

11-9-12 LETTING ITEM 020

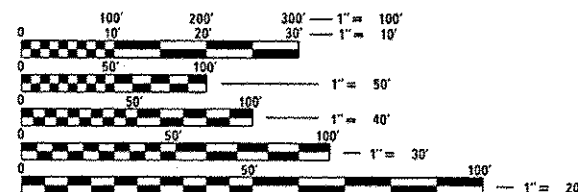
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- BLR 22-7 TYP. APPL. OF T.C.D. FOR RURAL LOC. HWYS. (2-LANE 2 WAY RURAL TRAFF.) (RD. CLOSED TO THRU TRAFF.)

701406-06



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER CRAIG REED, P.E.
PROJECT MANAGER MARK JONES, P.E.

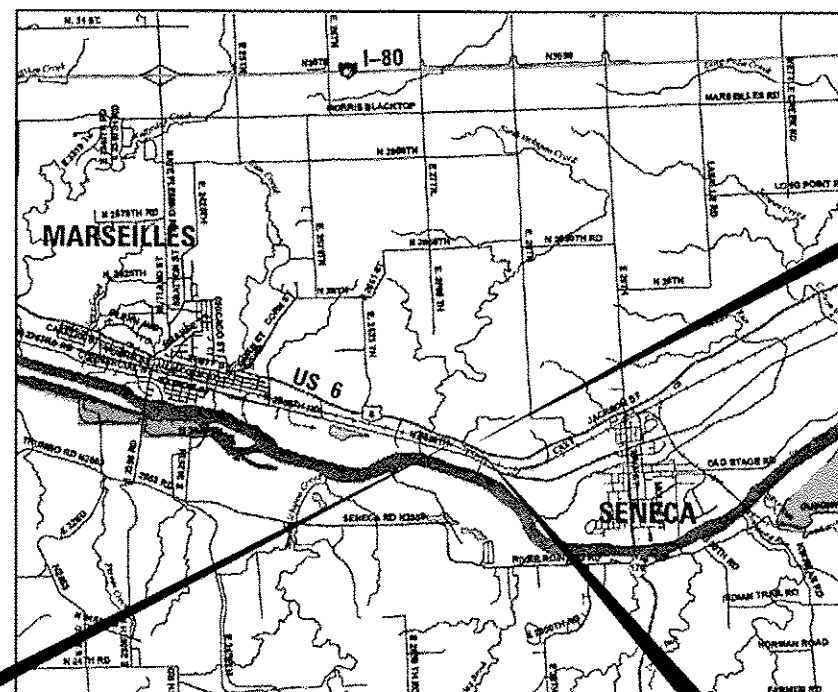
CONTRACT NO. 66A13

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

F.A.P. ROUTE 623 (US 6)
SECTION (H)BR-1
PROJECT: ACBRF-0623 (031)
BRIDGE REPLACEMENT
LASALLE COUNTY

C-93-016-12



THE THICKNESS OF HMA SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA IS PLACED.

ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

1. PROVIDE PRE AND POST INSPECTIONS OF LOCAL ROADS WITH LASALLE COUNTY ENGINEER AND FOLLOW APPLICABLE TRAFFIC CONTROL STANDARDS.
2. CONTACT MAYOR OF MARSEILLES PRIOR TO CLOSING US 6.

GRANULAR MATERIALS	2.05	TONS / CU YD
AGGREGATE (PRIME COAT)	0.002	TONS / SQ YD
HMA RESURFACING	112	LBS / SQ YD / IN
SHORT TERM PAVEMENT MARKING	10	FT / 100 FT OF APPLICATION
MIX FOR CRACKS, JTS & FLGWS	0.0003	TONS / SQ YD
LEVEL BINDER (HAND METHOD)	0.0005	TONS / SQ YD
SUPPLEMENTAL WATERING	3	GAL / SQ YD / APPLICATION
CALCIUM CHLORIDE	2	LB / SQ YD / APPLICATION
AGGREGATE DITCH CHECKS	5	TONS AGGREGATE

BITUMINOUS MATERIALS (PRIME COAT) RATES		
SURFACE TYPE	ESTIMATED TRUCK APPLICATION RATE	RESIDUAL RATE
AGGREGATE BASES	0.375 GAL / SQ YD	N/A
MILLED HMA OR PCC PAVEMENT	0.08 GAL / SQ YD	0.04 GAL / SQ YD
EXISTING PAVEMENT	0.05 GAL / SQ YD	0.025 GAL / SQ YD
FOG COAT (BETWEEN ADDITIONAL HMA LIFTS)	0.05 GAL / SQ YD	0.025 GAL / SQ YD

THE CONTRACTOR SHALL CONTACT JULIE AT LEAST 48 HOURS PRIOR TO EXCAVATION TO DETERMINE WHICH UTILITIES ARE IN THE AREA.

Bruce A. Hucker
DISTRICT OPERATIONS ENGINEER

FILE NAME : *FILE*	USER NAME : *USER*	DESIGNED - RAC	REVISED -	 Zroka Engineering, P.C. 4216 North Hermitage Chicago, IL 60641 STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN NOTES AND COMMITMENTS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN - RAC	REVISED -	623			(HBR-1)	LASALLE	32	2	
PLOT SCALE : *SCALE*	CHECKED - DAZ	REVISED -	CONTRACT NO. 66A13							
PLOT DATE : *DATE*	DATE - 08/10/12	REVISED -	THIS WORK IS FOR THE PROJECT							
				SCALE: N.T.S.	SHEET NO. 1 OF 1 SHEETS					

80% FED,
20% STATE

SUMMARY OF QUANTITIES				
CONSTRUCTION CODE TYPE:			TOTAL	0011
CODE NO.	ITEM	UNIT	QUANTITY	SN 050-0183 (EX) SN 050-2054 (PR)
20200100	EARTH EXCAVATION	CU YD	240	240
20400800	FURNISHED EXCAVATION	CU YD	538	538
20700220	POROUS GRANULAR EMBANKMENT	CU YD	404	404
25000200	SEEDING, CLASS 2	ACRE	0.5	0.5
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	45	45
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	45	45
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	45	45
25100115	MULCH, METHOD 2	ACRE	0.5	0.5
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	50	50
28000305	TEMPORARY DITCH CHECKS	EACH	4	4
28000400	PERIMETER EROSION BARRIER	FOOT	205	205
28000500	INLET AND PIPE PROTECTION	EACH	1	1
28100107	STONE RIPRAP, CLASS A4	SQ YD	282	282
28200200	FILTER FABRIC	SQ YD	282	282

*SPECIALTY ITEMS

80% FED.
20% STATE

SUMMARY OF QUANTITIES				
CONSTRUCTION CODE TYPE:			TOTAL	0011
CODE NO.	ITEM	UNIT	QUANTITY	SN 050-0183 (EX) SN 050-2054 (PR)
31100200	SUBBASE GRANULAR MATERIAL, TYPE A	CU YD	40	40
40200800	AGGREGATE SURFACE COURSE, TYPE B 6	TON	68	68
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	281	281
40600525	LEVELING BINDER (HAND METHOD), N50	TON	0.3	0.3
40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	38	38
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	396	396
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	241	241
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	92	92
48101500	AGGREGATE SHOULDERS, TYPE B 6"	SQ YD	397	397
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	164	164
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1
50104400	CONCRETE HEADWALL REMOVAL	EACH	2	2
50200100	STRUCTURE EXCAVATION	CU YD	33	33
50200450	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL FOR STRUCTURES	CU YD	146	146

*SPECIALTY ITEMS

80% FED.
20% STATE

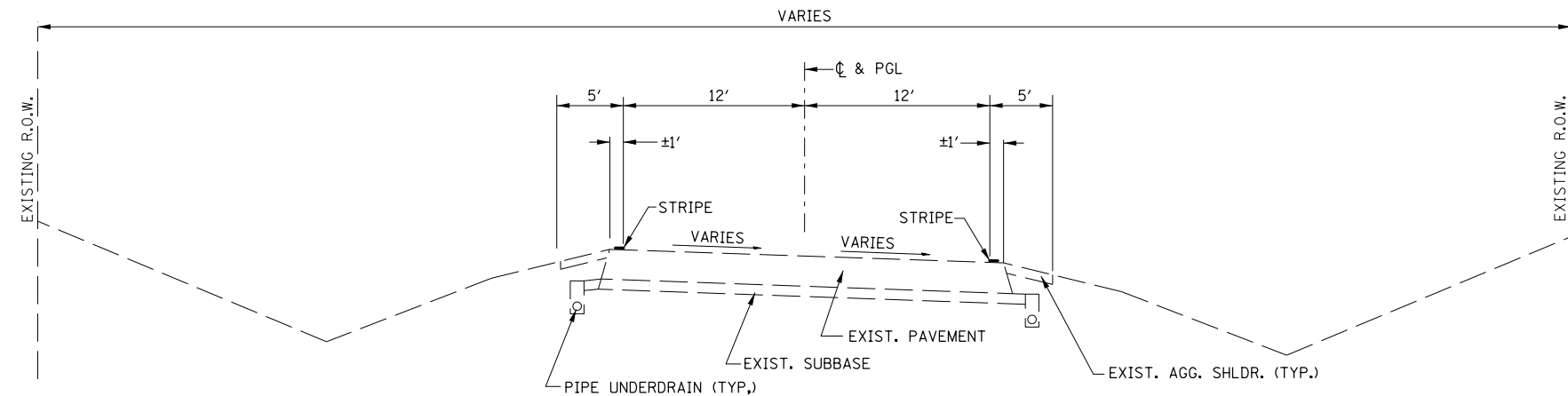
SUMMARY OF QUANTITIES				
CONSTRUCTION CODE TYPE:			TOTAL	0011
CODE NO.	ITEM	UNIT	QUANTITY	SN 050-0183 (EX) SN 050-2054 (PR)
50800105	REINFORCEMENT BARS	POUND	8,450	8,450
51500100	NAME PLATES	EACH	1	1
54003000	CONCRETE BOX CULVERTS	CU YD	55.4	55.4
54010905	PRECAST CONCRETE BOX CULVERTS 9' X 5'	FOOT	108	108
54201063	PIPE CULVERTS, CLASS D, TYPE 2 18"	FOOT	84	84
54215553	METAL END SECTIONS 18"	EACH	2	2
63200310	GUARDRAIL REMOVAL	FOOT	460	460
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4	4
67100100	MOBILIZATION	L SUM	1	1
70100700	TRAFFIC CONTROL AND PROTECTION, <i>STANDARD T01406</i>	L SUM	1	1
* 78005110	EPOXY PAVEMENT MARKING - LINE 4"	FOOT	740	740
* 78005130	EPOXY PAVEMENT MARKING - LINE 6"	FOOT	93	93
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	4	4
* 78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	4	4

*SPECIALTY ITEMS

Rev

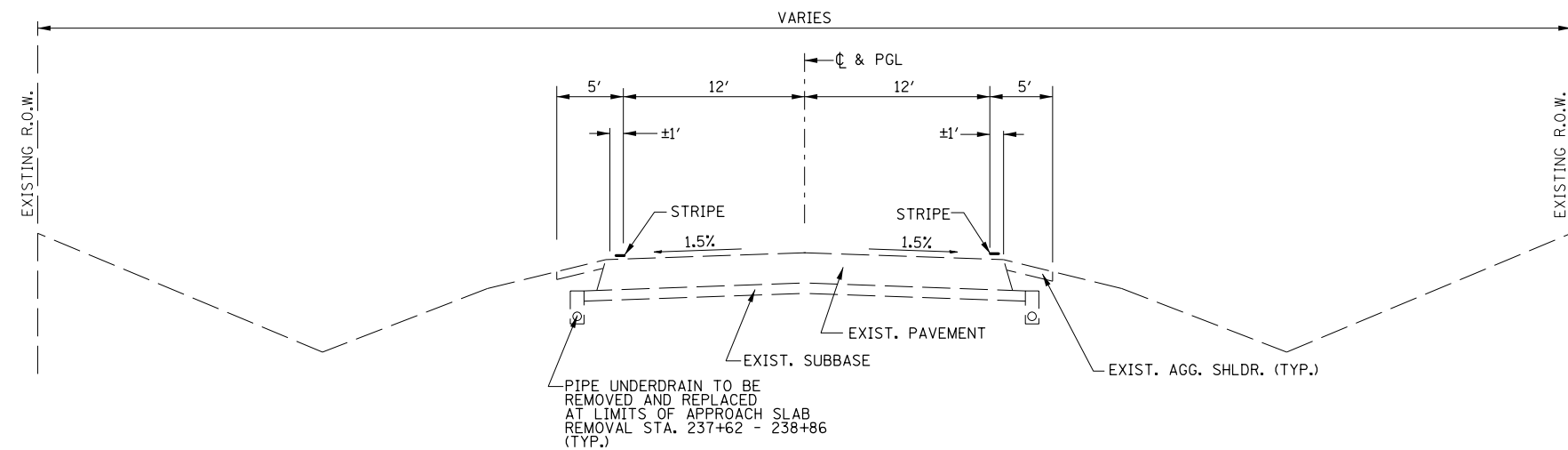
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*SPECIALTY ITEMS



EXISTING TYPICAL SECTION

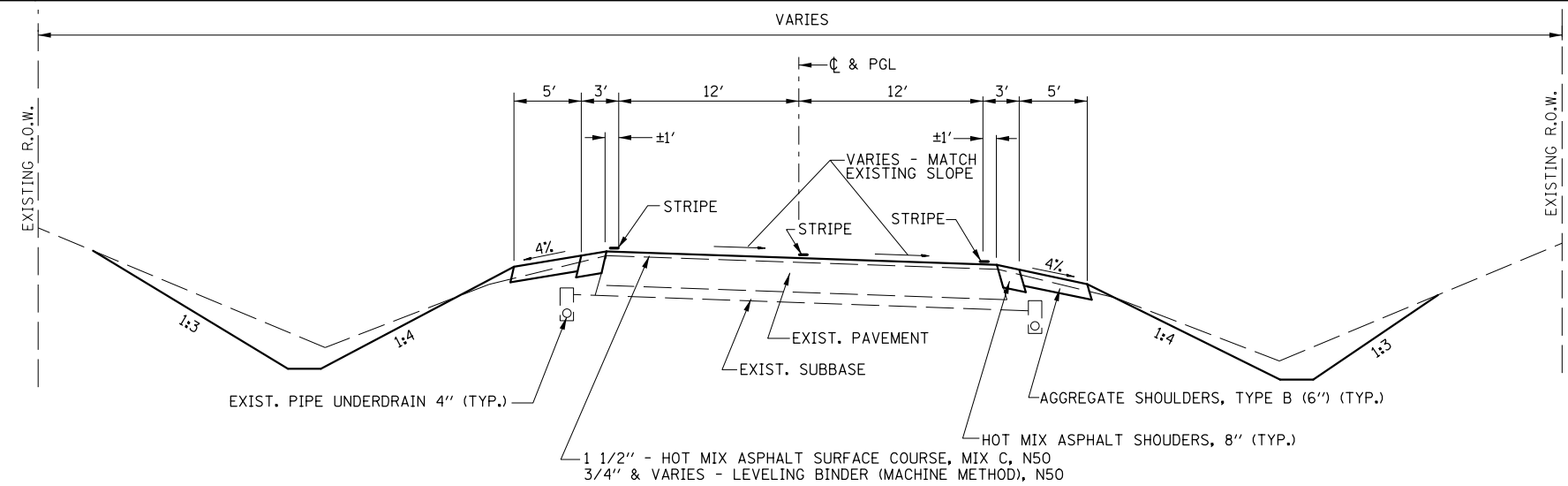
STA 236+90 - STA 237+51.95



EXISTING TYPICAL SECTION

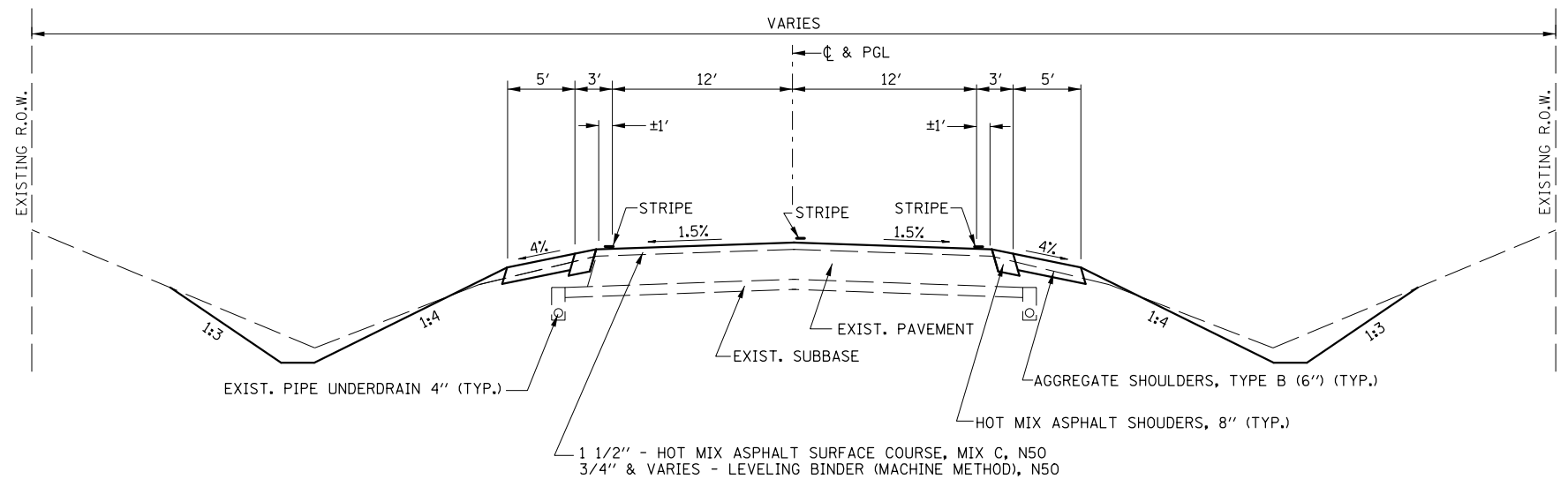
STA 237+51.95 - STA 240+60

FILE NAME = \$FILEL\$	USER NAME = \$USER\$	DESIGNED - RAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	 Zroka Engineering, P.C. 4216 North Hermitage Chicago, IL 60613	TYPICAL SECTIONS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - RAC	REVISED -				623	(H)BR-1	LASALLE	32	7
	PLOT SCALE = \$SCALE\$	CHECKED - DAZ	REVISED -				CONTRACT NO. 66A13				
	PLOT DATE = \$DATE\$	DATE - 08/10/12	REVISED -				ILLINOIS FED. AID PROJECT				
	SCALE: N.T.S.						SHEET NO. 1 OF 2 SHEETS				



PROPOSED TYPICAL SECTION

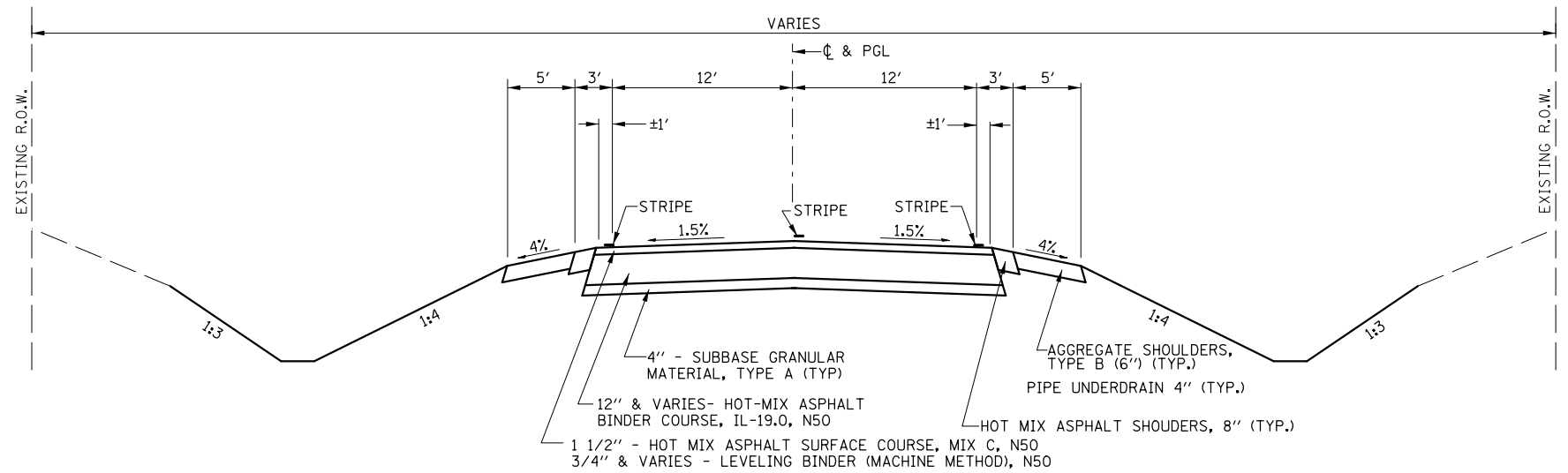
STA 236+90.00 - STA 237+51.95



PROPOSED TYPICAL SECTION

STA 237+51.95 - STA 237+62

STA 238+86 - STA 240+60



PROPOSED TYPICAL SECTION

STA 237+62 - STA 238+86

	HMA LEVEL BINDER	HMA SURFACE	HMA BINDER	HMA SHOULDERS
PG GRADE	PG64-22	PG64-22	PG64-22	PG58-22
DESIGN AIR VOIDS	4.0% @ N50	4.0% @ N50	4.0% @ N50	2.0% @ N30
MIXTURE COMPOSITION	IL 9.5	IL 9.5	IL 19.0	IL 19.0
FRICTION AGGREGATE		MIXTURE C		
DENSITY TEST METHOD	SATISFACTION OF ENGINEER	CORES	CORES	CORES

FILE NAME = \$FILEL\$	USER NAME = \$USER\$	DESIGNED - RAC	REVISED -	 ZROKA engineering Zroka Engineering, P.C. 4216 North Hermitage Chicago, IL 60613	TYPICAL SECTIONS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - RAC	REVISED -			623	(H)BR-1	LASALLE	32	8
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	PLOT DATE = \$DATE\$	DATE - 08/10/12	REVISED -			ILLINOIS FED. AID PROJECT				

HOT MIX ASPHALT SCHEDULE							
LOCATION	HMA SURF COURSE	LEVEL BINDER MACHINE	LEVEL BINDER HAND	HMA BINDER COURSE	HMA SHLDR 8"	HMA SUR REM BUTT JT	BIT MAT (PR CT)
	TON	TON	TON	TON	SQ YD	SQ YD	GAL
STA. 236+90 TO 237+62	17					208	17
STA. 236+90 TO 240+60 LT					82		
STA. 236+90 TO 240+60 RT					82		
STA. 237+62 TO 238+86	30	25	0.2	241			224
STA. 238+86 TO 239+50	16	13	0.1				18
STA. 239+50 TO 239+95	13						7
STA. 239+95 TO 240+60	16					188	15
TOTALS =	92	38	0.3	241	164	396	281

SEEDING SCHEDULE						
LOCATION	SEEDING CL 2	MULCH METHOD 2	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	TEMP EROS CONTR SEED POUND
	ACRE	ACRE	POUND	POUND	POUND	POUND
STA. 236+90 TO STA. 238+01 LT	0.08	0.08	7	7	7	8
STA. 236+90 TO STA. 238+24 RT	0.08	0.08	7	7	7	8
STA. 238+24 TO STA. 239+60 LT	0.13	0.13	12	12	12	13
STA. 238+47 TO STA. 240+60 RT	0.16	0.16	14	14	14	16
STA. 239+96 TO STA. 240+60 LT	0.05	0.05	5	5	5	5
TOTALS =	0.5	0.5	45	45	45	50

AGGREGATE SCHEDULE				
LOCATION	AGGREGATE SURFACE COURSE, TY B TON	AGGREGATE SHOULDERS TYPE B 6" SQ YD	SUB GRAN MAT A CU YD	STONE RIPRAP CL A4 SQ YD
STA. 236+90 TO STA. 240+60 LT		191		
STA. 236+90 TO STA. 240+60 RT		206		
STA. 237+62 TO STA. 238+86			40	
STA. 239+78 FIELD ENTRANCE LT	68			
STA. 238+24 @ CULVERT LT				123
STA. 238+24 @ CULVERT RT				159
STA. 238+24				
TOTALS =	68	397	40	282

DRAINAGE SCHEDULE								
LOCATION					REMOVE EXISTING CULVERTS	PIPE CULVERT CLASS D TYPE 2, 18	METAL END SECTIONS 18"	CONCRETE HEADWALL REMOVAL
					EACH	FOOT	EACH	EACH
STA. 239+53 41' LT TO STA. 240+02 39' LT					1			
STA. 239+36 43' LT TO STA. 240+20 40' LT						84	2	
STA. 237+62 16' LT TO STA. 238+86 16' LT								
STA. 237+62 16' RT TO STA. 238+86 16' RT								
STA. 237+62 16' LT TO STA. 237+62 26' LT								
STA. 237+62 16' RT TO STA. 237+62 26' RT								
STA. 238+49 25' LT								1
STA. 238+68 24' RT								1
TOTALS =					1	84	2	2

PAVEMENT MARKING SCHEDULE				
LOCATION	EPOXY PVMT MARK WHITE, 4"	EPOXY PVMT MARK YELLOW, 6"	RAISED REF PVMT MARK REMOVAL	RAISED REFLECT PVMT MARK
	FOOT	FOOT	EACH	EACH
STA. 236+90 TO STA. 240+60 LT	370			
STA. 236+90 TO STA. 240+60 RT	370			
STA. 236+90 TO STA. 240+60		93	4	4
TOTALS =	740	93	4	4

PERIMETER EROSION BARRIER	
LOCATION	PERIMETER EROSION BARRIER
	FOOT
STA. 237+51 TO STA. 238+26 RT	77
STA. 239+04 TO STA. 240+31 RT	128
TOTAL =	205

GUARDRAIL REMOVAL SCHEDULE		
LOCATION		GUARDRAIL REMOVAL
		FOOT
STA. 236+92 TO STA. 238+07	LT	115
STA. 237+04 TO STA. 238+19	RT	115
STA. 238+26 TO STA. 239+41	LT	115
STA. 238+46 TO STA. 239+61	RT	115
TOTALS =		460

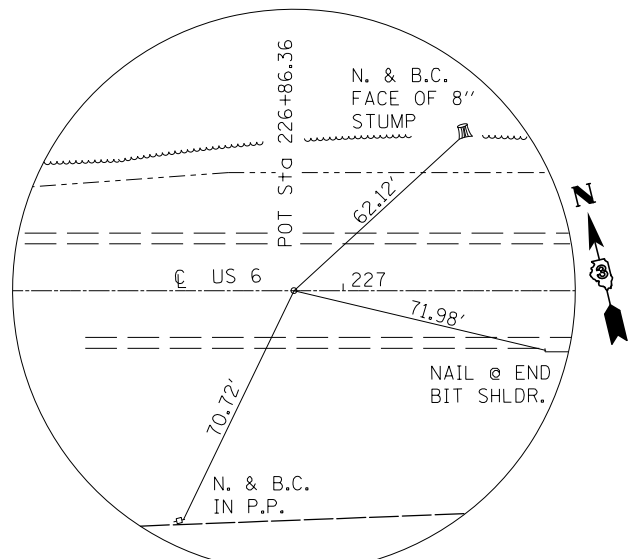
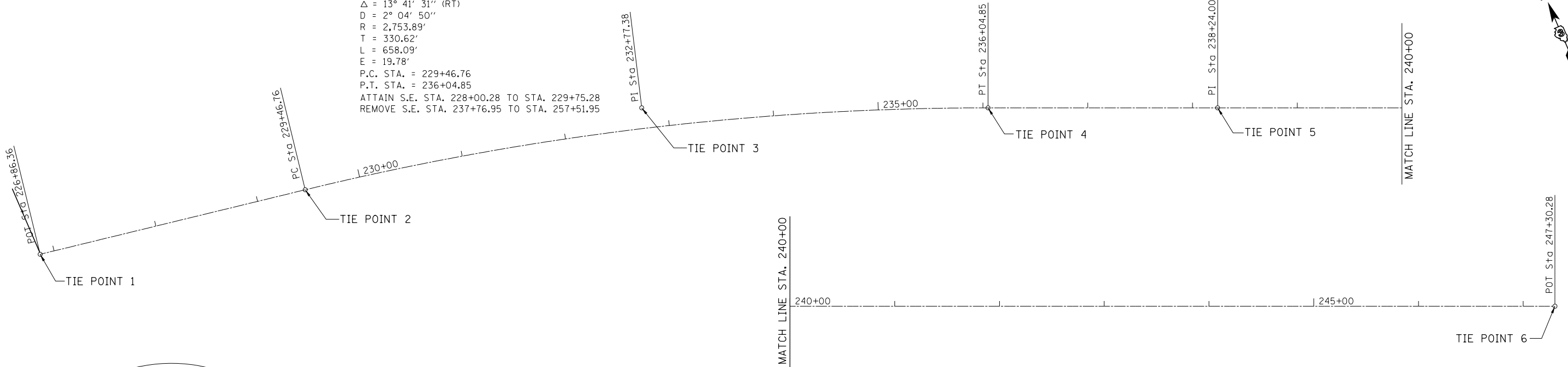
EROSION CONTROL		
LOCATION	TEMP DITCH CHECKS	INLET & PIPE PROTECT
	EACH	EACH
STA. 237+76 47' LT	1	
STA. 238+23 54' RT	1	
STA. 238+29 47' LT	1	
STA. 238+98 54' RT	1	
STA. 240+20 40' LT		1
TOTALS =	4	1

EARTHWORK SCHEDULE				
LOCATION	EARTH EXCAVATION	75% EARTH EXCAVATION	EMBANKMENT	EARTHWORK BALANCE BALANCE WASTE (+) OR SHORTAGE (-)
	CUL. YD.	CUL. YD.	CUL. YD.	CUL. YD.
STA. 236+90 TO STA. 240+60 LT	124	93	369	-276
STA. 236+90 TO STA. 240+60 RT	115	86	349	-262
TOTALS =	240	180	718	-538

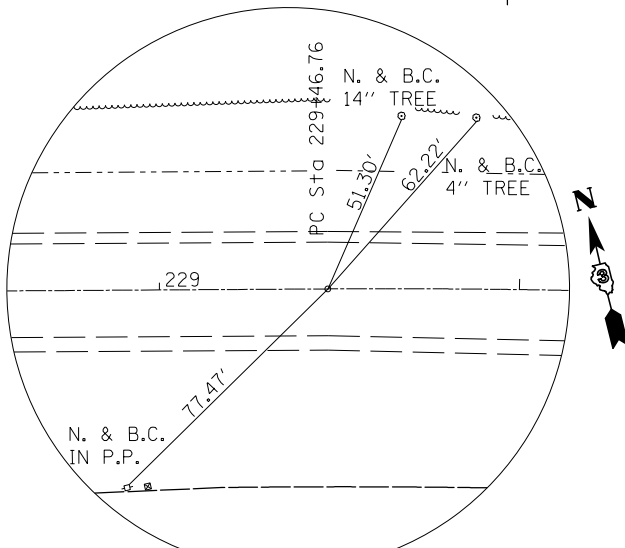
PRECAST BOX CULVERT SCHEDULE (ASTM C 1577)					
STATION	SIZE (* OF BARRELS X SPAN X HEIGHT) (FEET)	SKEW (DEGREES)	DESIGN FILL EDGE OF SHOULDER (MINIMUM) (FEET)	MAXIMUM (FEET)	POROUS GRANULAR EMBANKMENT (CU YD)
238+24	2 X 9 X 5	30	1.88	3.53	404

FILE NAME = \$FILEL\$	USER NAME = \$USER\$	DESIGNED - RAC	REVISED -	 Zroka Engineering, P.C. 4216 North Hermitage Chicago, IL 60613	SCHEDULE OF QUANTITIES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = \$SCALE\$	DRAWN - RAC	REVISED -			623	(H)BR-1	LASALLE	32	9
	PLOT DATE = \$DATE\$	CHECKED - DAZ	REVISED -			CONTRACT NO. 66A13				
		DATE - 08/10/12	REVISED -			ILLINOIS FED. AID PROJECT				
				SCALE: N.T.S.	SHEET NO. 1 OF 1 SHEETS					

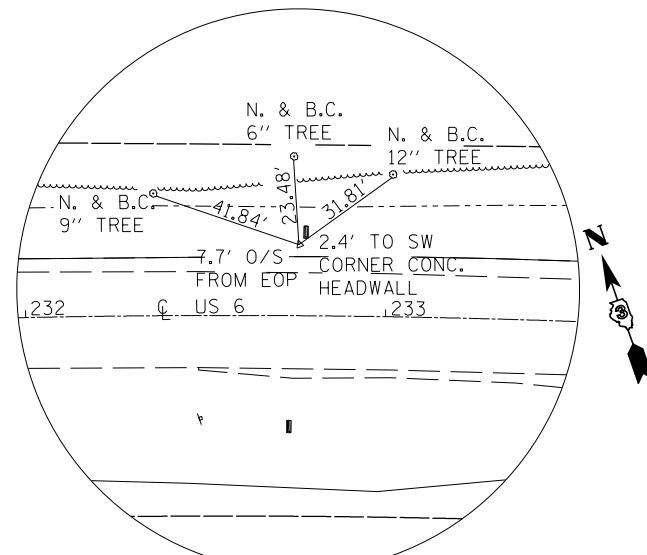
EXIST. CURVE C1
PI STA. = 232+77.38
 Δ = 13° 41' 31" (RT)
D = 2° 04' 50"
R = 2,753.89'
T = 330.62'
L = 658.09'
E = 19.78'
P.C. STA. = 229+46.76
P.T. STA. = 236+04.85
ATTAIN S.E. STA. 228+00.28 TO STA. 229+75.28
REMOVE S.E. STA. 237+76.95 TO STA. 257+51.95



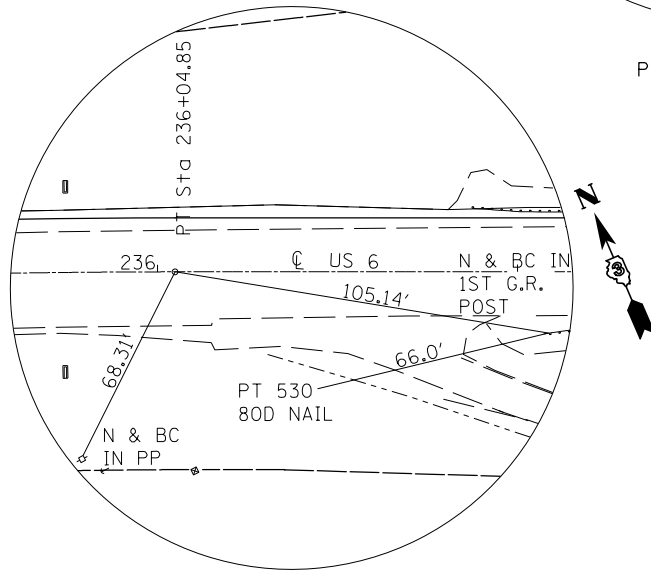
TIE POINT 1
POT STA. 226+86.36



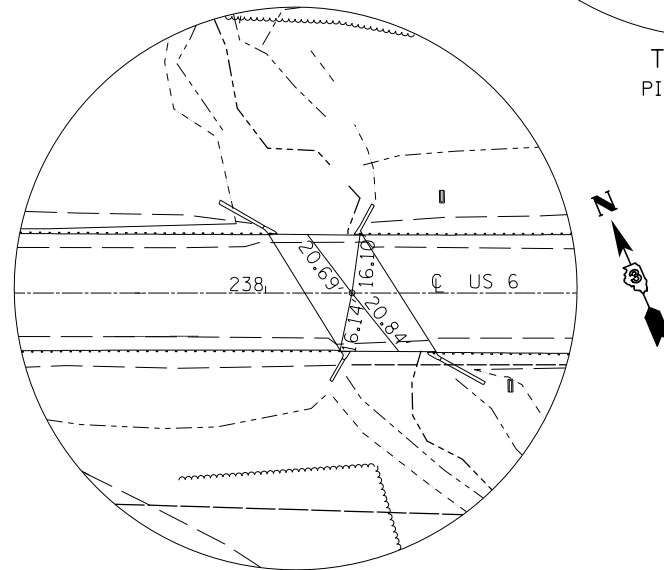
TIE POINT 2
PC STA. 229+46.76



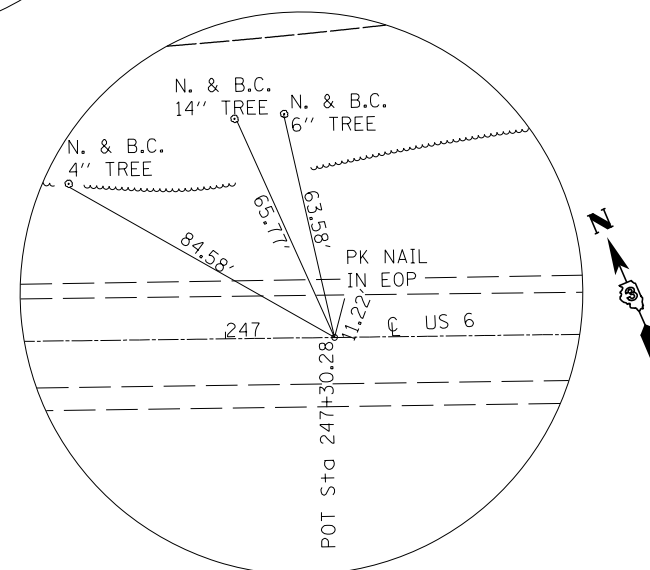
TIE POINT 3
PI STA. 232+77.38



TIE POINT 4
PT STA. 236+04.85



TIE POINT 5
POT STA. 238+24.00



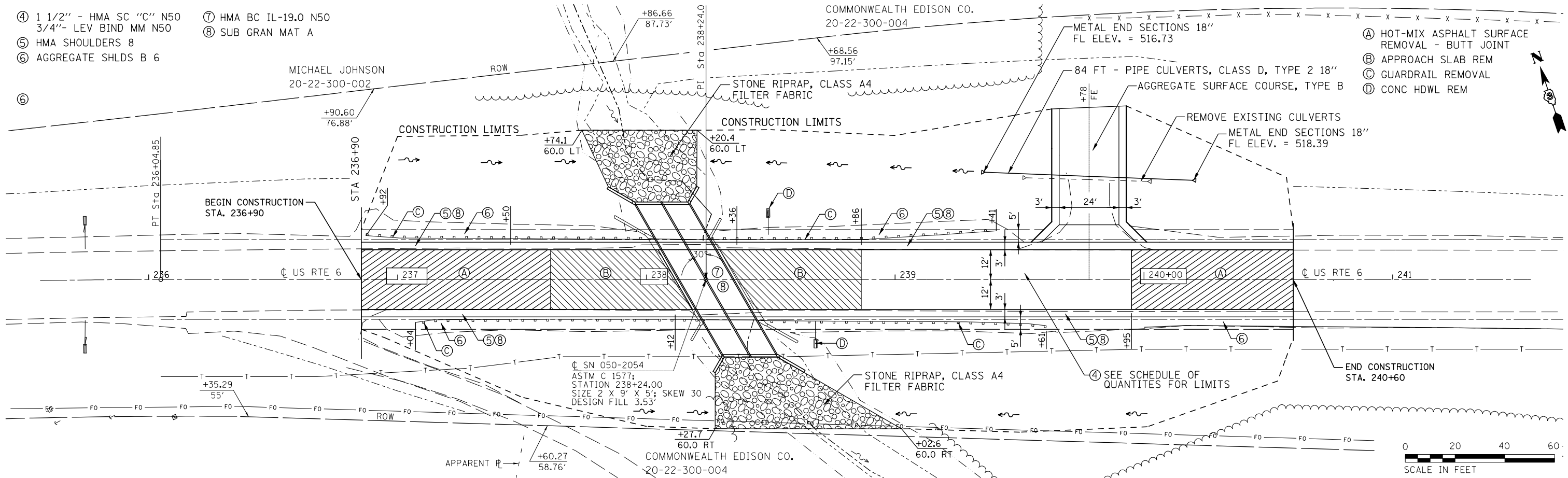
TIE POINT 6
POT STA. 247+30.28

FILE NAME = *FILEL\$	USER NAME = *USER*	DESIGNED - RAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	 Zroka Engineering, P.C. 4216 North Hermitage Chicago, IL 60613	ALIGNMENT AND SURVEY TIES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = *SCALE*	DRAWN - RAC	REVISED -				623	(H)BR-1	LASALLE	32	10
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		DATE - 08/10/12	REVISED -				ILLINOIS FED. AID PROJECT				

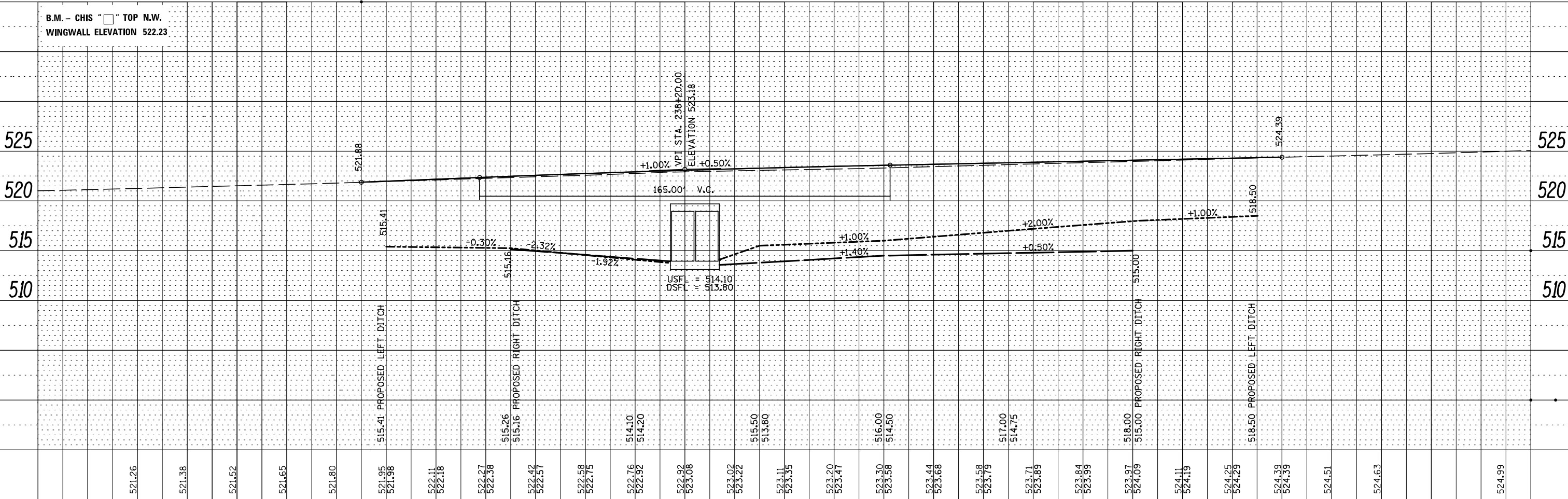
PLAN	SURVEYED	BY	DATE
	NOTED		
NOTE BOOK	ALIGNED		
	CHECKED		
NO.	FILED		
	FILE NAME		

- ④ 1 1/2" - HMA SC "C" N50
3/4" - LEV BIND MM N50
⑤ HMA SHOULDERS 8
⑥ AGGREGATE SHLDS B 6
- ⑦ HMA BC IL-19.0 N50
⑧ SUB GRAN MAT A

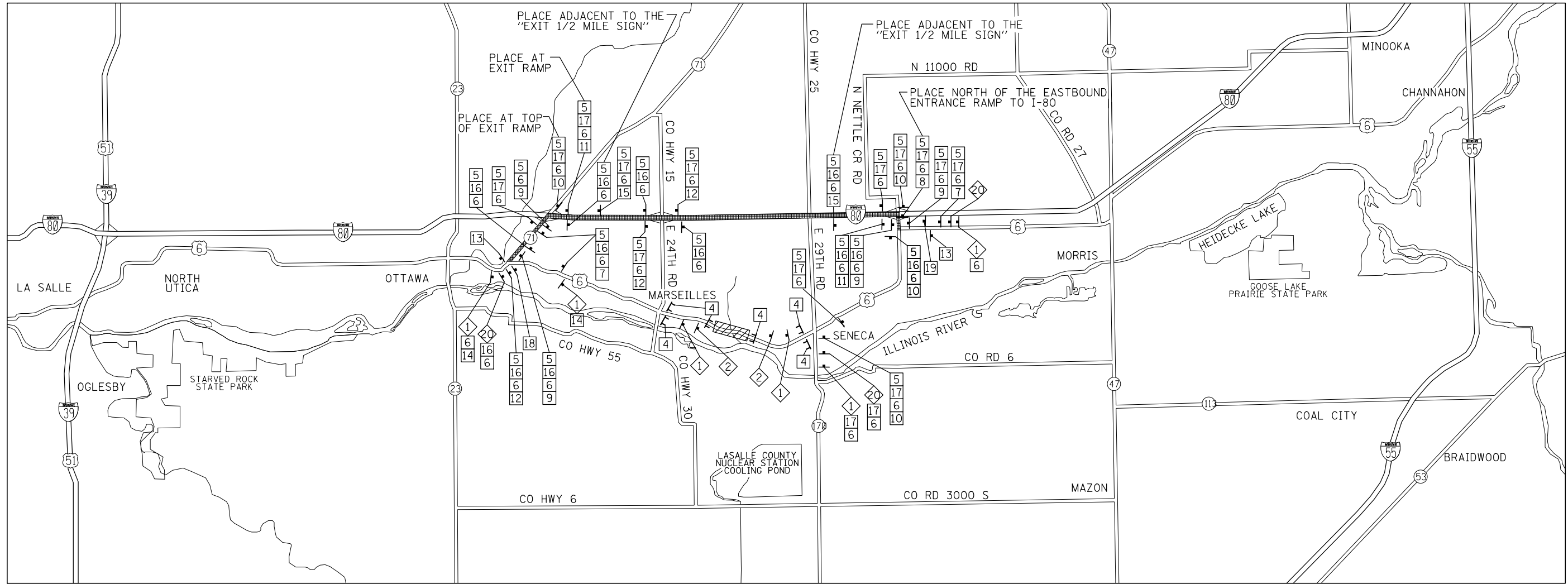
- ① HOT-MIX ASPHALT SURFACE
REMOVAL - BUTT JOINT
② APPROACH SLAB REM
③ GUARDRAIL REMOVAL
④ CONC HDWL REM



PROFILE	SURVEYED	BY	DATE
	NOTED		
NOTE BOOK	GRADES		
	CHECKED		
NO.	STRUCTURE		
	NOTATIONS		



FILE NAME =	USER NAME = \$USER\$	DESIGNED RAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ZROKA engineering Zroka Engineering, P.C. 4216 North Hermitage Chicago, IL 60613	PLAN AND PROFILE	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
\$FILEL\$		DRAWN RAC	REVISED -				623	(H)BR-1	LASALLE	32	11
		CHECKED DAZ	REVISED -				CONTRACT NO. 66A13				
		DATE 08-10-12	REVISED -				ILLINOIS FED. AID PROJECT				
				SCALE: 1" = 20'	SHEET NO. 1 OF 1 SHEETS	STA. 236+90 TO STA. 240+60					



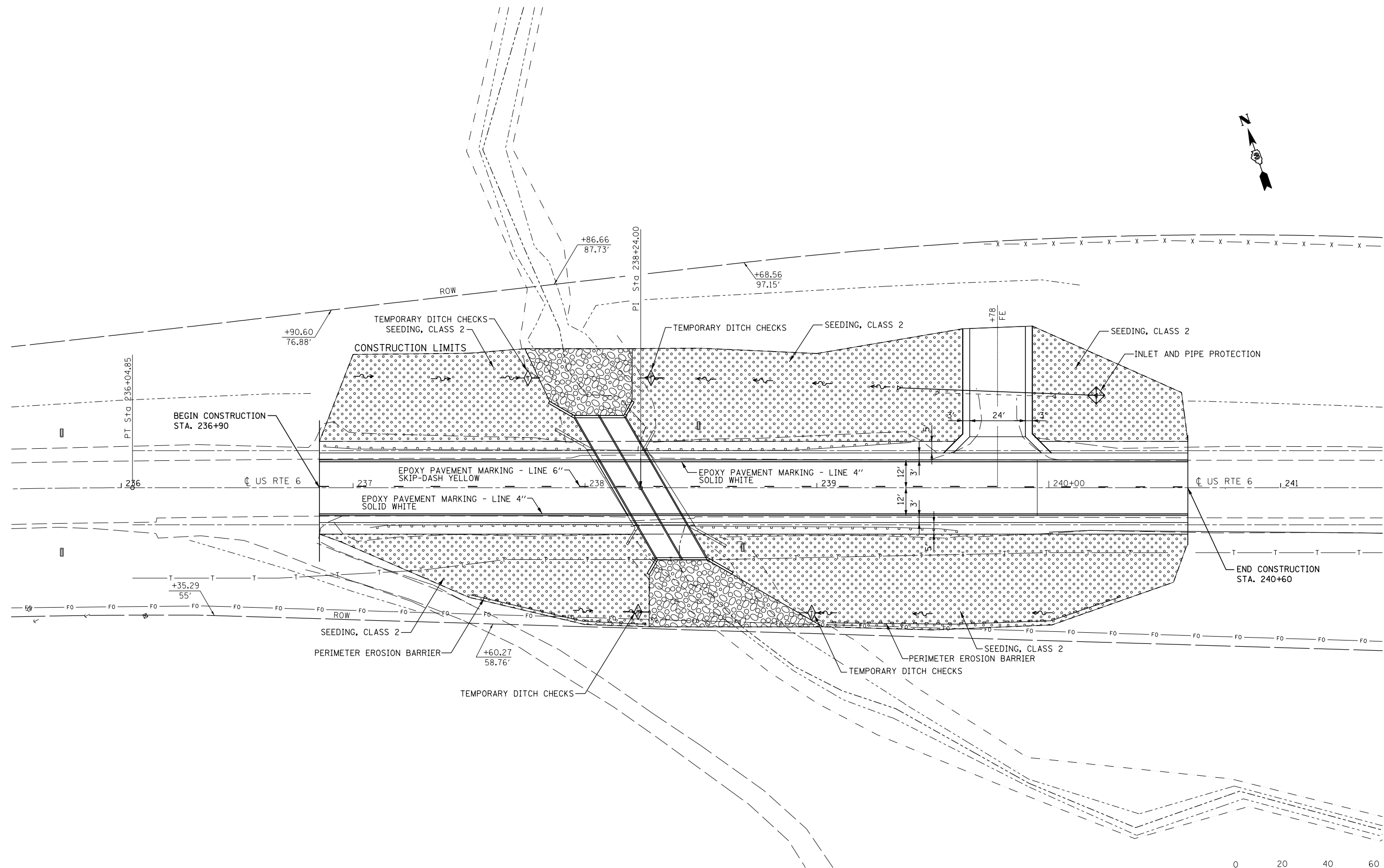
DETOUR MAP
(NOT TO SCALE)

LEGEND

- NOTES
1. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
 2. ALL SIGNS NOT ATTACHED TO BARRICADES SHALL BE POST MOUNTED.
 3. TYPE III BARRICADES AND ROAD CLOSURE SIGNS SHALL BE POSITIONED AS SHOWN, IN ACCORDANCE WITH HIGHWAY STANDARDS 701311, 701901 AND BLR-22 AND AS DIRECTED BY THE ENGINEER.
 4. TYPE A LOW INTENSITY FLASHING WARNING LIGHTS SHALL BE USED ON EACH SIGN IN ADVANCE OF THE WORK DURING HOURS OF DARKNESS.
 5. ALL WARNING SIGNS SHALL BE A MINIMUM OF 48" x 48" AND HAVE A BLACK LEGEND AND BORDER ON A FLOURESCENT ORANGE REFLECTORIZED BACKGROUND.
 6. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ENTRANCES AT ALL TIMES.
 7. ALL TYPE III BARRICADES UTILIZED FOR ROAD CLOSURES SHALL HAVE A LOW INTENSITY FLASHING LIGHT MOUNTED ON TOP OF EACH BARRICADE.
 8. EXACT LOCATION OF ALL WARNING SIGNS AND BARRICADES SHALL BE PROVIDED BY THE ENGINEER.
 9. COVER CONFLICTING SIGNS. EXISTING DIRECTIONAL ARROWS MUST BE COVERED.

- 1 W20-3(O)-48 (ROAD CLOSED AHEAD)
- 2 W20-3(O)-48 (ROAD CLOSED 500 FT)
- 3 TYPE III BARRICADES W/R-11-2-4830 (ROAD CLOSED) SIGN AND TYPE A LOW INTENSITY FLASHING LIGHTS
- 4 TYPE III BARRICADES W/R-11-2-4830 (ROAD CLOSED TO THRU TRAFFIC) SIGN AND TYPE A LOW INTENSITY FLASHING LIGHTS
- 5 M4-8(O) (DETOUR)
- 6 M1-4 (US ROUTE 6)
- 7 M5-1(R) (ADVANCED RIGHT TURN ARROW)
- 8 M5-1(L) (ADVANCED LEFT TURN ARROW)
- 9 M6-1(R) (RIGHT TURN ARROW)
- 10 M6-1(L) (LEFT TURN ARROW)
- 11 M6-2(R) (DIAGONAL ARROW)
- 12 M6-3 (STRAIGHT ARROW)
- 13 M4-8(o) (END DETOUR)
- 14 "3 MILES EAST OF MARSEILLES"
- 15 M5-2(R) (ADVANCED DIAGONAL ARROW)
- 16 M3-2 (EAST)
- 17 M3-4 (WEST)
- 18 "US 6 OPEN TO MARSEILLES"
- 19 "US 6 OPEN TO SENECA"
- 20 W20-2(O)-48 (DETOUR AHEAD)

- DETOUR ROUTE
- WORK ZONE
- TYPE A LOW INTENSITY FLASHING LIGHT
- 48" x 48" FLOURESCENT ORANGE
- BLACK ON FLOURESCENT ORANGE, 3" LETTERS

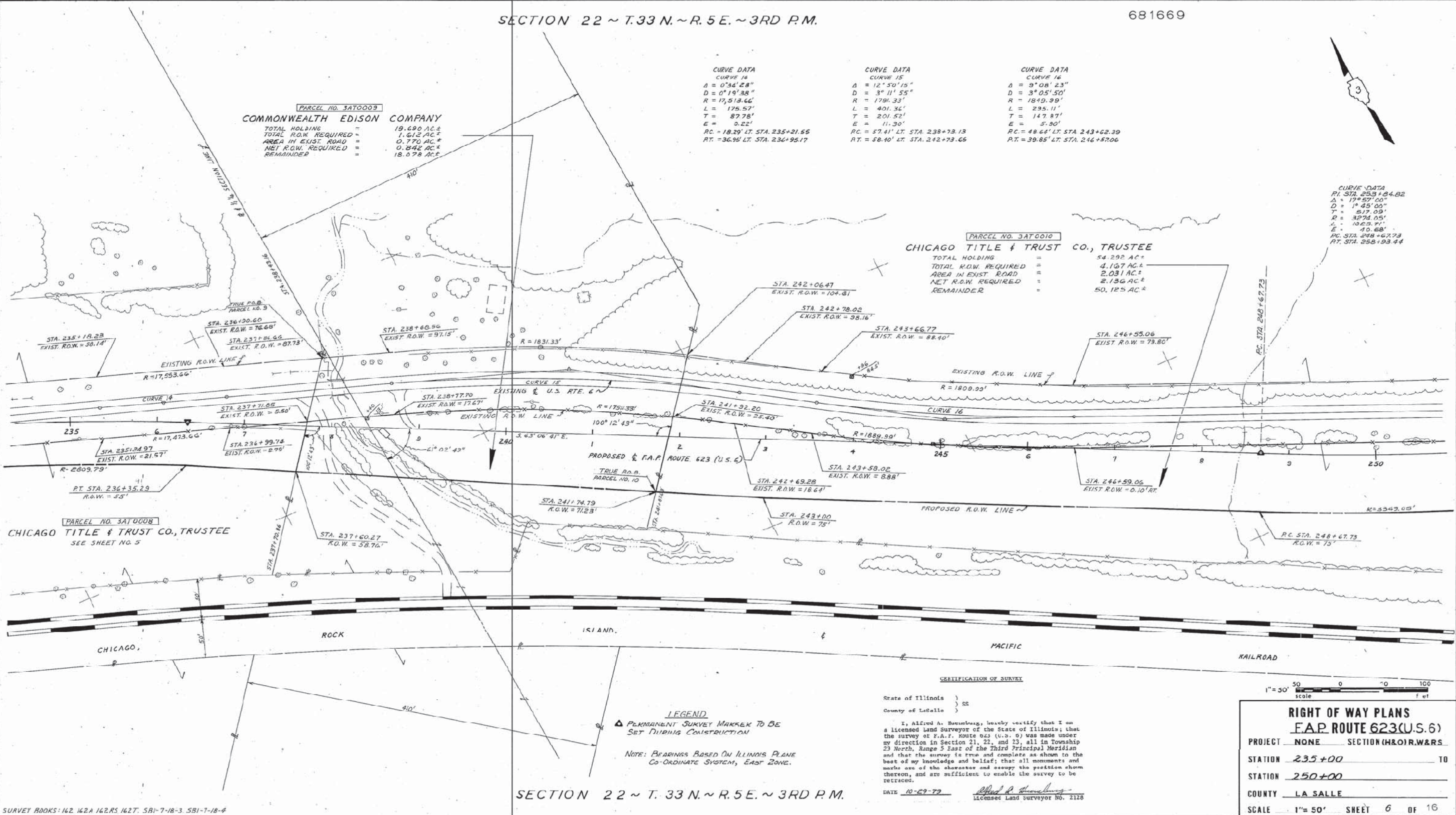


FILE NAME = \$FILEL\$	USER NAME = \$USER\$	DESIGNED - RAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	 Zroka Engineering, P.C. 4216 North Hermitage Chicago, IL 60613	EROSION CONTROL AND PAVEMENT MARKING	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = \$SCALE\$	DRAWN - RAC	REVISED -				623	(H)BR-1	LASALLE	32	13
	PLOT DATE = \$DATE\$	CHECKED - DAZ	REVISED -				CONTRACT NO. 66A13				
	PLOT DATE = \$DATE\$	DATE - 08/10/12	REVISED -				ILLINOIS FED. AID PROJECT				
		SCALE: 1"=20'		SHEET NO. 1 OF 1 SHEETS							

APPROVED BY _____
DISTRICT ENGINEER

DATE _____

DRAWN BY _____
WRITTEN BY _____
CHECKED BY _____
INSPECTED BY _____



CURVE DATA
CURVE 14
Δ = 0°34'28"
D = 0°19'38"
R = 17,513.66'
L = 175.57'
T = 87.78'
E = 0.22'
PC = 18.29' LT. STA. 235+21.55
PT = 36.98' LT. STA. 236+95.17

CURVE DATA
CURVE 15
Δ = 12°50'15"
D = 3°11'55"
R = 1794.33'
L = 401.36'
T = 201.52'
E = 11.30'
PC = 57.41' LT. STA. 238+73.13
PT = 58.10' LT. STA. 242+73.65

CURVE DATA
CURVE 16
Δ = 9°08'23"
D = 3°05'50"
R = 1819.99'
L = 295.11'
T = 147.87'
E = 5.90'
PC = 48.66' LT. STA. 243+62.39
PT = 39.85' LT. STA. 246+57.06

CURVE DATA
CURVE 17
Δ = 17°57'00"
D = 1°45'00"
R = 517.09'
L = 3274.05'
T = 1023.77'
E = 40.68'
PC STA. 248+67.73
PT STA. 258+93.44

PARCEL NO. 3AT0010
CHICAGO TITLE & TRUST CO., TRUSTEE
TOTAL HOLDING = 54.292 AC±
TOTAL R.O.W. REQUIRED = 4.167 AC±
AREA IN EXIST. ROAD = 2.031 AC±
NET R.O.W. REQUIRED = 2.136 AC±
REMAINDER = 50.125 AC±

PARCEL NO. 3AT0009
COMMONWEALTH EDISON COMPANY
TOTAL HOLDING = 19.690 AC±
TOTAL R.O.W. REQUIRED = 1.612 AC±
AREA IN EXIST. ROAD = 0.770 AC±
NET R.O.W. REQUIRED = 0.842 AC±
REMAINDER = 18.078 AC±

LEGEND
▲ PERMANENT SURVEY MARKER TO BE SET DURING CONSTRUCTION

NOTE: BEARINGS BASED ON ILLINOIS PLANE CO-ORDINATE SYSTEM, EAST ZONE.

CERTIFICATION OF SURVEY

State of Illinois)
County of LaSalle)
I, Alfred A. Baumgart, hereby certify that I am a licensed Land Surveyor of the State of Illinois; that the survey of F.A.P. Route 623 (U.S. 6) was made under my direction in Section 21, 22, and 23, all in Township 33 North, Range 5 East of the Third Principal Meridian and that the survey is true and complete as shown to the best of my knowledge and belief; that all monuments and marks are of the character and occupy the position shown thereon, and are sufficient to enable the survey to be retraced.
DATE 10-29-79
Alfred A. Baumgart
Licensee Land Surveyor No. 2128



RIGHT OF WAY PLANS			
F.A.P. ROUTE 623 (U.S. 6)			
PROJECT	NONE	SECTION (H&O) R.W.&RS	
STATION	235+00		TO 250+00
COUNTY	LA SALLE		
SCALE	1" = 50'	SHEET	6 OF 16

R-93-005-78

FILE NAME =	USER NAME = \$USER\$	DESIGNED - RAC	REVISED -
\$FILEL\$		DRAWN - RAC	REVISED -
	PLOT SCALE = \$SCALE\$	CHECKED - DAZ	REVISED -
	PLOT DATE = \$DATE\$	DATE - 08/10/12	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ZROKA
engineering
Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613
SCALE: 1"=20' SHEET NO. 1 OF 1 SHEETS

RIGHT OF WAY PLANS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
623	(H&O)-1	LASALLE	32	14
CONTRACT NO. 66A13				
ILLINOIS FED. AID PROJECT				

Bench Mark: Chiseled "□" top of northwest wingwall, Elev. 522.23

Existing Structure: S.N. 050-0183. The original structure (S.N. 050-0148) was constructed in 1920 as SBI Route 7, Section H and was removed and replaced in 1980 with the current single span 17" PPC Deck Beam bridge as FA Route 623, Section H-BR-1. The substructure consists of closed reinforced concrete abutments supported on spread footings set in rock. The bridge length is 24'-9½" back to back of abutments and the out to out width is 32'-0".

Traffic will be detoured during construction.

No Salvage.

INDEX OF SHEETS

- S-1 General Plan & Elevation
S-2 Box Culvert End Sections
S-3 Culvert Details
S-4 Soil Borings

GENERAL NOTES

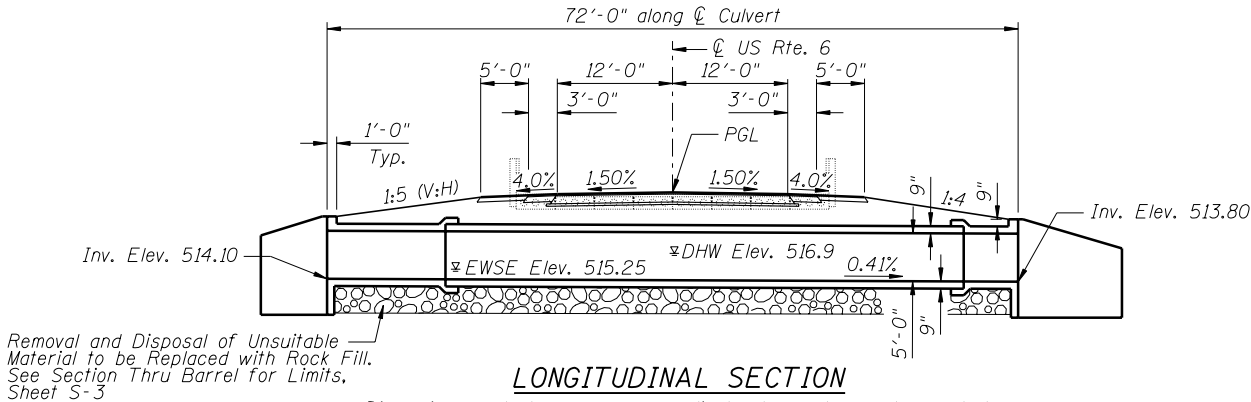
- Reinforcement bars shall conform to the requirements of ASTM A706 Grade 60 (IL Modified) of the Standard Specifications and the appropriate requirements of AASHTO M259.
- Reinforcement bars designated (E) shall be epoxy coated.
- Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing existing superstructure.
- Precast Concrete Box Culvert sections shall conform to the requirements of Article 540.06 of the Standard Specifications and the applicable requirements of ASTM C1577.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	146
Removal of Existing Structures	Each	1
Structure Excavation	Cu. Yd.	33
Reinforcement Bars	Pound	8,450
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	55.4
Precast Concrete Box Culverts 9'x5'	Foot	108
Rock Fill	Cu. Yd.	109

STATION 238+24
BUILT BY
STATE OF ILLINOIS
F.A. RTE. 623 SEC. (H)BR-1
LOADING HL-93
STRUCTURE NO. 050-2054

NAME PLATE
See Std. 515001



LOADING HL-93

Allow 50#/sq. ft. for future wearing surface

DESIGN SPECIFICATIONS

2010 AASHTO LRFD
Bridge Design Specifications

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
 f_y = 60,000 psi (reinforcement)

PRECAST UNITS

f'_c = 5,000 psi
 f_y = 65,000 psi (welded wire fabric)

WATERWAY INFORMATION

Drainage Area = 0.35 sq. mi.

Exist. Low Grade Elev. = 521.77 @ Sta. 236+75

Prop. Low Grade Elev. = 521.65 @ Sta. 236+50

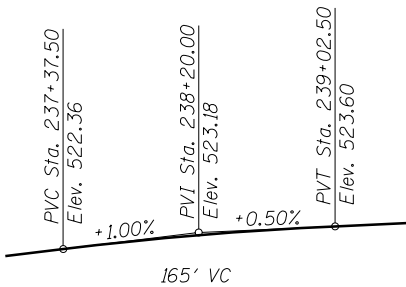
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
	10	161	21	41	516.4	0.7	0.0	517.1	516.4
Design	50	260	30	50	516.9	0.6	0.0	517.5	516.9
Base	100	302	34	53	517.1	0.6	0.0	517.7	517.1
Overtopping	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Max. Calc.	500	407	41	61	517.5	0.8	0.1	518.3	517.6

10-Year Velocity through Existing Bridge = 3.8 fps
10-Year Velocity through Proposed Bridge = 3.6 fps

DESIGN SCOUR

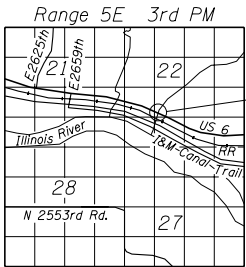
ELEVATION TABLE

Design Scour Elevation (ft.)	Upstream	Downstream
	511.10	510.80



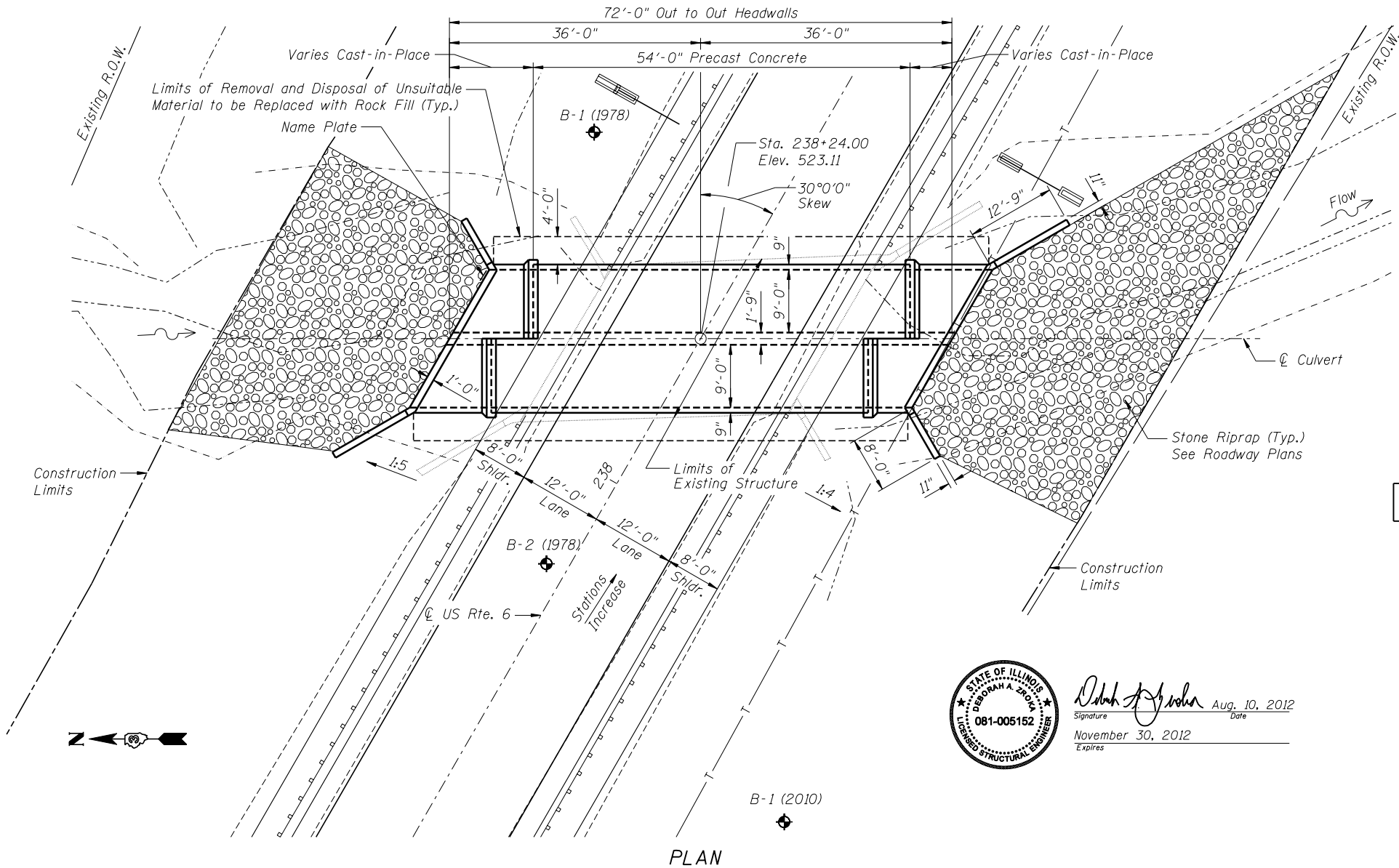
PROFILE GRADE

(along $\varnothing$ US Route 6)



LOCATION SKETCH

GENERAL PLAN & ELEVATION
US 6 OVER TRIBUTARY OF I&M CANAL
FAP 623 SEC. (H)BR-1
LA SALLE COUNTY
STA. 238+24.00
STRUCTURE NO. 050-2054



Signature: Deborah A. Zroka
Date: Aug. 10, 2012
November 30, 2012 Expires

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
S.N. 050-2054

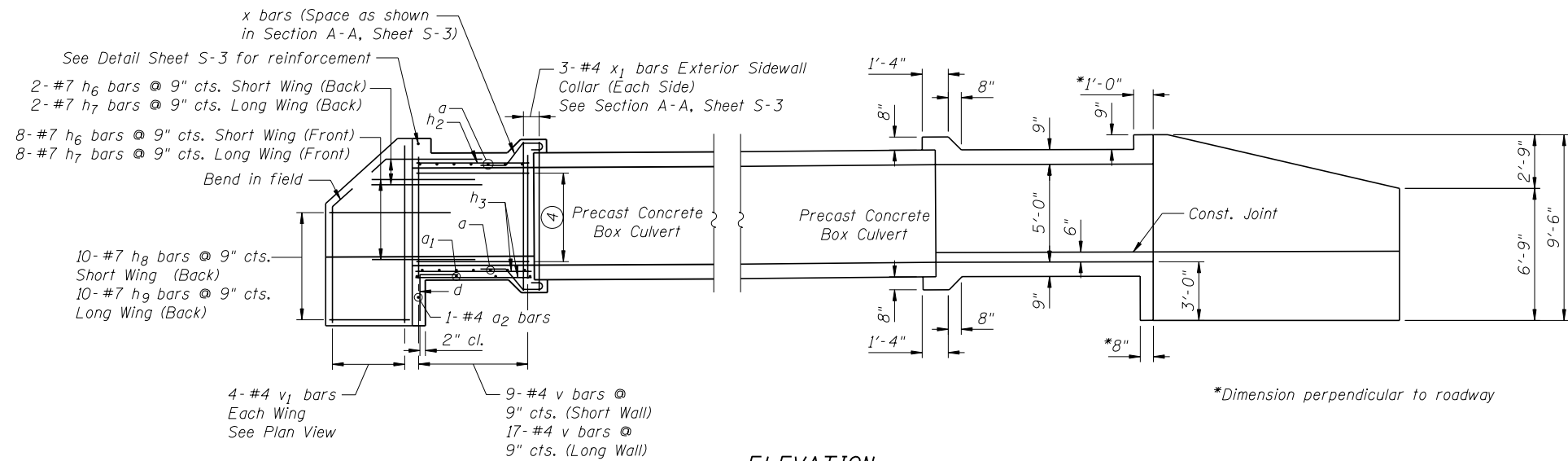
SHEET NO. S-1 OF 4 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
623	(H) BR-1	LA SALLE	32	15
CONTRACT NO. 66A13				
ILLINOIS FED. AID PROJECT				

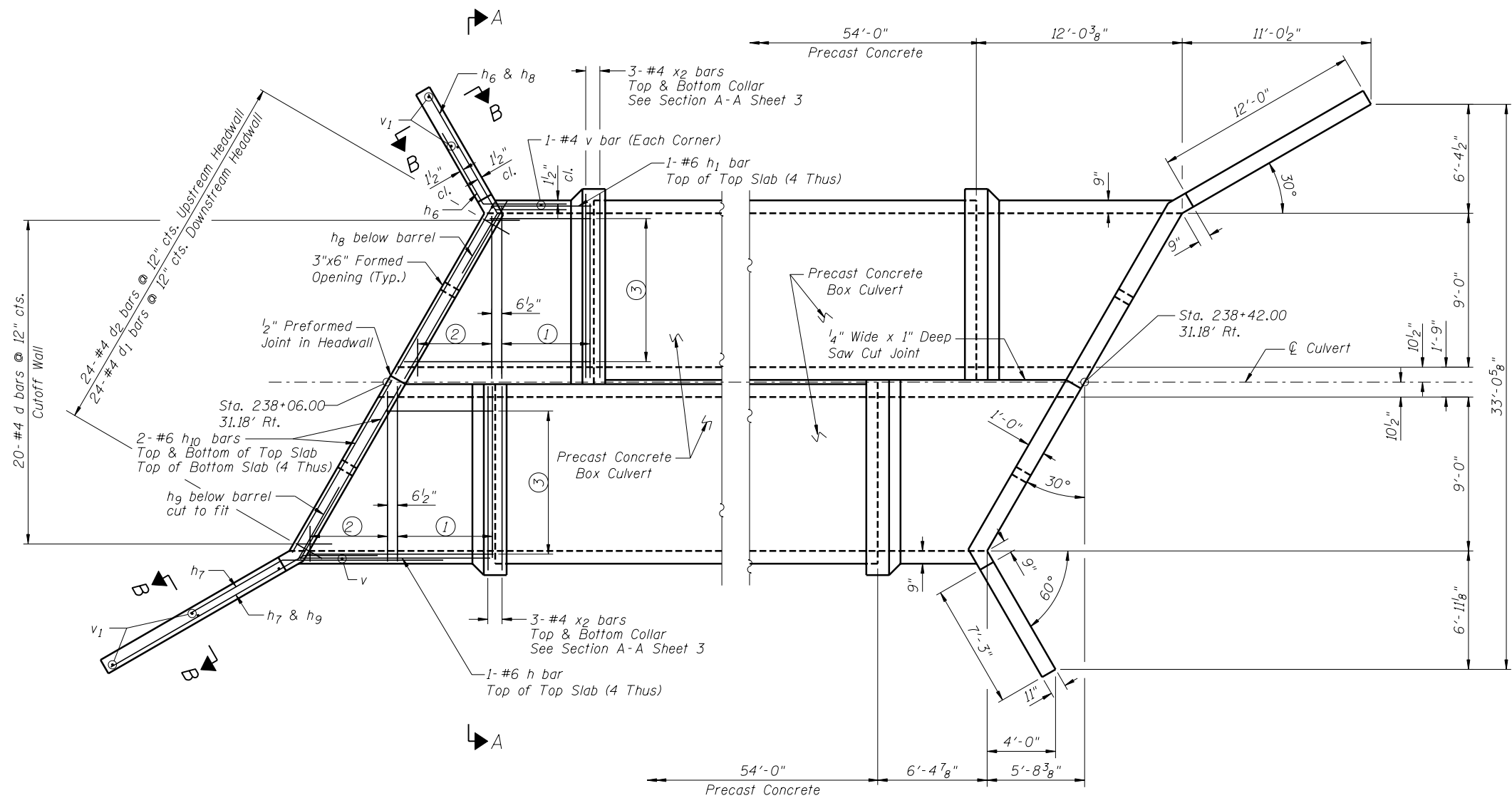
ZROKA
engineering

Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

USER NAME = SAW	DESIGNED - JLA	REVISED -
	CHECKED - DAZ	REVISED -
PLOT SCALE = 0:2.0000 'ft' / IN.	DRAWN - SAW	REVISED -
PLOT DATE = 8/15/2012	CHECKED - JLA	REVISED -



ELEVATION



PLAN

NOTES

- ① 11-#7 a bars @ $6\frac{1}{2}$ " cts.
(Bottom of Top Slab & Top of Bottom Slab)
4-#4 a_1 bars @ $2'-0"$ cts.
(Bottom of Bottom Slab)
- ② ***10-#7 a bars @ $6\frac{1}{2}$ " cts.
(Bottom of Top Slab & Top of Bottom Slab)
***3-#4 a_1 bars @ $2'-0"$ cts.
(Bottom of Bottom Slab)
- ③ **10-#6 h_2 bars @ $12"$ cts.
(Bottom of Top Slab)
**10-#4 h_3 bars @ $12"$ cts.
(Top of Bottom Slab & Bottom of Bottom Slab)
- ④ 6-#5 h_4 bars @ $12"$ cts.
(Short Wall)
6-#5 h_5 bars @ $12"$ cts.
(Long Wall)

** h bars in skew portion of slab shall be ordered full length and cut, see Cut Diagram on Sheet S-3. Balance of cut bars to be used in opposite end of culvert.

*** a bars in skew portion of slab shall be ordered full length & cut to fit. Balance of bar to be used in opposite end of culvert.

For Sections A-A and B-B, see Sheet S-3

A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.

BOX CULVERT END SECTIONS
STRUCTURE NO. 050-2054



Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

USER NAME = SAW	DESIGNED - JLA	REVISED -
PLOT SCALE = 0:2.0000 'ft' / IN.	CHECKED - DAZ	REVISED -
PLOT DATE = 8/15/2012	DRAWN - SAW	REVISED -
	CHECKED - JLA	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BOX CULVERT END SECTIONS
S.N. 050-2054

SHEET NO. S-2 OF 4 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
623	(H) BR-1	LA SALLE	32	16
CONTRACT NO. 66A13				
ILLINOIS FED. AID PROJECT				

FILE NAME = ...\\04007-SN050-2054-003-Details.dgn



Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

USER NAME = SAW
DESIGNED - JLA
CHECKED - DAZ
PLOT SCALE = 0:2.0000 'ft' / IN.
DRAWN - SAW
PLOT DATE = 8/15/2012

DESIGNED - JLA
CHECKED - DAZ
DRAWN - SAW
CHECKED - JLA

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CULVERT DETAILS
S.N. 050-2054

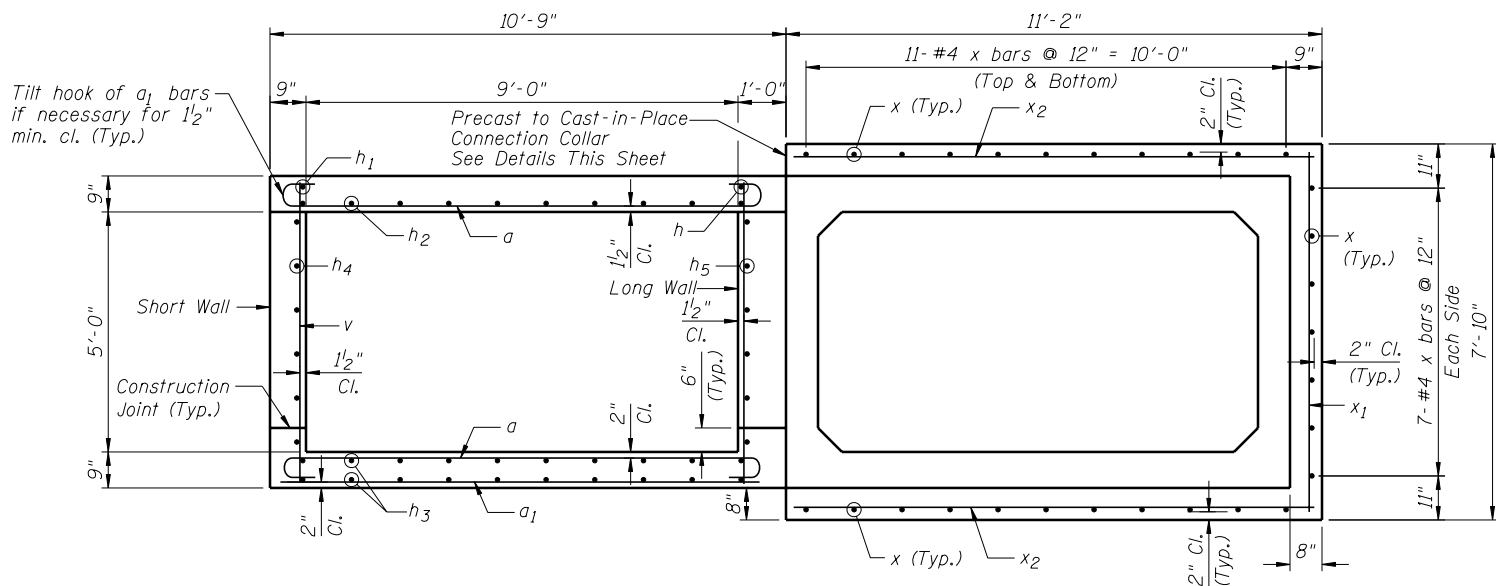
SHEET NO. S-3 OF 4 SHEETS

BILL OF MATERIAL

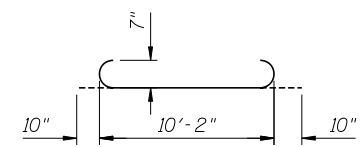
Bar	No.	Size	Length	Shape
a	128	#7	11'-10"	
a ₁	22	#4	10'-2"	
a ₂	2	#4	22'-6"	
d	40	#4	4'-6"	
d ₁	24	#4	4'-9"	
d ₂	24	#4	4'-7"	
h	4	#6	11'-8"	
h ₁	4	#6	6'-0"	
h ₂	20	#6	17'-8"	
h ₃	40	#4	17'-8"	
h ₄	24	#5	6'-0"	
h ₅	24	#5	11'-8"	
h ₆	20	#7	8'-0"	
h ₇	20	#7	8'-0"	
h ₈	20	#7	11'-0"	
h ₉	20	#7	15'-9"	
h ₁₀	24	#6	11'-6"	
v	108	#4	6'-2"	
v ₁	16	#4	9'-2"	
x	116	#4	5'-4"	
x ₁	12	#4	7'-6"	
x ₂	24	#4	10'-10"	
Item		Unit	Quantity	
Concrete Box Culverts		Cu. Yd.	55.4	
Reinforcement Bars		Pound	8,450	
Structure Excavation		Cu. Yd.	33	

NOTES

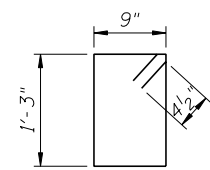
All construction joints shall be bonded.



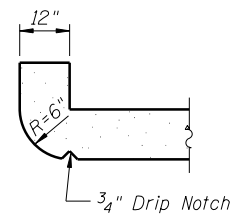
SECTION A-A



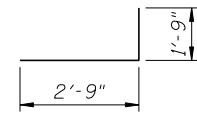
BAR a



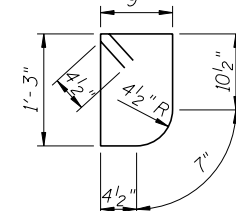
BAR d₁



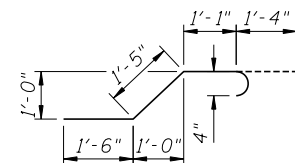
SECTION THRU HEADWALL
(Up Stream End Only)



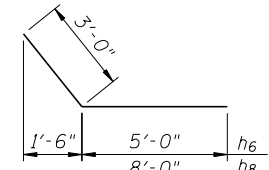
BAR d



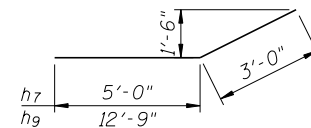
BAR d₂



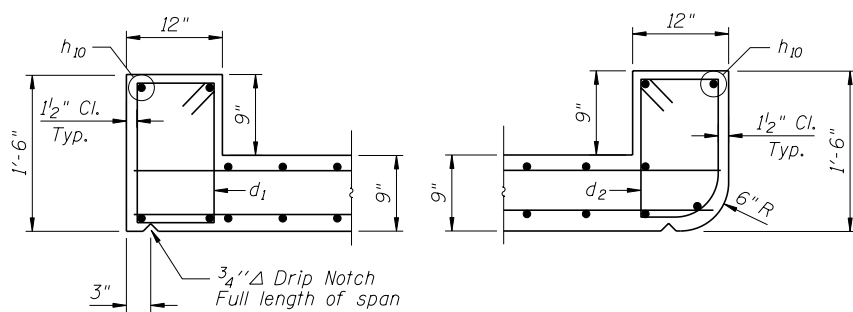
BAR x



BARS h₆ & h₈



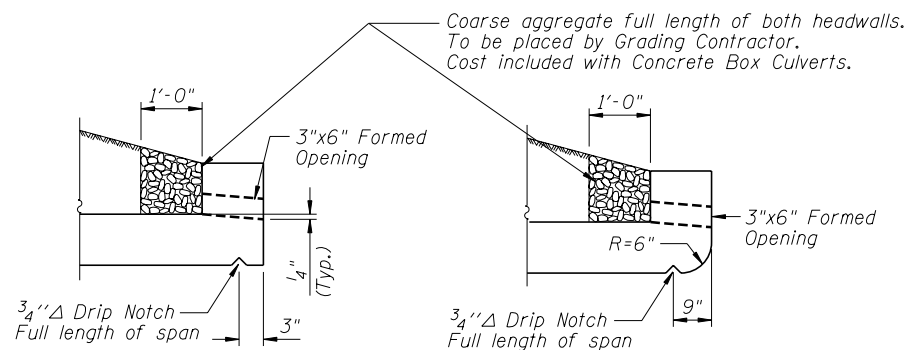
BARS h₇ & h₉



DOWNSTREAM

UPSTREAM

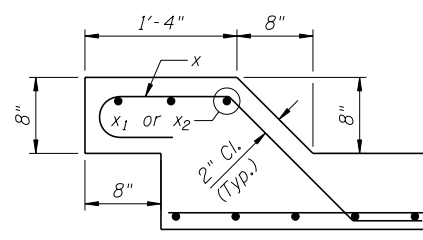
HEADWALL DETAILS



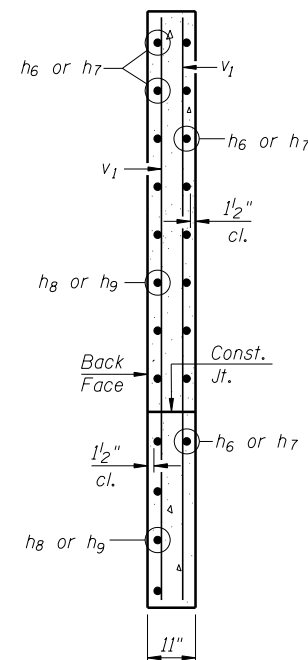
AT DOWNSTREAM END

AT UPSTREAM END

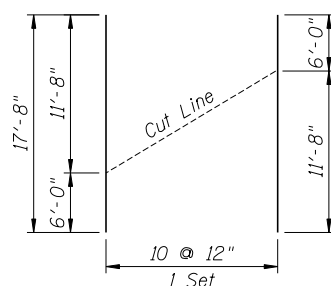
DRAIN DETAIL



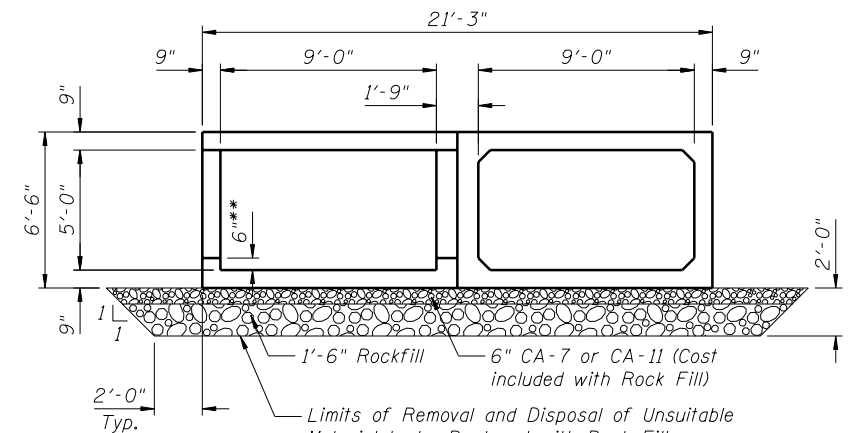
PRECAST TO CAST-IN-PLACE
CONNECTION COLLAR



SECTION B-B



BAR h₂ and h₃
CUT DIAGRAM



**Typical for C.I.P. portion of culvert

SECTION THRU BARREL

CULVERT DETAILS STRUCTURE NO. 050-2054

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
623	(H) BR-1	LA SALLE	32	17
CONTRACT NO. 66A13				

ILLINOIS FED. AID PROJECT

BORING B-1 (1978)

[illegible]

BORING B-2 (1978)

[illegible]

BORING B-1 (2010)

 Illinois Department of Transportation Division of Highways District #5, Ottawa	Page <u> 1 </u> of <u> 1 </u> Date <u> 6/3/10 </u>
--	---

SOIL BORING LOG

RROUTE US 6 (FAP 623) DESCRIPTION US 6 over a Creek, 1.9 miles West of IL 170 LOGGED BY Larry Myers

SECTION (H)BR-1 LOCATION SW 1/4, SEC. 22, TWP. 33N, RNG. 5E

COUNTY LaSalle DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 050-0183 (Exist.) Station 238+24 BORING NO. 1 (S.W. Quad) Station 237+70 Offset 45.00ft Rt. Ground Surface Elev. 515.26 ft	D E B U M P L O I T W S A H S Qu T	Surface Water Elev. 515.19 ft Stream Bed Elev. 515.60 ft Groundwater Elev.: First Encounter ft Upon Completion 508.3 ft ✓ After Hrs. ft	
---	---	--	--

	(ft)	(/ft')	(tsf)	(%)
Augered Dark Brown Silty Clay Loam with Gravel/Pieces Fill, some Cobble/Boulder Size	—			
<u>512.76</u>				
Stiff to Very Stiff Dark Brown Silty Clay Loam Fill with Gravel, Cobble/Boulder Size Fill	—			
<u>510.76</u>	11		2.0 P	17.5
Stiff Black, Brown Loam, Silty Loam, Silt, Alluvial Backwater Deposits Interbedded	—			
<u>508.26</u>	2		1.5 P	22.7
Medium/Dense Gray Fine/Medium Sand & Silt Interbedded	—			
<u>506.26 V</u>	30			12.4
Dense Gray Shale, Blocky	—			
<u>-10</u>	50			11.0
End of Boring	—			
<u>503.76</u>	54			
	—			
<u>-20</u>	91			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

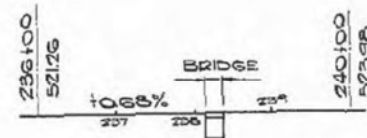
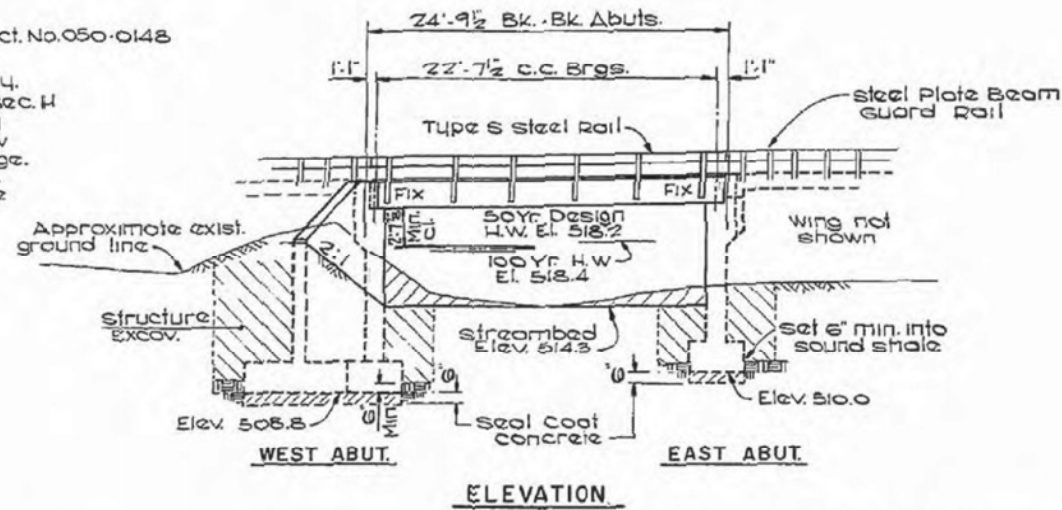
RBS, from 137 (Rev. 8.99)

SOIL BORINGS
STRUCTURE NO. 050-2054

BENCH MARK: #13. "a" on S.W.
wingwall of exist. bridge
Elev. 519.78

EXISTING STRUCTURE: Struct. No. 050-0148

A one span R.C. slab, 16' f.f.
R.C. closed Abuts. 20' Rdwy.
Bit. surface. Built 1920 as Sec. H
SBI Rt 7. To be removed by
Bridge Contractor after new
structure is built. No salvage.
Local traffic will use exist.
bridge while new structure
is being built.



PROFILE GRADE F.A. 623
U.S. ROUTE 6

STATION 238+24
BUILT 1980 BY
STATE OF ILLINOIS
F.A. RT. 623 SEC. H-BR-1
LOADING HS 20
STR. NO. 050-0183

NAME PLATE LETTERING
STD. 2113

GENERAL NOTES

See Proposal for Boring Data.

Backfill shall be placed behind the abutments
after the deck beams are in place. See Article
502.11 of the Standard Specifications.

Reinforcement bars shall conform to AASHTO:
M-31 or M-53, Grade 60.

The top surface of the beams shall be finished
in accordance with Article 505.06 of the Standard
Specifications except that the surface shall not
be roughened by brooming. The finished surface
shall be free of depressions or high spots with
sharp corners.

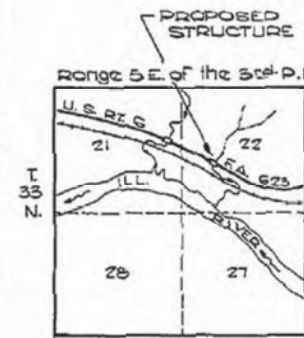
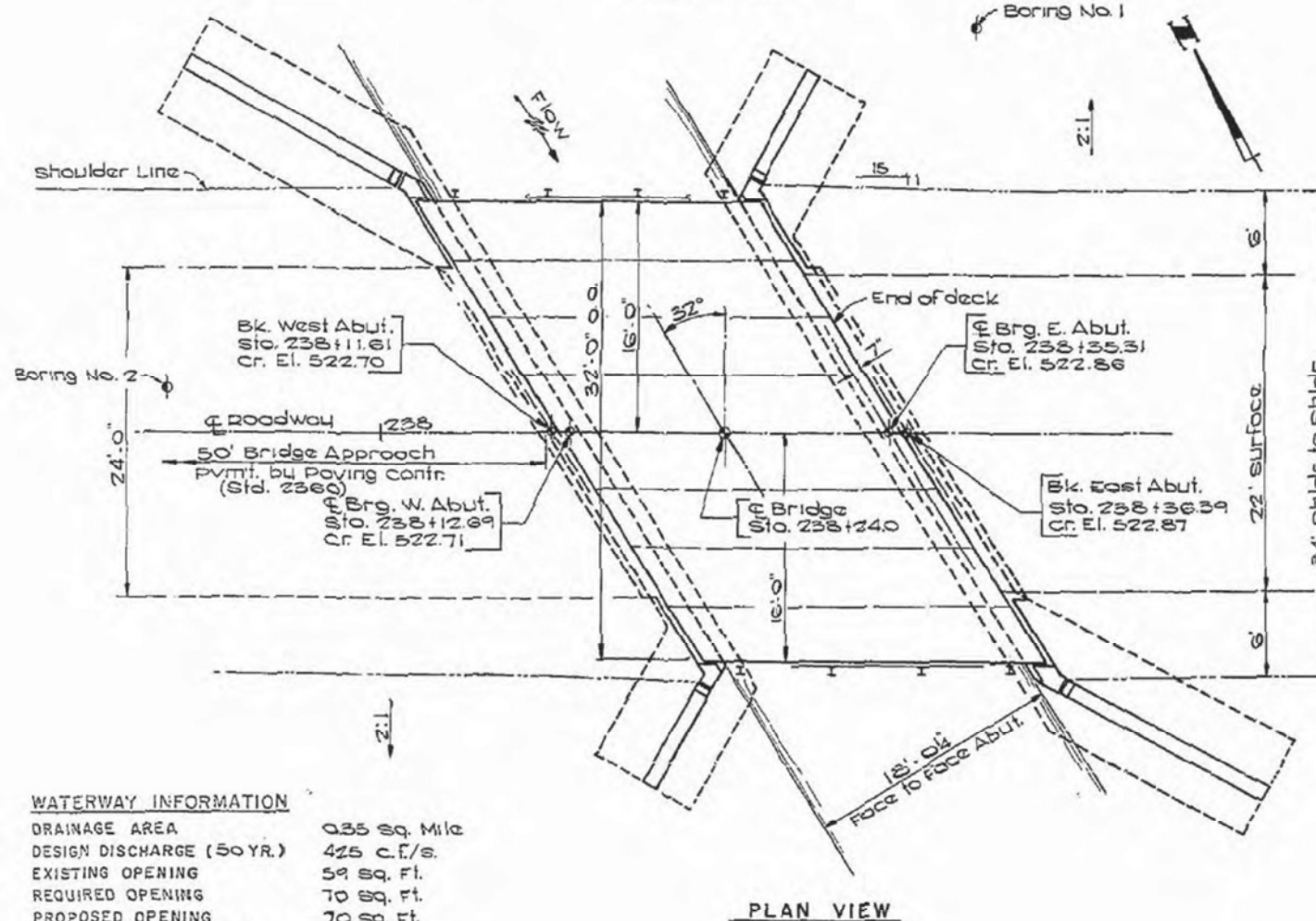
To prevent deterioration of shale during exposure
in excavation the contractor shall undercut
footing elevations 6" and immediately after excava-
tion is removed pour 6" seal coat concrete to
bottom of footing elevation.

INDEX OF BRIDGE SHEETS

- 1 General Plan & Elevation
- 2 Deck Beam Details
- 3 Type S Steel Railing
- 4 West Abutment
- 5 East Abutment

BILL OF MATERIAL - BRIDGE

ITEM	UNIT	SUB.	SUPER.	TOTAL
CHANNEL EXCAVATION	CU. YDS.			180
REMOVAL OF EXISTING STRUCTURES	EACH			1
STRUCTURE EXCAVATION	CU. YDS.	272		272
ROCK EXCAVATION FOR STRUCTURES	CU. YDS.	22.6		22.6
CLASS X CONCRETE	CU. YDS.	119.6		119.6
SEAL COAT CONCRETE	CU. YDS.	11.2		11.2
PRECAST PRESTRESSED CONC. DECK BMS. (17')	SQ. FT.		768	768
STEEL RAILING, TYPE S	LIN. FT.		48	48
REINFORCEMENT BARS	LBS.	7470		7470
NAME PLATES	EACH		1	1
WATERPROOFING MEMBRANE SYSTEM	SQ. YDS.		103	103
PORTLAND CEMENT MORTAR FAIRING COURSE	LIN. FT.		168	168
BITUMINOUS CONCRETE SURF. COURSE, CLI. MIX D	TONS		8	8



LOCATION MAP

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Carl E. Thompson Jr.
OWNER OF BRIDGE & TRAFFIC STRUCTURES

DESIGN STRESSES

FIELD UNITS	PRESTRESSED UNITS
$f_s = 24,000$ p.s.i.	$f_c = 5000$ p.s.i.
$f_c = 1000$ p.s.i.	$f_{ci} = 4000$ p.s.i.
$f_e = 56$ p.s.i.	$f_s = 270,000$ p.s.i.
$n = 9$	$f_{si} = 189,000$ p.s.i.

Allowance for 25 p.s.f. future
wearing surface

Designed using AASHTO Spec's.
dated 1977 & interim Spec's. dated
1978 & 1979.

LOADING HS 20 - 44

WATERWAY INFORMATION

DRAINAGE AREA	0.35 Sq. Mile
DESIGN DISCHARGE (50 YR.)	425 c.f./s.
EXISTING OPENING	59 sq. ft.
REQUIRED OPENING	70 sq. ft.
PROPOSED OPENING	70 sq. ft.
CREATED HEAD (50 YR.)	0.65 foot
100 YR. DISCHARGE	500 c.f./s.
CREATED HEAD (100 YR.)	0.86 foot
HIGH WATER ELEV. (100 YR.)	518.4

STA. 238+24.00

SECTION H-BR-1
F.A. ROUTE 623 U.S. ROUTE 6
LA SALLE COUNTY

GENERAL PLAN & ELEVATION

DESIGNED BY:
C. THOMPSON
DATE: SEPT. 1979

DRAWN BY:
P. BROADBENT
DATE: OCT. 1979

CHECKED BY:
C.E. THOMPSON
DATE: OCT. 1979

APPROVED BY:
[Signature]
DATE: [Blank]

WILLET
HOFMANN &
ASSOCIATES, Inc.
Consulting Engineers

11/30/79



Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

USER NAME = SAW	DESIGNED - JLA	REVISED -
	CHECKED - DAZ	REVISED -
PLOT SCALE = 0:2.0000 "1" / IN.	DRAWN - SAW	REVISED -
PLOT DATE = 8/15/2012	CHECKED - JLA	REVISED -

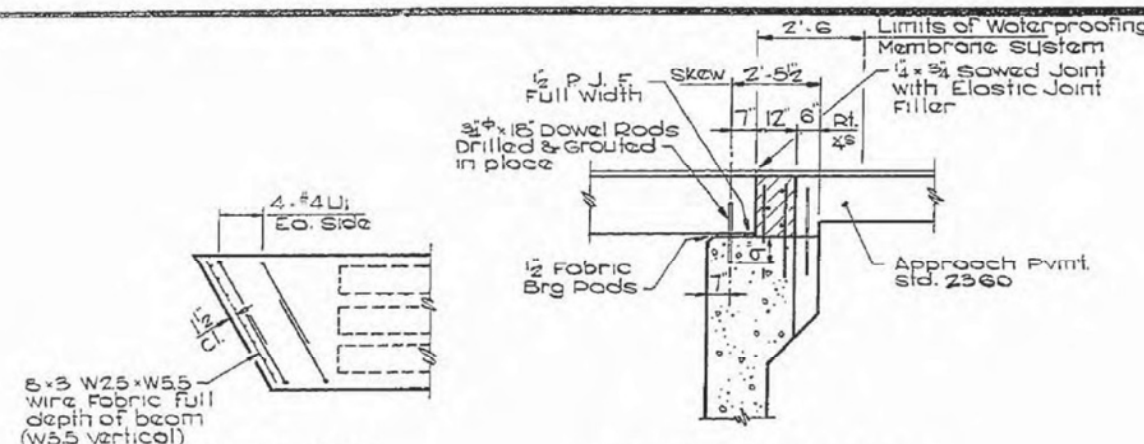
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS
FOR INFORMATION ONLY

SHEET NO. 1 OF 7 SHEETS

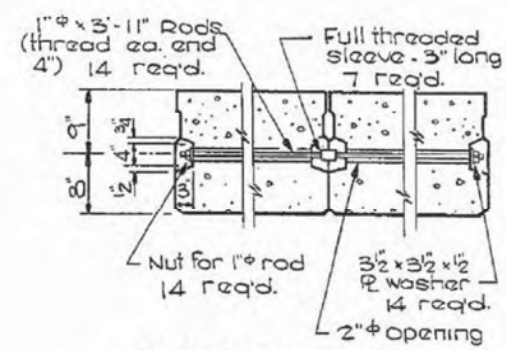
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
623	(H) BR-1	LA SALLE	32	19
CONTRACT NO. 66A13				
ILLINOIS FED. AID PROJECT				

SECTION	SEC.	COUNT	TOTAL	SHEET
623	H-BR-1	LA SALLE	126	52
PREPARED BY	DESIGNED BY	CHECKED BY	DATE	



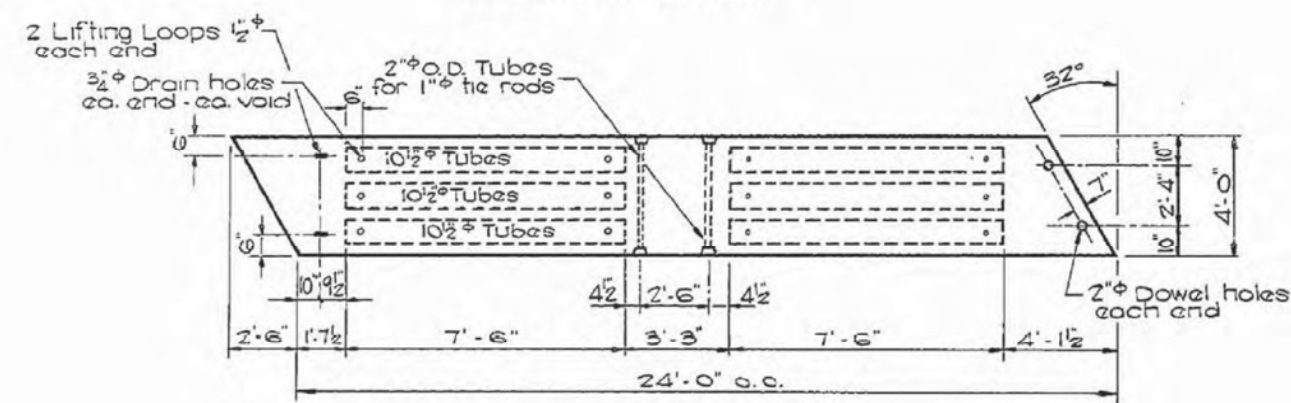
END REINFORCEMENT

SECTION AT END OF BEAM

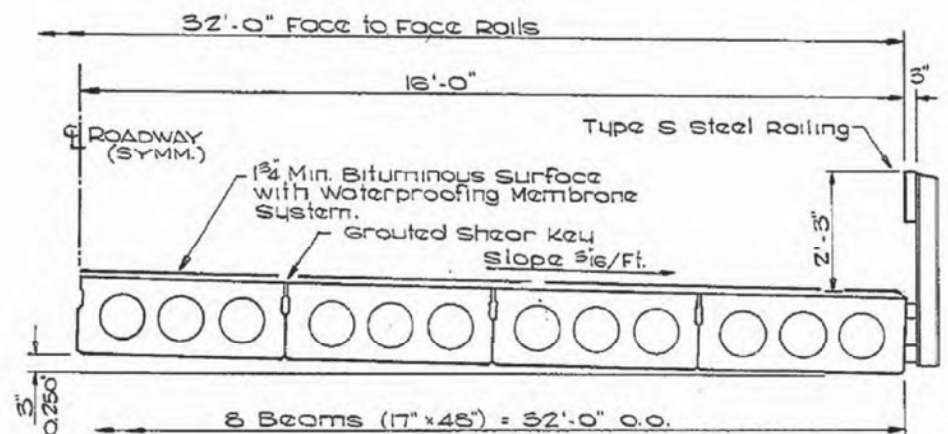


TRANSVERSE TIE ASSEMBLY

GENERAL NOTES:
 Prestressing steel shall be non-galvanized high strength stress-relieved 7-wire strand, Grade 270. The nominal dia. shall be 1/2" and the nominal cross-sectional area shall be 0.153 Sq. inch. Reinforcement bars shall conform to AASHTO: M-31 or M-53, Grade 60. The 1" dia. rods in the transverse tie assembly shall be tightened to a snug fit and set threads.
 Pockets that receive transverse tie bar on outside beam shall be filled with grout after transverse tie assembly is in place. Cost of reinforcement and accessories cost into beams, of bearing pods, and of grouting longitudinal shear keys is included in unit price bid for "Precast Prestressed Concrete Deck Beams."
 Lifting loops shall be 1/2" diameter, 6x25 class wire rope with fiber core and shall have a minimum ultimate tensile strength of 21,000 lbs.
 Longitudinal shear keys shall be packed with a very dry mix of 2:1 sand and P.C. mortar.
 After beams have been erected, holes for the dowel anchors shall be drilled into the substructure and anchor dowels shall be grouted in place.
 A calcium Nitrite corrosion inhibitor, as covered in the special provisions, shall be used in the concrete for Precast Prestressed concrete Deck Beams.

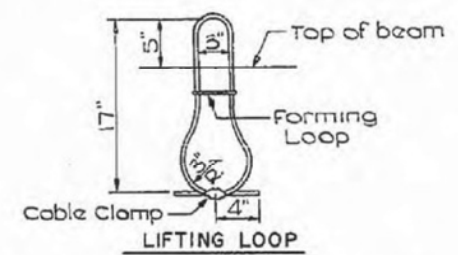


PLAN OF BEAM

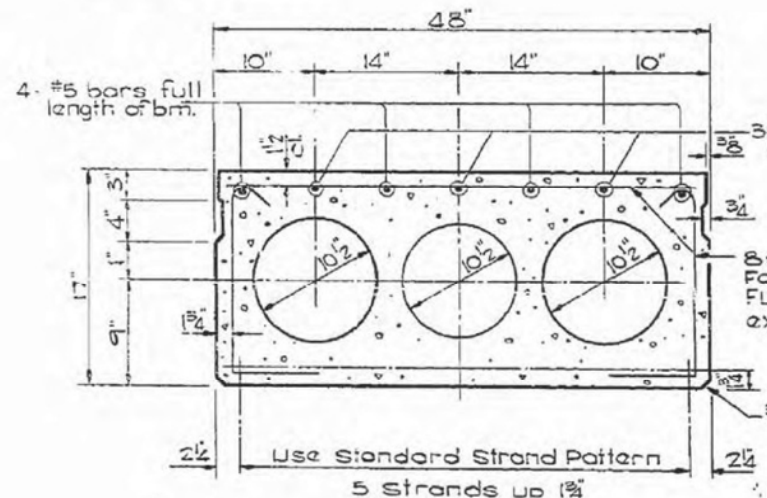


CROSS SECTION

OMIT SHEAR KEY ON OUTSIDE FACE OF EXTERIOR BEAMS



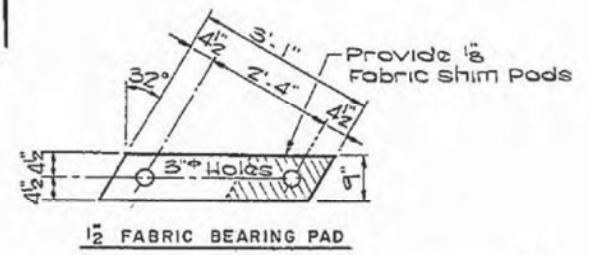
LIFTING LOOP



SECTION THRU BEAM

NOTE:
 Place strands symmetrically about 6 beams. 7 wire - 1/2" strands. Stress to 28,400 lbs. per strand

BAR U1



PROFILE OF WEARING SURFACE THICKNESS

BILL OF MATERIAL - DECK

ITEM	UNIT	QUANT.
Precast Prestressed Conc. Deck Beams(17")	Sq. Ft.	768

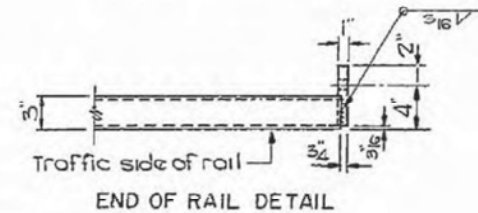
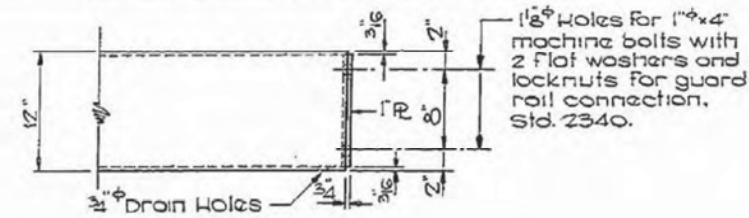
STA. 238+24.0
 DECK BEAM DETAILS
 SECTION H-BR-1
 F.A. ROUTE 623
 LA SALLE COUNTY

FILE NAME = ...04007-SN050-2054-005-ExistingPlans.dgn

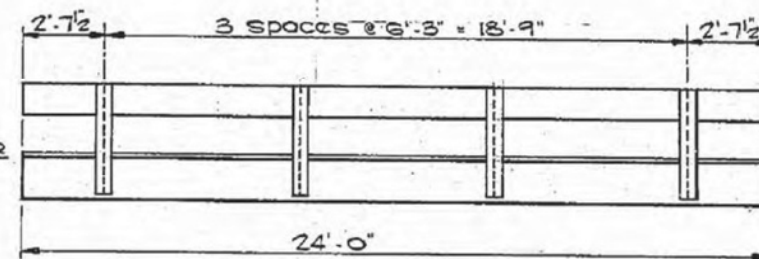
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	CHECKED - DAZ	REVISED -
PLOT SCALE = 0:2.0000 '1' / IN.	DRAWN - SAW	REVISED -
PLOT DATE = 8/15/2012	CHECKED - JLA	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 66A13				
ILLINOIS FED. AID PROJECT				

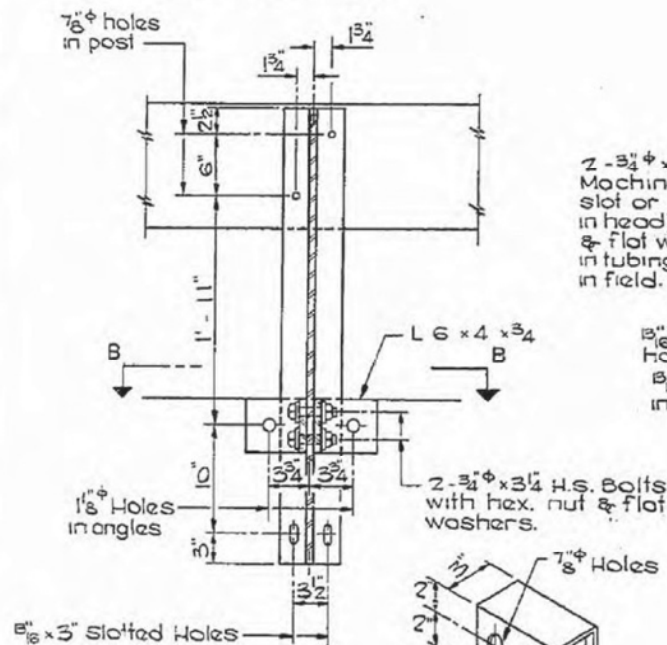
PROJECT NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
623 H-BR-1	LA SALLE	126	53	
AREA PROJECT	ILLINOIS	PROJECT		



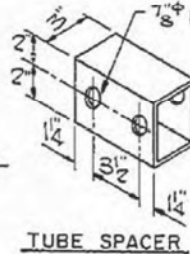
LOCATE NAMEPLATE
AT SOUTH WEST CORNER



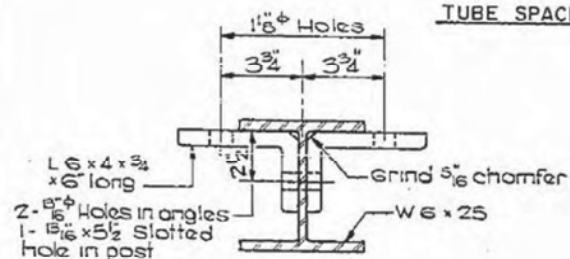
ELEVATION RAIL POST SPACING



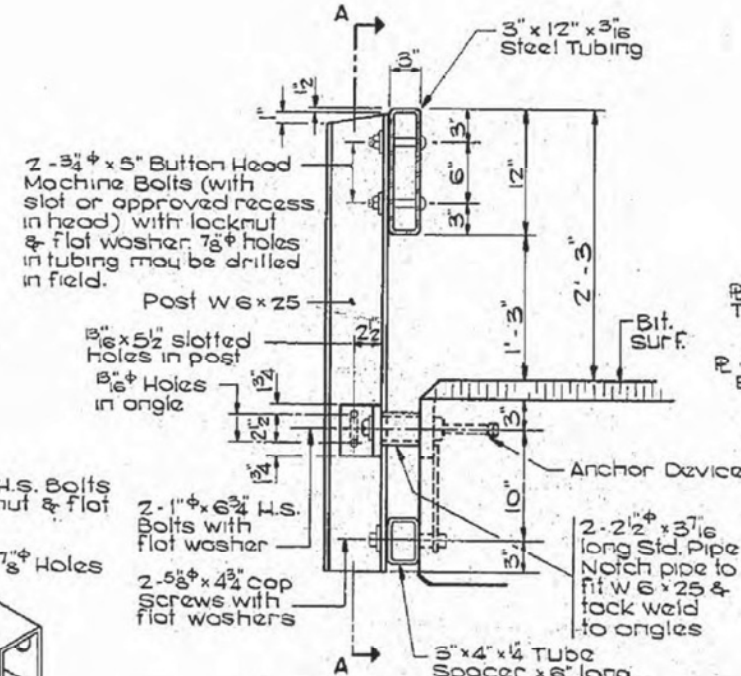
SECTION A-A



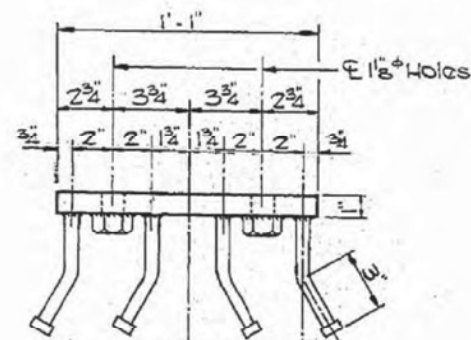
TUBE SPACER



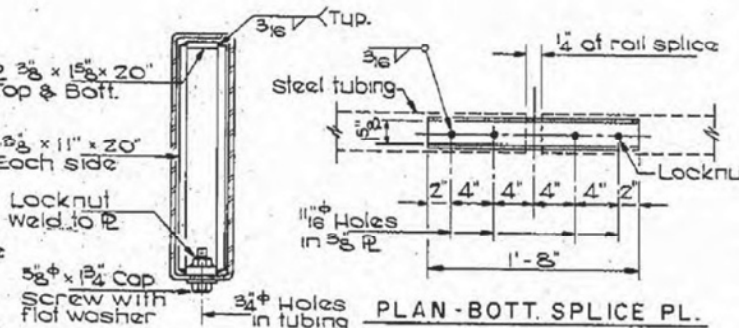
SECTION B-B



SECTION AT RAIL POST

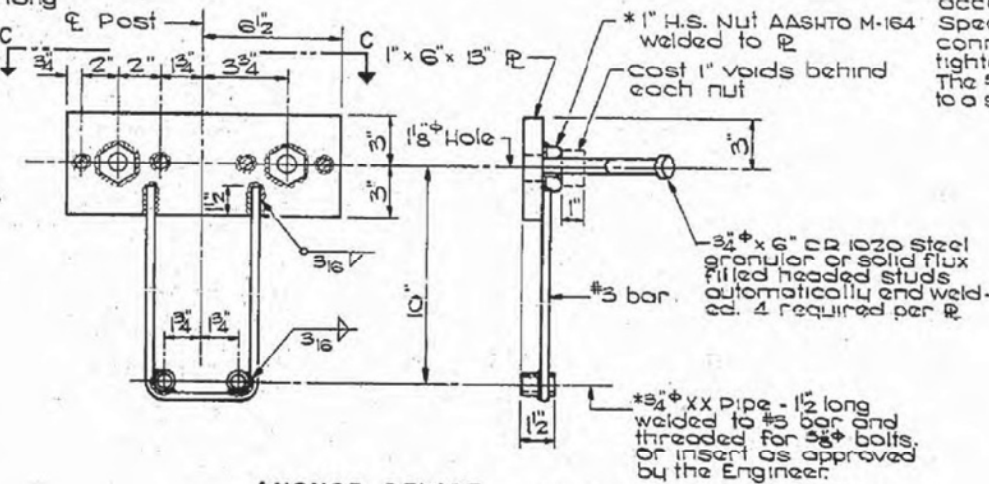


SECTION C-C



PLAN - BOTT. SPLICE PL.

SECTION AT RAIL SPLICE



ANCHOR DEVICE

NOTES

Hollow structural steel tubing shall conform to the requirements of ASTM designation A-500 Grade B or A-501 Structural Steel Tubing.

All other steel shapes and plates shall conform to the requirements of AASHTO Designation M-183 except posts and angles shall conform to AASHTO M-225 Grade 50.

Bolts, cap screws, and nuts shall conform to the requirements of ASTM designation A-307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M-164.

All bolts, nuts, cap screws, washer and lock washers shall be galvanized in accordance with AASHTO designation M-232.

All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication in accordance with AASHTO designation M-111 and ASTM A-385. Galvanized rail shall not be painted.

Railing shall be in accordance with section 508 of the standard specifications, except as noted, and shall be paid for at the contract unit price per lineal foot for STEEL RAILING, TYPE S.

All field drilled holes shall be coated with an approved zinc rich paint before erection.

The portion of the tube spacer in contact with concrete shall receive two coats of asphalt paint conforming to section 714.08 Type B or place 1/2 inch fabric bearing pad between the spacer & concrete.

The 3/4 inch dia. high strength bolts used to connect the 6x4x24 angles to the post shall be tightened in accordance with Article 507.04 (g)(3) of the Standard Specifications. The 1 inch dia. high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/2 turn. The 3/4 inch cap screws in bottom of posts shall be tightened to a snug fit only.

BILL OF MATERIAL

ITEM	UNIT	QUANT.
STEEL RAILING, TYPE S	LIN. FT.	48

STA. 238+240
TYPE S STEEL RAILING
SECTION H-BR-1
FA. ROUTE 623
LA SALLE COUNTY

BRIDGE SHEET 3 OF 5

ZROKA
engineering

Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

USER NAME = SAW
PLOT SCALE = 0:2.0000 "1" / IN.
PLOT DATE = 8/15/2012

DESIGNED - JLA
CHECKED - DAZ
DRAWN - SAW
CHECKED - JLA

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS
FOR INFORMATION ONLY

SHEET NO. 3 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
623	(H) BR-1	LA SALLE	32	21
				CONTRACT NO. 66A13
ILLINOIS FED. AID PROJECT				

* Contractor is to verify beam length prior to ordering material. Other sections meeting the section modulus requirements shown may be allowed subject to approval by the Bureau of Bridges and Structures, however, no additional payment will be allowed if the contractor chooses a heavier steel section than the one specified in the plans. Maximum girder depth = 24", Min. Sx = 127 in³.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
FA 623	#	LA SALLE	5	1
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract Number: 66816
* (H-BR-11)

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.

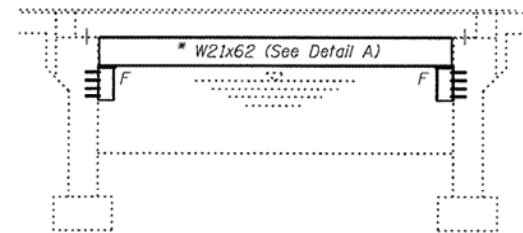
See Section 584 of the Standard Specifications for Epoxy Grouting of Threaded Rods.

The cost of epoxy grouting threaded rods shall be included with Furnishing and Erecting Structural Steel.

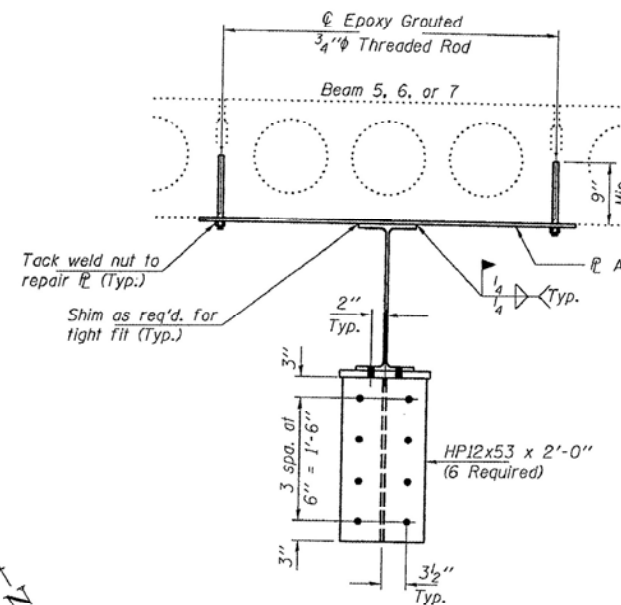
The Contractor has the option of using used steel. See special provisions.

The contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the contractors responsibility to account for the condition of the beams when developing construction procedures.

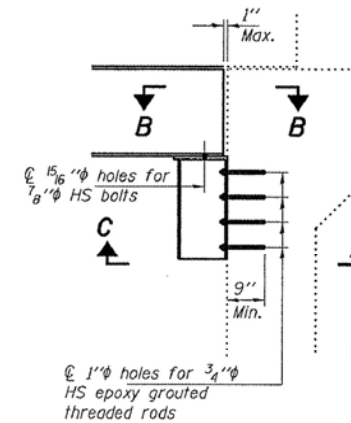
If the contractor's procedure for placement of beams involves placement of cranes or other heavy equipment on the bridge, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying that the equipment and procedure used will not overstress the existing beams. To distribute load to multiple beams and protect the existing surface, in all cases a double layer mat of heavy timbers shall be used at all times under crane tracks or wheels and any outriggers in the down position. If necessary, shims shall be used under the crane mat to ensure uniform contact with the underlying beams.



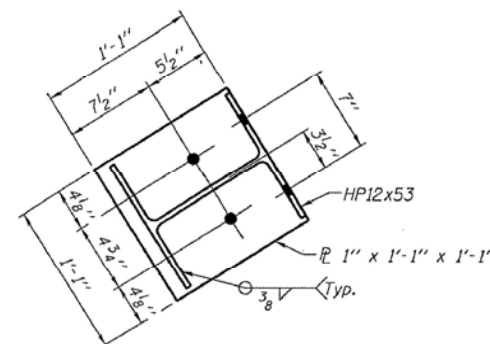
ELEVATION



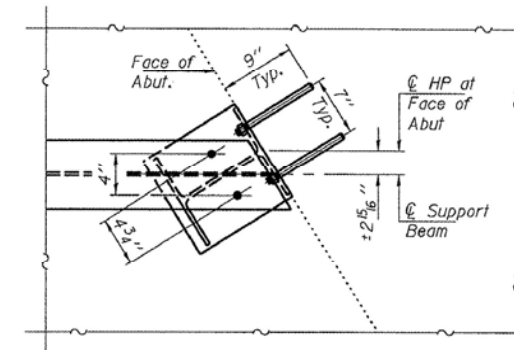
TYPICAL SECTION THRU
SUPPORTED BEAM



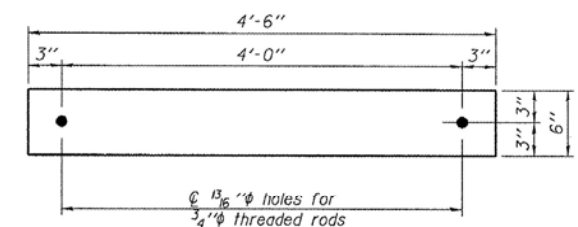
SECTION A-A



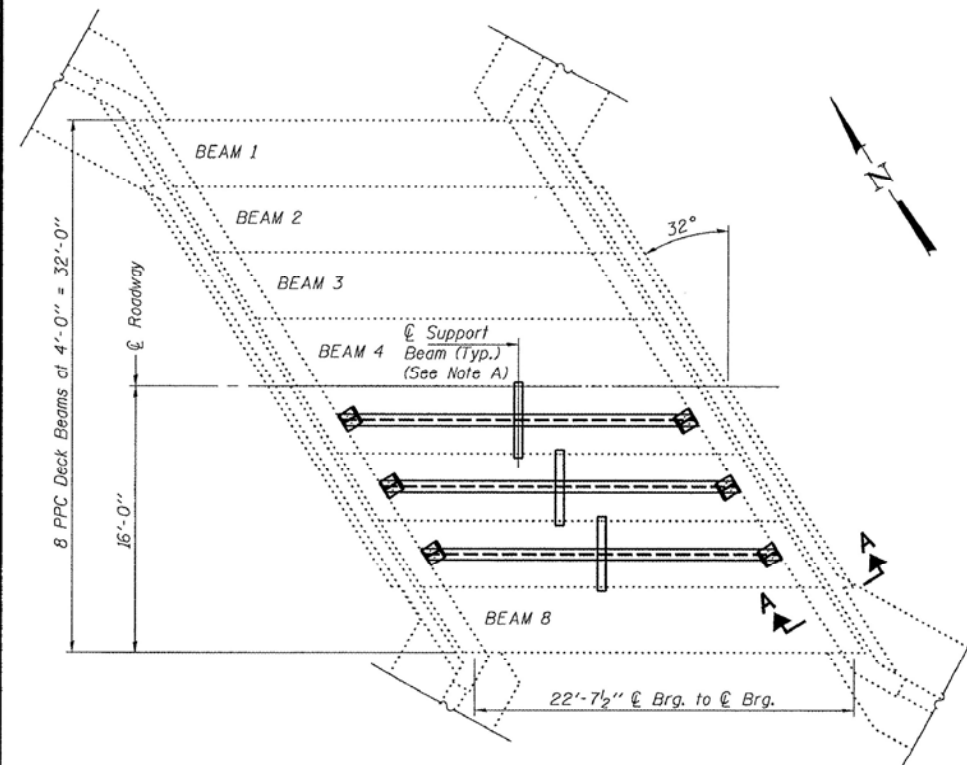
SECTION C-C



SECTION B-B



TRANSVERSE TIE R A
R 1/2" x 4'-6" x 6" (3 Req'd)



PLAN

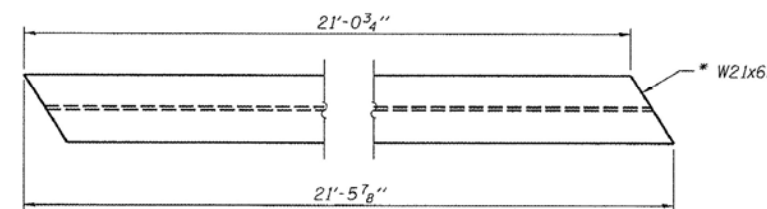
Note A:
Transverse tie R's (1 per span). Place additional shims at midpoints between tie R's. Securely weld shims to top flange of support beam. Minimum shim size is 6" x flange width.

DESIGNED	Victor H. Velez
CHECKED	Domenico Balera
DRAWN	Steffen
CHECKED	UHV OAB

APRIL 17, 2008	
EXAMINED	<i>Dr. Carl Rupp</i>
ENGINEER OF STRUCTURAL SERVICES	
PASSED	<i>Ralph E. Anderson</i>
REGISTERED PROFESSIONAL ENGINEER	



Expires: November 30, 2008



DETAIL A
W21x62 x 21'-5 7/8"
(3 Required)

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnishing and Erecting Structural Steel	Pound	5130

PLAN AND ELEVATION
FA 623
LA SALLE COUNTY
SN 050-0183



Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

USER NAME = SAW	DESIGNED - JLA	REVISED -
PLOT SCALE = 0:2.0000' = 1" / IN.	CHECKED - DAZ	REVISED -
PLOT DATE = 8/15/2012	DRAWN - SAW	REVISED -
	CHECKED - JLA	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

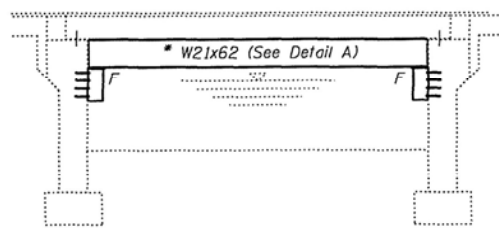
EXISTING BRIDGE PLANS
FOR INFORMATION ONLY

SHEET NO. 6 OF 7 SHEETS

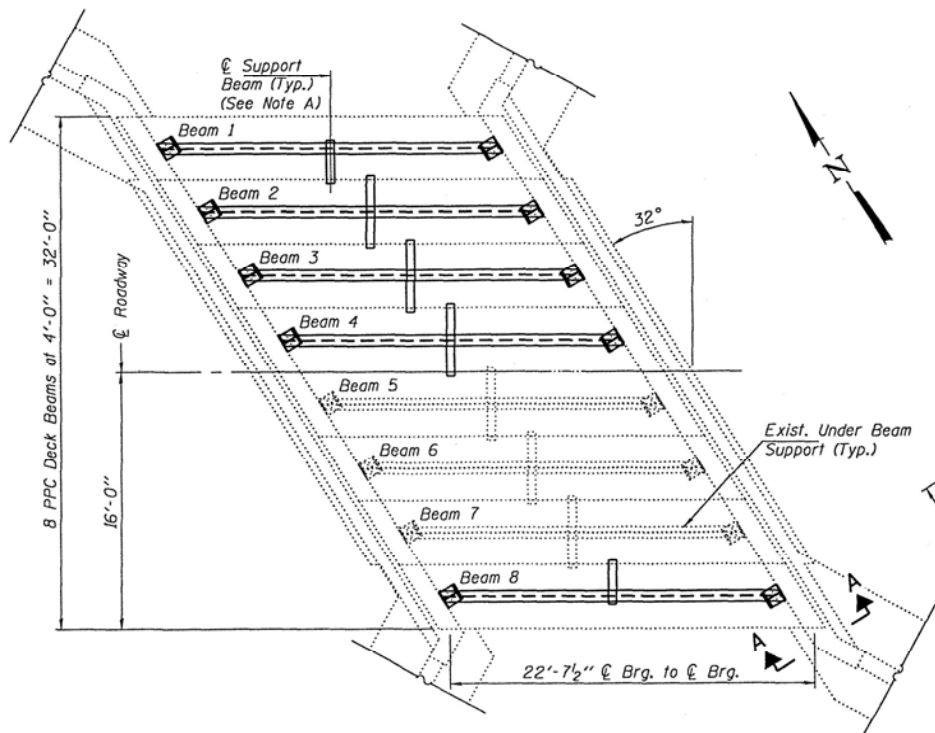
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
623	(H) BR-1	LA SALLE	32	24
CONTRACT NO. 66A13				
ILLINOIS FED. AID PROJECT				

* Contractor is to verify beam length prior to ordering material. Other sections meeting the section modulus requirements shown may be allowed subject to approval by the Bureau of Bridges and Structures, however, no additional payment will be allowed if the contractor chooses a heavier steel section than the one specified in the plans. Maximum girder depth = 24", Min. Sx = 127 in³.

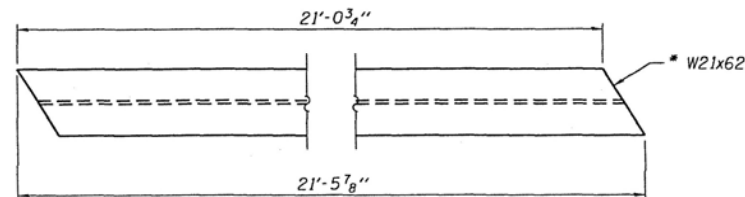
Note A:
Transverse tie R's (1 per span). Place additional shims at midpoints between tie R's. Securely weld shims to top flange of support beam. Minimum shim size is 6" x flange width.



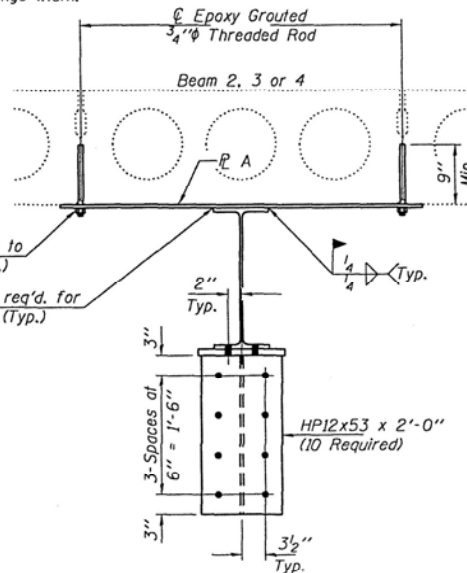
ELEVATION



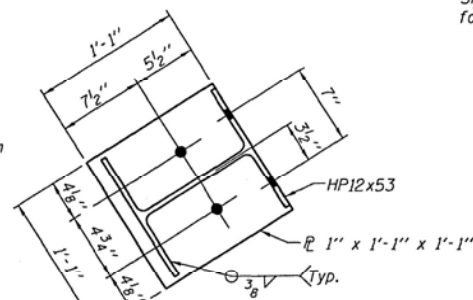
PLAN



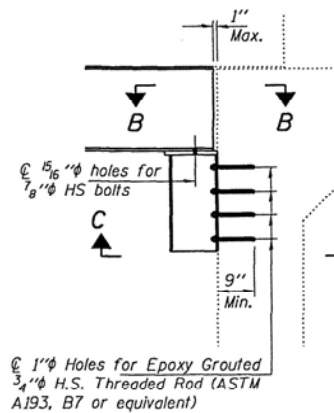
DETAIL A
W21x62 x 21'-5 7/8"
(5 Required)



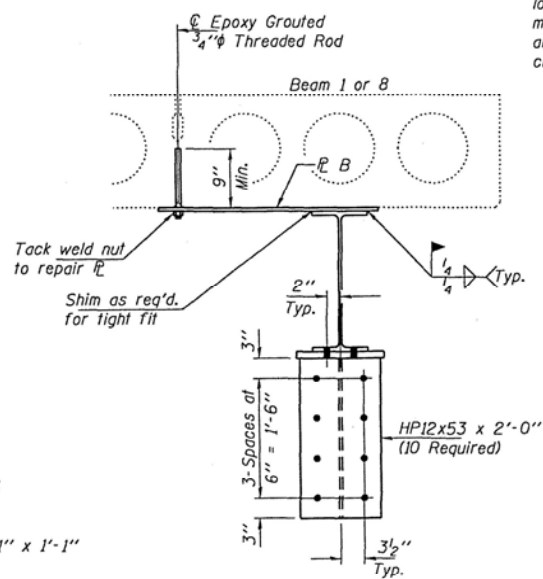
TYPICAL SECTION THRU
BEAMS 2 THRU 4



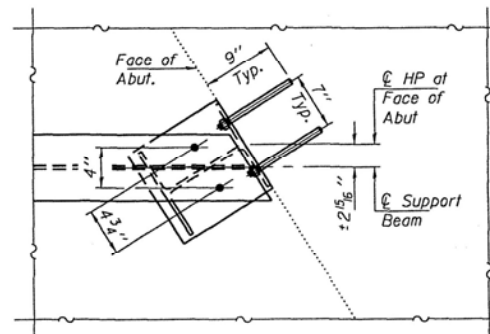
SECTION C-C



SECTION A-A



TYPICAL SECTION THRU
FASCIA BEAMS 1 & 8



SECTION B-B

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

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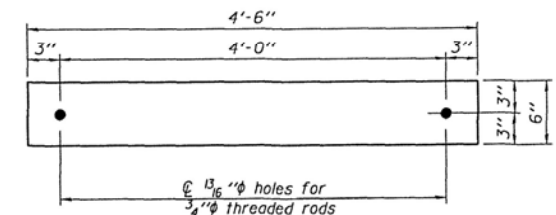
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The cost of epoxy grouting threaded rods shall be included with Furnishing and Erecting Structural Steel.

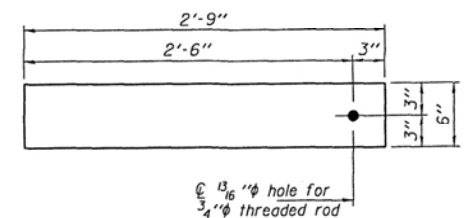
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TRANSVERSE TIE R A
R 1/2" x 4'-6" x 6" (3 Req'd)



TRANSVERSE TIE R B
R 1/2" x 2'-9" x 6" (2 Req'd)

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnishing and Erecting Structural Steel	Pound	8540

U.S. ROUTE 6
SN 050-0183



Expires: November 30, 2010

DESIGNED: *Kyle M. Steffen*
CHECKED: *Kyle M. Steffen*
DRAWN: *Kyle M. Steffen*
CHECKED: *Kyle M. Steffen*

EXAMINED: *Ralph E. Anderson*
PASSED: *Ralph E. Anderson*
ENGINEER OF STRUCTURAL SERVICES
ENGINEER OF BRIDGES AND STRUCTURES

DATE: JULY 19, 2010

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN, ELEVATION & REPAIR DETAILS

SHEET NO. 1 OF 1 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
623	(H) BR-1	LA SALLE	5	5
CONTRACT NO. 66A60				

ILLINOIS FED. AID PROJECT



Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

USER NAME: SAW
PLOT SCALE: 0:2.0000' = 1" / IN.
PLOT DATE: 8/15/2012

DESIGNED: JLA
CHECKED: DAZ
DRAWN: SAW
CHECKED: JLA

REVISED: -
REVISED: -
REVISED: -
REVISED: -

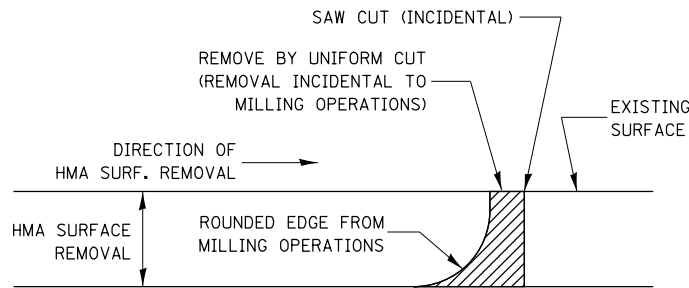
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS
FOR INFORMATION ONLY

SHEET NO. 7 OF 7 SHEETS

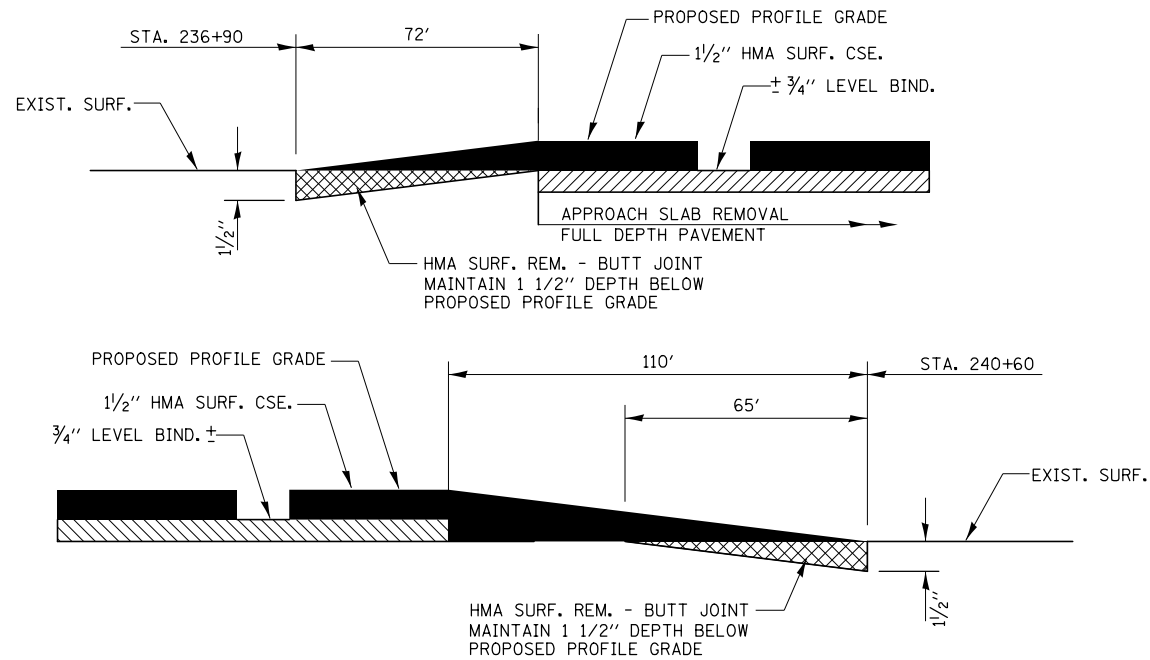
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
623	(H) BR-1	LA SALLE	32	25
CONTRACT NO. 66A13				

ILLINOIS FED. AID PROJECT

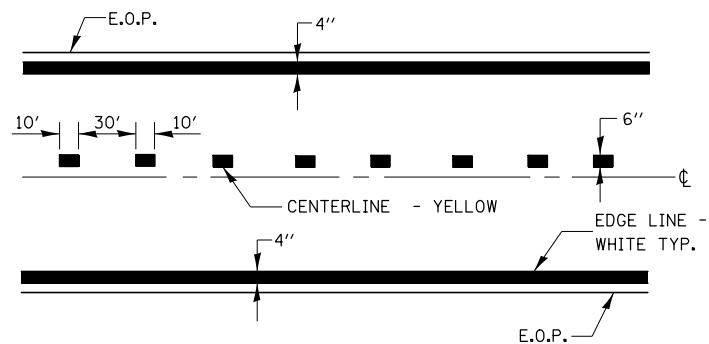


NOTE:

WHEN MILLING OPERATIONS PRODUCE A ROUNDED EDGE, THEN A SAW CUT SHALL BE USED TO MANUFACTURE A PERPENDICULAR EDGE AS SHOWN IN THE DETAIL. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE USE OF THIS DETAIL

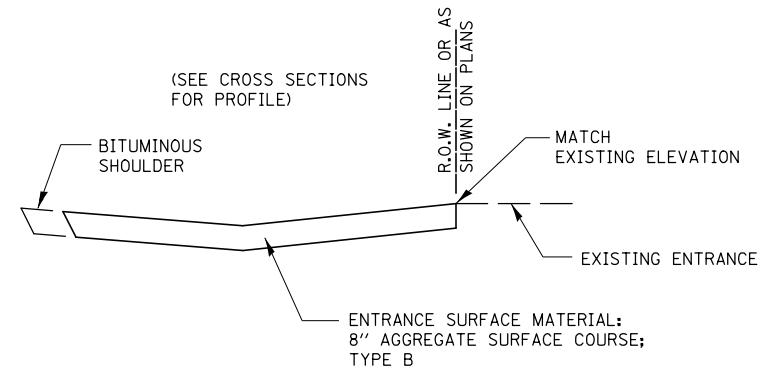
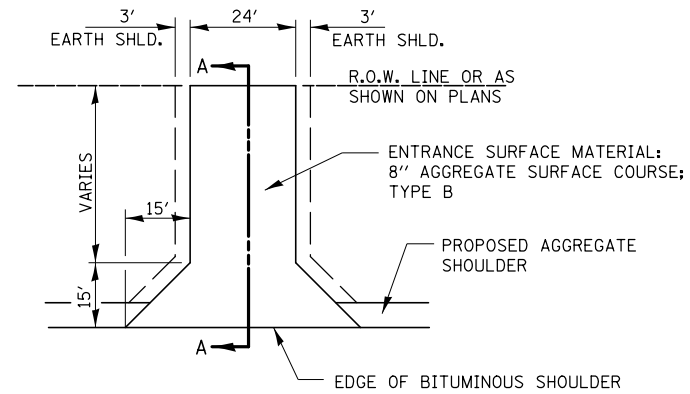


HMA DETAIL AT BUTT JOINTS

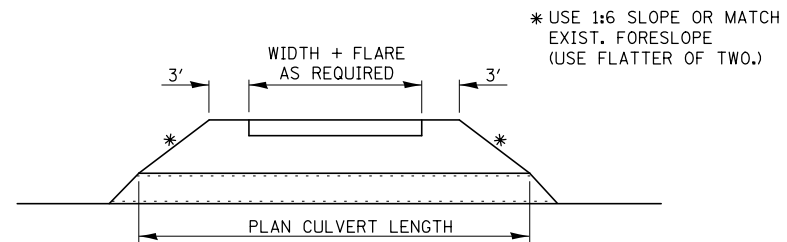


(SEE TYPICAL SECTIONS)

PAVEMENT MARKING



SECTION A-A

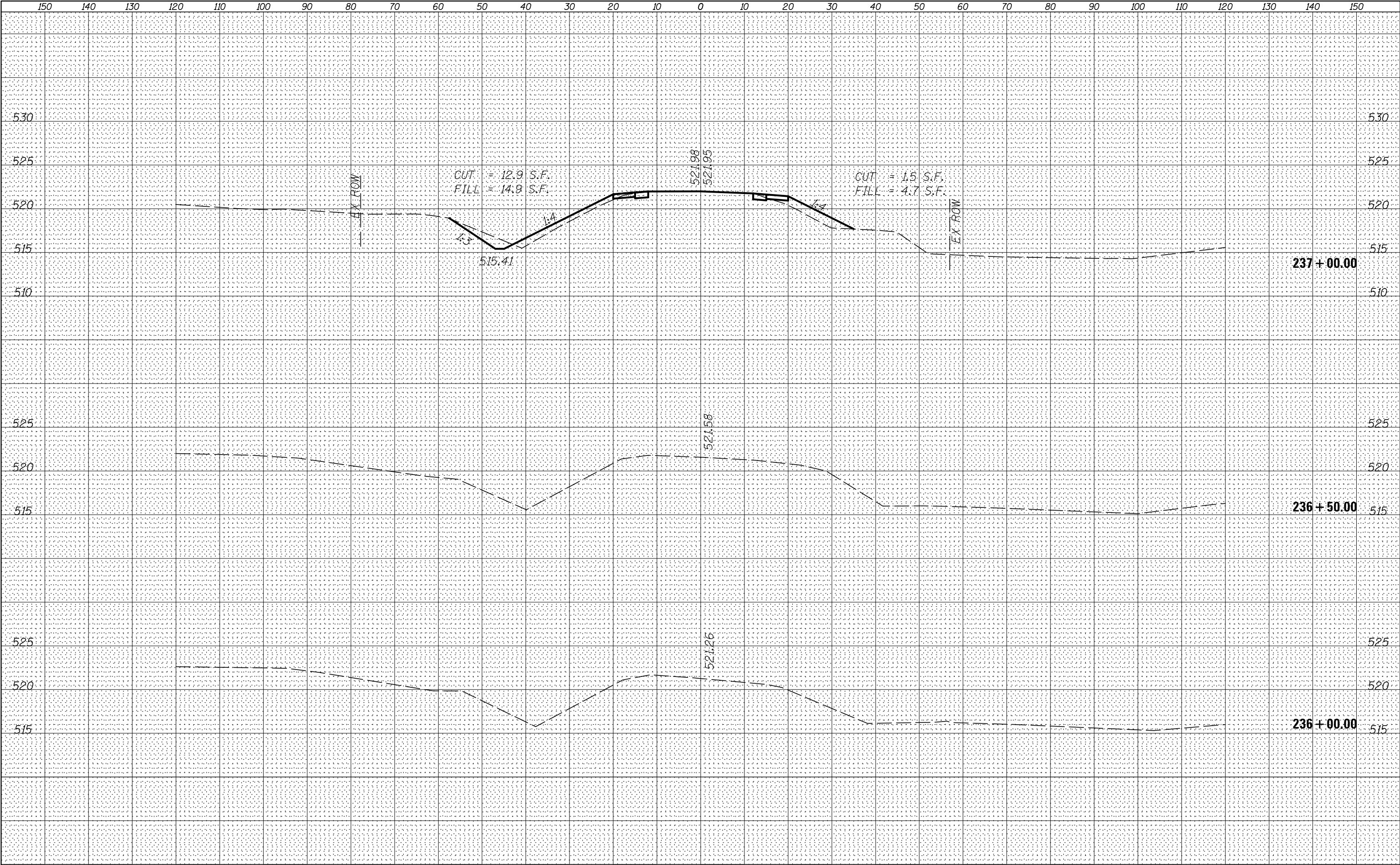


FIELD ENTRANCE DETAIL

FILE NAME = \$FILEL\$	USER NAME = \$USER\$	DESIGNED - RAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	 Zroka Engineering, P.C. 4216 North Hermitage Chicago, IL 60613	DETAILS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - RAC	REVISED -				623	(H)BR-1	LASALLE	32	26
	PLOT SCALE = \$SCALE\$	CHECKED - DAZ	REVISED -				CONTRACT NO. 66A13				
	PLOT DATE = \$DATE\$	DATE - 08/10/12	REVISED -								
					SCALE: N.T.S.	SHEET NO. 1 OF 2 SHEETS	ILLINOIS FED. AID PROJECT				

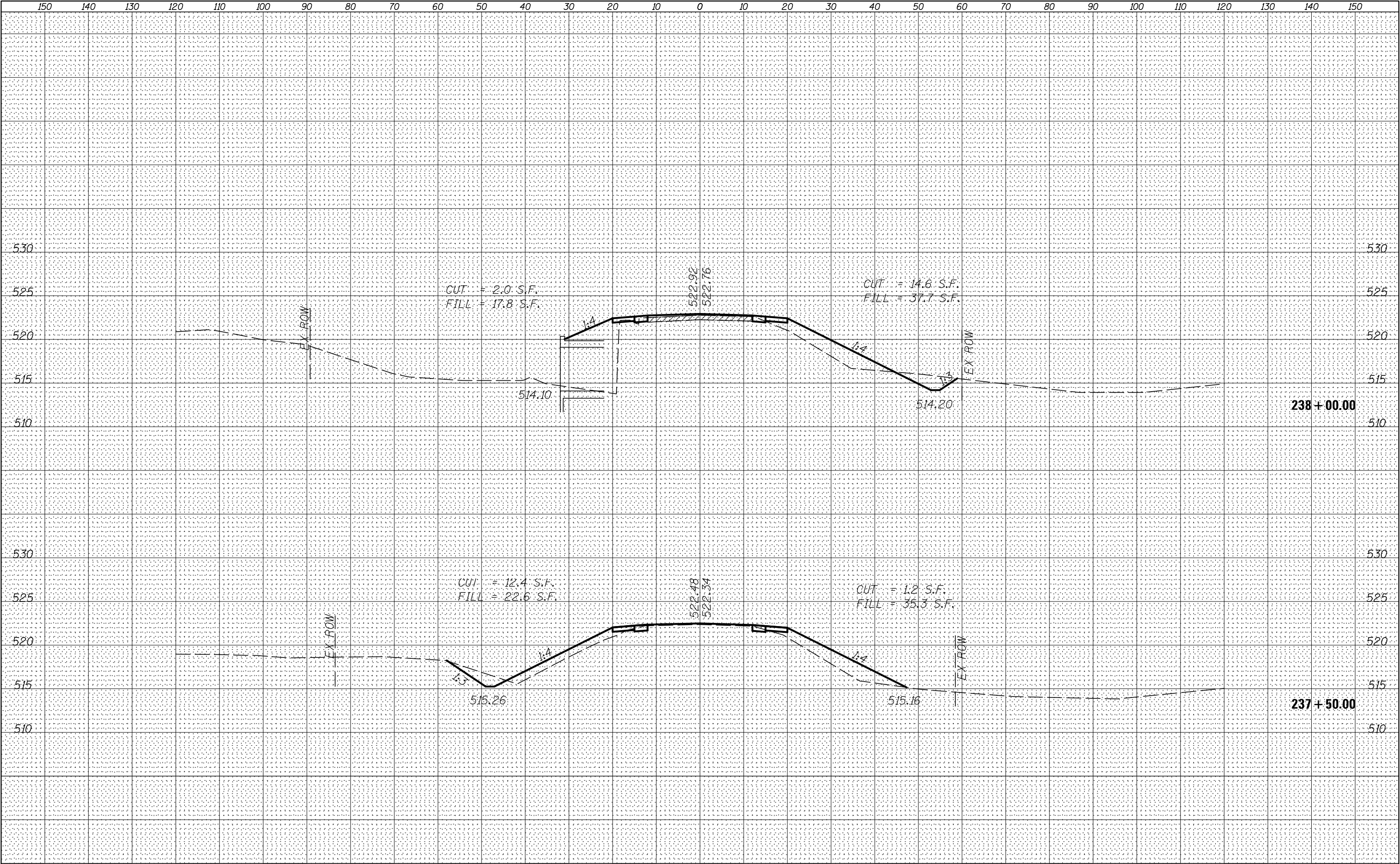
FINAL SURVEY	BY	DATE
	SURVEYED	
	PLOTTED	
	NOTE BOOK	
NO.	AREAS	CHECKED

ORIGINAL SURVEY	BY	DATE
	SURVEYED	
	PLOTTED	
	NOTE BOOK	
NO.	AREAS	CHECKED



FINAL SURVEY	SURVEYED PLOTTED NOTE BOOK	BY	DATE
NO.	AREAS CHECKED		

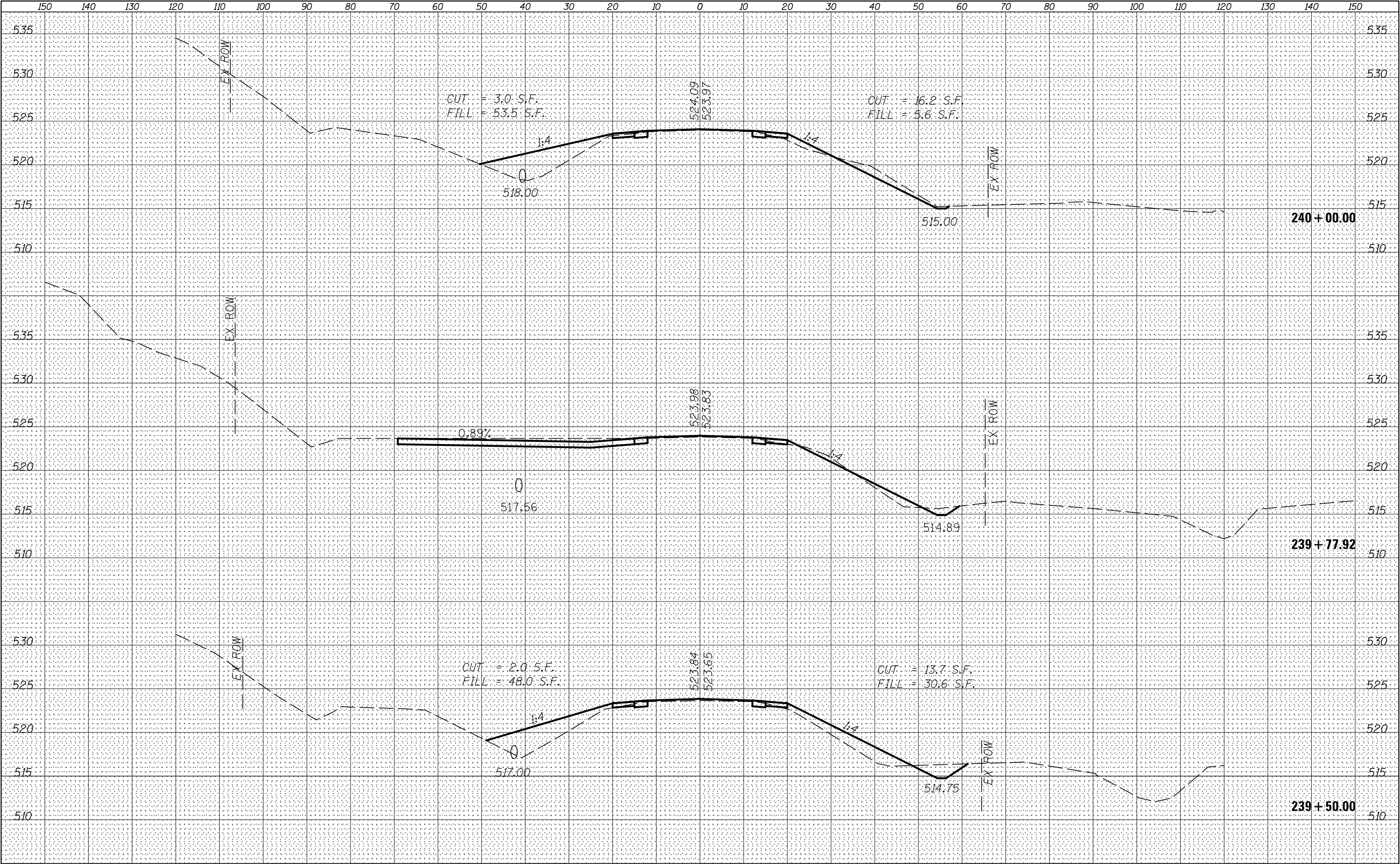
ORIGINAL SURVEY	SURVEYED PLOTTED NOTE BOOK	BY	DATE
NO.	AREAS CHECKED		



FINAL SURVEY	BY	DATE
NOTED		
PLANNED		
TEMPERATURE		
AREAS		
NO.		
AREAS CHECKED		

FINAL SURVEY	DATE
	BY
	SURVEYED
	PLOTTED
NOTE BOOK	TEMPLATE
	AREAS
NO.	CHECKED

ORIGINAL SURVEY	DATE
	BY
	SURVEYED
	PLOTTED
NOTE BOOK	TEMPLATE
	AREAS
NO.	CHECKED



FINAL SURVEY	BY	DATE	SURVEYED	PLOTTED	TEMPLATE	AREAS	CHECKED
			NO.				

ORIGINAL SURVEY	BY	DATE	SURVEYED	PLOTTED	TEMPLATE	AREAS	CHECKED
			NO.				

