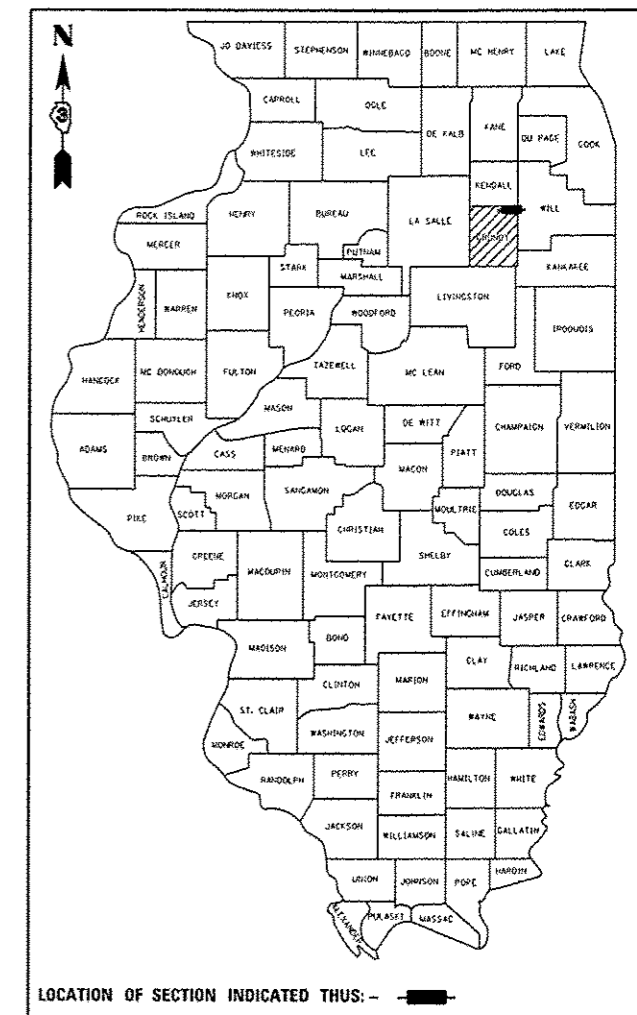


STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
**PROPOSED  
 HIGHWAY PLANS**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(32,47-4)HBR-2	GRUNDY	143	1
		ILLINOIS	CONTRACT NO. 66873	

P-93-019-04  
 D-93-010-09

- 1 COVERSHEET
- 2 HIGHWAY STANDARDS, GENERAL NOTES & COMMITMENTS
- 3-14 SUMMARY OF QUANTITIES
- 15-17 TYPICAL SECTIONS
- 18-22 SCHEDULE OF QUANTITIES
- 23-25 ALIGNMENT, TIES & BENCHMARKS
- 26-29 PLAN AND PROFILE
- 30-45 SUGGESTED MAINTENANCE OF TRAFFIC & TRAFFIC CONTROL
- 46-48 DRAINAGE PLAN AND PROFILE
- 49-52 SUE INFORMATION
- 53-55 RIGHT OF WAY
- 56-57 EROSION CONTROL & LANDSCAPING
- 58-61 STRUCTURE INFORMATION - BOX CULVERT
- 62-94 STRUCTURE INFORMATION - SN 032-0119
- 95-101 EXISTING STRUCTURE - FOR INFORMATION ONLY
- 102-106 DETAILS
- 107-110 PAVEMENT BORING LOGS
- 111-143 CROSS SECTIONS

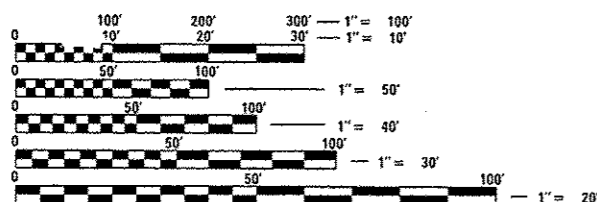


FOR LIST OF HIGHWAY STANDARDS, SEE SHEET 2

FAI ROUTE 80 (I-80)  
 SECTION (32,47-4)HBR-2  
 PROJECT: NHPP-0080(400)  
 STRUCTURE REPLACEMENT &  
 MINOOKA RD REALIGNMENT  
 GRUNDY COUNTY

C-93-021-09

MICROFILMED \_\_\_\_\_  
 REEL NUMBER \_\_\_\_\_  
 AWARDED \_\_\_\_\_  
 RESIDENT ENGINEER \_\_\_\_\_  
 AS BUILT CHANGES WERE MADE  
 ON THE FOLLOWING SHEETS \_\_\_\_\_

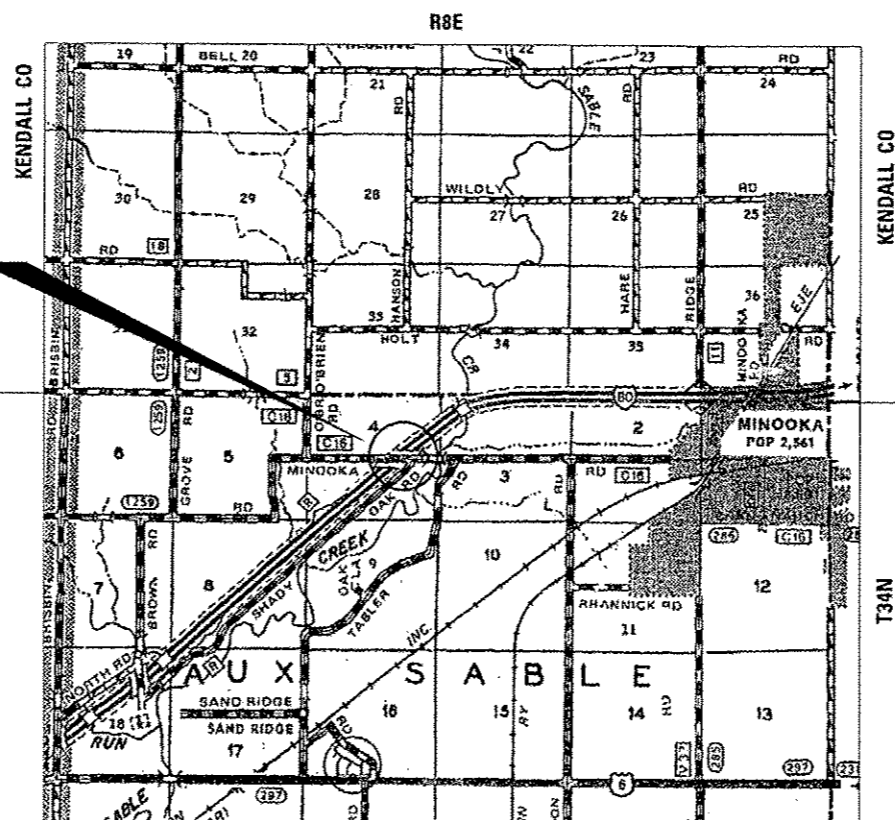


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: CRAIG REED, P.E.  
 UNIT CHIEF: BRAD DUNCAN, P.E.  
 TOWNSHIP: AUX SABLE  
 CONTRACT NO. 66873

STRUCTURE REPLACEMENT  
 EX. SN 032-0046  
 PROP. SN 032-0119



GROSS LENGTH & NET LENGTH = 3674.6 FT = 0.696 MI

I-80 - INTERSTATE  
 2010 ADT = 38500  
 PV = 75.7% SU = 6.1% MU = 18.2%

MINOOKA RD - MAJOR COLLECTOR  
 2010 ADT = 2800  
 PV = 92.5% SU = 5.2% MU = 2.3%

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

SUBMITTED *March 19 2013*  
*Paul A. Loche*  
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

*May 10 2013*  
*John D. Baranzoli, P.E.*  
 ENGINEER OF DESIGN AND ENVIRONMENT

*May 10 2013*  
*Omer Osman, P.E.*  
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY  
 OF THE STATE OF ILLINOIS

LIST OF ILLINOIS DOT HIGHWAY STANDARDS

BLR 21-9	TYPICAL APPLICATIONS OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
406201-01	MAILBOX TURNOUT
420401-09	BRIDGE APPROACH PAVEMENT CONNECTOR
421001-02	BAR REINFORCEMENT FOR CRC PAVEMENT
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
515001-03	NAME PLATE FOR BRIDGES
542011	CONCRETE END SECTIONS FOR ELLIPTICAL PIPE CULVERTS 15" (375mm) THRU 72" (1800 mm) EQUIVALENT DIAMETER
542201-02	REINF CONC END SECTIONS FOR PIPE CULVERTS 15" (375 mm) THRU 36" (900 mm) DIAMETER SKEWED WITH ROADWAY
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
542306-02	PRECAST REINFORCED CONCRETE ELLIPTICAL FLARED END SECTION
542401-01	METAL END SECTION FOR PIPE CULVERTS
602106-01	DRAINAGE STRUCTURES, TYPES 4, 5 & 6
602306-03	INLET, TYPE B
602401-03	MANHOLE, TYPE A
602601-02	PRECAST REINFORCED CONCRETE FLAT SLAB TOP
602701-02	MANHOLE STEPS
604001-03	FRAME AND LIDS, TYPE 1
604036-02	GRATE, TYPE 8
630001-10	STEEL PLATE BEAM GUARDRAIL
630301-06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631026-05	TRAFFIC BARRIER TERMINAL, TYPE 5
631031-11	TRAFFIC BARRIER TERMINAL, TYPE 6
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
665001-02	WOVEN WIRE FENCE
701001-02	OFF-ROAD OPERATIONS 2L, 2W, MORE THAN 15' (4.5 m) AWAY
701006-04	OFF-ROAD OPERATIONS 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701011-03	OFF-ROAD MOVING OPERATIONS 2L, 2W, DAY ONLY
701101-03	OFF-ROAD OPERATIONS MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701106-02	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 m) AWAY
701306-03	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS ≥ 45 MPH
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS ≥ 45 MPH
701400-06	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-07	LANE CLOSURE, FREEWAY/EXPRESSWAY
701426-05	LANE CLOSURE, MULTILANE INTERMITTENT OR MOVING OPERATION, FOR SPEEDS ≥ 45 MPH
701901-02	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER
780001-03	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

681101-01

GENERAL NOTES

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.

THE HMA SURFACE OF ALL MAILBOX TURNOUTS, PRIVATE ENTRANCES, COMMERCIAL ENTRANCES, AND SIDE ROADS SHALL BE MADE NEATLY, IN A WORKMANLIKE MANNER, AND SHALL ACCURATELY CONFORM TO THE SHAPES AND DIMENSIONS SHOWN ON THE PLAN DETAILS. IF REQUIRED BY THE ENGINEER, THE CONTRACTOR SHALL BE REQUIRED TO SAW CUT THE HMA SURFACE TO CONFORM TO THE SHAPES AND DIMENSIONS SHOWN ON THE PLAN DETAILS. THIS WORK SHALL BE INCLUDED IN THE COST OF THE HMA SURFACE.

EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.

BEFORE ORDERING PIPE CULVERTS OR PIPE DRAINS, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR EXACT LENGTHS.

THE ENGINEER WILL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.

FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

SEEDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDING WILL BE DETERMINED BY THE ENGINEER.

ONLY THOSE TREES DESIGNATED BY THE ENGINEER OR LISTED IN THE TREE REMOVAL SCHEDULE SHALL BE REMOVED. THE CONTRACTOR SHALL PROTECT ALL REMAINING TREES FROM DAMAGE DUE TO HIS OPERATIONS.

ON EXISTING PAVEMENT WHICH MAY BE SUPERELEVATED, THE NEW HMA PAVEMENT SHALL BE BUILT WITH THE SAME SUPERELEVATION UNLESS NEW SUPERELEVATION RATES ARE GIVEN ON THE PLANS.

ALL ELEVATIONS REFERRING TO U.S.G.S. MEAN SEA LEVEL DATUM.

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.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER SHOWN IN THE LIST OF STANDARDS OR THE COPY INCLUDED IN THESE PLANS.

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

GRANULAR MATERIALS	2.05	TONS / CU YD
HMA RESURFACING	112	LBS / 50 YD / IN
SHORT TERM PAVEMENT MARKING	10	FT / 100 FT OF APPLICATION

THE WORK REQUIRED TO CONNECT ANY SEWER TO AN EXISTING DRAINAGE STRUCTURE OR PIPE WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICE BID FOR THE SEWER ITEMS.

GENERAL NOTES (CONT.)

MEMBERS OF JULIE KNOWN TO BE WITHIN THE LIMITS OF THE IMPROVEMENT ARE:

COMCAST CABLE  
COMED  
NICOR GAS  
AT&T

NON-MEMBERS OF JULIE KNOWN TO BE WITHIN THE LIMITS OF THE IMPROVEMENT ARE:

VILLAGE OF MINOOKA

COMMITMENTS

PARCEL 3VH0007 - NORMA ABRAHAM - (815) 467-5698  
RESIDENT ENGINEER TO NOTIFY PROPERTY OWNER PRIOR TO WORK ON ENTRANCE AT 64±83 RT. ALTERNATE ARRANGEMENTS MAY BE NEEDED FOR HEALTH CARE.

PARCEL 3VH0009 - LAWRENCE & JANE SPRAY - (815) 467-2084  
RESIDENT ENGINEER TO NOTIFY PROPERTY OWNER PRIOR TO WORK ON ENTRANCE AT 71±83 RT. PROPERTY OWNERS WORK SHIFT WORK AND MAY NEED TO MAKE ALTERNATE ARRANGMENTS FOR PARKING.

A COMMITMENT WAS MADE THAT IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL EMERGENCY SERVICES, SCHOOL DISTRICTS, ETC. AT LEAST 7 DAYS IN ADVANCE PRIOR TO ANY CLOSURES.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DISTRICT THREE

PREPARED BY: *D. Beaulieu*  
DISTRICT STUDIES & PLANS ENGINEER

DATE: 3-19-13

EXAMINED BY: *Shepherd D. Jones*  
DISTRICT CONSTRUCTION ENGINEER

*Kevin J. Patten*  
DISTRICT MATERIALS ENGINEER

*Bruce A. Nuclear*  
DISTRICT OPERATIONS ENGINEER

FILE NAME *	USER NAME * duncanbd	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HIGHWAY STANDARDS, GENERAL NOTES & COMMITMENTS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0:\pwwork\pisd\dot\duncanbd\dms58037\ep1904-shs-cover.dgn	DRAWN -	REVISED -	80			(32,47-4)HBR-2	GRUNDY	143	2	
PLOT SCALE * 100.0000' / in.	CHECKED -	REVISED -	CONTRACT NO. 66873							
PLOT DATE * 3/19/2013	DATE -	REVISED -	ILLINOIS FED. AID PROJECT							
SCALE: SHEET NO. OF SHEETS STA. TO STA.										

Rev.

163

**LOCAL FUNDING FORMULA**  
 1. 80% STU FUNDS TO BE USED FOR LOCAL SHARE PROJECT NTE \$1,060,000 FROM CMAP.  
 2. 80% STP-BR FUNDS TO BE USED SECOND FOR LOCAL SHARE OF PROJECT.  
 3. 20% OF LOCAL SHARE TO BE DIVIDED EQUALLY BETWEEN VILLAGE OF MINOOKA AND GRUNDY COUNTY. \*\*ONLY GRUNDY COUNTY WILL BE BILLED.

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE						
				90% FEDERAL 10% STATE ROADWAY 0003	80% FEDERAL • 20% COUNTY ROADWAY 0003	90% FEDERAL 10% STATE BRIDGE 0010	90% FEDERAL 10% STATE BOX CULVERT 0040	80% FEDERAL • 20% COUNTY BRIDGE 0010	80% FEDERAL • 20% COUNTY BOX CULVERT 0040	
						SN 032-0119		SN 032-0119		
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	907	907						
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	436	436						
20200100	EARTH EXCAVATION	CU YD	25379	25379						
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	319				319			
20400800	FURNISHED EXCAVATION	CU YD	46445	29750	16695					
20700220	POROUS GRANULAR EMBANKMENT	CU YD	517			208	292	17		
20800150	TRENCH BACKFILL	CU YD	34	34						
21101615	TOPSOIL FURNISH AND PLACE, 4"	SO YD	32183	32183						
25000100	SEEDING, CLASS 1	ACRE	0.65	0.65						
25000200	SEEDING, CLASS 2	ACRE	7.1	7.1						
25000300	SEEDING, CLASS 3	ACRE	3.43	3.43						
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	1006	1006						
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	1006	1006						
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	1006	1006						

14  
 ΔSPECIALTY ITEMS

FILE NAME *	USER NAME * duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwwork\pwwork\duncanbd\dms58837\ap01484-sht-500.dgn		DRAWN -	REVISED -		SCALE:	SHEET NO. 1 OF 12 SHEETS	STA.	TO STA.	80	(32,47-4)BR-2	GRUNDY	143	3
PLOT SCALE * 100.0000' / 1" =		CHECKED -	REVISED -						CONTRACT NO. 66873				
PLOT DATE * 3/15/2013		DATE -	REVISED -						ILLINOIS FED. AID PROJECT				

•LOCAL FUNDING FORMULA  
 1. 80% STU FUNDS TO BE USED FOR LOCAL SHARE PROJECT NTE \$1,060,000 FROM CMAP.  
 2. 80% STP-BR FUNDS TO BE USED SECOND FOR LOCAL SHARE OF PROJECT.  
 3. 20% OF LOCAL SHARE TO BE DIVIDED EQUALLY BETWEEN VILLAGE OF MINOOKA AND GRUNDY COUNTY. ••ONLY GRUNDY COUNTY WILL BE BILLED.

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE						
				90% FEDERAL 10% STATE ROADWAY	80% FEDERAL 20% COUNTY ROADWAY	90% FEDERAL 10% STATE BRIDGE	90% FEDERAL 10% STATE BOX CULVERT	80% FEDERAL 20% COUNTY BRIDGE	80% FEDERAL 20% COUNTY BOX CULVERT	
				0003	0003	0010	0040	0010	0040	
						SN 032-0119		SN 032-0119		
25100115	MULCH, METHOD 2	ACRE	7.1	7.1						
25100630	EROSION CONTROL BLANKET	SQ YD	19987	19987						
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	2236	2236						
28000305	TEMPORARY DITCH CHECKS	FOOT	147	147						
28000400	PERIMETER EROSION BARRIER	FOOT	4337	4337						
28000500	INLET AND PIPE PROTECTION	EACH	3	3						
28100107	STONE RIPRAP, CLASS A4	SQ YD	62				62			
28200200	FILTER FABRIC	SQ YD	62				62			
30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	331	331						
31200500	STABILIZED SUBBASE - HOT-MIX ASPHALT, 4"	SQ YD	331	331						
35100100	AGGREGATE BASE COURSE, TYPE A	TON	263	263						
35100500	AGGREGATE BASE COURSE, TYPE A 6"	SQ YD	2917	2917						
35100700	AGGREGATE BASE COURSE, TYPE A 8"	SQ YD	1569	1569						
35101100	AGGREGATE BASE COURSE, TYPE A 12"	SQ YD	9214	9214						

14  
 ΔSPECIALTY ITEMS

- LOCAL FUNDING FORMULA
1. 80% STU FUNDS TO BE USED FOR LOCAL SHARE PROJECT NTE \$1,060,000 FROM CMAP.
  2. 80% STP-BR FUNDS TO BE USED SECOND FOR LOCAL SHARE OF PROJECT.
  3. 20% OF LOCAL SHARE TO BE DIVIDED EQUALLY BETWEEN VILLAGE OF MINOOKA AND GRUNDY COUNTY. ••ONLY GRUNDY COUNTY WILL BE BILLED.

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE						
				90% FEDERAL 10% STATE ROADWAY 0003	80% FEDERAL • 20% COUNTY ROADWAY 0003	90% FEDERAL 10% STATE BRIDGE 0010	90% FEDERAL 10% STATE BOX CULVERT 0040	80% FEDERAL • 20% COUNTY BRIDGE 0010	80% FEDERAL • 20% COUNTY BOX CULVERT 0040	
						SN 032-0119		SN 032-0119		
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	460	460						
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	89	89						
40600615	LEVELING BINDER (MACHINE METHOD), N30	TON	44	44						
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YD	147	147						
40600990	TEMPORARY RAMP	SO YD	93	93						
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	4059	4059						
40603305	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N30	TON	249	249						
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	744	744						
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	372	372						
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SO YD	182	182						
42100380	CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT 14"	SO YD	331	331						
44000100	PAVEMENT REMOVAL	SO YD	11926	11926						
44000200	DRIVEWAY PAVEMENT REMOVAL	SO YD	967	967						
44001980	CONCRETE BARRIER REMOVAL	FOOT	61	61						

14  
△SPECIALTY ITEMS

FILE NAME = c:\p\work\p\p\p\dunconbd\dms58837\ep	USER NAME = dunconbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>				F.A.T. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1904-shi-500.dgn	DRAWN -	REVISED -		SCALE:	SHEET 3 OF 12 SHEETS	STA.	TO STA.	80	(32,47-4)HBR-2	GRUNDY	143	5
	PLOT SCALE = 180.0000 / 1 in.	CHECKED -	REVISED -		CONTRACT NO. 66873								
	PLOT DATE = 3/15/2013	DATE -	REVISED -		ILLINOIS FED. AID PROJECT								

**LOCAL FUNDING FORMULA**

1. 80% STU FUNDS TO BE USED FOR LOCAL SHARE PROJECT NTE \$1,060,000 FROM CMAP.
2. 80% STP-BR FUNDS TO BE USED SECOND FOR LOCAL SHARE OF PROJECT.
3. 20% OF LOCAL SHARE TO BE DIVIDED EQUALLY BETWEEN VILLAGE OF MINOOKA AND GRUNDY COUNTY. \*\*ONLY GRUNDY COUNTY WILL BE BILLED.

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE						
				90% FEDERAL 10% STATE ROADWAY 0003	80% FEDERAL • 20% COUNTY ROADWAY 0003	90% FEDERAL 10% STATE BRIDGE 0010	90% FEDERAL 10% STATE BOX CULVERT 0040	80% FEDERAL • 20% COUNTY BRIDGE 0010	80% FEDERAL • 20% COUNTY BOX CULVERT 0040	
						SN 032-0119		SN 032-0119		
44004250	PAVED SHOULDER REMOVAL	SO YD	154	154						
48101500	AGGREGATE SHOULDERS, TYPE B 6"	SO YD	4032	4032						
48203021	HOT-MIX ASPHALT SHOULDERS, 6"	SO YD	143	143						
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1			1				
50104650	SLOPE WALL REMOVAL	SO YD	420	420						
50105220	PIPE CULVERT REMOVAL	FOOT	789	691			98			
50157300	PROTECTIVE SHIELD	SO YD	1879			1879				
50200100	STRUCTURE EXCAVATION	CU YD	874			666		208		
50300225	CONCRETE STRUCTURES	CU YD	599.1			474.3		124.8		
50300255	CONCRETE SUPERSTRUCTURE	CU YD	1028.2			768.2		260		
50300260	BRIDGE DECK GROOVING	SO YD	2362			1519		843		
50300280	CONCRETE ENCASEMENT	CU YD	28			21		7		
50300300	PROTECTIVE COAT	SO YD	3701			2715		986		
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1			0.7		0.3		

14  
△SPECIALTY ITEMS

FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwork\pwork\duncanbd\des50037\epd1904.sht-500.dgn	DRAWN -	REVISED -	80					(32,47-4)HBR-2	GRUNDY	143	6	
PLOT SCALE = 100.0000' / 1" =	CHECKED -	REVISED -	SCALE: SHEET 4 OF 12 SHEETS STA. TO STA.			CONTRACT NO. 66873						
PLOT DATE = 3/15/2013	DATE -	REVISED -	ILLINOIS FED. AID PROJECT									

- LOCAL FUNDING FORMULA
- 80% STU FUNDS TO BE USED FOR LOCAL SHARE PROJECT NTE \$1,060,000 FROM CMAP.
  - 80% STP-BR FUNDS TO BE USED SECOND FOR LOCAL SHARE OF PROJECT.
  - 20% OF LOCAL SHARE TO BE DIVIDED EQUALLY BETWEEN VILLAGE OF MINOOKA AND GRUNDY COUNTY. \*\*ONLY GRUNDY COUNTY WILL BE BILLED

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE					
				90% FEDERAL 10% STATE ROADWAY 0003	80% FEDERAL • 20% COUNTY ROADWAY 0003	90% FEDERAL 10% STATE BRIDGE 0010	90% FEDERAL 10% STATE BOX CULVERT 0040	80% FEDERAL • 20% COUNTY BRIDGE 0010	80% FEDERAL • 20% COUNTY BOX CULVERT 0040
						SN 032-0119		SN 032-0119	
50500505	STUD SHEAR CONNECTORS	EACH	7452			4968		2484	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	343010			262870	820	79320	
50800515	BAR SPLICERS	EACH	196			138		58	
50901720	BICYCLE RAILING	FOOT	683	238		445			
50901750	PARAPET RAILING	FOOT	437			437			
51100100	SLOPE WALL 4 INCH	50 YD	947			690		257	
51201400	FURNISHING STEEL PILES HP10X42	FOOT	2863			2067		796	
51202305	DRIVING PILES	FOOT	2863			2067		796	
51203400	TEST PILE STEEL HP10X42	EACH	3			3			
51500100	NAME PLATES	EACH	2			1	1		
52000110	PREFORMED JOINT STRIP SEAL	FOOT	197			140		57	
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	18			12		6	
52100540	ANCHOR BOLTS, 1 1/2"	EACH	54			36		18	
54003000	CONCRETE BOX CULVERTS	CU YD	13.9				13.9		

14  
△ SPECIALTY ITEMS

FILE NAME *	USER NAME = duncenbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
c:\pwork\pwork\duncenbd\dms50827\ep8	904-shi-500.dgn	DRAWN -	REVISED -		SCALE:	SHEET 5 OF 12 SHEETS	STA.	TO STA.	80	(32,47-4)HBR-2	GRUNDY	143	7
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -										
	PLOT DATE = 3/15/2013	DATE -	REVISED -										
ILLINOIS FED. AID PROJECT													

•LOCAL FUNDING FORMULA  
 1. 80% STU FUNDS TO BE USED FOR LOCAL SHARE PROJECT NTE \$1,060,000 FROM CMAP.  
 2. 80% STP-BR FUNDS TO BE USED SECOND FOR LOCAL SHARE OF PROJECT.  
 3. 20% OF LOCAL SHARE TO BE DIVIDED EQUALLY BETWEEN VILLAGE OF MINOOKA AND GRUNDY COUNTY. ••ONLY GRUNDY COUNTY WILL BE BILLED.

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE					
				90% FEDERAL 10% STATE ROADWAY 0003	80% FEDERAL • 20% COUNTY ROADWAY 0003	90% FEDERAL 10% STATE BRIDGE 0010	90% FEDERAL 10% STATE BOX CULVERT 0040	80% FEDERAL • 20% COUNTY BRIDGE 0010	80% FEDERAL • 20% COUNTY BOX CULVERT 0040
						SN 032-0119		SN 032-0119	
54010804	PRECAST CONCRETE BOX CULVERTS 8' X 4'	FOOT	188				136		52
54213447	END SECTIONS 12"	EACH	4	4					
54213450	END SECTIONS 15"	EACH	6	6					
54213465	END SECTIONS 30"	EACH	2	2					
54213483	END SECTIONS 48"	EACH	2	2					
54213660	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15"	EACH	3	3					
54213669	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24"	EACH	2	2					
54213675	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 30"	EACH	2	2					
54214290	END SECTIONS, EQUIVALENT ROUND-SIZE 15"	EACH	2	2					
54214515	PRECAST REINFORCED CONCRETE FLARED END SECTIONS, EQUIVALENT ROUND-SIZE 30"	EACH	2	2					
55100700	STORM SEWER REMOVAL 15"	FOOT	14	14					
58700300	CONCRETE SEALER	SQ FT	2397			1727		670	
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	197			139		58	
60100915	PIPE DRAINS 6"	FOOT	50	50					

14  
 ΔSPECIALTY ITEMS

FILE NAME :	USER NAME : duncanbd	DESIGNED -	REVISED -
c:\pwork\pavidot\duncanbd\dms58037\epi1984-shl-500.dgn		DRAWN -	REVISED -
	PLOT SCALE : 100.0000 1/1 in.	CHECKED -	REVISED -
	PLOT DATE : 3/15/2013	DATE -	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: SHEET 6 OF 12 SHEETS STA. TO STA.

F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(32,47-4)HBR-2	GRUNDY	143	8
CONTRACT NO. 66873			ILLINOIS FED. AID PROJECT	



- LOCAL FUNDING FORMULA**
1. 80% STU FUNDS TO BE USED FOR LOCAL SHARE PROJECT NTE \$1,060,000 FROM CMAP.
  2. 80% STP-BR FUNDS TO BE USED SECOND FOR LOCAL SHARE OF PROJECT.
  3. 20% OF LOCAL SHARE TO BE DIVIDED EQUALLY BETWEEN VILLAGE OF MINOOKA AND GRUNDY COUNTY. ••ONLY GRUNDY COUNTY WILL BE BILLED.

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE							
				90% FEDERAL 10% STATE ROADWAY 0003	80% FEDERAL • 20% COUNTY ROADWAY 0003	90% FEDERAL 10% STATE BRIDGE 0010	90% FEDERAL 10% STATE BOX CULVERT 0040	80% FEDERAL • 20% COUNTY BRIDGE 0010	80% FEDERAL • 20% COUNTY BOX CULVERT 0040		
						SN 032-0119		SN 032-0119			
60100925	PIPE DRAINS 8"	FOOT	50	50							
60100945	PIPE DRAINS 12"	FOOT	277	277							
60218400	MANHOLES, TYPE A, 4' -DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1	1							
60221700	MANHOLES, TYPE A, 5' -DIAMETER, TYPE B GRATE	EACH	3	3							
60240215	INLETS, TYPE B, TYPE 1 FRAME, CLOSED LID	EACH	4	4							
60270050	DRAINAGE STRUCTURES, TYPE 4 WITH TWO TYPE 20 FRAME AND GRATES	EACH	1	1							
60500040	REMOVING MANHOLES	EACH	1	1							
60900515	CONCRETE THRUST BLOCKS	EACH	4	4							
61100500	EXPLORATION TRENCH 52" DEPTH	FOOT	3050	3050							
61100605	MISCELLANEOUS CONCRETE	CU YD	1	1							
61101007	STORM SEWERS PROTECTED, CLASS A, 6"	FOOT	12	12							
61101009	STORM SEWERS PROTECTED, CLASS A, 8"	FOOT	12	12							
61133100	FIELD TILE JUNCTION VAULTS, 2' DIA.	EACH	1	1							
61139900	STORM SEWERS (SPECIAL), 6"	FOOT	50	50							

△SPECIALTY ITEMS

FILE NAME *	USER NAME * duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pvc\work\pvc\101\duncanbd\dms58837\pvc\101\shl-500.dgn	PLLOT SCALE * 100.0000' / 1"	DRAWN -	REVISED -					60	(32,47-4)HR-2	GRUNDY	143	9
	PLLOT DATE * 2/15/2013	CHECKED -	REVISED -		SCALE:	SHEET 7 OF 12 SHEETS	STA.	TO STA.	CONTRACT NO. 66873			
		DATE -	REVISED -		ILLINOIS FED. AID PROJECT							



- LOCAL FUNDING FORMULA
1. 80% STU FUNDS TO BE USED FOR LOCAL SHARE PROJECT NTE \$1,060,000 FROM CMAP.
  2. 80% STP-BR FUNDS TO BE USED SECOND FOR LOCAL SHARE OF PROJECT.
  3. 20% OF LOCAL SHARE TO BE DIVIDED EQUALLY BETWEEN VILLAGE OF MINOOKA AND GRUNDY COUNTY. ••ONLY GRUNDY COUNTY WILL BE BILLED.

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE						
				90% FEDERAL 10% STATE ROADWAY	80% FEDERAL 20% COUNTY ROADWAY	90% FEDERAL 10% STATE BRIDGE	90% FEDERAL 10% STATE BOX CULVERT	80% FEDERAL 20% COUNTY BRIDGE	80% FEDERAL 20% COUNTY BOX CULVERT	
				0003	0003	0010	0040	0010	0040	
						SN 032-0119		SN 032-0119		
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1						
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1						
70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1	1						
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	150	150						
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	26	26						
70200100	NIGHTTIME WORK ZONE LIGHTING	L SUM	1	1						
70300100	SHORT TERM PAVEMENT MARKING	FOOT	1069	1069						
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	32586	32586						
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	960	960						
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	56	56						
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO FT	6996	6996						
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1375	1375						
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1975	1100	875					
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	6	6						

14  
△SPECIALTY ITEMS

FILE NAME *	USER NAME * duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ci:\pwwork\pwwork\duncanbd\dms58837\epi\1904-shr-500.dgn		DRAWN -	REVISED -		SCALE:	SHEET 9 OF 12 SHEETS	STA.	TO STA.	80	132,47-41HBR-2	GRUNDY	143	11
		CHECKED -	REVISED -		CONTRACT NO. 66B73								
		DATE -	REVISED -		ILLINOIS FED. AID PROJECT								

- LOCAL FUNDING FORMULA
1. 80% STU FUNDS TO BE USED FOR LOCAL SHARE PROJECT NTE \$1,060,000 FROM CMAP.
  2. 80% STP-BR FUNDS TO BE USED SECOND FOR LOCAL SHARE OF PROJECT.
  3. 20% OF LOCAL SHARE TO BE DIVIDED EQUALLY BETWEEN VILLAGE OF MINDOKA AND GRUNDY COUNTY. ••ONLY GRUNDY COUNTY WILL BE BILLED.

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE						
				90% FEDERAL 10% STATE ROADWAY	80% FEDERAL • 20% COUNTY ROADWAY	90% FEDERAL 10% STATE BRIDGE	90% FEDERAL 10% STATE BOX CULVERT	80% FEDERAL • 20% COUNTY BRIDGE	80% FEDERAL • 20% COUNTY BOX CULVERT	
				0003	0003	0010 SN 032-0119	0040	0010 SN 032-0119	0040	
70600330	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE), TEST LEVEL 3	EACH	5	5						
78005110	EPOXY PAVEMENT MARKING - LINE 4"	FOOT	11784	11784						
△ 78005130	EPOXY PAVEMENT MARKING - LINE 6"	FOOT	900	900						
△ 78005180	EPOXY PAVEMENT MARKING - LINE 24"	FOOT	26	26						
△ 78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	4450	4450						
△ 78009006	MODIFIED URETHANE PAVEMENT MARKING - LINE 6"	FOOT	560	560						
△ 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	46	46						
△ 78200410	GUARDRAIL MARKERS, TYPE A	EACH	12	12						
△ 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	6	6						
78300100	PAVEMENT MARKING REMOVAL	SO FT	1022	1022						
5421D048	PIPE CULVERTS, CLASS D, TYPE 1 48" (TEMPORARY)	FOOT	54	54						
542A1069	PIPE CULVERTS, CLASS A, TYPE 2 24"	FOOT	101	101						
542A1075	PIPE CULVERTS, CLASS A, TYPE 2 30"	FOOT	90	90						
542D0220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	108	108						

△ SPECIALTY ITEMS

FILE NAME : c:\pwork\pwork\duncanbd\dms50037\ep81904-sh1-500.dgn	USER NAME : duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE : 1/8"=1'-0"	PLOT DATE : 3/15/2013	DRAWN -	REVISED -						80	(32,47-4)HR-2	GRUNDY	143	12
		CHECKED -	REVISED -						CONTRACT NO. 66873				
		DATE -	REVISED -		SCALE: SHEET 10 OF 12 SHEETS STA. TO STA.				ILLINOIS FED. AID PROJECT				

- LOCAL FUNDING FORMULA
- 80% STU FUNDS TO BE USED FOR LOCAL SHARE PROJECT NTE \$1,060,000 FROM CMAP.
  - 80% STP-BR FUNDS TO BE USED SECOND FOR LOCAL SHARE OF PROJECT.
  - 20% OF LOCAL SHARE TO BE DIVIDED EQUALLY BETWEEN VILLAGE OF MINOOKA AND GRUNDY COUNTY. ••ONLY GRUNDY COUNTY WILL BE BILLED.

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE						
				90% FEDERAL 10% STATE ROADWAY 0003	80% FEDERAL • 20% COUNTY ROADWAY 0003	90% FEDERAL 10% STATE BRIDGE 0010	90% FEDERAL 10% STATE BOX CULVERT 0040	80% FEDERAL • 20% COUNTY BRIDGE 0010	80% FEDERAL • 20% COUNTY BOX CULVERT 0040	
						SN 032-0119		SN 032-0119		
542D0235	PIPE CULVERTS, CLASS D, TYPE 1 30"	FOOT	30	30						
542D0253	PIPE CULVERTS, CLASS D, TYPE 1 48"	FOOT	49	49						
542D5470	PIPE CULVERTS, CLASS D, TYPE 1 EQUIVALENT ROUND-SIZE 15"	FOOT	28	28						
550A0360	STORM SEWERS, CLASS A, TYPE 2 15"	FOOT	139	139						
550A4300	STORM SEWERS, CLASS A, TYPE 1 EQUIVALENT ROUND-SIZE 30"	FOOT	294	294						
X0326208	ALTERNATE ROUTE SIGNING	L SUM	1	1						
X0326867	RADAR SPEED TRAILER	CAL MO	24	24						
X0326880	MESSAGE BOARD VEHICLE DRIVER	HOUR	200	200						
X0326907	PORTABLE, VEHICLE MOUNTED, CHANGEABLE MESSAGE SIGN	CAL MO	12	12						
X2020502	BRACED EXCAVATION	CU YD	349			291		58		
X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	535			386		149		
X6650202	WOVEN WIRE FENCE REMOVAL	FOOT	1838	1838						
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1						
X7010805	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401 (SPECIAL)	L SUM	1	1						

△SPECIALTY ITEMS

FILE NAME : c:\p\work\p\dms\dms58037\epd	USER NAME : dms58037	DESIGNED -	REVISED -
	1904-ah-500.dgn	DRAWN -	REVISED -
	PLOT SCALE : 1/8"=1'-0"	CHECKED -	REVISED -
	PLOT DATE : 3/15/2013	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: SHEET 11 OF 12 SHEETS STA. TO STA.

F.A.I. RTE. 80	SECTION (32,47-41HBR-2)	COUNTY GRUNDY	TOTAL SHEETS 143	SHEET NO. 13
CONTRACT NO. 66873				ILLINOIS FED. AID PROJECT

Rev.

- LOCAL FUNDING FORMULA
- 80% STU FUNDS TO BE USED FOR LOCAL SHARE PROJECT NTE \$1,060,000 FROM CMAP.
  - 80% STP-BR FUNDS TO BE USED SECOND FOR LOCAL SHARE OF PROJECT.
  - 20% OF LOCAL SHARE TO BE DIVIDED EQUALLY BETWEEN VILLAGE OF MINOOKA AND GRUNDY COUNTY. ••ONLY GRUNDY COUNTY WILL BE BILLED.

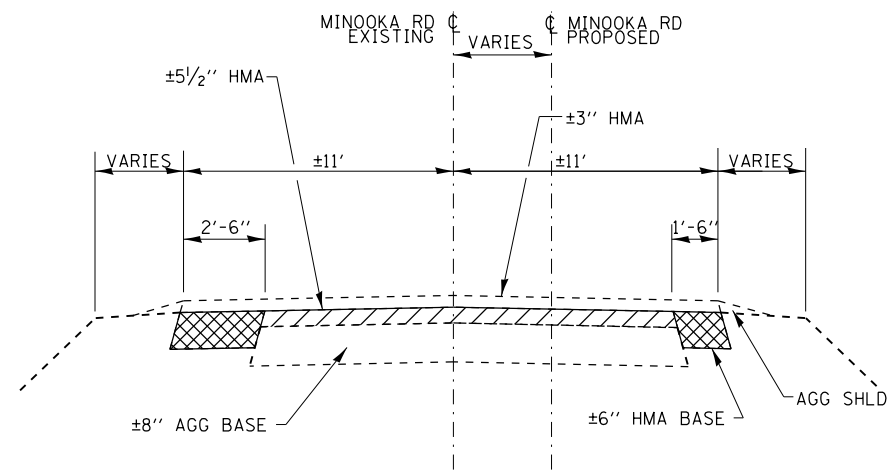
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE						
				90% FEDERAL 10% STATE ROADWAY 0003	80% FEDERAL • 20% COUNTY ROADWAY 0003	90% FEDERAL 10% STATE BRIDGE 0010	90% FEDERAL 10% STATE BOX CULVERT 0040	80% FEDERAL • 20% COUNTY BRIDGE 0010	80% FEDERAL • 20% COUNTY BOX CULVERT 0040	
						SN 032-0119		SN 032-0119		
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1						
Z0018004	DRAINAGE SCUPPERS, DS-12	EACH	20			20				
Z0018700	DRAINAGE STRUCTURE TO BE REMOVED	EACH	1	1						
Z0018800	DRAINAGE SYSTEM	L SUM	1			1				
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	244			187		57		
Δ Z0054400	ROCK FILL	CU YD	319				319			
⊙ Z0076600	<b>TRAINEES</b>	<b>HOUR</b>	<b>3,000</b>							
Z0062456	TEMPORARY PAVEMENT	SO YD	2033	2033						
⊙ Z0076604	<b>TRAINEES - TRAINING PROGRAM GRADUATE</b>	<b>HOUR</b>	<b>3,000</b>							
Z0073002	TEMPORARY SOIL RETENTION SYSTEM	SO FT	297				297			
X4060110	BITUMINOUS MATERIALS (PRIME COAT), SPECIAL	POUND	35123	35123						

Δ SPECIALTY ITEMS

⊙ 0042

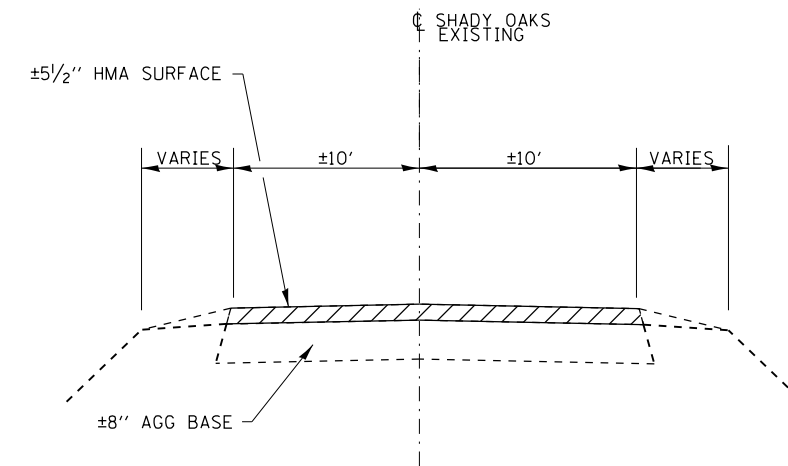
FILE NAME *	USER NAME = duncenbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwwork\pvidot\duncenbd\de458837\esp	1904-211-500.dgn	DRAWN -	REVISED -					80	(32.47-4)HBR-2	GRUNDY	143	14
	PLOT SCALE = 1/8"=1'-0"	CHECKED -	REVISED -		SCALE: SHEET 12 OF 12 SHEETS STA. TO STA.			CONTRACT NO. 66873				
	PLOT DATE = 3/15/2013	DATE -	REVISED -		ILLINOIS FED. AID PROJECT							

Rev.

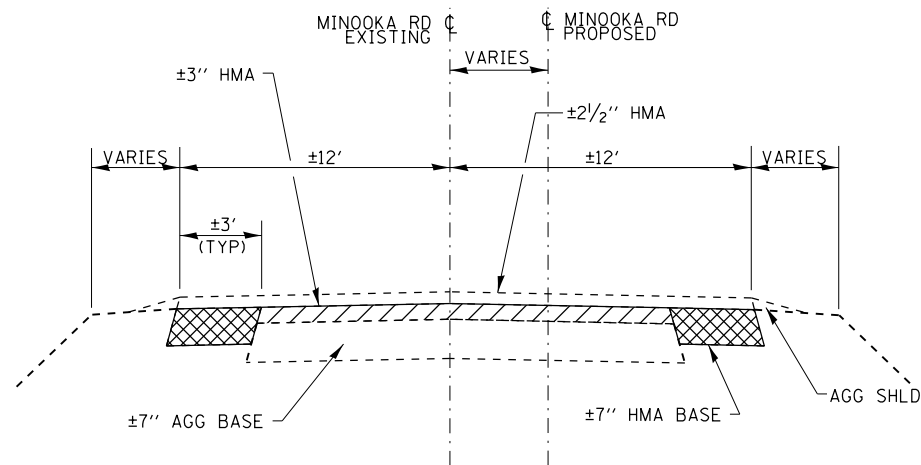


**EXISTING MINOOKA RD**

STA. 36+57 - STA. 48+73



**EXISTING SHADY OAKS RD**



**EXISTING MINOOKA RD**

STA. 51+54 - STA. 73+31.6

FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -
et:\pwork\pwork\dot\duncanbd\dms58037\ep01904-sh-typical.dgn		DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 3/15/2013	DATE -	REVISED -

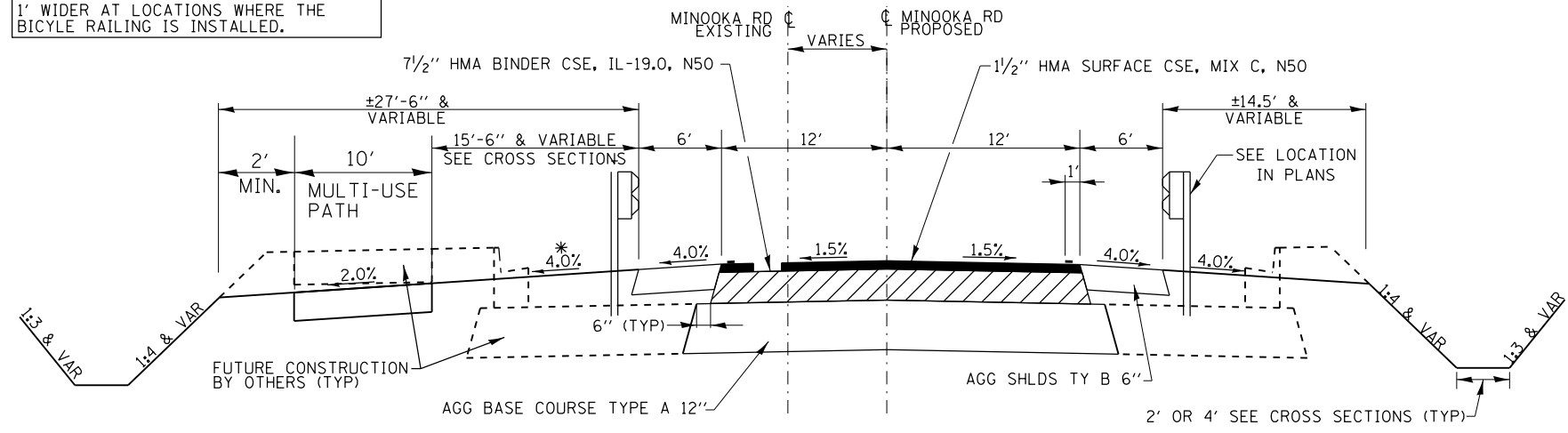
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EXISTING TYPICAL SECTIONS**

SCALE:      SHEET NO.      OF      SHEETS      STA.      TO      STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(32,47-4)HBR-2	GRUNDY	143	15
ILLINOIS FED. AID PROJECT			CONTRACT NO. 66873	

MULTI-USE PATH SHALL BE CONSTRUCTED 1' WIDER AT LOCATIONS WHERE THE BICYCLE RAILING IS INSTALLED.

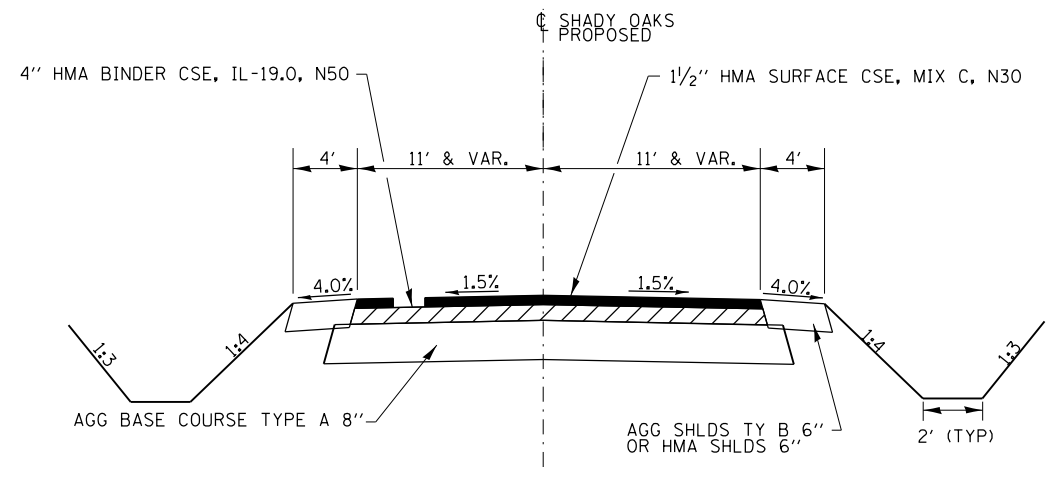


\* STA. 40±80 - STA. 64±091 LT AT LOCATIONS WHERE MULTI-USE PATH IS BEING CONSTRUCTED EMBANKMENT SLOPE SHALL BE 2%

**MINOOKA ROAD**

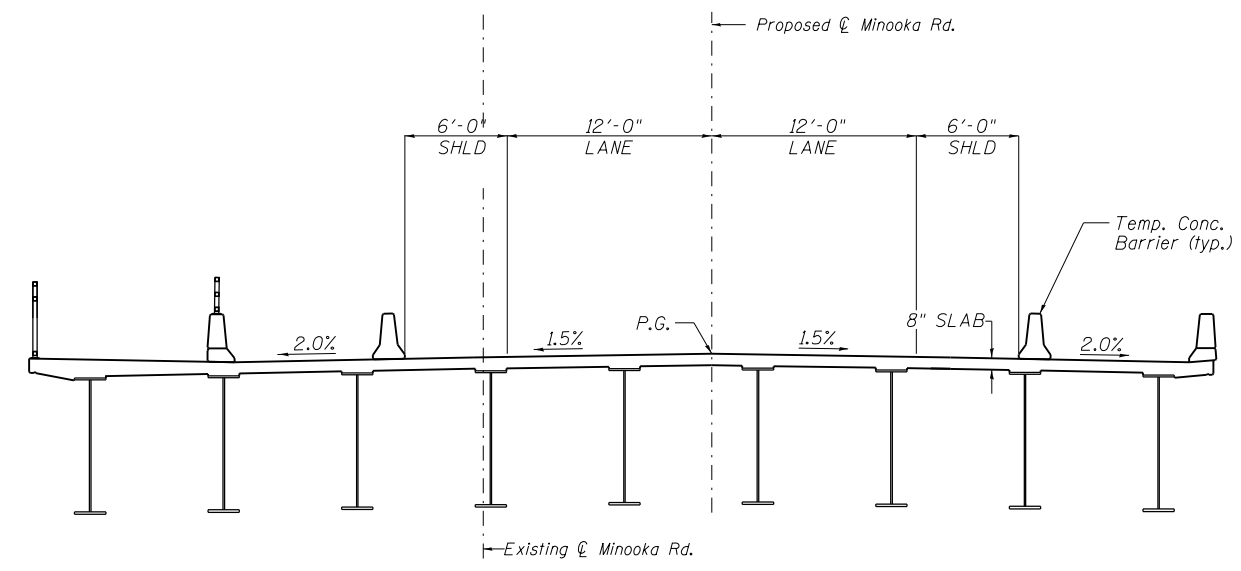
STA. 36+57.00 - STA. 47+90.36  
STA. 52+34.64 - STA. 73+31.60

STA. 58+20.8 - STA. 59+68.1 RT  
PAVEMENT FULL WIDTH AT SHADY OAKS



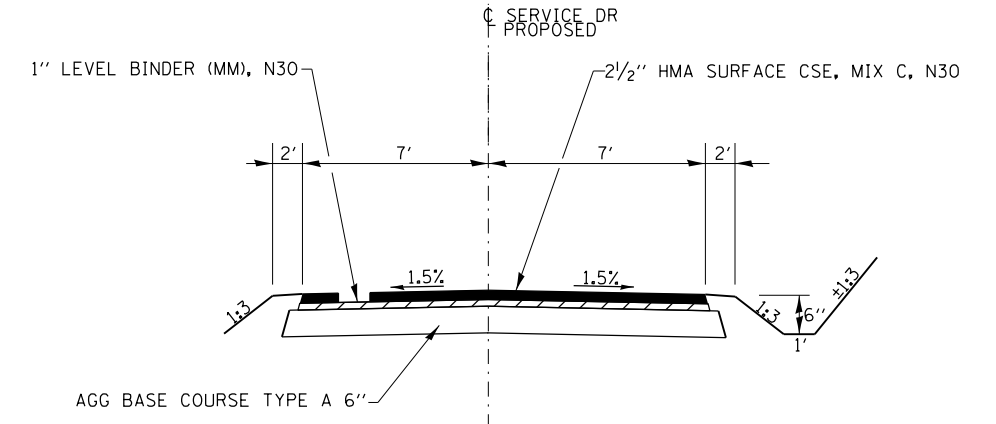
**SHADY OAKS ROAD**

STA. 10+00 - STA. 15+00



**MINOOKA ROAD**

STA. 47+90.36 - STA. 52+34.64



**SERVICE DRIVE**

FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -
et:\pwork\pwork\duncanbd\dms58037\ep01904-sht-typical.dgn		DRAWN -	REVISED -
PLOT SCALE = 100.0000' / in.		CHECKED -	REVISED -
PLOT DATE = 3/15/2013		DATE -	REVISED -

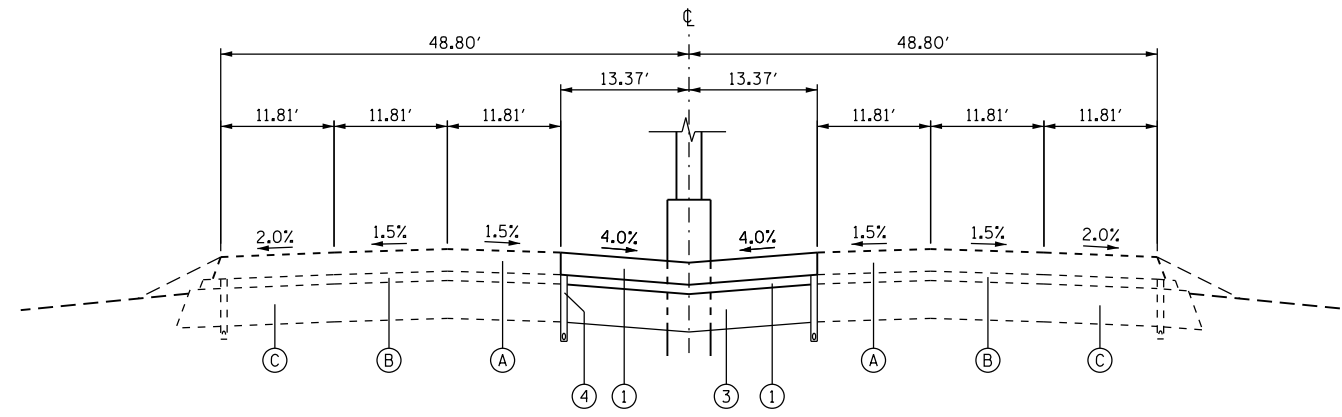
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**PROPOSED TYPICAL SECTIONS**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(32,47-4)HBR-2	GRUNDY	143	16
CONTRACT NO. 66873				
ILLINOIS FED. AID PROJECT				





PROPOSED I-80  
STA. 1573+32.29 TO STA. 1574+57.95

**EXISTING LEGEND:**

- (A) EXISTING PCC PAVEMENT, 14"
- (B) EXISTING STABILIZED SUB-BASE, 4"
- (C) EXISTING POROUS GRANULAR EMBANKMENT, SUBGRADE, 12"

**PROPOSED LEGEND:**

- (1) CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT 14"
- (2) STABILIZED SUBBASE - HOT-MIX ASPHALT, 4"
- (3) AGGREGATE SUBGRADE IMPROVEMENT 12"
- (4) PIPE UNDERDRAINS 4" (MODIFIED)

MIXTURE TABLE

	HMA SURFACE (MINOOKA RD)	HMA SURFACE (SHADY OAKS RD)	HMA BINDER	HMA LEVEL BINDER	INC HMA SURF	HMA SHOULDERS 6"
PG GRADE	PG64-22	PG64-22	PG64-22	PG64-22	PG64-22	PG64-22
DESIGN AIR VOIDS	4.0% @ N50	4.0% @ N30	N50	4.0% @ N30	4.0% @ N30	2.0% @ N30
MIXTURE COMPOSITION	IL 9.5	IL 9.5	IL 19.0	IL 9.5	IL 9.5	IL 9.5L
FRICION						
AGGREGATE	MIXTURE C	MIXTURE C			MIXTURE C	
DENSITY TEST METHOD	CORES	CORES	CORES	SATISFACTION OF ENGINEER	SATISFACTION OF ENGINEER	CORES

TREE REMOVAL			
LOCATION	SIDE	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	TREE REMOVAL (OVER 15 UNITS DIAMETER)
		UNIT	UNIT
40+31	40' LT	6	
42+24	47' LT	10.3	
42+61	43' LT		19.6
42+71	45' LT	7.2	
43+46	45' LT	6.9	
43+53	47' LT	8.3	
44+47	42' LT	8	
44+64	43' LT	6.7	
44+67	49' LT	9.1	
44+74	85' LT	8.2	
44+76	61' LT		15.8
44+76	66' LT		15.4
44+77	80' LT	6.9	
45+09	15' RT	6.8	
45+15	15' RT	7.2	
45+61	40' LT	7.5	
45+70	35' LT	6.8	
45+93	40' LT	10.5	
46+25	29' LT	14	
46+31	50' LT	8.1	
46+41	24' RT	14	
46+45	38' LT	10.2	
46+56	26' RT	6.7	
46+48	46' LT	7	
46+65	45' LT	6.9	
46+73	46' LT	8	
46+73	16' RT	9.8	
46+86	28' RT	11.3	
46+97	12' RT	6.1	
47+05	35' LT	7	
47+13	25' RT	6	
47+25	56' LT	6	
47+25	54' RT	10	
47+40	57' LT	10	
47+43	14' RT	6.4	
47+47	36' LT	7.1	
47+54	26' RT	6.2	
47+65	43' LT	6.5	
47+65	59' LT	7.8	
47+70	31' RT	6.1	
47+80	66' RT	9.6	
47+88	35' RT	6.8	
47+95	57' LT	6	
48+05	45' LT	6.3	
48+07	18' RT	6.5	
48+12	15' RT	6.7	
48+24	27' RT	7.4	
48+27	35' LT	11.7	
48+29	23' RT	6.5	
48+34	52' LT	11.9	
48+34	9' RT	8.1	
48+39	48' LT	11.3	
48+39	12' RT	9.2	
48+43	14' RT	6.6	
48+52	36' LT	9.8	
48+65	66' LT	11	
48+69	51' LT	6.9	
48+77	35' LT	7.3	
48+83	35' LT	7.5	
48+87	56' LT	6	
48+95	47' LT	6.7	
49+03	45' LT	6.6	
49+06	72' LT	6	
49+11	55' LT	6.7	
49+11	67' LT	6.2	
49+20	65' LT	6.3	
49+50	87' LT		21.5
49+60	59' LT	10.3	
49+64	65' LT		16.6
49+75	97' LT	12.5	
49+92	125' LT	15	
50+15	122' RT	7.7	
50+20	117' RT	12.3	
50+25	100' RT	6.6	
50+50	100' RT	6.8	
50+55	96' RT	9.3	

TREE REMOVAL (CONT.)			
LOCATION	SIDE	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	TREE REMOVAL (OVER 15 UNITS DIAMETER)
		UNIT	UNIT
50+75	75' RT	6.4	
50+90	53' RT	9	
51+00	70' RT	15	
51+15	35' RT	9	
51+50	23' RT	10.4	
51+90	65' LT	7.2	
51+92	52' LT	6.2	
51+92	83' LT	9.6	
51+98	59' LT	6	
52+00	48' LT	6.5	
52+10	69' LT	8.2	
52+20	23' RT	6.4	
52+25	45' LT	10.9	
52+34	126' LT	13.3	
52+50	60' LT	8.6	
52+65	59' LT		15.1
52+78	49' LT	10.9	
52+90	47' LT	7.6	
53+10	27' RT	9.2	
53+15	57' LT	7.1	
53+30	52' LT	9.4	
53+75	54' LT	6.3	
54+20	55' LT	6.1	
54+50	41' LT	8.2	
54+85	45' LT	8.4	
58+95	121' RT		44
59+10	51' RT	8	
59+57	20' RT	8	
59+57	20' RT	8	
59+57	20' RT	8	
59+68	86' RT		22
59+73	83' RT		38
61+20	39' RT	8	
61+31	28' RT		40
62+06	43' RT		17
62+38	17' RT	13.8	
63+04	45' RT		22
63+10	45' RT		16.4
63+15	44' RT		20.3
63+27	22' RT		18.1
63+32	25' RT		26.1
63+45	46' RT	6.2	
63+98	40' RT	7.8	
64+14	26' RT		27.4
66+90	27' RT		22.5
67+60	39' RT	12.4	
67+88	42' RT	7.9	
68+00	32' RT	8	
70+85	42' RT	8.6	
70+90	35' RT	14.9	
71+39	62' RT	SAVE	
72+05	51' LT		35.9
<b>TOTAL</b>		<b>906.8</b>	<b>435.6</b>

FENCING		
LOCATION	WOVEN WIRE FENCE	WOVEN WIRE FENCE REM
	FOOT	FOOT
NW QUAD OF STR	108	96
SW QUAD OF STR	79	141
NE QUAD OF STR	84	132
SE QUAD OF STR	136	116
52+33 - 65+86 LT		1353
<b>TOTALS</b>	<b>407</b>	<b>1838</b>

TEMPORARY EROSION CONTROL SYSTEMS				
STATION	LOCATION	TEMPORARY DITCH CHECKS	INLET & PIPE PROTECTION	PERIMETER EROSION BARRIER
		FOOT	EACH	FOOT
37+65	LT	7		
40+15	RT	7		
41+20	RT	7		
41+70	LT	7		
42+30	LT	7		
48+00	RT	7		
48+80	LT	7		
55+00	RT	7		
56+00	LT	7		
58+25	RT	7		
59+95	RT	7		
60+00	LT	7		
60+50	RT		1	
61+60	RT		1	
62+24	RT		1	
63+75	LT	7		
64+55	RT	7		
66+30	LT	7		
66+35	RT	7		
67+00	LT	7		
67+00	RT	7		
71+80	LT	7		
73+00	RT	7		
73+35	LT	7		
40+00 - 46+10	LT			662
45+13 - 47+55	RT			242
56+43 - 60+66	RT			502
53+00 - 72+00	LT			1900
60+86 - 61+73	RT			87
61+90 - 62+09	RT			79
62+91 - 64+83	RT			92
65+08 - 70+00	RT			492
71+39 - 73+35	RT			196
72+70 - 73+55	LT			85
<b>TOTALS</b>		<b>147</b>	<b>3</b>	<b>4337</b>

TEMPORARY EROSION CONTROL SEEDING QUANTITY (NOT SHOWN) BASED ON FINAL SEEDING

EARTHWORK					
LOCATION STA. TO STA.	STATE EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE CUBIC YARD	EMBANKMENT CUBIC YARD	COUNTY EARTHWORK BALANCE WASTE(+) OR SHORTAGE(-) CUBIC YARD	STATE EARTHWORK BALANCE WASTE(+) OR SHORTAGE(-) CUBIC YARD
	CUBIC YARD			CUBIC YARD	CUBIC YARD
36+00 - 44+00					
STATE					
STAGE 1	1746	1310	359		951
STAGE 2	257	193	5525		-5332
VILLAGE					
STAGE 1	0	0	0	0	
STAGE 2	0	0	1471	-1471	
44+00 - 55+00					
STATE					
ALL STAGES	7118	5339	31532		-26194
VILLAGE					
ALL STAGES	0	0	10563	-10563	
55+00 - 73+31					
STATE					
STAGE 1	9281	6961	2041		4920
STAGE 2	5793	4345	5942		-1597
STAGE 3	1184	888	3385		-2497
VILLAGE					
STAGE 1	0	0	1567	-1567	
STAGE 2	0	0	1360	-1360	
STAGE 3	0	0	1734	-1734	
<b>TOTAL</b>	<b>25379</b>	<b>19034</b>	<b>65479</b>	<b>-16695</b>	<b>-29750</b>

MAINLINE											
LOCATION	AREA	HMA SURF REMOVAL BUTT JOINT	AGG BASE CSE TY A 8"	AGG BASE CSE TY A 12"	BIT MAT PRIME COAT	HMA SURFACE COURSE MIX C N30	HMA SURFACE COURSE MIX C N50	HMA BIND COURSE IL 19.0, N50	HMA SHLDS 6"	AGG SHLDS TYPE B 6"	TEMP RAMP
STA TO STA	SQ YD	SQ YD	SQ YD	SQ YD	POUND	TON	TON	TON	SQ YD	SQ YD	SQ YD
<b>MINOOKA ROAD</b>											
36+57 - 36+95	103.44			107.7	256.01		8.7	43.4		50.7	13.33
36+95 - 40+52	952			991.7	2356.20		80.0	399.8		390.7	
40+52 - 40+74	59.89			62.3	148.23		5.0	25.2		14.7	
40+74 - 47+90.36	1910.29			1989.9	4727.97		160.5	802.3		900.5	13.33
47+90.36 - 52+34.64		BRIDGE OMISSION									
52+34.64 - 58+20.8	1563.09			1628.2	3868.65		131.3	656.5		781.5	13.33
58+20.8 - 59+68.1	621.93			638.3	1539.28		52.2	261.2		98.2	
59+68.1 - 70+59	2909.07			3030.3	7199.95		244.4	1221.8		1243.8	
70+59 - 71+34	204.17			212.5	505.32		17.2	85.8		62	
71+34 - 72+17.5	227.31			236.6	562.59		19.1	95.5		72.7	
72+17.5 - 73+31.6	304.27			316.9	753.07		25.6	127.8		136.1	13.33
SUBTOTAL				9214.4	21917.3		743.9	3719.3		3750.9	53.32
<b>SHADY OAKS RD</b>											
10+26 - 10+72	243.17		248.9		601.85	20.4		54.5	46.3		27.78
10+72 - 11+84	411.92		423.9		1019.50	34.6		92.3	96.8		
11+84 - 13+62.6	525.39		545.2		1300.34	44.1		117.7		158.8	
13+62.6 - 15+00	335.87		351.1		831.28	28.2		75.2		122.1	
15+00 - 15+60	146.67	146.7			66.00	12.3					12.22
SUBTOTAL	146.7		1569.1		3819.0	139.7		339.7	143.1	280.9	40.0
<b>TOTAL</b>	<b>147</b>	<b>147</b>	<b>1569</b>	<b>9214</b>	<b>25736</b>	<b>140</b>	<b>744</b>	<b>4059</b>	<b>143</b>	<b>4032</b>	<b>93</b>

ENTRANCE SCHEDULE													
STATION	SIDE	TYPE	MAT TYPE	WIDTH FOOT	AREA SQ YD	DRIVE PAVT REM SQ YD	AGG BSE CSE TY A TON	AGG BSE CSE TY A 6" SQ YD	AGG SURF CSE TY B TON	LEV BIND MACH METH N30 TON	HMA SURF CSE MIX C N30 TON	INC HMA SURF TON	BIT MAT PR CT POUND
<b>MINOOKA RD</b>													
38+01.6	LT	PE	AGG	12	72.2		12.8					8.1	162.5
39+27.2	LT	PE	HMA/AGG	12	72.7	33.4	12.8					8.1	163.5
39+39.2	RT	MBTO	HMA/AGG		40.2	23.7	13.7					4.5	90.5
40+71	RT	PE	AGG	16	19.4		2.4					2.2	43.7
40+71 - 44+71	RT	SD	HMA		779.0	196.2		779.0		44.0	109.0		1928.0
45+07.5	LT	FE	AGG	20	475.4				212.4				
60+76.1	RT	FE	AGG/EARTH	20	98.3				43.9				
61+82.3	RT	PE/MB	HMA/AGG	12	81.4	102.3	33.4					9.1	183.3
62+80.4	RT	FE	AGG/EARTH	20	111.8				51.2				
64+27.5	LT	FE	AGG/EARTH	35	315.2				144.3				
65+00	RT	PE/MB	HMA/AGG	12	101.1	59.7	21.9					11.3	227.5
70+36.3	RT	PE/MB	HMA/AGG	21	356.0	338.2	37.9					39.9	801.0
71+14.4	RT	PE/MB	HMA/AGG	12	138.7	116.8	26.5					15.5	312.0
71+83.5	RT	MBTO	AGG		40.2		13.7					4.5	90.5
72+28.2	LT	PE	HMA/AGG	20	255.2	96.2	88.1					28.6	574.3
<b>SHADY OAKS</b>													
15+36	LT	FE	AGG	14	70.4				8.2				
<b>TOTAL</b>						<b>967</b>	<b>263</b>	<b>779</b>	<b>460</b>	<b>44</b>	<b>109</b>	<b>132</b>	<b>4577</b>

MULTI-USE PATH					
STA TO STA	SIDE	AGG BASE COURSE TY A, 6"	BIT MAT PRIME COAT POUND	INC HMA TON	BICYCLE RAILING FOOT
40+80 - 47+18	LT	698	1570	78	
47+18 - 48+29.5	LT	147	329.9	17	112
52+74 - 54+00	LT	172	387.9	19	126
54+00 - 64+09	LT	1121	2522.5	126	
<b>TOTALS</b>		<b>2138</b>	<b>4810</b>	<b>240</b>	<b>238</b>

ITEMS DUE TO PIER RECONSTRUCTION									
LOCATION	PAVEMENT REMOVAL SQ YD	CONCRETE BARRIER REMOVAL FOOT	STORM SEWER REM 15" FOOT	DRAINAGE STRUCTURE TO BE REM EACH	DRAINAGE STRUCTURES TY 4 W/ TY 20 FR & GR EACH	CONCRETE BARRIER TRANSITION FOOT	CRPCC PAVEMENT 14" SQ YD	STAB SUBBASE HMA 4" SQ YD	AGG SUBGRADE IMPR 12" SQ YD
1573+32.29 - 1574+57.95	355						331	331	331
1573+34.6					1				
1573+34.6 - 1573+48.6			14						
1573+48.6				1					
1573+32.29 - 1573+59.66		27.7							
1574+25.12 - 1574+57.95		32.9							
1573+32.29 - 1573+50.62						18.33			
1574+39.62 - 1574+57.95						18.33			
<b>TOTAL</b>	<b>355</b>	<b>61</b>	<b>14</b>	<b>1</b>	<b>1</b>	<b>37</b>	<b>331</b>	<b>331</b>	<b>331</b>

DRAINAGE																
LOCATION		PIPE CULV CL A, TY 2 24"	PIPE CULV CL A, TY 2 30"	PIPE CULV CL D, TY 1 15"	PIPE CULV CL D, TY 1 30"	PIPE CULV CL D, TY 1 48"	PIPE CULV CL D, TY 1 ERS 15"	ST SEW CL A, TY 2 15"	ST SEW CL A, TY 1 ERS 30"	PIPE DRAINS 12"	INLETS TY B, TY 1 CL LID	MH TY A 4' DIA TY 1 FR, CL	MH TY A 5' DIA TY 8 GR	TRENCH BACKFILL	END SECTIONS 12"	
STATION	SIDE	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	EACH	EACH	EACH	CU YD	EACH	
38+01.6	LT															
39+27.2	LT			26												
40+29.5	RT															
40+38	RT											1				
40+38 TO 40+91	RT							51								
40+31.1	RT															
40+40	RT							88								
42+00	X-ROAD	101												34		
47+52	RT									50	1					1
48+06	LT									95	1					1
52+18	RT									68	1					1
52+73	LT									64	1					1
58+93.2	RT		90													
60+00 TO 60+50	RT								50							
60+50	RT												1			
60+50 TO 61+60	RT								110							
61+60	RT												1			
61+60 TO 62+24	RT								64							
62+24	RT												1			
62+24 TO 62+94.3	RT								70							
64+27.5	LT					49										
64+96.1	RT				30											
71+14.4	RT			30												
72+28.2	LT			52												
<b>TOTAL</b>		<b>101</b>	<b>90</b>	<b>108</b>	<b>30</b>	<b>49</b>	<b>28</b>	<b>139</b>	<b>294</b>	<b>277</b>	<b>4</b>	<b>1</b>	<b>3</b>	<b>34</b>	<b>4</b>	

DRAINAGE									
LOCATION		END SECTIONS 15"	END SECTIONS 30"	END SECTIONS 48"	END SECTIONS ERS 15"	PRC FLAR END SEC 15"	PRC FLAR END SEC 24"	PRC FLAR END SEC 30"	PRC FLAR END SEC ERS 30"
STATION	SIDE	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
38+01.6	LT				2				
39+27.2	LT	2							
40+29.5	RT					1			
40+38	RT								
40+38 TO 40+91	RT					1			
40+31.1	RT					1			
40+40	RT								
42+00	X-ROAD						2		
47+52	RT								
48+06	LT								
52+18	RT								
52+73	LT								
58+93.2	RT							2	
60+00 TO 60+50	RT								1
60+50	RT								
60+50 TO 61+60	RT								
61+60	RT								
61+60 TO 62+24	RT								
62+24	RT								
62+24 TO 62+94.3	RT								1
64+27.5	LT			2					
64+96.1	RT		2						
71+14.4	RT	2							
72+28.2	LT	2							
<b>TOTAL</b>		<b>6</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>

DRAINAGE REMOVAL					
LOCATION				PIPE CULVERT REMOVAL	REMOVING MANHOLES
STATION	SIDE	SIZE INCH	TYPE	FT	EACH
37+99	LT	15	CMP	18	
39+31	LT	15	CMP	24	
40+28	RT	15	RCP	13	
40+34	RT	12	RCP	94	
40+36	RT				1
40+75	RT	15	RCP	75	
43+14	X-RD	24	RCP	32	
44+06	RT	24	CMP	31	
55+93	RT	18	RCP	55	
56+58	LT	15	CMP	42	
60+00	LT	24	CMP	50	
60+77	RT	15	CMP	30	
61+94	RT	15	CMP	30	
62+81	RT	15	CMP	32	
64+27	LT	48	CMP	43	
65+03	RT	15	CMP	34	
71+16	RT	15	CMP	36	
72+31	LT	15	CMP	52	
<b>TOTAL</b>				<b>691</b>	<b>1</b>

STAGING								
LOCATION		TEMPORARY CONCRETE BARRIER	REL TEMP CONCRETE BARRIER	IMPACT ATT TEMP (FULLY RED) TEST LEVEL 3	IMPACT ATT REL (FULLY RED) TEST LEVEL 3	PAVEMENT REMOVAL	PIPE CULV CL D, TY 1 48" (TEMP)	TEMPORARY PAVEMENT 8"
		FOOT	FOOT	EACH	EACH	SQ YD	FOOT	SQ YD
I-80								
STAGE 1								
1572+40 - 1576+52.5	WB	412.5		1				
1571+77.5 - 1575+90	EB	412.5		1				
STAGE 2								
1572+22.5 - 1576+37	WB		412.5		1			
1571+55 - 1575+92.5	EB		412.5		1			
MINOOKA ROAD								
STAGE 1								
56+00 - 72+50							54	2033
STAGE 2								
57+00 - 61+00		400		2				
65+86.5 - 67+36.5		150		2				
STAGE 3								
58+50 - 59+75			125		1			
65+86.5 - 67+36.5			150		2			
56+00 - 72+50						2033		
RELOCATE TCB TO PERMANENT LOCATION								
TOTAL		1375.0	1975.0	6	5	2033	54	2033

TEMPORARY PAVEMENT MARKING					
LOCATION STA. TO STA.	TEMPORARY				SHORT TERM PVT MK FOOT
	4"		6"	24"	
	WHITE FOOT	YELLOW FOOT	WHITE FOOT	WHITE FOOT	
I-80					
STAGE 2					
1568+22.5 - 1579+10	WB				
EDGELINES	2225				
CENTERLINE		1112.5			
1568+80 - 1579+92.5	EB				
EDGELINES	2225				
CENTERLINE		1112.5			
MINOOKA ROAD					
STAGE 2					
55+82 - 72+50					
EDGELINES	3352				
CENTERLINE		3356			
STOPBAR AT SHADY OAKS				14	
STAGE 3					
59+50 - 72+16					
EDGELINES	2515				
CENTERLINE		2516			
ALONG SHADY OAKS					
EDGELINES	1194				
CENTERLINE		1194			
STOPBAR				16	
BEFORE PERMANENT MARKING					
I-80					
WESTBOUND					111
EASTBOUND					111
MINOOKA & SHADY OAKS ROADS					
EDGELINES	8361				
STOPBAR				26	
CENTERLINE		3423	960		847
TOTALS		32586	960	56	1069

PAVEMENT MARKING								
STA. TO STA.	EPOXY				MODIFIED URETHANE			RAISED REFL PAVT MARK EACH
	4"		6"	24"	4"		6"	
	YELLOW FOOT	WHITE FOOT	YELLOW FOOT	WHITE FOOT	YELLOW FOOT	WHITE FOOT	WHITE FOOT	
I-80								
WESTBOUND								
CENTERLINE							280	
EDGELINE					1112.5	1112.5		
EASTBOUND								
CENTERLINE							280	
EDGELINE					1112.5	1112.5		
MINOOKA RD								
36+57 - 41+00								
CENTERLINE			110				6	
EDGELINE		886						
41+00 - 49+90								
CENTERLINE			220				11	
EDGELINE		1780						
EB NO PASSING ZONE								
EDGELINE	890							
49+90 - 50+45								
EDGELINE		110						
DOUBLE NO PASSING ZONE								
EDGELINE	110						1	
50+45 - 64+00								
CENTERLINE			340				17	
EDGELINE		2563						
WB NO PASSING ZONE								
EDGELINE	1355							
64+00 - 73+32								
CENTERLINE			230				12	
EDGELINE		1864						
SHADY OAKS RD								
CL NO PASSING ZONE								
EDGELINE	1068						7	
STOP BARS		1158		26				
TOTAL	3423	8361	900	26	2225	2225	560	

ROW MARKERS		
LOCATION STATION	SIDE	FURN & ERECT ROW MARKERS EACH
34+40	34.23' LT	1
40+28.28	115' RT	1
40+45	60' LT	1
43+64.91	115' RT	1
43+80.76	100' LT	1
45+25	75' RT	1
46+00	100' LT	1
46+75	100' RT	1
47+00	125' LT	1
47+55.66	100' RT	1
47+92.23	125' LT	1
56+43	195' RT	1
59+00	195' RT	1
60+00	45' RT	1
62+00	45' RT	1
63+00	55' RT	1
64+94.44	80' LT	1
67+02.23	55' RT	1
67+02.23	80' LT	1
69+00	65' LT	1
69+16.96	45' RT	1
72+17.02	45' RT	1
73+00	50' RT	1
73+55	65' LT	1
<b>TOTALS</b>		<b>24</b>

SEEDING									
LOCATION STA. TO STA.	SIDE	SEEDING CLASS 1 ACRE	SEEDING CLASS 2 ACRE	SEEDING CLASS 3 ACRE	EROSION CONTROL BLANKET SQ YD	MULCH METHOD 2 ACRE	NITROGEN FERTILIZER NUTRIENT POUND	PHOSPHORUS FERTILIZER NUTRIENT POUND	POTASSIUM FERTILIZER NUTRIENT POUND
<b>MINOOKA RD</b>									
36+00 - 37+86	LT		0.064			0.064	6	6	6
37+86 - 40+00	LT	0.080			386.2		7	7	7
36+31 - 40+63	RT		0.320			0.320	29	29	29
40+00 - 45+00	LT		0.778			0.778	70	70	70
40+79 - 48+48	RT		0.618	0.803	3886.5	0.618	128	128	128
45+18 - 49+18	LT		0.282	0.686	3323.1	0.282	87	87	87
I-80	WB		0.449			0.449	40	40	40
I-80	EB		0.391			0.391	35	35	35
50+61 - 55+50	RT		0.420	0.754	3648	0.420	106	106	106
51+21 - 56+60	LT		0.506	0.593	2868.8	0.506	99	99	99
55+50 - 58+67	RT		0.757			0.757	68	68	68
59+19 - 60+66	RT		0.078			0.078	7	7	7
56+60 - 64+09	LT		1.276			1.276	115	115	115
60+86 - 66+35	RT	0.393			1900.9		35	35	35
64+44 - 67+00	LT		0.154	0.178	860.6	0.154	30	30	30
66+35 - 69+00	RT			0.193	936.5		17	17	17
67+00 - 72+00	LT		0.560			0.560	50	50	50
69+00 - 71+08	RT	0.131			632.2		12	12	12
71+20 - 73+35	RT	0.036		0.127	612.9		15	15	15
72+00 - 72+56	LT	0.010			483.9		1	1	1
72+56 - 73+51	LT			0.092	447.6		8	8	8
<b>SHADY OAKS RD</b>									
10+46 - 15+29	LT		0.449			0.449	40	40	40
<b>TOTAL</b>		<b>0.65</b>	<b>7.10</b>	<b>3.43</b>	<b>19987</b>	<b>7.10</b>	<b>1006</b>	<b>1006</b>	<b>1006</b>

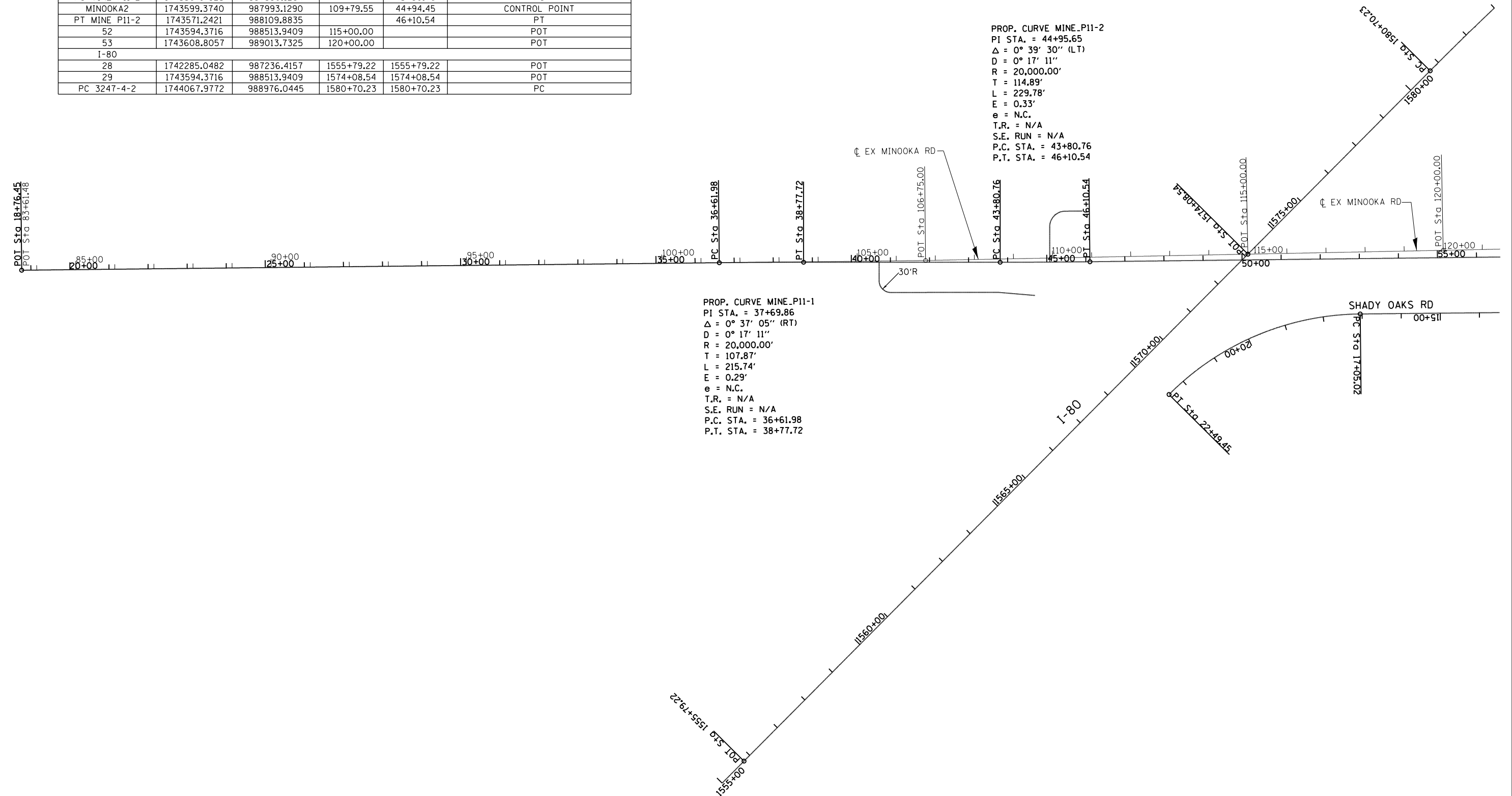
GUARDRAIL								
LOCATION STATION		SPBGR TYPE A 6 FT POSTS FOOT	TRAF BARR TERM TY 6 EACH	TRAF BARR TERM TY 1 SPEC. TANG EACH	TRAF BARR TERM TY 5 EACH	GUARDRAIL MARKERS TYPE A EACH	TERM MARK DIRECT APPLIED EACH	GUARDRAIL REM FOOT
<b>MINOOKA ROAD</b>								
44+97 - 48+61	RT							369
44+40 - 44+90	LT							67
45+38 - 48+86	LT							366
51+41 - 55+51	RT							409
51+68 - 56+29	LT							462
72+77 - 73+28	RT							51
72+73 - 73+37	LT							64
45+89.4 - 47+73.1	RT	90.625	1	1		2	1	
46+87.3 - 48+08.6	LT	28.125	1	1		2	1	
52+16.3 - 53+37.6	RT	28.125	1	1		2	1	
52+51.8 - 54+35.6	LT	90.625	1	1		2	1	
71+86.2 - 73+27.6	RT	78.125		1	1	2	1	
72+45.3 - 73+36.5	LT	28.125		1	1	2	1	
<b>I-80</b>								
1572+51 - 1574+47	RT							195
1573+70 - 1575+86	LT							216
<b>TOTAL</b>		<b>343.750</b>	<b>4</b>	<b>6</b>	<b>2</b>	<b>12</b>	<b>6</b>	<b>2199</b>

HORIZONTAL CONTROL POINTS					
POINT	NORTHING	EASTING	STATION EXISTING ALIGNMENT	STATION PROPOSED ALIGNMENT	DESCRIPTION
MINOOKA ROAD					
MINOOKA1	1743497.1060	985316.7020	83+01.39		CONTROL POINT
50	1743524.1580	985376.2280	83+61.48	18+76.45	POT
PC MINE P11-1	1743559.9665	987161.4016		36+61.98	PC
PT MINE P11-1	1743563.1297	987377.1175		38+77.72	PT
51	1743570.5552	987689.2847	106+75.00		POT
PC MINE P11-2	1743567.7923	987880.1284		43+80.76	PC
MINOOKA2	1743599.3740	987993.1290	109+79.55	44+94.45	CONTROL POINT
PT MINE P11-2	1743571.2421	988109.8835		46+10.54	PT
52	1743594.3716	988513.9409	115+00.00		POT
53	1743608.8057	989013.7325	120+00.00		POT
I-80					
28	1742285.0482	987236.4157	1555+79.22	1555+79.22	POT
29	1743594.3716	988513.9409	1574+08.54	1574+08.54	POT
PC 3247-4-2	1744067.9772	988976.0445	1580+70.23	1580+70.23	PC



PROP. CURVE MINE\_P11-2  
 PI STA. = 44+95.65  
 $\Delta$  = 0° 39' 30" (LT)  
 D = 0° 17' 11"  
 R = 20,000.00'  
 T = 114.89'  
 L = 229.78'  
 E = 0.33'  
 e = N.C.  
 T.R. = N/A  
 S.E. RUN = N/A  
 P.C. STA. = 43+80.76  
 P.T. STA. = 46+10.54

PROP. CURVE MINE\_P11-1  
 PI STA. = 37+69.86  
 $\Delta$  = 0° 37' 05" (RT)  
 D = 0° 17' 11"  
 R = 20,000.00'  
 T = 107.87'  
 L = 215.74'  
 E = 0.29'  
 e = N.C.  
 T.R. = N/A  
 S.E. RUN = N/A  
 P.C. STA. = 36+61.98  
 P.T. STA. = 38+77.72



FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -
et:\pwork\work\pwork\duncanbd\dms58037\ep01904-sht-ATB.dgn		DRAWN -	REVISED -
Default	PLOT SCALE = 250.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 3/15/2013	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ALIGNMENT, TIES &  
BENCHMARKS**

SCALE: 1"=125' SHEET 1 OF 3 SHEETS STA. TO STA.

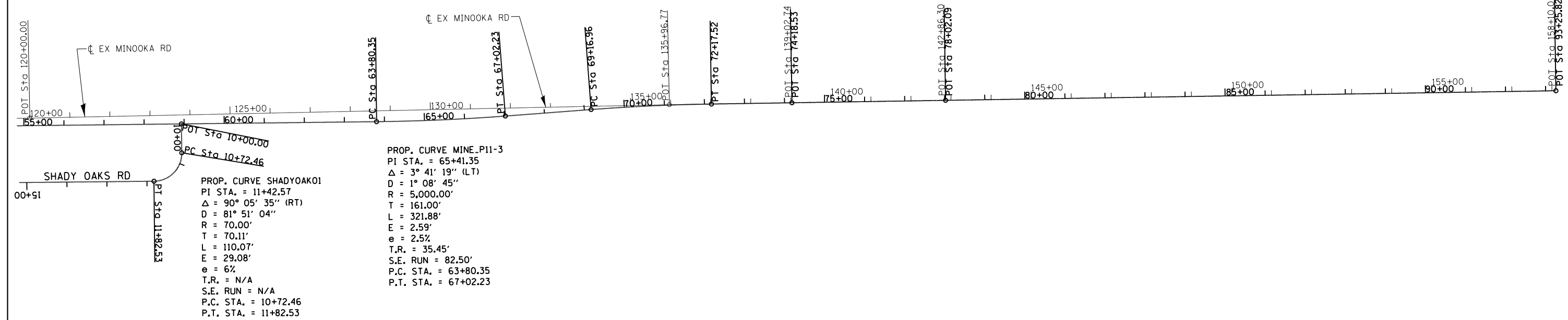
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(32,47-4)HBR-2	GRUNDY	143	23
CONTRACT NO. 66873				
ILLINOIS FED. AID PROJECT				

HORIZONTAL CONTROL POINTS					
POINT	NORTHING	EASTING	STATION EXISTING ALIGNMENT	STATION PROPOSED ALIGNMENT	DESCRIPTION
SHADYOAK01	1743597.8669	989392.3113		58+93.24	POT - STA. 10+00 ON SHADY OAKS
MINOOKA3	1743651.5350	989476.1880	124+63.54	59+78.50	CONTROL POINT
PC MINE P11-3	1743607.9776	898879.3124		63+80.35	PC
PT MINE P11-3	1743625.0093	990200.6882		67+02.23	PT
PC MINE P11-4	1743643.2682	990414.6415		69+16.96	PC
54	1743657.1856	990609.7670	135+96.77		POT
PT MINE P11-4	1743659.8119	990714.7019		72+17.52	PT
55	1743664.8410	990915.6449	139+02.74	74+18.53	POT
MINOOKA4	1743637.1680	991209.9130	141+96.22	77+12.00	CONTROL POINT
56	1743674.4376	991299.0844	142+86.30	78+02.09	POT
57	1743712.5610	992822.3340	158+10.03	93+25.51	POT

BENCHMARKS								
NO.	NORTHING	EASTING	STATION EXISTING ALIGNMENT	OFFSET EXISTING ALIGNMENT	STATION PROPOSED ALIGNMENT	OFFSET PROPOSED ALIGNMENT	ELEVATION	DESCRIPTION
20			108+51.31	58.13' RT	43+67.36	50.13' RT	552.49	CHIS "X" ON NE BOLT FIRE HYDRANT
MINOOKA 2	1743599.3740	987993.1290	109+79.55	20.04' LT	44+94.45	30.22' LT	557.14	REBAR W/CAP IN FIELD ENTRANCE
1580			1580+61.71	0'	1580+61.71	0'	554.04	PC PLUG CL I-80
21			121+21.49	64.51' RT	56+37.07	44.55' RT	551.73	CHIS "X" ON NE BOLT FIRE HYDRANT
MINOOKA 3	1743651.5350	989476.1880	124+63.54	28.7' LT	59+78.50	51.92' LT	547.55	REBAR W/CAP OFF MINOOKA RD
MINOOKA 4	1743637.1680	991209.9130	141+96.22	35.03' RT	77+12.00	35.03' RT	547.73	REBAR W/CAP, SE QUAD TABLER RD

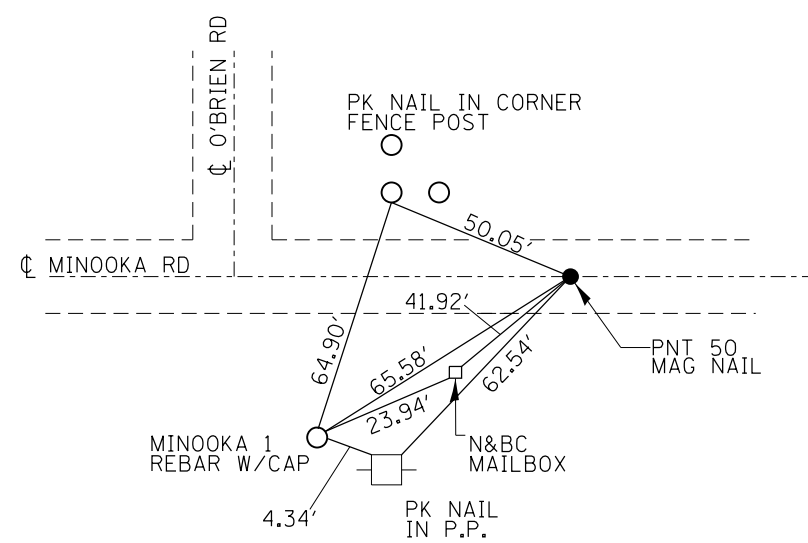


PROP. CURVE MINE.P11-4  
 PI STA. = 70+67.29  
 $\Delta = 3^\circ 26' 39''$  (RT)  
 $D = 1^\circ 08' 45''$   
 $R = 5,000.00'$   
 $T = 150.33'$   
 $L = 300.56'$   
 $E = 2.26'$   
 $e = 2.5\%$   
 $T.R. = 33.00'$   
 $S.E. RUN = 55.00'$   
 $P.C. STA. = 69+16.96$   
 $P.T. STA. = 72+17.52$

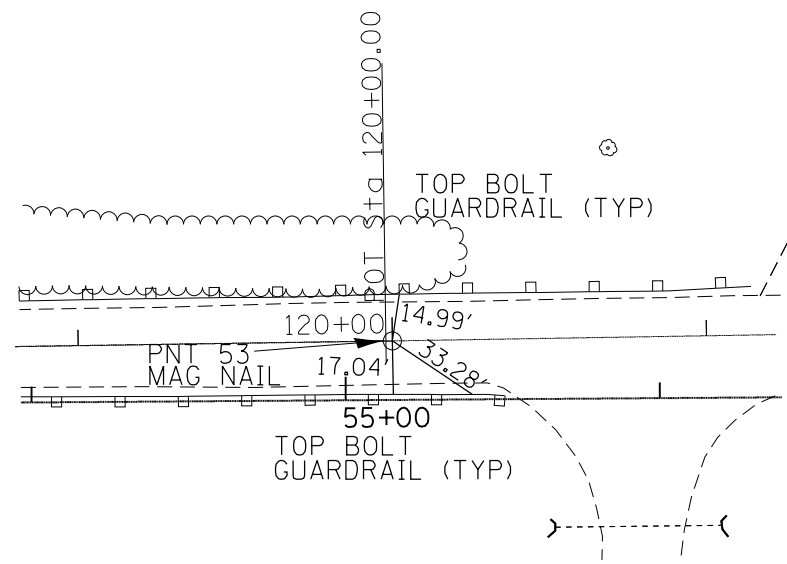


HORIZONTAL CONTROL POINTS					
POINT	NORTHING	EASTING	STATION EXISTING ALIGNMENT	STATION PROPOSED ALIGNMENT	DESCRIPTION
SHADYOAK01	1743597.8669	989392.3113		10+00.00	POT
PC SHADYOAK01	1743525.4229	989393.8153		10+72.46	PC
PT SHADYOAK01	1743453.9828	989325.1698		11+82.53	PT
PC SHADY02	1743443.9847	988802.7727		17+05.02	PC
PT SHADY02	1743233.3642	988315.5346		22+49.45	PT

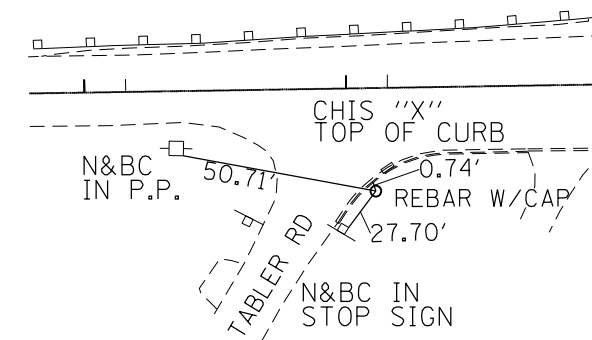




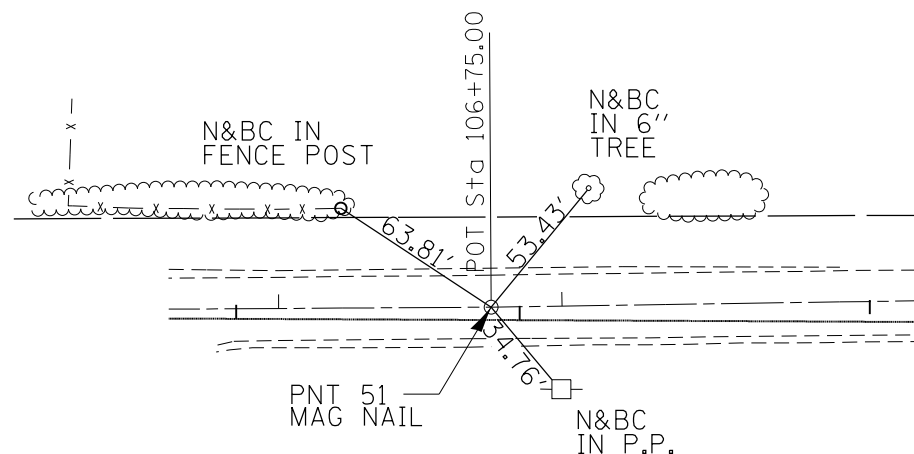
**MINOOKA 1 CP STA. 83 + 01.39(EX) 25.85' RT  
POINT 50 STA. 83 + 61.48(EX)/STA. 18 + 76.45(PR)**



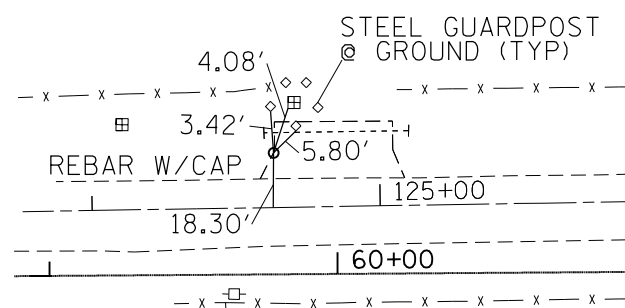
**PNT 53 STA. 120 + 00(EX)**



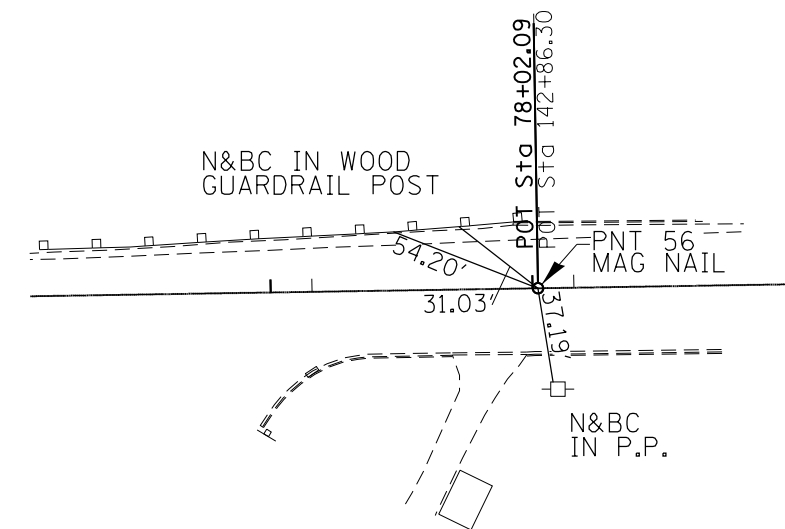
**MINOOKA 4 CP STA. 141 + 96.22(EX) 35.03' RT  
STA. 77 + 12.00(PR) 35.03' RT**



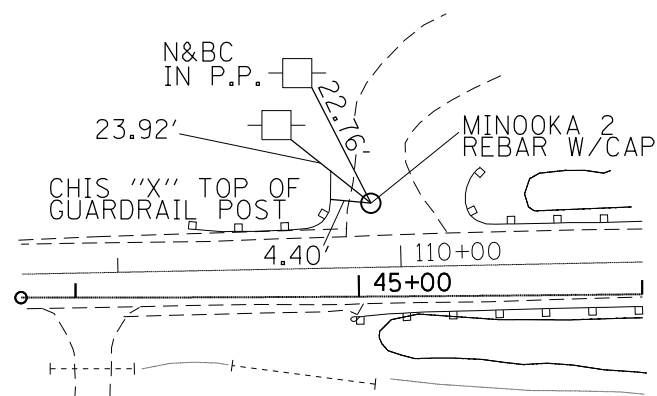
**PNT 51 STA. 106 + 75(EX)**



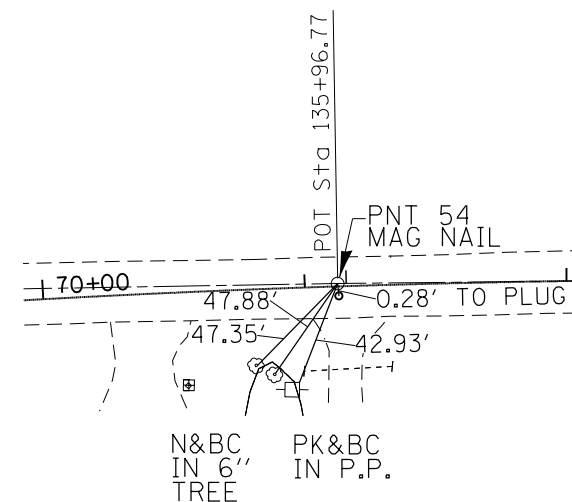
**MINOOKA 3 CP STA. 124 + 63.54(EX) 28.70' LT  
STA. 59 + 78.5(PR) 51.92' LT**



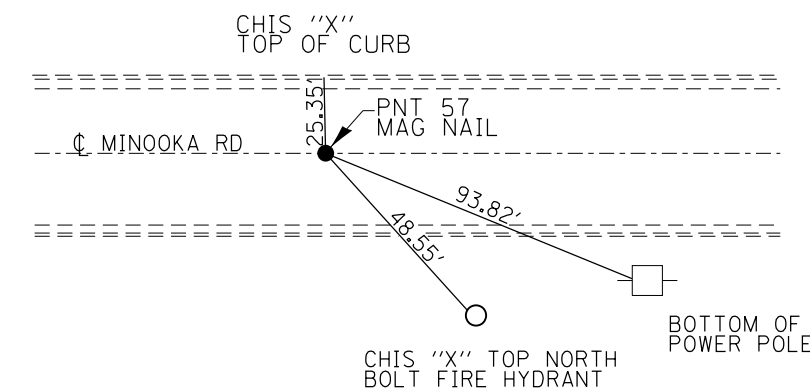
**PNT 56 STA. 142 + 86.30(EX)/STA. 78 + 02.09(PR)**



**MINOOKA 2 CP STA. 109 + 79.55(EX) 20.04' LT  
STA. 44 + 94.45(PR) 30.22' LT**



**PNT 54 STA. 135 + 96.77(EX)**

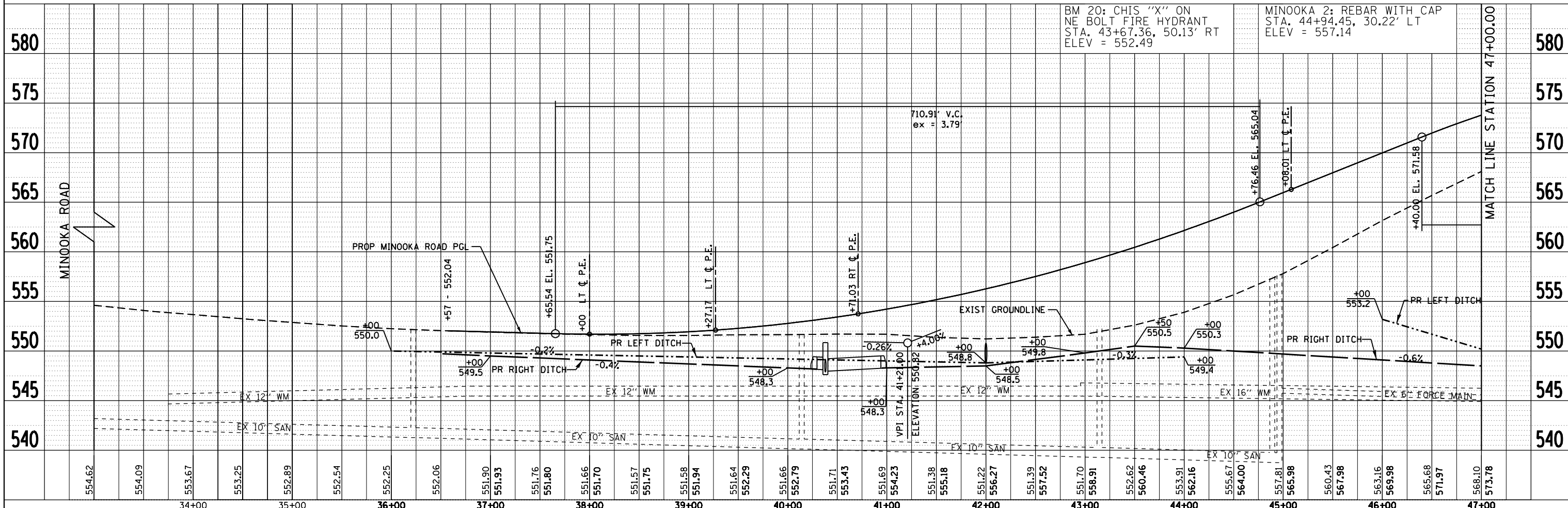
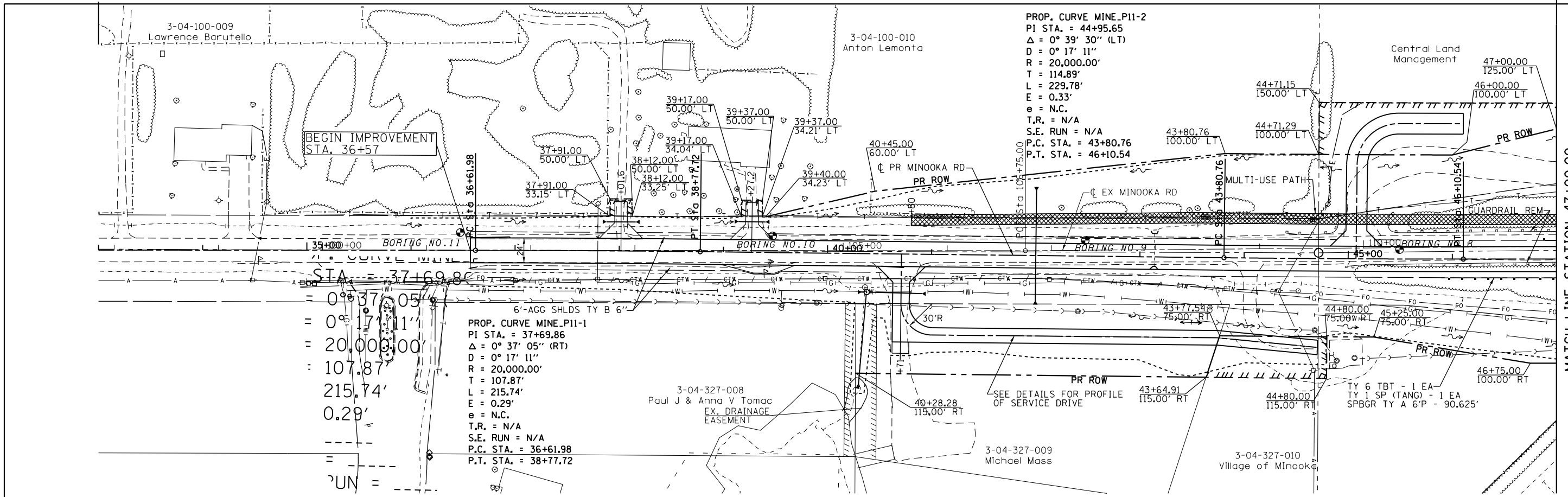


**PNT 56 STA. 158 + 10.03(EX)/STA. 93 + 25.51(PR)**

FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ALIGNMENT, TIES &amp; BENCHMARKS</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
Default	et:\pwork\work\pwork\dot\duncanbd\dms58037\ep01904-sht-ATB.dgn	DRAWN -	REVISED -			80	(32,47-4)HBR-2	GRUNDY	143	25	
	PLOT SCALE = 250.0000' / in.	CHECKED -	REVISED -			CONTRACT NO. 66873					
	PLOT DATE = 3/15/2013	DATE -	REVISED -			ILLINOIS FED. AID PROJECT					
					SCALE: NTS	SHEET 3 OF 3 SHEETS	STA.	TO STA.			

PLAN	SURVEYED	BY	DATE
	PLOTTED		
	ALIGNED		
	CHECKED		
	FILED		
	NO. _____		
	FILE NAME _____		

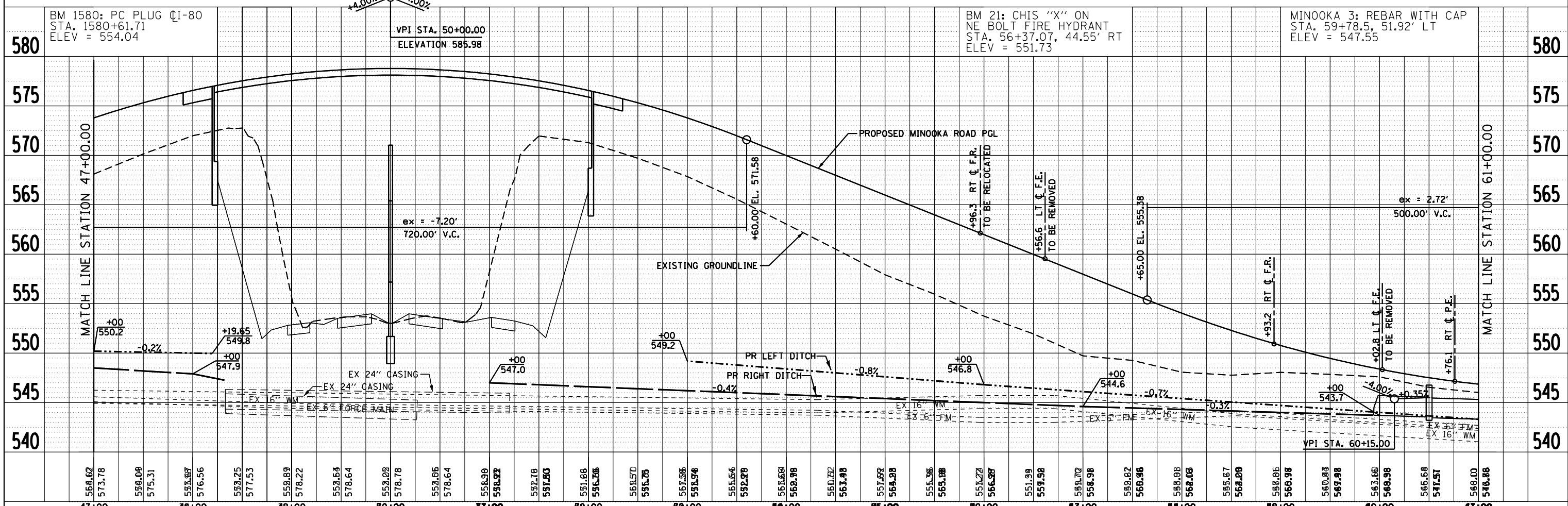
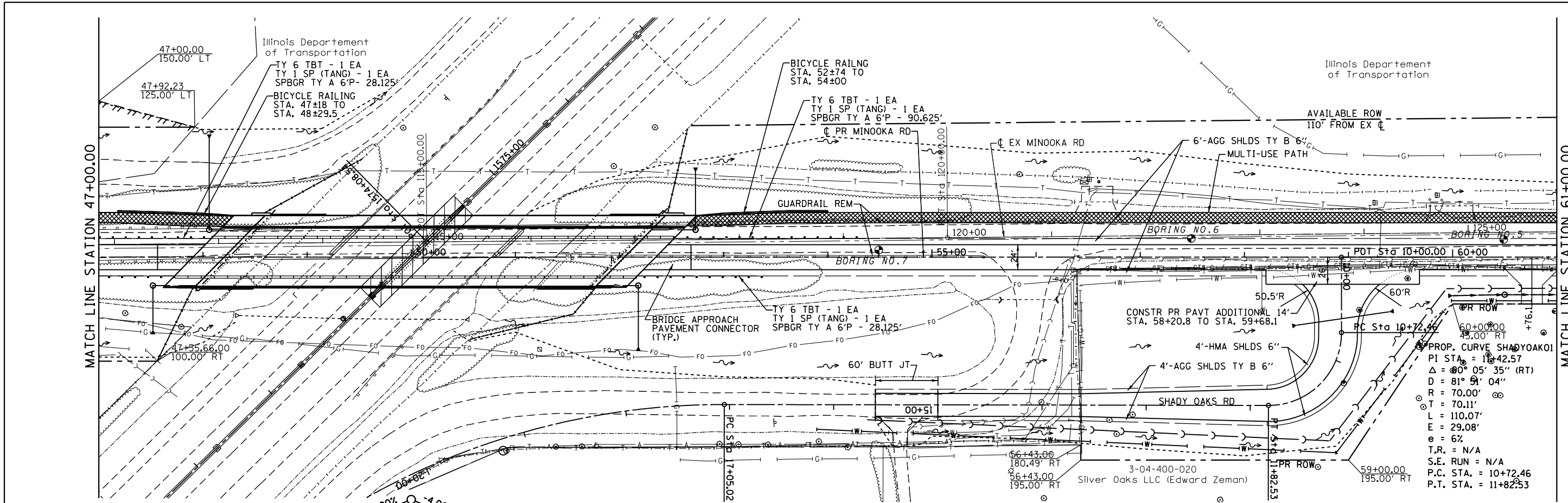
PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS CHECKED		
	NO. _____		
	FILE NAME _____		



FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MINOOKA ROAD PLAN AND PROFILE</b>			F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwork\pwork\duncanbd\dms58037\ep01194-SHT-MINOOKA-P&P.dgn		DRAWN -	REVISED -		80	(32,47-4)HBR-2	GRUNDY	143	26			
PLOT SCALE = 100.000 / in.		CHECKED -	REVISED -		CONTRACT NO. 66873							
PLOT DATE = 3/15/2013		DATE -	REVISED -		ILLINOIS FED. AID PROJECT							

PLAN	SURVEYED	BY	DATE
	PLOTTED		
	ALIGNED		
	CHECKED		
	FILED		
	NO.		

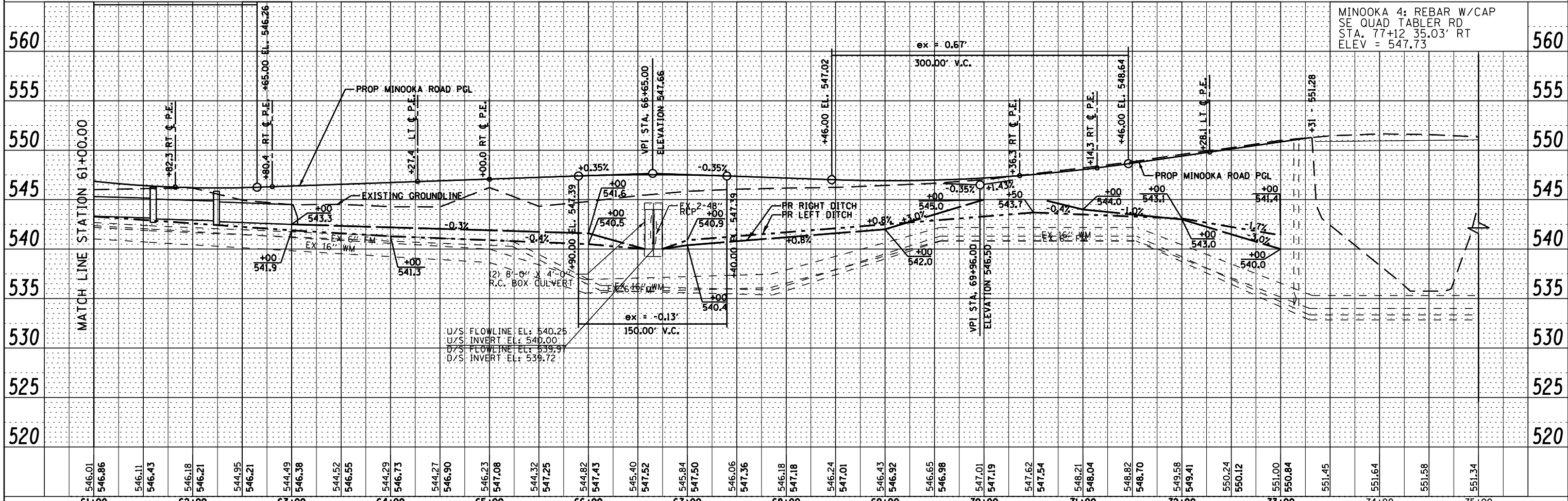
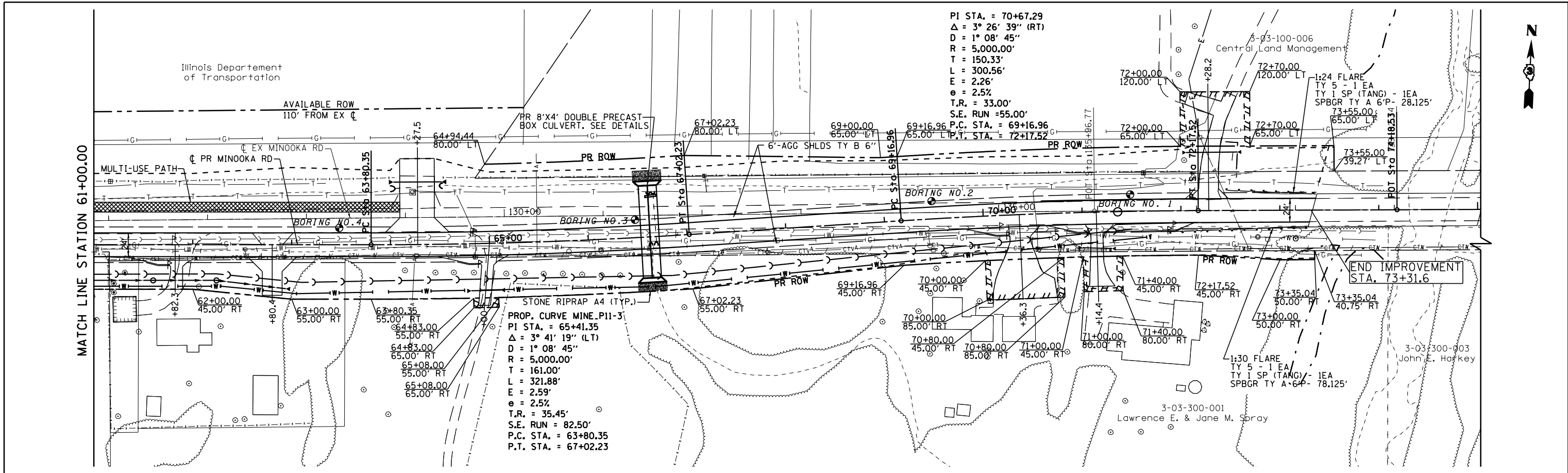
PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	GRADES		
	CHECKED		
	STRUCTURE		
	NOTATIONS		
	CPAD		
	NO.		



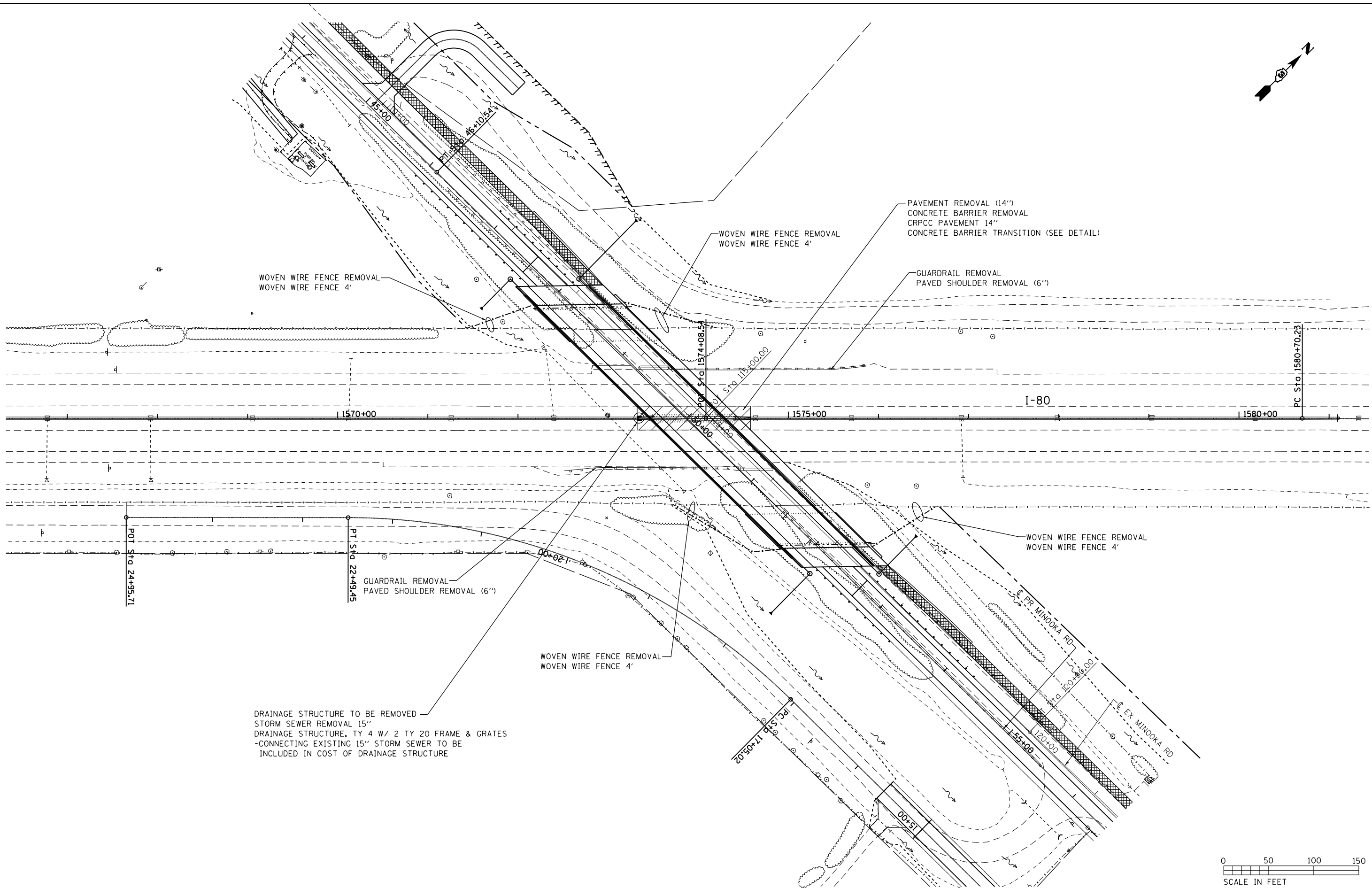
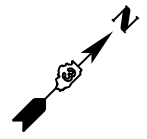
FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>MINOOKA ROAD</b> <b>PLAN AND PROFILE</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwwork\pwwork\duncanbd\dms58037\ep0194-SHT-MINOOKA-P&P.dgn		DRAWN -	REVISED -			80	(32,47-4)HRB-2	GRUNDY	143	27
PLOT SCALE = 100.000' / in.		CHECKED -	REVISED -			CONTRACT NO. 66873				
PLOT DATE = 3/15/2013		DATE -	REVISED -			SCALE: 1:50	SHEET NO. 2 OF 3 SHEETS	STA. 47+00	TO STA. 61+00	ILLINOIS FED. AID PROJECT

PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNED	
	CHECKED	
	FILED	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES	
	CHECKED	
	STRUCTURE	
	NOTATIONS	
	CPRO	
	NO.	



FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		MINOOKA ROAD PLAN AND PROFILE		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwork\pwork\duncanbd\dms58037\ep01194-SHT-MINOOKA-P&P.dgn		DRAWN -	REVISED -					80	(32,47-4)HBR-2	GRUNDY	143	28
PLOT SCALE = 100.000 / 1 in.		CHECKED -	REVISED -					CONTRACT NO. 66873				
PLOT DATE = 3/15/2013		DATE	REVISED -			SCALE: 1:50		SHEET NO. 3 OF 3 SHEETS		STA. 61+00 TO STA. 75+00		ILLINOIS FED. AID PROJECT



WOVEN WIRE FENCE REMOVAL  
WOVEN WIRE FENCE 4'

WOVEN WIRE FENCE REMOVAL  
WOVEN WIRE FENCE 4'

PAVEMENT REMOVAL (14")  
CONCRETE BARRIER REMOVAL  
CRPCC PAVEMENT 14"  
CONCRETE BARRIER TRANSITION (SEE DETAIL)

GUARDRAIL REMOVAL  
PAVED SHOULDER REMOVAL (6")

I-80

POT Sta 24+95.71

PT. Sta 22+49.45

GUARDRAIL REMOVAL  
PAVED SHOULDER REMOVAL (6")

WOVEN WIRE FENCE REMOVAL  
WOVEN WIRE FENCE 4'

WOVEN WIRE FENCE REMOVAL  
WOVEN WIRE FENCE 4'

DRAINAGE STRUCTURE TO BE REMOVED  
STORM SEWER REMOVAL 15"  
DRAINAGE STRUCTURE, TY 4 W/ 2 TY 20 FRAME & GRATES  
-CONNECTING EXISTING 15" STORM SEWER TO BE  
INCLUDED IN COST OF DRAINAGE STRUCTURE



FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -
et:\pwork\pwork\dot\duncanbd\dms58037\ep01904-sht-plan-180.DGN		DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 3/15/2013	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>I-80 PLAN VIEW</b>			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(32,47-4)HBR-2	GRUNDY	143	29
CONTRACT NO. 66873				
ILLINOIS FED. AID PROJECT				

**GENERAL STAGING NOTES**

1. THE TRAFFIC CONTROL PLANS SHALL SERVE AS A GUIDE FOR SAFE DIVERSION OF TRAFFIC DURING EXECUTION OF THIS CONTRACT. HOWEVER, THE CONTRACTOR MAY IMPROVE OR MODIFY THE TRAFFIC CONTROL PLANS TO MEET CONSTRUCTION NEEDS BUT NOT AT THE EXPENSE OF PUBLIC SAFETY OR CONVENIENCE. ANY CHANGES TO THE TRAFFIC CONTROL PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
2. THE ENGINEER SHALL BE INFORMED 48 HOURS IN ADVANCE OF ANY CHANGE TO THE STAGING PLANS, OR ANY CHANGE IN STAGE.
3. THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN ACCESS TO ALL ENTRANCES, APPROACHES, AND TEMPORARY ROADS WITHIN THE PROJECT LIMITS DURING CONSTRUCTION ACTIVITIES AND/OR AT THE DIRECTION OF THE ENGINEER. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR "AGGREGATE FOR TEMPORARY ACCESS".
4. ALL EXISTING SIGNS THAT ARE IN CONFLICT WITH THE TRAFFIC CONTROL PLANS SHALL BE COVERED OR REMOVED IN ACCORDANCE WITH ARTICLE 107.25 OF THE STANDARD SPECIFICATIONS.
5. THE CONTRACTOR SHALL PLACE A CHANGEABLE MESSAGE SIGN AT THE WEST AND EAST LIMITS OF THE PROJECT ALONG I-80 AS DIRECTED BY THE ENGINEER TO INFORM MOTORISTS OF UPCOMING CONSTRUCTION ACTIVITIES. THE MESSAGE SIGN WITH THE APPROPRIATE INFORMATION SHALL BE IN PLACE TWO WEEKS PRIOR TO START OF CONSTRUCTION ACTIVITIES. THIS WORK IS TO BE PAID FOR AT THE CONTRACT UNIT PRICE PER CALENDAR MONTH FOR "CHANGEABLE MESSAGE SIGN".
6. THE CONTRACTOR SHALL PLACE A RADAR SPEED TRAILER AT THE LOCATIONS SHOWN ON THE PLANS AND/OR AS DIRECTED BY THE ENGINEER TO INFORM MOTORIST ABOUT THEIR ACTUAL DRIVING SPEED. THIS WORK IS TO BE PAID FOR AT THE CONTRACT UNIT PRICE PER CALENDAR MONTH FOR "RADAR SPEED TRAILER".
7. BARRICADES: THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO (2) WEIGHTED SANDBAGS ON EACH TYPE I OR TYPE II BARRICADE USED - ONE WEIGHTED SANDBAG ACROSS EACH BOTTOM RAIL.
8. ANY SAW CUTTING OF THE EXISTING PAVEMENT FOR STAGE CONSTRUCTION SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER SQ YD FOR "PAVEMENT REMOVAL".
9. ACCESS TO SHADY OAKS ROAD SHALL BE PROVIDED AT ALL TIMES..
10. THE CONTRACTOR SHALL GIVE THE ENGINEER TWO WEEK NOTICE BEFORE CLOSING THE ROAD
11. OFF-PEAK HOURS ARE 6 PM TO 1 PM FOR EASTBOUND AND WESTBOUND I-80. HOURS FOR BEAM REMOVAL/REPLACEMENT WILL BE 10 PM TO 4 AM.
12. TEMPORARY CONCRETE BARRIER FOR CENTER PIER CONSTRUCTION MUST BE PLACED/REMOVED DURING OFF-PEAK HOURS.
13. PRIOR TO INSTALLING POST MOUNTED SIGNS, THE CONTRACTOR SHALL CONTACT J.U.L.I.E.
14. EXISTING PAVEMENT MARKINGS THAT INTERFERE WITH STAGE CONSTRUCTION PAVEMENT MARKINGS SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.
15. THE CONTRACTOR MUST VERIFY FIELD CONDITIONS BEFORE STARTING ANY WORK. CONFLICTS, DISCREPANCIES, OMISSIONS MUST BE REPORTED TO THE ENGINEER.
16. ANY IDOT SIGN THAT IS COVERED OR CHANGED SHALL BE DONE IN A MANNER WHICH DOES NOT DAMAGE ANY SIGNS OR POSTS. ANY SIGN OR POST WHICH THE ENGINEER DETERMINES HAS BEEN DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S OWN EXPENSE.
17. TWO LANES IN EACH DIRECTION ON I-80 SHALL BE MAINTAINED AT ALL TIMES ACCORDING TO THE SUGGESTED MAINTENANCE OF TRAFFIC PLANS. LANE CLOSURES ON I-80 WILL BE ALLOWED DURING OFF PEAK HOURS FOR PLACEMENT/REMOVAL OF TRAFFIC CONTROL DEVICES AND BEAM REMOVAL/REPLACEMENT AS APPROVED BY THE ENGINEER.
18. USE PAVEMENT MARKING TAPE TYPE III ON I-80 CONCRETE SURFACE UNLESS DIRECTED BY THE ENGINEER. COST OF TAPE TO BE INCLUDED UNDER TEMPORARY PAVEMENT MARKING.
19. THE CONTRACTOR CANNOT CLOSE THE MINOOKA ROAD STRUCTURE UNTIL MARCH 15, 2014.
20. THE CONTRACTOR SHALL COORDINATE THE DETOURING OF TRAFFIC WITH CONTRACTOR'S ACTIVITIES ON NEARBY PROJECTS.

**SEQUENCE OF CONSTRUCTION - MINOOKA ROAD**

STAGE 1

WEST OF PROPOSED STRUCTURE

1. CLOSE DOWN ROAD TO ONE LANE USING STD BLR-21 AND AS SHOWN ON PLANS.
2. CONSTRUCT PROPOSED EASTBOUND LANE.
3. CONSTRUCT PROPOSED DITCHES, DRIVEWAYS; INSTALL PROPOSED DRAINAGE STRUCTURES.
4. CONSTRUCT RELOCATED SERVICE DRIVE TO VILLAGE OF MINOOKA PUMP STATION.

EAST OF PROPOSED STRUCTURE

1. CLOSE DOWN ROAD USING STD BLR-21 AND AS SHOWN ON PLANS.
2. USE STD 701326 TO CONSTRUCT TEMPORARY PAVEMENT FOR STAGE 2 TRAFFIC AT THE LOCATIONS SHOWN ON PLANS.
3. EXTEND X-ROAD CULVERTS AT PROPOSED BOX CULVERT LOCATION.
4. ROUGH GRADE DITCHES ALONG NORTH SIDE AT PROPOSED LOCATIONS TO PROVIDE POSITIVE DRAINAGE DURING STAGING.
5. INSTALL PROPOSED CULVERTS ON NORTH SIDE ON MINOOKA RD.

STAGE 2

WEST OF PROPOSED STRUCTURE

1. CONSTRUCT WESTBOUND LANE.
2. CONSTRUCT PROPOSED DITCHES, DRIVEWAYS, INSTALL PROPOSED DRAINAGE STRUCTURES.
3. CONTINUE CONSTRUCTING STRUCTURE & ROADWAY PAVEMENT NEAR STRUCTURE.

EAST OF PROPOSED STRUCTURE

1. INSTALL TEMPORARY CONCRETE BARRIERS, DRUMS, VERTICAL PANELS & TEMPORARY PAVEMENT MARKING.
2. SHIFT TWO-WAY TRAFFIC UTILIZING TEMPORARY PAVEMENT.
3. CONTINUE BRIDGE CONSTRUCTION.
4. CONSTRUCT 24' WIDE PAVEMENT ALONG MINOOKA RD - STA. 57+50 TO STA. 69+16.96.
5. CONSTRUCT EASTBOUND LANE - STA. 69+16.96 TO STA. 70+00.
6. CONSTRUCT REALIGNED SHADY OAKS ROAD.
7. CONSTRUCT SOUTH PORTION OF BOX CULVERT.
8. CONSTRUCT TEMPORARY RAMPS AS NECESSARY FOR STAGE 3.

STAGE 3

WEST OF PROPOSED STRUCTURE

1. CONTINUE CONSTRUCTION OF STRUCTURE TO COMPLETION.
2. CONTINUE CONSTRUCTION OF ROADWAY PAVEMENT TO COMPLETION.

EAST OF PROPOSED STRUCTURE

1. CONTINUE CONSTRUCTION OF STRUCTURE TO COMPLETION.
2. CONTINUE CONSTRUCTION OF ROADWAY PAVEMENT NEAR STRUCTURE TO COMPLETION.
3. REMOVE TEMPORARY PAVEMENT.
4. COMPLETE NORTH PORTION OF BOX CULVERT.
5. FINE GRADE EARTHWORK TO FINAL PROPOSED GRADES.
6. RECONSTRUCT MINOOKA ROAD STA. 69+17 TO STA. 73+31.6 UNDER TRAFFIC USING HIGHWAY STANDARD 701306.

STAGE 4

PROJECT LENGTH

1. PLACE HMA SURFACE COURSE.
2. PLACE TOPSOIL 4" AND PERFORM LANDSCAPING.
3. INSTALL CONCRETE BARRIER & GUARDRAIL AT STRUCTURE.
4. PLACE PERMANENT PAVEMENT MARKING AND INSTALL RAISED REFLECTIVE PAVEMENT MARKERS.

**SEQUENCE OF CONSTRUCTION - F.A.I. 80**

STAGE 1

1. PLACE TRAFFIC CONTROL DEVICES ON I-80 ACCORDING TO SUGGESTED MAINTENANCE OF TRAFFIC PLANS. UTILIZE IDOT STANDARDS 701101-02 AND 701426-03.
2. INSTALL ALTERNATE ROUTE SIGNING.
3. CLOSE I-80 OUTSIDE SHOULDER IN BOTH DIRECTIONS ACCORDING TO SUGGESTED MAINTENANCE OF TRAFFIC PLANS USING TEMPORARY CONCRETE BARRIER.
4. REMOVE EXISTING BRIDGE DECK.
5. REMOVE BRIDGE BEAMS DURING NIGHT-TIME HOURS ONLY (10 PM TO 4 AM) UTILIZING TOTAL INTERSTATE CLOSURE AT NIGHT DETAIL. USE I-80 CLOSURE DETOUR ROUTE AS SHOWN IN THE PLANS.
6. REMOVE EXISTING GUARDRAIL AND SHOULDER AS SHOWN IN THE PLANS.
7. REMOVE EXISTING ABUTMENTS, PIERS AND BRIDGE CONE (AS NECESSARY).
8. BEGIN CONSTRUCTION OF THE BRIDGE CONE EARTHWORK AND PROPOSED ABUTMENTS.

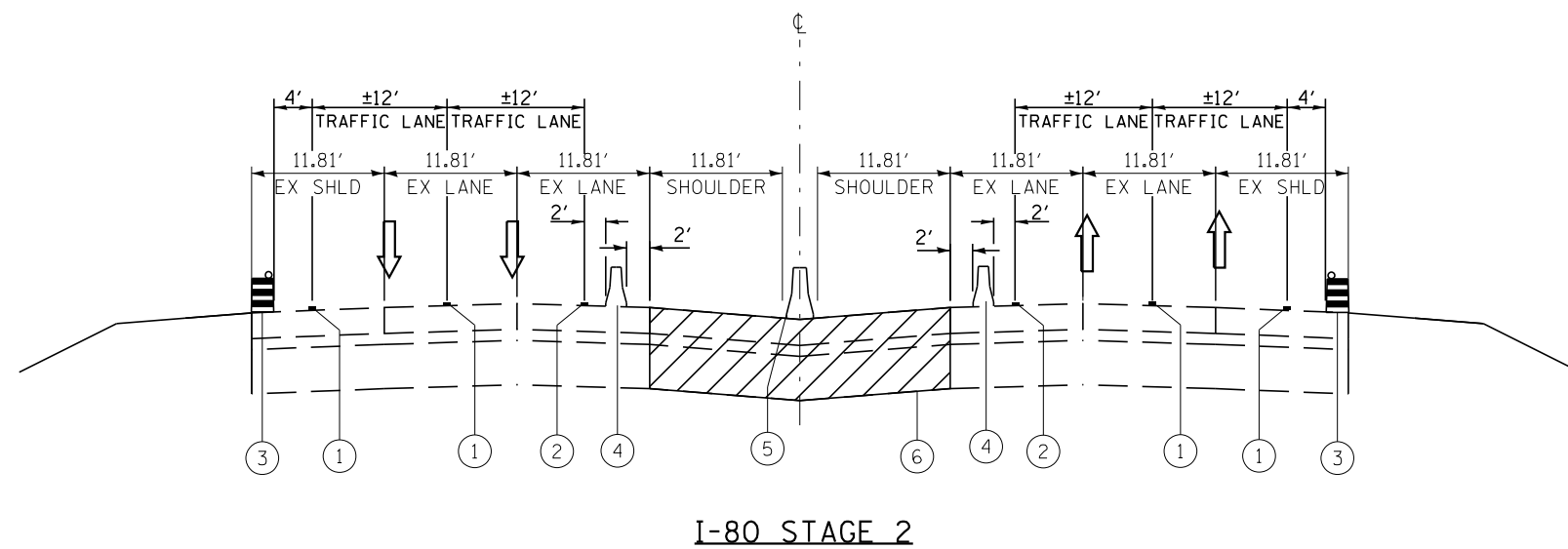
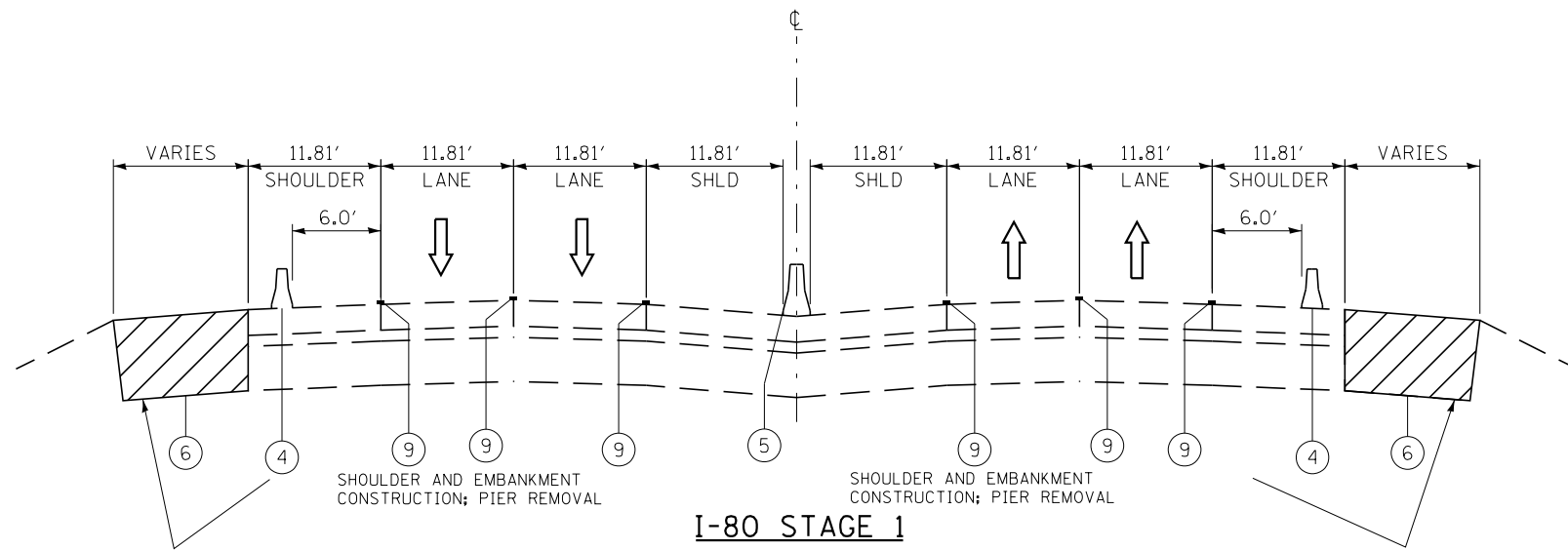
STAGE 2

1. ADJUST TRAFFIC CONTROL DEVICES TO CLOSE I-80 INSIDE SHOULDERS IN BOTH DIRECTIONS AS SHOWN IN THE SUGGESTED MAINTENANCE OF TRAFFIC PLANS.
2. REMOVE AND CONSTRUCT CENTER PIER, MEDIAN PAVEMENT, CONCRETE BARRIER AND DRAINAGE ACCORDING TO THE PLANS.
3. INSTALL BRIDGE BEAMS DURING NIGHT-TIME HOURS ONLY (10 PM TO 4 AM) UTILIZING TOTAL INTERSTATE CLOSURE AT NIGHT DETAIL. USE I-80 CLOSURE ROUTE AS SHOWN IN THE PLANS.
4. COMPLETE SUPERSTRUCTURE AND APPROACH PAVEMENTS.
5. REPLACE PAVEMENT MARKING AS NEEDED.

FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUGGESTED MAINTENANCE OF TRAFFIC GENERAL NOTES &amp; SEQUENCE OF CONSTRUCTION</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
et:\pw\work\p1dot\duncanbd\58037\ep01904-sh1-staging.DGN	DRAWN -	REVISED -	80			(32,47-4)HBR-2	GRUNDY	143	30		
\$MODELNAME\$	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -			<b>CONTRACT NO. 66873</b>					
	PLOT DATE = 3/15/2013	DATE -	REVISED -			SCALE:	SHEET	OF	SHEETS	STA.	TO
ILLINOIS FED. AID PROJECT											

**LEGEND:**

- ① TEMPORARY PAVEMENT MARKING LINE, 4 INCHES (WHITE)
- ② TEMPORARY PAVEMENT MARKING LINE, 4 INCHES (YELLOW)
- ③ DRUM WITH STEADY BURNING LIGHT
- ④ TEMPORARY CONCRETE BARRIER
- ⑤ MEDIAN BARRIER
- ⑥ WORK ZONE
- ⑦ MEDIAN POSTS
- ⑧ IMPACT ATTENUATOR
- ⑨ EXISTING PAVEMENT MARKING LINE

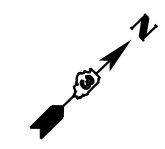


FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -
et:\pw\work\p\d\dot\duncanbd\dms58037\ep01904-sht-staging.DGN		DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
\$MODELNAME\$	PLOT DATE = 3/15/2013	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

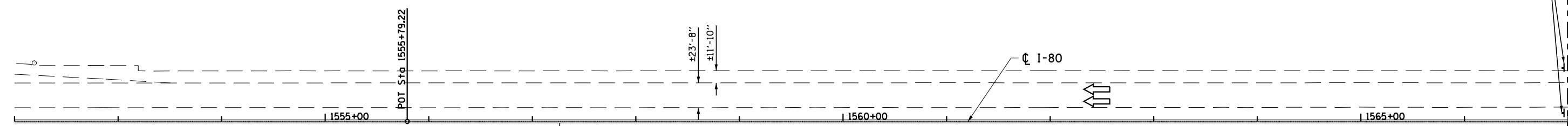
<b>SUGGESTED MAINTENANCE OF TRAFFIC I-80 STAGING TYPICALS</b>			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(32,47-4)HBR-2	GRUNDY	143	31
CONTRACT NO. 66873				
ILLINOIS FED. AID PROJECT				



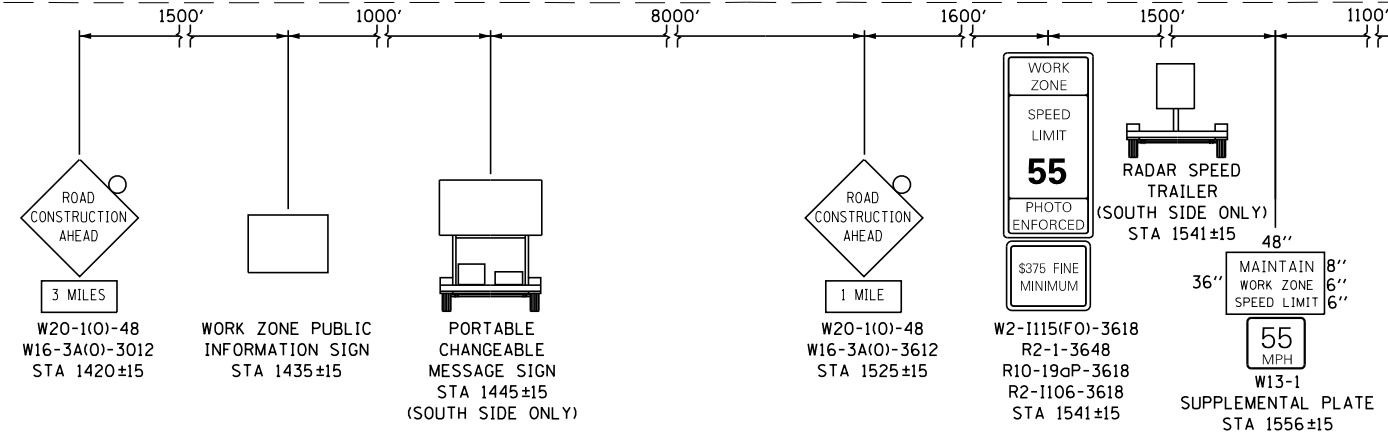
END WORK ZONE SPEED LIMIT  
G20-1103(O)-3660  
STA 1567±00

MATCH LINE STA. 1567 + 00

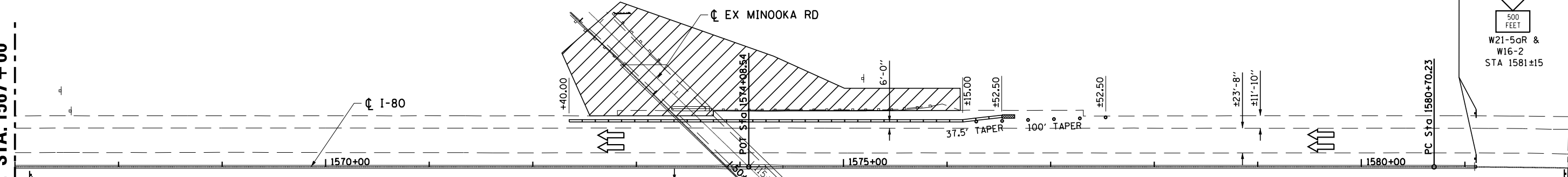


- LEGEND**
- WORK ZONE
  - DIRECTION OF TRAFFIC
  - DRUMS WITH MONO-DIRECTIONAL STEADY BURNING LIGHTS @ 50' CENTERS, 25' CENTERS ALONG TAPERS
  - IMPACT ATTENUATOR, TEMPORARY (FULLY REDIRECTIVE)
  - TEMPORARY CONCRETE BARRIER

TEMPORARY CONCRETE BARRIER	
NORMAL POSTED SPEED	TAPER RATIO
40 MPH & ABOVE	12:1
BELOW & 40 MPH	8:1



MATCH LINE STA. 1567 + 00



RIGHT SHOULDER CLOSED  
500 FEET  
W21-5oR & W16-2  
STA 1567±15

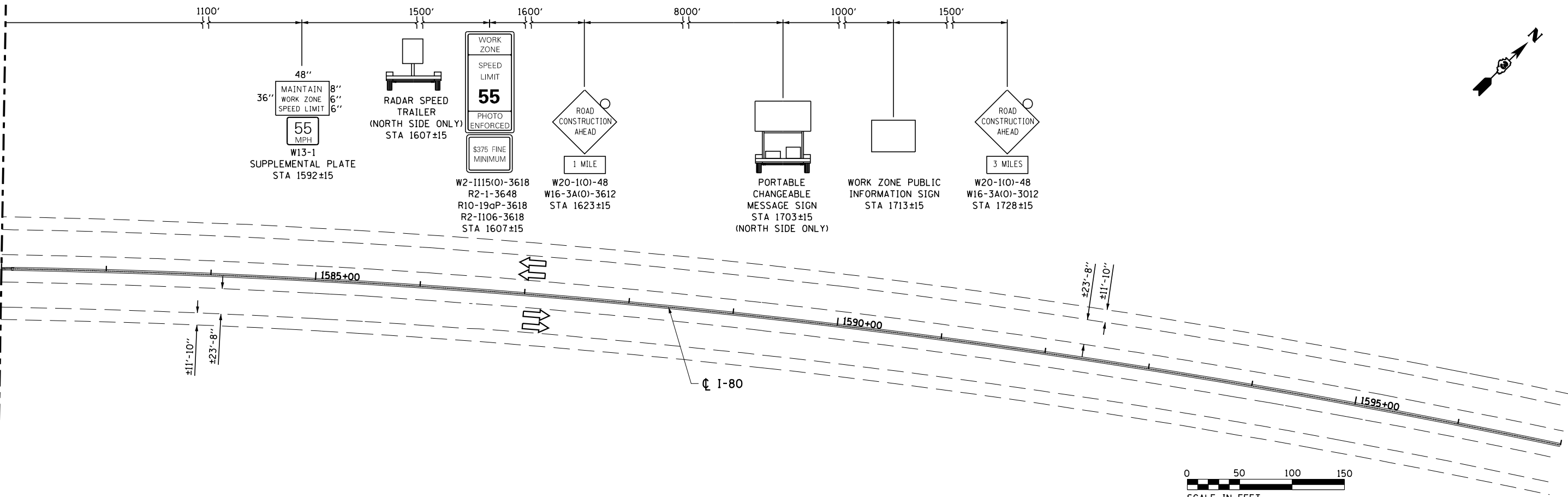
END WORK ZONE SPEED LIMIT  
G20-1103(O)-3660  
STA 1582±00

MATCH LINE STA. 1582 + 00






FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUGGESTED MAINTENANCE OF TRAFFIC I-80 STAGE 1</b>				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et:\pw\work\p1dot\duncanbd\dms58037\ep01904-sht-staging.DGN		DRAWN -	REVISED -		80	(32,47-4)HBR-2	GRUNDY	143	32				
*MODELNAME*	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.				CONTRACT NO. 66873				
	PLOT DATE = 3/15/2013	DATE -	REVISED -		ILLINOIS FED. AID PROJECT								



MATCH LINE STA. 1582+00



**LEGEND**

-  WORK ZONE
-  DIRECTION OF TRAFFIC
-  DRUMS WITH MONO-DIRECTIONAL STEADY BURNING LIGHTS @ 50' CENTERS, 25' CENTERS ALONG TAPERS
-  IMPACT ATTENUATOR, TEMPORARY (FULLY REDIRECTIVE)
-  TEMPORARY CONCRETE BARRIER

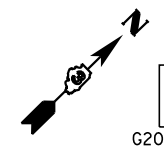
TEMPORARY CONCRETE BARRIER	
NORMAL POSTED SPEED	TAPER RATIO
40 MPH & ABOVE	12:1
BELOW & 40 MPH	8:1

FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -
c:\pwwork\pwwork\duncanbd\dms58037\ep01904-sht-staging.DGN		DRAWN -	REVISED -
\$MODELNAME\$	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 3/15/2013	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

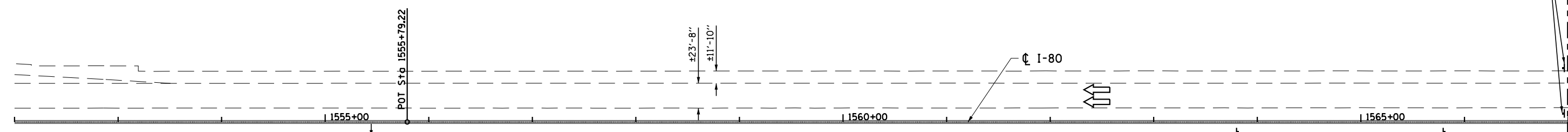
SUGGESTED MAINTENANCE OF TRAFFIC			
I-80 STAGE 1			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(32,47-4)HBR-2	GRUNDY	143	33
CONTRACT NO. 66873				
ILLINOIS FED. AID PROJECT				



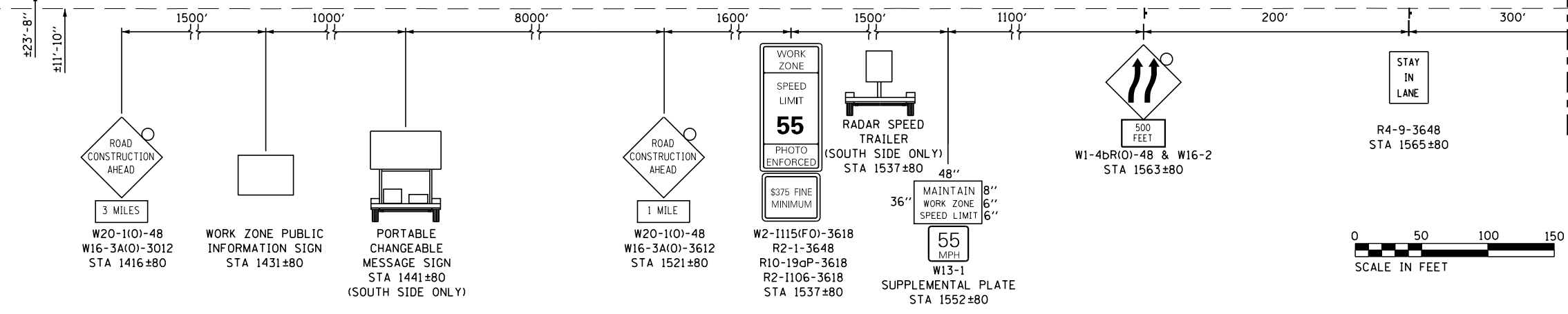
END  
WORK ZONE  
SPEED LIMIT  
G20-1103(O)-3660  
STA 1567±00

MATCH LINE STA. 1567 + 00

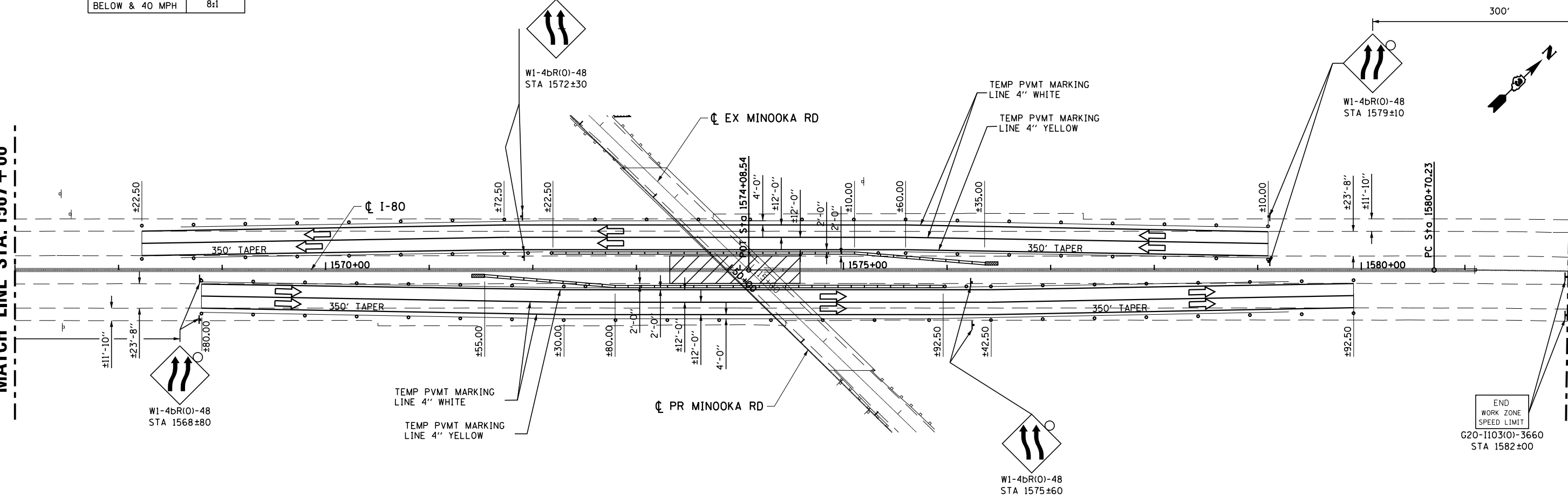


- LEGEND**
- WORK ZONE
  - DIRECTION OF TRAFFIC
  - DRUMS WITH MONO-DIRECTIONAL STEADY BURNING LIGHTS @ 50' CENTERS, 25' CENTERS ALONG TAPERS
  - IMPACT ATTENUATOR, TEMPORARY (FULLY REDIRECTIVE)
  - TEMPORARY CONCRETE BARRIER

TEMPORARY CONCRETE BARRIER	
NORMAL POSTED SPEED	TAPER RATIO
40 MPH & ABOVE	12:1
BELOW & 40 MPH	8:1



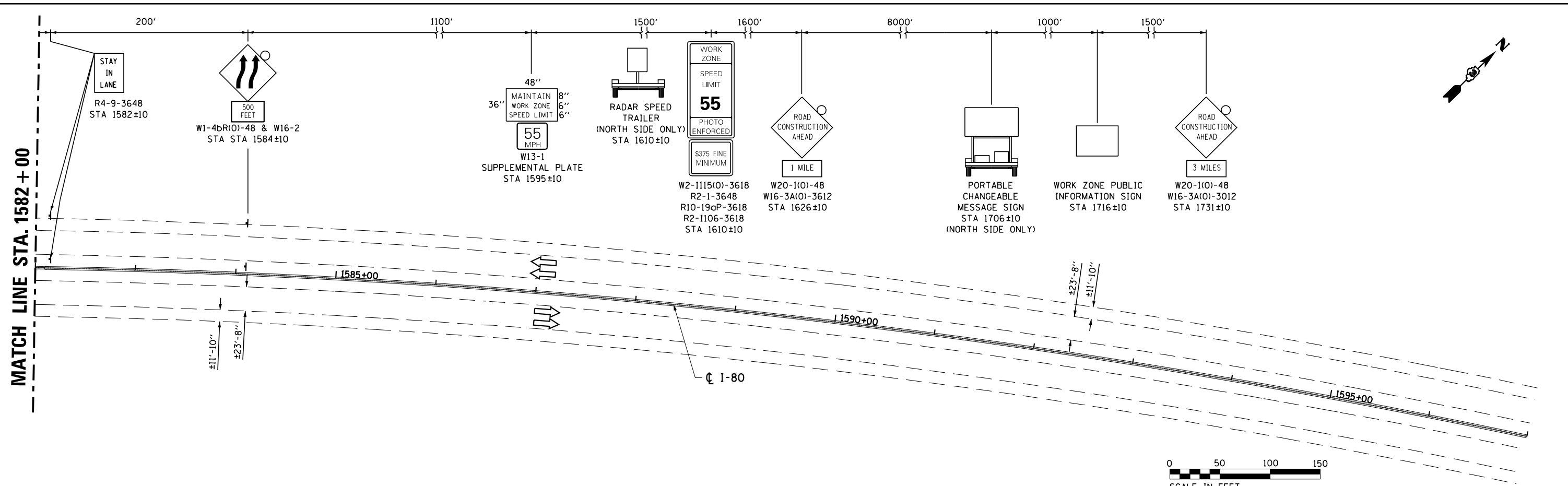
MATCH LINE STA. 1567 + 00



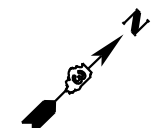
MATCH LINE STA. 1582 + 00

END  
WORK ZONE  
SPEED LIMIT  
G20-1103(O)-3660  
STA 1582±00

FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUGGESTED MAINTENANCE OF TRAFFIC I-80 STAGE 2</b>				F.A.I. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ci:\pw\work\p1dot\tduncanbd\dms58037\ep01904-sht-staging.DGN	PLOT SCALE = 100.0000' / in.	DRAWN -	REVISED -		80	(32,47-4)HBR-2	GRUNDY	143	34				
*MODELNAME*	PLOT DATE = 3/15/2013	CHECKED -	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.				CONTRACT NO. 66873				
		DATE -	REVISED -		ILLINOIS FED. AID PROJECT								



MATCH LINE STA. 1582 + 00



**LEGEND**

- WORK ZONE
- DIRECTION OF TRAFFIC
- DRUMS WITH MONO-DIRECTIONAL STEADY BURNING LIGHTS @ 50' CENTERS, 25' CENTERS ALONG TAPERS
- IMPACT ATTENUATOR, TEMPORARY (FULLY REDIRECTIVE)
- TEMPORARY CONCRETE BARRIER

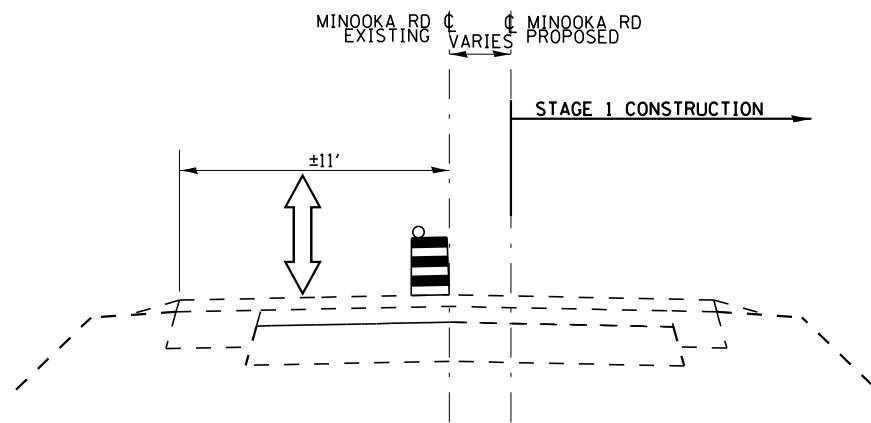
TEMPORARY CONCRETE BARRIER	
NORMAL POSTED SPEED	TAPER RATIO
40 MPH & ABOVE	12:1
BELOW & 40 MPH	8:1

FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -
c:\pw\work\p1\dot\duncanbd\dms58037\ep01904-sht-staging.DGN		DRAWN -	REVISED -
\$MODELNAME\$	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 3/15/2013	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

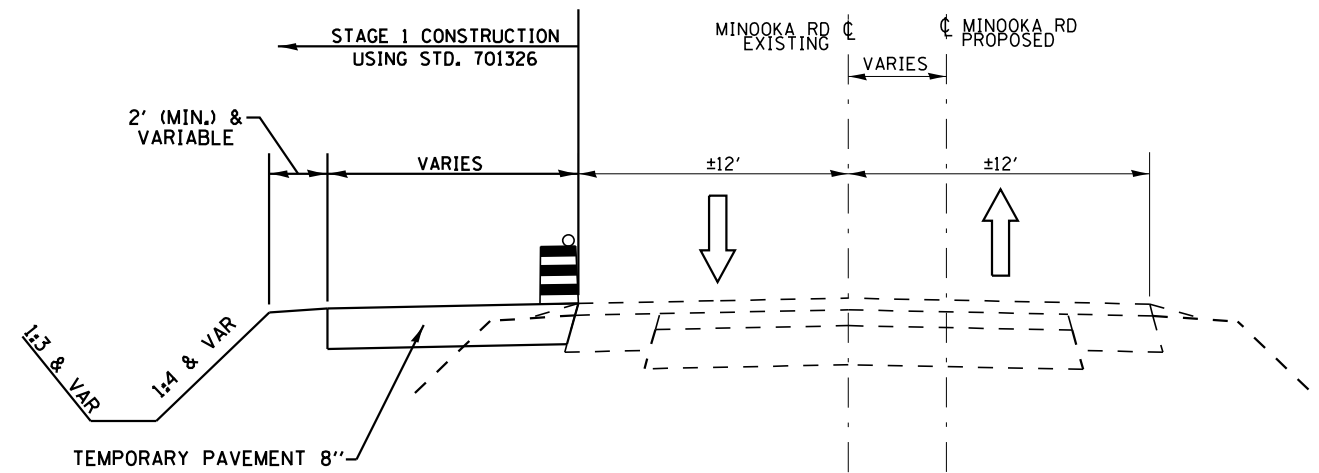
SUGGESTED MAINTENANCE OF TRAFFIC				
I-80 STAGE 2				
SCALE:	SHEET	OF	SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(32,47-4)HBR-2	GRUNDY	143	35
CONTRACT NO. 66873				
ILLINOIS FED. AID PROJECT				



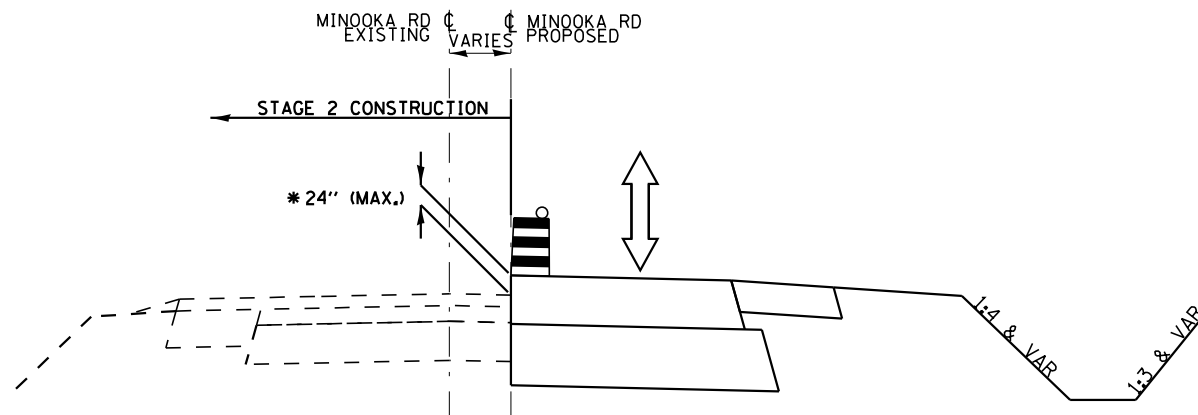
**MINOOKA RD – STAGE 1**

STA. 36+57 - STA. 48+73



**MINOOKA RD – STAGE 1**

STA. 56±00 - STA. 72±50



**MINOOKA RD – STAGE 2**

STA. 36+57 - STA. 48+73

\*PER SUBPART K WORK ZONE DROP-OFF POLICY

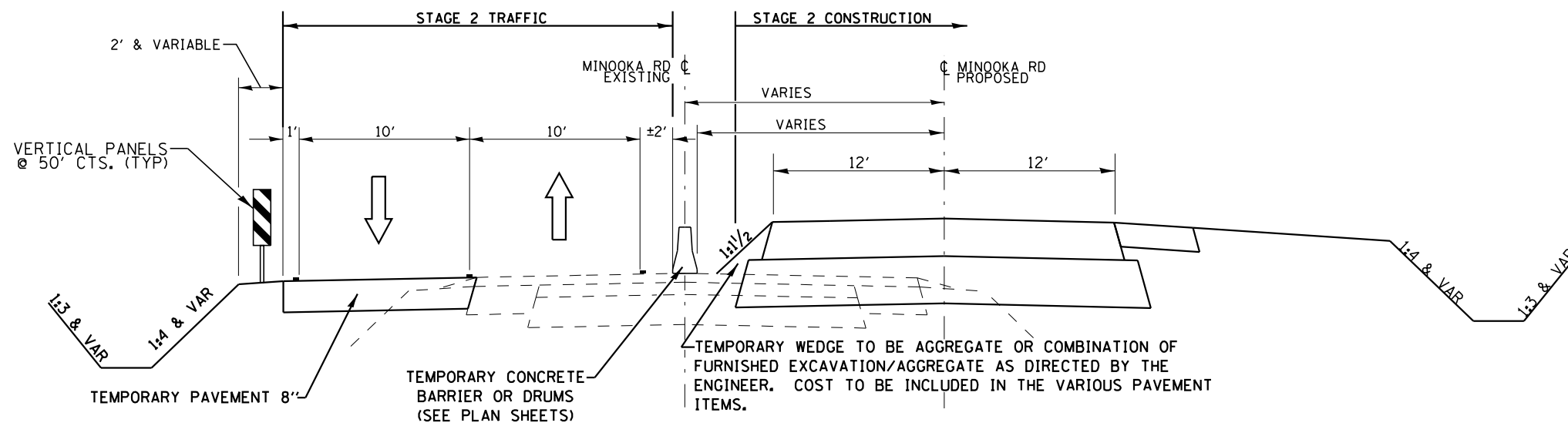
FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -
c:\pwork\work\pwork\duncanbd\dms58037\ep01904-sht-staging.DGN		DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
*MODELNAME*	PLOT DATE = 3/15/2013	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUGGESTED MAINTENANCE OF TRAFFIC  
MINOOKA ROAD STAGING TYPICALS

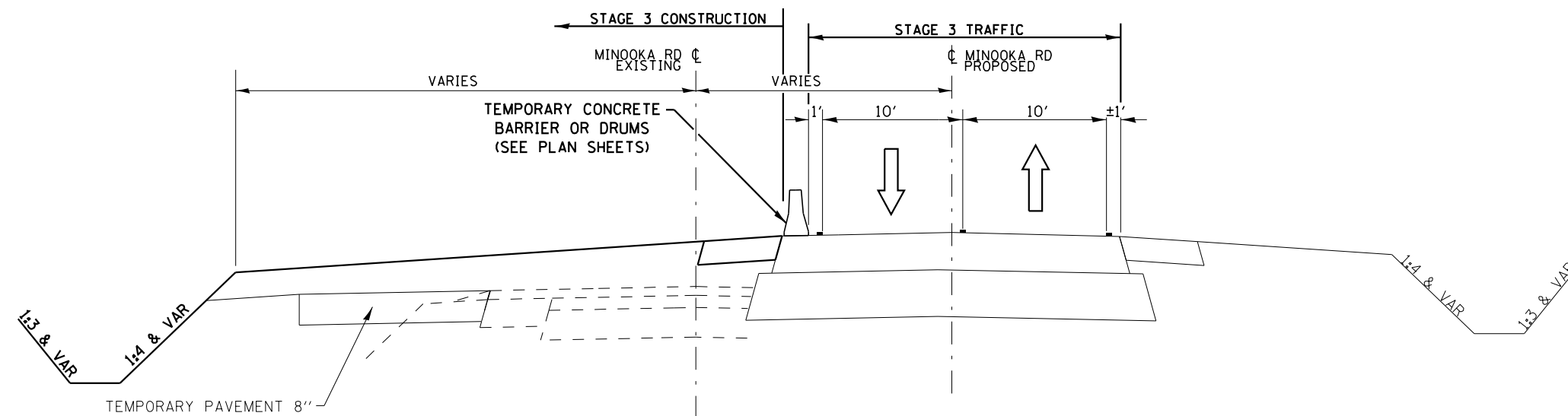
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(32,47-4)HBR-2	GRUNDY	143	36
CONTRACT NO. 66873				
ILLINOIS FED. AID PROJECT				



**MINOOKA RD - STAGE 2**

STA. 56±00 - STA. 72±50



**MINOOKA RD - STAGE 3**

STA. 56±00 - STA. 72±50

FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -
et:\pwork\pwork\dot\duncanbd\dms58037\ep01904-sht-staging.DGN		DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
*MODELNAME*	PLOT DATE = 3/15/2013	DATE -	REVISED -

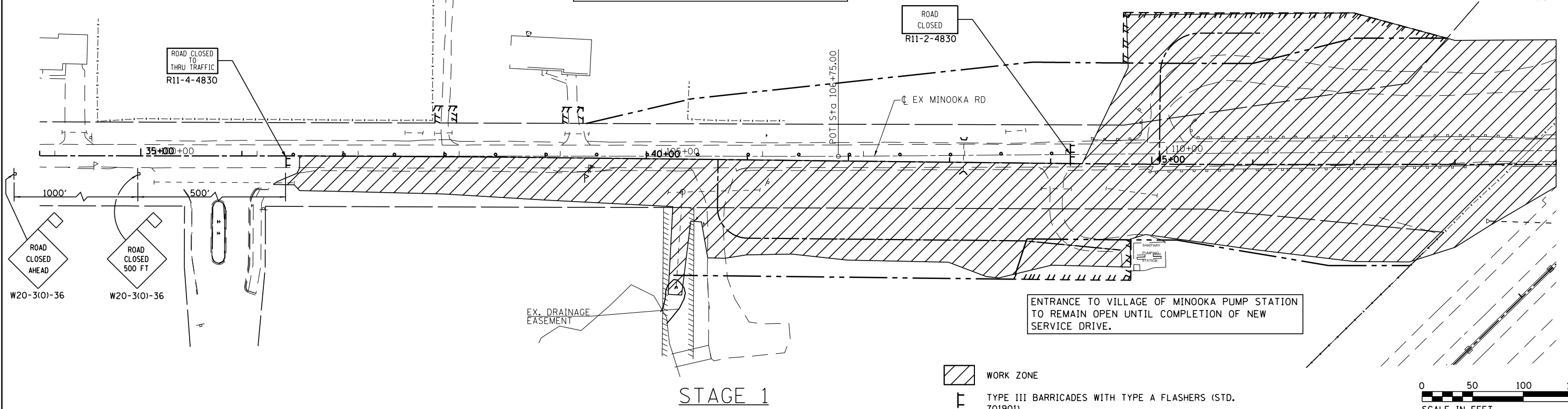
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUGGESTED MAINTENANCE OF TRAFFIC  
MINOOKA ROAD STAGING TYPICALS

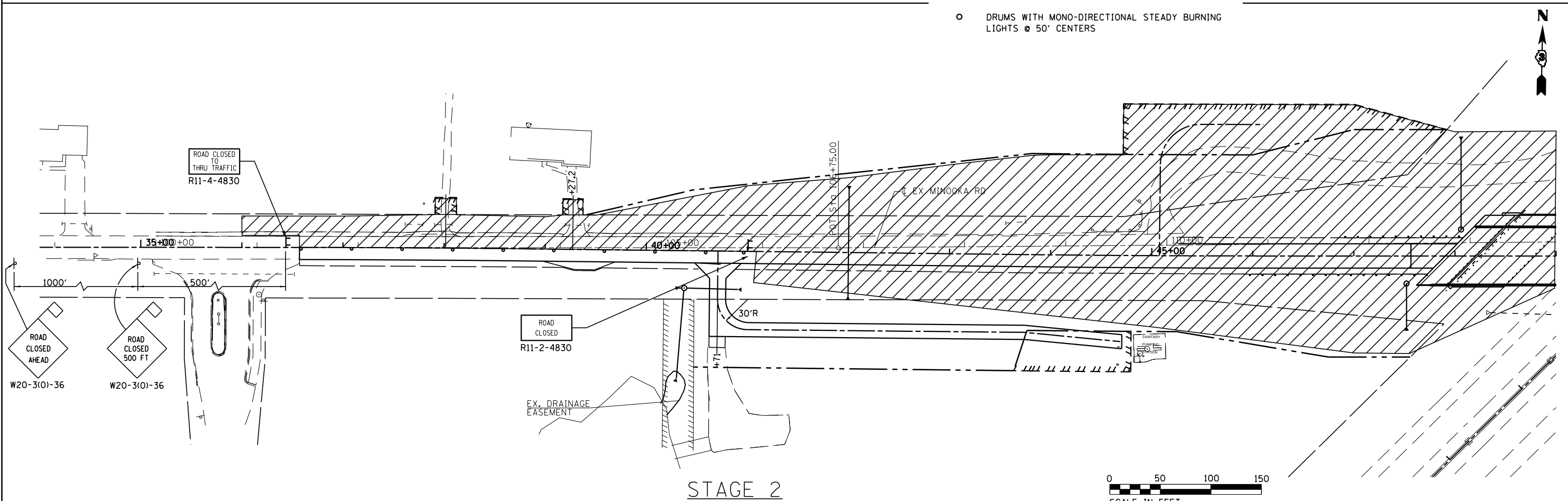
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(32,47-4)HBR-2	GRUNDY	143	37
CONTRACT NO. 66873				
ILLINOIS FED. AID PROJECT				

DURING STAGE 1 & STAGE 2 IT IS ASSUMED THAT THE ENTRANCE @ STA. 45+07.5 LT WILL BE CLOSED. IF ACCESS IS NEEDED DURING STAGING THE CONTRACTOR SHALL COORDINATE WITH THE PROPERTY OWNER AND ADJUST HIS/HER CONSTRUCTION SEQUENCE AS NEEDED.

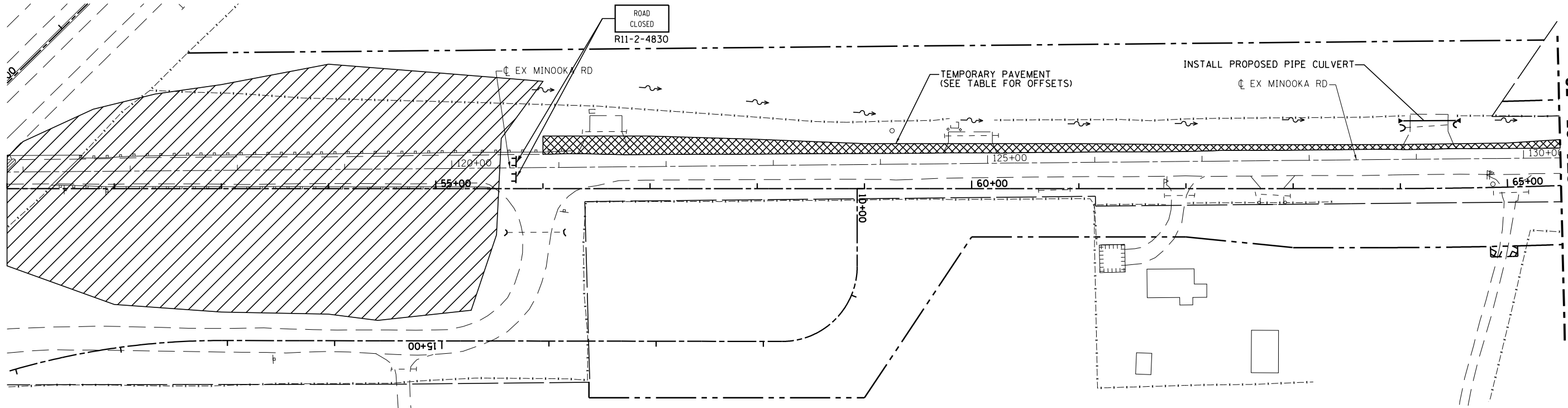




STAGE 1



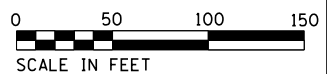
STAGE 2

FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUGGESTED MAINTENANCE OF TRAFFIC MINOOKA ROAD</b>				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
et:\pw\work\p\dms58037\ep01904-sht-staging.DGN	PLOT SCALE = 100.0000' / in.	DRAWN -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.	80	(32,47-4)HBR-2	GRUNDY	143	38
*MODELNAME*	PLOT DATE = 3/15/2013	CHECKED -	REVISED -									CONTRACT NO. 66873				
		DATE -	REVISED -									ILLINOIS FED. AID PROJECT				

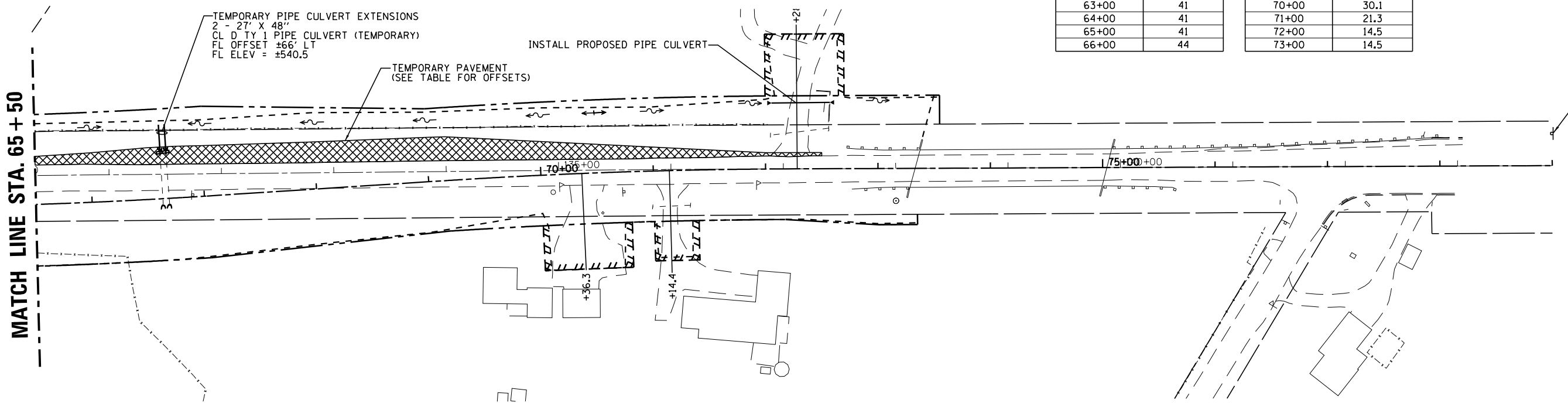


 WORK ZONE  
 TYPE III BARRICADES WITH TYPE A FLASHERS (STD. 701901)

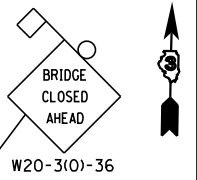
STATION	OFFSET FT	STATION	OFFSET FT
56+00	49	66+49.36	46
57+00	49	66+65.84	46
58+00	46	66+75.45	46
59+00	42	67+00	45
60+00	42	68+00	42
61+00	42	69+00	39.5
62+00	41	69+17	39
63+00	41	70+00	30.1
64+00	41	71+00	21.3
65+00	41	72+00	14.5
66+00	44	73+00	14.5



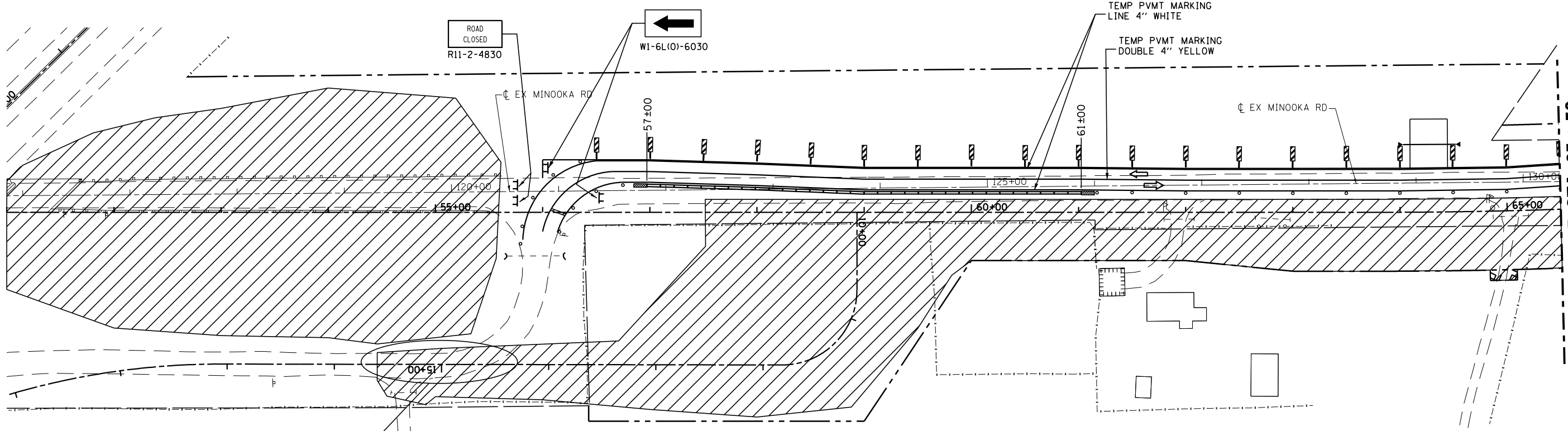
MATCH LINE STA. 65+50



MATCH LINE STA. 65+50

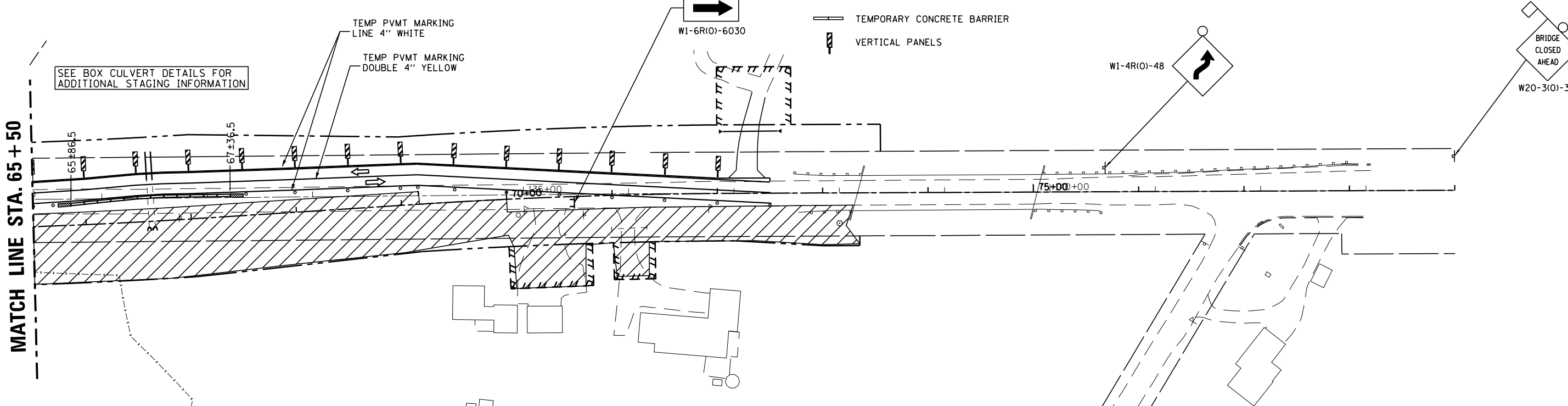


FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUGGESTED MAINTENANCE OF TRAFFIC MINOOKA ROAD - STAGE 1</b>				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et:\pw\work\p1dot\duncanbd\dms58037\ep01904-sht-staging.DGN	PLOT SCALE = 100.0000' / in.	DRAWN -	REVISED -		80	(32,47-4)HBR-2	GRUNDY	143	39				
#MODELNAME#	PLOT DATE = 3/15/2013	CHECKED -	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.				CONTRACT NO. 66873				
		DATE -	REVISED -						ILLINOIS FED. AID PROJECT				



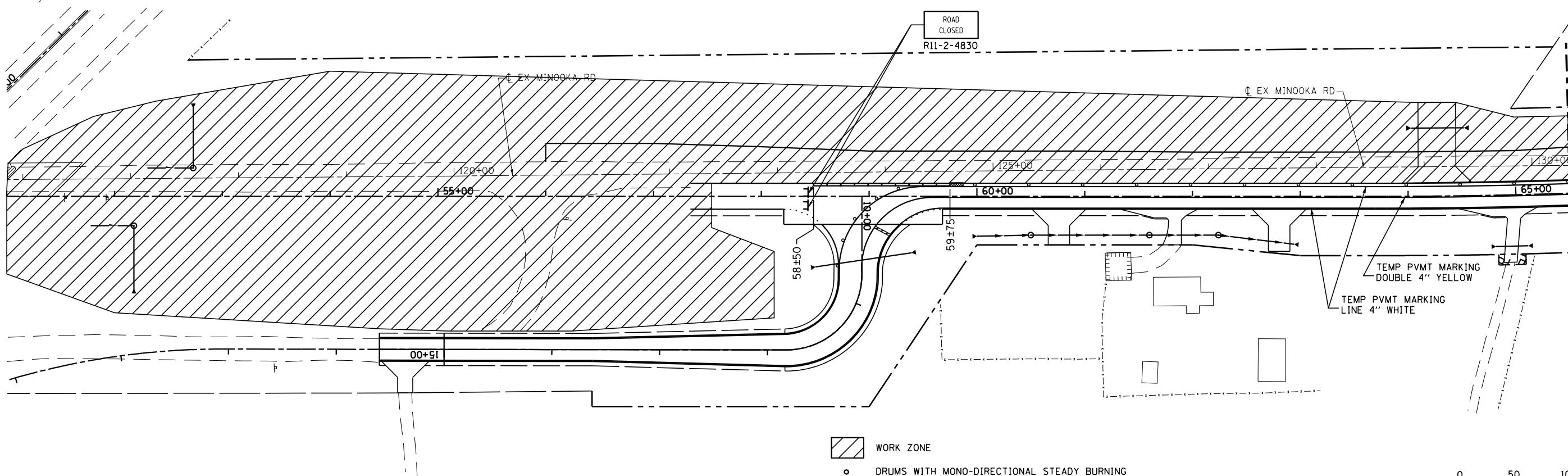
THE CONTRACTOR SHALL SCHEDULE HIS WORK THAT ALLOWS SHADY OAKS ROAD TO BE OPEN TO ONE LANE OF TRAFFIC DURING CONSTRUCTION AT THE LOCATION WHERE THE REALIGNED SHADY OAKS CONNECTS TO EXISTING SHADY OAKS. SHADY OAKS SHALL BE OPEN TO TWO-WAY TRAFFIC AT THE END OF EACH DAY.

- WORK ZONE
- DRUMS WITH MONO-DIRECTIONAL STEADY BURNING LIGHTS @ 50' CENTERS, 25' CENTERS ALONG TAPERS
- IMPACT ATTENUATOR, TEMPORARY (FULLY REDIRECTIVE)
- TEMPORARY CONCRETE BARRIER
- VERTICAL PANELS



FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUGGESTED MAINTENANCE OF TRAFFIC MINOOKA ROAD - STAGE 2</b>				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et:\pwork\work\pwork\duncanbd\dms58037\ep01904-sht-staging.DGN	PLOT SCALE = 100.0000' / in.	DRAWN -	REVISED -						80	(32,47-4)HBR-2	GRUNDY	143	40
*MODELNAME#	PLOT DATE = 3/15/2013	CHECKED -	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.				CONTRACT NO. 66873				
		DATE -	REVISED -		ILLINOIS FED. AID PROJECT								

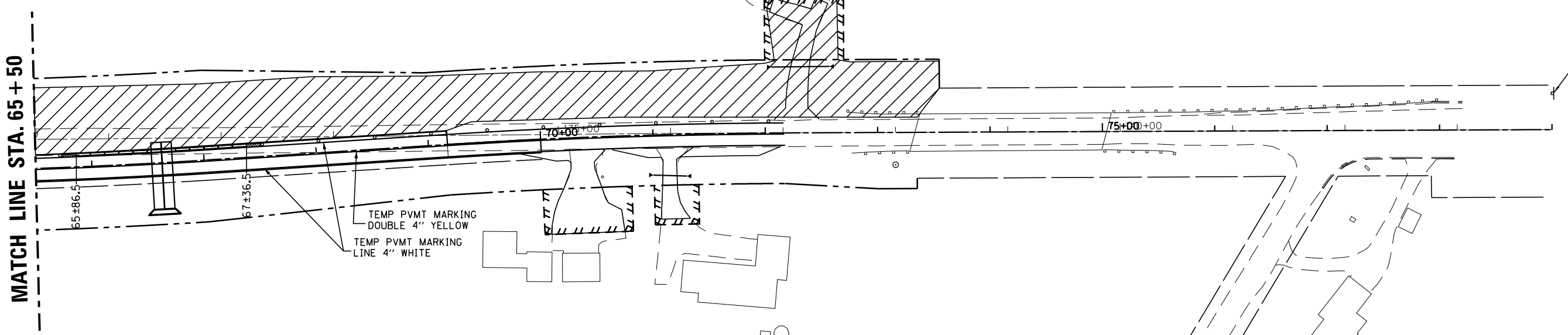




- WORK ZONE
- DRUMS WITH MONO-DIRECTIONAL STEADY BURNING LIGHTS @ 50' CENTERS, 25' CENTERS ALONG TAPERS
- IMPACT ATTENUATOR, TEMPORARY (FULLY REDIRECTIVE)
- TEMPORARY CONCRETE BARRIER
- VERTICAL PANELS



MATCH LINE STA. 65+50



MINOOKA ROAD - STA. 69±17 TO STA. 73+31.6  
 PROPOSED ROADWAY PAVEMENT TO BE CONSTRUCTED UNDER TRAFFIC. THE CONTRACTOR SHALL SCHEDULE HIS WORK THAT ALLOWS MINOOKA ROAD TO BE OPEN TO ONE LANE OF TRAFFIC DURING CONSTRUCTION. MINOOKA ROAD SHALL BE OPEN TO TWO-WAY TRAFFIC AT THE END OF EACH DAY.



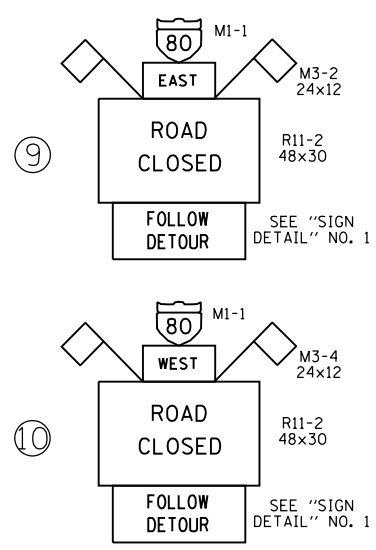
MATCH LINE STA. 65+50

FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUGGESTED MAINTENANCE OF TRAFFIC MINOOKA ROAD - STAGE 3</b>				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et:\pw\work\p1dot\duncanbd\dms58037\ep01904-sht-staging.DGN	PLOT SCALE = 100.0000' / in.	DRAWN -	REVISED -						80	(32,47-4)HBR-2	GRUNDY	143	41
*MODELNAME#	PLOT DATE = 3/15/2013	CHECKED -	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.				CONTRACT NO. 66873				
		DATE -	REVISED -						ILLINOIS FED. AID PROJECT				



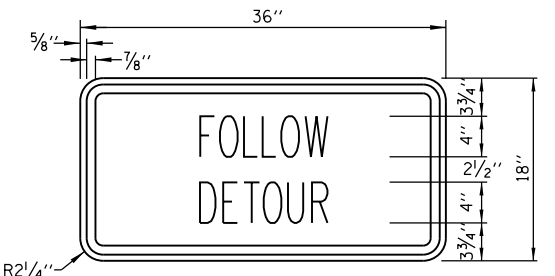
**LEGEND**

- FLASHING LIGHT
- ◇ 18"x8" ORANGE FLAG
- ① M4-10 48x18, M1-1
- ② R11-3a 60x30, M1-1
- ③ R11-3a 60x30, M1-1
- ④ R11-3a 60x30, M1-1
- ⑤ W20-2 36x36
- ⑥ W20-3 36x36
- ⑦ M4-8 24x12, M1-1, M6-3 21x15
- ⑧ M4-10 48x18, M1-1



**GENERAL NOTES:**

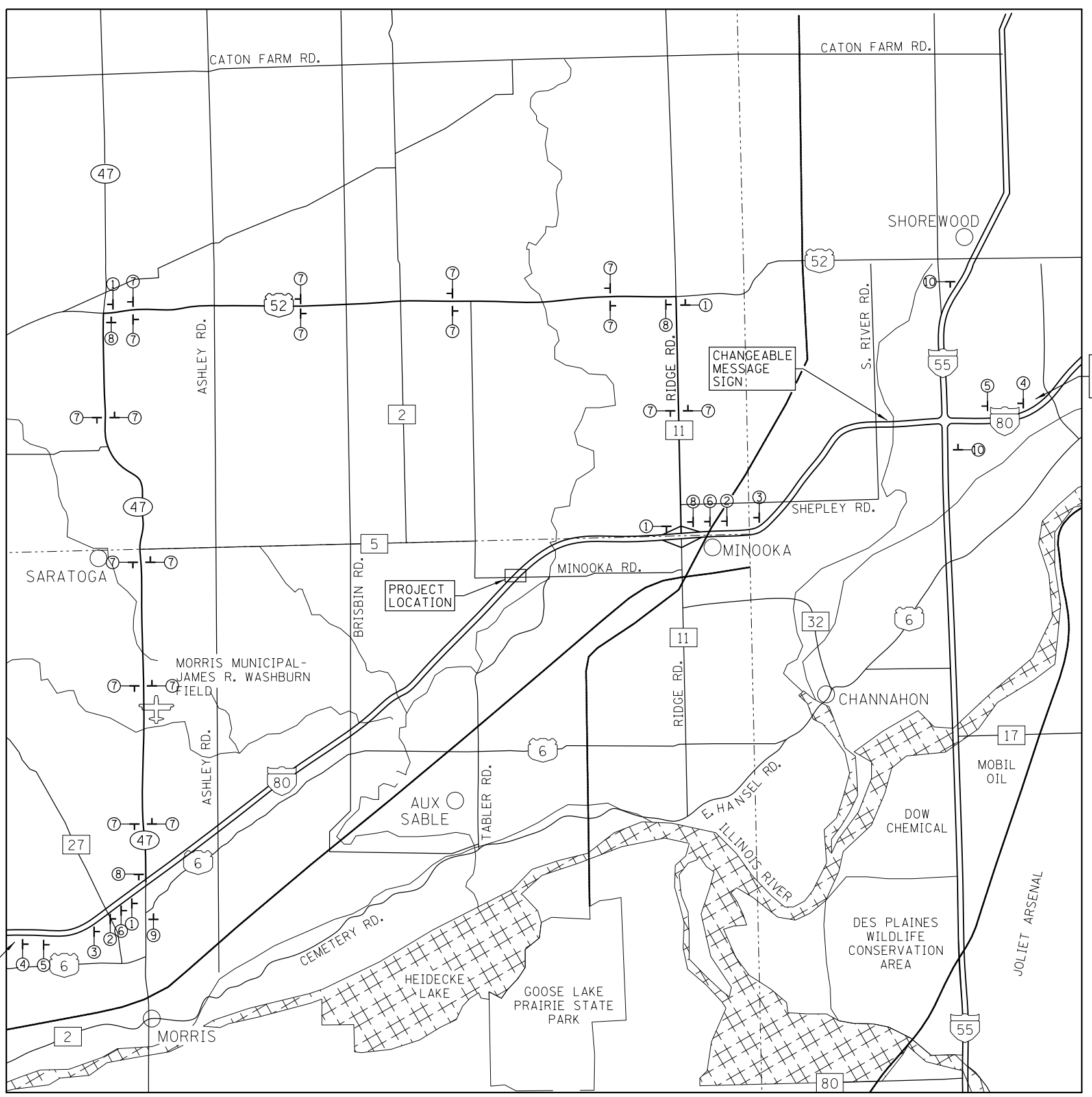
- 1.) ONLY SIGNS THAT ARE TO BE ADDED ARE SHOWN ON THIS MAP.
- 2.) ALL SIGNS TO BE POST MOUNTED.
- 3.) CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL SIGNAGE AT ALL TIMES.
- 4.) WORK SHALL BE IN THE COST FOR TRAFFIC CONTROL AND PROTECTION (SPECIAL)
- 5.) DETOUR SIGNS SHALL BE COVERED WHEN NOT IN USE.
- 6.) ALL SIGNS SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR.
- 7.) THE ALTERNATE ROUTE SIGNS FOR EASTBOUND I-80 MAY BE INCORPORATED INTO THE INTERSTATE CLOSURE DETOUR AS DIRECTED BY THE ENGINEER.
- 8.) THE RESIDENT ENGINEER SHALL COORDINATE WITH DISTRICT 1 WHEN PLACING SIGNS/MESSAGE BOARDS IN WILL COUNTY.



**SIGN DETAIL NO. 1**  
SIGN PANEL - TYPE 1

**NOTES:**

- 1.) AREA = 4,50 SQ. FT.
- 2.) TOTAL AREA REQUIRED (3-SIGNS) = 13,5 SQ. FT.
- 3.) 4" SERIES C LETTERS
- 4.) LEGEND = BLACK
- 5.) BACKGROUND = ORANGE



**NOTE:**

ON RAMP AT IL 47 TO I-80 EASTBOUND AND MINOOKA TO I-80 WESTBOUND WILL NEED TO BE CLOSED WITH TYPE III BARRICADES AND ROAD CLOSED SIGNS.

FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -
et:\pwork\pwork\dot\duncanbd\dms58037\ep01904-sht-detour.DGN		DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 3/15/2013	DATE -	REVISED -

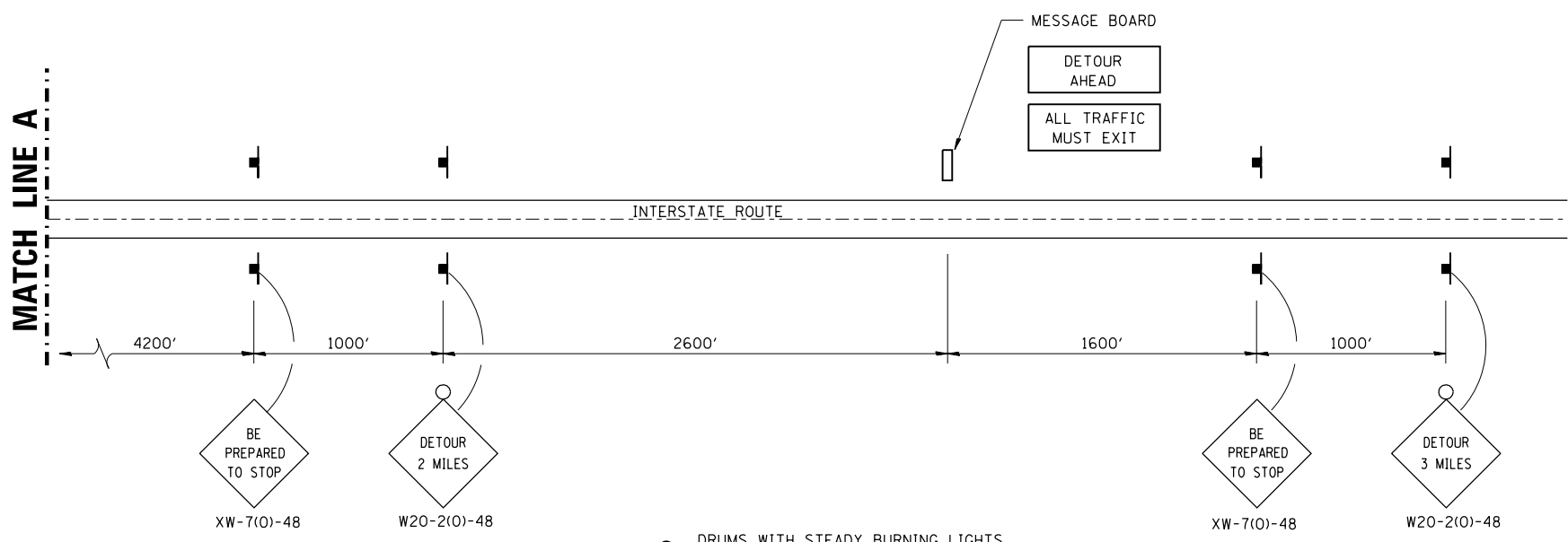
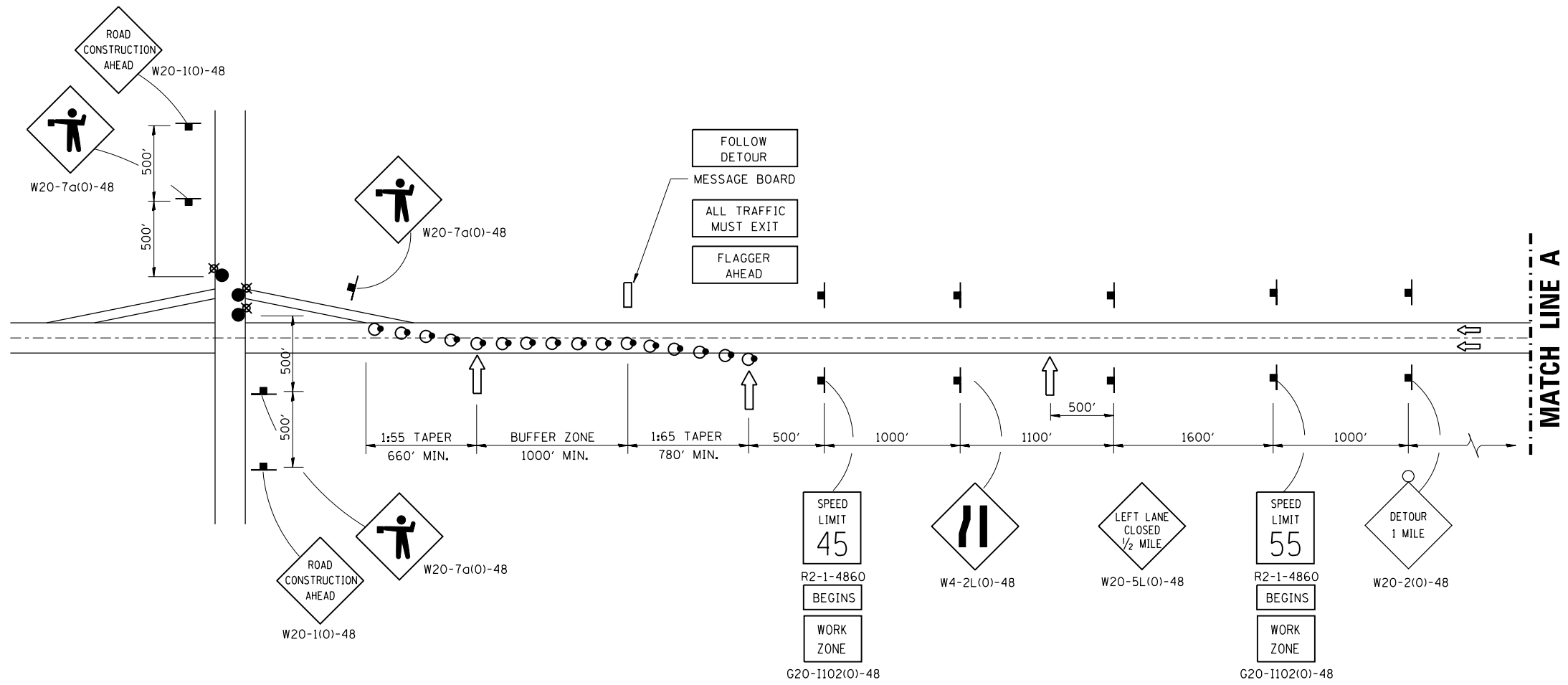
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**I-80 DETOUR ROUTE**  
**INTERSTATE CLOSURE**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(32,47-4)HBR-2	GRUNDY	143	42
CONTRACT NO. 66873				

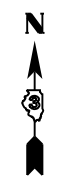
ILLINOIS FED. AID PROJECT



- DRUMS WITH STEADY BURNING LIGHTS  
50' IN TAPERS AND 100' IN TANGENT ON CENTERS
- LIGHTED FLAGGER STATIONS
- ARROWBOARD

**TOTAL INTERSTATE CLOSURE  
AT NIGHT  
(ALL TRAFFIC MUST EXIT)**

FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>I-80 DETOUR INTERSTATE CLOSURE</b>				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et:\pw\work\p1dot\duncanbd\dms58037\ep01904-sht-detour.DGN		DRAWN -	REVISED -		80	(32,47-4)HBR-2	GRUNDY	143	43				
PLOT SCALE = 100.0000' / in.		CHECKED -	REVISED -		SCALE:      SHEET NO.      OF      SHEETS      STA.      TO      STA.				CONTRACT NO. 66873				
PLOT DATE = 3/15/2013		DATE -	REVISED -		ILLINOIS FED. AID PROJECT								

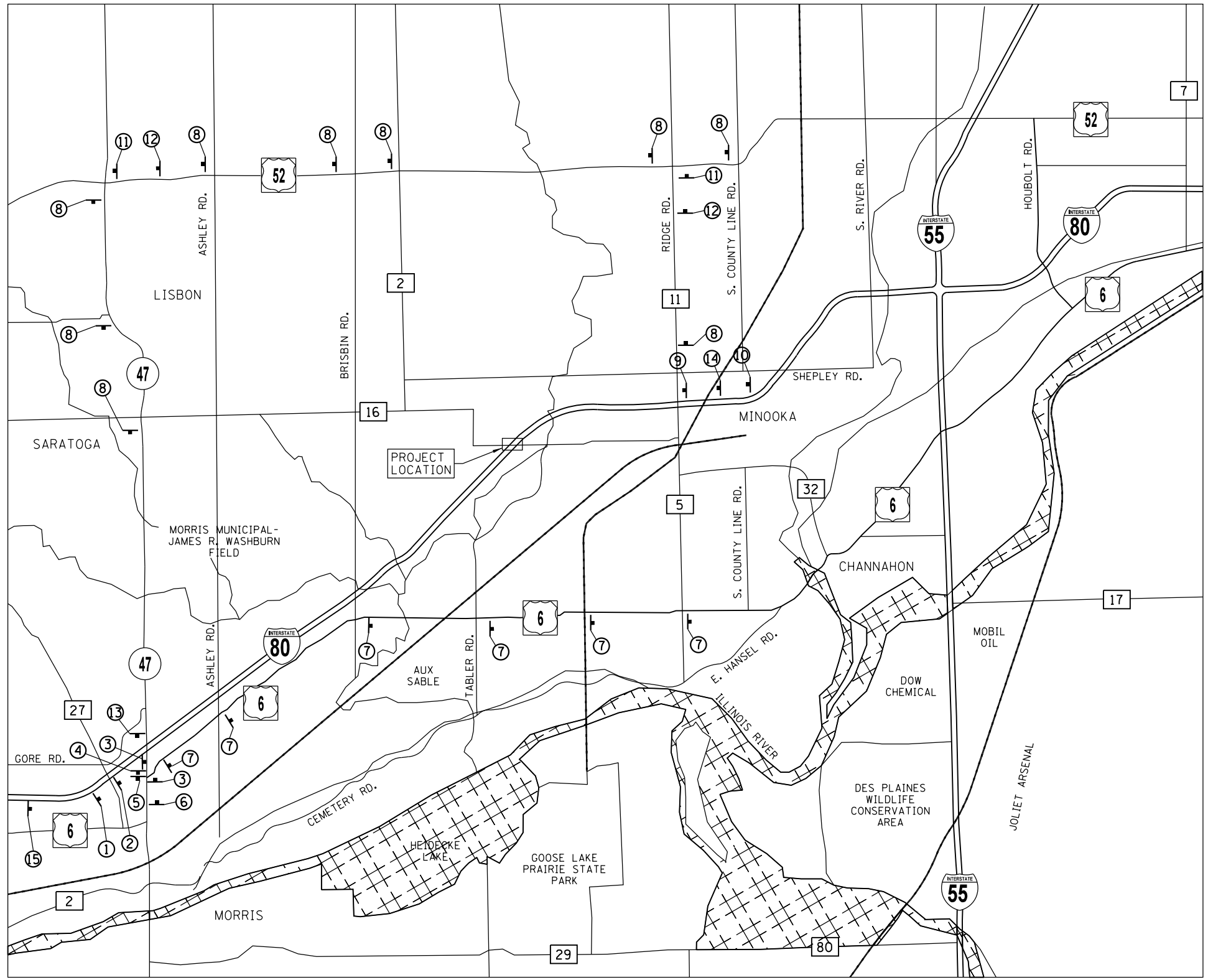


**LEGEND**

**NO. SIGNS REQUIRED**

1	ALT EAST INTERSTATE 80	M4-1a M3-2 M1-1 M5-2R	9	ALT WEST INTERSTATE 80	M4-1a M3-2 M1-1 M6-1R	1	1 EACH
2	ALT EAST INTERSTATE 80	M4-1a M3-2 M1-1 M6-2R	10	ALT WEST INTERSTATE 80	M4-1a M3-2 M1-1 M6-2R	2	1 EACH
3	ALT EAST INTERSTATE 80	M4-1a M3-2 M1-1 M6-1R	11	ALT WEST INTERSTATE 80	M4-1a M3-2 M1-1 M6-1L	3	2 EACH
4	ALT EAST INTERSTATE 80	M4-1a M3-2 M1-1 M5-1L	12	ALT WEST INTERSTATE 80	M4-1a M3-2 M1-1 M5-1L	4	1 EACH
5	ALT EAST INTERSTATE 80	M4-1a M3-2 M1-1 M6-1L	13	ALT WEST INTERSTATE 80	M4-1a M3-2 M1-1 M4-6	5	1 EACH
6	ALT EAST INTERSTATE 80	M4-1a M3-2 M1-1 M5-1R	14	ALT WEST INTERSTATE 80	M4-1a M3-2 M1-1 M5-2R	6	1 EACH
7	ALT EAST INTERSTATE 80	M4-1a M3-2 M1-1	15	CHANGEABLE MESSAGE SIGN	(SEE NOTE 5)	7	6 EACH
8	ALT WEST INTERSTATE 80	M4-1a M3-2 M1-1				8	9 EACH

1	1 EACH
2	1 EACH
3	2 EACH
4	1 EACH
5	1 EACH
6	1 EACH
7	6 EACH
8	9 EACH
9	1 EACH
10	1 EACH
11	2 EACH
12	2 EACH
13	1 EACH
14	1 EACH
15	1 EACH

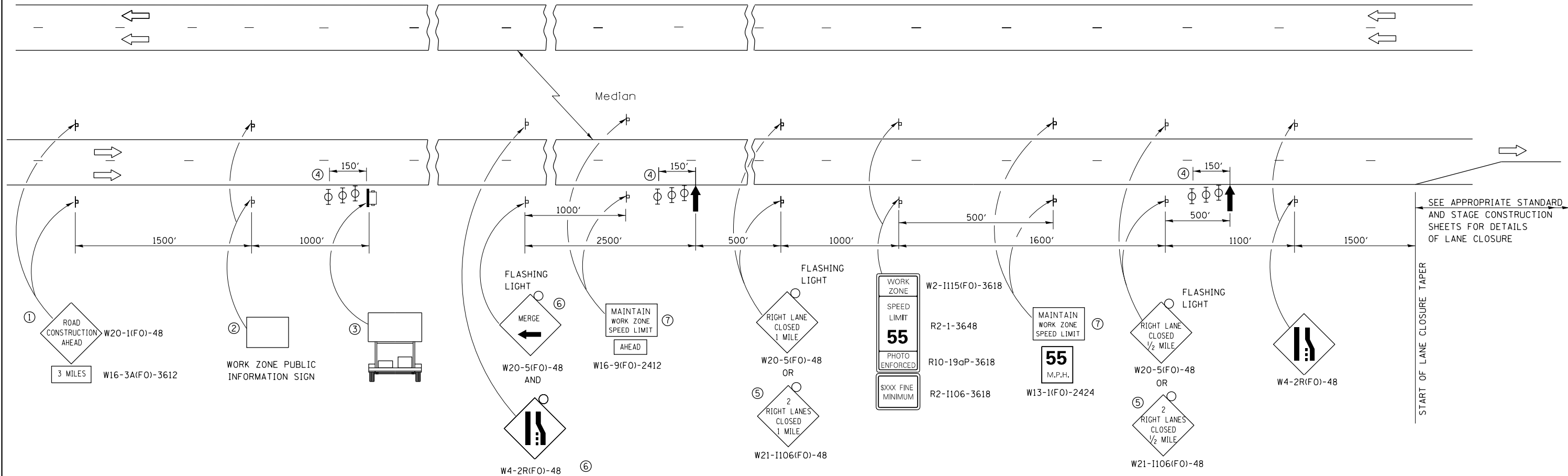


**NOTES:**

1. ALL SIGNS SHALL BE POST MOUNTED.
2. ALL SIGNS SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
3. ALTERNATE SIGNS ON RIDGE ROAD SHALL BE COVERED UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
4. ALL SIGNS SHALL BE INCLUDED FOR PAYMENT FOR ALTERNATE ROUTE SIGNING.
5. CONTRACTOR SHALL PROVIDE A CHANGEABLE MESSAGE SIGN ON EASTBOUND I-80 AS INFORMATIONAL SIGN IN ADVANCE OF ALTERNATE ROUTE.
6. M4-1 "ALT", M5-1 & M6-1 DIRECTIONAL SIGNS SHALL BE BLACK LETTERING SYMBOL ON FLUORESCENT ORANGE BACKGROUND.
7. RESIDENT ENGINEER SHALL COORDINATE WITH DISTRICT 1 PRIOR TO PLACING ANY SIGNS/MESSAGE BOARDS IN WILL COUNTY.
8. ALTERNATE ROUTE SIGNING SHALL NOT BE PLACED UNTIL MINOOKA ROAD STRUCTURE IS READY TO BE CLOSED.

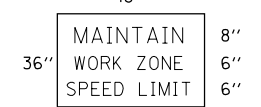
**TEMPORARY INFORMATIONAL SIGNING NOTES:**

1. INTERSTATE SHIELDS (36" FOR INTERSTATES, 24" FOR STATE ROUTES) SHALL BE STANDARD SIZE, BLUE BACKGROUND, WHITE LETTERING.
2. ALL ALTERNATE ROUTE SIGNING SHALL BE APPROVED BY THE ENGINEER PRIOR TO FABRICATION.



- ① THE ROAD CONSTRUCTION AHEAD SIGN SHALL BE LOCATED 3 MILES IN ADVANCE OF THE PROJECT LIMITS.
- ② THE MESSAGE AND SIZE OF THE WORK ZONE PUBLIC INFORMATION SIGN SHALL BE AS SPECIFIED BY THE DEPARTMENT.
- ③ TO BE PLACED IN THE MEDIAN WHEN FEASIBLE. THE MESSAGE BOARD SHALL BE USED TO DISPLAY STATUS OF LANES WITHIN THE PROJECT. THE PRIMARY MESSAGES SHALL BE:  
 "RIGHT LANE CLOSED" / " x MILES AHEAD"  
 "LEFT LANE CLOSED" / " x MILES AHEAD"  
 "ALL LANES OPEN"
- ④ THREE, TYPE II BARRICADES, DRUMS, OR VERTICAL BARRICADES AT 50' CENTERS.
- ⑤ THIS SIGN SHALL BE USED WHEN 2 LANES ARE CLOSED.
- ⑥ WHEN THE LEFT LANE IS CLOSED, SWITCH THESE TWO SIGNS AND THE DIRECTION OF THE MERGE ARROW.

⑦ 48"x36" FLUORESCENT ORANGE SIGN WITH BLACK LETTERS.  
48"



- ↑ ARROW BOARD
- ☐ PORTABLE CHANGEABLE MESSAGE SIGN
- ⊥ SIGN
- ⊕ TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH MONODIRECTIONAL FLASHING LIGHT

**GENERAL NOTE:**

THIS STANDARD IS USED WHERE AT ANY TIME A LANE IS CLOSED ON A FREEWAY/EXPRESSWAY.

WHEN THE LEFT LANE IS CLOSED, LEFT LANE CLOSED SIGNS SHALL BE SUBSTITUTED FOR THE RIGHT LANE CLOSED SIGNS.

THE FIRST TWO SIGNS AND THE MESSAGE BOARD ARE STATIONARY. THE OTHER SIGNS AND ARROWBOARDS SHALL BE MOVED AS NECESSARY TO MAINTAIN THE REQUIRED DISTANCE FROM THE START OF THE LANE CLOSURE TAPER(S).

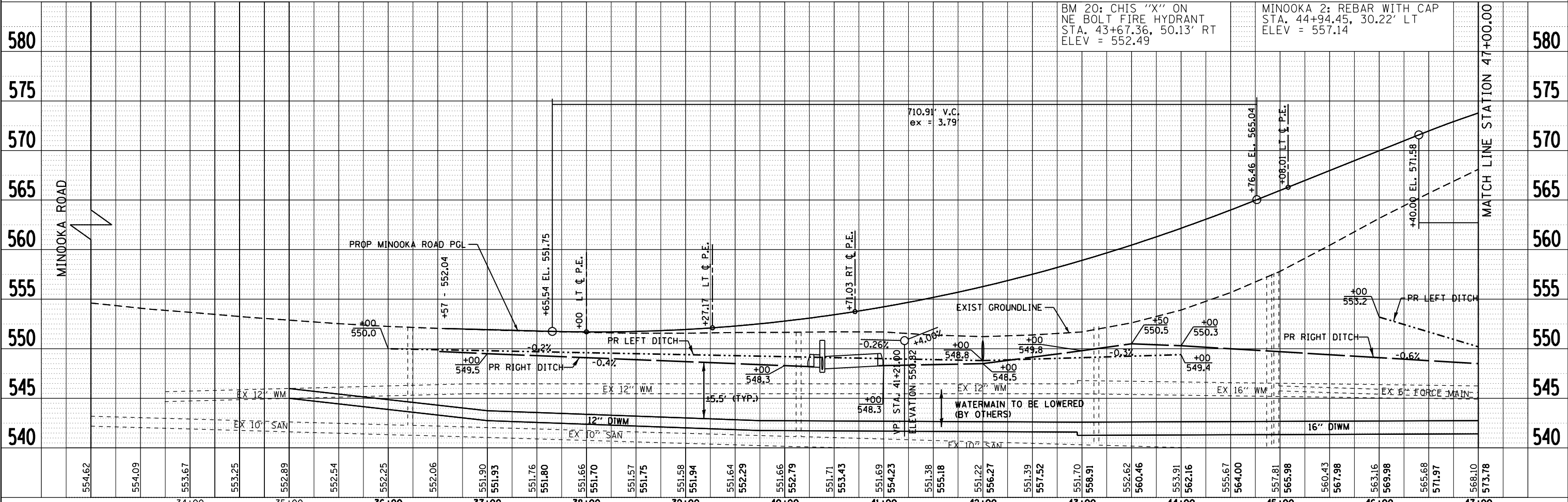
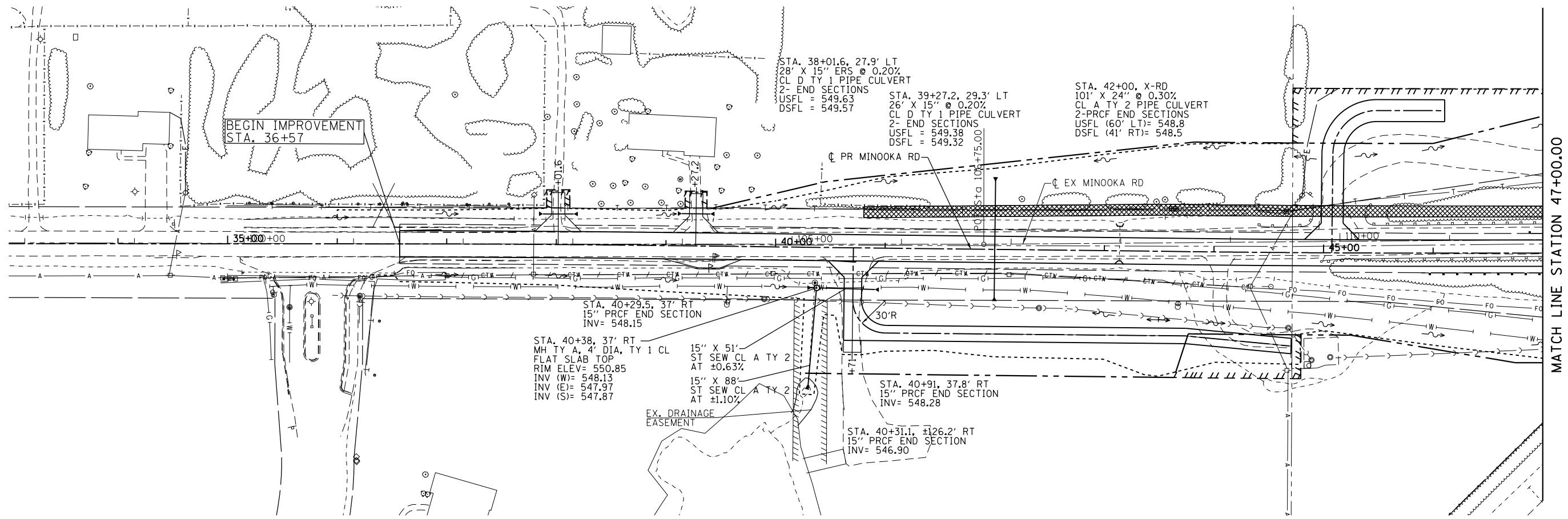
SEE SPECIAL PROVISIONS.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>STANDARD 701400 (SPECIAL)</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
et:\pw\work\p1dot\duncanbd\dms58037\ep01904-sht-detour.DGN		DRAWN -	REVISED -			80	(32,47-4)HBR-2	GRUNDY	143	45	
PLOT SCALE = 100.0000' / in.		CHECKED -	REVISED -			CONTRACT NO. 66873					
PLOT DATE = 3/15/2013		DATE -	REVISED -			SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.

PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNED	
	CHECKED	
	FILED	
	NO.	

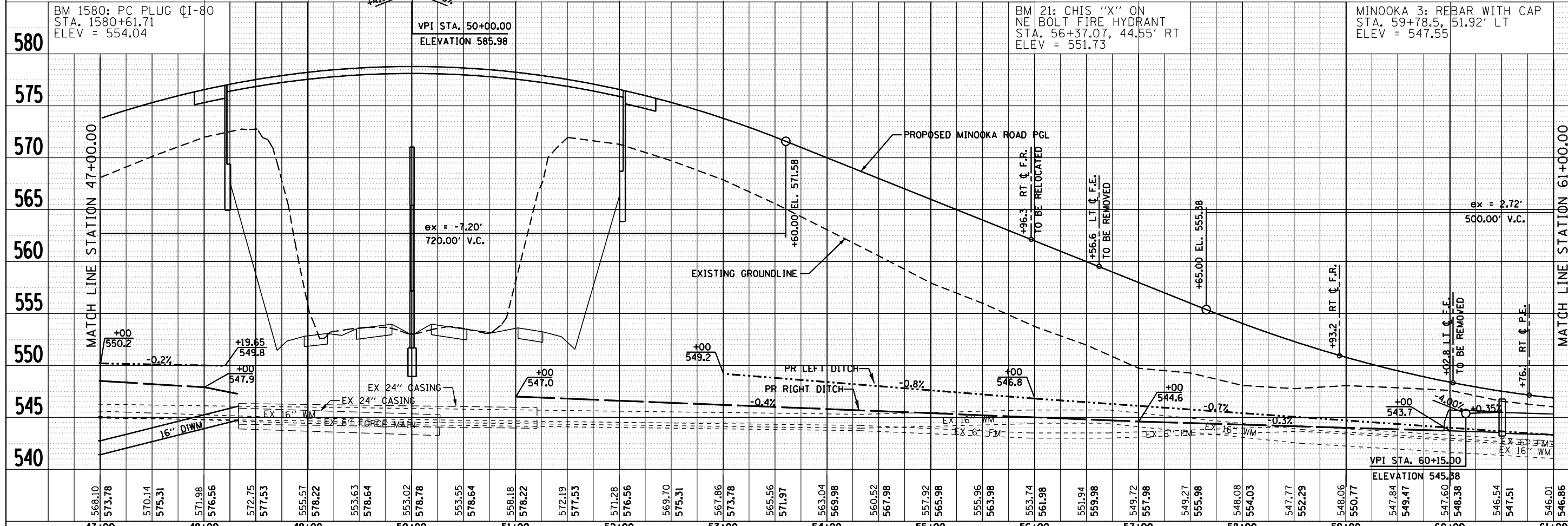
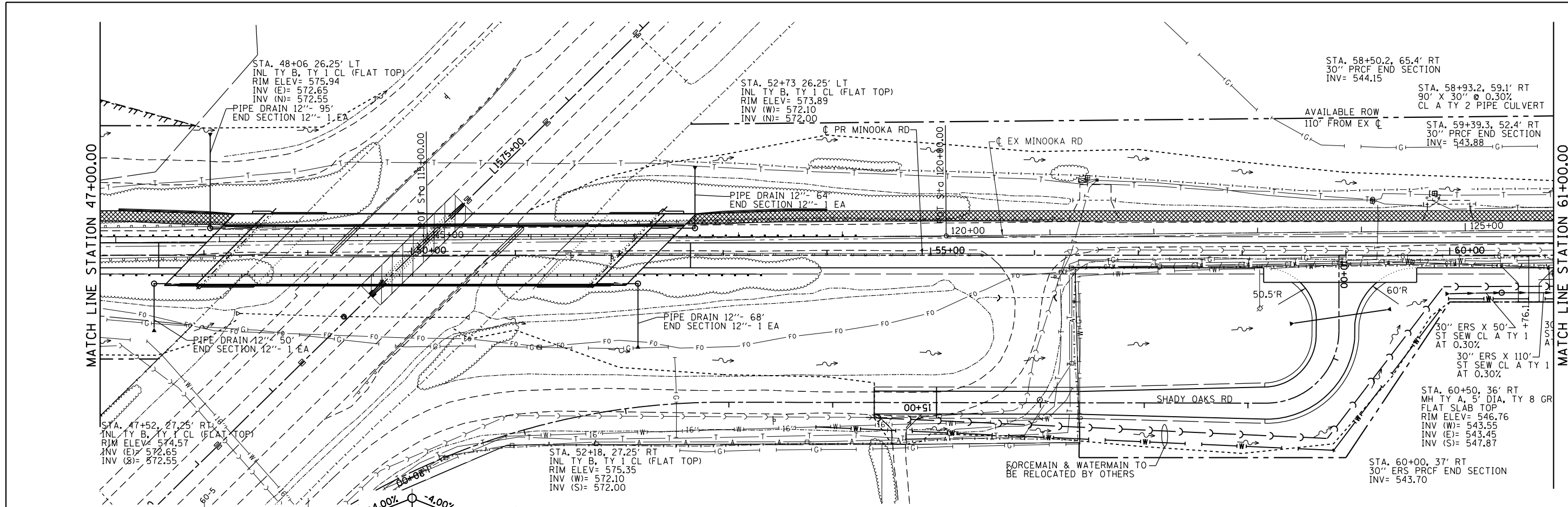
PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES	
	CHECKED	
	STRUCTURE	
	NOTATIONS	
	CHKD	
	NO.	



FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>		<b>MINOOKA ROAD</b> <b>DRAINAGE PLAN AND PROFILE</b>		F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwwork\pwwork\duncanbd\dms58037\ep01194-SHT-MINOOKA-DRAIN&P.dgn	DRAWN -	REVISED -	80					(32, 47-4)HBR-2	GRUNDY	143	46	
PLOT SCALE = 100.000 / in.	CHECKED -	REVISED -	CONTRACT NO. 66873									
PLOT DATE = 3/15/2013	DATE -	REVISED -	ILLINOIS FED. AID PROJECT									

PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNED	
	CHECKED	
	FILED	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES	
	CHECKED	
	STRUCTURE	
	NOTATIONS	
	NO.	



FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -
c:\pwwork\pwwork\duncanbd\dms58037\ep0194-SHT-MINOOKA-DRAIN&P.dgn		DRAWN -	REVISED -
PLOT SCALE = 100.000' / in.		CHECKED -	REVISED -
PLOT DATE = 3/15/2013		DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

MINOOKA ROAD  
DRAINAGE PLAN AND PROFILE

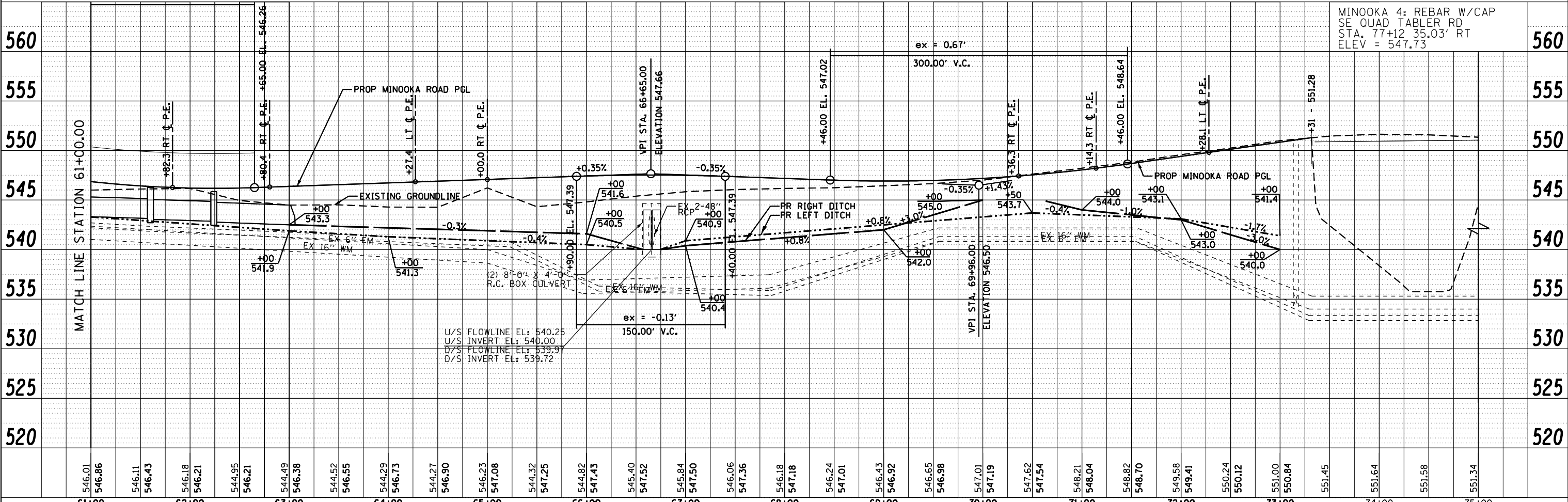
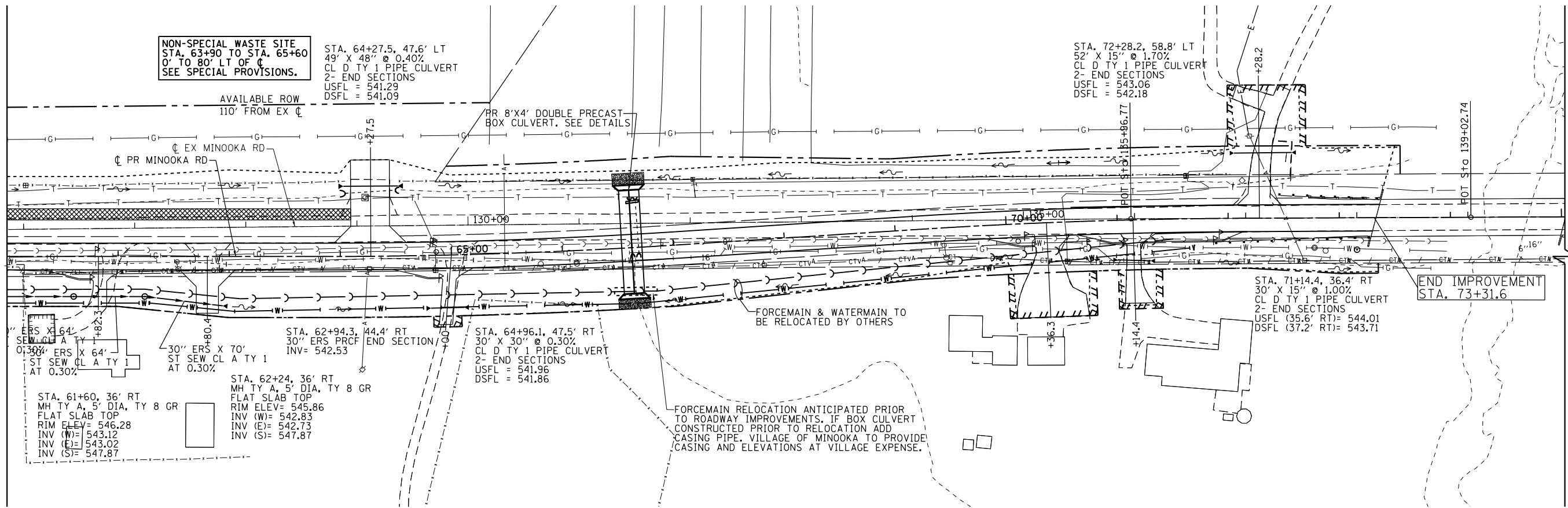
SCALE: 1:50 SHEET NO. OF SHEETS STA. 47+00 TO STA. 61+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(32, 47-4)HR-2	GRUNDY	143	47
CONTRACT NO. 66873				
ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
	PLOTTED	BY
	ALIGNED	
	CHECKED	
	FILED	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	GRADES CHECKED	
	STRUCTURE NOTATIONS OK'D	
	NO.	

MATCH LINE STATION 61+00.00



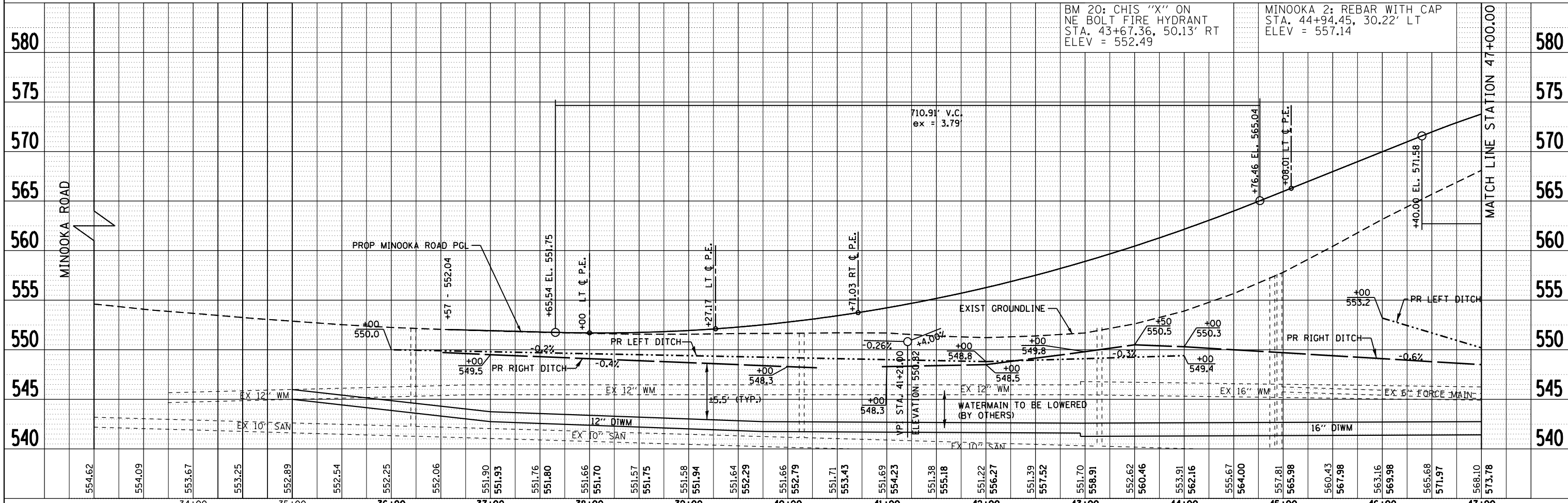
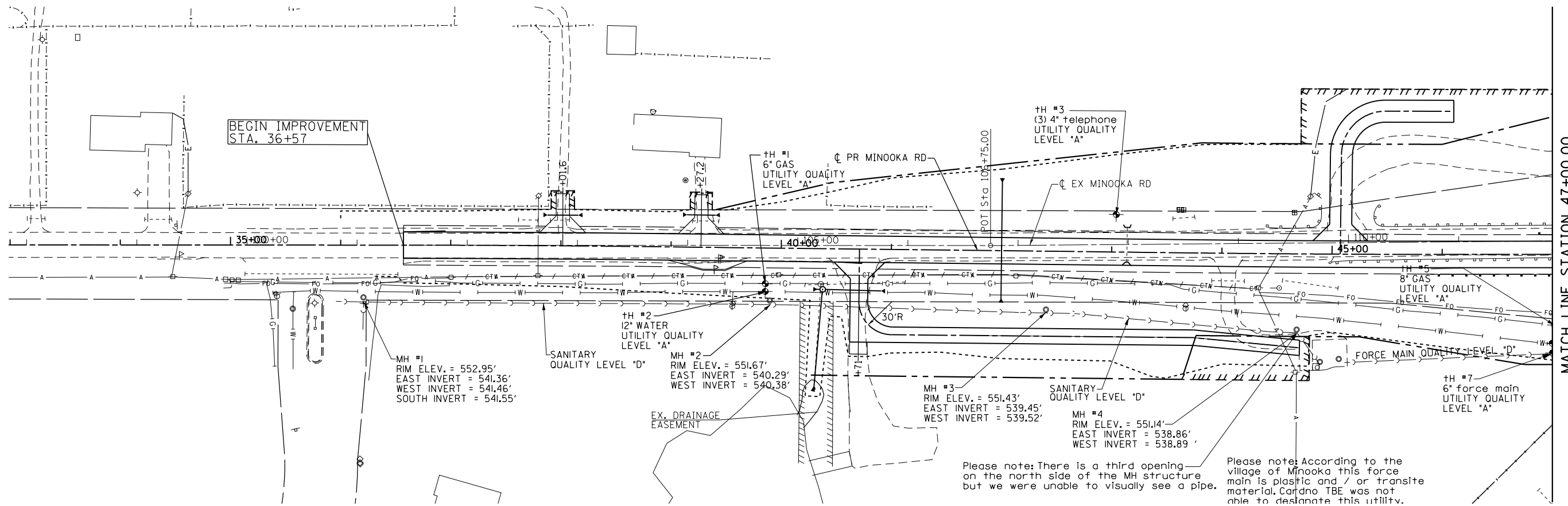
FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>MINOOKA ROAD</b> <b>DRAINAGE PLAN AND PROFILE</b>			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwork\pwork\duncanbd\dms58037\ep019	04-SHT-MINOOKA-DRAIN&P.dgn	DRAWN -	REVISED -		80	(32, 47-4)HBR-2	GRUNDY	143	48			
	PLOT SCALE = 100.000 / 1 in.	CHECKED -	REVISED -		CONTRACT NO. 66873							
	PLOT DATE = 3/15/2013	DATE -	REVISED -		ILLINOIS FED. AID PROJECT							

SCALE: 1:50 SHEET NO. 3 OF 3 SHEETS STA. 61+00 TO STA. 75+00



PLAN	SURVEYED	DATE
	PLOTTED	BY
	ALIGNED	
	CHECKED	
	FILED	
	NO.	
	FILE NAME	

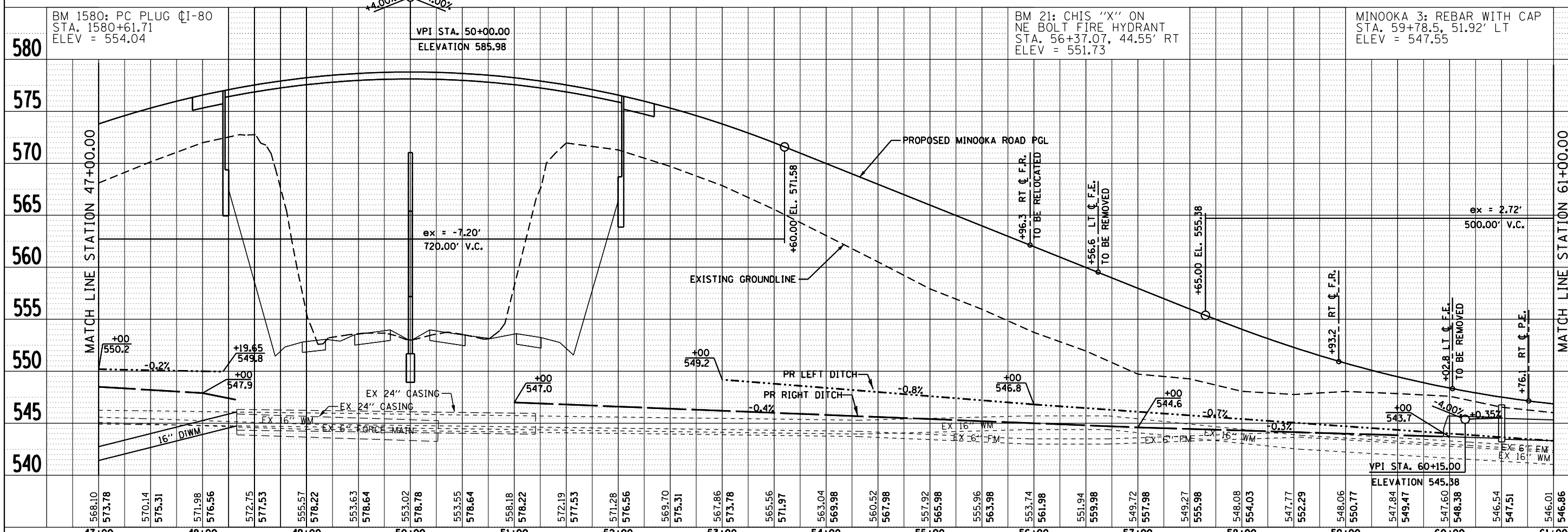
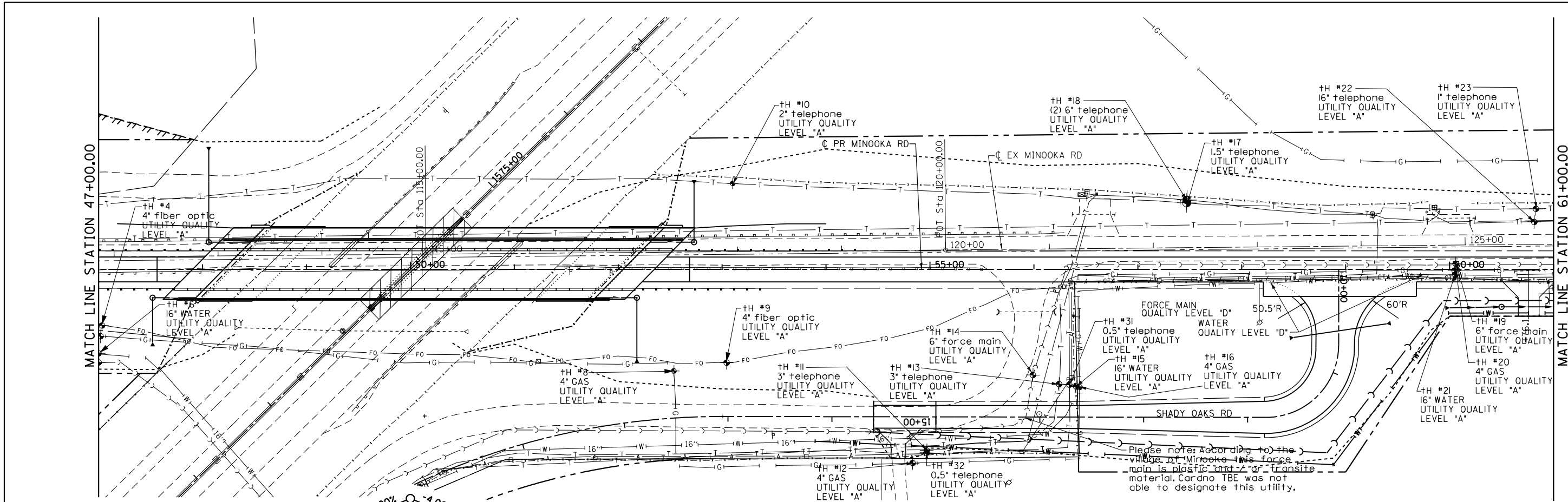
PROFILE	SURVEYED	DATE
	PLOTTED	BY
	GRADES	
	CHECKED	
	STRUCTURE	
	NOTATIONS	
	CPAD	
	NO.	



FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>MINOOKA ROAD</b> <b>SUE INFORMATION</b>		F.A.I. R.T.E. = 80	SECTION = (32,47-4)HBR-2	COUNTY = GRUNDY	TOTAL SHEETS = 143	SHEET NO. = 49	
c:\pwork\pwork\duncanbd\dms58037\ep019	04-SHT-MINOOKA-SUEP&P.dgn	DRAWN -	REVISED -		SCALE: 1:50	SHEET NO. 1 OF 3 SHEETS	STA. 33+00	TO STA. 47+00		CONTRACT NO. 66873		
	PLOT SCALE = 100.000 / in.	CHECKED -	REVISED -		ILLINOIS FED. AID PROJECT							
	PLOT DATE = 3/15/2013	DATE -	REVISED -									

PLAN	SURVEYED	BY	DATE
	ALIGNED		
	NOTED		
	CHECKED		
	FILED		
	NO.		

PROFILE	SURVEYED	BY	DATE
	GRADES		
	CHECKED		
	STRUCTURE		
	NOTED		
	NO.		



FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -
c:\pwork\pwork\duncanbd\dms58037\ep0194-SHT-MINOOKA-SUEP&P.dgn		DRAWN -	REVISED -
PLOT SCALE = 100.000 / in.		CHECKED -	REVISED -
PLOT DATE = 3/15/2013		DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

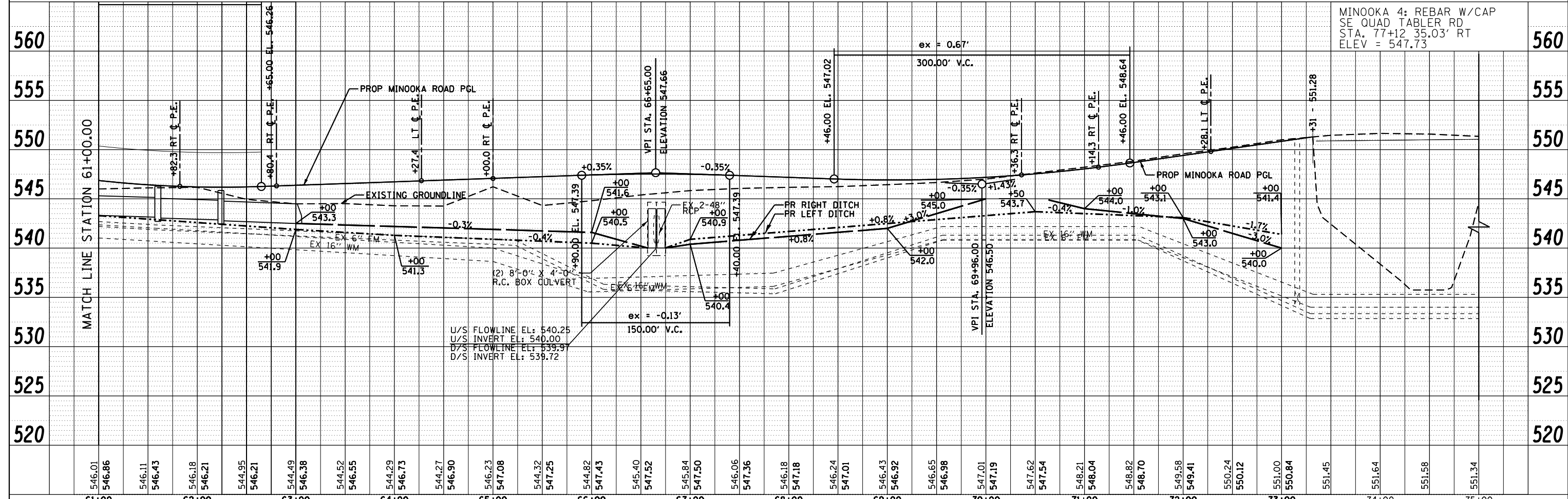
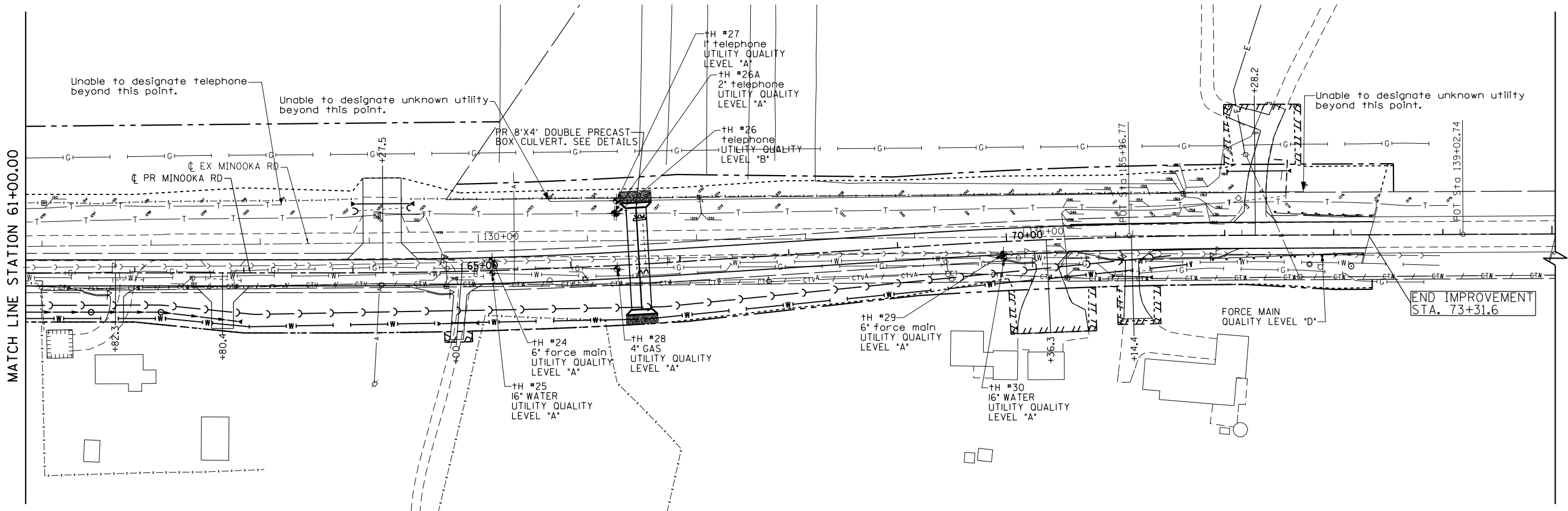
**MINOOKA ROAD  
SUE INFORMATION**

SCALE: 1:50      SHEET NO.      OF      SHEETS      STA. 47+00      TO STA. 61+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(32,47-4)HBR-2	GRUNDY	143	50
CONTRACT NO. 66873			ILLINOIS FED. AID PROJECT	

PLAN	SURVEYED	DATE
	PLOTTED	BY
	ALIGNED	
	CHECKED	
	FILED	
	NO. /	
	NO. /	
	NO. /	

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NO. /	
	NO. /	
	NO. /	



FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MINOOKA ROAD SUE INFORMATION</b>		F.A.I. RTE. 80	SECTION (32,47-4)HBR-2	COUNTY GRUNDY	TOTAL SHEETS 143	SHEET NO. 51	
c:\pwork\pwork\duncanbd\dms58037\ep01194-SHT-MINOOKA-SUEP&P.dgn		DRAWN -	REVISED -		SCALE: 1:50	SHEET NO. 3 OF 3 SHEETS	STA. 61+00	TO STA. 75+00	CONTRACT NO. 66873			
		CHECKED -	REVISED -		ILLINOIS FED. AID PROJECT							
		DATE - 3/15/2013	REVISED -									



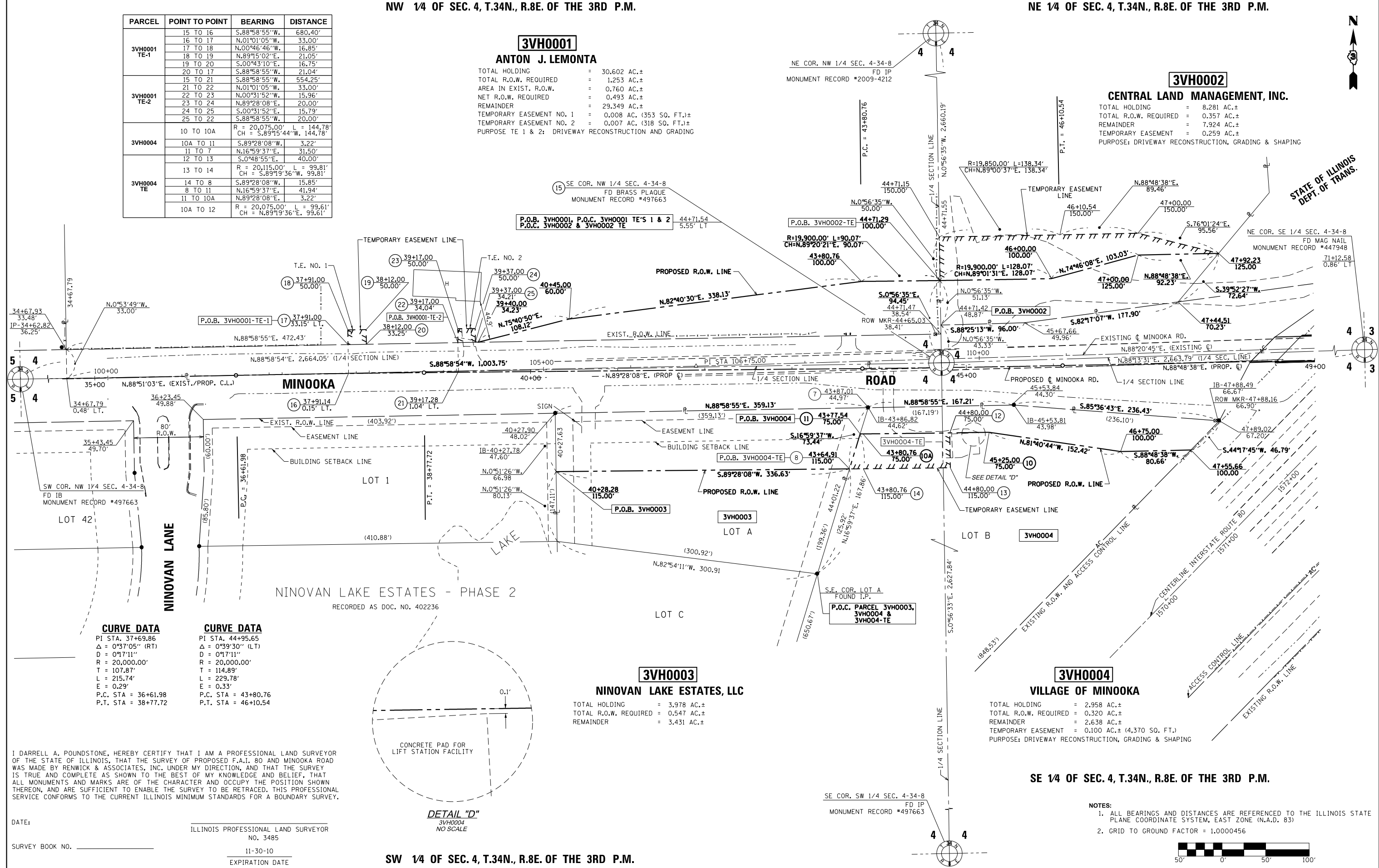
PARCEL	POINT TO POINT	BEARING	DISTANCE
3VH0001 TE-1	15 TO 16	S.88°58'55"W.	680.40'
	16 TO 17	N.01°01'05"W.	33.00'
	17 TO 18	N.00°46'46"W.	16.85'
	18 TO 19	N.89°15'02"E.	21.05'
	19 TO 20	S.00°43'10"E.	16.75'
3VH0001 TE-2	20 TO 17	S.88°58'55"W.	21.04'
	15 TO 21	S.88°58'55"W.	554.25'
	21 TO 22	N.01°01'05"W.	33.00'
	22 TO 23	N.00°31'52"W.	15.96'
	23 TO 24	N.89°28'08"E.	20.00'
3VH0004 TE	24 TO 25	S.00°31'52"E.	15.79'
	25 TO 22	S.88°58'55"W.	20.00'
	10 TO 10A	R = 20,075.00' L = 144.78' CH = S.89°15'44"W. 144.78'	
	10A TO 11	S.89°28'08"W.	3.22'
	11 TO 7	N.16°59'37"E.	31.50'
3VH0004 TE	12 TO 13	S.0°48'55"E.	40.00'
	13 TO 14	R = 20,115.00' L = 99.81' CH = S.89°19'36"W. 99.81'	
	14 TO 8	S.89°28'08"W.	15.85'
	8 TO 11	N.16°59'37"E.	41.94'
	11 TO 10A	N.89°28'08"E.	3.22'
10A TO 12	R = 20,075.00' L = 99.61' CH = N.89°19'36"E. 99.61'		

**3VH0001**  
**ANTON J. LEMONTA**

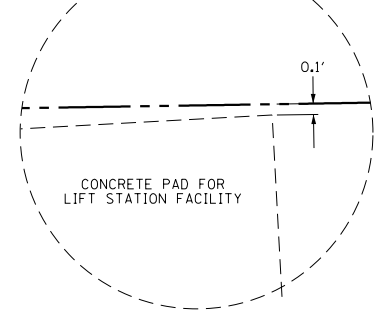
TOTAL HOLDING = 30,602 AC.±  
 TOTAL R.O.W. REQUIRED = 1,253 AC.±  
 AREA IN EXIST. R.O.W. = 0,760 AC.±  
 NET R.O.W. REQUIRED = 0,493 AC.±  
 REMAINDER = 29,349 AC.±  
 TEMPORARY EASEMENT NO. 1 = 0,008 AC. (353 SQ. FT.)±  
 TEMPORARY EASEMENT NO. 2 = 0,007 AC. (318 SQ. FT.)±  
 PURPOSE TE 1 & 2: DRIVEWAY RECONSTRUCTION AND GRADING

**3VH0002**  
**CENTRAL LAND MANAGEMENT, INC.**

TOTAL HOLDING = 8,281 AC.±  
 TOTAL R.O.W. REQUIRED = 0,357 AC.±  
 REMAINDER = 7,924 AC.±  
 TEMPORARY EASEMENT = 0,259 AC.±  
 PURPOSE: DRIVEWAY RECONSTRUCTION, GRADING & SHAPING



CURVE DATA	CURVE DATA
PI STA. 37+69.86	PI STA. 44+95.65
Δ = 0°37'05" (RT)	Δ = 0°39'30" (LT)
D = 0°17'11"	D = 0°17'11"
R = 20,000.00'	R = 20,000.00'
T = 107.87'	T = 114.89'
L = 215.74'	L = 229.78'
E = 0.29'	E = 0.33'
P.C. STA = 36+61.98	P.C. STA = 43+80.76
P.T. STA = 38+77.72	P.T. STA = 46+10.54



I DARRELL A. POUNDSTONE, HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR OF THE STATE OF ILLINOIS, THAT THE SURVEY OF PROPOSED F.A.I. 80 AND MINOOKA ROAD WAS MADE BY RENWICK & ASSOCIATES, INC. UNDER MY DIRECTION, 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. THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

DATE: \_\_\_\_\_ ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3485

SURVEY BOOK NO. \_\_\_\_\_ EXPIRATION DATE 11-30-10

**3VH0003**  
**NINOVAN LAKE ESTATES, LLC**

TOTAL HOLDING = 3,978 AC.±  
 TOTAL R.O.W. REQUIRED = 0,547 AC.±  
 REMAINDER = 3,431 AC.±

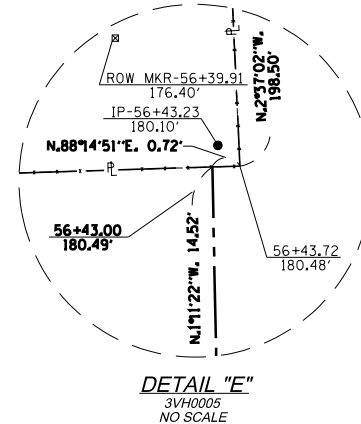
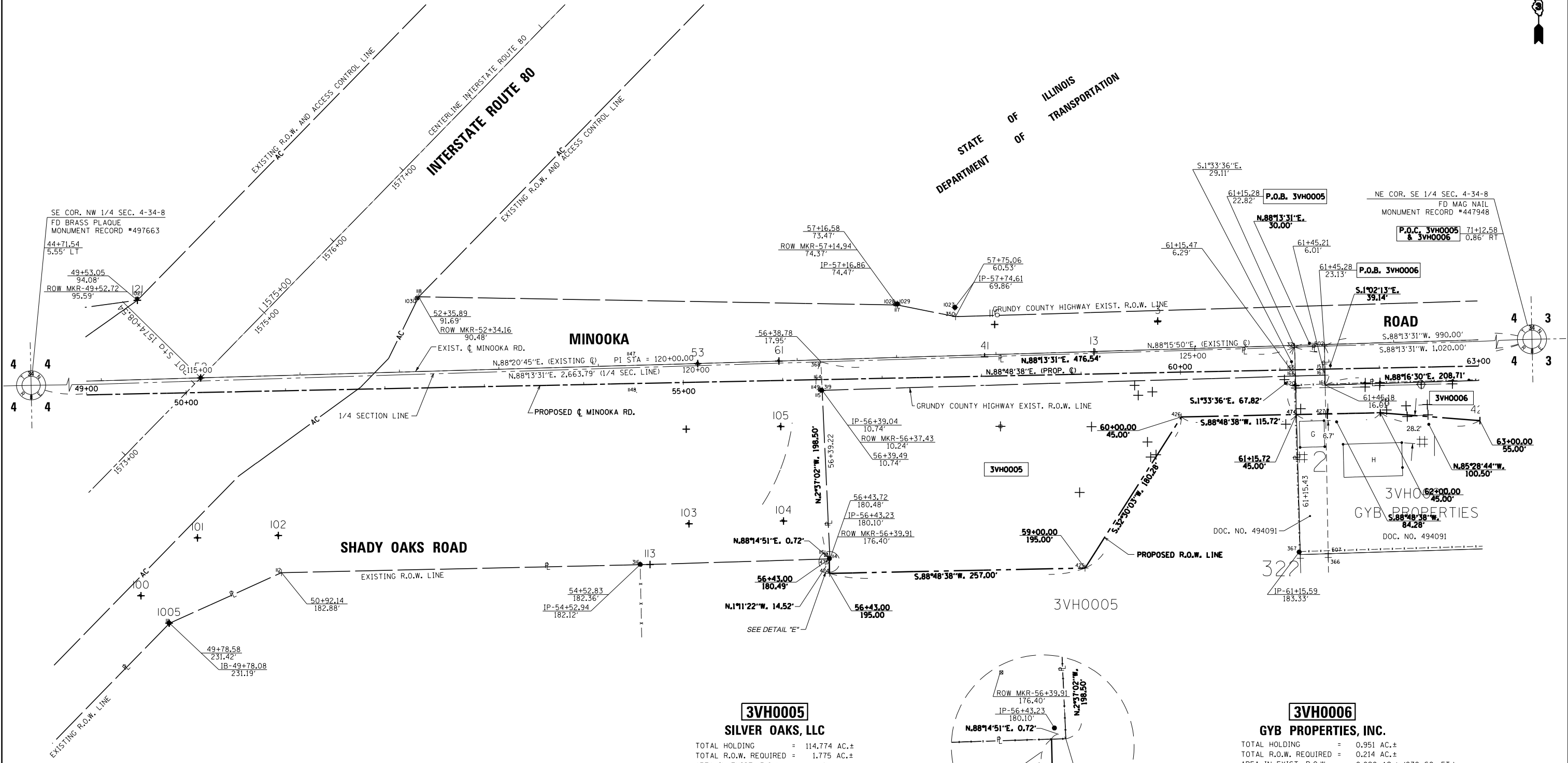
**3VH0004**  
**VILLAGE OF MINOOKA**

TOTAL HOLDING = 2,958 AC.±  
 TOTAL R.O.W. REQUIRED = 0,320 AC.±  
 REMAINDER = 2,638 AC.±  
 TEMPORARY EASEMENT = 0,100 AC.± (4,370 SQ. FT.)  
 PURPOSE: DRIVEWAY RECONSTRUCTION, GRADING & SHAPING

- NOTES:
- ALL BEARINGS AND DISTANCES ARE REFERENCED TO THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE (N.A.D. 83)
  - GRID TO GROUND FACTOR = 1.0000456



FILE NAME:	USER NAME = POUNDSTONE	DESIGNED - 032911 REVISED PROP. R.O.W. LINE AND ADDED T.E.'S PARCEL 1 G.W.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RIGHT OF WAY PLANS	F.A.I. RTE. 80	SECTION (32,47-4) HBR-2	COUNTY GRUNDY	TOTAL SHEETS 143	SHEET NO. 53
	PLOT SCALE = 1" = 50'	CHECKED -	REVISED -		PROJECT	JOB NO. R-93-003-09		CONTRACT NO. 66873		
	PLOT DATE = JULY 12, 2010	DATE -	REVISED -		SCALE: 1"=50'	SHEET NO. 1 OF 3 SHEETS	STA. 35+00 TO STA. 49+00	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT 032911 REVISED R.O.W. TAKE AND ADDED T.E.'S PARCEL 1 G.W. 092111 REVISED R.O.W. TAKE AND REMOVED T.E. PARCEL 3 G.W.		



**3VH0005**  
SILVER OAKS, LLC

TOTAL HOLDING	=	114.774 AC.±
TOTAL R.O.W. REQUIRED	=	1.775 AC.±
AREA IN EXIST. R.O.W.	=	0.316 AC.±
NET R.O.W. REQUIRED	=	1.459 AC.±
REMAINDER	=	112.999 AC.±

**3VH0006**  
GYB PROPERTIES, INC.

TOTAL HOLDING	=	0.951 AC.±
TOTAL R.O.W. REQUIRED	=	0.214 AC.±
AREA IN EXIST. R.O.W.	=	0.020 AC.± (870 SQ. FT.)
NET R.O.W. REQUIRED	=	0.194 AC.±
REMAINDER	=	0.737 AC.±

I DARRELL A. POUNDSTONE, HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR OF THE STATE OF ILLINOIS, THAT THE SURVEY OF PROPOSED F.A.I. 80 AND MINOOKA ROAD WAS MADE BY RENWICK & ASSOCIATES, INC. UNDER MY DIRECTION, 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. THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

DATE: \_\_\_\_\_ ILLINOIS PROFESSIONAL LAND SURVEYOR  
NO. 3485  
SURVEY BOOK NO. \_\_\_\_\_ EXPIRATION DATE 11-30-10

- NOTES:
- ALL BEARINGS AND DISTANCES ARE REFERENCED TO THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE (N.A.D. 83)
  - GRID TO GROUND FACTOR = 1.0000456
  - ORIGINAL GRUNDY COUNTY R.O.W. FOR PARCELS EAST OF I-80 ERRONEOUSLY DESCRIBED FROM A BRASS PLAQUE LOCATED 23.57' WEST OF A MAG NAIL AT THE EAST 1/4 CORNER OF SECTION 4 TO THE MONUMENTED CENTER OF SECTION 4. QUITCLAIM AREAS FOR PARCELS 3VTO007, 3VTO008 & 3VTO009 COVER GAP/OVERLAPS CREATED BY THIS DISCREPANCY.



FILE NAME	USER NAME = POUNDSTONE	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RIGHT OF WAY PLANS		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE = 1" = 50'	DRAWN -	REVISED -		PROJECT	JOB NO. R-93-003-09	(32,47-4) HBR-2	GRUNDY	143	54		
PLOT DATE = JULY 12, 2010	DATE -	REVISOR -	REVISOR -	SCALE: 1"=50'	SHEET NO. 2 OF 3 SHEETS	STA. 49+00 TO STA. 63+00	CONTRACT NO. 66873					
							FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT				

3VH0010

CENTRAL LAND MANAGEMENT, INC.

TOTAL HOLDING = 27.049 AC.±
TOTAL R.O.W. REQUIRED = 0.418 AC.±
REMAINDER = 26.631 AC.±
TEMPORARY EASEMENT = 0.089 AC.± (3,868 SQ. FT.)
PURPOSE: DRIVEWAY RECONSTRUCTION, GRADING & SHAPING

NE COR. NE 1/4 SEC. 4-34-8
FD 1B
MONUMENT RECORD #447944

71+36.83
71+37.28
39.77'
65.00'

N.01°19'23"W.
40.00'

SE COR. NE 1/4 SEC. 4-34-8
FD MAG NAIL
MONUMENT RECORD #447948

71+36.11
0.23' RT

P.O.C. 3VH0007, 7-TE & 7-OC,
3VH0008, 8-TE-1, 8-TE-2 & 8-OC,
3VH0009, 9-TE & 9-OC, 3VH0010
& 10-TE

R=5,065.00' L=304.47'
CH=N.86°50'39"E. 304.42'

69+16.96
65.00'

N.85°07'20"E.
16.96'

69+00.00
65.00'

69+25.01
33.46'

R=4,955.00' L=7.22'
CH=S.85°09'50"W. 7.22'

69+16.96
45.00'

70+00.00
85.00'

70+00.00
85.00'

70+00.00
85.00'

70+00.00
85.00'

70+00.00
85.00'

70+00.00
85.00'

70+00.00
85.00'

70+00.00
85.00'

70+00.00
85.00'

70+00.00
85.00'

70+00.00
85.00'

70+00.00
85.00'

70+00.00
85.00'

70+00.00
85.00'

72+00.00
65.00'

72+00.00
120.00'

72+17.52
120.00'

72+70.00
120.00'

72+70.00
65.00'

72+17.52
65.00'

71+35.17
40.22'

71+35.17
40.22'

71+35.17
40.22'

71+35.17
40.22'

71+35.17
40.22'

71+35.17
40.22'

71+35.17
40.22'

71+35.17
40.22'

71+35.17
40.22'

71+35.17
40.22'

71+35.17
40.22'

71+35.17
40.22'

71+35.17
40.22'

71+35.17
40.22'

71+35.17
40.22'

71+35.17
40.22'

71+35.17
40.22'

71+35.17
40.22'

71+35.17
40.22'

71+35.17
40.22'

SE COR. NW 1/4 SEC. 4-34-8
FD BRASS PLAQUE
MONUMENT RECORD #497663

44+71.54
5.55' LT

N.88°16'30"E.
53.26'

S.1°02'13"E.
39.32'

N.88°48'38"E. (PROP. CL)

N.88°16'30"E. 208.71'

S.1°02'13"E. 40.94'

N.88°48'38"E. 53.77'

S.88°48'38"E. 30.27'

S.88°48'38"E. 30.27'

S.88°48'38"E. 30.27'

S.88°48'38"E. 30.27'

S.88°48'38"E. 30.27'

S.88°48'38"E. 30.27'

S.88°48'38"E. 30.27'

S.88°48'38"E. 30.27'

S.88°48'38"E. 30.27'

S.88°48'38"E. 30.27'

S.88°48'38"E. 30.27'

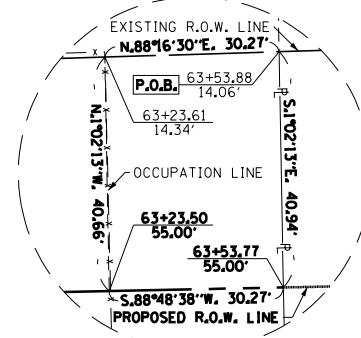
S.88°48'38"E. 30.27'

S.88°48'38"E. 30.27'

S.88°48'38"E. 30.27'

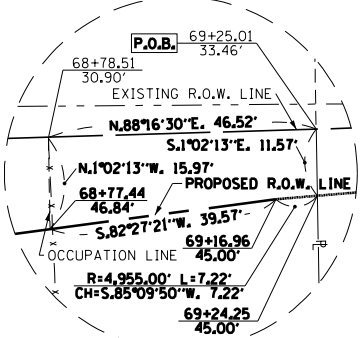
3VH0006

GYB PROPERTIES, INC.
SEE SHEET 2 FOR AREAS



DETAIL "A"

3VH0007-QUITCLAIM AREA
NO SCALE



DETAIL "B"

3VH0008-QUITCLAIM AREA
NO SCALE

3VH0007

NORMA ABRAHAM

TOTAL HOLDING = 17.843 AC.±
TOTAL R.O.W. REQUIRED = 0.403 AC.±
REMAINDER = 17.440 AC.±
TEMPORARY EASEMENT = 0.006 AC.± (253 SQ. FT.)
PURPOSE: DRIVEWAY RECONSTRUCTION, GRADING & SHAPING
QUITCLAIM AREA = 0.028 AC.± (1,235 SQ. FT.)

Table with 4 columns: PARCEL, POINT TO POINT, BEARING, DISTANCE. Lists survey points and bearings for parcels 3VH0007-TE, 3VH0008, 3VH0008-TE-1, and 3VH0008-TE-2.

3VH0008

ROGER A. HUNT, et ux.

TOTAL HOLDING = 0.809 AC.±
TOTAL R.O.W. REQUIRED = 0.036 AC.± (1,553 SQ. FT.)
REMAINDER = 0.773 AC.±
TEMPORARY EASEMENT-1 = 0.073 AC.± (3,158 SQ. FT.)
TEMPORARY EASEMENT-2 = 0.027 AC.± (1,198 SQ. FT.)
TOTAL TEMPORARY EASEMENT = 0.100 AC.± (4,356 SQ. FT.)
PURPOSE: DRIVEWAY RECONSTRUCTION, GRADING & SHAPING
QUITCLAIM AREA = 0.015 AC.± (634 SQ. FT.)

Table with 4 columns: PARCEL, POINT TO POINT, BEARING, DISTANCE. Lists survey points and bearings for parcels 3VH0008-TE-1 and 3VH0010-TE.

3VH0009

LAWRENCE E. SPRAY, et ux.

TOTAL HOLDING = 2.727 AC.±
TOTAL R.O.W. REQUIRED = 0.028 AC.± (1,233 SQ. FT.)
REMAINDER = 2.699 AC.±
TEMPORARY EASEMENT = 0.004 AC.± (185 SQ. FT.)
PURPOSE: DRIVEWAY RECONSTRUCTION, GRADING & SHAPING
QUITCLAIM AREA = 0.005 AC.± (238 SQ. FT.)

CURVE DATA

PI STA. 65+41.35
Δ = 3°41'19" (LT)
D = 1°08'45"
R = 5,000.00'
T = 161.00'
L = 321.88'
E = 2.59'
P.C. STA = 63+80.35
P.T. STA = 67+02.23

CURVE DATA

PI STA. 70+67.29
Δ = 3°26'39" (RT)
D = 1°08'45"
R = 5,000.00'
T = 150.33'
L = 300.56'
E = 2.26'
P.C. STA = 69+16.96
P.T. STA = 72+17.52

SW 1/4 OF SEC. 3, T.34N., R.8E. OF THE 3RD P.M.

NOTES:
1. ALL BEARINGS AND DISTANCES ARE REFERENCED TO THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE (N.A.D. 83)
2. GRID TO GROUND FACTOR = 1.0000456



I DARRELL A. POUNDSTONE, HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR OF THE STATE OF ILLINOIS, THAT THE SURVEY OF PROPOSED F.A.I. 80 AND MINOOKA ROAD WAS MADE BY RENWICK & ASSOCIATES, INC. UNDER MY DIRECTION, 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, THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

DATE: ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3485
SURVEY BOOK NO. 11-30-10
EXPIRATION DATE

SE 1/4 OF SEC. 4, T.34N., R.8E. OF THE 3RD P.M.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY PLANS

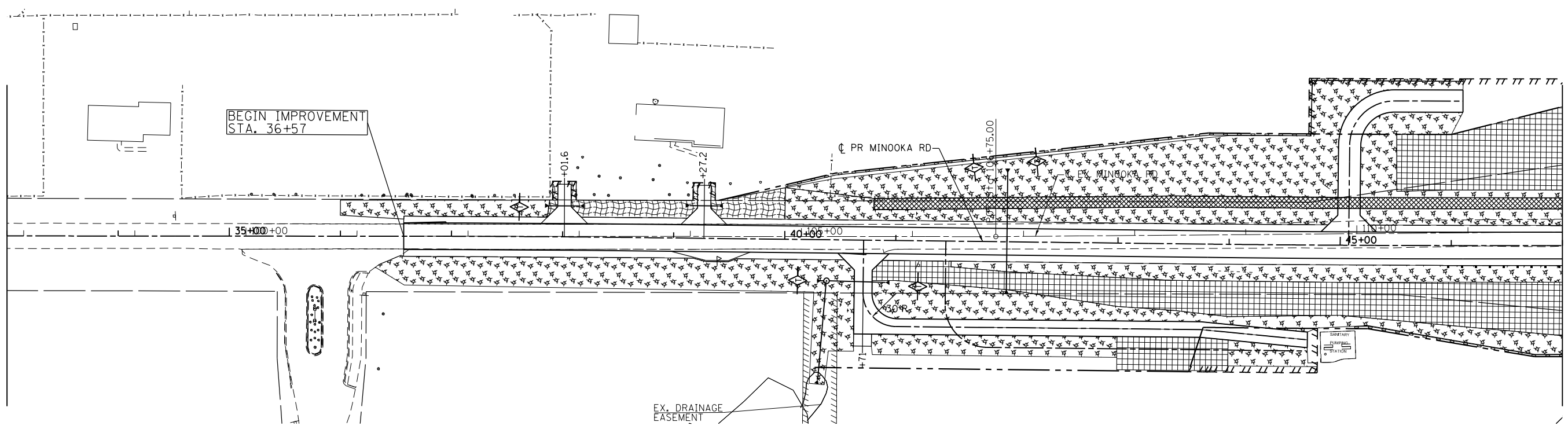
PROJECT: JOB NO. R-93-003-09
SHEET NO. 3 OF 3 SHEETS
STA. 63+00 TO STA. 75+00

Table with 4 columns: F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS. Values: 80, (32,47-4) HBR-2, GRUNDY, 143, 55.

SCALE: 1"=50'
CONTRACT NO. 66873
ILLINOIS FED. AID PROJECT



MATCH LINE STA. 33+00



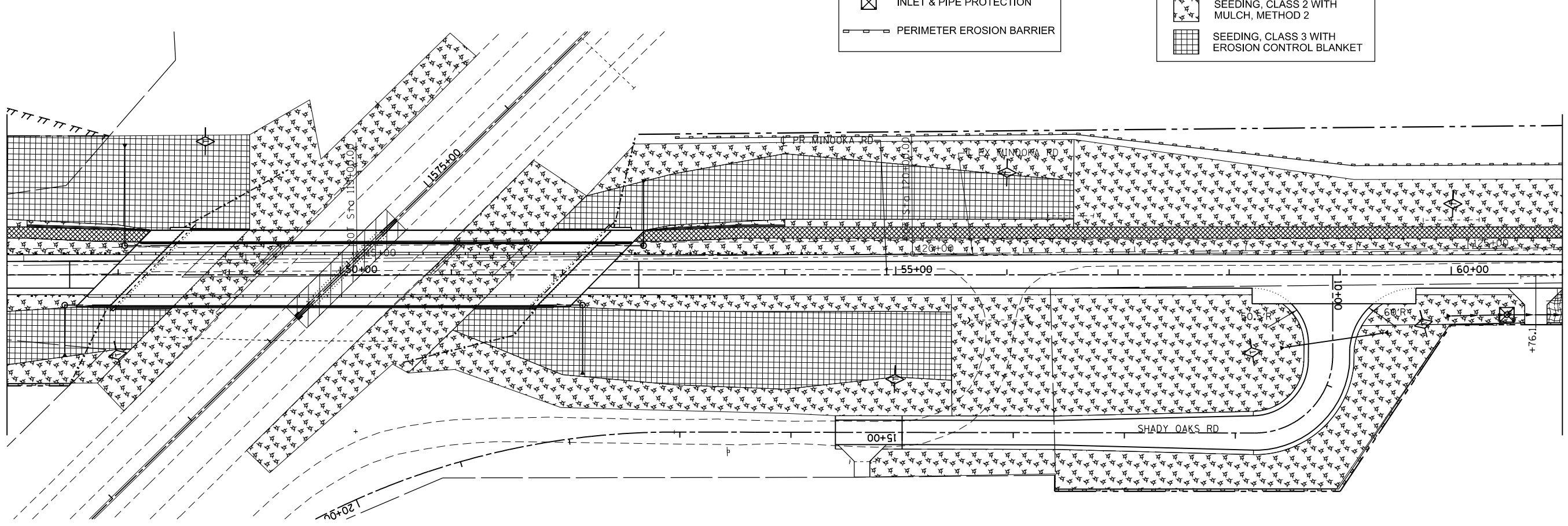
MATCH LINE STA. 47+00



EROSION CONTROL ITEMS	
	TEMPORARY DITCH CHECK
	INLET & PIPE PROTECTION
	PERIMETER EROSION BARRIER

LANDSCAPING ITEMS	
	SEEDING, CLASS 1 WITH EROSION CONTROL BLANKET
	SEEDING, CLASS 2 WITH MULCH, METHOD 2
	SEEDING, CLASS 3 WITH EROSION CONTROL BLANKET

MATCH LINE STA. 47+00



MATCH LINE STA. 61+00



FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -
et:\pw\work\p\dms\duncanbd\dms58037\ep01904-sht-landscaping.dgn		DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 3/15/2013	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EROSION CONTROL &  
LANDSCAPING**

SCALE: 1" = 50' SHEET NO. 1 OF 2 SHEETS STA. 33+00 TO STA. 61+00

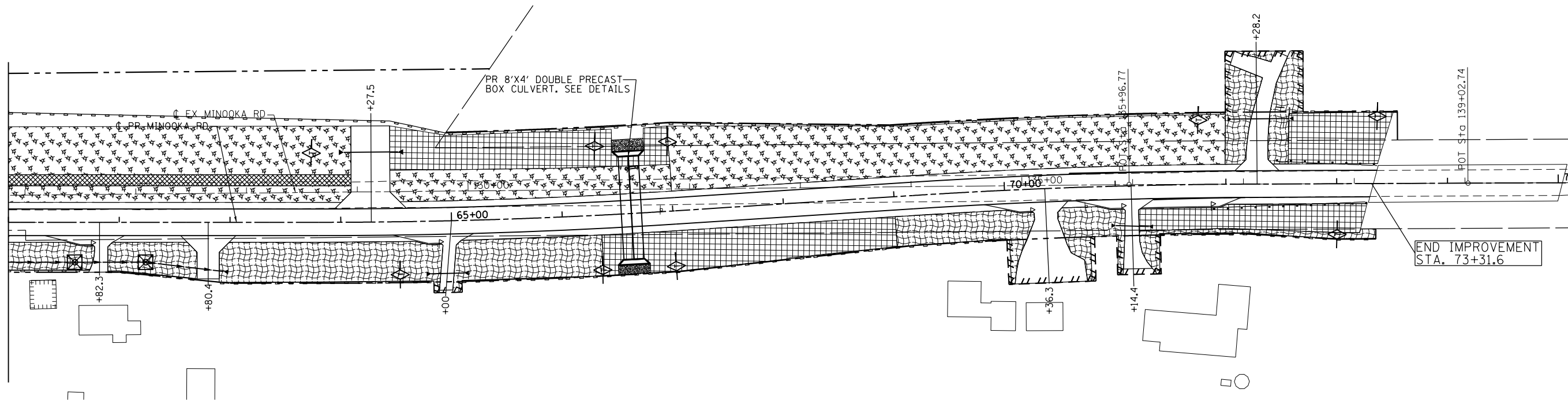
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(32,47-4)HBR-2	GRUNDY	143	56
CONTRACT NO. 66873				

ILLINOIS FED. AID PROJECT





MATCH LINE STA. 61+00



EROSION CONTROL ITEMS	
	TEMPORARY DITCH CHECK
	INLET & PIPE PROTECTION
	PERIMETER EROSION BARRIER

LANDSCAPING ITEMS	
	SEEDING, CLASS 1 WITH EROSION CONTROL BLANKET
	SEEDING, CLASS 2 WITH MULCH, METHOD 2
	SEEDING, CLASS 3 WITH EROSION CONTROL BLANKET



FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -
et:\pw\work\p1dot\duncanbd\dms58037\ep01904-sht-landscaping.dgn		DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 3/15/2013	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

EROSION CONTROL & LANDSCAPING			
SCALE: 1" = 50'	SHEET 2	OF 2 SHEETS	STA. 61+00 TO STA. 75+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(32,47-4)HBR-2	GRUNDY	143	57
				CONTRACT NO. 66873
ILLINOIS FED. AID PROJECT				

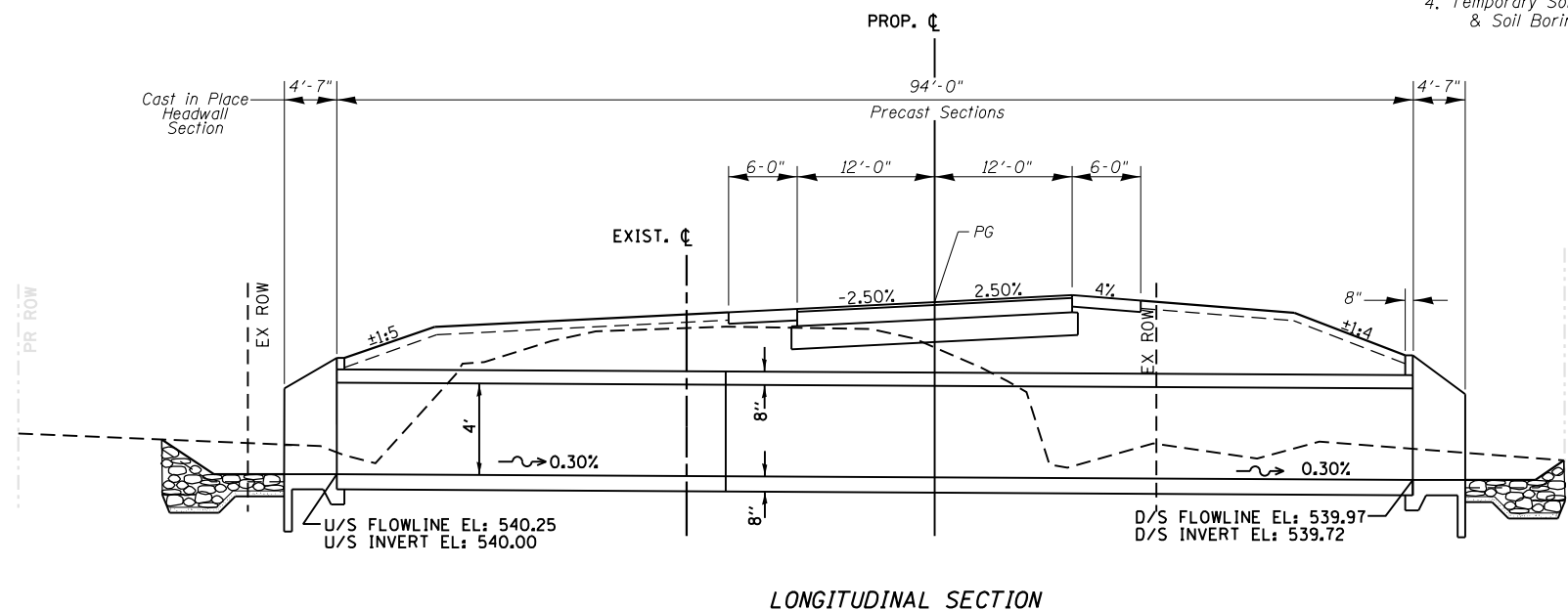
Benchmark: See Roadway Plans

Existing Structure: Double 48" reinforce concrete pipe culvert installed unknown. Extended in 1993 with 48" metal pipe. The existing culverts are to be removed and replaced with a 8' cl. span by 4' cl. height precast double box culvert with poured headwalls utilizing stage construction.

No salvage

**INDEX OF CULVERT PLANS**

1. General Plan and Elevation & Total Bill of Material
2. Staging Details
3. CIP Headwall Details
4. Temporary Soil Retention System Detail & Soil Boring

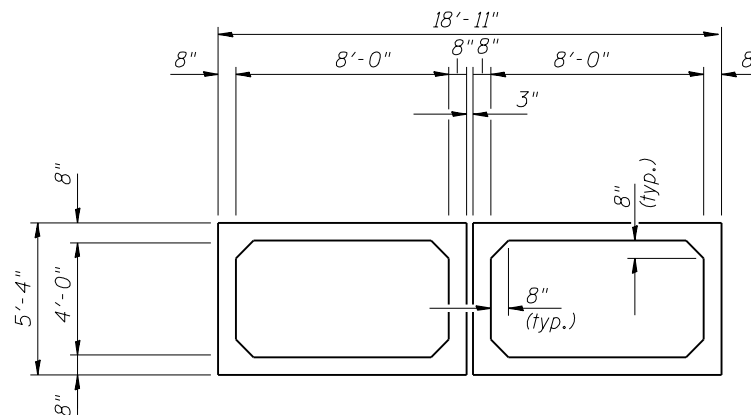


**LONGITUDINAL SECTION**

**STATION 66+62.55  
BUILT 201 BY  
STATE OF ILLINOIS  
FAI RT 80 SEC (32,47-4)HBR-2  
LOADING HL 93**

**NAME PLATE**

See Std. 515001



**SECTION THRU PRECAST BARREL**

**GENERAL NOTES**

1. The Box Culvert has a fill height greater than 2 ft. Precast Concrete Box Culvert sections shall conform to the requirements of Article 540.06 of the Standard Specifications and the applicable requirements of ASTM C 1577.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Lifting holes shall be filled with concrete plugs and mastic after box sections are in place.
4. The Resident Engineer shall contact the District 3 Geotechnical Engineer to determine final depth of Removal and Disposal of Unsuitable Material & Rock Fill.

**WATERWAY INFORMATION**

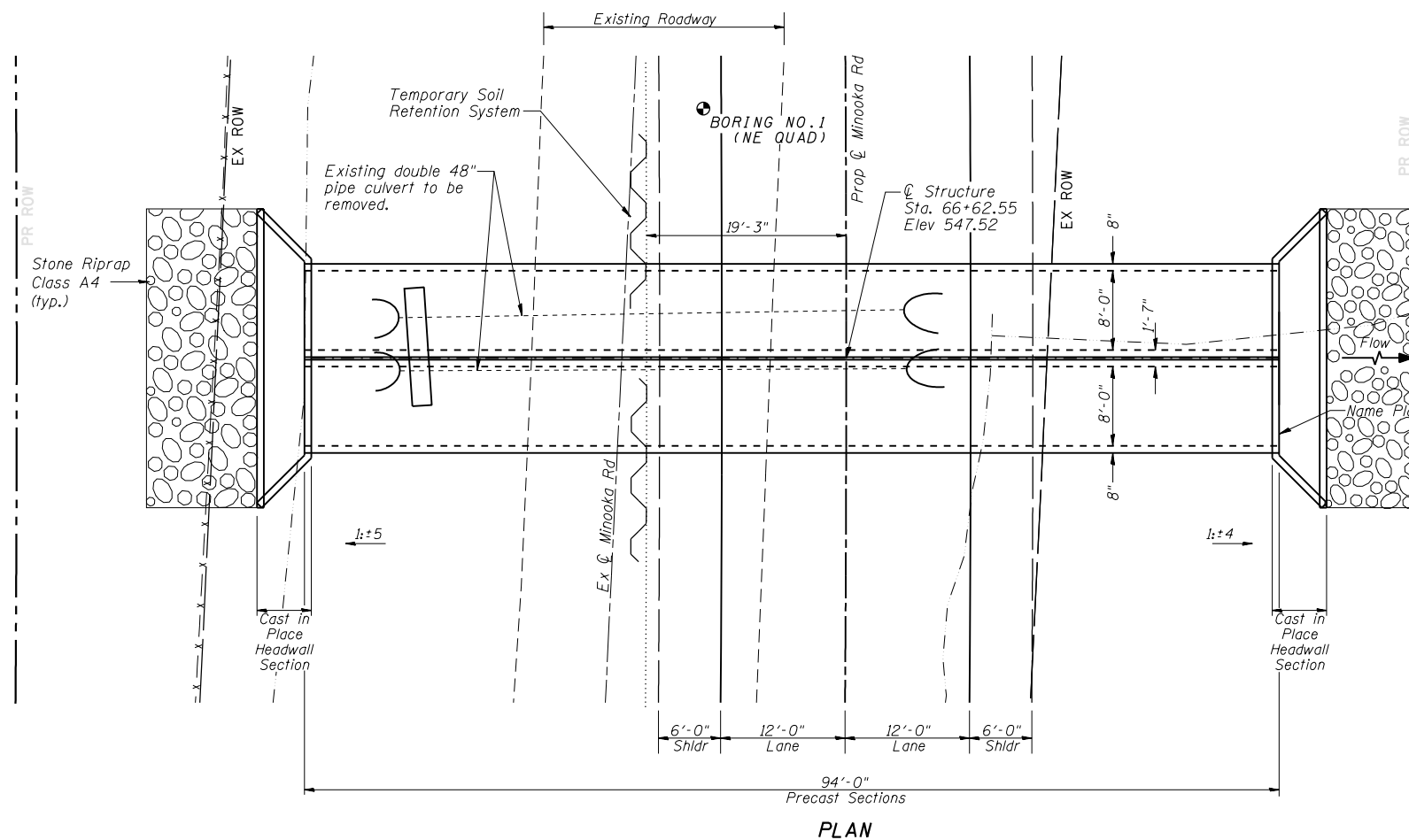
Drainage Area = 0.47 Sq. Mi.  
Exist. Low Grade Elev. 545.0 @ Sta. 68+36 Prop. Low Grade Elev. 545.0 @ Sta. 66+75

Flood Year	Freq.	Q cfs	Opening Sq. Ft.		Nat. H.W.E.	Head - Foot		Headwater Elev. (ft)	
			Existing	Proposed		Existing	Proposed	Existing	Proposed
10	88	13	43	542.7	0.8	0.0	543.5	542.7	
Design	50	172	14	51	543.2	3.3	0.0	546.5	543.2
Base	100	225	14	54	543.4	3.2	0.0	546.6	543.4
Overtopping	>500							545.0	545.0
Max. Calc.	500	383	14	62	543.9	2.8	0.0	546.7	543.9

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Pipe Culvert Removal	Foot	98
Reinforcement Bars (Epoxy Coated)	Pound	820
Temporary Soil Retention System	Sq. Ft.	297
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	13.9
Precast Concrete Box Culvert 8'x4'	Foot	188
Stone Riprap Class A4	Sq. Yd.	62
Filter Fabric	Sq. Yd.	62
Porous Granular Embankment	Cu. Yd.	292
Removal and Disposal of Unsuitable Material	Cu. Yd.	319
Rock Fill	Cu. Yd.	319

**GENERAL PLAN  
MINOOKA ROAD (CH 16) OVER  
TRIBUTARY OF AUX SABLE CREEK  
F.A.I. 80 - SECTION (32,47-4)HBR-2  
GRUNDY COUNTY  
STA. 66+62.55**



**PLAN**

**LOADING HL 93**

Allow 50#/sq. ft. for future wearing surface.  
Design Fill Ht. > 2'

**DESIGN SPECIFICATIONS**

2012 AASHTO LRFD Bridge Design Specifications, 6th Edition

**DESIGN STRESSES**

**PRECAST**  
 $f'_c = 5,000$  psi  
 $f_y = 60,000$  psi (Reinforcement)  
 $f_y = 65,000$  psi (welded Wire fabric)

**CAST-IN-PLACE**  
 $f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)

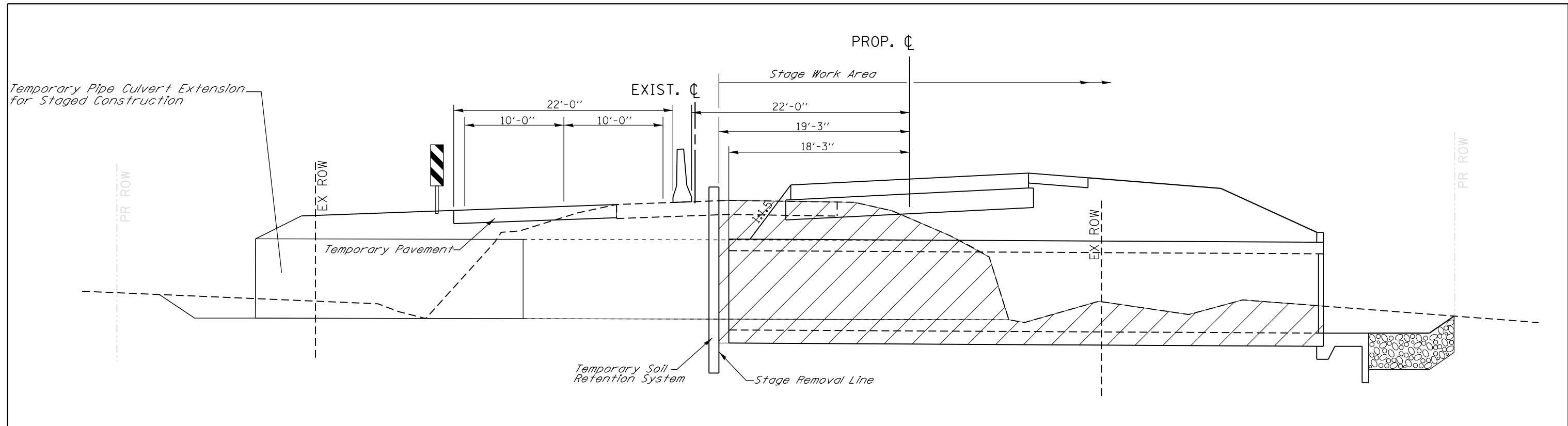
FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -
et:\pw\work\p1dot\duncanbd\dms58037\ep01904-sht-boxculvertdetails.DGN		DRAWN -	REVISED -
PLOT SCALE = 100.0000' / in.		CHECKED -	REVISED -
PLOT DATE = 3/15/2013		DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

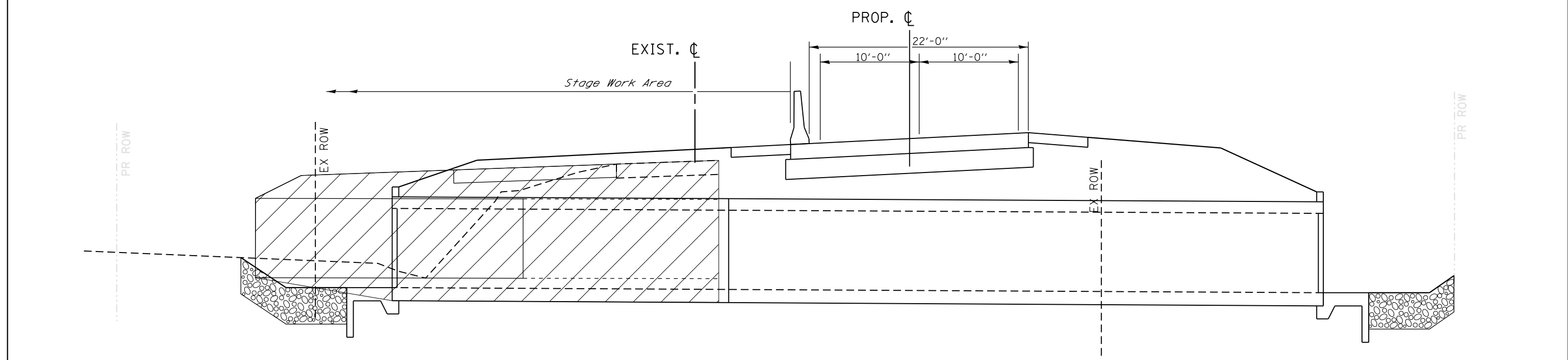
**BOX CULVERT DETAILS  
GENERAL PLAN AND ELEVATION**

SCALE: SHEET NO. 1 OF 4 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(32,47-4)HBR-2	GRUNDY	143	58
CONTRACT NO. 66873				
ILLINOIS FED. AID PROJECT				

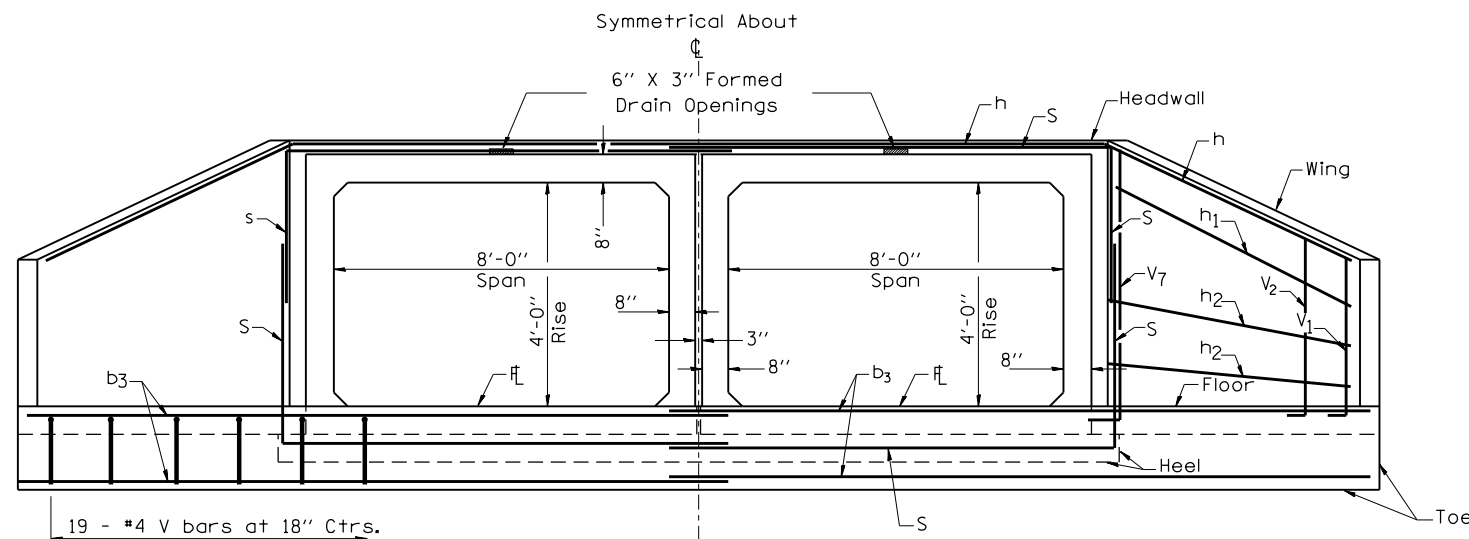


**STAGE 1**

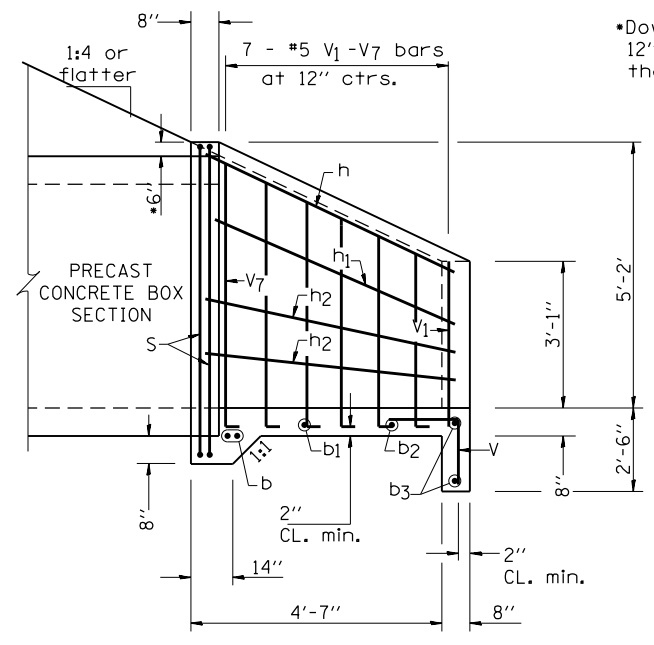


**STAGE 2**

FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>BOX CULVERT DETAILS STAGING</b>		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
c:\pwork\pwork\dot\duncanbd\dms58037\ep01904-sht-boxculvertdetails.DGN		DRAWN -	REVISED -		SCALE:	SHEET NO. 2 OF 4 SHEETS	STA.	80	(32,47-4)HBR-2	GRUNDY	143	59
		CHECKED -	REVISED -					CONTRACT NO. 66873				
		DATE -	REVISED -					ILLINOIS FED. AID PROJECT				



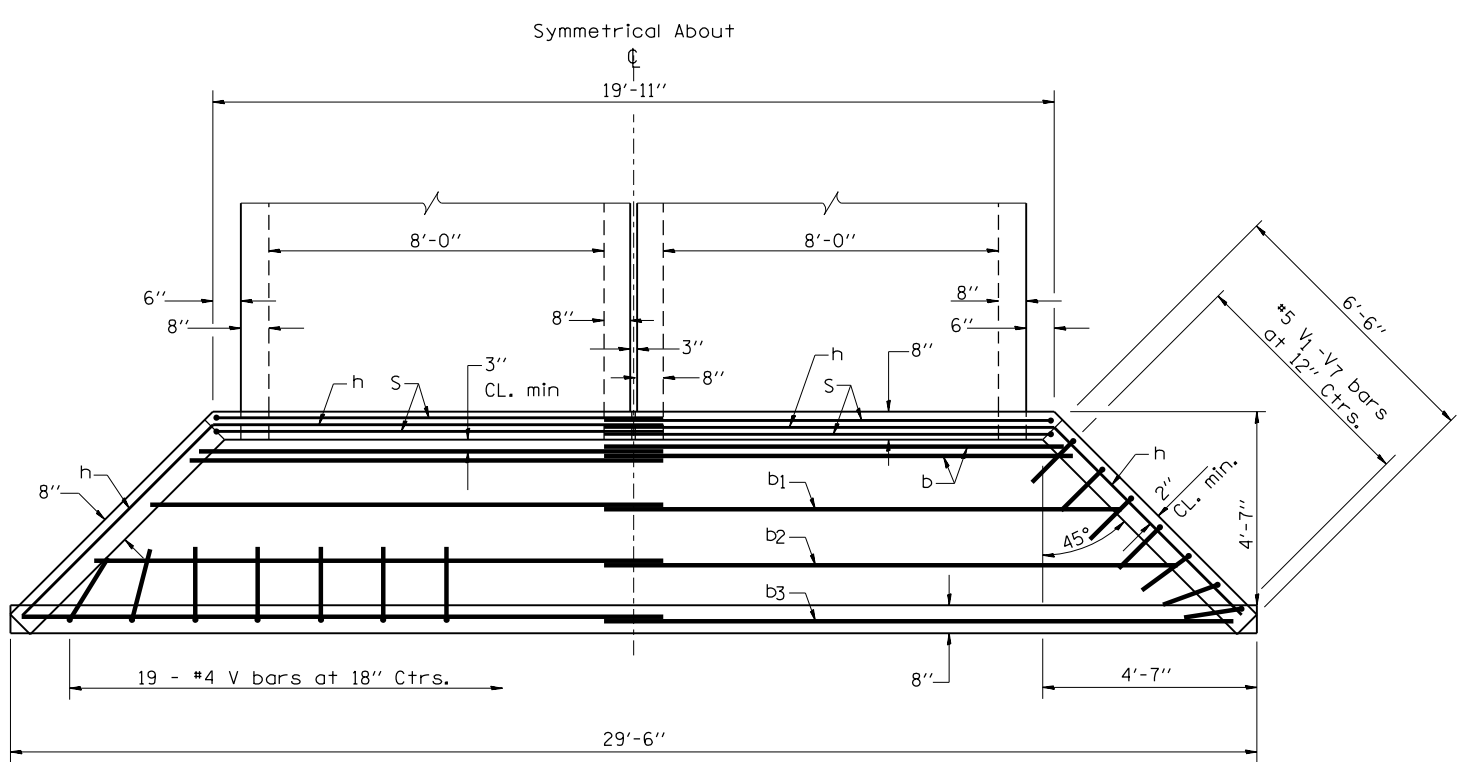
END ELEVATION



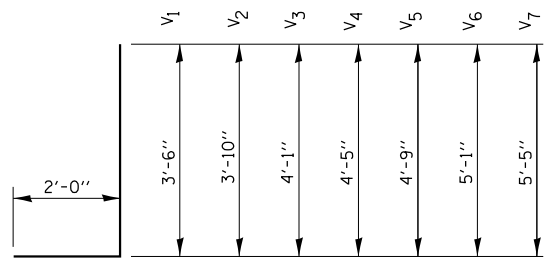
HALF SIDE ELEVATION

•Downstream Headwall shall be 12" in height to accommodate the name plate

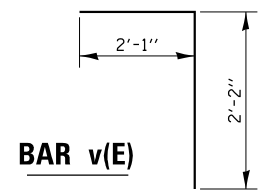
BAR LAP	
SIZE	LAP
#4	1'-8"
#5	2'-2"



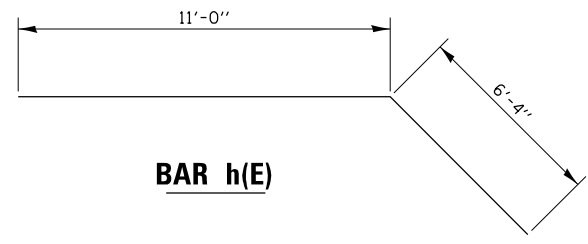
PLAN



BAR v(E) - v(E)



BAR s(E)



BAR h(E)

GENERAL NOTES

CLASS SI CONCRETE SHALL BE USED THROUGHOUT.  
EXPOSED EDGES SHALL BE BEVELED 3/4".

BILL OF MATERIAL				
BAR	SIZE	NO.	LENGTH	SHAPE
b(E)	5	4	11'-7"	—
b1(E)	4	2	12'-3"	—
b2(E)	4	2	13'-6"	—
b3(E)	4	4	15'-4"	—
h(E)	5	2	17'-4"	—
h1(E)	4	2	6'-8"	—
h2(E)	4	4	6'-7"	—
s(E)	4	4	27'-2"	—
v(E)	4	19	4'-3"	—
V1(E)	5	2	5'-6"	—
V2(E)	5	2	5'-10"	—
V3(E)	5	2	6'-1"	—
V4(E)	5	2	6'-5"	—
V5(E)	5	2	6'-9"	—
V6(E)	5	2	7'-1"	—
V7(E)	5	2	7'-5"	—
CONCRETE BOX CULVERTS			C.Y.	6.8
REIN. BARS (EPOXY CTD.)			LBS.	410

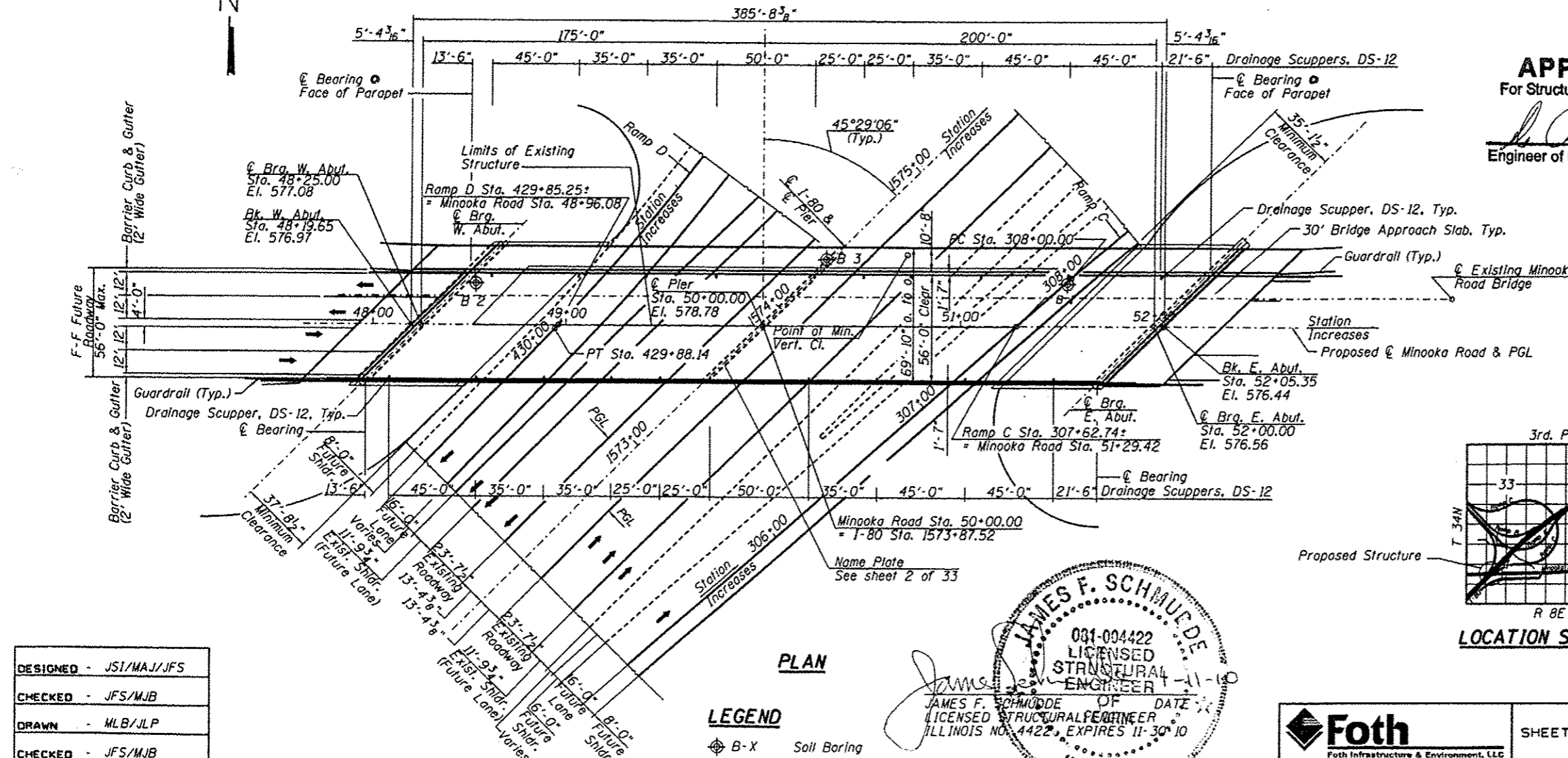
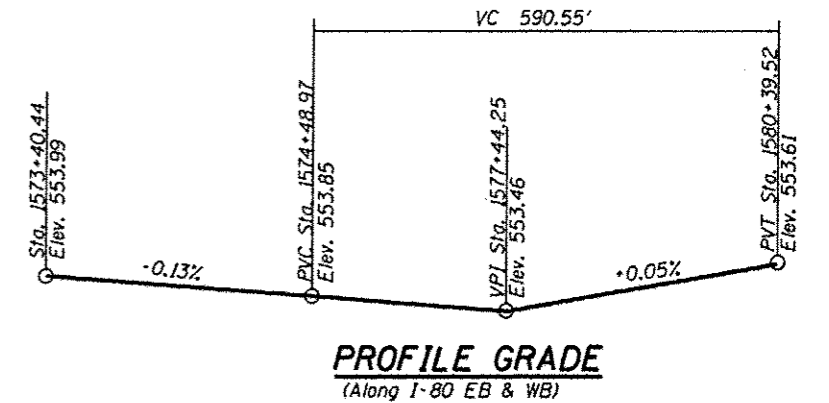
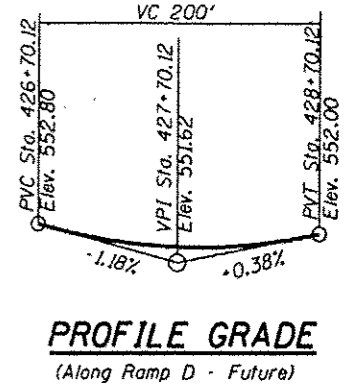
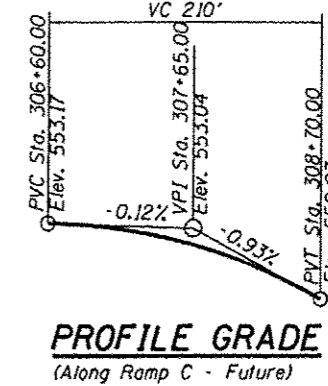
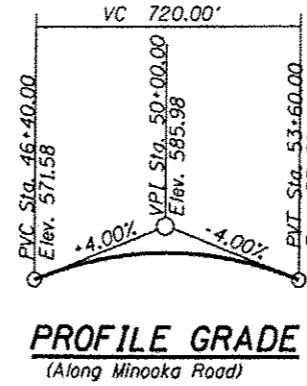
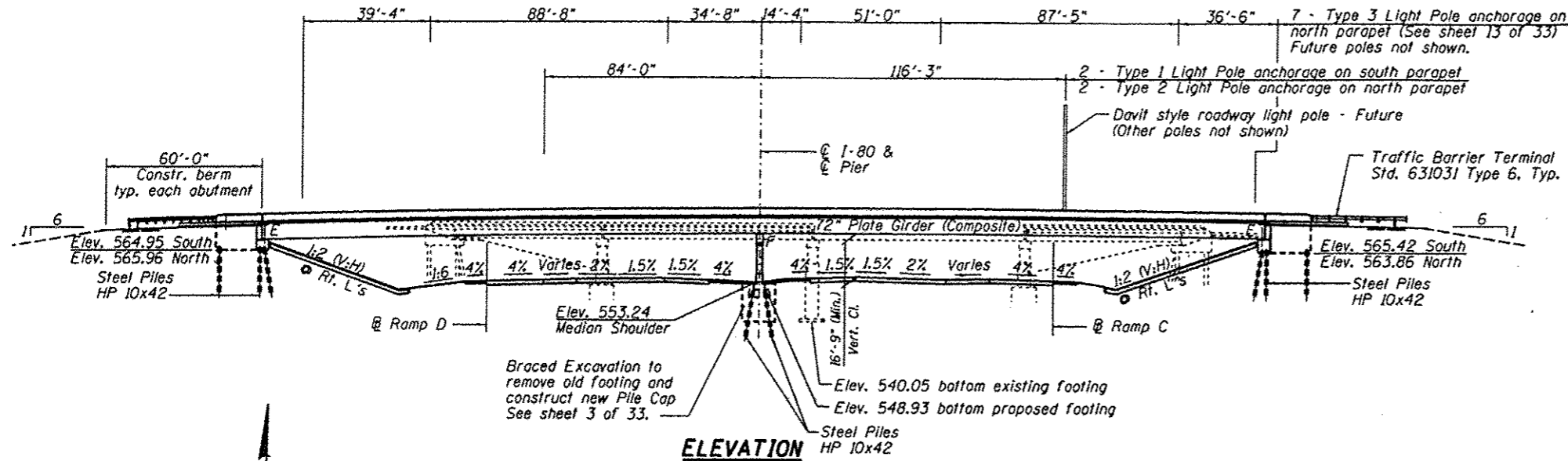
TABLE FOR ONE (1) HEADWALL



Bench Mark:  
BM 21 - Fire Hydrant at Sta. 121+21.45, 64.50' RI. - Elev. 551.714

Existing Structure:  
SN 032-0046 was built in 1959 as Section (32, 47)-4 at approximately Sta 50+13.50, 14.74' L1 (Minoaka Road (CH 16C) stationing) and Sta. 1574+07.64, 1.35' L1 (I-80 stationing). The structure is skewed 44°-03'-00" left forward. The existing structure consists of a four span PCC I-beam w/ pile bent abutments and multiple column piers. The back-to-back of abutments length of the bridge is 281'-9" with a clear width of 28'-0". The existing structure will be replaced. Minoaka Road will be closed during construction. No Salvage.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

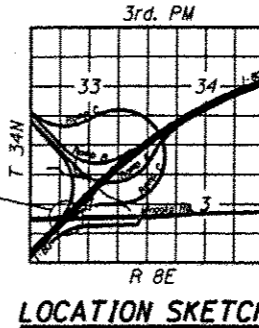


**APPROVED**  
For Structural Adequacy Only  
*[Signature]*  
Engineer of Bridges & Structures

**LOADING HL-93**  
Allow 50#/sq. ft. for future wearing surface.  
**DESIGN SPECIFICATIONS**  
2007 AASHTO LRFD Bridge Design Specifications  
2008 Interim Revisions

**DESIGN STRESSES**  
FIELD UNITS  
 $f_c = 3,500$  psi  
 $f_y = 60,000$  psi (reinforcement)  
 $f_y = 50,000$  psi (M270 Grade 50)  
 $f_y = 36,000$  psi (M270 Grade 36)

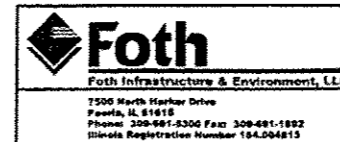
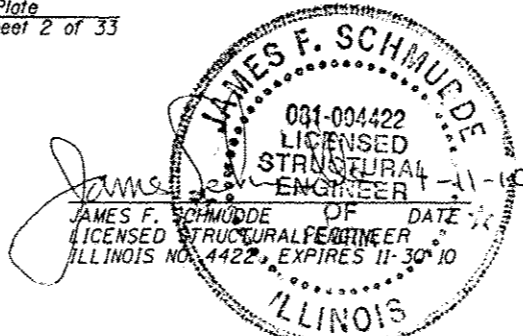
**SEISMIC DATA**  
Seismic Performance Zone (SPZ) = 1  
Design Spectral Acceleration at 1.0 sec. ( $S_{D1}$ ) = 0.069g  
Design Spectral Acceleration at 0.2 sec. ( $S_{D5}$ ) = 0.127g  
Soil Site Class = C



**GENERAL PLAN AND ELEVATION**  
**MINOOKA ROAD CH 16C OVER FAI I-80**  
**FAU 400 SECTION (32, 47-4) HBR-2**  
**GRUNDY COUNTY**  
**STATION 50+00**  
**STRUCTURE NO. 032-0119**

DESIGNED - JSI/MAJ/JFS
CHECKED - JFS/MJB
DRAWN - MLB/JLP
CHECKED - JFS/MJB

**LEGEND**  
B-X Soil Boring



SHEET NO. 1 33 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	400	(32, 47-4) HBR-2	GRUNDY	143	62
S.N. 032-0119			CONTRACT NO. 66873		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES**

Fasteners shall be ASTM A 325 Type 1, mechanically galvanized bolts. Bolts 3/4 in. φ, holes 15/16 in. φ, unless otherwise noted.

Calculated weight of Structural Steel  
AASHTO M270, Grade 50 = 1,213,350 Pounds  
AASHTO M270, Grade 36 = 47,520 Pounds

No field welding is permitted except as specified in the contract documents.

Reinforcement bars designated (E) shall be epoxy coated.

If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

Concrete Sealer shall be applied to the designated areas of the East and West Abutments. This includes backwalls, bridge seats and 2' along front face of abutment.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Interstate Green, Munsell No. 7.5G 4/8.

The embankment configuration shown shall be the minimum that must be placed and compacted prior to the construction of the abutments.

The concrete for bridge decks finished according to Article 503.16(a) of the Standard Specifications shall be placed and compacted parallel to the skew in uniform increments along centerline of bridge. The machine used for finishing shall be set parallel to the skew for striking off and screeding concrete.

When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:

1. At least 72 hours shall have elapsed from the end of the previous pour.
  2. The concrete strength shall have attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.
- Slip forming of the parapets is not allowed.

**TOTAL BILL OF MATERIAL**

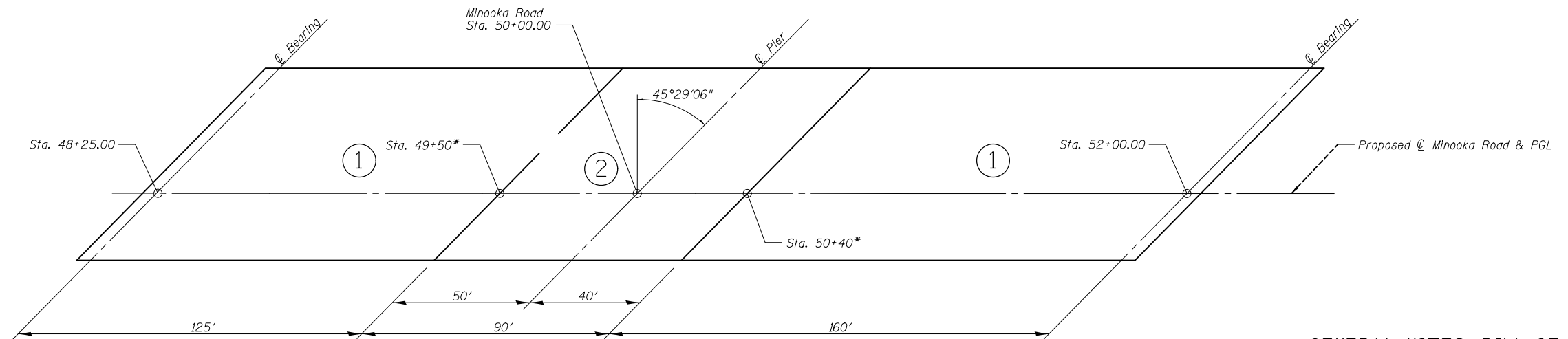
ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment	Cu. Yd.		225	225
Granular Backfill for Structures	Cu. Yd.		535	535
Protective Coat	Sq. Yd.	3701		3701
Removal of Existing Structures	Each	1		1
Protective Shield	Sq. Yd.	1879		1879
Structure Excavation	Cu. Yd.		874	874
Concrete Structures	Cu. Yd.		599.1	599.1
Concrete Superstructure	Cu. Yd.	1028.2		1028.2
Bridge Deck Grooving	Sq. Yd.	2362		2362
Concrete Encasement	Cu Yd		28	28
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	7452		7452
Reinforcement Bars, Epoxy Coated	Pound	264,700	77,490	342,190
Bar Splicers	Each	196		196
Bicycle Railing	Foot	445		445
Parapet Railing	Foot	437		437
Slope Wall, 4 Inch	Sq Yd		947	947
Furnishing Steel Piles HP 10 x 42	Foot		2863	2863
Driving Piles	Foot		2863	2863
Test Pile Steel HP 10 x 42	Each		3	3
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot	197		197
Elastomeric Bearing Assembly, Type II	Each	18		18
Anchor Bolt, 1 1/2"	Each	54		54
Concrete Sealer	Sq. Ft.		2397	2397
Geocomposite Wall Drain	Sq. Yd.		197	197
Pipe Underdrains for Structures 4"	Foot		244	244
Braced Excavation	Cu Yd		349	349
Drainage Scuppers, DS-12	Each	20		20
Drainage System	L. Sum	1		1

**INDEX OF SHEETS**

1	General Plan and Elevation
2	General Notes, Bill of Materials and Details
3	Layout & Miscellaneous Details
4-8	Top of Slab Elevations
9	Top of Approach Slab Elevations
10	Superstructure
11-13	Superstructure Details
14-16	Bridge Approach Slab Details
17	Preformed Joint Strip Seal
18	Framing Plan
19	Girder Elevation
20	Design Data Tables
21	Bearing Details
22	West Abutment
23	East Abutment
24	Abutment Sections & North Wing Walls
25	Abutment South Wing Walls
26	Pier
27	Bicycle Railing
28	Drainage Scuppers, DS-12
29	Drainage System
30	Bar Splicer Assembly Details
31	HP Pile Details
32-33	Soil Borings

STATION 50+00.00  
BUILT 201\_ BY  
STATE OF ILLINOIS  
FAU RT 400, SEC (32,47-4) HBR-2  
LOADING HL-93  
STRUCTURE NO. 032-0119

**NAME PLATE**  
See Std. 515001



**SLAB PLAN SHOWING  
SEQUENCE OF CONCRETE PLACEMENT**

\*Transverse Bonded Construction Joint

**GENERAL NOTES, BILL OF MATERIALS  
AND DETAILS  
STRUCTURE NO. 032-0119**

DESIGNED	- JSI/MAJ/JFS
CHECKED	- JFS/MJB
DRAWN	- MLB/JLP
CHECKED	- JFS/MJB

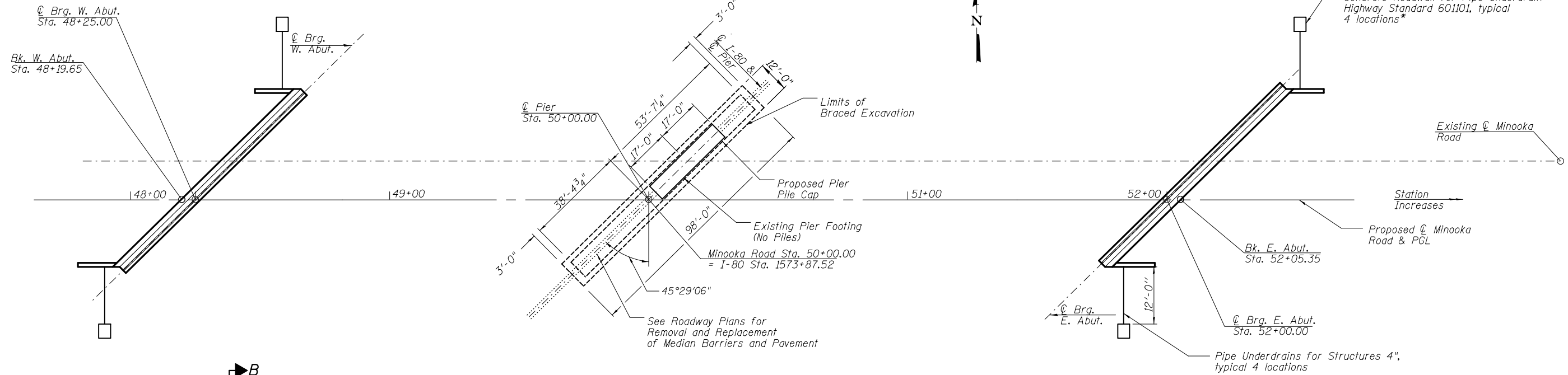
**LEGEND**  
⊗ Indicates sequence of concrete placement



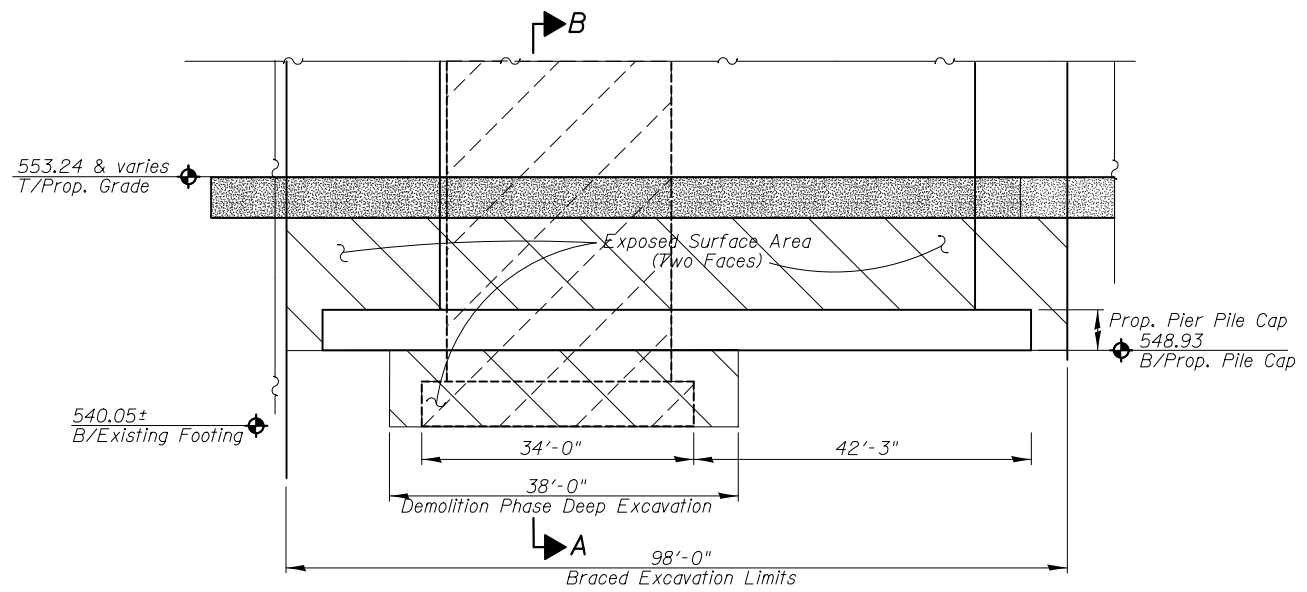
SHEET NO. 2 33 SHEETS	F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	400	(32,47-4) HBR-2	GRUNDY	143	63
S.N. 032-0119			CONTRACT NO. 66873		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

FILES

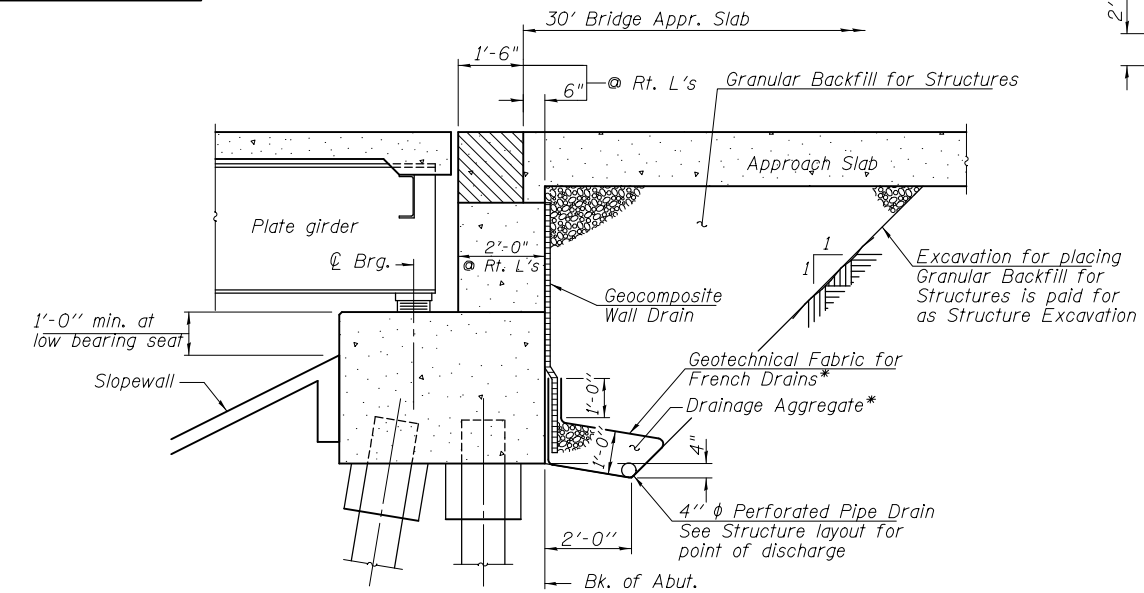
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



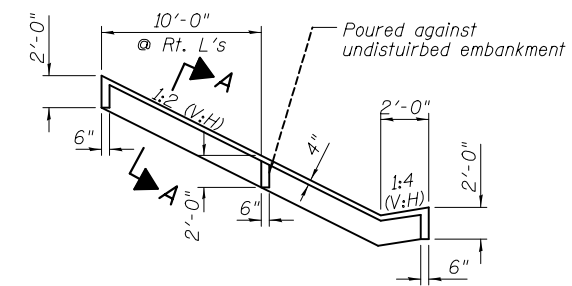
**STRUCTURE LAYOUT**



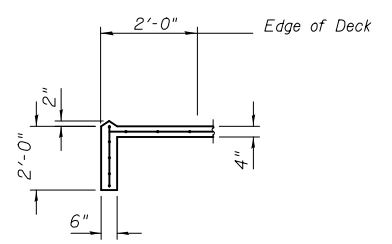
**PROFILE ALONG PIER  
Braced Excavation**



**SECTION THRU PILE BENT ABUTMENT  
(Horiz. dim. @ Rt. L's)**



**SECTION THRU SLOPEWALL**  
Slope wall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.



**SECTION A-A**

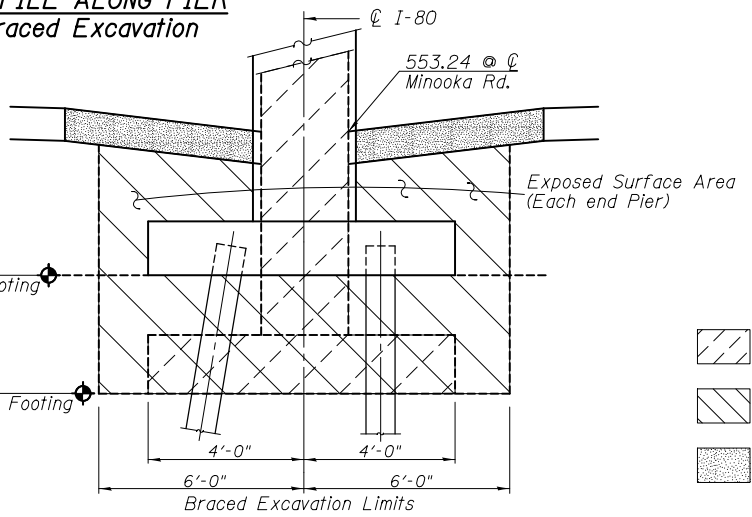
\*Included in the cost of Pipe Underdrains for Structures.  
(See Special Provisions)

Note:  
All drainage system components shall extend parallel to the abutment back wall until they intersect the wingwalls or 2'-0" from the end of the wingwalls when the wings are parallel to the abutment. The pipe shall extend under the wingwall, if necessary, until intersecting the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

**LAYOUT AND MISCELLANEOUS DETAILS  
STRUCTURE NO. 032-0119**

DESIGNED - JSI/MAJ/JFS
CHECKED - JFS/MJB
DRAWN - MLB/JLP
CHECKED - JFS/MJB

540.05  
B/Existing Footing



**SECTION B-B**

- Existing Pier to be Demolished
- Porous Granular Embankment
- Existing/Replacement Shoulder and/or Pavement See Roadway Plans.

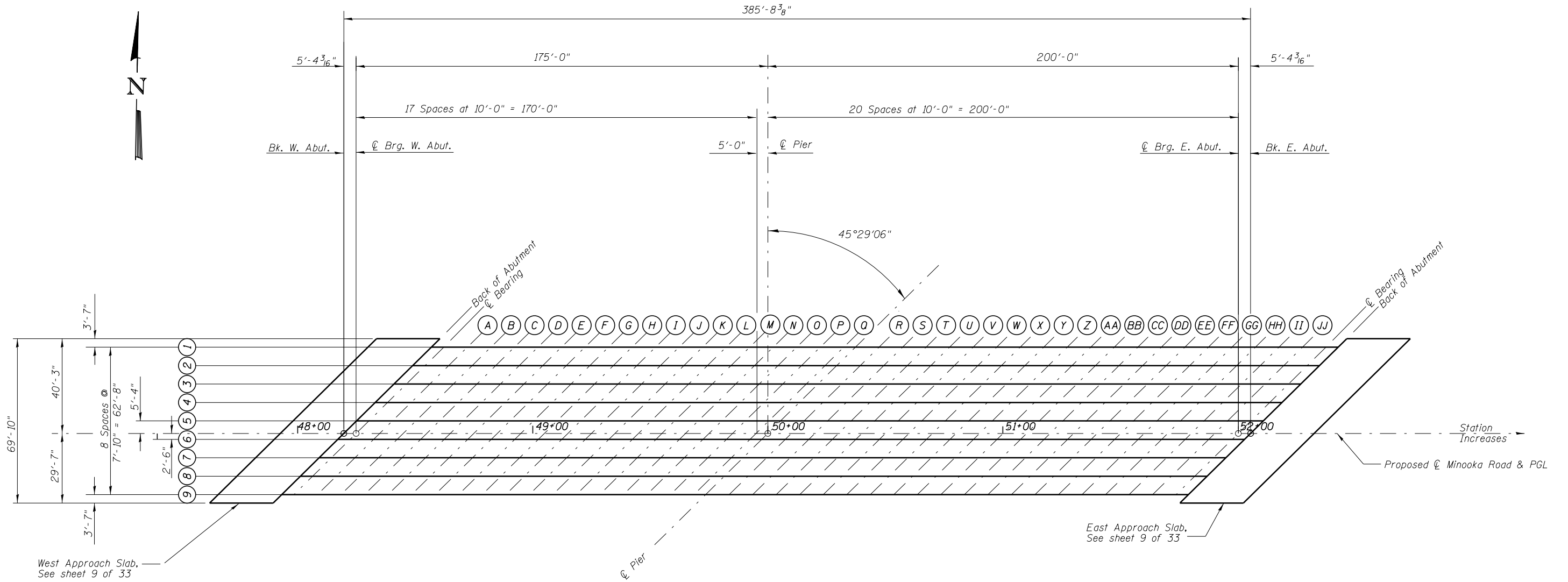
**Foth**  
Foth Infrastructure & Environment, LLC  
7500 North Harker Drive  
Peoria, IL 61615  
Phone: 309-691-5300 Fax: 309-691-1892  
Illinois Registration Number 184.004913

SHEET NO. 3 33 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	400	(32,47-4) HBR-2	GRUNDY	143	64
S.N. 032-0119			CONTRACT NO. 66873		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

SFILES



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



PLAN

TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 032-0119

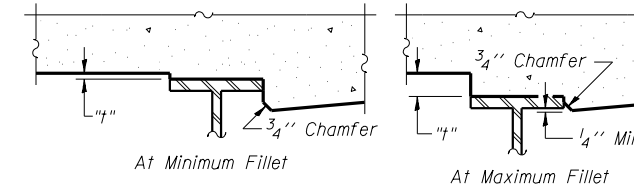
DESIGNED	- JSI/MAJ/JFS
CHECKED	- JFS/MJB
DRAWN	- MLB/JLP
CHECKED	- JFS/MJB

**Foth**  
Foth Infrastructure & Environment, LLC  
7500 North Harker Drive  
Peoria, IL 61615  
Phone: 309-691-5300 Fax: 309-691-1892  
Illinois Registration Number 184,004913

SHEET NO. 4 33 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	400	(32,47-4) HBR-2	GRUNDY	143	65
S.N. 032-0119			CONTRACT NO. 66873		
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					

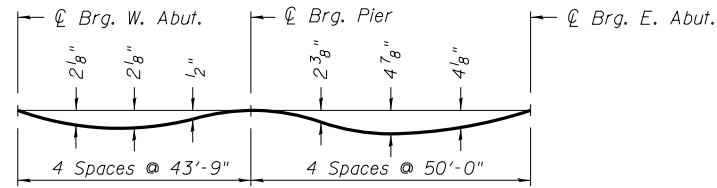
c:\pw\work\pwidot\duncanbd\0181369104-PLAN TOP OF SLAB ELEVATIONS.DGN

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below, minus slab thickness, equals the fillet heights "t" above top flange of beams.

**FILLET HEIGHTS**



**DEAD LOAD DEFLECTION DIAGRAM**

(Includes weight of concrete only.)

Note:

The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below.

**BEAM 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	48+56.95	36.67 LT.	577.01	577.01
CL Brg. W. Abut.	48+62.30	36.67 LT.	577.09	577.09
A	48+72.30	36.67 LT.	577.24	577.29
B	48+82.30	36.67 LT.	577.37	577.47
C	48+92.30	36.67 LT.	577.50	577.63
D	49+02.30	36.67 LT.	577.61	577.78
E	49+12.30	36.67 LT.	577.72	577.90
F	49+22.30	36.67 LT.	577.81	578.01
G	49+32.30	36.67 LT.	577.89	578.09
H	49+42.30	36.67 LT.	577.96	578.15
I	49+52.30	36.67 LT.	578.02	578.19
J	49+62.30	36.67 LT.	578.06	578.21
K	49+72.30	36.67 LT.	578.10	578.21
L	49+82.30	36.67 LT.	578.13	578.21
M	49+92.30	36.67 LT.	578.14	578.19
N	50+02.30	36.67 LT.	578.14	578.16
O	50+12.30	36.67 LT.	578.13	578.14
P	50+22.30	36.67 LT.	578.12	578.11
Q	50+32.30	36.67 LT.	578.08	578.08
CL Pier	50+37.30	36.67 LT.	578.07	578.07
R	50+47.30	36.67 LT.	578.02	578.04
S	50+57.30	36.67 LT.	577.96	578.01
T	50+67.30	36.67 LT.	577.89	577.98
U	50+77.30	36.67 LT.	577.81	577.95
V	50+87.30	36.67 LT.	577.72	577.91
W	50+97.30	36.67 LT.	577.62	577.87
X	51+07.30	36.67 LT.	577.50	577.80
Y	51+17.30	36.67 LT.	577.38	577.73
Z	51+27.30	36.67 LT.	577.24	577.63
AA	51+37.30	36.67 LT.	577.10	577.51
BB	51+47.30	36.67 LT.	576.94	577.36
CC	51+57.30	36.67 LT.	576.77	577.20
DD	51+67.30	36.67 LT.	576.59	577.00
EE	51+77.30	36.67 LT.	576.40	576.78
FF	51+87.30	36.67 LT.	576.19	576.54
GG	51+97.30	36.67 LT.	575.98	576.28
HH	52+07.30	36.67 LT.	575.76	575.99
II	52+17.30	36.67 LT.	575.52	575.68
JJ	52+27.30	36.67 LT.	575.27	575.35
CL Brg. E. Abut.	52+37.30	36.67 LT.	575.01	575.01
Bk. E. Abut.	52+42.65	36.67 LT.	574.87	574.87

**BEAM 2**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	48+48.98	28.83 LT.	577.01	577.01
CL Brg. W. Abut.	48+54.33	28.83 LT.	577.10	577.10
A	48+64.33	28.83 LT.	577.25	577.30
B	48+74.33	28.83 LT.	577.40	577.49
C	48+84.33	28.83 LT.	577.53	577.67
D	48+94.33	28.83 LT.	577.66	577.82
E	49+04.33	28.83 LT.	577.77	577.96
F	49+14.33	28.83 LT.	577.87	578.07
G	49+24.33	28.83 LT.	577.96	578.16
H	49+34.33	28.83 LT.	578.04	578.23
I	49+44.33	28.83 LT.	578.10	578.28
J	49+54.33	28.83 LT.	578.16	578.31
K	49+64.33	28.83 LT.	578.21	578.32
L	49+74.33	28.83 LT.	578.24	578.32
M	49+84.33	28.83 LT.	578.26	578.31
N	49+94.33	28.83 LT.	578.27	578.30
O	50+04.33	28.83 LT.	578.27	578.28
P	50+14.33	28.83 LT.	578.26	578.26
Q	50+24.33	28.83 LT.	578.24	578.24
CL Pier	50+29.33	28.83 LT.	578.23	578.23
R	50+39.33	28.83 LT.	578.19	578.21
S	50+49.33	28.83 LT.	578.14	578.19
T	50+59.33	28.83 LT.	578.08	578.17
U	50+69.33	28.83 LT.	578.01	578.15
V	50+79.33	28.83 LT.	577.93	578.12
W	50+89.33	28.83 LT.	577.83	578.08
X	50+99.33	28.83 LT.	577.73	578.03
Y	51+09.33	28.83 LT.	577.61	577.96
Z	51+19.33	28.83 LT.	577.48	577.87
AA	51+29.33	28.83 LT.	577.35	577.76
BB	51+39.33	28.83 LT.	577.20	577.62
CC	51+49.33	28.83 LT.	577.04	577.46
DD	51+59.33	28.83 LT.	576.87	577.28
EE	51+69.33	28.83 LT.	576.68	577.07
FF	51+79.33	28.83 LT.	576.49	576.84
GG	51+89.33	28.83 LT.	576.28	576.58
HH	51+99.33	28.83 LT.	576.07	576.30
II	52+09.33	28.83 LT.	575.84	576.00
JJ	52+19.33	28.83 LT.	575.60	575.69
CL Brg. E. Abut.	52+29.33	28.83 LT.	575.35	575.35
Bk. E. Abut.	52+34.68	28.83 LT.	575.22	575.22

**BEAM 3**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	48+41.01	21.00 LT.	577.03	577.03
CL Brg. W. Abut.	48+46.36	21.00 LT.	577.12	577.12
A	48+56.36	21.00 LT.	577.28	577.33
B	48+66.36	21.00 LT.	577.44	577.53
C	48+76.36	21.00 LT.	577.58	577.71
D	48+86.36	21.00 LT.	577.71	577.88
E	48+96.36	21.00 LT.	577.83	578.02
F	49+06.36	21.00 LT.	577.94	578.14
G	49+16.36	21.00 LT.	578.04	578.24
H	49+26.36	21.00 LT.	578.13	578.32
I	49+36.36	21.00 LT.	578.20	578.38
J	49+46.36	21.00 LT.	578.27	578.42
K	49+56.36	21.00 LT.	578.32	578.44
L	49+66.36	21.00 LT.	578.37	578.45
M	49+76.36	21.00 LT.	578.40	578.45
N	49+86.36	21.00 LT.	578.42	578.44
O	49+96.36	21.00 LT.	578.43	578.43
P	50+06.36	21.00 LT.	578.43	578.42
Q	50+16.36	21.00 LT.	578.42	578.41
CL Pier	50+21.36	21.00 LT.	578.40	578.40
R	50+31.36	21.00 LT.	578.38	578.39
S	50+41.36	21.00 LT.	578.33	578.38
T	50+51.36	21.00 LT.	578.28	578.37
U	50+61.36	21.00 LT.	578.22	578.36
V	50+71.36	21.00 LT.	578.15	578.34
W	50+81.36	21.00 LT.	578.06	578.31
X	50+91.36	21.00 LT.	577.97	578.27
Y	51+01.36	21.00 LT.	577.86	578.21
Z	51+11.36	21.00 LT.	577.74	578.13
AA	51+21.36	21.00 LT.	577.61	578.02
BB	51+31.36	21.00 LT.	577.47	577.90
CC	51+41.36	21.00 LT.	577.32	577.75
DD	51+51.36	21.00 LT.	577.16	577.57
EE	51+61.36	21.00 LT.	576.98	577.37
FF	51+71.36	21.00 LT.	576.80	577.15
GG	51+81.36	21.00 LT.	576.60	576.90
HH	51+91.36	21.00 LT.	576.40	576.63
II	52+01.36	21.00 LT.	576.18	576.34
JJ	52+11.36	21.00 LT.	575.95	576.03
CL Brg. E. Abut.	52+21.36	21.00 LT.	575.71	575.71
Bk. E. Abut.	52+26.71	21.00 LT.	575.57	575.57

**TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 032-0119**

DESIGNED - JSI/MAJ/JFS
CHECKED - JFS/MJB
DRAWN - MLB/JLP
CHECKED - JFS/MJB

**Foth**  
Foth Infrastructure & Environment, LLC  
7500 North Harker Drive  
Peoria, IL 61615  
Phone: 309-691-5300 Fax: 309-691-1892  
Illinois Registration Number 184.004913

SHEET NO. 5  33 SHEETS	F.A.U RTE. 400	SECTION (32,47-4) HBR-2	COUNTY GRUNDY	TOTAL SHEETS 143	SHEET NO. 66
	S.N. 032-0119		CONTRACT NO. 66873		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

c:\pw\work\p\widot\duncan\bd\181369105-TOP OF SLAB ELEVATIONS TABLE.dgn

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	48+33.04	13.17 LT.	577.03	577.03
CL Brg. W. Abut.	48+38.39	13.17 LT.	577.13	577.13
A	48+48.39	13.17 LT.	577.31	577.35
B	48+58.39	13.17 LT.	577.47	577.56
C	48+68.39	13.17 LT.	577.62	577.75
D	48+78.39	13.17 LT.	577.76	577.93
E	48+88.39	13.17 LT.	577.89	578.08
F	48+98.39	13.17 LT.	578.01	578.21
G	49+08.39	13.17 LT.	578.12	578.32
H	49+18.39	13.17 LT.	578.21	578.40
I	49+28.39	13.17 LT.	578.30	578.47
J	49+38.39	13.17 LT.	578.37	578.52
K	49+48.39	13.17 LT.	578.43	578.55
L	49+58.39	13.17 LT.	578.49	578.57
M	49+68.39	13.17 LT.	578.53	578.58
N	49+78.39	13.17 LT.	578.56	578.58
O	49+88.39	13.17 LT.	578.58	578.58
P	49+98.39	13.17 LT.	578.58	578.58
Q	50+08.39	13.17 LT.	578.58	578.57
CL Pier	50+13.39	13.17 LT.	578.57	578.57
R	50+23.39	13.17 LT.	578.55	578.57
S	50+33.39	13.17 LT.	578.52	578.57
T	50+43.39	13.17 LT.	578.48	578.57
U	50+53.39	13.17 LT.	578.42	578.56
V	50+63.39	13.17 LT.	578.36	578.55
W	50+73.39	13.17 LT.	578.28	578.53
X	50+83.39	13.17 LT.	578.20	578.50
Y	50+93.39	13.17 LT.	578.10	578.44
Z	51+03.39	13.17 LT.	577.99	578.37
AA	51+13.39	13.17 LT.	577.87	578.28
BB	51+23.39	13.17 LT.	577.74	578.16
CC	51+33.39	13.17 LT.	577.59	578.02
DD	51+43.39	13.17 LT.	577.44	577.85
EE	51+53.39	13.17 LT.	577.28	577.66
FF	51+63.39	13.17 LT.	577.10	577.45
GG	51+73.39	13.17 LT.	576.91	577.21
HH	51+83.39	13.17 LT.	576.71	576.95
II	51+93.39	13.17 LT.	576.50	576.67
JJ	52+03.39	13.17 LT.	576.28	576.37
CL Brg. E. Abut.	52+13.39	13.17 LT.	576.05	576.05
Bk. E. Abut.	52+18.74	13.17 LT.	575.92	575.92

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	48+25.07	5.33 LT.	577.00	577.00
CL Brg. W. Abut.	48+30.42	5.33 LT.	577.10	577.10
A	48+40.42	5.33 LT.	577.29	577.33
B	48+50.42	5.33 LT.	577.46	577.55
C	48+60.42	5.33 LT.	577.62	577.75
D	48+70.42	5.33 LT.	577.77	577.93
E	48+80.42	5.33 LT.	577.91	578.09
F	48+90.42	5.33 LT.	578.03	578.23
G	49+00.42	5.33 LT.	578.15	578.35
H	49+10.42	5.33 LT.	578.25	578.44
I	49+20.42	5.33 LT.	578.35	578.52
J	49+30.42	5.33 LT.	578.43	578.58
K	49+40.42	5.33 LT.	578.50	578.62
L	49+50.42	5.33 LT.	578.56	578.65
M	49+60.42	5.33 LT.	578.61	578.66
N	49+70.42	5.33 LT.	578.65	578.67
O	49+80.42	5.33 LT.	578.68	578.68
P	49+90.42	5.33 LT.	578.69	578.69
Q	50+00.42	5.33 LT.	578.70	578.69
CL Pier	50+05.42	5.33 LT.	578.70	578.70
R	50+15.42	5.33 LT.	578.69	578.71
S	50+25.42	5.33 LT.	578.66	578.71
T	50+35.42	5.33 LT.	578.63	578.72
U	50+45.42	5.33 LT.	578.59	578.73
V	50+55.42	5.33 LT.	578.53	578.72
W	50+65.42	5.33 LT.	578.46	578.71
X	50+75.42	5.33 LT.	578.38	578.68
Y	50+85.42	5.33 LT.	578.29	578.64
Z	50+95.42	5.33 LT.	578.19	578.58
AA	51+05.42	5.33 LT.	578.08	578.49
BB	51+15.42	5.33 LT.	577.96	578.39
CC	51+25.42	5.33 LT.	577.83	578.25
DD	51+35.42	5.33 LT.	577.68	578.10
EE	51+45.42	5.33 LT.	577.53	577.91
FF	51+55.42	5.33 LT.	577.36	577.71
GG	51+65.42	5.33 LT.	577.18	577.48
HH	51+75.42	5.33 LT.	576.99	577.22
II	51+85.42	5.33 LT.	576.79	576.95
JJ	51+95.42	5.33 LT.	576.58	576.66
CL Brg. E. Abut.	52+05.42	5.33 LT.	576.36	576.36
Bk. E. Abut.	52+10.77	5.33 LT.	576.23	576.23

CENTERLINE MINOOKA ROAD

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	48+19.65	0.00	576.97	576.97
CL Brg. W. Abut.	48+25.00	0.00	577.08	577.08
A	48+35.00	0.00	577.27	577.32
B	48+45.00	0.00	577.45	577.54
C	48+55.00	0.00	577.61	577.75
D	48+65.00	0.00	577.77	577.93
E	48+75.00	0.00	577.91	578.10
F	48+85.00	0.00	578.05	578.24
G	48+95.00	0.00	578.17	578.37
H	49+05.00	0.00	578.28	578.47
I	49+15.00	0.00	578.38	578.55
J	49+25.00	0.00	578.47	578.61
K	49+35.00	0.00	578.55	578.66
L	49+45.00	0.00	578.61	578.69
M	49+55.00	0.00	578.67	578.72
N	49+65.00	0.00	578.71	578.73
O	49+75.00	0.00	578.75	578.75
P	49+85.00	0.00	578.77	578.76
Q	49+95.00	0.00	578.78	578.77
CL Pier	50+00.00	0.00	578.78	578.78
R	50+10.00	0.00	578.77	578.79
S	50+20.00	0.00	578.76	578.81
T	50+30.00	0.00	578.73	578.82
U	50+40.00	0.00	578.69	578.83
V	50+50.00	0.00	578.64	578.84
W	50+60.00	0.00	578.58	578.83
X	50+70.00	0.00	578.51	578.81
Y	50+80.00	0.00	578.42	578.77
Z	50+90.00	0.00	578.33	578.71
AA	51+00.00	0.00	578.22	578.64
BB	51+10.00	0.00	578.11	578.53
CC	51+20.00	0.00	577.98	578.41
DD	51+30.00	0.00	577.84	578.26
EE	51+40.00	0.00	577.69	578.08
FF	51+50.00	0.00	577.53	577.88
GG	51+60.00	0.00	577.36	577.65
HH	51+70.00	0.00	577.17	577.41
II	51+80.00	0.00	576.98	577.14
JJ	51+90.00	0.00	576.77	576.86
CL Brg. E. Abut.	52+00.00	0.00	576.56	576.56
Bk. E. Abut.	52+05.35	0.00	576.44	576.44

c:\pw\work\pwidot\duncan\bd\181369106-TOP OF SLAB ELEVATIONS TABLE.dgn

DESIGNED - JSI/MAJ/JFS
CHECKED - JFS/MJB
DRAWN - MLB/JLP
CHECKED - JFS/MJB

TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 032-0119



SHEET NO. 6 33 SHEETS	F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	400	(32,47-4) HBR-2	GRUNDY	143	67
S.N. 032-0119			CONTRACT NO. 66873		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**BEAM 6**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	48+17.11	2.50 RT.	576.88	576.88
CL Brg. W. Abut.	48+22.46	2.50 RT.	576.99	576.99
A	48+32.46	2.50 RT.	577.18	577.23
B	48+42.46	2.50 RT.	577.36	577.46
C	48+52.46	2.50 RT.	577.53	577.67
D	48+62.46	2.50 RT.	577.69	577.86
E	48+72.46	2.50 RT.	577.84	578.03
F	48+82.46	2.50 RT.	577.97	578.17
G	48+92.46	2.50 RT.	578.10	578.30
H	49+02.46	2.50 RT.	578.21	578.40
I	49+12.46	2.50 RT.	578.32	578.49
J	49+22.46	2.50 RT.	578.41	578.55
K	49+32.46	2.50 RT.	578.49	578.60
L	49+42.46	2.50 RT.	578.56	578.64
M	49+47.46	2.50 RT.	578.59	578.67
N	49+52.46	2.50 RT.	578.62	578.69
O	49+62.46	2.50 RT.	578.66	578.70
P	49+72.46	2.50 RT.	578.70	578.72
Q	49+82.46	2.50 RT.	578.73	578.73
CL Pier	49+92.46	2.50 RT.	578.74	578.74
R	49+97.46	2.50 RT.	578.74	578.76
S	50+07.46	2.50 RT.	578.74	578.77
T	50+17.46	2.50 RT.	578.73	578.79
U	50+27.46	2.50 RT.	578.70	578.80
V	50+37.46	2.50 RT.	578.66	578.81
W	50+47.46	2.50 RT.	578.62	578.81
X	50+57.46	2.50 RT.	578.56	578.79
Y	50+67.46	2.50 RT.	578.49	578.76
Z	50+77.46	2.50 RT.	578.41	578.70
AA	50+87.46	2.50 RT.	578.32	578.63
BB	50+97.46	2.50 RT.	578.21	578.53
CC	51+07.46	2.50 RT.	578.10	578.40
DD	51+17.46	2.50 RT.	577.98	578.25
EE	51+27.46	2.50 RT.	577.84	578.08
FF	51+37.46	2.50 RT.	577.69	577.88
GG	51+47.46	2.50 RT.	577.53	577.66
HH	51+57.46	2.50 RT.	577.37	577.42
II	51+67.46	2.50 RT.	577.18	577.15
JJ	51+77.46	2.50 RT.	576.99	576.87
CL Brg. E. Abut.	51+87.46	2.50 RT.	576.79	576.58
Bk. E. Abut.	51+97.46	2.50 RT.	576.58	576.46
	52+02.81	2.50 RT.	576.46	

**BEAM 7**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	48+09.14	10.33 RT.	576.60	576.60
CL Brg. W. Abut.	48+14.49	10.33 RT.	576.71	576.71
A	48+24.49	10.33 RT.	576.91	576.96
B	48+34.49	10.33 RT.	577.10	577.20
C	48+44.49	10.33 RT.	577.28	577.42
D	48+54.49	10.33 RT.	577.45	577.61
E	48+64.49	10.33 RT.	577.60	577.79
F	48+74.49	10.33 RT.	577.75	577.95
G	48+84.49	10.33 RT.	577.88	578.08
H	48+94.49	10.33 RT.	578.01	578.20
I	49+04.49	10.33 RT.	578.12	578.29
J	49+14.49	10.33 RT.	578.22	578.36
K	49+24.49	10.33 RT.	578.31	578.42
L	49+34.49	10.33 RT.	578.39	578.47
Transv. Const. Jt.	49+44.49	10.33 RT.	578.45	578.50
M	49+54.49	10.33 RT.	578.51	578.53
N	49+64.49	10.33 RT.	578.55	578.56
O	49+74.49	10.33 RT.	578.59	578.58
P	49+84.49	10.33 RT.	578.61	578.61
Q	49+89.49	10.33 RT.	578.62	578.62
CL Pier	49+99.49	10.33 RT.	578.62	578.64
R	50+09.49	10.33 RT.	578.62	578.67
S	50+19.49	10.33 RT.	578.60	578.69
T	50+29.49	10.33 RT.	578.58	578.72
U (Transv. Const. Jt.)	50+39.49	10.33 RT.	578.54	578.73
V	50+49.49	10.33 RT.	578.49	578.74
W	50+59.49	10.33 RT.	578.43	578.73
X	50+69.49	10.33 RT.	578.36	578.70
Y	50+79.49	10.33 RT.	578.27	578.66
Z	50+89.49	10.33 RT.	578.18	578.59
AA	50+99.49	10.33 RT.	578.08	578.50
BB	51+09.49	10.33 RT.	577.96	578.39
CC	51+19.49	10.33 RT.	577.83	578.25
DD	51+29.49	10.33 RT.	577.69	578.08
EE	51+39.49	10.33 RT.	577.54	577.89
FF	51+49.49	10.33 RT.	577.38	577.68
GG	51+59.49	10.33 RT.	577.21	577.44
HH	51+69.49	10.33 RT.	577.03	577.19
II	51+79.49	10.33 RT.	576.84	576.92
JJ	51+89.49	10.33 RT.	576.63	576.63
CL Brg. E. Abut.	51+94.84	10.33 RT.	576.52	576.52
Bk. E. Abut.				


**BEAM 8**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	48+01.17	18.17 RT.	576.29	576.29
CL Brg. W. Abut.	48+06.52	18.17 RT.	576.41	576.41
A	48+16.52	18.17 RT.	576.62	576.67
B	48+26.52	18.17 RT.	576.81	576.91
C	48+36.52	18.17 RT.	577.00	577.14
D	48+46.52	18.17 RT.	577.18	577.34
E	48+56.52	18.17 RT.	577.34	577.53
F	48+66.52	18.17 RT.	577.50	577.70
G	48+76.52	18.17 RT.	577.64	577.84
H	48+86.52	18.17 RT.	577.77	577.96
I	48+96.52	18.17 RT.	577.89	578.06
J	49+06.52	18.17 RT.	578.00	578.15
K	49+16.52	18.17 RT.	578.10	578.21
L	49+26.52	18.17 RT.	578.19	578.27
M	49+36.52	18.17 RT.	578.26	578.31
N	49+46.52	18.17 RT.	578.33	578.35
O	49+56.52	18.17 RT.	578.38	578.38
P	49+66.52	18.17 RT.	578.42	578.42
Q	49+76.52	18.17 RT.	578.46	578.45
CL Pier	49+81.52	18.17 RT.	578.47	578.47
R	49+91.52	18.17 RT.	578.48	578.50
S	50+01.52	18.17 RT.	578.49	578.54
T	50+11.52	18.17 RT.	578.48	578.57
U	50+21.52	18.17 RT.	578.46	578.60
V	50+31.52	18.17 RT.	578.43	578.63
W	50+41.52	18.17 RT.	578.39	578.64
X	50+51.52	18.17 RT.	578.34	578.64
Y	50+61.52	18.17 RT.	578.28	578.62
Z	50+71.52	18.17 RT.	578.20	578.59
AA	50+81.52	18.17 RT.	578.12	578.53
BB	50+91.52	18.17 RT.	578.02	578.45
CC	51+01.52	18.17 RT.	577.91	578.34
DD	51+11.52	18.17 RT.	577.80	578.21
EE	51+21.52	18.17 RT.	577.67	578.05
FF	51+31.52	18.17 RT.	577.53	577.87
GG	51+41.52	18.17 RT.	577.37	577.67
HH	51+51.52	18.17 RT.	577.21	577.44
II	51+61.52	18.17 RT.	577.04	577.20
JJ	51+71.52	18.17 RT.	576.85	576.93
CL Brg. E. Abut.	51+81.52	18.17 RT.	576.66	576.66
Bk. E. Abut.	51+86.87	18.17 RT.	576.55	576.55

c:\pw\work\pwidot\duncan\bd\181369107-TOP OF SLAB ELEVATIONS TABLE.dgn

DESIGNED	- JSI/MAJ/JFS
CHECKED	- JFS/MJB
DRAWN	- MLB/JLP
CHECKED	- JFS/MJB

**TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 032-0119**

 <b>Foth</b> Foth Infrastructure & Environment, LLC <small>7500 North Harker Drive Peoria, IL 61615 Phone: 309-691-5300 Fax: 309-691-1892 Illinois Registration Number 184,004913</small>	SHEET NO. 7	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	33 SHEETS	400	(32,47-4) HBR-2	GRUNDY	143	68
	S.N. 032-0119		CONTRACT NO. 66873			
		FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**BEAM 9**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	47+93.21	26.00 RT.	575.95	575.95
CL Brg. W. Abut.	47+98.56	26.00 RT.	576.08	576.08
A	48+08.56	26.00 RT.	576.29	576.34
B	48+18.56	26.00 RT.	576.50	576.60
C	48+28.56	26.00 RT.	576.70	576.83
D	48+38.56	26.00 RT.	576.88	577.05
E	48+48.56	26.00 RT.	577.06	577.24
F	48+58.56	26.00 RT.	577.22	577.42
G	48+68.56	26.00 RT.	577.37	577.57
H	48+78.56	26.00 RT.	577.51	577.70
I	48+88.56	26.00 RT.	577.64	577.81
J	48+98.56	26.00 RT.	577.76	577.90
K	49+08.56	26.00 RT.	577.87	577.98
L	49+18.56	26.00 RT.	577.96	578.04
M	49+28.56	26.00 RT.	578.05	578.10
N	49+38.56	26.00 RT.	578.12	578.14
O	49+48.56	26.00 RT.	578.18	578.19
P	49+58.56	26.00 RT.	578.23	578.23
Q	49+68.56	26.00 RT.	578.28	578.27
CL Pier	49+73.56	26.00 RT.	578.29	578.29
R	49+83.56	26.00 RT.	578.31	578.33
S	49+93.56	26.00 RT.	578.33	578.38
T	50+03.56	26.00 RT.	578.33	578.42
U	50+13.56	26.00 RT.	578.32	578.46
V	50+23.56	26.00 RT.	578.30	578.49
W	50+33.56	26.00 RT.	578.27	578.52
X	50+43.56	26.00 RT.	578.22	578.52
Y	50+53.56	26.00 RT.	578.17	578.52
Z	50+63.56	26.00 RT.	578.11	578.49
AA	50+73.56	26.00 RT.	578.03	578.44
BB	50+83.56	26.00 RT.	577.94	578.37
CC	50+93.56	26.00 RT.	577.84	578.27
DD	51+03.56	26.00 RT.	577.73	578.15
EE	51+13.56	26.00 RT.	577.61	578.00
FF	51+23.56	26.00 RT.	577.48	577.83
GG	51+33.56	26.00 RT.	577.34	577.63
HH	51+43.56	26.00 RT.	577.19	577.42
II	51+53.56	26.00 RT.	577.02	577.18
JJ	51+63.56	26.00 RT.	576.84	576.93
CL Brg. E. Abut.	51+73.56	26.00 RT.	576.66	576.66
Bk. E. Abut.	51+78.91	26.00 RT.	576.55	576.55

c:\pw\work\pwidot\duncanbd\181369108-TOP OF SLAB ELEVATIONS TABLE.dgn

TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 032-0119

DESIGNED - JSI/MAJ/JFS
CHECKED - JFS/MJB
DRAWN - MLB/JLP
CHECKED - JFS/MJB



SHEET NO. 8  33 SHEETS	F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	400	(32,47-4) HBR-2	GRUNDY	143	69
S.N. 032-0119			CONTRACT NO. 66873		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

North Edge of Shoulder

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr.	48+31.30	-40.25'	576.50
WA	48+41.30	-40.25'	576.68
WB	48+51.30	-40.25'	576.85
WC	48+61.30	-40.25'	577.01
EA	52+45.58	-40.25'	574.75
EB	52+55.58	-40.25'	574.45
EC	52+65.58	-40.25'	574.16
End E. Appr.	52+75.58	-40.25'	573.86

Inside Face of North Parapet

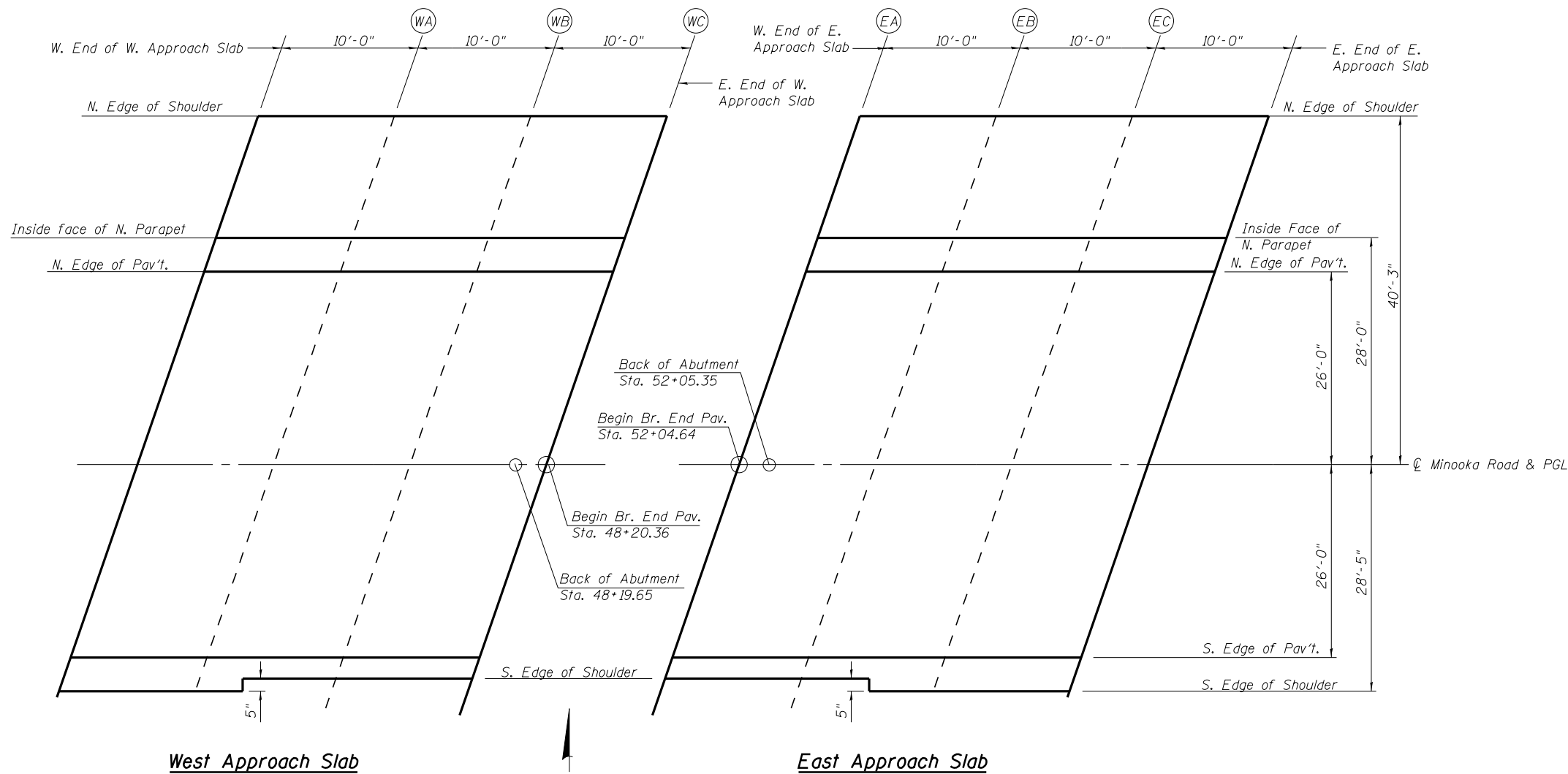
Location	Station	Offset	Theoretical Grade Elevations
End W. Appr.	48+31.30	-28.00'	576.47
WA	48+41.30	-28.00'	576.66
WB	48+51.30	-28.00'	576.85
WC	48+61.30	-28.00'	577.02
EA	52+45.58	-28.00'	575.35
EB	52+55.58	-28.00'	575.01
EC	52+65.58	-28.00'	574.73
End E. Appr.	52+75.58	-28.00'	574.44

North Edge of Pavement

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr.	48+31.30	-26.00'	576.47
WA	48+41.30	-26.00'	576.66
WB	48+51.30	-26.00'	576.85
WC	48+61.30	-26.00'	577.02
EA	52+45.58	-26.00'	575.35
EB	52+55.58	-26.00'	575.01
EC	52+65.58	-26.00'	574.73
End E. Appr.	52+75.58	-26.00'	574.44

☉ Minooka Road & PGL

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr.	47+90.36	0.00'	576.34
WA	48+00.36	0.00'	576.56
WB	48+10.36	0.00'	576.78
WC	48+20.36	0.00'	576.99
EA	52+04.64	0.00'	576.45
EB	52+14.64	0.00'	576.22
EC	52+24.64	0.00'	575.98
End E. Appr.	52+34.64	0.00'	575.72



South Edge of Pavement

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr.	47+61.45	26.00'	575.11
WA	47+71.45	26.00'	575.37
WB	47+81.88	26.00'	575.65
WC	47+91.88	26.00'	575.88
EA	52+04.64	26.00'	576.57
EB	52+14.64	26.00'	576.36
EC	51+95.73	26.00'	576.14
End E. Appr.	52+05.73	26.00'	575.92

South Edge of Shoulder

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr.	47+61.45	28.42'	575.11
WA	47+71.45	28.42'	575.37
WB	47+81.88	28.00'	575.65
WC	47+91.88	28.00'	575.88
EA	52+04.64	28.00'	576.57
EB	52+14.64	28.00'	576.36
EC	51+95.73	28.42'	576.14
End E. Appr.	52+05.73	28.42'	575.92

PLAN

TOP OF APPROACH SLAB ELEVATIONS  
STRUCTURE NO. 032-0119

DESIGNED	- JSI/MAJ/JFS
CHECKED	- JFS/MJB
DRAWN	- MLB/JLP
CHECKED	- JFS/MJB

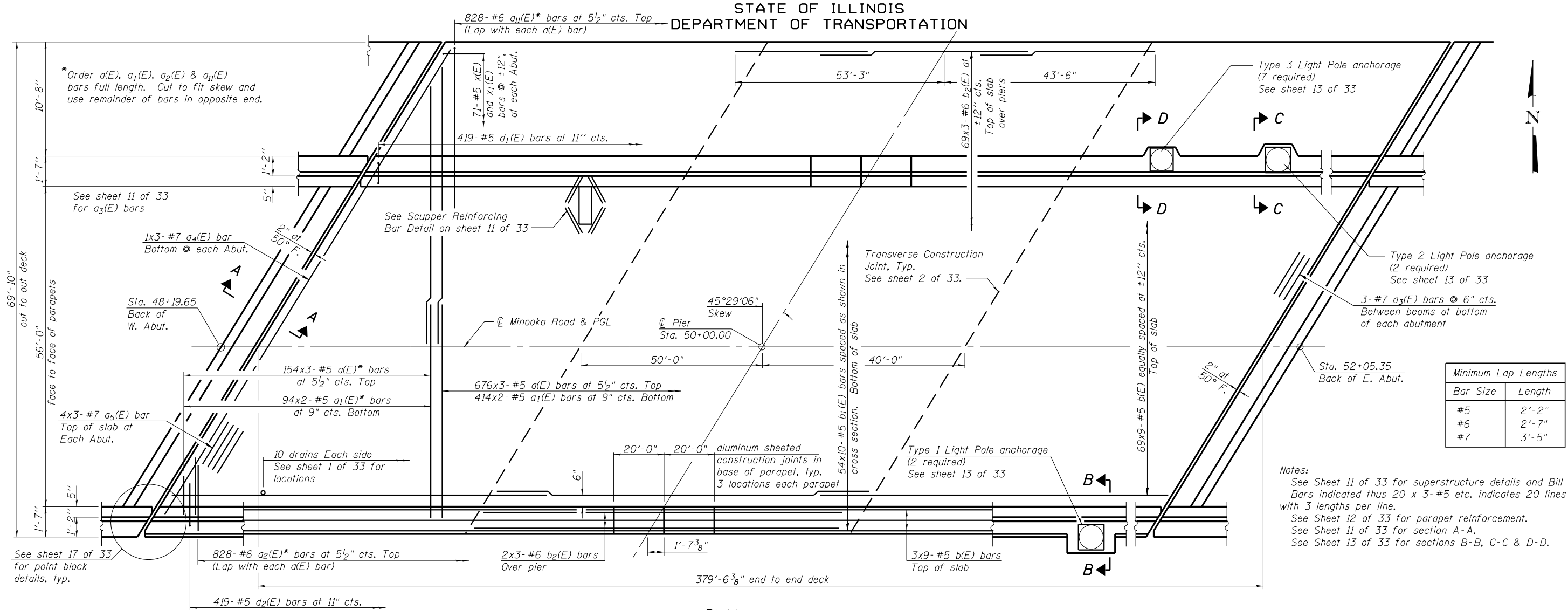


SHEET NO. 9  
33 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
400	(32,47-4) HBR-2	GRUNDY	143	70
S.N. 032-0119		CONTRACT NO. 66873		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

c:\pwworking\dot\duncanbd\181369109-TOP OF APPROACH SLAB ELEVATIONS.dgn

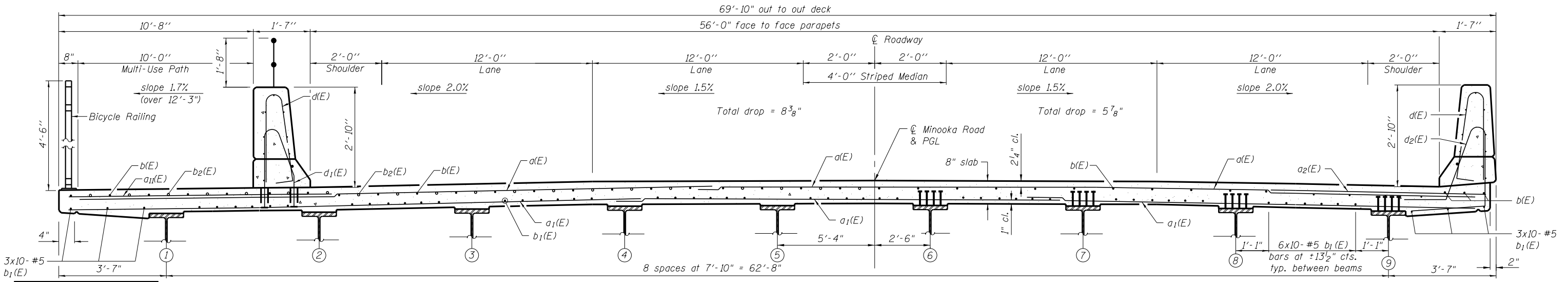
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



Minimum Lap Lengths	
Bar Size	Length
#5	2'-2"
#6	2'-7"
#7	3'-5"

Notes:  
See Sheet 11 of 33 for superstructure details and Bill of Material.  
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.  
See Sheet 12 of 33 for parapet reinforcement.  
See Sheet 11 of 33 for section A-A.  
See Sheet 13 of 33 for sections B-B, C-C & D-D.

**PLAN**



**NEAR PIER**

**CROSS SECTION**  
(Looking East)

**NEAR MIDSPAN**

**SUPERSTRUCTURE**  
**STRUCTURE NO. 032-0119**

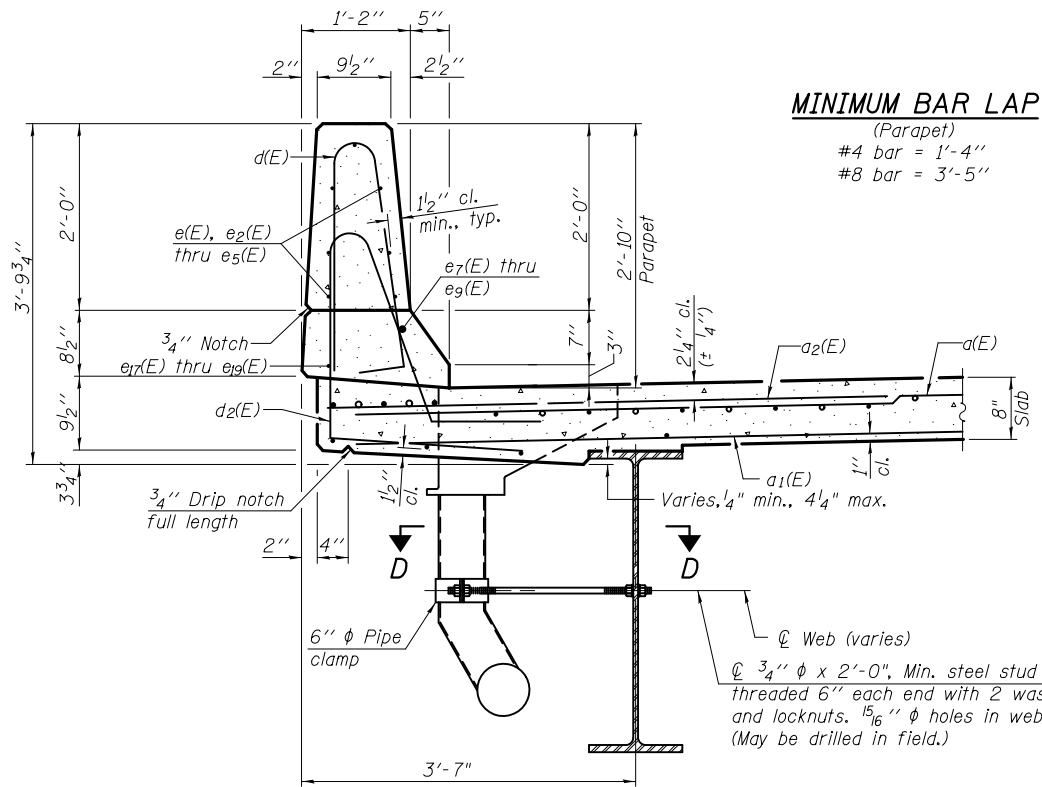
DESIGNED	- JSI/MAJ/JFS
CHECKED	- JFS/MJB
DRAWN	- MLB/JLP
CHECKED	- JFS/MJB

**Foth**  
Foth Infrastructure & Environment, LLC  
7500 North Harker Drive  
Peoria, IL 61615  
Phone: 309-691-5300 Fax: 309-691-1892  
Illinois Registration Number 184,004913

SHEET NO. 10 33 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	400	(32,47-4) HBR-2	GRUNDY	143	71
S.N. 032-0119			CONTRACT NO. 66873		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

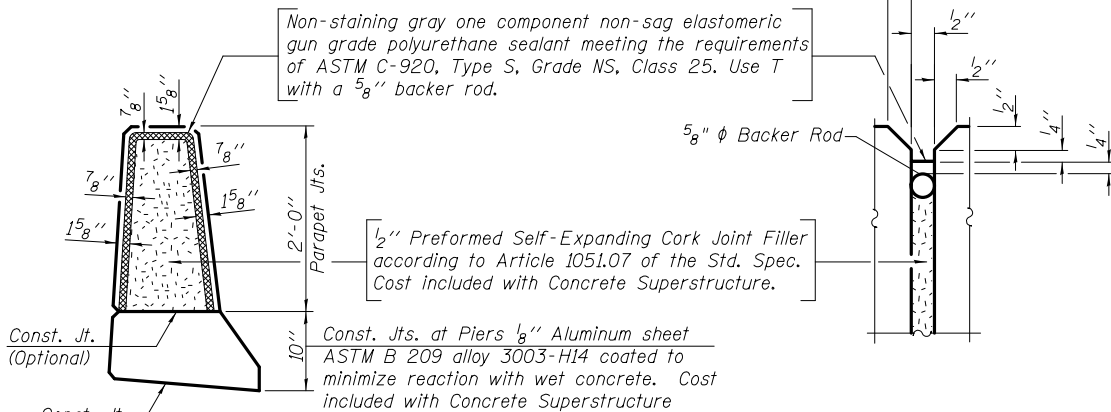
c:\pw\work\widow\duncan\bd\0181369110-SUPERSTRUCTURE.dgn

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



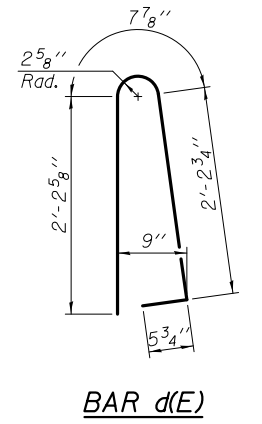
SECTION THRU SOUTH PARAPET

**MINIMUM BAR LAP**  
(Parapet)  
#4 bar = 1'-4"  
#8 bar = 3'-5"

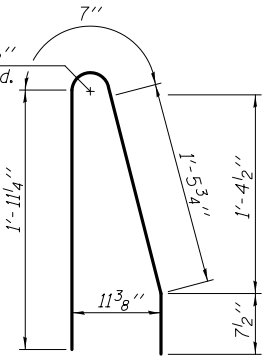


PARAPET JOINT DETAILS

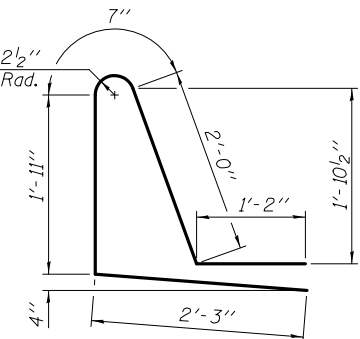
Notes:  
Drains shall be located clear of all diaphragms.  
The exterior surfaces of the floor drains shall be painted according to Section 506 of the Standard Specifications. The exterior surfaces of the drains shall be cleaned according to Steel Structures Painting Council's Spec. SSPC-SP1 prior to painting.  
Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.



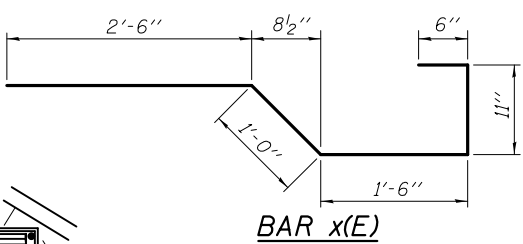
BAR d(E)



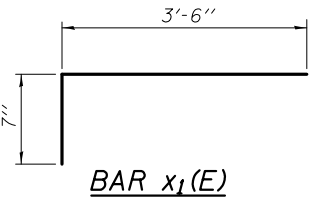
BAR d1(E)



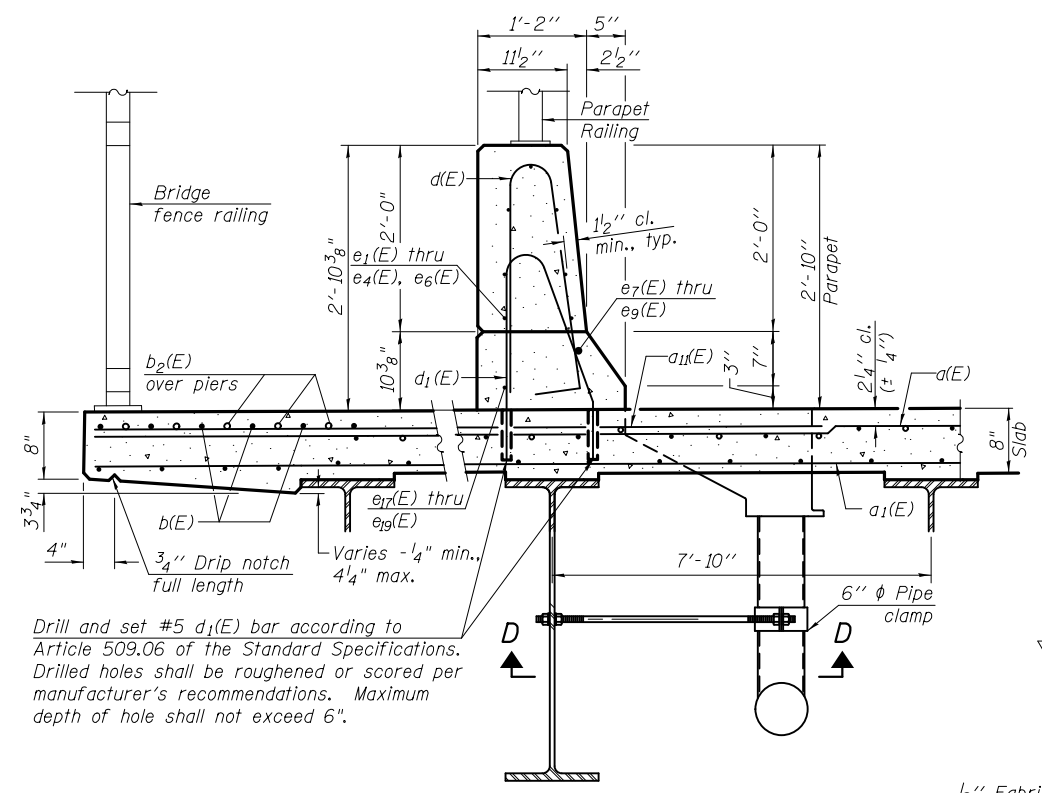
BAR d2(E)



BAR x(E)

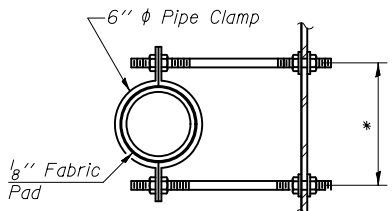


BAR x1(E)



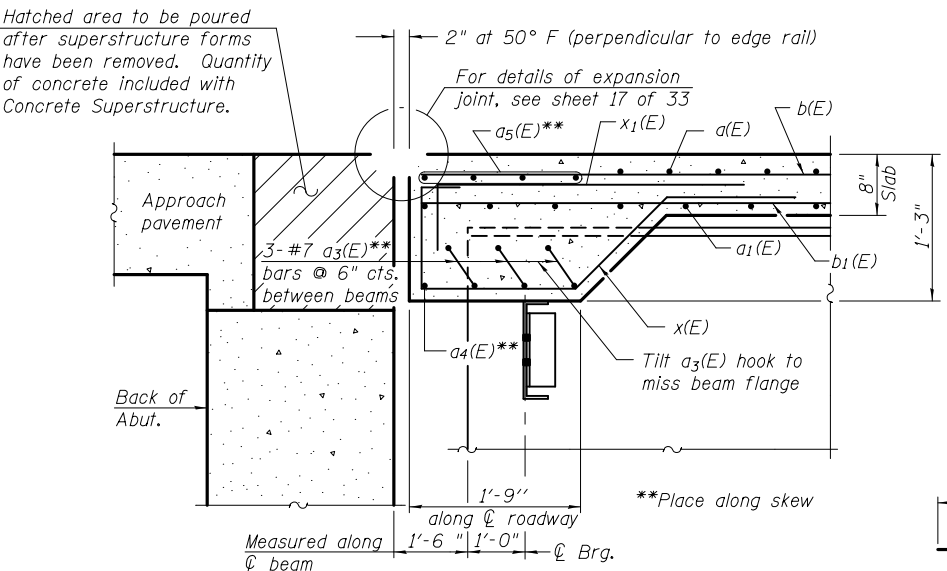
SECTION THRU NORTH PARAPET

Drill and set #5 d1(E) bar according to Article 509.06 of the Standard Specifications. Drilled holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of hole shall not exceed 6".

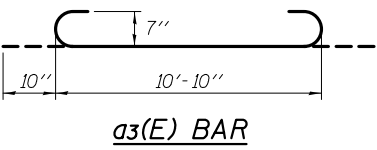


SECTION D-D

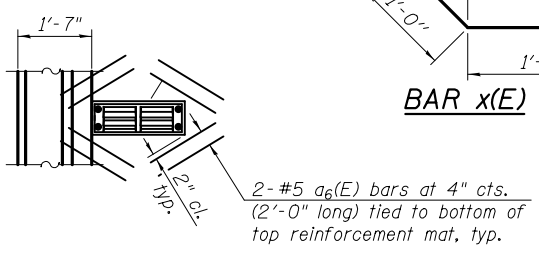
\* Dimension as required by Pipe Clamp



SECTION A-A



a3(E) BAR



SCUPPER REINFORCING BAR DETAIL

Note:  
Cut longitudinal reinforcement to clear drainage scuppers.  
Typical 20 locations.

**SUPERSTRUCTURE  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	2490	#5	24'-7"	—
a1(E)	1016	#5	35'-8"	—
a2(E)	828	#6	6'-0"	—
a3(E)	48	#7	12'-6"	—
a4(E)	6	#7	35'-2"	—
a5(E)	24	#7	35'-2"	—
a6(E)	160	#5	2'-0"	—
a11(E)	828	#6	14'-8"	—
b(E)	648	#5	44'-4"	—
b1(E)	540	#5	40'-0"	—
b2(E)	213	#6	34'-0"	—
d(E)	838	#5	5'-7"	—
d1(E)	419	#5	4'-8"	—
d2(E)	419	#5	7'-11"	—
d3(E)	10	#6	8'-11"	—
d4(E)	33	#6	4'-5"	—
d5(E)	10	#6	10'-1"	—
d6(E)	25	#6	9'-4"	—
e(E)	7	#4	20'-8"	—
e1(E)	7	#4	18'-11"	—
e2(E)	98	#4	19'-5"	—
e3(E)	28	#4	19'-9"	—
e4(E)	126	#4	18'-0"	—
e5(E)	7	#4	17'-4"	—
e6(E)	7	#4	19'-1"	—
e7(E)	10	#8	34'-3"	—
e8(E)	4	#8	19'-7"	—
e9(E)	10	#8	39'-3"	—
e17(E)	10	#4	32'-10"	—
e18(E)	4	#4	19'-8"	—
e19(E)	10	#4	37'-10"	—
x(E)	142	#5	6'-5"	—
x1(E)	142	#5	4'-1"	—

Item	Unit	Quantity
Reinforcement Bars, Epoxy Coated	Pound	213,430
Concrete Superstructure	Cu. Yds.	792.8
Bridge Deck Grooving	Sq. Yds.	2362

Bars indicated thus 1 x 4-#8 etc. indicates 1 line of bars with 4 lengths per line.

**SUPERSTRUCTURE DETAILS  
STRUCTURE NO. 032-0119**

DESIGNED - JSI/MAJ/JFS
CHECKED - JFS/MJB
DRAWN - MLB/JLP
CHECKED - JFS/MJB

**Foth**  
Foth Infrastructure & Environment, LLC  
7500 North Harker Drive  
Peoria, IL 61615  
Phone: 309-691-5300 Fax: 309-691-1892  
Illinois Registration Number 184.004913

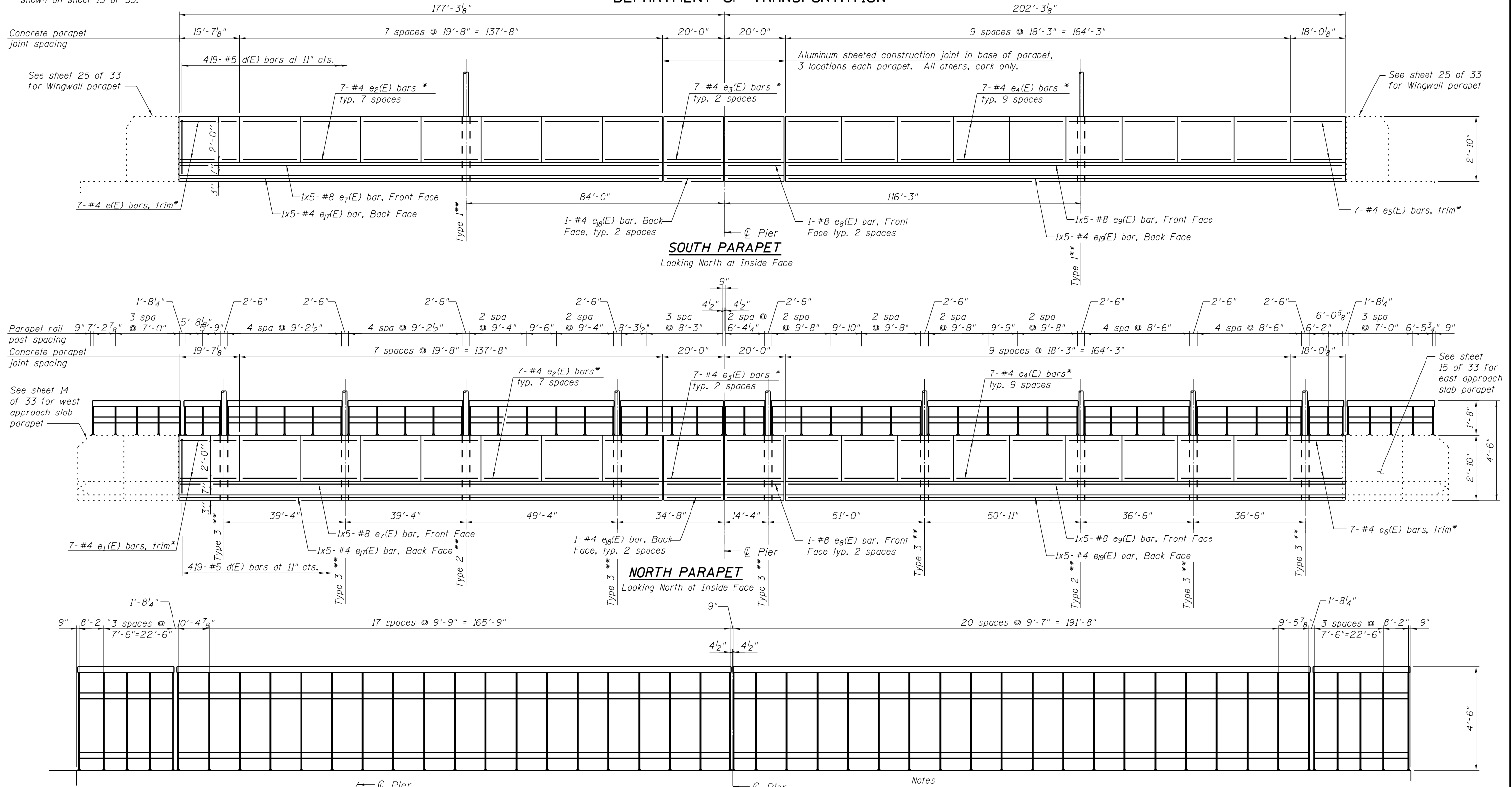
SHEET NO. 11 33 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	400	(32,47-4) HBR-2	GRUNDY	143	72
S.N. 032-0119			CONTRACT NO. 66873		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

FILES



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

\* See Section thru Parapet  
\*\* Type 1, Type 2 and Type 3 light pole anchorage are shown on sheet 13 of 33.



Concrete parapet joint spacing

See sheet 25 of 33 for Wingwall parapet

See sheet 25 of 33 for Wingwall parapet

Parapet rail post spacing

See sheet 14 of 33 for west approach slab parapet

See sheet 15 of 33 for east approach slab parapet

DESIGNED	- JSI/MAJ/JFS
CHECKED	- JFS/MJB
DRAWN	- MLB/JLP
CHECKED	- JFS/MJB

**REFERENCE LINE DETAIL FOR PARAPETS, RAILS AND LIGHTS**

See sheet 11 of 33 for parapet details and bill of materials

**BICYCLE RAILING**  
Looking North at Inside Face

**MINIMUM BAR LAP (Parapet)**

- #4 bar = 1'-4"
- #8 bar = 3'-5"

Notes

- Bicycle and parapet rail post locations are measured along  $\phi$  of rail starting at the parapet joint at the  $\phi$  of pier.
- Future poles are located starting from the parapet joint at the  $\phi$  of pier. See sheet 13 of 33 for location of anchor rods and conduit relative to future poles.

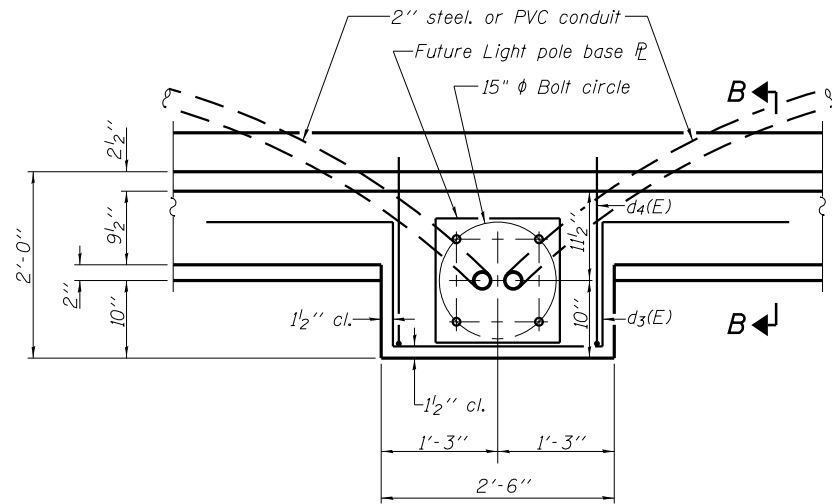
**SUPERSTRUCTURE DETAILS**  
**STRUCTURE NO. 032-0119**

F.A.U. RTE. 400	SECTION (32,47-4) HBR-2	COUNTY GRUNDY	TOTAL SHEETS	SHEET NO.
			143	73
SHEET NO. 12		CONTRACT NO. 66873		
33 SHEETS		ILLINOIS FED. AID PROJECT		

**Foth**  
Foth Infrastructure & Environment, LLC  
7500 North Harker Drive  
Peoria, IL 61615  
Phone: 309-691-5300 Fax: 309-691-1892  
Illinois Registration Number 184.004913

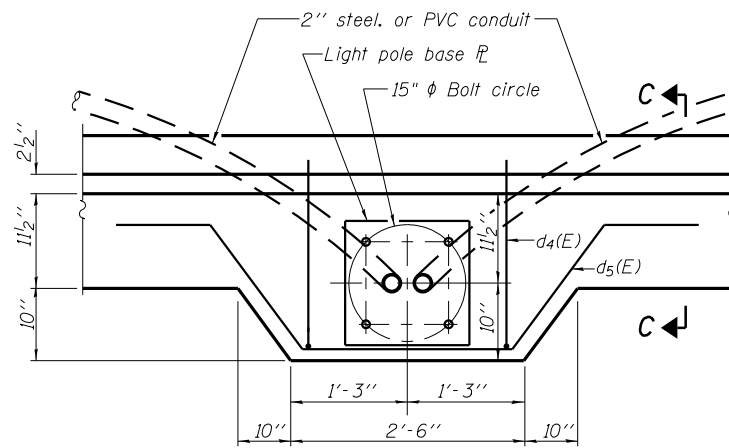
c:\pwworking\dwg\duncan\bd0181369112-Parapet Details.dgn

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



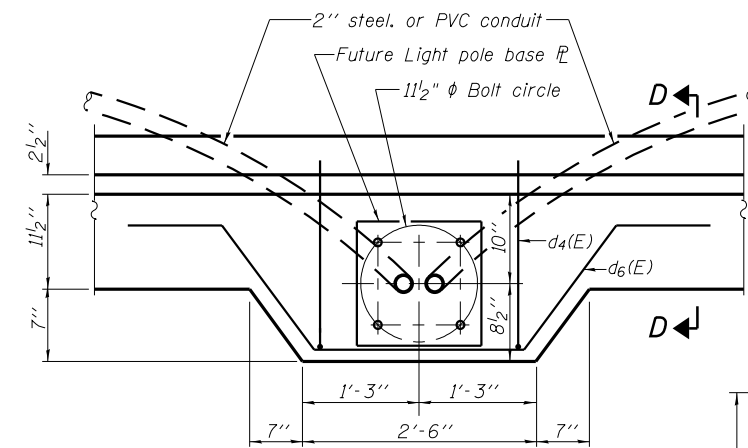
**VIEW OF LIGHT POLE MOUNTED ON CONCRETE PARAPET SOUTH SIDE**

**TYPE 1**  
(2 Required)



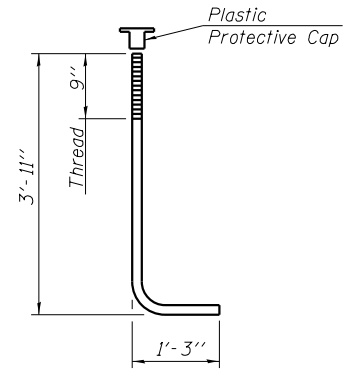
**VIEW OF LIGHT POLE MOUNTED ON CONCRETE PARAPET NORTH SIDE**

**TYPE 2**  
(2 Required)



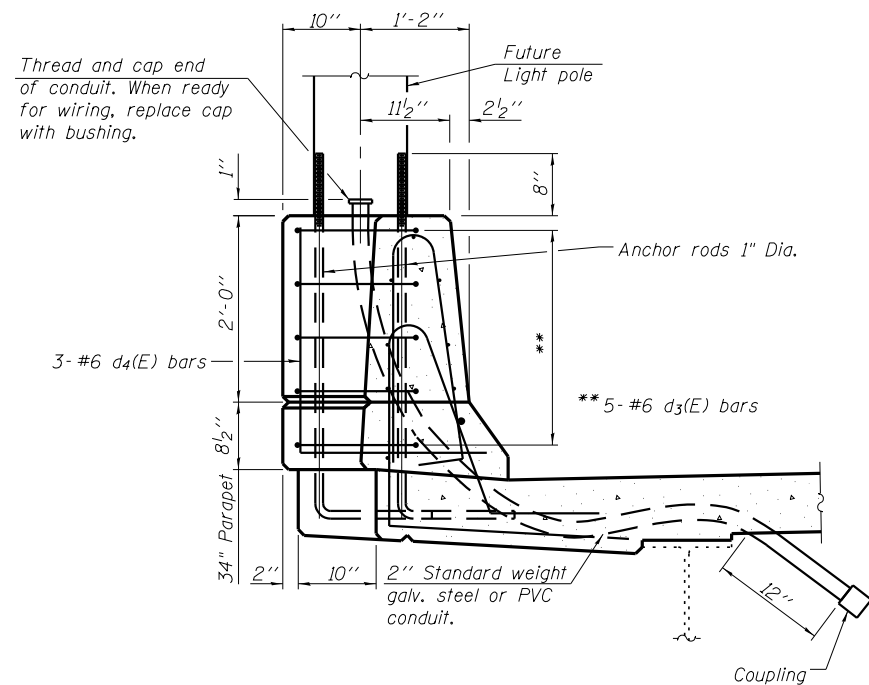
**VIEW OF LIGHT POLE MOUNTED ON CONCRETE PARAPET NORTH SIDE**

**TYPE 3**  
(7 Required)

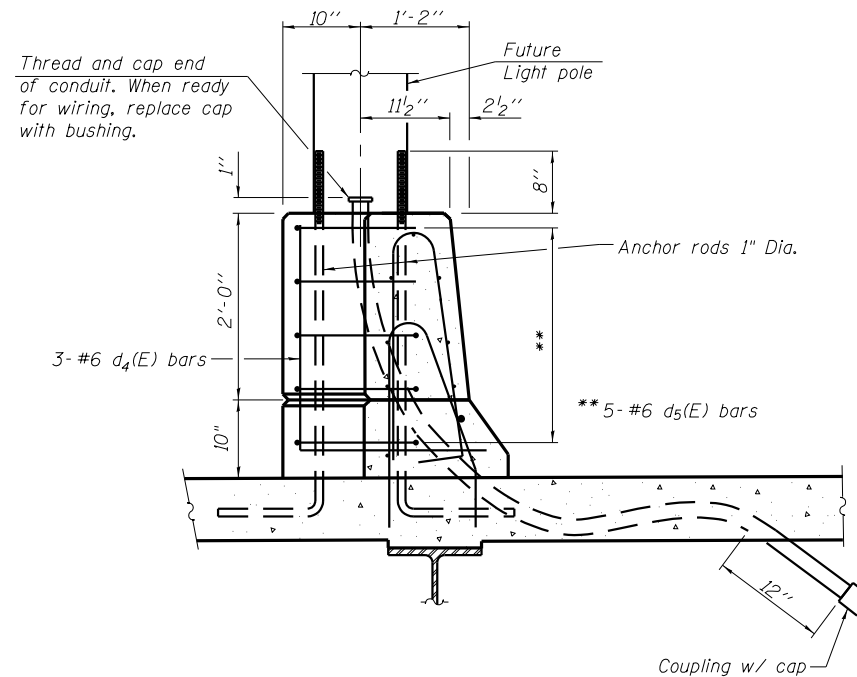


**ANCHOR ROD**  
Dia. as specified for light poles.  
(ASTM F 1554 Grade 105)

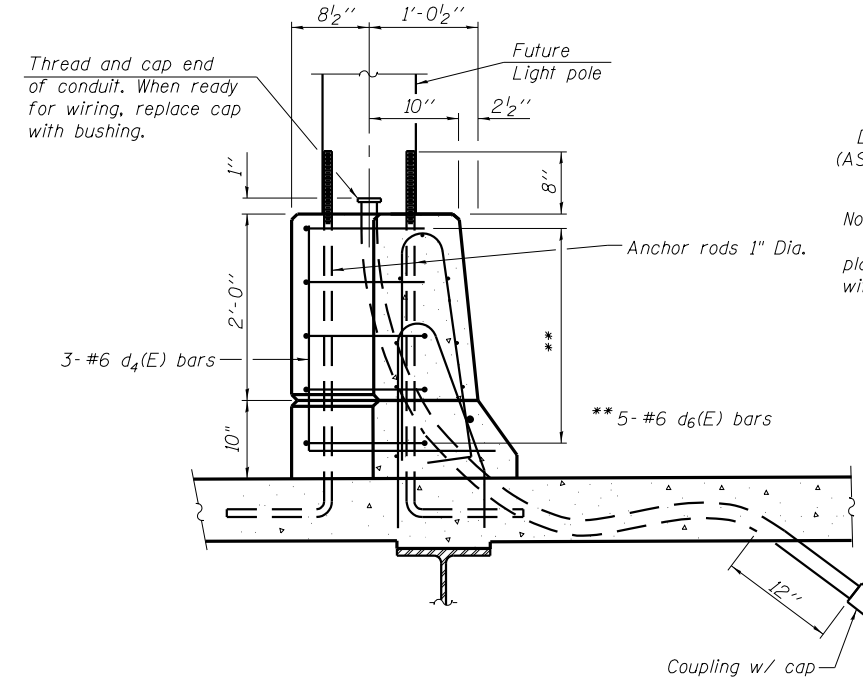
Note:  
Cost of anchor rods, protective plastic caps and conduit is included with Concrete Superstructure.



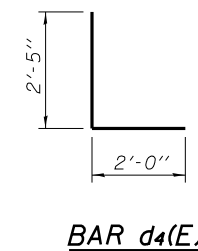
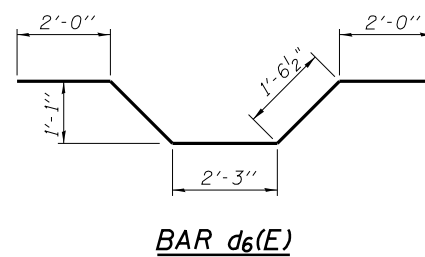
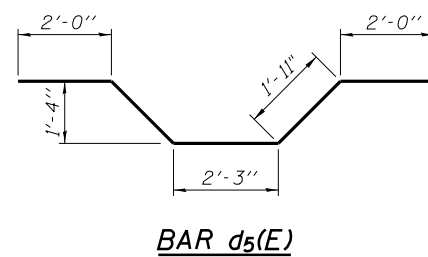
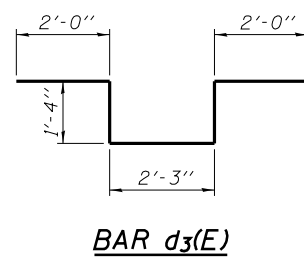
**SECTION B-B**



**SECTION C-C**



**SECTION D-D**



DESIGNED - JSI/MAJ/JFS
CHECKED - JFS/MJB
DRAWN - MLB/JLP
CHECKED - JFS/MJB

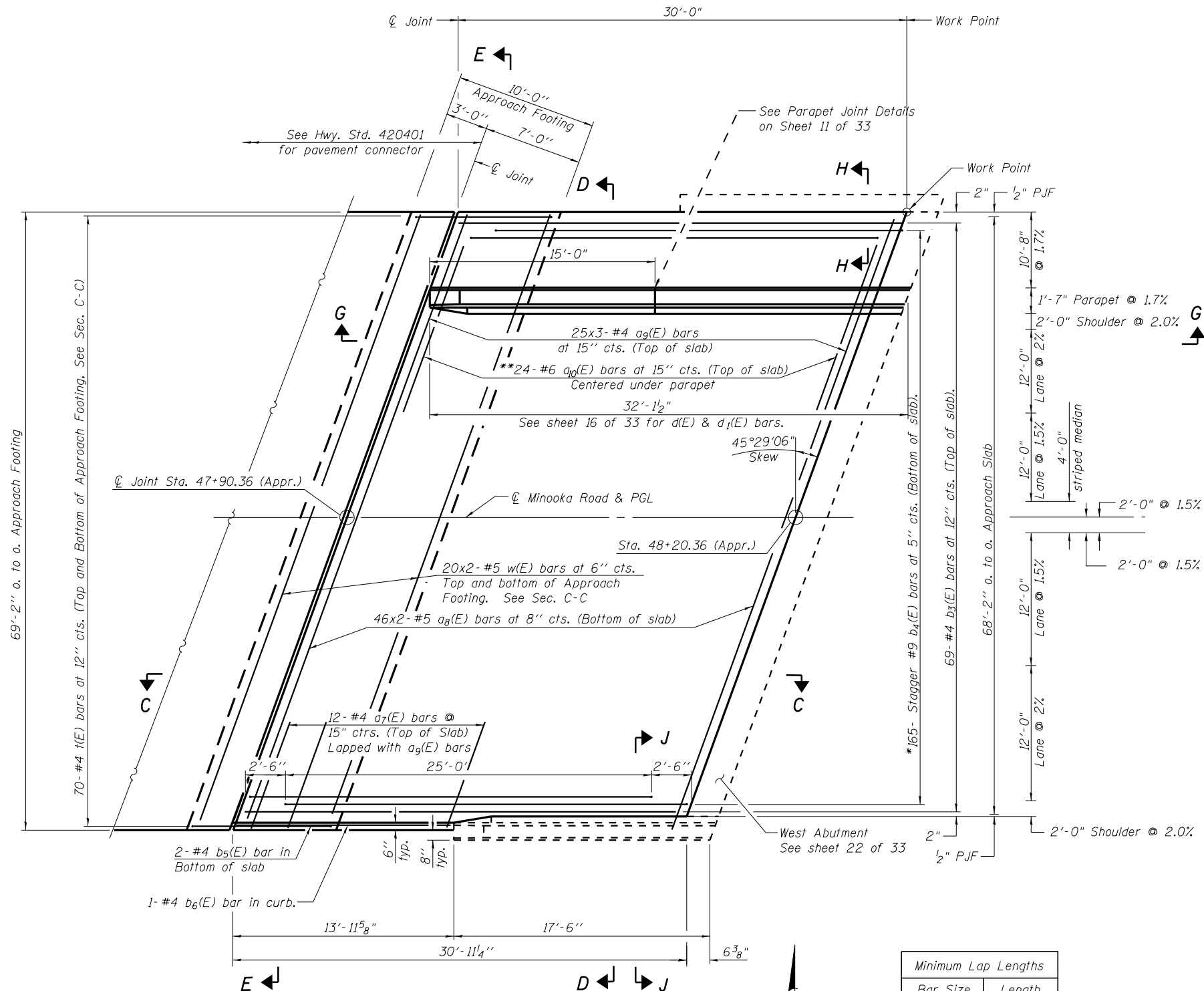
**SUPERSTRUCTURE DETAILS**  
**STRUCTURE NO. 032-0119**

**Foth**  
Foth Infrastructure & Environment, LLC  
7500 North Harker Drive  
Peoria, IL 61615  
Phone: 309-691-5300 Fax: 309-691-1892  
Illinois Registration Number 184,004913

SHEET NO. 13 33 SHEETS	F.A.U RTE. 400	SECTION (32,47-4) HBR-2	COUNTY GRUNDY	TOTAL SHEETS 143	SHEET NO. 74
	S.N. 032-0119		CONTRACT NO. 66873		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

c:\pw\work\pilot\duncanbd0181369113-SUPERSTRUCTURE DETAILS.dgn

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

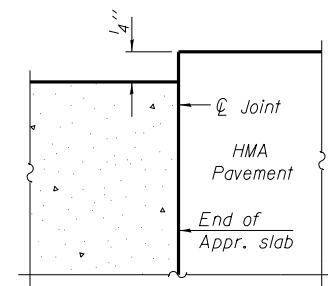


**PLAN - WEST APPROACH PAVEMENT**

\* Tilt #9 b<sub>4</sub>(E) bars as required to maintain clearance.  
\*\* Alternate with a<sub>9</sub>(E) bars

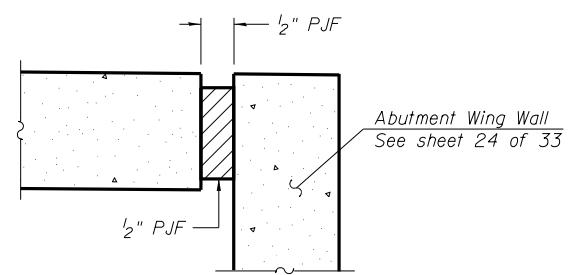
Minimum Lap Lengths	
Bar Size	Length
#4	1'-4"
#5	1'-8"

Notes:  
See sheet 16 of 33 for Sections C-C, D-D, E-E and View G-G.  
a<sub>7</sub>(E), a<sub>8</sub>(E), a<sub>9</sub>(E), and w(E) bar spacings measured parallel to  $\bar{C}$  Rdwy.



**FLEXIBLE PAVEMENT**

**DETAIL A**



**VIEW H-H**

View J-J similar

(Sheet 1 of 3)

**BRIDGE APPROACH SLAB DETAILS**  
**STRUCTURE NO. 032-0119**

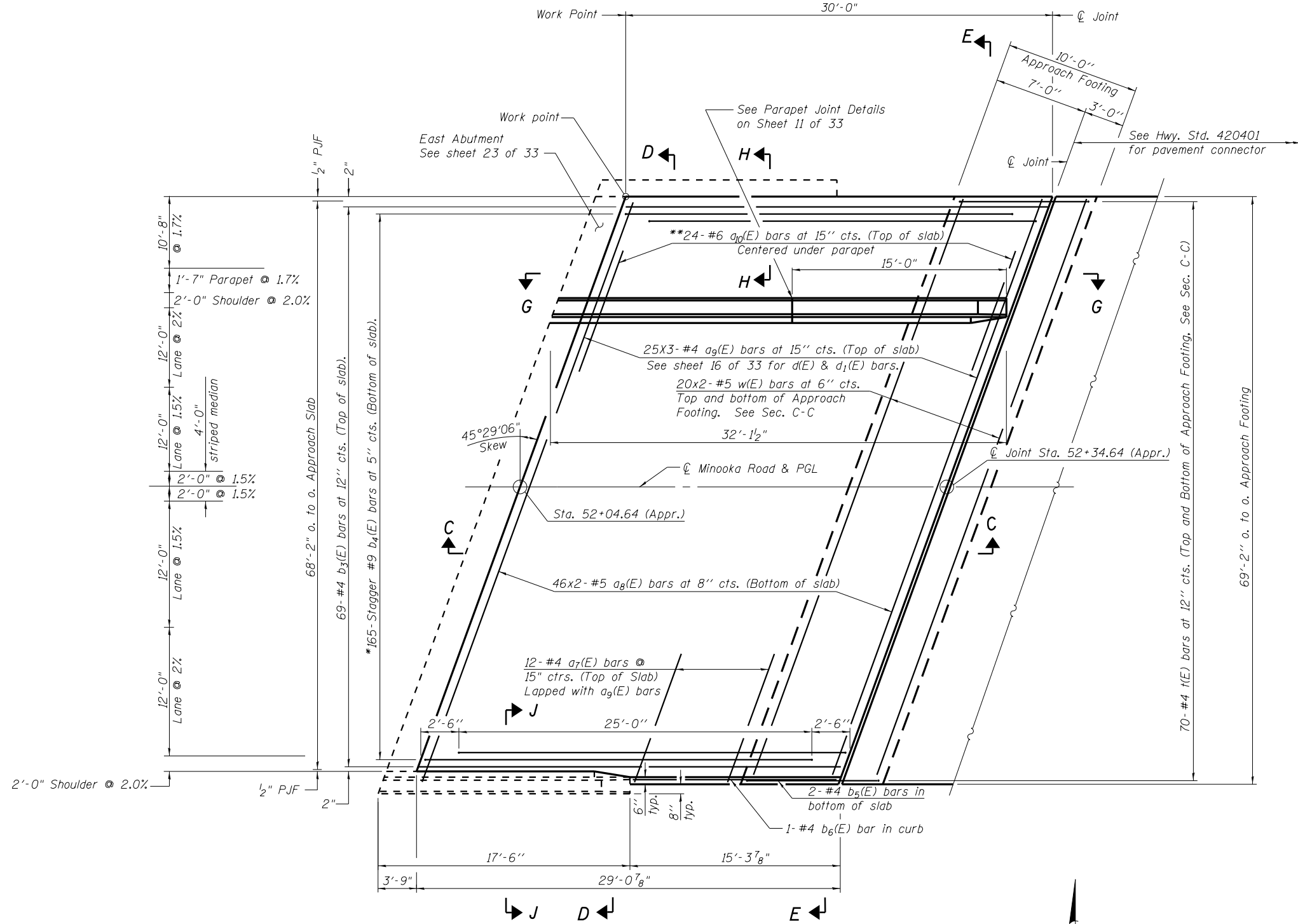
DESIGNED	- JSI/MAJ/JFS
CHECKED	- JFS/MJB
DRAWN	- MLB/JLP
CHECKED	- JFS/MJB

**Foth**  
Foth Infrastructure & Environment, LLC  
7500 North Harker Drive  
Peoria, IL 61615  
Phone: 309-691-5300 Fax: 309-691-1892  
Illinois Registration Number 184,004913

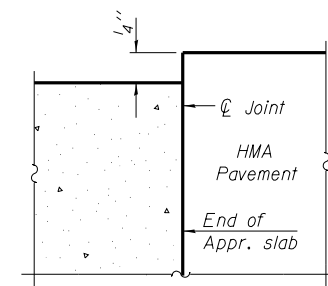
SHEET NO. 14 33 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	400	(32,47-4) HBR-2	GRUNDY	143	75
S.N. 032-0119			CONTRACT NO. 66873		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					

c:\pwwork\widot\duncan\bd\0181369114-BRIDGE APPROACH SLAB DETAILS.dgn

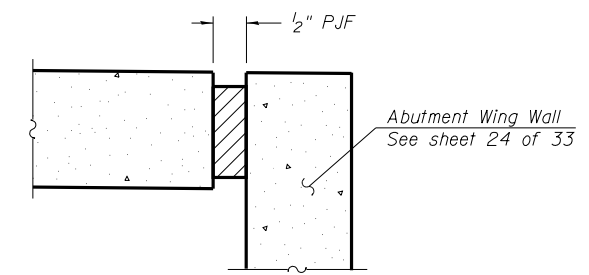
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



Notes:  
See sheet 16 of 33 for Sections C-C, D-D, E-E and View G-G.  
 $a_7(E)$ ,  $a_8(E)$ ,  $a_9(E)$ , and  $w(E)$  bar spacings measured parallel to  $\text{C.R.}$



**FLEXIBLE PAVEMENT**  
**DETAIL A**



**VIEW H-H**  
View J-J similar

Minimum Lap Lengths	
Bar Size	Length
#4	1'-4"
#5	1'-8"

**PLAN - EAST APPROACH PAVEMENT**

\* Tilt #9  $b_4(E)$  bars as required to maintain clearance.  
\*\* Alternate with  $a_9(E)$  bars.

DESIGNED	- JSI/MAJ/JFS
CHECKED	- JFS/MJB
DRAWN	- MLB/JLP
CHECKED	- JFS/MJB

**Foth**  
Foth Infrastructure & Environment, LLC  
7500 North Harker Drive  
Peoria, IL 61615  
Phone: 309-691-5300 Fax: 309-691-1892  
Illinois Registration Number 184.004913

SHEET NO. 15 33 SHEETS	F.A.U. RTE. 400	SECTION (32,47-4) HBR-2	COUNTY GRUNDY	TOTAL SHEETS 143	SHEET NO. 76
	S.N. 032-0119		CONTRACT NO. 66873		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					

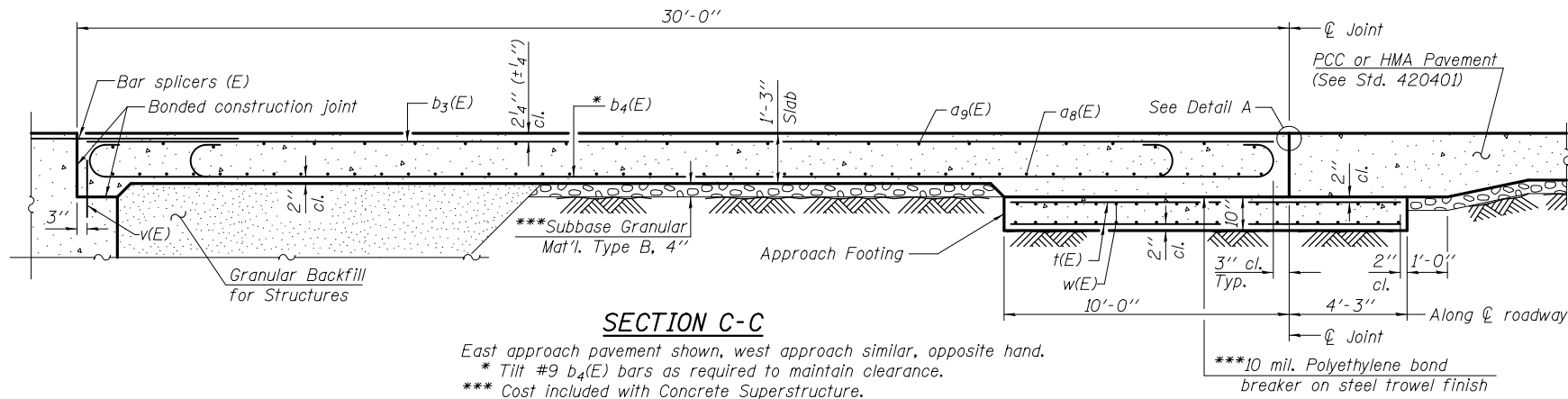
(Sheet 2 of 3)

**BRIDGE APPROACH SLAB DETAILS**  
**STRUCTURE NO. 032-0119**

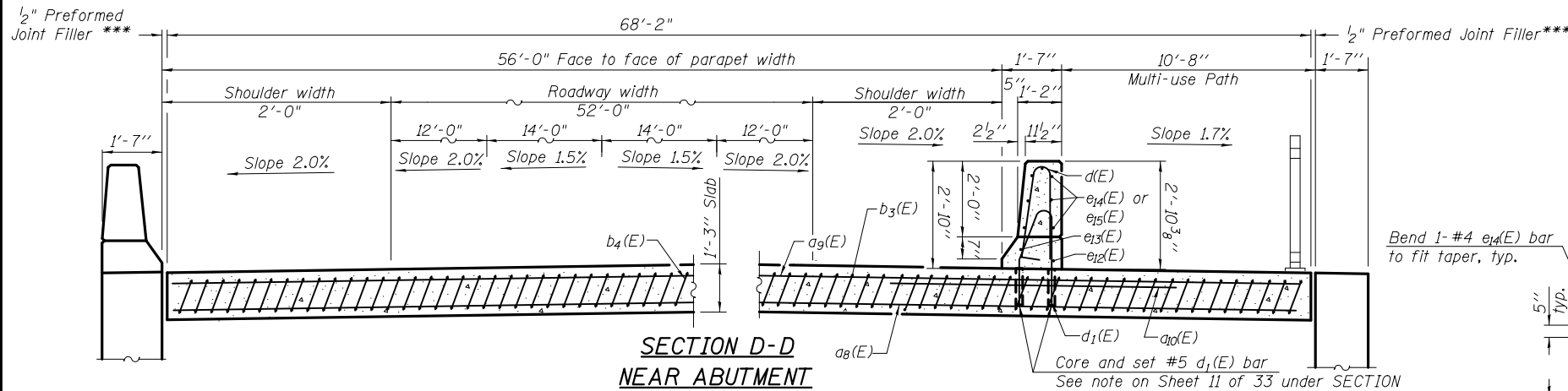
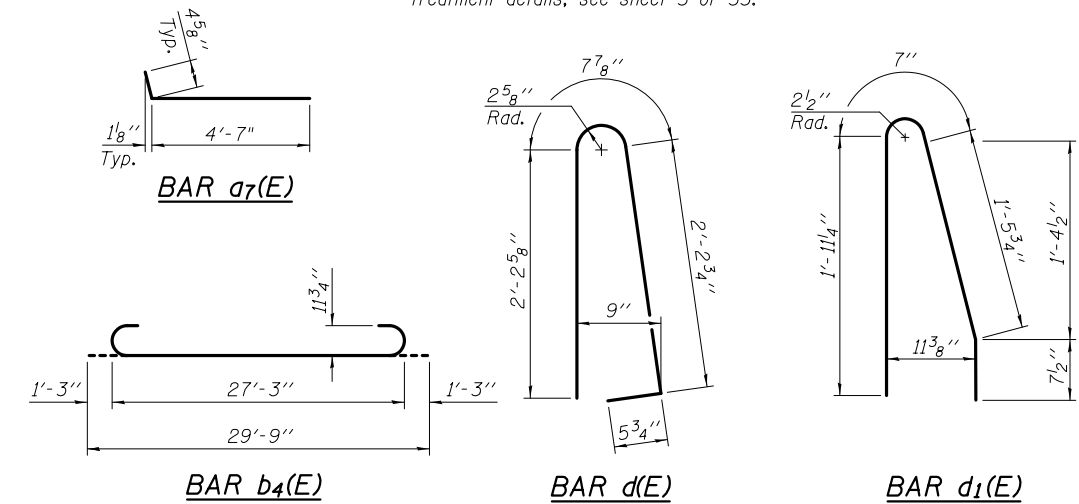
c:\pwwork\widot\duncan\bd\181369\15-BRIDGE APPROACH SLAB DETAILS.dgn

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Notes:  
See sheet 14 & 15 of 33 for Detail A. Approach slab and north parapet concrete shall be paid for as Concrete Superstructure. Approach footing concrete shall be paid for as Concrete Structures. Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated. For v(E) bar details, see sheets 22 & 23 of 33. The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf. For bar splicer details, see sheet 30 of 33. Cost of excavation for approach footing included with Concrete Structures. For Granular Backfill for Structures and drainage treatment details, see sheet 3 of 33.

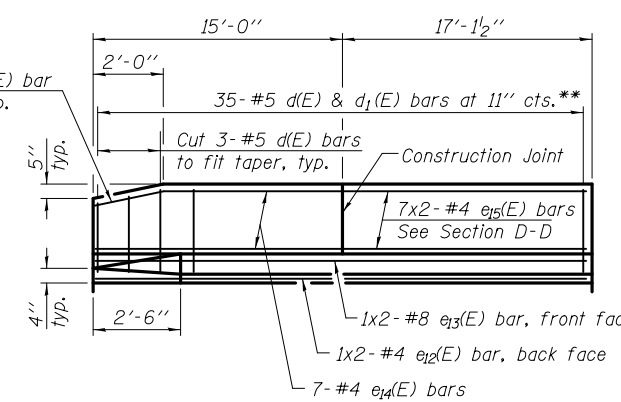


**SECTION C-C**  
East approach pavement shown, west approach similar, opposite hand.  
\* Tilt #9 b<sub>4</sub>(E) bars as required to maintain clearance.  
\*\*\* Cost included with Concrete Superstructure.

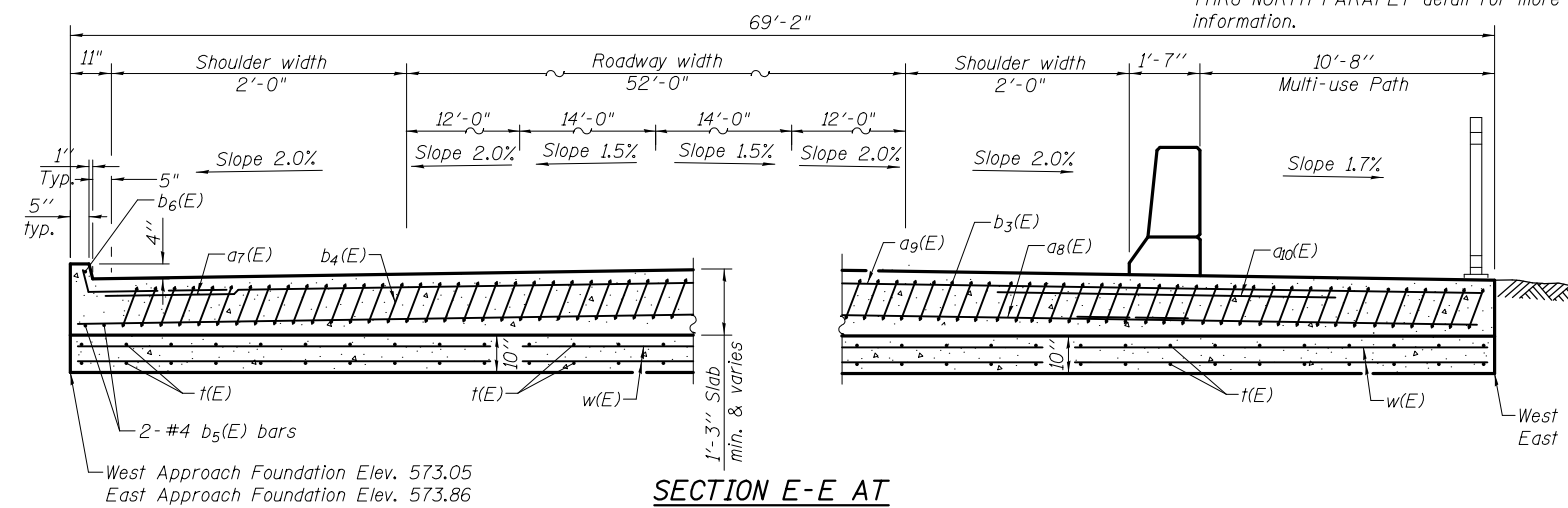


Bend 1-#4 e<sub>4</sub>(E) bar to fit taper, typ.

Core and set #5 d<sub>1</sub>(E) bar  
See note on Sheet 11 of 33 under SECTION THRU NORTH PARAPET detail for more information.



**VIEW G-G - WEST ABUTMENT SHOWN**  
**EAST ABUTMENT IS REVERSED**  
(Looking North at Inside Face)  
\*\*\*Bend 3-d<sub>1</sub>(E) bars to fit taper.



West Approach Foundation Elev. 574.42  
East Approach Foundation Elev. 571.78

**SECTION E-E AT APPROACH FOOTING**  
(See Plan for dimensions not shown)

**TWO APPROACHES**  
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a <sub>7</sub> (E)	24	#4	5'-0"	—
a <sub>8</sub> (E)	184	#5	50'-0"	—
a <sub>9</sub> (E)	150	#4	33'-8"	—
a <sub>10</sub> (E)	48	#6	10'-6"	—
b <sub>3</sub> (E)	138	#4	29'-8"	—
b <sub>4</sub> (E)	330	#9	29'-9"	—
b <sub>5</sub> (E)	4	#4	14'-8"	—
b <sub>6</sub> (E)	2	#4	14'-3"	—
d(E)	70	#5	5'-7"	—
d <sub>1</sub> (E)	70	#5	4'-8"	—
e <sub>2</sub> (E)	4	#4	16'-7"	—
e <sub>3</sub> (E)	4	#8	17'-8"	—
e <sub>4</sub> (E)	14	#4	14'-8"	—
e <sub>5</sub> (E)	28	#4	9'-2"	—
t(E)	280	#4	13'-11"	—
w(E)	160	#5	50'-0"	—
Concrete Superstructure			Cu. Yd.	235.4
Concrete Structures			Cu. Yd.	60.9
Reinforcement Bars, Epoxy Coated			Pound	62,220

(Sheet 3 of 3)

**BRIDGE APPROACH SLAB DETAILS**  
**STRUCTURE NO. 032-0119**

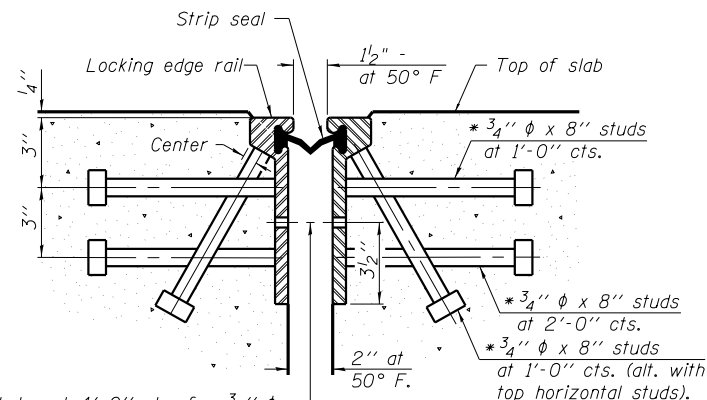
DESIGNED - JSI/MAJ/JFS
CHECKED - JFS/MJB
DRAWN - MLB/JLP
CHECKED - JFS/MJB

**Foth**  
Foth Infrastructure & Environment, LLC  
7500 North Harker Drive  
Peoria, IL 61615  
Phone: 309-691-5300 Fax: 309-691-1892  
Illinois Registration Number 184,004913

SHEET NO. 16	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			33 SHEETS	77
33 SHEETS		S.N. 032-0119	CONTRACT NO. 66873	
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT				

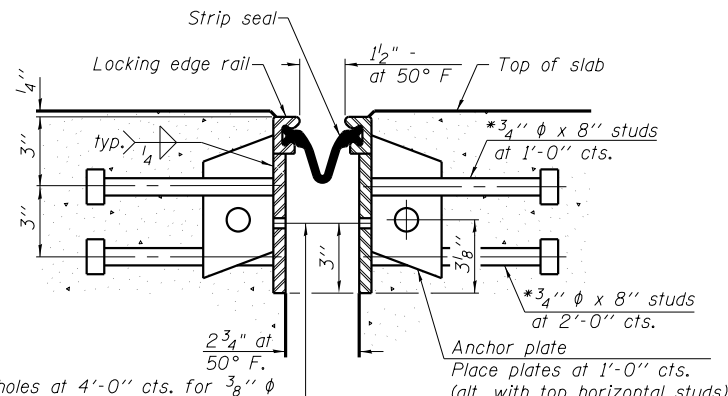
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

\* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



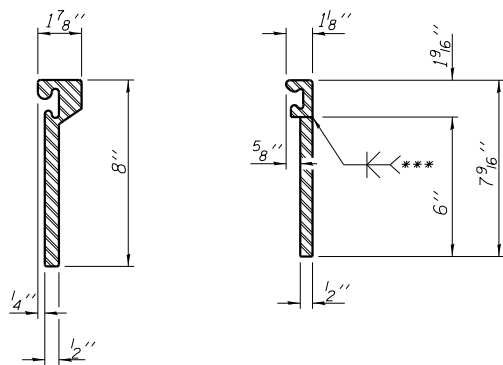
7/16"  $\phi$  holes at 4'-0" cts. for 3/8"  $\phi$  bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU  
ROLLED RAIL JOINT

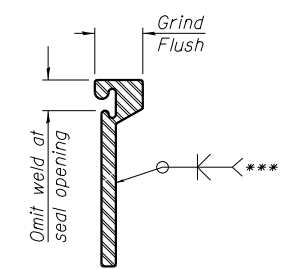


7/16"  $\phi$  holes at 4'-0" cts. for 3/8"  $\phi$  bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU  
WELDED RAIL JOINT



ROLLED  
EXTRUDED RAIL      WELDED RAIL

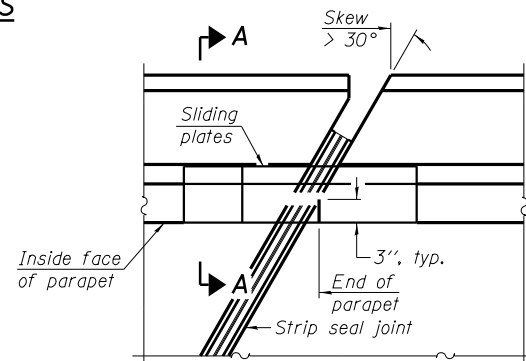


\*\*\*Back gouge not required if complete joint penetration is verified by mock-up.

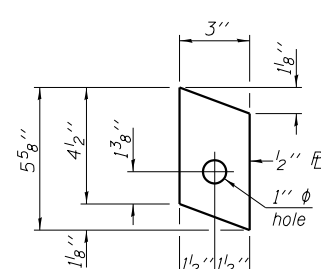
LOCKING EDGE  
RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.

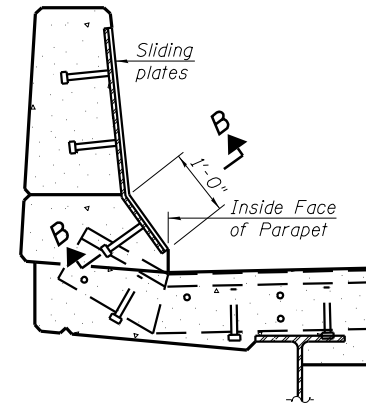
LOCKING EDGE RAILS



PLAN



ANCHOR PLATE  
(for welded rail)

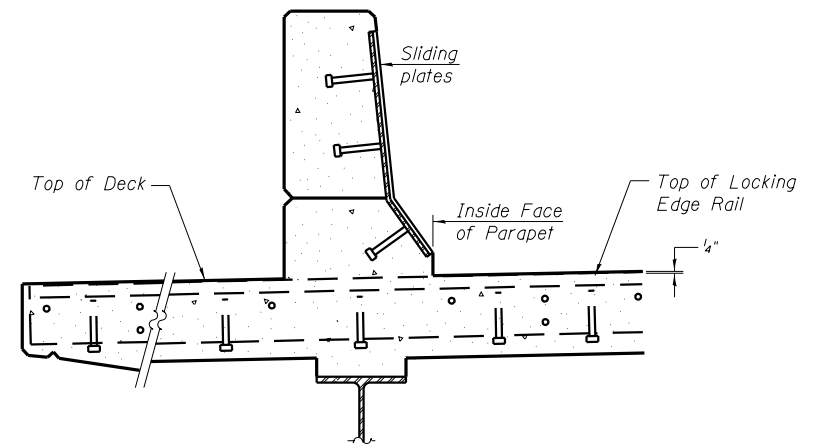


SECTION A-A

POINT BLOCK DETAILS

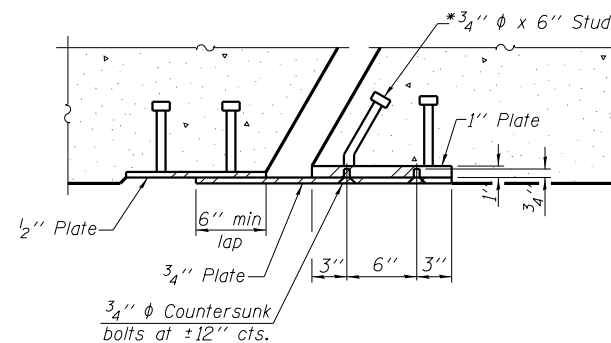
(for skews > 30°)

South parapet shown.  
North parapet front face and back face (sidewalk side) similar.



AT SIDEWALK

TYPICAL END TREATMENT



SECTION B-B

Required at six (6) locations

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	197

PREFORMED JOINT STRIP SEAL  
STRUCTURE NO. 032-0119

DESIGNED	- JSI/MAJ/JFS
CHECKED	- JFS/MJB
DRAWN	- MLB/JLP
CHECKED	- JFS/MJB



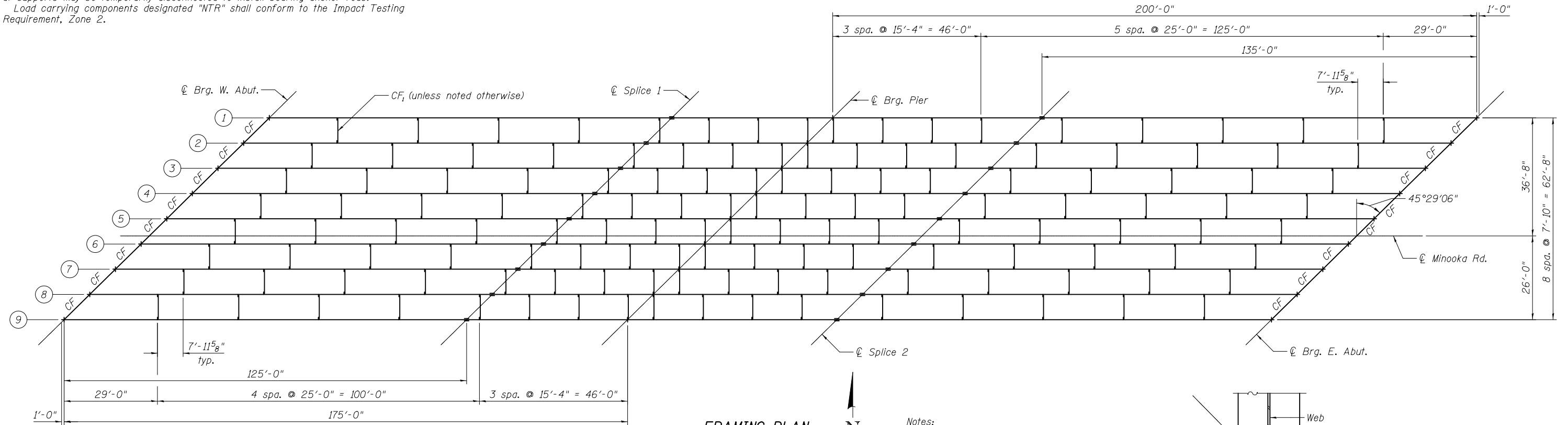
SHEET NO. 17  
33 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
400	(32,47-4) HBR-2	GRUNDY	143	78
S.N. 032-0119		CONTRACT NO. 66873		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

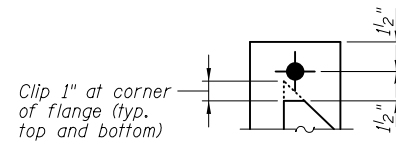
General Notes:

All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.  
Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.

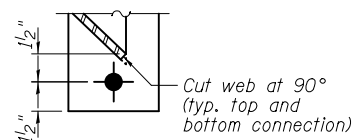


FRAMING PLAN

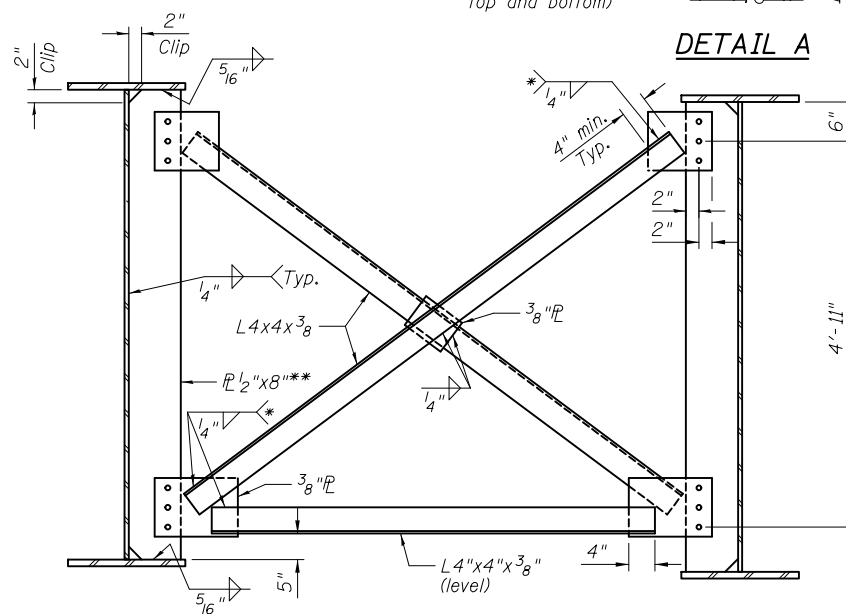
Notes:  
All plates of the girders, including bearing stiffeners and splice plates, shall be AASHTO M270, Grade 50.



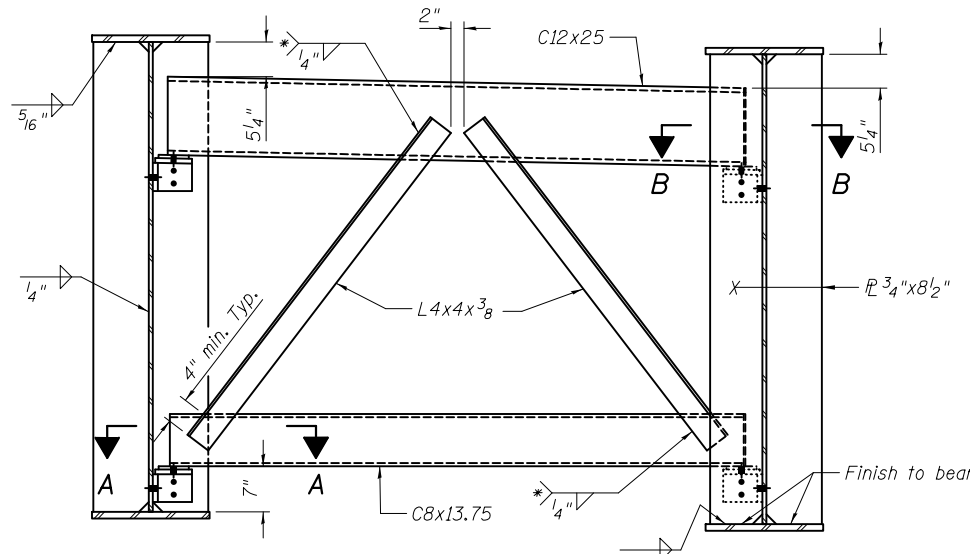
DETAIL A



DETAIL B



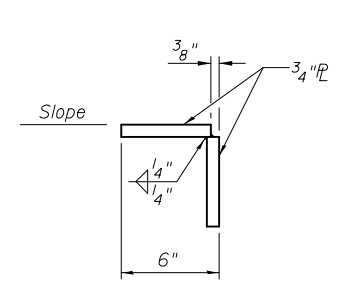
INTERIOR CROSS FRAME CF  
(136 Required)



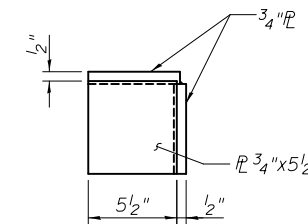
END CROSS FRAME CF  
(16 Required)

General Cross Frame notes:  
Use 3/4" H.S. Bolts for cross frame connections.  
Detail 1/8" φ holes for all 3/4" φ Bolts.  
Two hardened washers required for each set of oversized holes.

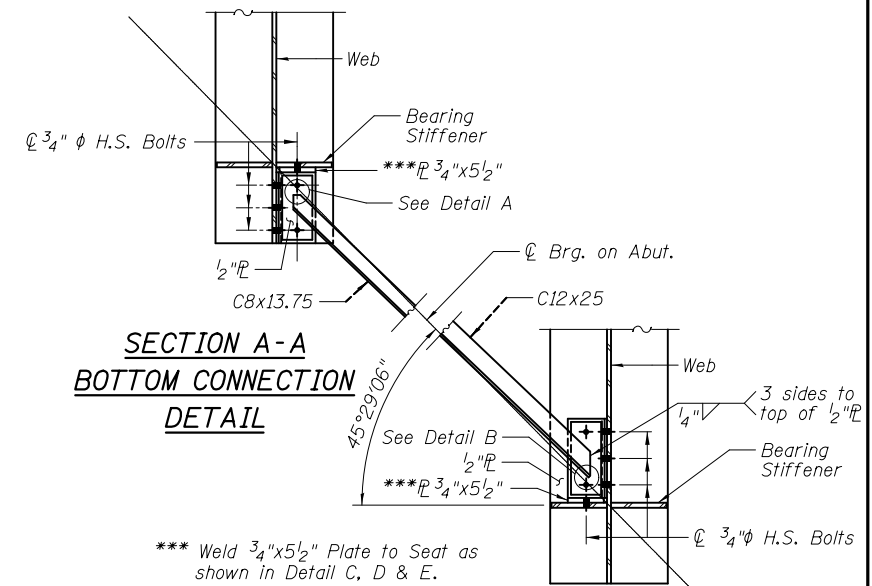
\* Fillet weld angles along 3 sides on one face of Gusset Plate or Channel.



DETAIL C



DETAIL D



SECTION A-A  
BOTTOM CONNECTION  
DETAIL

\*\*\* Weld 3/4"x5 1/2" Plate to Seat as shown in Detail C, D & E.



SECTION B-B  
TOP CONNECTION  
DETAIL

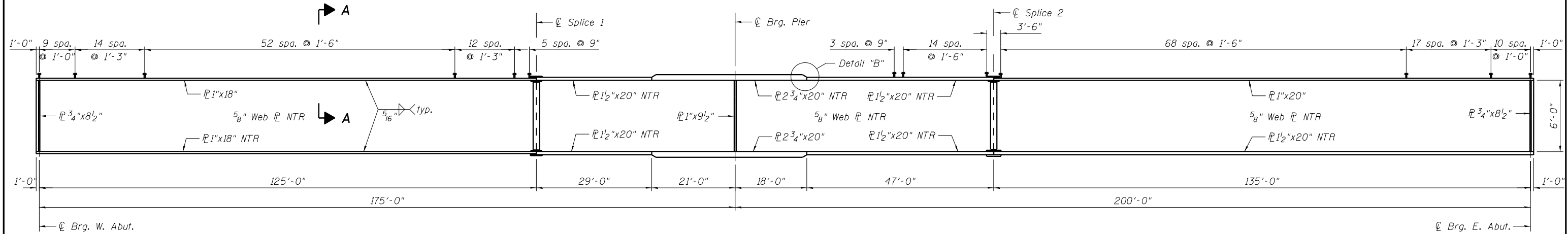
**Foth**  
Foth Infrastructure & Environment, LLC  
7500 North Harker Drive  
Peoria, IL 61615  
Phone: 309-691-5300 Fax: 309-691-1892  
Illinois Registration Number 184.004913

SHEET NO. 18 33 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	400	(32,47-4) HBR-2	GRUNDY	143	79
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		
		S.N. 032-0119	CONTRACT NO. 66873		

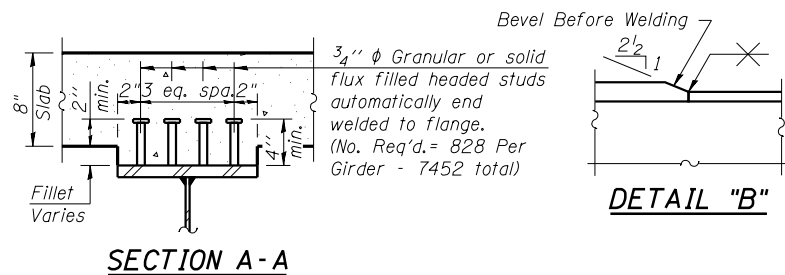
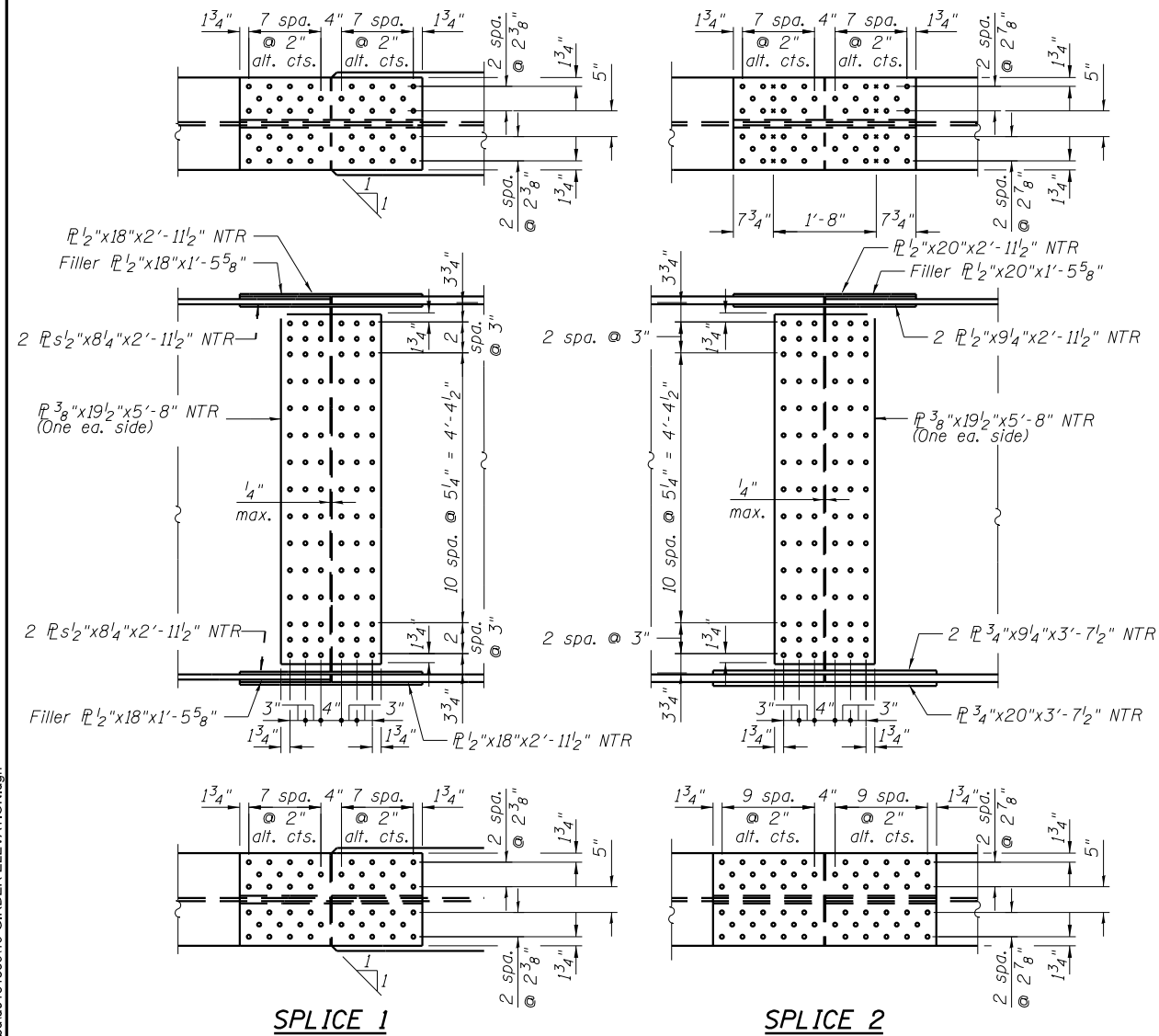
FRAMING PLAN  
STRUCTURE NO. 032-0119

SFILES

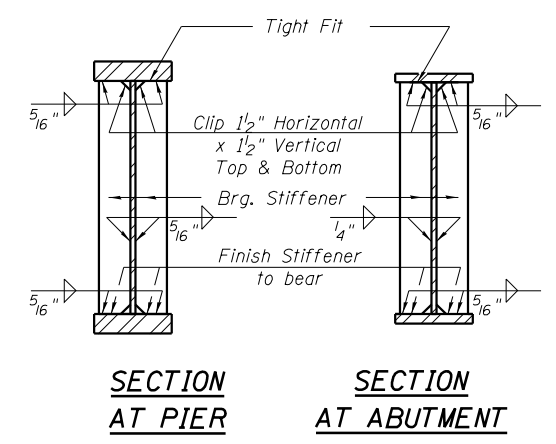
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**GIRDER ELEVATION**



Notes:  
"NTR" denotes plates to which notch toughness requirements are applicable.  
Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.  
All plates of the girders, including bearing stiffeners and splice plates, shall be AASHTO M 270, Grade 50.



**FIELD SPLICE DETAILS**

**LEGEND**

- 7/8" φ H.S. Bolt, 15/16" φ hole
  - 3/4" φ x 4" Shear Stud\*
- \*Shear Studs on the splice plates are included in the "Furnishing and Erecting Structural Steel" lump sum and are added to the calculated weight of steel on sheet 2 of 33.

DESIGNED	- JSI/MAJ/JFS
CHECKED	- JFS/MJB
DRAWN	- MLB/JLP
CHECKED	- JFS/MJB

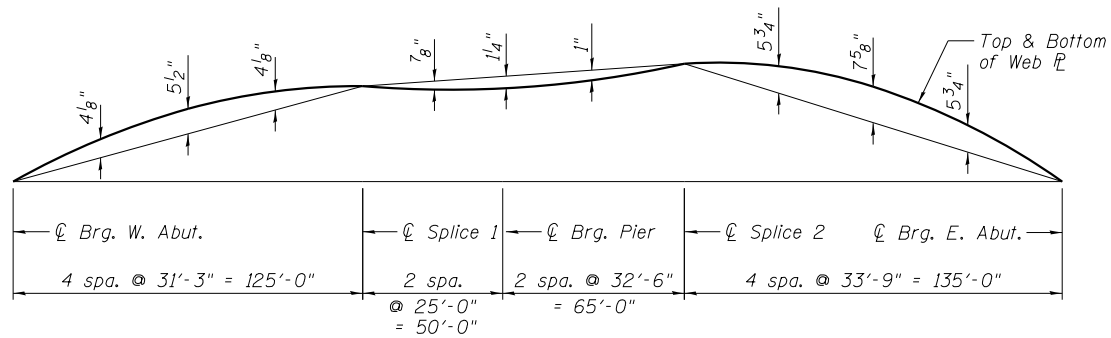
**GIRDER ELEVATION  
STRUCTURE NO. 032-0119**

<p><b>Foth</b> Foth Infrastructure &amp; Environment, LLC 7500 North Harker Drive Peoria, IL 61615 Phone: 309-691-5300 Fax: 309-691-1892 Illinois Registration Number 184.004913</p>	SHEET NO. 19	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	33 SHEETS	400	(32,47-4) HBR-2	GRUNDY	143	80
		S.N. 032-0119		CONTRACT NO. 66873		
		FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

c:\pw\work\pilot\duncanbd\0181369119-GIRDER ELEVATION.dgn



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**CAMBER DIAGRAM**

**TOP OF WEB ELEVATION TABLE**

Girder No.	1	2	3	4	5	6	7	8	9
☐ Brg. W. Abut.	576.28	576.28	576.31	576.32	576.29	576.18	575.90	575.59	575.26
☐ Splice 1	577.31	577.43	577.57	577.69	577.77	577.77	577.60	577.41	577.19
☐ Brg. Pier	577.11	577.27	577.44	577.61	577.74	577.78	577.66	577.51	577.33
☐ Splice 2	577.07	577.29	577.52	577.75	577.93	578.03	577.97	577.87	577.75
☐ Brg. E. Abut.	574.20	574.54	574.90	575.24	575.54	575.76	575.82	575.84	575.84

(For fabrication Only)

**INTERIOR GIRDER MOMENT TABLE**

		0.4 Sp. 1	Pier	0.6 Sp. 2
$I_s$	(in <sup>4</sup> )	67,404	173,167	85,149
$I_c(n)$	(in <sup>4</sup> )	139,540	---	178,322
$I_c(3n)$	(in <sup>4</sup> )	103,678	---	130,221
$S_s$	(in <sup>3</sup> )	1822	4469	2536
$S_c(n)$	(in <sup>3</sup> )	2398	---	3245
$S_c(3n)$	(in <sup>3</sup> )	2174	---	2964
Z	(in <sup>3</sup> )	---	4921	---
DC1	(k/')	1.176	1.427	1.223
$M_{DC1}$	(k)	1808	6423	3341
DC2	(k/')	0.200	0.200	0.200
$M_{DC2}$	(k)	393	854	618
DW	(k/')	0.350	0.350	0.350
$M_{DW}$	(k)	688	1495	1082
$M_{LL-IM}$	(k)	2795	3055	3463
$M_u$ (Strength I)	(k)	8676	16,685	12,633
* $\phi_f M_n, \phi_f M_{nc}$	(k)	11,869	19,595	15,424
$f_s$ DC1	(ksi)	11.9	17.2	15.8
$f_s$ DC2	(ksi)	2.2	2.3	2.5
$f_s$ DW	(ksi)	3.8	4.0	4.4
$f_s$ 1.3 (LL + IM)	(ksi)	18.2	10.7	16.6
$f_s$ (Service II)	(ksi)	36.1	34.2	39.3
** $f_s$ (Total)(Strength I)	(ksi)	---	---	---
$V_f$	(k)	41	---	41

\* Compact sections

\*\* Non-compact and slender sections

**INTERIOR GIRDER REACTION TABLE**

		W. Abut.	Pier	E. Abut.
$R_{DC1}$	(k)	67.0	305.6	90.7
$R_{DC2}$	(k)	12.6	46.7	15.7
$R_{DW}$	(k)	22.1	81.6	27.5
$R_{LL-IM}$	(k)	133.3	237.6	141.6
$R_{Total}$	(k)	235.0	671.5	275.5

$I_s, S_s$

Non-composite moment of inertia and section modulus of the steel section used for computing  $f_s$  (Total-Strength I, and Service II) due to non-composite dead loads.

$I_c(n), S_c(n)$

Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing  $f_s$  (Total-Strength I, and Service II) due to short-term composite live loads.

$I_c(3n), S_c(3n)$

Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing  $f_s$  (Total-Strength I, and Service II) due to long-term composite (superimposed) dead loads.

Z

Plastic Section Modulus of the steel section in non-composite areas.

DC1

Un-factored non-composite dead load.

$M_{DC1}$

Un-factored moment due to non-composite dead load.

DC2

Un-factored long-term composite (superimposed excluding future wearing surface) dead load.

$M_{DC2}$

Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load.

DW

Un-factored long-term composite (superimposed future wearing surface only) dead load.

$M_{DW}$

Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load.

$M_{LL-IM}$

Un-factored live load moment plus dynamic load allowance (impact).

$M_u$ (Strength I)

Factored design moment =  $1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{LL-IM}$

$\phi_f M_n$

Compact composite positive moment capacity.

$\phi_f M_{nc}$

Compact non-composite negative moment capacity.

$f_s$ (Service II)

Sum of stresses as computed from  $M_{DC1} + M_{DC2} + M_{DW} + 1.3 M_{LL-IM}$

$f_s$ (Total)(Strength I)

Sum of stresses as computed from  $1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{LL-IM}$

$V_f$

Maximum factored shear range in composite portion of span.

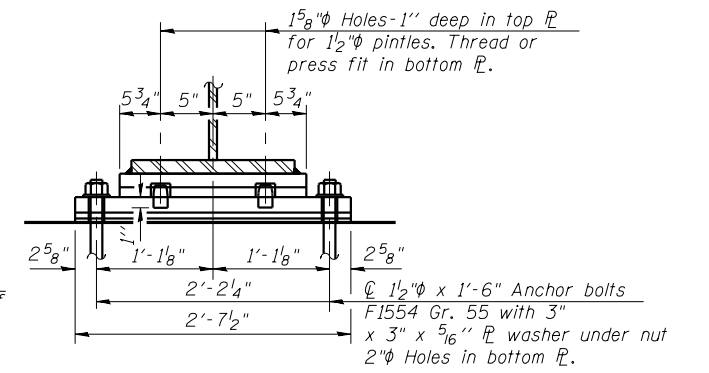
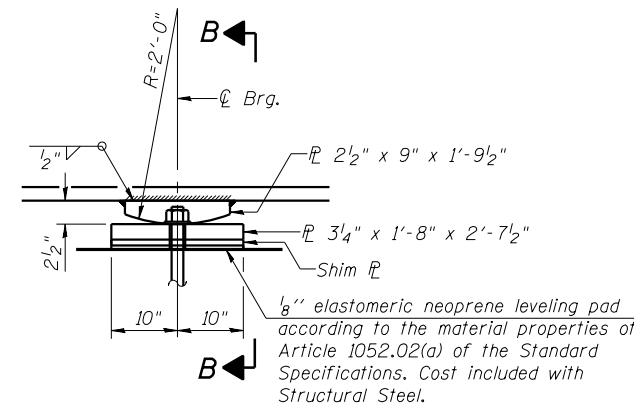
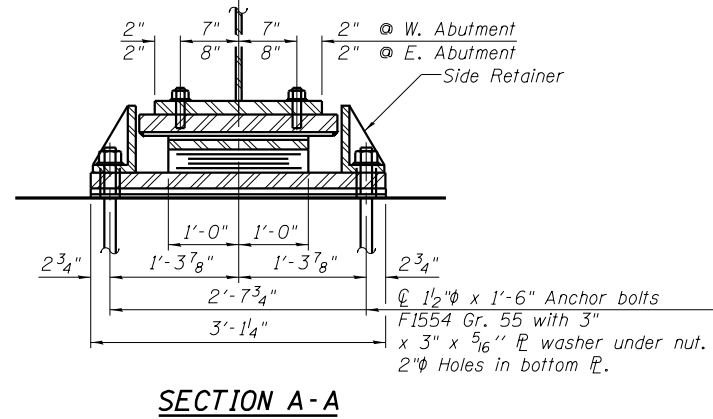
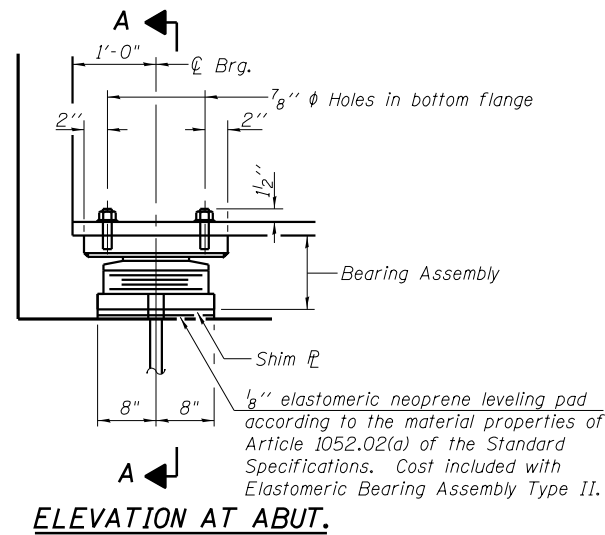
**DESIGN DATA TABLES**  
**STRUCTURE NO. 032-0119**

DESIGNED	- JSI/MAJ/JFS
CHECKED	- JFS/MJB
DRAWN	- MLB/JLP
CHECKED	- JFS/MJB

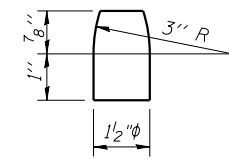
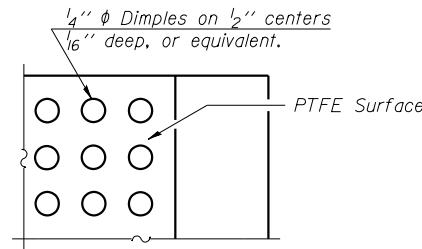
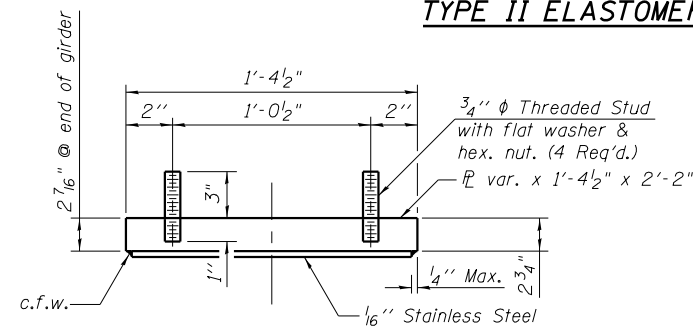


SHEET NO. 20 33 SHEETS	F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	400	(32,47-4) HBR-2	GRUNDY	143	81
S.N. 032-0119		CONTRACT NO. 66873			
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

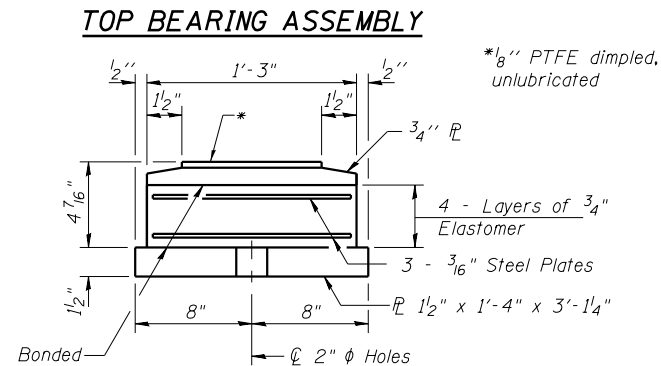
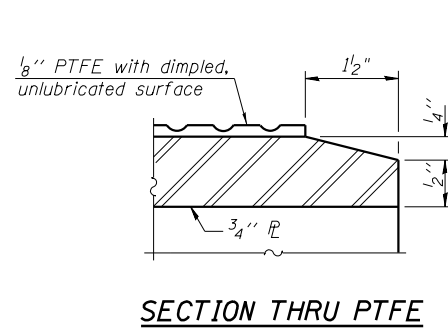
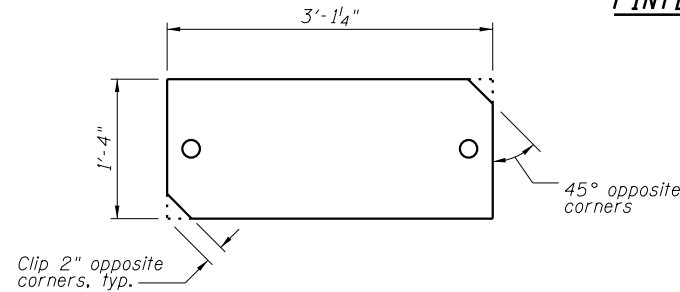


**TYPE II ELASTOMERIC EXP. BRG.**

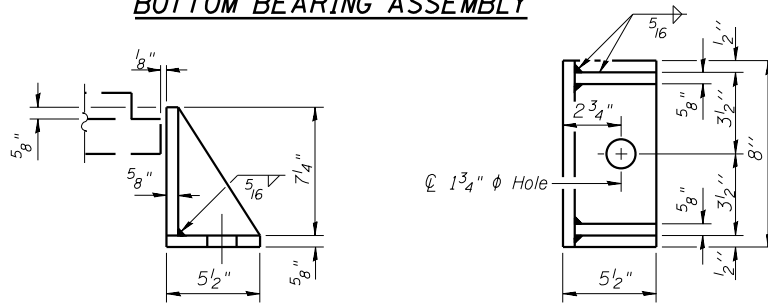


**FIXED BEARING**

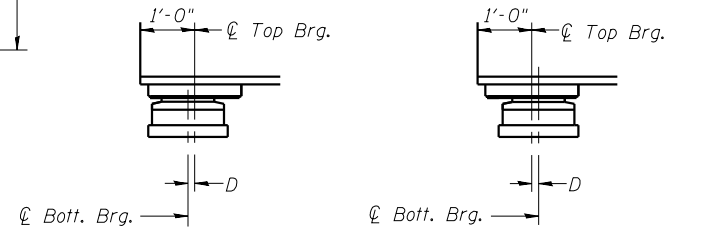
Notes:  
Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.  
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.  
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.  
Anchor bolts for Type II bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.  
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.  
Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II.  
The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.  
Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.  
All Bearing Plates and Pintles shall be AASHTO M270, Grade 50.



**BOTTOM BEARING ASSEMBLY**



Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



BELOW 50°F. ABOVE 50°F.  
(Move bott. brg. away from fixed brg.) (Move bott. brg. toward fixed brg.)

Beam	SHIM PLATES (include in weight of steel)		
	PLATE THICKNESS (inches)		
	West Abutment	East Abutment	Pier
1	---	---	---
2	1/8	---	---
3	3/8	---	---
4	1/2	---	---
5	7/8	---	---
6	---	---	1/2
7	---	1/2	---
8	---	---	---
9	---	---	---

**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	18
Anchor Bolts, 1 1/2"	Each	54

**BEARING DETAILS  
STRUCTURE NO. 032-0119**

DESIGNED - JSI/MAJ/JFS
CHECKED - JFS/MJB
DRAWN - MLB/JLP
CHECKED - JFS/MJB

**SETTING ANCHOR BOLTS AT EXP. BRG.**

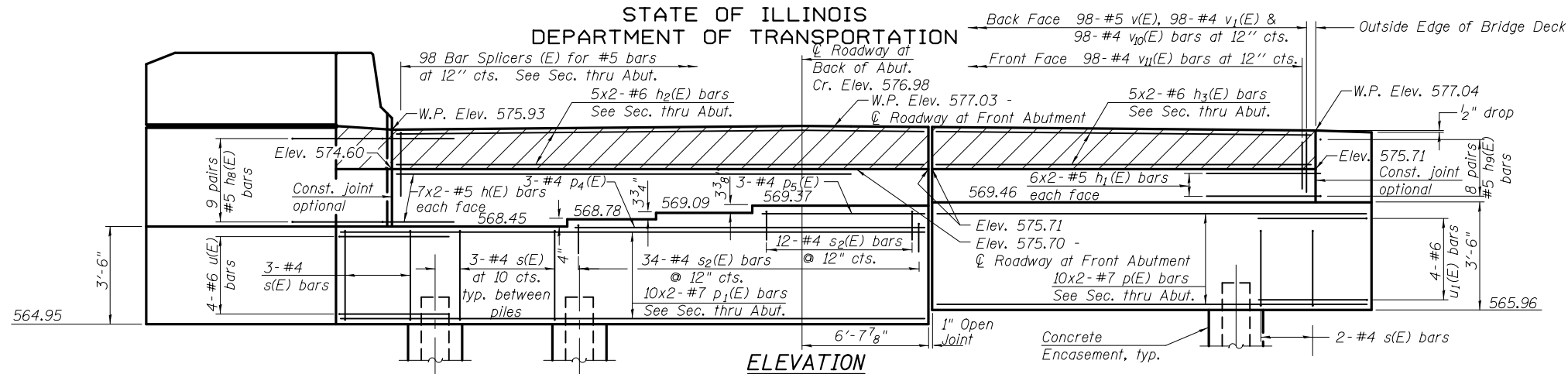
D=1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

**Foth**  
Foth Infrastructure & Environment, LLC  
7500 North Harker Drive  
Peoria, IL 61615  
Phone: 309-691-5300 Fax: 309-691-1892  
Illinois Registration Number 184.004913

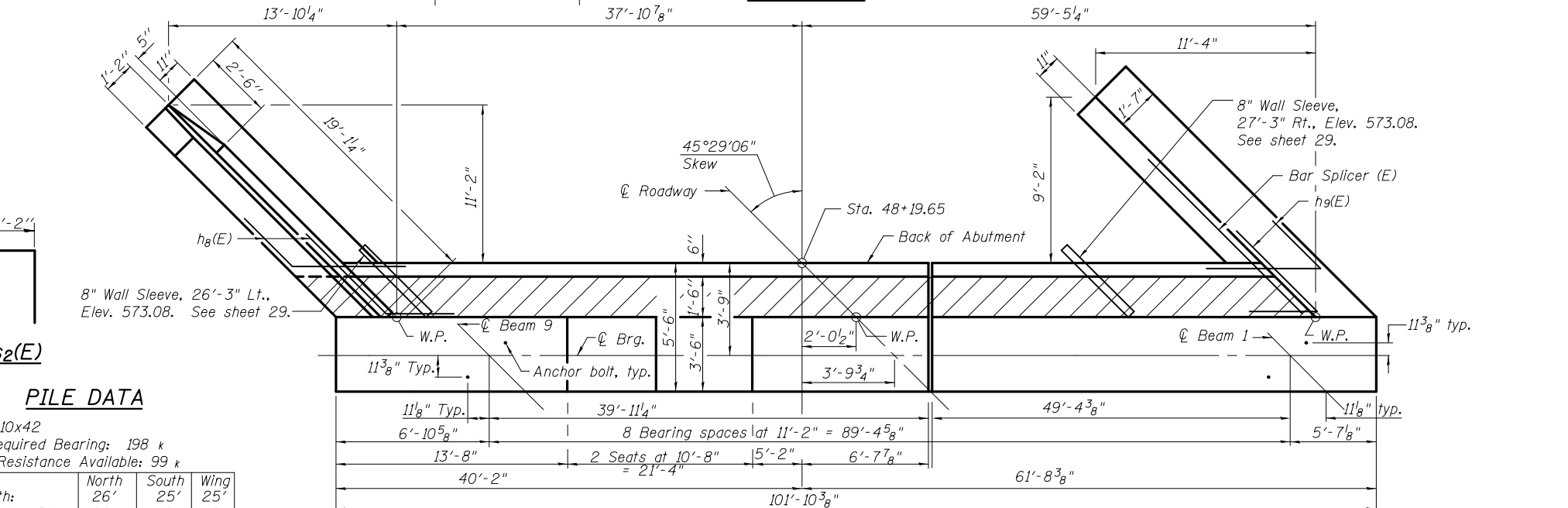
SHEET NO. 21 33 SHEETS	F.A.U. RTE. 400	SECTION (32,47-4) HBR-2	COUNTY GRUNDY	TOTAL SHEETS 143	SHEET NO. 82
	S.N. 032-0119		CONTRACT NO. 66873		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

c:\pw\_work\widot\duncan\bd018136921-BEARING DETAILS.dgn

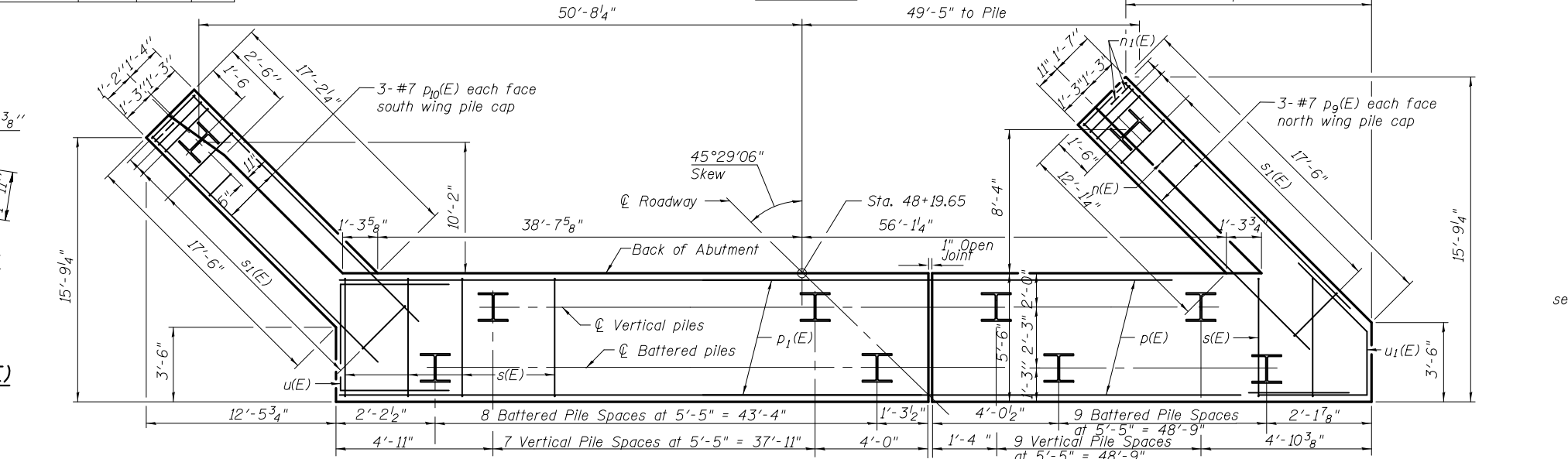
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



ELEVATION



TOP VIEW



PLAN-PILE CAP

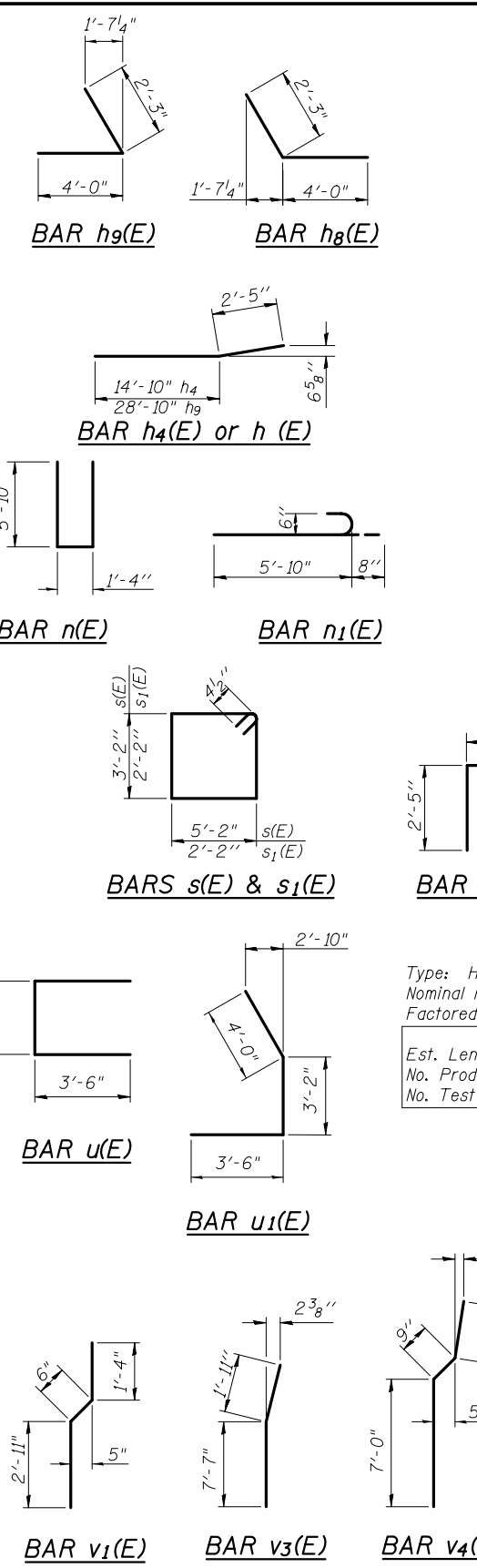
Minimum Lap Lengths		
Bar Size	Length	Top Bar
#4	1'-8"	
#5	2'-2"	
#5 Top Bar	3'-0"	$h, h_1$
#6	2'-7"	
#7	3'-5"	
#7 Top Bar	4'-10"	$p, p_1$

ABUTMENT  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	28	#5	24'-9"	
h <sub>1</sub> (E)	24	#5	27'-8"	
h <sub>2</sub> (E)	10	#6	24'-3"	
h <sub>3</sub> (E)	10	#6	28'-4"	
h <sub>8</sub> (E)	18	#5	6'-3"	
h <sub>9</sub> (E)	16	#5	6'-3"	
h <sub>10</sub> (E)	10	#4	17'-3"	
h <sub>11</sub> (E)	8	#4	18'-7"	
h <sub>2</sub> (E)	2	#4	18'-1"	
h <sub>3</sub> (E)	8	#4	16'-10"	
h <sub>4</sub> (E)	8	#4	15'-8"	
n(E)	34	#6	13'-0"	
n <sub>1</sub> (E)	6	#6	6'-6"	
p(E)	20	#7	29'-9"	
p <sub>1</sub> (E)	20	#7	25'-9"	
p <sub>4</sub> (E)	3	#4	32'-10"	
p <sub>5</sub> (E)	3	#4	11'-6"	
p <sub>9</sub> (E)	6	#7	17'-2"	
p <sub>10</sub> (E)	6	#7	18'-4"	
s(E)	113	#4	17'-5"	
s <sub>1</sub> (E)	49	#4	9'-5"	
s <sub>2</sub> (E)	46	#4	10'-0"	
u(E)	4	#6	12'-1"	
u <sub>1</sub> (E)	4	#6	10'-8"	
v(E)	98	#5	4'-2"	
v <sub>1</sub> (E)	98	#4	4'-9"	
v <sub>2</sub> (E)	19	#6	9'-6"	
v <sub>3</sub> (E)	3	#6	9'-6"	
v <sub>4</sub> (E)	16	#6	9'-8"	
v <sub>5</sub> (E)	34	#6	6'-9"	
v <sub>10</sub> (E)	98	#4	7'-0"	
v <sub>11</sub> (E)	98	#4	8'-7"	
Structure Excavation		Cu. Yd.	437	
Concrete Structures		Cu. Yd.	147.8	
Reinforcement Bars, Epoxy Coated		Pound	11,070	
Furnishing Steel Piles HP 10 x 42		Foot	970	
Driving Piles		Foot	970	
Test Pile Steel HP 10 x 42		Each	1	
Concrete Encasement		Cu. Yd.	14	
Concrete Sealer		Sq. Ft.	1196	

For details of Bar Splicers, see sheet 30 of 33.  
For details of piles and Concrete Encasement, see sheet 31 of 33.

WEST ABUTMENT  
STRUCTURE NO. 032-0119



**PILE DATA**

Type: HP10x42  
Nominal Required Bearing: 198 k  
Factored Resistance Available: 99 k

	North	South	Wing
Est. Length:	26'	25'	25'
No. Production Piles:	20	16	2
No. Test Piles:	0	1	0

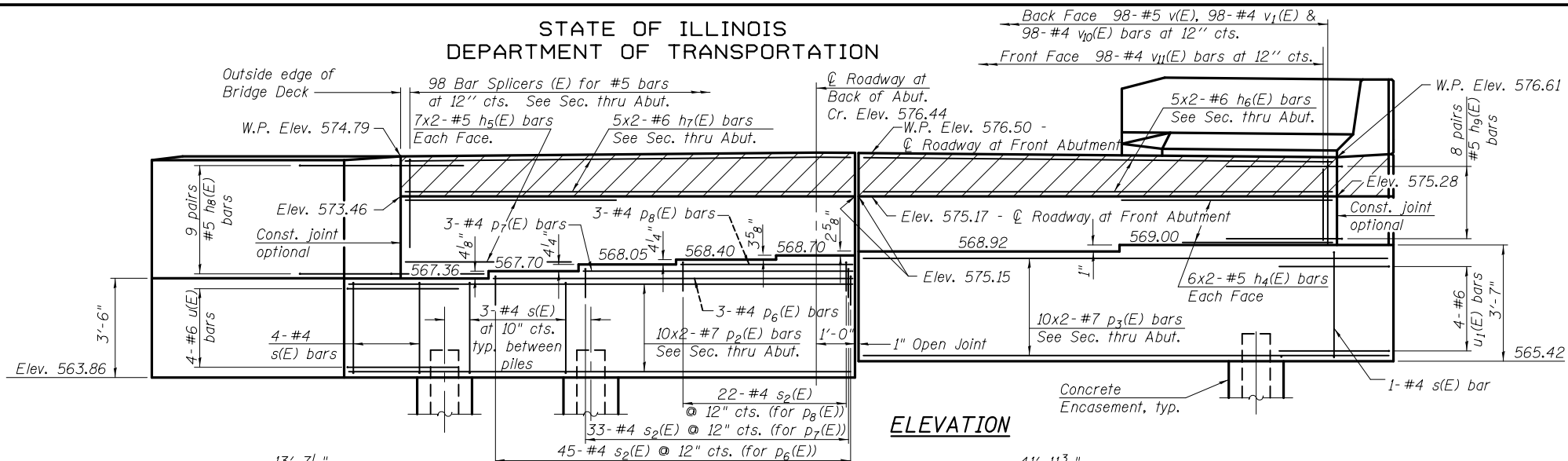
Note:  
Bars indicated thus:  
18 x 2-#6 etc. indicates  
18 lines of bars with 2  
lengths per line

DESIGNED - JSI/MAJ/JFS
CHECKED - JFS/MJB
DRAWN - MLB/JLP
CHECKED - JFS/MJB

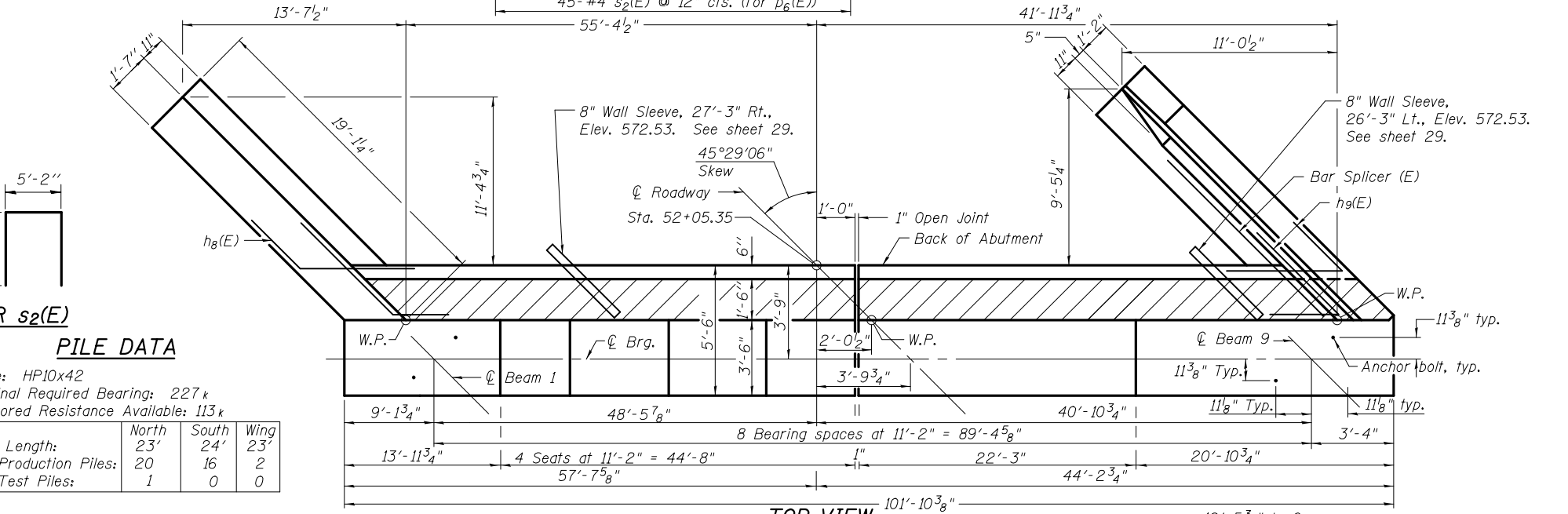
**Foth**  
Foth Infrastructure & Environment, LLC  
7500 North Harker Drive  
Peoria, IL 61615  
Phone: 309-691-5300 Fax: 309-691-1892  
Illinois Registration Number 184.004913

SHEET NO. 22 33 SHEETS	F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	400	(32,47-4) HBR-2	GRUNDY	143	83
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		CONTRACT NO. 66873	

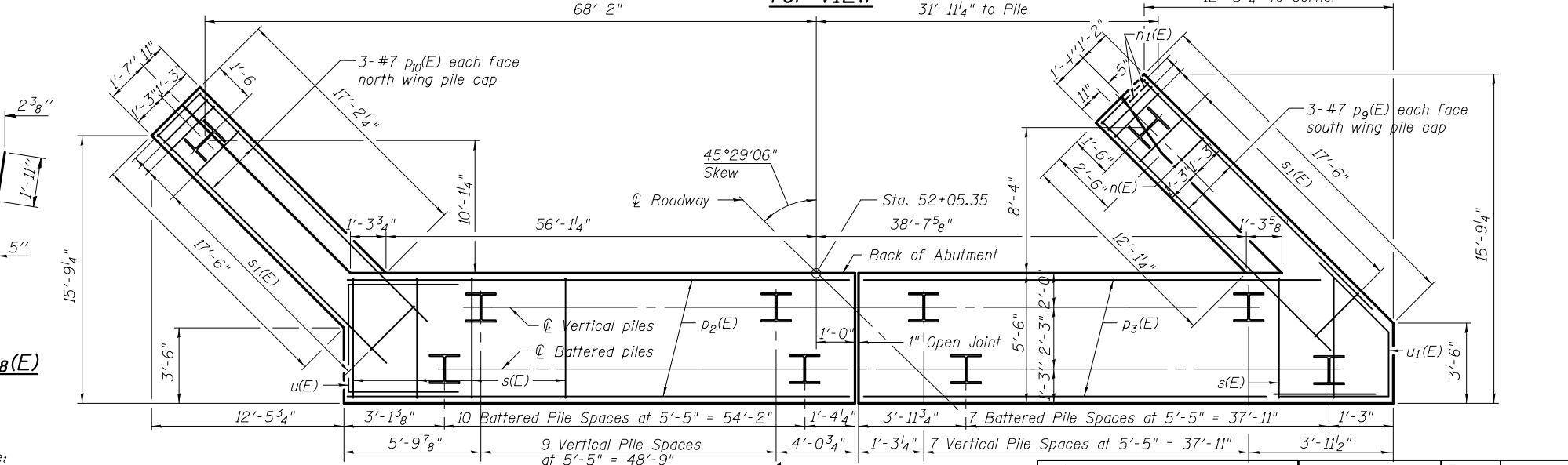
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



ELEVATION



TOP VIEW



PLAN-PILE CAP

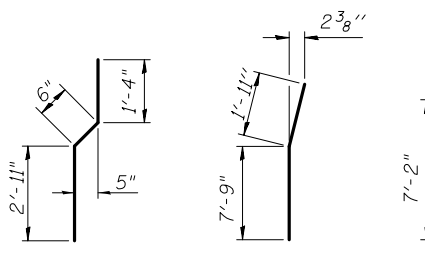
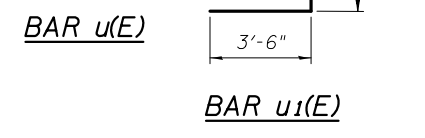
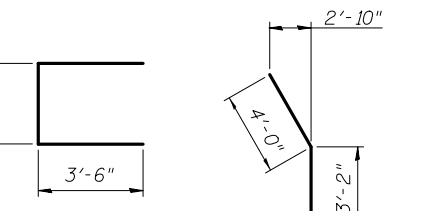
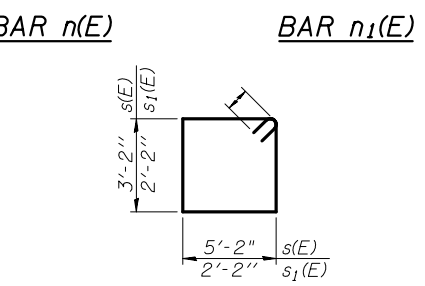
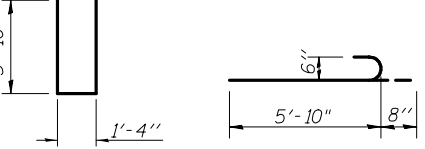
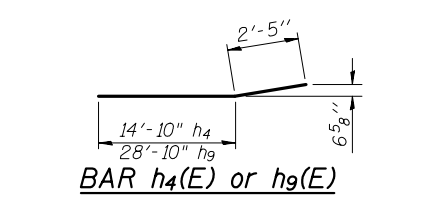
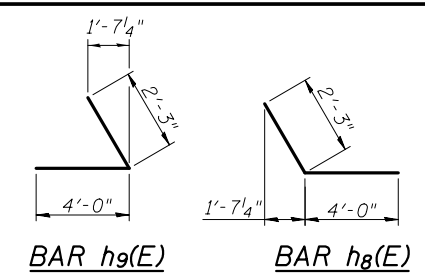
Minimum Lap Lengths		
Bar Size	Length	Top Bar
#4	1'-8"	
#5	2'-2"	
#5 Top Bar	3'-0"	$h_4, h_5$
#6	2'-7"	
#7	3'-5"	
#7 Top Bar	4'-10"	$p_2, p_3$

ABUTMENT  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_4(E)$	24	#5	22'-4"	
$h_5(E)$	28	#5	30'-7"	
$h_6(E)$	10	#6	22'-6"	
$h_7(E)$	10	#6	30'-2"	
$h_8(E)$	18	#5	6'-3"	
$h_9(E)$	16	#5	6'-3"	
$h_{10}(E)$	10	#4	16'-11"	
$h_{11}(E)$	8	#4	15'-9"	
$h_{12}(E)$	2	#4	16'-1"	
$h_{13}(E)$	8	#4	17'-4"	
$h_{14}(E)$	8	#4	18'-6"	
$n(E)$	33	#6	13'-0"	
$n_1(E)$	6	#6	6'-6"	
$p_2(E)$	20	#7	31'-8"	
$p_3(E)$	20	#7	23'-10"	
$p_6(E)$	3	#4	44'-4"	
$p_7(E)$	3	#4	33'-2"	
$p_8(E)$	3	#4	22'-0"	
$p_9(E)$	6	#7	17'-2"	
$p_{10}(E)$	6	#7	18'-4"	
$s(E)$	113	#4	17'-5"	
$s_1(E)$	49	#4	9'-5"	
$s_2(E)$	100	#4	10'-0"	
$u(E)$	4	#6	12'-1"	
$u_1(E)$	4	#6	10'-8"	
$v(E)$	98	#5	4'-2"	
$v_1(E)$	98	#4	4'-9"	
$v_6(E)$	52	#6	10'-0"	
$v_7(E)$	6	#6	9'-7"	
$v_8(E)$	46	#6	18'-4"	
$v_9(E)$	38	#6	6'-1"	
$v_{10}(E)$	98	#4	7'-0"	
$v_{11}(E)$	98	#4	8'-7"	
Structure Excavation	Cu. Yd.		437	
Concrete Structures	Cu. Yd.		142.3	
Reinforcement Bars, Epoxy Coated	Pound		13,150	
Furnishing Steel Piles HP 10 x 42	Foot		890	
Driving Piles	Foot		890	
Test Pile Steel HP 10 x 42	Each		1	
Concrete Encasement	Cu. Yd.		14	
Concrete Sealer	Sq. Ft.		1201	

For details of Bar Splicers, see sheet 30 of 33.  
For details of piles and Concrete Encasement, see sheet 31 of 33.

EAST ABUTMENT  
STRUCTURE NO. 032-0119



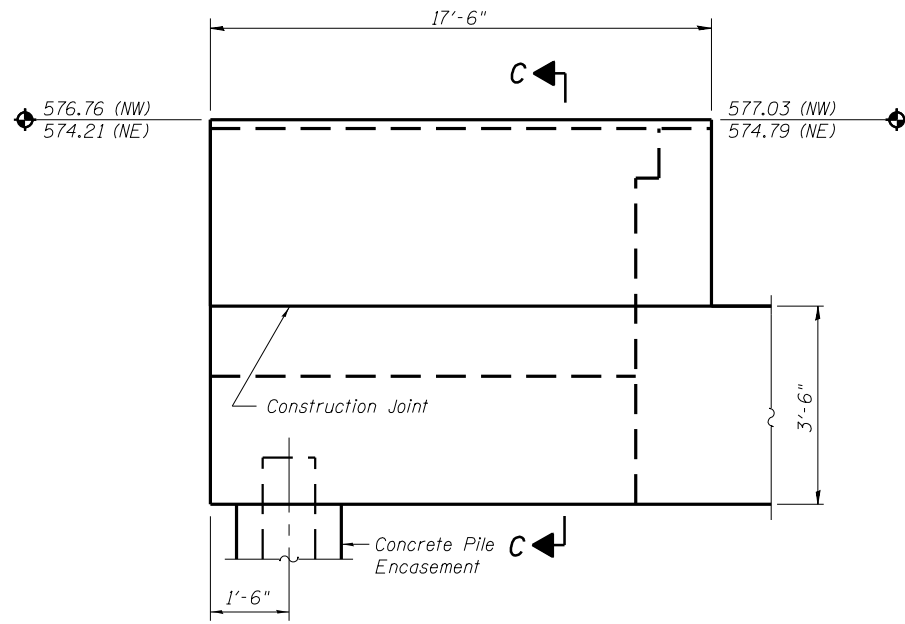
DESIGNED - JSI/MAJ/JFS
CHECKED - JFS/MJB
DRAWN - MLB/JLP
CHECKED - JFS/MJB

Note:  
Bars indicated thus:  
18 x 2-#6 etc. indicates  
18 lines of bars with 2  
lengths per line

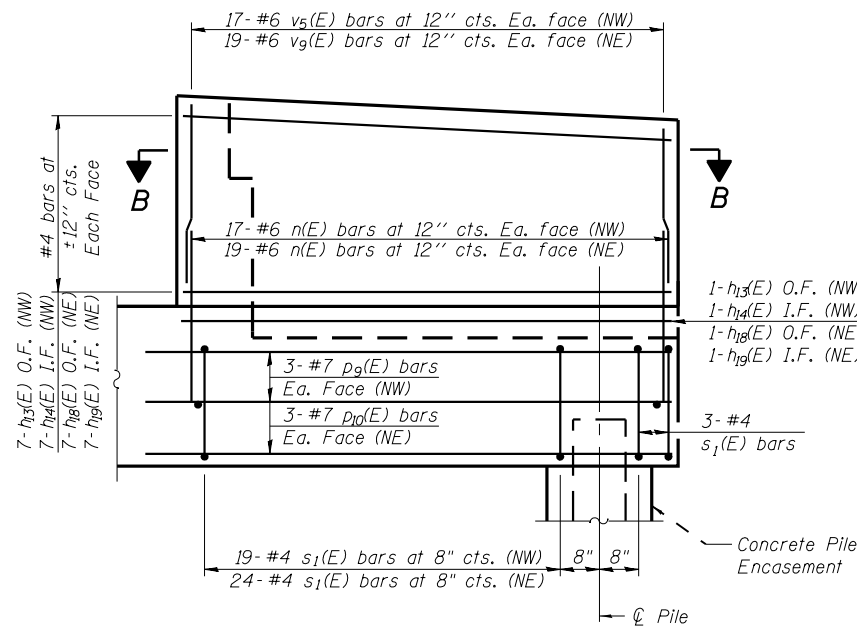
**Foth**  
Foth Infrastructure & Environment, LLC  
7500 North Harker Drive  
Peoria, IL 61615  
Phone: 309-691-5300 Fax: 309-691-1892  
Illinois Registration Number 184,004913

SHEET NO. 23 33 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	400	(32,47-4) HBR-2	GRUNDY	143	84
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	CONTRACT NO. 66873		

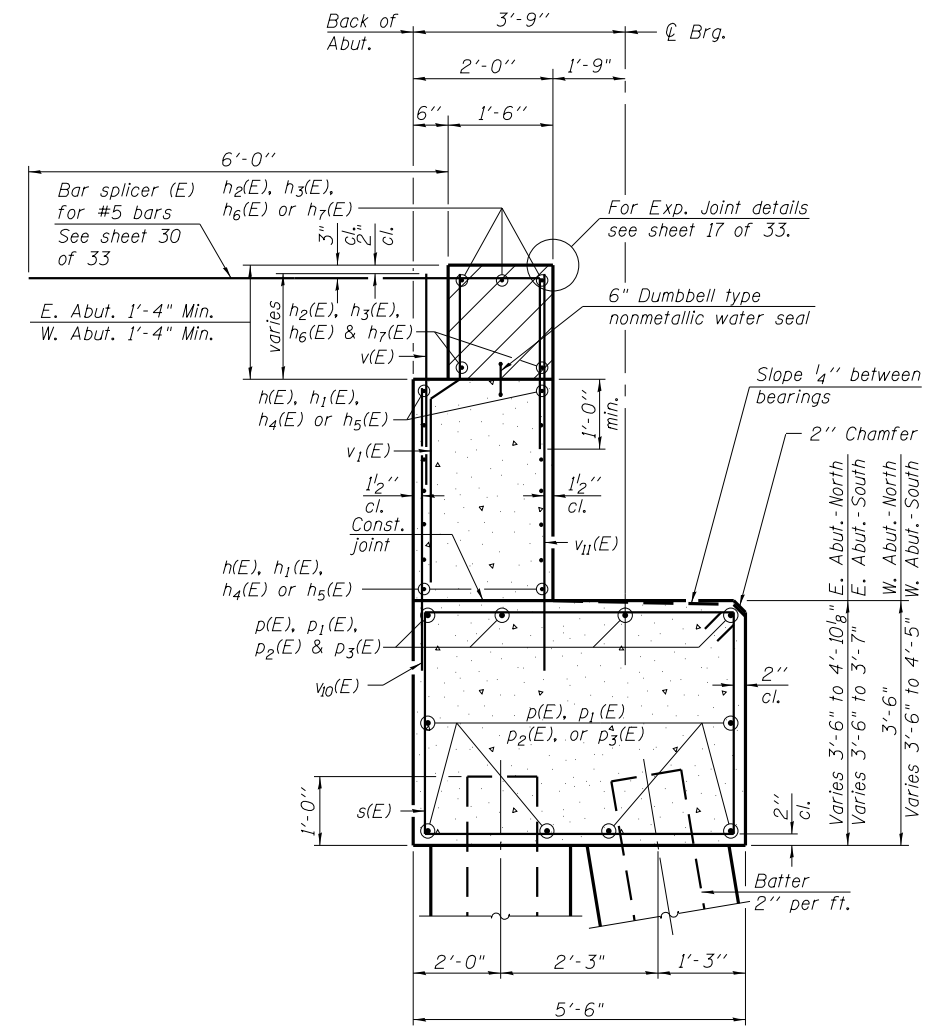
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



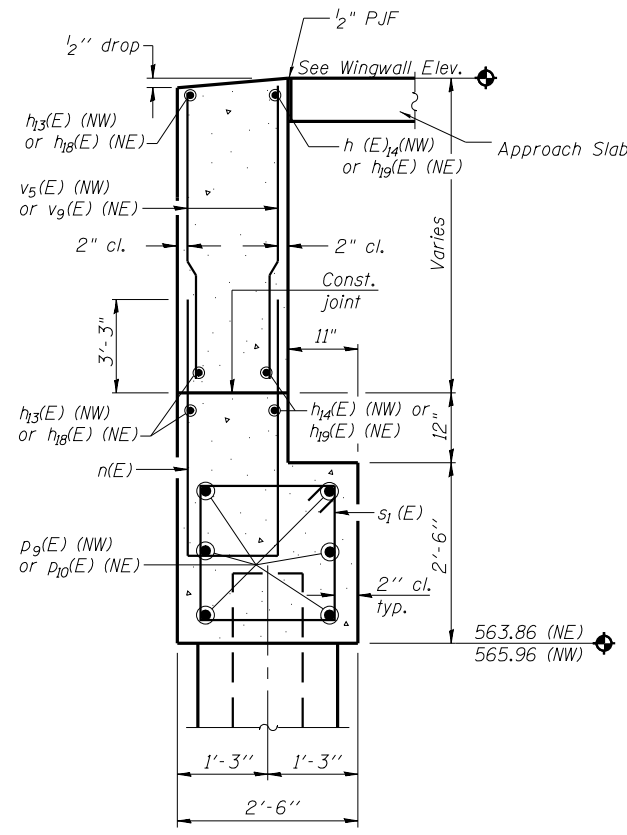
**NORTHEAST WING WALL ELEVATION (SHOWN)**  
**NORTHWEST WING WALL ELEVATION (SIMILAR)**  
Showing Dimensions



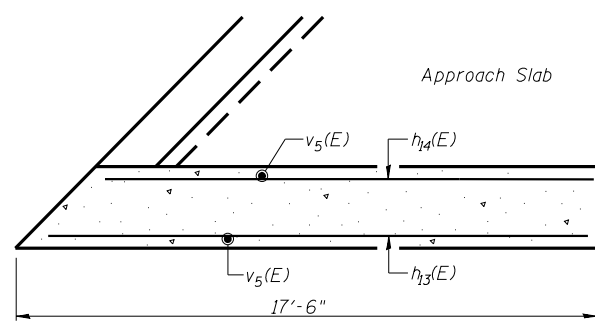
**NORTHWEST WING WALL ELEVATION (SHOWN)**  
**NORTHEAST WING WALL ELEVATION (SIMILAR)**  
Showing Reinforcement



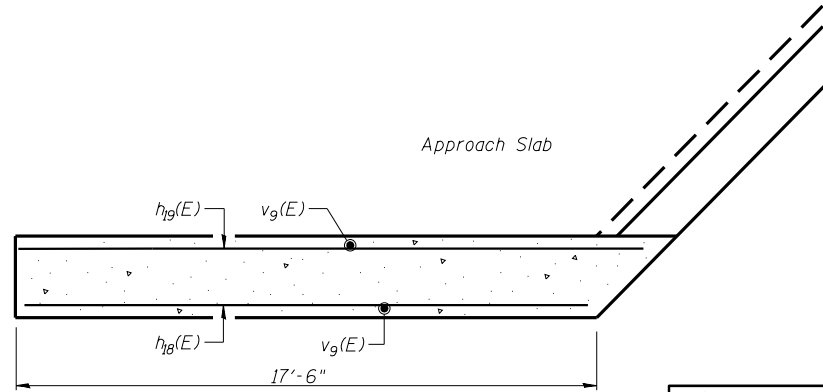
**SEC. THRU ABUT.**



**SECTION C-C**



**SECTION B-B**  
**NORTHWEST WINGWALL**



**SECTION B-B**  
**NORTHEAST WINGWALL**

Notes:  
Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure on sheet 16 of 33.  
Space reinforcement in cap to miss anchor bolts. Pour steps monolithically with cap.  
For Concrete Encasement details, see sheet 31 of 33.  
NW = North Wingwall, West Abutment  
NE = North Wingwall, East Abutment

**ABUTMENT SECTIONS AND**  
**NORTH WING WALLS**  
**STRUCTURE NO. 032-0119**

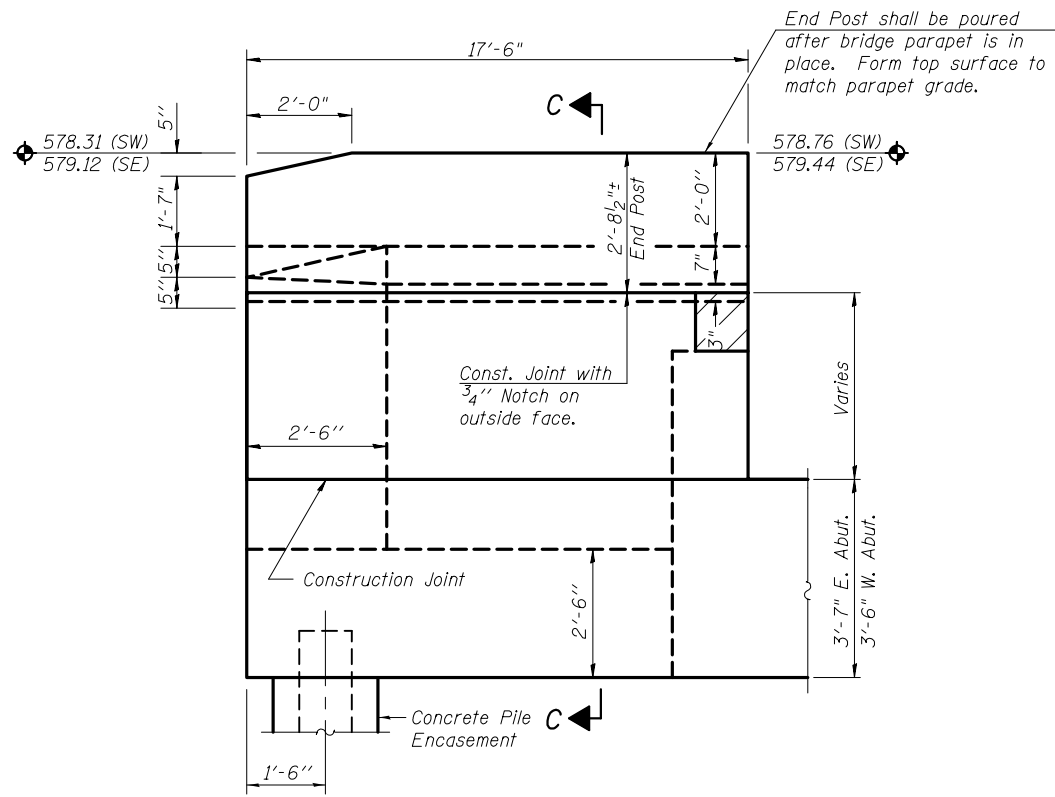
DESIGNED - JSI/MAJ/JFS
CHECKED - JFS/MJB
DRAWN - MLB/JLP
CHECKED - JFS/MJB

**Foth**  
Foth Infrastructure & Environment, LLC  
7500 North Harker Drive  
Peoria, IL 61615  
Phone: 309-691-5300 Fax: 309-691-1892  
Illinois Registration Number 184,004913

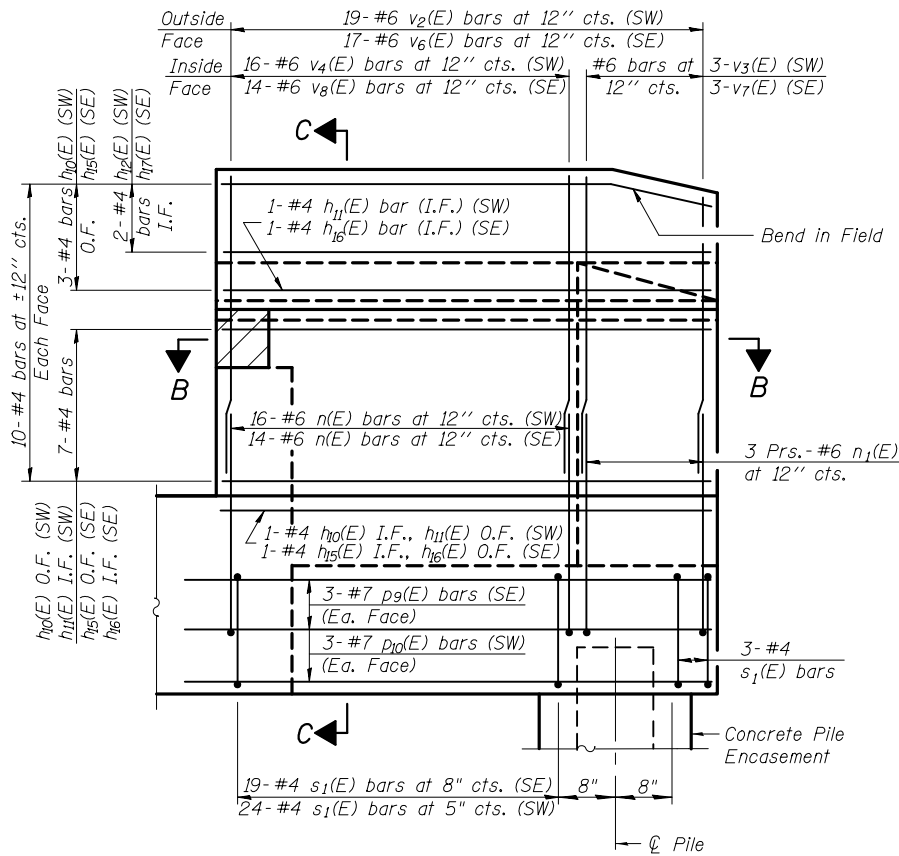
SHEET NO. 24 33 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	400	(32,47-4) HBR-2	GRUNDY	143	85
S.N. 032-0119			CONTRACT NO. 66873		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

c:\pwwork\pwwork\duncanbd\181369124-ABUT-EAST-A-1-D.dgn

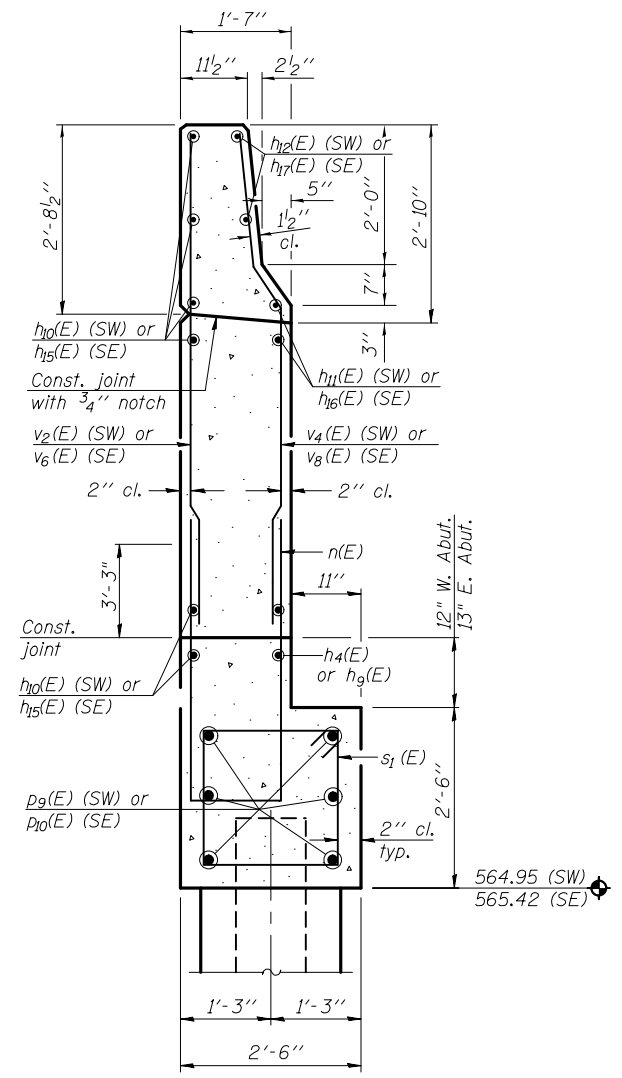
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



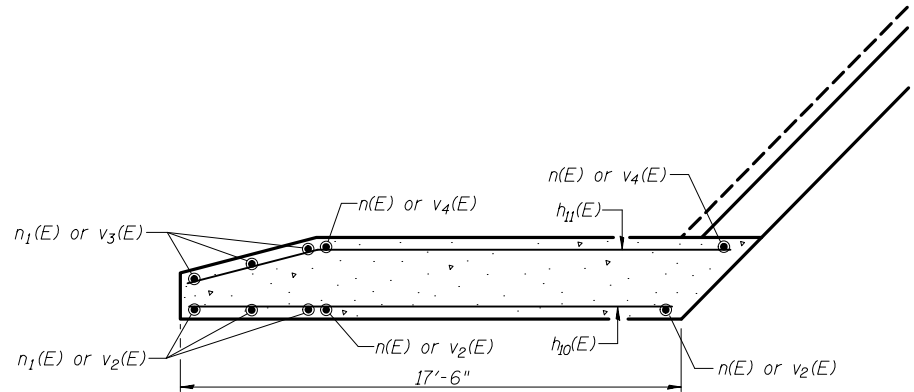
**SOUTHWEST WINGWALL ELEVATION (SHOWN)**  
**SOUTHEAST WINGWALL ELEVATION (SIMILAR)**  
Showing Dimensions



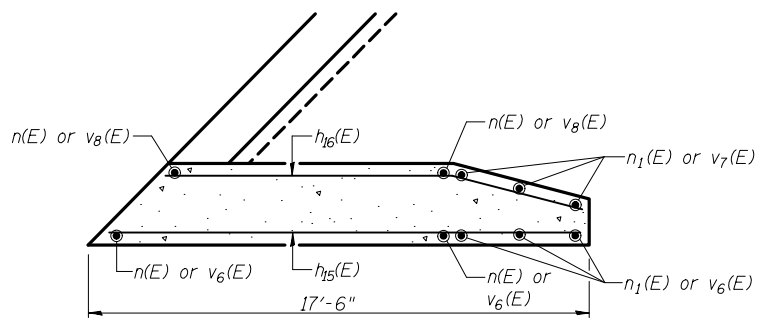
**SOUTHEAST WING WALL ELEVATION (SHOWN)**  
**SOUTHWEST WING WALL ELEVATION (SIMILAR)**  
Showing Reinforcement



**SECTION C-C**



**SECTION B-B**



**SECTION B-B**

Notes:  
Quantity of concrete in end post included with Concrete Superstructure on sheet 11 of 33.  
For Concrete Encasement details, see sheet 31 of 33.

**ABUTMENT**  
**SOUTH WING WALLS**  
**STRUCTURE NO. 032-0119**

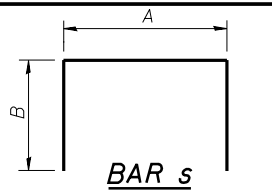
DESIGNED	- JSI/MAJ/JFS
CHECKED	- JFS/MJB
DRAWN	- MLB/JLP
CHECKED	- JFS/MJB

**Foth**  
Foth Infrastructure & Environment, LLC  
7500 North Harker Drive  
Peoria, IL 61615  
Phone: 309-691-5300 Fax: 309-691-1892  
Illinois Registration Number 184.004913

SHEET NO. 25 33 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	400	(32,47-4) HBR-2	GRUNDY	143	86
S.N. 032-0119			CONTRACT NO. 66873		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

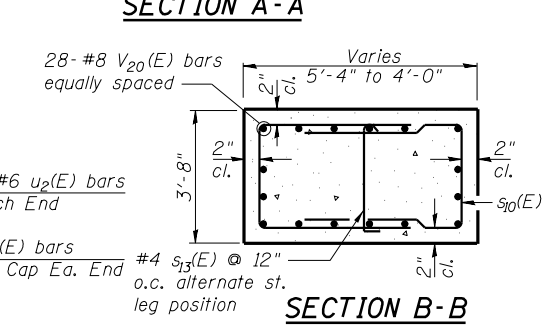
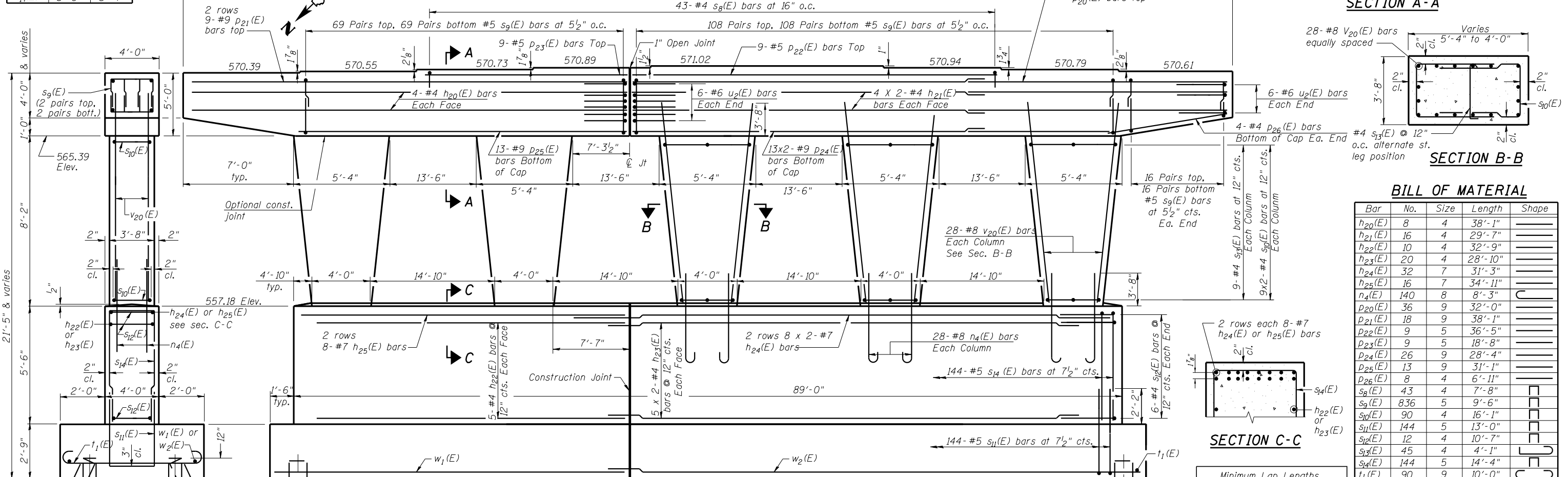
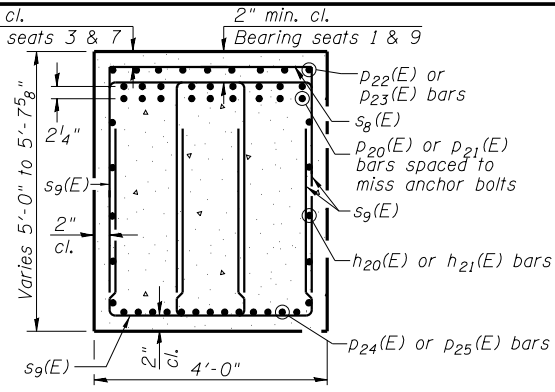
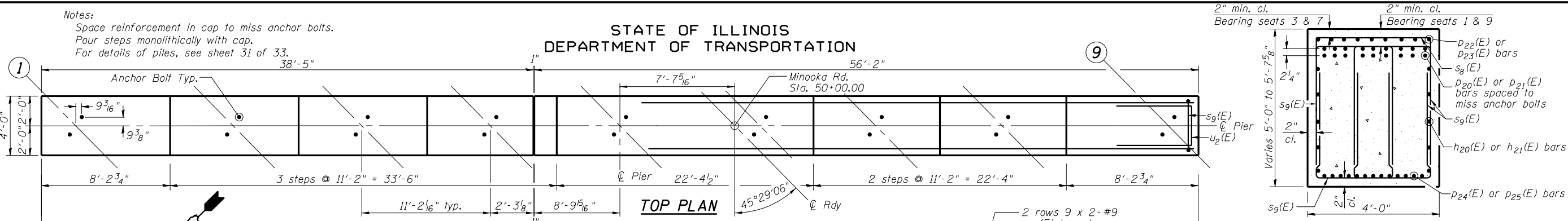
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Notes:  
Space reinforcement in cap to miss anchor bolts.  
Pour steps monolithically with cap.  
For details of piles, see sheet 31 of 33.



**BAR S**  
**A & B DIMENSIONS**

Bar	A	B
s <sub>8</sub> (E)	3'-8"	2'-0"
s <sub>9</sub> (E)	2'-6"	3'-6"
s <sub>10</sub> (E)	3'-4"	3'-7"
s <sub>11</sub> (E)	3'-8"	4'-8"
s <sub>12</sub> (E)	3'-7"	3'-6"
s <sub>14</sub> (E)	3'-8"	5'-4"



**SECTION C-C**

**BILL OF MATERIAL**

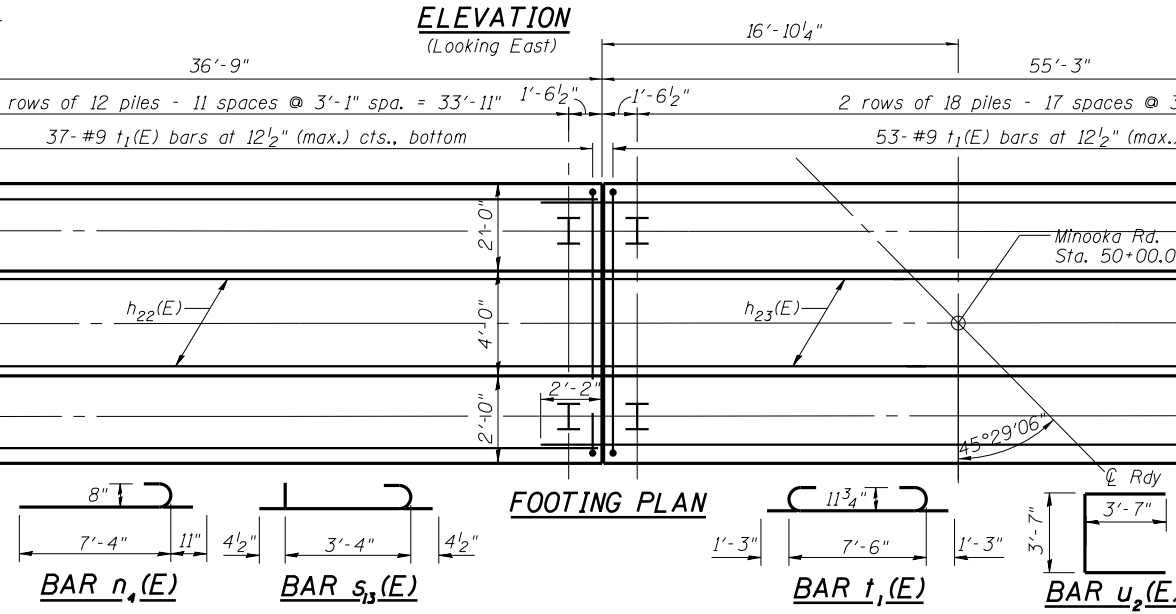
Bar	No.	Size	Length	Shape
h <sub>20</sub> (E)	8	4	38'-1"	
h <sub>21</sub> (E)	16	4	29'-7"	
h <sub>22</sub> (E)	10	4	32'-9"	
h <sub>23</sub> (E)	20	4	28'-10"	
h <sub>24</sub> (E)	32	7	31'-3"	
h <sub>25</sub> (E)	16	7	34'-11"	
n <sub>4</sub> (E)	140	8	8'-3"	
p <sub>20</sub> (E)	36	9	32'-0"	
p <sub>21</sub> (E)	18	9	38'-1"	
p <sub>22</sub> (E)	9	5	36'-5"	
p <sub>23</sub> (E)	9	5	18'-8"	
p <sub>24</sub> (E)	26	9	28'-4"	
p <sub>25</sub> (E)	13	9	31'-1"	
p <sub>26</sub> (E)	8	4	6'-11"	
s <sub>8</sub> (E)	43	4	7'-8"	
s <sub>9</sub> (E)	836	5	9'-6"	
s <sub>10</sub> (E)	90	4	16'-1"	
s <sub>11</sub> (E)	144	5	13'-0"	
s <sub>12</sub> (E)	12	4	10'-7"	
s <sub>13</sub> (E)	45	4	4'-1"	
s <sub>14</sub> (E)	144	5	14'-4"	
t <sub>1</sub> (E)	90	9	10'-0"	
u <sub>2</sub> (E)	24	6	10'-9"	
v <sub>20</sub> (E)	140	8	11'-10"	
w <sub>1</sub> (E)	18	6	36'-5"	
w <sub>2</sub> (E)	36	6	29'-8"	
Braced Excavation		Cu. Yd.	349	
Concrete Structures		Cu. Yd.	248.1	
Reinforcement Bars, Epoxy Coated		Pound	42,320	
Furnishing Steel Piles HP 10 x 42		Foot	1003	
Driving Piles		Foot	1003	
Test Pile Steel HP 10 x 42		Each	1	

**END VIEW PILE DATA**

Type: HP10X42  
Nominal Required Bearing: 282 k  
Factored Resistance Available: 141 k  
Est. Length: 17'  
No. Production Piles: 59  
No. Test Piles: 1\*\*

**DESIGNED - JSI/MAJ/JFS**  
**CHECKED - JFS/MJB**  
**DRAWN - MLB/JLP**  
**CHECKED - JFS/MJB**

\*\*Test pile must be one of the 24 north most piles.



**Minimum Lap Lengths**

Bar Size	Length	Top Bar
#4	1'-8"	
#4 Top Bar	2'-5"	h <sub>21</sub> , h <sub>23</sub>
#5	2'-2"	
#6	2'-7"	
#7	3'-5"	
#7 Top Bar	4'-10"	h <sub>24</sub>
#8	4'-6"	
#9	5'-9"	
#9 Top Bar	8'-1"	p <sub>20</sub>

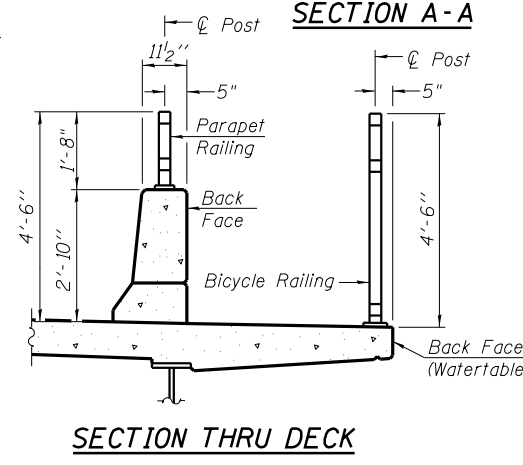
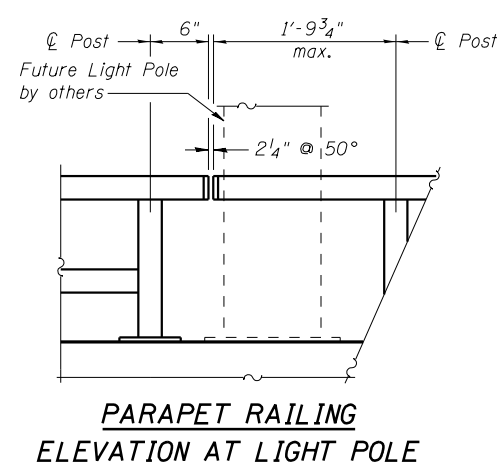
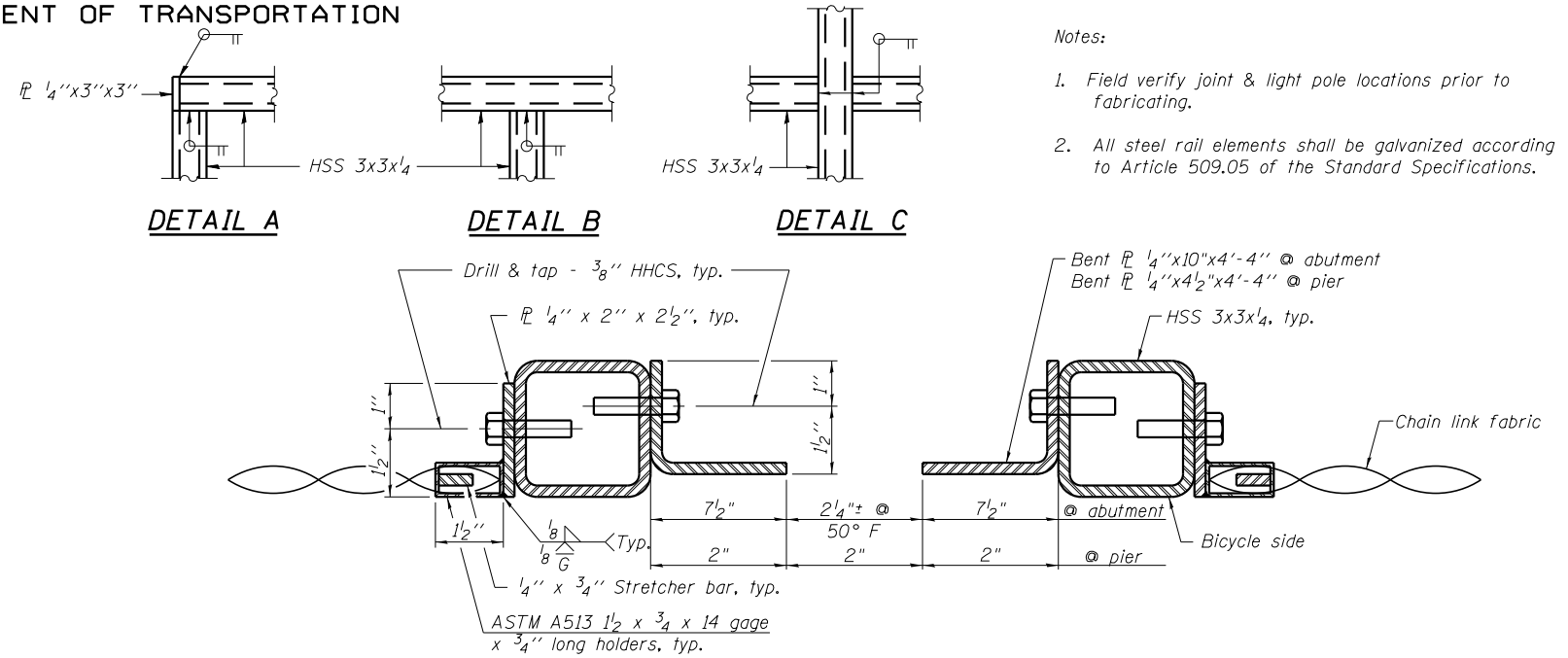
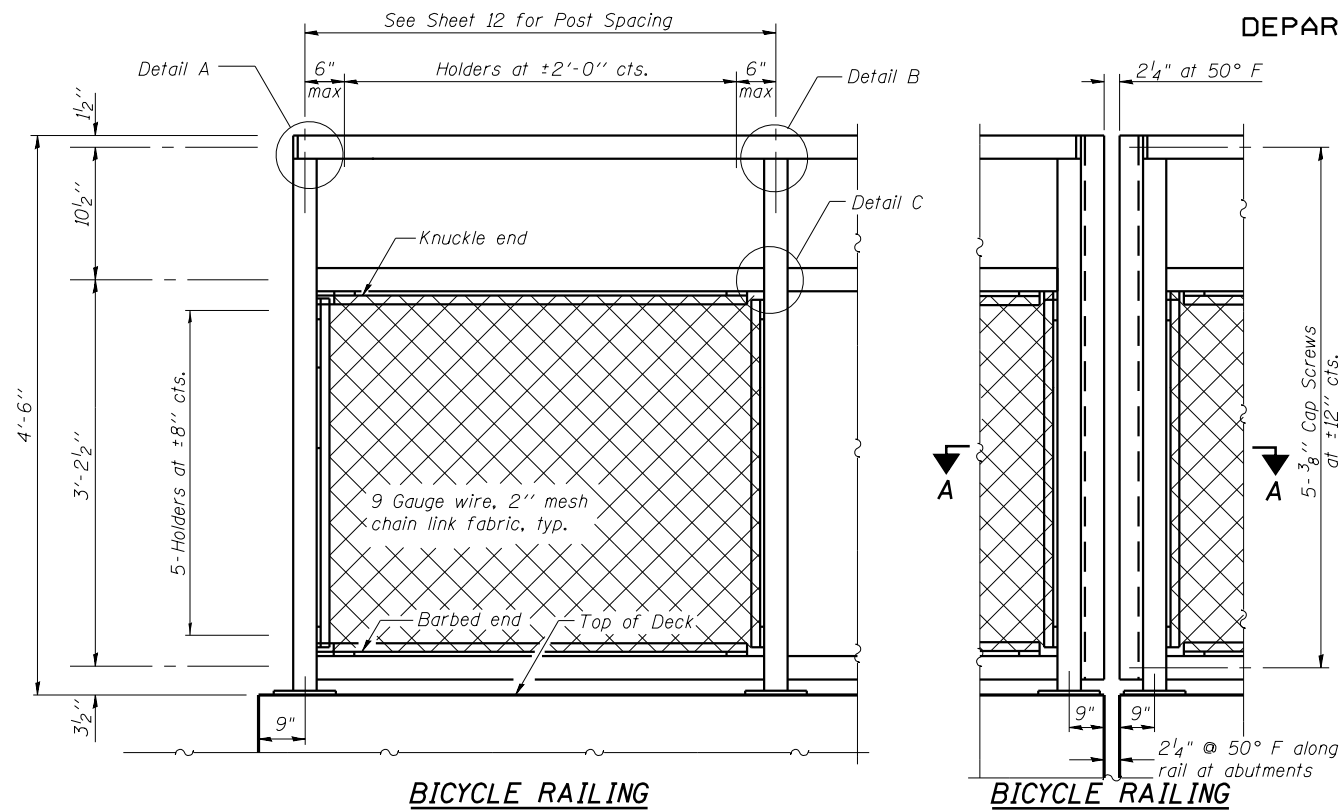
Note:  
Bars indicated thus indicates 18 lines of bars with 2 lengths per line

**PIER STRUCTURE NO. 032-0119**

**Foth**  
Foth Infrastructure & Environment, LLC  
7500 North Harker Drive  
Peoria, IL 61615  
Phone: 309-691-5300 Fax: 309-691-1892  
Illinois Registration Number 184,004913

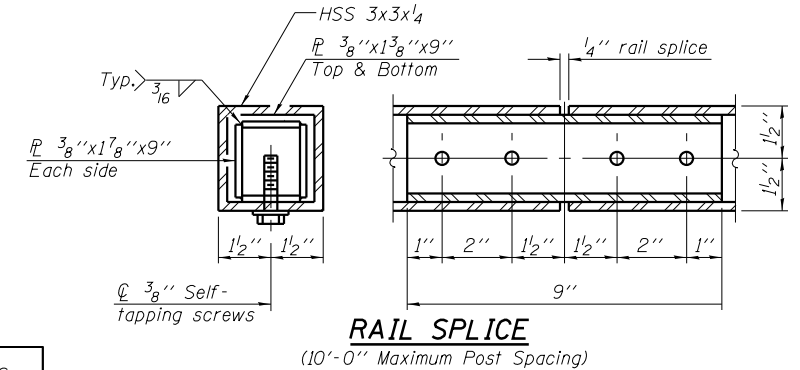
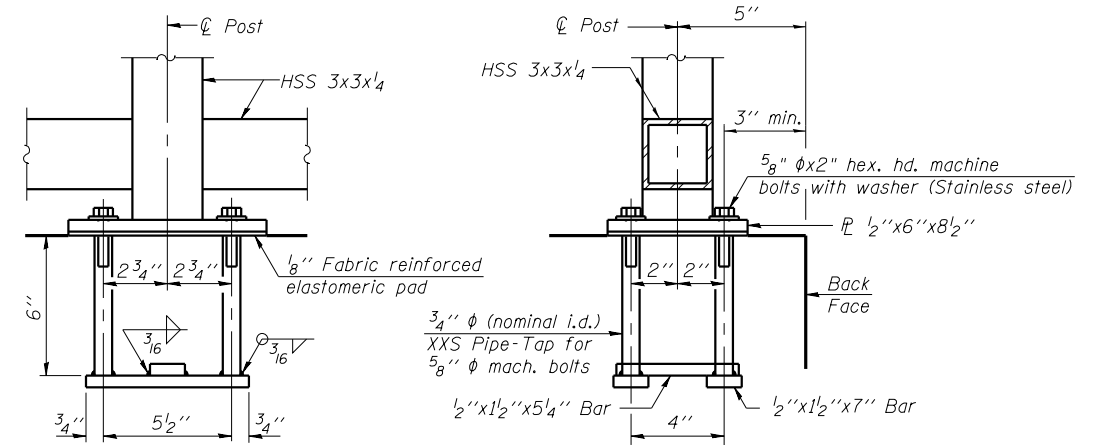
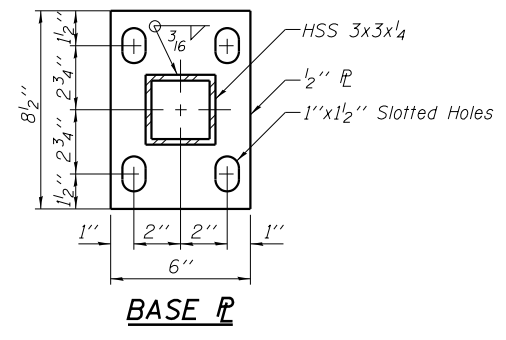
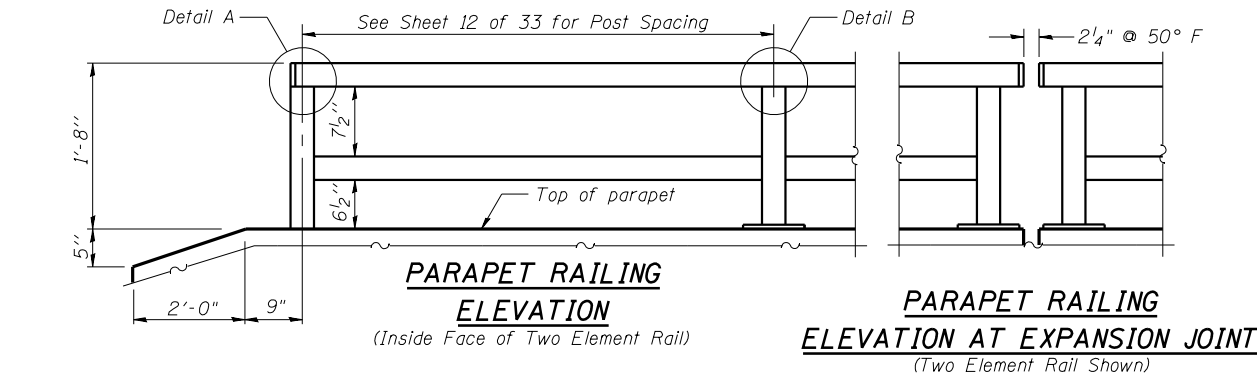
SHEET NO. 26	F.A.U. RTE. 400	SECTION (32,47-4) HBR-2	COUNTY GRUNDY	TOTAL SHEETS 143	SHEET NO. 87
33 SHEETS	S.N. 032-0119		CONTRACT NO. 66873		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**BILL OF MATERIAL**

Item	Unit	Quantity
Bicycle Railing	Foot	445
Parapet Railing	Foot	437



**ANCHOR BOLT DETAILS**

**BICYCLE RAILING STRUCTURE NO. 032-0119**

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" φ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

DESIGNED	- JSI/MAJ/JFS
CHECKED	- JFS/MJB
DRAWN	- MLB/JLP
CHECKED	- JFS/MJB

<p><b>Foth</b> Foth Infrastructure &amp; Environment, LLC 7500 North Harker Drive Peoria, IL 61615 Phone: 309-691-5300 Fax: 309-691-1892 Illinois Registration Number 184,004913</p>	SHEET NO. 27	F.A.U. RTE. 400	SECTION (32,47-4) HBR-2	COUNTY GRUNDY	TOTAL SHEETS 143	SHEET NO. 88
	33 SHEETS	S.N. 032-0119		CONTRACT NO. 66873		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT				

c:\pwworking\dwg\duncanbd\018136927-BICYCLE RAILING.dwg



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Notes:  
All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.  
Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

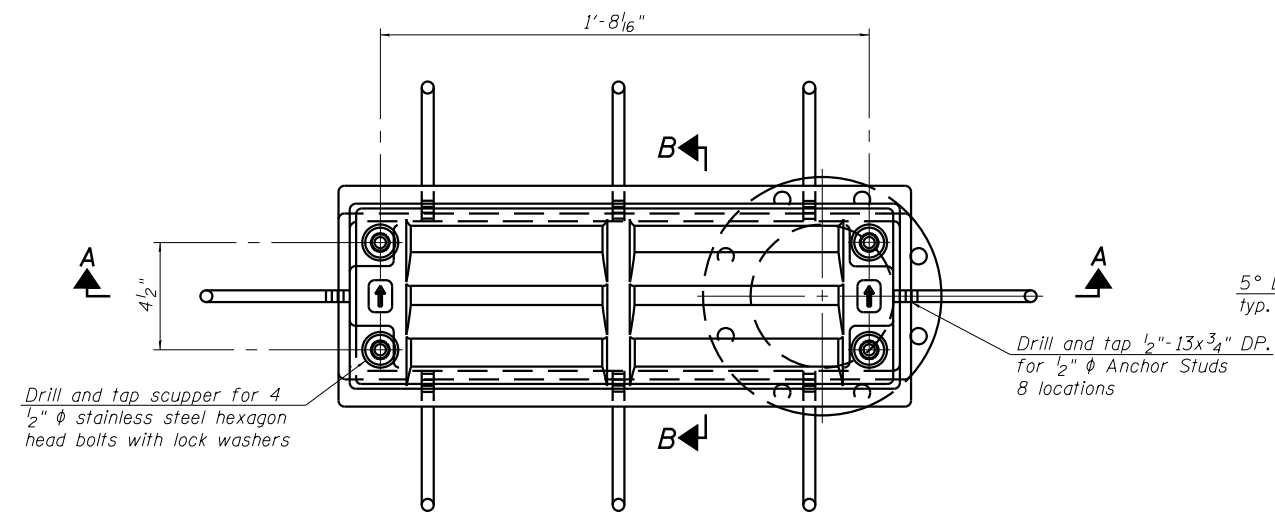
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.

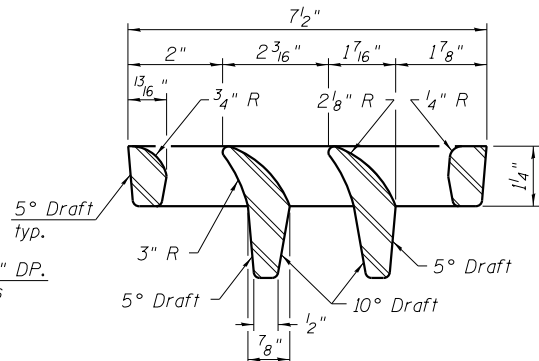
The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-12.

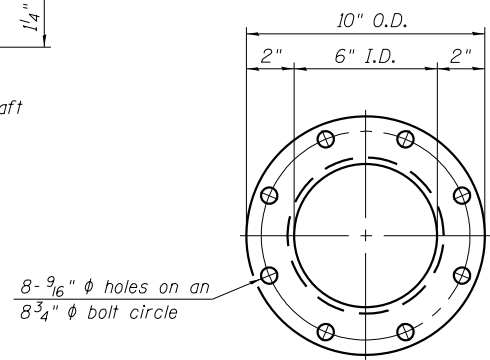
Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.



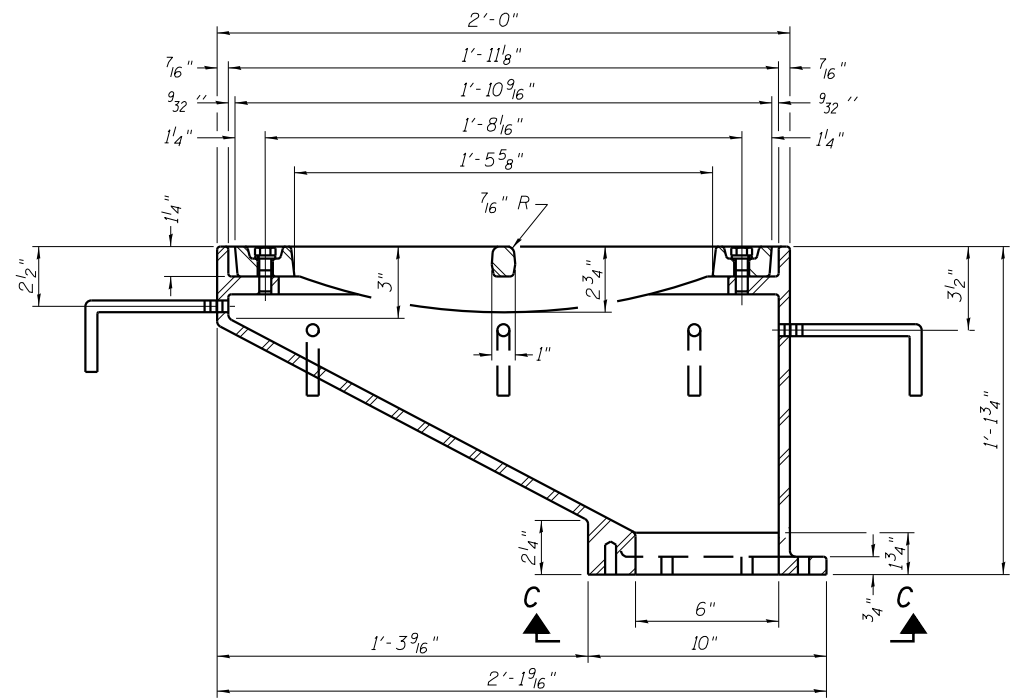
PLAN



VANE GRATE DETAIL

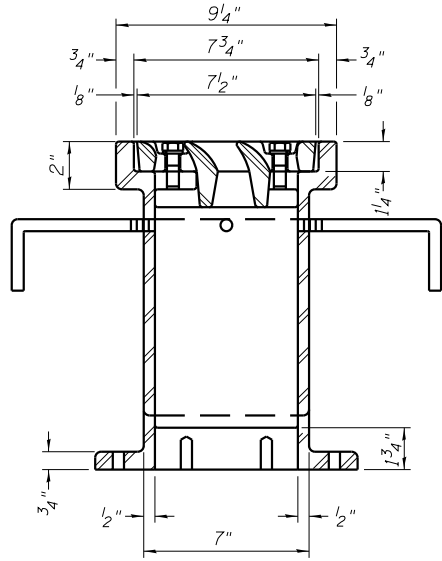


VIEW C-C

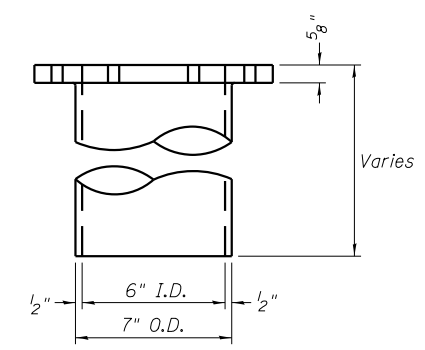


SECTION A-A

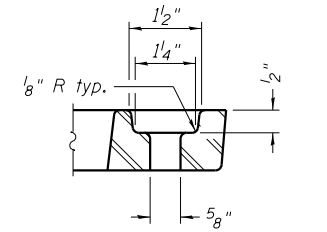
See sheet 11 of 33 for scupper location relative to parapet.



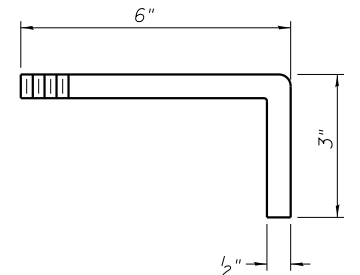
SECTION B-B



DOWNSPOUT



BOLT HOLE DETAIL



ANCHOR STUD DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-12	Each	20

DRAINAGE SCUPPER, DS-12  
STRUCTURE NO. 032-0119

DESIGNED	- JSI/MAJ/JFS
CHECKED	- JFS/MJB
DRAWN	- MLB/JLP
CHECKED	- JFS/MJB

DS-12 10-1-08

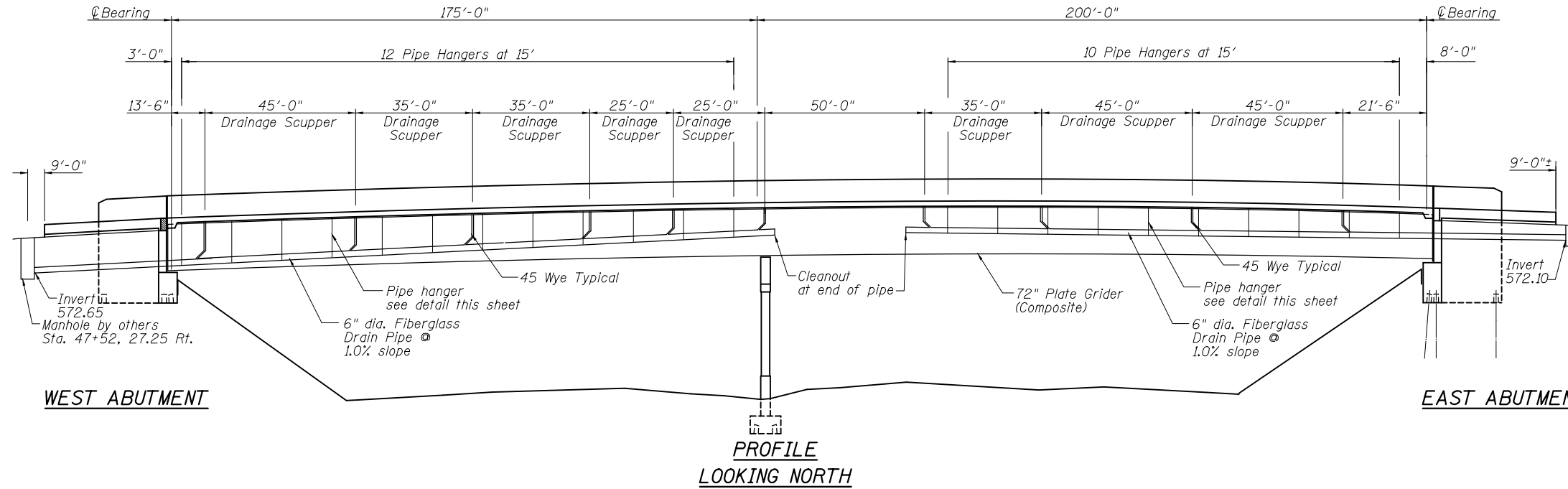
Drill and tap 8 holes for 1/2"-13 bolts on an 8 3/4"  $\phi$  bolt circle. (2 blind holes are 1/4" deep, 6 thru holes)

c:\pw\work\widot\duncan\bd0181369128-DRAINAGE DETAILS.dgn

**Foth**  
Foth Infrastructure & Environment, LLC  
7500 North Harker Drive  
Peoria, IL 61615  
Phone: 309-691-5300 Fax: 309-691-1892  
Illinois Registration Number 184,004913

SHEET NO. 28 33 SHEETS	F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	400	(32,47-4) HBR-2	GRUNDY	143	89
S.N. 032-0119			CONTRACT NO. 66873		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

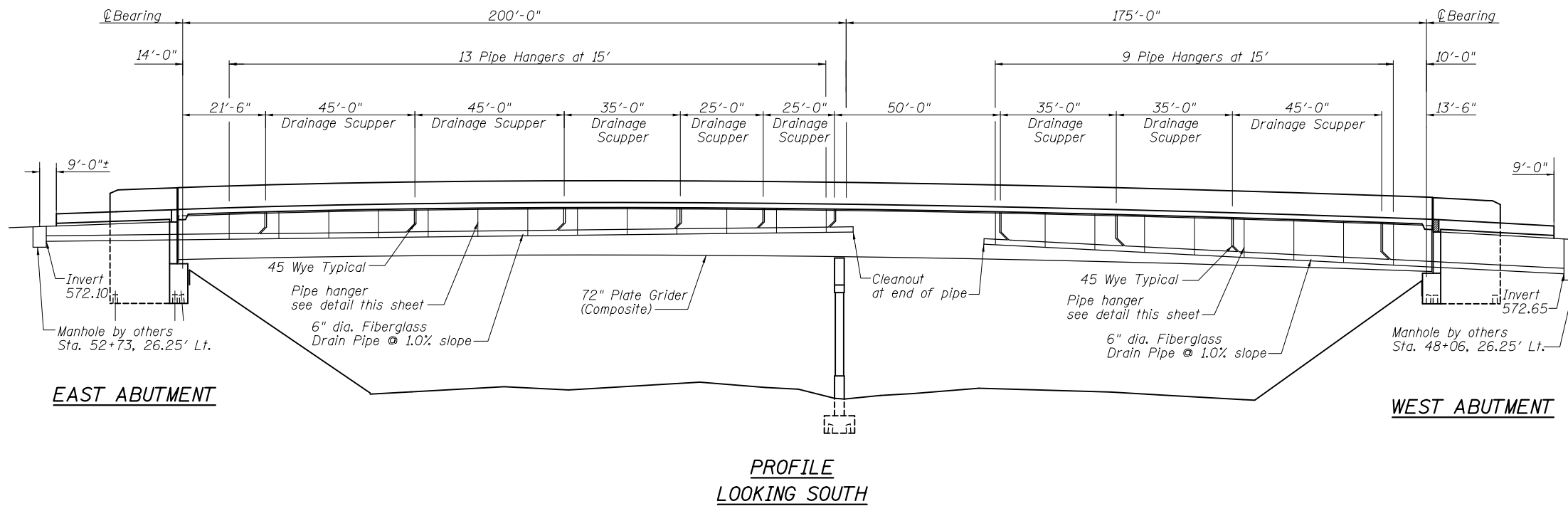
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



WEST ABUTMENT

EAST ABUTMENT

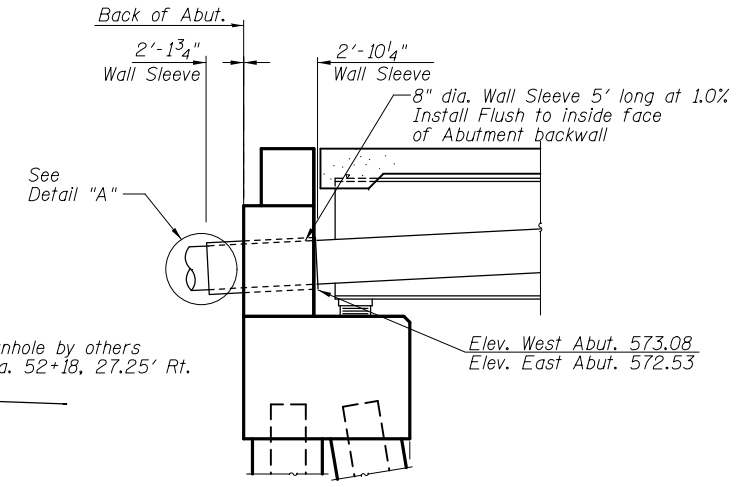
PROFILE  
LOOKING NORTH



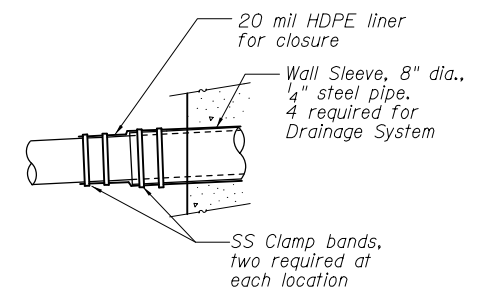
EAST ABUTMENT

WEST ABUTMENT

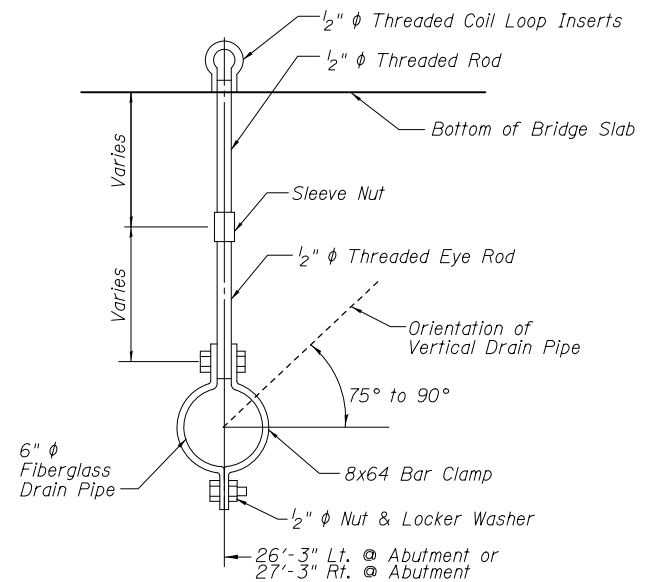
PROFILE  
LOOKING SOUTH



SEC. THRU ABUT.



DETAIL "A"  
HDPE LINER CLOSURE



PIPE HANGER DETAIL

- Notes:
1. See General Plan and Elevation sheet for plan dimensions and locations of scuppers.
  2. The cost of coil loop inserts and rebar is included in the price of Pay Item "Drainage System".
  3. The drainage pipe layout shown is only schematic (not to scale) and the contractor shall submit a detailed layout to the engineer for approval. The layout shall not interfere with minimum vertical clearance or with pipe hangers.
  4. The exterior surfaces of the pipe drain shall be painted according to Section 506 of the Standard Specifications. The exterior surfaces of the drain pipe shall be cleaned and given a washcoat pretreatment in accordance with Steel Structures Painting Council's Specification SSPC-SP1 & SSPC Paint 21 prior to painting. Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 200 MPa minimum. The surface of the fiberglass pipe shall be free of bond inhibiting agents.
  5. Backfill excavation for the 6" drain pipe under the Bridge Approach slab with CLSM from the face of the manhole to the Porous Granular Embankment (Special) behind the abutment. Cost of pipe, excavation and CLSM included in the Pay Item "Drainage System."

BILL OF MATERIAL

Item	Unit	Total
Drainage System	L. Sum	1

DRAINAGE SYSTEM  
STRUCTURE NO. 032-0119

DESIGNED	- JSI/MAJ/JFS
CHECKED	- JFS/MJB
DRAWN	- MLB/JLP
CHECKED	- JFS/MJB

**Foth**  
Foth Infrastructure & Environment, LLC  
7500 North Harker Drive  
Peoria, IL 61615  
Phone: 309-691-5300 Fax: 309-691-1892  
Illinois Registration Number 184.004913

SHEET NO. 29 33 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	400	(32,47-4) HBR-2	GRUNDY	143	90
		S.N. 032-0119	CONTRACT NO. 66873		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

\$FILES

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**NOTES**

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.  
Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.  
All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.  
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.  
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

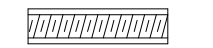
- ① Minimum Capacity (Tension in kips) =  $1.25 \times f_y \times A_t$
  - ② Minimum \*Pull-out Strength (Tension in kips) =  $0.66 \times f_y \times A_t$
- Where  $f_y$  = Yield strength of lapped reinforcement bars in ksi.  
 $A_t$  = Tensile stress area of lapped reinforcement bars.  
\* = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-2"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8

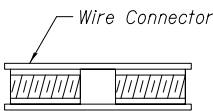
The diameter of this part is equal or larger than the diameter of bar spliced.

The diameter of this part is the same as the diameter of the bar spliced.

**ROLLED THREAD DOWEL BAR**



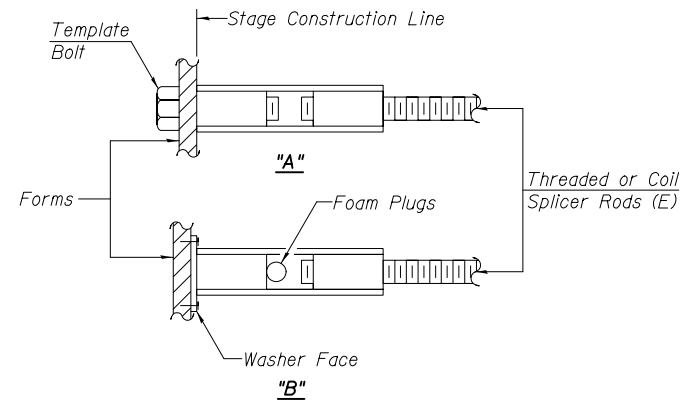
**\*\* ONE PIECE**



**WELDED SECTIONS**

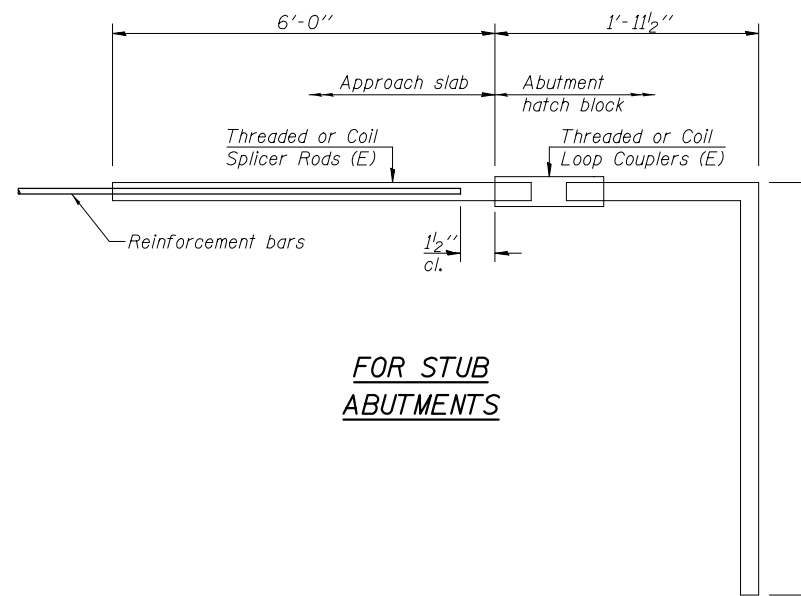
**BAR SPLICER ASSEMBLY ALTERNATIVES**

\*\*Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.

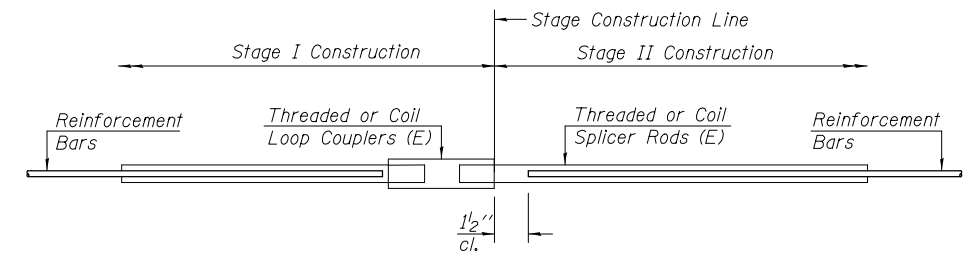


**INSTALLATION AND SETTING METHODS**

"A" : Set bar splicer assembly by means of a template bolt.  
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.  
(E) : Indicates epoxy coating.



**FOR STUB ABUTMENTS**



**STANDARD**

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 196

**BAR SPLICER ASSEMBLY DETAILS  
STRUCTURE NO. 032-0119**

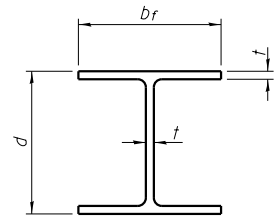
DESIGNED	- JSI/MAJ/JFS
CHECKED	- JFS/MJB
DRAWN	- MLB/JLP
CHECKED	- JFS/MJB

BSD-1 10-1-08

**Foth**  
Foth Infrastructure & Environment, LLC  
7500 North Harker Drive  
Peoria, IL 61615  
Phone: 309-691-5300 Fax: 309-691-1892  
Illinois Registration Number 184,004913

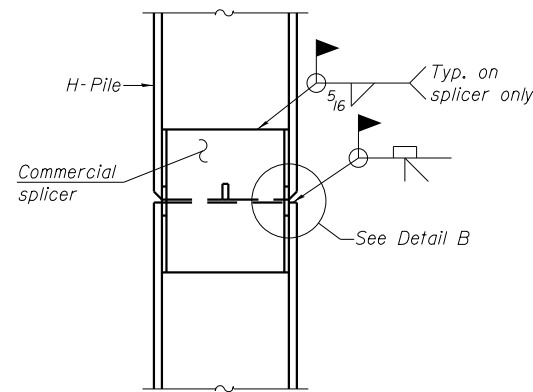
SHEET NO. 30 33 SHEETS	F.A.U RTE. 400	SECTION (32,47-4) HBR-2	COUNTY GRUNDY	TOTAL SHEETS 143	SHEET NO. 91
	S.N. 032-0119		CONTRACT NO. 66873		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

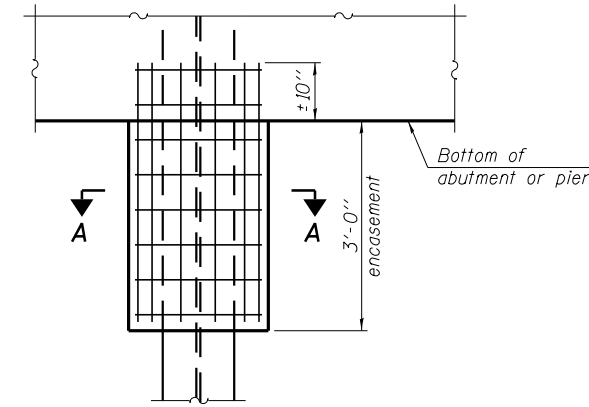


**STEEL PILE TABLE**

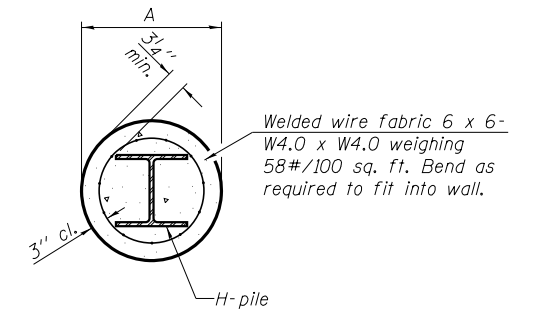
Designation	Depth d	Flange width b <sub>f</sub>	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 3/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



**ELEVATION**



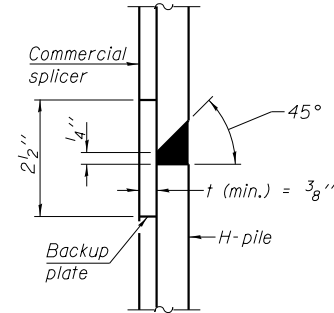
**ELEVATION**



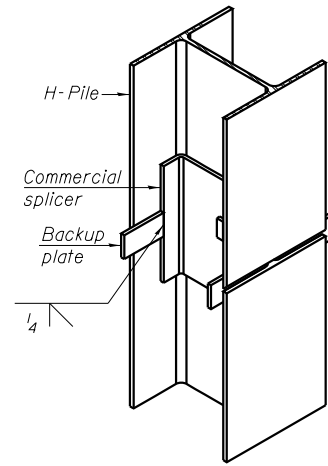
**SECTION A-A**

Note:  
Forms for encasement may be omitted when soil conditions permit.

**PILE ENCASEMENT**

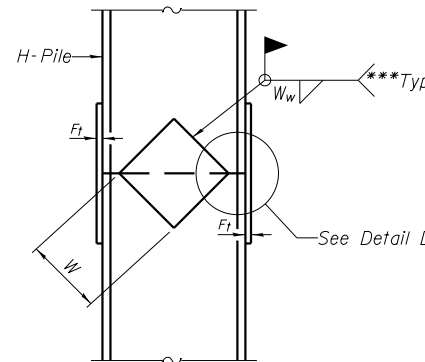


**DETAIL "B"**

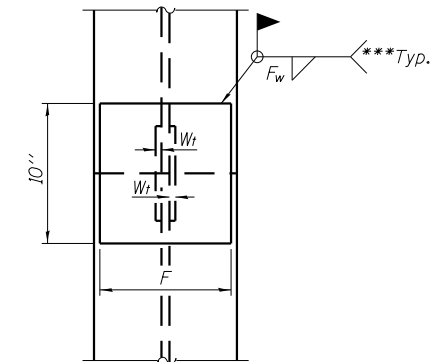


**ISOMETRIC VIEW**

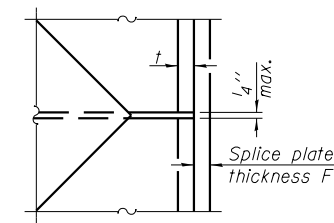
**WELDED COMMERCIAL SPLICE**



**ELEVATION**



**END VIEW**



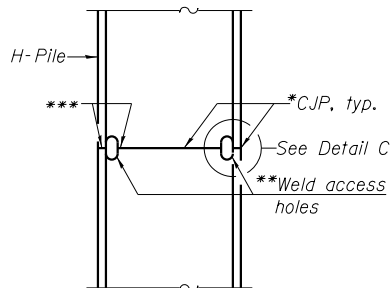
**DETAIL D**

Designation	F	F <sub>t</sub>	F <sub>w</sub>	W	W <sub>t</sub>	W <sub>w</sub>
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5 1/2"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 1/2"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5 1/2"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5 1/2"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5 1/2"	1/2"
x74	10"	7/8"	1/16"	6 1/2"	5 1/2"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

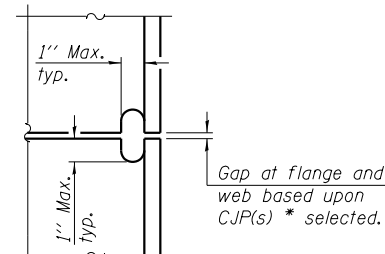
**WELDED PLATE FIELD SPLICE**

**HP PILE DETAILS  
STRUCTURE NO. 032-0119**

Note:  
The steel H-piles shall be according to AASHTO M270 Grade 50.



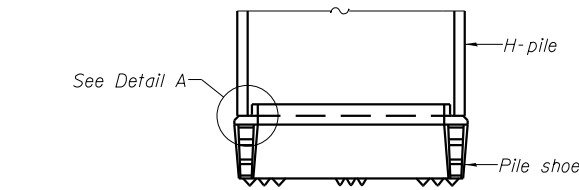
**ELEVATION**



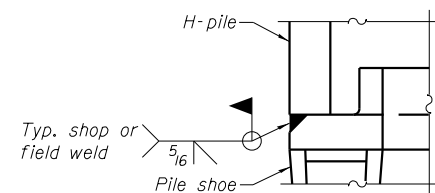
**DETAIL C**

**COMPLETE PENETRATION WELD SPLICE**

- \* Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.
- \*\* Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.
- \*\*\* Interrupt welds 1/4" from end of each pile.



**ELEVATION**



**DETAIL A**

**H-PILE SHOE ATTACHMENT**

DESIGNED - JSI/MAJ/JFS
CHECKED - JFS/MJB
DRAWN - MLB/JLP
CHECKED - JFS/MJB

F-HP 10-1-08

c:\pwworking\dot\duncanbd\018136933-HP PILE DETAILS.dgn

**Foth**  
Foth Infrastructure & Environment, LLC  
7500 North Harker Drive  
Peoria, IL 61615  
Phone: 309-691-5300 Fax: 309-691-1892  
Illinois Registration Number 184,004913

SHEET NO. 31 33 SHEETS	F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	400	(32,47-4) HBR-2	GRUNDY	143	92
S.N. 032-0119		CONTRACT NO. 66873			
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



SOIL BORING LOG

Page 2 of 2  
Date 11/8/04

ROUTE I 80 DESCRIPTION Minooka Road Overpass LOGGED BY Larry Meyers  
SECTION (32.47-4)HBR-2 LOCATION NE 1/4, SEC. 4, TWP. 34N, RNG. 9E, 3<sup>rd</sup> PM  
COUNTY Grundy DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. Station	B P T H	L O W S	U C S Qu	M O I S T	Surface Water Elev.		D E P T H	B L O W S	U C S	M O I S T
					ft	(ft)				
032-0046 2 West Abutment 48+47 6.50ft Lt 574.05					Very Stiff Gray Silty Loam/Loam. (continued)					
531.05					Very Dense Brown Fine Sand to Fine Gravel with Minor Medium/Coarse Gravel up to Cobble Size at 43'. (continued)					
522.05					Very Stiff Gray Silty Loam/Loam.					
522.05					Very Stiff Gray Silty Loam/Loam.					

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)  
BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Page 1 of 2  
Date 11/9/04

ROUTE I 80 DESCRIPTION Minooka Road Overpass LOGGED BY Larry Meyers  
SECTION (32.47-4)HBR-2 LOCATION NE 1/4, SEC. 4, TWP. 34N, RNG. 9E, 3<sup>rd</sup> PM  
COUNTY Grundy DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. Station	B P T H	L O W S	U C S Qu	M O I S T	Surface Water Elev.		D E P T H	B L O W S	U C S	M O I S T
					ft	(ft)				
032-0046 3 Median 50+27 19.00ft Lt 553.43					Cored Concrete and Bituminous. Augured Concrete Rubble and Brown Sandy Loam.					
548.93					Stiff Brown Silty Clay Loam/Silty Loam.					
544.43					Hard Brown Loam/Clay Loam.					
537.93					Very Dense Brown Fine Sand/Fine Gravel.					

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)  
BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Page 2 of 2  
Date 11/9/04

ROUTE I 80 DESCRIPTION Minooka Road Overpass LOGGED BY Larry Meyers  
SECTION (32.47-4)HBR-2 LOCATION NE 1/4, SEC. 4, TWP. 34N, RNG. 9E, 3<sup>rd</sup> PM  
COUNTY Grundy DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. Station	B P T H	L O W S	U C S Qu	M O I S T	Surface Water Elev.		D E P T H	B L O W S	U C S	M O I S T
					ft	(ft)				
032-0046 3 Median 50+27 19.00ft Lt 553.43					Hard Dark Gray Silty Clay Loam/Silty Clay. (continued)					
511.93					Very Stiff to Stiff Gray Silt and Very Fine Sand with Minor Clay.					
489.43					Hard Gray Silty Clay/Silty Clay Loam (Weathered Reworked Shale).					
498.93					Hard Gray Silty Loam/Loam with Limestone Fragments/Pieces.					

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)  
BBS, from 137 (Rev. 8-99)

c:\pw\work\pwidot\duncan\bd\0181369\32-33-BORINGS.dgn

DESIGNED	- JSI/MAJ/JFS
CHECKED	- JFS/MJB
DRAWN	- MLB/JLP
CHECKED	- JFS/MJB



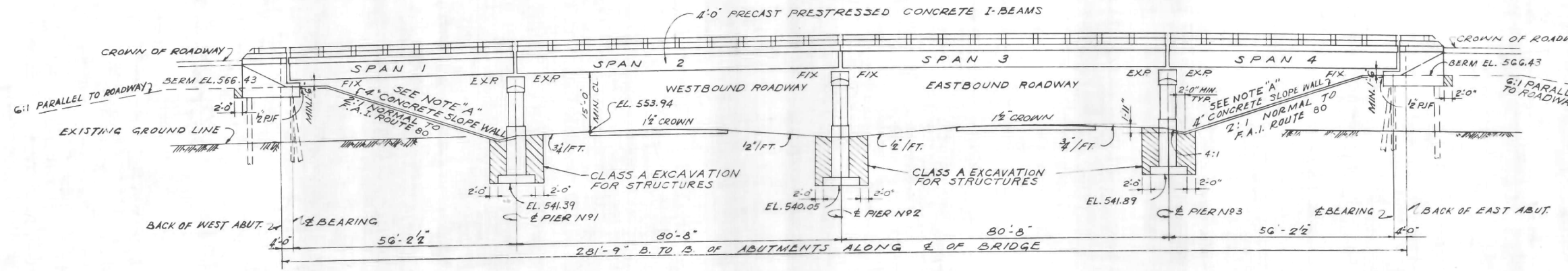
SHEET NO. 33 33 SHEETS	F.A.U RTE. 400	SECTION (32,47-4) HBR-2	COUNTY GRUNDY	TOTAL SHEETS 143	SHEET NO. 94
	S.N. 032-0119		CONTRACT NO. 66873		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

SOIL BORINGS  
STRUCTURE NO. 032-0119

B.M. #10: ELEV. 551.11  
 R.R. SPIKE IN 6" CHERRY TREE 250' LT OF STA. 1551+00.  
 B.M. #11: ELEV. 552.05  
 2 NAILS IN F.P. ± 200' LT OF STA. 1571+60.  
 B.M. #12: ELEV. 551.06  
 2 NAILS IN F.P. ± 160' RT OF STA. 1595+50.

**INDEX OF BRIDGE SHEETS-STATION 1574+07.48**

SHEET NO	TITLE
1.	GENERAL PLAN AND ELEVATION.
2.	BORINGS, NAME PLATES, GENERAL NOTES, QUANTITIES, AND EXCAVATION.
3.	DECK REINFORCEMENT PLAN.
4.	DECK CROSS SECTIONS AND DIAPHRAGM DETAILS.
5.	DETAILS OF PRECAST PRESTRESSED CONCRETE I-BEAMS.
6.	FRAMING PLAN, BEARINGS AND EXPANSION DEVICE.
7.	HANDRAIL DETAILS.
8.	EAST AND WEST ABUTMENTS AND WINGWALL DETAILS.
9.	PIERS 1, 2, AND 3
10.	REINFORCEMENT BAR LISTS.
11.	ABUTMENT PILES.



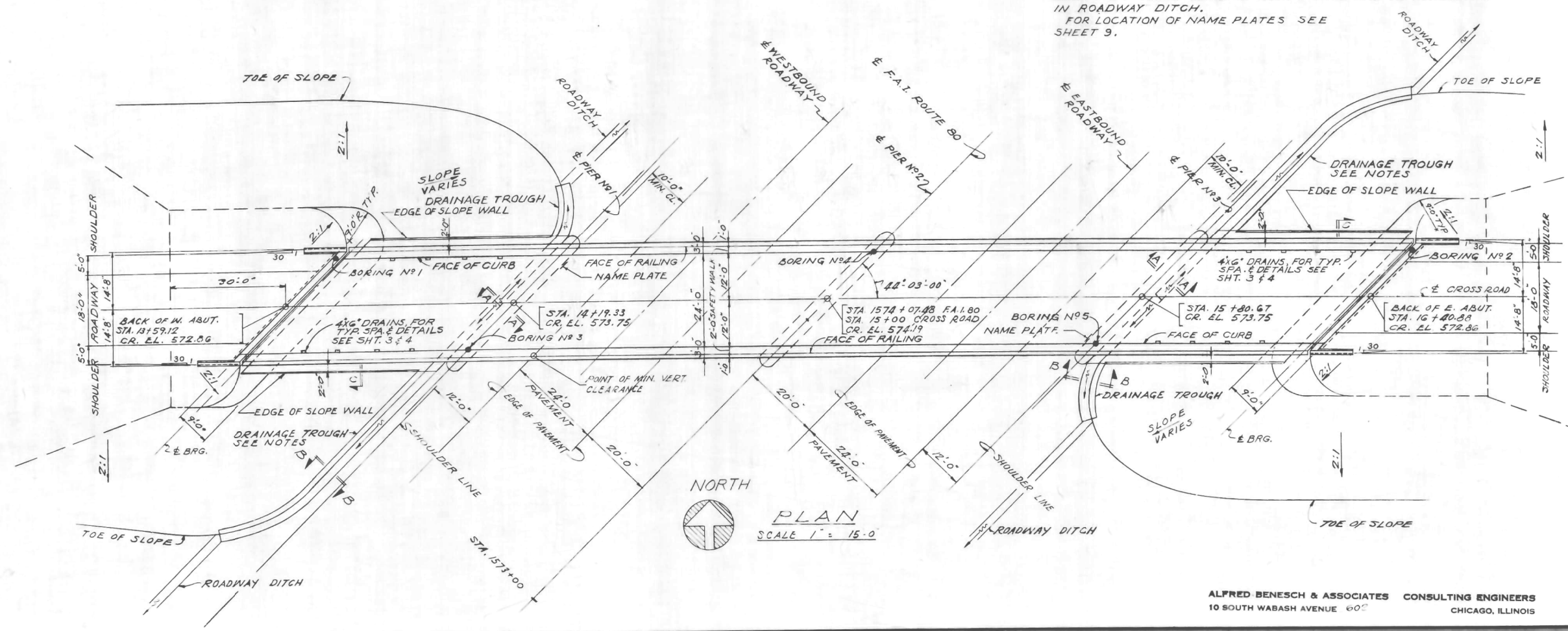
**NOTE "A"**  
 REINFORCED WITH WELDED WIRE FABRIC  
 6x6 MESH NO. 4 WIRE WEIGHING APPROX.  
 58# PER 100 SQ. FT.

**ELEVATION**  
 SCALE 1" = 15'-0"

**NOTES:**  
 QUANTITIES OF EARTH EXCAVATION FOR F.A.I. ROUTE 80 AND EMBANKMENT FOR CROSSROAD ARE INCLUDED IN QUANTITIES ON ROAD PLANS.  
 6 TO 1 BACKSLOPE MAY BE OMITTED IF EMBANKMENT IS CONSTRUCTED FULL LENGTH.  
 FOR SECTION A-A, B-B AND C-C SEE SHEET 2.  
 FOR LIMITS OF CLASS A EXCAVATION AT ABUTMENTS AND WINGWALLS SEE SHEET 2.  
 DRAINAGE TROUGH TO HAVE MIN. 1/8" PER FOOT SLOPE IN EACH DIRECTION FROM EDGE OF SLOPE WALL AND TO TERMINATE IN ROADWAY DITCH.  
 FOR LOCATION OF NAME PLATES SEE SHEET 9.

**ABUTMENT PILE NOTES:**  
 1. DRIVE A CONCRETE TEST PILE AT EACH ABUTMENT.  
 2. CONSTRUCT EMBANKMENT AS SHOWN.  
 3. DRILL OVERSIZE HOLES THROUGH THE EMBANKMENT TO THE EXISTING GROUND FOR THE ABUTMENT AND WING PILES.  
 4. DRIVE THE REMAINDER OF THE CONCRETE PILES FOR THE ABUTMENTS THROUGH THE OVERSIZED HOLES TO THE CAPACITY SHOWN ON THE PLANS AND TO A PENETRATION BELOW EXISTING GROUND NOT LESS THAN DETERMINED FROM THE TEST PILES.  
 5. DRIVE THE TIMBER PILES FOR THE ABUTMENT WINGS THROUGH THE OVERSIZED HOLES TO THE CAPACITY SHOWN ON THE PLANS AND TO A MINIMUM PENETRATION OF 10 FEET INTO THE EXISTING GROUND.  
 6. SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS

**ROAD CLASSIFICATION = E-1**  
**DESIGN SPEED = 45 M.P.H.**  
**DESIGN LOADS**  
 L.L. H15-512-44  
 FUTURE D.L. 12" BIT. WEARING SURFACE  
**DESIGN STRESSES**  
**CONCRETE (CAST IN PLACE)**  
 f<sub>c</sub> = 3500 LBS. PER SQ. IN.  
 f<sub>c</sub> = 1400 LBS. PER SQ. IN.  
 f<sub>c</sub> = 2,000 LBS. PER SQ. IN. (WITH EARTH PRESSURE) 1000 LBS. PER SQ. IN.  
 v = (PIER FOOTING) 75 LBS. PER SQ. IN.  
 n = 10  
**PRESTRESSED CONCRETE**  
 f<sub>c</sub> = 5,000 LBS. PER SQ. IN.  
 f<sub>c</sub> = 4,000 LBS. PER SQ. IN.  
 f<sub>c</sub> = 2,000 LBS. PER SQ. IN.  
**REINFORCING STEEL**  
 f<sub>s</sub> = 20,000 LBS. PER SQ. IN.  
**PRETENSIONING STEEL**  
 f<sub>su</sub> = 248,000 LBS. PER SQ. IN.  
 f<sub>sl</sub> = 173,000 LBS. PER SQ. IN.  
**PILE LOADS**  
 ABUTMENTS = 35 TONS (CONCRETE PILES)  
 WINGWALLS = 10 TONS (TIMBER PILES)  
**SOIL PRESSURE**  
 PIERS 7,000 LBS. PER SQ. FT.



**GENERAL PLAN & ELEVATION**  
**GRADE SEPARATION**  
**CROSS ROAD**  
**OVER F.A.I. ROUTE 80**  
**F.A.I. PROJECT 1-80-4(2)116**  
**F.A.I. ROUTE 80 SECTION (32,47)-4**  
**GRUNDY-KENDALL COUNTY**  
**STATION 1574+07.48**

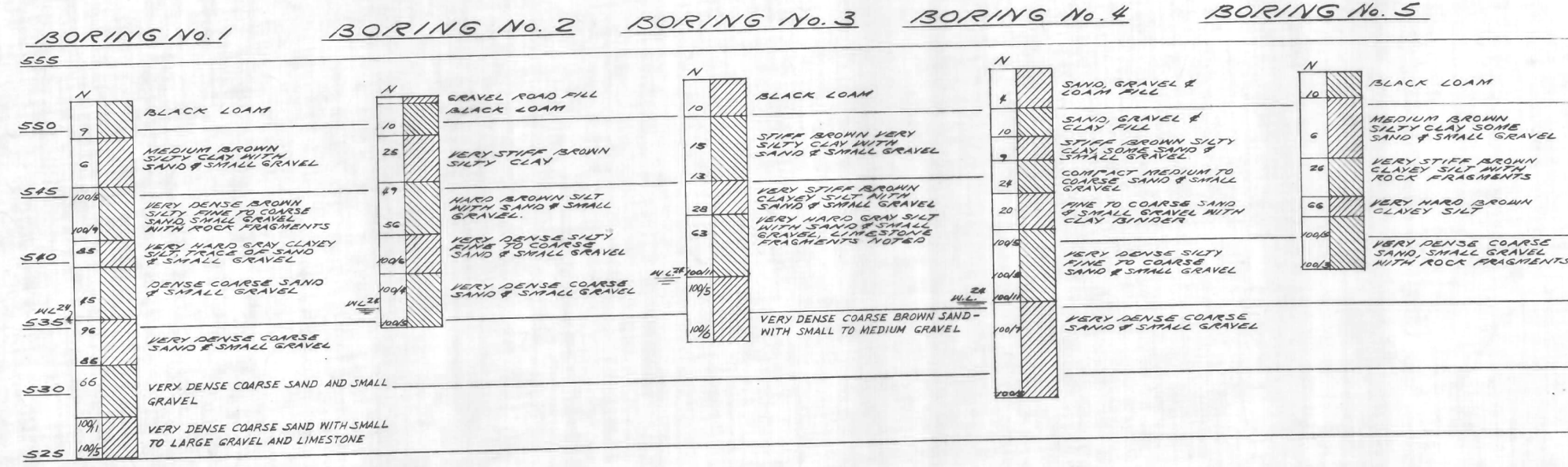
APRIL 20 1959  
 J. McRomine  
 ENGINEER OF BRIDGE & TRAIL STRUCTURES

ALFRED BENESCH & ASSOCIATES CONSULTING ENGINEERS  
 10 SOUTH WABASH AVENUE 600 CHICAGO, ILLINOIS

FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FOR INFORMATION ONLY EXISTING SN 032-0046	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ce:\pw\work\p1dot\duncanbd\dms58037\ep01904-sht-F10.dgn	PLOT SCALE = 100.0000' / in.	DRAWN -	REVISED -			80	(32,47-4)HBR-2	GRUNDY	143	95	
PLOT DATE = 3/15/2013	DATE -	CHECKED -	REVISED -			CONTRACT NO. 66873					
		DATE -	REVISED -			ILLINOIS FED. AID PROJECT					

# SOIL TEST BORINGS

BILL OF MATERIAL- STATION 1574+07.48



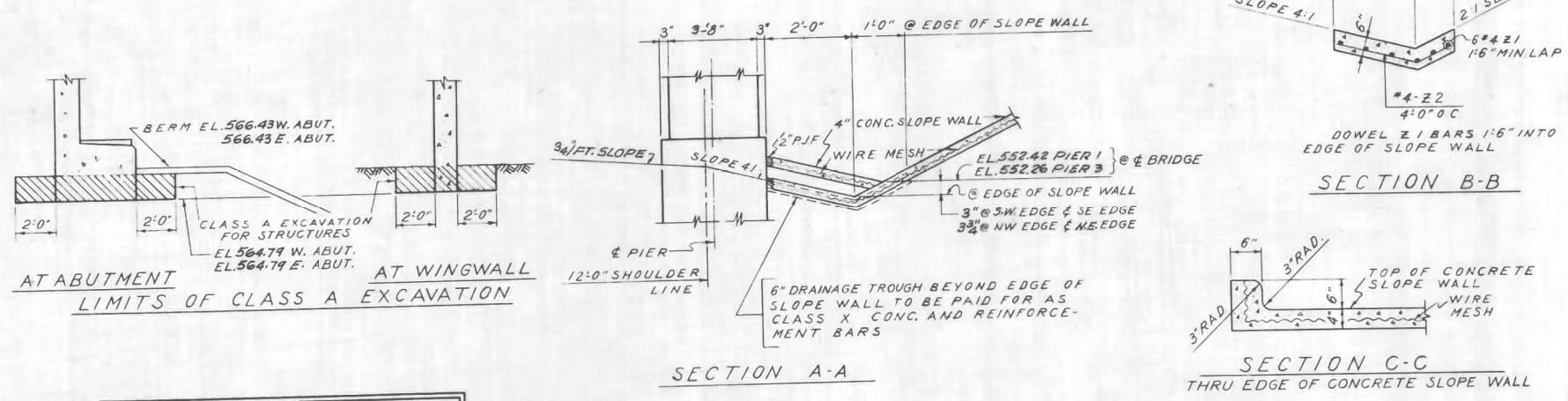
ITEM	UNIT	QUANTITY		
		SUPER	SUB	TOTAL
CLASS X CONCRETE, STRUCTURES	CU YDS	275.7	413.6	698.9
HANDRAIL CONCRETE	CU YDS	—	2.0	2.0
REINFORCEMENT BARS	LBS.	52,180	45,820	98,000
FURNISHING AND ERECTING STRUCTURAL STEEL	LBS.	12,850	—	12,850
FURNISHING AND ERECTING METAL HANDRAIL	LIN. FT.	591	—	591
NAME PLATES	EACH	—	2	2
FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS, 48 IN.	LIN. FT.	1,534	—	1,534
TEST PILES (CONCRETE)	EACH	—	2	2
FURNISHING CONCRETE PILES	LIN. FT.	—	312	312
DRIVING CONCRETE PILES	LIN. FT.	—	312	312
CLASS A EXCAVATION FOR STRUCTURES	CU YDS	—	650	650
DRIVING TIMBER PILES	LIN. FT.	—	96	96
FURNISHING CREOSOTED PILES, 20' TO 38'	LIN. FT.	—	96	96
SLOPE WALL, 4 IN.	SQ. YD.	—	420	420
METAL SHOES FOR TIMBER PILES	EACH	—	4	4

NOTE: THESE ITEMS MARKED THUS \* INCLUDE 9.6 CU YDS. CLASS X CONCRETE AND 830 LBS. REINFORCEMENT BARS FOR DRAINAGE TROUGH.

- NOTE:
- WATER LEVELS (N.L.). FIGURE INDICATES TIME OF READING (HOURS) AFTER COMPLETION OF BORING. WATER LEVELS INDICATED ARE THOSE OBSERVED WHEN BORINGS WERE MADE, OR AS NOTED, POROSITY OF THE SOIL STRATA, VARIATIONS OF RAINFALL, SITE TOPOGRAPHY, ETC., MAY CAUSE CHANGES IN THESE LEVELS.
  - FIGURES IN COLUMN MARKED "N" INDICATE NUMBER OF BLOWS REQUIRED TO DRIVE SAMPLING PIPE ONE FOOT USING 140 LBS. WEIGHT FALLING 30 INCHES.
  - BORING DATA ARE SHOWN ONLY AS A GUIDE FOR BIDDERS IN ESTIMATING SOIL CONDITIONS WHICH MAY BE ENCOUNTERED IN THE WORK. FOR LOCATION OF BORINGS SEE SHEET 1.

## GENERAL NOTES

CLASS X CONCRETE SHALL BE USED THROUGHOUT EXCEPT FOR CONCRETE IN HANDRAILS AND PRECAST I-BEAMS.  
 HANDRAIL CONCRETE SHALL BE USED IN HANDRAIL PORTION OF WINGWALLS AS SHOWN. FOR CONCRETE IN PRECAST I-BEAMS SEE SPECIAL PROVISIONS.  
 ALL CONCRETE SHALL BE CAST IN PLACE EXCEPT FOR THE PRECAST PRESTRESSED CONCRETE I-BEAMS.  
 THE CONCRETE FLOOR SLAB FOR EACH SPAN SHALL BE PLACED IN ONE CONTINUOUS OPERATION BETWEEN CONSTRUCTION JOINTS SHOWN AND SHALL BE FINISHED IN ACCORDANCE WITH ARTICLE 51.17 OF THE STANDARD SPECIFICATIONS.  
 ALL STEEL SHALL BE STRUCTURAL STEEL EXCEPT AS OTHERWISE NOTED.  
 BRONZE EXPANSION PLATES SHALL CONFORM TO A.S.T.M. SPECIFICATION B100, ALLOY 1, AND SHALL HAVE GRAPHITE INSERTS INSTALLED IN THE SLIDING SURFACE AS MANUFACTURED BY MERRIMAN BROS. INC., BOSTON, MASS., OR EQUAL.  
 ALL STEEL BEARING PLATES, GRAPHITE BRONZE EXPANSION PLATES, LEAD PLATES AND ANCHOR BOLTS SHALL BE FABRICATED AND SET IN ACCORDANCE WITH ARTICLE 51.15 OF THE STANDARD SPECIFICATION AND ARE INCLUDED IN QUANTITY OF STRUCTURAL STEEL. ESTIMATED WEIGHT = 5,700 LBS.  
 STEEL EXPANSION DEVICES AT THE PIER AND ABUTMENTS SHALL BE FABRICATED AND SET IN ACCORDANCE WITH ARTICLE 51.13 (G) OF THE STANDARD SPECIFICATIONS AND ARE INCLUDED IN QUANTITY OF STRUCTURAL STEEL. ESTIMATED WEIGHT = 7,150 LBS.  
 STRUCTURAL STEEL SHALL BE PAINTED ONE SHOP COAT OF RED LEAD PAINT AND TWO FIELD COATS OF ALUMINUM PAINT IN ACCORDANCE WITH SECTION 56 OF THE STANDARD SPECIFICATIONS EXCEPT AS OTHERWISE SPECIFIED ON THE PLANS. ALL PAINT SHALL BE FURNISHED AND APPLIED BY THE CONTRACTOR.  
 THE CONTRACTOR SHALL DRIVE ONE CONCRETE TEST PILE IN A PERMANENT LOCATION AT EACH ABUTMENT AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE CONCRETE PILES.  
 PIER FOOTING TO BE FOUNDED ON THE VERY DENSE COARSE SAND STRATA, OR UPON A MATERIAL HAVING A SAFE BEARING CAPACITY OF 7,000 LBS. PER SQ. FT.  
 JOINTS IN DECK SLAB NOTED ON PLANS TO BE FILLED WITH "PARA-PLASTIC OR EQUAL" SHALL BE FILLED WITH JOINT SEALER CONFORMING TO FEDERAL SPECIFICATION FOR SEALER; HOT POURED TYPE.  
 FOR JOINTS IN CONCRETE SS-S-164," SHOP INSPECTION OF STRUCTURAL STEEL AND PRECAST PRESTRESSED I-BEAMS BY ILLINOIS DIVISION OF HIGHWAYS



STATION 1574+07.48  
 BUILT 195 BY  
 STATE OF ILLINOIS  
 F.A.I. RT. 80 SEC. (32,47)-4  
 F.A. PROJ. I-80-4(2)  
 LOADING H15-S12

SEE STATE OF ILLINOIS STD-2113  
 NAME PLATES EACH 2  
 LETTERING FOR NAME PLATES

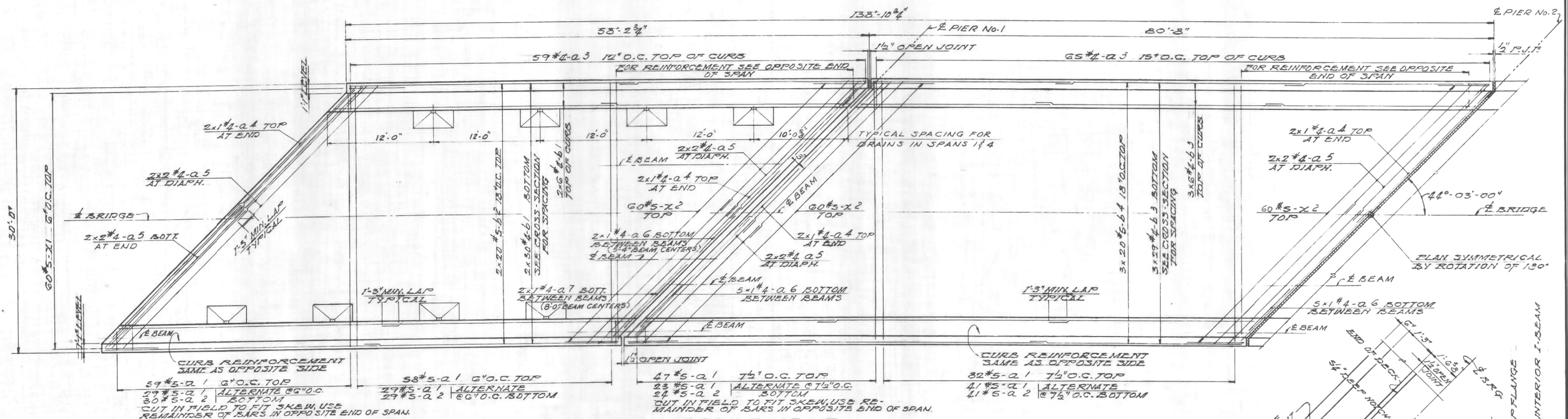
### BILL OF MATERIAL-DRAINAGE TROUGHS

ITEM	UNIT	TOTAL
CLASS X CONCRETE	CU YDS	9.6
REINFORCEMENT BARS	LBS	830

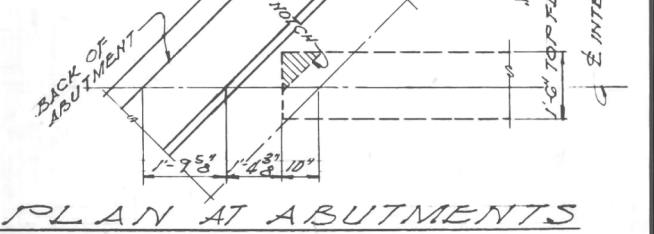
BORINGS, NAME PLATES, GENERAL NOTES, QUANTITIES AND EXCAVATION  
 GRADE SEPARATION  
 CROSS ROAD  
 OVER FAI ROUTE 80  
 F.A. PROJECT  
 F.A.I. ROUTE 80 SECTION (32,47)-4  
 GRUNDY-KENDALL COUNTY  
 STATION 1574+07.48

ALFRED BENESCH & ASSOCIATES CONSULTING ENGINEERS  
 10 SOUTH WABASH AVENUE 632 CHICAGO, ILLINOIS



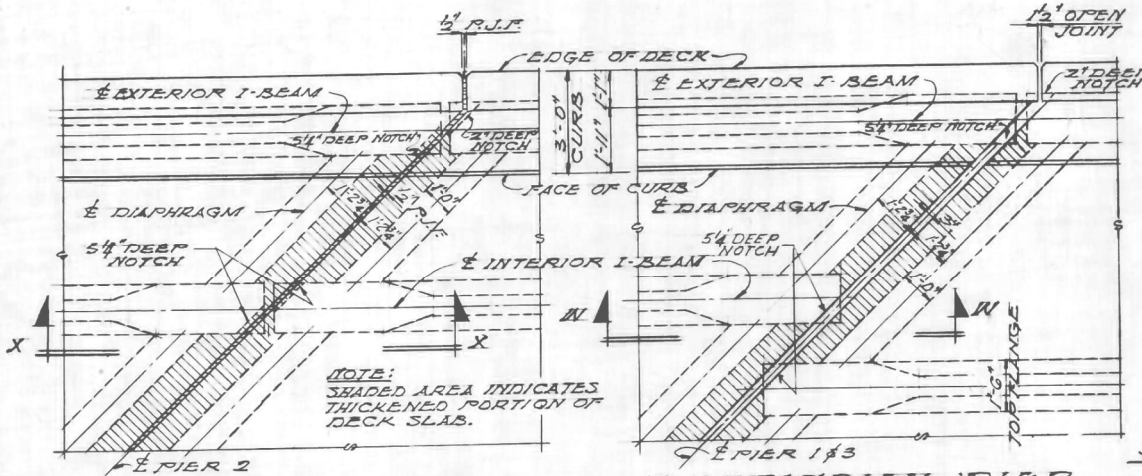


HALF PLAN OF DECK REINFORCEMENT  
SCALE 3/16" = 1'-0"



PLAN AT ABUTMENTS

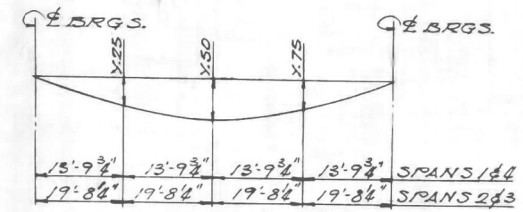
NOTE:  
ORDER Q1 AND Q2 FULL LENGTH, CUT TO FIT SKEW AND USE REMAINDER OF BARS IN OPPOSITE ENDS WHERE INDICATED. SKEW REINFORCEMENT WHERE SHOWN. FOR CROSS-SECTIONS AND DRAIN DETAILS SEE SHT. 4. BARS INDICATED THUS 2x20#5 ETC., INDICATES 20 LINES OF BARS WITH 2 LENGTHS OF BARS PER LINE.



PARTIAL PLAN OF DECK AT PIERS  
AT FIXED PIER AT EXPANSION PIER

STANDARD FILLET DETAIL

AFTER ALL PRECAST PRESTRESSED BEAMS HAVE BEEN ERECTED, ELEVATIONS OF THE TOP FLANGES OF THE BEAMS SHALL BE TAKEN AT INTERVALS NOT TO EXCEED 10 FT. FROM THESE ELEVATIONS SUBTRACT THE INCREMENT OF DEFLECTIONS FOR THESE POINTS, DETERMINED FROM THE D.L. DEFLECTION DIAGRAM. THE ELEVATIONS SO ATTAINED SUBTRACTED ALGEBRAICALLY FROM THE THEORETICAL GRADE ELEVATIONS MINUS THE THICKNESS OF THE SLAB EQUAL THE DIMENSION "A". A POSITIVE VALUE OF "A" EQUALS THE FILLET HEIGHT ABOVE THE TOP OF THE BEAM, A NEGATIVE VALUE OF "A" EQUALS THE EMBEDMENT OF THE BEAM ABOVE THE THEORETICAL BOTTOM OF SLAB ELEVATION.



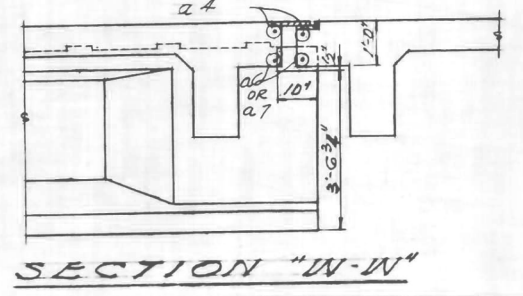
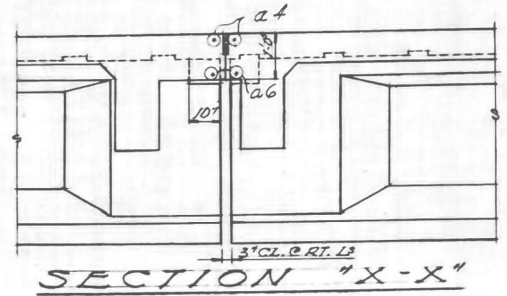
D.L. DEFLECTION DIAGRAM  
WEIGHT OF PRESTRESSED I-BEAMS NOT INCLUDED

TABLE OF "Y" DIMENSIONS

BEAMS	SPANS 144		SPANS 243	
	Y <sub>25</sub>	Y <sub>50</sub>	Y <sub>25</sub>	Y <sub>50</sub>
EXTERIOR	14"	38"	14"	15"
1ST. INTERIOR	3 1/2"	14"	3 1/2"	9 1/2"
OTHER INTERIOR	15"	3 1/2"	15"	9 1/2"

BILL OF MATERIALS-SUPERSTRUCTURE

ITEM	UNIT	TOTAL
CLASS X CONCRETE	CU. YDS.	275.7
REINFORCEMENT BARS	LBS.	52,180
METAL HANDRAIL	LIN. FT.	591
STRUCTURAL STEEL	LBS.	12,850
FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS	LIN. FT.	1,534



SECTION "X-X"

SECTION "W-W"

ALFRED BENESCH & ASSOCIATES CONSULTING ENGINEERS  
10 SOUTH WABASH AVENUE GOZ CHICAGO, ILLINOIS

DECK REINFORCEMENT PLAN  
GRADE SEPARATION  
CROSS ROAD  
OVER FAI. ROUTE 80  
FA PROJECT  
FAI ROUTE 80 SECTION (32,47)-4  
GRUNDY-KENDALL COUNTY  
STATION 1574+07.48

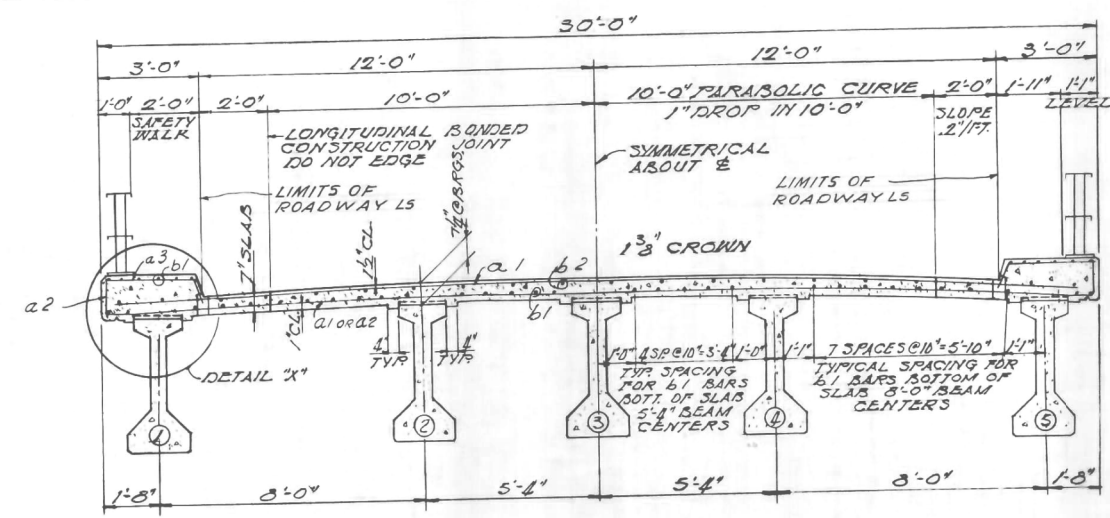
FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -
es:\pw\work\p\wdot\duncanbd\dms58037\ep01904-sht-F10.dgn		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

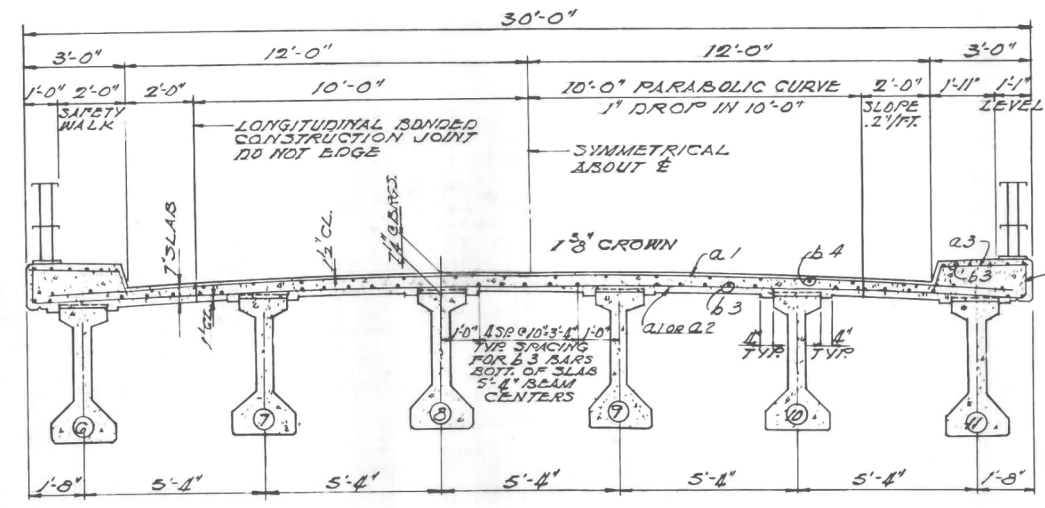
FOR INFORMATION ONLY  
EXISTING SN 032-0046

SCALE: SHEET 3 OF 7 SHEETS STA. TO STA.

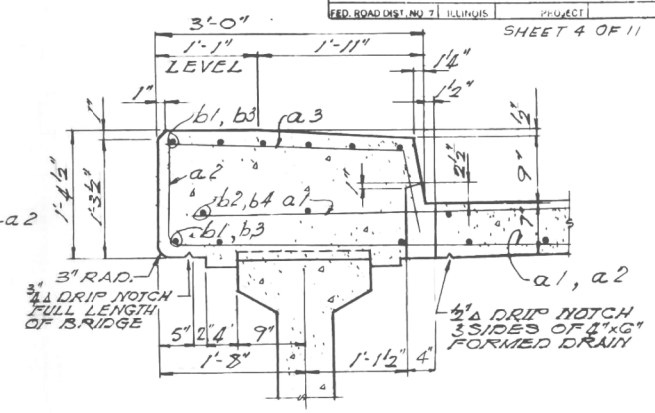
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(32,47)-4HBR-2	GRUNDY	143	97
			CONTRACT NO. 66873	
ILLINOIS FED. AID PROJECT				



SPANS 1 & 4  
 TYPICAL

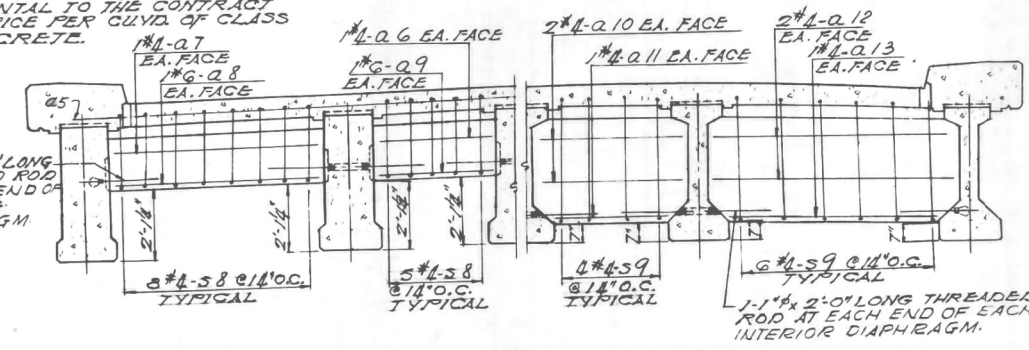


SPANS 2 & 3  
 TYPICAL

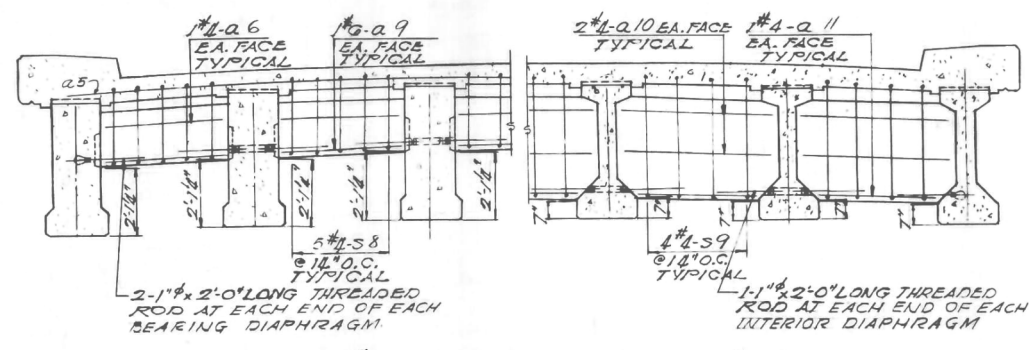


DETAIL "X" AND DRAIN DETAIL

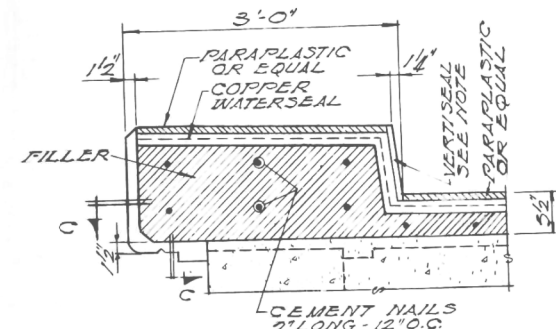
NOTE: COST OF THREADED RODS IS INCIDENTAL TO THE CONTRACT UNIT PRICE PER CYD OF CLASS X CONCRETE.



3'-0" BEAM CENTERS AT BEARINGS  
 5'-4" BEAM CENTERS AT INTERIOR  
 SPANS 1 & 4  
 TYPICAL DIAPHRAGM DETAILS



5'-4" BEAM CENTERS AT BEARINGS  
 AT INTERIOR  
 SPANS 2 & 3  
 TYPICAL DIAPHRAGM DETAILS

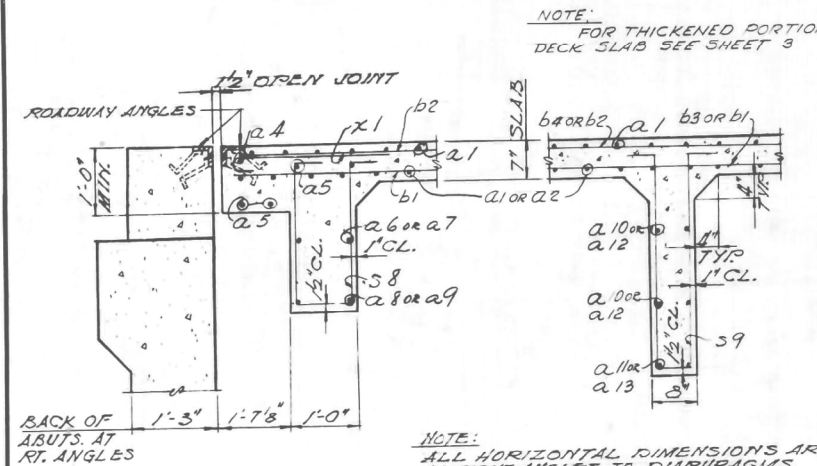


CURB DETAIL AT FIXED PIER  
 SCALE 1" = 1'-0"

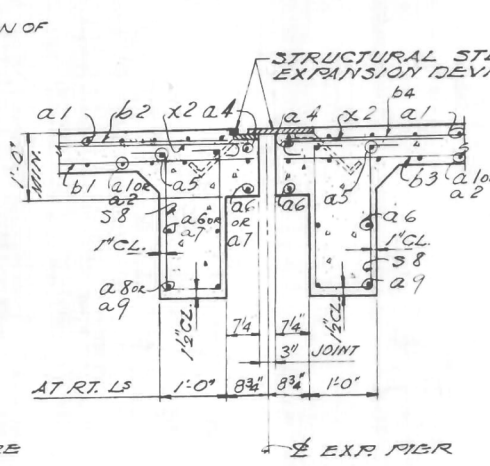
NOTE: SEAL VERTICAL CURB JOINT WITH BLACK COLD APPLIED JOINT SEALER "VERTISEAL" OR APPROVED EQUAL.



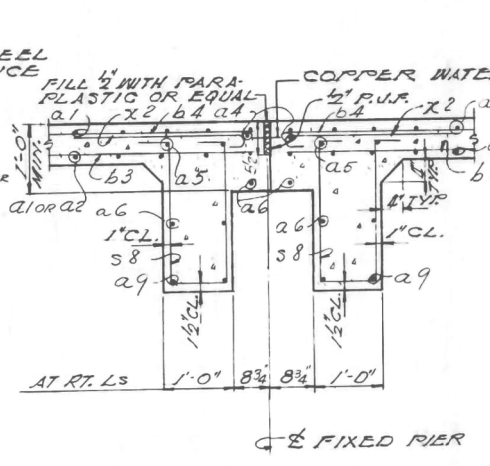
SECTION "C"



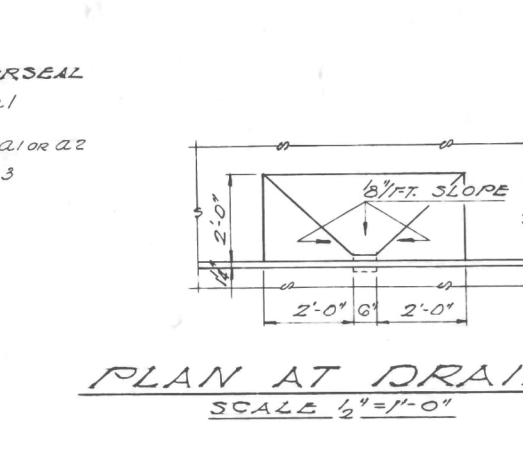
AT ABUTMENTS



AT INTERIORS

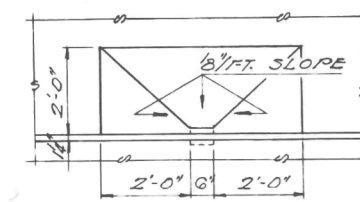


AT EXPANSION PIERS

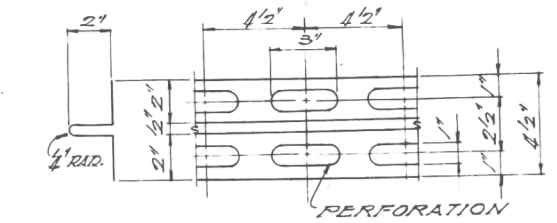


AT FIXED PIER

TYPICAL DIAPHRAGM SECTIONS  
 SEE SHEET NO. 5, 6 FOR DIAPHRAGM LOCATIONS  
 SCALE 3/4" = 1'-0"



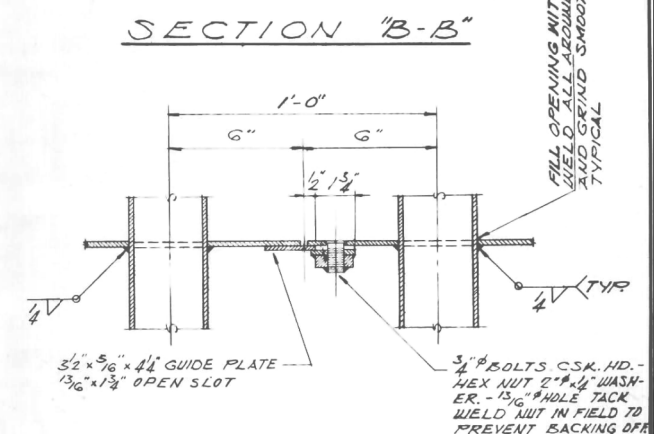
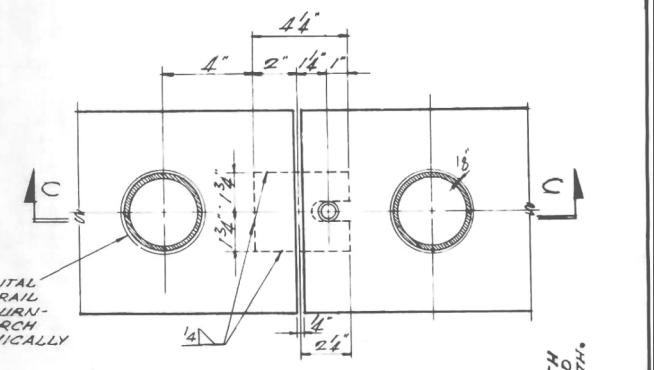
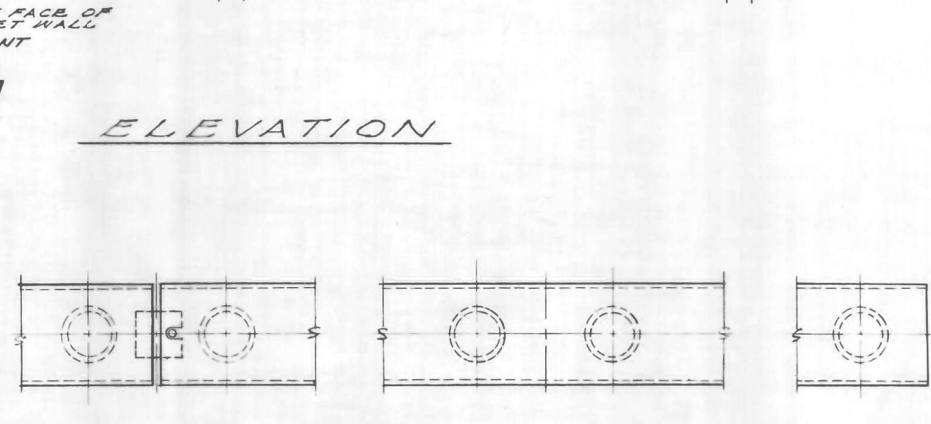
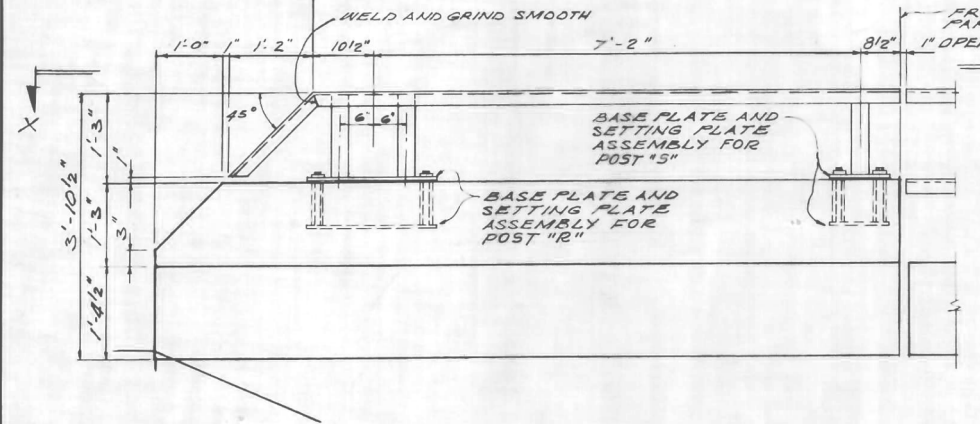
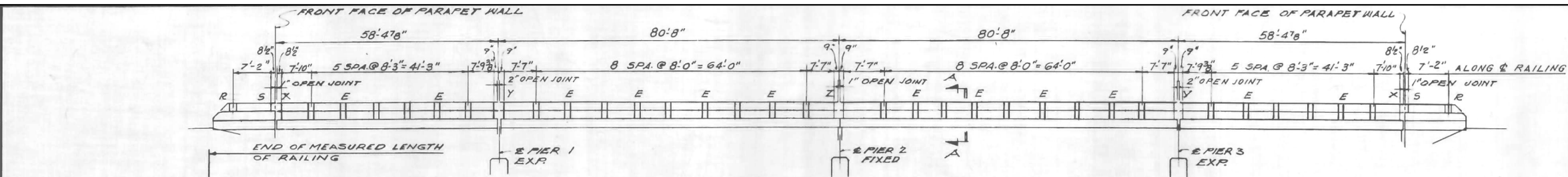
PLAN AT DRAINS  
 SCALE 1/2" = 1'-0"



DETAIL OF COPPER WATER SEAL  
 SCALE 3/4" = 1'-0"

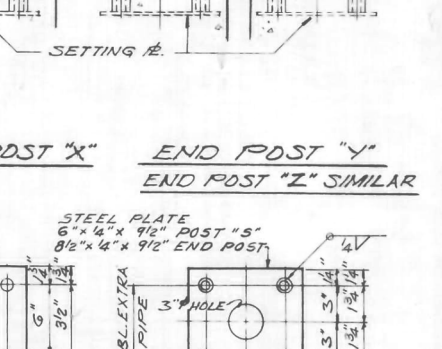
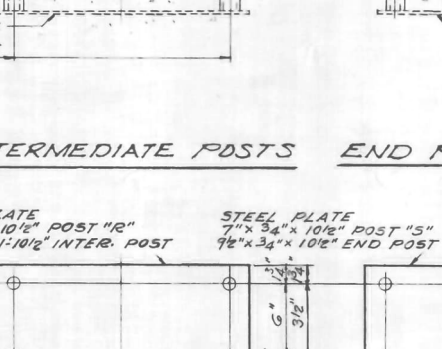
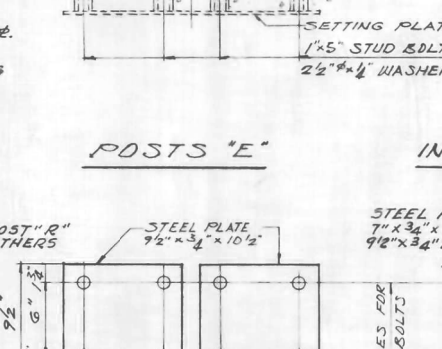
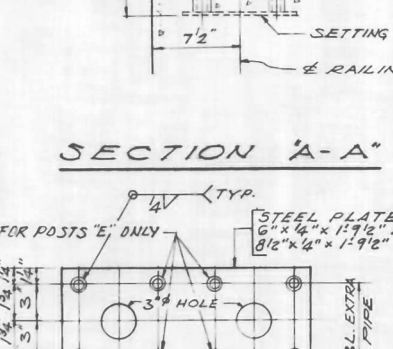
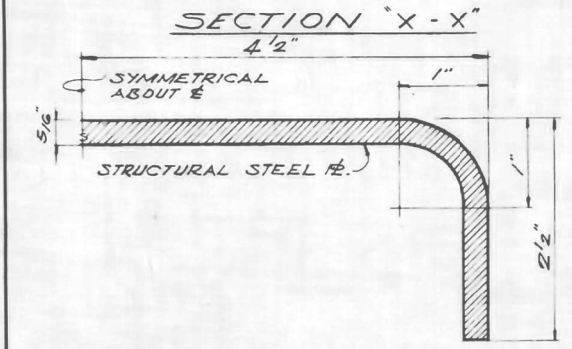
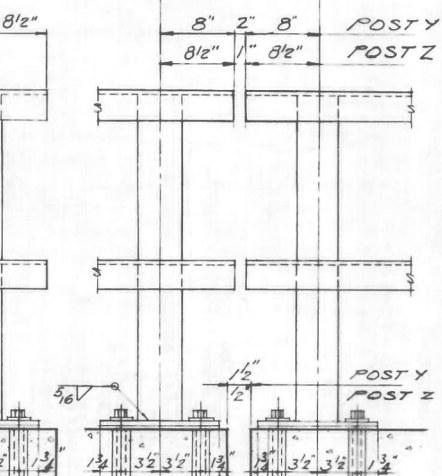
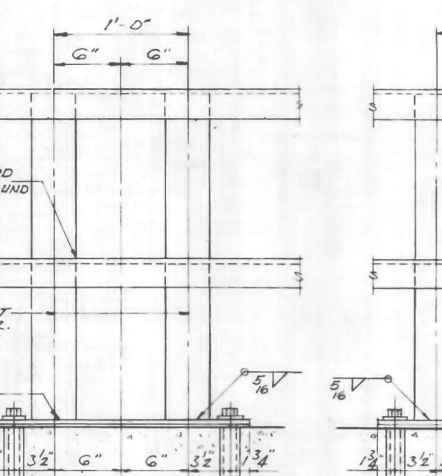
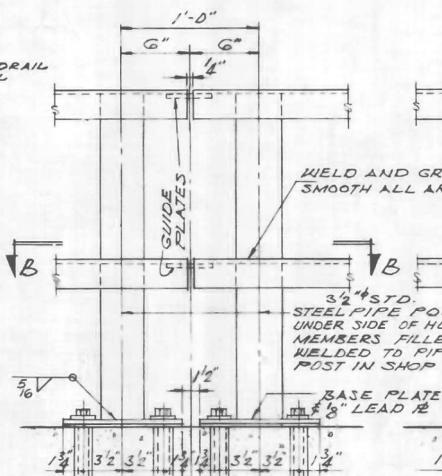
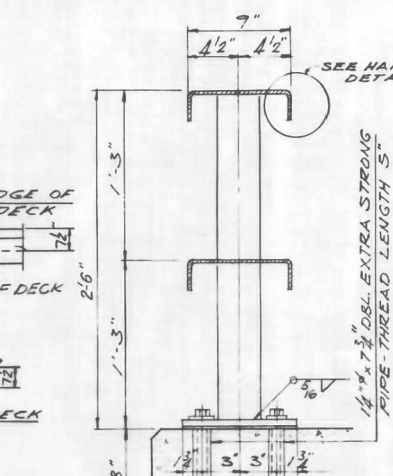
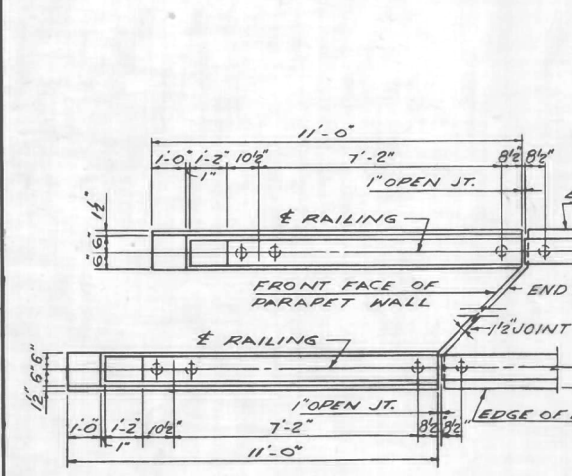
DECK CROSS SECTIONS AND DIAPHRAGM DETAILS  
 GRADE SEPARATION  
 CROSS ROAD  
 OVER F.A.I. ROUTE 80  
 F.A. PROJECT  
 F.A.I. ROUTE 80 SECTION (32,47)-4  
 GRUNDY-KENDALL COUNTY  
 STATION 1574+07.48

ALFRED BENESCH & ASSOCIATES CONSULTING ENGINEERS  
 10 SOUTH WABASH AVENUE 602 CHICAGO, ILLINOIS



WINGWALL HANDRAIL ELEVATION

TOP VIEW OF RAIL



**NOTES**

RAIL SHALL BE FABRICATED AND ERECTED TO CONFORM TO PROFILE OF ROADWAY.

RAIL POSTS SHALL BE TRULY VERTICAL.

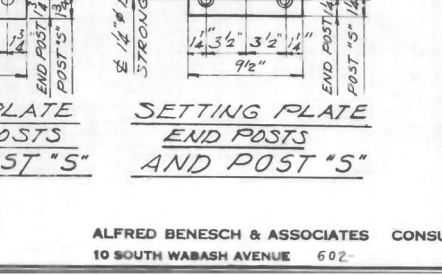
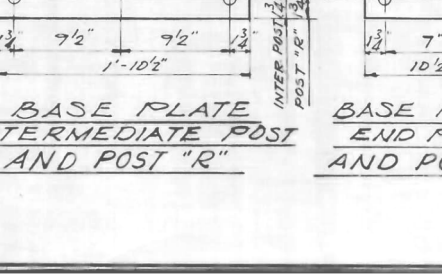
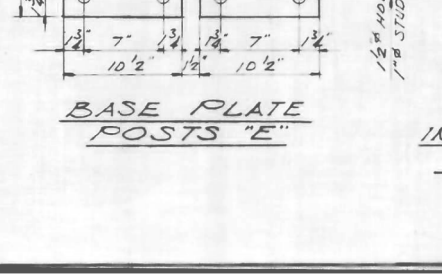
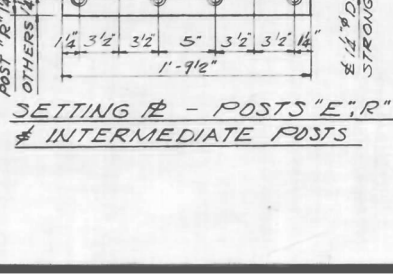
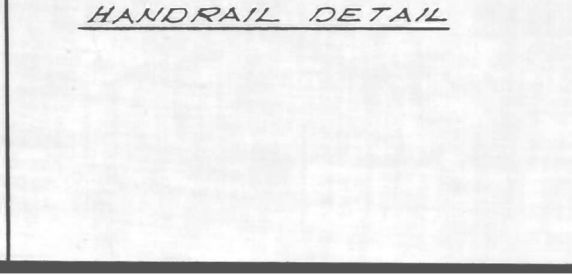
WELDING OF RAIL POST TO HORIZONTAL MEMBERS AND BASE PLATES SHALL BE CONTINUOUS WELDS ALL AROUND.

RAIL POSTS SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR WELDED AND SEAMLESS STEEL PIPE A.S.M. A53 WITH MINIMUM YIELD POINT OF 30,000 P.S.I.

HANDRAIL SHALL BE GIVEN ONE SHOP COAT OF RED LEAD AND 2 FIELD COATS OF ALUMINUM PAINT. SEE SPECIFICATIONS.

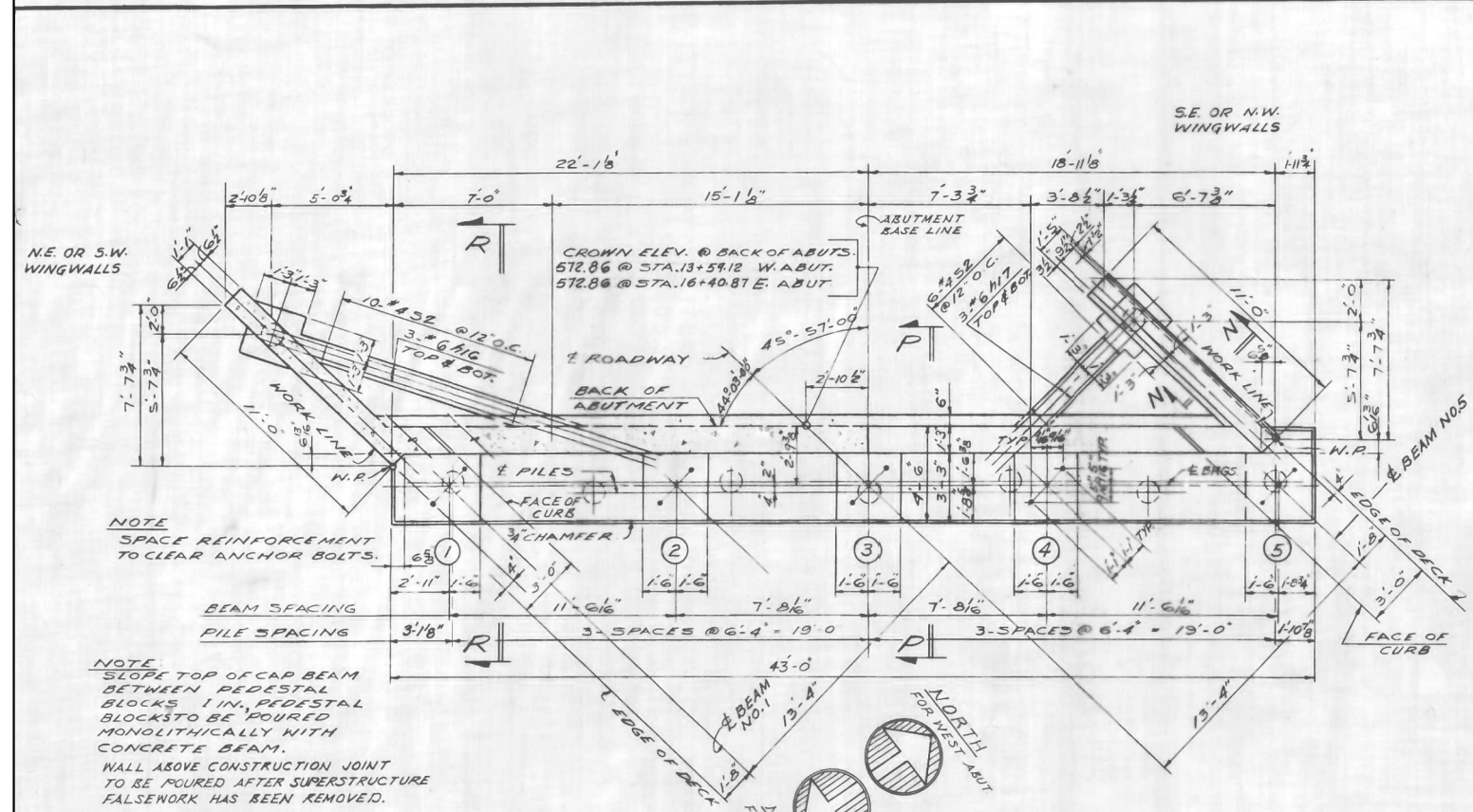
SHIM PLATES FOR RAIL POSTS: FURNISH SHIMS CONSISTING OF ONE 1/8" SHIM AND TWO 1/16" SHIMS AT 50% OF RAIL POSTS ON SUPERSTRUCTURE AND ALL POSTS ON WINGWALLS FOR VERTICAL ADJUSTMENT OF POSTS.

SIZE OF SHIM PLATES, LEAD PLATES AND SPACING OF HOLES SHALL BE SAME AS FOR BASE PLATES OF POSTS.



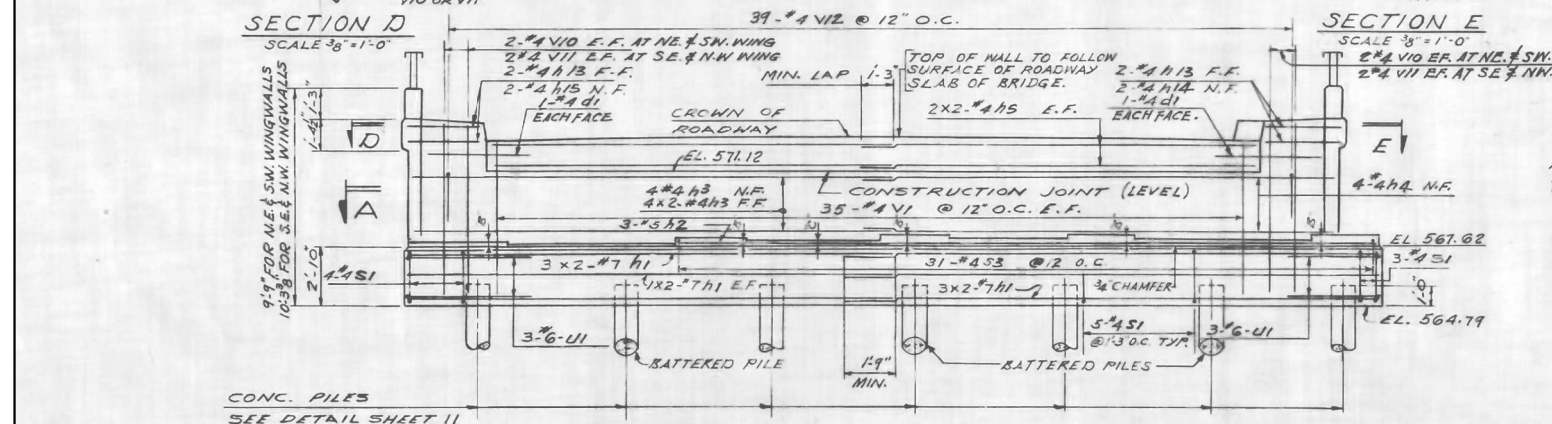
HANDRAIL DETAILS  
 GRADE SEPARATION  
 CROSS ROAD  
 OVER F.A.I. ROUTE 80  
 F.A.I. PROJECT  
 F.A.I. ROUTE 80 SECTION (32,47)-4  
 GRUNDY-KENDALL COUNTY  
 STATION 1574+07.48

ALFRED BENESCH & ASSOCIATES CONSULTING ENGINEERS  
 10 SOUTH WABASH AVENUE 602 CHICAGO, ILLINOIS



**HALF SECTION "A"**  
SCALE 1/4" = 1'-0"

**HALF PLAN**  
SCALE 1/4" = 1'-0"



**FRONT ELEVATION**  
(2 STRUCTURES THUS)  
SCALE 1/4" = 1'-0"

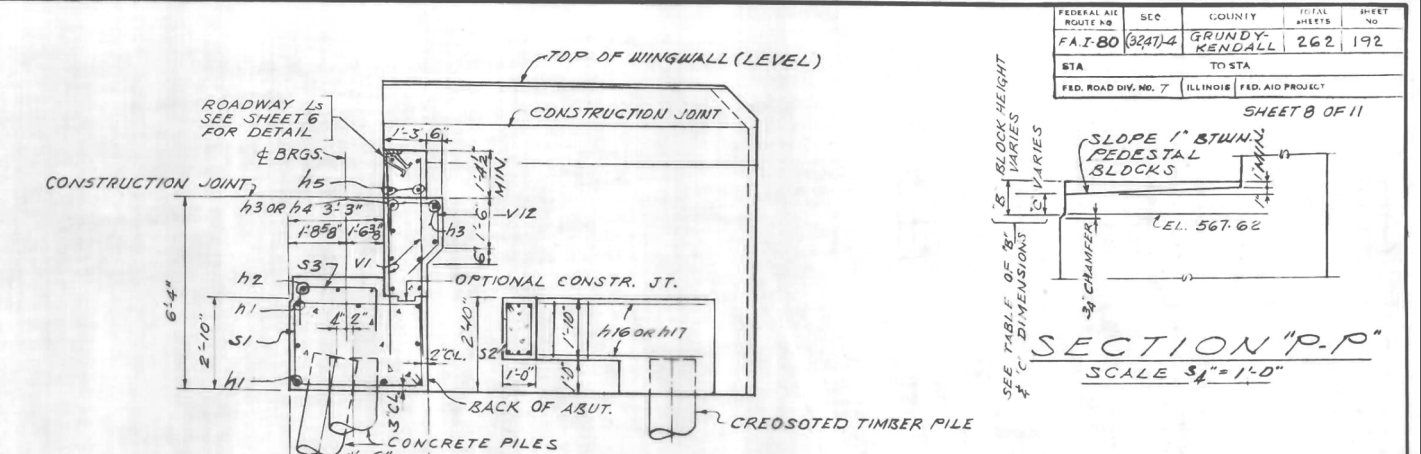
**PILE SCHEDULE FOR EACH ABUT.**

PILES	CONCRETE	CREOSOTED
CAPACITY	35 TONS	10 TONS
NO. REQ.	7 (INC 1 TEST PILE)	2
EST. LENGTH	W. ABUT. 24'	24'
	E. ABUT. 28'	24'

**TABLE OF 'B' & 'C' DIMENSIONS**

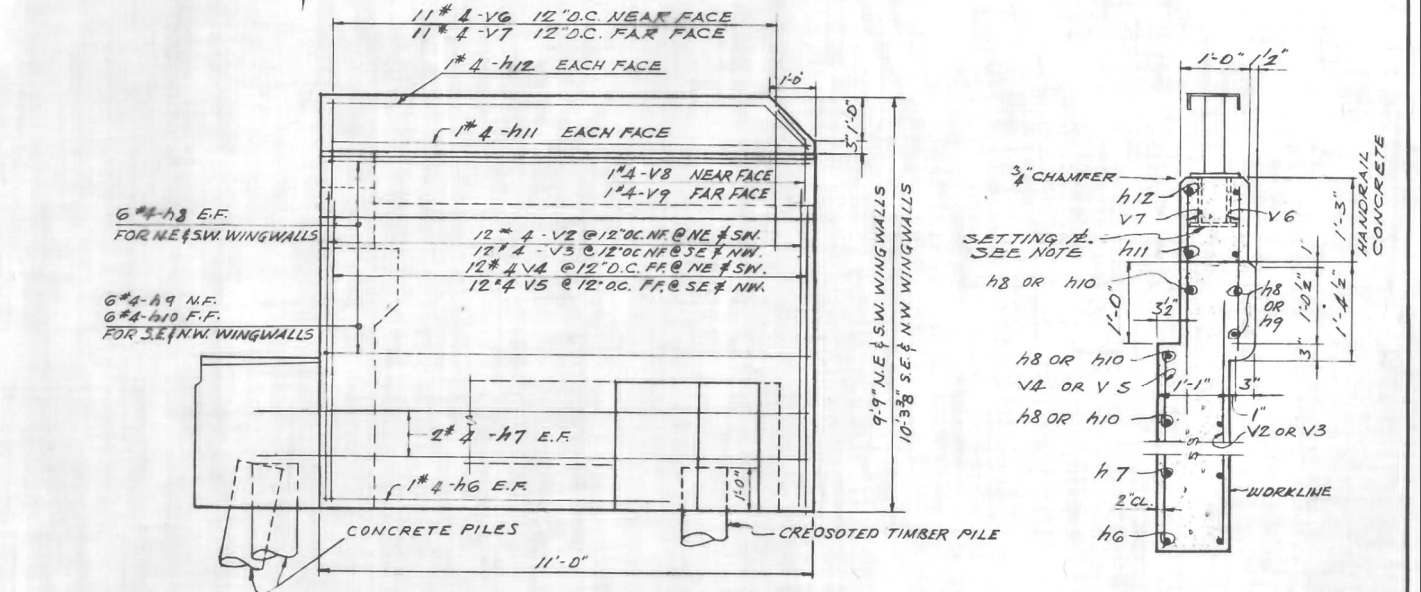
BEAM LOCATION	1	2	3	4	5
'B' DIMENSION	2'	5 3/8"	6 7/8"	7 3/4"	8 1/8"
'C' DIMENSION	0"	3 3/8"	4 7/8"	5 3/4"	

(SEE SECTION P-P)



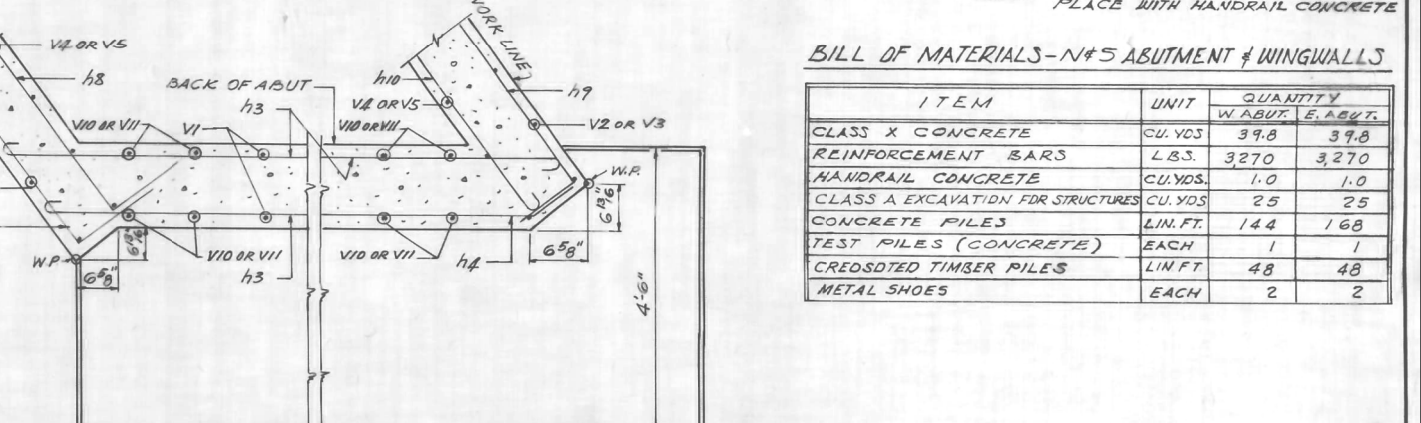
**SECTION "P-P"**  
SCALE 3/8" = 1'-0"

**SECTION "R-R"**  
SCALE 3/8" = 1'-0"



**WING WALL ELEVATION**  
SCALE 1/2" = 1'-0"

**SECTION "N-N"**  
SCALE 3/4" = 1'-0"



**TYPICAL CORNER DETAIL**  
SCALE: 3/4" = 1'-0"

**BILL OF MATERIALS - N#5 ABUTMENT & WINGWALLS**

ITEM	UNIT	QUANTITY	W. ABUT.	E. ABUT.
CLASS X CONCRETE	CU. YDS.	39.8	39.8	
REINFORCEMENT BARS	LBS.	3270	3270	
HANDRAIL CONCRETE	CU. YDS.	1.0	1.0	
CLASS A EXCAVATION FOR STRUCTURES	CU. YDS.	25	25	
CONCRETE PILES	LIN. FT.	144	168	
TEST PILES (CONCRETE)	EACH	1	1	
CREOSOTED TIMBER PILES	LIN. FT.	48	48	
METAL SHOES	EACH	2	2	

**EAST AND WEST ABUTMENTS & WINGWALL DETAILS**

GRADE SEPARATION  
CROSS ROAD  
OVER F.A.I. ROUTE 80  
F.A. PROJECT

F.A.I. ROUTE 80 SECTION (32,47)-4  
GRUNDY-KENDALL COUNTY  
STATION 1574+07.48