

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

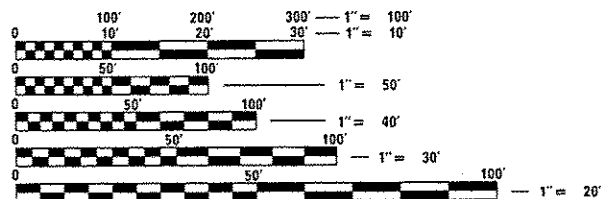
FOR INDEX OF SHEETS & STANDARDS,
SEE SHEET NO. 2

F.A.I. 255 (I-255)
SECTION DIST 8 ITS 2016-1
ST. CLAIR COUNTY
ITS COMMUNICATION, DETECTION AND SURVEILLANCE DEVICES
ON I-255 FROM 0.6 MI. N. OF IL 15 (MP 17.3)
TO MOUSETTE DR. N. RAMPS (MP 15.1)

C-98-061-15
ACCM I - 0255 (404)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
255	DIST 8 ITS 2016-1	ST. CLAIR	40	1
ILLINOIS CONTRACT NO. 76J19				

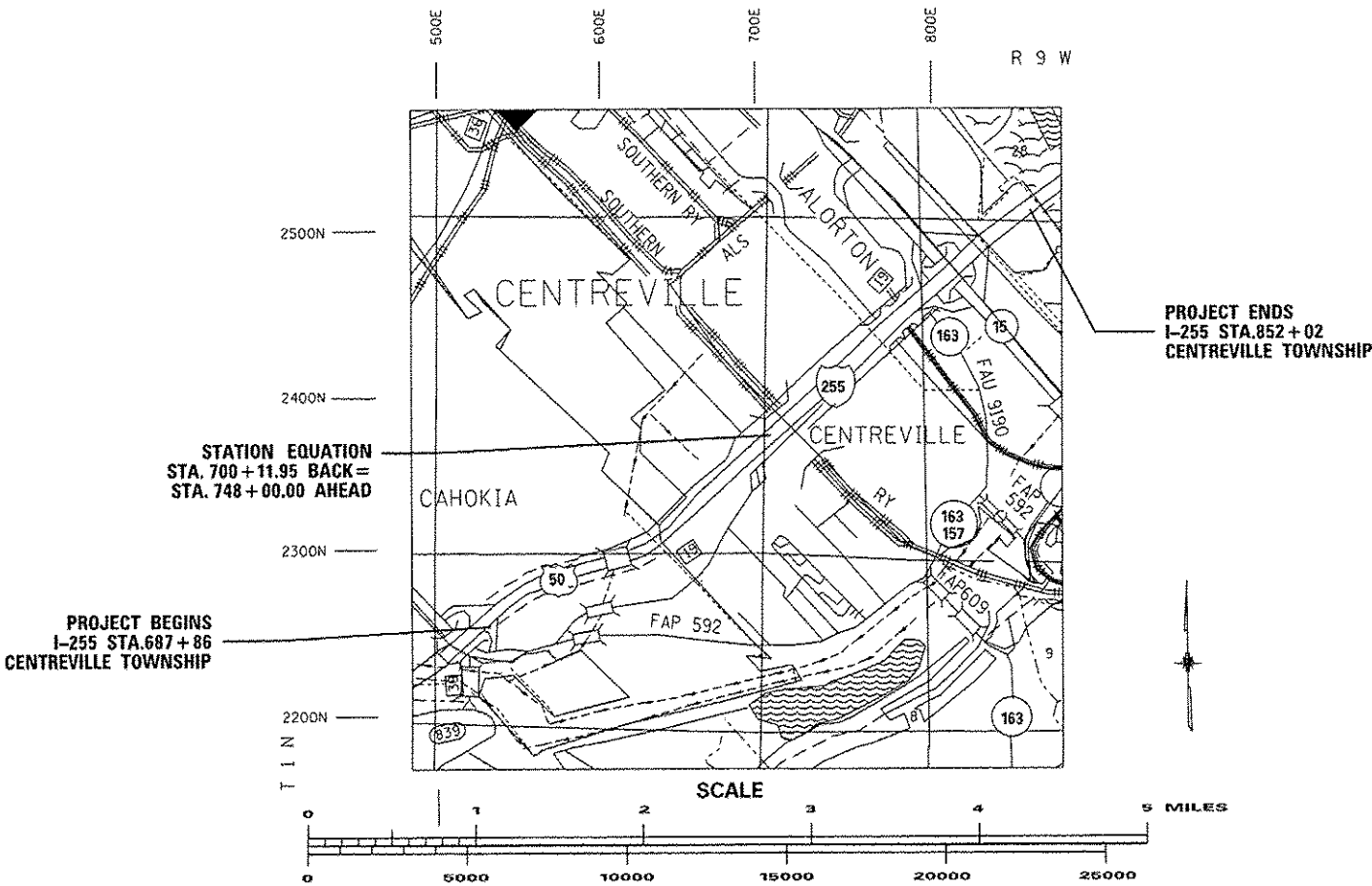
D-98-011-16



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: HERVE GELIN (618) 346-3179
SQUAD LEADER: MICHAEL PRESTON (618)-346-3143
LIAISON ENGINEER: SAHAH PRATT 618) 346-3285
CONTRACT NO. 76J19



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED *Jan 28 2016*
Jeffrey Z. Kan
DEPUTY DIRECTOR OF HIGHWAYS, REGION 5 ENGINEER

May 6 2016
Maureen M. Addis P.E.
acting ENGINEER OF DESIGN AND ENVIRONMENT

May 6 2016
Omer Osman P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS

GENERAL NOTES

INDEX OF SHEETS

1. COVER SHEET
2. GENERAL NOTES, LEGEND AND COMMITMENTS
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7. CCTV AND RADAR VEHICLE DETECTION MOUNTING DETAIL
8. SERVICE INSTALLATION AND POLE MOUNTED CAMERA LOWERING DEVICE DETAILS
9. CCTV POLE DETAILS
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15. FIBER NETWORK DETAIL
16. FIBER TERM-SPL SUMMARY & OPTICAL EQUIPMENT SCHEDULE
17. COMMUNICATION SHEET
18.-21. I-255 BRIDGE OVER UNION PACIFIC R.R. AND CHURCH RD. CONDUIT DETAILS, 1-4 OF 4
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26. - 38. OVERHEAD SIGN STRUCTURES ALUMINUM TRUSS SUPPORT, WALKWAY, HANDRAIL AND FOUNDATION DETAILS
39. & 40. SOIL BORING LOGS

STANDARDS

000001-06	001801-02	001006
630001-10	701101-05	701106-02
701400-08	701401-09	701411-09
701421-07	701428-01	701446-07
701456-03	701501-06	701901-05
805001-01	814001-03	814006-02
836001-02	873001-02	878001-10

LEGEND

EP	EDGE OF PAVEMENT
FO	FIBER OPTIC CABLE IN CONDUIT
IPP	INLET AND PIPE PROTECTION
MD	MULTI-DUCT
PVC	POLYVINYL CHLORIDE CONDUIT
SPBGR	STEEL PLATE BEAM GUARDRAIL
	EXISTING RADAR VEHICLE DETECTOR
	EXISTING RADAR VEHICLE DETECTOR
	EXISTING JUNCTION BOX
	EXISTING DOUBLE HANDHOLE (EXDHH**)
	EXISTING CONTROLLER
	EXISTING CONDUIT
	EXISTING SERVICE INSTALLATION
	PROPOSED HANDHOLE (HH**)
	PROPOSED DOUBLE HANDHOLE (DHH**)
	PROPOSED SERVICE INSTALLATION
	PROPOSED CONDUIT (SEE GEN. NOTE REGARDING MULTI-DUCT CONDUIT)
	PROPOSED JUNCTION BOX, SIZE SPECIFIED (JB**)
	PROPOSED CCTV
	PROPOSED RADAR VEHICLE DETECTOR

1. ALL MATERIALS SHALL CONFORM TO SECTION 106 OF THE STANDARD SPECIFICATIONS FOR CONTROL OF MATERIALS.
2. THE JUNCTION BOXES SHALL BE UNPAINTED ALUMINUM SHEET METAL UNLESS OTHERWISE SPECIFIED ON THE PLANS.
3. UNDERGROUND CABLE MARKING TAPE SHALL BE INSTALLED WITH ALL UNDERGROUND CONDUIT IN ACCORDANCE WITH ARTICLES 810.04 AND 1066.05 OF THE STANDARD SPECIFICATIONS.
4. THE CONTRACTOR SHALL NOT DRILL ANY HOLES IN THE BEAMS, DECK, OR SUBSTRUCTURE OF THE BRIDGE, UNLESS APPROVED BY THE ENGINEER.
5. ALL GROUND RODS SUPPLIED FOR THIS PROJECT SHALL BE IN ACCORDANCE WITH ARTICLE 1087.01. ALL CONNECTIONS TO GROUND RODS SHALL BE MADE VIA EXOTHERMIC WELD. COMPRESSION CLAMPS WILL NOT BE ALLOWED.
6. COORDINATION WITH THE DEPARTMENT'S BUREAU OF OPERATIONS IS REQUIRED BEFORE ANY TRENCHING SHALL BE DONE TO LOCATE HIGHWAY LIGHTING/PUMP STATION/ITS FACILITIES AND TO COORDINATE OTHER FIELD ACTIVITIES.
7. BENDING RADIUS OF FIBER OPTIC CABLE SHALL NOT BE LESS THAN "15 TIMES THE CABLE DIAMETER.
8. ALL HANDHOLES SHALL BE CONSTRUCTED OF PORTLAND CEMENT CONCRETE PER SECTION 814 OF THE STANDARD SPECIFICATIONS. THE LEGEND ON THE COVER SHALL BE "ITS". SLOPE HANDHOLE TO MATCH FINAL GRADE ELEVATION.
9. ALL UTILITIES AND DRAINAGE STRUCTURES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY ATTEMPT TO CONSTRUCT ANY COMPONENT OF THE VARIOUS ITS EQUIPMENT SYSTEMS. THE COST FOR LOCATING DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR UNDERGROUND CONDUIT OF THE TYPE AND SIZE SPECIFIED.
10. ILLINOIS STATE LAW REQUIRES A 48 HOUR NOTICE BE GIVEN TO UTILITIES BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING JOINT UTILITY LOCATING INFORMATION EXCAVATORS (J.U.L.I.E) OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:
- AMEREN ILLINOIS (GAS & ELECTRIC)
 - AT&T ILLINOIS (COMMUNICATIONS)
 - CITY OF CENTREVILLE (WATER AND SANITARY SEWER)
 - CHARTER COMMUNICATIONS, INC. (CABLE TV)
 - COMMONFIELDS OF CAHOKIA PUBLIC WATER DISTRICT (WATER AND SANITARY SEWER)
 - ILLINOIS AMERICAN WATER COMPANY (WATER)
 - LEVEL 3 COMMUNICATIONS, LLC (COMMUNICATIONS)
 - VERIZON BUSINESS (COMMUNICATIONS)
 - ZAYO FIBER SOLUTIONS (COMMUNICATIONS)
- MEMBERS OF J.U.L.I.E. ARE INDICATED BY AN "•". THE (J.U.L.I.E.) SYSTEM NUMBERS ARE (800)-892-0123 AND 811. NON-J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY.
11. ALL FIBER BACKBONE CONDUIT SHALL BE PLACED A MINIMUM OF 5' FROM EDGE OF PAVEMENT. FINAL LOCATION SHALL BE APPROVED BY THE ENGINEER.
12. THE CONTRACTOR SHALL BE REQUIRED TO PERFORM FIELD MEASUREMENTS TO VERIFY DIMENSIONS OF EXISTING STRUCTURES PRIOR TO ORDERING MOUNTING HARDWARE. CONDUIT ATTACHED TO STRUCTURE SHALL BE INSTALLED PER THE APPLICABLE PORTIONS OF SECTION 811 REGARDING SUPPORTS, SUSPENSION, FASTENERS AND HARDWARE.
13. FIBER OPTIC CABLE PULL TENSION WILL BE LIMITED BY PROVIDING JUNCTION BOXES OR HANDHOLES AT INTERVALS NO GREATER THE 750 FEET.
14. A 1/4" DIA. NYLON ROPE SHALL BE INSTALLED IN ALL CONDUIT RUNS. THE COST OF PULL ROPE SHALL BE INCLUDED IN THE PROPOSED ELECTRIC CABLE INSTALLATION AND OR FIBER OPTIC CABLE IN THAT CONDUIT.
15. THE CONTRACTOR SHALL PAY ATTENTION TO SECTION 107 "LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC" OF THE STANDARD SPECIFICATIONS. IN PARTICULAR ARTICLE 107.01 "LAWS TO BE OBSERVED" AND ARTICLE 107.04 "PERMITS AND LICENSES".
16. THE COST TO REMOVE AND REPLACE ANY EXISTING RIP RAP, GUARDRAIL AND GUARDRAIL MARKERS ENCOUNTERED DURING INSTALLATION SHALL BE INCLUDED IN THE UNIT PRICE OF THE ASSOCIATED "UNDERGROUND CONDUIT, (SIZE & TYPE, AS SPECIFIED)".

17. INLET AND PIPE PROTECTION (IPPO1-STA 761+30) SHALL BE PLACED IN "ACTIVE" WORKZONES ONLY. AN "ACTIVE" WORKZONE IS DEFINED AS AN AREA WHERE THE CONTRACTOR IS CURRENTLY INSTALLING MULTI-DUCT CONDUIT. INLET AND PIPE PROTECTION PLACEMENT IN AN "INACTIVE" WORKZONE SHALL BE WITH THE ENGINEER'S PERMISSION.
18. IN ADDITION TO BACKFILLING AND MECHANICALLY COMPACTING CONDUIT TRENCHES PER ARTICLE 810.04(A) OF THE STANDARD SPECIFICATIONS, SUITABLE AND SUFFICIENT BACKFILL MATERIAL SHALL BE ADDED ABOVE THE TRENCH TO TAKE CARE OF ANTICIPATED FINAL GRADE SETTLEMENT, AS DIRECTED BY THE ENGINEER.
19. CLEAR VEGETATION PER ARTICLES 201.01(A), 201.03, 201.08, 201.09 AND 201.10(A) OF THE STANDARD SPECIFICATIONS.
20. THE ENGINEER MAY PERMIT ACCESS CONTROL FENCING REMOVAL AND IMMEDIATE REPLACEMENT TO FACILITATE CONDUIT INSTALLATION. THE PRICE OF ACCESS CONTROL FENCING REMOVAL AND REPLACEMENT SHALL BE INCLUDED IN THE UNIT COST OF ASSOCIATED CONDUIT WITH NO ADDITIONAL COMPENSATION ALLOWED.
21. MARKING OF THE FIBER OPTIC IN-GROUND CONDUIT RUNS WILL BE DONE TO PREVENT FUTURE DAMAGE TO THE FIBER BACKBONE. THE FIBER OPTIC UTILITY MARKER WILL BE PLACED EVERY 300 FEET ALONG THE FIBER RUN AND AT OTHER IMPORTANT JUNCTIONS, TURNS, OR OTHER AREAS AS SPECIFIED BY THE FIELD ENGINEER.

FILE NAME =	USER NAME = prestonna	DESIGNED =	REVISED =	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES, LEGEND AND COMMITMENTS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\1\084E810INTEG\illinois.gov\PW100T\Documents\100T\Offices\District 6\Projects\0876\DRAWING\0876J19-shr-its\plan		CHECKED =	REVISED =			256	DIST 8 ITS 2016-1	ST. CLAIR	40	2
PLOT SCALE = 100.0000' / 1" =		DATE = 4/11/2016	REVISED =			CONTRACT NO. 76J19				
						ILLINOIS FED. AID PROJECT				
SCALE: SHEET NO. OF SHEETS STA. TO STA.										

80% FED
20% STATE
URBAN
0021

SUMMARY OF QUANTITIES

80% FED
20% STATE
URBAN
0021

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0021		
CODE NO	ITEM	UNIT		IL 15	DMS	F.O. RACEWAY
X0325487	WIRED COMMUNICATION DATA CONVERTOR	EACH	1	1		
X1400151	CONDUIT ATTACHED TO STRUCTURE, PVC, 4"	FOOT	1165			1165
	DIA, MULTI-DUCT					
81100586	CONDUIT ATTACHED TO STRUCTURE, 3" DIA.,	FOOT	120		120	
	ALUMINUM					
25000210	SEEDING, CLASS 2A	ACRE	0.85			0.85
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	77			77
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	77			77
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	77			77
25100105	MULCH, METHOD 1	ACRE	0.85			0.85
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	85	85		
28000500	INLET AND PIPE PROTECTION	EACH	1			1
44001980	CONCRETE BARRIER REMOVAL	FOOT	42		42	
* 63301210	REMOVE AND REERECT STEEL PLATE BEAM	FOOT	200		200	
	GUARDRAIL, TYPE A					
63700275	CONCRETE BARRIER, DOUBLE FACE, 42" HEIGHT	FOOT	35		35	

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE-0021		
CODE NO	ITEM	UNIT		IL 15	DMS	F.O. RACEWAY
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6			6
67100100	MOBILIZATION	L SUM	1			1
70100310	TRAFFIC CONTROL AND PROTECTION,	L SUM	1			1
	STANDARD 701421					
70100420	TRAFFIC CONTROL AND PROTECTION,	EACH	8			8
	STANDARD 701411					
70100815	TRAFFIC CONTROL AND PROTECTION,	L SUM	1			1
	STANDARD 701446					
70100825	TRAFFIC CONTROL AND PROTECTION,	L SUM	1			1
	STANDARD 701456					
70102620	TRAFFIC CONTROL AND PROTECTION,	L SUM	1			1
	STANDARD 701501					
73300300	OVERHEAD SIGN STRUCTURE - SPAN, TYPE	FOOT	90		90	
	III A (5'-0" x 7'-0")					
73301810	OVERHEAD SIGN STRUCTURE WALKWAY, TYPE A	FOOT	59.3		59.3	
* 73400200	DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	46.3		46.3	
80300100	LOCATING UNDERGROUND CABLE	FOOT	8579			8579
80500100	SERVICE INSTALLATION, TYPE A	EACH	1		1	

* SPECIALTY ITEM

FILE NAME =	USER NAME = prestanme	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\N\1884EBID\INTEG\Illinois.gov\PIV001\Do	Documents\100T_Offices\District 8\Projects\0075	DRY\002Data\B00shpata\0876J19-shr-rep	REVISED -				255	DIST 8 ITS 2016-1	ST. CLAIR	40	3
	PLOT SCALE = 100.0000' / 1" =	CHECKED -	REVISED -				CONTRACT NO. 76J19				
	PLOT DATE = 1/29/2016	DATE -	REVISED -				ILLINOIS FED. AID PROJECT				
SCALE:		SHEET OF SHEETS		STA.		TO STA.					

80% FED
20% STATE
URBAN
0021

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE-0021		
CODE NO	ITEM	UNIT		IL 15	DMS	F.O. RACEWAY
X0325077	FIBER OPTIC UTILITY MARKER	EACH	26		26	
X0325086	CONDUIT ATTACHED TO STRUCTURE, 4" DIA.,	FOOT	255		255	
	FIBERGLASS BULLET RESISTANT, MULTI-DUCT					
X0325476	RADAR VEHICLE DETECTION SYSTEM	EACH	1	1		
X0325482	REMOVE EXISTING ITS EQUIPMENT	EACH	1	1		
X0325485	TRUSS MOUNTED LED DYNAMIC MESSAGE SIGN	EACH	1		1	
X0326091	LIGHT POLE, STEEL 50 FT. WITH CAMERA	EACH	1	1		
	LOWERING SYSTEM					
X0327096	ETHERNET MODEM	EACH	2		2	
X7010410	SPEED DISPLAY TRAILER	CAL MO	1	0.2	0.2	0.6
X8102839	UNDERGROUND CONDUIT, PVC, 4" DIA.,	FOOT	7898			7898
	MULTI-DUCT					
X8630103	CONTROLLER CABINET TYPE III, SPECIAL	EACH	1		1	
X8710075	FIBER OPTIC CABLE IN CONDUIT, 72 COND.	FOOT	3084		3084	
	S.M. F.O.					
X8780105	CONCRETE FOUNDATIONS (SPECIAL)	EACH	1		1	
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1			1

TRAFFIC DATA SCHEDULE

#	1	2	3	4	5	6	7	8	9	10	11
ROAD	MOUSETTE DR. TO NB I-255 (RAMP)	I-255 NB & SB 689+00	I-255 SB 689+00 I-255 SB 695+00	I-255 SB TO MOUSETTE DR. (RAMP)	I-255 SB 695+00 I-255 SB 701+00	I-255 NB 701+00 I-255 NB 762+00	BOND AVE. EB & WB @ 100+00 (E. OF I-255)	I-255 NB 799+20 I-255 NB 800+80	IL 163 EB & WB E. OF 50TH ST.	I-255 NB TO IL 15 EB (RAMP)	IL 15 EB TO I-255 NB (RAMP)
	YEAR	2016	2016	2016	2016	2016	2016	2016	2016	2016	2016
ADT (EST.)	3150	50100	24400	3350	24400	26200	5200	26200	2700	6100	1200
SUZ	3. 00%	3. 30%	3. 50%	2. 70%	3. 50%	3. 10%	1. 70%	3. 10%	4. 50%	2. 70%	3. 60%
MUZ	4. 50%	15. 70%	16. 10%	5. 20%	16. 10%	15. 40%	0. 40%	15. 40%	4. 20%	7. 30%	5. 50%

TRAFFIC CONTROL AND PROTECTION SCHEDULE

TRAFFIC CONTROL AND PROTECTION STANDARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	TOTAL	
	MOUSETTE DR. TO UNDER NB I-255 (RAMP 4)	NB I-255 (RAMP 4) TO I-255 SB 689+00	I-255 SB 689+00 TO I-255 SB 695+00	I-255 SB 695+00 UNDER MOUSETTE DR. (RAMP 3)	MOUSETTE DR. (RAMP 3) TO I-255 SB 749+00•	I-255 SB 749+00• TO I-255 NB 762+00	I-255 NB 762+00 TO BOND AVE. 100+40	UNDER BOND AVE. TO I-255 NB 799+20	I-255 NB 799+20 TO I-255 NB 800+80	I-255 NB 800+80 TO IL 163 E. OF RMP. BRG.	UNDER IL 163 TO UNDER IL 15 EB RMP.	IL 15 EB RMP. TO I-255 NB RMP.	UNDER IL 15 EB/ I-255 NB RMP. TO I-255 NB	I-255 SB RMP. TO EB IL 15 S. OF. BRG.		
	701101	X	X	X	X	X	X	X	X	X	X	X	X	X		NM
	701106	X	X	X	X	X	X	X	X	X	X	X	X	X		X
701400		X	X	X	X	X		X	X					X	NM	
701401		0.13	0.13	0.13	0.13	0.13			0.13					0.22	1.00 L SUM	
701411		2	1	1	1	1			1					1	8.00 EACH	
701421		0.13	0.13	0.13	0.13	0.13			0.13					0.22	1.00 L SUM	
701428	X	X	X	X	X	X			X		X		X	X	NM	
701446						0.5			0.5						1.00 L SUM	
701456	0.10		0.30	0.10	0.10						0.10		0.30		1.00 L SUM	
701501								0.50			0.50				1.00 L SUM	

NM=NOT MEASURED

* = STATION EQUATION

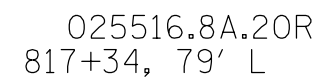
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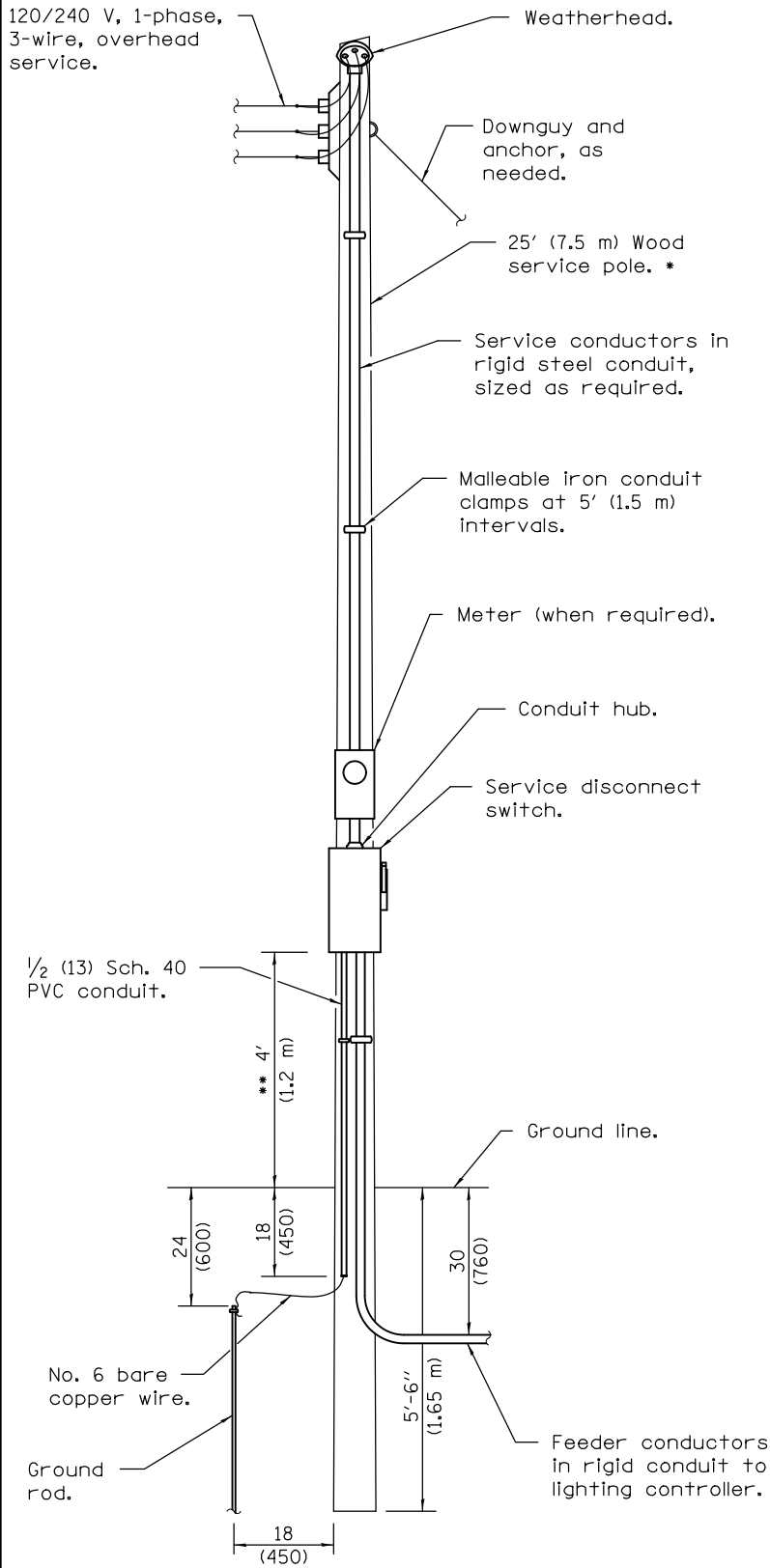
STA. 748+00.00 AHEAD

I-255 LANE RESTRICTIONS SCHEDULE

SB	MONDAY-FRIDAY	6: 00A-9: 00A: 2 LANE CLOSURES PROHIBITED 3: 00P-6: 00P: 2 LANE CLOSURES PROHIBITED
	SATURDAY-SUNDAY	LANE RESTRICTIONS PERMITTED
NB	MONDAY-FRIDAY	6: 00A-9: 00A: 2 LANE CLOSURES PROHIBITED 3: 00P-6: 00P: 2 LANE CLOSURES PROHIBITED
	SATURDAY-SUNDAY	LANE RESTRICTIONS PERMITTED

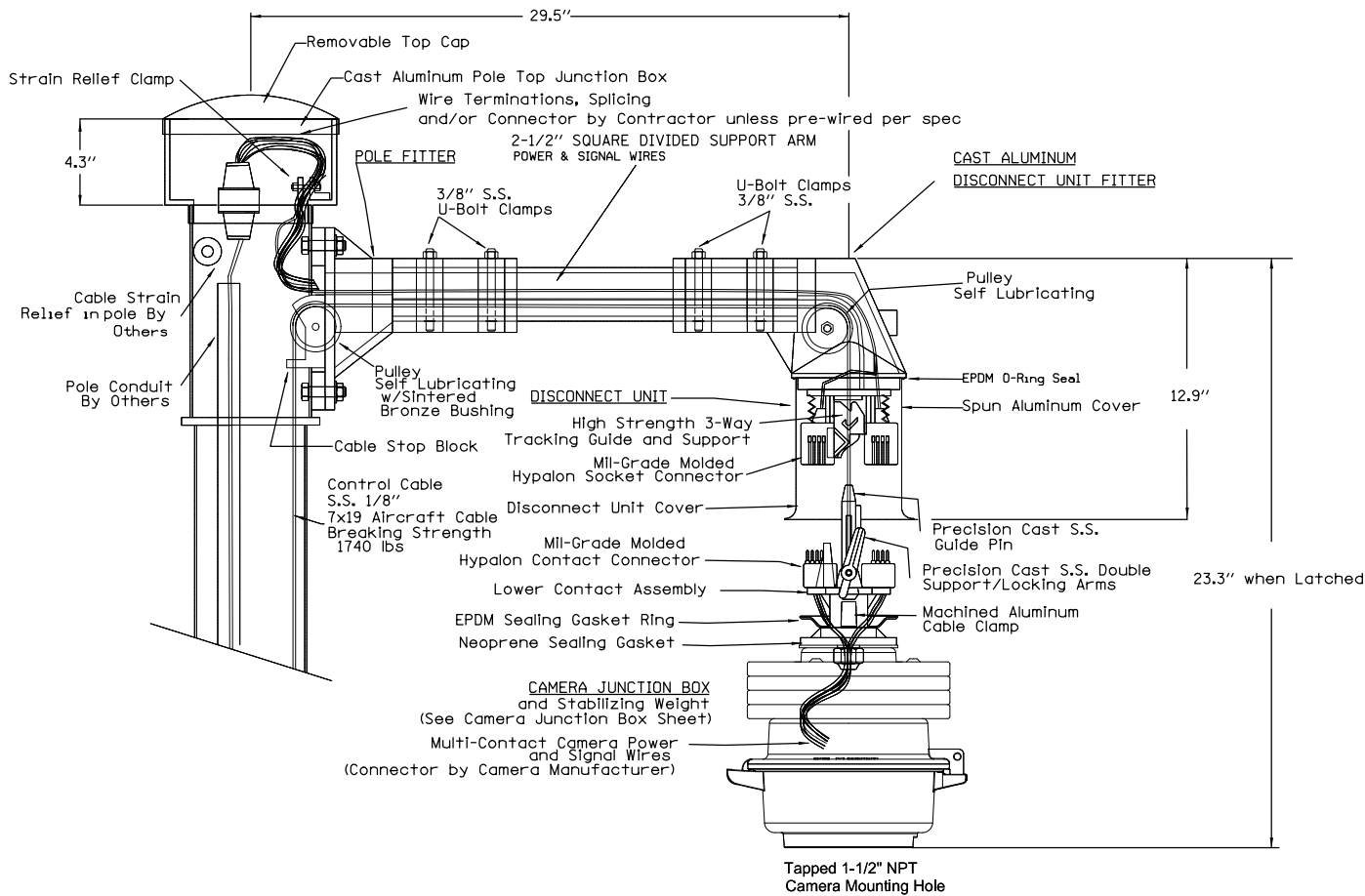
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pw:\IL084EBID\INTEG\Illinois.gov\PIDOT\Documents\DOT Offices\District 8\Projects\0876\DRAWING Data\GAD\sheet\0876J19-sht-1.tbl	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -			255	DIST 8 ITS 2016-1	ST. CLAIR	40	6
PLOT DATE = 4/11/2016	DATE -	REVISED -	REVISED -			CONTRACT NO. 76J19				
						SCALE:	SHEET NO.	OF	SHEETS	STA.

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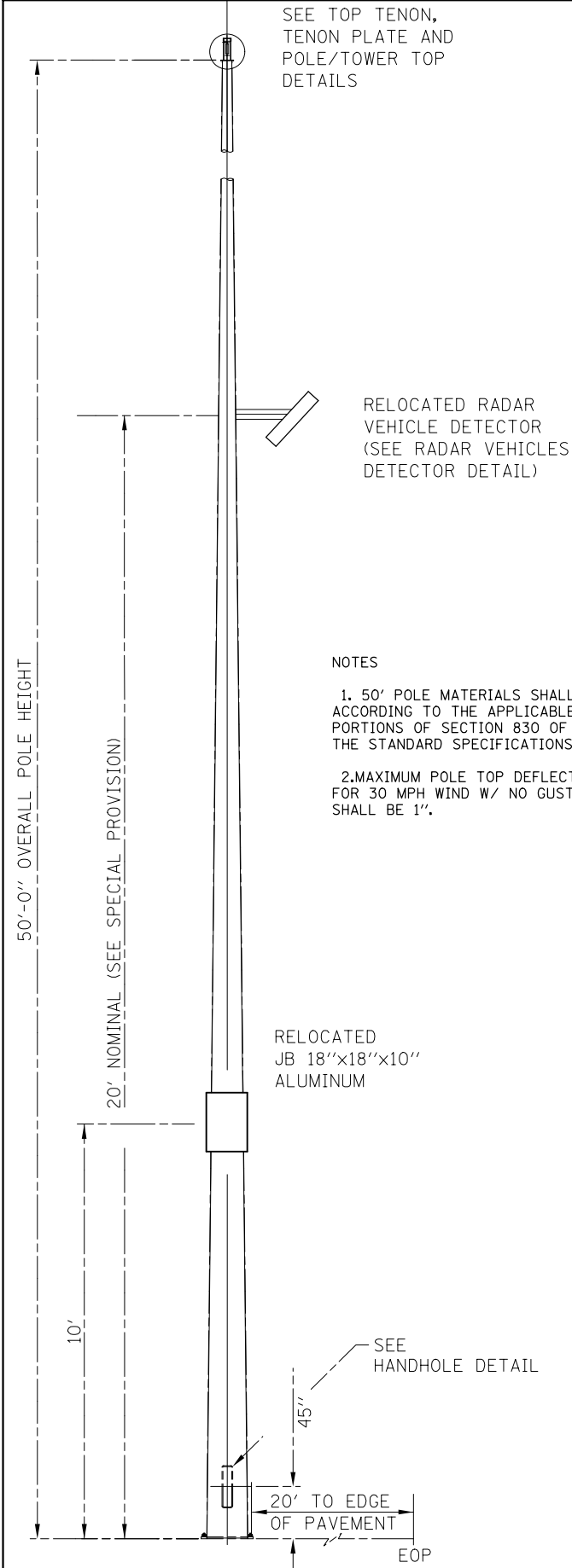
SERVICE INSTALLATION TYPE A

- * Size larger as needed.
** Or as directed by Utility Company.

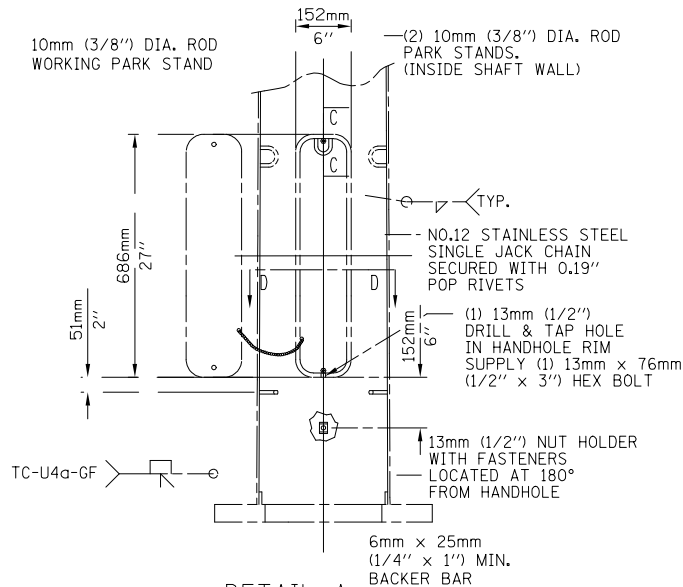


Camera Lowering Device for Pole Mounting Multi-Function Surveillance Cameras

FILE NAME =	USER NAME = prestonme	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SERVICE INSTALLATION AND POLE MOUNTED CAMERA LOWERING DEVICE DETAILS				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\1\1084EBID\INTEG\Illinois.gov\PIDOT\Documents\IDOT Offices\District 8\Projects\D876\Drawings\CAD\Drawings\Sheet\1084EBID\1084EBID.dwg		DRAWN -	REVISED -						255	DIST 8 ITS 2016-1	ST. CLAIR	40	8
	PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISED -						CONTRACT NO. 76J19				
	PLOT DATE = 1/29/2016	DATE -	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.				ILLINOIS FED. AID PROJECT				

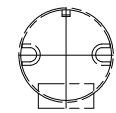


- NOTES
1. 50' POLE MATERIALS SHALL BE ACCORDING TO THE APPLICABLE PORTIONS OF SECTION 830 OF THE STANDARD SPECIFICATIONS.
 2. MAXIMUM POLE TOP DEFLECTION FOR 30 MPH WIND W/ NO GUSTS SHALL BE 1".

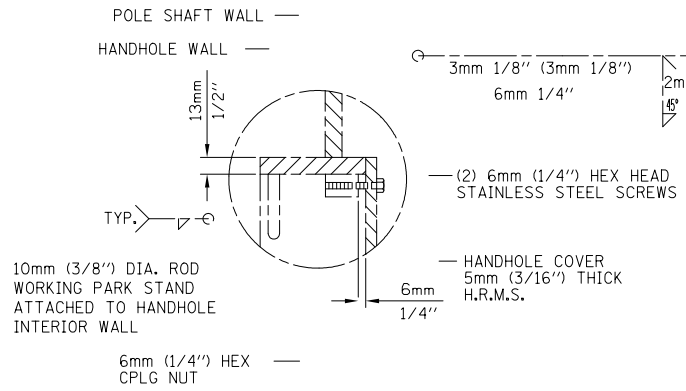


DETAIL A
6x27 HANDHOLE

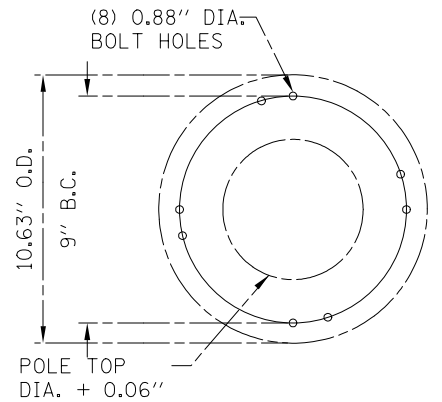
- 13mm (1/2") NUT HOLDER WITH FASTENERS
- (2) 10mm (3/8") DIA. ROD FOR WIRE TIE OFF.



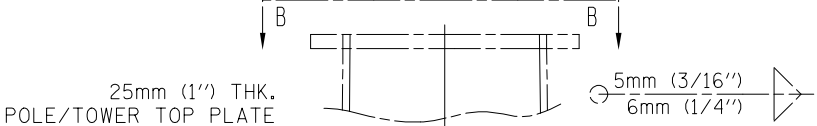
SECTION D-D



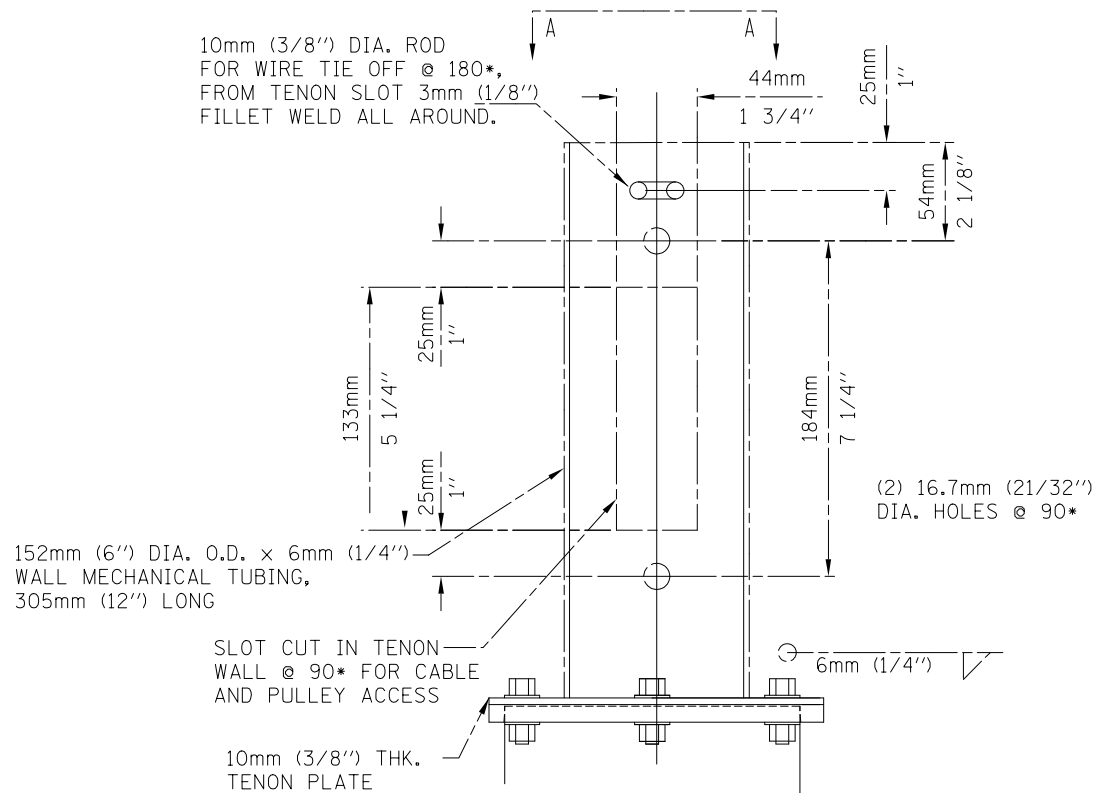
SECTION C-C



SECTION B-B
50'-0" POLE
PLATE DETAIL



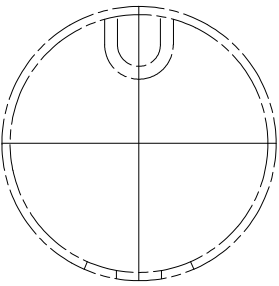
POLE TOP DETAIL



TOP TENON DETAIL

10mm (3/8") DIA. ROD FOR WIRE TIE OFF @ 180*, FROM TENON SLOT 3mm (1/8") FILLET WELD ALL AROUND.

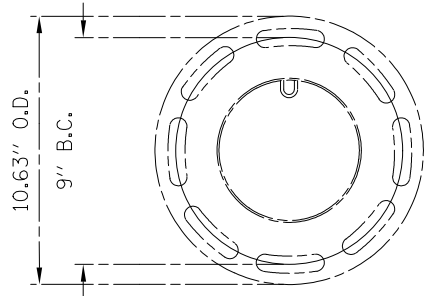
TENON TUBE WALL



SECTION A-A
WIRE TIE OFF
ORIENTATION DETAIL

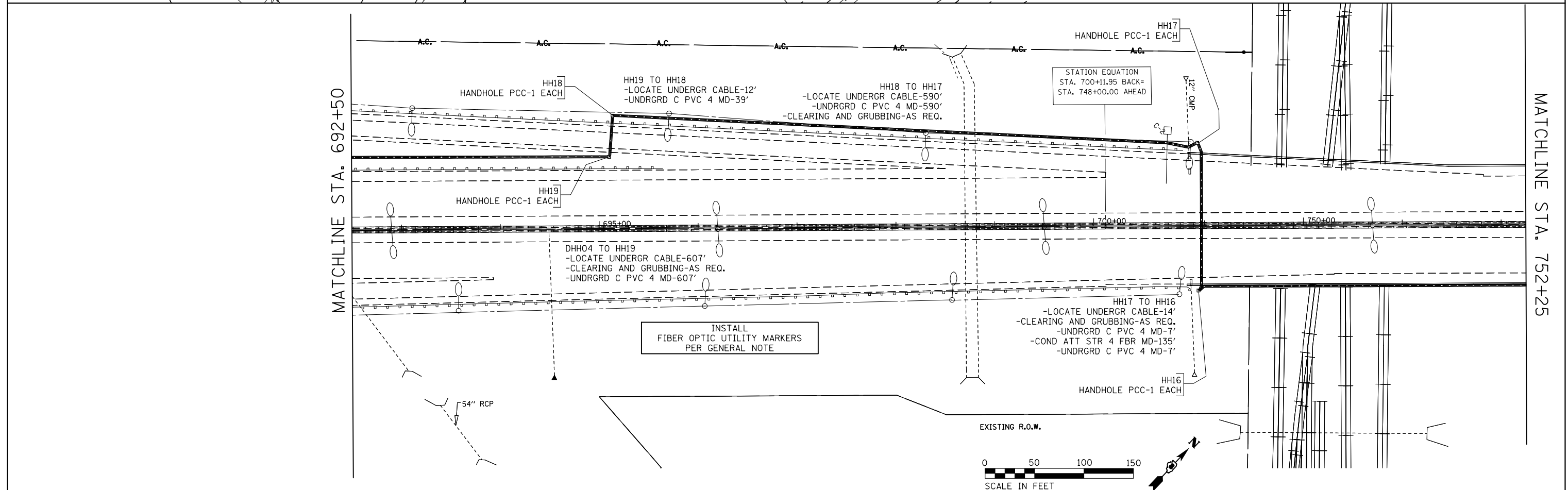
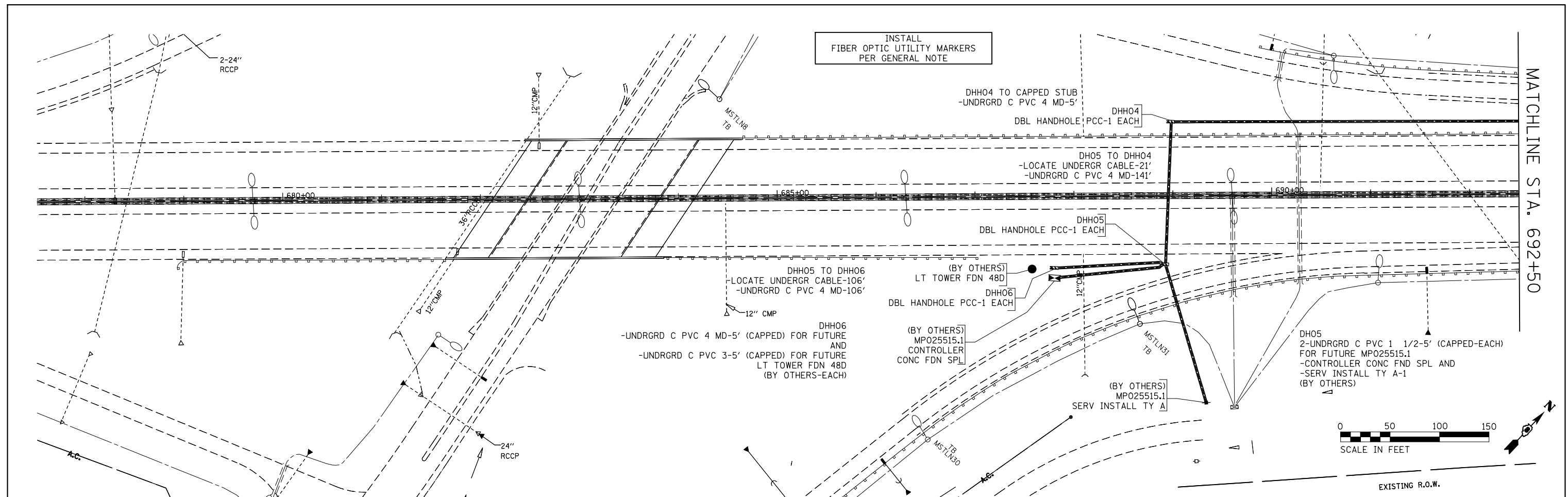
(8) 0.81" x 2.57" SLOTS, FOR (4) 19mm x 70mm (3/4" x 2 3/4") HEX BOLTS W/ FLAT WASHER, LOCK WASHER, AND HEAVY HEX NUT FOR EACH TENON ASSEMBLY.

0.38" DIA. ROD FOR WIRE TIE OFF @ 180*, FROM TENON SLOT 3mm (1/8") FILLET WELD ALL AROUND.



TENON PLATE DETAIL
50'-0" POLE

FILE NAME =	USER NAME = prestonme	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				CCTV POLE DETAILS				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw:\IL\084EBID\INTEG\illinois.gov\PIDOT\Documents\IDOT Offices\District 8\Projects\D876\Drawings\CAD\Drawings\084EBID\084EBID.dwg		DRAWN	REVISED									255	DIST 8 ITS 2016-1	ST. CLAIR	40	9
	PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISED -									CONTRACT NO. 76J19				
	PLOT DATE = 1/29/2016	DATE -	REVISED -									ILLINOIS FED. AID PROJECT				
				SCALE:				SHEET NO. OF SHEETS STA. TO STA.								



FILE NAME =	USER NAME = prestonme	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ITS PLAN 1A & 1B OF 5	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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PLOT DATE = 1/29/2016	DATE -	REVISED -									
Default						SCALE:	SHEET	OF	SHEETS	STA.	TO STA.
						ILLINOIS FED. AID PROJECT					

MATCHLINE STA. 823+75

MATCHLINE STA. 810+50

MP025516.8 EX. CONTROLLER TO EXHH07
2-REM & RE ELCBL FR CON-15'(EACH)
-RADAR VEH DETECT SYST ASSO. 025516.8A.20R CBLs.
-CCTV CAMERA SYSTEM ASSO. 025516.8A.37C CBLs.
-FO CAB C 62.5/125 6F-72'

EXHH07 TO EXDHH01
EX. UNDRGRD C PVC 4 MD
-FO CAB C 62.5/125 6F-106'

EXHH07

EXDHH01

EXDHH01 TO EXDHH02
EX. UNDRGRD C PVC 4 MD
-FO CAB C 62.5/125 6F-188

EXDHH02
CAPPED STUB

EXDHH02 TO EXHH01
EX. UNDRGRD C PVC 4 MD
-FO CAB C 62.5/125 6F-93'

EXHH01

EXDHH03

EXDHH03 TO EXHH02
EX. UNDRGRD C PVC 4 MD
-FO CAB C 72 SM FO-499'

EXHH01 TO EXDHH03
EX. UNDRGRD C PVC 4 MD
-FO CAB C 72 SM FO-191'

INSTALL
FIBER OPTIC UTILITY MARKERS
PER GENERAL NOTE

HH01 TO EXHH02 CAPPED STUB
-LOCATE UNDERGR CABLE-504'
-CLEARING AND GRUBBING-AS REQ.
-UNDRGRD C PVC 4 MD-504'

HH02 TO HH01
-LOCATE UNDERGR CABLE-7'
-UNDRGRD C PVC 4 MD-34'

HH01
HANDHOLE PCC-1 EACH

HH02
HANDHOLE PCC-1 EACH

HH03 TO HH02
-LOCATE UNDERGR CABLE-134'
-CLEARING AND GRUBBING-AS REQ.
-UNDRGRD C PVC 4 MD-134'

HH04 TO HH03
-LOCATE UNDERGR CABLE-14'
-UNDRGRD C PVC 4 MD-40'

HH03
HANDHOLE PCC-1 EACH

HH05 TO HH04
-LOCATE UNDERGR CABLE-649'
-CLEARING AND GRUBBING-AS REQ.
-UNDRGRD C PVC 4 MD-649'

HH04
HANDHOLE PCC-1 EACH

MP025516.8 EX. CONTROLLER
-MOD EX CONTR CAB TY A-1 EACH
-RADAR VEH DETECT SYST-1 EACH
-CCTV CAMERA SYSTEM-1 EACH
-WIRED COMM DATA CONV-1 EACH
-ETHERNET MODEM-1 EACH

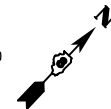
LIGHT POLE
FND 30D-8'

LIGHT POLE FND 30D TO
EXHH07
-CLEARING AND GRUBBING-AS REQ.
-REM RE-E SPBGR TY A-200'
-LP 50 W/CAM LOW SYS-1 EACH
W/025516.8A.37C &
ASSO. CCTV CAMERA SYSTEM CBLs.
&
W/ 025516.8A.20R &
ASSO. RADAR VEH DETECT
SYST CBLs.
-JUN BX SS AS 18X18X10-1 EACH
-LOCATE UNDERGR CABLE-16'
-DRILL EX HANDHOLE-1 EACH
-UNDRGRD C PVC 3-16'

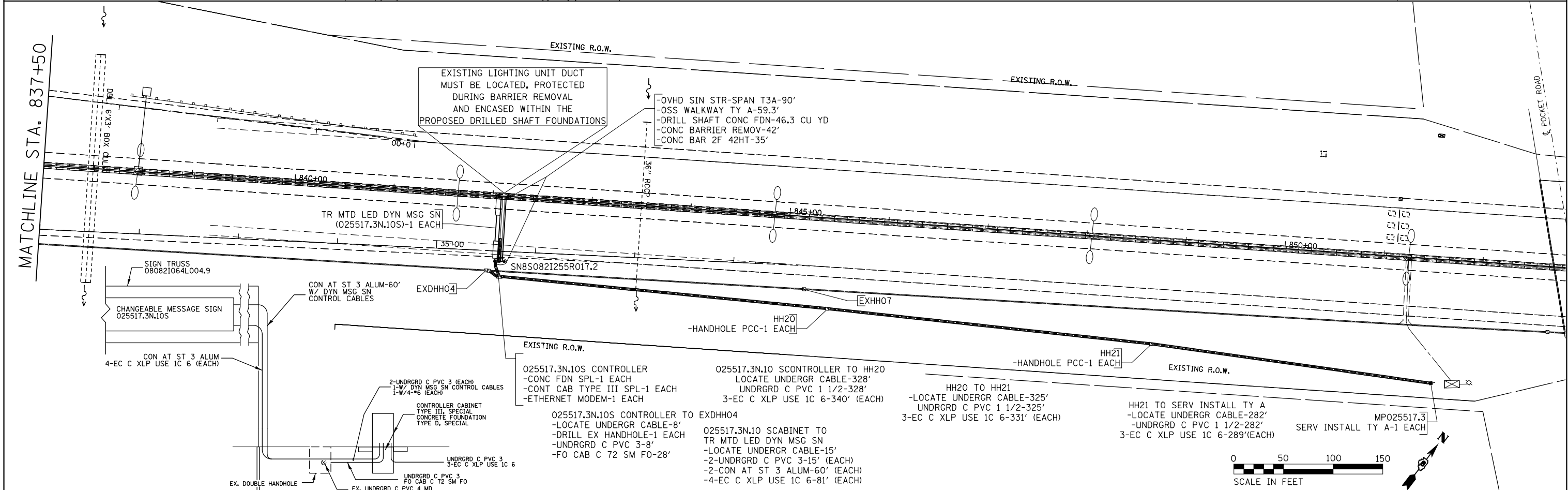
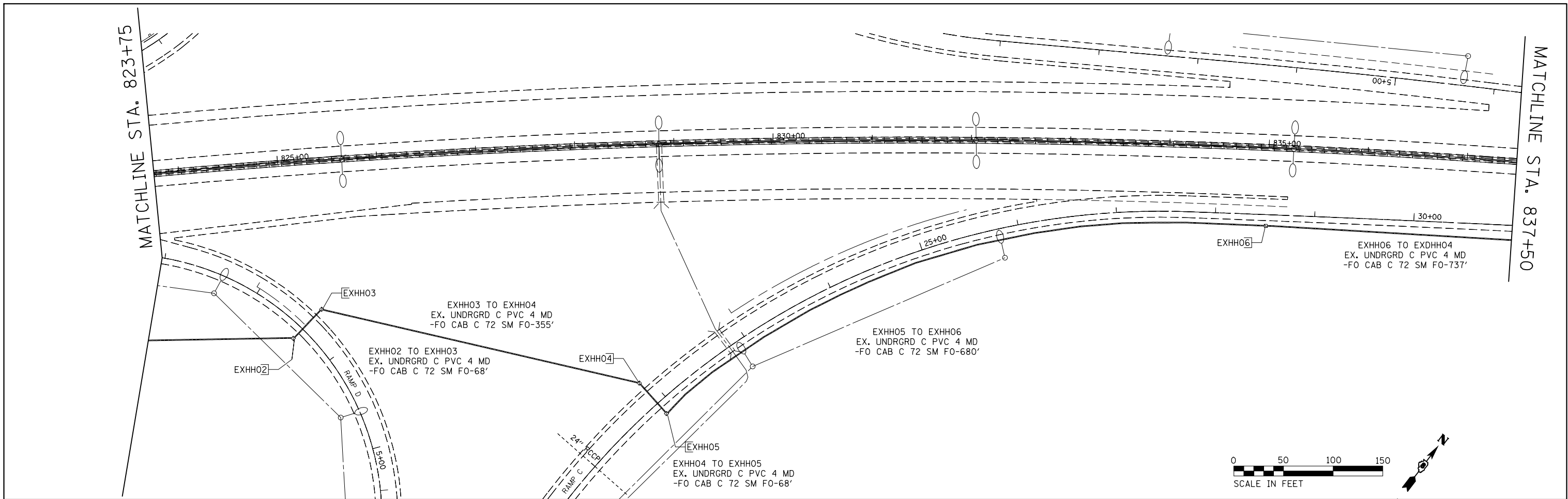
EXHH07

025516.8A.37C(EX.) TO EXHH07
-REM EXIST ITS EQUIPMT-1 EACH

0 50 100 150
SCALE IN FEET

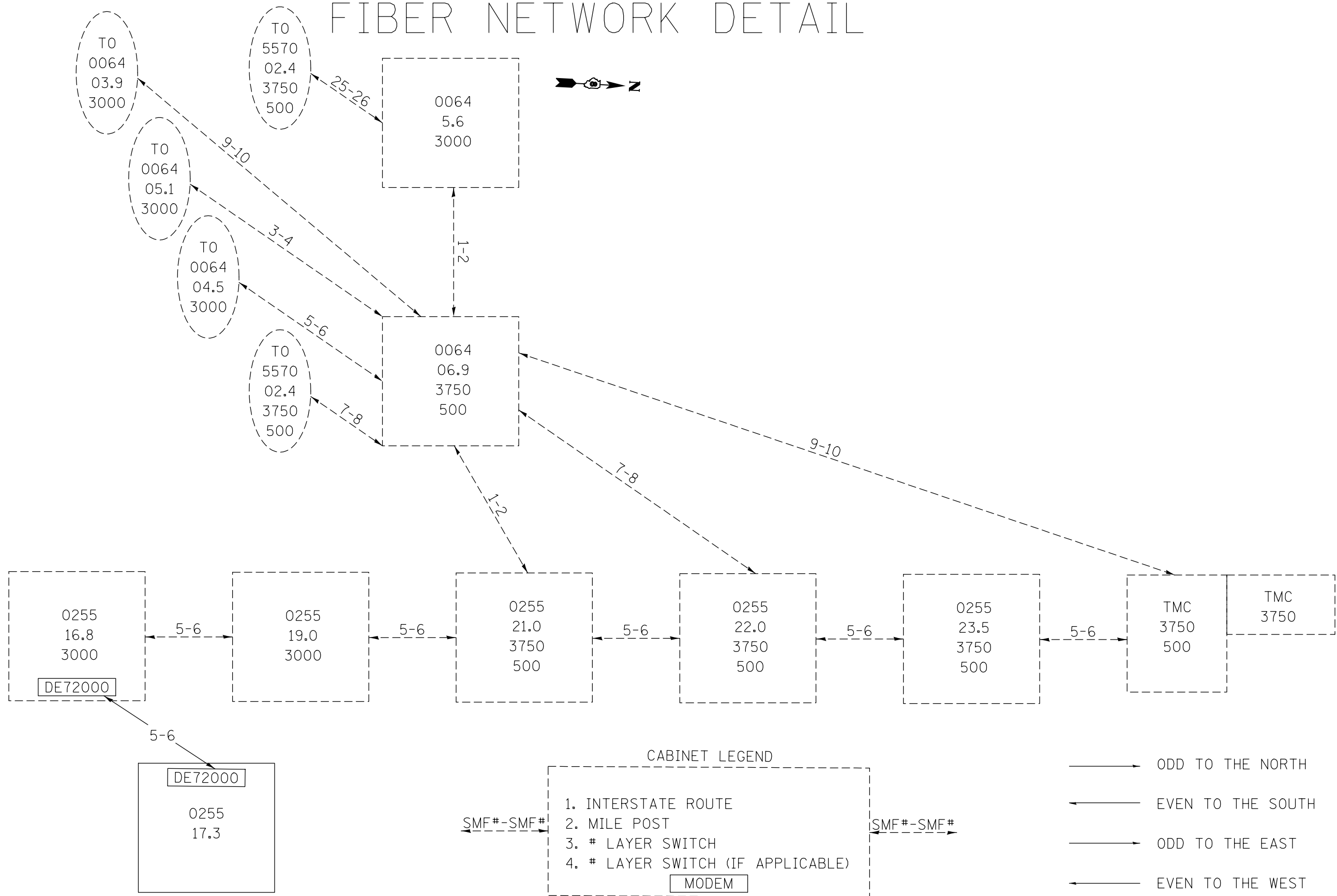


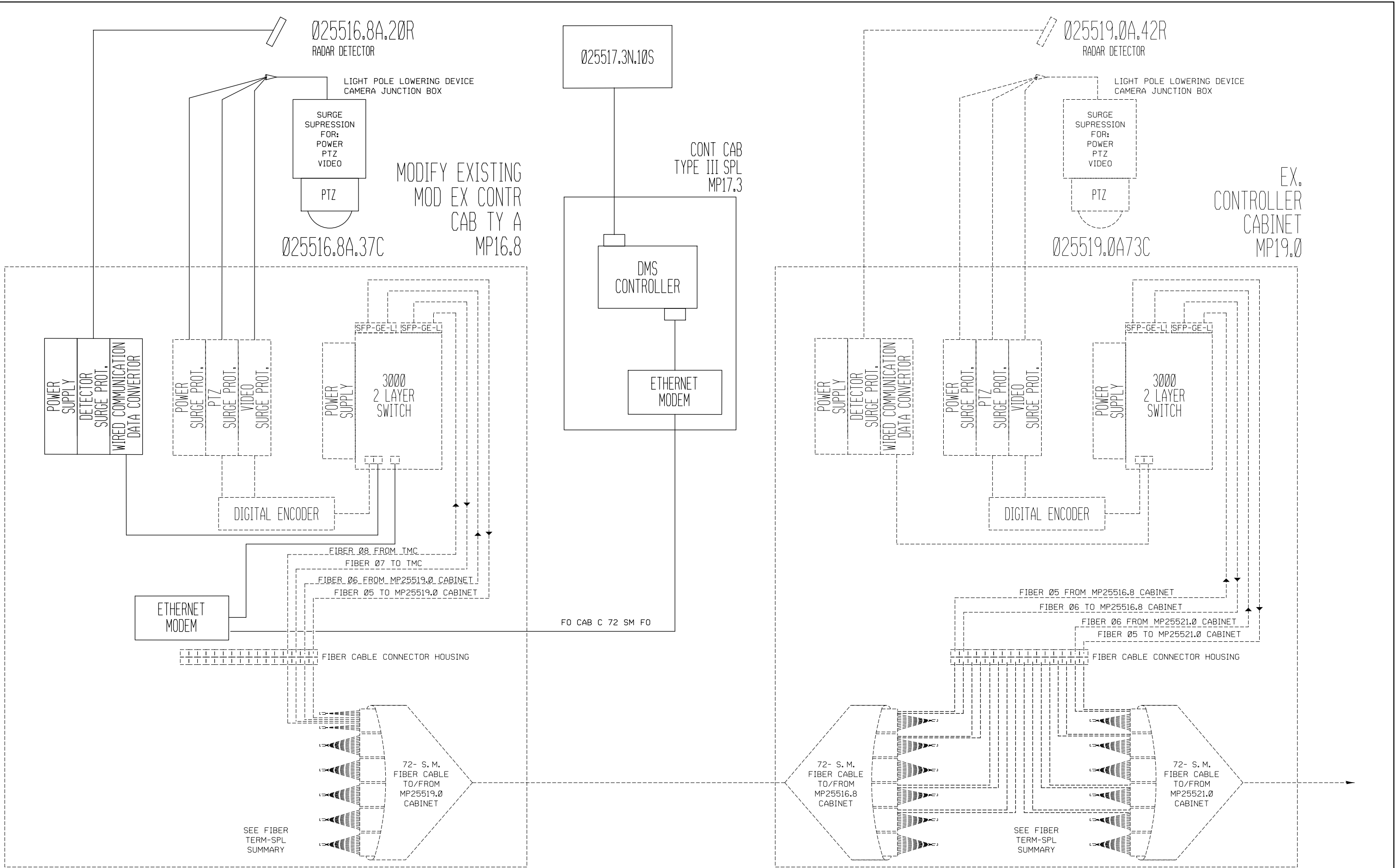
FILE NAME =	USER NAME = prestonme	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ITS PLAN 4 OF 5					F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\j\1084EBID\INTEG\illinois.gov\PIDOT\Documents\DOT Offices\District 8\Projects\0876\Drawings\0876J19-shr-itsplan-4.dwg		PLotted -	REVISED -							255	DIST 8 ITS 2016-1	ST. CLAIR	40	13
Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -							CONTRACT NO. 76J19				
	PLOT DATE = 1/29/2016	DATE	REVISED -											ILLINOIS FED. AID PROJECT



FILE NAME =	USER NAME = prestonme	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		ITS PLAN 5A & 5B OF 5		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT SCALE = 100.0000' / 1in.		CHECKED -	REVISED -					CONTRACT NO. 76J19				
Default		DATE -	REVISED -					ILLINOIS FED. AID PROJECT				
				SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.		

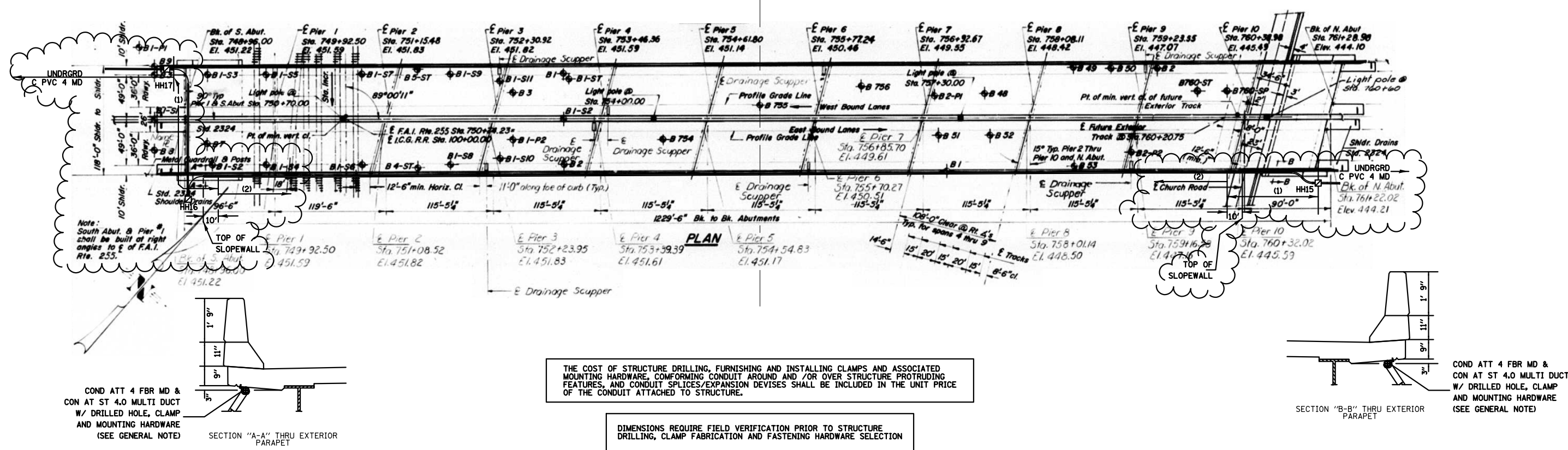
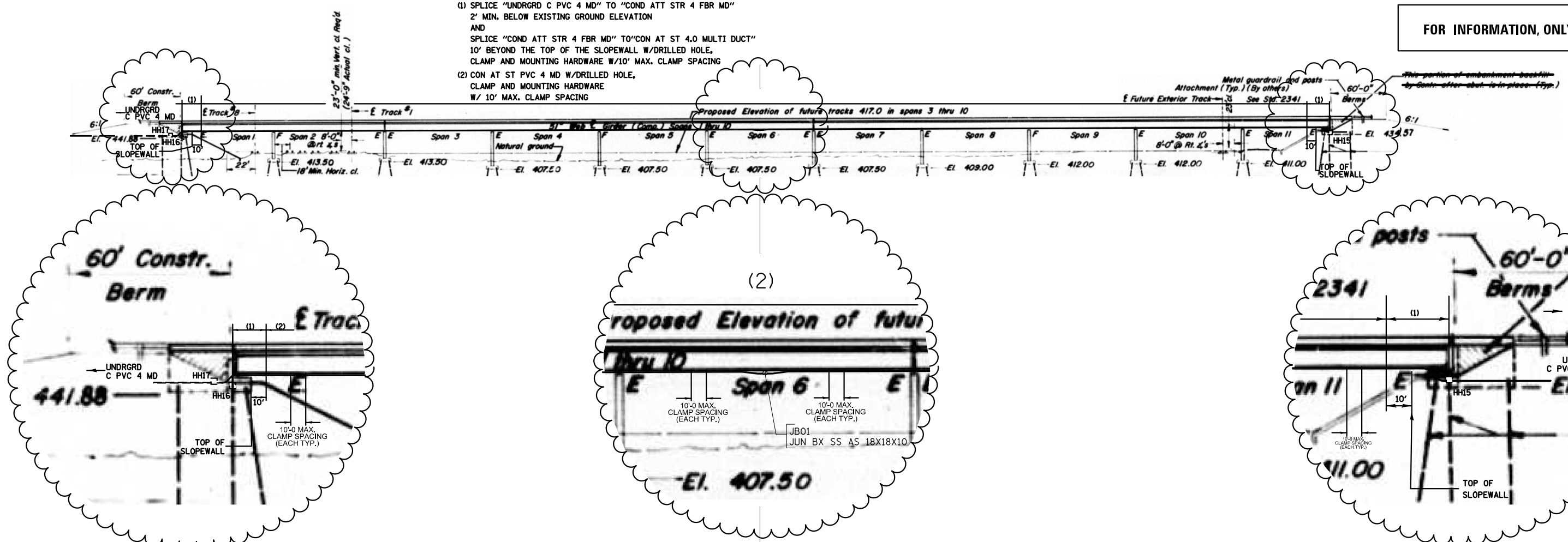
FIBER NETWORK DETAIL





FOR INFORMATION, ONLY

- (1) SPLICE "UNDRGRD C PVC 4 MD" TO "COND ATT STR 4 FBR MD"
2' MIN. BELOW EXISTING GROUND ELEVATION
AND
SPLICE "COND ATT STR 4 FBR MD" TO "CON AT ST 4.0 MULTI DUCT"
10' BEYOND THE TOP OF THE SLOPEWALL W/DRILLED HOLE,
CLAMP AND MOUNTING HARDWARE W/10' MAX. CLAMP SPACING
- (2) CON AT ST PVC 4 MD W/DRILLED HOLE,
CLAMP AND MOUNTING HARDWARE
W/ 10' MAX. CLAMP SPACING



FILE NAME =	USER NAME = prestonne	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	I-255 BRIDGE OVER UNION PACIFIC R.R., KANSAS CITY SOUTHERN RAILWAY AND CHURCH RD. (SN 082-0227) CONDUIT DETAILS, 1 OF 4	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Default	PLOT SCALE = 100.0000' / 1"	CHECKED -	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.	255	DIST 8 ITS 2016-1	ST. CLAIR	40	18
	PLOT DATE = 1/29/2016	DATE -	REVISED -						CONTRACT NO. 76J19	
									ILLINOIS FED. AID PROJECT	

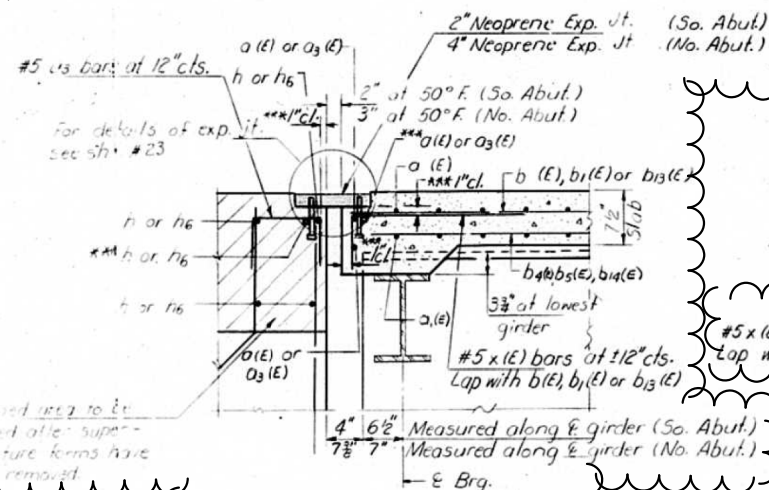




STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
255	82-4 HVB	ST. CLAIR	39	21

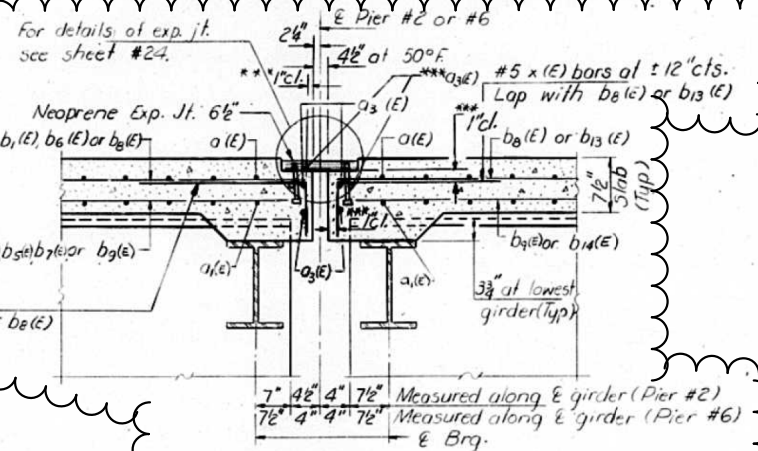
6 SHEETS



SECTION THRU ABUTMENTS

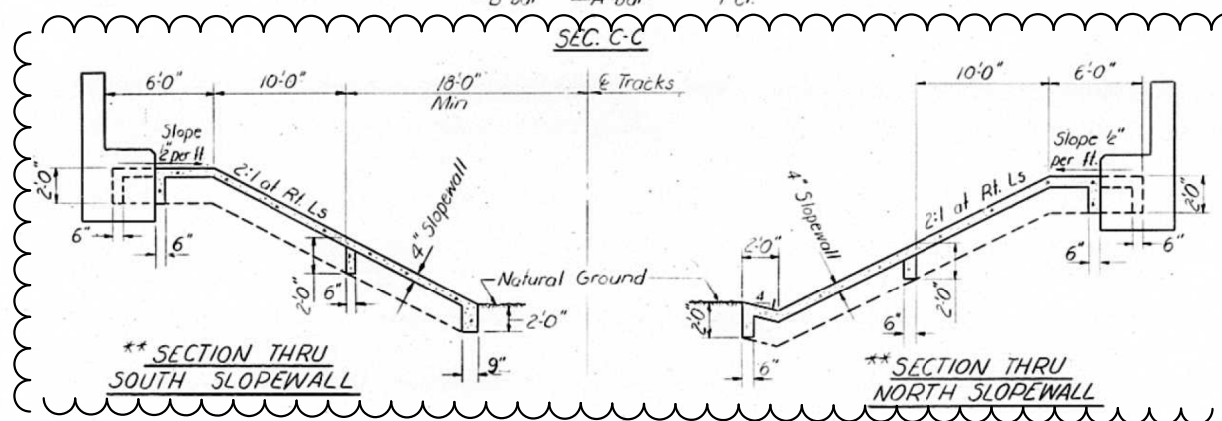
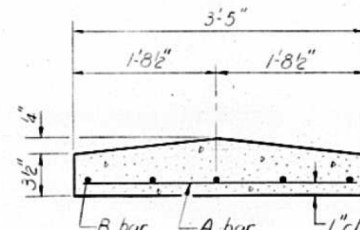
(So. Abut-Looking East)
(No. Abut-Looking East)
(Dim. of Rt. Ls.)

*** Place a (E) or a₃(E) and h or h₆ bars in back of anchor bolt as shown if required to maintain 1" cl. (1'-0" to 1'-6"). Anchor bolts should be tied to these bars.

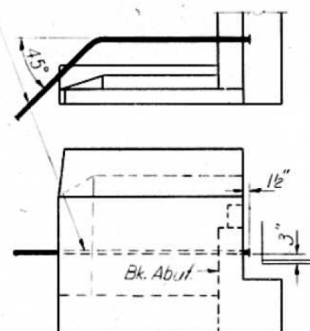


SECTION THRU PIERS
#2 AND #6

(Looking West)
(Dim. of Rt. Ls.)



Locate 2" Galvanized Conduit (Sch. 40 Pipe) 1/2" inside of fascia girder web and parallel to girder line. Extend to clear the wing wall and terminate at a point outside of shoulder. Thread and cap each end. Place conduit at each corner of the bridge. (4 Required) Cost incidental.



ELECTRICAL CONDUIT LOCATION

DESIGNED	SWAN T. JONES
CHECKED	Jim V. HOUT
DRAWN	W. D. J.
CHECKED	J. K.

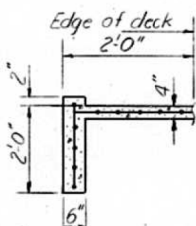
May 10, 1983

EXAMINED

PASSED

APPROVED

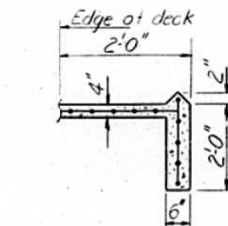
DIRECTOR OF HIGHWAYS



SECTION A-A

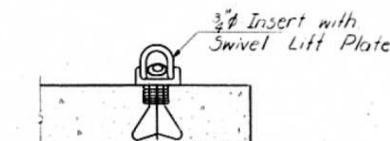
Note:
For location of Sections A-A & B-B
See sheet #1.

FOR INFORMATION, ONLY



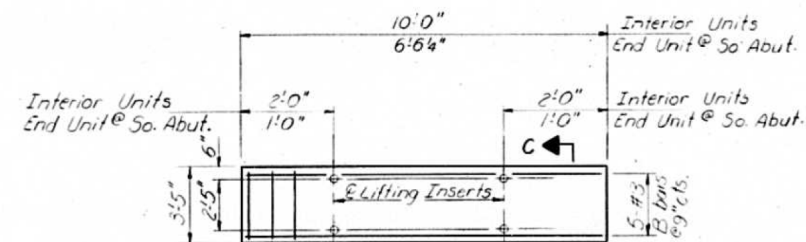
SECTION B-B

Note:
Reinforcement bars designated (E) shall be epoxy coated. See Special Provisions.



LIFTING INSERT

Note: After panel is in place, replace Swivel Lift Plate with 3/4" Galvanized Bolt.



PLAN INTERIOR UNITS
AND END UNIT SO. ABUT.

(Interior Units = 117 Reg'd.) (End Unit @ So. Abut. = 1 Reg'd.)
"N" - #3 A bars @ 10" cts.

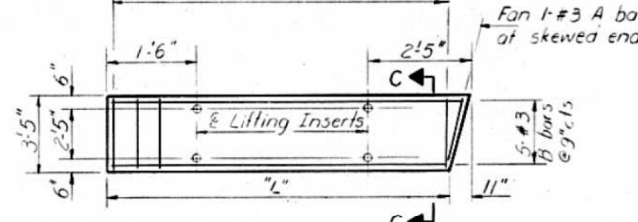


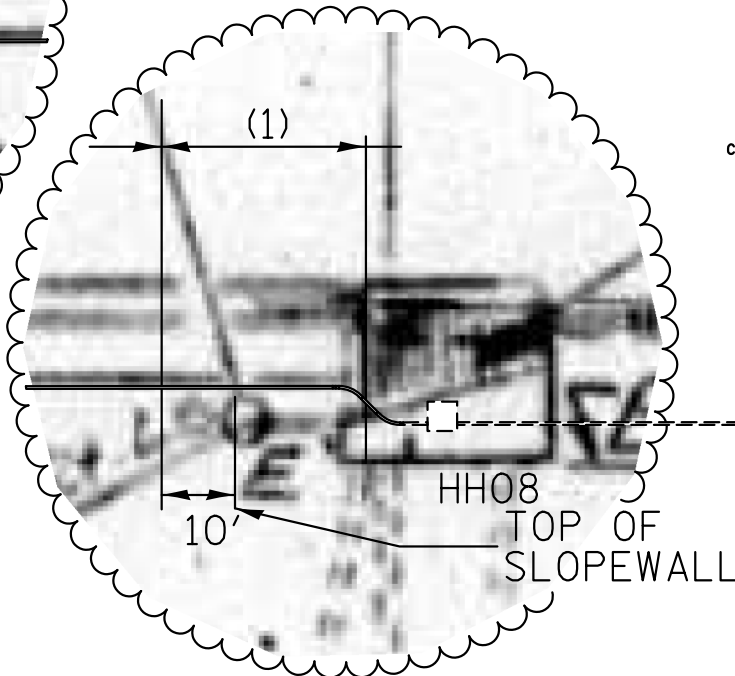
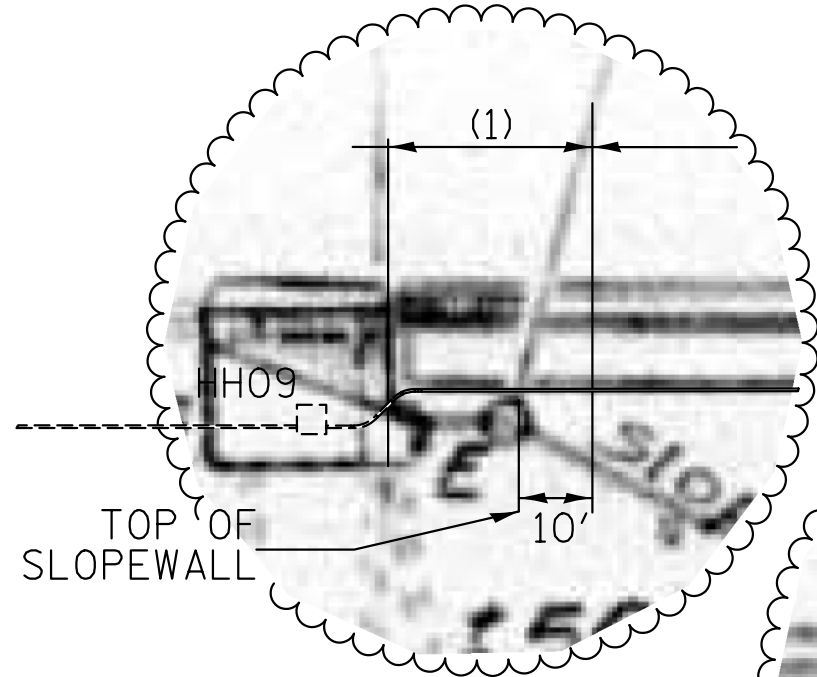
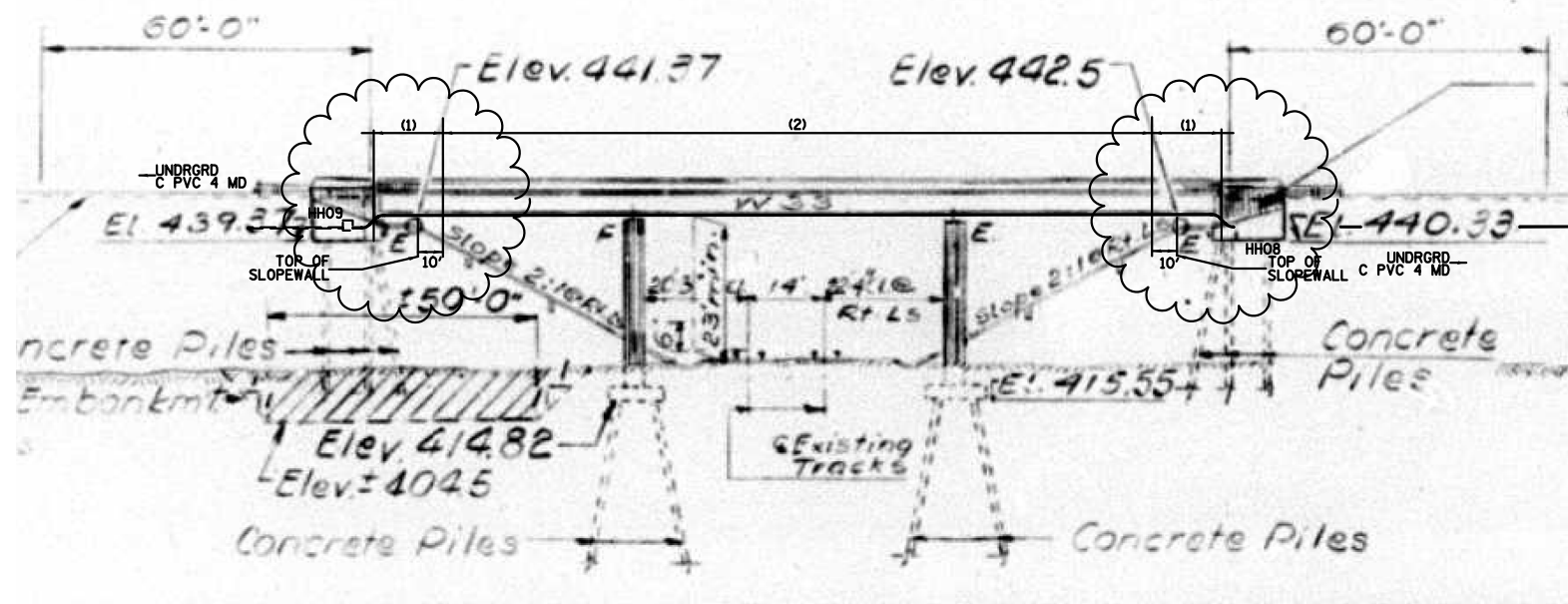
TABLE OF "L" & "N"

Location	"L"	"N"	No. Reg'd.
Pier 2 (Span 2)	6'-6 1/4"	8	1
Pier 2 (Span 3) or Pier 6 (Span 6)	9'-9 1/8"	12	2
Pier 6 (Span 7) or No. Abut.	8'-9 7/8"	11	2

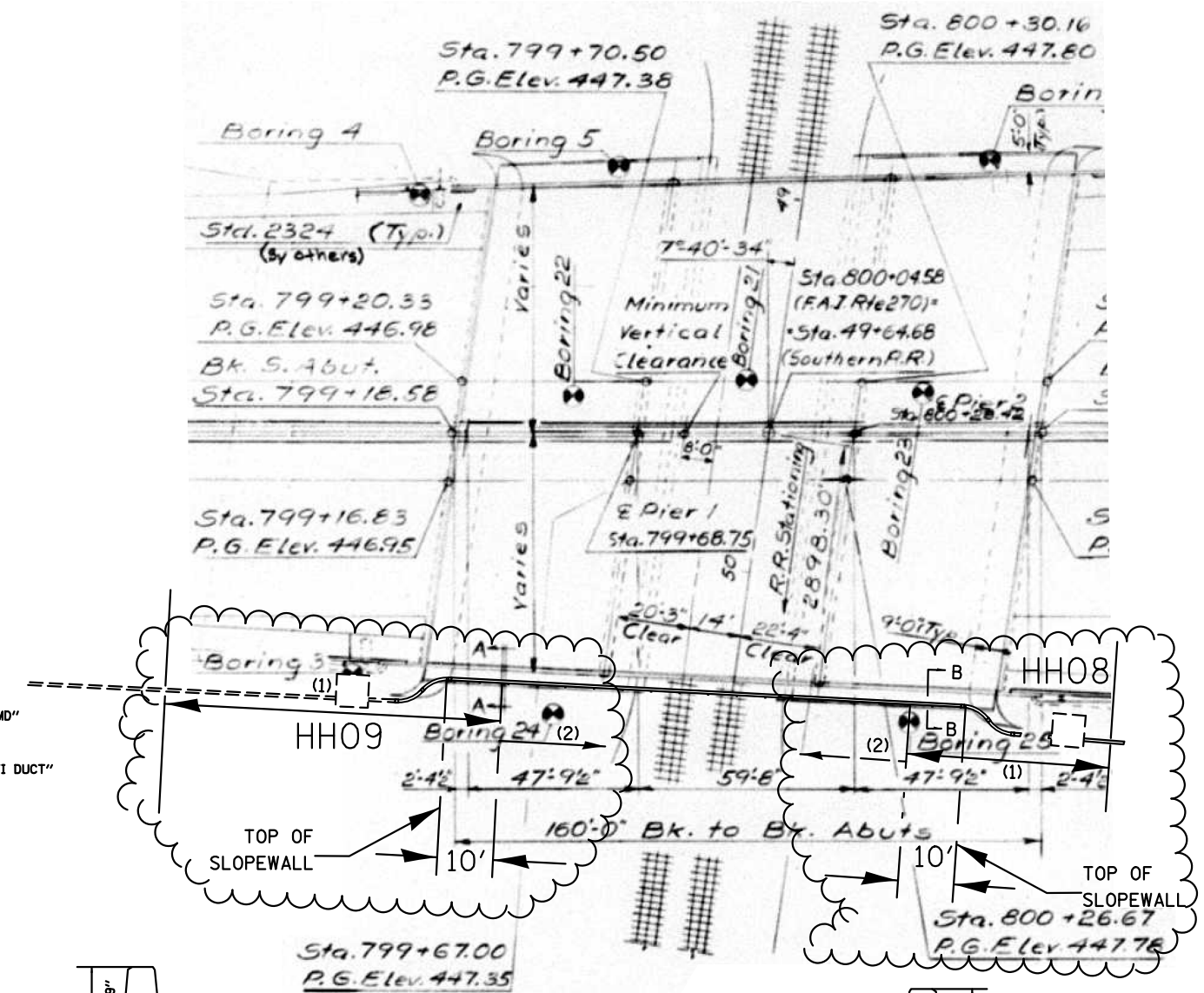
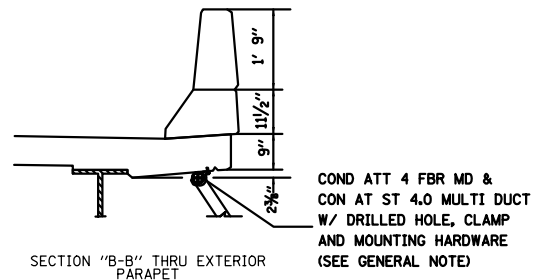
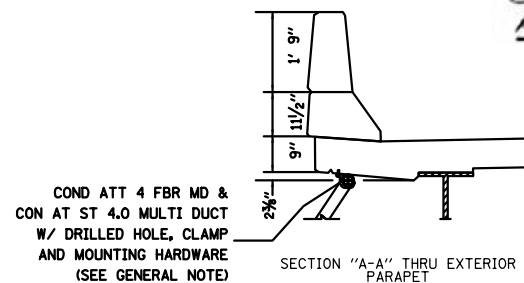
* See hand hole details for end units at North and South Abutments on sheet #27. Cost of reinforcement bars and lifting accessories cast into the Precast Concrete Planks is incidental to the Precast Concrete Planks.

** For Section 82-4HVB (B) only. (Remainder of details for Section 82-4HVB (D).

SUPERSTRUCTURE DETAILS
FAI. RT 255 SEC. 82-4HVB (D)
ST. CLAIR COUNTY
STA. 750+74.23



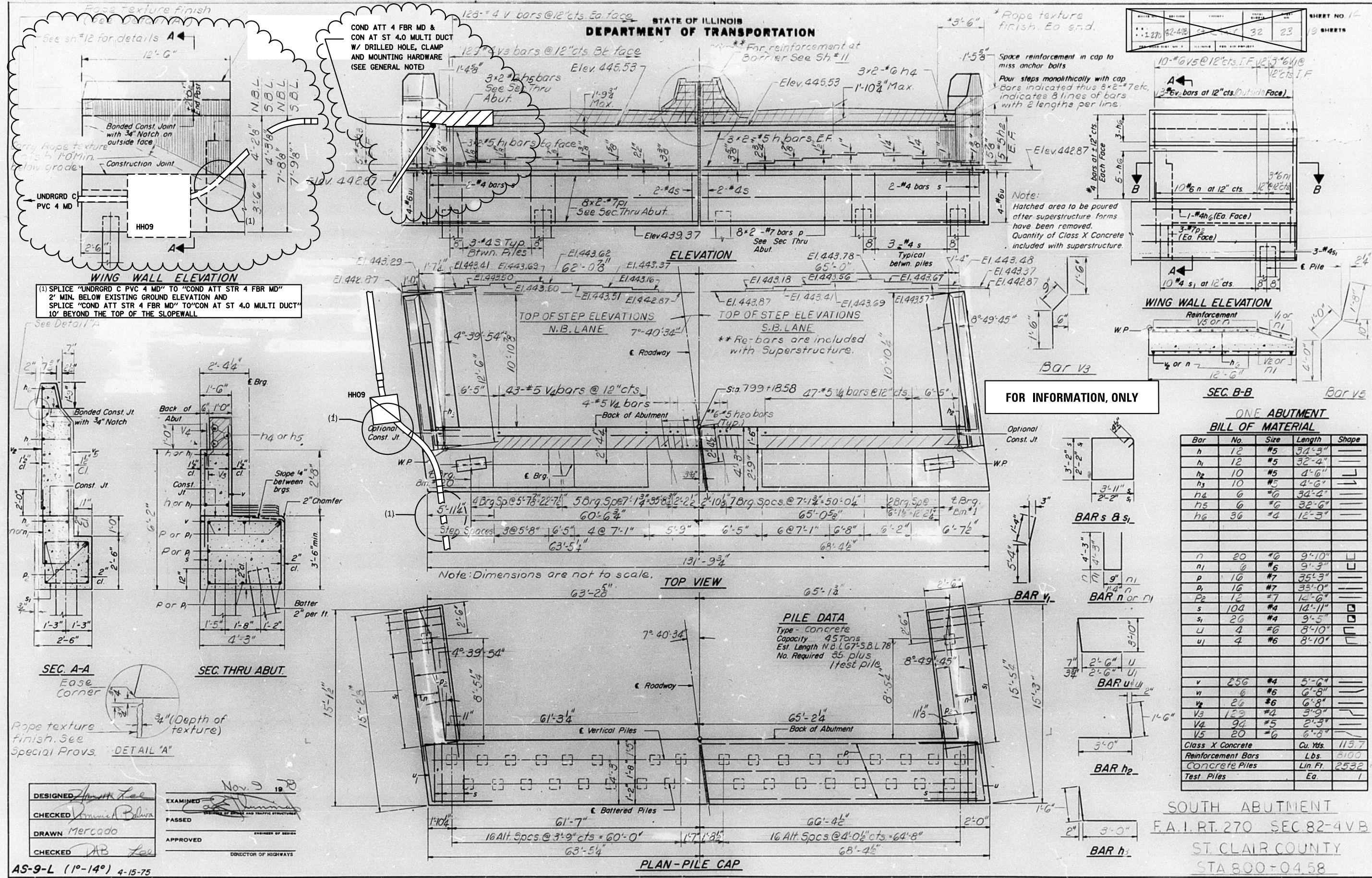
- (1) SPLICE "UNDRGRD C PVC 4 MD" TO "COND ATT STR 4 FBR MD" 2' MIN. BELOW EXISTING GROUND ELEVATION AND SPLICE "COND ATT STR 4 FBR MD" TO "CON AT ST 4.0 MULTI DUCT" 10' BEYOND THE TOP OF THE SLOPEWALL W/ DRILLED HOLE, CLAMP AND MOUNTING HARDWARE W/ 10' MAX. CLAMP SPACING
- (2) CON AT ST PVC 4 MD W/ DRILLED HOLE, CLAMP AND MOUNTING HARDWARE W/ 10' MAX. CLAMP SPACING

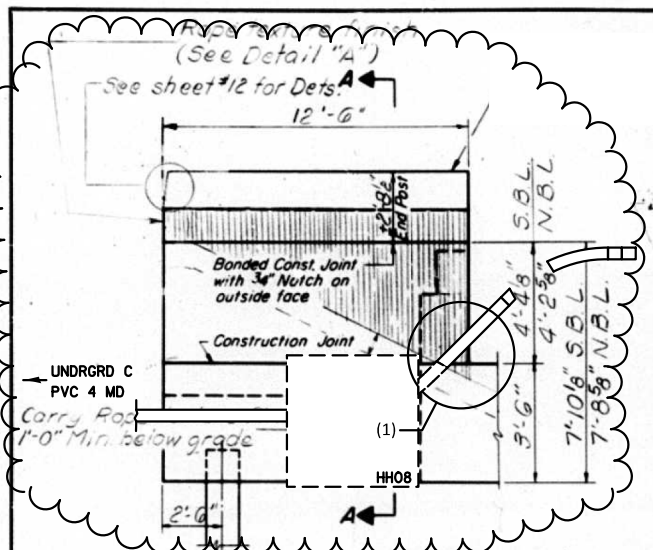


THE COST OF STRUCTURE DRILLING, FURNISHING AND INSTALLING CLAMPS AND ASSOCIATED MOUNTING HARDWARE, CONFORMING CONDUIT AROUND AND /OR OVER STRUCTURE PROTRUDING FEATURES, AND CONDUIT SPLICES/EXPANSION DEVICES SHALL BE INCLUDED IN THE UNIT PRICE OF THE CONDUIT ATTACHED TO STRUCTURE.

DIMENSIONS REQUIRE FIELD VERIFICATION PRIOR TO STRUCTURE DRILLING, CLAMP FABRICATION AND FASTENING HARDWARE SELECTION

FILE NAME =	USER NAME = prestonme	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	I-255 BRIDGE OVER NORFOLK SOUTHERN RAILWAY (SN 082-0229) CONDUIT DETAILS, 1 OF 4	SCALE: SHEET OF SHEETS STA. TO STA.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Default	Default	Default	Default				255	DIST 8 ITS 2016-1	ST. CLAIR	40	22
							ILLINOIS FED. AID PROJECT				

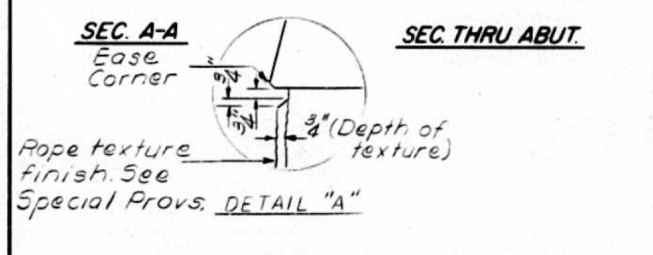
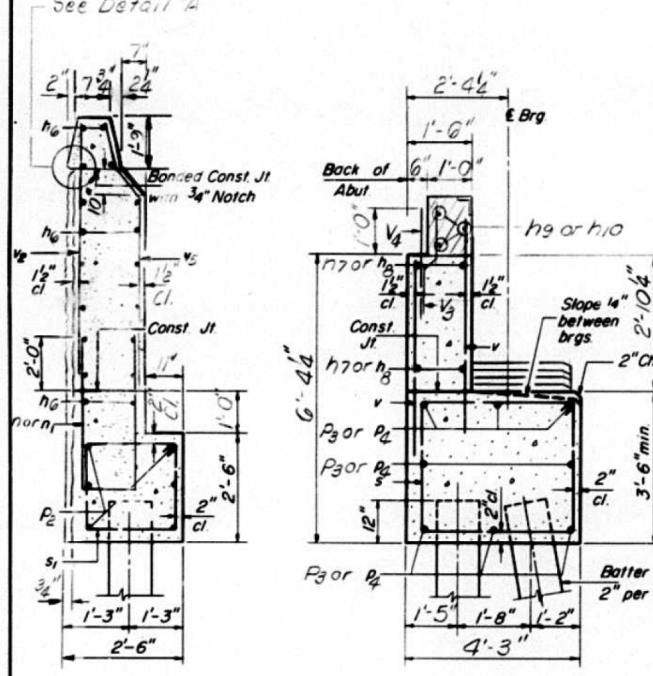




See Detail "A"

WING WALL ELEVATION

(1) SPLICE "UNDRGRD C PVC 4 MD" TO "COND ATT STR 4 FBR MD" 2' MIN. BELOW EXISTING GROUND ELEVATION AND SPLICE "COND ATT STR 4 FBR MD" TO "CON AT ST 4.0 MULTI DUCT" 10' BEYOND THE TOP OF THE SLOPEWALL



DESIGNED: *[Signature]*

CHECKED: *[Signature]*

DRAWN: *[Signature]*

CHECKED: *[Signature]*

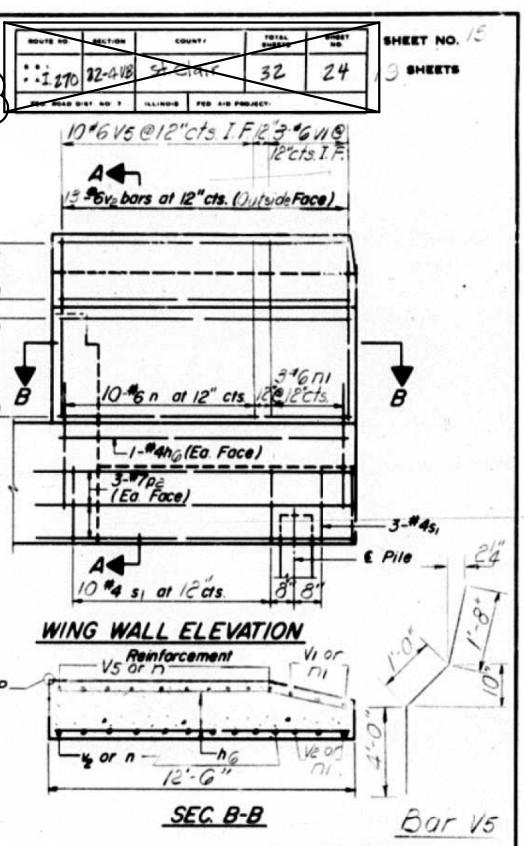
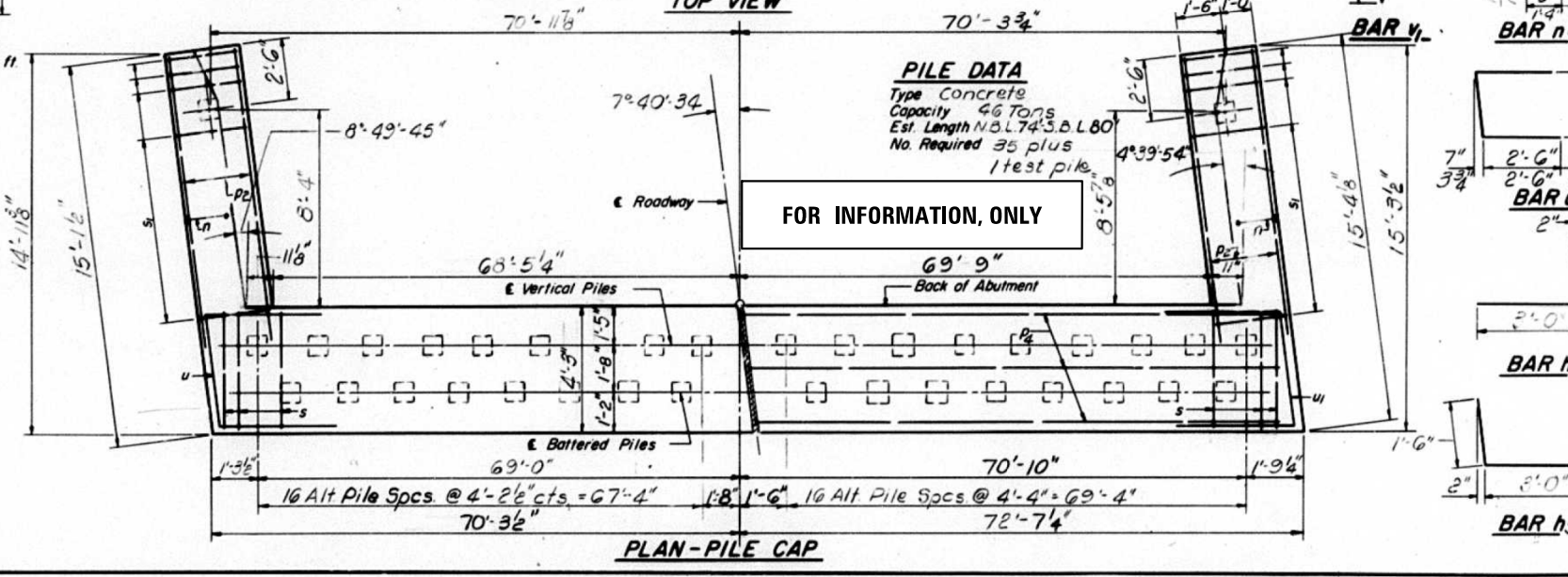
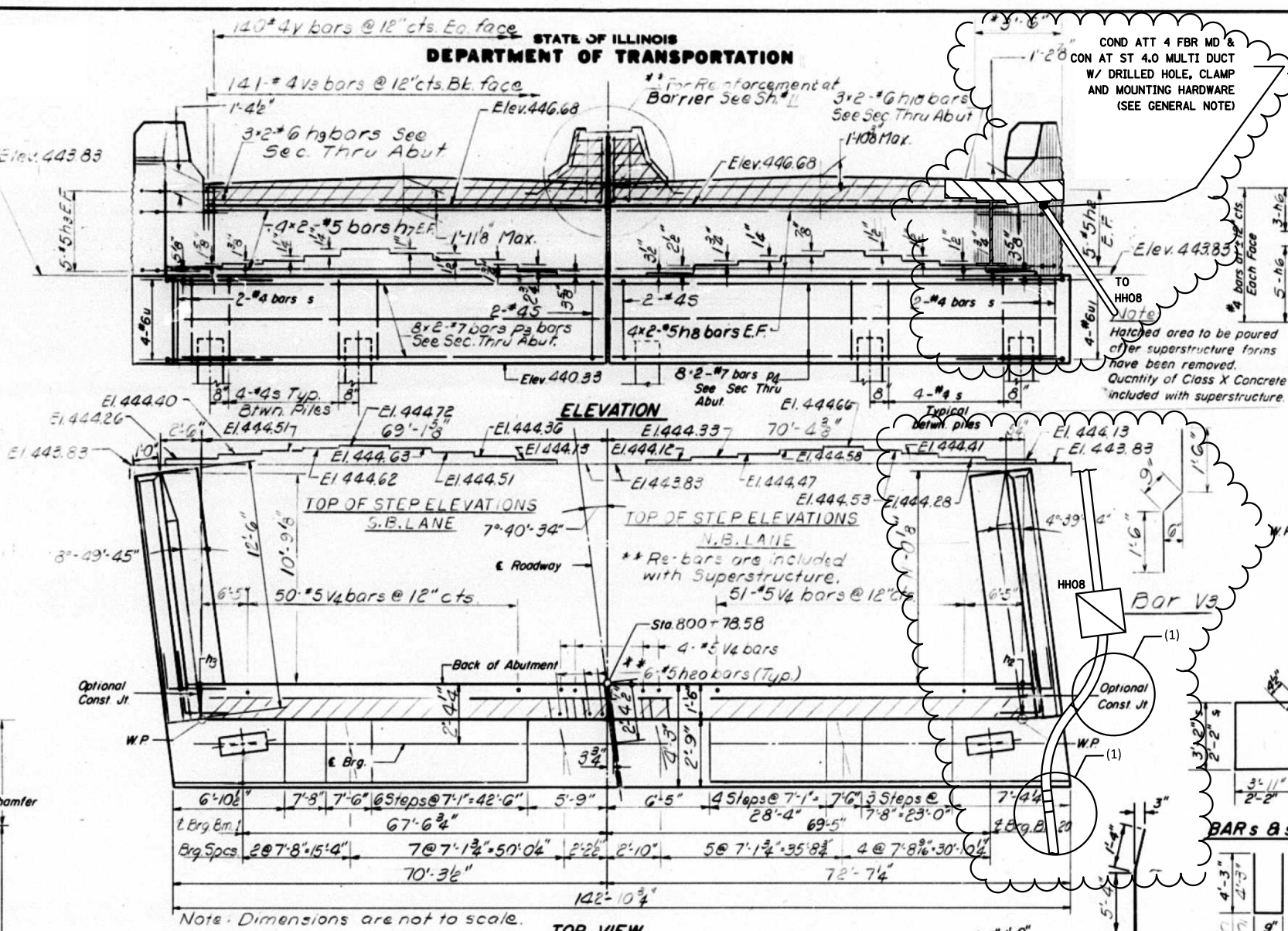
AS-9-L (1°-14°) 4-15-75

EXAMINED: *[Signature]*

PASSED: *[Signature]*

APPROVED: *[Signature]*

DIRECTOR OF HIGHWAYS



ONE ABUTMENT

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h2	10	#5	4'-6"	
h3	10	#5	4'-6"	
h4	30	#2	13'-3"	
h7	3	#5	35'-6"	
h8	3	#5	36'-4"	
h9	6	#6	35'-9"	
h10	6	#6	36'-7"	
n	20	#6	9'-10"	
n1	6	#6	9'-3"	
p2	12	#7	12'-6"	
p3	10	#7	36'-8"	
p4	10	#7	31'-6"	
s	130	#4	14'-11"	
s1	26	#4	9'-5"	
u	4	#6	8'-10"	
u1	4	#6	8'-10"	
v	280	#4	5'-6"	
v1	6	#6	6'-8"	
v2	26	#6	6'-8"	
v3	141	#4	3'-9"	
v4	105	#5	2'-3"	
v5	20	#6	6'-8"	
Class X Concrete		Cu. Yds.	1228	
Reinforcement Bars		Lbs.	8570	
Concrete Piles		Lin Ft.	2692	
Test Piles		Ea.	1	

NORTH ABUTMENT

F.A.I.R.T. 270 SEC. 82-4VB

ST. CLAIR COUNTY

STA. 800+04.58

GENERAL NOTES

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications")

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 90 M.P.H. WIND VELOCITY

WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

DESIGN STRESSES:
Field Units
 $f'_c = 3,500$ p.s.i.
 $f_y = 60,000$ p.s.i. (reinforcement)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specifications.

MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B or A500 Grade B or C. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53. All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 or Gr. 50W*. Stainless steel for shims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer.

The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. (Zone 2) before galvanizing.

FASTENERS FOR ALUMINUM TRUSSES: All bolts noted as "high strength" must satisfy the requirements of AASHTO M164 (ASTM A325), or approved alternate, and must have matching lock nuts. Threaded studs for splices (if Members interfere) must satisfy the requirements of ASTM A449, ASTM A193, Grade B7, or approved alternate, and must have matching lock nuts. Bolts and lock nuts not required to be high strength must satisfy the requirements of ASTM A307. All bolts and lock nuts must be hot dip galvanized per AASHTO M232. The lock nuts must have nylon or steel inserts. A stainless steel flat washer conforming to ASTM A240 Type 302 or 304, is required under both head and nut or under both nuts where threaded studs are used. High strength bolt installation shall conform to Article 505.04 (f) (2)d of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("ROCAP") testing of bolts will not be required.

U-BOLTS AND EYEBOLTS: U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.

GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

ANCHOR RODS: Shall conform to ASTM F1554 Gr. 105.

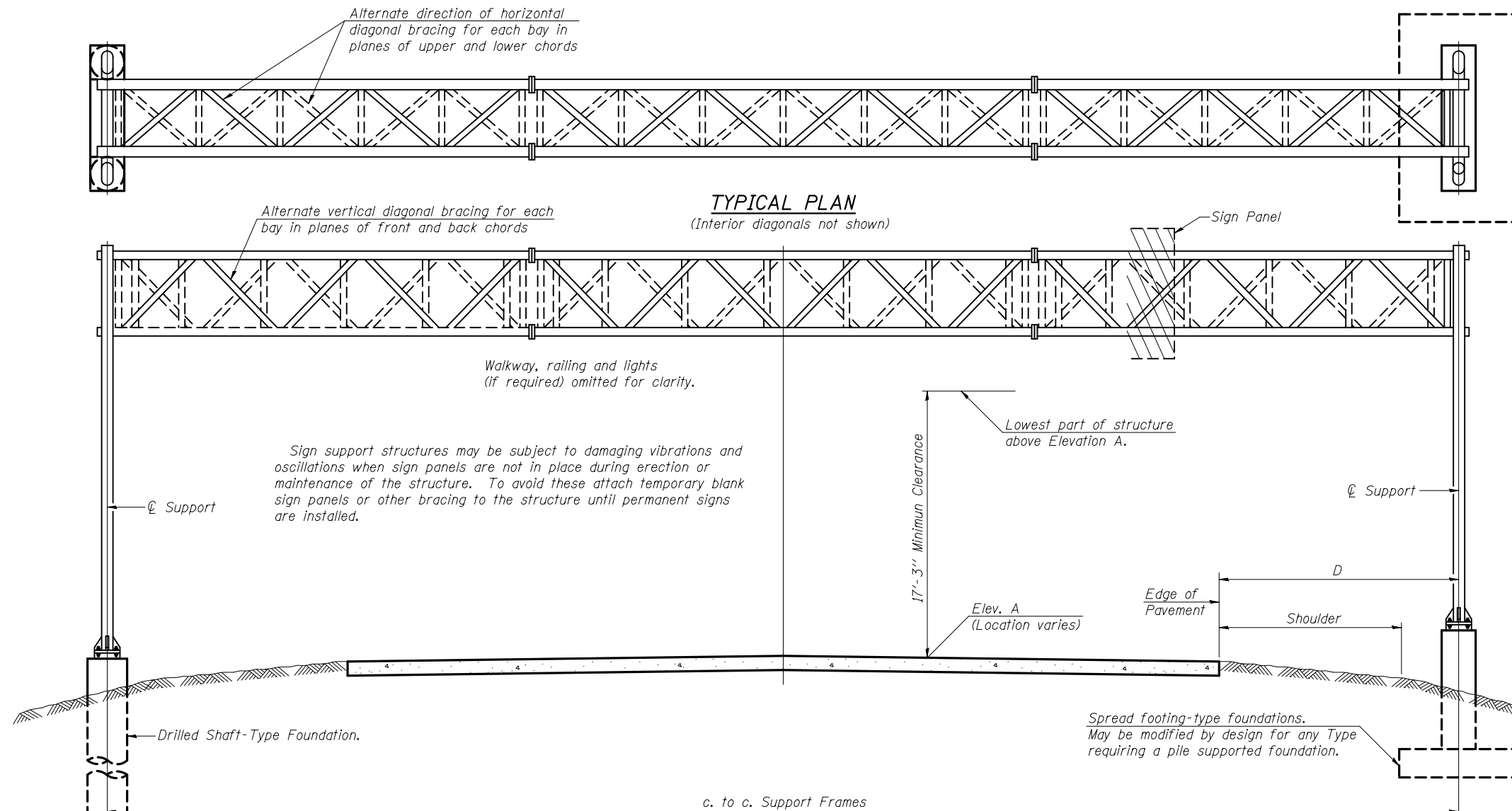
CONCRETE SURFACES: All concrete surfaces above an elevation 6" below the lowest final ground line at each foundation shall be cleaned and coated with Concrete Sealer in accordance with the Standard Specifications.

REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

FOUNDATIONS: The contract unit price for Concrete Foundations and Drilled Shaft Concrete Foundations shall include reinforcement bars complete in place.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE SPAN TYPE I-A	Foot	-
OVERHEAD SIGN STRUCTURE SPAN TYPE II-A	Foot	-
OVERHEAD SIGN STRUCTURE SPAN TYPE III-A	Foot	90
OVERHEAD SIGN STRUCTURE WALKWAY TYPE A	Foot	59.6
CONCRETE FOUNDATIONS	Cu. Yds.	-
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	46.31



TYPICAL ELEVATION

(Looking at Face of Signs**)

Elev. A = Elevation at point of minimum clearance to sign, walkway support or truss.

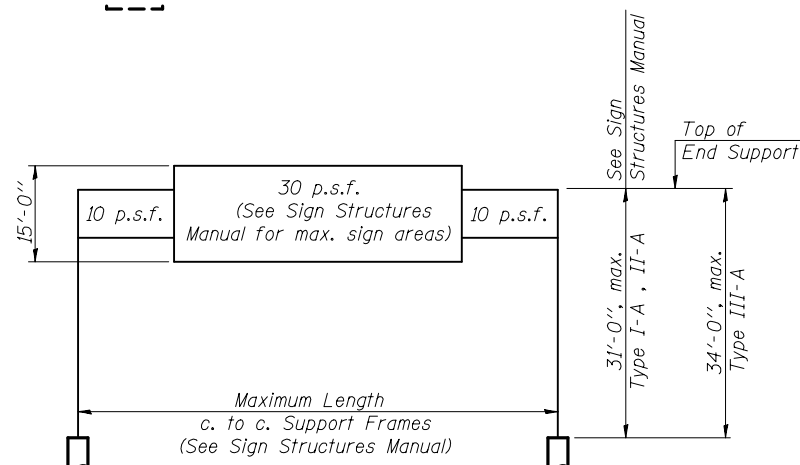
[illegible]

***Looking upstation for structures with signs both sides.*

* If M270 Gr. 50W (M222) steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.

DESIGN WIND LOADING DIAGRAM

Parameters shown are basis for I.D.O.T. Standards and Sign Manual Tables. Installations not within dimensional limits shown require special analysis for all components.



OS-A-1

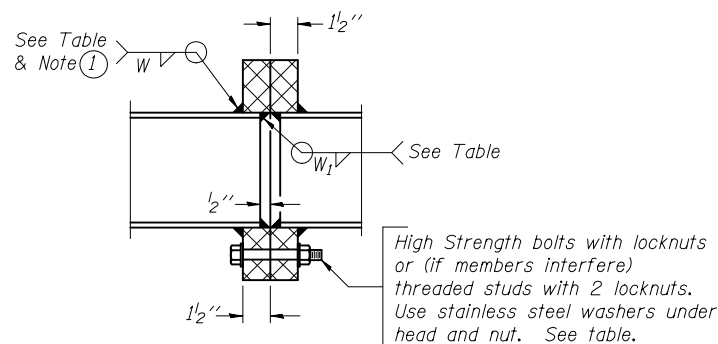
8-21-13

FILE NAME =	USER NAME = prestonme	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURES – GENERAL PLAN & ELEVATION – ALUMINUM TRUSS & STEEL SUPPORTS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\11\084\EBID\INTEG.illinois.gov\PIDOT\Documents\DOT Offices\District 8\Projects\0876\DRAWN Data\GAD\sheets\0876J19-sht-itsplan	DRAWN	REVISED -	REVISED -			255	DIST 8 ITS 2016-1	ST. CLAIR	40	26
PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -	REVISED -			CONTRACT NO. 76J19				
PLOT DATE = 4/11/2016	DATE	REVISED -	REVISED -			SCALE:	SHEET OF	SHEETS STA.	TO STA.	
Default							ILLINOIS FED. AID PROJECT			



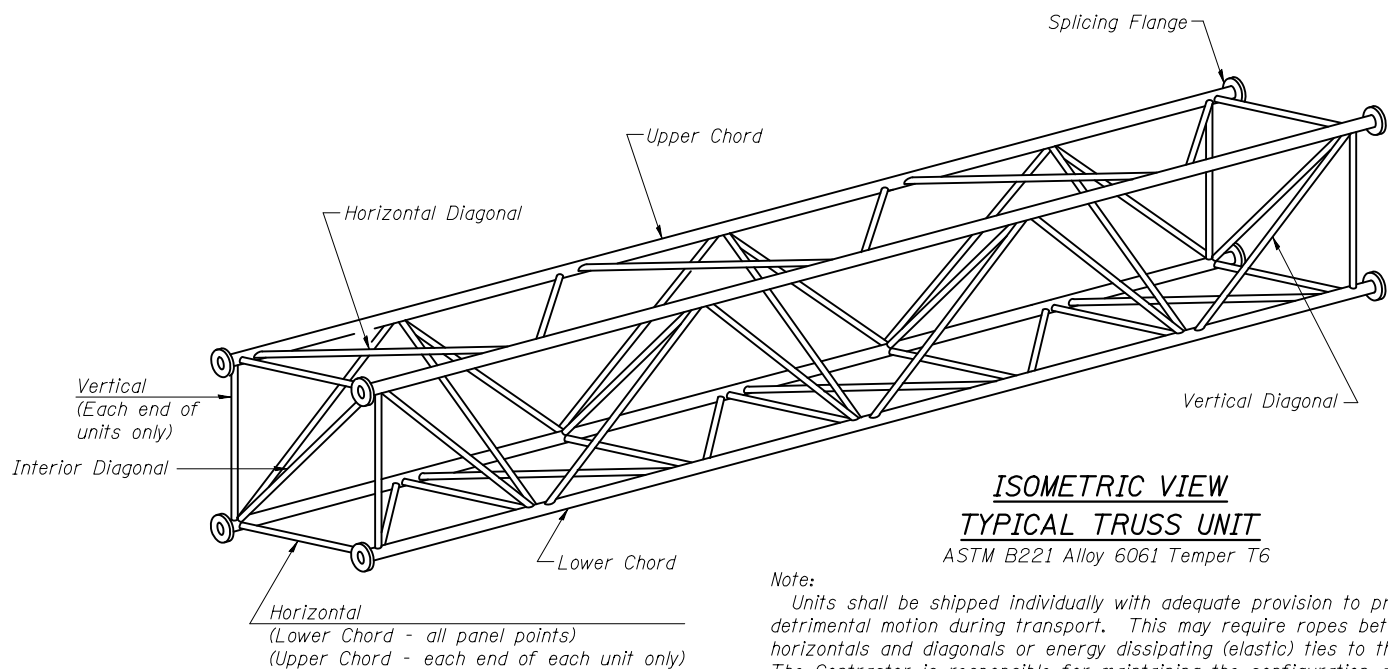
- ① Contractor may alternatively use standard aluminum drive-fit cap to close end. $\frac{1}{2}$ " ϕ drain hole in end plate/drive-fit cap. (Typ. at ends of all chords)
- ② $5\frac{1}{2}$ " end dimension may vary by $\pm 1"$ to provide uniform panel spacing (P).
- ③ Panel spacing (P) shall be uniform for entire truss and between 4'-0" and 5'-0" for Type I-A or 4'-0" and 5'-6" for Types II-A and III-A.
- ④ Vertical Diagonals in front and back face shall alternate.
- ⑤ Hidden lines show wind bracing alternates direction between planes of top and bottom chords.
- ⑥ All diagonals shall be detailed for minimum offset from the panel point based on the following: Offset shall be such as to provide a $\frac{3}{4}$ " minimum to $1\frac{1}{2}$ " maximum clearance between any diagonal and any horizontal or vertical member, and to provide clearance for U-bolt connections of signs or walkway brackets.

TRUSS UNIT TABLE

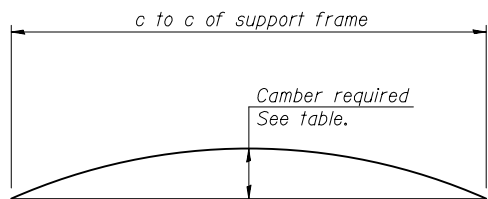
[illegible]

SECTION B-B

- ① *Splicing Flanges shall be attached to each truss unit with the truss shop assembled to camber shown. Truss units shall be in proper alignment and flange surfaces shall be shop bolted into full contact before welding. Sufficient external welds or tacks shall be made to secure flanges until remaining welds are made after disassembly. Adjacent flanges shall be "match marked" to insure proper field assembly.*



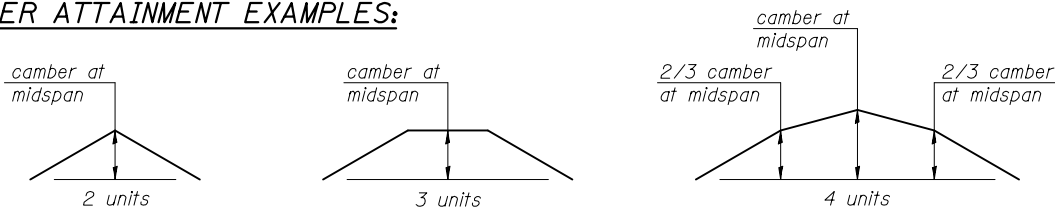
Note:
Units shall be shipped individually with adequate provision to prevent detrimental motion during transport. This may require ropes between horizontals and diagonals or energy dissipating (elastic) ties to the vehicle. The Contractor is responsible for maintaining the configuration and protection of the units.



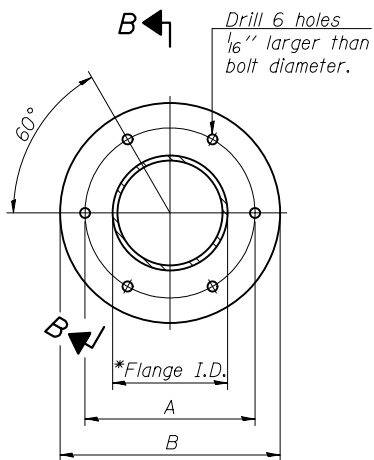
CAMBER DIAGRAM

Camber curve shown is theoretical. Actual camber attained by slope changes at splices between units.

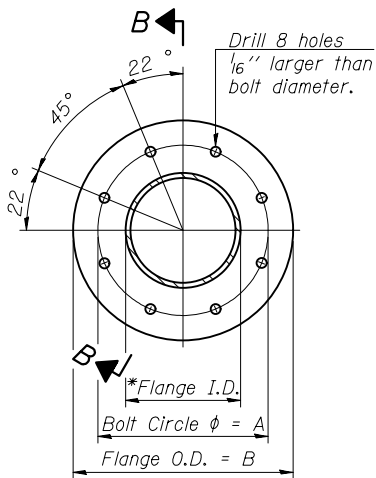
CAMBER ATTAINMENT EXAMPLES:



Camber shown is for fabrication only, measured with truss fully supported. (No-load condition)



TRUSS TYPES I-A, II-A, & III-A



TRUSS TYPES II-A & III-A

SPLICING FLANGES

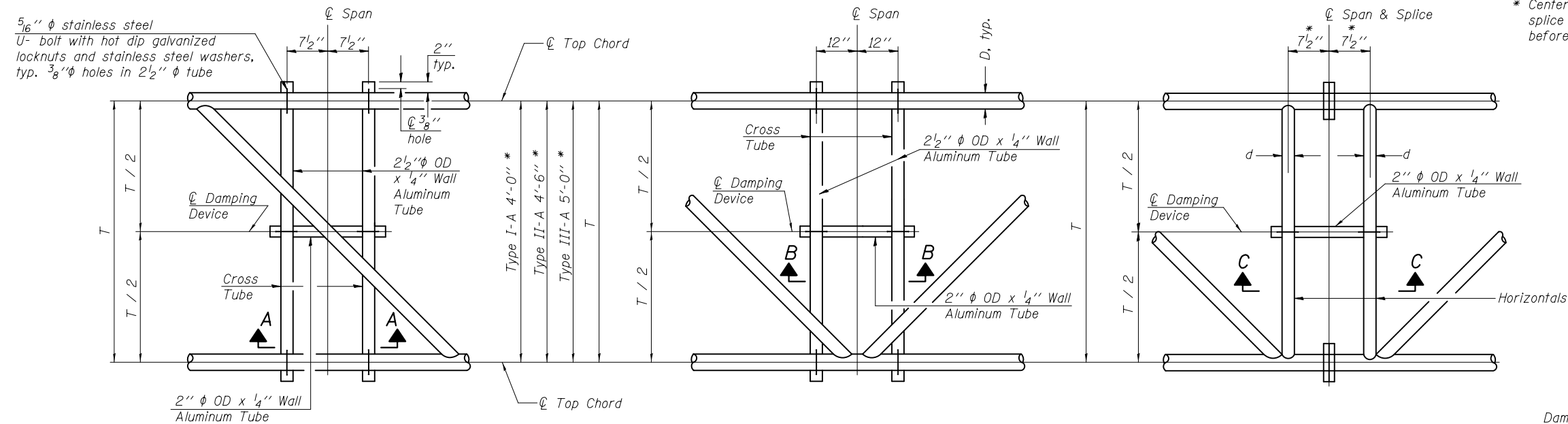
ASTM B221, Alloy 6061-T6
or ASTM B209, Alloy 6061-T651

*To fit O.D. of Chord with maximum gap of $\frac{1}{16}$ ".

OS4-A-2

6-1-12

FILE NAME =	USER NAME = prestonme	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURES - ALUMINUM TRUSS DETAILS FOR TRUSS TYPES I-A, II-A AND III-A	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.				
pw:\IL084EBID\INTEG\Illinois.gov\PID\DOT Documents\DOT Offices\District 8\Projects\0876\DRAWINGS\DATA\6AD\Sheets\0876J19-sht-its.tbl	DRAWN	REVISED -	REVISED -			255	DIST 8 ITS 2016-1	ST. CLAIR	40	28				
Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -			CONTRACT NO. 76J19								
	PLOT DATE = 4/11/2016	DATE	REVISED -			SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.		
										ILLINOIS FED. AID PROJECT				



PLAN DETAIL "A"
 ☐ Span between Panel Points

PLAN DETAIL "B"
 ☐ Span at Panel Point

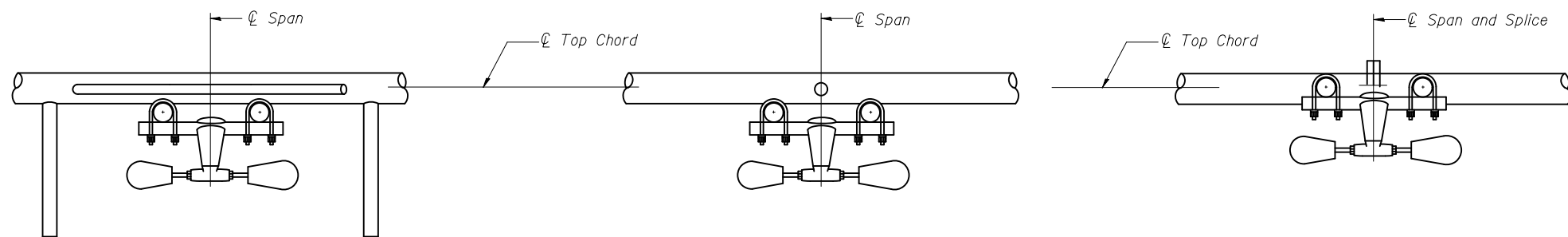
PLAN DETAIL "C"
 ☐ Span at ☐ Chord Splice

* Center of horizontal to center of splice dimension may vary. Verify before drilling holes in mounting tube.

NOTES

Damper: One damper per truss. (31 lbs. minimum Stockbridge-Type Aluminum - 29" minimum between ends of weights) Cost included in Overhead Sign Structure...

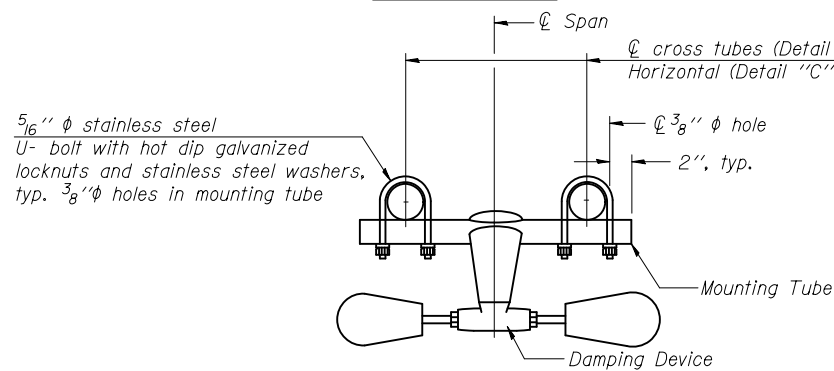
Materials: Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6. Cost included in Overhead Sign Structure...



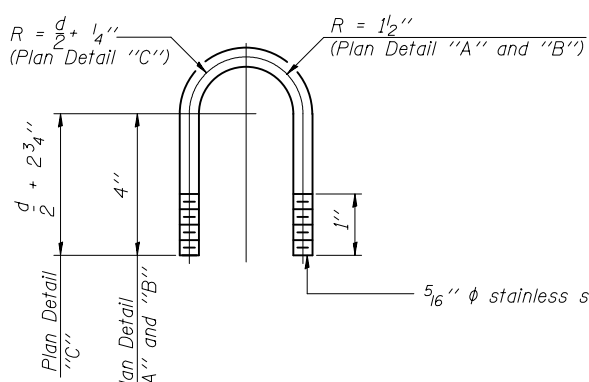
SECTION A-A

SECTION B-B

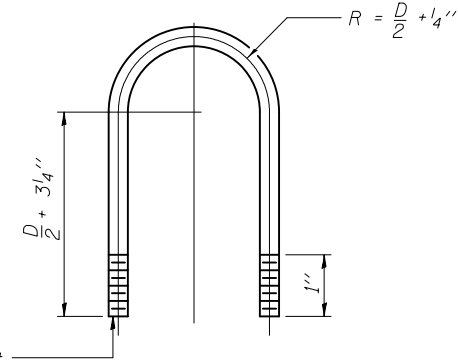
SECTION C-C



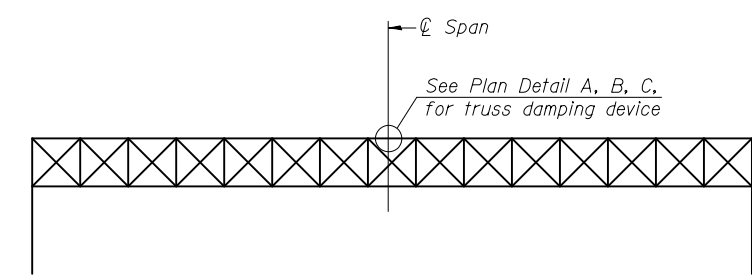
**TRUSS DAMPING
 DEVICE CONNECTION DETAIL**
 (Typical)



**DAMPING DEVICE MOUNTING
 TUBE U-BOLT DETAIL**
 (Typical)



**TOP CHORD TO CROSS TUBE
 U-BOLT DETAIL**
 (Typical - Detail "A" and "B")



ELEVATION
 Aluminum Overhead
 Sign Truss

OS-A-D

6-1-12

FILE NAME =	USER NAME = prestonme	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURE DAMPING DEVICE				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
px\\IL084EBIDINTEGillinois.gov\PIDOT\Documents\IDOT Offices\District 8\Projects\0876J19\Drawings\6A0\Drawings\0876J19-shit-itstplan									255	DIST 8 ITS 2016-1	ST. CLAIR	40	29
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -						CONTRACT NO. 76J19				
Default	PLOT DATE = 4/11/2016	DATE	REVISED						ILLINOIS FED. AID PROJECT				

[illegible]

Technical drawing illustrating the installation of a galvanizing frame on a pipe joint. The drawing shows a cross-section of the pipe and the frame components.

Key dimensions and components labeled:

- $\frac{1}{8}''$ min. (Dimension for the gap between the pipe and the frame)
- $4-\frac{1}{2}'' \phi$ Galv. Bolts (ASTM A307) (Dimension for the bolts)
- $\frac{1}{4}''$ galv. cap plate with $4-\frac{5}{8}'' \phi$ holes at 90° intervals. Install after galvanizing frame. (Label for the cap plate)
- $4-\frac{1}{2}''$ hex nuts at 90° intervals welded to pipe. Chase threads after galvanizing frame. (Label for the hex nuts)
- $\frac{1}{8}''$ gap (Approx.) (Dimension for the gap between the pipe and the frame)

As an alternate to bolts, may use galvanized drive-fit caps installed after galvanizing frame.

A diagram of a circular pipe with a horizontal centerline. A vertical dashed line passes through the center. A horizontal dimension line with arrows at both ends is positioned above the pipe, spanning the width of the pipe's outer edge. To the right of the pipe, the text reads: "D" = Outside Chord Diameter.

At $\odot$ pipe

8'-13/4"

7'-1"

5'-0"

1'-0 1/2"

6 3/8"

6 3/8"

7'-0"

7 1/2"

Detail A

Type III-A Truss

1 1/2" ϕ pipe coupling and plug, and 1 1/2" ϕ hole in cover

1'-6"

$\odot$ Upper Handhole * (See Detail D)

W8x28 (3)

5" ϕ pipe (3) typ.

1/4" typ.

12" ϕ pipe (3) (For wall thickness see table.)

6" min. from other welds, typ.

9'-0"

1'-1 1/2"

1'-0"

1 1/2"

2" $\pm$ 1/4"

Detail B (See Base Sheet OS4-A-8aA.)

For Foundation Details see Base Sheet OS4-F4

Conduit @ leg with handhole

3'-0" ϕ typ.

3/16" carbon steel. Hot dip galvanized after fabrication.

10 Ga. stainless steel or hot dip galvanized carbon steel.

1/8"

See Detail D for geometry

UPPER

LOWER

HANDHOLE COVERS

typ. t-1/8 1/4 t

4 1/2"

3 3/4"

3"

3/8"

3/8"

3/4" x 2" flat bar frame (1)

1" R

6 1/2"

5"

3 1/2"

Drill & tap for 1/4" - 20 screws. Chase thread after galvanizing.

DETAIL D

Provide 6 1/2" x 4 1/2" cover. Provide 4-5/16" ϕ holes in cover for 1/4"-20 round head hot dip galvanized or stainless steel machine screws. (See cover details)

DETAIL D

Backfill shall be placed prior to erection of support frame

9'-0" min.

1/4" x 1 1/2", min. Continuous backing ring

$\odot$ of frame within 1" of plumb

3" Galvanized Steel Conduit. Thread and cap both ends.

Dimensions		
Truss Chord Nominal Dia.	W	S
7"	4 3/4"	8'-0 1/4"
8 1/2"	5 1/2"	8'-1"
9"	5 3/4"	8'-1 1/4"

Structure Number

8S082I255R01

8S082I255R01

SIDE ELEVATION

END ELEVATION

* For dynamic message sign installations, provide upper and lower handholes in both legs of each support frame.

Dimensions		
Truss Chord Nominal Dia.	W	S
7"	4 $\frac{3}{4}$ "	8'-0 $\frac{1}{4}$ "
8 $\frac{1}{2}$ "	5 $\frac{1}{2}$ "	8'-1"
9"	5 $\frac{3}{4}$ "	8'-1 $\frac{1}{4}$ "

12" ϕ Pipe-Type III-A Truss

** One butt welded joint is allowed only on one post per support frame. If used, weld procedure must be pre-approved by Engineer and joint shall receive 100% RT or UT (tension criteria) at Contractor's expense.

6-1-12

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	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
Default	PLOT DATE = 4/11/2016	DATE =	REVISED -

**OVERHEAD SIGN STRUCTURES – SUPPORT FRAME
FOR TYPE III-A ALUMINUM TRUSS**

SCALE:	SHEET	OF	SHEETS	STA.	TO STA.
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
255	DIST 8 ITS 2016-1	ST. CLAIR	40	30
CONTRACT NO. 76J19				
ILLINOIS FED. AID PROJECT				

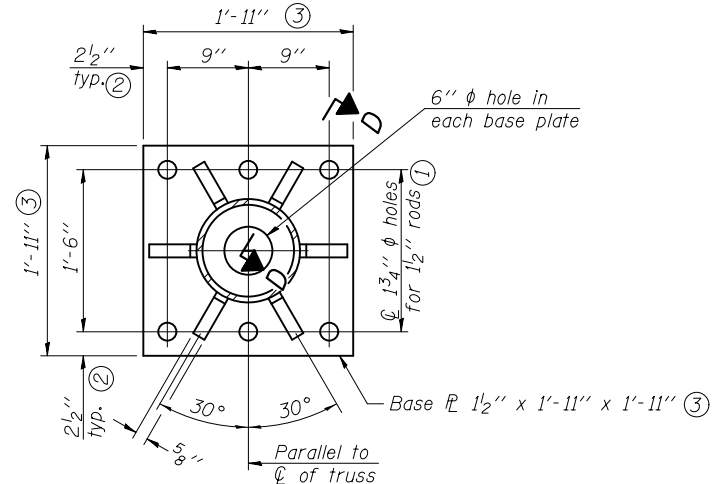
er
e
e.
1 1/2" Base PL (3)
2" x 1/4"
6"
Stainless Steel Standard Grade Wire Cloth, 3" wide, 1/4" maximum opening with a minimum wire diameter of AWG. No. 16 with a minimum 2" lap. Secure to base plate after erection with 3/4" stainless steel banding.

DETAIL B

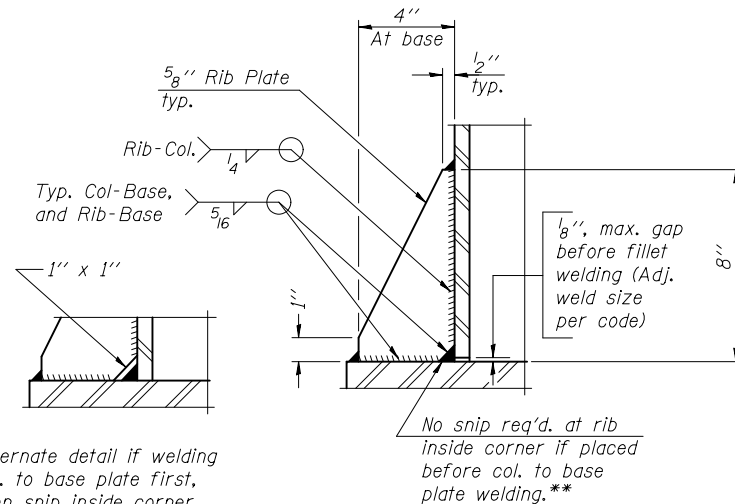
Ribs shall be cut to fit slope of pipe.

DETAIL B

Ribs shall be cut to fit slope of pipe.

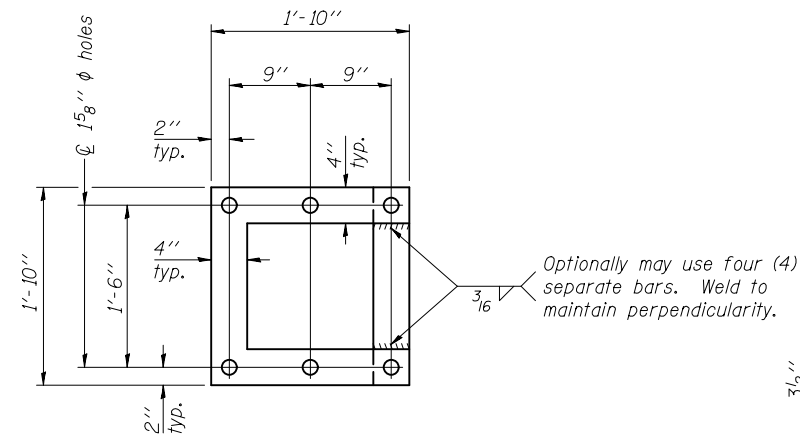


SECTION B-B



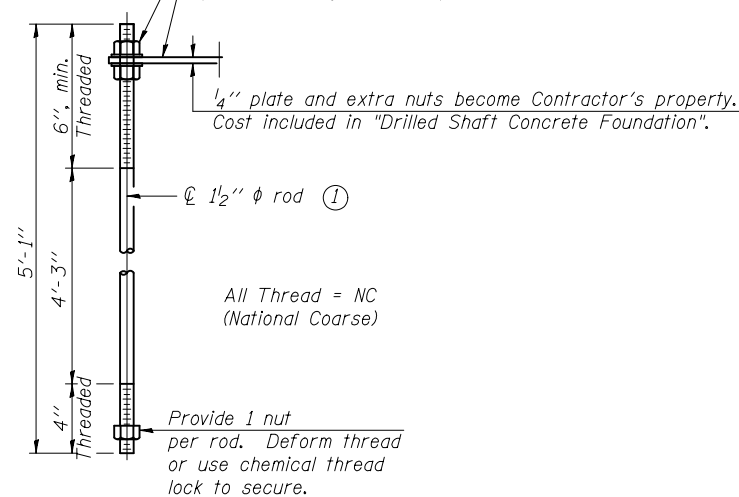
**** Alternate detail if welding**
col. to base plate first,
then snip inside corner
of ribs. Terminate weld
on rib $\frac{1}{4}$ " from snip.

SECTION D-D



POSITIONING PLATE(S)

At each location, provide 1/4" thick positioning plate(s) and six (6) additional nuts to be used with leveling nuts to maintain anchor bolts position during concrete placement.



ANCHOR ROD DETAIL

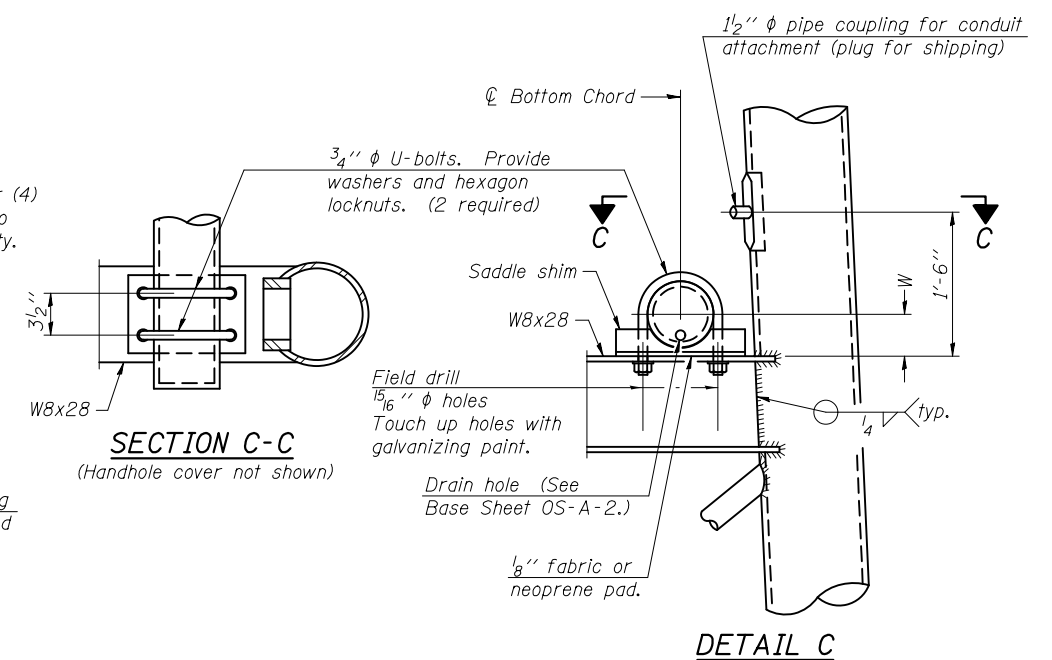
Anchor rods shall conform to ASTM F1554 Grade 105 Galvanize upper 12" minimum per AASHTO M232. No welding shall be permitted on rods.

TYPE III-A TRUSS

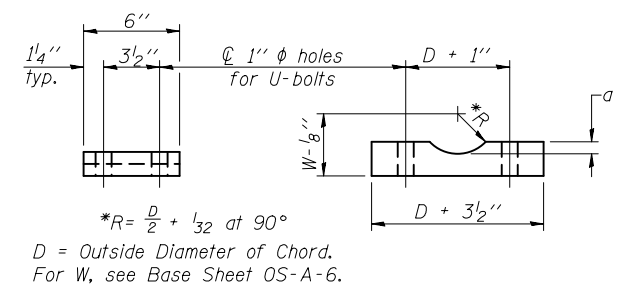
12" ϕ PIPE SUPPORT FRAME DETAILS

Notes:
For Type III-A Truss spans greater than 150 ft. and up to 160 ft.:

- ① $1\frac{3}{4}'' \phi$ rod, $2'' \phi$ holes
- ② $2\frac{3}{4}''$ edge distance
- ③ Base $\mathbb{P}$ $1\frac{5}{8}'' \times 1'-11\frac{1}{2}'' \times 1'-11\frac{1}{2}''$



DETAIL C



Truss Chord Nominal Dia.	a
7"	1"
8½"	1¼"
9"	1⅜"

SADDLE SHIM DETAIL

ASTM B26 Alloy 356-F
or
ASTM B209 Alloy 6061-T651
(4 required per sign truss)

OS4-A-8aA

6-1-12

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Default	PLOT DATE = 4/11/2016	DATE -	REVISED -

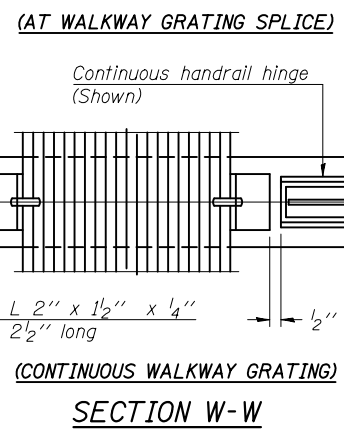
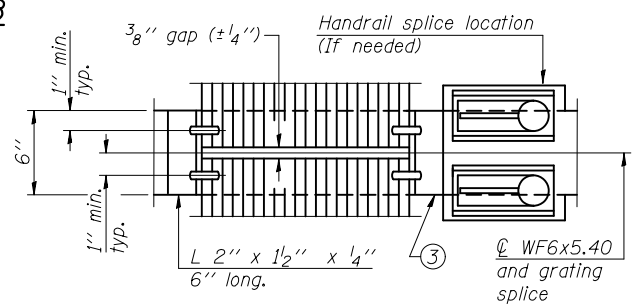
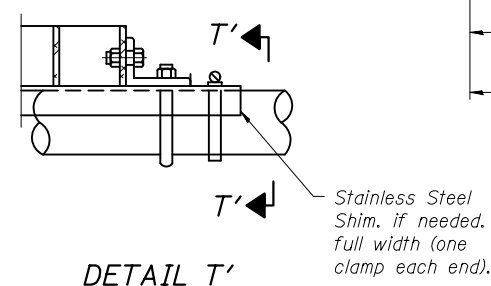
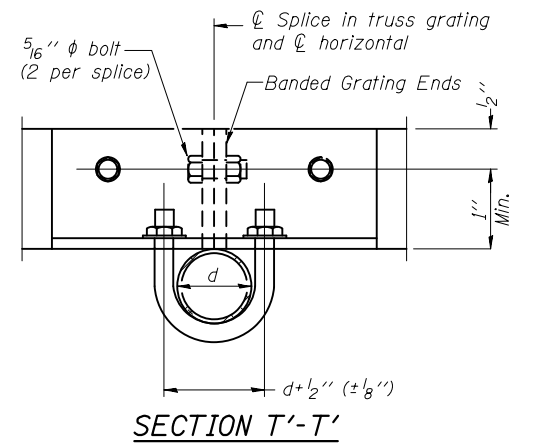
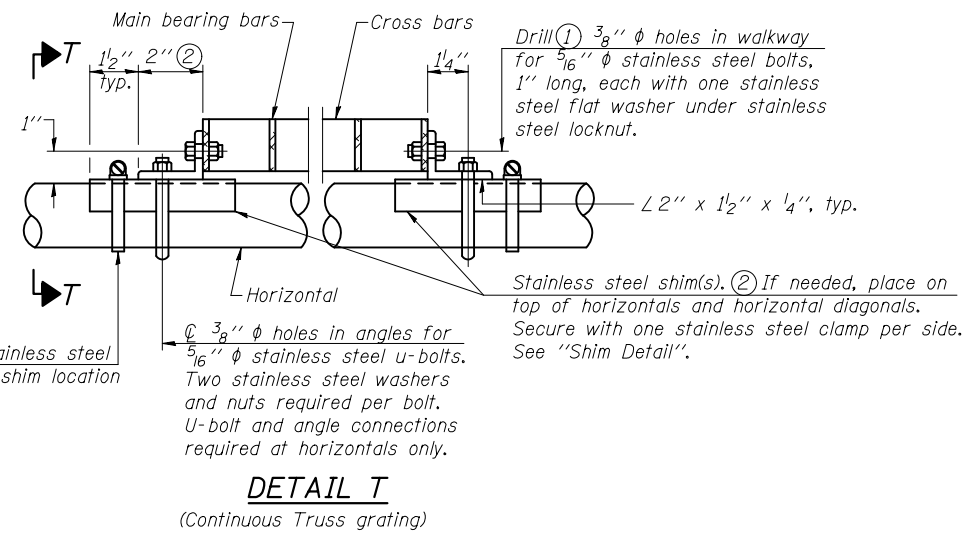
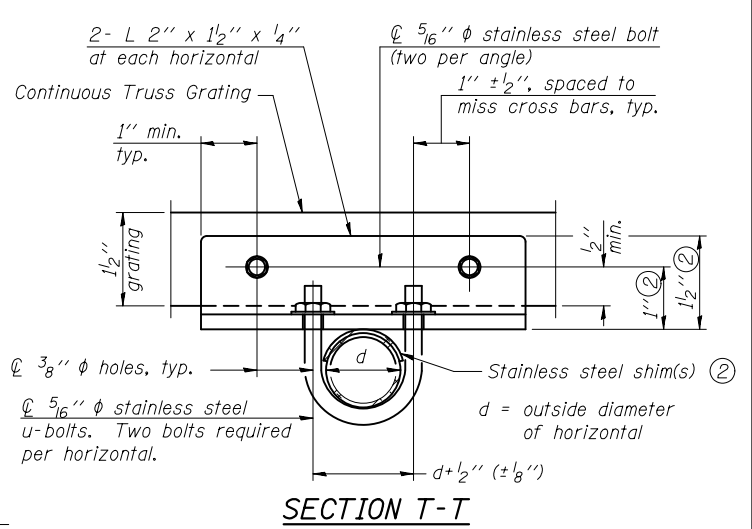
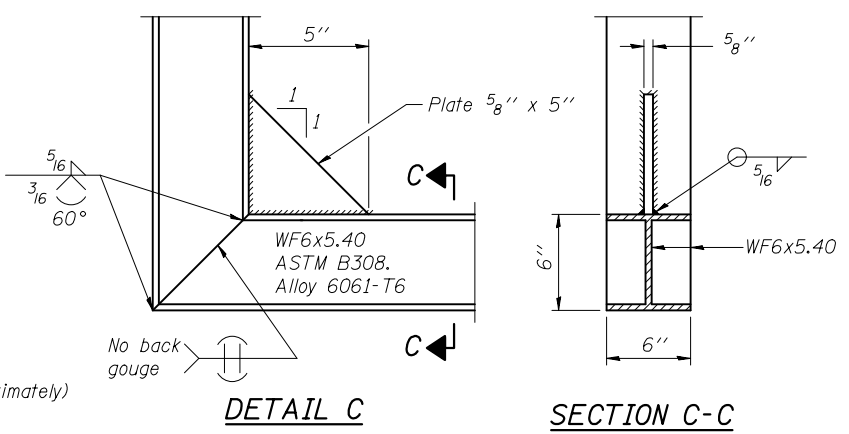
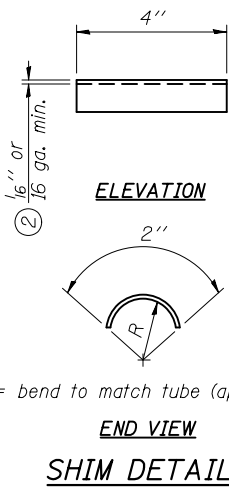
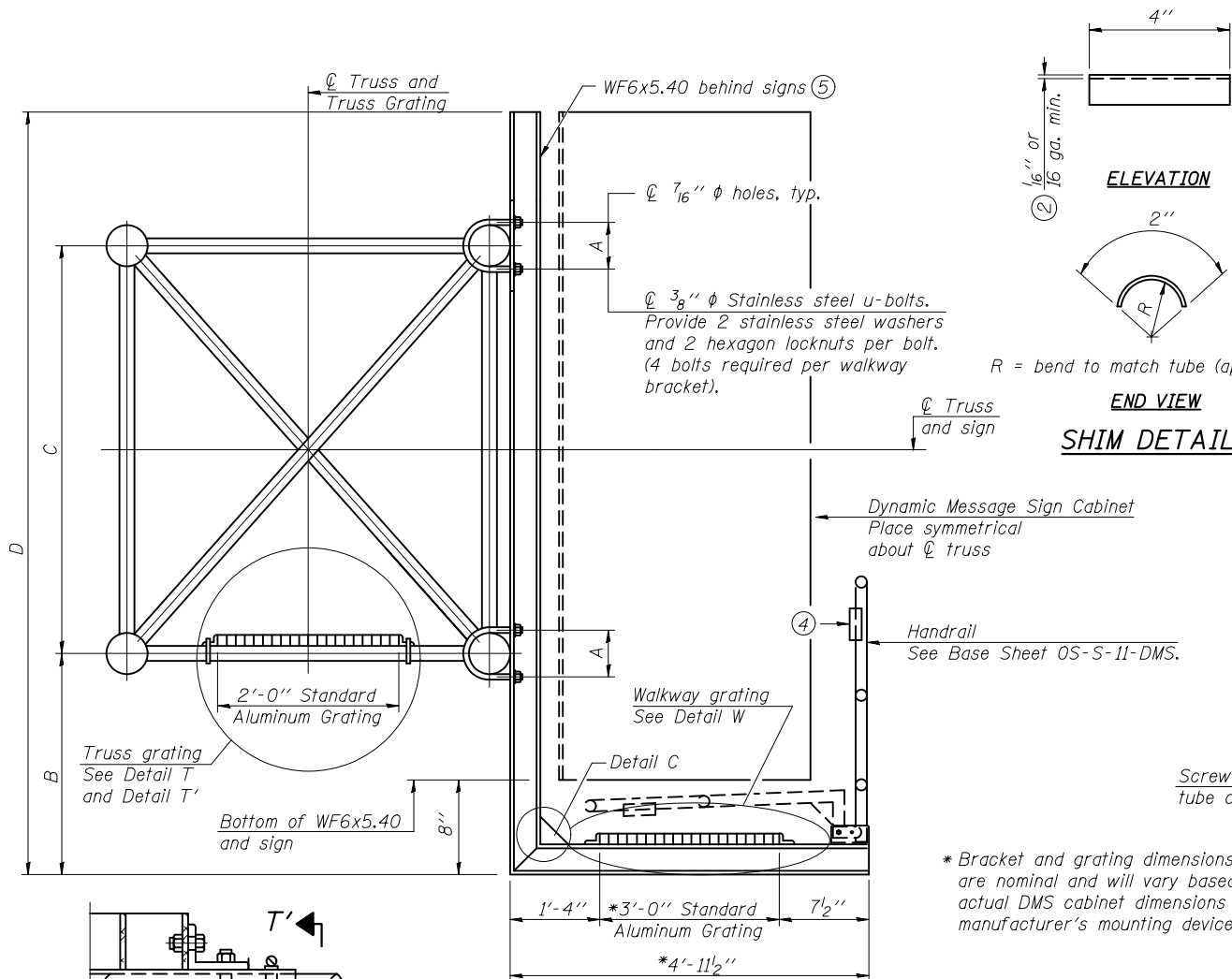
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

OVERHEAD SIGN STRUCTURES

SUPPORT FRAME FOR TYPE III-A ALUMINUM TRUSS

SCALE:	SHEET	OF	SHEETS	STA.	TO STA.
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
255	DIST 8 ITS 2016-1	ST. CLAIR	40	31
		CONTRACT NO. 76J19		
ILLINOIS FED. AID PROJECT				



SPECIFICATIONS FOR STANDARD ALUMINUM GRATING

Main Bearing Bars shall be 3/16" x 1 1/2" on 1 3/16" centers and conform to ASTM B211 Alloy 6061-T6.
Cross bars shall be 3/16" x 1 1/2" on 4" centers and conform to ASTM B221 Alloy 6063-T5 or 6061-T6.

OR

Aluminum Grating with modified "I" sections for main bearing bars shall meet the following requirements:

Main bars shall conform to ASTM B221 Alloy 6061-T6 and have a minimum section modulus equal to 0.0705 in. per bar, a depth of 1 1/2", spaced on 1 3/16" centers.
Cross bars shall conform to ASTM B221 Alloy 6063-T5 or T-42 and spaced on 4" centers.

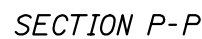
Structure Number	Station	A	⑥ B	C	⑥ D
8S0821255R017.2	842+00	8"	1' 5"	7.0'	9' 2"

- ① Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
- ② Stainless steel shims shall be placed as shown in Detail T if needed to compensate for alignment variations between horizontal and diagonal pipes beyond adjustment provided by angles. Thicker shims may be used subject to shims performing properly.
- ③ If Handrail Joint present, weld angle to WF(A-N)4 and 1/4" extension bars. (See Base Sheet OS-A-11.)
- ④ R 1/8" x 1/2" x 2" welded to handrail posts to protect locations that contact grating.
- ⑤ Cabinet manufacturer must design and supply hardware for connection of cabinet to WF6's. Bolts must be stainless steel or hot dip galvanized high strength per IDOT specifications.
- ⑥ Based on actual height of tallest sign given on OS-A-1.

OS-A-10-DMS 6-1-12



Handrail pipe shall be ASTM B241, Alloy 6063-T6 or Alloy 6061-T6.



Details not shown same as "PLAN"



(With Sign Present)

Items not shown same as "Side Elevation" of "Handrail Details"



See "ELEVATION" at right for dimensions.



Details not shown similar to "Safety Chain" Details
(Walkway omitted for clarity)



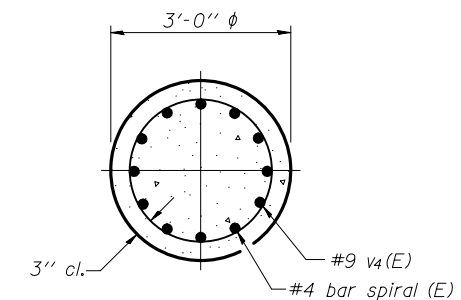
One required for each end of each walkway.

6-1-12

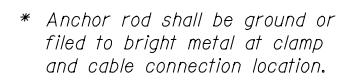
FILE NAME =	USER NAME = prestonme	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURES ALTERNATE ALUMINUM HANDRAIL DETAILS FOR DMS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\11\084EBID\INTEG.illinois.gov\PIDOT\Documents\DOT Offices\District 8\Projects\0876\Drawings\GAD\sheets\0876J19-sht-itspln.dwg		DRAWN -	REVISED -			255	DIST 8 ITS 2016-1	ST. CLAIR	40	34
		CHECKED -	REVISED -			CONTRACT NO. 76J19				
Default		DATE = 4/11/2016	REVISED -			SCALE:	SHEET OF	SHEETS STA.	TO STA.	

Bar	Number	Size	Length	Shape
v4(E)	24	#9	F less 5"	——
#4 bar spiral (E) - see Side Elevation				

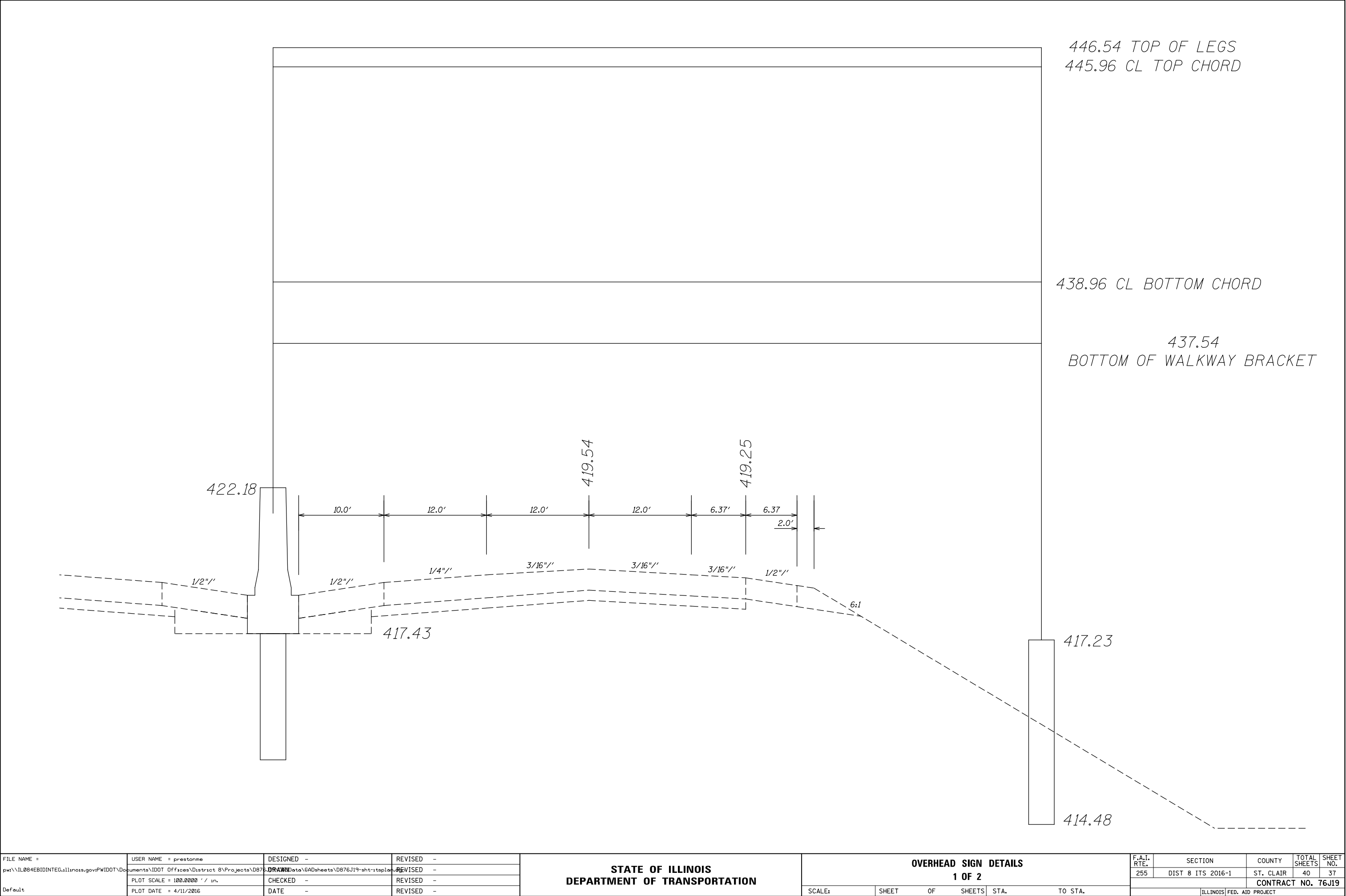
A normal surface finish followed by a Concrete Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in Drilled Shaft Concrete Foundation.

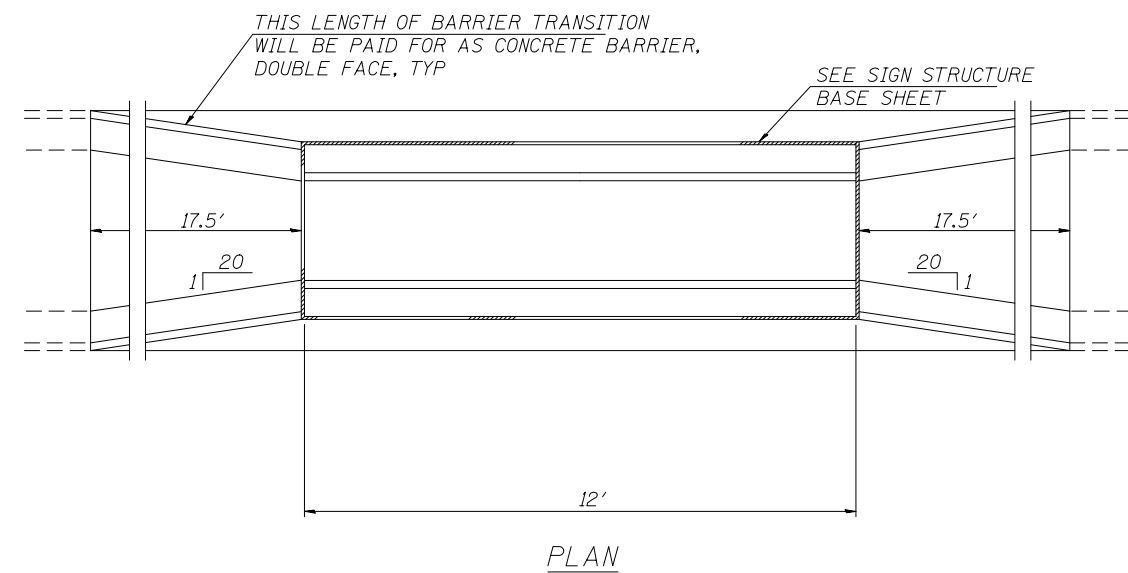


DETAILS FOR 12" ϕ SUPPORT FRAME
TYPE III-A TRUSS

[illegible]

FILE NAME =	USER NAME = prestonme	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURES DRILLED SHAFT DETAILS				F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw\VL084EBIDINTEGallinois.gov\PIDOT\Documents\IDOT Offices\District 8\Projects\0876\DRAWN Data\GAD\sheets\0876J19-shft-1.tbl		DRAWN -	REVISED -						255	DIST 8 ITS 2016-1	ST. CLAIR	40	35
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVIEWED -			CONTRACT NO. 76J19								
PLOT DATE = 4/11/2016	DATE	REVISED -											
Default				SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT			





FILE NAME = p:\11\084EBID\INTEG\illinois.gov\PWIDOT\Documents\IDOT Offices\District 8\Projects\0876\DRAWING\LEADS\0876J19-shr-itsplan.dwg	USER NAME = prestonme	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN DETAILS 2 OF 2		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED -	REVISED -				255	DIST 8 ITS 2016-1	ST. CLAIR	40	38
		PLOT SCALE = 100.0000' / in.	REVIS				CONTRACT NO. 76J19				
		PLOT DATE = 4/11/2016	DATE -				ILLINOIS FED. AID PROJECT				
Default					SCALE:		SHEET	OF	SHEETS	STA.	TO STA.



Sh. 1 of 1 Sh.

Boring No. C-2
Station 817+50
Offset 72' Lt. E

N-Standard Penetration Test-
Blows per foot to drive 2"
O.D. Split Spoon Sampler 12" with
140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf
w - Water Content - percentage of oven dry weight-%.

Type failure:
B - Bulge Failure
S - Shear Failure
E - Estimated Value
P - Penetrometer

FILE NAME =	USER NAME = prestonme	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOG CCTV POLE FOUNDATION AT MP 16.8				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET
pw\IL084EBIDINTEGullinois.gov\PIDOT\Documents\IDOT Offices\District 8\Projects\0876\DRAWING Data\CAD Sheets\0876J19-sht-itsplan		CHECKED -	REVISED -						255	DIST 8 ITS 2016-1	ST. CLAIR	40	39
	PLOT SCALE = 100.0000 ' / in.	DATE -	REVISED -						CONTRACT NO. 76J19				
Default	PLOT DATE = 1/29/2016								SCALE:	SHEET	OF	SHEETS	STA.
					ILLINOIS FED. AID PROJECT								

