

04-25-14 LETTING ITEM 049

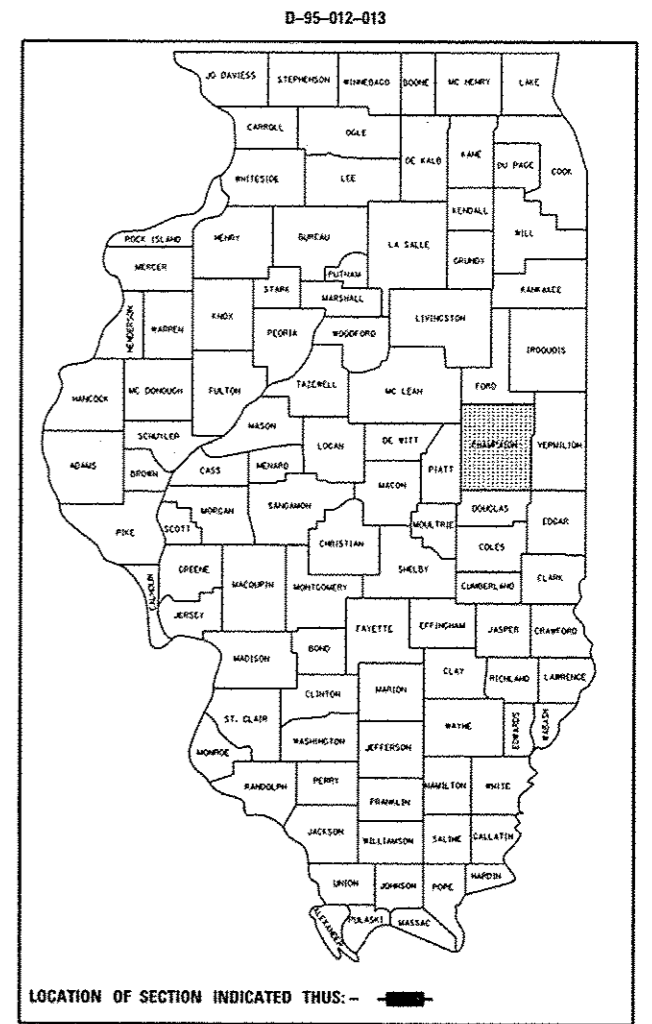
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

VARIOUS ROUTES  
SECTION FY2014 ITS-1  
CHANGEABLE MESSAGE SIGNS SURVEILLANCE  
CHAMPAIGN COUNTY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	1
		ILLINOIS	CONTRACT NO. 70A26	

FOR INDEX OF SHEETS, SEE SHEET NO. 2  
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 3-6



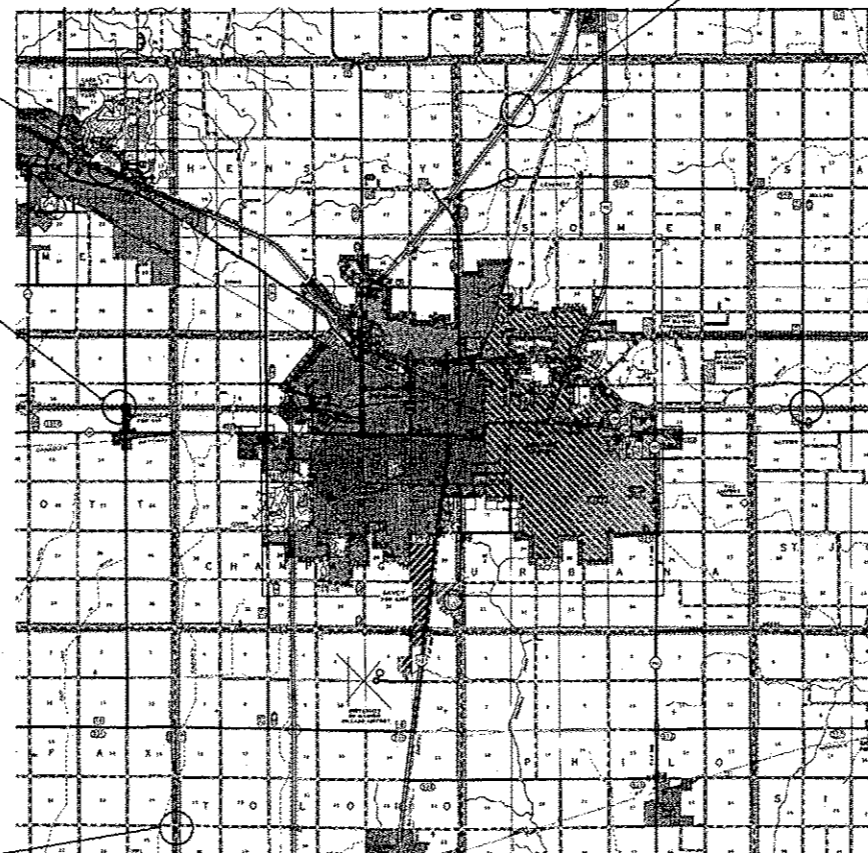
C-95-012-13

I-74 EASTBOUND  
STA. 1572+00 MM 172.83  
STR. NO. 5 S 010 0174 R172.83

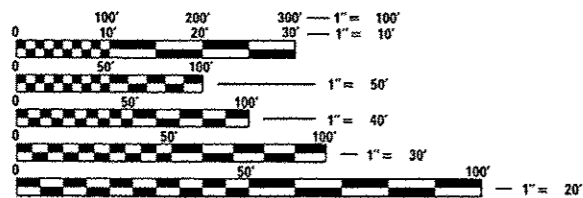
I-57 SOUTHBOUND  
STA. 890+96 MM 242.78  
STR. NO. 5 S 010 1057 L242.78

I-72 EASTBOUND  
STA. 1778+15 MM 178.29  
STR. NO. 5 S 010 1072 R178.29

I-74 WESTBOUND  
STA. 593+12 MM 189.05  
STR. NO. 5 S 010 1074L189.05



I-57 NORTHBOUND  
STA. 475+50 MM226.45  
STR. NO. 5 S 010 R226.45



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 JEFF ALLEN  
DESIGNED BY: ROGER BIGGS  
PHONE NUMBER: (217) 465-4181  
CONTRACT NO. 70A26

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED FEBRUARY 7, 2014

Joseph E. Conner  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER *CRE*

March 21, 2014  
John D. Baranzelli, P.E. *ba*  
ENGINEER OF DESIGN AND ENVIRONMENT

March 21, 2014  
Omer Osman, P.E. *ba*  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

## INDEX OF SHEETS

1	COVER SHEET
2 - 3	LOCATION MAP
4	INDEX OF SHEETS, HIGHWAY STANDARDS, & GENERAL NOTES
5	SUMMARY OF QUANTITIES
6 - 10	LOCATION 1- MATTIS AVE.
11- 13	LOCATION 2 - PROSPECT AVE.
14 - 18	LOCATION 3 - SPRINGFIELD AVE. & WRIGHT ST.
19 - 23	LOCATION 4 - CUNNINGHAM AVE. & UNIVERSITY AVE.
24 - 34	LOCATION 5 - US RTE 45

## GENERAL NOTES

G.N. - 100      ENGLISH UNITS OF MEASUREMENT SHALL GOVERN OVER AND SUPERSEDE ANY METRIC UNITS SHOWN IN THIS CONTRACT. WHERE INCLUDED, METRIC UNITS ARE FOR INFORMATION ONLY.

## HIGHWAY STANDARDS

Standard	Description
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
630001-10	STEEL PLATE BEAM GUARDRAIL
630301-06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631011-09	TRAFFIC BARRIER TERMINAL, TYPE 2
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15'(4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701101-04	OFF-RD OPERATIONS, MULTILANE, 15'(4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS $\geq$ 45 MPH
701400-07	APPROACH TO LANE CLOSURE, FREEWAY / EXPRESSWAY
701401-08	LANE CLOSURE, FREEWAY / EXPRESSWAY
701502-06	URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL TURN LANE
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701701-09	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901-03	TRAFFIC CONTROL DEVICES
805001-01	ELECTRIC SERVICE INSTALLATION DETAILS
814001-02	HANDHOLES

FILE NAME =	USER NAME = biggard	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>INDEX OF SHEETS, HIGHWAY STANDARDS &amp; GENERAL NOTES</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et:\p\work\p\idat\biggard\8248463\PTZ	Camera.plant.dgn	DRAWN -	REVISED -			VAR.	FY2011 INTERCONNECT	Champaign	74	2
PLOT SCALE = 48.0000' / in.	PLOT DATE = 2/7/2014	CHECKED -	REVISED -			CONTRACT NO. 70A26				
DATE -	REVISED -	ILLINOIS FED. AID PROJECT								
SCALE:      SHEET NO. OF SHEETS      STA.      TO STA.										



# SUMMARY OF QUANTITIES

LOCATION OF WORK:

CHAMPAIGN CO. VARIOUS ROUTES CHAMPAIGN URBANA 100% STATE	CHAMPAIGN CO. VARIOUS ROUTES CHAMPAIGN URBANA 100% STATE URBAN 0021	CHAMPAIGN CO. VARIOUS ROUTES CHAMPAIGN URBANA 100% STATE RURAL 0021
---	--	--

CONSTRUCTION TYPE CODE:

0021

CODE NO	ITEM	UNIT	TOTAL QUANTITY	URBAN QUANTITY	RURAL QUANTITY
70102622	TRAFFIC CONTROL AND PROTECTION, STANDARD 701502	L SUM	1.0	1.0	
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1.0	1.0	
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1.0	1.0	
70200100	NIGHTTIME WORK ZONE LIGHTING	L SUM	1.0		1.0
73300300	OVERHEAD SIGN STRUCTURE - SPAN, TYPE III-A (5'-0" X 7'-0")	FOOT	371.0		371.0
73301810	OVERHEAD SIGN STRUCTURE WALKWAY, TYPE A	FOOT	100.0		100.0
73400200	DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	110.5		110.5
78200410	GUARDRAIL MARKERS, TYPE A	EACH	56.0		56.0
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	27.0		27.0
80500100	SERVICE INSTALLATION, TYPE A	EACH	5.0		5.0
81028350	UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	15,295.0	9,757.0	5,538.0
81300830	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 18" X 18" X 8"	EACH	3.0	3.0	
81400100	HANDHOLE	EACH	16.0	13.0	3.0
81500130	GULFBOX JUNCTION REMOVAL	EACH	1.0	1.0	

14

FILE NAME =	USER NAME = biggard	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	SCALE:	SHEET OF SHEETS	STA. TO STA.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ar\pwork\pwork\biggard\0340463\PTZ	amara plans.dgn	DRAWN -	REVISED -					VAR.	FY2014 ITS-1	CHAMPAIGN	74	4
#MODELNAME#	PLOT SCALE = 40,0000 1/ in.	CHECKED -	REVISED -									
	PLOT DATE = 2/7/2014	DATE -	REVISED -									
											CONTRACT NO. 70A26	
ILLINOIS FED. AID PROJECT												

# SUMMARY OF QUANTITIES

LOCATION OF WORK:            CHAMPAIGN CO.   CHAMPAIGN CO.   CHAMPAIGN CO.  
    VARIOUS            VARIOUS            VARIOUS  
    ROUTES            ROUTES            ROUTES  
    CHAMPAIGN      CHAMPAIGN      CHAMPAIGN  
    URBANA            URBANA            URBANA  
    100% STATE      100% STATE      100% STATE  
  
    CONSTRUCTION TYPE CODE:      0021            0021            0021

CODE NO	ITEM	UNIT	TOTAL QUANTITY	URBAN QUANTITY	RURAL QUANTITY
82700100	TRANSFORMER - GENERAL PURPOSE	EACH	3.0	3.0	
83600300	LIGHT POLE FOUNDATION, 30" DIAMETER	FOOT	42.0	42.0	
86400100	TRANSCEIVER - FIBER OPTIC	EACH	3.0	3.0	
87100020	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	1,801.0	1,801.0	
87300901	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 12 1C	FOOT	7,955.0	7,012.0	943.0
87301125	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 12 3C	FOOT	7,535.0	7,535.0	
87301815	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 3C	FOOT	4,247.0		4,247.0
87900200	DRILL EXISTING HANDHOLE	EACH	33.0	29.0	4.0
89502210	MODIFY EXISTING CONTROLLER CABINET	EACH	17.0	17.0	
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1,473.0	1,473.0	
X0324597	CLOSED CIRCUIT TELEVISION CABINET	EACH	7.0	7.0	
X0325485	TRUSS MOUNTED LED DYNAMIC MESSAGE SIGN	EACH	5.0		5.0
X0325810	WIRELESS ETHERNET RADIO	EACH	2.0	2.0	
X0326091	LIGHT POLE, STEEL 50 FT. WITH CAMERA LOWERING SYSTEM	EACH	6.0	6.0	

# SUMMARY OF QUANTITIES

LOCATION OF WORK: CHAMPAIGN CO. CHAMPAIGN CO. CHAMPAIGN CO.  
 VARIOUS VARIOUS VARIOUS  
 ROUTES ROUTES ROUTES  
 CHAMPAIGN CHAMPAIGN CHAMPAIGN  
 URBANA URBANA URBANA  
 100% STATE 100% STATE 100% STATE

CONSTRUCTION TYPE CODE: 0021 0021 0021  
 URBAN URBAN RURAL  
 QUANTITY QUANTITY QUANTITY

CODE NO	ITEM	UNIT	TOTAL QUANTITY	URBAN QUANTITY	RURAL QUANTITY
X0326263	EQUIPMENT CABINET	EACH	1.0	1.0	
X0326266	ETHERNET SWITCH	EACH	34.0	34.0	
X0326452	VIDEO SYSTEM DETECTION PROCESSOR	EACH	5.0	5.0	
X0326617	PAINTING LIGHT POLE UNIT	EACH	1.0	1.0	
X0327216	CLOSED CIRCUIT TELEVISION CAMERA	EACH	26.0	26.0	
X6340205	GUARD POSTS REMOVAL	EACH	15.0		15.0
X6430120	REMOVE IMPACT ATTENUATORS, NO SALVAGE	EACH	2.0		2.0
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	30.0		30.0
X8710028	FIBER OPTIC CABLE 6 FIBERS, SINGLE MODE	FOOT	6,271.0	4,764.0	1,507.0
X8710036	FIBER OPTIC CABLE 12 FIBERS, SINGLE MODE	FOOT	4,143.0	4,143.0	
X8710054	FIBER OPTIC TERMINATION PANEL, 12 F OR 24F	EACH	3.0	3.0	
Z0010688	CAMERA MOUNTING ASSEMBLY	EACH	13.0	13.0	
Z0033070	VIDEO VEHICLE DETECTION, 4 CAMERAS	EACH	5.0	5.0	
Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOOR	500.0	250.0	250.0

∅

∅ 0042

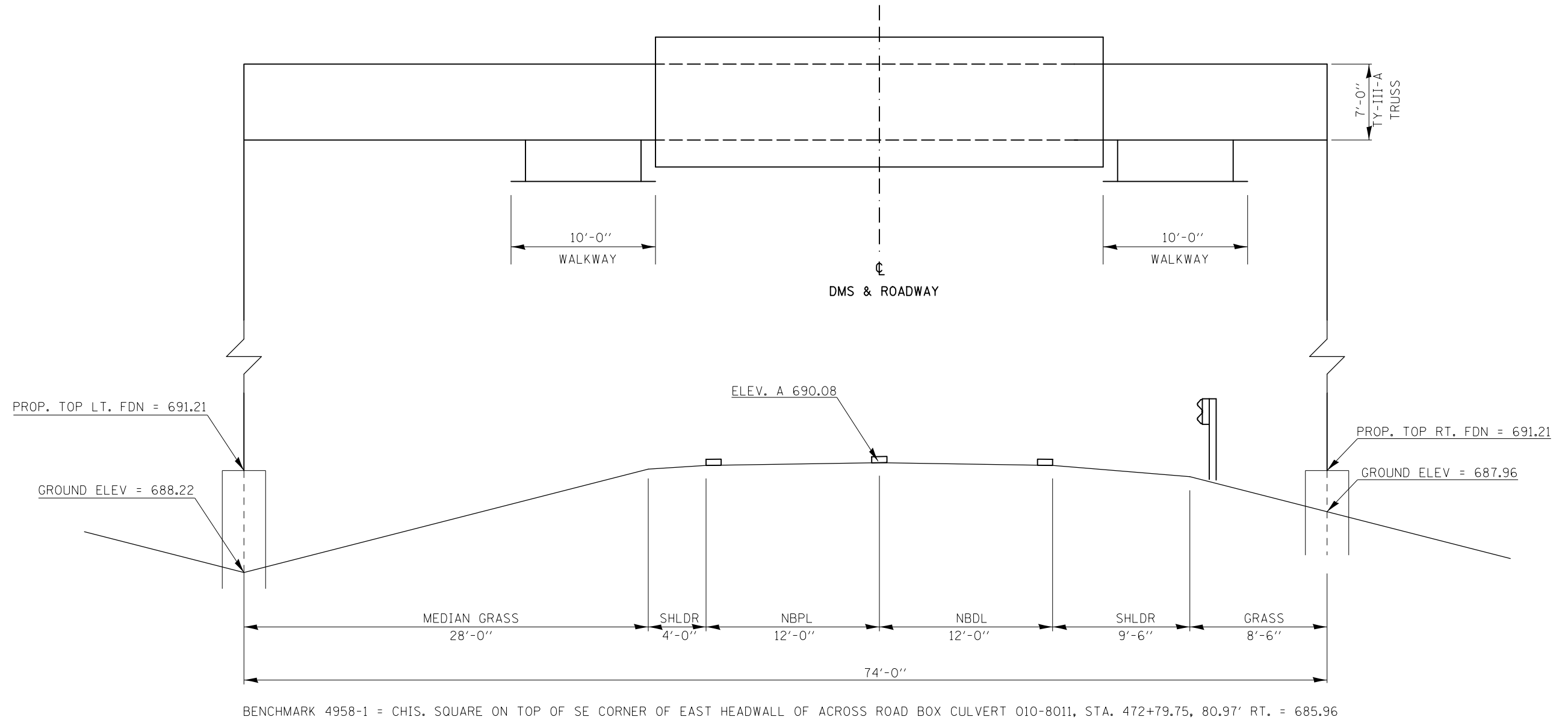
LOCATION NO.	STRUCTURE NO.	STANDARDS REQUIRED	PEAK HOURS	PEAK HOUR RESTRICTIONS	NIGHT TIME FULL ROAD CLOSURE REQUIRED?	NIGHT TIME FULL ROAD CLOSURE HOURS ALLOWED	CHANGEABLE MESSAGE BOARD REQUIRED?
5-01	5 S 010 I057 R226.45	701400 701401	NONE	N/A	YES	10:00 p.m. to 6:00 a.m. Sunday thru Thursday	6 CAL DA
5-02	5 S 010 I057 L242.78	701400 701401	NONE	N/A	YES	10:00 p.m. to 6:00 a.m. Sunday thru Thursday	6 CAL DA
5-03	5 S 010 I074 R172.83	701400 701401	6:00 a.m. to 8:30 a.m.	No lane closures or lane restrictions during peak hours.	YES	10:00 p.m. to 6:00 a.m. Sunday thru Thursday	6 CAL DA
5-04	5 S 010 I074 L189.05	701400 701401	6:00 a.m. to 8:30 a.m.	No lane closures or lane restrictions during peak hours.	YES	10:00 p.m. to 5:00 a.m. Sunday thru Thursday	6 CAL DA
5-05	5 S 010 I072 R178.29	701400 701401	NONE	N/A	YES	8:00 p.m. to 6:00 a.m. Sunday thru Thursday	6 CAL DA

**NOTES:**

- 1) CMS - Pay Item X7015005 is for advanced interstate notice - 3 days prior to foundation construction & 3 days prior to truss removal and erection.
- 2) CMS shown on Standards are included in the cost of the Standard.
- 3) See Special Provision SITE SPECIFIC TRAFFIC CONTROL AND PROTECTION for additional information and details.

# SIGN TRUSS MOUNTING DETAIL

## 5 S 010 I057 R226.45



FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SIGN TRUSS MOUNTING DETAILS</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et:\pwork\pwork\biggsrd\0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -					VAR.	FY2014 ITS-1	CHAMPAIGN	74	8
\$MODELNAME\$	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -		SCALE:      SHEET      OF      SHEETS      STA.      TO STA.			CONTRACT NO. 70A26				
	PLOT DATE = 2/7/2014	DATE -	REVISED -		ILLINOIS FED. AID PROJECT							

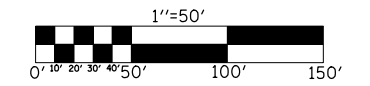


# OVERHEAD SIGN STRUCTURE

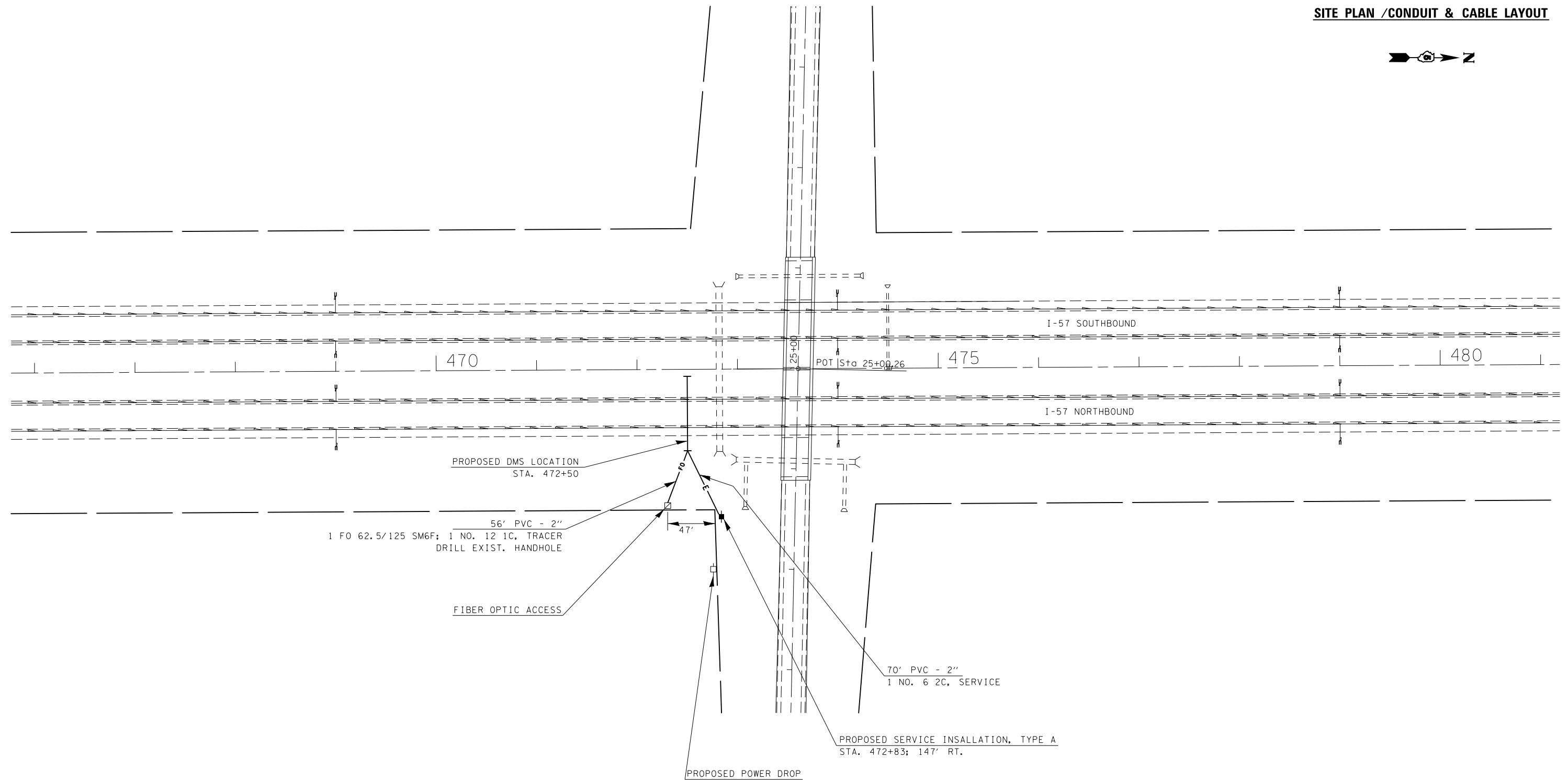
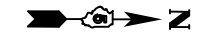
I-57 NB - MM 226.45

STRUCTURE NO.

5 S 010 1057 R226.45



SITE PLAN / CONDUIT & CABLE LAYOUT



FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
et:\pw\work\pwidot\biggsrd\d0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -
\$MODELNAME\$	PLOT SCALE = 100.0175' / in.	CHECKED -	REVISED -
	PLOT DATE = 2/7/2014	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCALE:	SHEET	OF	SHEETS	STA.	TO STA.
--------	-------	----	--------	------	---------

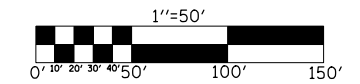
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	9
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

# OVERHEAD SIGN STRUCTURE

I-57 NB - MM 226.45

STRUCTURE NO.

5 S 010 1057 R226.45

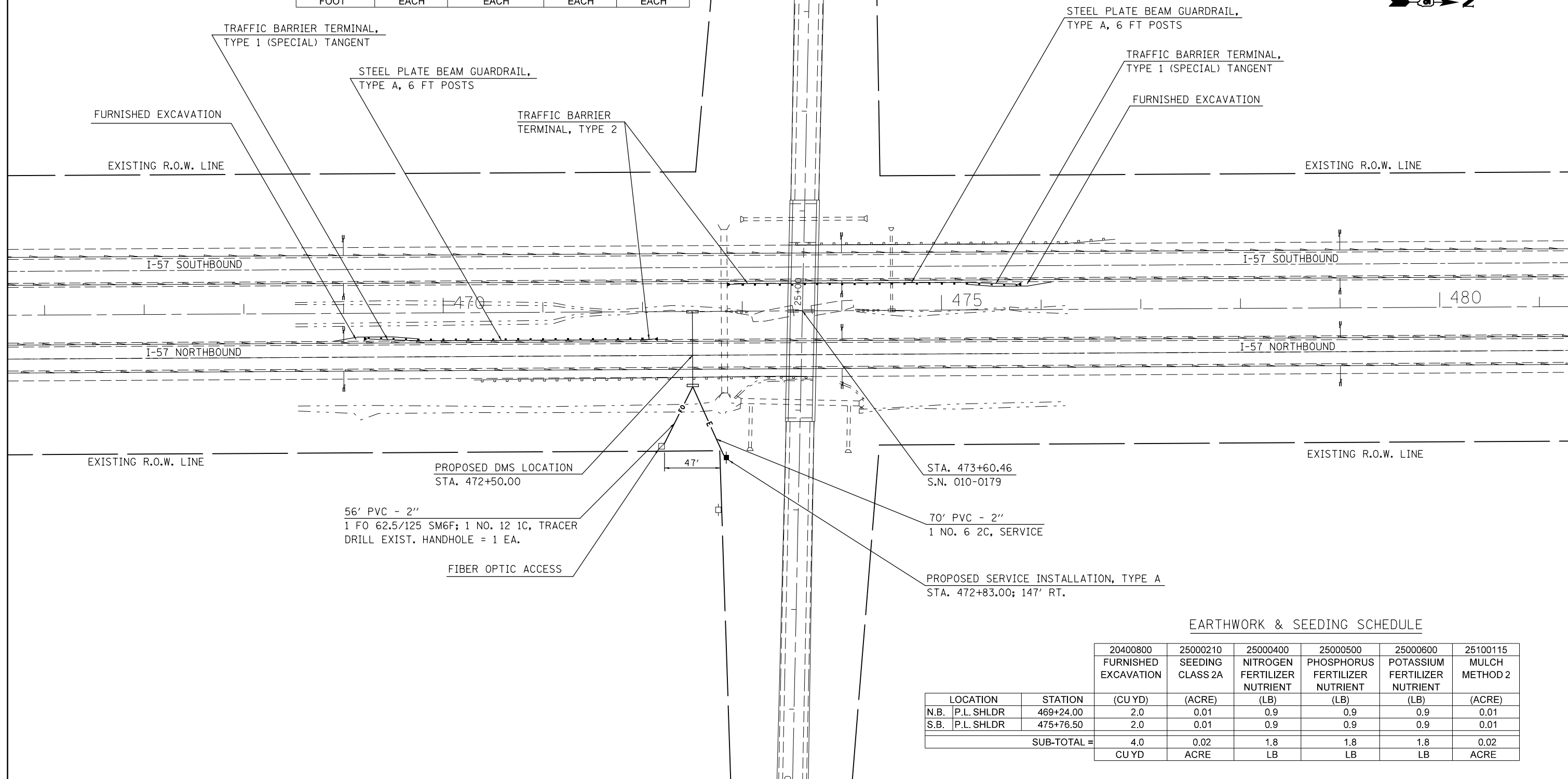


## SITE PLAN / CONDUIT & CABLE LAYOUT



### GUARDRAIL SCHEDULE

LOCATION	STATION	TO	STATION	63000001 STEEL PLATE BEAM GUARDRAIL TYPE A 6 FT POSTS (FOOT)	63100045 TRAFFIC BARRIER TERMINAL TYPE 2 (EACH)	63100167 TRAFFIC BARRIER TERMINAL TYPE 1(SPECIAL) TANGENT (EACH)	78200410 GUARDRAIL MARKER TYPE A (EACH)	78201000 TERMINAL MARKER DIRECT APPLIED (EACH)
N.B. P.L. SHLDR	469+24.00		469+74.00			1.0		1.0
N.B. P.L. SHLDR	469+74.00		471+99.00	225.0			4.0	
N.B. P.L. SHLDR	471+99.00		472+11.50		1.0			1.0
S.B. P.L. SHLDR	472+89.00		473+01.50		1.0			1.0
S.B. P.L. SHLDR	473+01.50		475+26.50	225.0			4.0	
S.B. P.L. SHLDR	475+26.50		475+76.50			1.0		1.0
SUB-TOTAL =				450.0	2.0	2.0	8.0	4.0
				FOOT	EACH	EACH	EACH	EACH



### EARTHWORK & SEEDING SCHEDULE

LOCATION	STATION	20400800 FURNISHED EXCAVATION (CU YD)	25000210 SEEDING CLASS 2A (ACRE)	25000400 NITROGEN FERTILIZER NUTRIENT (LB)	25000500 PHOSPHORUS FERTILIZER NUTRIENT (LB)	25000600 POTASSIUM FERTILIZER NUTRIENT (LB)	25100115 MULCH METHOD 2 (ACRE)
N.B. P.L. SHLDR	469+24.00	2.0	0.01	0.9	0.9	0.9	0.01
S.B. P.L. SHLDR	475+76.50	2.0	0.01	0.9	0.9	0.9	0.01
SUB-TOTAL =		4.0	0.02	1.8	1.8	1.8	0.02
		CUYD	ACRE	LB	LB	LB	ACRE

FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
c:\pwork\pwork\biggsrd\0340463\0570226-sht-plan_50.dgn		DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISED -
*MODELNAME*	PLOT DATE = 2/7/2014	DATE -	REVISED -

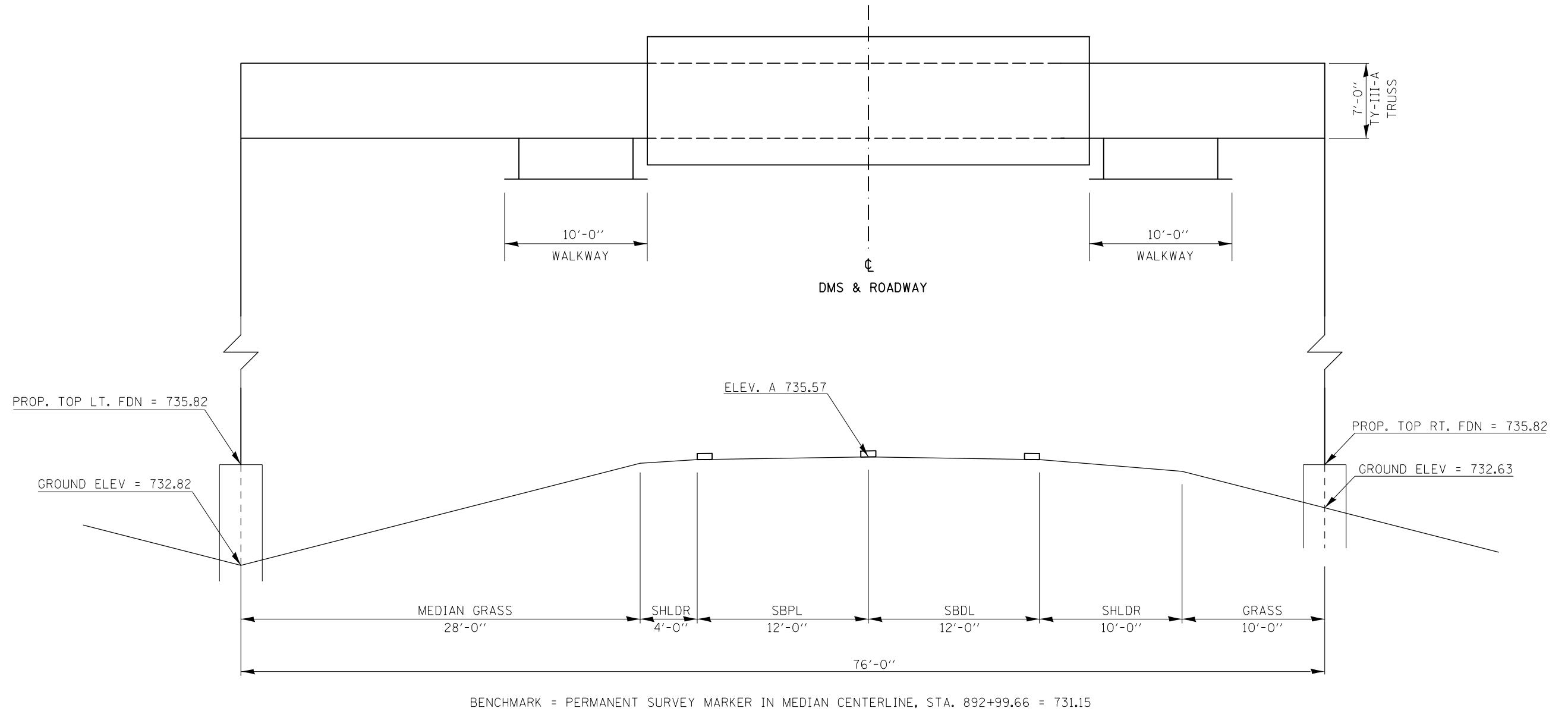
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PLAN SHEET			
FAI - 57 NB / MM 226.45			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	10
			CONTRACT NO. 70A26	
ILLINOIS FED. AID PROJECT				

# SIGN TRUSS MOUNTING DETAIL

## 5 S 010 I057 L242.78



FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
c:\pwwork\pwwork\biggsrd\0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
\$MODELNAME\$	PLOT DATE = 2/7/2014	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SIGN TRUSS MOUNTING DETAILS**

SCALE: SHEET OF SHEETS STA. TO STA.

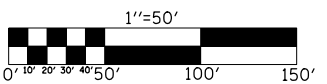
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	11
CONTRACT NO. 70A26			ILLINOIS FED. AID PROJECT	

**OVERHEAD SIGN STRUCTURE**

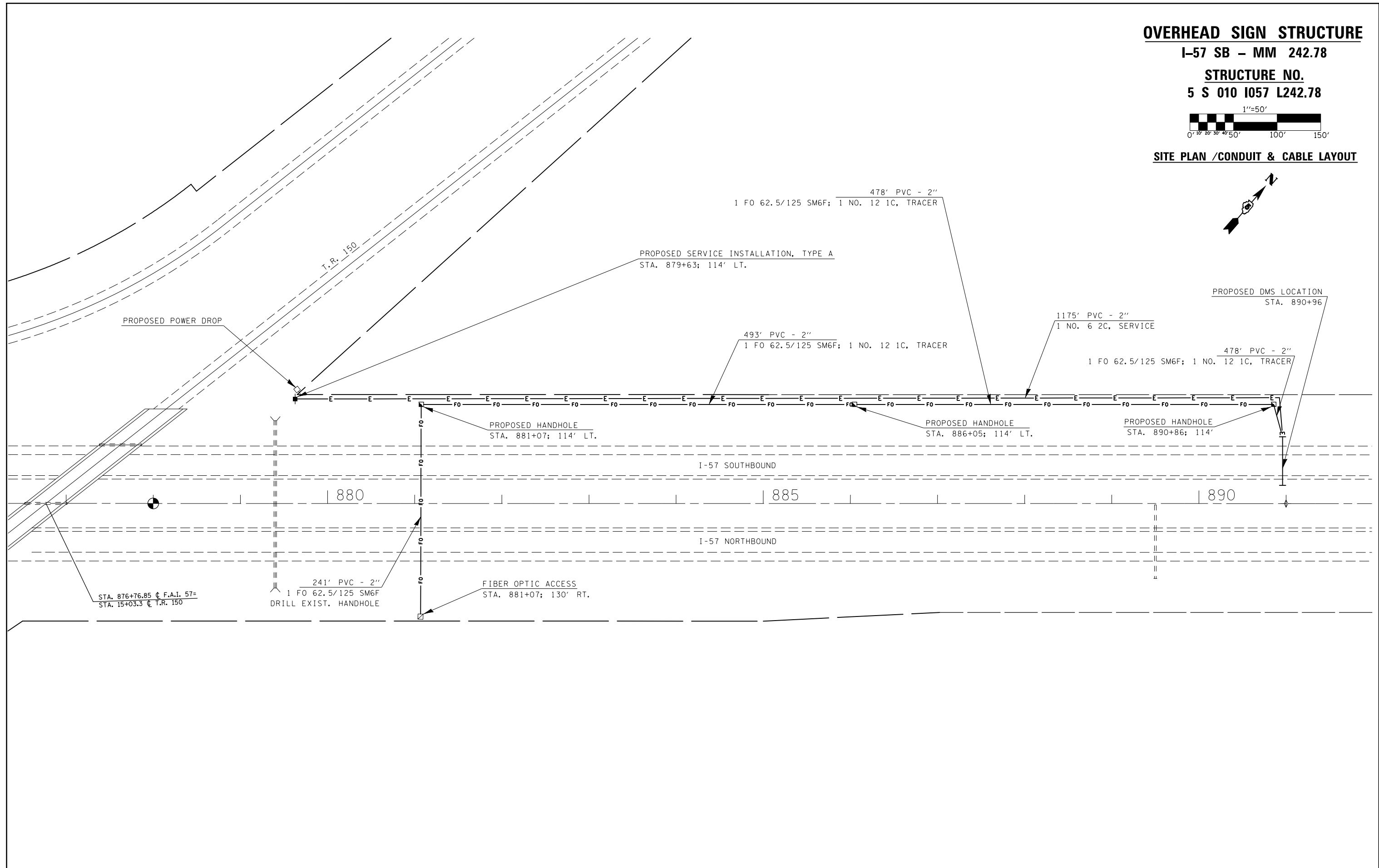
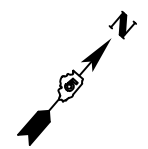
**I-57 SB - MM 242.78**

**STRUCTURE NO.**

**5 S 010 I057 L242.78**



**SITE PLAN / CONDUIT & CABLE LAYOUT**



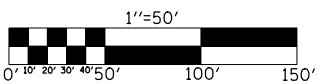
FILE NAME = c:\pwwork\pwwork\biggsrd\0340463\PTZ	USER NAME = biggsrd camera plans.dgn	DESIGNED - DRAWN -	REVISED - REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	SCALE:		SHEET	OF	SHEETS	STA.	TO STA.	F.A.P. RTE. VAR.	SECTION FY2014 ITS-1	COUNTY CHAMPAIGN	TOTAL SHEETS 74	SHEET NO. 12
\$MODELNAME\$	PLOT DATE = 2/7/2014	CHECKED - DATE -	REVISED - REVISED -										CONTRACT NO. 70A26		ILLINOIS FED. AID PROJECT	

**OVERHEAD SIGN STRUCTURE**

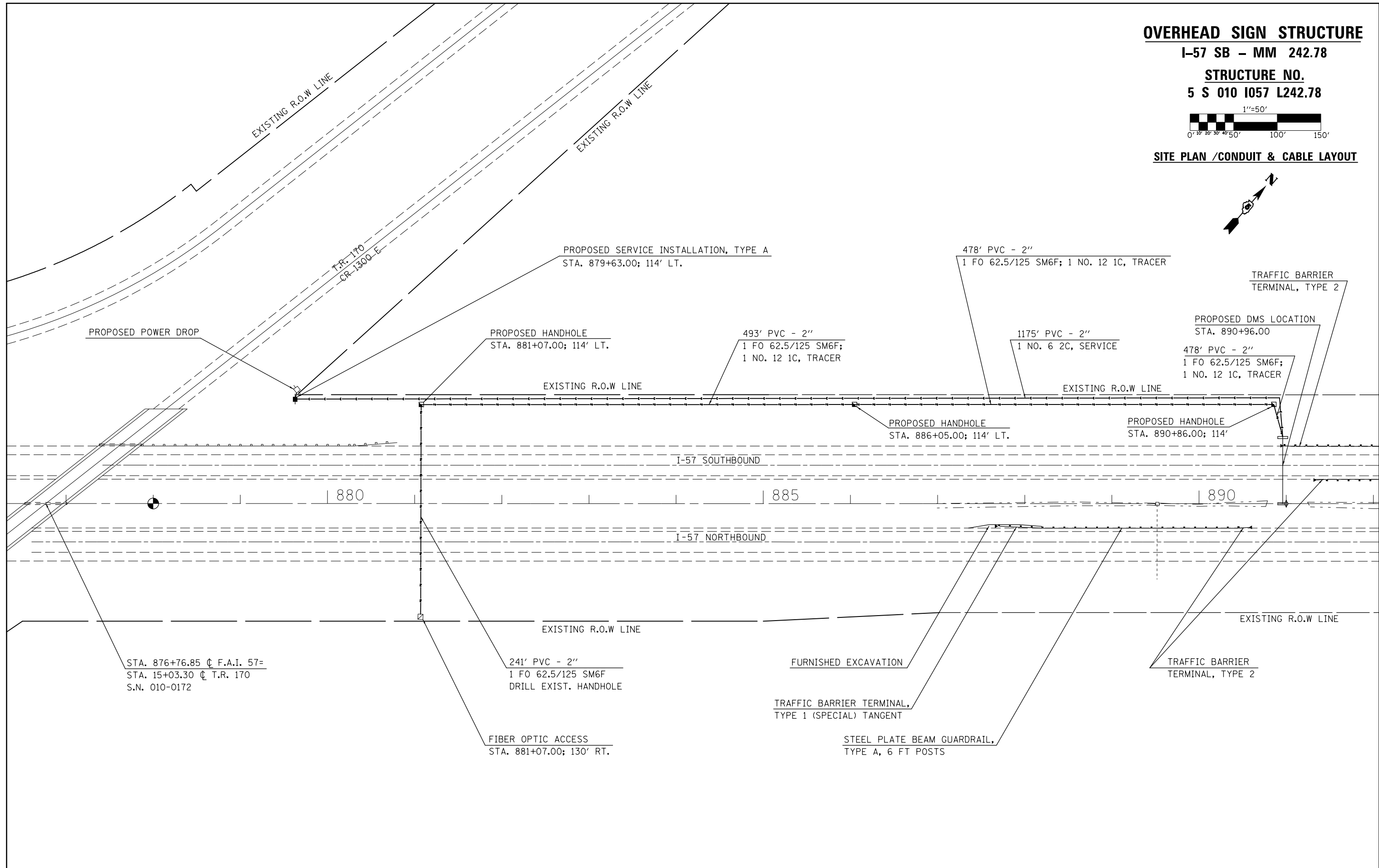
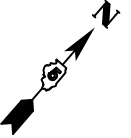
**I-57 SB - MM 242.78**

**STRUCTURE NO.**

**5 S 010 1057 L242.78**



**SITE PLAN / CONDUIT & CABLE LAYOUT**



FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
c:\pwork\work\pwork\biggsrd\d0340463\057026-sht-plan_50.dgn		DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
\$MODELNAME\$	PLOT DATE = 2/7/2014	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PLAN SHEET  
FAI - 57 SB / MM 242.78**

SCALE:      SHEET      OF      SHEETS      STA.      TO STA.

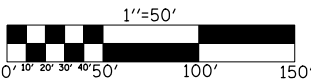
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	13
			CONTRACT NO.	70A26
ILLINOIS FED. AID PROJECT				

**OVERHEAD SIGN STRUCTURE**

**I-57 SB - MM 242.78**

**STRUCTURE NO.**

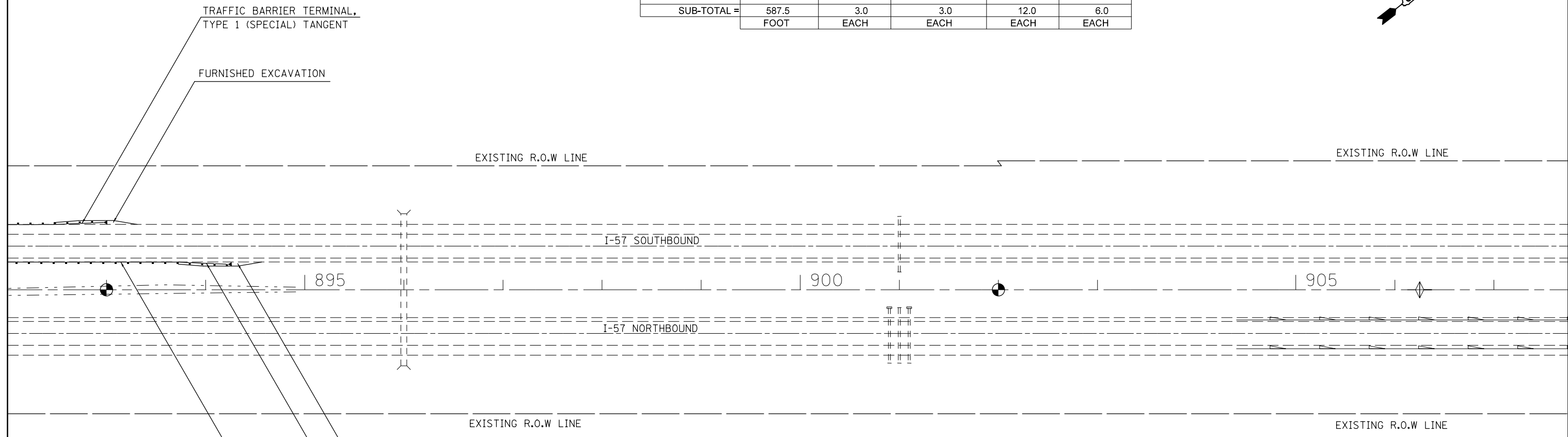
**5 S 010 I057 L242.78**



**SITE PLAN / CONDUIT & CABLE LAYOUT**

**GUARDRAIL SCHEDULE**

LOCATION	STATION	TO	STATION	63000001 STEEL PLATE BEAM GUARDRAIL TYPE A 6 FT POSTS (FOOT)	63100045 TRAFFIC BARRIER TERMINAL TYPE 2 (EACH)	63100167 TRAFFIC BARRIER TERMINAL TYPE 1 (SPECIAL) TANGENT (EACH)	78200410 GUARDRAIL MARKER TYPE A (EACH)	78201000 TERMINAL MARKER DIRECT APPLIED (EACH)
N.B. P.L. SHLDR	887+69.50		888+19.50			1.0		1.0
N.B. P.L. SHLDR	888+19.50		890+44.50	225.0			4.0	
N.B. P.L. SHLDR	890+44.50		890+57.00		1.0			1.0
S.B. D.L. SHLDR	890+97.00		891+09.50		1.0			1.0
S.B. D.L. SHLDR	891+09.50		892+47.00	137.5			4.0	
S.B. D.L. SHLDR	892+47.00		892+97.00			1.0		1.0
S.B. P.L. SHLDR	891+35.00		891+47.50		1.0			1.0
S.B. P.L. SHLDR	891+47.50		893+72.50	225.0			4.0	
S.B. P.L. SHLDR	893+72.50		894+22.50			1.0		1.0
SUB-TOTAL =				587.5	3.0	3.0	12.0	6.0
				FOOT	EACH	EACH	EACH	EACH

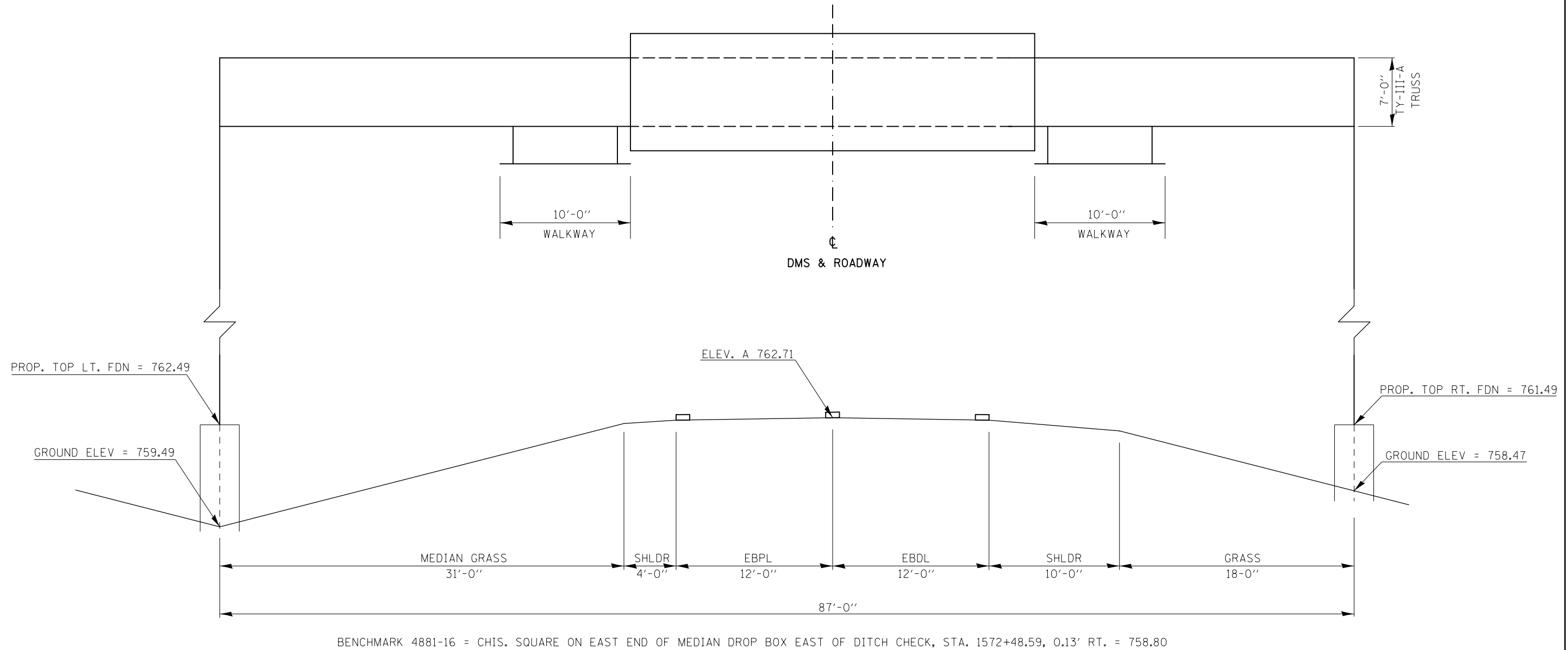


**EARTHWORK & SEEDING SCHEDULE**

LOCATION	STATION	20400800 FURNISHED EXCAVATION (CU YD)	25000210 SEEDING CLASS 2A (ACRE)	25000400 NITROGEN FERTILIZER NUTRIENT (LB)	25000500 PHOSPHORUS FERTILIZER NUTRIENT (LB)	25000600 POTASSIUM FERTILIZER NUTRIENT (LB)	25100115 MULCH METHOD 2 (ACRE)
E.B. P.L. SHLDR	887+69.50	2.0	0.01	0.9	0.9	0.9	0.01
E.B. D.L. SHLDR	892+97.00	2.0	0.01	0.9	0.9	0.9	0.01
W.B. P.L. SHLDR	894+22.50	2.0	0.01	0.9	0.9	0.9	0.01
SUB-TOTAL =		6.0	0.03	2.7	2.7	2.7	0.03
		CU YD	ACRE	LB	LB	LB	ACRE

# SIGN TRUSS MOUNTING DETAIL

## 5 S 010 I074 R172.83



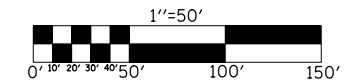
FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>SIGN TRUSS MOUNTING DETAILS</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ci:\pwork\work\pwork\biggsrd\d0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -					VAR.	FY2014 ITS-1	CHMAPAIGN	74	15
\$MODELNAME\$	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -		SCALE:      SHEET      OF      SHEETS      STA.      TO      STA.			CONTRACT NO. 70A26				
	PLOT DATE = 2/7/2014	DATE -	REVISED -		ILLINOIS FED. AID PROJECT							

**OVERHEAD SIGN STRUCTURE**

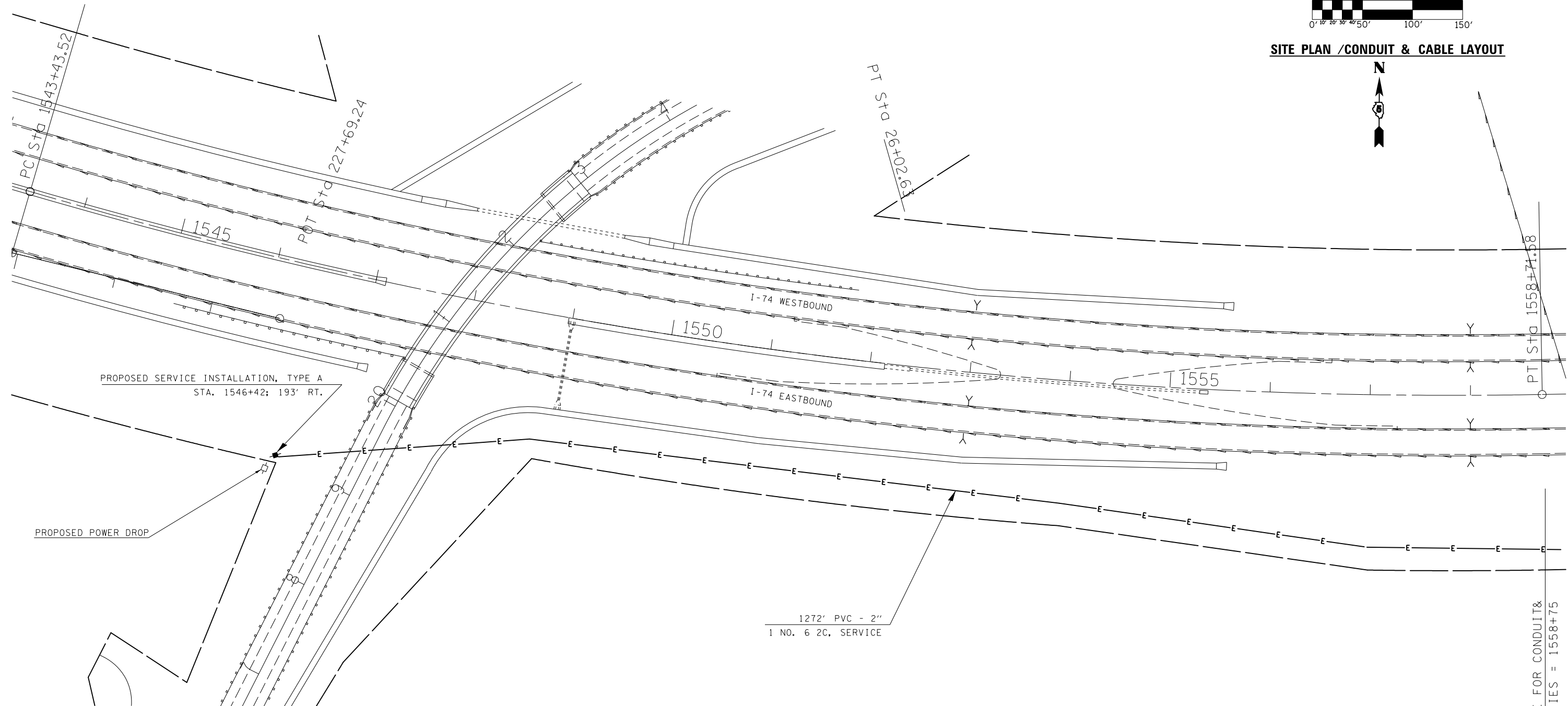
I-74 EB - MM 172.83

**STRUCTURE NO.**

5 S 010 I072 R172.83



**SITE PLAN / CONDUIT & CABLE LAYOUT**



MATCH LINE FOR CONDUIT & CABLE QUANTITIES = 1558+75

FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
c:\pw\work\p1dot\biggsrd\d0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
\$MODELNAME\$	PLOT DATE = 2/7/2014	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCALE: SHEET OF SHEETS STA. TO STA.

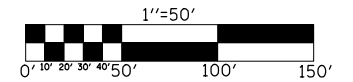
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	16
CONTRACT NO. 70A26			ILLINOIS FED. AID PROJECT	



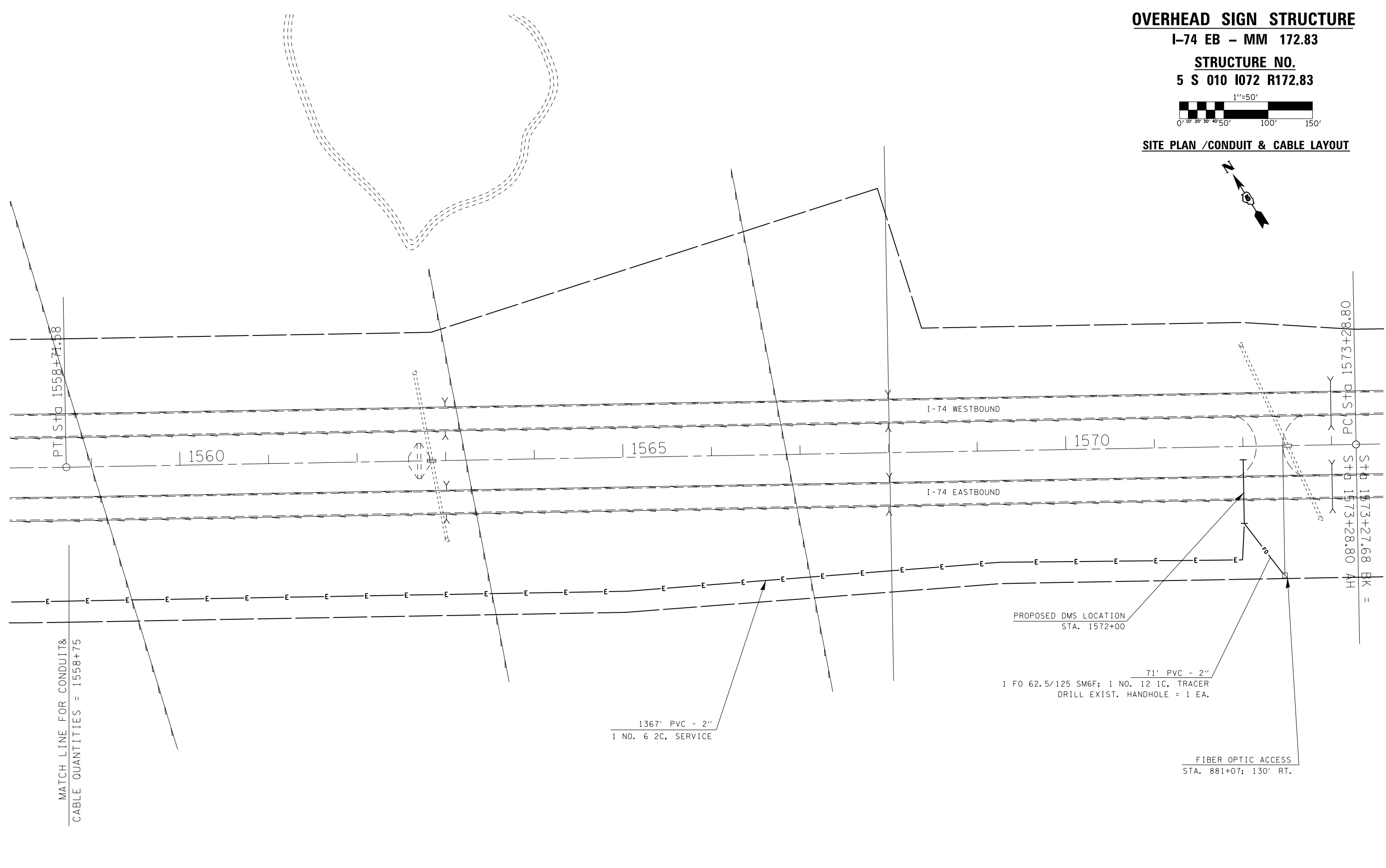
**OVERHEAD SIGN STRUCTURE**

**I-74 EB - MM 172.83**

**STRUCTURE NO.  
5 S 010 I072 R172.83**



**SITE PLAN /CONDUIT & CABLE LAYOUT**



MATCH LINE FOR CONDUIT & CABLE QUANTITIES = 1558+75

PROPOSED DMS LOCATION  
STA. 1572+00

71' PVC - 2"  
1 FO 62.5/125 SM6F; 1 NO. 12 1C, TRACER  
DRILL EXIST. HANDHOLE = 1 EA.

1367' PVC - 2"  
1 NO. 6 2C, SERVICE

FIBER OPTIC ACCESS  
STA. 881+07; 130' RT.

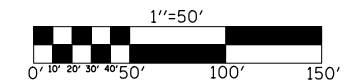
FILE NAME = c:\pw\work\pwidot\biggsrd\d0340463\PTZ	USER NAME = biggsrd camera plans.dgn	DESIGNED - DRAWN -	REVISED - REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	SCALE:		SHEET	OF	SHEETS	STA.	TO	STA.	F.A.P. RTE. VAR.	SECTION FY2014 ITS-1	COUNTY CHAMPAIGN	TOTAL SHEETS 74	SHEET NO. 17
\$MODELNAME\$	PLOT DATE = 2/7/2014	CHECKED - DATE -	REVISED - REVISED -		SCALE:		SHEET	OF	SHEETS	STA.	TO	STA.	ILLINOIS FED. AID PROJECT				
													CONTRACT NO.				
													CONTRACT NO.				

# OVERHEAD SIGN STRUCTURE

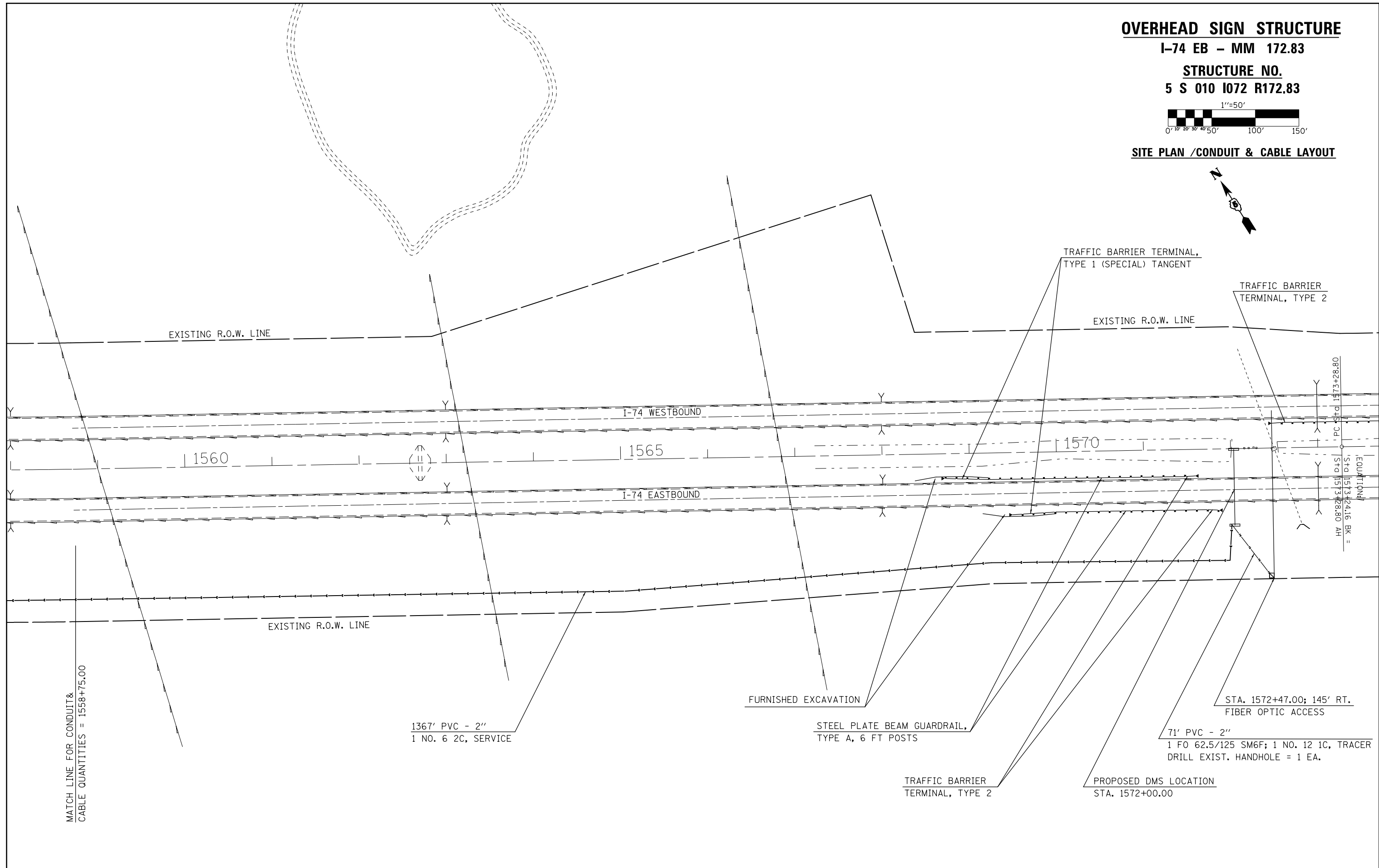
I-74 EB - MM 172.83

STRUCTURE NO.

5 S 010 I072 R172.83



## SITE PLAN / CONDUIT & CABLE LAYOUT



FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
c:\pwork\work\pwork\biggsrd\d0340463\057026-sht-plan_50.dgn		DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
*MODELNAME*	PLOT DATE = 2/7/2014	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PLAN SHEET  
FAI - 74 EB / MM 172.83**

SCALE: SHEET OF SHEETS STA. TO STA.

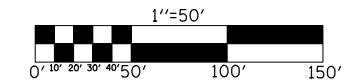
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	18
			CONTRACT NO. 70A26	
ILLINOIS FED. AID PROJECT				

**OVERHEAD SIGN STRUCTURE**

**I-74 EB - MM 172.83**

**STRUCTURE NO.**

**5 S 010 I072 R172.83**

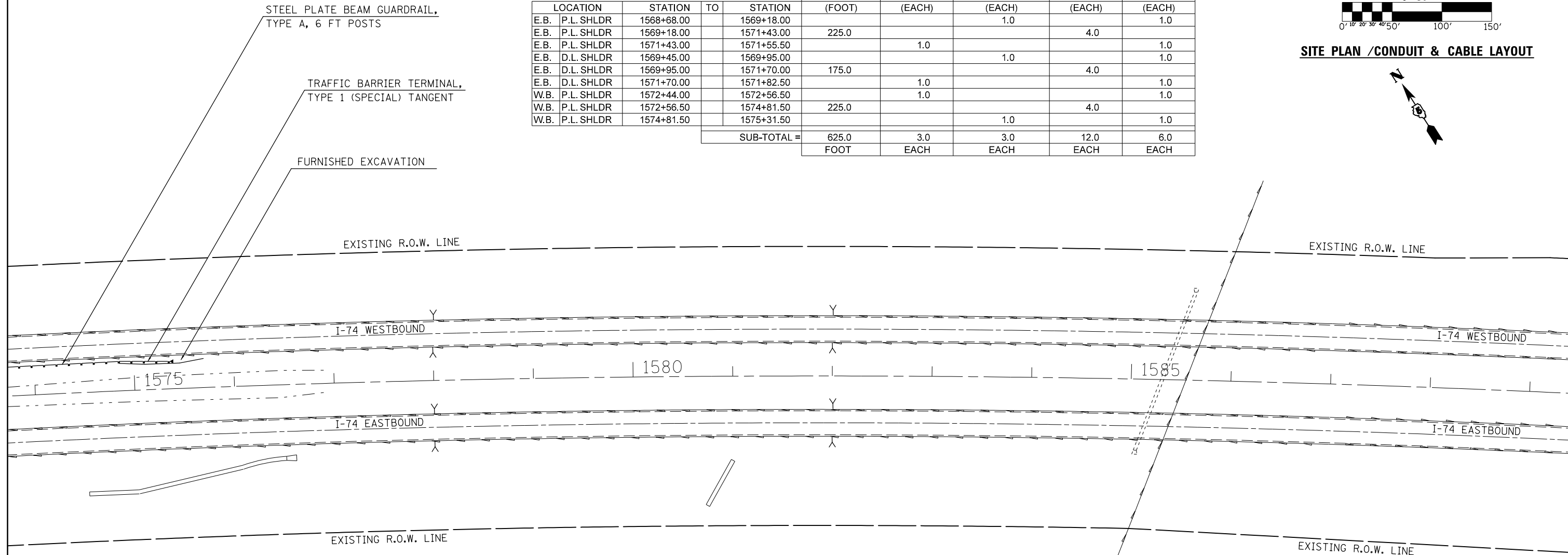


**SITE PLAN / CONDUIT & CABLE LAYOUT**



**GUARDRAIL SCHEDULE**

LOCATION	STATION	TO	STATION	63000001 STEEL PLATE BEAM GUARDRAIL TYPE A 6 FT POSTS (FOOT)	63100045 TRAFFIC BARRIER TERMINAL TYPE 2 (EACH)	63100167 TRAFFIC BARRIER TERMINAL TYPE 1 (SPECIAL) TANGENT (EACH)	78200410 GUARDRAIL MARKER TYPE A (EACH)	78201000 TERMINAL MARKER DIRECT APPLIED (EACH)
E.B. P.L. SHLDR	1568+68.00		1569+18.00			1.0		1.0
E.B. P.L. SHLDR	1569+18.00		1571+43.00	225.0			4.0	
E.B. P.L. SHLDR	1571+43.00		1571+55.50		1.0			1.0
E.B. D.L. SHLDR	1569+45.00		1569+95.00			1.0		1.0
E.B. D.L. SHLDR	1569+95.00		1571+70.00	175.0			4.0	
E.B. D.L. SHLDR	1571+70.00		1571+82.50		1.0			1.0
W.B. P.L. SHLDR	1572+44.00		1572+56.50		1.0			1.0
W.B. P.L. SHLDR	1572+56.50		1574+81.50	225.0			4.0	
W.B. P.L. SHLDR	1574+81.50		1575+31.50			1.0		1.0
SUB-TOTAL =				625.0	3.0	3.0	12.0	6.0
				FOOT	EACH	EACH	EACH	EACH

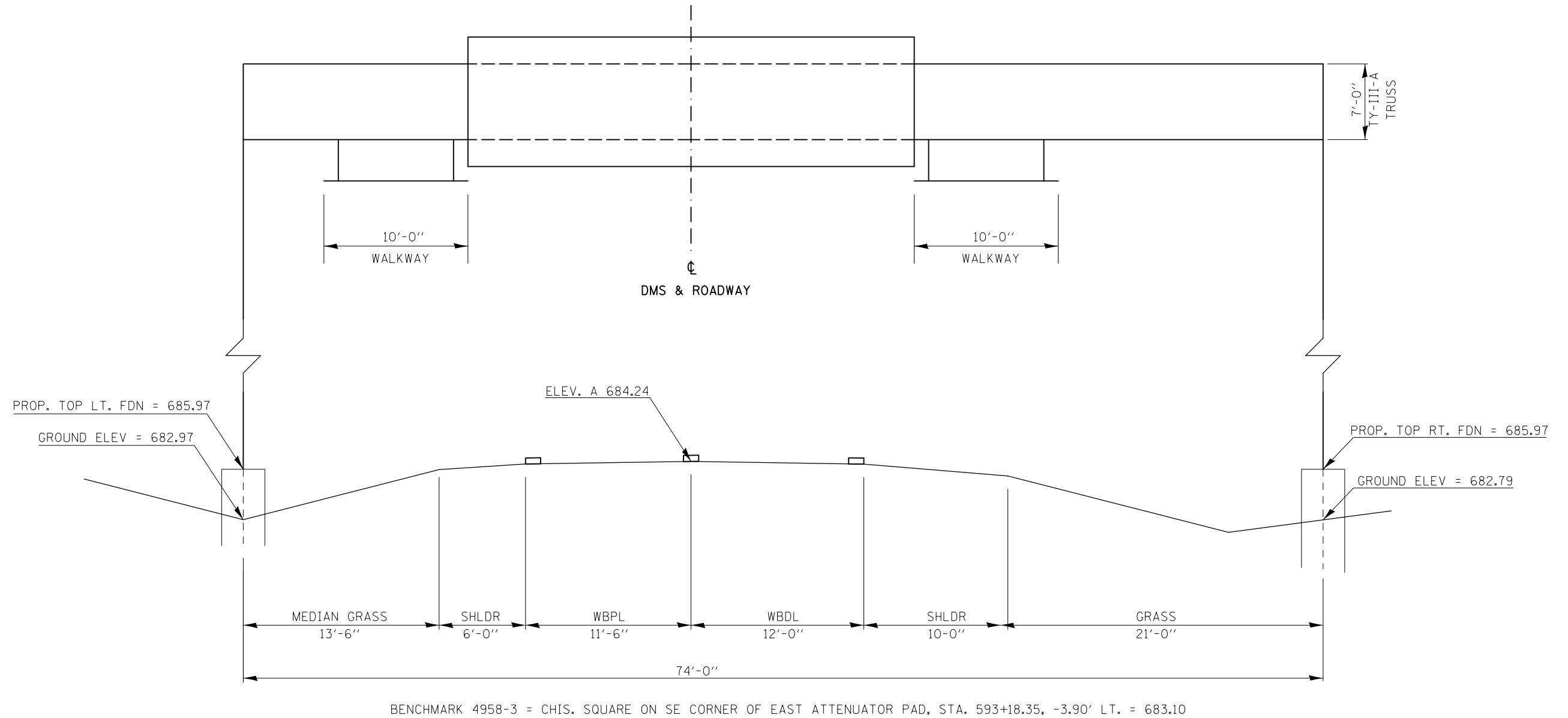


**EARTHWORK & SEEDING SCHEDULE**

LOCATION	STATION	20400800 FURNISHED EXCAVATION (CU YD)	25000210 SEEDING CLASS 2A (ACRE)	25000400 NITROGEN FERTILIZER NUTRIENT (LB)	25000500 PHOSPHORUS FERTILIZER NUTRIENT (LB)	25000600 POTASSIUM FERTILIZER NUTRIENT (LB)	25100115 MULCH METHOD 2 (ACRE)
E.B. P.L. SHLDR	1568+68.00	2.0	0.01	0.9	0.9	0.9	0.01
E.B. D.L. SHLDR	1569+45.00	2.0	0.01	0.9	0.9	0.9	0.01
W.B. P.L. SHLDR	1575+31.50	2.0	0.01	0.9	0.9	0.9	0.01
SUB-TOTAL =		6.0	0.03	2.7	2.7	2.7	0.03
		CUYD	ACRE	LB	LB	LB	ACRE

# SIGN TRUSS MOUNTING DETAIL

## 5 S 010 I074 L189.05

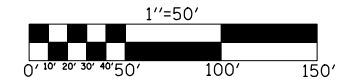


FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SIGN TRUSS MOUNTING DETAILS</b>				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et:\pw\work\p\dot\biggsrd\d0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -						VAR.	FY2014 ITS-1	CHAMPAIGN	74	20
*MODELNAME*	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -		CONTRACT NO. 70A26				ILLINOIS FED. AID PROJECT				
	PLOT DATE = 2/7/2014	DATE -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.		

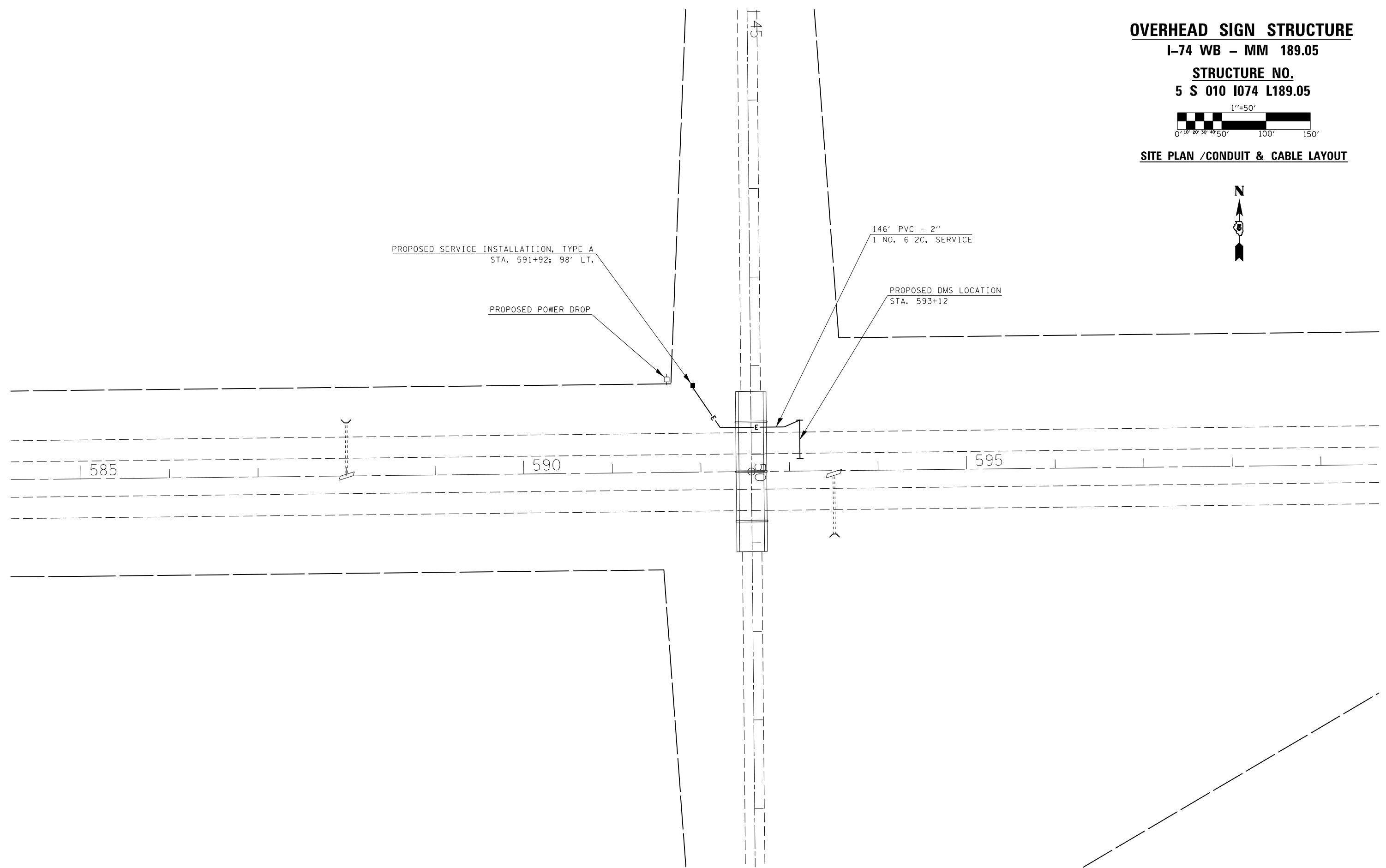
**OVERHEAD SIGN STRUCTURE**

I-74 WB - MM 189.05

**STRUCTURE NO.  
5 S 010 I074 L189.05**



**SITE PLAN /CONDUIT & CABLE LAYOUT**



FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
et:\pw_work\p1dot\biggsrd\d0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -
\$MODELNAME\$	PLOT SCALE = 100.0175' / in.	CHECKED -	REVISED -
	PLOT DATE = 2/7/2014	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHMAPAIGN	74	21
CONTRACT NO. 70A26			ILLINOIS FED. AID PROJECT	

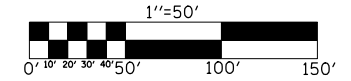
GUARDRAIL SCHEDULE

LOCATION	STATION	TO	STATION	63000001 STEEL PLATE BEAM GUARDRAIL TYPE A 6 FT POSTS (FOOT)	63100045 TRAFFIC BARRIER TERMINAL TYPE 2 (EACH)	63100167 TRAFFIC BARRIER TERMINAL TYPE 1(SPECIAL) TANGENT (EACH)	78200410 GUARDRAIL MARKER TYPE A (EACH)	78201000 TERMINAL MARKER DIRECT APPLIED (EACH)
E.B. P.L. SHLDR	591+40.00		591+90.00			1.0		1.0
E.B. P.L. SHLDR	591+90.00		592+90.00	100.0			4.0	
E.B. P.L. SHLDR	592+90.00		593+02.50		1.0			1.0
W.B. D.L. SHLDR	593+35.50		593+48.00		1.0			1.0
W.B. D.L. SHLDR	593+48.00		595+23.00	175.0			4.0	
W.B. D.L. SHLDR	595+23.00		595+73.00			1.0		1.0
W.B. P.L. SHLDR	593+19.50		593+32.00		1.0			1.0
W.B. P.L. SHLDR	593+32.00		595+32.00	200.0			4.0	
W.B. P.L. SHLDR	595+32.00		595+82.00			1.0		1.0
SUB-TOTAL =				475.0	3.0	3.0	12.0	6.0
				FOOT	EACH	EACH	EACH	EACH

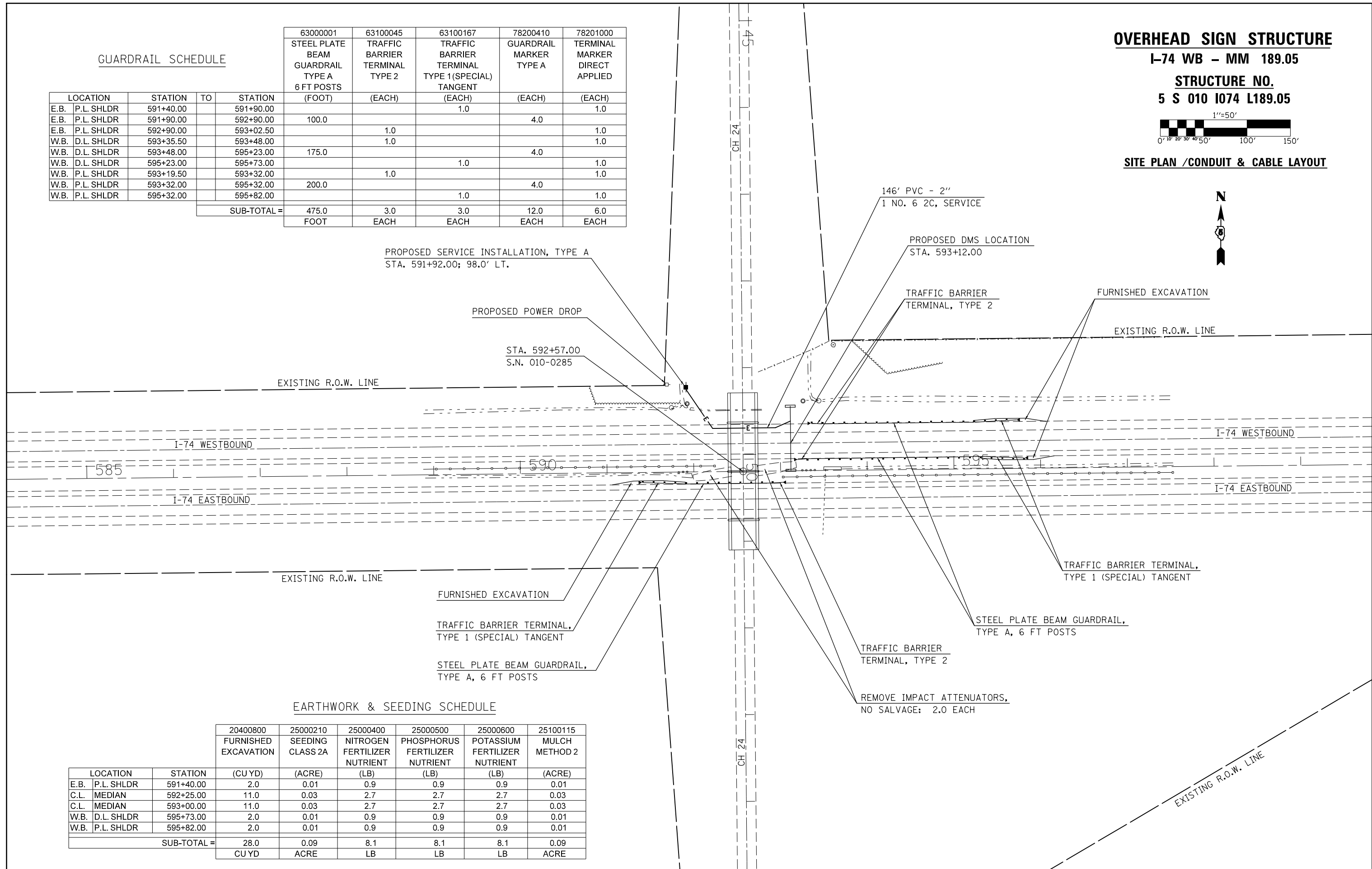
OVERHEAD SIGN STRUCTURE

I-74 WB - MM 189.05

STRUCTURE NO.  
5 S 010 I074 L189.05



SITE PLAN /CONDUIT & CABLE LAYOUT



PROPOSED SERVICE INSTALLATION, TYPE A  
STA. 591+92.00; 98.0' LT.

PROPOSED POWER DROP  
STA. 592+57.00  
S.N. 010-0285

146' PVC - 2"  
1 NO. 6 2C, SERVICE

PROPOSED DMS LOCATION  
STA. 593+12.00

TRAFFIC BARRIER  
TERMINAL, TYPE 2

FURNISHED EXCAVATION

EXISTING R.O.W. LINE

I-74 WESTBOUND

I-74 WESTBOUND

585

590

595

I-74 EASTBOUND

I-74 EASTBOUND

EXISTING R.O.W. LINE

TRAFFIC BARRIER TERMINAL,  
TYPE 1 (SPECIAL) TANGENT

FURNISHED EXCAVATION

TRAFFIC BARRIER TERMINAL,  
TYPE 1 (SPECIAL) TANGENT

STEEL PLATE BEAM GUARDRAIL,  
TYPE A, 6 FT POSTS

STEEL PLATE BEAM GUARDRAIL,  
TYPE A, 6 FT POSTS

TRAFFIC BARRIER  
TERMINAL, TYPE 2

REMOVE IMPACT ATTENUATORS,  
NO SALVAGE: 2.0 EACH

EARTHWORK & SEEDING SCHEDULE

LOCATION	STATION	(CU YD)	(ACRE)	(LB)	(LB)	(LB)	(ACRE)
E.B. P.L. SHLDR	591+40.00	2.0	0.01	0.9	0.9	0.9	0.01
C.L. MEDIAN	592+25.00	11.0	0.03	2.7	2.7	2.7	0.03
C.L. MEDIAN	593+00.00	11.0	0.03	2.7	2.7	2.7	0.03
W.B. D.L. SHLDR	595+73.00	2.0	0.01	0.9	0.9	0.9	0.01
W.B. P.L. SHLDR	595+82.00	2.0	0.01	0.9	0.9	0.9	0.01
SUB-TOTAL =		28.0	0.09	8.1	8.1	8.1	0.09
		CUYD	ACRE	LB	LB	LB	ACRE

FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
c:\pwork\work\pwork\biggsrd\0340463\057026-sht-plan_50.dgn		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

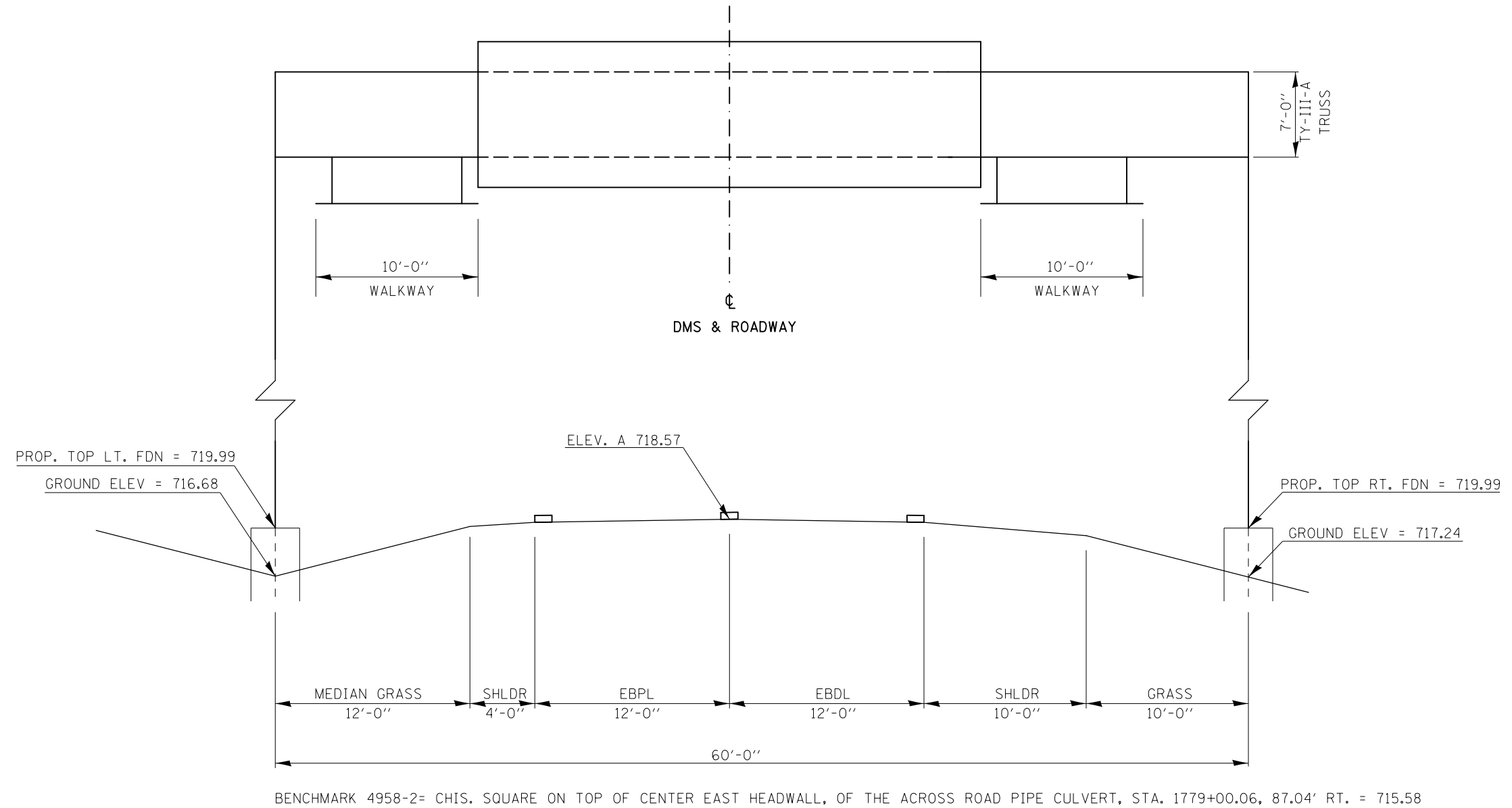
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PLAN SHEET			
FAI - 74 WB / MM 189.05			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	22
			CONTRACT NO. 70A26	
ILLINOIS FED. AID PROJECT				

# SIGN TRUSS MOUNTING DETAIL

## 5 S 010 I072 R178.29



FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
c:\pwwork\pwwork\biggsrd\d0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
\$MODELNAME\$	PLOT DATE = 2/7/2014	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SIGN TRUSS MOUNTING DETAILS**

SCALE:      SHEET      OF      SHEETS      STA.      TO STA.

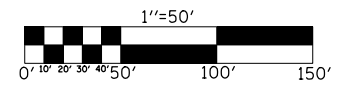
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	23
CONTRACT NO. 70A26				
ILLINOIS FED. AID PROJECT				

**OVERHEAD SIGN STRUCTURE**

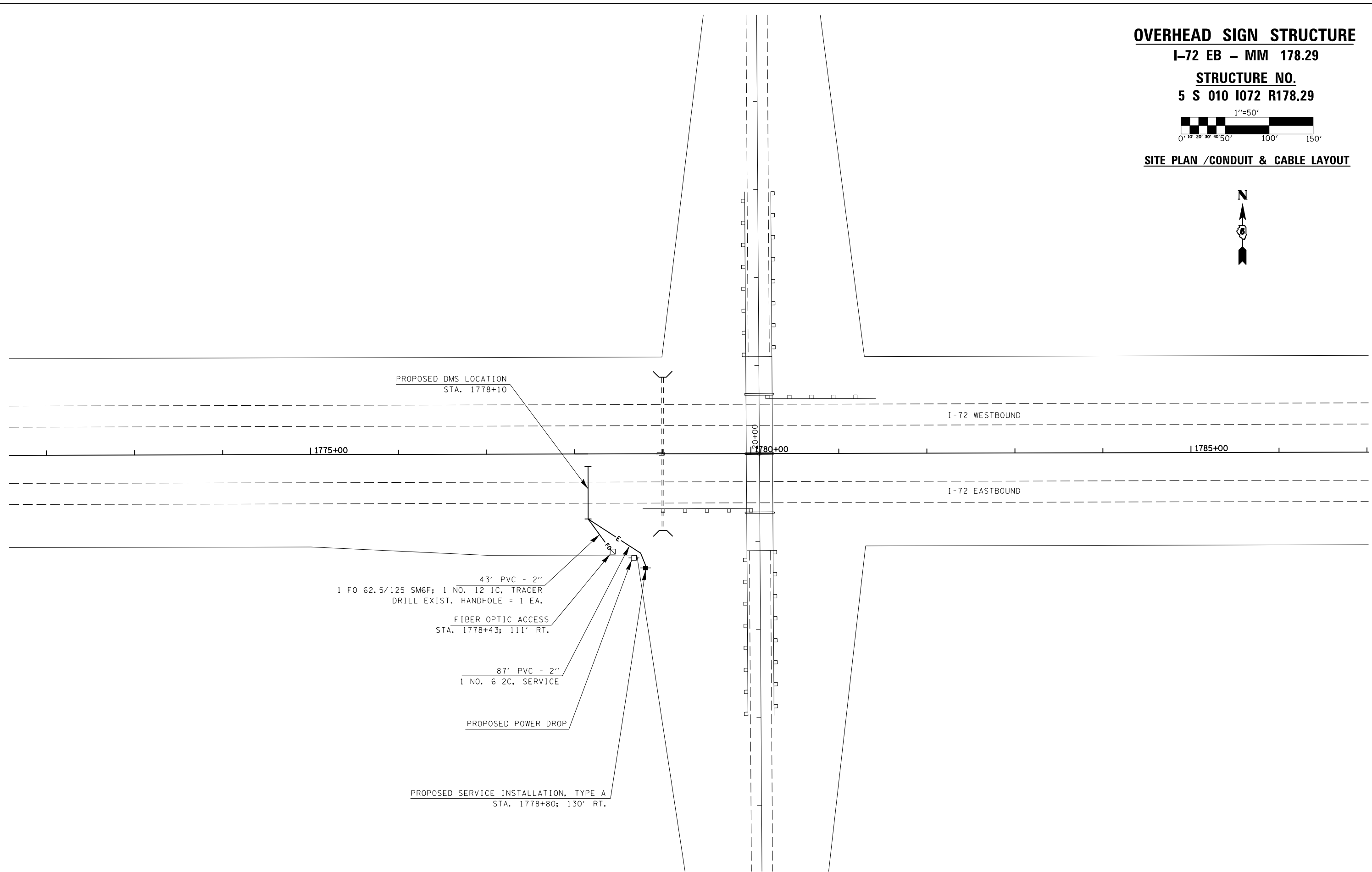
I-72 EB - MM 178.29

**STRUCTURE NO.**

5 S 010 I072 R178.29



**SITE PLAN / CONDUIT & CABLE LAYOUT**



FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
et:\pw\work\pwidot\biggsrd\d0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -
\$MODELNAME\$	PLOT SCALE = 100.0175 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 2/7/2014	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCALE:	SHEET	OF	SHEETS	STA.	TO STA.
--------	-------	----	--------	------	---------

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	24
CONTRACT NO. 70A26			ILLINOIS FED. AID PROJECT	



GUARDRAIL SCHEDULE

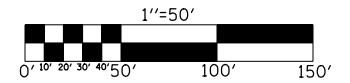
LOCATION	STATION	TO	STATION	63000001 STEEL PLATE BEAM GUARDRAIL TYPE A 6 FT POSTS (FOOT)	63100045 TRAFFIC BARRIER TERMINAL TYPE 2 (EACH)	63100167 TRAFFIC BARRIER TERMINAL TYPE 1(SPECIAL) TANGENT (EACH)	78200410 GUARDRAIL MARKER TYPE A (EACH)	78201000 TERMINAL MARKER DIRECT APPLIED (EACH)	63200310 GUARDRAIL REMOVAL (FOOT)
E.B. P.L. SHLDR	1775+18.00		1775+68.00			1.0		1.0	
E.B. P.L. SHLDR	1775+68.00		1777+93.00	225.0			4.0		
E.B. P.L. SHLDR	1777+93.00		1778+05.50		1.0			1.0	
E.B. D.L. SHLDR	1775+97.00		1776+47.00			1.0		1.0	
E.B. D.L. SHLDR	1776+47.00		1777+59.50	112.5			4.0		
E.B. D.L. SHLDR	1777+07.00		1777+57.00						50.0
W.B. P.L. SHLDR	1778+83.50		1778+96.00		1.0			1.0	
W.B. P.L. SHLDR	1778+96.00		1781+08.50	212.5			4.0		
W.B. P.L. SHLDR	1781+08.50		1781+58.50			1.0		1.0	
SUB-TOTAL =				550.0	2.0	3.0	12.0	5.0	50.0
				FOOT	EACH	EACH	EACH	EACH	FOOT

OVERHEAD SIGN STRUCTURE

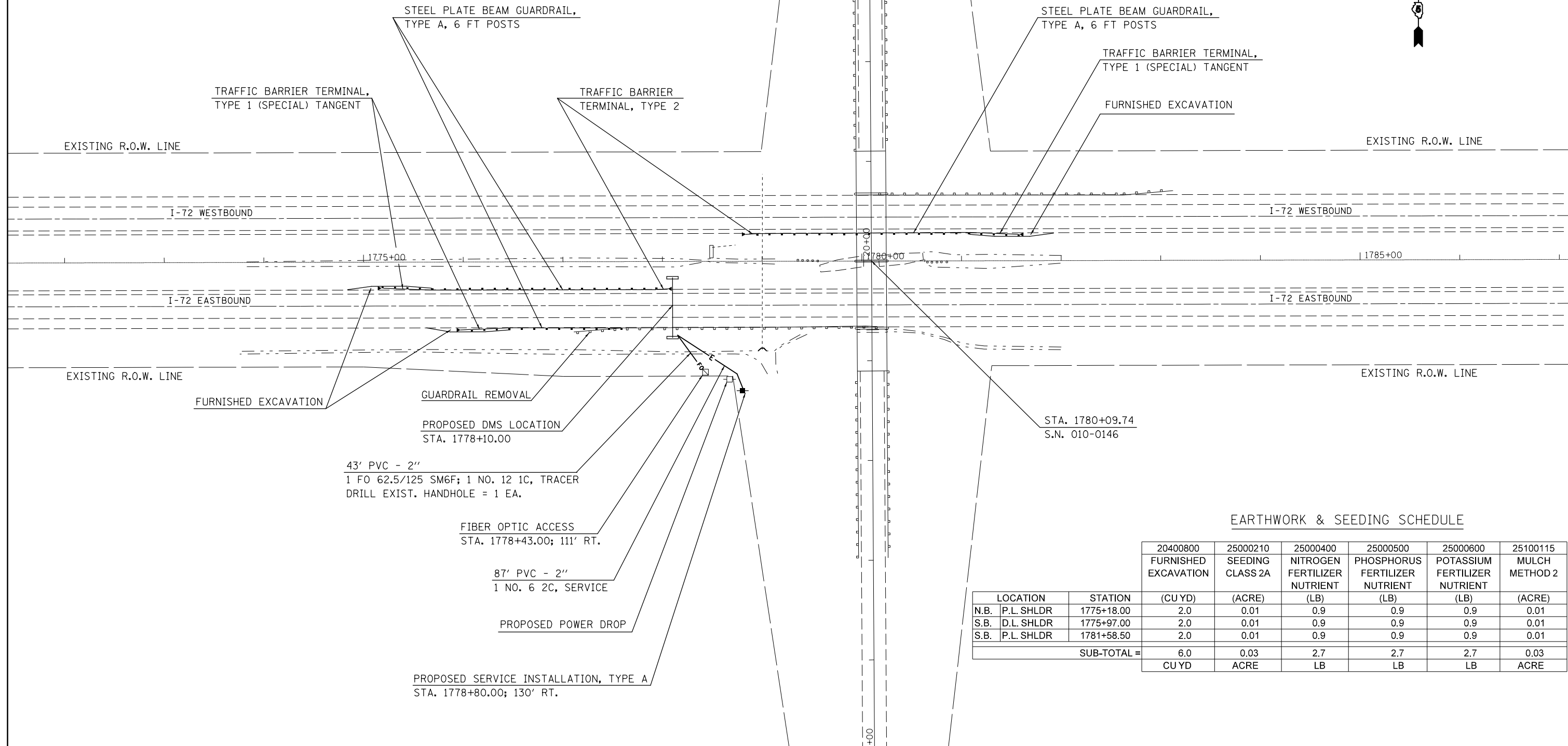
I-72 EB - MM 178.29

STRUCTURE NO.

5 S 010 I072 R178.29



SITE PLAN / CONDUIT & CABLE LAYOUT



STA. 1780+09.74  
S.N. 010-0146

EARTHWORK & SEEDING SCHEDULE

LOCATION	STATION	(CU YD)	(ACRE)	(LB)	(LB)	(LB)	(ACRE)
N.B. P.L. SHLDR	1775+18.00	2.0	0.01	0.9	0.9	0.9	0.01
S.B. D.L. SHLDR	1775+97.00	2.0	0.01	0.9	0.9	0.9	0.01
S.B. P.L. SHLDR	1781+58.50	2.0	0.01	0.9	0.9	0.9	0.01
SUB-TOTAL =		6.0	0.03	2.7	2.7	2.7	0.03
		CU YD	ACRE	LB	LB	LB	ACRE

**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<sub>c</sub> = 3,500 p.s.i.  
f<sub>y</sub> = 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.

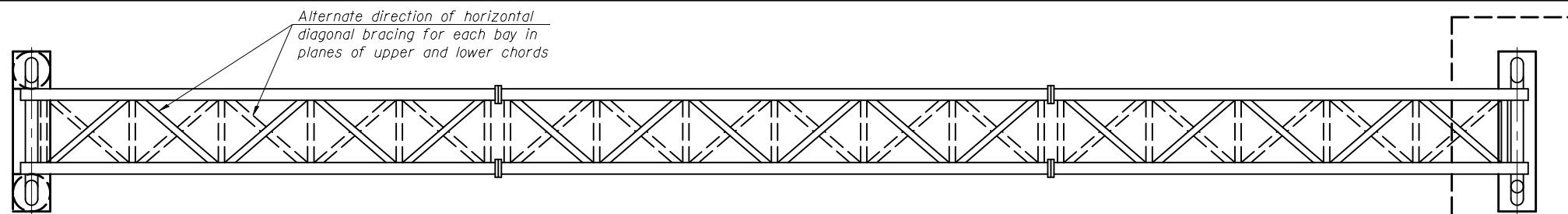
CONCRETE SURFACES: All concrete surfaces above an elevation 6" below the lowest final ground line at each foundation shall be cleaned and coated with Concrete Sealer in accordance with the Standard Specifications.

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

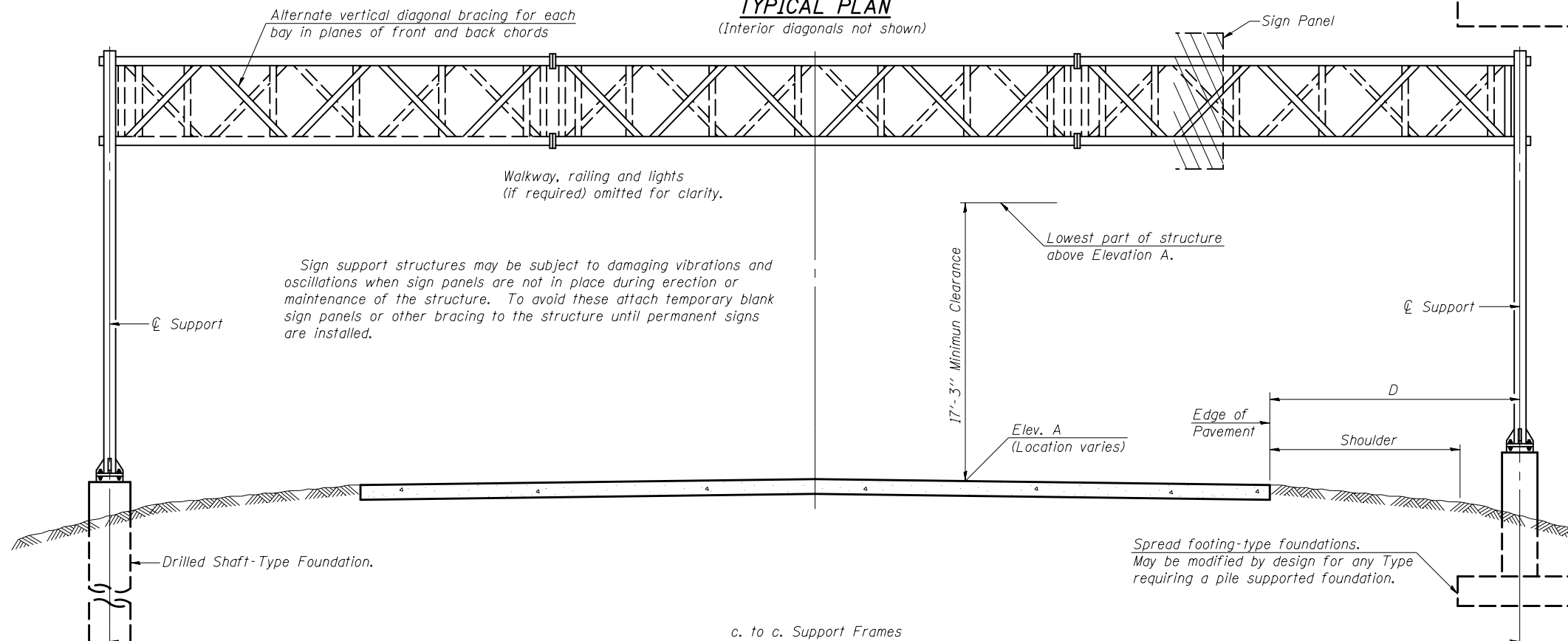
FOUNDATIONS: The contract unit price for Concrete Foundations and Drilled Shaft Concrete Foundations shall include reinforcement bars complete in place.

**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	371
OVERHEAD SIGN STRUCTURE WALKWAY TYPE A	Foot	100
CONCRETE FOUNDATIONS	Cu. Yds.	-
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	110.5



**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.

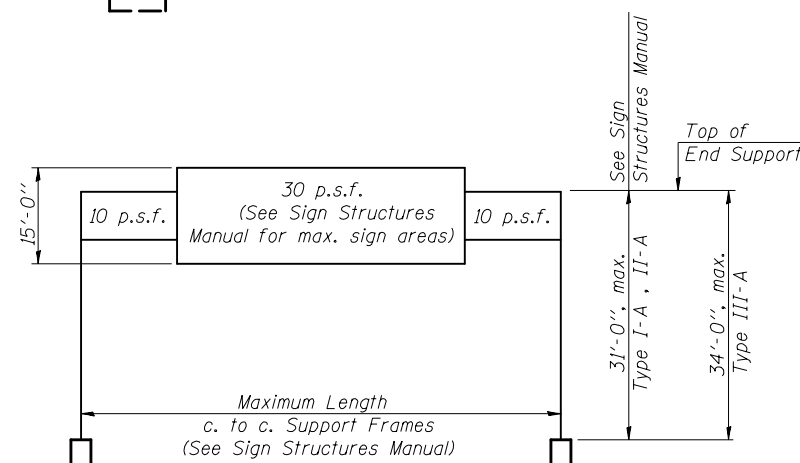
Structure Number	Station	Design Truss Type	c. to c. Supports	Elev. A	Dim. D	Height of Tallest Sign ****	Total Sign Area
5 S 010 1057 R226.45	472+50	III-A	74'-0"	690.08	***	Exact	Exact
5 S 010 1057 L242.78	890+96	III-A	76'-0"	735.57	***	Dimensions	Dimensions
5 S 010 1074 R172.83	1572+00	III-A	87'-0"	762.71	***	of DMS	of DMS
5 S 010 1074 L189.05	593+12	III-A	74'-0"	684.24	***	Cabinets	Cabinets
5 S 010 1072 R178.29	1778+15	III-A	60'-0"	718.57	***	Unknown	Unknown

\* 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.

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

\*\*\*See Sign Truss Mounting Details

\*\*\*\*End support height based on 15'-0" sign height per OS4-A-8a



**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

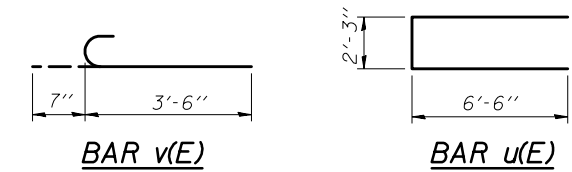
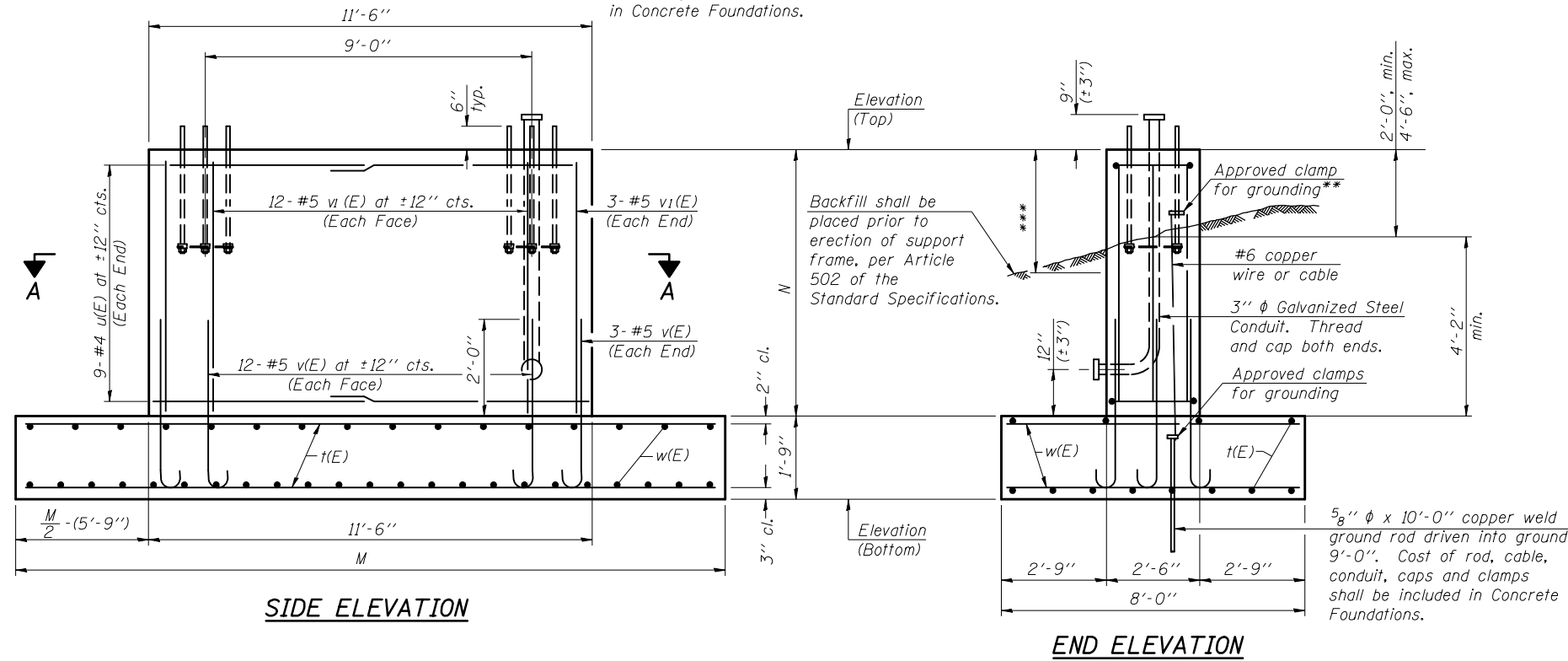
8-21-13

FILE NAME = c:\pwwork\pwwork\biggsrd\0340463\PTZ	USER NAME = biggsrd	DESIGNED -	REVISOR -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>OVERHEAD SIGN STRUCTURES - GENERAL PLAN &amp; ELEVATION - ALUMINUM TRUSS &amp; STEEL SUPPORTS</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
camera plans.dgn	DRAWN -	REVISOR -	VAR.			FY2014 ITS-1	CHAMPAIGN	74	26	
PLOT SCALE = 48.0000' / in.	CHECKED -	REVISOR -	CONTRACT NO. 70A26							
DATE = 2/7/2014	DATE -	REVISOR -	ILLINOIS FED. AID PROJECT							

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.

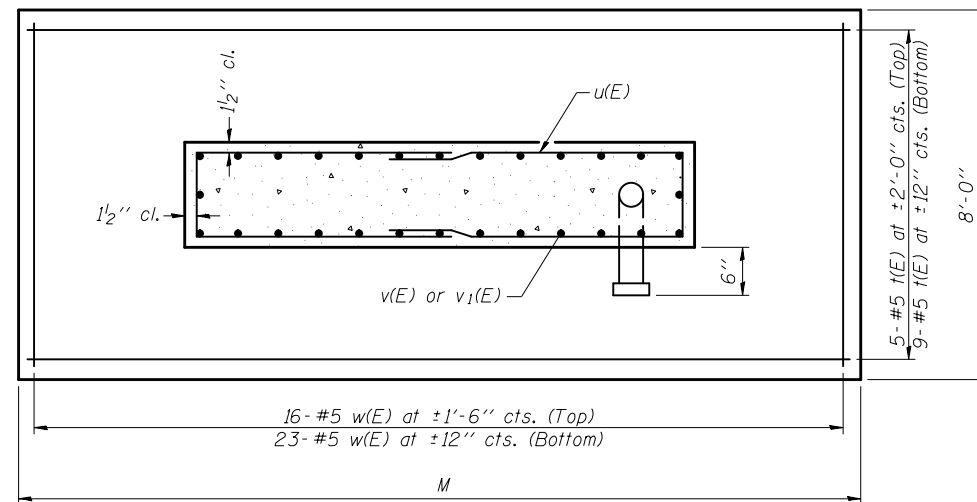
\*\*\* A normal surface finish followed by a Concrete Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in Concrete Foundations.



**BAR LIST - EACH FOUNDATION**

Bar	Number	Size	Length	Shape
t(E)	14	#5	*	—
u(E)	18	#4	15'-3"	U
v(E)	30	#5	4'-1"	C
v <sub>1</sub> (E)	30	#5	*	—
w(E)	39	#5	7'-9"	—

\*Length of t(E) bar = (Dim. M) - 6"  
v<sub>1</sub>(E) bar = (Dim. N) - 3"



**SECTION A-A**

Structure Number	Station	Left Foundation				Right Foundation				Class SI Concrete (Cu. Yds.)
		Elevation Top	Elevation Bottom	N	M	Elevation Top	Elevation Bottom	N	M	

Note:  
The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.0 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.  
During construction, if footing length or width or wall height change by more than 12", or if reinforcement is changed, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.

**DETAILS FOR 12" Ø SUPPORT FRAME**

OS-F4 8-21-13

FILE NAME = c:\pwwork\pwwid\biggsrd\0340463\PTZ	USER NAME = biggsrd camera plans.dgn	DESIGNED - DRAWN -	REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURES SPREAD FOOTING DETAILS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*MODELNAME*	PLOT DATE = 2/7/2014	CHECKED - DATE -	REVISED - REVISED -			SCALE:	SHEET OF SHEETS	STA. TO STA.	CONTRACT NO. 70A26	ILLINOIS FED. AID PROJECT

**BAR LIST - EACH FOUNDATION**

Bar	Number	Size	Length	Shape
v4(E)	24	#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 (Qu) 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.

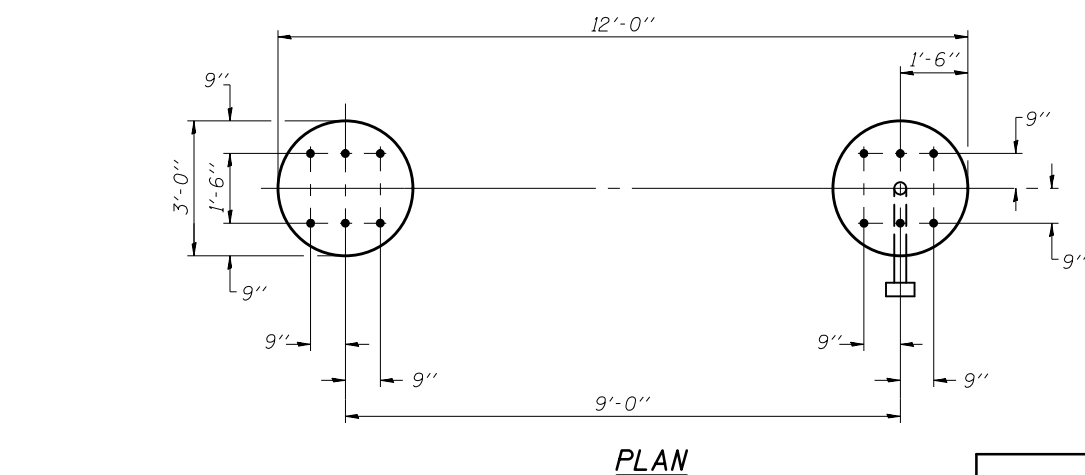
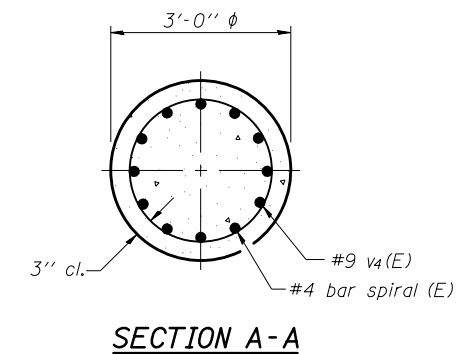
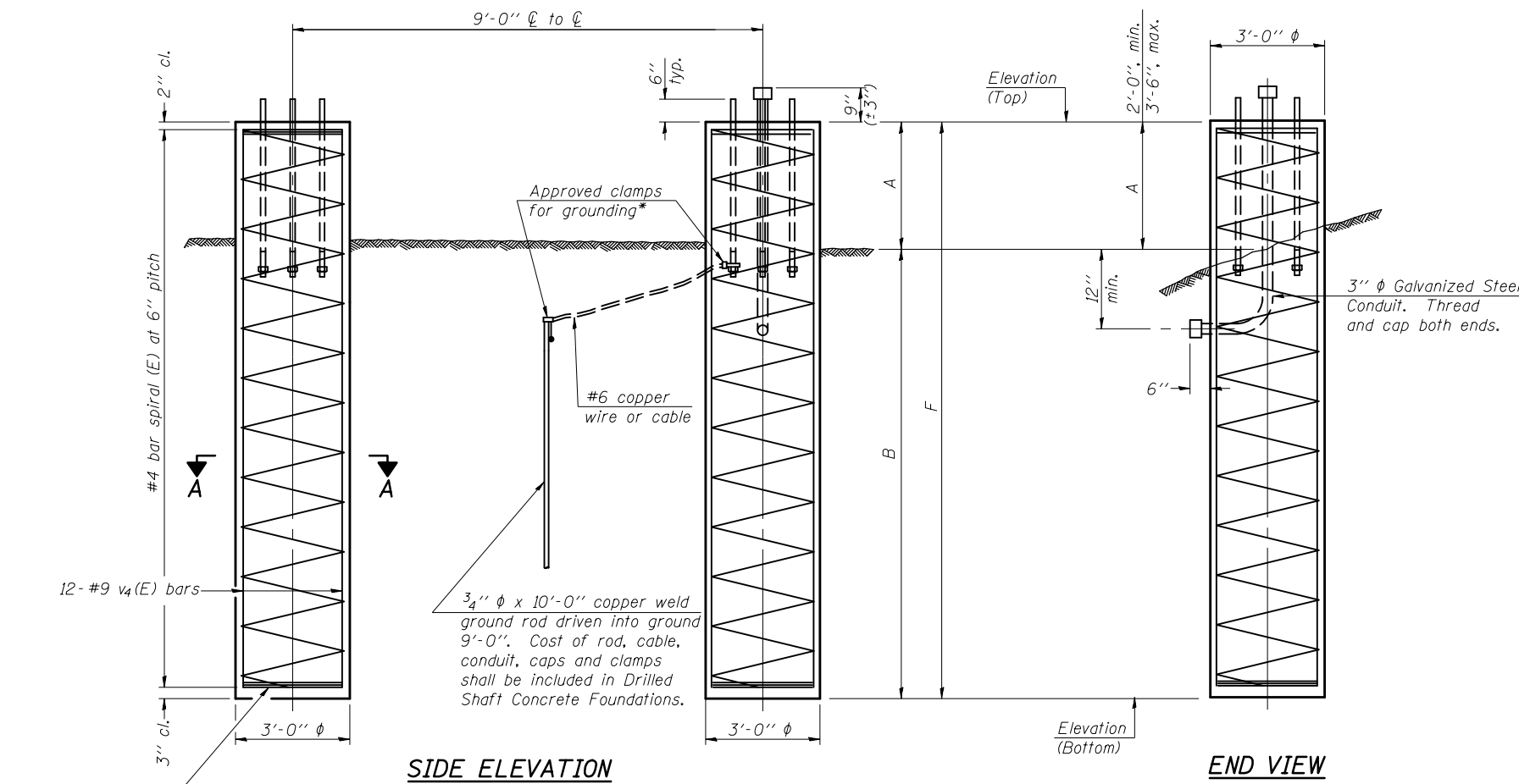
If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District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



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.

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

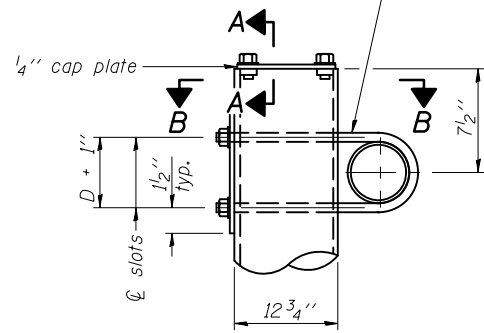
Structure Number	Station	Left Foundation					Right Foundation					Class DS Concrete (Cu. Yds.)
		Elevation Top	Elevation Bottom	A	B	F	Elevation Top	Elevation Bottom	A	B	F	
5 S 010 I057 R226.45	472+50	691.21	670.21	3'-0"	18'-0"	21'-0"	691.21	669.96	3'-3"	18'-0"	21'-3"	22.2
5 S 010 I057 L242.78	890+96	735.82	714.82	3'-0"	18'-0"	21'-0"	735.82	714.63	3'-2 1/4"	18'-0"	21'-2 1/4"	22.1
5 S 010 I074 R172.83	1572+00	762.49	741.49	3'-0"	18'-0"	21'-0"	761.49	740.49	3'-0"	18'-0"	21'-0"	22.0
5 S 010 I074 L189.05	593+12	685.97	664.97	3'-0"	18'-0"	21'-0"	685.97	664.79	3'-2 1/4"	18'-0"	21'-2 1/4"	22.1
5 S 010 I072 R178.29	1778+15	719.99	698.68	3'-3 3/4"	18'-0"	21'-3 3/4"	719.99	699.24	2'-9"	18'-0"	20'-9"	22.1

OS4-F4

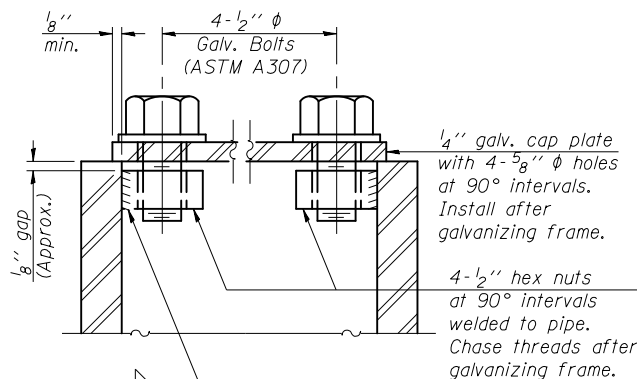
6-1-12

FILE NAME = c:\pwwork\pwwork\biggsrd\d0340463\PTZ	USER NAME = biggsrd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>OVERHEAD SIGN STRUCTURES DRILLED SHAFT DETAILS</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
camera plans.dgn	DRAWN -	REVISED -	VAR.			FY2014 ITS-1	CHAMAIN	74	28	
PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -	CONTRACT NO. 70A26							
*MODELNAME*	DATE -	REVISED -	ILLINOIS FED. AID PROJECT							

$\frac{3}{4}$ "  $\phi$  stainless steel U-bolt.  
Provide two washers and two hexagon locknuts. (4)  
 $\frac{13}{16}$ " x 2" slots on  $\phi$  12"  $\phi$  pipe.  
(4 slots required per pipe)

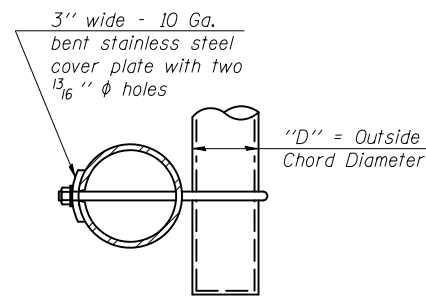


**DETAIL A**

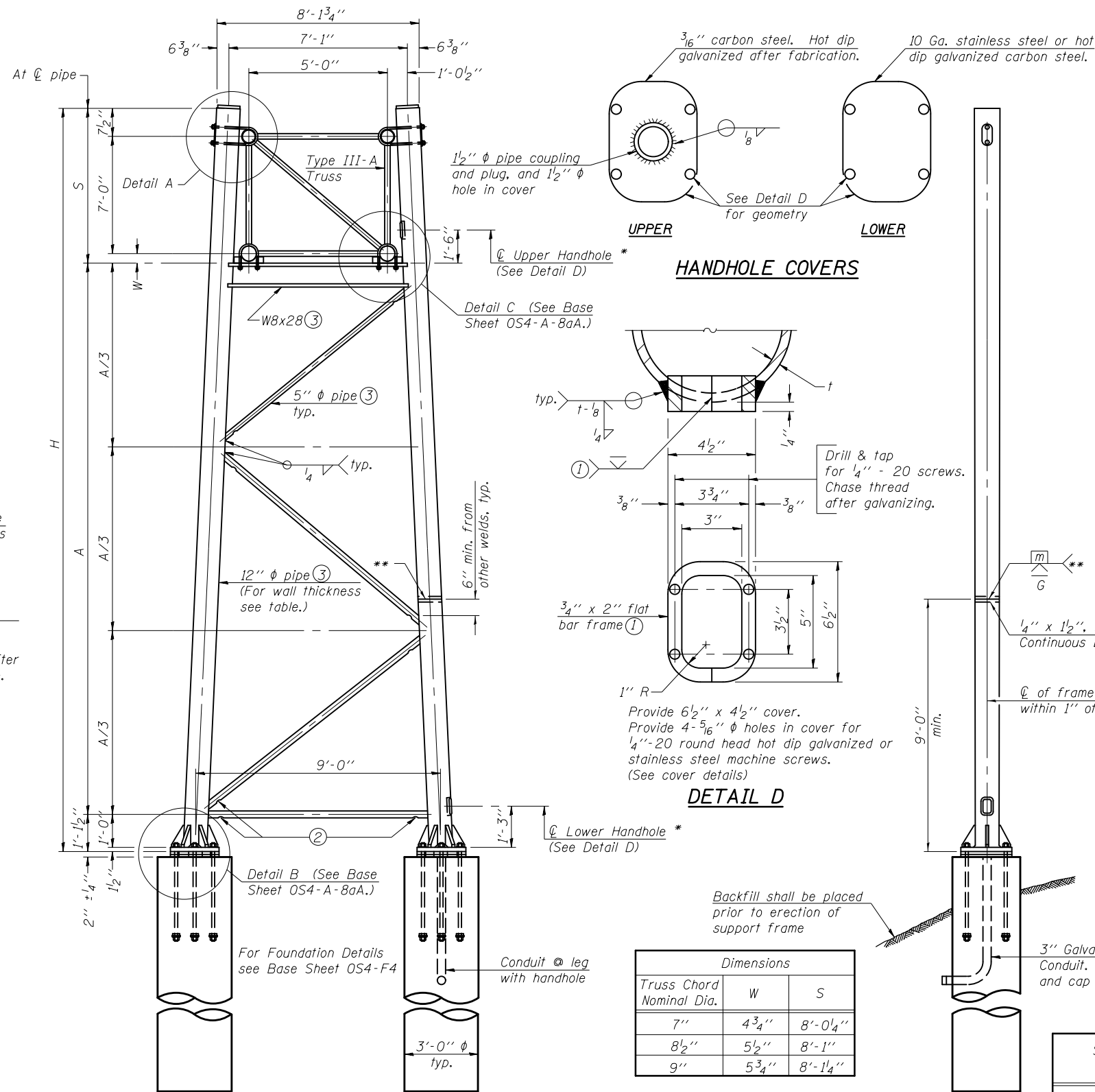


**SECTION A-A**

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



**SECTION B-B**



**SIDE ELEVATION**

**END ELEVATION**

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 $\frac{1}{4}$ "

**TRUSS SUPPORT DETAILS**

(12"  $\phi$  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.

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

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

- ① 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  $\mu$ m or less.
- ② 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.
- ③ 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.
- ④ See General Notes for fasteners.
- ⑤ Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.
- ⑥ "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			
5 S 010 1057 R226.45	472+50	X	X	0.33	29'-1 $\frac{3}{4}$ "	20'-0"
5 S 010 1057 L242.78	890+96	X	X	0.33	30'-1 $\frac{3}{4}$ "	21'-0"
5 S 010 1074 R172.83	1572+00	X		0.33	30'-7 $\frac{3}{4}$ "	21'-6"
			X	0.33	31'-7 $\frac{3}{4}$ "	22'-6"
5 S 010 1074 L189.05	593+12	X	X	0.33	29'-1 $\frac{3}{4}$ "	20'-0"
5 S 010 1072 R178.29	1778+15	X	X	0.33	29'-1 $\frac{3}{4}$ "	20'-0"

OS4-A-8a

6-1-12

FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
c:\pwwork\pwwidot\biggsrd\0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -
	PLOT SCALE = 48.0000' / in.	CHECKED -	REVISED -
*MODELNAME*	PLOT DATE = 2/7/2014	DATE -	REVISED -

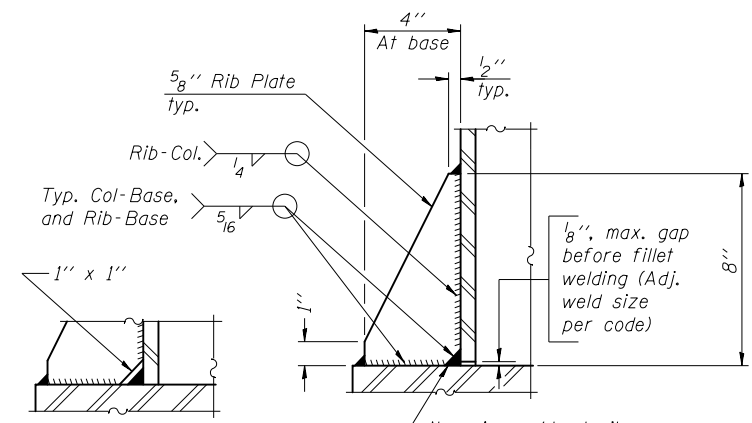
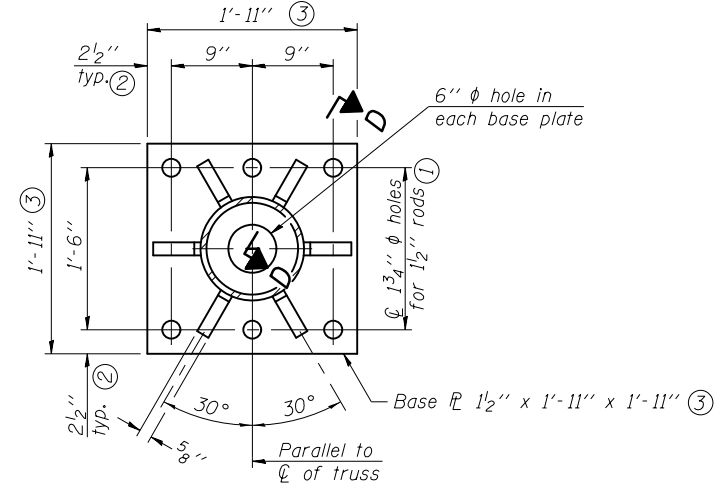
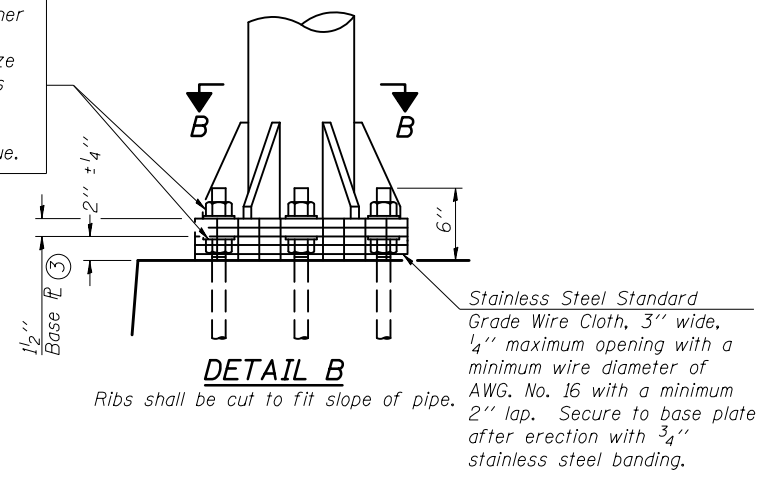
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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

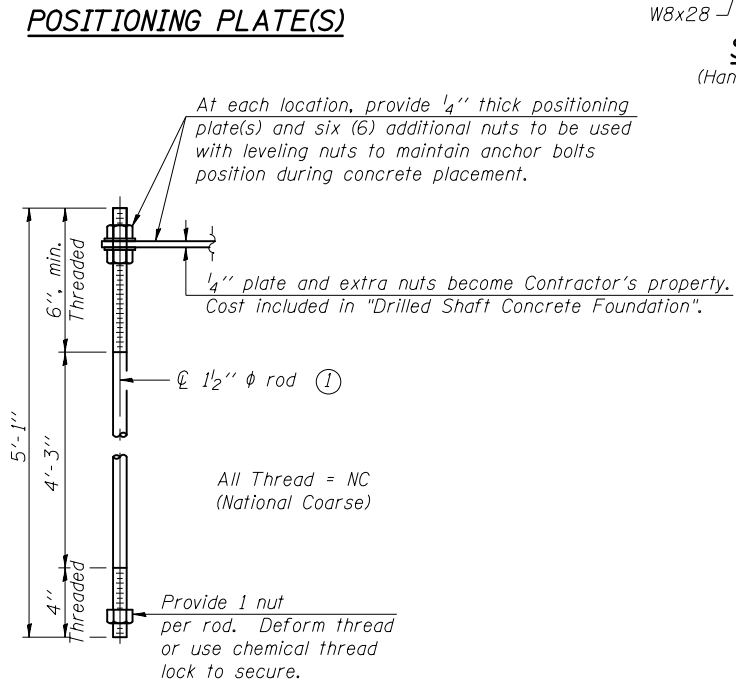
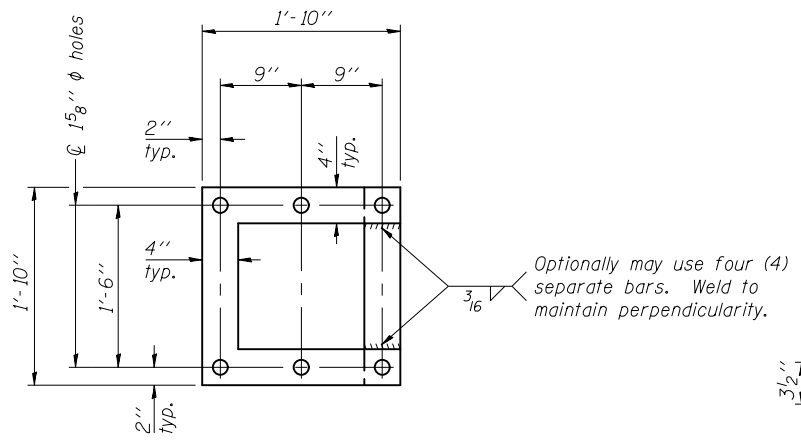
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	29
CONTRACT NO. 70A26			ILLINOIS FED. AID PROJECT	

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.



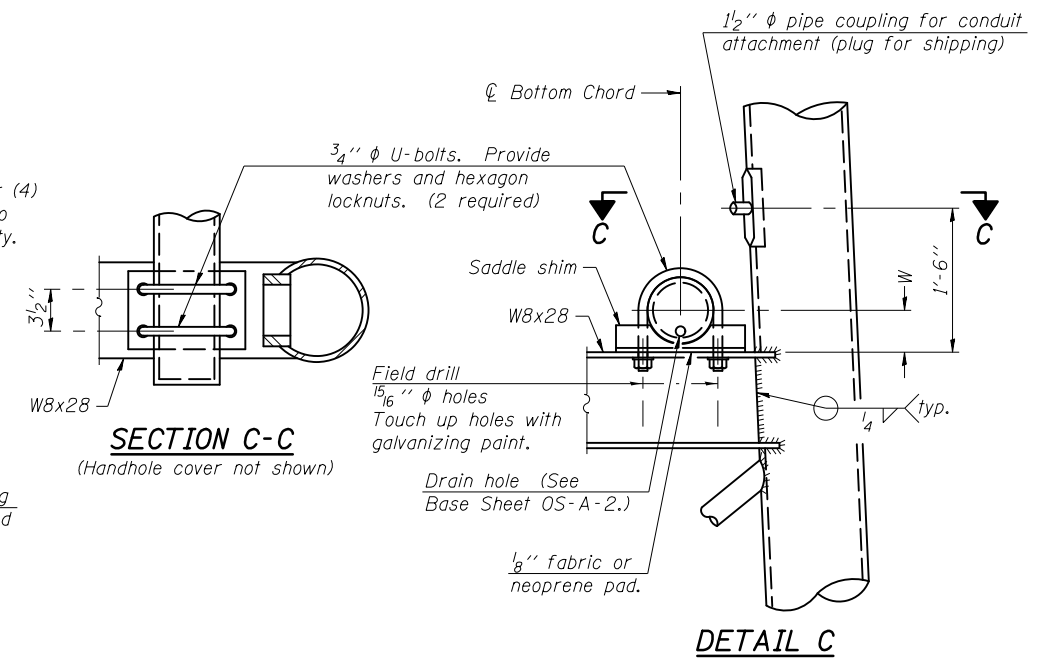
\*\* Alternate detail if welding col. to base plate first, then snip inside corner of ribs. Terminate weld on rib 1/4" from snip.



**TYPE III-A TRUSS**  
**12"  $\phi$  PIPE SUPPORT FRAME DETAILS**

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

- ① 1 3/4"  $\phi$  rod, 2"  $\phi$  holes
- ② 2 3/4" edge distance
- ③ Base Pl 1 5/8" x 11 1/2" x 11 1/2"



**SECTION C-C**  
(Handhole cover not shown)

\*R = D/2 + 1/32 at 90°  
D = Outside Diameter of Chord.  
For W, see Base Sheet OS-A-6.

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)

OS4-A-8aA

6-1-12

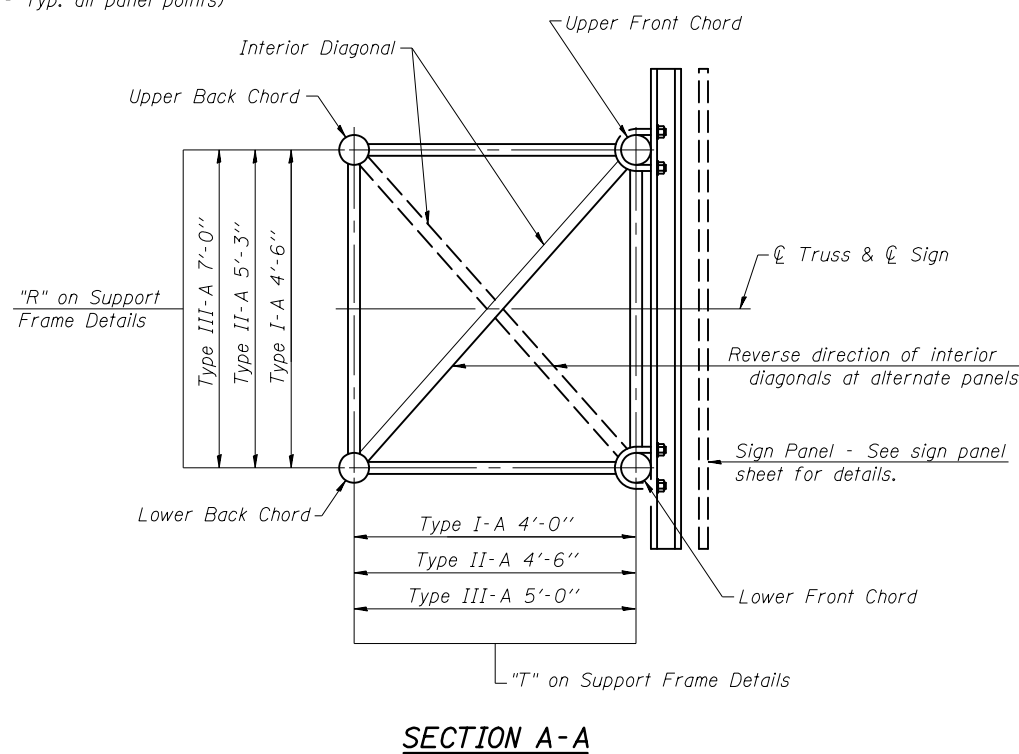
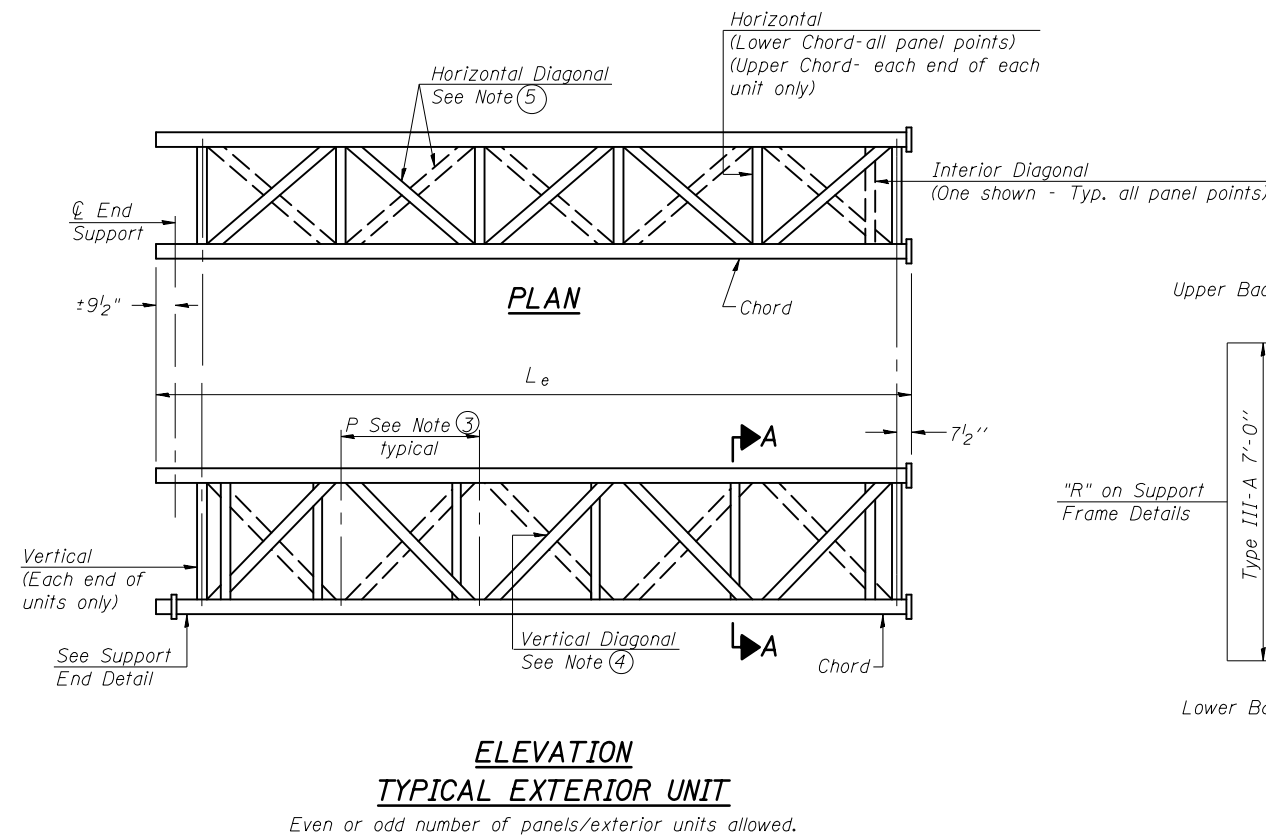
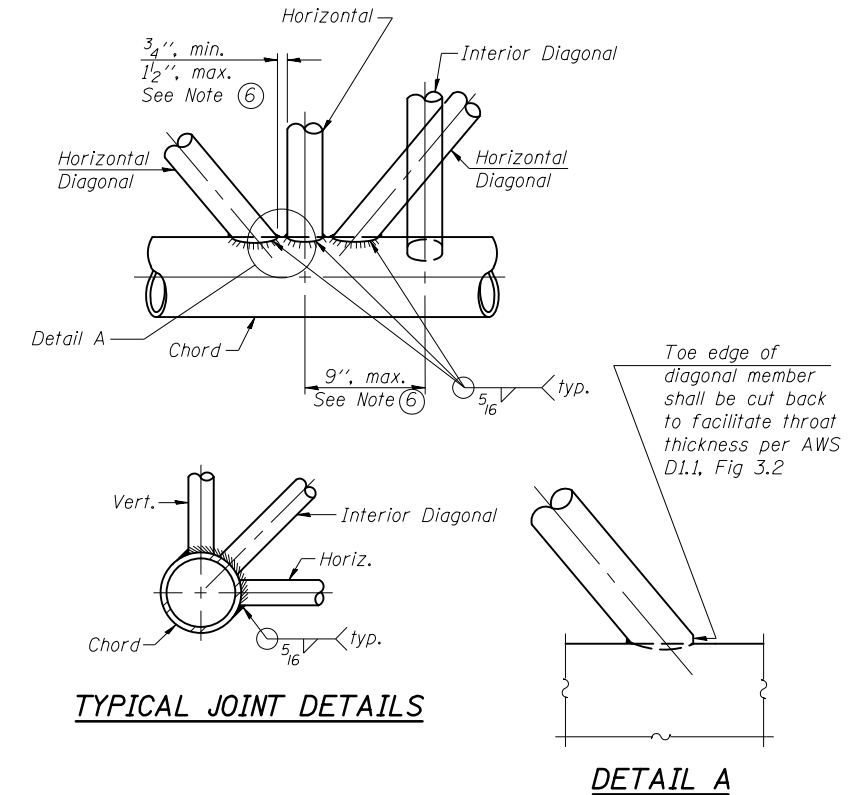
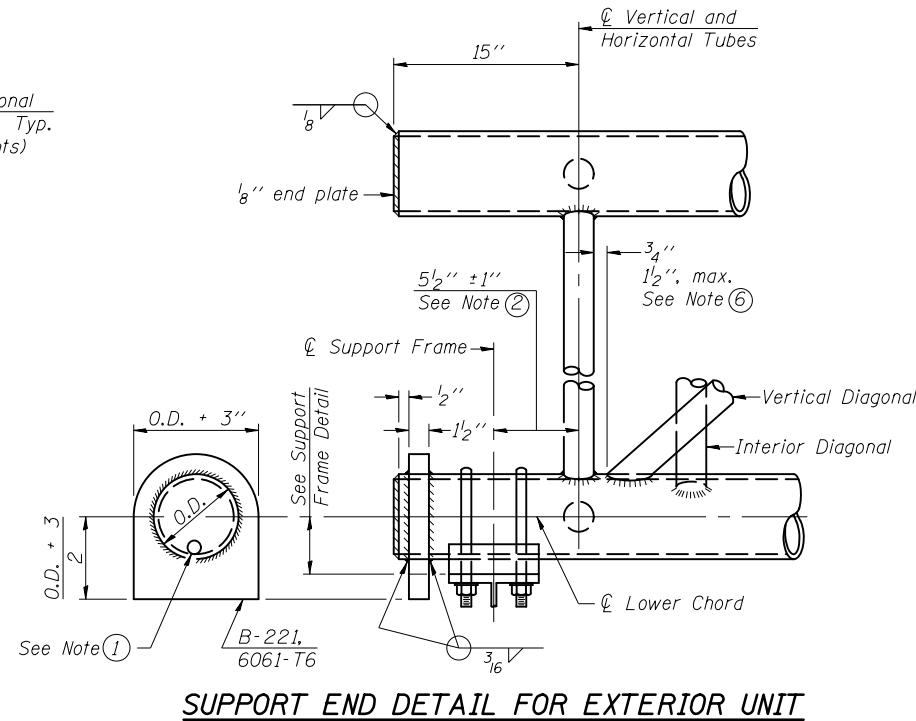
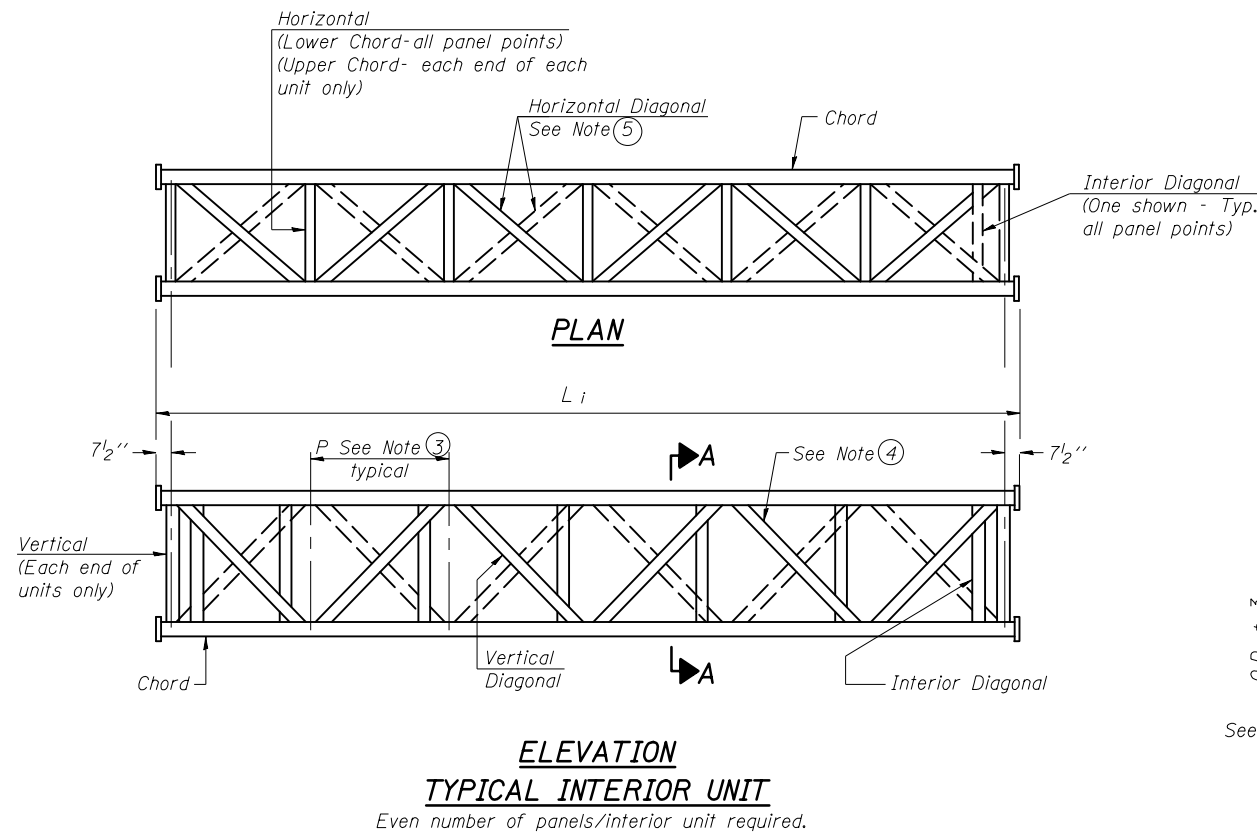
FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
c:\pwwork\pwwork\biggsrd\d0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
*MODELNAME*	PLOT DATE = 2/7/2014	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	30
			CONTRACT NO. 70A26	
ILLINOIS FED. AID PROJECT				



- ① 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)
- ② 5 1/2" end dimension may vary by ±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 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.

OS-A-2

6-1-12

FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
c:\pwwork\pwwork\biggsrd\d0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -
	PLOT SCALE = 48.0000' / in.	CHECKED -	REVISED -
*MODELNAME*	PLOT DATE = 2/7/2014	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

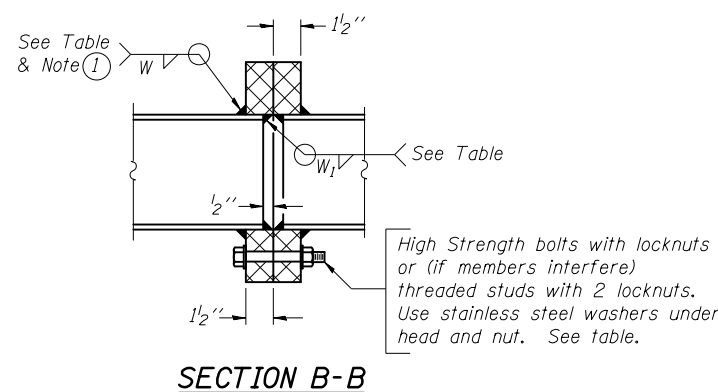
OVERHEAD SIGN STRUCTURES - ALUMINUM TRUSS  
DETAILS FOR TRUSS TYPES I-A, II-A AND III-A

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMAIN	74	31
CONTRACT NO. 70A26				
ILLINOIS FED. AID PROJECT				

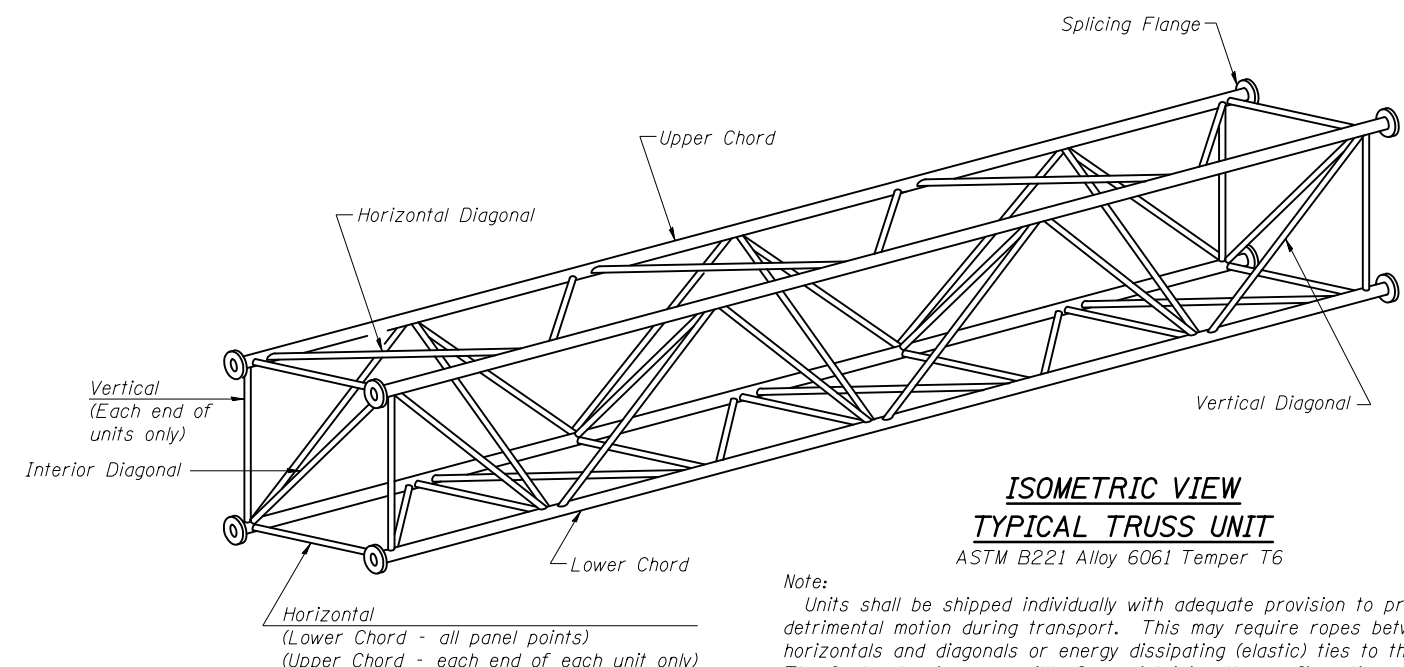
**TRUSS UNIT TABLE**

Structure Number	Station	Design Truss Type	Exterior Units (2)			Interior Unit				Upper & Lower Chord		Verticals; Horizontals; Vertical, Horizontal, and Interior Diagonals		Camber at Midspan	Splicing Flange					
			No. Panels per Unit	Unit Lgth.(L <sub>e</sub> )	Panel Lgth.(P)	No. Req'd.	No. Panels per Unit	Unit Lgth.(L <sub>i</sub> )	Panel Lgth.(P)	O.D.	Wall	O.D.	Wall		Bolts		Weld Sizes		A	B
															No./Splice	Dia.	W	W <sub>1</sub>		
5 S 010 I057 R226.45	472+50	III-A	7	37'-9"	5'-1 1/2"	—	—	—	—	7"	5/16"	3 1/4"	5/16"	1"	6	1"	7/16"	5/16"	11 1/2"	15"
5 S 010 I057 L242.78	890+96	III-A	7	38'-9 1/4"	5'-3 1/4"	—	—	—	—	7"	5/16"	3 1/4"	5/16"	1"	6	1"	7/16"	5/16"	11 1/2"	15"
5 S 010 I074 R172.83	1572+00	III-A	5	28'-0 1/4"	5'-2 3/4"	1	6	32'-7 1/2"	5'-2 3/4"	7"	5/16"	3 1/4"	5/16"	1 1/2"	6	1"	7/16"	5/16"	11 1/2"	15"
5 S 010 I074 L189.05	593+12	III-A	7	37'-9"	5'-1 1/2"	—	—	—	—	7"	5/16"	3 1/4"	5/16"	1"	6	1"	7/16"	5/16"	11 1/2"	15"
5 S 010 I072 R178.29	1778+15	III-A	6	30'-10 1/2"	4'-10"	—	—	—	—	7"	5/16"	3 1/4"	5/16"	3/4"	6	1"	7/16"	5/16"	11 1/2"	15"



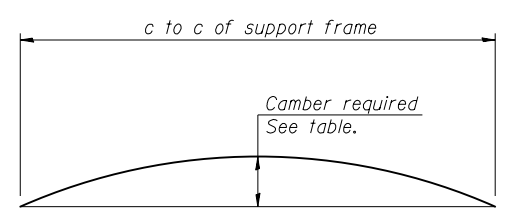
**SECTION B-B**

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.



**ISOMETRIC VIEW  
TYPICAL TRUSS UNIT**  
ASTM B221 Alloy 6061 Temper T6

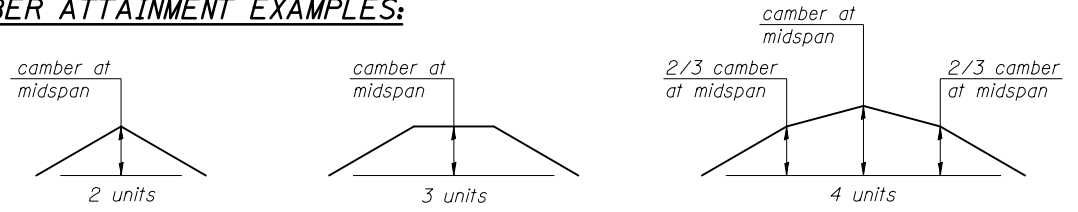
Note:  
Units shall be shipped individually with adequate provision to prevent detrimental motion during transport. This may require ropes between horizontals and diagonals or energy dissipating (elastic) ties to the vehicle. The Contractor is responsible for maintaining the configuration and protection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



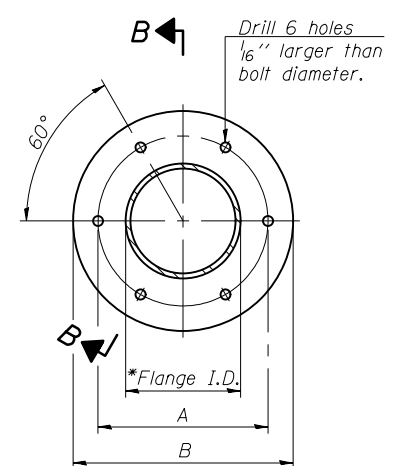
**CAMBER DIAGRAM**

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

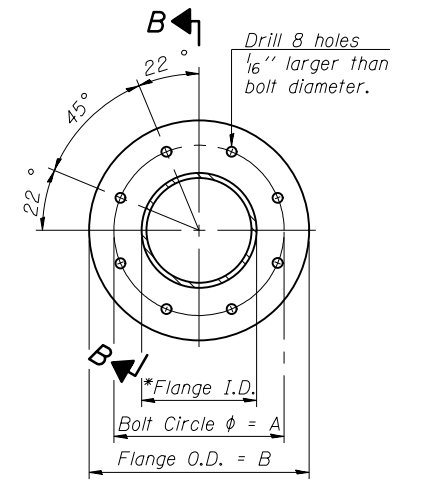
**CAMBER ATTAINMENT EXAMPLES:**



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**

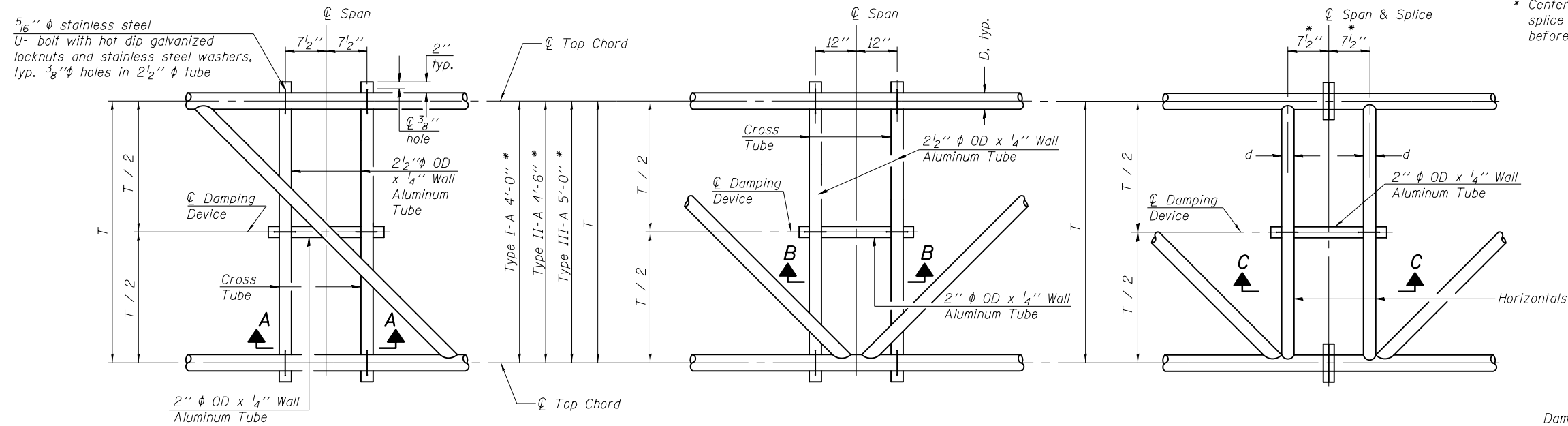
ASTM B221, Alloy 6061-T6  
or ASTM B209, Alloy 6061-T651  
\*To fit O.D. of Chord with maximum gap of 1/16".

OS4-A-2

6-1-12

FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>OVERHEAD SIGN STRUCTURES - ALUMINUM TRUSS DETAILS FOR TRUSS TYPES I-A, II-A AND III-A</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ei:\pw\work\p\idot\biggsrd\0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -			VAR.	FY2014 ITS-1	CHAMPAIGN	74	32	
*MODELNAME*	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -			SCALE: SHEET OF SHEETS STA. TO STA.		CONTRACT NO. 70A26			
	PLOT DATE = 2/7/2014	DATE -	REVISED -			ILLINOIS FED. AID PROJECT					





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

**PLAN DETAIL "A"**  
 ☉ Span between Panel Points

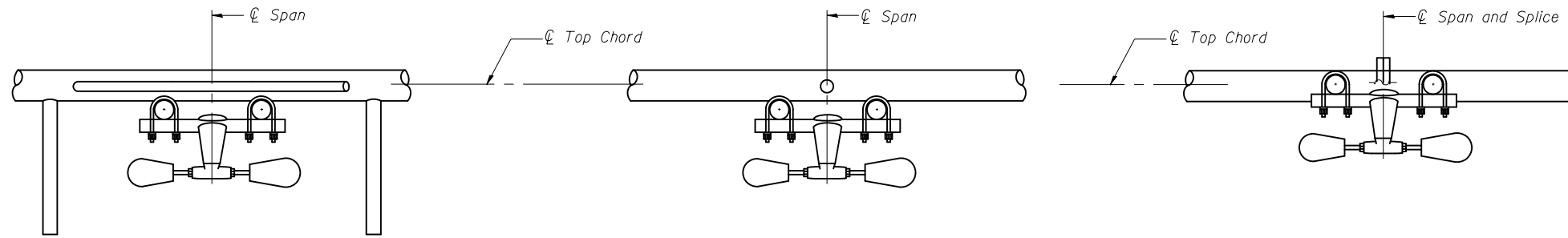
**PLAN DETAIL "B"**  
 ☉ Span at Panel Point

**PLAN DETAIL "C"**  
 ☉ Span at ☉ Chord Splice

**NOTES**

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

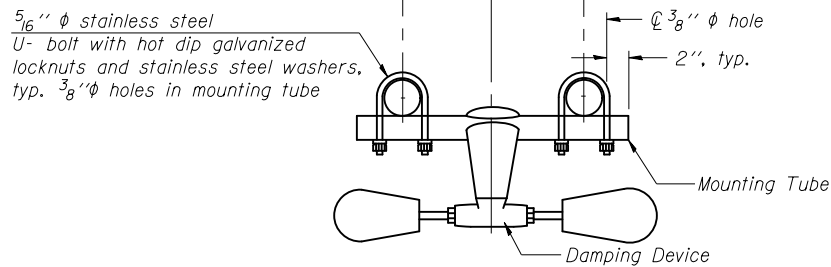
Materials: Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6. Cost included in Overhead Sign Structure...



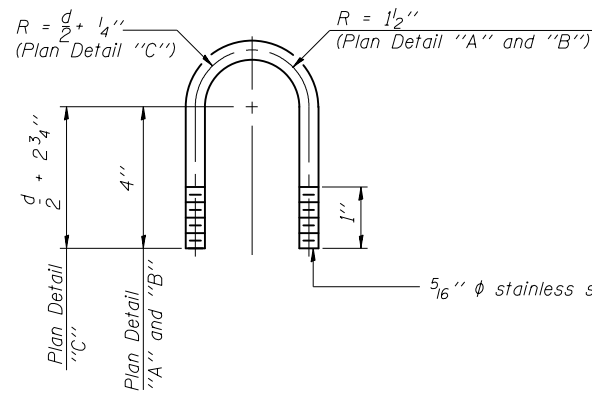
**SECTION A-A**

**SECTION B-B**

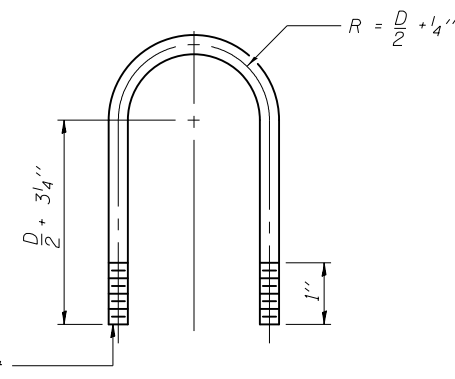
**SECTION C-C**



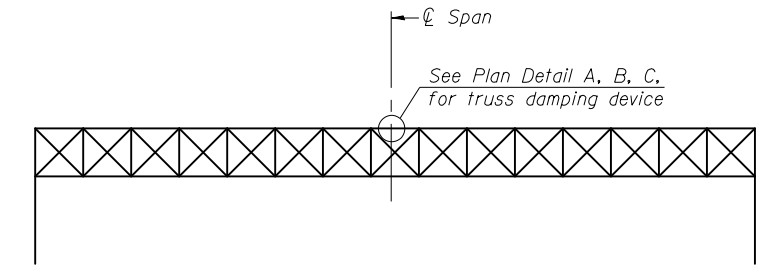
**TRUSS DAMPING DEVICE CONNECTION DETAIL**  
 (Typical)



**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

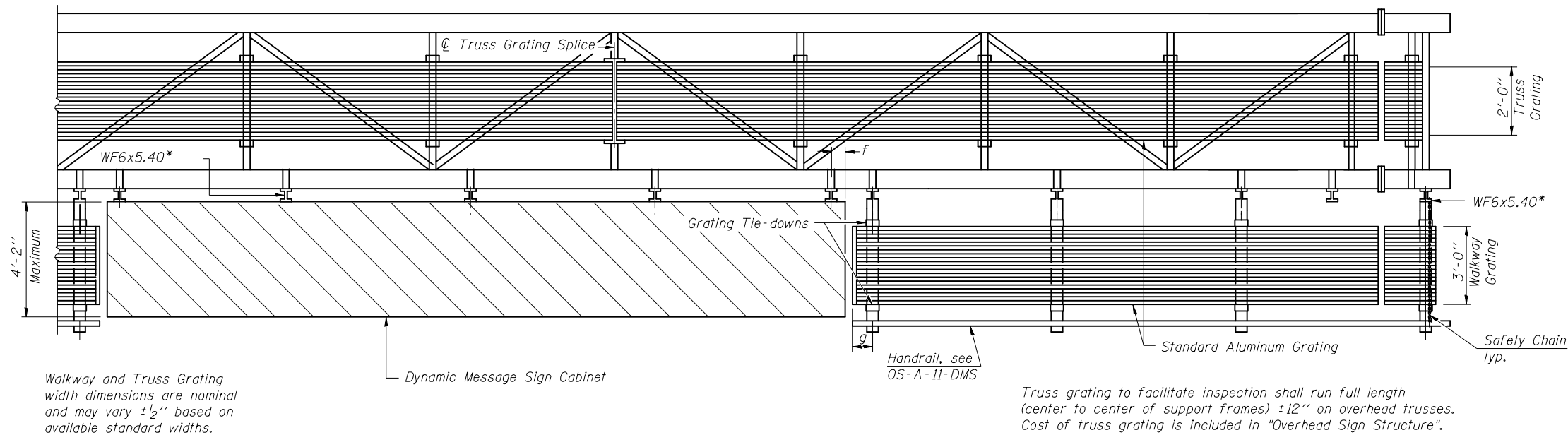
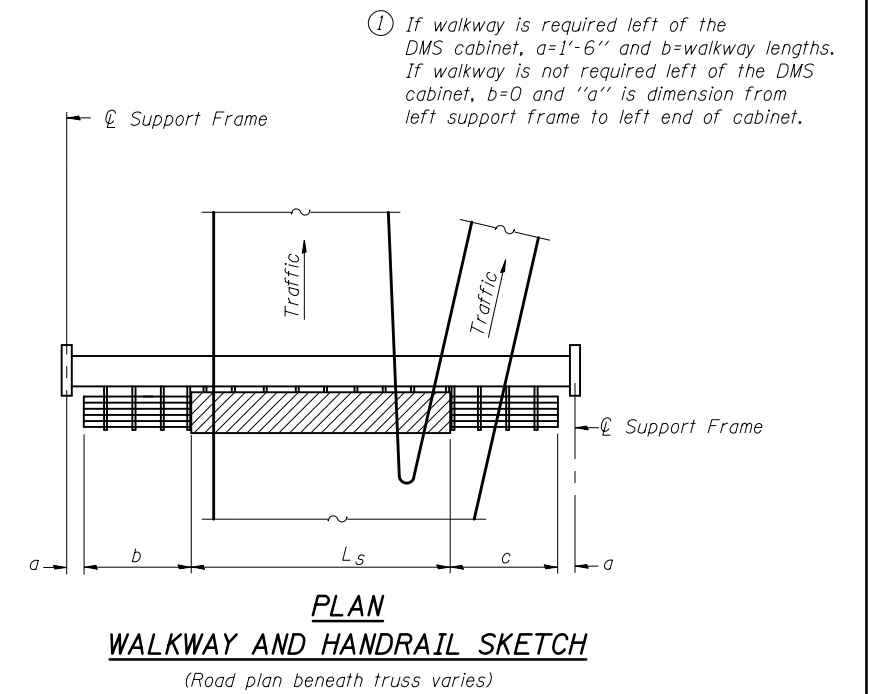
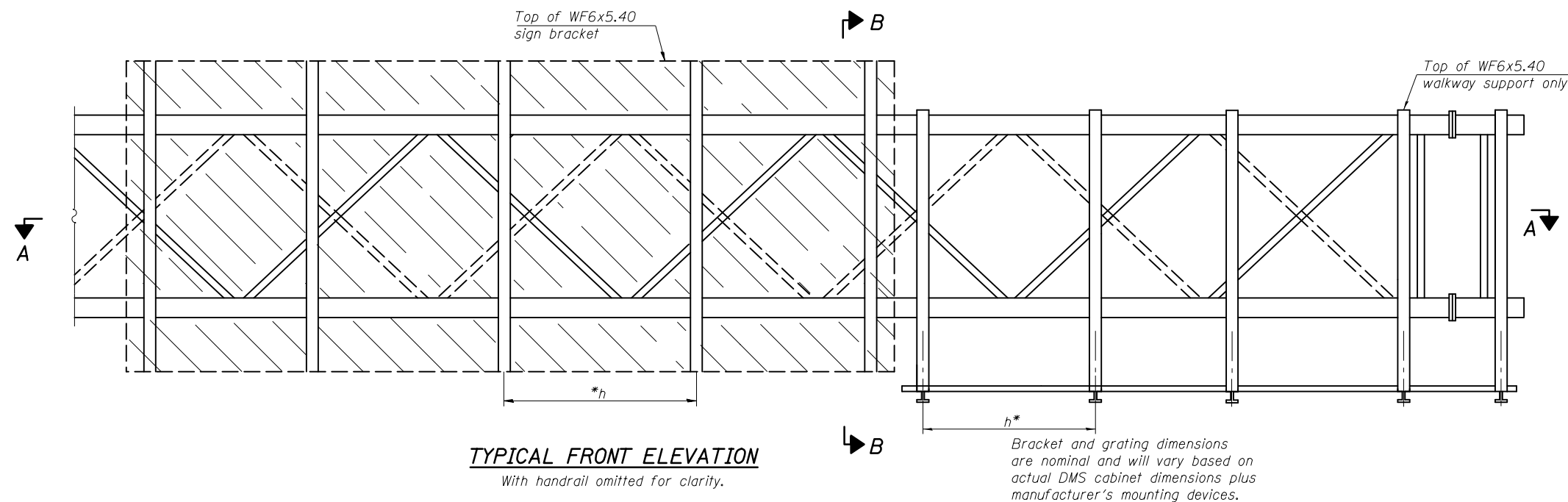
FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
c:\pwwork\pwwork\biggsrd\0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
*MODELNAME*	PLOT DATE = 2/7/2014	DATE -	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURE  
 DAMPING DEVICE

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	33
			CONTRACT NO. 70A26	
ILLINOIS FED. AID PROJECT				



**BRACKET TABLE**

WF6x5.40 ASTM B308, Alloy 6061-T6		
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

**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.

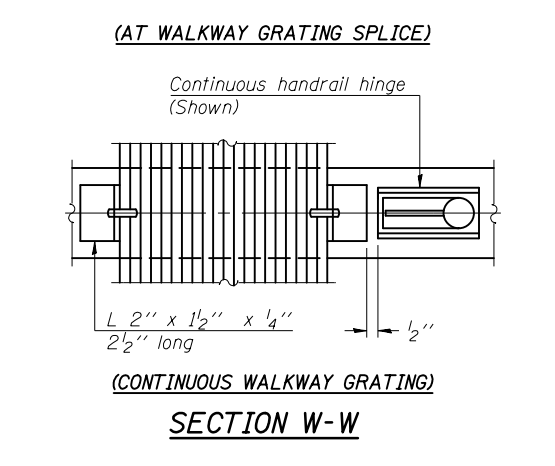
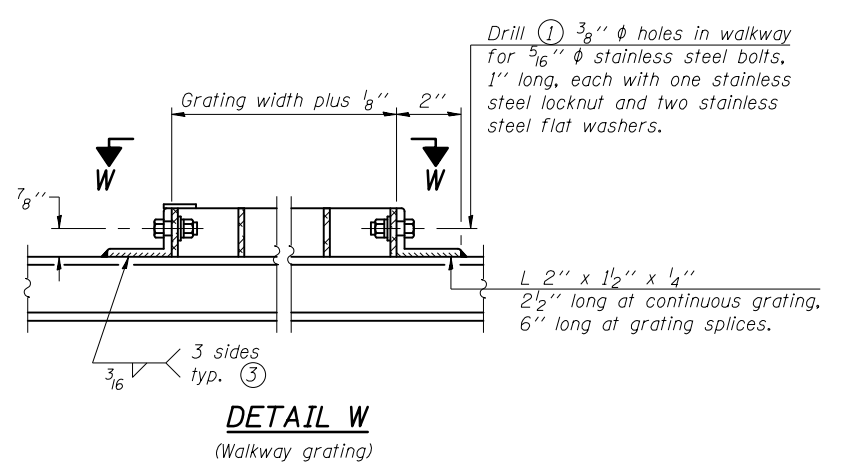
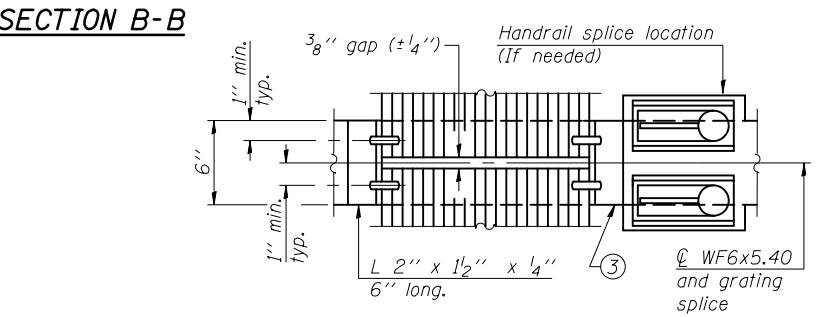
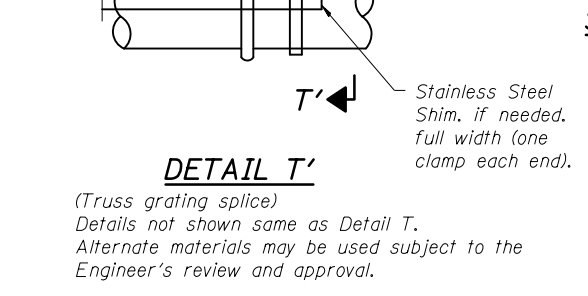
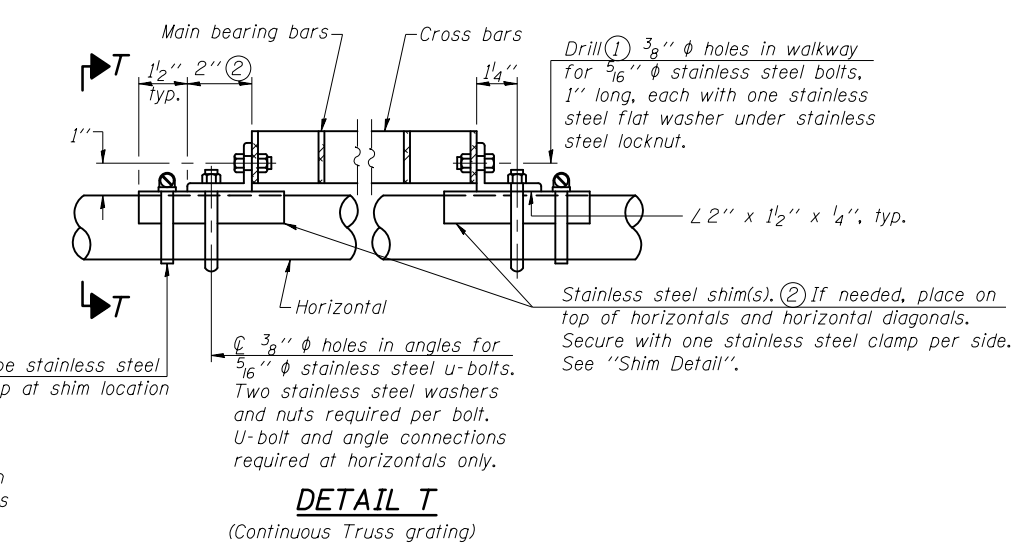
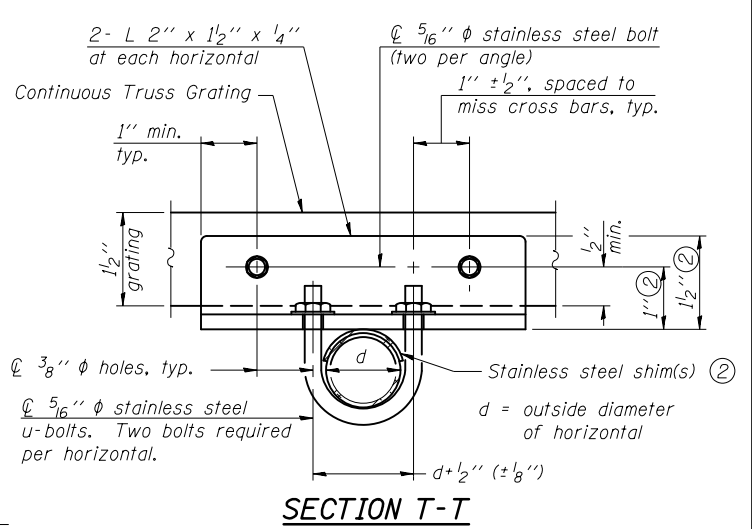
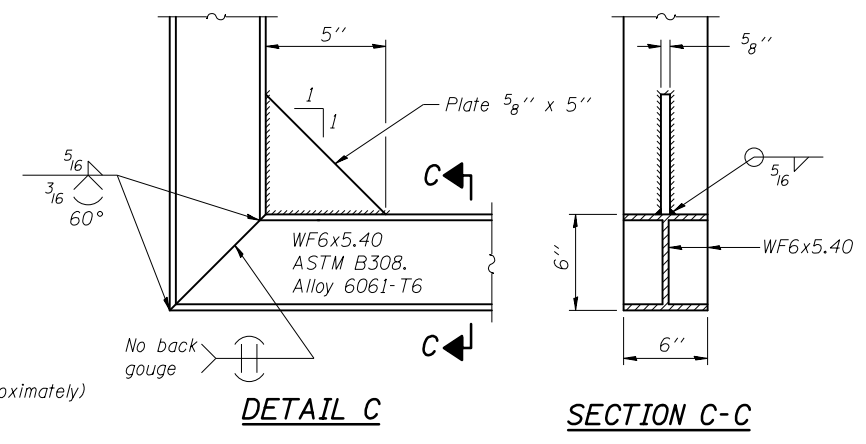
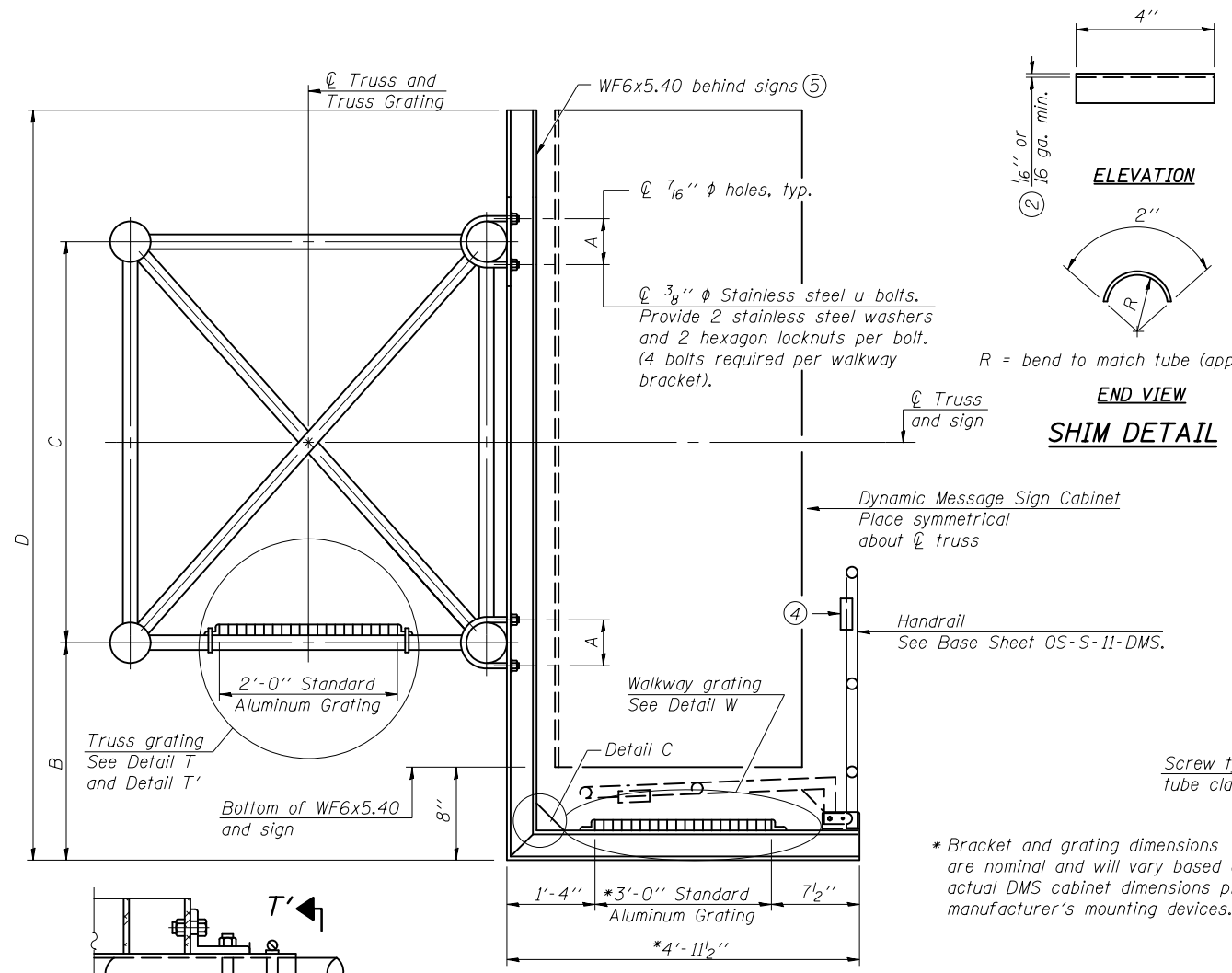
Notes:  
\* Space walkway brackets WF6x5.40 for efficiency and within limits shown:  
f = 12" maximum, 4" minimum (End of sign to  $\text{\O}$  of nearest bracket)  
g = 12" maximum, 4" minimum (End of walkway grating to  $\text{\O}$  of nearest support bracket)  
h = 6'-0" maximum ( $\text{\O}$  to  $\text{\O}$  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 <sub>s</sub>	Walkway Grating and Handrail Lengths
5 S 010 1057 R226.45	472+50		10'-0"	10'-0"	Exact	10' (Lt.) & 10' (Rt.)
5 S 010 1057 L242.78	890+96		10'-0"	10'-0"	Dimensions	10' (Lt.) & 10' (Rt.)
5 S 010 1074 R172.83	1572+00		10'-0"	10'-0"	of DMS	10' (Lt.) & 10' (Rt.)
5 S 010 1074 L189.05	593+12		10'-0"	10'-0"	Cabinets	10' (Lt.) & 10' (Rt.)
5 S 010 1072 R178.29	1778+15		10'-0"	10'-0"	Unknown	10' (Lt.) & 10' (Rt.)

OS-A-9-DMS 6-1-12

FILE NAME = c:\pwork\pwork\biggsrd\0340463\PTZ	USER NAME = biggsrd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>OVERHEAD SIGN STRUCTURES ALTERNATE ALUMINUM WALKWAY DETAILS FOR DMS</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
camera plans.dgn		DRAWN -	REVISED -			VAR.	FY2014 ITS-1	CHAMPAIGN	74	34	
PLOT SCALE = 40.0000' / in.		CHECKED -	REVISED -			CONTRACT NO. 70A26					
PLOT DATE = 2/7/2014		DATE -	REVISED -			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
5 S 010 I057 R226.45	472+50			7'-0"	
5 S 010 I057 L242.78	890+96			7'-0"	
5 S 010 I074 R172.83	1572+00			7'-0"	
5 S 010 I074 L189.05	593+12			7'-0"	
5 S 010 I072 R178.29	1778+15			7'-0"	

- Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
- 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.
- If Handrail Joint present, weld angle to WF(A-N)4 and 1/4" extension bars. (See Base Sheet OS-A-11.)
- 1/8" x 1/2" x 2" welded to handrail posts to protect locations that contact grating.
- 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.
- Based on actual height of tallest sign given on OS-A-1.

Exact dimensions of DMS Cabinets unknown

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

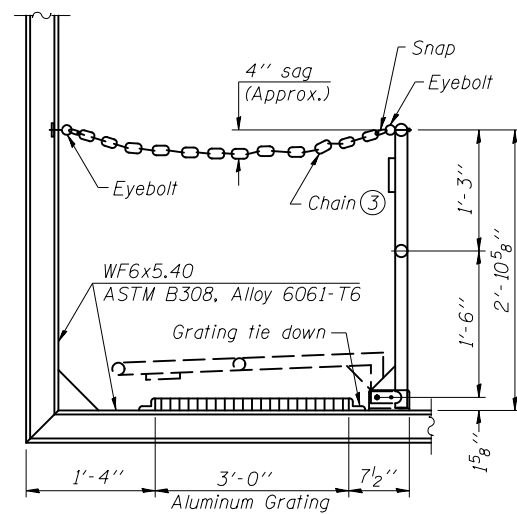
FILE NAME = c:\pwwork\pwwidot\biggsrd\0340463\PTZ	USER NAME = biggsrd	DESIGNED -	REVISED -
camera plans.dgn		DRAWN -	REVISED -
PLOT SCALE = 48.0000' / in.		CHECKED -	REVISED -
PLOT DATE = 2/7/2014		DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

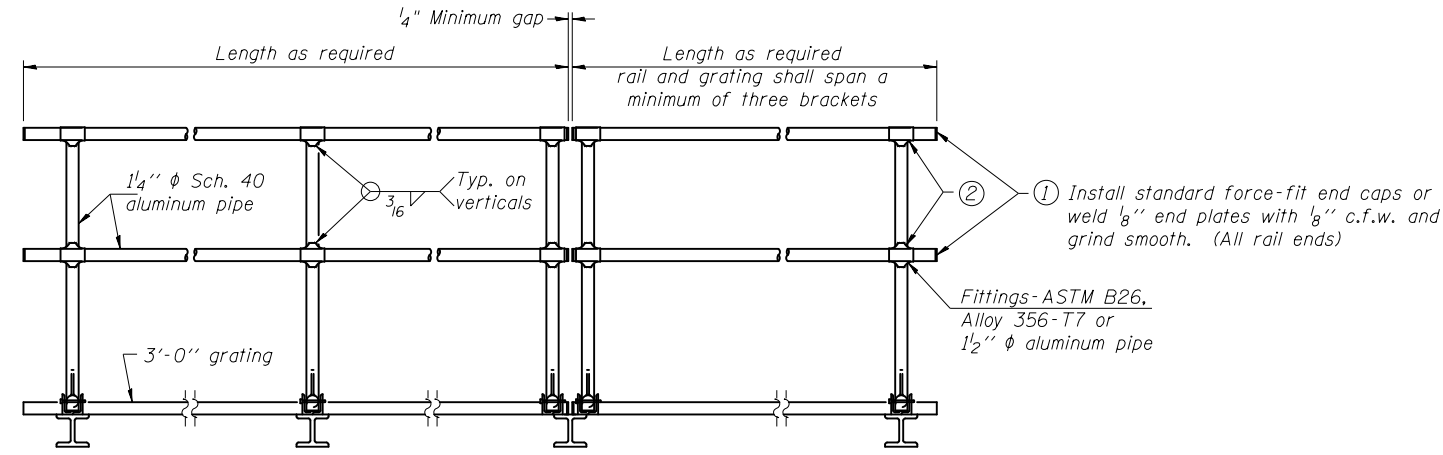
OVERHEAD SIGN STRUCTURES  
ALTERNATE ALUMINUM WALKWAY DETAILS FOR DMS

SCALE: SHEET OF SHEETS STA. TO STA.

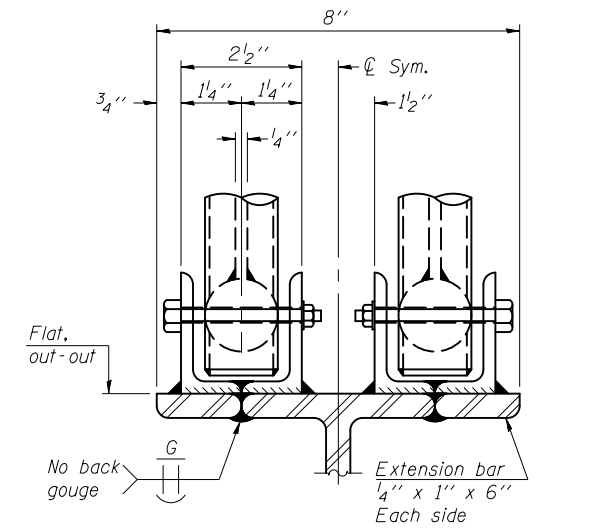
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	35
CONTRACT NO. 70A26			ILLINOIS FED. AID PROJECT	



**SIDE ELEVATION**  
(Showing safety chain w/o sign)



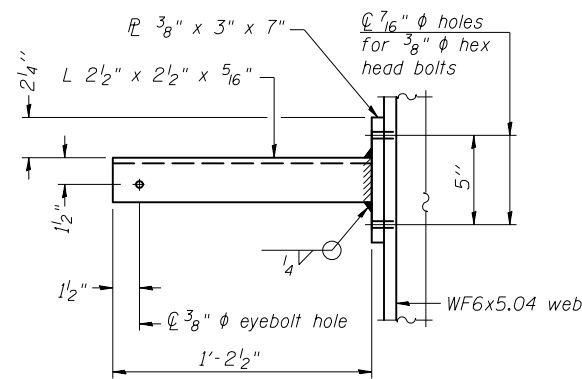
**FRONT ELEVATION**



**ELEVATION AT HANDRAIL JOINT** ④

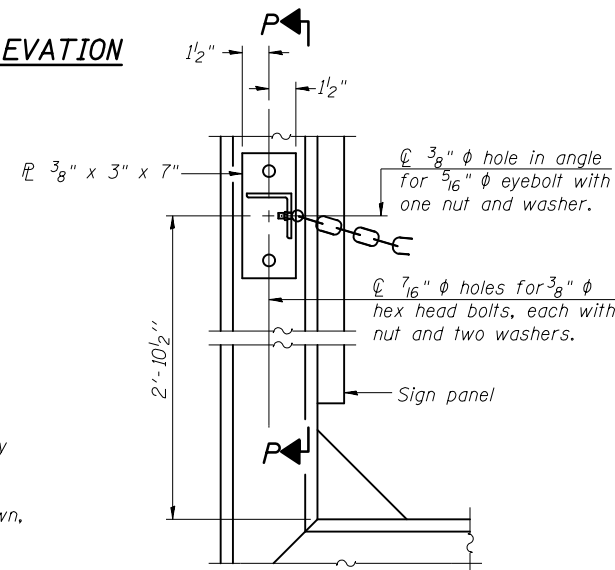
**HANDRAIL DETAILS**

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



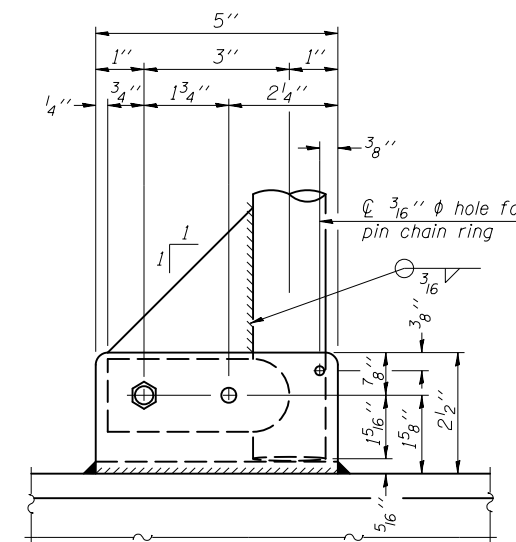
**SECTION P-P**

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

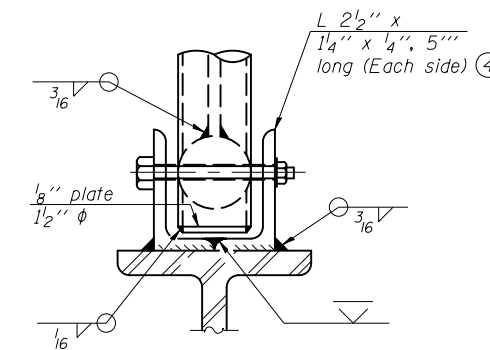


**ALTERNATE SAFETY CHAIN ATTACHMENT**

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

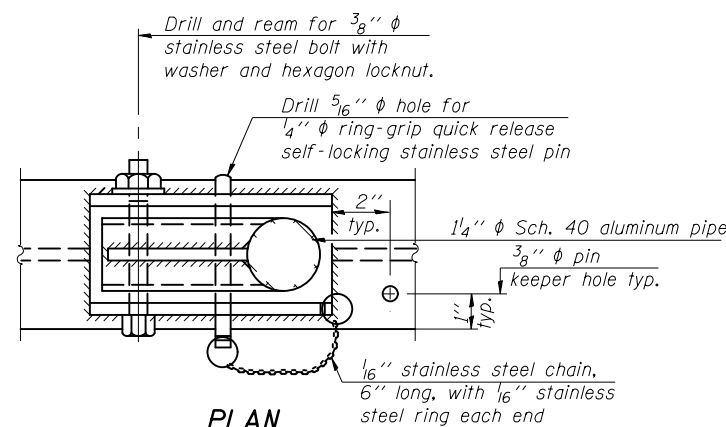


**SIDE ELEVATION**

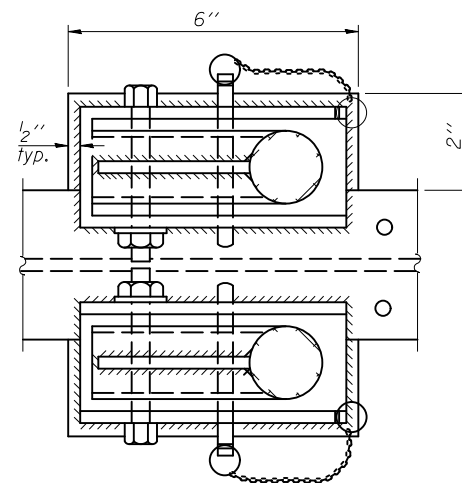


**FRONT ELEVATION**

See "ELEVATION" at right for dimensions.

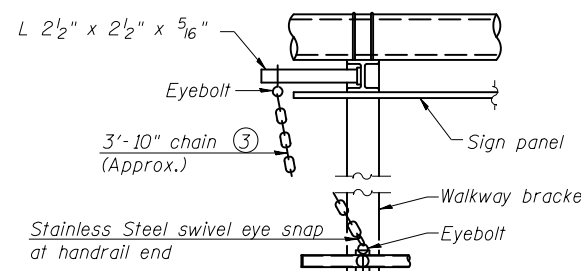


**PLAN**  
**DETAIL E HANDRAIL HINGE**



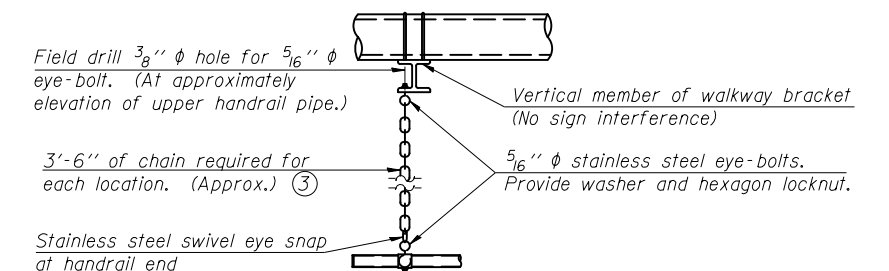
**PLAN AT HANDRAIL JOINT**

Details not shown same as "PLAN"



**ALTERNATE SAFETY CHAIN ATTACHMENT**

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



**SAFETY CHAIN**

One required for each end of each walkway.

OS-A-11-DMS

6-1-12

FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
c:\pwork\pwork\pwork\biggsrd\d0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -
	PLOT SCALE = 48.0000' / in.	CHECKED -	REVISED -
*MODELNAME*	PLOT DATE = 2/7/2014	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES  
ALTERNATE ALUMINUM HANDRAIL DETAILS FOR DMS

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	36
CONTRACT NO. 70A26			ILLINOIS FED. AID PROJECT	

# LOCATION MAP

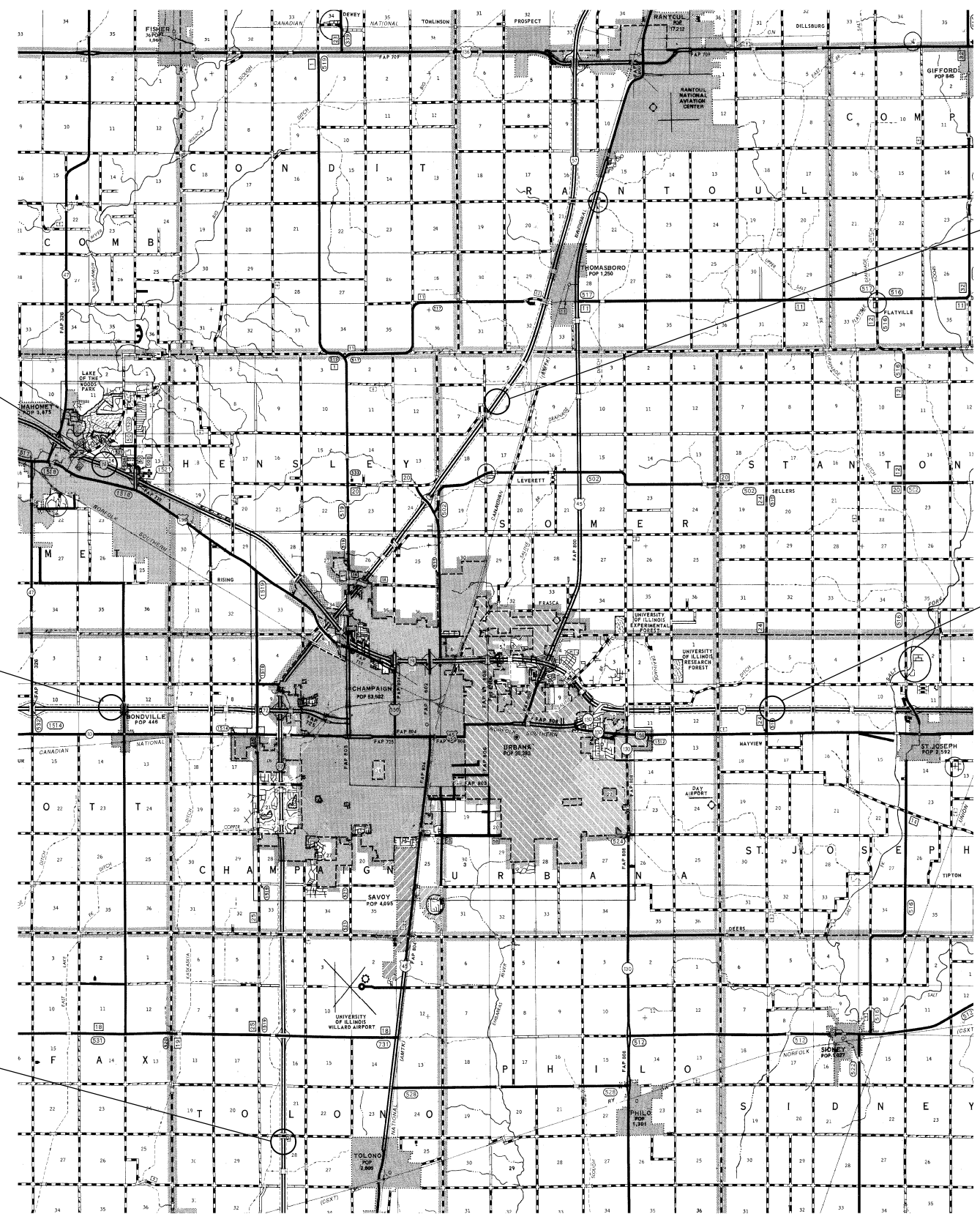
I-74 EASTBOUND  
 STA. 1572+00 MM 172.83  
 STR. NO. 5 S 010 0174 R172.83

I-72 EASTBOUND  
 STA. 1778+15 MM 178.29  
 STR. NO. 5 S 010 I072 R178.29

I-57 NORTHBOUND  
 STA. 475+50 MM226.45  
 STR. NO. 5 S 010 R226.45

I-57 SOUTHBOUND  
 STA. 890+96 MM 242.78  
 STR. NO. 5 S 010 I057 L242.78

I-74 WESTBOUND  
 STA. 593+12 MM 189.05  
 STR. NO. 5 S 010 I074L189.05



FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
et:\pw\work\p\idot\biggsrd\0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
\$MODELNAME\$	PLOT DATE = 2/7/2014	DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

SCALE: SHEET OF SHEETS STA. TO STA.

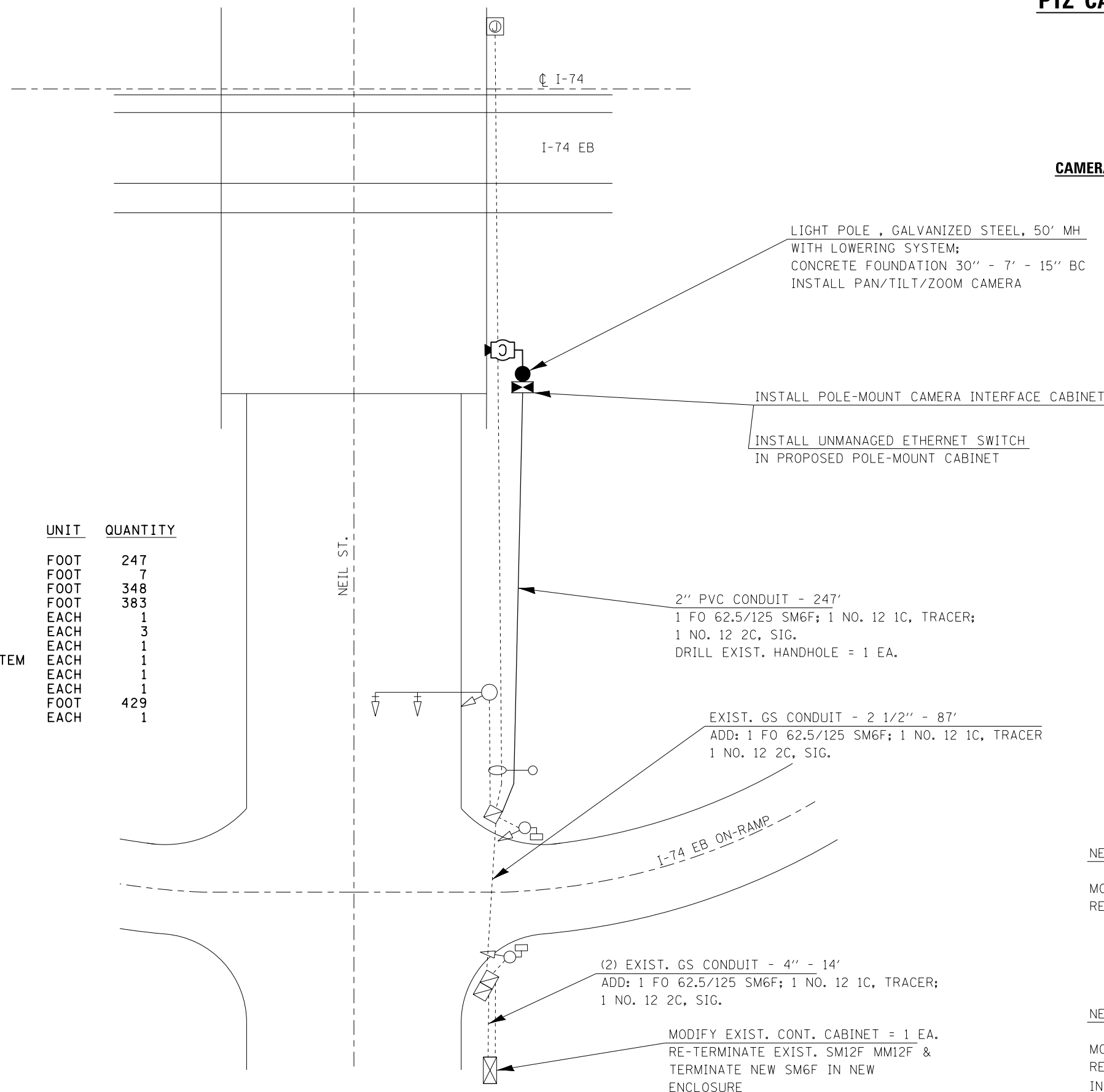
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	37
			CONTRACT NO. 70A26	
ILLINOIS FED. AID PROJECT				

# PTZ CAMERA INSTALLATION

NEIL ST.  
&  
I-74

(NOT TO SCALE)

## CAMERA & CONDUIT /CABLE LAYOUT



### BILL OF MATERIALS

NEIL ST. & I-74

ITEM	UNIT	QUANTITY
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	247
LIGHT POLE FOUNDATION, 30" DIAMETER	FOOT	7
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 12 1C	FOOT	348
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 12 3C	FOOT	383
DRILL EXISTING HANDHOLE	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	3
CLOSED CIRCUIT TELEVISION CABINET	EACH	1
LIGHT POLE, STEEL 50 FT. WITH CAMERA LOWERING SYSTEM	EACH	1
ETHERNET SWITCH	EACH	1
CLOSED CIRCUIT TELEVISION CAMERA	EACH	1
FIBER OPTIC CABLE 6 FIBERS, SINGLE MODE	FOOT	429
CAMERA MOUNTING ASSEMBLY	EACH	1

NEIL ST. & I-74 WB OFF-RAMP

MODIFY EXIST. CONT. CABINET = 1 EA.  
RE-TERMINATE EXISTING FIBERS

NEIL ST. & KENYON RD.

MODIFY EXIST. CONT. CABINET = 1 EA.  
RE-TERMINATE EXISTING FIBERS  
INSTALL MANAGED ETHERNET SWITCH

FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
et:\pw\work\p\dot\biggsrd\d0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -
\$MODELNAME\$	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 2/7/2014	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCALE: SHEET OF SHEETS STA. TO STA.

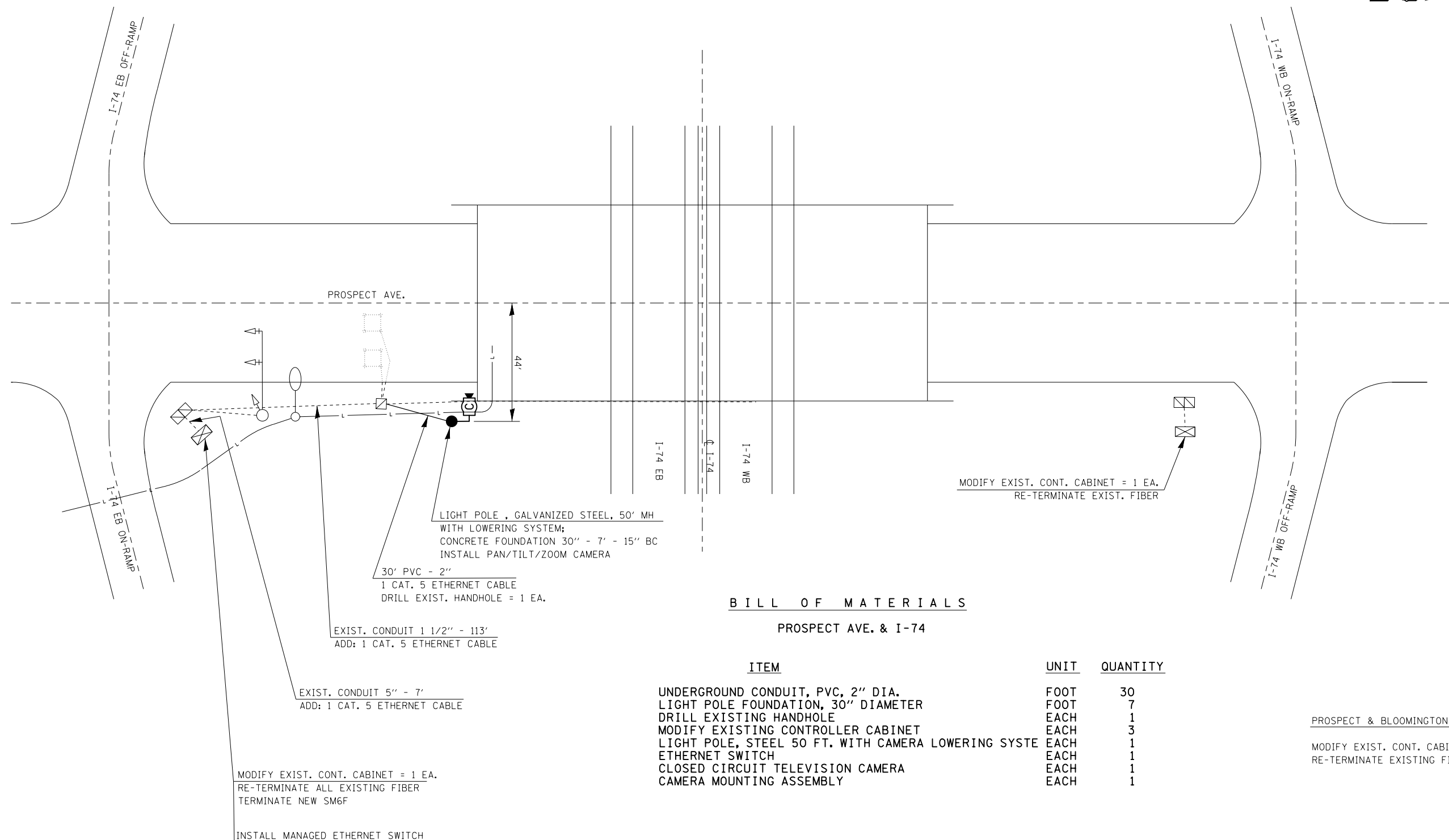
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	38
			CONTRACT NO. 70A26	
ILLINOIS FED. AID PROJECT				

# PTZ CAMERA INSTALLATION

PROSPECT AVE.  
&  
I-74

(NOT TO SCALE)

CAMERA & CONDUIT /CABLE LAYOUT



FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
c:\pwork\pwork\biggsrd\d0340463\PTZ	camera_plans.dgn	DRAWN -	REVISED -
\$MODELNAME\$	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 2/7/2014	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCALE: SHEET OF SHEETS STA. TO STA.

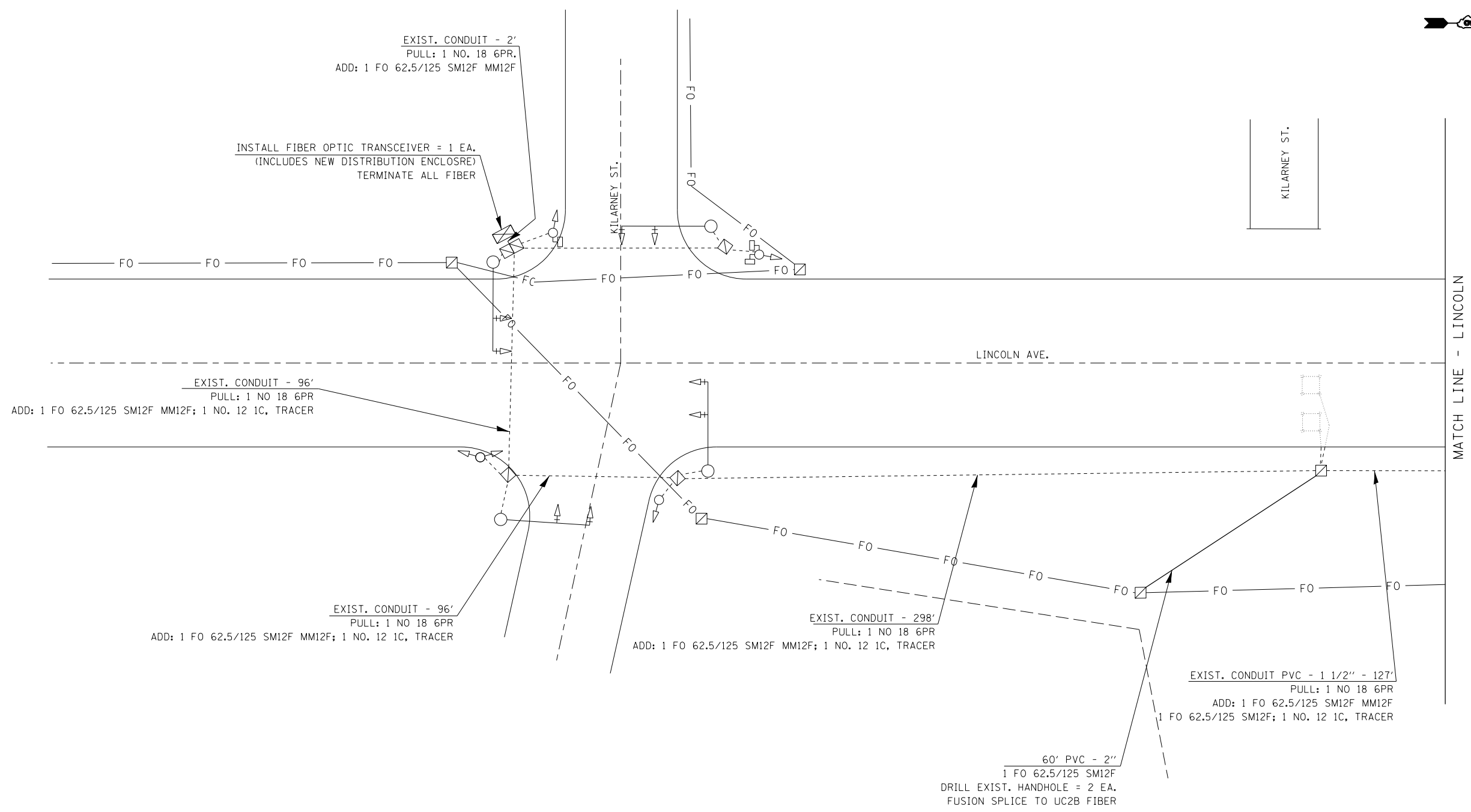
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	39
			CONTRACT NO. 70A26	
ILLINOIS FED. AID PROJECT				

# PTZ CAMERA INSTALLATION & FIBER OPTIC CONNECTION

LINCOLN AVE.  
&  
I-74

(NOT TO SCALE)

## CAMERA & CONDUIT /CABLE LAYOUT



FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
c:\pw\work\p1dot\biggsrd\d0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
\$MODELNAME\$	PLOT DATE = 2/7/2014	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.
--------	-------	----	--------	------	----	------

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	40
			CONTRACT NO. 70A26	
ILLINOIS FED. AID PROJECT				



BILL OF MATERIALS

I-74 & LINCOLN AVE.

PTZ CAMERA INSTALLATION & FIBER OPTIC CONNECTION

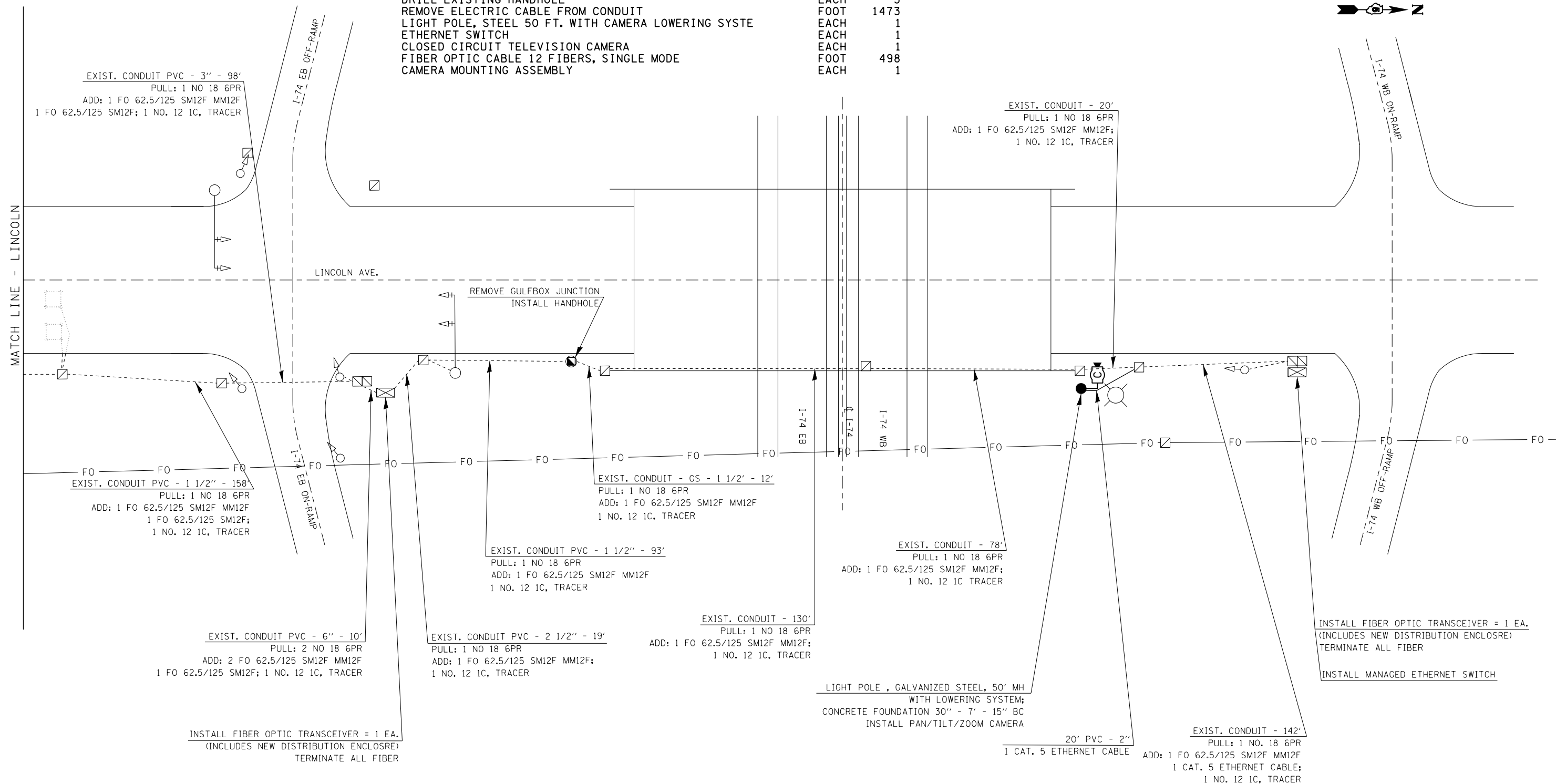
LINCOLN AVE. & I-74

(NOT TO SCALE)

CAMERA & CONDUIT /CABLE LAYOUT



ITEM	UNIT	QUANTITY
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	80
HANDHOLE	EACH	1
GULFBOX JUNCTION REMOVAL	EACH	1
LIGHT POLE FOUNDATION, 30" DIAMETER	FOOT	7
TRANSCEIVER - FIBER OPTIC	EACH	3
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	1495
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 12 1C	FOOT	1032
DRILL EXISTING HANDHOLE	EACH	3
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1473
LIGHT POLE, STEEL 50 FT. WITH CAMERA LOWERING SYSTEM	EACH	1
ETHERNET SWITCH	EACH	1
CLOSED CIRCUIT TELEVISION CAMERA	EACH	1
FIBER OPTIC CABLE 12 FIBERS, SINGLE MODE	FOOT	498
CAMERA MOUNTING ASSEMBLY	EACH	1



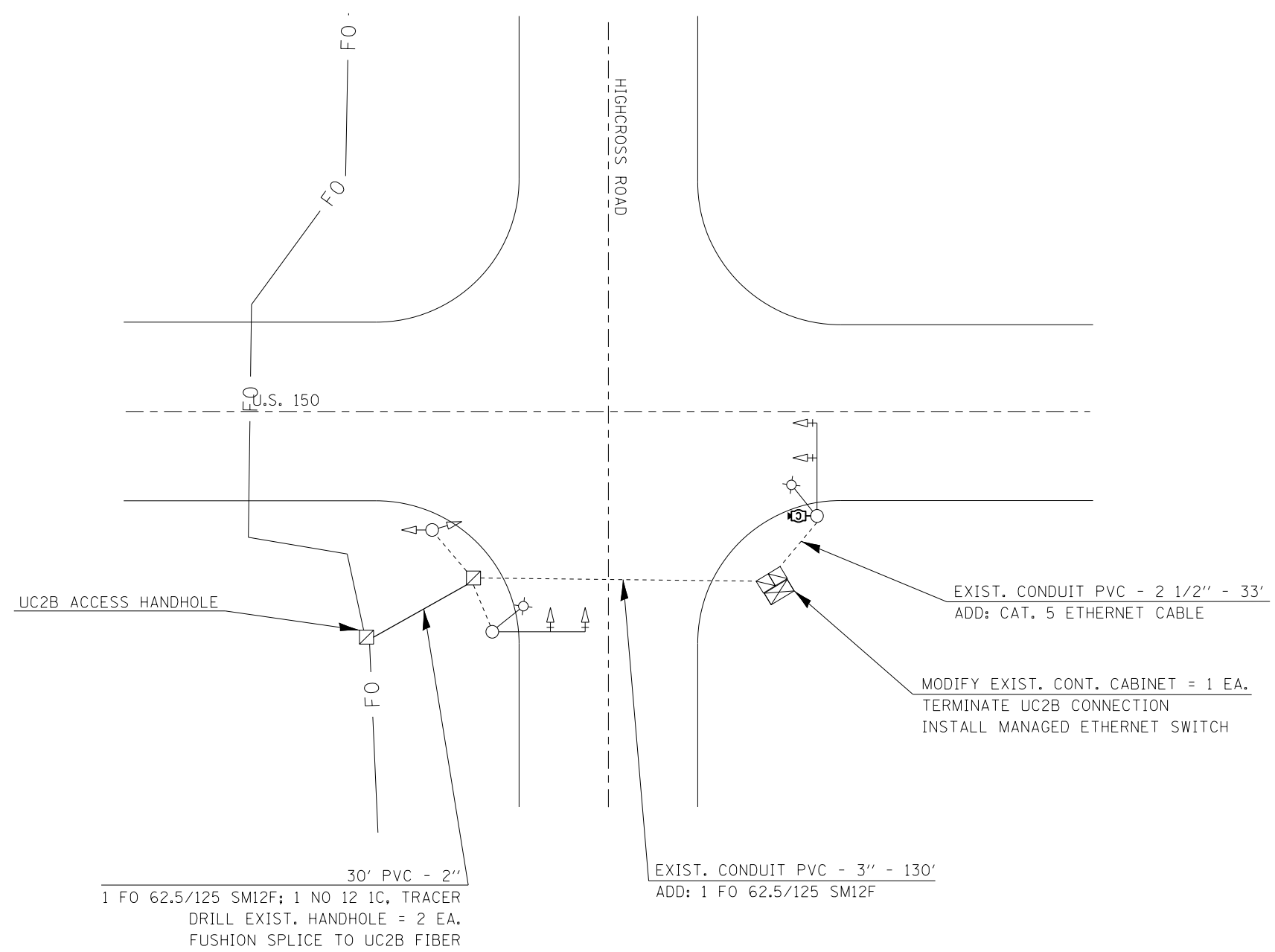
FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et:\pw\work\p\idot\biggsrd\0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -								VAR.	FY2014 ITS-1	CHAMPAIGN	74	41
\$MODELNAME\$	PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISED -								CONTRACT NO. 70A26				
	PLOT DATE = 2/7/2014	DATE -	REVISED -								ILLINOIS FED. AID PROJECT				

**PTZ CAMERA INSTALLATION**

**U.S. 150  
&  
HIGHCROSS RD. (IL. 130)**

(NOT TO SCALE)

**CAMERA & CONDUIT /CABLE LAYOUT**



**B I L L O F M A T E R I A L S**

U. S. 150 & HIGHCROSS RD. ( IL. 130)

ITEM	UNIT	QUANTITY
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	30
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 12 1C	FOOT	160
DRILL EXISTING HANDHOLE	EACH	2
CLOSED CIRCUIT TELEVISION CAMERA	EACH	1
FIBER OPTIC CABLE 12 FIBERS, SINGLE MODE	FOOT	194
ETHERNET SWITCH	EACH	1

FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
ct:\pw\work\pwidot\biggsrd\d0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -
\$MODELNAME\$	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 2/7/2014	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCALE: SHEET OF SHEETS STA. TO STA.

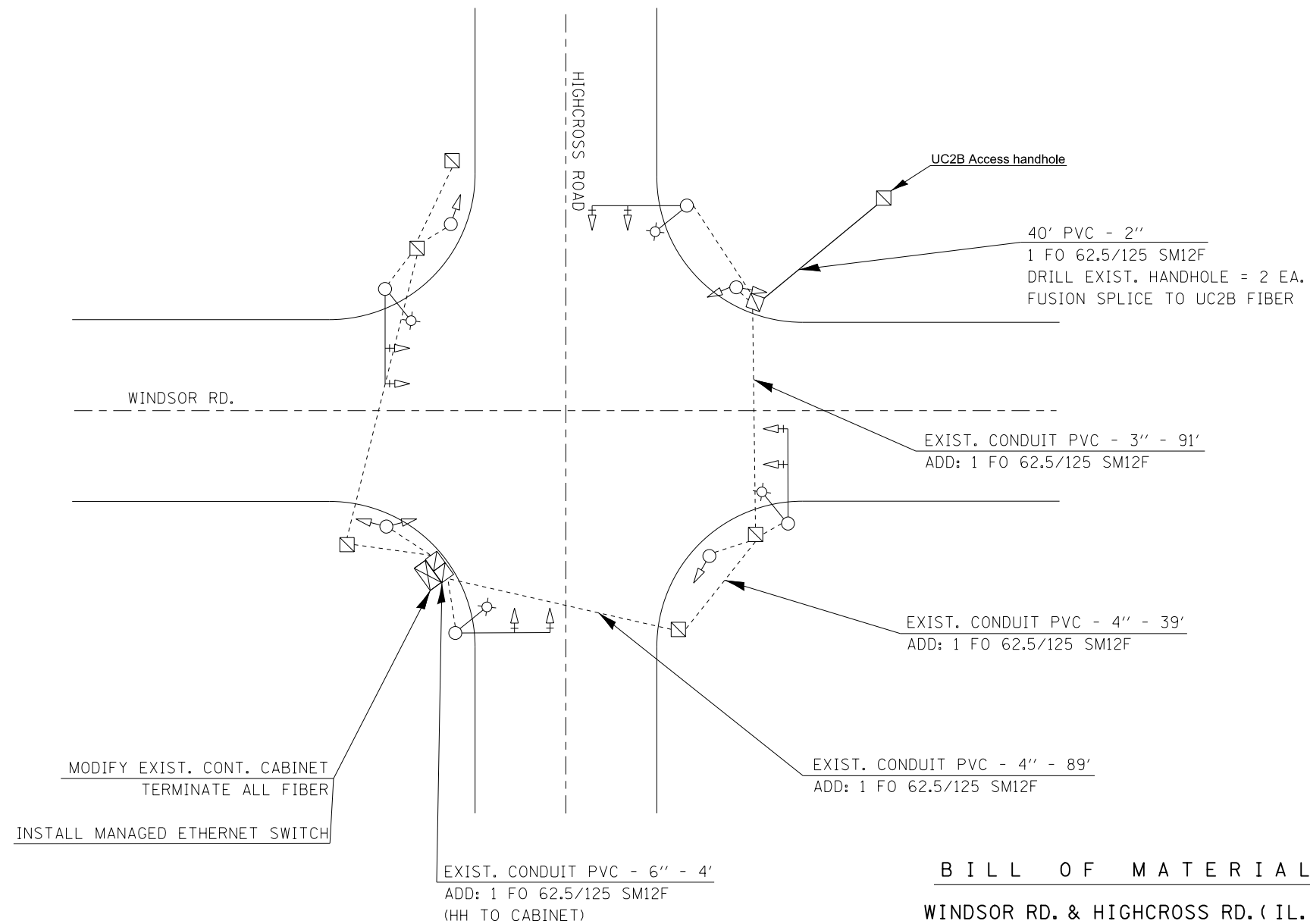
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	42
			CONTRACT NO. 70A26	
ILLINOIS FED. AID PROJECT				

**FIBER OPTIC CONNECTION**

**WINDSOR RD.  
&  
HIGHCROSS RD. (IL. 130)**

(NOT TO SCALE)

**CONDUIT & CABLE LAYOUT**



**B I L L O F M A T E R I A L S**  
WINDSOR RD. & HIGHCROSS RD. (IL. 130)

ITEM	UNIT	QUANTITY
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	40
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	306
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 12 1C	FOOT	259
MODIFY EXISTING CONTROLLER CABINET	EACH	1
ETHERNET SWITCH	EACH	1

LIGHT POLE , GALVANIZED STEEL, 50' MH  
WITH LOWERING SYSTEM;  
CONCRETE FOUNDATION 30" - 7' - 15" BC  
INSTALL PAN/TILT/ZOOM CAMERA

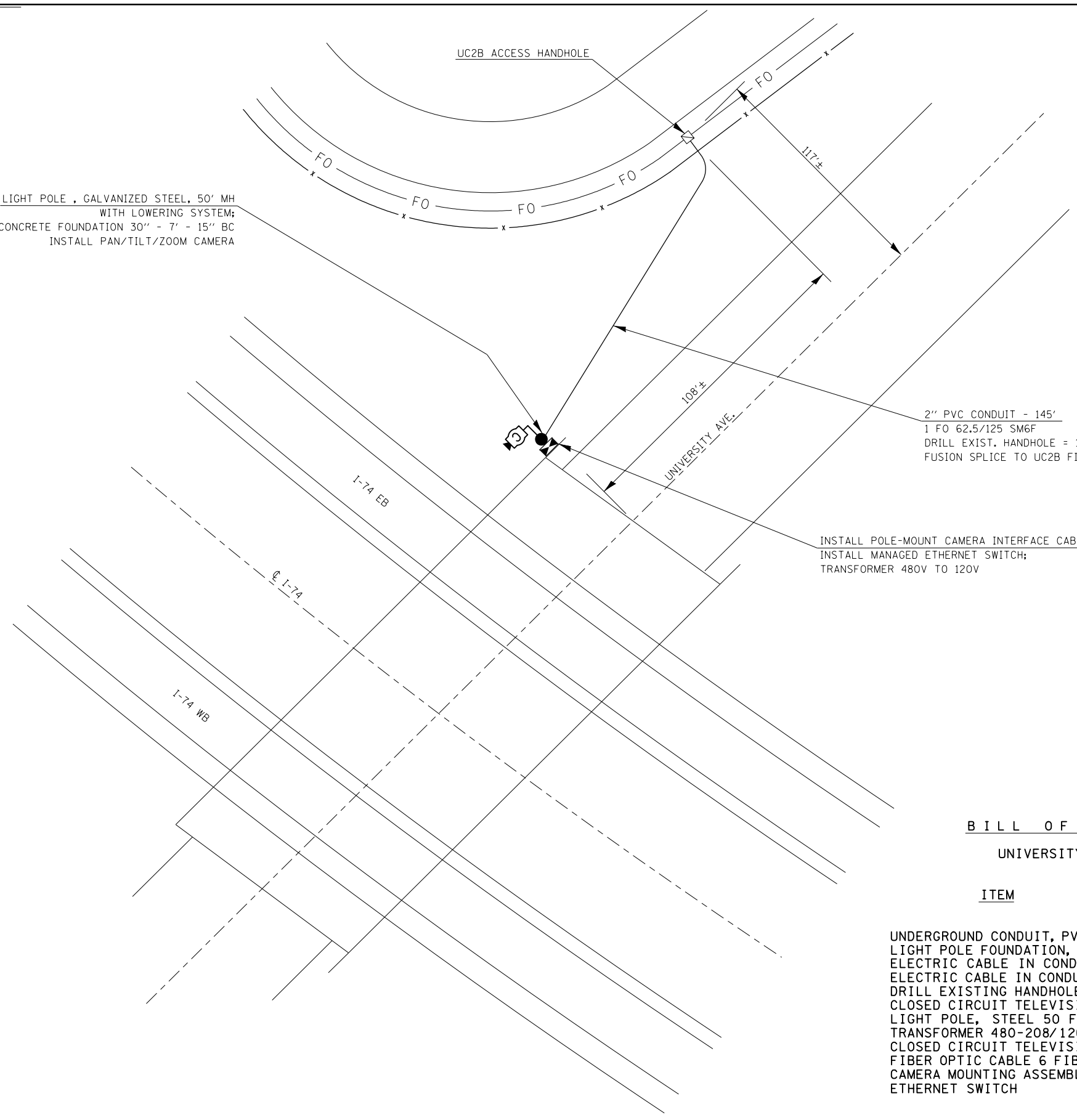
UC2B ACCESS HANDHOLE

**PTZ CAMERA INSTALLATION**

**UNIVERSITY AVE.  
&  
I-74**

(NOT TO SCALE)

**CAMERA & CONDUIT /CABLE LAYOUT**



2" PVC CONDUIT - 145'  
1 FO 62.5/125 SM6F  
DRILL EXIST. HANDHOLE = 1 EA.  
FUSION SPLICE TO UC2B FIBER

INSTALL POLE-MOUNT CAMERA INTERFACE CABINET  
INSTALL MANAGED ETHERNET SWITCH;  
TRANSFORMER 480V TO 120V

**BILL OF MATERIALS**

UNIVERSITY AVE. OVER I-74

ITEM	UNIT	QUANTITY
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	1523
LIGHT POLE FOUNDATION, 30" DIAMETER	FOOT	7
ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 12 3C	FOOT	1600
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 12 1C	FOOT	145
DRILL EXISTING HANDHOLE	EACH	1
CLOSED CIRCUIT TELEVISION CABINET	EACH	1
LIGHT POLE, STEEL 50 FT. WITH CAMERA LOWERING SYSTEM	EACH	1
TRANSFORMER 480-208/120V, 15KVA	EACH	1
CLOSED CIRCUIT TELEVISION CAMERA	EACH	1
FIBER OPTIC CABLE 6 FIBERS, SINGLE MODE	FOOT	163
CAMERA MOUNTING ASSEMBLY	EACH	1
ETHERNET SWITCH	EACH	1

FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
c:\pwork\pwork\biggsrd\0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -
\$MODELNAME\$	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 2/7/2014	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.
--------	-------	----	--------	------	----	------

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	44
			CONTRACT NO. 70A26	
ILLINOIS FED. AID PROJECT				

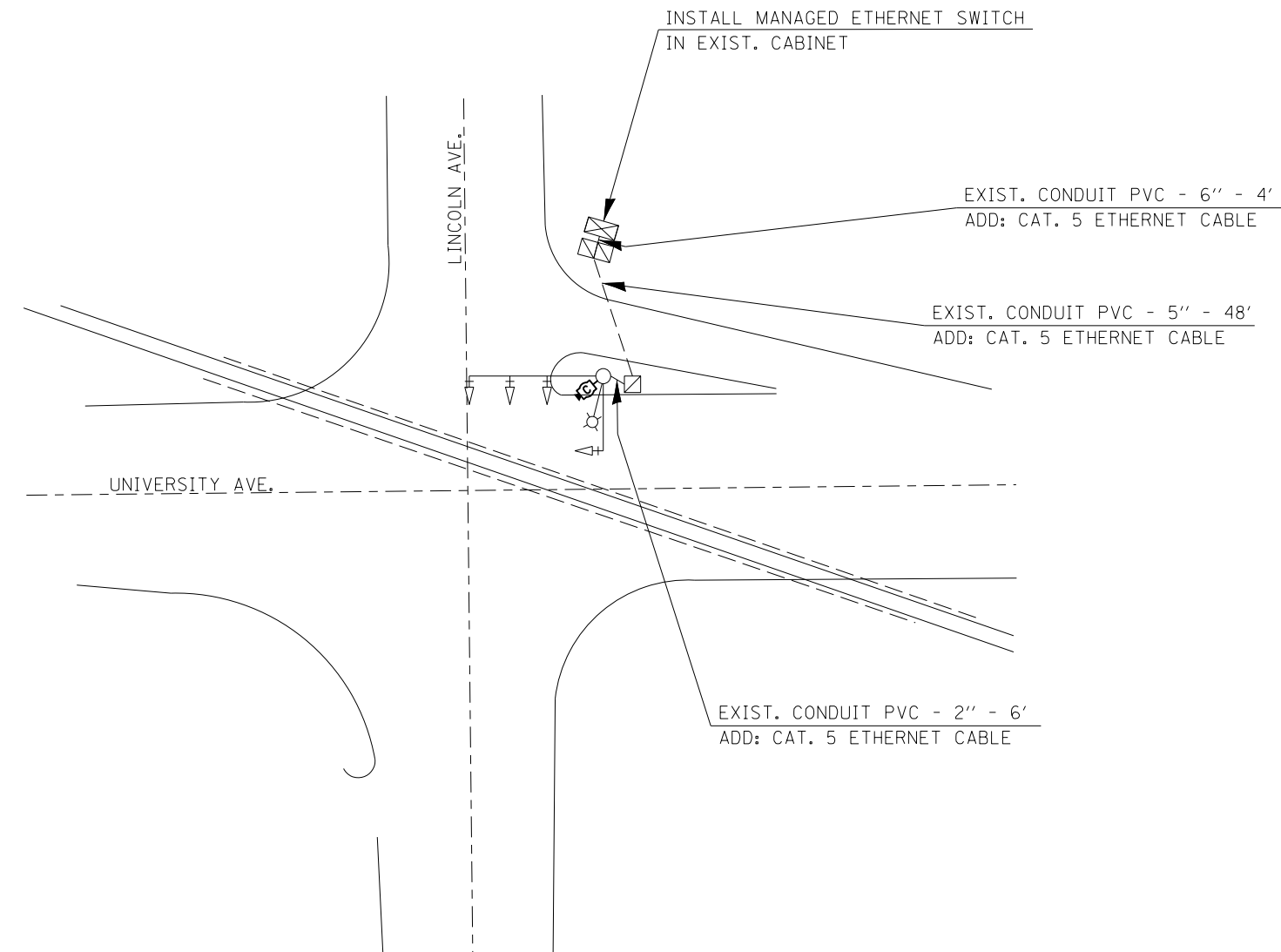
**PTZ CAMERA INSTALLATION**

**UNIVERSITY AVE.  
&  
LINCOLN AVE.**

(NOT TO SCALE)

**CAMERA & CONDUIT /CABLE LAYOUT**

N



**B I L L O F M A T E R I A L S**

UNIVERSITY AVE. & LINCOLN AVE.

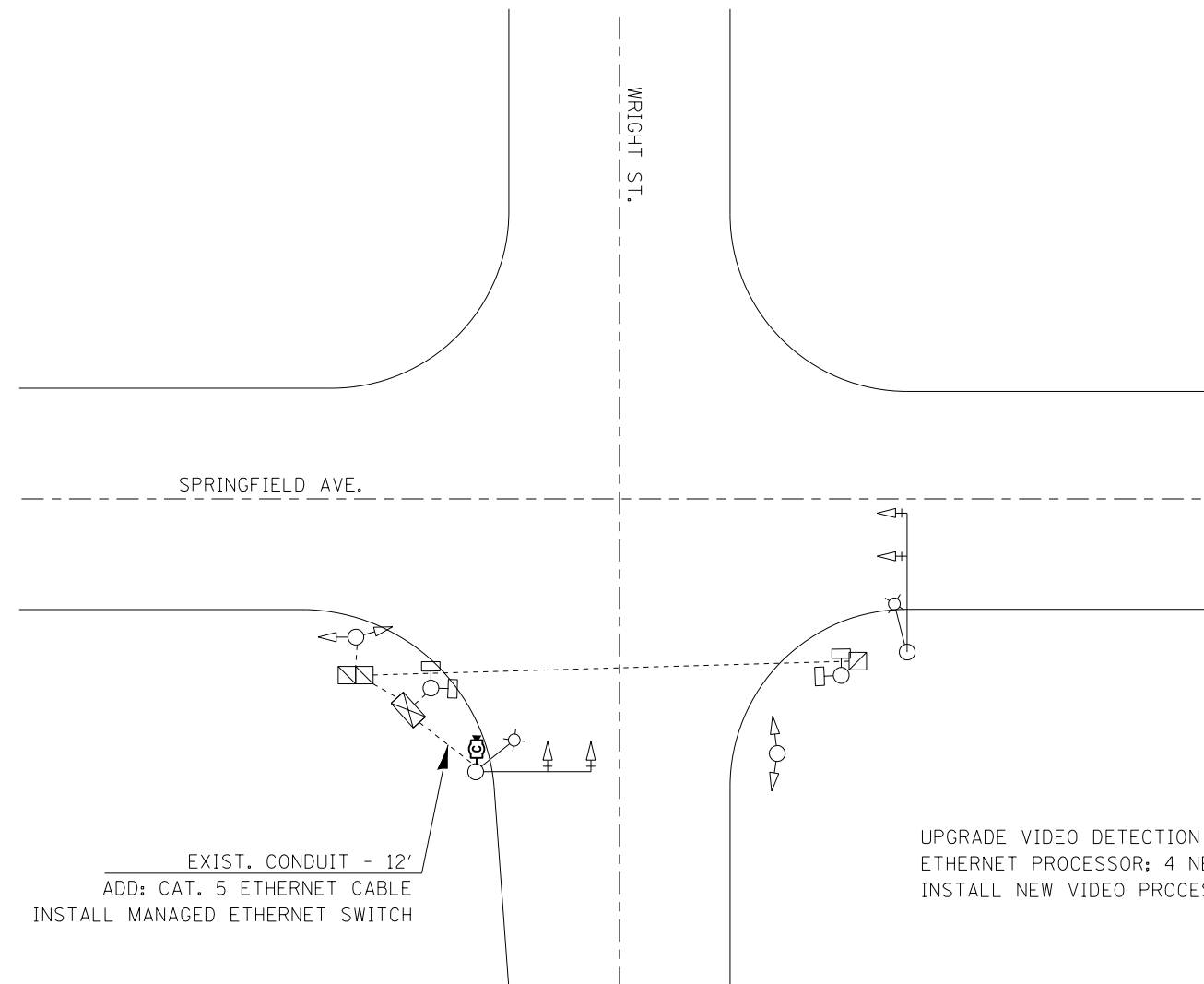
ITEM	UNIT	QUANTITY
ETHERNET SWITCH	EACH	1
CLOSED CIRCUIT TELEVISION CAMERA	EACH	1

**PTZ CAMERA INSTALLATION**

**SPRINGFIELD AVE.  
&  
WRIGHT ST.**

(NOT TO SCALE)

**CAMERA & CONDUIT /CABLE LAYOUT**



**B I L L O F M A T E R I A L S**

**SPRINGFIELD AVE. & WRIGHT ST.**

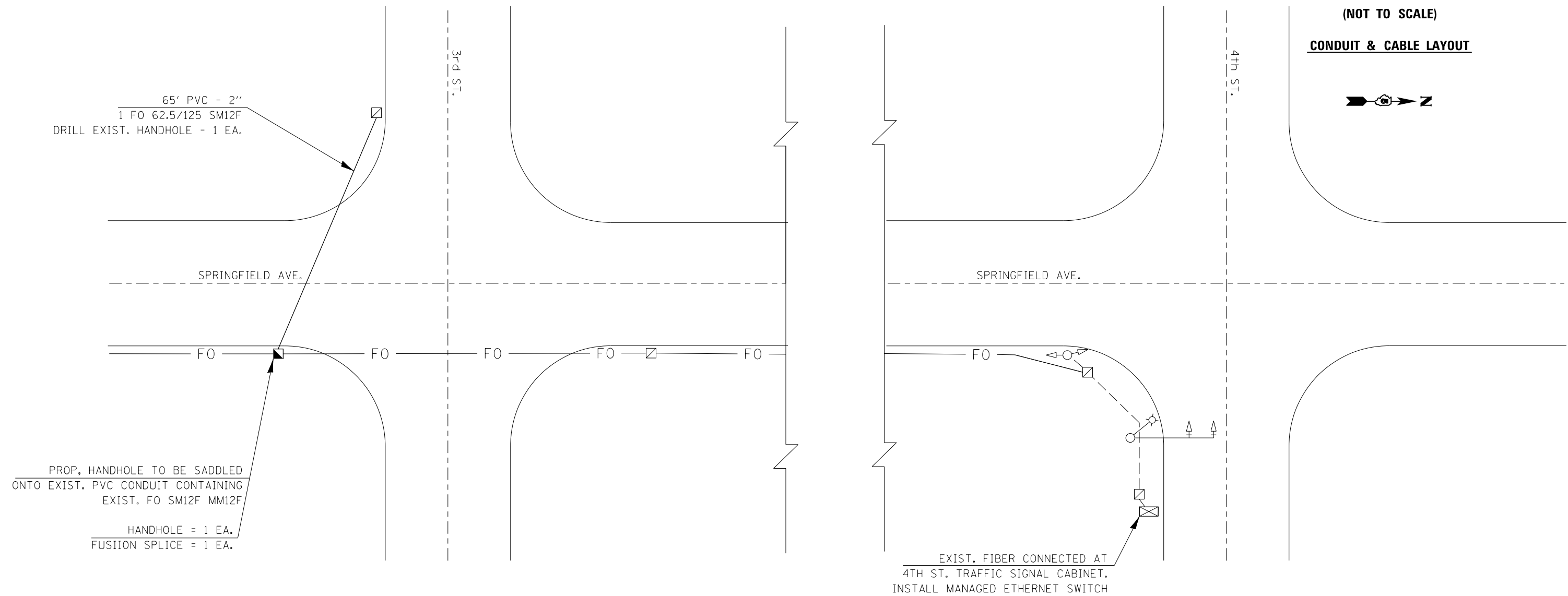
ITEM	UNIT	QUANTITY
VIDEO SYSTEM DETECTION PROCESSOR	EACH	1
CLOSED CIRCUIT TELEVISION CAMERA	EACH	1
VIDEO VEHICLE DETECTION, 4 CAMERAS	EACH	1
ETHERNET SWITCH	EACH	1

**FIBER OPTIC BACKBONE CONNECTION**

**SPRINGFIELD AVE.  
&  
3RD /4TH ST.**

(NOT TO SCALE)

**CONDUIT & CABLE LAYOUT**



**B I L L O F M A T E R I A L S**  
SPRINGFIELD AVE. - 3RD. ST. TO 4TH ST.

ITEM	UNIT	QUANTITY
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	65
HANDHOLE	EACH	1
DRILL EXISTING HANDHOLE	EACH	1
ETHERNET SWITCH	EACH	1
FIBER OPTIC CABLE 12 FIBERS, SINGLE MODE	FOOT	78

FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
ct:\pw\work\p1dot\biggsrd\d0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -
\$MODELNAME\$	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 2/7/2014	DATE -	REVISED -

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

SCALE:	SHEET	OF	SHEETS	STA.	TO STA.
--------	-------	----	--------	------	---------

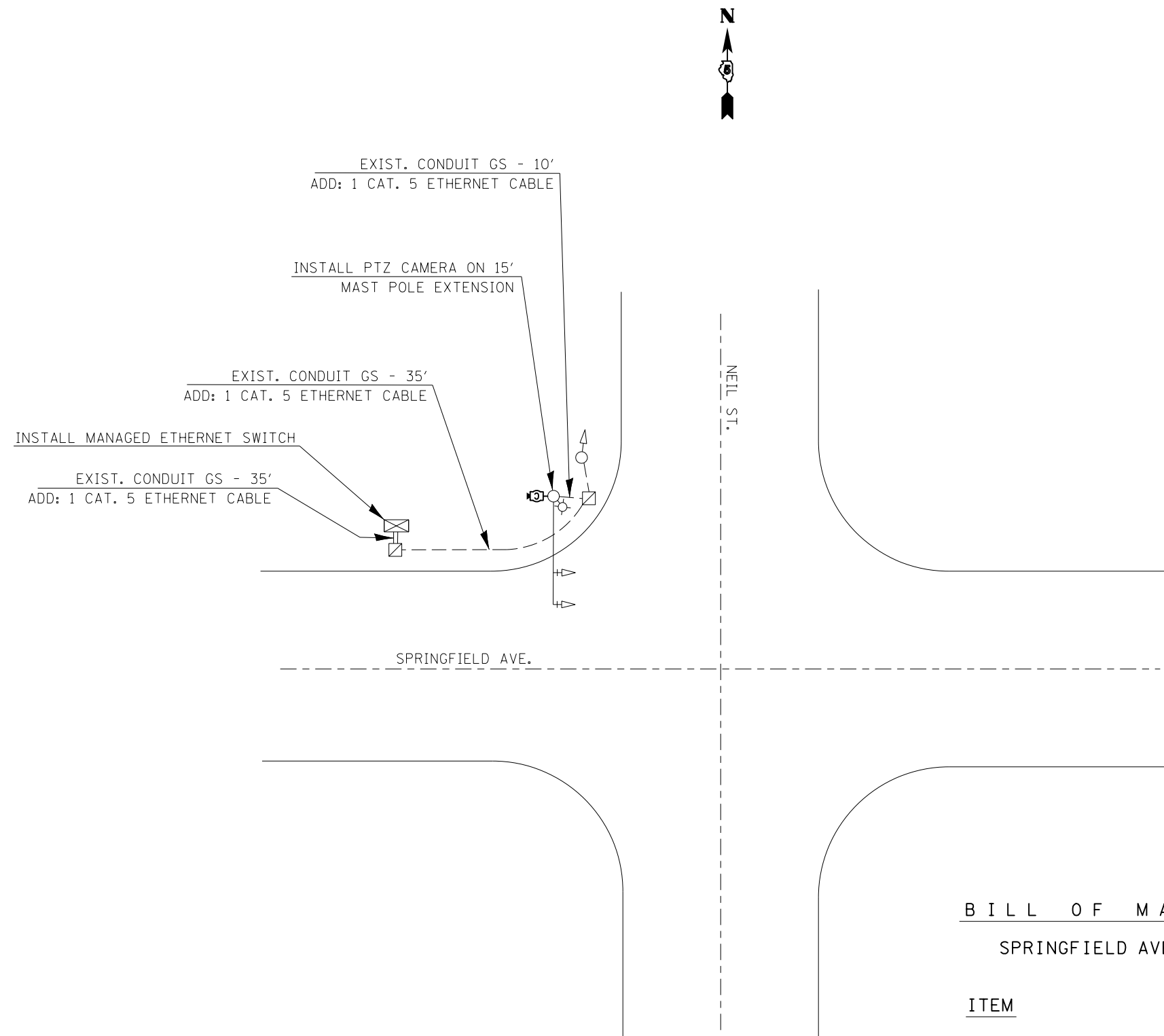
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	47
CONTRACT NO. 70A26			ILLINOIS FED. AID PROJECT	

**PTZ CAMERA INSTALLATION**

**SPRINGFIELD AVE.  
&  
NEIL ST.**

(NOT TO SCALE)

**CAMERA & CONDUIT /CABLE LAYOUT**



**BILL OF MATERIALS  
SPRINGFIELD AVE. & NEIL ST.**

ITEM	UNIT	QUANTITY
ETHERNET SWITCH	EACH	1
CLOSED CIRCUIT TELEVISION CAMERA	EACH	1
CAMERA MOUNTING ASSEMBLY	EACH	1

FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
ct:\pw\work\p1dot\biggsrd\d0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -
\$MODELNAME\$	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 2/7/2014	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	48
ILLINOIS FED. AID PROJECT			CONTRACT NO. 70A26	

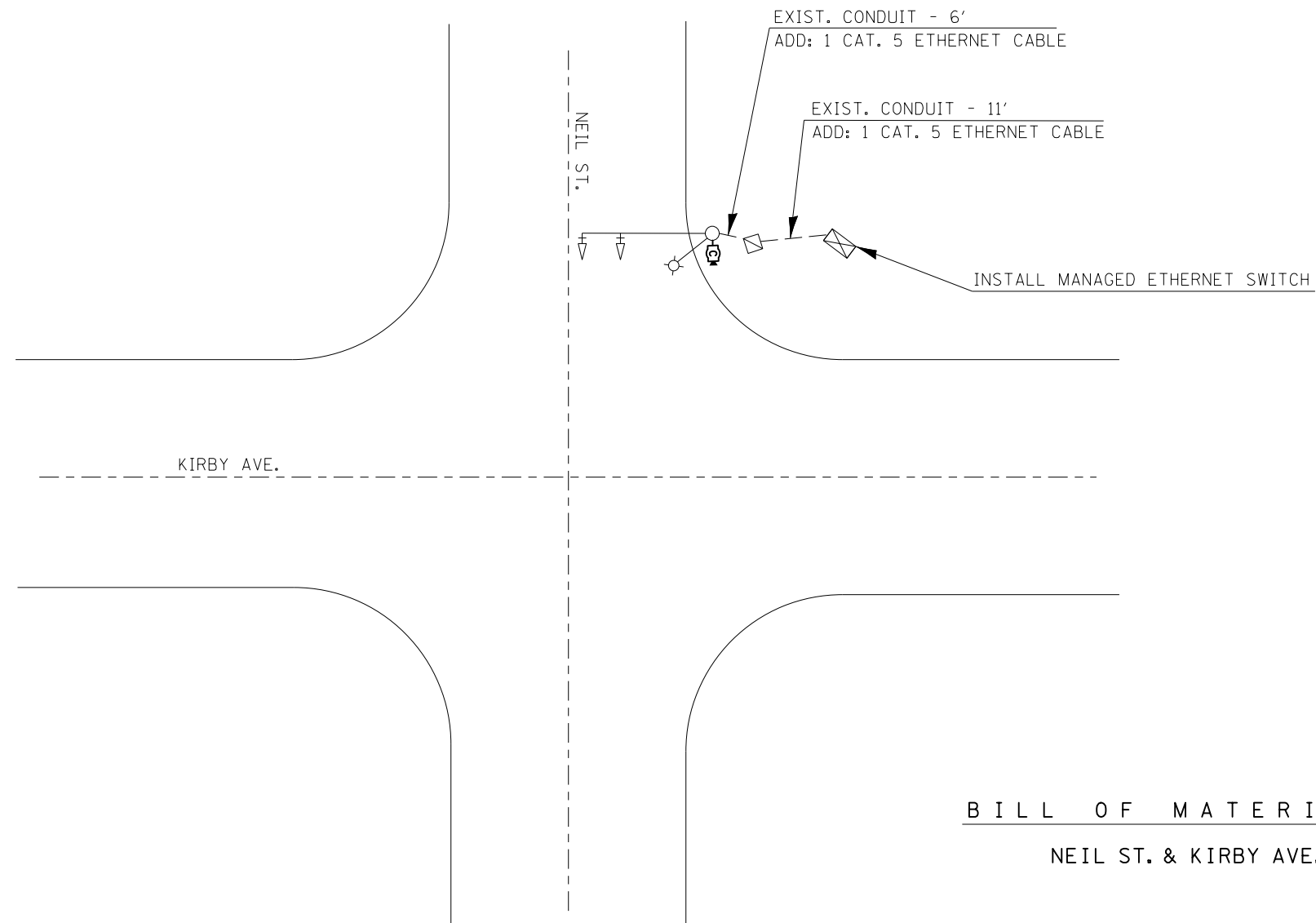


**PTZ CAMERA INSTALLATION**

**NEIL ST.  
&  
KIRBY AVE**

(NOT TO SCALE)

**CAMERA & CONDUIT /CABLE LAYOUT**



B I L L O F M A T E R I A L S

NEIL ST. & KIRBY AVE.

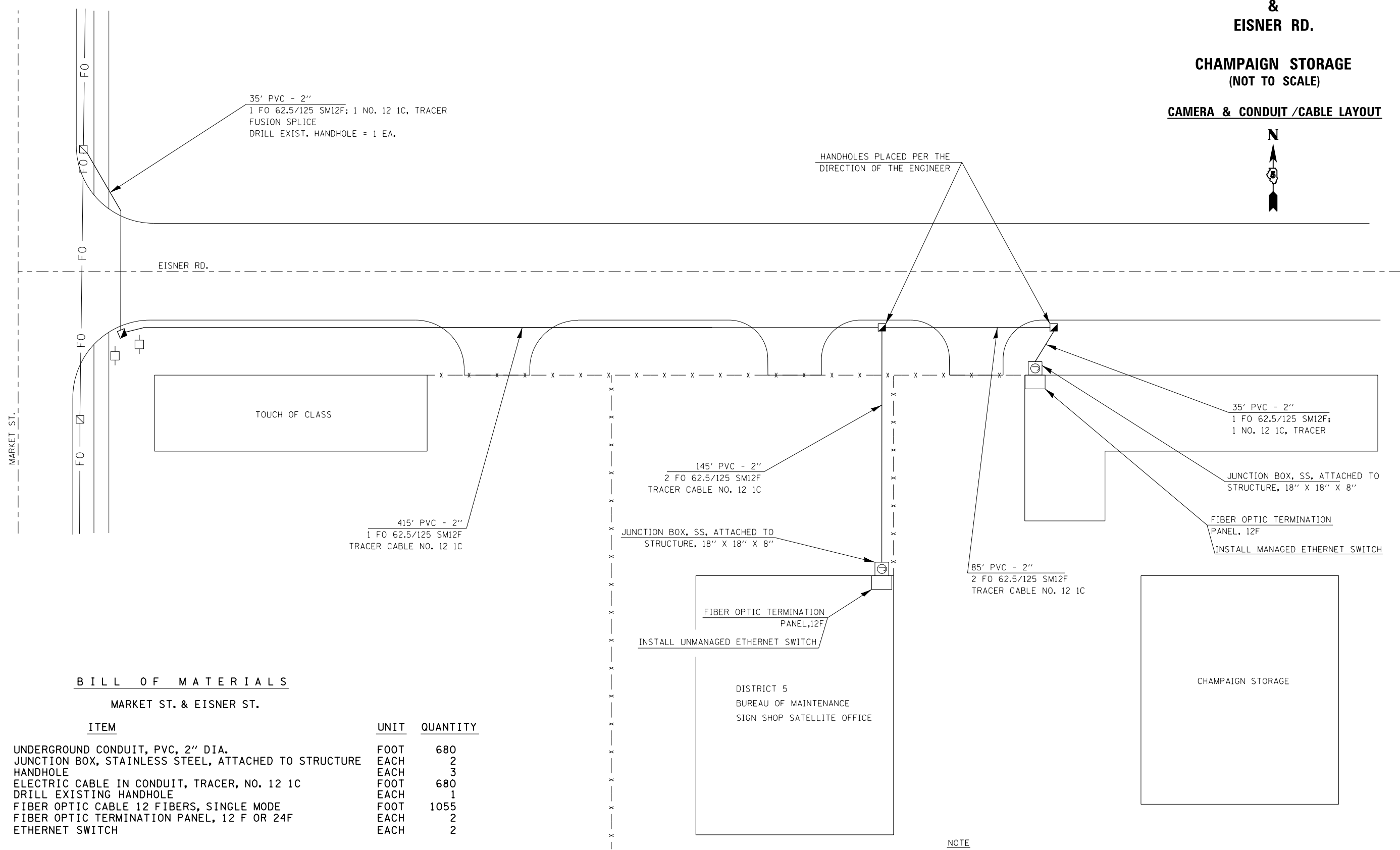
<u>ITEM</u>	<u>UNIT</u>	<u>QUANTITY</u>
CLOSED CIRCUIT TELEVISION CAMERA	EACH	1
ETHERNET SWITCH	EACH	1

# FIBER OPTIC CONNECTION

MARKET ST.  
&  
EISNER RD.

CHAMPAIGN STORAGE  
(NOT TO SCALE)

## CAMERA & CONDUIT /CABLE LAYOUT



### BILL OF MATERIALS

MARKET ST. & EISNER ST.

ITEM	UNIT	QUANTITY
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	680
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE	EACH	2
HANDHOLE	EACH	3
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 12 1C	FOOT	680
DRILL EXISTING HANDHOLE	EACH	1
FIBER OPTIC CABLE 12 FIBERS, SINGLE MODE	FOOT	1055
FIBER OPTIC TERMINATION PANEL, 12 F OR 24F	EACH	2
ETHERNET SWITCH	EACH	2

### NOTE

PROPOSED HANDHOLES SHALL BE PLACED PER THE DIRCTION OF THE ENGINEER

FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
c:\pw\work\p\dot\biggsrd\d0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -
\$MODELNAME\$	PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISED -
	PLOT DATE = 2/7/2014	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	50
CONTRACT NO. 70A26			ILLINOIS FED. AID PROJECT	

BILL OF MATERIALS

MARKET ST. & I-57

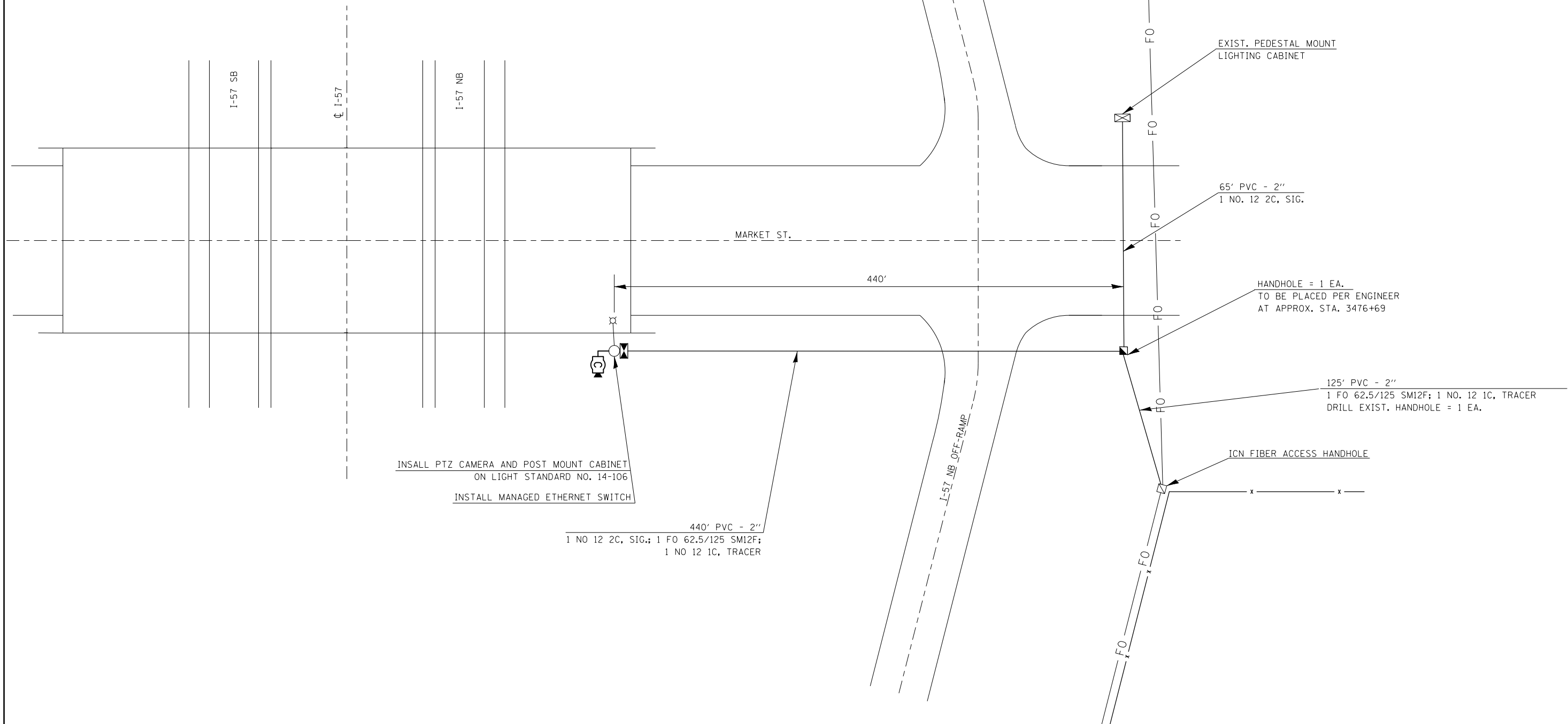
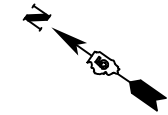
ITEM	UNIT	QUANTITY
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	630
HANDHOLE	EACH	1
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 12 1C	FOOT	630
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 12 3C	FOOT	527
DRILL EXISTING HANDHOLE	EACH	1
CLOSED CIRCUIT TELEVISION CABINET	EACH	1
CLOSED CIRCUIT TELEVISION CAMERA	EACH	1
FIBER OPTIC CABLE 12 FIBERS, SINGLE MODE	FOOT	587
CAMERA MOUNTING ASSEMBLY	EACH	1
ETHERNET SWITCH	EACH	1

PTZ CAMERA INSTALLATION & FIBER OPTIC CONNECTION

MARKET ST. & I-57

(NOT TO SCALE)

CAMERA & CONDUIT /CABLE LAYOUT



INSTALL PTZ CAMERA AND POST MOUNT CABINET ON LIGHT STANDARD NO. 14-106  
INSTALL MANAGED ETHERNET SWITCH

440' PVC - 2"  
1 NO 12 2C, SIG.; 1 FO 62.5/125 SM12F;  
1 NO 12 1C, TRACER

EXIST. PEDESTAL MOUNT LIGHTING CABINET

65' PVC - 2"  
1 NO. 12 2C, SIG.

HANDHOLE = 1 EA.  
TO BE PLACED PER ENGINEER AT APPROX. STA. 3476+69

125' PVC - 2"  
1 FO 62.5/125 SM12F; 1 NO. 12 1C, TRACER  
DRILL EXIST. HANDHOLE = 1 EA.

ICN FIBER ACCESS HANDHOLE

FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
c:\pwork\work\pwork\biggsrd\d0340463\PTZ	camera_plans.dgn	DRAWN -	REVISED -
\$MODELNAME\$	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 2/7/2014	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.
--------	-------	----	--------	------	----	------

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	51
CONTRACT NO. 70A26			ILLINOIS FED. AID PROJECT	

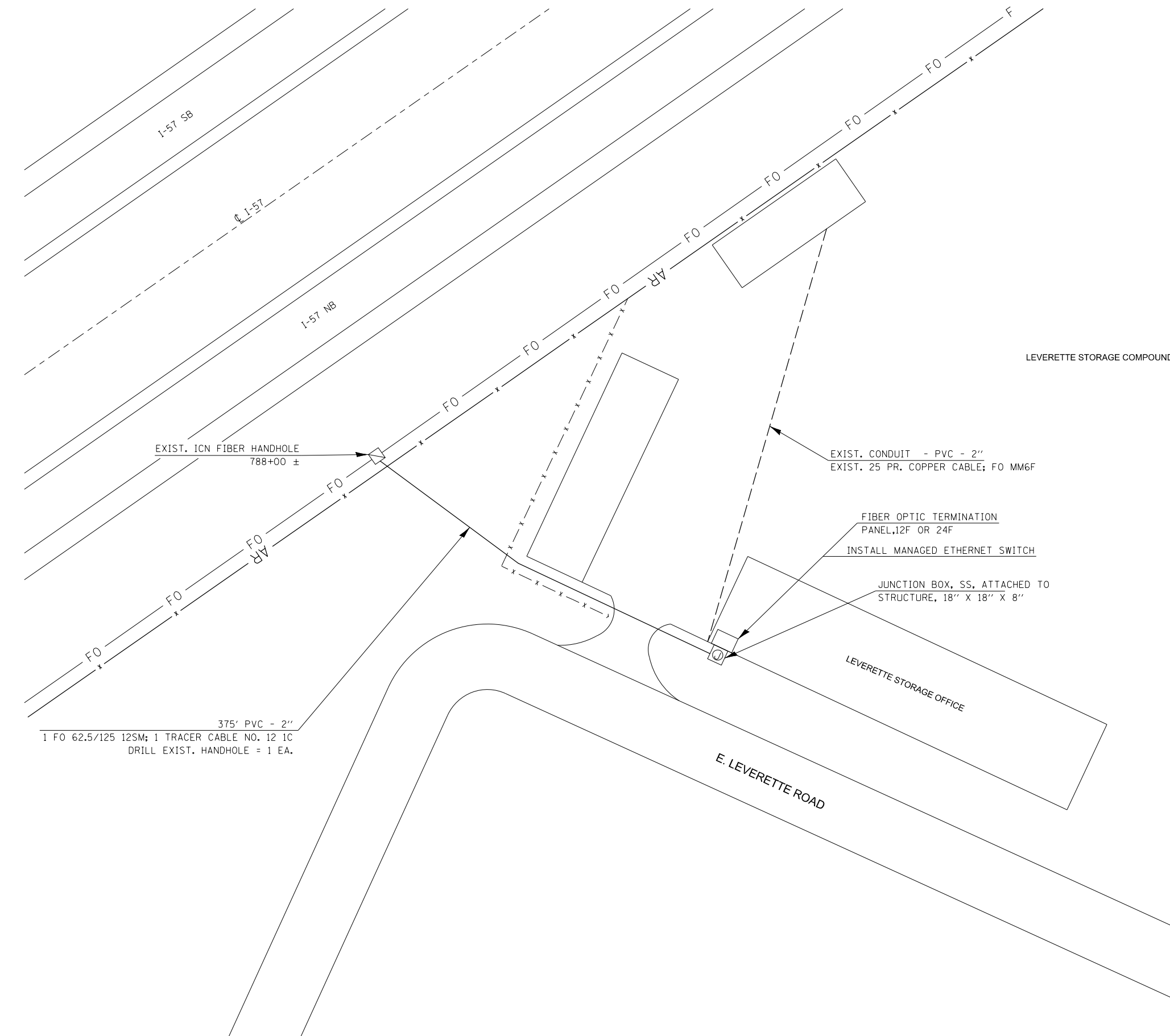
**FIBER OPTIC CONNECTION**

**I-57  
0.5 NORTH  
OF  
MARKET ST.**

**LEVERETTE STORAGE**

(NOT TO SCALE)

**CONDUIT /CABLE LAYOUT**



**BILL OF MATERIALS**

**I-57 AT LEVERETTE STORAGE**

ITEM	UNIT	QUANTITY
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	375
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE	EACH	1
DRILL EXISTING HANDHOLE	EACH	1
FIBER OPTIC CABLE 6 FIBERS, SINGLE MODE	FOOT	397
FIBER OPTIC CABLE 12 FIBERS, SINGLE MODE	FOOT	375
FIBER OPTIC TERMINATION PANEL, 12 F OR 24F	EACH	1
ETHERNET SWITCH	EACH	1

375' PVC - 2"  
1 FO 62.5/125 12SM; 1 TRACER CABLE NO. 12 1C  
DRILL EXIST. HANDHOLE = 1 EA.

EXIST. CONDUIT - PVC - 2"  
EXIST. 25 PR. COPPER CABLE; FO MM6F

FIBER OPTIC TERMINATION  
PANEL, 12F OR 24F  
INSTALL MANAGED ETHERNET SWITCH

JUNCTION BOX, SS, ATTACHED TO  
STRUCTURE, 18" X 18" X 8"

FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
et:\pw\work\p\idot\biggsrd\0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -
\$MODELNAME\$	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 2/7/2014	DATE -	REVISED -

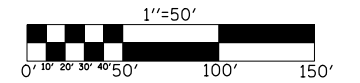
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	52
			CONTRACT NO. 70A26	
ILLINOIS FED. AID PROJECT				

# PTZ CAMERA INSTALLATION

I-57  
&  
I-74



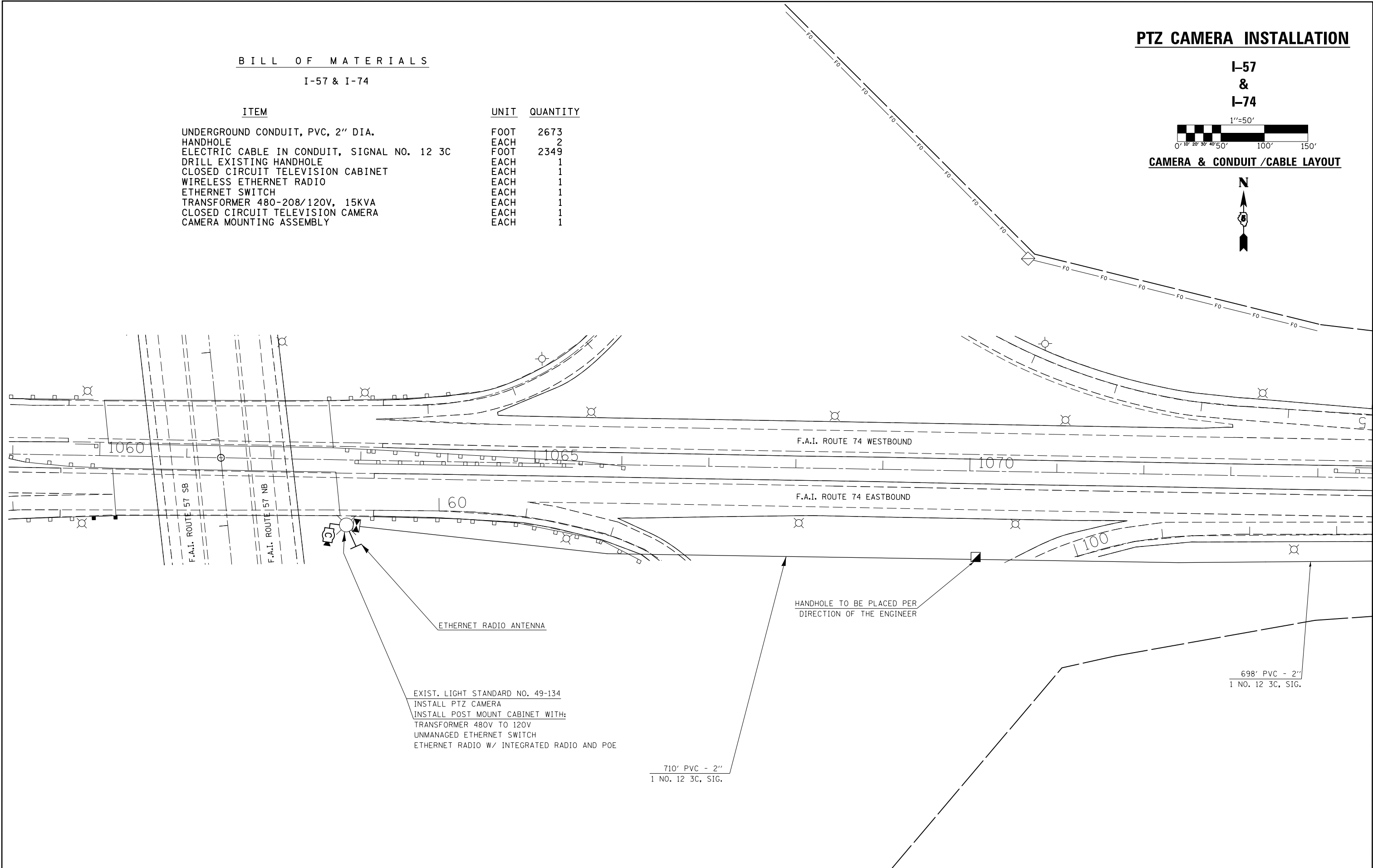
## CAMERA & CONDUIT /CABLE LAYOUT



### BILL OF MATERIALS

I-57 & I-74

ITEM	UNIT	QUANTITY
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	2673
HANDHOLE	EACH	2
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 12 3C	FOOT	2349
DRILL EXISTING HANDHOLE	EACH	1
CLOSED CIRCUIT TELEVISION CABINET	EACH	1
WIRELESS ETHERNET RADIO	EACH	1
ETHERNET SWITCH	EACH	1
TRANSFORMER 480-208/120V, 15KVA	EACH	1
CLOSED CIRCUIT TELEVISION CAMERA	EACH	1
CAMERA MOUNTING ASSEMBLY	EACH	1



EXIST. LIGHT STANDARD NO. 49-134  
INSTALL PTZ CAMERA  
INSTALL POST MOUNT CABINET WITH:  
TRANSFORMER 480V TO 120V  
UNMANAGED ETHERNET SWITCH  
ETHERNET RADIO W/ INTEGRATED RADIO AND POE

HANDHOLE TO BE PLACED PER  
DIRECTION OF THE ENGINEER

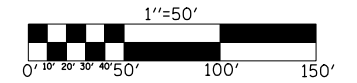
710' PVC - 2"  
1 NO. 12 3C, SIG.

698' PVC - 2"  
1 NO. 12 3C, SIG.

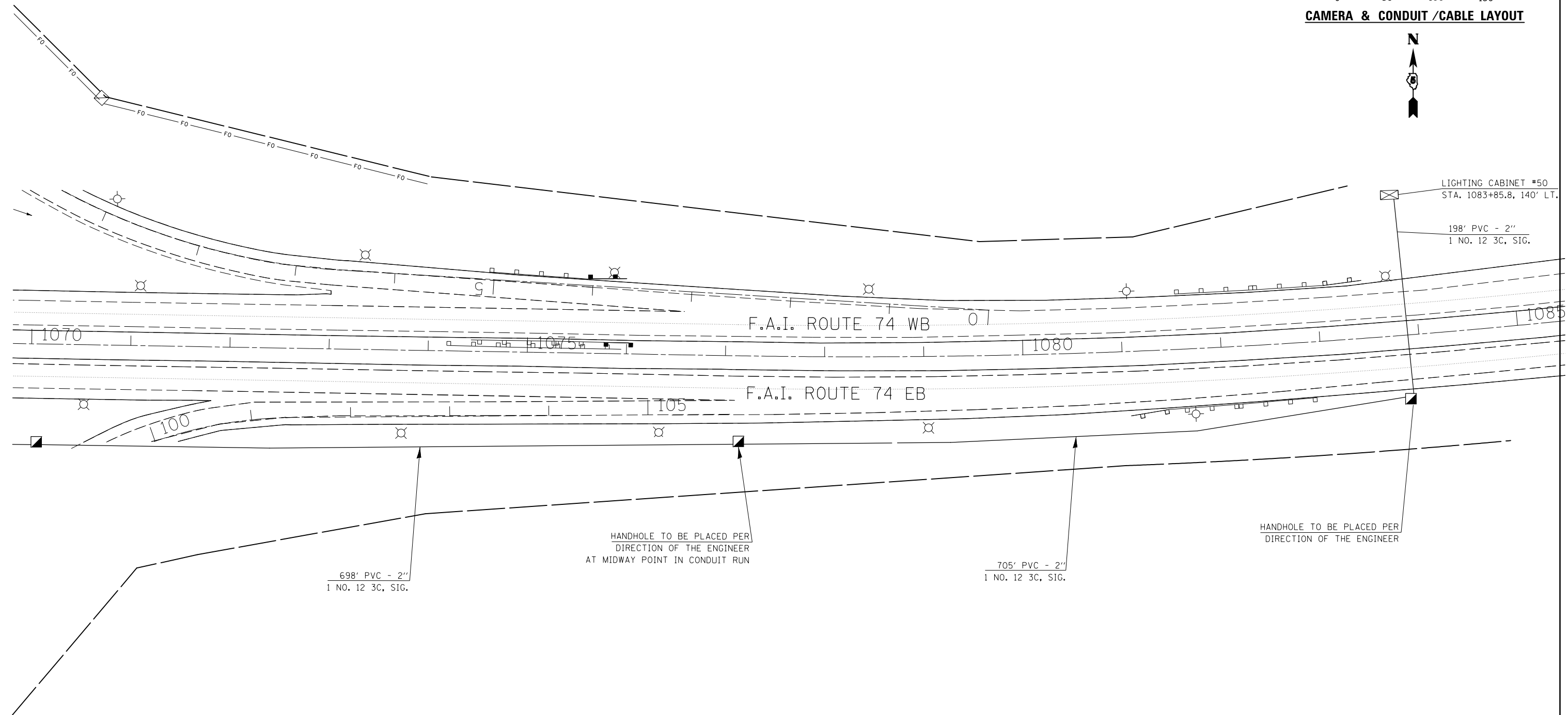
FILE NAME = c:\pwork\pwork\biggsrd\0340463\PTZ	USER NAME = biggsrd camera plans.dgn	DESIGNED - DRAWN -	REVISED - REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.	F.A.P. RTE. VAR.	SECTION FY2014 ITS-1	COUNTY CHAMPAIGN	TOTAL SHEETS 74	SHEET NO. 53	
\$MODELNAME\$	PLOT DATE = 2/7/2014	CHECKED - DATE -	REVISED - REVISED -		CONTRACT NO. 70A26	ILLINOIS FED. AID PROJECT											

# PTZ CAMERA INSTALLATION

I-57  
&  
I-74



## CAMERA & CONDUIT /CABLE LAYOUT



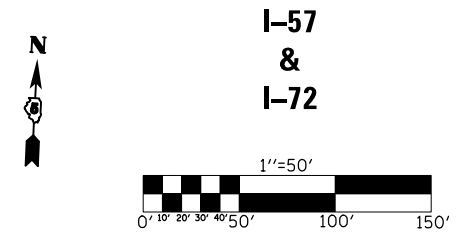
FILE NAME = c:\pwwork\pwwork\biggsrd\d0340463\PTZ	USER NAME = biggsrd camera plans.dgn	DESIGNED - DRAWN -	REVISED - REVISED -
*MODELNAME#	PLOT SCALE = 100.0074' / in. PLOT DATE = 2/7/2014	CHECKED - DATE -	REVISED - REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCALE: SHEET OF SHEETS STA. TO STA.

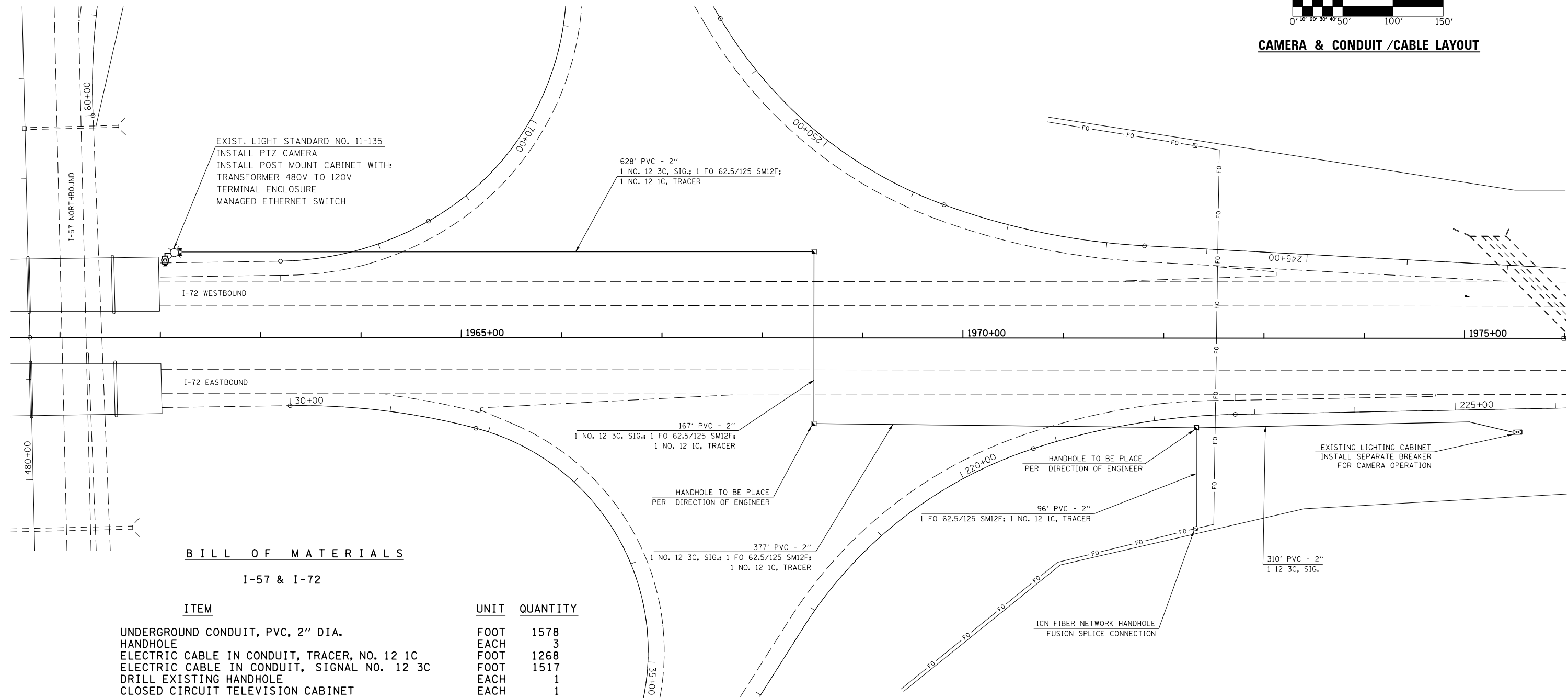
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	54
CONTRACT NO. 70A26			ILLINOIS FED. AID PROJECT	

# PTZ CAMERA INSTALLATION & FIBER OPTIC CONNECTION



**I-57  
&  
I-72**

## CAMERA & CONDUIT /CABLE LAYOUT



### BILL OF MATERIALS

I-57 & I-72

ITEM	UNIT	QUANTITY
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	1578
HANDHOLE	EACH	3
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 12 1C	FOOT	1268
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 12 3C	FOOT	1517
DRILL EXISTING HANDHOLE	EACH	1
CLOSED CIRCUIT TELEVISION CABINET	EACH	1
ETHERNET SWITCH	EACH	1
TRANSFORMER 480-208/120V, 15KVA	EACH	1
CLOSED CIRCUIT TELEVISION CAMERA	EACH	1
FIBER OPTIC CABLE 12 FIBERS, SINGLE MODE	FOOT	1303
CAMERA MOUNTING ASSEMBLY	EACH	1

FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
c:\pwork\pwork\biggsrd\0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -
\$MODELNAME\$	PLOT SCALE = 100.0000' / 1" =	CHECKED -	REVISED -
	PLOT DATE = 2/7/2014	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCALE:      SHEET      OF      SHEETS      STA.      TO      STA.

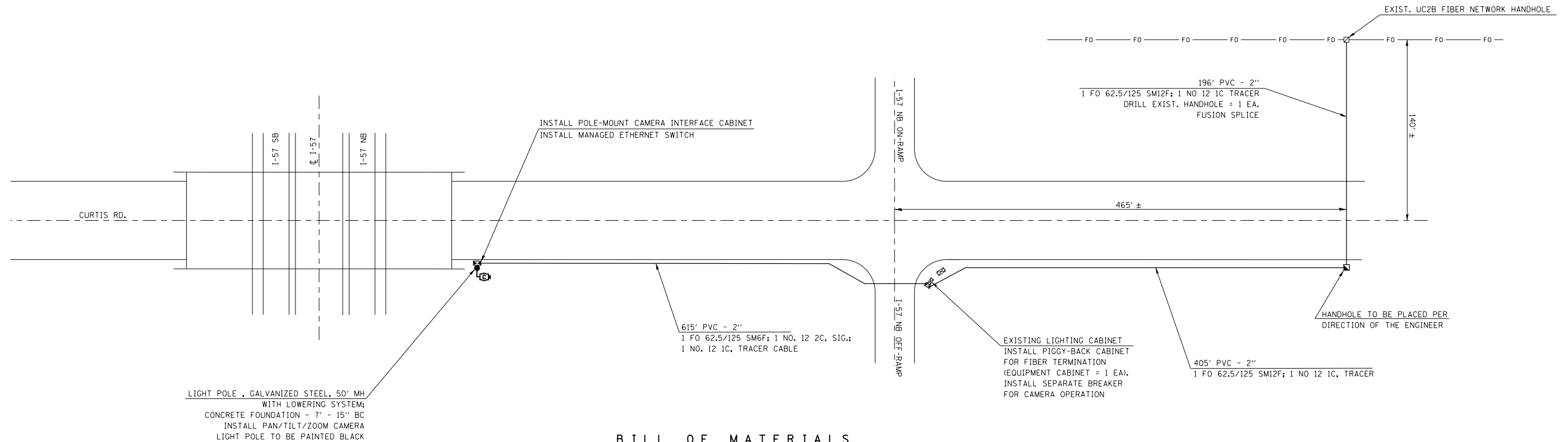
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	55
CONTRACT NO. 70A26			ILLINOIS FED. AID PROJECT	

# PTZ CAMERA INSTALLATION & FIBER OPTIC CONNECTION

**I-57  
&  
CURTIS RD.**

(NOT TO SCALE)

## CAMERA & CONDUIT /CABLE LAYOUT



### BILL OF MATERIALS

I-57 & CURTIS RD.

ITEM	UNIT	QUANTITY
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	1216
LIGHT POLE FOUNDATION, 30" DIAMETER	FOOT	7
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 12 1C	FOOT	1216
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 12 3C	FOOT	636
DRILL EXISTING HANDHOLE	EACH	1
CLOSED CIRCUIT TELEVISION CABINET	EACH	1
LIGHT POLE, STEEL 50 FT. WITH CAMERA LOWERING SYSTEM	EACH	1
EQUIPMENT CABINET	EACH	1
ETHERNET SWITCH	EACH	1
PAINTING LIGHT POLE UNIT	EACH	1
CLOSED CIRCUIT TELEVISION CAMERA	EACH	1
FIBER OPTIC CABLE 6 FIBERS, SINGLE MODE	FOOT	636
FIBER OPTIC CABLE 12 FIBERS, SINGLE MODE	FOOT	620
CAMERA MOUNTING ASSEMBLY	EACH	1

FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
et:\pw\work\p\dot\biggsrd\d0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -		VAR.									FY2014 ITS-1	CHAMPAIGN	74	56
\$MODELNAME\$	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -		CONTRACT NO. 70A26			ILLINOIS FED. AID PROJECT									
	PLOT DATE = 2/7/2014	DATE -	REVISED -														

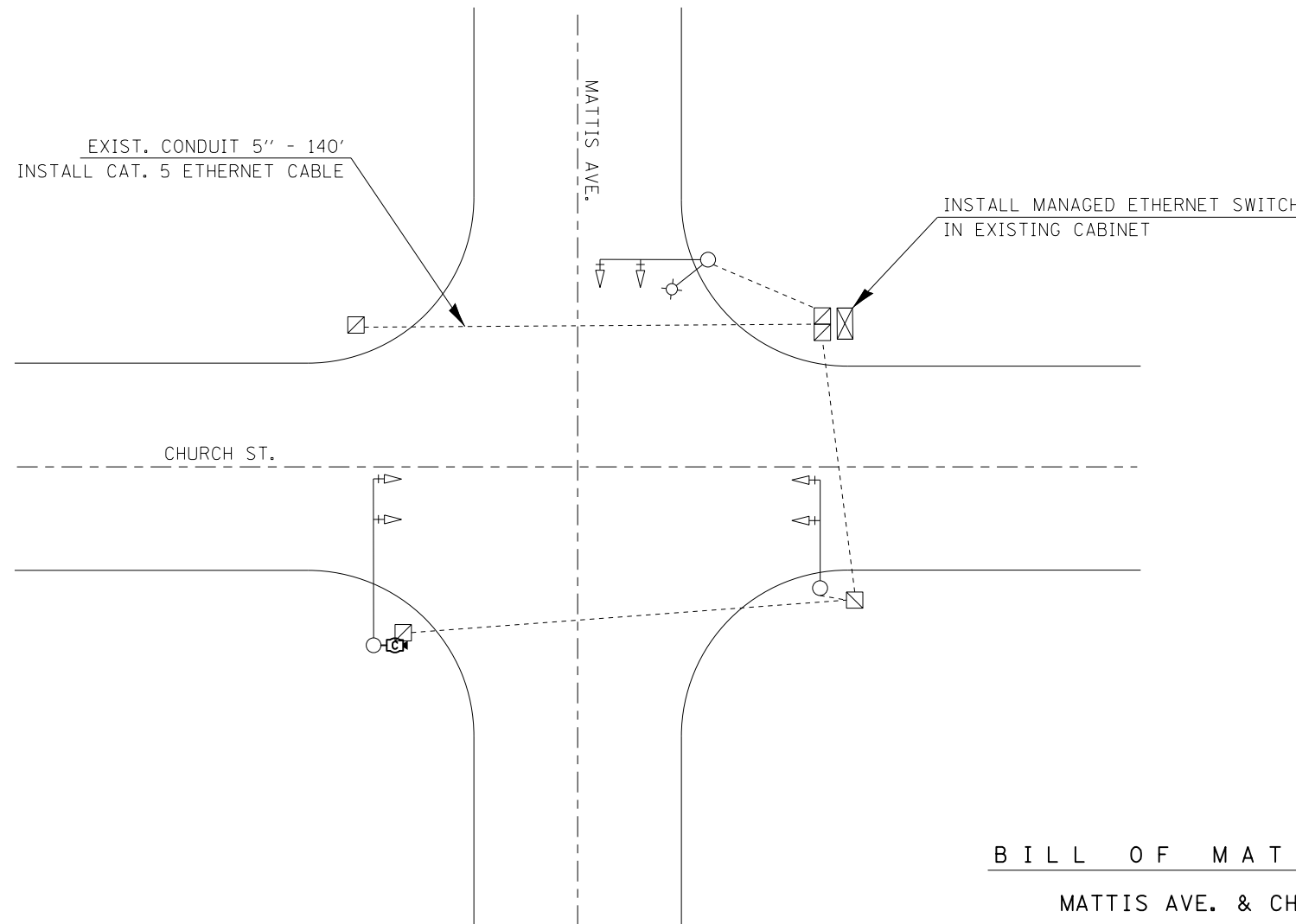


**PTZ CAMERA INSTALLATION**

**MATTIS AVE.  
&  
CHURCH ST.**

(NOT TO SCALE)

**CAMERA & CONDUIT /CABLE LAYOUT**



**B I L L O F M A T E R I A L S**

MATTIS AVE. & CHURCH RD.

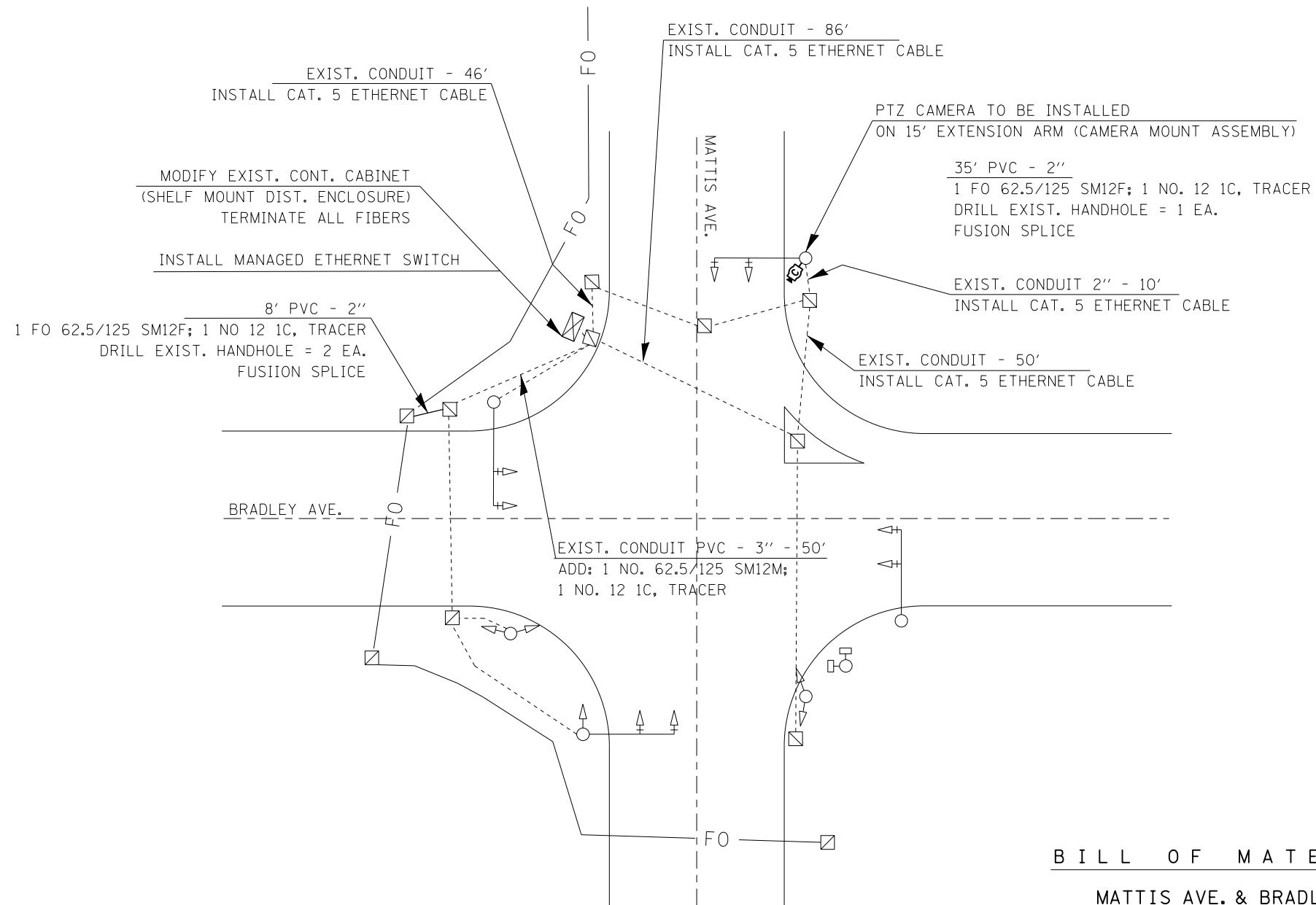
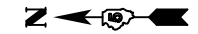
ITEM	UNIT	QUANTITY
ETHERNET SWITCH	EACH	1
CLOSED CIRCUIT TELEVISION CAMERA	EACH	1
CAMERA MOUNTING ASSEMBLY	EACH	1

**PTZ CAMERA INSTALLATION & FIBER OPTIC CONNECTION**

**MATTIS AVE. & BRADLEY AVE.**

(NOT TO SCALE)

**CAMERA & CONDUIT /CABLE LAYOUT**



**BILL OF MATERIALS**  
MATTIS AVE. & BRADLEY AVE.

ITEM	UNIT	QUANTITY
FIBER OPTIC CABLE 12 FIBERS, SINGLE MODE	FOOT	88
CAMERA MOUNTING ASSEMBLY	EACH	1
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	8
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 12 1C	FOOT	58
DRILL EXISTING HANDHOLE	EACH	2
MODIFY EXISTING CONTROLLER CABINET	EACH	1
ETHERNET SWITCH	EACH	1
CLOSED CIRCUIT TELEVISION CAMERA	EACH	1

**PTZ CAMERA INSTALLATION &  
FIBER OPTIC CONNECTION**

**MATTIS AVE.  
&  
BLOOMINGTON RD.**

(NOT TO SCALE)

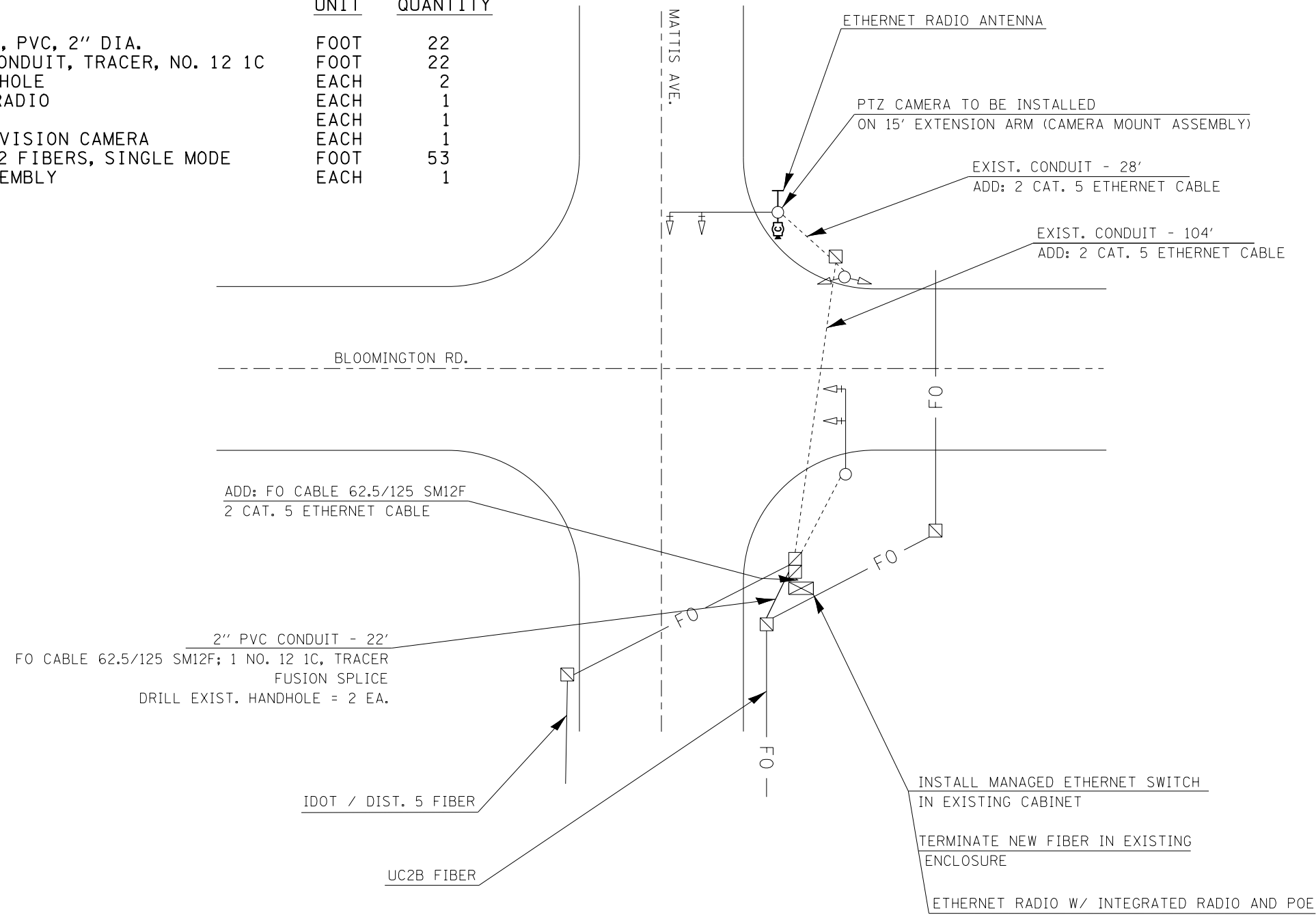
**CAMERA & CONDUIT /CABLE LAYOUT**



B I L L O F M A T E R I A L S

MATTIS AVE. & BLOOMINGTON RD.

ITEM	UNIT	QUANTITY
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	22
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 12 1C	FOOT	22
DRILL EXISTING HANDHOLE	EACH	2
WIRELESS ETHERNET RADIO	EACH	1
ETHERNET SWITCH	EACH	1
CLOSED CIRCUIT TELEVISION CAMERA	EACH	1
FIBER OPTIC CABLE 12 FIBERS, SINGLE MODE	FOOT	53
CAMERA MOUNTING ASSEMBLY	EACH	1

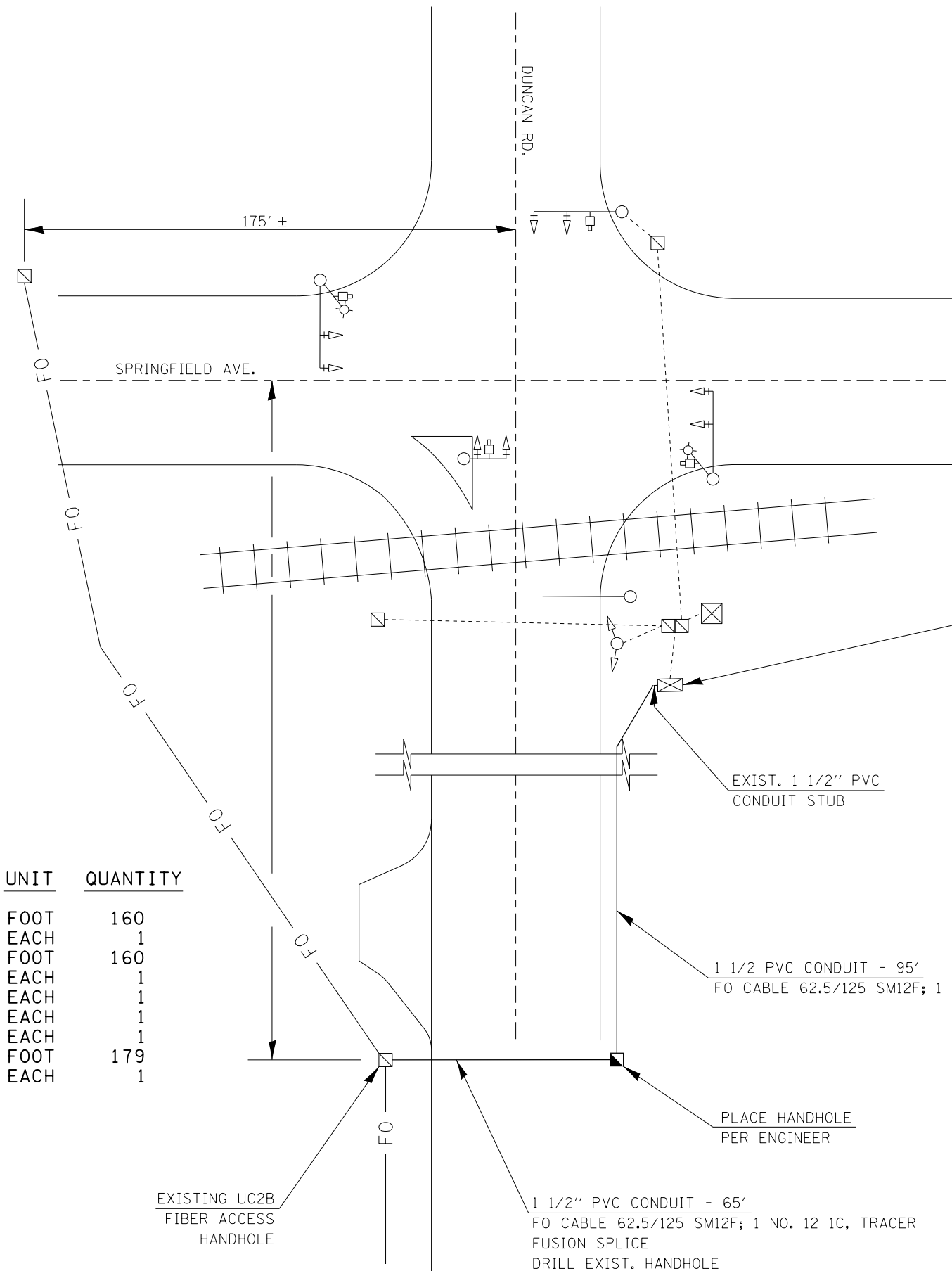


**FIBER OPTIC CONNECTION**

**SPRINGFIELD AVE.  
&  
DUNCAN RD.**

(NOT TO SCALE)

**CAMERA & CONDUIT /CABLE LAYOUT**



MODIFY EXIST. CONT. CABINET = 1 EA.  
TERMINATE NEW FIBER  
INSTALL MANAGED ETHERNET SWITCH

EXIST. 1 1/2" PVC  
CONDUIT STUB

1 1/2" PVC CONDUIT - 95'  
FO CABLE 62.5/125 SM12F; 1 NO. 12 1C, TRACER

PLACE HANDHOLE  
PER ENGINEER

1 1/2" PVC CONDUIT - 65'  
FO CABLE 62.5/125 SM12F; 1 NO. 12 1C, TRACER  
FUSION SPLICE  
DRILL EXIST. HANDHOLE

**B I L L O F M A T E R I A L S**

SPRINGFIELD AVE. & DUNCAN RD.

ITEM	UNIT	QUANTITY
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	160
HANDHOLE	EACH	1
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 12 1C	FOOT	160
DRILL EXISTING HANDHOLE	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
ETHERNET SWITCH	EACH	1
VIDEO SYSTEM DETECTION PROCESSOR	EACH	1
FIBER OPTIC CABLE 12 FIBERS, SINGLE MODE	FOOT	179
VIDEO VEHICLE DETECTION, 4 CAMERAS	EACH	1

**NOTE**  
UPGRADE VIDEO DETECTION  
ETHERNET PROCESSOR, 4 NEW CAMERAS

FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
ct:\pw\work\p\dot\biggsrd\d0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
\$MODELNAME\$	PLOT DATE = 2/7/2014	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCALE: SHEET OF SHEETS STA. TO STA.

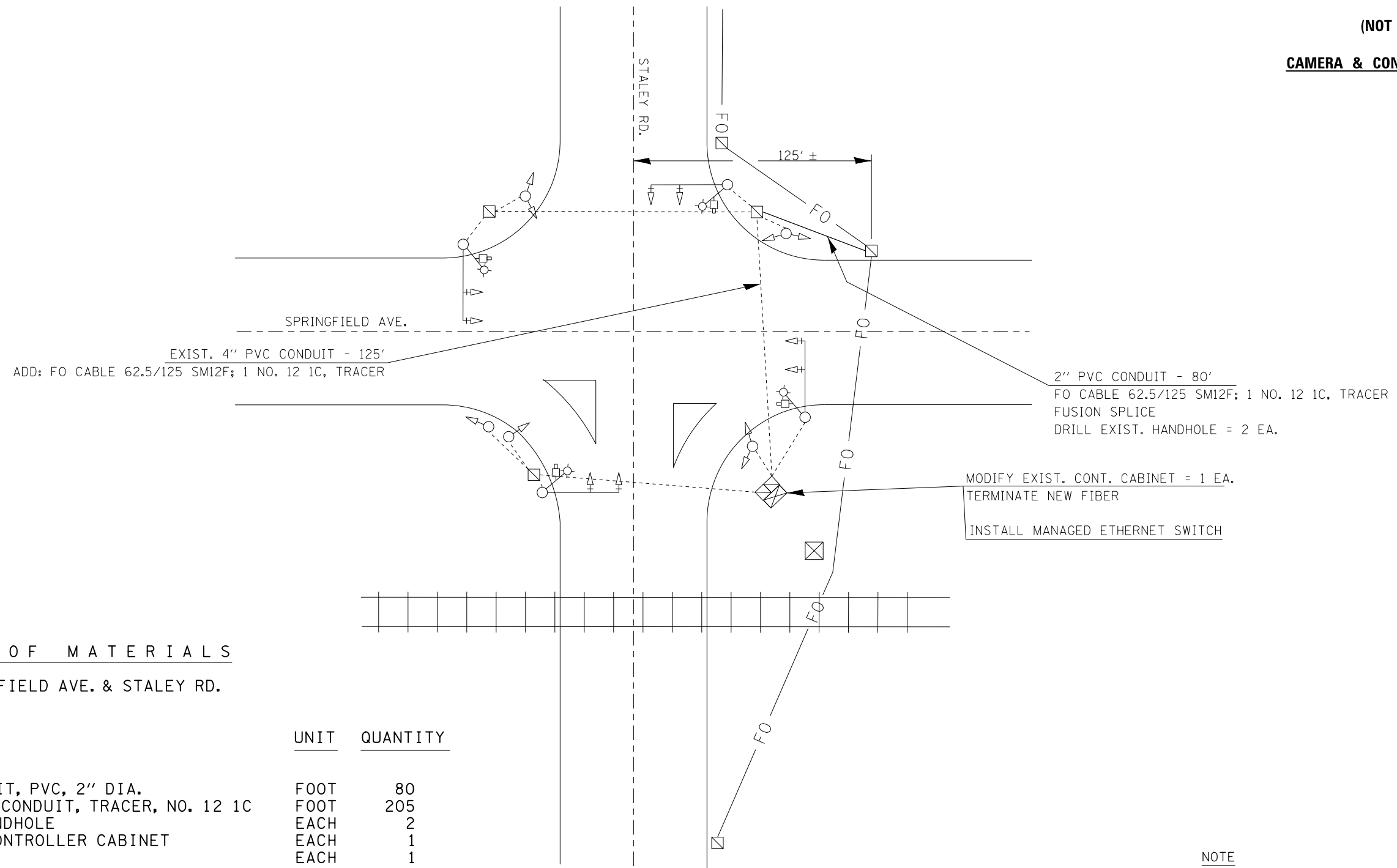
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	60
			CONTRACT NO. 70A26	
ILLINOIS FED. AID PROJECT				

**FIBER OPTIC CONNECTION**

**SPRINGFIELD AVE.  
&  
STALEY RD.**

(NOT TO SCALE)

**CAMERA & CONDUIT /CABLE LAYOUT**



**B I L L O F M A T E R I A L S**

**SPRINGFIELD AVE. & STALEY RD.**

<u>ITEM</u>	<u>UNIT</u>	<u>QUANTITY</u>
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	80
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 12 1C	FOOT	205
DRILL EXISTING HANDHOLE	EACH	2
MODIFY EXISTING CONTROLLER CABINET	EACH	1
ETHERNET SWITCH	EACH	1
VIDEO SYSTEM DETECTION PROCESSOR	EACH	1
FIBER OPTIC CABLE 12 FIBERS, SINGLE MODE	FOOT	241
VIDEO VEHICLE DETECTION, 4 CAMERAS	EACH	1

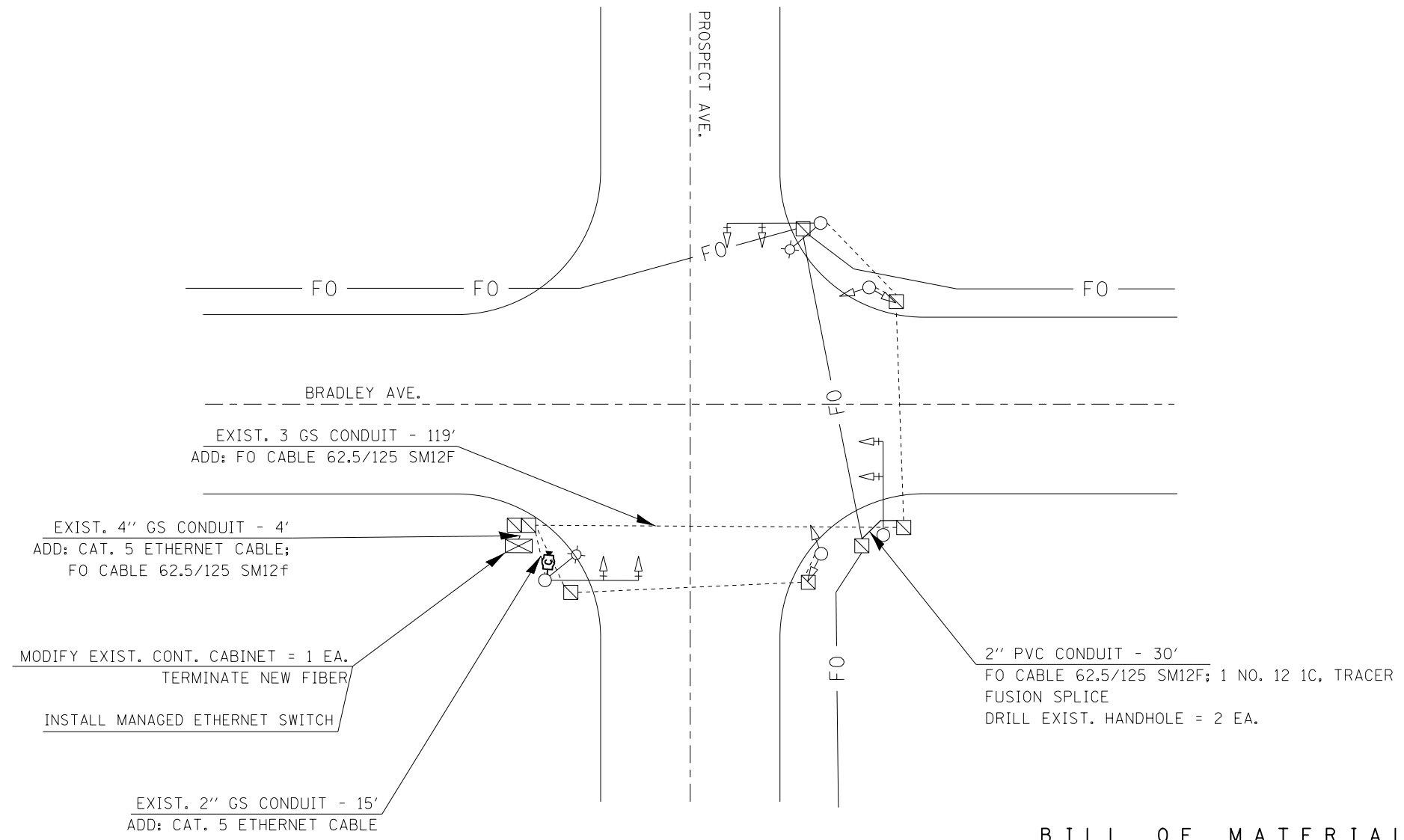
**NOTE**  
UPGRADE VIDEO DETECTION  
ETHERNET PROCESSOR, 4 NEW CAMERAS

**PTZ CAMERA INSTALLATION**

**PROSPECT AVE.  
&  
BRADLEY AVE.**

(NOT TO SCALE)

**CAMERA & CONDUIT /CABLE LAYOUT**



**B I L L O F M A T E R I A L S**

PROSPECT AVE. & BRADLEY AVE.

ITEM	UNIT	QUANTITY
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	30
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 12 1C	FOOT	149
DRILL EXISTING HANDHOLE	EACH	2
MODIFY EXISTING CONTROLLER CABINET	EACH	1
ETHERNET SWITCH	EACH	1
CLOSED CIRCUIT TELEVISION CAMERA	EACH	1
FIBER OPTIC CABLE 12 FIBERS, SINGLE MODE	FOOT	185

FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
ct:\pw\work\pwidot\biggsrd\d0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -
\$MODELNAME\$	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 2/7/2014	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCALE: SHEET OF SHEETS STA. TO STA.

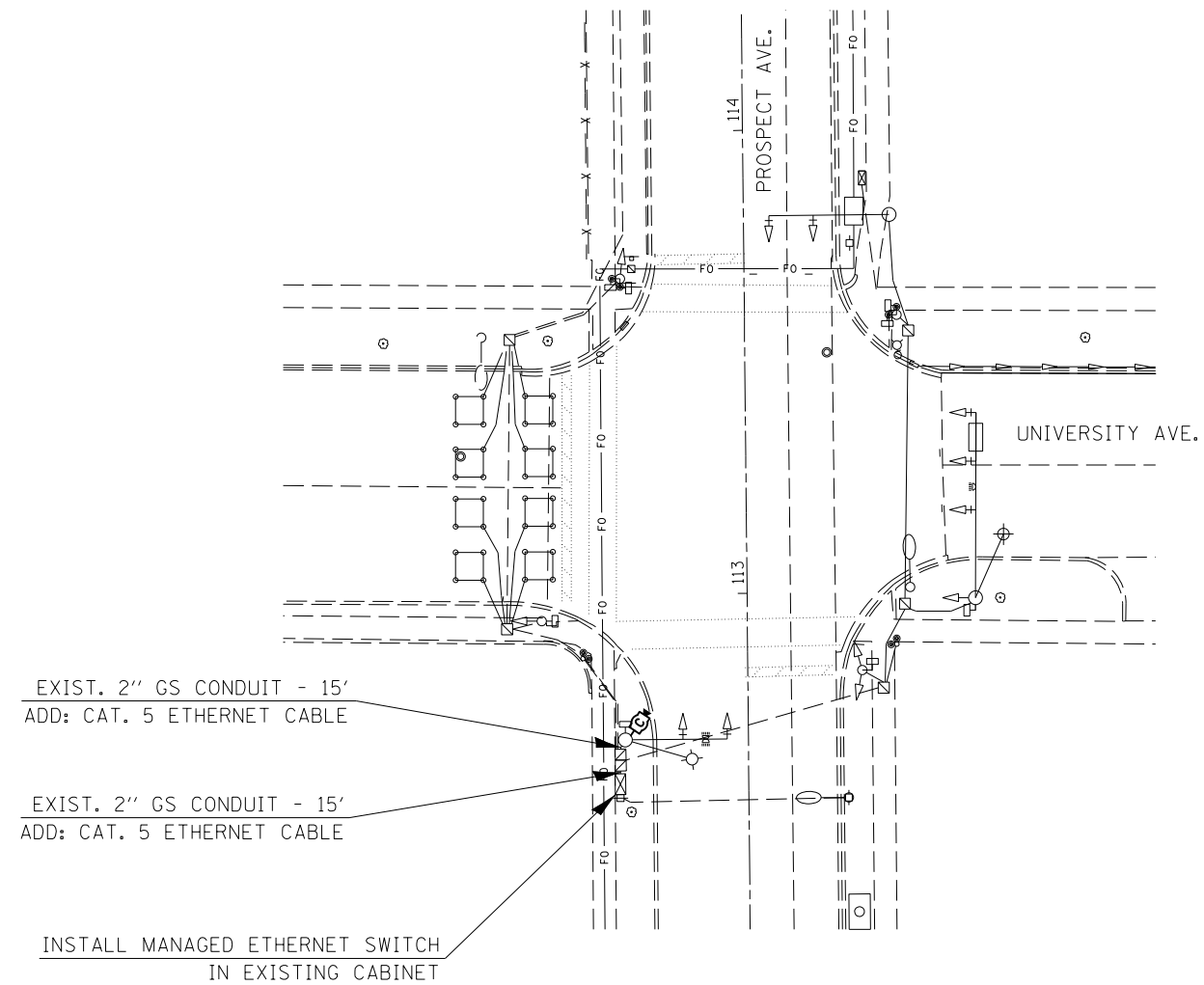
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	62
			CONTRACT NO. 70A26	
ILLINOIS FED. AID PROJECT				

**PTZ CAMERA INSTALLATION**

**PROSPECT AVE.  
&  
UNIVERSITY AVE.**

(NOT TO SCALE)

**CAMERA & CONDUIT /CABLE LAYOUT**



**B I L L O F M A T E R I A L S**

**PROSPECT AVE. & UNIVERSITY AVE.**

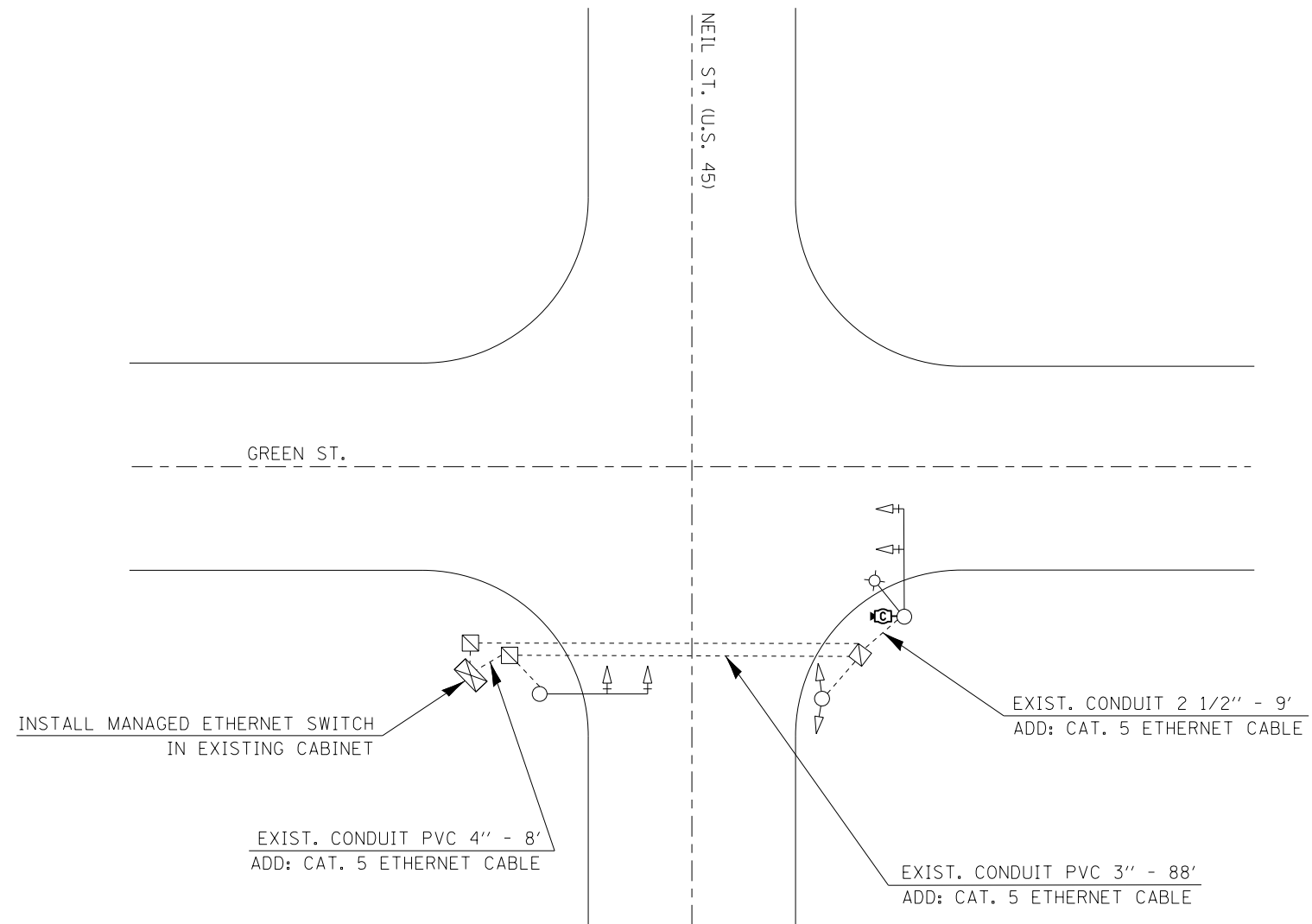
ITEM	UNIT	QUANTITY
ETHERNET SWITCH	EACH	1
CLOSED CIRCUIT TELEVISION CAMERA	EACH	1

**PTZ CAMERA INSTALLATION**

**NEIL ST.  
&  
GREEN ST.**

(NOT TO SCALE)

**CAMERA & CONDUIT /CABLE LAYOUT**



**B I L L O F M A T E R I A L S**

NEIL ST. & GREEN ST.

ITEM	UNIT	QUANTITY
ETHERNET SWITCH	EACH	1
CLOSED CIRCUIT TELEVISION CAMERA	EACH	1

FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
c:\pwork\work\pwork\biggsrd\d0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -
\$MODELNAME\$	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 2/7/2014	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	64
CONTRACT NO. 70A26			ILLINOIS FED. AID PROJECT	

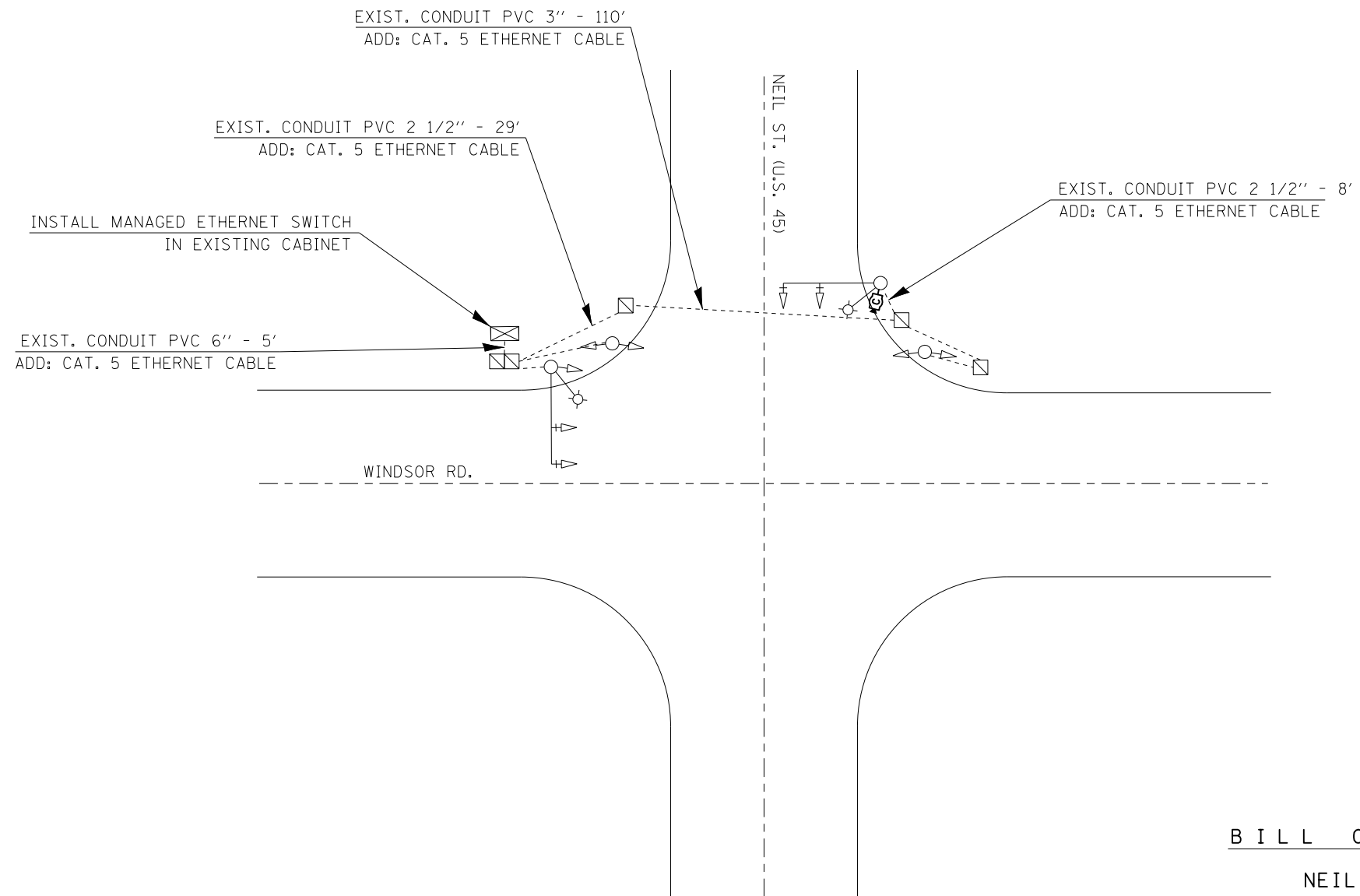


**PTZ CAMERA INSTALLATION**

**NEIL ST.  
&  
WINDSOR RD.**

(NOT TO SCALE)

**CAMERA & CONDUIT /CABLE LAYOUT**



B I L L O F M A T E R I A L S

NEIL ST. & WINDSOR RD.

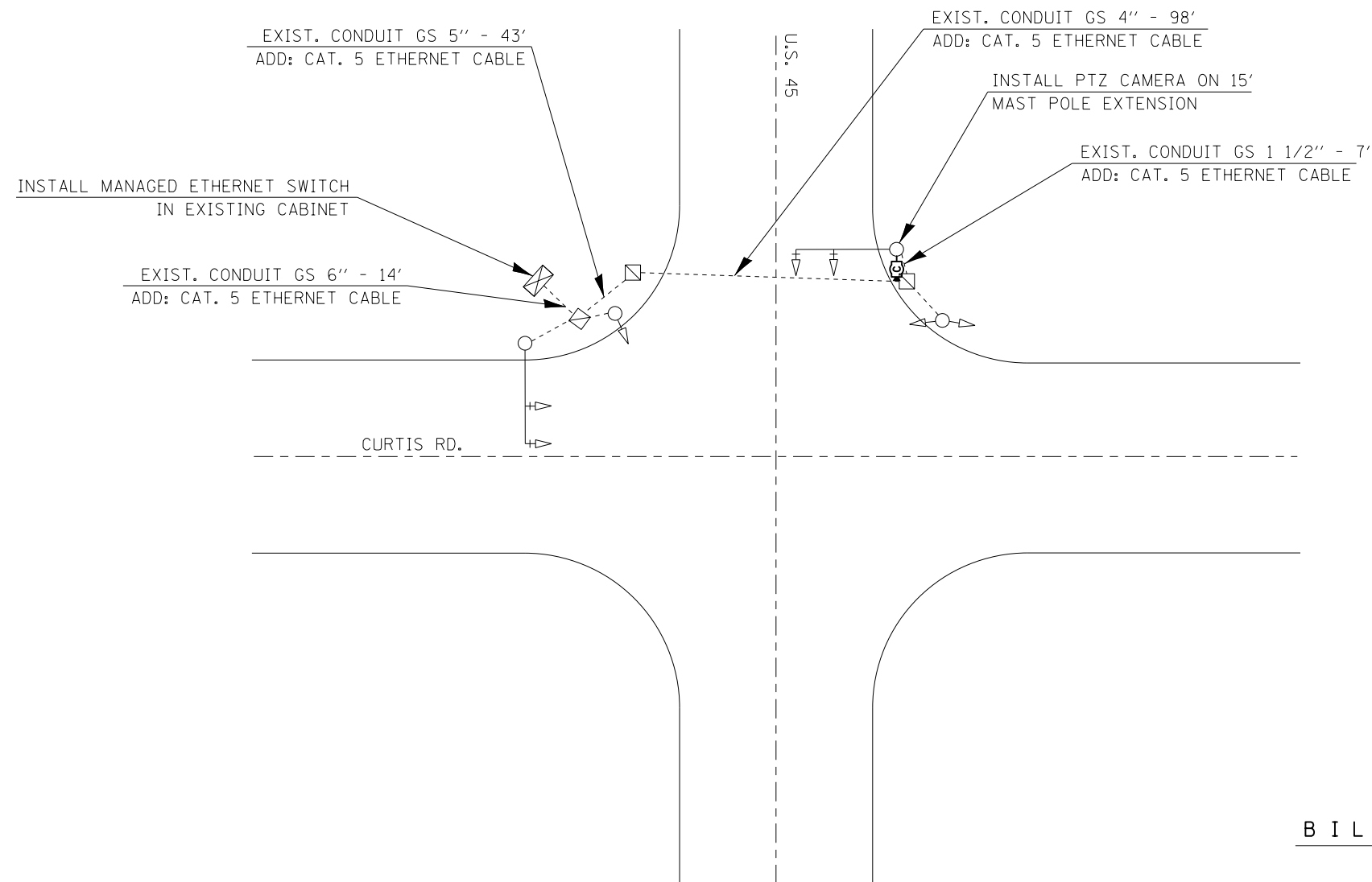
<u>ITEM</u>	<u>UNIT</u>	<u>QUANTITY</u>
ETHERNET SWITCH	EACH	1
CLOSED CIRCUIT TELEVISION CAMERA	EACH	1

# PTZ CAMERA INSTALLATION

U.S. 45 (DUNLAP AVE.)  
&  
CURTIS RD.

(NOT TO SCALE)

## CAMERA & CONDUIT /CABLE LAYOUT



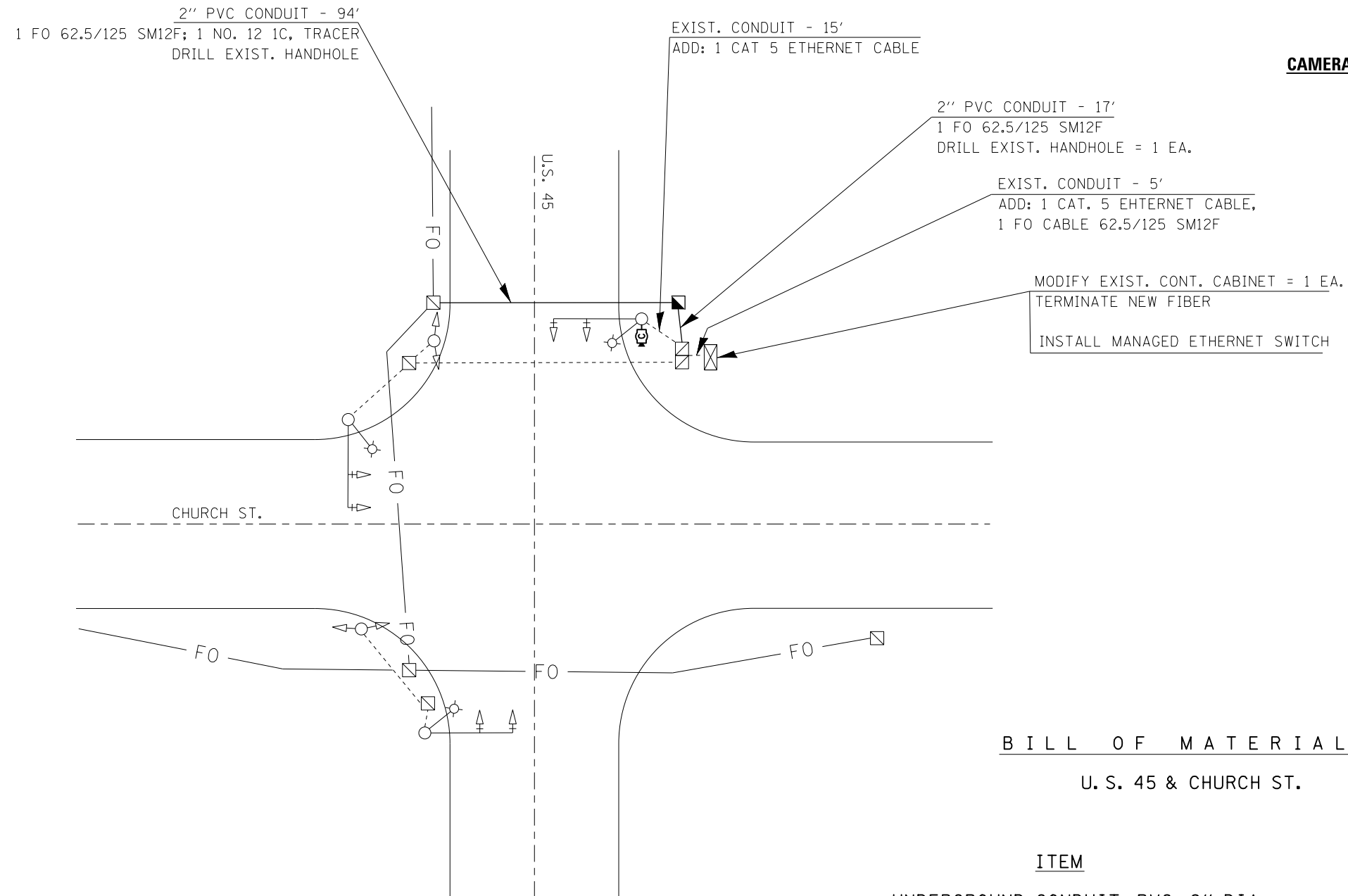
ITEM	UNIT	QUANTITY
ETHERNET SWITCH	EACH	1
CLOSED CIRCUIT TELEVISION CAMERA	EACH	1
CAMERA MOUNTING ASSEMBLY	EACH	1

# PTZ CAMERA INSTALLATION & FIBER OPTIC CONNECTION

**U.S. 45 (DUNLAP AVE.)  
&  
CHURCH ST.**

(NOT TO SCALE)

## CAMERA & CONDUIT /CABLE LAYOUT



## BILL OF MATERIALS

U. S. 45 & CHURCH ST.

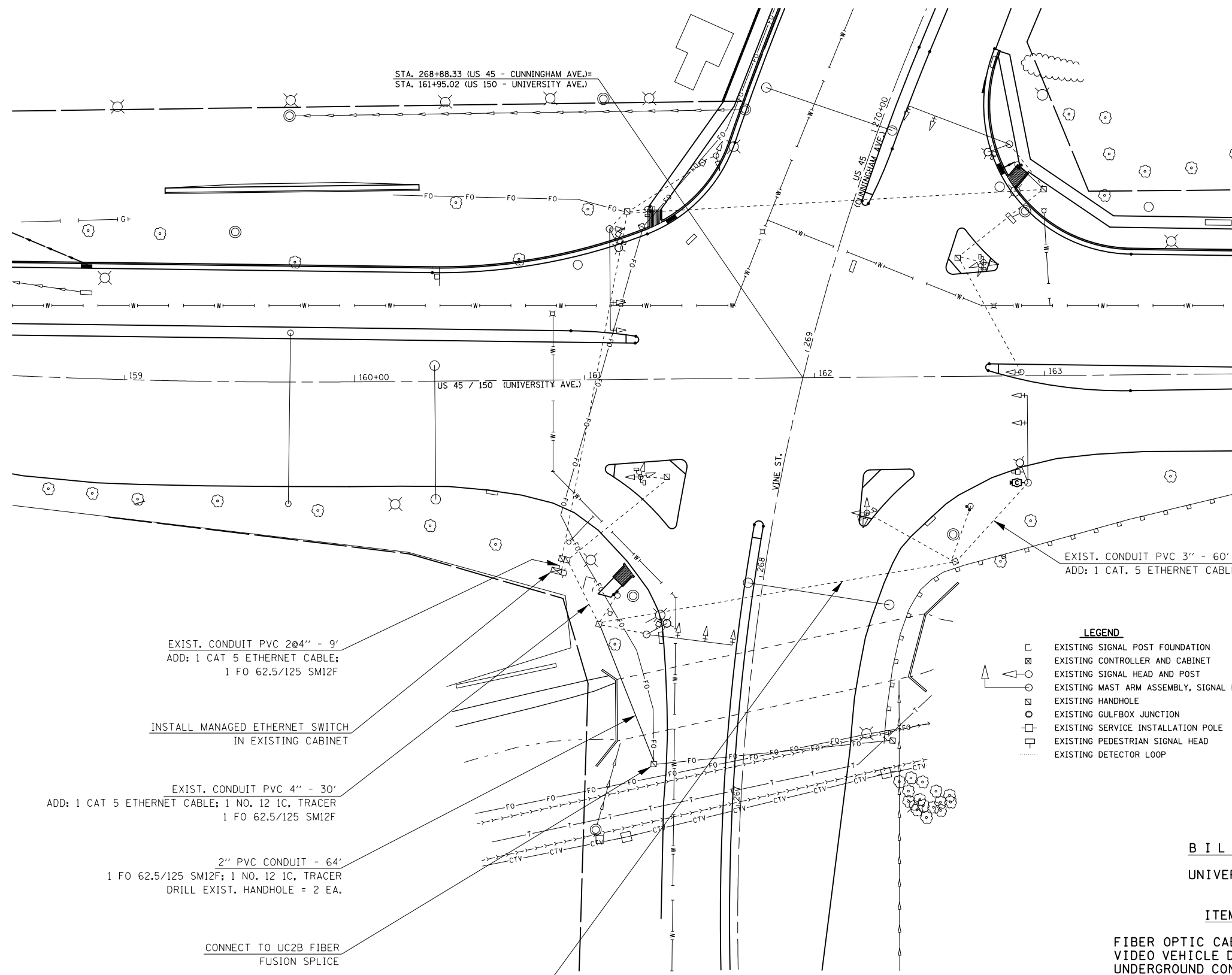
ITEM	UNIT	QUANTITY
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	111
HANDHOLE	EACH	1
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 12 1C	FOOT	111
DRILL EXISTING HANDHOLE	EACH	2
MODIFY EXISTING CONTROLLER CABINET	EACH	1
ETHERNET SWITCH	EACH	1
CLOSED CIRCUIT TELEVISION CAMERA	EACH	1
FIBER OPTIC CABLE 12 FIBERS, SINGLE MODE	FOOT	151

**PTZ CAMERA INSTALLATION &  
FIBER OPTIC CONNECTION**

**UNIVERSITY AVE.  
&  
CUNNINGHAM AVE.**

(NOT TO SCALE)

**CAMERA & CONDUIT /CABLE LAYOUT**



- LEGEND**
- EXISTING SIGNAL POST FOUNDATION
  - ⊠ EXISTING CONTROLLER AND CABINET
  - EXISTING SIGNAL HEAD AND POST
  - ⊕ EXISTING MAST ARM ASSEMBLY, SIGNAL HEAD
  - ⊞ EXISTING HANDHOLE
  - ⊞ EXISTING GULFBOX JUNCTION
  - ⊞ EXISTING SERVICE INSTALLATION POLE
  - ⊞ EXISTING PEDESTRIAN SIGNAL HEAD
  - ⋯ EXISTING DETECTOR LOOP

EXIST. CONDUIT PVC 2@4" - 9'  
ADD: 1 CAT 5 ETHERNET CABLE;  
1 FO 62.5/125 SM12F

INSTALL MANAGED ETHERNET SWITCH  
IN EXISTING CABINET

EXIST. CONDUIT PVC 4" - 30'  
ADD: 1 CAT 5 ETHERNET CABLE; 1 NO. 12 IC, TRACER  
1 FO 62.5/125 SM12F

2" PVC CONDUIT - 64'  
1 FO 62.5/125 SM12F; 1 NO. 12 IC, TRACER  
DRILL EXIST. HANDHOLE = 2 EA.

CONNECT TO UC2B FIBER  
FUSION SPLICE

EXIST. CONDUIT PVC 4" - 156'  
ADD: 1 CAT 5 ETHERNET CABLE

**BILL OF MATERIALS  
UNIVERSITY AVE. & CUNNINGHAM AVE.**

ITEM	UNIT	QUANTITY
FIBER OPTIC CABLE 12 FIBERS, SINGLE MODE	FOOT	135
VIDEO VEHICLE DETECTION, 4 CAMERAS	EACH	1
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	64
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 12 1C	FOOT	94
DRILL EXISTING HANDHOLE	EACH	2
ETHERNET SWITCH	EACH	1
VIDEO SYSTEM DETECTION PROCESSOR	EACH	1
CLOSED CIRCUIT TELEVISION CAMERA	EACH	1

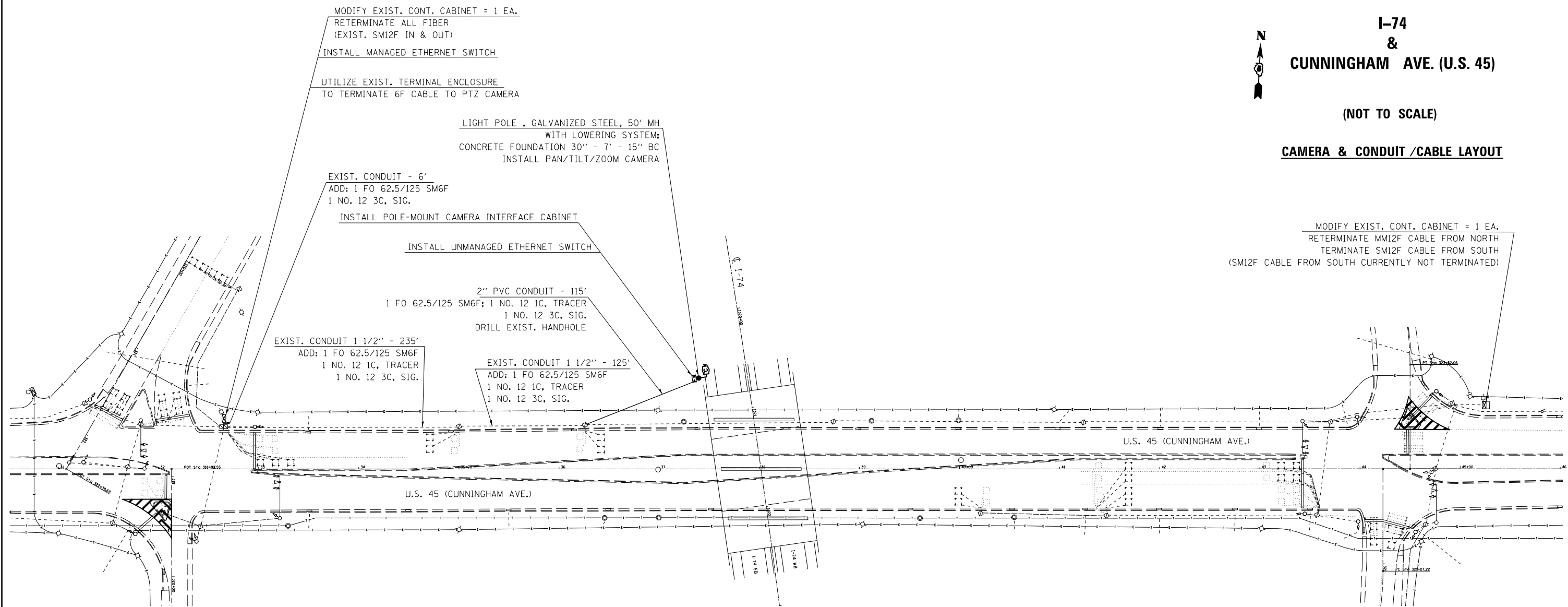
# PTZ CAMERA INSTALLATION & FIBER OPTIC CONNECTION

I-74 & CUNNINGHAM AVE. (U.S. 45)



(NOT TO SCALE)

## CAMERA & CONDUIT /CABLE LAYOUT



### BILL OF MATERIALS

U. S. 45 & I-74; NORTH RAMP; SOUTH RAMP

ITEM	UNIT	QUANTITY
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	115
LIGHT POLE FOUNDATION, 30" DIAMETER	FOOT	7
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 12 1C	FOOT	475
DRILL EXISTING HANDHOLE	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	2
CLOSED CIRCUIT TELEVISION CABINET	EACH	1
LIGHT POLE, STEEL 50 FT. WITH CAMERA LOWERING SYSTEM	EACH	1
ETHERNET SWITCH	EACH	2
CLOSED CIRCUIT TELEVISION CAMERA	EACH	1
FIBER OPTIC CABLE 6 FIBERS, SINGLE MODE	FOOT	525
CAMERA MOUNTING ASSEMBLY	EACH	1

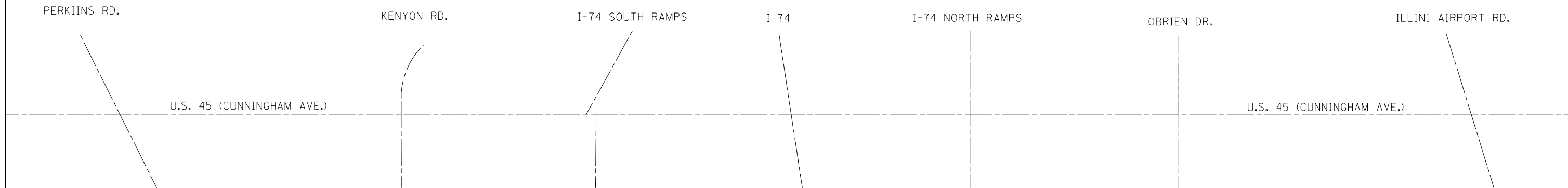
FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et:\pw\work\p\dot\biggsrd\d0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -									VAR.	FY2014 ITS-1	CHAMPAIGN	74	69
\$MODELNAME\$	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -									CONTRACT NO. 70A26				
	PLOT DATE = 2/7/2014	DATE -	REVISED -									ILLINOIS FED. AID PROJECT				

**CONTROLLER CABINET MODIFICATIONS**

**U.S. 45 (CUNNINGHAM AVE.)  
PERKINS RD. TO ILLINI AIRPORT DR.**

(NOT TO SCALE)

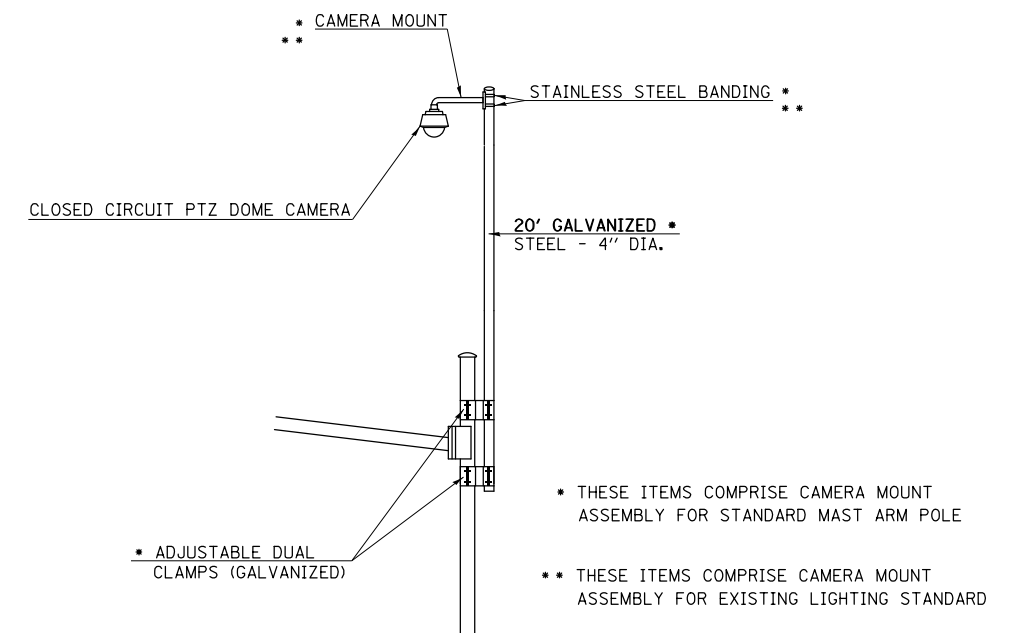
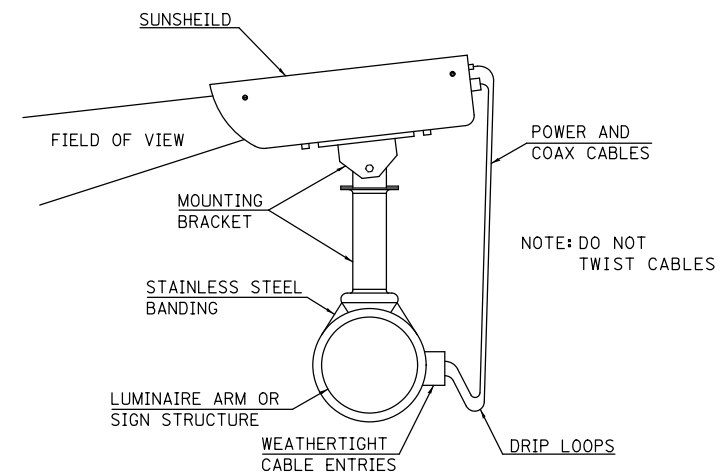
**BILL OF MATERIALS (PER LOCATION)**



**B I L L O F M A T E R I A L S**

<u>LOCATION</u>	<u>ITEM</u>	<u>UNIT</u>	<u>QUANTITY</u>
PERKINS AVE.	MODIFY EXISTING CONTROLLER CABINET	EACH	1
		EACH	1
KENYON RD.	MODIFY EXISTING CONTROLLER CABINET	EACH	1
OBRIEN DR.	MODIFY EXISTING CONTROLLER CABINET	EACH	1
	VIDEO SYSTEM DETECTION PROCESSOR	EACH	1
	CLOSED CIRCUIT TELEVISION CAMERA	EACH	1
	VIDEO VEHICLE DETECTION, 4 CAMERAS	EACH	1
	ETHERNET SWITCH (MANAGED)	EACH	1
ILLINI AIRPORT RD.	ETHERNET SWITCH (MANAGED)	EACH	1

### VIDEO CAMERA MOUNTING DETAIL



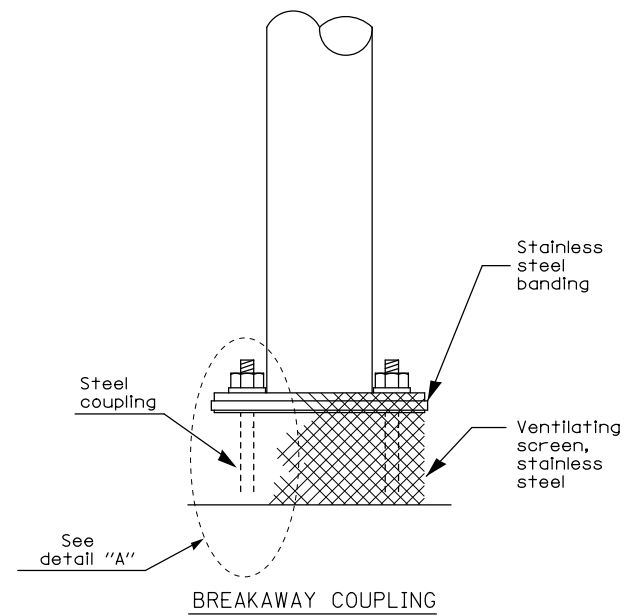
### CAMERA MOUNTING ASSEMBLY DETAIL (FOR STANDARD MAST ARM POLE MOUNT & LIGHTING STANDARD)

FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
ct:\pw\work\p1dot\biggsrd\d0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
*MODELNAME*	PLOT DATE = 2/7/2014	DATE -	REVISED -

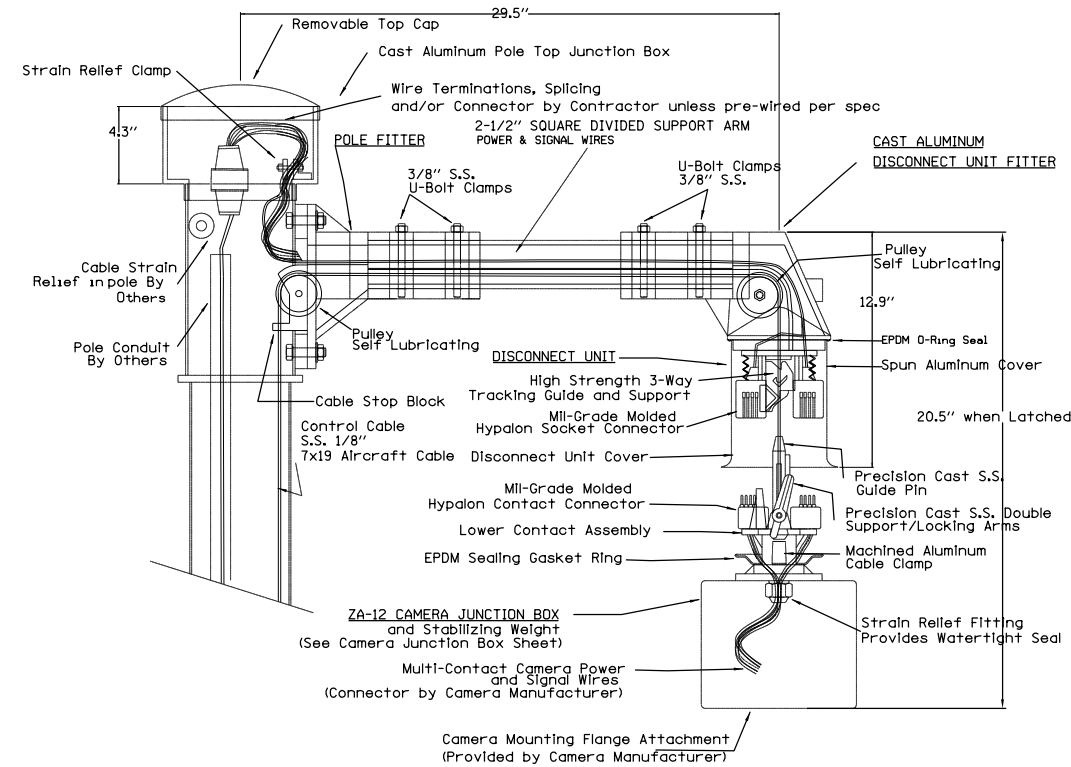
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCALE: SHEET OF SHEETS STA. TO STA.

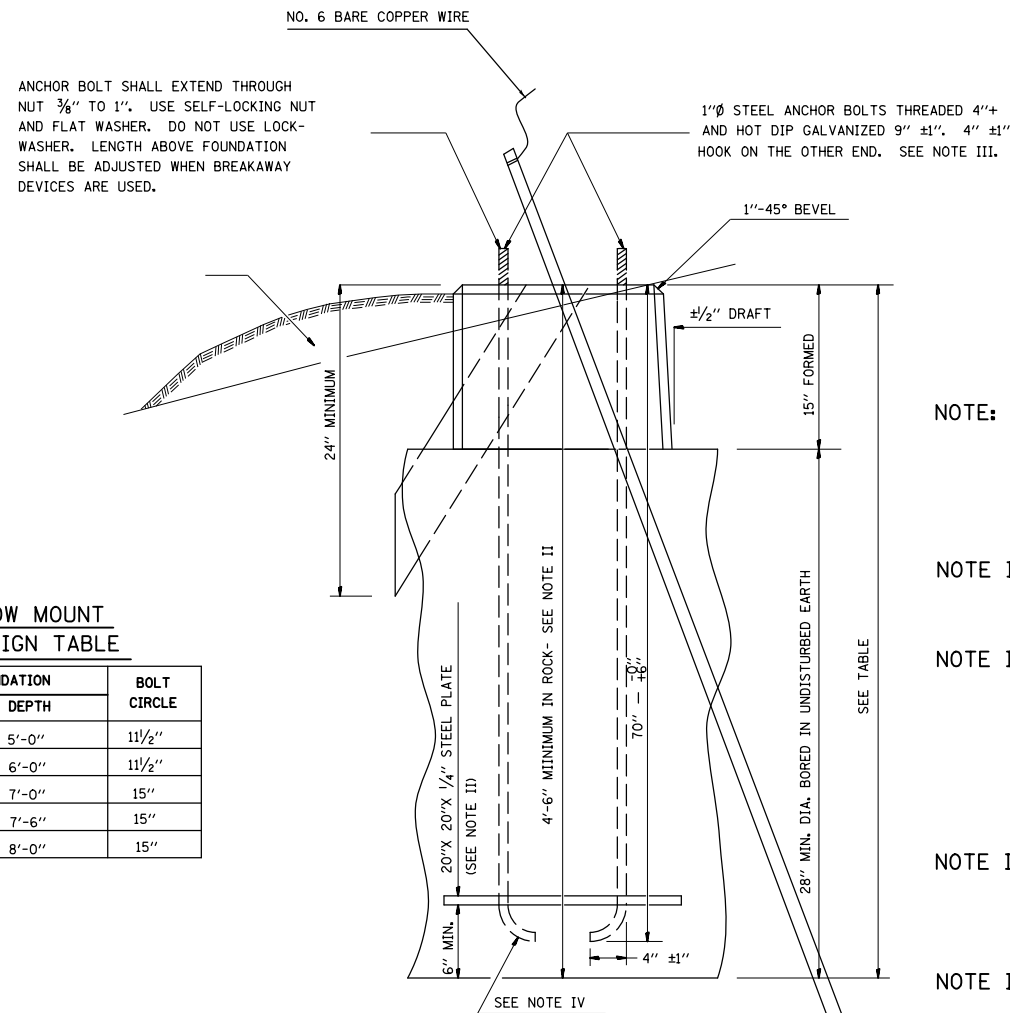
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	71
CONTRACT NO. 70A26			ILLINOIS FED. AID PROJECT	



BREAKAWAY COUPLING



Camera Lowering Device for Pole Mounting Multi-Function Surveillance Cameras CLDMG2-HYP-045-ST-D



FOUNDATION DETAIL  
LOCATION 557004.8A.09C

NOTE:

AFTER POURING CONCRETE, THE FORM SHALL REMAIN UNDISTURBED OVERNIGHT.

THE TOP 15" ONLY SHALL BE FORMED. CONCRETE BOUNDED BY UNDISTURBED EARTH ONLY SHALL FILL THE REMAINDER OF THE HOLE.

NOTE I:

MINIMUM CLEARANCE FROM THE OUTSIDE EDGE OF FOUNDATION TO ANY PART OF THE POLE BASEPLATE SHALL BE 2".

NOTE II:

THE DEPTH OF THE FOUNDATION MAY BE REDUCED 6" FOR EVERY FOOT OF ROCK ENCOUNTERED WITH A MINIMUM DEPTH OF 4'-6". WHEN THE DEPTH OF THE FOUNDATION IS DECREASED TO LESS THAN 6'-0", THE ANCHOR BOLTS SHALL BE CUT, THREADED, AND A STEEL PLATE 20" X 20" X 1/4" SHALL BE INSTALLED ON THE ANCHOR BOLTS 6" ABOVE THE BOTTOM OF THE EXCAVATION. THE COST SHALL BE INCIDENTAL TO THE FOUNDATION.

NOTE III:

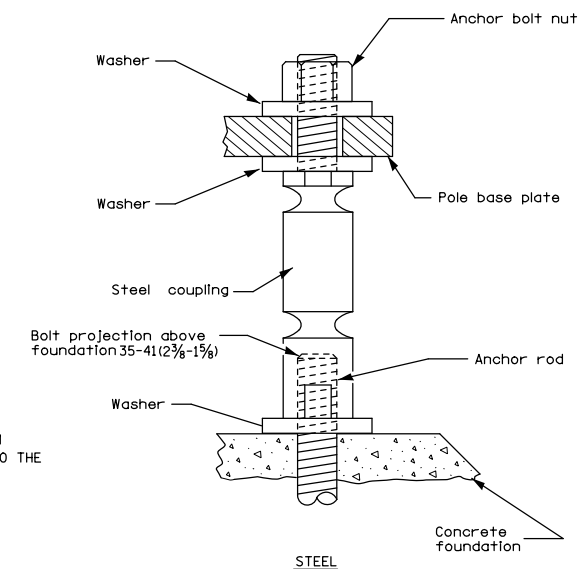
ON PARAPET WALLS USE 1/4" ANCHOR BOLTS. USE SELF-LOCKING NUT AND FLAT WASHER. DO NOT USE LOCKWASHER. (FOR DETAILS SEE STANDARD III/2.35 OF BRIDGE DESIGN MANUAL.

NOTE IV:

BEND RADIUS SHALL BE FOUR TIMES BOLT DIAMETER.

NOTE V:

CONNECT GROUND WIRES TO POLE BASE GROUND LUG, NOT ANCHOR BOLTS OR TRANSFORMER BASE.

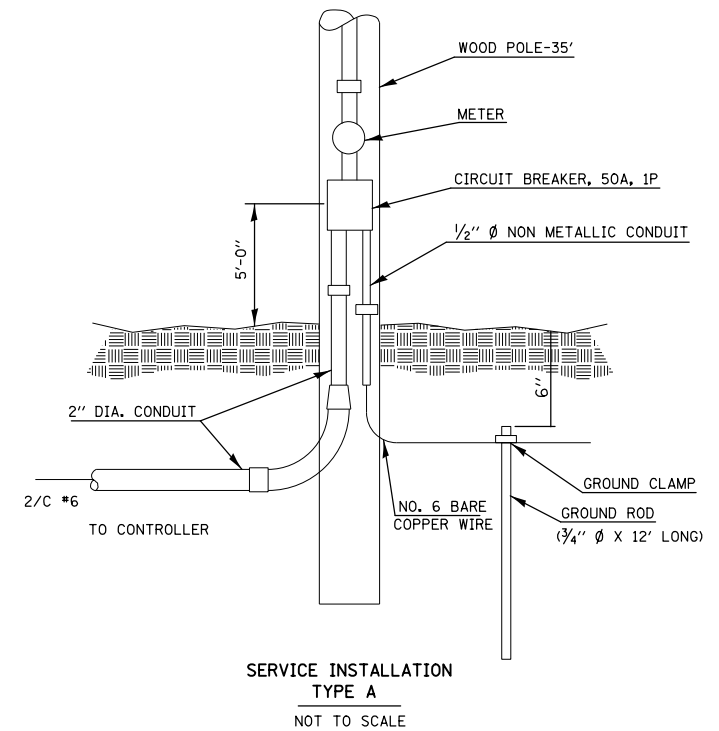


Installation Instructions:

Screw couplings onto anchor bolts to end of threads. Very important to level couplings to avoid over stressing and either cracking or stripping of the threads within the coupling.

DETAIL A

TYPICAL COUPLING FOR CONCRETE FOUNDATION



SERVICE INSTALLATION  
TYPE A  
NOT TO SCALE

LOW MOUNT  
DESIGN TABLE

MOUNTING FOUNDATION HEIGHT	DEPTH	BOLT CIRCLE
30' OR LESS	5'-0"	11 1/2"
31'-35'	6'-0"	11 1/2"
36'-40'	7'-0"	15"
41'-45'	7'-6"	15"
46'-50'	8'-0"	15"

FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
ei:\pw_work\pwidot\biggsrd\0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
\$MODELNAME\$	PLOT DATE = 2/7/2014	DATE -	REVISED -

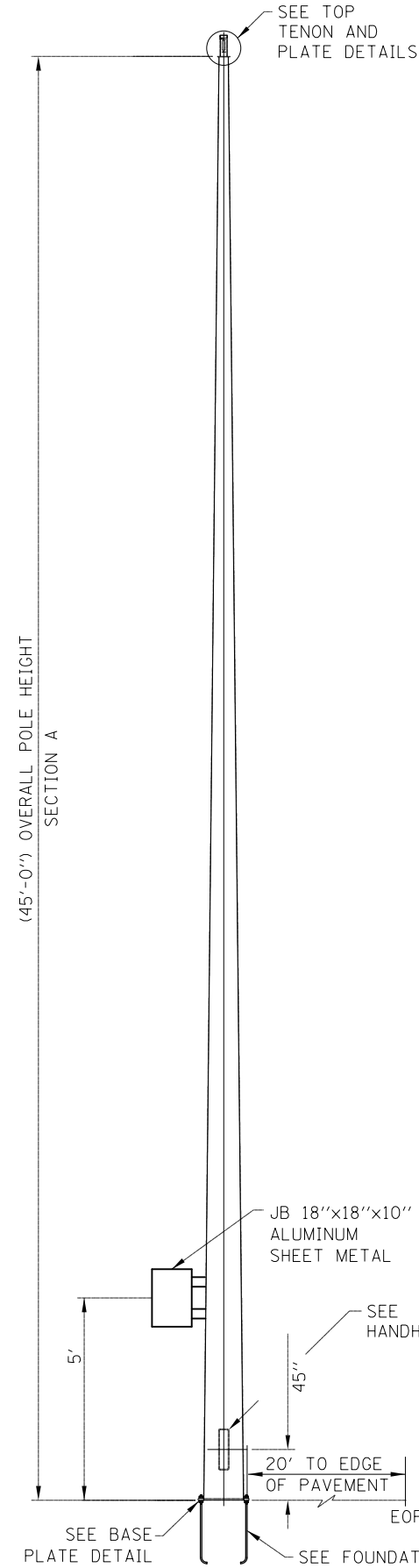
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SERVICE INSTALLATION AND POLE MOUNTED  
CCTV DETAIL WITH CAMERA LOWERING DEVICE

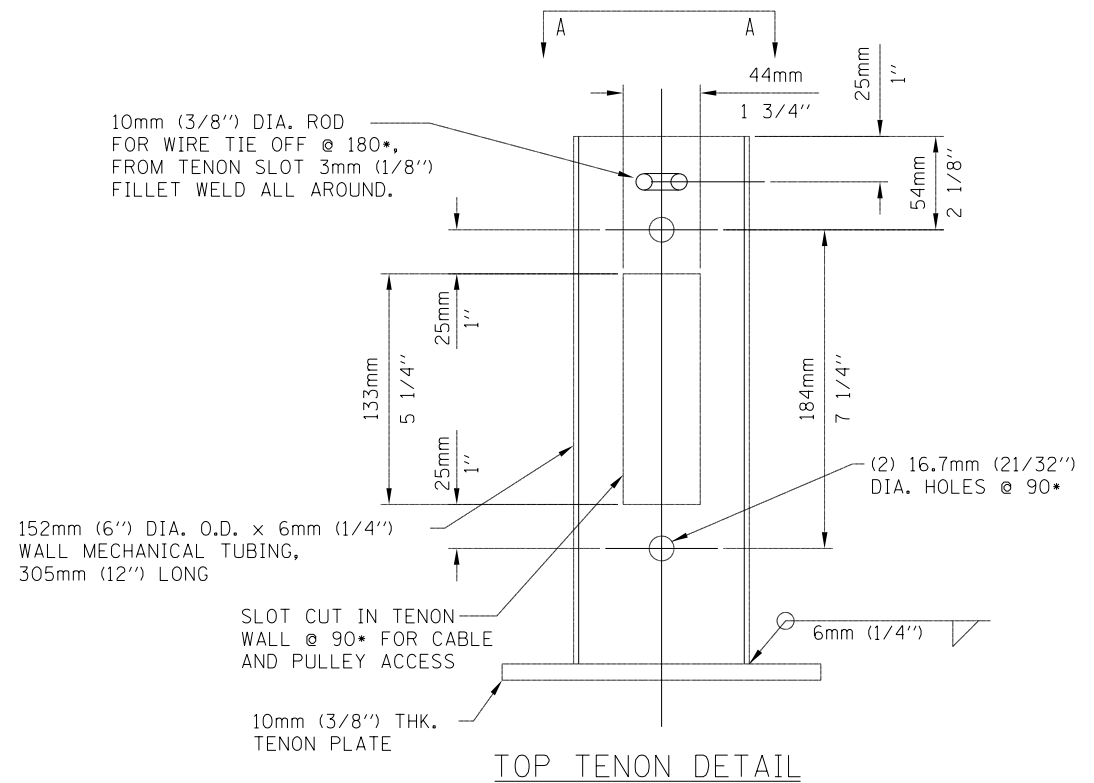
SCALE: SHEET 1 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	72
			CONTRACT NO. 70A26	
ILLINOIS FED. AID PROJECT				





(45'-0") OVERALL POLE HEIGHT  
SECTION A



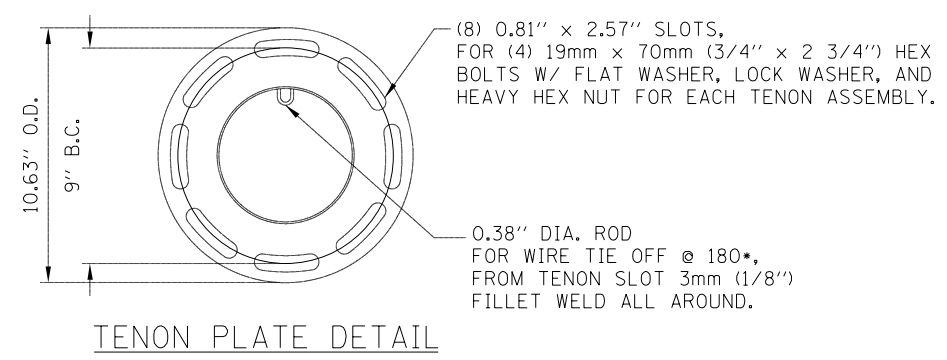
10mm (3/8") DIA. ROD  
FOR WIRE TIE OFF @ 180°,  
FROM TENON SLOT 3mm (1/8")  
FILLET WELD ALL AROUND.

152mm (6") DIA. O.D. x 6mm (1/4")  
WALL MECHANICAL TUBING,  
305mm (12") LONG

SLOT CUT IN TENON  
WALL @ 90° FOR CABLE  
AND PULLEY ACCESS

10mm (3/8") THK.  
TENON PLATE

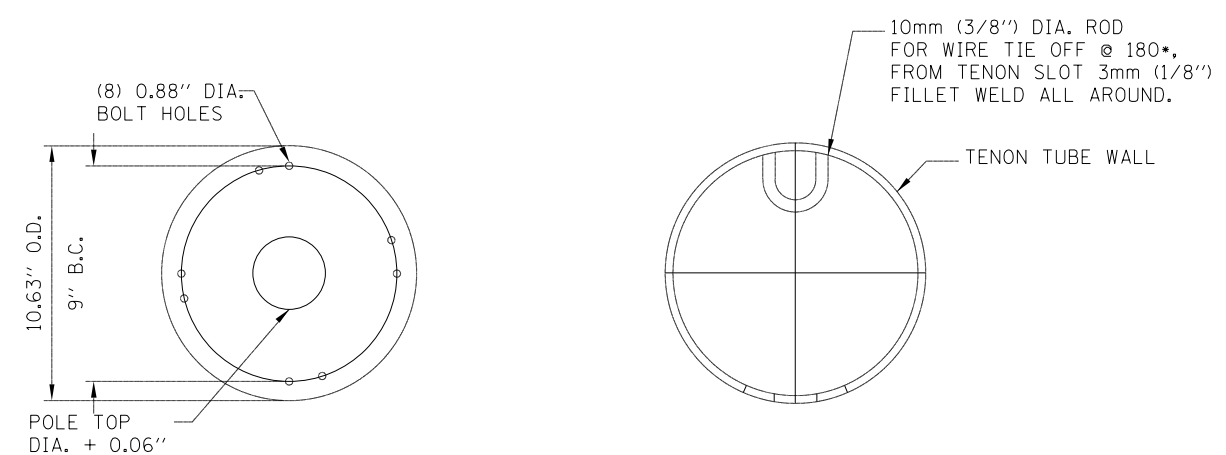
TOP TENON DETAIL



(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



SECTION B-B  
TOP PLATE DETAIL

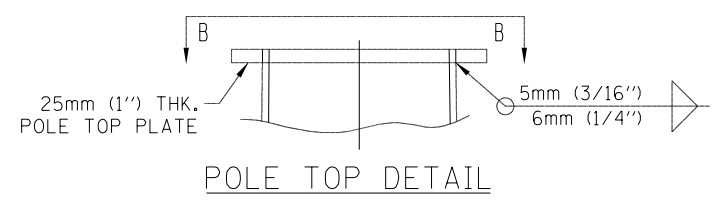
SECTION A-A  
WIRE TIE OFF ORIENTATION DETAIL

- NOTES:
- 1) POLE TUBE ASTM A572, GR. 50 MIN.
  - 2) BASE PLATE ASTM A572, GR. 50.
  - 3) HANDHOLE FRAME ASTM A500, GR B TUBING.
  - 4) HANDHOLE COVER ASTM A36 MIN.
  - 5) ANCHOR BOLTS ASTM F1554, GR. 55, TOP H.D. GALVANIZED TO ASTM A153.
  - 6) ANCHOR NUTS ASTM A563, GR. DH or A194, GR. 2H, H.D. GALVANIZED TO ASTM A153.
  - 7) ANCHOR WASHERS ASTM F436, TYPE 1, H.D. GALVANIZED TO ASTM A153.
  - 8) TOP PLATE ASTM A572, GR. 50.
  - 9) TENON ASTM A53, GR. B PIPE.
  - 10) TENON SLEEVE ASTM A512 OR A513.
  - 11) WELDING AWS D1.1.
  - 12) FINISH H.D. GALVANIZED TO ASTM A123. CAST ALUMINUM OR GALVANIZED STEEL.
  - 13) POLE CAP
  - 14) VALUE STRUCTURES, INC., IS CERTIFIED BY A.I.S.C. FOR CONVENTIONAL STEEL BUILDING STRUCTURES, SIMPLE STEEL CONVENTIONAL STEEL BUILDING STRUCTURES, SIMPLE STEEL BRIDGES, WITH FRACTURE CRITICAL ENDORSEMENT.

DESIGN NOTE:  
CCTV POLES AND ANCHORAGE ARE ALL DESIGNED TO ACCEPT MAXIMUM LOADING FROM CAMERAS, STATIONARY ARMS AND LOWERING DEVICES. THE COMBINATION OF CAMERA AND LOWERING DEVICE ASSEMBLY OF 3.0 SQ. FT. EPA AND 130 LBS DEADLOAD RESULTING IN THE LARGEST AREA AND WEIGHT FOR POLE DESIGN TO THE FOLLOWING LOADING CASES; ALL PER AASHTO 2001 STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, 4TH EDITION.

LOAD CASE 1  
80 MPH AASHTO

LOAD CASE 2  
30 MPH SUSTAINED WIND FOR MAXIMUM HORIZONTAL DEFLECTION @ POLE TOP NOT TO EXCEED 1".

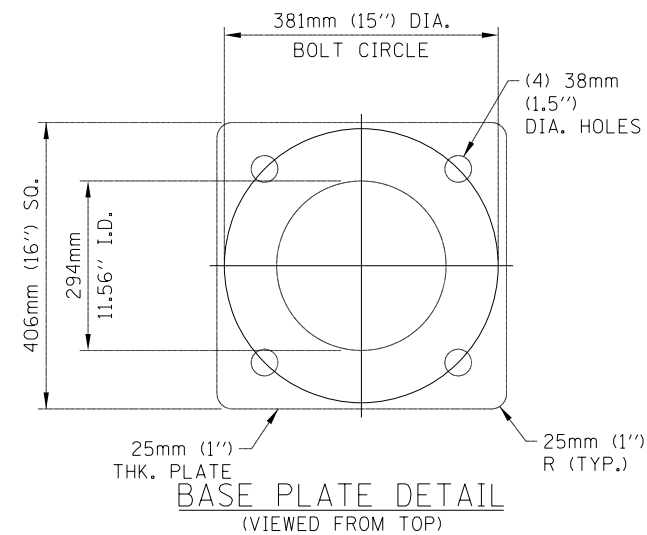
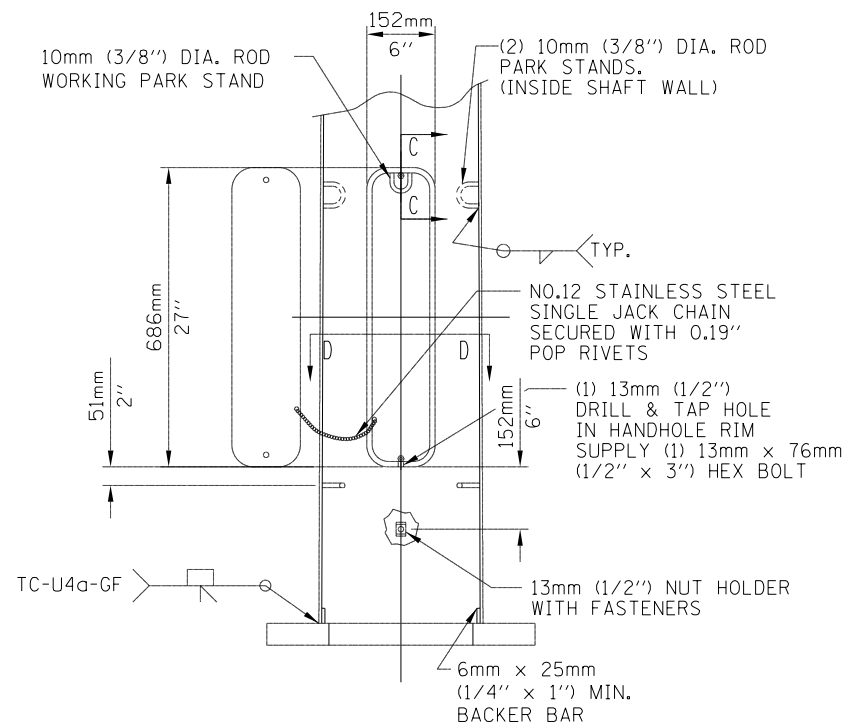
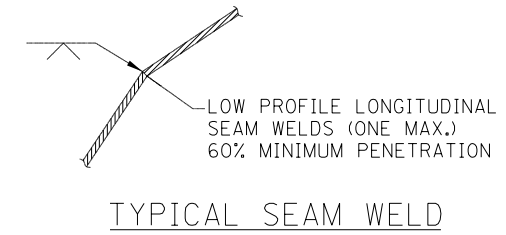
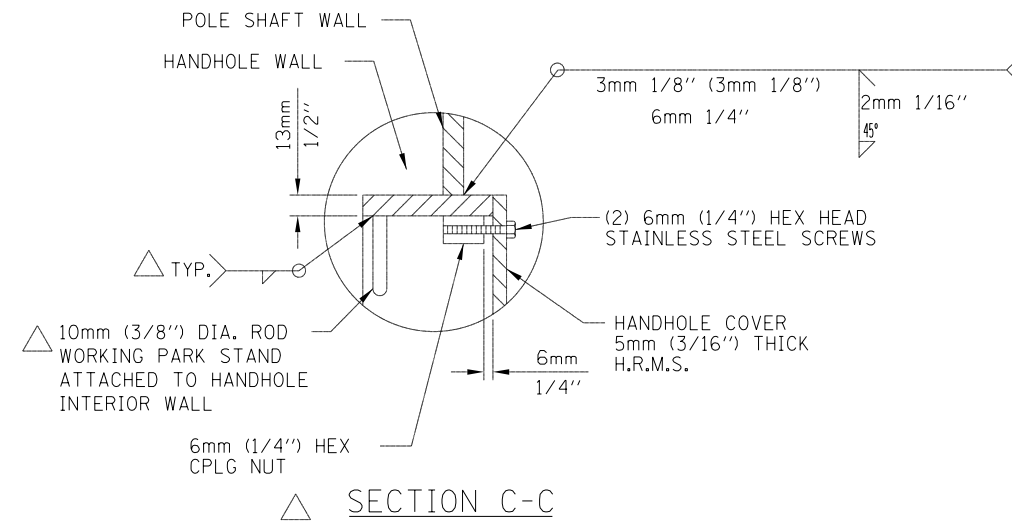


POLE TOP DETAIL

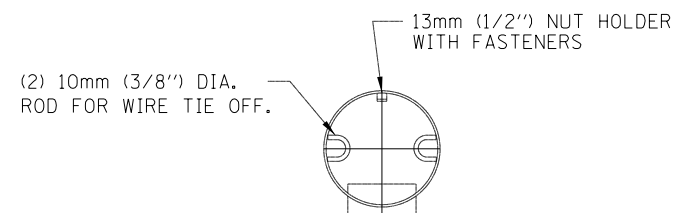
WIND VELOCITY: 30 MPH W/NO GUST  
1" MAXIMUM POLE TOP DEFLECTION

FILE NAME = c:\pwork\pwork\biggsrd\d0340463\PTZ	USER NAME = biggsrd camera plans.dgn	DESIGNED - DRAWN -	REVISED - REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SERVICE INSTALLATION AND POLE MOUNTED CCTV DETAIL WITH CAMERA LOWERING DEVICE</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 48.0000' / in.	CHECKED -	REVISED -	VAR.			FY2014 ITS-1	CHAMPAIGN	74	73	
PLOT DATE = 2/7/2014	DATE -	REVISED -	CONTRACT NO. 70A26							

SCALE: SHEET 2 OF 3 SHEETS STA. TO STA. ILLINOIS FED. AID PROJECT



SECTION D-D



SECTION D-D

FILE NAME =	USER NAME = biggsrd	DESIGNED -	REVISED -
ct:\pw\work\pwidot\biggsrd\d0340463\PTZ	camera plans.dgn	DRAWN -	REVISED -
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
\$MODELNAME\$	PLOT DATE = 2/7/2014	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SERVICE INSTALLATION AND POLE MOUNTED  
CCTV DETAIL WITH CAMERA LOWERING DEVICE

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	FY2014 ITS-1	CHAMPAIGN	74	74
			CONTRACT NO. 70A26	
ILLINOIS FED. AID PROJECT				