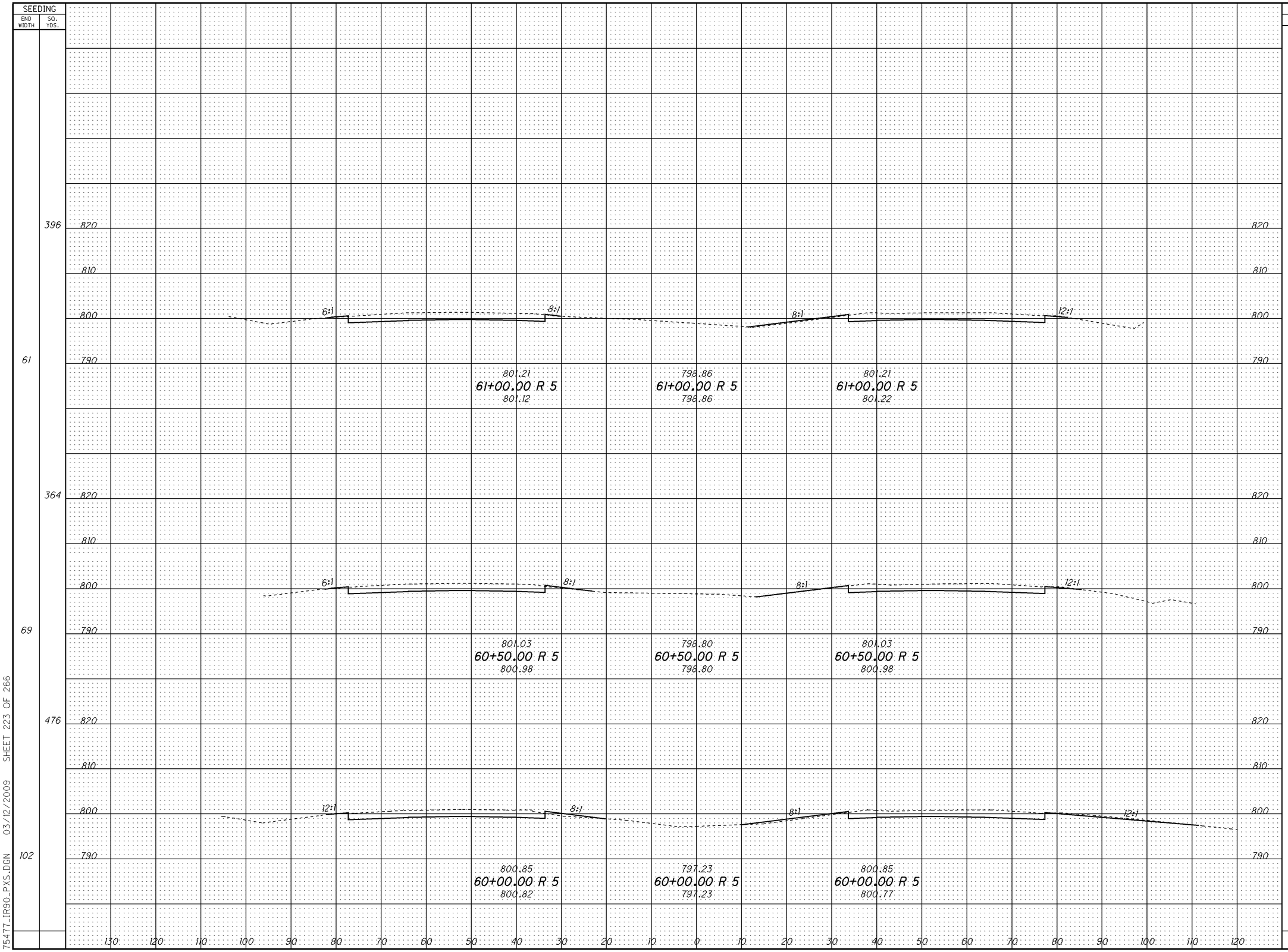


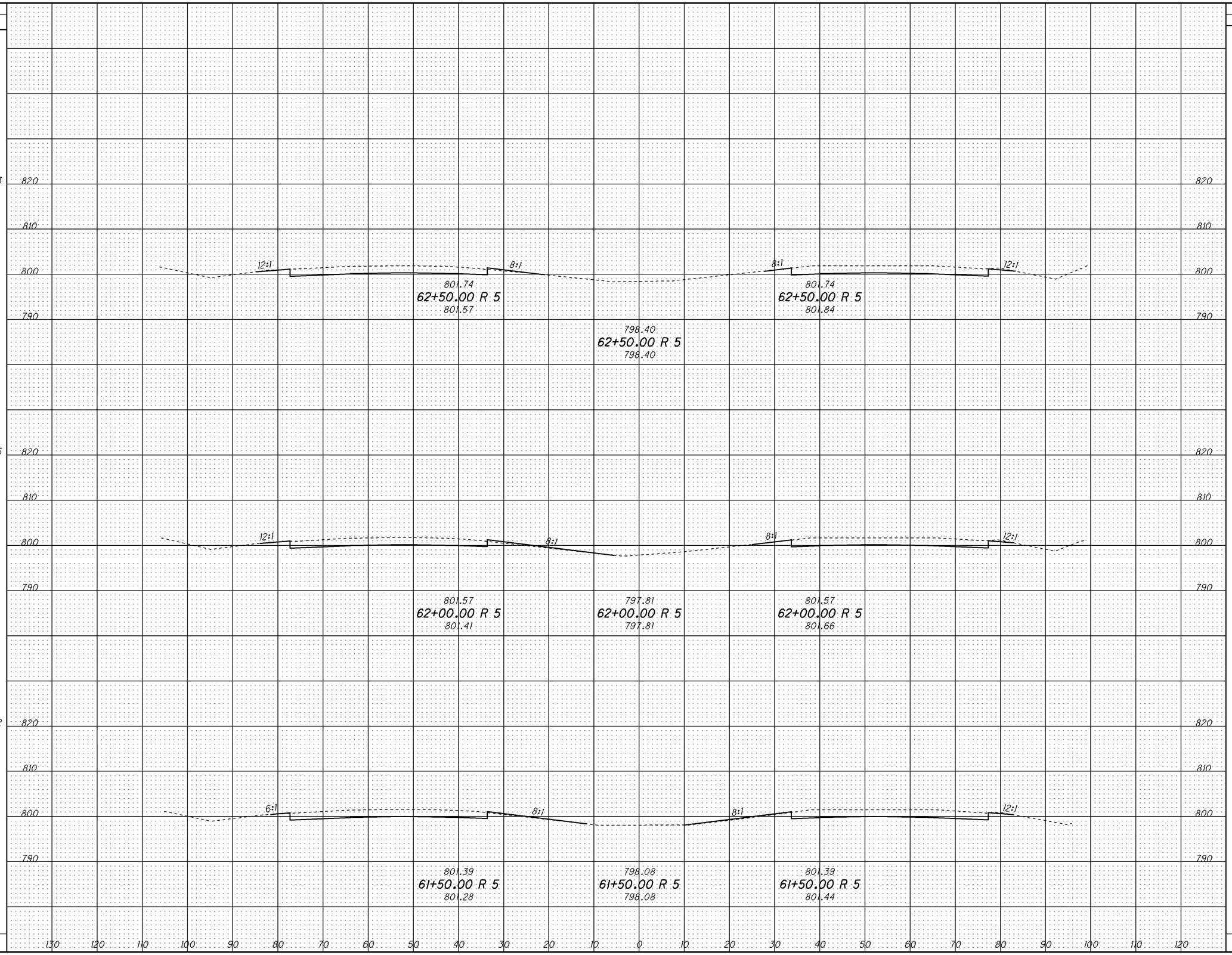
CALCULATED

CHECKED

CROSS SECTIONS
STA. 60+00.00 TO STA. 61+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
57	323	141	3	260	8
75	365	140	6	258	14
81	432	138	9	256	14



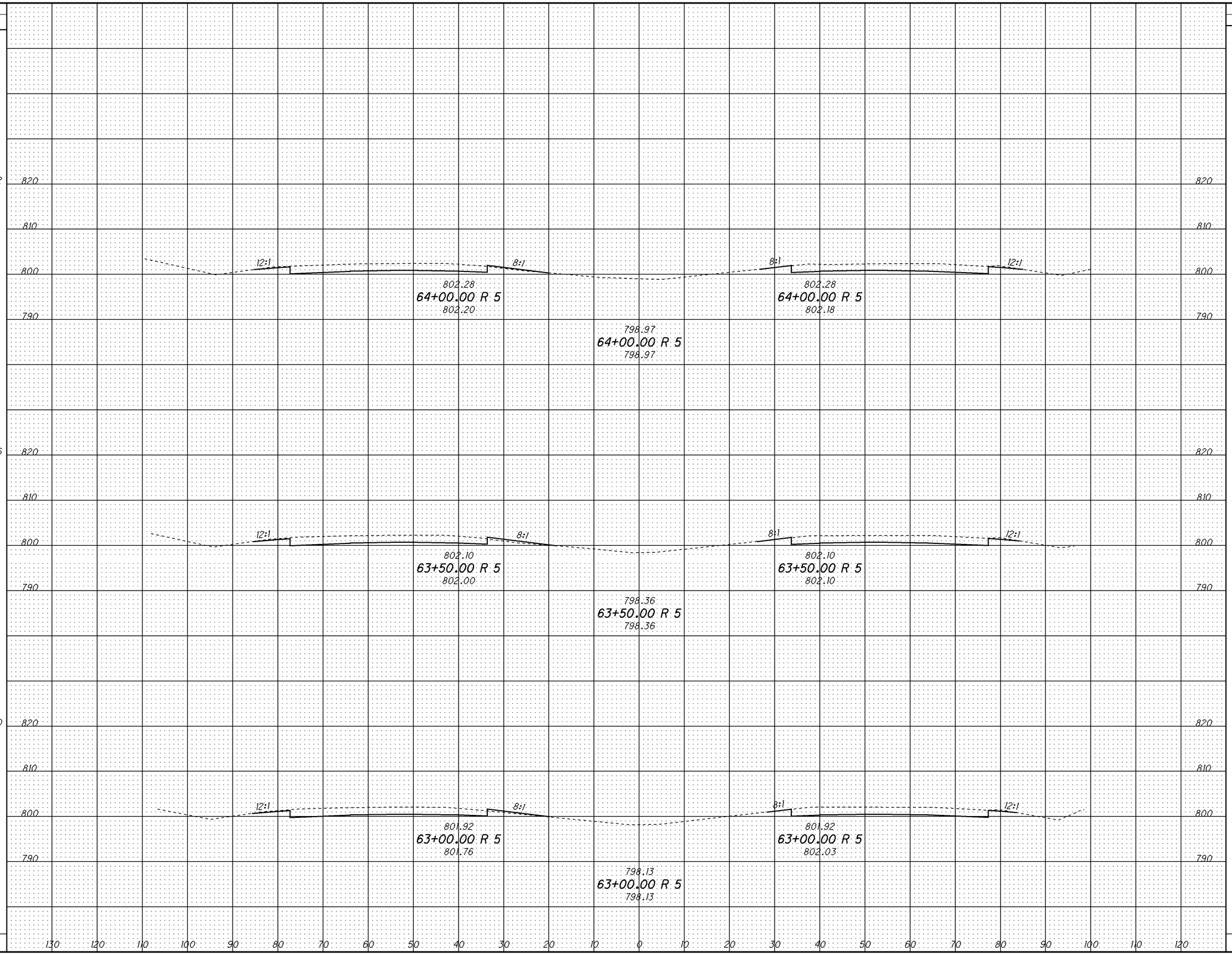
CALCULATED

CHECKED

CROSS SECTIONS
STA. 61+50.00 TO STA. 62+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
61	352	140	3	262	7
63	346	143	5	265	7
59	340	143	3	263	5



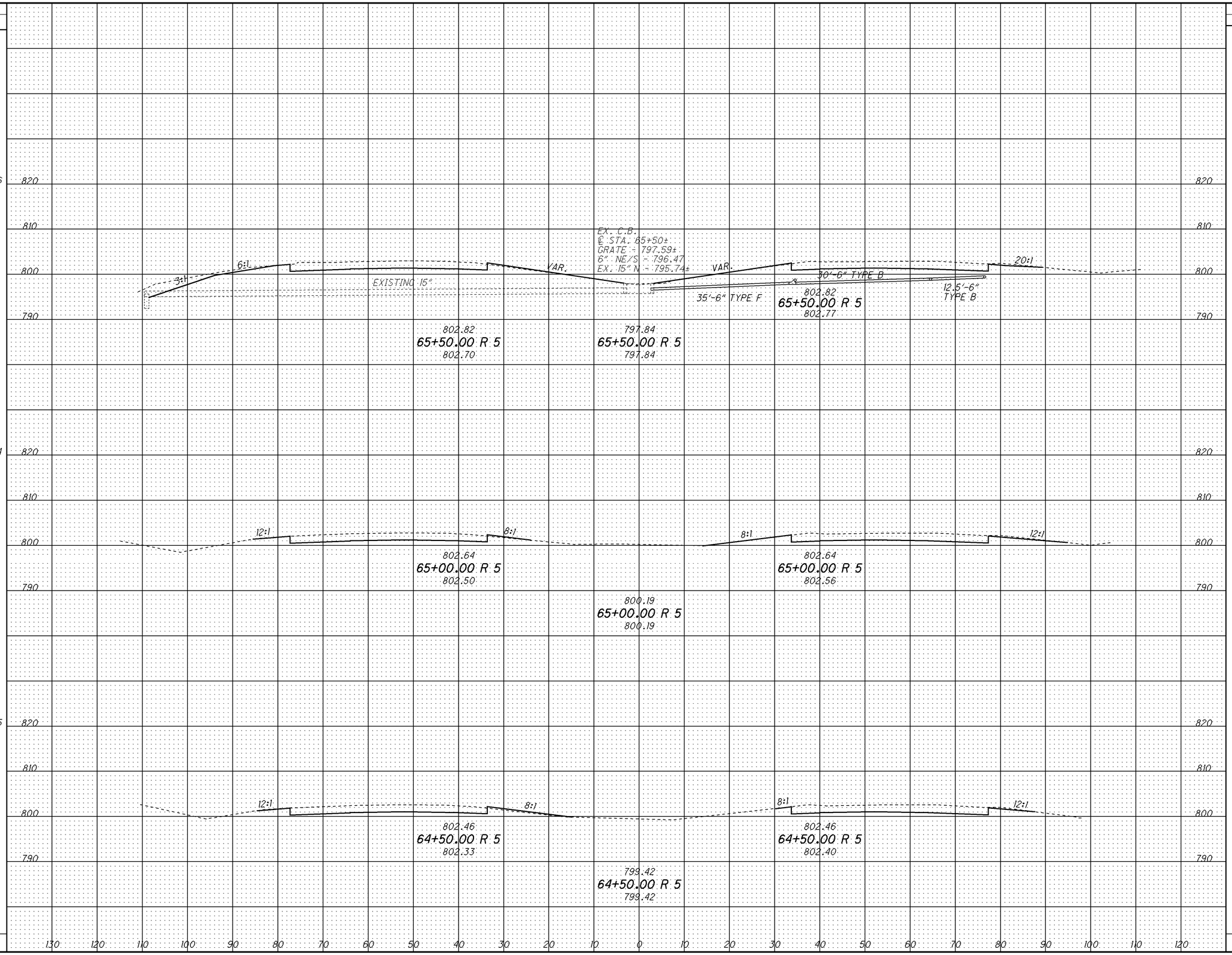
CALCULATED

CHECKED

CROSS SECTIONS
STA. 63+00.00 TO STA. 64+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.
133	646
81	594
65	405



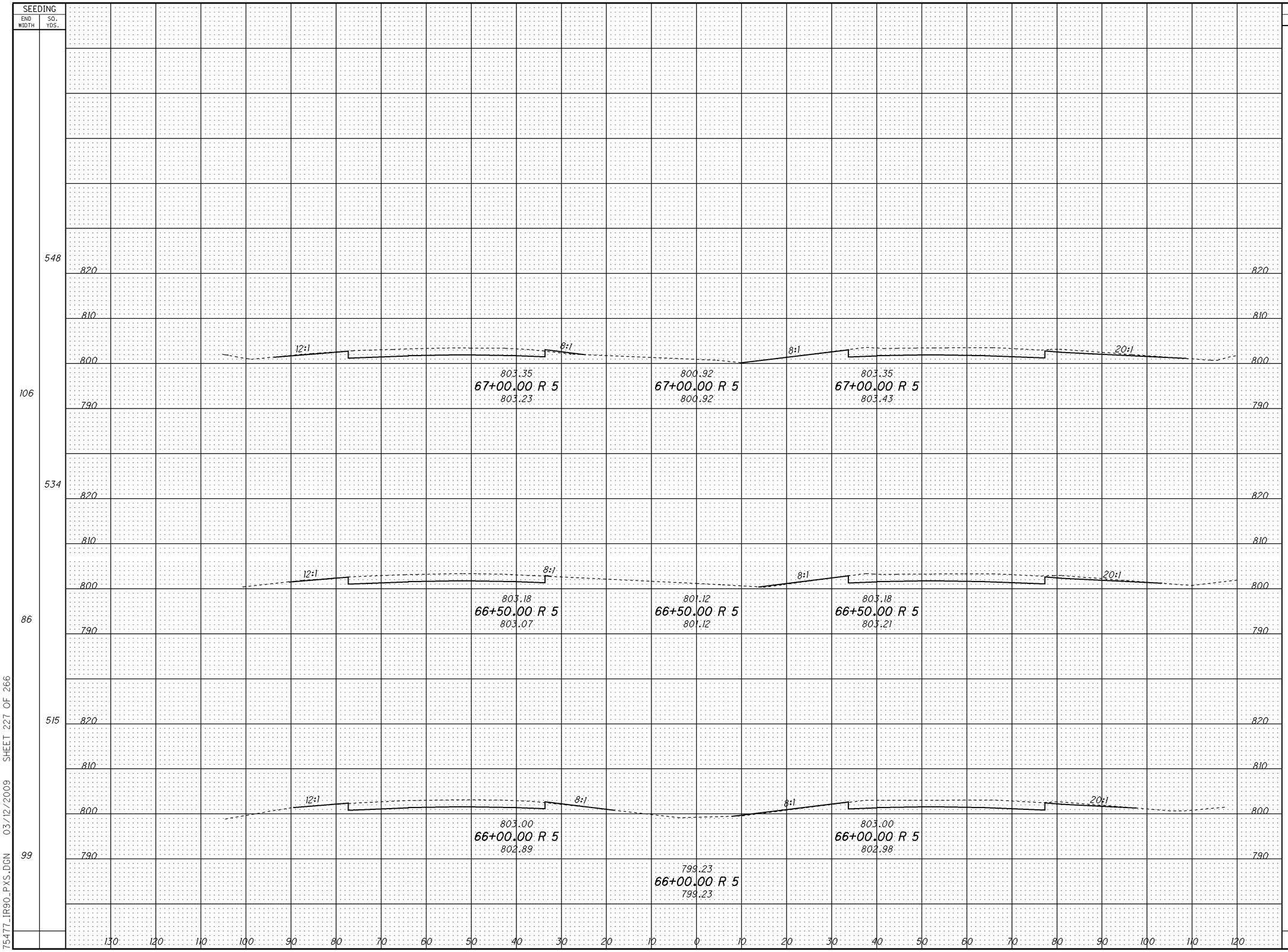
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
167	7	283	10
139	3	257	7
139	5	258	7

CALCULATED

CHECKED

CROSS SECTIONS
STA. 64+50.00 TO STA. 65+50.00

LAK-90-21.40
ATB-90-0.00



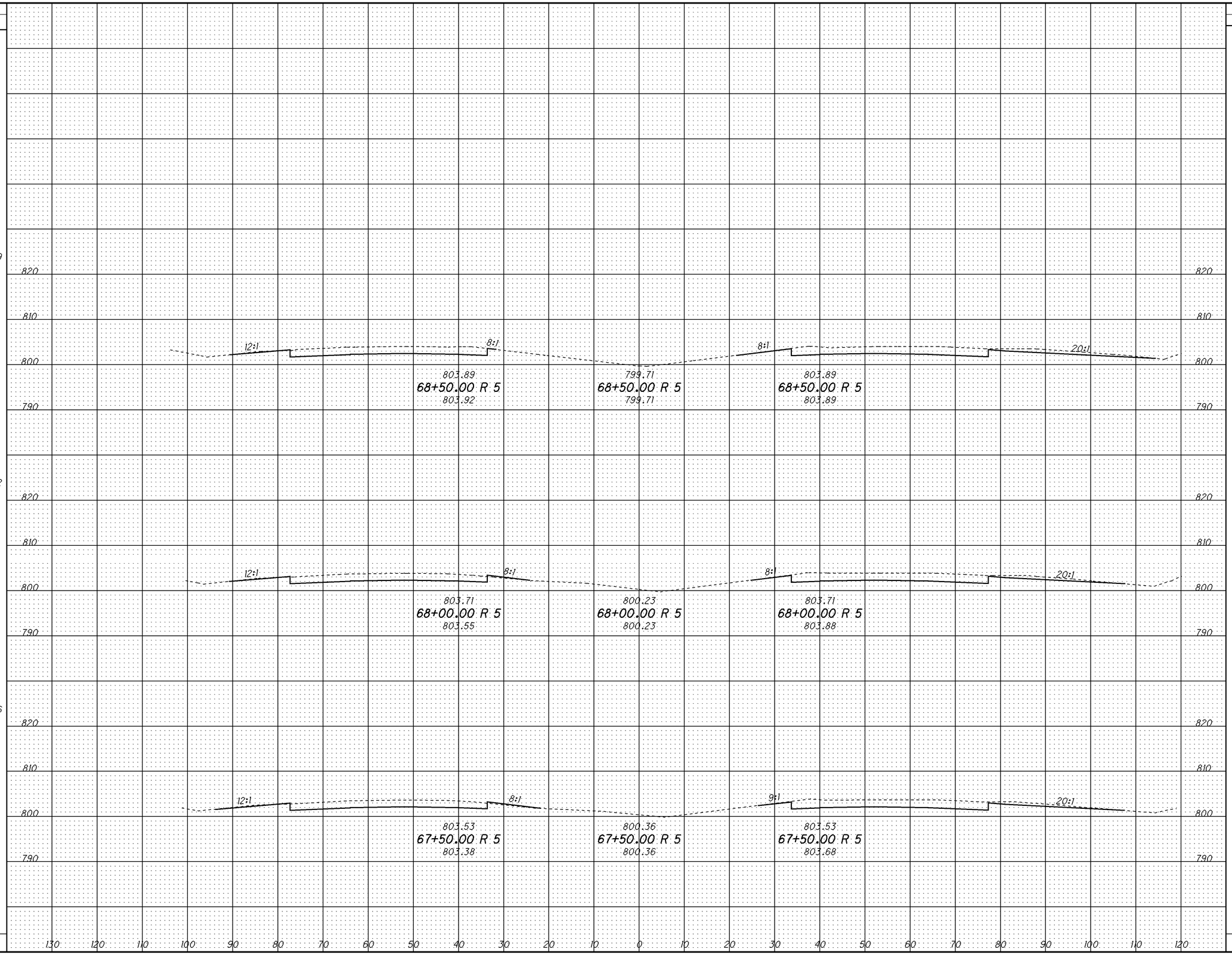
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
106	548	153	2	279	5
86	534	149	3	270	10
99	515	143	7	288	13

CALCULATED

CHECKED

CROSS SECTIONS
STA. 66+00.00 TO STA. 67+00.00

LAK-90-21.40
ATB-90-0.00



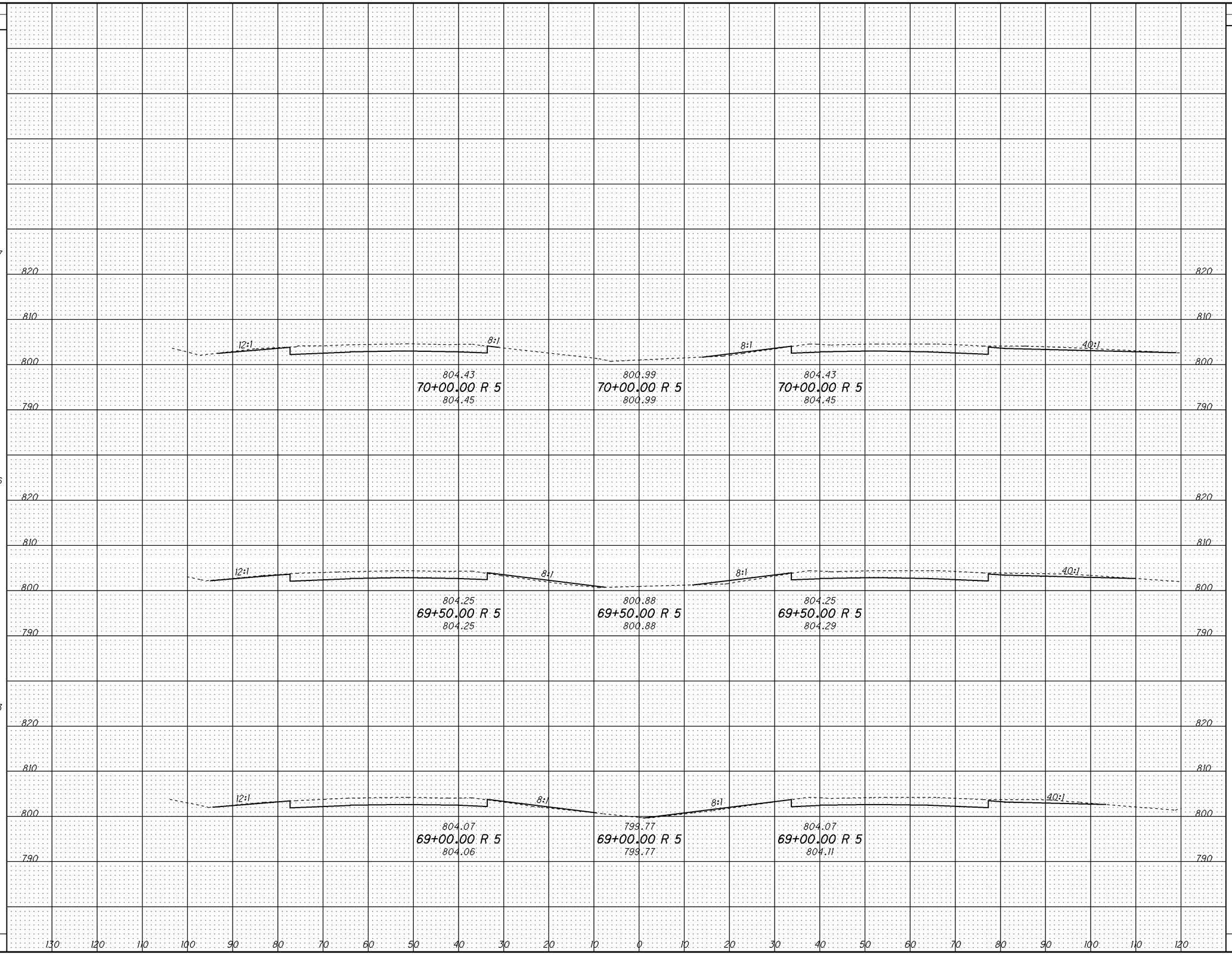
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
90	599	161	0	291	2
88	492	154	2	283	4
91	496	152	3	282	5

CALCULATED

CHECKED

CROSS SECTIONS
STA. 67+50.00 TO STA. 68+50.00

LAK-90-21.40
ATB-90-0.00



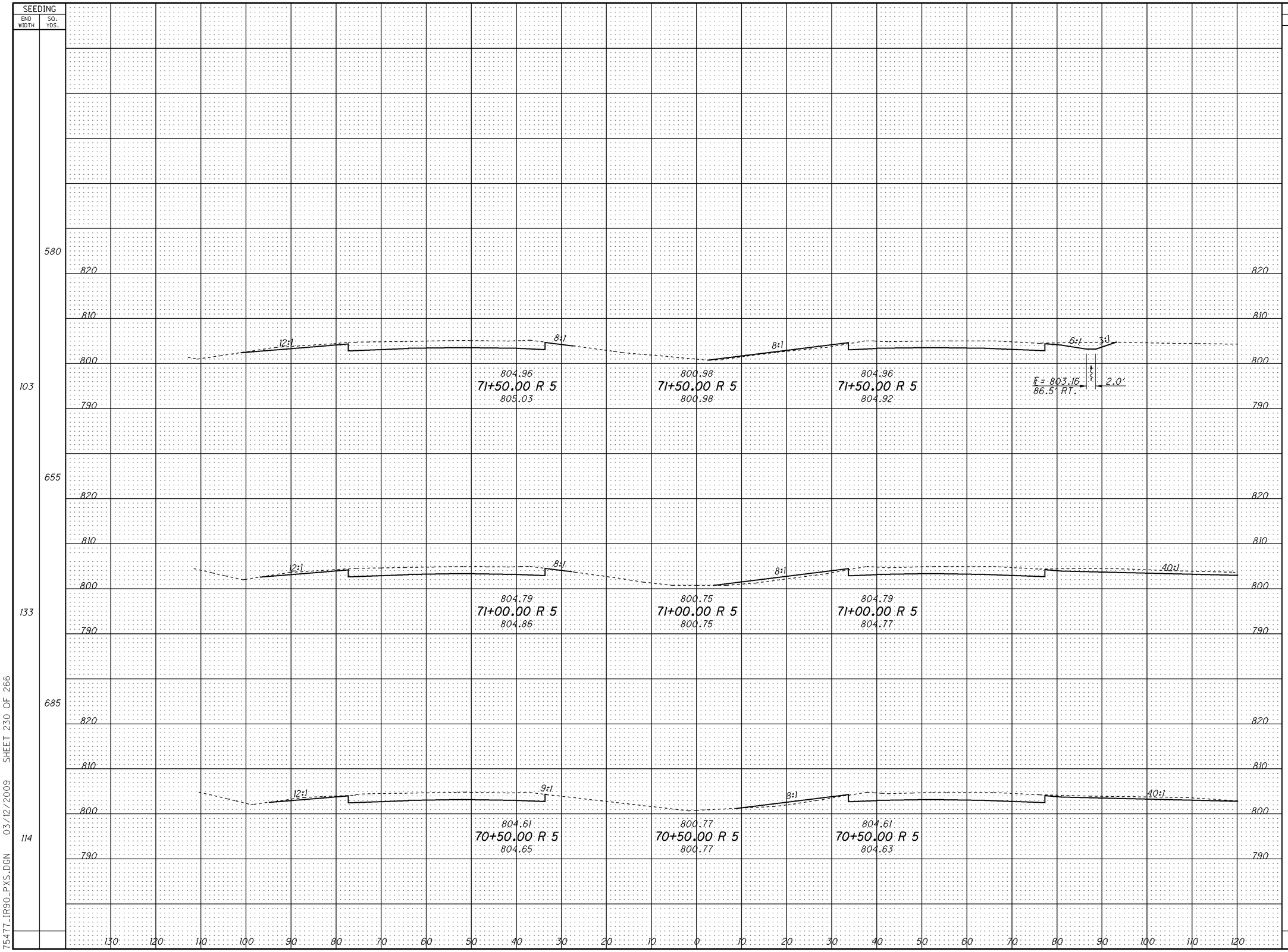
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
105	607	164	5	297	20
124	636	158	17	289	27
126	693	154	12	292	11

CALCULATED

CHECKED

CROSS SECTIONS
STA. 69+00.00 TO STA. 70+00.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
103	580	162	9	316	23
133	655	179	16	319	24
114	685	166	11	305	14

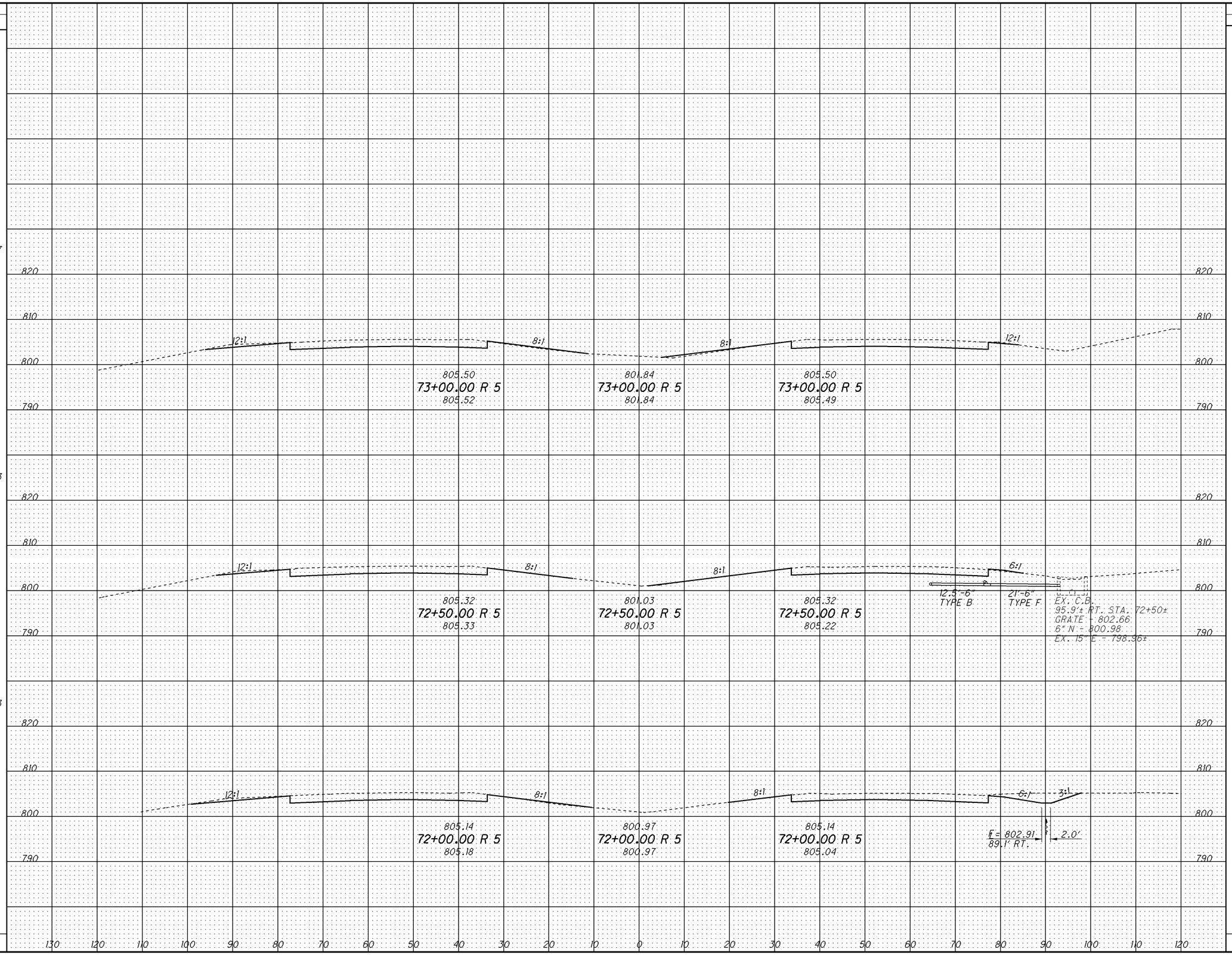
CALCULATED

CHECKED

CROSS SECTIONS
STA. 70+50.00 TO STA. 71+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
102	557	144	9	263	12
100	563	139	5	284	8
106	573	167	4	305	12

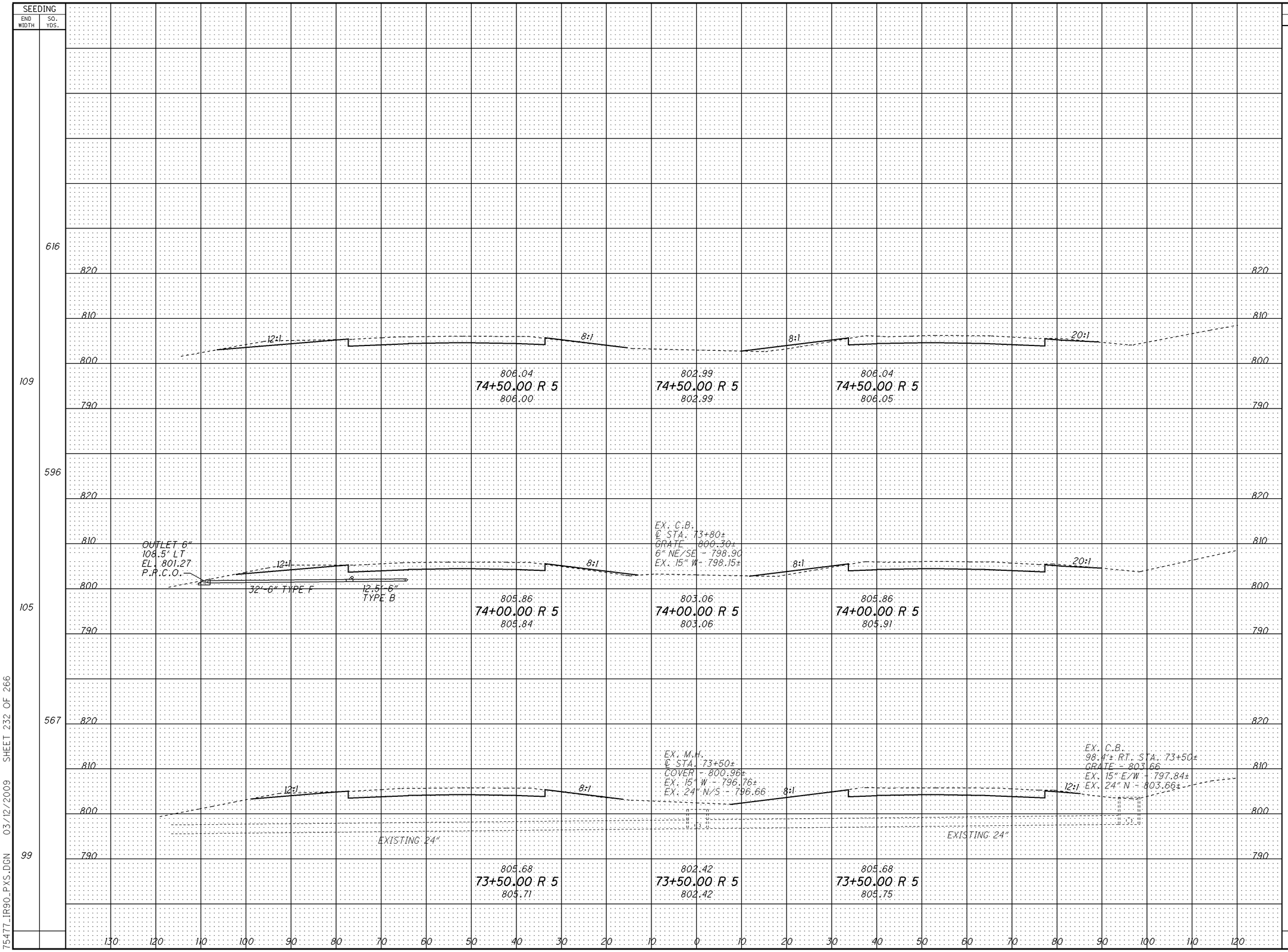


CALCULATED

CHECKED

CROSS SECTIONS
STA. 72+00.00 TO STA. 73+00.00

LAK-90-21.40
ATB-90-0.00



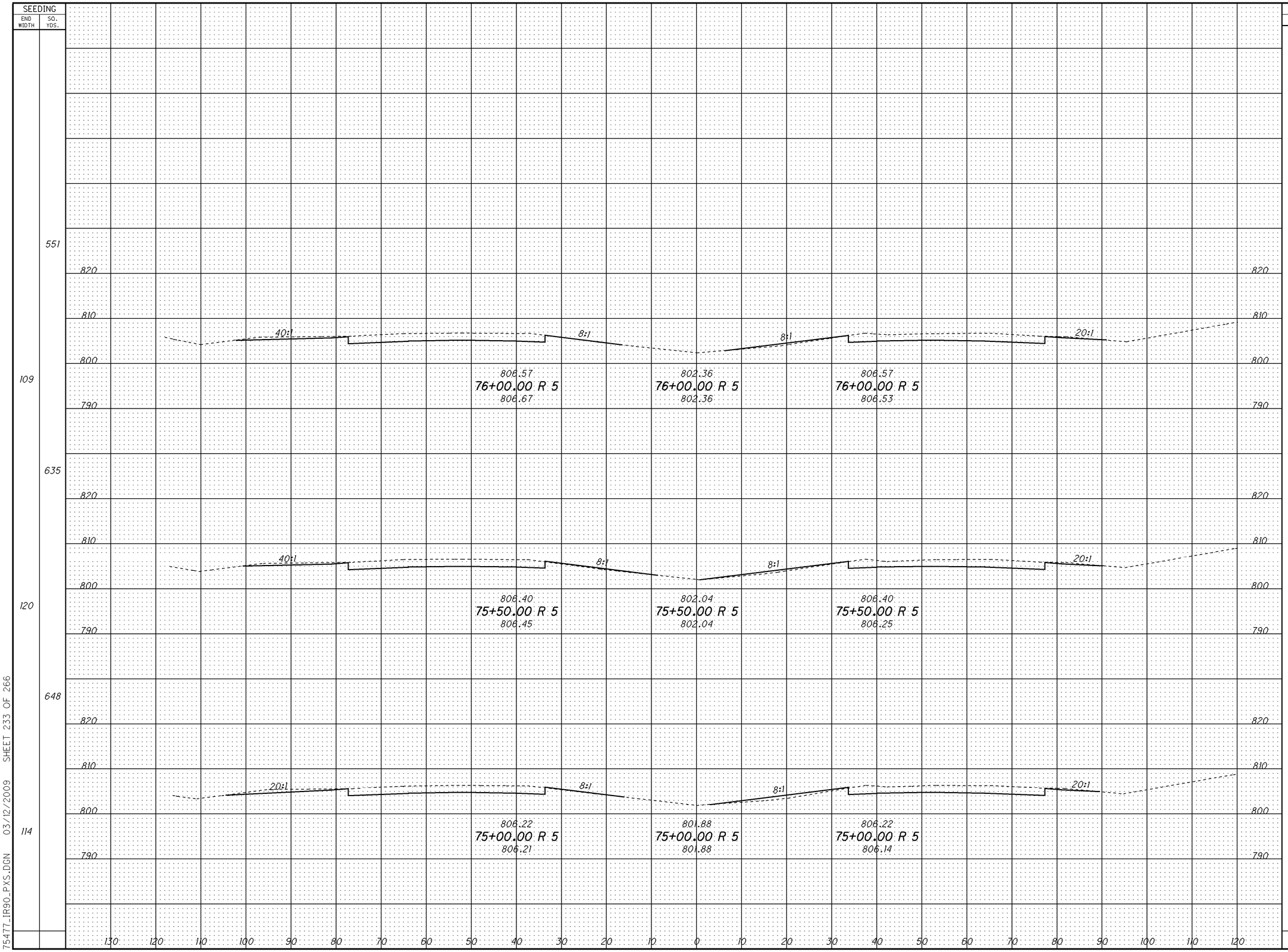
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
154	14	286	28
155	16	282	17
149	2	272	10

CALCULATED

CHECKED

CROSS SECTIONS
STA. 73+50.00 TO STA. 74+50.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
109	551	154	8	279	20
120	635	148	13	276	27
114	648	150	16	281	28

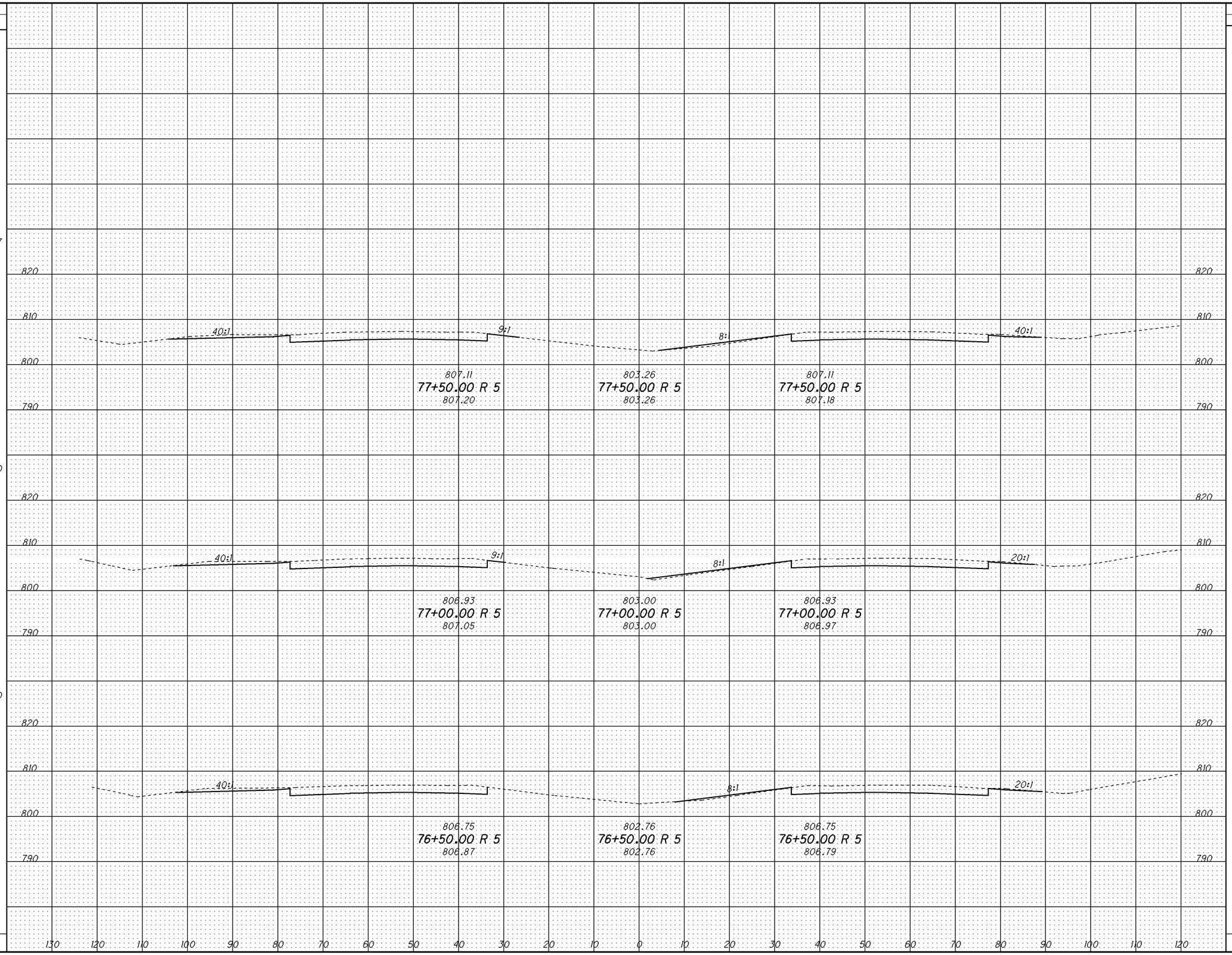
CALCULATED

CHECKED

CROSS SECTIONS
STA. 75+00.00 TO STA. 76+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
101	557	162	9	298	16
98	550	160	9	296	15
89	520	159	7	289	14



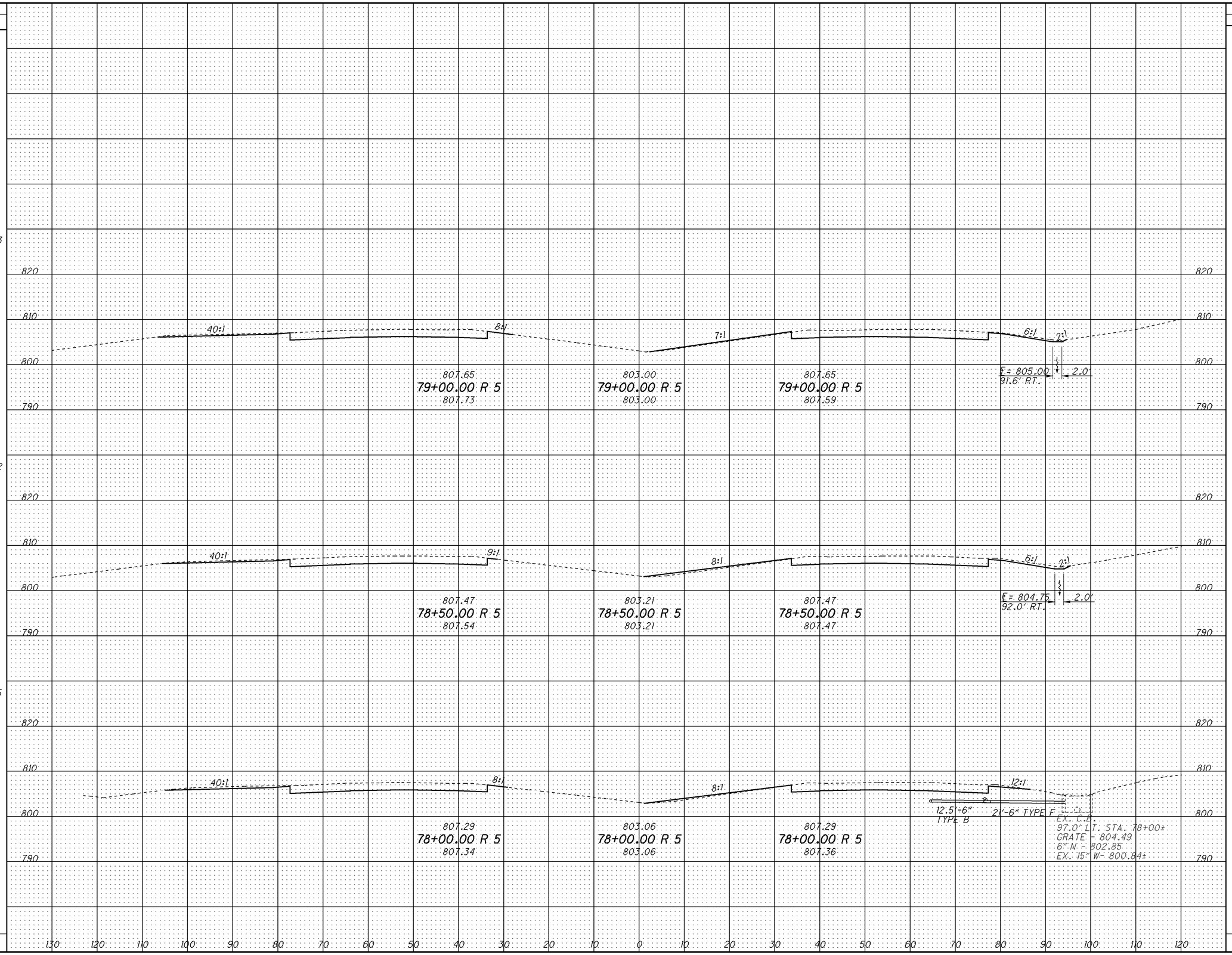
CALCULATED

CHECKED

CROSS SECTIONS
STA. 76+50.00 TO STA. 77+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME		
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	
110	603	151	6	287	16	79+00.00 R 5
107	602	158	10	294	18	78+50.00 R 5
100	575	159	9	297	16	78+00.00 R 5



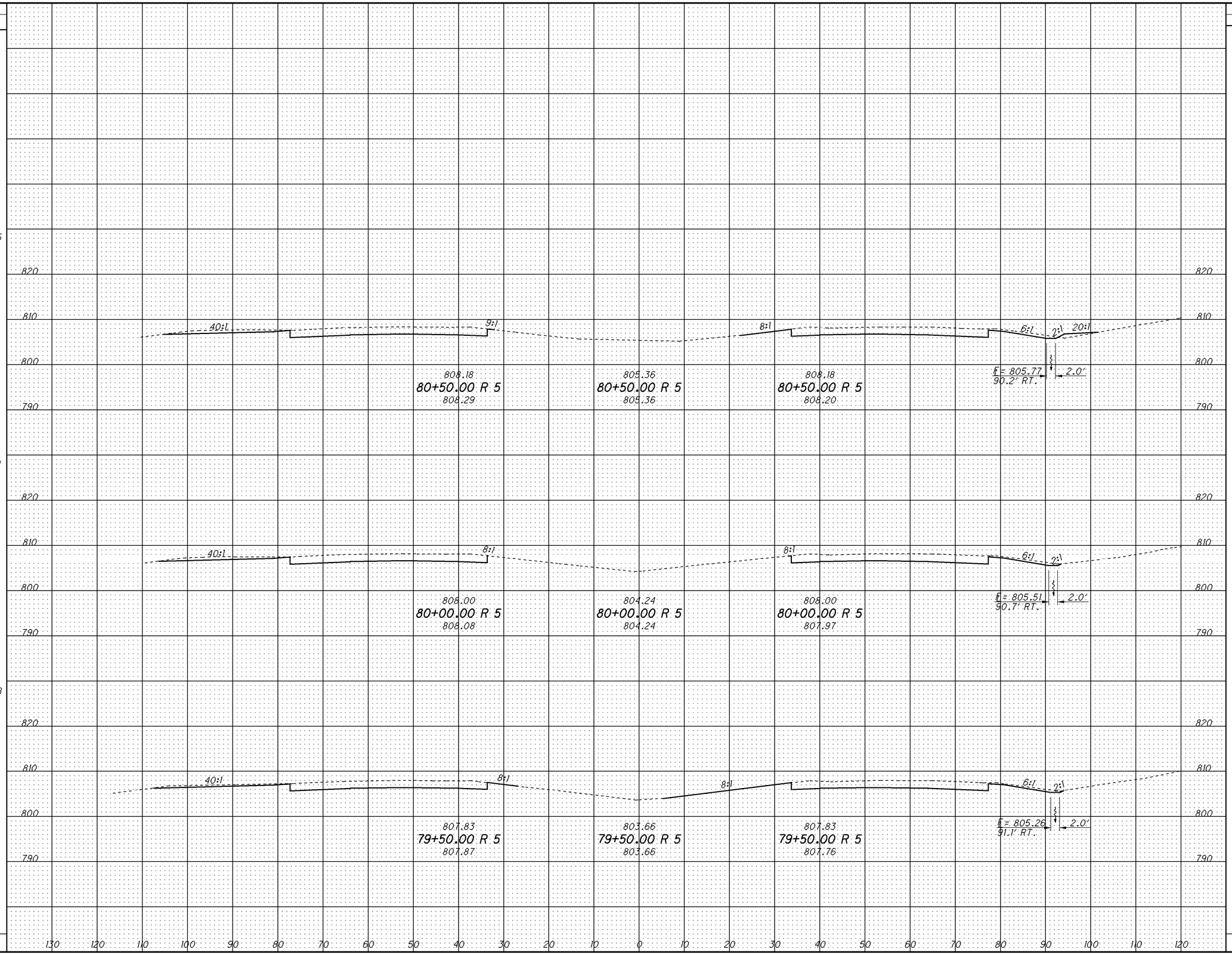
CALCULATED

CHECKED

CROSS SECTIONS
STA. 78+00.00 TO STA. 79+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
91	655	165	5	303	5
72	451	162	0	292	2
108	498	154	2	283	8



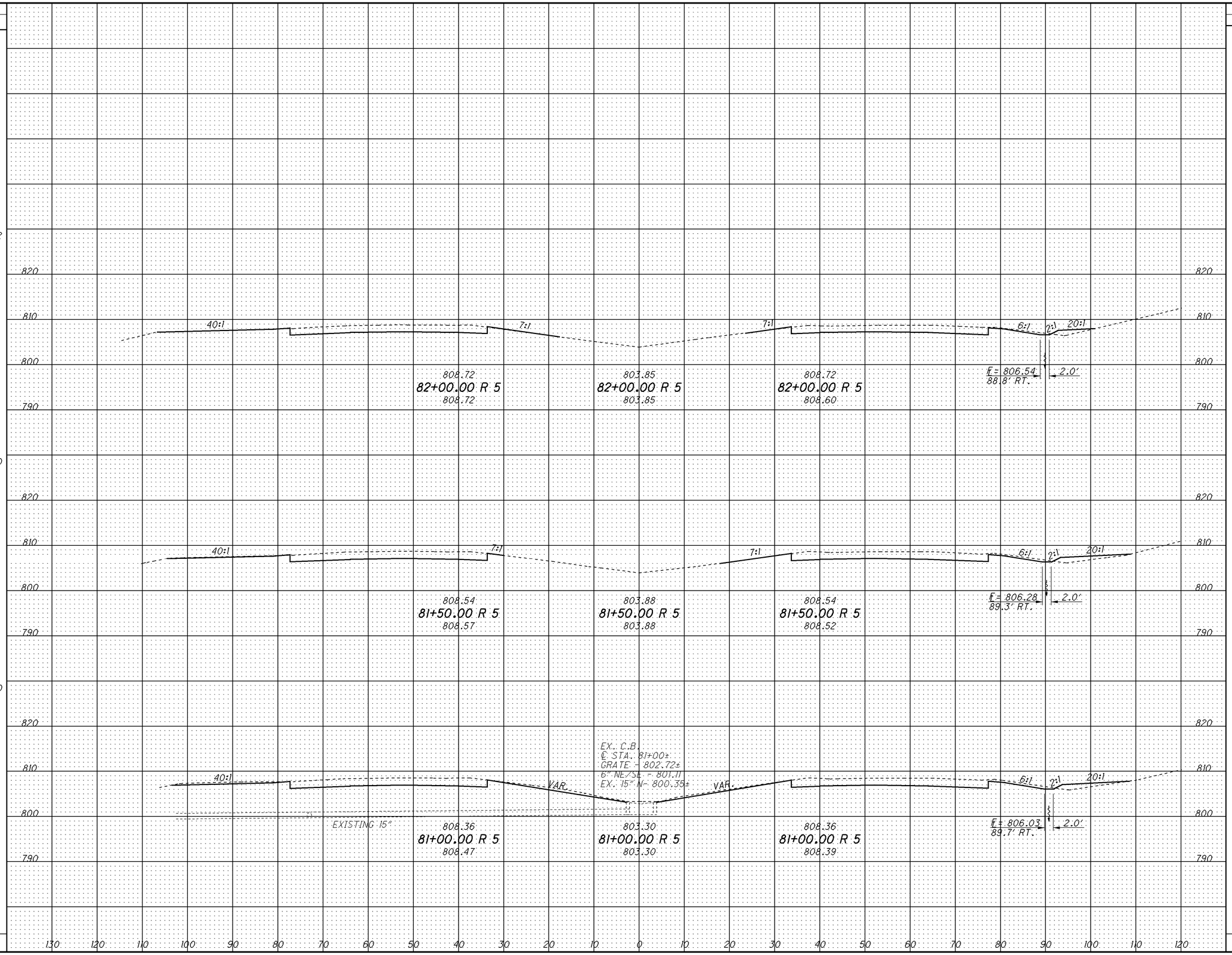
CALCULATED

CHECKED

CROSS SECTIONS
STA. 79+50.00 TO STA. 80+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
105	592	137	10	260	22
103	580	144	13	293	23
145	690	172	11	312	15



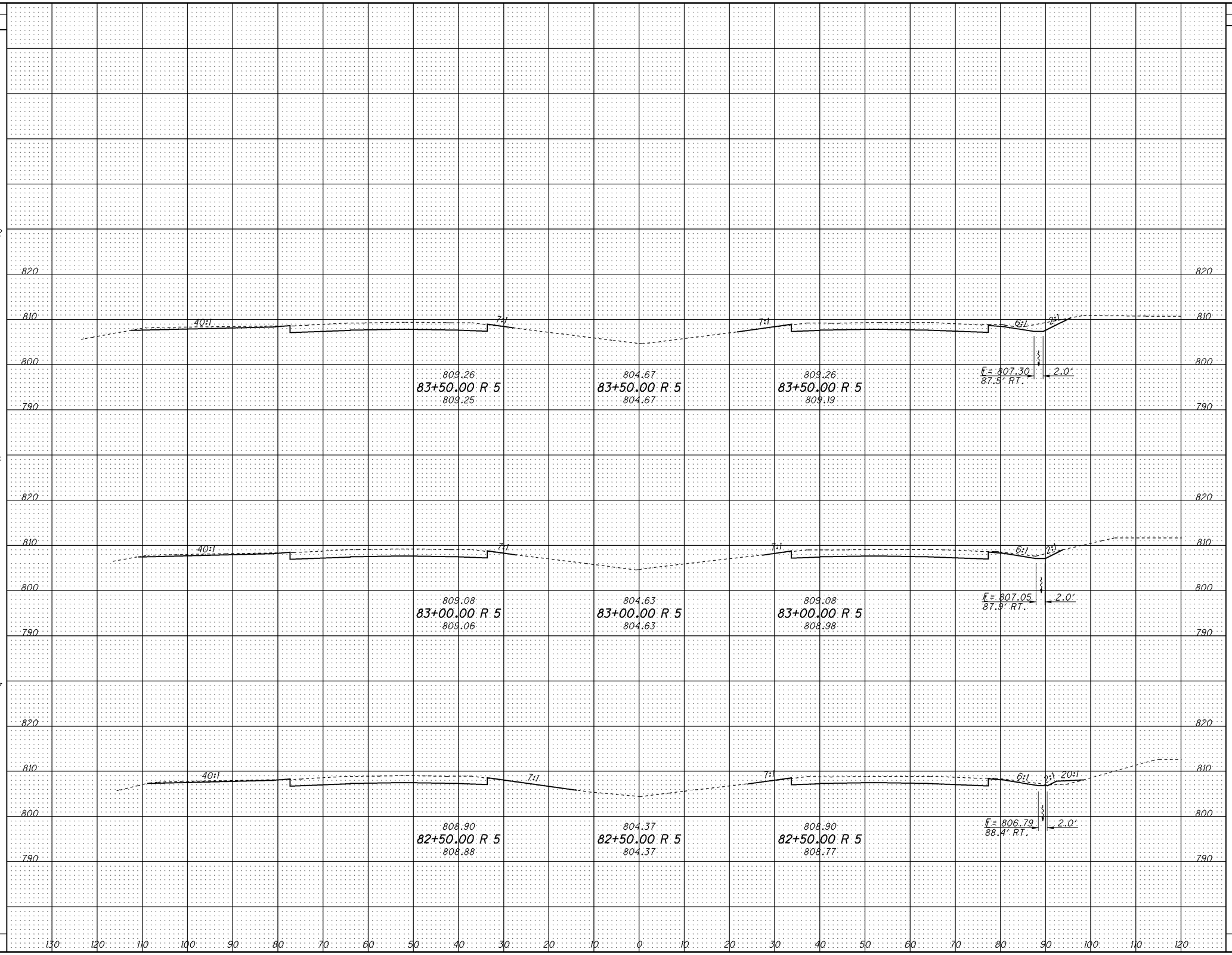
CALCULATED

CHECKED

CROSS SECTIONS
STA. 81+00.00 TO STA. 82+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
98	632	162	1	288	2
89	516	149	1	269	8
108	547	142	7	259	16

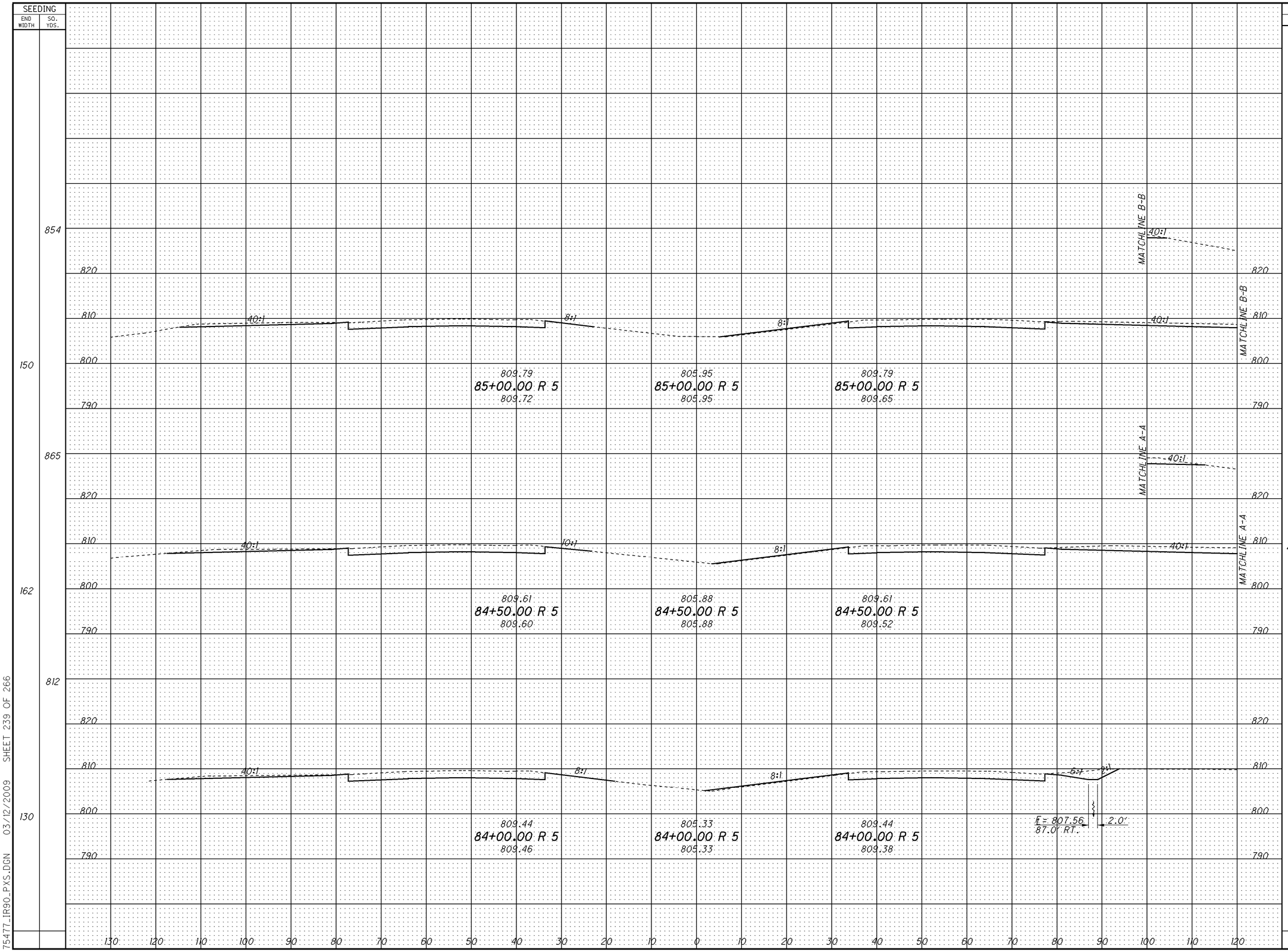


CALCULATED

CHECKED

CROSS SECTIONS
STA. 82+50.00 TO STA. 83+50.00

LAK-90-21.40
ATB-90-0.00



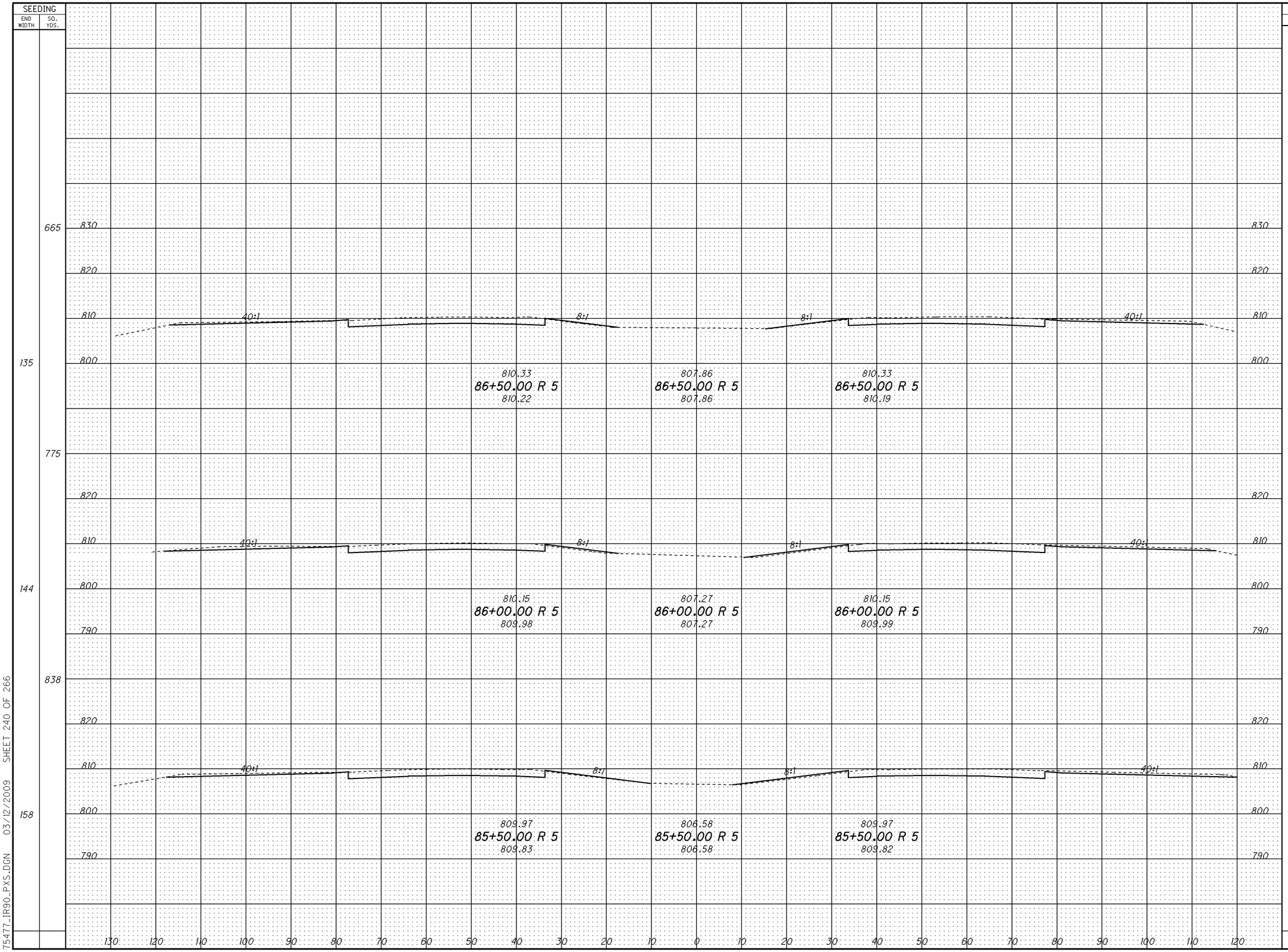
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
173	8	346	13
200	6	340	13
167	8	305	9

CALCULATED

CHECKED

CROSS SECTIONS
STA. 84+00.00 TO STA. 85+00.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
135	665	155	6	288	17
144	775	157	12	293	22
158	838	160	11	308	17

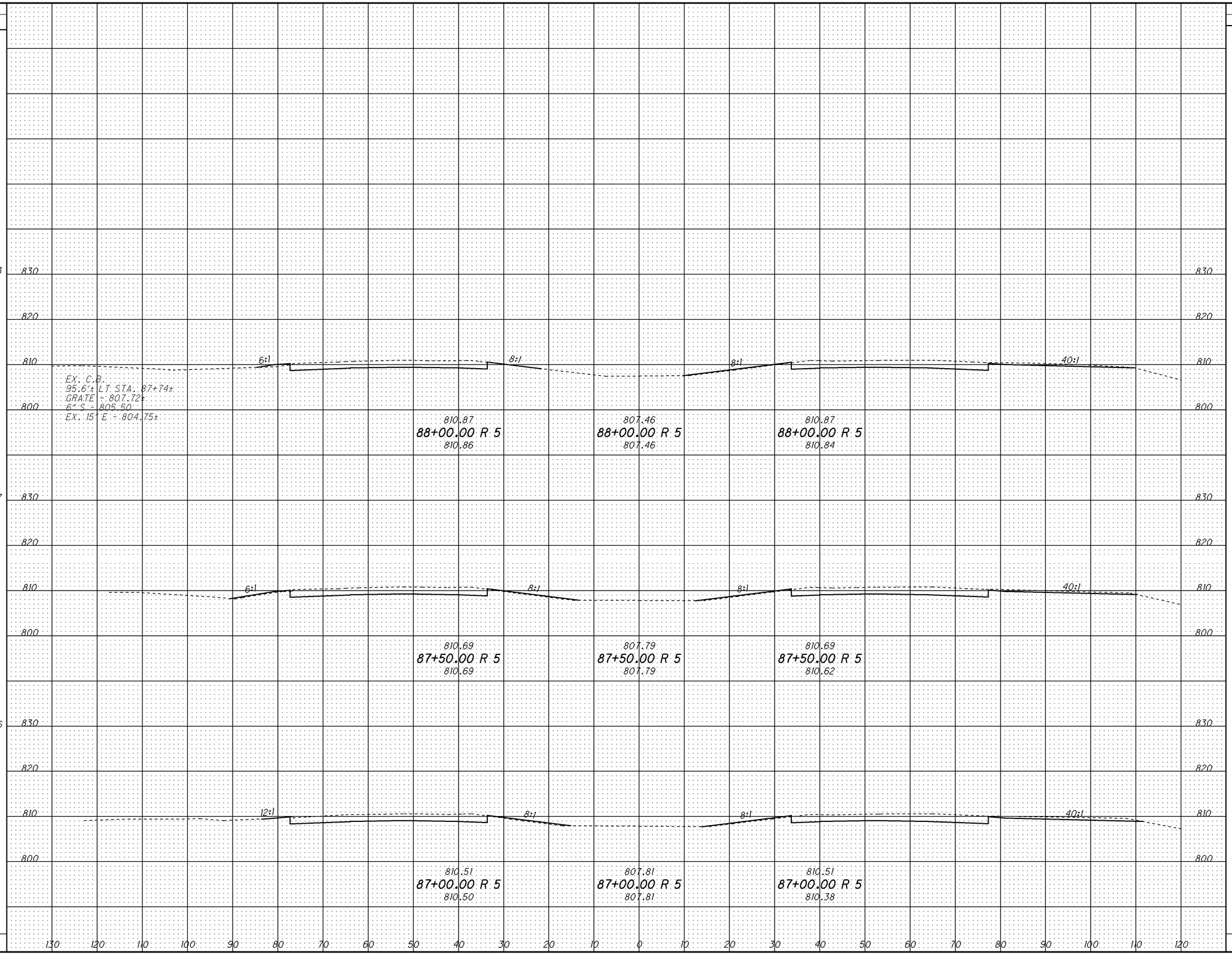
CALCULATED

CHECKED

CROSS SECTIONS
STA. 85+50.00 TO STA. 86+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
101	583	147	8	274	18
114	597	148	11	275	18
105	606	149	8	281	13

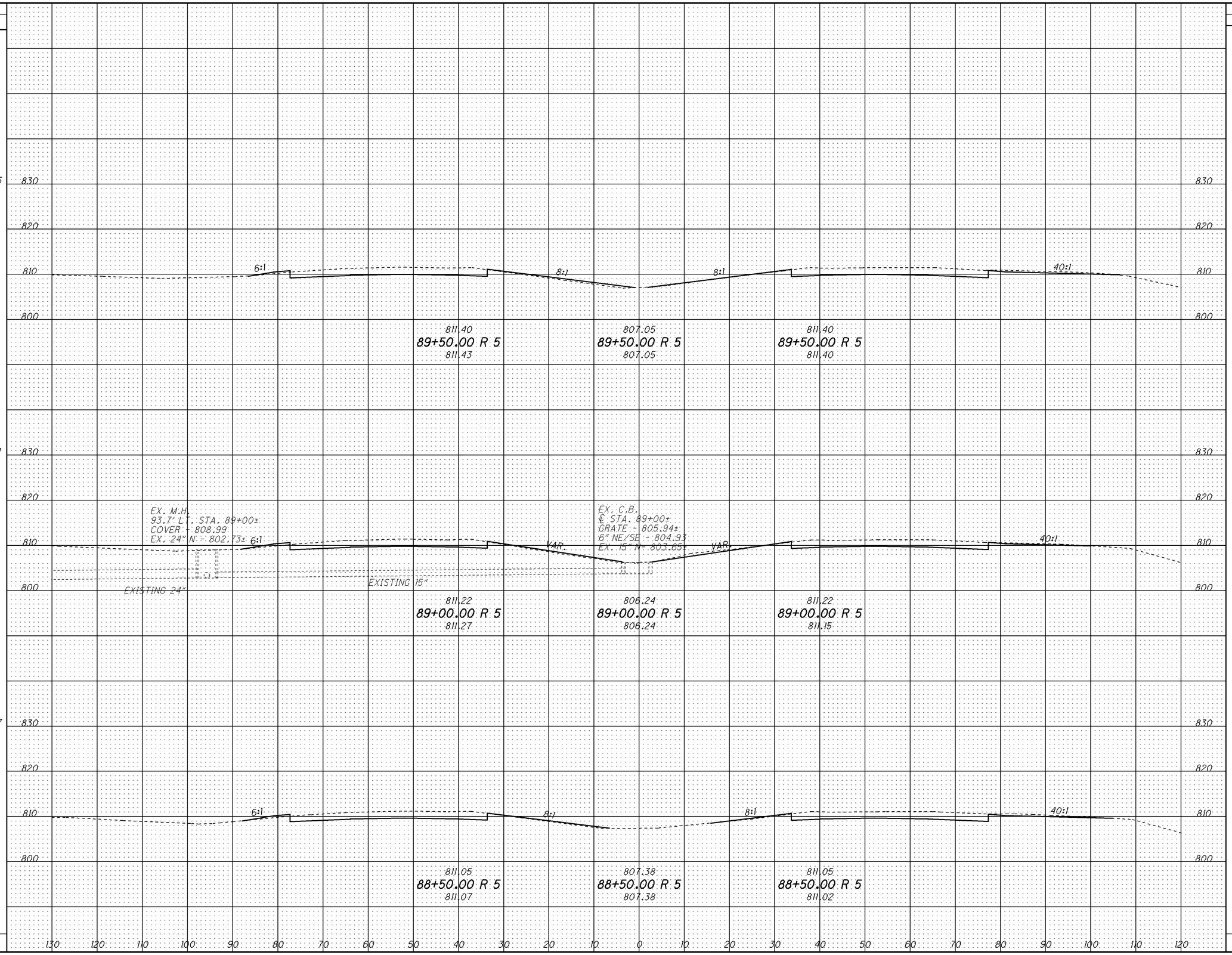


CALCULATED

CHECKED

CROSS SECTIONS
STA. 87+00.00 TO STA. 88+00.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
129	665	145	15	265	25
121	691	141	12	261	22
109	637	141	11	267	18

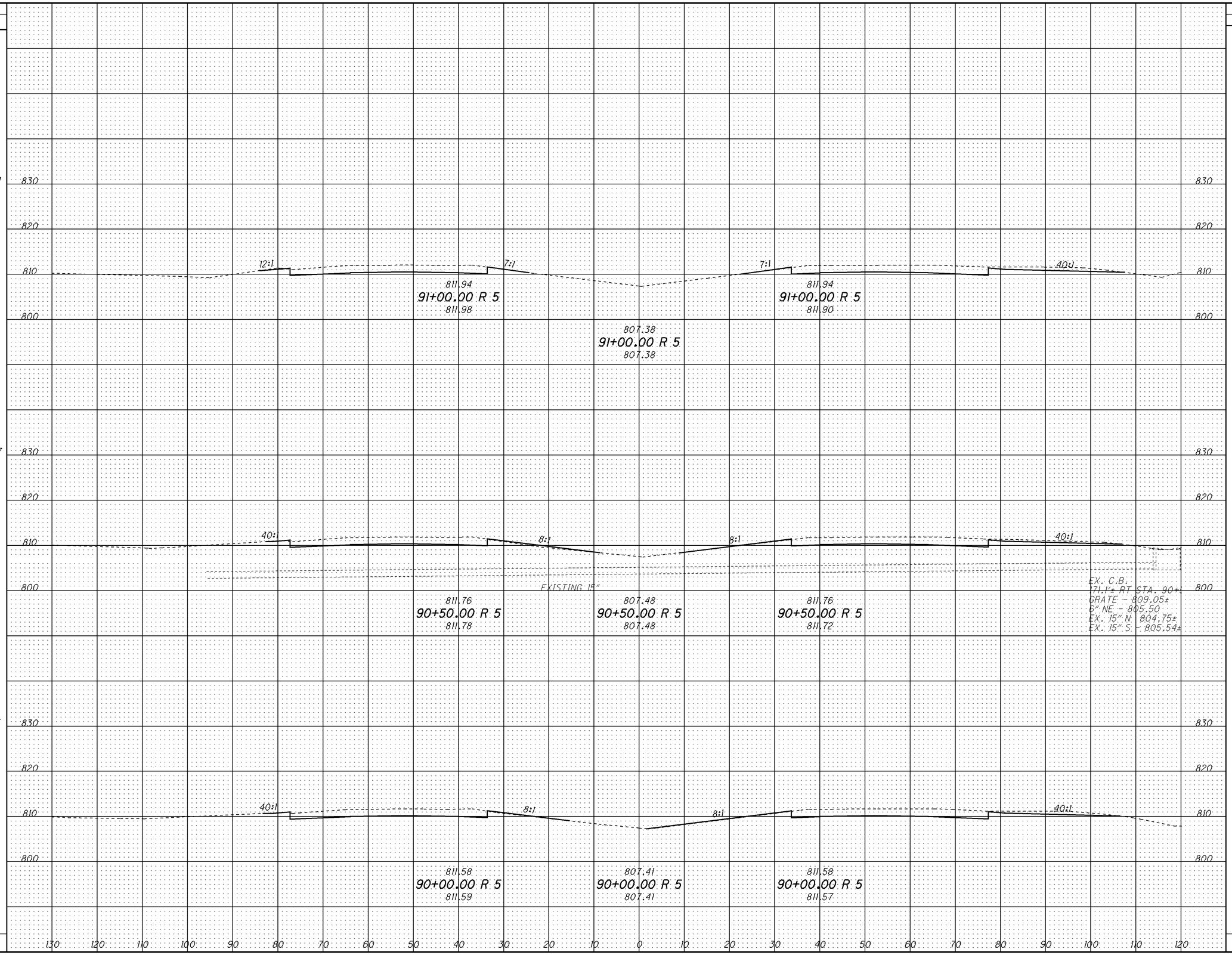
CALCULATED

CHECKED

CROSS SECTIONS
STA. 88+50.00 TO STA. 89+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
83	461	156	2	282	9
110	537	148	8	278	14
111	615	152	7	275	20

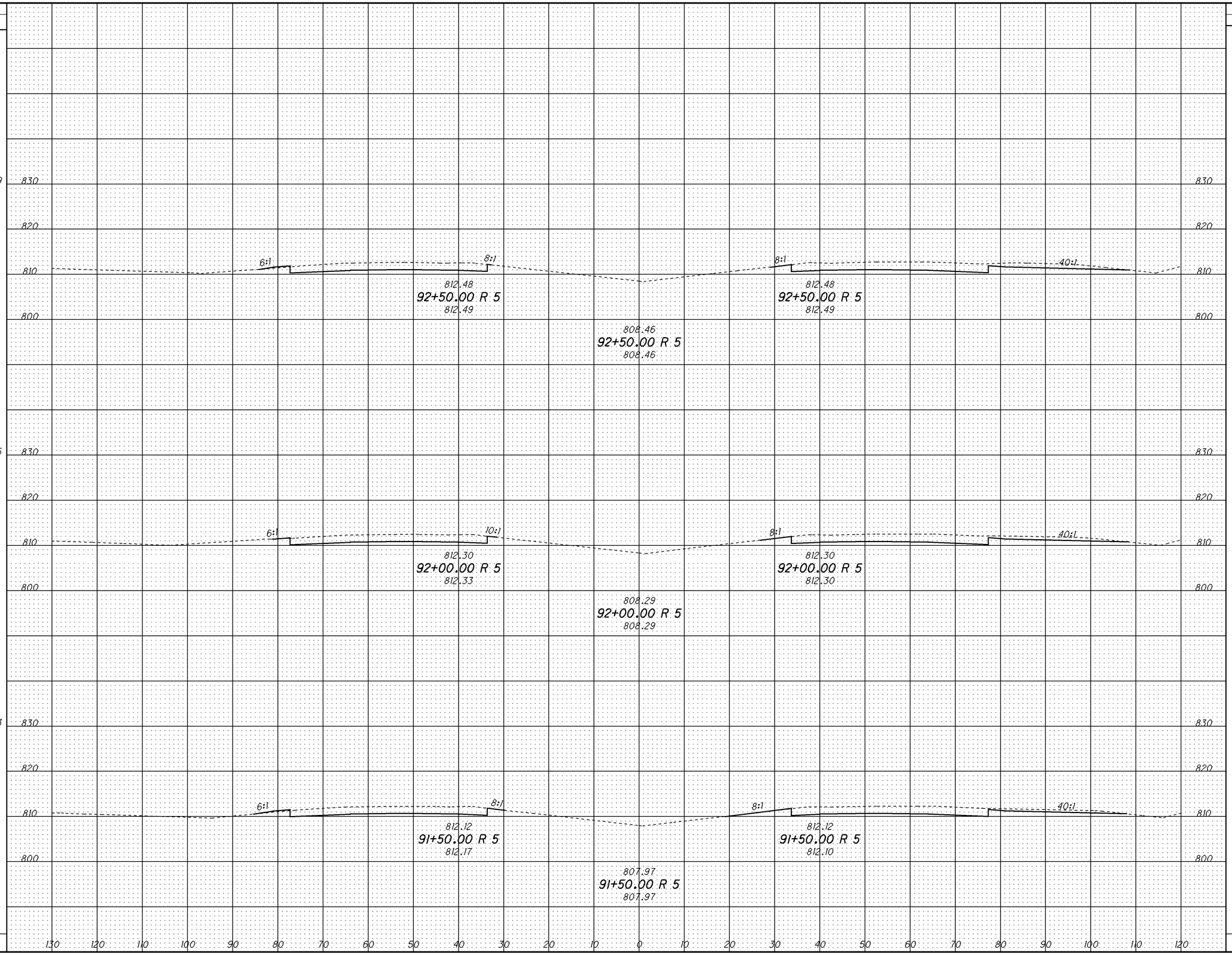


CALCULATED

CHECKED

CROSS SECTIONS
STA. 90+00.00 TO STA. 91+00.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
69	399	168	2	305	2
70	385	162	1	292	3
83	423	154	3	287	4

CALCULATED

CHECKED

CROSS SECTIONS
STA. 91+50.00 TO STA. 92+50.00

LAK-90-21.40
ATB-90-0.00

398
498

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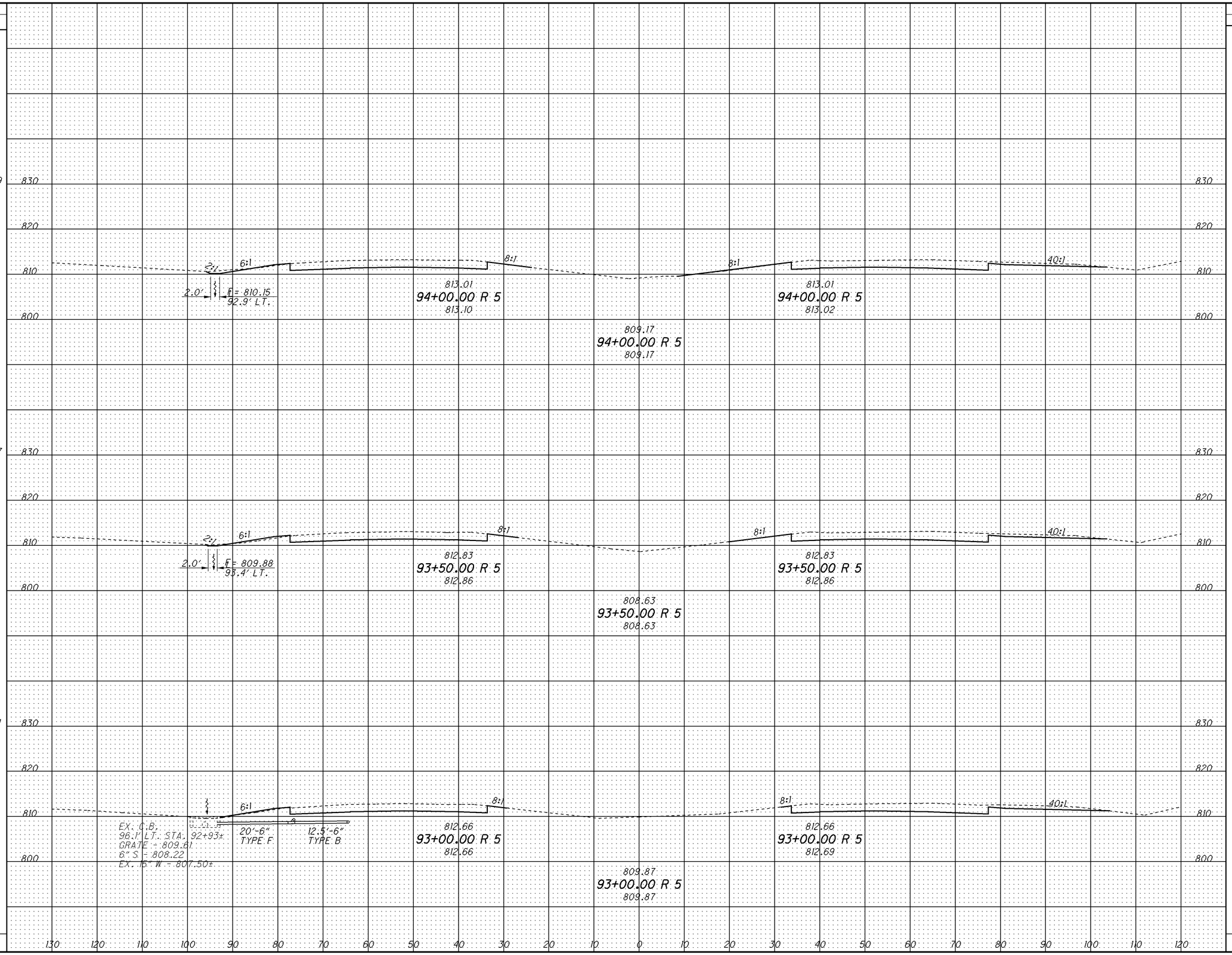
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
105	539	159	5	293	9
92	461	157	5	295	8
75	547	161	4	305	5

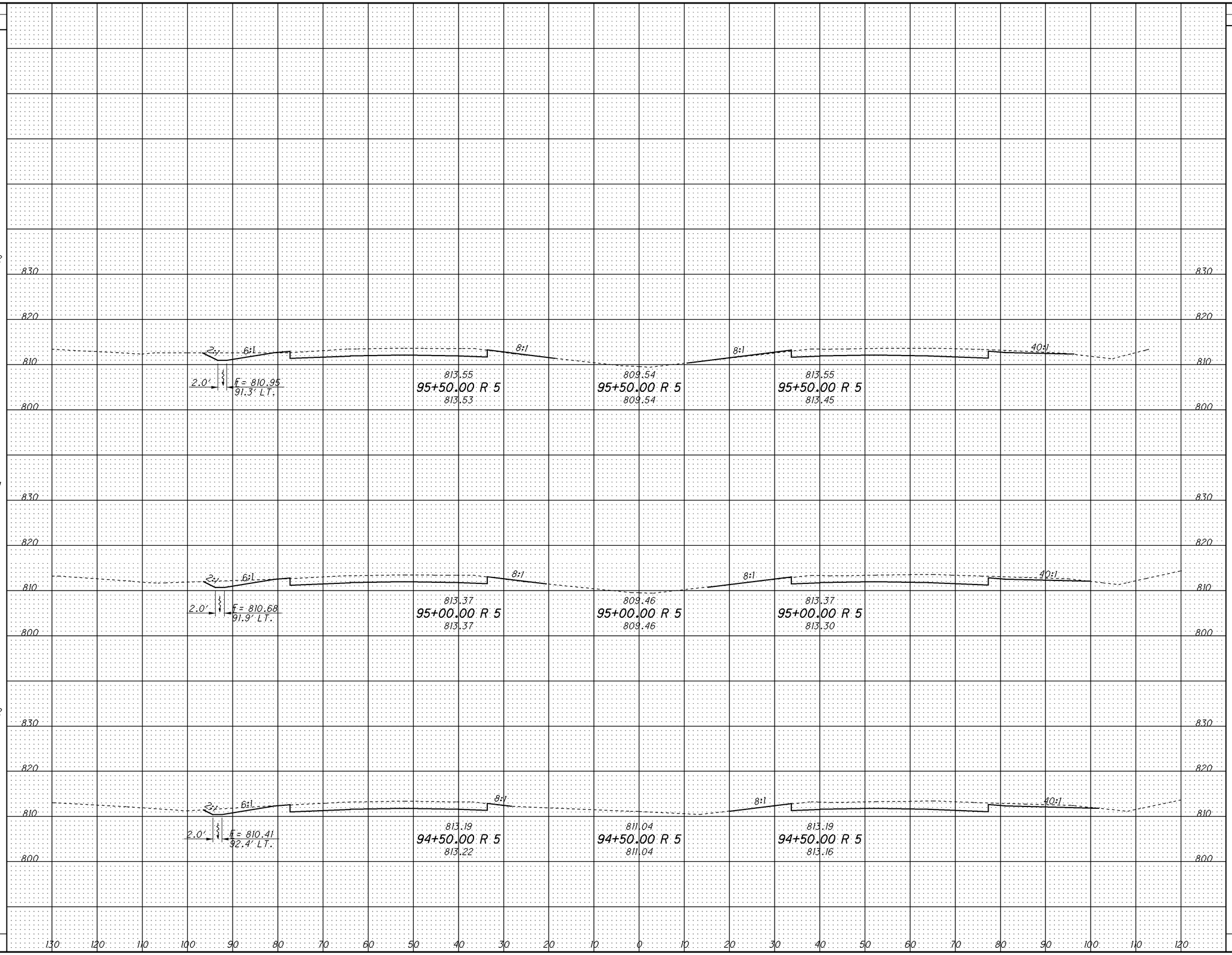


CALCULATED

CHECKED

CROSS SECTIONS
STA. 93+00.00 TO STA. 94+00.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
103	552	156	5	294	7
99	561	161	3	302	4
89	522	165	2	300	6

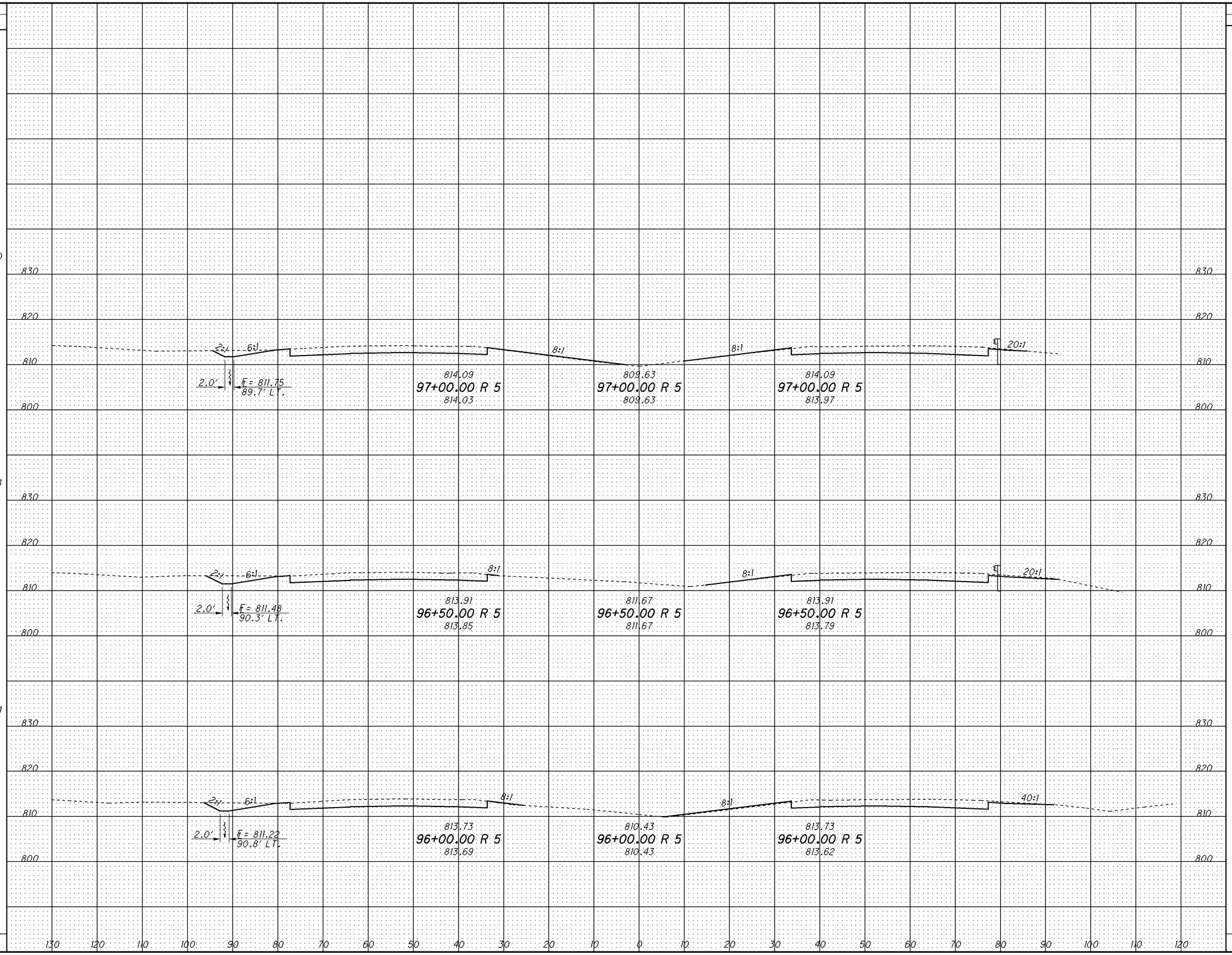
CALCULATED

CHECKED

CROSS SECTIONS
STA. 94+50.00 TO STA. 95+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
106	620	150	5	286	7
81	523	159	2	291	9
97	494	155	7	289	11



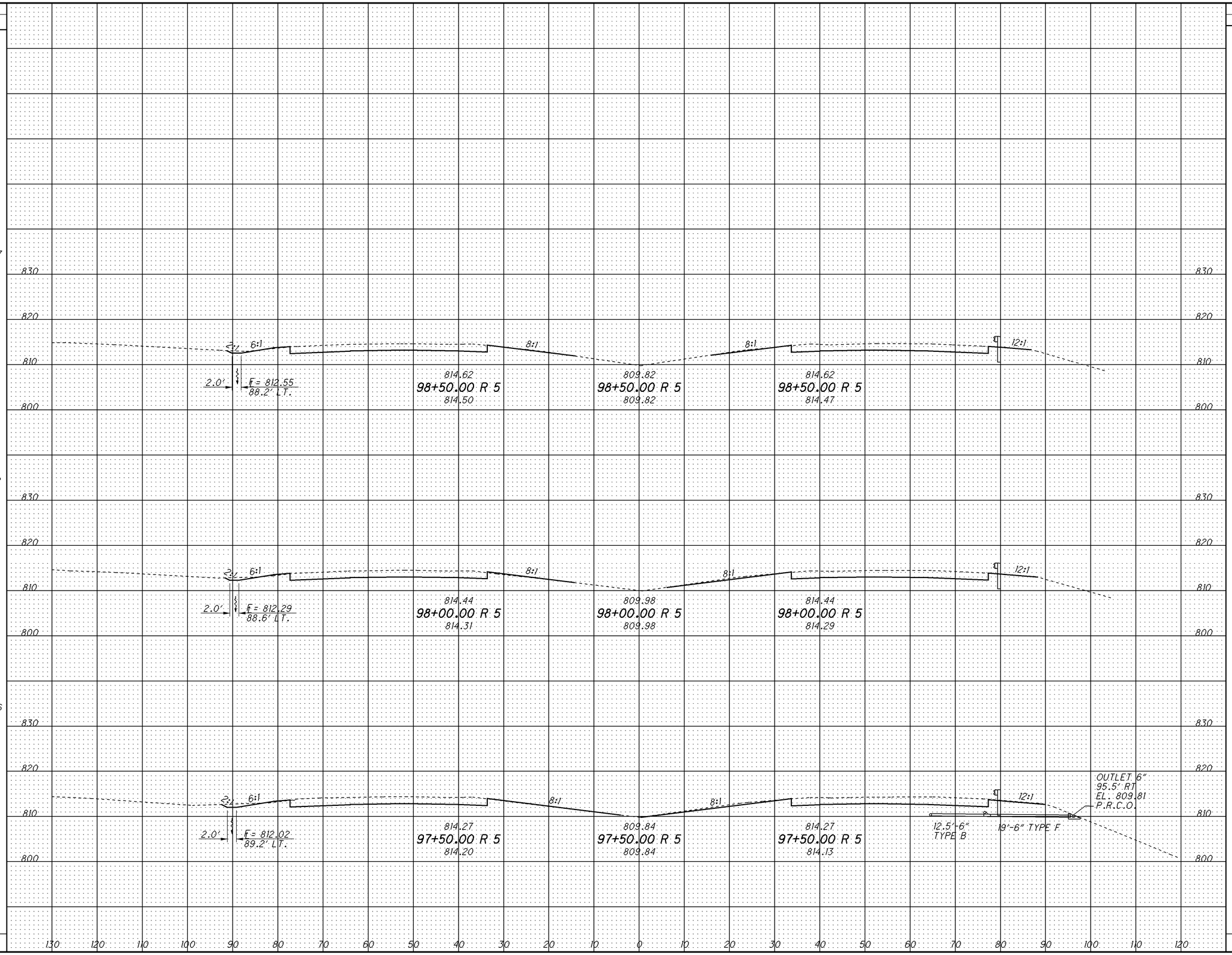
CALCULATED

CHECKED

CROSS SECTIONS
STA. 96+00.00 TO STA. 97+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
86	547	135	2	251	5
98	512	136	4	262	6
117	596	147	3	275	8



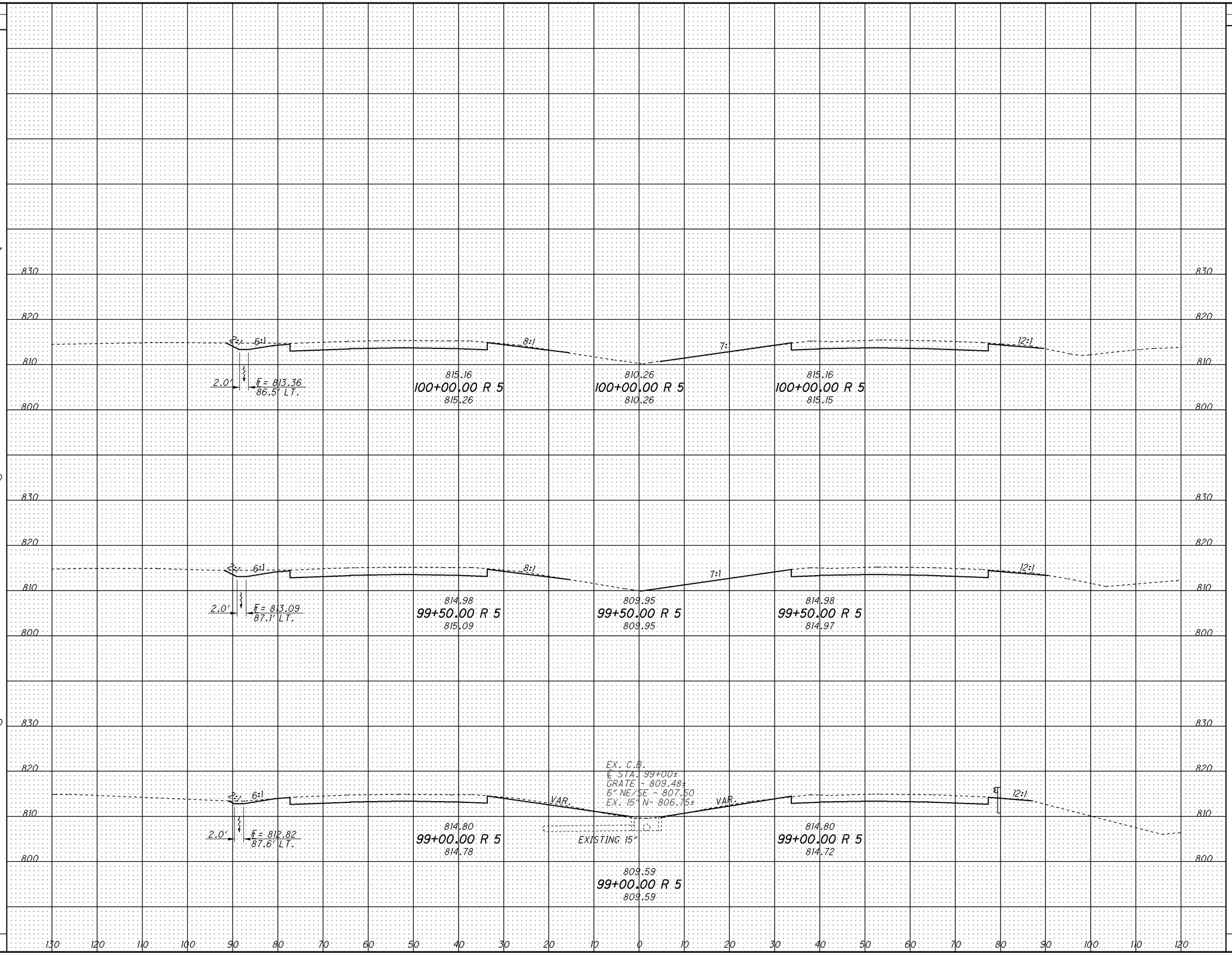
CALCULATED

CHECKED

CROSS SECTIONS
STA. 97+50.00 TO STA. 98+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
99	427	164	3	303	4
106	570	164	1	292	3
111	600	151	2	265	4



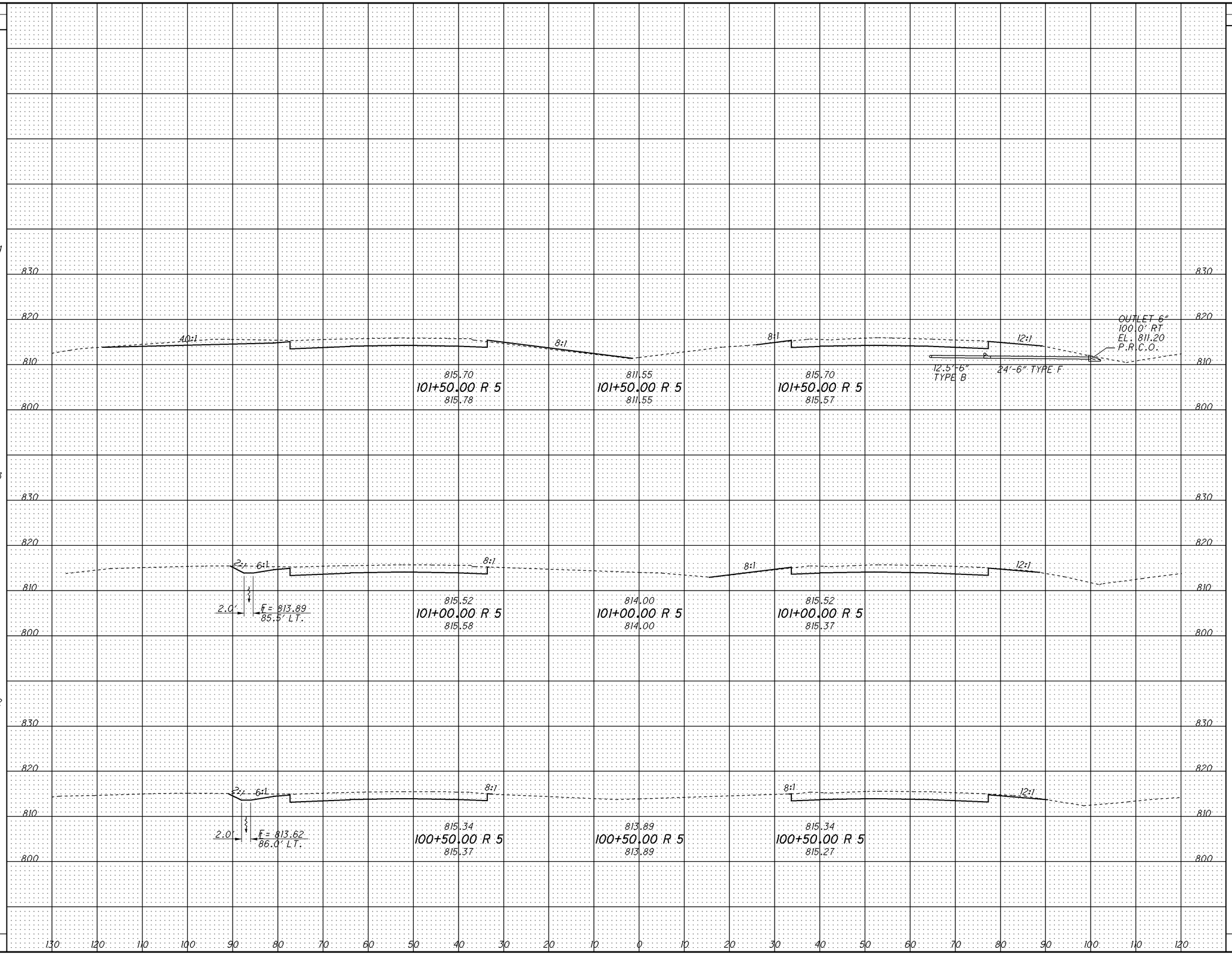
CALCULATED

CHECKED

CROSS SECTIONS
STA. 99+00.00 TO STA. 100+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
119	584	167	8	297	10
69	523	154	3	288	3
54	342	158	0	298	3



CALCULATED

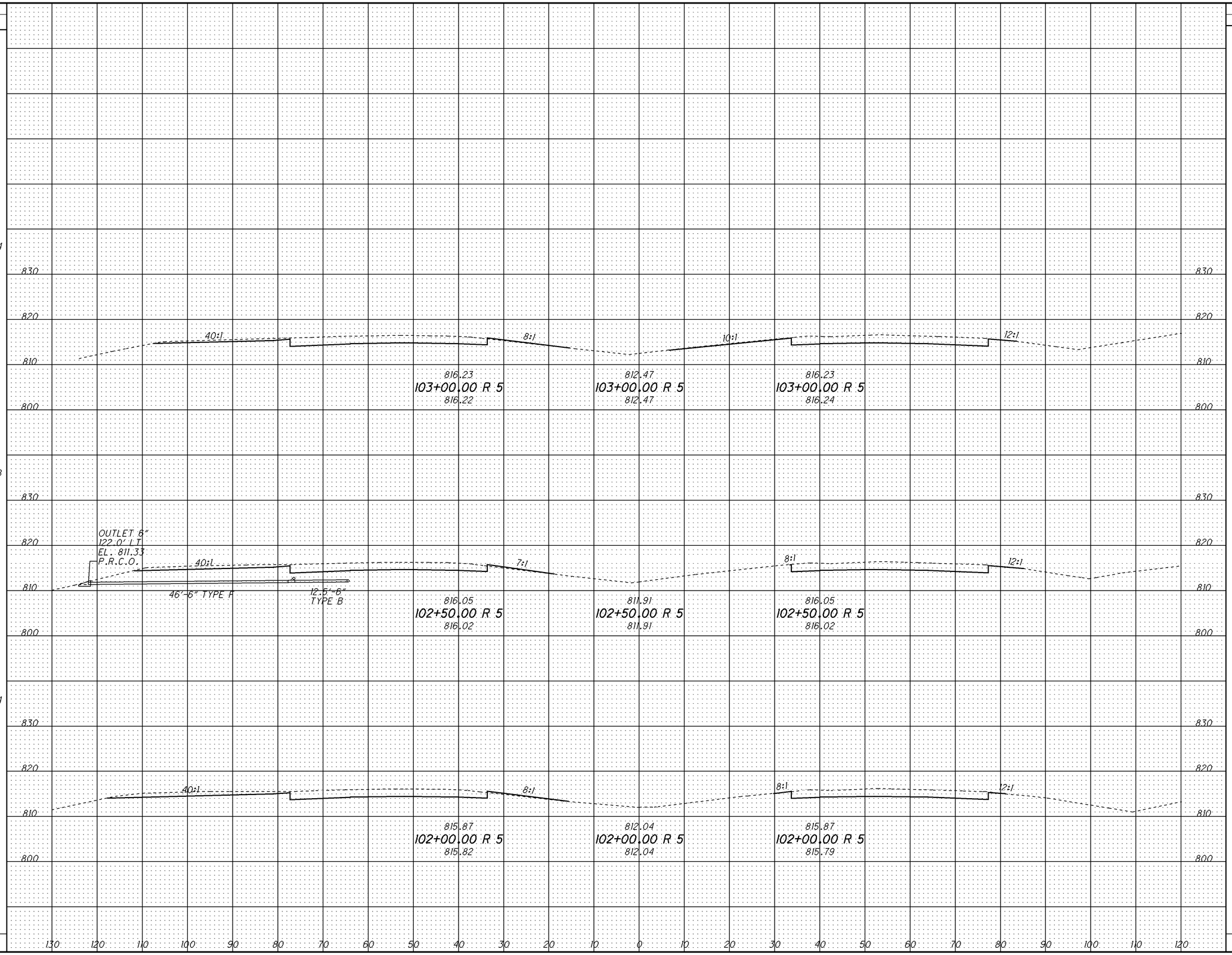
CHECKED

CROSS SECTIONS

STA. 100+50.00 TO STA. 101+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
107	504	159	2	300	4
83	528	165	2	311	5
91	484	170	3	313	10



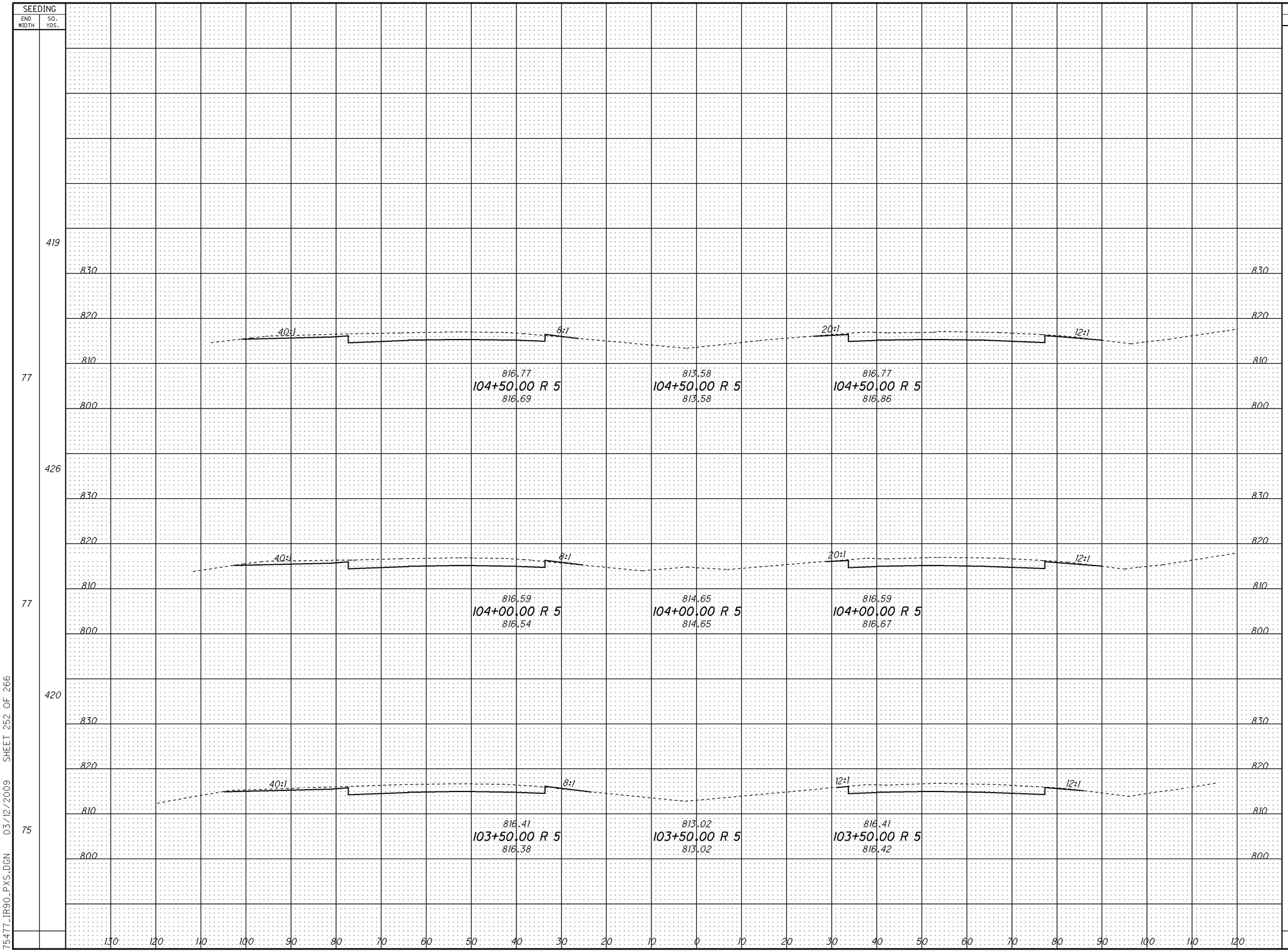
CALCULATED

CHECKED

CROSS SECTIONS

STA. 102+00.00 TO STA. 103+00.00

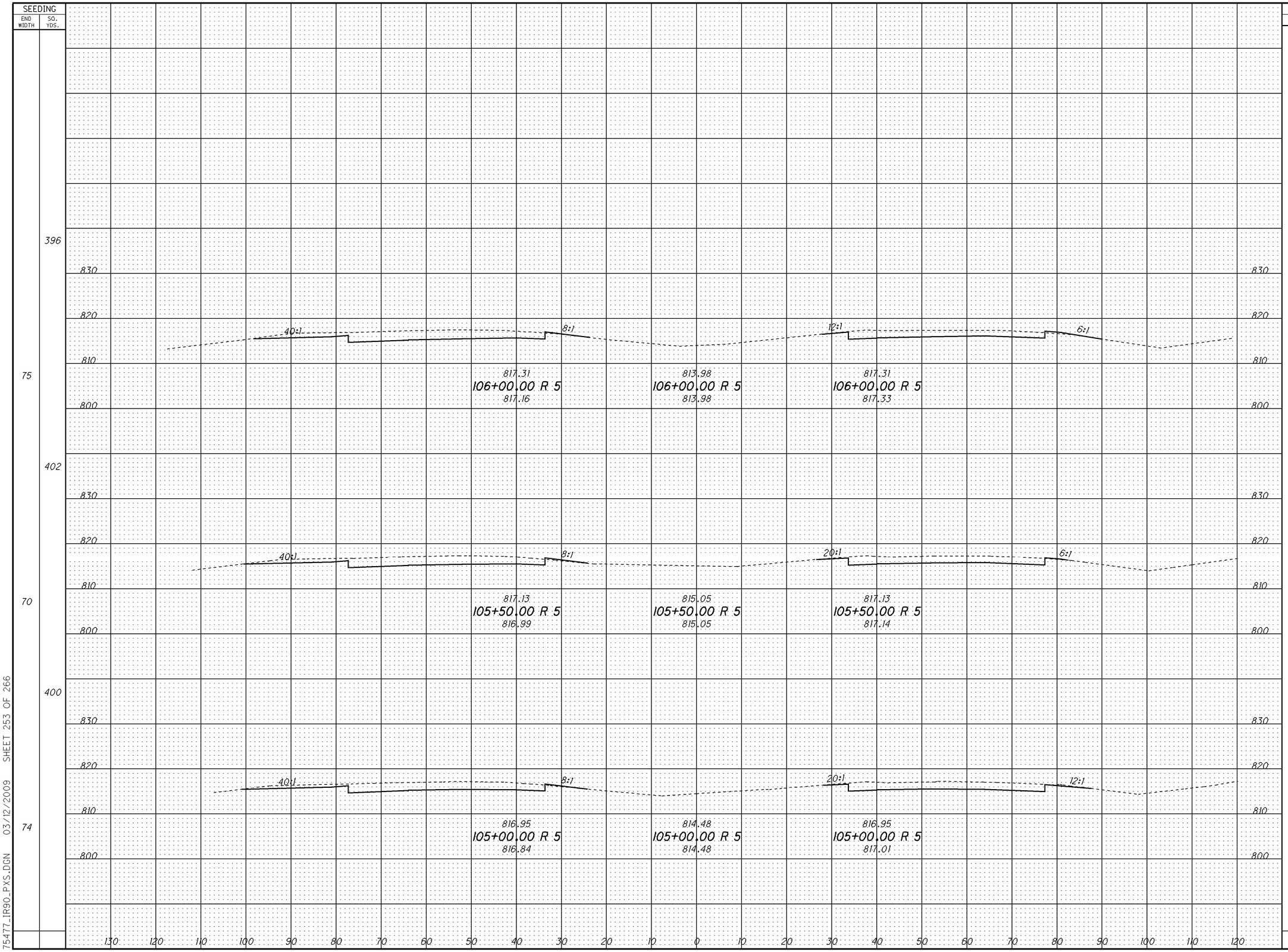
LAK-90-21.40
ATB-90-0.00



CROSS SECTIONS
STA. 103+50.00 TO STA. 104+50.00

LAK-90-21.40
ATB-90-0.00

406
498



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
160	3		
		296	5
159	2		
		295	3
159	1		
		298	2

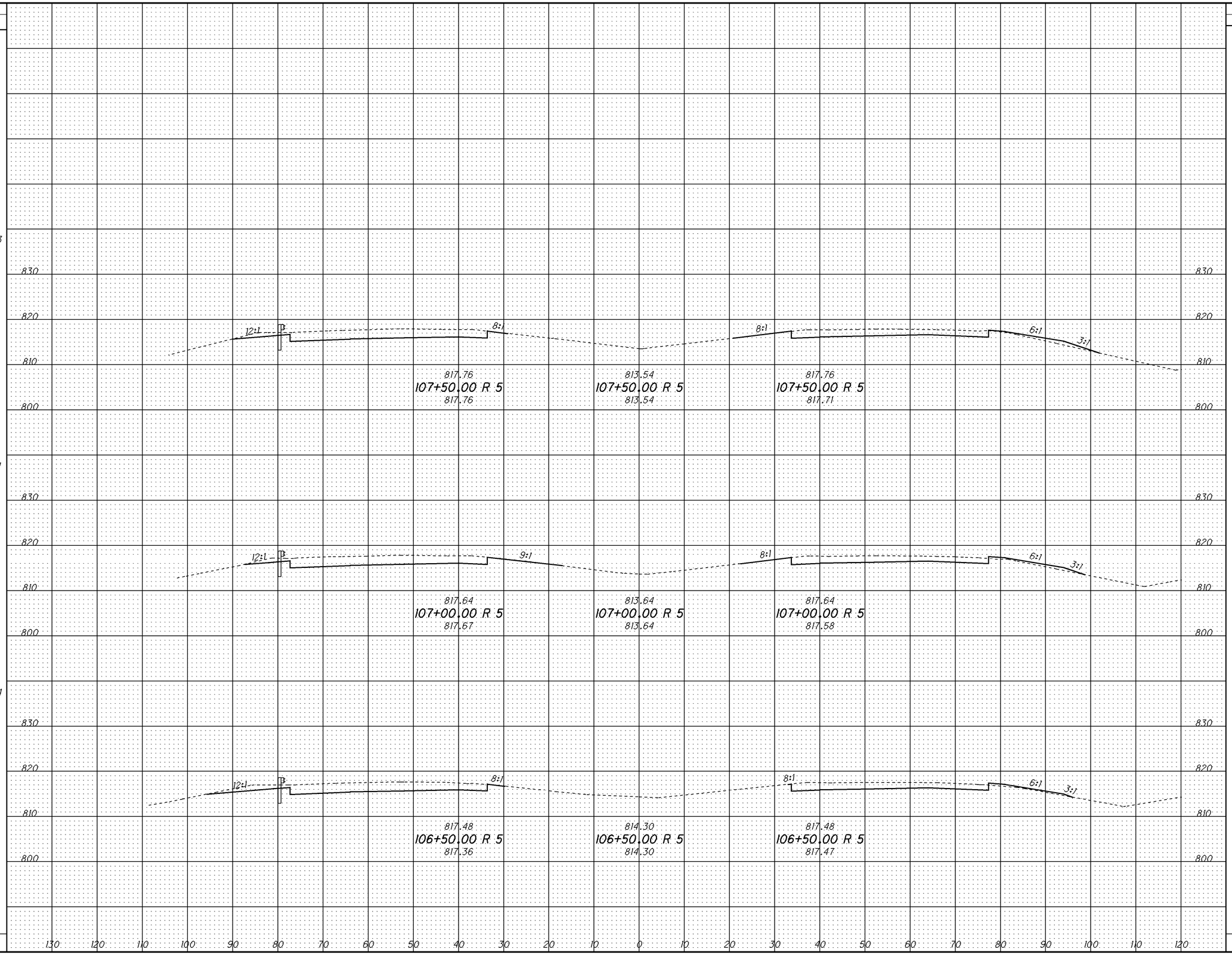
CALCULATED

CHECKED

CROSS SECTIONS
STA. 105+00.00 TO STA. 106+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
81	433	150	11	277	19
85	461	149	9	282	13
67	424	156	6	293	8



CALCULATED

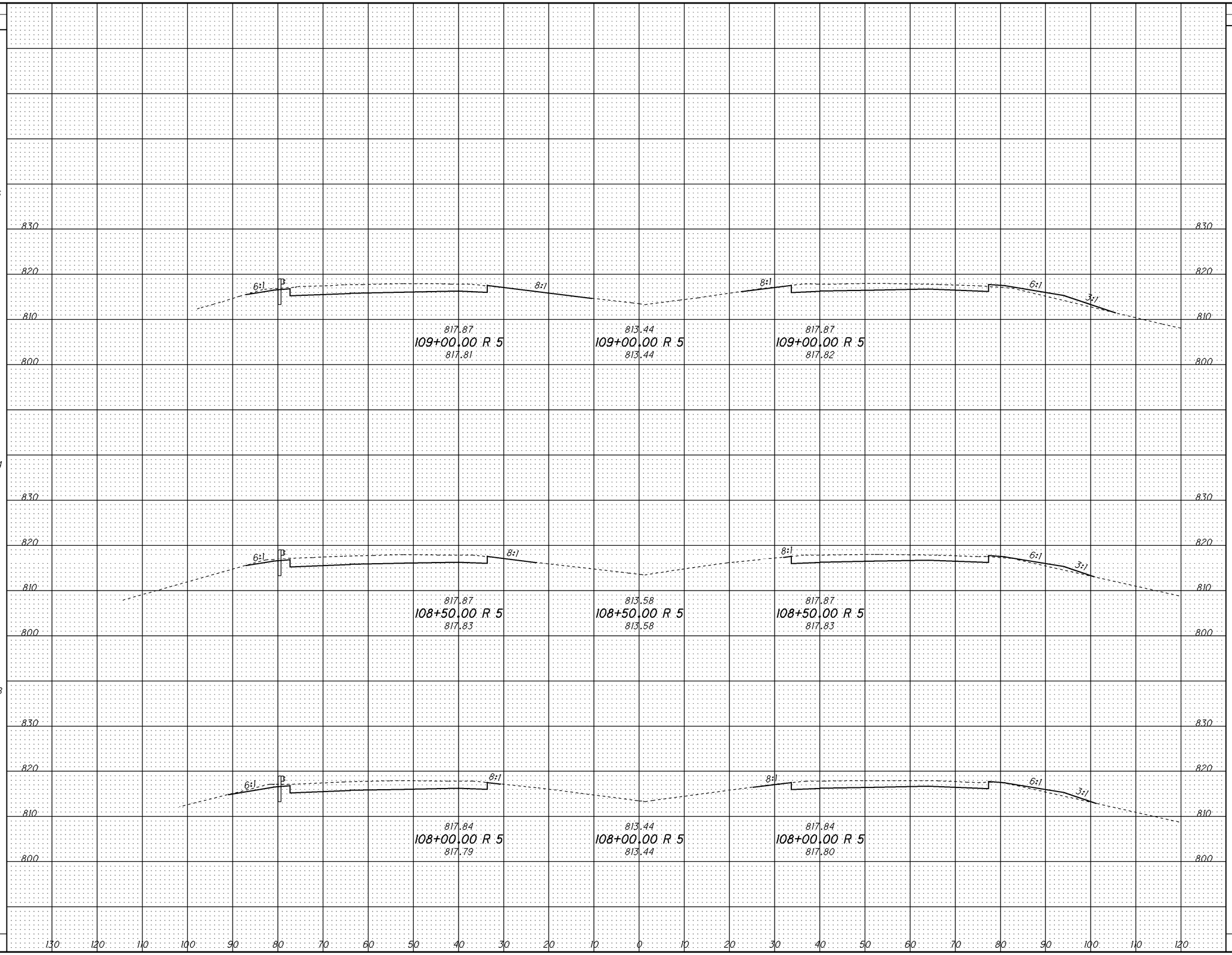
CHECKED

CROSS SECTIONS

STA. 106+50.00 TO STA. 107+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
99	616	141	18	262	25
72	474	142	9	268	16
76	408	148	9	275	18



CALCULATED

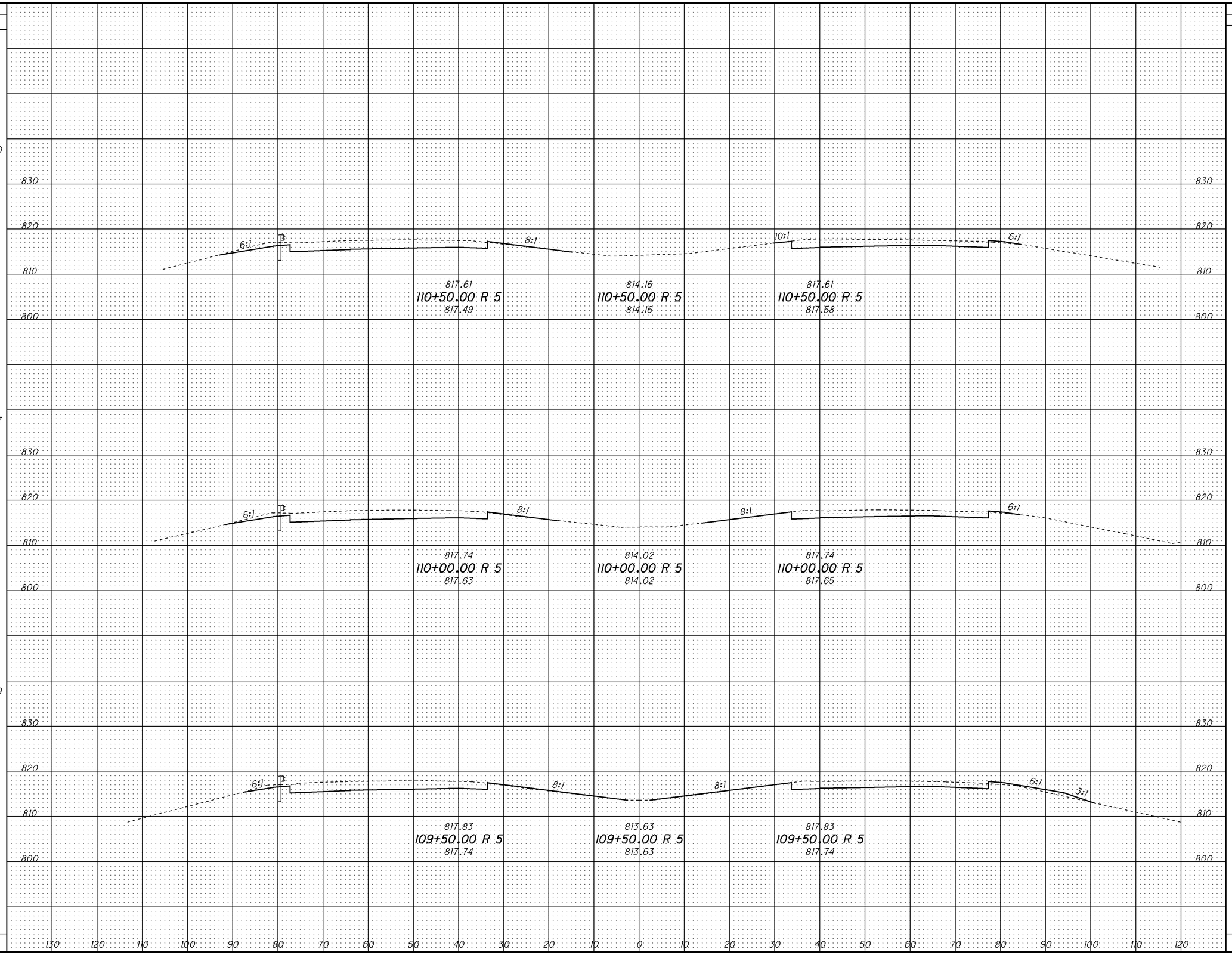
CHECKED

CROSS SECTIONS

STA. 108+00.00 TO STA. 109+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
72	370	147	4	271	7
83	427	146	4	267	21
122	569	143	19	262	34



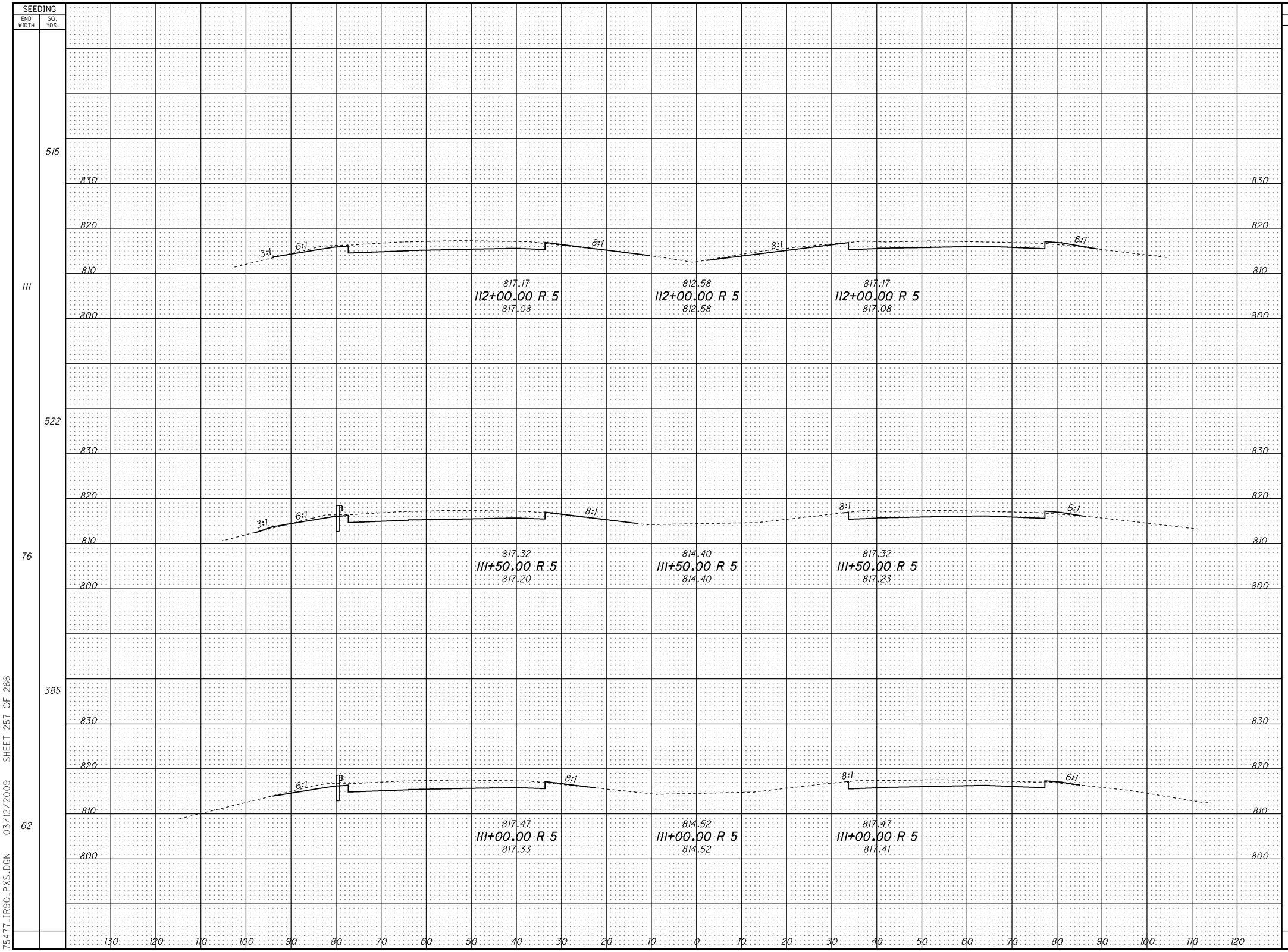
CALCULATED

CHECKED

CROSS SECTIONS

STA. 109+50.00 TO STA. 110+50.00

LAK-90-21.40
ATB-90-0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
147	5		
		265	10
139	6		
		262	7
144	2		
		269	6

CALCULATED

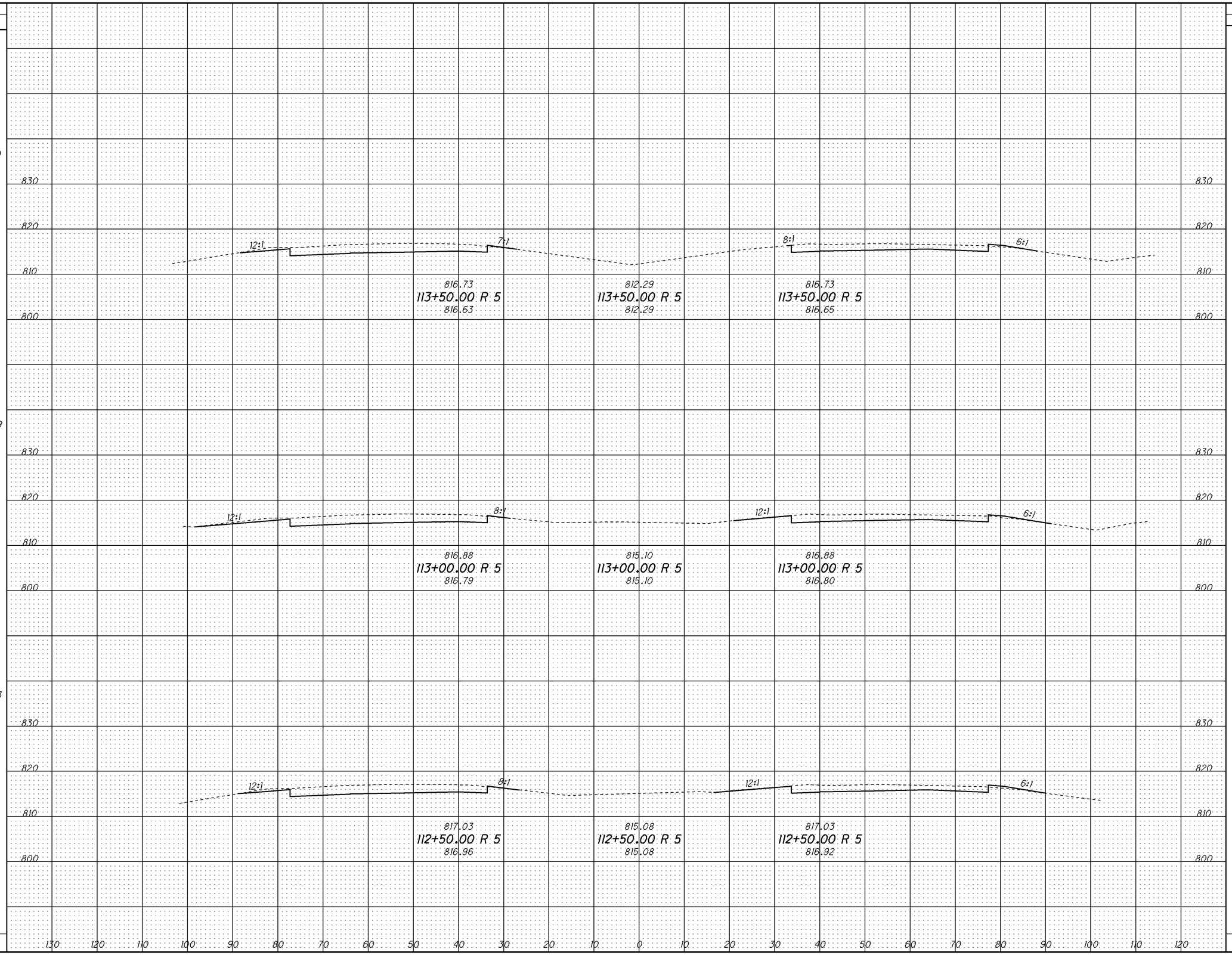
CHECKED

CROSS SECTIONS

STA. 111+00.00 TO STA. 112+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
54	310	138	3	259	5
78	369	142	3	260	6
74	423	139	4	265	8



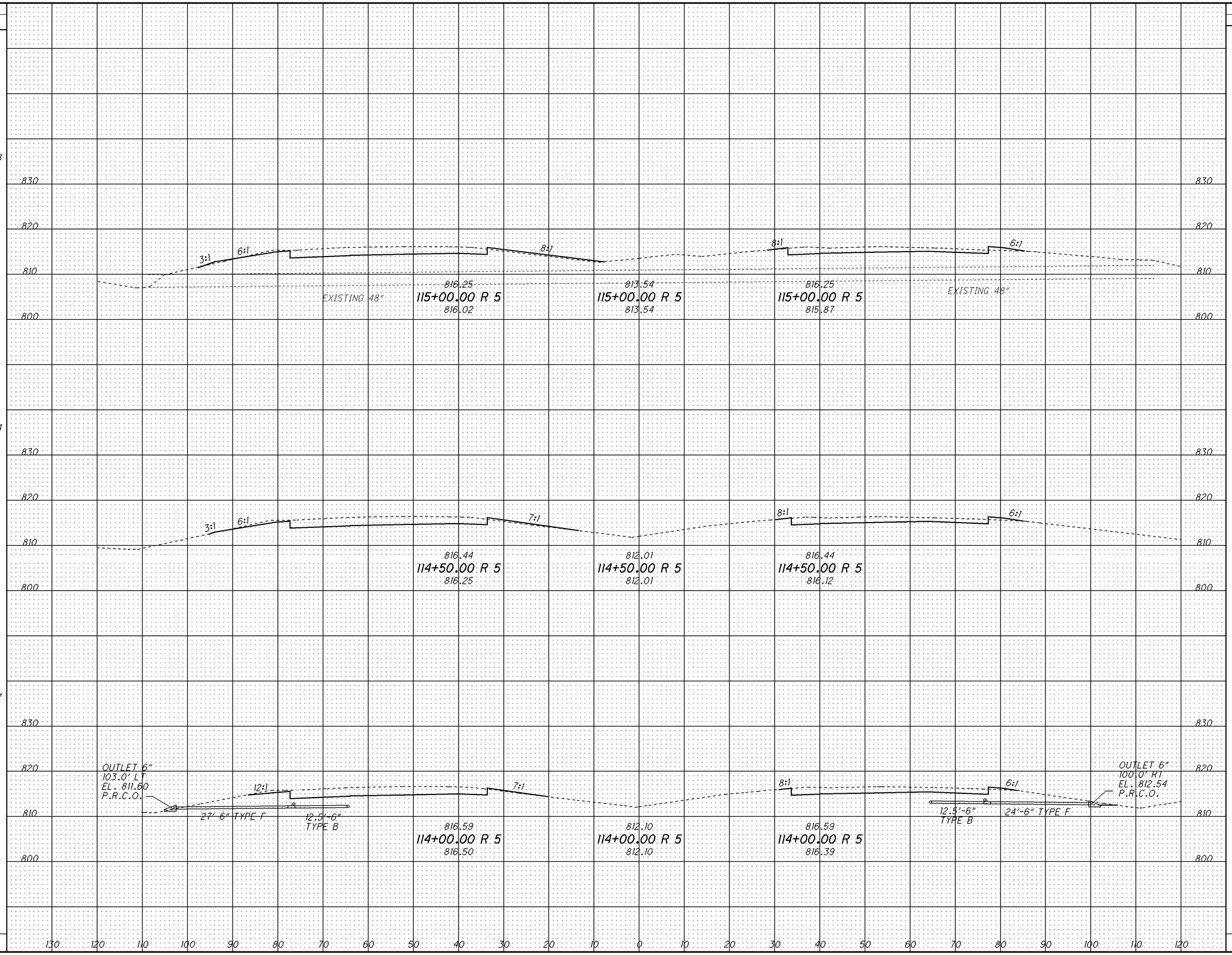
CALCULATED

CHECKED

CROSS SECTIONS
STA. 112+50.00 TO STA. 113+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
84	648	121	14	229	20
75	444	126	8	241	11
57	367	133	4	251	6



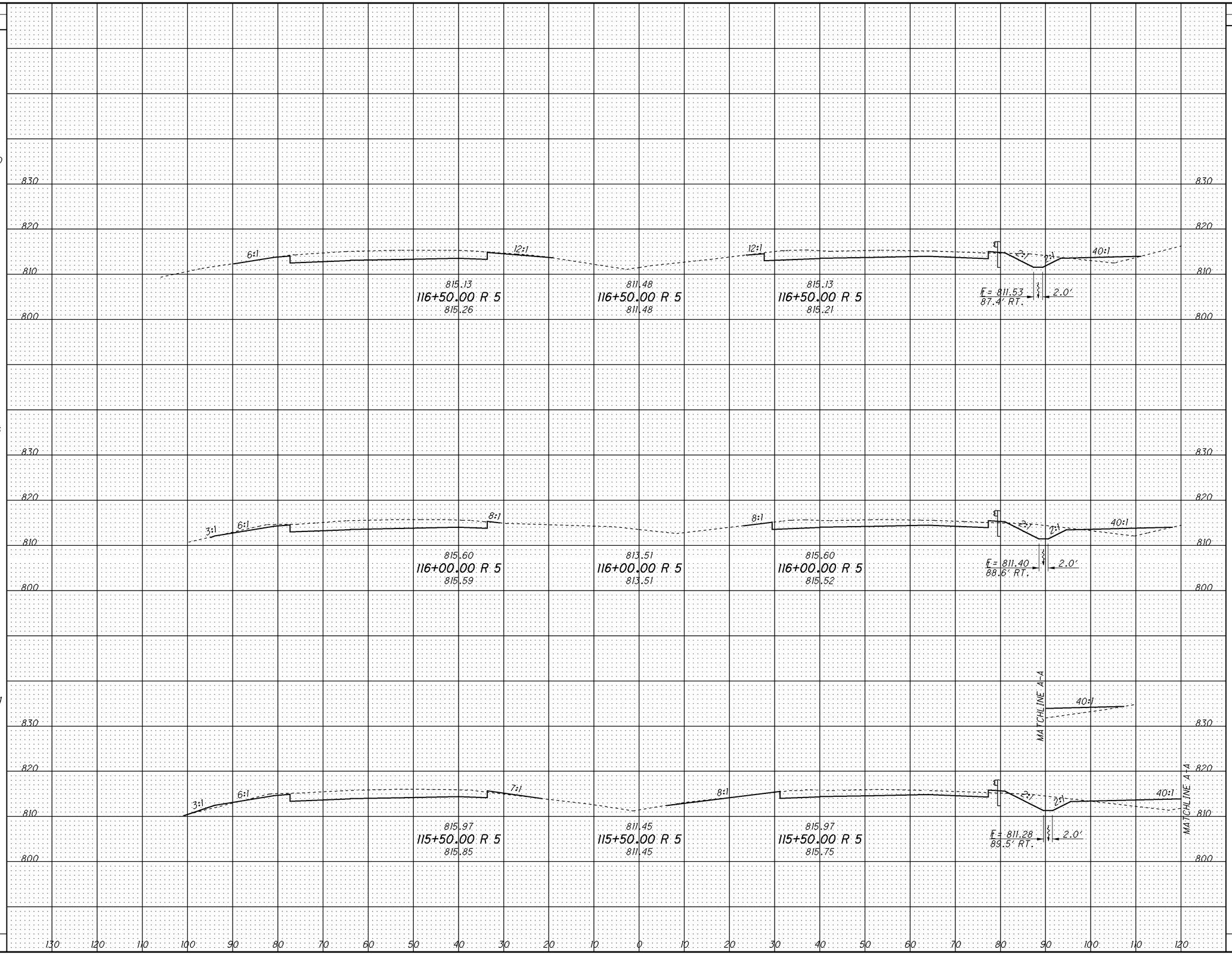
CALCULATED

CHECKED

CROSS SECTIONS
STA. 114+00.00 TO STA. 115+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
92	560	183	12	331	29
94	516	174	19	312	69
148	674	163	55	263	64



CALCULATED

CHECKED

CROSS SECTIONS
STA. 115+50.00 TO STA. 116+50.00

LAK-90-21.40
ATB-90-0.00

414
498

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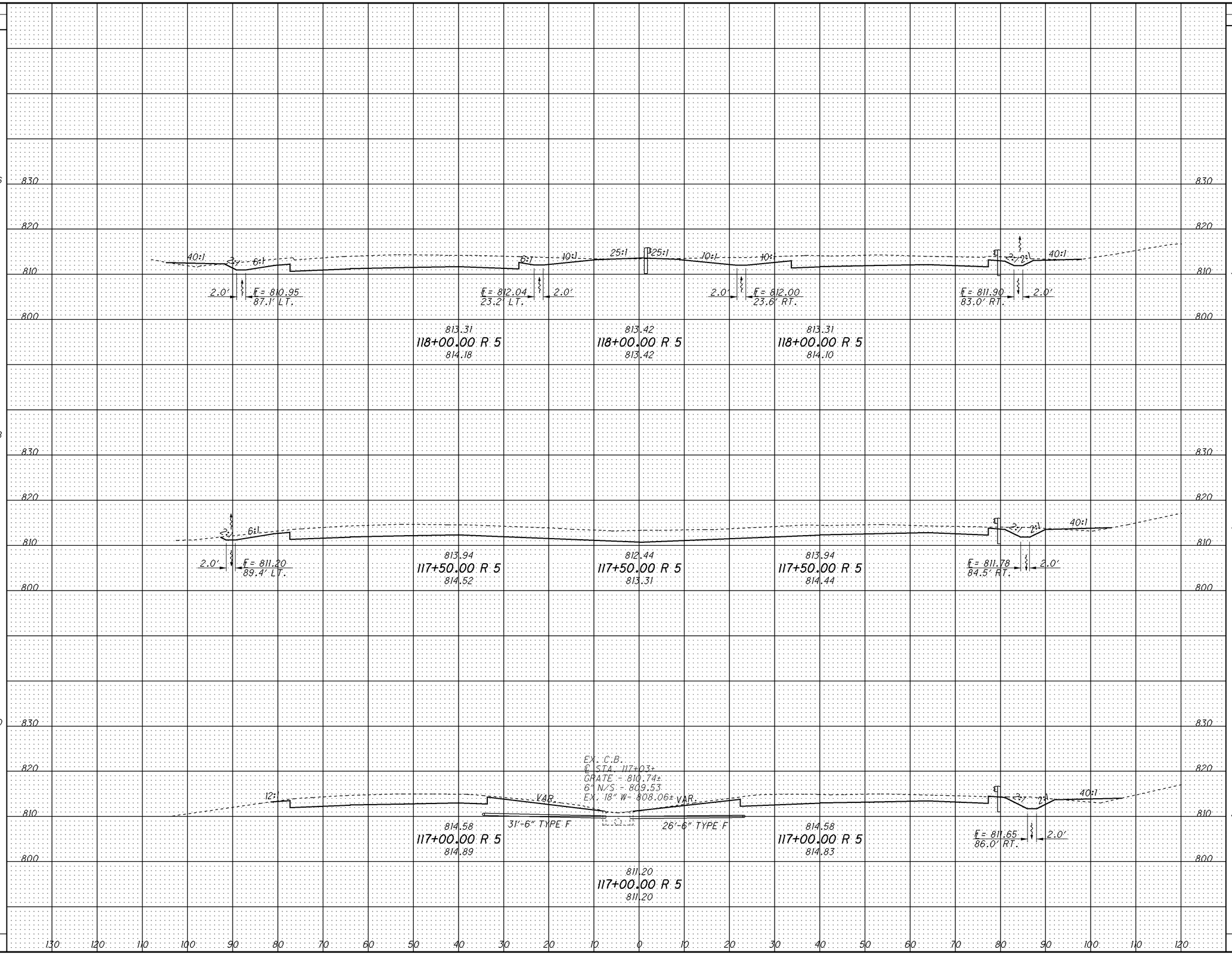
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
142	766	306	6	621	9
66	578	365	4	546	10
110	490	225	7	378	18



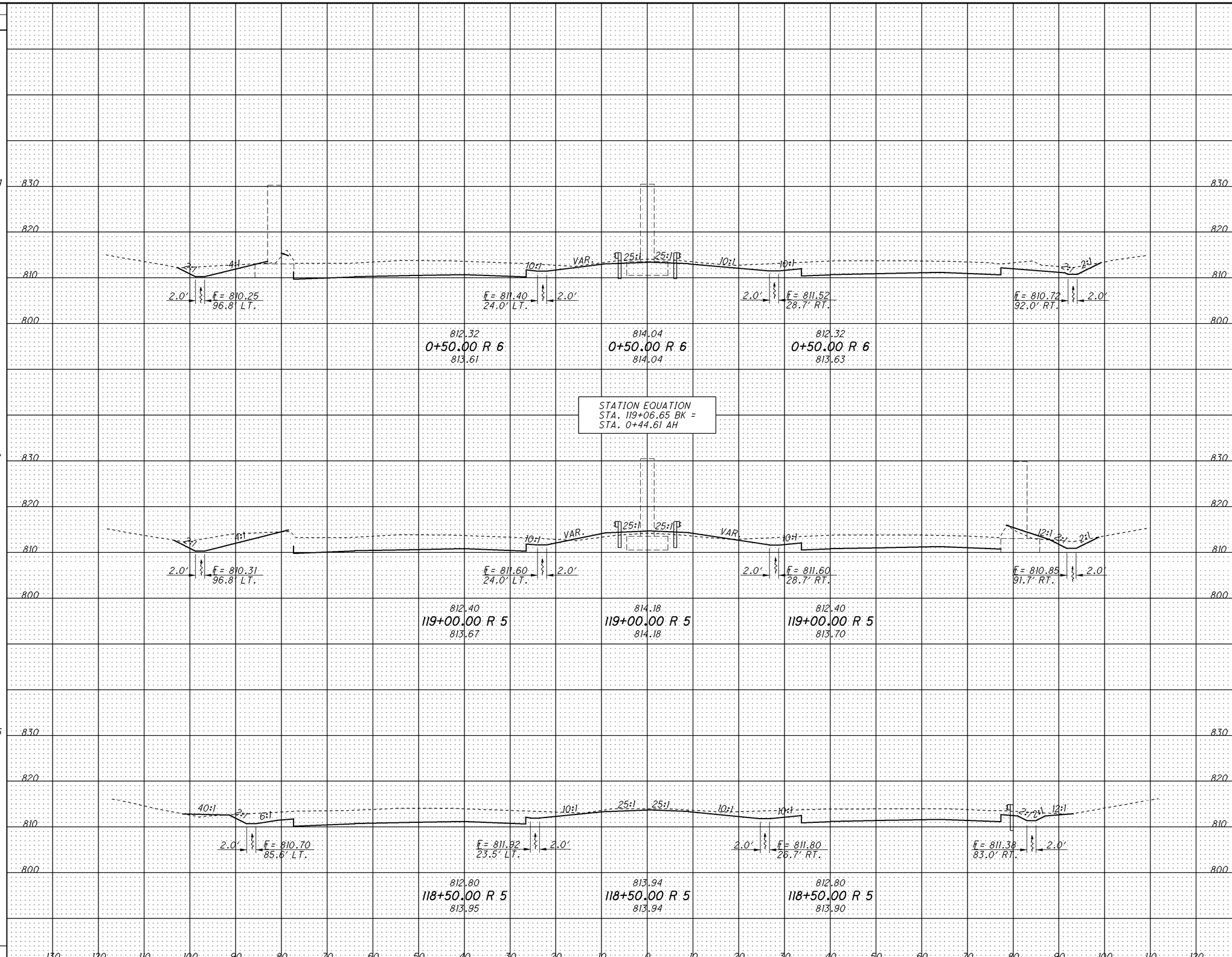
CALCULATED

CHECKED

CROSS SECTIONS
STA. 117+00.00 TO STA. 118+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
143	794	351	0	155	8
145	192	346	34	631	34
134	775	335	3	593	9



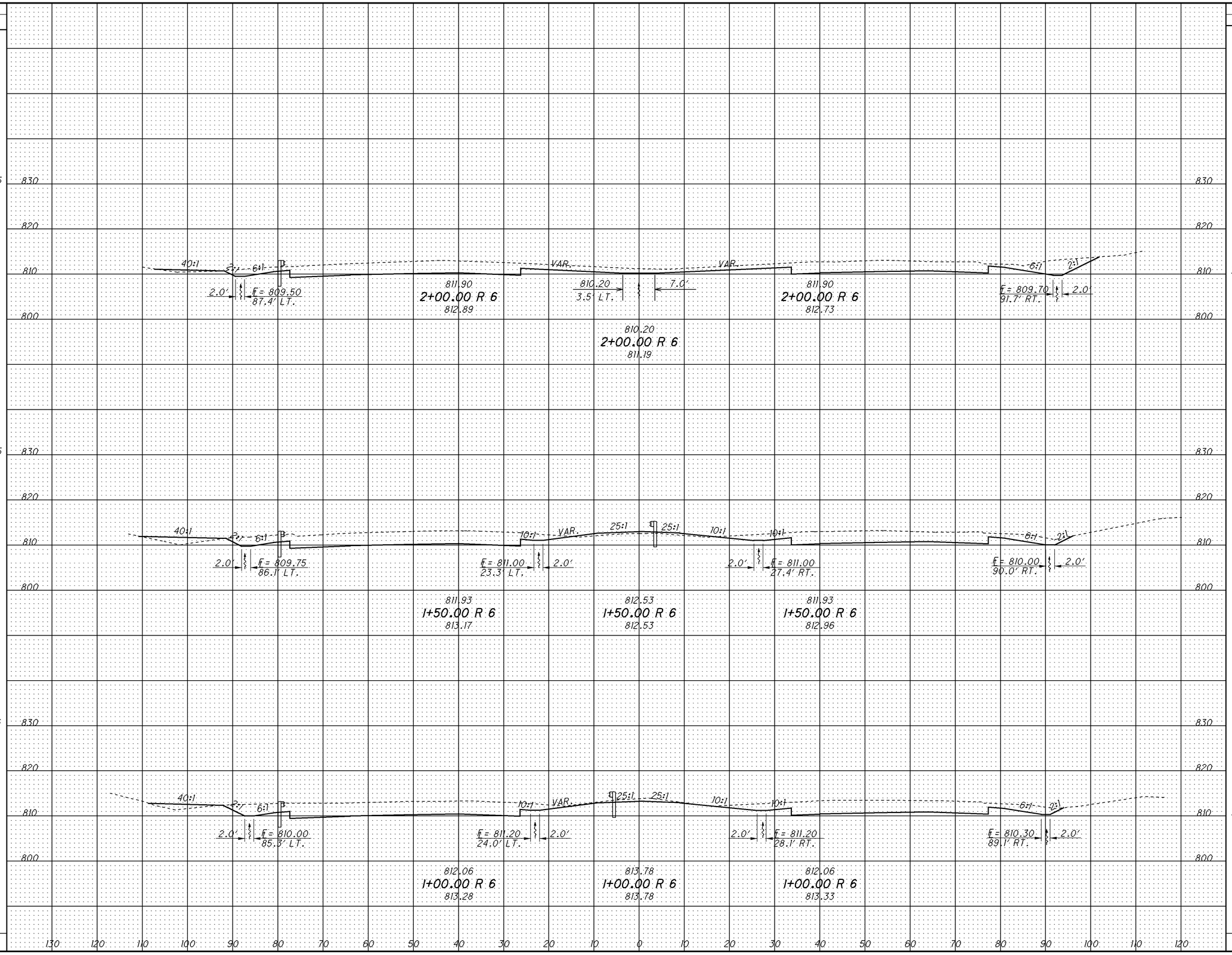
CALCULATED

CHECKED

CROSS SECTIONS
STA. 118+50.00 TO STA. 0+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
154	845	357	5	626	32
150	845	319	29	614	38
143	816	344	11	644	11



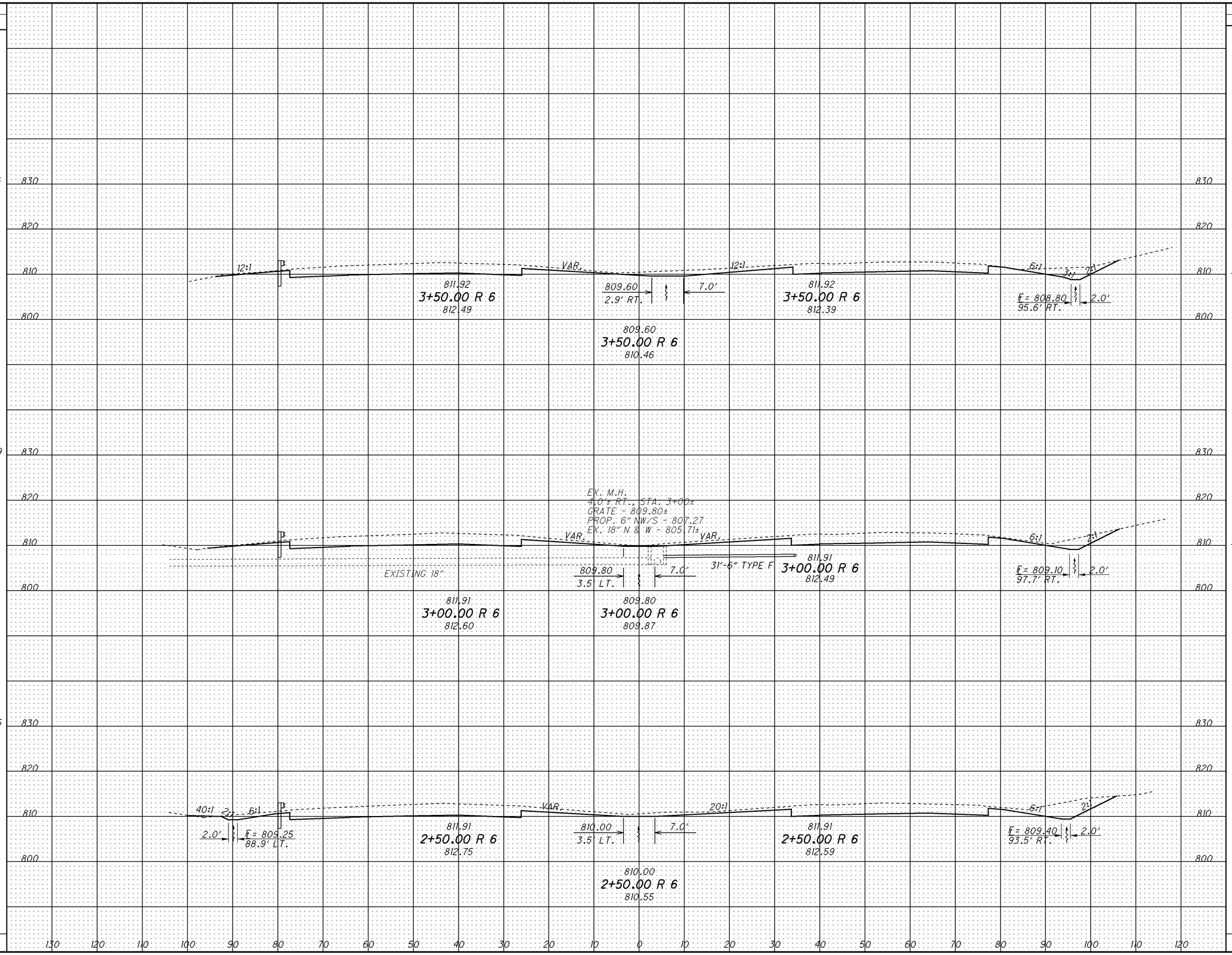
CALCULATED

CHECKED

CROSS SECTIONS
STA. 1+00.00 TO STA. 2+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
152	816	306	0	568	0
150	839	308	0	592	2
150	835	331	2	637	6



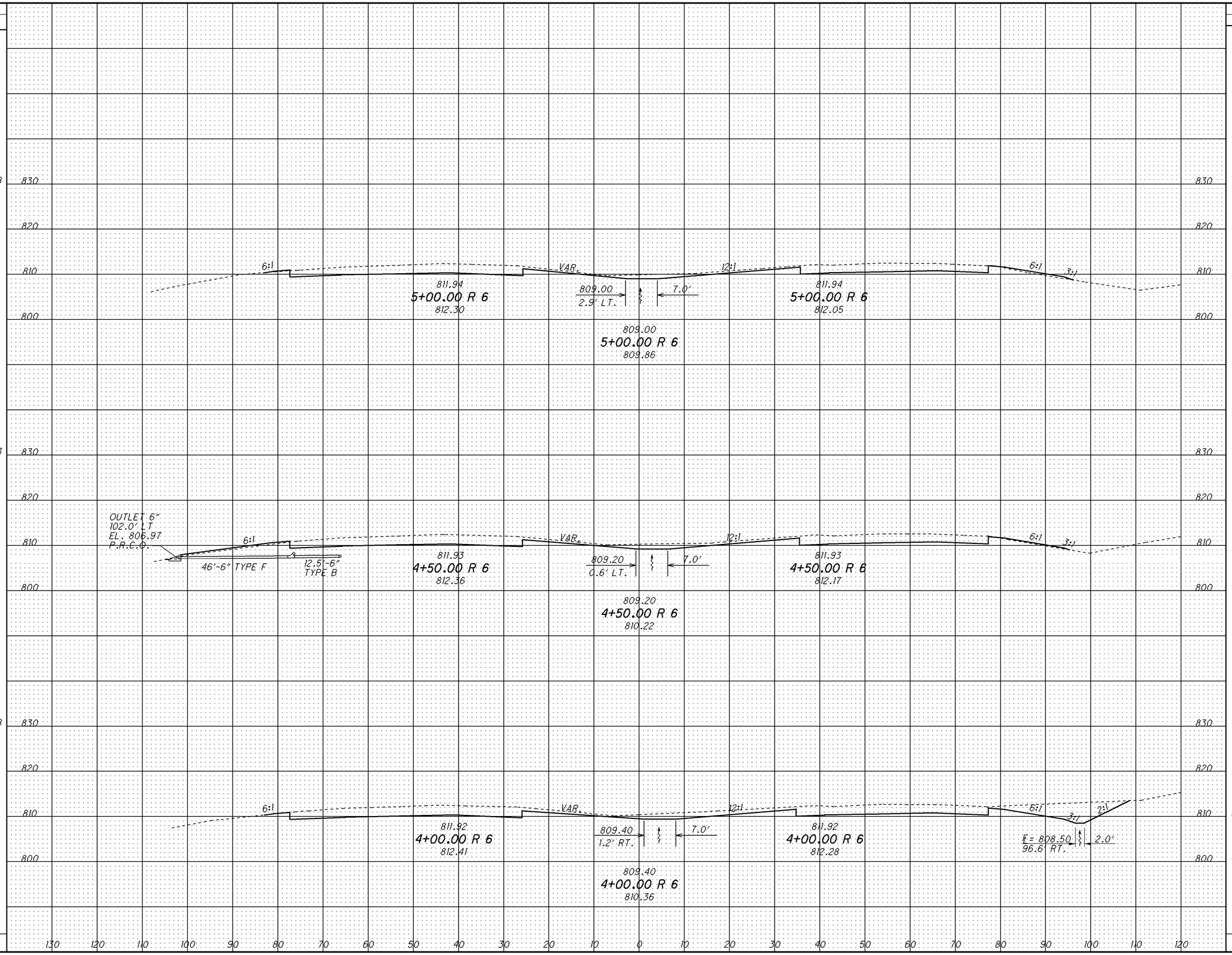
CALCULATED

CHECKED

CROSS SECTIONS
STA. 2+50.00 TO STA. 3+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
115	658	196	6	376	11
124	663	211	6	518	6
142	738	348	0	605	0



CALCULATED

CHECKED

CROSS SECTIONS
STA. 4+00.00 TO STA. 5+00.00

LAK-90-21.40
ATB-90-0.00

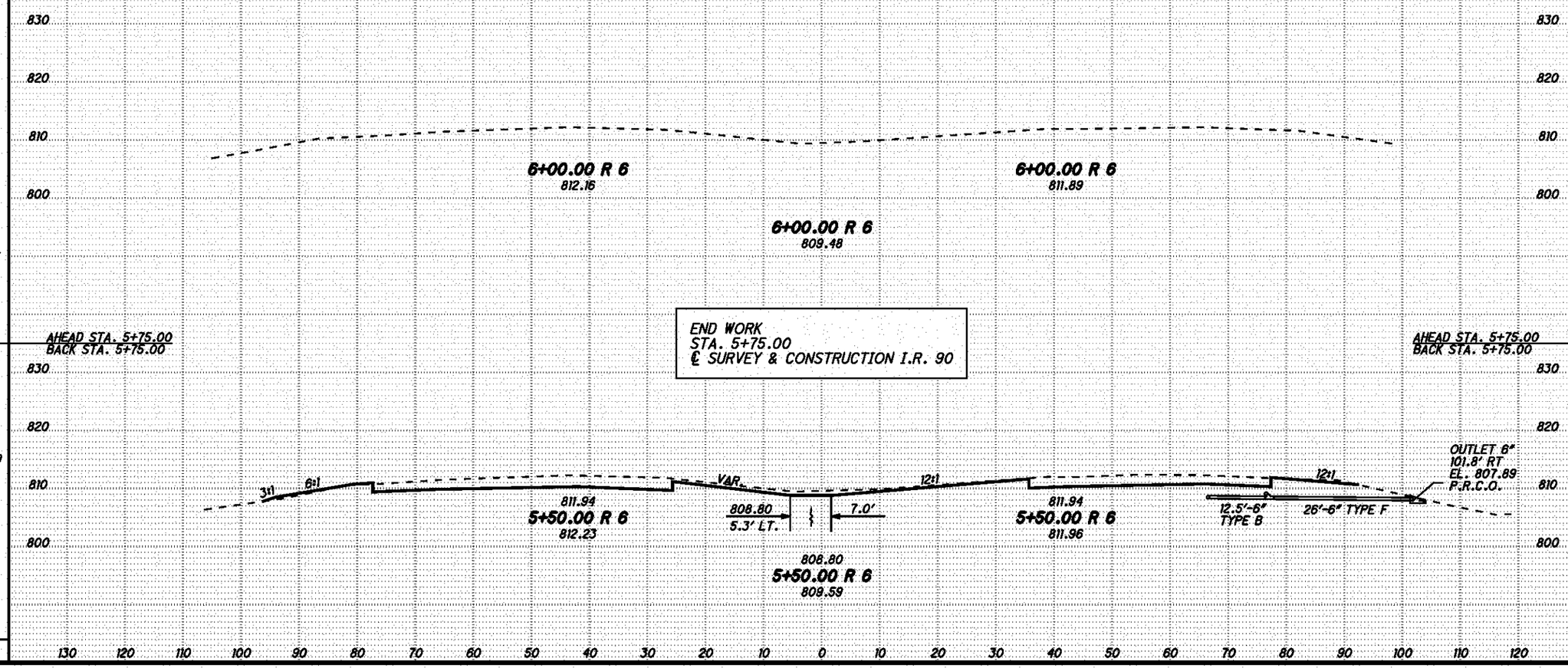
SEEDING	
END WIDTH	SQ. YDS.
40	
	135
57	
122	
	339
122	

ITEM 659 SEEDING AND MULCHING: MAINLINE TOTAL = 434,353 SQ YDS

ALTERNATE A

ITEM 203 EXCAVATION: MAINLINE TOTAL = 103,911 CU YD
EXCAVATION CALCULATION
233,424 CU YD (FROM CROSS SECTIONS)
+ 5,729 CU YD (EXCAVATION FOR COMPACTED AGGREGATE)
+ 673 CU YD (EXCAVATION FOR ASPHALT UNDER GUARDRAIL)
- 135,915 CU YD (REMOVAL OF EXISTING PAVEMENT)
= 103,911 CU YD

ITEM 203 EMBANKMENT: MAINLINE TOTAL = 21,732 CU YD



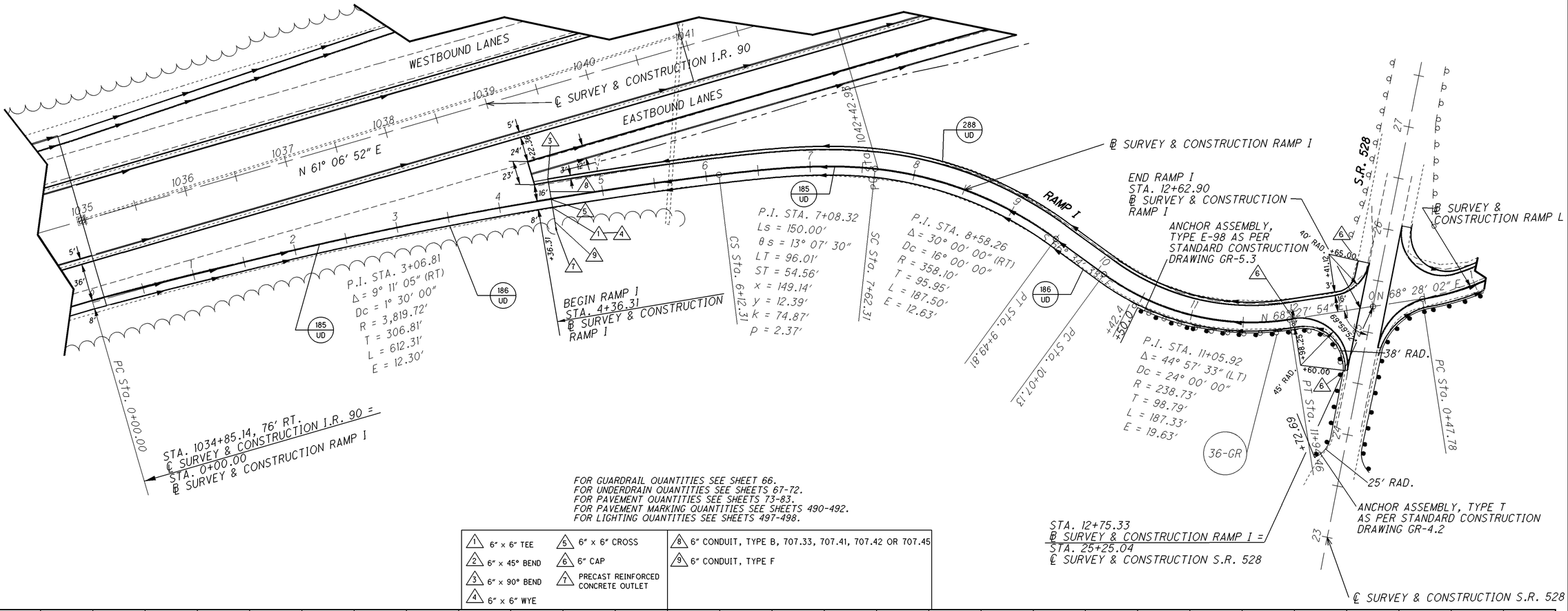
END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
		0	2
0	4		
191	4		
		177	4
191	4		
		359	10

CALCULATED

CHECKED

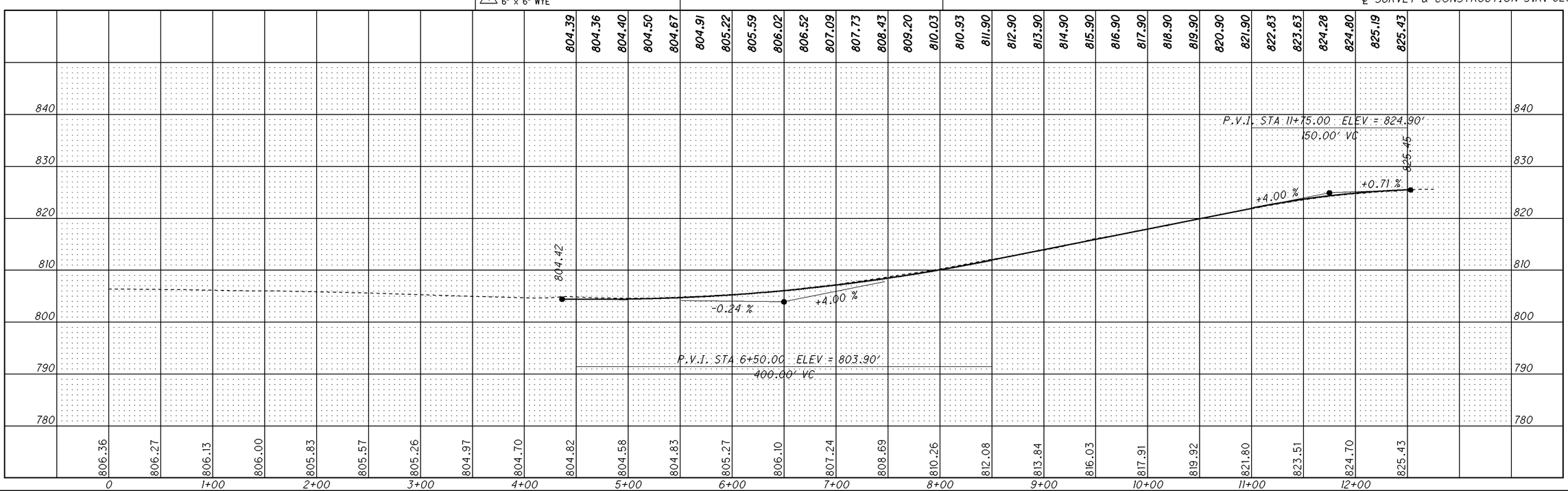
CROSS SECTIONS
STA. 5+50.00 TO STA. 6+00.00

LAK-90-21.40
ATB-90-0.00



FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.

1 6″ x 6″ TEE	5 6″ x 6″ CROSS	8 6″ CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45
2 6″ x 45° BEND	6 6″ CAP	9 6″ CONDUIT, TYPE F
3 6″ x 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET	
4 6″ x 6″ WYE		



HORIZONTAL SCALE IN FEET 0 50 100

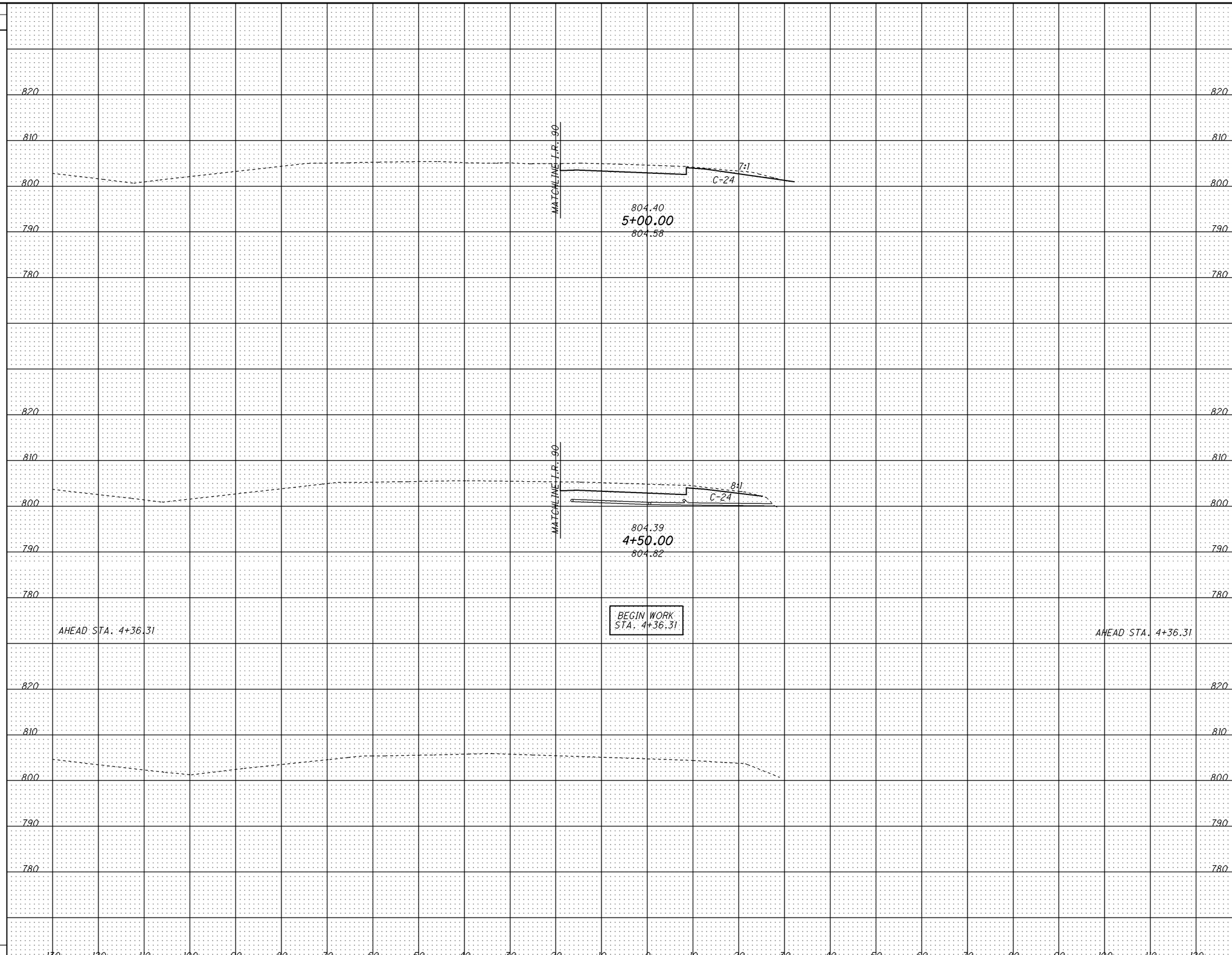
CALCULATED M.M.
CHECKED J.C.

PLAN AND PROFILE - RAMP I
STA. 4+36.31 TO STA. 12+62.90

LAK-90-21.40
ATB-90-0.00

75477RAMPI_PPP01.DGN 05/06/08

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
29		24	0		
	45			45	0
27		24	0		
	41			13	0
27		24	0		

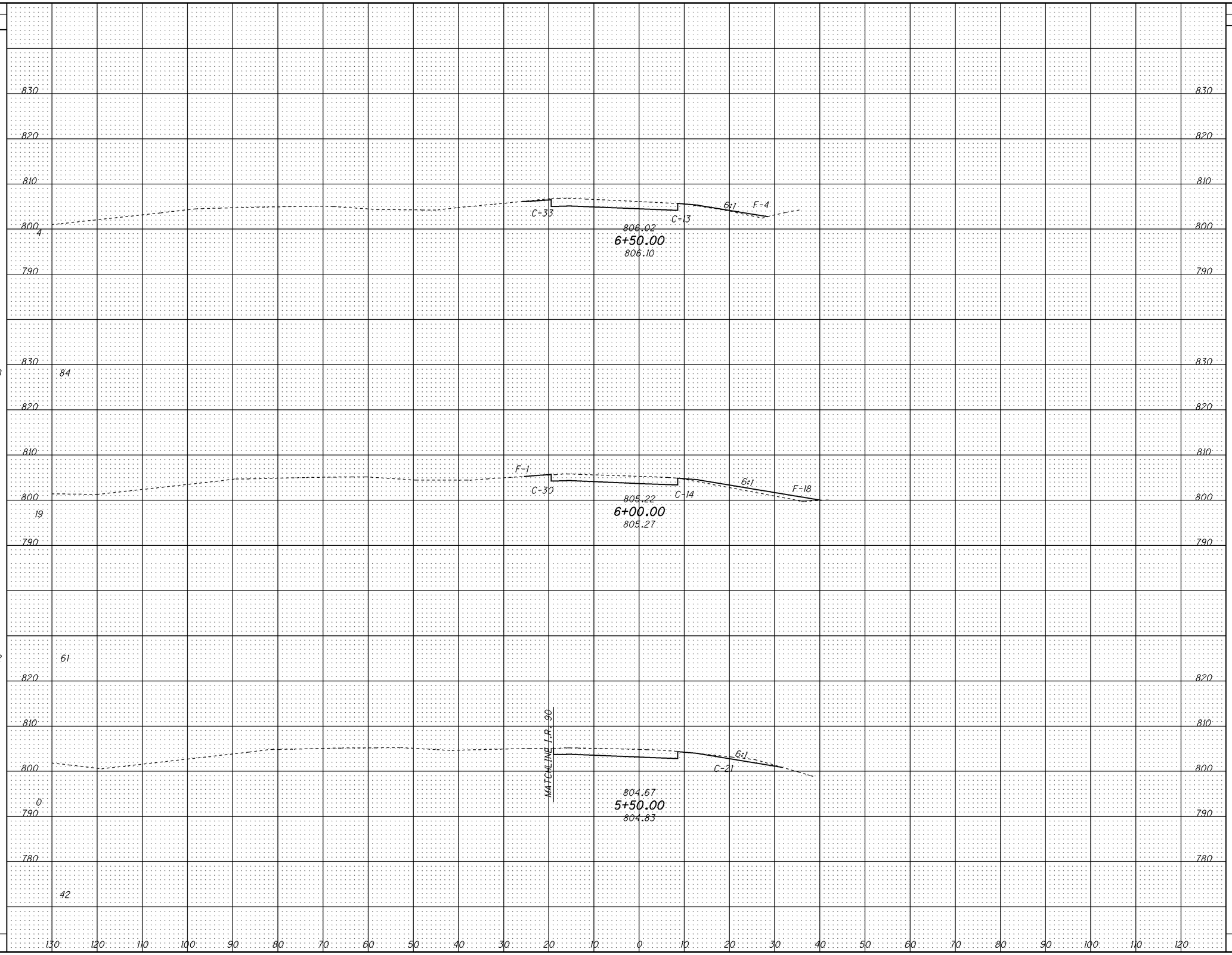


CALCULATED

CHECKED

RAMP I CROSS SECTIONS
STA. 4+36.31 TO STA. 5+00.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
42	278	46	4	84	22
58	242	44	19	61	18
29	161	21	0	42	0

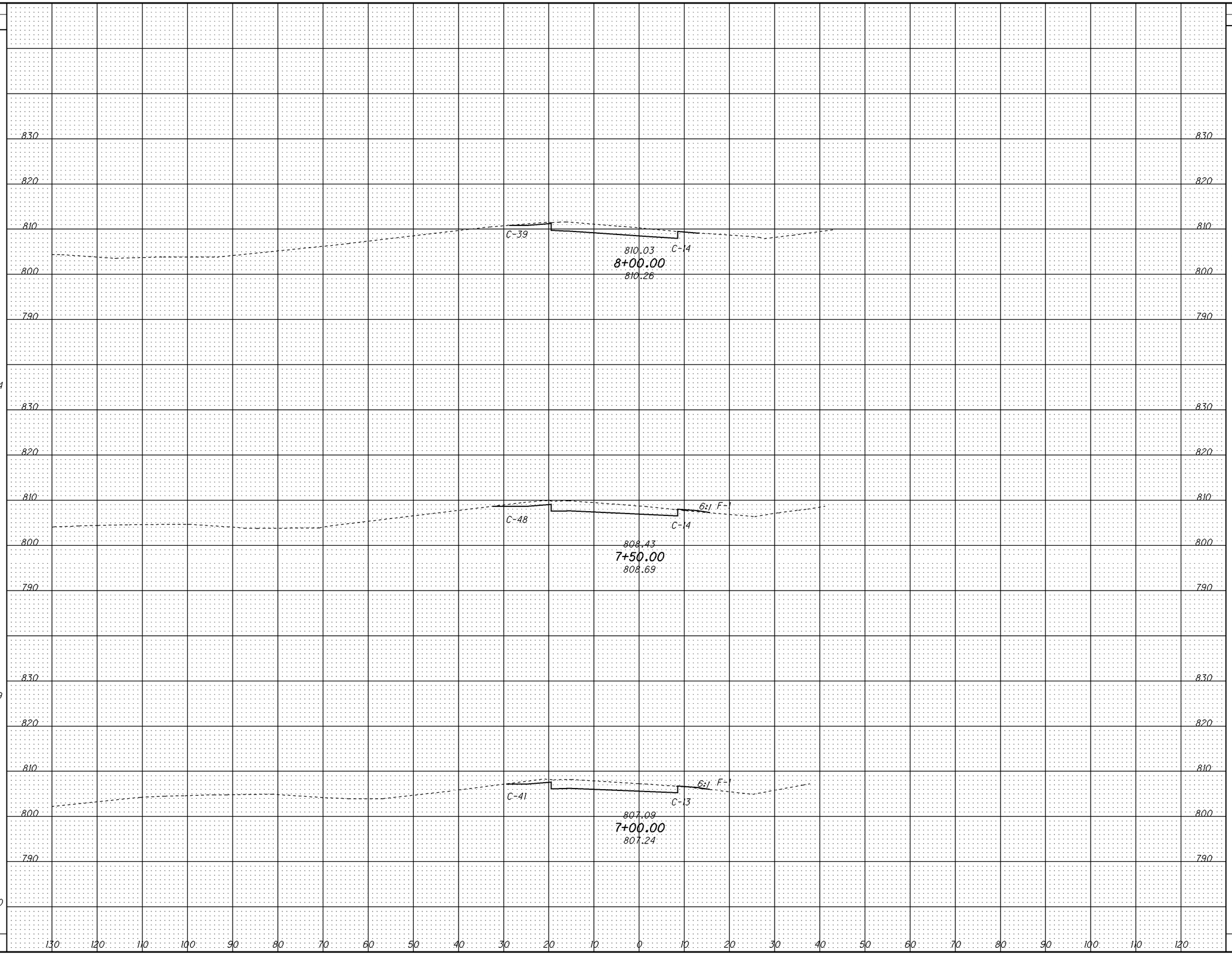
CALCULATED

CHECKED

RAMP I CROSS SECTIONS
STA. 5+50.00 TO STA. 6+50.00

LAK-90-21.40
ATB-90-0.00

75477_RAMPI_PXS.DGN 05/01/08 SHEET 2 OF 6



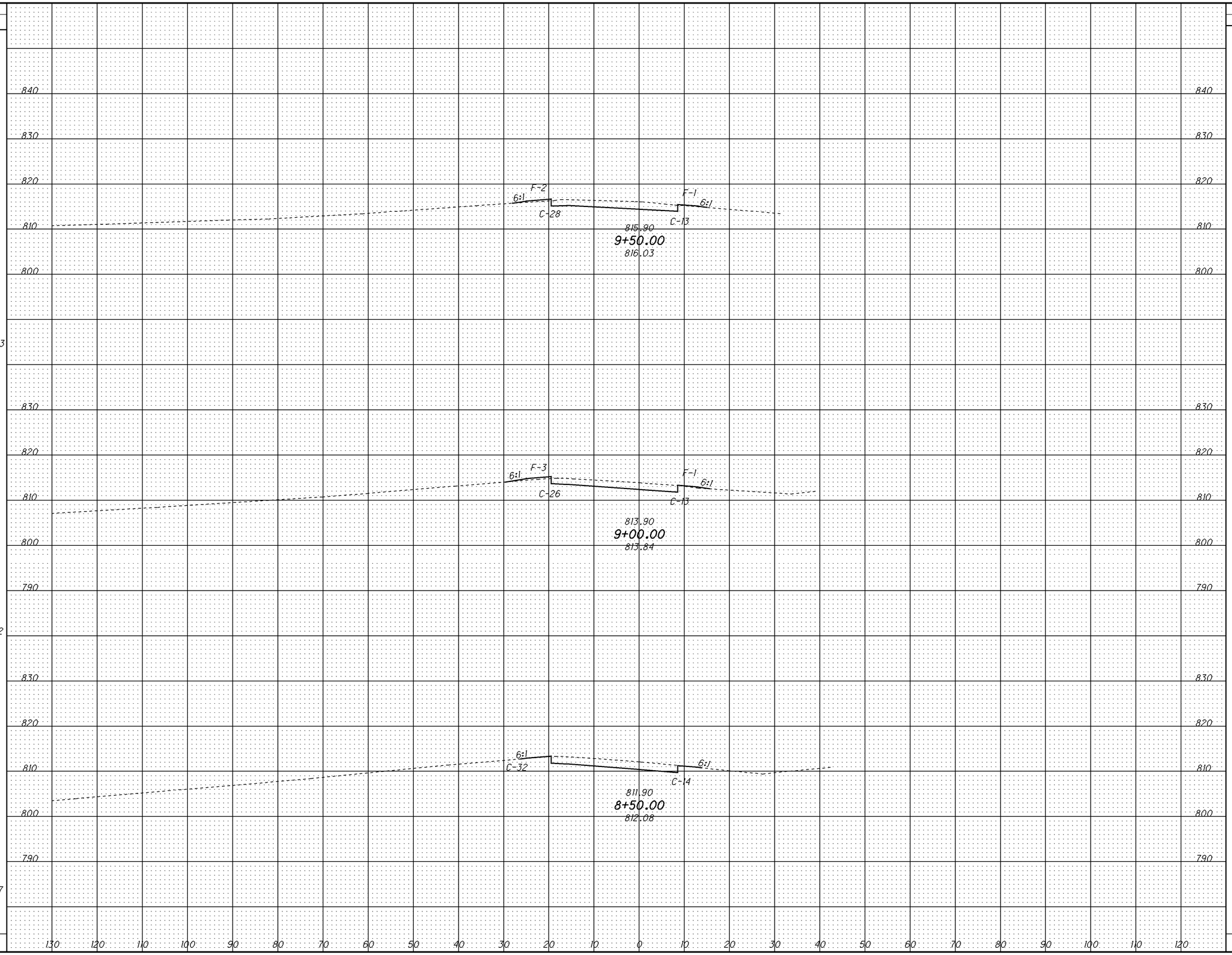
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
35		63	0		
	234			116	1
49		62	1		
	239			108	2
37		54	1		
	220			93	5

CALCULATED

CHECKED

RAMP I CROSS SECTIONS
STA. 7+00.00 TO STA. 8+00.00

LAK-90-21.40
ATB-90-0.00



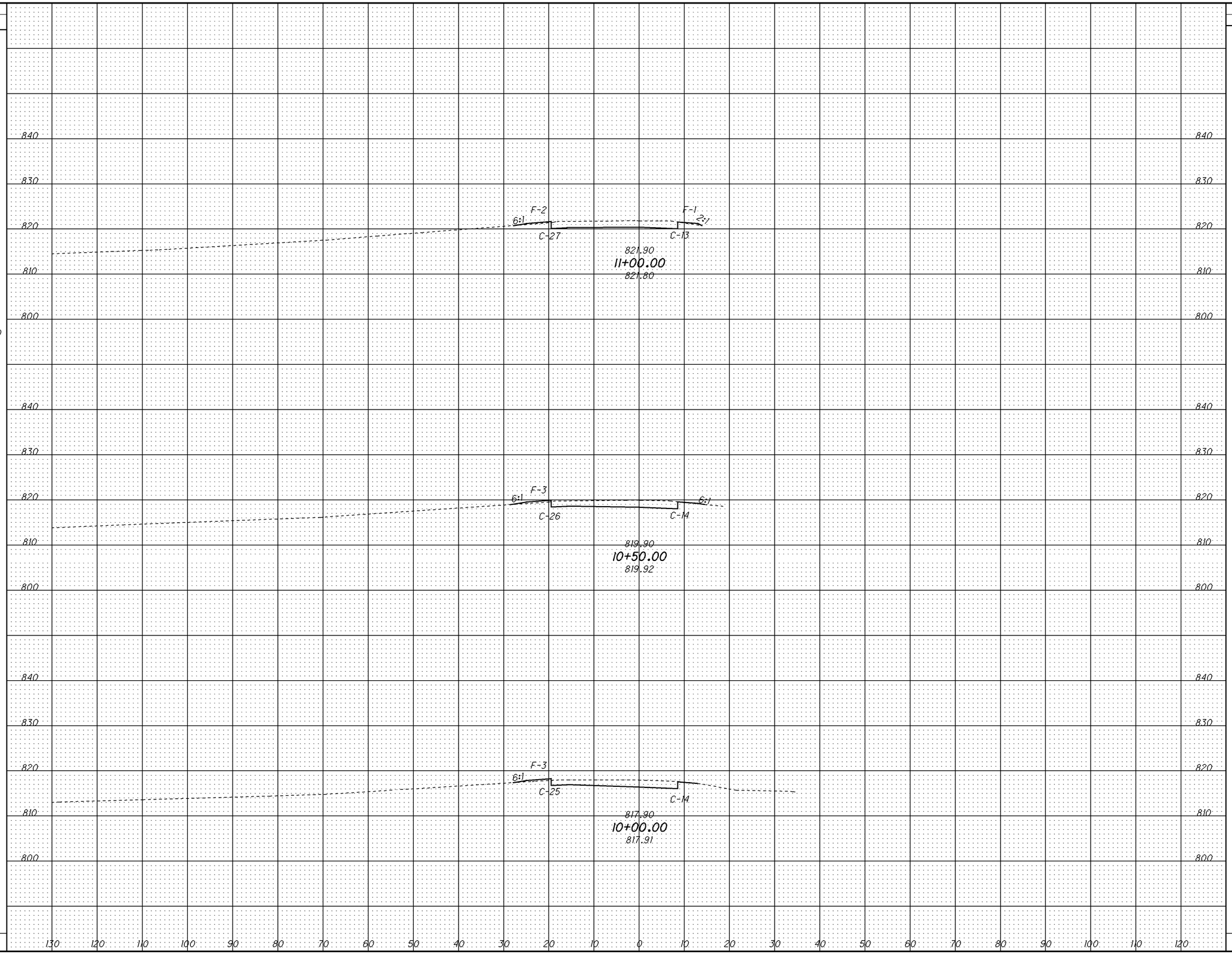
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
36		41	3		
	203			74	7
37		39	4		
	192			79	4
32		46	0		
	187			101	0

CALCULATED

CHECKED

RAMP I CROSS SECTIONS
STA. 8+50.00 TO STA. 9+50.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
36	200	40	3	74	6
36	195	40	3	73	6
34	195	39	3	74	6

CALCULATED

CHECKED

RAMP I CROSS SECTIONS
STA. 10+00.00 TO STA. 11+00.00

LAK-90-21.40
ATB-90-0.00

426
498

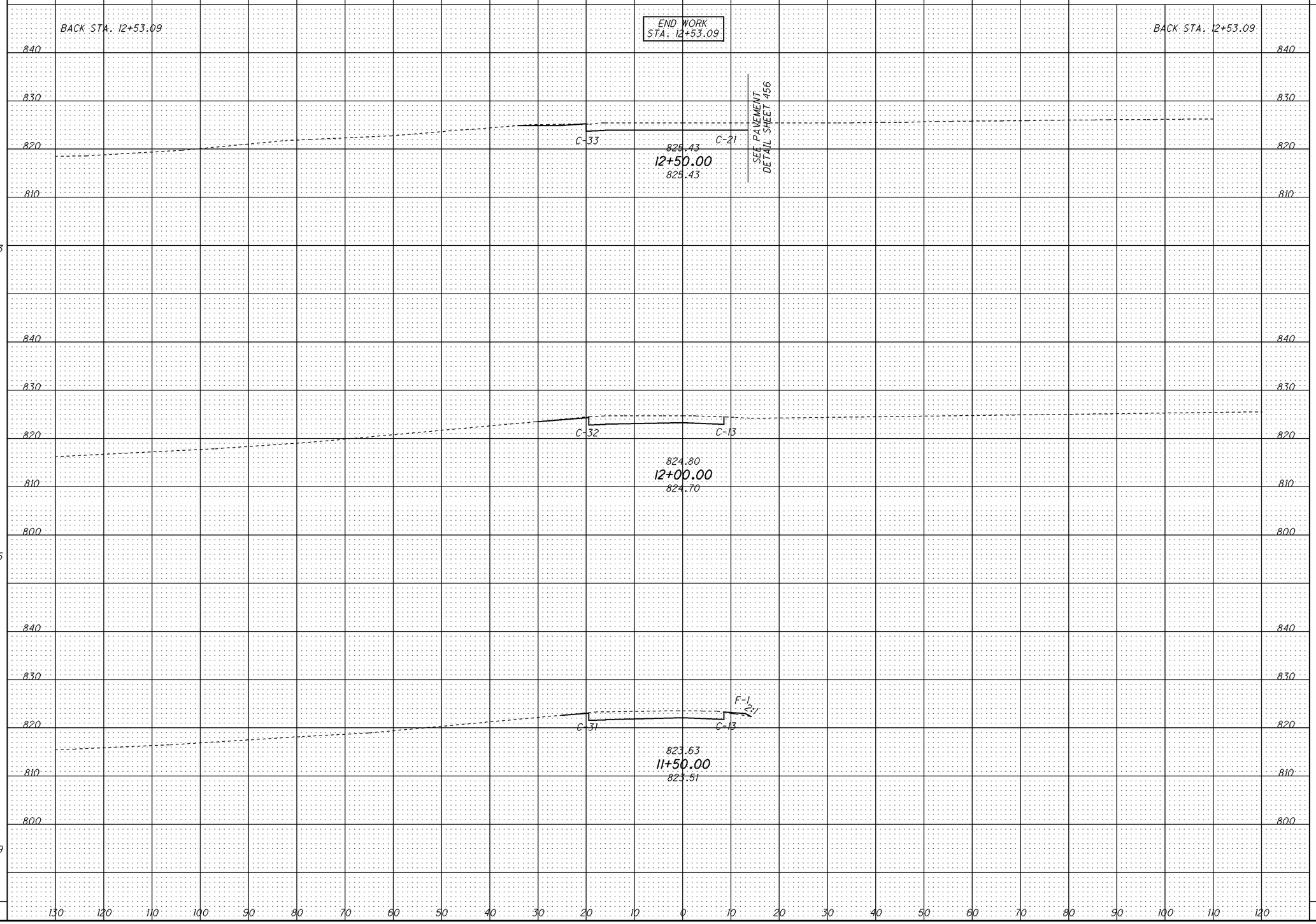
75477_RAMP1_PXS.DGN 05/01/08 SHEET 5 OF 6

SEEDING END WIDTH	SEEDING SQ. YDS.	
	3,269	TOTAL FOR RAMP I
24	9	
24	153	
31	175	
32	189	

RAMP I TOTAL

ITEM 203 EXCAVATION: 358 CU YD
1,296 CU YD (FROM CROSS SECTIONS)
- 938 CU YD (PAVEMENT REMOVAL)
= 358 CU YD

ITEM 203 EMBANKMENT: 77 CU YD



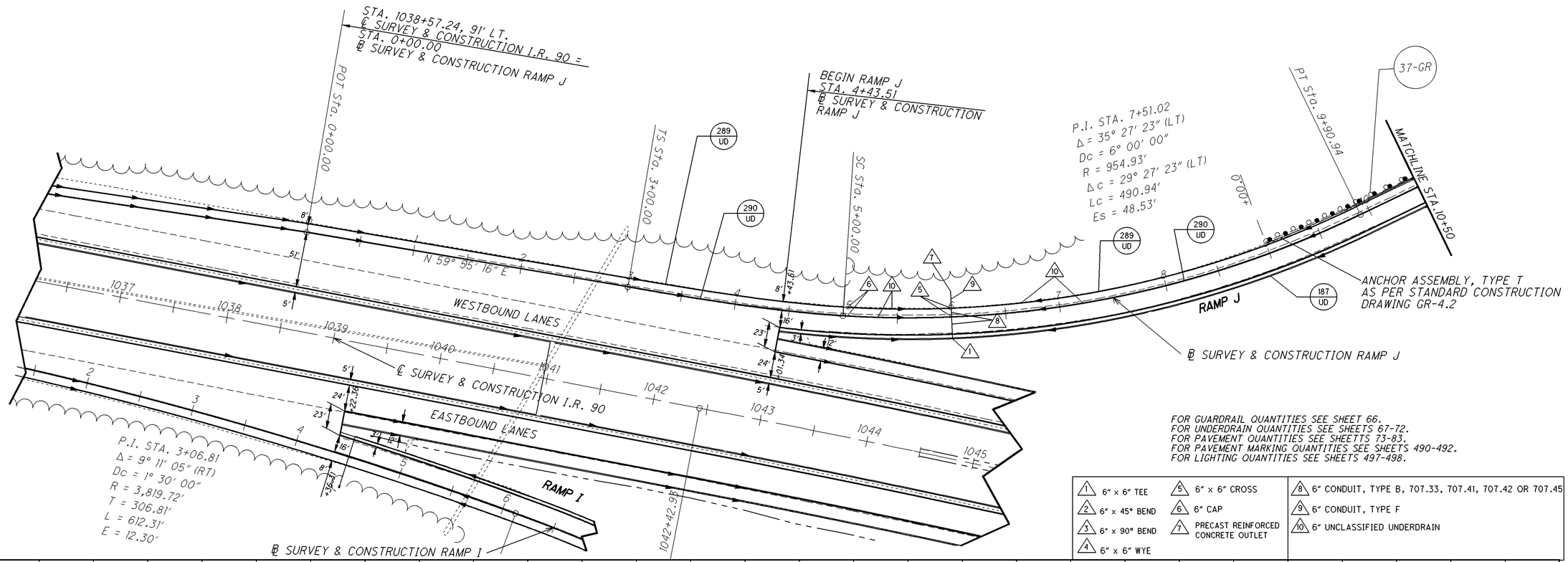
	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	54	0		
	54	0	6	0
	44	0	92	0
	44	1	83	1
			78	4

CALCULATED

CHECKED

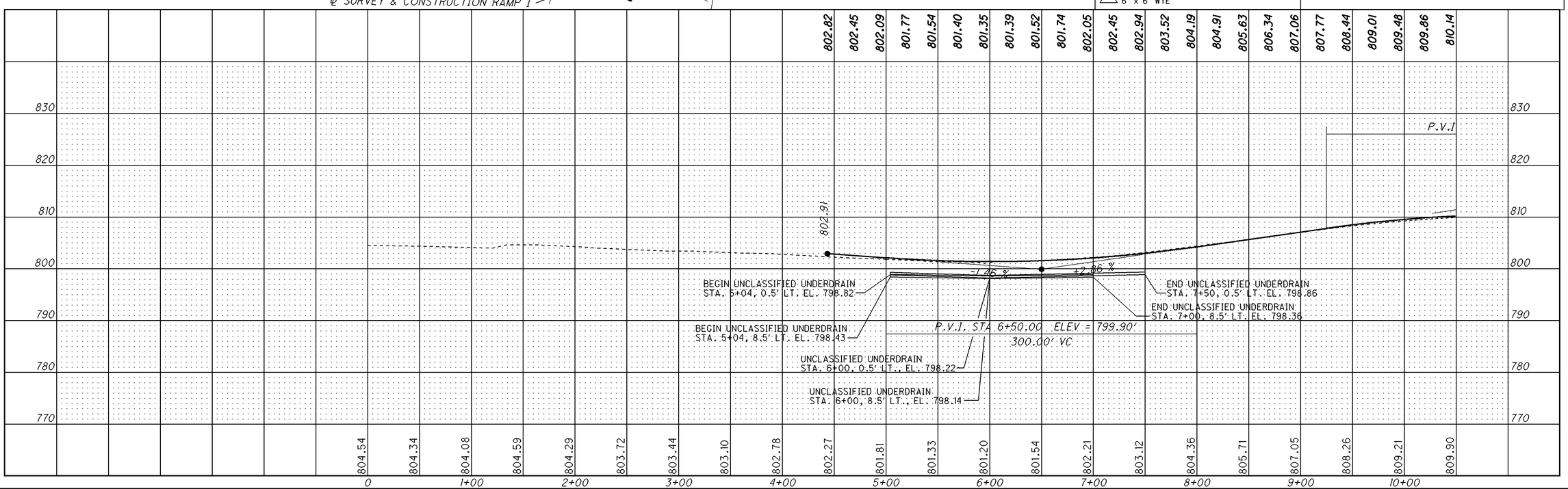
RAMP I CROSS SECTIONS
STA. 11+50.00 TO STA. 12+53.09

LAK-90-21.40
ATB-90-0.00



FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETTS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.

1 6" x 6" TEE	5 6" x 6" CROSS	8 6" CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45
2 6" x 45° BEND	6 6" CAP	9 6" CONDUIT, TYPE F
3 6" x 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET	10 6" UNCLASSIFIED UNDERDRAIN
4 6" x 6" WYE		



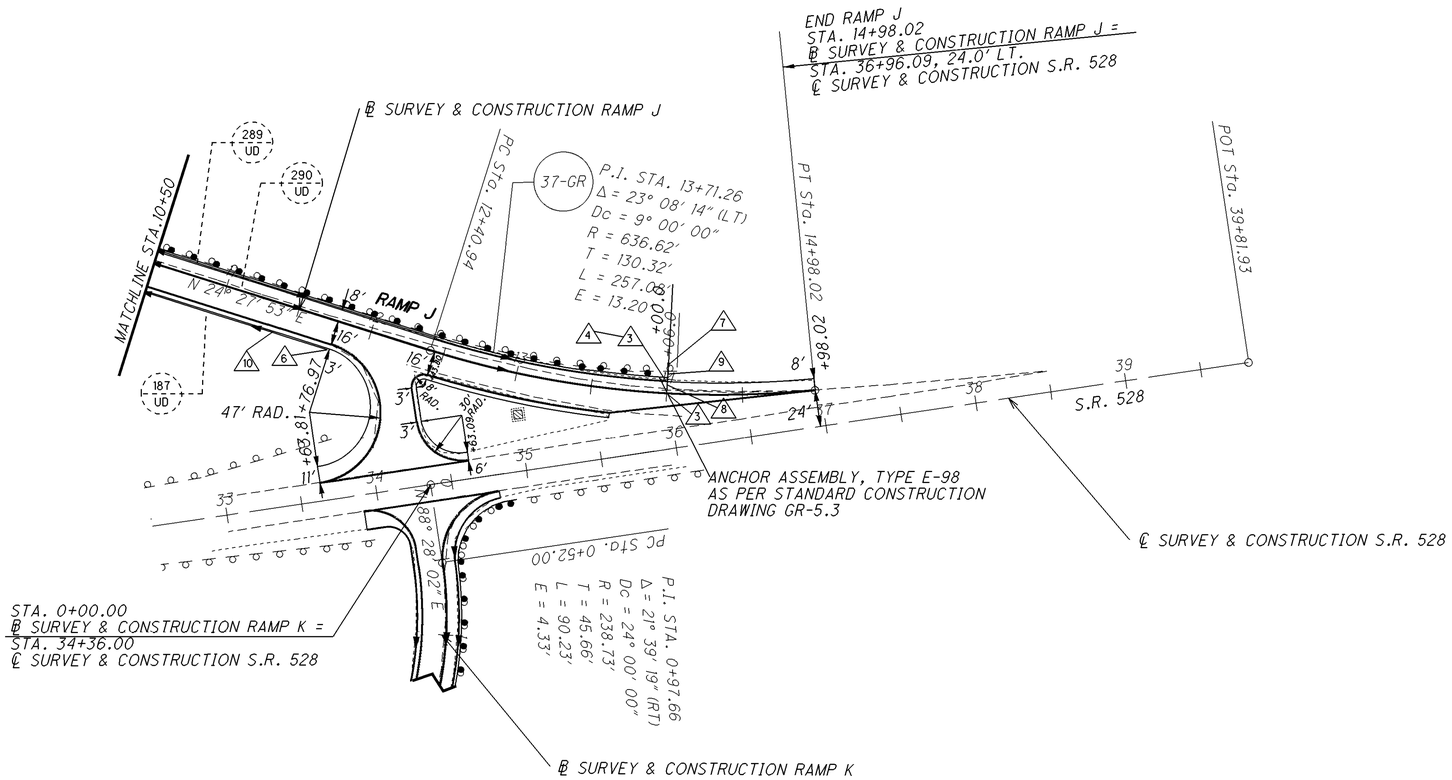
HORIZONTAL SCALE IN FEET
0 50 100

CALCULATED M.M.
CHECKED J.C.

PLAN AND PROFILE- RAMP J
STA. 4+43.51 TO STA. 10+50.00

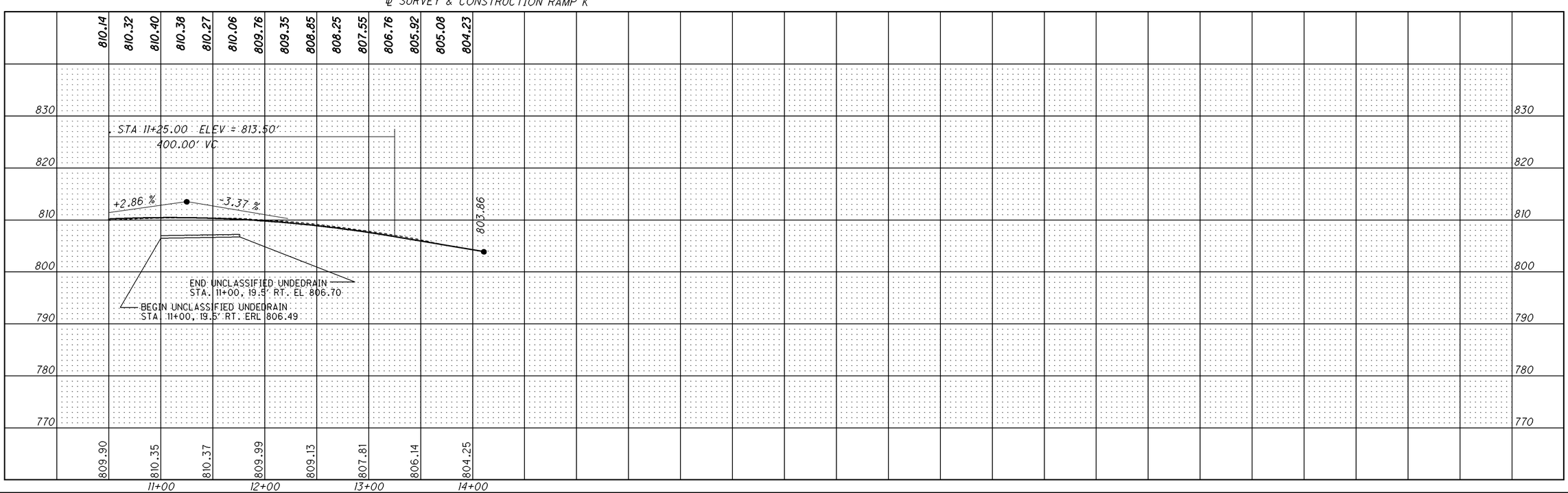
LAK-90-21.40
ATB-90-0.00

75477RAMPJ_PPP01.DGN 05/06/08



1 6" x 6" TEE	5 6" x 6" CROSS		8 6" CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45
2 6" x 45° BEND	6 6" CAP		9 6" CONDUIT, TYPE F
3 6" x 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET		10 6" UNCLASSIFIED UNDERDRAIN
4 6" x 6" WYE			

FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.



HORIZONTAL SCALE IN FEET
0 50 100

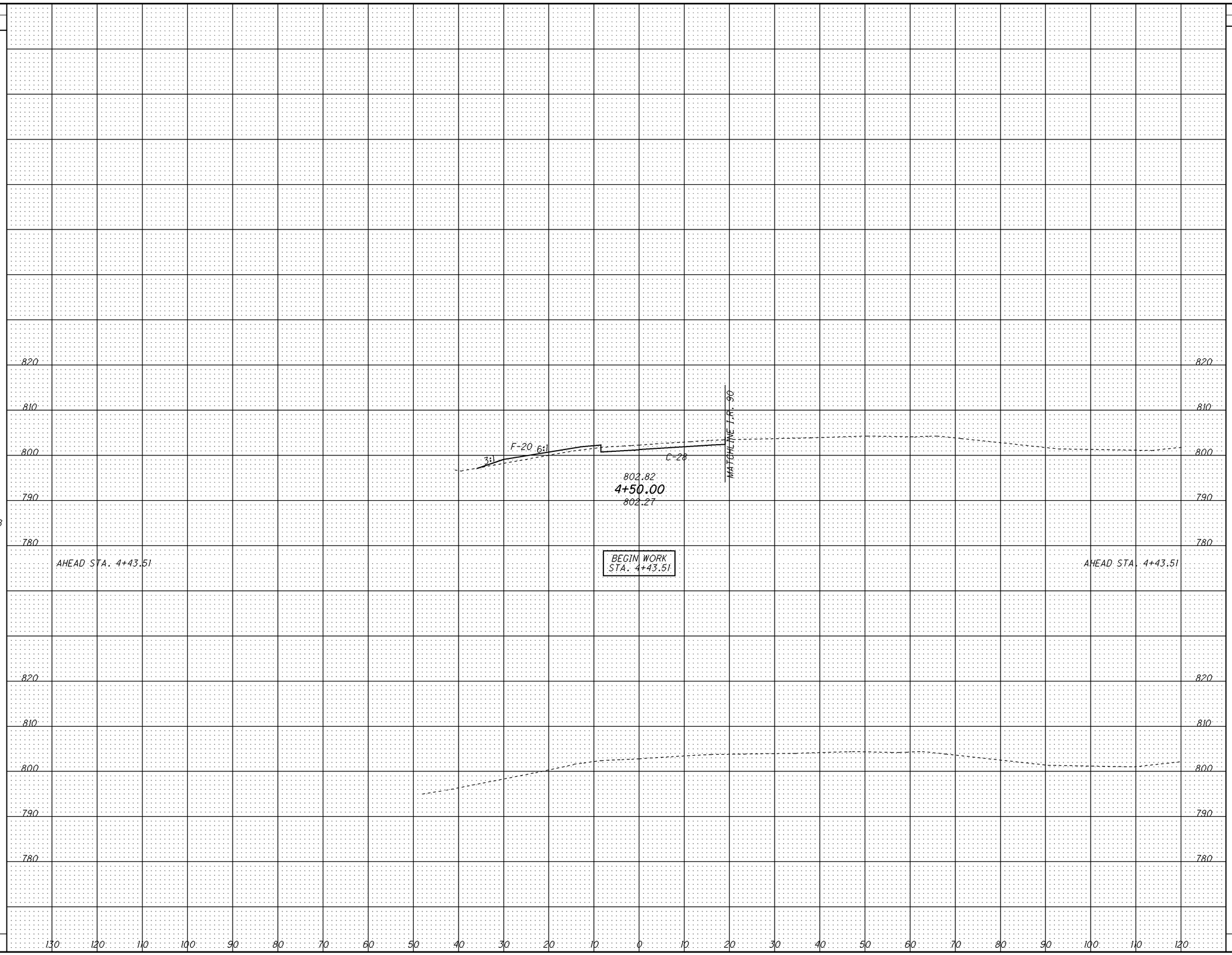
CALCULATED M.M.
CHECKED J.C.

PLAN AND PROFILE - RAMP J
STA. 10+50.00 TO STA. 14+98.02

LAK-90-21.40
ATB-90-0.00

7547RAMPJ_PPP02.DGN 05/06/08

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
38	28	28	20	7	5
38		28	20		



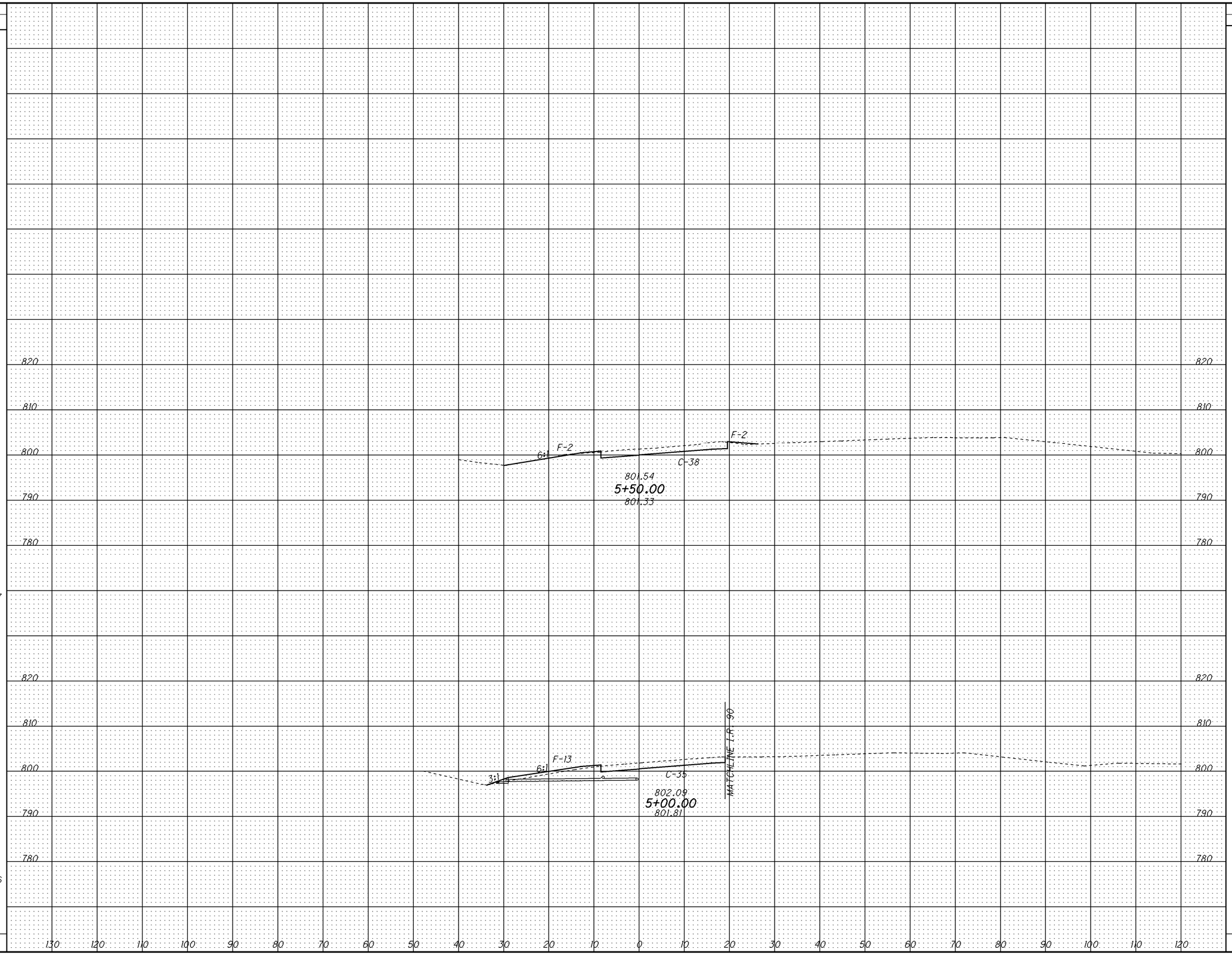
CALCULATED

CHECKED

RAMP J CROSS SECTIONS
STA. 4+43.51 TO STA. 4+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
49	237	38	2	68	14
36	206	35	13	59	31

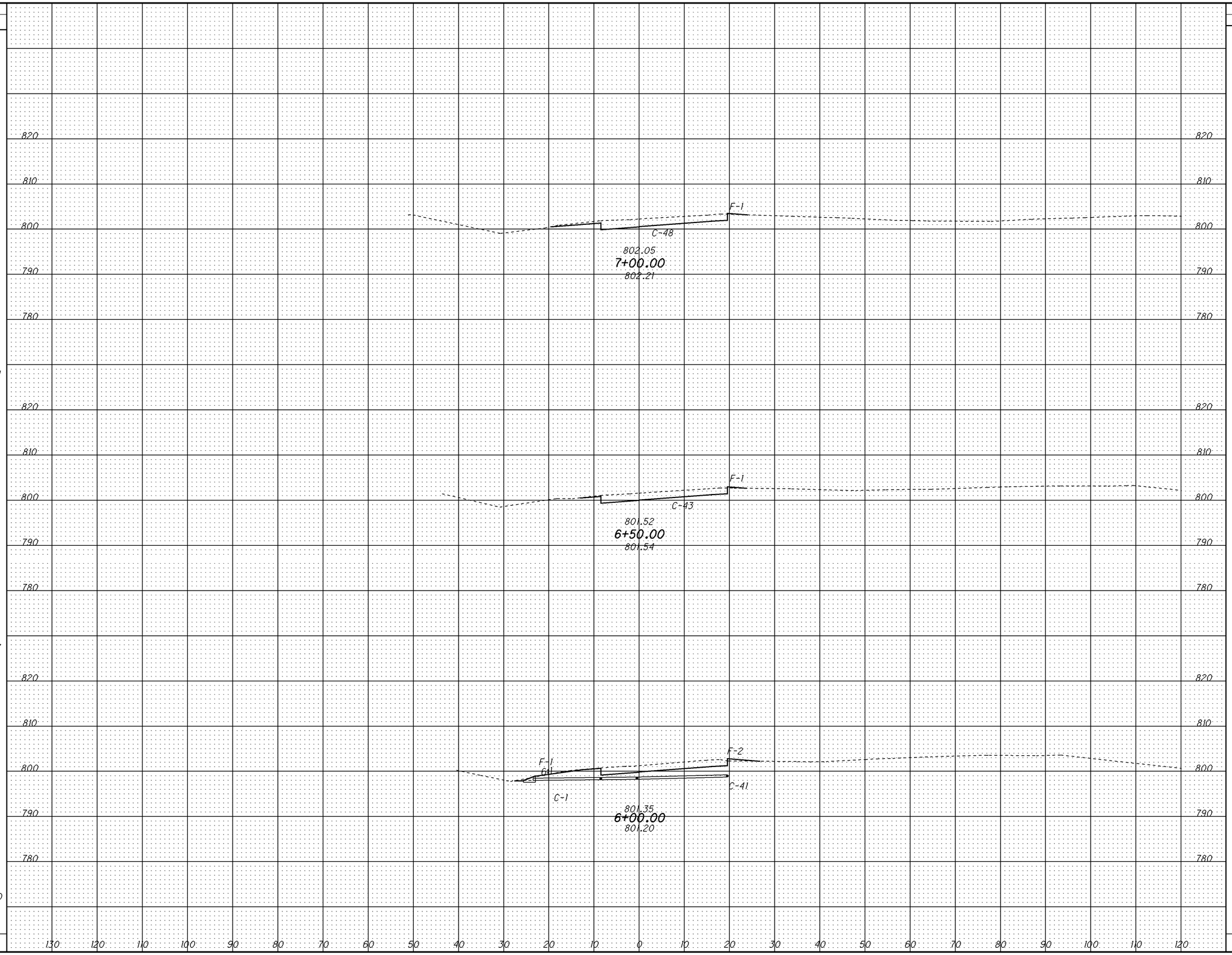


CALCULATED

CHECKED

RAMP J CROSS SECTIONS
STA. 5+00.00 TO STA. 5+50.00

LAK-90-21.40
ATB-90-0.00



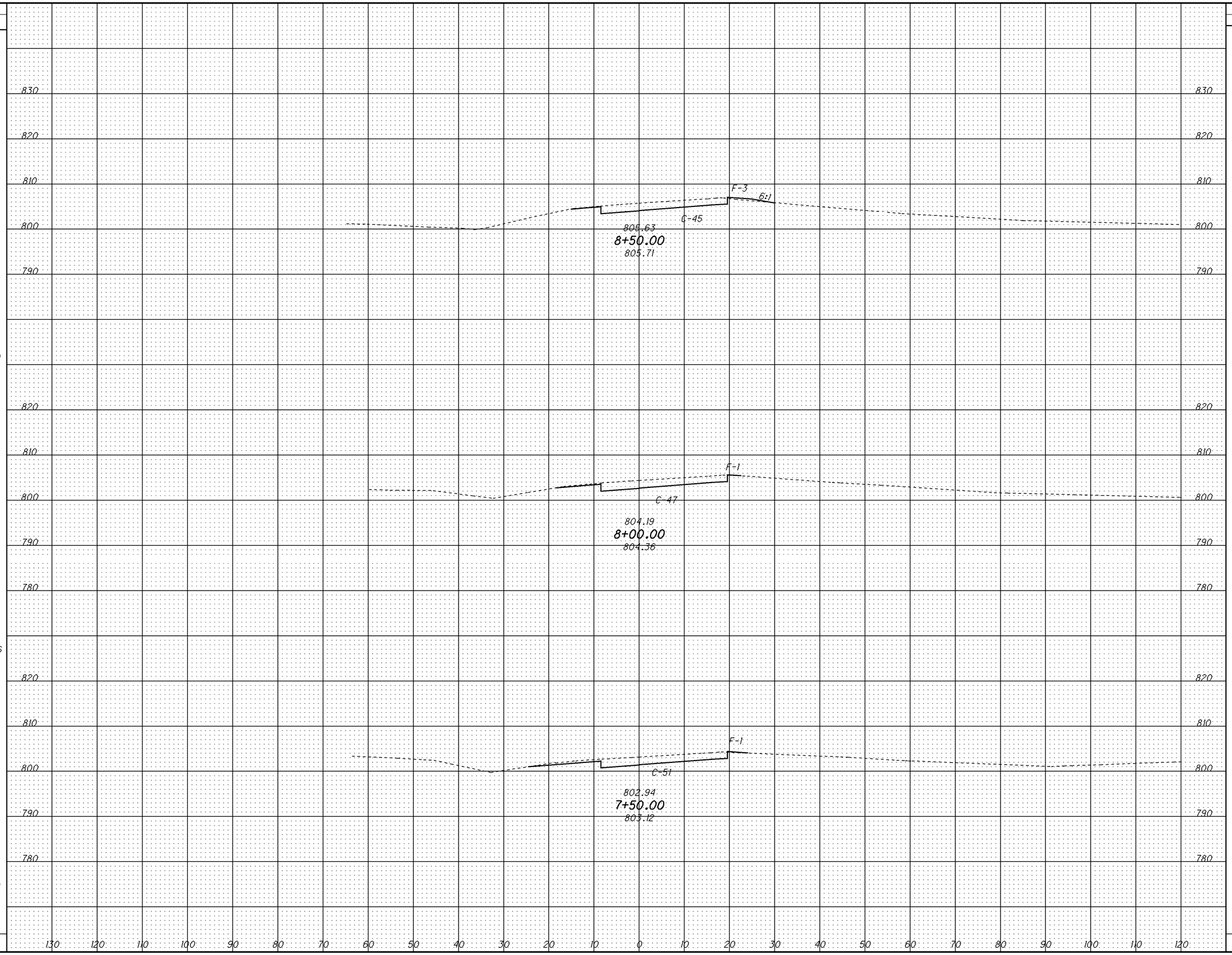
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
36		48	1		
	184			85	2
30		43	1		
	217			79	4
48		42	3		
	270			74	5

CALCULATED

CHECKED

RAMP J CROSS SECTIONS
STA. 6+00.00 TO STA. 7+00.00

LAK-90-21.40
ATB-90-0.00



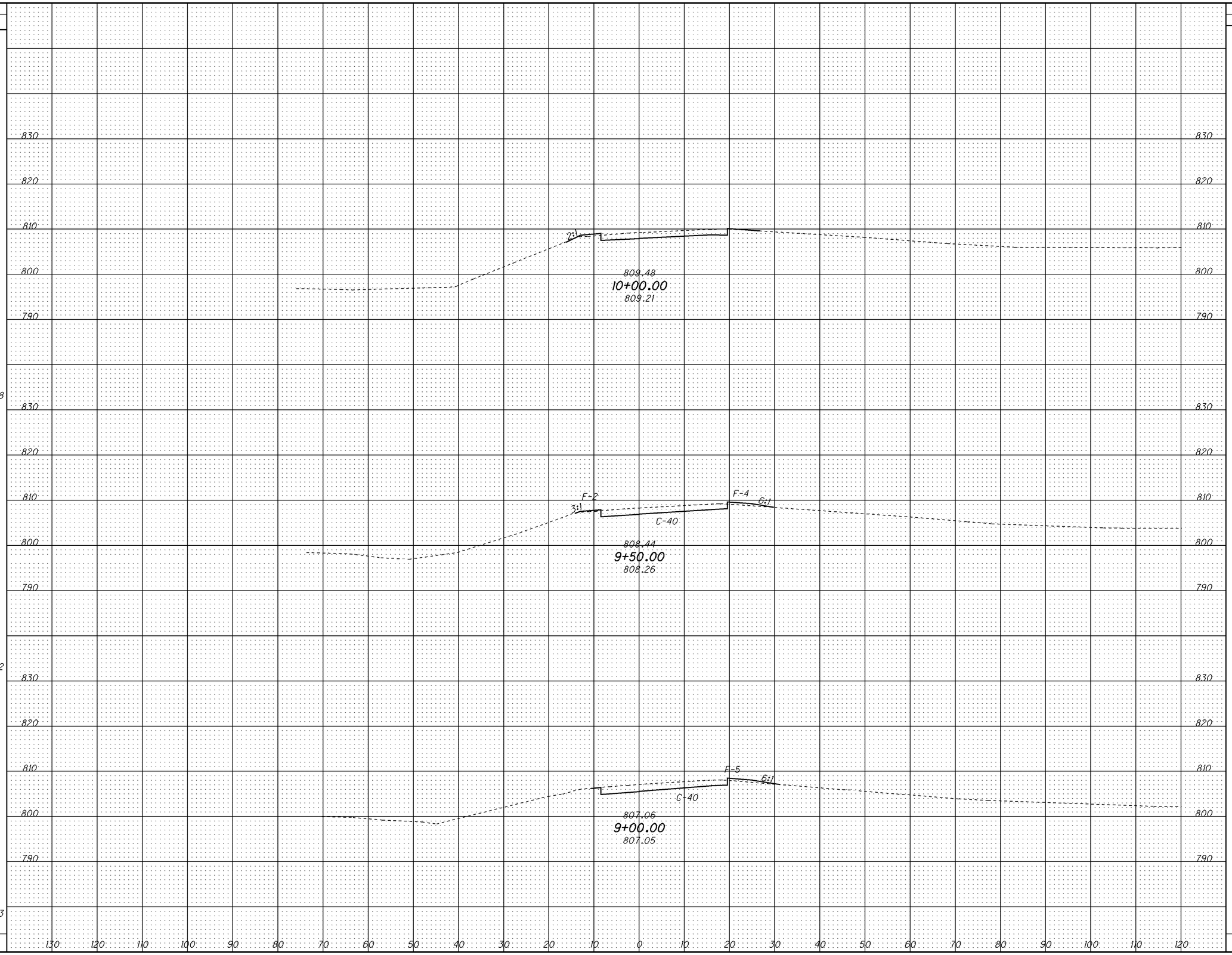
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
28	170	45	3	86	4
33	206	47	1	91	2
41	214	51	1	92	2

CALCULATED

CHECKED

RAMP J CROSS SECTIONS
STA. 7+50.00 TO STA. 8+50.00

LAK-90-21.40
ATB-90-0.00



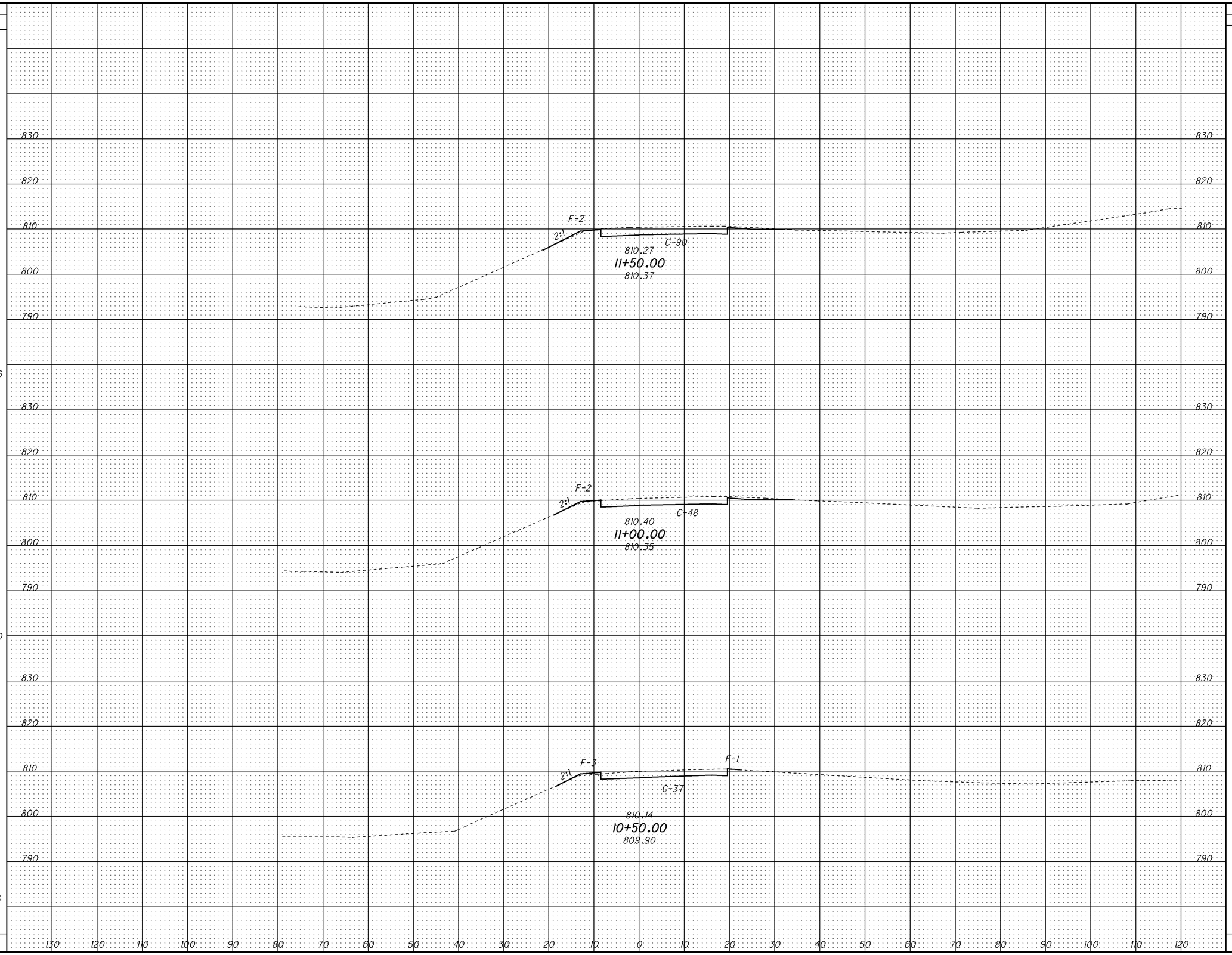
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
36					
	198	35	4	67	10
35					
	192	36	6	71	11
34					
	173	40	5	79	8

CALCULATED

CHECKED

RAMP J CROSS SECTIONS
STA. 9+00.00 TO STA. 10+00.00

LAK-90-21.40
ATB-90-0.00



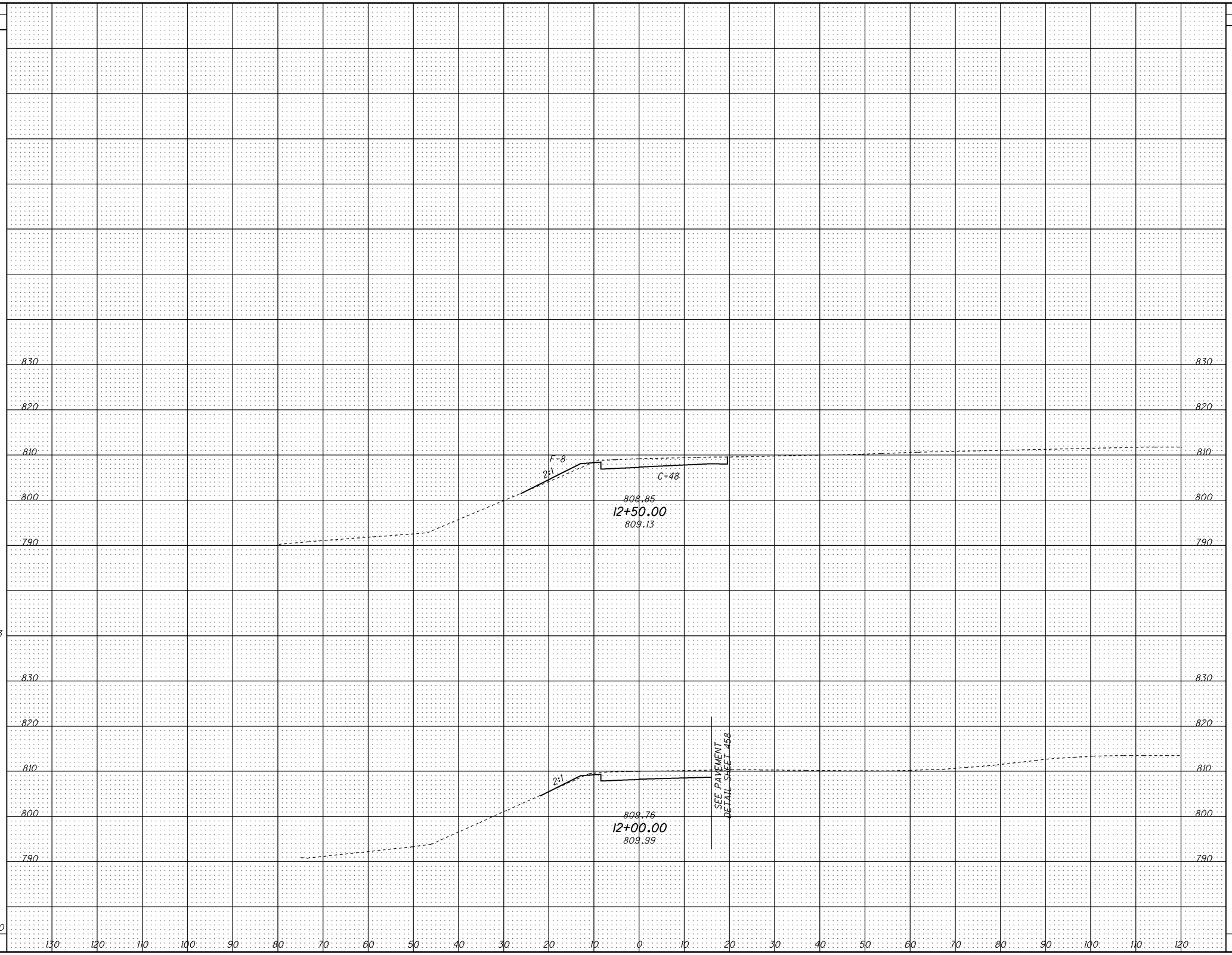
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
47		90	2		
	256			128	4
45		48	2		
	220			88	6
34		37	4		
	195			67	8

CALCULATED

CHECKED

RAMP J CROSS SECTIONS
STA. 10+50.00 TO STA. 11+50.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
30		48	8		
	153			86	11
25		44	3		
	200			124	5

CALCULATED

CHECKED

RAMP J CROSS SECTIONS
STA. 12+00.00 TO STA. 12+50.00

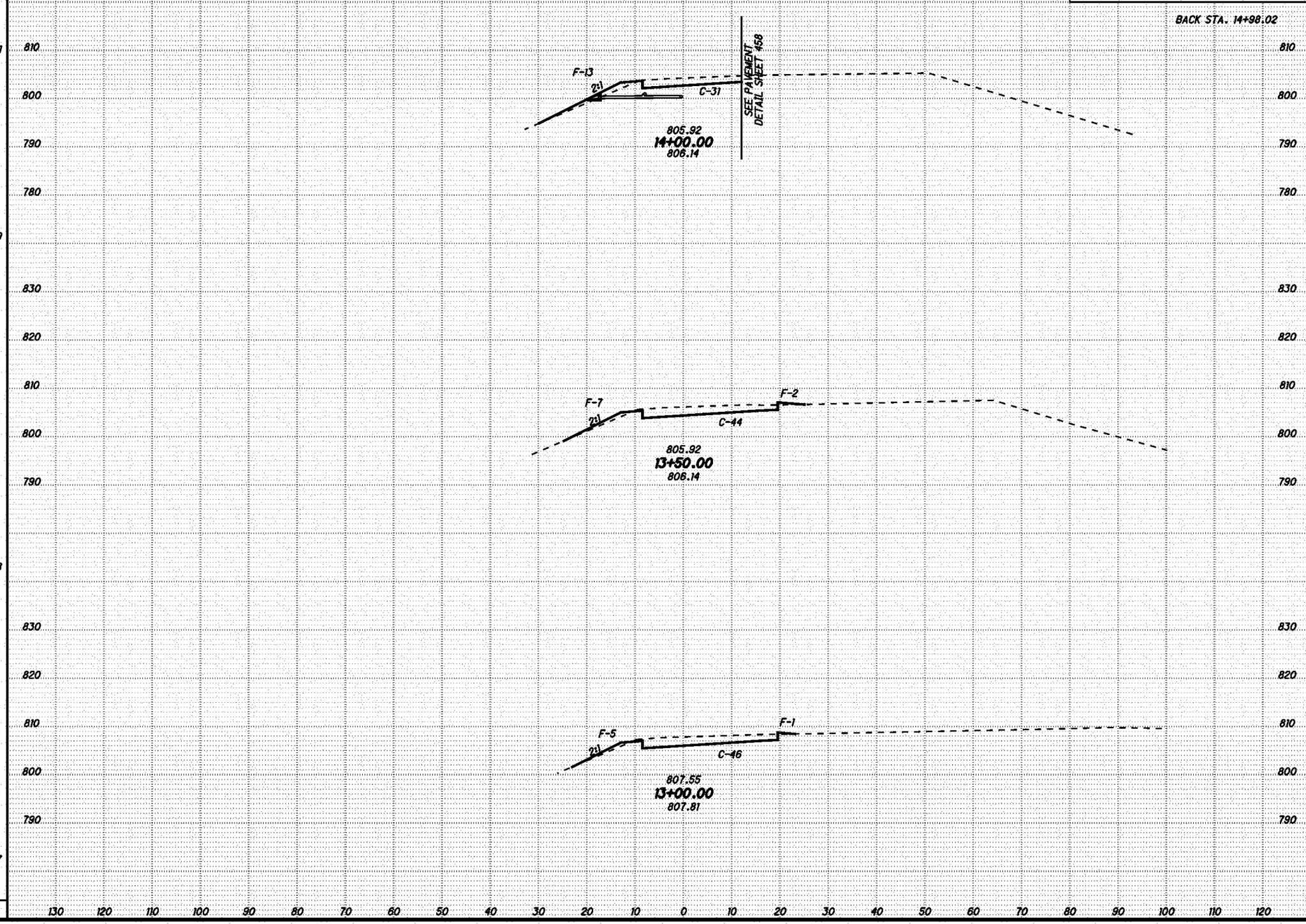
LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.
	4,224
34	
	371
34	
	189
34	
	178
30	
	167

TOTAL FOR RAMP J

BACK STA. 14+98.02

END WORK
STA. 14+98.02



RAMP J TOTAL

ITEM 203 EXCAVATION: 688 CU YD
1,709 CU YD (FROM CROSS SECTIONS)
− 1,021 CU YD (PAVEMENT REMOVAL)
= 688 CU YD

ITEM 203 EMBANKMENT: 259 CU YD

	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
BACK STA. 14+98.02	31	13		
			113	48
	31	13		
			74	21
	44	9		
			84	14
	46	6		
			87	13

CALCULATED

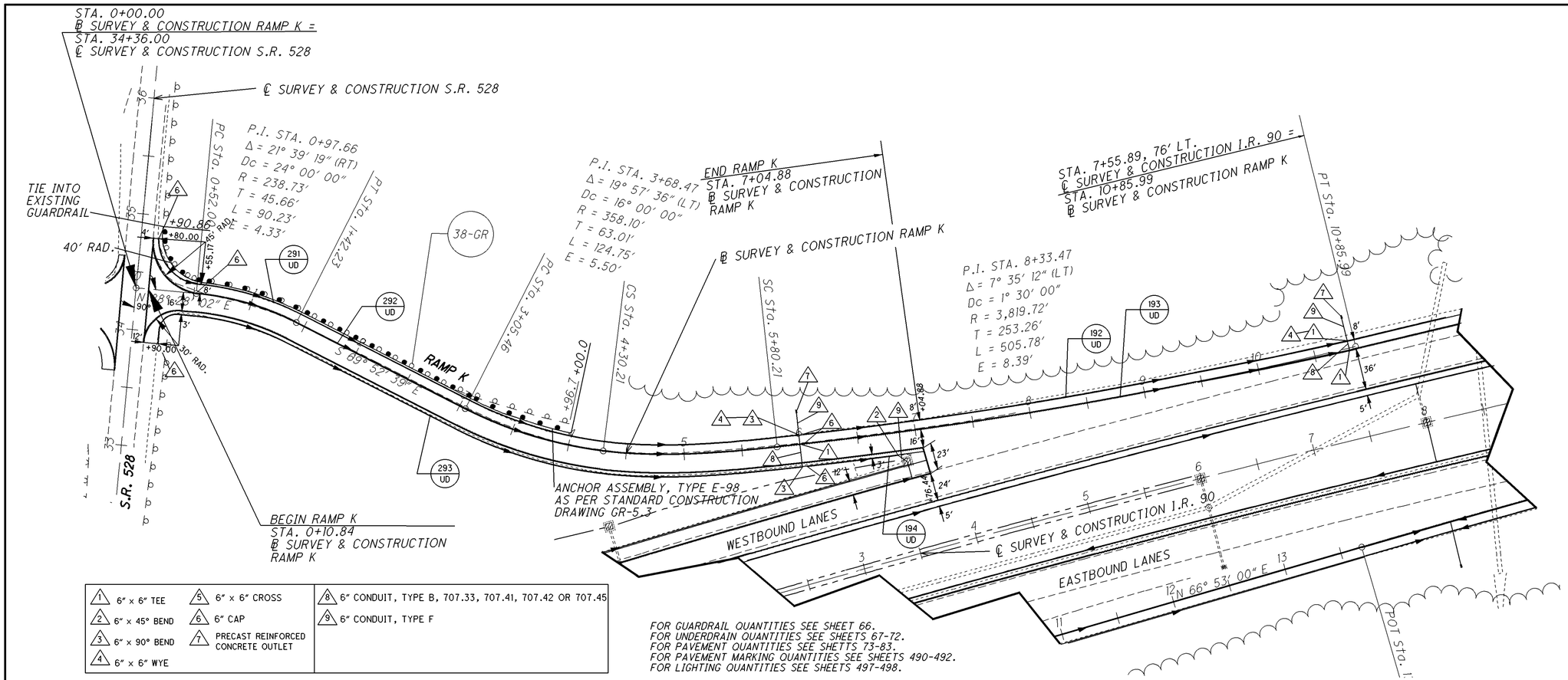
CHECKED

RAMP J CROSS SECTIONS
STA. 13+00.00 TO STA. 14+98.02

LAK-90-21.40
ATB-90-0.00

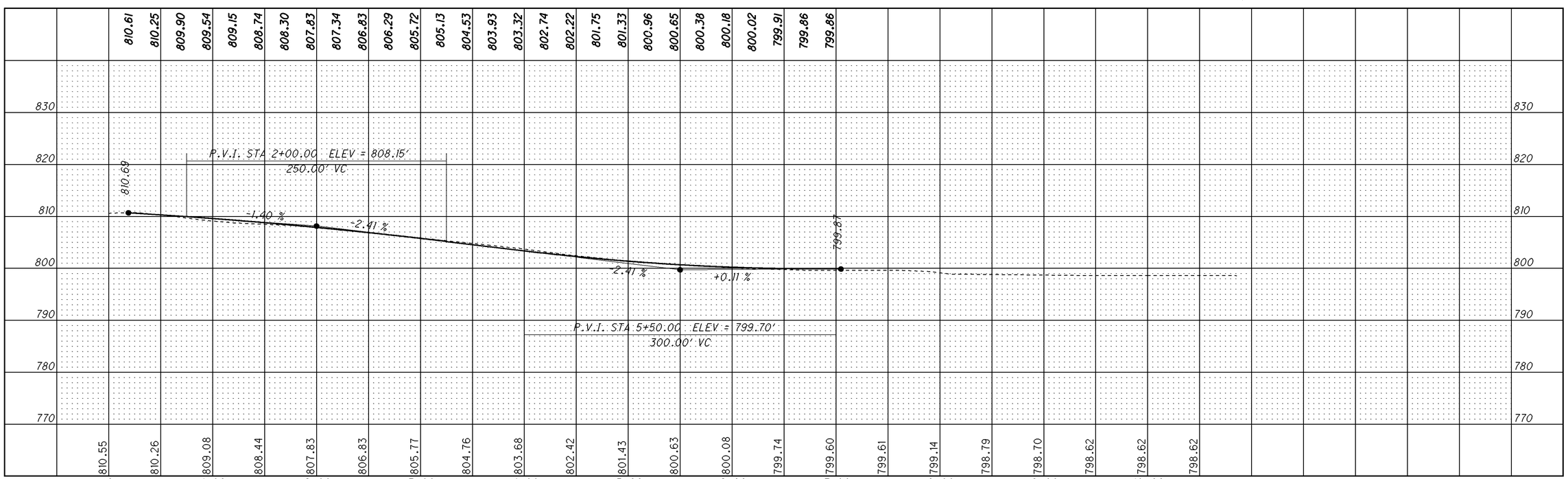
437
498

75477_RAMPJ_PXS.DGN 04/30/08 SHEET 8 OF 8



1 6" x 6" TEE	5 6" x 6" CROSS	8 6" CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45
2 6" x 45° BEND	6 6" CAP	9 6" CONDUIT, TYPE F
3 6" x 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET	
4 6" x 6" WYE		

FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHETTS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.



HORIZONTAL SCALE IN FEET
0 50 100

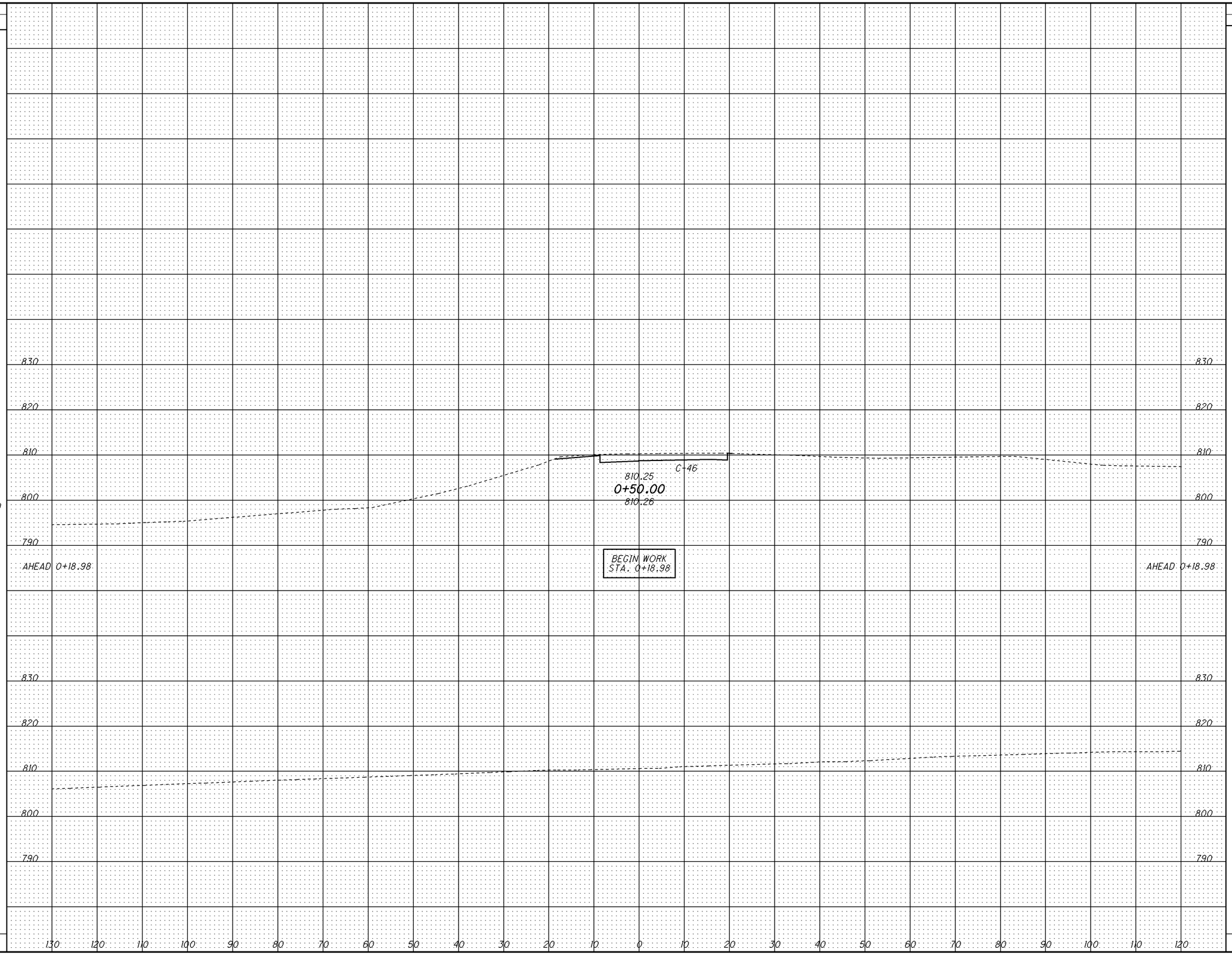
CALCULATED M.M.
CHECKED J.C.

PLAN AND PROFILE - RAMP K
STA. 0+10.84 TO STA. 7+04.88

LAK-90-21.40
ATB-90-0.00

75477RAMPK_PPP01.DGN 05/06/08

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
20	69	46	0	53	0
20		46	0		



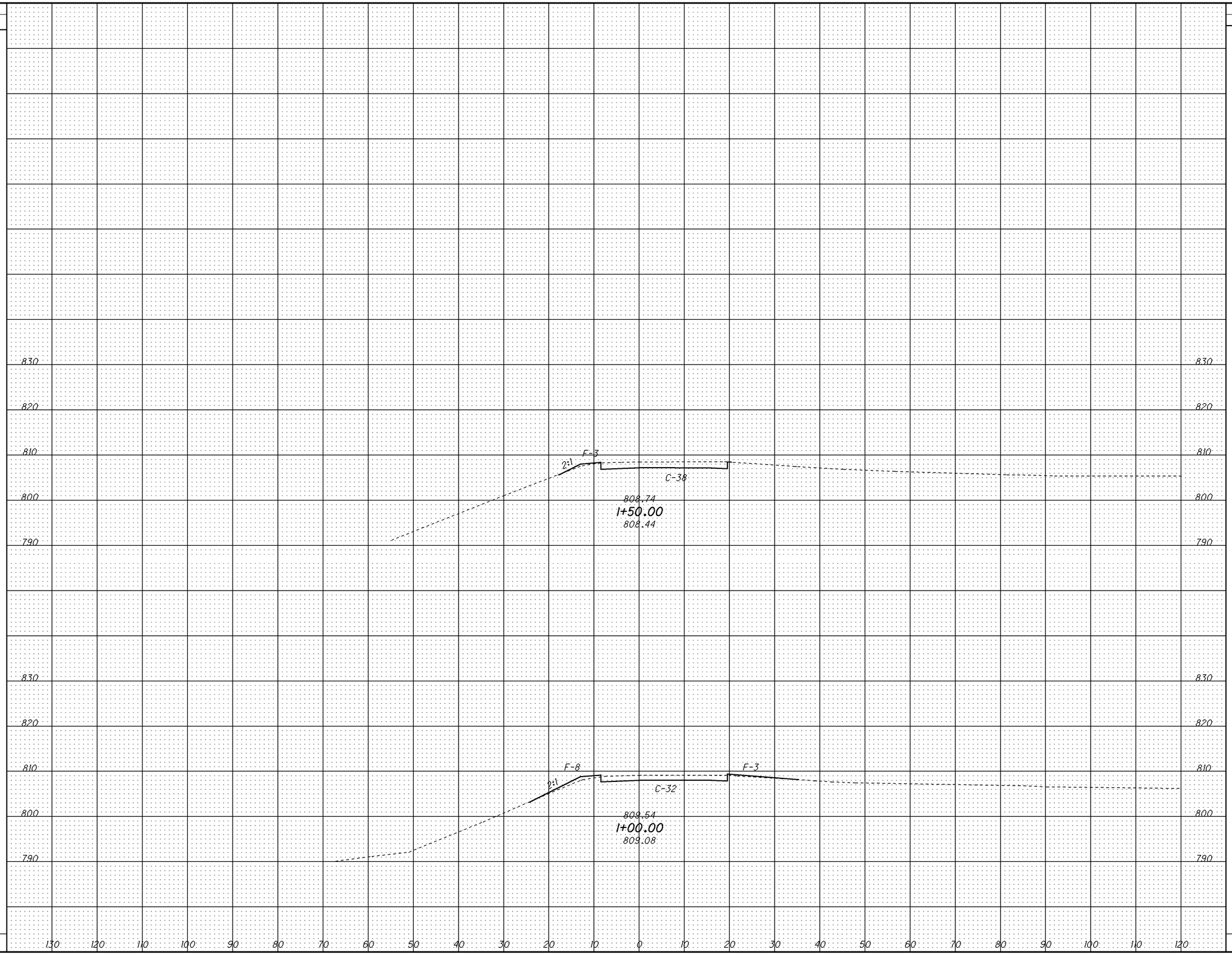
CALCULATED

CHECKED

RAMP K CROSS SECTIONS
STA. 0+18.98 TO STA. 0+50.00

LAK-90-21.40
ATB-90-0.00

75477_RAMPK_PXS.DGN 04/30/08 SHEET 1 OF 7



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
20		38	3		
	37			65	13
53		32	11		
	49			73	11

CALCULATED

CHECKED

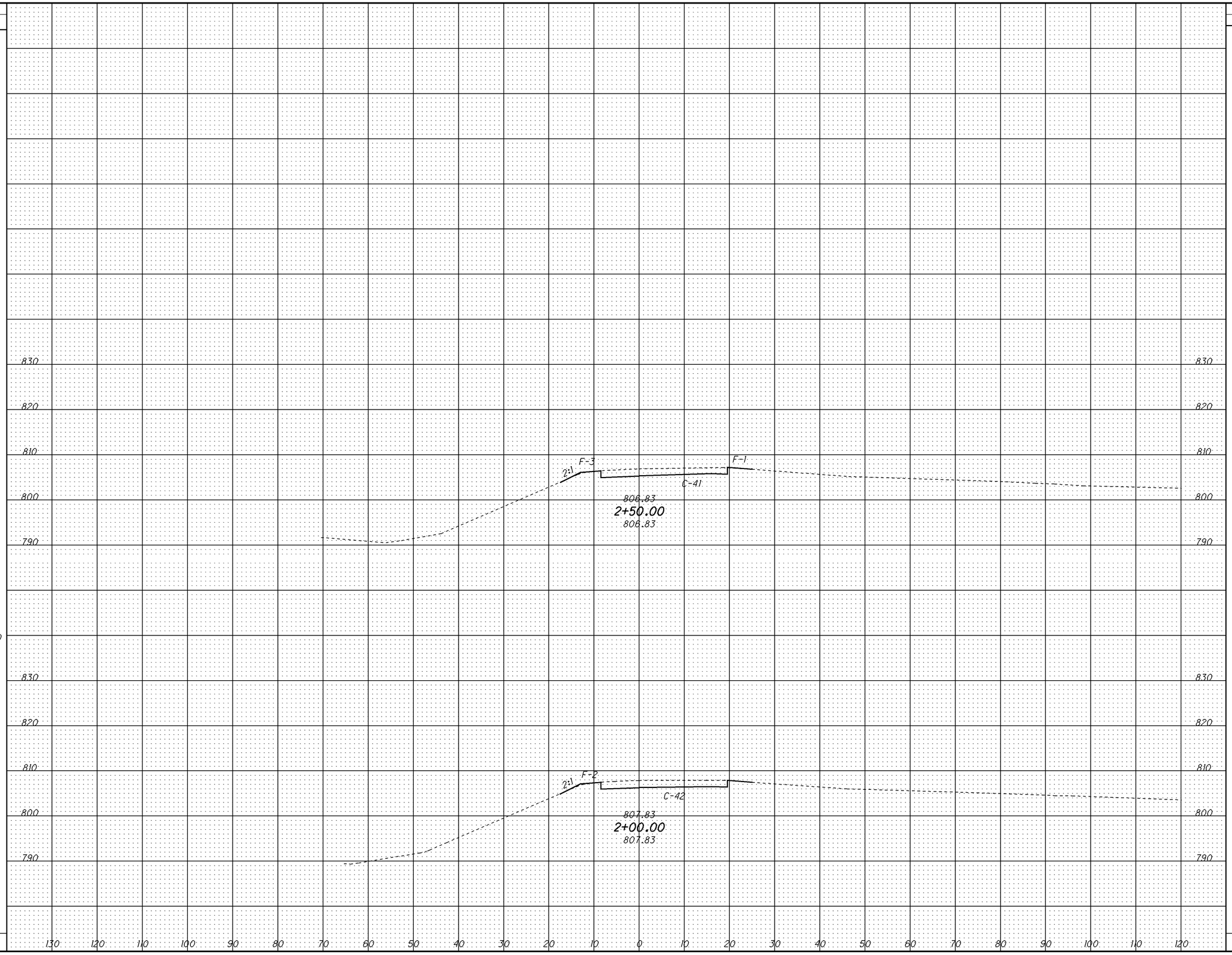
RAMP K CROSS SECTIONS
STA. 1+00.00 TO STA. 1+50.00

LAK-90-21.40
ATB-90-0.00

440
498

75477_RAMPK_PXS.DGN 04/30/08 SHEET 2 OF 7

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
36		41	4		
	200			77	6
36		42	2		
	156			74	5

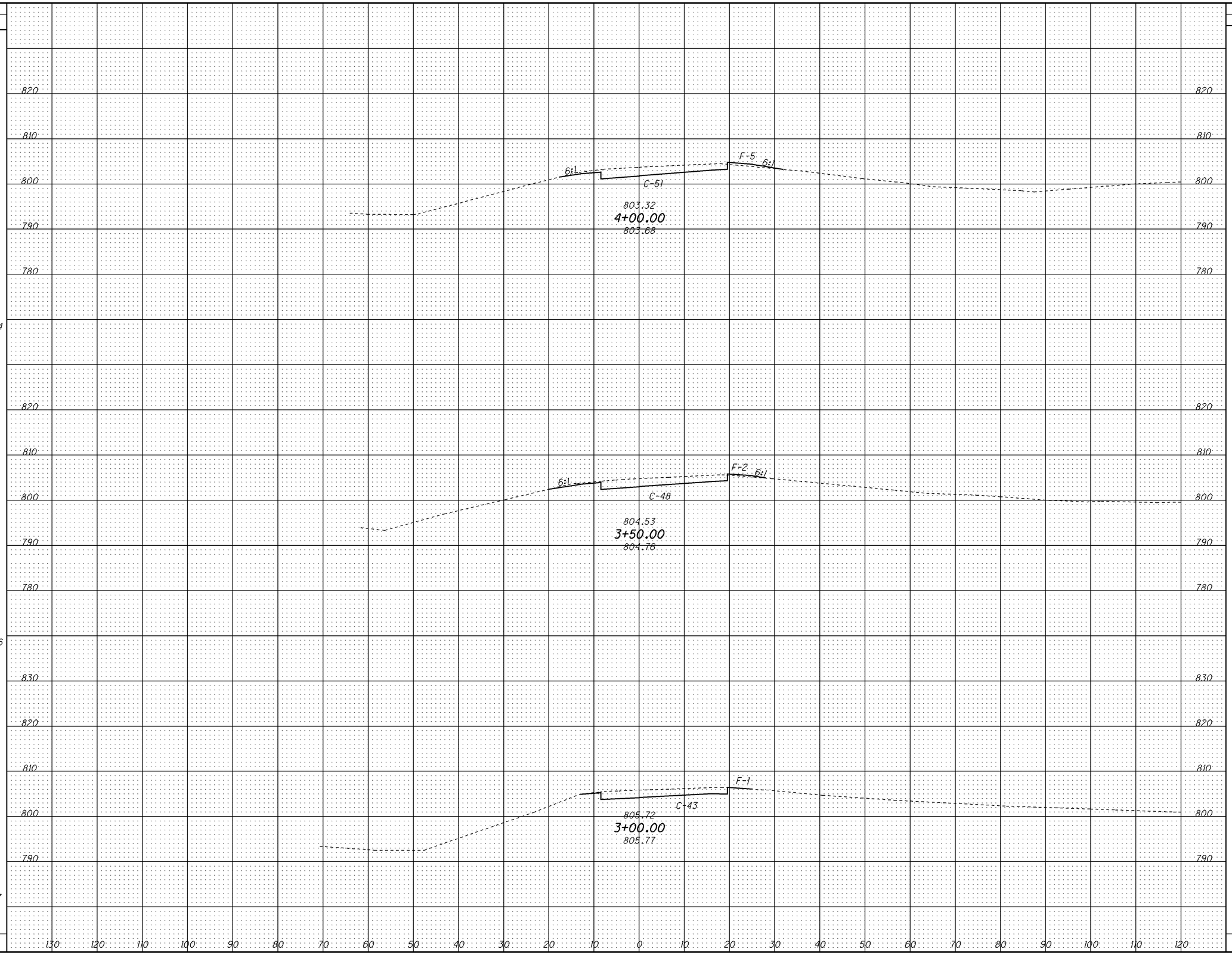


CALCULATED

CHECKED

RAMP K CROSS SECTIONS
STA. 2+00.00 TO STA. 2+50.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
43	234	51	5	92	7
41	206	48	2	85	3
31	187	43	1	78	5

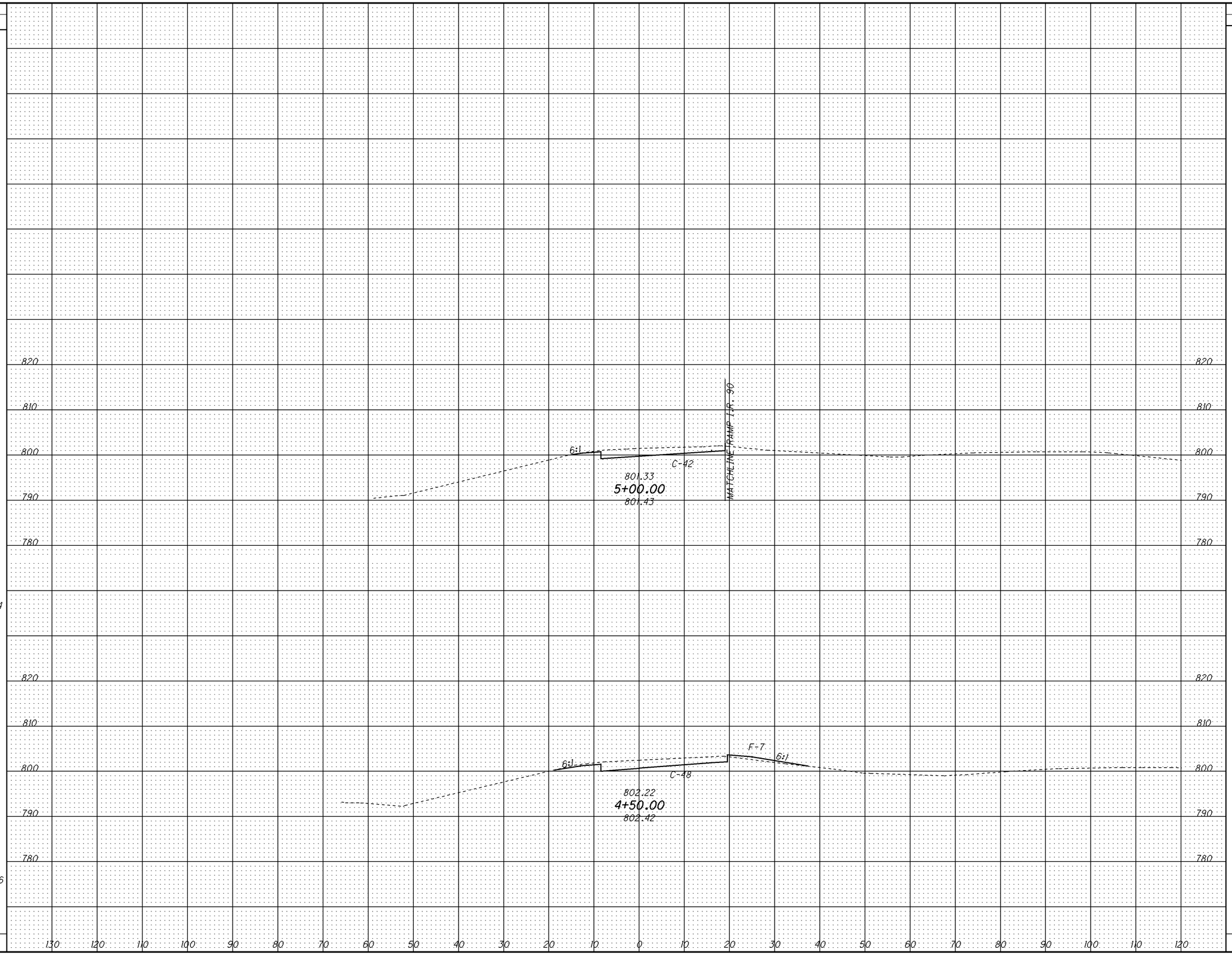
CALCULATED

CHECKED

RAMP K CROSS SECTIONS
STA. 3+00.00 TO STA. 4+00.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
17	184	42	0	84	7
49	256	48	7	92	11



CALCULATED

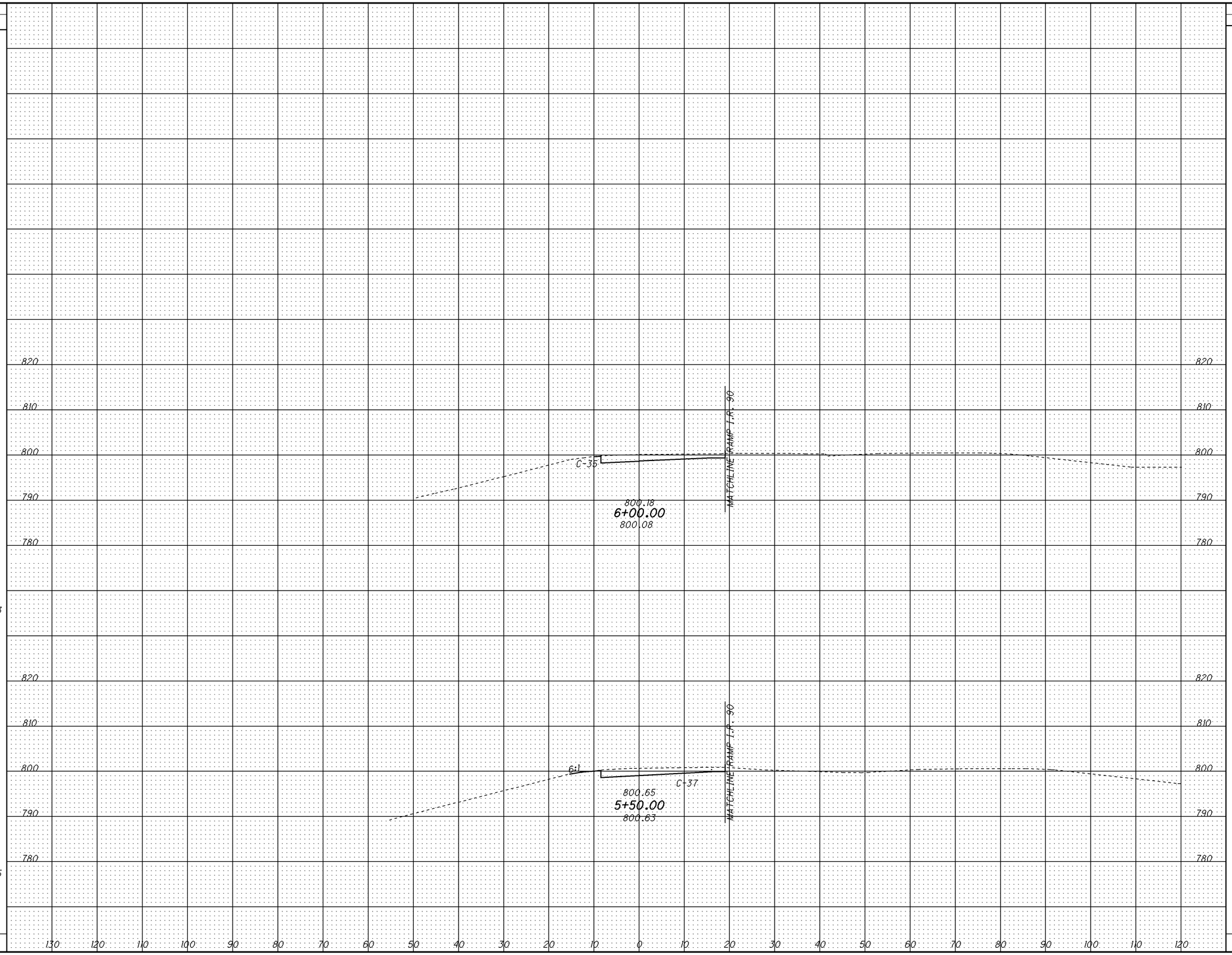
CHECKED

RAMP K CROSS SECTIONS
STA. 4+50.00 TO STA. 5+00.00

LAK-90-21.40
ATB-90-0.00

75477_RAMPK_PXS.DGN 04/30/08 SHEET 5 OF 7

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
12	53	35	0	67	0
17	95	37	0	73	0



CALCULATED

CHECKED

RAMP K CROSS SECTIONS
STA. 5+50.00 TO STA. 6+00.00

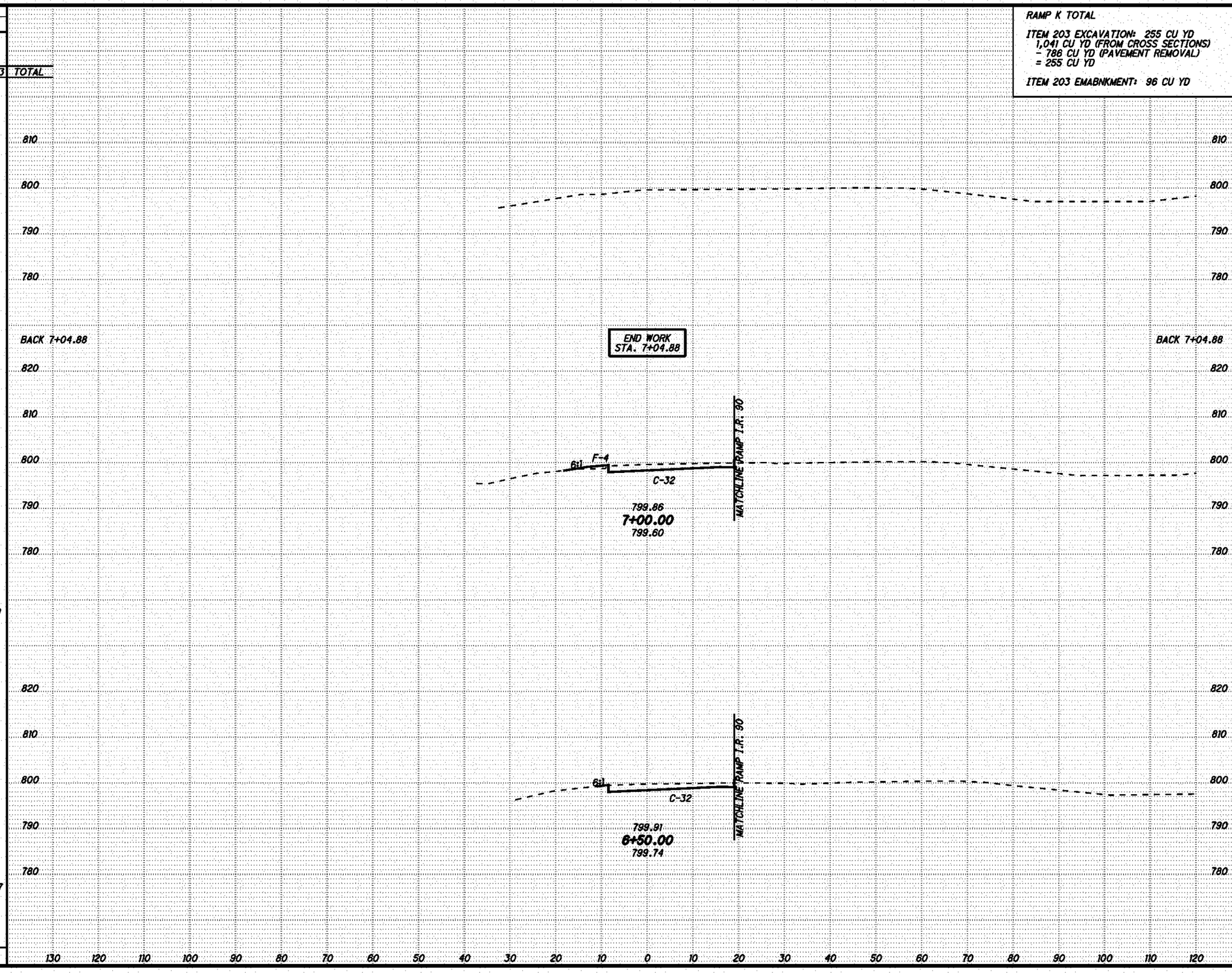
LAK-90-21.40
ATB-90-0.00

RAMP K TOTAL

ITEM 203 EXCAVATION: 255 CU YD
1,041 CU YD (FROM CROSS SECTIONS)
- 786 CU YD (PAVEMENT REMOVAL)
= 255 CU YD

ITEM 203 EMABNKMENT: 96 CU YD

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	1893	TOTAL				
20		BACK 7+04.88	32	4		
20	11		32	4	6	5
	89				60	4
12			32	0		
	67				62	0



CALCULATED

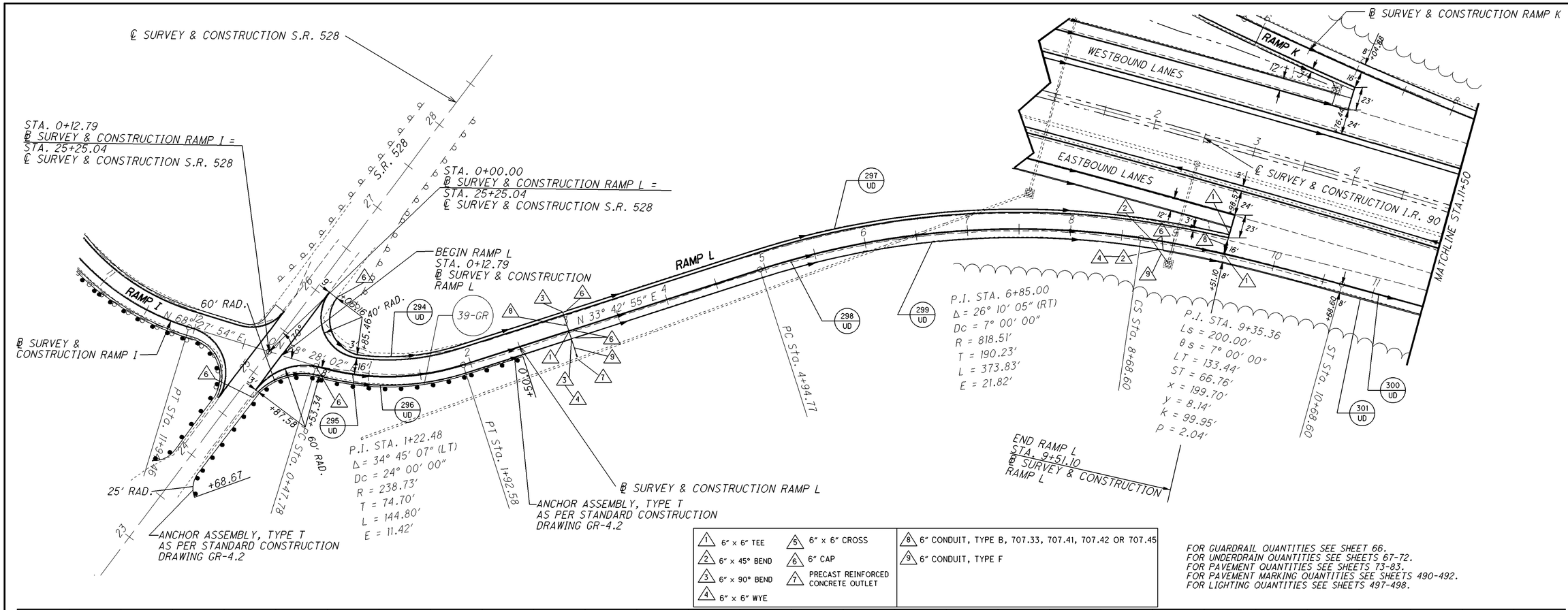
CHECKED

RAMP K CROSS SECTIONS
STA. 6+50.00 TO STA. 7+04.88

LAK-90-21.40
ATB-90-0.00

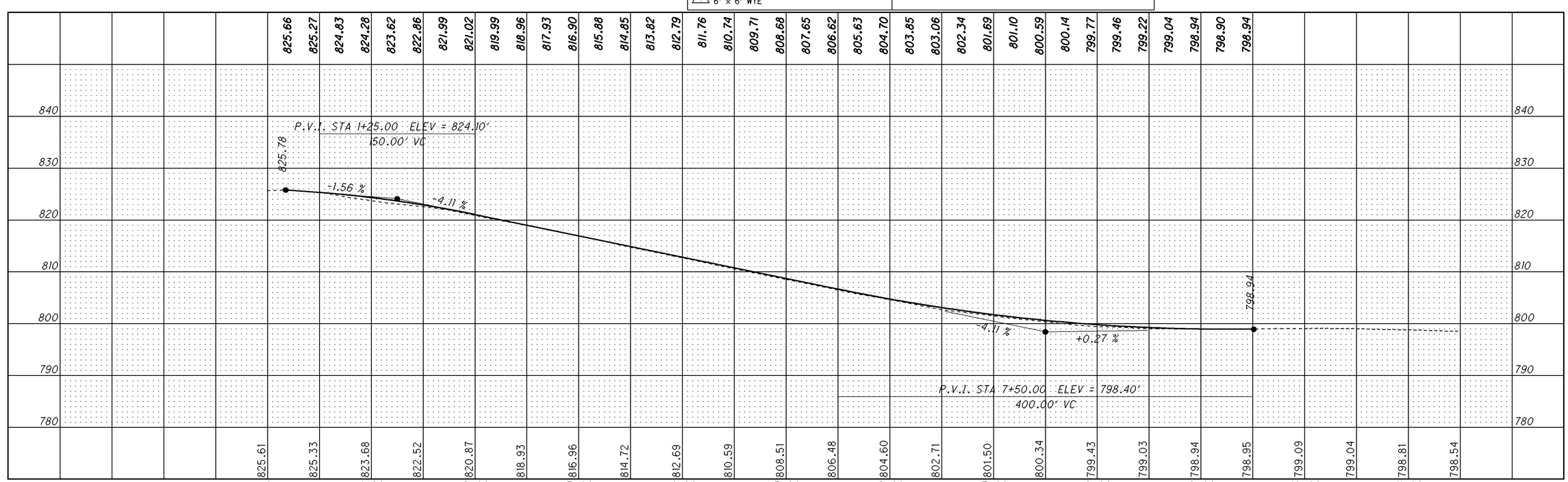
445
498

75477_RAMPK_PXS.DGN 04/30/08 SHEET 7 OF 7



1 6" x 6" TEE	5 6" x 6" CROSS	8 6" CONDUIT, TYPE B, 707.33, 707.41, 707.42 OR 707.45
2 6" x 45° BEND	6 6" CAP	9 6" CONDUIT, TYPE F
3 6" x 90° BEND	7 PRECAST REINFORCED CONCRETE OUTLET	
4 6" x 6" WYE		

FOR GUARDRAIL QUANTITIES SEE SHEET 66.
FOR UNDERDRAIN QUANTITIES SEE SHEETS 67-72.
FOR PAVEMENT QUANTITIES SEE SHEETS 73-83.
FOR PAVEMENT MARKING QUANTITIES SEE SHEETS 490-492.
FOR LIGHTING QUANTITIES SEE SHEETS 497-498.



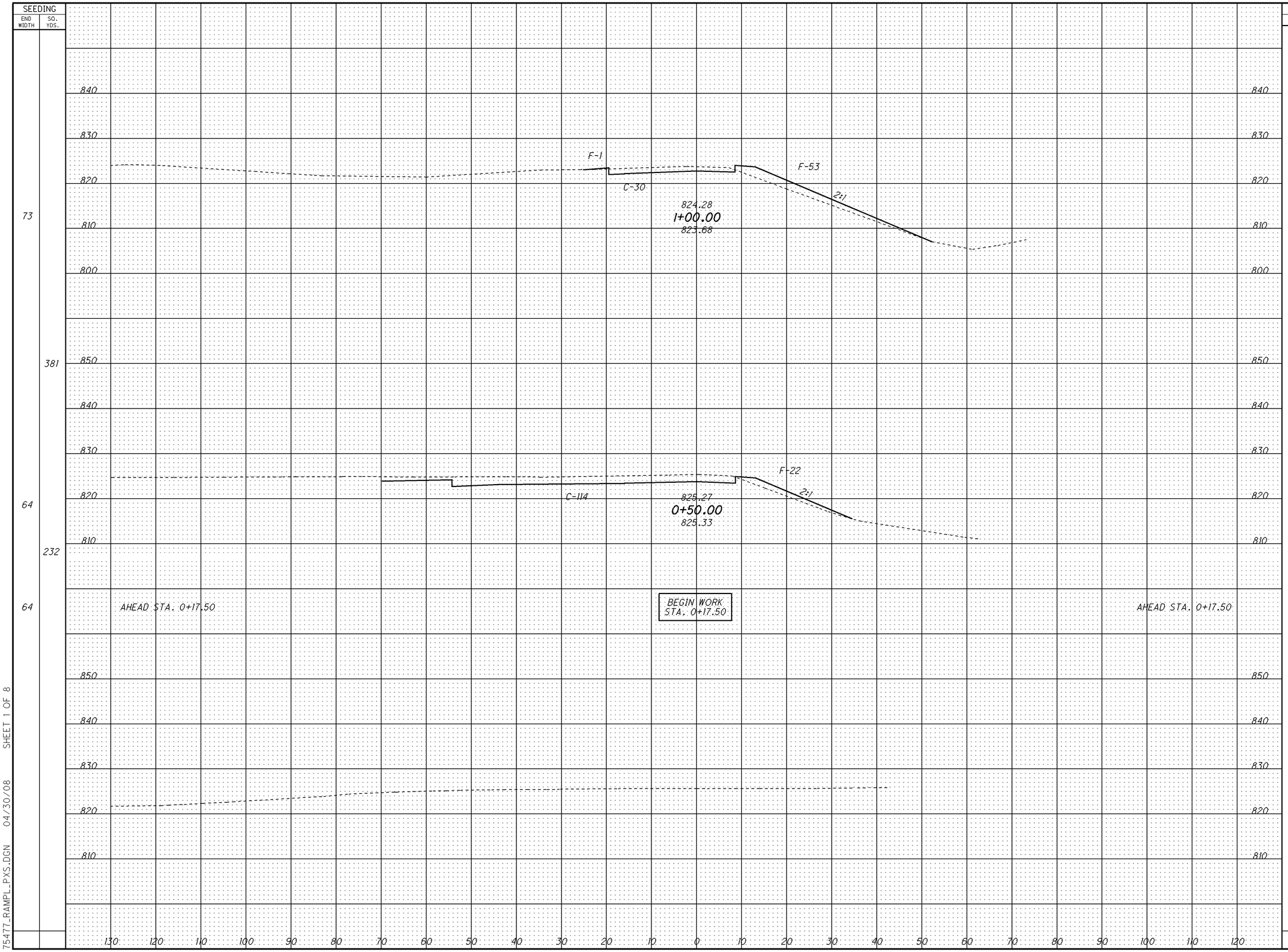
HORIZONTAL SCALE IN FEET 0 50 100

CALCULATED M.M.
CHECKED J.C.

PLAN AND PROFILE - RAMP L
STA. 0+12.79 TO STA. 9+51.10

LAK-90-21.40
ATB-90-0.00

75477RAMPL_PPP01.DGN 05/06/08



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
73		30	54		
	381			134	71
64		114	22		
	232			138	27
64		114	22		

CALCULATED

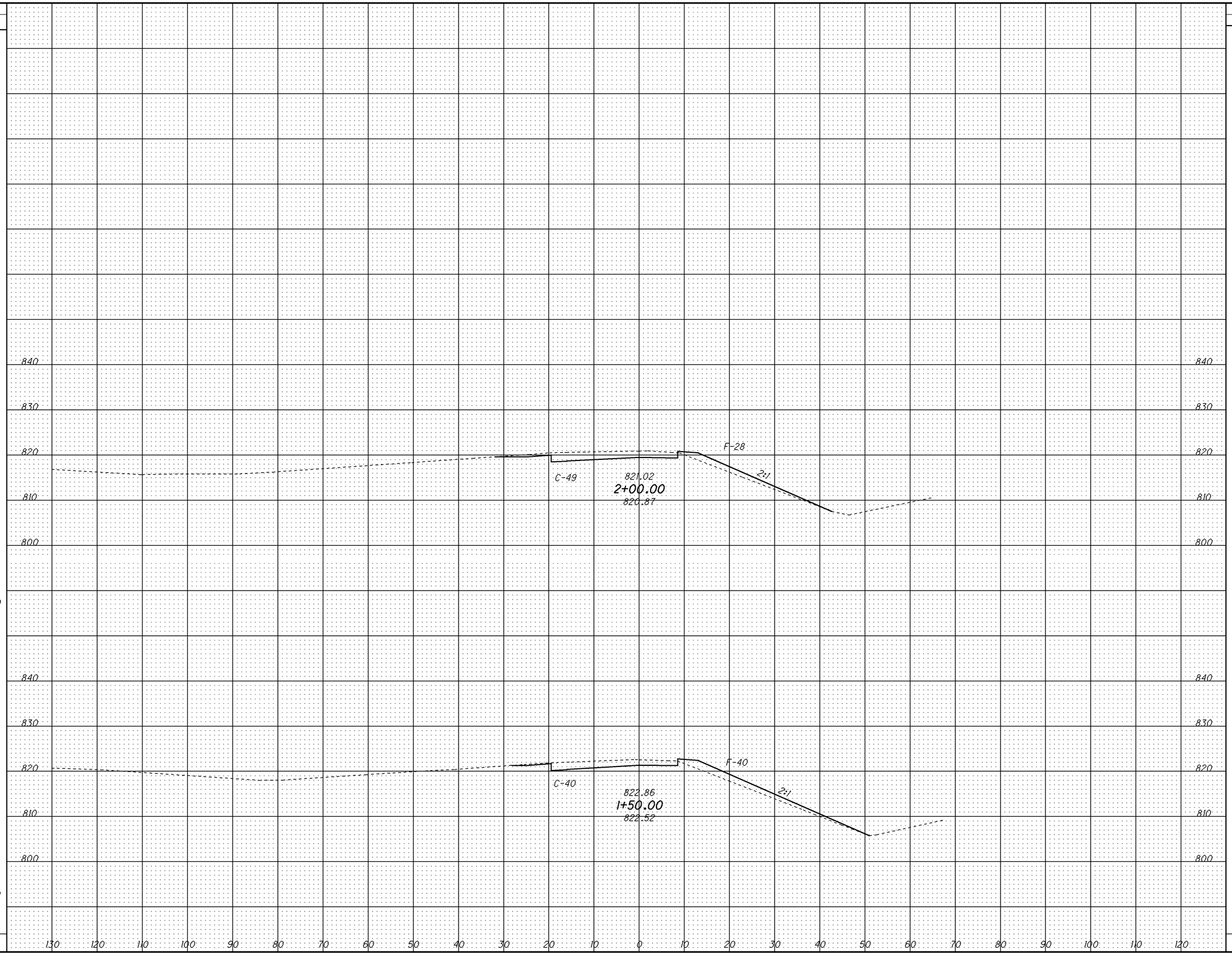
CHECKED

RAMP L CROSS SECTIONS
STA. 0+17.50 TO STA. 1+00.00

LAK-90-21.40
ATB-90-0.00

75477_RAMPL_PXS.DGN 04/30/08 SHEET 1 OF 8

SEEDING		END AREA		VOLUME		
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	
70	350	49	28	83	63	2+00.00
56	359	40	40	65	87	1+50.00



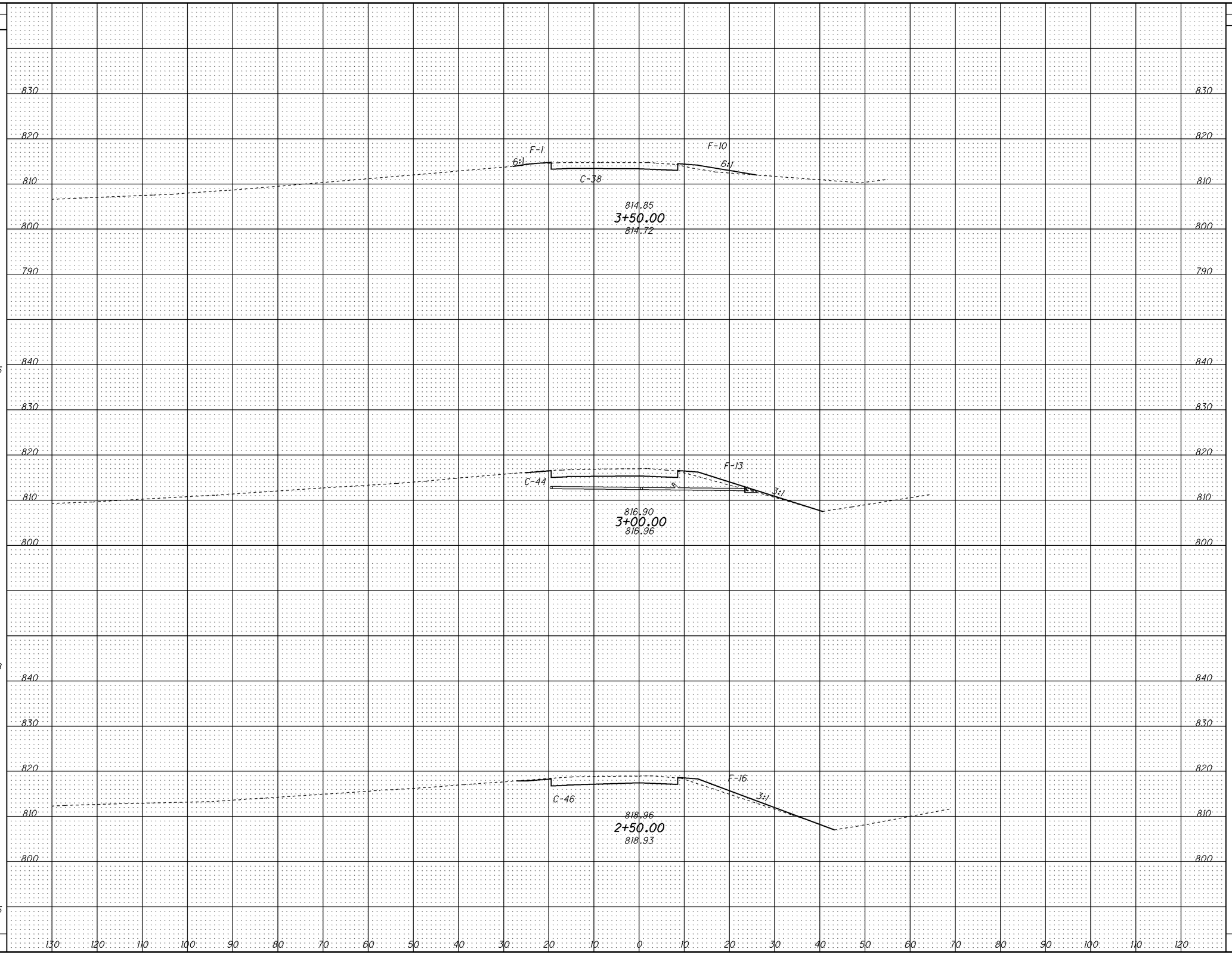
CALCULATED

CHECKED

RAMP L CROSS SECTIONS
STA. 1+50.00 TO STA. 2+00.00

LAK-90-21.40
ATB-90-0.00

75477_RAMPL_PXS.DGN 04/30/08 SHEET 2 OF 8



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
46		38	11		
	295			76	23
60		44	13		
	348			84	27
65		46	16		
	375			88	41

CALCULATED

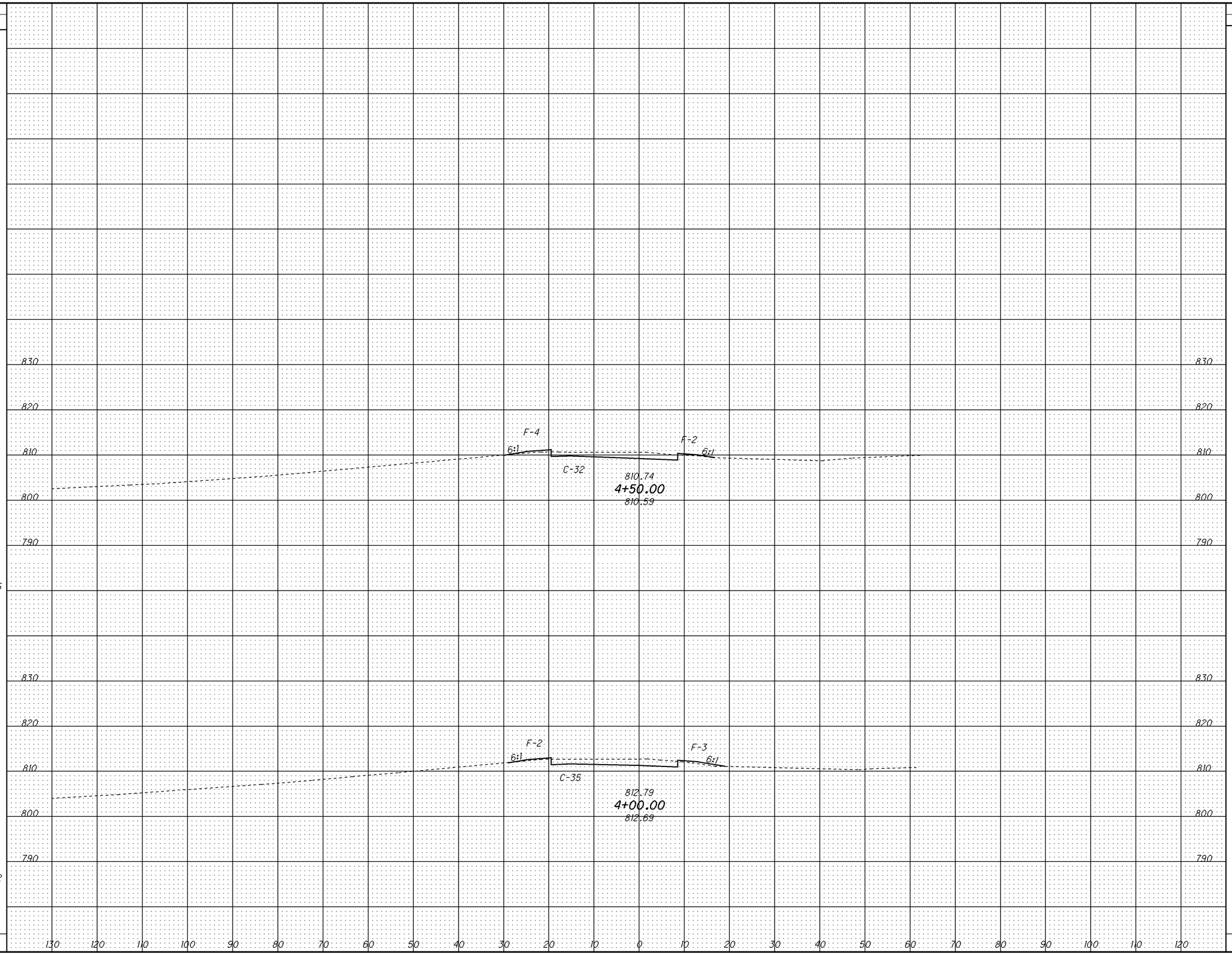
CHECKED

RAMP L CROSS SECTIONS
STA. 2+50.00 TO STA. 3+50.00

LAK-90-21.40
ATB-90-0.00

449
498

75477_RAMPL_PXS.DGN 04/30/08 SHEET 3 OF 8



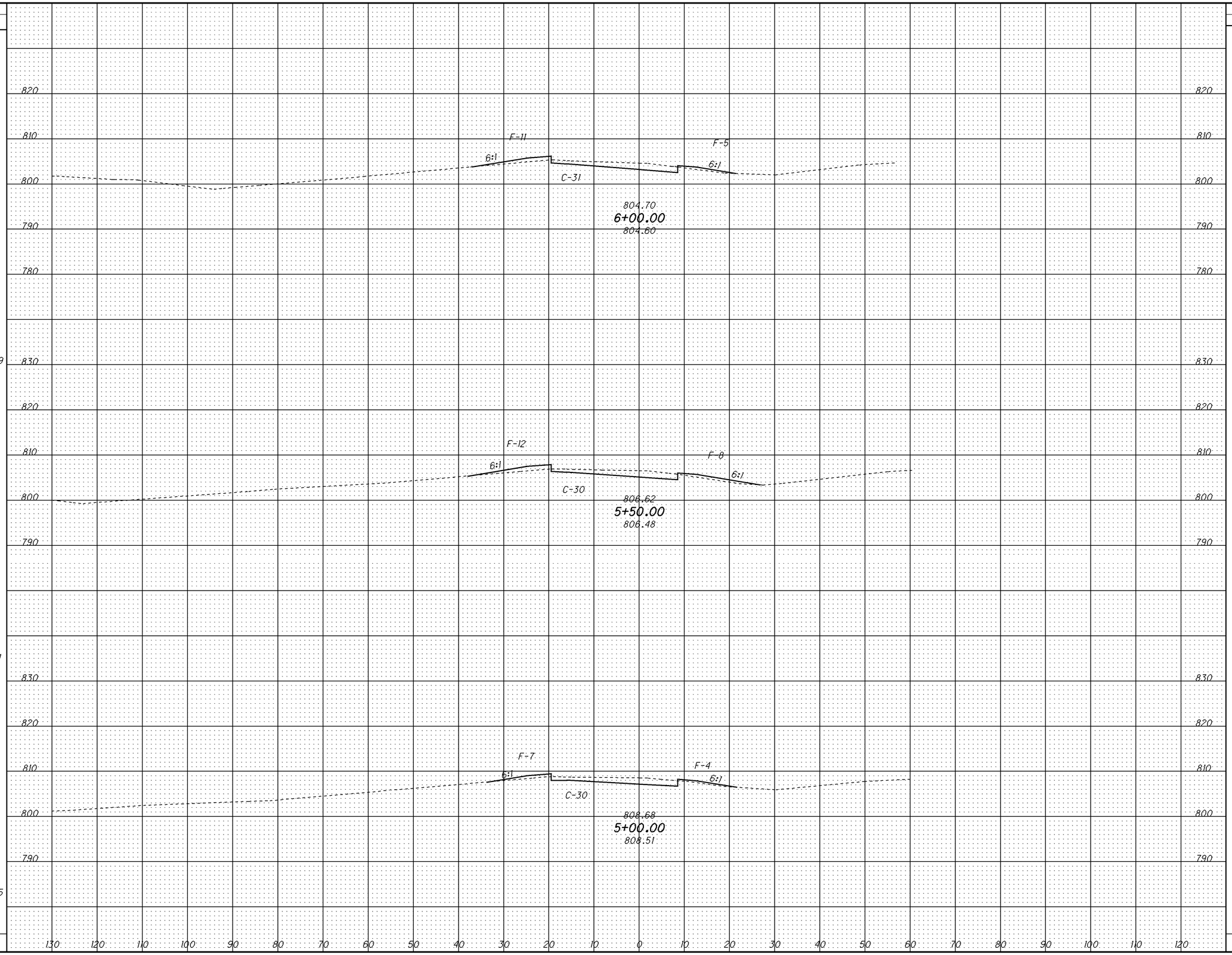
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
40					
	225	32	6	62	11
41					
	242	35	5	68	15

CALCULATED

CHECKED

RAMP L CROSS SECTIONS
STA. 4+00.00 TO STA. 4+50.00

LAK-90-21.40
ATB-90-0.00



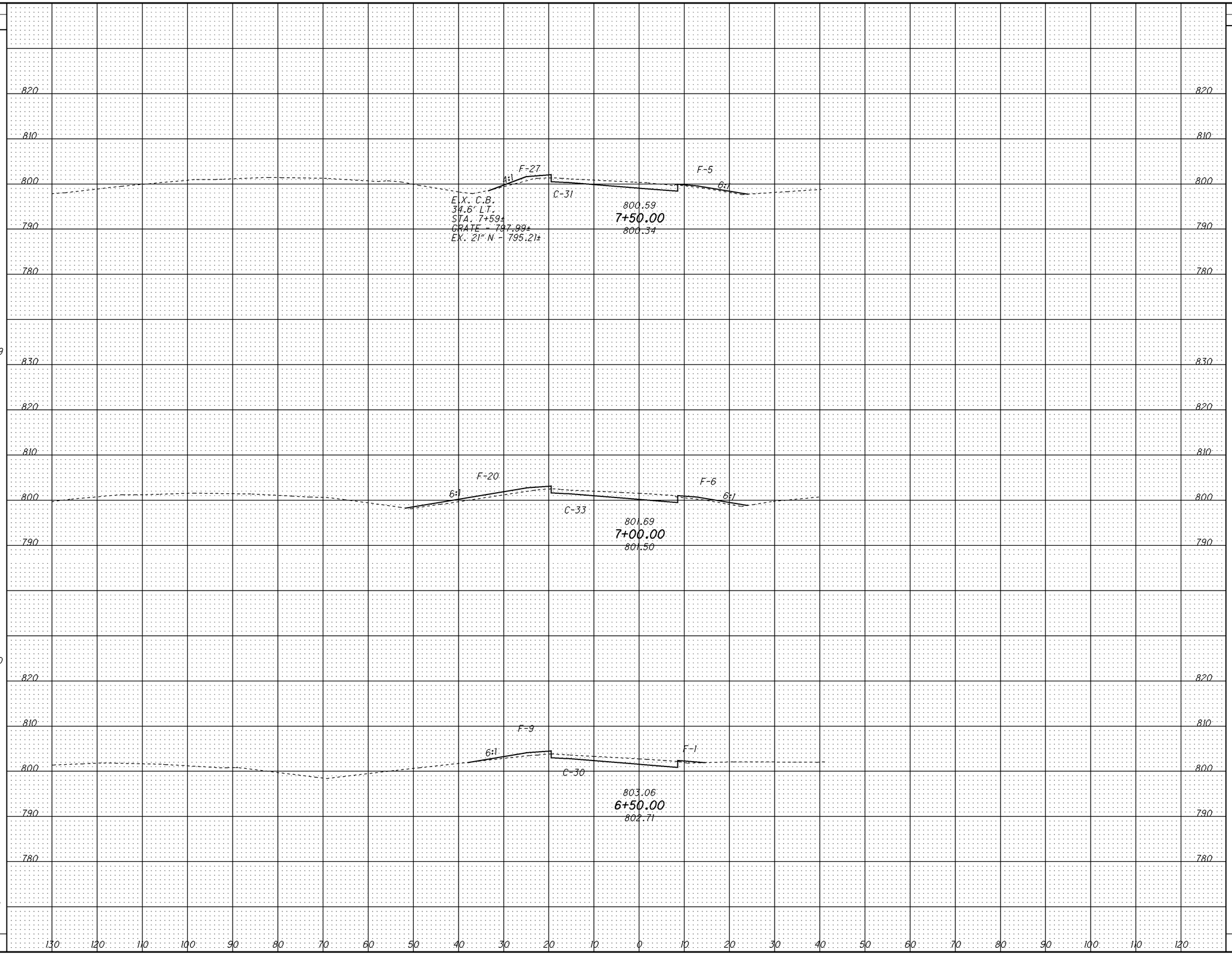
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
51		31	16		
	289			57	34
53		30	20		
	281			56	29
48		30	11		
	245			58	16

CALCULATED

CHECKED

RAMP L CROSS SECTIONS
STA. 5+00.00 TO STA. 6+00.00

LAK-90-21.40
ATB-90-0.00



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
60	359	31	32	60	54
69	320	33	26	59	34
46	214	30	10	57	24

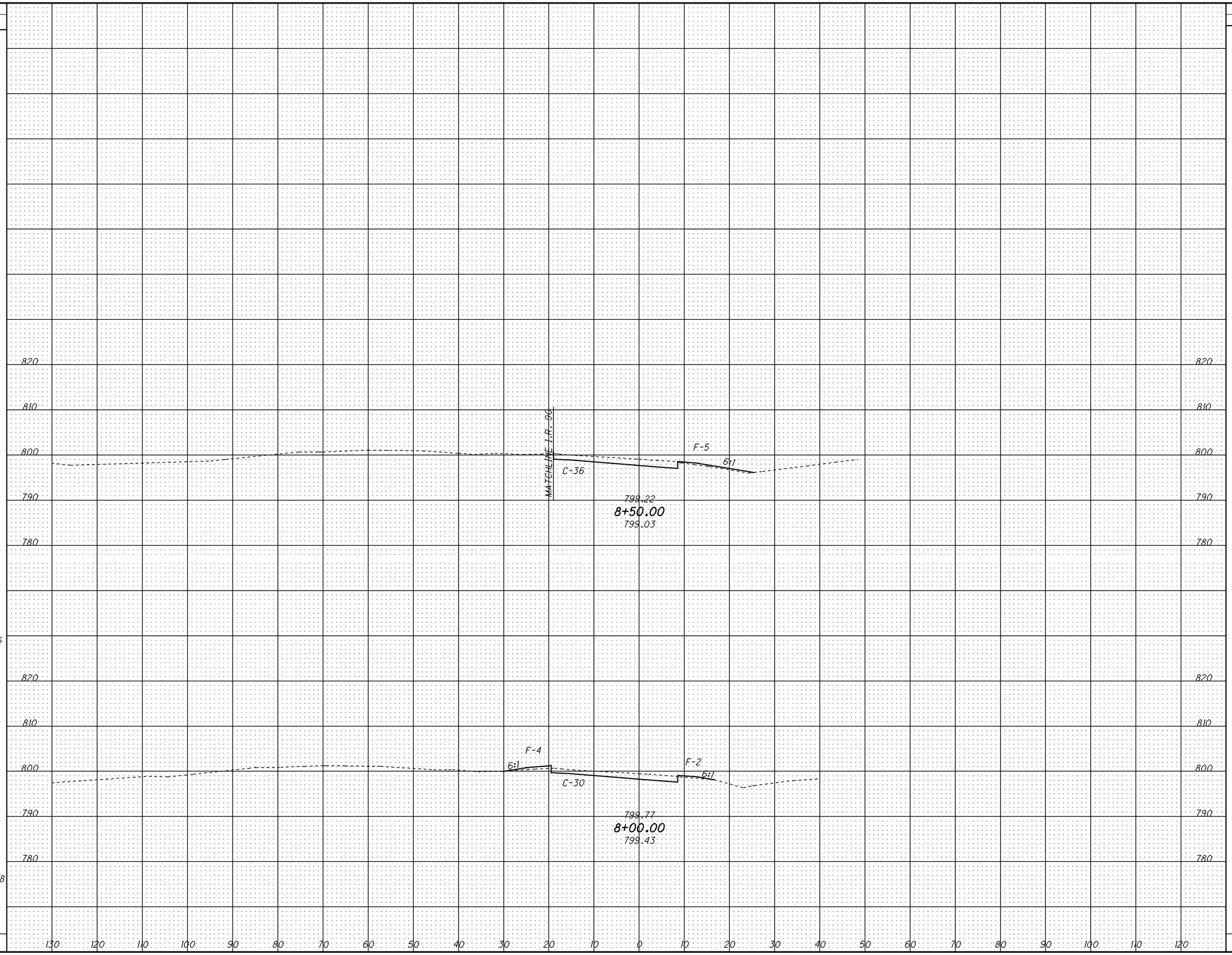
CALCULATED

CHECKED

RAMP L CROSS SECTIONS
STA. 6+50.00 TO STA. 7+50.00

LAK-90-21.40
ATB-90-0.00

SEEDING		END AREA		VOLUME		
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL	
27	186	36	5	62	11	8+50.00
40	278	30	6	57	36	8+00.00



CALCULATED

CHECKED

RAMP L CROSS SECTIONS
STA. 8+00.00 TO STA. 8+50.00

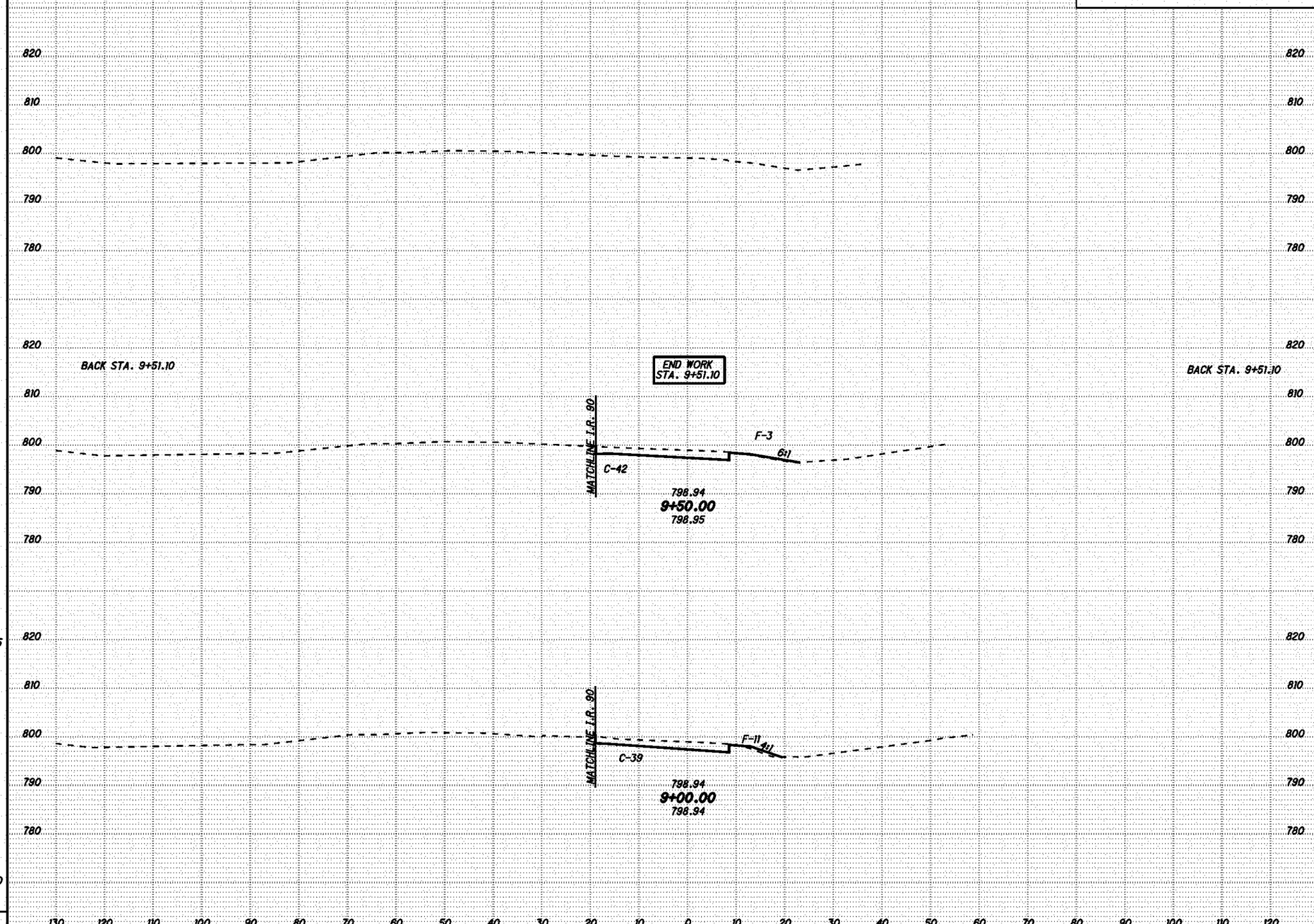
LAK-90-21.40
ATB-90-0.00

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	5,277	TOTAL FOR RAMP L				
25		BACK STA. 9+51.10	42	3		
	3				2	1
25			42	3		
	145				75	13
27			39	11		
	150				70	15

RAMP L TOTAL

ITEM 203 EXCAVATION: 353 CU YD
1,411 CU YD (FROM CROSS SECTIONS)
- 1,058 CU YD (PAVEMENT REMOVAL)
= 353 CU YD

ITEM 203 EMBANKMENT: 695 CU YD



CALCULATED

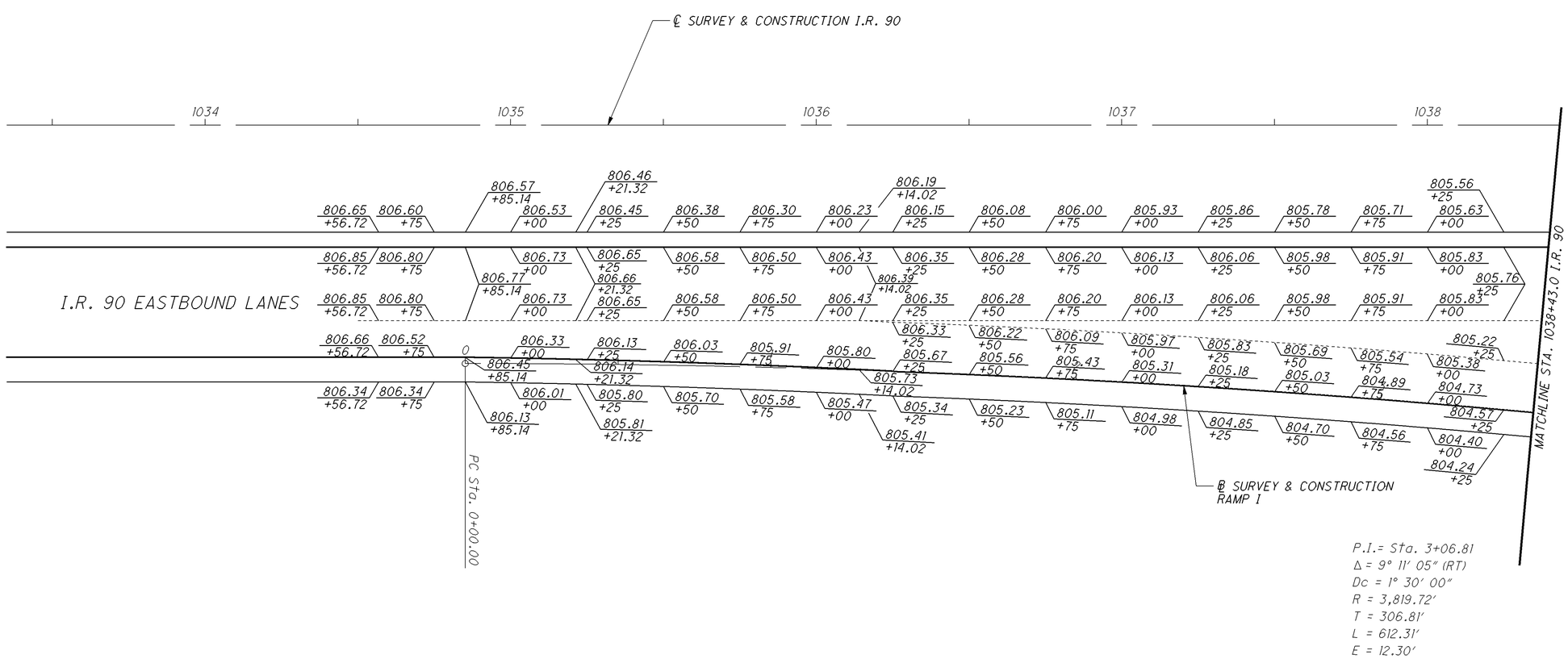
CHECKED

RAMP L CROSS SECTIONS
STA. 9+00.00 TO STA. 9+51.10

LAK-90-21.40
ATB-90-0.00

454
498

75477_RAMPL_PXS.DGN 04/30/08 SHEET 8 OF 8



P.I.= Sta. 3+06.81
Δ = 9° 11′ 05″ (RT)
Dc = 1° 30′ 00″
R = 3,819.72′
T = 306.81′
L = 612.31′
E = 12.30′

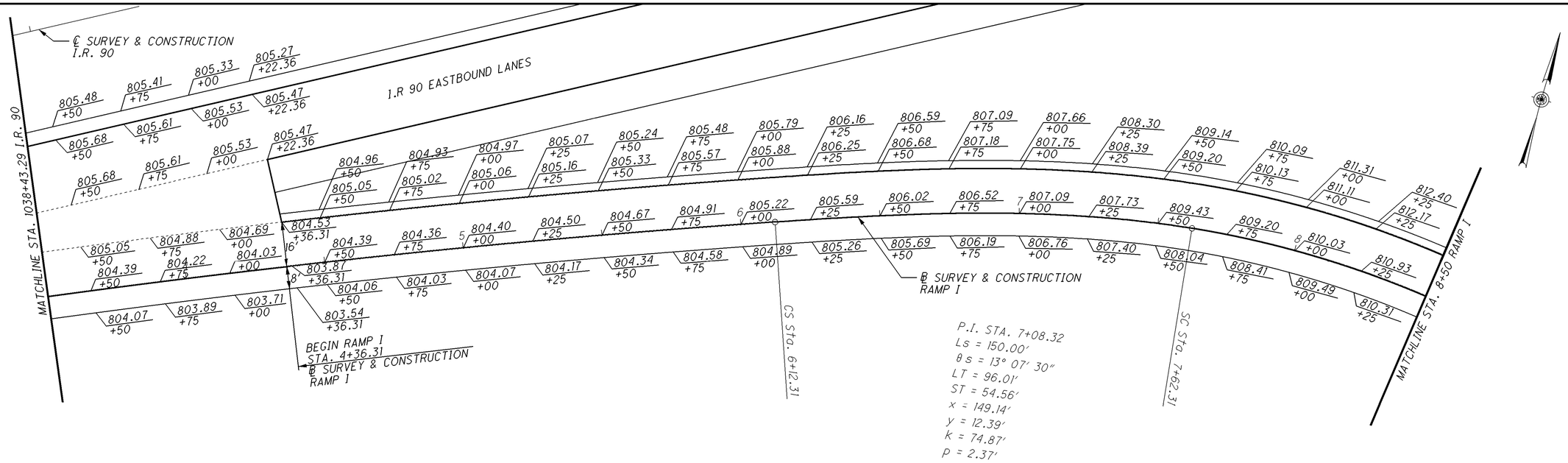
HORIZONTAL SCALE IN FEET
0 10 20 40

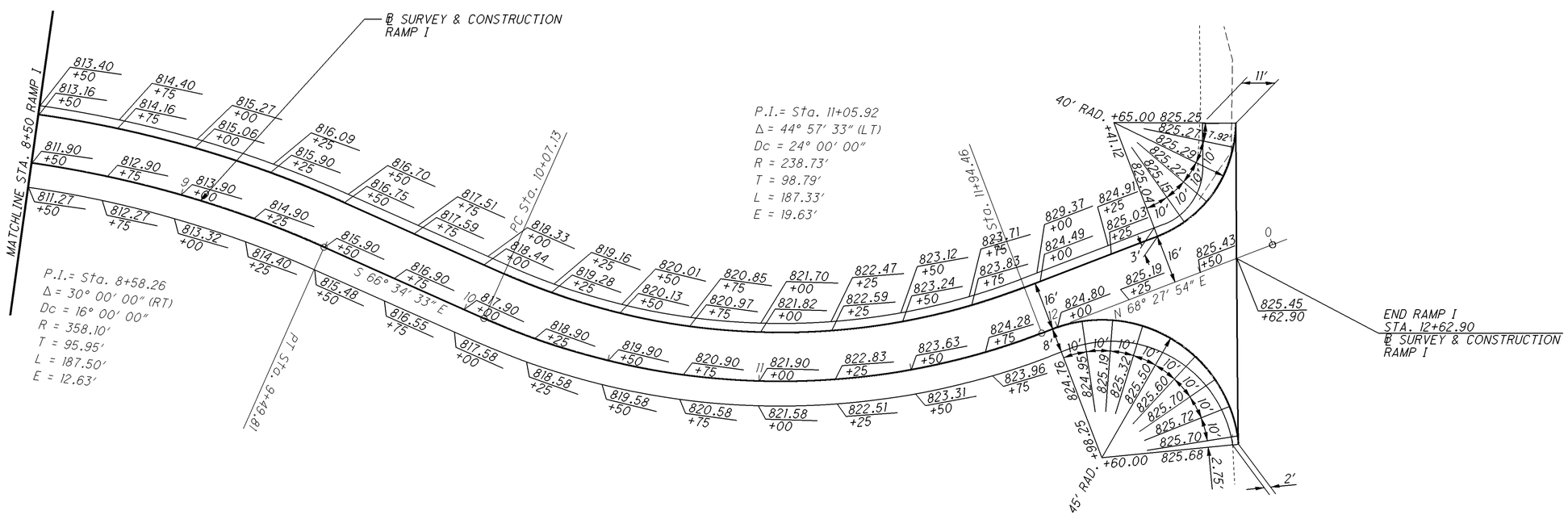
CALCULATED C.Y.
CHECKED J.C.

PAVEMENT DETAIL (RAMP I)

LAK-90-21.40
ATB-90-0.00

RAMPI_PVT_001.DGN 03/02/09





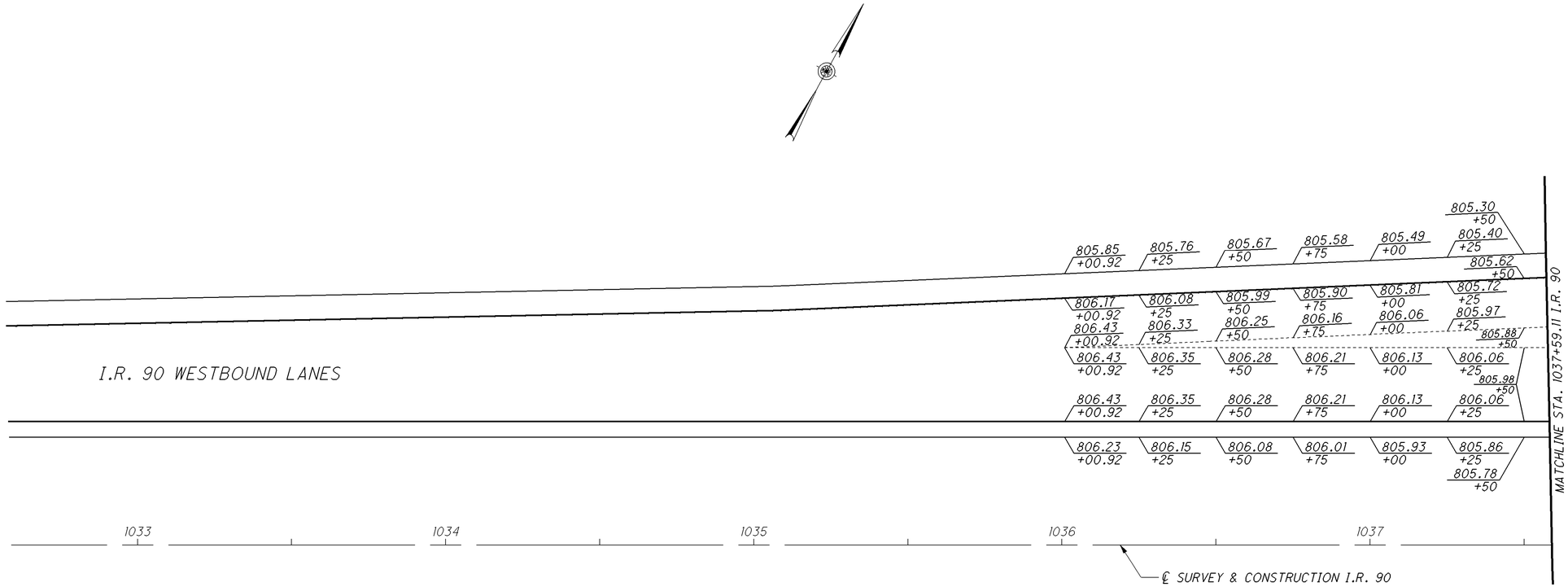
HORIZONTAL SCALE IN FEET
0 10 20 40

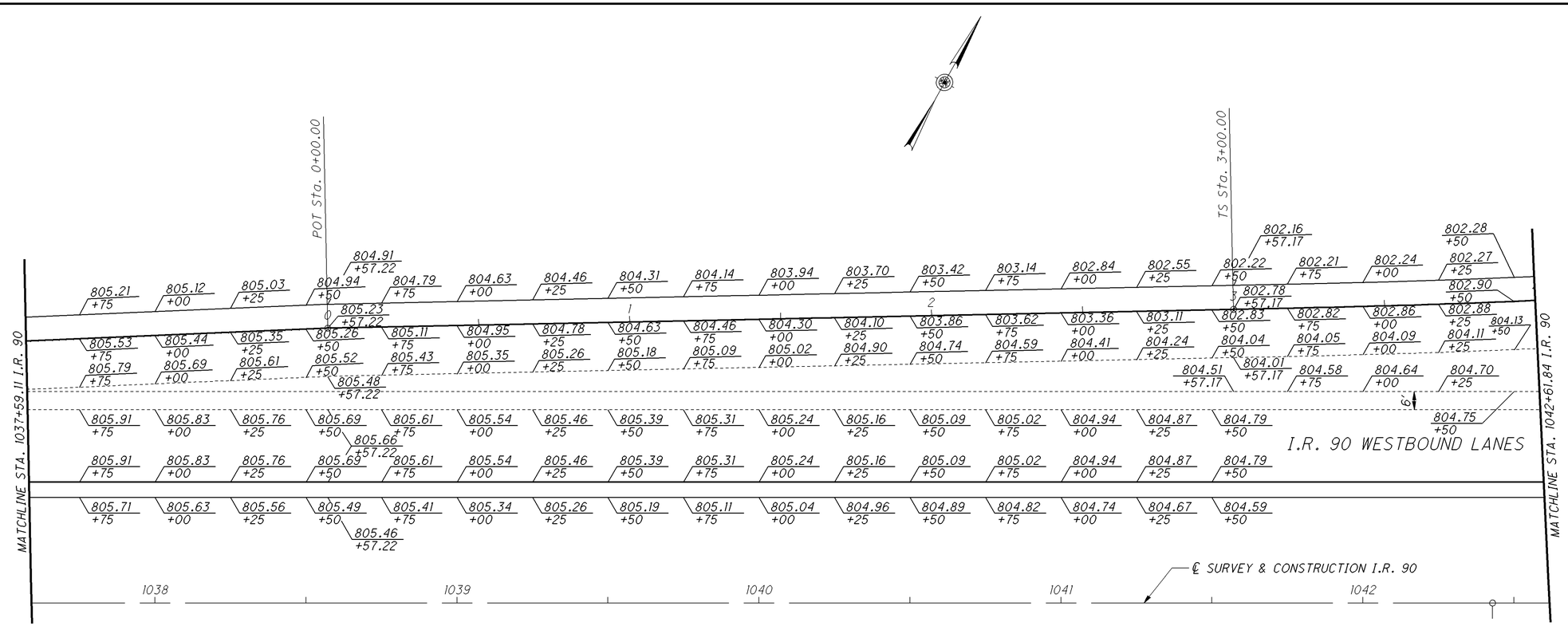
CALCULATED C.Y.
CHECKED J.C.

PAVEMENT DETAIL (RAMP I)

LAK-90-21.40
ATB-90-0.00

RAMPI_PVT_002.DGN 02/25/09





HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED C.Y.
CHECKED J.C.

PAVEMENT DETAIL SHEET (RAMP J)

LAK-90-21.40
ATB-90-0.00

RAMPJ_PVT_001.DGN 03/04/09

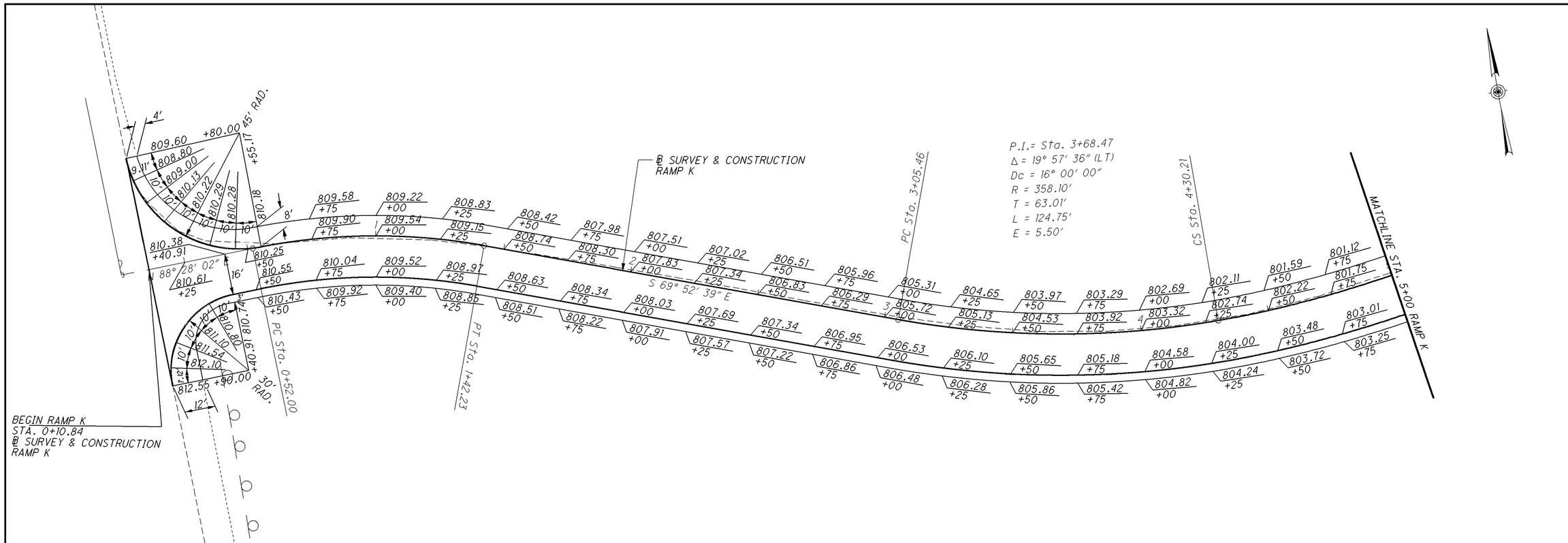
HORIZONTAL SCALE IN FEET
0 10 20 40

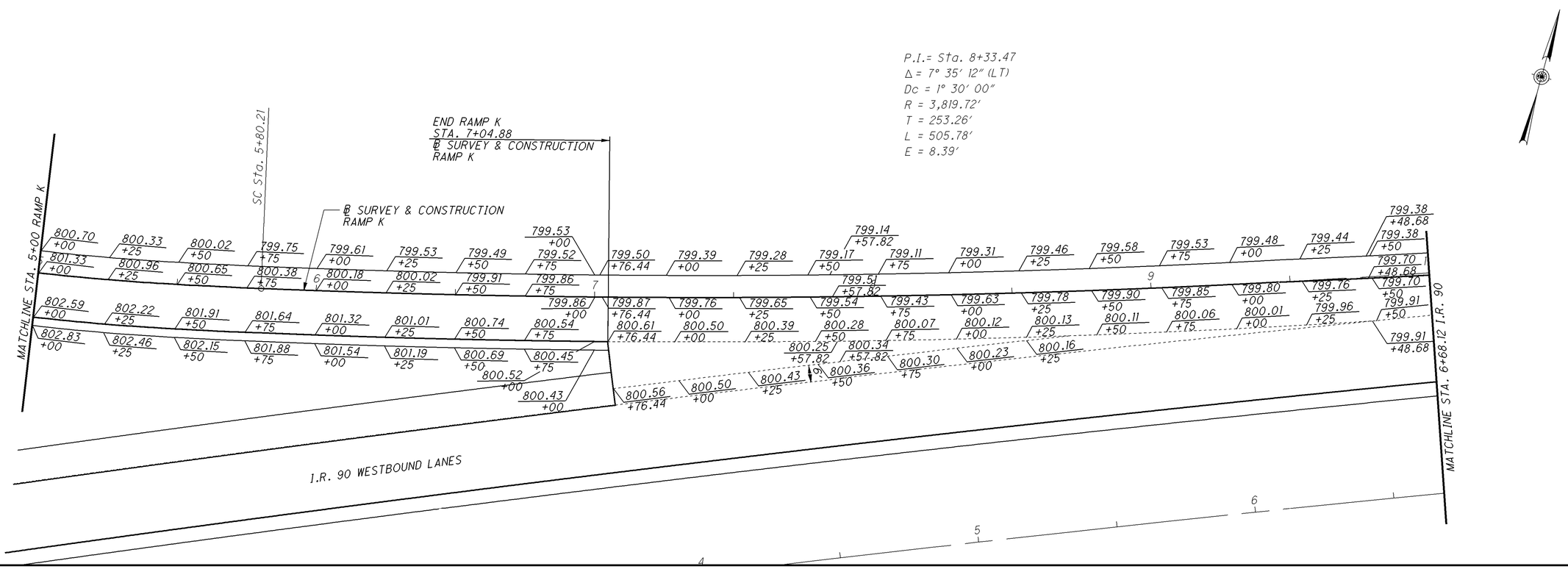
CALCULATED C.Y.
CHECKED J.C.

PAVEMENT DETAIL SHEET (RAMP J)

LAK-90-21.40
ATB-90-0.00

RAMPJ_PVT_002.DGN 02/25/09





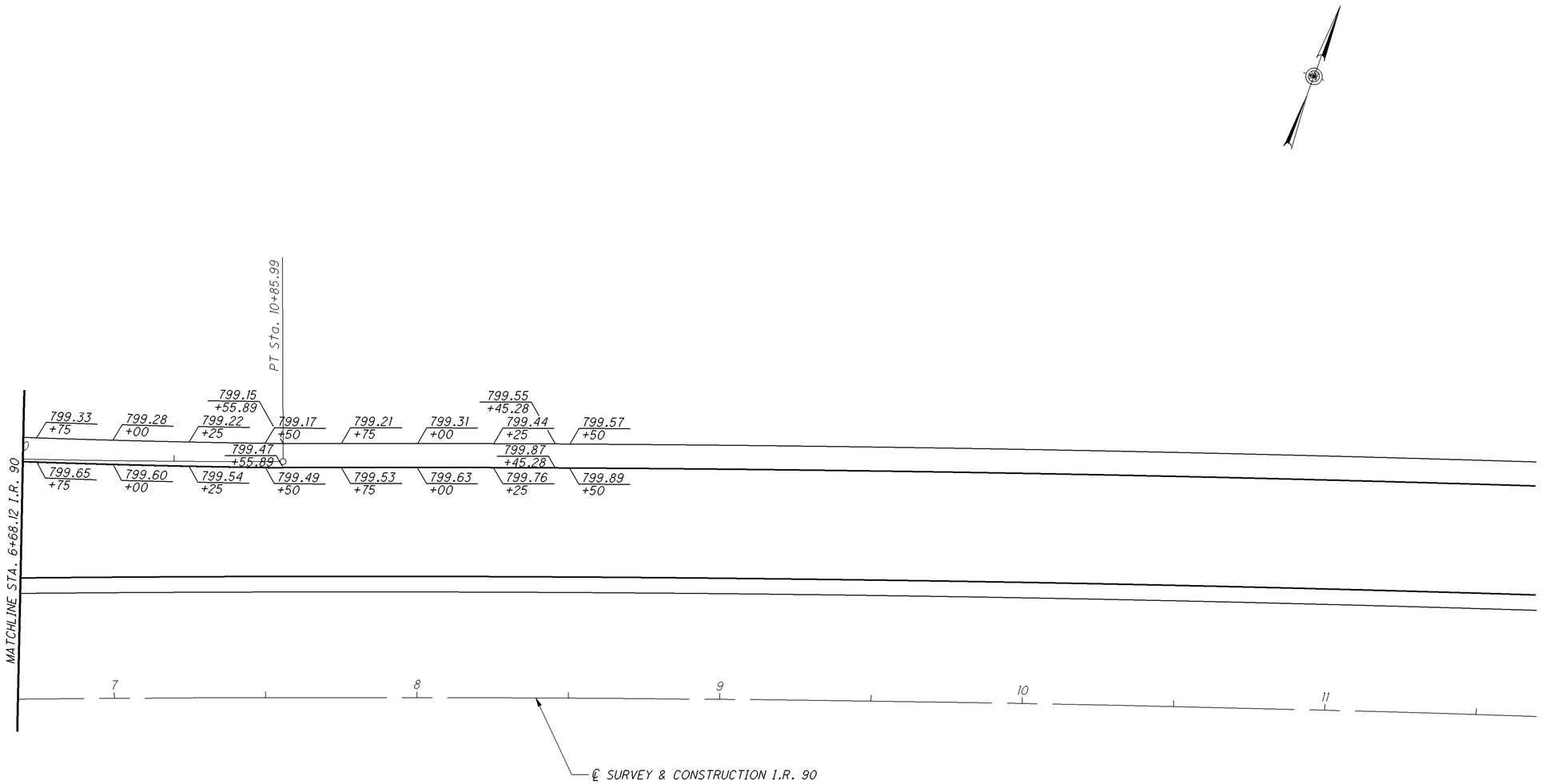
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED C.Y.
CHECKED J.C.

PAVEMENT DETAIL SHEET (RAMP K)

LAK-90-21.40
ATB-90-0.00

RAMPK_PVT_001.DGN 02/17/09



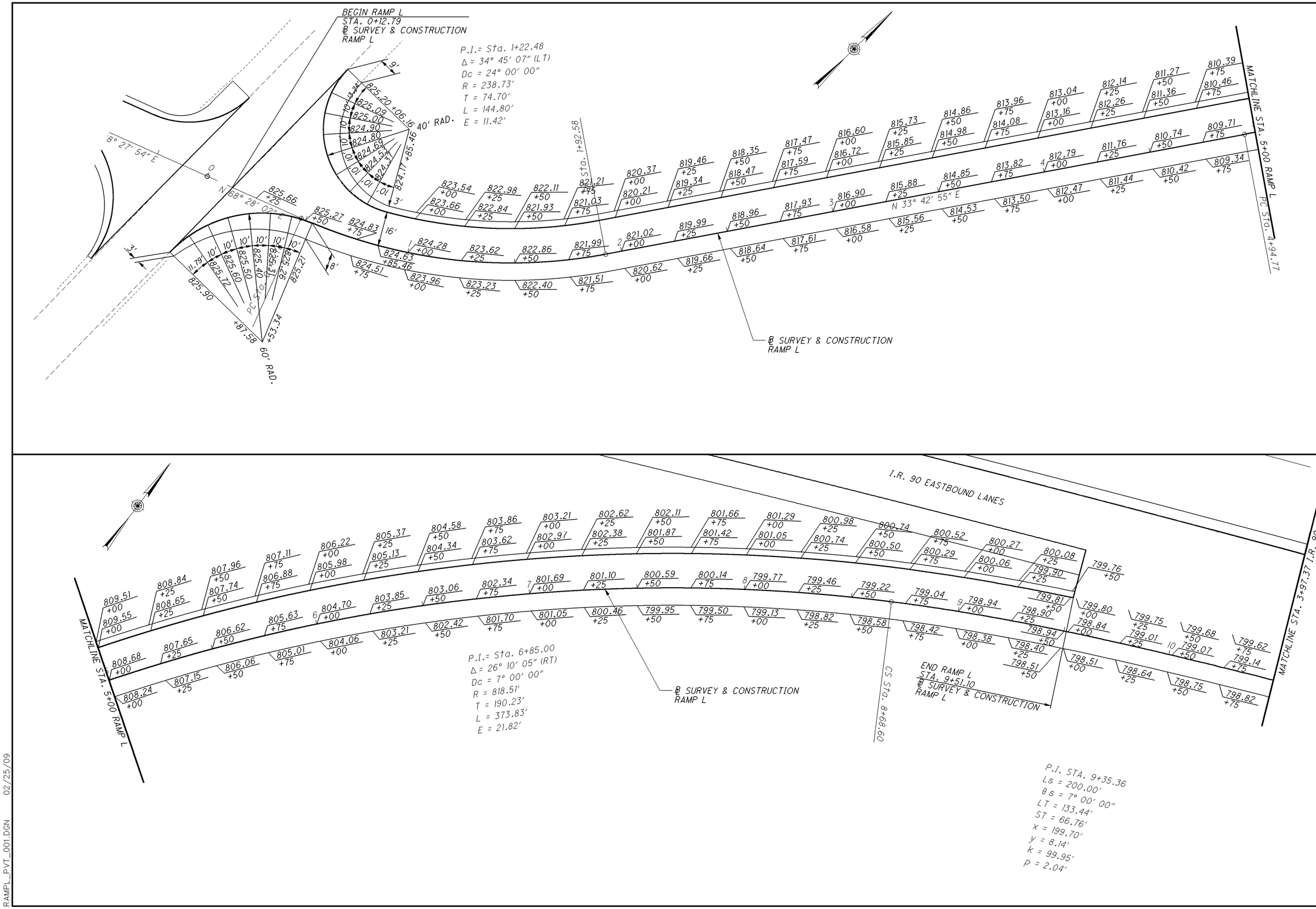
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED C.Y.
CHECKED J.C.

PAVEMENT DETAIL SHEET (RAMP K)

LAK-90-21.40
ATB-90-0.00

RAMPK_PVT_002DGN 02/17/09



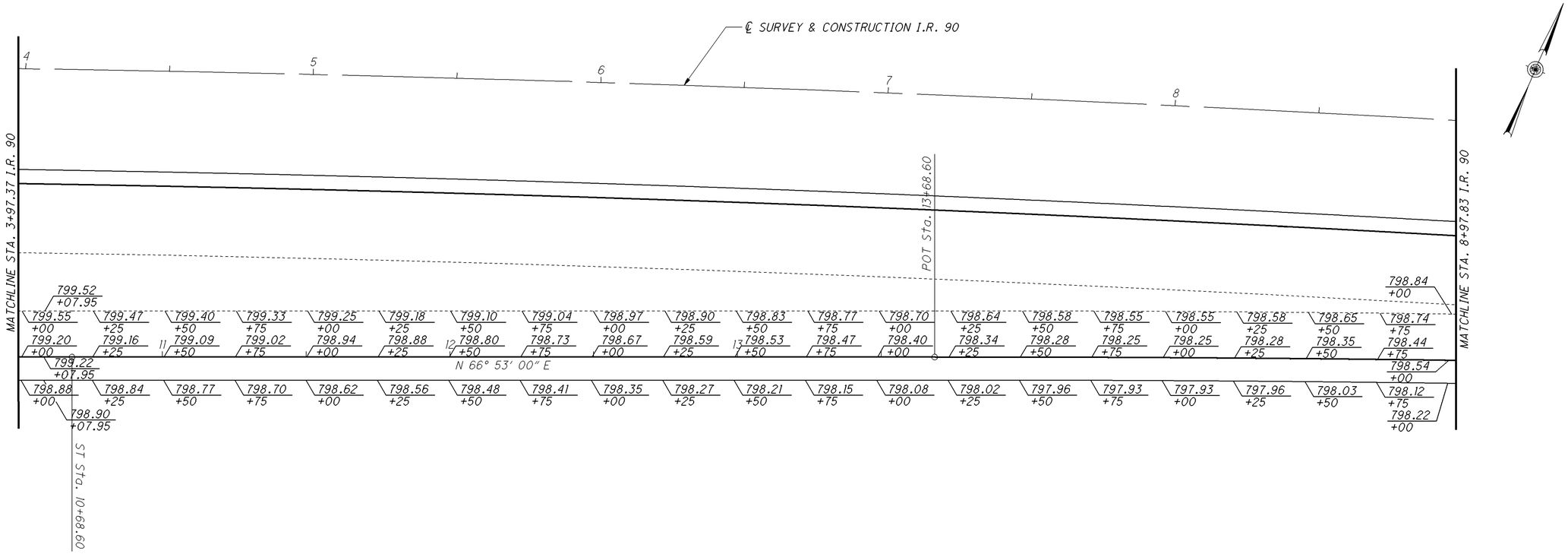
HORIZONTAL SCALE IN FEET
0 10 20 40

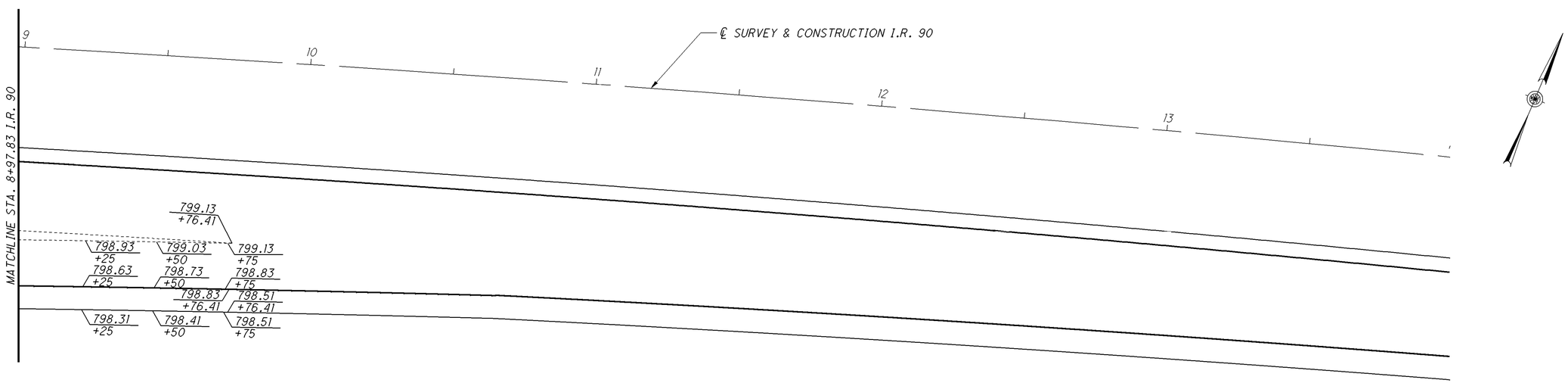
CALCULATED C.Y.
CHECKED J.C.

PAVEMENT DETAIL SHEET (RAMP L)

LAK-90-21.40
ATB-90-0.00

RAMPL_PVT_001.DGN 02/25/09





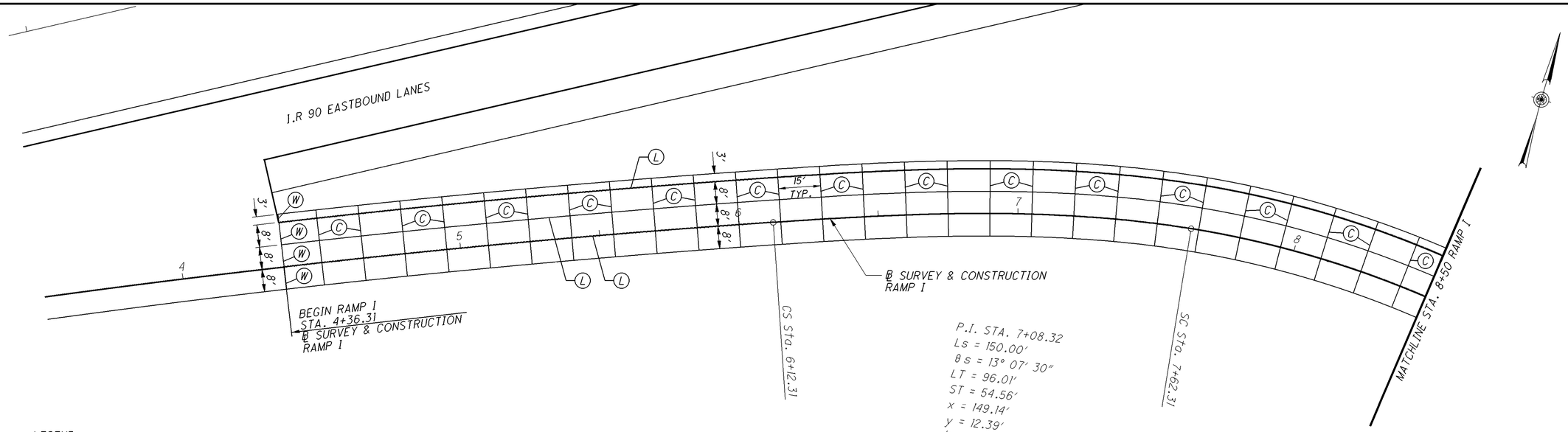
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED C.Y.
CHECKED J.C.

PAVEMENT DETAIL SHEET (RAMP L)

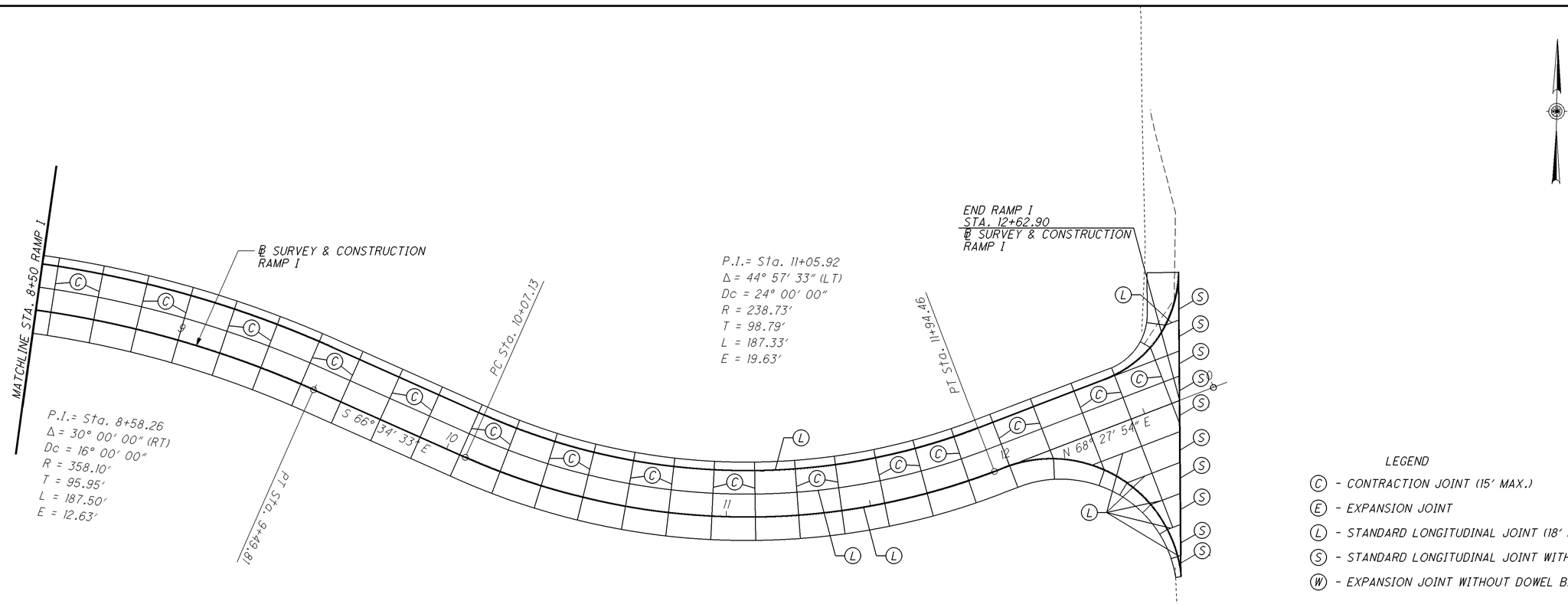
LAK-90-21.40
ATB-90-0.00

RAMPL_PVT_002.DGN 03/04/09



LEGEND

- (C) - CONTRACTION JOINT (15' MAX.)
- (E) - EXPANSION JOINT
- (L) - STANDARD LONGITUDINAL JOINT (18' MAX.)
- (S) - STANDARD LONGITUDINAL JOINT WITHOUT TIE BARS
- (W) - EXPANSION JOINT WITHOUT DOWEL BARS



LEGEND

- (C) - CONTRACTION JOINT (15' MAX.)
- (E) - EXPANSION JOINT
- (L) - STANDARD LONGITUDINAL JOINT (18' MAX.)
- (S) - STANDARD LONGITUDINAL JOINT WITHOUT TIE BARS
- (W) - EXPANSION JOINT WITHOUT DOWEL BARS

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED C.Y.
CHECKED J.C.

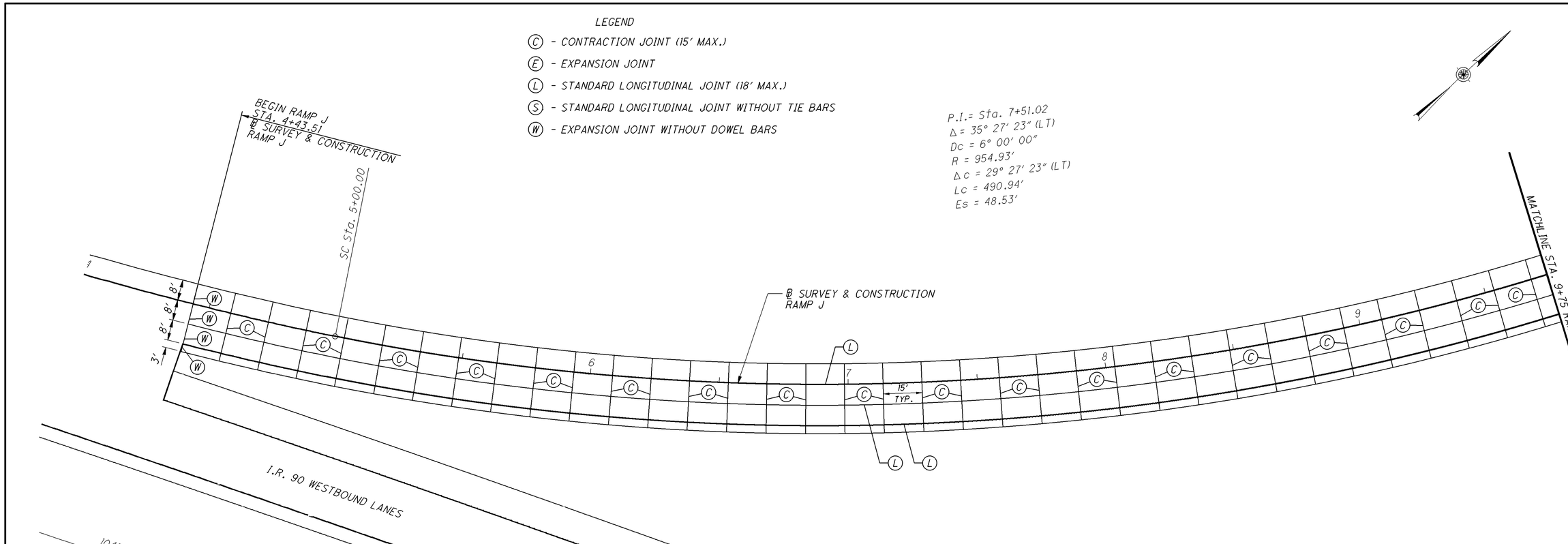
PAVEMENT JOINT DETAIL (RAMP I)

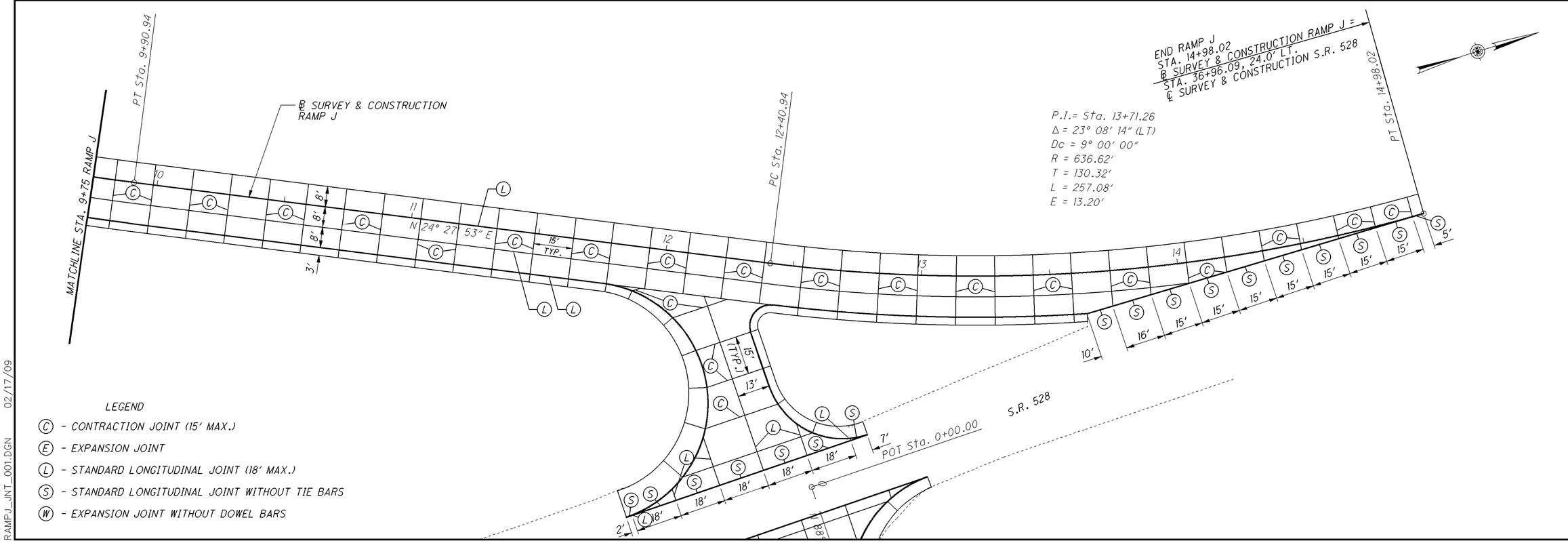
LAK-90-21.40
ATB-90-0.00

RAMPI_JNT_001.DGN 02/17/09

LEGEND

- (C) - CONTRACTION JOINT (15' MAX.)
- (E) - EXPANSION JOINT
- (L) - STANDARD LONGITUDINAL JOINT (18' MAX.)
- (S) - STANDARD LONGITUDINAL JOINT WITHOUT TIE BARS
- (W) - EXPANSION JOINT WITHOUT DOWEL BARS





LEGEND

- (C) - CONTRACTION JOINT (15' MAX.)
- (E) - EXPANSION JOINT
- (L) - STANDARD LONGITUDINAL JOINT (18' MAX.)
- (S) - STANDARD LONGITUDINAL JOINT WITHOUT TIE BARS
- (W) - EXPANSION JOINT WITHOUT DOWEL BARS

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED C.Y.
CHECKED J.C.

PAVEMENT JOINT DETAIL SHEET (RAMP J)

LAK-90-21.40
ATB-90-0.00

RAMPJ_JNT_001.DGN 02/17/09

LEGEND

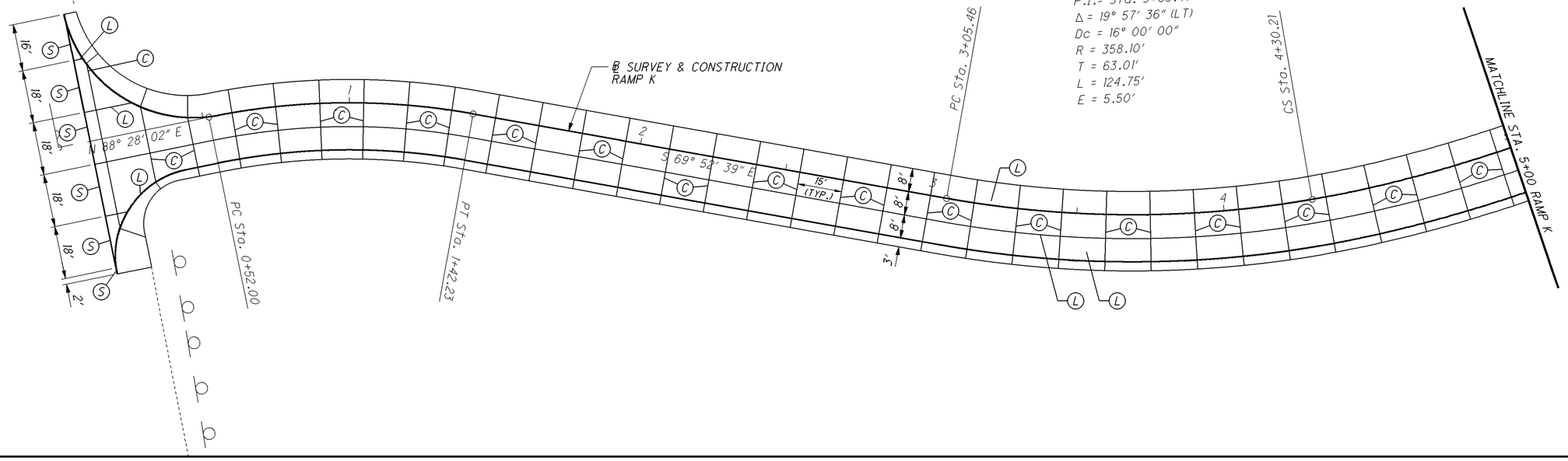
(C) - CONTRACTION JOINT (15' MAX.)

(E) - EXPANSION JOINT

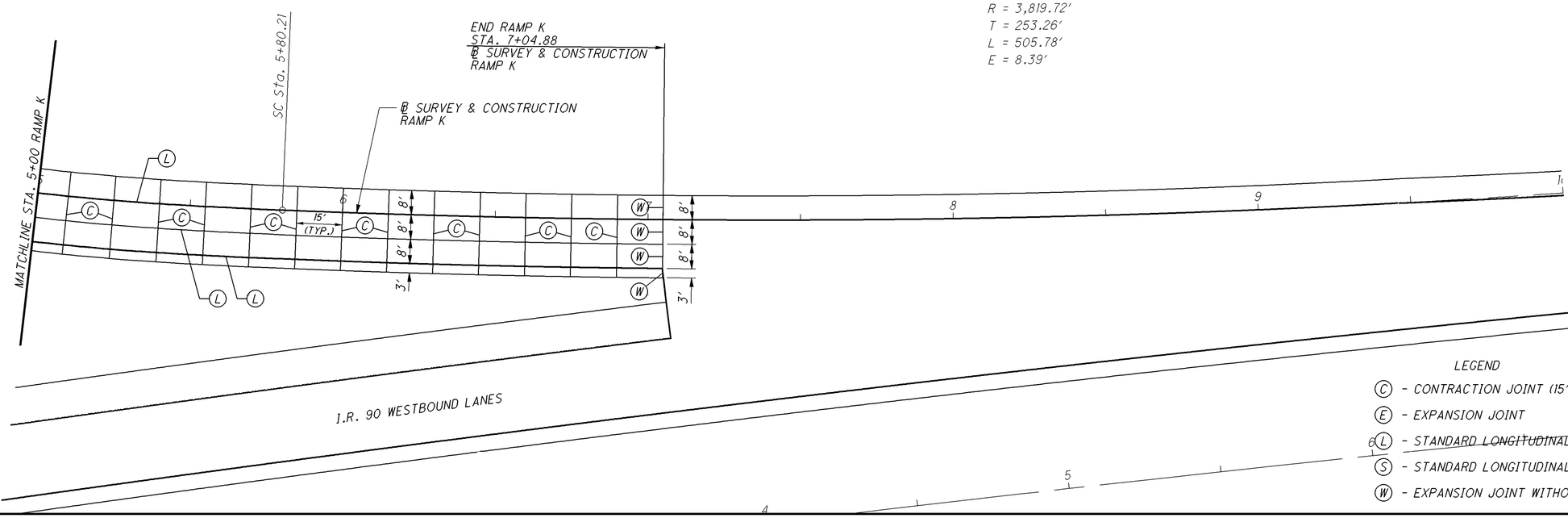
(L) - STANDARD LONGITUDINAL JOINT (18' MAX.)

(S) - STANDARD LONGITUDINAL JOINT WITHOUT TIE BARS

(W) - EXPANSION JOINT WITHOUT DOWEL BARS



P.I.= Sta. 8+33.47
Δ = 7° 35' 12" (LT)
Dc = 1° 30' 00"
R = 3,819.72'
T = 253.26'
L = 505.78'
E = 8.39'



LEGEND

(C) - CONTRACTION JOINT (15' MAX.)

(E) - EXPANSION JOINT

(L) - STANDARD LONGITUDINAL JOINT (18' MAX.)

(S) - STANDARD LONGITUDINAL JOINT WITHOUT TIE BARS

(W) - EXPANSION JOINT WITHOUT DOWEL BARS

HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED C.Y.
CHECKED J.C.

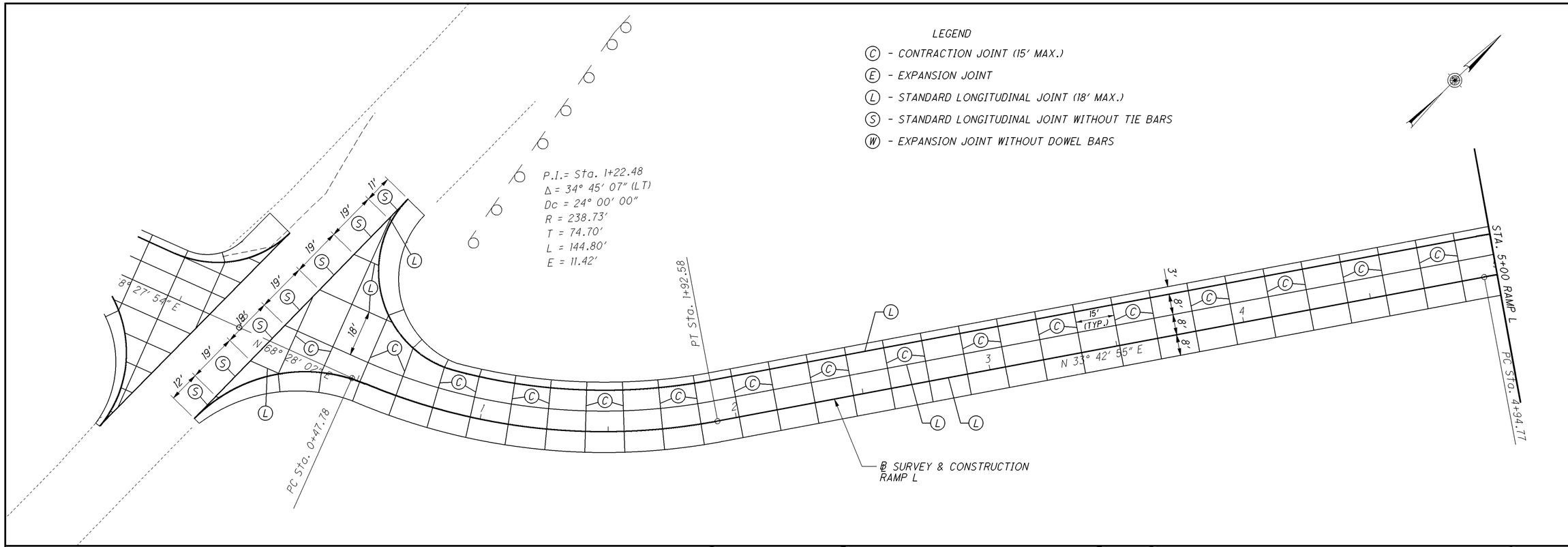
PAVEMENT JOINT DETAIL SHEET (RAMP K)

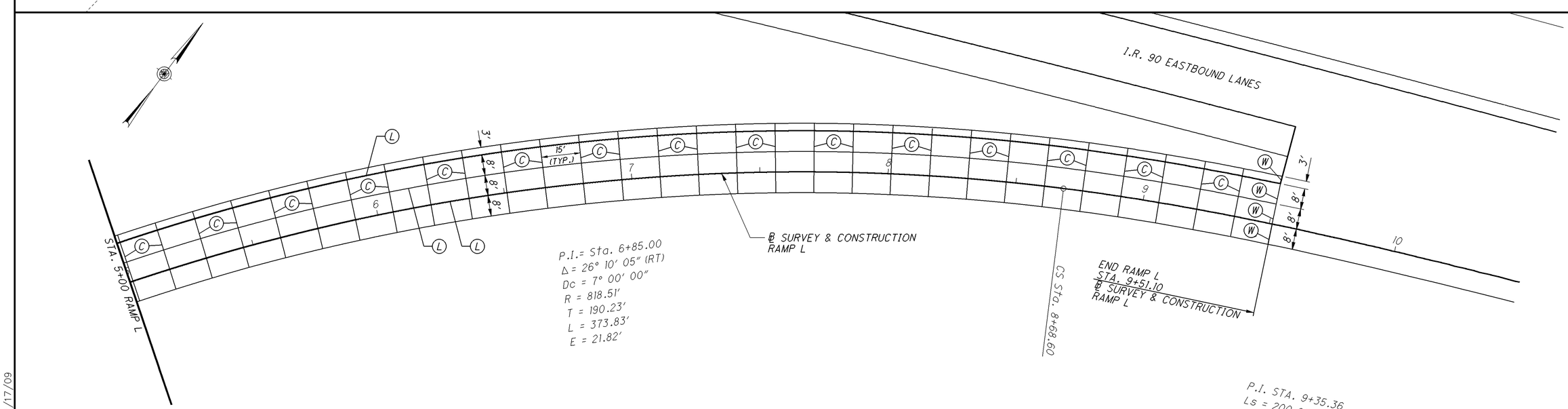
LAK-90-21.40
ATB-90-0.00

RAMPK_JNT_001.DGN 02/17/09

LEGEND

- (C) - CONTRACTION JOINT (15' MAX.)
- (E) - EXPANSION JOINT
- (L) - STANDARD LONGITUDINAL JOINT (18' MAX.)
- (S) - STANDARD LONGITUDINAL JOINT WITHOUT TIE BARS
- (W) - EXPANSION JOINT WITHOUT DOWEL BARS





LEGEND

- (C) - CONTRACTION JOINT (15' MAX.)
- (E) - EXPANSION JOINT
- (L) - STANDARD LONGITUDINAL JOINT (18' MAX.)
- (S) - STANDARD LONGITUDINAL JOINT WITHOUT TIE BARS
- (W) - EXPANSION JOINT WITHOUT DOWEL BARS

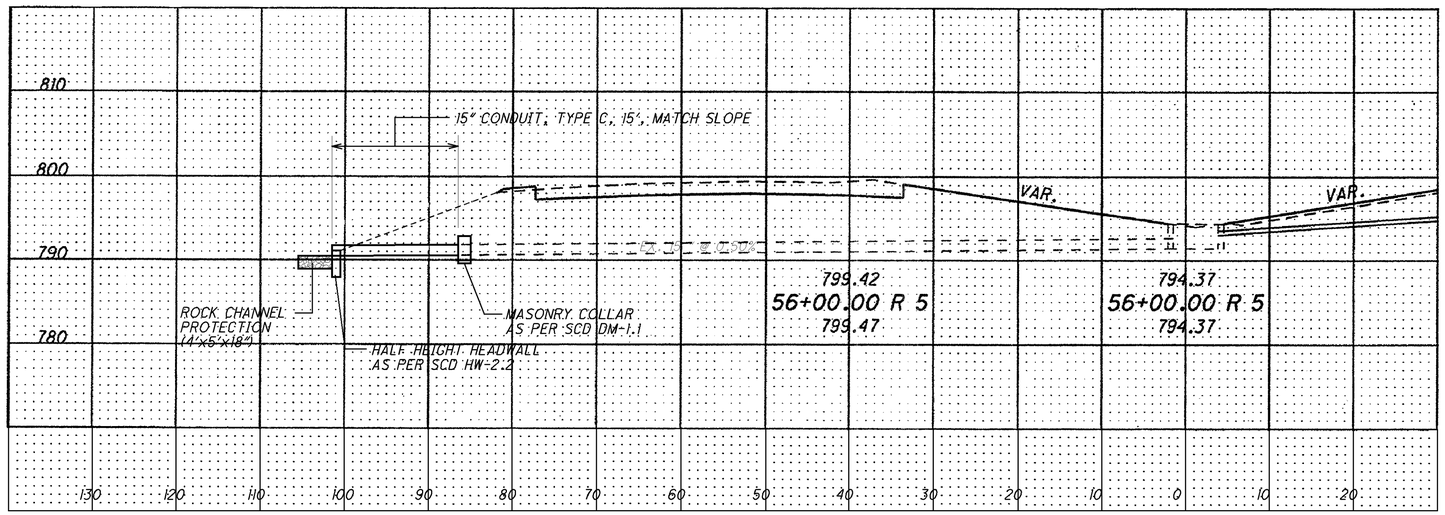
HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED C.Y.
CHECKED J.C.

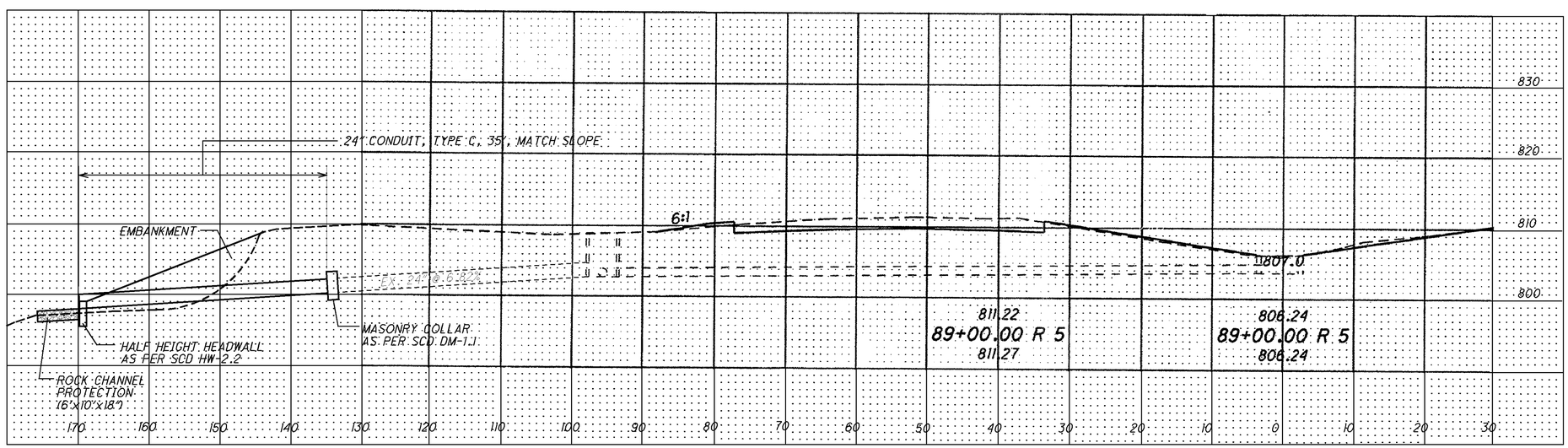
PAVEMENT JOINT DETAIL SHEET (RAMP L)

LAK-90-21.40
ATB-90-0.00

RAMPL_JNT_001.DGN 02/17/09



ESTIMATED QUANTITIES						
LOCATION	202	202	601	602	603	603	604
	HEADWALL REMOVED	PIPE REMOVED, 24" AND UNDER	ROCK CHANNEL PROTECTION TYPE C, WITH FILTER	CONCRETE MASONRY	15" CONDUIT, TYPE C, 706.02	6" CONDUIT, TYPE B, 707.33, 707.41,707.42 OR 707.45	PRECAST REINFORCED CONCRETE OUTLET
	EACH	FOOT	CY	CY	FOOT	FOOT	EACH
I-90 STA. 56+00	1	30	1.1	0.25	15	15	1
TOTALS CARRIED TO GENERAL SUMMARY :	1	30	2	0.25	15	15	1



ESTIMATED QUANTITIES						
LOCATION	202	202	203	601	602	603
	HEADWALL REMOVED	PIPE REMOVED, 24" AND UNDER	EMBANKMENT	ROCK CHANNEL PROTECTION TYPE C, WITH FILTER	CONCRETE MASONRY	24" CONDUIT, TYPE C 706.02
	EACH	FOOT	CY	CY	CY	FOOT
I-90 STA. 89+00	1	35	475	2	0.43	35
TOTALS CARRIED TO GENERAL SUMMARY :	1	35	475	2	0.43	35

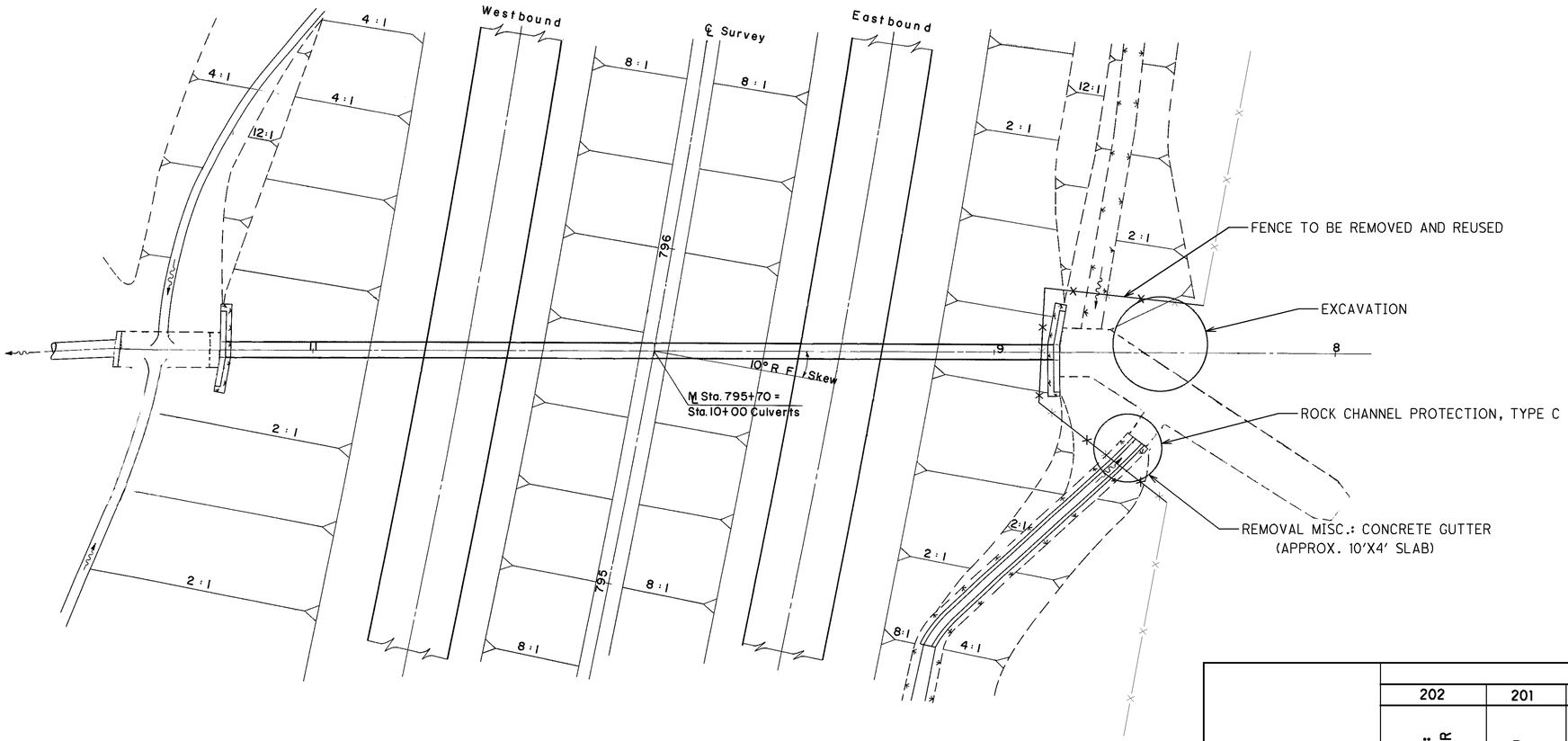
CALCULATED

CHECKED

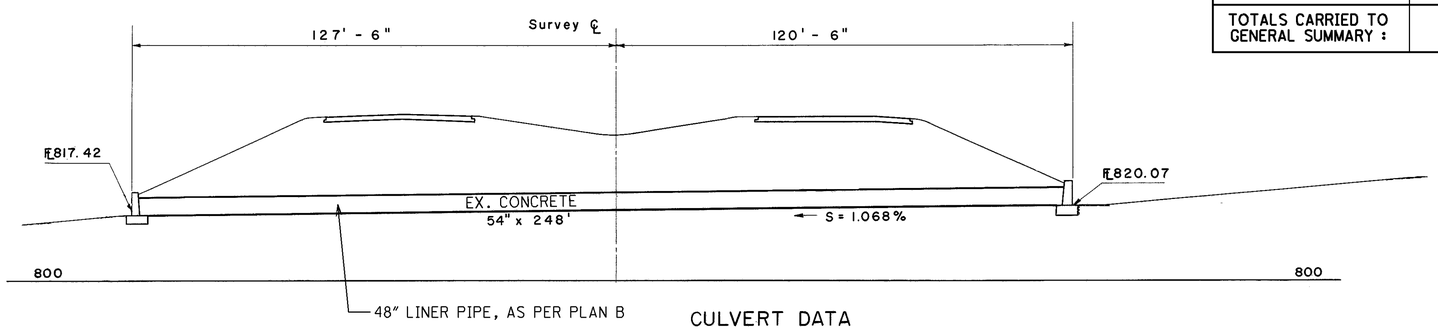
DRAINAGE DETAILS : I-90
STA. 56+00 & STA. 89+00

LAK-90-21.40
ATB-90-0.00

466A
498



LOCATION	ESTIMATED QUANTITIES							
	202	201	601	203	837	837	202	607
	REMOVAL, MISC.: CONCRETE GUTTER	CLEARING AND GRUBBING	ROCK CHANNEL PROTECTION, TYPE C WITHOUT FILTER	EXCAVATION	48" LINER PIPE, AS PER PLAN B	BACKFILL FOR LINER PIPE	FENCE REMOVED FOR REUSE	FENCE REBUILT, TYPE CLT
	LUMP	LUMP	CU. YD.	CU. YD.	FOOT	CU. YD.	FOOT	FOOT
I-90 STA. 795+70			10	20	248	34	100	100
TOTALS CARRIED TO GENERAL SUMMARY :	LUMP	*	10	20	248	34	100	100



CULVERT DATA

TYPE : Pipe Culvert
SIZE : 54" x 248

* CLEARING AND GRUBBING, AS DIRECTED BY THE ENGINEER, NECESSARY TO PROVIDE ROOM FOR LINING PIPE SHALL BE PAID FOR UNDER ITEM 201 - CLEARING AND GRUBBING, LUMP SUM.

ITEM 837 - 48" LINER PIPE, AS PER PLAN B

THE FOLLOWING PIPES MAY BE USED FOR THIS ITEM:

707.12 - 48"
707.24 - 48"
707.43 - 48"
SS937, TYPE A - 48"
SS937, TYPE B - 48"

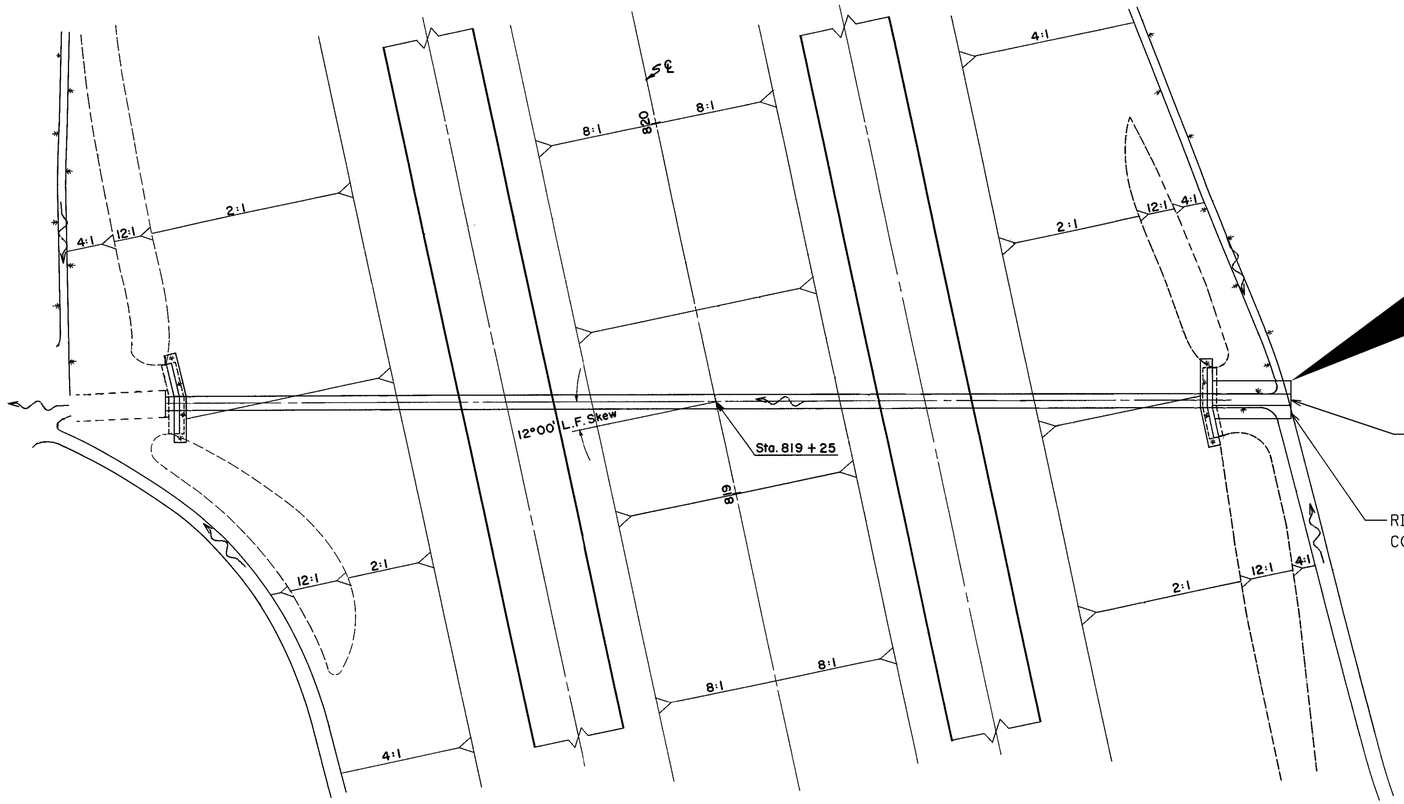
NOT TO SCALE

CALCULATED
CHECKED

PIPE CULVERT DETAIL : I-90 STA. 795+70

LAK-90-21.40
ATB-90-0.00

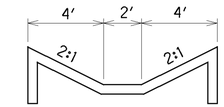
466B
498



RIPRAP USING 6" REINFORCED CONCRETE SLAB

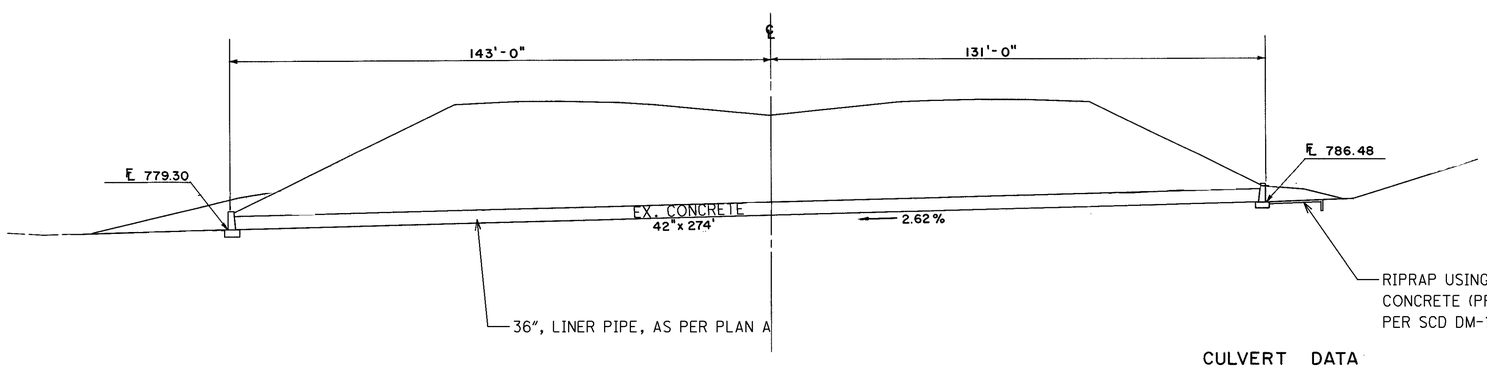
20 x 2	=	40	SQ. FEET
2 x 20 x 4.48	=	179.2	SQ. FEET
		219.2	SQ. FEET
	/	9	SQ. FEET
TOTAL		24.36	SQ. YD.

= 25 SQ. YD.



REMOVAL, MISC.: RIPRAP USING 6" REINFORCED CONCRETE SLAB

RIPRAP USING 6" REINFORCED CONCRETE SLAB



CULVERT DATA

TYPE : Pipe Culvert
SIZE : 42" x 274'

LOCATION	ESTIMATED QUANTITIES				
		202	601	837	837
		REMOVAL, MISC.: RIPRAP USING 6" REINFORCED CONCRETE SLAB	RIPRAP USING 6" REINFORCED CONCRETE SLAB	36" LINER PIPE, AS PER PLAN A	BACKFILL FOR LINER PIPE
		LUMP	SQ. YD.	FOOT	CU. YD.
I-90 STA. 819+25			25	274	29
TOTALS CARRIED TO GENERAL SUMMARY :		LUMP	25	274	29

ITEM 837 - 36" LINER PIPE, AS PER PLAN A

THE FOLLOWING PIPES MAY BE USED FOR THIS ITEM:

707.12 - 36"
707.24 - 36"
707.42 - 36"
707.43 - 36"
SS937, TYPE A - 36"
SS937, TYPE B - 36"

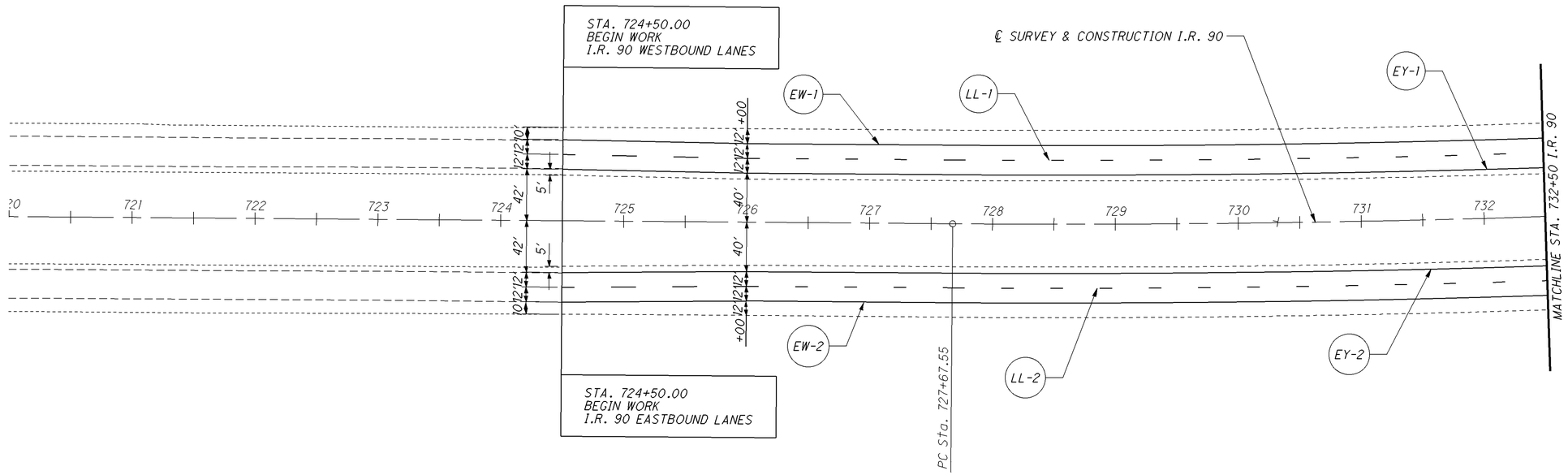
NOT TO SCALE

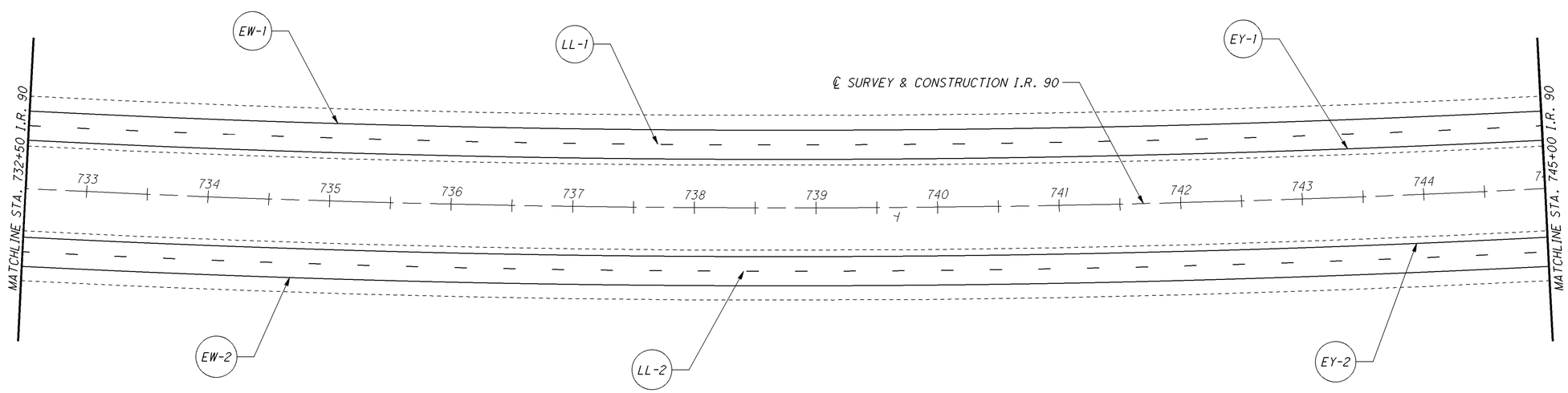
CALCULATED

CHECKED

PIPE CULVERT DETAIL : I-90 STA. 819+25

LAK-90-21.40
ATB-90-0.00





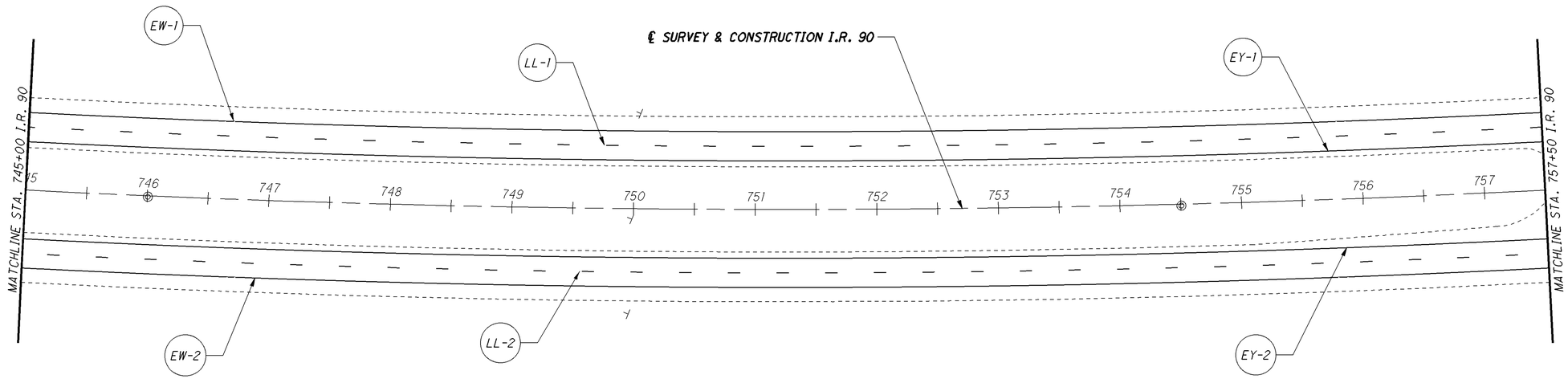
HORIZONTAL SCALE IN FEET
0 25 50 100

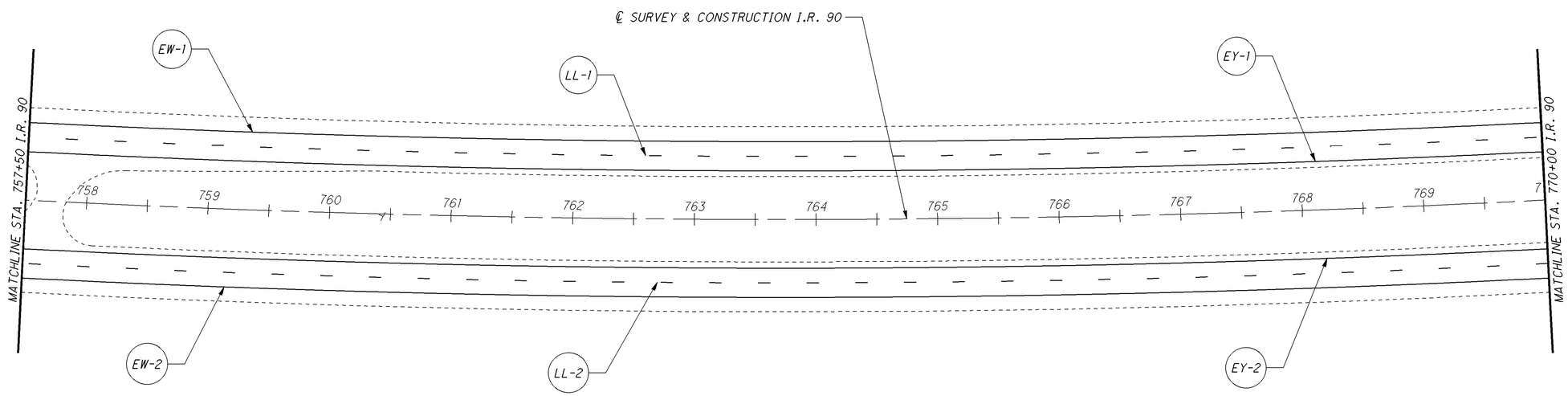
CALCULATED C.Y.
CHECKED

I.R. 90 TRAFFIC CONTROL PLAN SHEET
STA. 720+00.00 TO STA. 745+00.00

LAK-90-21.40
ATB-90-0.00

IR90_TRF_001.DGN 04/01/08





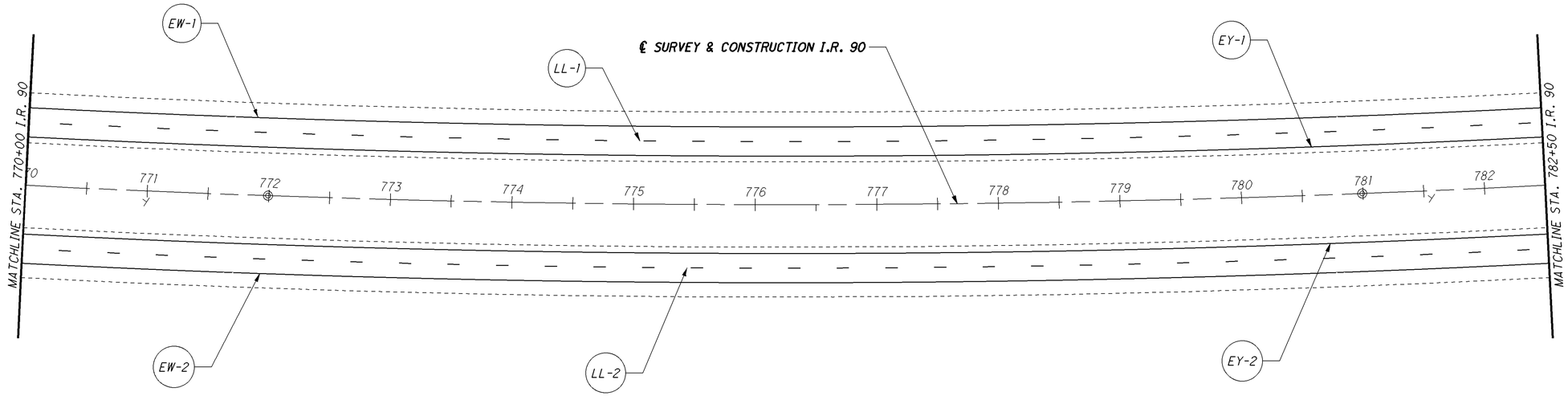
HORIZONTAL SCALE IN FEET
0 25 50 100

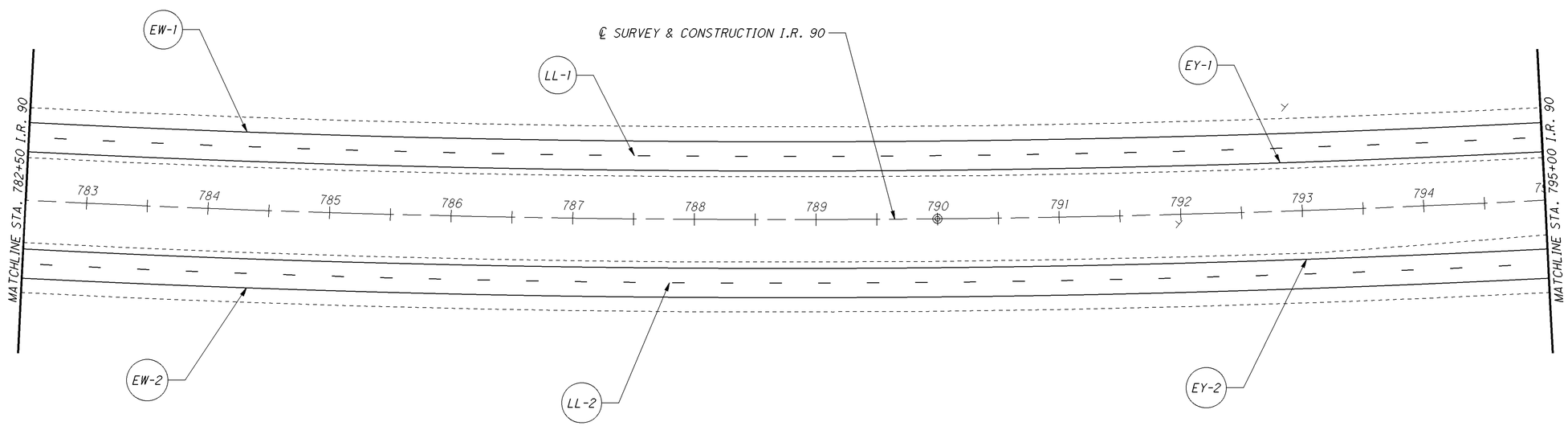
CALCULATED C.Y.
CHECKED

I.R. 90 TRAFFIC CONTROL PLAN SHEET
STA. 745+00.00 TO STA. 770+00.00

LAK-90-21.40
ATB-90-0.00

IR90_TRF_002.DGN 04/01/08





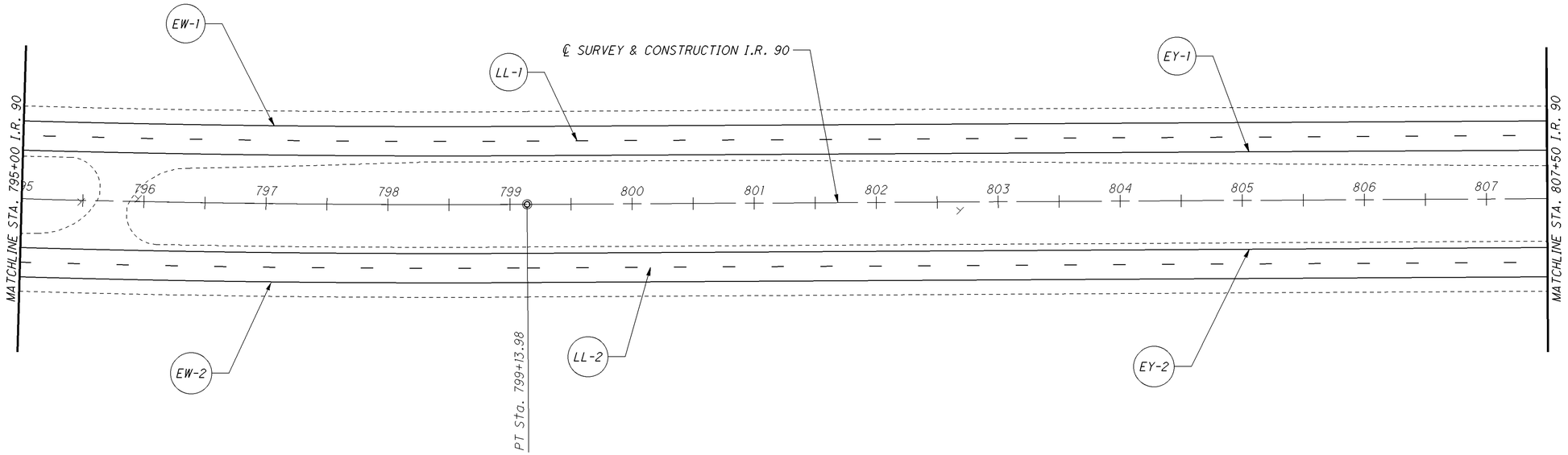
HORIZONTAL SCALE IN FEET
0 25 50 100

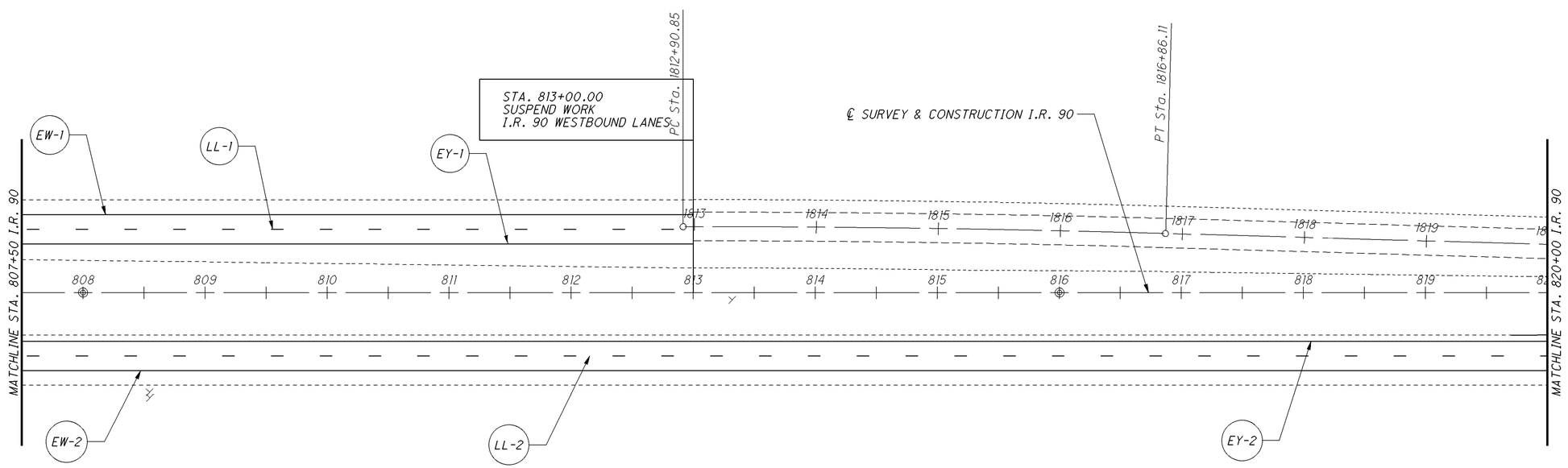
CALCULATED C.Y.
CHECKED

I.R. 90 TRAFFIC CONTROL PLAN SHEET
STA. 770+00.00 TO STA. 795+00.00

LAK-90-21.40
ATB-90-0.00

IR90_GST_003.DGN 04/01/08





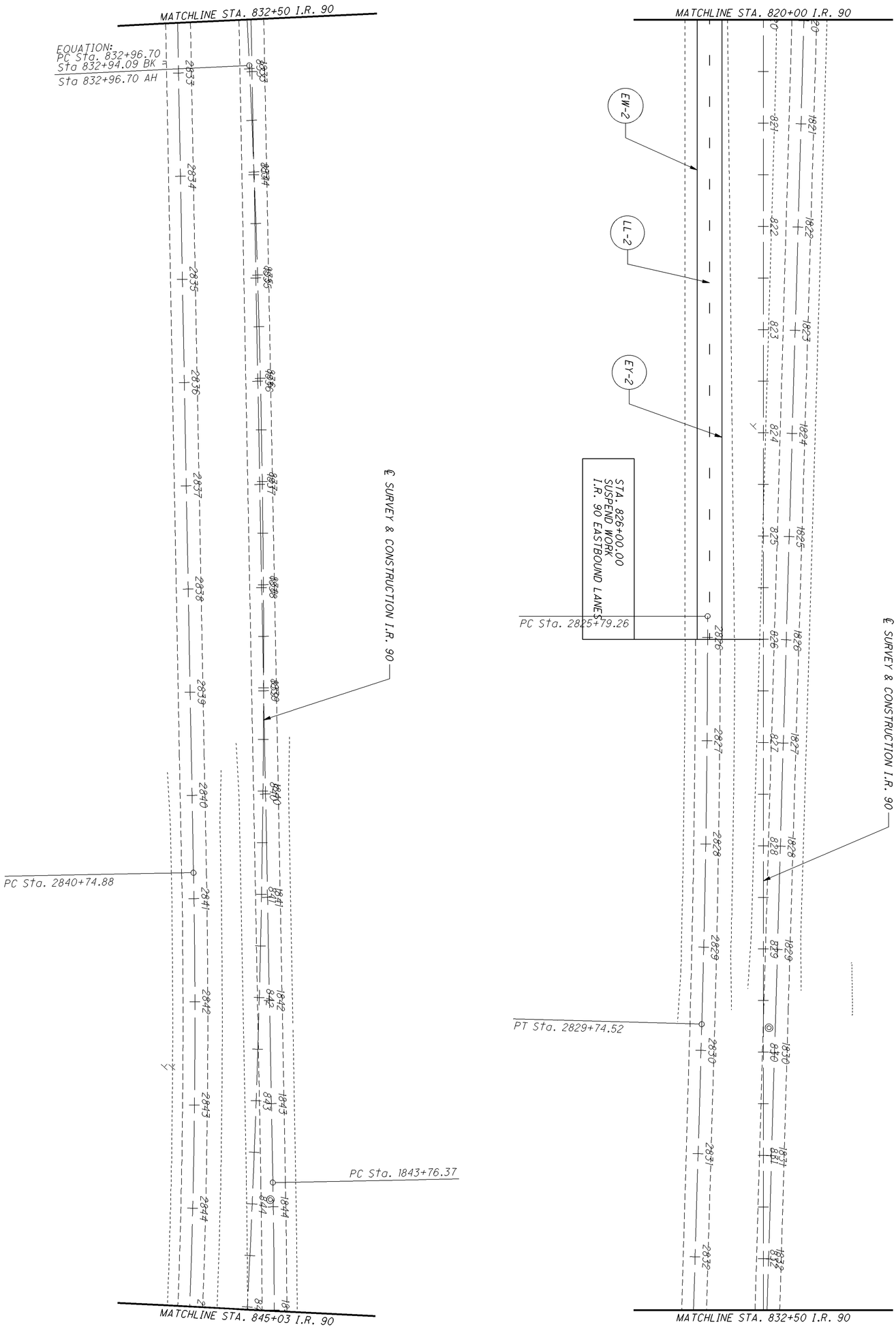
HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED C.Y.
CHECKED

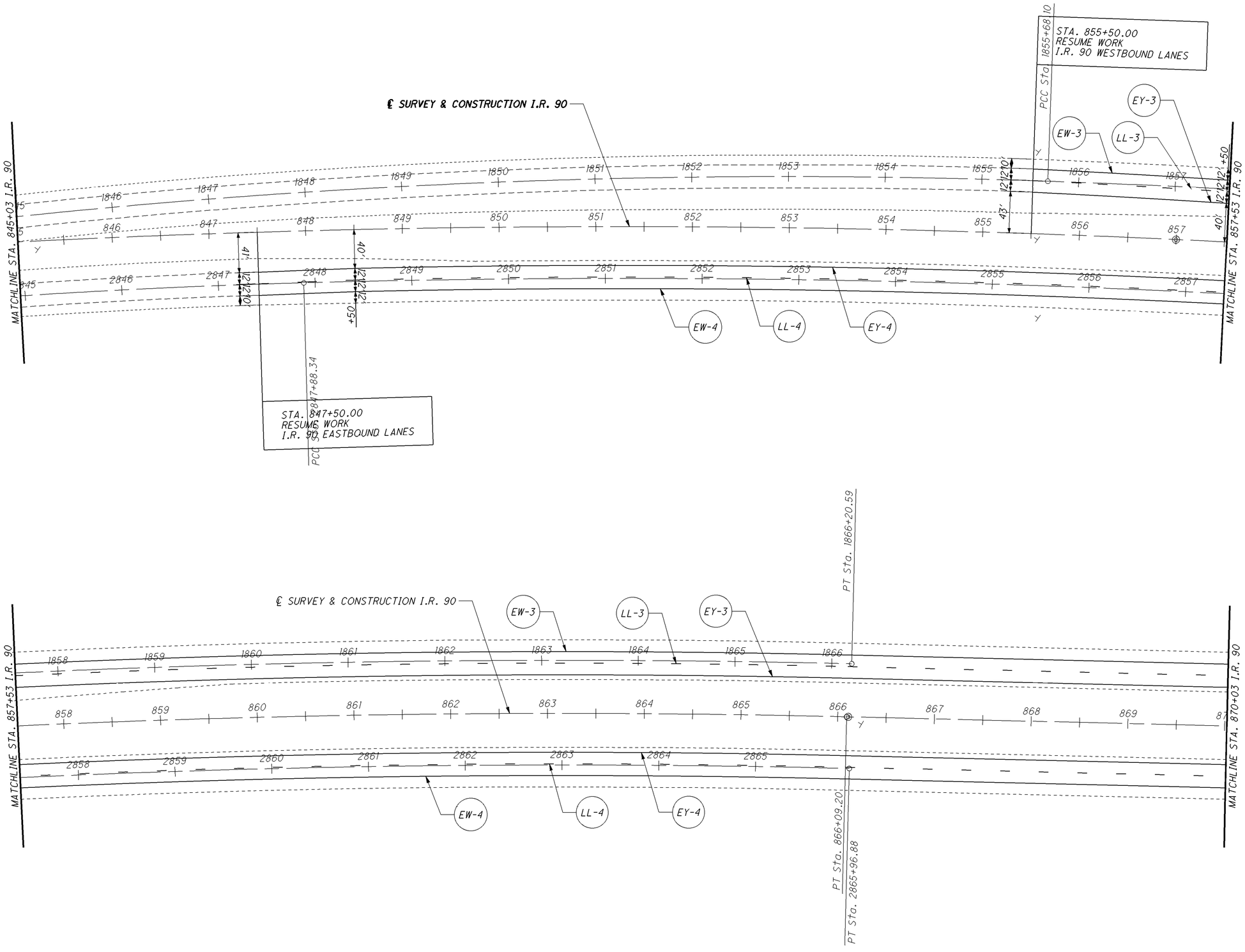
I.R. 90 TRAFFIC CONTROL PLAN SHEET
STA. 795+00.00 TO STA. 820+00.00

LAK-90-21.40
ATB-90-0.00

IR90_TRF_004.DGN 04/01/08



471 / 498	LAK-90-21.40 ATB-90-0.00	I.R. 90 TRAFFIC CONTROL PLAN SHEET STA. 820+00.00 TO STA. 845+03.00	CALCULATED C.Y. CHECKED	0 50 25 100 HORIZONTAL SCALE IN FEET



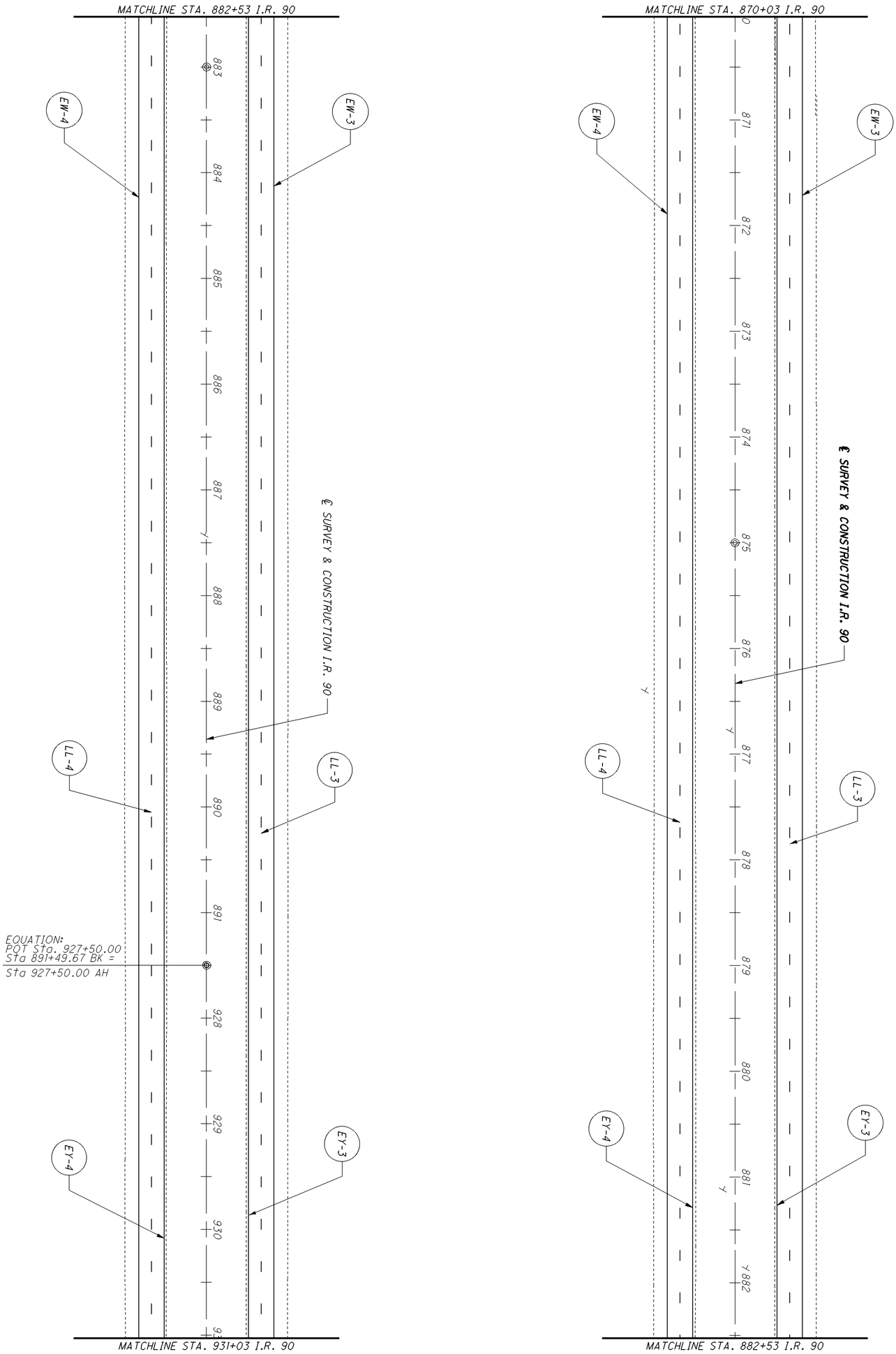
HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED C.Y.
CHECKED

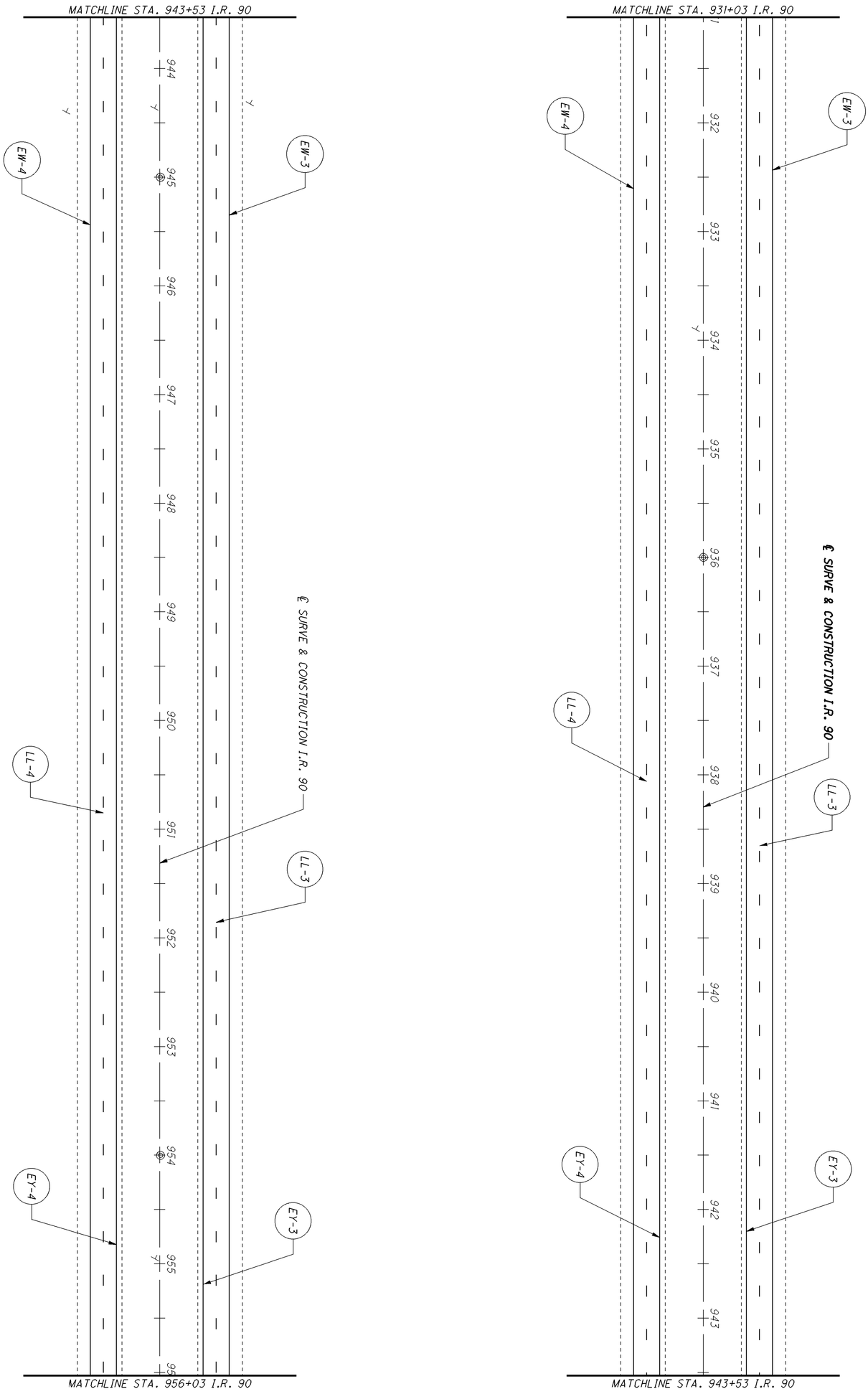
I.R. 90 TRAFFIC CONTROL PLAN SHEET
STA. 845+03.00 TO STA. 870+03.00

LAK-90-21.40
ATB-90-0.00

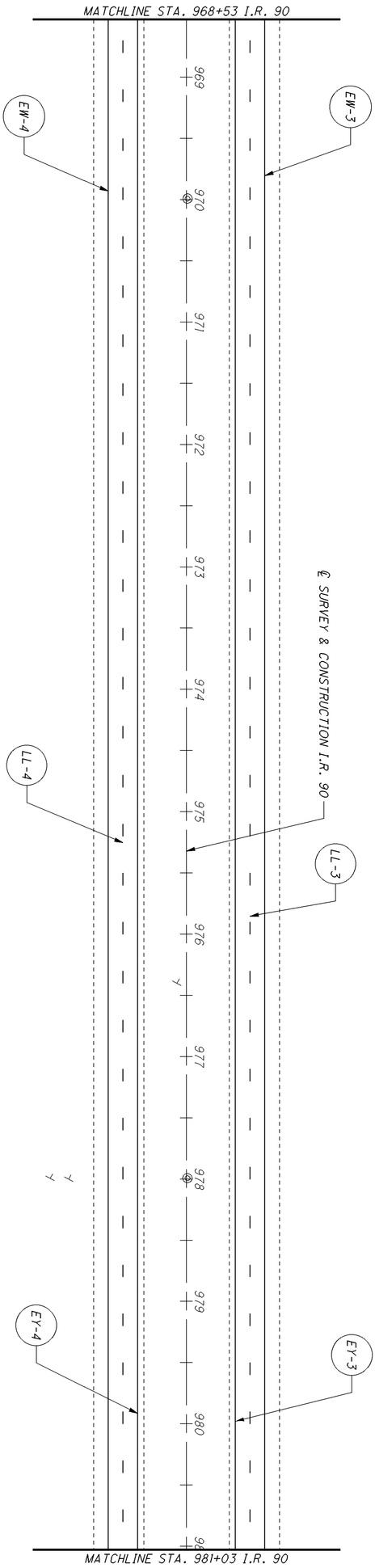
IR90_TRF_006.DGN 04/01/08

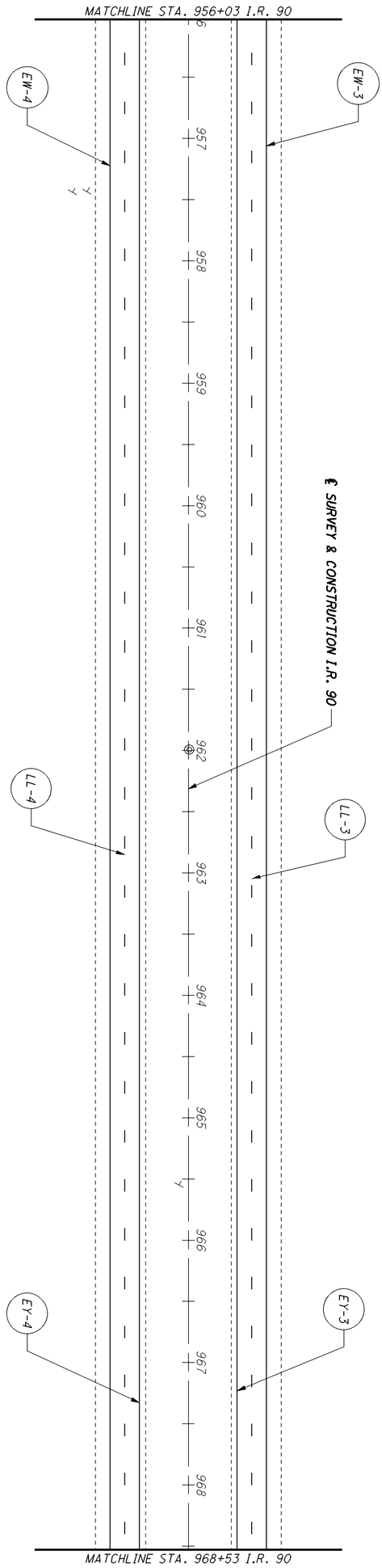


473 / 498	LAK-90-21.40 ATB-90-0.00	I.R. 90 TRAFFIC CONTROL PLAN SHEET STA. 870+03.00 TO STA. 931+03.00	CALCULATED C.Y. CHECKED	0 25 50 100 HORIZONTAL SCALE IN FEET

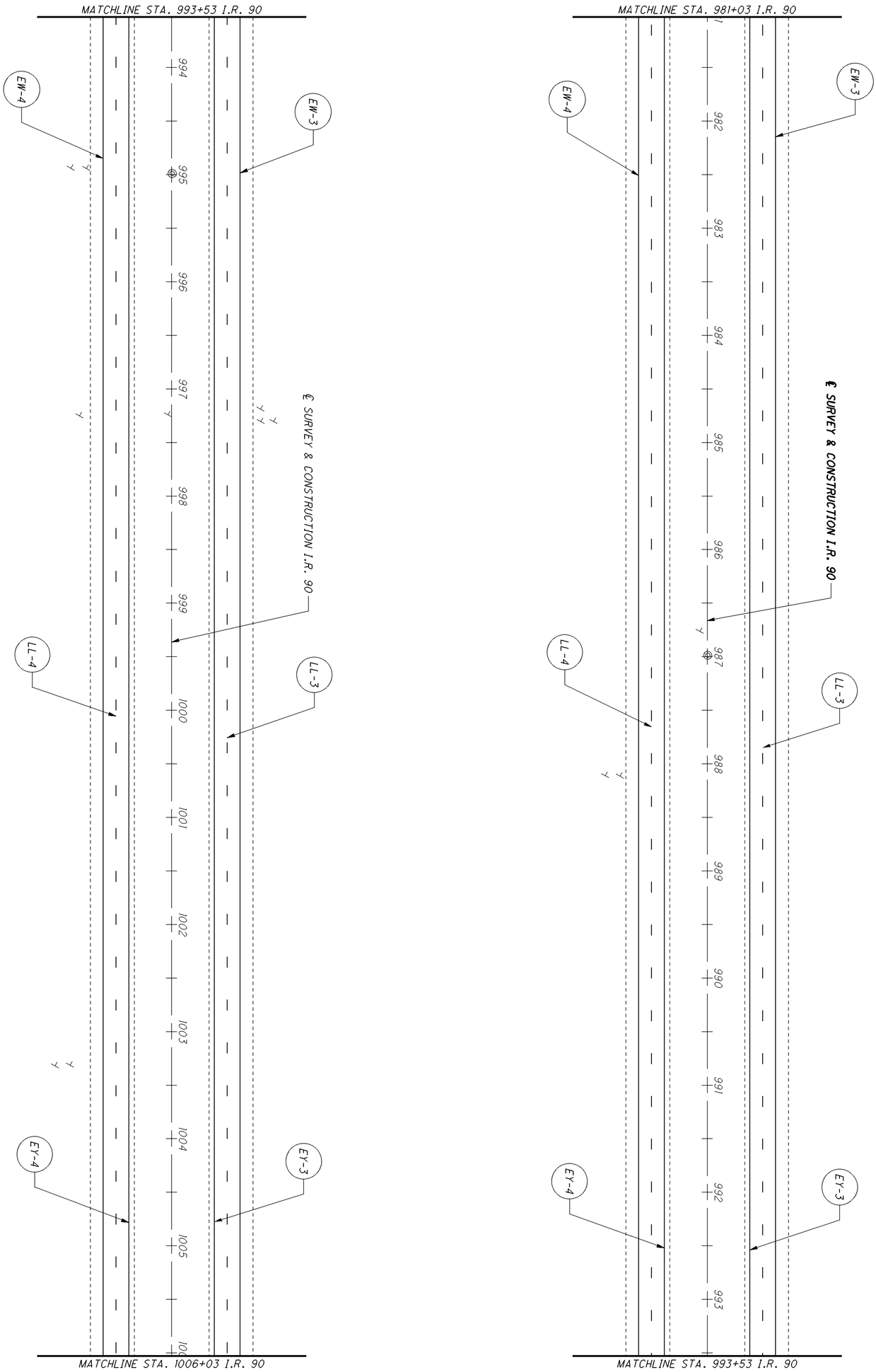


474 / 498	LAK-90-21.40 ATB-90-0.00	I.R. 90 TRAFFIC CONTROL PLAN SHEET STA. 931+03.00 TO STA. 956+03.00	CALCULATED C.Y. CHECKED	0 25 50 100 HORIZONTAL SCALE IN FEET

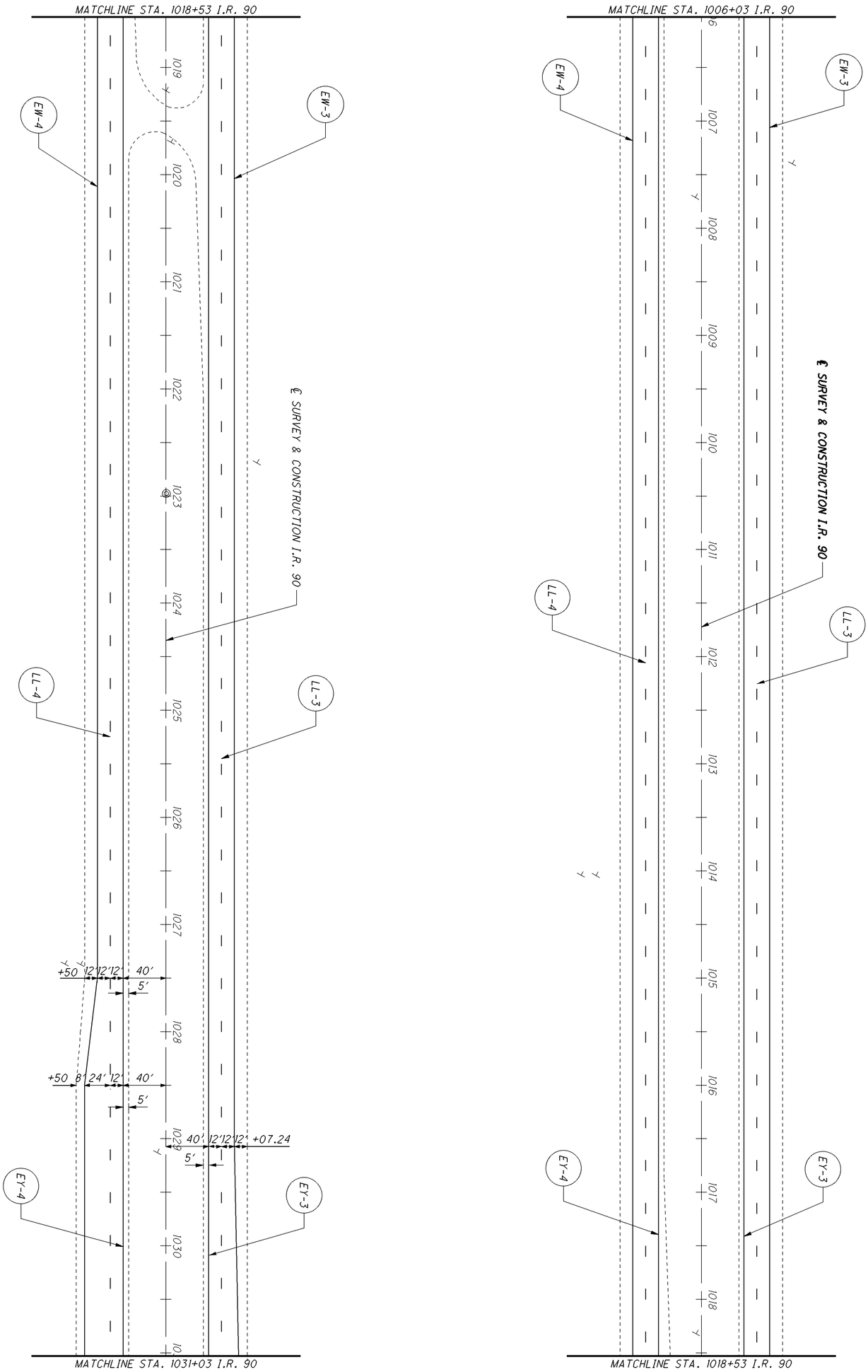




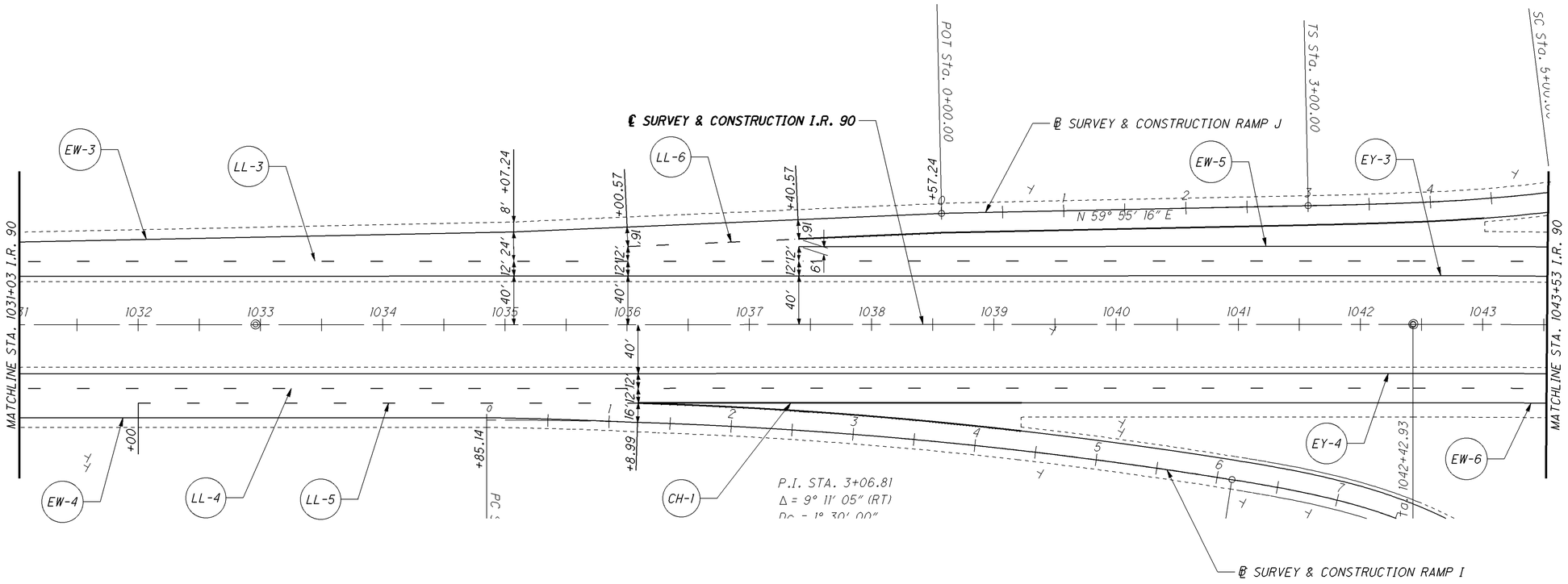
475 / 498	LAK-90-21.40 ATB-90-0.00	I.R. 90 TRAFFIC CONTROL PLAN SHEET STA. 956+03.00 TO STA. 981+03.00	CALCULATED C.Y. CHECKED	0 25 50 100 HORIZONTAL SCALE IN FEET

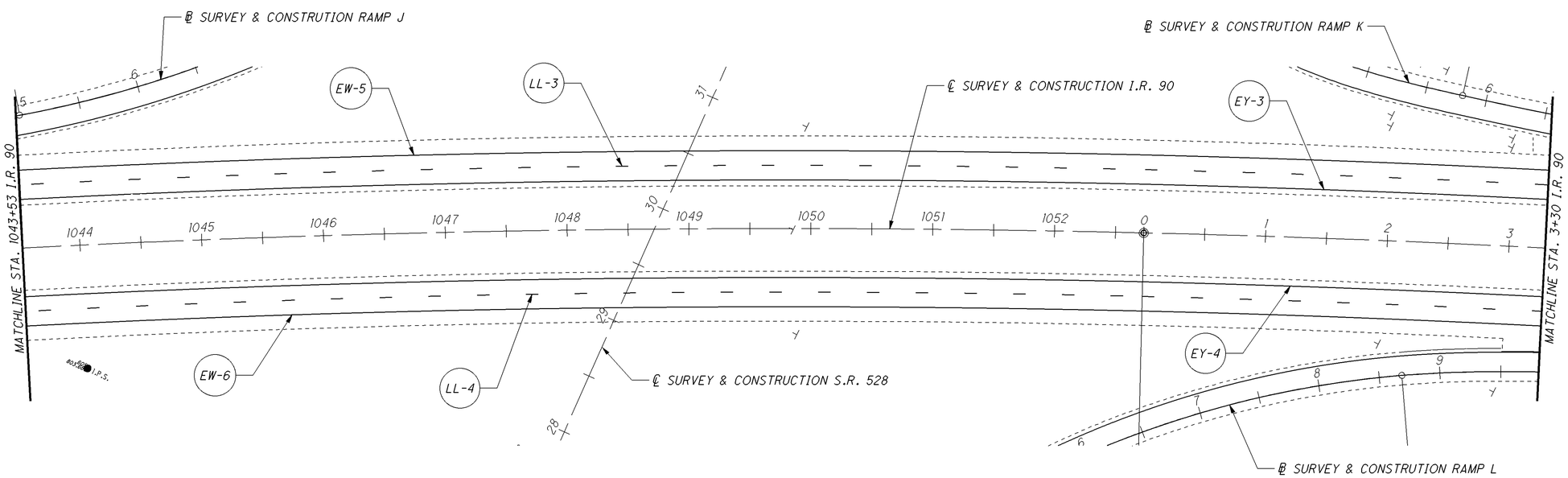


476 / 498	LAK-90-21.40 ATB-90-0.00	I.R. 90 TRAFFIC CONTROL PLAN SHEET STA. 981+03.00 TO STA. 1006+03.00	CALCULATED C.Y. CHECKED	0 50 25 100 HORIZONTAL SCALE IN FEET



477 / 498	LAK-90-21.40 ATB-90-0.00	I.R. 90 TRAFFIC CONTROL PLAN SHEET STA. 1006+03.00 TO STA. 1031+03.00	CALCULATED C.Y. CHECKED 0 50 25 100 HORIZONTAL SCALE IN FEET





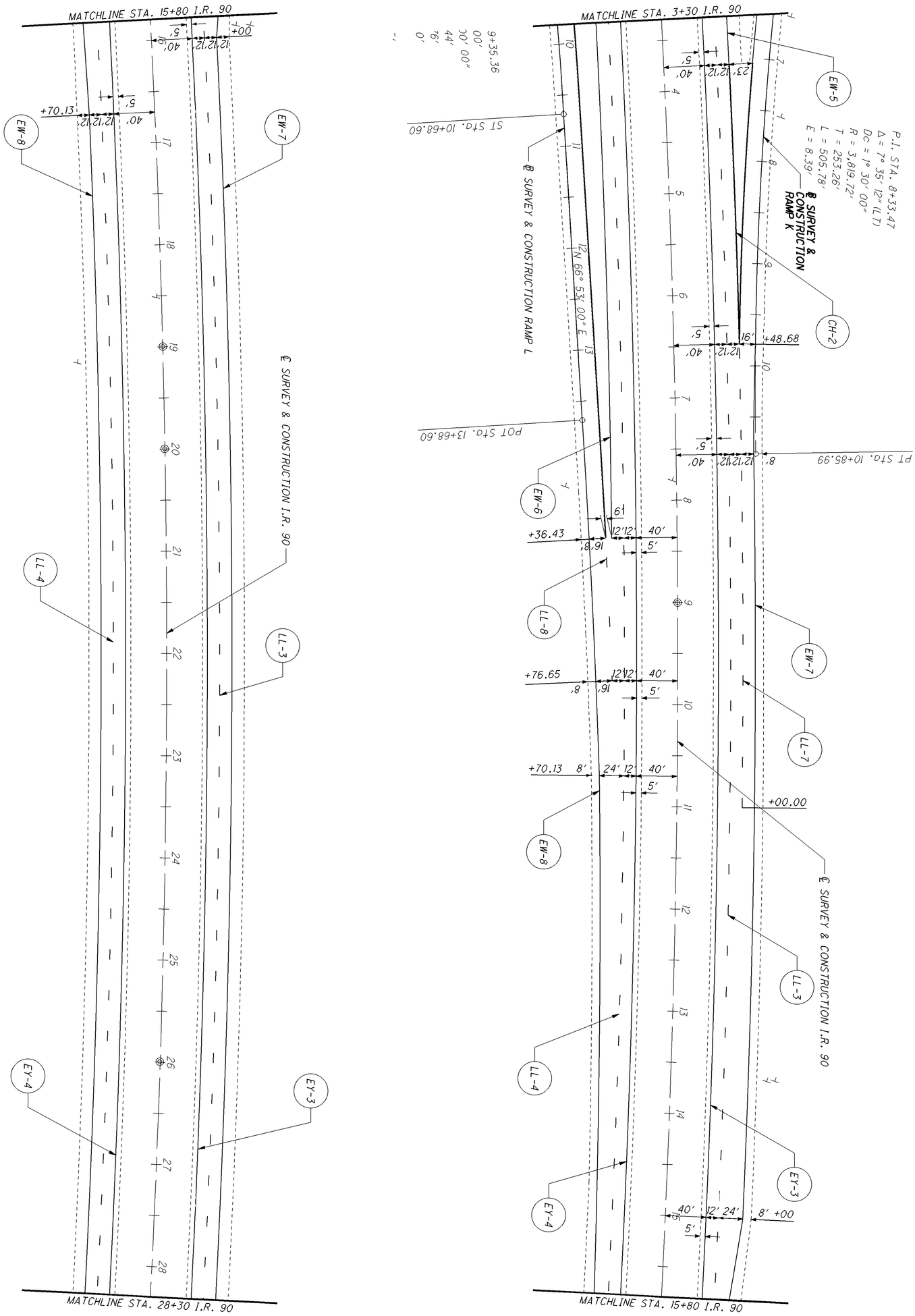
HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED C.Y.
CHECKED

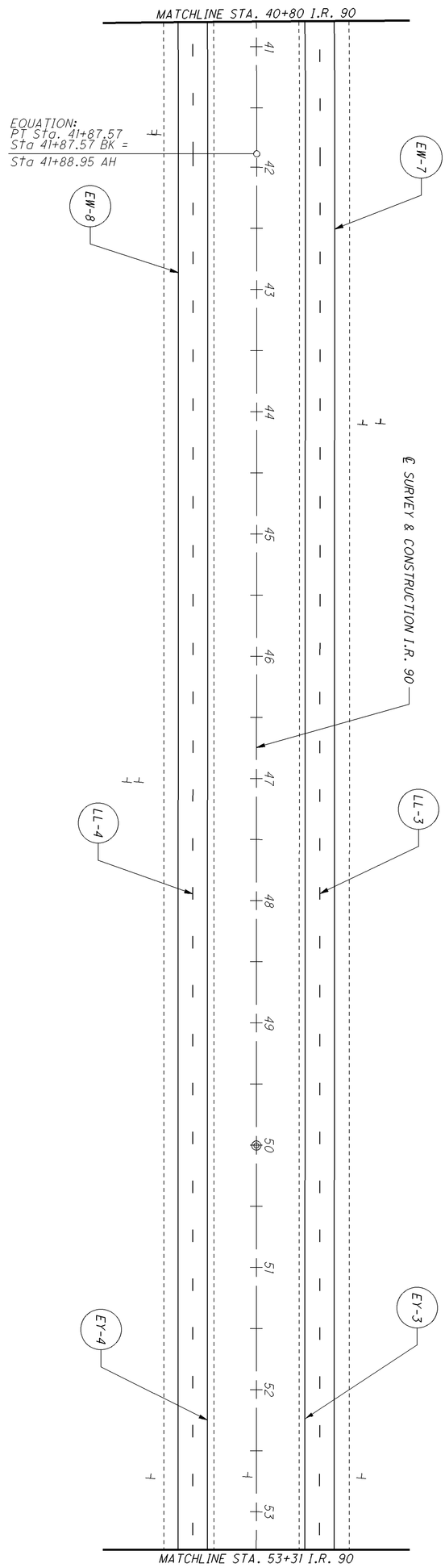
I.R. 90 TRAFFIC CONTROL PLAN SHEET
STA. 1031+03.00 TO STA. 3+30.00

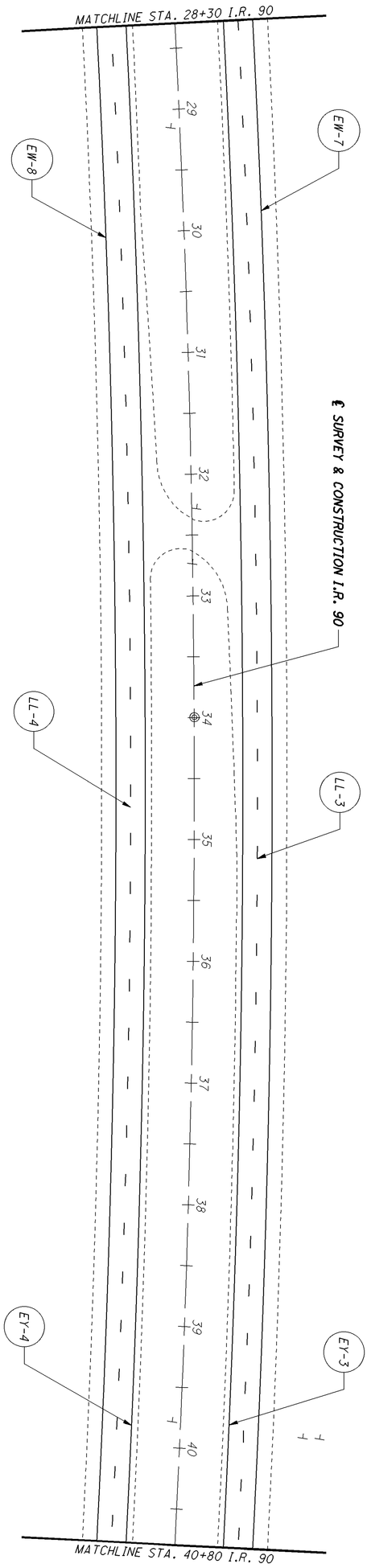
LAK-90-21.40
ATB-90-0.00

IR90_TRF_012.DGN 04/01/08

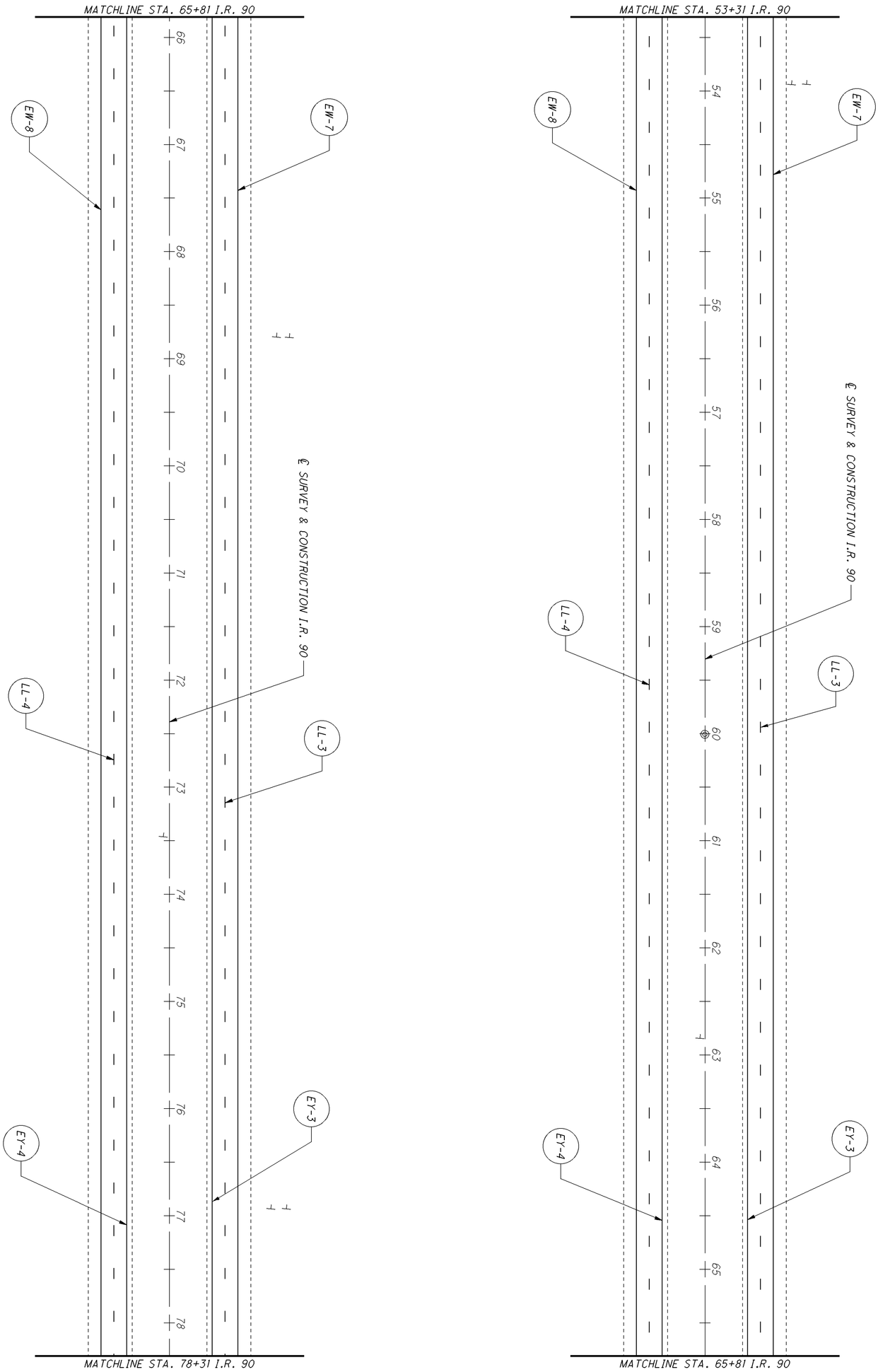


479 / 498	LAK-90-21.40 ATB-90-0.00	I.R. 90 TRAFFIC CONTROL PLAN SHEET STA. 3+30.00 TO STA. 28+30.00	CALCULATED C.Y. CHECKED	0 25 50 100 HORIZONTAL SCALE IN FEET





480 / 498	LAK-90-21.40 ATB-90-0.00	I.R. 90 TRAFFIC CONTROL PLAN SHEET STA. 28+30.00 TO STA. 53+31.00	CALCULATED C.Y. CHECKED	0 25 50 100 HORIZONTAL SCALE IN FEET



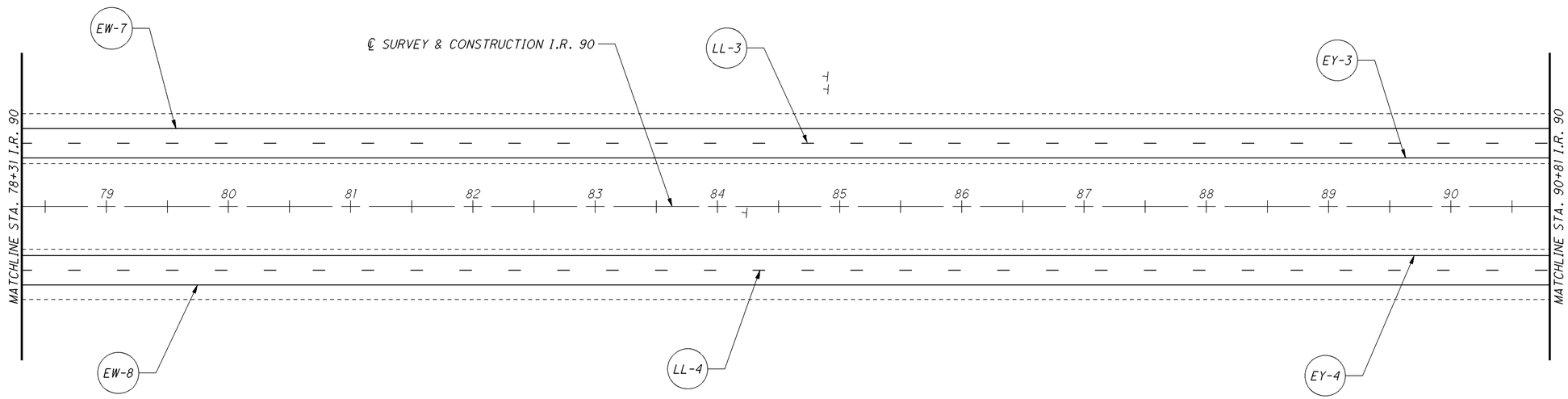
481
498

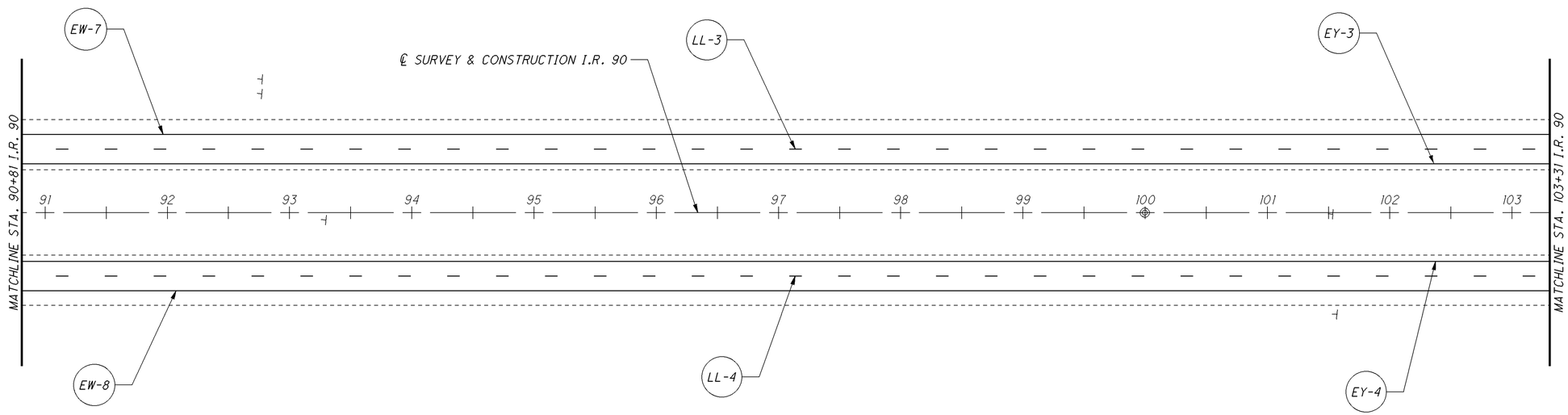
LAK-90-21.40
ATB-90-0.00

I.R. 90 TRAFFIC CONTROL PLAN SHEET
STA. 53+31.00 TO STA. 78+31.00

CALCULATED C.Y.
CHECKED

0 25 50 100
HORIZONTAL SCALE IN FEET





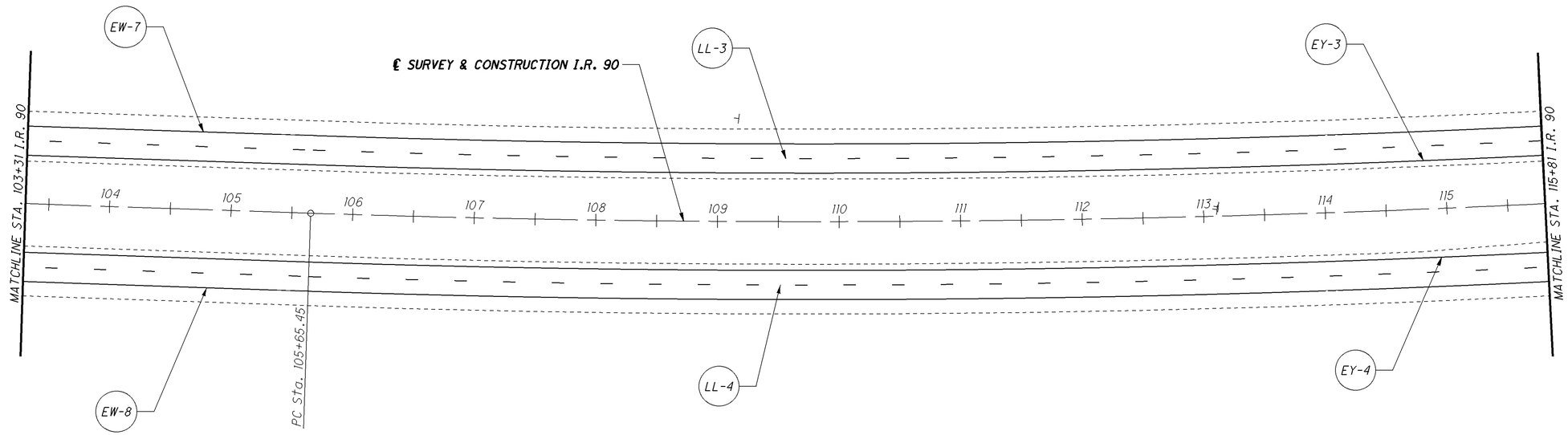
HORIZONTAL SCALE IN FEET
0 25 50 100

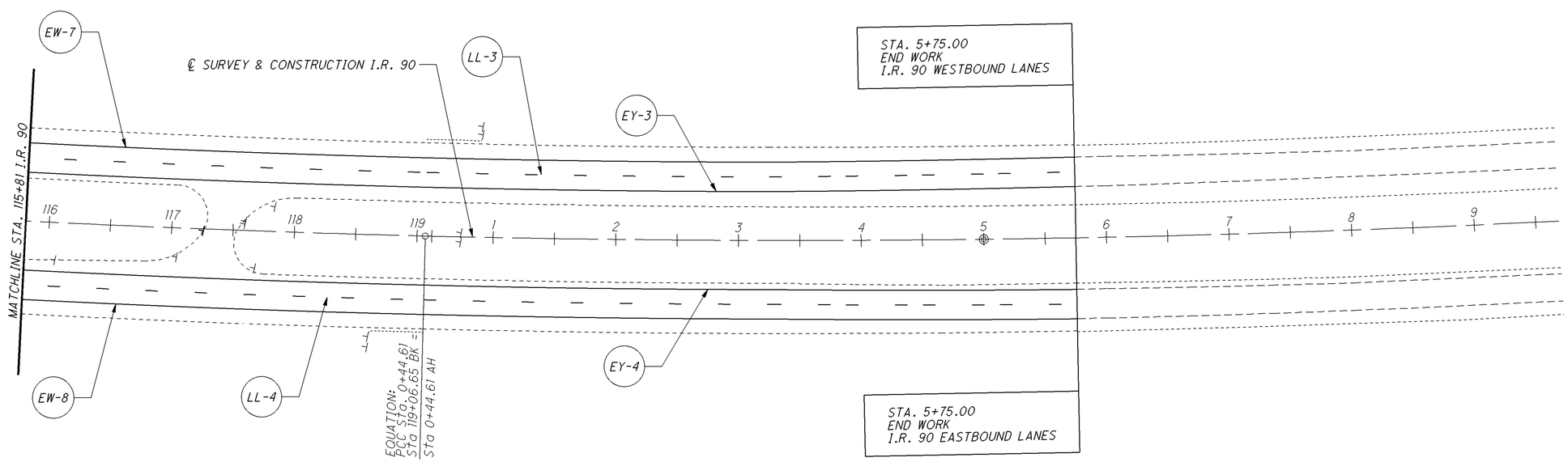
CALCULATED C.Y.
CHECKED

I.R. 90 TRAFFIC CONTROL PLAN SHEET
STA. 78+31.00 TO STA. 103+31.00

LAK-90-21.40
ATB-90-0.00

IR90_TRF_016.DGN 04/01/08





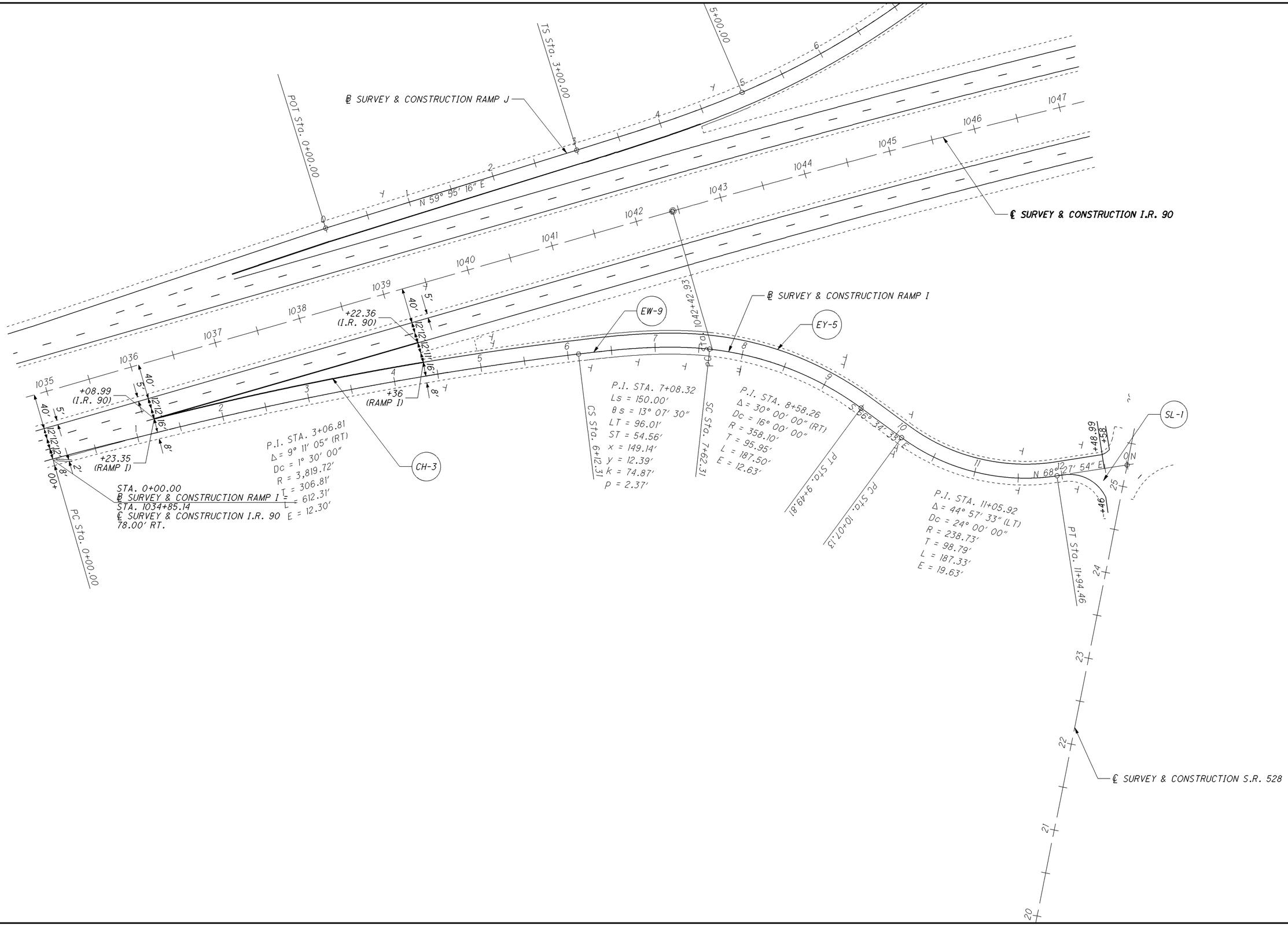
N

0 25 50 100
HORIZONTAL SCALE IN FEET

CALCULATED C.Y.
CHECKED

I.R. 90 TRAFFIC CONTROL PLAN SHEET
STA. 103+31.00 TO STA. 9+69.00

LAK-90-21.40
ATB-90-0.00



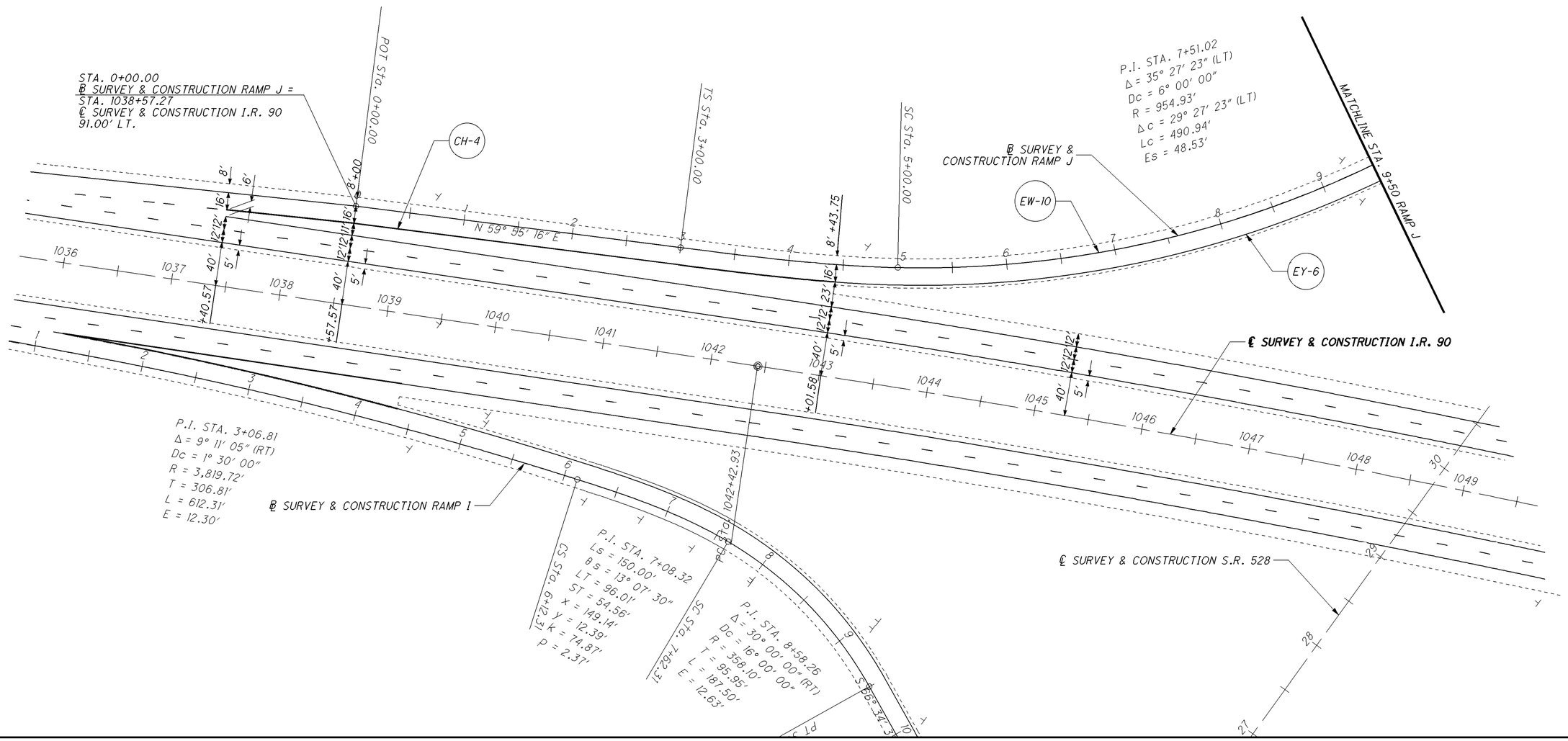
HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED C.Y.
CHECKED J.C.

RAMP I TRAFFIC CONTROL PLAN SHEET
STA. 0+00.00 TO STA. 12+75.33

LAK-90-21.40
ATB-90-0.00

RAMPI_TRF_001.DGN 04/03/08



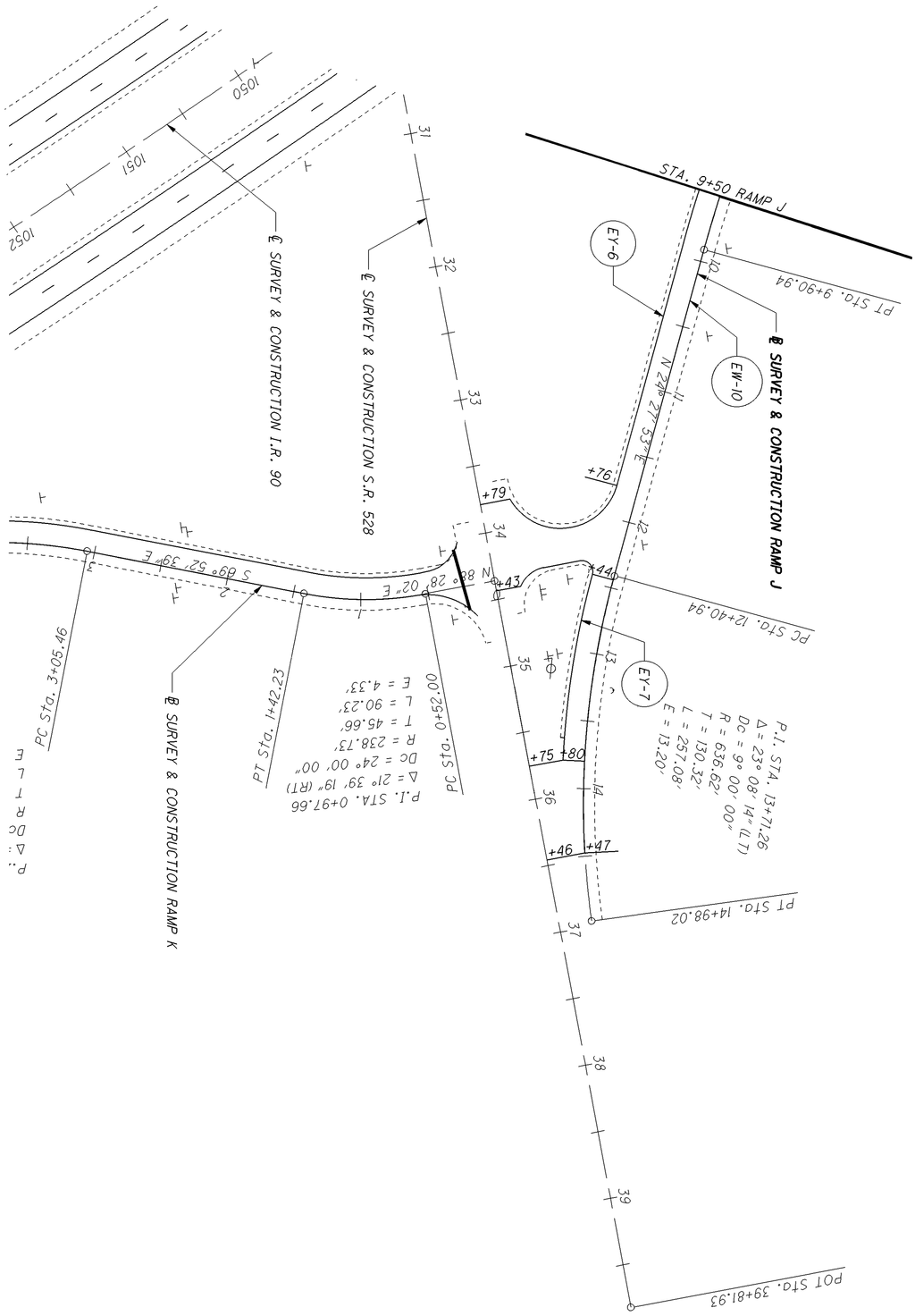
HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED C.Y.
CHECKED J.C.

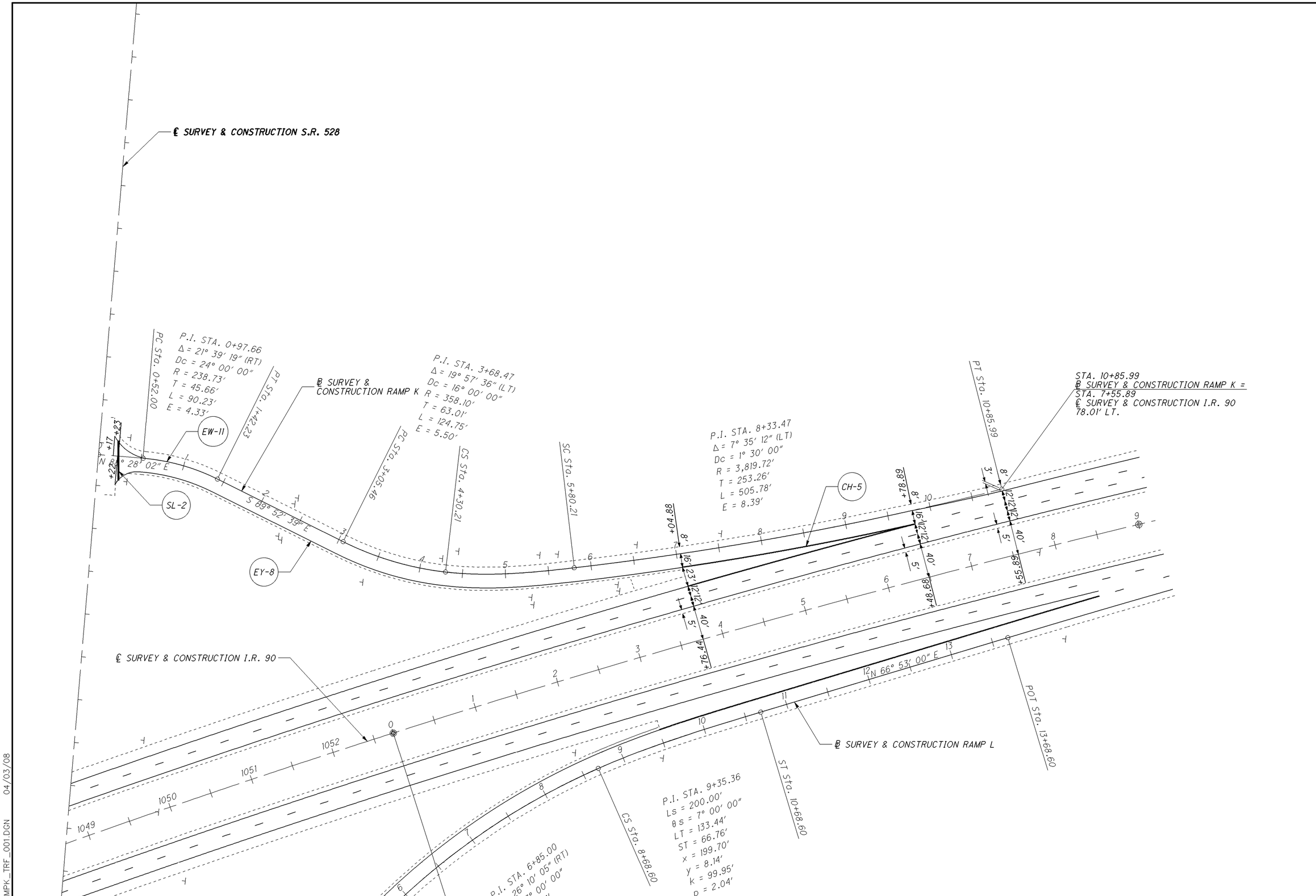
RAMP J TRAFFIC CONTROL PLAN SHEET
STA. 0+00.00 TO STA. 9+50.00

LAK-90-21.40
ATB-90-0.00

RAMPJ_TRF_001.DGN 04/03/08



486 / 498	LAK-90-21.40 ATB-90-0.00	RAMP J TRAFFIC CONTROL PLAN SHEET STA. 9+50.00 TO STA. 14+98.02	CALCULATED C.Y. CHECKED J.C.	0 50 25 100 HORIZONTAL SCALE IN FEET



CALCULATED C.Y.
CHECKED J.C.

RAMP K TRAFFIC CONTROL PLAN SHEET
STA. 0+00.00 TO STA. 10+85.99

LAK-90-21.40
ATB-90-0.00

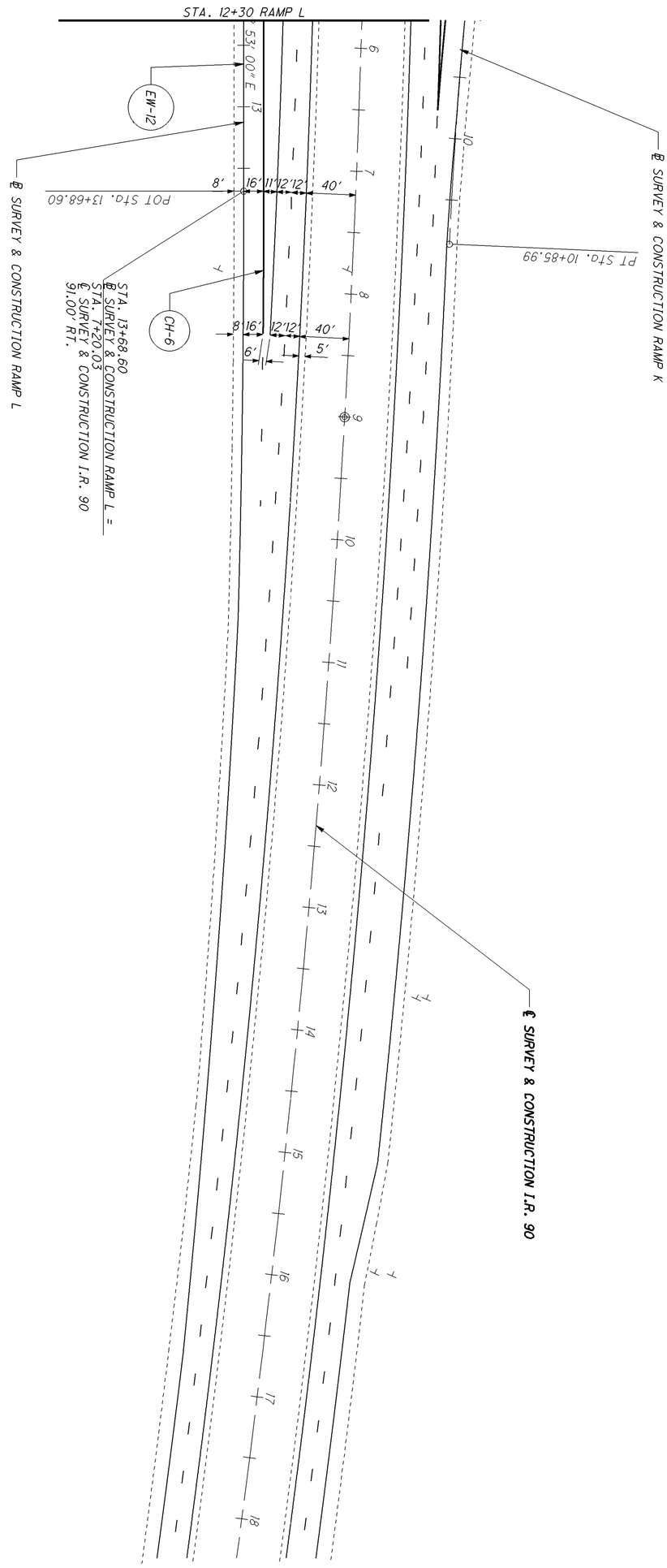
RAMPK_TRF_001.DGN 04/03/08

CALCULATED C.Y.
CHECKED J.C.

RAMP L TRAFFIC CONTROL PLAN SHEET
STA. 0+00.00 TO STA. 12+30.00

LAK-90-21.40
ATB-90-0.00

RAMPL_TRF_001.DGN 04/03/08



489 / 498	LAK-90-21.40 ATB-90-0.00	RAMP L TRAFFIC CONTROL PLAN SHEET STA. 12+30.00 TO STA. 13+68.60	CALCULATED C.Y. CHECKED J.C.	0 25 50 100 HORIZONTAL SCALE IN FEET

SHEET NO.	REFERENCE NO.	LOCATION	STATION FROM	STATION TO	SIDE	620 FOR INFO. ONLY DELINEATOR, POST MOUNTED	TYPE C DELINEATOR (WHITE)	TYPE D DELINEATOR (YELLOW)	621 FOR INFORMATION ONLY RPM	1-WAY WHITE	2-WAY WHITE/RED	2-WAY YELLOW/YELLOW	621 FOR INFORMATION ONLY RPM (ALTERNATE B)	1-WAY WHITE	2-WAY WHITE/RED	2-WAY YELLOW/YELLOW	646 EDGE LINE, WHITE	EDGE LINE, YELLOW	LANE LINE	CHANNELIZING LINE	STOP LINE
						EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	MILE	MILE	MILE	FT	FT
467-470	EW-1	I.R. 90	724+50.00	813+00.00	LT												1.68				
467-470	LL-1	I.R. 90	724+50.00	813+00.00	LT				74	74			74	74					1.68		
467-470	EY-1	I.R. 90	724+50.00	813+00.00	LT													1.68			
467-471	EW-2	I.R. 90	724+50.00	826+00.00	RT												1.92				
467-471	LL-2	I.R. 90	724+50.00	826+00.00	RT				85	85			85	85					1.92		
467-471	EY-2	I.R. 90	724+50.00	826+00.00	RT													1.92			
472-478	EW-3	I.R. 90	855+50.00	1038+57.27	LT												2.79				
472-483	LL-3	I.R. 90	855+50.00	5+75.00	LT				238	238			238	238					5.41		
472-483	EY-3	I.R. 90	855+50.00	5+75.00	LT													5.41			
472-478	EW-4	I.R. 90	847+50.00	1034+85.14	RT												2.86				
472-483	LL-4	I.R. 90	847+50.00	5+75.00	RT				245	245			245	245					5.56		
472-483	EY-4	I.R. 90	847+50.00	5+75.00	RT													5.56			
478	LL-5	I.R. 90	1032+00.00	1036+08.99	RT				5	5			5	5					0.08		
478	LL-6	I.R. 90	1036+00.57	1037+40.57	LT				2	2			2	2					0.03		
478-479	EW-5	I.R. 90	1037+40.57	3+76.44	LT												0.36				
478-479	EW-6	I.R. 90	1039+22.36	8+36.43	RT												0.41				
478	CH-1	I.R. 90	1036+08.99	1039+22.36	RT				8		8		8		8					313.4	
479	CH-2	I.R. 90	3+76.44	6+48.68	LT				7		7		7		7					272.2	
479	LL-7	I.R. 90	6+48.68	11+00.00	LT				6	6			6	6					0.09		
479	LL-8	I.R. 90	8+36.43	9+76.65	RT				2	2			2	2					0.03		
479-483	EW-7	I.R. 90	7+55.89	5+75.00	LT												2.21				
479-483	EW-8	I.R. 90	7+20.03	5+75.00	RT												2.22				
		MAINLINE WESTBOUND I.R. 90	724+50.00	813+00.00		23	23														
		MAINLINE WESTBOUND I.R. 90	855+50.00	5+75.00		72	72														
		MAINLINE EASTBOUND I.R. 90	724+50.00	826+00.00		26	26														
		MAINLINE EASTBOUND I.R. 90	847+50.00	5+75.00		74	74														
SUB-TOTAL						195	195		672	657	15		672	657	15		14.45	14.57	14.80	585.6	
TOTALS CARRIED TO GENERAL SUMMARY						195			672				672				29.02		14.80	586	

CALCULATED C.Y.
CHECKED

MAINLINE I.R. 90 PAVEMENT MARKING SUBSUMMARY

LAK-90-21.40
ATB-90-0.00

SHEET NO.	REFERENCE NO.	LOCATION	STATION FROM	STATION TO	SIDE	620 FOR INFO. ONLY DELINEATOR, POST MOUNTED	TYPE C DELINEATOR (WHITE)	TYPE D DELINEATOR (YELLOW)	621 FOR INFORMATION ONLY RPM	1-WAY WHITE	2-WAY WHITE/RED	2-WAY YELLOW/YELLOW	646 EDGE LINE, WHITE	EDGE LINE, YELLOW	LANE LINE	CHANNELIZING LINE	STOP LINE
						EACH	EACH	EACH	EACH	EACH	EACH	EACH	MILE	MILE	MILE	FT	FT
484	CH-3	RAMP I	1+23.36	4+36.00	LT				8		8					312.6	
484	EW-9	RAMP I	0+00.00	12+45.59	RT								0.24				
484	EY-5	RAMP I	4+36.00	12+57.75	LT				11			11		0.16			
484	SL-1	RAMP I	12+48.99														44.6
485	CH-4	RAMP J	1037+40.57 (IR 90)	4+43.75	RT				14		14					561.7	
485-486	EW-10	RAMP J	0+00.00	14+47.49	LT								0.27				
485-486	EY-6	RAMP J	4+43.75	33+78.60 (SR 528)	RT				10			10		0.16			
486	EY-7	RAMP J	34+43.38 (SR 528)	13+79.59	RT				2			2		0.04			
487	SL-2	RAMP K	0+23.00														44.5
487	EW-11	RAMP K	0+16.95	10+85.99	LT								0.20				
487	EY-8	RAMP K	0+21.92	7+04.88	RT				9			9		0.13			
487	CH-5	RAMP K	7+04.88	9+78.66	RT				7		7					273.8	
488	EY-9	RAMP L	0+44.98	9+51.10	LT				12			12		0.18			
488-489	EW-12	RAMP L	0+10.23	13+68.60	RT								0.26				
488-489	CH-6	RAMP L	9+51.10	8+36.43 (IR 90)	LT				14		14					543.7	
		RAMP I	0+00.00	12+75.33		32	17	15									
		RAMP J	0+00.00	14+98.02		26	15	11									
		RAMP K	0+00.00	10+85.99		20	11	9									
		RAMP L	0+00.00	13+68.60		24	13	11									
		SUB-TOTAL				102	56	46	87		43	44	0.97	0.67		1691.8	89.1
		TOTALS CARRIED TO GENERAL SUMMARY				102			87				1.64			1692	90

CALCULATED C.Y.
CHECKED

RAMP PAVEMENT MARKING SUBSUMMARY

LAK-90-21.40
ATB-90-0.00

ITEM 625, POWER SERVICE

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

I.R. 90 AND S.R. 528 INTERCHANGE

THE ILLUMINATING COMPANY
6896 MILLER ROAD
BRECKSVILLE, OH 44141
PHONE: (800) 589-3101

POWER SERVICE EQUIPMENT SHALL BE INSTALLED AS SPECIFIED IN THE O.D.O.T. CONSTRUCTION AND MATERIAL SPECIFICATIONS AND ON STANDARD CONSTRUCTION DRAWING HL-40.10. THE CONTRACTOR SHALL PAY ANY POWER COMPANY FEES ASSOCIATED WITH THE INSTALLATION AND CONNECTION OF THE POWER SERVICE. PAYMENT TO THE CONTRACTOR IS INCIDENTAL TO "ITEM 625, POWER SERVICE". ELECTRICAL ENERGY FROM EXISTING POWER SERVICES SHALL CONTINUE TO BE CHARGED TO THE MAINTAINING AGENCY. THE CONTRACTOR SHALL PAY ELECTRICAL ENERGY CHARGES FOR NEW POWER SERVICES ESTABLISHED BY THIS PROJECT. UPON ACCEPTANCE OF THIS LIGHTING, POWER SERVICE ELECTRICAL ENERGY ACCOUNTS SHALL BE TRANSFERRED TO THE MAINTAINING AGENCIES NOTED IN THE PLANS. THIS SHALL INCLUDE NEW POWER SERVICE ESTABLISHED BY THIS PROJECT AS WELL AS REASSIGNMENT OF EXISTING SERVICE DUE TO WORK PERFORMED BY THIS PROJECT.

LAMPS

HIGH PRESSURE SODIUM LAMPS SHALL BE GENERAL ELECTRIC "LUCALOX," OSRAM SYLVANIA "LUMALUX," PHILIPS "CERAMALUX," OR EQUAL APPROVED BY THE ENGINEER.

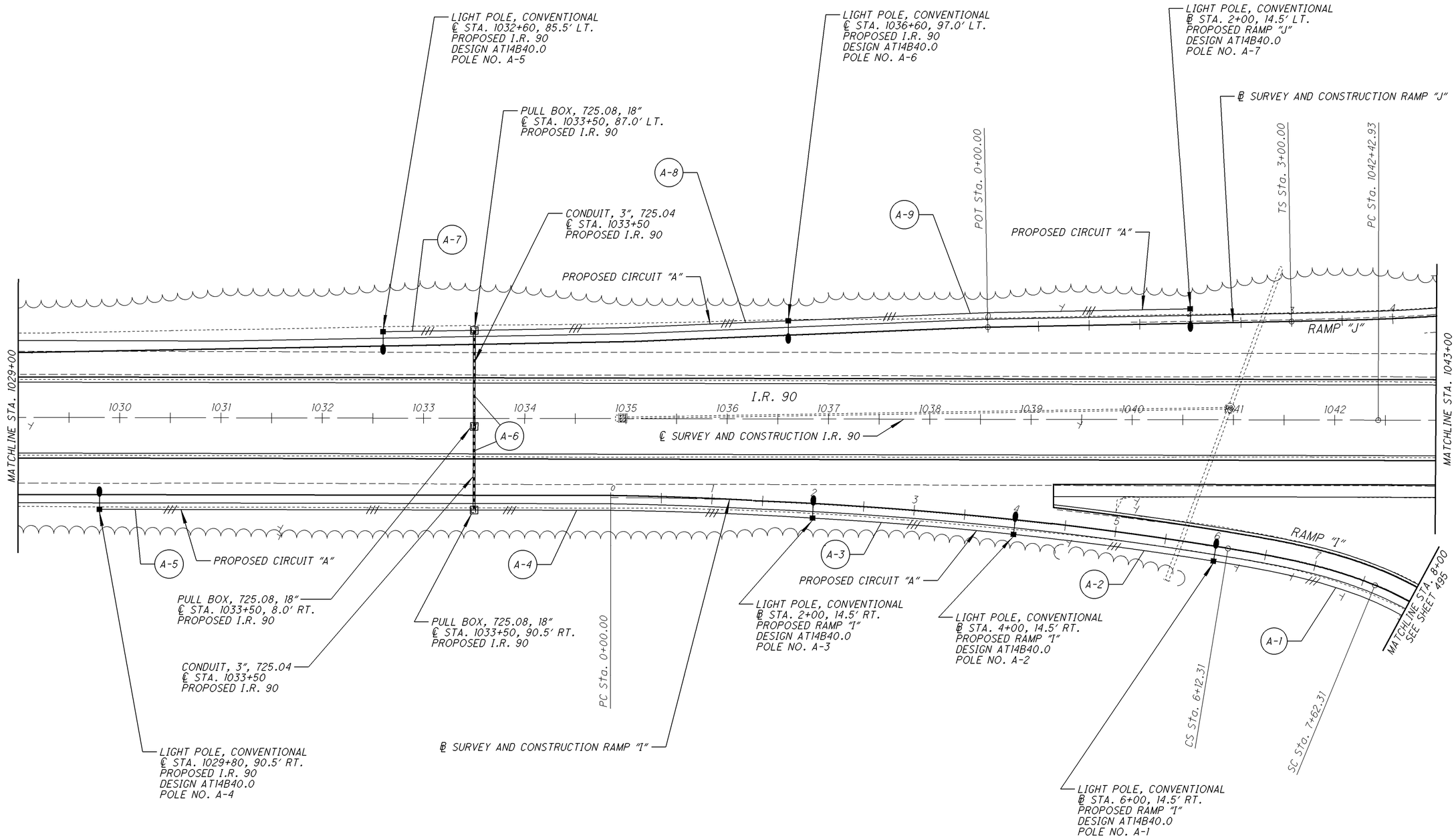
PADLOCKS AND KEYS

PADLOCKS FURNISHED SHALL BE EITHER BRASS OR BRONZE, EQUAL TO MASTER NO. 4BKA OR WILSON BOHANNAN 660A, AND SHALL BE KEYED IN ACCORDANCE WITH CMS 631.06. PAYMENT SHALL BE INCLUDED IN THE BID FOR THE ITEM(S) BEING LOCKED.

ITEM 625, LUMINAIRE, CONVENTIONAL, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, LUMINAIRES FOR CONVENTIONAL LIGHTING UNITS SHALL BE AS FOLLOWS:

LUMINAIRES FOR CONVENTIONAL LIGHTING UNITS WITH AN IES TYPE II DISTRIBUTION, FULL CUTOFF OPTICS AND 250 WATT HIGH PRESSURE SODIUM LAMPS SHALL BE AMERICAN ELECTRIC "SERIES 125 CUTOFF" WITH PHOTOMETRIC DISTRIBUTION 125 25S R2 FG, COOPER "OVF" WITH PHOTOMETRIC DISTRIBUTION OVF25SXX2D, GENERAL ELECTRIC "M-250R2 CUTOFF" WITH PHOTOMETRIC DISTRIBUTION GE177306, OR EQUAL AS APPROVED BY THE ENGINEER. PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH CMS "ITEM 625, LUMINAIRE, CONVENTIONAL, AS PER PLAN" FOR EACH LUMINAIRE WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.



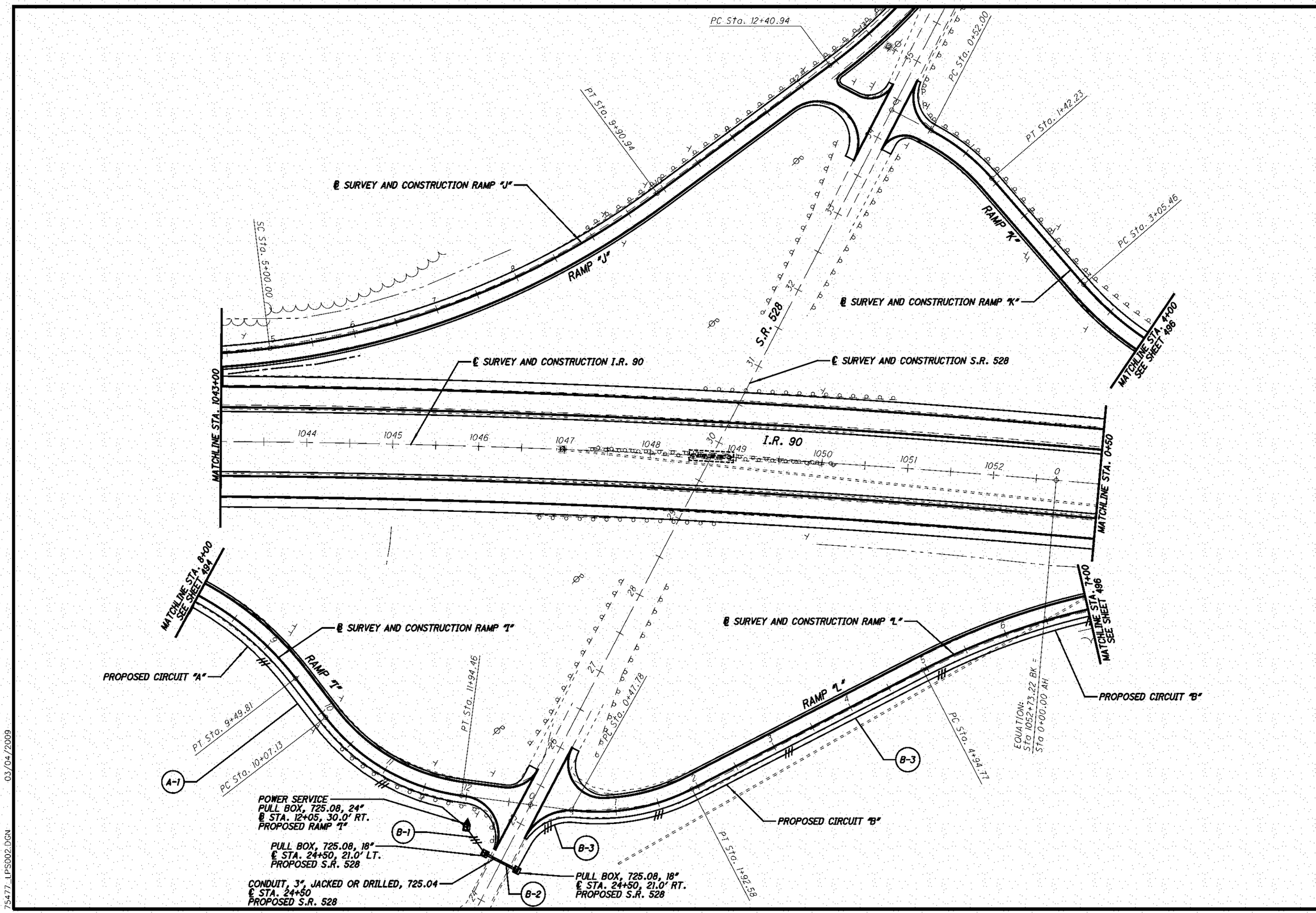
HORIZONTAL SCALE IN FEET
0 50 100

CALCULATED M.M.
CHECKED J.C.

LIGHTING PLAN SHEET - CIRCUIT "A"
STA. 1029+00 TO STA. 1043+00

LAK-90-21.40
ATB-90-0.00

75477_LPS001.DGN 03/04/2009



HORIZONTAL SCALE IN FEET
0 50 100

CALCULATED M.M.
CHECKED J.C.

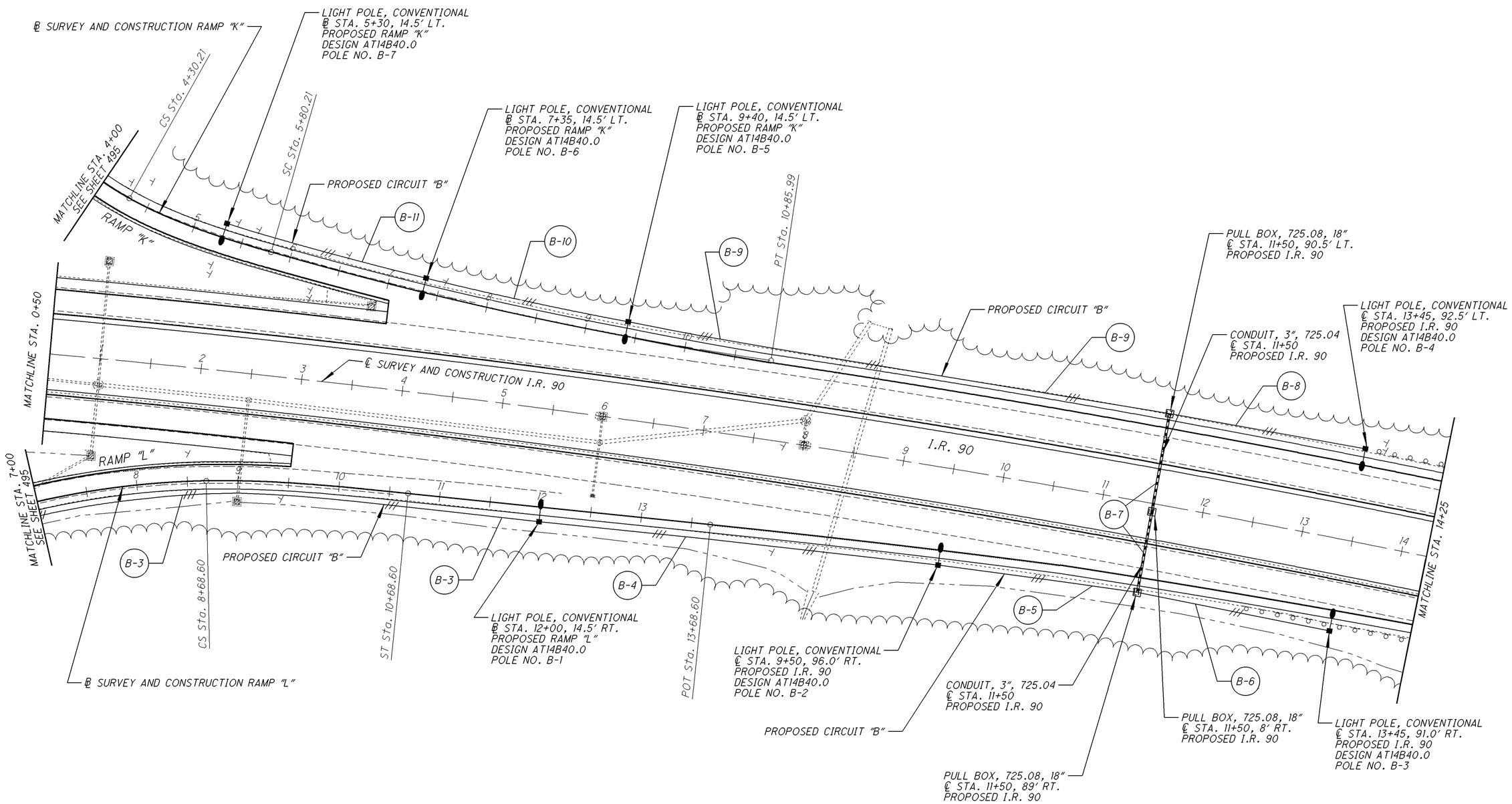
LIGHTING PLAN SHEET - CIRCUIT "A" AND "B"
STA. 1043+00 TO STA. 0+50

LAK-90-21.40
ATB-90-0.00

495
498

03/04/2009

75477_LPS002.DGN



HORIZONTAL SCALE IN FEET
0 50 100

CALCULATED M.M.
CHECKED J.C.

LIGHTING PLAN SHEET - CIRCUIT "B"
STA. 0+50 TO STA. 14+25

LAK-90-21.40
ATB-90-0.00

75477_LPS003.DGN 03/04/2009

REFERENCE NO.	SHEET No.	SIDE	ROADWAY	STATION TO STATION CIRCUIT "A"	ITEM 625 LUMINAIRE, CONVENTIONAL, AS PER PLAN (EACH)	LIGHT POLE, CONVENTIONAL, DESIGN AT14B40.0 (EACH)	LIGHT POLE FOUNDATION 24" X 10' DEEP (EACH)	1 ½" DUCT CABLE WITH THREE NO. 2 AWG 5,000 VOLT CABLES (FT.)	NO. 10 AWG POLE AND BRACKET CABLE (FT.)	PULL BOX, 725.08, 18" (EACH)	CONDUIT, 3", 725.04 (FT.)	CONDUIT, 3" JACKED OR DRILLED, 725.04 (FT.)	TRENCH, 24" DEEP (FT.)	CABLE SPLICING KIT (EACH)	CONNECTOR KIT, TYPE II (EACH)	CONNECTOR KIT, TYPE III (EACH)	GROUND ROD (EACH)	POWER SERVICE (EACH)	PULL BOX, 725.08, 24" (EACH)	NO. 2 AWG 5000 VOLT DISTRIBUTION CABLE (FT.)			
A-1	494-495	RT	RAMP I	STA. 6+00 TO STA. 12+05	1	1	1	625	165		20		620	6	1	1	2	1	1	210			
A-2	494	RT	RAMP I	STA. 4+00 TO STA. 6+00	1	1	1	210	165				200		1	1	1						
A-3	494	RT	RAMP I	STA. 2+00 TO STA. 4+00	1	1	1	210	165				200		1	1	1						
A-4	494	RT AND RT	I.R. 90 AND RAMP I	STA. 1033+50 TO STA. 2+00				340					330										
A-5	494	RT	I.R. 90	STA. 1029+80 TO STA. 1033+50	1	1	1	380	165				370		1	1	1						
A-6	494	LT AND RT	I.R. 90	STA. 1033+50				195		3	180		180	6									
A-7	494	LT	I.R. 90	STA. 1032+60 TO STA. 1033+50	1	1	1	100	165				90		1	1	1						
A-8	494	LT	I.R. 90	STA. 1033+50 TO STA. 1036+60	1	1	1	320	165				310		1	1	1						
A-9	494	LT AND LT	I.R. 90 AND RAMP J	STA. 1036+60 TO STA. 2+00	1	1	1	410	165				400		1	1	1						
TOTALS CARRIED TO GENERAL SUMMARY					7	7	7	2,790	1,155	3	200		2,700	12	7	7	8	1	1	210			

CALCULATED M.M. 03/26/2008
CHECKED C.C. 01/16/2008

LIGHTING SUBSUMMARY CIRCUIT "A"

LAK-90-21.40
ATB-90-0.00

75477_LSS001.DGN 03/04/2009

REFERENCE NO.	SHEET No.	SIDE	ROADWAY	STATION TO STATION CIRCUIT "B"	ITEM 625 LUMINAIRE, CONVENTIONAL, AS PER PLAN EACH	LIGHT POLE, CONVENTIONAL, DESIGN AT14B40.0 EACH	LIGHT POLE FOUNDATION 24" X 10' DEEP EACH	1 ½" DUCT CABLE WITH THREE NO.2 AWG 5,000 VOLT CABLES FT.	NO.10 AWG POLE AND BRACKET CABLE FT.	PULL BOX, 725.08, 18" EACH	CONDUIT, 3", 725.04 FT.	CONDUIT, 3", JACKED OR DRILLED, 725.04 FT.	TRENCH, 24" DEEP FT.	CABLE SPLICING KIT EACH	CONNECTOR KIT, TYPE II EACH	CONNECTOR KIT, TYPE III EACH	GROUND ROD EACH	POWER SERVICE EACH
B-1	495	RT AND LT	RAMP I AND S.R. 528	STA. 12+05 TO STA. 24+50				65					40					
B-2	495	LT AND RT	S.R. 528	STA. 24+50				50		2		40		3				
B-3	495-496	RT AND RT	S.R. 528 AND RAMP L	STA. 24+50 TO STA. 12+00	1	1	1	1230	165				1220		1	1	1	
B-4	496	RT AND RT	RAMP L AND I.R. 90	STA. 12+00 TO STA. 9+50	1	1	1	410	165				400		1	1	1	
B-5	496	RT	I.R. 90	STA. 9+50 TO STA. 11+50				210					200					
B-6	496	RT	I.R. 90	STA. 11+50 TO STA. 13+45	1	1	1	205	165				195		1	1	1	
B-7	496	LT AND RT	I.R. 90	STA. 11+50				195		3	180		180	6				
B-8	496	LT	I.R. 90	STA. 11+50 TO STA. 13+45	1	1	1	205	165				195		1	1	1	
B-9	496	LT AND LT	RAMP K AND I.R. 90	STA. 9+40 TO STA. 11+50	1	1	1	550	165				540		1	1	1	
B-10	496	LT	RAMP K	STA. 7+35 TO STA. 9+40	1	1	1	215	165				205		1	1	1	
B-11	496	LT	RAMP K	STA. 5+30 TO STA. 7+35	1	1	1	215	165				205		1	1	1	
TOTALS CARRIED TO GENERAL SUMMARY					7	7	7	3,550	1,155	5	180	40	3,380	9	7	7	7	

CALCULATED M.M. 03/04/2009
CHECKED C.C. 03/04/2009

LIGHTING SUBSUMMARY CIRCUIT "B"

LAK-90-21.40
ATB-90-0.00

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF A MAJOR RAHABILITATION OF THE PAVEMENT OF IR 90 FROM PAINE ROAD AT THE 21.50 MILE MARKER EASTWARD 7.71 MILES TO THE ASHTABULA COUNTY LINE. THE PROJECT INCLUDES THE FOUR RAMPS AT THE INTERCHANGE WITH SR 528.

HISTORIC RECORDS

HISTORIC RECORDS CONSIST OF THE ORIGINAL SOIL PROFILES FOR THE PROJECTS: LAK-1-20.03 DATED 12/3/1957, LAK-1-23.25 DATED 12/2/1957 AND LAK/ATB-1-26.51/0.00 REVISED DATED 7/26/57. WE ARE ALSO IN POSSESSION OF THE 2004 33 PAGE SET OF PLANS FOR THE RESURFACING PROJECT (PID 18401). WE REVIEWED THESE MATERIALS BUT DID NOT INDLCUDE ANY OF THE HISTORIC BORINGS IN THIS EXPLORATION.

GEOLOGY

THE EXISTING ALIGNMENT WAS CONSTRUCTED ON THE SLIGHTLY IRREGULAR TERRAIN OF THE LAKE ESCARPMENT MORAINE WHERE GLACIAL DRIFT IS RELATIVEYL DEEP OVERLYING SILICEOUS SHALE BEDROCK. CUTS AND FILLS OF SLIGHT TO MODERATE DEPTH WERE UTILIZED TO CONSTRUCT THE EXISTING PROJECT.

RECONNAISSANCE

RECONNAISSANCE CONSISTED OF AN OFFICE REVIEW OF HISTORIC MATERIALS FOLLOWED BY MULTIPLE SITE VISITS CONDUCTED IN SEPTEMBER 2006 BY OGE STAFF.

THE PAVEMENT, WHICH HAD BEEN RESURFACED FAIRLY RECENTLY, APPEARED TO BE IN GOOD CONDITION. ONLY AT STATIONS 953+88, 1042+20 AND 118+11 IN THE EBL AND 838+76 AND 10+50 IN THE WBL WERE CRACKS RUTS OR PATCHES OBSERVED IN THE PAVEMENT.

SUBSURFACE EXPLORATION

EXPLORATORY BORINGS WERE PERFORMED BY TWO DRILLING CREWS PRECEEDED BY AN OPERATOR OF A CONCRETE CORE DRILL WHO DRILLED PILOT HOLES AND TOOK PAVEMENT CORES. THE TWO DRILLING CREWS DRILLED A TOTAL OF 114 SUBGRADE BORINGS UTILIZING TRUCK MOUNTED DRILL RIGS BETWEEN OCTOBER 22 AND NOVEMBER 1, 2006. HOLLOW STEM AUGER FLIGHTS WERE NOT USED IN THE DRILLING OF THESE HOLES. RATHER, SPT SAMPLES WERE TAKEN THROUGH THE PILOT HOLE. FOUR SAMPLES WERE TAKEN IN EACH HOLE. FOLLOWING EACH SPT SAMPLE, A 3.5 INCH DIAMTER AUGER WAS INSERTED IN THE HOLE TO CLEAN IT OUT.

EXPLORATION FINDINGS

MATERIALS ENCOUNTERED ON THE PROJECT WERE PREDOMINANTLY COMPRISED OF SILT CLAYS (A-6a) AND SANDY SILTS (A-4a) GENERALLY HAVING MOISTURE CONTENTS THAT WERE BELOW THE PLASTIC RANGE.

WET MATERIALS OR CONDITIONS WERE ENCOUNTERED IN THE TOP 6' AT THE FOLLOWING STATIONS:

EBL STATIONS 810+00, 850+00, 858+00, 882+19, 982+00, 1030+00, 1042+20, 33+00, 73+00 AND 112+00.

WBL STATIONS 765+70, 774+00, 798+00, 29+00 AND 115+00.

PEAT WAS ENCOUNTERED AT WBL STATION 962+00, ORGANIC MATERIAL WAS ENCOUNTERED AT WBL STATIONS 1026+00 AND 1042+00, AND A TRACE OF ORGANIC MATERIAL WAS ENCOUNTERED AT EBL STATIONS 990+00, 88+50 AND 97+00.

SPECIFICATIONS

THIS GEOTECHNICAL EXPLORATION WAS PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, OFFICE OF GEOTECHNICAL ENGINEERING, SPECIFICATIONS FOR SUBSURFACE INVESTIGATIONS, DATED NOVEMBER 1, 1995. HOWEVER, THE DRAFITNG OF THIS EXPLORATION IS BEING PRESENTED IN ACCORDANCE WITH THE OFFICE OF GEOTECHNICAL ENGINEERING'S SPECIFICATIONS FOR GEOTECHNICAL EXPLORATIONS MANUAL DATED APRIL 2007.

AVAILABLE INFORMATION

ALL AVAILABLE SOIL AND BEDROCK INFORMATION THAT CAN BE CONVENIENTLY SHOWN ON THE GEOTECHNICAL EXPLORATION SHEETS HAS BEEN SO REPORTED. ADDITIONAL EXPLORATIONS MAY HAVE BEEN MADE TO STUDY SOME SPECIAL ASPECT OF THE PROJECT. COPIES OF THIS DATA, IF ANY, MAY BE INSPECTED IN THE DISTRICT DEPUTY DIRECTOR'S OFFICE, THE OFFICE OF GEOTECHNICAL ENGINEERING AT 1600 WEST BROAD STREET OR THE OFFICE OF STRUCTURAL ENGINEERING AT 1980 WEST BROAD STREET.

LEGEND

DESCRIPTION	ODOT CLASS	CLASSIFIED MECH.	CLASSIFIED VISUAL
GRAVEL AND/OR STONE FRAGMENTS	A-1-a (0)	1	1
GRAVEL AND/OR STONE FRAGMENTS WITH SAND	A-1-b (0)	6	-
FINE SAND	A-3 (0)	4	-
COARSE AND FINE SAND	A-3a (0)	1	-
GRAVEL AND/OR ST. FRAGS WITH SAND AND SILT	A-2-4 (0)	10	-
GR. AND/OR ST. FRAGS WITH SAND, SILT AND CLAY	A-2-6 (0)	5	-
SANDY SILT	A-4a (5)	114	32
SILT	A-4b (8)	3	-
SILT AND CLAY	A-6a (7)	202	50
SILTY CLAY	A-6b (9)	16	10
CLAY	A-7-6 (9)	1	-
	TOTAL	363	93

PAVEMENT OR BASE = X = APPROXIMATE THICKNESS — VISUAL

BORING LOCATION - PLAN VIEW

DRIVE SAMPLE AND/OR ROCK CORE BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZONTAL BAR INDICATES A CHANGE IN STRATIGRAPHY.

WC — INDICATES WATER CONTENT IN PERCENT.

TR — INDICATES TOP OF ROCK ELEVATION.

X/Y/Z — NUMBER OF BLOWS FOR STANDARD PENETRATION TEST
X= NUMBER OF BLOWS FOR FIRST 6 INCHES
Y= NUMBER OF BLOWS FOR SECOND 6 INCHES
Z= NUMBER OF BLOWS FOR THIRD 6 INCHES

W— INDICATES FREE WATER ELEVATION.

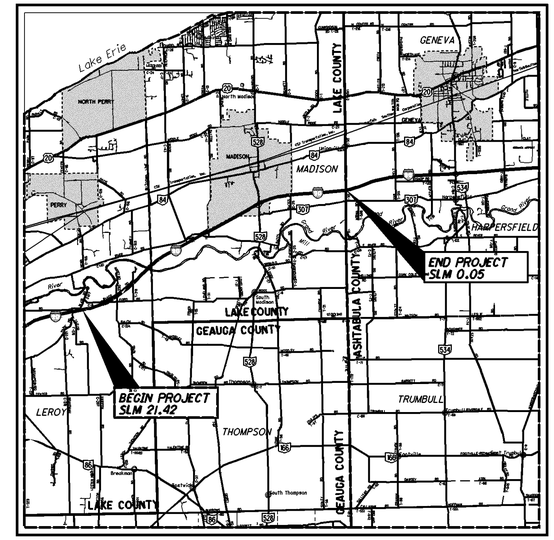
● INDICATES A PLASTIC MATERIAL WITH A MOISTURE CONTENT EQUAL TO OR GREATER THAN THE LIQUID LIMIT MINUS 3.

⊖ INDICATES A NON-PLASTIC MATERIAL WITH A MOISTURE CONTENT GREATER THAN 25 % OR GREATER THAN 19 % WITH A WET APPEARANCE.

* INDICATES A SAMPLE TAKEN WITHIN 3 FT OF PROPOSED GRADE.

NP — INDICATES A NON-PLASTIC SAMPLE.

RECON. - MRS, MC & DN 09/06
DRILLING - DML & KAM 10/22 - 11/01/06
DRAWN - JAG 12/08
REVIEWED - MRS 12/08



LOCATION MAP

SCALE IN MILES

0 1 2 3 4

N

PARTICLE SIZE DEFINITIONS

BOULDERS	12"	COBBLES	3"	GRAVEL	2.0 mm (No. 10 SIEVE)	COARSE SAND	0.42 mm (No. 40 SIEVE)	FINE SAND	0.074 mm (No. 200 SIEVE)	SILT	0.005 mm	CLAY

INDEX OF SHEETS

LOCATION FROM STA.	TO STA.	PLAN VIEW SHEET	LOCATION FROM STA.	TO STA.	PLAN VIEW SHEET
IR 90			IR 90 CONT.		
725+50	738+50	7	1047+52	7+79	29
738+50	751+50	8	7+79	20+78	30
751+50	764+50	9	20+78	33+78	31
764+50	777+50	10	33+78	46+79	32
777+50	790+50	11	46+79	59+79	33
790+50	803+50	12	59+79	72+79	34
803+50	816+50	13	72+79	85+79	35
816+50	829+50	14	85+79	98+79	36
829+50	842+53	15	98+79	111+79	37
842+53	855+53	16	111+79	6+16	38
855+53	868+53	17	RAMP I		
868+53	881+52	18	0+00	12+53.09	39
881+52	930+52	19			
930+52	943+52	20	RAMP J		
943+52	956+52	21	0+00	10+50	40
956+52	969+52	22	10+50	14+98.02	41
969+52	982+52	23	RAMP K		
982+52	995+52	24	0+00	7+04.88	42
995+52	1008+52	25			
1008+52	1021+52	26	RAMP L		
1021+52	1034+52	27	0+00	11+50	43
1034+52	1047+52	28	11+50	13+68.60	44

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION
OFFICE OF GEOTECHNICAL ENGINEERING
1600 W. BROAD ST. COLUMBUS, OH 43223

PID NO. 75477

SUBGRADE EXPLORATION

LAK-90-21.40
ATB-90-0.00

SUMMARY OF SOIL TEST DATA

I.R. 90

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE TYPE	% REC	% AGG	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	OHIO CLASS
B-001	01.50-03.00	SS-1	78	15	11	11	37	26	24	17	7	19	A-4a (6) *
STA. 730+00, 63′ RT.	03.00-04.50	SS-2	100	11	8	12	37	32	27	17	10	14	A-4a (7)
	04.50-06.00	SS-3	100	15	8	12	34	31	26	17	9	17	A-4a (6)
	06.00-07.50	SS-4	100	17	9	12	34	28	26	17	9	17	A-4a (5)
B-002	01.50-03.00	SS-1	67	41	11	12	22	14	26	16	10	16	A-4a (0) *
STA. 734+00, 62′ LT.	03.00-04.50	SS-2	100	20	7	12	35	26	29	17	12	12	A-6a (6)
	04.50-06.00	SS-3	100				SAME AS SS-2					16	A-6a (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					16	A-6a (VISUAL)
B-003	01.00-02.50	SS-1	0	18	9	16	28	29	35	19	16	22	A-6b (7) *
STA. 738+00, 69′ RT.	02.50-04.00	SS-2	0	15	5	11	37	32	34	19	15	14	A-6a (9)
	04.00-05.50	SS-3	0	10	10	15	38	27	28	18	10	15	A-4a (6)
	05.50-07.00	SS-4	0	20	15	16	30	19	25	17	8	13	A-4a (3)
B-004	01.50-03.00	SS-1	89	18	7	11	33	31	28	18	10	15	A-4a (6) *
STA. 742+00, 64′ LT.	03.00-04.50	SS-2	100	21	7	12	31	29	25	17	8	13	A-4a (5)
	04.50-06.00	SS-3	100	17	7	12	34	30	29	17	12	12	A-6a (7)
	06.00-07.50	SS-4	100	22	5	11	34	28	29	19	10	20	A-4a (5)
B-005	01.50-03.00	SS-1	78	21	11	11	28	29	26	16	10	18	A-4a (4) *
STA. 746+00, 62′ RT.	03.00-04.50	SS-2	100	11	5	10	34	40	30	18	12	20	A-6a (9)
	04.50-06.00	SS-3	100	12	9	12	35	32	28	18	10	17	A-4a (6)
	06.00-07.50	SS-4	100	16	7	11	34	32	29	18	11	16	A-6a (7)
B-006	01.50-03.00	SS-1	100	23	10	11	31	25	26	16	10	13	A-4a (4) *
STA. 750+00, 68′ LT.	03.00-04.50	SS-2	100	28	5	9	33	25	26	16	10	13	A-4a (5)
	04.50-06.00	SS-3	100				SAME AS SS-2					12	A-4a (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					16	A-4a (VISUAL)
B-007	01.30-02.80	SS-1	100	16	5	10	36	33	32	19	13	17	A-6a (8) *
STA. 754+00, 64′ RT.	02.80-04.30	SS-2	100	15	6	8	38	33	31	19	12	17	A-6a (8) *
	04.30-05.80	SS-3	100	17	7	9	38	29	30	18	12	18	A-6a (7)
	05.80-07.30	SS-4	100	20	5	9	39	27	29	19	10	16	A-4a (6)
B-008	01.50-03.00	SS-1	78	19	6	9	34	32	25	16	9	15	A-4a (6) *
STA. 757+40, 64′ LT.	03.00-04.50	SS-2	100	14	6	10	35	35	28	16	12	16	A-6a (8) *
	04.50-06.00	SS-3	100				SAME AS SS-2					16	A-6a (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					14	A-6a (VISUAL)
B-009	01.00-02.50	SS-1	100	6	7	19	33	35	25	16	9	17	A-4a (7) *
STA. 762+64, 69′ RT.	02.50-04.00	SS-2	100	10	9	12	33	36	24	16	8	15	A-4a (7) *
	04.00-05.50	SS-3	100				SAME AS SS-2					15	A-4a (VISUAL)
	05.50-07.00	SS-4	100				SAME AS SS-2					17	A-4a (VISUAL)
B-010	01.50-03.00	SS-1	53	37	12	10	24	17	24	15	9	17	A-4a (1) *
STA. 765+70, 63′ LT.	03.00-04.50	SS-2	67	15	4	11	36	34	32	19	13	22	A-6a (8)
	04.50-06.00	SS-3	100	14	4	9	34	39	35	19	16	21	A-6b (10)
	06.00-07.50	SS-4	100	8	6	10	41	35	31	18	13	16	A-6a (9)
B-011	01.50-03.00	SS-1	100	12	4	10	39	35	32	18	14	19	A-6a (9) *
STA. 770+00, 63′ RT.	03.00-04.50	SS-2	100	14	6	11	36	33	35	20	15	18	A-6a (9)
	04.50-06.00	SS-3	100	20	6	8	33	33	33	20	13	17	A-6a (7)
	06.00-07.50	SS-4	67				SAME AS SS-3					14	A-6a (VISUAL)
B-012	01.50-03.00	SS-1	56	29	29	11	20	11	24	16	8	11	A-2-4 (0) *
STA. 774+00, 69′ LT.	03.00-04.50	SS-2	0	17	7	12	39	25	29	18	11	14	A-6a (6)
	04.50-06.00	SS-3	0				SAME AS SS-2					14	A-6a (VISUAL)
	06.00-07.50	SS-4	0				SAME AS SS-2					13	A-6a (VISUAL)
B-013	01.50-03.00	SS-1	100	24	8	10	31	27	28	17	11	17	A-6a (5) *
STA. 778+00, 63 RT.	03.00-04.50	SS-2	100	23	6	11	31	29	26	17	9	15	A-4a (5)
	04.50-06.00	SS-3	100	19	6	11	34	30	29	18	11	15	A-6a (6)
	06.00-07.50	SS-4	67	23	5	10	32	30	32	19	13	18	A-6a (7)
B-014	01.50-03.00	SS-1	100	13	8	11	40	28	27	16	11	12	A-6a (7) *
STA. 782+00, 63′ LT.	03.00-04.50	SS-2	100	18	7	11	38	26	27	17	10	11	A-4a (6)
	04.50-06.00	SS-3	100				SAME AS SS-2					15	A-4a (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					16	A-4a (VISUAL)

SUMMARY OF SOIL TEST DATA

I.R. 90 (CONT.)

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE TYPE	% REC	% AGG	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	OHIO CLASS
B-015	01.50-03.00	SS-1	100	17	7	9	35	32	30	18	12	17	A-6a (7) *
STA. 786+00, 69′ RT.	03.00-04.50	SS-2	100	19	8	10	33	30	29	18	11	16	A-6a (6)
	04.50-06.00	SS-3	100	24	8	10	30	28	31	19	12	15	A-6a (5)
	06.00-07.50	SS-4	100	14	5	10	35	36	32	20	12	18	A-6a (8)
B-016	01.50-03.00	SS-1	67	15	5	10	43	27	29	20	9	20	A-4a (7) *
STA. 790+00, 63′ LT.	03.00-04.50	SS-2	100	13	6	11	39	31	30	18	12	18	A-6a (8) *
	04.50-06.00	SS-3	100	7	8	12	42	31	31	19	12	16	A-6a (8)
	06.00-07.50	SS-4	100				SAME AS SS-3					15	A-6a (VISUAL)
B-017	01.50-03.00	SS-1	80	20	3	8	37	32	31	20	11	18	A-6a (7) *
STA. 794+25, 63′ RT.	03.00-04.50	SS-2	87	11	6	10	38	35	32	19	13	17	A-6a (9)
	04.50-06.00	SS-3	100	19	6	10	36	29	30	19	11	15	A-6a (6)
	06.00-07.50	SS-4	100	21	5	9	32	33	35	21	14	18	A-6a (8)
B-018	01.50-03.00	SS-1	100	41	9	10	24	16	25	16	9	17	A-4a (1) *
STA. 798+00, 69′ LT.	03.00-04.50	SS-2	100	15	8	11	38	28	27	18	9	14	A-4a (6) *
	04.50-06.00	SS-3	100				SAME AS SS-2					14	A-4a (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					15	A-4a (VISUAL)
B-019	01.50-03.00	SS-1	67	26	7	10	32	25	28	18	10	15	A-4a (4) *
STA. 802+00, 63′ RT.	03.00-04.50	SS-2	100	17	4	8	40	31	34	20	14	19	A-6a (9)
	04.50-06.00	SS-3	100	16	11	12	31	30	33	20	13	16	A-6a (6)
	06.00-07.50	SS-4	100	15	7	4	43	31	37	23	14	16	A-6a (9)
B-020	01.50-03.00	SS-1	89	18	9	11	33	29	27	17	10	15	A-4a (5) *
STA. 806+00, 62′ LT.	03.00-04.50	SS-2	100	14	5	10	36	35	30	19	11	18	A-6a (8) *
	04.50-06.00	SS-3	100	16	7	10	36	31	28	18	10	15	A-4a (6)
	06.00-07.50	SS-4	100				SAME AS SS-3					13	A-4a (VISUAL)
B-021	01.50-03.00	SS-1	0	24	8	5	33	30	31	19	12	24	A-6a (6) *
STA. 810+00, 69′ RT.	03.00-04.50	SS-2	0	40	19	9	19	13	26	16	10	19	A-2-4 (0)
	04.50-06.00	SS-3	33	50	6	4	21	19	31	17	14	16	A-6a (2)
	06.00-07.50	SS-4	67	31	6	5	28	30	35	21	14	15	A-6a (6)
B-022	01.50-03.00	SS-1	53	20	7	9	35	29	29	16	13	15	A-6a (7)
STA. 814+00, 66′ LT.	03.00-04.50	SS-2	100	22	7	9	34	28	31	18	13	16	A-6a (7)
	04.50-06.00	SS-3	100	20	7	9	36	28	30	17	13	19	A-6a (7)
	06.00-07.50	SS-4	100	22	5	10	35	28	33	18	15	17	A-6a (8)
B-023	01.50-03.00	SS-1	67	16	7	11	34	32	29	18	11	17	A-6a (7) *
STA. 818+00, 63′ RT.	03.00-04.50	SS-2	53	16	8	11	36	29	30	19	11	19	A-6a (6)
	04.50-06.00	SS-3	13				SAME AS SS-2					-	A-6a (VISUAL)
	06.00-07.50	SS-4	67	29	9	9	30	23	31	18	13	15	A-6a (5)
B-024	01.50-03.00	SS-1	67	37	31	12	14	6	22	17	5	12	A-1-b (0)
STA. 822+00, 50′ LT.	03.00-04.50	SS-2	33	30	16	11	24	19	26	17	9	17	A-4a (2)
	04.50-06.00	SS-3	78	25	5	9	31	30	28	18	10	17	A-4a (5)
	06.00-07.50	SS-4	100	20	11	9	30	30	30	19	11	19	A-6a (5)
B-025	01.50-03.00	SS-1	89	15	15	23	29	18	20	14	6	12	A-4a (2) *
STA. 826+00, 64′ RT.	03.00-04.50	SS-2	100	8	5	6	48	33	30	18	12	20	A-6a (9)
	04.50-06.00	SS-3	100	5	2	6	53	34	30	20	10	16	A-4b (8)
	06.00-07.50	SS-4	100	10	5	5	51	29	31	21	10	13	A-4b (8)
B-026	01.50-03.00	SS-1	80	22	6	10	33	29	26	17	9	14	A-4a (5)
STA. 829+70, 21′ LT.	03.00-04.50	SS-2	100	25	4	11	32	28	29	17	12	20	A-6a (6)
	04.50-06.00	SS-3	100	12	5	9	40	34	22	17	5	15	A-4a (8)
	06.00-07.50	SS-4	100				SAME AS SS-3					12	A-4a (VISUAL)
B-027	01.50-03.00	SS-1	80	38	20	9	20	13	27	18	9	11	A-2-4 (0)
STA. 842+00, 77′ RT.	03.00-04.50	SS-2	87	55	16	7	15	7	29	18	11	6	A-2-6 (0)
	04.50-06.00	SS-3	20	WHITE WITH BROWN SANDY GRAVEL					NP	NP	NP	3	A-1-a (VISUAL)
	06.00-07.50	SS-4	67	20	8	10	33	29	30	18	12	23	A-6a (6)
B-028	01.50-03.00	SS-1	67	15	11	13	33	28	25	22	3	11	A-4a (5)
STA. 838+76, 9′ LT.	03.00-04.50	SS-2	89	17	19	19	25	20	24	17	7	11	A-4a (2)
	04.50-06.00	SS-3	83	10	12	15	30	33	26	18	8	13	A-4a (6)
	06.00-07.50	SS-4	100				SAME AS SS-3					14	A-4a (VISUAL)

DRAWN JAG CHECKED MRS

SUBGRADE EXPLORATION
SUMMARY OF SOIL TEST DATA

LAK-90-21.40
ATB-90-0.00

SUMMARY OF SOIL TEST DATA

I.R. 90 (CONT.)

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE TYPE	% REC	% AGG	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	OHIO CLASS
B-029	01.40-02.90	SS-1	44	24	24	20	20	12	23	16	7	15	A-2-4 (0) *
STA. 850+00, 62′ RT.	02.90-04.40	SS-2	67	46	17	13	15	9	23	16	7	8	A-2-4 (0) *
	04.40-05.90	SS-3	100	0	2	24	53	21	20	17	3	24	A-4b (8)
	05.90-07.40	SS-4	89	24	19	12	25	20	24	16	8	16	A-4a (2)
B-030	01.50-03.00	SS-1	67	24	11	10	30	25	27	16	11	12	A-6a (4)
STA. 845+90, 40′ LT.	03.00-04.50	SS-2	100	36	19	6	20	19	34	18	16	11	A-6b (2)
	04.50-06.00	SS-3	100	14	9	14	37	26	28	17	11	15	A-6a (6)
	06.00-07.50	SS-4	100				SAME AS SS-3					15	A-6a (VISUAL)
B-031	01.50-03.00	SS-1	53	39	21	10	18	12	28	17	11	14	A-2-6 (0) *
STA. 858+00, 62′ RT.	03.00-04.50	SS-2	100	6	11	16	40	27	27	19	8	16	A-4a (6)
	04.50-06.00	SS-3	100	15	11	16	35	23	24	16	8	14	A-4a (5)
	06.00-07.50	SS-4	100				SAME AS SS-3					13	A-4a (VISUAL)
B-032	01.50-03.00	SS-1	44	23	13	11	29	24	24	16	8	8	A-4a (4)
STA. 854+00, 72′ LT.	03.00-04.50	SS-2	83	13	10	13	35	29	24	17	7	13	A-4a (6)
	04.50-06.00	SS-3	56	12	11	13	37	27	23	15	8	14	A-4a (6)
	06.00-07.50	SS-4	47	16	11	13	34	26	23	16	7	15	A-4a (5)
B-033	00.80-02.30	SS-1	89	14	9	12	35	30	29	17	12	14	A-6a (7) *
STA. 866+00, 70′ RT.	02.30-03.80	SS-2	100	9	9	14	34	34	27	17	10	22	A-4a (7) *
	03.80-05.30	SS-3	100	17	4	9	38	32	30	19	11	21	A-6a (7)
	05.30-06.80	SS-4	83	17	8	14	32	29	27	17	10	20	A-4a (5)
B-034	01.50-03.00	SS-1	100	23	10	11	32	24	29	17	12	15	A-6a (5) *
STA. 862+00, 64′ LT.	03.00-04.50	SS-2	100	18	8	12	37	25	30	18	12	14	A-6a (6)
	04.50-06.00	SS-3	100	16	11	18	34	21	25	16	9	16	A-4a (4)
	06.00-07.50	SS-4	100	22	19	10	29	20	32	18	14	17	A-6a (4)
B-035	01.50-03.00	SS-1	93	25	10	9	28	28	31	18	13	15	A-6a (5) *
STA. 874+00, 62′ RT.	03.00-04.50	SS-2	100	18	9	11	33	29	29	19	10	14	A-4a (5)
	04.50-06.00	SS-3	100				SAME AS SS-2					18	A-4a (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					14	A-4a (VISUAL)
B-036	01.50-03.00	SS-1	67	13	11	15	35	26	23	17	6	12	A-4a (5) *
STA. 869+80, 64′ LT.	03.00-04.50	SS-2	83	21	14	12	32	21	24	17	7	16	A-4a (4)
	04.50-06.00	SS-3	94	13	9	12	34	32	29	19	10	16	A-4a (6)
	06.00-07.50	SS-4	100	12	8	12	34	34	29	18	11	15	A-6a (7)
B-037	01.50-03.00	SS-1	78	10	7	11	36	36	29	18	11	17	A-6a (8) *
STA. 882+19, 62′ RT.	03.00-04.50	SS-2	89	16	9	11	31	33	30	19	11	20	A-6a (6)
	04.50-06.00	SS-3	56	9	14	13	33	31	-	18	-	24	A-4a (VISUAL)
	06.00-07.50	SS-4	33	15	15	12	29	29	-	17	-	17	A-4a (VISUAL)
B-038	01.50-03.00	SS-1	100	23	14	11	29	23	27	16	11	16	A-6a (4) *
STA. 878+00, 70′ LT.	03.00-04.50	SS-2	100	22	5	7	34	32	32	18	14	20	A-6a (8)
	04.50-06.00	SS-3	100				SAME AS SS-2					15	A-6a (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					17	A-6a (VISUAL)
B-039	01.50-03.00	SS-1	80	21	11	9	29	30	29	18	11	15	A-6a (5) *
STA. 890+00, 68′ RT.	03.00-04.50	SS-2	100	10	6	9	39	36	31	19	12	18	A-6a (9)
	04.50-06.00	SS-3	100	8	7	8	38	39	32	20	12	14	A-6a (9)
	06.00-07.50	SS-4	100	17	4	7	39	33	34	22	12	19	A-6a (8)
B-040	01.50-03.00	SS-1	67	19	6	9	31	35	31	17	14	16	A-6a (8) *
STA. 886+00, 65′ LT.	03.00-04.50	SS-2	78	12	6	9	36	37	31	18	13	17	A-6a (9)
	04.50-06.00	SS-3	100	11	5	8	36	40	32	20	12	19	A-6a (9)
	06.00-07.50	SS-4	100	7	4	7	34	48	40	22	18	22	A-6b (11)
B-041	01.50-03.00	SS-1	89	9	7	9	35	40	28	18	10	15	A-4a (8) *
STA. 934+00, 62′ RT.	03.00-04.50	SS-2	78	10	8	10	36	36	29	19	10	15	A-4a (7)
	04.50-06.00	SS-3	100	17	8	9	30	36	31	19	12	17	A-6a (7)
	06.00-07.50	SS-4	100	6	5	9	39	41	32	20	12	15	A-6a (9)
B-042	01.50-03.00	SS-1	100	18	3	6	41	32	35	21	14	14	A-6a (9) *
STA. 930+00, 70′ LT.	03.00-04.50	SS-2	100	0	1	5	43	51	38	21	17	20	A-6b (11)
	04.50-06.00	SS-3	100	0	1	3	43	53	37	31	6	19	A-4a (8)
	06.00-07.50	SS-4	100	0	0	1	41	58	36	20	16	19	A-6b (10)

SUMMARY OF SOIL TEST DATA

I.R. 90 (CONT.)

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE TYPE	% REC	% AGG	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	OHIO CLASS
B-043	01.50-03.00	SS-1	67	23	7	8	31	31	31	19	12	16	A-6a (6) *
STA. 942+08, 62 RT.	03.00-04.50	SS-2	67	22	5	7	35	31	30	19	11	12	A-6a (7)
	04.50-06.00	SS-3	100				SAME AS SS-2					15	A-6a (VISUAL)
	06.00-07.50	SS-4	0				SAME AS SS-2					16	A-6a (VISUAL)
B-044	01.50-03.00	SS-1	56	9	6	9	38	38	30	19	11	16	A-6a (8) *
STA. 938+00, 63′ LT.	03.00-04.50	SS-2	100	7	6	8	37	42	30	28	2	15	A-4a (8)
	04.50-06.00	SS-3	100	10	6	8	36	40	29	18	11	15	A-6a (8)
	06.00-07.50	SS-4	100	14	6	10	34	36	28	18	10	15	A-4a (7)
B-045	01.00-02.50	SS-1	67	11	9	11	33	36	28	18	10	14	A-4a (7) *
STA. 950+00, 68′ RT.	02.50-04.00	SS-2	78	16	11	13	33	27	29	19	10	18	A-4a (5) *
	04.00-05.50	SS-3	100				SAME AS SS-2					17	A-4a (VISUAL)
	05.50-07.00	SS-4	100				SAME AS SS-2					15	A-4a (VISUAL)
B-046	01.50-03.00	SS-1	53	29	16	8	25	22	34	19	15	19	A-6a (4) *
STA. 946+00, 64′ LT.	03.00-04.50	SS-2	100	21	5	8	33	33	35	19	16	16	A-6b (9)
	04.50-06.00	SS-3	100				SAME AS SS-2					16	A-6b (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					16	A-6b (VISUAL)
B-047	01.00-02.50	SS-1	67	9	7	10	36	38	27	18	9	16	A-4a (8) *
STA. 953+88, 61′ RT.	02.50-04.00	SS-2	83	11	6	10	33	40	28	19	9	19	A-4a (8) *
	04.00-05.50	SS-3	100	7	10	12	36	35	26	17	9	16	A-4a (7)
	05.50-07.00	SS-4	94	13	10	11	32	34	26	16	10	16	A-4a (6)
B-048	01.50-03.00	SS-1	89	9	9	12	37	33	28	18	10	12	A-4a (7) *
STA. 954+00, 72′ LT.	03.00-04.50	SS-2	100				SAME AS SS-1					14	A-4a (VISUAL)
	04.50-06.00	SS-3	100				SAME AS SS-1					13	A-4a (VISUAL)
	06.00-07.50	SS-4	100	20	11	9	30	30	30	19	11	13	A-6a (5)
B-049	01.50-03.00	SS-1	67	9	7	9	38	37	33	20	13	19	A-6a (9) *
STA. 959+00, 62′ RT.	03.00-04.50	SS-2	100	20	13	10	31	26	29	18	11	16	A-6a (5) *
	04.50-06.00	SS-3	100	28	6	8	31	27	30	19	11	14	A-6a (5)
	06.00-07.50	SS-4	100	23	7	9	31	30	30	19	11	15	A-6a (6)
B-050	01.50-03.00	SS-1	67	20	7	9	33	31	30	17	13	14	A-6a (7) *
STA. 962+00, 64′ LT.	03.00-04.50	SS-2	67	20	4	8	34	34	33	18	15	17	A-6a (9)
	04.50-06.00	SS-3	67	22	4	8	42	24	41	25	16	-	A-7-6 (9)
	06.00-07.50	SS-4	100	24	2	7	36	31	39	22	17	26	A-6b (9)
B-051	01.50-03.00	SS-1	100	31	26	11	19	13	26	16	10	10	A-2-4 (0) *
STA. 966+00, 68′ RT.	03.00-04.50	SS-2	80	59	16	7	11	7	25	16	9	12	A-2-4 (0)
	04.50-06.00	SS-3	67	8	6	9	40	37	31	19	12	17	A-6a (9)
	06.00-07.50	SS-4	100	22	6	8	34	30	30	19	11	18	A-6a (6)
B-052	01.50-03.00	SS-1	67	0	8	10	41	41	29	18	11	16	A-6a (8) *
STA. 970+00, 64′ LT.	03.00-04.50	SS-2	100	17	6	9	33	35	29	17	12	12	A-6a (7)
	04.50-06.00	SS-3	100	12	6	9	34	39	33	18	15	16	A-6a (10)
	06.00-07.50	SS-4	78	14	6	9	33	38	29	18	11	15	A-6a (8)
B-053	01.50-03.00	SS-1	78	22	22	12	21	23	26	18	8	16	A-4a (2) *
STA. 974+00, 62′ RT.	03.00-04.50	SS-2	80	10	7	11	34	38	27	18	9	17	A-4a (7)
	04.50-06.00	SS-3	100				SAME AS SS-2					15	A-4a (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					18	A-4a (VISUAL)
B-054	01.50-03.00	SS-1	80	26	13	10	28	23	30	17	13	16	A-6a (4) *
STA. 978+00, 69′ LT.	03.00-04.50	SS-2	100	16	7	10	37	30	29	18	11	16	A-6a (7)
	04.50-06.00	SS-3	100				SAME AS SS-2					15	A-6a (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					13	A-6a (VISUAL)
B-055	01.50-03.00	SS-1	53	22	14	11	28	25	31	20	11	18	A-6a (4) *
STA. 982+00, 62′ RT.	03.00-04.50	SS-2	100	26	5	7	32	30	28	17	11	14	A-6a (6)
	04.50-06.00	SS-3	67	19	6	8	33	34	28	17	11	16	A-6a (7)
	06.00-07.50	SS-4	100				SAME AS SS-3					16	A-6a (VISUAL)
B-056	01.50-03.00	SS-1	78	18	10	9	30	33	29	18	11	18	A-6a (6) *
STA. 985+80, 62′ LT.	03.00-04.50	SS-2	89	11	7	10	35	37	29	18	11	17	A-6a (8) *
	04.50-06.00	SS-3	100	18	6	9	34	33	27	17	10	15	A-4a (6)
	06.00-07.50	SS-4	100	28	6	7	31	28	26	16	10	13	A-4a (5)

DRAWN JAG CHECKED MRS

SUBGRADE EXPLORATION
SUMMARY OF SOIL TEST DATA

LAK-90-21.40
ATB-90-0.00

SUMMARY OF SOIL TEST DATA

I.R. 90 (CONT.)

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE TYPE	% REC	% AGG	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	OHIO CLASS
B-057	01.50-03.00	SS-1	78	14	6	8	31	41	33	20	13	15	A-6a (9) *
STA. 990+00, 69′ RT.	03.00-04.50	SS-2	100	54	3	4	16	23	31	20	11	20	A-6a (1)
	04.50-06.00	SS-3	94	9	5	7	33	46	33	21	12	16	A-6a (9)
	06.00-07.50	SS-4	83	6	7	10	34	43	29	19	10	16	A-4a (8)
B-058	01.50-03.00	SS-1	80	21	10	9	32	28	34	18	16	20	A-6b (7) *
STA. 993+80, 63′ LT.	03.00-04.50	SS-2	100	18	5	8	31	38	35	20	15	17	A-6a (9)
	04.50-06.00	SS-3	100	13	6	9	37	35	33	18	15	15	A-6a (9)
	06.00-07.50	SS-4	100				SAME AS SS-3					15	A-6a (VISUAL)
B-059	01.50-03.00	SS-1	67	23	25	15	23	14	26	17	9	17	A-4a (0) *
STA. 998+00, 62′ RT.	03.00-04.50	SS-2	100	17	6	8	36	33	30	19	11	13	A-6a (7)
	04.50-06.00	SS-3	100				SAME AS SS-2					14	A-6a (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					15	A-6a (VISUAL)
B-060	01.50-03.00	SS-1	100	34	15	9	22	20	28	18	10	19	A-4a (1) *
STA. 1002+00, 70′ LT.	03.00-04.50	SS-2	100	16	4	6	32	42	36	20	16	18	A-6b (10)
	04.50-06.00	SS-3	100				SAME AS SS-2					17	A-6b (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					14	A-6b (VISUAL)
B-061	01.50-03.00	SS-1	56	12	8	10	32	38	28	18	10	16	A-4a (7) *
STA. 1006+00, 63′ RT.	03.00-04.50	SS-2	78	8	6	10	35	41	30	18	12	17	A-6a (9)
	04.50-06.00	SS-3	94	11	7	8	40	34	29	19	10	20	A-4a (8)
	06.00-07.50	SS-4	100	20	7	9	34	30	29	18	11	16	A-6a (6)
B-062	01.50-03.00	SS-1	80	5	7	9	42	37	29	16	13	15	A-6a (9) *
STA. 1009+80, 63′ LT.	03.00-04.50	SS-2	100	9	7	11	39	34	33	19	14	17	A-6a (9)
	04.50-06.00	SS-3	100				SAME AS SS-2					15	A-6a (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					15	A-6a (VISUAL)
B-063	01.50-03.00	SS-1	80	21	9	9	31	30	29	19	10	11	A-4a (5) *
STA. 1014+00, 68′ RT.	03.00-04.50	SS-2	100	19	5	8	35	33	30	18	12	15	A-6a (7)
	04.50-06.00	SS-3	100				SAME AS SS-2					15	A-6a (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					14	A-6a (VISUAL)
B-064	01.50-03.00	SS-1	89	16	2	2	38	42	32	20	12	18	A-6a (9) *
STA. 1018+00, 62′ LT.	03.00-04.50	SS-2	100	19	3	3	32	43	33	21	12	19	A-6a (9)
	04.50-06.00	SS-3	100	23	9	7	27	34	30	19	11	22	A-6a (6)
	06.00-07.50	SS-4	100	28	7	8	28	29	29	19	10	30	A-4a (4)
B-065	01.50-03.00	SS-1	67	20	3	7	34	36	34	19	15	14	A-6a (9) *
STA. 1022+00, 62′ RT.	03.00-04.50	SS-2	80	16	4	8	35	37	37	20	17	16	A-6b (10)
	04.50-06.00	SS-3	67				SAME AS SS-2					14	A-6b (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					17	A-6b (VISUAL)
B-066	01.50-03.00	SS-1	80	16	7	10	36	31	30	18	12	17	A-6a (7) *
STA. 1026+00, 69′ LT.	03.00-04.50	SS-2	100	13	6	10	40	31	30	18	12	16	A-6a (8)
	04.50-06.00	SS-3	100	17	5	9	39	30	33	20	13	17	A-6a (8)
	06.00-07.50	SS-4	100	12	6	14	41	27	30	18	12	20	A-6a (7)
B-067	01.50-03.00	SS-1	67	37	18	8	21	16	28	17	11	22	A-6a (1) *
STA. 1030+00, 73′ RT.	03.00-04.50	SS-2	100	17	6	10	36	31	23	16	7	15	A-4a (6)
	04.50-06.00	SS-3	61	11	7	10	39	33	23	14	9	22	A-4a (7)
	06.00-07.50	SS-4	100				SAME AS SS-3					15	A-4a (VISUAL)
B-068	01.50-03.00	SS-1	56	23	14	13	26	24	25	18	7	11	A-4a (3) *
STA. 1034+00, 73′ LT.	03.00-04.50	SS-2	100	9	6	9	37	39	29	19	10	16	A-4a (8)
	04.50-06.00	SS-3	100				SAME AS SS-2					16	A-4a (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					15	A-4a (VISUAL)
B-069	01.50-03.00	SS-1	53	20	6	7	35	32	31	19	12	17	A-6a (7) *
STA. 1042+20, 61′ RT.	03.00-04.50	SS-2	80	23	5	9	33	30	30	19	11	15	A-6a (6)
	04.50-06.00	SS-3	93	22	5	9	33	31	30	18	12	15	A-6a (7)
	06.00-07.50	SS-4	67	20	6	9	32	33	29	18	11	15	A-6a (6)
B-070	01.50-03.00	SS-1	53	30	12	9	23	26	29	18	11	17	A-6a (3) *
STA. 1042+00, 63′ LT.	03.00-04.50	SS-2	100	17	6	8	37	32	32	19	13	14	A-6a (8)
	04.50-06.00	SS-3	100	7	3	8	47	35	36	21	15	18	A-6a (10)
	06.00-07.50	SS-4	100	11	4	9	40	36	33	19	14	16	A-6a (10)

SUMMARY OF SOIL TEST DATA

I.R. 90 (CONT.)

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE TYPE	% REC	% AGG	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	OHIO CLASS
B-071	01.50-03.00	SS-1	89	25	26	12	22	15	24	17	7	9	A-4a (0) *
STA. 1046+20, 70′ RT.	03.00-04.50	SS-2	78	29	31	14	19	7	23	17	6	8	A-2-4 (0)
	04.50-06.00	SS-3	89	24	39	12	18	7	22	16	6	9	A-1-b (0)
	06.00-07.50	SS-4	78	54	8	5	15	18	28	17	11	18	A-2-6 (0)
B-072	01.50-03.00	SS-1	89	18	5	8	34	35	34	19	15	18	A-6a (9) *
STA. 1050+29, 64′ LT.	03.00-04.50	SS-2	100	10	5	10	37	38	35	19	16	19	A-6b (10) *
	04.50-06.00	SS-3	100				SAME AS SS-2					18	A-6b (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					17	A-6b (VISUAL)
B-074a	01.50-03.00	SS-1	78	3	6	10	39	42	32	20	12	19	A-6a (9) *
STA. 10+50, 74′ LT.	03.00-04.50	SS-2	100	11	6	10	36	37	32	19	13	16	A-6a (9)
	04.50-06.00	SS-3	100	7	7	9	39	38	31	19	12	16	A-6a (9)
	06.00-07.50	SS-4	100	18	5	8	36	33	30	19	11	14	A-6a (7)
B-075	01.50-03.00	SS-1	67	29	17	9	22	23	29	18	11	12	A-6a (2) *
STA. 9+00, 70′ RT.	03.00-04.50	SS-2	100	9	7	10	34	40	32	20	12	22	A-6a (9) *
	04.50-06.00	SS-3	89				SAME AS SS-2					22	A-6a (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					18	A-6a (VISUAL)
B-076	01.50-03.00	SS-1	53	18	11	13	32	26	28	17	11	19	A-6a (5) *
STA. 13+00, 75′ LT.	03.00-04.50	SS-2	100	7	4	9	41	39	33	19	14	22	A-6a (10)
	04.50-06.00	SS-3	100	16	4	8	33	39	36	21	15	17	A-6a (9)
	06.00-07.50	SS-4	100				SAME AS SS-3					19	A-6a (VISUAL)
B-077	01.50-03.00	SS-1	78	32	28	15	18	7	22	17	5	11	A-1-b (0) *
STA. 17+00, 70′ RT.	03.00-04.50	SS-2	33	56	10	6	14	14	29	18	11	9	A-2-6 (0)
	04.50-06.00	SS-3	78	5	4	9	38	44	36	21	15	23	A-6a (10)
	06.00-07.50	SS-4	89	13	5	10	35	37	33	19	14	22	A-6a (9)
B-078	01.50-03.00	SS-1	67	8	8	11	37	36	31	18	13	18	A-6a (9) *
STA. 20+50, 64′ LT.	03.00-04.50	SS-2	44	11	7	10	37	35	31	19	12	23	A-6a (8)
	04.50-06.00	SS-3	100	23	4	9	32	32	33	20	13	18	A-6a (7)
	06.00-07.50	SS-4	100	17	5	9	35	34	33	19	14	19	A-6a (8)
B-079	01.50-03.00	SS-1	40	24	6	8	30	32	31	18	13	17	A-6a (7) *
STA. 25+00, 62 RT.	03.00-04.50	SS-2	80	29	7	18	29	17	23	17	6	11	A-4a (2)
	04.50-06.00	SS-3	100	17	10	13	41	19	27	20	7	18	A-4a (5)
	06.00-07.50	SS-4	100	17	22	17	29	15	25	18	7	17	A-4a (2)
B-080	01.50-03.00	SS-1	100	17	24	47	11	1	NP	NP	NP	11	A-3a (0) *
STA. 29+00, 68′ LT.	03.00-04.50	SS-2	100	18	26	50	6	0	NP	NP	NP	7	A-3 (0)
	04.50-06.00	SS-3	100	52	13	23	9	3	NP	NP	NP	23	A-1-b (0)
	06.00-07.50	SS-4	100	18	4	8	34	36	35	20	15	17	A-6a (9)
B-081	01.50-03.00	SS-1	56	13	26	17	25	19	24	16	8	21	A-4a (2) *
STA. 33+00, 66′ RT.	03.00-04.50	SS-2	61	8	3	9	39	41	39	21	18	22	A-6b (11)
	04.50-06.00	SS-3	89	8	5	8	35	44	32	20	12	18	A-6a (9)
	06.00-07.50	SS-4	100				SAME AS SS-3					15	A-6a (VISUAL)
B-082	01.50-03.00	SS-1	80	11	12	12	33	32	28	18	10	18	A-4a (6) *
STA. 36+00, 64′ LT.	03.00-04.50	SS-2	100	12	7	10	37	34	30	20	10	19	A-4a (7)
	04.50-06.00	SS-3	100				SAME AS SS-2					16	A-4a (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					15	A-4a (VISUAL)
B-084	01.50-03.00	SS-1	80	14	16	11	31	28	30	18	12	16	A-6a (6) *
STA. 44+79, 63′ LT.	03.00-04.50	SS-2	100	20	4	8	32	36	37	20	17	18	A-6b (9) *
	04.50-06.00	SS-3	100				SAME AS SS-2					15	A-6b (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					17	A-6b (VISUAL)
B-085	01.50-03.00	SS-1	80	37	16	9	21	17	24	17	7	13	A-4a (1) *
STA. 49+00, 62′ RT.	03.00-04.50	SS-2	67	18	18	19	26	19	23	16	7	13	A-4a (2)
	04.50-06.00	SS-3	100	15	6	10	40	29	27	18	9	15	A-4a (7)
	06.00-07.50	SS-4	27	7	10	17	36	30	26	17	9	11	A-4a (6)
B-086	01.50-03.00	SS-1	67	15	26	50	9	0	NP	NP	NP	6	A-3 (0) *
STA. 53+00, 69′ LT.	03.00-04.50	SS-2	80	14	24	55	7	0	NP	NP	NP	7	A-3 (0)
	04.50-06.00	SS-3	100	40	15	35	9	1	NP	NP	NP	11	A-1-b (0)
	06.00-07.50	SS-4	100	12	5	8	35	40	30	20	10	15	A-4a (8)

DRAWN JAG CHECKED MRS

SUBGRADE EXPLORATION
SUMMARY OF SOIL TEST DATA

LAK-90-21.40
ATB-90-0.00

SUMMARY OF SOIL TEST DATA

I.R. 90 (CONT.)

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE TYPE	% REC	% AGG	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	OHIO CLASS
B-087	01.50-03.00	SS-1	78	9	8	10	37	36	29	18	11	18	A-6a (8) *
STA. 57+00, 63′ RT.	03.00-04.50	SS-2	100	7	5	8	39	41	31	18	13	15	A-6a (9)
	04.50-06.00	SS-3	100				SAME AS SS-2					14	A-6a (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					13	A-6a (VISUAL)
B-088	01.50-03.00	SS-1	53	35	14	9	22	20	26	17	9	17	A-4a (1) *
STA. 61+00, 62′ LT.	03.00-04.50	SS-2	27	30	16	12	24	18	26	16	10	12	A-4a (1)
	04.50-06.00	SS-3	100	21	5	8	34	32	27	17	10	15	A-4a (6)
	06.00-07.50	SS-4	100	17	6	9	40	28	28	18	10	16	A-4a (7)
B-089	01.50-03.00	SS-1	80	20	6	7	34	33	32	19	13	15	A-6a (8) *
STA. 65+00, 69′ RT.	03.00-04.50	SS-2	100	23	6	7	34	30	31	19	12	14	A-6a (7)
	04.50-06.00	SS-3	100				SAME AS SS-2					14	A-6a (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					14	A-6a (VISUAL)
B-090	01.50-03.00	SS-1	78	8	8	9	39	36	28	19	9	17	A-4a (8) *
STA. 69+00, 62′ LT.	03.00-04.50	SS-2	100	12	5	9	36	38	30	19	11	19	A-6a (8)
	04.50-06.00	SS-3	100	12	5	8	39	36	28	17	11	15	A-6a (8)
	06.00-07.50	SS-4	89				SAME AS SS-3					14	A-6a (VISUAL)
B-091	01.50-03.00	SS-1	83	23	9	9	31	28	28	18	10	18	A-4a (5) *
STA. 73+00, 63′ RT.	03.00-04.50	SS-2	100	7	7	10	40	36	30	19	11	17	A-6a (8)
	04.50-06.00	SS-3	0	15	7	9	35	34	31	19	12	22	A-6a (8)
	06.00-07.50	SS-4	0	0	5	11	45	39	31	18	13	19	A-6a (9)
B-092	01.50-03.00	SS-1	80	19	12	18	28	23	23	15	8	16	A-4a (3) *
STA. 77+00, 68′ LT.	03.00-04.50	SS-2	100	19	5	9	36	31	30	18	12	15	A-6a (7)
	04.50-06.00	SS-3	100	21	5	9	35	30	30	18	12	16	A-6a (7)
	06.00-07.50	SS-4	100	16	5	10	37	32	29	17	12	15	A-6a (8)
B-093	01.50-03.00	SS-1	67	20	6	9	37	28	30	18	12	14	A-6a (7) *
STA. 80+50, 62′ RT.	03.00-04.50	SS-2	80	16	5	8	37	34	31	19	12	16	A-6a (8)
	04.50-06.00	SS-3	100				SAME AS SS-2					15	A-6a (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					15	A-6a (VISUAL)
B-094	01.50-03.00	SS-1	89	14	8	10	35	33	30	18	12	15	A-6a (7) *
STA. 85+00, 62′ LT.	03.00-04.50	SS-2	100	0	5	10	48	37	33	18	15	18	A-6a (10)
	04.50-06.00	SS-3	100	15	6	9	35	35	30	21	9	14	A-4a (7)
	06.00-07.50	SS-4	78	11	7	10	37	35	31	19	12	17	A-6a (8)
B-095	01.50-03.00	SS-1	67	5	8	12	38	37	28	18	10	15	A-4a (8) *
STA. 88+50, 70′ RT.	03.00-04.50	SS-2	89	14	6	11	35	34	31	18	13	19	A-6a (8)
	04.50-06.00	SS-3	100	13	6	10	36	35	32	19	13	20	A-6a (8)
	06.00-07.50	SS-4	100	12	5	10	39	34	32	19	13	18	A-6a (9)
B-096	01.50-03.00	SS-1	80	36	12	10	24	18	26	17	9	15	A-4a (1) *
STA. 93+09, 62′ LT.	03.00-04.50	SS-2	100	15	5	11	40	29	30	19	11	14	A-6a (7)
	04.50-06.00	SS-3	100				SAME AS SS-2					15	A-6a (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					14	A-6a (VISUAL)
B-097	01.50-03.00	SS-1	100	23	6	9	32	30	29	18	11	15	A-6a (6) *
STA. 97+00, 62′ RT.	03.00-04.50	SS-2	100	22	4	9	34	31	29	18	11	15	A-6a (6)
	04.50-06.00	SS-3	100	23	4	8	34	31	33	20	13	15	A-6a (7)
	06.00-07.50	SS-4	100	3	5	12	46	34	33	23	10	21	A-4a (8)
B-098	01.50-03.00	SS-1	78	0	7	12	43	38	30	20	10	17	A-4a (8) *
STA. 101+00, 70′ LT.	03.00-04.50	SS-2	100	8	7	10	40	35	29	19	10	15	A-4a (8)
	04.50-06.00	SS-3	100	9	10	14	42	25	27	18	9	15	A-4a (6)
	06.00-07.50	SS-4	103	12	7	11	40	30	28	19	9	16	A-4a (7)
B-099	01.50-03.00	SS-1	67	16	7	12	33	32	26	18	8	16	A-4a (6) *
STA. 105+00, 70′ RT.	03.00-04.50	SS-2	100	13	7	13	36	31	27	17	10	16	A-4a (6)
	04.50-06.00	SS-3	100				SAME AS SS-2					14	A-4a (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					15	A-4a (VISUAL)
B-100	01.50-03.00	SS-1	87	22	16	12	27	23	27	17	10	14	A-4a (3) *
STA. 109+00, 62′ LT.	03.00-04.50	SS-2	100	6	7	10	39	38	31	19	12	15	A-6a (9)
	04.50-06.00	SS-3	100				SAME AS SS-2					16	A-6a (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					17	A-6a (VISUAL)

SUMMARY OF SOIL TEST DATA

I.R. 90 (CONT.)

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE TYPE	% REC	% AGG	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	OHIO CLASS
B-101	01.50-03.00	SS-1	67	14	13	23	26	24	23	14	9	23	A-4a (3) *
STA. 112+00, 69′ RT.	03.00-04.50	SS-2	100	18	5	9	36	32	32	20	12	17	A-6a (7)
	04.50-06.00	SS-3	100	17	5	11	35	32	29	19	10	15	A-4a (6)
	06.00-07.50	SS-4	100	16	8	9	37	30	28	19	9	17	A-4a (6)
B-102	01.50-03.00	SS-1	56	14	24	52	10	0	NP	NP	NP	8	A-3 (0) *
STA. 115+00, 60′ LT.	03.00-04.50	SS-2	89	43	21	24	10	2	NP	NP	NP	12	A-1-b (0)
	04.50-06.00	SS-3	83	15	6	10	37	32	30	18	12	19	A-6a (8)
	06.00-07.50	SS-4	100	6	4	10	43	37	30	19	11	18	A-6a (8)
B-103	01.50-03.00	SS-1	67	35	6	9	26	24	-	17	-	17	A-4a (VISUAL) *
STA. 118+11, 71′ RT.	03.00-04.50	SS-2	100	5	6	11	42	36	26	18	8	15	A-4a (8) *
	04.50-06.00	SS-3	100				SAME AS SS-2					15	A-4a (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					15	A-4a (VISUAL)

SUMMARY OF SOIL TEST DATA

RAMP I

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE TYPE	% REC	% AGG	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	OHIO CLASS
B-104	01.50-03.00	SS-1	100	34	39	9	12	6	27	15	12	10	A-2-6 (0)
STA. 0+25, 3′ LT.	03.00-04.50	SS-2	27	29	23	12	24	12	-	16	-	8	A-6a (VISUAL)
	04.50-06.00	SS-3	67	29	-	-	-	-	-	18	-	7	A-6a (VISUAL)
	06.00-07.50	SS-4	67	10	6	9	39	36	31	18	13	15	A-6a (9)
B-105	01.50-03.00	SS-1	67	18	8	9	33	32	32	19	13	18	A-6a (7)
STA. 4+00, 3′ RT.	03.00-04.50	SS-2	67	17	6	9	35	33	31	19	12	17	A-6a (7)
	04.50-06.00	SS-3	80	20	5	8	35	32	32	20	12	15	A-6a (7)
	06.00-07.50	SS-4	100				SAME AS SS-3					15	A-6a (VISUAL)
B-106	01.50-03.00	SS-1	67	25	17	11	26	21	27	18	9	15	A-4a (2) *
STA. 8+00, 3′ LT.	03.00-04.50	SS-2	100	16	6	9	37	32	29	18	11	17	A-6a (7) *
	04.50-06.00	SS-3	100				SAME AS SS-2					16	A-6a (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					-	A-6a (VISUAL)
B-107	01.00-02.50	SS-1	33	53	21	14	4	8	NP	NP	NP	2	A-1-a (0) *
STA. 11+55, 4′ RT.	02.50-04.00	SS-2	56	22	7	9	34	28	30	19	11	17	A-6a (6)
	04.00-05.50	SS-3	78	17	7	10	36	30	30	19	11	17	A-6a (7)
	05.50-07.00	SS-4	80	22	7	7	34	30	31	19	12	16	A-6a (7)

SUMMARY OF SOIL TEST DATA

RAMP J

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE TYPE	% REC	% AGG	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	OHIO CLASS
B-108	01.50-03.00	SS-1	80	12	9	9	36	34	31	19	12	16	A-6a (8)
STA. 0+00, 1′ LT.	03.00-04.50	SS-2	100	9	6	9	41	35	30	20	10	16	A-4a (8)
	04.50-06.00	SS-3	100	6	9	12	37	36	30	19	11	17	A-6a (8)
	06.00-07.50	SS-4	100	4	3	8	49	36	28	19	9	21	A-4a (8)
B-109	01.50-03.00	SS-1	78	27	17	8	23	25	31	18	13	15	A-6a (4) *
STA. 7+93, 3′ LT.	03.00-04.50	SS-2	100	14	6	9	35	36	32	18	14	14	A-6a (9) *
	04.50-06.00	SS-3	100	12	6	9	36	37	31	19	12	15	A-6a (8)
	06.00-07.50	SS-4	100	11	6	9	41	33	32	19	13	16	A-6a (9)
B-110	01.50-03.00	SS-1	89	12	6	10	39	33	29	17	12	16	A-6a (8) *
STA. 11+58, 1′ LT.	03.00-04.50	SS-2	100	13	6	10	37	34	29	18	11	15	A-6a (8) *
	04.50-06.00	SS-3	87	10	6	11	39	34	30	18	12	17	A-6a (8)
	06.00-07.50	SS-4	100				SAME AS SS-3					16	A-6a (VISUAL)
B-111	01.50-03.00	SS-1	100	14	5	9	34	38	32	17	15	16	A-6a (9)
STA. 14+85, 4′ LT.	03.00-04.50	SS-2	100	13	5	9	41	32	30	19	11	21	A-6a (8)
	04.50-06.00	SS-3	100	19	5	9	37	30	31	18	13	14	A-6a (8)
	06.00-07.50	SS-4	100	16	6	9	36	33	35	19	16	14	A-6b (9)

DRAWN JAG CHECKED MRS

SUBGRADE EXPLORATION
SUMMARY OF SOIL TEST DATA

LAK-90-21.40
ATB-90-0.00

SUMMARY OF SOIL TEST DATA

RAMP K

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE TYPE	% REC	% AGG	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	OHIO CLASS
B-112	01.50-03.00	SS-1	67	53	12	9	16	10	24	15	9	9	A-2-4 (0) *
STA. 0+90, 3′ LT.	03.00-04.50	SS-2	100	26	5	8	31	30	30	19	11	19	A-6a (6)
	04.50-06.00	SS-3	67	9	7	9	36	39	29	17	12	15	A-6a (9)
	06.00-07.50	SS-4	100				SAME AS SS-3					20	A-6a (VISUAL)
B-113	01.50-03.00	SS-1	67	31	18	11	22	18	27	16	11	15	A-6a (1) *
STA. 4+50, 3′ RT.	03.00-04.50	SS-2	100	0	6	11	42	41	31	18	13	19	A-6a (9) *
	04.50-06.00	SS-3	67	33	5	8	27	27	31	18	13	15	A-6a (5)
	06.00-07.50	SS-4	100	11	4	9	35	41	33	18	15	14	A-6a (10)

SUMMARY OF SOIL TEST DATA

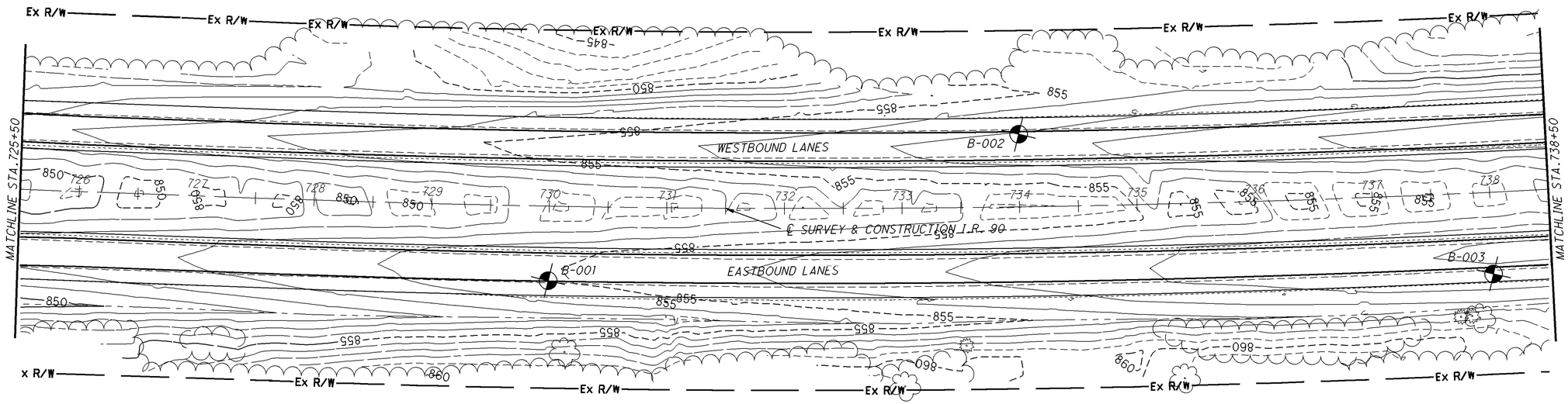
RAMP L

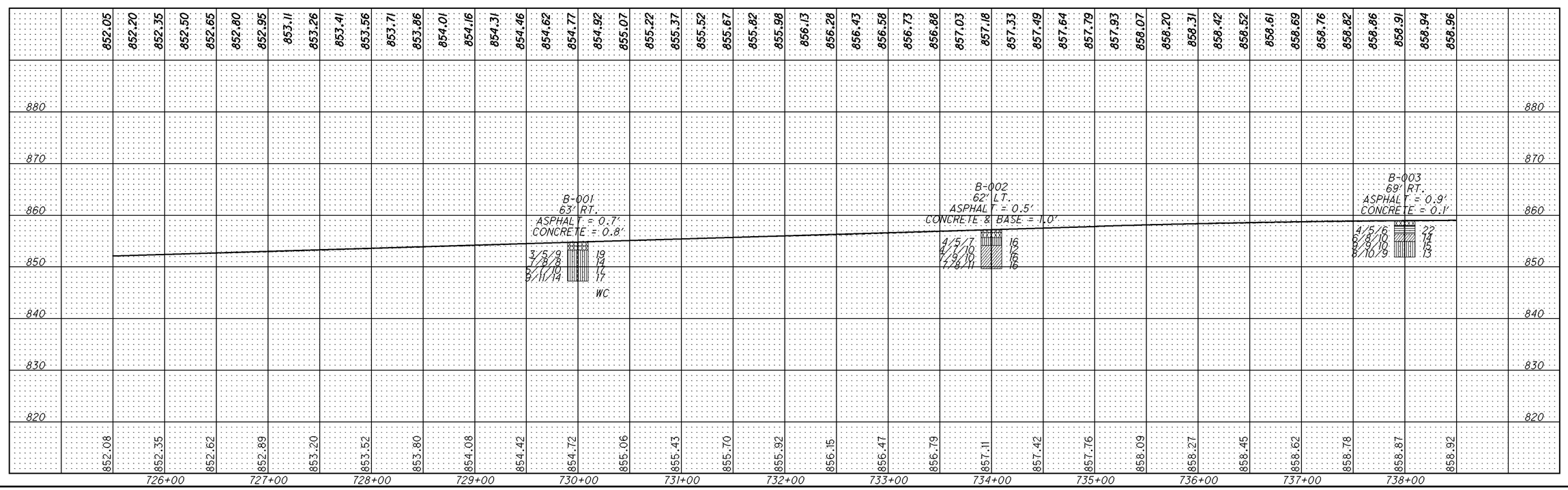
EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE TYPE	% REC	% AGG	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	OHIO CLASS
B-114	01.50-03.00	SS-1	67	47	17	11	17	8	23	15	8	13	A-2-4 (0) *
STA. 0+85, 3′ LT.	03.00-04.50	SS-2	67	19	7	9	33	32	30	18	12	20	A-6a (7)
	04.50-06.00	SS-3	67	19	7	9	35	30	30	17	13	19	A-6a (7)
	06.00-07.50	SS-4	33	20	7	9	32	32	29	18	11	16	A-6a (6)
B-115	01.50-03.00	SS-1	53	12	5	10	39	34	34	18	16	20	A-6b (10) *
STA. 4+50, 3′ LT.	03.00-04.50	SS-2	67	12	5	9	35	39	33	20	13	16	A-6a (9)
	04.50-06.00	SS-3	80				SAME AS SS-2					15	A-6a (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					15	A-6a (VISUAL)
B-116	01.50-03.00	SS-1	100	19	14	11	29	27	27	17	10	8	A-4a (4)
STA. 13+00, 3′ RT.	03.00-04.50	SS-2	100	15	5	8	34	38	31	18	13	15	A-6a (9)
	04.50-06.00	SS-3	100				SAME AS SS-2					15	A-6a (VISUAL)
	06.00-07.50	SS-4	100				SAME AS SS-2					17	A-6a (VISUAL)

DRAWN JAG CHECKED MRS

SUBGRADE EXPLORATION
SUMMARY OF SOIL TEST DATA

LAK-90-21.40
ATB-90-0.00



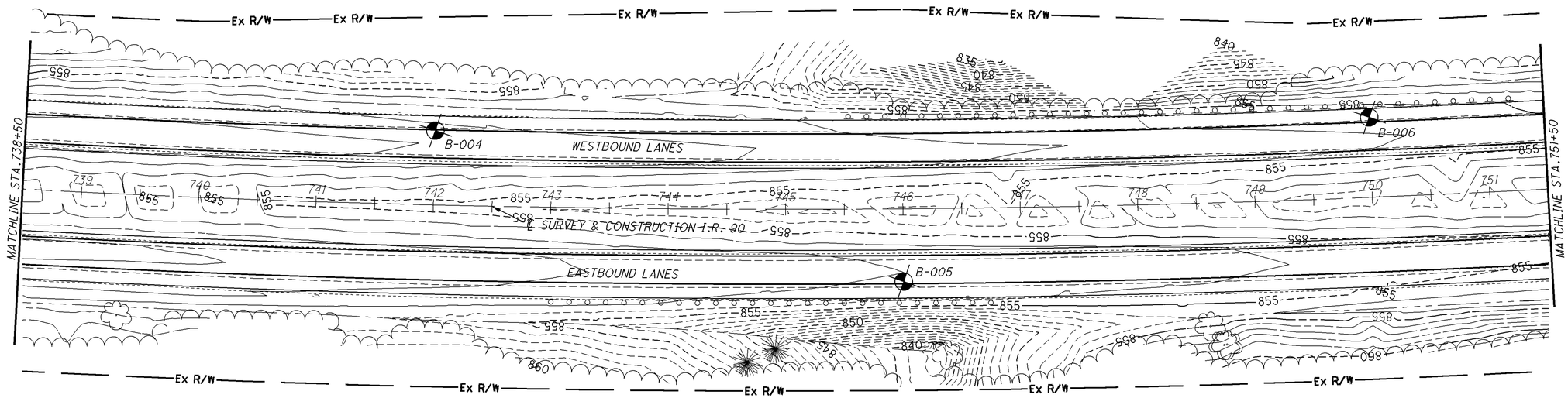


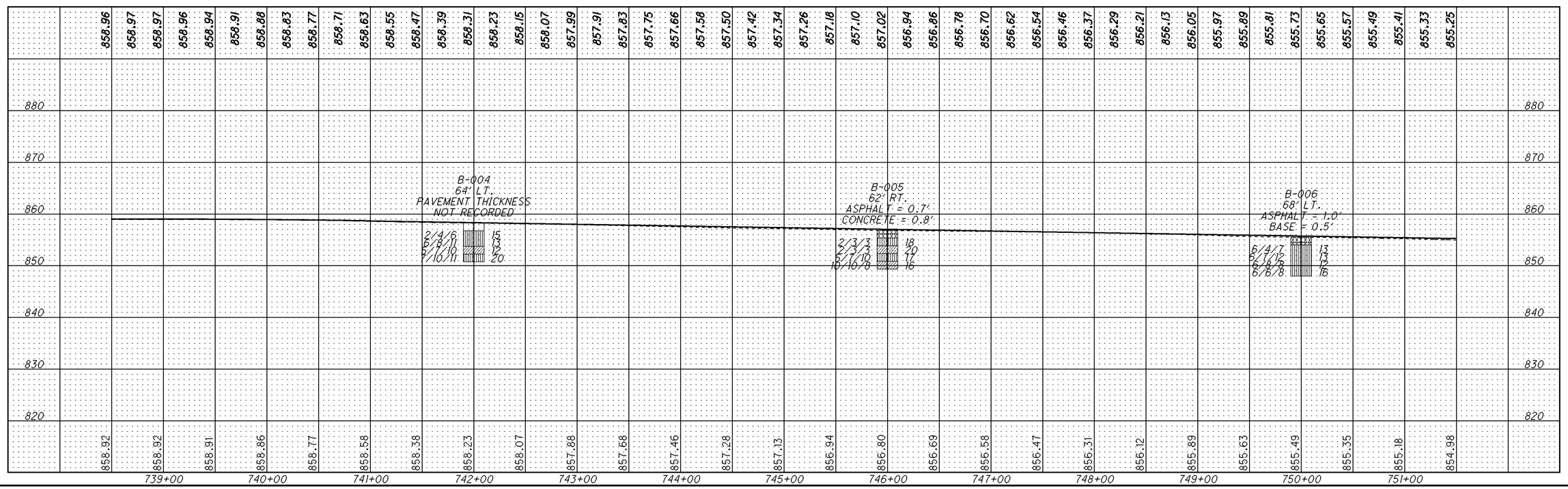
HORIZONTAL SCALE IN FEET
0 25 50 100

DRAWN JAG
CHECKED MRS

SUBGRADE EXPLORATION
STA. 725+50 TO STA. 738+50

LAK-90-21.40
ATB-90-0.00



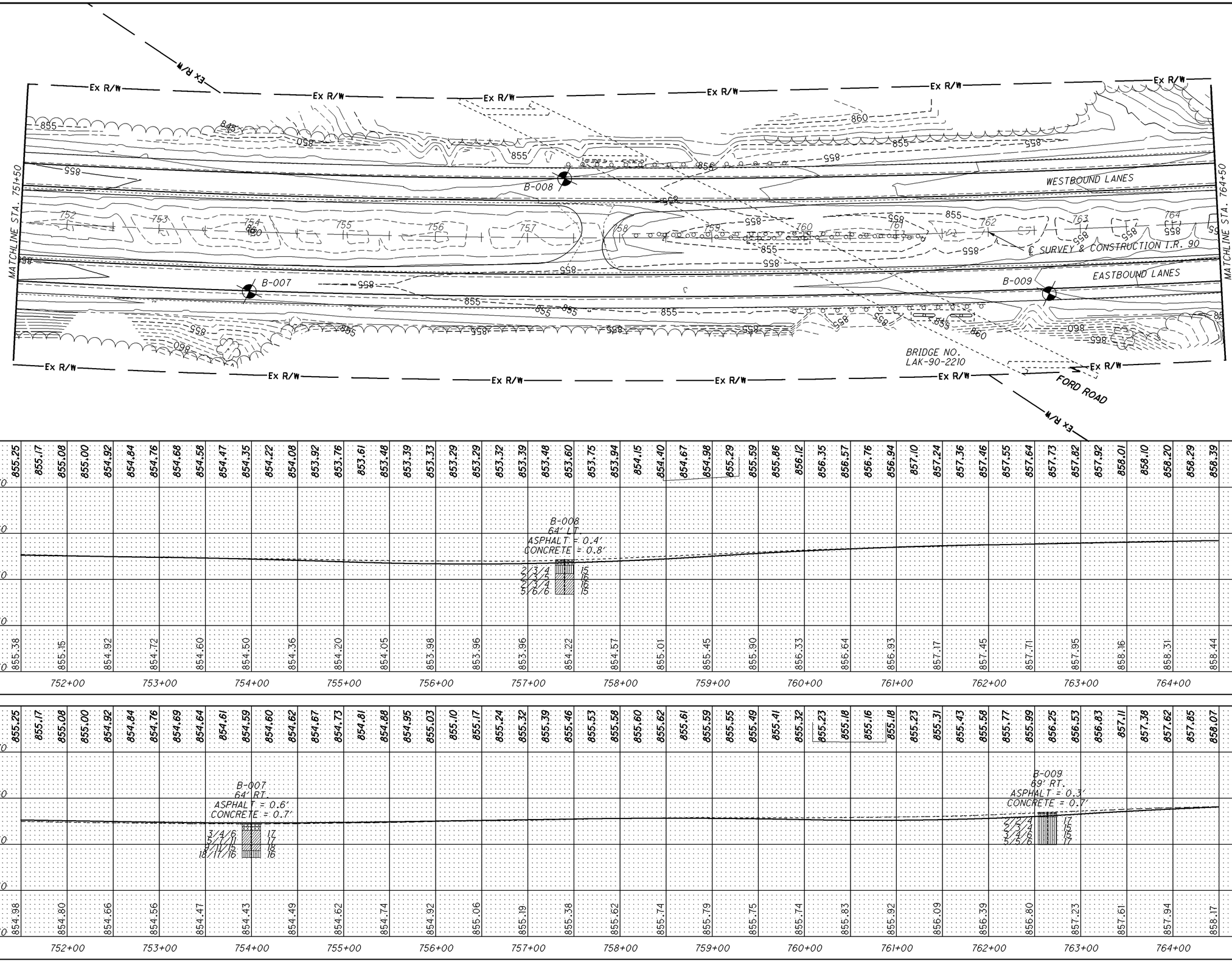


HORIZONTAL SCALE IN FEET
0 25 50 100

DRAWN JAG
CHECKED MRS

SUBGRADE EXPLORATION
STA. 738+50 TO STA. 751+50

LAK-90-21.40
ATB-90-0.00

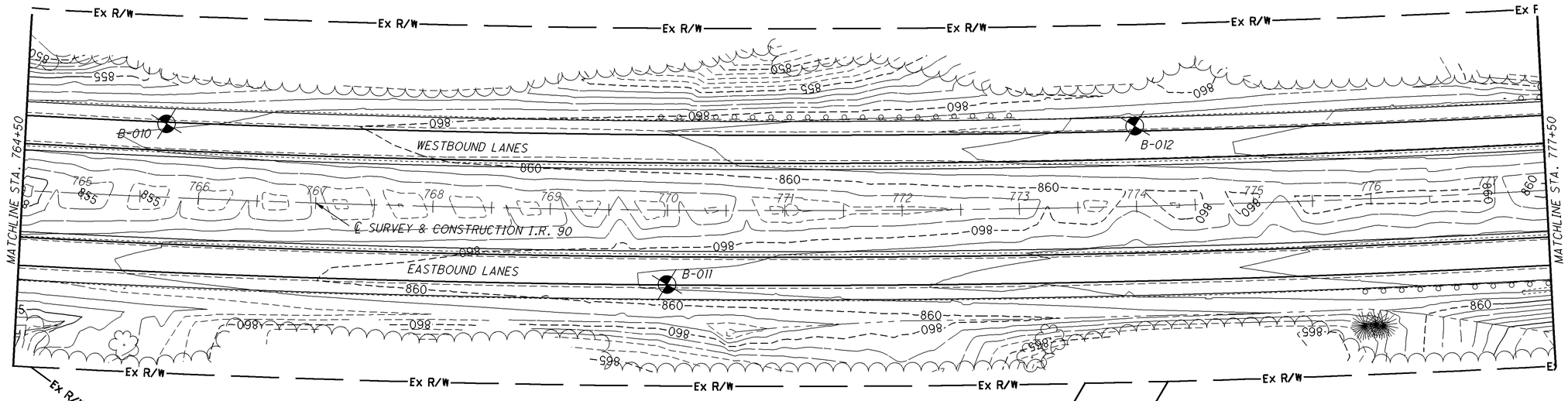


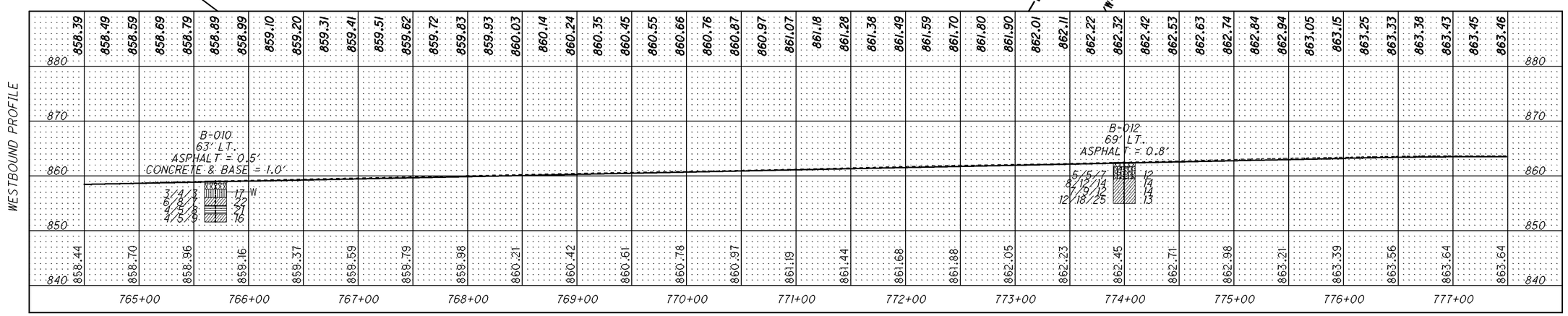
HORIZONTAL SCALE IN FEET

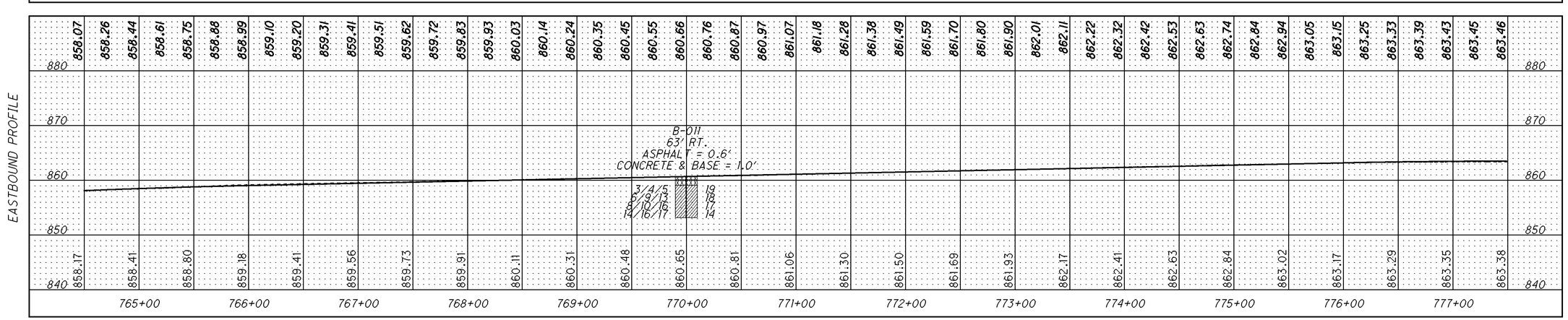
DRAWN JAG
CHECKED MRS

SUBGRADE EXPLORATION
STA. 751+50 TO STA. 764+50

LAK-90-21.40
ATB-90-0.00







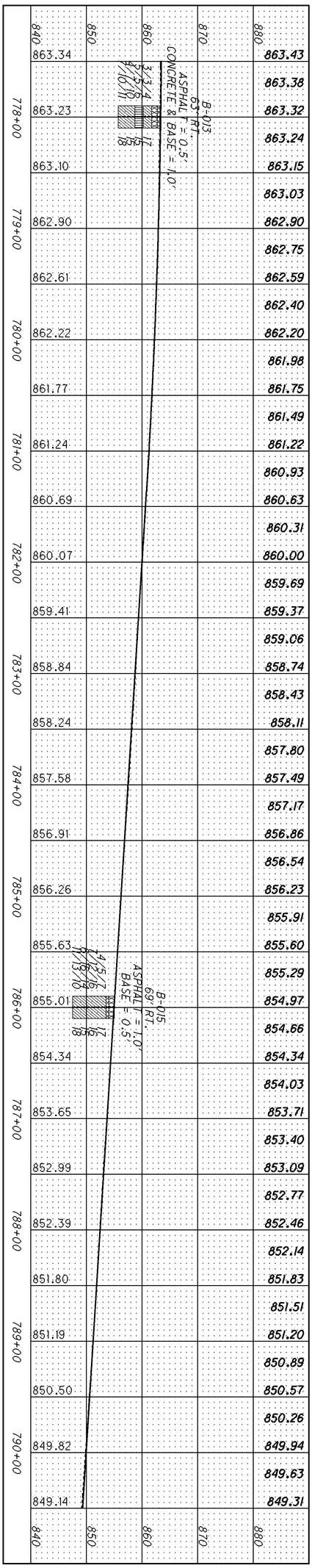
HORIZONTAL SCALE IN FEET

DRAWN JAG
CHECKED MRS

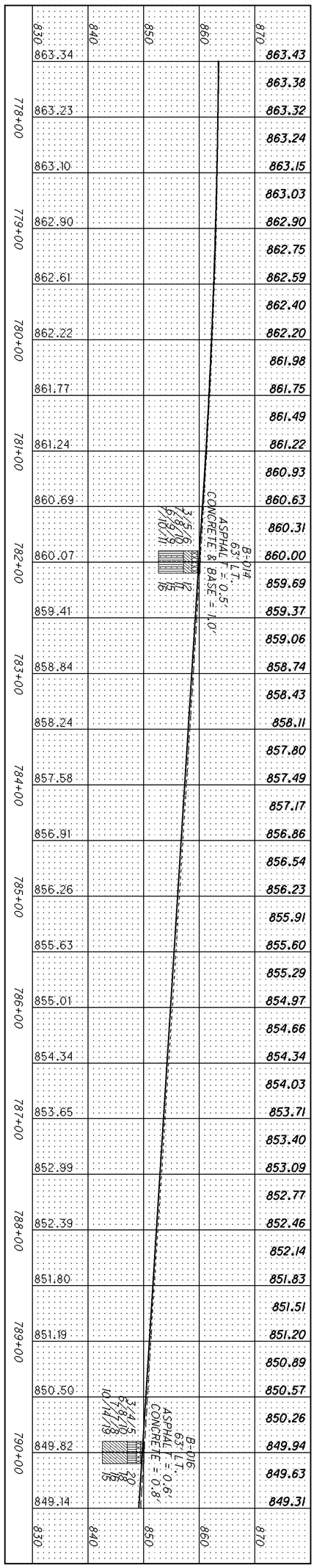
SUBGRADE EXPLORATION
STA.764+50 TO STA.777+50

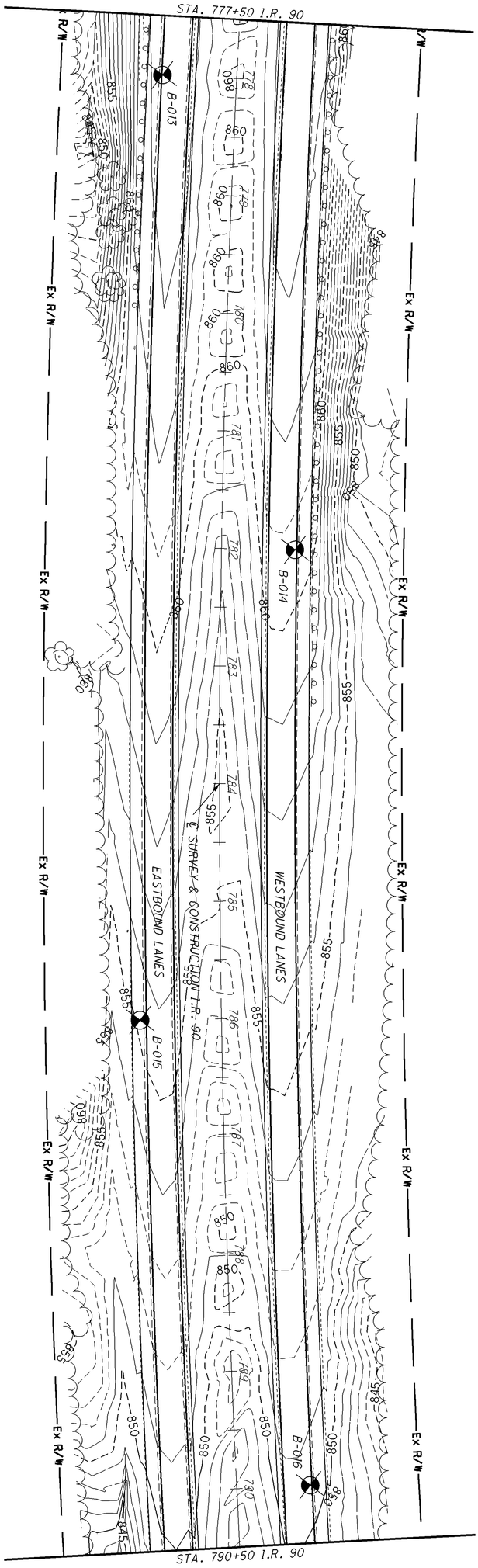
LAK-90-21.40
ATB-90-0.00

EASTBOUND PROFILE



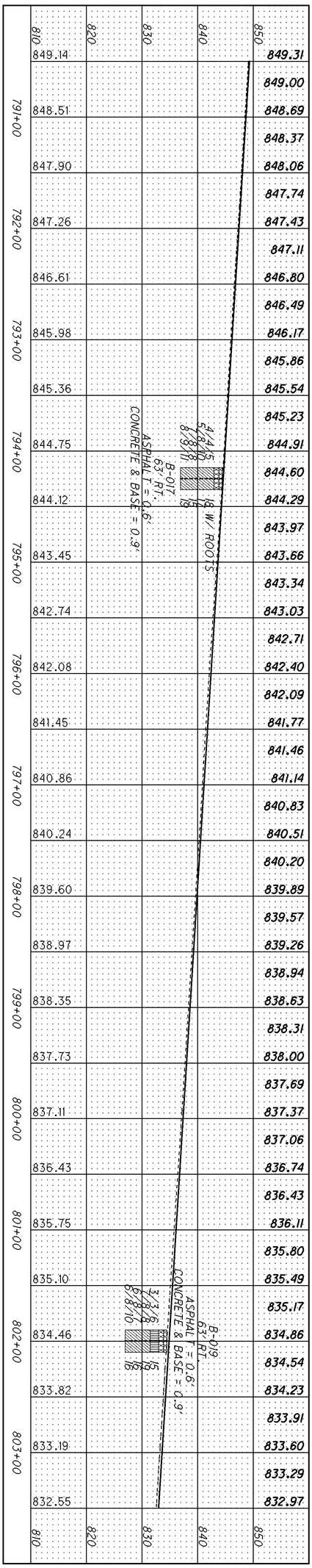
WESTBOUND PROFILE



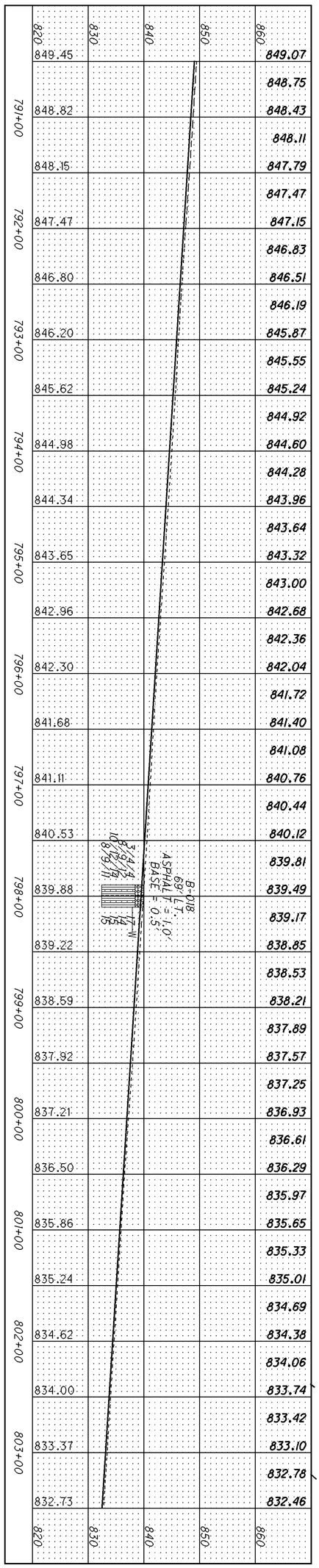


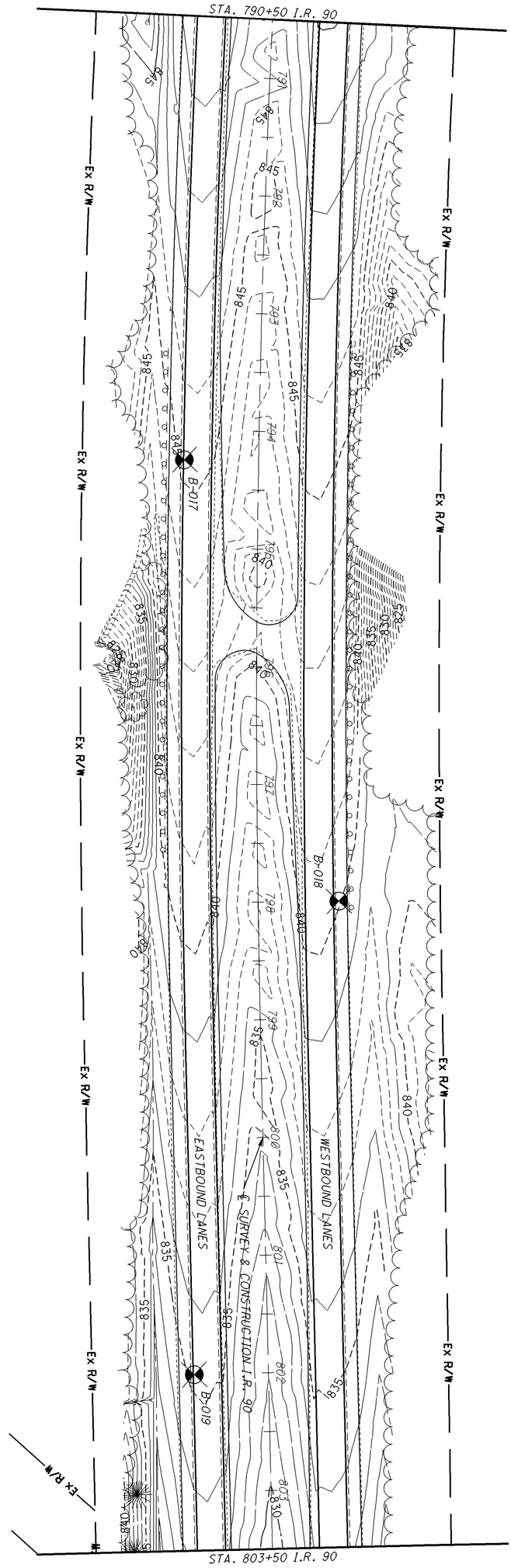
11/44	LAK-90-21.40 ATB-90-0.00	SUBGRADE EXPLORATION STA. 777+50 TO STA. 790+50	DRAWN JAG CHECKED MRS HORIZONTAL SCALE IN FEET

EASTBOUND PROFILE

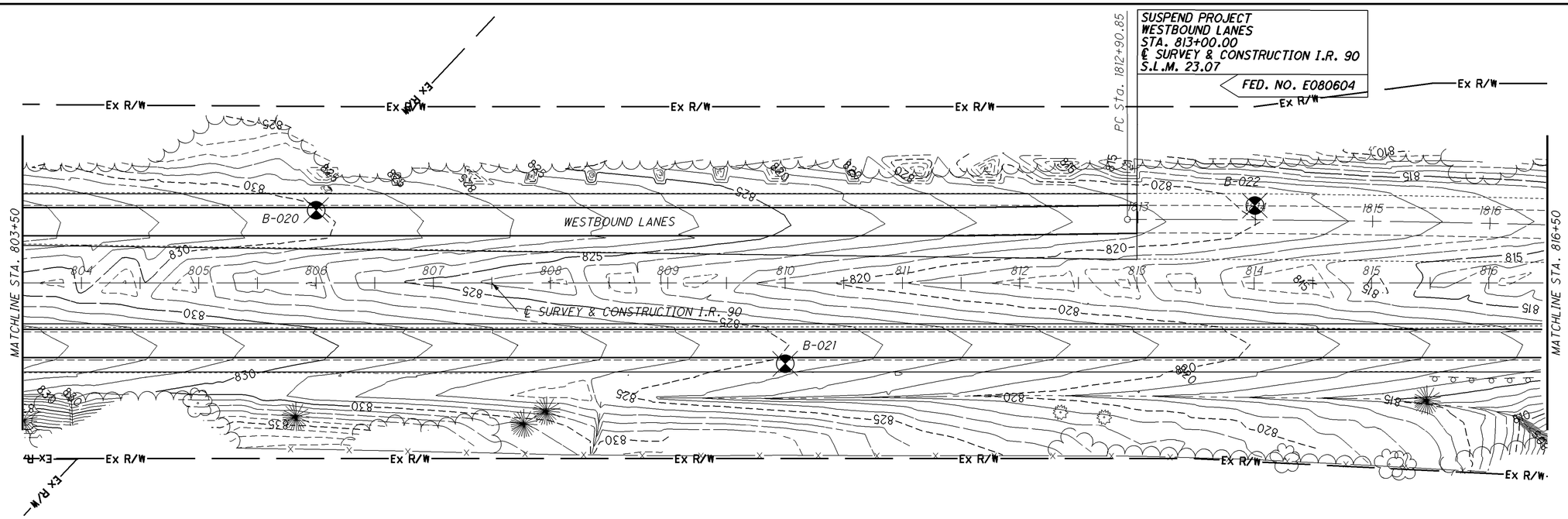


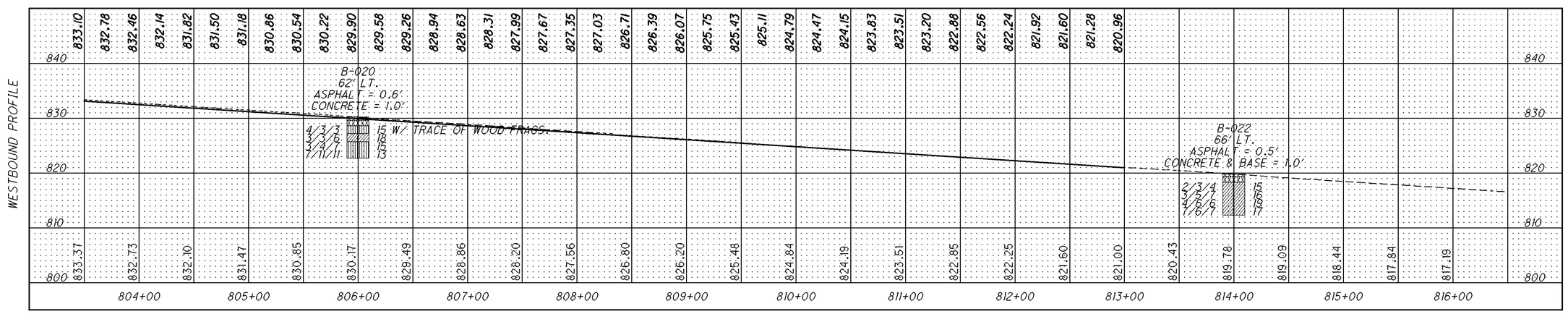
WESTBOUND PROFILE

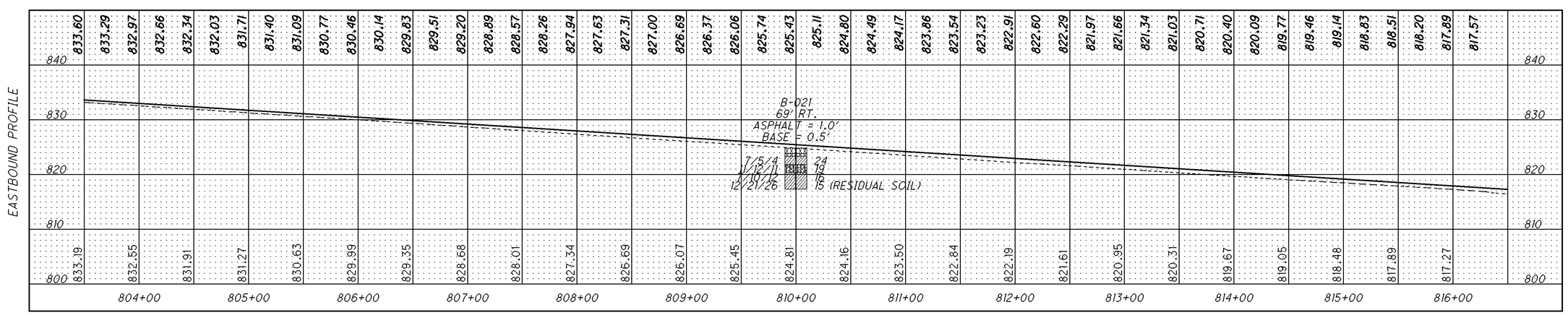




12/44	LAK-90-21.40 ATB-90-0.00	SUBGRADE EXPLORATION STA. 790+50 TO STA. 803+50	DRAWN JAG CHECKED MRS	0 25 50 100 HORIZONTAL SCALE IN FEET





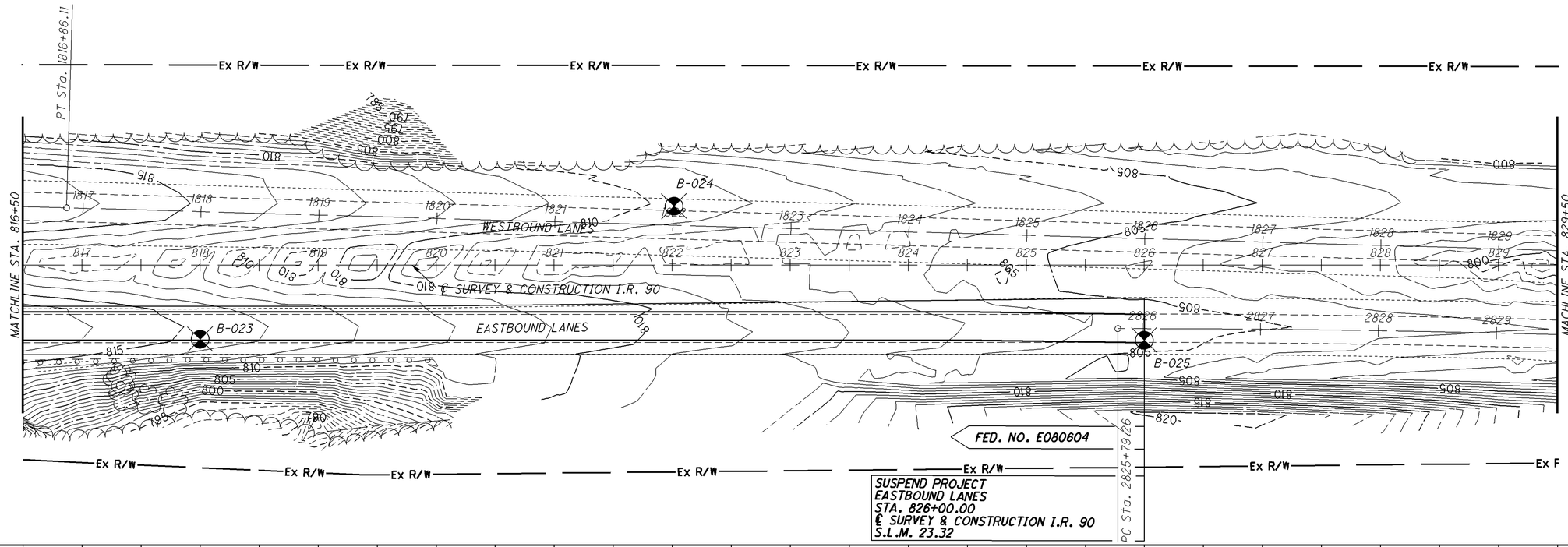


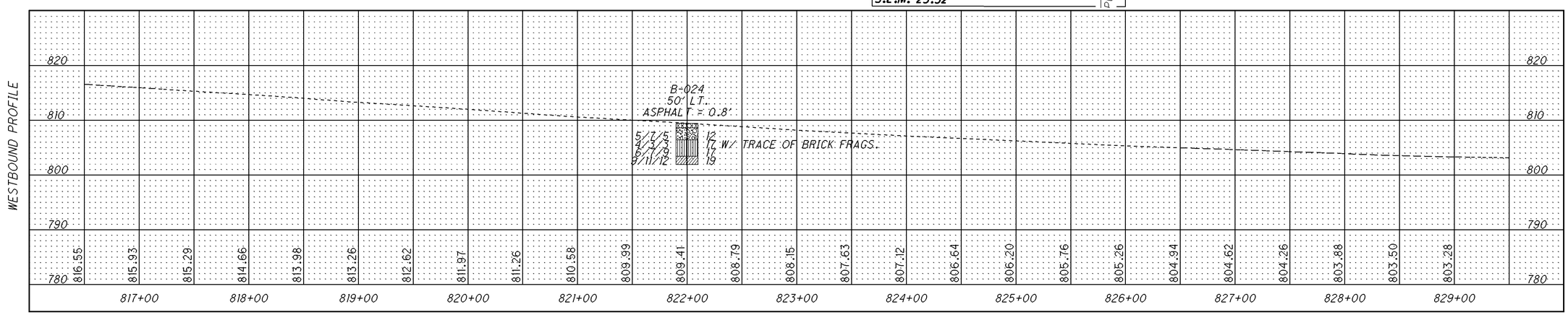
HORIZONTAL SCALE IN FEET
0 25 50 100

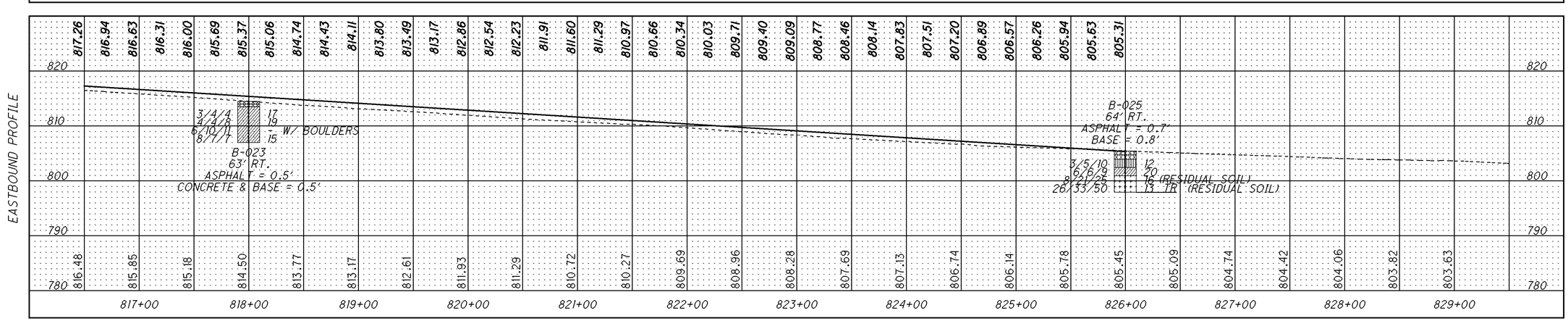
DRAWN JAG
CHECKED MRS

SUBGRADE EXPLORATION
STA. 803+50 TO STA. 816+50

LAK-90-21.40
ATB-90-0.00





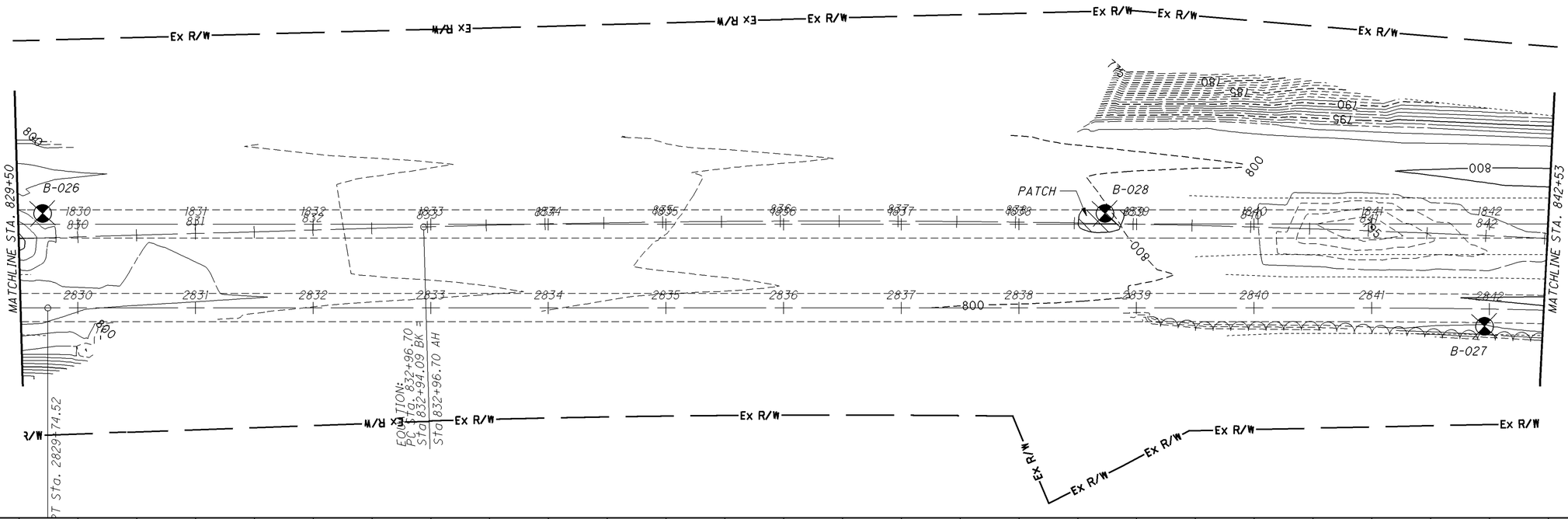


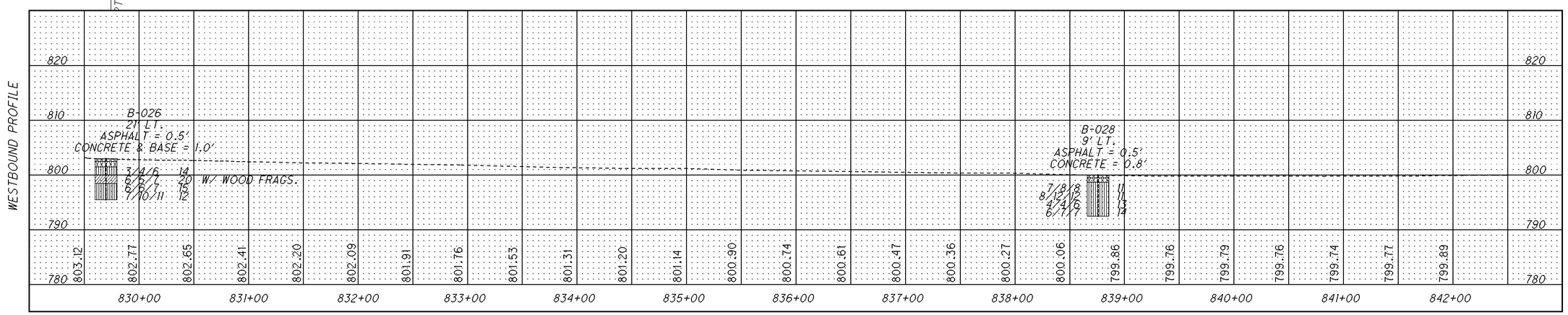
HORIZONTAL SCALE IN FEET
0 25 50 100

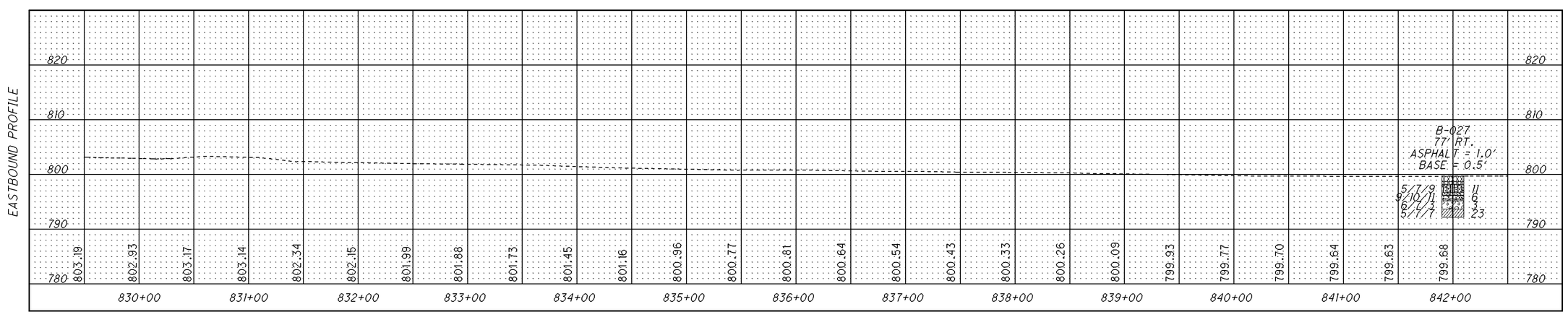
DRAWN JAG
CHECKED MRS

SUBGRADE EXPLORATION
STA. 816+50 TO STA. 829+50

LAK-90-21.40
ATB-90-0.00





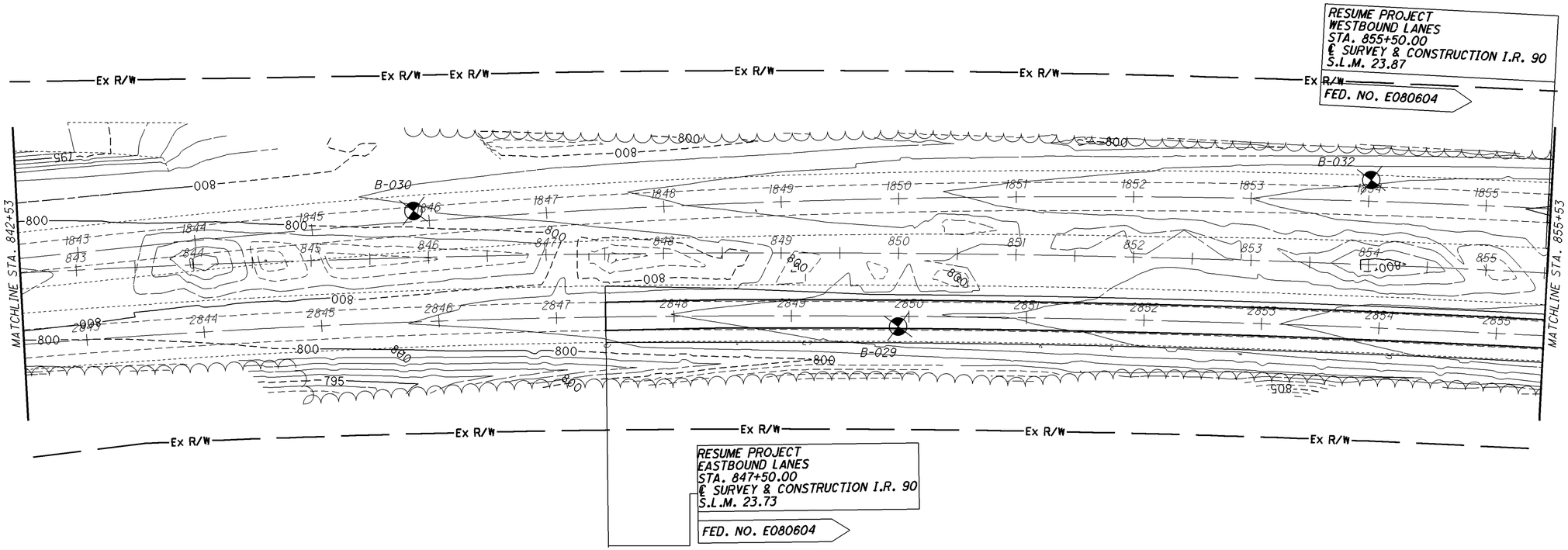


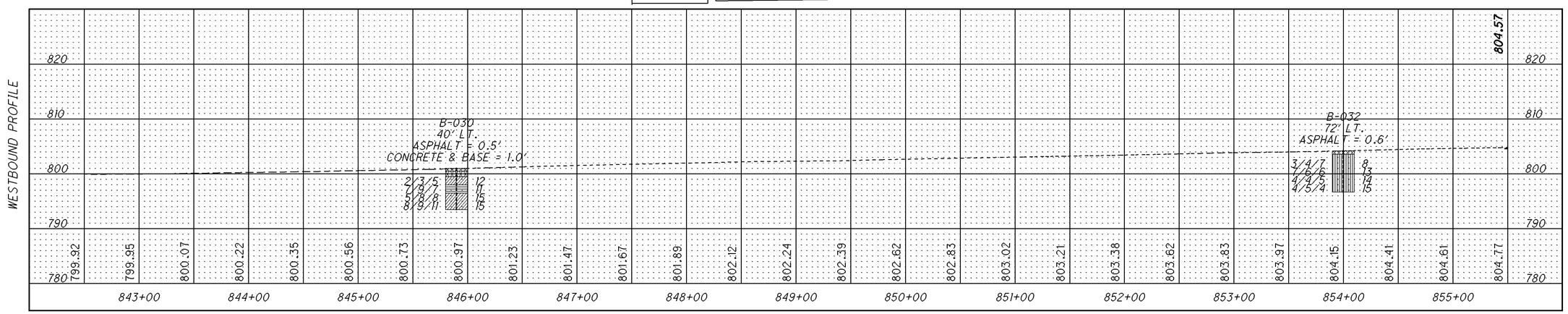
HORIZONTAL SCALE IN FEET
0 25 50 100

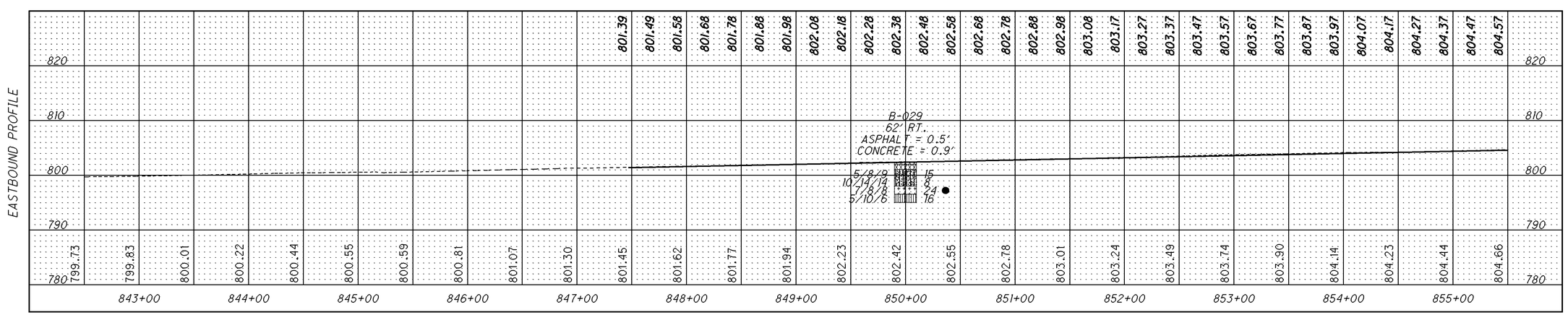
DRAWN JAG
CHECKED MRS

SUBGRADE EXPLORATION
STA. 829+50 TO STA. 842+53

LAK-90-21.40
ATB-90-0.00





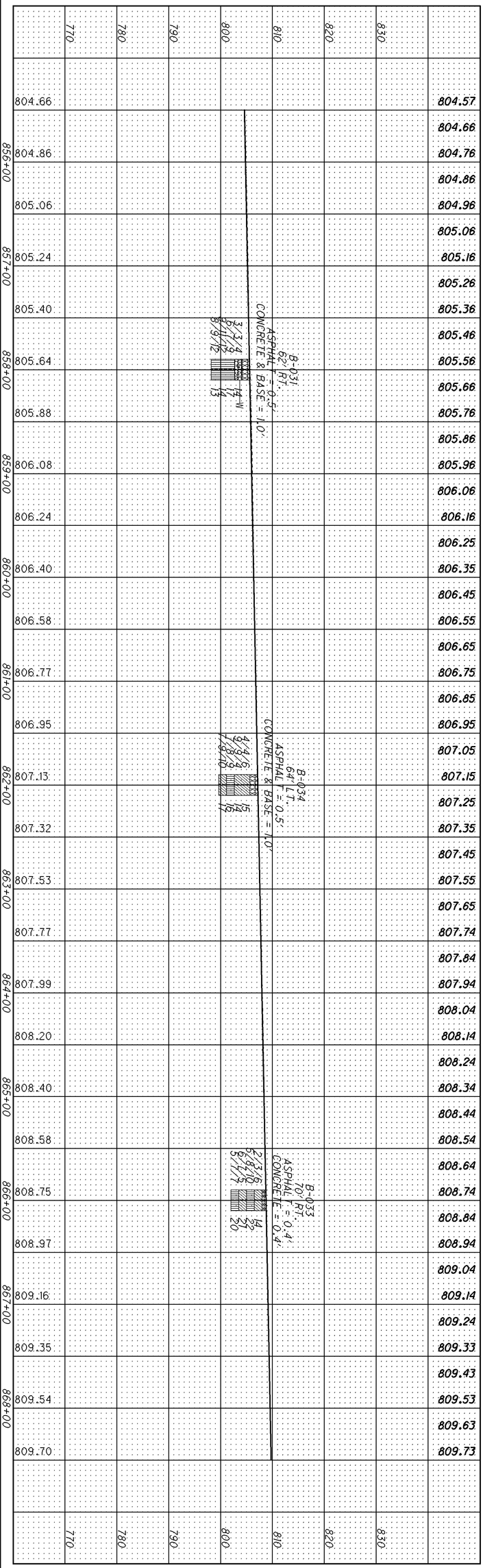


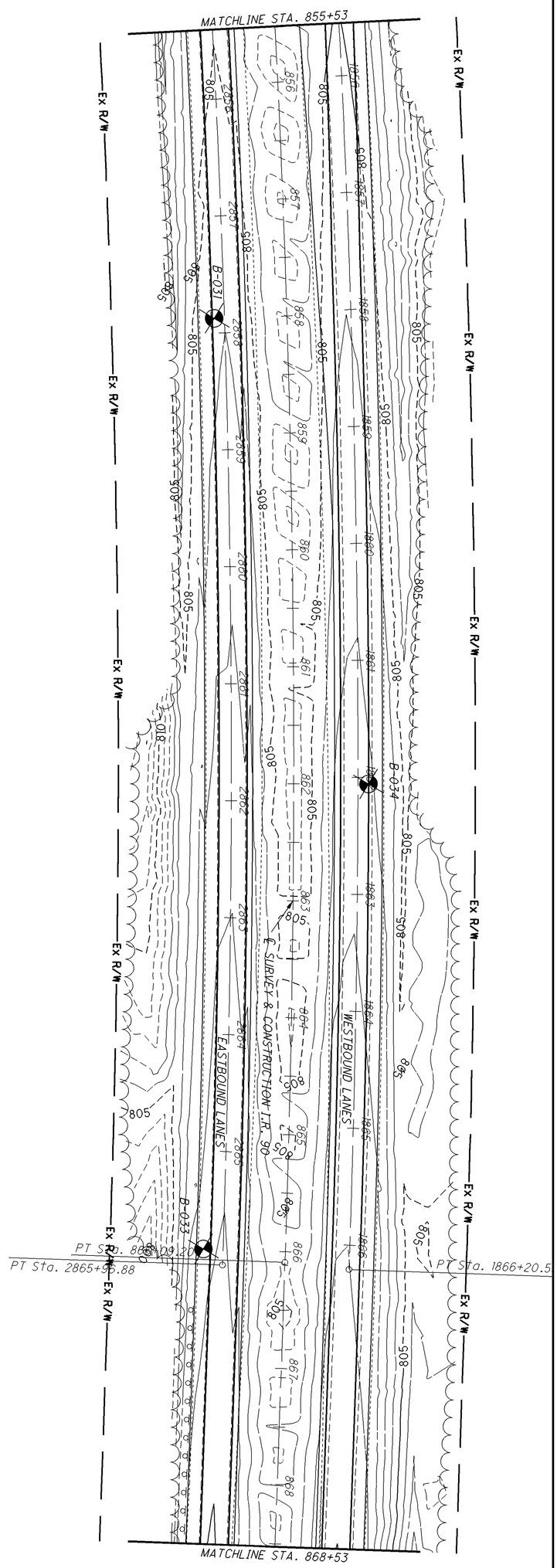
HORIZONTAL SCALE IN FEET
0 25 50 100

DRAWN JAG
CHECKED MRS

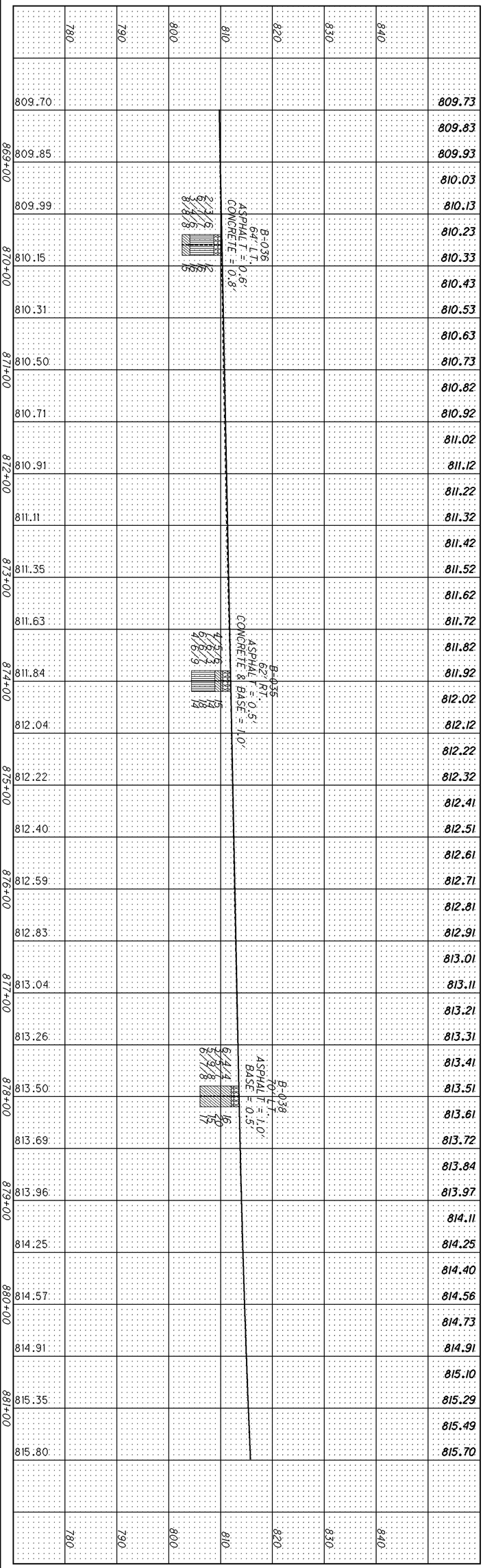
SUBGRADE EXPLORATION
STA. 842+53 TO STA. 855+53

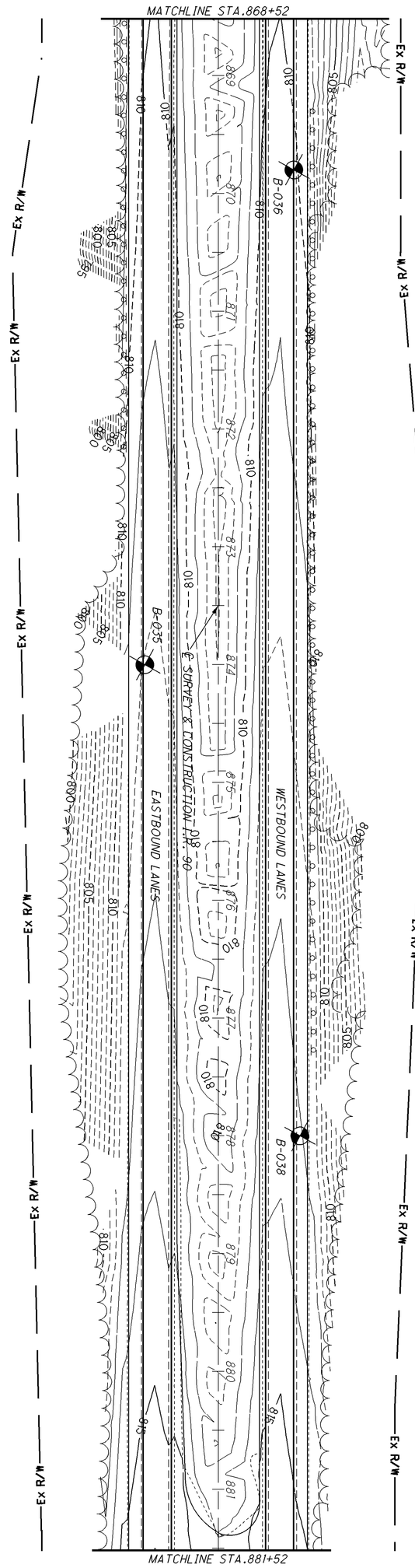
LAK-90-21.40
ATB-90-0.00



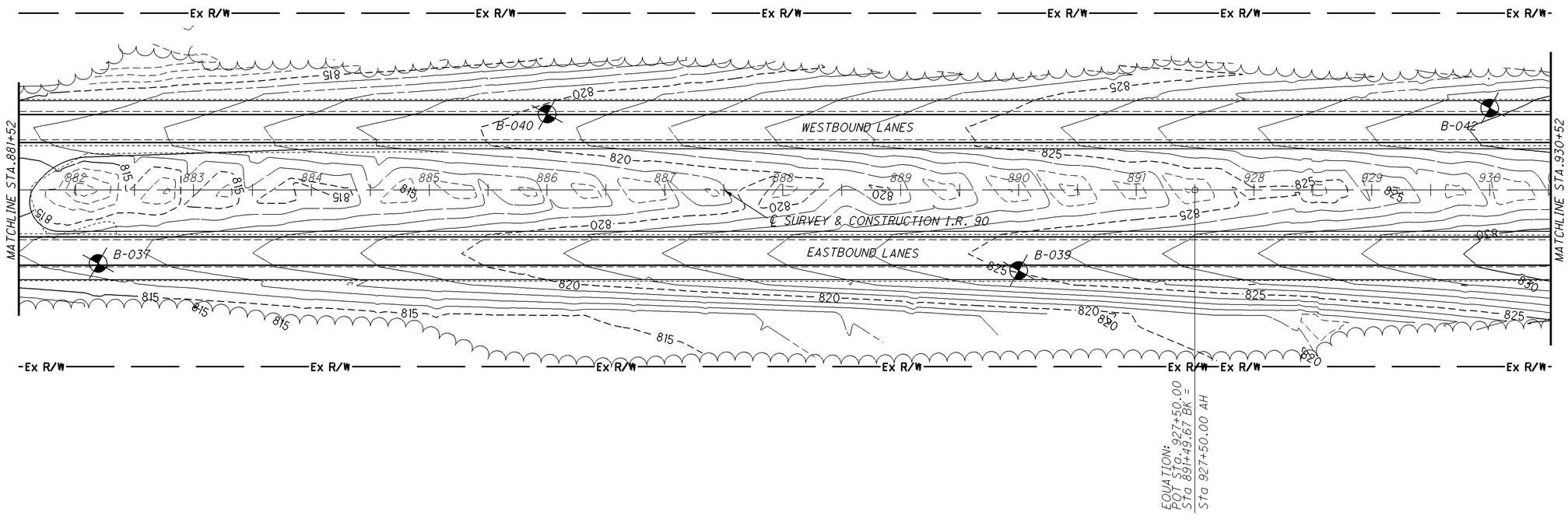


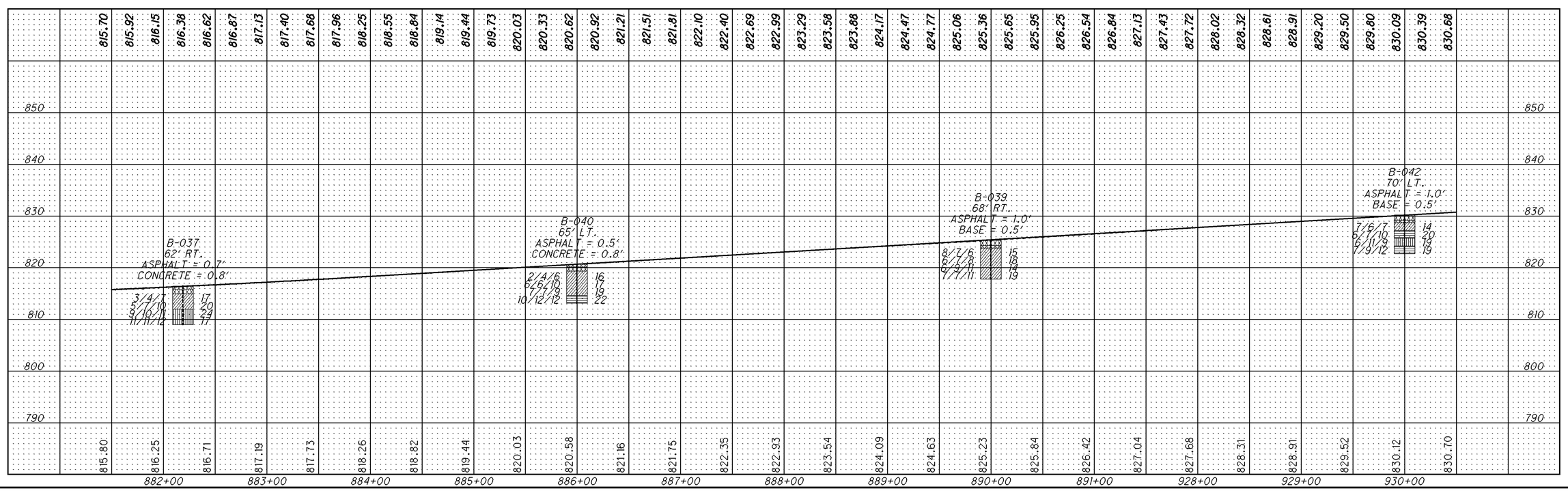
17/44	LAK-90-21.40 ATB-90-0.00	SUBGRADE EXPLORATION STA. 855+53 TO STA. 868+53	DRAWN JAG CHECKED MRS 0 25 50 100 HORIZONTAL SCALE IN FEET





18/44	LAK-90-21.40 ATB-90-0.00	SUBGRADE EXPLORATION STA. 868+52 TO STA. 881+52	DRAWN JAG CHECKED MRS	0 25 50 100 HORIZONTAL SCALE IN FEET



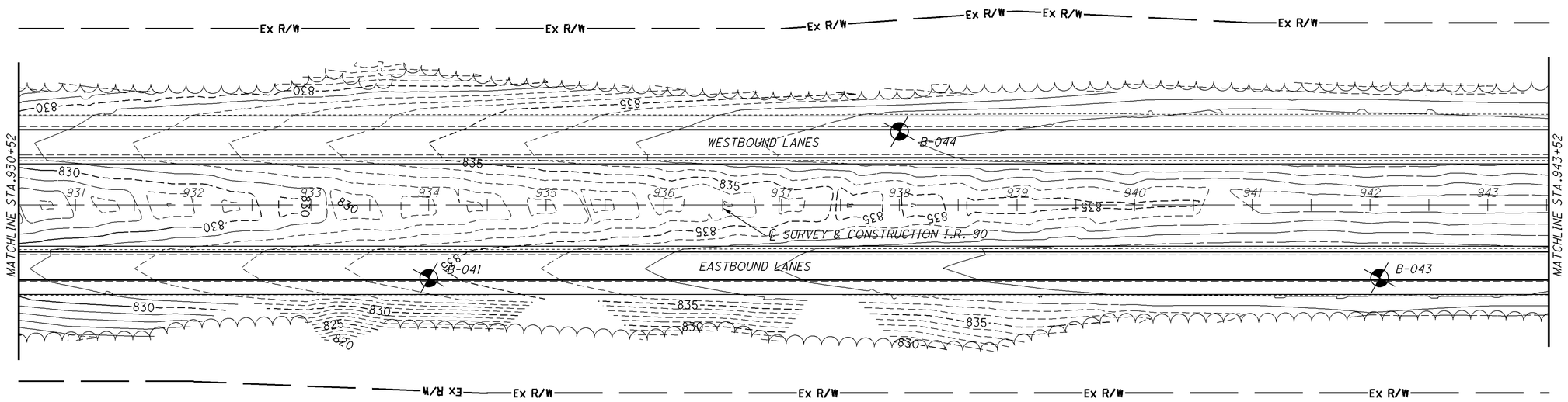


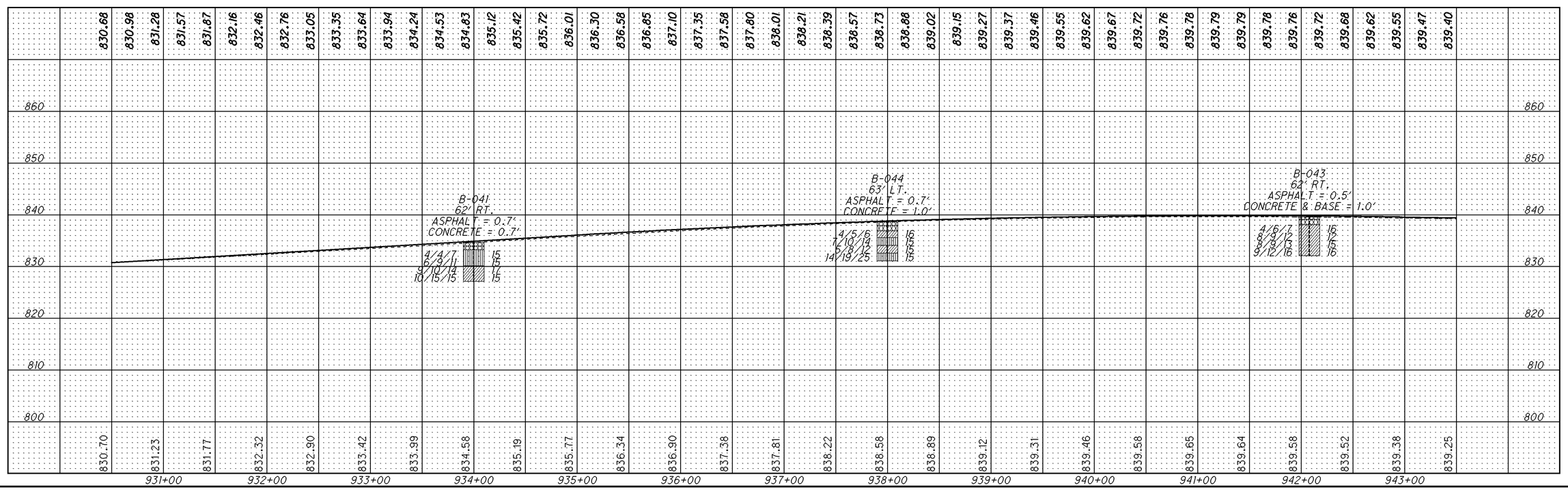
HORIZONTAL SCALE IN FEET

DRAWN JAG
CHECKED MRS

SUBGRADE EXPLORATION STA. 881+52 TO STA. 930+52

LAK-90-21.40
ATB-90-0.00





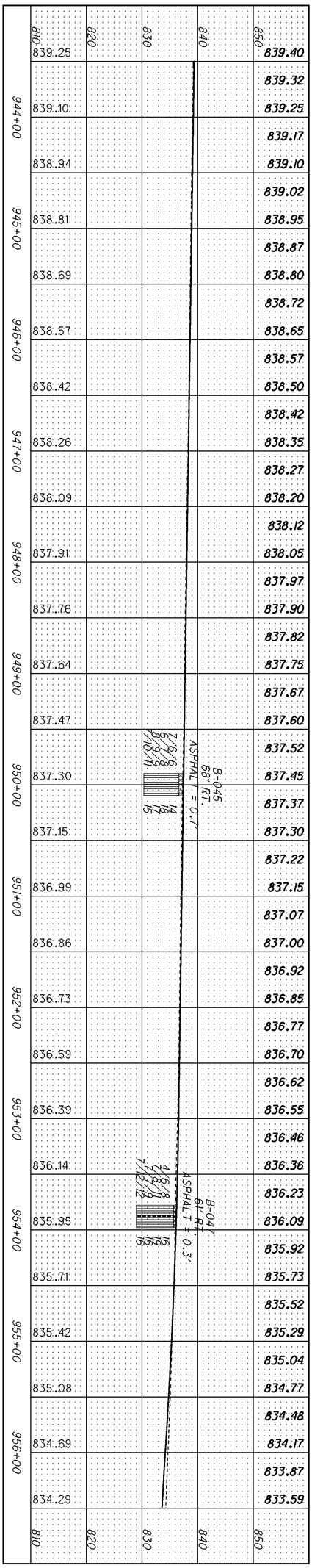
HORIZONTAL SCALE IN FEET
0 25 50 100

DRAWN JAG
CHECKED MRS

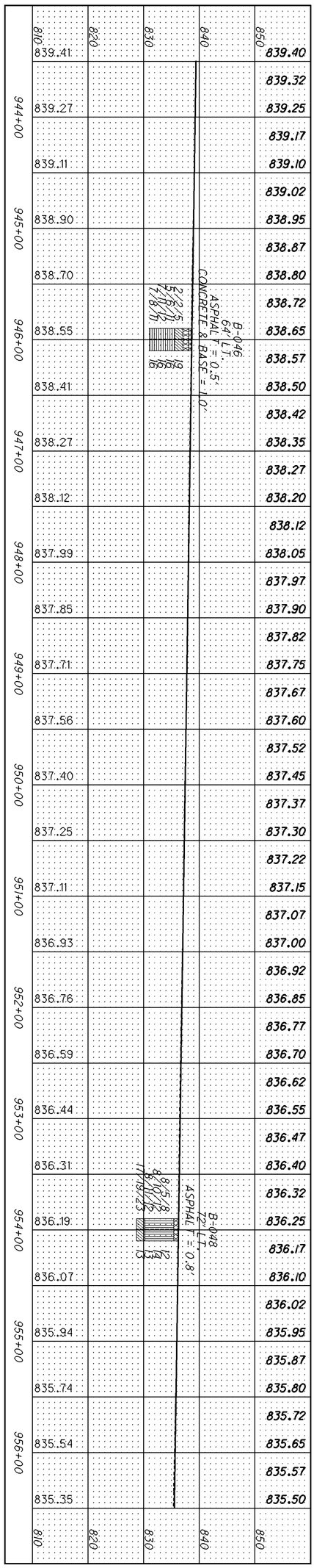
SUBGRADE EXPLORATION
STA. 930+52 TO STA. 943+52

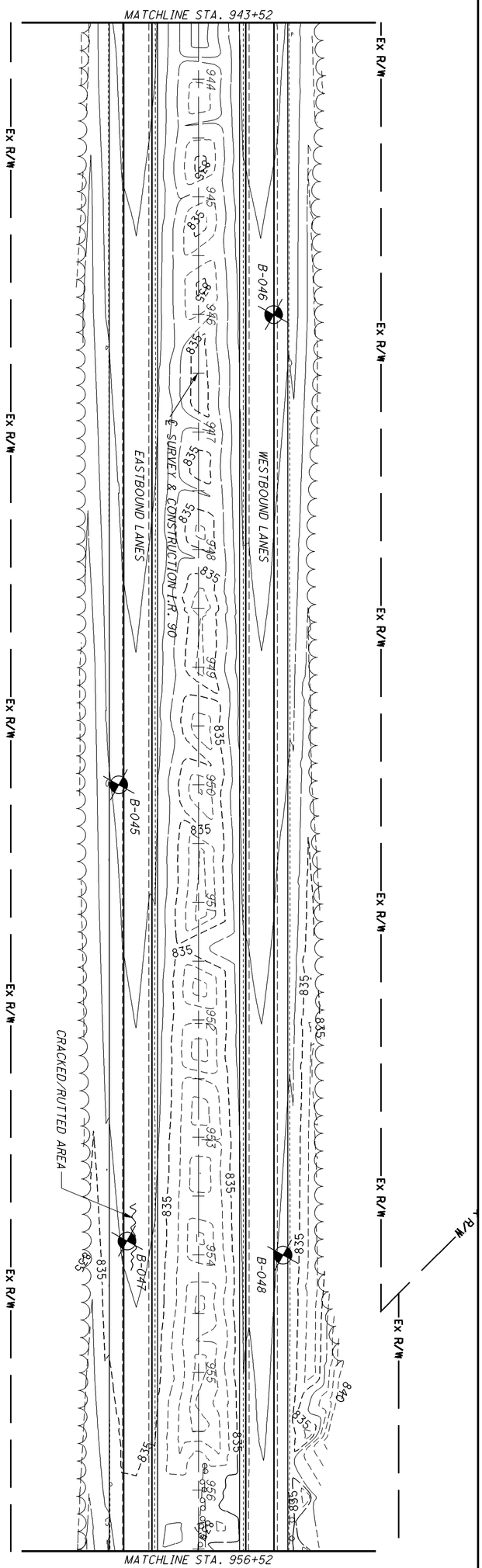
LAK-90-21.40
ATB-90-0.00

EASTBOUND PROFILE

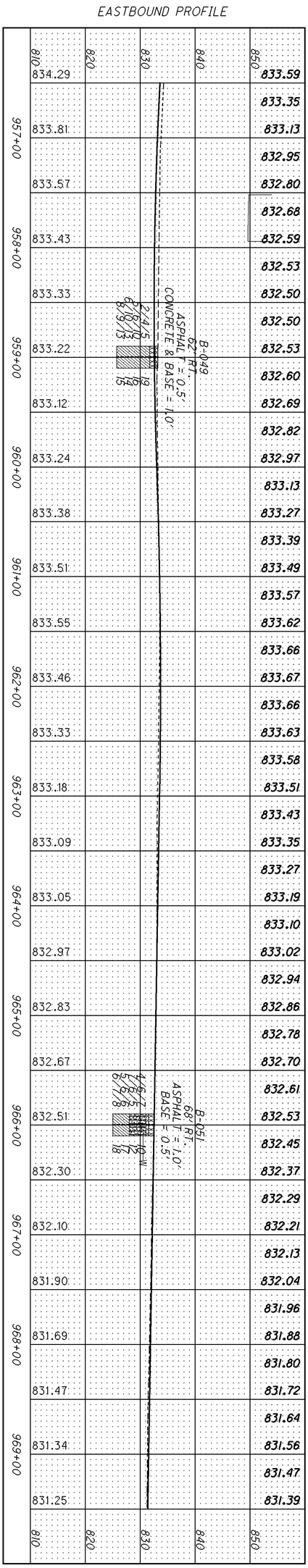


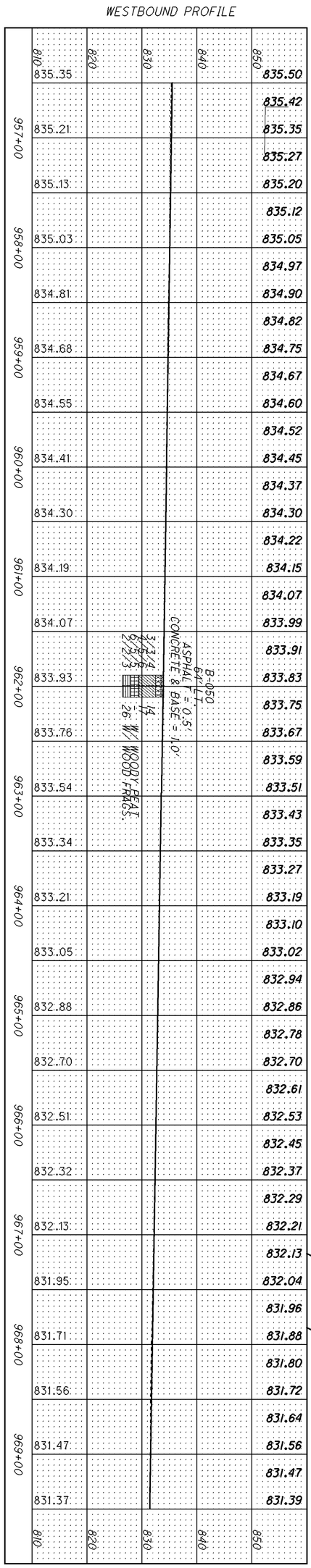
WESTBOUND PROFILE

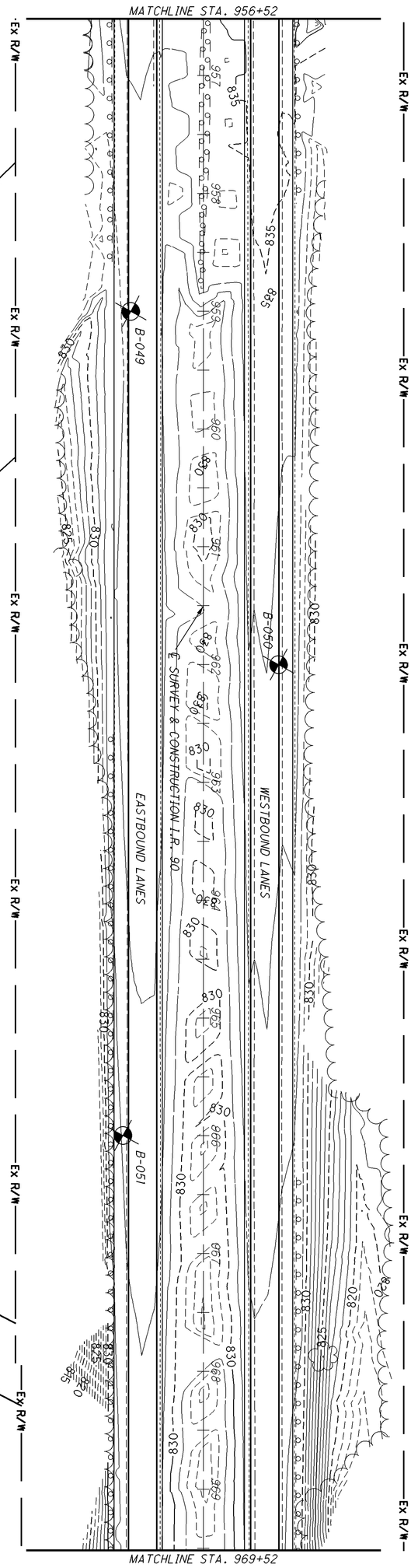




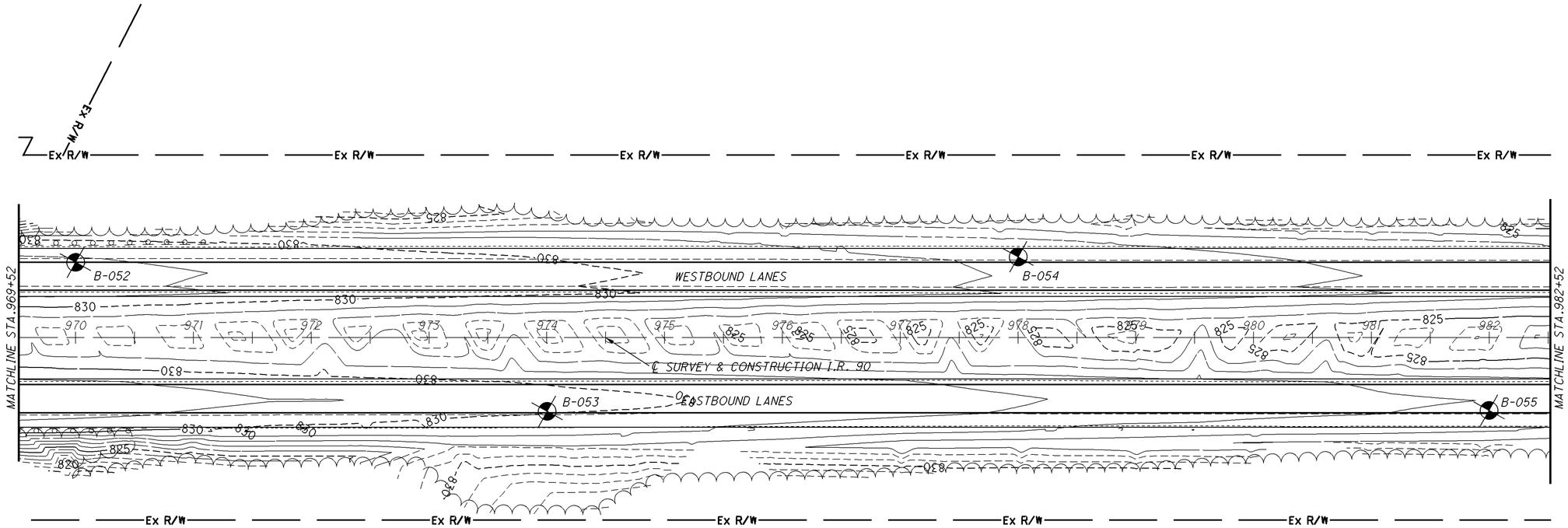
21/44	LAK-90-21.40 ATB-90-0.00	SUBGRADE EXPLORATION STA. 943+52 TO STA. 956+52	DRAWN JAG CHECKED MRS	0 25 50 100 HORIZONTAL SCALE IN FEET

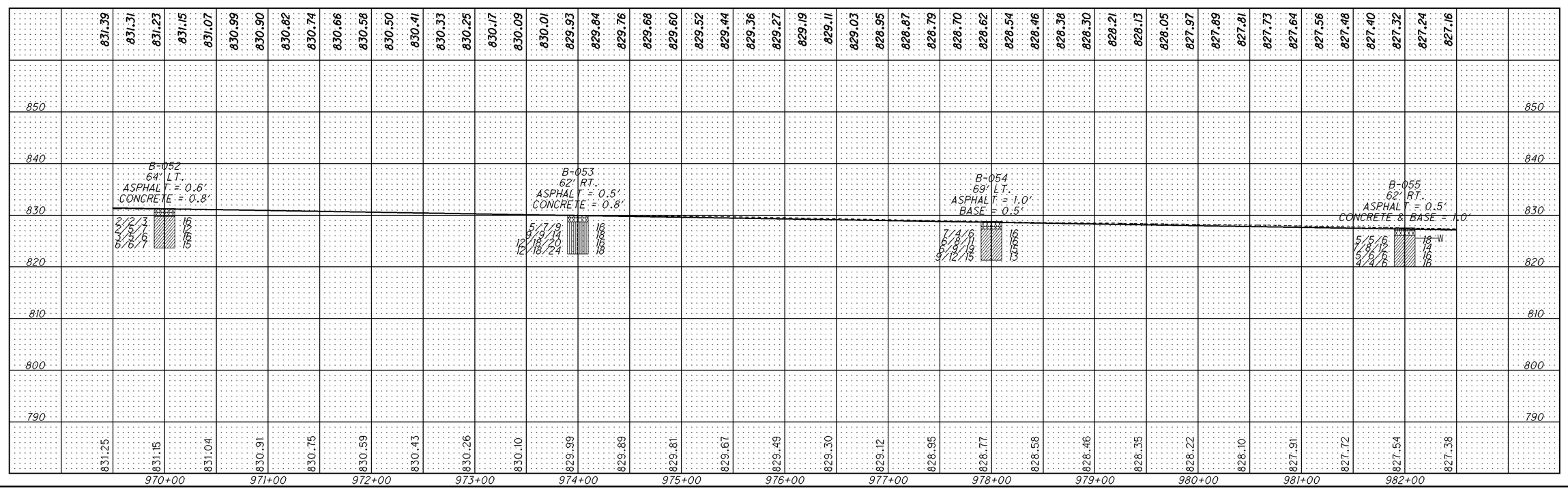






22/44	LAK-90-21.40 ATB-90-0.00	SUBGRADE EXPLORATION STA. 956+52 TO STA. 969+52	DRAWN JAG CHECKED MRS	0 25 50 100 HORIZONTAL SCALE IN FEET





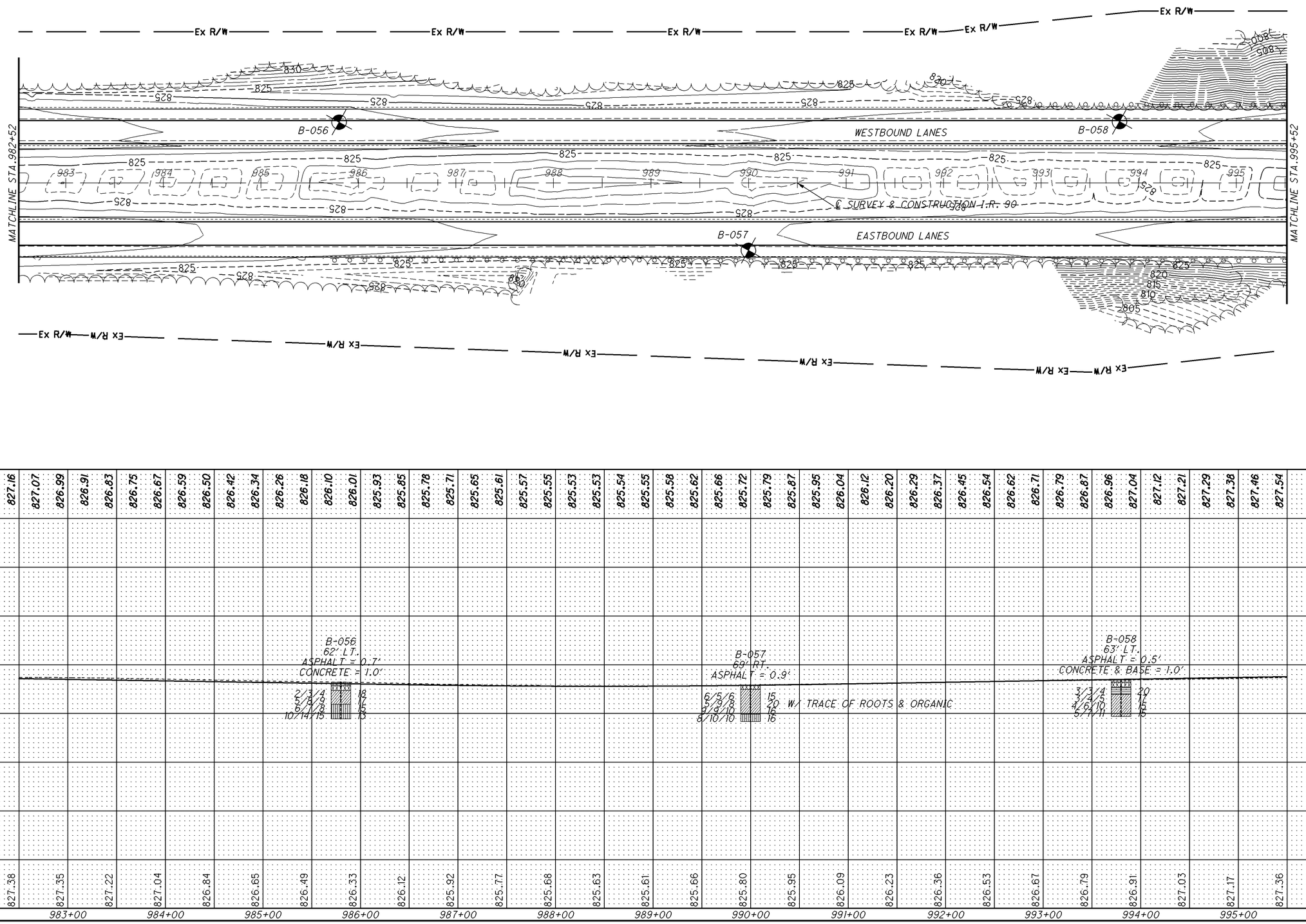
HORIZONTAL SCALE IN FEET
0 25 50 100

DRAWN JAG
CHECKED MRS

SUBGRADE EXPLORATION
STA. 969+52 TO STA. 982+52

LAK-90-21.40
ATB-90-0.00

P:\LAK\75477\Design\Roadway\GeoTech\sheets\75477IP017.dgn 08-JUL-2009 7:40AM cyount

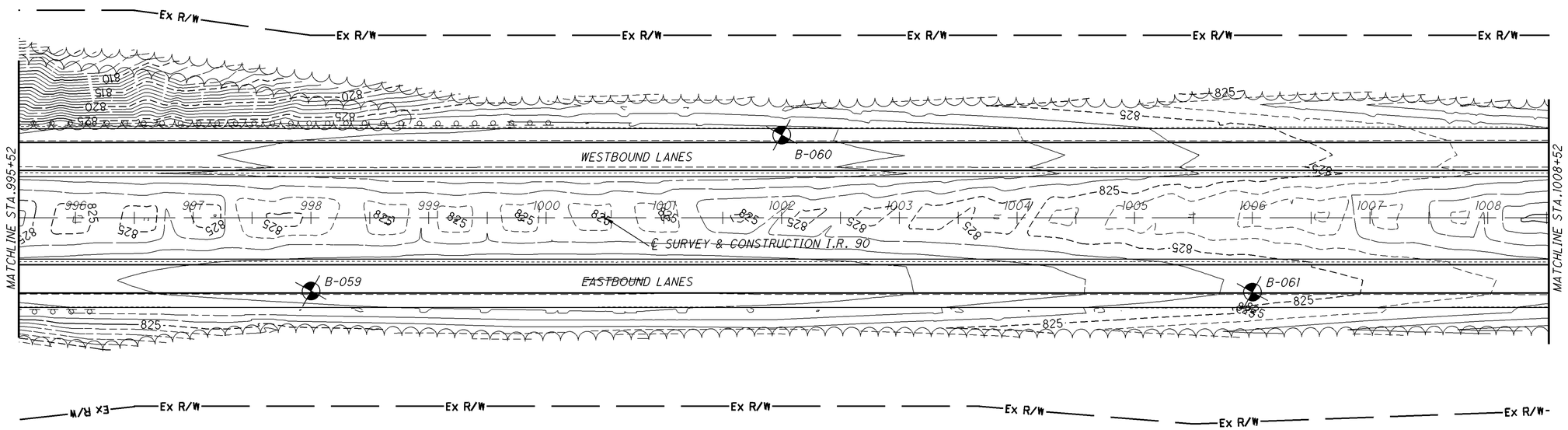


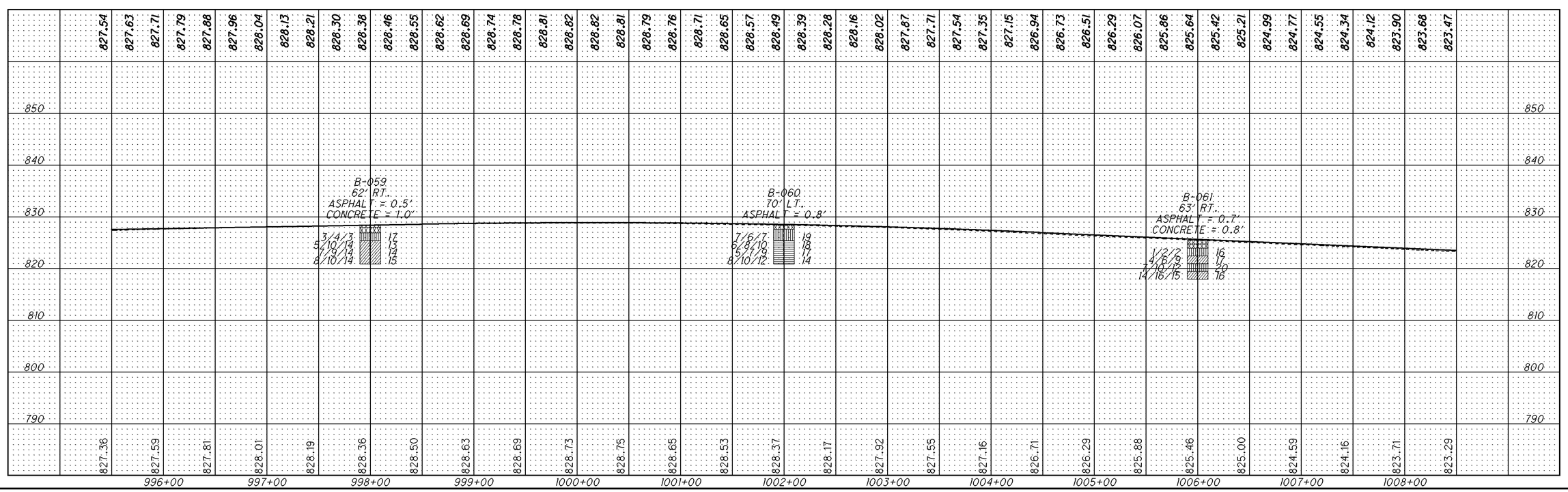
HORIZONTAL SCALE IN FEET

DRAWN JAG
CHECKED MRS

SUBGRADE EXPLORATION
STA. 982+52 TO STA. 995+52

LAK-90-21.40
ATB-90-0.00



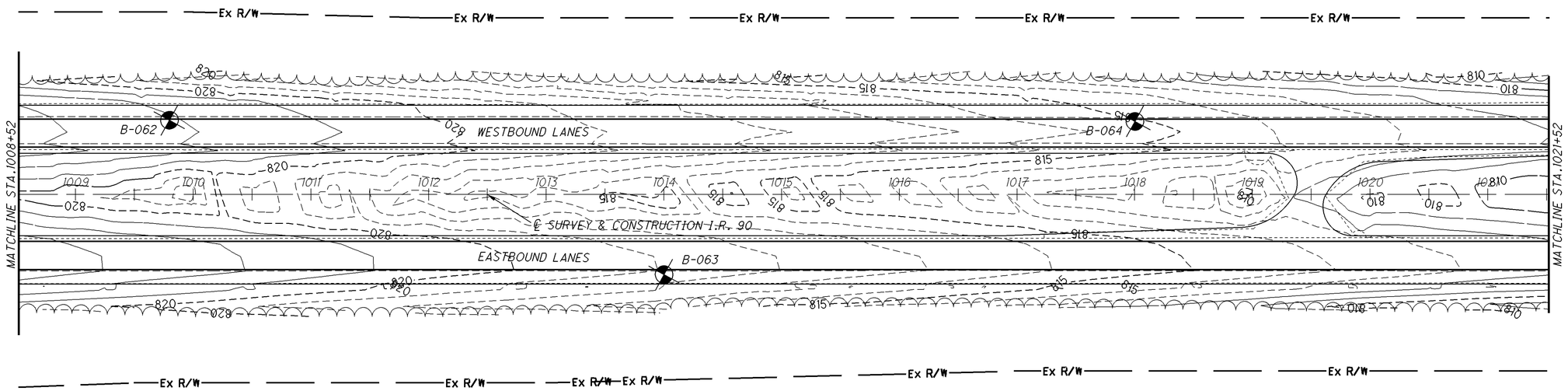


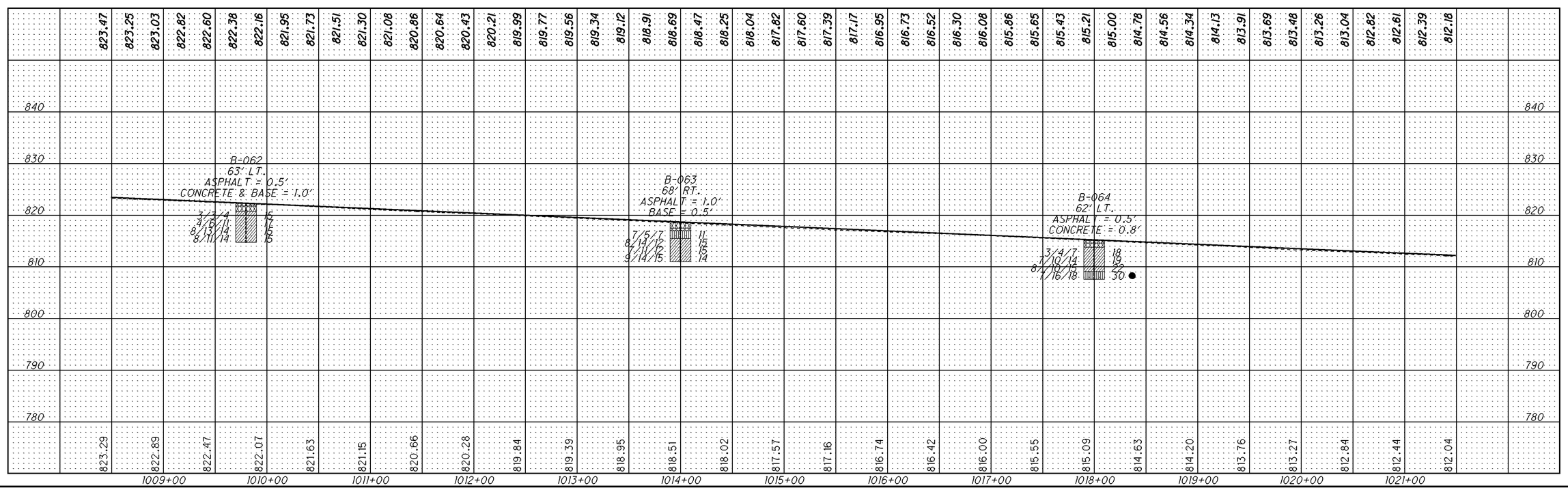
HORIZONTAL SCALE IN FEET
0 25 50 100

DRAWN JAG
CHECKED MRS

SUBGRADE EXPLORATION
STA. 995+52 TO STA. 1008+52

LAK-90-21.40
ATB-90-0.00



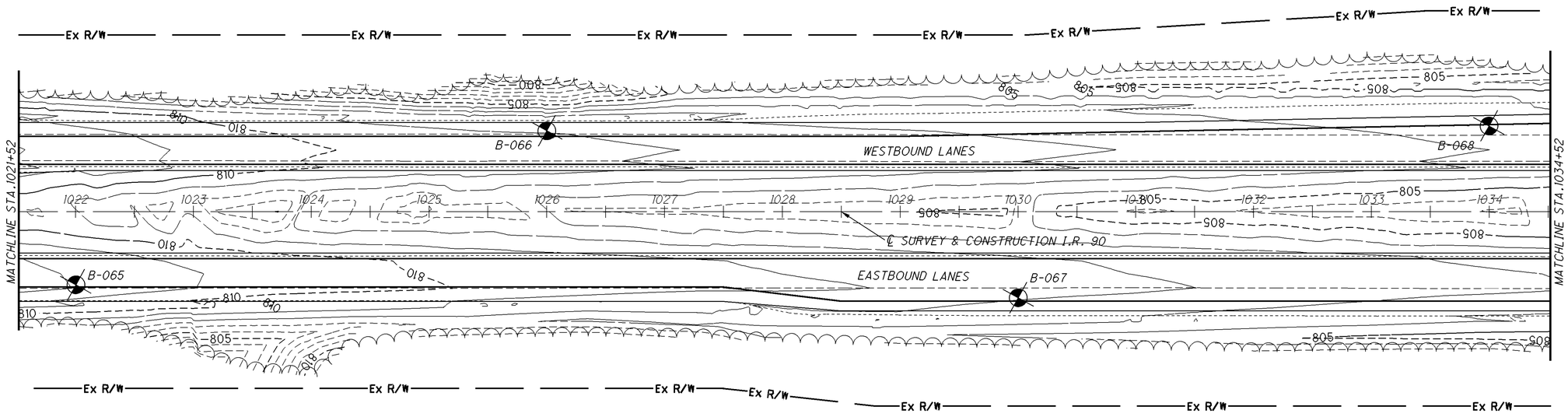


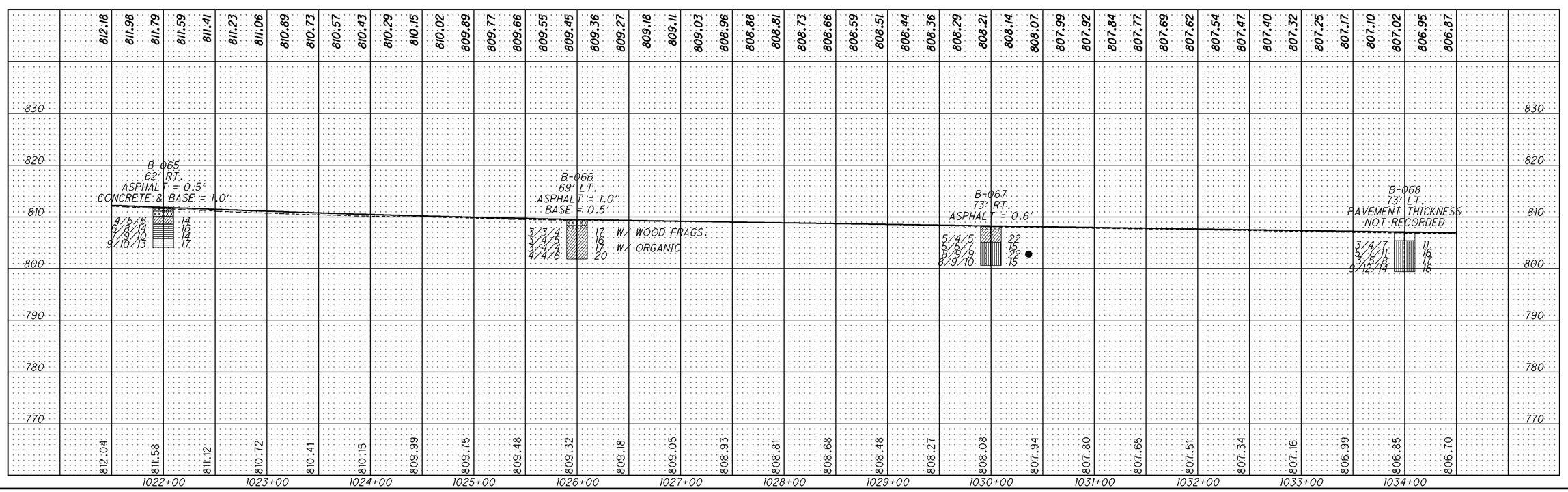
HORIZONTAL SCALE IN FEET
0 25 50 100

DRAWN JAG
CHECKED MRS

SUBGRADE EXPLORATION
STA. 1008+52 TO STA. 1021+52

LAK-90-21.40
ATB-90-0.00





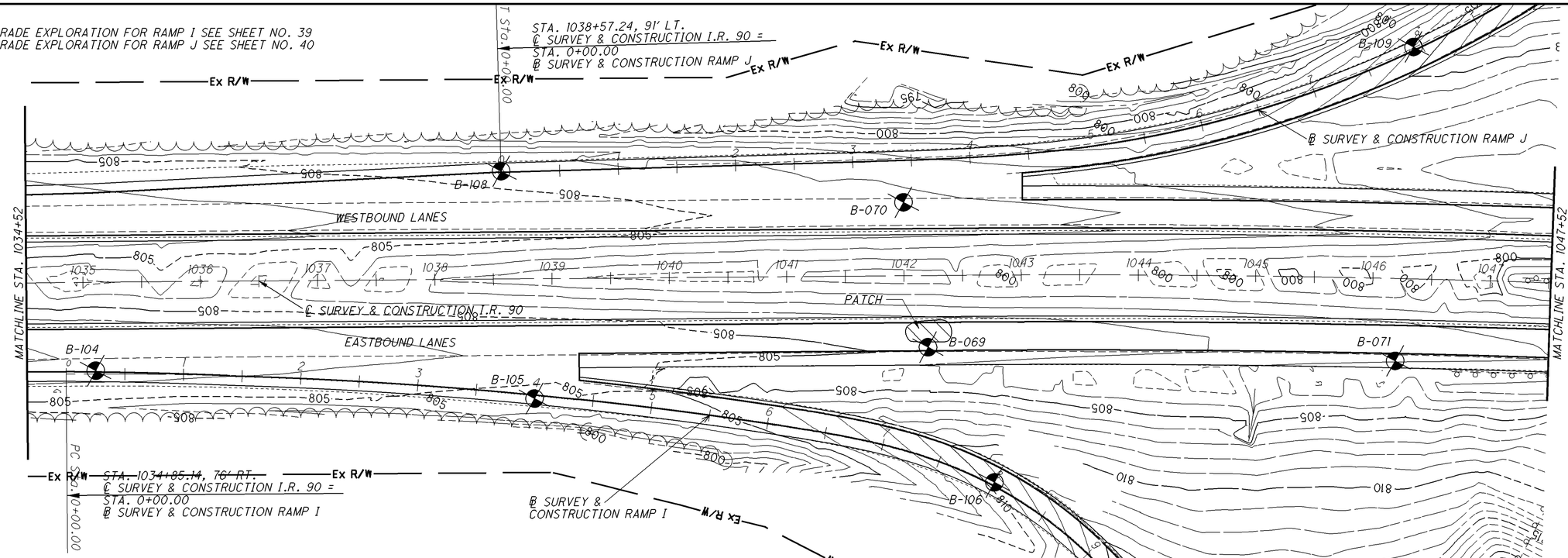
HORIZONTAL SCALE IN FEET
0 25 50 100

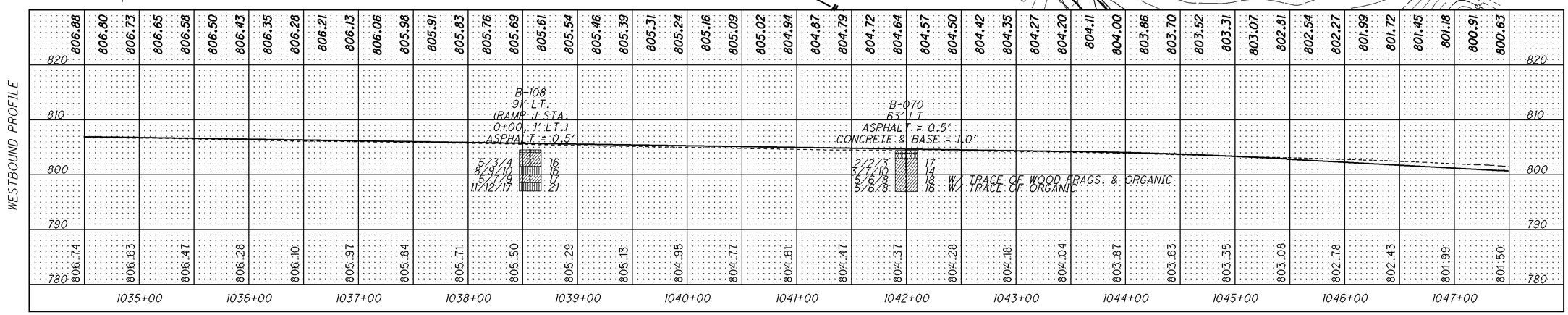
DRAWN JAG
CHECKED MRS

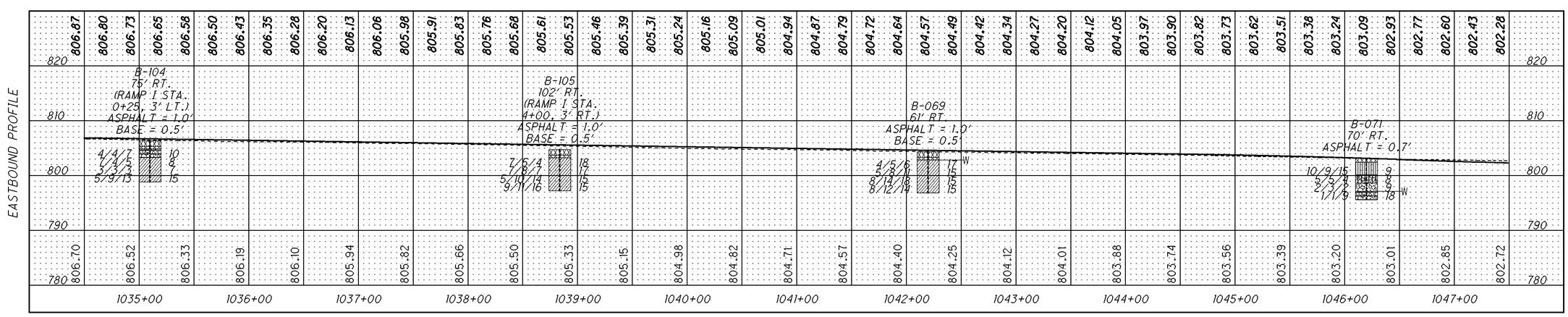
SUBGRADE EXPLORATION
STA. 1021+52 TO STA. 1034+52

LAK-90-21.40
ATB-90-0.00

FOR SUBGRADE EXPLORATION FOR RAMP I SEE SHEET NO. 39
FOR SUBGRADE EXPLORATION FOR RAMP J SEE SHEET NO. 40





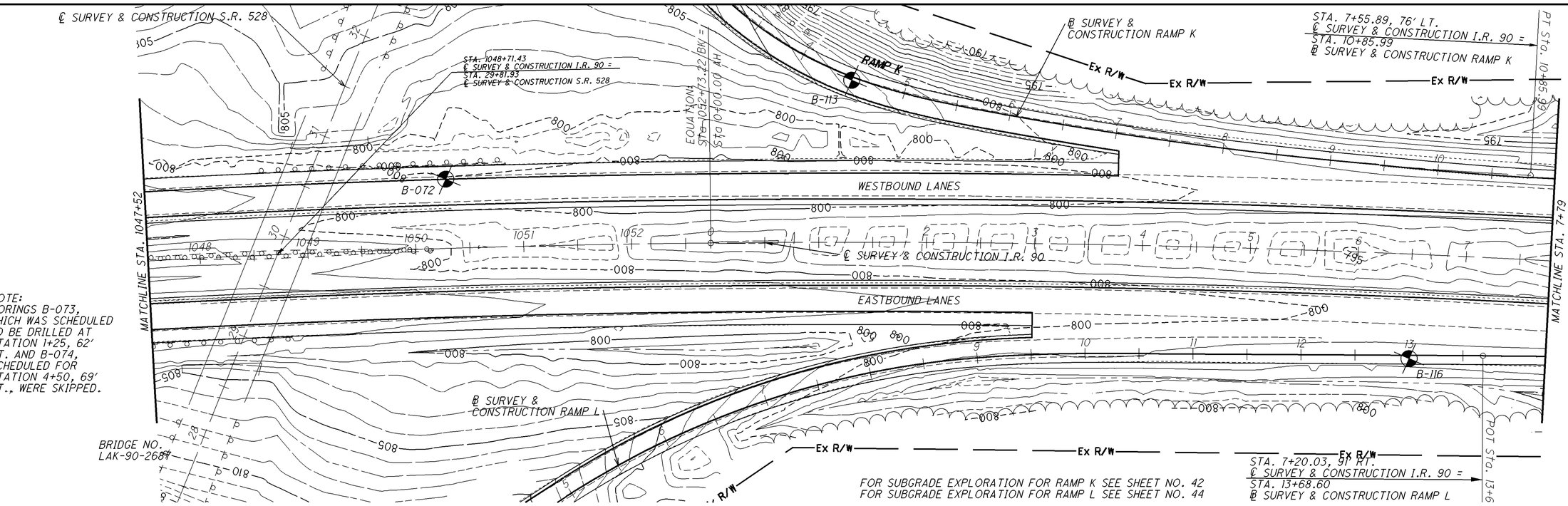


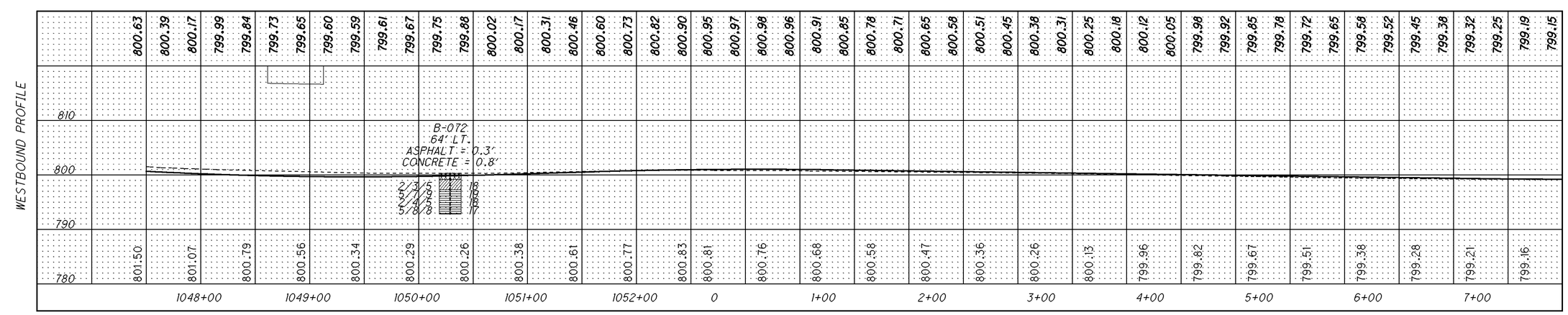
HORIZONTAL SCALE IN FEET
0 25 50 100

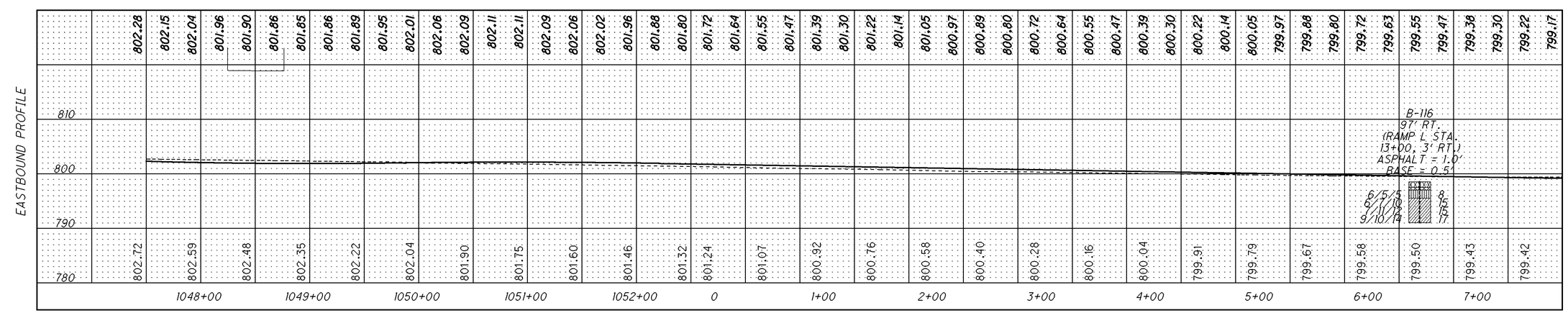
DRAWN JAG
CHECKED MRS

SUBGRADE EXPLORATION
STA. 1034+52 TO STA. 1047+52

LAK-90-21.40
ATB-90-0.00





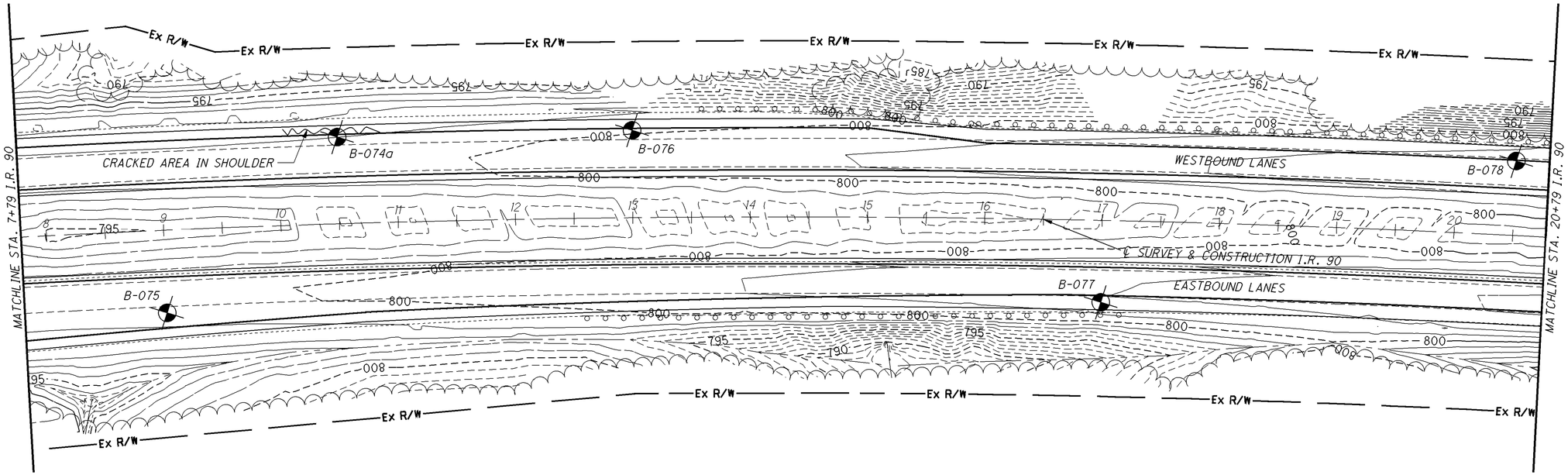


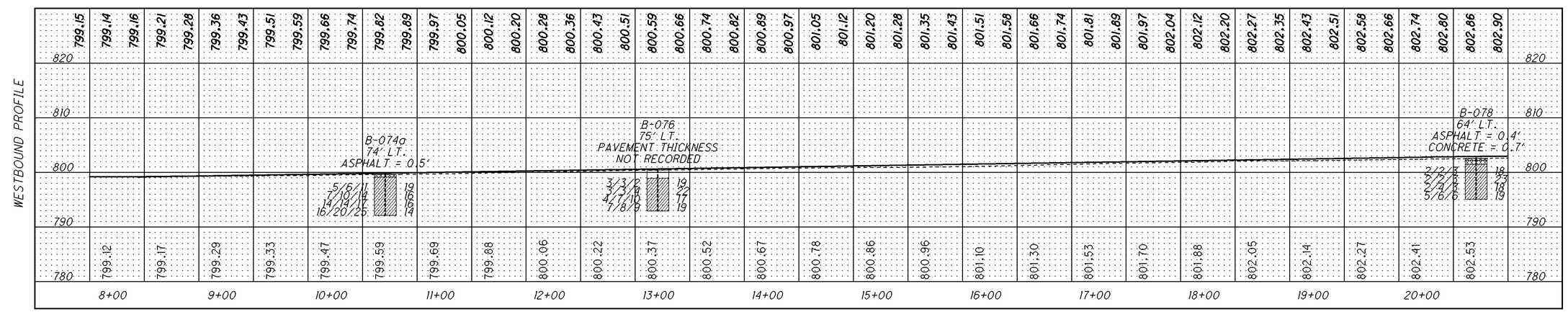
HORIZONTAL SCALE IN FEET
0 25 50 100

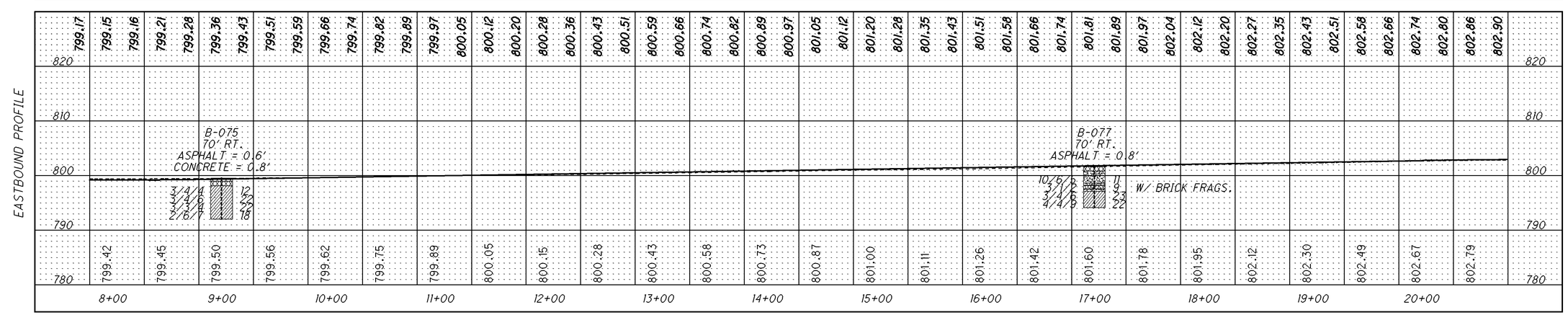
DRAWN JAG
CHECKED MRS

SUBGRADE EXPLORATION
STA. 1047+52 TO STA. 7+79

LAK-90-21.40
ATB-90-0.00





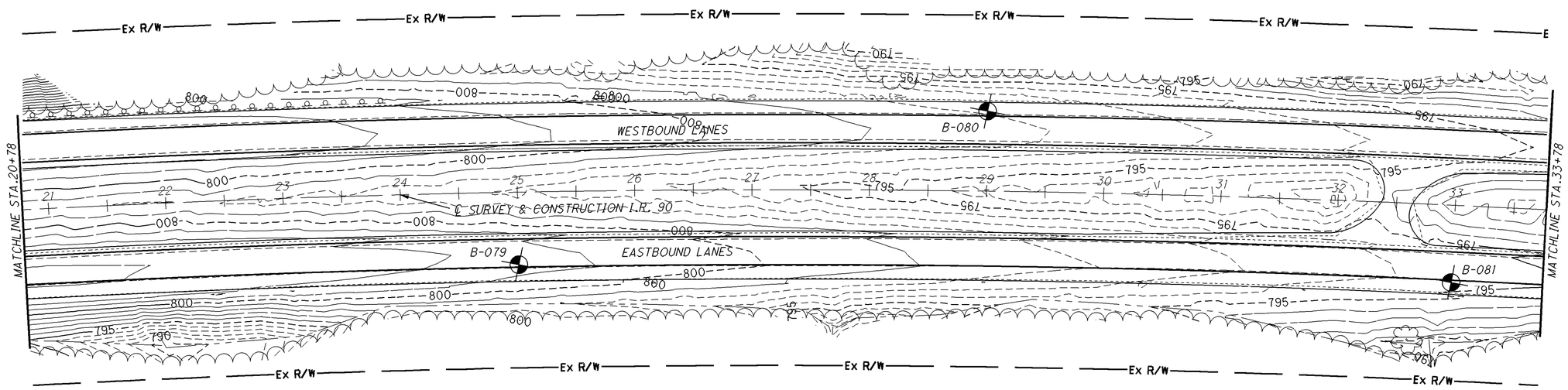


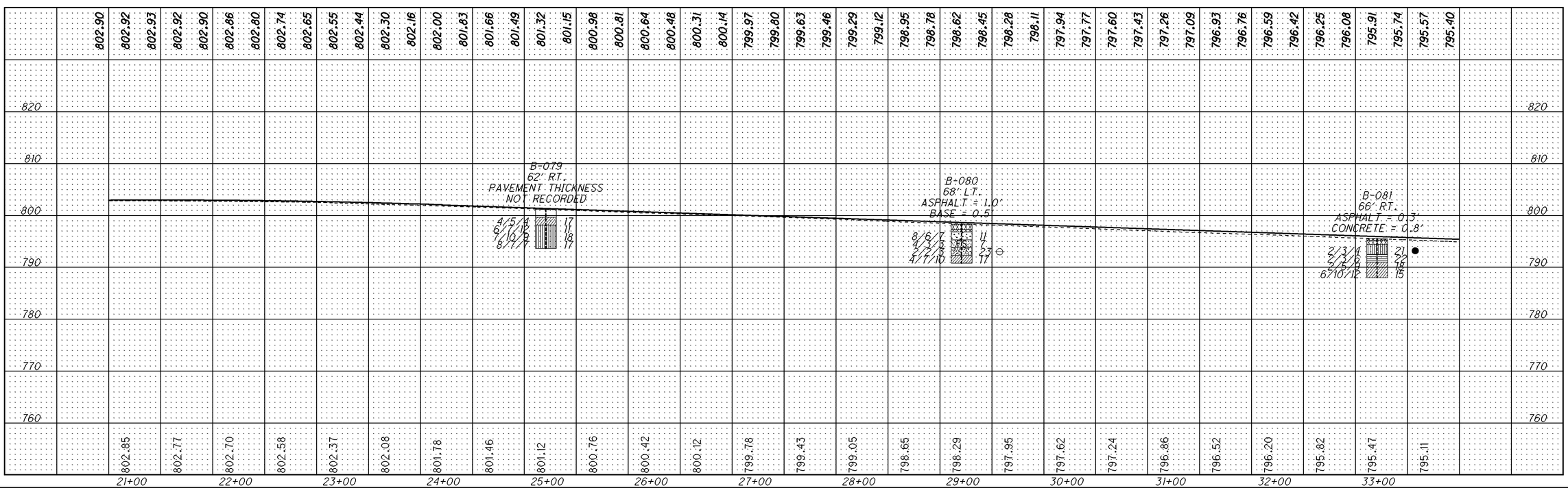
HORIZONTAL SCALE IN FEET

DRAWN JAG
CHECKED MRS

SUBGRADE EXPLORATION
STA. 7+78 TO STA. 20+78

LAK-90-21.40
ATB-90-0.00



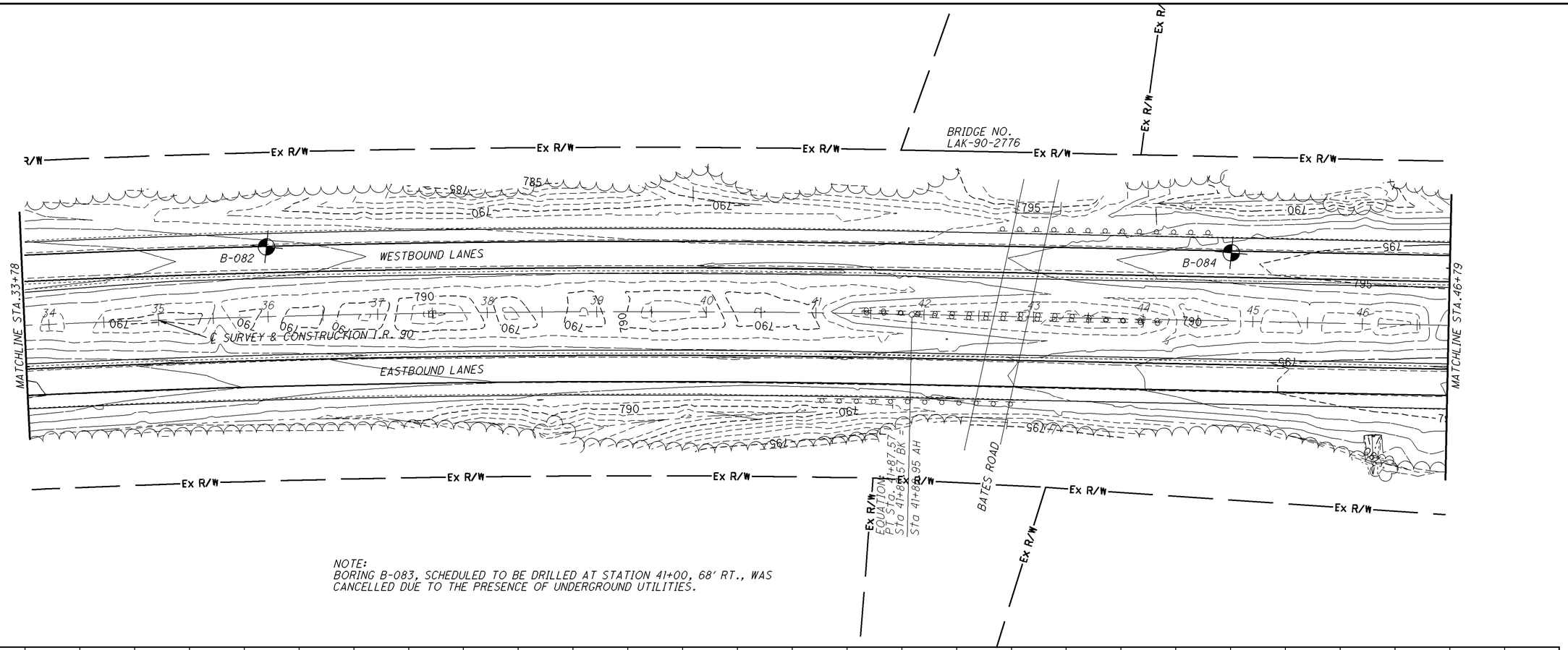


HORIZONTAL SCALE IN FEET
0 25 50 100

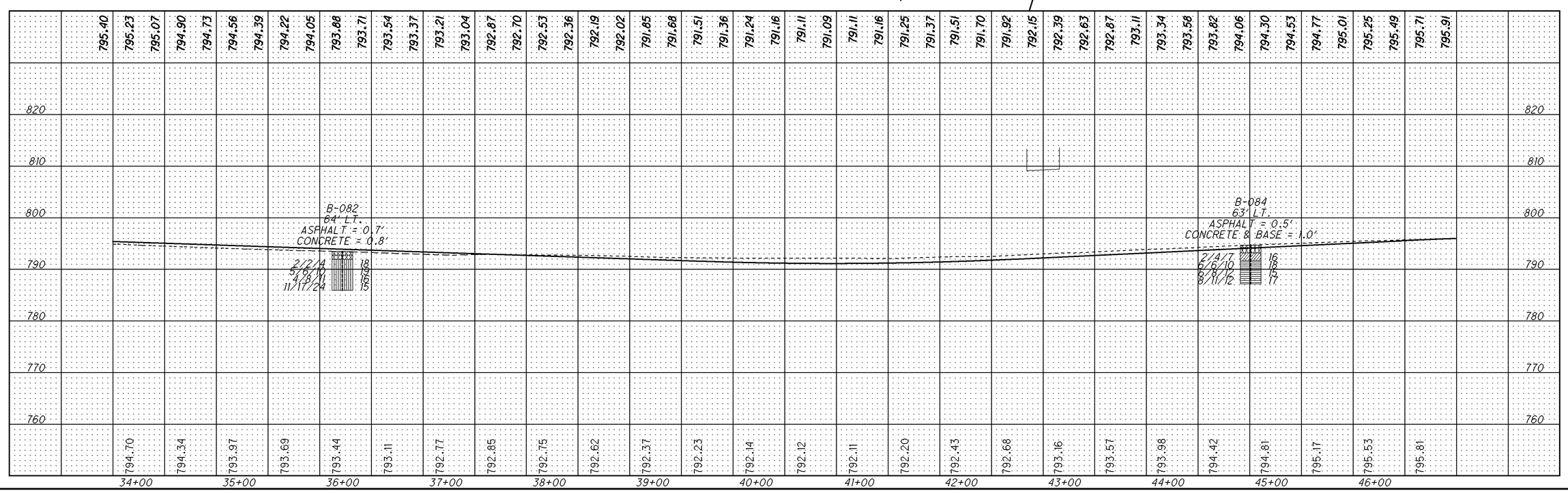
DRAWN JAG
CHECKED MRS

SUBGRADE EXPLORATION
STA. 20+78 TO STA. 33+78

LAK-90-21.40
ATB-90-0.00



NOTE:
BORING B-083, SCHEDULED TO BE DRILLED AT STATION 41+00, 68' RT., WAS CANCELLED DUE TO THE PRESENCE OF UNDERGROUND UTILITIES.

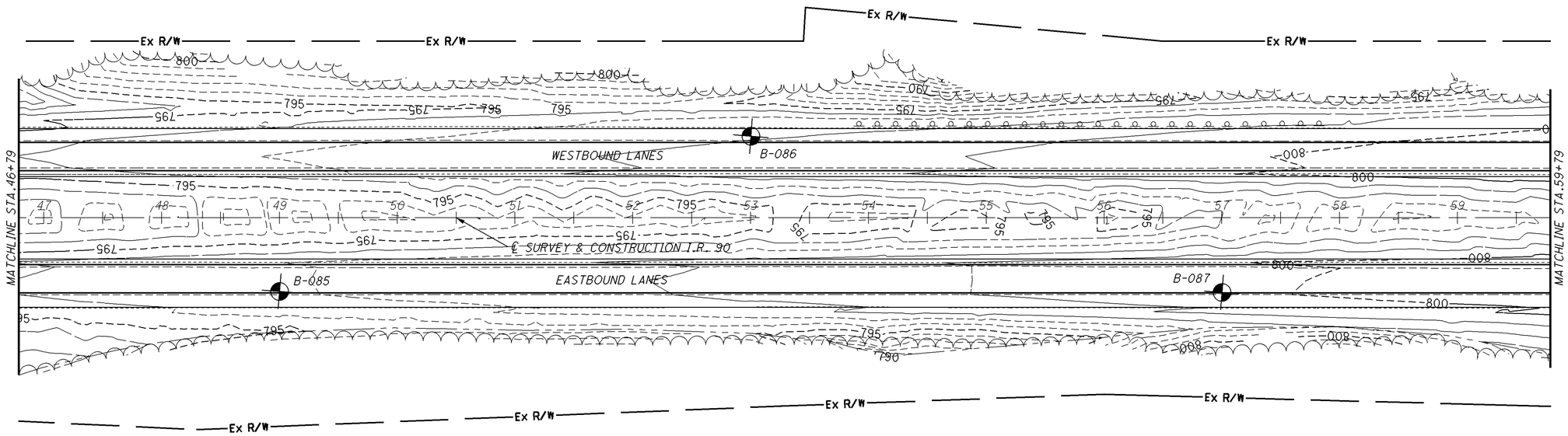


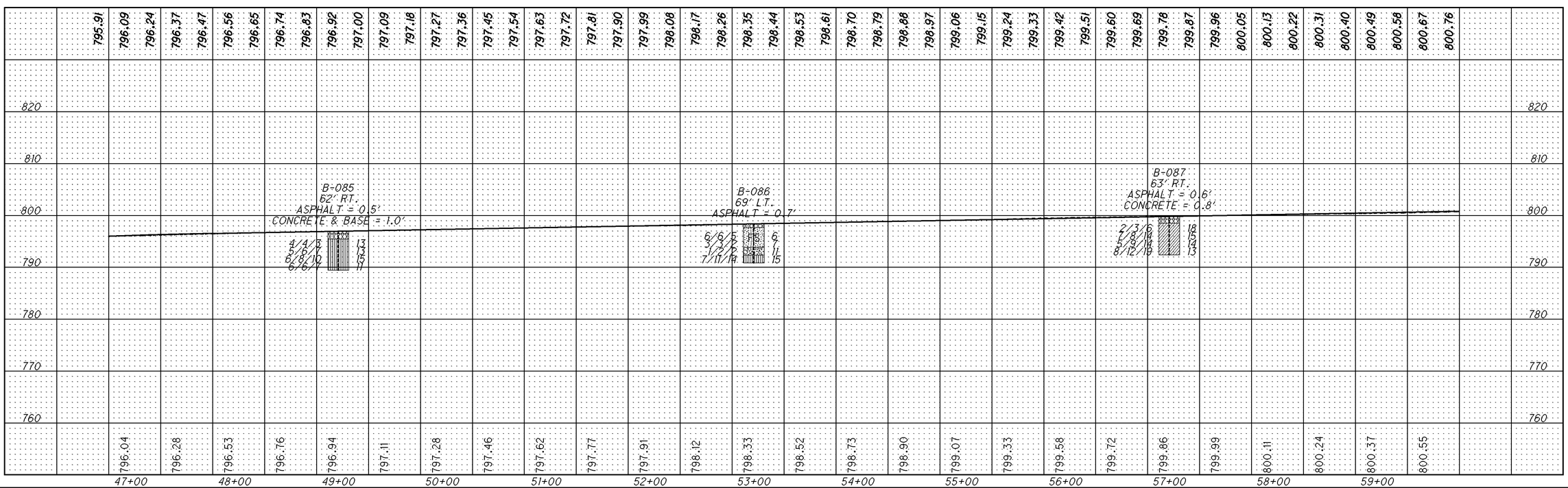
HORIZONTAL SCALE IN FEET
0 25 50 100

DRAWN JAG
CHECKED MRS

SUBGRADE EXPLORATION
STA. 33+78 TO STA. 46+79

LAK-90-21.40
ATB-90-0.00



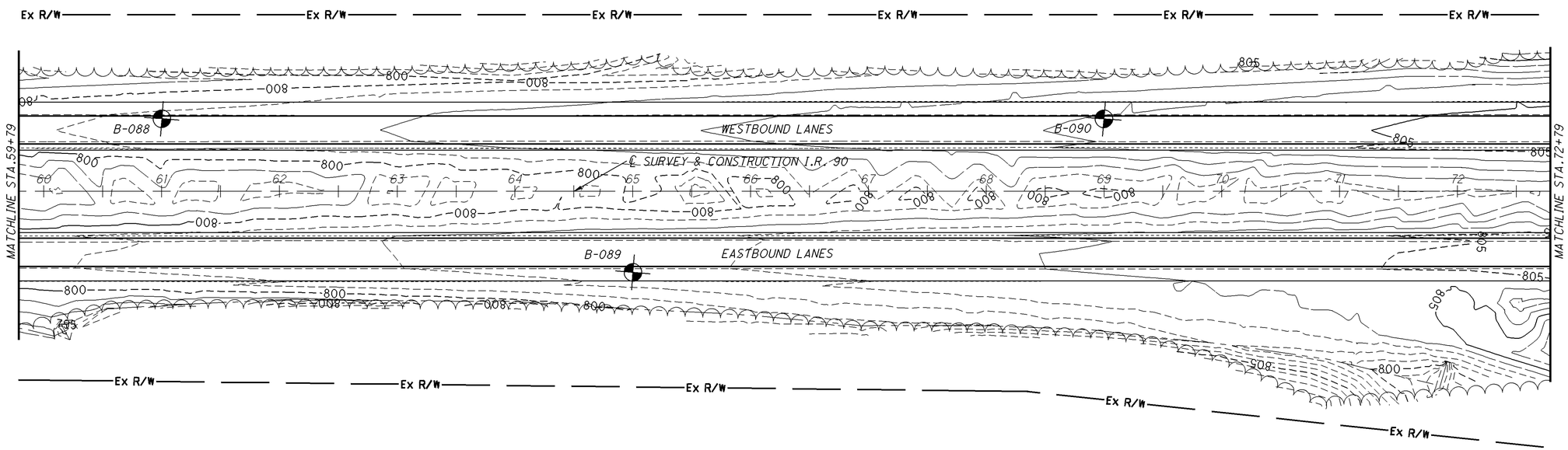


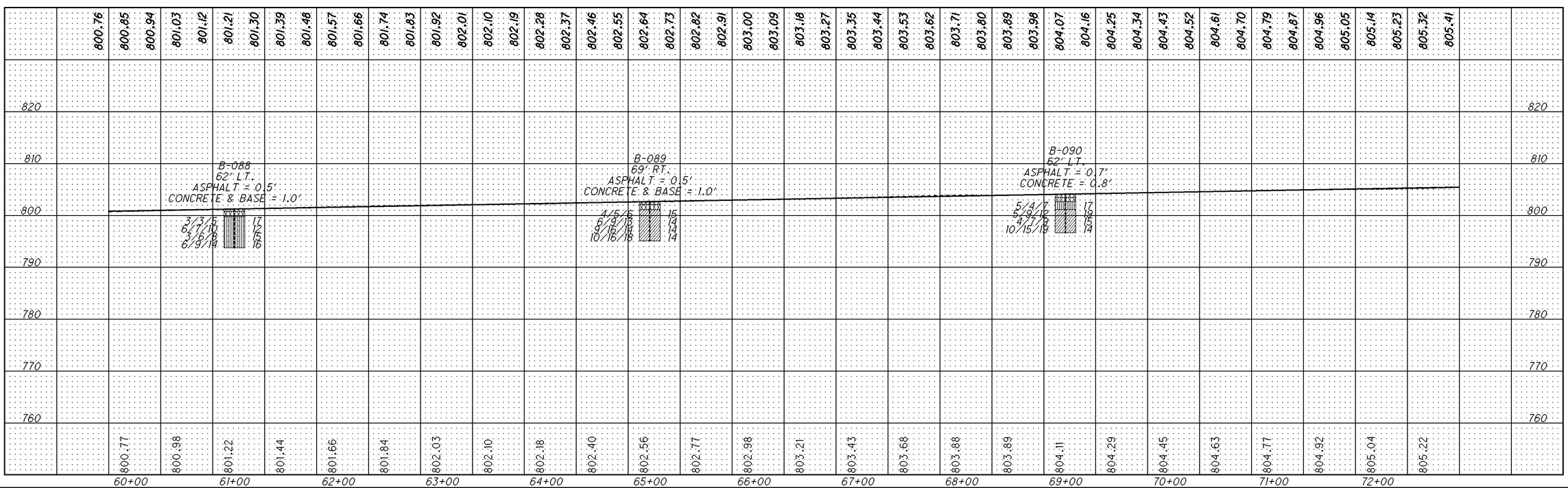
HORIZONTAL SCALE IN FEET
0 25 50 100

DRAWN JAG
CHECKED MRS

SUBGRADE EXPLORATION
STA. 46+79 TO STA. 59+79

LAK-90-21.40
ATB-90-0.00



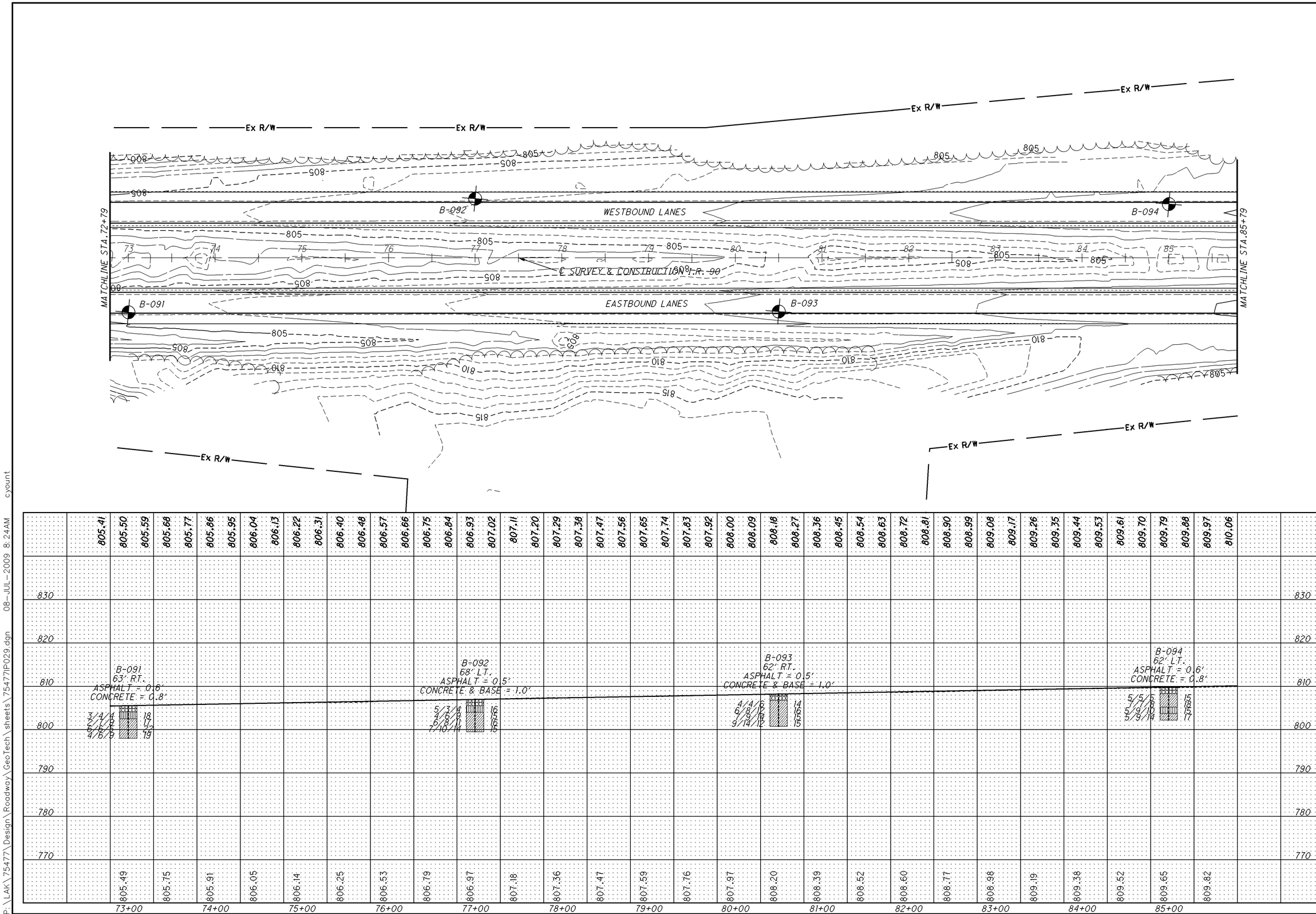


HORIZONTAL SCALE IN FEET
0 25 50 100

DRAWN JAG
CHECKED MRS

SUBGRADE EXPLORATION
STA. 59+79 TO STA. 72+79

LAK-90-21.40
ATB-90-0.00

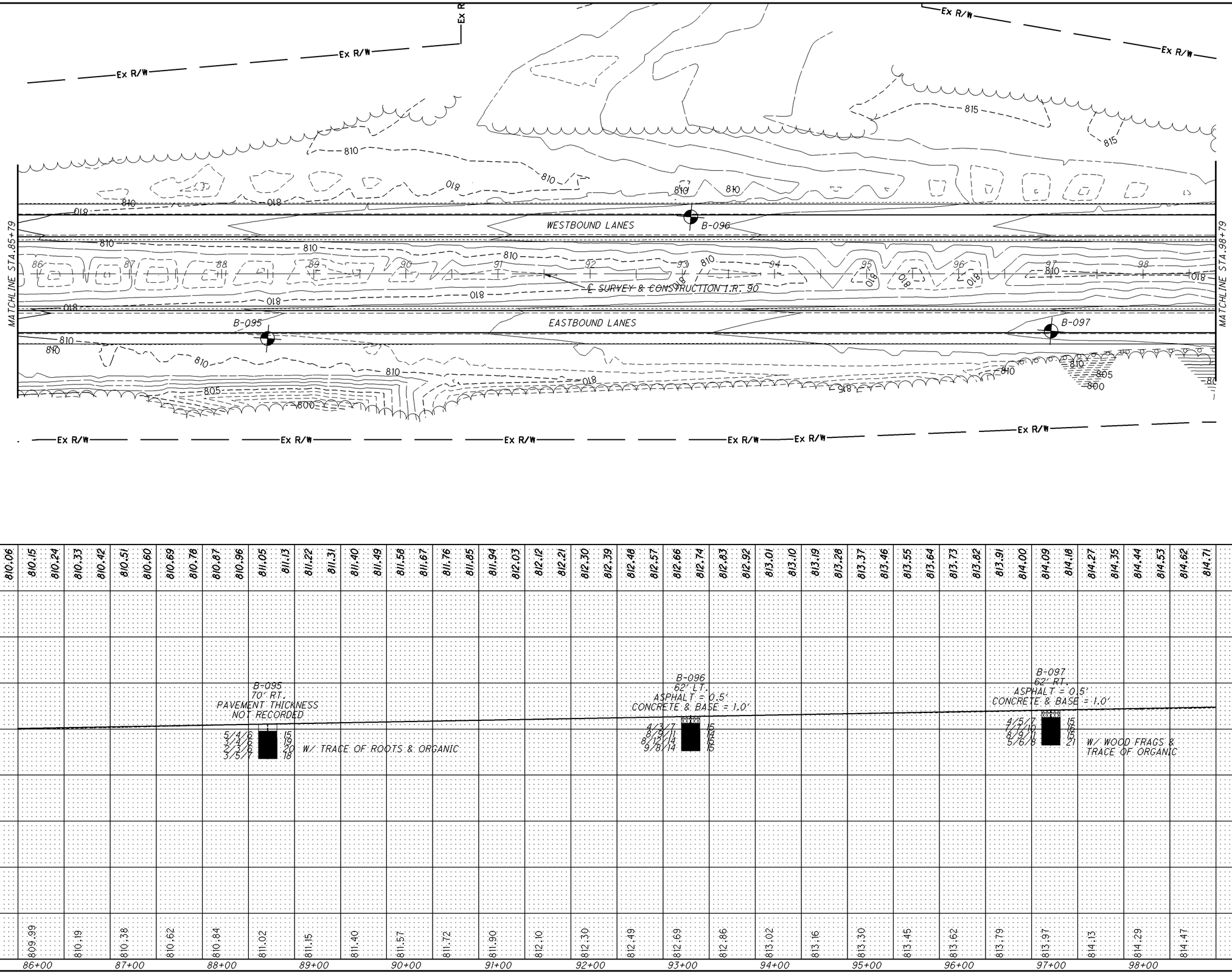


HORIZONTAL SCALE IN FEET

DRAWN JAG
CHECKED MRS

SUBGRADE EXPLORATION
STA. 72+79 TO STA. 85+79

LAK-90-21.40
ATB-90-0.00

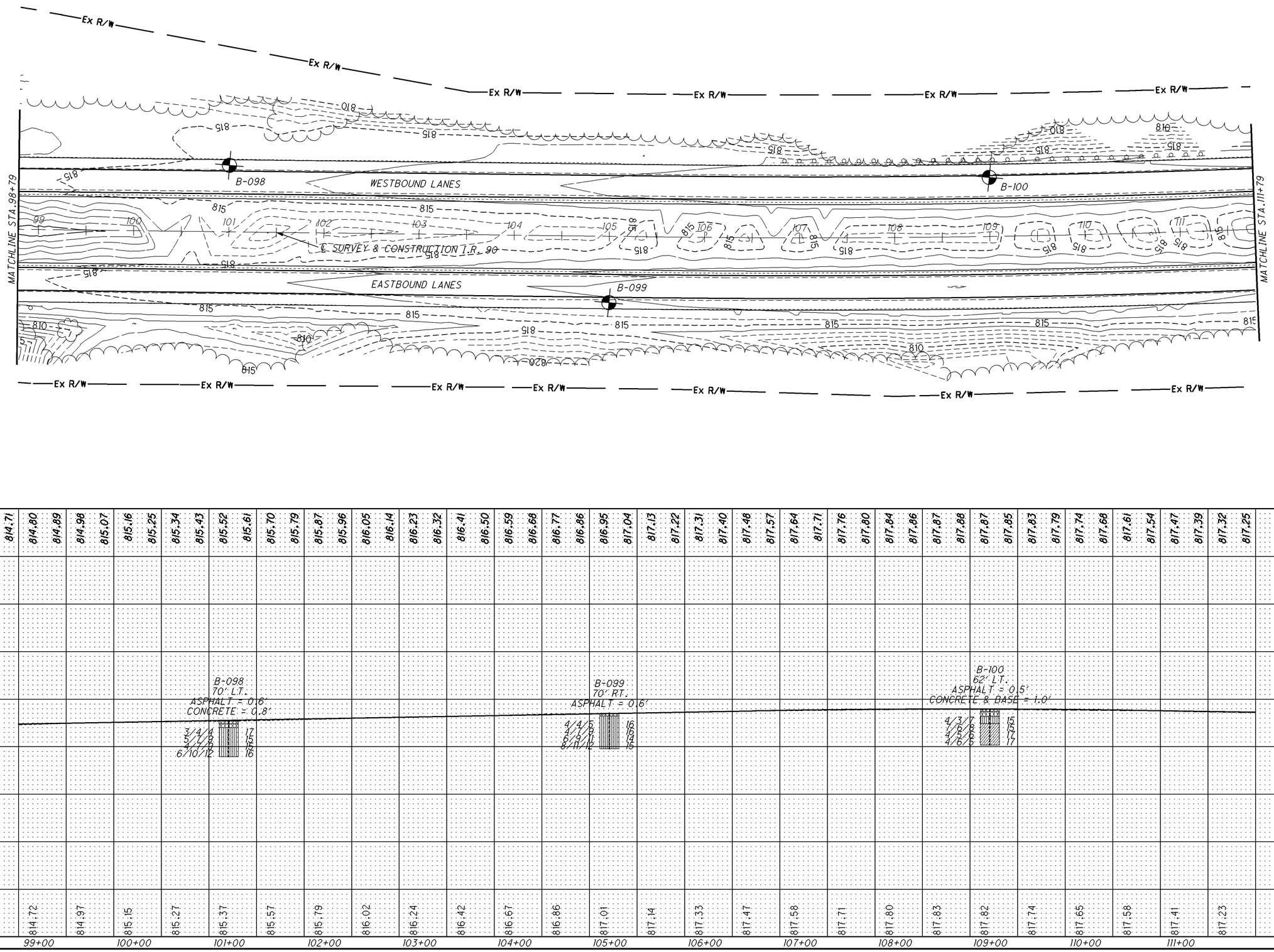


HORIZONTAL SCALE IN FEET

DRAWN JAG
CHECKED MRS

SUBGRADE EXPLORATION
STA. 85+79 TO STA. 98+79

LAK-90-21.40
ATB-90-0.00



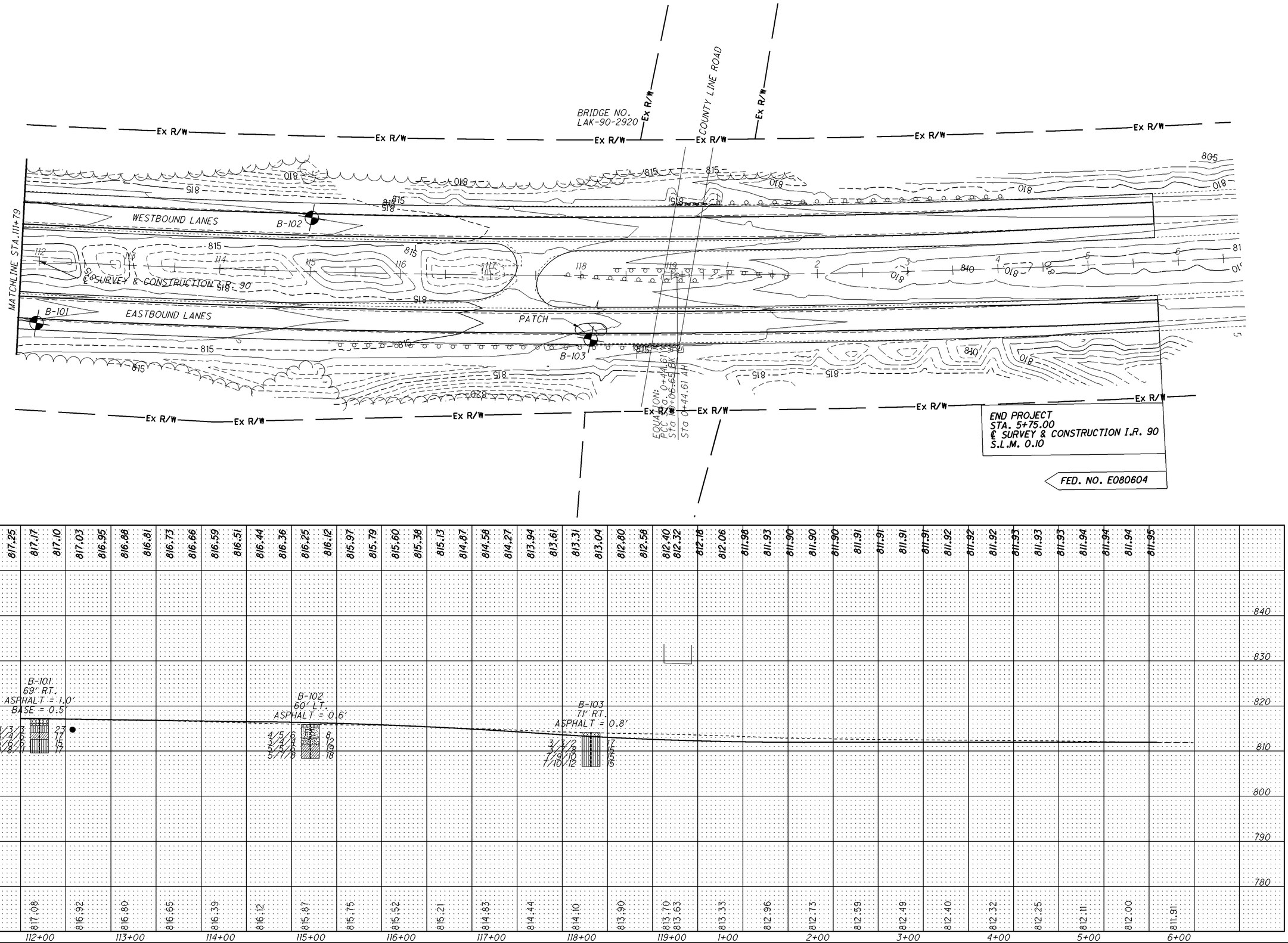
HORIZONTAL SCALE IN FEET

0 25 50 100

DRAWN JAG
CHECKED MRS

SUBGRADE EXPLORATION
STA. 98+79 TO STA. 111+79

LAK-90-21.40
ATB-90-0.00

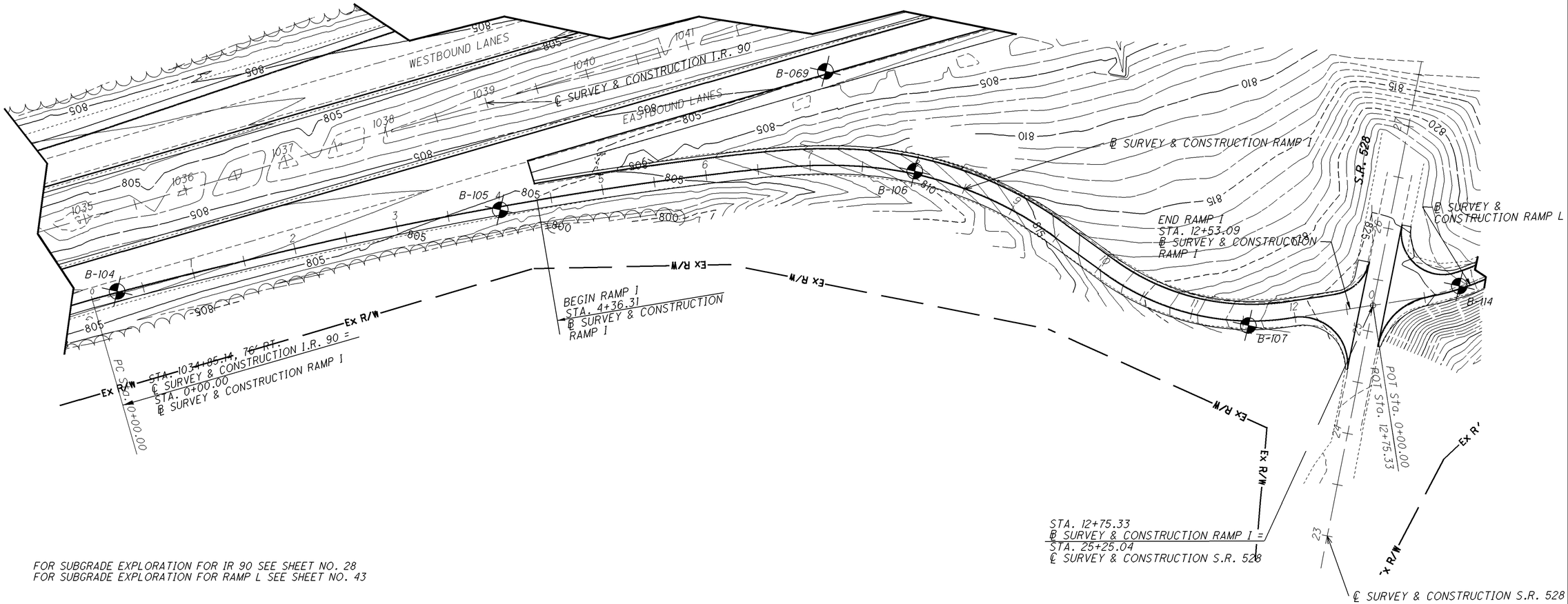


HORIZONTAL SCALE IN FEET
0 25 50 100

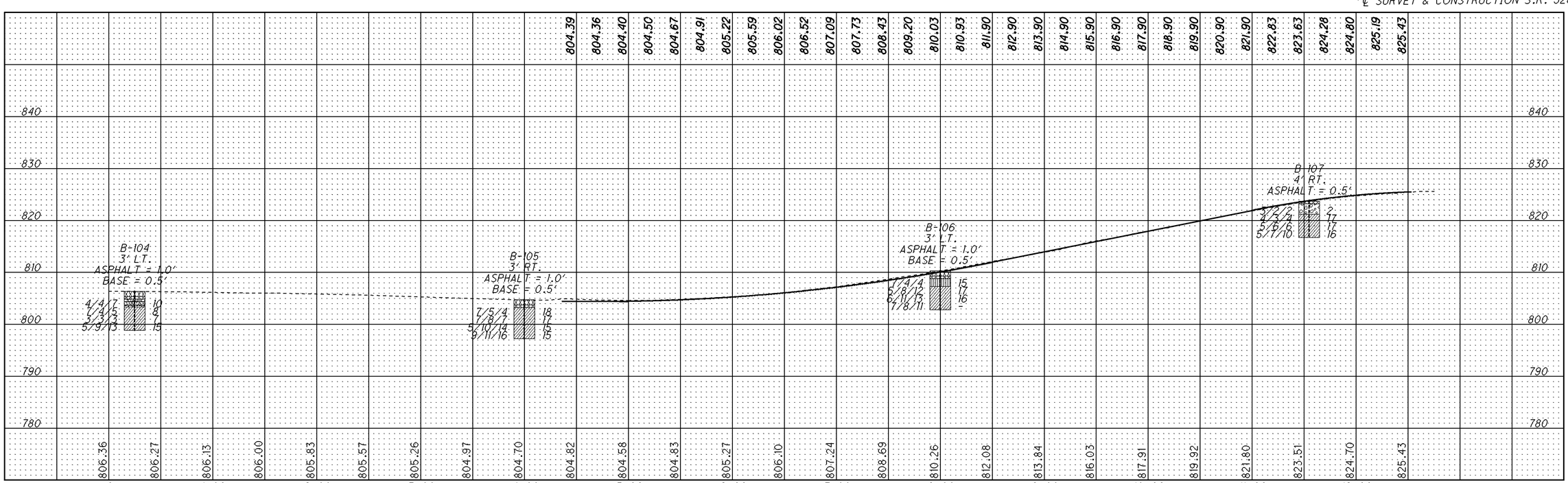
DRAWN JAG
CHECKED MRS

SUBGRADE EXPLORATION
STA. 111+79 TO STA. 6+16

LAK-90-21.40
ATB-90-0.00



FOR SUBGRADE EXPLORATION FOR IR 90 SEE SHEET NO. 28
FOR SUBGRADE EXPLORATION FOR RAMP L SEE SHEET NO. 43



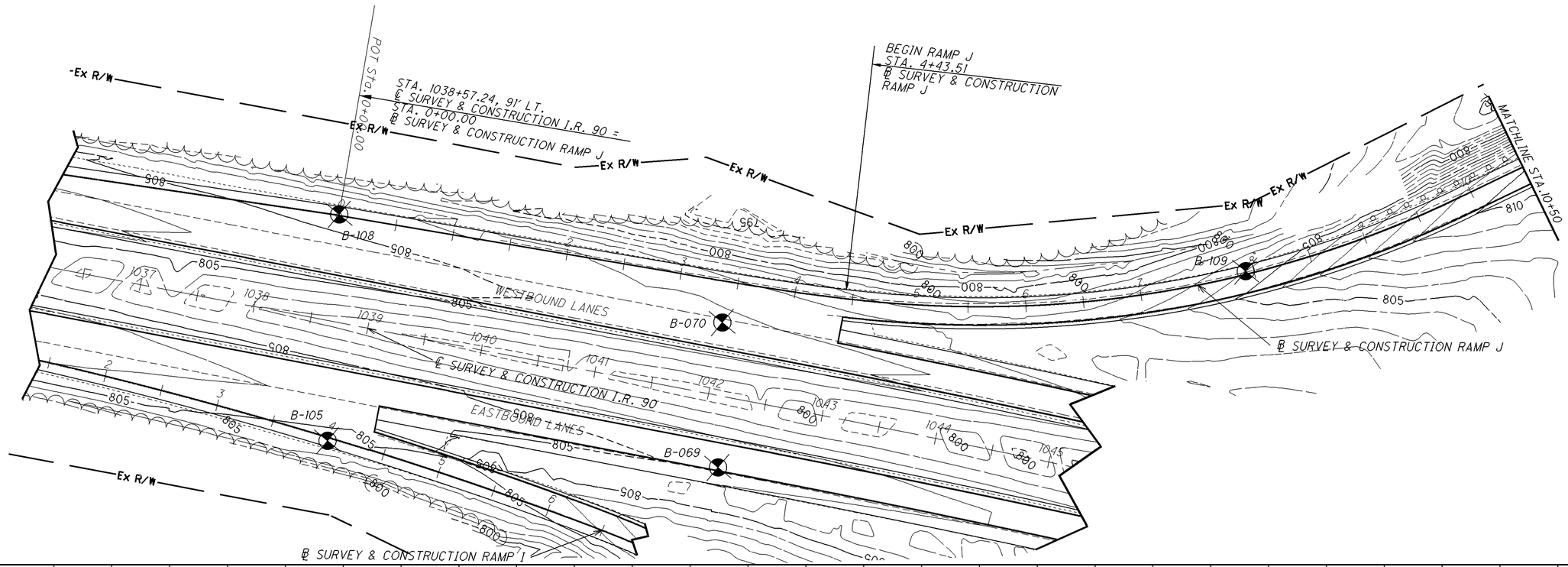
HORIZONTAL SCALE IN FEET
0 25 50 100

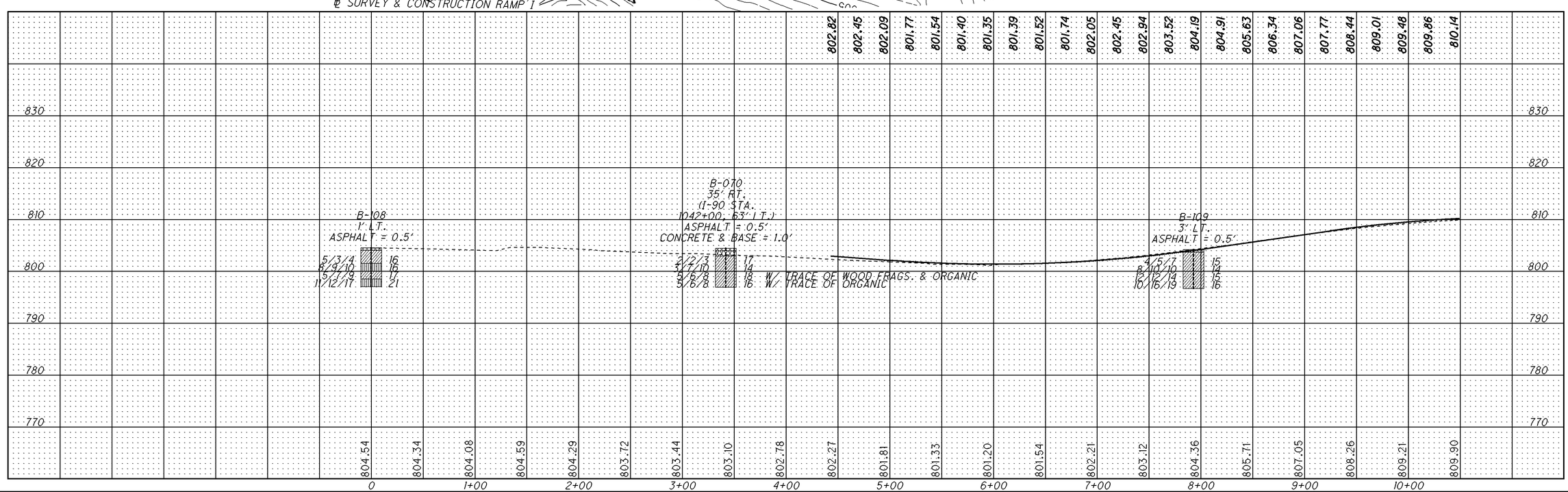
DRAWN JAG
CHECKED MRS

SUBGRADE EXPLORATION - RAMP I
STA. 4+36.31 TO STA. 12+53.09

LAK-90-21.40
ATB-90-0.00

FOR SUBGRADE EXPLORATION FOR IR 90 SEE SHEET NO. 28
FOR SUBGRADE EXPLORATION FOR RAMP I SEE SHEET NO. 39





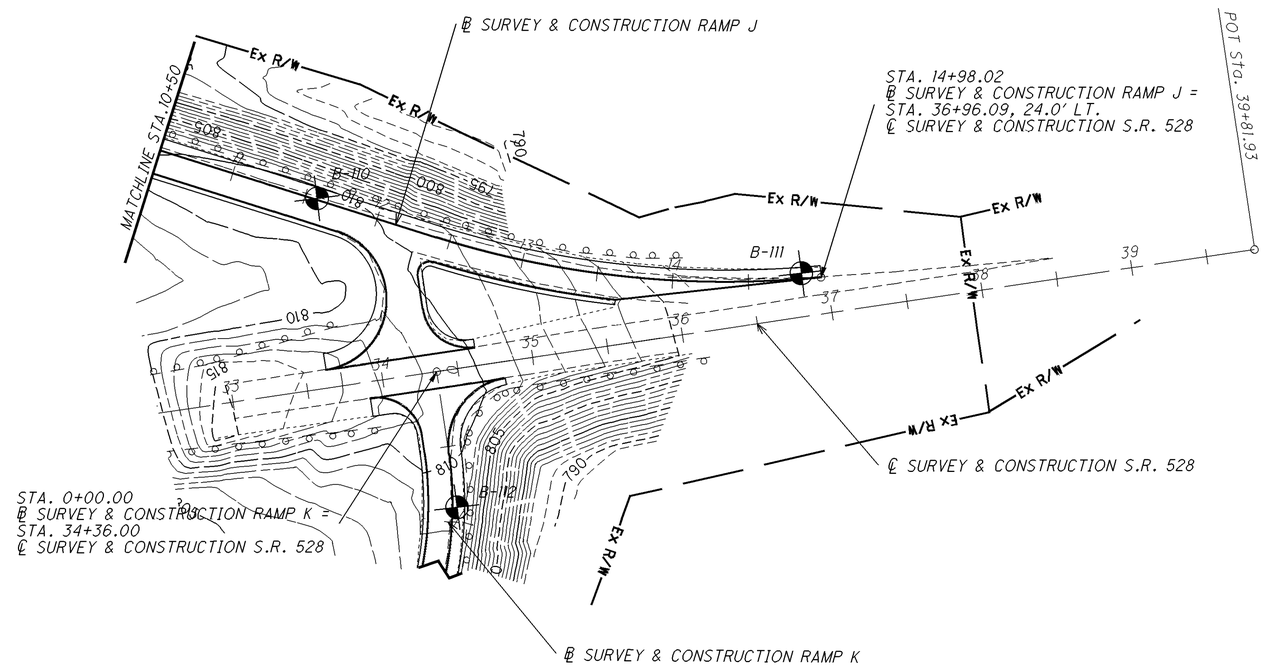
HORIZONTAL SCALE IN FEET
0 25 50 100

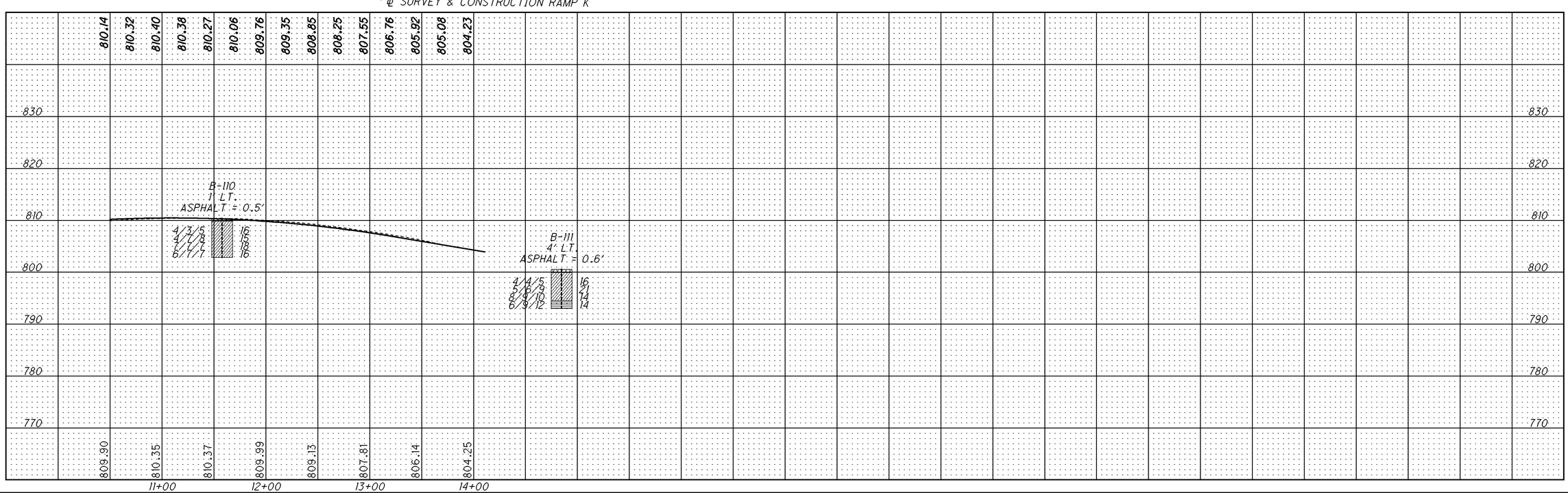
DRAWN JAG
CHECKED MRS

SUBGRADE EXPLORATION - RAMP J
STA. 4+43.51 TO STA. 10+50.00

LAK-90-21.40
ATB-90-0.00

FOR SUBGRADE EXPLORATION FOR RAMP K SEE SHEET NO. 42





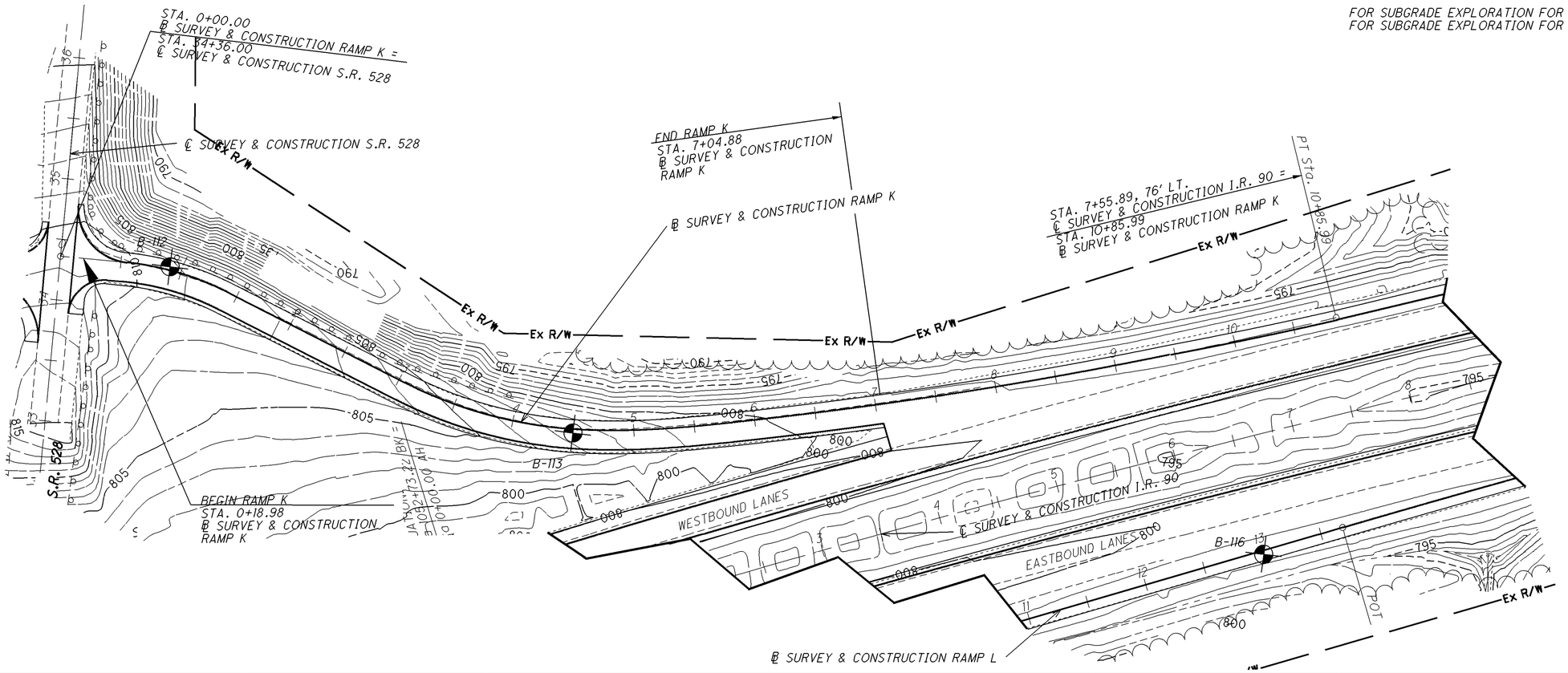
HORIZONTAL SCALE IN FEET
0 25 50 100

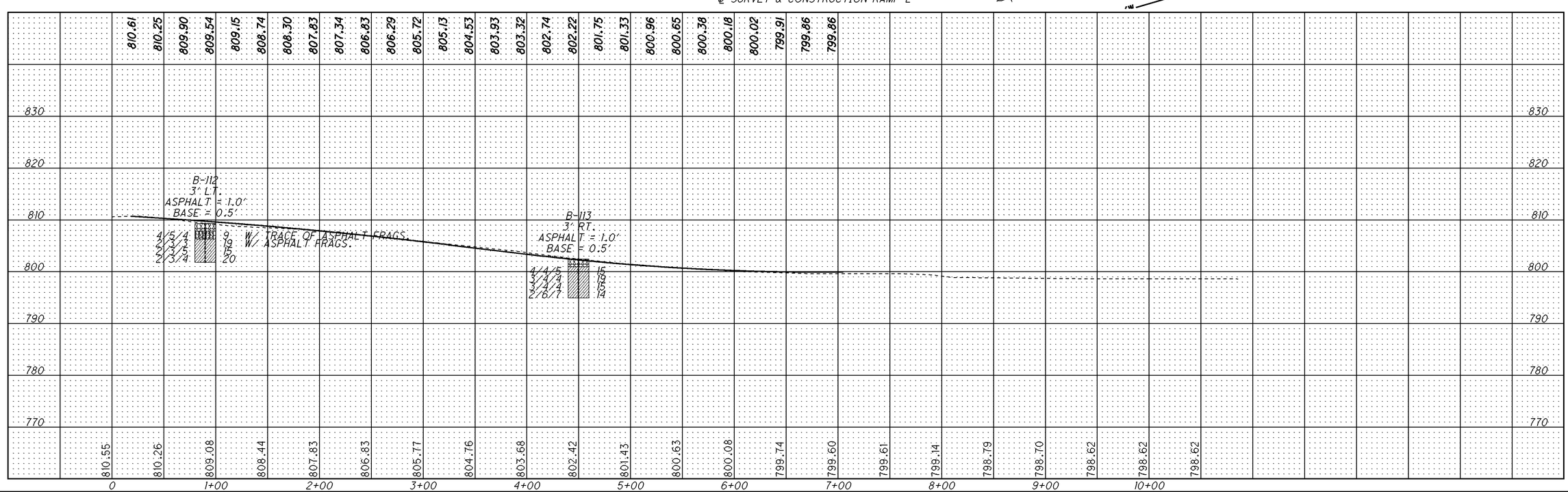
DRAWN JAG
CHECKED MRS

SUBGRADE EXPLORATION - RAMP J
STA. 10+50.00 TO STA. 14+98.02

LAK-90-21.40
ATB-90-0.00

FOR SUBGRADE EXPLORATION FOR IR 90 SEE SHEET NO. 29
FOR SUBGRADE EXPLORATION FOR RAMP L SEE SHEET NO. 44



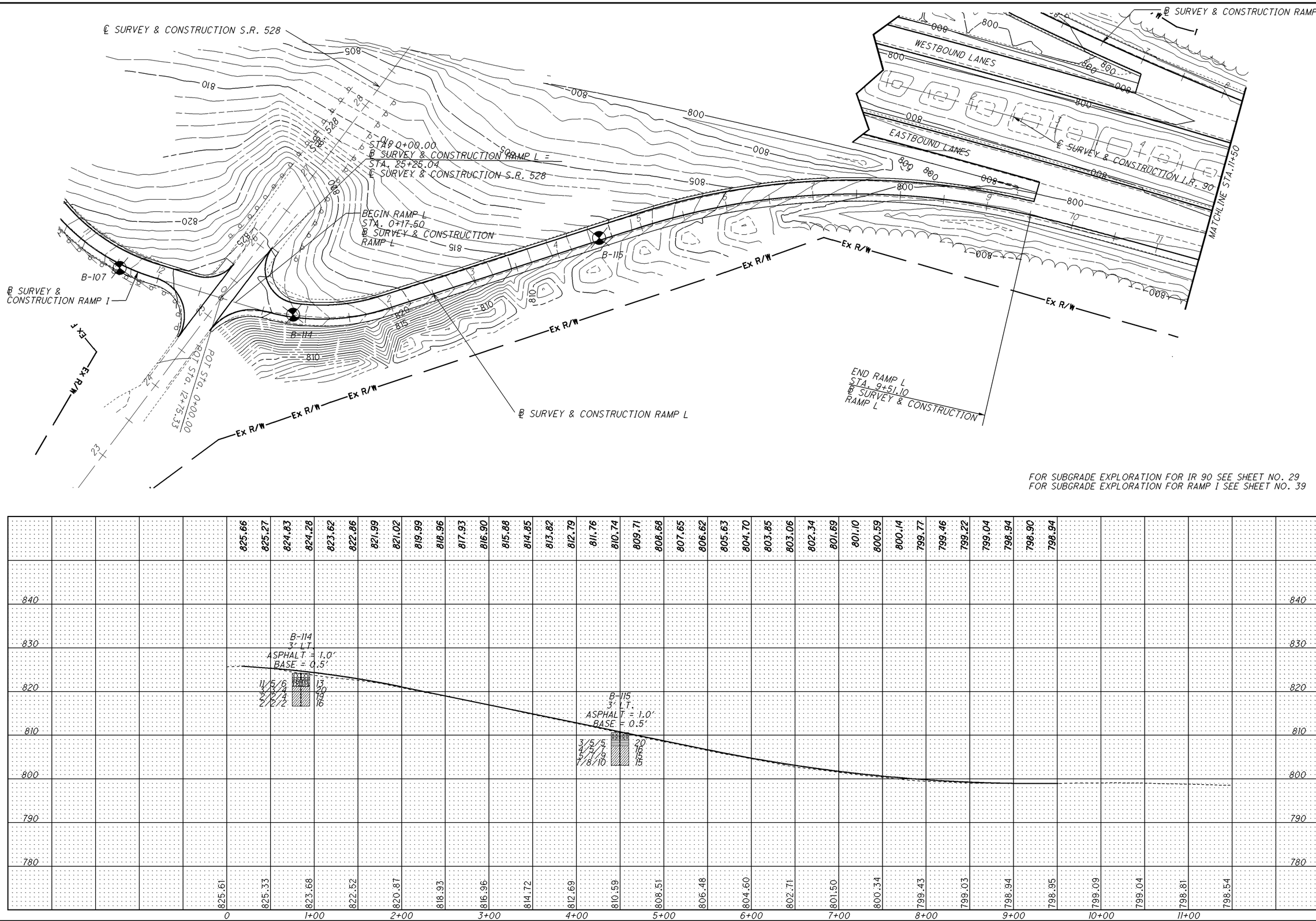


HORIZONTAL SCALE IN FEET
0 25 50 100

DRAWN JAG
CHECKED MRS

SUBGRADE EXPLORATION - RAMP K
STA. 0+18.98 TO STA. 7+04.88

LAK-90-21.40
ATB-90-0.00



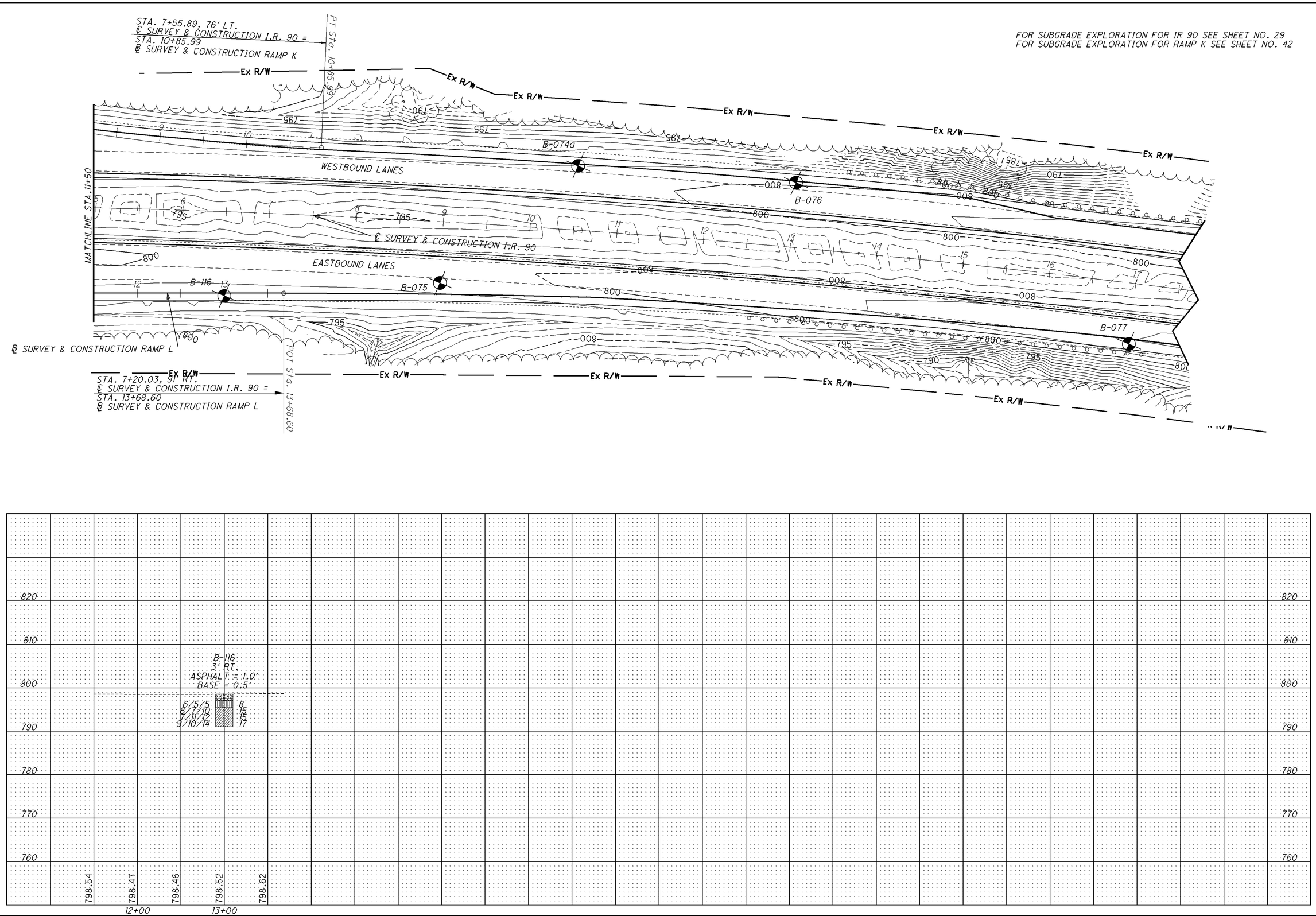
FOR SUBGRADE EXPLORATION FOR IR 90 SEE SHEET NO. 29
FOR SUBGRADE EXPLORATION FOR RAMP I SEE SHEET NO. 39

HORIZONTAL SCALE IN FEET 0 25 50 100

DRAWN JAG CHECKED MRS

SUBGRADE EXPLORATION - RAMP L
STA. 0+17.50 TO STA. 9+51.10

LAK-90-21.40
ATB-90-0.00



HORIZONTAL SCALE IN FEET

DRAWN JAG
CHECKED MRS

SUBGRADE EXPLORATION - RAMP L
STA. 11+50.00 TO STA. 13+68.60

LAK-90-21.40
ATB-90-0.00

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