

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	D-6 ITS #2	SANGAMON	30	1

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

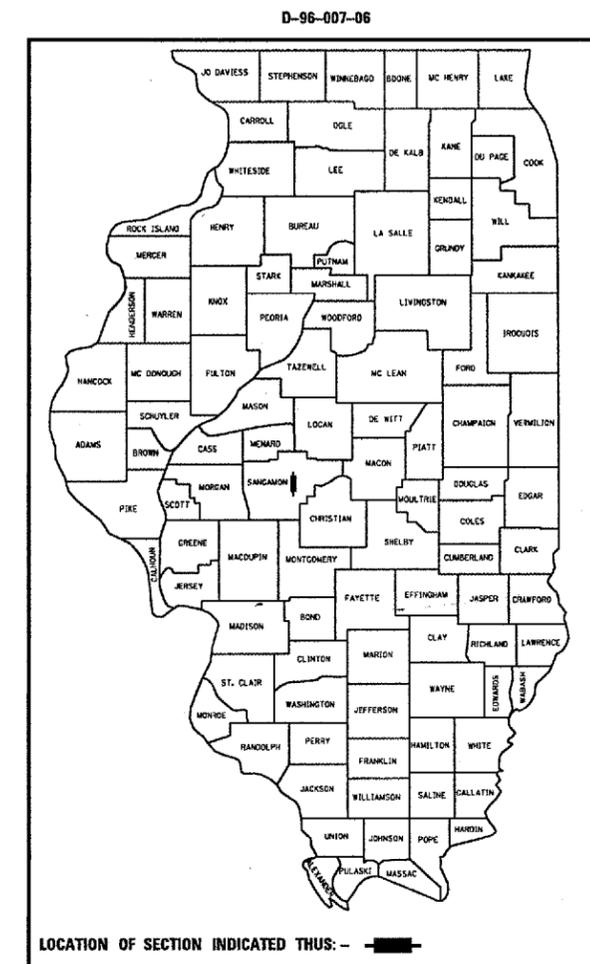
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAI ROUTE 72 (I-72)
SECTION D-6 ITS #2
PROJECT: ITS-0517(105)
SANGAMON COUNTY
C-75-017-06

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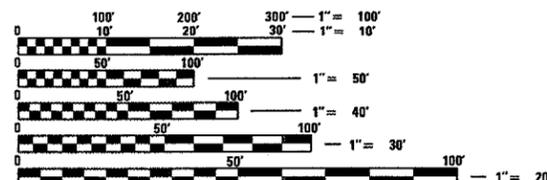
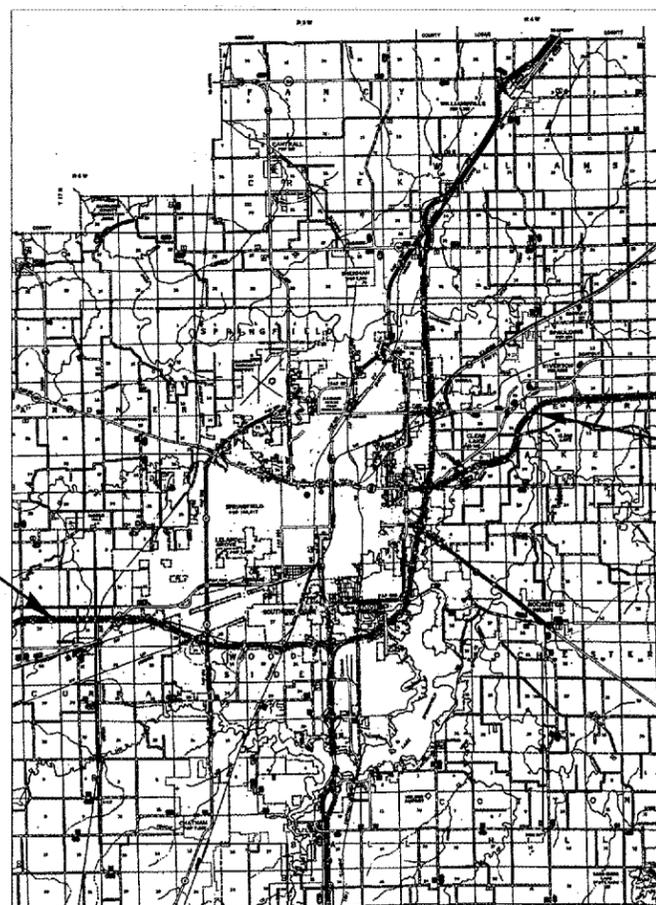


STANDARDS

- 000001-04
- 701101-01
- 701106-01
- 701400-02
- 701401-03
- 701422-01
- 702001-06

END PROJECT
SECTION: D-6 ITS #2
STATION 467+50 english

BEGIN PROJECT
SECTION: D-6 ITS #2
STA. 171+700 metric



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

PROJECT ENGINEER: KYLE ARMSTRONG (217) 558-6523
SQUAD LEADER: BILL SHAW (217) 524-2180

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

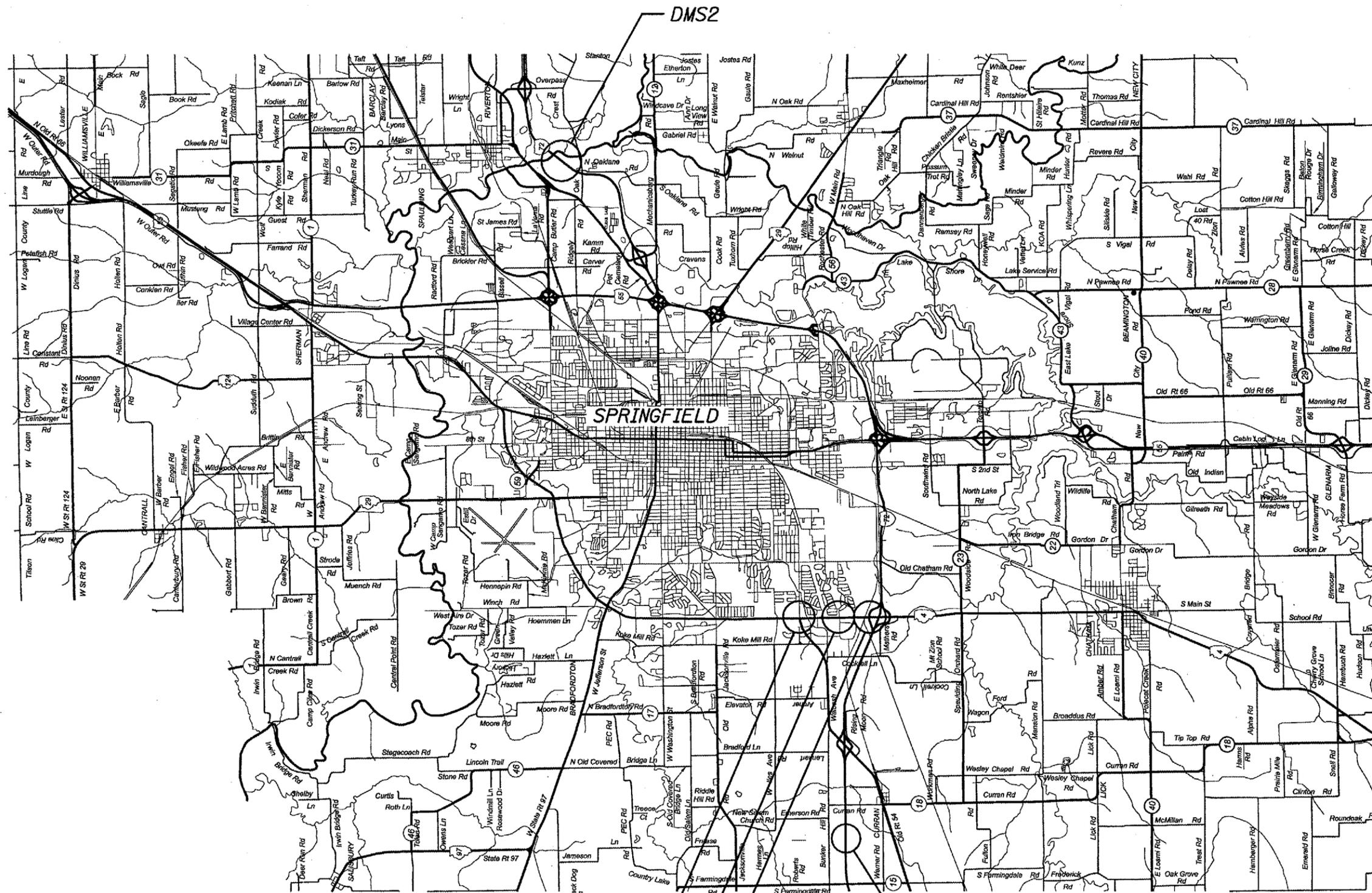
SUBMITTED Oct 20 20 06
[Signature]
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

December 8, 2006
[Signature]
INTERIM ENGINEER OF DESIGN AND ENVIRONMENT

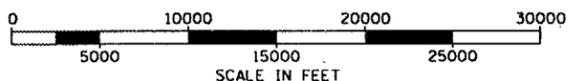
December 8, 2006
[Signature]
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	D-6 ITS #2	SANGAMON	30	2
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



VETERANS & WABASH
 VETERANS & LINDBERG
 CAMERA1



DMS1 - STATION 467+50 english
 DMS2 - STATION 171+700 metric
 CAMERA1 - LIGHT POLE

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 LOCATION MAP
 F.A.I. 72 (I-72)
 SECTION D-6 ITS #2
 SANGAMON COUNTY

SCALE: VERT. _____
 HORIZ. _____

DATE _____ DRAWN BY: CHD
 CHECKED BY _____

SUMMARY OF QUANTITIES

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 72	D-6 ITS #2	SANGAMON	30	3
STA.	TO STA.			
EXISTING CONDITIONS:				

SUMMARY OF QUANTITIES			50% FED, 50% STATE URBAN	100% STATE URBAN
CODE NO	ITEM	UNIT	CONSTRUCTION TYPE CODE Y032-1F	CONSTRUCTION TYPE CODE Y032-1F
			TOTAL QUANTITIES	TOTAL QUANTITIES
67100100	MOBILIZATION	LSUM	1	
70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	LSUM	1	
70100320	TRAFFIC CONTROL AND PROTECTION, STANDARD 701422	LSUM	1	
70103700	TRAFFIC CONTROL COMPLETE	LSUM	1	
73300300	OVERHEAD SIGN STRUCTURE - SPAN, TYPE III-A (5'-0" X 7'-0")	FOOT	200	
73305000	OVERHEAD SIGN STRUCTURE WALKWAY	FOOT	69.2	
73400200	DRILLED SHAFT CONCRETE FOUNDATIONS	CUYD	40.6	
80400105	ELECTRIC SERVICE INSTALLATION, SPECIAL	EACH		2
83057120	LIGHT POLE, ^{WOOD} 25 FT, CLASS 4	EACH	2	
81012500	CONDUIT IN TRENCH, 1 1/2" DIA., PVC	FOOT	13097.0	
81021540	CONDUIT, AUGERED, 1 1/2" DIA., PVC	FOOT	90.0	
81100500	CONDUIT ATTACHED TO STRUCTURE, 1 1/2" DIAMETER, GALVANIZED STEEL	FOOT	20.0	
81306100	JUNCTION BOX (SPECIAL)	EACH	16	
81306200	DRILL EXISTING JUNCTION BOX	EACH	1	
81400100	HANDHOLE	EACH	2	
81900200	TRENCH ^{AND} BACKFILL FOR ELECTRICAL WORK	FOOT	13097.0	
83800650	BREAKAWAY DEVICE, COUPLING, WITH STAINLESS STEEL SCREEN	EACH	4	
87100120	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, 8F	FOOT	12310.0	
87900200	DRILL EXISTING HANDHOLE	EACH	2	
X0322011	LIGHT POLE REMOVE AND RE-ERECT	EACH	1	
X0323228	FURNISH AND INSTALL TRUSS DAMPER	EACH	2	
X0324963	CLOSED CIRCUIT CAMERA SYSTEM COMPLETE	EACH	1	
X0324965	INSTALL TRUSS MOUNTED DYNAMIC MESSAGE SIGN	EACH	2	
70106800	CHANGEABLE MESSAGE SIGN	CALMO	2	
Z0002005	ATTENUATOR BASE	SQYD	103.2	
X 5604000	DRILLED SHAFT IN ROCK	CUYD	2.4	
⊙ Z0030150	IMPACT ATTENUATOR (NON-REDIRECTIVE), TEST LEVEL 3	EACH	4	
X8730041	ELECTRIC CABLE IN CONDUIT, SERVICE, 2/C NO. 1/0 AND 1/C NO. 6	FOOT	1270.5	
X8730042	ELECTRIC CABLE IN CONDUIT, SERVICE, 2/C NO. 4 AND 1/C NO. 8	FOOT	484.5	
X 50200400	ROCK EXCAVATION FOR STRUCTURES	CUYD	2.4	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
DISTRICT 6**

EXAMINED October 13 20 06
Louis J. Hoar
ENGINEER OF OPERATIONS

EXAMINED Oct 2 20 04
W.R. Jung
ENGINEER OF PROGRAM IMPLEMENTATION

EXAMINED OCTOBER 5 20 06
William E. Mester
ENGINEER OF PROGRAM DEVELOPMENT

DATE
JOB-SPEC
REF
REV

F.A.I. No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	D-6 ITS #2	SANGAMON	30	4
STA. _____ TO STA. _____				
EXISTING CONDITIONS				

GENERAL NOTES

- 1 CCTV ARE LOCATION SENSITIVE. PROPOSED EQUIPMENT LOCATIONS ARE APPROXIMATE. TO ENSURE THE OPTIMUM FIELD OF VIEW, ACTUAL LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR, PER THE MANUFACTURER REPRESENTATIVES RECOMMENDATIONS AND THE ENGINEERS APPROVAL.
- 2 PLAN ELEVATIONS - U.S.G.S. MEAN SEA LEVEL DATUM.
- 3 ALL ELEVATIONS SHOWN ON THE PLANS ARE ESTABLISHED FROM U.S.G.S. MEAN SEA LEVEL DATUM.
- 4 U-BOLTS SHALL BE PRODUCED FROM ASTM A276, TYPE 304, 304L, 316, CONDITION A, COLD FINISH, OR AN EQUIVALENT MATERIAL ACCEPTABLE TO THE ENGINEER. ALL NUTS SHALL BE STAINLESS STEEL CONFORMING TO ASTM A194, GRADE 8 (AISI TYPE 304) OR GRADE 8F (AISI TYPE 303). THE NUTS SHALL BE LOCKNUTS WITH NYLON OR STEEL INSERTS AND SEMI FINISHED HEXAGONAL HEADS EQUIVALENT TO THE FINISHED HEX SERIES OF THE AMERICAN NATIONAL STANDARD. ALL WASHERS SHALL BE STAINLESS STEEL CONFORMING TO ASTM 240, TYPE 302 OR 304.
- 5 ALL BOLTS, SCREWS, NUTS AND WASHERS SHALL BE STAINLESS STEEL. ANTI-SEIZE PASTE COMPOUND SHALL BE USED ON ALL MOUNTING HARDWARE FIELD CONNECTIONS. ALL CCTV MOUNTING METHODS AND MOUNTING MATERIAL SHALL BE PRE-APPROVED BY THE ENGINEER.
- 6 UNDERGROUND CABLE MARKING TAPE SHALL BE INSTALLED WITH ALL TRENCH & BACKFILL FOR ELECTRICAL WORK IN ACCORDANCE WITH ARTICLES 815.03 (c) & 1066.05 OF THE STANDARD SPECIFICATIONS.
- 7 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 IN THAT CONDUIT.
- 8 THE CONTRACTOR SHALL NOT DRILL ANY HOLES IN THE BEAMS, DECK, OR SUBSTRUCTURE OF THE BRIDGE, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- 9 ALL GROUND RODS SUPPLIED FOR THIS PROJECT SHALL BE 3/4" DIAMETER X 12'-0" LONG.
- 10 THE LOCATION OF EXISTING WATER MAINS, GAS MAINS, SEWERS, ELECTRIC POWER LINES, TELEPHONE LINES AND OTHER UTILITIES AS SHOWN ON THE PLANS ARE BASED ON CAREFUL FIELD INVESTIGATION AND THE BEST INFORMATION AVAILABLE, BUT THEY ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE UTILITY COMPANIES AND BY FIELD INSPECTION.
- 11 ALL UTILITIES SHALL BE LOCATED IN FIELD PRIOR TO ANY ATTEMPT TO CONSTRUCT ANY COMPONENT OF THE VARIOUS CCTV CAMERA SYSTEM. ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO UTILITIES BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY PROVIDING A MINIMUM OF 96-HOURS ADVANCE NOTICE TO THE RESIDENT ENGINEER SO THAT THE UTILITY COMPANIES CAN BE NOTIFIED.
- 12 COORDINATION WITH THE DEPARTMENTS BUREAU OF OPERATIONS IS REQUIRED BEFORE ANY TRENCHING SHALL BE DONE TO LOCATE HIGHWAY LIGHTING/PUMP STATION FACILITIES. PH# (217)558-6523 OR (217)524-9161.
- 13 THE AREAS THAT ARE DISTURBED DUE TO THE DIGGING OR TRENCHING SHALL BE COMPLETED ON A WEEKLY BASIS USING SEEDING, CLASS 2 AND MULCH METHOD 1 AND SHALL CONFORM TO THE REQUIREMENTS OF SECTION 251 OF THE STANDARD SPECIFICATIONS EXCEPT THAT NO EMULSIFIED ASPHALT SHALL BE USED. THE COST SHALL BE INCIDENTAL TO THE CONTRACT.
- 14 THE CONTRACTOR MUST COORDINATE AND COOPERATE WITH THE DEPARTMENT AND THE INVOLVED PARTIES AS DIRECTED BY THE DEPARTMENT
- 15 EXISTING CONDUIT AND PULL POINT LOCATIONS TAKEN FROM HISTORICAL DATA. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDUIT SIZES AND LOCATIONS PRIOR TO INSTALLING PROPOSED FIBER OPTIC CABLE WITHIN EXISTING CONDUIT.
- 16 BENDING RADIUS OF FIBER OPTIC CABLE SHALL NOT EXCEED SIX (6) INCHES.
- 17 EXACT FIELD LOCATIONS OF ITS EQUIPMENT SHALL BE AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL TAKE CARE NOT TO INSTALL ITS EQUIPMENT IN DRAINAGE AREAS.
- 18 THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, CONSTRUCTION METHODOLOGIES, PRODUCT MANUFACTURER SPECIFICATIONS, OWNERS MANUALS, AND USER MANUALS BEFORE PROCURING AND INSTALLING ANY ITS EQUIPMENT AS PART OF THIS CONTRACT. ALL PROPOSED ITS WORK SHALL BE REVIEWED AND APPROVED BY THE DEPARTMENT.
- 19 THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING TRAFFIC CONTROL FOR THE INSTALLATION OF ITS RELATED EQUIPMENT WITH OTHER CONTRACTS AND WORK IN THE AREA.

LEGEND

- ALUM ALUMINUM
- EP EDGE OF PAVEMENT
- TW SH TWISTED SHIELDED
- PWR CBL POWER CABLE
- F.O. FIBER OPTIC
- J.B. JUNCTION BOX
- GSC GALVANIZED STEEL CONDUIT
- PVCC POLYVINYL CHLORIDE CONDUIT
- ☐ EXISTING HANDHOLE
- ☐ EXISTING DOUBLE HANDHOLE
- ☒ EXISTING CONTROLLER
- ☐ EXISTING SERVICE INSTALLATION
- EXISTING GALVANIZED STEEL CONDUIT
- ☐ EXISTING JUNCTION BOX
- ☐ EXISTING SIGN TRUSS
- EXISTING HIGHWAY LIGHTING UNIT
- EXISTING UNDERGROUND LIGHTING CABLES
- ☐ PROPOSED HANDHOLE
- ☐ PROPOSED DOUBLE HANDHOLE
- ☒ PROPOSED CONTROLLER
- //— PROPOSED CONDUIT; "T" TRENCH, "P" PUSH, "ATS" ATTACHED TO STRUCTURE, SIZE SPECIFIED
- ☐ PROPOSED SERVICE INSTALLATION
- ☐ PROPOSED CCTV CAMERA
- ☐ PROPOSED JUNCTION BOX, SIZE SPECIFIED
- PROPOSED WOOD POLE, SIZE SPECIFIED
- PROPOSED LIGHT POLE, SIZE SPECIFIED

PLAN	DATE
BY	
REVISIONS	
NO.	DATE
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REVISIONS	
NAME	DATE

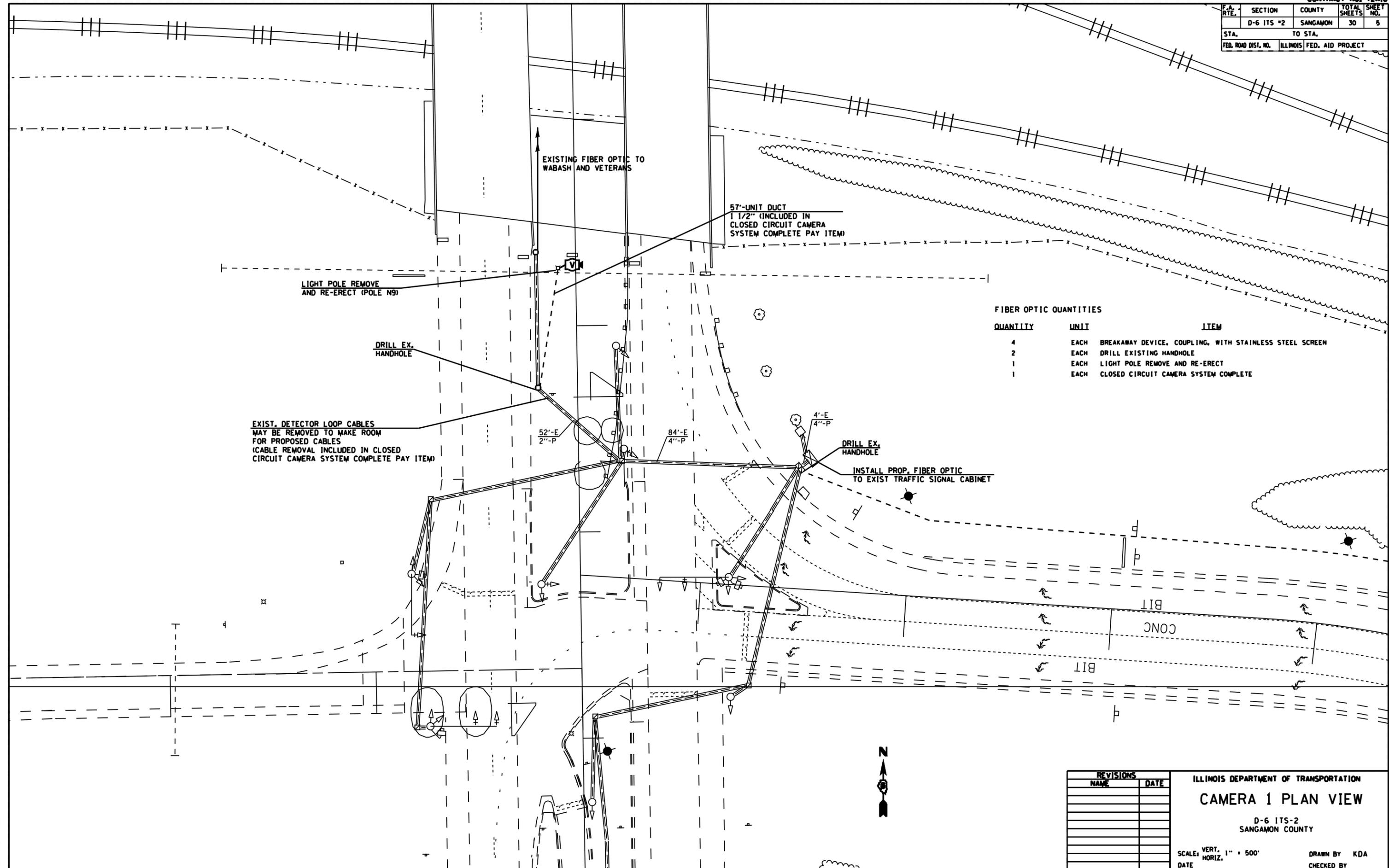
ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES & LEGEND

F.A.I. 72 (1-72)
SECTION D-6 ITS #2
SANGAMON COUNTY

DRAWN BY: _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	D-6 ITS #2	SANGAMON	30	5
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



FIBER OPTIC QUANTITIES

QUANTITY	UNIT	ITEM
4	EACH	BREAKAWAY DEVICE, COUPLING, WITH STAINLESS STEEL SCREEN
2	EACH	DRILL EXISTING HANDHOLE
1	EACH	LIGHT POLE REMOVE AND RE-ERECT
1	EACH	CLOSED CIRCUIT CAMERA SYSTEM COMPLETE

EXIST. DETECTOR LOOP CABLES
MAY BE REMOVED TO MAKE ROOM
FOR PROPOSED CABLES
(CABLE REMOVAL INCLUDED IN CLOSED
CIRCUIT CAMERA SYSTEM COMPLETE PAY ITEM)

INSTALL PROP. FIBER OPTIC
TO EXIST TRAFFIC SIGNAL CABINET

REVISIONS	
NAME	DATE

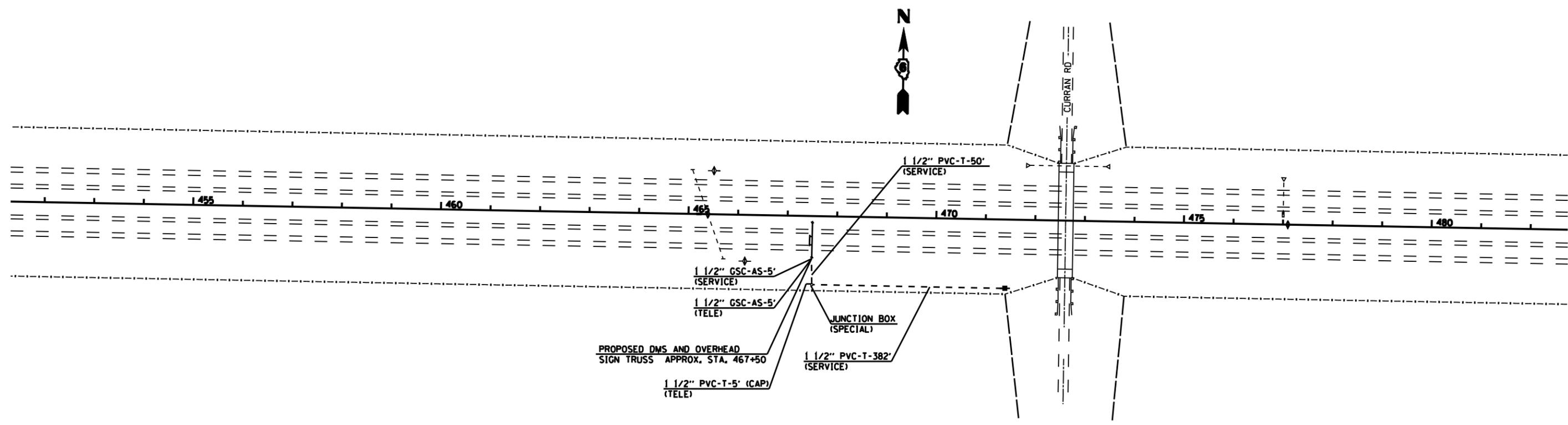
ILLINOIS DEPARTMENT OF TRANSPORTATION
CAMERA 1 PLAN VIEW
D-6 ITS-2
SANGAMON COUNTY
SCALE: VERT. 1" = 50'
HORIZ. 1" = 50'
DRAWN BY KDA
CHECKED BY

PLOT DATE: 1/20/05
FILE NAME: 72A18.DWG
PLOT SCALE: 1" = 50'
USER NAME: KDA

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
D-6	ITS #2	SANGAMON	30	6
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DMS 1 QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	ELECTRIC SERVICE INSTALLATION, SPECIAL
1	EACH	WOOD POLE, 25 FT., CLASS 4
437.0	FOOT	CONDUIT IN TRENCH, 1 1/2" DIA., PVC
10.0	FOOT	CONDUIT ATTACHED TO STRUCTURE, 1 1/2" DIA., GALVANIZED STEEL
1	EACH	JUNCTION BOX (SPECIAL)
437.0	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
484.5	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, 2/C #4 AND 1/C #8



REVISIONS	
NAME	DATE

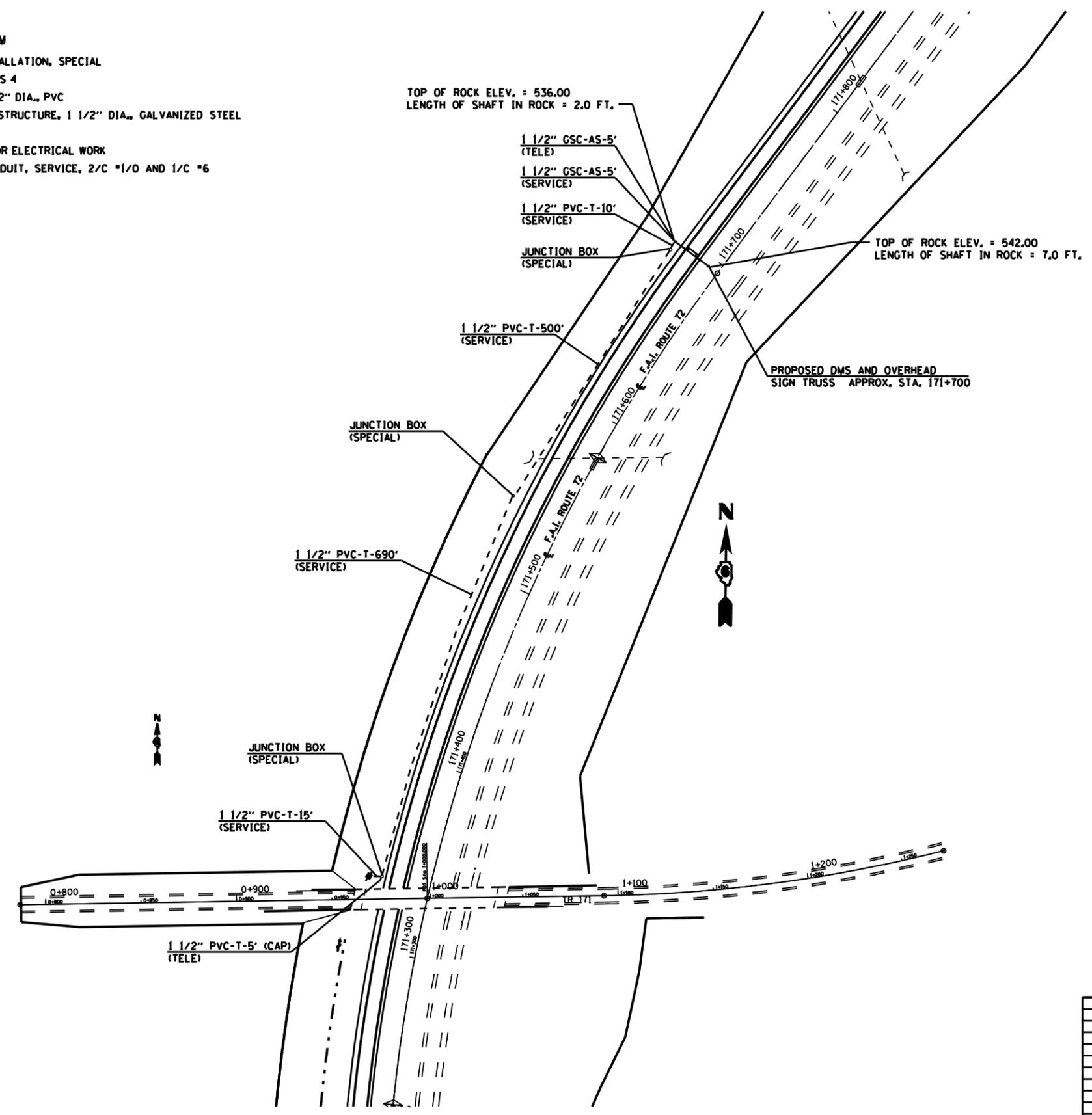
ILLINOIS DEPARTMENT OF TRANSPORTATION
DMS 1 PLAN VIEW
 D-6 ITS-2
 SANGAMON COUNTY
 SCALE: VERT. 1" = 100'
 HORIZ. 1" = 100'
 DATE _____ DRAWN BY KDA
 CHECKED BY _____

PLOT DATE: 1/20/05
 FILE NAME: 1/20/05
 PLOT SCALE: 1/20/05
 USER NAME: 1/20/05

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	D-6 ITS #2	SANGAMON	30	7
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DMS 2 QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	ELECTRIC SERVICE INSTALLATION, SPECIAL
1	EACH	WOOD POLE, 25 FT., CLASS 4
1220.0	FOOT	CONDUIT IN TRENCH, 1 1/2" DIA., PVC
10.0	FOOT	CONDUIT ATTACHED TO STRUCTURE, 1 1/2" DIA., GALVANIZED STEEL
3	EACH	JUNCTION BOX (SPECIAL)
1220.0	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1270.5	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, 2/C #1/0 AND 1/C #6



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

DMS 2 PLAN VIEW

D-6 ITS-2
SANGAMON COUNTY

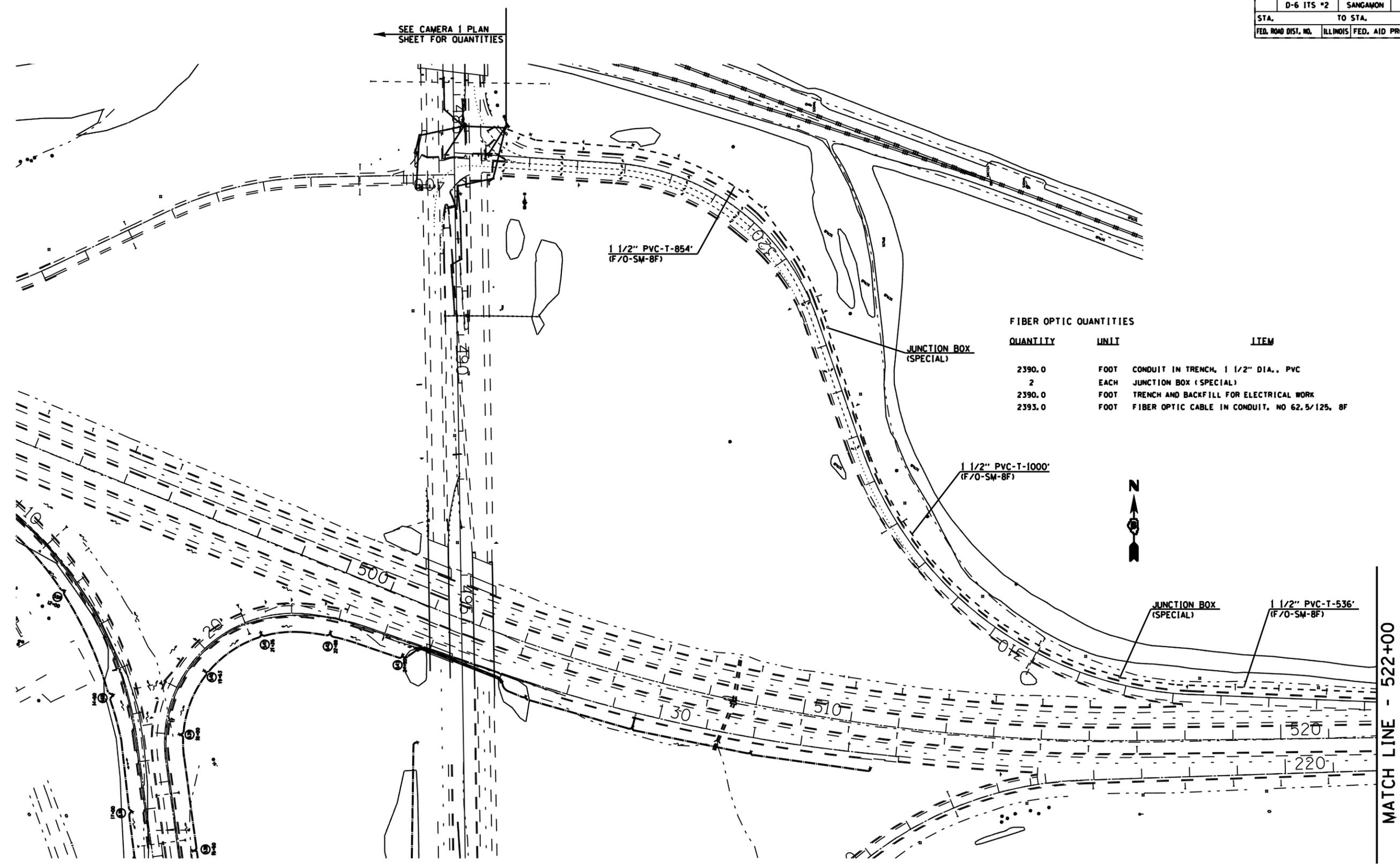
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HORIZ. 1" = 100'

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CHECKED BY:

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FILE NAME: FILENAME
PLOT SCALE: SCALES
USER NAME: USERNAME

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	D-6 ITS #2	SANGAMON	30	8
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SEE CAMERA 1 PLAN SHEET FOR QUANTITIES



FIBER OPTIC QUANTITIES

QUANTITY	UNIT	ITEM
2390.0	FOOT	CONDUIT IN TRENCH, 1 1/2" DIA., PVC
2	EACH	JUNCTION BOX (SPECIAL)
2390.0	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
2393.0	FOOT	FIBER OPTIC CABLE IN CONDUIT, NO 62.5/125, 8F



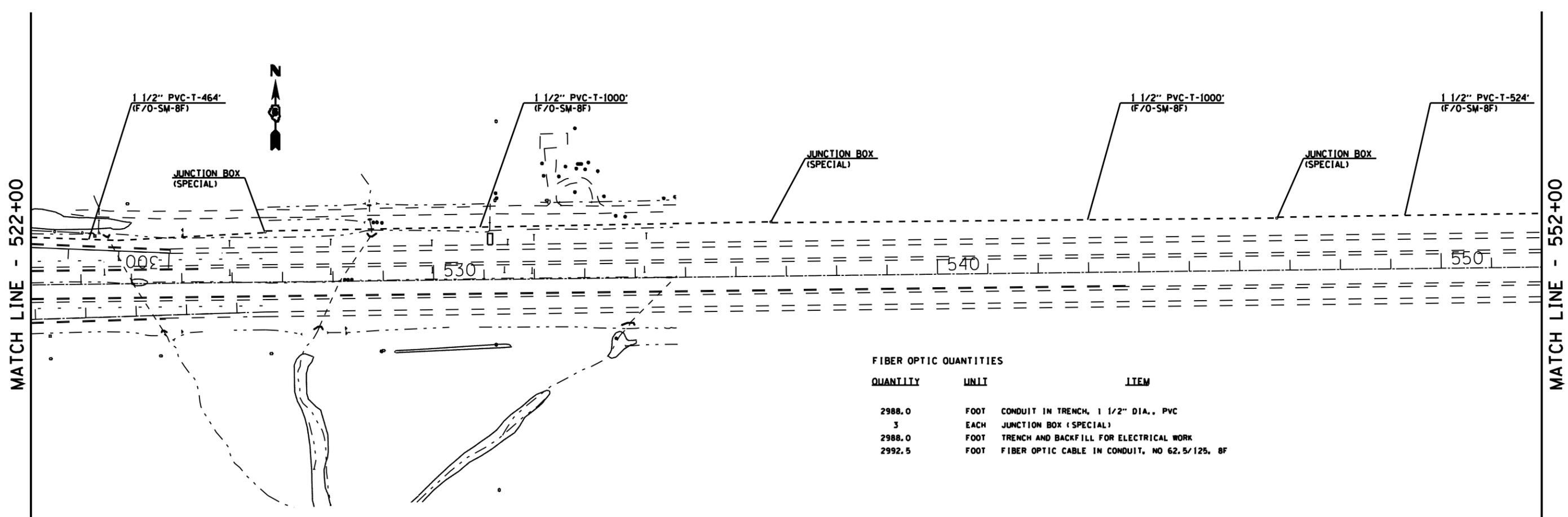
MATCH LINE - 522+00

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-72 F/O PLAN VIEW
 D-6 ITS-2
 SANGAMON COUNTY
 SCALE: VERT. 1" = 50'
 HORIZ. 1" = 50'
 DATE _____ DRAWN BY KDA
 CHECKED BY _____

PLOT DATE: 1/20/05
 FILE NAME: I-72 F/O PLAN VIEW
 PLOT SCALE: 1" = 50'
 USER NAME: KDA

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
D-6	ITS #2	SANGAMON	30	9
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



FIBER OPTIC QUANTITIES

QUANTITY	UNIT	ITEM
2988.0	FOOT	CONDUIT IN TRENCH, 1 1/2" DIA., PVC
3	EACH	JUNCTION BOX (SPECIAL)
2988.0	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
2992.5	FOOT	FIBER OPTIC CABLE IN CONDUIT, NO 62.5/125, 8F

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-72 F/O PLAN VIEW
 D-6 ITS-2
 SANGAMON COUNTY

SCALE: VERT. 1" = 50'
 HORIZ. 1" = 50'

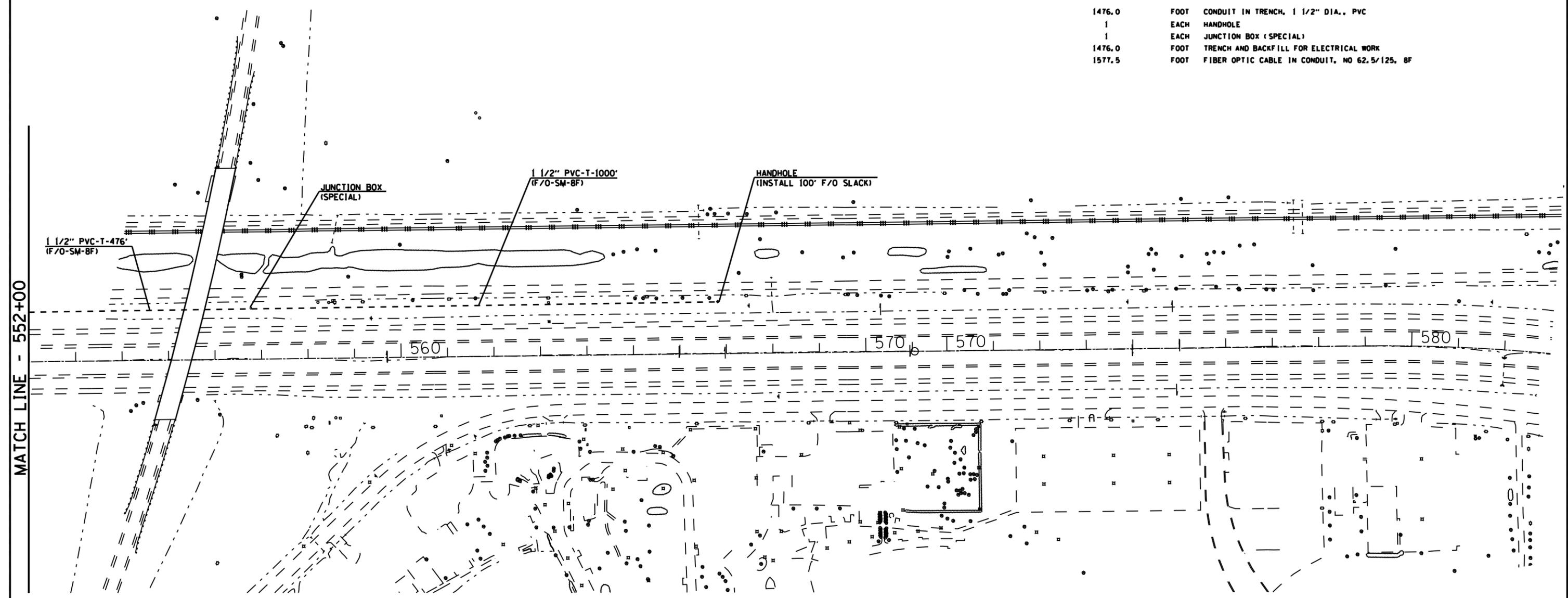
DATE _____ DRAWN BY KDA
 CHECKED BY _____

PLOT DATE : 11/04/10
 FILE NAME : 72A18.DWG
 PLOT SCALE : 1" = 50'
 USER NAME : SURBERG

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	D-6 ITS *2	SANGAMON	30	10
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

FIBER OPTIC QUANTITIES

QUANTITY	UNIT	ITEM
1476.0	FOOT	CONDUIT IN TRENCH, 1 1/2" DIA., PVC
1	EACH	HANDHOLE
1	EACH	JUNCTION BOX (SPECIAL)
1476.0	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1577.5	FOOT	FIBER OPTIC CABLE IN CONDUIT, NO 62.5/125, 8F



MATCH LINE - 552+00

REVISIONS	
NAME	DATE

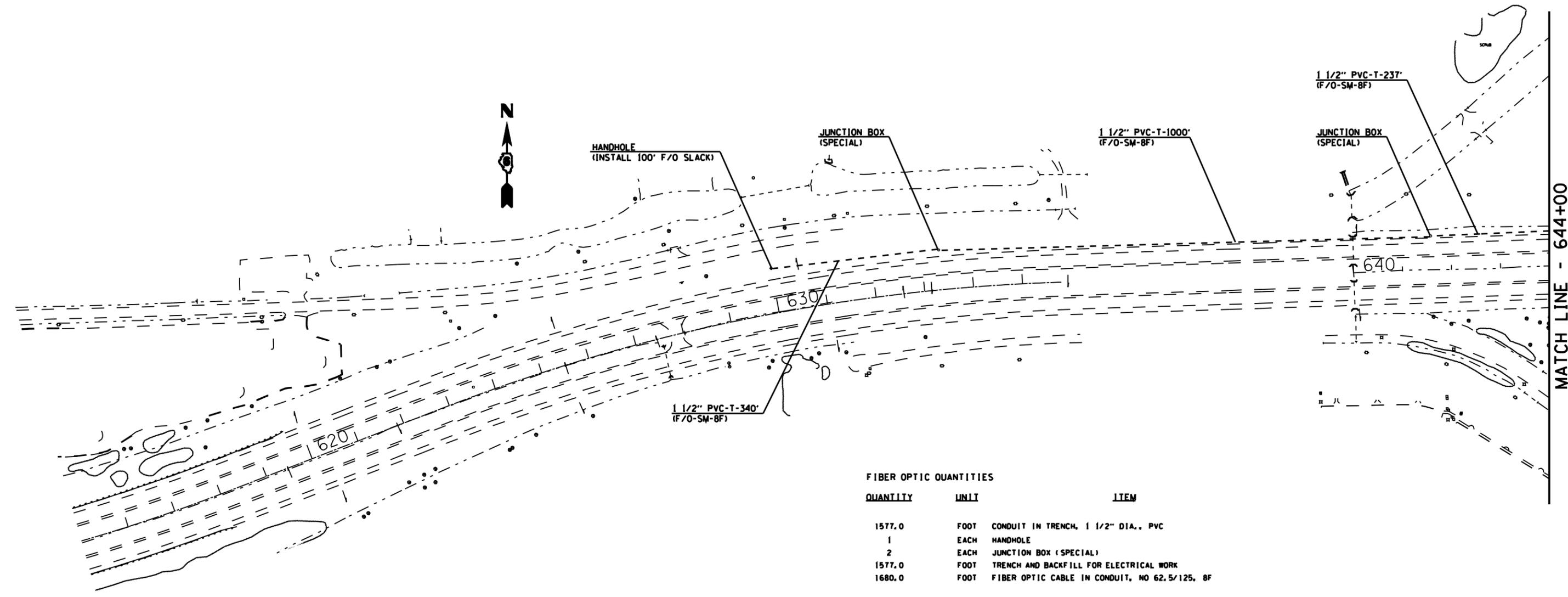
ILLINOIS DEPARTMENT OF TRANSPORTATION
I-72 F/O PLAN VIEW
 D-6 ITS-2
 SANGAMON COUNTY

SCALE: VERT. 1" = 50'
 HORIZ. 1" = 50'

DATE _____ DRAWN BY KDA
 CHECKED BY _____

PLOT DATE : 11/04/03
 FILE NAME : I72F0.PLT
 PLOT SCALE : 1" = 50'
 USER NAME : KDA

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
D-6 ITS #2		SANGAMON	30	11
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



FIBER OPTIC QUANTITIES

QUANTITY	UNIT	ITEM
1577.0	FOOT	CONDUIT IN TRENCH, 1 1/2" DIA., PVC
1	EACH	HANDHOLE
2	EACH	JUNCTION BOX (SPECIAL)
1577.0	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1680.0	FOOT	FIBER OPTIC CABLE IN CONDUIT, NO 62.5/125, 8F

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-72 F/O PLAN VIEW
 D-6 ITS-2
 SANGAMON COUNTY
 SCALE: VERT. 1" = 50'
 HORIZ. 1" = 50'
 DATE _____ DRAWN BY KDA
 CHECKED BY _____

DATE: 11/15/05
 FILE NAME: I-72 F/O PLAN VIEW.dwg
 PLOT SCALE: 1" = 50'
 USER NAME: SURBERG

GENERAL NOTES

Contract # 72A18

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

WIND LOADING: 30 p.s.f. normal to Sign Panel Area and truss elements not behind sign Loading Diagram.

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 with a minimum yield of 35,000 p.s.i., or A500 Grade B or C with a minimum yield of 46,000 p.s.i. 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 AASHTO M314 Gr. 36 or 55 with a minimum Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F.

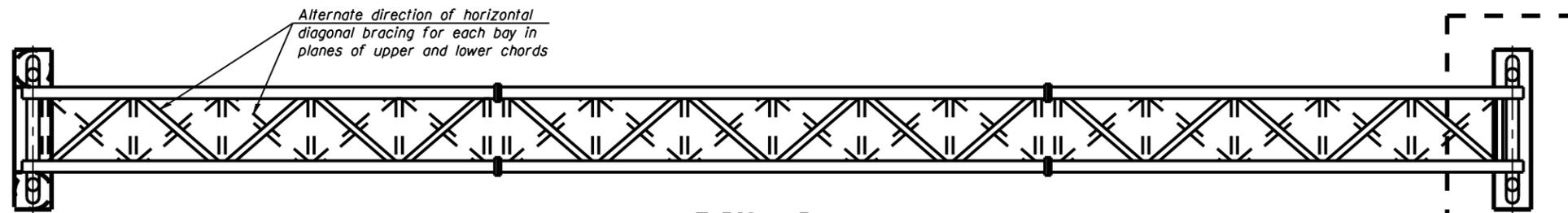
CONCRETE SURFACES: All concrete surfaces above an elevation 6" below the lowest final ground line at each foundation shall be cleaned and coated with Bridge Seat Sealer in accordance with the Standard Specifications.

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

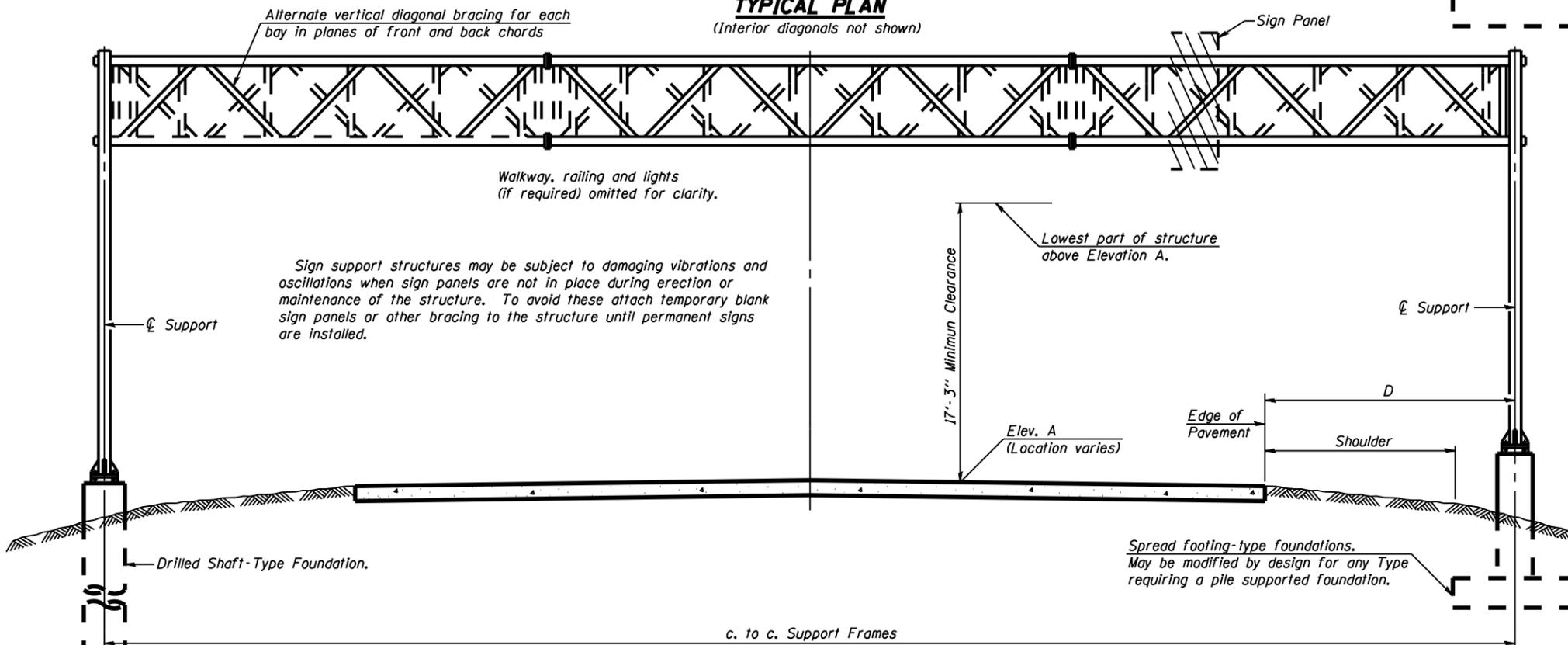
* If M270 Gr. 50W (M222) steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.

**OVERHEAD SIGN STRUCTURES
GENERAL PLAN & ELEVATION
ALUMINUM TRUSS & STEEL SUPPORTS**

**F.A.I. 72 (I-72)
SECTION D-6 ITS #2
SANGAMON COUNTY**



TYPICAL PLAN
(Interior diagonals not shown)

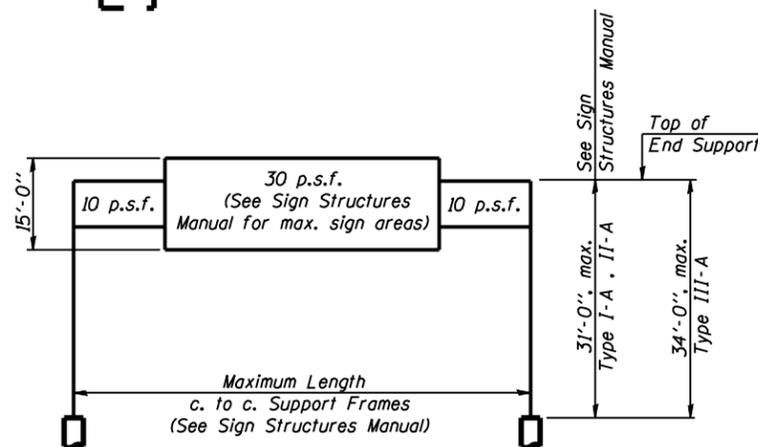


TYPICAL ELEVATION
(Looking at Face of Signs**)

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

Structure Number	Station	Design Truss Type	c. to c. Supports	Elev. A	Dim. D	Height of Tallest Sign	Total Sign Area
6S0841072R090.2	467+50.00	III-A	100'	621.54	42'-0"	8'-6"	221.0 S.F.
6S0841072L106.3	171+700.00	III-A	100'	549.64	32'-0"	8'-6"	221.0 S.F.

**Looking upstation for structures with signs both sides.



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.

DESIGNED -	200
CHECKED -	EXAMINED
DRAWN -	PASSED
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES

OS-A-1 7/01/2006

NUMBER	REVISION	DATE

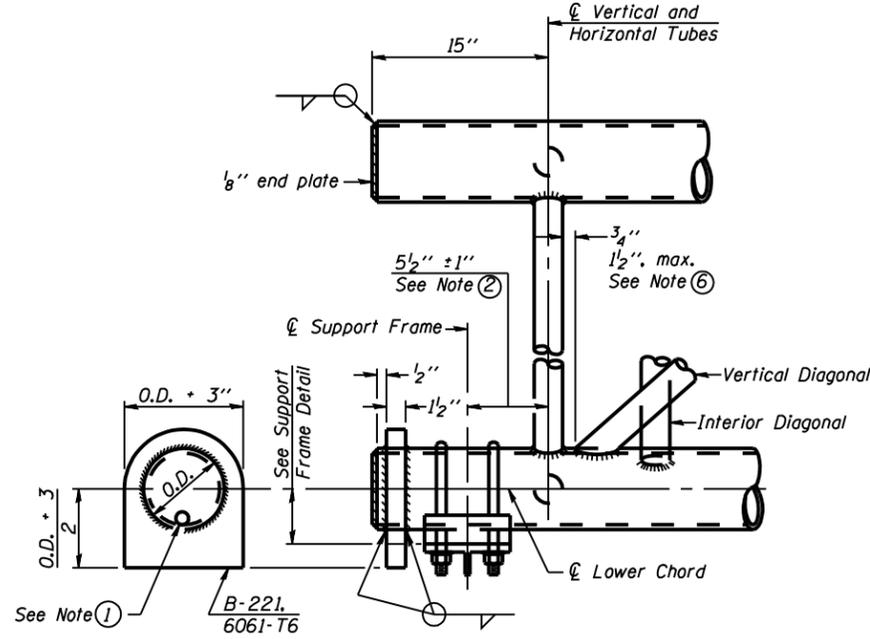
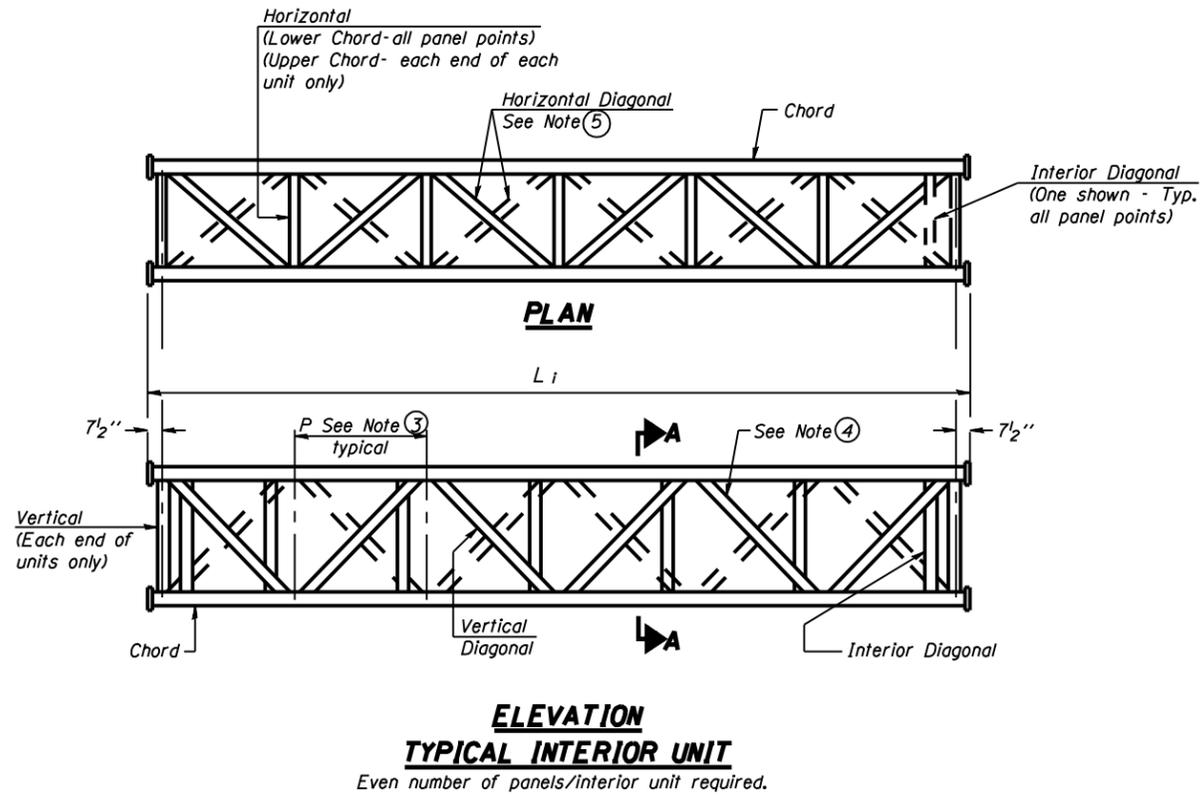
TOTAL BILL OF MATERIAL

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	200.0
OVERHEAD SIGN STRUCTURE WALKWAY TYPE A	Foot	69'-2"
CONCRETE FOUNDATIONS	Cu. Yds.	
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	40.6

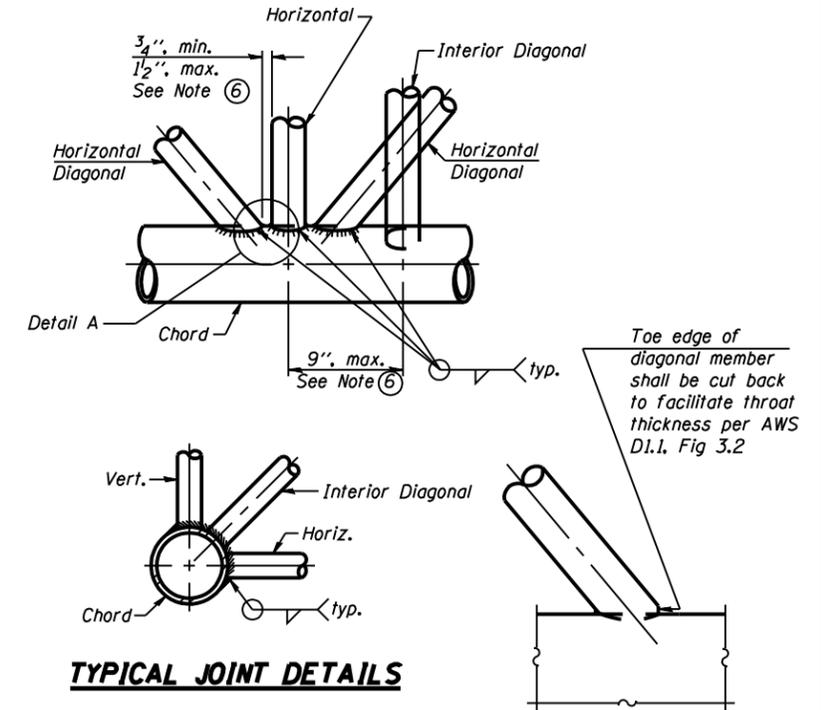
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO.
F.A.I. 72	D-6 ITS #2	SANGAMON	30	14	- SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract # 72A18

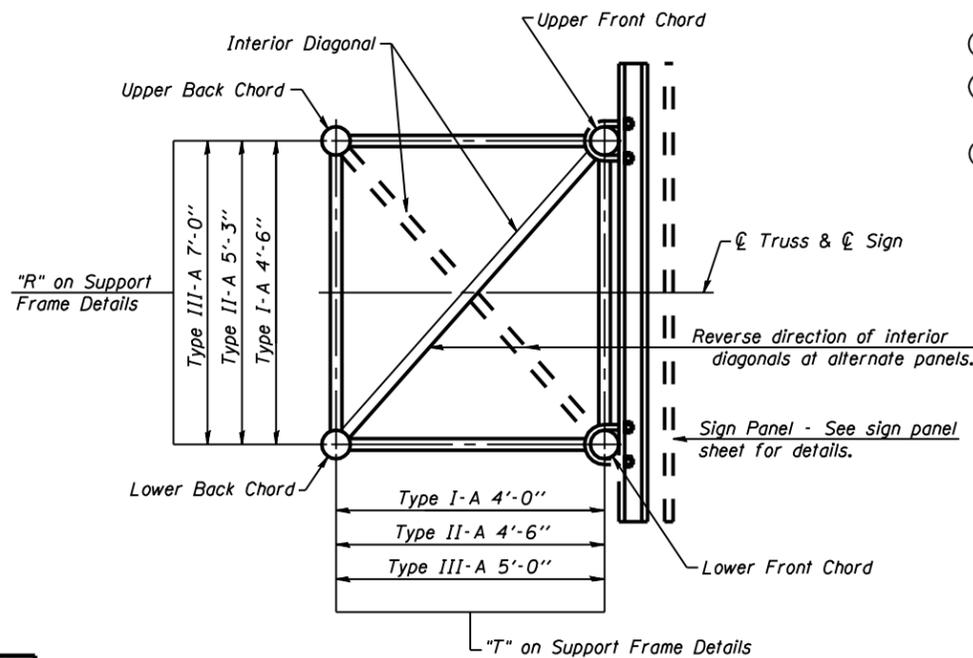
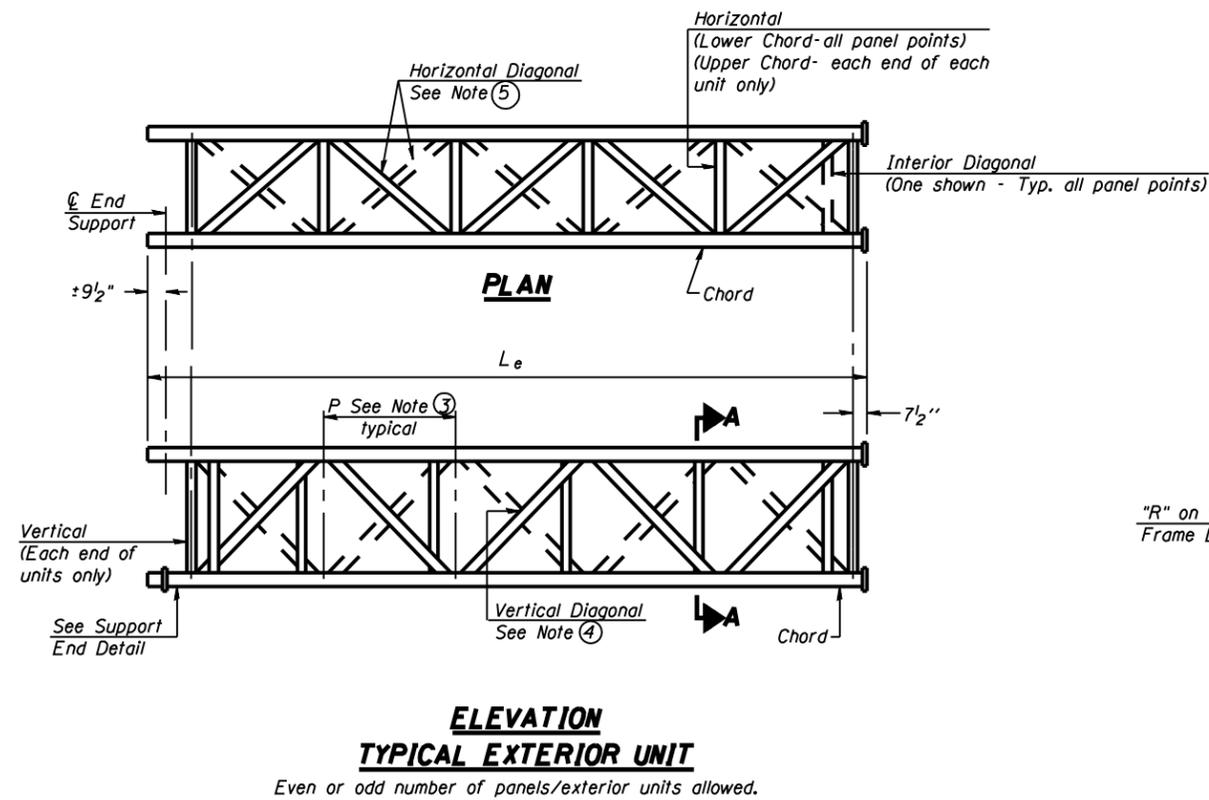


SUPPORT END DETAIL FOR EXTERIOR UNIT



TYPICAL JOINT DETAILS

DETAIL A



SECTION A-A

- NOTES**
- Contractor may alternatively use standard aluminum drive-fit cap to close end. 1/2" ϕ drain hole in end plate/drive-fit cap. (Typ. at ends of all chords)
 - 5 1/2" end dimension may vary by $\pm 1"$ to provide uniform panel spacing (P).
 - 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.
 - Vertical Diagonals in front and back face shall alternate.
 - Hidden lines show wind bracing alternates direction between planes of top and bottom chords.
 - All diagonals shall be detailed for minimum offset from the panel point based on the following: Offset shall be such as to provide a 3/4" minimum to 1 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.

**OVERHEAD SIGN STRUCTURES
ALUMINUM TRUSS DETAILS
FOR TRUSS TYPES I-A, II-A AND III-A**

F.A.I. 72 (I-72)
SECTION D-6 ITS #2
SANGAMON COUNTY

DESIGNED -	200
CHECKED -	EXAMINED
DRAWN -	PASSED
CHECKED -	

ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

NUMBER	REVISION	DATE

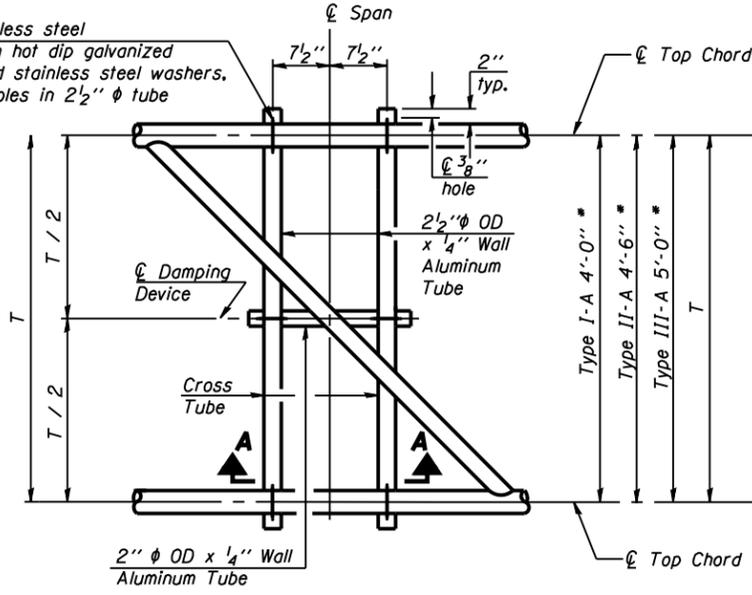
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

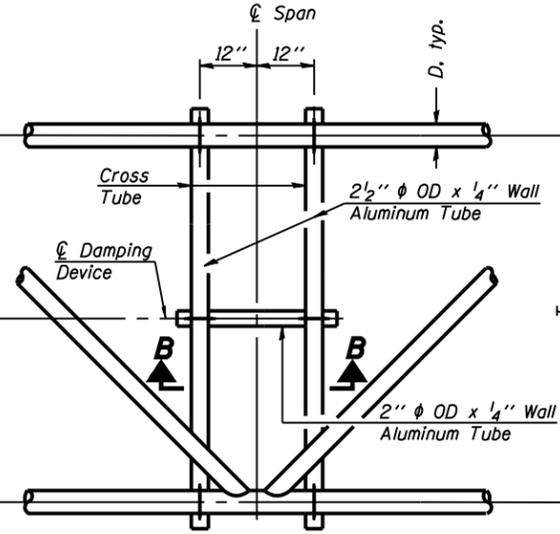
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F.A.I. 72	D-6 ITS #2	SANGAMON	30	16	- SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract # 72A18

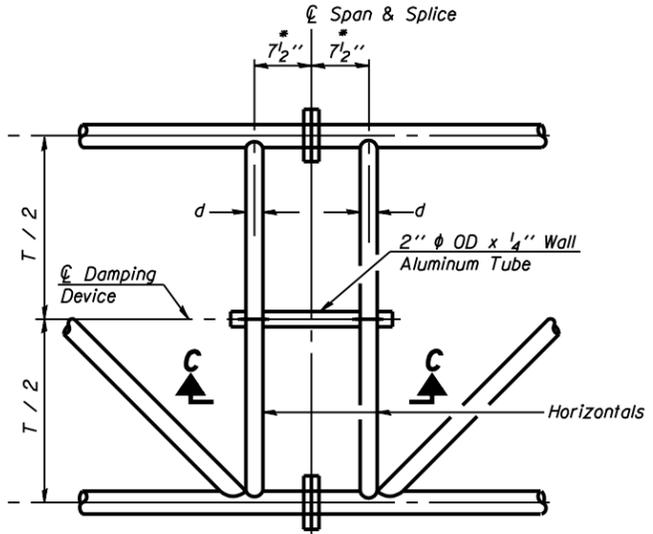
5/16" φ stainless steel U-bolt with hot dip galvanized locknuts and stainless steel washers. typ. 3/8" φ holes in 2 1/2" φ tube



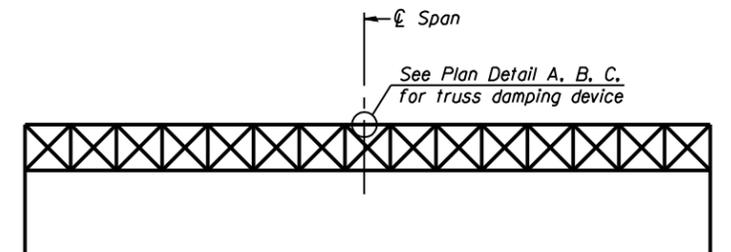
PLAN DETAIL "A"
Span between Panel Points



PLAN DETAIL "B"
Span at Panel Point

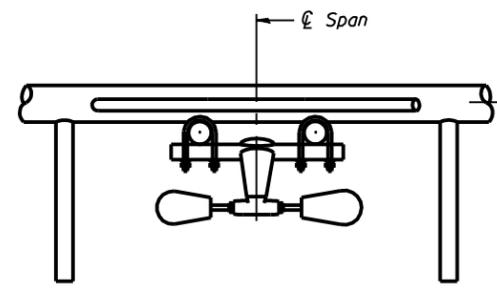


PLAN DETAIL "C"
Span at Chord Splice

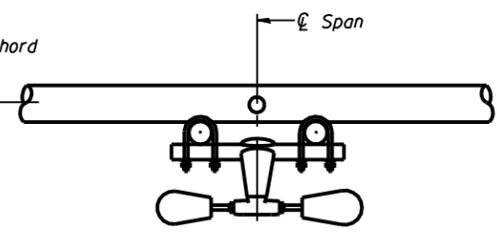


ELEVATION
Aluminum Overhead Sign Truss

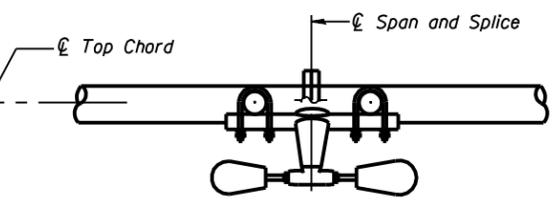
NOTES
Damper: One damper per truss. (31 lbs. Stockbridge-Type Aluminum) Cost included in Overhead Sign Structure...
Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6. Cost included in Overhead Sign Structure...



SECTION A-A

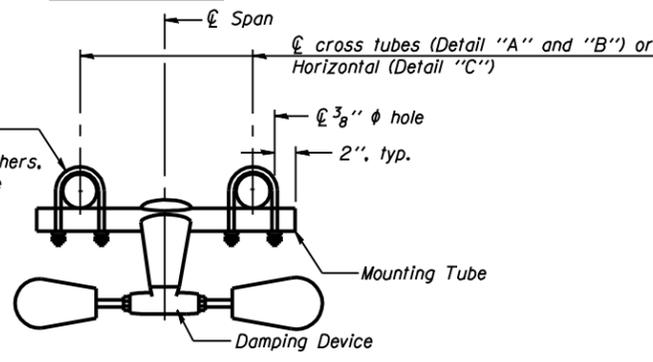


SECTION B-B

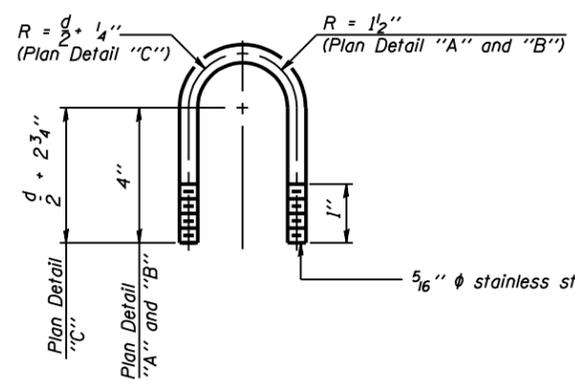


SECTION C-C

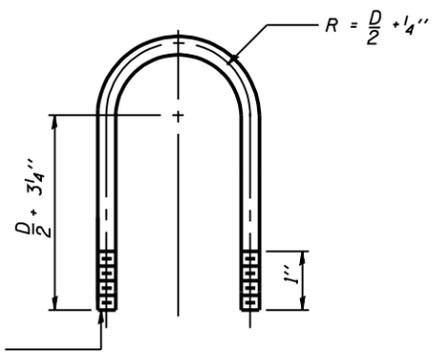
5/16" φ stainless steel U-bolt with hot dip galvanized locknuts and stainless steel washers. typ. 3/8" φ holes in mounting tube



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")

DESIGNED -	200
CHECKED -	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES

OS-A-D 7/01/2006

OVERHEAD SIGN STRUCTURE DAMPING DEVICE

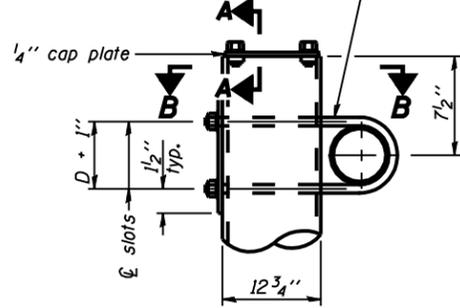
F.A.I. 72 (I-72)
SECTION D-6 ITS #2
SANGAMON COUNTY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

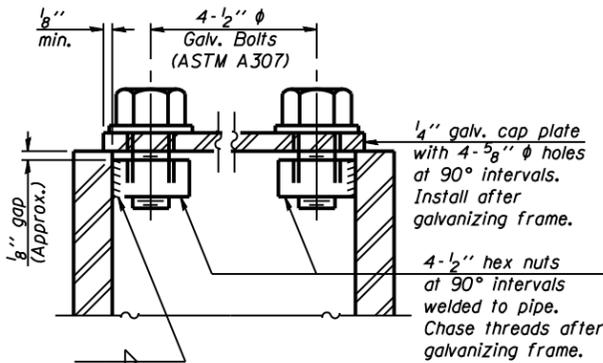
ROUTE NO.	SECTION	COUNTY	SHEET	SHEET	SHEET NO.
F.A.I. 72	D-6 ITS #2	SANGAMON	30	17	- SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract # 72A18

3/4" ϕ stainless steel U-bolt.
Provide two washers and two hexagon locknuts. (4)
1 3/16" x 2" slots on ϕ 12" ϕ pipe.
(4 slots required per pipe)

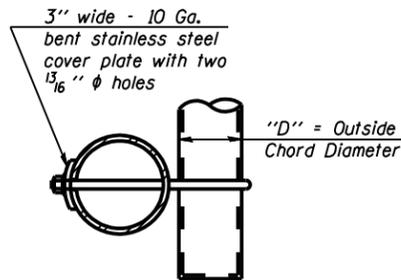


DETAIL A

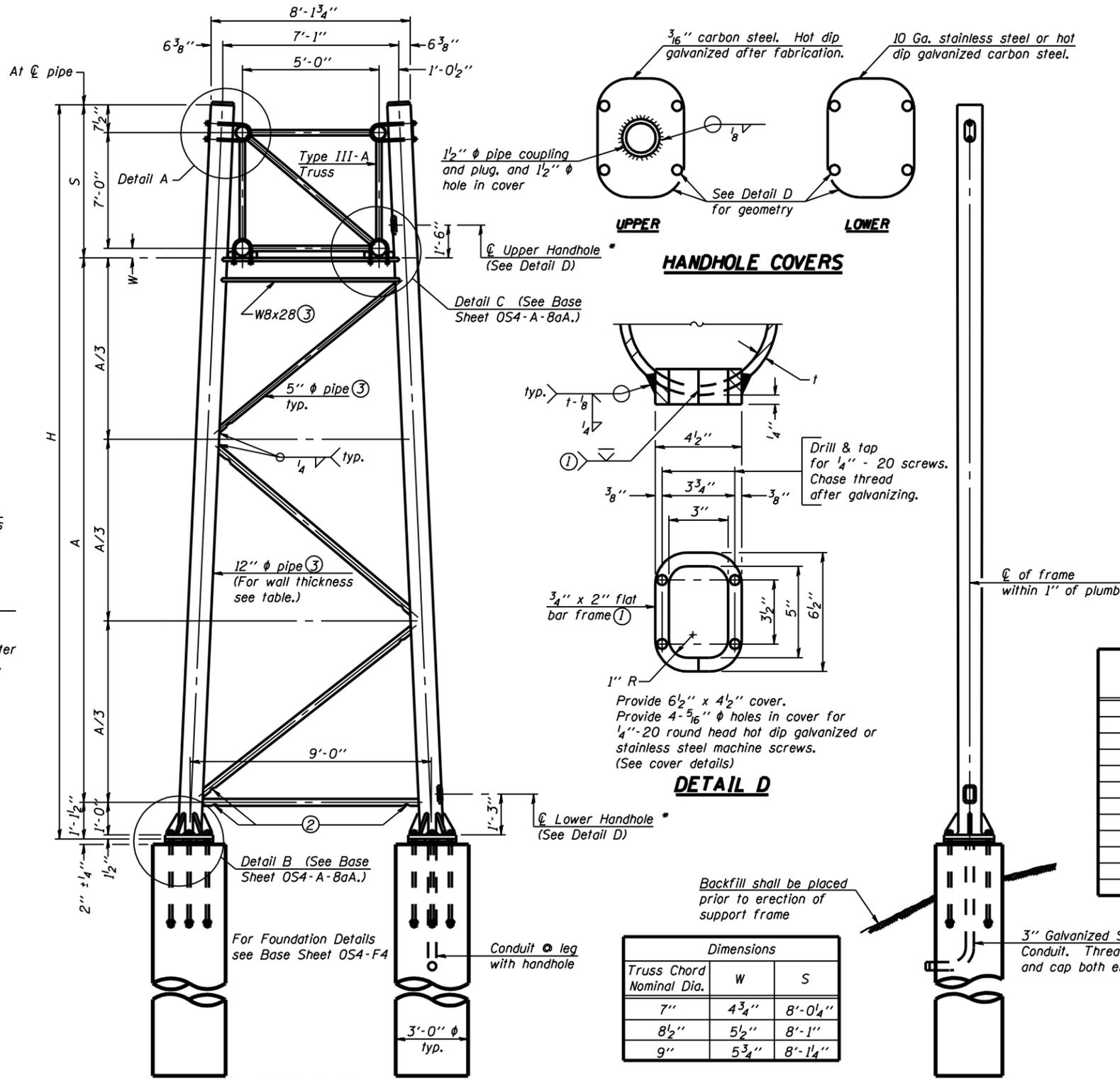


SECTION A-A

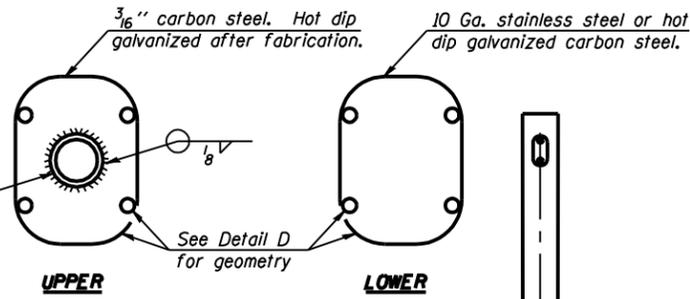
As an alternate to bolts, may use galvanized drive-fit caps installed after galvanizing frame.



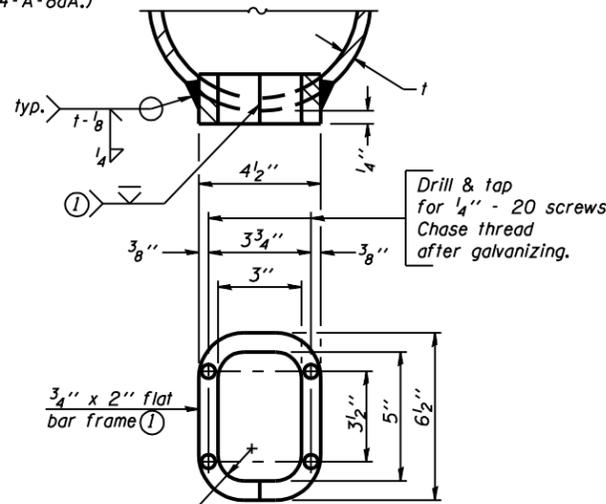
SECTION B-B



SIDE ELEVATION



HANDHOLE COVERS



DETAIL D

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"

TRUSS SUPPORT DETAILS

(12" ϕ Pipe-Type III-A Truss)

Support Design Loads: See Base Sheet OS-A-1 for design and loading criteria.

- Load combinations checked include deadload plus:
- 100% wind normal to sign, 20% parallel to sign
 - 60% wind normal to sign, 30% parallel to sign

- In lieu of fabricated handhole frame as shown, may cut from 2" plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 min or less.
- Galvanizing vent holes of adequate size shall be provided on underside at each end of bracing pipes. Alternately, holes may be provided in wall of pipe column. All vent holes shall be drilled and de-burred, typ.
- Steel pipe, plate, carbon steel handhole covers and rolled sections shall be hot dip galvanized after fabrication. Painting is not permitted. See Base Sheet OS-A-1.
- See General Notes for fasteners.
- Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.
- "H" based on 15'-0" or actual sign height, whichever is greater.

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

Structure Number	Station	Support		Pipe Wall Thickness	H (6)	A
		Left	Right			
6S0841072R090.2	467+50.00	X		0.33	30'-7 7/8"	21'-6 1/8"
			X	0.33	30'-7 7/8"	21'-6 1/8"
6S0841072L106.3	171+700.00	X		0.33	32'-1/2"	22'-10 3/4"
			X	0.33	29'-6 5/8"	20'-4 7/8"

DESIGNED -	200
CHECKED -	EXAMINED
DRAWN -	PASSED
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES

OS4-A-8a

7/01/2006

NUMBER	REVISION	DATE

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

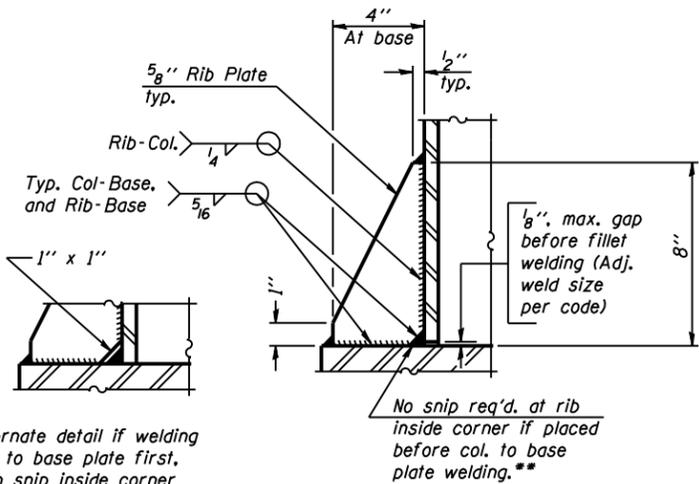
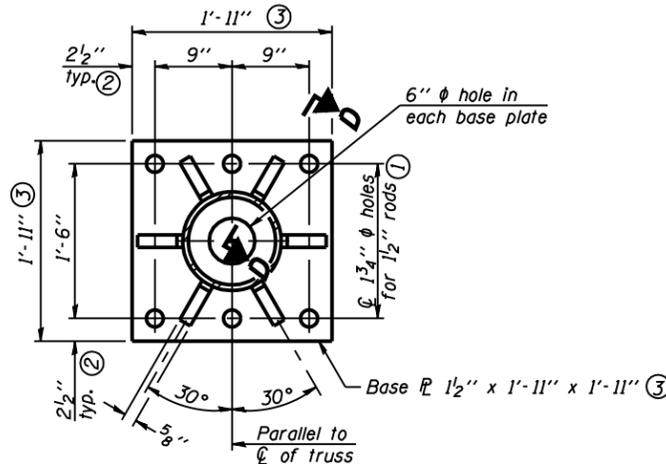
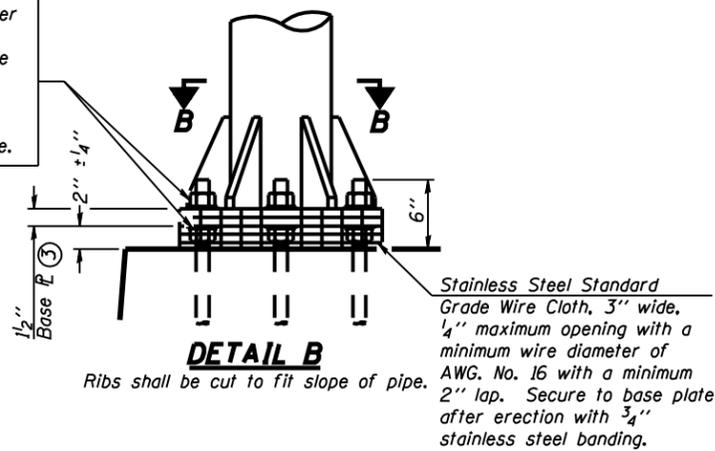
F.A.I. 72 (1-72)
SECTION D-6 ITS #2
SANGAMON COUNTY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

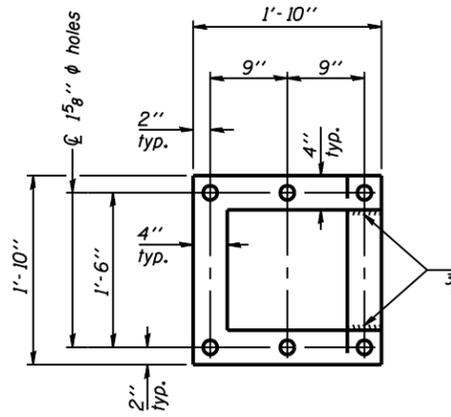
ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO.
F.A.I. 72	D-6 ITS #2	SANGAMON	30	18	- SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract # 72A18

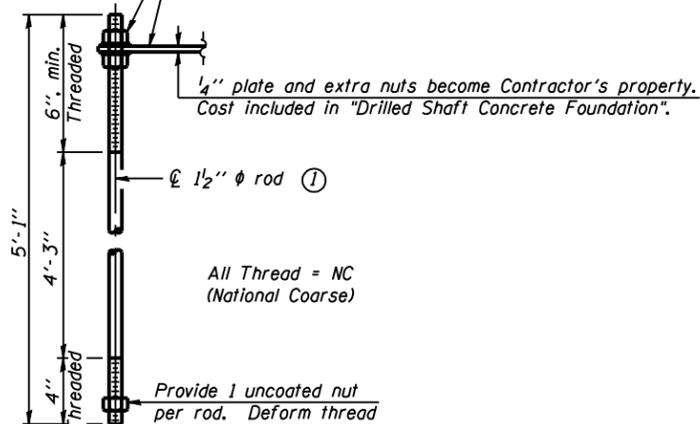
Hexagon locknut and washer (top), leveling nut and washer (bottom). Galvanize per AASHTO M232. Nuts shall each be tightened against base plate with 200 lb.-ft. minimum torque.



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



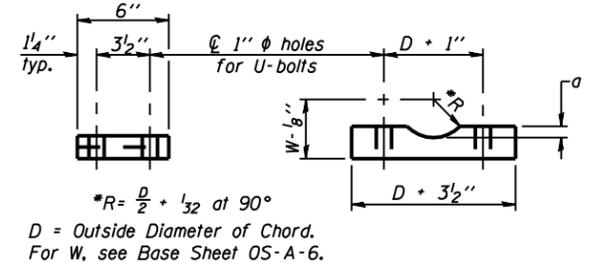
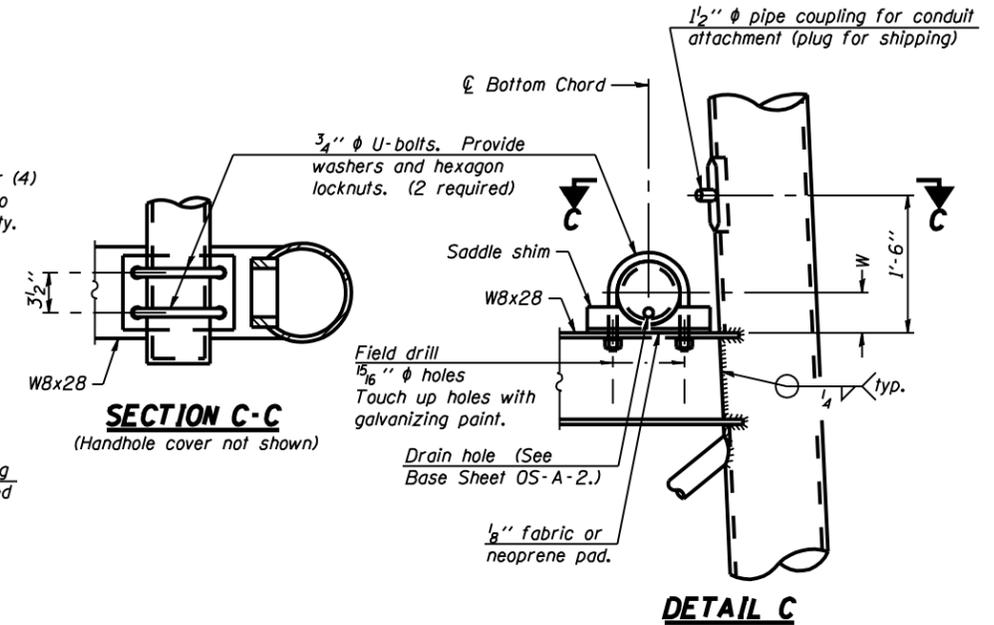
At each location, provide 1/4" thick positioning plate(s) and six (6) additional nuts to be used with leveling nuts to maintain anchor bolts position during concrete placement.



**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 3/4" ϕ rod, 2" ϕ holes
- ② 2 3/4" edge distance
- ③ Base P 1 5/8" x 1'-11 1/2" x 1'-11 1/2"



Truss Chord Nominal Dia.	a
7"	1"
8 1/2"	1 1/4"
9"	1 3/8"

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

DESIGNED -	
CHECKED -	
DRAWN -	
CHECKED -	

EXAMINED	200
PASSED	ENGINEER OF BRIDGE DESIGN
	ENGINEER OF BRIDGES AND STRUCTURES

NUMBER	REVISION	DATE

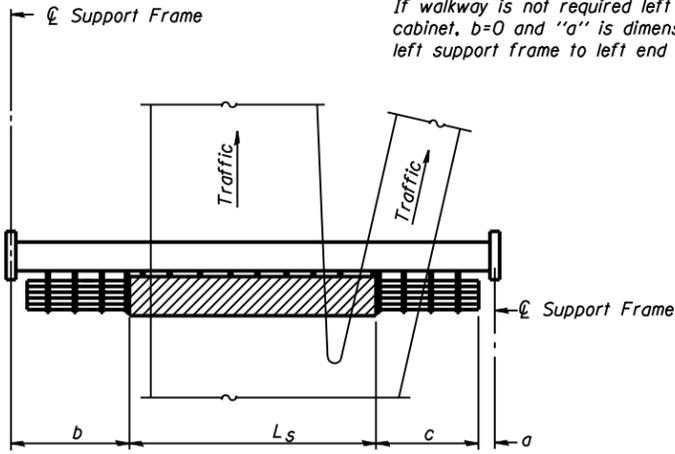
**OVERHEAD SIGN STRUCTURES
SUPPORT FRAME FOR
TYPE III-A ALUMINUM TRUSS**

**F.A.I. 72 (1-72)
SECTION D-6 ITS #2
SANGAMON COUNTY**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET	SHEET NO.
F.A.I. 72	D-6 ITS #2	SANGAMON	30	19	---
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

① If walkway is required left of the DMS cabinet, $a=1'-6''$ and b =walkway lengths. If walkway is not required left of the DMS cabinet, $b=0$ and " a " is dimension from left support frame to left end of cabinet.

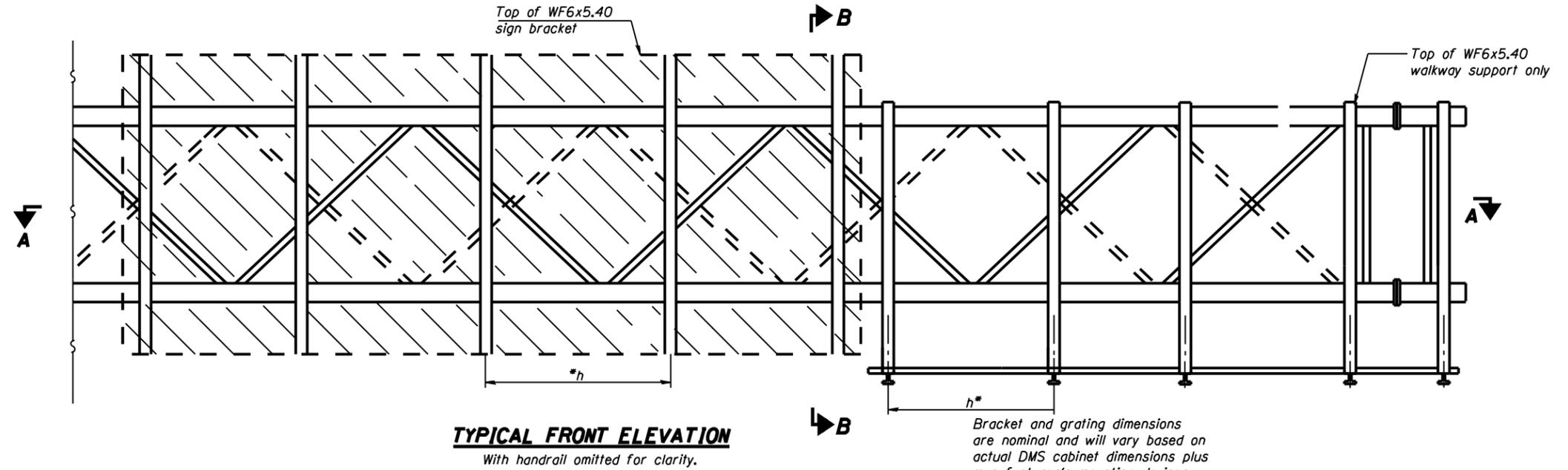


PLAN WALKWAY AND HANDRAIL SKETCH
(Road plan beneath truss varies)

BRACKET TABLE

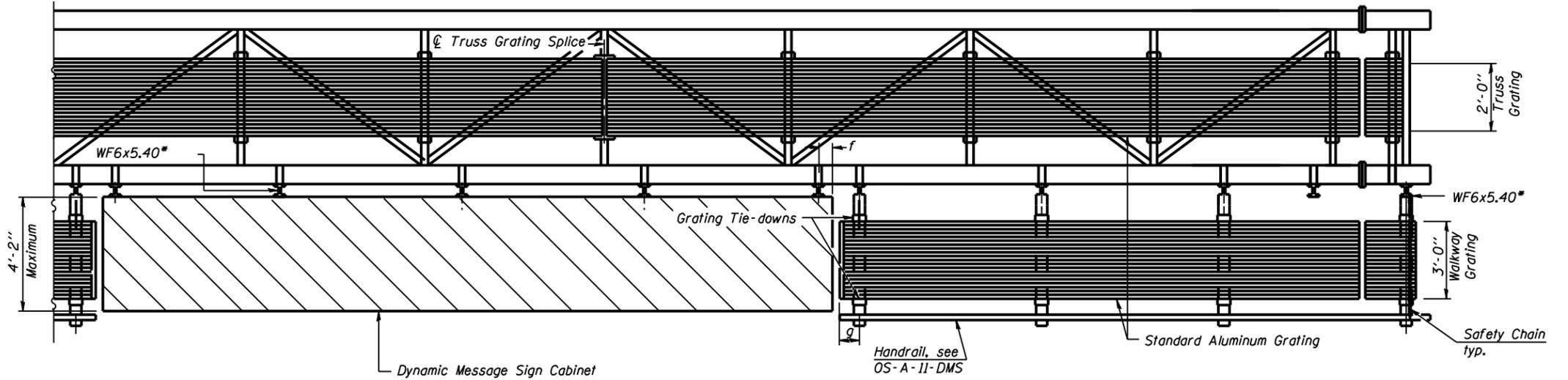
Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	8'-0"	2
8'-0"	14'-0"	3
14'-0"	20'-0"	4
20'-0"	26'-0"	5
26'-0"	32'-0"	6

Walkway and Truss Grating width dimensions are nominal and may vary $\pm 1/2''$ based on available standard widths.



TYPICAL FRONT ELEVATION
With handrail omitted for clarity.

Bracket and grating dimensions are nominal and will vary based on actual DMS cabinet dimensions plus manufacturer's mounting devices.



SECTION A-A

Handrail and walkway shall span a minimum of three brackets between splices and/or gap joints. Place all sign and walkway brackets as close to panel points as practical. Grating and handrail splices placed as needed.

Truss grating to facilitate inspection shall run full length (center to center of support frames) $\pm 12''$ on overhead trusses. Cost of truss grating is included in "Overhead Sign Structure".

Notes:

* Space walkway brackets WF6x5.40 for efficiency and within limits shown:

f = 12" maximum, 4" minimum (End of sign to \mathcal{C} of nearest bracket)

g = 12" maximum, 4" minimum (End of walkway grating to \mathcal{C} of nearest support bracket)

h = 6'-0" maximum (\mathcal{C} to \mathcal{C} sign and/or walkway support brackets, WF6x5.40)

Maximum DMS weight = 5000 lbs. 4'-2" maximum cabinet depth includes depth of cabinet plus connection to WF6x5.40.

For Section B-B and Grating Splice Details, see Base Sheet OS-A-10-DMS.

For Handrail Splice Details, see Base Sheet OS-A-11-DMS.

Structure Number	Station	a	b	c	L_s	Walkway Grating and Handrail Lengths
650841072R090.2	467+50.00	1'-6"	33'-0"	39'-6"	26'-0"	39'-6"
650841072L106.3	171+700.00	1'-6"	42'-10"	29'-8"	26'-0"	29'-8"

**OVERHEAD SIGN STRUCTURES
ALTERNATE ALUMINUM WALKWAY DETAILS
FOR DMS**

F.A.I. 72 (1-72)
SECTION D-6 ITS #2
SANGAMON COUNTY

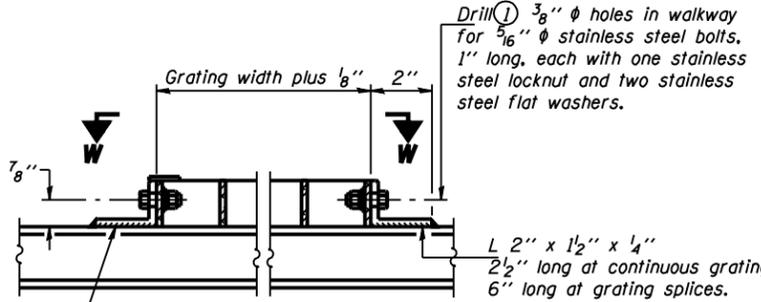
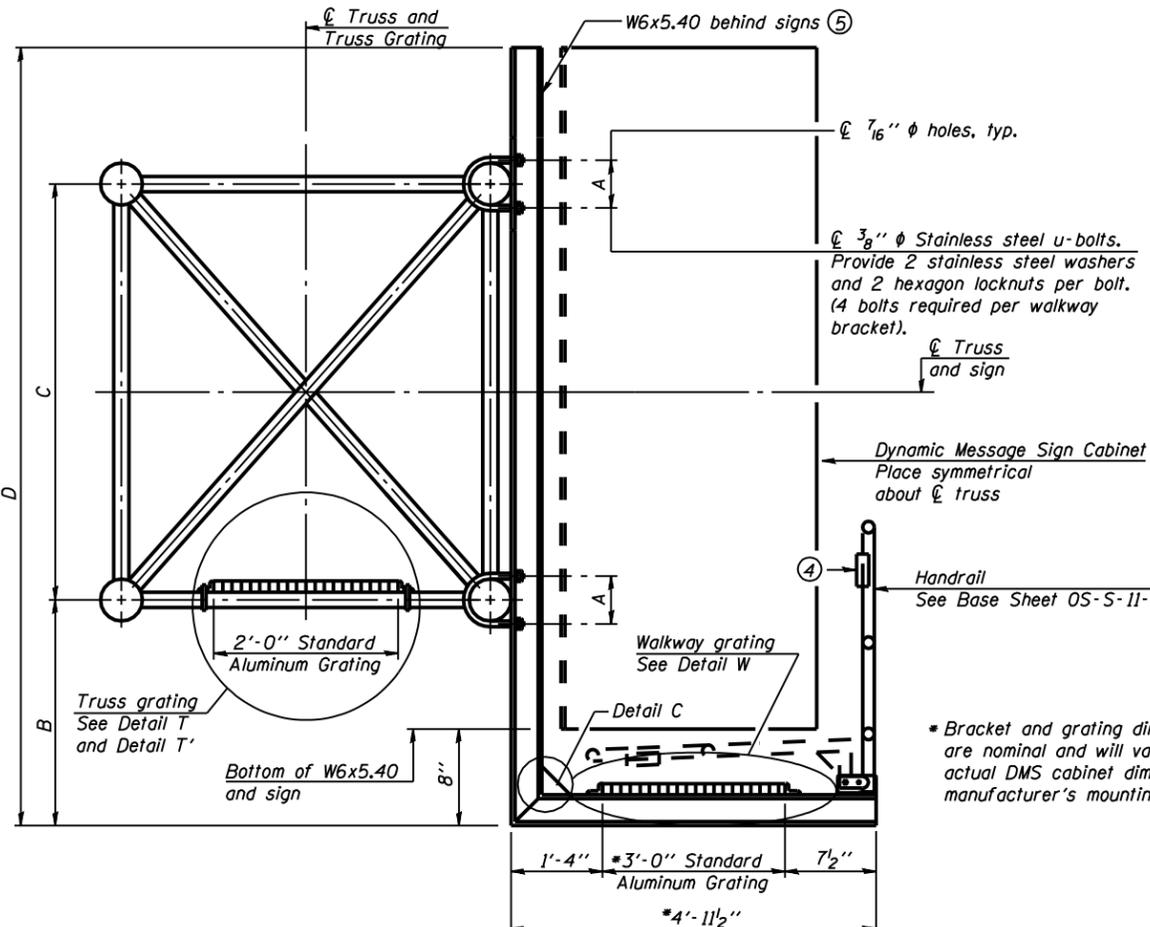
DESIGNED	
CHECKED	
DRAWN	
CHECKED	

EXAMINED	19
PASSED	

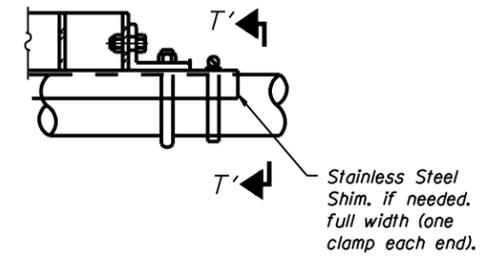
NUMBER	REVISION	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

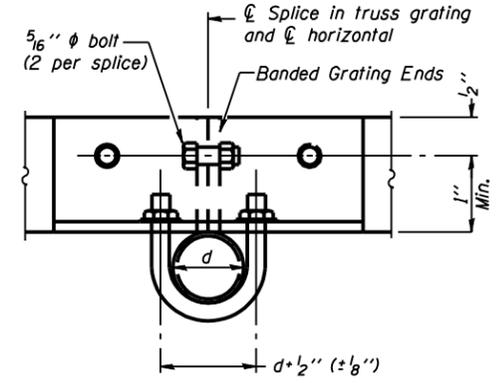
ROUTE NO.	SECTION	COUNTY	SHEETS	TOTAL
F.A.I. 72	D-6 ITS #2	SANGAMON	30	20



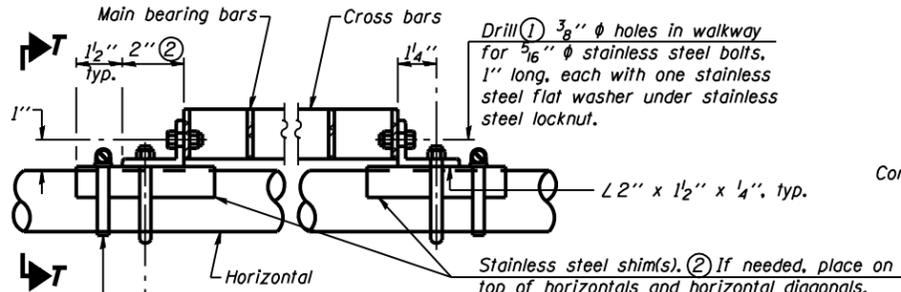
DETAIL W
(Walkway grating)



DETAIL T'
(Truss grating splice)
Details not shown same as Detail T. Alternate materials may be used subject to the Engineer's review and approval.



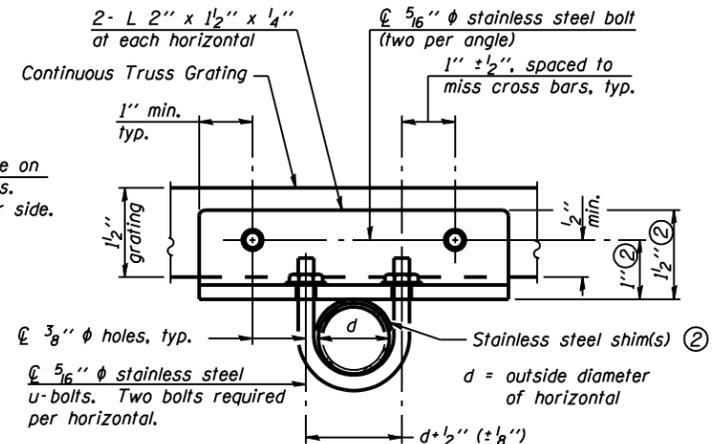
SECTION T'-T'



3/8" φ holes in angles for 5/16" φ stainless steel u-bolts. Two stainless steel washers and nuts required per bolt. U-bolt and angle connections required at horizontals only.

Screw type stainless steel tube clamp at shim location

DETAIL T
(Continuous Truss grating)



SECTION T-T

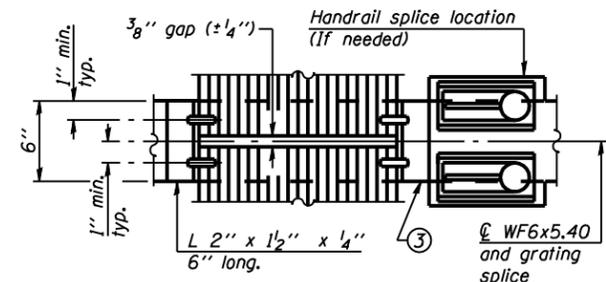
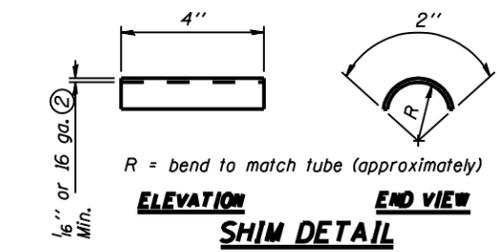
SPECIFICATIONS FOR STANDARD ALUMINUM GRATING

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.

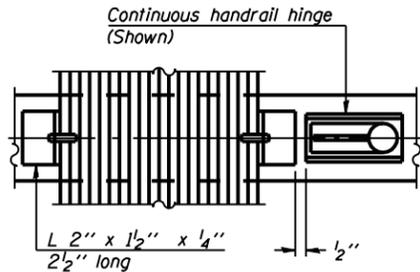
OR

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.

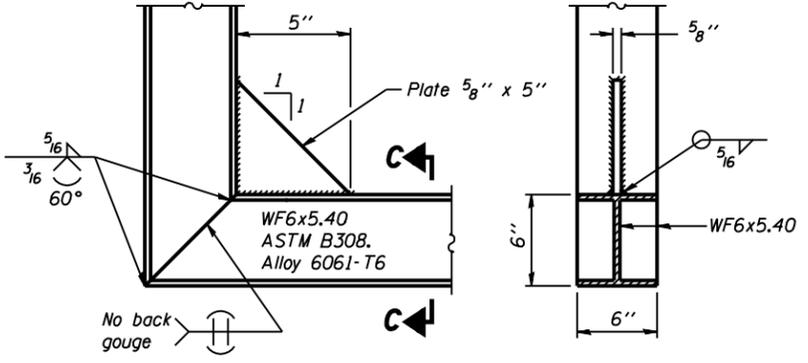


(AT WALKWAY GRATING SPLICE)



(CONTINUOUS WALKWAY GRATING)

SECTION W-W



DESIGNED	
CHECKED	
DRAWN	
CHECKED	

EXAMINED	
PASSED	

NUMBER	REVISION	DATE

Structure Number	Station	A	B	C	D
650841072R090.2	467+50.00	7 1/16"	1'-3"	7'-0"	8'-9"
650841072L106.3	171+700.00	7 1/16"	1'-3"	7'-0"	8'-9"

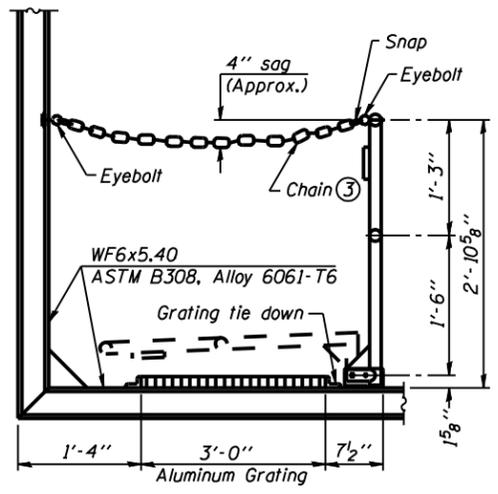
**OVERHEAD SIGN STRUCTURES
ALTERNATE ALUMINUM WALKWAY DETAILS
FOR DMS**

F.A.I. 72 (I-72)
SECTION D-6 ITS #2
SANGAMON COUNTY

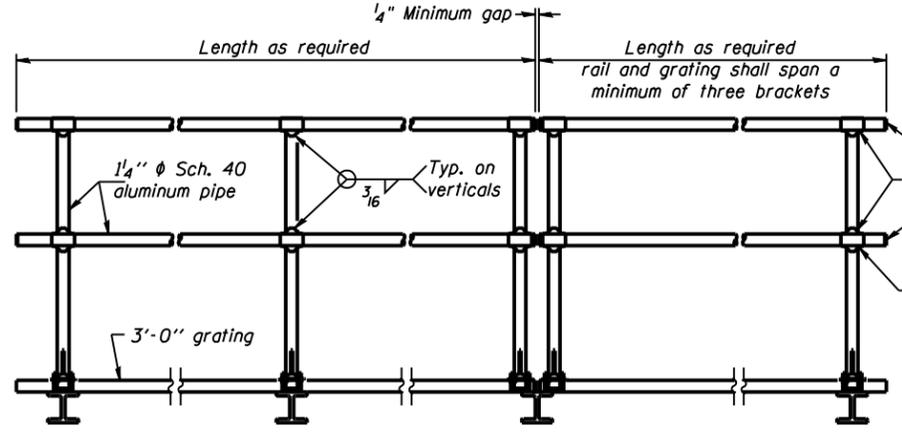
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO.
F.A.I. 72	D-6 ITS #2	SANGAMON	30	21	- SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract # 72A18



SIDE ELEVATION
(Showing safety chain w/o sign)



FRONT ELEVATION

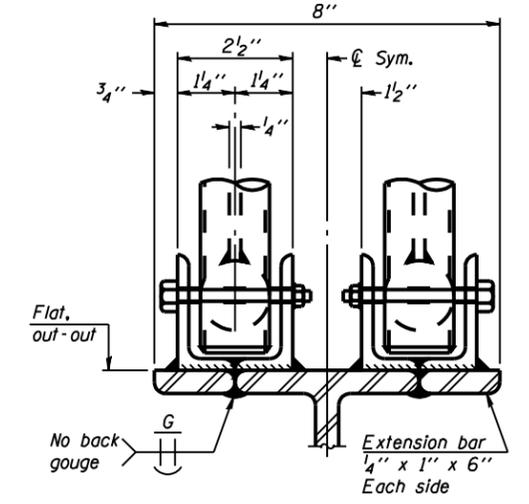
HANDRAIL DETAILS

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

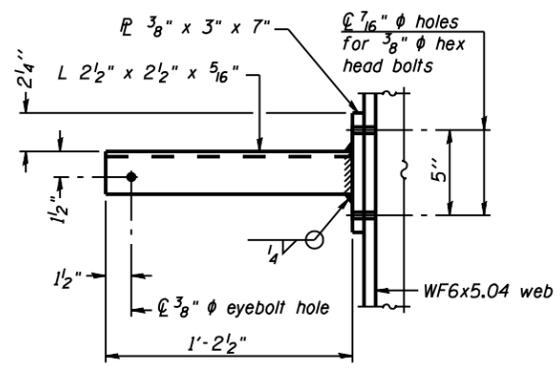
② Horizontal handrail member shall be continuous thru fitting. Provide 7/16" φ hole in fitting for 3/8" φ bolt. Field drill 7/16" φ hole in horizontal rail member. Provide washer and locknut for bolt. (Use 5/16" eyebolts in 7/16" φ holes on top rail at ends only.)

① Install standard force-fit end caps or weld 3/8" end plates with 1/8" c.f.w. and grind smooth. (All rail ends)

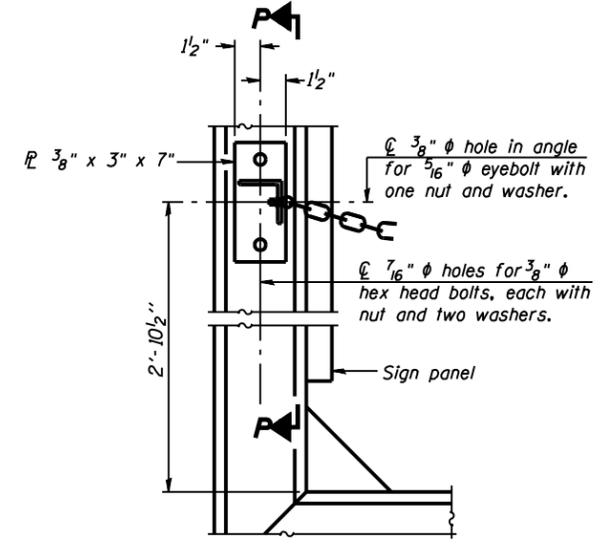
Fittings-ASTM B26, Alloy 356-T7 or 1 1/2" φ aluminum pipe



ELEVATION AT HANDRAIL JOINT ④

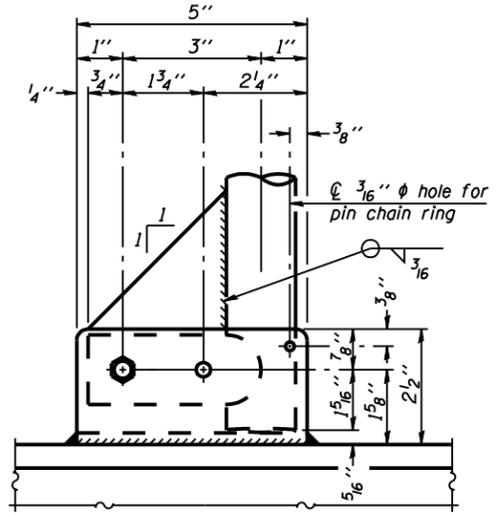


SECTION P-P

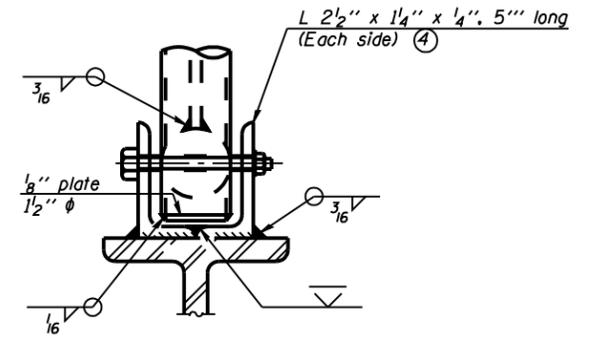


ALTERNATE SAFETY CHAIN ATTACHMENT

(With Sign Present)
Items not shown same as "Side Elevation" of "Handrail Details"

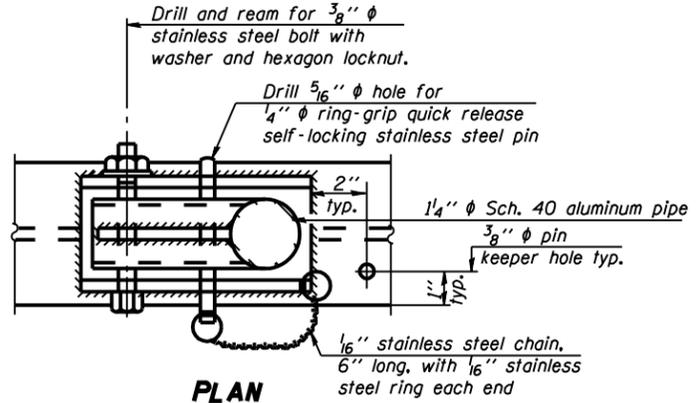


SIDE ELEVATION

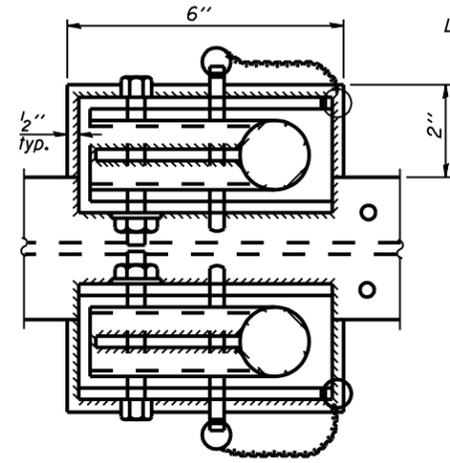


FRONT ELEVATION

See "ELEVATION" at right for dimensions.

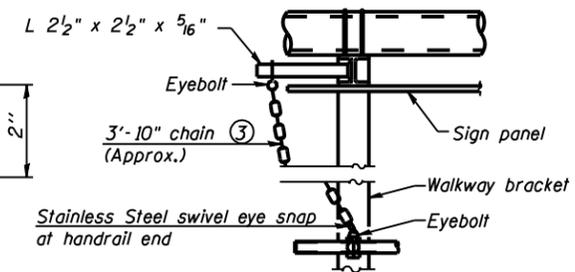


PLAN
DETAIL E HANDRAIL HINGE



PLAN AT HANDRAIL JOINT

Details not shown same as "PLAN"

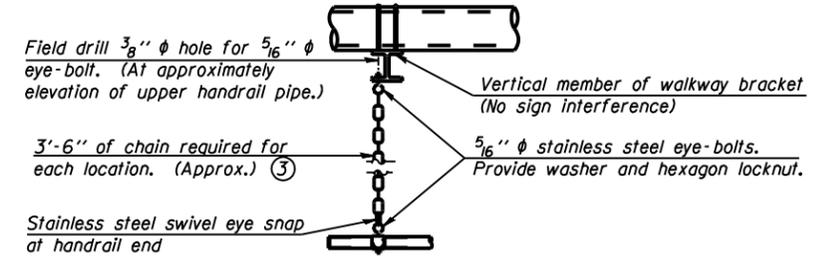


ALTERNATE SAFETY CHAIN ATTACHMENT

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

③ 3/16" type 304L stainless steel chain, approximately 12 links per foot.

④ Extrusions may be used in lieu of the details shown, with approval of the Engineer.



SAFETY CHAIN

One required for each end of each walkway.

**OVERHEAD SIGN STRUCTURES
ALTERNATE ALUMINUM HANDRAIL DETAILS
FOR DMS**

F.A.I. 72 (I-72)
SECTION D-6 ITS #2
SANGAMON COUNTY

DESIGNED -	200
CHECKED -	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES

NUMBER	REVISION	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO.
F.A.I. 72	D-6 ITS #2	SANGAMON	30	22	- SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

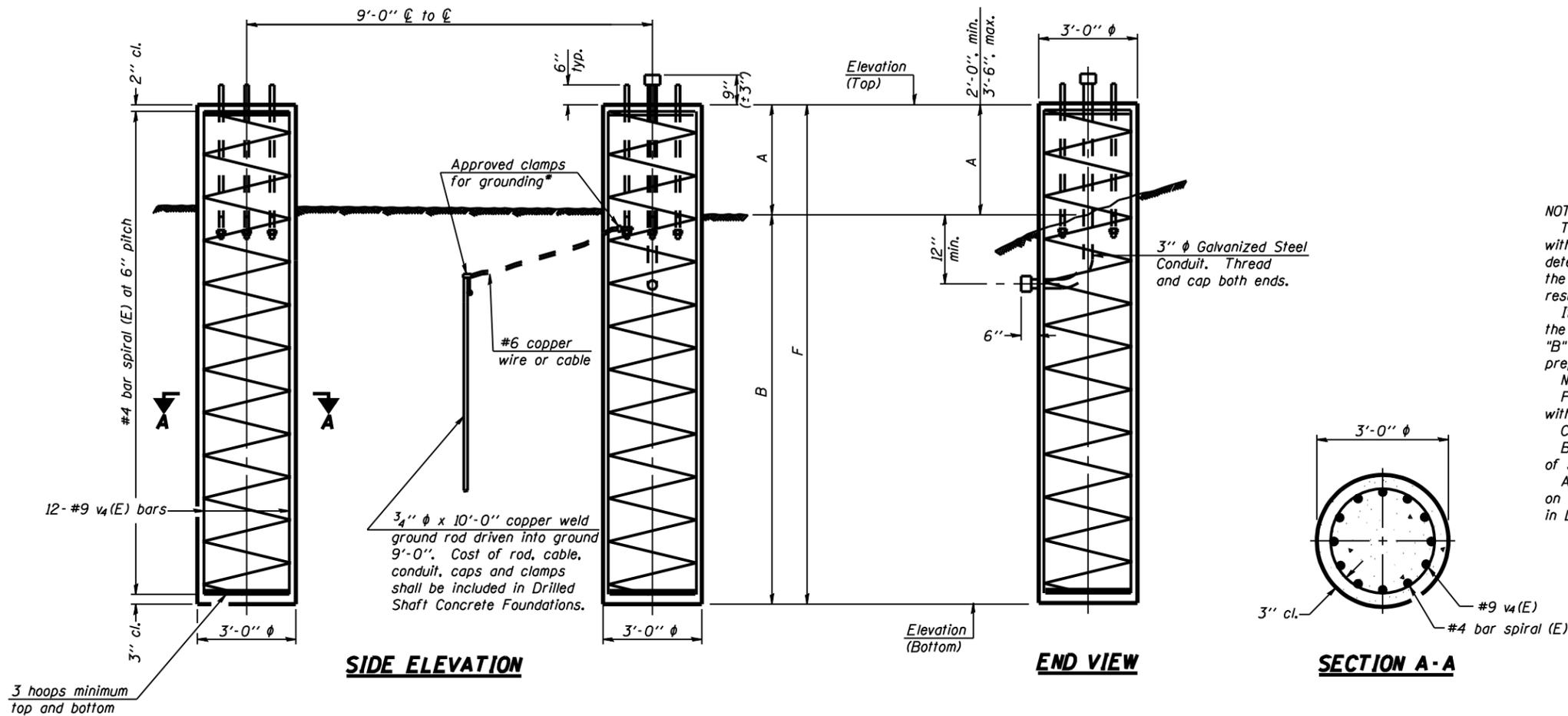
Contract # 72A18

For anchor rod size and placement, see Support Frame Detail Sheet.

* Anchor rod shall be ground or filed to bright metal at clamp and cable connection location.

BAR LIST - EACH FOUNDATION

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



NOTES:

The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Q_u) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown will be the result of site specific designs.

If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.

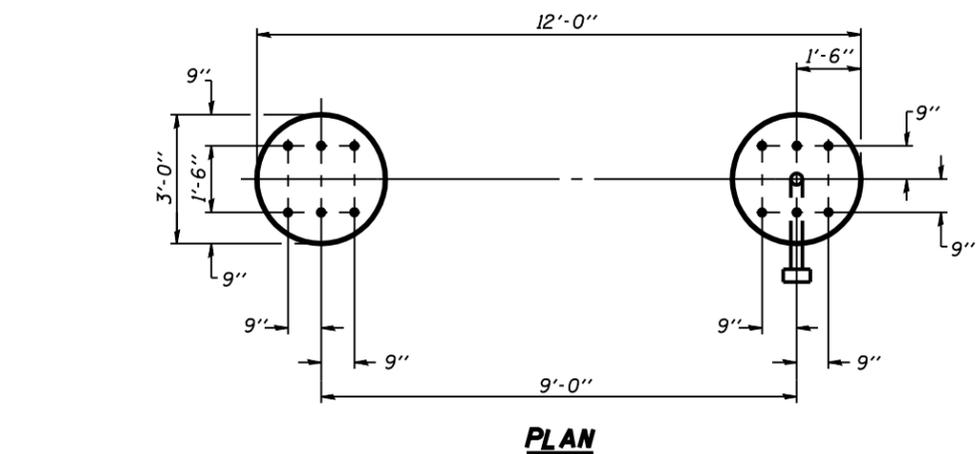
No sonotubes or decomposable forms shall be used below the lower conduit entrance. Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

Concrete shall be placed monolithically, without construction joints.

Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

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

Structure Number	Station	Left Foundation			Right Foundation			Class SI Concrete (Cu. Yds.)				
		Elevation Top	Elevation Bottom	A	B	F	Elevation Top		Elevation Bottom	A	B	F
6S0841072R090.2	467+50.00						620.26	595.26	2'-0"	23'-0"	25'-0"	13.1
6S0841072L106.2	171+700.00						549.46	534.00	2'-0"	13'-6"	15'-6"	8.1



DESIGNED -	200
CHECKED -	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES

NUMBER	REVISION	DATE

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

**OVERHEAD SIGN STRUCTURES
DRILLED SHAFT DETAILS**

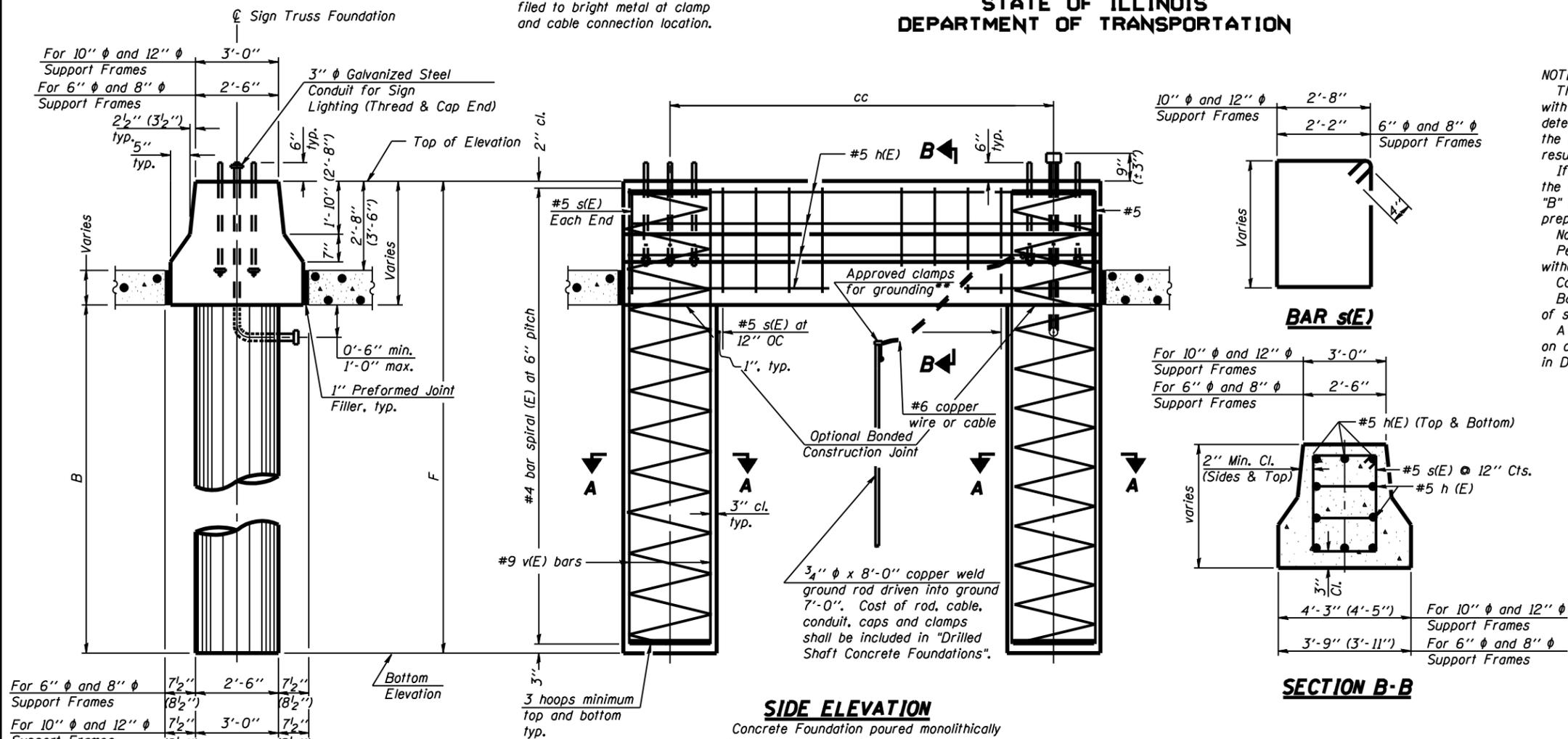
F.A.I. 72 (I-72)
SECTION D-6 ITS #2
SANGAMON COUNTY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO.
F.A.I. 72	D-6 ITS #2	SANGAMON	30	23	- SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract # 72A18

* Anchor rod shall be ground or filed to bright metal at clamp and cable connection location.



NOTES:
The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Q_u) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown will be the result of site specific designs.
If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.
No sonotubes or decomposable forms shall be used below the lower conduit entrance. Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.
Concrete shall be placed monolithically, without construction joints.
Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.
A normal surface finish followed by a Bridge Seat Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in Drilled Shaft Concrete Foundation.

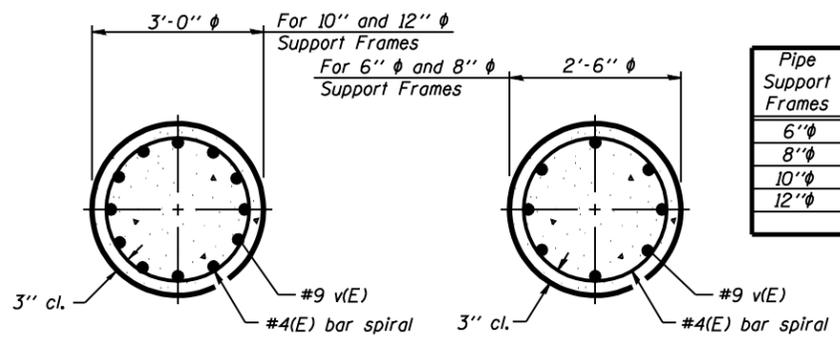
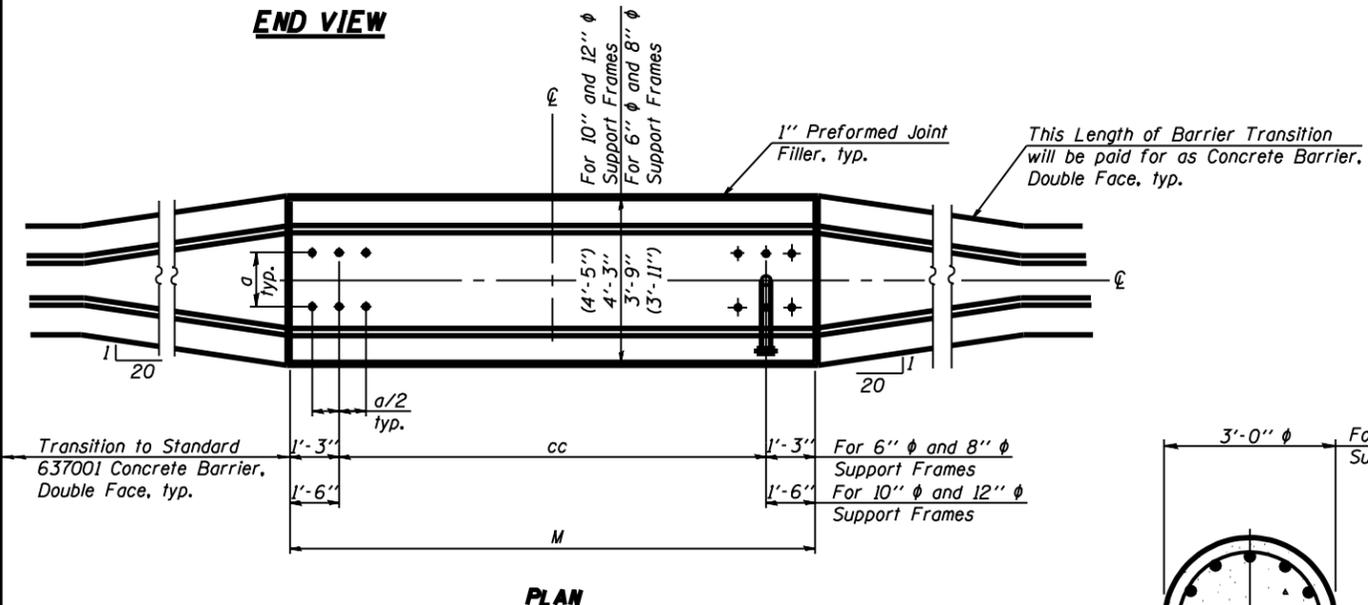
BAR LIST - EACH FOUNDATION

Bar	Number	Size	Length	Shape
h(E)	10	#5	M less 4"	—
s(E)	Varies	#5	Varies	□
v(E)	16	#9	F less 0'-5"	—
v(E)	24	#9	F less 0'-5"	—

6" φ and 8" φ Support Frame
10" φ and 12" φ Support Frame
#4(E) bar spiral - see Side Elevation

All dimensions in parenthesis are for 42" high barrier.

Structure Number	Station	Left Foundation		Right Foundation		Class S1 Concrete (Cu. Yds.)	
		Elevation Top	Elevation Bottom	B	F		Elevation Top
6S0841072R090.2	467+50.00	620.26	595.26	23'-0"	25'-0"	13.1	
6S0841072L106.2	171+700.00	546.98	534.98	10'-0"	12'-0"	6.3	



Pipe Support Frames	cc	M	a	a/2
6" φ	7'-0"	9'-6"	0'-11"	5 1/2"
8" φ	7'-6"	10'-0"	1'-1 1/2"	6 3/4"
10" φ	8'-3"	11'-3"	1'-3"	7 1/2"
12" φ	9'-0"	12'-0"	1'-6"	9"

**OVERHEAD SIGN STRUCTURES
MEDIAN SUPPORT FOUNDATION DETAILS**

F.A.I. 72 (I-72)
SECTION D-6 ITS #2
SANGAMON COUNTY

DESIGNED - _____
CHECKED - _____
DRAWN - _____
CHECKED - _____

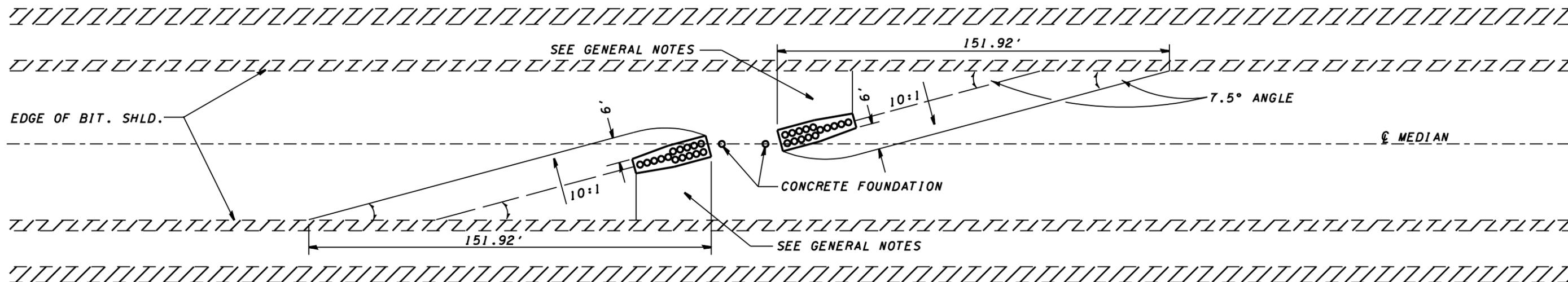
EXAMINED - _____
PASSED - _____

200
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

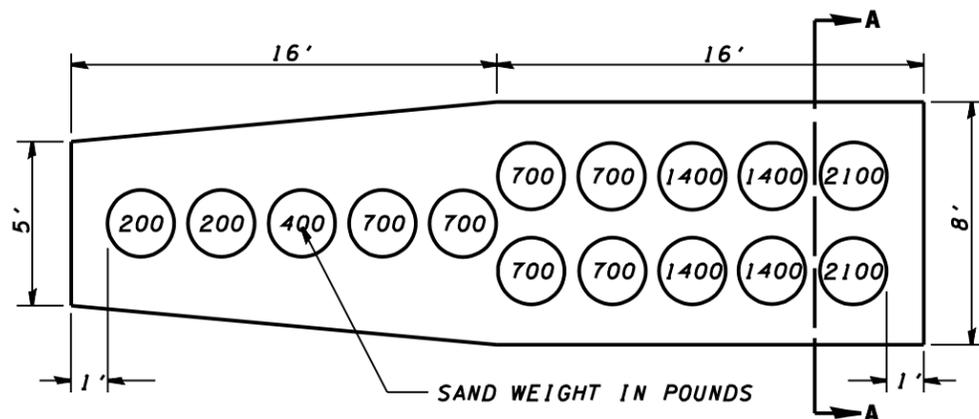
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	D-6 ITS *2	SANGAMON	30	24
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

GENERAL NOTES

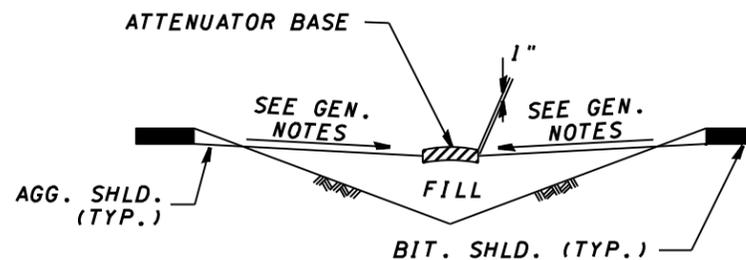
1. THE 10:1 SLOPE CONTROLS NOSE OF ATTENUATOR BASE ELEVATION.
2. ATTENUATOR BASE GRADE PARALLEL'S EDGE OF PAVEMENT GRADE.
3. SLOPE ADJACENT TO ATTENUATOR BASE SHALL BE 10:1 OR FLATTER.
4. ANY EARTHWORK, INCLUDING GRADING, COMPACTION, AND SEEDING ASSOCIATED WITH THE INSTALLATION OF THE ATTENUATOR BASE IS CONSIDERED INCLUDED IN THE PRICE OF THE ATTENUATOR BASE.
5. ANY EXISTING DRAINAGE STRUCTURES LOCATED WITHIN THE WORKING AREA SHALL BE MODIFIED OR LEFT IN PLACE. WHERE THE EXISTING DRAINAGE STRUCTURES ARE TO REMAIN IN PLACE, THE SLOPES ARE TO BE CONSTRUCTED AS DIRECTED BY THE ENGINEER.
6. ATTENUATOR BASE THICKNESS SHALL BE ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS.



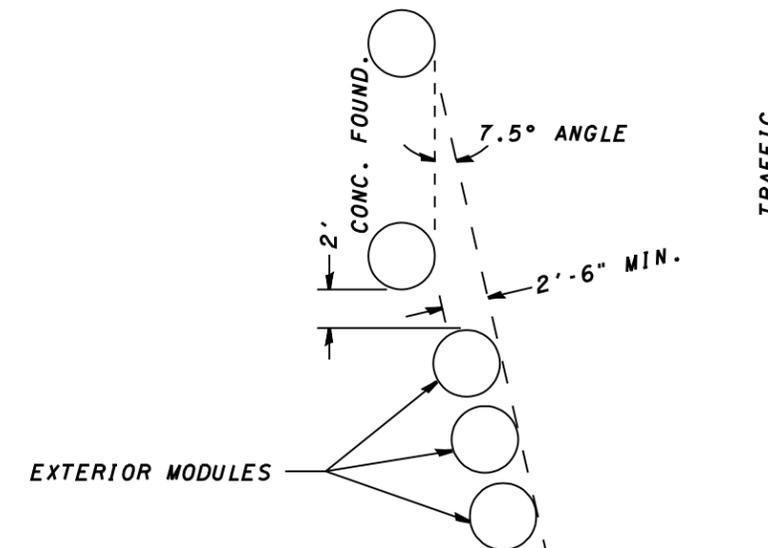
INERTIAL BARRIER LAYOUT AND GRADING PLAN



INERTIAL BARRIER MODULE ARRAY AND ATTENUATOR BASE PLAN



SECTION A - A



EXTERIOR MODULE LAYOUT

QUANTITIES

ITEM	UNIT	TOTAL
IMPACT ATTENUATOR (NON-REDIRECTIVE), TEST LEVEL 3	EACH	4
ATTENUATOR BASE	SO. YD.	103.2

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

INERTIAL BARRIER INSTALLATION DETAILS

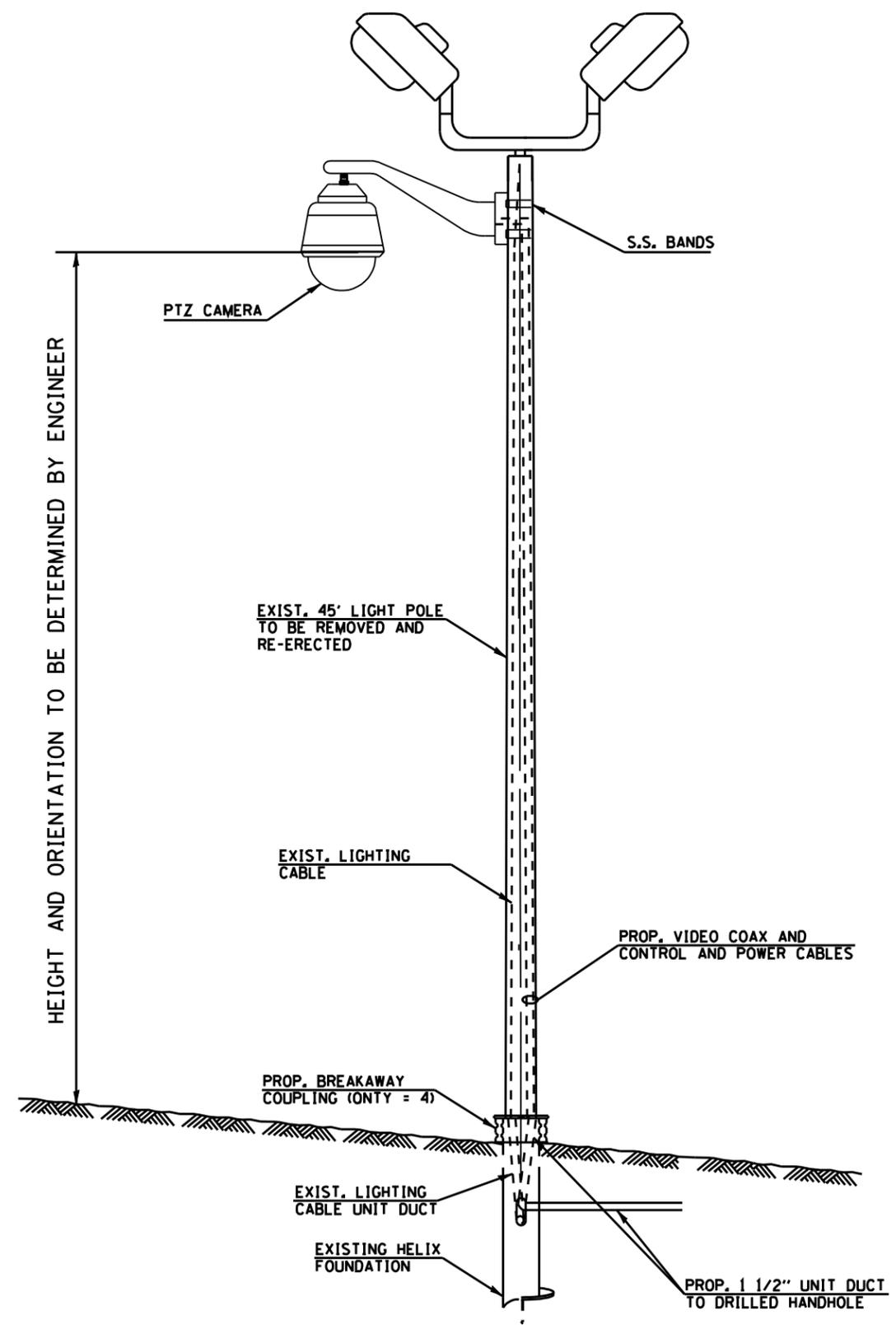
SCALE: VERT. HORIZ. DATE

DRAWN BY CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	D-6 ITS #1	SANGAMON	30	26
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

NOTES:

1. THE CONTRACTOR SHALL SUBMIT DETAIL PLANS AND CALCULATIONS OF CCTV ARM AND MOUNTING HARDWARE FOR THE POLE FOR APPROVAL BY THE ENGINEER.
2. MOUNTING BRACKET DETAILS MAY VARY DEPENDING UPON EQUIPMENT MANUFACTURER.
3. INSTALL GROUNDING SYSTEM IN ACCORDANCE WITH SECTION 807 OF THE IDOT STANDARD SPECIFICATIONS.
4. CONTRACTOR SHALL CONTACT ENGINEER DURING CAMERA INSTALLATION TO DETERMINE ACTUAL CAMERA HEIGHT AND ORIENTATION IN FIELD



PROPOSED CAMERA INSTALLATION
NOT TO SCALE

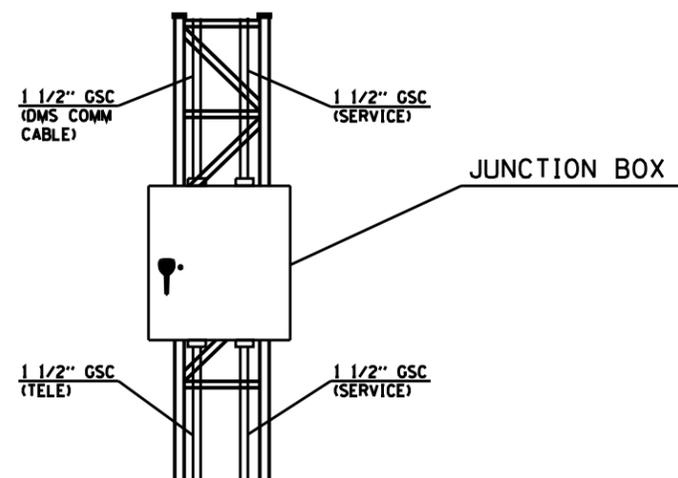
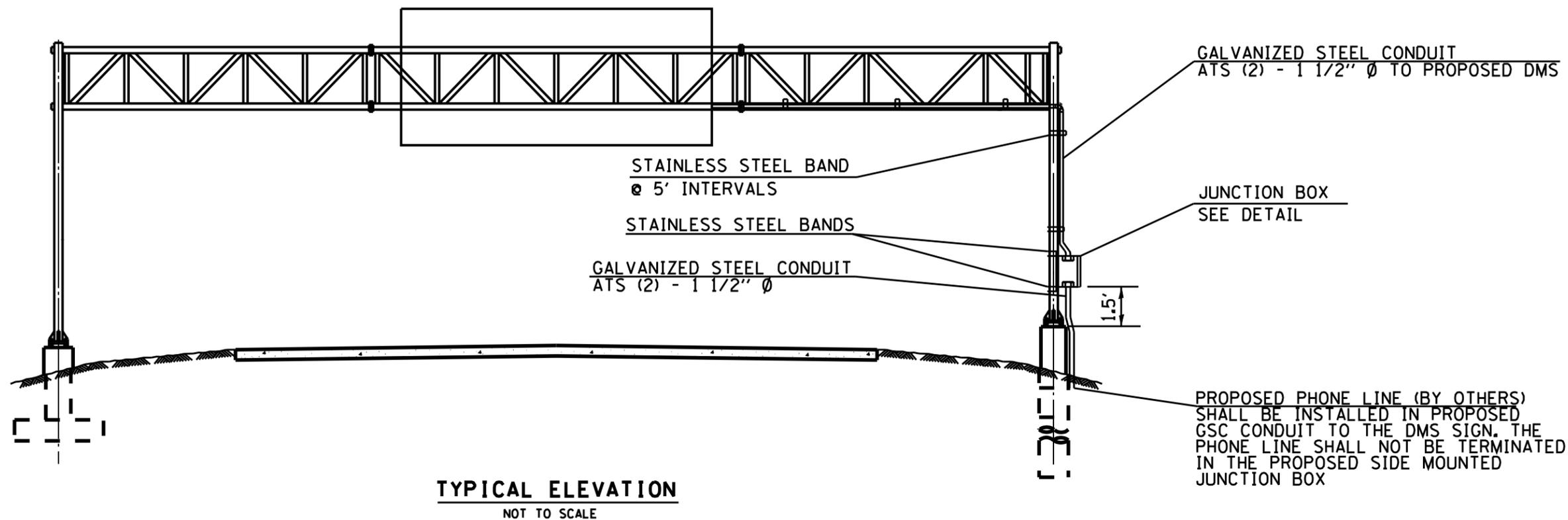
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
CCTV SYSTEM MOUNTING AND WIRING DETAILS

D-6 ITS #2
SANGAMON COUNTY
SCALE: VERT. NOT TO SCALE DRAWN BY KDA
DATE AUG 2006 CHECKED BY

PLOT DATE : 8/2006
FILE NAME : 07FILES
PLOT SCALE : 1/8"=1'-0"
USER NAME : SURBERG

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
D-6 ITS #2		SANGAMON	30	27
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**DMS MOUNTING
AND WIRING DETAILS**

D-6 ITS
SANGAMON COUNTY
SCALE: VERT. NOT TO SCALE DRAWN BY KDA
DATE HORIZ. CHECKED BY

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	D-6 ITS #2	SANGAMON	30	28
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 1 of 1

Date 7/06

ROUTE FAI 72 DESCRIPTION ITS Sign I-72 East Bound Lanes Near Curran LOGGED BY M. Tappan

SECTION D6 ITS 2 LOCATION NE 14, SEC. 16, TWP. 15 N, RNG. 6 W, 3 PM

COUNTY Sangamon DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO.	Station	BOILING NO.	Station	Offset	Ground Surface Elev.	D	B	U	M	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After 5 Days	Hrs.	D	B	U	M					
6S0841072R90.2	467+50	1 Median (Left)	467+50	42.7ft Lt EBL CL	617.6	(ft)	8"	(tsf)	(%)	NA	NA	601.1	601.1	608.6	618.1		(ft)	8"	(tsf)	(%)					
Tan and Light Grey Dry SILT										Brown and Grey V. Moist CLAY LOAM (Till) (continued)															
										Moist															
										Light Grey and Brown Moist SILTY CLAY LOAM															
										Grey Moist CLAY LOAM (Till)															
										Light Brown Moist SILTY CLAY															
										Grey and Brown Moist SILTY CLAY (Till)															
										Brown and Grey V. Moist CLAY LOAM (Till)															
										Grey and Brown Moist CLAY (Till)															
										Brown and Grey V. Moist CLAY LOAM (Till)															
										Grey and Brown Moist CLAY (Till)															

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
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)



Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 1 of 1

Date 7/06

ROUTE FAI 72 DESCRIPTION ITS Sign I-72 East Bound Lanes Near Curran LOGGED BY M. Tappan

SECTION D6 ITS 2 LOCATION NE 14, SEC. 16, TWP. 15 N, RNG. 6 W, 3 PM

COUNTY Sangamon DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO.	Station	BOILING NO.	Station	Offset	Ground Surface Elev.	D	B	U	M	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After 5 Days	Hrs.	D	B	U	M					
6S0841072R90.2	467+50	2 South (Right)	467+50	42.7ft Rt EBL CL	618.6	(ft)	8"	(tsf)	(%)	NA	NA	No Encounter	No Encounter	608.6	612.6		(ft)	8"	(tsf)	(%)					
Brown and Grey Moist SILTY CLAY										Grey and Brown Moist CLAY LOAM (Till) (continued)															
										Tan and Light Grey V. Moist SILT															
										Greyish Brown Moist SILTY CLAY LOAM															
										Grey and Brown Moist SILTY CLAY (Till)															
										Grey and Brown Moist CLAY (Till)															
										Refer STA to Stamp on Road, STA Increase to East															
										Refer Elevation to c.L. EBL I-72 STA 467+50 = 621.5'															
										Grey and Brown Moist CLAY LOAM (Till)															

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
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)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOIL BORINGS
F.A.I. 72 (I-72)
SECTION D-6 ITS #2
SANGAMON COUNTY
SCALE: VERT. _____
HORIZ. _____
DATE _____
DRAWN BY: _____
CHECKED BY: _____

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	D-6 ITS #2	SANGAMON	30	29
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 1 of 1

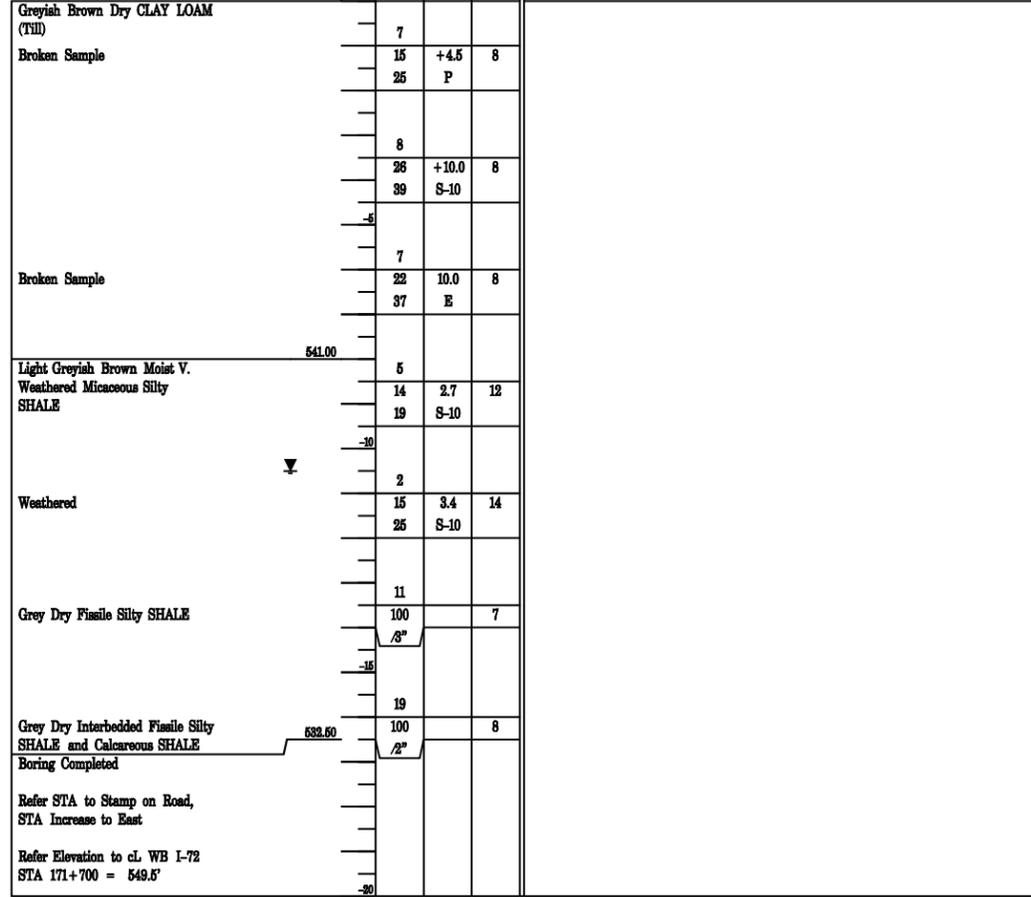
Date 7/6/06

ROUTE FAI 72 DESCRIPTION ITS Sign I-72 West Bound Lanes Near Riverton LOGGED BY M. Tappan

SECTION D6 ITS 2 LOCATION NE 14, SEC. 21, TWP. 16 N, RNG. 4 W, 3 PM

COUNTY Sangamon DRILLING METHOD HSA HAMMER TYPE 140# Auto

STRUCT. NO. <u>6S0841072L106.2</u>	D	B	U	M	Surface Water Elev. <u>NA</u> ft
Station <u>171+700</u>	E	L	C	O	Stream Bed Elev. <u>NA</u> ft
BORING NO. <u>1 North (Right)</u>	P	O	S	I	Groundwater Elev.: <u>No Encounter</u> ft
Station <u>171+700</u>	T	W	S	S	<input checked="" type="checkbox"/> First Encounter <u>No Encounter</u> ft
Offset <u>30.0ft Lt WBL CL</u>	H	S	Qu	T	<input checked="" type="checkbox"/> Upon Completion <u>Dry</u>
Ground Surface Elev. <u>549</u> ft	(ft)	(#)	(pcf)	(%)	<input checked="" type="checkbox"/> After 6 Days Hrs. <u>538.5</u> ft



File Name: S:\PROJECTS\72A18\SANGAMON\72A18_171+700_NORTH\BORING\72A18_171+700_NORTH.DWG Date Plotted: 8/2/06
 Labeled as: 72A18_171+700_NORTH.dwg 28-Aug-06 10:00 AM

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
 Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
 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)



Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 1 of 1

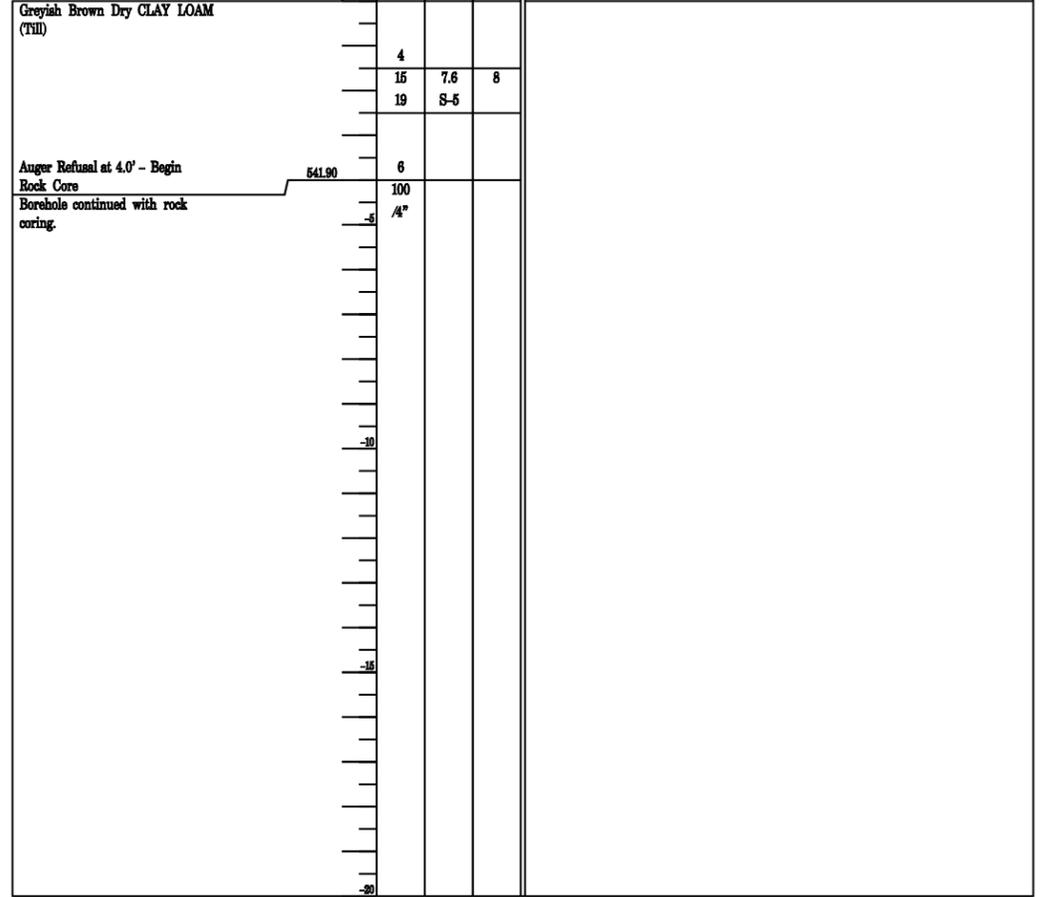
Date 7/6/06

ROUTE FAI 72 DESCRIPTION ITS Sign I-72 West Bound Lanes Near Riverton LOGGED BY M. Tappan

SECTION D6 ITS 2 LOCATION NE 14, SEC. 21, TWP. 16 N, RNG. 4 W, 3 PM

COUNTY Sangamon DRILLING METHOD HSA HAMMER TYPE 140# Auto

STRUCT. NO. <u>6S0841072L106.2</u>	D	B	U	M	Surface Water Elev. <u>NA</u> ft
Station <u>171+700</u>	E	L	C	O	Stream Bed Elev. <u>NA</u> ft
BORING NO. <u>2 Median (Left)</u>	P	O	S	I	Groundwater Elev.: <u>Cored</u> ft
Station <u>171+700</u>	T	W	S	S	<input checked="" type="checkbox"/> First Encounter <u>Cored</u> ft
Offset <u>48.0ft Rt WBL CL</u>	H	S	Qu	T	<input checked="" type="checkbox"/> Upon Completion <u>Cored</u> ft
Ground Surface Elev. <u>546.9</u> ft	(ft)	(#)	(pcf)	(%)	<input checked="" type="checkbox"/> After 6 Days Hrs. <u>534.9</u> ft



File Name: S:\PROJECTS\72A18\SANGAMON\72A18_171+700_MIDIAN\BORING\72A18_171+700_MIDIAN.DWG Date Plotted: 8/2/06
 Labeled as: 72A18_171+700_MIDIAN.dwg 28-Aug-06 10:00 AM

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOIL BORINGS
 F.A.I. 72 (I-72)
 SECTION D-6 ITS #2
 SANGAMON COUNTY

SCALE: VERT. _____
 HORIZ. _____
 DATE _____

DRAWN BY: _____
 CHECKED BY: _____

