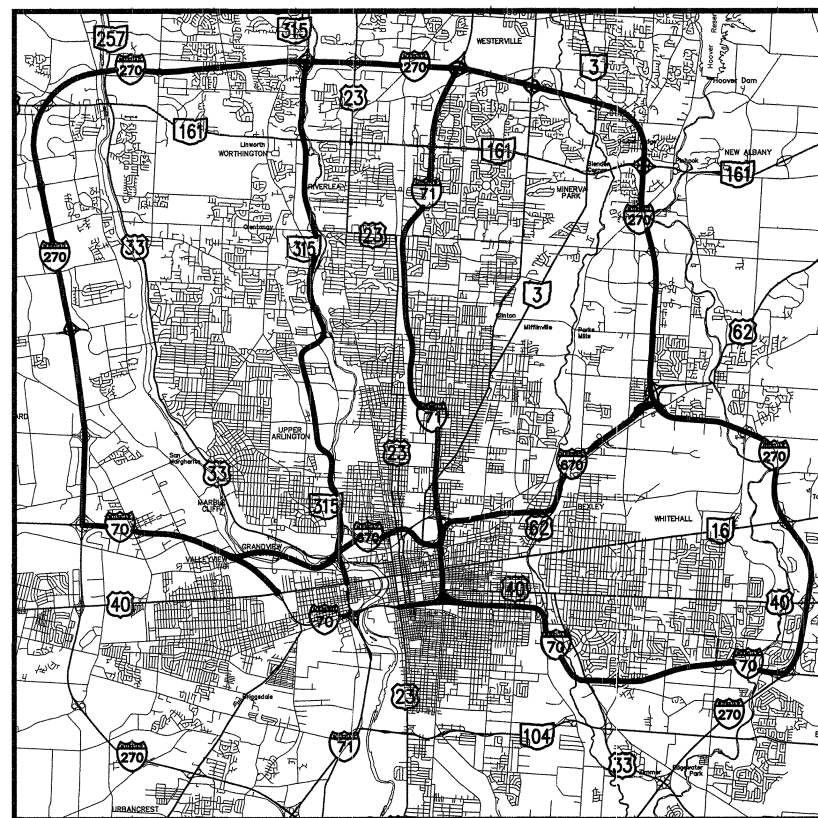


# CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE TRANSPORTATION DIVISION CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM (CTSS) PHASE A



LOCATION MAP

P.O.B. = LATITUDE: 40° 06' 54" N LONGITUDE: 82° 59' 34" W  
SCALE IN MILES



### LEGEND

--- CONDUIT, EXISTING (UNDERGROUND)	--- LA RW --- LIMITED ACCESS (RIGHT OF WAY)
--- CONDUIT, PROPOSED (UNDERGROUND)	--- RW --- RIGHT OF WAY
--- STRAND, EXISTING (OVERHEAD)	--- CL --- CENTER LINE
⊗ WOOD POLE, EXISTING	--- S --- SEWER (SANITARY OR STORM)
○ STEEL POLE, EXISTING	--- W --- WATER
⊠ PULL BOX, EXISTING	--- NW --- NOISE WALL
⊡ PULL BOX, PROPOSED	--- CB --- CABLE BARRIER
⊞ DETECTOR LOOP, EXISTING	--- L --- LIGHTING
⊞⊞⊞ DETECTOR STATION, EXISTING	--- P --- POWER
⊞ VDS CABINET, EXISTING	--- T --- TELECOMMUNICATIONS
⊞ CONTROL CABINET, PROPOSED	⊞ LIGHTING
⊞ CONTROL CABINET, EXISTING	
⊞ RAMP METER, EXISTING	
⊞ CCTV DEVICE, EXISTING	
⊞ OVERHEAD SIGN STRUCTURE, EXISTING	

UTILITY LEGENDS ON PLAN SHEETS REFERENCE CITY OF COLUMBUS UTILITIES ONLY



330 West Spring Street, Suite 310  
Columbus, Ohio 43215

*Katherine Ann Ott*  
REGISTERED ENGINEER

8/04/09  
DATE



STUDY AREA  
I-70 FROM I-270 ON THE WEST SIDE TO WEST BROAD ST.  
I-70 FROM HIGH ST. TO I-270 ON THE EAST SIDE  
I-670 FROM I-70 TO I-270  
I-270 NORTH OF I-70  
SR-315 FROM I-70/I-71 TO I-270  
I-71 FROM I-70 TO I-270 ON THE NORTH SIDE

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RM-4.4	MT-35.10
RM-4.5	MT-95.30
HL-20.11	MT-98.28
HL-20.13	MT-105.10
HL-30.21	

SUPPLEMENTAL SPECIFICATIONS	
SS-1542	

CITY OF COLUMBUS STANDARD CONSTRUCTION DRAWINGS			
2166			
2300A			

**PROJECT DESCRIPTION**  
THE PURPOSE OF THIS PROJECT IS TO INSTALL CONDUIT, FIBEROPTIC CABLE, PULLBOXES, AND COMMUNICATION CABINETS FOR A NODAL NETWORK IN ORDER TO MIGRATE THE COLUMBUS TRAFFIC SIGNAL SYSTEM TO AN OPEN ARCHITECTURE THAT CAN SERVE CENTRAL OHIO STAKEHOLDERS WITH SYSTEM CONNECTIVITY AND INTEROPERABILITY.

**2002 SPECIFICATIONS**  
THE CITY OF COLUMBUS CONSTRUCTION AND MATERIALS SPECIFICATIONS, 2002 EDITION INCLUDING ALL SUPPLEMENTS THERETO, SHALL GOVERN ALL CONSTRUCTION ITEMS THAT ARE A PART OF THIS PLAN UNLESS NOTED OTHERWISE.

**CITY OF COLUMBUS APPROVALS**  
CITY OF COLUMBUS SIGNATURES ON THIS PLAN SIGNIFY ONLY CONCURRENCE WITH THE GENERAL PURPOSES AND GENERAL LOCATION OF THE PROJECT. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE ENGINEER PREPARING THE PLANS.

*M. Taylor* 8-10-09  
DESIGN AND PLAN SERVICES, TRANSPORTATION DIVISION DATE

*R.C. Westphal* 8-24-09  
ADMINISTRATOR, DIVISION OF POWER AND WATER DATE

*Prof. J. Blake* 9-2-09  
ADMINISTRATOR, DIVISION OF SEWERAGE AND DRAINAGE DATE

*[Signature]* 9/2/09  
DIRECTOR, DEPARTMENT OF PUBLIC UTILITIES DATE

*R.T. Litteral* 8-12-09  
HYDRANT SUPERVISOR, DIVISION OF FIRE DATE

*[Signature]* August 12, 2009  
ADMINISTRATOR, DIVISION OF TELECOMMUNICATIONS DATE

*Alan D. McKnight/mc* 11 Aug 2009  
DIRECTOR, DEPARTMENT OF RECREATION AND PARKS DATE

*[Signature]* 9-2-09  
CITY ENGINEER, TRANSPORTATION DIVISION DATE

*Mark Kelsey/kb* 9/2/09  
DIRECTOR, DEPARTMENT OF PUBLIC SERVICE DATE

REF NO	REVISION DESCRIPTION	SHEET OR SHEETS	INITIAL	DATE
1	RELOCATED CABINET; REMOVED CONDUIT AND DEVICES	7, 15-19, 28, 36-37, 61, 64, 73, 80, 94-95, 13, 15-18, 21, 47-48, 75, 123	MDR	3-4-10
2	REMOVED AND RELOCATED CONDUIT AND FIBER		MDR	4-6-10
3	UPDATED COMMUNICATIONS, BRIDGE DETAILS, POWER SOURCES, CONDUIT ROUTES, AND REMOVED WORK	SEE A* BELOW	MDR	12-21-10
4	UPDATED POWER SOURCES AND COMMUNICATIONS	SEE A** BELOW	MDR	3-29-11

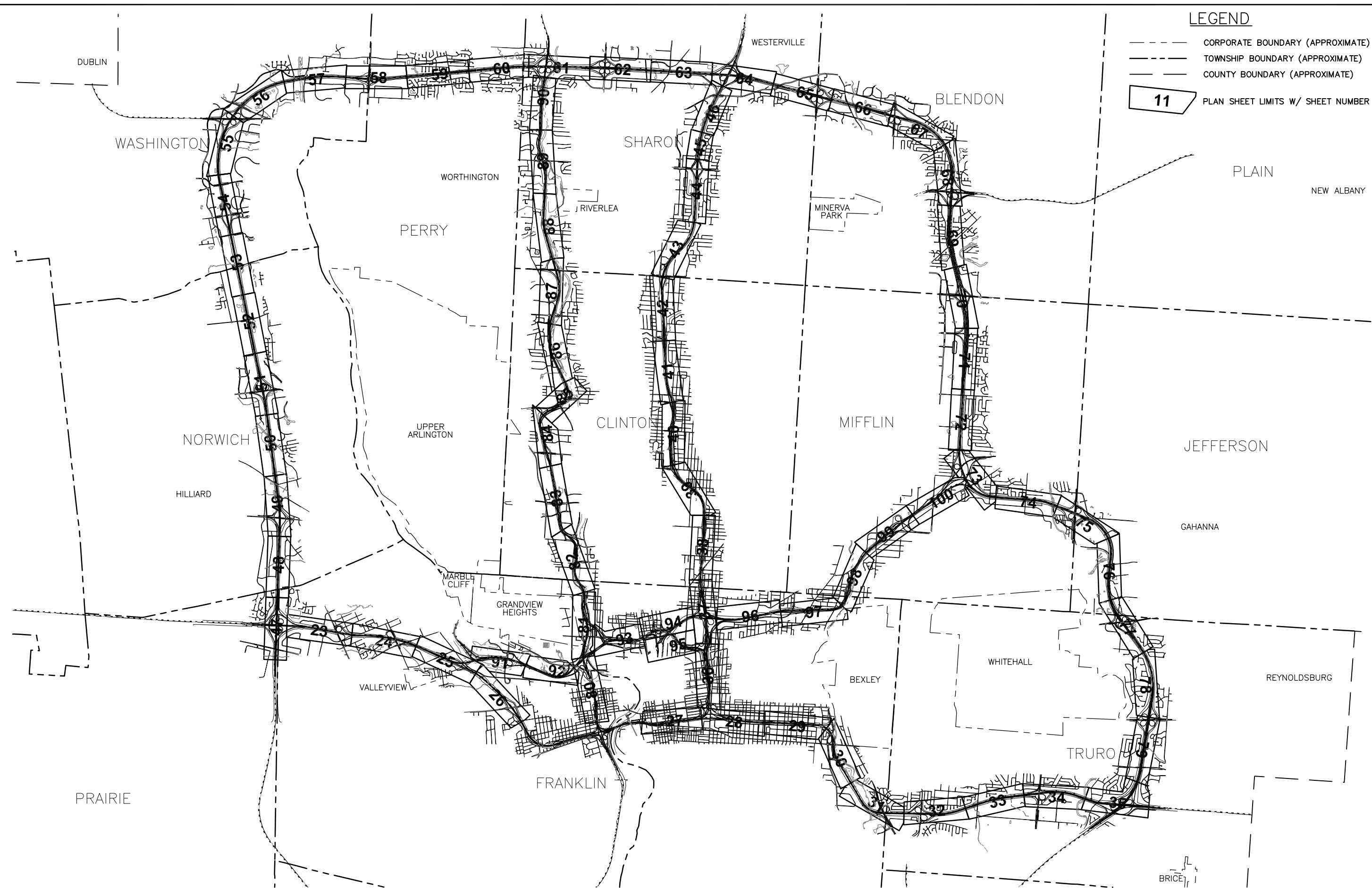
**UNDERGROUND UTILITIES**  
TWO WORKING DAYS BEFORE YOU DIG  
CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

⊞\* 8, 8A, 12-19, 23, 27, 28, 37, 55, 56, 58, 60, 61, 64, 73, 75, 80, 83, 84, 90, 100A, 101A, 102, 103A, 104A, 110A, 111A, 112A-F  
⊞\*\* 119-121, 124-127, 134-137, 139, 140, 143-145  
13, 15-19, 37, 41, 61, 64, 73, 80, 87-88, 90, 90A, 118A, 126-127, 134-137, 139-140, 143-144

CONSTRUCTION AS-BUILT  
**2643DR.E**

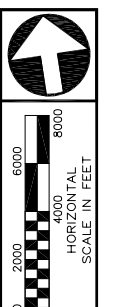
FEDERAL PROJECT NUMBER E070(617)  
PID NUMBER 82540  
TITLE SHEET  
CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM (CTSS) PHASE A  
1  
147

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LEGEND

- CORPORATE BOUNDARY (APPROXIMATE)
- TOWNSHIP BOUNDARY (APPROXIMATE)
- COUNTY BOUNDARY (APPROXIMATE)
- 11 PLAN SHEET LIMITS W/ SHEET NUMBER



PID NUMBER  
82540

PLAN SHEET INDEX

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

2  
147

UNDERGROUND UTILITIES

TWO WORKING DAYS  
BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

CONSTRUCTION AS-BUILT  
**2643DR.E**

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DEVICE NUMBER	SHEET		TIER	PHASE	LOCATION	POWER SOURCE	POWER SUPPLIER
	PLANS	COMM.					
IR 70							
070094.1	23	-	3	FUTURE PHASE	IR 70 AT N. WILSON ROAD		
070096.0	25	122, 123	2	PHASE A	IR 70 AND IR 670	EXISTING UTILITY POLE	AEP
070097.3	26	-	3	FUTURE PHASE	IR 70 AT W. BROAD STREET		
070100.1	27	-	2	FUTURE PHASE	IR 70 AND IR 71 AT SOUTH HIGH STREET		
070100.9	28	124, 125	1	PHASE A	IR 70 AND IR 71 SPLIT	EXISTING ODOT NODE PULL BOX	AEP
070102.3	29	-	3	FUTURE PHASE	IR 70 AT MILLER AND KELTON AVENUES		
070103.1	30	-	2	FUTURE PHASE	IR 70 AT E. LIVINGSTON AVENUE (SR 161)		
070105.5	32	-	2	FUTURE PHASE	IR 70 AT S. JAMES ROAD		
070107.6	34	-	2	FUTURE PHASE	IR 70 AT S. HAMILTON ROAD		
IR 71							
071109.0	37	126, 127	1	PHASE A	IR 71 AT IR 670 (109.6 MP)	EXISTING ODOT VDS PULL BOX	AEP
071110.9	38	-	2	FUTURE PHASE	IR 71 AT E. 11TH AVENUE		
071111.3	38	-	3	FUTURE PHASE	IR 71 AT E. 17TH AVENUE		
071112.4	39	-	3	FUTURE PHASE	IR 71 AT E. HUDSON STREET		
071113.4	40	128	1	PHASE A	IR 71 AT E. NORTH BROADWAY STREET	EXISTING ODOT NODE PULL BOX	AEP
071116.2	43	-	3	FUTURE PHASE	IR 71 AT MORSE ROAD		
071117.6	44	-	3	FUTURE PHASE	IR 71 AT DUBLIN-GRANVILLE ROAD (SR 161)		
IR 270							
270008.7	47	129	1	PHASE A	IR 270 AT IR 70	EXISTING ODOT NODE PULL BOX	AEP
270010.5	49	130	2	PHASE A	IR 270 AT ROBERTS ROAD	EXISTING ODOT CCTV PULL BOX	AEP
270012.6	51	-	2	FUTURE PHASE	IR 270 AT CEMETERY ROAD		
270015.6	54	131	2	PHASE A	IR 270 AT TUTTLE CROSSING BOULEVARD	EXISTING ODOT CCTV PULL BOX	AEP
270017.3	56	132	1	PHASE A	IR 270 AT US 33	EXISTING ODOT CCTV PULL BOX	AEP
270019.8	58	133	2	PHASE A	IR 270 AT SAWMILL ROAD	EXISTING ODOT CCTV PULL BOX	AEP
270022.7	61	134, 135	1	PHASE A	IR 270 AT SR 315	EXISTING ODOT GROUND MOUNTED LIGHTING CENTER	AEP
270023.6	62	-	3	FUTURE PHASE	IR 270 AT N. HIGH STREET (US 23)		
270024.9	63	-	2	FUTURE PHASE	IR 270 AT WORTHINGTON-GALENA ROAD		
270025.9	64	136, 137	1	PHASE A	IR 270 AT IR 71	EXISTING ODOT NODE PULL BOX	AEP
270027.7	66	-	3	FUTURE PHASE	IR 270 AT CLEVELAND AVENUE		
270028.3	67	-	3	FUTURE PHASE	IR 270 AT WESTERVILLE ROAD (3C HWY)		
270030.5	68	-	3	FUTURE PHASE	IR 270 AT DUBLIN-GRANVILLE ROAD (SR 161)		
270032.3	70	138	2	PHASE A	IR 270 AT MORSE ROAD	EXISTING GROUND MOUNTED TRANSFORMER	AEP
270035.4	73	139, 140	1	PHASE A	IR 270 AT IR 670	EXISTING ODOT NODE PULL BOX	AEP
270037.4	75	-	3	FUTURE PHASE	IR 270 AT S. HAMILTON ROAD		
270039.5	77	141	2	PHASE A	IR 270 AT E. BROAD STREET	EXISTING ODOT CCTV PULL BOX	AEP
270041.3	78	-	3	FUTURE PHASE	IR 270 AT MAIN STREET		
270043.0	35	142	1	PHASE A	IR 270 AT IR 70	EXISTING ODOT NODE PULL BOX	AEP
SR 315							
315000.9	80	-	3	FUTURE PHASE	SR 315 AT W. BROAD STREET		
315001.3	80	143, 144	1	PHASE A	SR 315 AT IR 670	EXISTING GROUND MOUNTED TRANSFORMER	COC DOPW(P)
315004.4	83	-	3	FUTURE PHASE	SR 315 AT LANE AVENUE		
315005.2	84	145	1	PHASE A	SR 315 AT ACKERMAN ROAD	EXISTING UTILITY POLE	COC DOPW(P)
315006.2	85	-	3	FUTURE PHASE	SR 315 AT OLENTANGY RIVER ROAD		
315007.8	87	146	2	PHASE A	SR 315 AT W. HENDERSON ROAD	EXISTING OVERHEAD TRANSFORMER	COC DOPW(P)
315008.6	87	-	3	FUTURE PHASE	SR 315 AT BETHEL ROAD		
315010.3	89	-	3	FUTURE PHASE	SR 315 AT SR 161		
IR 670							
670006.5	97	147	2	PHASE A	IR 670 AT LEONARD AVENUE	EXISTING ODOT NODE PULL BOX	AEP
670009.0	99	-	3	FUTURE PHASE	IR 670 AT CASSADY AVENUE		

PID NUMBER  
82540

ITS DEVICE LOCATIONS  
SHEET REFERENCE GUIDE

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

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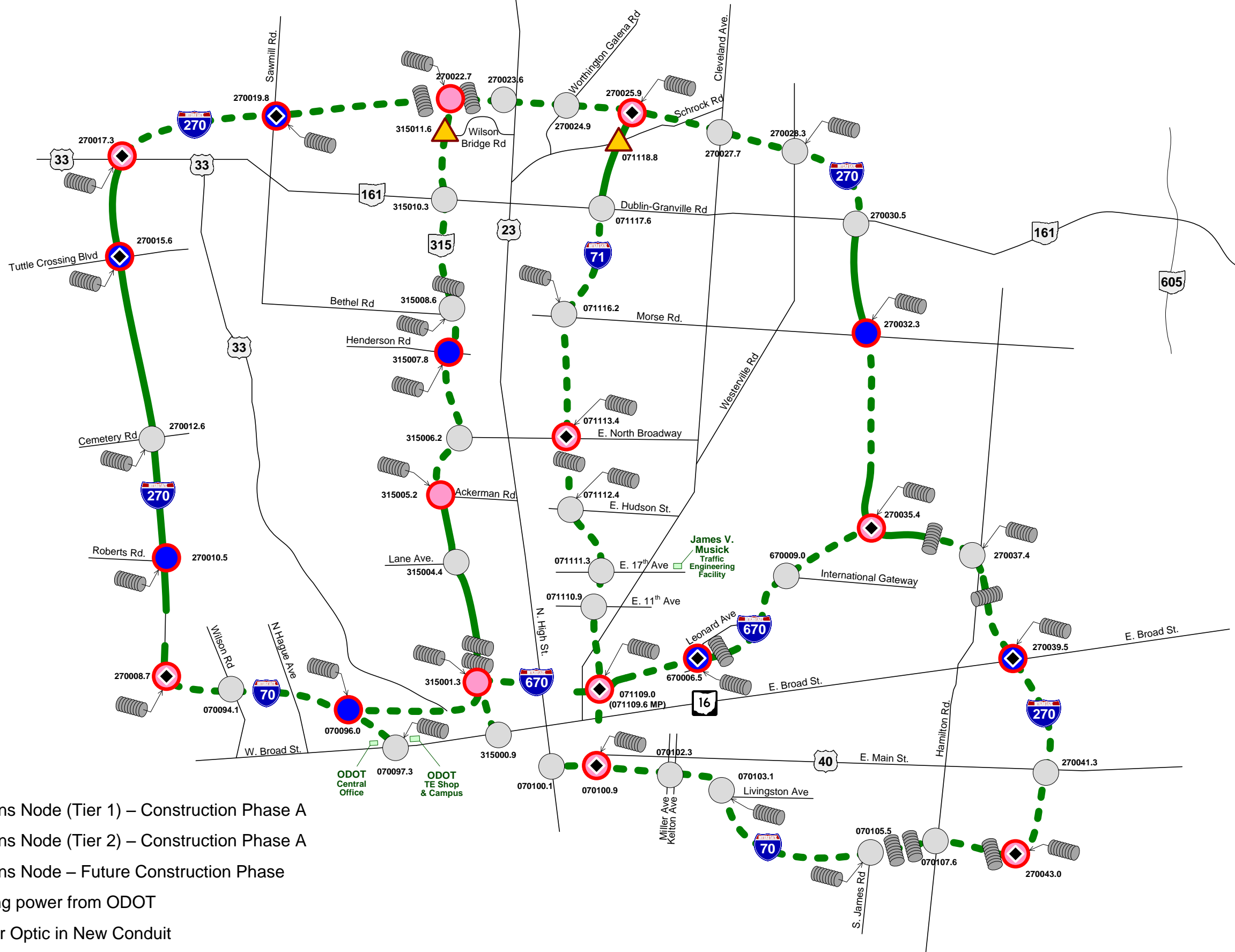
SHEET	LOCATION - STATION/NODE	SLACK '	PB SIZE "	SPLICE	COMMENT
23	70 W/O WILSON 392+00	150	32		
23	70/WILSON 070094.1	135	32		FUTURE NODE
25	70/670 070096.0	150	32	YES	NODE
26	W BROAD 070097.3	90	32	YES	FUTURE NODE - END FIBER
28	70/71 E SPLIT 070100.9	150	48	YES	NODE
29	70/KELTON 070102.3	160	32		FUTURE NODE
30	70/LIVINGSTON 070103.1	170	32	YES	CONT APP SPLICE - FUTURE NODE
32	70/JAMES 070105.5	140	32	YES	CONT APP SPLICE - FUTURE NODE
33	70/COURTRIGHT 1074+50	112	32	YES	PROJ APPROVED SPLICE
33	70/COURTRIGHT 1086+10	112	32	YES	PROJ APPROVED SPLICE
34	70/HAMILTON 070107.6	165	32		FUTURE NODE
35	70/BIXBY 1182+60	105	32	YES	PROJ APPROVED SPLICE
35	70/270E 270043.0	105	32	YES	NODE
36	71/MAIN 905+50	150	48		END FIBER - MOVED BY ODOT
37	71/670 977+10	2x100	48		END FIBERS
37	71/670 071109.0	4x70	48	YES	NODE - 4 WAY CABLE
38	71/12TH 071110.9	150	32		FUTURE NODE
39	71/HUDSON 071112.4	160	32	YES	PROJ APPROVED SPLICE - FUTURE NODE
40	71/WEBER 1160+00	96	32	YES	PROJ APPROVED SPLICE
40	71/EN BROADWAY 071113.4	150	32	YES	NODE
41	71 N/O OAKLAND PK 1204+00	150	32		
43	71 N/O MORSE 071116.2	150	32	YES	CONT APP SPLICE - FUTURE NODE
44	71/161 071117.6	160	32		FUTURE NODE
47	270W/70 270008.7	120	48	YES	NODE - END FIBER
48	270 N/O TRABUE 500+75	600	48		END FIBER
49	270/ROBERTS 270010.5	140	32	YES	NODE
51	270/CEMETERY 270012.6	100	32	YES	CONT APP SPLICE - FUTURE NODE
54	270/TUTTLE 270015.6	100	32	YES	NODE
56	270/161/33 270017.3	160	32	YES	NODE
57	270 W/O SCIOTO 976+58	120	32		
58	270/SAWMILL 270019.8	160	32	YES	NODE
59	270 E/O SMOKY ROW 1122+50	10	32		SLACK USED FOR LINWORTH
60	270 W/O LINWORTH 1141+00	10	32		SLACK USED FOR LINWORTH
60	270 W/O LINWORTH 1144+00	10	32		SLACK USED FOR LINWORTH
60	270 E/O LINWORTH 1184+70	10	32	YES	SLACK USED FOR LINWORTH
61	270/315 270022.7	3x70	48	YES	NODE - 3 WAY CABLE
61	270/315 1208+05	112	32	YES	PROJ APPROVED SPLICE
62	270/23 270023.6	150	32		FUTURE NODE
62	270 E/O 23 1261+60	140	32		
63	270 W/O SANCUS 270024.9	150	32		FUTURE NODE
64	270/71 270025.9	3x40	32	YES	NODE - 3 WAY CABLE
66	270 E/O CLEVELAND 270027.7	150	32		FUTURE NODE
67	270/WESTERVILLE 270028.3	80	32	YES	CONT APP SPLICE - FUTURE NODE
68	270/E 161 270030.5	150	32		FUTURE NODE
70	270/MORSE 270032.3	130	32	YES	NODE
73	270/670 270035.4	3x75	32	YES	NODE - 3 WAY CABLE
74	270 W/O BIG WALNUT 1945+00	120	32	YES	PROJ APPROVED SPLICE
75	270/HAMILTON 270037.4	80	32	YES	PROJ APPROVED SPLICE - FUTURE NODE
75	270/HAMILTON 1976+50	300	32		
75	270/TECH CENTER 2010+50	200	32	YES	SPLICE TO REPAIR ODOT DAMAGE
77	270/E BROAD 270039.5	160	32	YES	NODE
78	270/MAIN 270041.3	150	32		FUTURE NODE
80	315/BROAD 315000.9	100	32		FUTURE NODE - END FIBER
80	315/670 315001.3	80	32	YES	NODE
81	315/SB OFF RAMP ORR 112+00	72	32	YES	PROJ APPROVED SPLICE
81	315 S/O 3RD 133+50	80	32	YES	PROJ APPROVED SPLICE

SHEET	LOCATION - STATION/NODE	SLACK '	PB SIZE "	SPLICE	COMMENT
83	315/LANE 315004.4	150	32		FUTURE NODE
84	315/ACKERMAN 315005.2	120	32	YES	NODE
85	315/ORR 315006.2	136	32		FUTURE NODE
87	315/HENDERSON 315007.8	150	32	YES	NODE
87	315/BETHEL 315008.6	120	32	YES	PROJ APPROVED SPLICE - FUTURE NODE
88	315/BETHEL 464+10	85	32	YES	PROJ APPROVED SPLICE
89	315/161 315010.3	160	32		FUTURE NODE
90	315/WILSON BRIDGE 616+50	160	32		
91	670/GRANDVIEW 54+50	150	32		
93	670 W/O NEIL 148+50	150	32		END FIBER
96	670/JOYCE 296+00	140	32		
97	670/LEONARD 670006.5	135	32	YES	NODE
97	670/NELSON 357+20	90	32	YES	PROJ APPROVED SPLICE
98	670/5TH 387+50	110	32		
99	670/AIRPORT 670009.0	170	32		
100	670/STELZER 499+65	100	32		

PID NUMBER  
82540

288 STRAND FIBER OPTIC SLACK STORAGE LOCATIONS  
SHEET REFERENCE GUIDE

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A



- Communications Node (Tier 1) – Construction Phase A
- Communications Node (Tier 2) – Construction Phase A
- Communications Node – Future Construction Phase
- ◆ Nodes receiving power from ODOT
- Proposed Fiber Optic in New Conduit
- - - Proposed Fiber Optic in Existing Conduit
- ▲ Columbus FiberNet Splice Location
- ⌘ Fiber Optic Splice Enclosure

CONSTRUCTION AS-BUILT



**LEGEND:**

**WORK BY UTILITY:**

- ⚠ AERIAL SERVICE DROP FURNISHED AND INSTALLED BY UTILITY WHERE APPLICABLE.
- ⚠ CONNECTION OF UTILITY'S SERVICE DROP ONTO CONTRACTOR'S SERVICE ENTRANCE CABLE BY UTILITY.
- ⚠ TERMINATION OF CONTRACTOR SUPPLIED SERVICE ENTRANCE CABLE ONTO EXISTING PAD-MOUNT UTILITY TRANSFORMER BY UTILITY. AT A DOPW(P) LOCATION CONTRACTOR MUST PROVIDE SERVICE ENTRANCE CABLE CONNECTORS ALSO.
- ⚠ EXISTING/PROPOSED ELECTRIC UTILITY POLE PROVIDED BY UTILITY.
- ⚠ EXISTING/PROPOSED ELECTRIC UTILITY PAD-MOUNT TRANSFORMER PROVIDED BY UTILITY. ANY CONCRETE FOUNDATION WORK REQUIRED FOR DOPW(P) TRANSFORMER IS BY CONTRACTOR.

**WORK BY CONTRACTOR:**

- ① INSTALL 90° - 24" RADIUS PVC BEND, SCHEDULE 80.
- ② BURIED ELECTRIC WARNING RIBBON 12" ABOVE SERVICE LATERAL.
- ③ CONTRACTOR FURNISHED AND INSTALLED CLASS V WOOD POLE. MINIMUM 25' HEIGHT ABOVE GRADE. SEE TABLE ON THIS SHEET FOR SETTING DEPTHS.
- ④ CONTRACTOR INSTALLED EQUIPMENT STAND PER ODOT STANDARD HL-40.20. CHANNEL STRUT ATTACHED TO POLE.
- ⑤ UTILITY METER IS NOT REQUIRED BY ELECTRIC UTILITY.
- ⑥ FUSIBLE SERVICE DISCONNECT SWITCH. FUSE SIZES & SERVICE RATING SHOWN ON ELECTRICAL DETAIL SHEETS.
- ⑦ IF NECESSARY, POLY CONCRETE PULL BOX, 18" SHALL BE INSTALLED WITHIN 10 FT OF EVERY ELECTRICAL SERVICE. PAYMENT FOR PULL BOX IS INCIDENTAL TO THE COST OF ALL POWER SERVICES. NO ELECTRICAL SPLICES PERMITTED.
- ⑧ 5/8" x 10' COPPER CLAD GROUNDING ROD ELECTRODE. TOP OF GROUND ROD INSTALLED 24" BELOW GRADE AND AT LEAST 1' OFF EDGE OF POLE OR EQUIPMENT FOUNDATION.
- ⑨ 2" WEATHERHEAD AND STRAIN RELIEF HARDWARE FURNISHED & INSTALLED BY CONTRACTOR.
- ⑩ 2" CONDUIT RISER. SEE SHEET 5, DETAIL 5 - CONDUIT MOUNTING BRACKET FOR MOUNTING DETAILS.
- ⑪ SERVICE ENTRANCE CABLE IN CONDUIT BY CONTRACTOR. ALL SERVICE ENTRANCE CABLE SHALL BE TYPE USE-5KV OF SIZE AS SHOWN ON PLAN SHEETS OR AS REQUIRED BY UTILITY.
- ⑫ THREADED HUB TYPE CONDUIT COUPLING BETWEEN ENCLOSURES SIZED TO ACCOMMODATE CONDUCTORS. SEE PLAN FOR WIRE REQUIREMENTS.
- ⑬ 1" SCHEDULE 40 PVC CONDUIT FOR GROUND.
- ⑭ 1-1/2" #4 XHHW-2 GROUNDING ELECTRODE CONDUCTOR IN CONDUIT TO DISCONNECT SWITCH NEUTRAL BUS.
- ⑮ GROUNDING ELECTRODE CONDUCTOR ATTACHED TO GROUNDING ELECTRODE AT LEAST 24" BELOW GRADE WITH GROUND CLAMPS SUITABLE FOR DIRECT BURIAL. THE GROUNDING ELECTRODE CONDUCTOR MUST ALWAYS BE DIRECTED DOWNWARD OR HORIZONTAL.
- ⑯ SCHEDULE 80 PVC CONDUIT IN TRENCH. CONDUIT SHALL BE 2" MINIMUM. TERMINATE THIS CONDUIT IN HANDHOLE. CONDUIT INSTALLED A MINIMUM OF 24" BELOW GRADE.

- ⑰ CONDUIT AND CABLE PER PLAN BY CONTRACTOR. NO SPLICES PERMITTED IN PULLBOX.
- ⑱ 2" PVC SCHEDULE 40 CONDUIT INSTALLED A MINIMUM OF 30" BELOW GRADE. CONDUIT RUN IS CONTINUOUS BETWEEN EQUIPMENT STAND AND UTILITY POLE/TRANSFORMER OR AS INDICATED ON PLAN SHEETS.
- ⑲ CONTRACTOR SHALL INSTALL CONDUIT NO CLOSER THAN 2' FROM EDGE OF UTILITY TRANSFORMER PAD. APPROACH TO TRANSFORMER MUST BE COORDINATED WITH UTILITY.
- ⑳ DO NOT EXTEND CONDUIT ON SERVICE WOOD POLE ABOVE THE SECONDARY OR NEUTRAL POSITION OF UTILITY POWER POLE AT ANY TIME.
- ㉑ PAD MOUNTED SPLICE BOX (MIN. 18"x18"x18") OR 10KVA TRANSFORMER 120>120V, WITH 2-5Y. TAPS AS SHOWN IN DETAILS ON SHEET 7. CONCRETE PAD SHALL BE MIN. 24"x24"x24".

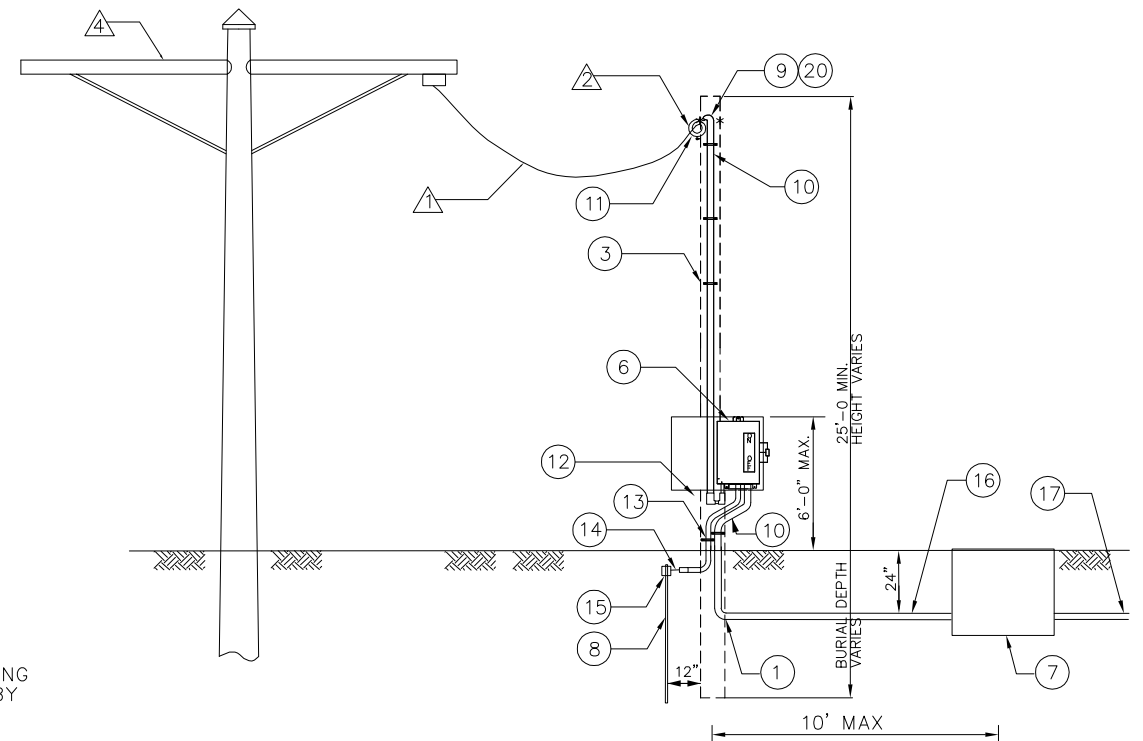
**NOTES:**

- 1. CONTRACTOR MUST COORDINATE WITH UTILITIES' FIELD ENGINEER. CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING AND COORDINATING OF ALL UTILITIES, RELATED WORK, AND INSPECTIONS AS NECESSITATED BY THE PROJECT.
- 2. ALL WORK AND MATERIALS SHOWN ON ELECTRICAL SERVICE DETAILS ARE INCIDENTAL TO POWER SERVICE PAY ITEMS.
- 3. MELP AND AEP CONDUIT SYSTEMS SHALL BE INSTALLED PER NEC AND LOCAL REQUIREMENTS.
- 4. ALL PROPOSED SERVICE TYPES AND LOCATIONS ARE SUBJECT TO APPROVAL FROM UTILITY. CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING ALL EQUIPMENT ACCORDING TO ENGINEER'S APPROVAL.
- 5. DOPW(P) MAY REQUIRE CONTRIBUTION IN AID OF CONSTRUCTION (CIAC) PAYMENT, IN ADVANCE, FOR CONSTRUCTION OF NEW SERVICES.
- 6. EXISTING POWER CABLE TO ODOT CABINET SHALL BE PULLED BACK TO FIRST PULLBOX AND ROUTED TO NEW PAD MOUNTED SPLICE BOX OR TRANSFORMER AS SHOWN IN DETAILS ON PAGE 6 AND AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE INCIDENTAL TO POWER SERVICE PAY ITEM.
- 7. CONTRACTOR SHALL BE RESPONSIBLE TO GET REQUIRED PERMITS TO GET ACCESS INTO ODOT CABINET A AND B TO COMPLETE THE WORK SHOWN ON DETAILS ON PAGE 6. ANY DAMAGE TO THE ODOT CABINET BY CONTRACTOR SHALL BE REPLACED IN KIND BY CONTRACTOR. THIS WORK SHALL BE INCIDENTAL TO POWER SERVICE PAY ITEM.

**WOOD POLE SETTING**

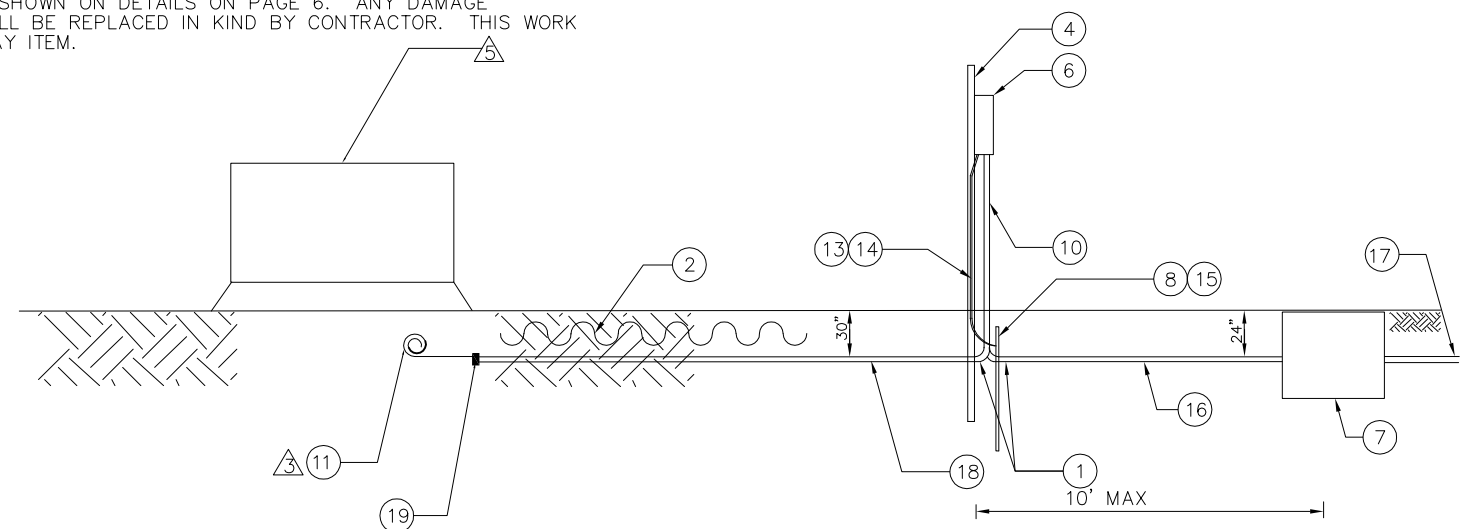
**DEPTH CHART**

LENGTH	WOOD POLE SETTING DEPTH
30	5' - 0"
35	6' - 0"
40	6' - 0"
45	6' - 6"
50	7' - 0"
55	7' - 6"
60	8' - 0"
65	8' - 6"



DETAIL 1 POWER SERVICE, TYPE A, AS PER PLAN

\* SEE ODOT STANDARD CONSTRUCTION DRAWING HL-40.10 FOR MORE DETAILS.  
\* 30A DISCONNECTS SHALL BE FUSED AT 30A.



DETAIL 2 POWER SERVICE, TYPE B, AS PER PLAN

\* SEE ODOT STANDARD CONSTRUCTION DRAWING HL-40.20 FOR MORE DETAILS.  
\* 30A DISCONNECTS SHALL BE FUSED AT 30A.

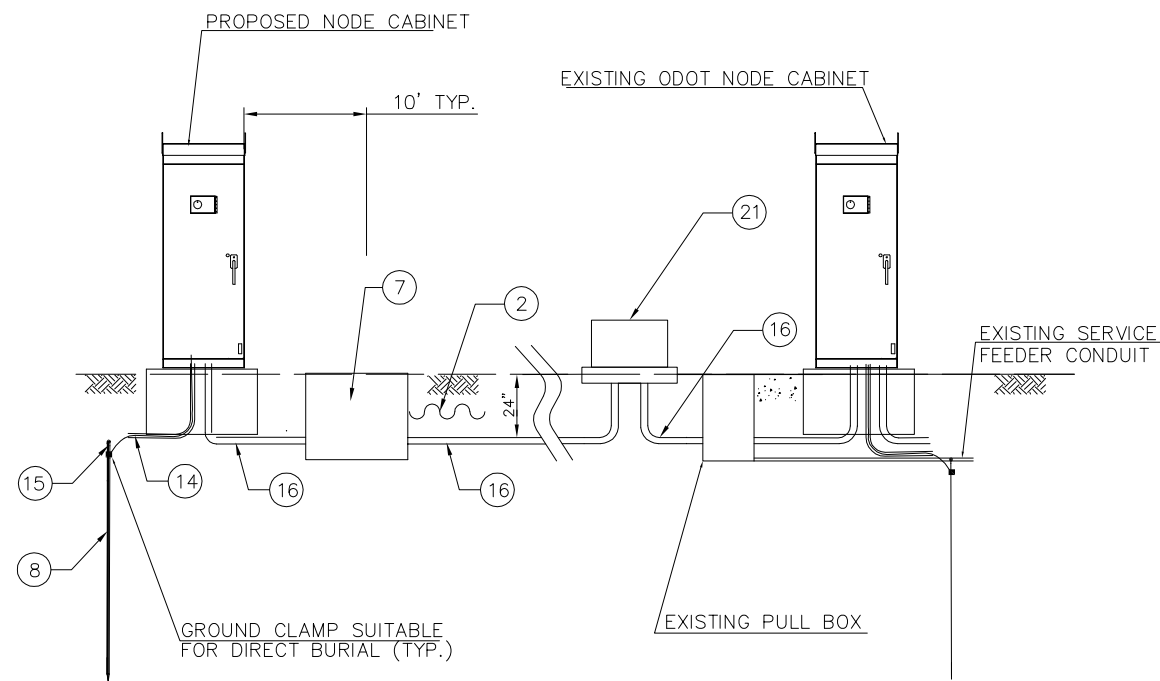
CONSTRUCTION AS-BUILT  
**2643DR.E**

PID NUMBER  
82540

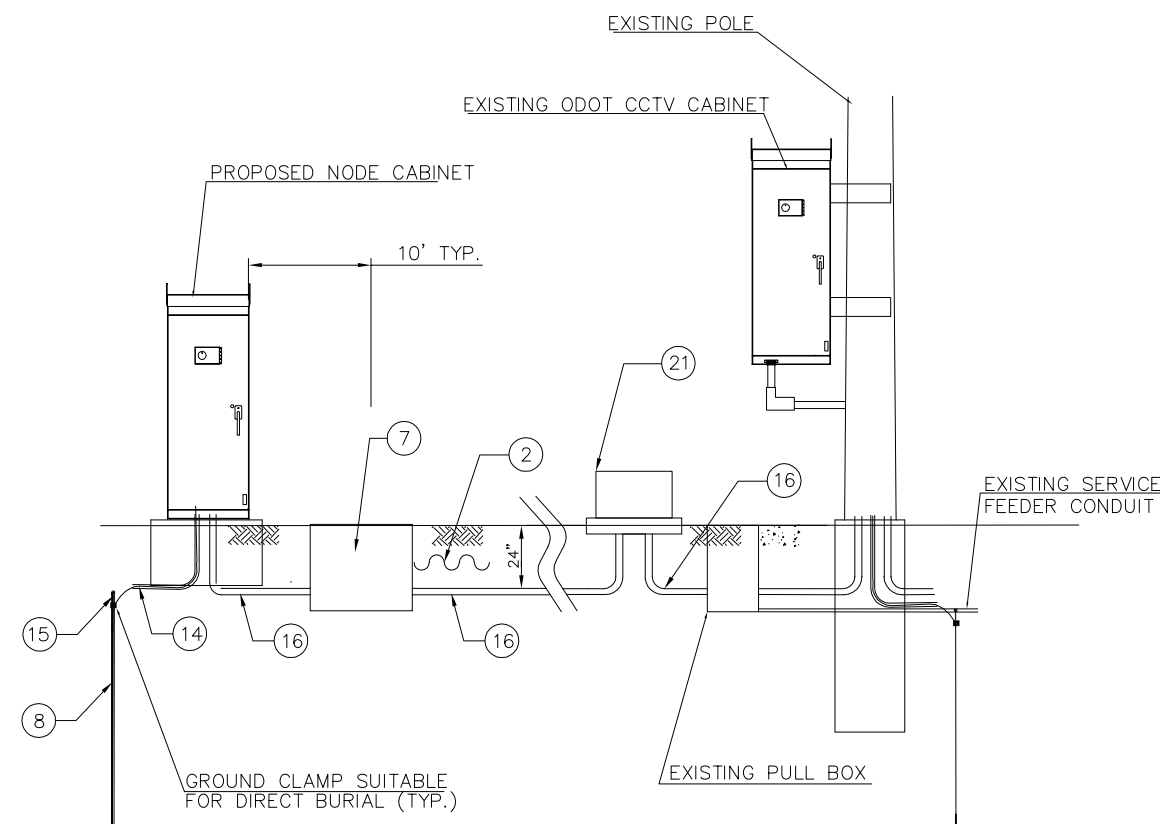
ELECTRICAL DETAILS  
TYPICAL ELECTRICAL SERVICE

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

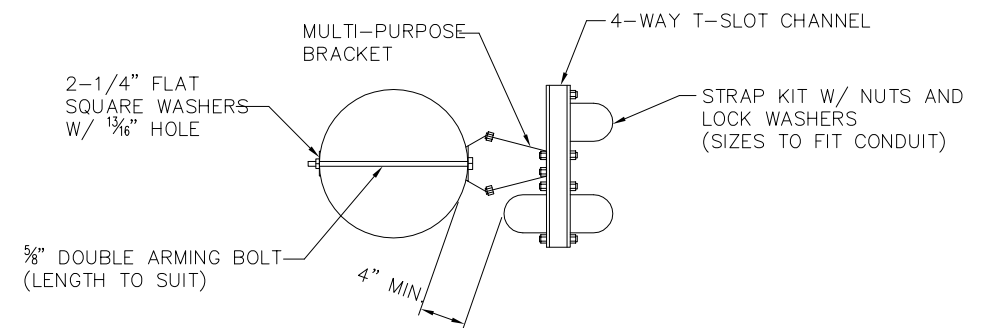
5  
147



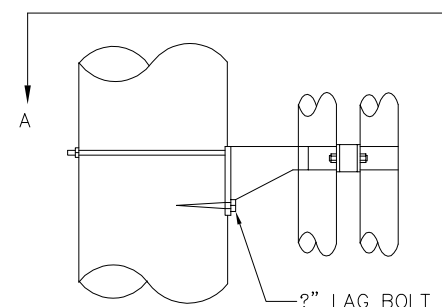
DETAIL 3 POWER SERVICE TYPE C, AS PER PLAN



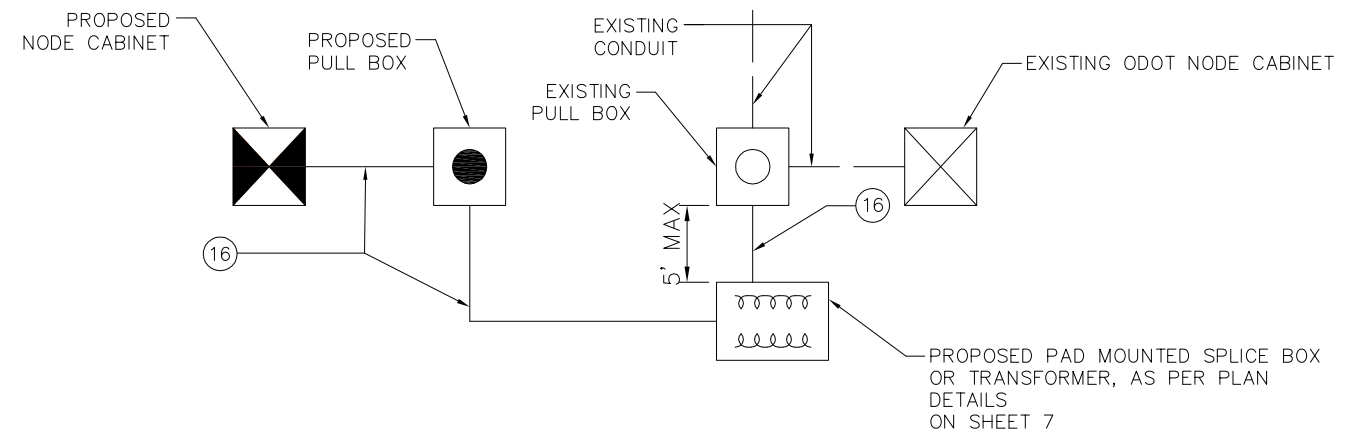
DETAIL 4 POWER SERVICE TYPE D, AS PER PLAN



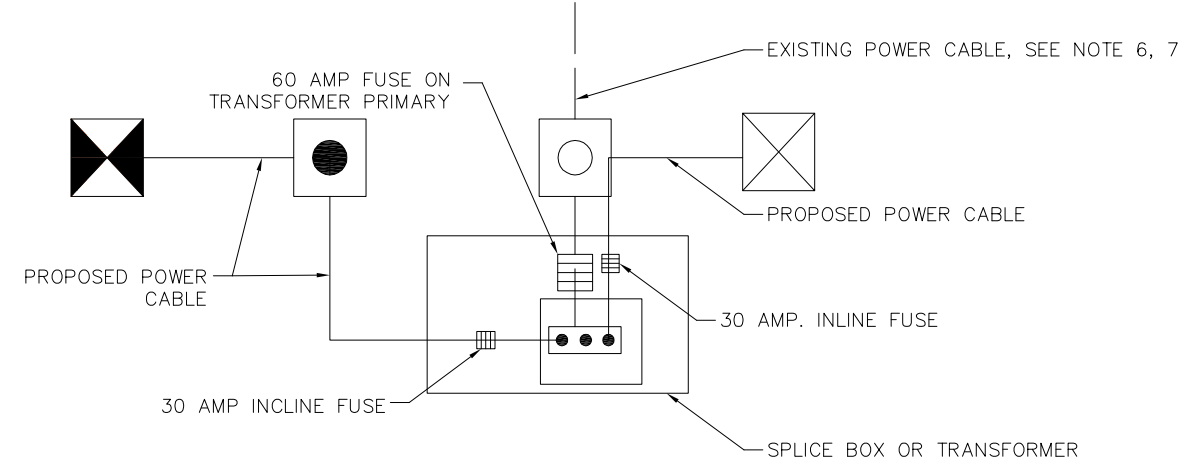
ELEVATION A-A DETAIL 5



DETAIL 5 CONDUIT MOUNTING BRACKET



DETAIL 6 PLAN LAYOUT FOR POWER SERVICE TYPE C & TYPE D



DETAIL 7 SINGLE LINE DIAGRAM

\* NOTE: PROVIDE 60 AMP FUSE ON PRIMARY OF 10 KVA TRANSFORMER IF PAD MOUNTED TRANSFORMER PROVIDED. PROVIDE 30 AMP INLINE FUSES FOR SERVICE TAPS TO ODOT AND NEW CABINET FOR SPLICE BOX PROVIDED.

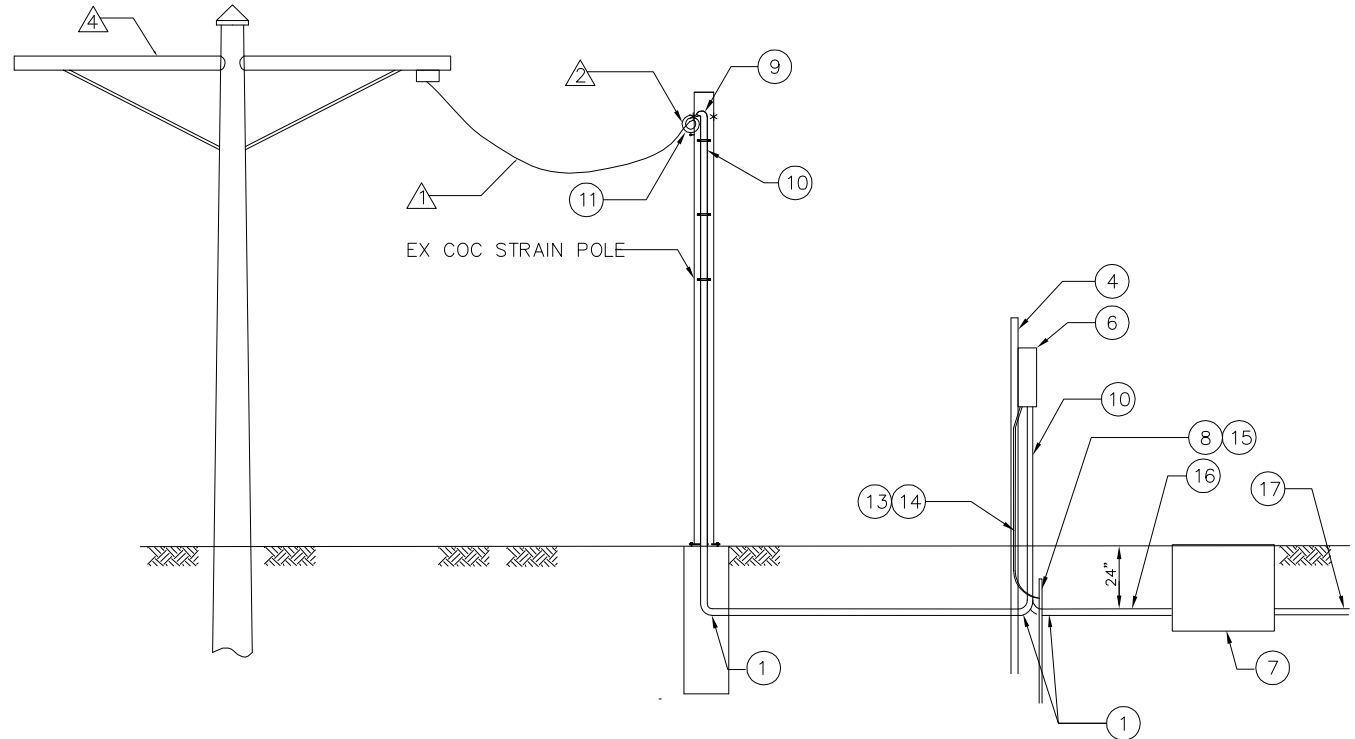
CONSTRUCTION AS-BUILT  
2643DR.E

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PID NUMBER  
82540

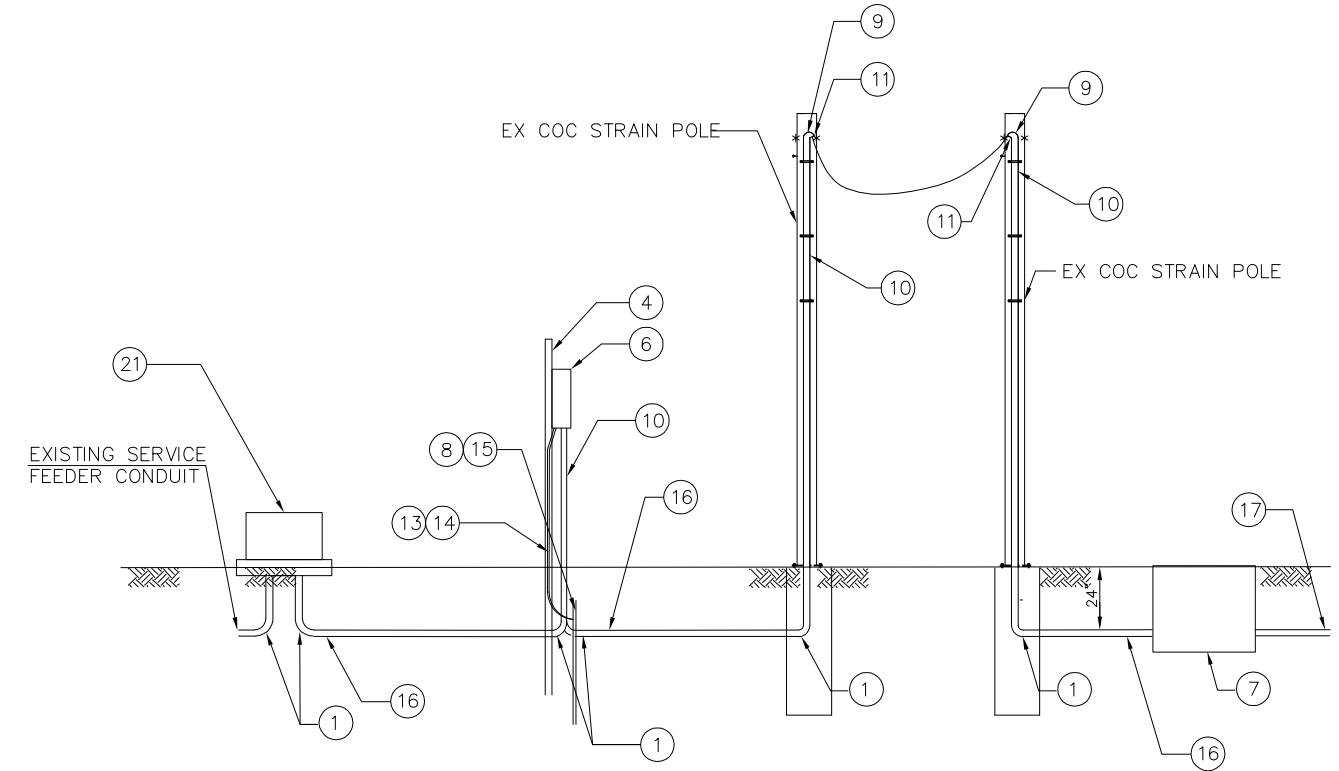
ELECTRICAL DETAILS  
TYPICAL ELECTRICAL SERVICE

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A



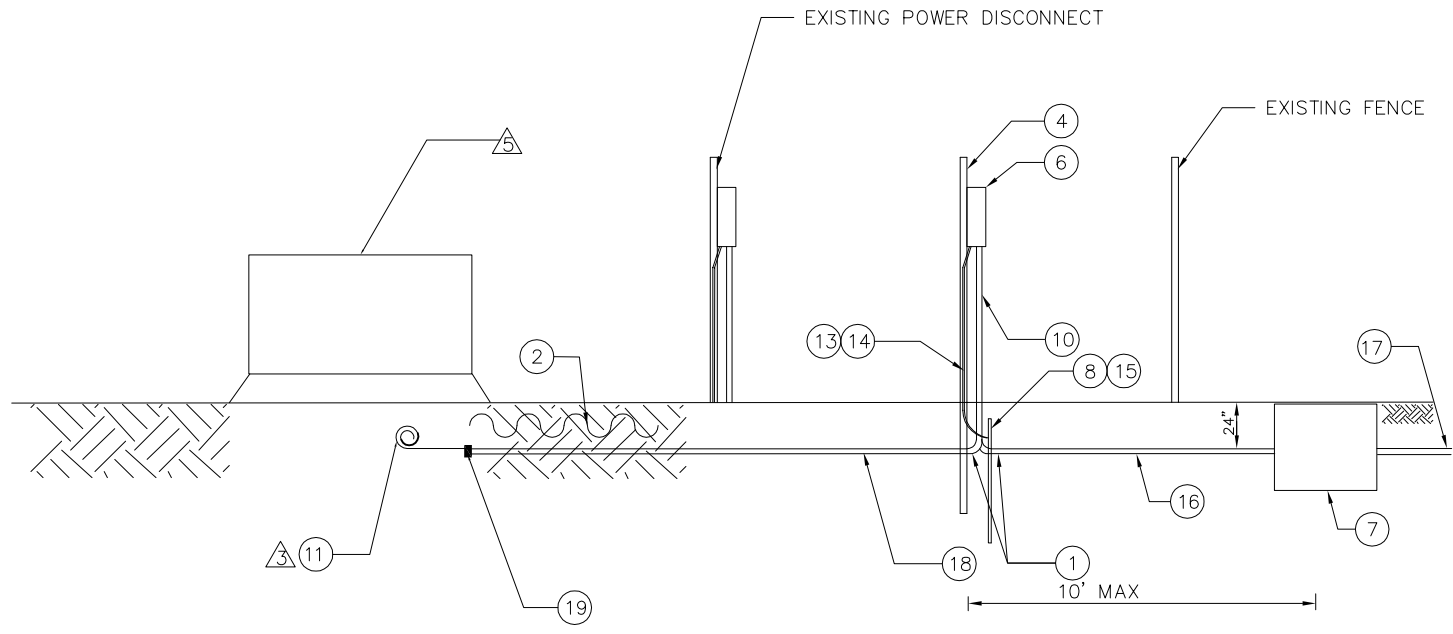
DETAIL 8 POWER SERVICE, TYPE E, AS PER PLAN

\* SEE ODOT STANDARD CONSTRUCTION DRAWING HL-40.10 FOR MORE DETAILS.  
 \* 30A DISCONNECTS SHALL BE FUSED AT 30A.



DETAIL 10 POWER SERVICE, TYPE G, AS PER PLAN

\* SEE ODOT STANDARD CONSTRUCTION DRAWING HL-40.10 FOR MORE DETAILS.  
 \* 30A DISCONNECTS SHALL BE FUSED AT 30A.



DETAIL 9 POWER SERVICE, TYPE F, AS PER PLAN

\* SEE ODOT STANDARD CONSTRUCTION DRAWING HL-40.20 FOR MORE DETAILS.  
 \* 30A DISCONNECTS SHALL BE FUSED AT 30A.  
 CONTACT DOPW(POWER) PRIOR TO PERFORMING ANY WORK INSIDE FENCE

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PID NUMBER  
82540

ELECTRICAL DETAILS  
TYPICAL ELECTRICAL SERVICE

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

CONSTRUCTION AS-BUILT  
2643DR.E

6A  
147



**ELECTRICAL LEGEND:**

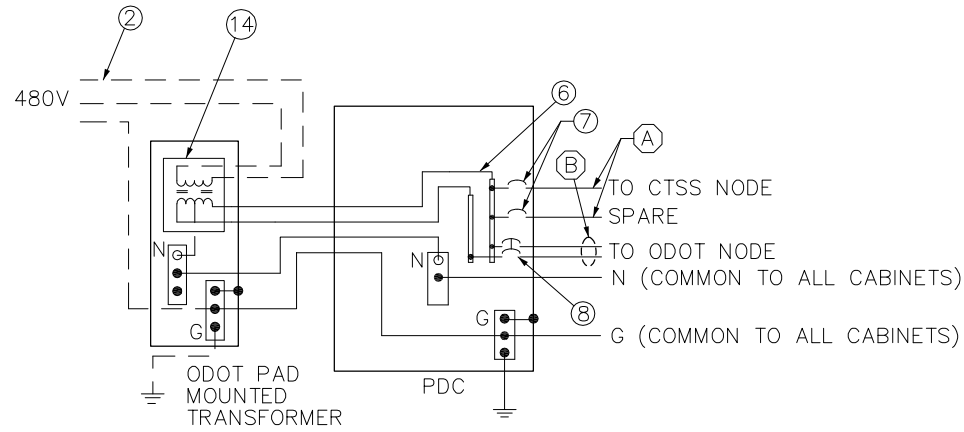
- ①. NOTE NOT USED
- ②. FEEDER SIZED PER PLAN. EQUIPMENT GROUND BROUGHT FORWARD TO ITS NODE CABINET.
- ③. SERVICE ENTRANCE CONDUCTORS BY UTILITY
- ④. FUSIBLE OR MAIN BREAKER DISCONNECT.
- ⑤. NEUTRAL AND GROUND BONDED AT SERVICE ENTRANCE EQUIPMENT.
- ⑥. SERVICE ENTRANCE RATED DISTRIBUTION EQUIPMENT.
- ⑦. 30A SINGLE POLE CIRCUIT BREAKER
- ⑧. 40A 2-POLE CIRCUIT BREAKER
- ⑨. 30A 2-POLE CIRCUIT BREAKER
- ⑩. NOTE NOT USED.
- ⑪. EXISTING 18" PULL BOX
- ⑫. FEEDER SIZED PER PLAN. EQUIPMENT GROUND BROUGHT FORWARD FROM SERVICE ENTRANCE AND SIZED THE SAME AS THE PHASE AND NEUTRAL CONDUCTORS. NEUTRAL AND GROUND SHALL NOT BE BONDED AT ITS NODE CABINET.

- ⑬. 7.5KVA, 240>240/120 TRANSFORMER MOUNTED IN PDC WITH 2-5% TAPS
- ⑭. 10KVA, 480>240/120 TRANSFORMER PAD MOUNTED WITH 2-5% TAPS
- ⑮. 10KVA, 240>240/120 TRANSFORMER MOUNTED IN PDC WITH 2-5% TAPS
- ⑯. 10KVA, 480>240/120 TRANSFORMER MOUNTED IN PDC WITH 2-5% TAPS
- ⑰. 3KVA, 240>240/120 TRANSFORMER MOUNTED ON CABINET
- ⑱. PAD MOUNTED SPLICE BOX, NEMA 3R, MIN. 18"x18"x18"
- ⑲. 30AMP. INLINE FUSE
- ⑳. 60AMP. FUSE ON TRANSFORMER PRIMARY

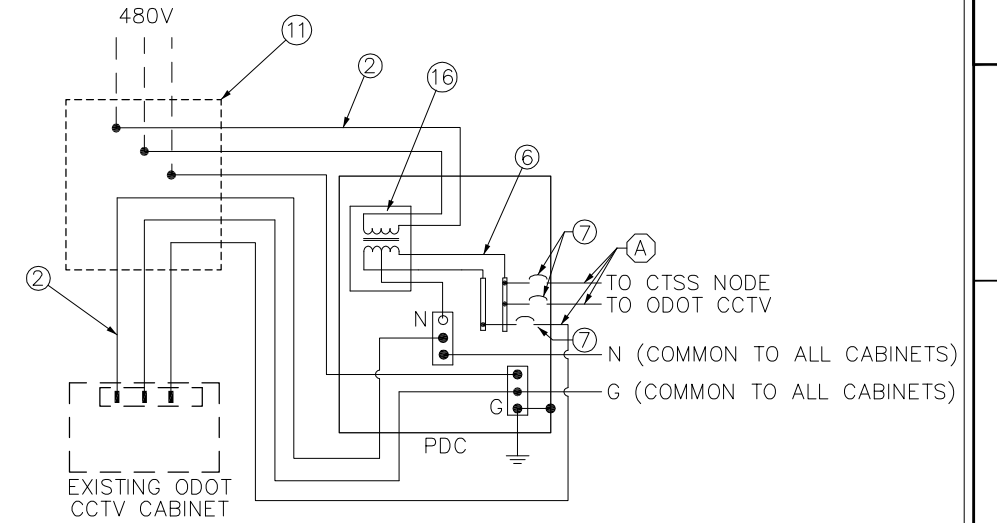
- (A) 120V, 30A AC+
- (B) 240V, 30A AC+
- (C) 240V, 40A AC+

**NOTES:**

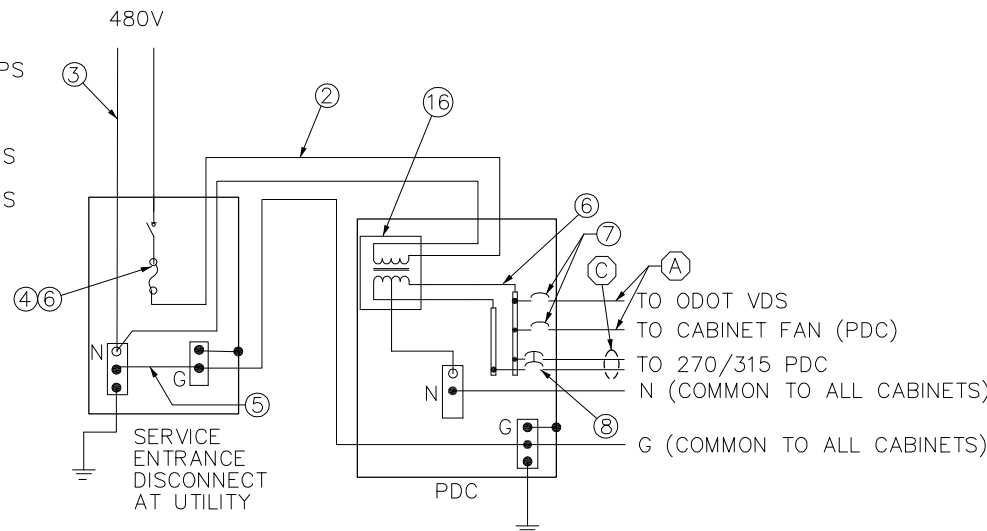
- 1. SEE PLAN SHEETS FOR SITE SPECIFIC ELECTRICAL EQUIPMENT RATINGS.
- 2. SURGE PROTECTION DEVICES NOT SHOWN HERE.
- 3. THE EXISTING EQUIPMENT IS SHOWN WITH DASHED LIGHT WEIGHT LINES.
- 4. CONTRACTOR SHALL COORDINATE WITH ODOT AND CITY OF COLUMBUS BEFORE COMMENCING ANY WORK ON ODOT NODE CABINET.
- 5. MAINTAIN THE EXISTING ODOT CABINET UNTIL THE PROPOSED POWER SERVICE INSTALLATION IS DONE AND FULLY OPERATIONAL AS SHOWN ON THE DETAILS AND/OR DIRECTED BY THE ENGINEER. THIS WORK IS INCIDENTAL TO POWER SERVICE PAY ITEMS.
- 6. THE EXISTING SERVICE EQUIPMENT RATING SHALL BE VERIFIED BY THE CONTRACTOR. PROPOSED 3KVA TRANSFORMER MOUNTED ON CABINET MUST MATCH THE EXISTING SERVICE RATING.
- 7. ALL WORK AND MATERIAL SHOWN ON THE DETAILS IS INCIDENTAL TO POWER SERVICE PAY ITEMS.
- 8. EXISTING SERVICE FEEDER TAPS SHALL BE DONE IN ACCORDANCE WITH APPLICABLE PORTIONS OF NEC ARTICLE 240.21.



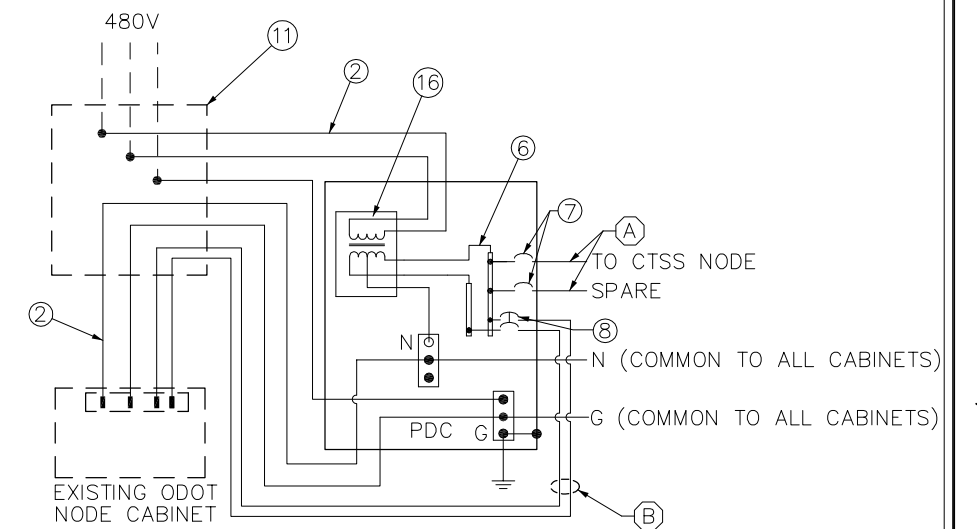
DETAIL A - SHEET 35



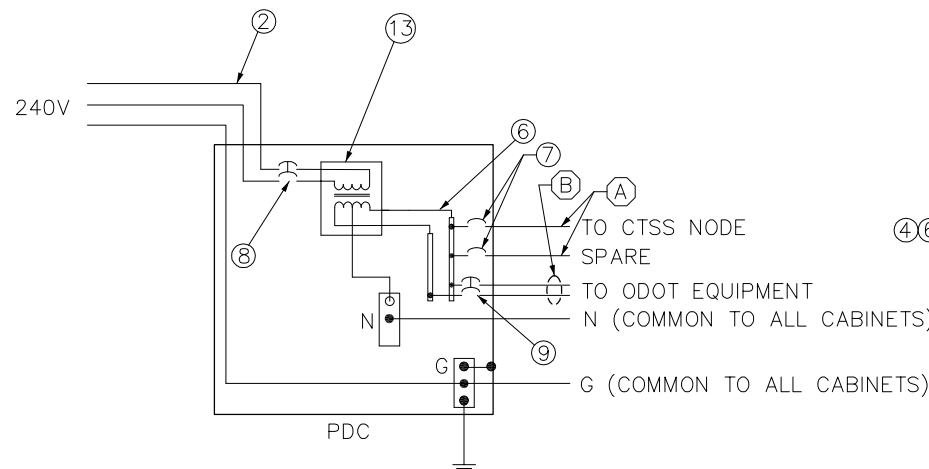
DETAIL D - SHEET 77



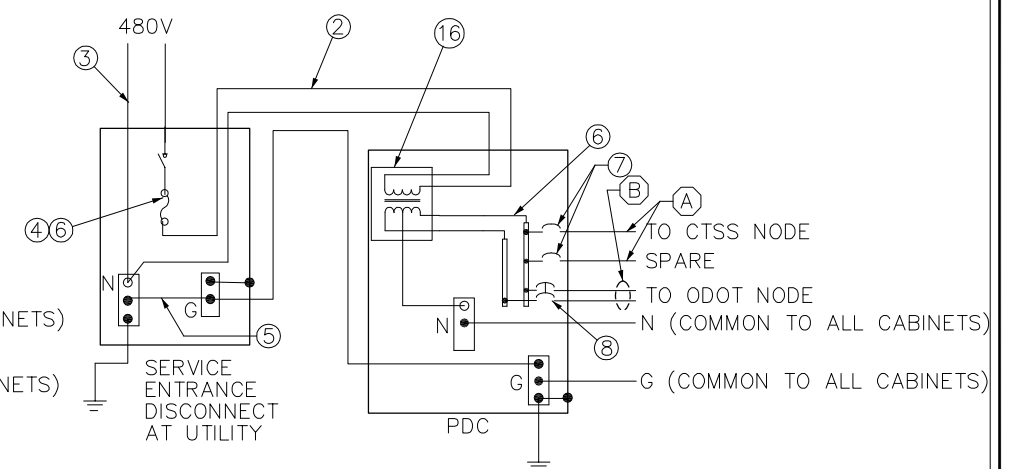
DETAIL B - SHEET 90



DETAIL E - SHEET 73



DETAIL C - SHEET 61



DETAIL F - SHEETS 47 & 64

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PID NUMBER  
82540

120/240V ELECTRICAL SERVICE  
TYPICAL SINGLE LINE DIAGRAMS

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

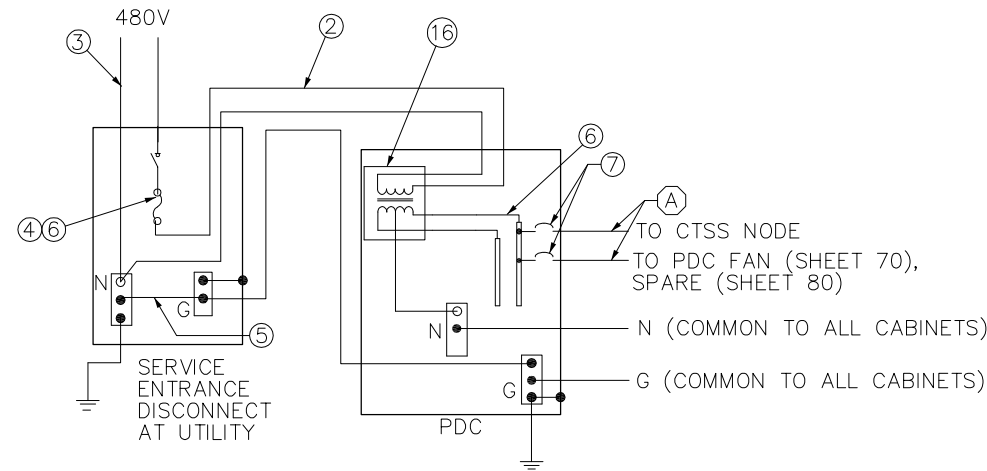
CONSTRUCTION AS-BUILT  
**2643DR.E**

**ELECTRICAL LEGEND:**

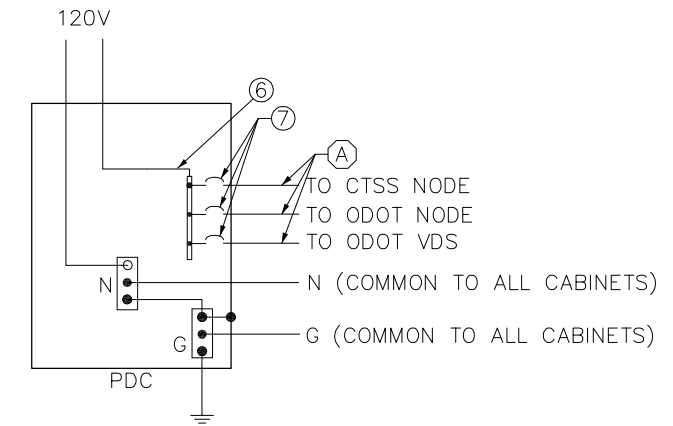
- ①. NOTE NOT USED
  - ②. FEEDER SIZED PER PLAN. EQUIPMENT GROUND BROUGHT FORWARD TO ITS NODE CABINET.
  - ③. SERVICE ENTRANCE CONDUCTORS BY UTILITY
  - ④. FUSIBLE OR MAIN BREAKER DISCONNECT.
  - ⑤. NEUTRAL AND GROUND BONDED AT SERVICE ENTRANCE EQUIPMENT.
  - ⑥. SERVICE ENTRANCE RATED DISTRIBUTION EQUIPMENT.
  - ⑦. 30A SINGLE POLE CIRCUIT BREAKER
  - ⑧. 40A 2-POLE CIRCUIT BREAKER
  - ⑨. 30A 2-POLE CIRCUIT BREAKER
  - ⑩. NOTE NOT USED.
  - ⑪. EXISTING 18" PULL BOX
  - ⑫. FEEDER SIZED PER PLAN. EQUIPMENT GROUND BROUGHT FORWARD FROM SERVICE ENTRANCE AND SIZED THE SAME AS THE PHASE AND NEUTRAL CONDUCTORS. NEUTRAL AND GROUND SHALL NOT BE BONDED AT ITS NODE CABINET.
  - ⑬. 7.5KVA, 240>240/120 TRANSFORMER MOUNTED IN PDC WITH 2-5% TAPS
  - ⑭. 10KVA, 480>240/120 TRANSFORMER PAD MOUNTED WITH 2-5% TAPS
  - ⑮. 10KVA, 240>240/120 TRANSFORMER MOUNTED IN PDC WITH 2-5% TAPS
  - ⑯. 10KVA, 480>240/120 TRANSFORMER MOUNTED IN PDC WITH 2-5% TAPS
  - ⑰. 3KVA, 240>240/120 TRANSFORMER MOUNTED ON CABINET
  - ⑱. PAD MOUNTED SPLICE BOX, NEMA 3R, MIN. 18"X18"X18"
  - ⑲. 30AMP. INLINE FUSE
  - ⑳. 60AMP. FUSE ON TRANSFORMER PRIMARY
- (A) 120V, 30A AC+
  - (B) 240V, 30A AC+
  - (C) 240V, 40A AC+

**NOTES:**

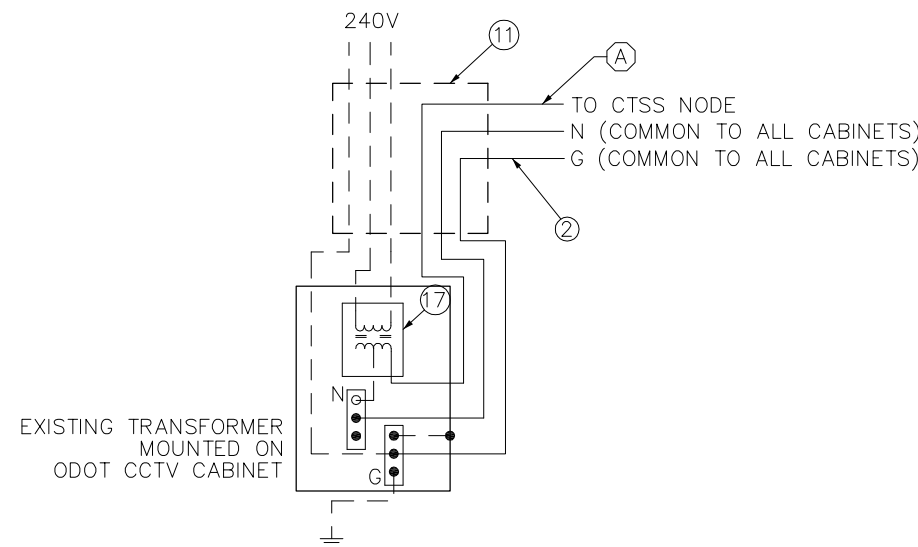
- 1. SEE PLAN SHEETS FOR SITE SPECIFIC ELECTRICAL EQUIPMENT RATINGS.
- 2. SURGE PROTECTION DEVICES NOT SHOWN HERE.
- 3. THE EXISTING EQUIPMENT IS SHOWN WITH DASHED LIGHT WEIGHT LINES.
- 4. CONTRACTOR SHALL COORDINATE WITH ODOT AND CITY OF COLUMBUS BEFORE COMMENCING ANY WORK ON ODOT NODE CABINET.
- 5. MAINTAIN THE EXISTING ODOT CABINET UNTIL THE PROPOSED POWER SERVICE INSTALLATION IS DONE AND FULLY OPERATIONAL AS SHOWN ON THE DETAILS AND/OR DIRECTED BY THE ENGINEER. THIS WORK IS INCIDENTAL TO POWER SERVICE PAY ITEMS.
- 6. THE EXISTING SERVICE EQUIPMENT RATING SHALL BE VERIFIED BY THE CONTRACTOR. PROPOSED 3KVA TRANSFORMER MOUNTED ON CABINET MUST MATCH THE EXISTING SERVICE RATING.
- 7. ALL WORK AND MATERIAL SHOWN ON THE DETAILS IS INCIDENTAL TO POWER SERVICE PAY ITEMS.
- 8. EXISTING SERVICE FEEDER TAPS SHALL BE DONE IN ACCORDANCE WITH APPLICABLE PORTIONS OF NEC ARTICLE 240.21.



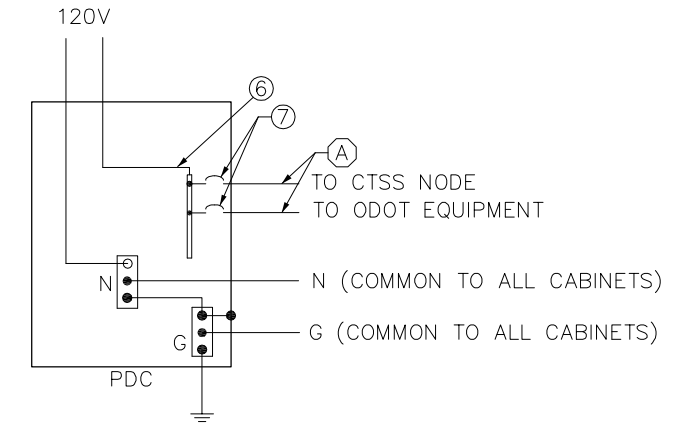
DETAIL G - SHEETS 70 & 80



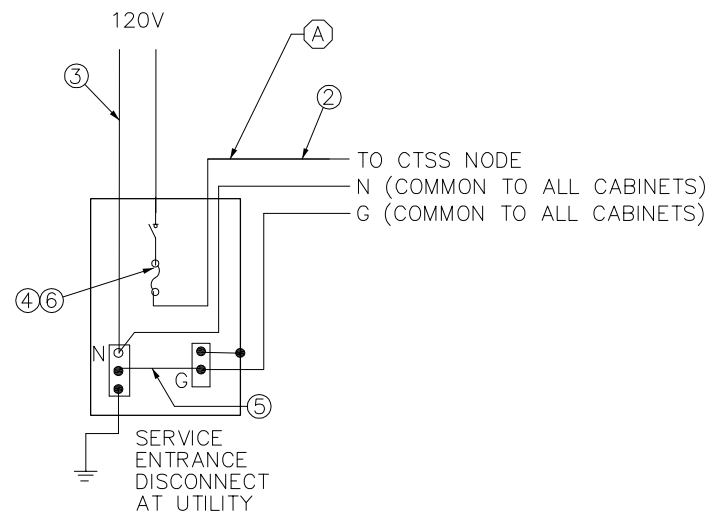
DETAIL K - SHEETS 37



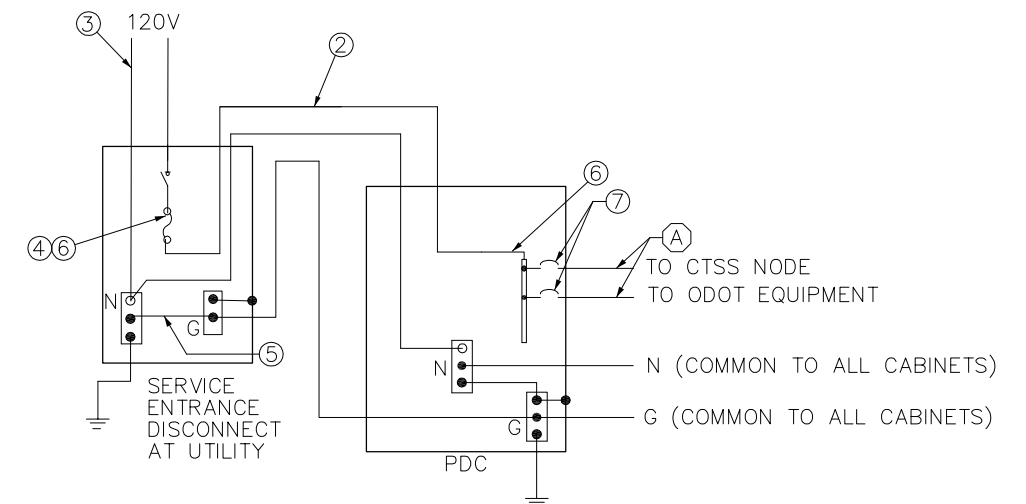
DETAIL H - SHEET 58



DETAIL L - SHEET 28, 40, 56



DETAIL J - SHEETS 25, 49, 84, & 87



DETAIL M - SHEET 97

PID NUMBER  
82540

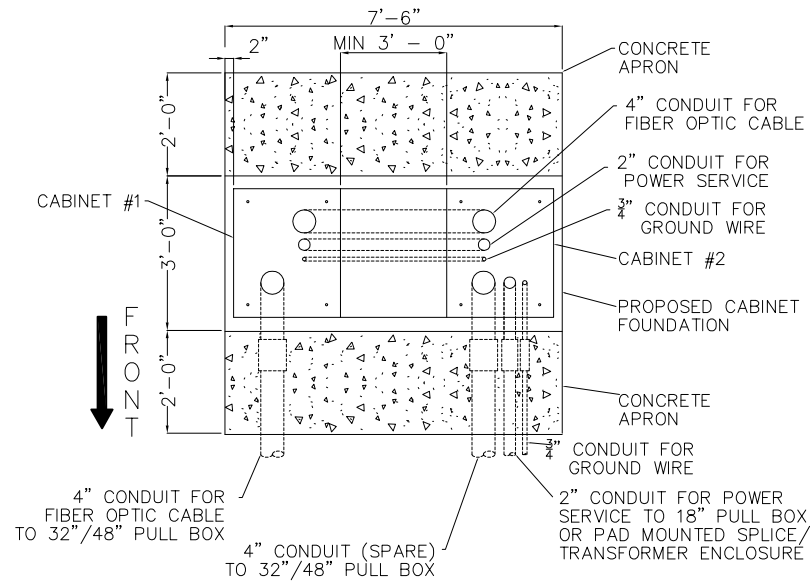
120/240V ELECTRICAL SERVICE  
TYPICAL SINGLE LINE DIAGRAMS

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

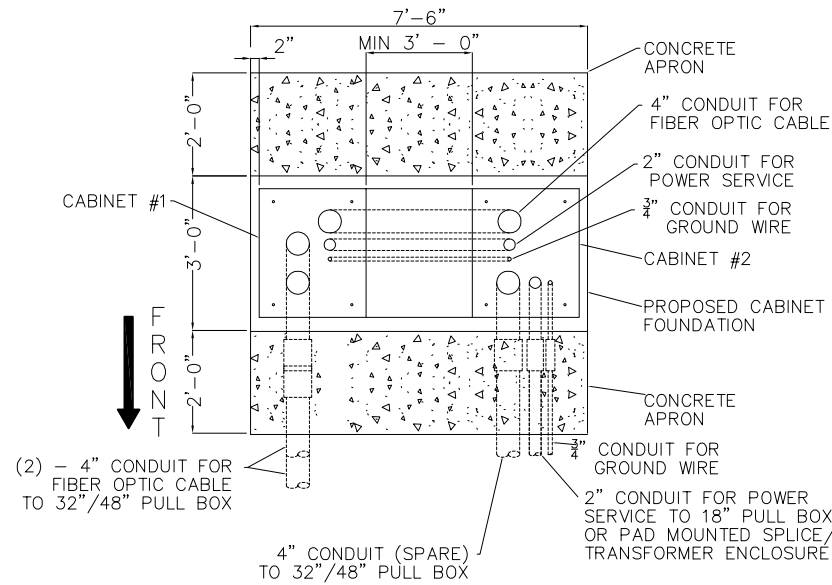
CONSTRUCTION AS-BUILT  
**2643DR.E**

**7A**  
**147**

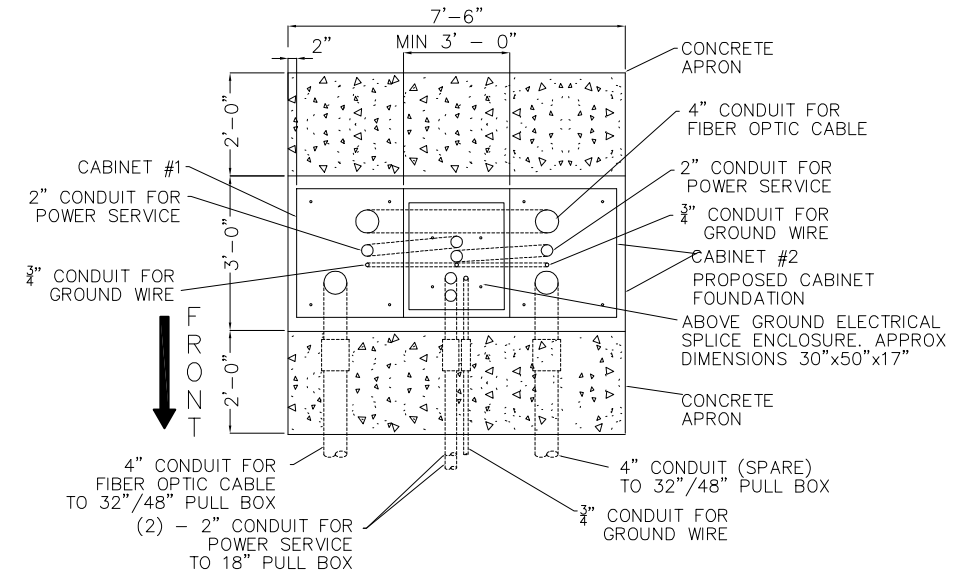
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**PLAN VIEW – TYPICAL NODE**  
SHEETS 25, 28, 35, 47, 49, 54, 58, 77, 84, & 87  
N.T.S.

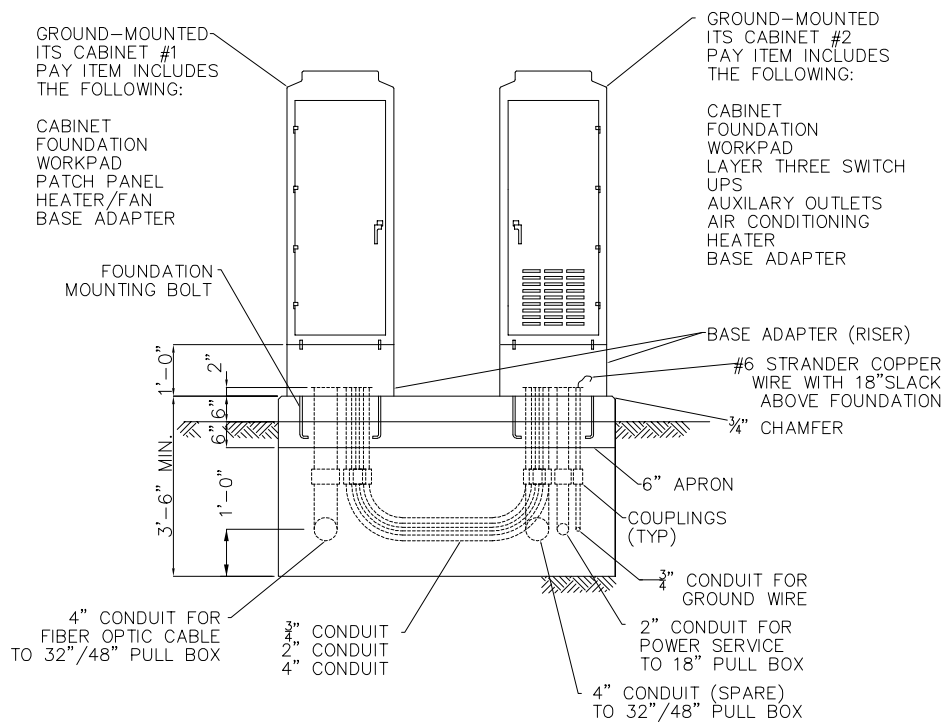


**PLAN VIEW – CABLE TERMINATION NODE**  
SHEETS 37, 64, 73 & 80  
N.T.S.

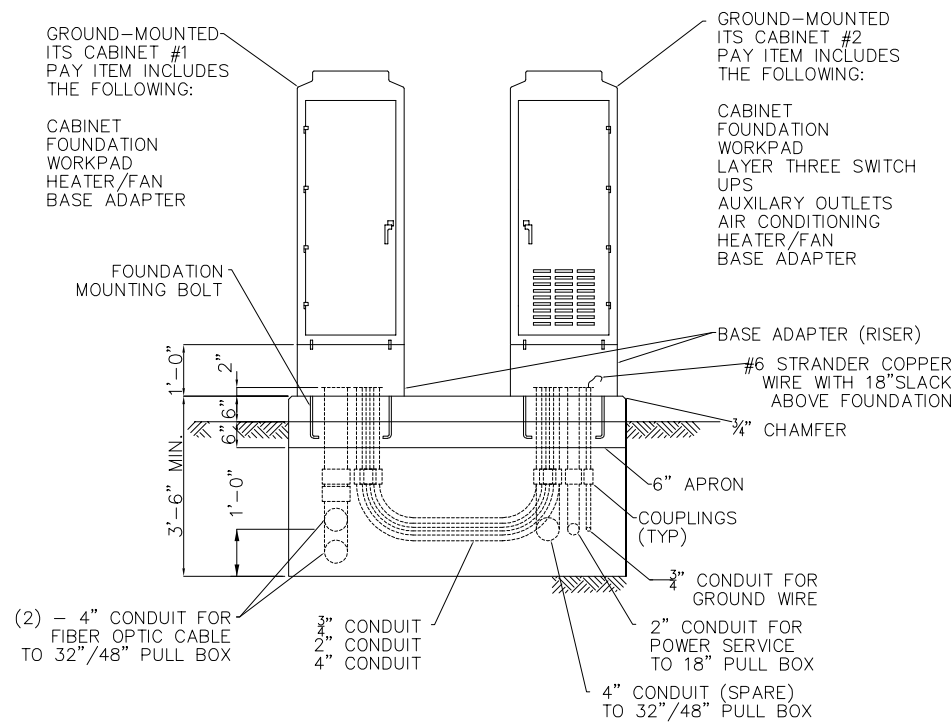


**PLAN VIEW – NODE W/ PDC**  
SHEETS 56, 70, & 97  
N.T.S.

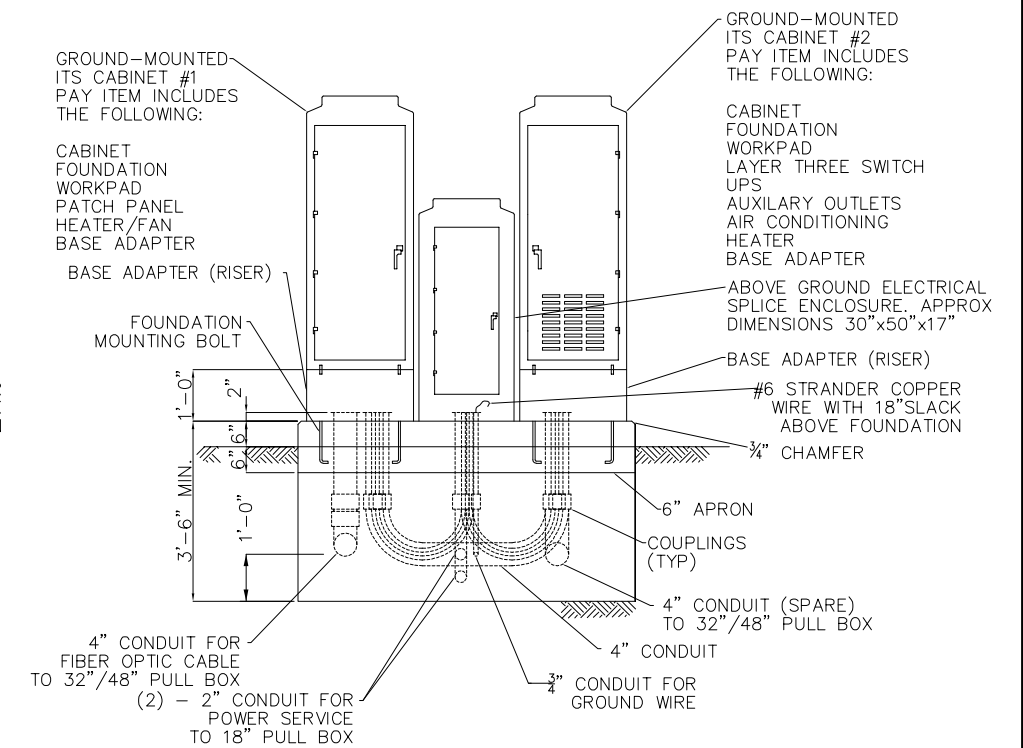
NOTES: SEE 'NOTES' ON SHEET 8A



**ELEVATION VIEW – CABLE TERMINATION NODE WITH 1 CONDUIT**  
SHEETS 25, 28, 35, 40, 47, 49, 54, 58, 77, 84, & 87  
N.T.S.



**ELEVATION VIEW – CABLE TERMINATION NODE WITH 2 CONDUITS**  
SHEETS 37, 64, 73 & 80  
N.T.S.



**ELEVATION VIEW – CABLE TERMINATION NODE WITH PDC AND 1 CONDUIT**  
SHEETS 56, 70 & 97  
N.T.S.

PID NUMBER  
82540

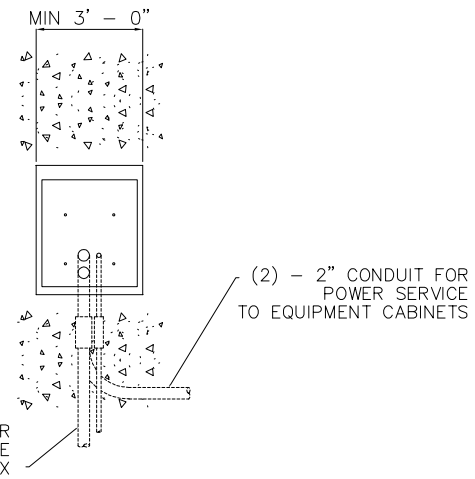
CABINET DETAIL

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

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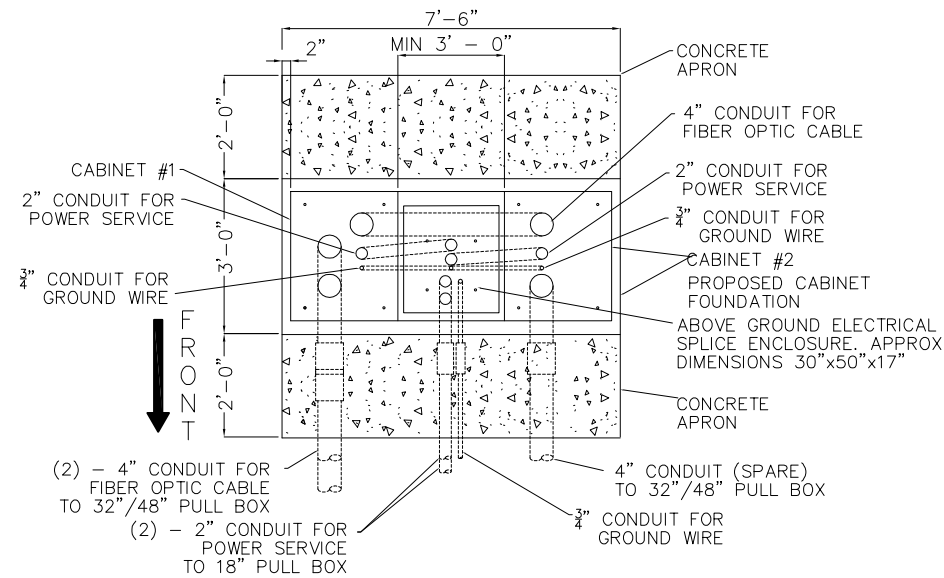


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PLAN VIEW - PDC

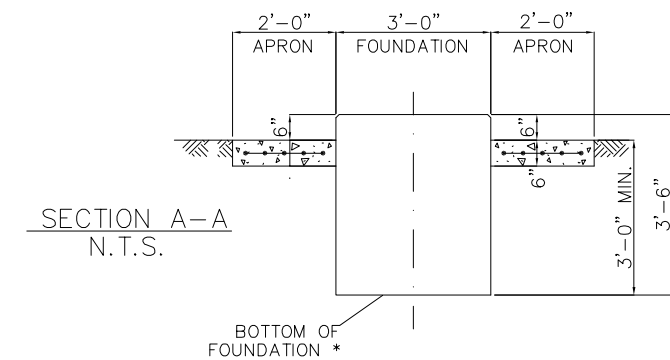
SHEETS 28, 35, 37, 47, 54, 64, 73, 77, 80, & 90  
N.T.S.



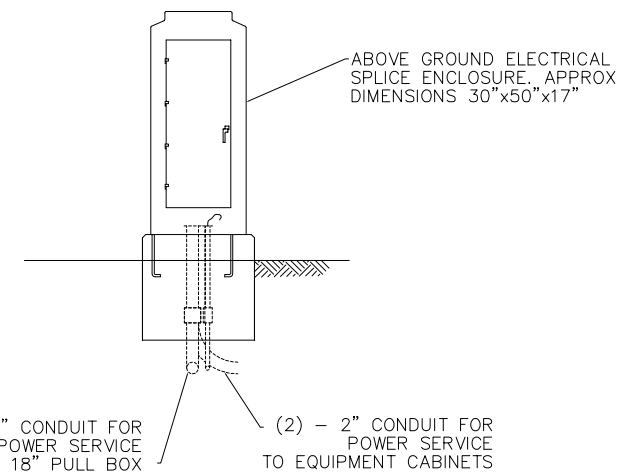
PLAN VIEW - CABLE TERMINATION NODE W/ PDC

SHEET 61  
N.T.S.

NODE CABINETS FOUNDATION

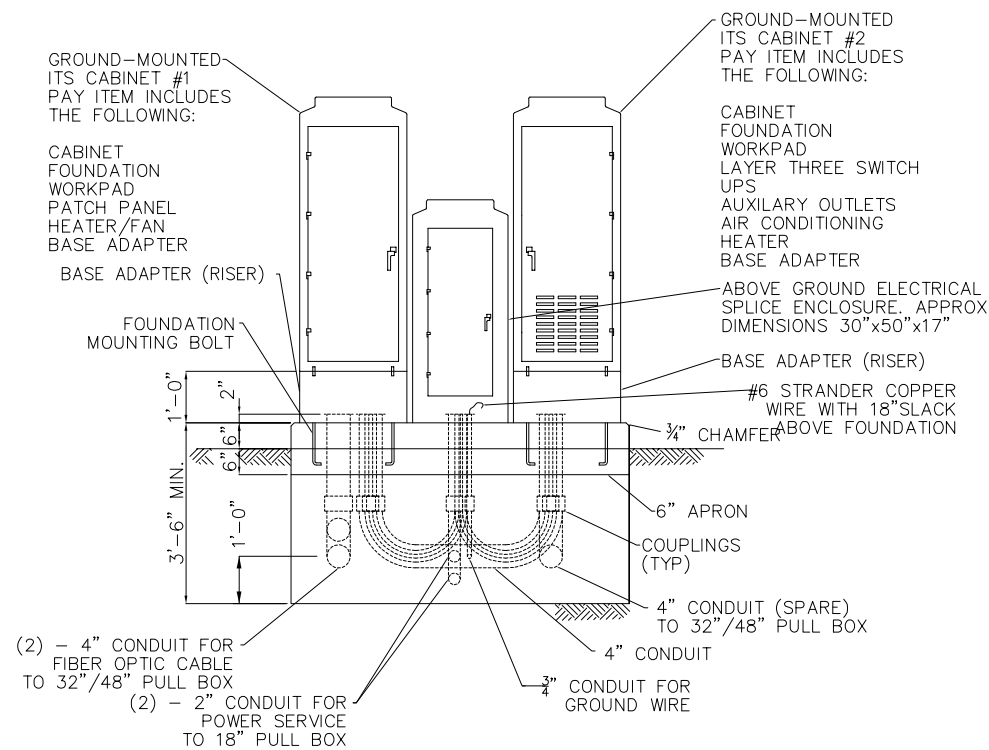


SECTION A-A  
N.T.S.



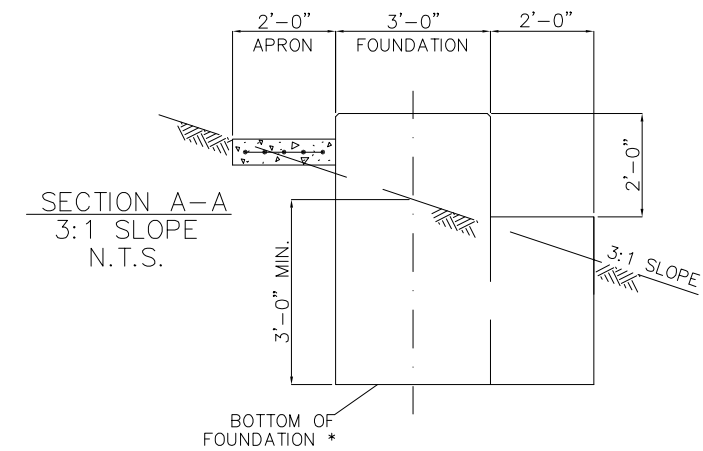
ELEVATION VIEW - PDC

SHEETS 28, 35, 37, 47, 54, 64, 73, 77, 80, & 90  
N.T.S.

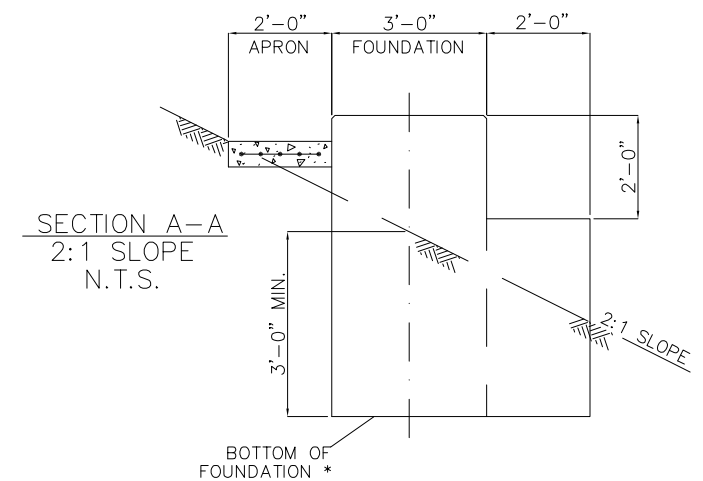


ELEVATION VIEW -  
CABLE TERMINATION NODE WITH PDC AND 2 CONDUITS

SHEET 61  
N.T.S.



SECTION A-A  
3:1 SLOPE  
N.T.S.



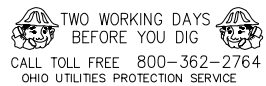
SECTION A-A  
2:1 SLOPE  
N.T.S.

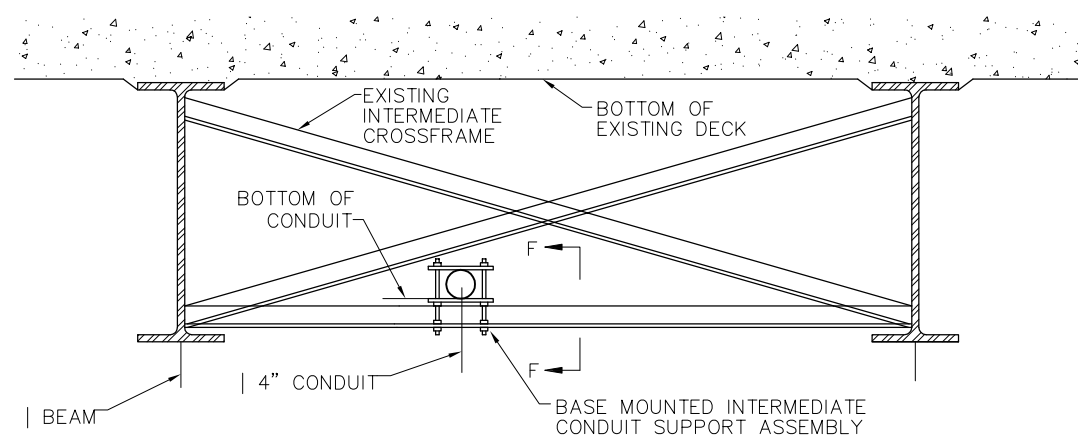
\* BOTTOM OF FOUNDATION SHALL BE 3' MINIMUM BELOW GROUND AT C OF FOUNDATION

NOTES

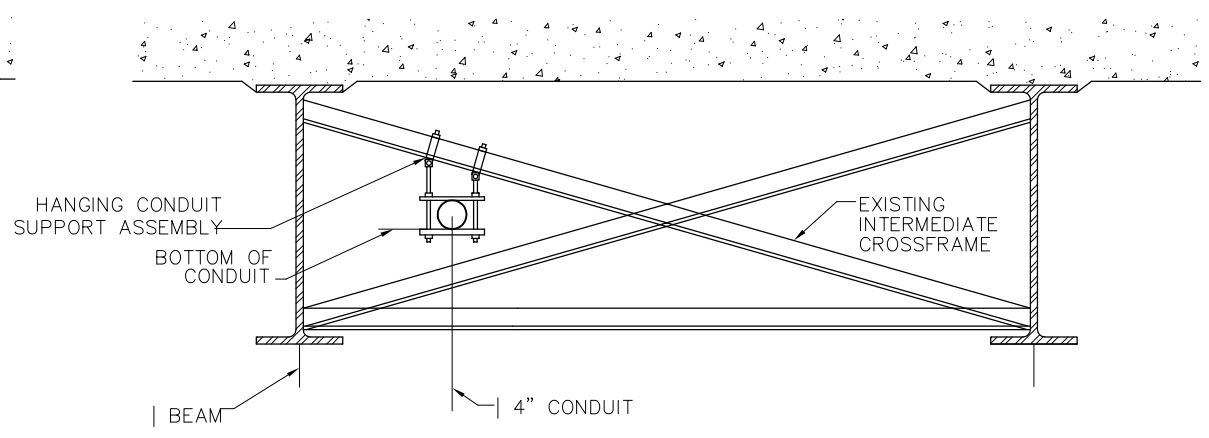
1. ALL EXPOSED CONCRETE SURFACE EDGES SHALL BE CHAMFERED 3/4".
2. AIR CONDITIONING CONDENSER DRAIN TUBE SHALL BE ROUTED INTO 4" DUCT LEADING TOWARD 32" OR 48" PULL BOX TO ENSURE DRAINAGE FROM CABINET.
3. THE CABINETS AND BASE ADAPTERS SHALL BE SEALED WITH LIFETIME SILICONE CAULK AT BOTH THE INSIDE AND OUTSIDE JOINTS BETWEEN CABINET ADAPTER AND FOUNDATION.
4. GROUNDING BUSHINGS SHALL BE INSTALLED ON THE END OF METAL CONDUITS.
5. THE GROUNDING SYSTEMS OF ALL CABINETS, TRANSFORMERS, AND SPLICE CABINETS SHALL BE BONDED TOGETHER USING EXOTHERMIC WELDS.
6. ALL EMPTY CONDUITS SHALL BE PLUGGED WITH PVC CAP TO PREVENT MOISTURE AND RODENT ENTRY.
7. SEE PLAN SHEETS FOR EXACT NUMBER AND SIZE OF CABINETS.

UNDERGROUND UTILITIES

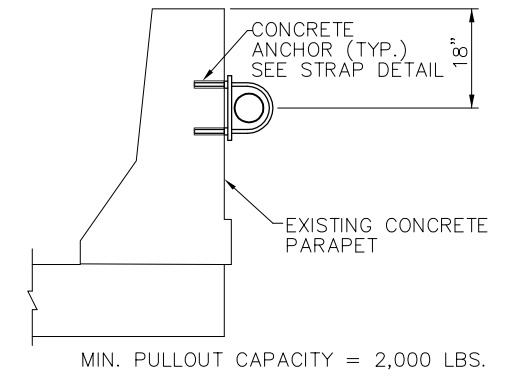




CONDUIT BEARING ATTACHMENT

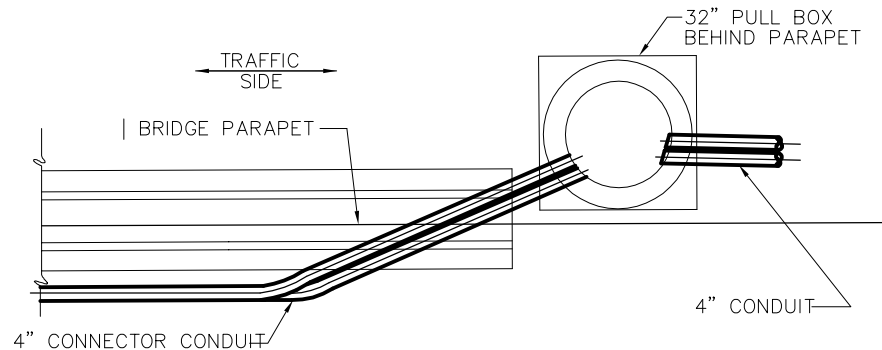


CONDUIT HANGING ATTACHMENT

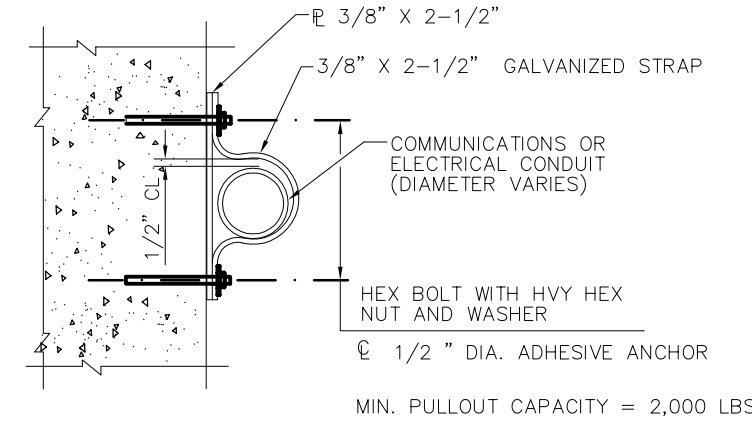


CONDUIT ATTACHMENT TO PARAPET OR BACK OF BARRIER WALL

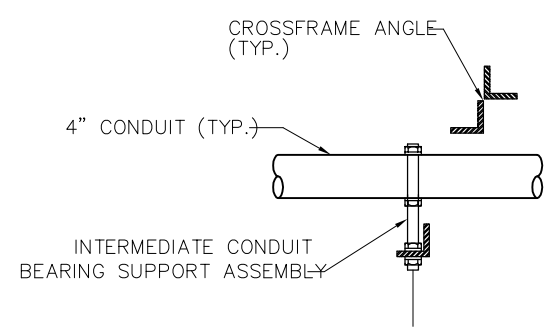
**CONDUIT ON STRUCTURE**  
 EXPANSION FITTINGS FOR CONDUIT ON STRUCTURE SHALL BE OZ (TYPE AX), SPRING CITY (TYPE AF), OR CROUSE-HINDS (TYPE XJ-4) OR APPROVED EQUAL. EACH EXPANSION FITTING SHALL HAVE A COPPER EXTERNAL BONDING JUMPER.



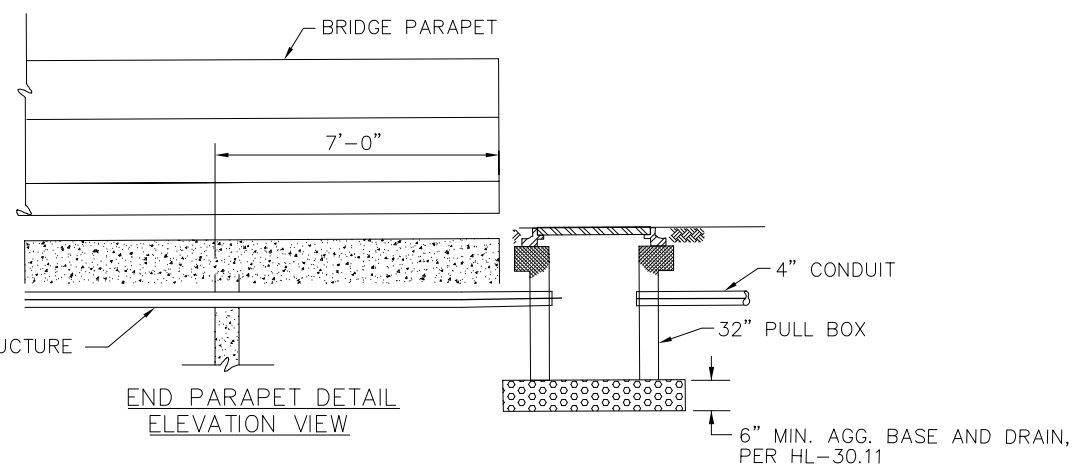
END PARAPET DETAIL PLAN VIEW



STRAP DETAIL NOT TO SCALE

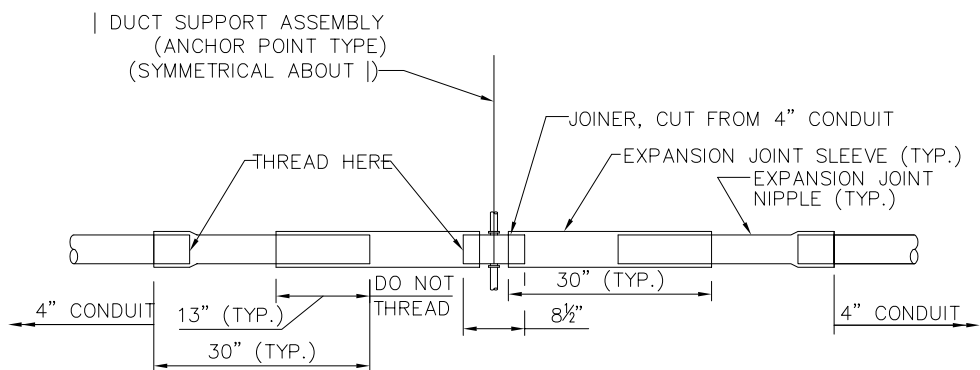


SECTION "F-F"

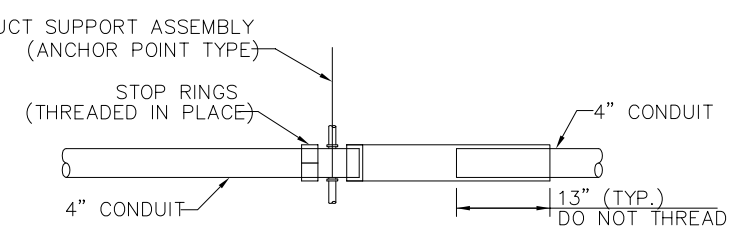


END PARAPET DETAIL ELEVATION VIEW

TYPICAL SURVEILLANCE CONDUIT TREATMENT AT END OF BRIDGE PARAPET



BACK-TO-BACK EXPANSION JOINT DETAIL



COMBINATION STOP RING AND EXPANSION JOINT

TYPICAL EXPANSION JOINT DETAILS

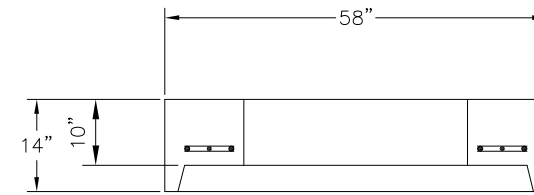
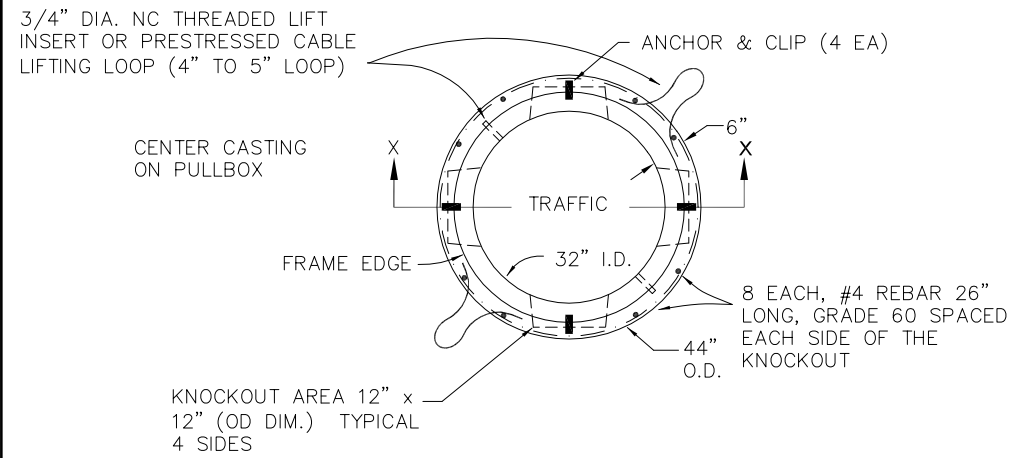
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UNDERGROUND UTILITIES  
 TWO WORKING DAYS BEFORE YOU DIG  
 CALL TOLL FREE 800-362-2764  
 OHIO UTILITIES PROTECTION SERVICE

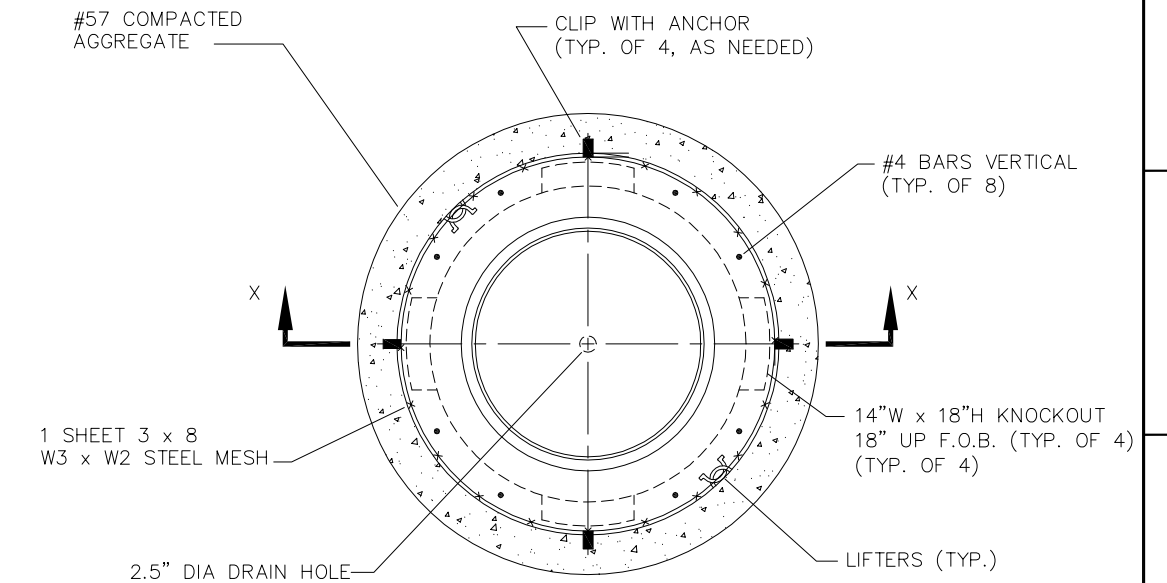
ITEM 625 PULL BOX, CONCRETE ROUND, 32", AS PER PLAN

ITEM 625 PULL BOX, CONCRETE ROUND, 48", AS PER PLAN

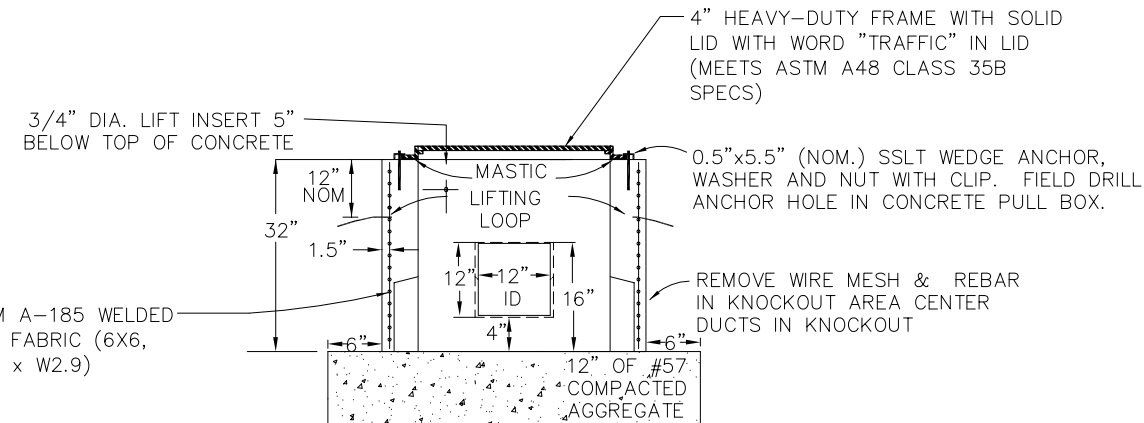
TOP VIEW OF CONCRETE PULL BOX



PULL BOX TOP SECTION DETAIL  
CONDUIT ENTERS PULLBOX AT 24" ± GROUND LEVEL

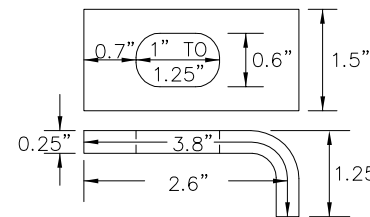


4" HEAVY DUTY FRAME WITH SOLID LID WITH WORD "TRAFFIC" IN LID (MEETS ASTM A48 CLASS 35B SPECS)

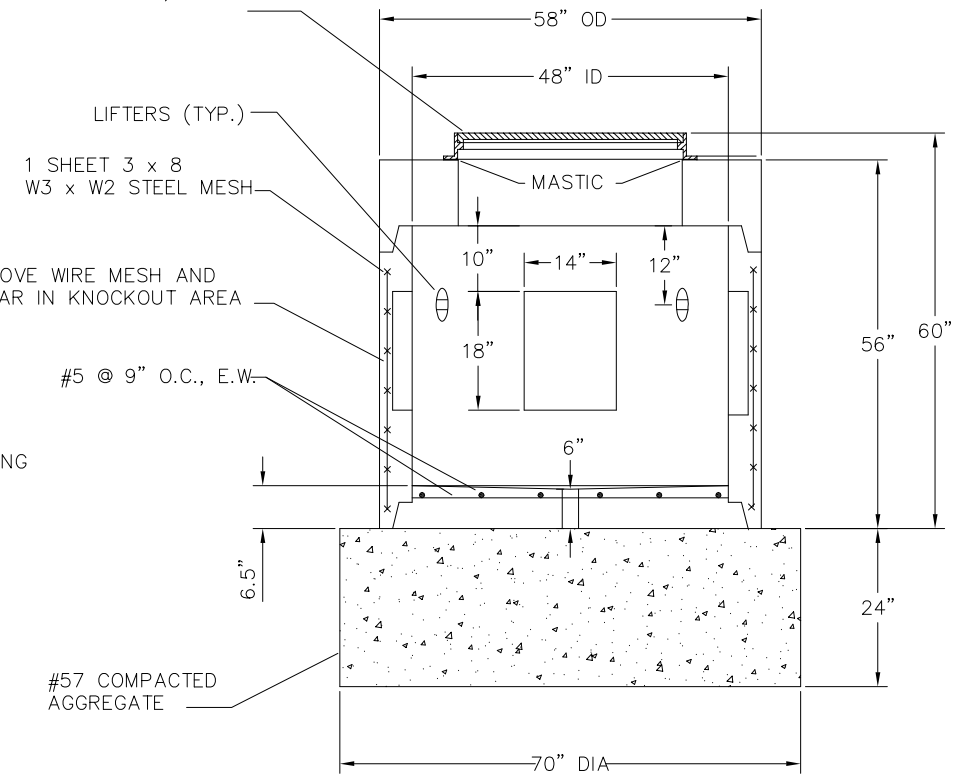
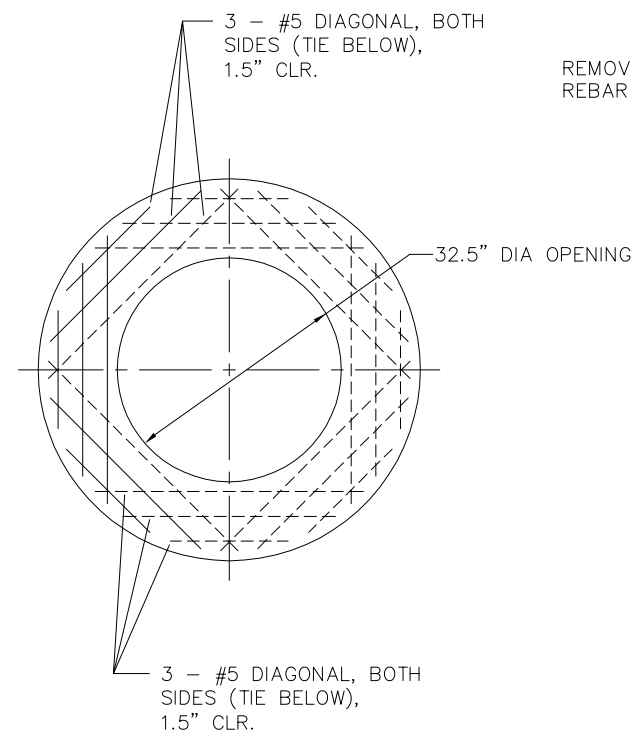


SECTION X-X PULL BOX WITH FRAME AND LID

CLIP PROFILE (NOM. VALUES)



CLIP WITH ANCHOR FOR 32" & 48" PULLBOX. THE CLIP SHALL BE MADE FROM A36 METAL, HD GALV (ASTM A123) AND IN THE SHAPE SHOWN.



SECTION X-X PULL BOX WITH FRAME AND LID

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UNDERGROUND UTILITIES

TWO WORKING DAYS BEFORE YOU DIG

CALL TOLL FREE 800-362-2764

OHIO UTILITIES PROTECTION SERVICE

**REFERENCE SPECIFICATIONS**

THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS, 2002 INCLUDING ALL SUPPLEMENTS THERETO, SHALL GOVERN ALL CONSTRUCTION ITEMS THAT ARE A PART OF THE PLANS UNLESS NOTED OTHERWISE.

**PRE-CONSTRUCTION CONFERENCE**

THE CONTRACTOR IS TO NOTIFY THE CITY OF COLUMBUS TRANSPORTATION DIVISION (614) 645-3182 TO ARRANGE A DATE AND TIME FOR A PRE-CONSTRUCTION CONFERENCE. NO WORK SHALL START PRIOR TO THIS MEETING. THE DIVISION'S PROJECT ENGINEER WILL AUTHORIZE A START DATE.

**PRE-CONSTRUCTION NOTIFICATIONS REQUIRED**

CONTRACTOR SHALL NOTIFY THE FOLLOWING DIVISIONS AT LEAST 24 HOURS BEFORE STARTING WORK: DESIGN & CONSTRUCTION DIVISION @ 645-3182, DESIGN & CONSTRUCTION RIGHT-OF-WAY @ 645-7738, DIVISION OF POWER AND WATER (WATER) @ 645-7677, SEWERAGE AND DRAINAGE @ 645-7102, RECREATION AND PARKS @ 645-7665, AND A 48 HOUR NOTICE SHALL BE GIVEN TO THE DIVISION OF POWER AND WATER (POWER) @ 645-7627.

**PERMITS**

THE CONTRACTOR IS TO OBTAIN ALL NECESSARY PERMITS. AN ORIGINAL PERMIT WITH RED SIGNATURES SHALL BE KEPT ONSITE AT ALL TIMES.

WHEN EXCAVATING WITHIN PUBLIC RIGHT-OF-WAY LIMITS OF SR-315, THE CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT FROM THE TRANSPORTATION DIVISION'S PERMIT OFFICE BY CALLING (614) 645-3039 BETWEEN THE HOURS OF 8:00AM AND 4:00PM MONDAY THROUGH FRIDAY. ALL OTHER LIMITS OF THE PROJECT DO NOT REQUIRE A PERMIT AS PART OF THE ODOT LIMITED ACCESS RIGHT-OF-WAY.

**UTILITIES**

THE IDENTITY AND LOCATION OF EXISTING UTILITIES LOCATED IN AND AROUND THE CONSTRUCTION AREA HAVE BEEN SHOWN AND LABELED ON THE PLANS BY USING INFORMATION PROVIDED BY THE RESPECTIVE UTILITY OWNERS.

PRIOR TO EXCAVATION, THE CONTRACTOR SHALL GIVE A 48-HOUR NOTICE TO THE OHIO UTILITIES PROTECTION SERVICE (OUPS) BY CALLING (800) 362-2764. A 48-HOUR NOTICE SHALL ALSO BE GIVEN TO THE OWNERS OF UNDERGROUND UTILITIES SHOWN ON THE PLANS WHO ARE NOT MEMBERS OF A REGISTERED UNDERGROUND PROTECTION SERVICE.

LISTED BELOW ARE UTILITY COMPANIES THAT HAVE FACILITIES LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT AND SUBSCRIBE TO THE OHIO UTILITIES PROTECTION SERVICE.

CITY OF COLUMBUS DIVISION OF SEWERAGE AND DRAINAGE 1250 FAIRWOOD AVE COLUMBUS, OHIO TELEPHONE - 645-7102 FAX - 645-3242	CITY OF COLUMBUS DIVISION OF POWER AND WATER (POWER) 3568 INDIANOLA AVE. COLUMBUS, OHIO TELEPHONE- 645-7627
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CITY OF COLUMBUS DIVISION OF POWER AND WATER (WATER) 910 DUBLIN ROAD COLUMBUS, OHIO TELEPHONE - 645-7677 FAX - 645-3993	AT&T LONG DISTANCE & AT&T LNS METRO HLG ENGINEERING & SURVEYING 5980-G WILCOX PLACE DUBLIN, OHIO 43016 TELEPHONE- 760-8320 FAX- 760-8323
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THE FOLLOWING CITY OF COLUMBUS UTILITIES ARE LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT AND DO NOT SUBSCRIBE TO A REGISTERED UNDERGROUND PROTECTION SERVICE:

CITY OF COLUMBUS CMFMS INFORMATION 109 NORTH FRONT STREET COLUMBUS, OHIO TELEPHONE - 387-4109 FAX - 645-5967	CITY OF COLUMBUS TELECOMMUNICATION DIVISION 90 WEST BROAD STREET COLUMBUS, OHIO TELEPHONE - 645-1501 FAX - 645-6627
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CITY OF COLUMBUS COMMUNICATIONS DIVISION 220 GREENLAWN AVENUE COLUMBUS, OHIO TELEPHONE - 645-7344 EXT. 125 FAX - 645-6588	ODOT DISTRICT 6 FREEWAY MANAGEMENT SYSTEMS 109 N FRONT ST. COLUMBUS, OHIO TELEPHONE-740-272-7424
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ODOT DISTRICT 6 MAINTENANCE OF TRAFFIC 109 N FRONT ST. COLUMBUS, OHIO TELEPHONE-740-815-8433	COLUMBUS DOPO 1820 E SEVENTEENTH ST. COLUMBUS, OHIO TELEPHONE-614-645-7393 FAX-645-5967
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**SAFETY REQUIREMENTS**

THE CONTRACTOR AND SUBCONTRACTORS SHALL BE SOLELY RESPONSIBLE FOR ALL FEDERAL, STATE AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS ALSO THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SUBCONTRACTORS TO INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.

**MATERIAL SAFETY DATA SHEETS**

THE CONTRACTOR SHALL SUBMIT, FOR INFORMATION ONLY, THE MANUFACTURERS' HAZARDOUS MATERIALS COMMUNICATION INFORMATION FORMS FOR ALL MATERIAL TO BE INCORPORATED INTO THE WORK.

**EMERGENCY PROVISIONS**

THE CONTRACTOR SHALL PROVIDE TO THE CITY OF COLUMBUS (COC) 24-HOUR EMERGENCY TELEPHONE NUMBER, IN WRITING, PRIOR TO THE START OF CONSTRUCTION.

**STORAGE OF EQUIPMENT AND MATERIALS**

MATERIALS, INCLUDING PIPE, SHALL NOT AT ANY TIME (WORKING OR NON-WORKING HOURS) BE STORED WITHIN THE RIGHT-OF-WAY OR WITHIN ONE HUNDRED (100) FEET OF ANY INTERSECTING STREET OR DRIVEWAY, WITHOUT PRIOR WRITTEN APPROVAL FROM THE CITY OF COLUMBUS. COMPLIANCE WITH THIS REQUIREMENT ALONG WITH ADDITIONAL PROVISIONS OF THE CONTRACT SPECIFICATIONS WILL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS LEGAL RESPONSIBILITIES OR LIABILITIES FOR THE SAFETY OF THE PUBLIC. THE CONTRACTOR SHALL INFORM THE C.O.C. OF HIS PLAN FOR THE ON-SITE STORAGE OF EQUIPMENT AND MATERIALS AT THE PRE-CONSTRUCTION MEETING.

**NON-RUBBER TIRE VEHICLES**

NON-RUBBER TIRE VEHICLES SHALL NOT BE MOVED ON PUBLIC STREETS. THE CITY ENGINEER MAY GRANT EXCEPTIONS WHEN SHORT DISTANCES AND SPECIAL CIRCUMSTANCES ARE INVOLVED. GRANTING OF EXCEPTIONS MUST BE IN WRITING, AND ANY DAMAGE MUST BE REPAIRED TO THE SATISFACTION OF THE CITY OF COLUMBUS ACCEPTABLE REPRESENTATIVE.

**SANITARY CONVENIENCE FACILITIES**

THE CONTRACTOR SHALL FURNISH AND MAINTAIN SANITARY CONVENIENCE FACILITIES FOR THE WORKERS AND INSPECTORS FOR THE DURATION OF THE WORK. COST SHALL BE INCLUDED IN THE PRICE BID FOR THE PROJECT IMPROVEMENTS.

**MISCELLANEOUS WORK ITEMS**

THE CONTRACTOR SHALL PERFORM ALL ITEMS OF WORK CALLED FOR ON THE PLANS, FOR WHICH NO SPECIFIC METHOD OF PAYMENT IS PROVIDED. THE COSTS OF IT SHALL BE INCLUDED IN THE VARIOUS UNIT PRICES BID FOR THE PROJECT IMPROVEMENT.

**CONTINGENCY QUANTITIES**

THE CONTRACTOR SHALL NOT ORDER MATERIAL OR PERFORM WORK SHOWN, LABELED, OR LISTED AS CONTINGENCY OR REFERRED BY PLAN NOTE TO BE USED AS DIRECTED BY THE ENGINEER, UNLESS AUTHORIZED BY THE ENGINEER, OR AN ACCEPTABLE REPRESENTATIVE FOR THE CITY OF COLUMBUS TRANSPORTATION DIVISION.

**WATERING PERMANENT SEEDED AREAS**

THE FOLLOWING ESTIMATED QUANTITY IS TO BE USED AS DIRECTED BY THE ENGINEER TO PROMOTE GROWTH FOR THE PERMANENT SEEDED AREAS AS PER 659.09  
ITEM 659 - WATER 10 THOUSAND GALLONS

**CONSTRUCTION DAMAGE**

ALL SIGNS, FENCES, SHRUBS, DRAINAGE STRUCTURES, OR OTHER PHYSICAL FEATURES DISTURBED OR DAMAGED DURING CONSTRUCTION UNDER THIS CONTRACT SHALL BE RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR. UNLESS OTHERWISE PROVIDED FOR, THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE COST OF THIS WORK.

**SECURING EXCAVATIONS AND TRENCHES DURING NON-WORKING HOURS**

EXCAVATIONS AND TRENCHES OVER 24-INCHES DEEP SHALL BE SECURELY PLATED, OR BACKFILLED DURING NON-WORKING HOURS.

**CLEANUP**

THE CONTRACTOR SHALL PERFORM DAILY CLEANUP OF THE WORK SITE. ALL TRASH, INCLUDING CANS, BOTTLES, FOOD SCRAPS, CONTAINERS, AND WRAPPERS SHALL BE PROPERLY DISPOSED OF OFF-SITE AND SHALL NOT BE THROWN IN THE CONSTRUCTION AREA.

**WORK LIMITS**

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE OF THESE WORK LIMITS.

**BENCHMARKS AND SURVEY MONUMENTS**

ELEVATIONS ARE BASED ON 1988 NORTH AMERICAN VERTICAL DATUM (NAVD 88). 1929 NGVD DATUM ELEVATIONS SHALL ONLY BE USED WHEN NAVD 88 IS NOT AVAILABLE.

ALL VERTICAL CONTROL POINTS WERE SET USING A COUNTY, OR CITY CERTIFIED SOURCE MONUMENT FOR ITS POINT OF ORIGIN, AS CALLED OUT AND SHOWN ON THE PLAN AND PROFILE SHEETS AND/OR SCHEMATIC SHEET.

THE BASIS OF BEARINGS STATEMENT ON PLANS MUST BE REFERENCED TO AN OFFICIAL RECORD OF DEED, OR PLAT, OR ROAD IMPROVEMENT PLAN THAT HAS THE BEARING USED. THE BASIS OF BEARINGS STATEMENT MAY ALSO BE USED WHEN TIED TO FRANKLIN COUNTY HORIZONTAL SURVEY MONUMENTS. THE LOCATION OF MONUMENTS IS DESCRIBED BY USING THE STATE PLANE COORDINATE SYSTEM, OHIO SOUTH ZONE. THE LOCATIONS SHALL BE SHOWN AND CALLED OUT ON THE PLAN AND PROFILE SHEETS, AND/OR SCHEMATIC SHEET.

PLAN BENCHMARKS HAVE BEEN LOCATED INSIDE THE RIGHT-OF-WAY OF WORK LIMITS OF THE PROJECT. THEY ARE LOCATED SO THAT THEY WILL NOT BE DESTROYED DURING THE DEMOLITION/CONSTRUCTION PHASE OF THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR PRESERVING BENCHMARKS DURING THE PROJECT AND, IF DESTROYED, HE IS RESPONSIBLE FOR REPLACING THEM AT HIS OWN EXPENSE.

DO NOT DISTURB ANY FRANKLIN COUNTY CERTIFIED BENCHMARKS (VERTICAL AND/OR HORIZONTAL) LOCATED WITHIN THE WORKING LIMITS OF THE PROJECT. CONTRACTOR SHALL CONTACT THE FRANKLIN COUNTY SURVEY DEPARTMENT (614) 462-3026, PRIOR TO CONSTRUCTION, TO COORDINATE THE PROPER PROCEDURES FOR THE RESETING, RELOCATION, OR REPLACEMENT OF ANY FRANKLIN COUNTY CERTIFIED BENCHMARK OR SURVEY MONUMENT.

ALL EXISTING RIGHT-OF-WAY MARKERS, CENTERLINE MARKERS, OR SURVEY MONUMENTS FOUND WITHIN WORK LIMITS OF, OR ADJACENT TO, THE PROJECT ARE SHOWN AND LABELED ON THE PLANS.

ALL CONSTRUCTION CONTROL POINTS FOR THIS PROJECT HAVE BEEN SUPPLIED WITH THREE POINT REFERENCES.

**MONUMENTED RIGHT-OF-WAY AND PROPERTY CORNERS**

AVOID DISTURBING EXISTING RIGHT-OF-WAY OR PROPERTY MARKERS DURING CONSTRUCTION. IF DISTURBED DURING CONSTRUCTION, THE MARKERS SHALL BE REPLACED PER CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS, SECTION 108.12.

**LIMITED ACCESS RIGHT OF WAY (LA R/W)**

THE LA R/W INFORMATION SHOWN ON THE PLANS CAME FROM A VARIETY OF SOURCES; AN ACTUAL FIELD SURVEY OF AREAS WAS NOT COMPLETED; AND THE LA R/W INFORMATION SHOULD BE USED FOR REFERENCE PURPOSES ONLY.

PID NUMBER  
82540

GENERAL NOTES

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

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**CLEARING AND GRUBBING**

THE CITY OF COLUMBUS RESERVES THE RIGHT TO ORDER THE REMOVAL OF TREES OR STUMPS OUTSIDE THE LIMITS OF CONSTRUCTION BUT WITHIN THE RIGHT-OF-WAY AND/OR EASEMENT LINES. PAYMENT FOR REMOVAL OF THESE TREE OR STUMPS SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 201, CLEARING AND GRUBBING. ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED UNDER THE LUMP SUM BID ITEM FOR 201, CLEARING AND GRUBBING. THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED.

SIZES	# OF TREES	# OF STUMPS	TOTAL
18"	0	0	0
30"	0	0	0
48"	0	0	0
60"	0	0	0

**MAINTAIN DRAINAGE**

THE CONTRACTOR AT HIS OWN EXPENSE SHALL MAINTAIN THE FLOW IN ALL SEWERS, DRAINS, FIELD TILES, AND WATERCOURSES ENCOUNTERED IN AND AROUND THE PROJECT SITE. IF SUCH WATERCOURSES OR DRAINS ARE DISTURBED OR DESTROYED DURING THE EXECUTION OF THE PROJECT, THEY SHALL BE RESTORED BY THE CONTRACTOR AT HIS OWN EXPENSE TO A CONDITION SATISFACTORY TO THE ENGINEER.

**COLUMBIA GAS DAMAGE PREVENTION CENTER**

FOR INFORMATION CONCERNING COLUMBIA GAS LINES OR EQUIPMENT, OR IF DAMAGE OCCURS TO GAS LINES OR EQUIPMENT THE CONTRACTOR SHALL CALL THE COLUMBIA GAS DAMAGE PREVENTION CENTER AT (614) 280-7372, OR TOLL FREE AT (866) 632-6243.

**TREE PROTECTION DURING CONSTRUCTION**

PUBLIC TREES SHALL BE PROTECTED AGAINST INJURY OR DAMAGE TO ROOTS, TRUNKS, OR BRANCHES FROM EXCAVATIONS AND CONSTRUCTION. THIS SHALL BE DONE IN ACCORDANCE WITH THE CITY OF COLUMBUS, FORESTRY SECTION AND IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

ALL TREE PRUNING AND REMOVAL MUST BE DONE IN ACCORDANCE TO ANSI A300 AND ANSI Z133.1 STANDARDS. THE CONTRACTOR PERFORMING THE WORK MUST BE A PROFESSIONAL TREE COMPANY WITH A CERTIFIED ARBORIST ON STAFF AND AVAILABLE TO DIRECT THE ON-SITE CREW.

HEAVY EQUIPMENT WILL NOT BE ALLOWED TO COMPACT SOIL OVER THE CRITICAL ROOT ZONE (AREA FROM TRUNK TO ONE FOOT BEYOND DRIP LINE) OF EXISTING TREES. RESTRICTED EQUIPMENT ACCESS ROUTES SHALL BE ESTABLISHED BEFORE WORK IS BEGUN. TEMPORARY PAVING MATERIALS SUCH AS PLYWOOD OR RUBBER MATTING SPREAD OVER THE ROOT ZONE MAY BE REQUIRED TO PREVENT COMPACTION.

INSTALLATION OF UTILITIES UNDER THE DRIPLINE OF EXISTING TREES MUST BE DIRECTLY BORED OR DRILLED UNDER THE ROOT ZONE. TOP OF THE BORE OR TUNNEL SHALL BE NO HIGHER THAN 3 FEET DEEP. OPEN TRENCHES WITHIN THE ROOT ZONE MUST BE AVOIDED. WHEN ROOTS MUST BE SEVERED, CLEAN CUTS MUST BE MADE WITH PROPER PRUNING TOOLS.

WHEN GRADE CHANGE IS REQUIRED WITHIN THE ROOT ZONE OF PUBLIC TREES, A SUFFICIENT RESIDUAL ROOT ZONE TO PROVIDE FOR GOOD HEALTH OF THE TREES SHOULD REMAIN UNDISTURBED AND PROTECTED BY EITHER A DRY WELL OR RETAINING WALL IF THE GRADE IS TO BE RAISED OR LOWERED.

CONSTRUCTION MATERIALS, EXCAVATION DEBRIS, CHEMICAL, FUEL, EQUIPMENT OR VEHICLES ARE NOT TO BE STOCKPILED, STORED, DUMPED, OR PARKED WITHIN THE DRIPLINE OF PUBLIC TREES.

FIRES ARE NOT PERMITTED WITHIN THE DRIPLINE OF ANY TREES.

ALL EXISTING TREES DESIGNATED FOR PRESERVATION SHALL BE PROTECTED WITH A GOOD, SUBSTANTIAL FENCE, FRAME OR BOX NOT LESS THAN FOUR FEET HIGH AND AS FAR FROM THE TREE AS POSSIBLE. DRIPLINE IS PREFERABLE, HOWEVER, ACTUAL LOCATION WILL BE DETERMINED BY SITE LIMITATIONS.

FENCING SHALL BE INSTALLED BEFORE COMMENCING SITE PREPARATION WORK. FENCE MUST BE MAINTAINED DURING THE FULL CONSTRUCTION PERIOD.

ANY TREES DAMAGED OR DESTROYED DUE TO CONTRACTOR NEGLIGENCE SHALL BE TREATED OR REMOVED AT THE CONTRACTOR'S EXPENSE. IF DAMAGED BEYOND REPAIR, THE CITY WILL REQUIRE REIMBURSEMENT FOR THE VALUE OF THE TREE AS DETERMINED BY THE CURRENT EDITION OF THE 'GUIDE FOR PLANT APPRAISAL' PUBLISHED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE.

**DIVISION OF POWER AND WATER (POWER)**

THE DIVISION OF POWER AND WATER (POWER) HAS NUMEROUS POWER AND STREET LIGHTING FACILITIES WITHIN THE PROJECT AREA. THE CONTRACTOR IS REQUIRED TO CONTACT OUPS AT 1-800-362-2764 FORTY-EIGHT HOURS PRIOR TO CONDUCTING ANY ACTIVITY WITHIN THE CONSTRUCTION AREA. THE DOPW(POWER) DISPATCH OFFICE NUMBER IS (614) 645-7627 (VOICE).

ANY REQUIRED RELOCATION, SUPPORT, PROTECTION, OR ANY OTHER ACTIVITY CONCERNED WITH THE CITY'S STREET LIGHTING SYSTEM IN THE CONSTRUCTION AREA IS TO BE PERFORMED BY THE CONTRACTOR UNDER THE DIRECTION OF DIVISION OF POWER AND WATER (DOPW) PERSONNEL AND AT THE EXPENSE OF THE PROJECT. DOPW WILL MAKE ALL FINAL CONNECTION TO DOPW'S EXISTING ELECTRICAL SYSTEM AT THE EXPENSE OF THE PROJECT. THE CONTRACTOR SHALL USE MATERIAL AND MAKE REPAIRS TO A CITY OF COLUMBUS STREET LIGHTING SYSTEMS BY FOLLOWING DIVISION OF POWER AND WATER (POWER)'S "MATERIAL AND INSTALLATION SPECIFICATIONS" (MIS) AND THE CITY OF COLUMBUS "CONSTRUCTION AND MATERIAL SPECIFICATIONS" (CMS). ANY NEW OR RE-INSTALLED UNDERGROUND STREETLIGHT SYSTEM SHALL REQUIRE TESTING AS REFERRED TO IN SECTION IN 1000.18 OF THE CMS MANUAL. THE CONTRACTOR SHALL CONFORM TO THE DIVISION OF POWER AND WATER (POWER)'S EXISTING CONDUCTOR SAFETY POLICY AND HOLD CARD SYSTEM (MIS-95), COPIES OF WHICH ARE AVAILABLE FROM THE DIVISION OF POWER AND WATER (POWER). QUESTIONS SHOULD BE REFERRED TO MIHAI ORBOCEA AT (614) 645-6851 OR CHRIS VOGEL AT (614) 645-6963.

IF ANY ELECTRIC FACILITY BELONGING TO THE DOPW-P IS DAMAGED IN ANY MANNER BY THE CONTRACTOR, THEIR AGENTS, SERVANTS OR EMPLOYEES, THAT REQUIRES EMERGENCY REPAIRS, THE DOPW-P WILL MAKE ALL NECESSARY REPAIRS, AND THE EXPENSE OF SUCH REPAIRS AND OTHER RELATED COSTS SHALL BE PAID BY THE CONTRACTOR TO THE DOPW-P, CITY OF COLUMBUS, OHIO.

**USE OF HYDRANTS**

PERMITS AND FEES ARE REQUIRED FOR THE USE OF ANY FIRE HYDRANT. THE PERMIT CAN BE OBTAINED FROM THE CITY OF COLUMBUS, DIVISION OF POWER AND WATER AT 910 DUBLIN ROAD. HOSES SHALL NOT BE CONNECTED TO A FIRE HYDRANT WHILE LEFT UNATTENDED.

**FIBER OPTIC CABLE SLACK**

10 FEET OF SLACK SHALL BE LEFT COILED IN EVERY NON-MEDIAN WALL PULL BOX UNLESS OTHERWISE NOTED.

25 FEET OF SLACK SHALL BE LEFT COILED IN NON MEDIAN WALL PB ON BOTH SIDES OF A STRUCTURE CROSSING.

PAYMENT FOR THIS SLACK WILL BE MADE FOR THE CONTRACT BID PRICE FOR "CABLE, MISC.: 288 STRAND FIBER OPTIC CABLE", "CABLE, MISC.: 12 STRAND FIBER OPTIC DROP CABLE", OR "CABLE, MISC.: 24 STRAND FIBER OPTIC DROP CABLE"

**INSTALLING 288 STAND FIBER OPTIC CABLE IN EXISTING CONDUIT**

WHEN MULTIPLE CONDUITS OR INNERDUCTS ARE PRESENT, AND ONE OR MORE OF THEM HAS A FUNCTIONAL PULL STRING, THE CONTRACTOR SHALL USE THAT CONDUIT OR INNERDUCT AS THE PATH FOR THE FIBER OPTIC CABLE.

PAYMENT FOR THIS WILL BE CONSIDERED INCIDENTAL TO "CABLE, MISC.: 288 STRAND FIBER OPTIC CABLE"

**INSTALLATION & MAINTENANCE PERSONNEL REQUIREMENTS**

THE CONTRACTOR SHALL ASSIGN A PROJECT SUPERVISOR. THE SUPERVISOR SHALL BE A FULL TIME EMPLOYEE OF THE CONTRACTOR. THE CONTRACTOR SHALL NOT CHANGE THE PROJECT SUPERVISOR WITHOUT GIVING THE PROJECT ENGINEER WRITTEN NOTICE. THE CONTRACTOR SHALL PROVIDE INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION (IMSA) CERTIFIED DOCUMENTATION FOR THEIR EMPLOYEES IF REQUESTED BY PROJECT OR DIVISION PERSONNEL.

THE CONTRACTOR SHALL ALSO HAVE A FOREMAN ASSIGNED TO EACH CREW PERFORMING WORK FOR THIS PROJECT. A FOREMAN SHALL BE PRESENT AT ALL TIMES WHEN WORK IS PERFORMED BY THE CREW. EACH FOREMAN SHALL BE AN IMSA LEVEL ONE CERTIFIED TECHNICIAN. THE CONTRACTOR SHALL PROVIDE PRIOR VERBAL NOTICE TO THE PROJECT ENGINEER IN ORDER TO REPLACE A CREW FOREMAN.

IN ADDITION, ANY TRADE PERSON PERFORMING WORK AS DEFINED BELOW IN ITEMS 1 THROUGH 6 SHALL BE AN IMSA LEVEL ONE CERTIFIED TECHNICIAN.

1. CABLE SPLICES
2. CABLE INSULATION TESTING
3. CABLE AND WIRE INSTALLATION
4. POWER SERVICE INSTALLATION
5. GROUND ROD TESTING
6. FIELD WIRING TERMINATIONS

**LAW ENFORCEMENT OFFICERS-ITEM 614 SUPPLEMENT**

LAW ENFORCEMENT OFFICERS (L.E.O.'S) ARE REQUIRED FOR WORK IN SIGNALIZED INTERSECTIONS, FOR DIRECTING TRAFFIC (SETUPS, TEAR DOWNS, ALL TWO WAY/ONE LANE MOVEMENTS, SUBSTANTIAL SHIFTS AND CLOSURE OPERATIONS), AND OTHERWISE AS DESIGNATED BY THE ENGINEER. L.E.O.'S ARE ALSO AVAILABLE FOR GENERAL FLAGGING OPERATIONS IF THE CONTRACTOR SO CHOOSES. L.E.O.'S MAY BE REQUESTED THROUGH A SPECIAL DUTY OFFICER COORDINATOR OR BY CALLING THE CITY OF COLUMBUS POLICE DEPARTMENT, SPECIAL DUTY OFFICE - (614) 645-4795 MONDAY THRU FRIDAY FROM 8:00AM TO 4:00PM. A TWO WORKING DAY NOTICE IS NEEDED FOR EACH REQUEST THROUGH THE SPECIAL DUTY OFFICE, UNLESS A SUBSTANTIAL EMERGENCY EXISTS. THIS COST WILL BE PAID UNDER THE LEO PAY ITEM AT AN HOURLY RATE. THE COST OF NON-LEO FLAGGERS SHALL BE INCLUDED IN THE 614 LUMP SUM ITEM.

**INDIANA BAT HABITAT**

CLEARING OF ANY TREES THAT HAVE SUITABLE SUMMER BROOD REARING OR ROOSTING HABITAT FOR THE FEDERALLY ENDANGERED INDIANA BAT (LIVING OR STANDING DEAD TREES OR SNAGS WITH EXFOLIATING, PEELING OR LOOSE BARK, SPLIT TRUNKS AND/OR BRANCHES, OR CAVITIES), SHALL OCCUR ONLY DURING THE PERIOD BEFORE APRIL 1 AND AFTER SEPTEMBER 30, WHEN THIS SPECIES WOULD NOT BE USING SUCH HABITAT.

**WATER QUALITY PROTECTION**

NO TOXIC OR HAZARDOUS MATERIALS SUCH AS SEALANTS, SOLVENTS, CLEANING AGENTS, WASTE-WATER, FUELS OR DEBRIS OF ANY KIND SHALL BE DISCHARGED TO ANY STREAMS, DRAINAGE COURSES, OR BODIES OF WATER. NO DEBRIS SHALL BE PLACED WITHIN THE 100-YEAR FLOODPLAIN BOUNDARY OF ANY WATERCOURSE.

THE CONTRACTOR SHALL TAKE GREAT CARE TO MINIMIZE THE POTENTIAL TO CONTAMINATE THE PUBLIC DRINKING WATER SUPPLY. ALL PROJECT RELATED REFUELING AND MAINTENANCE ACTIVITIES SHALL BE PERFORMED IN AN ENVIRONMENTALLY RESPONSIBLE MANNER.

THE CONTRACTOR SHALL TAKE THE APPROPRIATE ACTIONS IN THE EVENT OF A RELEASE AND WILL BE HELD RESPONSIBLE FOR THE CLEAN UP AND REMEDIATION OF ANY AND ALL SPILLS.

**WATERSHED PROTECTION**

THE WORK ASSOCIATED WITH THIS PROJECT IS BEING PERFORMED WITHIN THE DIRECT DRAINAGE AREA OF A MAJOR DRINKING WATER SUPPLY FOR THE CITY OF COLUMBUS. IT IS ESSENTIAL THAT ALL ACTIVITIES ASSOCIATED WITH THIS WORK BE PERFORMED IN A MANNER CONSISTENT WITH BEST WATERSHED MANAGEMENT PRACTICES INCLUDING, BUT NOT LIMITED TO:

AREAS OF DISTURBED GROUND SHALL HAVE APPROPRIATE EROSION AND SEDIMENT CONTROLS. IF HAZARDOUS/TOXIC MATERIALS INCLUDING BUT NOT LIMITED TO FUELS, OILS, BITUMEN'S PAINTS, SEALANTS, OR OTHER CHEMICALS, ARE STORED ON SITE, THEY SHALL BE STORED IN A DOUBLE-CONTAINMENT MANNER. ALL EQUIPMENT REPAIRS, MAINTENANCE, AND MECHANICAL WORK THAT COULD RESULT IN THE RELEASE OF HAZARDOUS/TOXIC MATERIALS SHALL BE PERFORMED IN AN APPROPRIATELY CONTAINED AREA, PREFERABLY OFF SITE OR AN APPROPRIATE OFF-SITE FACILITY.

IN THE EVENT THAT ANY HAZARDOUS/TOXIC MATERIALS INCLUDING, BUT NOT LIMITED TO FUELS, OILS, BITUMEN'S PAINTS, SEALANTS, OR OTHER CHEMICALS ARE SPILLED INTO THE SCIOTO RIVER OR ITS TRIBUTARIES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CITY OF COLUMBUS DUBLIN ROAD WATER TREATMENT PLANT AT (614) 645-8297. THE CONTRACTOR SHOULD BE PREPARED TO PROVIDE DETAILED INFORMATION RELATIVE TO THE TYPE AND QUANTITY OF MATERIAL THAT HAS BEEN SPILLED AS WELL AS THE EXACT LOCATION AND THE EXACT TIME AT WHICH THE SPILL OCCURRED.

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR INFORMING ALL SUBCONTRACTORS AND OTHER AGENTS OF THESE RESPONSIBILITIES, PRECAUTIONS, AND PROHIBITIONS.

**STREAM/WETLAND/WATER COURSE AVOIDANCE**

NO FILLING, GRADING, OPERATION OR PLACEMENT OF EQUIPMENT OF OTHER WORK SHALL BE PERMITTED BELOW THE ORDINARY HIGH WATER MARK OF ANY STREAM OR OTHER WATER COURSES OR WITHIN ANY WETLANDS UNLESS THE REQUIRED STATE AND/OR FEDERAL PERMITS HAVE BEEN OBTAINED IN ACCORDANCE WITH ALL APPLICABLE STATE AND/OR FEDERAL LAWS AND REGULATIONS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE EQUIPMENT AND/OR MATERIALS IN ANY WETLANDS, STREAMS AND OTHER WATER COURSES OR WITHIN 100-YEAR FLOODPLAIN LIMITS OF ANY WATER COURSES.

PID NUMBER  
82540

GENERAL NOTES

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
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**PROJECT INSPECTION, PLAN CHANGES & NOTIFICATION**

IN ADDITION TO PROJECT PERSONNEL, A REPRESENTATIVE FROM THE TRANSPORTATION DIVISION, SIGNAL DESIGN SERVICES SECTION, SHALL BE PRESENT TO INSPECT THE INSTALLATION AT ALL NEW NODE CABINETS. ANY CHANGE TO THE PLANS SHALL BE APPROVED BY THE DESIGN SECTION PRIOR TO ITS IMPLEMENTATION.

**MATERIAL INFORMATION SUBMITTAL**

THE CONTRACTOR SHALL SUBMIT ALL REQUIRED MATERIALS FOR APPROVAL TO THE CITY OF COLUMBUS, TRANSPORTATION DIVISION, TO THE CONSTRUCTION ENGINEER, 1800 E. 17TH AVENUE, COLUMBUS, OHIO 43219. THE MATERIAL SUBMISSION SHALL CONTAIN ONE (1) COMPLETE SET OF CATALOG CUTS, DIAGRAMS, SHOP DRAWINGS, BROCHURES OR OTHER DESCRIPTIVE MATERIAL FOR THE SIGNAL ITEMS THAT THE CONTRACTOR INTENDS TO FURNISH THAT HAVE NOT BEEN SPECIFICALLY NAMED IN THESE PLANS BY PRODUCT MODEL NUMBER. THE CONTRACTOR SHALL ALSO PROVIDE A DETAILED LIST OF ALL VARIANCES FROM ODOT SPECIFICATIONS AND FROM THE SPECIFICATIONS CONTAINED HEREIN FOR EACH NONSPECIFIED ITEM THAT DOES NOT COMPLY 100% WITH THESE SPECIFICATIONS. UNLESS OTHERWISE STATED BY THE CONTRACTOR THE SUPPLIED ITEMS WILL BE CONSIDERED AS BEING IN STRICT ACCORDANCE WITH ALL SPECIFICATIONS.

**INSTALLATION LAYOUT**

ALL NODE CABINETS STATIONED SHALL BE LOCATED AND MARKED BY A PROFESSIONAL SURVEYOR LICENSED IN THE STATE OF OHIO, USING THE STATION NUMBERS AND OFFSETS PROVIDED IN THESE PLANS. TRANSPORTATION DIVISION PERSONNEL SHALL APPROVE ALL FOUNDATION LOCATIONS AND ELEVATIONS PRIOR TO THE CONTRACTOR INSTALLING THEM. THE SURVEYOR SHALL ALSO STAKE THE RIGHT-OF-WAY ANYTIME A STATIONED TRAFFIC SIGNAL ITEM IS WITHIN ONE (1) FOOT OF THE RIGHT-OF-WAY. WHEN REQUESTED BY PROJECT PERSONNEL.

**ENVIRONMENTAL COMMITMENTS MADE AND RESOURCES TO BE AVOIDED.**

NO TREE REMOVAL IS ANTICIPATED FOR THE PROPOSED PROJECT. HOWEVER, ANY UNAVOIDABLE CUTTING OF TREES WITH SUITABLE ROOSTING AND BROODREARING HABITAT FOR THE INDIANA BAT (LIVING OR STANDING DEAD TREES OR SNAGS WITH EXFOLIATING, PEELING OR LOOSE BARK, SPLIT TRUNKS AND/OR BRANCHES, OR CAVITIES) WILL BE PERFORMED ONLY BEFORE APRIL 1 OR AFTER SEPTEMBER 30 WHEN THE SPECIES WOULD NOT BE USING SUCH HABITAT.

PLAN NOTES WILL BE INCLUDED FOR WATER QUALITY AND WATERSHED PROTECTION.

MORPC WILL BE CONDUCTING FUTURE STAKEHOLDER MEETINGS WITH THE JURISDICTIONS AFFECTED BY THIS PROJECT. IF THESE MEETINGS RESULT IN ANY ADDITIONS TO THE PROJECT FOOTPRINT, THIS CE DOCUMENT WILL BE REEVALUATED.

THE CONTRACTOR SHALL FOLLOW BEST MANAGEMENT PRACTICES (BMP'S) FOR SEDIMENT AND EROSION CONTROL DURING CONSTRUCTION AND POSTCONSTRUCTION IN ACCORDANCE WITH ODOT'S CONSTRUCTION AND MATERIALS SPECIFICATION SECTION 107.19 AND SUPPLEMENTAL SPECIFICATION 832.

THE APPROPRIATE AGENCIES WILL BE NOTIFIED IF FUTURE PUBLIC INVOLVEMENT ACTIVITIES RESULT IN ANY CHANGES TO THE ENVIRONMENTAL CONSEQUENCES OF THE PROPOSED PROJECT.

**EXISTING BARRIER JUNCTION BOXES**

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING DAMAGED OR MISSING COVERS ON EXISTING BARRIER JUNCTION BOXES USED IN THIS PROJECT, UP TO A MAXIMUM OF THIRTY(30). THE CONTRACTOR SHALL REPLACE ANY DAMAGED OR MISSING COVER SCREWS ON ANY EXISTING BARRIER JUNCTION BOX USED IN THIS PROJECT. ALL WORK AND MATERIALS SHALL BE PER SECTIONS 625.11 AND 725.10 OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS. THE COST FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

**EXISTING PULL BOXES**

IF ANY EXISTING PULL BOXES ARE DEEMED UNUSABLE BY THE ENGINEER, THE CONTRACTOR SHALL REPLACE THE DAMAGED PULL BOXES. THE COST FOR THIS WORK SHALL BE AT THE CONTRACT BID PRICE FOR "PULL BOX REMOVED" AND "PULL BOX, 713.08, 32", AS PER PLAN".

**CONDUIT LEFT EMPTY AT THE CONCLUSION OF THE PROJECT**

ANY CONDUIT THAT IS INSTALLED AS PART OF THE PROJECT AND LEFT EMPTY AT THE CONCLUSION OF THE PROJECT SHALL INCLUDE A CORROSION RESISTANT TRACER WIRE THROUGHOUT ITS ENTIRE LENGTH. THE COST FOR THIS TRACER WIRE WILL BE CONSIDERED INCIDENTAL TO THE COST OF THE CONDUIT.

**CONDUIT CROSSING EXISTING GUARD RAIL**

WHEN A PROPOSED CONDUIT CROSSES AN EXISTING GUARDRAIL IT SHALL BE PROTECTED BY CONCRETE ENCASEMENT AS SHOWN ON ODOT STANDARD CONSTRUCTION DRAWING HL-30.21, METHOD NO. 2. THE COST FOR THIS ENCASEMENT WILL BE CONSIDERED INCIDENTAL TO THE COST OF THE CONDUIT.

**ABANDONED CONDUIT AT EXISTING PULL BOXES**

WHEN ABANDONED CONDUIT INTERFERES WITH CONNECTING PROPOSED CONDUIT TO AN EXISTING PULL BOX, THE CONTRACTOR SHALL REMOVE A SHORT LENGTH OF THE ABANDONED CONDUIT IN ORDER TO MAKE THE CONNECTION BETWEEN THE PROPOSED CONDUIT AND THE EXISTING PULL BOX. ANY CONDUIT CONTAINING CABLES SHALL NOT BE REMOVED. THE COST FOR THIS WORK WILL BE CONSIDERED INCIDENTAL TO THE COST OF THE TRENCH.

**CONDUIT REPAIR IN THE CONCRETE BARRIER**

THE FOLLOWING ESTIMATED QUANTITY IS TO BE USED AS DIRECTED BY THE ENGINEER PER THE SUPPLEMENTAL SPECIFICATIONS.

ITEM 602 – CONCRETE BARRIER, AS PER PLAN. 300 FEET.

**CONDUIT REPAIR NOT IN CONCRETE BARRIER**

THE FOLLOWING ESTIMATED QUANTITY IS TO BE USED AS DIRECTED BY THE ENGINEER PER THE SUPPLEMENTAL SPECIFICATIONS.

ITEM CONDUIT, MISC: CONDUIT REPAIR. 500 FEET.

~~LAW ENFORCEMENT OFFICER~~

~~THE FOLLOWING ESTIMATED QUANTITY IS TO BE USED.~~

~~ITEM 614 – LAW ENFORCEMENT OFFICER WITH PATROL CAR. 1000 HOURS.~~

**LANES OPEN DURING HOLIDAYS**

NO WORK SHALL BE PERFORMED AND THE SAME NUMBER OF LANES AS WERE AVAILABLE AT THE START OF THE PROJECT SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

CHRISTMAS	FOURTH OF JULY
NEW YEARS	LABOR DAY
MEMORIAL DAY	THANKSGIVING

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAYS OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY OR EVENT	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00AM FRIDAY
THURSDAY (THANKSGIVING ONLY)	12:00N WEDNESDAY THROUGH 6:00AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00AM MONDAY

**ITEM 614 – MAINTAINING TRAFFIC, AS PER PLAN**

IN ADDITION TO THE REQUIREMENTS OF ITEM 614 MAINTAINING TRAFFIC, AS PER PLAN AND THE LATEST ADDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, A UNIFORMED LAW ENFORCEMENT OFFICER AND OFFICIAL PATROL CAR WITH WORKING TOP MOUNTED EMERGENCY FLASHING LIGHTS SHALL BE PROVIDED UNDER THE FOLLOWING CONDITIONS:

- WORK ON MAINLINE LANES OF TRAVEL ON INTERSTATES AND STATE ROUTES (FREEWAYS)
- ANY ENTRANCE OR EXIT RAMPS
- ANY LANE CLOSURES ON MAINLINE ARTERIALS
- WORK IN SIGNALIZED INTERSECTIONS
- ANY OTHER SITUATION THE CONTRACTOR DEEMS NECESSARY FOR THE SAFETY OF ITS EMPLOYEES OR THE PUBLIC

THE LEOS SHALL BE UTILIZED TO ASSIST CONTROLLING TRAFFIC WHILE EQUIPMENT IS ENTERING OR EXITING ANY INTERSECTIONS OR WORK ZONE. AT ALL OTHER TIMES, THE CONTRACTOR SHALL UTILIZE HIS OWN FLAGGERS AT HIS EXPENSE.

THE LEOS, ARE CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACTIONS. ALTHOUGH THEY ARE TO BE EMPLOYED BY THE CONTACTOR, THE CITY REPRESENTATIVE SHALL HAVE CONTROL OVER THEIR PLACEMENT. THE OFFICIAL PATROL CAR SHALL BE A PUBLIC SAFETY VEHICLE AS REQUIRED BY THE OHIO REVISED CODE. THE CONTRACTOR SHALL MAKE ARRANGEMENTS THROUGH THE COLUMBUS POLICE DIVISION AT (614) 645-4795 AT THE CONTRACTOR'S EXPENSE.

IF THE CONTRACTOR WISHES TO UTILIZE LEOS, FOR TRAFFIC CONTROL OTHER THAN FOR THAT REQUIRED IN THESE PLANS, HE MAY DO SO AT THEIR OWN EXPENSE.

FLAGGERS AND LEOS, SHALL BE EQUIPPED ACCORDING TO THE STANDARDS FOR OR FLAGGING TRAFFIC CONTAINED IN THE OMUTCD. FLAGGING OPERATIONS SHALL ONLY BE PERMITTED AS LONG AS ALL TRAFFIC CONTROL IS IN PLACE ACCORDING TO FIGURE C-18 THE OHIO MANUAL. THIS APPLIES TO BOTH FLAGGERS AND LEOS.

THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE CITY ENGINEER PRIOR TO MAKING ANY AGREEMENTS THROUGH THE COLUMBUS POLICE DIVISION AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL NOTIFY THE SERGEANT A MINIMUM OF TWO (2) WORKING DAYS IN ADVANCE IN THE EVENT THAT A COLUMBUS OFFICER CANNOT BE PROVIDED; THE CONTRACTOR SHALL PROVIDE AN OFFICER WITH THE CONDITIONAL APPROVAL BY THE CITY OF COLUMBUS POLICE DIVISION.

IF A HAZARD DEVELOPS, A LEO SHALL BE ASSIGNED BY THE COLUMBUS SAFETY AND SERVICE DIRECTOR AT THE CONTRACTOR'S EXPENSE.

LAW ENFORCEMENT OFFICERS WITH PATROL CARS REQUIRED BY THE TRAFFIC MAINTENANCE TASK DESCRIBED ABOVE SHALL BE PAID FOR ON A LUMP SUM BASIS UNDER ITEM 614 – MAINTAINING TRAFFIC, AS PER PLAN. THE HOURS PAID SHALL INCLUDE SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

**ITEM 614 – LAW ENFORCEMENT OFFICER WITH PATROL CAR, AS PER PLAN**

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR THE USE OF LEOS IN ADDITION TO LEOS REQUIRED FOR MAINTAINING TRAFFIC, AS PER PLAN. QUANTITIES SHALL USED AS DIRECTED BY THE ENGINEER OR AN ACCEPTABLE REPRESENTATIVE FOR THE CITY OF COLUMBUS. THE CONTRACTOR WILL BE PAID FOR HOURS OF THIS BID ITEM ONLY IF DIRECTED BY THE ENGINEER.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR, AS PER PLAN – 300 HOURS

**ITEM 632 – 144 COUNT PRE-TERMINATED PATCH PANEL, APP**

PATCH PANEL SHALL CONSIST OF A SELF-CONTAINED ENCLOSURE INCLUDING 144 LC STYLE FIBER OPTIC CONNECTORS. ONE (1) – 144 STRAND OUTDOOR RATED FIBER OPTIC CABLE SHALL BE PRE-TERMINATED TO THE PATCH PANEL. THE 144 STRAND FIBER OPTIC CABLE SHALL BE OF A SUFFICIENT LENGTH THAT WILL ALLOW THE CABLE TO BE PULLED FROM THE CABINET THROUGH CONDUIT TO ADJACENT FORTY-EIGHT INCH (48") PULL BOX AND FUSION SLICED TO THE TWO-HUNDRED AND EIGHTY-EIGHT (288) STRAND FIBER OPTIC BACKBONE CABLES AS DEPICTED IN THE COMMUNICATIONS PLAN SHEETS.

ALL FIBER, INCLUDING CONNECTORS AND ANY NECESSARY ADDITIONAL SPLICING SHALL BE CONSIDERED INCIDENTAL TO THIS PAY ITEM.

ALL FIBER, INCLUDING CONNECTORS AND CABLE, SHALL BE SINGLE MODE OPTICAL FIBER AND MEET ALL FIBER OPTIC CABLE SPECIFICATIONS OF THIS PROJECT. ALL CONNECTOR TERMINATIONS SHALL BE CERAMIC UPC CONNECTORS.

DIMENSIONS OF PATCH PANEL SHALL NOT EXCEED 7 INCHES (HEIGHT) X 17 INCHES (WIDTH) X 16 INCHES (DEPTH). PATCH PANEL SHALL BE EQUIPPED WITH LOCKING MECHANISM FOR FRONT AND BACK OF PATCH PANEL ASSEMBLY TO PREVENT UNAUTHORIZED ACCESS. PATCH PANEL SHALL PROVIDE AMPLE SPACE FOR ROUTING OF PATCH CABLES TO EQUIPMENT AND CONDUIT.

**ITEM 632 – 288 COUNT PRE-TERMINATED PATCH PANEL, APP**

PATCH PANEL SHALL CONSIST OF A SELF-CONTAINED ENCLOSURE INCLUDING 288 LC STYLE FIBER OPTIC CONNECTORS. TWO (2) – 144 STRAND OUTDOOR RATED FIBER OPTIC CABLES SHALL BE PRE-TERMINATED TO THE PATCH PANEL. THE 144 STRAND FIBER OPTIC CABLES SHALL BE OF A SUFFICIENT LENGTH THAT WILL ALLOW THE CABLE TO BE PULLED FROM THE CABINET THROUGH CONDUIT TO ADJACENT FORTY-EIGHT INCH (48") PULL BOX AND FUSION SLICED TO THE TWO-HUNDRED AND EIGHTY-EIGHT (288) STRAND FIBER OPTIC BACKBONE CABLES AS DEPICTED IN THE COMMUNICATIONS PLAN SHEETS.

ALL FIBER, INCLUDING CONNECTORS AND ANY NECESSARY ADDITIONAL SPLICING SHALL BE CONSIDERED INCIDENTAL TO THIS PAY ITEM.

ALL FIBER, INCLUDING CONNECTORS AND CABLE, SHALL BE SINGLE MODE OPTICAL FIBER AND MEET ALL FIBER OPTIC CABLE SPECIFICATIONS OF THIS PROJECT. ALL CONNECTOR TERMINATIONS SHALL BE CERAMIC UPC CONNECTORS.

DIMENSIONS OF PATCH PANEL SHALL NOT EXCEED 7 INCHES (HEIGHT) X 17 INCHES (WIDTH) X 16 INCHES (DEPTH). PATCH PANEL SHALL BE EQUIPPED WITH LOCKING MECHANISM FOR FRONT AND BACK OF PATCH PANEL ASSEMBLY TO PREVENT UNAUTHORIZED ACCESS. PATCH PANEL SHALL PROVIDE AMPLE SPACE FOR ROUTING OF PATCH CABLES TO EQUIPMENT AND CONDUIT.

**ITEM 632 – 24 COUNT PRE-TERMINATED PATCH PANEL ASSEMBLY, APP**

THIS ITEM SHALL CONSIST OF TWO (2) – 24 COUNT PATCH PANELS, ONE MOUNTED IN NODE CABINET #1 AND ONE IN NODE CABINET #2, CONNECTED BY PRE-TERMINATED 24 STRAND SINGLE MODE FIBER OPTIC CABLE RUNNING THROUGH 4" CONDUIT CONNECTING THE TWO NODE CABINETS.

PATCH PANEL SHALL CONSIST OF A SELF-CONTAINED ENCLOSURE INCLUDING 24 LC STYLE FIBER OPTIC CONNECTORS. CONNECTORS SHALL BE PRE-TERMINATED TO ALL 24 FIBERS OF BOTH SIDES OF OUTDOOR RATED FIBER OPTIC CABLE. OUTDOOR RATED FIBER OPTIC CABLE SHALL BE OF A SUFFICIENT LENGTH TO CONNECT THE 24 COUNT PATCH PANELS IN CABINETS #1 AND #2.

ALL FIBER, INCLUDING CONNECTORS SHALL BE CONSIDERED INCIDENTAL TO THIS PAY ITEM.

ALL FIBER, INCLUDING CONNECTORS AND CABLE, SHALL BE SINGLE MODE OPTICAL FIBER AND MEET FIBER OPTIC CABLE SPECIFICATIONS OF THIS PROJECT. ALL CONNECTOR TERMINATIONS SHALL BE CERAMIC UPC CONNECTORS.

DIMENSIONS OF PATCH PANELS SHALL NOT EXCEED 2 INCHES (HEIGHT) X 17 INCHES (WIDTH) X 16 INCHES (DEPTH). PATCH PANEL SHALL BE EQUIPPED WITH LOCKING MECHANISM FOR FRONT AND BACK OF PATCH PANEL ASSEMBLY TO PREVENT UNAUTHORIZED ACCESS. PATCH PANEL SHALL PROVIDE AMPLE SPACE FOR ROUTING OF PATCH CABLES TO EQUIPMENT AND CONDUIT.

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PID NUMBER  
82540

GENERAL NOTES

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

**TEMPORARY TRAFFIC CONTROL NOTES**

ALL TEMPORARY TRAFFIC CONTROL (TTC) DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR CONSTRUCTION AND MAINTENANCE OPERATIONS (CURRENT EDITION). COPIES ARE AVAILABLE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, BUREAU OF TRAFFIC, 1980 WEST BROAD STREET, COLUMBUS, OHIO 43223. NOTE: ALL DEVICES SHALL COMPLY, FOR CONDITION AND LOCATION, WITH THE CURRENT EDITION OF THE NCHRP 350 CRASH TESTING GUIDELINES.

CONSTRUCTION OPERATIONS SHALL NOT BEGIN UNTIL ALL TRAFFIC CONTROL IS IN PLACE AND APPROVED BY THE TRANSPORTATION DIVISION INSPECTOR. IF THE CONTRACTOR DOES NOT COMPLY WITH THE STANDARDS, INCLUDING THE INSTALLATION OF TEMPORARY PAVEMENT MARKINGS AND THE REMOVAL OF CONFLICTING TRAFFIC CONTROL, THEIR PERMIT WILL BE REVOKED AND ALL WORK SHALL BE TERMINATED.

PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE INSTALLED A MINIMUM OF 10 DAYS PRIOR TO THE CLOSURE OF A ROADWAY. THE MESSAGE SHALL ADVISE THE MOTORIST OF THE DATES, TIMES, AND DURATION OF THE CLOSURE. THE PCMS SHALL REMAIN IN PLACE FOR 7 DAYS AFTER THE START OF THE CLOSURE.

THE CONTRACTOR SHALL GIVE ADVANCE NOTIFICATION (WRITTEN AND VERBALLY) TO THE TEMPORARY TRAFFIC CONTROL COORDINATOR AT 645-6269 OR 645-5845, THE COLUMBUS PAVING THE WAY PROGRAM COORDINATOR AT 645-7283 OR 645-6016, AND THE CONSTRUCTION PROJECT MANAGER, INFORMING THEM OF ALL UPCOMING TRAFFIC PATTERN CHANGES. NOTIFICATION SHALL INCLUDE, BUT NOT BE LIMITED TO, WHAT, WHERE, WHEN, AND HOW PEDESTRIAN AND VEHICULAR TRAFFIC WILL BE AFFECTED, AND TEMPORARY TRAFFIC CONTROL PROCEDURES THE CONTRACTOR IS PLANNING TO USE. THE TYPE OF TRAFFIC CHANGE SHALL DETERMINE THE LENGTH OF ADVANCE NOTIFICATION REQUIRED:

TYPE OF CHANGE	ADVANCE NOTIFICATION NEEDED
DETOURS/ROAD CLOSURE	30-DAY NOTIFICATION
LANE CLOSURES LASTING 2 WEEKS OR MORE	2-WEEKS
LANE CLOSURES OF LESS THAN 2 WEEKS	3-DAYS
LANE CLOSURES OF 2 DAYS OR LESS	1-DAY

EACH SECTION OF FREEWAY HAS ITS OWN LANE CLOSURE HOURS. THE CONTRACTOR WILL REFER TO THE FOLLOWING WEBSITE TO OBTAIN THOSE HOURS.  
 HTTP://PLCM.DOT.STATE.OH.US/PLCM/PLCM\_WEB.JSP

ANY OTHER UNFORESEEN IMPACTS TO TRAFFIC SHALL BE IMMEDIATELY REPORTED AS THEY OCCUR.

A TTC PLAN (TTCP) INCLUDING PEDESTRIAN CONTROL SHALL BE SUBMITTED TO THE TTC COORDINATOR AT 645-6269 OR 645-5845 AT THE PRE-CONSTRUCTION MEETING OR A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO BEGINNING WORK. COPIES OF THE APPROVED TTCP SHALL BE GIVEN TO THE PROJECT ENGINEER AND KEPT ON SITE ALONG WITH THE STREET CLOSURE/OCCUPANCY PERMIT.

STEADY BURNING TYPE C LIGHTS SHALL BE REQUIRED ON ALL BARRICADES, DRUMS, AND SIMILAR TRAFFIC CONTROL DEVICES IN USE AT NIGHT. ONLY 42" REFLECTORIZED CHANNELIZING DEVICES (CONES) SHALL BE PERMITTED FOR NIGHTTIME WORK WITH THE APPROVAL OF THE TTC COORDINATOR AT 645-6269 OR 645-5845 PER ODOT STANDARDS.

A FLASHING ARROW PANEL (48" X 96"-TYPE C) SHALL BE USED IN LANE CLOSURES AS PER THE OHIO MANUAL.

ALL TRENCHES WITHIN THE RIGHT-OF-WAY SHALL BE BACKFILLED OR SECURELY PLATED PER (CITY OF COLUMBUS GENERAL POLICY ON STEEL PLATE USAGE DATE 11/15/2006 AND 2007 STD. DWG 1441) DURING NON-WORKING HOURS.

ACCESS FOR PEDESTRIAN AND VEHICULAR TRAFFIC TO ALL ADJOINING PROPERTIES SHALL BE MAINTAINED AT ALL TIMES.

ALL CITY OF COLUMBUS TRAFFIC LANES SHALL BE FULLY OPEN TO TRAFFIC FROM 6:00AM TO 9:00AM AND 4:00PM TO 6:00PM, 6:00AM TO 9:00AM AND 3:00PM TO 6:00PM IN THE COLUMBUS PARKING/BUSINESS DISTRICT AREA, MONDAY THROUGH FRIDAY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND SAFE MOVEMENT OF PEDESTRIANS THROUGH, AROUND, OR DETOURED AWAY FROM THE CONSTRUCTION SITE. TRAFFIC CONTROL FOR PEDESTRIAN MOVEMENT SHALL BE AS PER FIGURES TA-28 AND TA-29 OF PART VI OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

THE TRANSPORTATION DIVISION WILL REMOVE OR COVER ALL PARKING METER HEADS PUT OUT OF SERVICE BY THIS PROJECT. THE MANAGER OF TRAFFIC SIGNAGE & PARKING MANAGEMENT (645-7890) SHALL BE NOTIFIED A MINIMUM OF FORTY-EIGHT (48) HOURS (EXCLUDING SAT, SUN, & HOLIDAYS) PRIOR TO BEGINNING WORK. PLEASE CALL 645-8376 IF UNABLE TO MAKE CONTACT THROUGH THE OTHER PHONE NUMBER.

TEMPORARY "EMERGENCY NO PARKING" SIGNS SHALL BE INSTALLED AND REMOVED BY THE CONTRACTOR IN AREAS WITH NO PARKING METERS. THESE SHALL HAVE THE INSTALLATION DATE, WORKING DATES, AND HOURS OF RESTRICTION SHOWN ON EACH SIGN. THESE SIGNS MAY BE OBTAINED FROM THE TRANSPORTATION DIVISION'S PERMIT OFFICE. THE POLICE DIVISION REQUIRES "EMERGENCY NO PARKING" SIGNS BE POSTED A MINIMUM OF SEVENTY-TWO (72) HOURS PRIOR TO ANY VEHICLES BEING TOWED. WITHIN TWENTY-FOUR (24) HOURS OF POSTING, THE CONTRACTOR SHALL SUPPLY THE INSPECTION SECTION WITH A WRITTEN RECORD OF POSTED LOCATIONS (FAX:645-3298).

THE TRANSPORTATION DIVISION SHALL LOCATE AND MARK ALL UNDERGROUND TRAFFIC CONTROL CABLES. THE TRAFFIC ENGINEERING SHOP SHALL BE NOTIFIED AT 645-7393 (FAX 645-5967) AT LEAST FORTY-EIGHT (48) HOURS (EXCLUDING SAT. & SUN.) PRIOR TO THE BEGINNING OF ANY WORK WITHIN 450 FEET OF ANY SIGNALIZED INTERSECTIONS(S) OR WITHIN ANY POSTED AREA WHERE THE DIVISION HAS UNDERGROUND CABLE. SIGNALS MANAGEMENT PERSONNEL AT 645-6418 SHALL BE NOTIFIED SIX (6) WEEKS IN ADVANCE FOR SIGNAL REVISIONS OR POLE RELOCATIONS.

NO EXCAVATION SHALL BE MADE WITHIN FIVE (5) FEET OF ANY POLE THAT SUPPORTS TRAFFIC SIGNAL DISPLAYS OR SIGNS BY MAST ARM OR SIGNAL SPAN. EXCAVATION WITHIN EIGHT (8) FEET, BUT MORE THAN FIVE (5) FEET, SHALL REQUIRE ADDITIONAL SUPPORT (DOWN GUY, HEAD GUY, BASE GUY, ETC.). THE CONTRACTOR SHALL CONTACT THE TRANSPORTATION DIVISION SIGNALS MANAGEMENT PERSONNEL AT 645-0423 (CELL 419-4501) AT LEAST FORTY-EIGHT (48) HOURS (EXCLUDING SAT. & SUN.) PRIOR TO THE BEGINNING OF SUCH EXCAVATION SO THAT THE CITY CAN APPROVE THE STABILIZATION SETUP BY THE CONTRACTOR. STABILIZATION SHALL BE DONE BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

WHEN ANY TRAFFIC CONTROL DEVICE, CONDUIT, OR CABLE IS DAMAGED, THE CONTRACTOR SHALL NOTIFY THE TRAFFIC ENGINEERING MAINTENANCE SHOP AT 645-7393 BETWEEN 8:00AM AND 4:30PM, MONDAY THROUGH FRIDAY. AT OTHER TIMES LEAVE A MESSAGE ON THE ANSWERING MACHINE.

THE ROADWAY SHALL NOT BE OPENED TO NON-CONSTRUCTION TRAFFIC UNTIL THE CRITICAL TRAFFIC CONTROLS ARE IN PLACE, OR UNTIL TEMPORARY TRAFFIC CONTROLS APPROVED BY THE ENGINEER, ARE INSTALLED. THE CRITICAL PERMANENT TRAFFIC CONTROLS ARE STOP, YIELDS, ONE WAY, DO NOT ENTER, AND RESTRICTED TURN SIGNS. OTHER CRITICAL SIGNS MAY BE NOTES ON THE PLANS AS WELL. THE CONTRACTOR ASSUMES ALL LIABILITY FOR THE PREMATURE REMOVAL OF TEMPORARY TRAFFIC CONTROLS.

THE ROADWAY SHALL NOT BE OPENED TO NON-CONSTRUCTION TRAFFIC UNTIL ALL TEMPORARY, NON-REFLECTIVE, BLACKOUT TAPE HAS BEEN REMOVED FROM NON-CONFLICTING PERMANENT PAVEMENT MARKING FOR THAT AREA OF THE ROADWAY, OR UNLESS OTHERWISE DIRECTED IN WRITING BY THE ENGINEER. THIS IS SUPPLEMENTAL TO CMS-614.11-F, AND WILL BE PAID FOR THROUGH THE 614-LUMP SUM.

THE CONTRACTOR SHALL MAINTAIN ALL PERMANENT TRAFFIC CONTROLS NOT IN CONFLICT WITH THE TEMPORARY TRAFFIC CONTROLS THROUGHOUT THIS PROJECT. PERMANENT TRAFFIC CONTROLS MAY BE TEMPORARILY RELOCATED OR COVERED, AS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL ASSUME ALL LIABILITY FOR MISSING, DAMAGED, OR IMPROPERLY PLACED SIGNS.

ANY WORK DONE BY THE TRANSPORTATION DIVISION, INCLUDING INSTALLATION, RELOCATION, REMOVAL AND/OR REPLACEMENT OF TEMPORARY TRAFFIC CONTROL DEVICES AS A RESULT OF NEGLIGENCE OF THE CONTRACTOR, SHALL BE AT THE CONTRACTOR'S EXPENSE.

~~LAW ENFORCEMENT OFFICER(S) (LEO) ARE NOT NEEDED UNLESS A HAZARD DEVELOPS. IF A HAZARD DEVELOPS, A LEO SHALL BE ASSIGNED BY THE COLUMBUS SAFETY DIRECTOR OR SERVICE DIRECTOR AT THE CONTRACTORS EXPENSE. THE LEO SHALL CONFORM TO ALL PERMIT CONDITIONS THAT APPLY TO THE CONTRACTOR.~~

WHENEVER YELLOW CENTERLINES OR TURN LANE LINES ARE PAVED OVER, REMOVED, OR OTHERWISE UNSERVICEABLE, THE CONTRACTOR SHALL INSTALL CLASS II TEMPORARY STRIPING (MINIMUM 4' LONG SEGMENTS). TEMPORARY PAINT SHALL BE USED ON ALL MILLED SURFACES. IF APPROVED BY THE ENGINEER, DRUMS WITH STEADY BURNING TYPE C LIGHT AND "KEEP RIGHT" SIGNS MAY BE SUBSTITUTED FOR CENTERLINE MARKINGS.

CLASS II TEMPORARY STRIPING (MINIMUM 4' LONG SEGMENTS) SHALL BE AS PER ITEM 614 - WORK ZONE PAVEMENT MARKING AND SHALL BE PLACED WITHIN ONE (1) FOOT LONGITUDINAL TOLERANCE OF THE PERMANENT STRIPES. ALL TEMPORARY STRIPING, NOT TO WITHIN ONE (1) FOOT TOLERANCE, SHALL BE REMOVED AND REPLACED IN THE PROPER LOCATION BY THE CONTRACTOR. CLASS II STRIPING SHALL BE OF THE APPROPRIATE COLOR AND SPACED A MAXIMUM OF FORTY (40) FEET CENTER TO CENTER.

TEMPORARY TRAFFIC CONTROL ALONG INTERSTATE HIGHWAYS SHALL COMPLY WITH THE OHIO DEPARTMENT OF TRANSPORTATION'S STANDARD CONSTRUCTION DRAWINGS, PART 600 OF THE TRAFFIC ENGINEERING MANUAL, AND THE DISTRICT 6 LANE CLOSURE MAP.

**COORDINATION WITH OTHER PROJECTS**

THE CONTRACTOR IS ADVISED OF THE POSSIBILITY OF OTHER CONSTRUCTION CONTRACTS IN THE SAME AREAS. THE OTHER PROJECTS MAY BE GOING ON CONCURRENTLY WITH THE PROJECT AND CLOSE COOPERATION BETWEEN CONTRACTORS IS NECESSARY TO ENSURE THAT THE TRAFFIC MAINTENANCE OPERATIONS FOR EACH AREA ARE, AT ALL TIMES, COMPATIBLE. THE ENGINEERS SHALL WORK TOGETHER TO RESOLVE ANY CONFLICTS.

THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 105.08 OF THE CMS. ODOT PROJECT FRA-270-37.04, PID NUMBER 80721 WILL BE UNDER CONSTRUCTION WITHIN THE CONSTRUCTION LIMITS OF THIS PROJECT. THE CONTRACTOR IS DIRECTED TO COORDINATE ALL WORK AND TRAFFIC RESTRICTIONS WITH THIS PROJECT.

**INTERBELT NOTE**

NO WORK SHALL BE PERMITTED BETWEEN THE HOURS OF 5:00 A.M. AND 9:00 P.M., WEEKDAYS\*, ON ANY INNERBELT, FREEWAY OR CONNECTOR ROADWAY WITHIN THE INNERBELT RIGHT-OF-WAY. THE INNERBELT IS DEFINED BY I-670 ON THE NORTH, I-71 ON THE EAST, I-70 ON THE SOUTH, AND SR-315 ON THE WEST.

WHEN MORE THAN ONE THROUGH LANE IS CLOSED AND/OR IF THE INTERSTATE IS REDUCED TO ONE LANE BETWEEN 9:00 P.M. AND 5:00 A.M., WEEKDAYS\* OR ON THE WEEKENDS\*\*\* FROM 10:00 P.M. FRIDAY NIGHT UNTIL 5:00 A.M. MONDAY, ALL ENTRANCE RAMPS SHALL BE CLOSED USING THE STANDARDS SET FORTH IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND THE TYPICAL DETAIL FOR RAMP CLOSURES INCLUDED.

RAMP CLOSURES MAY ALSO BE NECESSARY WHEN ONLY ONE LANE IS CLOSED IN A HIGHLY CONGESTED AREA. AS DIRECTED BY THE ENGINEER.

NO STAGERING OF EQUIPMENT OR OCCUPYING SHOULDERS SHALL OCCUR PRIOR TO THE PERMITTED HOURS.

\* WEEKDAYS ARE DEFINED AS MONDAY MORNING 5:00 A.M. UNTIL FRIDAY 3:00 P.M.

\*\* AN ADD/DROP LANE BETWEEN INTERCHANGES IS NOT CONSIDERED A THROUGH DRIVING LANE.

\*\*\*WEEKENDS ARE DEFINED AS FRIDAY NIGHT AT 10:00 P.M. UNTIL MONDAY AT 5:00 A.M.

**NOTIFICATION OF TRAFFIC RESTRICTIONS ON FREEWAYS**

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE ODOT-DISTRICT 6 OFFICE OF COMMUNICATIONS VIA EMAIL OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES ON THE FREEWAY. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN TIME TO MEET THE REQUIREMENTS SET FORTH IN THE TABLE BELOW AND PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE BUT IS NOT LIMITED TO ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHOULD LIST THE SPECIFIC LOCATIONS, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, DETOUR ROUTES IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE DISTRICT 6 OFFICE OF COMMUNICATIONS.

ITEM	DURATION OF CLOSURE	NOTIFICATION DUE TO DISTRICT 6 COMMUNICATION OFFICE
RAMP AND ROAD CLOSURE	> = 2 WEEKS	14 BUSINESS DAYS PRIOR TO CLOSURE
	> 12 HOURS AND < 2 WEEKS	7 BUSINESS DAYS PRIOR TO CLOSURE
	< 12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES/RESTRICTIONS	> = 2 WEEKS	7 BUSINESS DAYS PRIOR TO CLOSURE
	< 2 WEEKS	2 BUSINESS DAYS PRIOR TO CLOSURE

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE DISTRICT 6 OFFICE OF COMMUNICATION USING THE NOTIFICATION TIME FRAME TABLE.

SEND ALL NOTIFICATIONS TO D06.PIO@DOT.STATE.OH.US

PID NUMBER  
82540

GENERAL NOTES

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

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SHEET NUMBER						REFERENCE	ITEM	GRAND TOTAL	UNIT	DESCRIPTION	
16	17	18	19	GENERAL NOTES	CONTRACT DOCUMENTS						
-	-	-	-	1	-	COC CMS	201	1	LUMP	CLEARING AND GRUBBING	
177,645	△/4	-	△/3	111,647	△/4	SP-21	202	289,292	△/4	LF	EXISTING CONDUIT CLEANED, AS PER PLAN
-	-	-	-	1	-	SHEET 13 OF 147	614	1	LUMP	MAINTAINING TRAFFIC, AS PER PLAN	
-	-	-	-	300	-	SHEET 13 OF 147	614	300	HR	LAW ENFORCEMENT OFFICER WITH PATROL CAR, AS PER PLAN	
-	-	-	-	300	-	SP-21	622	300	LF	CONCRETE BARRIER, AS PER PLAN	
-	-	-	-	1	-	COC CMS	624	1	LUMP	MOBILIZATION	
-	-	-	-	500	-	SP-21	625	500	LF	CONDUIT, MISC.: CONDUIT REPAIR	
18	△/1	-	14	△/4	-	SP-21	625	32	△/3	EA	PULL BOX, 713.08, 18", AS PER PLAN
187	△/4	-	85	△/3	-	SHEET 10 OF 147 & SP-21	625	272	△/4	EA	PULL BOX, 713.08, 32", AS PER PLAN
10	△/3	-	3	△/3	-	SHEET 10 OF 147 & SP-21	625	13	△/3	EA	PULL BOX, 713.08, 48" AS PER PLAN
6	△/3	-	1	△/3	-	SP-21	625	7	△/3	EA	PULL BOX REMOVED, AS PER PLAN
1,886	△/3	-	745	△/4	-	SP-21	625	2,631	△/4	LF	CONDUIT, 725.05, 2", AS PER PLAN
87,283	△/4	-	31,429	△/4	-	SP-21	625	118,712	△/4	LF	CONDUIT, 725.05, 4", AS PER PLAN
2,443	△/3	-	1,289	△/3	-	SP-21	625	3,732	△/3	LF	CONDUIT, JACKED OR DRILLED, 725.05, 4", AS PER PLAN
89,128	△/4	-	32,174	△/4	-	SP-21	625	121,302	△/4	LF	TRENCH 24" DEEP, AS PER PLAN
246	-	0	-	-	-	SP-21	625	246	LF	TRENCH IN PAVED AREA, TYPE B, AS PER PLAN	
1,946	-	3,543	-	-	-	SP-21	625	5,489	LF	CONDUIT MISC.: 4" CONDUIT, FIBERGLASS REINFORCED, ATTACHED TO STRUCTURE	
13	△/1	-	6	-	-	SP-21	625	19	EA	GROUND ROD, AS PER PLAN	
287,211	△/4	-	155,862	△/3	-	SP-21	632	443,073	△/4	LF	INTERCONNECT CABLE MISC.: 288 STRAND FIBER OPTIC CABLE
3,287	△/3	-	1,325	△/3	-	SP-21	632	4,612	△/3	LF	INTERCONNECT CABLE MISC.: 12 STRAND FIBER OPTIC CABLE
1,815	△/3	-	660	-	-	SP-21	632	2,475	△/3	LF	INTERCONNECT CABLE MISC.: 24 STRAND FIBER OPTIC CABLE
-	21	△/3	-	9	△/3	SP-21	632	30	△/3	EA	SIGNALIZATION MISC.: SPLICE ENCLOSURE
-	3,218	△/4	-	3,278	△/4	SP-21	632	6,496	△/4	LF	POWER CABLE, NO. 1/0 AWG, AS PER PLAN
-	0	△/3	-	0	△/4	SP-21	632	0	△/3	LF	POWER CABLE, NO. 2 AWG, AS PER PLAN
-	492	△/3	-	0	-	SP-21	632	492	△/3	LF	POWER CABLE, NO. 6 AWG, AS PER PLAN
-	7,100	△/3	-	2,827	△/4	SP-21	632	9,927	△/4	LF	POWER CABLE, NO. 8 AWG, AS PER PLAN
-	1	-	1	△/4	-	SHEET 5 OF 147 & SP-21	632	2	△/4	EA	POWER SERVICE, TYPE A, AS PER PLAN
-	1	-	1	△/4	-	SHEET 5 OF 147 & SP-21	632	2	△/4	EA	POWER SERVICE, TYPE B, AS PER PLAN
-	7	-	2	-	-	SHEET 6 OF 147 & SP-21	632	9	EA	POWER SERVICE, TYPE C, AS PER PLAN	
-	4	△/3	-	1	-	SHEET 6 OF 147 & SP-21	632	5	△/3	EA	POWER SERVICE, TYPE D, AS PER PLAN
-	0	-	1	-	-	SHEET 6A OF 147 & SP-21	632	1	EA	POWER SERVICE, TYPE E, AS PER PLAN	
-	0	-	1	-	-	SHEET 6A OF 147 & SP-21	632	1	EA	POWER SERVICE, TYPE F, AS PER PLAN	
-	0	-	0	△/4	-	SHEET 6A OF 147 & SP-21	632	0	△/4	EA	POWER SERVICE, TYPE G, AS PER PLAN
-	8	△/4	-	4	△/4	SHEET 13 OF 147	632	12	△/4	EA	288 COUNT PRE-TERMINATED PATCH PANEL, APP
-	4	△/4	-	2	△/4	SHEET 13 OF 147	632	6	△/4	EA	144 COUNT PRE-TERMINATED PATCH PANEL, APP
-	3	△/3	-	2	△/4	SHEET 13 OF 147	632	5	△/3	EA	24 COUNT PRE-TERMINATED PATCH PANEL ASSEMBLY, APP
-	13	-	6	-	-	SP-21	633	19	EA	CONTROLLER, ITEM, MISC.: COMMUNICATIONS CABINET #1	
-	13	-	6	-	-	SP-21	633	19	EA	CONTROLLER, ITEM, MISC.: COMMUNICATIONS CABINET #2	
-	-	-	-	10,000	-	COC CMS	659	10,000	GA	WATERING	
-	-	-	-	-	1	SP-10	SPEC	1	LUMP	CRITICAL PATH METHOD PROGRESS SCHEDULE FOR LONG DURATION PROJECTS △/1	
SP INDICATES SPECIAL PROVISIONS											

PID NUMBER  
82540

GENERAL SUMMARY

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

**ESTIMATED QUANTITIES**

	202	625	625	625	625	625	625	625	625	625	625	625	632	632	632
	EXISTING CONDUIT CLEANED, APP	PULL BOX, 713.08, 18", APP	PULL BOX, 713.08, 32", APP	PULL BOX, 713.08, 48" APP	PULL BOX REMOVED, APP	CONDUIT, 725.05, 2", APP	CONDUIT, 725.05, 4", APP	CONDUIT, JACKED OR DRILLED, 725.05, APP	TRENCH, 24" DEEP, APP	TRENCH IN PAVED AREA, TYPE B, APP	CONDUIT MISC.: 4" CONDUIT FIBERGLASS REINFORCED ATTACHED TO STRUCTURE	GROUND ROD, APP	288 STRAND FIBER OPTIC CABLE	12 STRAND FIBER OPTIC CABLE	24 STRAND FIBER OPTIC CABLE
SHEET NO.	LF	EA	EA	EA	EA	LF	LF	LF	LF	LF	LF	EA	LF	LF	LF
23	6,142		1				10		10				6,653		
24	5,800												5,800		
25	7,425	2	2		1	117	30		147			1	9,097		160
26	4,361		1				10		10				4,531		
27	4,041		1				30		30				4,231		
28	6,881	1		1		70	65		135			1	8,926	175	180
29	5,572		1				10		10				5,834		
30	5,504		1				10		10				5,798		
31	6,000												6,065		
32	5,565		1				10		10				5,920		
33	5,300												5,480		
34	5,582		1				10		10				6,019		
35	7,180	1	1			37	20		57			1	7,480	160	160
36	169			1				275					604		
37	1,551	1	11	3		70	2,994	289	3,054		886	1	7,356	840	
38	4,885		6				1,082	111	1,082				6,571		
39	5,197		2				500		500				5,897		
40	3,416	1	6			39	2,324	193	2,363			1	6,260	170	160
41	5,572		1				32		32				5,858		
42	4,918		1				756		756				5,694		
43	3,184		6				2,451		2,451				6,119		
44			15				5,027	122	5,327		204		5,985		
45			5				2,400		2,400		206		2,450		
46			12				4,559	87	4,559				4,926		
47	787	1		1		33	21		54			1	1,054	172	160
48	34		7	1			3,721		3,721				4,025		
49	340	1	11			99	5,090	60	5,189			1	5,910	150	180
50	347						5,053		5,053				5,520		
51			1				5,500	126	5,500				6,002		
52							5,300		5,300				5,390		
53	240		5				5,166		5,166				5,546		
54	57	1	11			80	5,363		5,443			1	5,750	150	180
55	1,502	1	8			62	4,020		4,082				5,612		
56	5,580	1	3		1	170	388	49	558			1	6,814	225	160
57	2,430		7		1		3,236		3,236				5,979		
58	3,150	1	7			10	2,197	432	1,961		246	1	5,640	150	295
59	5,596		1		1								5,852		
60	5,396		1		1								5,992		
61	9,649	1	1	2	1	140	80		135			1	9,918	495	
62	5,612		1				10		10				6,164		
63	5,490		1				10		10				5,770		
64	5,814	1	5	1		242	1,594	242	1,836			1	8,307	450	
65	5,300												5,300		
66	3,903		5				1,596		1,596				6,251		
67	3,442		5				2,340		2,340		217		6,092		
68			13				5,500	272	5,500				6,207		
69			10				5,279		5,279		221		5,630		
70	2,207	4	10			717	3,205	185	3,922		212	1	6,124	150	180
71	5,479												5,509		
72	5,086						314		314				5,530		
SUBTOTALS CARRIED TO SHEET 15 - GENERAL SUMMARY															
	177,645	18	187	10	6	1,886	87,283	2,443	89,128	246	1,946	13	287,211	3,287	1,815

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PID NUMBER  
82540

SUBSUMMARY

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

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	632	632	632	632	632	632	632	632	632	632	632	632	632	632	632	633	633
	SPLICE ENCLOSURE	POWER CABLE, NO. 1/0 AWG, APP	POWER CABLE, NO. 2 AWG, APP	POWER CABLE, NO. 6 AWG, APP	POWER CABLE, NO. 8 AWG, APP	POWER SERVICE, TYPE A, APP	POWER SERVICE, TYPE B, APP	POWER SERVICE, TYPE C, APP	POWER SERVICE, TYPE D, APP	POWER SERVICE, TYPE E, APP	POWER SERVICE, TYPE F, APP	POWER SERVICE, TYPE G, APP	288 COUNT PRE-TERMINATED PATCH PANEL, APP	144 COUNT PRE-TERMINATED PATCH PANEL, APP	24 COUNT PRE-TERMINATED PATCH PANEL ASSEMBLY, APP	COMMUNICATIONS CABINET #1	COMMUNICATIONS CABINET #2
SHEET NO.	EA	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA
23																	
24																	
25	1				588	1										1	1
26																	
27																	
28	1				303			1								1	1
29																	
30																	
31																	
32																	
33																	
34																	
35	1				268			1								1	1
36	1				512			1									
37	4				380			1					4	1		1	1
38																	
39																	
40	1				207			1								1	1
41																	
42																	
43																	
44																	
45																	
46																	
47	1				252			1								1	1
48	1															1	1
49	1			387				1								1	1
50																	
51																	
52																	
53																	
54	1				330			1								1	1
55	1			453				1								1	1
56	1			105				1								1	1
57																	
58	1				822			1								1	1
59																	
60																	
61	3	3,218			608			1					2	2	1	1	1
62																	
63																	
64	3				816			1					2	2	1	1	1
65																	
66																	
67					219												
68																	
69																	
70	1				2,526		1									1	1
71																	
72																	
SUBTOTALS CARRIED TO SHEET 15 - GENERAL SUMMARY																	
	21	3,218	0	492	7,100	1	1	7	4	0	0	0	8	4	3	13	13

PID NUMBER  
82540

SUBSUMMARY

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

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ESTIMATED QUANTITIES															
	202	625	625	625	625	625	625	625	625	625	625	625	632	632	632
	EXISTING CONDUIT CLEANED, APP	PULL BOX, 713.08, 18", APP	PULL BOX, 713.08, 32", APP	PULL BOX, 713.08, 48" APP	PULL BOX REMOVED, APP	CONDUIT, 725.05, 2", APP	CONDUIT, 725.05, 4", APP	CONDUIT, JACKED OR DRILLED, 725.05, APP	TRENCH, 24" DEEP, APP	TRENCH IN PAVED AREA, TYPE B, APP	CONDUIT MISC.: 4" CONDUIT FIBERGLASS REINFORCED ATTACHED TO STRUCTURE	GROUND ROD, APP	288 STRAND FIBER OPTIC CABLE	12 STRAND FIBER OPTIC CABLE	24 STRAND FIBER OPTIC CABLE
SHEET NO.	LF	EA	EA	EA	EA	LF	LF	LF	LF	LF	LF	EA	LF	LF	LF
73	260	1	14	1		132	6,030	185	6,162			1	7,285	360	
74	224		9				4,943		4,943				5,660		
75	1,441		11				4,089	289	4,089				6,334		
76	3,105		4				2,395		2,395				5,620		
77	3,543	1	4			73	1,987	130	2,060			1	6,020	175	180
78	6,026		1				10		10				6,382		
79	5,800												5,800		
80	5,039	3	2	1		92	119	178	211			1	5,831	450	180
81	1,254		15				4,751	282	4,751				7,006		
82	3,842												6,458		
83	121		16				5,350	86	5,350				6,252		
84	3,748	2	3			67	1,034		1,101			1	5,065	340	160
85	4,165		1				10		10				4,515		
86	5,400												5,440		
87	6,115	2	2			149	90	92	239			1	6,800		160
88	5,900					8			8				5,990		
89	5,793		1				10		10				6,106		
90	5,139	4	1			164	556	47	720				6,122		
91	4,858												5,133		
92	4,800												4,800		
93	4,990												5,230		
94	2,218			1			15		15				2,621		
95															
96	6,007												6,262		
97	5,639	1	1			60	30		90			1	6,138		160
98	5,327												5,624		
99	5,395		2		1		10		10				5,680		
100	5,498												5,688		
SUBTOTALS CARRIED TO SHEET 15 - GENERAL SUMMARY															
	111,647	14	85	3	1	745	31,429	1,289	32,174	0	3,543	6	155,862	1,325	660

PID NUMBER  
82540

SUBSUMMARY

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

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	632	632	632	632	632	632	632	632	632	632	632	632	632	632	632	633	633
	SPLICE ENCLOSURE, APP	POWER CABLE, NO. 1/0 AWG, APP	POWER CABLE, NO. 2 AWG, APP	POWER CABLE, NO. 6 AWG, APP	POWER CABLE, NO. 8 AWG, APP	POWER SERVICE, TYPE A, APP	POWER SERVICE, TYPE B, APP	POWER SERVICE, TYPE C, APP	POWER SERVICE, TYPE D, APP	POWER SERVICE, TYPE E, APP	POWER SERVICE, TYPE F, APP	POWER SERVICE, TYPE G, APP	288 COUNT PRE-TERMINATED PATCH PANEL, APP	144 COUNT PRE-TERMINATED PATCH PANEL, APP	24 COUNT PRE-TERMINATED PATCH PANEL ASSEMBLY, APP	COMMUNICATIONS CABINET #1	COMMUNICATIONS CABINET #2
SHEET NO.	EA	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA
73	3				486			1					2	2	1	1	1
74																	
75																	
76																	
77	1				309				1							1	1
78																	
79																	
80	2				900								2	2	1	1	1
81											1						
82																	
83																	
84	1				291					1						1	1
85																	
86																	
87	1	2,267			993							1				1	1
88		129				1											
89																	
90		882	1,684		571	1											
91																	
92																	
93																	
94																	
95																	
96																	
97	1				270			1								1	1
98																	
99																	
100																	
SUBTOTALS CARRIED TO SHEET 15 - GENERAL SUMMARY																	
	9	3,278	0	0	2,827	1	1	2	1	1	1	0	4	2	2	6	6

PID NUMBER  
82540

SUBSUMMARY

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

J:\Jobs\44086\TECHPROD\Sheets\Sewer & Water Listing Table - Sheet 20.dwg ~ last saved by: CCI, slowry 01/05/2012 02:52pm ~ printed 08/23/2012 01:52pm

PLAN SHEET #	# ON PLAN SHEET	ROUTE	STATION	EXISTING UTILITY TYPE/SIZE	INVERT ELEVATION	TOP OF UTILITY ELEVATION	BOTTOM OF PROPOSED ELEVATION	SEPARATION (FEET)
36	1	I-71	903+01	36" Storm Sewer	*	*	*	*
36	2	I-71	903+05	15" Storm Sewer	*	*	*	*
36	3	I-71	904+03	30" Water	*	*	*	*
37	1	I-71	961+52	15" Storm Sewer	809.1	810.4	812.5	2.1
37	2	I-71	971-76	12" Sanitary Sewer (aban)	*	*	*	*
37	3	I-71	976+36	15" Storm Sewer	802.4	803.6	828	24.4
37	4	I-71	986+08	8" Sanitary Sewer (aban)	*	*	*	*
37	5	I-71	989+06	8" Sanitary Sewer (aban)	*	*	*	*
37	6	I-71	992+07	12" Sanitary Sewer (aban)	*	*	*	*
37	7	I-71	994+06	15" Storm Sewer	*	*	*	*
37	8	I-71	995+07	8" Sanitary Sewer (aban)	794.3	795	802	7
37	9	I-71	997+03	15" Storm Sewer	807.8	809	809.5	0.5
37	10	I-71	998+09	8" Sanitary Sewer (aban)	794.3	795	802	7
37	11	I-71	999+02	15" Storm Sewer	801.8	803	804.5	1.5
37	12	I-71	1002+01	8" Sanitary Sewer (aban)	794.3	795	802	7
37	13	I-71	1002+08	12" Sanitary Sewer (aban)	*	*	*	*
37	14	I-71	1003+07	12" Storm Sewer	*	*	*	*
37	15	I-71	1004+07	15" Storm Sewer (aban)	798.75	800	808	8
37	16	I-71	1006+07	12" Sanitary Sewer (aban)	*	*	*	*
37	17	I-71	1007+03	30" Water	781.5	784	786	2
37	18	I-71	1007+05	16" Water	782.7	784	786	2
37	19	I-71	1007+07	15" Storm Sewer	784.8	786	788.8	2.8
37	20	I-71	1010+03	12" Sanitary Sewer (aban)	798	799	808	9
38	1	I-71	1029+04	15" Storm Sewer	806.8	808	808	0
38	2	I-71	1029+05	15" Storm Sewer	806.8	808	808	0
38	3	I-71	1032+02	12" Storm Sewer (aban)	*	*	*	*
38	4	I-71	1032+04	30" Sanitary Sewer	801.5	804	811.5	7.5
38	5	I-71	1032+04	30" Storm Sewer	*	*	*	*
38	6	I-71	1032+06	12" Storm Sewer (aban)	*	*	*	*
38	7	I-71	1034+01	Sewer	*	*	*	*
38	8	I-71	1034+06	18" Storm Sewer	803.5	805	814	9
38	9	I-71	1035+08	15" Storm Sewer	805.1	806.3	807.8	1.5
38	10	I-71	1035+09	15" Storm Sewer	804.8	806	808.5	2.5
38	11	I-71	1040+09	18" Storm Sewer	814	815.5	818	2.5

PLAN SHEET #	# ON PLAN SHEET	ROUTE	STATION	EXISTING UTILITY TYPE/SIZE	INVERT ELEVATION	TOP OF UTILITY ELEVATION	BOTTOM OF PROPOSED ELEVATION	SEPARATION (FEET)
38	12	I-71	1040+09	15" Storm Sewer	814.8	816	819.5	3.5
38	13	I-71	1041+00	15" Storm Sewer	817.3	818.5	819	0.5
39	1	I-71	1124+00	24" Water	843.5	845.5	847.9	2.4
39	2	I-71	1127+00	21" Storm Sewer	830.3	832	834	2
40	1	I-71	1130+06	18" Storm Sewer	836.5	838	841	3
40	2	I-71	1131+05	30" Storm Sewer	820.5	823	847	24
40	3	I-71	1133+08	12" Storm Sewer	*	*	847	*
40	4	I-71	1138+03	12" Storm Sewer	844	845	851	6
40	5	I-71	1138+07	60" Storm Sewer	811	816	849	33
40	6	I-71	1140+07	15" Sanitary Sewer	830.8	832	848	16
40	7	I-71	1141+05	84" Storm Sewer	808	815	852	37
40	8	I-71	1151+00	96" Storm Sewer	816	824	839	15
40	9	I-71	1153+09	15" Storm Sewer	839.8	841	841	0
40	10	I-71	1156+05	12" Water	830	831	832	1
40	11	I-71	1156+06	12" Storm Sewer	829	830	835	5
40	12	I-71	1156+02	12" Water	*	*	*	*
40	13	I-71	1156+04	30" Storm Sewer	*	*	*	*
43	1	I-71	1332+07	Sewer	*	892	896	4
43	2	I-71	1334+02	15" Storm Sewer	890.8	892	894	2
43	3	I-71	1336+04	15" Storm Sewer	890.8	892	893	1
43	4	I-71	1338+02	15" Storm Sewer	888.8	890	894	4
43	5	I-71	1338+06	27" Sanitary Sewer	875.8	878	888	10
43	6	I-71	1339+00	27" Storm Sewer	888.8	891	896	5
43	7	I-71	1339+02	48" & 66" Storm Sewer	887.5	893	895	2
43	8	I-71	1344+02	8" Water	888.8	889.5	896	6.5
44	1	I-71	1354+09	48" Storm Sewer	898	902	904	2
44	2	I-71	1361+01	12" Storm Sewer	900	901	906	5
44	3	I-71	1362+09	15" Storm Sewer	901.8	903	907	4
44	4	I-71	1364+08	42" Storm Sewer	897.5	901	906	5
44	5	I-71	1370+09	12" Storm Sewer	903	904	909	5
44	6	I-71	1380+00	15" Storm Sewer	905.8	907	912	5
44	7	I-71	1384+02	15" Storm Sewer	908.8	910	911	1
44	8	I-71	1395+01	42" Storm Sewer	908.5	912	927	15
45	1	I-71	1407+03	15" Storm Sewer	918.8	920	921	1
45	2	I-71	1412+09	15" Storm Sewer	911.8	913	916	3
45	3	I-71	1415+00	15" Storm Sewer	912.8	914	915	1

\* WHERE ELEVATION INFORMATION FOR EXISTING UTILITIES IS UNAVAILABLE, CONTRACTOR WILL PERFORM FIELD CHECK TO DETERMINE ELEVATION.

WHEN CROSSING EXISTING UTILITIES THE CONTRACTOR SHALL MAINTAIN A MINIMUM CLEARANCE OF ONE FOOT BETWEEN THE PROPOSED CONDUIT AND EXISTING UTILITY. WHEN THE EXISTING UTILITY IS TOO CLOSE TO THE SURFACE TO MAINTAIN THE MINIMUM CLEARANCE, THE CONTRACTOR SHALL ROUTE THE PROPOSED CONDUIT UNDER THE EXISTING UTILITY IN ORDER TO MAINTAIN THE REQUIRED CLEARANCE.

CONSTRUCTION AS-BUILT  
2643DR.E

PID NUMBER  
82540

UTILITY CROSSING INFORMATION

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A



J:\Jobs\44086\TECHPROD\Sheets\Sewer & Water Listing Table - Sheet 22.dwg ~ last saved by: CCI, slowry 01/05/2012 02:49pm ~ printed 06/23/2012 01:52pm

PLAN SHEET #	# ON PLAN SHEET	ROUTE	STATION	EXISTING UTILITY TYPE/SIZE	INVERT ELEVATION	TOP OF UTILITY ELEVATION	BOTTOM OF PROPOSED ELEVATION	SEPARATION (FEET)
46	1	I-71	1444+09	12" Storm Sewer	913	914	918.5	4.5
46	2	I-71	1464+06	36" Water	901	904	913	9
46	3	I-71	1472+04	30" Sanitary Sewer	887.5	890	908.45	18.45
46	4	I-71	1473+01	101" Storm Sewer	899.6	908	911	3
46	5	I-71	1473+02	106" Storm Sewer	899.2	908	909	1
47	1	I-70	367-03	15" Storm Sewer	*	*	*	*
47		I-270	461+07	15" Storm Sewer	871.8	873	878	5
47		I-270	461+09	84" Storm Sewer	870	877	877	0
47		I-270	462+06	15" Storm Sewer	872.8	874	878	4
47		I-270	476+09	60" Storm Sewer	873	878	878	0
47		I-270	477+02	15" Storm Sewer	876.8	878	879	1
48		I-270	485+04	15" Storm Sewer	872.8	874	876	2
48		I-270	486+04	36" Sanitary Sewer	*	*	*	*
48		I-270	486+06	96" Storm Sewer	867	875	875	0
48		I-270	492+01	16" Storm Sewer	*	*	*	*
48		I-270	492+02	16" Water	870.7	872	874	2
48		I-270	499+04	15" Storm Sewer	868.8	870	872	2
48	1	I-270	516+07	108" Storm Sewer	863	872	876	4
48	2	I-270	519+09	18" Sanitary Sewer	851.5	853	876	23
48	3	I-270	529+05	12" Storm Sewer	*	*	*	*
49	1	I-270	542+04	72" Storm Sewer	859	865	873	8
49	2	I-270	555+04	12" Water	864	865	868	3
49	3	I-270	570+09	36" Sanitary Sewer	852	855	881	26
49	4	I-270	572+09	168" Storm Sewer	858	872	896	24
50	1	I-270	595+00	166" Storm Sewer	862.2	876	890	14
50	2	I-270	606+02	30" Sanitary Sewer	862.5	865	876	11
50	3	I-270	607+03	120" Storm Sewer	865	875	876	1
50	4	I-270	634+05	72" Storm Sewer	870	876	896	20
51	1	I-270	681+00	27" Sanitary Sewer	852.8	855	873	18
52	1	I-270	711+06	12" Water	874.5	875.5	882	6.5
52	2	I-270	732+02	16" Sanitary Sewer	860.7	862	877	15
53	1	I-270	790+02	30" Sanitary Sewer	861.5	864	887	23
53	2	I-270	806+04	36" Sanitary Sewer	874	877	882.5	5.5
54	1	I-270	828+06	20" Water	*	*	*	*

PLAN SHEET #	# ON PLAN SHEET	ROUTE	STATION	EXISTING UTILITY TYPE/SIZE	INVERT ELEVATION	TOP OF UTILITY ELEVATION	BOTTOM OF PROPOSED ELEVATION	SEPARATION (FEET)
54	2	I-270	834+07	100" x 64" Storm Sewer	881.9	887.2	891	3.8
54	3	I-270	835+03	18" Sanitary Sewer	874.7	876.2	891	14.8
54	4	I-270	852+05	20" Water	882.8	884.5	889.8	5.3
54	5	I-270	855+00	21" Sanitary Sewer	856	877	891.4	14.4
55	1	I-270	884+07	21" Sanitary Sewer	885.5	887.2	894.5	7.3
55	2	I-270	896+02	12" Water	883.5	884.5	889	4.5
64	1	I-270	1363+06	18" Storm Sewer	*	*	*	*
64	2	I-270	1364+02	45" Storm Sewer	*	*	*	*
64	3	I-270	1364+04	12" Storm Sewer	*	*	*	*
69	1	I-270	1626+01	42" Water	*	*	*	*
69	2	I-270	1665+04	36" Storm Sewer	*	*	*	*
69	3	I-270	1676+00	60" Storm Sewer	843	848	854	6
70	1	I-270	1708+09	27" Storm Sewer	847.8	850	855	5
74	1	I-270	1927+06	8" Water	*	*	*	*
75	1	I-270	1974+07	48" Water	783	787	794	7
75	2	I-270	1986+08	18" Sanitary Sewer	779.5	781	794	13
76	1	I-270	2062+04	12" Storm Sewer	791	792	806	14
76	2	I-270	2066+00	12" Sanitary Sewer	788	789	801	12
77	1	I-270	2071+09	84" Storm Sewer	793	800	804	4
77	2	I-270	2077+02	12" Water	803	804	805	1
77	3	I-270	2079+06	15" Storm Sewer	798.8	800	806	6
77	4	I-270	2081+00	15" Storm Sewer	800.8	802	804.8	2.8
77	5	I-270	2081+01	20" Water	800.1	801.75	804.8	3.05
80	1	SR-315	49+05	Storm Sewer	*	*	*	*
80	2	SR-315	70+05	21" Storm Sewer	*	*	*	*
80	3	SR-315	71+01	12" Storm Sewer	*	*	*	*
80	4	SR-315	71+05	8" Sanitary Sewer	*	*	*	*
81	1	SR-315	87+07	12" Storm Sewer	*	*	*	*
81	2	SR-315	89+01	27" Storm Sewer	*	*	*	*
81	3	SR-315	90+08	18" Storm Sewer	*	*	*	*
81	4	SR-315	90+08	18" Storm Sewer	*	*	*	*
81	5	SR-315	91+00	18" Storm Sewer	*	*	*	*
81	6	SR-315	91+01	30" Storm Sewer	*	*	*	*
81	7	SR-315	91+01	36" Storm Sewer	*	*	*	*
81	8	SR-315	91+08	18" Storm Sewer	*	*	*	*

\* WHERE ELEVATION INFORMATION FOR EXISTING UTILITIES IS UNAVAILABLE, CONTRACTOR WILL PERFORM FIELD CHECK TO DETERMINE ELEVATION.

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CONSTRUCTION AS-BUILT  
**2643DR.E**

PID NUMBER  
82540

UTILITY CROSSING INFORMATION

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

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PLAN SHEET #	# ON PLAN SHEET	ROUTE	STATION	EXISTING UTILITY TYPE/SIZE	INVERT ELEVATION	TOP OF UTILITY ELEVATION	BOTTOM OF PROPOSED ELEVATION	SEPARATION (FEET)
81	9	SR-315	91+09	18" Storm Sewer	*	*	*	*
81	10	SR-315	95+05	10" Storm Sewer	*	*	*	*
81	11	SR-315	100+05	15" Storm Sewer	*	*	*	*
81	12	SR-315	101+01	15" Storm Sewer	*	*	*	*
81	13	SR-315	101+02	15" Storm Sewer	*	*	*	*
81	14	SR-315	102+01	18" Sanitary Sewer	704.5	706	710	4
81	15	SR-315	102+02	24" Sanitary Sewer (Aban)	704	706	710	4
81	16	SR-315	103+09	24" Sanitary Sewer (Aban)	704	706	710	4
81	17	SR-315	104+03	27" Sanitary Sewer	702.8	705	709	4
81	18	SR-315	104+04	54" Storm Sewer	700.5	705	709	4
81	19	SR-315	104+05	24" Sanitary Sewer	703	705	709	4
81	20	SR-315	109+01	27" Storm Sewer	*	*	*	*
81	21	SR-315	115+03	54" Storm Sewer	705.5	710	712	2
81	22	SR-315	119+00	15" Storm Sewer	708.8	710	713	3
81	23	SR-315	129+06	72" Storm Sewer	706	712	730	18
81	24	SR-315	130+06	15" Storm Sewer	724.8	726	727	1
81	25	SR-315	132+08	15" Storm Sewer	728.8	730	733	3
81	26	SR-315	134+01	24" Sanitary Sewer	706	708	720.6	12.6
81	27	SR-315	134+08	15" Storm Sewer	731.8	733	735	2
81	28	SR-315	136+01	18" Storm Sewer	*	*	*	*
83	1	SR-315	212+00	72" Storm Sewer	*	*	*	*
83	2	SR-315	212+04	18" Sanitary Sewer	732.5	734	750	16
83	3	SR-315	221+09	OSU Water	*	*	*	*
83	4	SR-315	228+06	54" Storm Sewer	729.5	734	756	22
83	5	SR-315	229+08	33" Storm Sewer	730.3	733	756	23
83	6	SR-315	240+05	18" Storm Sewer	*	*	*	*
83	7	SR-315	246+05	15" Storm Sewer	747.8	749	754.4	5.4
83	8	SR-315	247+01	15" Storm Sewer	740.3	741.5	752	10.5
83	9	SR-315	253+05	15" Storm Sewer	746.8	748	750	2
83	10	SR-315	254+04	15" Storm Sewer	745.8	747	747	0
83	11	SR-315	255+06	15" Storm Sewer	745.8	747	750	3
83	12	SR-315	258+05	15" Storm Sewer	747.3	748.5	751	2.5
83	13	SR-315	261+08	84" Storm Sewer	*	*	*	*
87	1	SR-315	412+06	66" Sanitary Sewer	713	719	722	3
90	1	SR-315	613+00	96" Storm Sewer	746.8	754.8	759.5	4.7

PLAN SHEET #	# ON PLAN SHEET	ROUTE	STATION	EXISTING UTILITY TYPE/SIZE	INVERT ELEVATION	TOP OF UTILITY ELEVATION	BOTTOM OF PROPOSED ELEVATION	SEPARATION (FEET)
90	2	SR-315	615+09	30" Water	747	749.5	757.5	8

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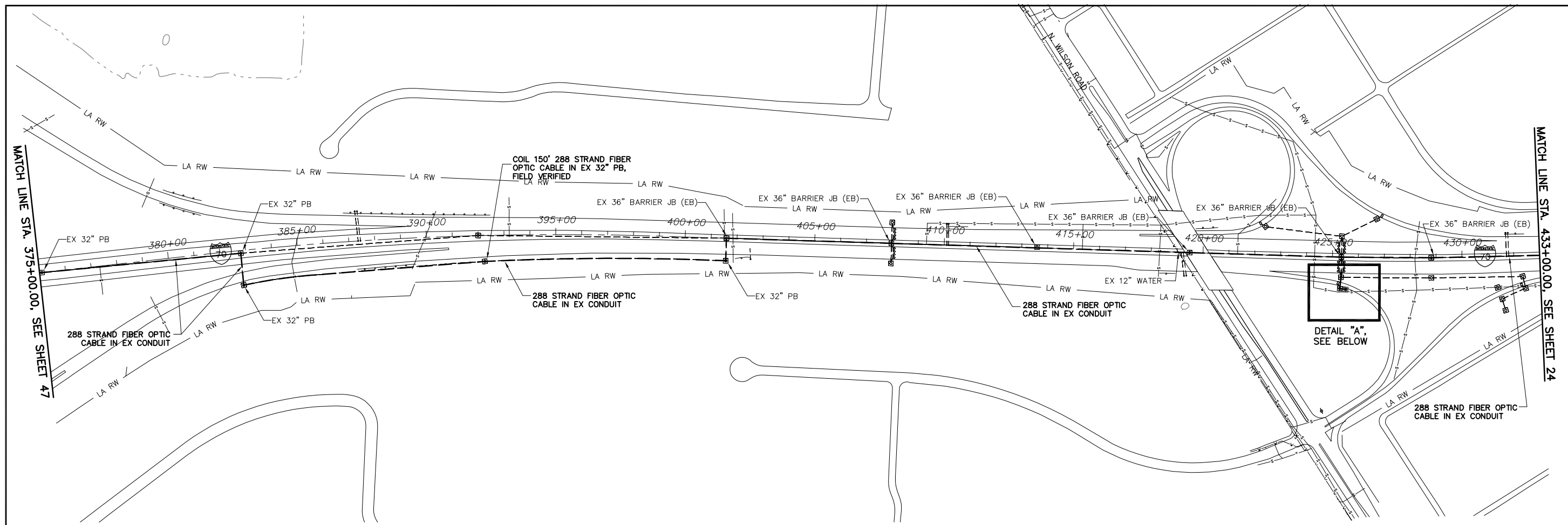


PID NUMBER  
82540

I.R. 70 AT N. WILSON ROAD  
PLAN SHEET STA. 375+00.00 TO 433+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

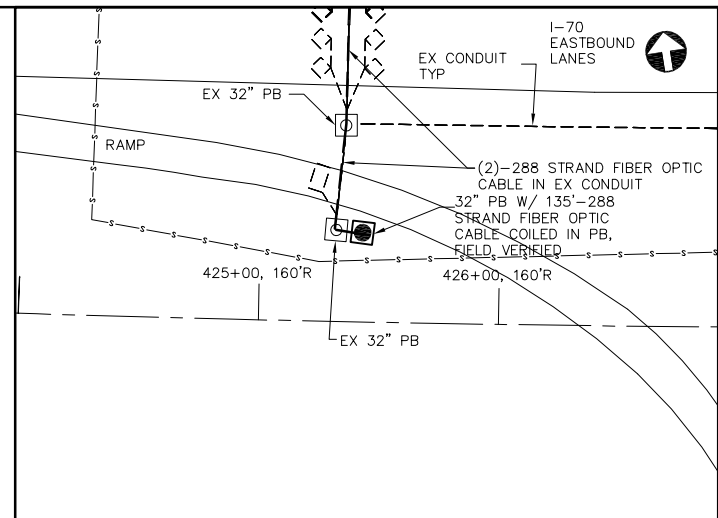
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147



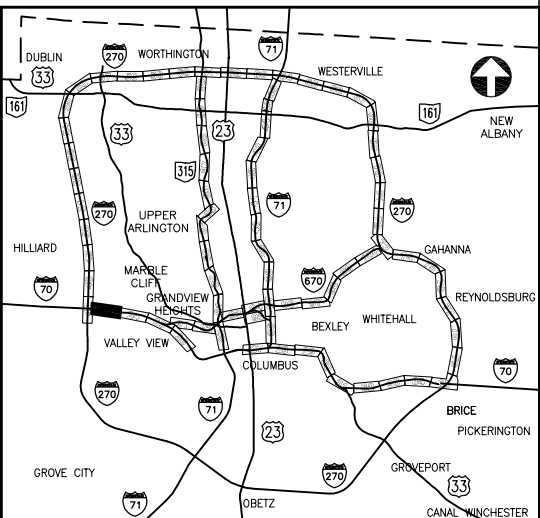
ESTIMATED QUANTITIES

LOCATION		202	625	625	625	632							
STATION	STATION	LF	EA	LF	LF	LF							
375+00, 00'	382+90, 00'	790				790							
382+90, 00'	382+90, 133' R	133				133							
382+90, 133' R	401+50, 87' R	1861				1861							
392+20, 100' R						150							
401+50, 87' R	401+50, 00'	87				87							
401+50, 00'	425+34, 00'	2384				2384							
425+34, 00'	425+34, 121' R	121				242							
425+34, 121' R	425+24, 120' R			10	10	20							
425+24, 121' R			1			150							
425+34, 00'	433+00, 00'	766				766							
PB SLACK						70							
<b>TOTALS</b>		6142	1	10	10	6653							

- CITY OF COLUMBUS  
UTILITY LEGEND
- SEWER
  - WATER
  - POWER
  - LIGHTING



DETAIL "A"  
NOT TO SCALE  
FUTURE NODE  
#070094.1



KEY PLAN  
NOT TO SCALE

UNDERGROUND UTILITIES

TWO WORKING DAYS  
BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

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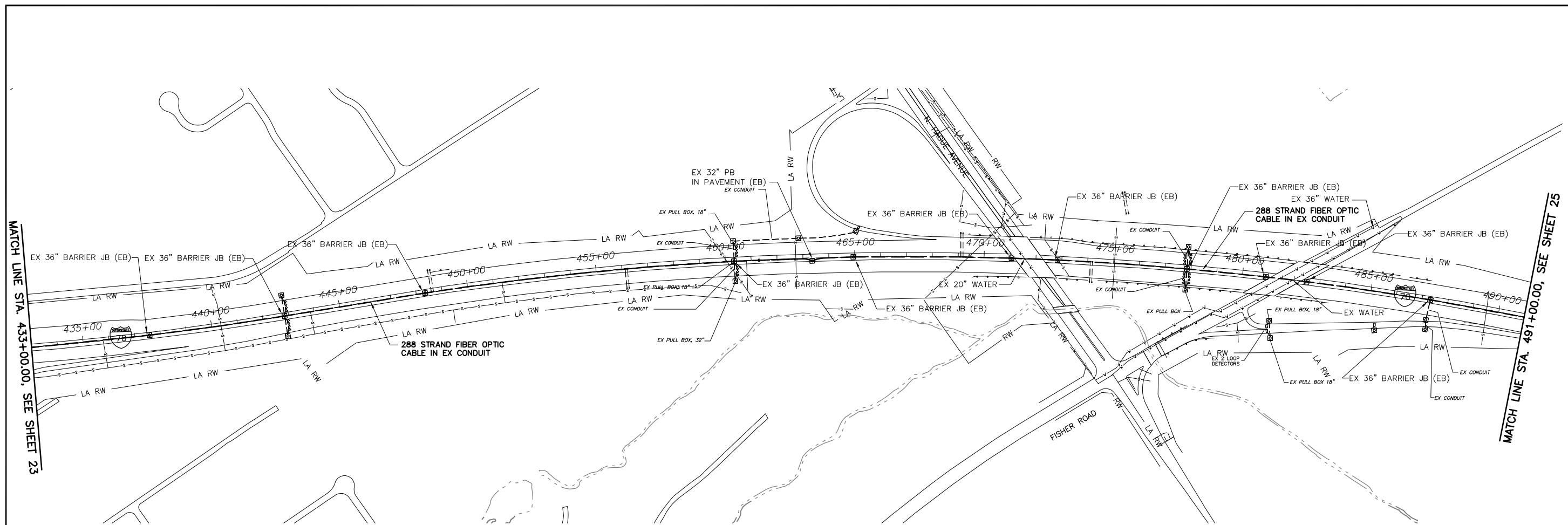


PID NUMBER  
82540

I.R. 70 AT N. HAGUE AVENUE  
PLAN SHEET STA. 433+00.00 TO 491+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

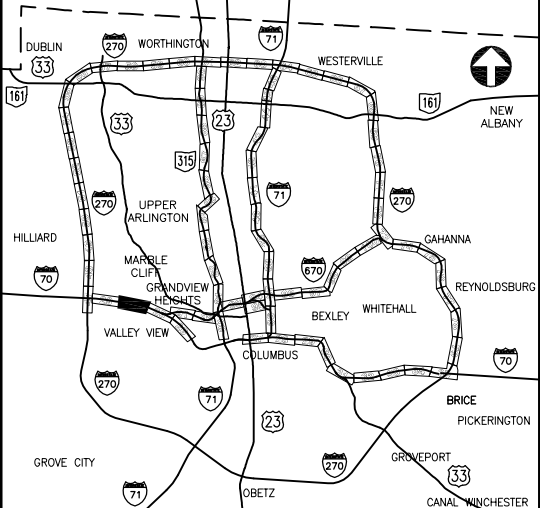
24  
147



ESTIMATED QUANTITIES

LOCATION		202	632							
STATION	STATION	LF	LF							
433+00, 00'	491+00, 00'	5800	5800							
<b>TOTALS</b>		5800	5800							

- CITY OF COLUMBUS  
UTILITY LEGEND
- SEWER
  - WATER
  - POWER
  - LIGHTING



KEY PLAN  
NOT TO SCALE

UNDERGROUND UTILITIES

TWO WORKING DAYS  
BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

CONSTRUCTION AS-BUILT  
2643DR.E

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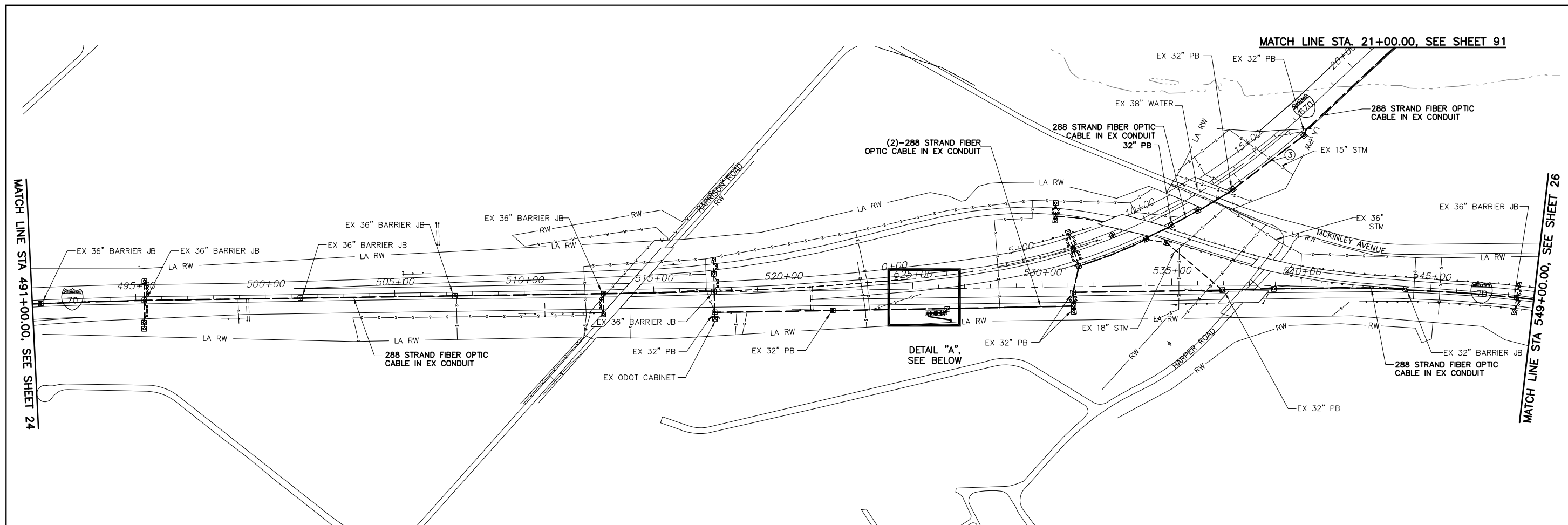


PID NUMBER  
82540

PLAN SHEET STA. 491+00.00 TO 549+00.00  
I.R. 70 AT I.R. 670

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

25  
147



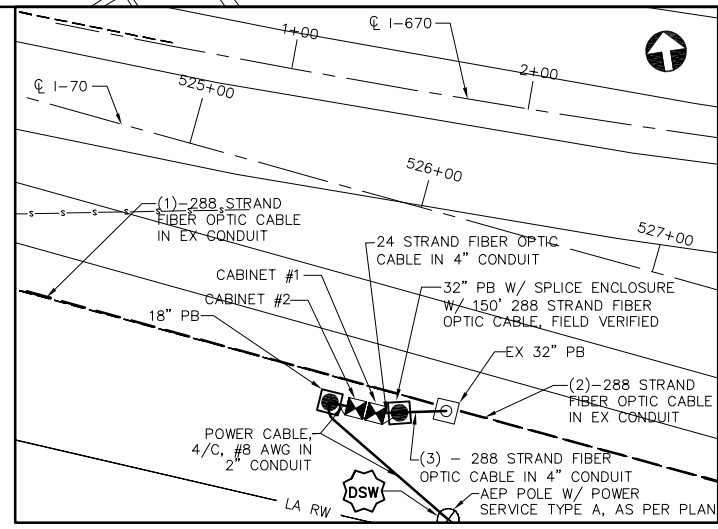
MATCH LINE STA 491+00.00, SEE SHEET 24

MATCH LINE STA. 21+00.00, SEE SHEET 91

MATCH LINE STA 549+00.00, SEE SHEET 26

### ESTIMATED QUANTITIES

LOCATION		202	625	625	625	625	625	625	632	632	632	632	632	633	633				
STATION	STATION	EXISTING CONDUIT CLEANED, AS PER PLAN	PULL BOX, 713.08, 18", AS PER PLAN	PULL BOX, 713.08, 32", AS PER PLAN	PULL BOX, REMOVED AS PER PLAN	CONDUIT, 725.05, 2" AS PER PLAN	CONDUIT, 725.05, 4" AS PER PLAN	TRENCH, 24" DEEP AS PER PLAN	GROUND ROD AS PER PLAN	288 STRAND FIBER OPTIC CABLE	24 STRAND FIBER OPTIC CABLE	SPLICE ENCLOSURE,	POWER CABLE, NO 8 AWG, AS PER PLAN	POWER SERVICE, TYPE A, AS PER PLAN	COMMUNICATIONS CABINET #1	COMMUNICATIONS CABINET #2			
LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA				
I-70																			
491+00, 00'	517+33, 00'	2633								2633									
517+33, 00'	517+33, 81' R	81								81									
517+33, 81' R	526+33, 79' R	900								900									
526+33, 79' R	526+19, 93' R							20	20	60									
526+19, 93' R	526+12, 100' R		1					10	10		1					1			
526+12, 100' R	526+02, 100' R											40			1				
526+02, 100' R	525+08, 124' R		1										388						
525+08, 124' R	524+98, 126' R											40	1						
524+98, 126' R	531+20, 75' R	487								974									
531+20, 75' R	531+18, 22' R	53								106									
531+18, 22' R	536+95, 19' R	577								1154									
536+95, 19' R	549+00, 00'	1205								1205									
I-670																			
536+95, 19' R	10+23, 110' R	282								282									
10+23, 110' R	9+74, 64' R	81	1	1						81									
9+74, 64' R	21+00, 53' R	1126								1126									
PB SLACK										120		40							
SPLICE SLACK										225	150	80							
STRUCT. SLACK										150									
<b>TOTALS</b>		7425	2	2	1	117	30	147	1	9097	160	1	588	1	1	1			



DETAIL "A"  
NOT TO SCALE

NODE # 070096.0  
REFER TO SHEETS 122 & 123 FOR COMMUNICATION DETAILS

#### POWER SERVICE NOTES

DSW 60AMP, 120VAC FUSED DISCONNECT SWITCH

#### UNDERGROUND UTILITIES

TWO WORKING DAYS BEFORE YOU DIG  
CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

#### CITY OF COLUMBUS UTILITY LEGEND

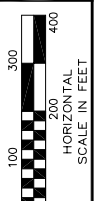
- SEWER
- WATER
- POWER
- LIGHTING

KEY PLAN  
NOT TO SCALE

REFER TO SHEET 101 FOR CONDUIT ATTACHED TO STRUCTURE DETAILS FOR BRIDGE OVER MCKINLEY AVENUE

CONSTRUCTION AS-BUILT  
2643DR.E

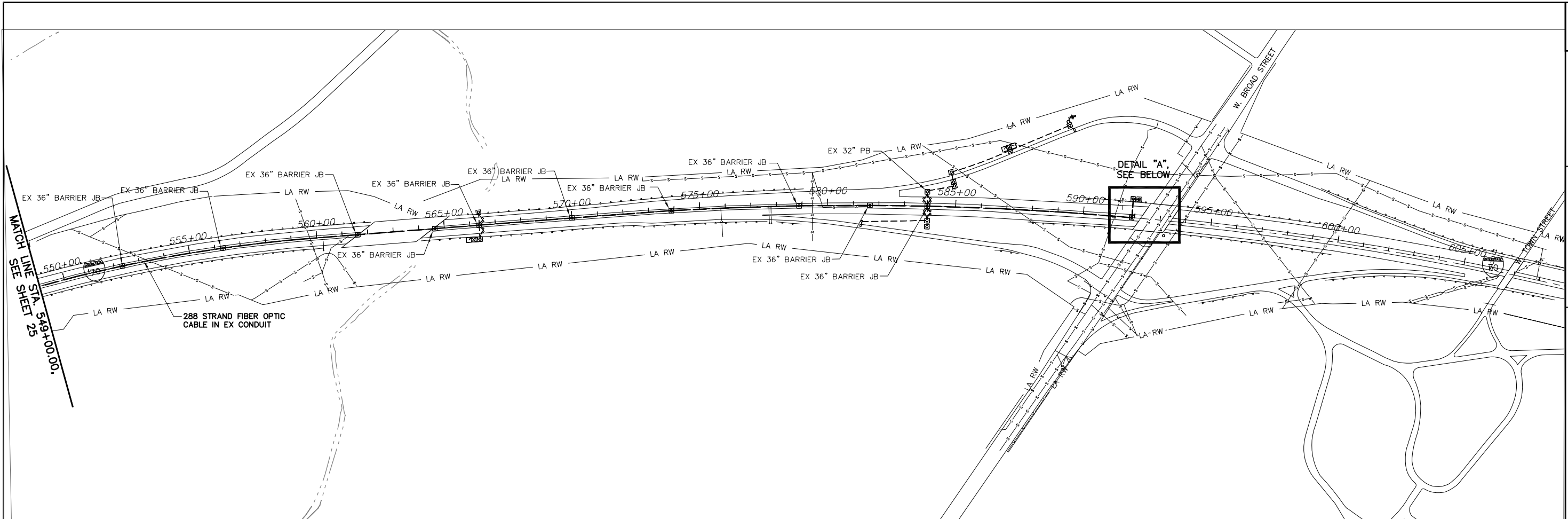
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PID NUMBER  
82540

I.R. 70 AT W. BROAD STREET  
PLAN SHEET STA. 549+00.00 TO 608+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

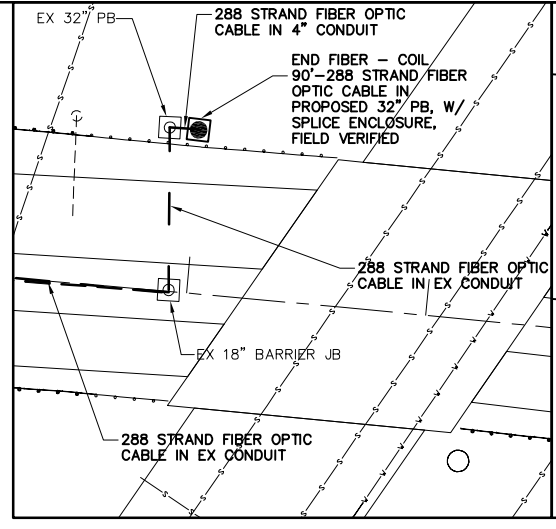


ESTIMATED QUANTITIES

LOCATION		202	625	625	625	632					
STATION	STATION	LF	EA	LF	LF	LF					
549+00, 00' R	591+88, 00' R	4288				4288					
591+88, 00' R	591+88, 73' L	73				73					
591+88, 73' L	591+98, 73' L			10	10	10					
591+98, 73' L			1			150					
PB SLACK						10					
<b>TOTALS</b>		4361	1	10	10	4531					

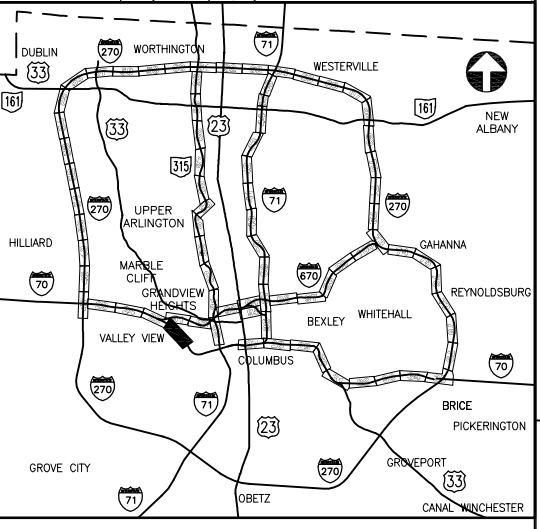
CITY OF COLUMBUS  
UTILITY LEGEND

- SEWER
- WATER
- POWER
- LIGHTING



DETAIL "A"  
NOT TO SCALE

FUTURE NODE  
#070097.3



KEY PLAN  
NOT TO SCALE

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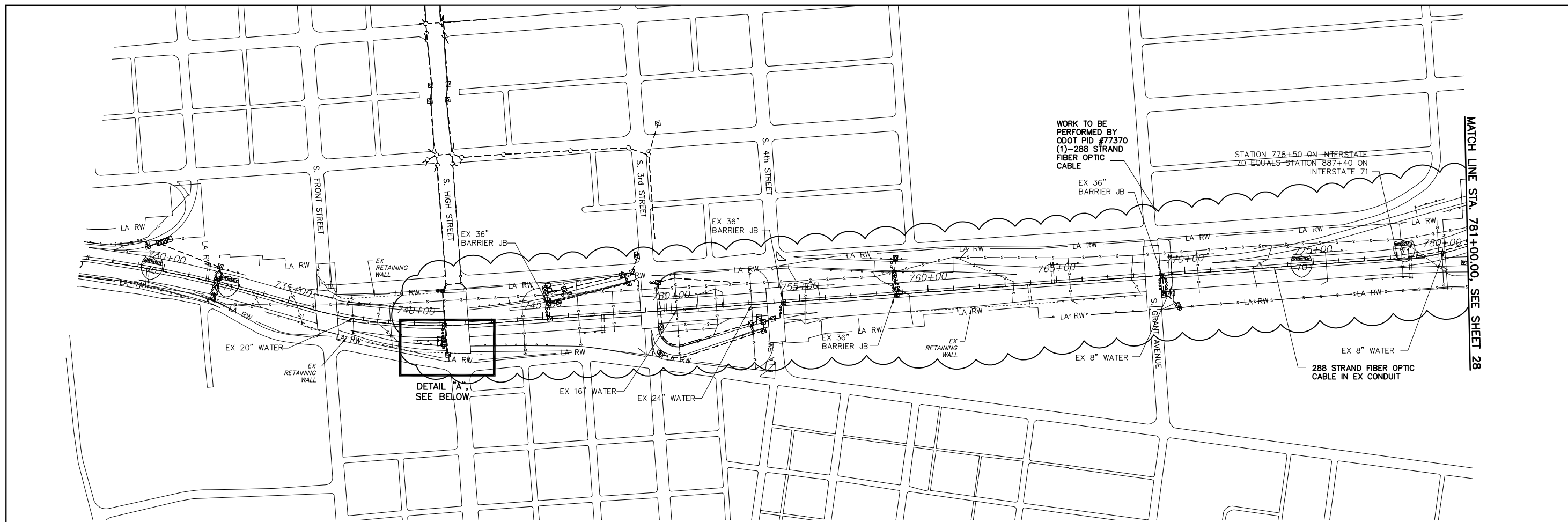


PID NUMBER  
82540

I.R. 70 AND I.R. 71 AT SOUTH HIGH STREET  
PLAN SHEET STA. 728+00.00 TO 781+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

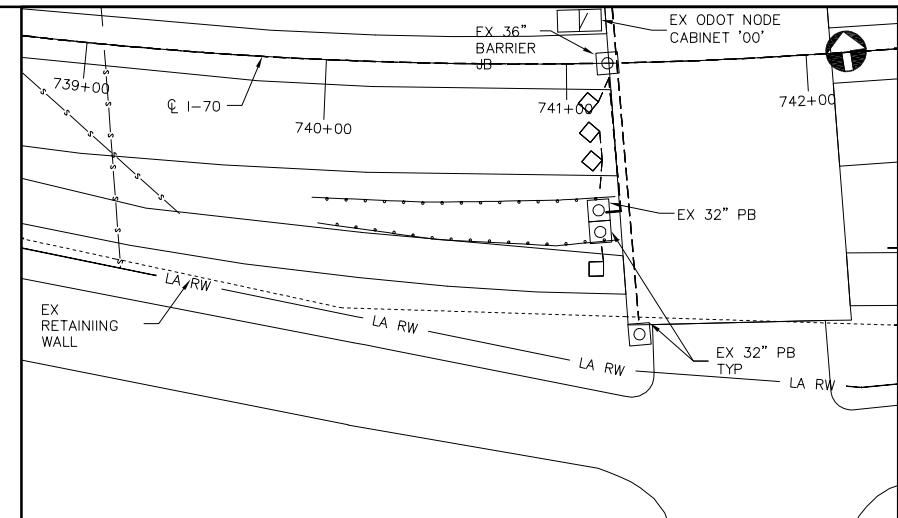
27  
147



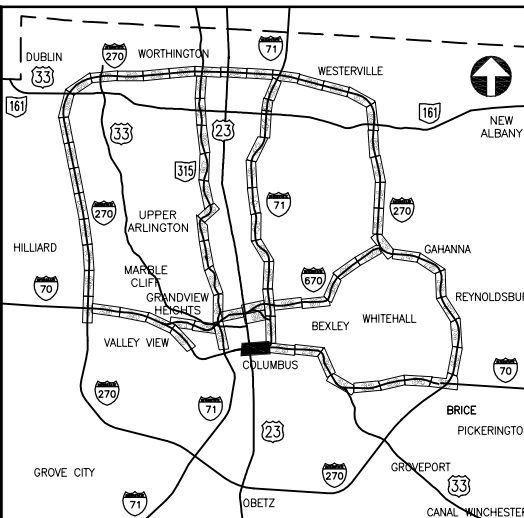
ESTIMATED QUANTITIES

LOCATION		202	625	625	625	632
STATION	STATION	LF	EA	LF	LF	LF
740+95, 58' R	741+15, 58' R			30	30	180
740+85, 58' R	741+17, 00' R	58				58
741+15, 58' R	781+00, 00' R	3883				3883
PB SLACK						18
TOTALS		4041		30	30	423

- CITY OF COLUMBUS  
UTILITY LEGEND
- SEWER
  - WATER
  - POWER
  - LIGHTING



DETAIL "A"  
NOT TO SCALE  
FUTURE NODE  
#070100.1



KEY PLAN  
NOT TO SCALE

UNDERGROUND UTILITIES

TWO WORKING DAYS  
BEFORE YOU DIG  
CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

CONSTRUCTION AS-BUILT  
2643DR.E

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PID NUMBER  
82540

I.R. 70 & I.R. 71 AT SPLIT  
PLAN SHEET STA. 781+00.00 TO 837+00.00

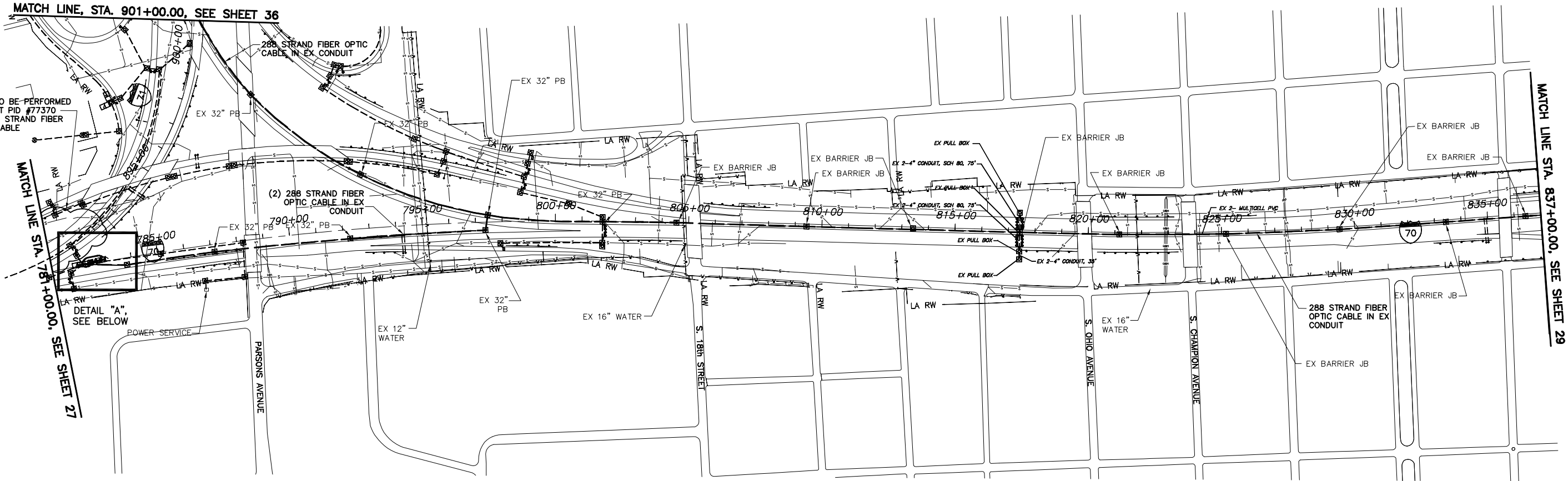
CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

MATCH LINE, STA. 901+00.00, SEE SHEET 36

MATCH LINE STA. 837+00.00, SEE SHEET 29

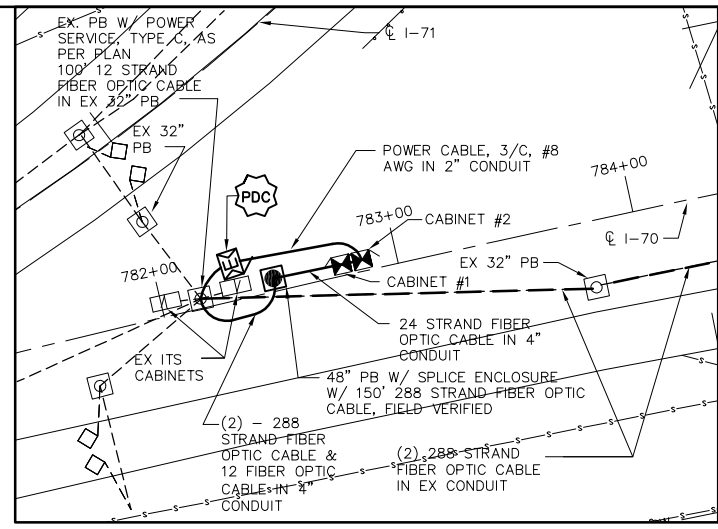
WORK TO BE PERFORMED  
BY ODOT PID #77370  
(1)-288 STRAND FIBER  
OPTIC CABLE

MATCH LINE STA. 781+00.00, SEE SHEET 27



ESTIMATED QUANTITIES

LOCATION		202	625	625	625	625	625	625	632	632	632	632	632	632	633	633
STATION	STATION	LF	EA	EA	LF	LF	LF	EA	LF	LF	EA	LF	EA	EA	EA	EA
781+00, 55' L	781+85, 82' L	89							89							
781+85, 82' L	782+04, 32' L	54							54							
782+04, 32' L	782+17, 04' L	31							31							
782+17, 04' L	782+48, 04' L				35	35			70	100						
782+48, 04' L	782+77, 04' L			1												
782+77, 04' L	782+70, 19' L				55	55										
782+70, 19' L	782+77, 04' L				15	15										
782+17, 04' L	783+80, 27' R	166							332							
783+80, 27' L	797+36, 31' R	1356							2712							
782+36, 31' R	797+47, 26' L	58							116							
797+47, 26' L	837+00, 00' R	3953							3953							
797+47, 26' L	901+01, 22' R	1348							1348							
PB SLACK									170							
SPlice SLACK									225	75	150					
<b>TOTALS</b>		6881	1	1	70	65	135	1	8926	175	180	1	303	1	1	1

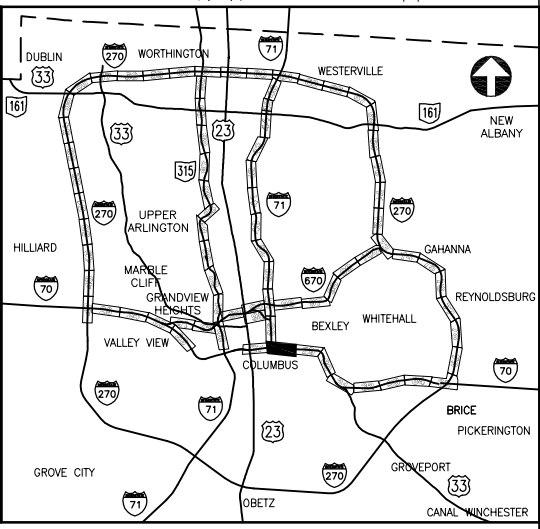


DETAIL "A"  
NOT TO SCALE

REFER TO SHEETS 124 & 125  
FOR COMMUNICATION DETAILS

POWER SERVICE NOTES

- POWER DISTRIBUTION CABINET:
- 1-100AMP SERVICE PANEL
- 1-30AMP BREAKER, 120VAC TO CTSS COMM NODE
- 1-30AMP BREAKER, 120VAC TO ODOT COMM NODE



KEY PLAN  
NOT TO SCALE

UNDERGROUND UTILITIES

TWO WORKING DAYS  
BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

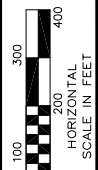
CITY OF COLUMBUS  
UTILITY LEGEND

- SEWER
- WATER
- POWER
- LIGHTING

CONSTRUCTION AS-BUILT  
2643DR.E

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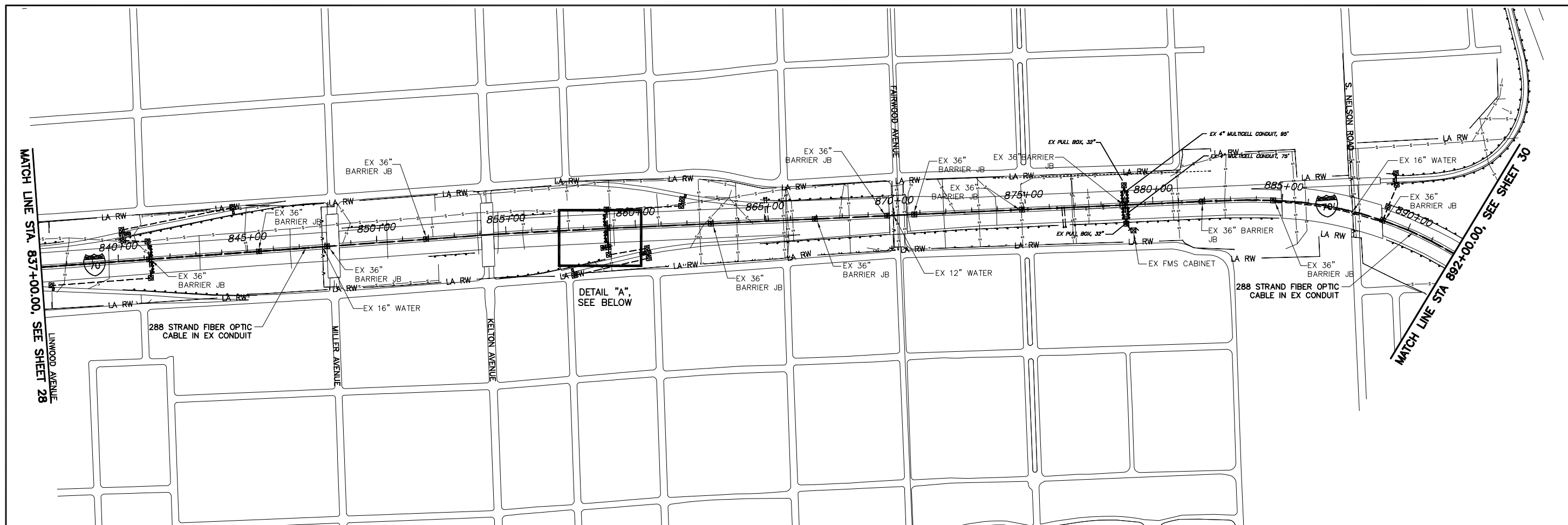




PID NUMBER  
82540

I.R. 70 AT MILLER & KELTON AVENUES  
PLAN SHEET STA. 837+00.00 TO 892+00.00

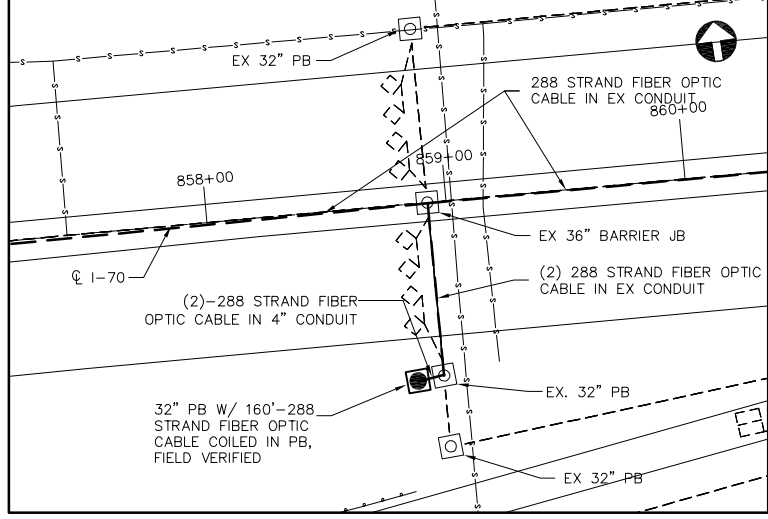
CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A



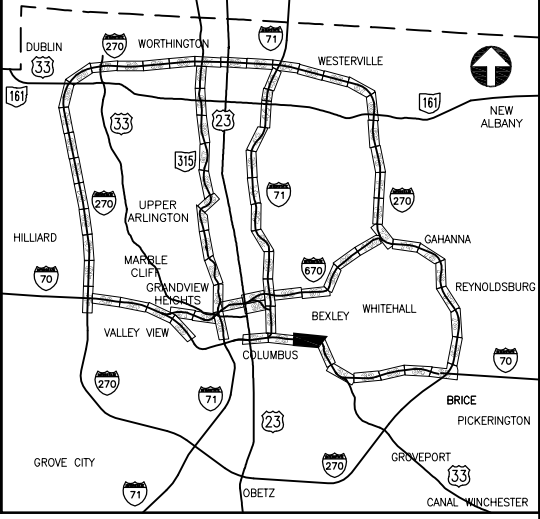
ESTIMATED QUANTITIES

LOCATION		202	625	625	625	632				
STATION	STATION	LF	EA	LF	LF	LF				
837+00, 00' R	858+92, 00' R	2192				2192				
858+92, 00' R	858+92, 72' R	72				144				
858+92, 72' R	858+82, 72' R			10	10	20				
858+82, 72' R			1			150				
858+92, 00' R	892+00, 00' R	3308				3308				
PB SLACK						20				
<b>TOTALS</b>		5572	1	10	10	5834				

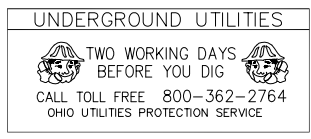
- CITY OF COLUMBUS  
UTILITY LEGEND
- SEWER
  - WATER
  - POWER
  - LIGHTING



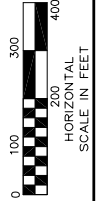
DETAIL "A"  
NOT TO SCALE  
FUTURE NODE  
#070102.3



KEY PLAN  
NOT TO SCALE



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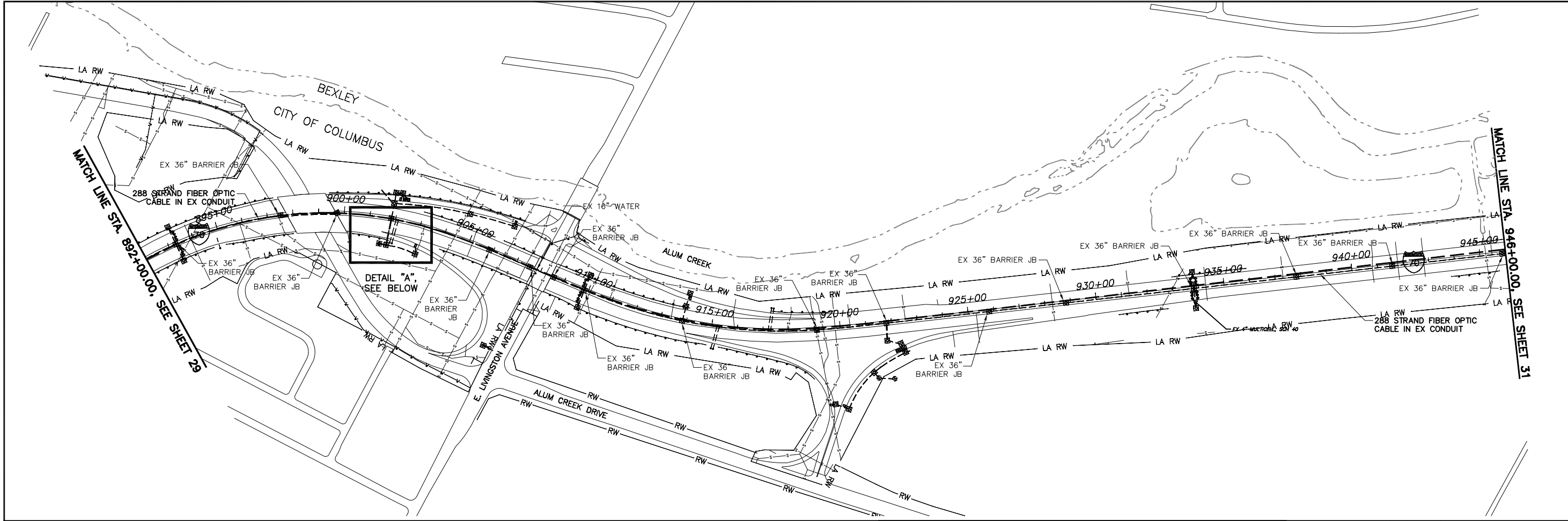


PID NUMBER  
82540

I.R. 70 AT E. LIVINGSTON AVENUE  
PLAN SHEET STA. 892+00.00 TO 946+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

30  
147

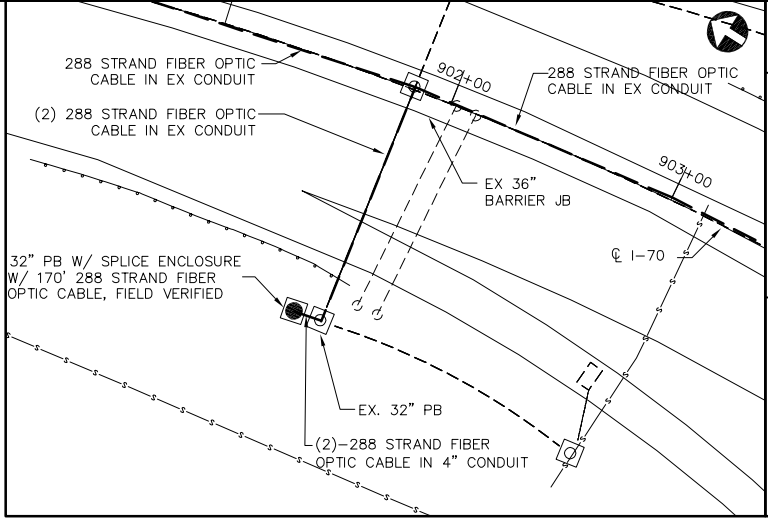


ESTIMATED QUANTITIES

LOCATION		202	625	625	625	632						
STATION	STATION	LF	EA	LF	LF	LF						
892+00, 00' R	901+84, 00' R	984				984						
901+84, 00' R	901+84, 104' R	104				208						
901+84, 104' R	901+74, 104' R			10	10	20						
901+74, 104' R			1			150						
901+84, 00' R	946+00, 00' R	4416				4416						
PB SLACK						20						
TOTALS		5504	1	10	10	5798						

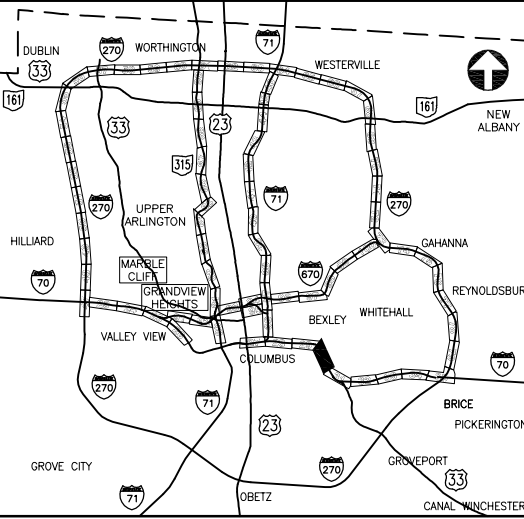
CITY OF COLUMBUS  
UTILITY LEGEND

- SEWER
- WATER
- POWER
- LIGHTING



DETAIL "A"  
NOT TO SCALE

FUTURE NODE  
#070103.1



KEY PLAN  
NOT TO SCALE

UNDERGROUND UTILITIES

TWO WORKING DAYS  
BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

CONSTRUCTION AS-BUILT  
2643DR.E

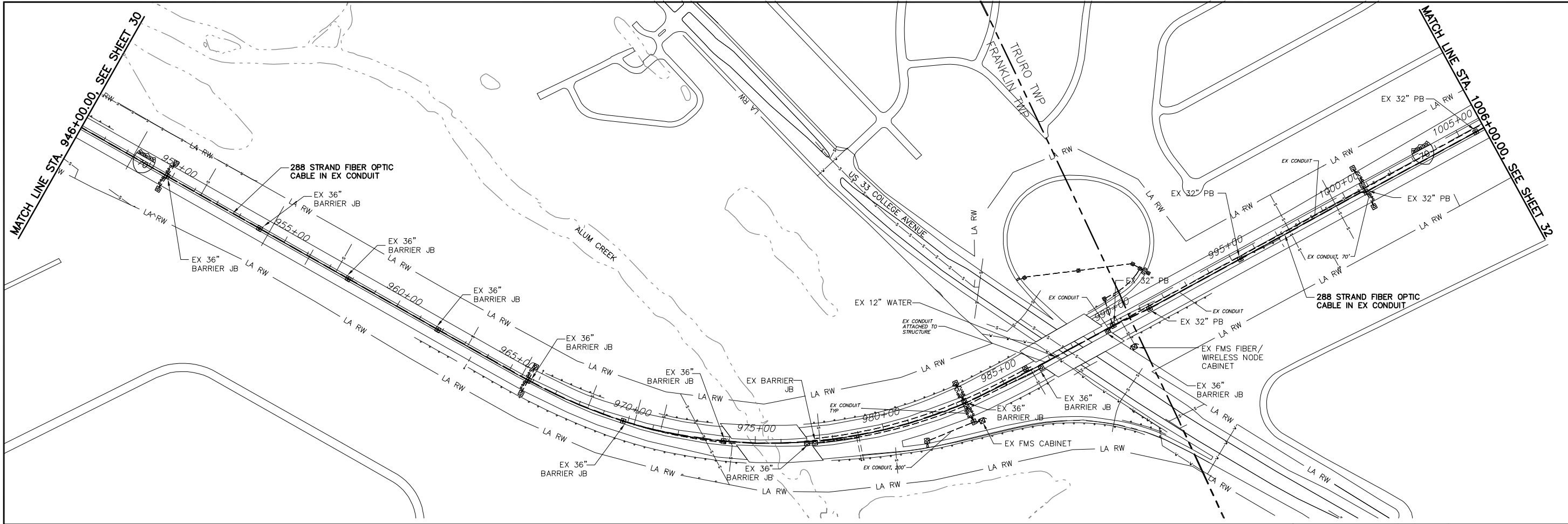
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PID NUMBER  
82540

I.R. 70 AT COLLEGE AVENUE  
PLAN SHEET STA. 946+00.00 TO 1006+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

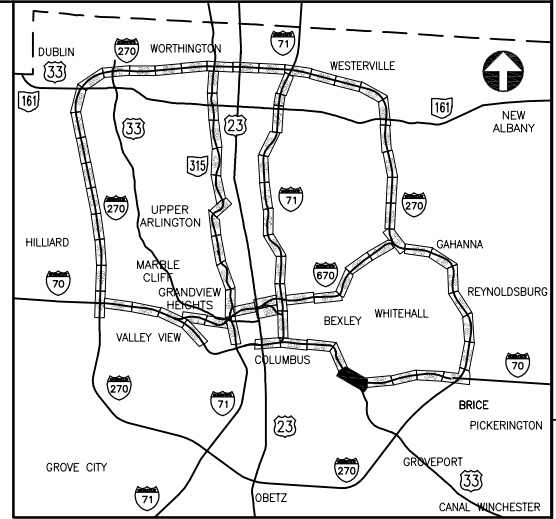


ESTIMATED QUANTITIES

LOCATION		202	632							
STATION	STATION	EXISTING CONDUIT CLEANED, AS PER PLAN	288 STRAND FIBER OPTIC CABLE							
		LF	LF							
946+00	1006+00	6000	6000							
PB SLACK			40							
STRUCT. SLACK			25							
<b>TOTALS</b>		6000	6065							

CITY OF COLUMBUS UTILITY LEGEND

- SEWER
- WATER
- POWER
- LIGHTING



KEY PLAN  
NOT TO SCALE

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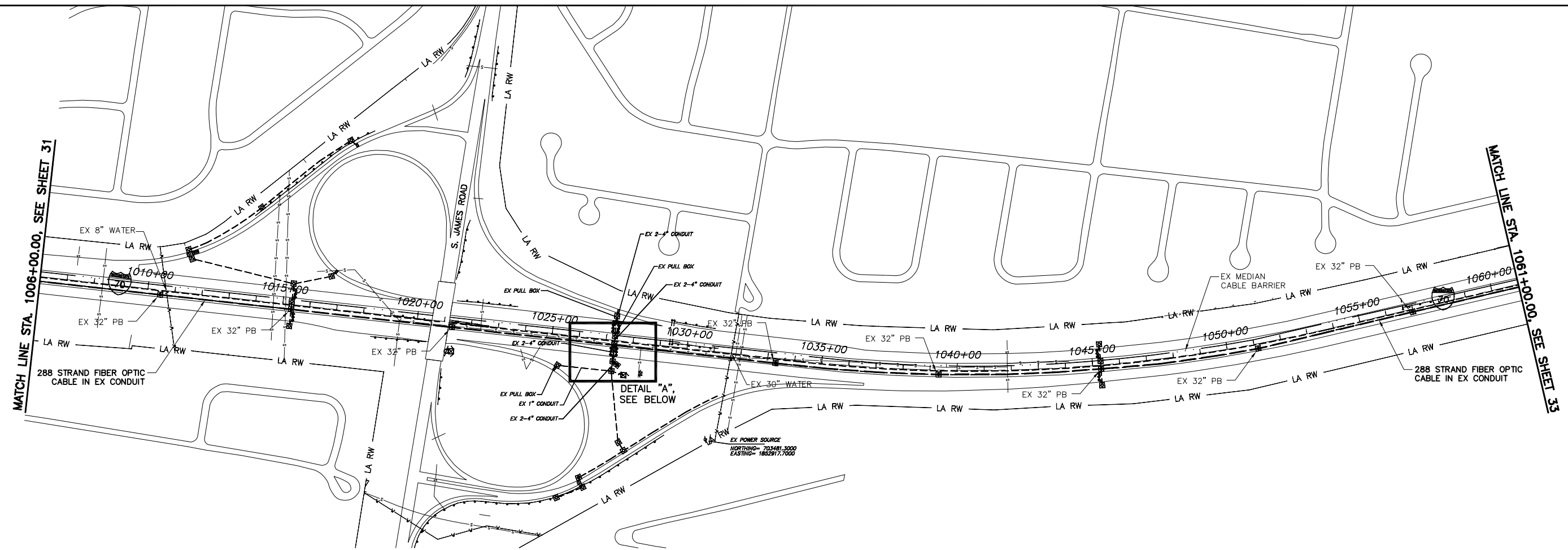


PID NUMBER  
82540

I.R. 70 AT S. JAMES ROAD  
PLAN SHEET STA. 1006+00.00 TO 1061+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

32  
147

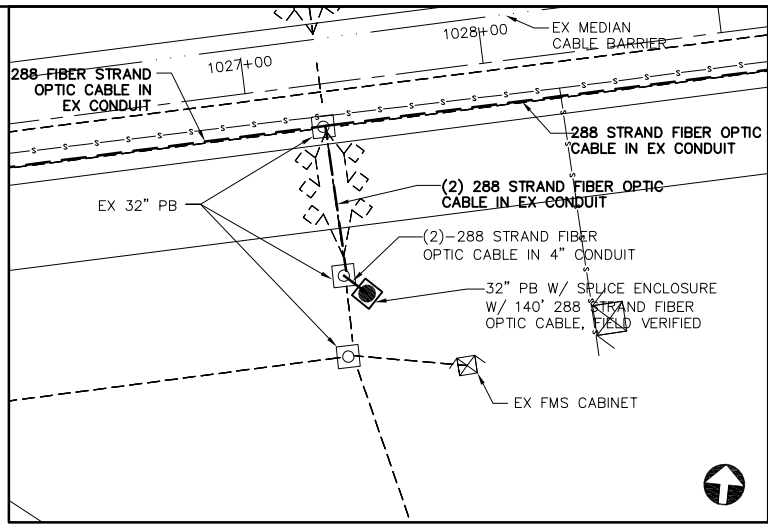


ESTIMATED QUANTITIES

LOCATION		202	625	625	625	632				
STATION	STATION	LF	EA	LF	LF	LF				
1006+00, 00' R	1027+32, 14' R	2132				2132				
1027+32, 14' R	1027+32, 79' R	65				130				
1027+32, 79' R	1027+39, 86' R			10	10	20				
1027+39, 86' R			1			150				
1027+32, 14' R	1061+00, 10' R	3368				3368				
PB SLACK						120				
<b>TOTALS</b>		5565	1	10	10	5920				

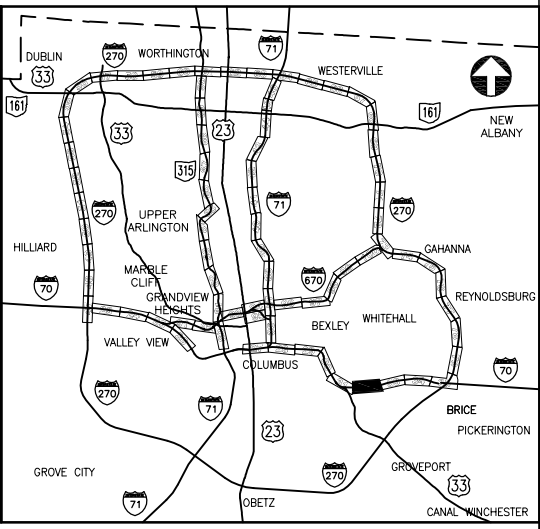
CITY OF COLUMBUS  
UTILITY LEGEND

- SEWER
- WATER
- POWER
- LIGHTING



DETAIL "A"  
NOT TO SCALE

FUTURE NODE  
#070105.5



KEY PLAN  
NOT TO SCALE

UNDERGROUND UTILITIES

TWO WORKING DAYS  
BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

CONSTRUCTION AS-BUILT  
2643DR.E

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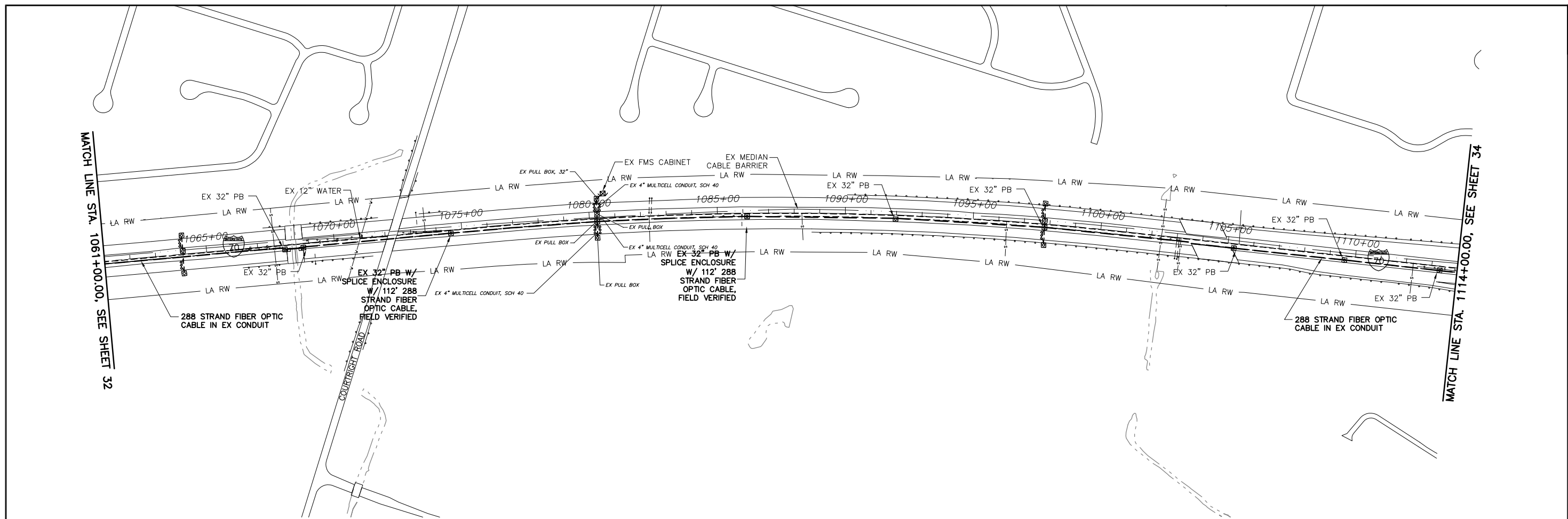


PID NUMBER  
82540

I.R. 70  
PLAN SHEET STA. 1061+00.00 TO 1114+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

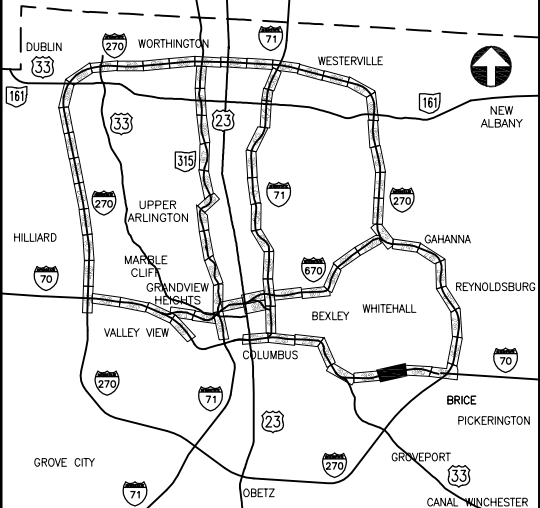
33  
147



ESTIMATED QUANTITIES

LOCATION		202	632						
STATION	STATION	LF	LF						
1061+00	1114+00	5300	5300						
PB SLACK			80						
STRUCT. SLACK			100						
<b>TOTALS</b>		5300	5480						

- CITY OF COLUMBUS  
UTILITY LEGEND
- SEWER
  - WATER
  - POWER
  - LIGHTING



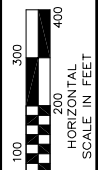
KEY PLAN  
NOT TO SCALE

UNDERGROUND UTILITIES

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

CONSTRUCTION AS-BUILT  
2643DR.E

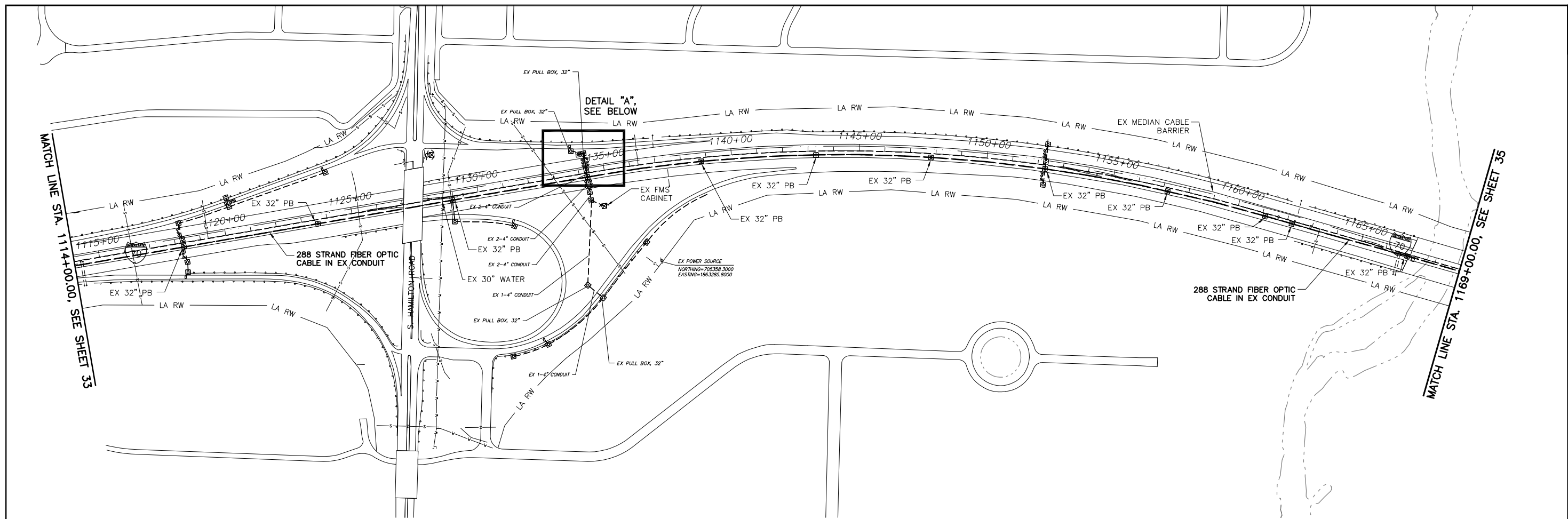
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PID NUMBER  
82540

I.R. 70 AT S. HAMILTON ROAD  
PLAN SHEET STA. 1114+00.00 TO 1169+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

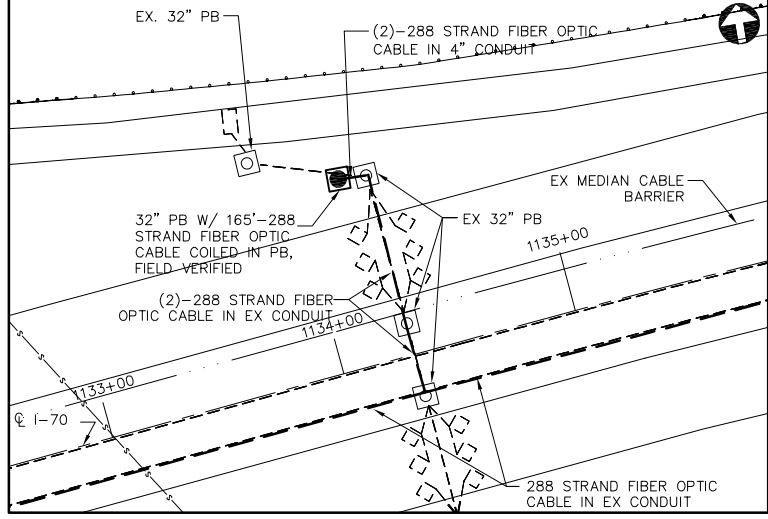


ESTIMATED QUANTITIES

LOCATION		202	625	625	625	632
STATION	STATION	LF	EA	LF	LF	LF
1114+00, 10' R	1134+31, 15' R	2031				2031
1134+31, 15' R	1134+31, 12' L	27				54
1134+31, 12' L	1134+31, 77' L	55				110
1134+31, 77' L	1134+21, 77' L			10	10	20
1134+21, 77' L			1			150
1134+31, 15' R	1169+00, 00' R	3469				3469
PB SLACK						160
STRUCT. SLACK						25
<b>TOTALS</b>		5582	1	10	10	6019

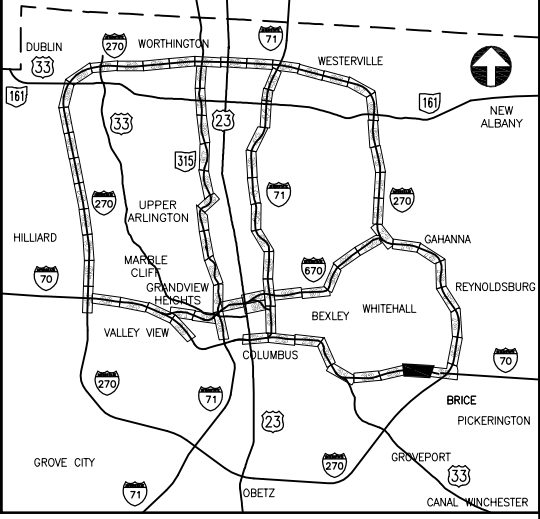
CITY OF COLUMBUS  
UTILITY LEGEND

- SEWER
- WATER
- POWER
- LIGHTING



DETAIL "A"  
NOT TO SCALE

FUTURE NODE  
#070107.6



KEY PLAN  
NOT TO SCALE

UNDERGROUND UTILITIES

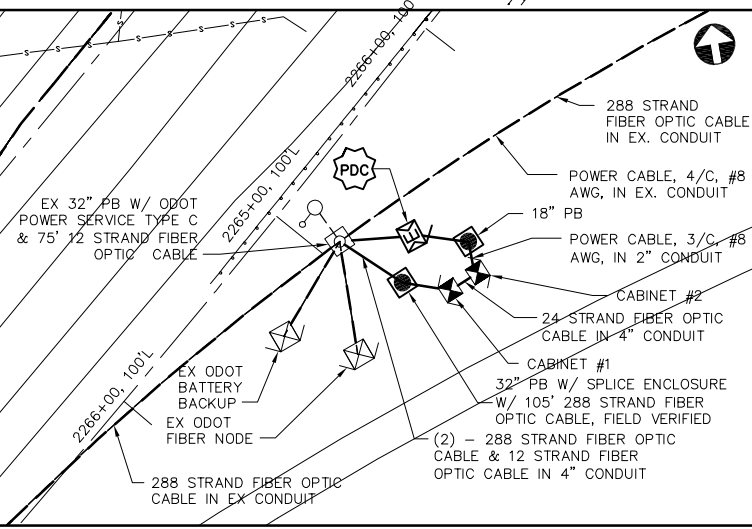
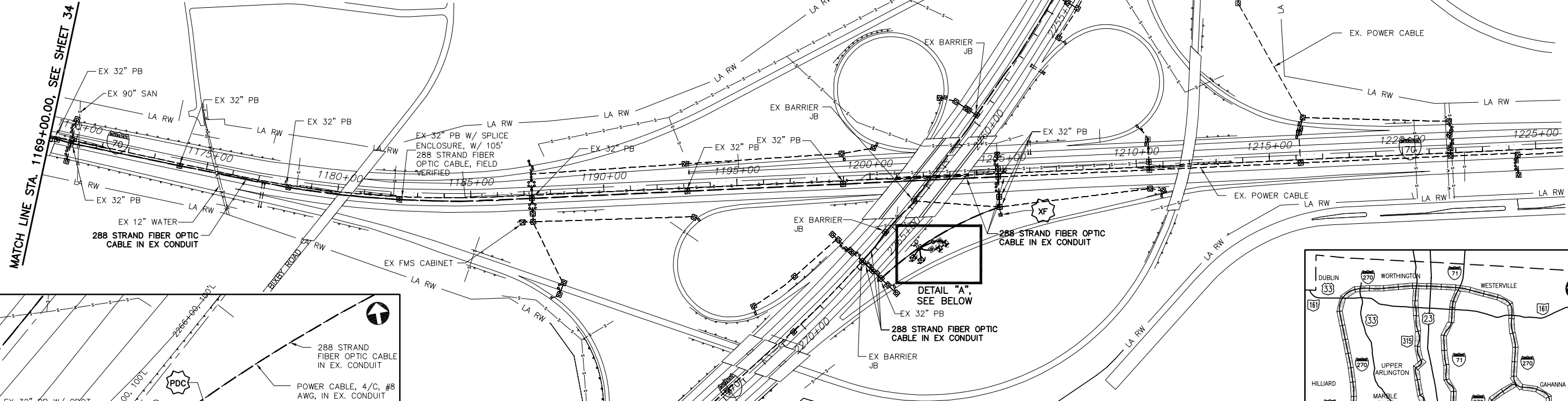
TWO WORKING DAYS  
BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

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ESTIMATED QUANTITIES

LOCATION STATION	EXISTING CONDUIT CLEANED, AS PER PLAN	PULL BOX, 713.08, 18", AS PER PLAN	PULL BOX, 713.08, 32", AS PER PLAN	CONDUIT, 725.05, 2" AS PER PLAN	CONDUIT, 725.05, 4" AS PER PLAN	TRENCH, 24" DEEP AS PER PLAN	GROUND ROD AS PER PLAN	288 STRAND FIBER OPTIC CABLE	12 STRAND FIBER OPTIC CABLE	24 STRAND FIBER OPTIC CABLE	SPLICE ENCLOSURE	POWER CABLE, NO. 8 AWG, AS PER PLAN	POWER SERVICE, TYPE C, AS PER PLAN	COMMUNICATIONS CABINET #1	COMMUNICATIONS CABINET #2	
STATION	LF	EA	EA	LF	LF	LF	EA	LF	LF	LF	EA	LF	EA	EA	EA	
1169+00, 15' R	2997							2997								
1198+97, 13' R	583							583								
1204+80, 12' R	76							76								
1204+80, 88' R	37							37								
1204+80, 125' R	315							315								
2264+84, 155' L	205							205								
2266+74, 96' L	96							96								
2266+71, 00' R	2871							2871								
2264+89, 155' L									75							
2264+89, 155' L					10	10		20	10							
2264+77, 162' L			1								1					
2264+77, 162' L					10	10				10						
2264+65, 169' L							1							1	1	
2264+65, 169' L					10	10						40				
2264+72, 176' L		1														
2264+72, 176' L					27	27						108				
2264+89, 155' L													1			
PB SLACK								130				40				
SPLICE SLACK								150	75	150		80				
<b>TOTALS</b>	<b>7180</b>	<b>1</b>	<b>1</b>	<b>37</b>	<b>20</b>	<b>57</b>	<b>1</b>	<b>7480</b>	<b>160</b>	<b>160</b>	<b>1</b>	<b>268</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>



**POWER SERVICE NOTES**

**DSW** 30AMP, 480VAC FUSED DISCONNECT SWITCH

**XF** 480-120/240VAC 10KVA EX ODOT PAD MOUNTED TRANSFORMER.

**PDC** POWER DISTRIBUTION CABINET:

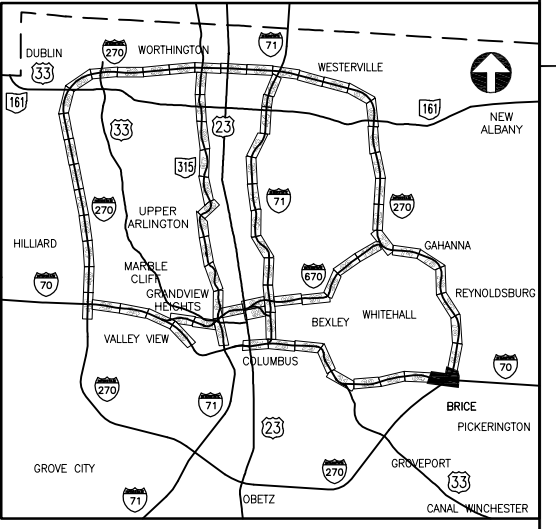
1-100AMP SERVICE PANEL  
 1-30AMP BREAKER, 120VAC TO CTSS COMM NODE  
 1-30AMP BREAKER, 120VAC (SPARE)  
 1-2 POLE 30AMP BREAKER, 120/240VAC TO ODOT COMM NODE

**CITY OF COLUMBUS UTILITY LEGEND**

☒ SEWER  
 ☒ WATER  
 ☐ POWER  
 ☐ LIGHTING

**UNDERGROUND UTILITIES**

TWO WORKING DAYS BEFORE YOU DIG  
 CALL TOLL FREE 800-362-2764  
 OHIO UTILITIES PROTECTION SERVICE



DETAIL "A" NOT TO SCALE NODE #2700043.0

CONSTRUCTION AS-BUILT  
**2643DR.E**

↑

0 100 200 300 400  
 HORIZONTAL SCALE IN FEET

PID NUMBER 82540

I.R. 70 & I.R. 270  
 PLAN SHEET STA. 1169+00.00 TO 1226+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM (CTSS) PHASE A

**35**  
**147**

J:\Jobs\44086\TECHPROD\Sheets\ST\_CTSS2640\_0035.dwg ~ last saved by: CCI, slowly 06/18/2012 03:20pm ~ printed 08/23/2012 02:06pm

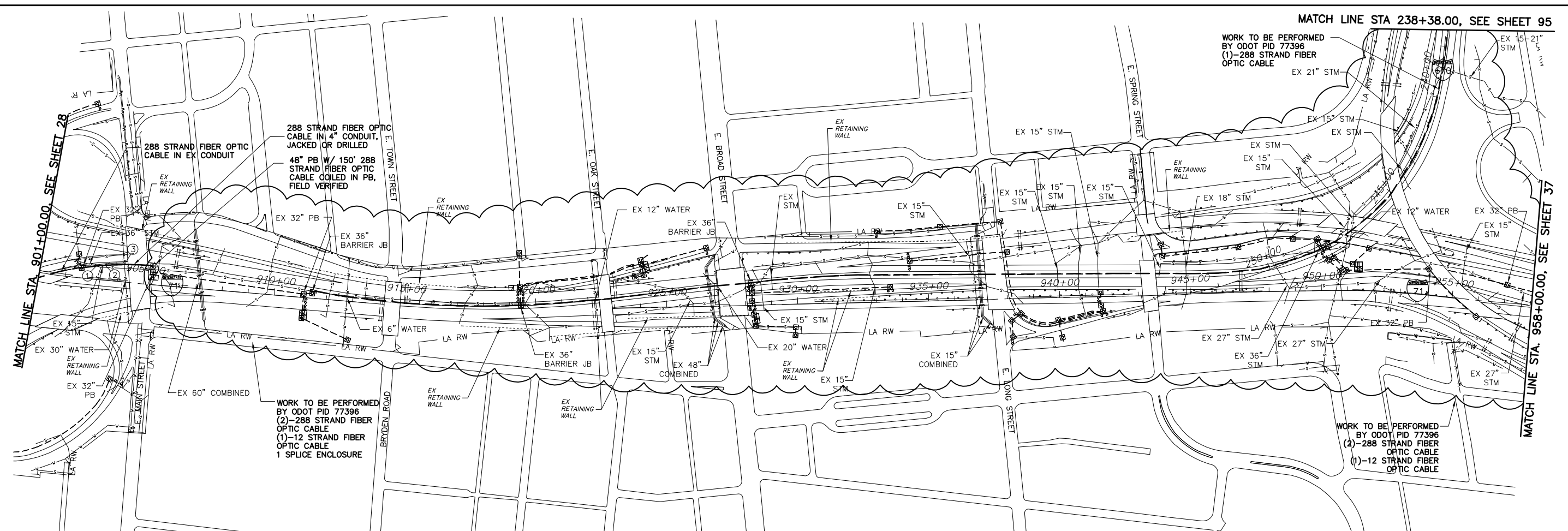


PID NUMBER  
82540

I.R. 71 AT I.R. 670  
PLAN SHEET STA. 902+00.00 TO 958+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

36  
147



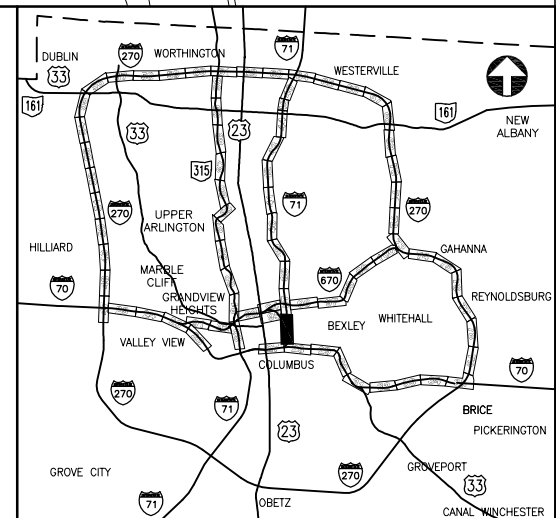
WORK TO BE PERFORMED  
BY ODOT PID 77396  
(1)-288 STRAND FIBER  
OPTIC CABLE

WORK TO BE PERFORMED  
BY ODOT PID 77396  
(2)-288 STRAND FIBER  
OPTIC CABLE  
(1)-12 STRAND FIBER  
OPTIC CABLE  
1 SPLICE ENCLOSURE

WORK TO BE PERFORMED  
BY ODOT PID 77396  
(2)-288 STRAND FIBER  
OPTIC CABLE  
(1)-12 STRAND FIBER  
OPTIC CABLE

ESTIMATED QUANTITIES

LOCATION		202	625	625	632
STATION	STATION	EXISTING CONDUIT CLEANED, AS PER PLAN LF	PULL BOX, 713.08, 48", AS PER PLAN EA	CONDUIT, JACKED OR DRILLED, 725.05, APP LF	288 STRAND FIBER OPTIC CABLE LF
901+00, 35' R	902+53, 36' L	169			169
902+53, 36' L	905+26, 69' L			275	275
905+26, 71' L			1		150
PB SLACK					10
TOTALS		169	1	275	604



KEY PLAN  
NOT TO SCALE

XX EXISTING UTILITY CROSSING.  
SEE UTILITY CROSSING INFO  
SHEET 20.

UNDERGROUND UTILITIES

TWO WORKING DAYS  
BEFORE YOU DIG

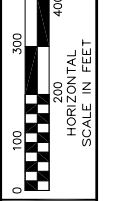
CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

- CITY OF COLUMBUS  
UTILITY LEGEND
- SEWER
  - WATER
  - POWER
  - LIGHTING

CONSTRUCTION AS-BUILT  
2643DR.E

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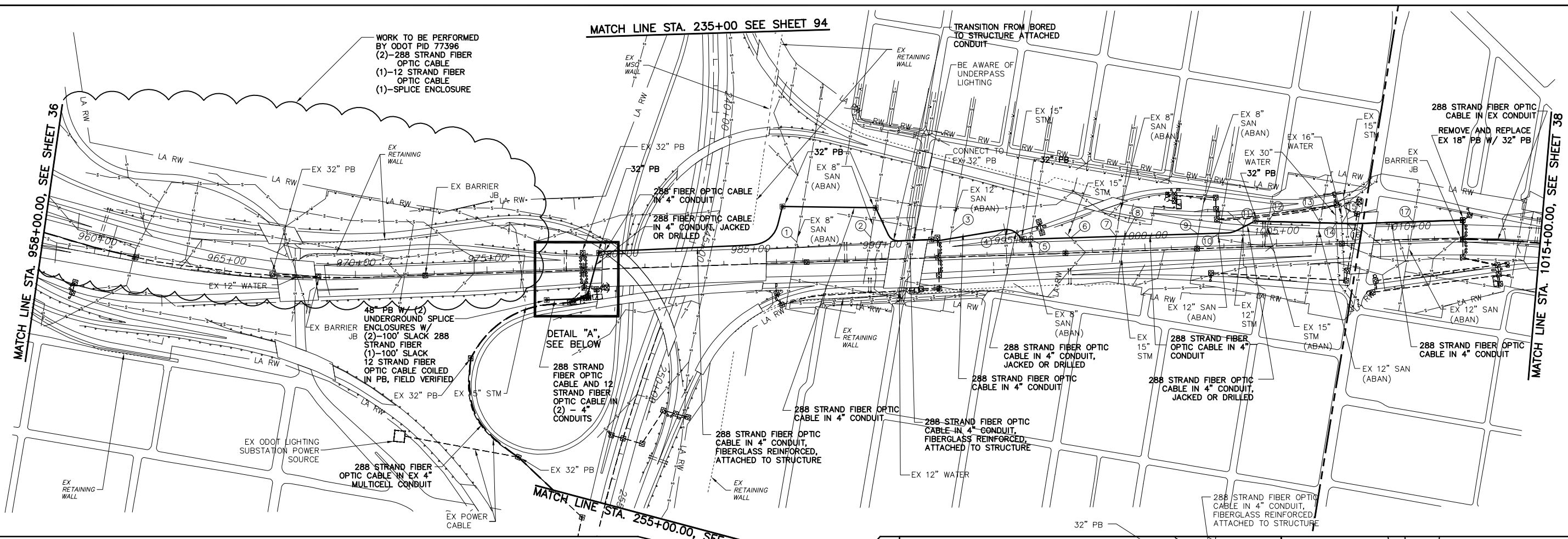
PID NUMBER  
82540

I.R. 71 AT I.R. 670  
PLAN SHEET STA. 958+00.00 TO 1015+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

MATCH LINE STA. 235+00 SEE SHEET 94

WORK TO BE PERFORMED  
BY ODOT PID 77396  
(2)-288 STRAND FIBER  
OPTIC CABLE  
(1)-12 STRAND FIBER  
OPTIC CABLE  
(1)-SPlice ENCLOSURE



DETAIL "A",  
SEE BELOW

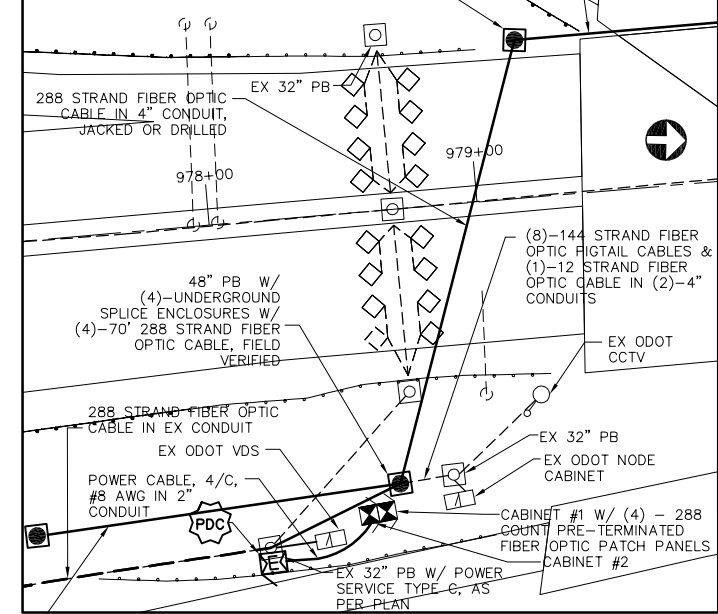
48" PB W/ (2)  
UNDERGROUND SPlice  
ENCLOSURES W/  
(2)-100' SLACK 288  
STRAND FIBER  
(1)-100' SLACK  
12 STRAND FIBER  
OPTIC CABLE COILED  
IN PB, FIELD VERIFIED

288 STRAND FIBER  
OPTIC CABLE IN EX 4"  
MULTICELL CONDUIT

MATCH LINE STA. 255+00.00, SEE SHEET 96

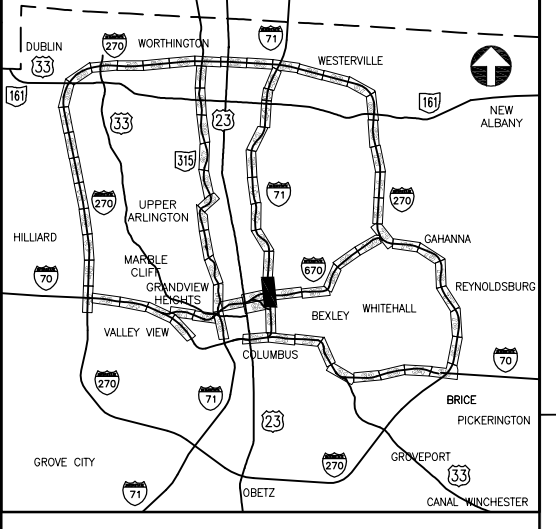
### ESTIMATED QUANTITIES

LOCATION		ESTIMATED QUANTITIES																		
STATION	STATION	202	625	625	625	625	625	625	625	632	632	632	632	632	632	632	633	633		
		LF	EA	EA	LF	LF	LF	LF	LF	EA	LF	LF	LF	EA	EA	EA	EA	EA		
1-71																				
977+20, 70' R					1						300	150								
976+50, 70' R	978+22, 70' R					172		172			344	172								
978+22, 70' R	985+88, 75' L			1		46	143	46	718		953									
985+88, 75' L	991+87, 85' L			2		431		431	168		599									
991+87, 85' L	995+33, 60' L			2		318	49	318			367									
995+33, 60' L	1004+22, 97' L			3		801	97	801			898									
1004+22, 97' L	1012+07, 82' L			2		785		785			785									
1012+07, 82' L	1015+00, 17' L	366									366									
978+22, 70' R	978+62, 108' R			1		55		55			55									
978+62, 108' R	978+72, 108' R			1		20		10			80	10		4						
978+12, 108' R	978+62, 108' R									1				4	1	1	1	1		
978+12, 122' R	978+80, 100' R		1			70		70					280	1						
978+12, 122' R	978+62, 108' R					60		60			60									
978+62, 108' R	976+04, 116' R			1		258		258			816	408								
1-670																				
978+22, 111' R	978+66, 118' R					48		48			48									
978+66, 118' L	977+47, 851' R	1185									1185									
STRUCTURAL SLACK											100									
PB SLACK											100	25	20							
SPlice SLACK											300	75	80							
<b>TOTALS</b>		1551	1	11	3	70	2994	289	3054	886	1	7356	840	380	1	4	4	1	1	1



DETAIL "A"  
NOT TO SCALE  
NODE #071109.0 (109.6 MP)  
REFER TO PAGES 126 & 127  
FOR COMMUNICATION DETAILS

**POWER SERVICE NOTES**  
PDC POWER DISTRIBUTION CABINET:  
1-100AMP SERVICE PANEL  
1-30AMP BREAKER, 120VAC TO ODOT VDS  
1-30AMP BREAKER, 120VAC TO CTSS COMM NODE  
1-30AMP BREAKER, 120VAC TO ODOT NODE

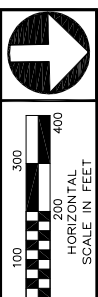


**KEY PLAN**  
NOT TO SCALE  
REFER TO SHEET 102 FOR CONDUIT  
ATTACHED TO STRUCTURE DETAILS  
FOR BRIDGE OVER I.R. 670  
REFER TO SHEET 103 FOR CONDUIT  
ATTACHED TO STRUCTURE DETAILS  
FOR BRIDGE OVER E. 2ND AVENUE

EXISTING UTILITY CROSSING.  
SEE UTILITY CROSSING INFO  
SHEET 20.  
CITY OF COLUMBUS  
UTILITY LEGEND  
SEWER  
WATER  
POWER  
LIGHTING

CONSTRUCTION AS-BUILT  
**2643DR.E**

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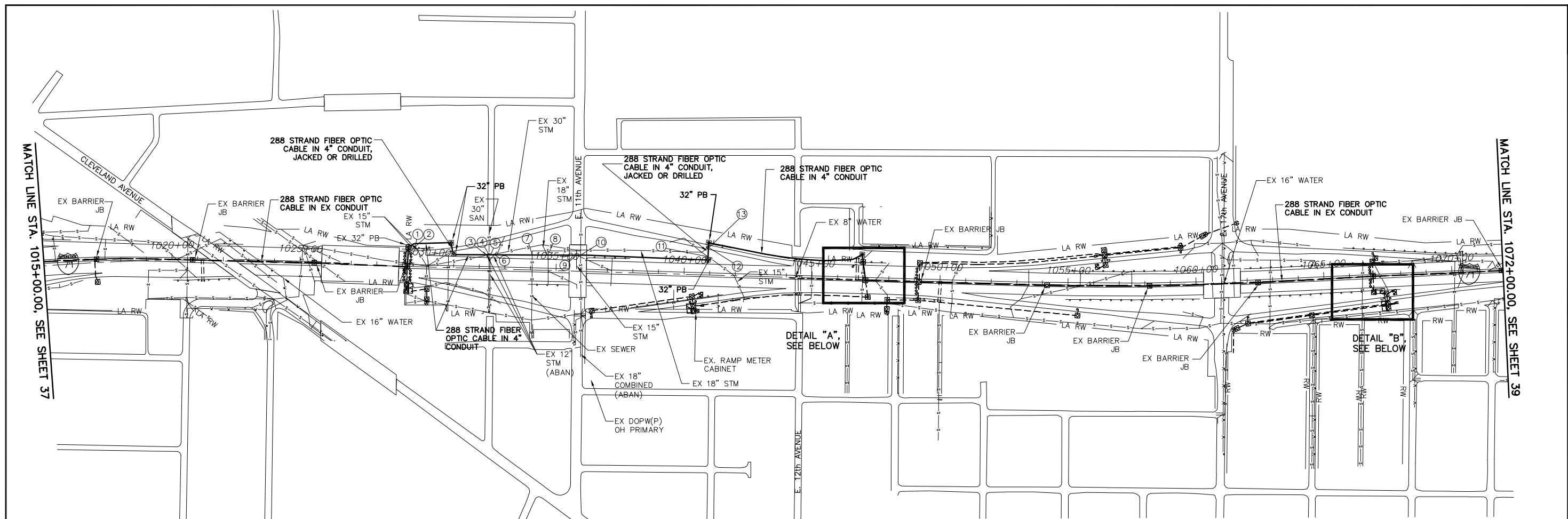


PID NUMBER  
82540

I.R. 71 AT E. 11th AVENUE  
PLAN SHEET STA. 1015+00.00 TO 1072+00.00

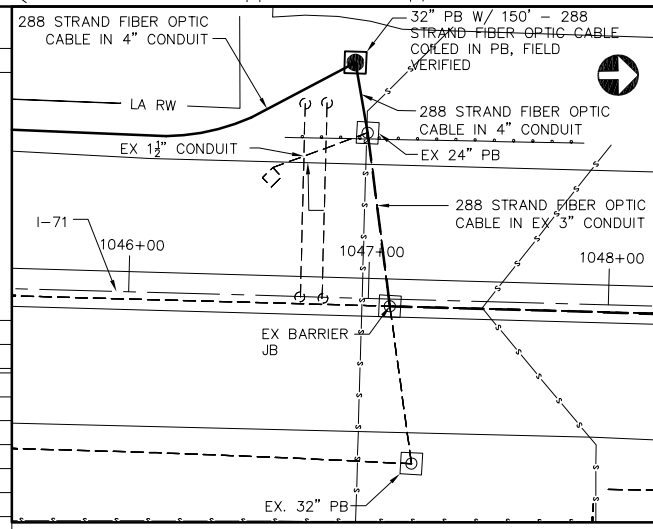
CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

38  
147

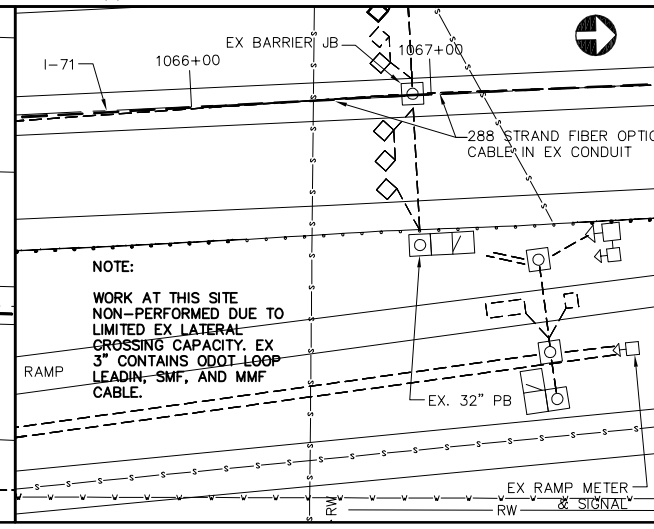


ESTIMATED QUANTITIES

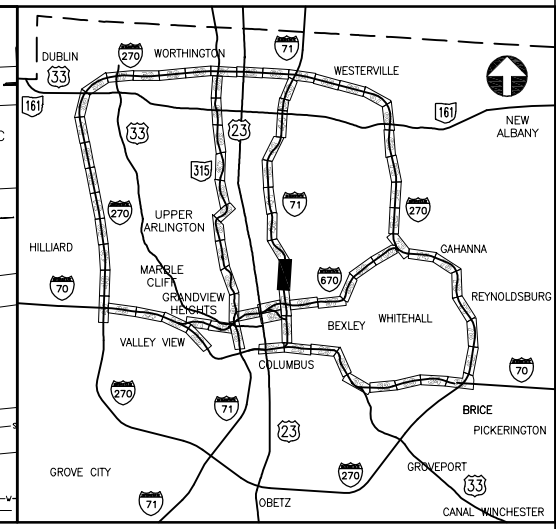
LOCATION		ESTIMATED QUANTITIES					
STATION	STATION	EXISTING CONDUIT CLEANED, AS PER PLAN	PULL BOX, 713.06, 32", AS PER PLAN	CONDUIT, 725.05, 4" AS PER PLAN	CONDUIT, JACKED OR DRILLED, 725.05, AS PER PLAN	TRENCH, 24" DEEP AS PER PLAN	288 STRAND FIBER OPTIC CABLE
LF	EA	LF	EA	LF	EA	LF	EA
1015+00, 17' L	1029+20, 00' R	1420					1420
1029+20, 00' R	1029+20, 75' L	75					75
1029+20, 75' L	1030+88, 97' L			169		169	169
1030+88, 97' L	1030+98, 56' L		1		42		42
1030+98, 56' L	1040+91, 56' L		2	893		893	893
1040+91, 56' L	1040+93, 125' L		1		69		69
1040+93, 125' L	1044+07 79' L	317					317
1044+07 79' L	1044+07, 69' R	148					148
1044+07, 69' R	1044+17, 69' R			10		10	20
1044+17, 69' R			1				150
1044+07 00' R	1044+07, 69' R	69					69
1044+07 00' R	1066+92, 00' R	2285					2285
1066+92 00' R	1066+92, 63' R	63					126
1066+92, 63' R	1066+82, 63' R			10		10	20
1066+82, 63' R			1				150
1066+92 00' R	1072+00, 00' R	508					508
PB SLACK							110
TOTALS		4885	6	1082	111	1082	6571



DETAIL "A"  
NOT TO SCALE  
FUTURE NODE #071110.9

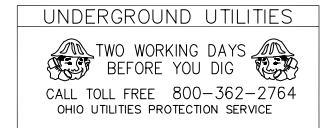


DETAIL "B"  
NOT TO SCALE  
FUTURE NODE #071111.3



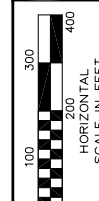
KEY PLAN  
NOT TO SCALE

- CITY OF COLUMBUS UTILITY LEGEND
- ☒ SEWER
  - ☒ WATER
  - ☒ POWER
  - ☐ LIGHTING
- ⊗ EXISTING UTILITY CROSSING. SEE UTILITY CROSSING INFO SHEET 20.



NOTE:  
WORK AT THIS SITE NON-PERFORMED DUE TO LIMITED EX LATERAL CROSSING CAPACITY. EX 3" CONTAINS ODOT LOOP LEADIN-SMF, AND MMF CABLE.

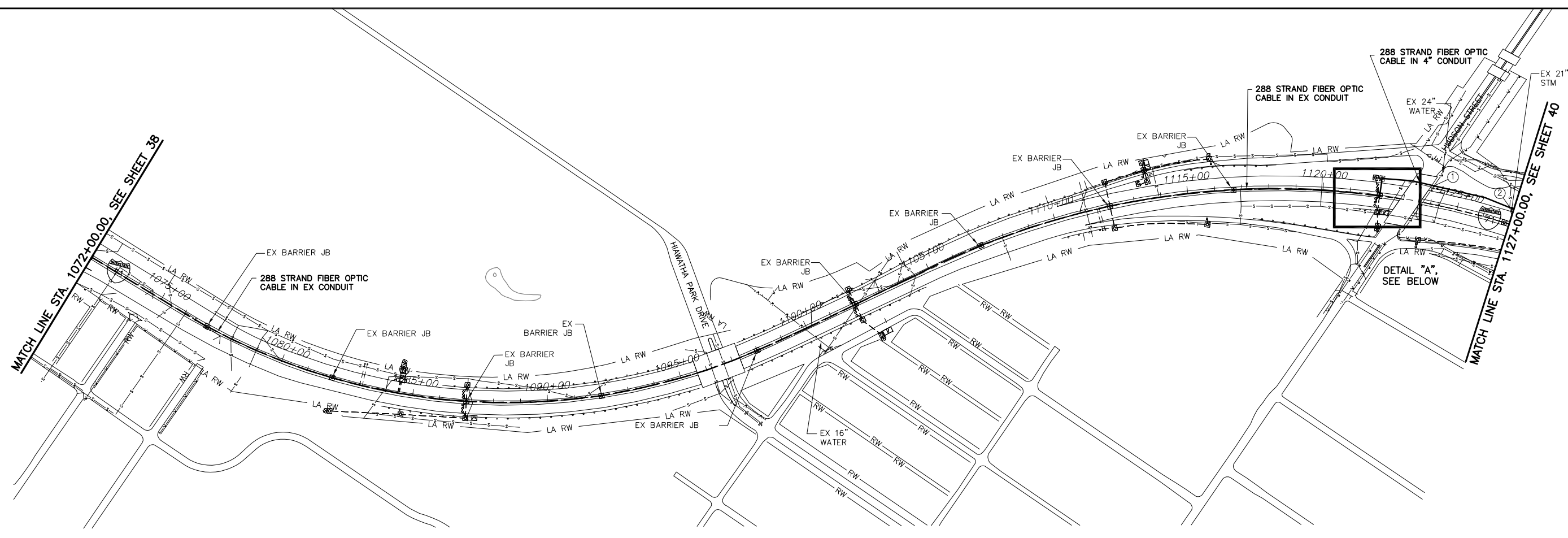
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PID NUMBER  
82540

I.R. 71 AT E. HUDSON STREET  
PLAN SHEET STA. 1072+00.00 TO 1127+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A



ESTIMATED QUANTITIES

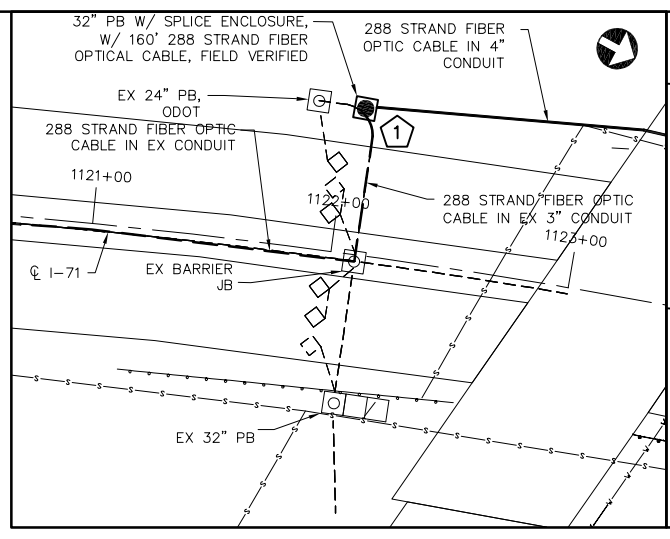
LOCATION		202	625	625	625	632				
STATION	STATION	LF	EA	LF	LF	LF				
1072+00, 00' R	1122+10, 03' R	5010				5010				
1122+10 03' R	1122+10, 64' R	61				61				
1122+10, 64' R	1122+00, 64' R			10	10	20				
1122+00, 64' R			1			150				
1122+10, 64' R	1122+10, 65' L	126				126				
1122+10, 65' L	1127+00, 60' L			490	490	490				
1126+87, 60' L			1							
PB SLACK						40				
<b>TOTALS</b>		5197	2	500	500	5897				

- CITY OF COLUMBUS  
UTILITY LEGEND
- SEWER
  - WATER
  - POWER
  - LIGHTING
- EXISTING UTILITY CROSSING.  
SEE UTILITY CROSSING INFO  
SHEET 20.

UNDERGROUND UTILITIES

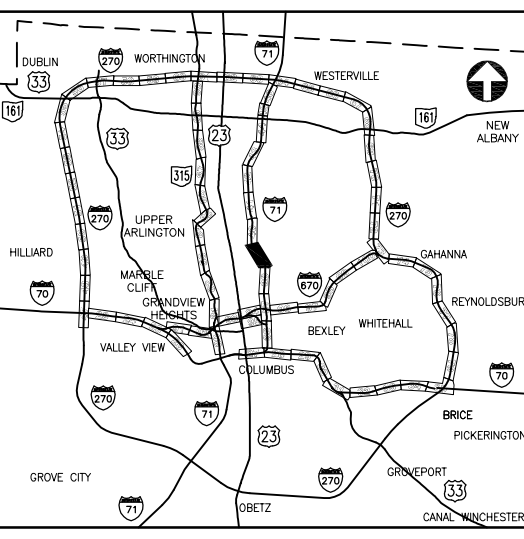
TWO WORKING DAYS  
BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE



DETAIL "A"  
NOT TO SCALE

FUTURE NODE  
#071112.4



KEY PLAN  
NOT TO SCALE

1 EXISTING 90' SWEEP OF 3" RIGID STEEL CONDUIT LATERAL CROSSING SHALL BE LOCATED AND MARKED BY ODOT. THE EXISTING CONDUIT SHALL BE CUT AT THE BEND AND A 32" ROUND PULL BOX SHALL BE INSTALLED AT THE POINT OF THE CUT, PROVIDING ACCESS FROM THE PROPOSED 32" PULL BOX TO THE CENTER MEDIAN JUNCTION BOX.

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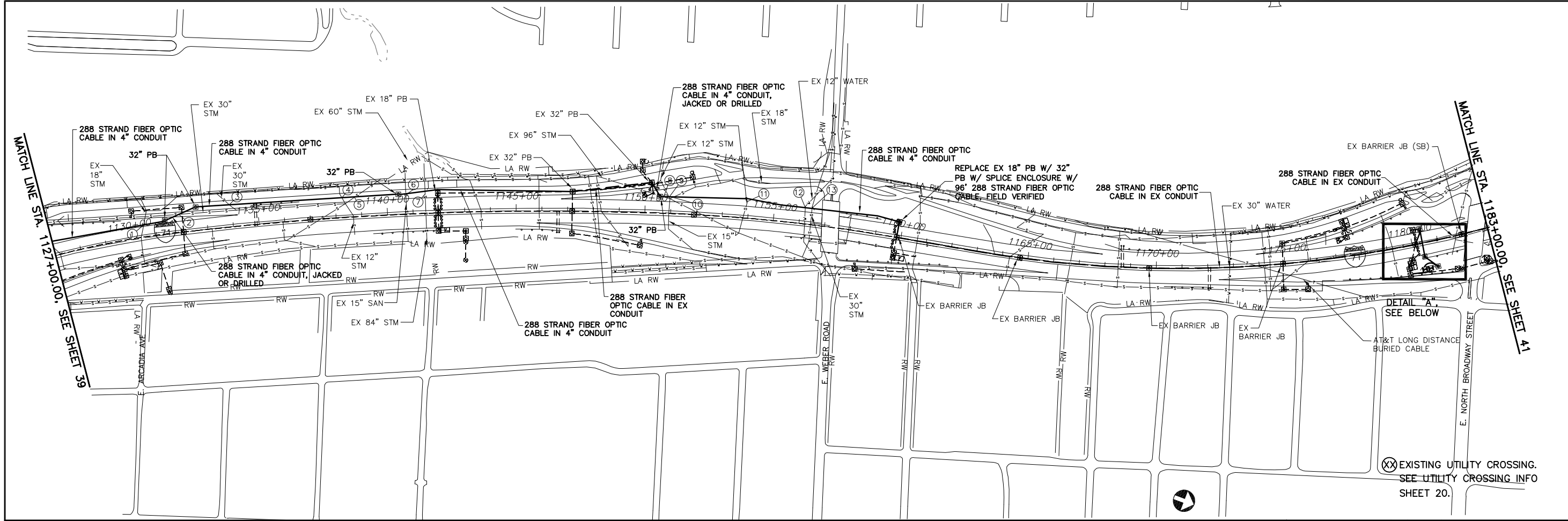


PID NUMBER  
82540

I.R. 71 AT WEBER ROAD  
PLAN SHEET STA. 1127+00.00 TO 1183+00.00

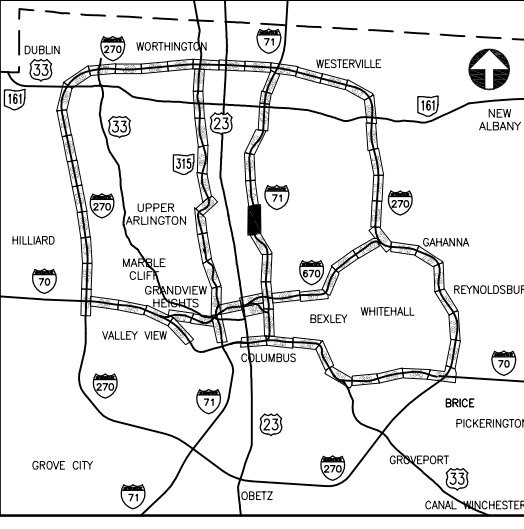
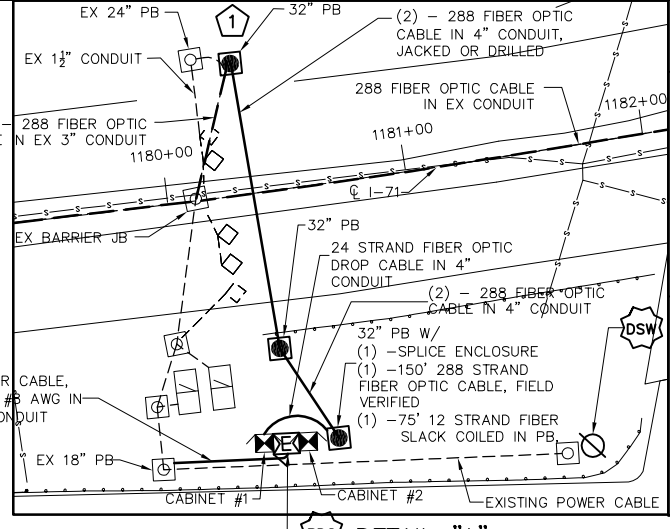
CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

40  
147



ESTIMATED QUANTITIES

LOCATION		202	625	625	625	625	625	625	625	632	632	632	632	632	632	633	633
STATION	STATION	LF	EA	EA	LF	LF	LF	LF	EA	LF	LF	LF	EA	LF	EA	EA	EA
1127+00, 60' L	1131+40, 54' L					440		440		440							
1131+40, 54' L	1132+67, 91' L			1		132		929		929							
1132+67, 91' L	1141+96, 74' L			2		929		929		929							
1141+96, 74' L	1141+96, 00' L	74								74							
1141+96, 00' L	1147+17, 00' L	521								521							
1147+17, 00' L	1147+17, 75' L	75								75							
1147+17, 75' L	1150+25, 115' L	311								311							
1150+25, 115' L	1150+58, 64' L						61			61							
1150+58, 64' L	1155+32, 63' L		1		474		474			474							
1155+32, 63' L	1159+83, 61' L		1		451		451			451							
1159+83, 61' L	1159+83, 00' L	61								61							
1159+83, 00' R	1183+00, 00' R	2317								2317							
1179+96, 00' R	1179+98, 57' R	57								114							
1179+98, 57' R											75						
1179+98, 57' R	1180+18, 57' R					20		20		40	20						
1180+18, 57' R			1									1					
1180+18, 57' R	1180+19, 67' R					10		10									
1180+19, 67' R							1									1	1
1180+19, 67' R	1180+19, 77' R				10		10							30			
1180+19, 77' R		1															
1180+19, 77' R	1179+98, 57' R				29		29							87			
1179+98, 57' R															1		
SPLICE SLACK										150	75	150		30			
PB SLACK										110				60			
<b>TOTALS</b>		3416	1	6	39	2324	193	2363	1	6260	170	160	1	207	1	1	1



**POWER SERVICE NOTES**

- DSW 30AMP, 120VAC FUSED DISCONNECT SWITCH
- IPDC POWER DISTRIBUTION CABINET:
  - 1-100AMP SERVICE PANEL
  - 1-30AMP BREAKER, 120VAC TO ODOT NODE
  - 1-30AMP BREAKER, 120VAC TO CTSS NODE
- 1 EXISTING 90° SWEEP OF 3" RIGID STEEL CONDUIT LATERAL CROSSING SHALL BE LOCATED AND MARKED BY ODOT. THE EXISTING CONDUIT SHALL BE CUT AT THE BEND AND A 32" ROUND PULL BOX SHALL BE INSTALLED AT THE POINT OF THE CUT, PROVIDING ACCESS FROM THE PROPOSED 32" PULL BOX TO THE CENTER MEDIAN JUNCTION BOX.

**UNDERGROUND UTILITIES**

TWO WORKING DAYS BEFORE YOU DIG  
CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

**CITY OF COLUMBUS UTILITY LEGEND**

- ☒ SEWER
- ☒ WATER
- ☐ POWER
- ☐ LIGHTING

CONSTRUCTION AS-BUILT  
**2643DR.E**

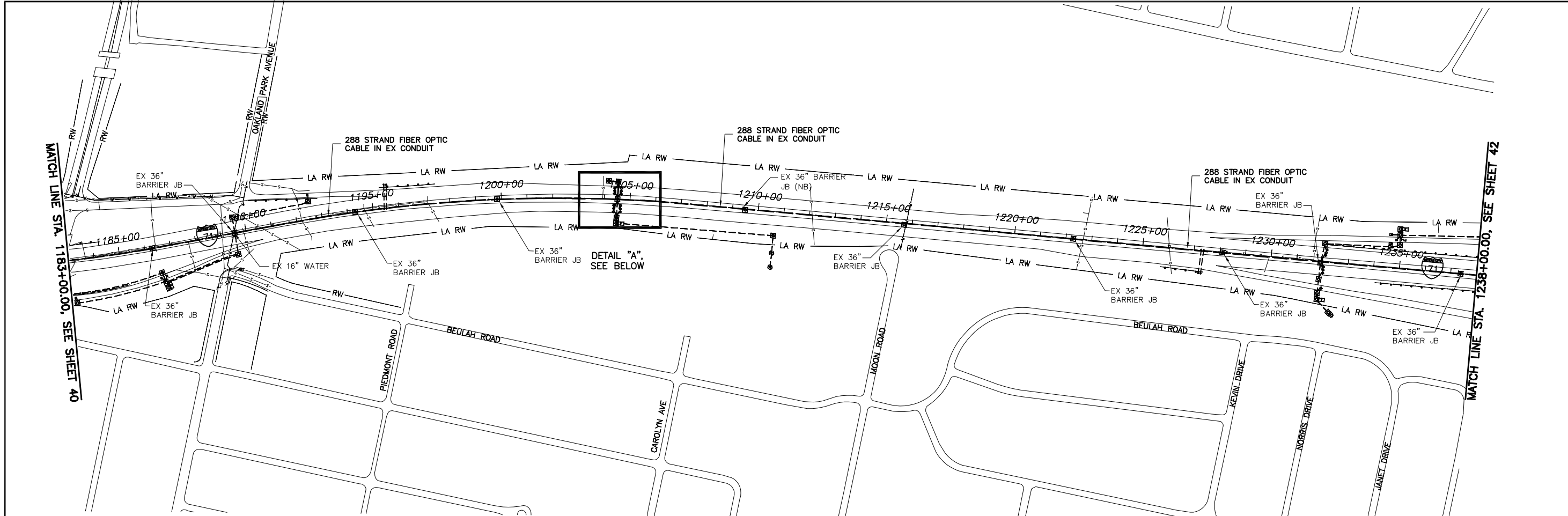
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PID NUMBER  
82540

I.R. 71  
PLAN SHEET STA. 1183+00.00 TO 1238+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

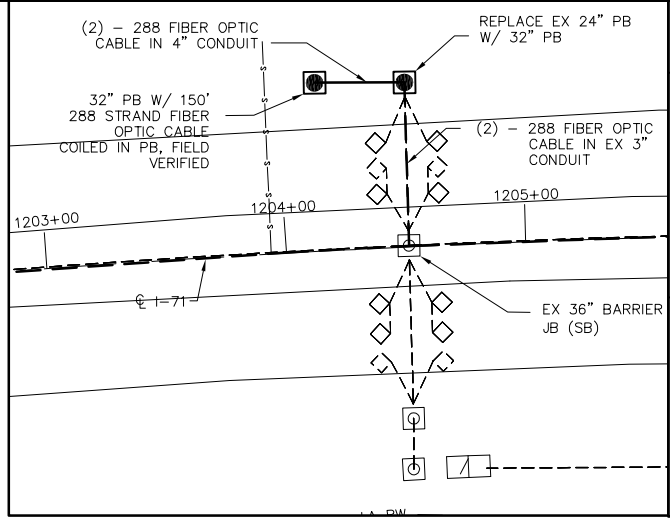


ESTIMATED QUANTITIES

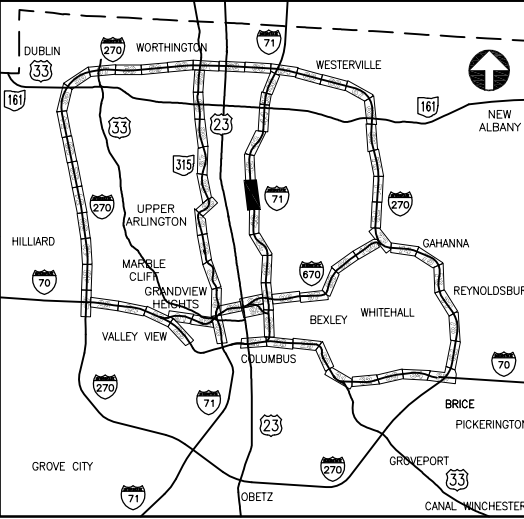
LOCATION		202	625	625	625	632
STATION	STATION	LF	EA	LF	LF	LF
1183+00, 00' R	1204+51, 00' R	2151				2151
1204+51, 00' R	1204+51, 72' R	72				144
1204+51, 72' R	1204+20, 80' R			32	32	64
1204+20, 80' R			1			150
1204+51, 00' R	1238+00, 01' R	3349				3349
<b>TOTALS</b>		5572	1	32	32	5858

CITY OF COLUMBUS  
UTILITY LEGEND

- SEWER
- WATER
- POWER
- LIGHTING



DETAIL "A"  
NOT TO SCALE



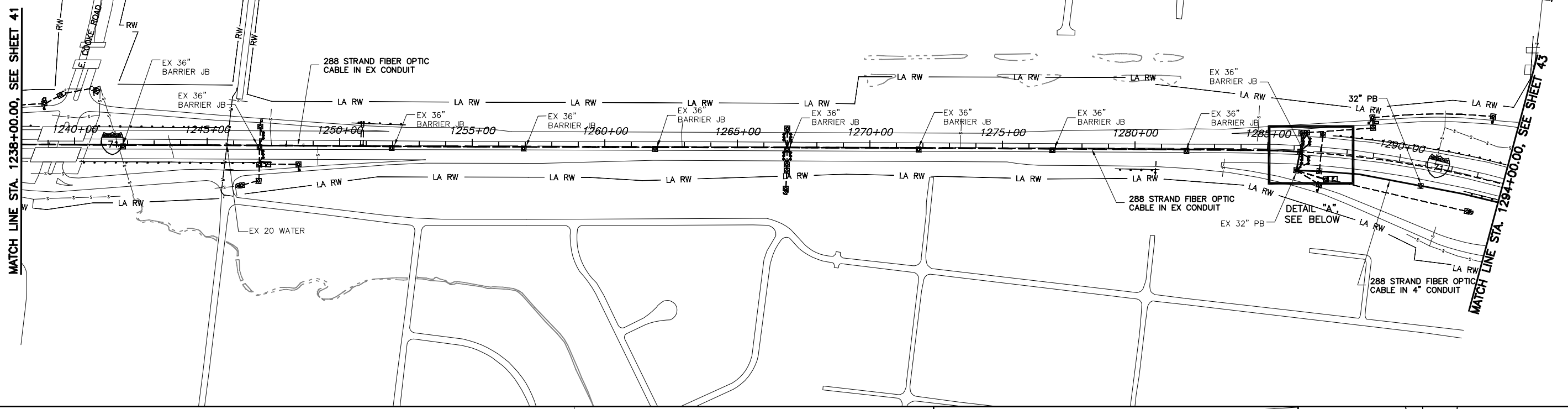
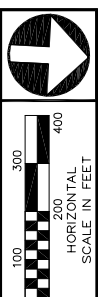
KEY PLAN  
NOT TO SCALE

UNDERGROUND UTILITIES

TWO WORKING DAYS  
BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

J:\Jobs\44086\TECHPROD\Sheets\ST\_CTSS82540\_0041 Draft Rev 4b.dwg ~ last saved by: CCI, Ikinocke 06/18/2012 11:48am ~ printed 06/23/2012 02:14pm

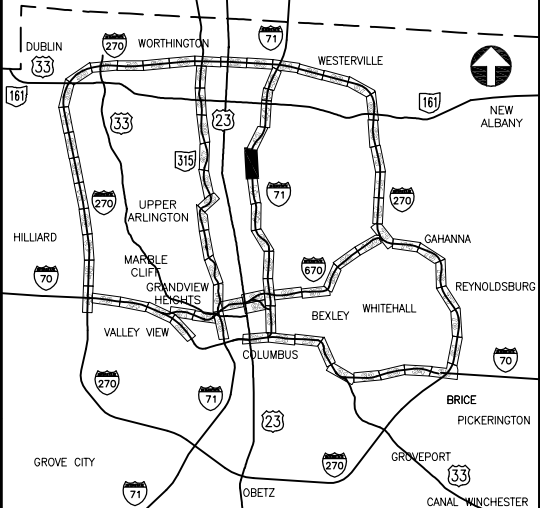
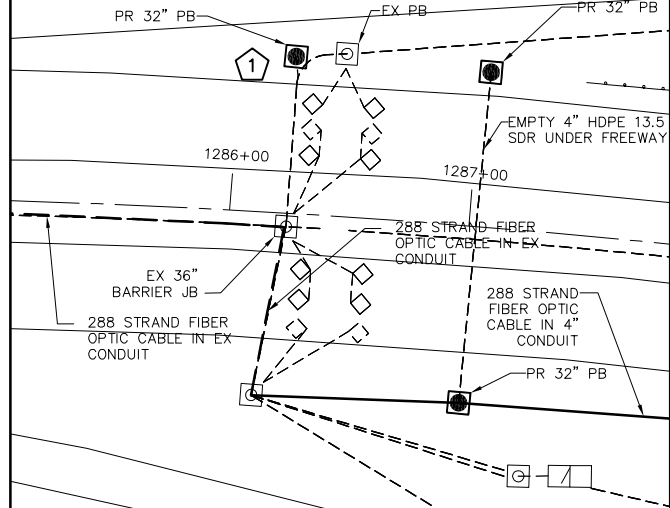


**ESTIMATED QUANTITIES**

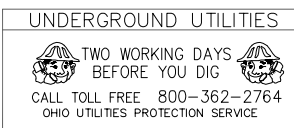
LOCATION		202	625	625	625	632
STATION	STATION	LF	EA	LF	LF	LF
1238+00, 01' R	1286+44, 00' R	4844				4844
1286+44, 00' R	1286+44, 74' R	74				74
1286+44, 74' R	1290+94, 74' R			450	450	450
1290+94, 74' R	1294+00, 74' R		1	306	306	306
PB SLACK						20
<b>TOTALS</b>		4918	1	756	756	5694

**CITY OF COLUMBUS UTILITY LEGEND**

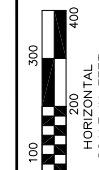
- SEWER
- WATER
- POWER
- LIGHTING



1 EXISTING 90° SWEEP OF 3" RIGID STEEL CONDUIT LATERAL CROSSING SHALL BE LOCATED AND MARKED BY ODOT. THE EXISTING CONDUIT SHALL BE CUT AT THE BEND AND A 32" ROUND PULL BOX SHALL BE INSTALLED AT THE POINT OF THE CUT, PROVIDING ACCESS FROM THE PROPOSED 32" PULL BOX TO THE CENTER MEDIAN JUNCTION BOX.



J:\Jobs\44086\TECHPROD\Sheets\ST\_CTS52540\_0042 Draft Rev 4b.dwg ~ last saved by: CCI, mgraf 08/31/2012 01:31pm ~ printed 08/31/2012 02:31pm

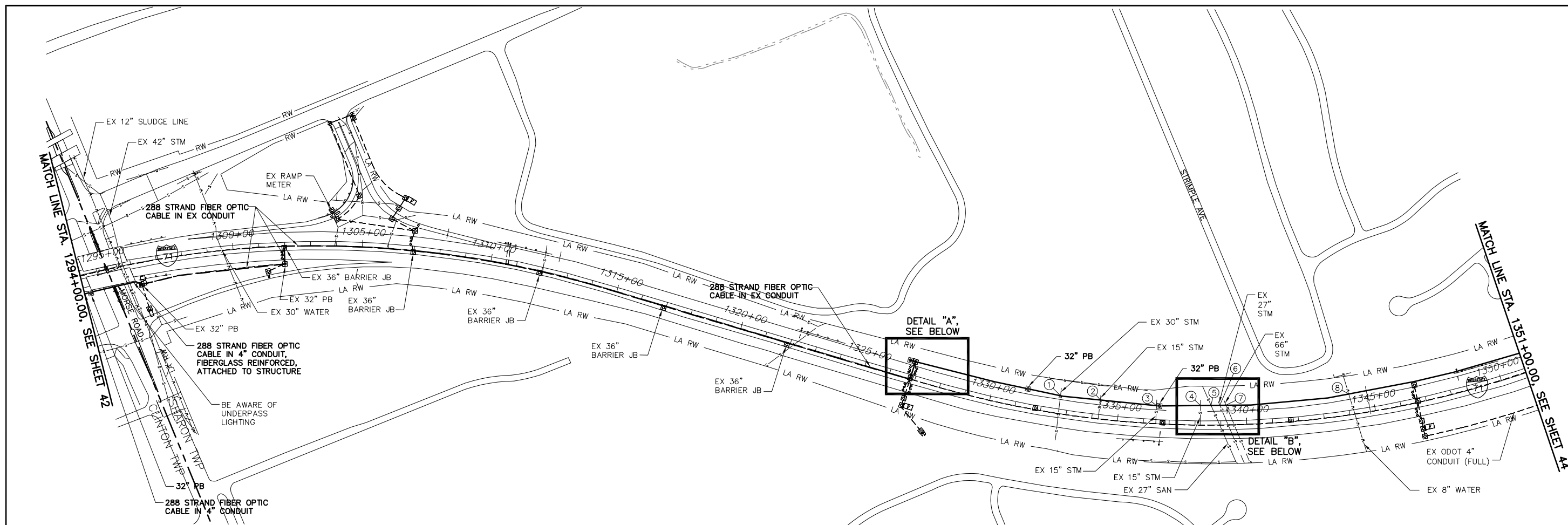


PID NUMBER  
82540

PLAN SHEET STA. 1294+00.00 TO 1351+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

43  
147



**ESTIMATED QUANTITIES**

LOCATION		202	625	625	625	625	632				
STATION	STATION	LF	EA	LF	LF	LF	LF				
1294+00, 79' R	1294+22, 77' L			22	22		22				
1294+22, 79' L	1296+26, 86' L		1				204				
1296+26, 86' L	1301+94, 69' L	568					568				
1301+94, 69' L	1301+94, 6' L	63					63				
1301+94, 6' L	1326+81, 04' L	2487					2487				
1326+81, 04' L	1326+81, 70' L	66					66				
1326+81, 70' L	1326+71, 70' L			10	10		20				
1326+71, 70' L			1				150				
1326+81, 70' L	1351+00, 80' L			2419	2419		2419				
1331+35, 74' L			1								
1336+56, 69' L			1								
1341+54, 78' L			1								
1346+34, 84' L			1								
PB SLACK											70
STRUCT. SLACK											50
<b>TOTALS</b>		3184	6	2451	2451	204	6119				

**CITY OF COLUMBUS UTILITY LEGEND**

- SEWER
- WATER
- POWER
- LIGHTING

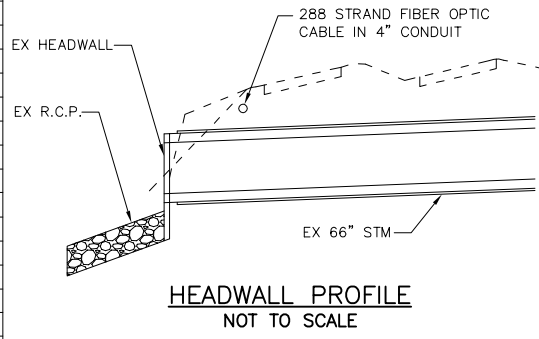
**UNDERGROUND UTILITIES**

TWO WORKING DAYS BEFORE YOU DIG

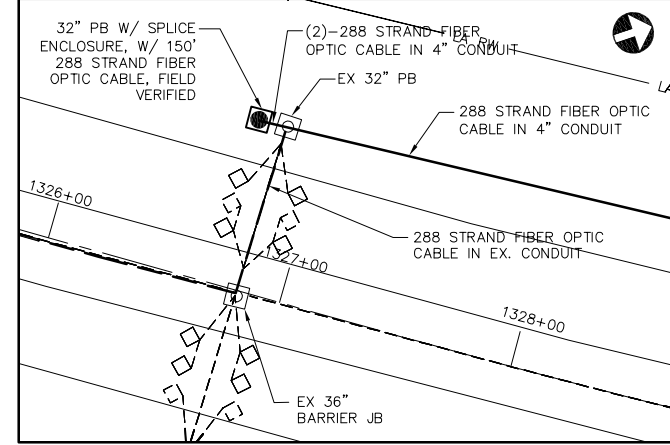
CALL TOLL FREE 800-362-2764

OHIO UTILITIES PROTECTION SERVICE

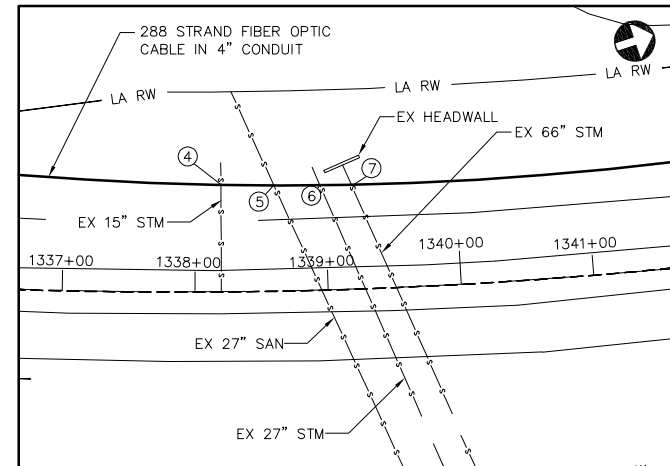
EXISTING UTILITY CROSSING. SEE UTILITY CROSSING INFO SHEET 20.



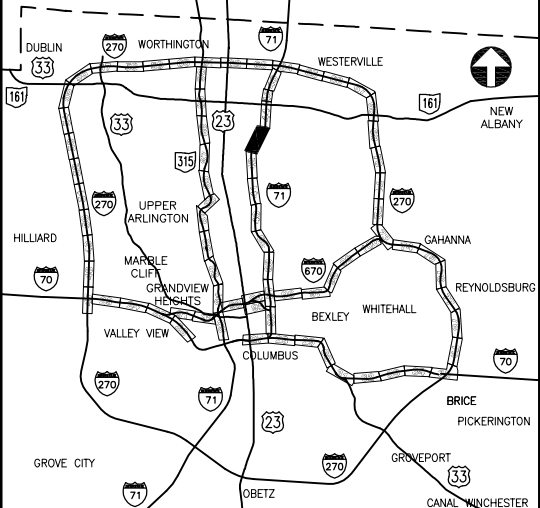
**HEADWALL PROFILE**  
NOT TO SCALE



**DETAIL "A": FUTURE NODE #071116.2**  
NOT TO SCALE



**DETAIL "B"**  
NOT TO SCALE

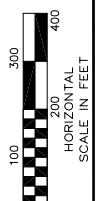


**KEY PLAN**  
NOT TO SCALE

REFER TO SHEET 104 FOR CONDUIT ATTACHED TO STRUCTURE DETAILS FOR BRIDGE OVER MORSE ROAD

CONSTRUCTION AS-BUILT  
**2643DR.E**

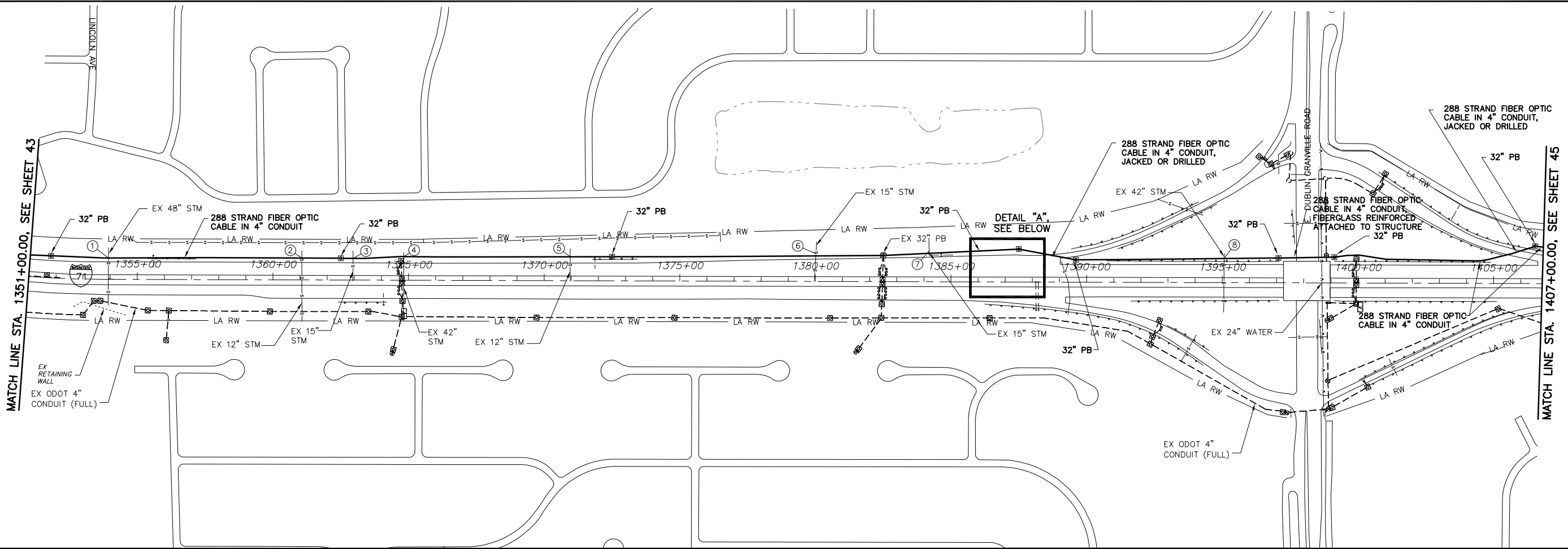
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PID NUMBER  
82540

I.R. 71 AT E. DUBLIN-GRANVILLE ROAD  
PLAN SHEET STA. 1351+00.00 TO 1407+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A



ESTIMATED QUANTITIES

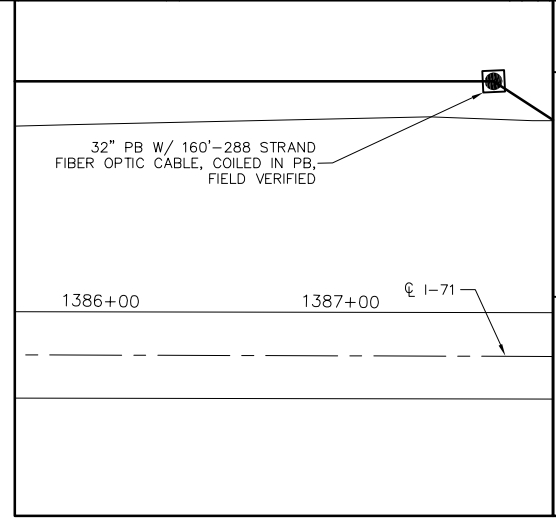
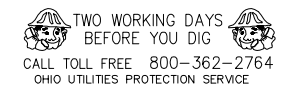
LOCATION		625	625	625	625	625	632
STATION	STATION	EA	LF	LF	LF	LF	LF
1351+00, 80' L	1387+98, 116' L	7	3698		3698		3698
1387+98, 116' L	1387+98, 116' L	1					150
1387+98, 116' L	1389+32, 119' L		134		134		134
1389+32, 119' L	1389+32, 119' L	1					
1389+32, 119' L	1389+59, 83' L			45			45
1389+59, 83' L	1397+08, 90' L	3	749		749		749
1397+08, 90' L	1399+14, 90' L	1				206	206
1399+14, 90' L	1406+13, 80' L	1	399		699		699
1406+13, 80' L	1406+53, 138' L			77			77
1406+53, 138' L	1406+53, 138' L	1					
1406+53, 138' L	1407+00, 134' L		47		47		47
PB SLACK							130
STRUCT. SLACK							50
<b>TOTALS</b>		15	5027	122	5327	206	5985

CITY OF COLUMBUS  
UTILITY LEGEND

- SEWER
- WATER
- POWER
- LIGHTING

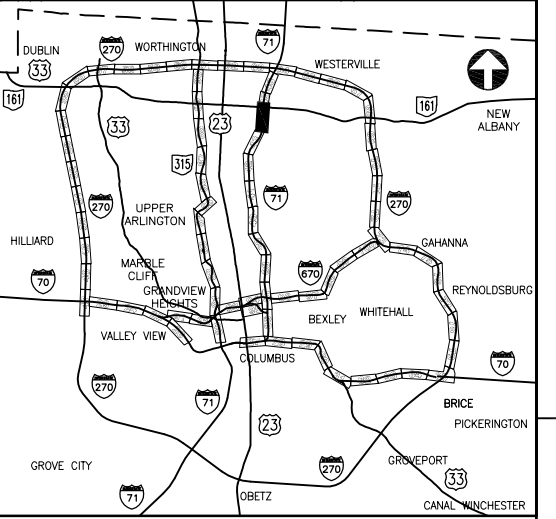
⊗ EXISTING UTILITY CROSSING.  
SEE UTILITY CROSSING INFO  
SHEET 20.

UNDERGROUND UTILITIES



DETAIL "A"  
NOT TO SCALE

FUTURE NODE  
#071117.6



KEY PLAN  
NOT TO SCALE

REFER TO SHEET 105 FOR CONDUIT  
ATTACHED TO STRUCTURE DETAILS  
FOR BRIDGE OVER S.R. 161

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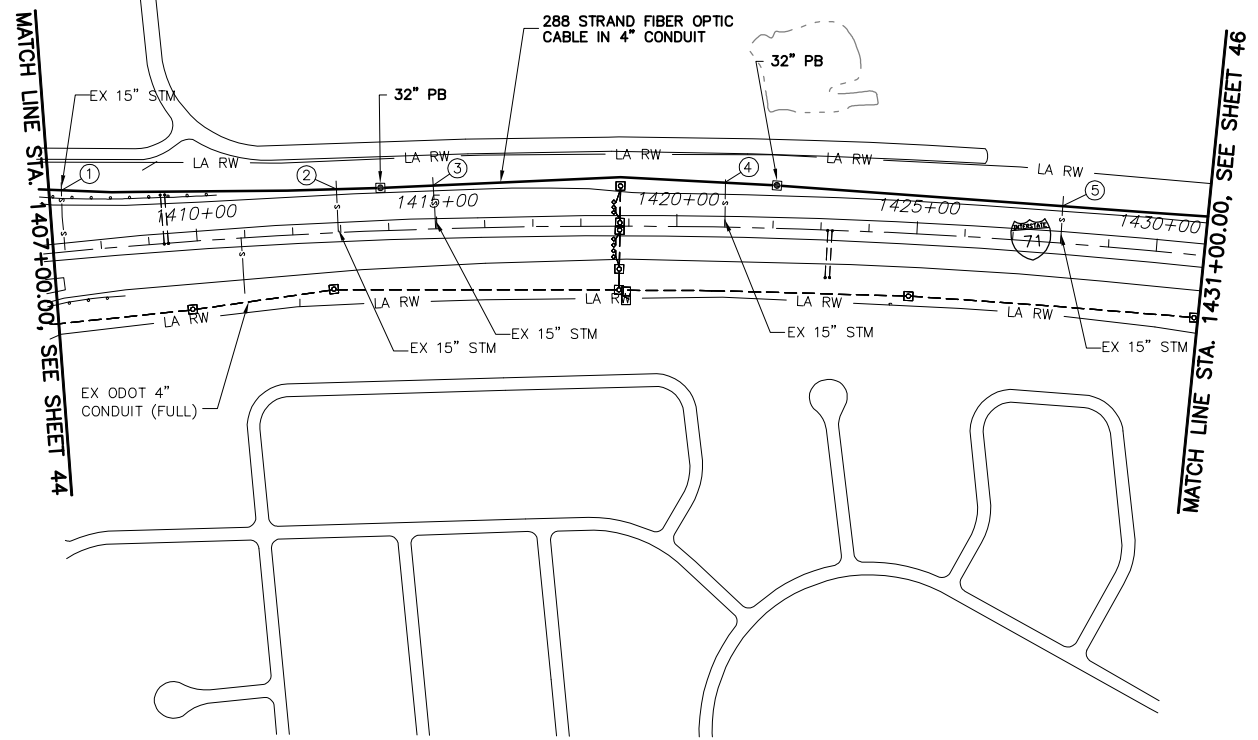


PID NUMBER  
82540

I.R. 71  
PLAN SHEET STA. 1407+00.00 TO 1431+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

45  
147



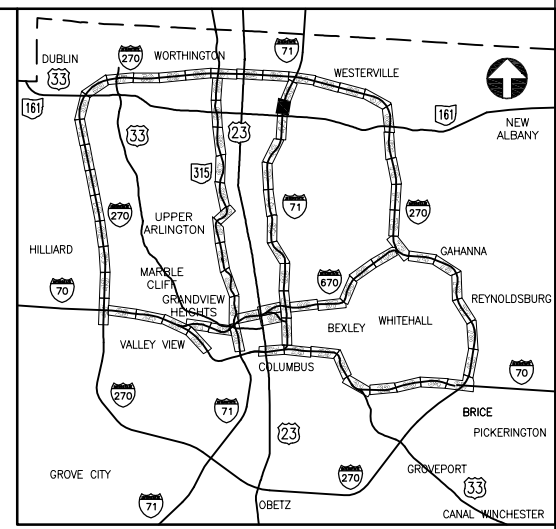
ESTIMATED QUANTITIES

LOCATION		625	625	625	632						
STATION	STATION	PULL BOX, 713.08, 32", AS PER PLAN	CONDUIT, 725.05, 4" AS PER PLAN	TRENCH, 24" DEEP AS PER PLAN	288 STRAND FIBER OPTIC CABLE						
		EA	LF	LF	LF						
1407+00, 134' L	1431+00, 82' L		2400	2400	2400						
1408+92, 111' L		1									
1413+89, 89' L		1									
1418+85, 102' L		1									
1422+08, 89' L		1									
1427+04, 77' L		1									
PB SLACK					50						
<b>TOTALS</b>		5	2400	2400	2450						

CITY OF COLUMBUS  
UTILITY LEGEND

- SEWER
- WATER
- POWER
- LIGHTING

EXISTING UTILITY CROSSING.  
SEE UTILITY CROSSING INFO  
SHEET 20.



KEY PLAN  
NOT TO SCALE

UNDERGROUND UTILITIES

TWO WORKING DAYS  
BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

CONSTRUCTION AS-BUILT  
2643DR.E

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PID NUMBER  
82540

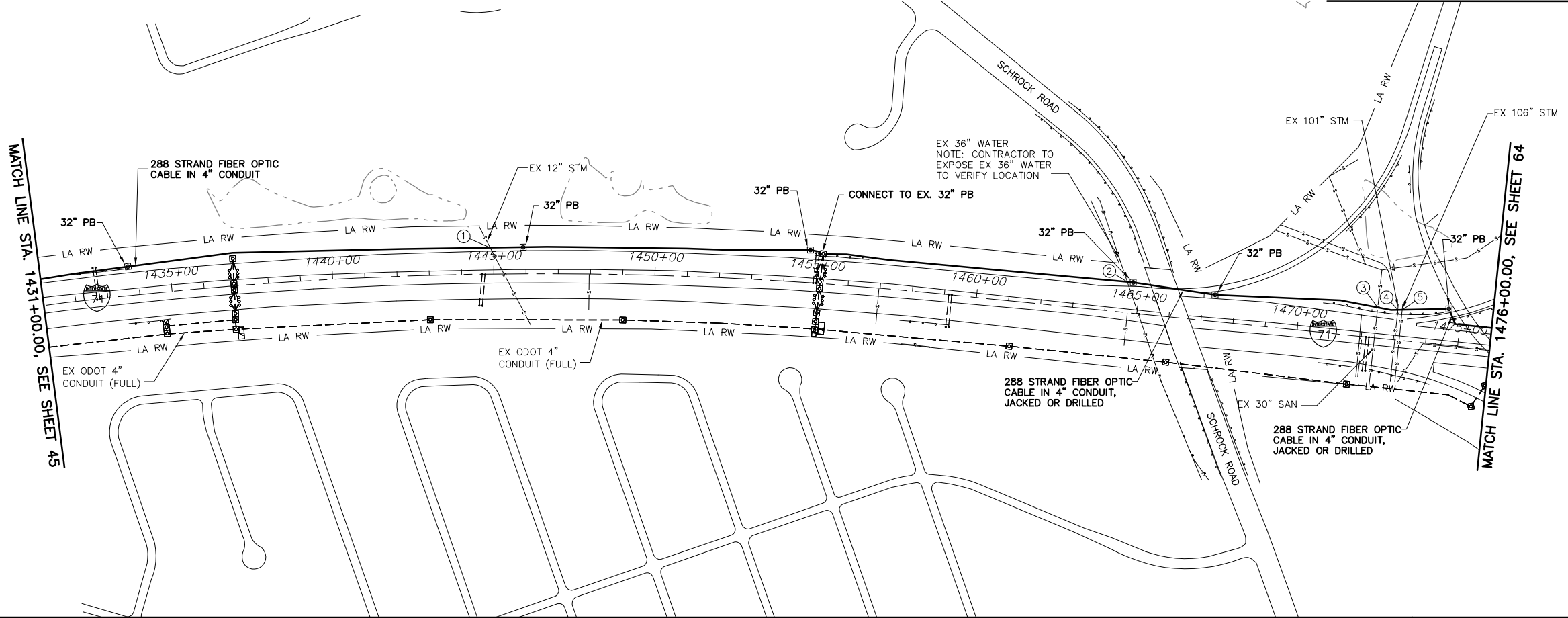
PLAN SHEET STA. 1431+00.00 TO 1476+00.00  
I.R. 71 AT I.R. 270

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

MATCH LINE SEE SHEET 63

MATCH LINE STA. 1431+00.00, SEE SHEET 45

MATCH LINE STA. 1476+00.00, SEE SHEET 64



ESTIMATED QUANTITIES

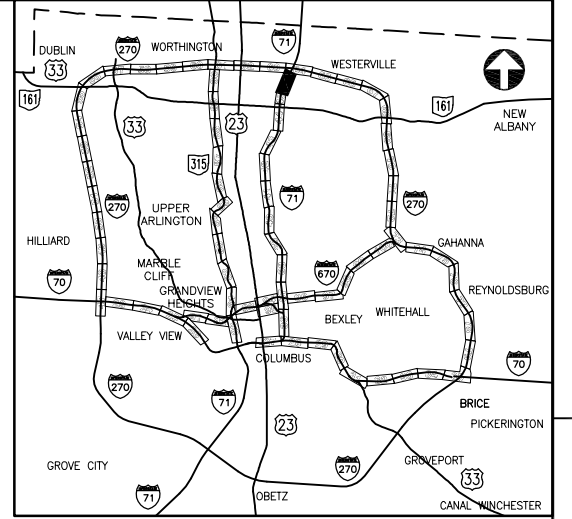
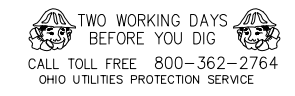
LOCATION		625	625	625	625	632				
STATION	STATION	EA	LF	LF	LF	LF				
1431+00, 82' L	1467+17, 114' L		3717		3717	3717				
1432+01, 86' L		1								
1436+98, 103' L		1								
1442+30, 85' L		1								
1447+27, 83' L		1								
1452+23, 86' L		1								
1457+20, 90' L		1								
1462+17, 93' L		1								
1467+17, 114' L		1				150				
1467+17, 114' L	1467+35, 83' L			36		36				
1462+35, 83' L		1								
1467+35, 83' L	1474+62, 113' L		728		728	728				
1471+24, 105' L		1								
1474+62, 113' L		1								
1474+62, 113' L	1474+86, 68' L			51		51				
1474+86, 68' L		1								
1474+86, 68' L	1476+00, 67' L		114		114	114				
PB SLACK						130				
<b>TOTALS</b>		12	4559	87	4559	4926				

CITY OF COLUMBUS UTILITY LEGEND

- SEWER
- WATER
- POWER
- LIGHTING

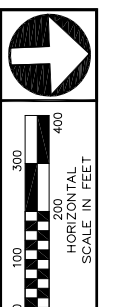
EXISTING UTILITY CROSSING. SEE UTILITY CROSSING INFO SHEET 20 & 21.

UNDERGROUND UTILITIES



KEY PLAN NOT TO SCALE

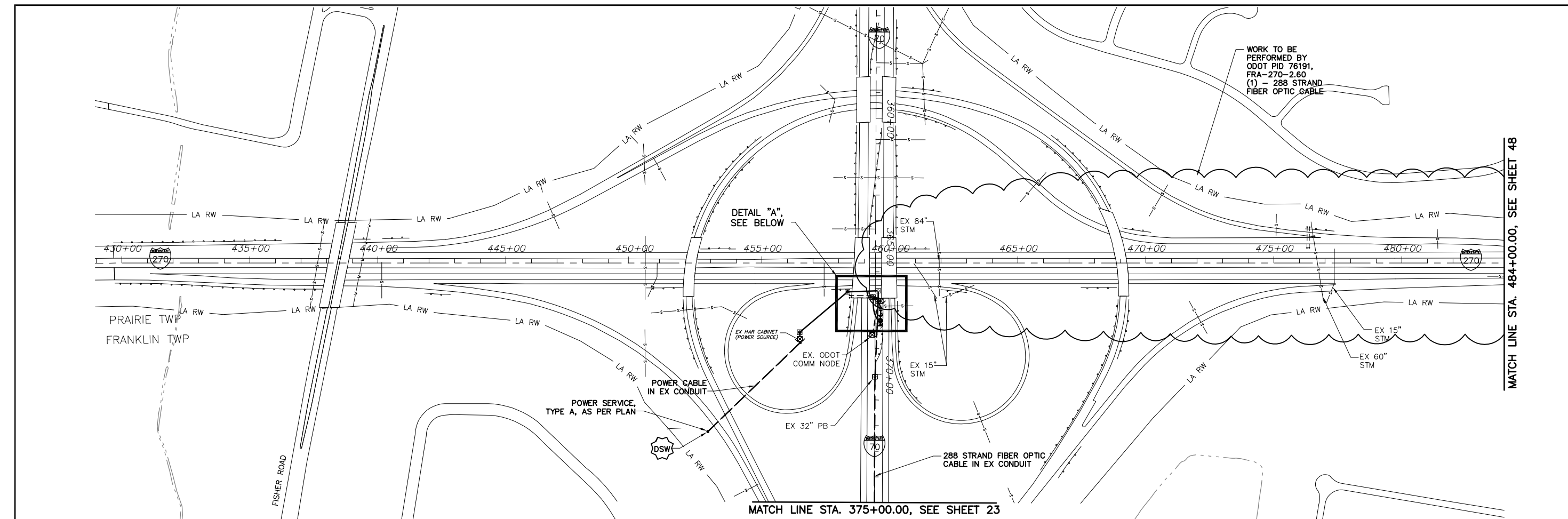
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PID NUMBER  
82540

I.R. 270 AT I.R. 70  
PLAN SHEET STA. 429+00.00 TO 484+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A



WORK TO BE PERFORMED BY  
ODOT PID 76191,  
FRA-270-260  
(1) - 288 STRAND  
FIBER OPTIC CABLE

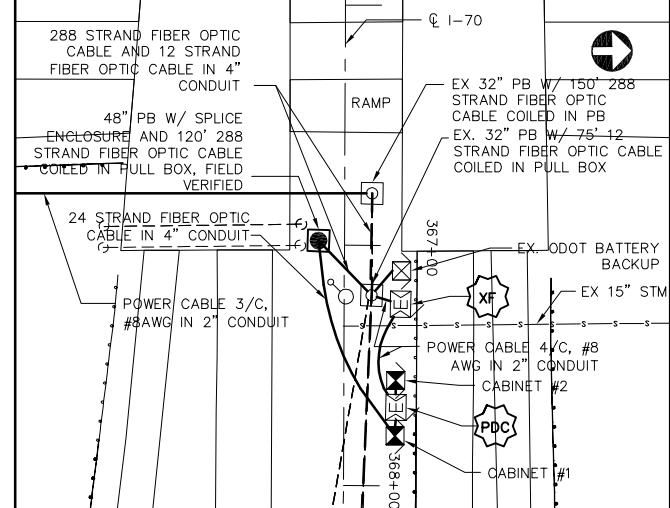
MATCH LINE STA. 484+00.00, SEE SHEET 48

MATCH LINE STA. 375+00.00, SEE SHEET 23

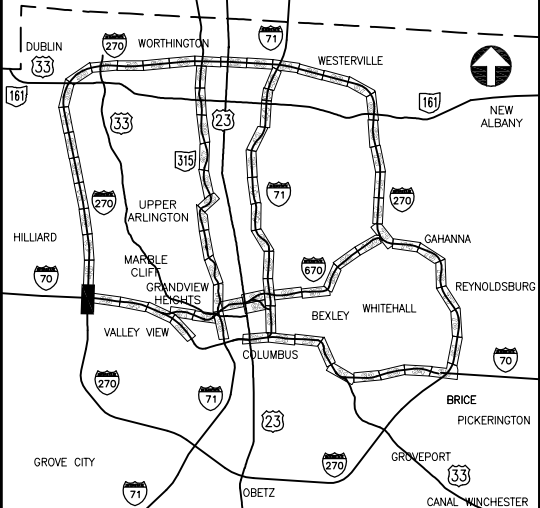
ESTIMATED QUANTITIES

LOCATION STATION	STATION	202	625	625	625	625	625	632	632	632	632	632	632	633	633	
EXISTING CONDUIT CLEANED, AS PER PLAN	PULL BOX, 713.08, 18", AS PER PLAN	PULL BOX, 713.08, 48", AS PER PLAN	CONDUIT, 725.05, 2" AS PER PLAN	CONDUIT, 725.05, 4" AS PER PLAN	TRENCH, 24" DEEP AS PER PLAN	GROUND ROD AS PER PLAN	288 STRAND FIBER OPTIC CABLE	12 STRAND FIBER OPTIC CABLE	24 STRAND FIBER OPTIC CABLE	SPLICE ENCLOSURE,	POWER CABLE, NO 8 AWG, AS PER PLAN	POWER SERVICE, TYPE C, AS PER PLAN	COMMUNICATIONS CABINET #1	COMMUNICATIONS CABINET #2		
LF	EA	EA	LF	LF	LF	EA	LF	LF	LF	EA	LF	EA	EA	EA		
367+13, 12' L	375+00, 0' R	787					787									
459+50, 150' R								75								
459+50, 150' R	459+39, 150' R				11	11		22	22							
459+39, 150' R			1				150			1						
459+39, 150' R	459+29, 150' R				10	10			10				1	1		
459+29, 150' R							1									
459+29, 150' R	459+29, 160' R				10	10					40					
459+29, 160' R			1													
459+29, 160' R	459+50, 150' R				23	23					92	1				
PB SLACK								20			40					
SPLICE SLACK								75	75	75	80					
<b>TOTALS</b>		787	1	1	33	21	54	1	1054	172	160	1	252	1	1	1

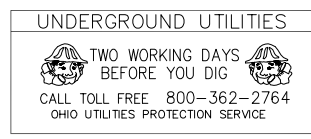
- POWER SERVICE NOTES**
- 30AMP, 480VAC FUSED DISCONNECT SWITCH
  - 480-120/240VAC 10KVA PAD MOUNTED TRANSFORMER
  - POWER DISTRIBUTION CABINET:
    - 1-100AMP SERVICE PANEL
    - 1-30AMP BREAKER, 120VAC TO CTSS COMM NODE
    - 1-30AMP BREAKER, 120VAC (SPARE)
    - 1-2 POLE 30AMP BREAKER, 120/240VAC TO ODOT COMM NODE



DETAIL "A"  
NOT TO SCALE  
NODE #270008.7  
REFER TO SHEET 129 FOR COMMUNICATION DETAILS



KEY PLAN  
NOT TO SCALE

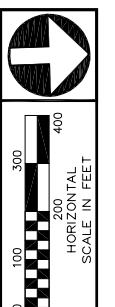


- CITY OF COLUMBUS UTILITY LEGEND**
- SEWER
  - WATER
  - POWER
  - LIGHTING

EXISTING UTILITY CROSSING. SEE UTILITY CROSSING INFO SHEET 21.

CONSTRUCTION AS-BUILT  
**2643DR.E**

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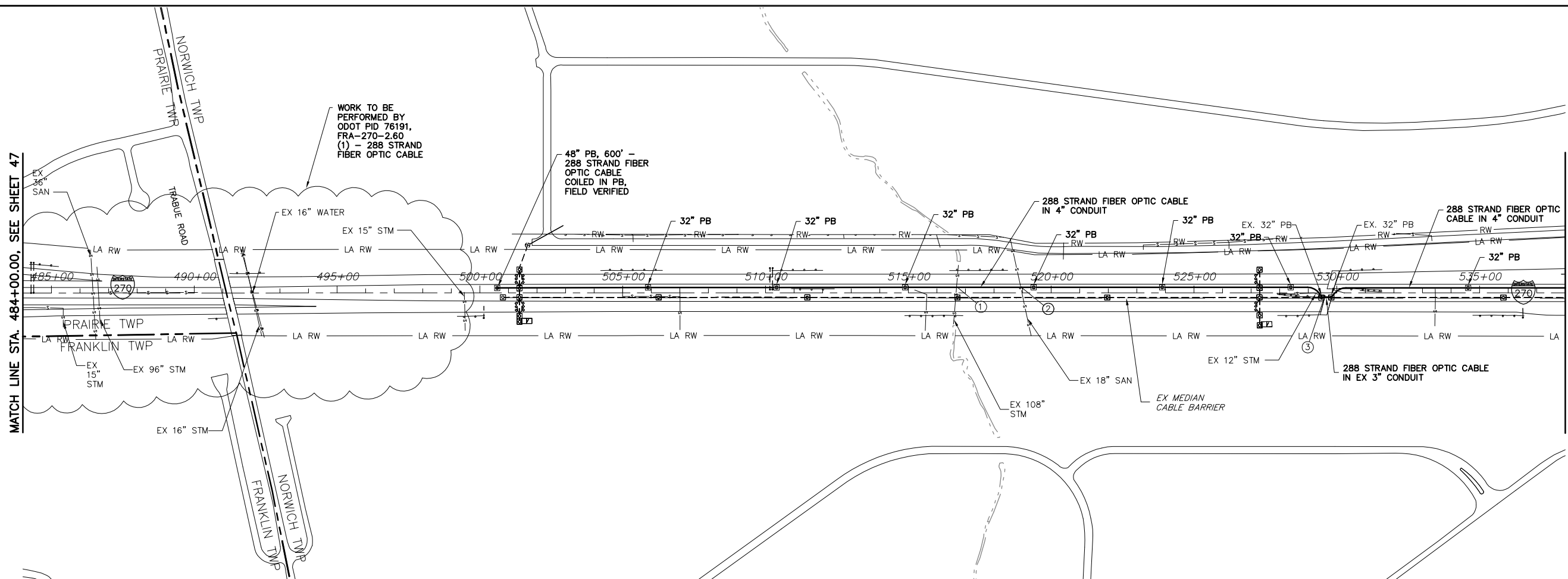
PID NUMBER  
82540

I.R. 270  
PLAN SHEET STA. 484+00.00 TO 538+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

MATCH LINE STA. 484+00.00, SEE SHEET 47

MATCH LINE STA. 538+00.00, SEE SHEET 49

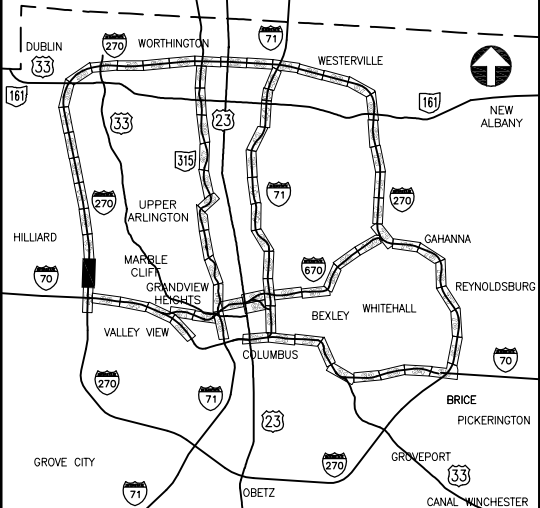


ESTIMATED QUANTITIES

LOCATION		ESTIMATED QUANTITIES							
STATION	STATION	202	625	625	625	625	632	632	
		EXISTING CONDUIT CLEANED, AS PER PLAN	PULL BOX, 713.08, 32\", AS PER PLAN	PULL BOX, 713.08, 48\", AS PER PLAN	CONDUIT, 725.05, 4\" AS PER PLAN	TRENCH, 24\" DEEP AS PER PLAN	288 STRAND FIBER OPTIC CABLE	SPLICE ENCLOSURE	
		LF	EA	EA	LF	LF	LF	EA	
500+63, 20'L				1			150	1	
500+63, 20'L	529+47, 16'R				2901	2901	2901		
505+89, 22'L			1						
510+39, 22'L			1						
514+89, 22'L			1						
519+39, 22'L			1						
523+89, 22'L			1						
528+39, 22'L			1						
529+47, 16'R	529+81, 16'R	34					34		
529+81, 16'R	538+00, 22'L				820	820	820		
534+60, 22'L			1						
PB SLACK							70		
STRUCT. SLACK							50		
<b>TOTALS</b>		34	7	1	3721	3721	4025	1	

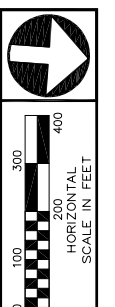
CITY OF COLUMBUS UTILITY LEGEND  
 SEWER  
 WATER  
 POWER  
 LIGHTING  
 (XX) EXISTING UTILITY CROSSING. SEE UTILITY CROSSING INFO SHEET 21.

UNDERGROUND UTILITIES  
 TWO WORKING DAYS BEFORE YOU DIG  
 CALL TOLL FREE 800-362-2764  
 OHIO UTILITIES PROTECTION SERVICE



KEY PLAN  
NOT TO SCALE

J:\Jobs\44086\TECHPROD\Sheets\ST\_CTSS2540\_0048 revision 2.dwg ~ last saved by: CCI, Ikinickie 06/19/2012 08:26am ~ printed 08/23/2012 02:21pm

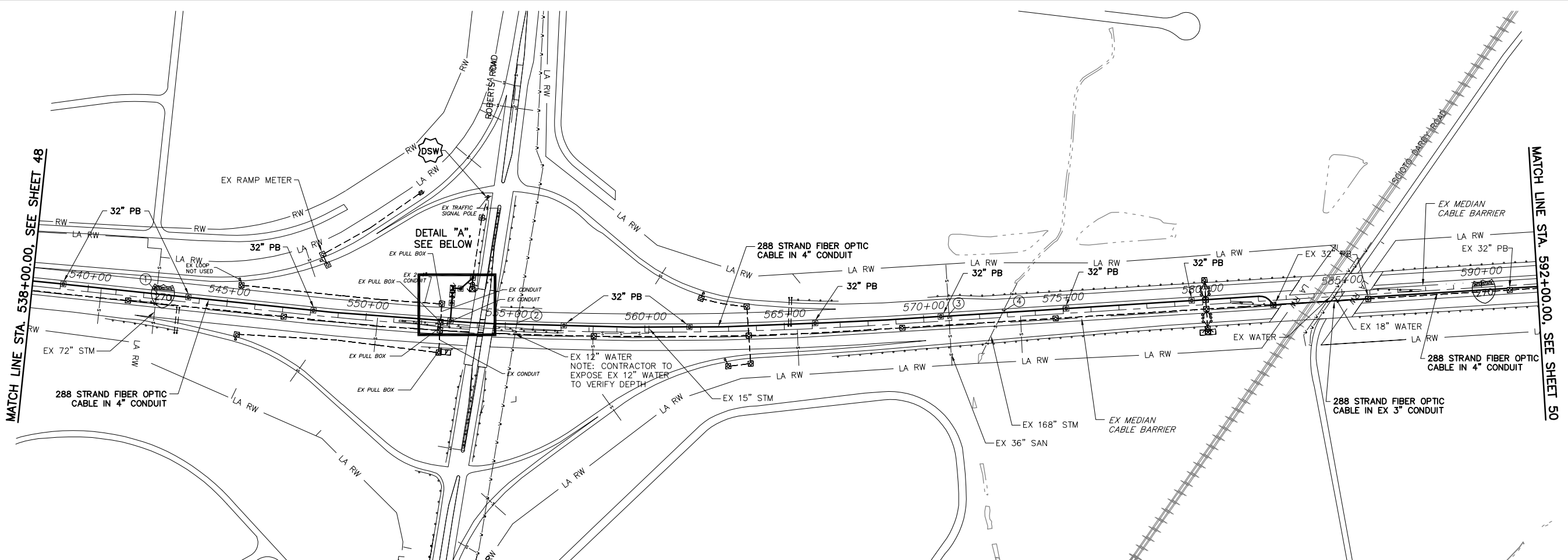


PID NUMBER  
82540

I.R. 270 AT ROBERTS ROAD  
PLAN SHEET STA. 538+00.00 TO 592+00.00

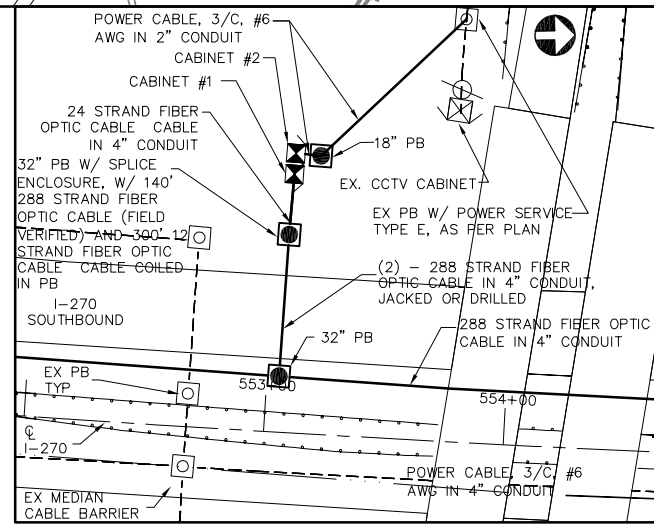
CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

49  
147



ESTIMATED QUANTITIES

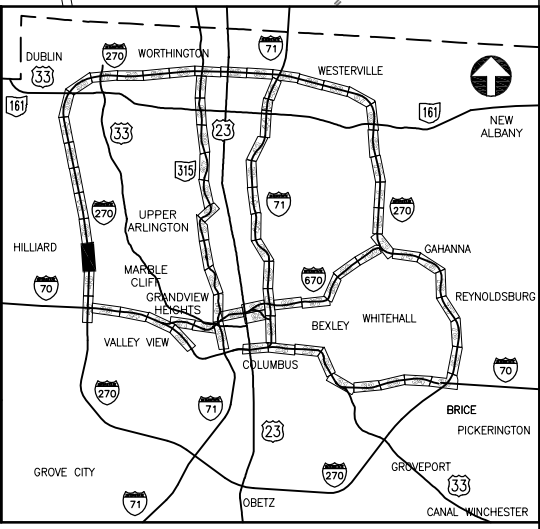
LOCATION		202	625	625	625	625	625	625	632	632	632	632	632	632	633	633	
STATION	STATION	EXISTING CONDUIT CLEANED, AS PER PLAN	PULL BOX, 713.08, 18", AS PER PLAN	PULL BOX, 713.08, 32", AS PER PLAN	CONDUIT, 725.05, 2" AS PER PLAN	CONDUIT, 725.05, 4" AS PER PLAN	CONDUIT, JACKED OR DRILLED, 725.05, AS PER PLAN	TRENCH, 24" DEEP AS PER PLAN	GROUND ROD AS PER PLAN	288 STRAND FIBER OPTIC CABLE	12 STRAND FIBER OPTIC CABLE	24 STRAND FIBER OPTIC CABLE	SPLICE ENCLOSURE,	POWER CABLE, NO 6 AWG, AS PER PLAN	POWER SERVICE, TYPE D, AS PER PLAN	COMMUNICATIONS CABINET #1	COMMUNICATIONS CABINET #2
LF	EA	EA	LF	LF	LF	LF	EA	LF	LF	LF	EA	LF	EA	EA	EA	EA	
538+00, 20' L	582+52, 16' R		10		4452		4452		4452								
553+03, 20' L	553+03, 80' L					60				120							
553+03, 80' L	553+03, 110' L			1						75	30	1					
553+03, 110' L	553+03, 110' L								1							1	1
553+03, 110' L	553+13, 110' L				10			10						30			
553+13, 110' L	553+13, 110' L		1														
553+13, 110' L	553+70, 178' L				89			89						267			
553+70, 178' L	553+70, 178' L														1		
582+52, 16' R	585+92, 16' R	340								340							
585+92, 16' R	591+00, 16' R					508		508		508							
591+00, 16' R	592+00, 16' R					100		100		100							
PB SLACK										130				30			
SPLICE SLACK										150	75	150		60			
STRUCT. SLACK										50							
<b>TOTALS</b>		340	1	11	99	5090	60	5189	1	5910	150	180	1	387	1	1	1



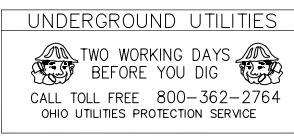
DETAIL "A"  
NOT TO SCALE

NODE #270010.5  
REFER TO SHEET 130 FOR  
COMMUNICATION DETAILS

**POWER SERVICE NOTES**  
DSW 30AMP, 120VAC FUSED DISCONNECT SWITCH



KEY PLAN  
NOT TO SCALE



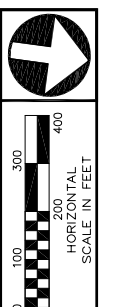
CITY OF COLUMBUS UTILITY LEGEND

- ☒ SEWER
- ☒ WATER
- ☐ POWER
- ☐ LIGHTING

⊗ EXISTING UTILITY CROSSING. SEE UTILITY CROSSING INFO SHEET 21.

CONSTRUCTION AS-BUILT  
**2643DR.E**

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PID NUMBER  
82540

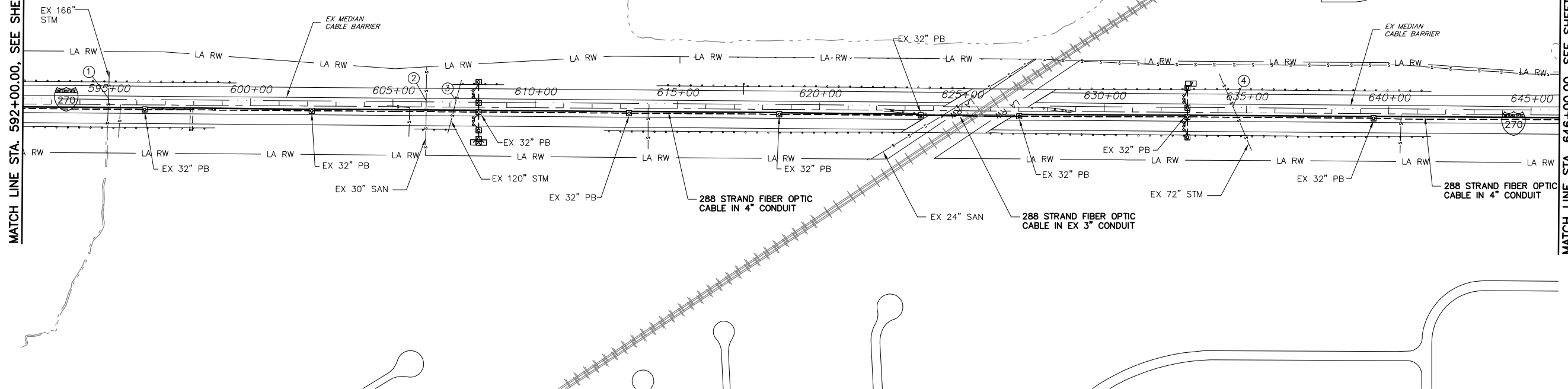
I.R. 270  
PLAN SHEET STA. 592+00.00 TO 646+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

50  
147

MATCH LINE STA. 592+00.00, SEE SHEET 49

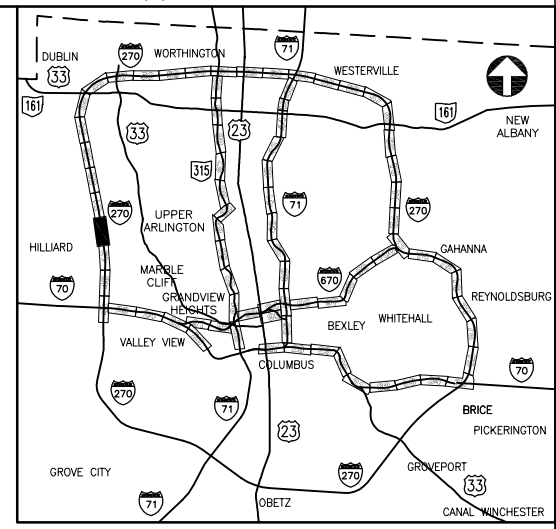
MATCH LINE STA. 646+00.00, SEE SHEET 51



ESTIMATED QUANTITIES

LOCATION		202	625	625	632				
STATION	STATION	LF	LF	LF	LF				
592+00, 17' R	623+55, 17' R		3155	3155	3155				
623+55, 17' R	627+02, 17' R	347			347				
627+02, 17' R	646+00, 17' R		1898	1898	1898				
PB SLACK					70				
STRUCT. SLACK					50				
<b>TOTALS</b>		347	5053	5053	5520				

- CITY OF COLUMBUS  
UTILITY LEGEND
- SEWER
  - WATER
  - POWER
  - LIGHTING
- ⊗ EXISTING UTILITY CROSSING.  
SEE UTILITY CROSSING INFO  
SHEET 21.



KEY PLAN  
NOT TO SCALE

UNDERGROUND UTILITIES

TWO WORKING DAYS  
BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

CONSTRUCTION AS-BUILT  
**2643DR.E**

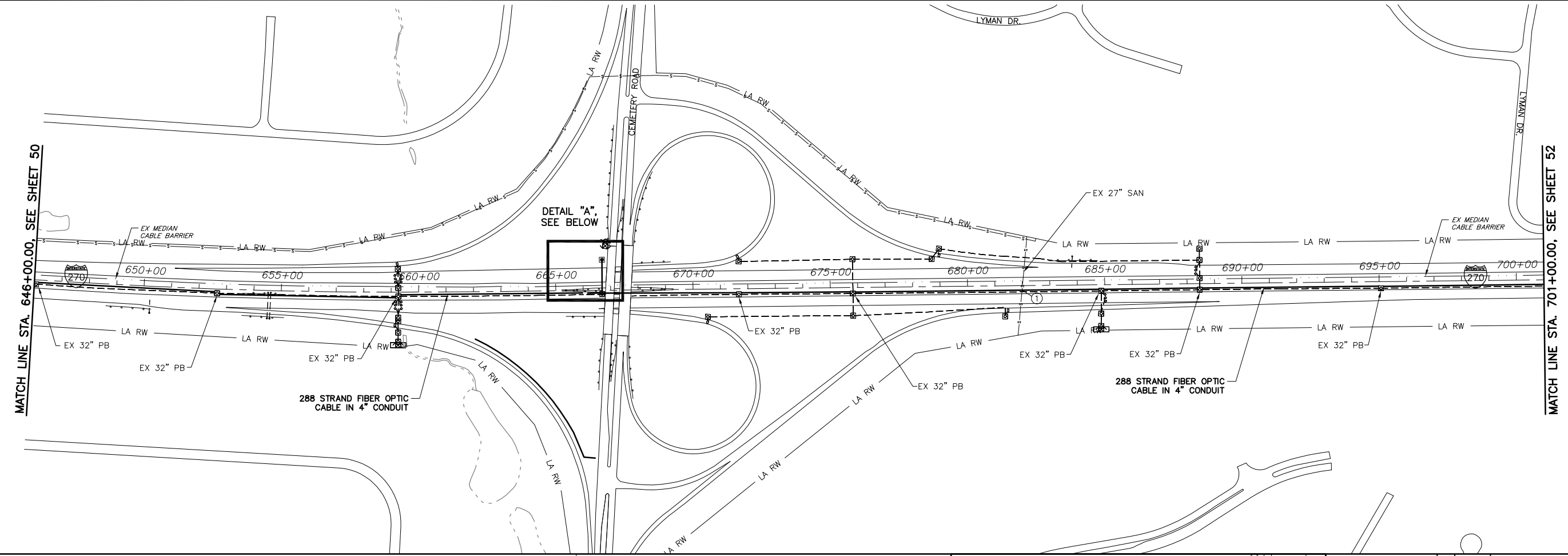
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PID NUMBER  
82540

I.R. 270 AT CEMETERY ROAD  
PLAN SHEET STA. 646+00.00 TO 701+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

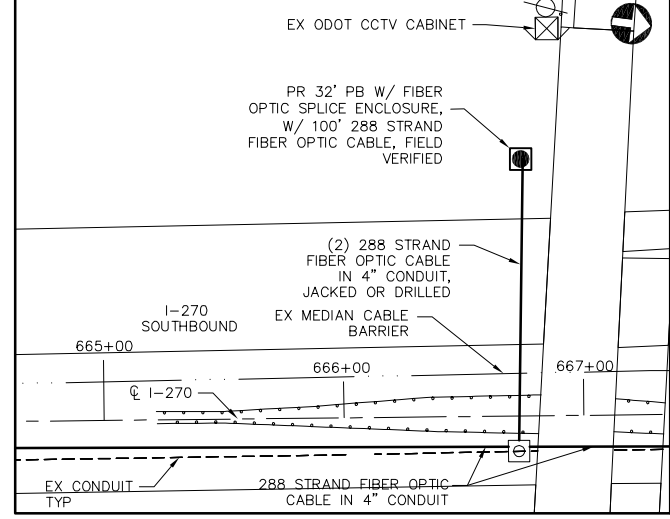


ESTIMATED QUANTITIES

LOCATION		625	625	625	625	632
STATION	STATION	EA	LF	LF	LF	LF
646+00, 16' R	701+00, 17' R		5500		5500	
666+07, 16' R	666+07, 110' L			126		252
666+07, 110' L		1				150
PB SLACK						100
<b>TOTALS</b>		1	5500	126	5500	6002

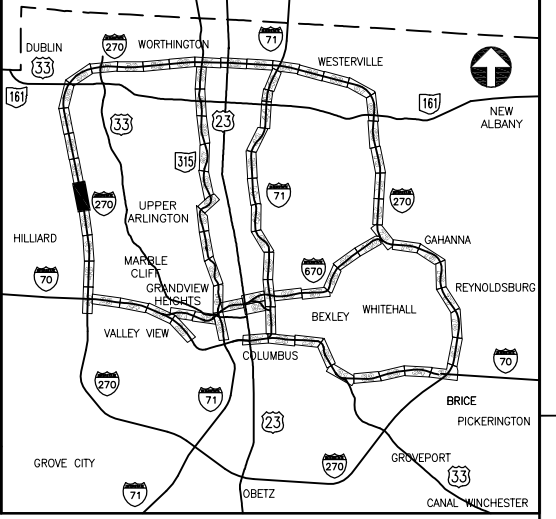
CITY OF COLUMBUS  
UTILITY LEGEND

- SEWER
- WATER
- POWER
- LIGHTING
- EXISTING UTILITY CROSSING.  
SEE UTILITY CROSSING INFO SHEET 21.



DETAIL "A"  
NOT TO SCALE

FUTURE NODE  
#270012.6



KEY PLAN  
NOT TO SCALE

UNDERGROUND UTILITIES

TWO WORKING DAYS  
BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

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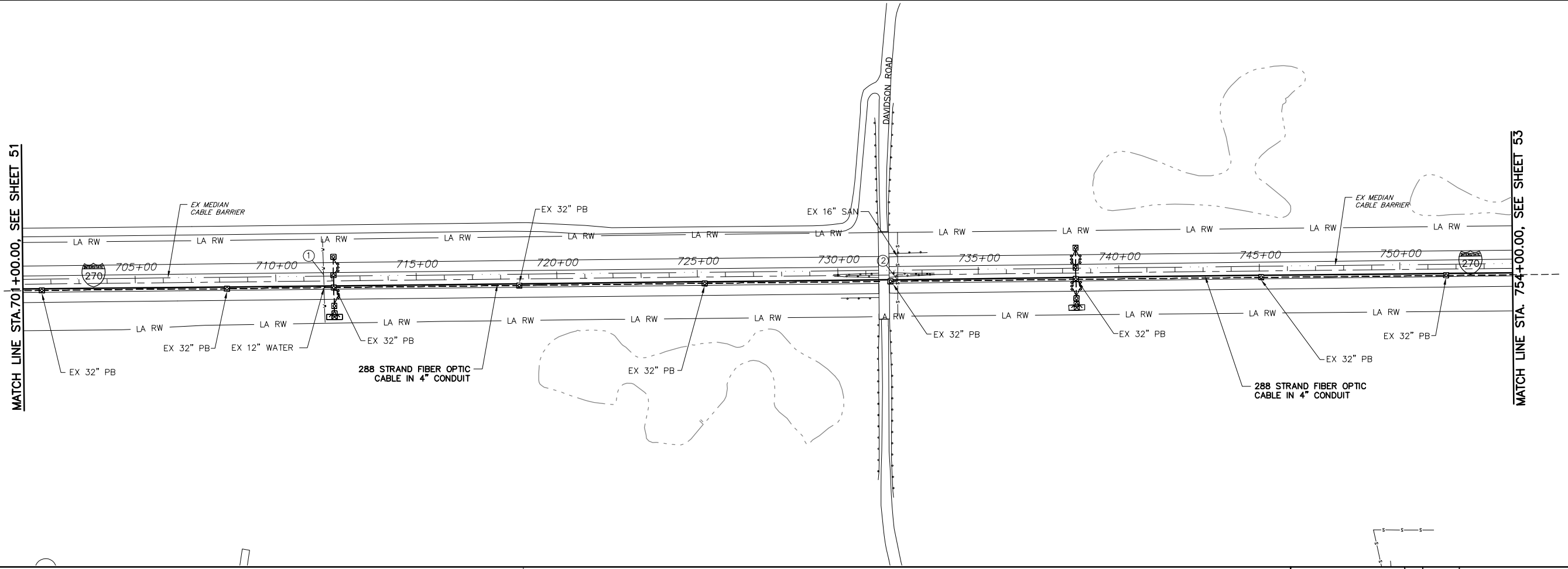
PID NUMBER  
82540

I.R. 270 AT DAVIDSON ROAD  
PLAN SHEET STA. 701+00.00 TO 754+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

52  
147

MATCH LINE STA. 701+00.00, SEE SHEET 51



MATCH LINE STA. 754+00.00, SEE SHEET 53

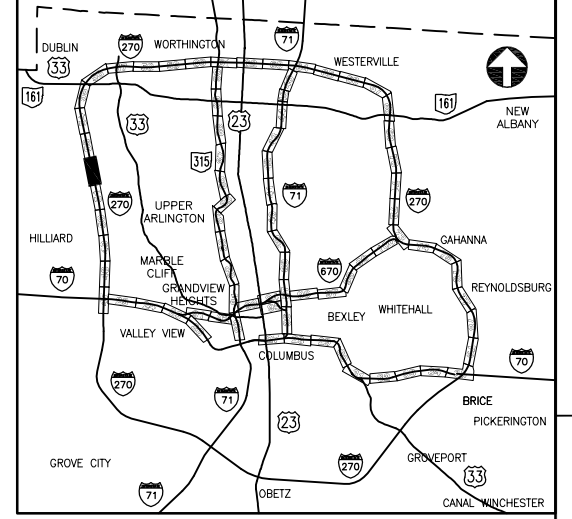
ESTIMATED QUANTITIES

LOCATION		625	625	632					
STATION	STATION	CONDUIT, 725.05, 4" AS PER PLAN	TRENCH, 24" DEEP AS PER PLAN	288 STRAND FIBER OPTIC CABLE					
		LF	LF	LF					
701+00, 17' R	754+00, 16' R	5300	5300	5300					
PB SLACK				90					
<b>TOTALS</b>		5300	5300	5390					

CITY OF COLUMBUS  
UTILITY LEGEND

- SEWER
- WATER
- POWER
- LIGHTING

⊗ EXISTING UTILITY CROSSING.  
SEE UTILITY CROSSING INFO  
SHEET 21.



KEY PLAN  
NOT TO SCALE

UNDERGROUND UTILITIES

TWO WORKING DAYS  
BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

CONSTRUCTION AS-BUILT  
2643DR.E

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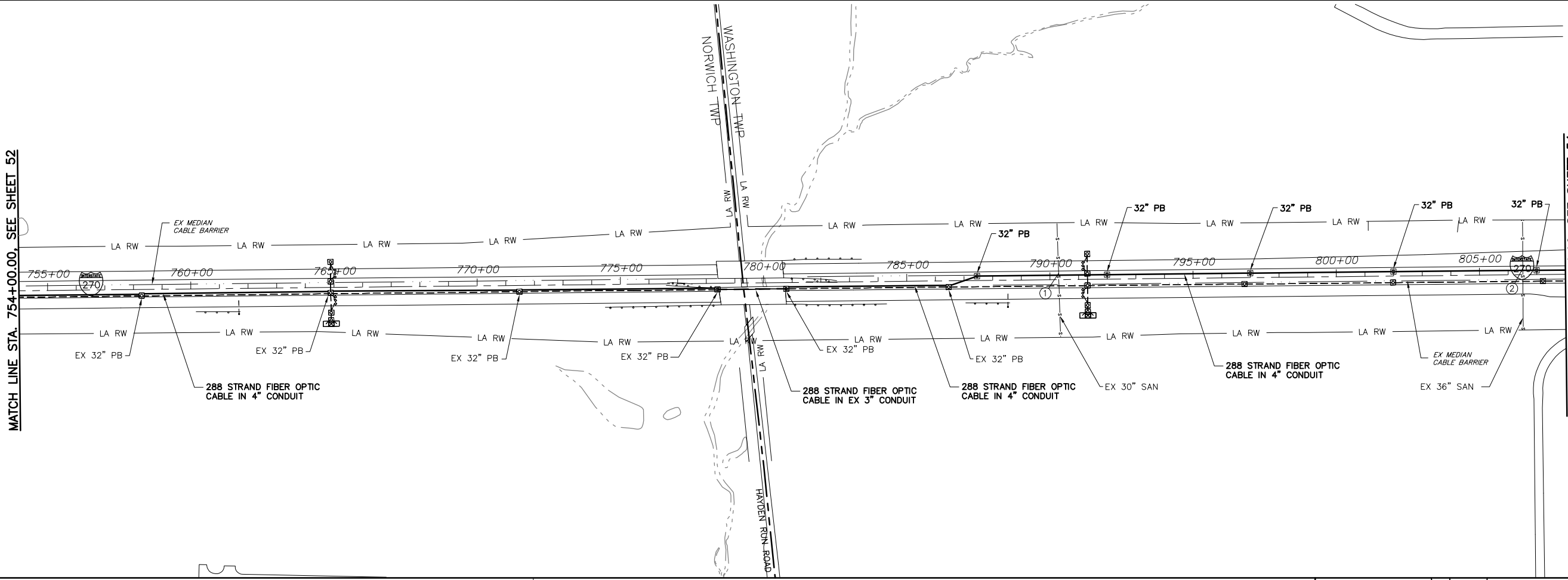
PID NUMBER  
82540

I.R. 270 AT HAYDEN RUN ROAD  
PLAN SHEET STA. 754+00.00 TO 808+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

53  
147

MATCH LINE STA. 754+00.00, SEE SHEET 52

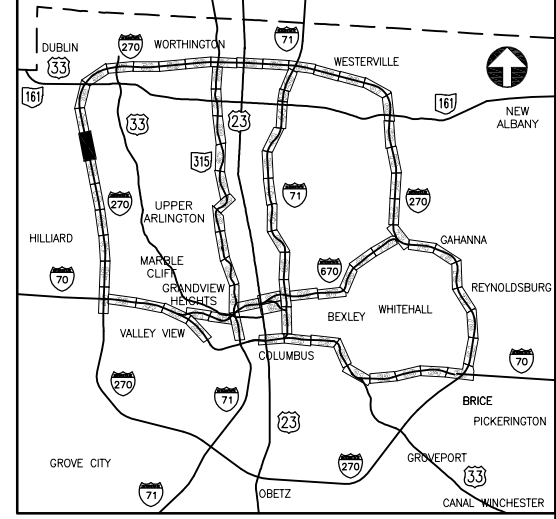


MATCH LINE STA. 808+00.00, SEE SHEET 54

ESTIMATED QUANTITIES

LOCATION		202	625	625	625	632						
STATION	STATION	LF	EA	LF	LF	LF						
754+00, 16' R	778+39, 20' R			2439	2439	2439						
778+39, 20' R	780+79, 20' R	240				240						
780+79, 20' R	786+46, 20' R			567	567	567						
786+46, 20' R	808+00, 15' L		5	2160	2160	2160						
PB SLACK						90						
STRUCT. SLACK						50						
<b>TOTALS</b>		240	5	5166	5166	5546						

- CITY OF COLUMBUS  
UTILITY LEGEND
- SEWER
  - WATER
  - POWER
  - LIGHTING
- ⊗ EXISTING UTILITY CROSSING.  
SEE UTILITY CROSSING INFO  
SHEET 21.



KEY PLAN  
NOT TO SCALE

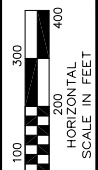
UNDERGROUND UTILITIES

TWO WORKING DAYS  
BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

CONSTRUCTION AS-BUILT  
2643DR.E

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PID NUMBER  
82540

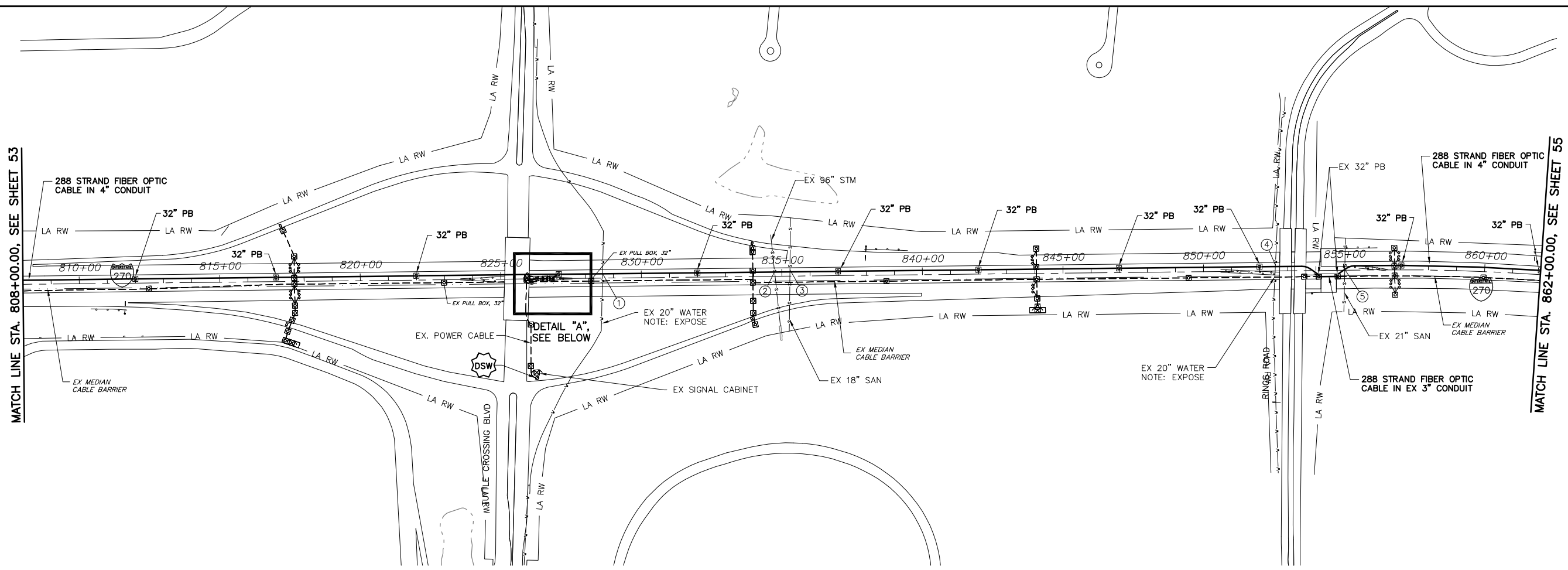
I.R. 270 AT TUTTLE CROSSING BOULEVARD  
PLAN SHEET STA. 808+00.00 TO 862+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

54  
147

MATCH LINE STA. 808+00.00, SEE SHEET 53

MATCH LINE STA. 862+00.00, SEE SHEET 55



ESTIMATED QUANTITIES

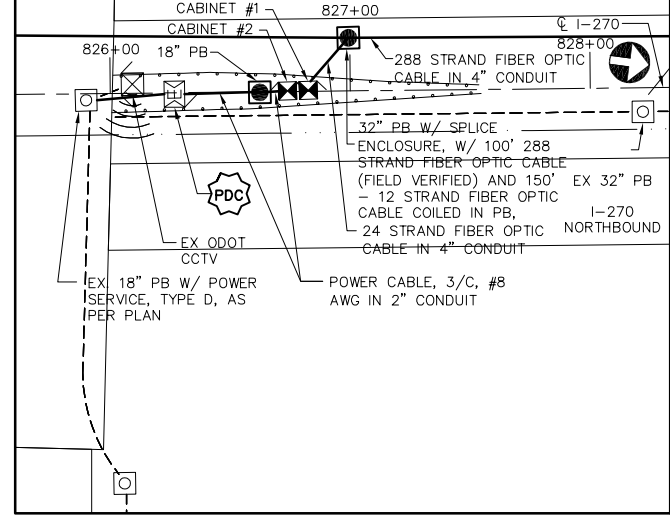
LOCATION		202	625	625	625	625	625	625	632	632	632	632	632	633	633
STATION	STATION	LF	EA	EA	LF	LF	LF	EA	LF	LF	LF	EA	LF	EA	EA
808+00, 20' L	854+10, 20' R			8	4610	4610		4610							
854+10, 20' R	854+77, 20' R	57						57							
854+77, 20' R	862+00, 20' L			2	723	723		723							
862+00, 20' L				1					75		1				
827+00, 20' R	826+80, 0' R				30	30		60		30					
826+80, 0' R							1							1	1
826+80, 0' R	826+70, 0' R			10		10							30		
826+70, 0' R			1												
826+70, 0' R	826+00, 4' L			70		70							210		
826+00, 4' L														1	
PB SLACK									100				30		
SPlice SLACK									150	75	150		60		
STRUCT. SLACK									50						
<b>TOTALS</b>		57	1	11	80	5363	5443	1	5750	150	180	1	330	1	1

POWER SERVICE NOTES

- 30AMP, 120VAC FUSED DISCONNECT SWITCH
- POWER DISTRIBUTION CABINET:
  - 1-100AMP SERVICE PANEL
  - 1-30AMP BREAKER, 120VAC TO CTSS COMM NODE
  - 1-30AMP BREAKER, 120VAC TO ODOT CCTV SITE

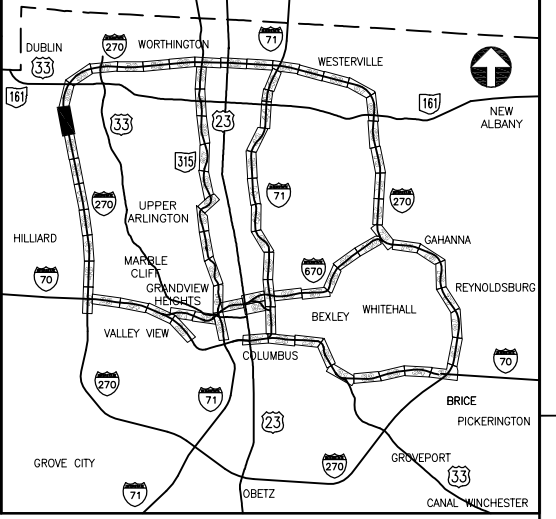
UNDERGROUND UTILITIES

TWO WORKING DAYS BEFORE YOU DIG  
CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE



DETAIL "A"  
NOT TO SCALE

NODE #270015.6  
REFER TO SHEET 131 FOR  
COMMUNICATION DETAILS



KEY PLAN  
NOT TO SCALE

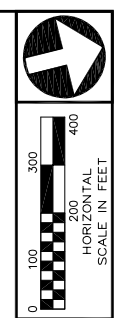
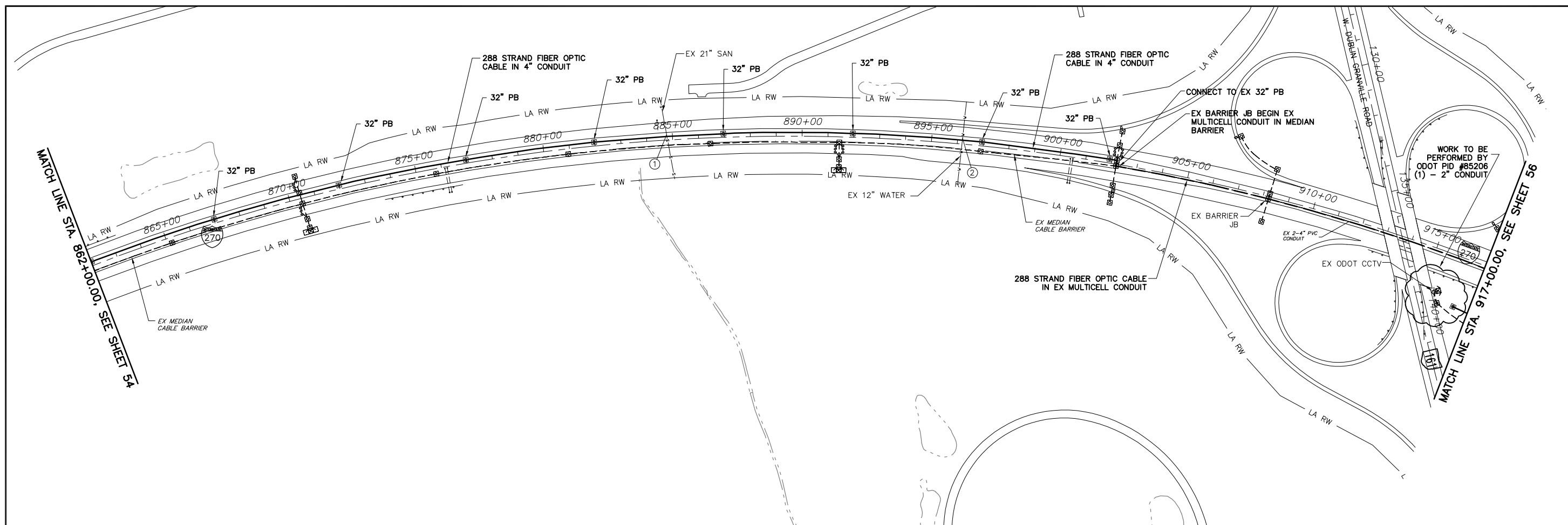
- CITY OF COLUMBUS  
UTILITY LEGEND
- SEWER
  - WATER
  - POWER
  - LIGHTING

EXISTING UTILITY CROSSING.  
SEE UTILITY CROSSING INFO  
SHEET 21.

CONSTRUCTION AS-BUILT  
2643 DR.E

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PID NUMBER  
82540

I.R. 270 AT W. DUBLIN-GRANVILLE ROAD  
PLAN SHEET STA. 862+00.00 TO 917+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

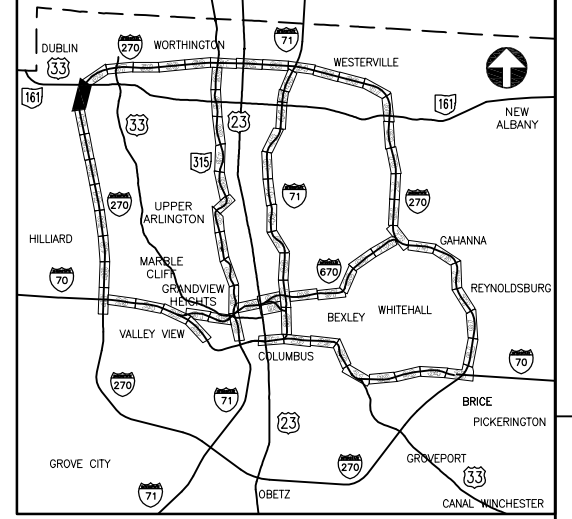
55  
147

**ESTIMATED QUANTITIES**

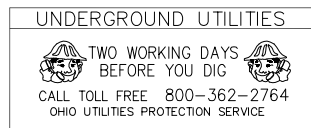
LOCATION		202	625	625	625	625	625	632	632	632
STATION	STATION	LF	EA	EA	LF	LF	LF	LF	LF	EA
862+00, 22' L	902+20, 14' L			8		4020	4020	4020		
902+20, 14' L	902+20, 8' R	22					22			
902+20, 8' R	917+00, 10' R	1480						1480		
917+00 145' R	915+72, 192' R				136		136	408		
915+72 192' R										
917+00 140' R	915+77, 185' R				131		131			
915+77 185' R										
916+38 192' R			1							
916+38 192' R	917+00 196' R				62		62			
PB SLACK								90		
SPLICE SLACK								30		
<b>TOTALS</b>		1502	1	8	62	4020	4082	5612	453	

- CITY OF COLUMBUS UTILITY LEGEND**
- SEWER
  - WATER
  - POWER
  - LIGHTING

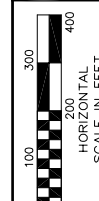
⊗ EXISTING UTILITY CROSSING.  
SEE UTILITY CROSSING INFO SHEET 21.



**KEY PLAN**  
NOT TO SCALE



CONSTRUCTION AS-BUILT  
**2643 DR.E**

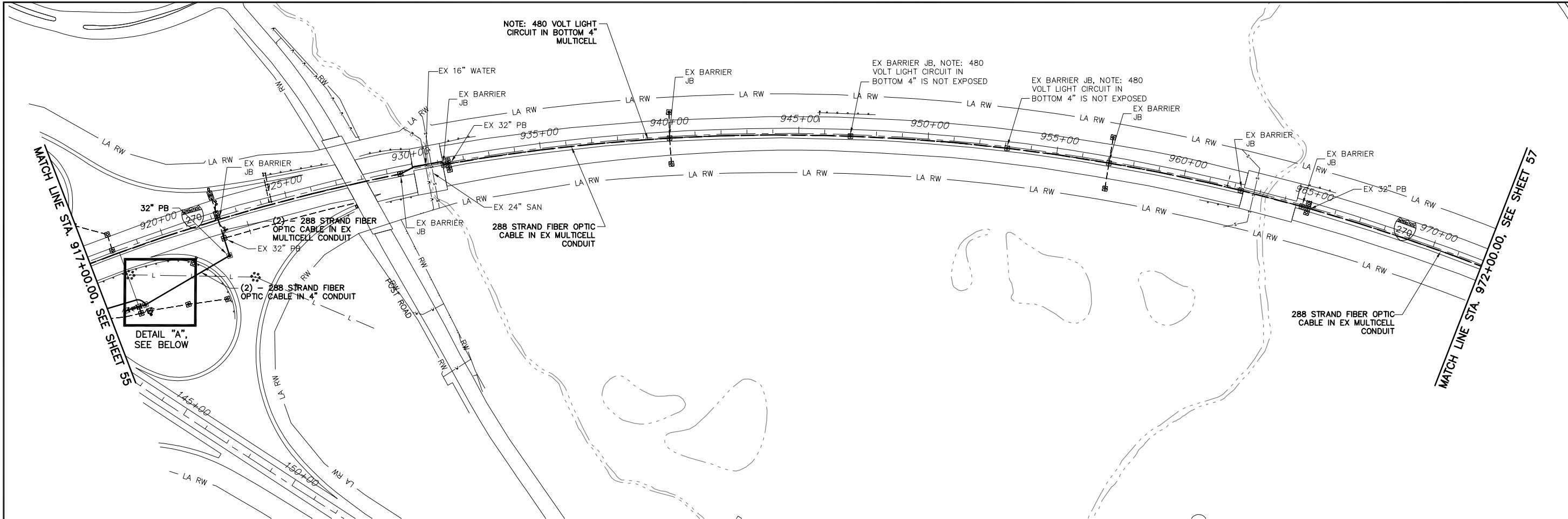


PID NUMBER  
82540

I.R. 270 AT POST ROAD  
PLAN SHEET STA. 917+00.00 TO 972+00.00

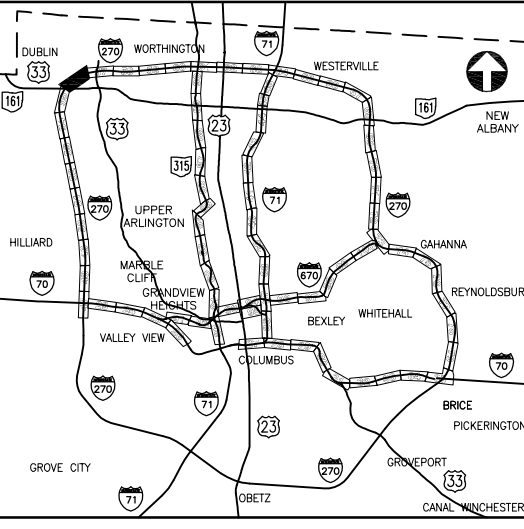
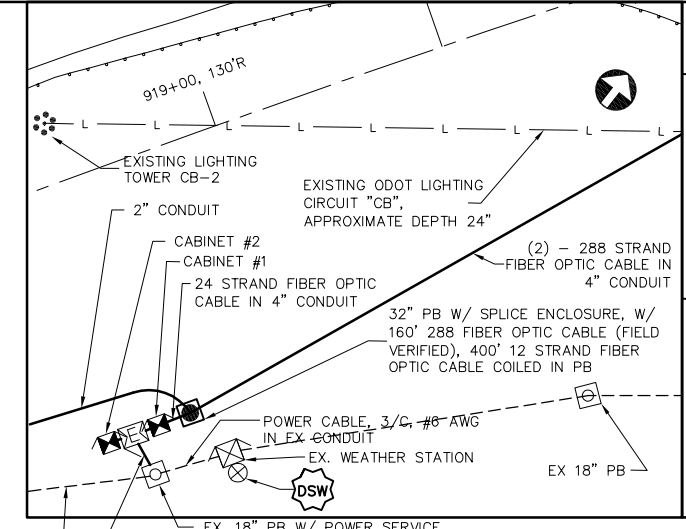
CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

56  
147



ESTIMATED QUANTITIES

LOCATION		202	625	625	625	625	625	625	625	632	632	632	632	632	632	633	633	
STATION	STATION	EXISTING CONDUIT CLEANED, AS PER PLAN	PULL BOX, 713.08, 18", AS PER PLAN	PULL BOX, 713.08, 32", AS PER PLAN	PULL BOX REMOVED	CONDUIT, 725.05, 2" AS PER PLAN	CONDUIT, 725.05, 4" AS PER PLAN	CONDUIT, JACKED OR DRILLED, 4"	TRENCH, 24" DEEP AS PER PLAN	GROUND ROD AS PER PLAN	288 STRAND FIBER OPTIC CABLE	12 STRAND FIBER OPTIC CABLE	24 STRAND FIBER OPTIC CABLE	SPLICE ENCLOSURE	POWER CABLE, NO. 6 AWG, AS PER PLAN	POWER SERVICE, TYPE D, AS PER PLAN	COMMUNICATIONS CABINET #1	COMMUNICATIONS CABINET #2
LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	
917+00, 6' R	972+00, 6' R	5500									5500							
922+24, 6' R	922+24, 86' R	80									160							
922+24, 86' R	920+68, 86' R						156		156		312							
920+68, 86' R	920+44, 129' R			2				49			98							
920+44, 129' R	918+48, 233' R						222		222		444							
918+48, 233' R			1								150		1					
918+21, 249' R															1			
920+11, 91' R			1		1													
918+48, 232' R	918+38, 232' R						10		10			10						
918+38, 232' R										1							1	1
918+30, 232' R	918+30, 252' R					20			20					60				
917+57, 119' R																		
918+48, 233' R	917+00, 119' R					150			150									
917+77, 119' R	917+00, 114' R																	
PB SLACK											100			15				
SPLICE SLACK											150	75	150	30				
STRUCT. SLACK											50							
<b>TOTALS</b>		5580	1	3	1	170	388	49	558	1	6814	225	160	1	105	1	1	1



DETAIL "A"  
NOT TO SCALE

NODE #270017.3  
REFER SHEET 132  
FOR  
COMMUNICATION  
DETAILS

- POWER SERVICE NOTES**
- 30AMP, 120VAC FUSED DISCONNECT SWITCH
  - POWER DISTRIBUTION CABINET:
    - 1-100AMP SERVICE PANEL
    - 1-30AMP BREAKER, 120VAC TO CTSS COMM NODE
    - 1-30AMP BREAKER, 120VAC (SPARE)
    - 1-30AMP BREAKER, 120VAC TO ODOT CCTV SITE

- CITY OF COLUMBUS UTILITY LEGEND**
- SEWER
  - WATER
  - POWER
  - LIGHTING
- CONSTRUCTION AS-BUILT  
**2643 DR.E**

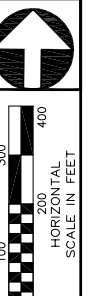
**UNDERGROUND UTILITIES**

TWO WORKING DAYS BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

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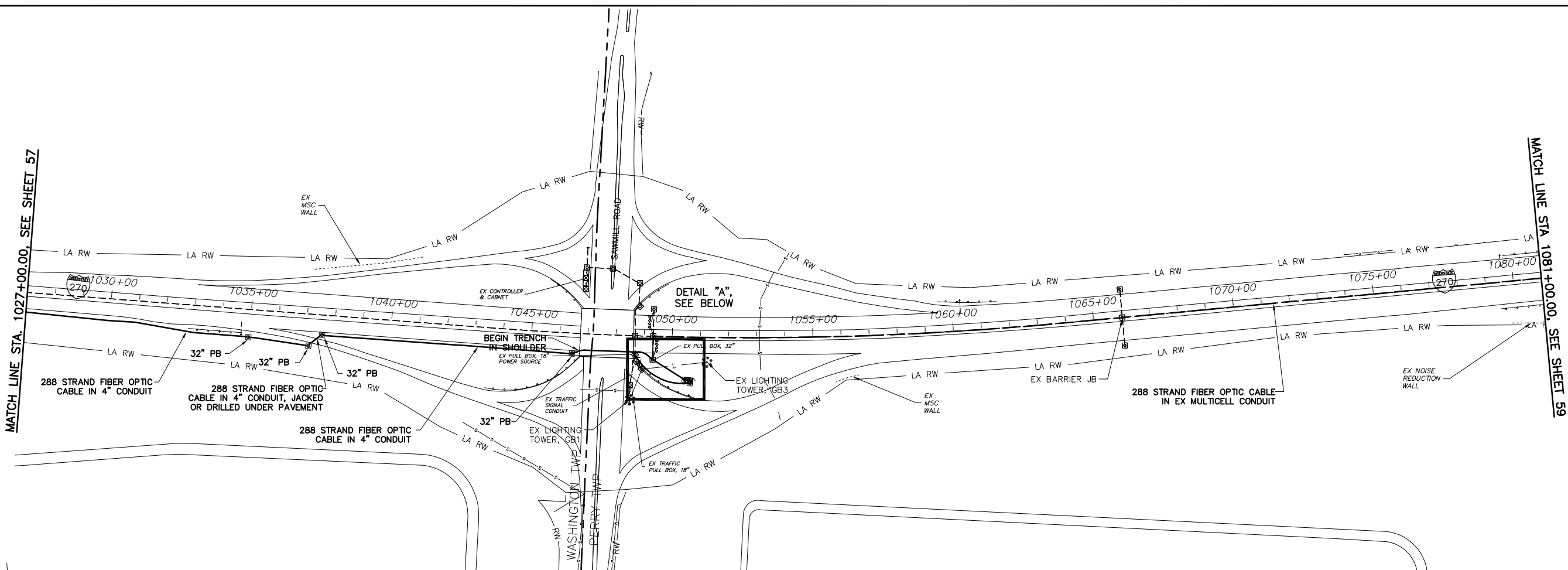


PID NUMBER  
82540

I.R. 270 AT SAWMILL ROAD  
PLAN SHEET STA. 1027+00.00 TO 1081+00.00

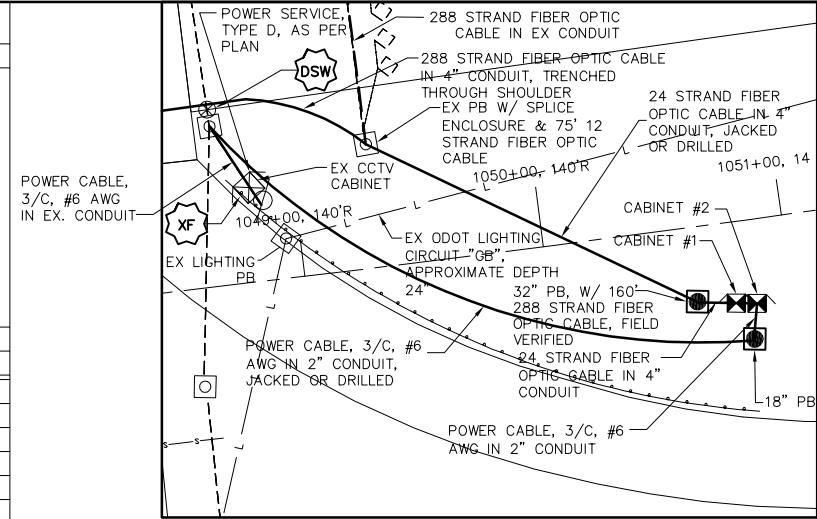
CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

58  
147



ESTIMATED QUANTITIES

LOCATION		202	625	625	625	625	625	625	625	632	632	632	632	632	632	633	633
STATION	STATION	LF	EA	EA	LF	LF	LF	LF	LF	EA	LF	LF	LF	EA	LF	EA	EA
1027+00, 80' R	1037+11, 120' R					1011					1011						
1029+95, 83' R				1													
1034+95, 104' R				1													
1037+11, 120' R	1037+56, 76' R						63				63						
1037+11, 120' R				1													
1037+56, 76' R	1046+46, 78' R					890					890						
1037+56, 76' R				1													
1042+56, 76' R				1													
1046+46, 78' R				1													
1046+46, 78' R	1049+32, 88' R					286		40	246		286						
1049+32, 88' R												75		1			
1049+32, 88' R	1050+48, 152' R						28	135	20		40	20	135				
1050+48, 152' R				1													
1050+48, 152' R	1050+58, 153' R					10		10					10				
1050+58, 153' R										1					1	1	1
1048+68, 67' R	1050+66, 163' R						10	234	10					777			
1050+66, 163' R				1													
1050+66, 163' R	1050+66, 153' R					10		10						30			
1048+80, 103' R	1048+74, 81' R																
1049+32, 6' R	1049+32, 88' R	82									82						
1049+32, 6' R	1081+00, 6' R	3068									3068						
PB SLACK											90			45			
SPLICE SLACK											150	75	150	60			
<b>TOTALS</b>		3150	1	7	10	2197	432	1961	246	1	5640	150	295	1	912	1	1

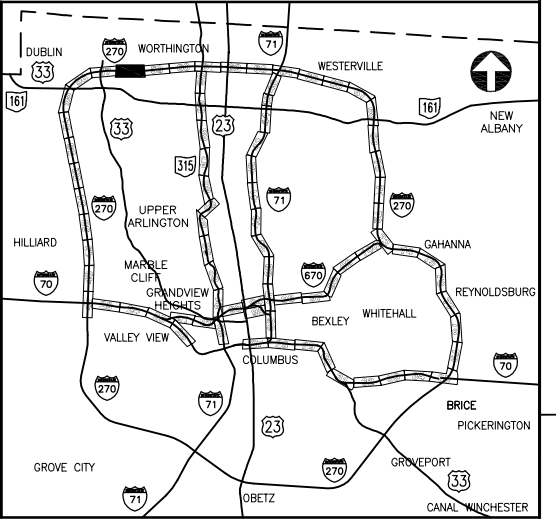


DETAIL "A"  
NOT TO SCALE  
NODE #270019.8  
REFER TO SHEET 133 FOR  
COMMUNICATION DETAILS

POWER SERVICE NOTES

- EX. ODOT 30AMP, 240VAC FUSED DISCONNECT SWITCH AT SE CORNER OF BRIDGE
- 240/120VAC 3KVA EX ODOT CABINET MOUNTED TRANSFORMER

KEY PLAN  
NOT TO SCALE



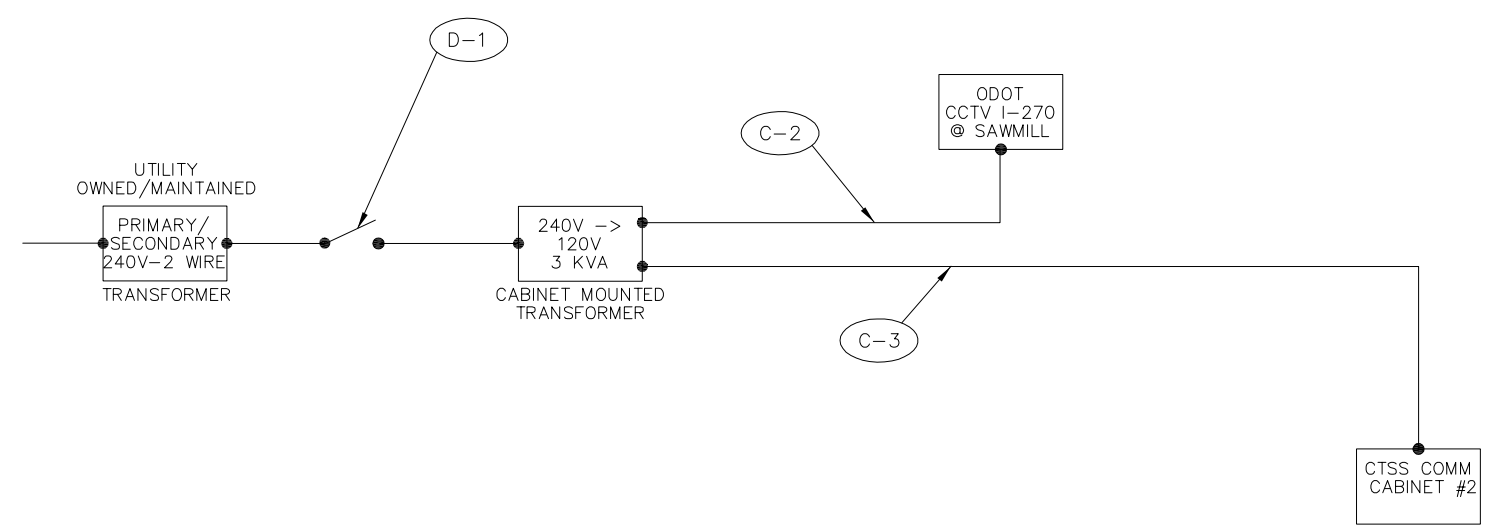
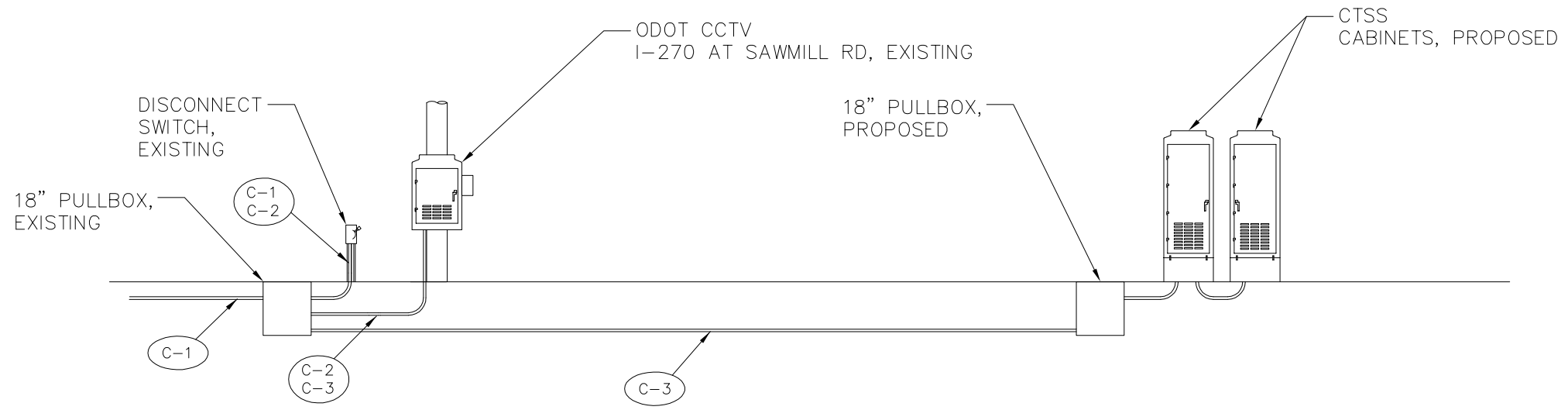
UNDERGROUND UTILITIES  
TWO WORKING DAYS BEFORE YOU DIG  
CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

CITY OF COLUMBUS  
UTILITY LEGEND

- SEWER
- WATER
- POWER
- LIGHTING

CONSTRUCTION AS-BUILT  
**2643 DR.E**

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**POWER CABLE**  
 C-1 240VAC EXISTING  
 C-2 2/C NO. 4AWG 120VAC 25' EXISTING  
 C-3 3/C NO. 6AWG 120VAC 300' PROPOSED

**CIRCUIT BREAKERS**  
 D-1 1-POLE 30AMP, 240VAC CIRCUIT, 600VAC RATED

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**UNDERGROUND UTILITIES**

TWO WORKING DAYS  
BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

CONSTRUCTION AS-BUILT  
**2643DR.E**

PID NUMBER 82540
POWER SERVICE WIRING DIAGRAM I-270 AT SAWMILL RD
CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM (CTSS) PHASE A
58A 147



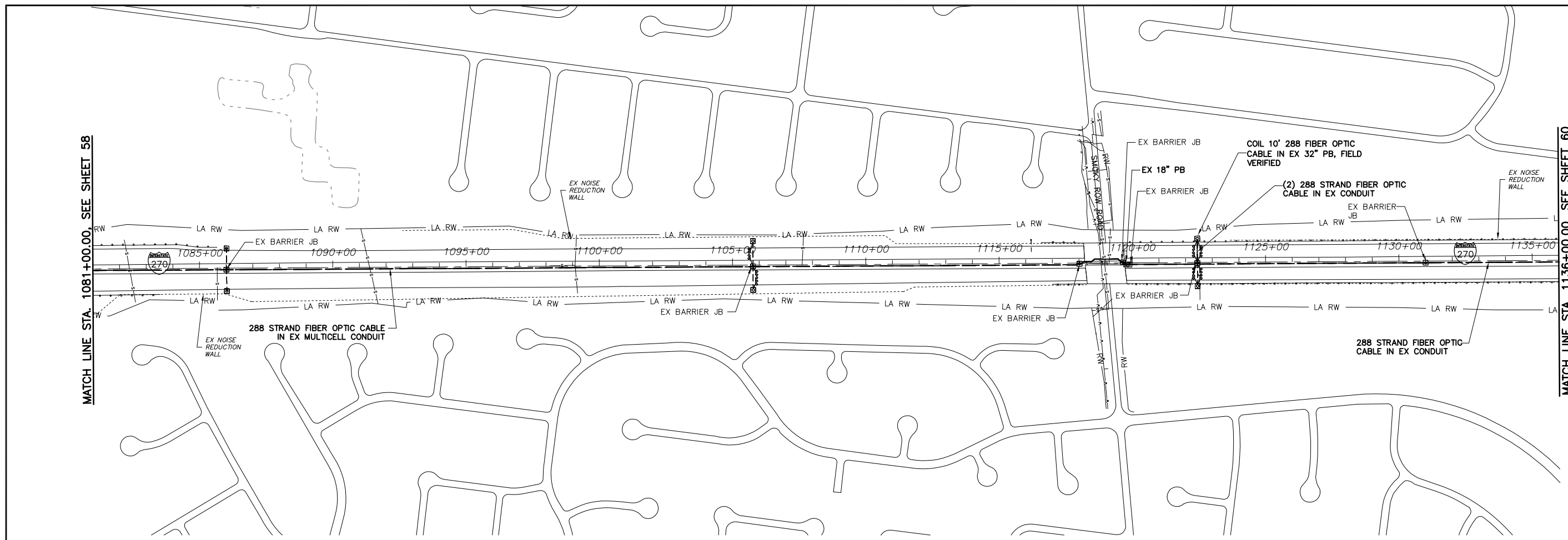
PID NUMBER  
82540

I.R. 270 AT SMOKY ROW ROAD  
PLAN SHEET STA. 1081+00.00 TO 1136+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

MATCH LINE STA. 1081+00.00, SEE SHEET 58

MATCH LINE STA. 1136+00.00, SEE SHEET 60

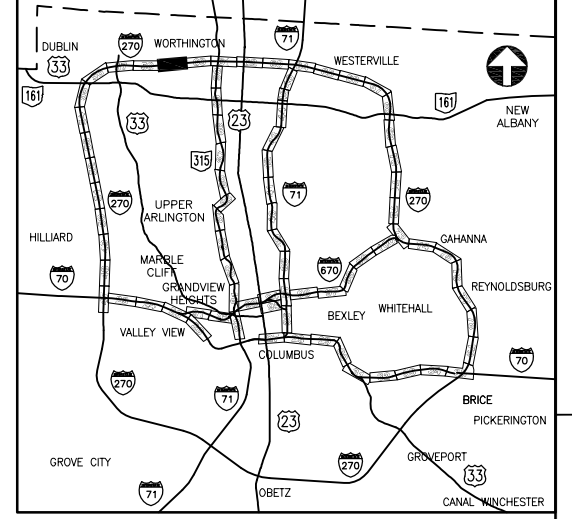


ESTIMATED QUANTITIES

LOCATION		202	625	625	632					
STATION	STATION	LF	EA	EA	LF					
1081+00, 00'	1119+77, 6' R	3877			3877					
1119+77, 6' R			1	1						
1119+77, 6' R	1122+44, 6' R	267			267					
1122+44, 6' R	1122+44, 90' L	96			192					
1122+44, 90' L					150					
1122+44, 6' R	1136+00, 00'	1356			1356					
PB SLACK					10					
<b>TOTALS</b>		5596	1	1	5852					

CITY OF COLUMBUS  
UTILITY LEGEND

- SEWER
- WATER
- POWER
- LIGHTING



KEY PLAN  
NOT TO SCALE

UNDERGROUND UTILITIES

TWO WORKING DAYS  
BEFORE YOU DIG

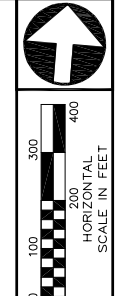
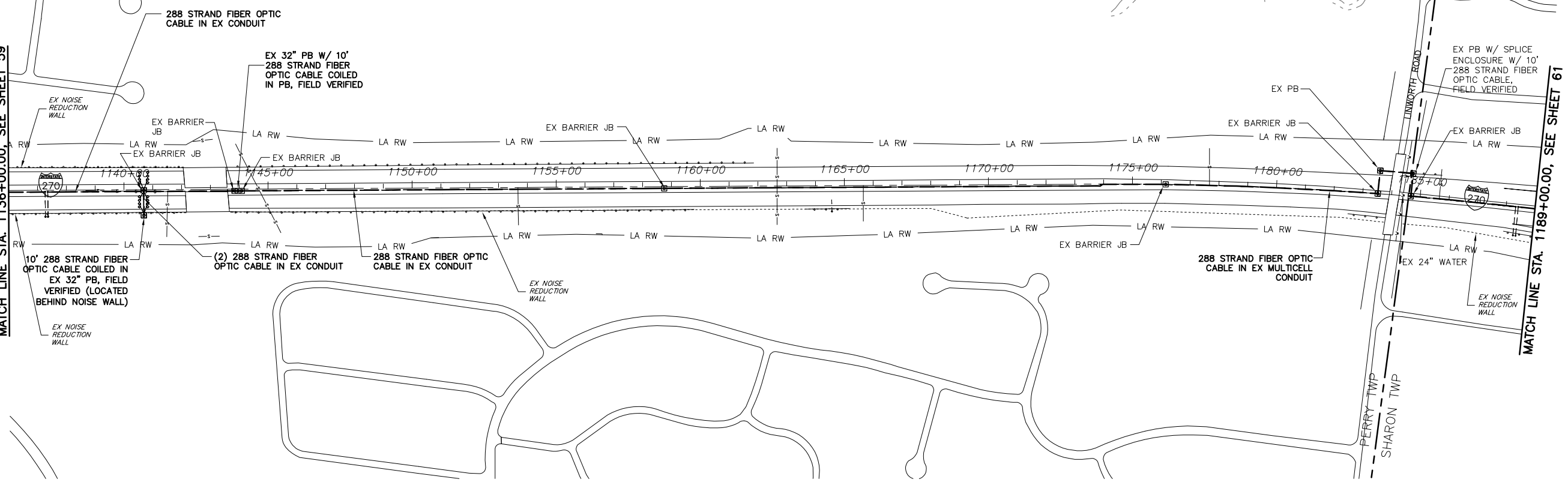
CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

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MATCH LINE STA. 1136+00.00, SEE SHEET 59

MATCH LINE STA. 1189+00.00, SEE SHEET 61



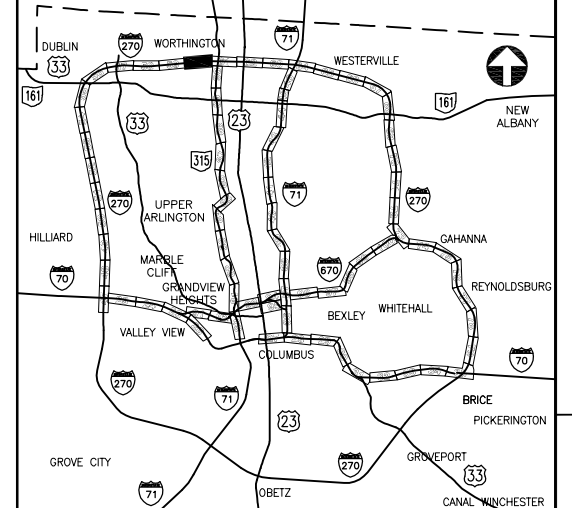
PID NUMBER  
82540

I.R. 270 AT LINWORTH ROAD  
PLAN SHEET STA. 1136+00.00 TO 1189+00.00

ESTIMATED QUANTITIES

LOCATION		202	625	625	632						
STATION	STATION	LF	EA	EA	LF						
1136+00, 00'	1140+69, 6' R	469			469						
1140+69, 6' R	1140+69, 90' L	96			192						
1140+69, 90' R					250						
1140+69, 6' R	1143+96, 6' R	327			327						
1143+96, 6' R			1	1	250						
1143+96, 6' R	1189+00, 00'	4504			4504						
PB SLACK					10						
<b>TOTALS</b>		5396	1	1	5992						

- CITY OF COLUMBUS  
UTILITY LEGEND
- SEWER
  - WATER
  - POWER
  - LIGHTING



KEY PLAN  
NOT TO SCALE

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

UNDERGROUND UTILITIES

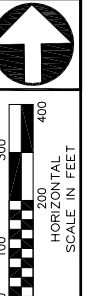
TWO WORKING DAYS  
BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

CONSTRUCTION AS-BUILT  
2643DR.E

60  
147

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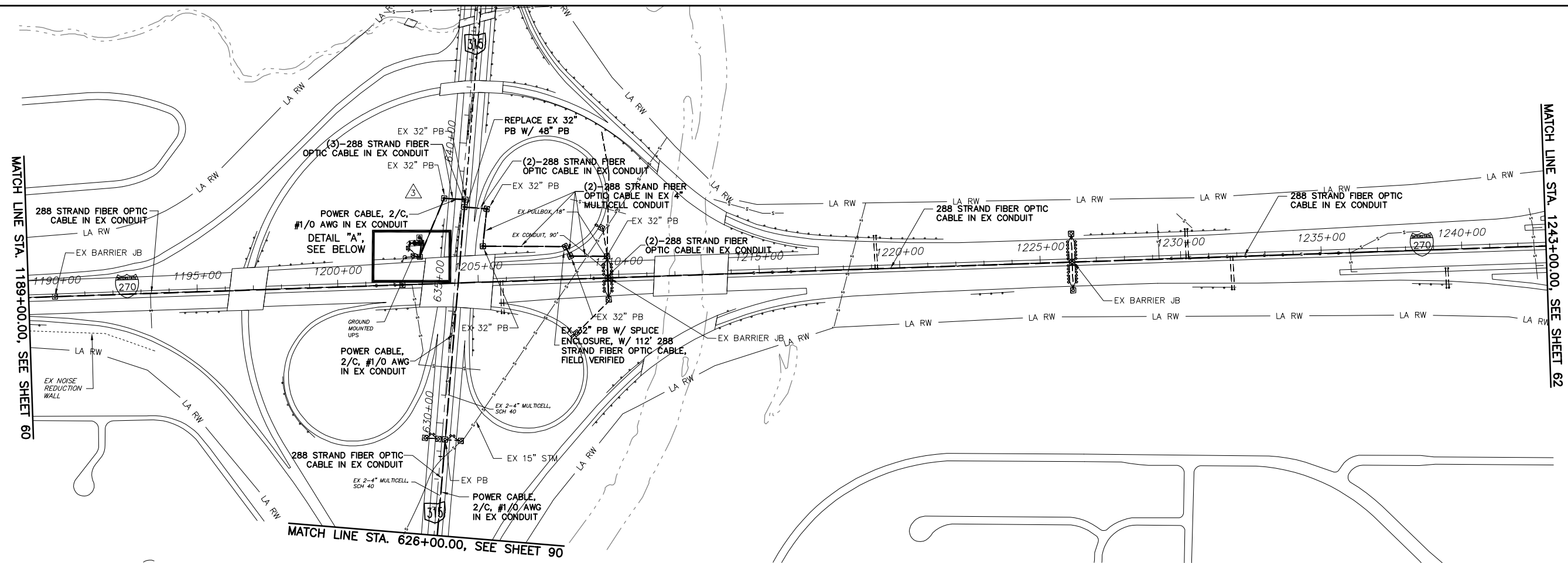


PID NUMBER  
82540

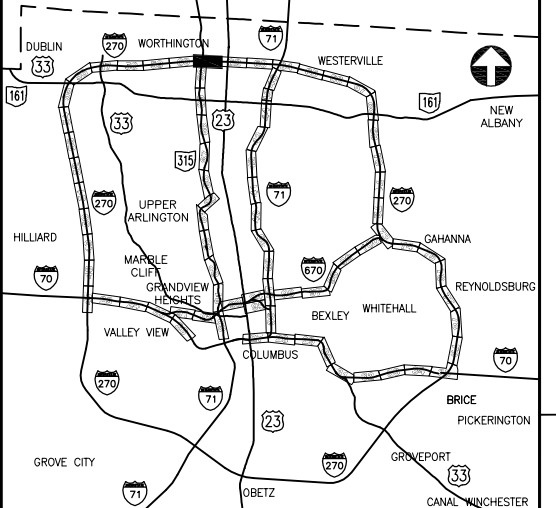
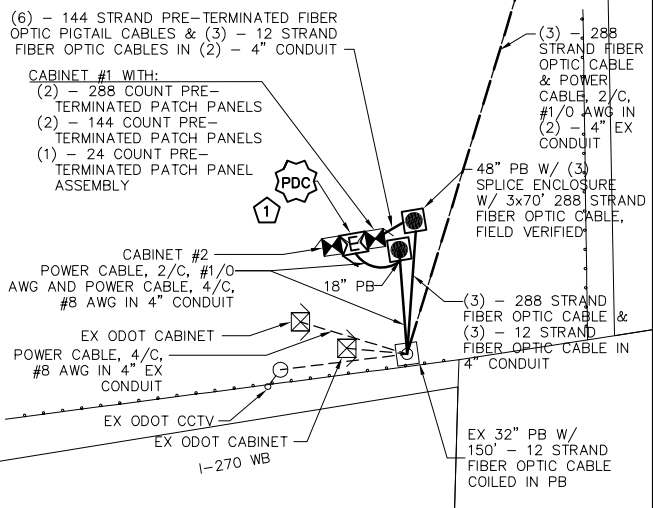
I.R. 270 AT S.R. 315  
PLAN SHEET STA. 1189+00.00 TO 1243+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

61  
147



LOCATION		202	625	625	625	625	625	625	625	625	632	632	632	632	632	632	632	632	633	633
STATION	STATION	LF	EA	EA	EA	EA	LF	LF	LF	EA	LF	LF	EA	LF	LF	EA	EA	EA	EA	EA
1-270																				
1189+00, 00'	1209+62, 00'	2062									2062									
1209+62, 00'	1209+62, 77' L	77									154									
1209+62, 77' L	1208+30, 82' L	132									264									
1208+30, 82' L	1208+14, 116' L	38									76									
1208+14, 116' L	1205+21, 128' L	293									586									
1205+21, 128' L	1205+39, 259' L	132									264									
1205+39, 259' L	637+73, 12' L	79									158									
637+73, 12' L					1	1														
1203+73, 279' L					X	X														
1202+95, 97' L	1203+73, 279' L	452									678			452						
1202+95, 97' L												225								
1203+03, 147' L	1202+95, 97' L				X	X	50	50			150	150								
1203+03, 147' L			1	1							44	28	3							
1202+88, 147' L	1203+03, 147' L						30	15			45									
1202+88, 147' L									1						1	2	2	1	1	1
1202+95, 97' L	1202+63, 147' L													120	240					
1202+63, 147' L			1																	
1202+63, 147' L	1202+63, 157' L						20	10						20	40					
1202+30, 130' L																				
1202+95, 97' L	1202+55, 130' L																			
1209+62, 00'	1243+00, 00'	3838									3838									
SR-315																				
626+00, 12' R	637+73, 63' L	2546									1273			2546						
PB SLACK											190			60	40					
SPLICE SLACK											225	75		20	80					
TOTALS		9649	1	1	2	1	140	80	135	1	9918	495	3	3218	608	1	2	2	1	1



**DETAIL "A"**  
NOT TO SCALE

**NODE #270022.7**  
REFER TO SHEETS 134 & 135  
FOR COMMUNICATION DETAILS

**POWER SERVICE NOTES**

**PDC** POWER DISTRIBUTION CABINET:  
240/120VAC 7.5KVA TRANSFORMER

1-100AMP LOAD CENTER  
1-100AMP LOAD CENTER W/ 40AMP 2 POLE BREAKER, ACTS AS PRE-PDC DISCONNECT SWITCH  
1-30AMP BREAKER, 120VAC TO CTSS COMM NODE  
1-30AMP BREAKER, 120VAC (SPARE)  
1-2 POLE 30AMP BREAKER TO ODOT (240VAC-2-120 LEGS)  
1-2 POLE 30AMP (SPARE)

**KEY PLAN**  
NOT TO SCALE

**UNDERGROUND UTILITIES**

TWO WORKING DAYS BEFORE YOU DIG  
CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

**NOTES:**

1 SEE SHEET 90A FOR ADDITIONAL POWER SERVICE WIRING DETAIL

**CITY OF COLUMBUS UTILITY LEGEND**

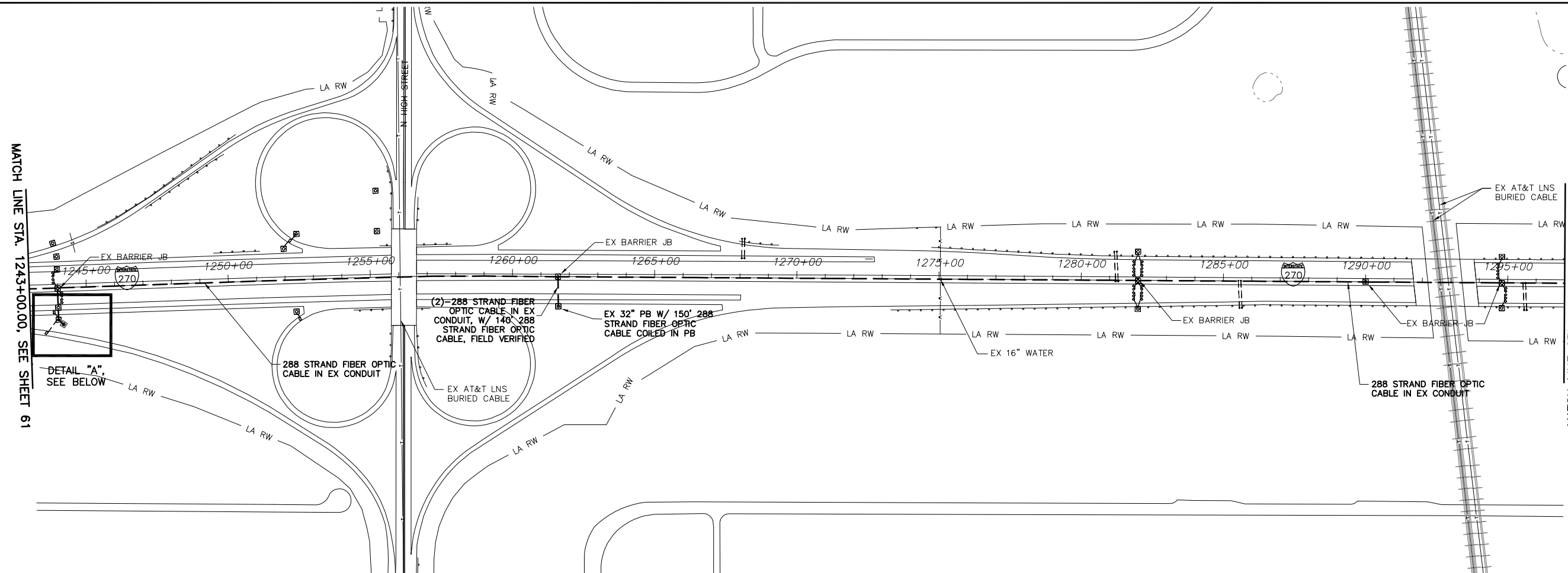
SEWER  
 WATER  
 POWER  
 LIGHTING

CONSTRUCTION AS-BUILT  
**2643DR.E**

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MATCH LINE STA. 1243+00.00, SEE SHEET 61

MATCH LINE STA. 1297+00.00, SEE SHEET 63



DETAIL "A",  
SEE BELOW

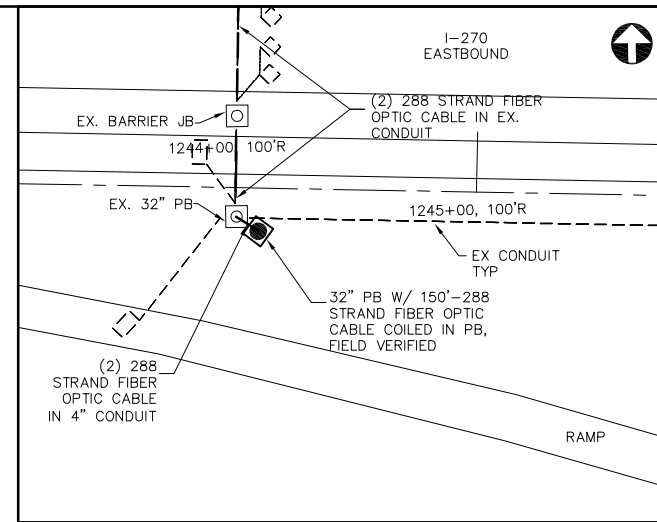
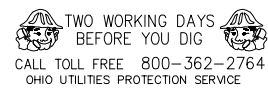
ESTIMATED QUANTITIES

LOCATION		ESTIMATED QUANTITIES				
STATION	STATION	202	625	625	625	632
		EXISTING CONDUIT CLEANED, AS PER PLAN	PULL BOX, 713.08, 32", AS PER PLAN	CONDUIT, 725.05, 4" AS PER PLAN	TRENCH, 24" DEEP AS PER PLAN	288 STRAND FIBER OPTIC CABLE
LF	EA	LF	LF	LF	LF	
1243+00, 00'	1244+00, 00'	100				100
1244+00, 00'	1244+00, 70' R	70				140
1244+00, 70' R	1244+00, 112' R	42				84
1244+00, 112' R	1244+07, 119' R			10	10	20
1244+07, 119' R			1			150
1244+00, 00'	1282+00, 00'	3800				3800
1282+00, 00'	1282+00, 100' R	100				200
1282+00, 100' R						150
1282+00, 00'	1297+00, 00'	1500				1500
PB SLACK						20
<b>TOTAL</b>		<b>5612</b>	<b>1</b>	<b>10</b>	<b>10</b>	<b>6164</b>

CITY OF COLUMBUS  
UTILITY LEGEND

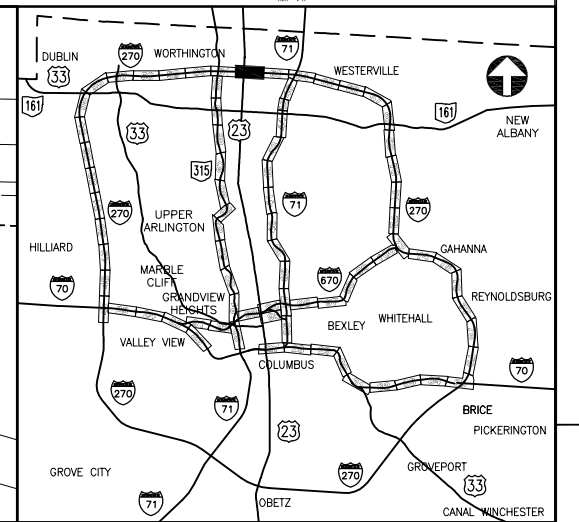
- SEWER
- WATER
- POWER
- LIGHTING

UNDERGROUND UTILITIES



DETAIL "A"  
NOT TO SCALE

FUTURE NODE  
#270023.6



KEY PLAN  
NOT TO SCALE



PID NUMBER  
82540

I.R. 270 AT N. HIGH STREET  
PLAN SHEET STA. 1243+00.00 TO 1297+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

62  
147

CONSTRUCTION AS-BUILT  
2643DR.E

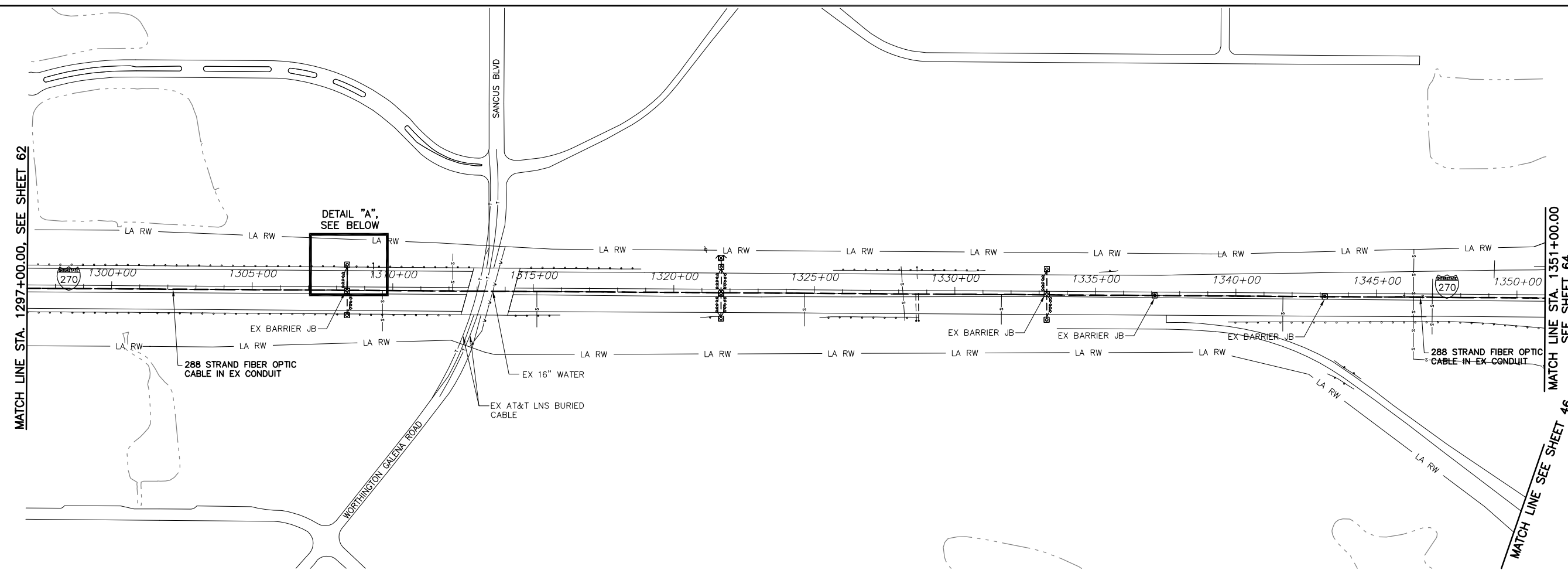


PID NUMBER  
82540

I.R. 270 AT WORTHINGTON-GALENA ROAD  
PLAN SHEET STA. 1297+00.00 TO 1351+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

63  
147



MATCH LINE STA. 1297+00.00, SEE SHEET 62

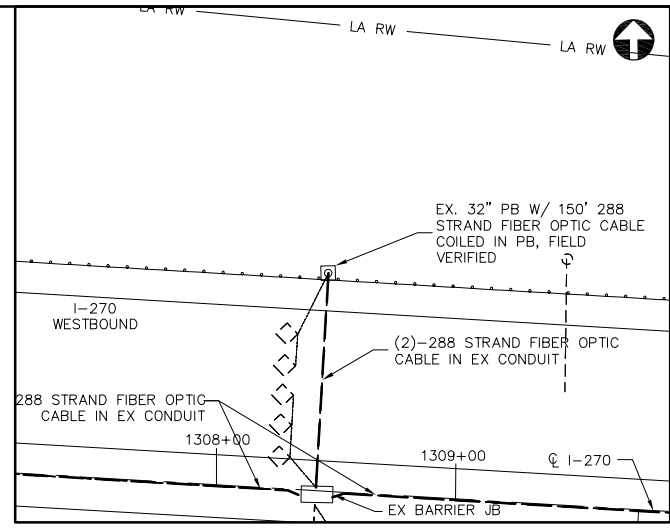
MATCH LINE STA. 1351+00.00  
SEE SHEET 64

MATCH LINE SEE SHEET 46

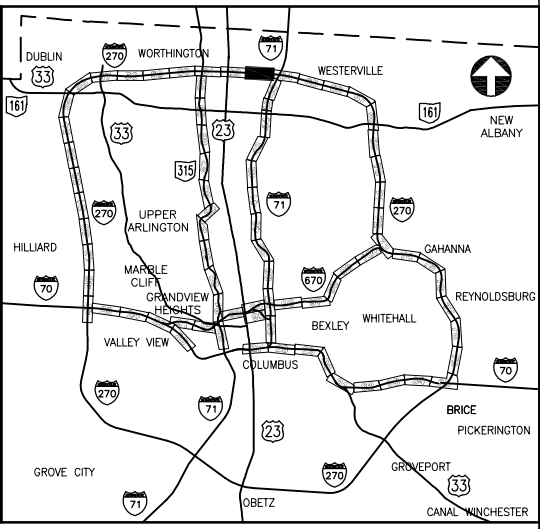
ESTIMATED QUANTITIES

LOCATION		202	625	625	625	632				
STATION	STATION	LF	EA	LF	LF	LF				
1297+00, 00'	1351+00, 00'	5400				5400				
1321+68, 00'	1321+68, 90' L	90				180				
1321+68, 90'	1321+58, 90'			10	10	20				
1321+58, 90'			1			150				
PB SLACK						20				
<b>TOTAL</b>		5490	1	10	10	5770				

- CITY OF COLUMBUS  
UTILITY LEGEND
- SEWER
  - WATER
  - POWER
  - LIGHTING



DETAIL "A"  
NOT TO SCALE  
FUTURE NODE  
#270024.9



KEY PLAN  
NOT TO SCALE

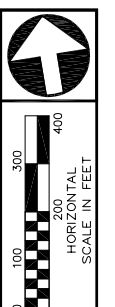
UNDERGROUND UTILITIES

TWO WORKING DAYS  
BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

CONSTRUCTION AS-BUILT  
2643DR.E

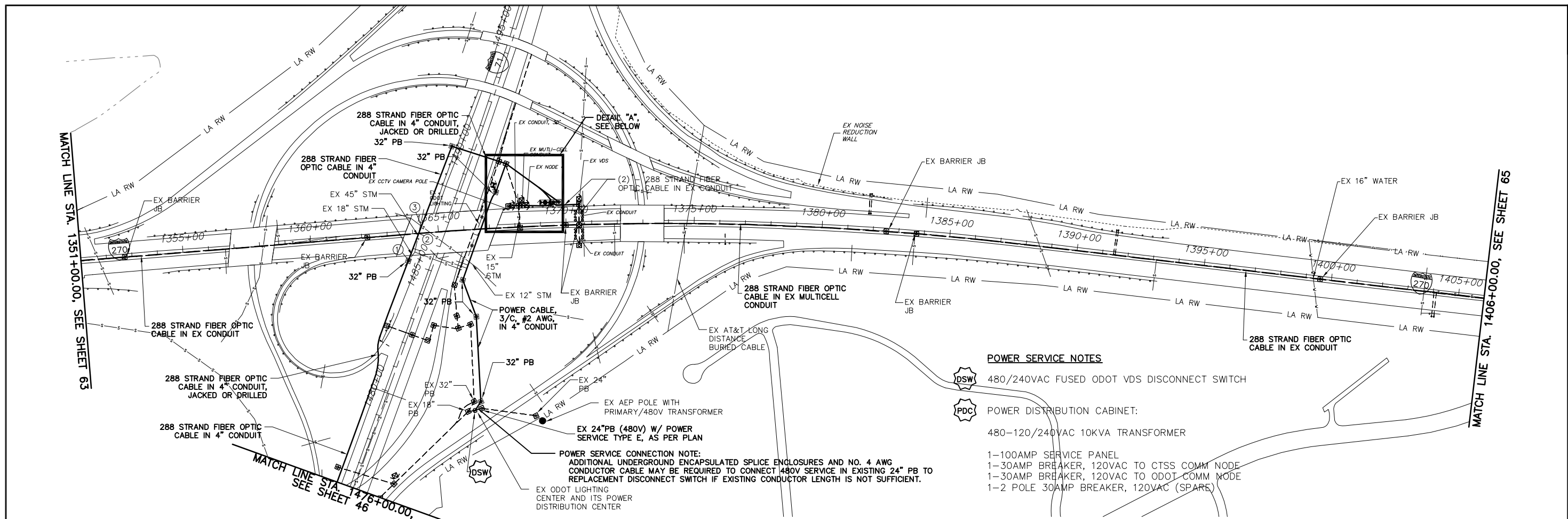
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PID NUMBER  
82540

I.R. 270 AT I.R. 71  
PLAN SHEET STA. 1351+00.00 TO 1406+00.00

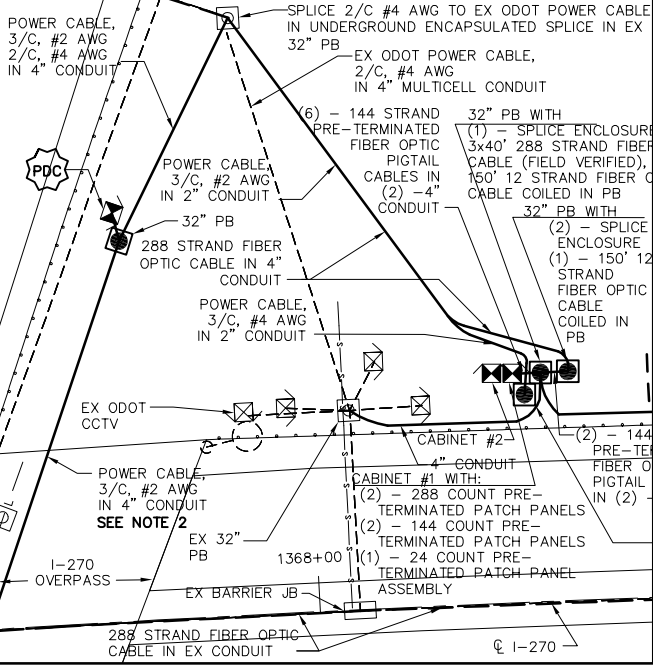
CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A



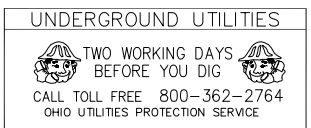
- POWER SERVICE NOTES**
- DSW 480/240VAC FUSED ODOT VDS DISCONNECT SWITCH
  - PDC POWER DISTRIBUTION CABINET:
    - 480-120/240VAC 10KVA TRANSFORMER
    - 1-100AMP SERVICE PANEL
    - 1-30AMP BREAKER, 120VAC TO CTSS COMM NODE
    - 1-30AMP BREAKER, 120VAC TO ODOT COMM NODE
    - 1-2 POLE 30AMP BREAKER, 120VAC (SPARE)

**ESTIMATED QUANTITIES**

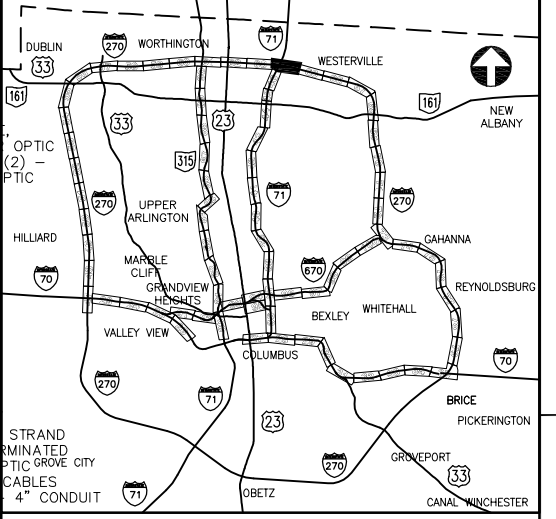
LOCATION		ESTIMATED QUANTITIES																			
STATION	STATION	202	625	625	625	625	625	625	625	632	632	632	632	632	632	632	632	632	633	633	
LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	
I-270																					
1351+00, 00'	1406+00, 00'	5500																			
1368+20, 83' L	1368+70, 81' L																				
1368+70, 81' L	1368+80, 85' L																				
1368+80, 85' L	1368+90, 85' L																				
1368+90, 85' L	1368+92, 133' R																				
1370+51, 00'	1370+51, 79' LT	79																			
1368+70, 81'	1370+51, 79' LT																				
I-71																					
1480+84, 355' R	1488+73, 133' R																				
1488+73, 133' R	1489+09, 346' R																				
1476+00, 67' L	1481+07, 67' L																				
1481+07, 67' L	1481+40, 102' L																				
1481+40, 102' L	1489+85, 90' L																				
1489+85, 90' L	1489+92, 103' R																				
1489+92, 103' R	1489+92, 133' R																				
1489+92, 133' R	1488+43, 194' R																				
PB SLACK																					
SPLICE SLACK																					
<b>TOTAL</b>		5814	1	10	1	242	2794	242	1836	1	8257	450	3	3828	286	1	2	2	1	1	1



**DETAIL "A"**  
NOT TO SCALE  
NODE #270025.9  
REFER TO SHEETS 136 & 137  
FOR COMMUNICATION DETAILS



- CITY OF COLUMBUS UTILITY LEGEND**
- ☒ SEWER
  - ☒ WATER
  - ☐ POWER
  - ☐ LIGHTING



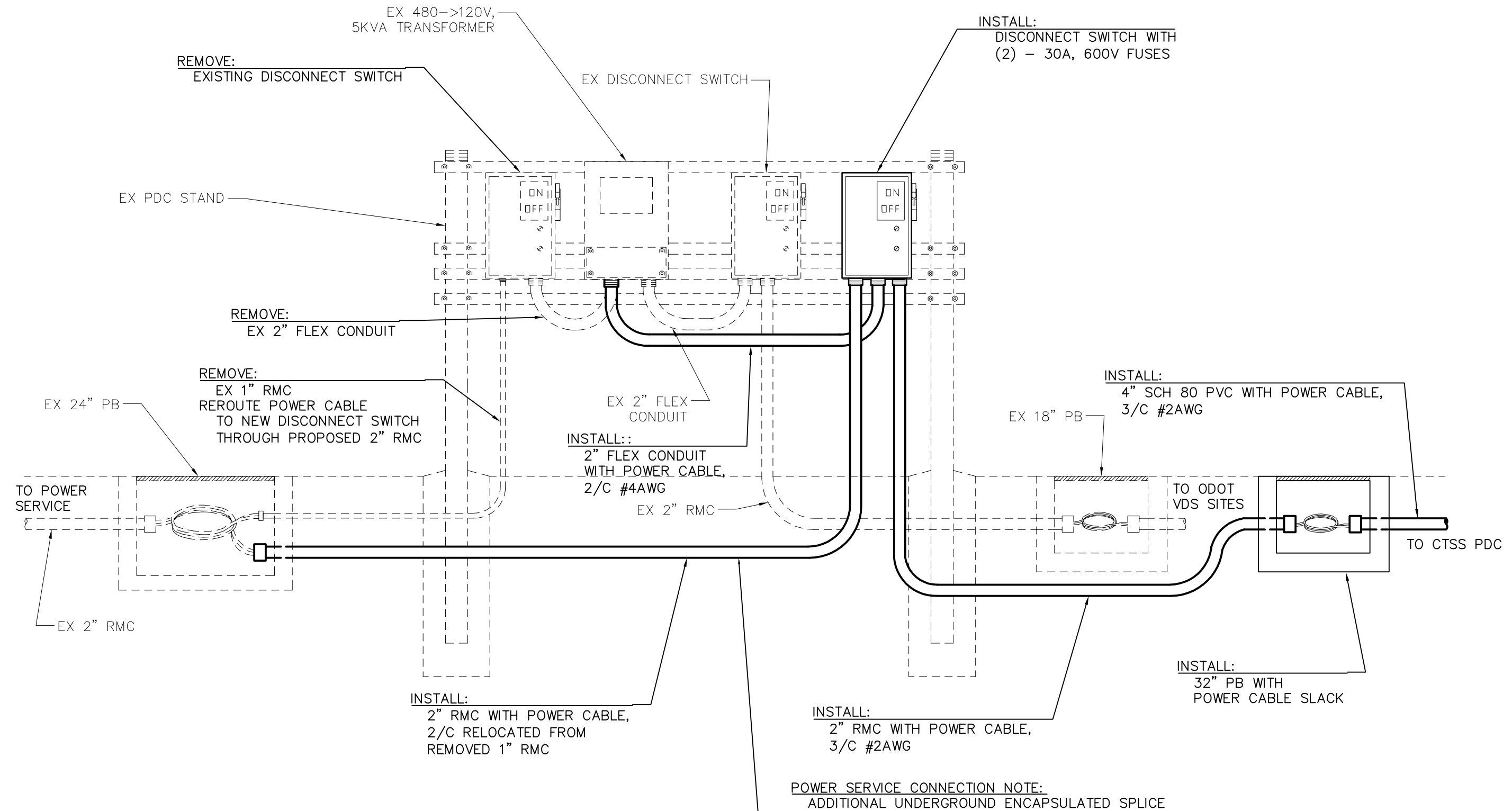
- NOTES:**
- SEE SHEET 64A-64B FOR ADDITIONAL POWER SERVICE DETAILS AND WIRING DIAGRAMS.
  - NOT ALL EXISTING UTILITY CROSSINGS FOR PROPOSED POWER CONDUCTOR/CONDUIT BETWEEN LIGHTING CENTER AND PDC CABINET ARE SHOWN. CONTACT O.U.P.S. BEFORE WORK BEGINS TO VERIFY EXISTING UTILITY INFORMATION.

EXISTING UTILITY CROSSING. SEE UTILITY CROSSING INFO SHEET 21.

CONSTRUCTION AS-BUILT  
**2643DR.E**

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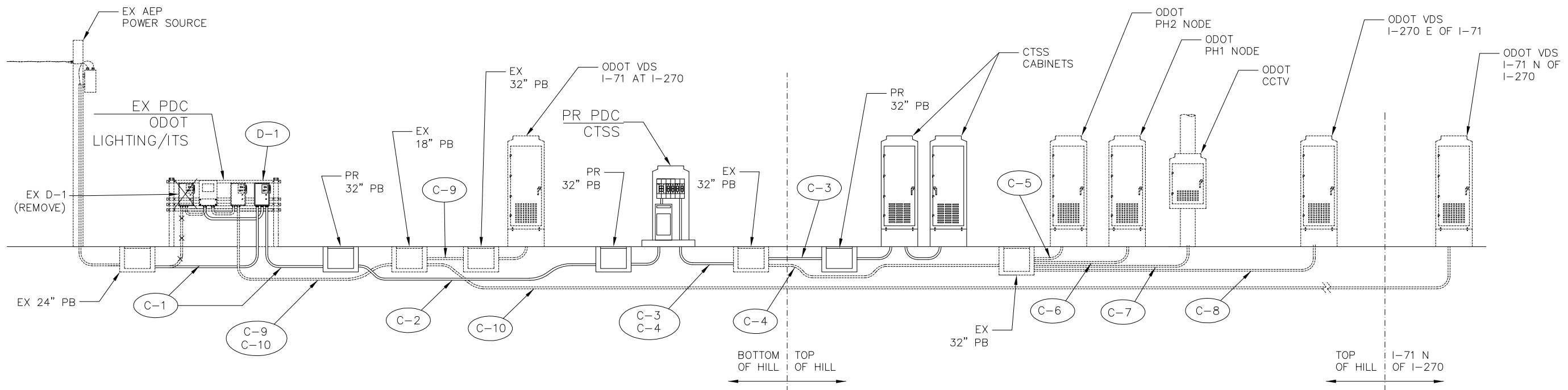
**POWER SERVICE CONNECTION NOTE:**  
 ADDITIONAL UNDERGROUND ENCAPSULATED SPLICE ENCLOSURES AND NO. 2 AWG CONDUCTOR CABLE MAY BE REQUIRED TO CONNECT 480V SERVICE IN EXISTING 24" PB TO REPLACEMENT DISCONNECT SWITCH IF EXISTING CONDUCTOR LENGTH IS NOT SUFFICIENT.

UNDERGROUND UTILITIES

TWO WORKING DAYS BEFORE YOU DIG  
 CALL TOLL FREE 800-362-2764  
 OHIO UTILITIES PROTECTION SERVICE

CONSTRUCTION AS-BUILT  
**2643DR.E**

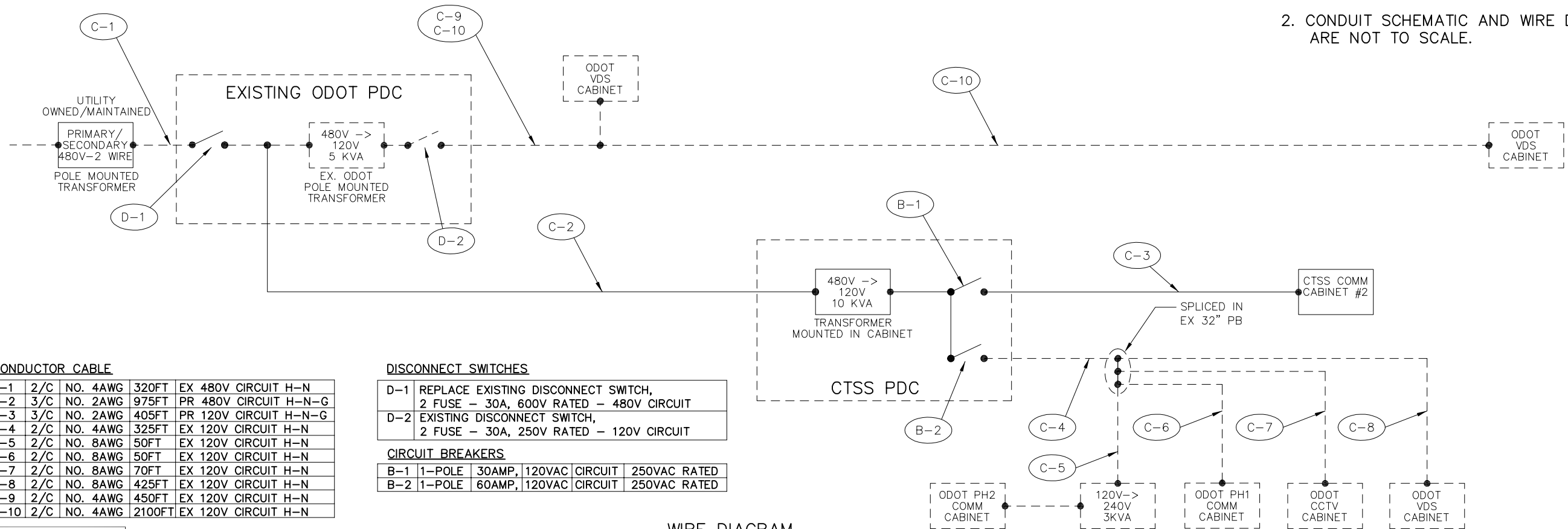
PID NUMBER 82540
EXISTING ODOT PDC I-71 AT I-270 (NORTH SIDE)
CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM (CTSS) PHASE A
64A 147



CONDUIT SCHEMATIC

NOTE:

1. EXISTING ODOT MID-RUN PULL BOXES ARE NOT SHOWN IN CONDUIT SCHEMATIC.
2. CONDUIT SCHEMATIC AND WIRE DIAGRAM ARE NOT TO SCALE.



WIRE DIAGRAM

CONDUCTOR CABLE

C-1	2/C	NO. 4AWG	320FT	EX 480V CIRCUIT H-N
C-2	3/C	NO. 2AWG	975FT	PR 480V CIRCUIT H-N-G
C-3	3/C	NO. 2AWG	405FT	PR 120V CIRCUIT H-N-G
C-4	2/C	NO. 4AWG	325FT	EX 120V CIRCUIT H-N
C-5	2/C	NO. 8AWG	50FT	EX 120V CIRCUIT H-N
C-6	2/C	NO. 8AWG	50FT	EX 120V CIRCUIT H-N
C-7	2/C	NO. 8AWG	70FT	EX 120V CIRCUIT H-N
C-8	2/C	NO. 8AWG	425FT	EX 120V CIRCUIT H-N
C-9	2/C	NO. 4AWG	450FT	EX 120V CIRCUIT H-N
C-10	2/C	NO. 4AWG	2100FT	EX 120V CIRCUIT H-N

DISCONNECT SWITCHES

D-1	REPLACE EXISTING DISCONNECT SWITCH, 2 FUSE - 30A, 600V RATED - 480V CIRCUIT
D-2	EXISTING DISCONNECT SWITCH, 2 FUSE - 30A, 250V RATED - 120V CIRCUIT

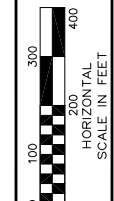
CIRCUIT BREAKERS

B-1	1-POLE	30AMP, 120VAC	CIRCUIT	250VAC RATED
B-2	1-POLE	60AMP, 120VAC	CIRCUIT	250VAC RATED

UNDERGROUND UTILITIES

TWO WORKING DAYS BEFORE YOU DIG  
CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

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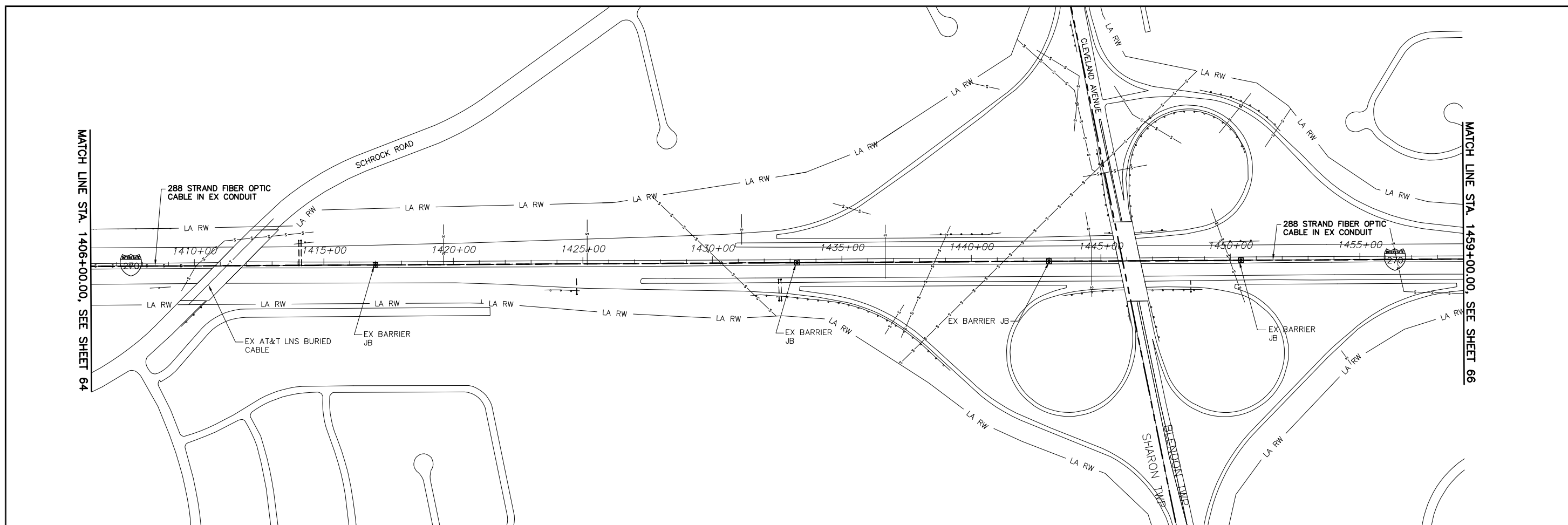


PID NUMBER  
82540

I.R. 270 AT CLEVELAND AVENUE  
PLAN SHEET STA. 1406+00.00 TO 1459+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

65  
147

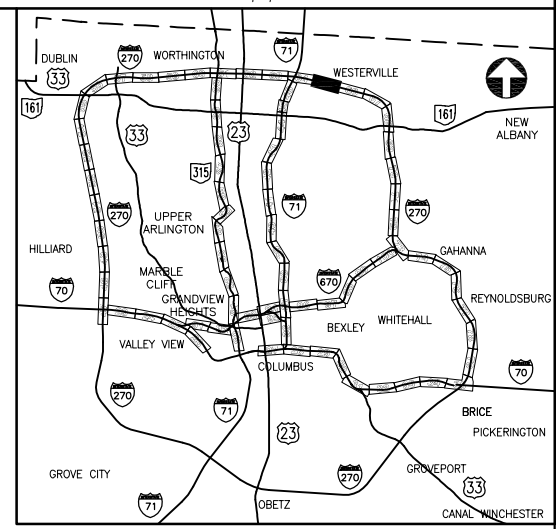


### ESTIMATED QUANTITIES

LOCATION		202	632							
		EXISTING CONDUIT CLEANED, AS PER PLAN	288 STRAND FIBER OPTIC CABLE							
STATION	STATION	LF	LF							
1406+00, 00'	1459+00, 00'	5300	5300							
<b>TOTAL</b>		5300	5300							

### CITY OF COLUMBUS UTILITY LEGEND

- SEWER
- WATER
- POWER
- LIGHTING



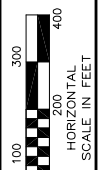
UNDERGROUND UTILITIES

TWO WORKING DAYS BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

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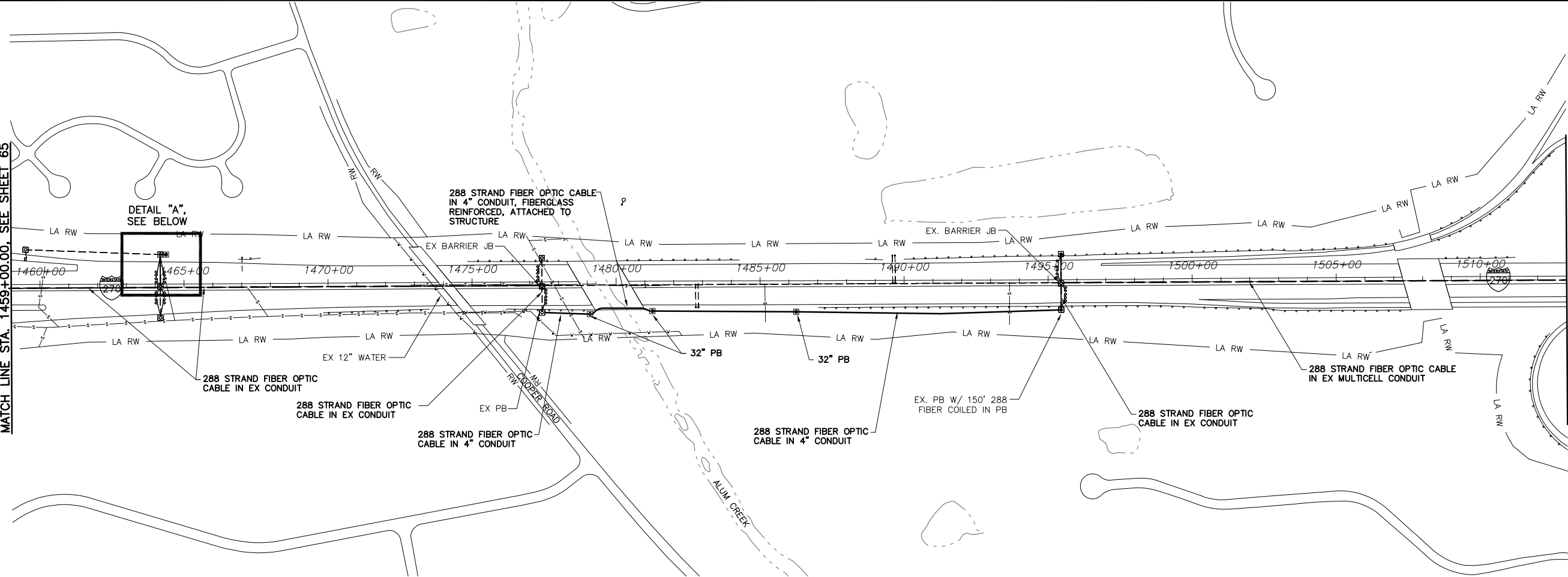
PID NUMBER  
82540

I.R. 270 AT COOPER ROAD  
PLAN SHEET STA. 1459+00.00 TO 1513+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

MATCH LINE STA. 1459+00.00, SEE SHEET 65

MATCH LINE STA. 1513+00.00, SEE SHEET 67



DETAIL "A",  
SEE BELOW

288 STRAND FIBER OPTIC  
CABLE IN EX CONDUIT

288 STRAND FIBER OPTIC  
CABLE IN EX CONDUIT

288 STRAND FIBER OPTIC  
CABLE IN 4" CONDUIT

288 STRAND FIBER OPTIC CABLE  
IN 4" CONDUIT, FIBERGLASS  
REINFORCED, ATTACHED TO  
STRUCTURE

288 STRAND FIBER OPTIC  
CABLE IN 4" CONDUIT

288 STRAND FIBER OPTIC  
CABLE IN 4" CONDUIT

288 STRAND FIBER OPTIC  
CABLE IN EX CONDUIT

288 STRAND FIBER OPTIC  
CABLE IN EX MULTICELL CONDUIT

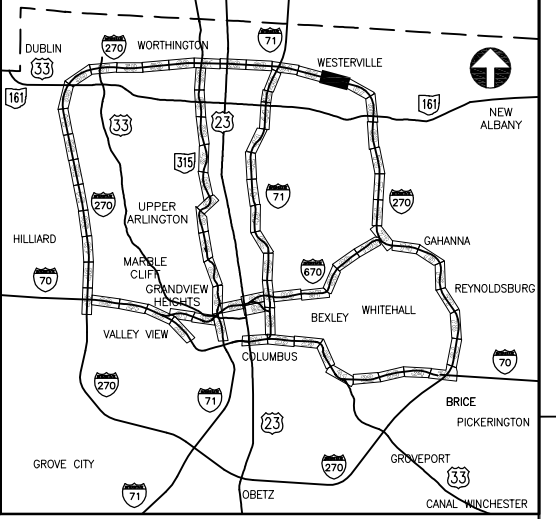
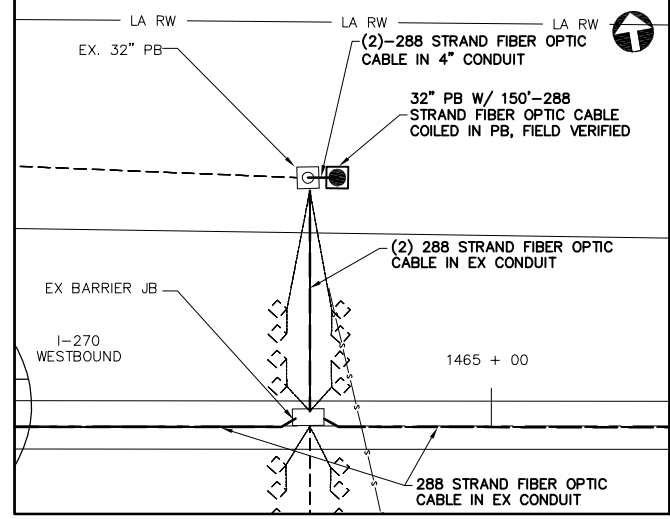
### ESTIMATED QUANTITIES

LOCATION		202	625	625	625	625	632				
STATION	STATION	EXISTING CONDUIT CLEANED, AS PER PLAN	PULL BOX, 713.08, 32", AS PER PLAN	CONDUIT, 725.05, 4" AS PER PLAN	TRENCH, 24" DEEP AS PER PLAN	CONDUIT MISC.: 4" CONDUIT FIBERGLASS REINFORCED, ATTACHED TO STRUCTURE	288 STRAND FIBER OPTIC CABLE				
1459+00, 00'	1464+18, 00'	518					518				
1464+18, 00'	1464+18, 115' L	115					230				
1464+18, 115' L	1464+28, 115' L			10	10		20				
1464+28, 115' L			1				150				
1464+18, 00'	1477+43, 00'	1325					1325				
1477+43, 00'	1477+43, 95' R	95					95				
1477+43, 95' R	1479+09, 95' R			166	166		166				
1479+09, 95' R			1								
1479+09, 95' R	1481+26, 95' R					217	217				
1481+26, 95' R			1								
1481+26, 95' R	1486+25, 96' R			500	500		500				
1486+25, 96' R			1								
1486+25, 96' R	1491+25, 100' R			500	500		500				
1491+25, 100' R			1								
1491+25, 100' R	1495+45, 95' R			420	420		420				
1495+45, 95' R							150				
1495+45, 95' R	1495+45, 00'						95				
1495+45, 00'	1513+00, 00'	1755					1755				
PB SLACK							60				
STRUCT. SLACK							50				
<b>TOTALS</b>		3903	5	1596	1596	217	6251				

#### CITY OF COLUMBUS UTILITY LEGEND

- SEWER
- WATER
- POWER
- LIGHTING

DETAIL "A"  
NO TO SCALE  
FUTURE NODE  
#270027.7



KEY PLAN  
NOT TO SCALE

REFER TO SHEET 106 FOR CONDUIT  
ATTACHED TO STRUCTURE DETAILS  
FOR BRIDGE OVER ABANDONED  
RAILROAD

UNDERGROUND UTILITIES

TWO WORKING DAYS  
BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

CONSTRUCTION AS-BUILT  
**2643DR.E**

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PID NUMBER  
82540

I.R. 270 AT WESTERVILLE ROAD  
PLAN SHEET STA. 1513+00.00 TO 1569+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

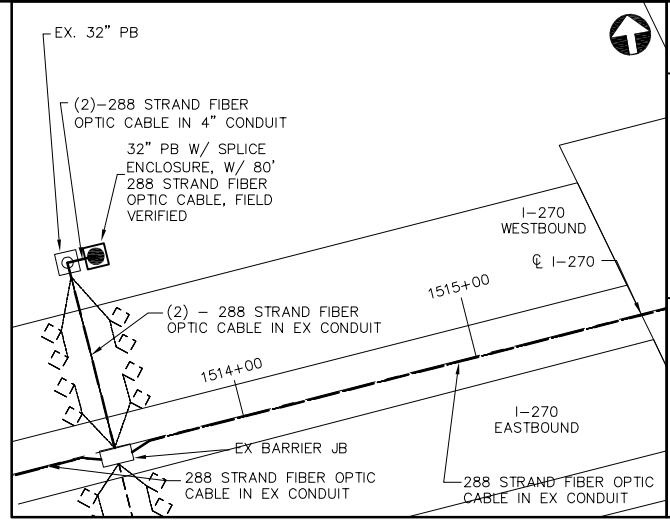


ESTIMATED QUANTITIES

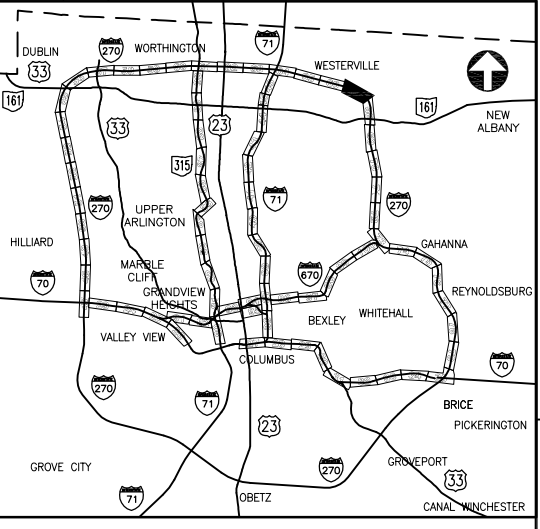
LOCATION		202	625	625	625	632					
STATION	STATION	LF	EA	LF	LF	LF					
1513+00, 00'	1513+45, 00'	45				45					
1513+45, 00'	1513+45, 80' L	80				160					
1513+45, 80'	1513+55, 80'			10	10	20					
1513+55, 80'			1			150					
1513+45, 00'	1545+70, 00'	3225				3225					
1545+70, 00'	1545+70, 92' L	92				92					
1545+70, 92' L	1569+00, 92' L			2330	2330	2330					
1550+52, 92' L			1								
1555+48, 92' L			1								
1560+44, 92' L			1								
1565+42, 92' L			1								
PB SLACK						70					
<b>TOTAL</b>		3442	5	2340	2340	6092					

CITY OF COLUMBUS  
UTILITY LEGEND

- SEWER
- WATER
- POWER
- LIGHTING



DETAIL "A"  
NOT TO SCALE  
FUTURE NODE  
#270028.3



KEY PLAN  
NOT TO SCALE

UNDERGROUND UTILITIES

TWO WORKING DAYS BEFORE YOU DIG

CALL TOLL FREE 800-362-2764

OHIO UTILITIES PROTECTION SERVICE

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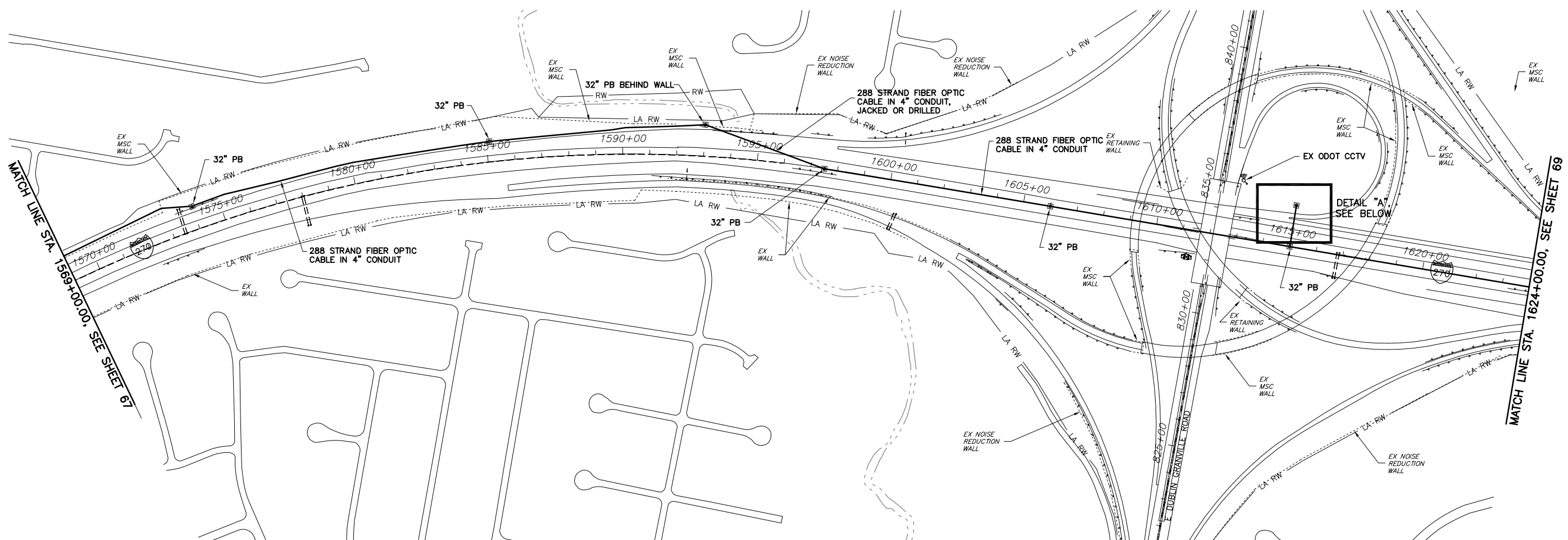


PID NUMBER  
82540

I.R. 270 AT E. DUBLIN-GRANVILLE ROAD  
PLAN SHEET STA. 1569+00.00 TO 1624+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

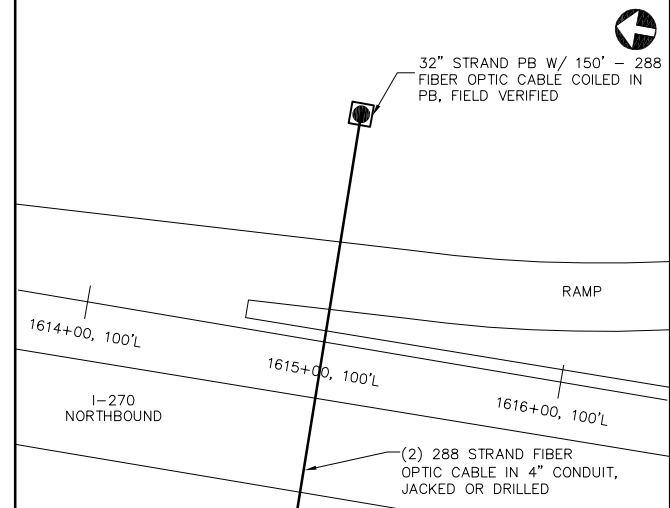
68  
147



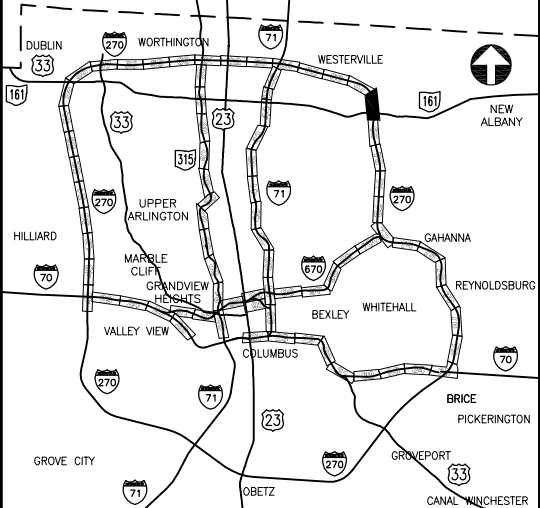
ESTIMATED QUANTITIES

LOCATION		625	625	625	625	632							
STATION	STATION	EA	LF	LF	LF	LF							
1569+00, 92' L	1596+00, 117' L		2700		2700	2700							
1570+40, 92' L		1											
1575+30, 92' L		1											
1580+16, 92' L		1											
1585+13, 92' L		1											
1590+06, 92' L		1											
1596+00, 117' L		1											
1596+00, 117' L	1596+00, 00'			117		117							
1596+00, 00'		1											
1596+00, 00'	1624+00, 00'		2800		2800	2800							
1601+00, 00'		1											
1606+00, 00'		1											
1610+00, 00'		1											
1615+00, 00'		1											
1615+00, 00'	1615+00, 155' L			155		310							
1615+00, 155' R		1				150							
1620+00, 00'		1											
PB SLACK						130							
<b>TOTAL</b>		13	5500	272	5500	6207							

- CITY OF COLUMBUS  
UTILITY LEGEND
- SEWER
  - WATER
  - POWER
  - LIGHTING



DETAIL "A"  
NOT TO SCALE  
FUTURE NODE  
#270030.5



KEY PLAN  
NOT TO SCALE

UNDERGROUND UTILITIES

TWO WORKING DAYS  
BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

CONSTRUCTION AS-BUILT  
2643DR.E

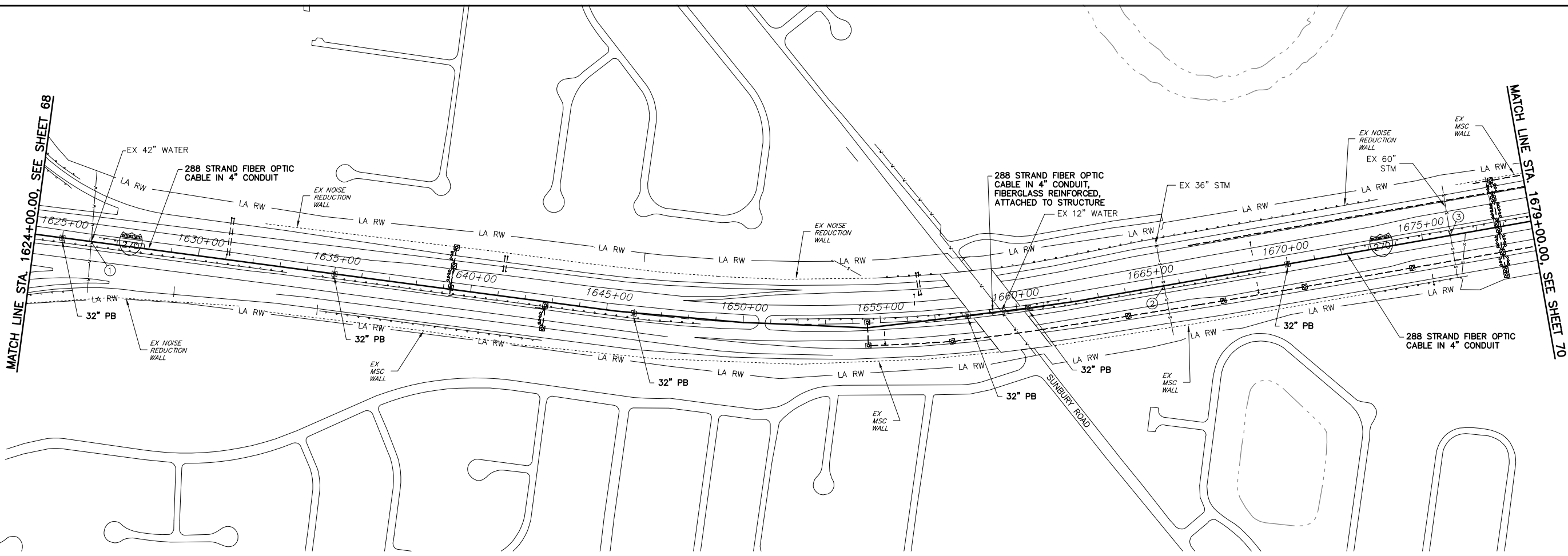
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PID NUMBER  
82540

I.R. 270 AT SUNBURY ROAD  
PLAN SHEET STA. 1624+00.00 TO 1679+00.00

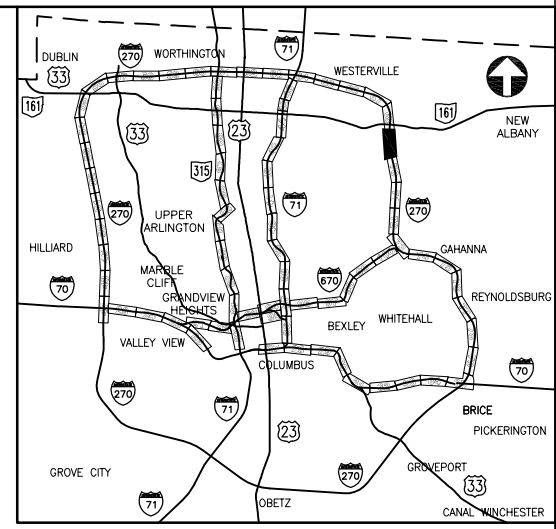
CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A



ESTIMATED QUANTITIES

LOCATION		625	625	625	625	632				
STATION	STATION	EA	LF	LF	LF	LF				
1624+00, 00'	1658+20, 00'	6	3420	3420		3420				
1658+20, 00'	1660+41, 00'	1			221	221				
1660+41, 00'	1679+00, 00'	3	1859	1859		1859				
PB SLACK						80				
STRUCTURE SLACK						50				
<b>TOTALS</b>		<b>10</b>	<b>5279</b>	<b>5279</b>	<b>221</b>	<b>5630</b>				

- CITY OF COLUMBUS  
UTILITY LEGEND
- SEWER
  - WATER
  - POWER
  - LIGHTING
- ⊗ EXISTING UTILITY CROSSING.  
SEE UTILITY CROSSING INFO  
SHEET 21.



KEY PLAN  
NOT TO SCALE

REFER TO SHEET 107 FOR CONDUIT  
ATTACHED TO STRUCTURE DETAILS  
FOR BRIDGE OVER SUNBURY ROAD

UNDERGROUND UTILITIES

TWO WORKING DAYS  
BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

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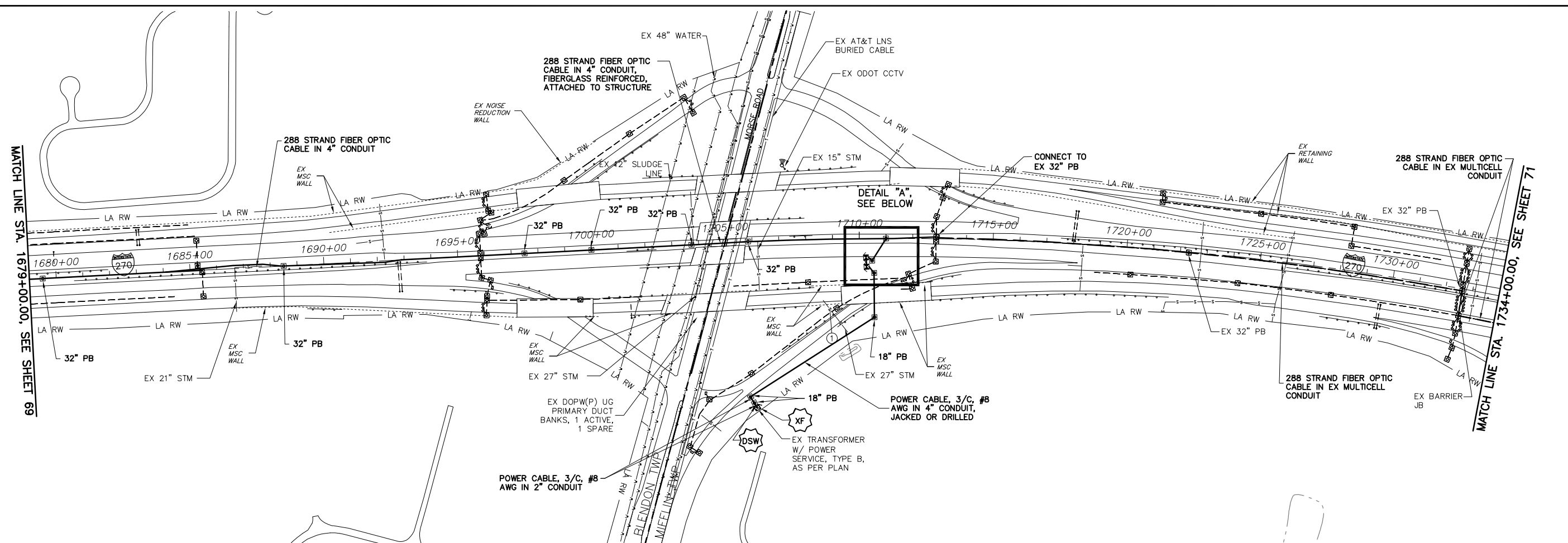


PID NUMBER  
82540

I.R. 270 AT MORSE ROAD  
PLAN SHEET STA. 1679+00.00 TO 1734+00.00

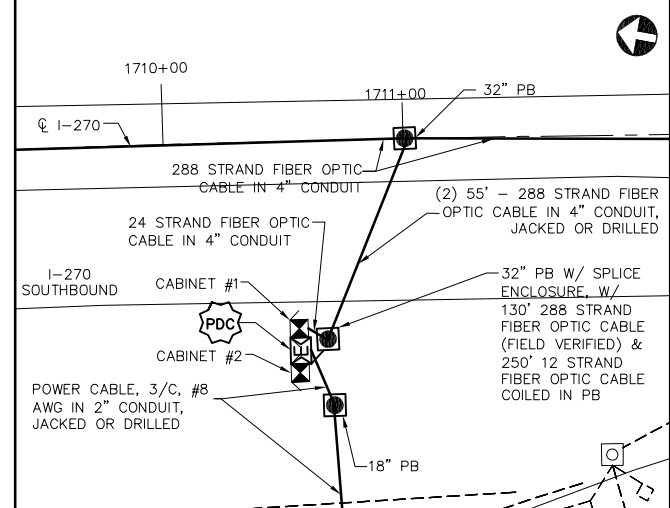
CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

70  
147



### ESTIMATED QUANTITIES

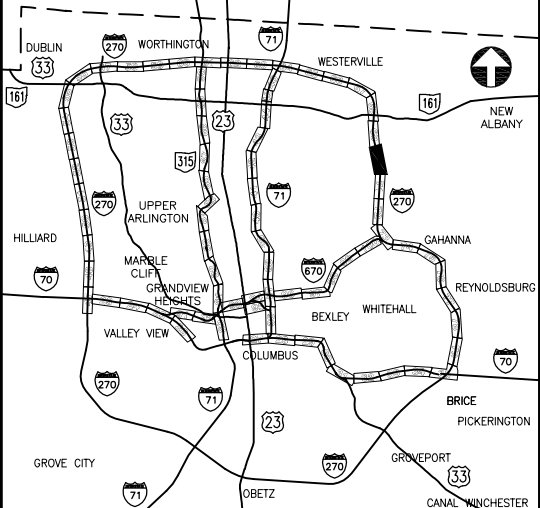
LOCATION STATION		202	625	625	625	625	625	625	625	632	632	632	632	632	632	633	633	
STATION	STATION	EXISTING CONDUIT CLEANED, AS PER PLAN	PULL BOX, 713.08, 18" AS PER PLAN	PULL BOX, 713.08, 32" AS PER PLAN	CONDUIT, 725.05, 2" AS PER PLAN	CONDUIT, 725.05, 4" AS PER PLAN	CONDUIT, JACKED OR DRILLED, 725.05, 4", APP	4" CONDUIT, FIBERGLASS REINFORCED, ATTACHED TO STRUCTURE	TRENCH, 24" DEEP AS PER PLAN	GROUND ROD AS PER PLAN	288 STRAND FIBER OPTIC CABLE	12 STRAND FIBER OPTIC CABLE	24 STRAND FIBER OPTIC CABLE	SPLICE ENCLOSURE,	POWER CABLE, NO. 8 AWG, AS PER PLAN	POWER SERVICE, TYPE B, AS PER PLAN	COMMUNICATIONS CABINET #1	COMMUNICATIONS CABINET #2
LF	EA	EA	EA	LF	LF	LF	LF	LF	EA	LF	LF	LF	EA	LF	EA	EA	EA	
1679+00, 00'	1703+73, 00'		6		2473				2473	2473								
1703+73, 00'	1705+85, 00'		1			212			212									
1705+85, 00'	1712+87, 00'		2		702			702		702								
1712+87, 00'	1732+62, 8' L	1975								1975								
1732+62, 8' L	1732+62, 102' L	94								94								
1732+62, 102' L	1734+00, 102' L	138								138								
1711+00, 00'	1711+00, 100' R					100				200								
1711+00, 100' R			1								75		1					
1711+00, 100' R	1710+70, 100' R				30			30				30						
1700+30, 100' R									1								1	1
1710+70, 100' R	1710+70, 110' R				10			10						30				
1710+70, 110' R			1															
1710+70, 110' R	1705+27, 503' R				658			658						1974				
1705+27, 503' R			1															
1705+27, 503' R	1705+70, 578' R					85								255				
1705+70, 578' R			1											117				
1705+70, 578' R	1705+88, 611' R				39			39										
1705+88, 611' R			1											30	1			
1705+88, 611' R	1705+92, 619' R				10			10										
PB SLACK										130				60				
SPLICE SLACK										150	75	150		60				
STRUCT. SLACK										50								
<b>TOTAL</b>		<b>2207</b>	<b>4</b>	<b>10</b>	<b>717</b>	<b>3205</b>	<b>185</b>	<b>212</b>	<b>3922</b>	<b>1</b>	<b>6124</b>	<b>150</b>	<b>180</b>	<b>1</b>	<b>2526</b>	<b>1</b>	<b>1</b>	<b>1</b>



DETAIL "A"  
NO TO SCALE

NODE #270032.3  
REFER TO SHEET 138 FOR  
COMMUNICATION DETAILS

- POWER SERVICE NOTES**
- 30AMP, 480VAC FUSED DISCONNECT SWITCH
  - 480-120/240VAC 10KVA EX ODOT TRANSFORMER
  - POWER DISTRIBUTION CABINET:
    - 1-100AMP SERVICE PANEL
    - 1-30AMP BREAKER, 120VAC TO CTSS COMM NODE
    - 1-30AMP BREAKER, 120VAC TO PDC FAN



KEY PLAN  
NOT TO SCALE

REFER TO SHEET 108 FOR CONDUIT  
ATTACHED TO STRUCTURE DETAILS  
FOR BRIDGE OVER MORSE ROAD

**UNDERGROUND UTILITIES**

TWO WORKING DAYS BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

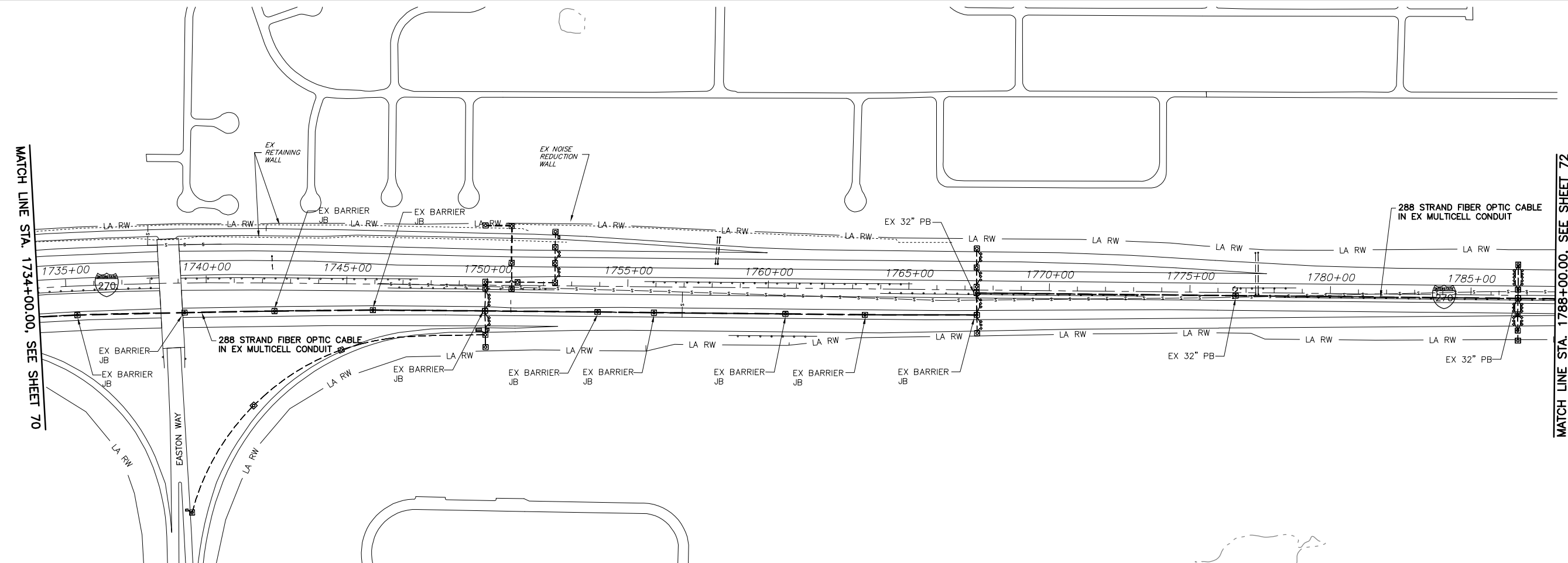
#### CITY OF COLUMBUS UTILITY LEGEND

- SEWER
- WATER
- POWER
- LIGHTING

EXISTING UTILITY CROSSING. SEE UTILITY CROSSING INFO SHEET 21.

CONSTRUCTION AS-BUILT  
**2643DR.E**

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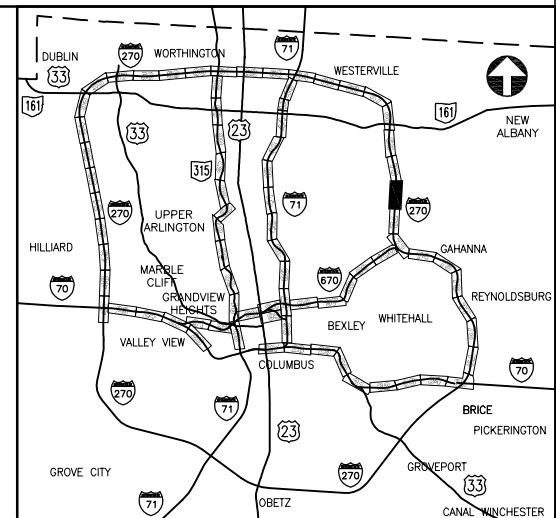
MATCH LINE STA. 1734+00.00, SEE SHEET 70

MATCH LINE STA. 1788+00.00, SEE SHEET 72

ESTIMATED QUANTITIES

LOCATION		202	632							
STATION	STATION	LF	LF							
1734+00, 102' R	1767+43, 89' R	3343	3343							
1767+43, 89' R	1767+43, 10' R	79	79							
1767+43, 10' R	1788+00, 10' R	2057	2057							
PB SLACK			30							
<b>TOTALS</b>		5479	5509							

- CITY OF COLUMBUS  
UTILITY LEGEND
- SEWER
  - WATER
  - POWER
  - LIGHTING



KEY PLAN  
NOT TO SCALE

PID NUMBER  
82540

I.R. 270 AT EASTON WAY  
PLAN SHEET STA. 1734+00.00 to 1788+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

71  
147

CONSTRUCTION AS-BUILT  
2643DR.E

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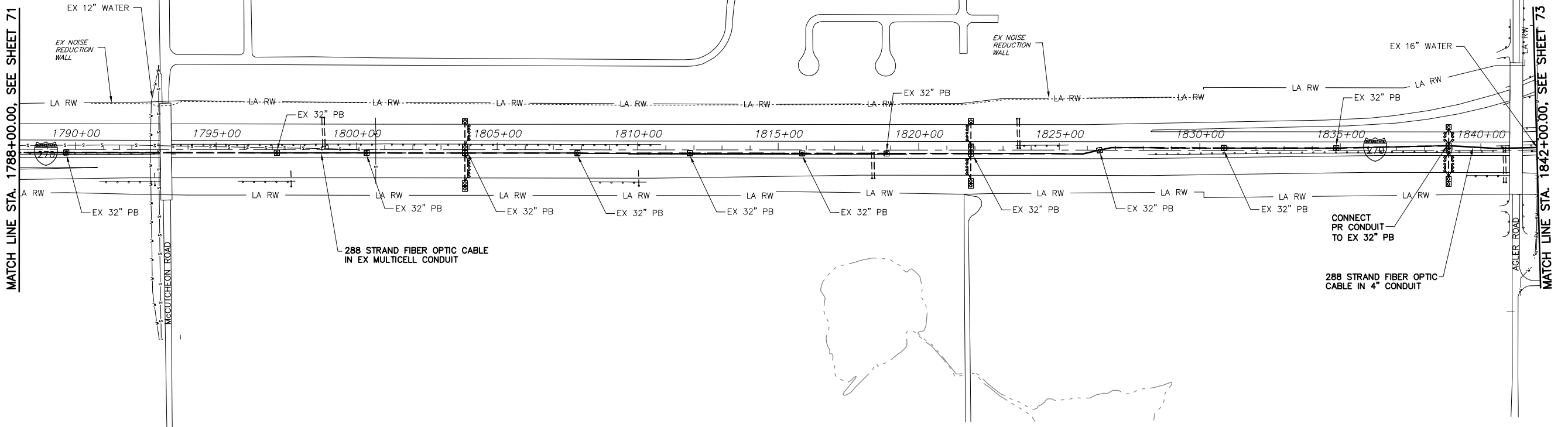


PID NUMBER  
82540

I.R. 270 AT McCUTCHEON & AGLER ROADS  
Plan Sheet Sta. 1788+00.00 to 1842+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

72  
147



ESTIMATED QUANTITIES

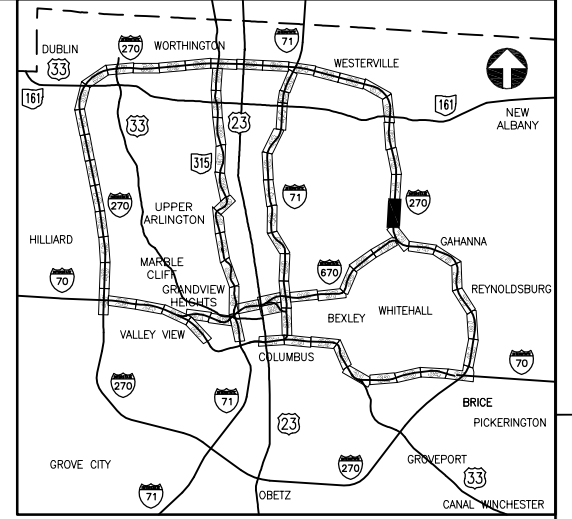
LOCATION		202	625	625	632					
STATION	STATION	LF	LF	LF	LF					
1788+00, 12' R	1838+86, 17' L	5086			5086					
1838+86, 17' L	1842+00, 9' L		314	314	314					
PB SLACK					130					
<b>TOTAL</b>		5086	314	314	5530					

- CITY OF COLUMBUS  
UTILITY LEGEND
- SEWER
  - WATER
  - POWER
  - LIGHTING

UNDERGROUND UTILITIES

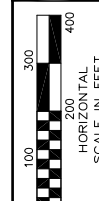
TWO WORKING DAYS BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE



KEY PLAN  
NOT TO SCALE

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PID NUMBER  
82540

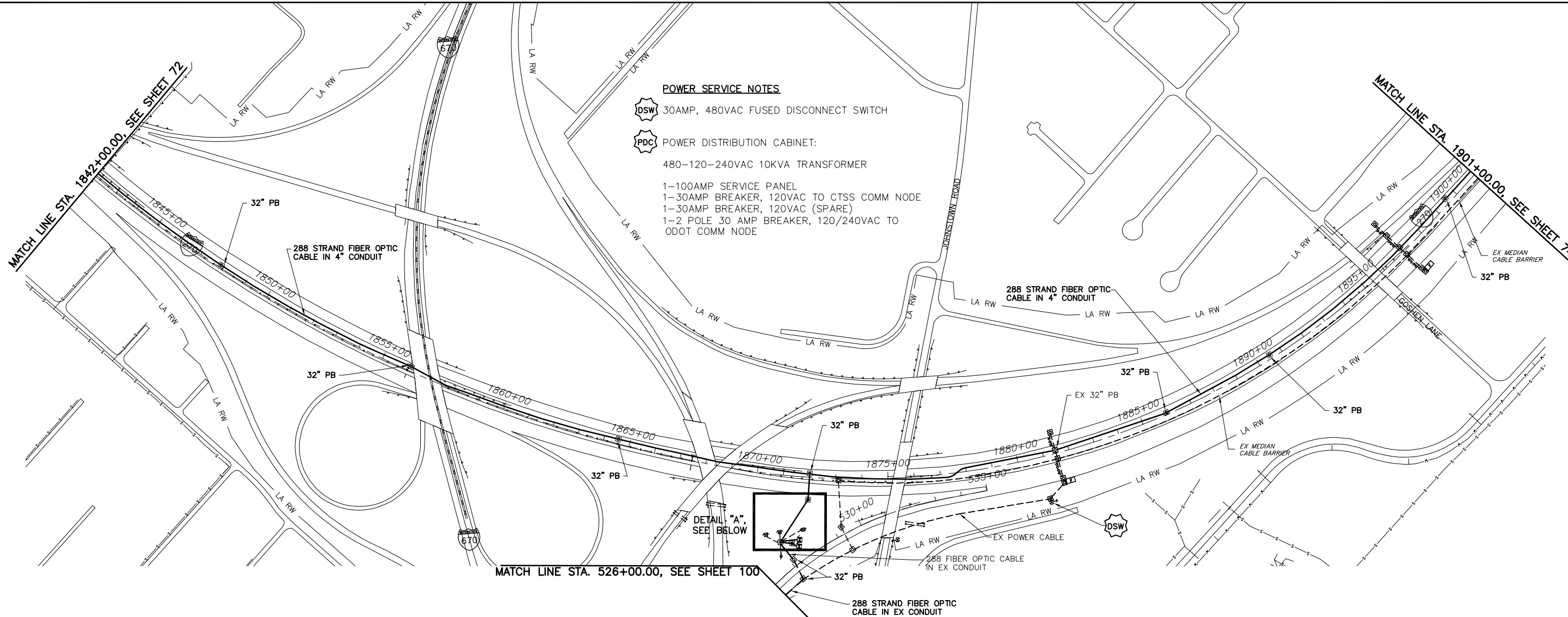
I.R. 270 AT I.R. 670  
PLAN SHEET STA. 1842+00.00 TO 1901+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

73  
147

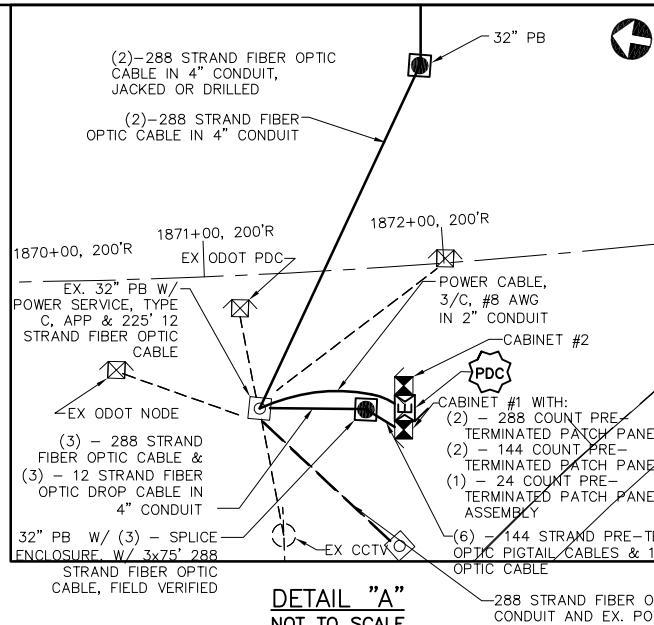
**POWER SERVICE NOTES**

- DSW** 30AMP, 480VAC FUSED DISCONNECT SWITCH
- PDC** POWER DISTRIBUTION CABINET:  
480-120-240VAC 10KVA TRANSFORMER  
1-100AMP SERVICE PANEL  
1-30AMP BREAKER, 120VAC TO CTSS COMM NODE  
1-30AMP BREAKER, 120VAC (SPARE)  
1-2 POLE 30 AMP BREAKER, 120/240VAC TO ODOT COMM NODE

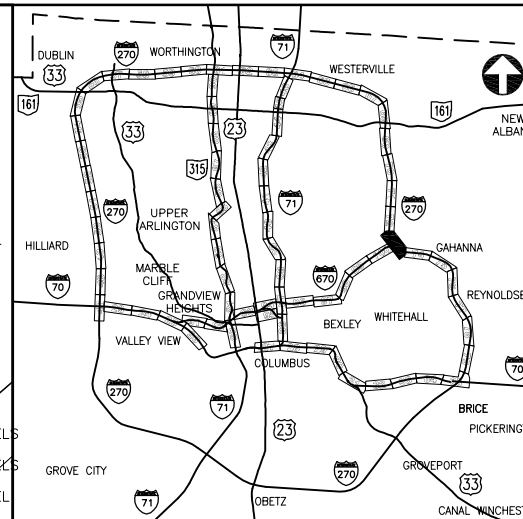


**ESTIMATED QUANTITIES**

LOCATION		202	625	625	625	625	625	625	625	632	632	632	632	632	632	632	633	633	
STATION	STATION	EXISTING CONDUIT CLEANED, AS PER PLAN	PULL BOX, 713.08, 18" AS PER PLAN	PULL BOX, 713.08, 32" AS PER PLAN	PULL BOX, 713.08, 48" AS PER PLAN	CONDUIT, 725.05, 2" AS PER PLAN	CONDUIT, 725.05, 4" AS PER PLAN	CONDUIT, JACKED OR DRILLED, 725.05, 4", APP	TRENCH, 24" DEEP AS PER PLAN	GROUND ROD AS PER PLAN	288 STRAND FIBER OPTIC CABLE	12 STRAND FIBER OPTIC CABLE	SPLICE ENCLOSURE,	POWER CABLE, NO. 8 AWG, AS PER PLAN	POWER SERVICE, TYPE C, AS PER PLAN	288 COUNT PRE-TERMINATED PATCH PANEL, AS PER PLAN	144 COUNT PRE-TERMINATED PATCH PANEL ASSEMBLY, AS PER PLAN	COMMUNICATIONS CABINET #1	COMMUNICATIONS CABINET #2
LF	EA	EA	EA	EA	LF	LF	LF	LF	EA	LF	LF	EA	LF	EA	EA	EA	EA	EA	
1842+00, 9' L	1901+00, 20' L			13				5900	5900		5900								
1872+00, 15' L	1872+00, 85' R		1				100		100		200								
1872+00, 85' L	1871+53, 254' R							185			370								
1871+53, 254' R											225								
1871+53, 254' R	1871+73, 254' R						20		20		60	60							
1871+73, 254' R				1															
1871+73, 254' R	1871+83, 254' R						10		10		30								
1871+83, 254' R																			
1871+83, 254' R	1871+83, 244' R						10		10					30					
1871+83, 244' R			1																
1871+83, 244' R	1870+65, 203' R							122						366	1				
1871+23, 254' R	1871+57, 305' R										69								
1871+57, 305' R	1872+01, 388' R										100								
1872+01, 388' R	1871+46, 468' R										91								
PB SLACK											240			30					
SPLICE SLACK											225	75		60					
<b>TOTAL</b>		260	1	14	1	132	6030	185	6162	1	7285	360	3	486	1	2	2	1	1



DETAIL "A"  
NOT TO SCALE  
NODE #270035.4  
REFER TO SHEETS  
139 & 140 FOR  
COMMUNICATION  
DETAILS



KEY PLAN  
NOT TO SCALE

**UNDERGROUND UTILITIES**

TWO WORKING DAYS BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

**CITY OF COLUMBUS UTILITY LEGEND**

- SEWER
- WATER
- POWER
- LIGHTING

CONSTRUCTION AS-BUILT  
**2643DR.E**

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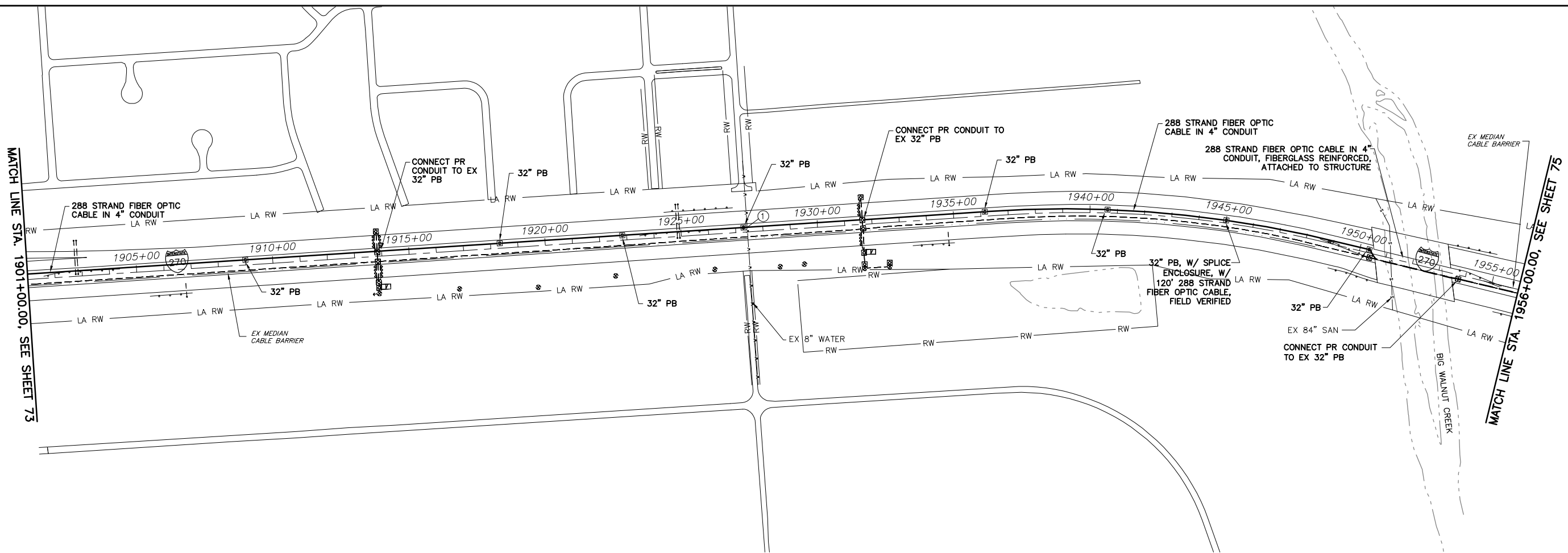


PID NUMBER  
82540

I.R. 270  
PLAN SHEET STA. 1901+00.00 to 1956+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

74  
147



ESTIMATED QUANTITIES

LOCATION		202	625	625	625	625	632					
STATION	STATION	LF	EA	LF	LF	LF	LF					
1901+00, 20' L	1950+34, 13' L		9	4943	4943		4943					
1950+34, 13' L	1953+76, 15' R					343	343					
1953+76, 15' R	1956+00, 14' R	224					224					
PB SLACK							100					
STRUCT. SLACK							50					
<b>TOTALS</b>		224	9	4943	4943	343	5660					

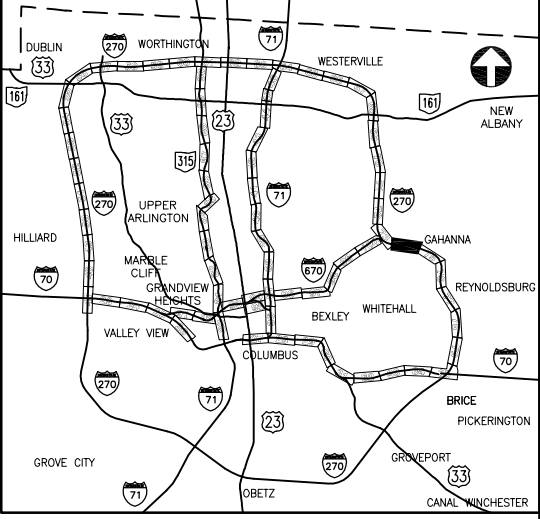
CITY OF COLUMBUS  
UTILITY LEGEND

- SEWER
- WATER
- POWER
- LIGHTING

**UNDERGROUND UTILITIES**

TWO WORKING DAYS  
BEFORE YOU DIG

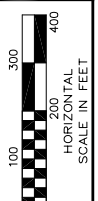
CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE



KEY PLAN  
NOT TO SCALE

REFER TO SHEET 109 FOR CONDUIT  
ATTACHED TO STRUCTURE DETAILS  
FOR BRIDGE OVER BIG WALNUT CREEK

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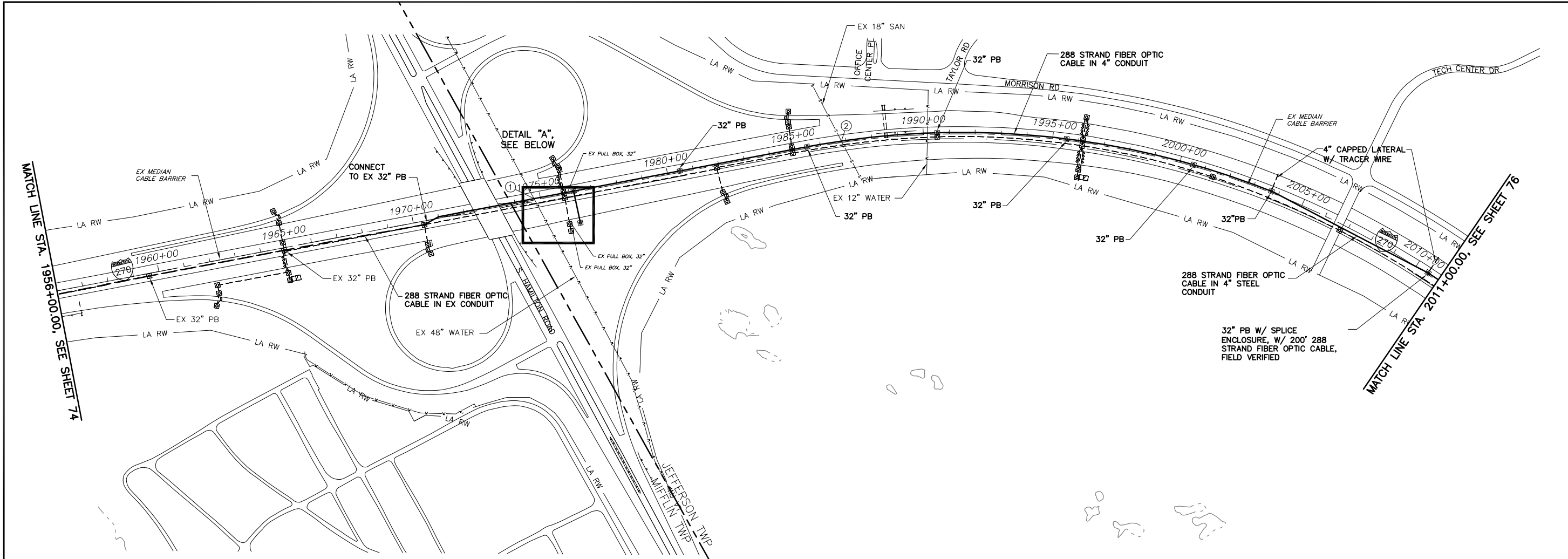


PID NUMBER  
82540

I.R. 270 AT S. HAMILTON ROAD  
PLAN SHEET STA. 1956+00.00 TO 2011+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

75  
147



ESTIMATED QUANTITIES

LOCATION		202	625	625	625	625	632
STATION	STATION	LF	EA	LF	LF	LF	LF
1956+00, 14' R	1970+41, 14' R	1441					1441
1970+41, 14' R	2003+70, 5' L		7	3359		3359	3359
1975+49, 5' L	1975+52, 120' R				125		250
1975+52, 120' R			1				250
2003+70, 5' L	2003+70, 87' L				82		82
2003+70, 87' L	2010+53, 87' L		2	683		683	683
2010+53, 87' L	2010+53, 5' L				82		82
2010+53, 5' L	2011+00, 5' L		1	47		47	47
PB SLACK							140
<b>TOTALS</b>		1441	11	4089	289	4089	6334

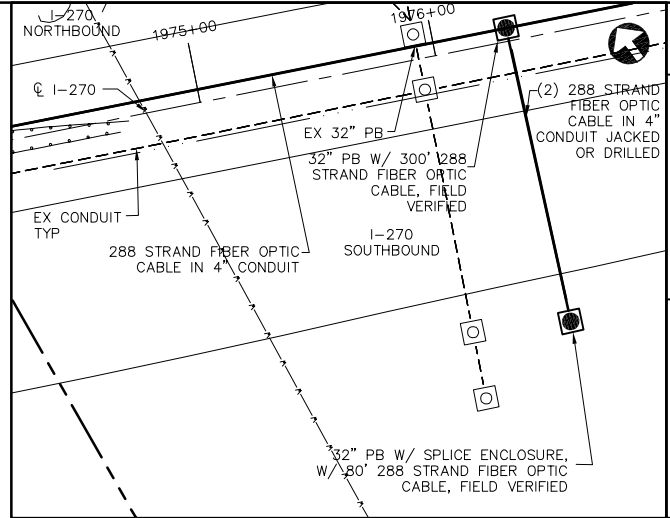
- CITY OF COLUMBUS UTILITY LEGEND
- SEWER
  - WATER
  - POWER
  - LIGHTING
- ⊗ EXISTING UTILITY CROSSING. SEE UTILITY CROSSING INFO SHEET 21.

UNDERGROUND UTILITIES

TWO WORKING DAYS BEFORE YOU DIG

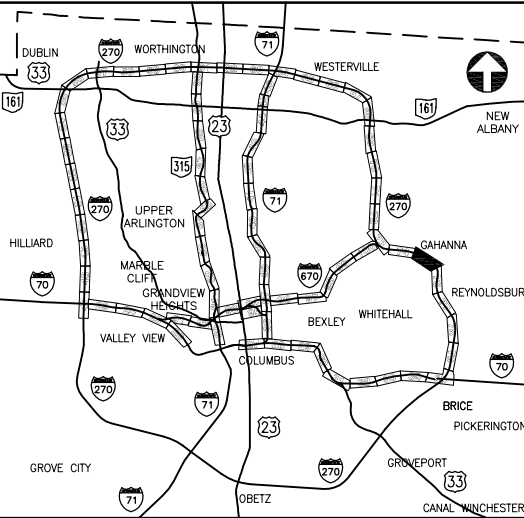
CALL TOLL FREE 800-362-2764

OHIO UTILITIES PROTECTION SERVICE



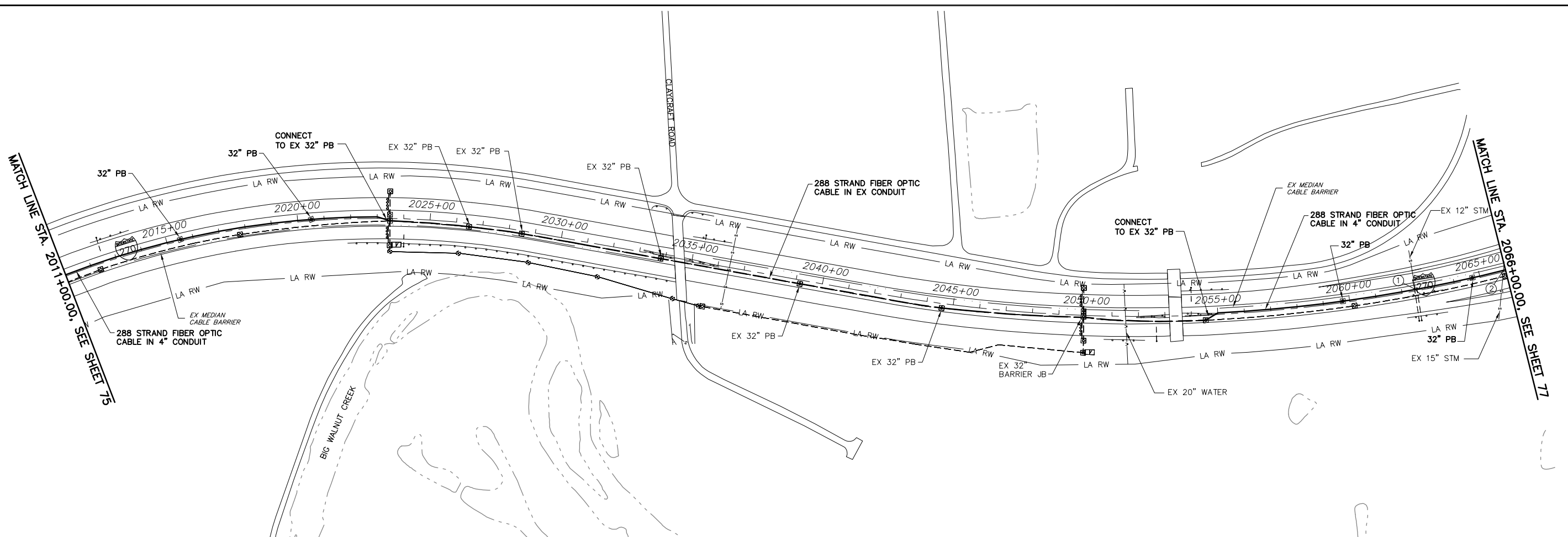
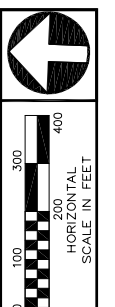
DETAIL "A"  
NOT TO SCALE

FUTURE NODE  
#270037.4



KEY PLAN  
NOT TO SCALE

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PID NUMBER  
82540

I.R. 270 AT CLAYCRAFT ROAD  
PLAN SHEET STA. 2011+00.00 TO 2066+00.00

ESTIMATED QUANTITIES

LOCATION		202	625	625	625	632					
STATION	STATION	LF	EA	LF	LF	LF					
2011+00, 5' L	2023+48, 9' R		2	1248	1248	1248					
2023+48, 9' R	2054+53, 20' R	3105				3105					
2054+53, 20' R	2066+00, 5' L		2	1147	1147	1147					
PB SLACK						120					
<b>TOTALS</b>		3105	4	2395	2395	5620					

CITY OF COLUMBUS  
UTILITY LEGEND

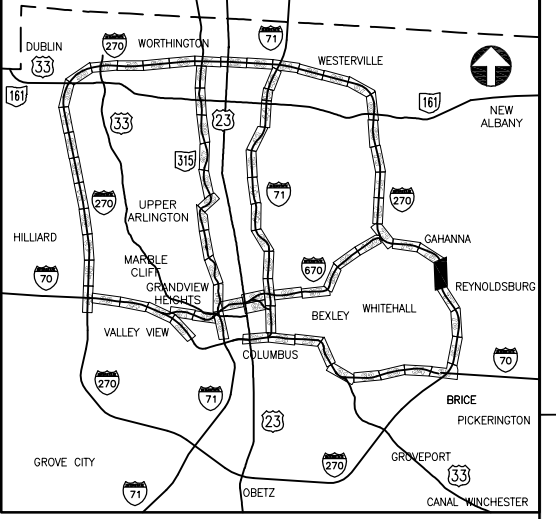
- SEWER
- WATER
- POWER
- LIGHTING

⊗ EXISTING UTILITY CROSSING.  
SEE UTILITY CROSSING INFO  
SHEET 21.

UNDERGROUND UTILITIES

TWO WORKING DAYS  
BEFORE YOU DIG

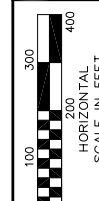
CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE



KEY PLAN  
NOT TO SCALE

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

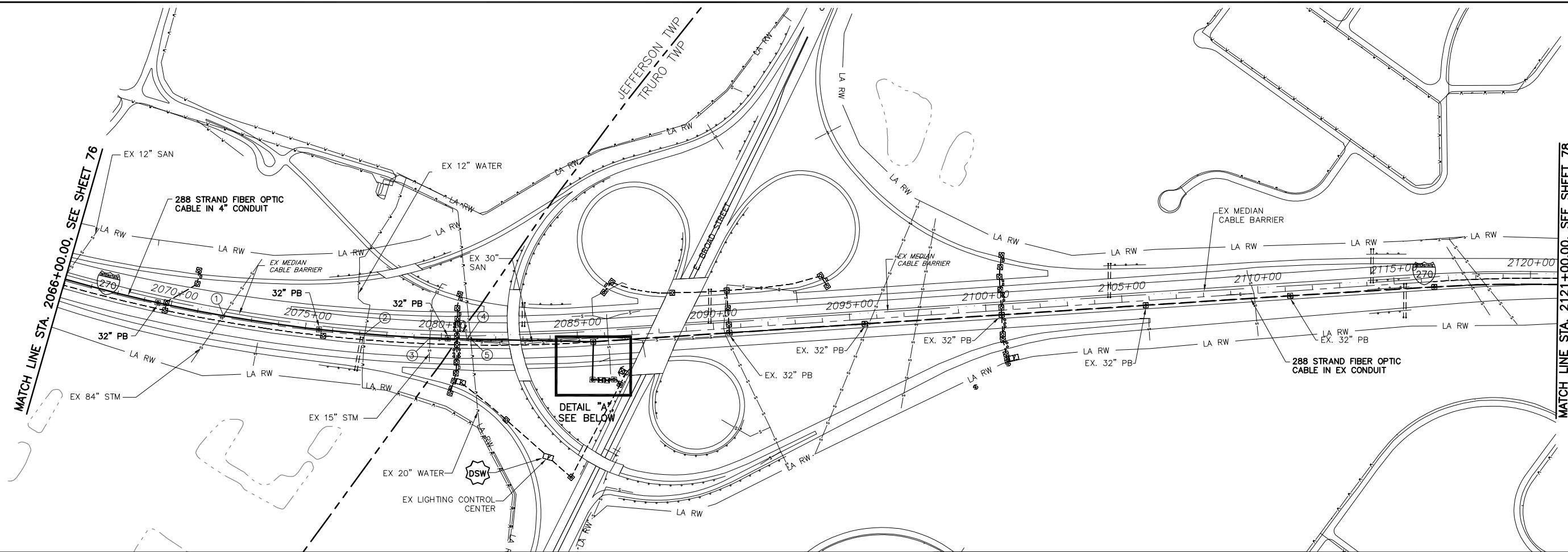
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PID NUMBER  
82540

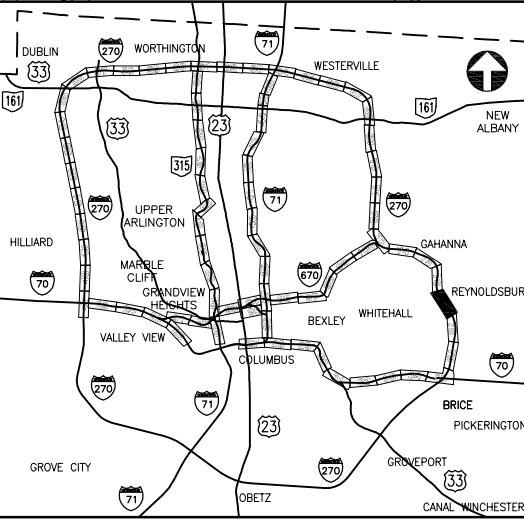
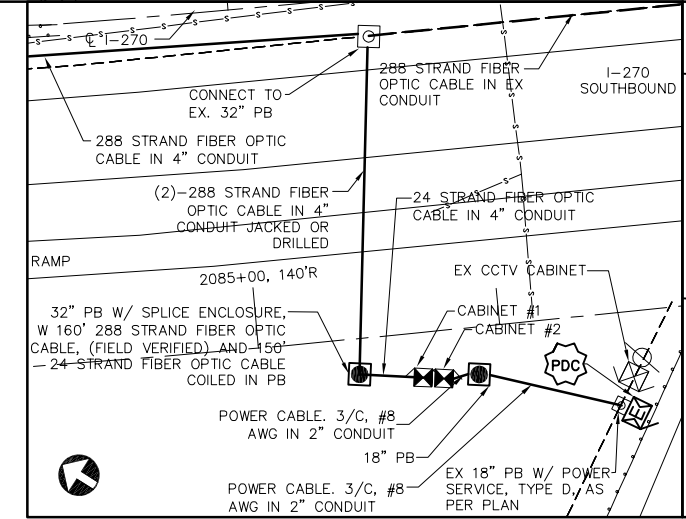
I.R. 270 AT E. BROAD STREET  
PLAN SHEET STA. 2066+00.00 TO 2121+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A



ESTIMATED QUANTITIES

LOCATION		202	625	625	625	625	625	625	625	632	632	632	632	632	632	633	633
STATION	STATION	LF	EA	EA	LF	LF	LF	EA	LF	LF	LF	EA	LF	EA	EA	EA	EA
2066+00, 6' L	2085+57, 16' R			3	1957		1957		1957								
2085+57, 16' R	2085+57, 146' R					130			260								
2085+57, 146' R	2085+87, 146' R		1							100		1					
2085+87, 146' R	2085+87, 146' R				30		30				30				1	1	
2085+87, 146' R	2085+87, 156' R				10		10							30			
2085+87, 156' R			1														
2085+87, 156' R	2086+46, 178' R				63		63						189				
2086+46, 178' R															1		
2085+57, 16' R	2121+00, 00'	3543								3543							
PB SLACK										110			30				
SPlice SLACK										150	75	150	60				
TOTAL		3543	1	4	73	1987	130	2060	1	6020	175	180	1	309	1	1	1



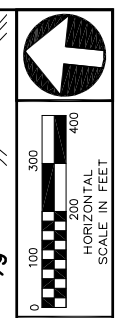
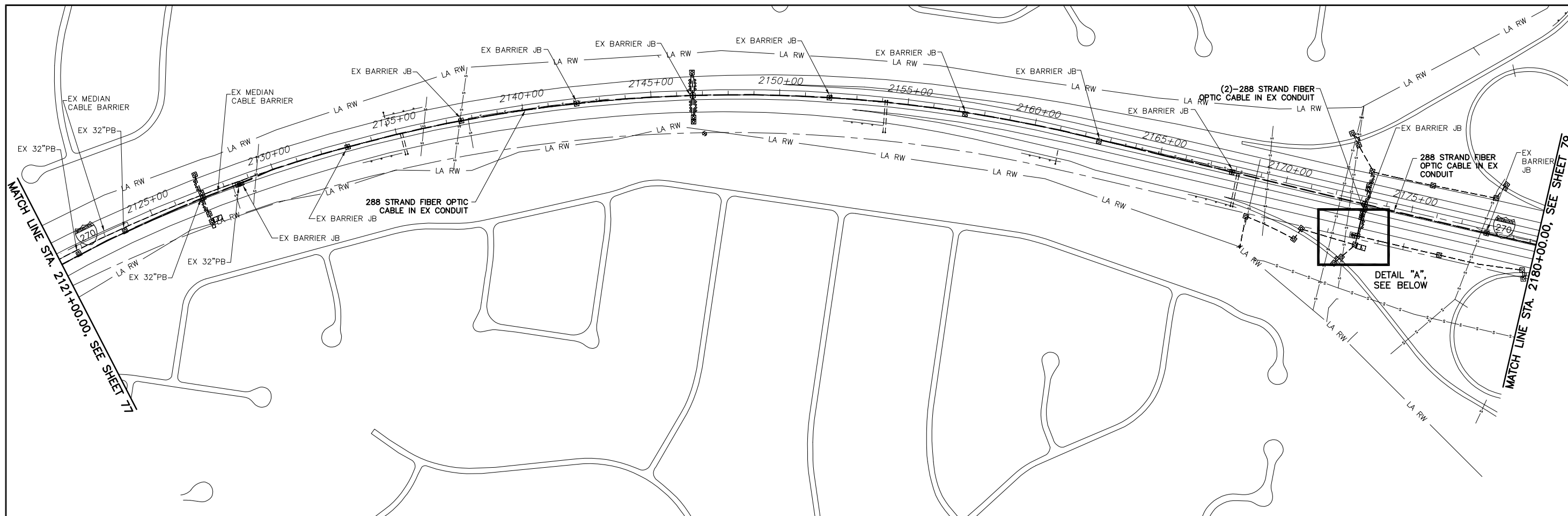
DETAIL "A"  
NOT TO SCALE  
NODE #270039.5  
REFER TO SHEET 141 FOR  
COMMUNICATION DETAILS

- POWER SERVICE NOTES**
- 30AMP, 480VAC FUSED DISCONNECT SWITCH
  - POWER DISTRIBUTION CABINET:  
480-120-240VAC 10KVA TRANSFORMER  
1-100AMP SERVICE PANEL  
1-30AMP BREAKER, 120VAC TO CTSS COMM NODE  
1-30AMP BREAKER, 120VAC TO ODOT CCTV SITE

- UNDERGROUND UTILITIES**
- TWO WORKING DAYS BEFORE YOU DIG  
CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE
- CITY OF COLUMBUS UTILITY LEGEND**
- SEWER
  - WATER
  - POWER
  - LIGHTING
- EXISTING UTILITY CROSSING.**  
SEE UTILITY CROSSING INFO SHEET 21.

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PID NUMBER  
82540

I.R. 270 AT MAIN STREET  
PLAN SHEET STA. 2121+00.00 TO 2180+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

78  
147

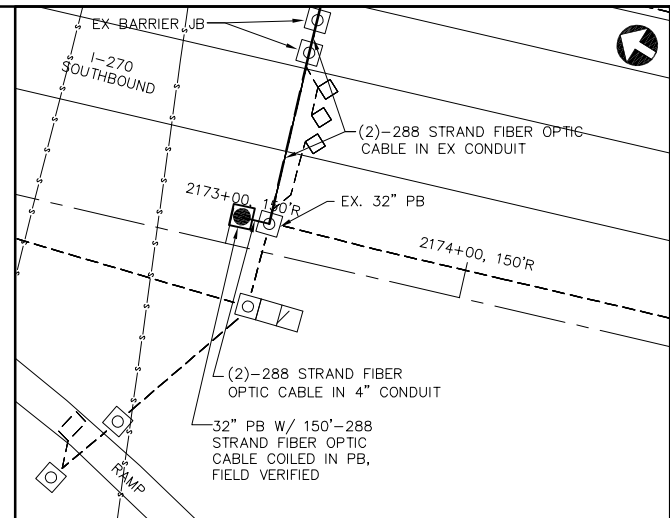
LOCATION		ESTIMATED QUANTITIES				
STATION	STATION	202	625	625	625	632
		EXISTING CONDUIT CLEANED, AS PER PLAN	PULL BOX, 713.08, 32", AS PER PLAN	CONDUIT, 725.05, 4" AS PER PLAN	TRENCH, 24" DEEP AS PER PLAN	288 STRAND FIBER OPTIC CABLE
		LF	EA	LF	LF	LF
2121+00, 00'	2180+00, 14' R	5900				5900
2173+16, 12' R	2173+16, 138' R	126				252
2173+16, 138' R	2173+06, 138' R			10	10	20
2173+06, 138' R			1			150
PB SLACK						60
<b>TOTAL</b>		6026	1	10	10	6382

**CITY OF COLUMBUS UTILITY LEGEND**

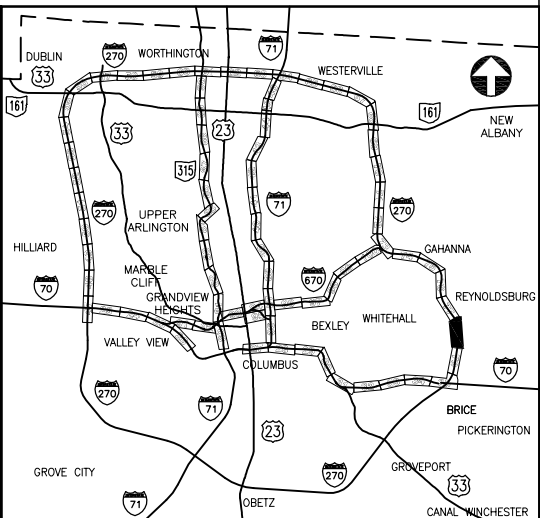
- SEWER
- WATER
- POWER
- LIGHTING

**UNDERGROUND UTILITIES**

TWO WORKING DAYS BEFORE YOU DIG  
CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

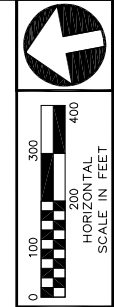


**DETAIL "A"**  
NOT TO SCALE  
FUTURE NODE #270041.3



**KEY PLAN**  
NOT TO SCALE

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PID NUMBER  
82540

I.R. 270 AT E. MAIN STREET  
PLAN SHEET STA. 2180+00.00 TO 2238+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

**ESTIMATED QUANTITIES**

LOCATION		202	632							
STATION	STATION	LF	LF							
2180+00, 00'	2238+00, 00'	5800	5800							
<b>TOTALS</b>		5800	5800							

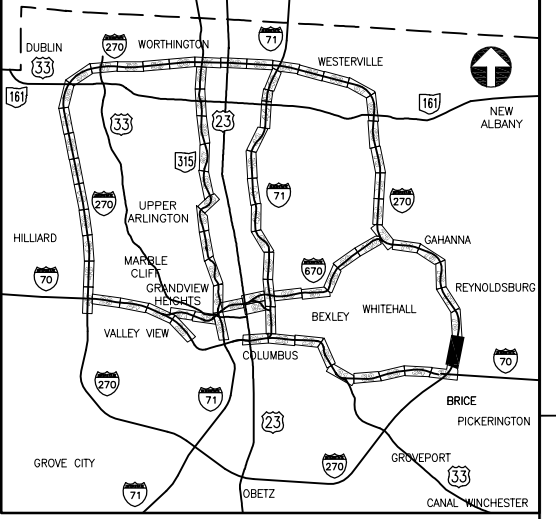
**CITY OF COLUMBUS  
UTILITY LEGEND**

- SEWER
- WATER
- POWER
- LIGHTING

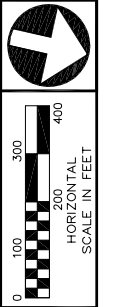
**UNDERGROUND UTILITIES**

TWO WORKING DAYS BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE



**KEY PLAN  
NOT TO SCALE**



PID NUMBER  
82540

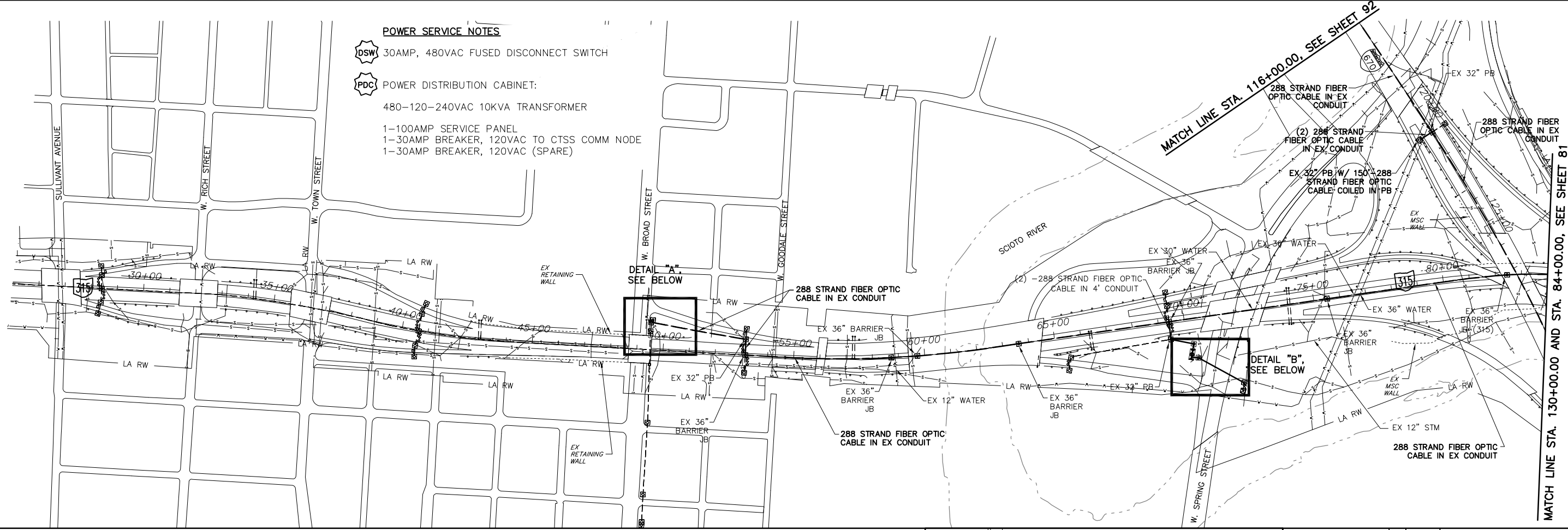
S.R. 315 AT I.R. 670  
PLAN SHEET STA. 25+00.00 TO 84+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

80  
147

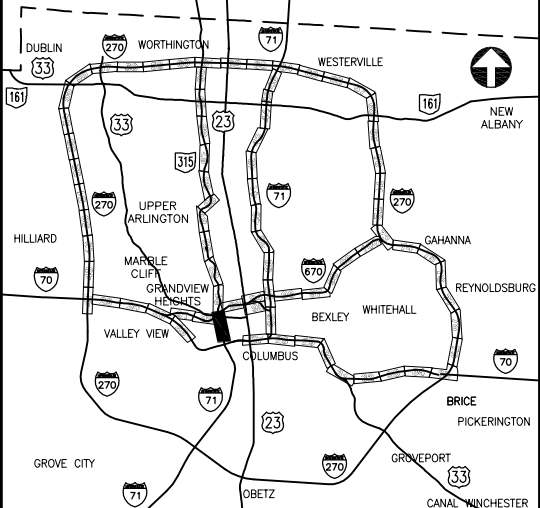
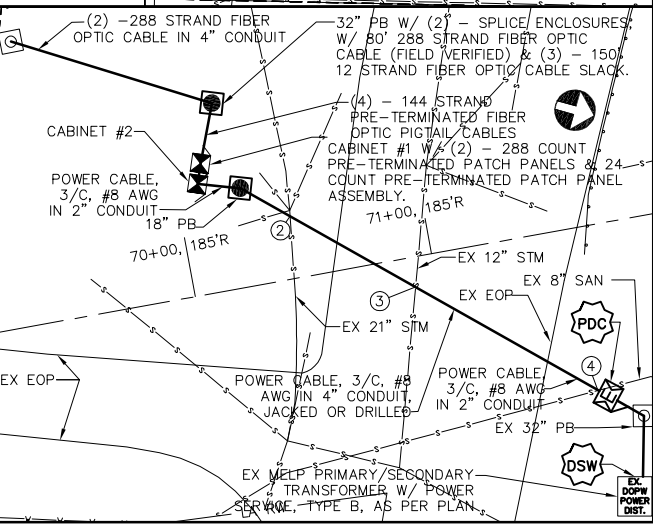
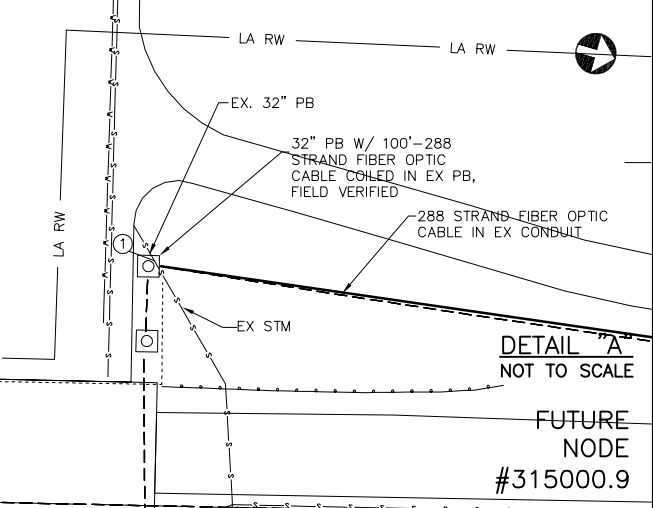
**POWER SERVICE NOTES**

- 30AMP, 480VAC FUSED DISCONNECT SWITCH
- POWER DISTRIBUTION CABINET:  
480-120-240VAC 10KVA TRANSFORMER  
1-100AMP SERVICE PANEL  
1-30AMP BREAKER, 120VAC TO CTSS COMM NODE  
1-30AMP BREAKER, 120VAC (SPARE)



**ESTIMATED QUANTITIES**

LOCATION		202	625	625	625	625	625	625	625	632	632	632	632	632	632	632	633	633	
STATION	STATION	LF	EA	EA	EA	LF	LF	LF	EA	LF	LF	LF	EA	LF	EA	EA	EA	EA	
SR-315																			
53+15, 00'	84+00, 00'	3085								3085									
53+15, 00'	53+15, 61' L	61								61									
53+15, 61' L	49+49, 104' L	369								369									
49+49, 104' L	49+56, 111' L																		
49+56, 111' L																			
69+42, 00'	69+42, 68' R	68																	
69+42, 68' R	70+24, 97' R						89	89		178									
70+24, 97' R											225								
70+24, 97' R	70+14, 126' R						30	30											
70+14, 126' R																			
70+14, 126' R	70+09, 135' R								1										
70+09, 135' R			1																
70+09, 135' R	71+51, 243' R																		
71+51, 243' R			1																
71+51, 243' R	71+92, 271' R																		
71+92, 271' R			1																
71+92, 271' R	71+83, 302' R																		
71+92, 271' R																			
I-670																			
116+00, 00'	121+05, 00'	505								505									
121+05, 00'	121+05, 56' R	56								112									
121+05, 56' R										150									
121+05, 00'	130+00, 00'	895								895									
PB SLACK										40									
SPLICE SLACK										150	225	150		60					
<b>TOTAL</b>		5039	3		1	92	119	178	211	1	5831	450	180	2	900	1	2	1	1



**KEY PLAN**  
NOT TO SCALE

**DETAIL "B"**  
NOT TO SCALE

**NODE**  
#315001.3  
REFER TO SHEETS 143 & 144 FOR COMMUNICATION DETAILS

**CITY OF COLUMBUS UTILITY LEGEND**

- SEWER
- WATER
- POWER
- LIGHTING
- EXISTING UTILITY CROSSING. SEE UTILITY CROSSING INFO SHEET 21.

**UNDERGROUND UTILITIES**

TWO WORKING DAYS BEFORE YOU DIG  
CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

**CONSTRUCTION AS-BUILT**  
**2643DR.E**

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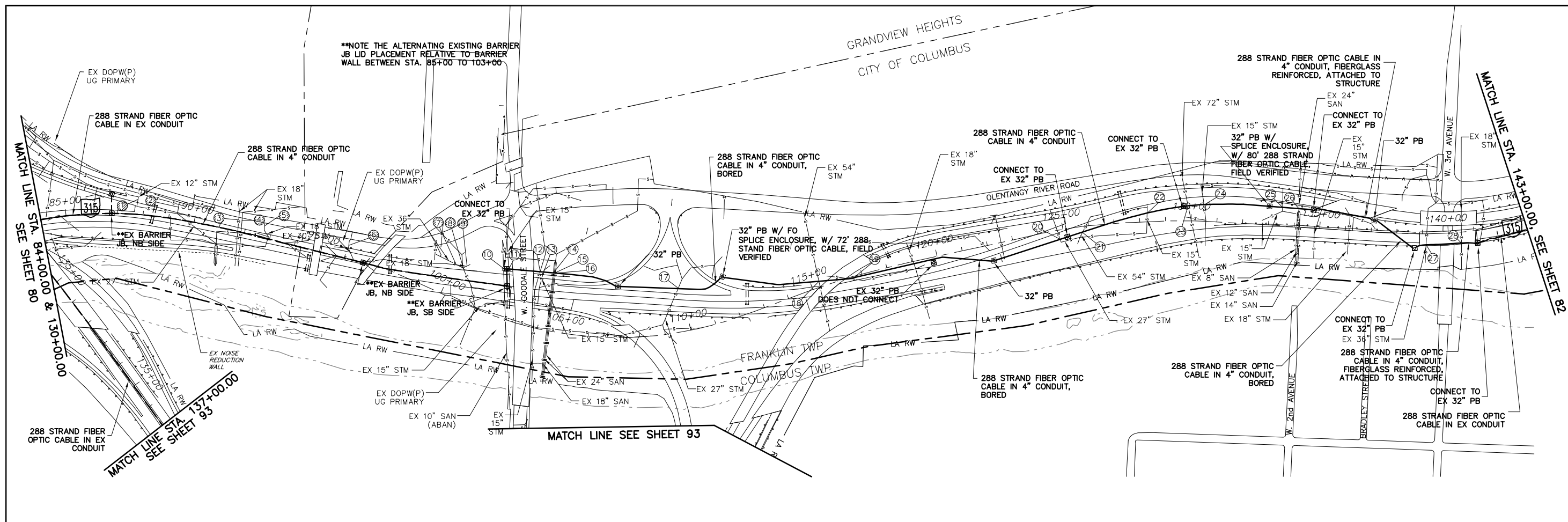


PID NUMBER  
82540

S.R. 315 AT W. GOODALE STREET  
PLAN SHEET STA. 84+00.00 TO 143+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

81  
147



ESTIMATED QUANTITIES

LOCATION		202	625	625	625	625	625	632		
STATION	STATION	LF	EA	LF	LF	LF	LF	LF		
I-71										
84+00	86+77	277						277		
86+77	86+86, 75'L	76						76		
86+86, 75'L	106+44, 232'L		4	1942		1942		1942		
106+44, 232'L	107+18, 199'L					65		65		
107+18, 199'L	110+23, 132'L		1			366		366		
110+23, 132'L	111+85, 168'L						64	64		
111+85, 168'L	121+57, 6'R			1005		1005		1005		
111+85, 168'L	121+57, 6'R		3							
121+57, 6'R	122+13, 63'R					80		80		
122+13, 63'R	134+71, 71'L		4							
122+13, 63'R	134+71, 71'L			1270		1270		1270		
134+71, 71'L	137+10, 45'L						240	240		
137+10, 45'L	138+77, 17'L			168		168		168		
137+10, 45'L	138+77, 17'L		2							
138+77, 17'L	138+71, 56'R					73		73		
138+71, 56'R	141+10, 56'R						239	239		
141+10, 56'R	143+00, 47'R	201						201		
I-670										
130+00, 00'	137+00, 00'	700						700		
PB SLACK										
STRUCT. SLACK										
TOTALS		1254	15	4751	282	4751	479	7006		

CITY OF COLUMBUS  
UTILITY LEGEND

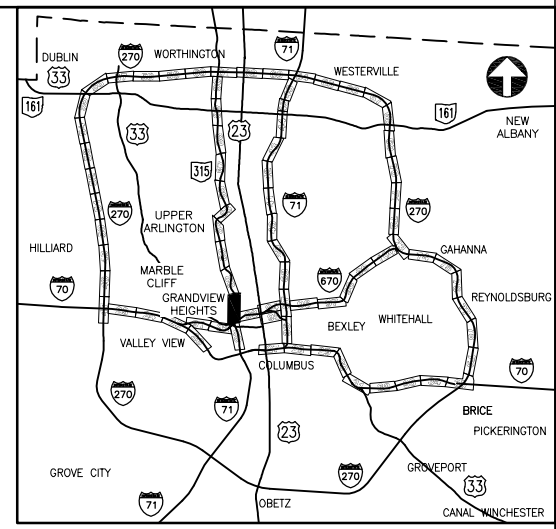
- SEWER
- WATER
- POWER
- LIGHTING

⊗ EXISTING UTILITY CROSSING.  
SEE UTILITY CROSSING INFO  
SHEET 21 & 22.

UNDERGROUND UTILITIES

TWO WORKING DAYS  
BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE



KEY PLAN  
NOT TO SCALE

REFER TO SHEET 110 FOR CONDUIT  
ATTACHED TO STRUCTURE DETAILS  
FOR BRIDGE OVER BIKE TRAIL

REFER TO SHEET 111 FOR CONDUIT  
ATTACHED TO STRUCTURE DETAILS  
FOR BRIDGE OVER W. 3RD AVENUE

CONSTRUCTION AS-BUILT  
2643DR.E

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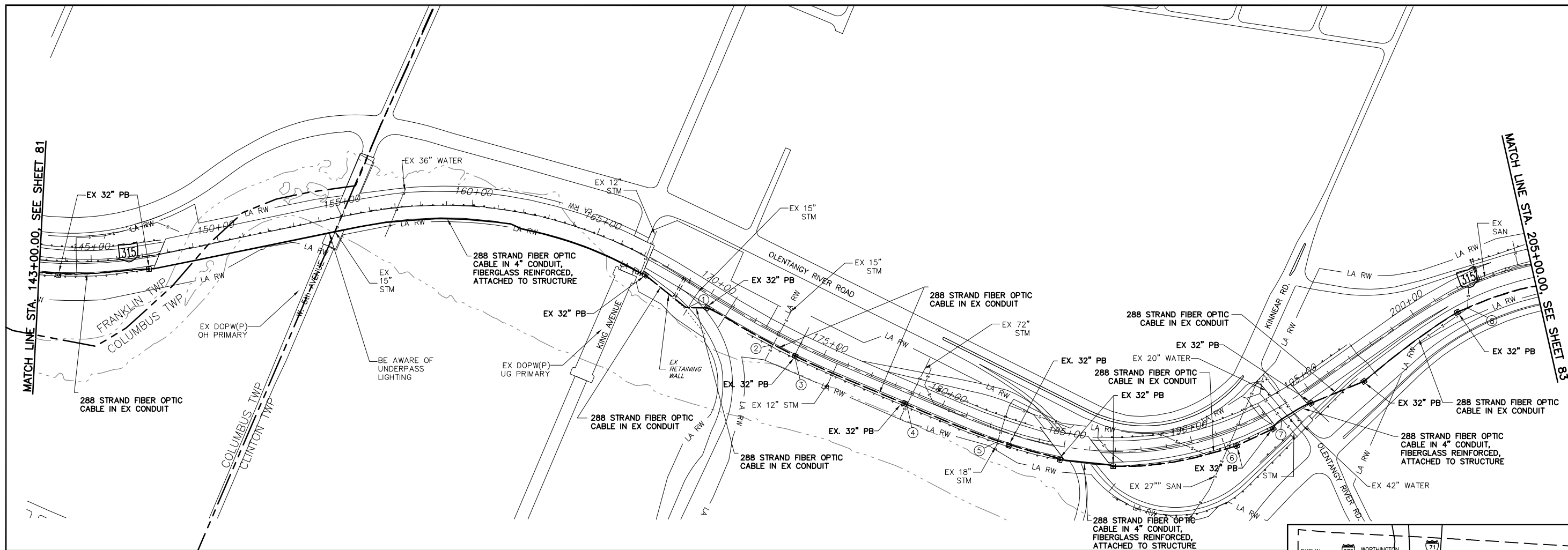




PID NUMBER  
82540

S.R. 315 AT KING AVENUE  
PLAN SHEET STA. 143+00.00 TO 205+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A



ESTIMATED QUANTITIES

STATION	LOCATION STATION	202	625	632											
		EXISTING CONDUIT CLEANED, AS PER PLAN	CONDUIT MISC.: 4" CONDUIT, FIBERGLASS REINFORCED, ATTACHED TO STRUCTURE	288 STRAND FIBER OPTIC CABLE											
143+00, 48' R	147+18, 50' R	418		418											
147+18, 50' R	167+40, 67' R		2016	2016											
167+40, 67' R	170+13, 52' R	283		283											
170+13, 52' R	184+92, 53' R	1480		1480											
184+92, 53' R	186+92, 59' R		212	212											
186+92, 59' R	193+12, 63' R	620		620											
193+12, 63' R	194+80, 52' R		168	168											
194+80, 52' R	196+90, 46' R	210		210											
196+90, 46' R	196+99, 75' R	30		30											
196+99, 75' R	205+00, 64' R	801		801											
PB SLACK				70											
STRUCT. SLACK				150											
<b>TOTALS</b>		<b>3842</b>	<b>2396</b>	<b>6458</b>											

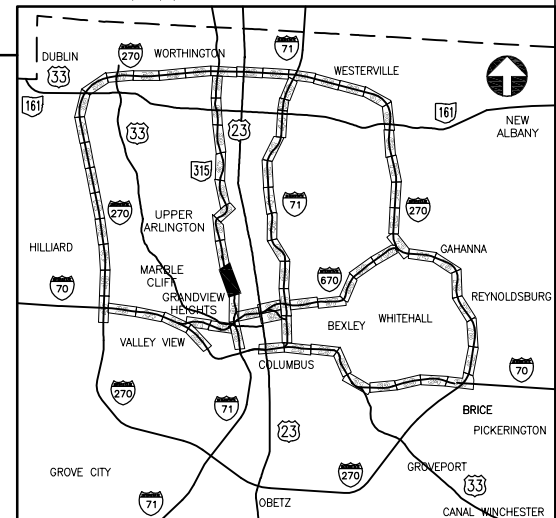
- CITY OF COLUMBUS UTILITY LEGEND
- ☒ SEWER
  - ☒ WATER
  - ☒ POWER
  - ☒ LIGHTING
- ☒ EXISTING UTILITY CROSSING. SEE UTILITY CROSSING INFO SHEET 22.

UNDERGROUND UTILITIES

TWO WORKING DAYS BEFORE YOU DIG

CALL TOLL FREE 800-362-2764

OHIO UTILITIES PROTECTION SERVICE



KEY PLAN  
NOT TO SCALE

REFER TO SHEET 112 FOR CONDUIT ATTACHED TO STRUCTURE DETAILS FOR BRIDGE OVER W. 5TH AVENUE

REFER TO SHEET 113 FOR CONDUIT ATTACHED TO STRUCTURE DETAILS FOR BRIDGE OVER ENTRANCE RAMP

REFER TO SHEET 114 FOR CONDUIT ATTACHED TO STRUCTURE DETAILS FOR BRIDGE OVER OLENTANGY RIVER ROAD

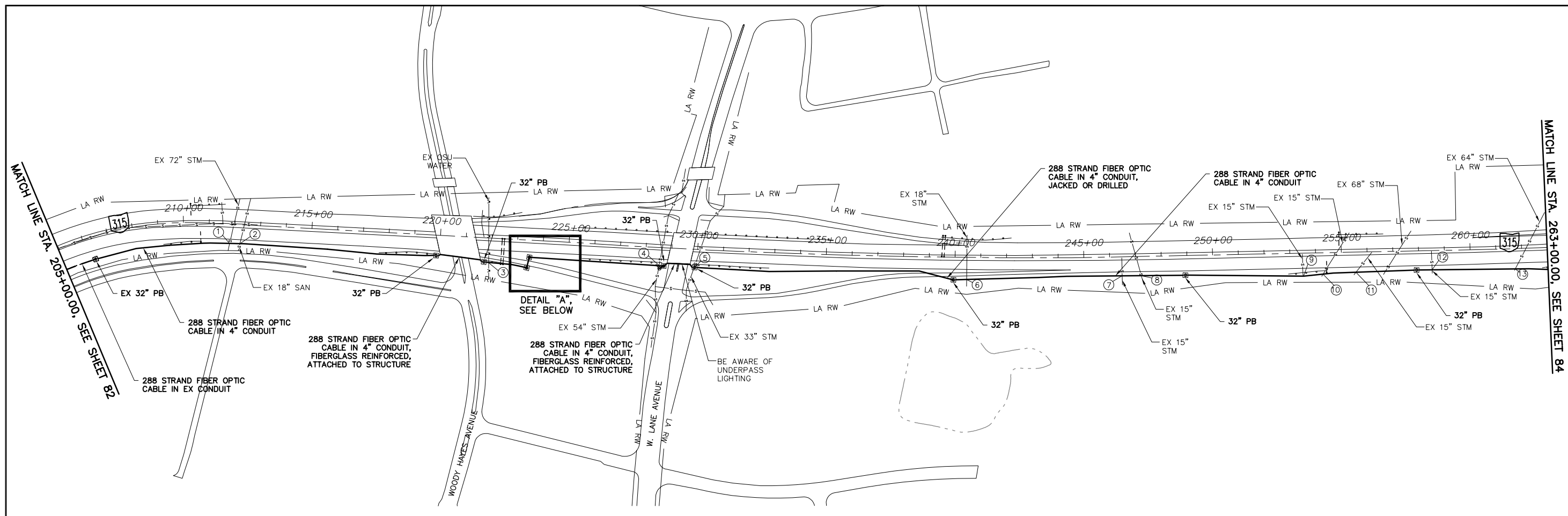
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PID NUMBER  
82540

S.R. 315 AT W. LANE AVENUE  
PLAN SHEET STA. 205+00.00 TO 263+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A



ESTIMATED QUANTITIES

LOCATION STATION		625	625	625	625	625	625	632
STATION	STATION	EXISTING CONDUIT CLEANED, AS PER PLAN	PULL BOX, 713.08, 32", AS PER PLAN	CONDUIT, 4" AS PER PLAN	CONDUIT, JACKED OR DRILLED, 4", APP	TRENCH, 24" DEEP AS PER PLAN	4' CONDUIT, FIBERGLASS REINFORCED, ATTACHED TO STRUCTURE	288 STRAND FIBER OPTIC CABLE
LF	EA	LF	LF	LF	LF	LF	LF	LF
205+00, 64' R	206+20, 80' R	121						121
206+20, 80' R	219+85, 73' R		3	1365		1365		1365
219+85, 73' R	221+73, 84' R		1				190	190
221+73, 84' R	223+43, 122' R			174		174		174
223+43, 122' R	223+43, 122' R		1					150
223+43, 122' R	223+53, 67' R				56			56
223+53, 67' R	228+73, 88' R			520		520		520
228+73, 88' R	229+98, 52' R		1				135	135
229+98, 52' R	239+82, 54' R		3	984		984		984
239+82, 54' R	239+93, 81' R		1		30			30
239+93, 81' R	263+00, 66' R		5	2307		2307		2307
PB SLACK								120
STRUCT SLACK								100
<b>TOTALS</b>		121	16	5350	86	5350	325	6252

CITY OF COLUMBUS UTILITY LEGEND

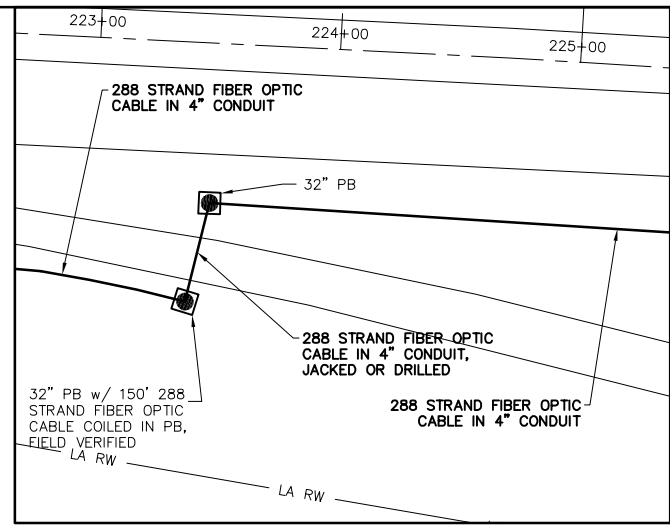
- SEWER
- WATER
- POWER
- LIGHTING

UNDERGROUND UTILITIES

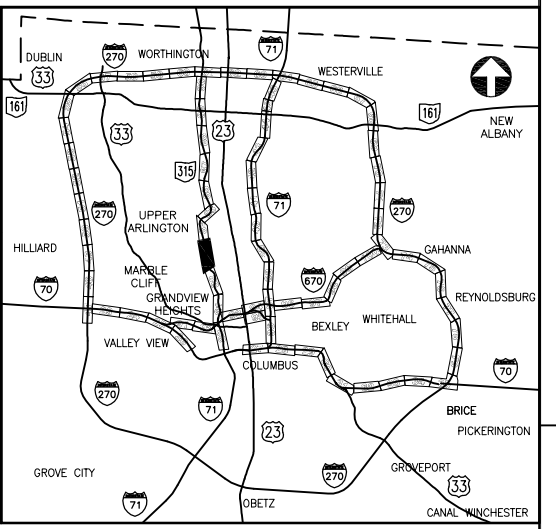
TWO WORKING DAYS BEFORE YOU DIG

CALL TOLL FREE 800-362-2764

OHIO UTILITIES PROTECTION SERVICE



DETAIL "A"  
NOT TO SCALE  
FUTURE NODE #315004.4



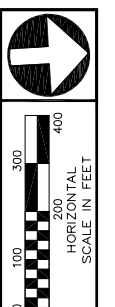
KEY PLAN  
NOT TO SCALE

REFER TO SHEET 115 FOR CONDUIT ATTACHED TO STRUCTURE DETAILS FOR BRIDGE OVER WOODY HAYES AVENUE

REFER TO SHEET 116 FOR CONDUIT ATTACHED TO STRUCTURE DETAILS FOR BRIDGE OVER LANE AVENUE

EXISTING UTILITY CROSSING. SEE UTILITY CROSSING INFO SHEET 22.

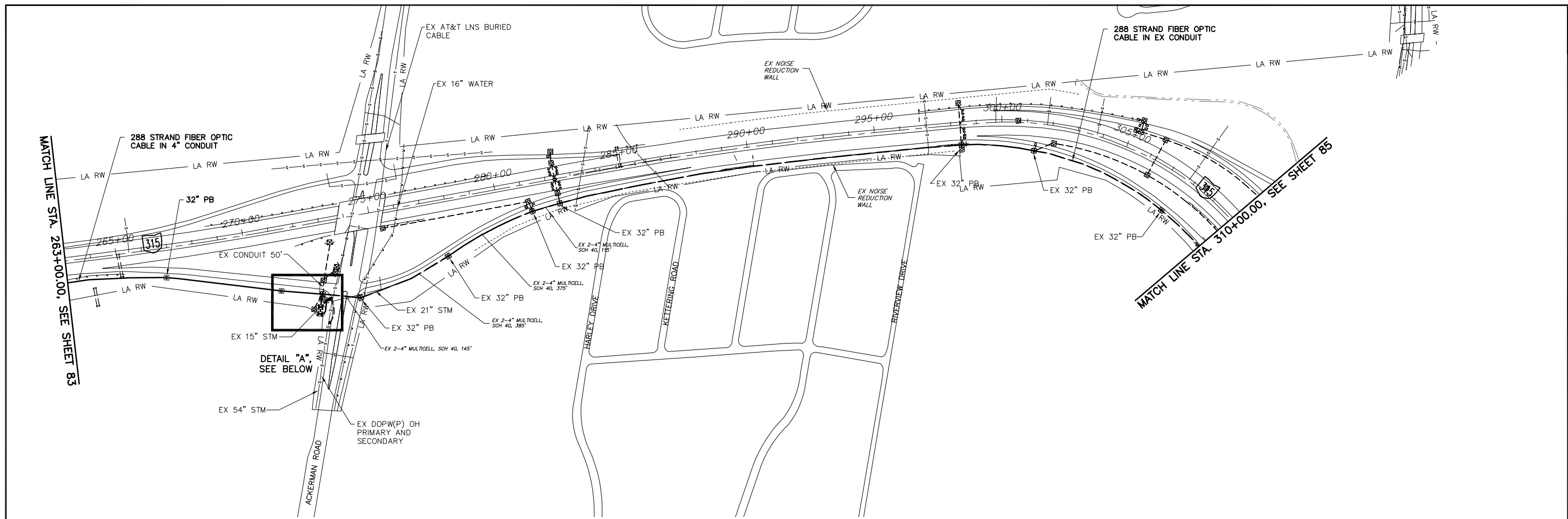
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PID NUMBER  
82540

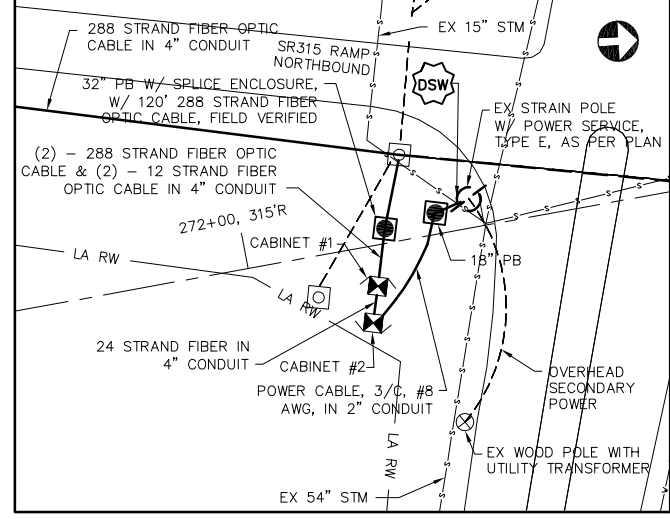
S.R. 315 AT ACKERMAN ROAD  
PLAN SHEET STA. 263+00.00 TO 310+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A



ESTIMATED QUANTITIES

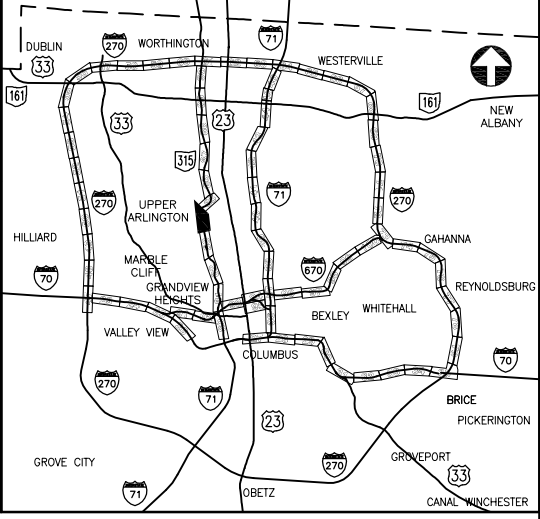
LOCATION		202	625	625	625	625	625	625	632	632	632	632	632	632	633	633
STATION	STATION	EXISTING CONDUIT CLEANED, AS PER PLAN	PULL BOX, 713.08, 18", AS PER PLAN	PULL BOX, 713.08, 32", AS PER PLAN	CONDUIT, 725.05, 2" AS PER PLAN	CONDUIT, 725.05, 4" AS PER PLAN	TRENCH, 24" DEEP AS PER PLAN	GROUND ROD AS PER PLAN	288 STRAND FIBER OPTIC CABLE	12 STRAND FIBER OPTIC CABLE	24 STRAND FIBER OPTIC CABLE	SPLICE ENCLOSURE	POWER CABLE, NO. 8 AWG, AS PER PLAN	POWER SERVICE, TYPE E, AS PER PLAN	COMMUNICATIONS CABINET #1	COMMUNICATIONS CABINET #2
LF	EA	EA	LF	LF	LF	EA	LF	LF	LF	LF	EA	LF	EA	EA	EA	
263+00, 66' R	272+67, 280' R			2	1004	1004			1004							
272+67, 280' R	272+48, 283' R				20	20			40	40						
272+48, 283' R	272+39, 290' R		1			10	10			10						
272+39, 290' R	272+39, 300' R				10	10		1					30		1	1
272+39, 300' R	272+84, 330' R		1		47	47							141			
272+84, 330' R	272+84, 320' R				10	10							30	1		
272+67, 280' R	274+10, 320' R	146							149							
274+10, 320' R	301+36, 108' R	2735							2735							
301+36, 108' R	302+16, 69' R	83							83							
302+16, 69' R	310+00, 68' R	784							784							
PB SLACK									120				30			
SPLICE SLACK									150	150	150		60			
<b>TOTALS</b>		3748	2	3	67	1034	1101	1	5065	340	160	1	291	1	1	1



DETAIL "A"  
NOT TO SCALE

NODE  
#315005.2  
REFER TO SHEET 145 FOR  
COMMUNICATION DETAILS

POWER SERVICE NOTES  
DSW 30AMP, 120VAC FUSED DISCONNECT SWITCH



KEY PLAN  
NOT TO SCALE

UNDERGROUND UTILITIES

TWO WORKING DAYS BEFORE YOU DIG

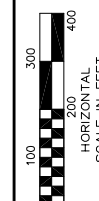
CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

CITY OF COLUMBUS  
UTILITY LEGEND

- ☒ SEWER
- ☒ WATER
- ☒ POWER
- ☒ LIGHTING

CONSTRUCTION AS-BUILT  
**2643DR.E**

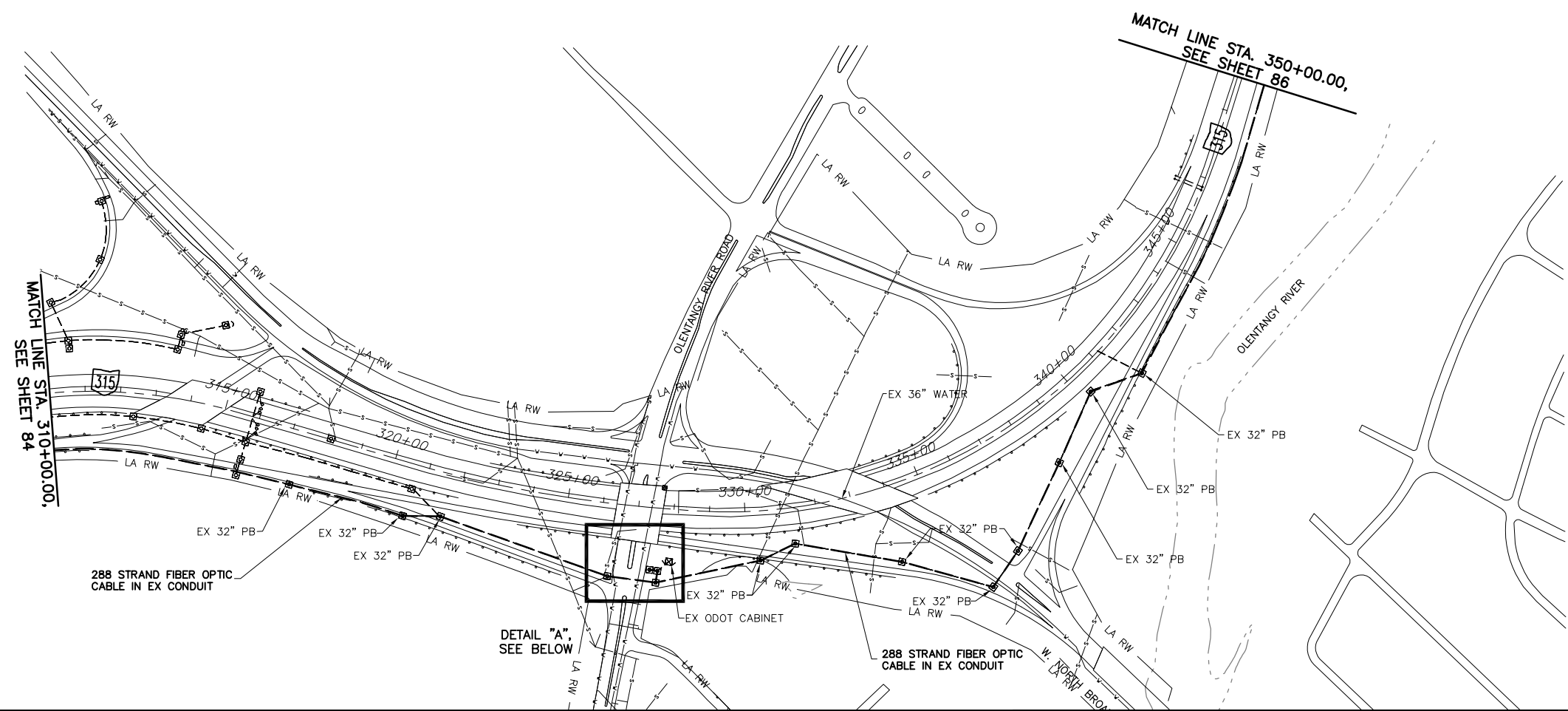
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PID NUMBER  
82540

S.R. 315 AT OLENTANGY RIVER ROAD  
PLAN SHEET STA. 310+00.00 TO 350+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A



**ESTIMATED QUANTITIES**

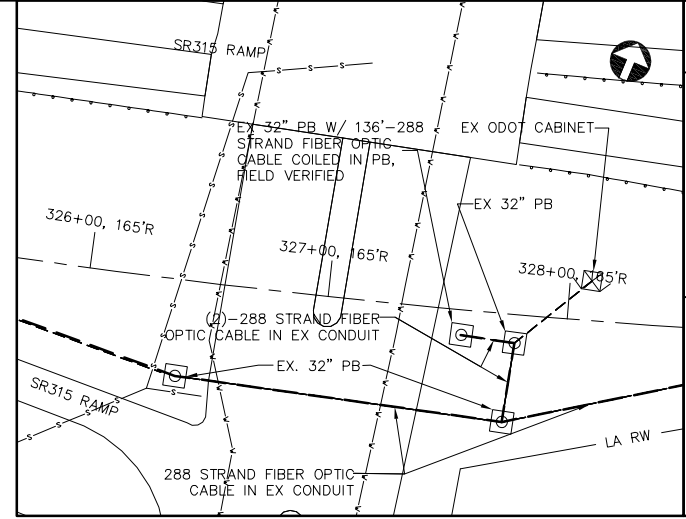
LOCATION		202	625	625	625	632				
STATION	STATION	LF	EA	LF	LF	LF				
310+00, 68' R	320+68, 69' R	1068				1068				
320+68, 69' R	321+62, 123' R	112				112				
321+62, 123' R	326+35, 205' R	500				500				
326+35, 205' R	327+44, 209' R	115				115				
327+44, 209' R	327+44, 219' R			10	10	20				
327+44, 219' R			1			150				
327+44, 209' R	330+36, 140' R	324				324				
330+36, 140' R	330+48, 71' R	70				70				
330+48, 71' R	340+29, 66' R	981				981				
340+29, 66' R	341+58, 133' R	153				153				
341+58, 133' R	350+00, 78' R	842				842				
PB SLACK						80				
STRUCT. SLACK						100				
<b>TOTALS</b>		4165	1	10	10	4515				

- CITY OF COLUMBUS UTILITY LEGEND**
- SEWER
  - WATER
  - POWER
  - LIGHTING

**UNDERGROUND UTILITIES**

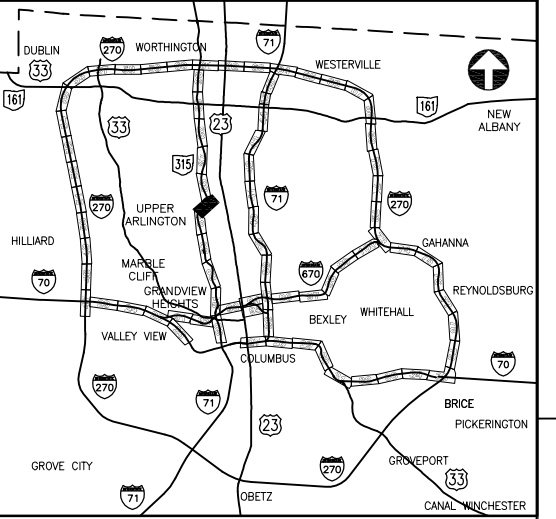
TWO WORKING DAYS BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE



**DETAIL "A"**  
NOT TO SCALE

**FUTURE NODE**  
#315006.2



**KEY PLAN**  
NOT TO SCALE

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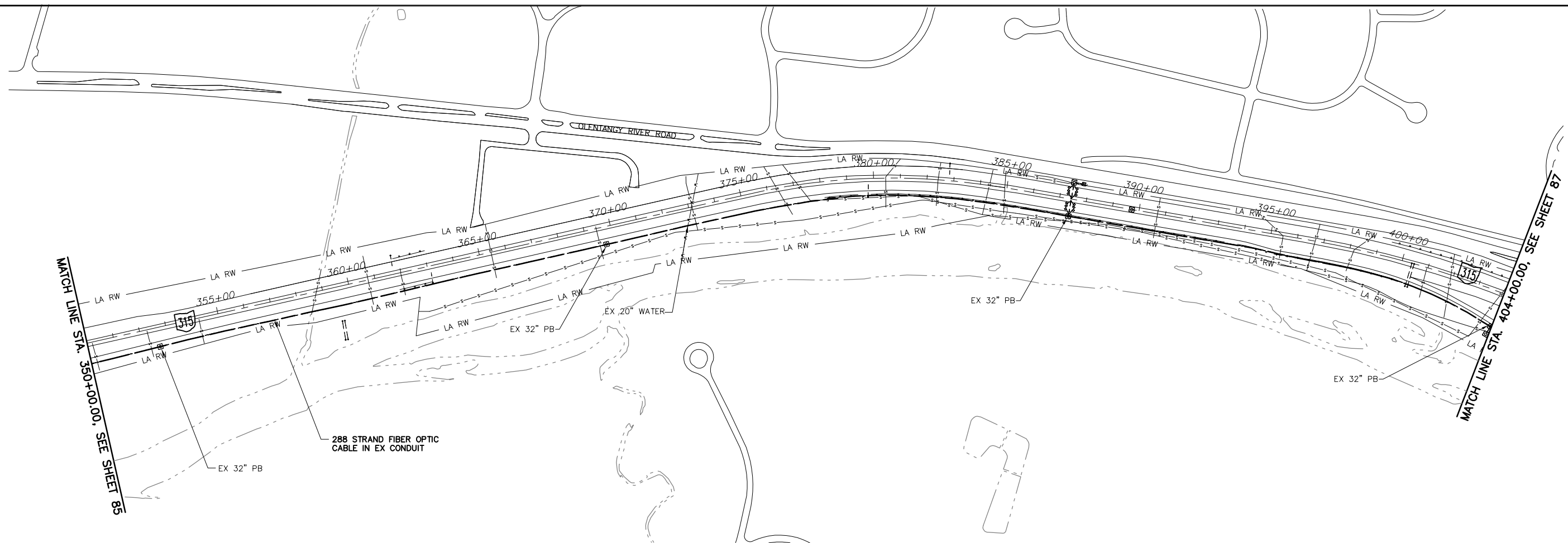


PID NUMBER  
82540

S.R. 315  
PLAN SHEET STA. 350+00.00 to 404+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

86  
147



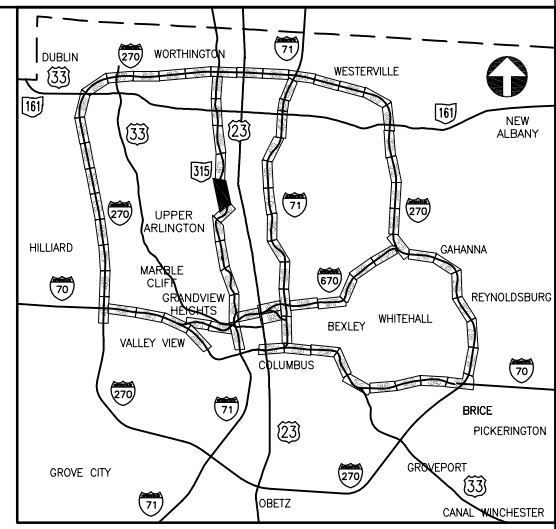
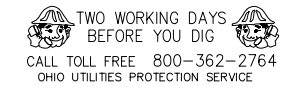
ESTIMATED QUANTITIES

LOCATION		202	632						
STATION	STATION	EXISTING CONDUIT CLEANED, AS PER PLAN	288 STRAND FIBER OPTIC CABLE						
		LF	LF						
350+00, 78' R	404+00, 133' R	5400	5400						
PB SLACK			40						
<b>TOTALS</b>		5400	5440						

CITY OF COLUMBUS  
UTILITY LEGEND

- SEWER
- WATER
- POWER
- LIGHTING

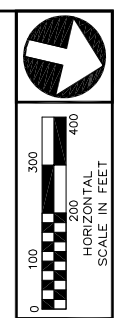
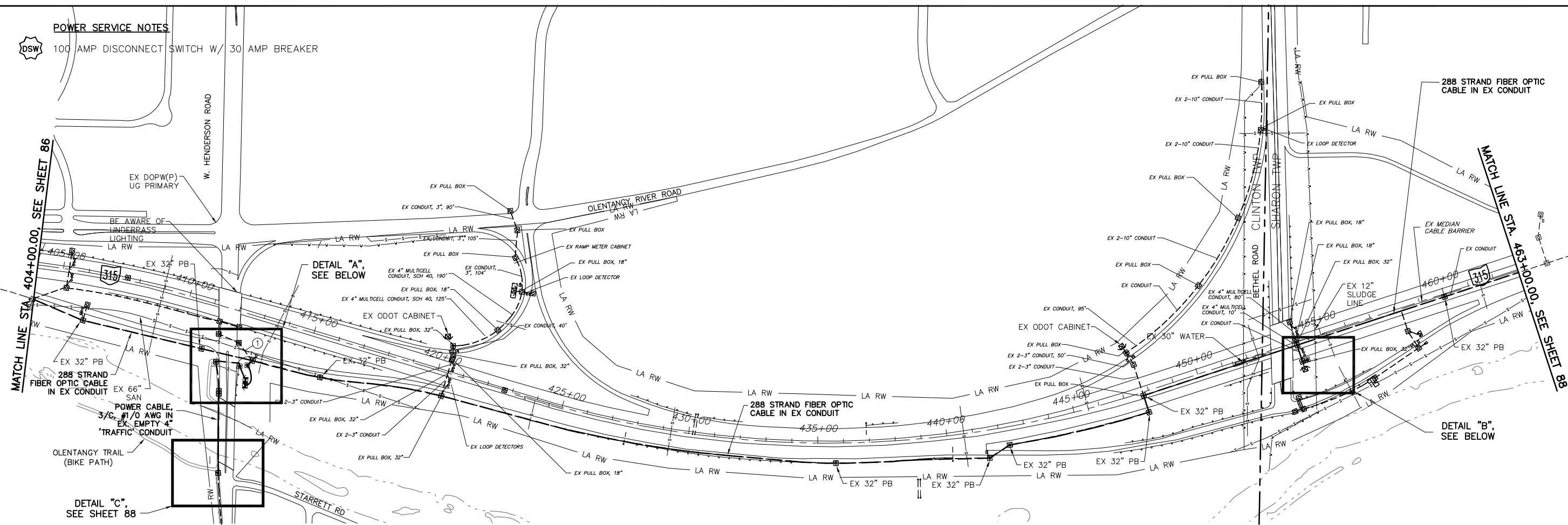
UNDERGROUND UTILITIES



KEY PLAN  
NOT TO SCALE

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**POWER SERVICE NOTES**  
 DSW 100 AMP DISCONNECT SWITCH W/ 30 AMP BREAKER



PID NUMBER  
82540

S.R. 315 AT HENDERSON & BETHEL ROAD  
 PLAN SHEET STA. 404+00.00 TO 463+00.00

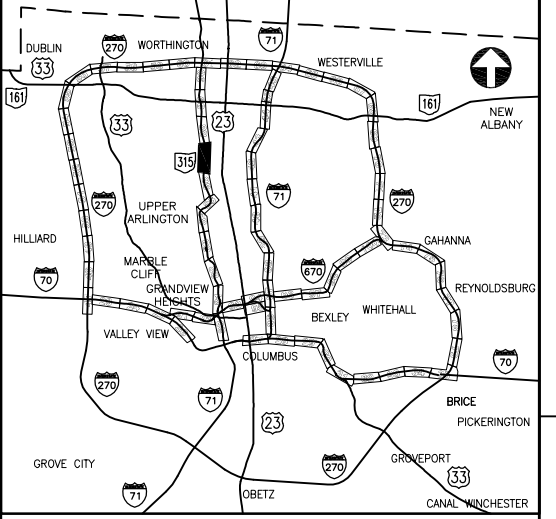
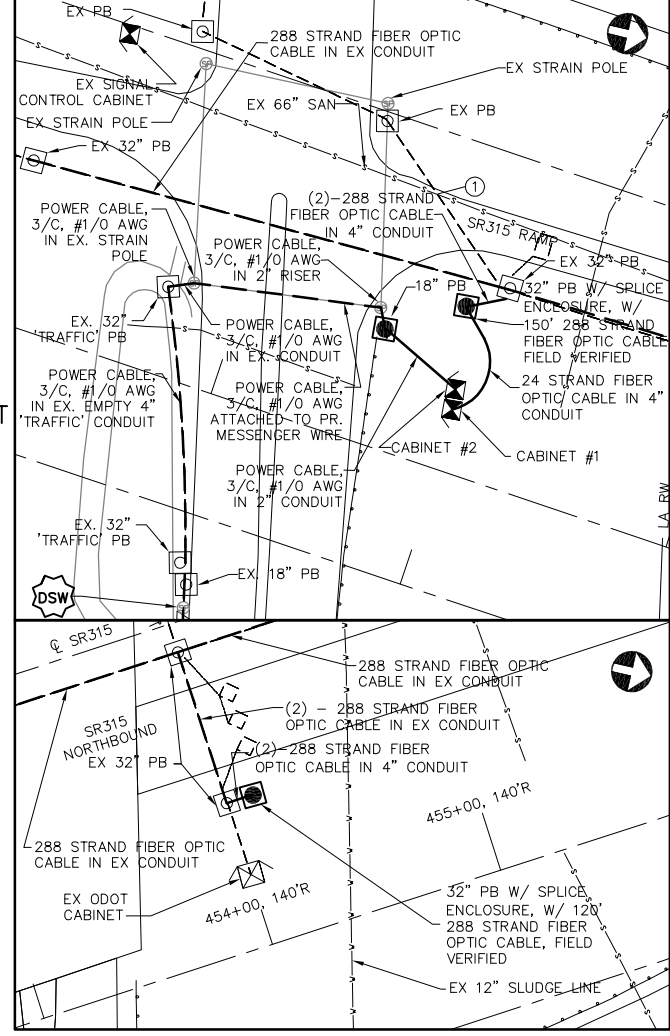
CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
 (CTSS) PHASE A

**ESTIMATED QUANTITIES**

LOCATION		202	625	625	625	625	625	625	625	632	632	632	632	632	632	633	633
STATION	STATION	LF	EA	EA	LF	LF	LF	LF	EA	LF	LF	EA	LF	LF	EA	EA	EA
404+00, 131'R	413+03, 169'R	962								962							
413+03, 169'R	413+00, 239'R				70		70			140							
413+00, 239'R	412+99, 249'R			1								1					
413+00, 239'R	412+99, 249'R				10		10			10							
412+99, 249'R	412+14, 325'R								1							1	1
412+96, 623'R	411+67, 213'R												927				
412+14, 325'R	411+82, 209'R												364				
411+67, 213'R	412+55, 193'R												20				
411+82, 209'R	412+67, 191'R												374	20			
412+55, 193'R	413+08, 292'R				12		12						36				
412+67, 191'R	413+03, 270'R												351				
413+08, 292'R	413+03, 270'R												60				
411+39, 120'R																	
413+03, 169'R	441+55, 107'R	2853								2853							
441+55, 107'R	442+38, 70'R									93							
442+38, 70'R	447+81, 81'R									552							
447+81, 81'R	447+78, 13'R									68							
447+78, 13'R	454+00, 15'R									622							
454+00, 15'R	454+00, 80'R									130							
454+00, 80'R	454+10, 80'R									20							
454+10, 80'R										150							
454+00, 15'R	463+00, 11'R	900								900							
PB SLACK										160			75				
SPLICE SLACK										150	150		60				
<b>TOTALS</b>		6115	2	2	149	90	92	239	1	6800	160	1	2267	20		1	1

**DETAIL "A"**  
 NOT TO SCALE  
 NODE  
 #315007.8  
 REFER TO SHEET  
 146 FOR  
 COMMUNICATION  
 DETAILS

**DETAIL "B"**  
 NOT TO SCALE  
 FUTURE NODE  
 #315008.6



**KEY PLAN**  
 NOT TO SCALE

- CITY OF COLUMBUS UTILITY LEGEND**
- ☒ SEWER
  - ☒ WATER
  - ☒ POWER
  - ☒ LIGHTING

**UNDERGROUND UTILITIES**  
 TWO WORKING DAYS  
 BEFORE YOU DIG  
 CALL TOLL FREE 800-362-2764  
 OHIO UTILITIES PROTECTION SERVICE

EXISTING UTILITY CROSSING.  
 SEE UTILITY CROSSING INFO  
 SHEET 22. CONSTRUCTION AS-BUILT  
**2643DR.E**

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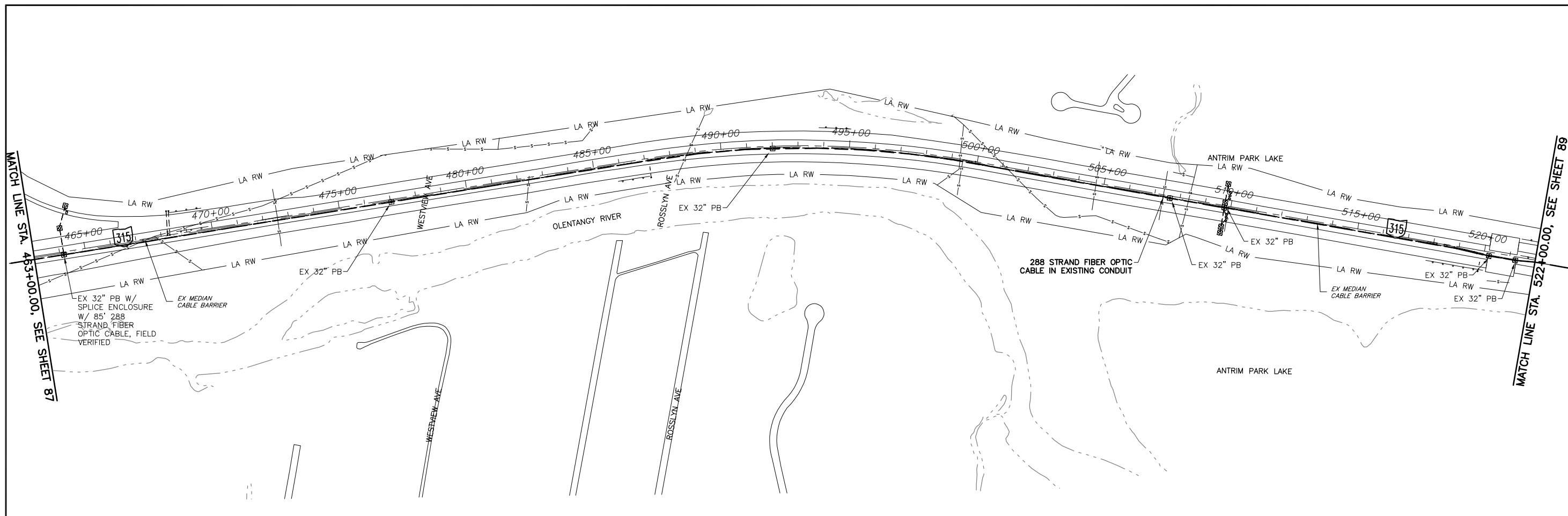


PID NUMBER  
82540

S.R. 315  
PLAN SHEET STA. 463+00.00 to 522+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

88  
147



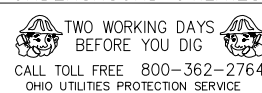
ESTIMATED QUANTITIES

LOCATION		202	625	625	632	632	632
STATION	STATION	LF	LF	LF	LF	LF	EA
463+00, 11' R	522+00, 8' R	5900			5900		
413+04, 661' R							1
412+89, 621' R						90	
412+89, 621' R	412+96, 623' R		8	8		24	
412+93, 623' R	412+99, 633' R						
PB SLACK					40	15	
STRUCT. SLACK					50		
<b>TOTALS</b>		5900	8	8	5990	129	1

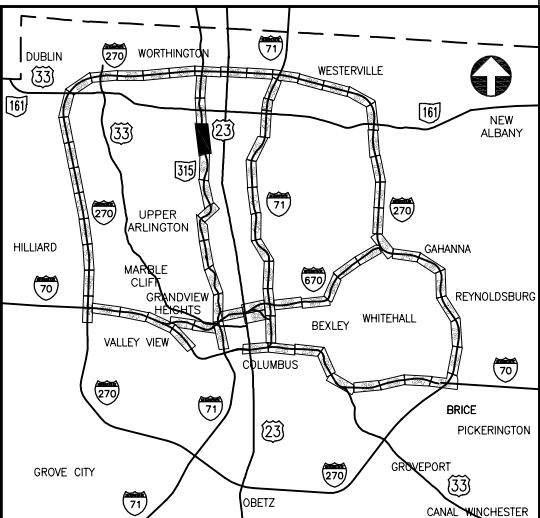
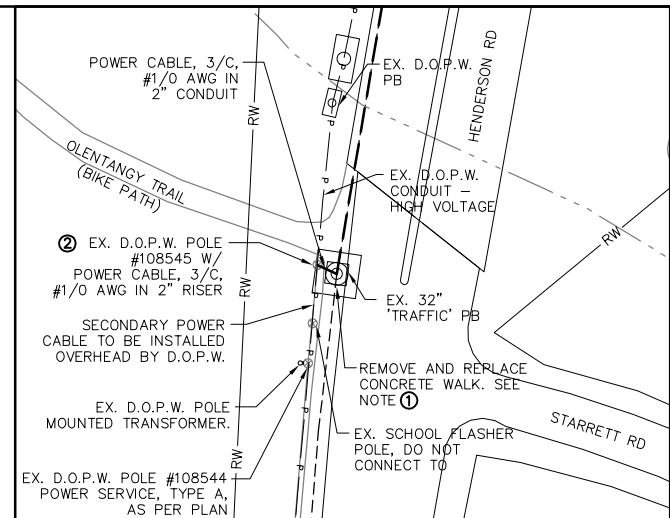
CITY OF COLUMBUS  
UTILITY LEGEND

- SEWER
- WATER
- POWER
- LIGHTING

UNDERGROUND UTILITIES



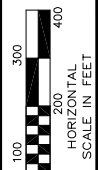
DETAIL "C"  
NOT TO SCALE  
(SEE SHEET 87  
FOR PLAN)



NOTES:

- REMOVAL AND REPLACEMENT OF CONCRETE WALK, APPROX 60 SQ FT AT 4" DEPTH, WILL BE CONSIDERED INCIDENTAL TO COST OF #1/0 AWG POWER CABLE. REFER TO CITY OF COLUMBUS STANDARD DRAWING #2300 FOR WALK REPLACEMENT SPECIFICATIONS.
- D.O.P.W. WILL CONNECT SECONDARY POWER TO PROPOSED POWER CABLE AFTER POWER SERVICE RUN IS PROPERLY INSPECTED.

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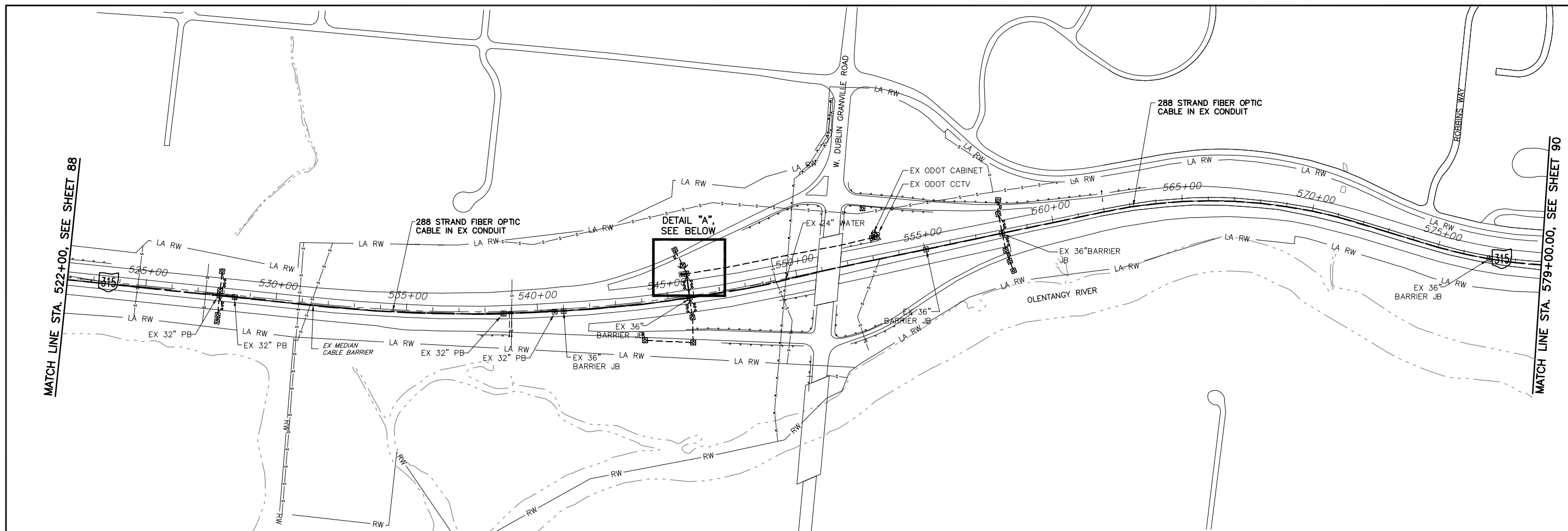
PID NUMBER  
82540

S.R. 315 AT S.R. 161 (W. DUBLIN GRANVILLE ROAD)  
PLAN SHEET STA. 522+00.00 TO 579+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

MATCH LINE STA. 522+00, SEE SHEET 88

MATCH LINE STA. 579+00.00, SEE SHEET 90



ESTIMATED QUANTITIES

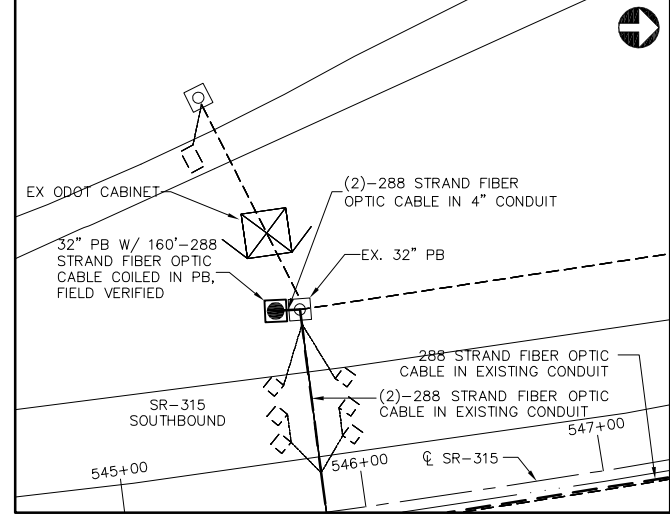
LOCATION		202	625	625	625	632				
STATION	STATION	LF	EA	LF	LF	LF				
522+00, 8' R	579+00, 00'	5700				5700				
545+83, 8' R	545+84, 85' L	93				186				
545+84, 85' L	545+94, 85' L			10	10	20				
545+94, 85' L			1			150				
PB SLACK						50				
TOTALS		5793	1	10	10	6106				

**CITY OF COLUMBUS  
UTILITY LEGEND**

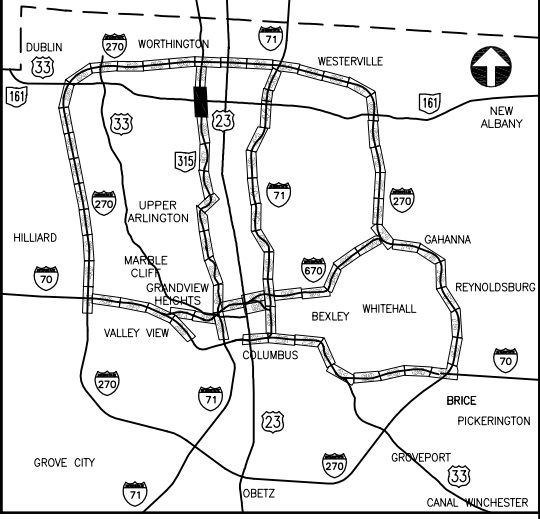
- SEWER
- WATER
- POWER
- LIGHTING

**UNDERGROUND UTILITIES**

TWO WORKING DAYS BEFORE YOU DIG  
CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE



DETAIL "A"  
NOT TO SCALE  
FUTURE NODE  
#315010.3



KEY PLAN  
NOT TO SCALE

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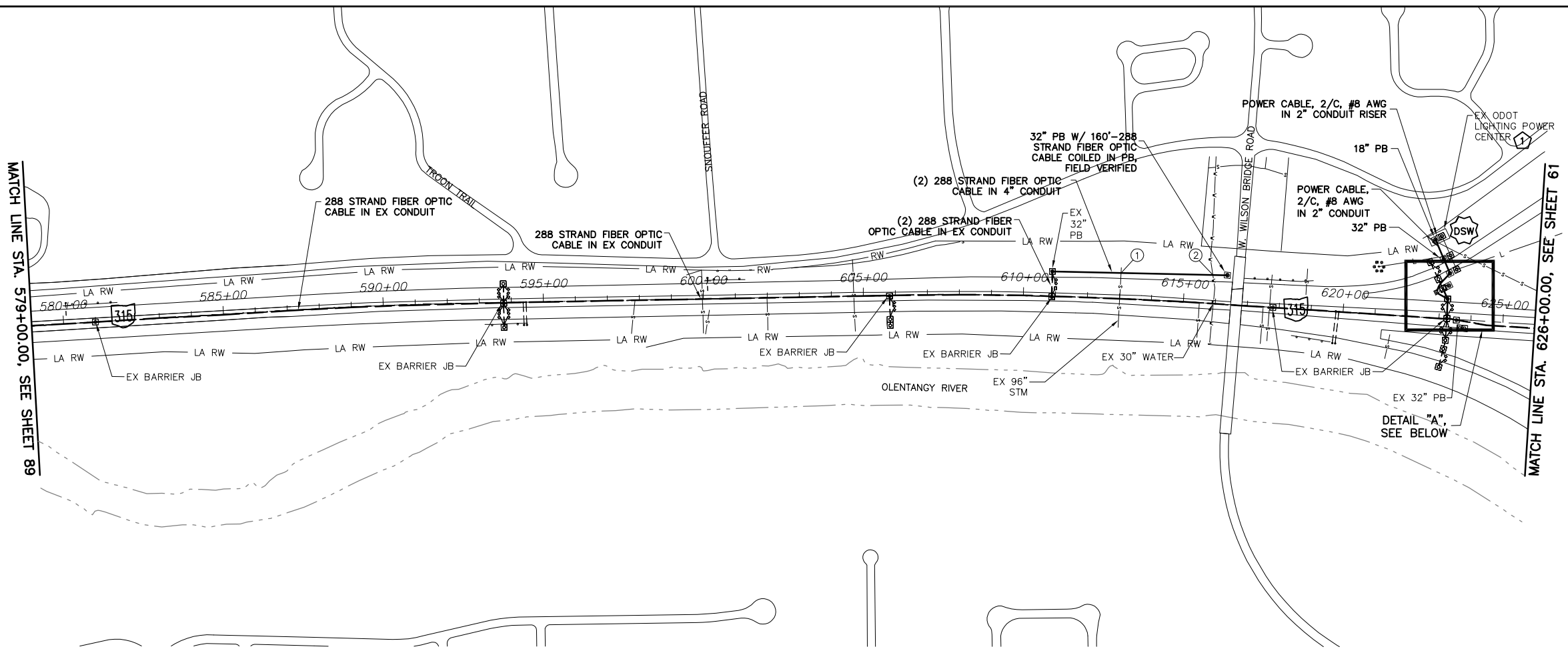


PID NUMBER  
82540

S.R. 315 AT W. WILSON BRIDGE ROAD  
PLAN SHEET STA. 579+00.00 TO 626+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

90  
147



ESTIMATED QUANTITIES

LOCATION		202	625	625	625	625	625	625	632	632	632	632
STATION	STATION	LF	EA	EA	LF	LF	LF	LF	LF	LF	LF	EA
579+00, 00'	626+00, 12' R	4700							4700			
610+88, 00'	610+88, 77' L	77							154			
610+88, 77' L	616+32, 91' L					544		544	1088			
616+32, 91' L				1					150			
622+81, 252' L										40		
622+90, 263' L											1	
622+70, 250' L			1									
622+70, 250' L	623+03, 186' L				72			72		144		
623+03, 186' L			1									
623+03, 186' L	623+25, 144' L						47			94		
623+25, 144' L			1									
623+25, 144' L	623+25, 116' L				28			28		56		
623+25, 116' L	623+25, 104' L					12		12	24	36		
623+25, 104' L			1									
623+25, 104' L	623+06, 93' L				22			22		66		
623+25, 104' L	623+25, 62' L				42			42	84			
623+25, 62' L	623+25, 00'	62							124			
623+25, 00'	623+50, 00'	25							50			
623+25, 00'	626+00, 12' R	275							550			
PB SLACK									30	30	35	
SPLICE SLACK										20	100	
<b>TOTALS</b>		5139	4	1	164	556	47	720	6122	882	571	1

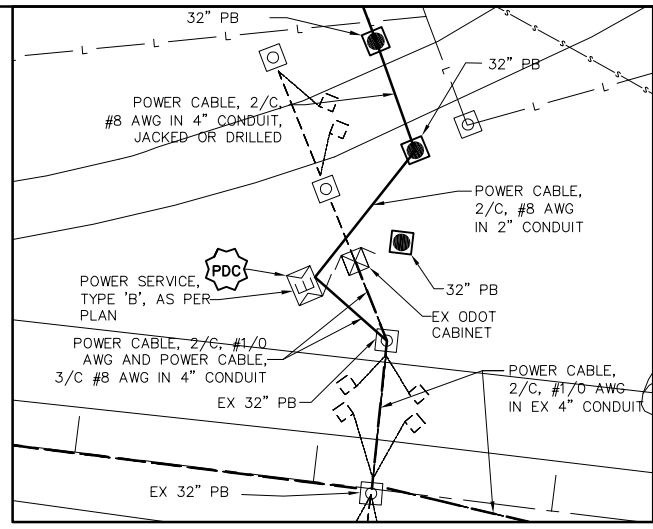
- CITY OF COLUMBUS UTILITY LEGEND
- SEWER
  - WATER
  - POWER
  - LIGHTING

UNDERGROUND UTILITIES

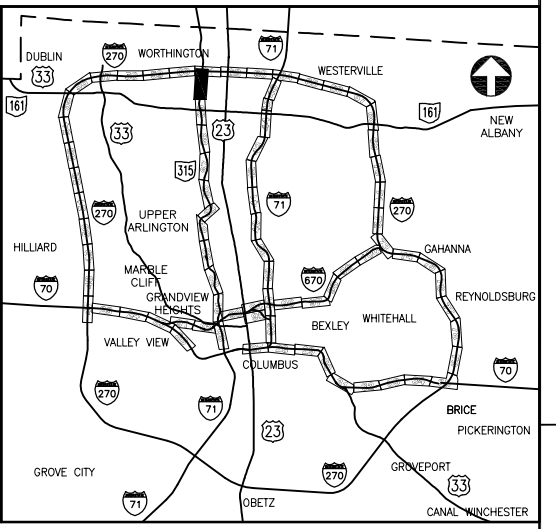
TWO WORKING DAYS BEFORE YOU DIG  
CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

- NOTES:
- ① SEE SHEET 90A FOR ADDITIONAL POWER SERVICE WIRING DIAGRAM
  - ⊗ EXISTING UTILITY CROSSING. SEE UTILITY CROSSING INFO SHEET 21.

- POWER SERVICE NOTES
- ⓓ 30AMP, 480VAC FUSED DISCONNECT SWITCH AT EX LIGHTING CENTER
  - ⓓ POWER DISTRIBUTION CABINET:
    - 480-120/240VAC 10KVA TRANSFORMER
    - 1-100AMP SERVICE PANEL
    - 1-30AMP BREAKER, 120VAC TO ODOT VDS
    - 1-30AMP BREAKER, 120VAC TO CABINET FAN (PDC)
    - 1-40AMP 2 POLE BREAKER TO 270/315 PDC (SEE SHEET 61)

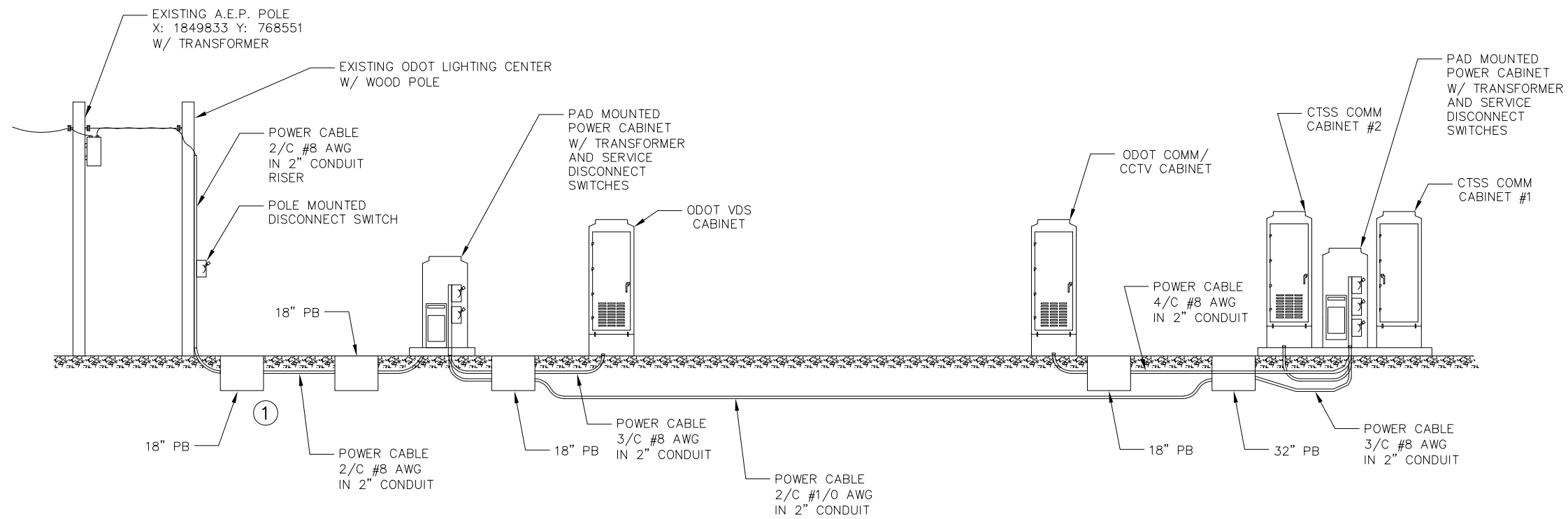


DETAIL "A"  
NOT TO SCALE

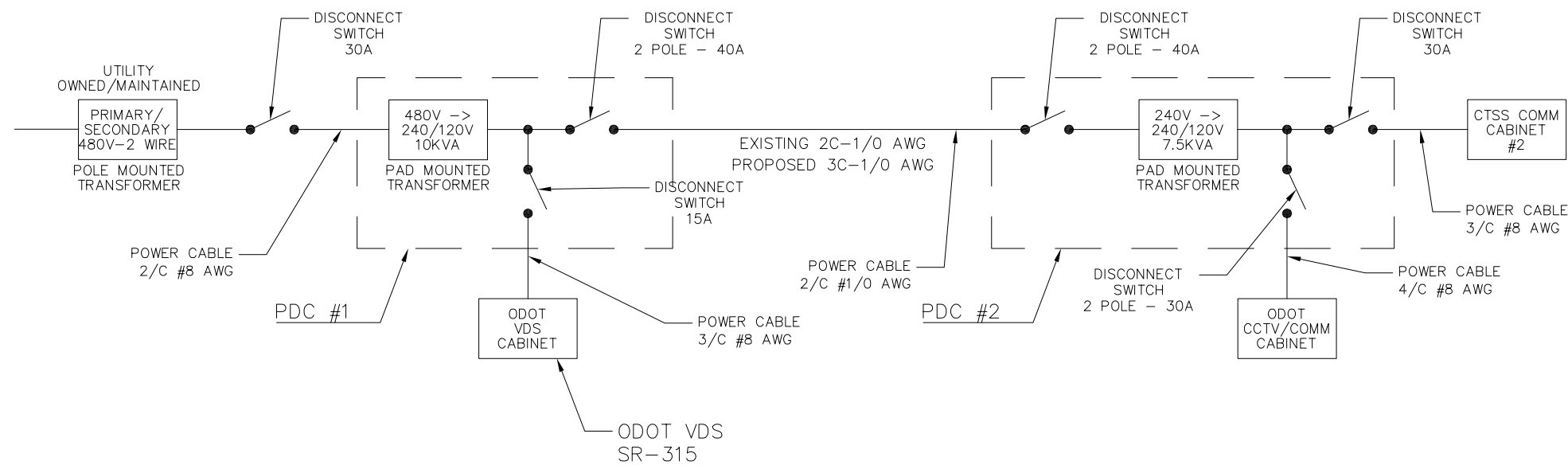


KEY PLAN  
NOT TO SCALE

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**POWER SERVICE PROFILE**  
NOT TO SCALE

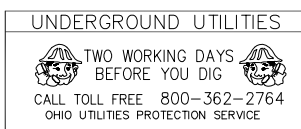


**POWER SERVICE WIRE DIAGRAM**  
NOT TO SCALE

**NOTES**

1. ALL PULL BOXES IN THIS POWER SERVICE CONDUIT RUN ARE NOT SHOWN. SEE PLAN SHEETS 61 AND 90 FOR COMPLETE CONDUIT AND PULL BOX DETAIL.

J:\Jobs\44086\TECHPROD\Sheets\ST\_CTSS82540\_090a.dwg ~ last saved by: CCL slowry 02/10/2012 12:48pm ~ printed 08/23/2012 02:59pm

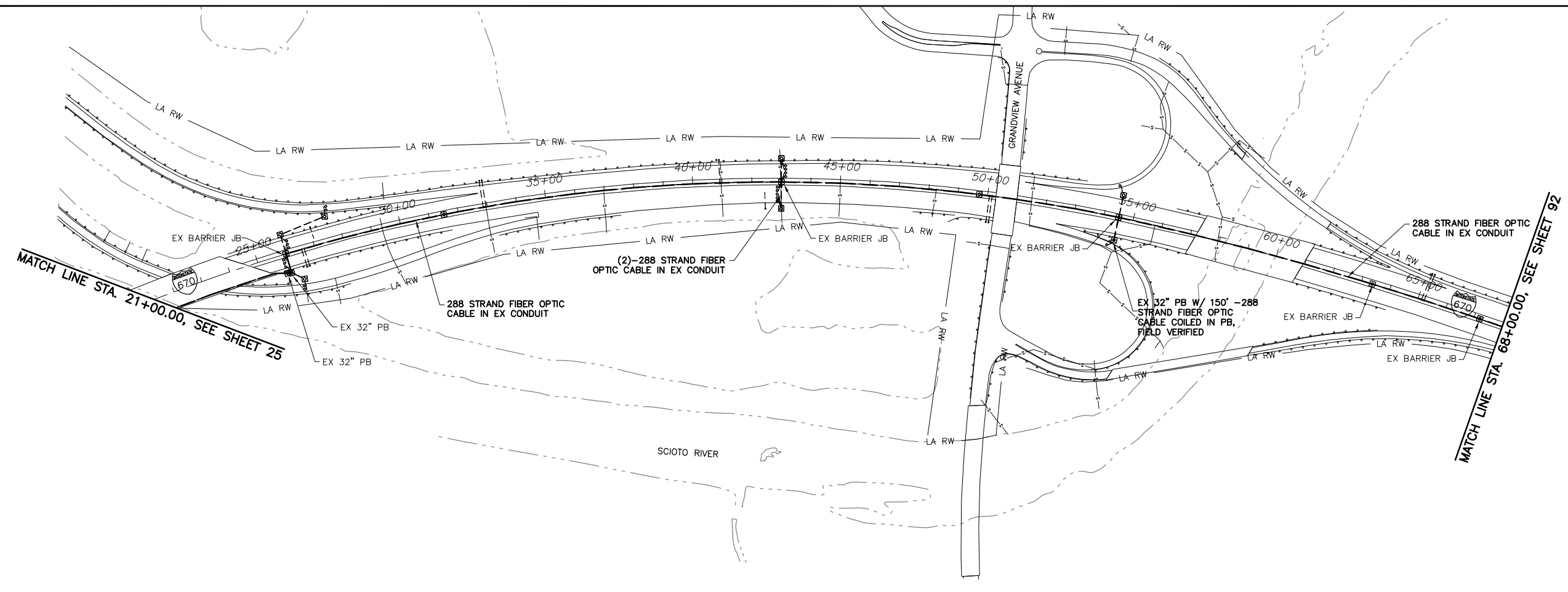




PID NUMBER  
82540

I.R. 670 AT GRANDVIEW AVENUE  
PLAN SHEET STA. 21+00.00 TO 68+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A



ESTIMATED QUANTITIES

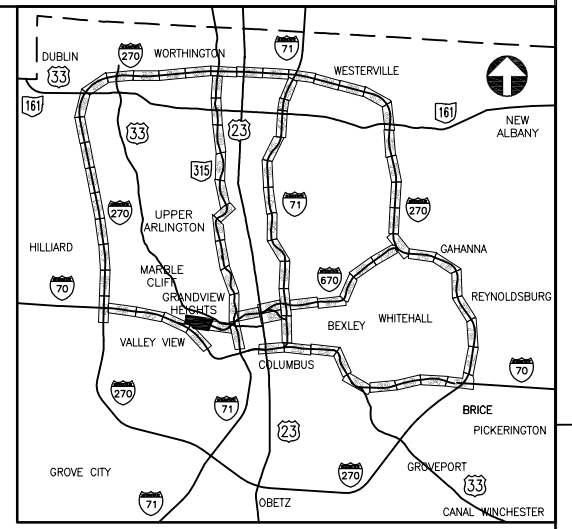
LOCATION		202	632						
STATION	STATION	EXISTING CONDUIT CLEANED, AS PER PLAN	288 STRAND FIBER OPTIC CABLE						
		LF	LF						
21+00, 58' R	26+00, 68' R	500	500						
26+00, 68' R	26+00, 00'	68	68						
26+00, 00'	42+95, 00'	1695	1695						
42+95, 00'	42+95, 90' R	90	180						
42+95, 90' R			150						
42+95, 00'	68+00, 00'	2505	2505						
PB SLACK			10						
STRUCT. SLACK			25						
<b>TOTALS</b>		4858	5133						

- CITY OF COLUMBUS  
UTILITY LEGEND
- SEWER
  - WATER
  - POWER
  - LIGHTING

UNDERGROUND UTILITIES

TWO WORKING DAYS  
BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE



KEY PLAN  
NOT TO SCALE

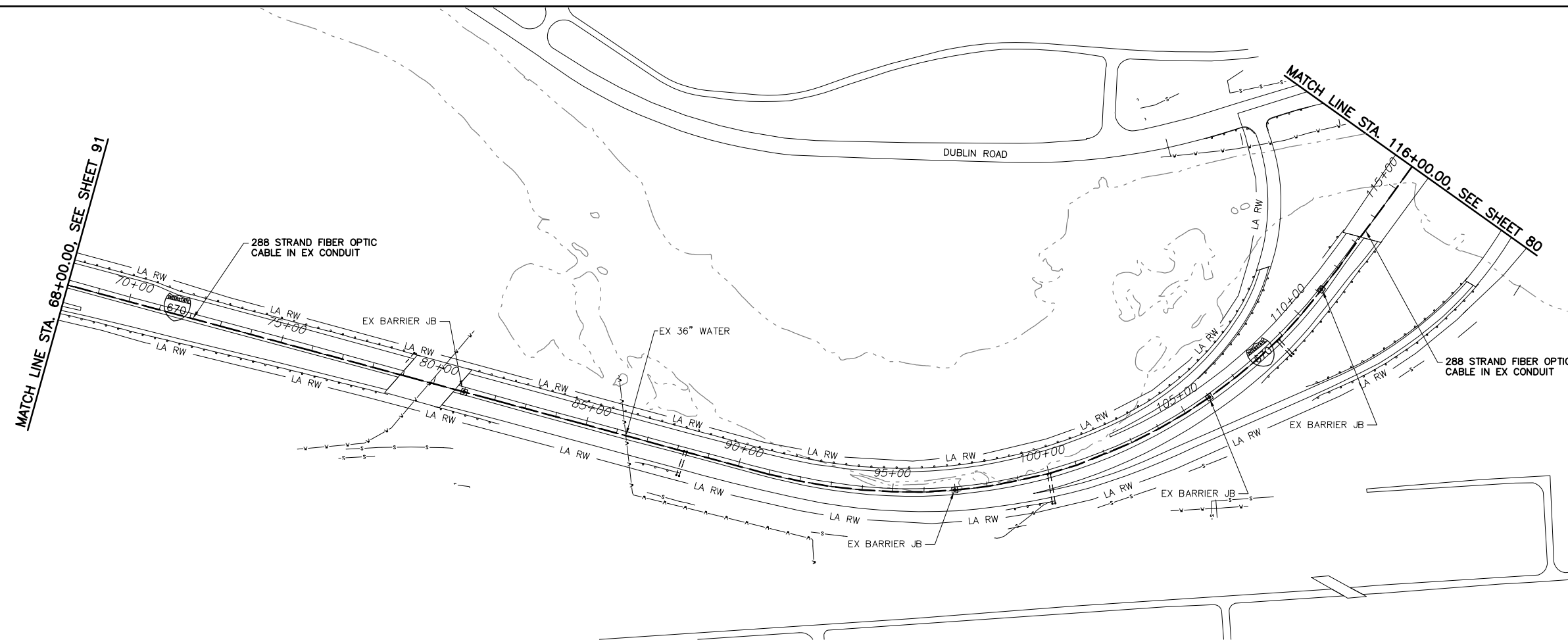
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PID NUMBER  
82540

I.R. 670  
PLAN SHEET STA. 68+00.00 to 116+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A



ESTIMATED QUANTITIES

LOCATION		202	632						
STATION	STATION	EXISTING CONDUIT CLEANED, AS PER PLAN	288 STRAND FIBER OPTIC CABLE						
		LF	LF						
68+00, 00'	116+00, 00'	4800	4800						
<b>TOTALS</b>		4800	4800						

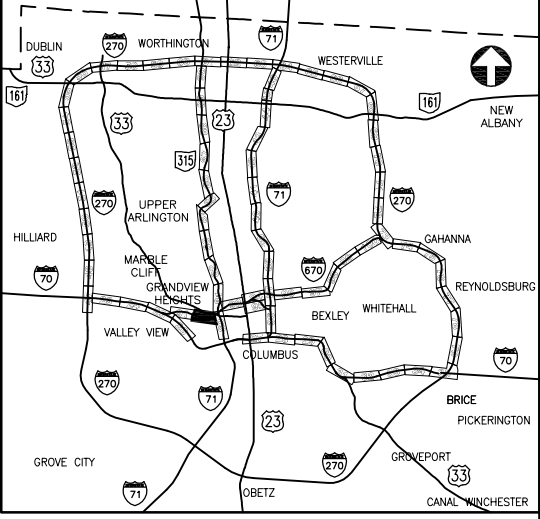
- CITY OF COLUMBUS  
UTILITY LEGEND
- SEWER
  - WATER
  - POWER
  - LIGHTING

UNDERGROUND UTILITIES

TWO WORKING DAYS BEFORE YOU DIG

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KEY PLAN  
NOT TO SCALE

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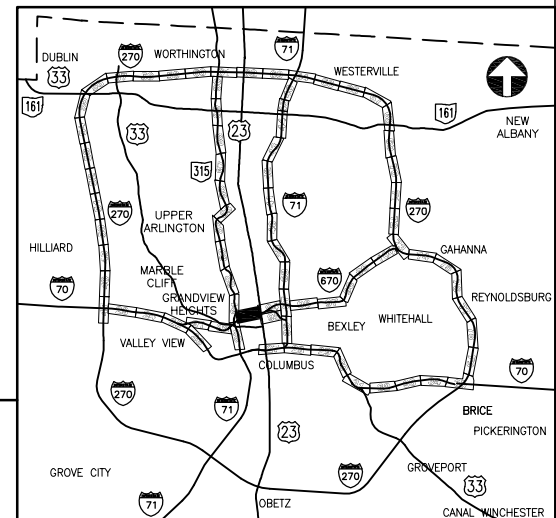
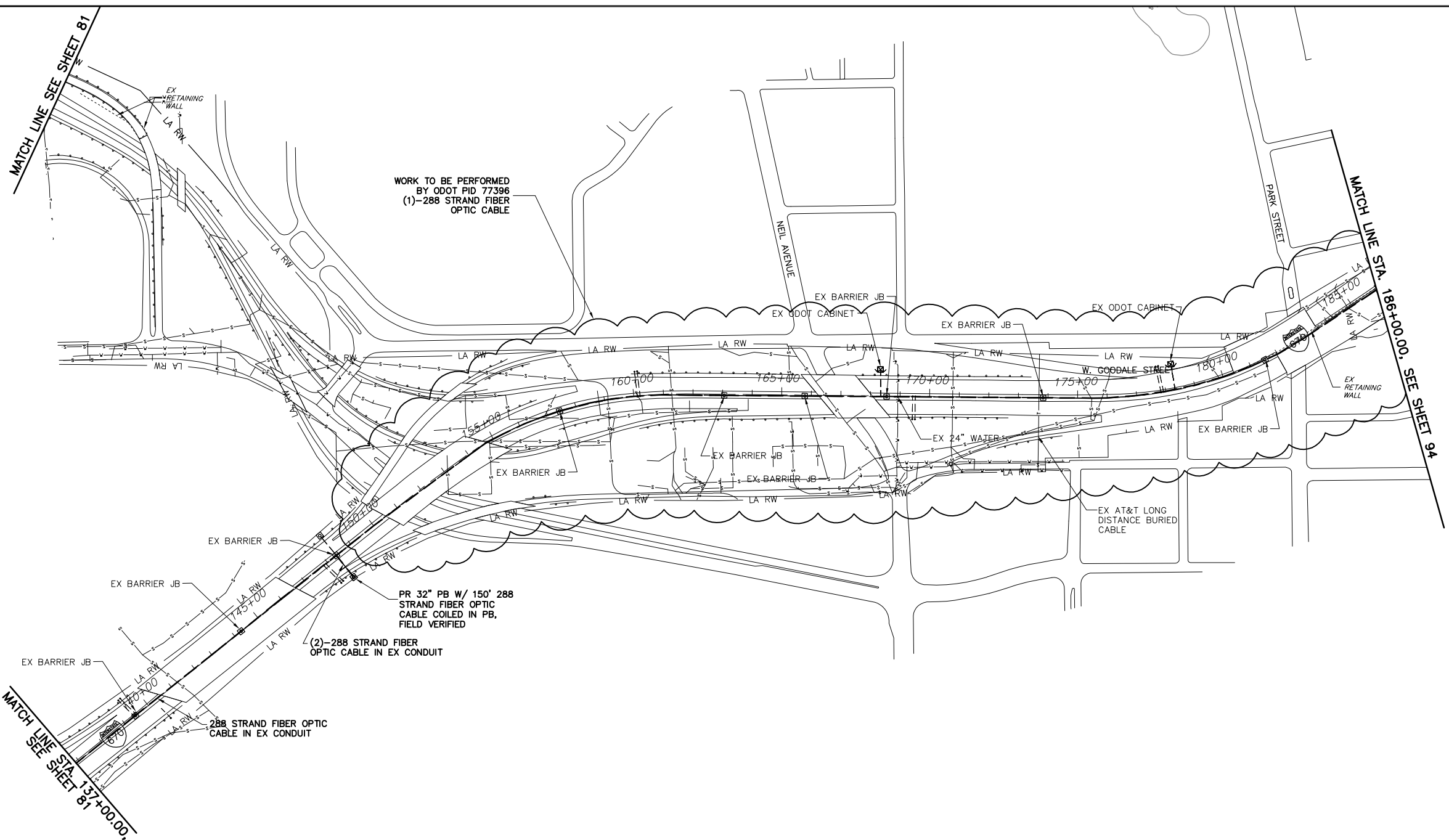


PID NUMBER  
82540

I.R. 670 AT W. GOODALE STREET  
PLAN SHEET STA. 137+00 TO 186+00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

93  
147



ESTIMATED QUANTITIES

LOCATION		202	632						
STATION	STATION	EXISTING CONDUIT CLEANED, AS PER PLAN	288 STRAND FIBER OPTIC CABLE						
		LF	LF						
137+00, 00'	148+39, 00'	1139	1139						
148+39, 00'	148+39, 90'	90	180						
148+39, 90'			150						
148+39, 00'	186+00, 00'	3761	3761						
TOTALS		4990	5230						

CITY OF COLUMBUS  
UTILITY LEGEND

- SEWER
- WATER
- POWER
- LIGHTING

UNDERGROUND UTILITIES

TWO WORKING DAYS  
BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

J:\Jobs\44086\TECHPROD\Sheets\ST\_CTS52540\_0093.dwg ~ last saved by: CCI, Ikinocke 06/20/2012 08:46am ~ printed 08/23/2012 03:01pm

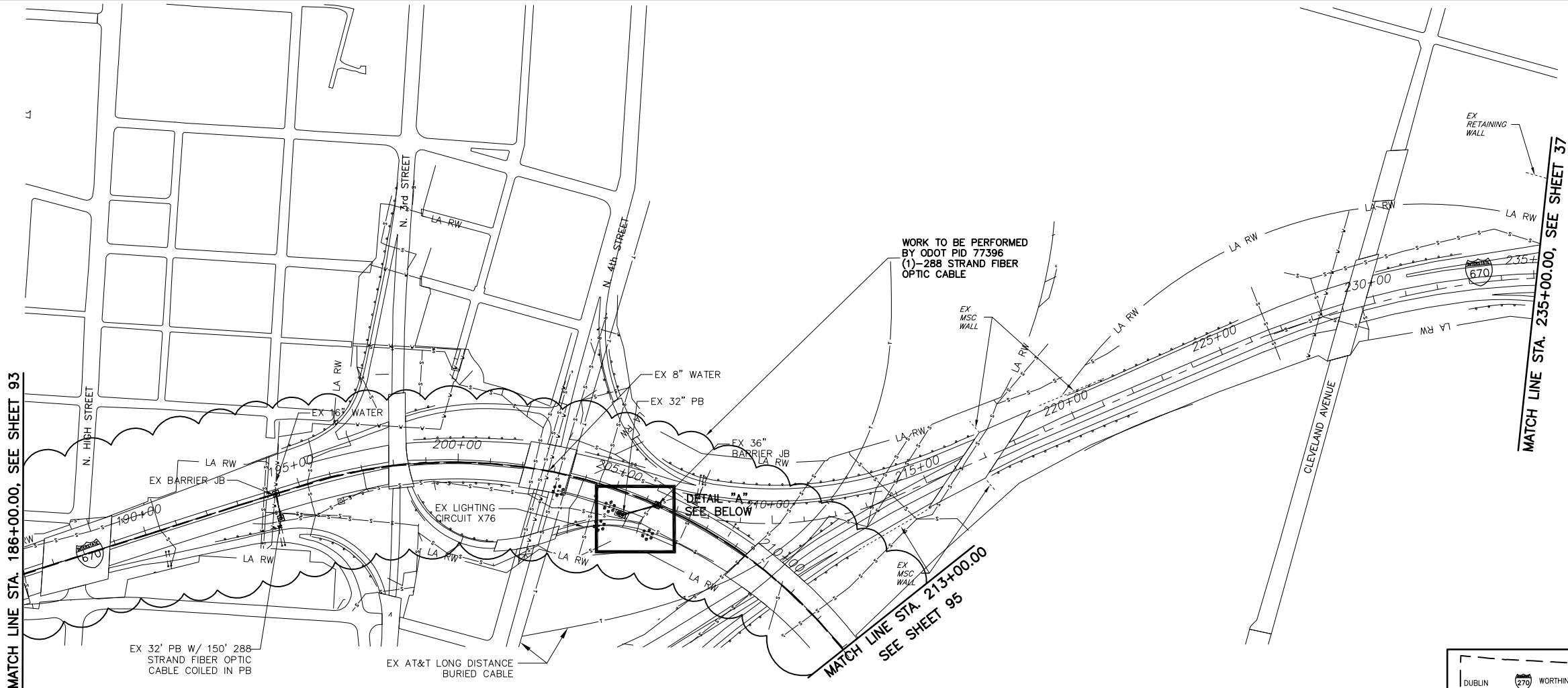


PID NUMBER  
82540

I.R. 670 AT 4TH STREET  
PLAN SHEET STA. 186+00 TO 213+00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

94  
147



MATCH LINE STA. 186+00.00, SEE SHEET 93

MATCH LINE STA. 235+00.00, SEE SHEET 37

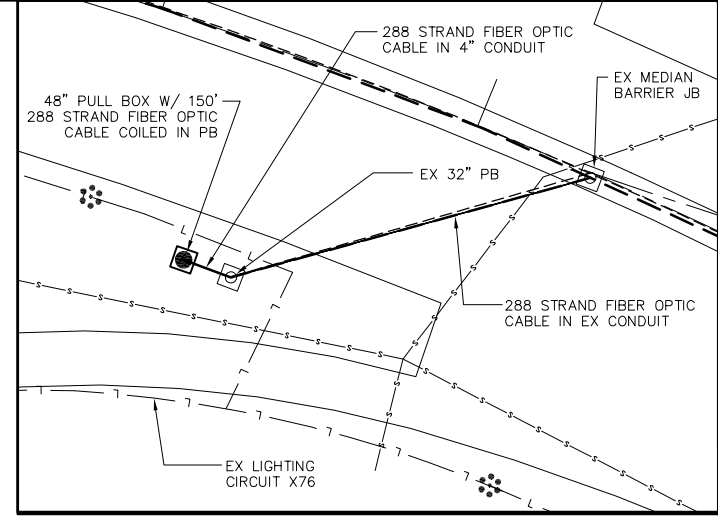
WORK TO BE PERFORMED  
BY ODOT PID 77396  
(1)-288 STRAND FIBER  
OPTIC CABLE

CITY OF COLUMBUS  
UTILITY LEGEND

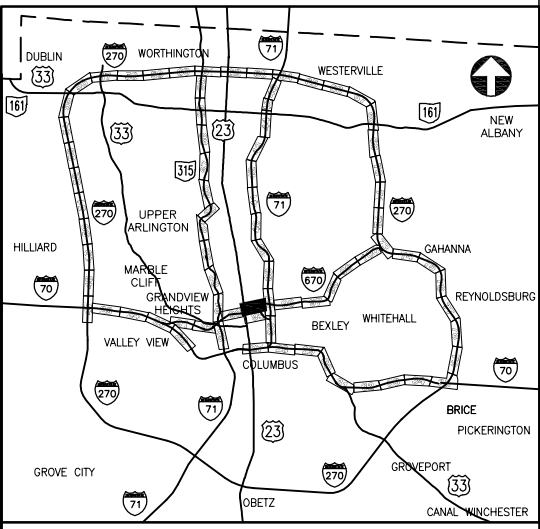
- SEWER
- WATER
- POWER
- LIGHTING

ESTIMATED QUANTITIES

LOCATION		202	625	625	625	632
STATION	STATION	LF	EA	LF	LF	LF
186+00, 00'	194+24, 00'	824				824
194+24, 00'	194+24, 78' R	78				156
194+24, 78' R						150
194+24, 00'	206+33, 00'	1209				1209
205+32, 68' R			1			150
205+32, 68' R	205+47, 68' R			15	15	15
206+33, 00'	205+47, 68' R	107				107
PULL BOX SLACK						10
<b>TOTALS</b>		2218	1	15	15	2621

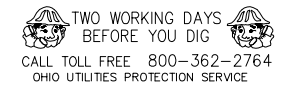


DETAIL "A"  
NOT TO SCALE



KEY PLAN  
NOT TO SCALE

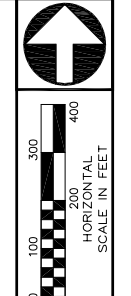
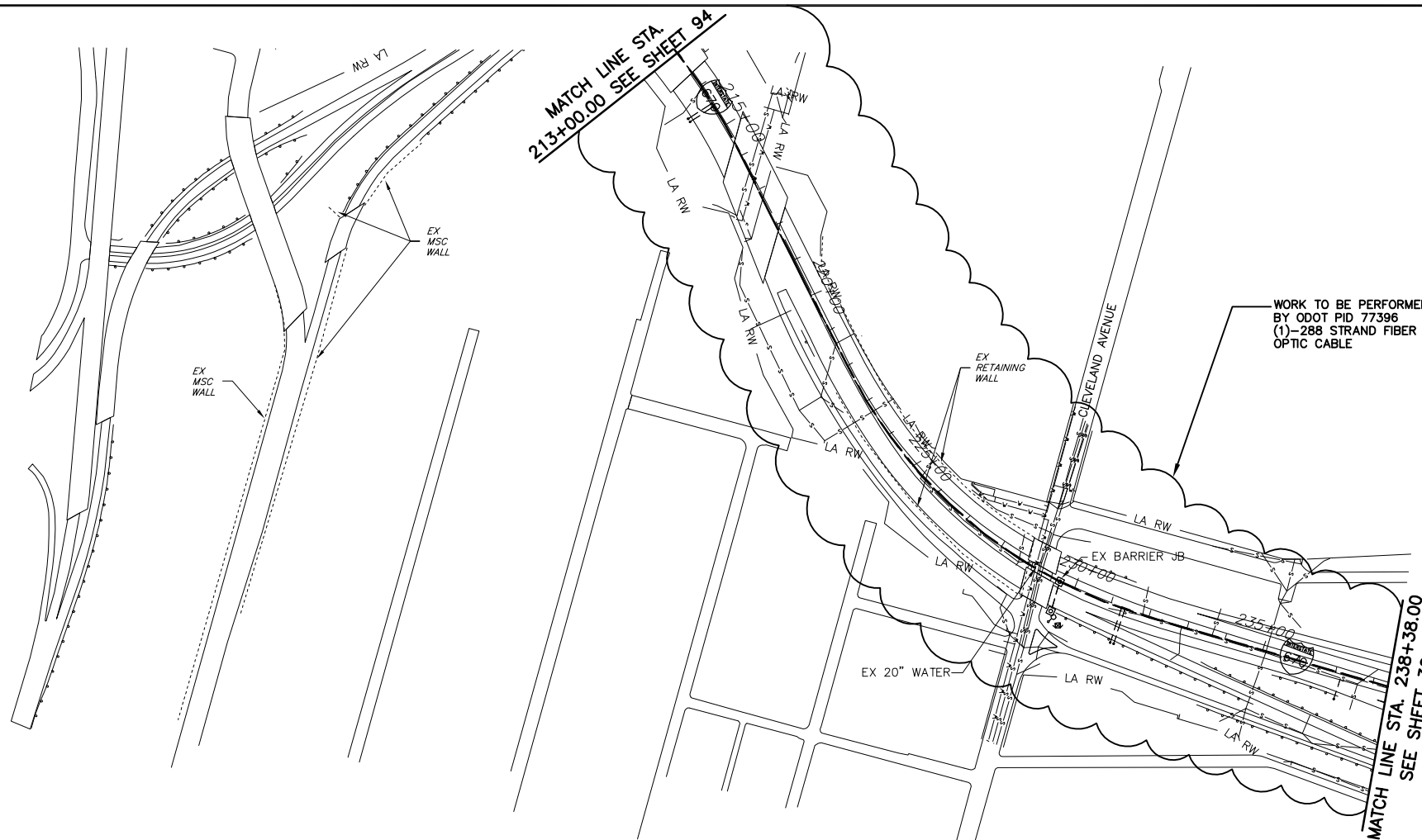
UNDERGROUND UTILITIES



CONSTRUCTION AS-BUILT  
2643DR.E

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PID NUMBER  
82540

I.R. 670 AT CLEVELAND AVENUE  
PLAN SHEET STA. 213+00 to 238+38

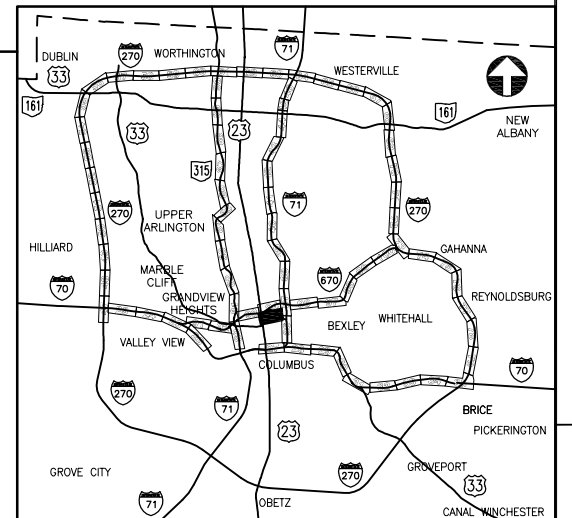
ESTIMATED QUANTITIES									
LOCATION STATION	STATION								
TOTALS									

- CITY OF COLUMBUS  
UTILITY LEGEND
- SEWER
  - WATER
  - POWER
  - LIGHTING

UNDERGROUND UTILITIES

TWO WORKING DAYS BEFORE YOU DIG

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE



CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

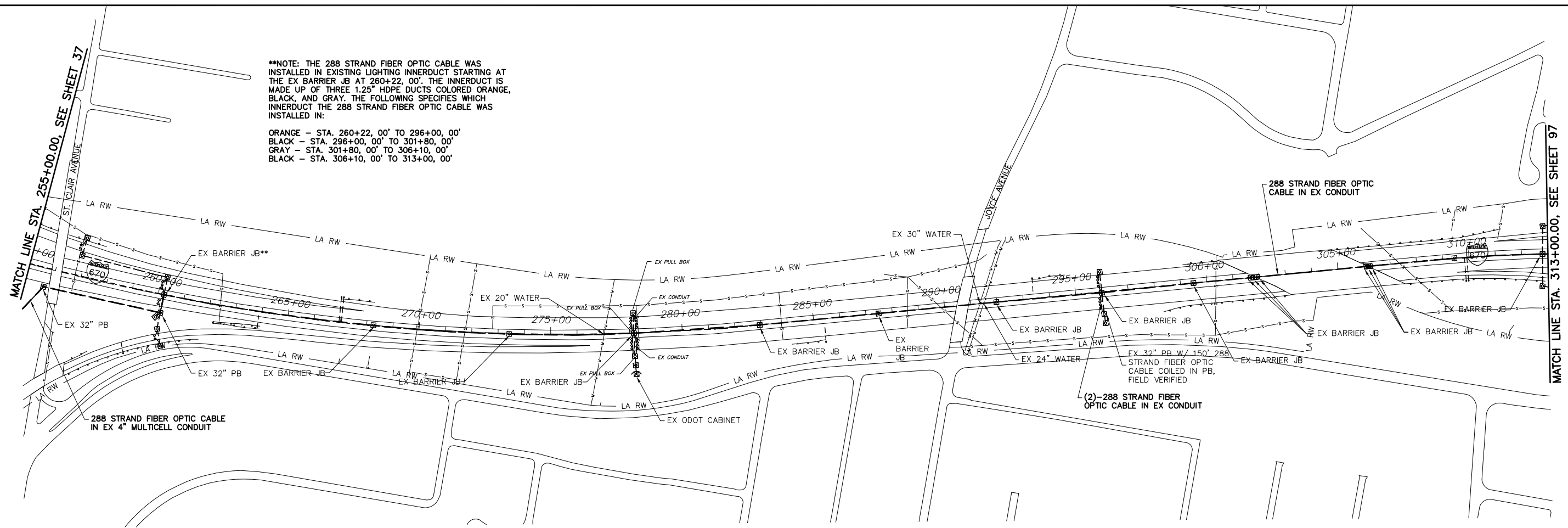


PID NUMBER  
82540

I.R. 670  
PLAN SHEET STA. 255+00.00 to 313+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

96  
147



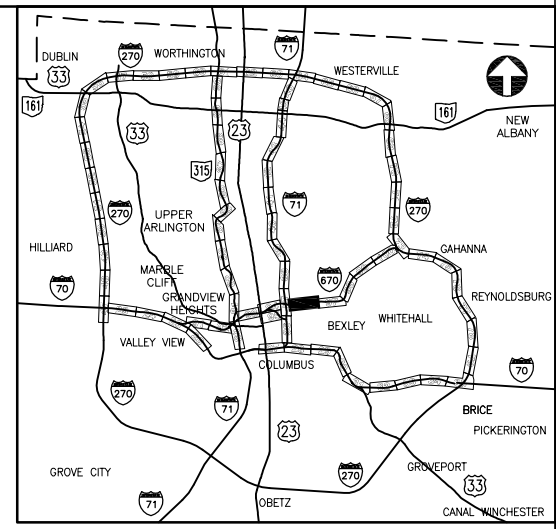
**\*\*NOTE: THE 288 STRAND FIBER OPTIC CABLE WAS INSTALLED IN EXISTING LIGHTING INNERDUCT STARTING AT THE EX BARRIER JB AT 260+22, 00'. THE INNERDUCT IS MADE UP OF THREE 1.25\"/>**

ORANGE - STA. 260+22, 00' TO 296+00, 00'  
 BLACK - STA. 296+00, 00' TO 301+80, 00'  
 GRAY - STA. 301+80, 00' TO 306+10, 00'  
 BLACK - STA. 306+10, 00' TO 313+00, 00'

### ESTIMATED QUANTITIES

LOCATION		202	632						
STATION	STATION	LF	LF						
255+00, 171' R	255+72, 70' R	124	124						
255+72, 70' R	260+22, 70' R	450	450						
260+22, 70' R	260+22 00'	70	70						
260+22 00'	296+00, 00'	3578	3578						
296+00, 00'	296+00, 85' R	85	170						
296+00, 85' R			150						
296+00, 00'	313+00, 00'	1700	1700						
PB SLACK			20						
<b>TOTALS</b>		6007	6262						

- CITY OF COLUMBUS UTILITY LEGEND**
- SEWER
  - WATER
  - POWER
  - LIGHTING



**KEY PLAN**  
NOT TO SCALE

**UNDERGROUND UTILITIES**

**TWO WORKING DAYS BEFORE YOU DIG**

CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

CONSTRUCTION AS-BUILT  
**2643DR.E**

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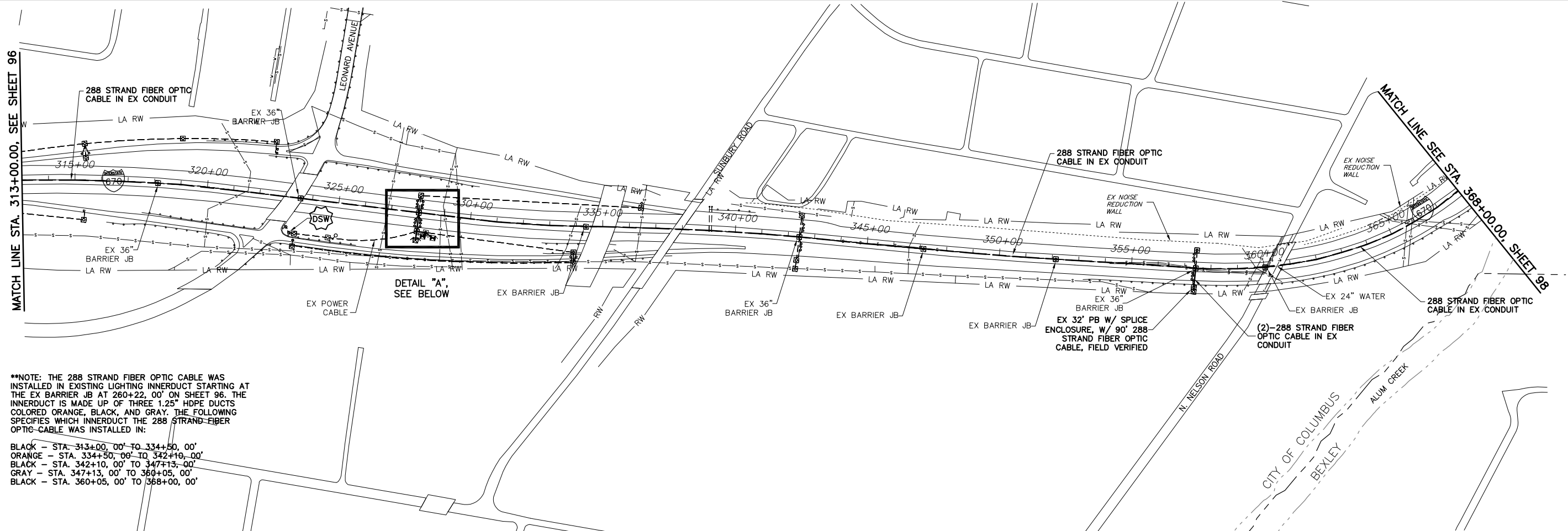


PID NUMBER  
82540

I.R. 670 AT LEONARD AVENUE  
PLAN SHEET STA. 313+00.00 TO 368+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

97  
147

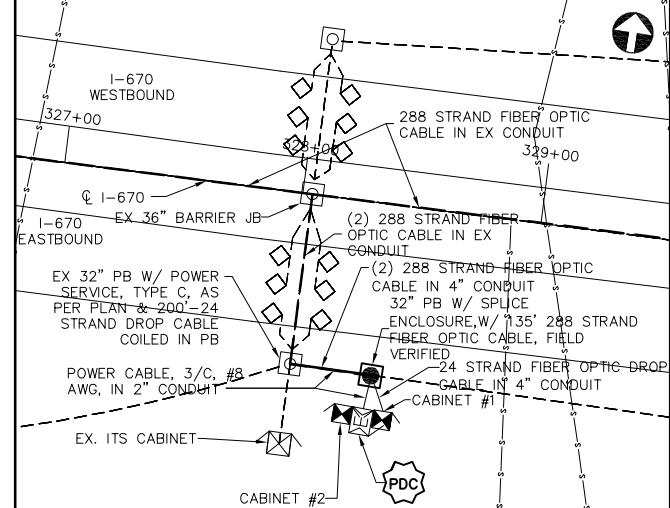


**\*\*NOTE: THE 288 STRAND FIBER OPTIC CABLE WAS INSTALLED IN EXISTING LIGHTING INNERDUCT STARTING AT THE EX BARRIER JB AT 260+22, 00' ON SHEET 96. THE INNERDUCT IS MADE UP OF THREE 1.25" HDPE DUCTS COLORED ORANGE, BLACK, AND GRAY. THE FOLLOWING SPECIFICS WHICH INNERDUCT THE 288 STRAND FIBER OPTIC CABLE WAS INSTALLED IN:**

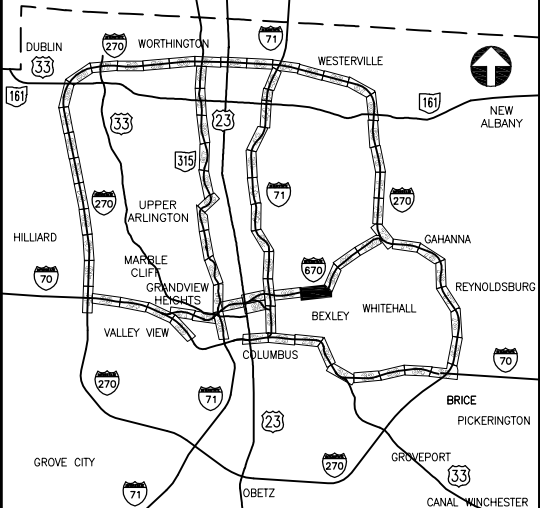
BLACK - STA. 313+00, 00' TO 334+50, 00'  
 ORANGE - STA. 334+50, 00' TO 342+10, 00'  
 BLACK - STA. 342+10, 00' TO 347+13, 00'  
 GRAY - STA. 347+13, 00' TO 360+05, 00'  
 BLACK - STA. 360+05, 00' TO 368+00, 00'

**ESTIMATED QUANTITIES**

LOCATION		202	625	625	625	625	625	632	632	632	632	632	633	633
STATION	STATION	LF	EA	EA	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA
313+00, 00'	368+00, 00'	5500						5500						
328+04, 00'	328+04, 71' R	71						142						
328+04, 71' R	328+21, 82' R					20	20	40	75					
328+21, 82' R	328+21, 82' R			1						1				
328+21, 82' R	328+29, 88' R					10	10	10						
328+29, 88' R	328+29, 88' R							1					1	1
328+29, 88' R	328+39, 88' R					10	10			30				
328+39, 88' R	328+39, 88' R		1											
328+29, 88' R	328+04, 71' R					50	50			150				
328+04, 71' R	328+04, 71' R												1	
357+42, 00'	357+42, 68' L	68						136						
357+42, 68' L	357+42, 68' L							150						
PB SLACK								20				30		
SPlice SLACK								150	75			60		
<b>TOTALS</b>		5639	1	1	60	30	90	1	6138	160	1	270	1	1



**DETAIL "A"**  
NOT TO SCALE



**KEY PLAN**  
NOT TO SCALE

NODE #670006.5  
REFER TO SHEET 147 FOR  
COMMUNICATION DETAILS

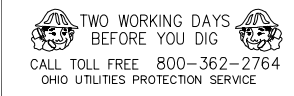
**POWER SERVICE NOTES**

60AMP, 120VAC FUSED DISCONNECT SWITCH

POWER DISTRIBUTION CABINET:

- 1-100AMP SERVICE PANEL
- 1-30AMP BREAKER, 120VAC TO CTSS COMM NODE
- 1-30AMP BREAKER, 120VAC TO ODOT VDS SITE

**UNDERGROUND UTILITIES**



**CITY OF COLUMBUS UTILITY LEGEND**

- SEWER
- WATER
- POWER
- LIGHTING

CONSTRUCTION AS-BUILT  
**2643DR.E**

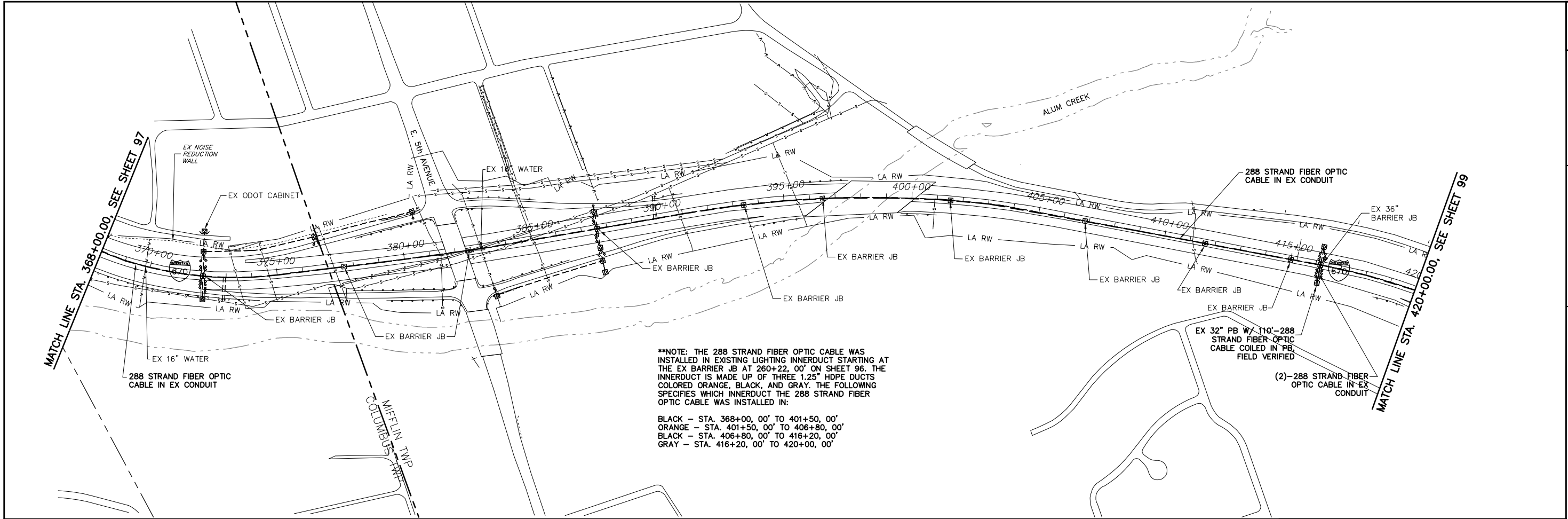
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PID NUMBER  
82540

I.R. 670 AT E. 5TH AVENUE  
PLAN SHEET STA. 368+00.00 TO 420+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A



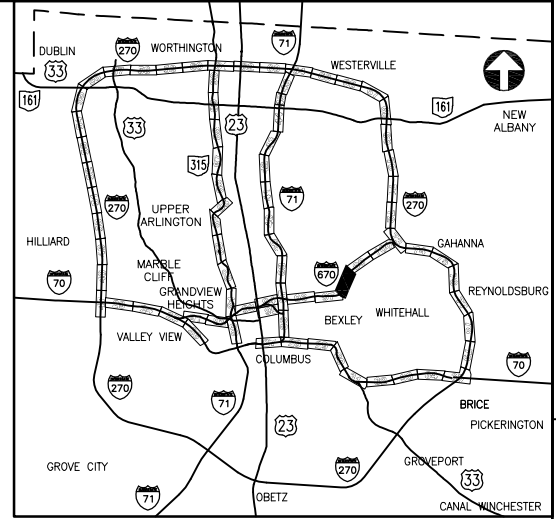
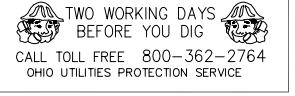
ESTIMATED QUANTITIES

LOCATION STATION      STATION	202		632														
	EXISTING CONDUIT CLEANED, AS PER PLAN		288 STRAND FIBER OPTIC CABLE														
	LF	LF															
368+00, 00'      387+63, 00'	1963	1963															
387+63, 00'      387+63, 75' R	75	150															
387+63, 75' R      387+63, 127' R	52	104															
387+63, 127' R		150															
387+63, 00'      420+00, 00'	3237	3237															
PB SLACK		20															
<b>TOTALS</b>	<b>5327</b>	<b>5624</b>															

CITY OF COLUMBUS  
UTILITY LEGEND

- SEWER
- WATER
- POWER
- LIGHTING

UNDERGROUND UTILITIES



KEY PLAN  
NOT TO SCALE

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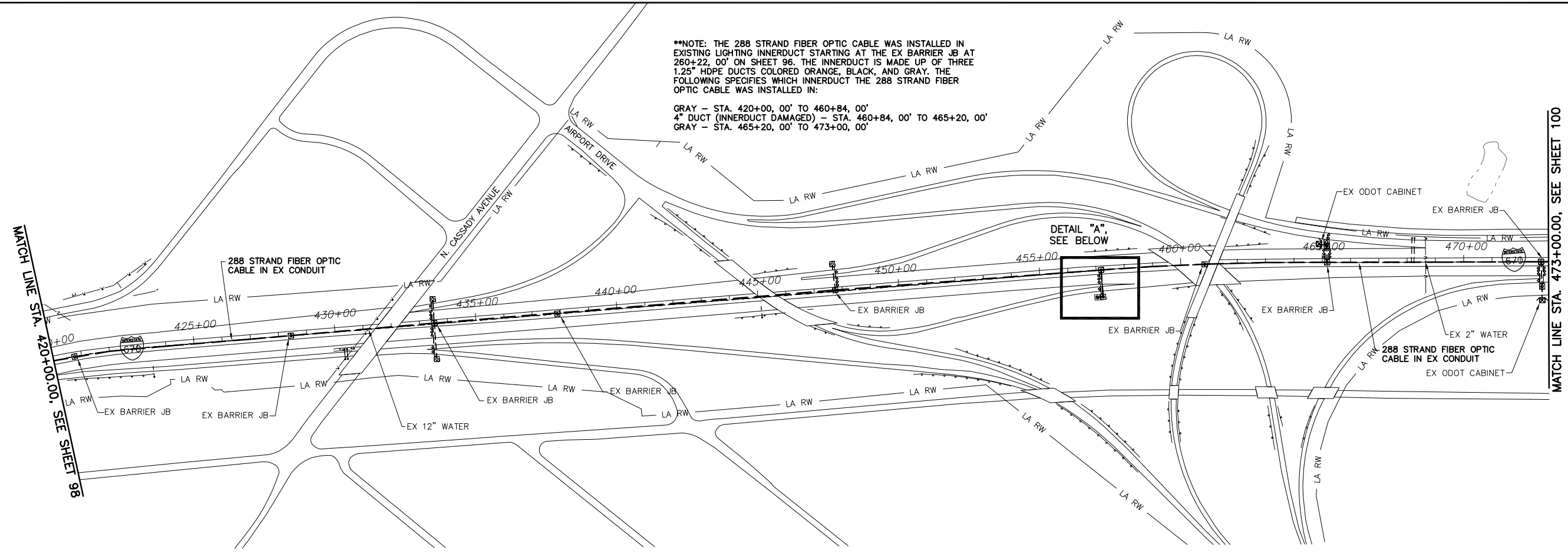


PID NUMBER  
82540

I.R. 670 AT N. CASSADY AVENUE  
PLAN SHEET STA. 420+00.00 TO 473+00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

**\*\*NOTE: THE 288 STRAND FIBER OPTIC CABLE WAS INSTALLED IN EXISTING LIGHTING INNERDUCT STARTING AT THE EX BARRIER JB AT 260+22, 00' ON SHEET 96. THE INNERDUCT IS MADE UP OF THREE 1.25" HDPE DUCTS COLORED ORANGE, BLACK, AND GRAY. THE FOLLOWING SPECIFIES WHICH INNERDUCT THE 288 STRAND FIBER OPTIC CABLE WAS INSTALLED IN:**  
 GRAY - STA. 420+00, 00' TO 460+84, 00'  
 4" DUCT (INNERDUCT DAMAGED) - STA. 460+84, 00' TO 465+20, 00'  
 GRAY - STA. 465+20, 00' TO 473+00, 00'



MATCH LINE STA. 420+00.00, SEE SHEET 98

MATCH LINE STA. 473+00.00, SEE SHEET 100

**ESTIMATED QUANTITIES**

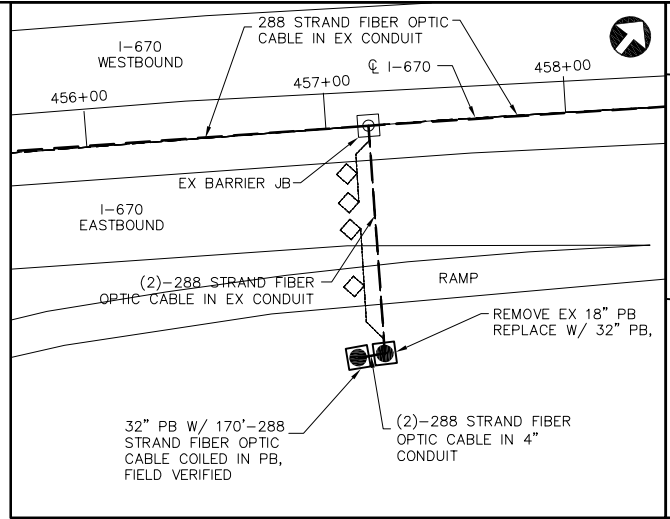
LOCATION		202	625	625	625	625	632						
STATION	STATION	LF	EA	EA	LF	LF	LF						
420+00, 00'	473+00, 00'	5300					5300						
457+18, 00'	457+18, 95' R	95					190						
457+18, 95' R			1	1									
457+18, 95' R	457+08, 95' R				10	10	20						
457+08, 95' R				1			150						
PB SLACK							20						
<b>TOTALS</b>		5395	1	2	10	10	5680						

**CITY OF COLUMBUS UTILITY LEGEND**

- SEWER
- WATER
- ELECTRIC
- GAS

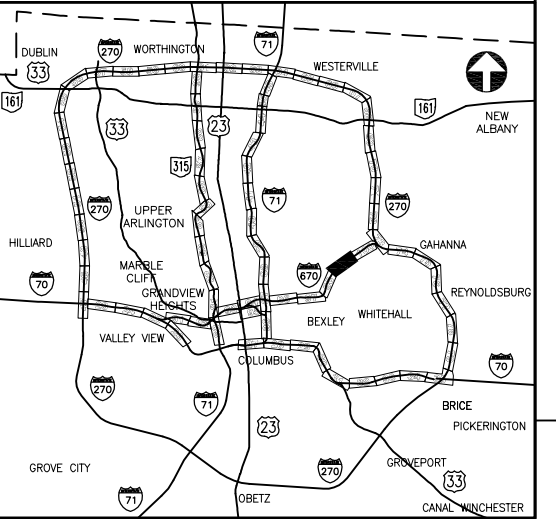
**UNDERGROUND UTILITIES**

TWO WORKING DAYS BEFORE YOU DIG  
 CALL TOLL FREE 800-362-2764  
 OHIO UTILITIES PROTECTION SERVICE



**DETAIL "A"**  
NOT TO SCALE

FUTURE NODE  
#670009.0

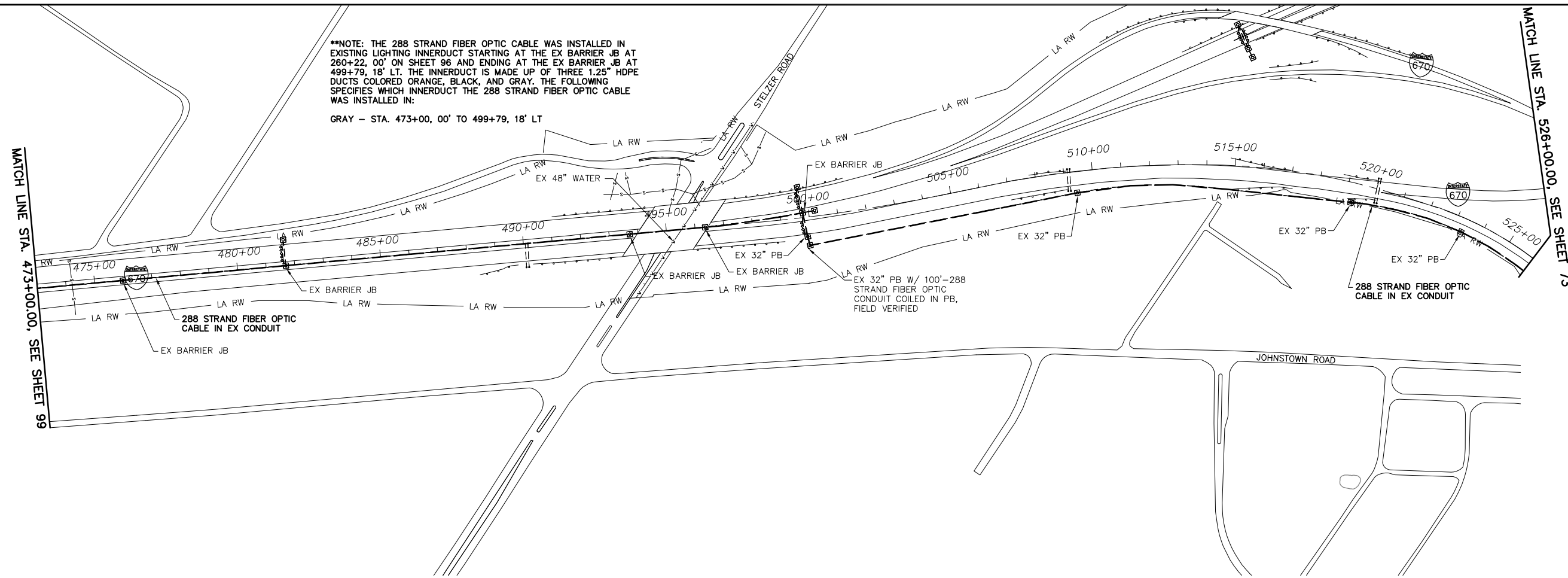


**KEY PLAN**  
NOT TO SCALE

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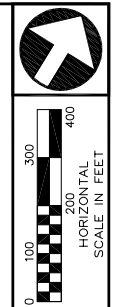
**\*\*NOTE: THE 288 STRAND FIBER OPTIC CABLE WAS INSTALLED IN EXISTING LIGHTING INNERDUCT STARTING AT THE EX BARRIER JB AT 260+22, 00' ON SHEET 96 AND ENDING AT THE EX BARRIER JB AT 499+79, 18' LT. THE INNERDUCT IS MADE UP OF THREE 1.25" HDPE DUCTS COLORED ORANGE, BLACK, AND GRAY. THE FOLLOWING SPECIFICS WHICH INNERDUCT THE 288 STRAND FIBER OPTIC CABLE WAS INSTALLED IN:**

GRAY - STA. 473+00, 00' TO 499+79, 18' LT



MATCH LINE STA. 473+00.00, SEE SHEET 99

MATCH LINE STA. 526+00.00, SEE SHEET 73



PID NUMBER  
82540

I.R. 670 AT I.R. 270  
PLAN SHEET STA. 473+00.00 TO 526+00.00

**ESTIMATED QUANTITIES**

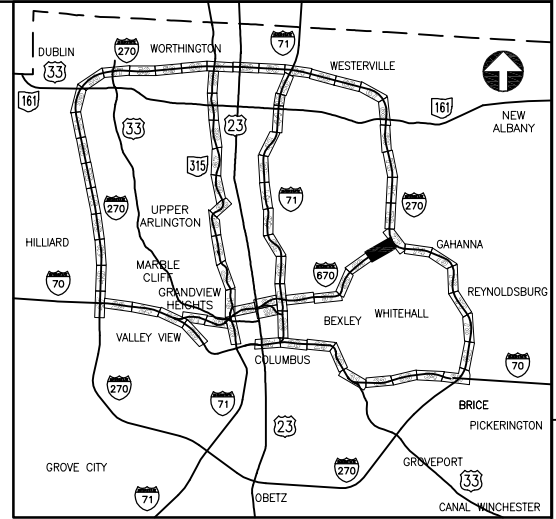
LOCATION		202	632										
STATION	STATION	LF	LF										
473+00, 00'	499+78, 17' L	2678	2678										
499+78, 17' L	499+92, 99' R	116	116										
499+92, 99' R			150										
499+92, 99' R	526+00, 56' R	2704	2704										
PB SLACK			40										
<b>TOTALS</b>		5498	5688										

- CITY OF COLUMBUS  
UTILITY LEGEND**
- SEWER
  - WATER
  - POWER
  - LIGHTING

**UNDERGROUND UTILITIES**

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OHIO UTILITIES PROTECTION SERVICE



**KEY PLAN  
NOT TO SCALE**

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

CONSTRUCTION AS-BUILT  
**2643DR.E**

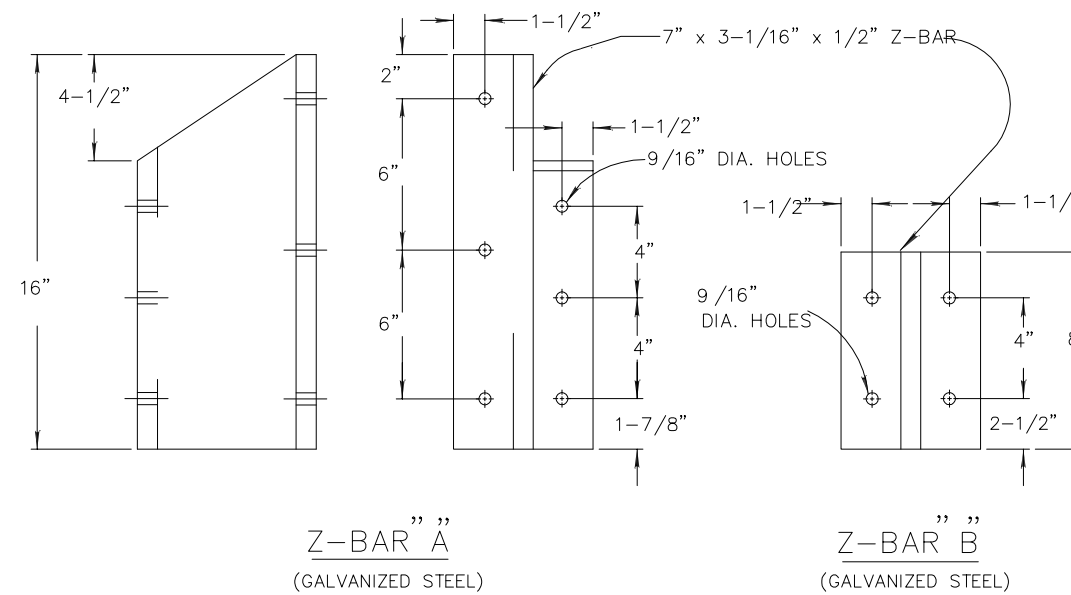
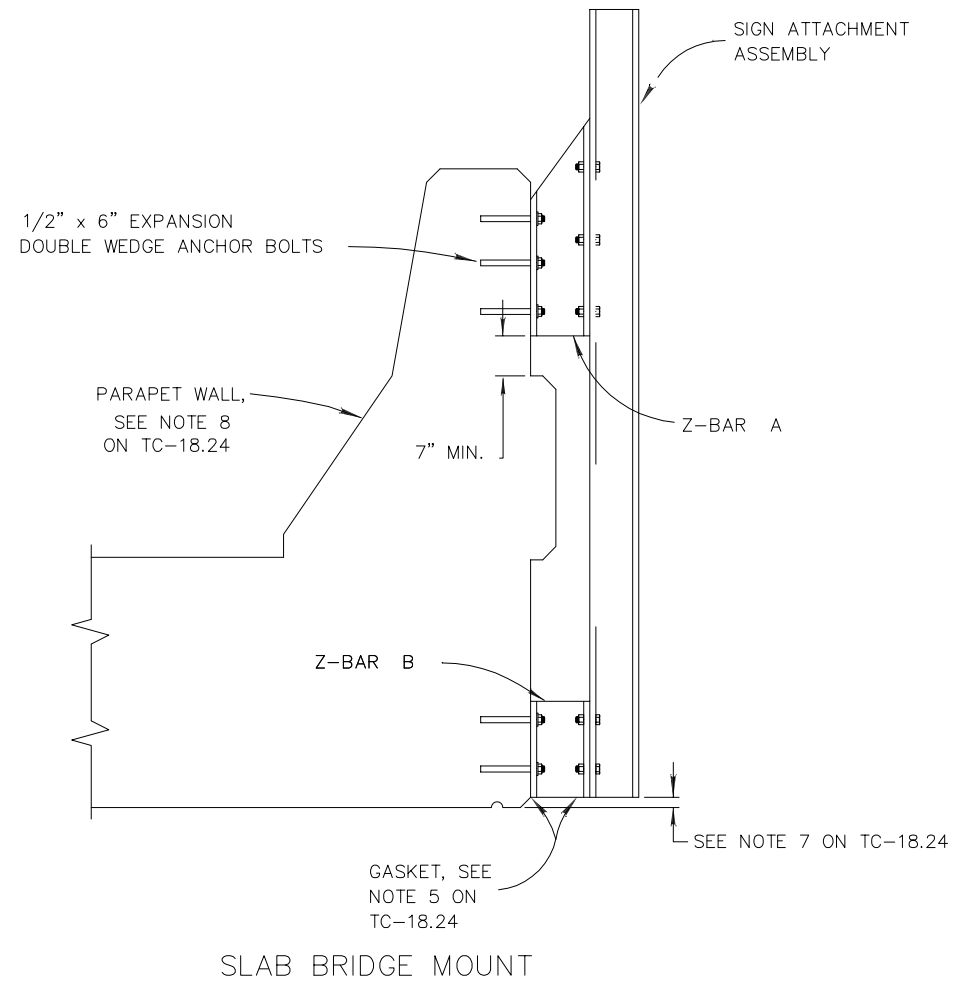
**100  
147**

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# NOTES

1. These details are intended to replace the "Slab Bridge Mount", "Z-Bar 'A'", and "Z-Bar 'B'" details on ODOT Standard Construction Drawing TC-18.24



PID NUMBER  
82540

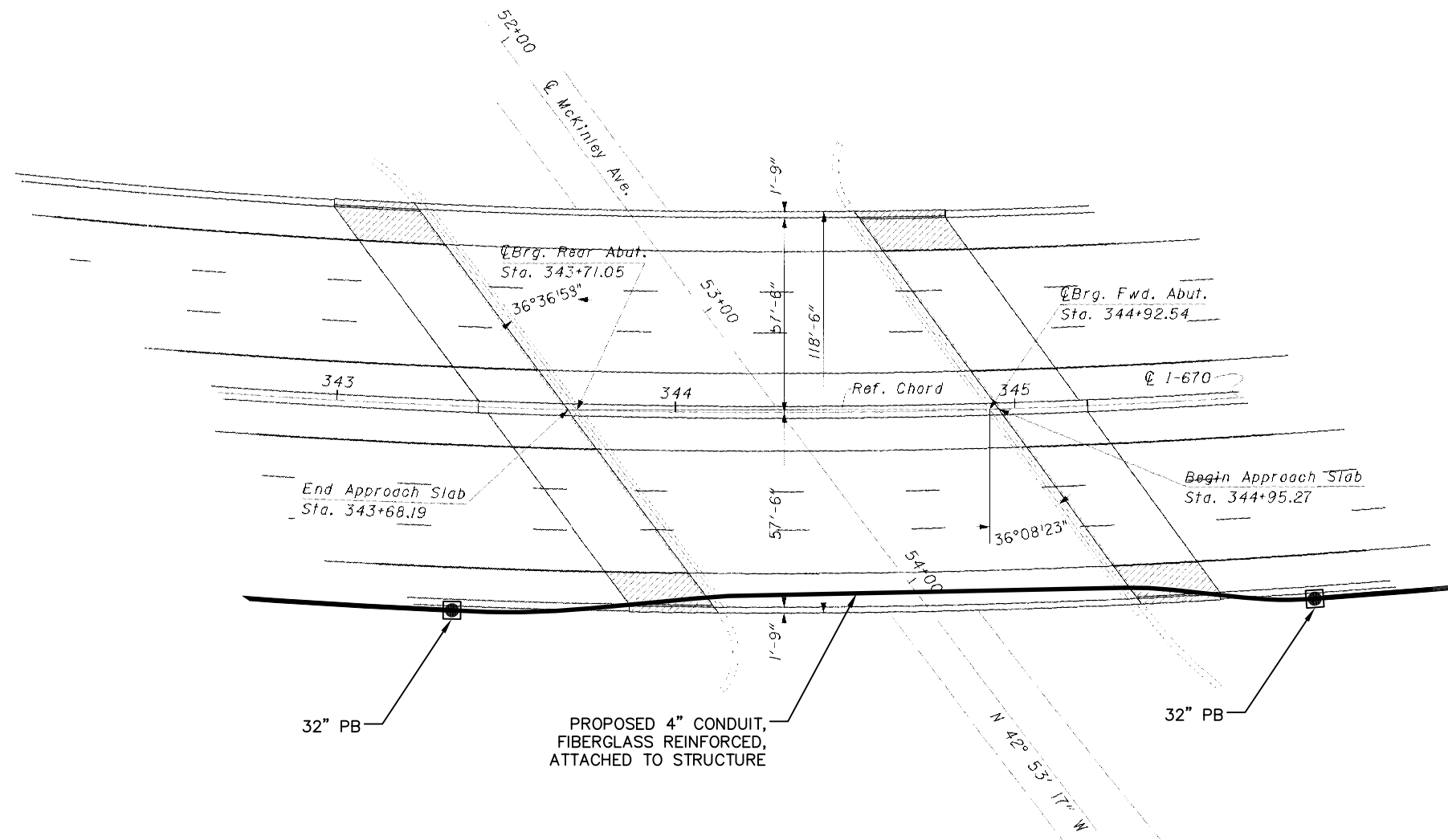
Z-BAR DETAILS

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

CONSTRUCTION AS-BUILT  
2643DR.E

100A  
147

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\*SHEETS 101-116 WERE TAKEN FROM ODOT RECORD PLANS AND ARE ONLY TO BE USED TO SHOW PROPOSED LOCATIONS OF CONDUIT, HANGERS AND EXPANSION COUPLINGS ON BRIDGE STRUCTURES AS NEEDED.

REFER TO SHEET 9 FOR CONDUIT ATTACHED TO STRUCTURE DETAILS  
 REFER TO SHEET 25 FOR PLAN SHEET

CONSTRUCTION AS-BUILT  
**2643DR.E**

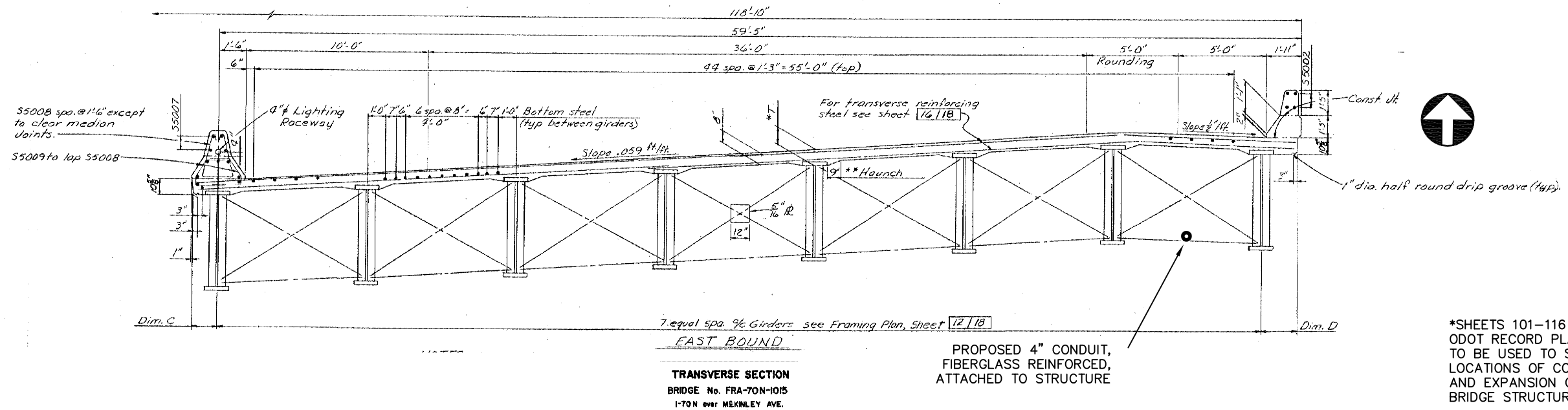
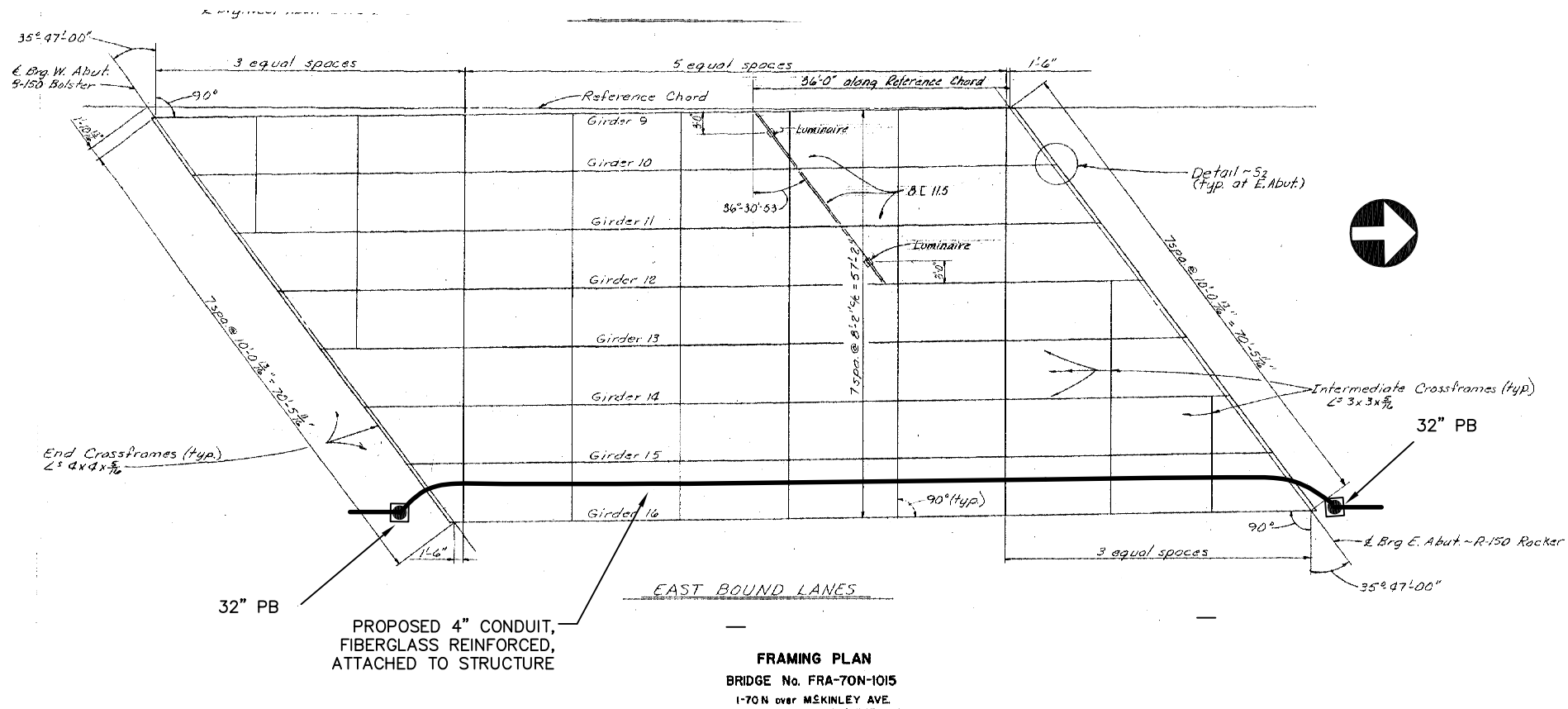


PID NUMBER  
82540

BRIDGE NO. FRA-670-0021 - I-670 OVER MCKINLEY AVENUE  
 STRUCTURE FILE NO. 2504367

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
 (CTSS) PHASE A

101  
147

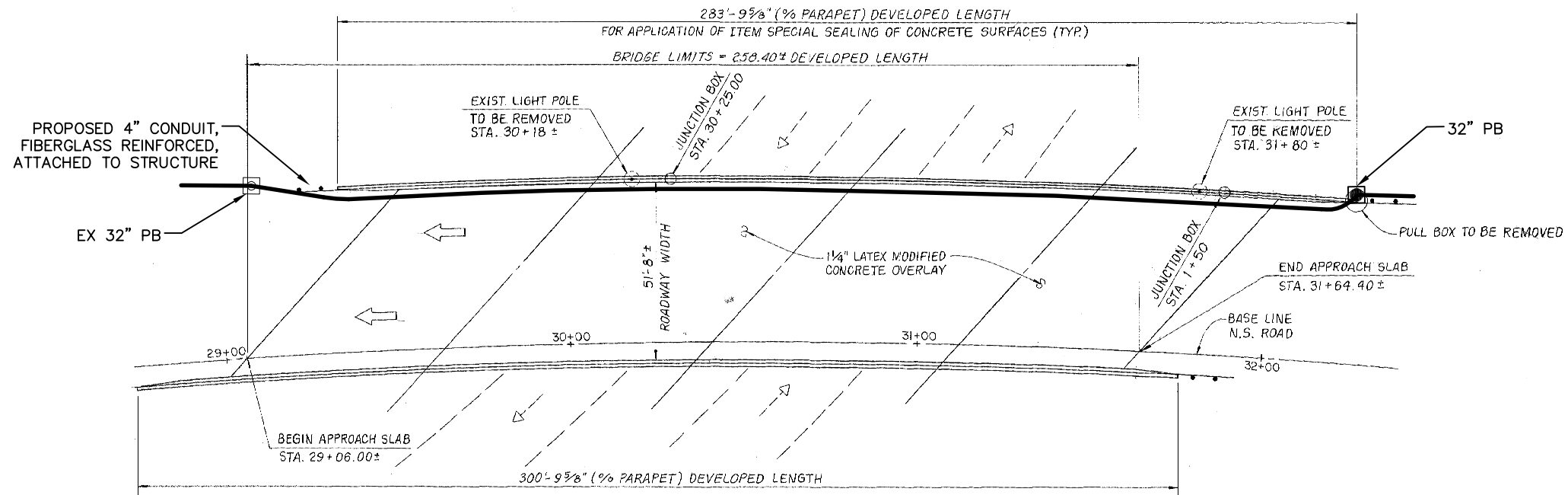


\*SHEETS 101-116 WERE TAKEN FROM ODOT RECORD PLANS AND ARE ONLY TO BE USED TO SHOW PROPOSED LOCATIONS OF CONDUIT, HANGERS AND EXPANSION COUPLINGS ON BRIDGE STRUCTURES AS NEEDED.

REFER TO SHEET 9 FOR CONDUIT ATTACHED TO STRUCTURE DETAILS  
REFER TO SHEET 25 FOR PLAN SHEET

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PID NUMBER 82540  
 BRIDGE NO. FRA-670-0021 - I-670 OVER MCKINLEY AVENUE  
 STRUCTURE FILE NO. 2504367  
 CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM (CTSS) PHASE A  
 CONSTRUCTION AS-BUILT 101A 147  
 2643DR.E



**TYPICAL PLAN VIEW**  
 FRA 71-1801 L S.B. 71 OVER  
 E.B. 670 TO S.B. 71  
 SKEW: VARIES

\*SHEETS 101-116 WERE TAKEN FROM ODOT RECORD PLANS AND ARE ONLY TO BE USED TO SHOW PROPOSED LOCATIONS OF CONDUIT, HANGERS AND EXPANSION COUPLINGS ON BRIDGE STRUCTURES AS NEEDED.

REFER TO SHEET 9 FOR CONDUIT ATTACHED TO STRUCTURE DETAILS  
 REFER TO SHEET 37 FOR PLAN SHEET



J:\bos\44086\TECHPROD\Sheets\Bridges\Bridges\_71\over\_670.dwg ~ last saved by: CCI, mgraf 02/10/2012 04:30pm ~ printed 02/10/2012 04:38pm



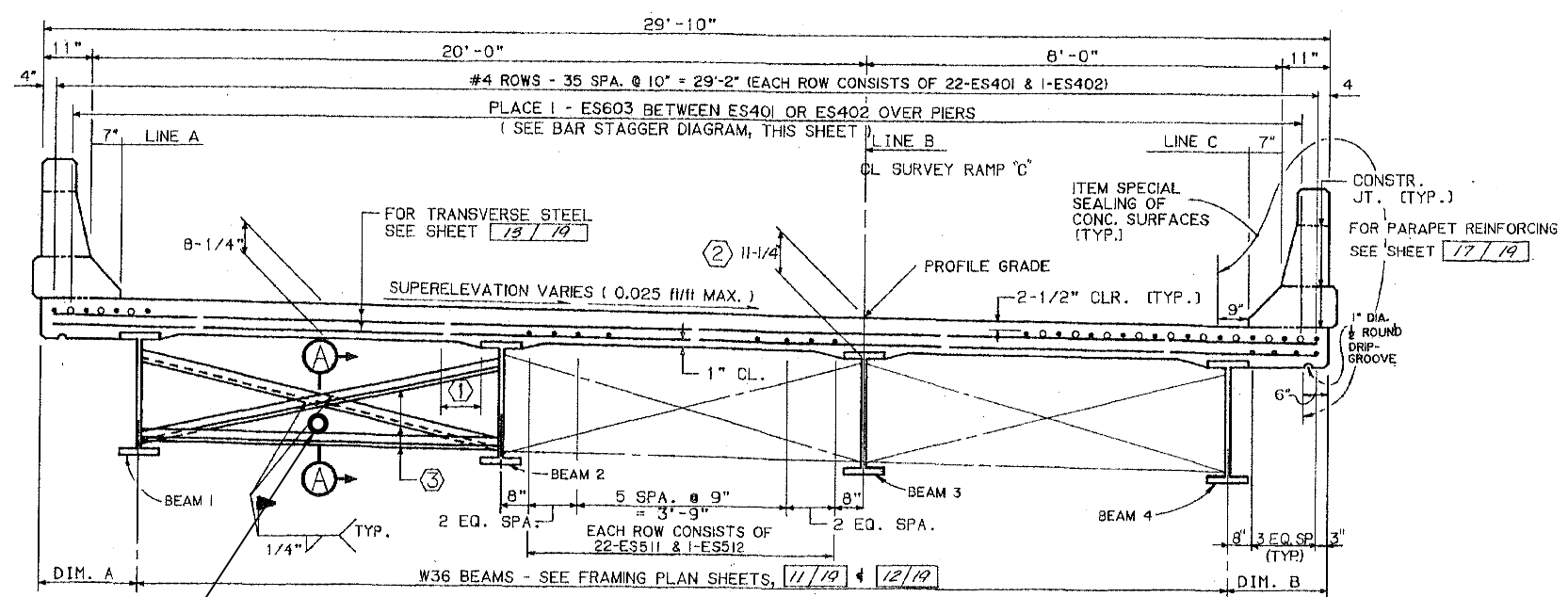
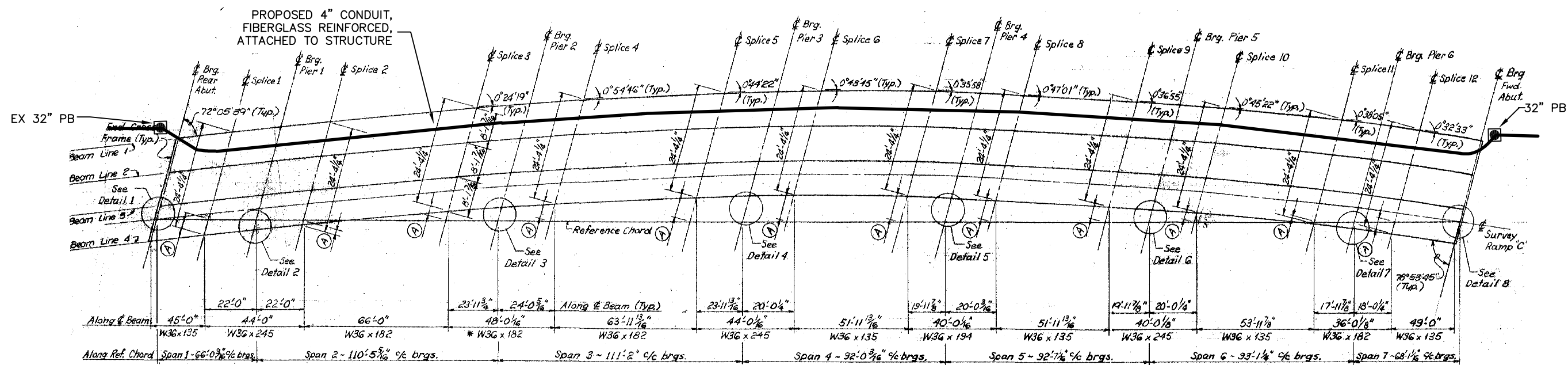


PID NUMBER  
82540

BRIDGE NO. FRA-71-1854 - I.R. 71 OVER I.R. 670  
PLAN SHEET STA. +00.00 TO +00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

102A  
147



PROPOSED 4" CONDUIT, FIBERGLASS REINFORCED, ATTACHED TO STRUCTURE

\*SHEETS 101-116 WERE TAKEN FROM ODOT RECORD PLANS AND ARE ONLY TO BE USED TO SHOW PROPOSED LOCATIONS OF CONDUIT, HANGERS AND EXPANSION COUPLINGS ON BRIDGE STRUCTURES AS NEEDED.

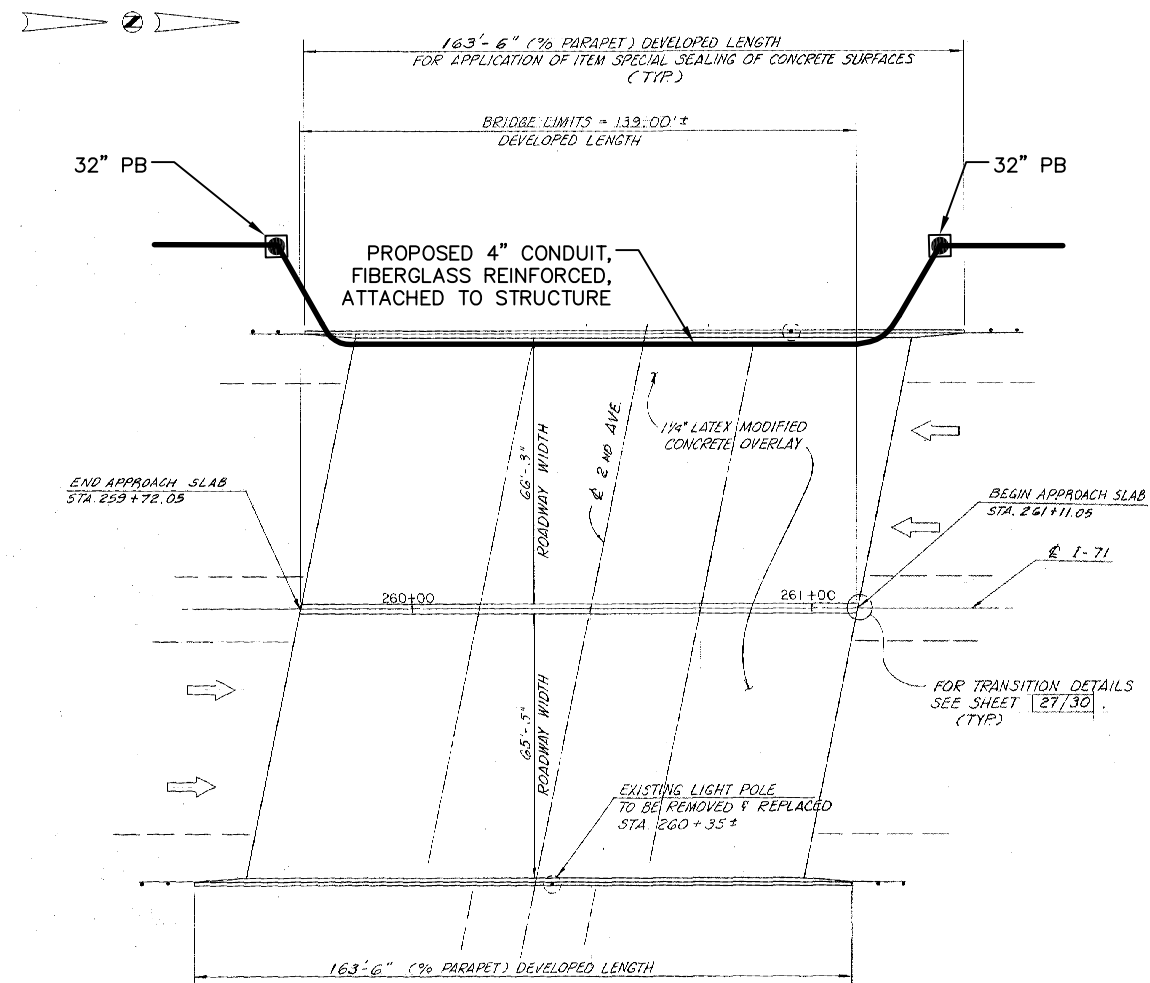
REFER TO SHEET 9 FOR CONDUIT ATTACHED TO STRUCTURE DETAILS

REFER TO SHEET 37 FOR PLAN SHEET

CONSTRUCTION AS-BUILT  
2643DR.E

J:\Jobs\44086\TECHPROD\Sheets\Bridges\Bridges\_71\_Lower\_670.dwg ~ last saved by: CCL mgr on 02/10/2012 04:30pm ~ printed 02/10/2012 04:35pm

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TYPICAL PLAN VIEW  
 FRA-71-18 75 OVER 2 ND AVE.  
 SKEW : 11°-37'-14" L.FWD.

\*SHEETS 101-116 WERE TAKEN FROM  
 ODOT RECORD PLANS AND ARE ONLY  
 TO BE USED TO SHOW PROPOSED  
 LOCATIONS OF CONDUIT, HANGERS  
 AND EXPANSION COUPLINGS ON  
 BRIDGE STRUCTURES AS NEEDED.

REFER TO SHEET 9 FOR CONDUIT  
 ATTACHED TO STRUCTURE DETAILS

REFER TO SHEET 37 FOR PLAN SHEET

CONSTRUCTION AS-BUILT  
**2643DR.E**



PID NUMBER  
 82540

BRIDGE NO. FRA-71-1875 - I.R. 71 OVER E. 2ND AVENUE  
 PLAN SHEET STA. +00.00 TO +00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
 (CTSS) PHASE A

103  
 147

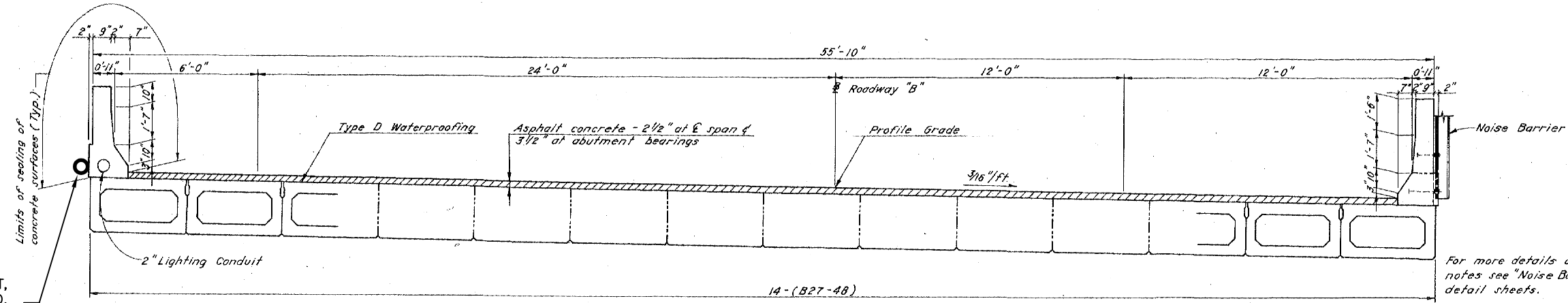


PID NUMBER  
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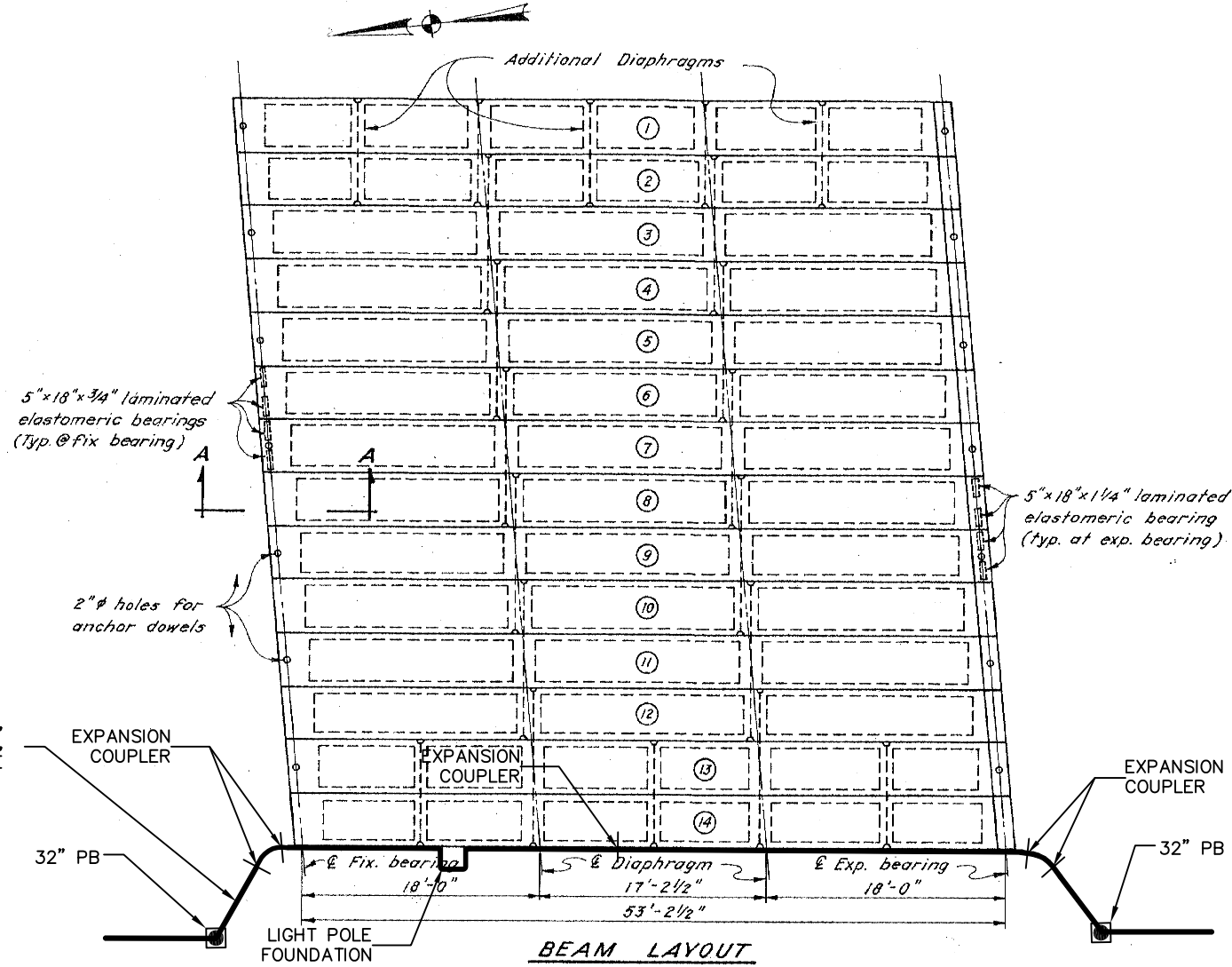
CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

103A  
147



PROPOSED 4" CONDUIT,  
FIBERGLASS REINFORCED,  
ATTACHED TO STRUCTURE

TRANSVERSE SECTION



PROPOSED 4" CONDUIT,  
FIBERGLASS REINFORCED,  
ATTACHED TO STRUCTURE

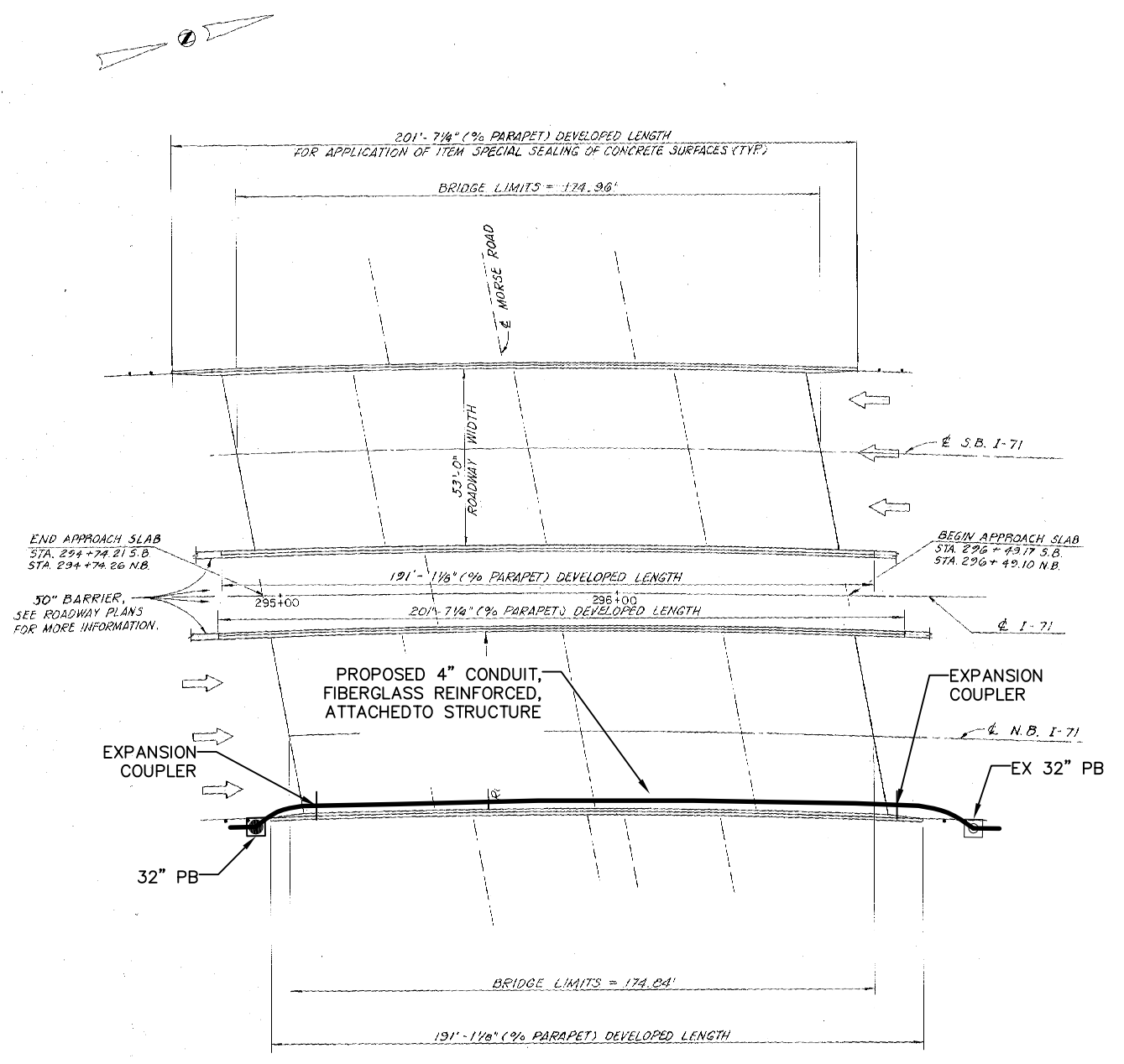
\*SHEETS 101-116 WERE TAKEN FROM  
ODOT RECORD PLANS AND ARE ONLY  
TO BE USED TO SHOW PROPOSED  
LOCATIONS OF CONDUIT, HANGERS  
AND EXPANSION COUPLINGS ON  
BRIDGE STRUCTURES AS NEEDED.

REFER TO SHEET 9 FOR CONDUIT  
ATTACHED TO STRUCTURE DETAILS  
REFER TO SHEET 37 FOR PLAN SHEET

CONSTRUCTION AS-BUILT  
2643DR.E

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**TYPICAL PLAN VIEW**  
 FRA-71-24 51 L. & R. OVER MORSE ROAD  
 SKEW: 10°-01'-32", 10°-15'-04" N.B.  
 RT. FWD W/RESPECT TO REF.  
 CHORDS BETWEEN & ABUT. BRGS.

\*SHEETS 101-116 WERE TAKEN FROM ODOT RECORD PLANS AND ARE ONLY TO BE USED TO SHOW PROPOSED LOCATIONS OF CONDUIT, HANGERS AND EXPANSION COUPLINGS ON BRIDGE STRUCTURES AS NEEDED.

REFER TO SHEET 9 FOR CONDUIT ATTACHED TO STRUCTURE DETAILS

REFER TO SHEET 43 FOR PLAN SHEET

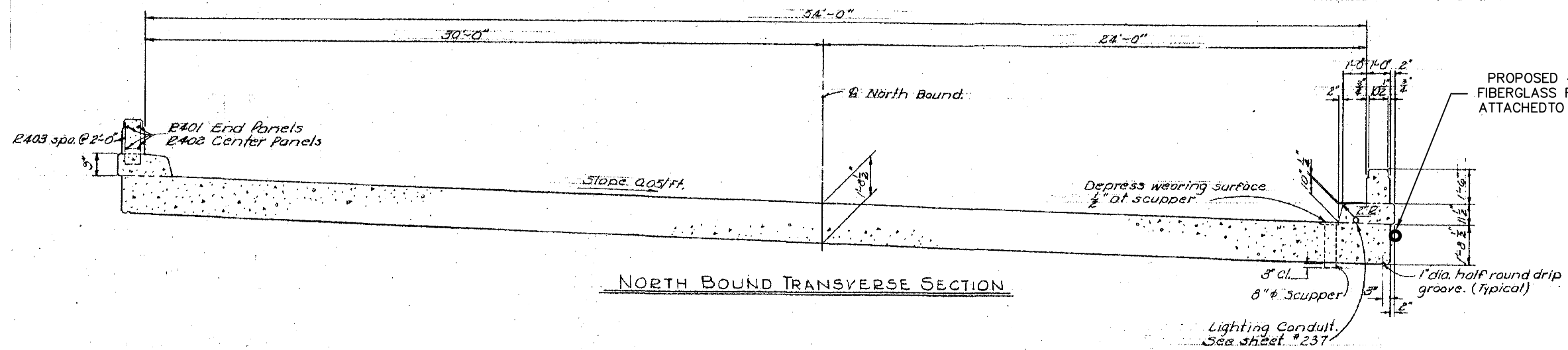


PID NUMBER  
 82540

BRIDGE NO. FRA-71-2451R - I.R. 71 OVER MORSE ROAD  
 PLAN SHEET STA. +00.00 TO +00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
 (CTSS) PHASE A

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NORTH BOUND TRANSVERSE SECTION

\*SHEETS 101-116 WERE TAKEN FROM ODOT RECORD PLANS AND ARE ONLY TO BE USED TO SHOW PROPOSED LOCATIONS OF CONDUIT, HANGERS AND EXPANSION COUPLINGS ON BRIDGE STRUCTURES AS NEEDED.

REFER TO SHEET 9 FOR CONDUIT ATTACHED TO STRUCTURE DETAILS

REFER TO SHEET 43 FOR PLAN SHEET

CONSTRUCTION AS-BUILT  
**2643DR.E**



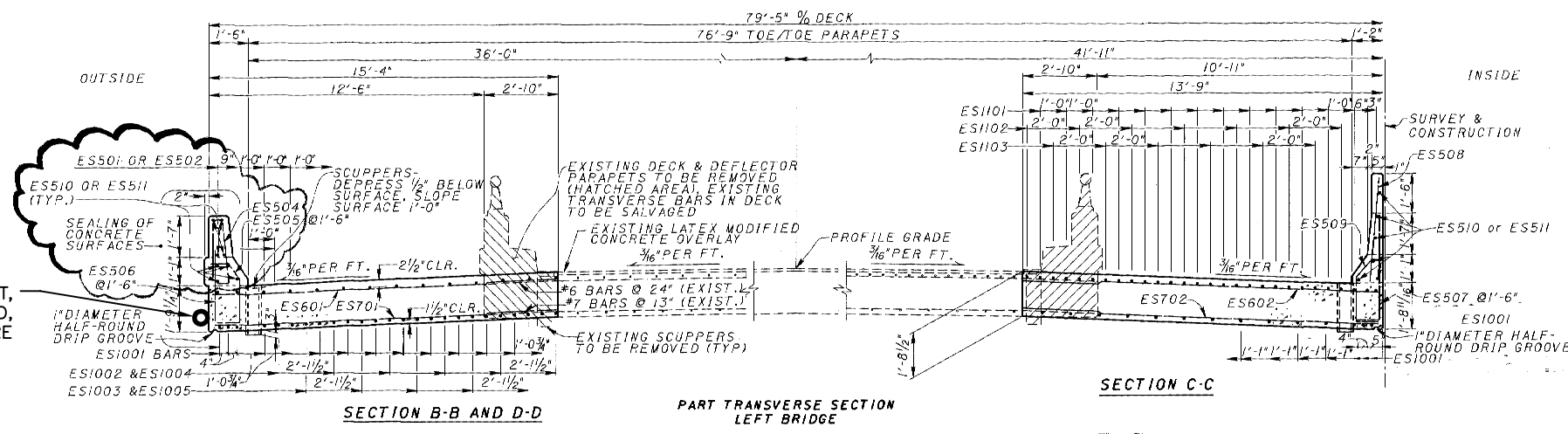
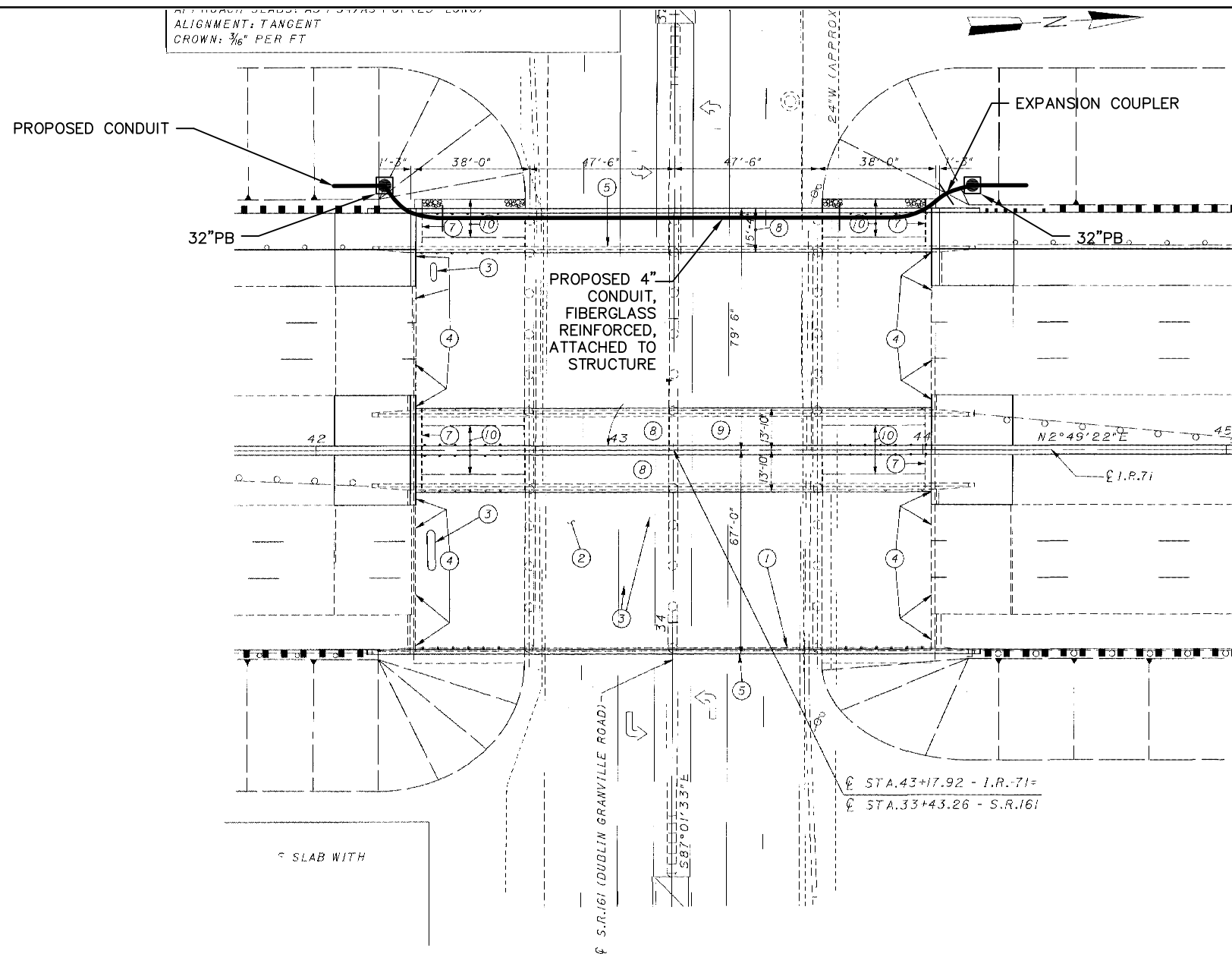
PID NUMBER  
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BRIDGE NO. FRA-71-2451R - I.R. 71 OVER MORSE ROAD  
PLAN SHEET STA. +00.00 TO +00.00

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

104A  
147

APPROACH GRADE AS SHOWN FOR RECORD  
ALIGNMENT: TANGENT  
CROWN: 1/16" PER FT



\*SHEETS 101-116 WERE TAKEN FROM ODOT RECORD PLANS AND ARE ONLY TO BE USED TO SHOW PROPOSED LOCATIONS OF CONDUIT, HANGERS AND EXPANSION COUPLINGS ON BRIDGE STRUCTURES AS NEEDED.

REFER TO SHEET 9 FOR CONDUIT ATTACHED TO STRUCTURE DETAILS

REFER TO SHEET 44 FOR PLAN SHEET

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PID NUMBER  
82540

BRIDGE NO. FRA-71-2646 - I-71 OVER S.R. 161  
STRUCTURE FILE NO. 2508257

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

CONSTRUCTION AS-BUILT  
**2643DR.E**

105  
147

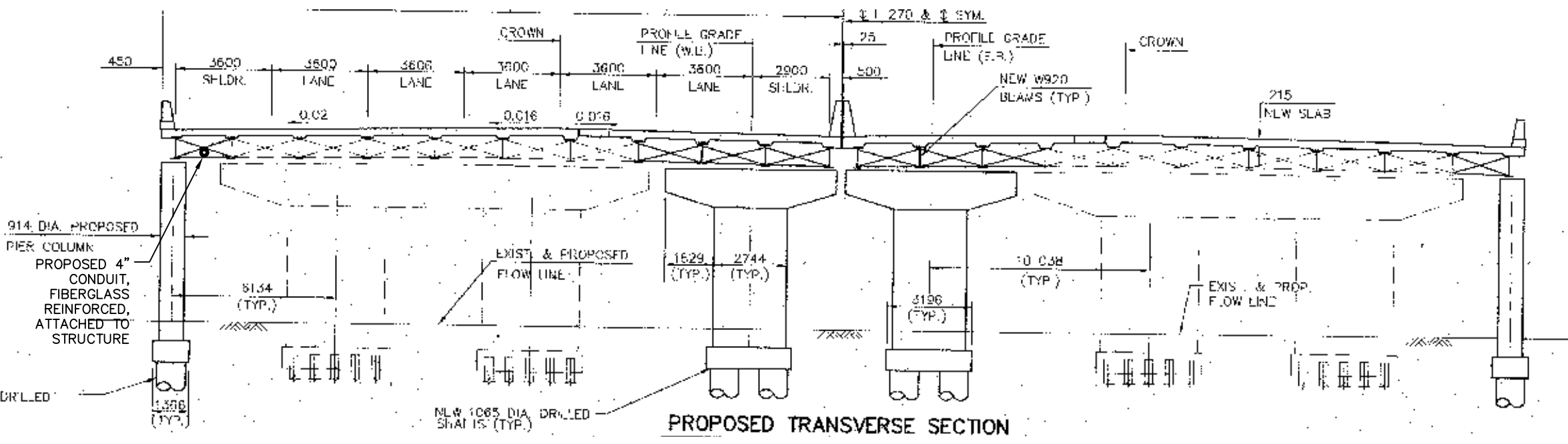
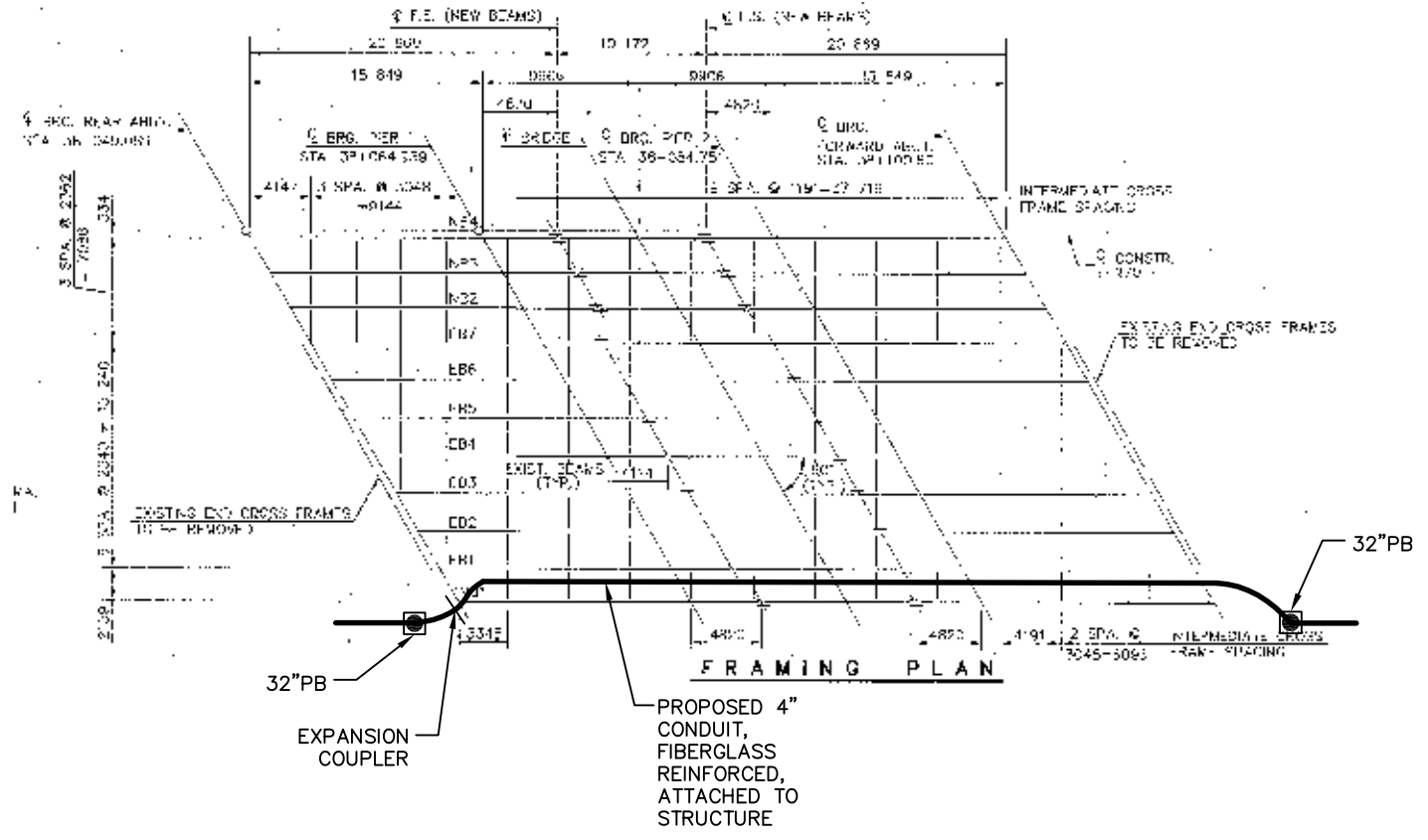


PID NUMBER  
82540

BRIDGE NO. FRA-270-2801 - I-270 OVER ALUM CREEK  
STRUCTURE FILE NO. 2511657

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

106  
147



\*SHEETS 101-116 WERE TAKEN FROM ODOT RECORD PLANS AND ARE ONLY TO BE USED TO SHOW PROPOSED LOCATIONS OF CONDUIT, HANGERS AND EXPANSION COUPLINGS ON BRIDGE STRUCTURES AS NEEDED.

REFER TO SHEET 9 FOR CONDUIT ATTACHED TO STRUCTURE DETAILS

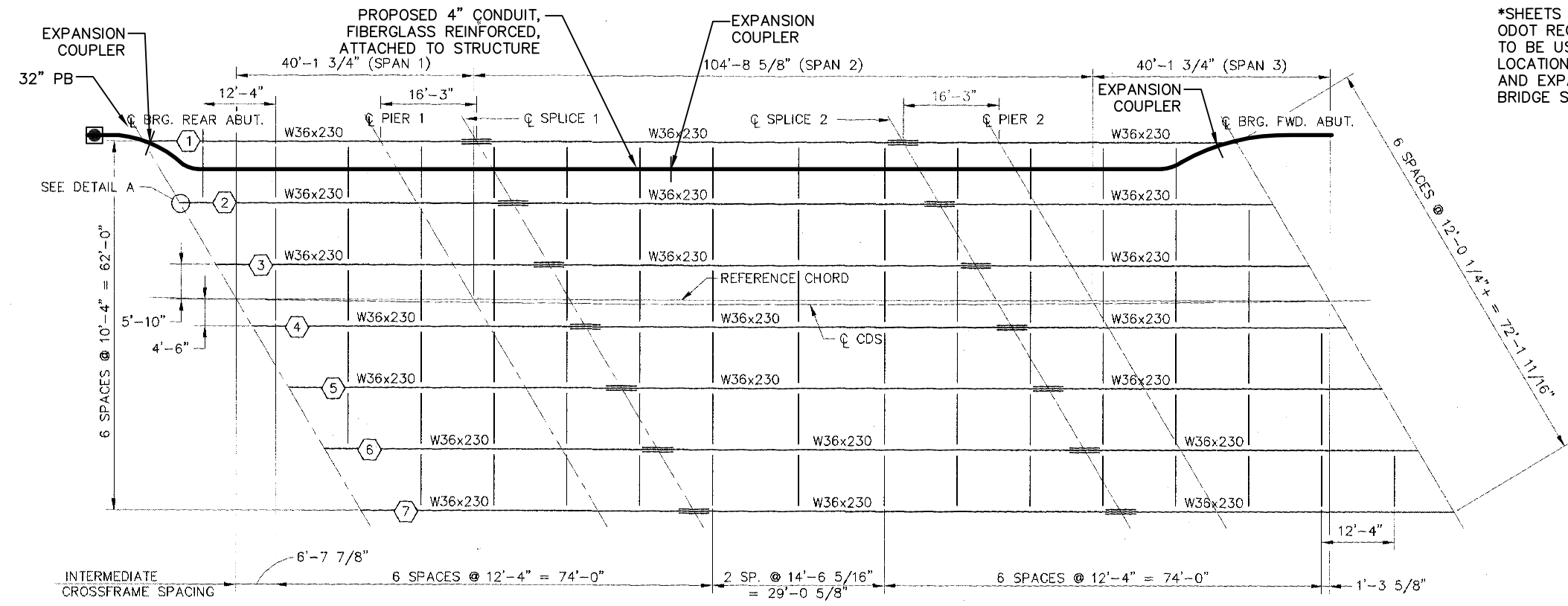
REFER TO SHEET 66 FOR PLAN SHEET

CONSTRUCTION AS-BUILT  
**2643DR.E**

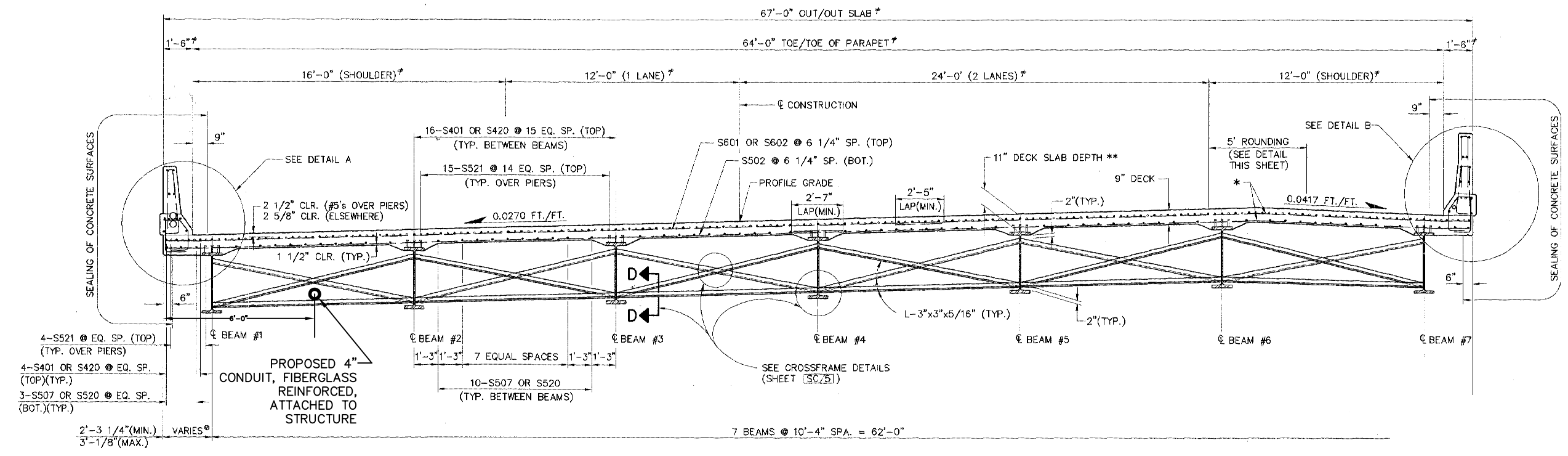
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\*SHEETS 101-116 WERE TAKEN FROM ODOT RECORD PLANS AND ARE ONLY TO BE USED TO SHOW PROPOSED LOCATIONS OF CONDUIT, HANGERS AND EXPANSION COUPLINGS ON BRIDGE STRUCTURES AS NEEDED.



**FRAMING PLAN**



**DECK TRANSVERSE SECTION**

REFER TO SHEET 9 FOR CONDUIT ATTACHED TO STRUCTURE DETAILS  
REFER TO SHEET 69 FOR PLAN SHEET

PID NUMBER  
82540

BRIDGE NO. FRA-270-3141 - I-270 OVER SUNBURY ROAD  
STRUCTURE FILE NO. 2511983 - SB

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

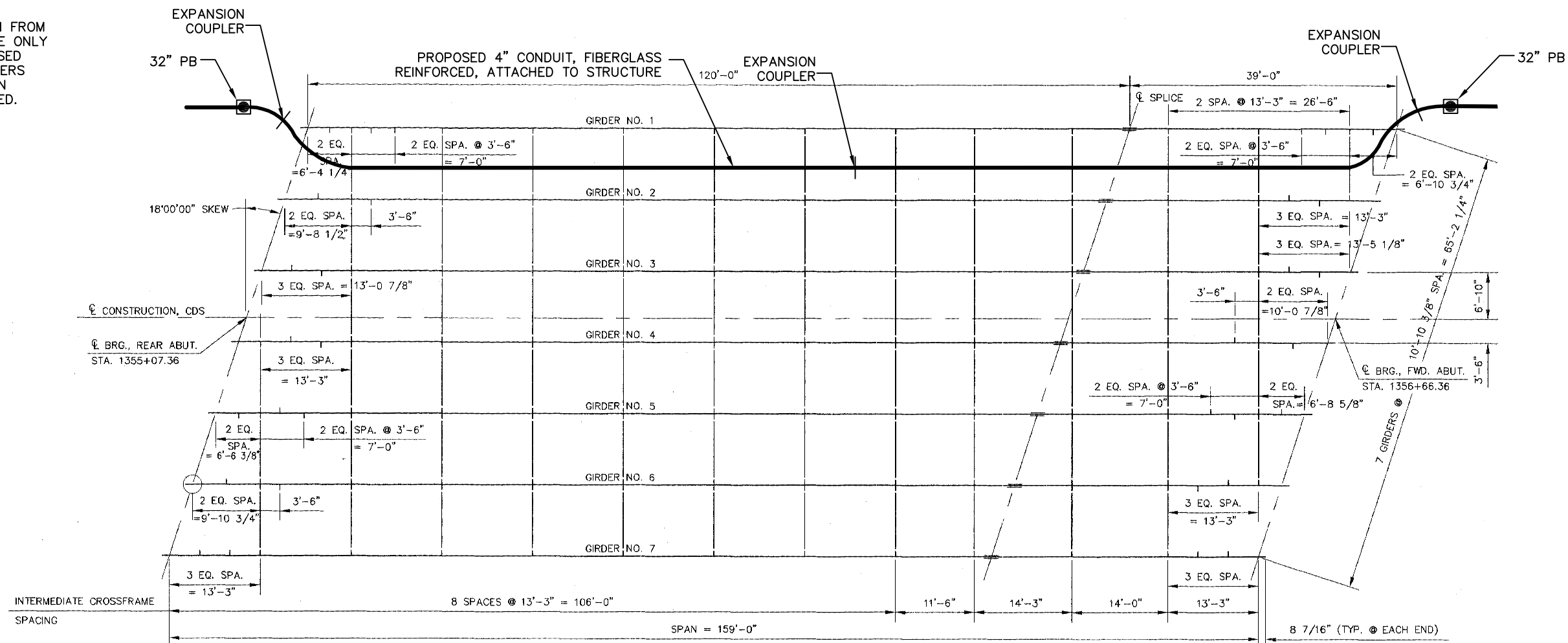
CONSTRUCTION AS-BUILT  
**2643DR.E**

107  
147

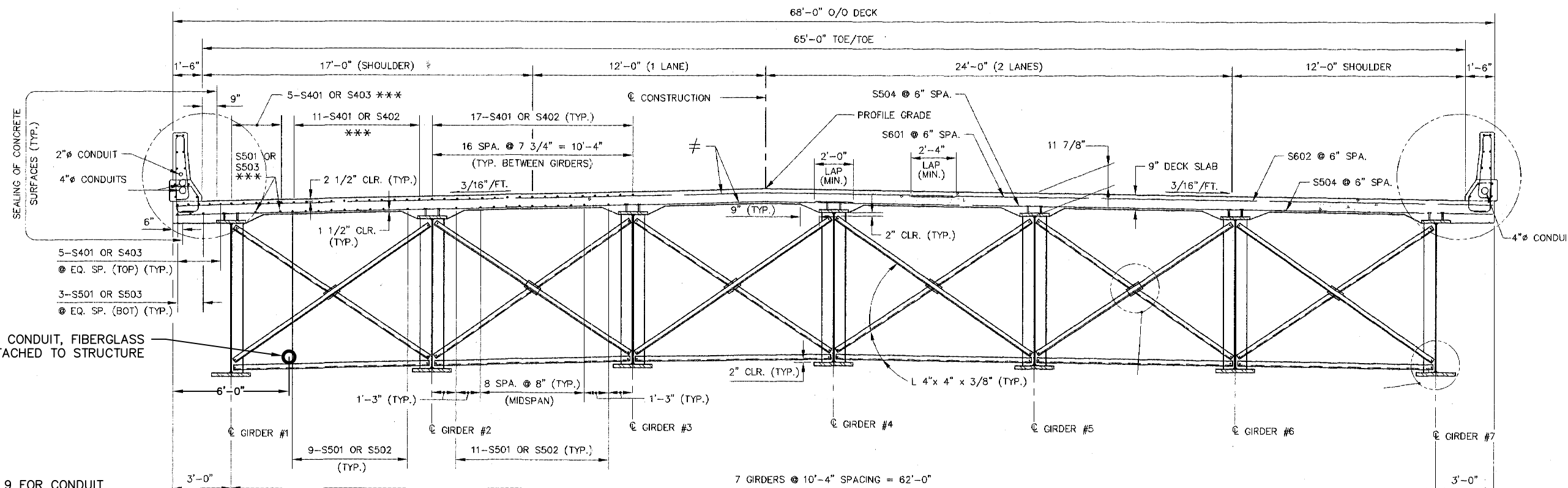
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\*SHEETS 101-116 WERE TAKEN FROM ODOT RECORD PLANS AND ARE ONLY TO BE USED TO SHOW PROPOSED LOCATIONS OF CONDUIT, HANGERS AND EXPANSION COUPLINGS ON BRIDGE STRUCTURES AS NEEDED.



FRAMING PLAN



TRANSVERSE SECTION (LOOKING STATION AHEAD)

REFER TO SHEET 9 FOR CONDUIT ATTACHED TO STRUCTURE DETAILS  
REFER TO SHEET 70 FOR PLAN SHEET

TRANSVERSE BARS BENT IN FIELD TO MATCH ROADWAY CROSS-SLOPE

CONSTRUCTION AS-BUILT  
2643DR.E



PID NUMBER  
82540

BRIDGE NO. FRA-270-3224 - I-270 OVER MORSE ROAD  
STRUCTURE FILE NO. 2512238 - SB

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM (CTSS) PHASE A

108  
147

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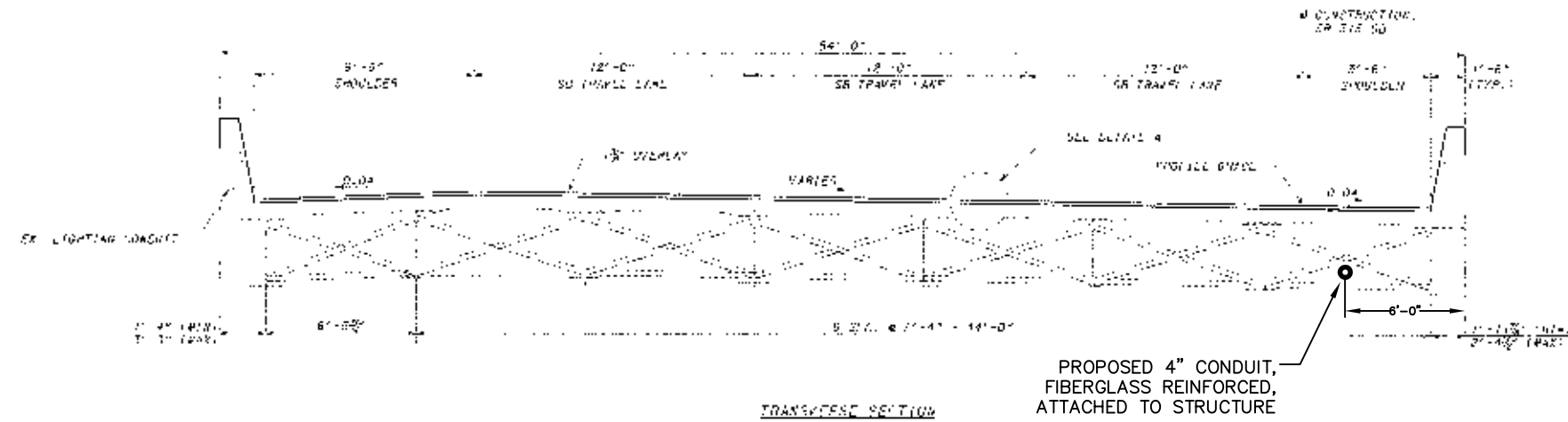
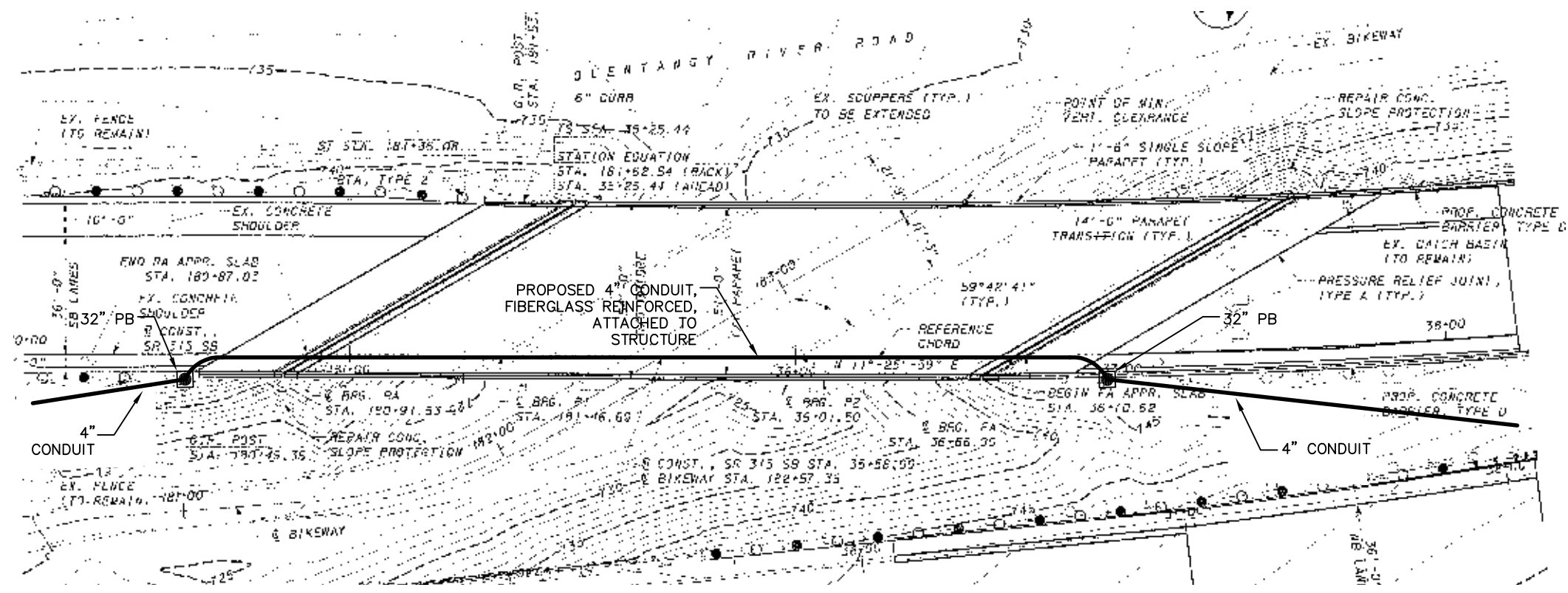


PID NUMBER  
82540

BRIDGE NO. FRA-315-0254 - S.R. 315 OVER BIKE PATH  
STRUCTURE FILE NO. 2515326

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

110  
147



\*SHEETS 101-116 WERE TAKEN FROM ODOT RECORD PLANS AND ARE ONLY TO BE USED TO SHOW PROPOSED LOCATIONS OF CONDUIT, HANGERS AND EXPANSION COUPLINGS ON BRIDGE STRUCTURES AS NEEDED.

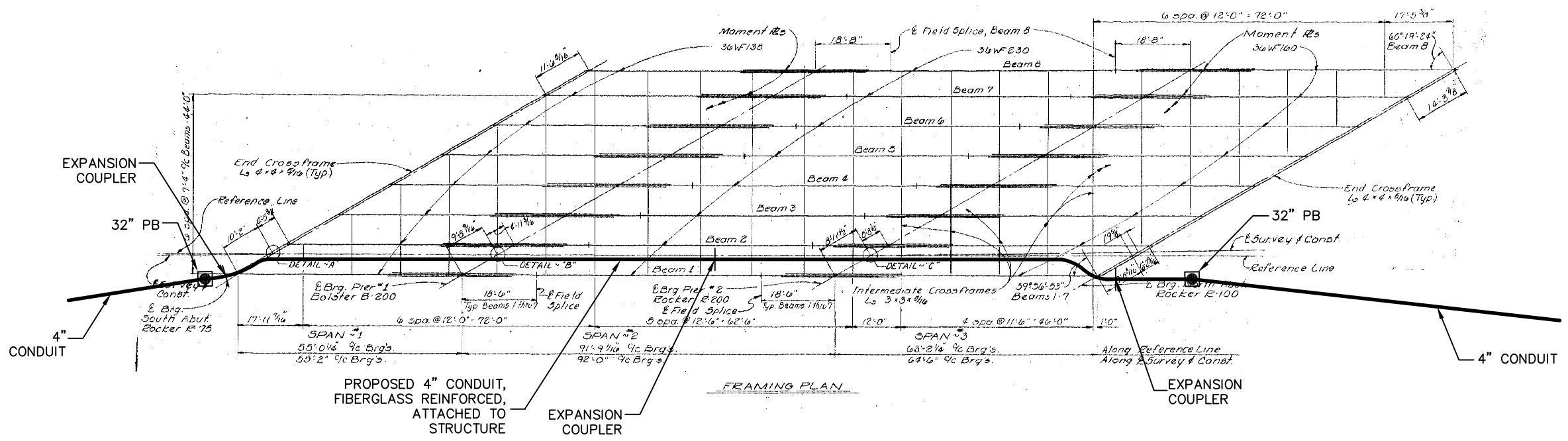
REFER TO SHEET 9 FOR CONDUIT ATTACHED TO STRUCTURE DETAILS

REFER TO SHEET 81 FOR PLAN SHEET

CONSTRUCTION AS-BUILT  
2643DR.E

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FRAMING PLAN

\*SHEETS 101-116 WERE TAKEN FROM ODOT RECORD PLANS AND ARE ONLY TO BE USED TO SHOW PROPOSED LOCATIONS OF CONDUIT, HANGERS AND EXPANSION COUPLINGS ON BRIDGE STRUCTURES AS NEEDED.

REFER TO SHEET 9 FOR CONDUIT ATTACHED TO STRUCTURE DETAILS

REFER TO SHEET 81 FOR PLAN SHEET

CONSTRUCTION AS-BUILT  
**2643DR.E**



PID NUMBER  
 82540

BRIDGE NO. FRA-315-0254 - S.R. 315 OVER BIKE PATH  
 STRUCTURE FILE NO. 2515326

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
 (CTSS) PHASE A

110A  
 147

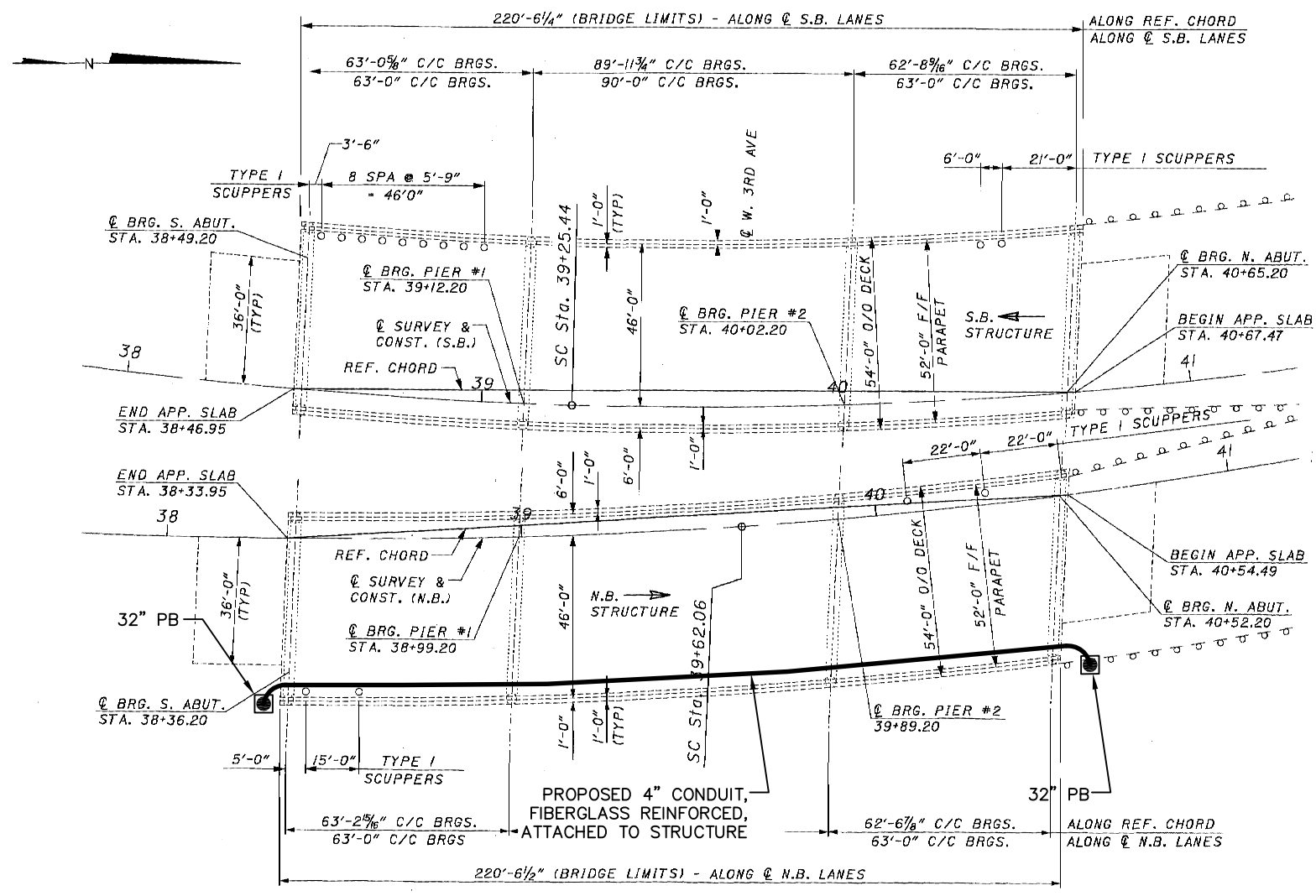


PID NUMBER  
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BRIDGE NO. FRA-315-0261 - S.R. 315 OVER THIRD AVENUE  
STRUCTURE FILE NO. 2515369

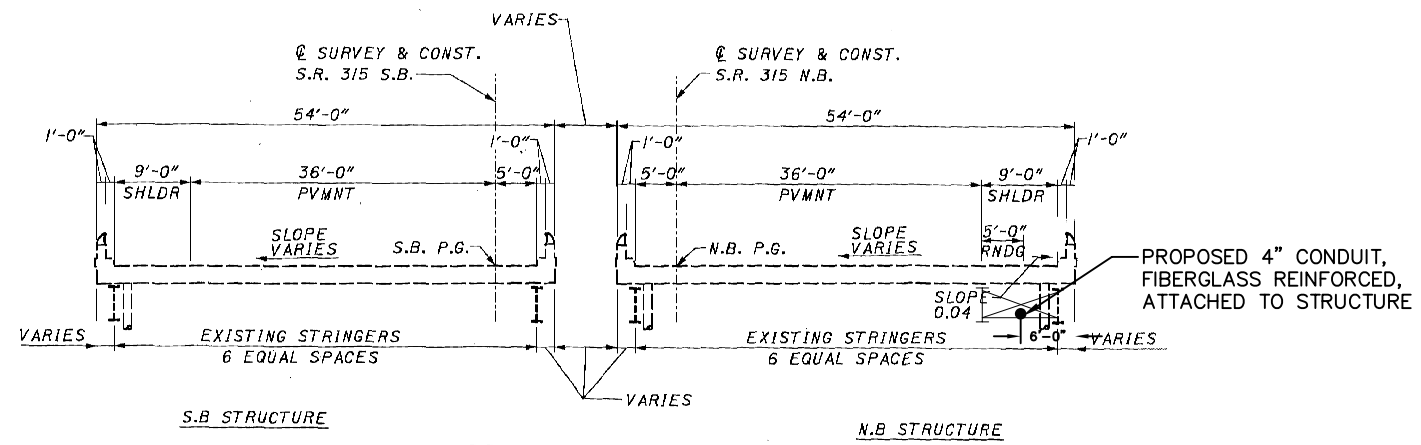
CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

111  
147



PLAN

(NOTE: ALL DIMENSIONS AND STATIONS ARE ±)



BRIDGE: FRA-315-0261

\*SHEETS 101-116 WERE TAKEN FROM ODOT RECORD PLANS AND ARE ONLY TO BE USED TO SHOW PROPOSED LOCATIONS OF CONDUIT, HANGERS AND EXPANSION COUPLINGS ON BRIDGE STRUCTURES AS NEEDED.

REFER TO SHEET 9 FOR CONDUIT ATTACHED TO STRUCTURE DETAILS

REFER TO SHEET 81 FOR PLAN SHEET

CONSTRUCTION AS-BUILT  
2643DR.E

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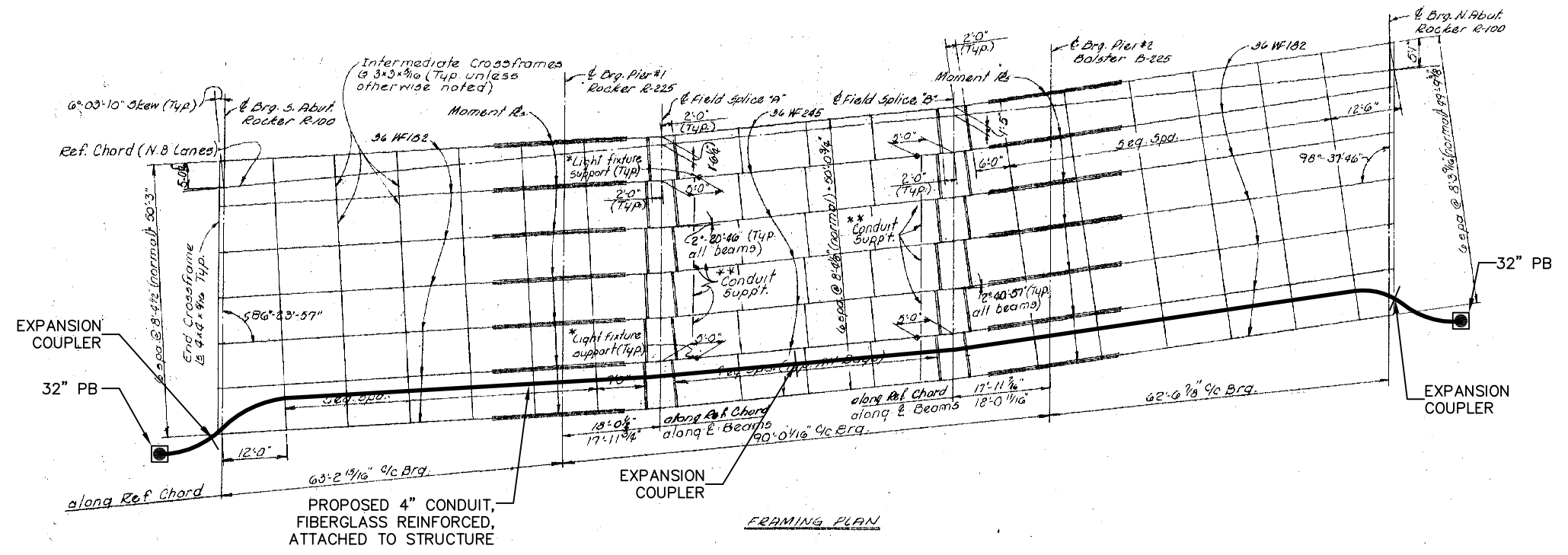


PID NUMBER  
82540

BRIDGE NO. FRA-315-0261 - S.R. 315 OVER THIRD AVENUE  
STRUCTURE FILE NO. 2515369

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

111A  
147



PROPOSED 4" CONDUIT,  
FIBERGLASS REINFORCED,  
ATTACHED TO STRUCTURE

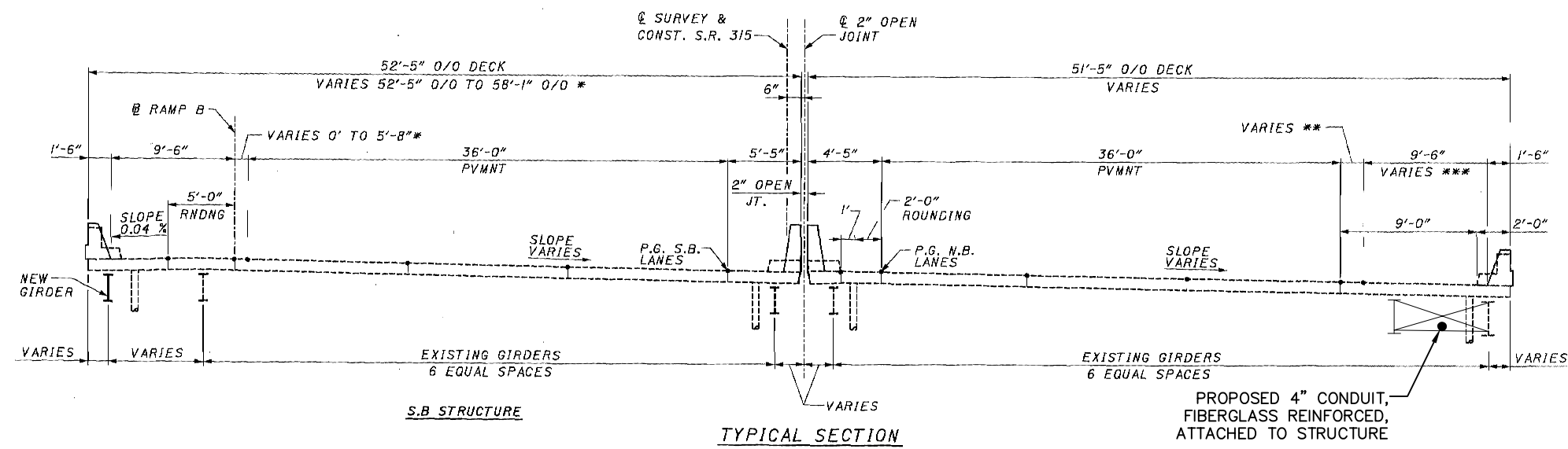
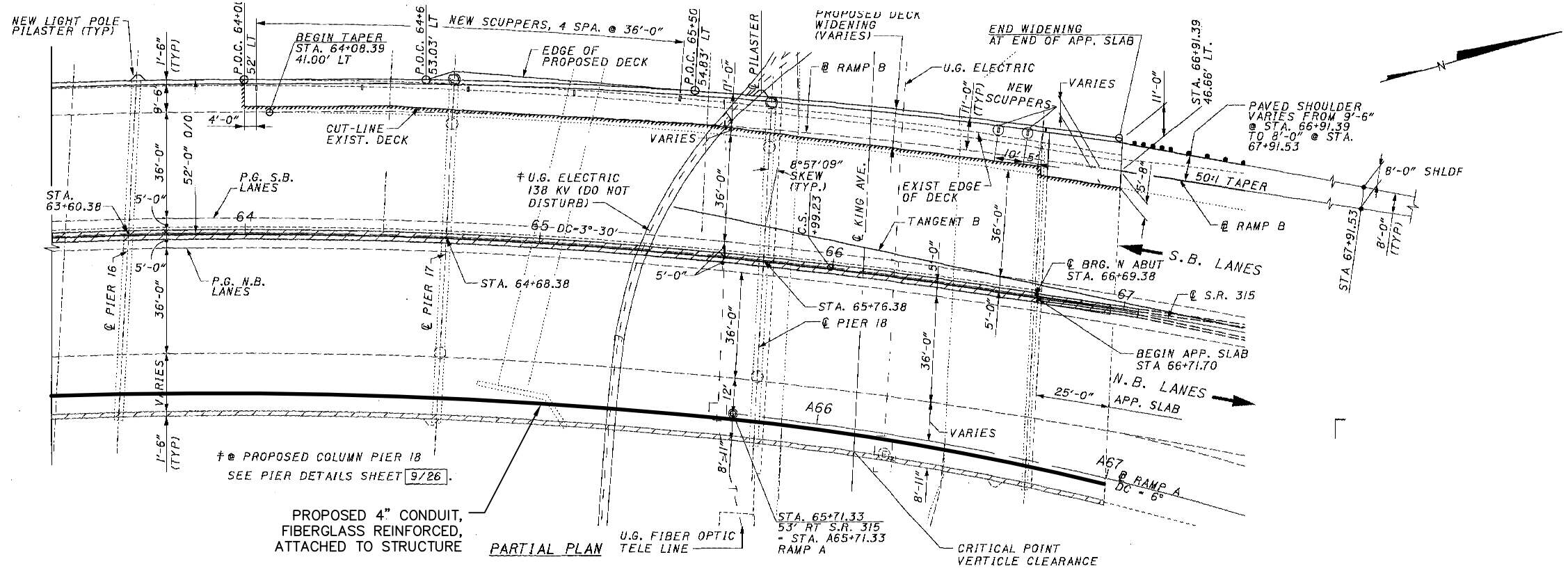
\*SHEETS 101-116 WERE TAKEN FROM  
ODOT RECORD PLANS AND ARE ONLY  
TO BE USED TO SHOW PROPOSED  
LOCATIONS OF CONDUIT, HANGERS  
AND EXPANSION COUPLINGS ON  
BRIDGE STRUCTURES AS NEEDED.

REFER TO SHEET 9 FOR CONDUIT  
ATTACHED TO STRUCTURE DETAILS

REFER TO SHEET 81 FOR PLAN SHEET

CONSTRUCTION AS-BUILT  
**2643DR.E**

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\*SHEETS 101-116 WERE TAKEN FROM ODOT RECORD PLANS AND ARE ONLY TO BE USED TO SHOW PROPOSED LOCATIONS OF CONDUIT, HANGERS AND EXPANSION COUPLINGS ON BRIDGE STRUCTURES AS NEEDED.

REFER TO SHEET 9 FOR CONDUIT ATTACHED TO STRUCTURE DETAILS

REFER TO SHEET 82 FOR PLAN SHEET

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PID NUMBER  
82540

BRIDGE NO. FRA-315-0278 - S.R. 315 OVER FIFTH AVENUE  
STRUCTURE FILE NO. 2515393

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

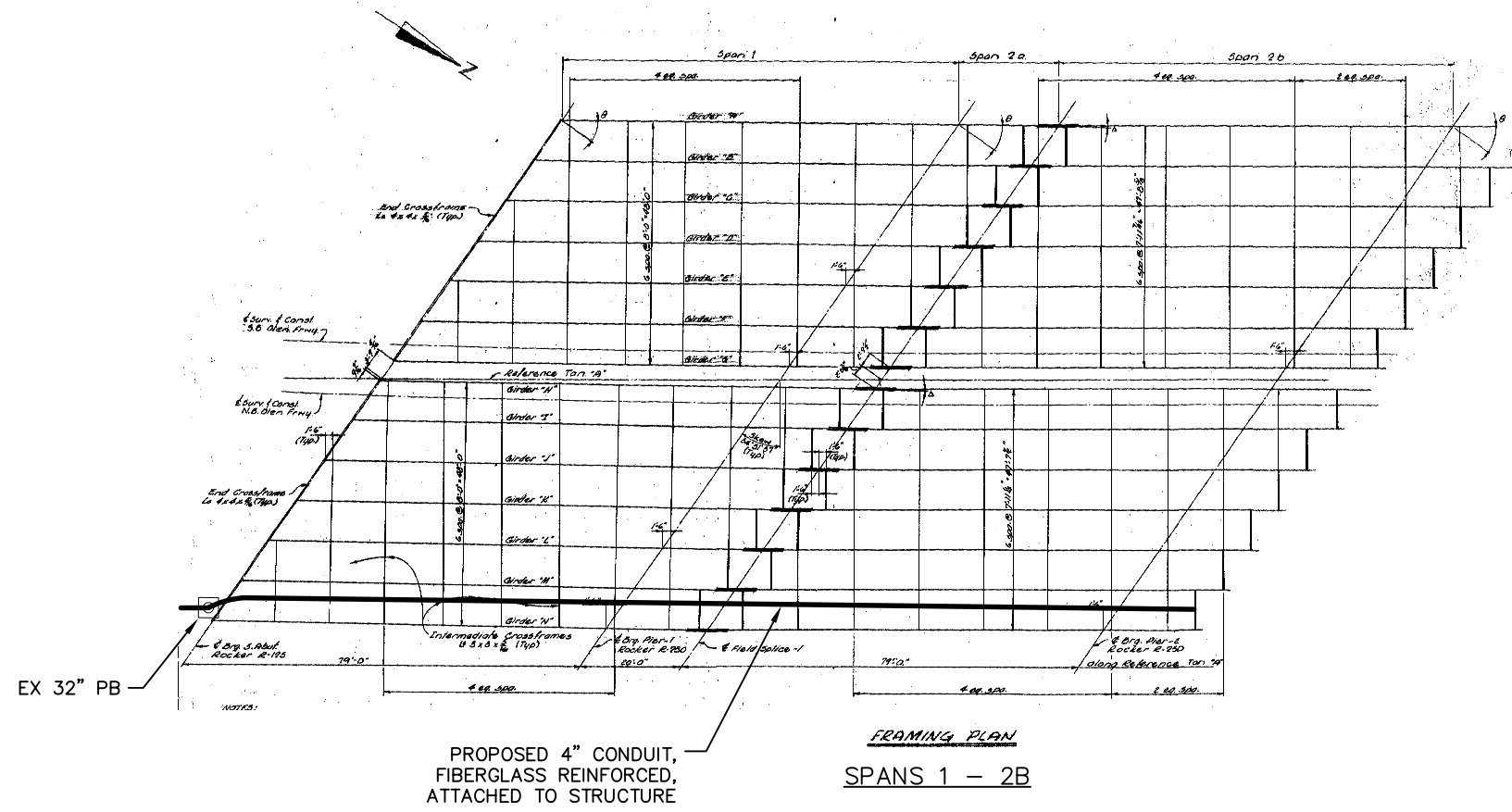


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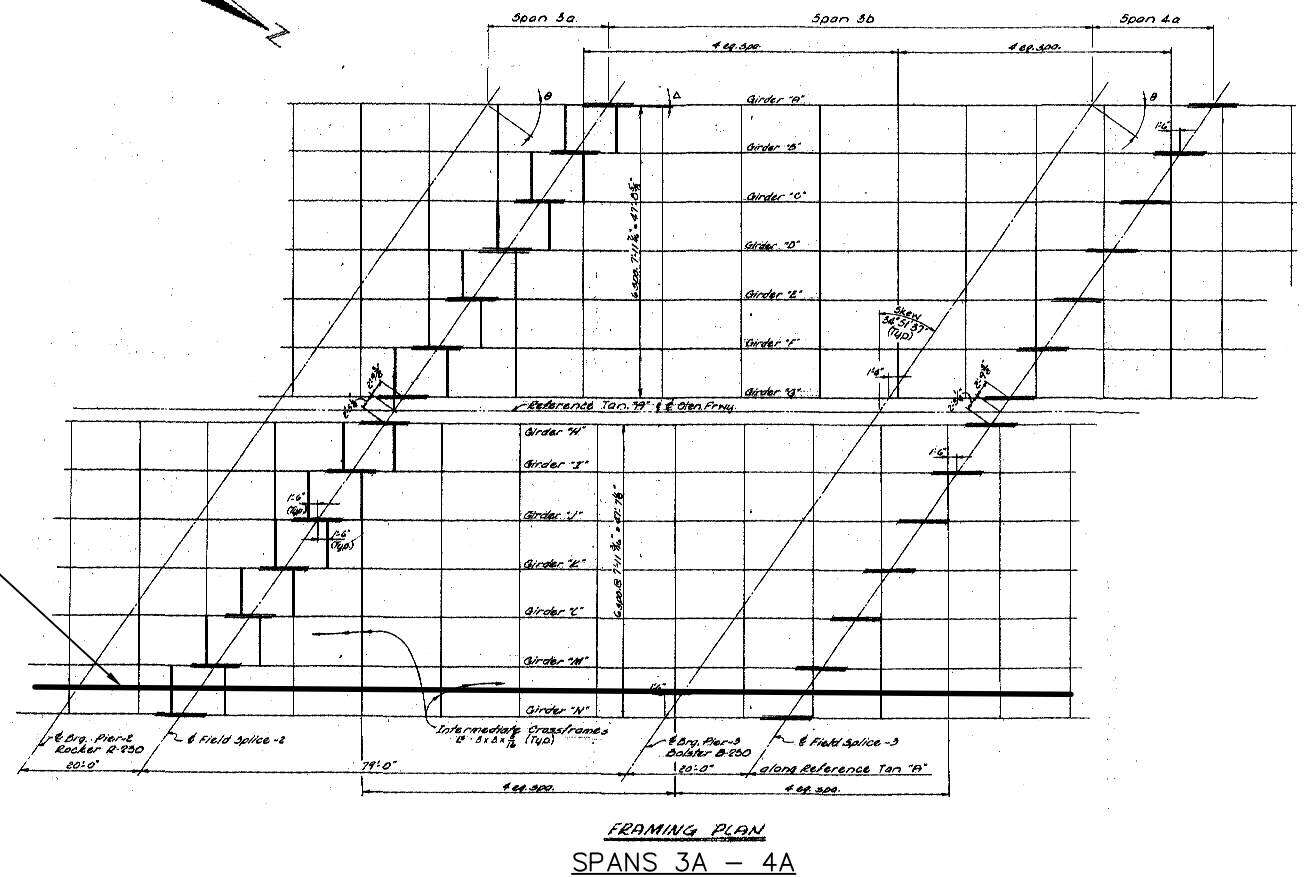
BRIDGE NO. FRA-315-0278 - S.R. 315 OVER FIFTH AVENUE  
STRUCTURE FILE NO. 2515393

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

112A  
147



PROPOSED 4" CONDUIT,  
FIBERGLASS REINFORCED,  
ATTACHED TO STRUCTURE



\*SHEETS 101-116 WERE TAKEN FROM  
ODOT RECORD PLANS AND ARE ONLY  
TO BE USED TO SHOW PROPOSED  
LOCATIONS OF CONDUIT, HANGERS  
AND EXPANSION COUPLINGS ON  
BRIDGE STRUCTURES AS NEEDED.

REFER TO SHEET 9 FOR CONDUIT  
ATTACHED TO STRUCTURE DETAILS

REFER TO SHEET 82 FOR PLAN SHEET

CONSTRUCTION AS-BUILT  
2643DR.E

J:\Jobs\44086\TECHPROD\Sheets\Bridge\Bridge\_315\_over\_fifth\_ave.dwg ~ last saved by: CCI, mgraf 02/13/2012 09:27am ~ printed 02/13/2012 09:29am





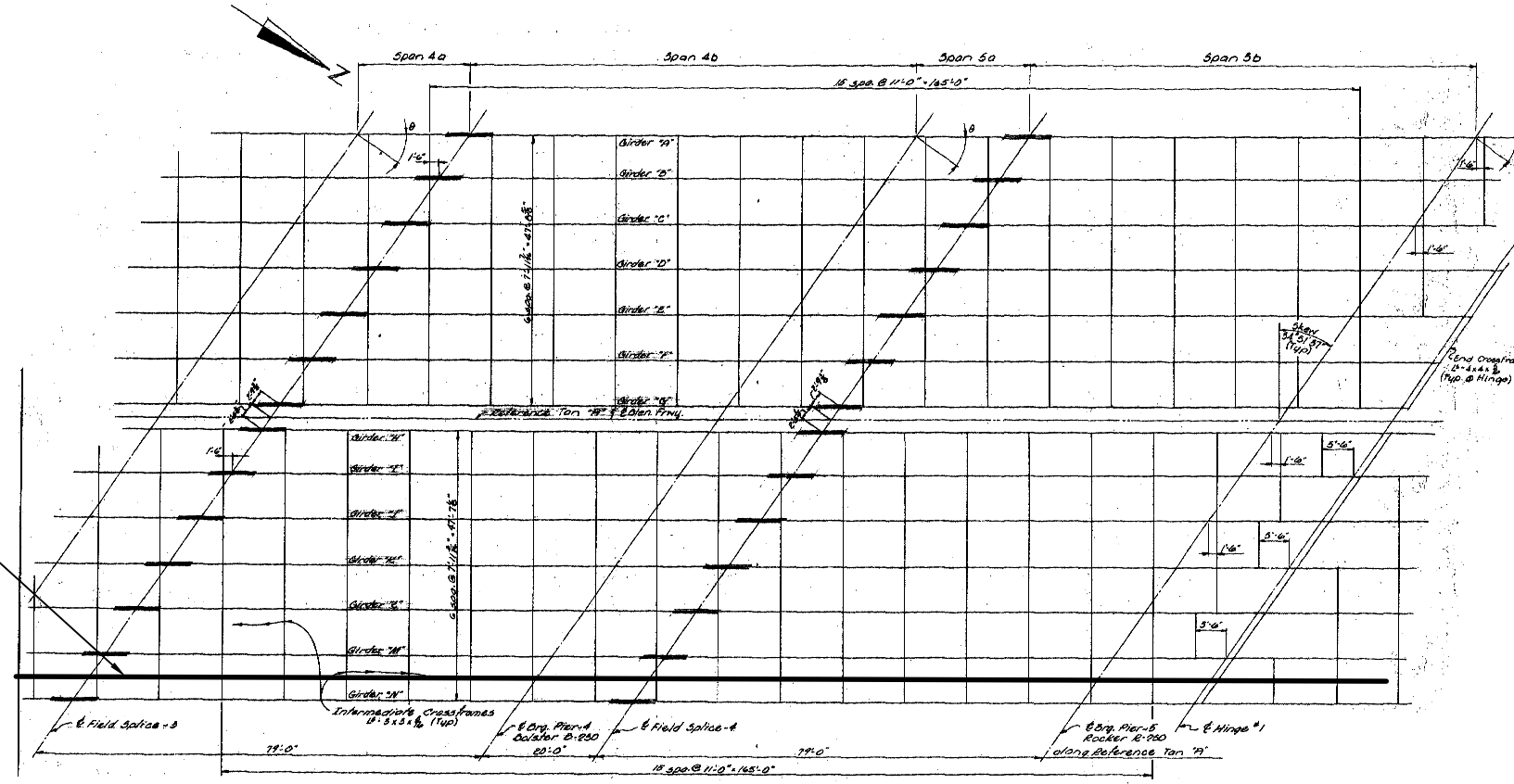
PID NUMBER  
82540

BRIDGE NO. FRA-315-0278 - S.R. 315 OVER FIFTH AVENUE  
STRUCTURE FILE NO. 2515393

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

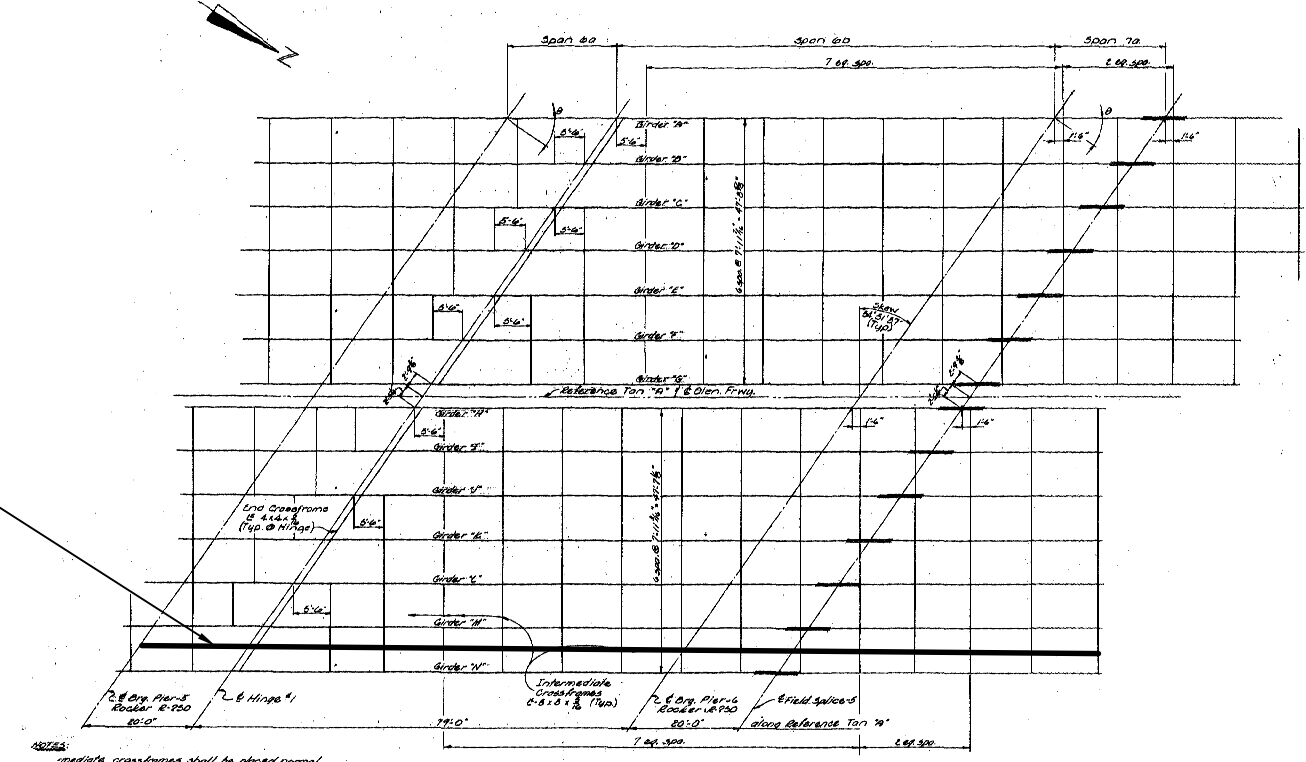
112B  
147

PROPOSED 4" CONDUIT,  
FIBERGLASS REINFORCED,  
ATTACHED TO STRUCTURE



FRAMING PLAN  
SPANS 4A - 5B

PROPOSED 4" CONDUIT,  
FIBERGLASS REINFORCED,  
ATTACHED TO STRUCTURE



FRAMING PLAN  
SPANS 6A - 7A

\*SHEETS 101-116 WERE TAKEN FROM  
ODOT RECORD PLANS AND ARE ONLY  
TO BE USED TO SHOW PROPOSED  
LOCATIONS OF CONDUIT, HANGERS  
AND EXPANSION COUPLINGS ON  
BRIDGE STRUCTURES AS NEEDED.

REFER TO SHEET 9 FOR CONDUIT  
ATTACHED TO STRUCTURE DETAILS

REFER TO SHEET 82 FOR PLAN SHEET

CONSTRUCTION AS-BUILT  
2643DR.E

J:\Jobs\44086\TECHPROD\Sheets\Bridge\315\_over\_fifth\_ave.dwg ~ last saved by: CCI, mgraf 02/10/2012 04:37pm ~ printed 02/10/2012 04:40pm



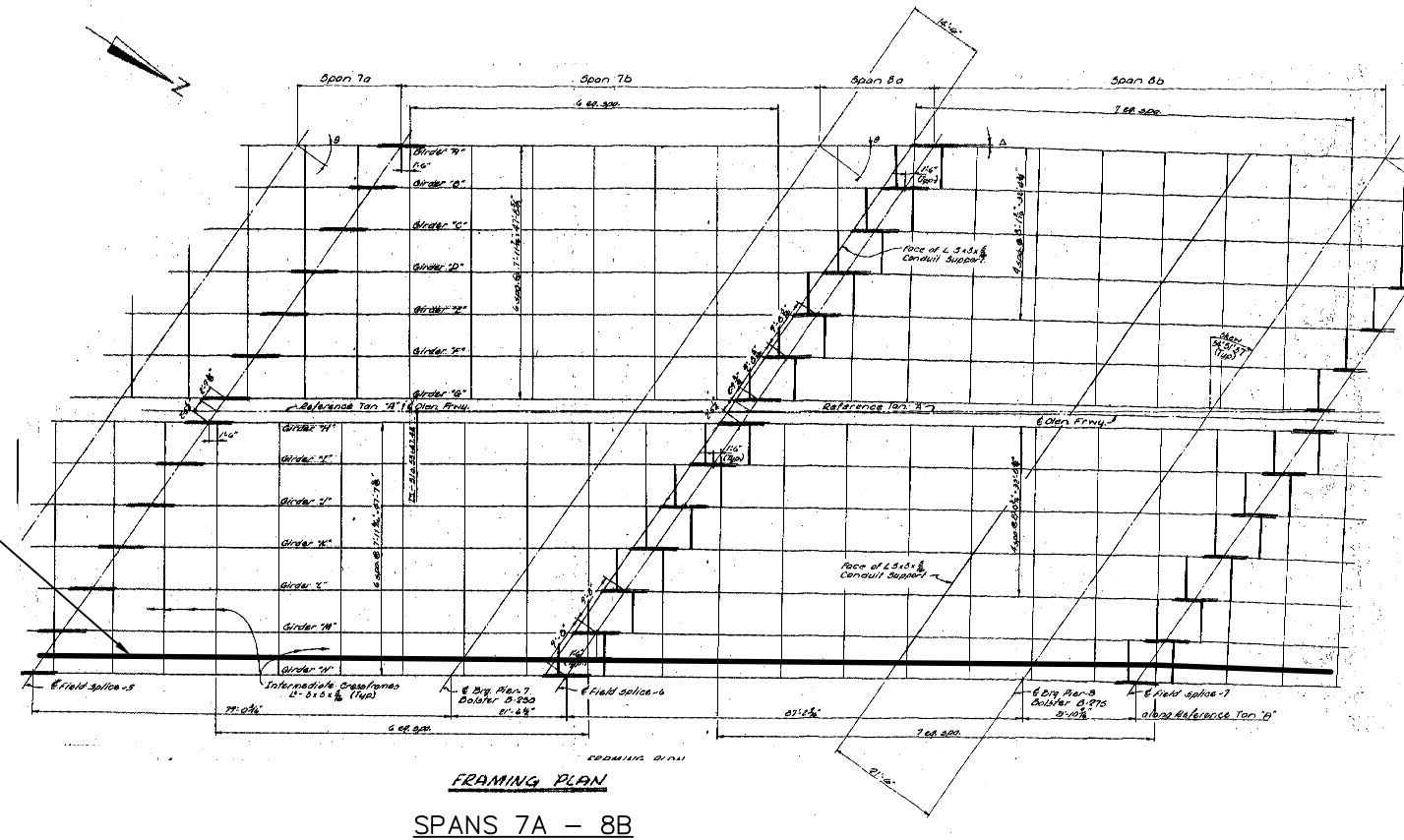
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BRIDGE NO. FRA-315-0278 - S.R. 315 OVER FIFTH AVENUE  
STRUCTURE FILE NO. 2515393

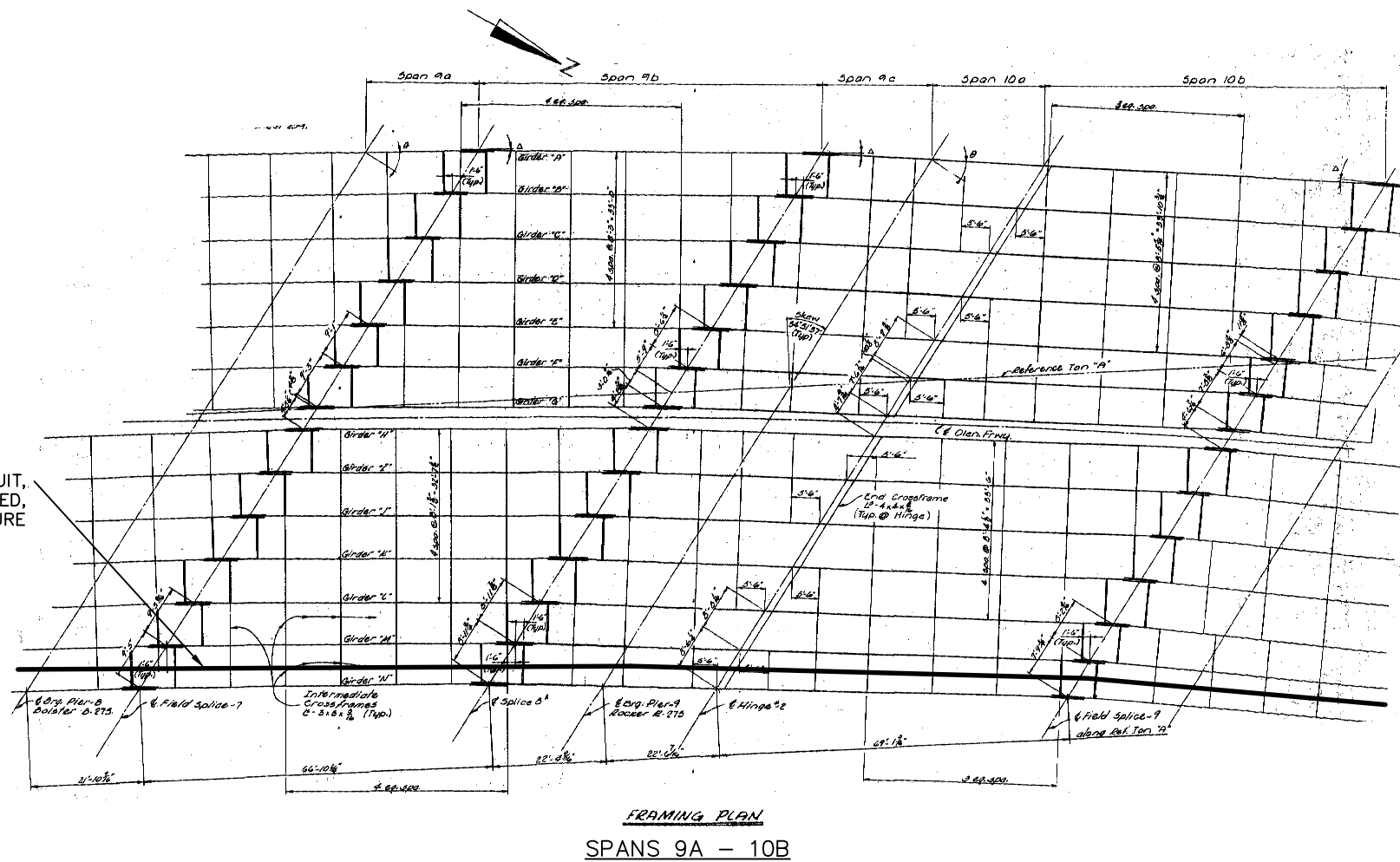
CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

112C  
147

PROPOSED 4" CONDUIT,  
FIBERGLASS REINFORCED,  
ATTACHED TO STRUCTURE



PROPOSED 4" CONDUIT,  
FIBERGLASS REINFORCED,  
ATTACHED TO STRUCTURE



\*SHEETS 101-116 WERE TAKEN FROM  
ODOT RECORD PLANS AND ARE ONLY  
TO BE USED TO SHOW PROPOSED  
LOCATIONS OF CONDUIT, HANGERS  
AND EXPANSION COUPLINGS ON  
BRIDGE STRUCTURES AS NEEDED.

REFER TO SHEET 9 FOR CONDUIT  
ATTACHED TO STRUCTURE DETAILS

REFER TO SHEET 82 FOR PLAN SHEET

CONSTRUCTION AS-BUILT  
**2643DR.E**



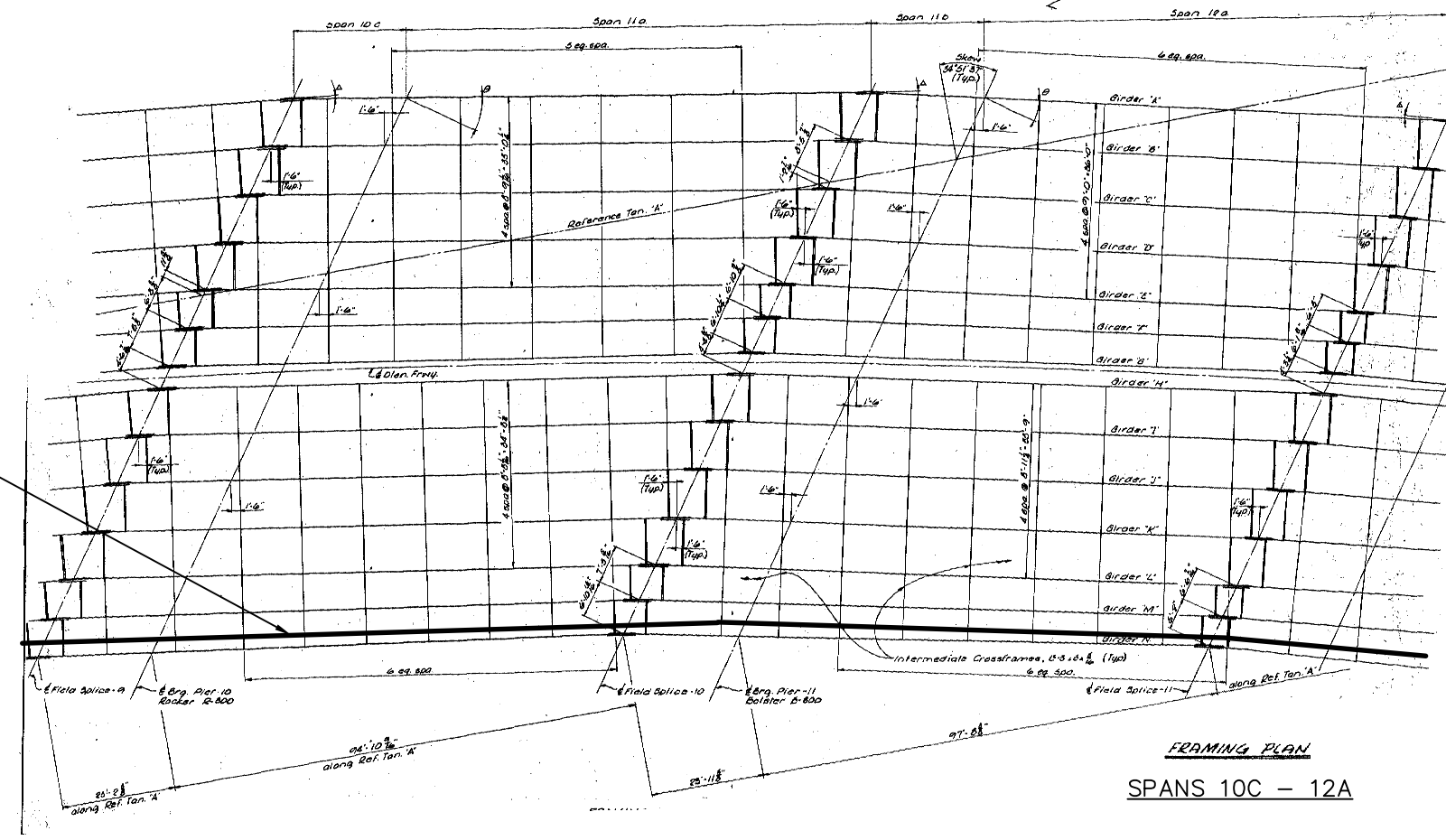
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BRIDGE NO. FRA-315-0278 - S.R. 315 OVER FIFTH AVENUE  
STRUCTURE FILE NO. 2515393

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

112D  
147

PROPOSED 4" CONDUIT,  
FIBERGLASS REINFORCED,  
ATTACHED TO STRUCTURE



PROPOSED 4" CONDUIT,  
FIBERGLASS REINFORCED,  
ATTACHED TO STRUCTURE



\*SHEETS 101-116 WERE TAKEN FROM  
ODOT RECORD PLANS AND ARE ONLY  
TO BE USED TO SHOW PROPOSED  
LOCATIONS OF CONDUIT, HANGERS  
AND EXPANSION COUPLINGS ON  
BRIDGE STRUCTURES AS NEEDED.

REFER TO SHEET 9 FOR CONDUIT  
ATTACHED TO STRUCTURE DETAILS

REFER TO SHEET 82 FOR PLAN SHEET

CONSTRUCTION AS-BUILT  
**2643DR.E**

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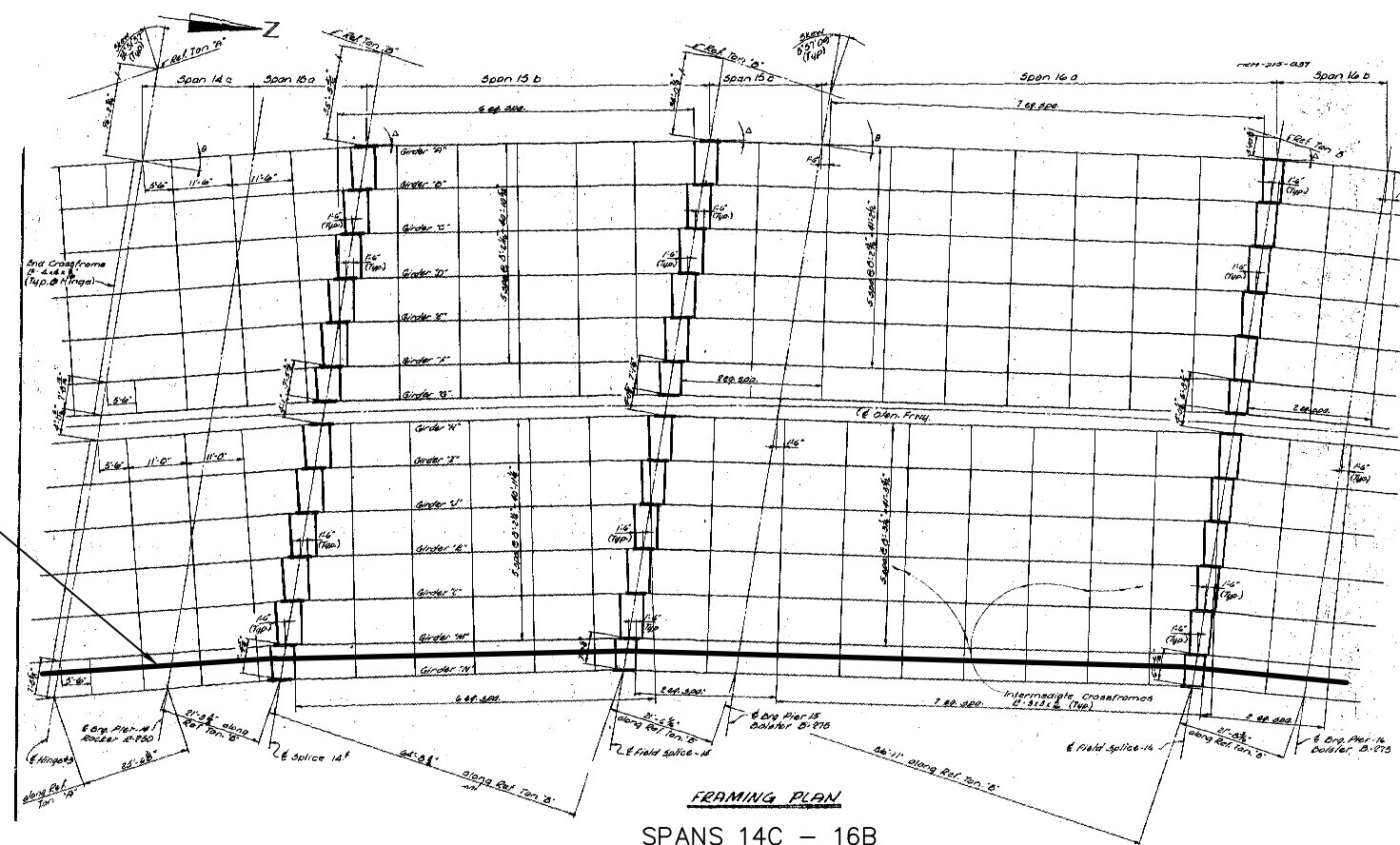
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BRIDGE NO. FRA-315-0278 - S.R. 315 OVER FIFTH AVENUE  
STRUCTURE FILE NO. 2515393

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

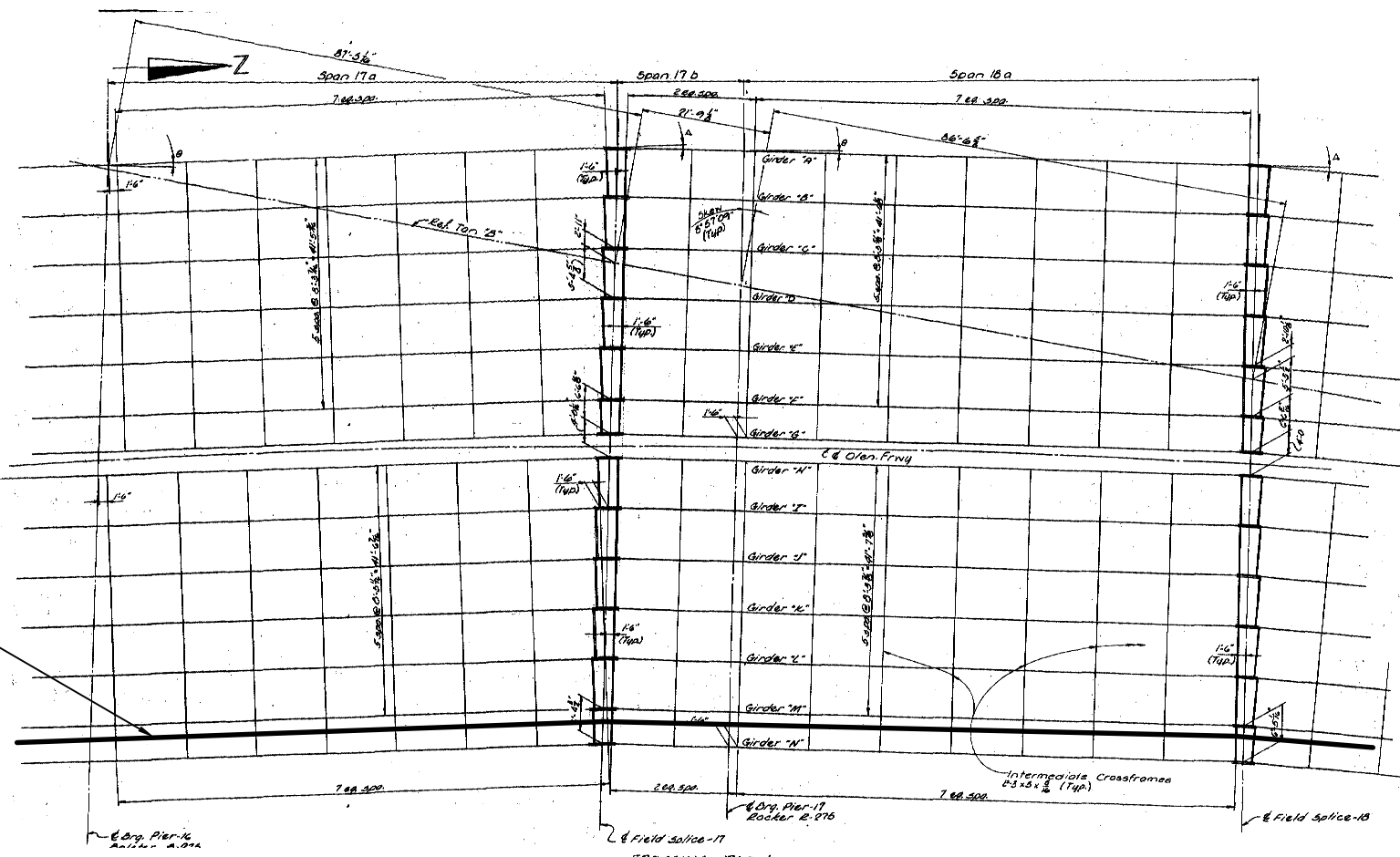
112E  
147

PROPOSED 4" CONDUIT,  
FIBERGLASS REINFORCED,  
ATTACHED TO STRUCTURE



FRAMING PLAN  
SPANS 14C - 16B

PROPOSED 4" CONDUIT,  
FIBERGLASS REINFORCED,  
ATTACHED TO STRUCTURE



FRAMING PLAN  
SPANS 17A - 18A

\*SHEETS 101-116 WERE TAKEN FROM  
ODOT RECORD PLANS AND ARE ONLY  
TO BE USED TO SHOW PROPOSED  
LOCATIONS OF CONDUIT, HANGERS  
AND EXPANSION COUPLINGS ON  
BRIDGE STRUCTURES AS NEEDED.

REFER TO SHEET 9 FOR CONDUIT  
ATTACHED TO STRUCTURE DETAILS

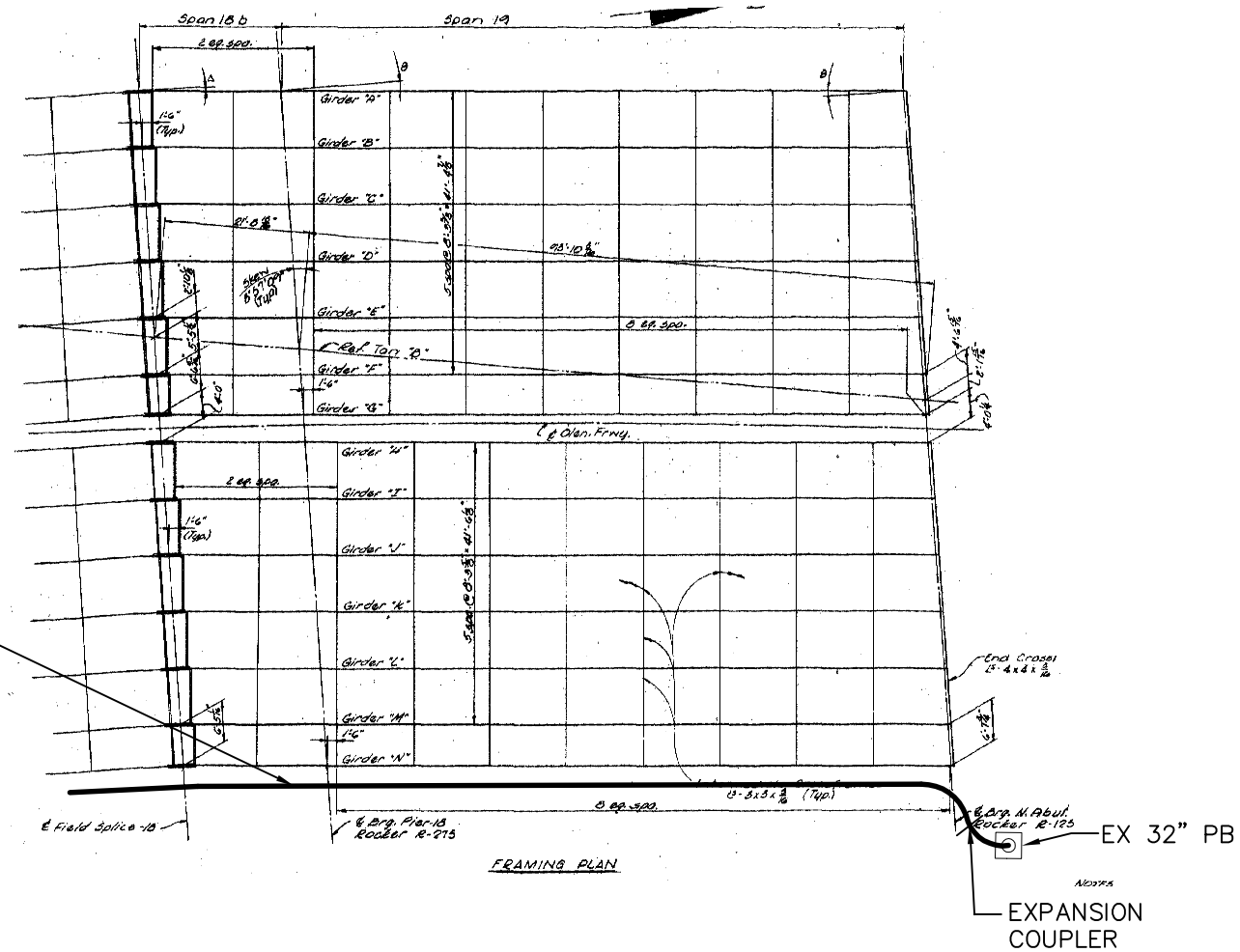
REFER TO SHEET 82 FOR PLAN SHEET

CONSTRUCTION AS-BUILT  
2643DR.E

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PROPOSED 4" CONDUIT,  
FIBERGLASS REINFORCED,  
ATTACHED TO STRUCTURE



SPANS 18B - 19B

\*SHEETS 101-116 WERE TAKEN FROM  
ODOT RECORD PLANS AND ARE ONLY  
TO BE USED TO SHOW PROPOSED  
LOCATIONS OF CONDUIT, HANGERS  
AND EXPANSION COUPLINGS ON  
BRIDGE STRUCTURES AS NEEDED.

REFER TO SHEET 9 FOR CONDUIT  
ATTACHED TO STRUCTURE DETAILS

REFER TO SHEET 82 FOR PLAN SHEET

CONSTRUCTION AS-BUILT  
**2643DR.E**



PID NUMBER  
82540

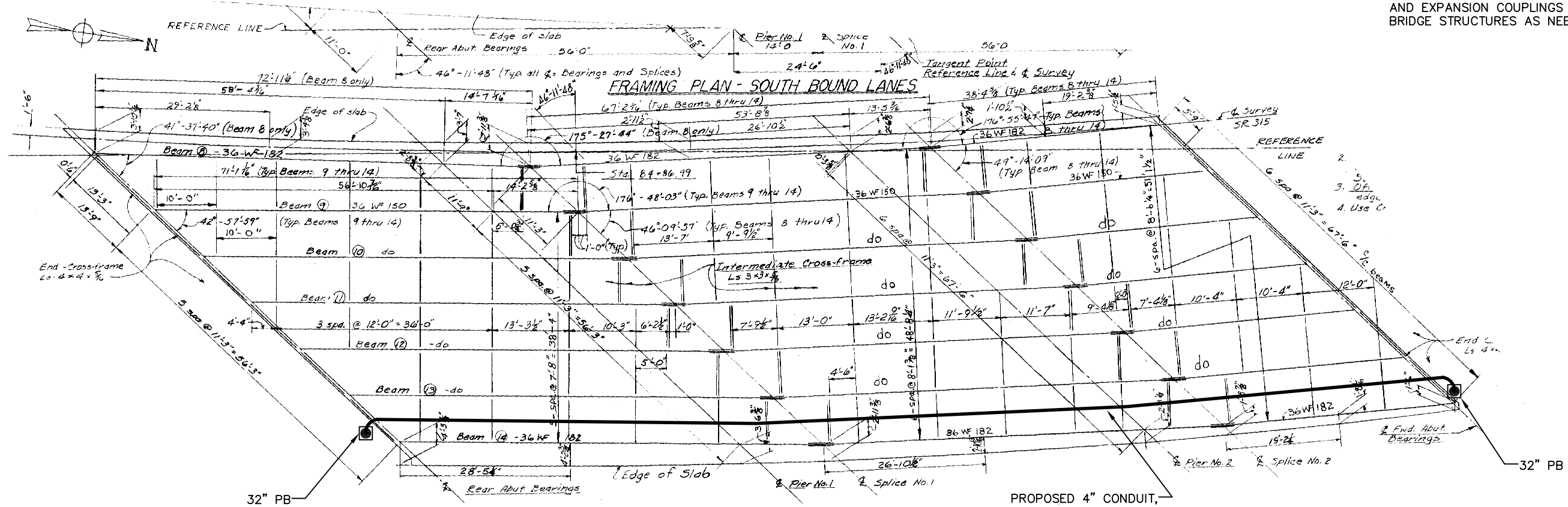
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STRUCTURE FILE NO. 2515393

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

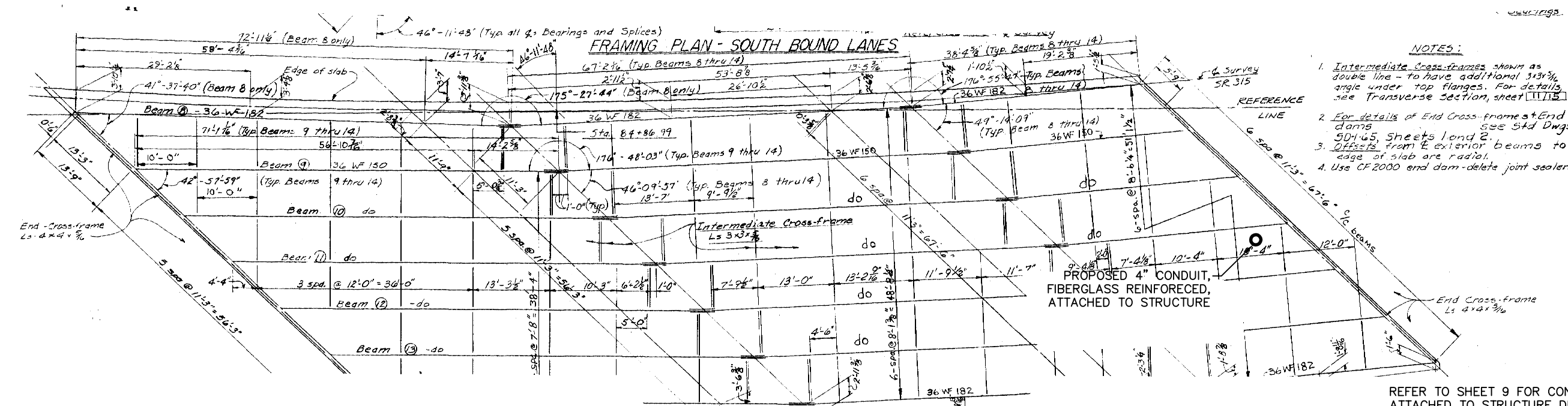
112F  
147



\*SHEETS 101-116 WERE TAKEN FROM ODOT RECORD PLANS AND ARE ONLY TO BE USED TO SHOW PROPOSED LOCATIONS OF CONDUIT, HANGERS AND EXPANSION COUPLINGS ON BRIDGE STRUCTURES AS NEEDED.



FRAMING PLAN - NORTH BOUND LANES  
 (See Southbound Lanes for dimensions & location of Reference Line)



- NOTES:
1. Intermediate cross-frames shown as double line - to have additional 3/32" angle under top flanges. For details, see Transverse Section, sheet 11715
  2. For details of End Cross-frames & End dams see Std Dwg 50-1-65, sheets 1 and 2
  3. Offsets from E exterior beams to edge of slab are radial.
  4. Use CF2000 end dam-delete joint sealer.

PROPOSED 4" CONDUIT, FIBERGLASS REINFORCED, ATTACHED TO STRUCTURE

REFER TO SHEET 9 FOR CONDUIT ATTACHED TO STRUCTURE DETAILS  
 REFER TO SHEET 82 FOR PLAN SHEET

CONSTRUCTION AS-BUILT  
 2643DR.E

PID NUMBER  
 82540

BRIDGE NO. FRA-315-0304 - S.R. 315 OVER ENTRANCE RAMP  
 STRUCTURE FILE NO. 2515423

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
 (CTSS) PHASE A

113  
 147

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\*SHEETS 101-116 WERE TAKEN FROM ODOT RECORD PLANS AND ARE ONLY TO BE USED TO SHOW PROPOSED LOCATIONS OF CONDUIT, HANGERS AND EXPANSION COUPLINGS ON BRIDGE STRUCTURES AS NEEDED.

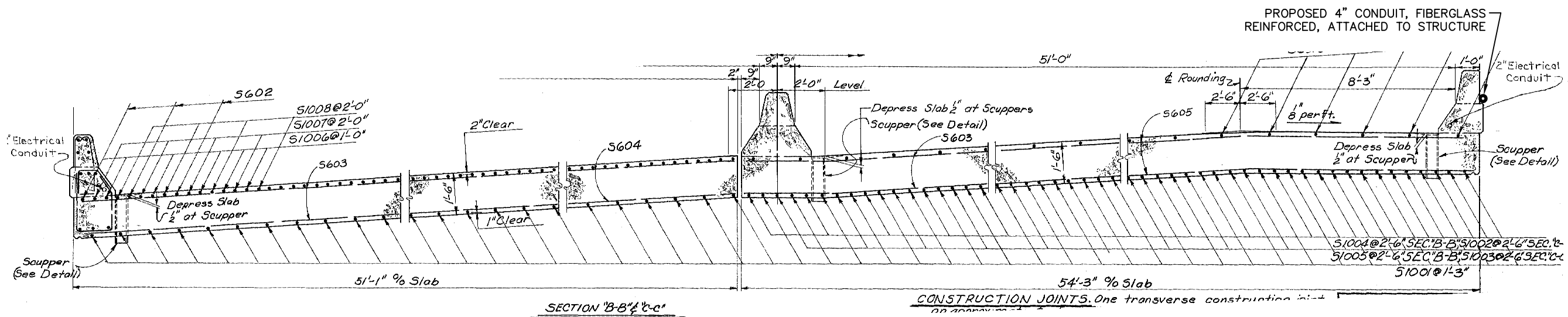
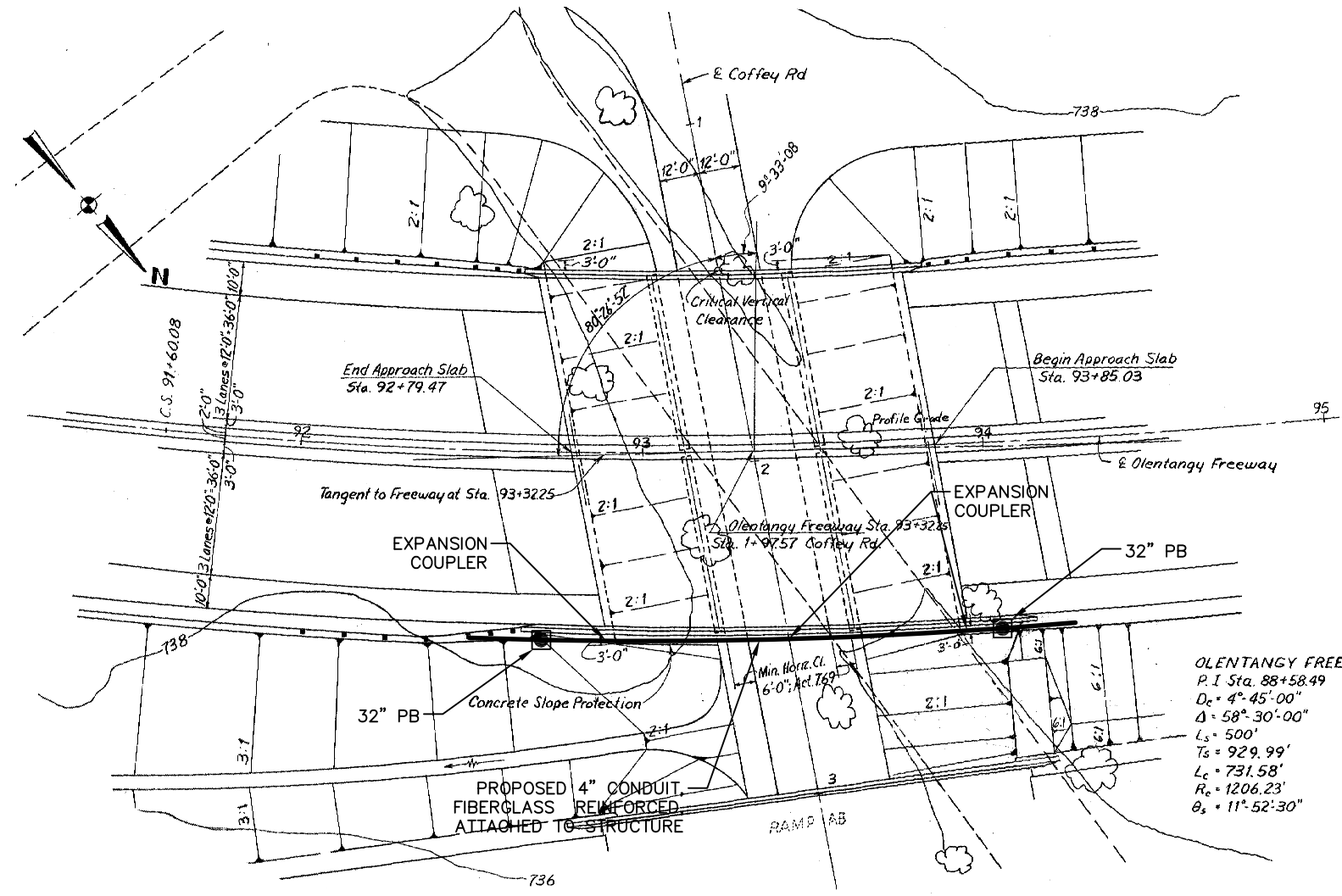


PID NUMBER  
82540

BRIDGE NO. FRA-315-0321 - S.R. 315 OVER OLENTANGY RIVER ROAD  
STRUCTURE FILE NO. 2515458

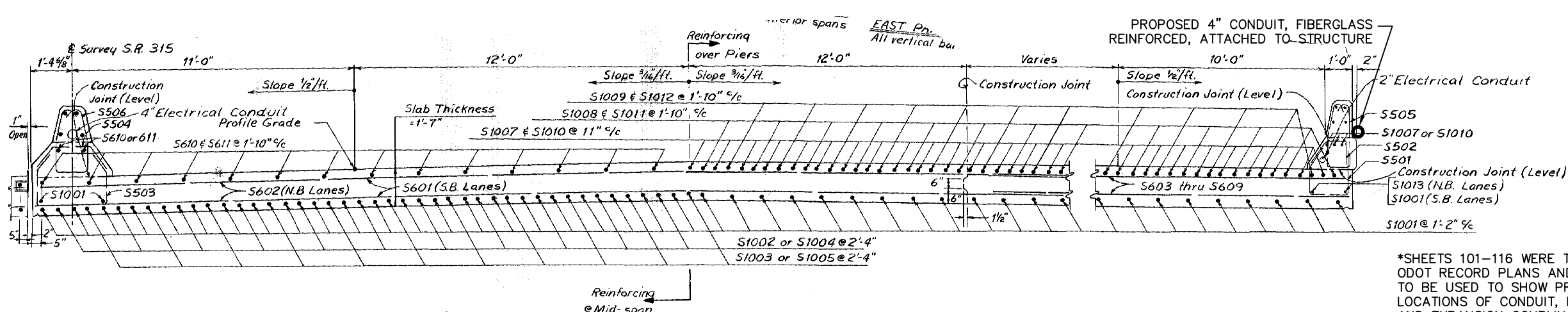
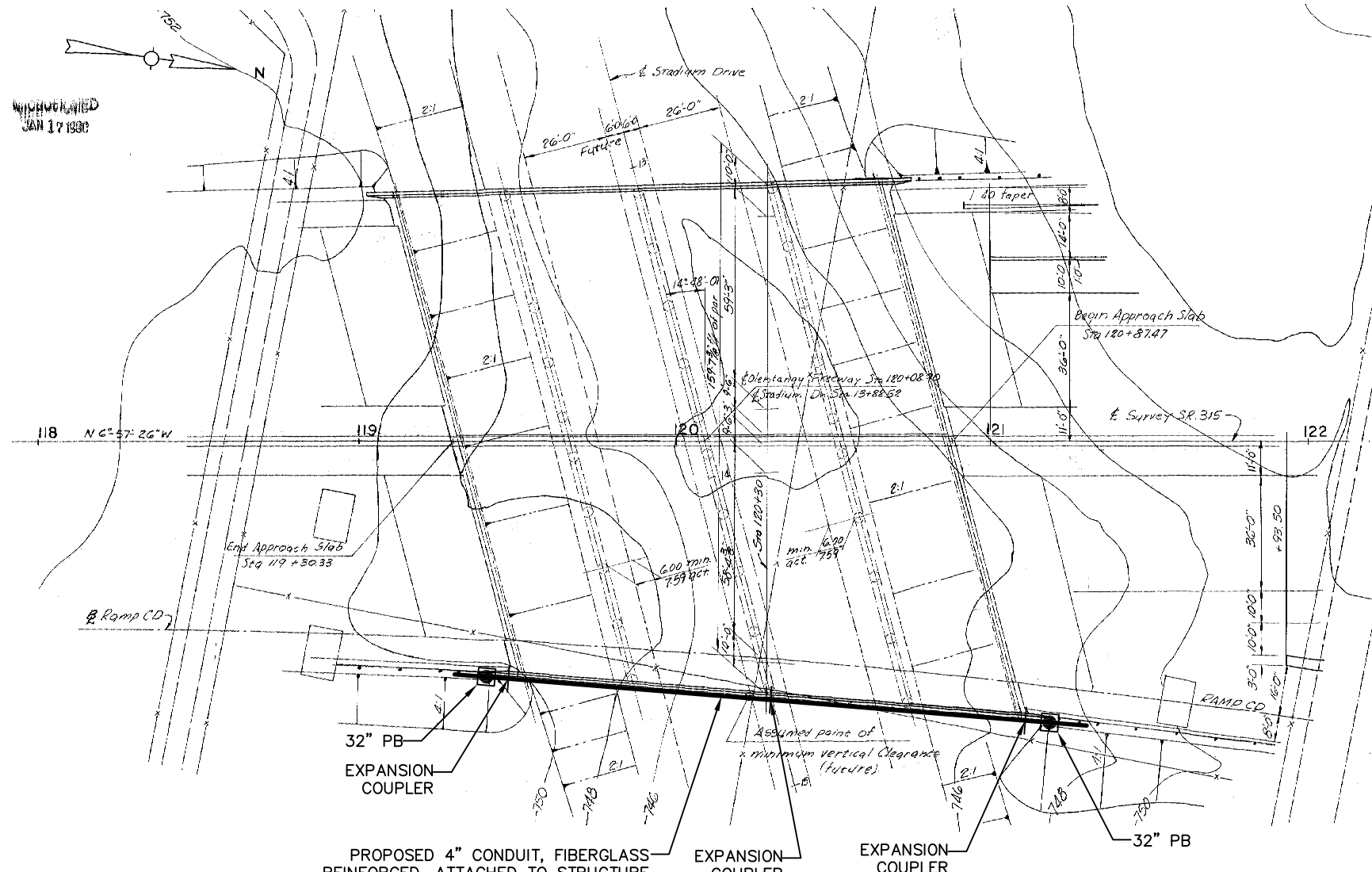
CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

114  
147



REFER TO SHEET 9 FOR CONDUIT ATTACHED TO STRUCTURE DETAILS  
REFER TO SHEET 82 FOR PLAN SHEET

CONSTRUCTION AS-BUILT  
2643DR.E



**TRANSVERSE SECTION**  
 N.B. Lanes Shown - S.B. Lanes Symmetrical about E Survey except as shown.

\*SHEETS 101-116 WERE TAKEN FROM ODOT RECORD PLANS AND ARE ONLY TO BE USED TO SHOW PROPOSED LOCATIONS OF CONDUIT, HANGERS AND EXPANSION COUPLINGS ON BRIDGE STRUCTURES AS NEEDED.

REFER TO SHEET 9 FOR CONDUIT ATTACHED TO STRUCTURE DETAILS

REFER TO SHEET 83 FOR PLAN SHEET

J:\Jobs\44086\TECHPROD\Sheets\Bridges\Bridges\315\_over\_woody\_hayes.dwg ~ last saved by: CDI, slowly 01/26/2012 01:40pm ~ printed 02/10/2012 04:40pm

UNRECORDED  
 JAN 17 1980



PID NUMBER  
 82540

BRIDGE NO. FRA-315-0371 - S.R. 315 OVER WOODY HAYES AVENUE  
 STRUCTURE FILE NO. 2515512

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
 (CTSS) PHASE A

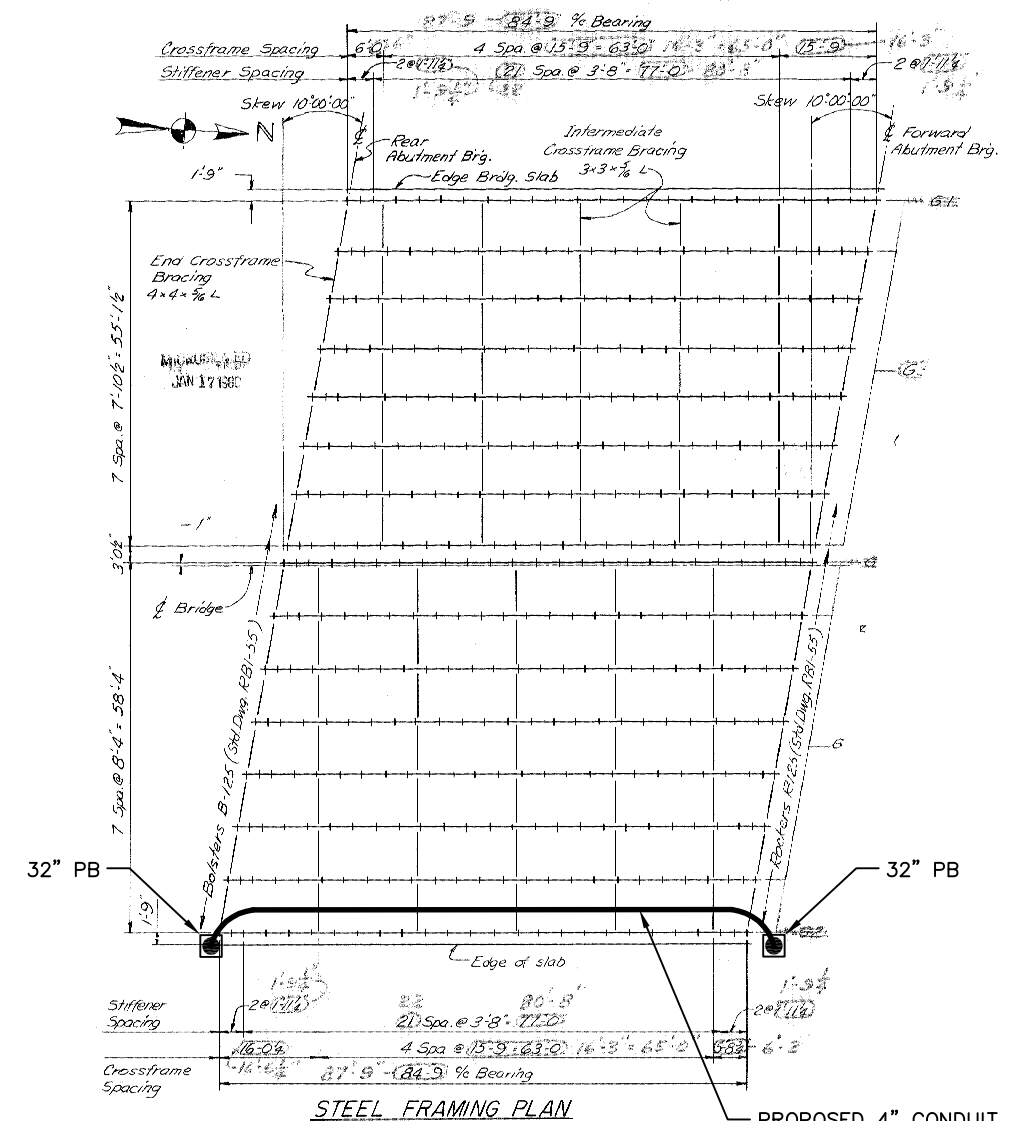
CONSTRUCTION AS-BUILT  
**2643DR.E**



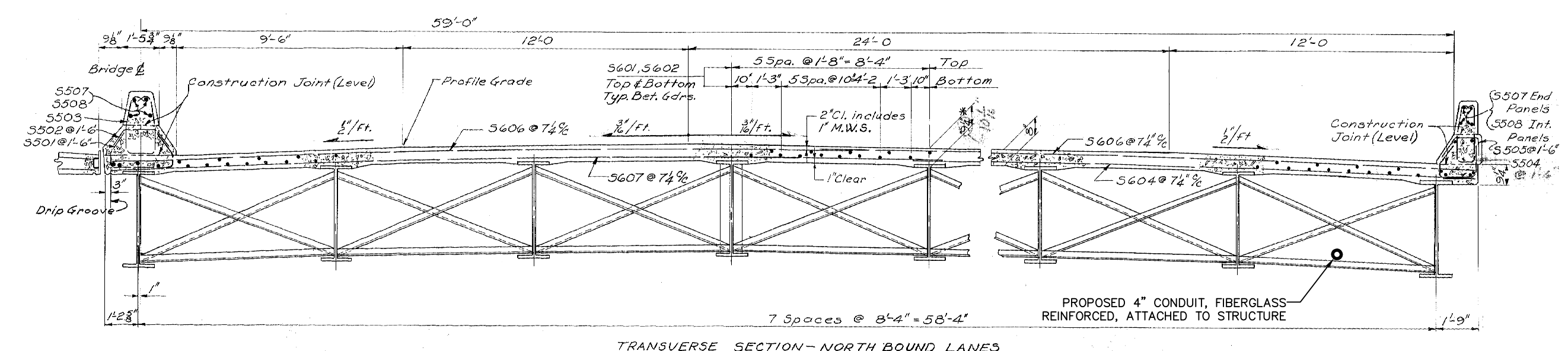


\*SHEETS 101-116 WERE TAKEN FROM ODOT RECORD PLANS AND ARE ONLY TO BE USED TO SHOW PROPOSED LOCATIONS OF CONDUIT, HANGERS AND EXPANSION COUPLINGS ON BRIDGE STRUCTURES AS NEEDED.

REFER TO SHEET 9 FOR CONDUIT ATTACHED TO STRUCTURE DETAILS  
REFER TO SHEET 83 FOR PLAN SHEET



PROPOSED 4" CONDUIT, FIBERGLASS REINFORCED, ATTACHED TO STRUCTURE



PROPOSED 4" CONDUIT, FIBERGLASS REINFORCED, ATTACHED TO STRUCTURE

TRANSVERSE SECTION - NORTH BOUND LANES

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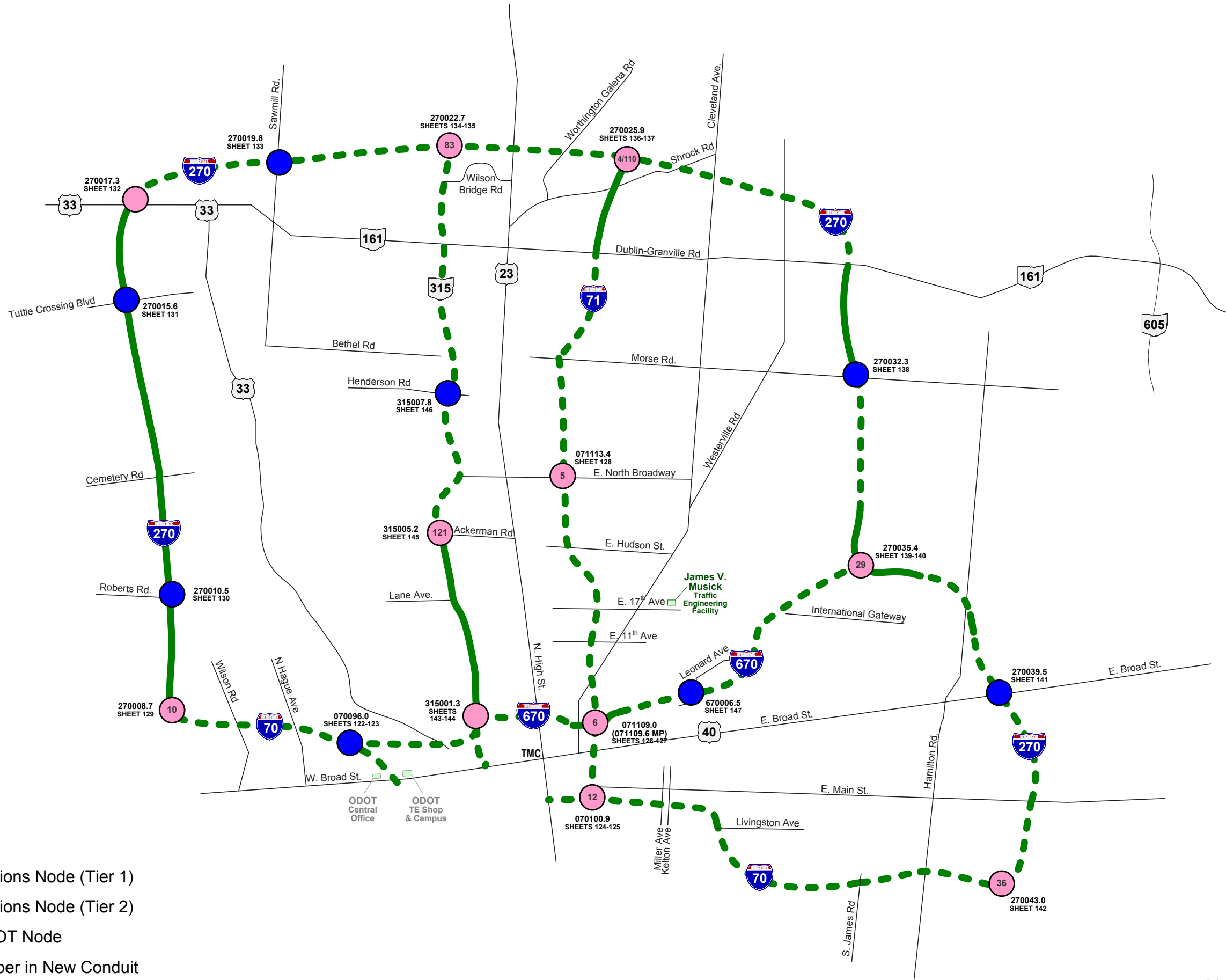
PID NUMBER  
82540

BRIDGE NO. FRA-315-0387 - S.R. 315 OVER LANE AVENUE  
STRUCTURE FILE NO. 2515571

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEM  
(CTSS) PHASE A

CONSTRUCTION AS-BUILT  
2643DR.E

116  
147



- Communications Node (Tier 1)
- Communications Node (Tier 2)
- Existing ODOT Node
- Proposed Fiber in New Conduit
- - - Proposed Fiber in Existing Conduit

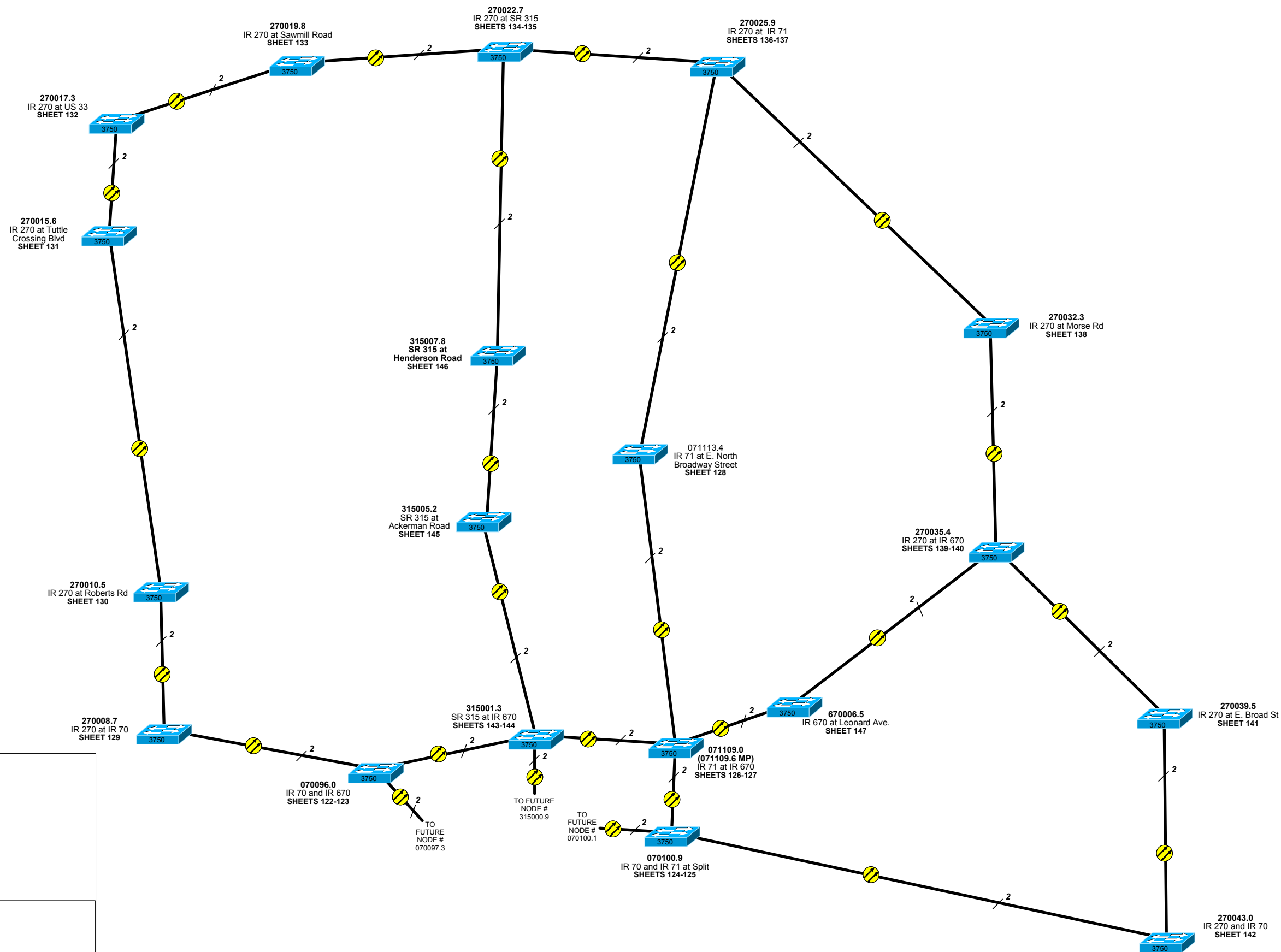
CONSTRUCTION AS-BUILT






PID NUMBER 82540  
2643 DR. E  
FEDERAL ID NO E070 (617)

COMMUNICATIONS OVERVIEW  
PHASE A NODES

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEMS  
(CTSS) PHASE A



**KEY**

-  CISCO 3750 ETHERNET SWITCH
-  FIBER OPTIC CABLE
-  TWO STRANDS OF FIBER

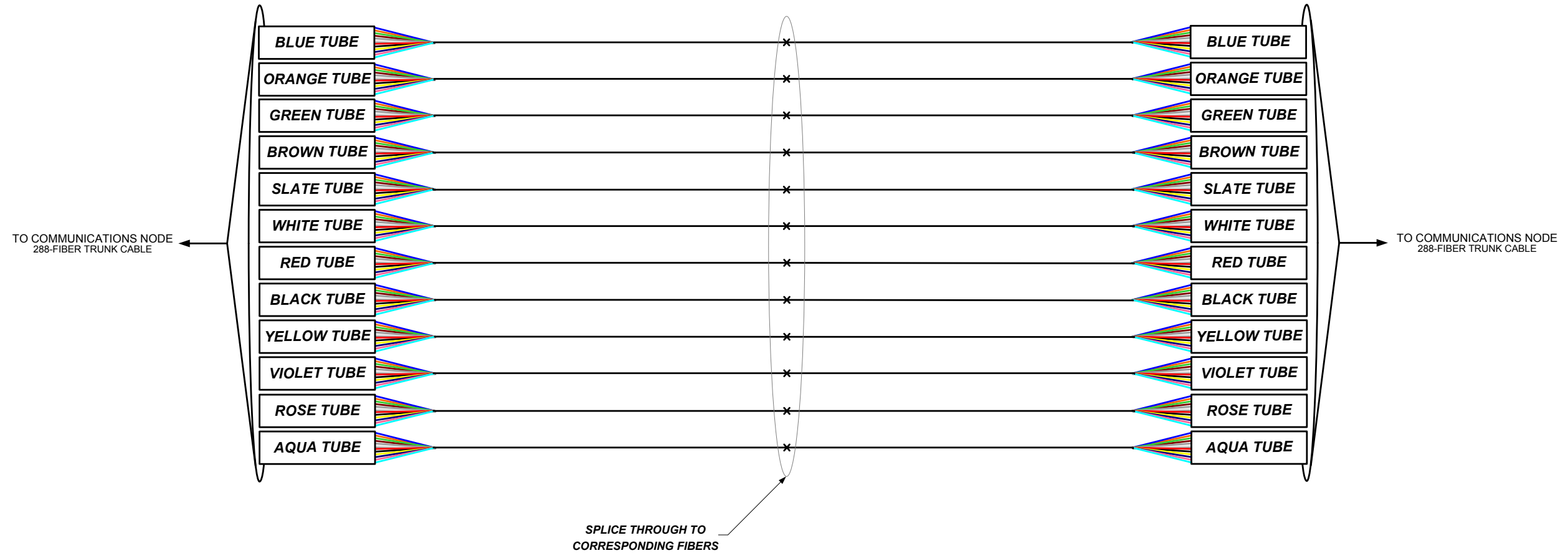
CONSTRUCTION AS-BUILT



**288-FIBER TRUNK CABLE**  
**TUBES 13-24 (FIBERS 145-288) SPLICING DETAILS**

NODE LOCATIONS CONNECTING TO TWO NODES:

070100.9, 071113.4, 270008.7, 270010.5, 270015.6, 270017.3, 270019.8,  
 270032.3, 270039.5, 270043.0, 315001.3, 315005.2, 315007.8, AND 670006.5



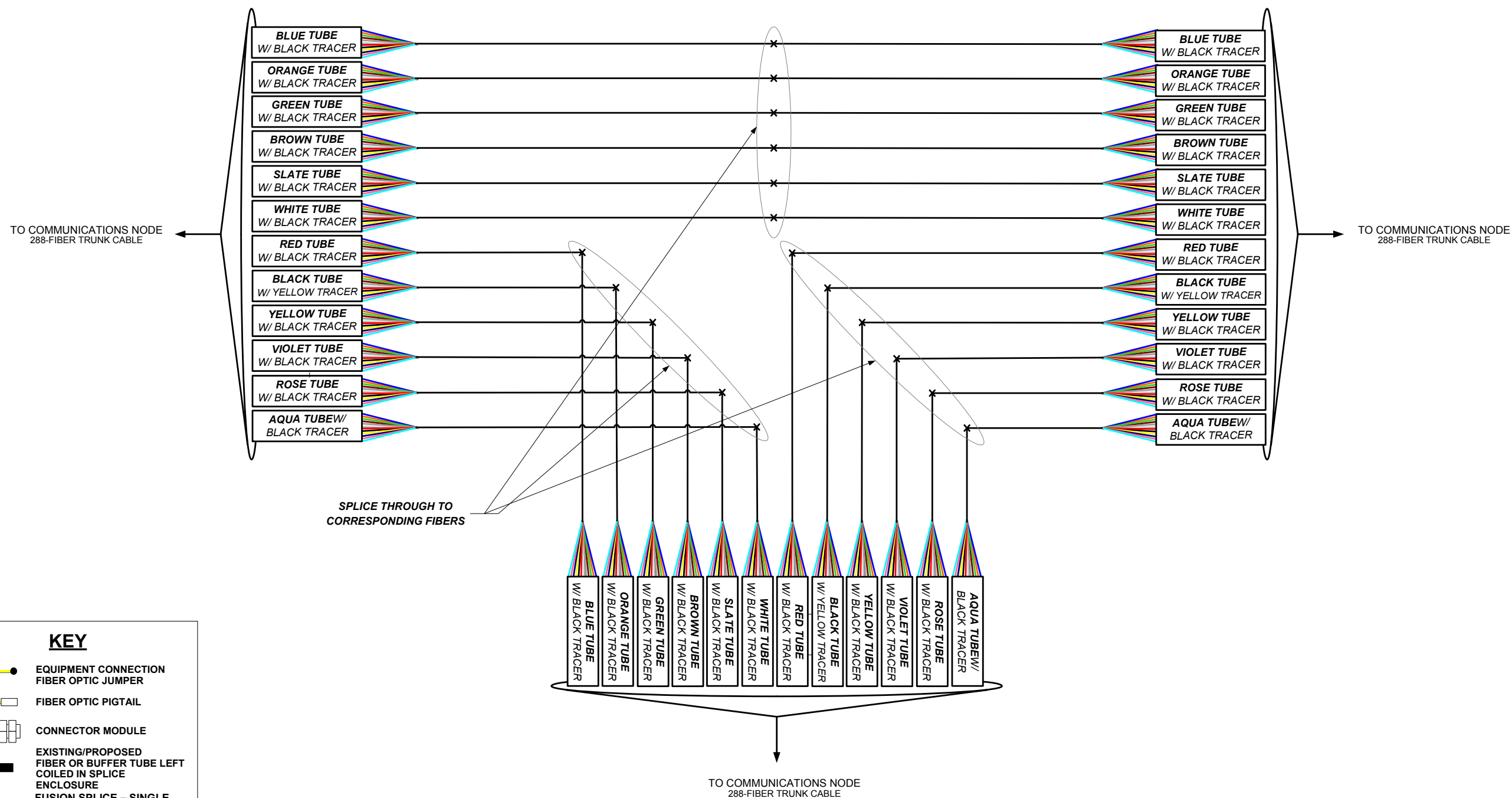
**KEY**

- EQUIPMENT CONNECTION FIBER OPTIC JUMPER
- FIBER OPTIC PIGTAIL
- CONNECTOR MODULE
- EXISTING/PROPOSED FIBER OR BUFFER TUBE LEFT COILED IN SPLICE ENCLOSURE
- FUSION SPLICE - SINGLE FIBER
- FUSION SPLICE - 12 FIBER BUFFER TUBE
- LX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS LESS THAN 6.2 MILES
- ZX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS GREATER THAN 6.2 MILES

CONSTRUCTION AS-BUILT

**288-FIBER TRUNK CABLE**  
**TUBES 13-24 (FIBERS 145-288) SPLICING DETAILS**  
 NODE LOCATION CONNECTING TO THREE NODES:

070096.0



KEY	
	EQUIPMENT CONNECTION FIBER OPTIC JUMPER
	FIBER OPTIC PIGTAIL
	CONNECTOR MODULE
	EXISTING/PROPOSED FIBER OR BUFFER TUBE LEFT COILED IN SPLICE ENCLOSURE
	FUSION SPLICE - SINGLE FIBER
	FUSION SPLICE - 12 FIBER BUFFER TUBE
	TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS LESS THAN 6.2 MILES
	TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS GREATER THAN 6.2 MILES

CONSTRUCTION AS-BUILT

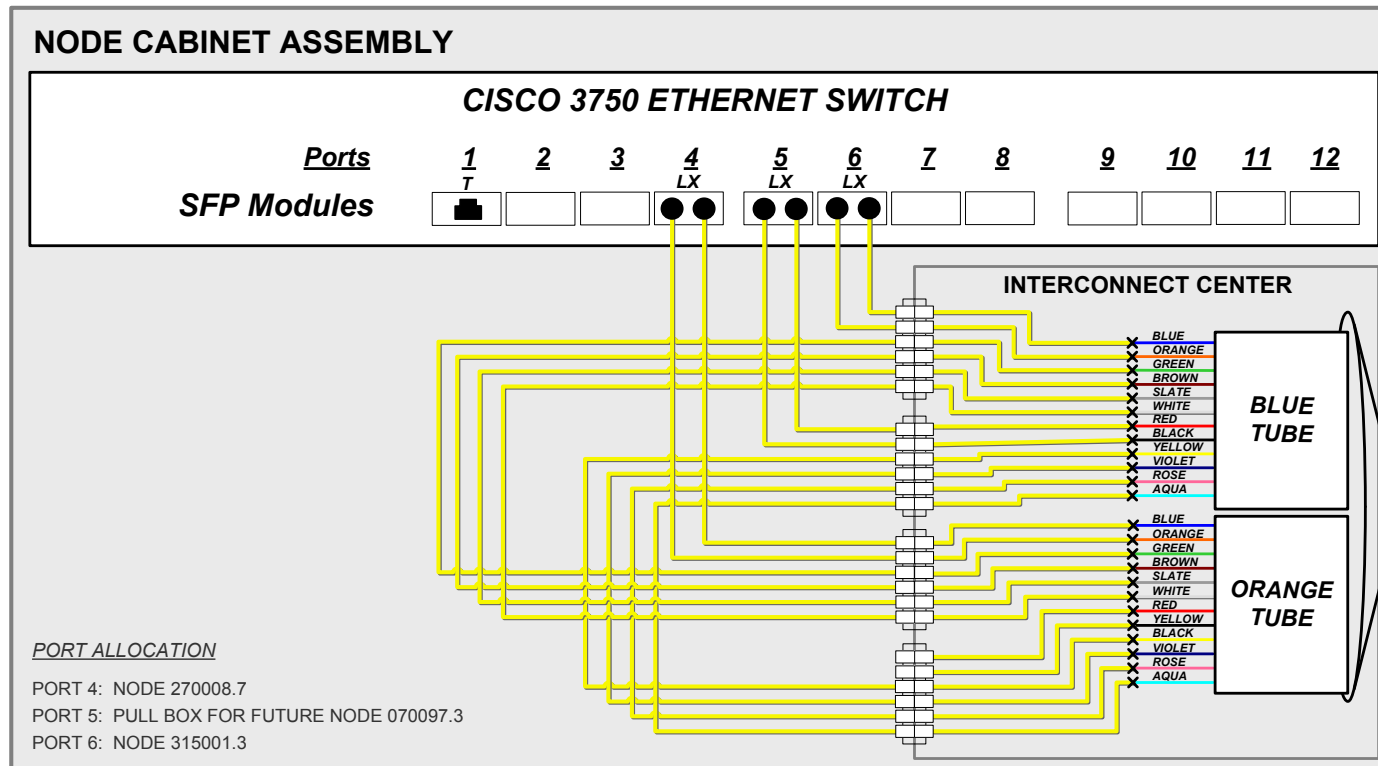
**NO WORK PERFORMED.  
ON THIS PLAN SHEET**

CONSTRUCTION AS-BUILT

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEMS  
(CTSS) PHASE A

TUBES 13-24 (FIBERS 145-288) SPLICING DETAILS  
NODE LOCATIONS CONNECTING TO FOUR OTHER NODES

PID NUMBER 82540  
2643 DR. E  
FEDERAL ID NO E070 (617)



24 FIBER DROP CABLE

MATCHLINE A SEE SHEET 123 OF 147

**KEY**

	EQUIPMENT CONNECTION
	FIBER OPTIC JUMPER
	FIBER OPTIC PIGTAIL
	CONNECTOR MODULE
	EXISTING/PROPOSED FIBER OR BUFFER TUBE LEFT COILED IN SPLICE ENCLOSURE
	FUSION SPLICE - SINGLE FIBER
	FUSION SPLICE - 12 FIBER BUFFER TUBE
<b>LX</b>	TRANSCIVER MODULE DISTANCE BETWEEN NODES IS LESS THAN 6.2 MILES
<b>ZX</b>	TRANSCIVER MODULE DISTANCE BETWEEN NODES IS GREATER THAN 6.2 MILES

CONSTRUCTION AS-BUILT

**NODE # 070096.0**  
 REFER TO SHEET 25 FOR  
 CONSTRUCTION PLAN DETAILS

MATCHLINE A SEE SHEET 122 OF 147  
 TO PROPOSED COMMUNICATIONS CABINET  
 070096.0: IR 70 AT IR 670

**UNDERGROUND SPLICE ENCLOSURE**

TO COMMUNICATIONS NODE  
 270008.7  
 IR 270 at IR 70  
 SEE SHEET 129

TO COMMUNICATIONS NODE  
 071109.0  
 IR-71 AT IR 670  
 SEE SHEETS 126 & 127  
 WORK TO BE PERFORMED BY  
 ODOT PID #77370

SPLICE THROUGH TO  
 CORRESPONDING FIBERS









TO PULL BOX FOR FUTURE  
 COMMUNICATIONS NODE  
 070097.3  
 I-70 AT W. BROAD ST

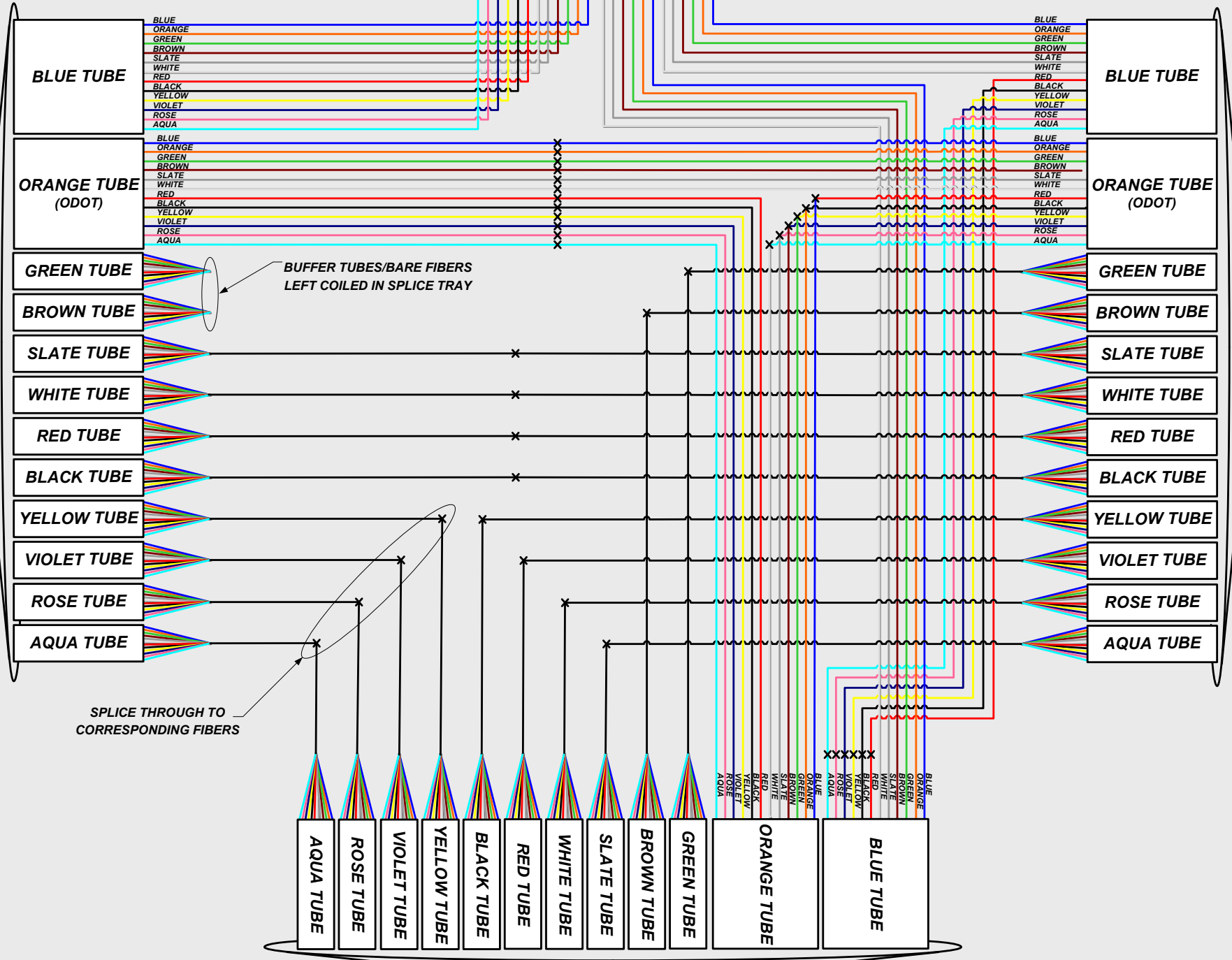
**288-FIBER TRUNK CABLE**  
 TUBES 13-24 (FIBERS 145-288) NOT SHOWN ON THIS SHEET  
 SEE SHEET 120 FOR SPLICING DETAILS

CONSTRUCTION AS-BUILT

**NODE # 070096.0**  
 REFER TO SHEET 25 FOR  
 CONSTRUCTION PLAN DETAILS

**KEY**

-  EQUIPMENT CONNECTION FIBER OPTIC JUMPER
-  FIBER OPTIC PIGTAIL
-  CONNECTOR MODULE
-  EXISTING/PROPOSED FIBER OR BUFFER TUBE LEFT COILED IN SPLICE ENCLOSURE
-  FUSION SPLICE - SINGLE FIBER
-  FUSION SPLICE - 12 FIBER BUFFER TUBE
-  LX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS LESS THAN 6.2 MILES
-  ZX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS GREATER THAN 6.2 MILES



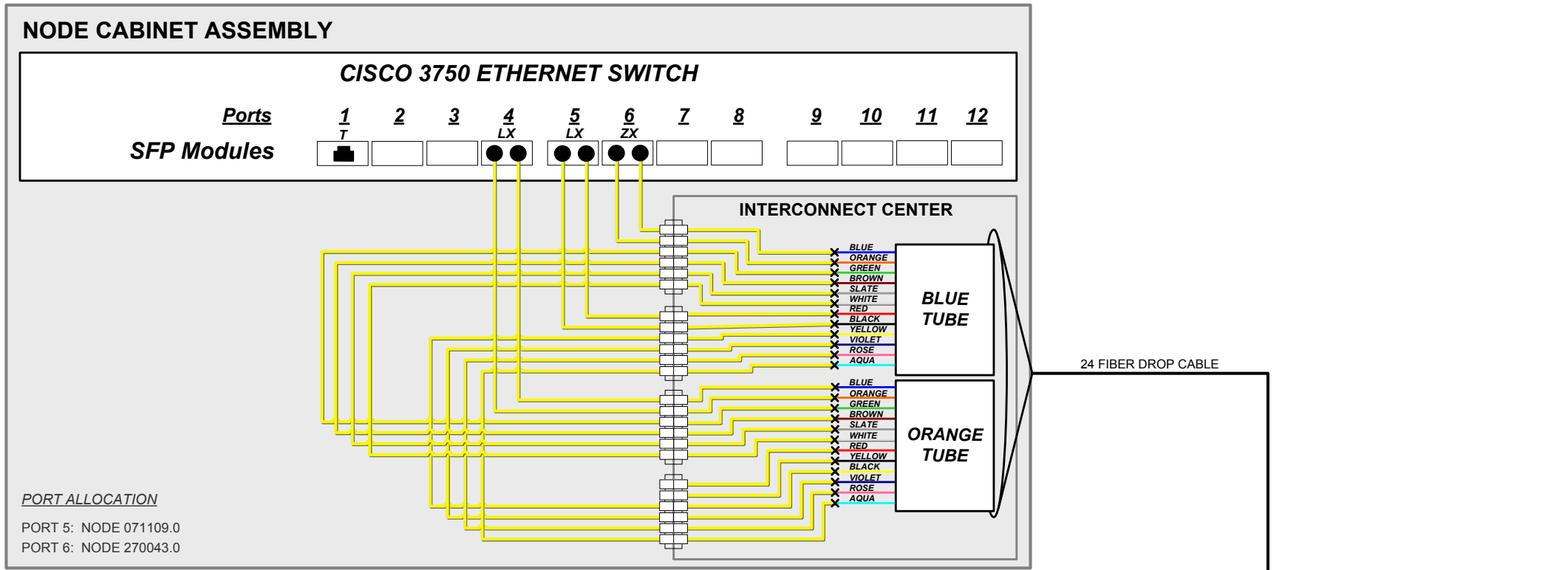
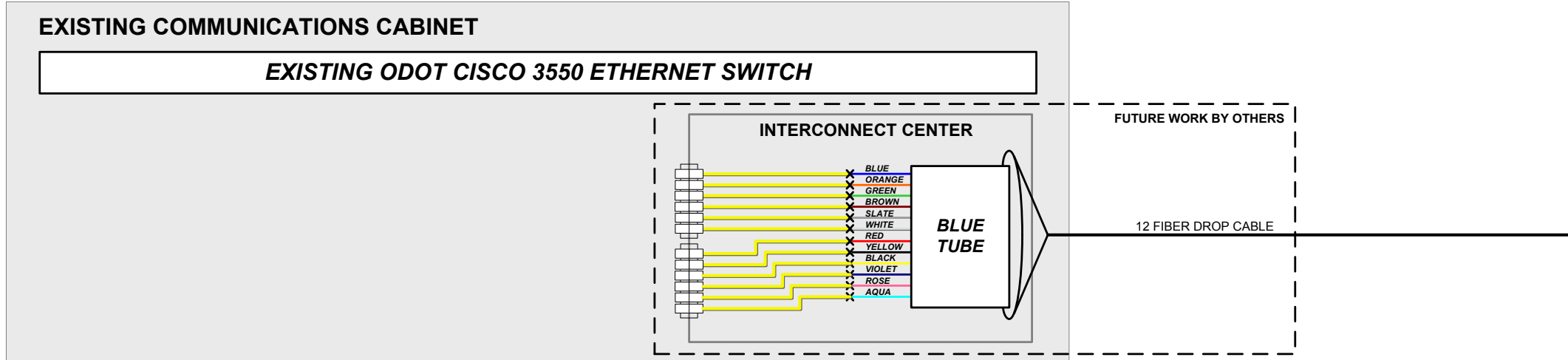
PID NUMBER 82540  
 2643 DR. E  
 FEDERAL ID NO E070 (617)

COMMUNICATIONS NODE 070096.0: IR 70 AT IR 670  
 COMMUNICATIONS CABINET

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEMS  
 (CTSS) PHASE A

123  
 147





PORT ALLOCATION  
 PORT 5: NODE 071109.0  
 PORT 6: NODE 270043.0

**KEY**

- EQUIPMENT CONNECTION
- FIBER OPTIC JUMPER
- FIBER OPTIC PIGTAIL
- CONNECTOR MODULE
- EXISTING/PROPOSED FIBER OR BUFFER TUBE LEFT COILED IN SPLICE ENCLOSURE
- FUSION SPLICE - SINGLE FIBER
- FUSION SPLICE - 12 FIBER BUFFER TUBE
- LX** TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS LESS THAN 6.2 MILES
- ZX** TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS GREATER THAN 6.2 MILES

CONSTRUCTION AS-BUILT  
**NODE # 070100.9**  
 REFER TO SHEET 28 FOR CONSTRUCTION PLAN DETAILS

MATCHLINE A SEE SHEET 124 OF 147  
TO PROPOSED COMMUNICATIONS CABINET  
070100.9: IR 70 AND IR 71 AT SPLIT

MATCHLINE B SEE SHEET 124 OF 147  
TO EXISTING ODOT COMMUNICATIONS CABINET

**UNDERGROUND SPLICE ENCLOSURE**

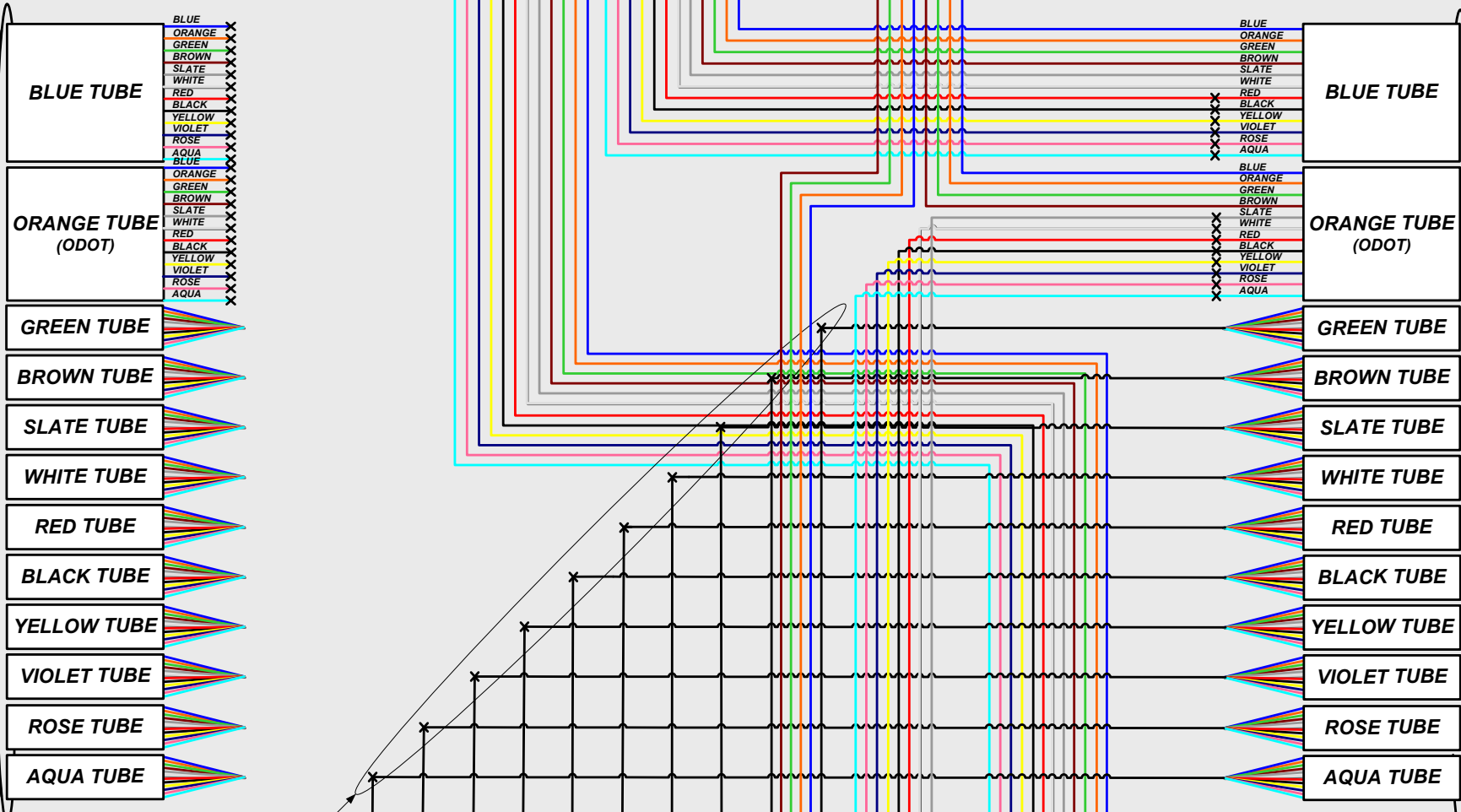
CAP AND COIL 100 FEET OF CABLE IN  
PULL BOX. TO BE EXTENDED TO  
EXISTING ODOT CABINET BY OTHERS

TO PULL BOX FOR  
FUTURE COMMUNICATIONS NODE  
070100.1  
IR 70 AT N. HIGH STREET  
WORK TO BE PERFORMED BY ODOT  
PID #77370

TO COMMUNICATIONS NODE  
270043.0  
IR 270 AND IR 70  
SEE SHEET 142

SPLICE THROUGH TO  
CORRESPONDING FIBERS

TO COMMUNICATIONS NODE  
071109.0  
IR 71 AT IR 670  
SEE SHEETS 126 & 127



**288-FIBER TRUNK CABLE**  
TUBES 13-24 (FIBERS 145-288) NOT SHOWN ON THIS SHEET  
SEE SHEET 119 FOR SPLICING DETAILS

**KEY**

- EQUIPMENT CONNECTION FIBER OPTIC JUMPER
- FIBER OPTIC PIGTAIL
- CONNECTOR MODULE
- EXISTING/PROPOSED FIBER OR BUFFER TUBE LEFT COILED IN SPLICE ENCLOSURE
- FUSION SPLICE - SINGLE FIBER
- FUSION SPLICE - 12 FIBER BUFFER TUBE
- TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS LESS THAN 6.2 MILES
- TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS GREATER THAN 6.2 MILES

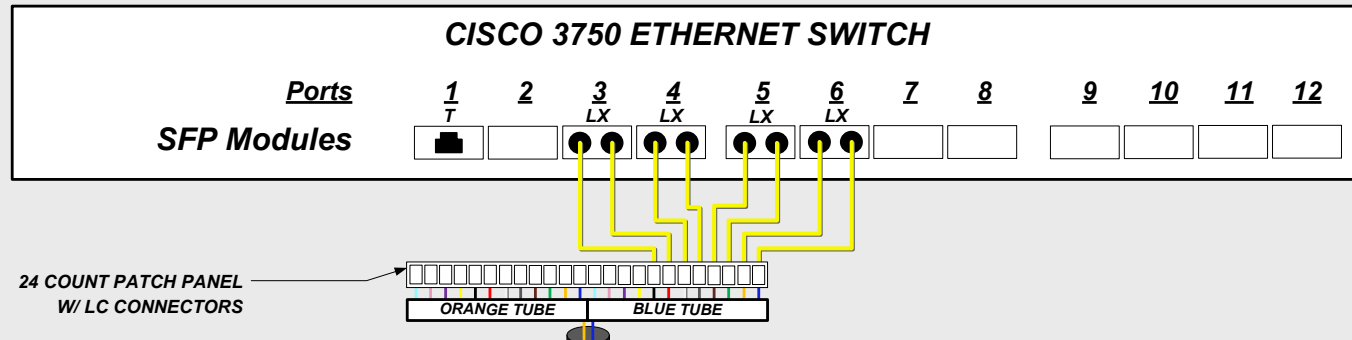
CONSTRUCTION AS-BUILT  
**NODE # 070100.9**  
REFER TO SHEET 28 FOR  
CONSTRUCTION PLAN DETAILS

PID NUMBER 82540  
2643 DR. E  
FEDERAL ID NO E070 (617)

COMMUNICATIONS NODE 070100.9: IR-70 AND IR-71 AT SPLIT  
UNDERGROUND SPLICE ENCLOSURE

CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEMS  
(CTSS) PHASE A

**PROPOSED NODE CABINET #2  
CLIMATE CONTROLLED W/ COMMUNICATIONS  
EQUIPMENT**



24 COUNT PATCH PANEL  
W/ LC CONNECTORS

24 STRAND SMF CABLE THROUGH 4"  
UNDERGROUND CONDUIT

24 COUNT PATCH PANEL  
W/ LC CONNECTORS

**PROPOSED NODE CABINET #1  
FIBER TERMINATION CENTER**

TERMINATE ALL FIBERS AT  
DOT PATCH PANELS FROM  
EACH DROP CABLE

PRE-TERMINATED 288 FIBER PATCH PANEL DOT - #1 W/ LC CONNECTORS

FROM NODE 070100.9 - IR 71 AT IR-70  
SPlice DROP CABLE DOT - #1 TO PATCH PANEL CONNECTORS 1-144

FROM NODE 670006.5 - IR 670 AT LEONARD AVE  
SPlice DROP CABLE DOT - #2 TO PATCH PANEL CONNECTORS 145-288

PRE-TERMINATED 288 FIBER PATCH PANEL DOT - #2 W/ LC CONNECTORS

FROM NODE 071113.4 - IR 71 AT E. NORTH BROADWAY ST  
SPlice DROP CABLE DOT - #3 TO PATCH PANEL CONNECTORS 1-144

FROM NODE 315001.3 - IR 670 AT SR 315  
SPlice DROP CABLE DOT - #4 TO PATCH PANEL CONNECTORS 145-288

PRE-TERMINATED 288 FIBER PATCH PANEL CTSS - #1 W/ LC CONNECTORS

SPlice DROP CABLE CTSS - #1 TO PATCH PANEL CONNECTORS 1-144

BLUE - BLUE  
BLUE - ORANGE  
BLUE - GREEN  
BLUE - BROWN  
BLUE - SLATE  
BLUE - WHITE  
BLUE - RED  
BLUE - BLACK  
BLUE - YELLOW  
BLUE - VIOLET  
BLUE - ROSE  
BLUE - AQUA

**BLUE TUBE**

FROM NODE  
070100.9  
IR 71 AT IR-70

SPlice DROP CABLE CTSS - #2 TO PATCH PANEL CONNECTORS 145-288

BLUE - BLUE  
BLUE - ORANGE  
BLUE - GREEN  
BLUE - BROWN  
BLUE - SLATE  
BLUE - WHITE  
BLUE - RED  
BLUE - BLACK  
BLUE - YELLOW  
BLUE - VIOLET  
BLUE - ROSE  
BLUE - AQUA

**BLUE TUBE**

FROM NODE  
670006.5  
IR 670 AT  
LEONARD AVE

PRE-TERMINATED 288 FIBER PATCH PANEL CTSS - #2 W/ LC CONNECTORS

SPlice DROP CABLE CTSS - #3 TO PATCH PANEL CONNECTORS 1-144

BLUE - BLUE  
BLUE - ORANGE  
BLUE - GREEN  
BLUE - BROWN  
BLUE - SLATE  
BLUE - WHITE  
BLUE - RED  
BLUE - BLACK  
BLUE - YELLOW  
BLUE - VIOLET  
BLUE - ROSE  
BLUE - AQUA

**BLUE TUBE**

FROM NODE  
071113.4  
IR 71 AT E. NORTH  
BROADWAY

SPlice DROP CABLE CTSS - #4 TO PATCH PANEL CONNECTORS 145-288

BLUE - BLUE  
BLUE - ORANGE  
BLUE - GREEN  
BLUE - BROWN  
BLUE - SLATE  
BLUE - WHITE  
BLUE - RED  
BLUE - BLACK  
BLUE - YELLOW  
BLUE - VIOLET  
BLUE - ROSE  
BLUE - AQUA

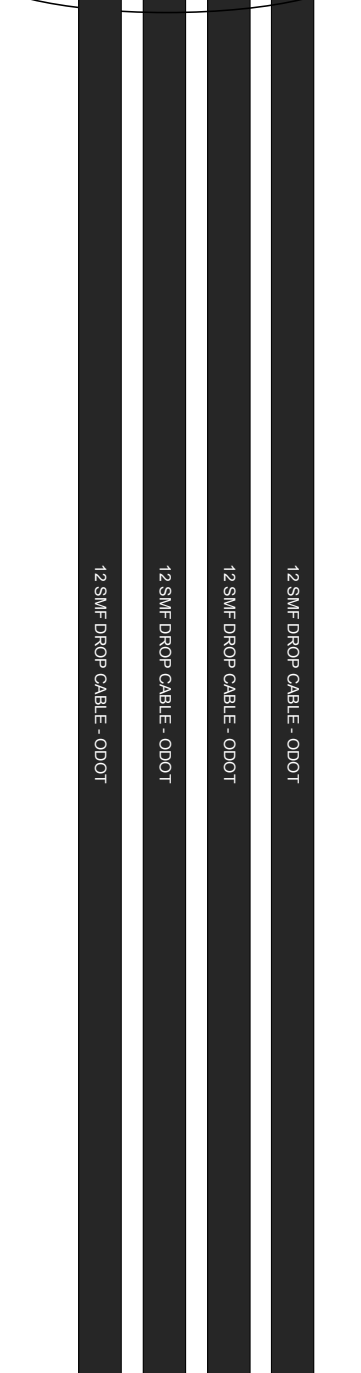
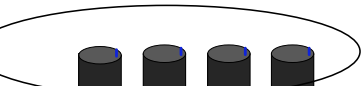
**BLUE TUBE**

FROM NODE  
315001.3  
IR-670 AT SR 315

**NOTES:**

1. SEE SHEET 118A FOR CABINET EQUIPMENT LAYOUT

CAP AND COIL 100 FEET  
OF CABLE IN PULL BOX.  
TO BE EXTENDED TO  
EXISTING ODOT CABINET  
BY OTHERS



MATCHLINE B SEE SHEET 127 OF 147

CONSTRUCTION AS-BUILT  
**NODE # 071109.0**  
**(071109.6 MP)**  
REFER TO SHEET 37 FOR  
CONSTRUCTION PLAN DETAILS

MATCHLINE A SEE SHEET 127 OF 147

**PORT ALLOCATION**

- PORT 3: NODE 315001.3
- PORT 4: NODE 071113.4
- PORT 5: NODE 670006.5
- PORT 6: NODE 070100.9

**KEY**

- EQUIPMENT CONNECTION
- FIBER OPTIC JUMPER
- FIBER OPTIC PIGTAIL
- CONNECTOR MODULE
- EXISTING/PROPOSED FIBER OR BUFFER TUBE LEFT COILED IN SPLICE ENCLOSURE
- FUSION SPLICE - SINGLE FIBER
- FUSION SPLICE - 12 FIBER BUFFER TUBE
- LX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS LESS THAN 6.2 MILES
- ZX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS GREATER THAN 6.2 MILES

MATCHLINE A SEE SHEET 126 OF 147  
TO COMMUNICATIONS CABINET 071109.0 (071109.6 MP)  
IR 71 AT IR 670

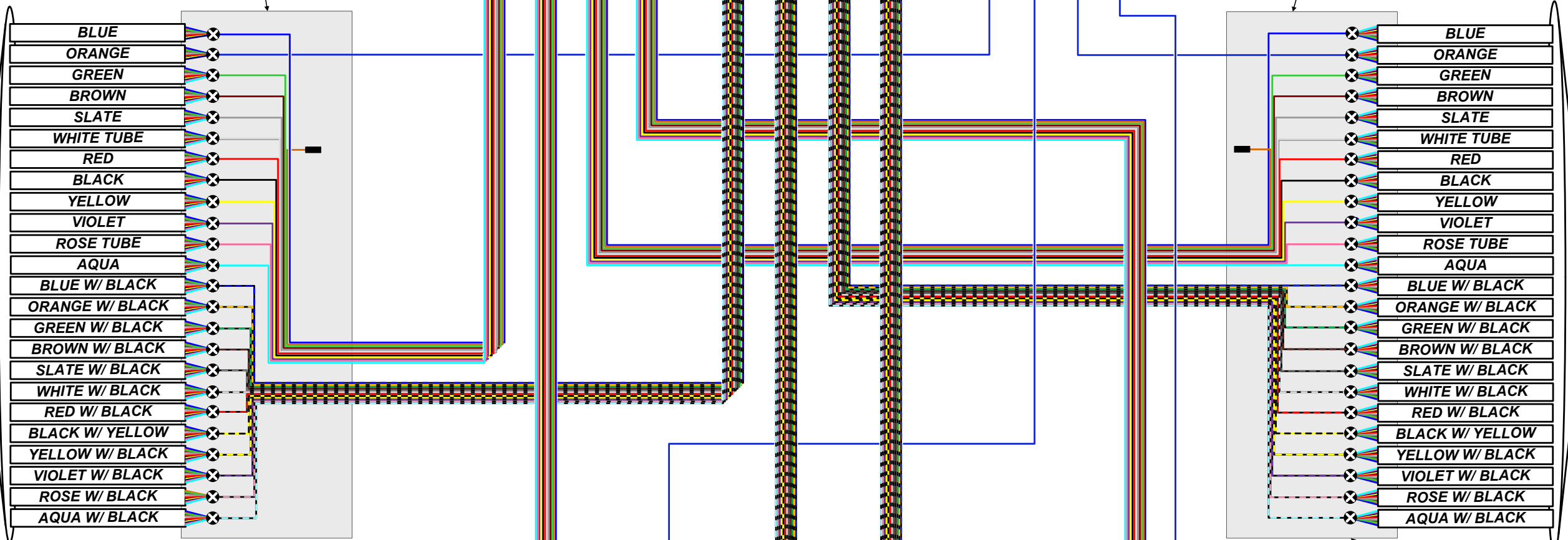
MATCHLINE B SEE SHEET 126 OF 147  
TO EXISTING ODOT COMMUNICATIONS CABINET

**UNDERGROUND SPLICE ENCLOSURE**

**UNDERGROUND SPLICE ENCLOSURE**

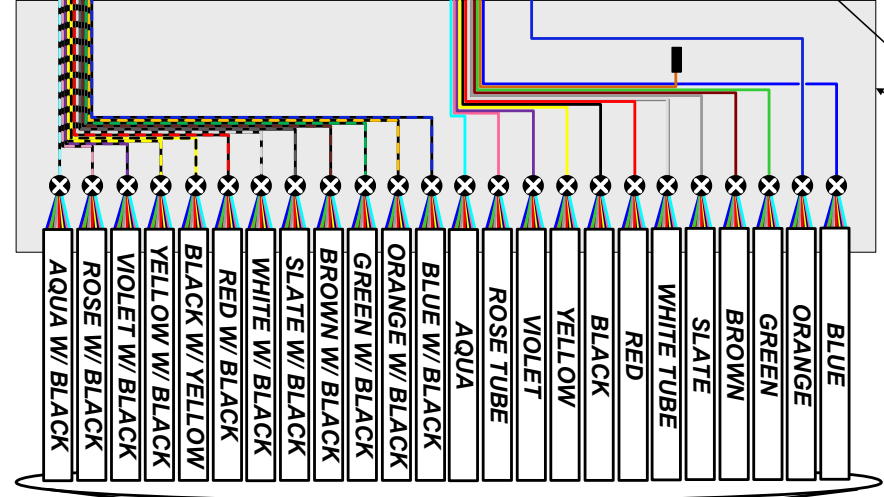
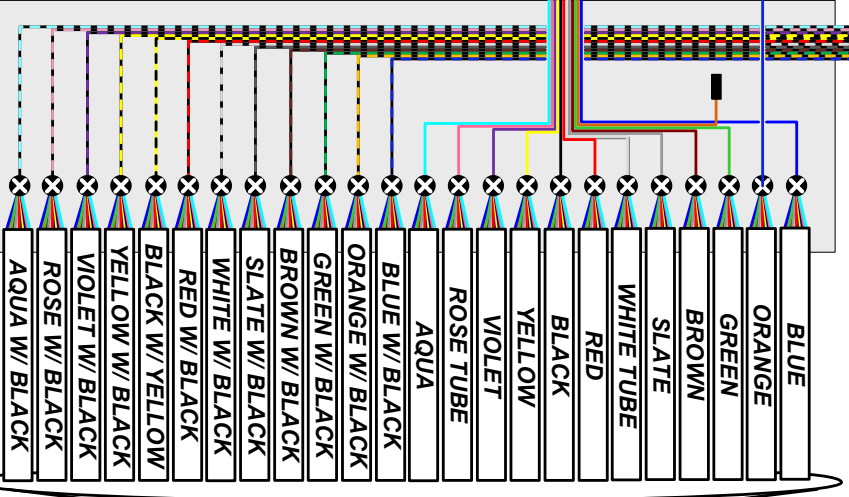
TO COMMUNICATIONS NODE  
070096.0  
SR 315 AT IR 670  
SEE SHEETS 143 & 144

TO COMMUNICATIONS NODE  
670006.5  
IR 670 AT LEONARD AVE  
SEE SHEET 147



**KEY**

- EQUIPMENT CONNECTION FIBER OPTIC JUMPER
- FIBER OPTIC PIGTAIL
- CONNECTOR MODULE
- EXISTING/PROPOSED FIBER OR BUFFER TUBE LEFT COILED IN SPLICE ENCLOSURE
- FUSION SPLICE - SINGLE FIBER
- FUSION SPLICE - 12 FIBER BUFFER TUBE
- LX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS LESS THAN 6.2 MILES
- ZX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS GREATER THAN 6.2 MILES

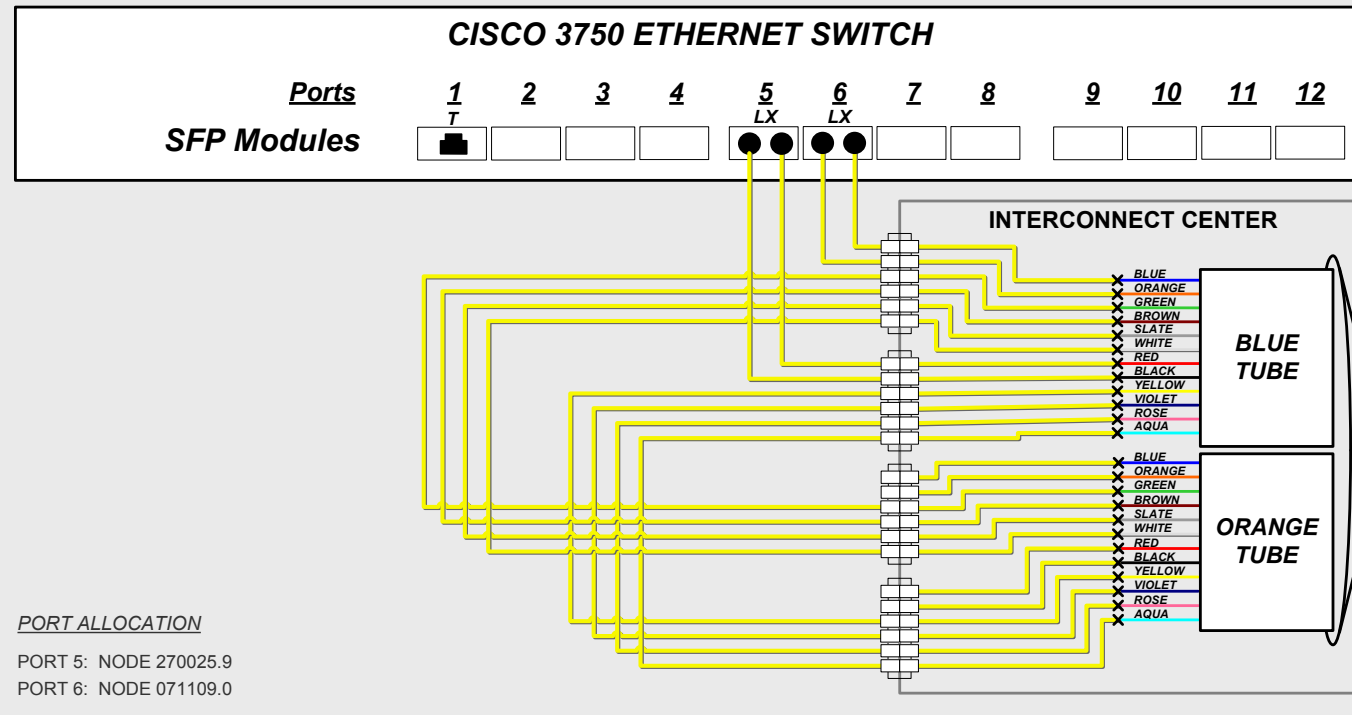


TO COMMUNICATIONS NODE  
071113.4  
IR 71 AT E NORTH BROADWAY STREET  
SEE SHEET 128

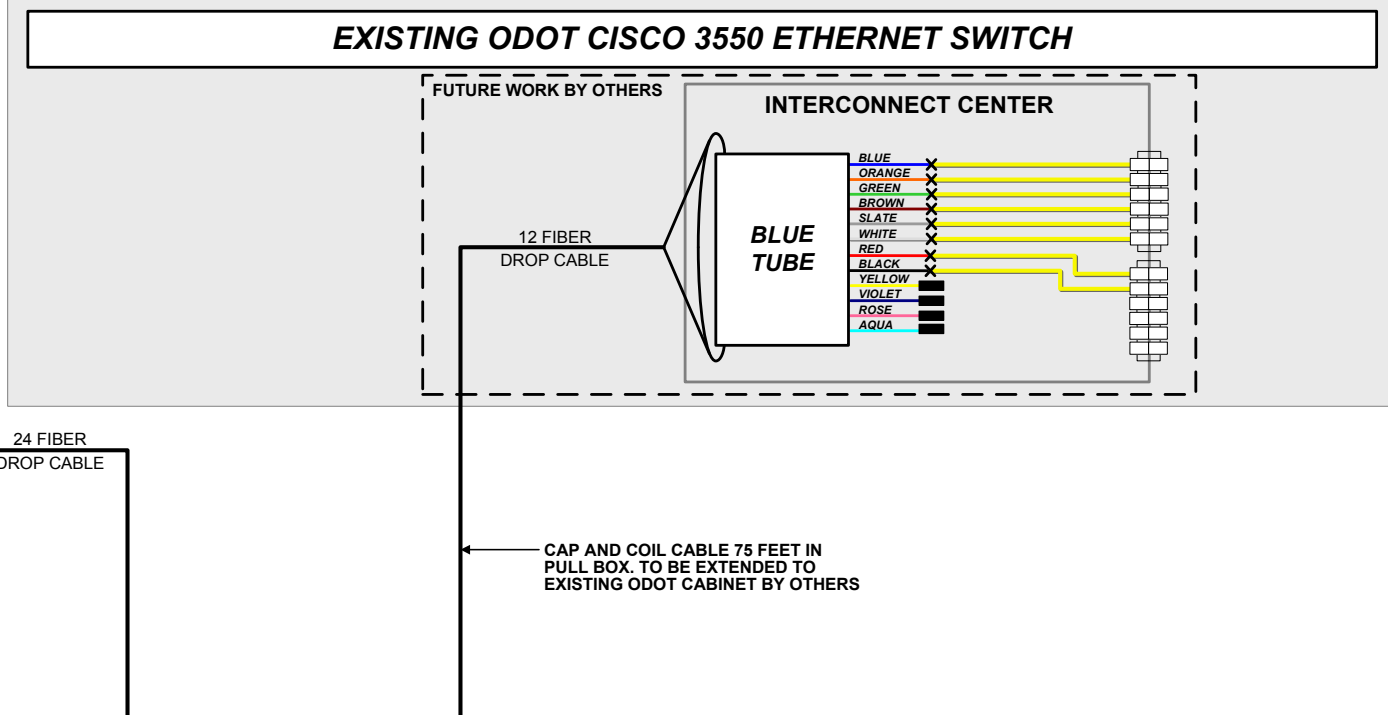
TO COMMUNICATIONS NODE  
070100.9  
IR 70 AND IR 71 AT SPLIT  
SEE SHEETS 124 & 125

CONSTRUCTION AS-BUILT  
**NODE # 071109.0**  
**(071109.6 MP)**  
REFER TO SHEET 37 FOR CONSTRUCTION PLAN DETAILS

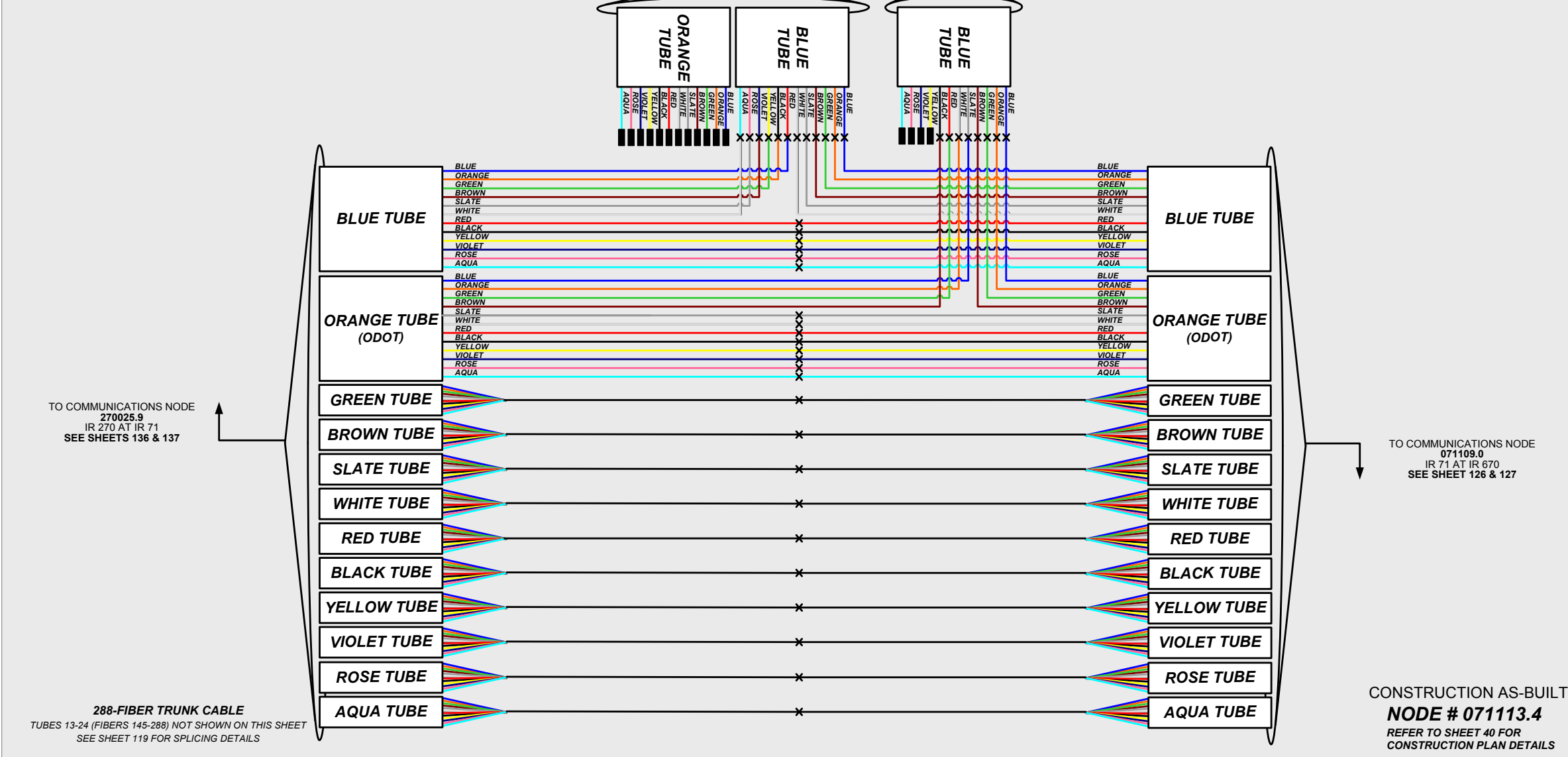
**NODE CABINET ASSEMBLY**



**EXISTING COMMUNICATIONS CABINET**



**UNDERGROUND SPLICE ENCLOSURE**

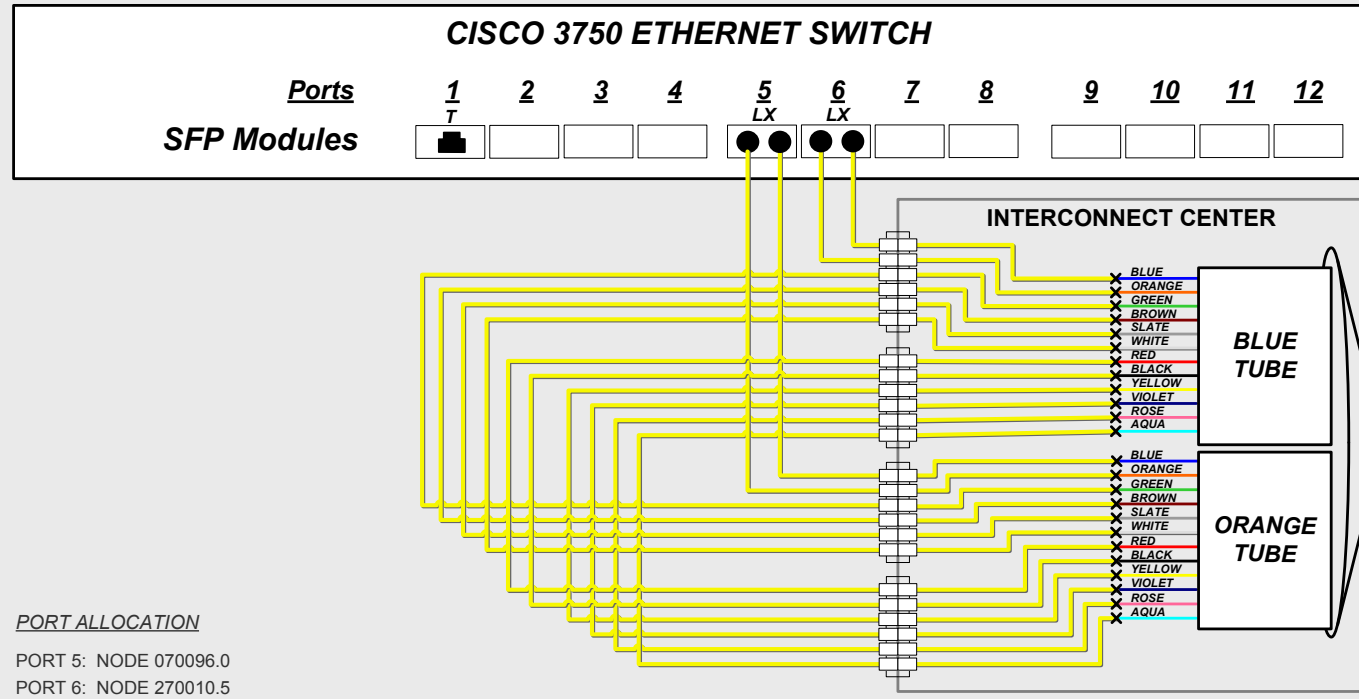


**KEY**

- EQUIPMENT CONNECTION
- FIBER OPTIC JUMPER
- FIBER OPTIC PIGTAIL
- CONNECTOR MODULE
- EXISTING/PROPOSED FIBER OR BUFFER TUBE LEFT COILED IN SPLICE ENCLOSURE
- FUSION SPLICE - SINGLE FIBER
- FUSION SPLICE - 12 FIBER BUFFER TUBE
- LX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS LESS THAN 6.2 MILES
- ZX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS GREATER THAN 6.2 MILES

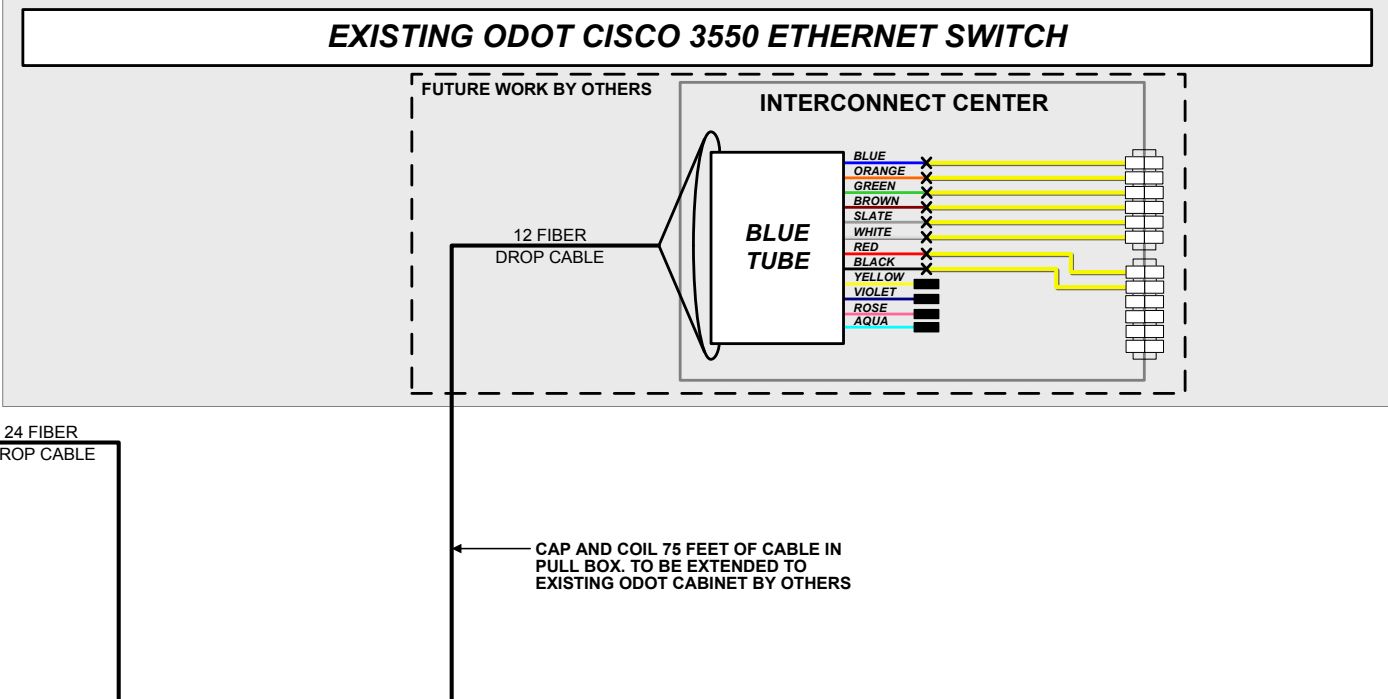
288-FIBER TRUNK CABLE  
 TUBES 13-24 (FIBERS 145-288) NOT SHOWN ON THIS SHEET  
 SEE SHEET 119 FOR SPLICING DETAILS

**NODE CABINET ASSEMBLY**

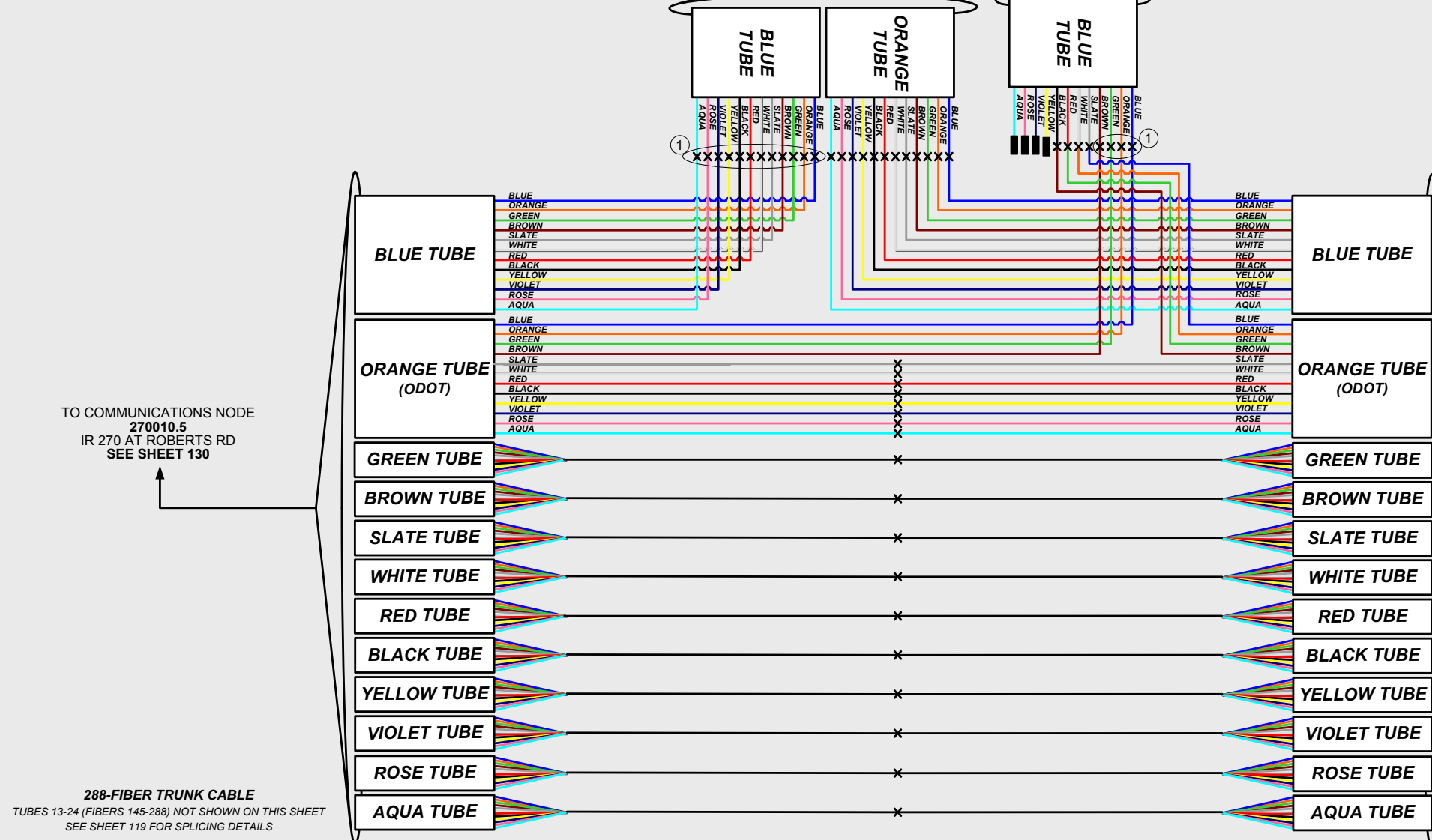


**PORT ALLOCATION**  
 PORT 5: NODE 070096.0  
 PORT 6: NODE 270010.5

**EXISTING COMMUNICATIONS CABINET**



**UNDERGROUND SPlice ENCLOSURE**



TO COMMUNICATIONS NODE  
**270010.5**  
 IR 270 AT ROBERTS RD  
 SEE SHEET 130

**NOTES**  
 ① SPLICES TO BE PERFORMED BY ODOT  
 PROJECT PID# 76191,  
 FRA-270-2.60

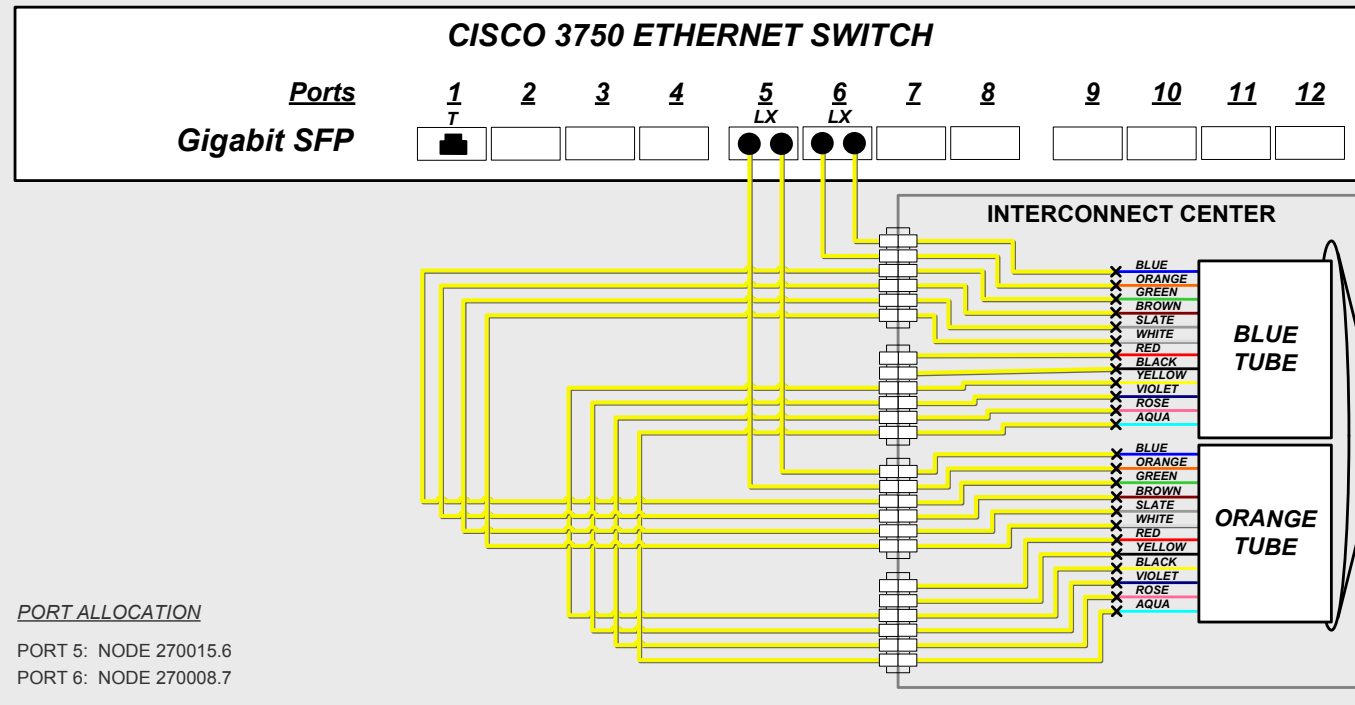
TO COMMUNICATIONS NODE  
**070096.0**  
 IR-70 AND IR-670  
 SEE SHEET 123

CONSTRUCTION AS-BUILT  
**NODE # 270008.7**  
 REFER TO SHEET 47 FOR  
 CONSTRUCTION PLAN DETAILS

**KEY**

- EQUIPMENT CONNECTION
- FIBER OPTIC JUMPER
- FIBER OPTIC PIGTAIL
- CONNECTOR MODULE
- EXISTING/PROPOSED FIBER OR BUFFER TUBE LEFT COILED IN SPLICE ENCLOSURE
- FUSION SPLICE - SINGLE FIBER
- FUSION SPLICE - 12 FIBER BUFFER TUBE
- LX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS LESS THAN 6.2 MILES
- ZX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS GREATER THAN 6.2 MILES

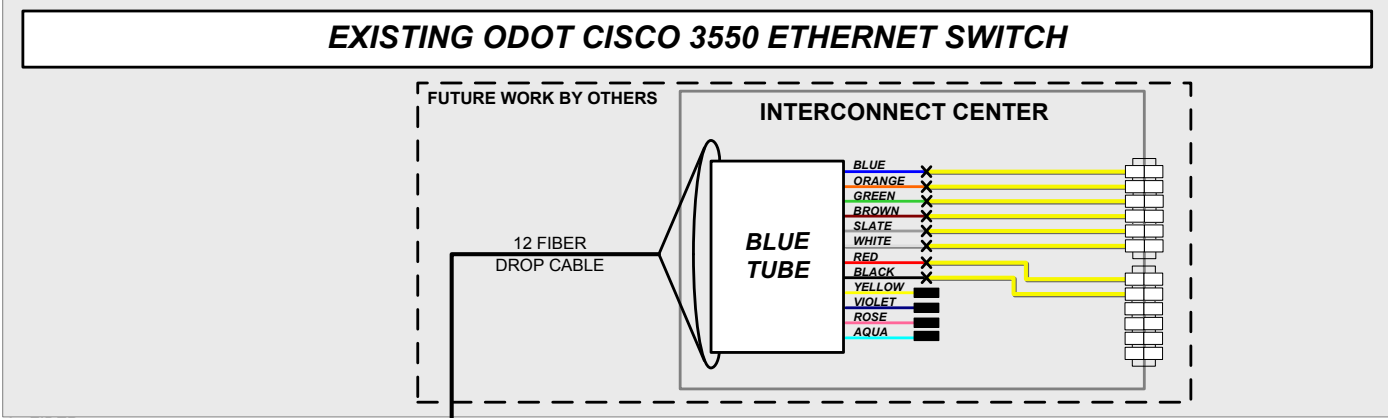
**NODE CABINET ASSEMBLY**



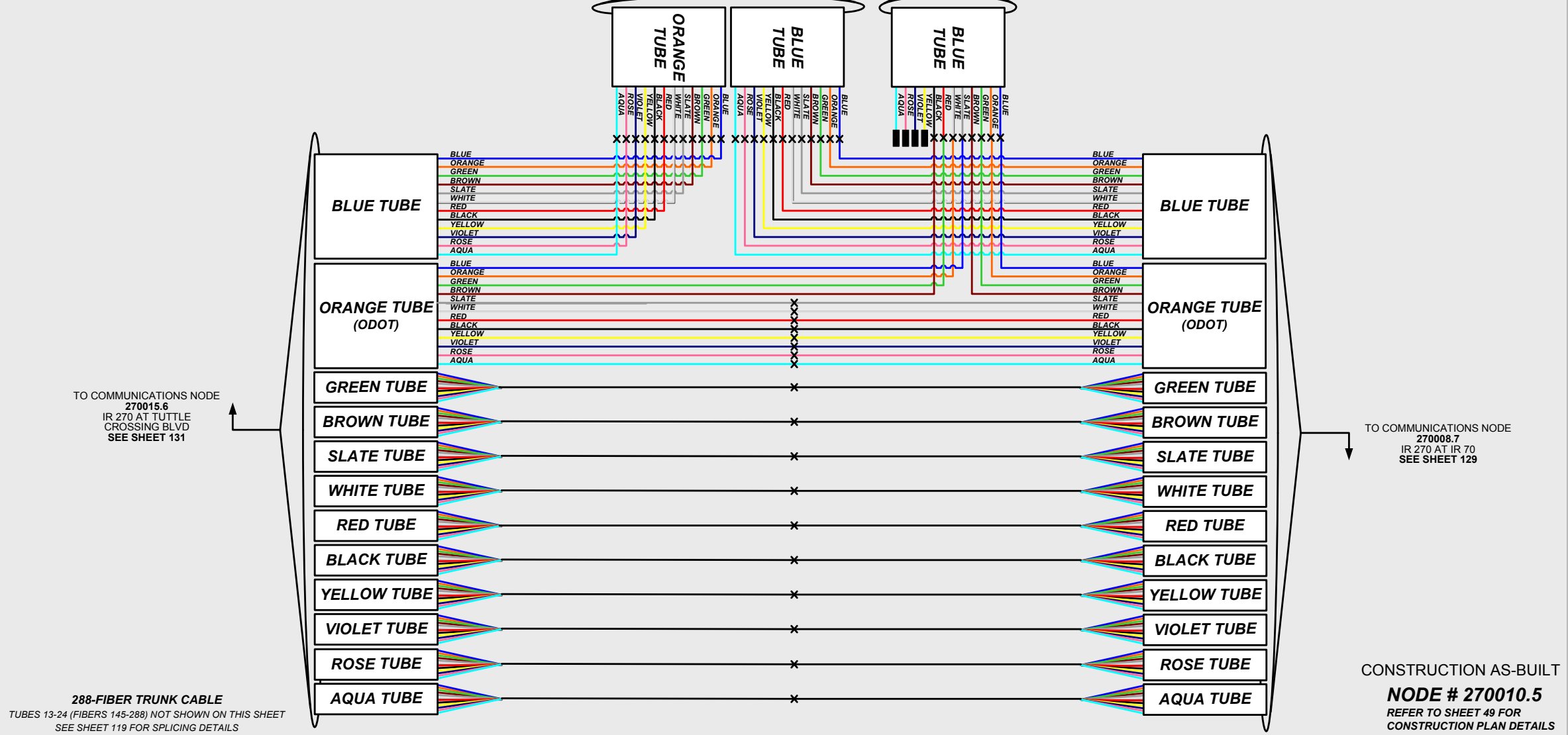
**PORT ALLOCATION**

PORT 5: NODE 270015.6  
PORT 6: NODE 270008.7

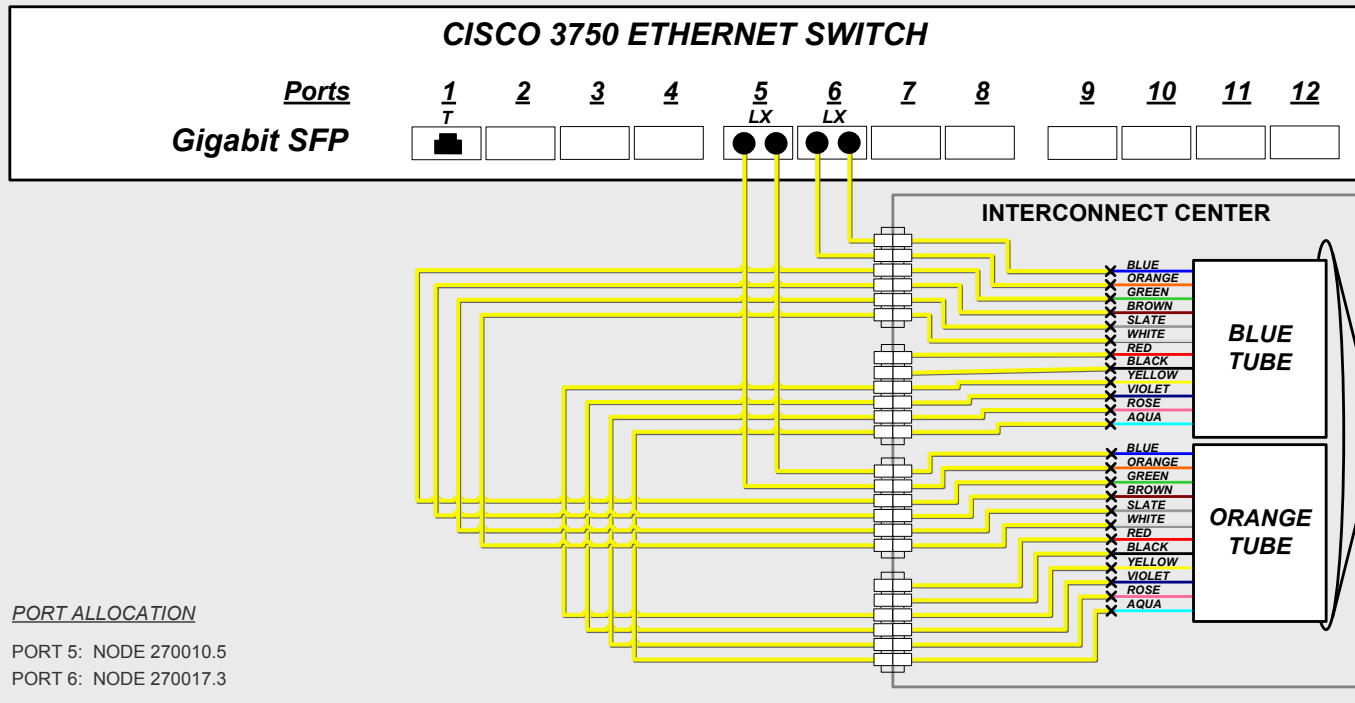
**EXISTING COMMUNICATIONS CABINET**



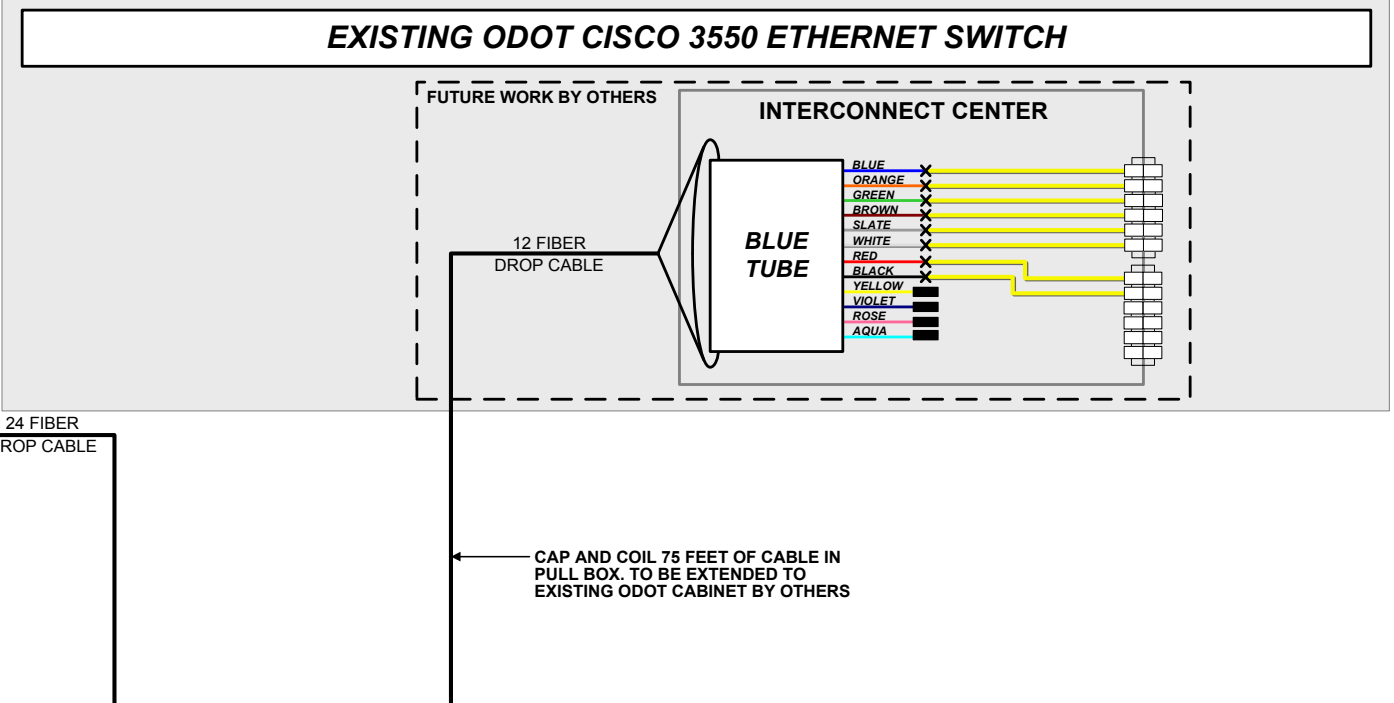
**UNDERGROUND SPlice ENCLOSURE**



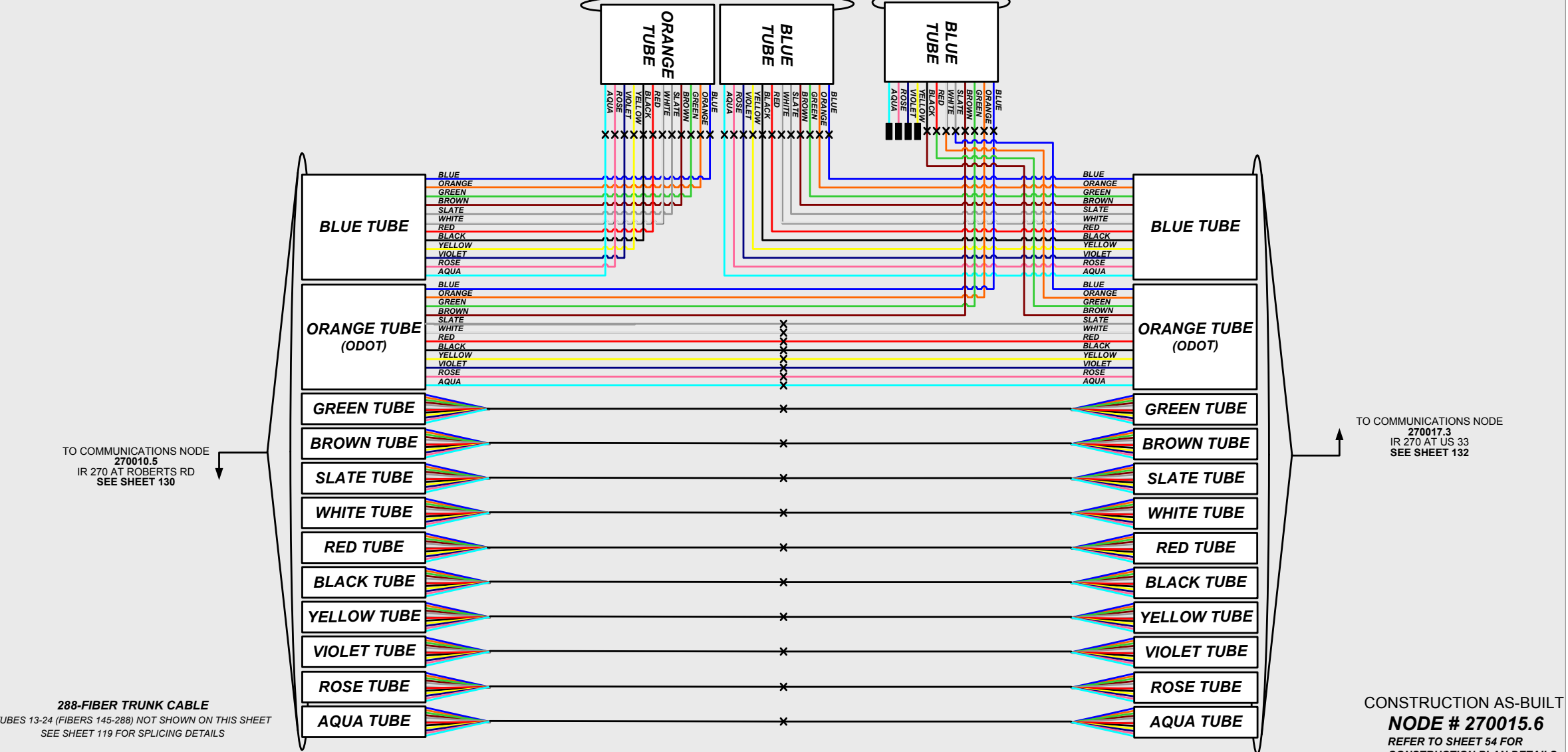
**NODE CABINET ASSEMBLY**



**EXISTING COMMUNICATIONS CABINET**



**UNDERGROUND SPlice ENCLOSURE**



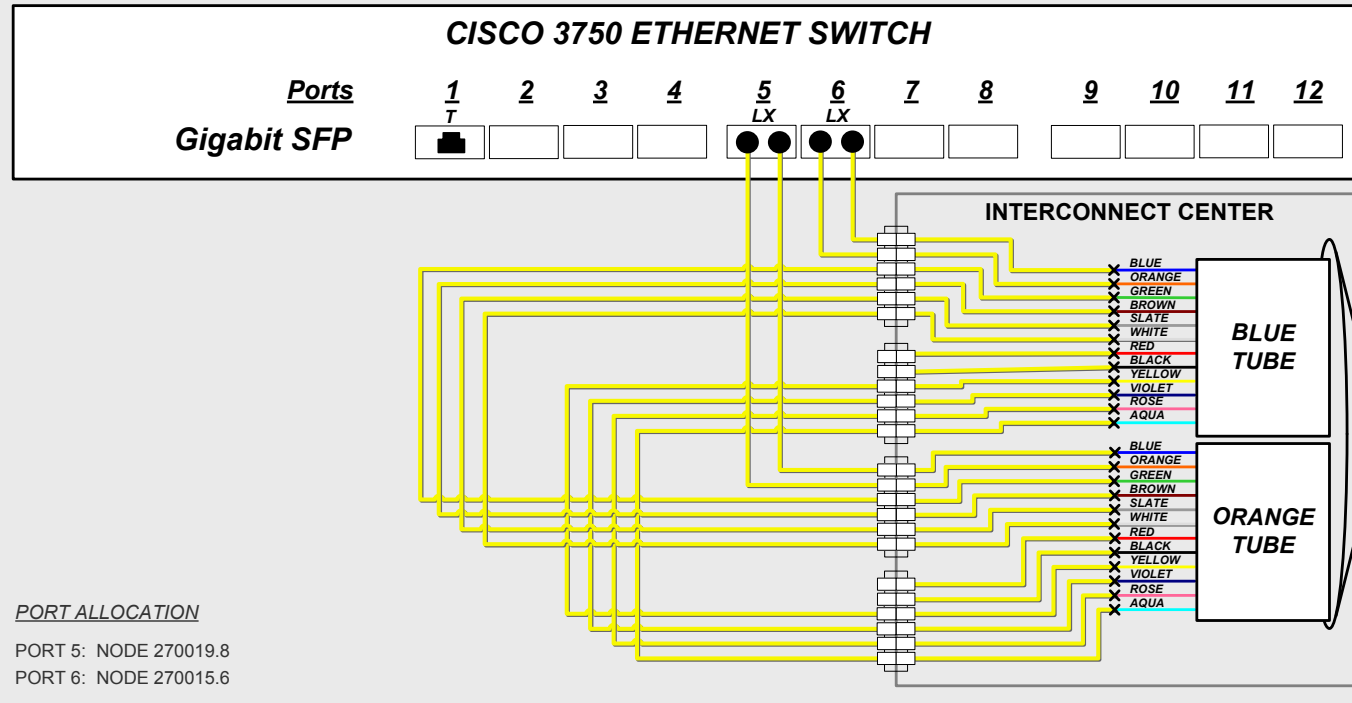
**KEY**

- EQUIPMENT CONNECTION FIBER OPTIC JUMPER
- FIBER OPTIC PIGTAIL
- CONNECTOR MODULE
- EXISTING/PROPOSED FIBER OR BUFFER TUBE LEFT COILED IN SPLICE ENCLOSURE
- FUSION SPLICE - SINGLE FIBER
- FUSION SPLICE - 12 FIBER BUFFER TUBE
- LX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS LESS THAN 6.2 MILES
- ZX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS GREATER THAN 6.2 MILES

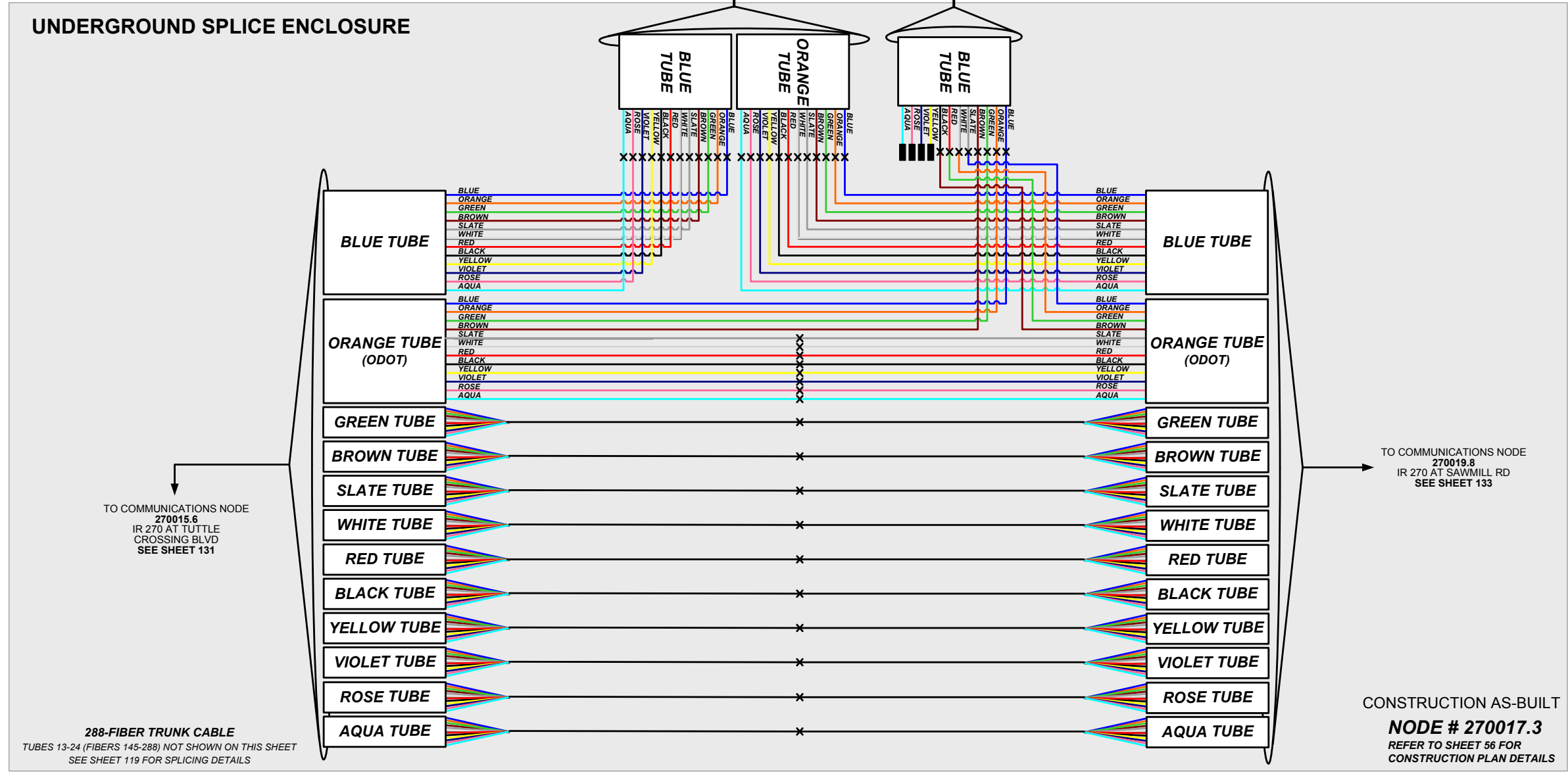
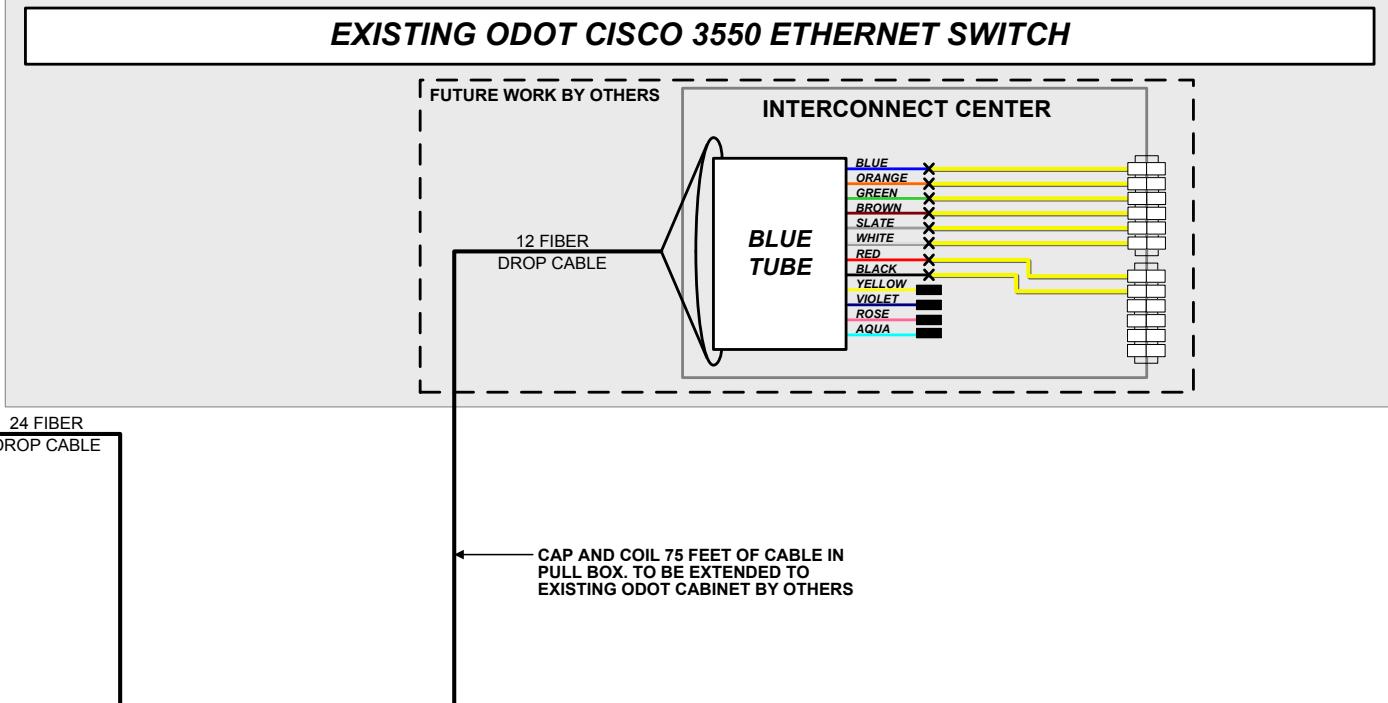
CONSTRUCTION AS-BUILT  
**NODE # 270015.6**  
REFER TO SHEET 54 FOR CONSTRUCTION PLAN DETAILS



**NODE CABINET ASSEMBLY**



**EXISTING COMMUNICATIONS CABINET**

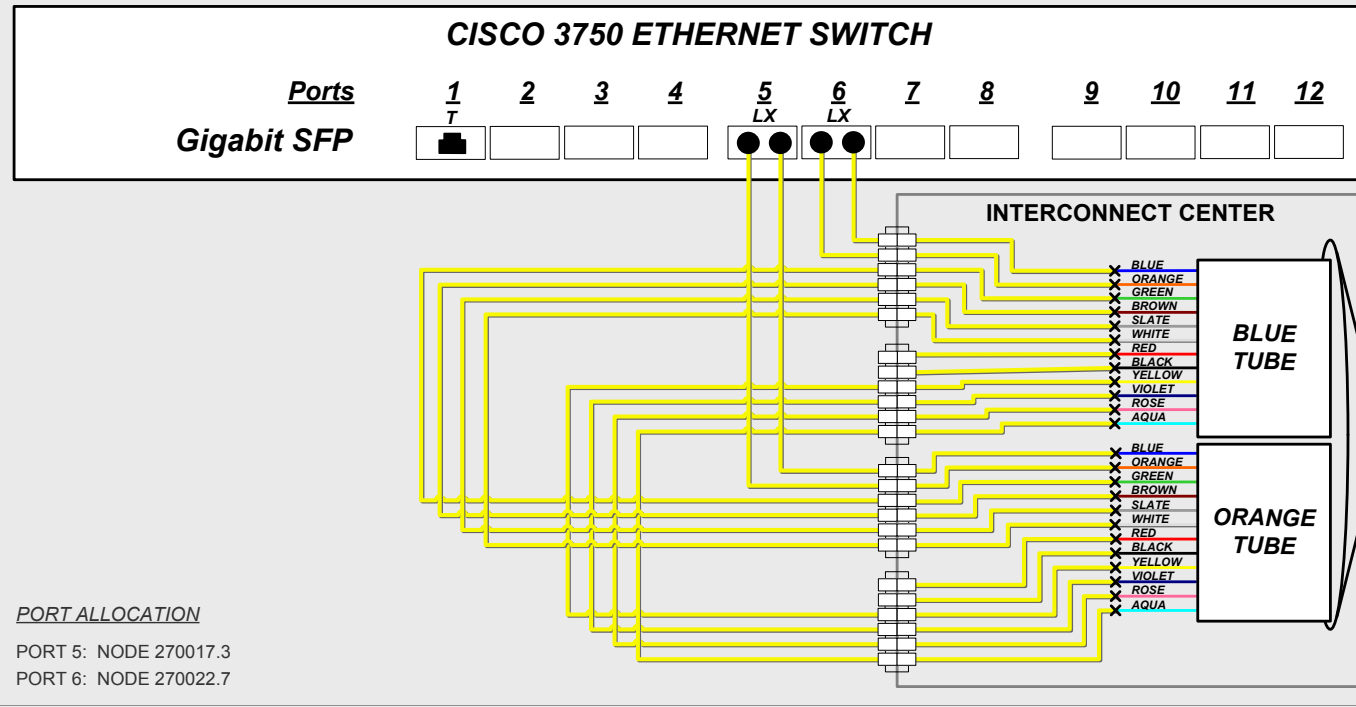


**KEY**

- EQUIPMENT CONNECTION FIBER OPTIC JUMPER
- FIBER OPTIC PIGTAIL
- CONNECTOR MODULE
- EXISTING/PROPOSED FIBER OR BUFFER TUBE LEFT COILED IN SPLICE ENCLOSURE
- FUSION SPLICE - SINGLE FIBER
- FUSION SPLICE - 12 FIBER BUFFER TUBE
- LX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS LESS THAN 6.2 MILES
- ZX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS GREATER THAN 6.2 MILES

CONSTRUCTION AS-BUILT  
**NODE # 270017.3**  
REFER TO SHEET 56 FOR CONSTRUCTION PLAN DETAILS

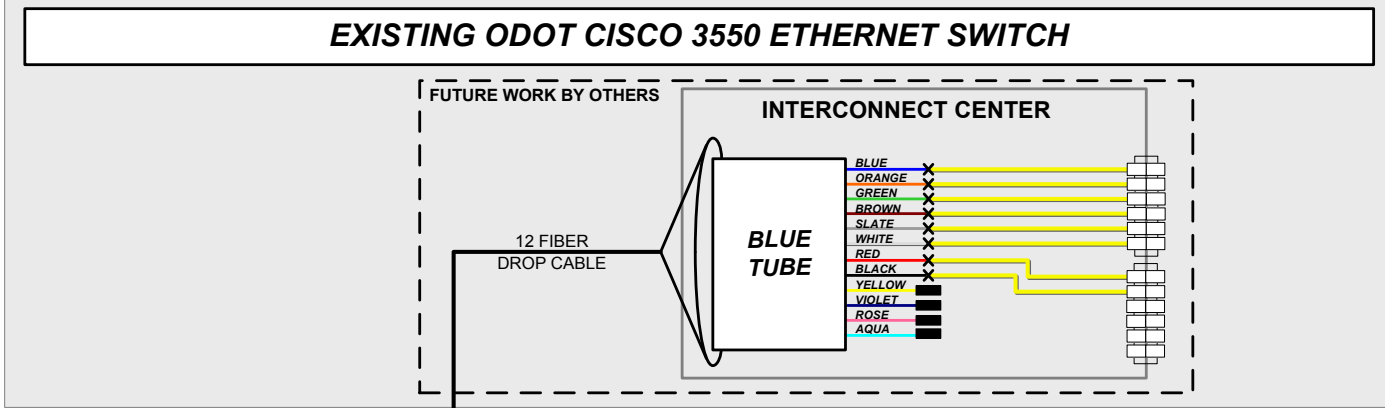
**NODE CABINET ASSEMBLY**



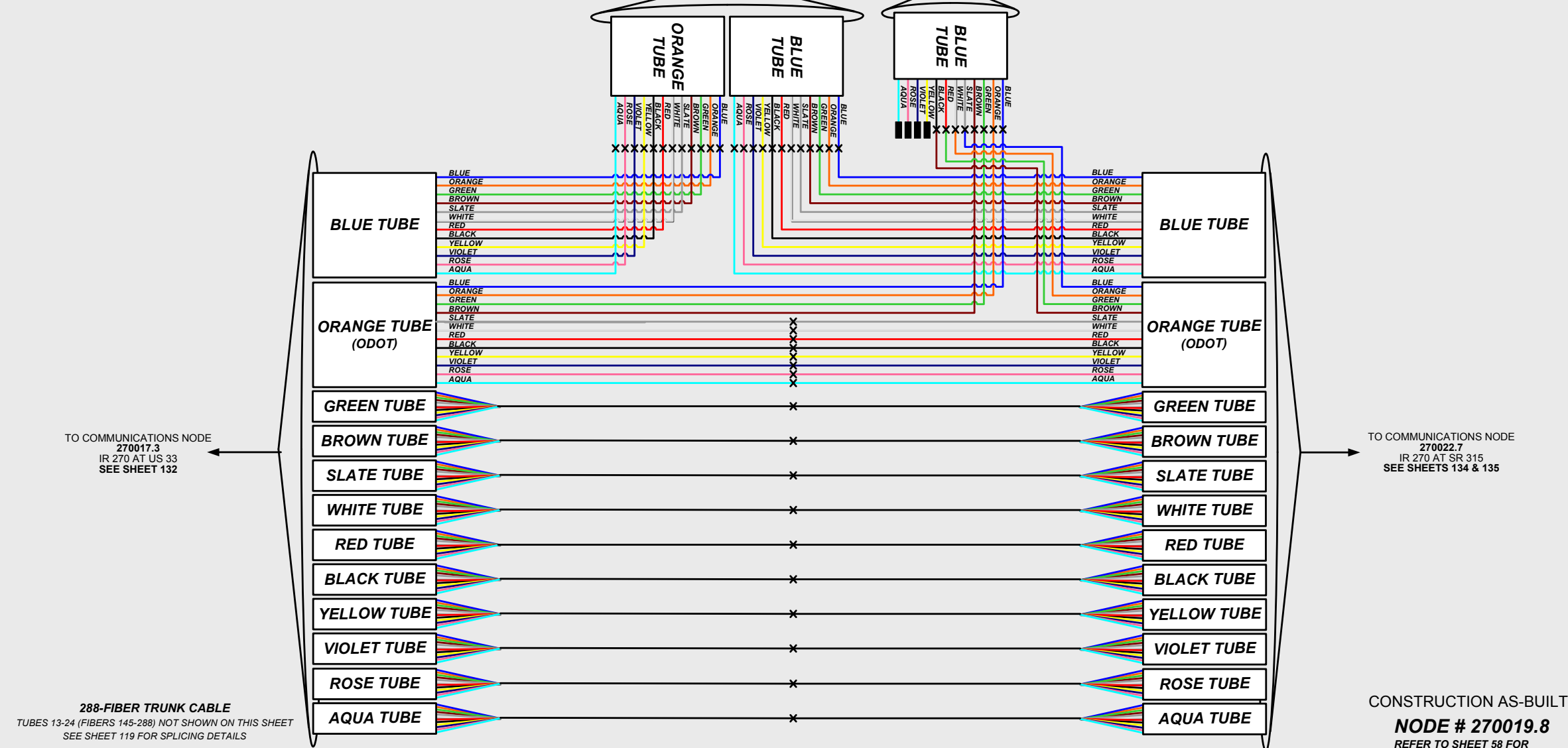
**PORT ALLOCATION**

PORT 5: NODE 270017.3  
PORT 6: NODE 270022.7

**EXISTING COMMUNICATIONS CABINET**



**UNDERGROUND SPlice ENCLOSURE**

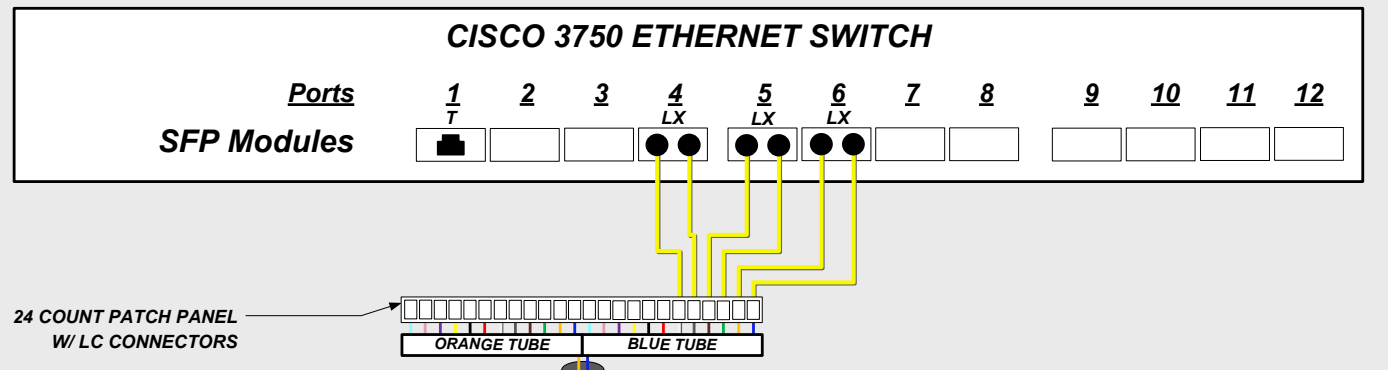


**KEY**

- EQUIPMENT CONNECTION FIBER OPTIC JUMPER
- FIBER OPTIC PIGTAIL
- CONNECTOR MODULE
- EXISTING/PROPOSED FIBER OR BUFFER TUBE LEFT COILED IN SPLICE ENCLOSURE
- FUSION SPLICE - SINGLE FIBER
- FUSION SPLICE - 12 FIBER BUFFER TUBE
- LX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS LESS THAN 6.2 MILES
- ZX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS GREATER THAN 6.2 MILES

CONSTRUCTION AS-BUILT  
**NODE # 270019.8**  
REFER TO SHEET 58 FOR CONSTRUCTION PLAN DETAILS

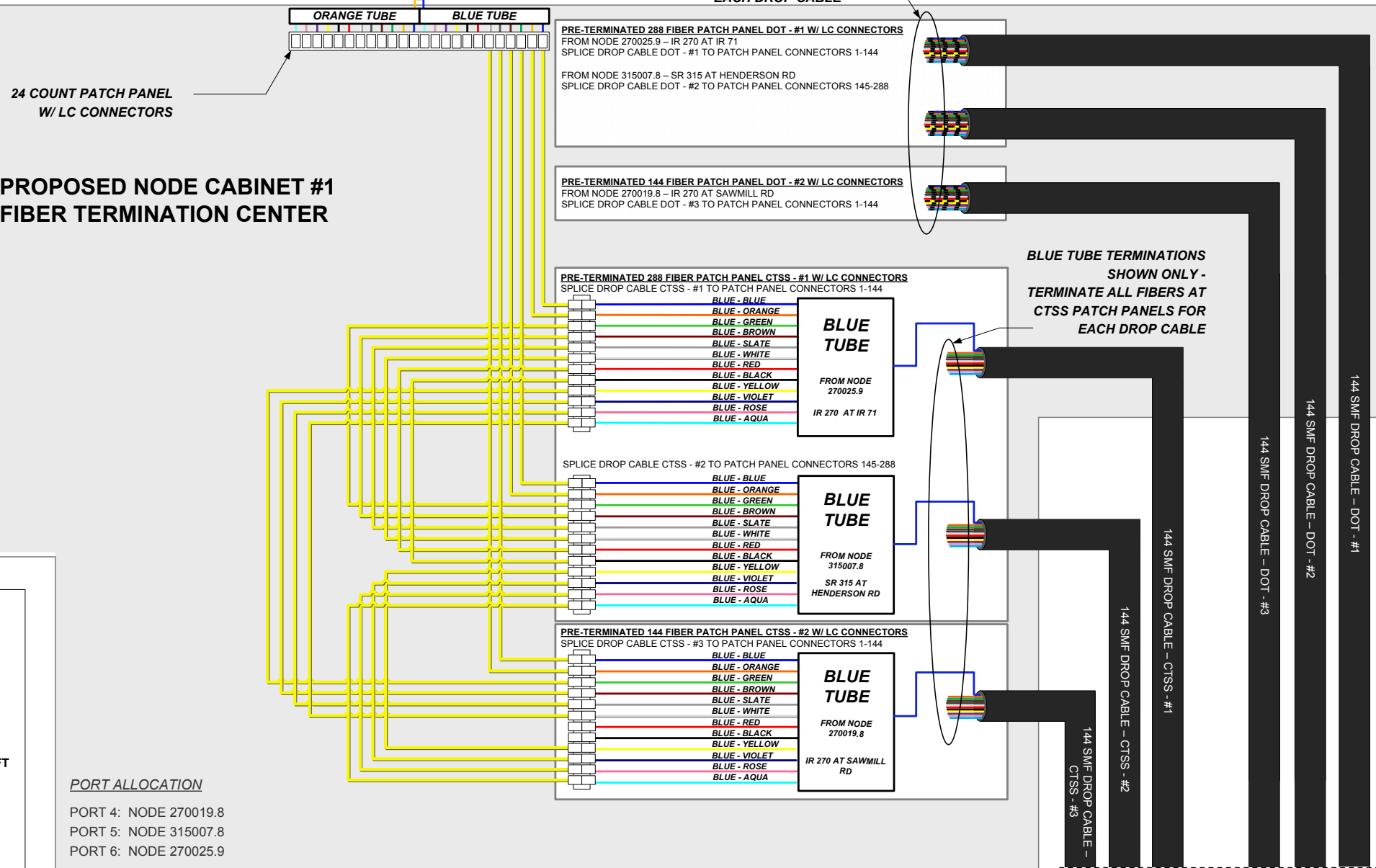
**PROPOSED NODE CABINET #2  
CLIMATE CONTROLLED W/ COMMUNICATIONS  
EQUIPMENT**



24 COUNT PATCH PANEL W/ LC CONNECTORS

24 STRAND SMF CABLE THROUGH 4" UNDERGROUND CONDUIT

TERMINATE ALL FIBERS AT DOT PATCH PANELS FOR EACH DROP CABLE



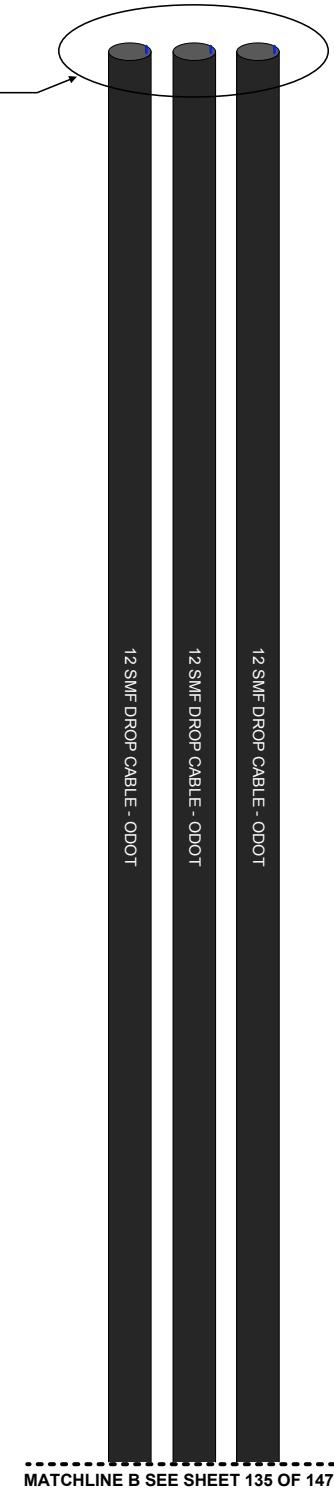
**PORT ALLOCATION**

PORT 4: NODE 270019.8  
PORT 5: NODE 315007.8  
PORT 6: NODE 270025.9

**NOTES:**

1. SEE SHEET 118A FOR CABINET EQUIPMENT LAYOUT

CAP AND COIL 100 FEET OF CABLE IN PULL BOX. TO BE EXTENDED TO EXISTING ODOT CABINET BY OTHERS



CONSTRUCTION AS-BUILT

**NODE # 270022.7**  
REFER TO SHEET 61 FOR  
CONSTRUCTION PLAN DETAILS

**KEY**

- EQUIPMENT CONNECTION FIBER OPTIC JUMPER
- FIBER OPTIC PIGTAIL
- CONNECTOR MODULE
- EXISTING/PROPOSED FIBER OR BUFFER TUBE LEFT COILED IN SPLICE ENCLOSURE
- FUSION SPLICE - SINGLE FIBER
- FUSION SPLICE - 12 FIBER BUFFER TUBE
- LX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS LESS THAN 6.2 MILES
- ZX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS GREATER THAN 6.2 MILES

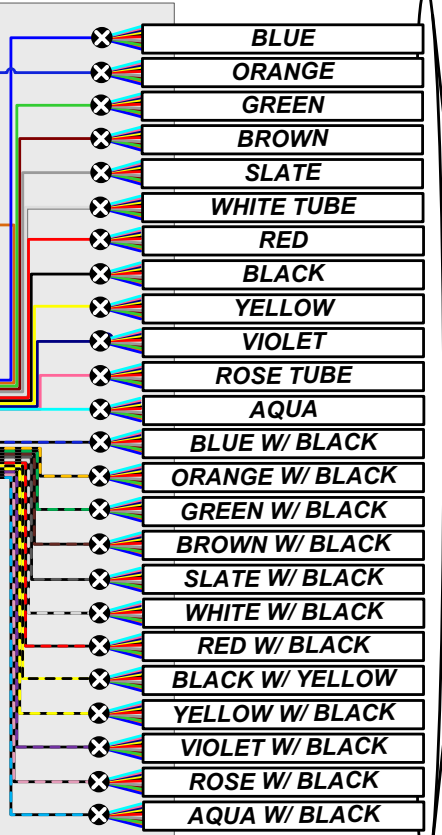
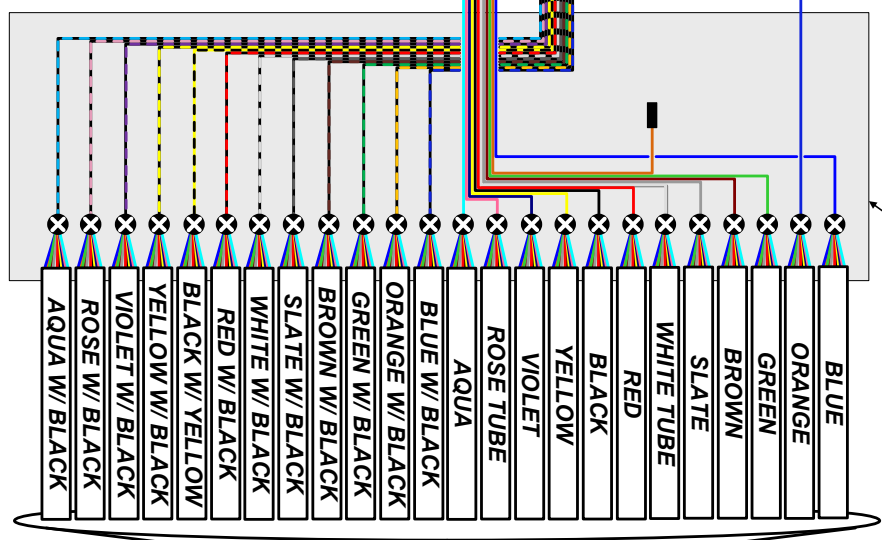
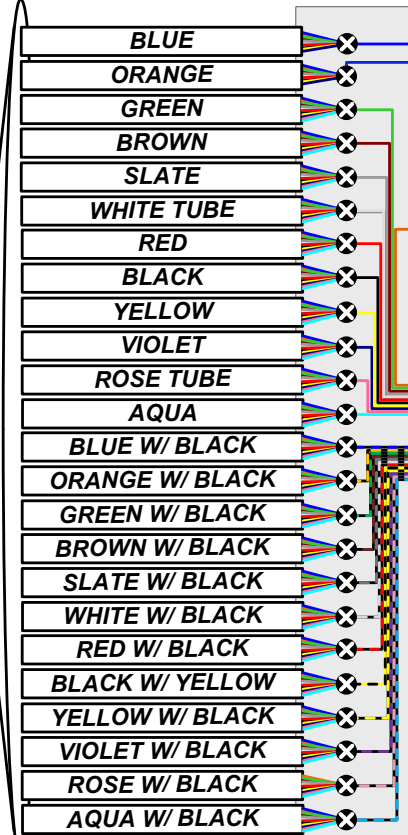
MATCHLINE A SEE SHEET 134 OF 147  
TO PROPOSED COMMUNICATIONS CABINET  
270022.7: IR 270 AT SR 315

MATCHLINE B SEE SHEET 134 OF 147  
TO EXISTING ODOT COMMUNICATIONS CABINET

**UNDERGROUND SPLICE ENCLOSURE**

TO COMMUNICATIONS NODE  
270019.8  
IR 270 AT SAWMILL RD  
SEE SHEET 133

TO COMMUNICATIONS NODE  
270025.9  
IR 270 AT IR 71  
SEE SHEET 136 & 137



**UNDERGROUND SPLICE ENCLOSURE**

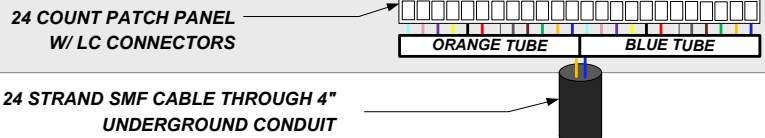
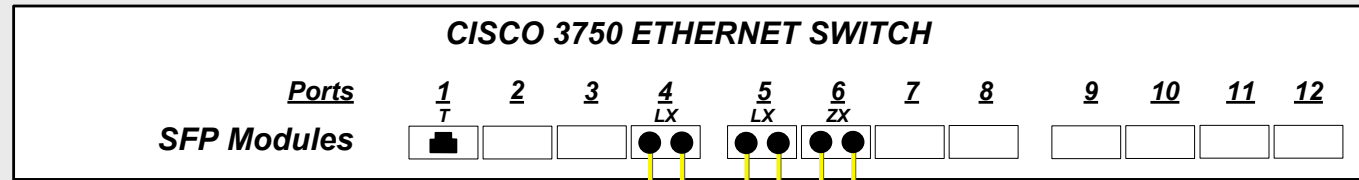
TO COMMUNICATIONS NODE  
315007.8  
SR 315 AT HENDERSON RD  
SHEET 146

CONSTRUCTION AS-BUILT  
**NODE # 270022.7**  
REFER TO SHEET 61 FOR  
CONSTRUCTION PLAN DETAILS

**KEY**

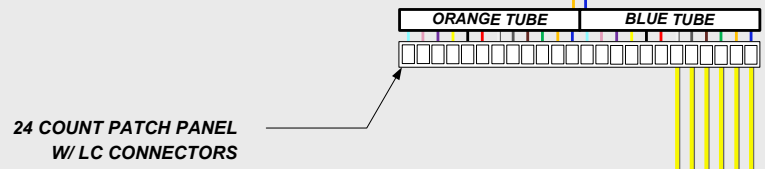
- EQUIPMENT CONNECTION FIBER OPTIC JUMPER
- FIBER OPTIC PIGTAIL
- CONNECTOR MODULE
- EXISTING/PROPOSED FIBER OR BUFFER TUBE LEFT COILED IN SPLICE ENCLOSURE
- FUSION SPLICE - SINGLE FIBER
- FUSION SPLICE - 12 FIBER BUFFER TUBE
- TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS LESS THAN 6.2 MILES
- TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS GREATER THAN 6.2 MILES

**PROPOSED NODE CABINET #2  
CLIMATE CONTROLLED W/ COMMUNICATIONS  
EQUIPMENT**



24 STRAND SMF CABLE THROUGH 4" UNDERGROUND CONDUIT

TERMINATE ALL FIBERS AT DOT PATCH PANELS FOR EACH DROP CABLE



**PRE-TERMINATED 288 FIBER PATCH PANEL DOT - #1 W/ LC CONNECTORS**  
FROM NODE 270032.3 - IR 270 AT MORSE RD  
SPLICE DROP CABLE DOT - #1 TO PATCH PANEL CONNECTORS 1-144

FROM NODE 071113.4 - IR 71 AT E. NORTH BROADWAY ST  
SPLICE DROP CABLE DOT - #2 TO PATCH PANEL CONNECTORS 145-288

**PRE-TERMINATED 144 FIBER PATCH PANEL DOT - #2 W/ LC CONNECTORS**  
FROM NODE 270022.7 - IR 270 AT SR 315  
SPLICE DROP CABLE DOT - #3 TO PATCH PANEL CONNECTORS 1-144

**PROPOSED NODE CABINET #1  
FIBER TERMINATION CENTER**

**PRE-TERMINATED 288 FIBER PATCH PANEL CTSS - #1 W/ LC CONNECTORS**  
SPLICE DROP CABLE CTSS - #1 TO PATCH PANEL CONNECTORS 1-144

BLUE - BLUE  
BLUE - ORANGE  
BLUE - GREEN  
BLUE - BROWN  
BLUE - SLATE  
BLUE - WHITE  
BLUE - RED  
BLUE - BLACK  
BLUE - YELLOW  
BLUE - VIOLET  
BLUE - ROSE  
BLUE - AQUA

FROM NODE 270032.3  
IR 270 AT MORSE RD

SPLICE DROP CABLE CTSS - #2 TO PATCH PANEL CONNECTORS 145-288

BLUE - BLUE  
BLUE - ORANGE  
BLUE - GREEN  
BLUE - BROWN  
BLUE - SLATE  
BLUE - WHITE  
BLUE - RED  
BLUE - BLACK  
BLUE - YELLOW  
BLUE - VIOLET  
BLUE - ROSE  
BLUE - AQUA

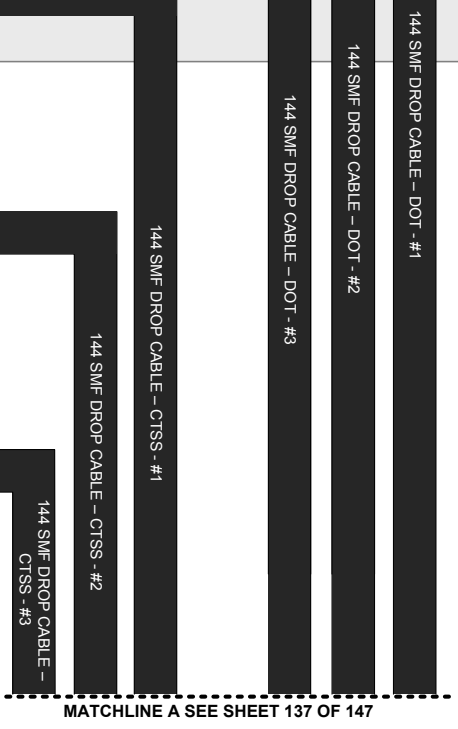
FROM NODE 071113.4  
IR 71 AT E. NORTH BROADWAY ST

**PRE-TERMINATED 144 FIBER PATCH PANEL CTSS - #2 W/ LC CONNECTORS**  
SPLICE DROP CABLE CTSS - #3 TO PATCH PANEL CONNECTORS 1-144

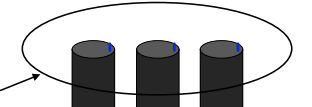
BLUE - BLUE  
BLUE - ORANGE  
BLUE - GREEN  
BLUE - BROWN  
BLUE - SLATE  
BLUE - WHITE  
BLUE - RED  
BLUE - BLACK  
BLUE - YELLOW  
BLUE - VIOLET  
BLUE - ROSE  
BLUE - AQUA

FROM NODE 270022.7  
IR 270 AT SR 315

BLUE TUBE TERMINATIONS SHOWN ONLY -  
TERMINATE ALL FIBERS AT CTSS PATCH PANELS FOR EACH DROP CABLE



CAP AND COIL 75 FEET OF CABLE IN PULL BOX. TO BE EXTENDED TO EXISTING ODOT CABINET BY OTHERS



**NOTES:**  
1. SEE SHEET 118A FOR CABINET EQUIPMENT LAYOUT

**KEY**

- EQUIPMENT CONNECTION FIBER OPTIC JUMPER
- FIBER OPTIC PIGTAIL
- CONNECTOR MODULE
- EXISTING/PROPOSED FIBER OR BUFFER TUBE LEFT COILED IN SPLICE ENCLOSURE
- FUSION SPLICE - SINGLE FIBER
- FUSION SPLICE - 12 FIBER BUFFER TUBE
- LX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS LESS THAN 6.2 MILES
- ZX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS GREATER THAN 6.2 MILES

**PORT ALLOCATION**  
PORT 4: NODE 270022.7  
PORT 5: NODE 071113.4  
PORT 6: NODE 270032.3

CONSTRUCTION AS-BUILT

**NODE # 270025.9**  
REFER TO SHEET 64 FOR CONSTRUCTION PLAN DETAILS

MATCHLINE A SEE SHEET 136 OF 147  
TO PROPOSED COMMUNICATIONS CABINET  
270025.9: IR 270 AT IR 71

MATCHLINE B SEE SHEET 136 OF 147  
TO EXISTING ODOT COMMUNICATIONS CABINET

**UNDERGROUND SPLICE ENCLOSURE**

TO COMMUNICATIONS NODE  
270022.7  
IR 270 AT SR 315  
SEE SHEETS 135 & 136

- BLUE
- ORANGE
- GREEN
- BROWN
- SLATE
- WHITE TUBE
- RED
- BLACK
- YELLOW
- VIOLET
- ROSE TUBE
- AQUA
- BLUE W/ BLACK
- ORANGE W/ BLACK
- GREEN W/ BLACK
- BROWN W/ BLACK
- SLATE W/ BLACK
- WHITE W/ BLACK
- RED W/ BLACK
- BLACK W/ YELLOW
- YELLOW W/ BLACK
- VIOLET W/ BLACK
- ROSE W/ BLACK
- AQUA W/ BLACK

- 144 SMF DROP CABLE - CTSS
- 144 SMF DROP CABLE - CTSS
- 144 SMF DROP CABLE - CTSS
- 144 SMF DROP CABLE - DOT
- 144 SMF DROP CABLE - DOT
- 144 SMF DROP CABLE - DOT
- 12 SMF DROP CABLE - ODOT
- 12 SMF DROP CABLE - ODOT
- 12 SMF DROP CABLE - ODOT

- BLUE
- ORANGE
- GREEN
- BROWN
- SLATE
- WHITE TUBE
- RED
- BLACK
- YELLOW
- VIOLET
- ROSE TUBE
- AQUA
- BLUE W/ BLACK
- ORANGE W/ BLACK
- GREEN W/ BLACK
- BROWN W/ BLACK
- SLATE W/ BLACK
- WHITE W/ BLACK
- RED W/ BLACK
- BLACK W/ YELLOW
- YELLOW W/ BLACK
- VIOLET W/ BLACK
- ROSE W/ BLACK
- AQUA W/ BLACK

- AQUA W/ BLACK
- ROSE W/ BLACK
- VIOLET W/ BLACK
- YELLOW W/ BLACK
- BLACK W/ YELLOW
- RED W/ BLACK
- WHITE W/ BLACK
- SLATE W/ BLACK
- BROWN W/ BLACK
- GREEN W/ BLACK
- ORANGE W/ BLACK
- BLUE W/ BLACK
- AQUA
- ROSE TUBE
- VIOLET
- YELLOW
- BLACK
- RED
- WHITE TUBE
- SLATE
- BROWN
- GREEN
- ORANGE
- BLUE

**UNDERGROUND SPLICE ENCLOSURE**

TO COMMUNICATIONS NODE  
270032.3  
IR 270 AT MORSE RD  
SEE SHEET 138

TO COMMUNICATIONS NODE  
071113.4  
IR 71 AT E NORTH BROADWAY STREET  
SEE SHEET 128

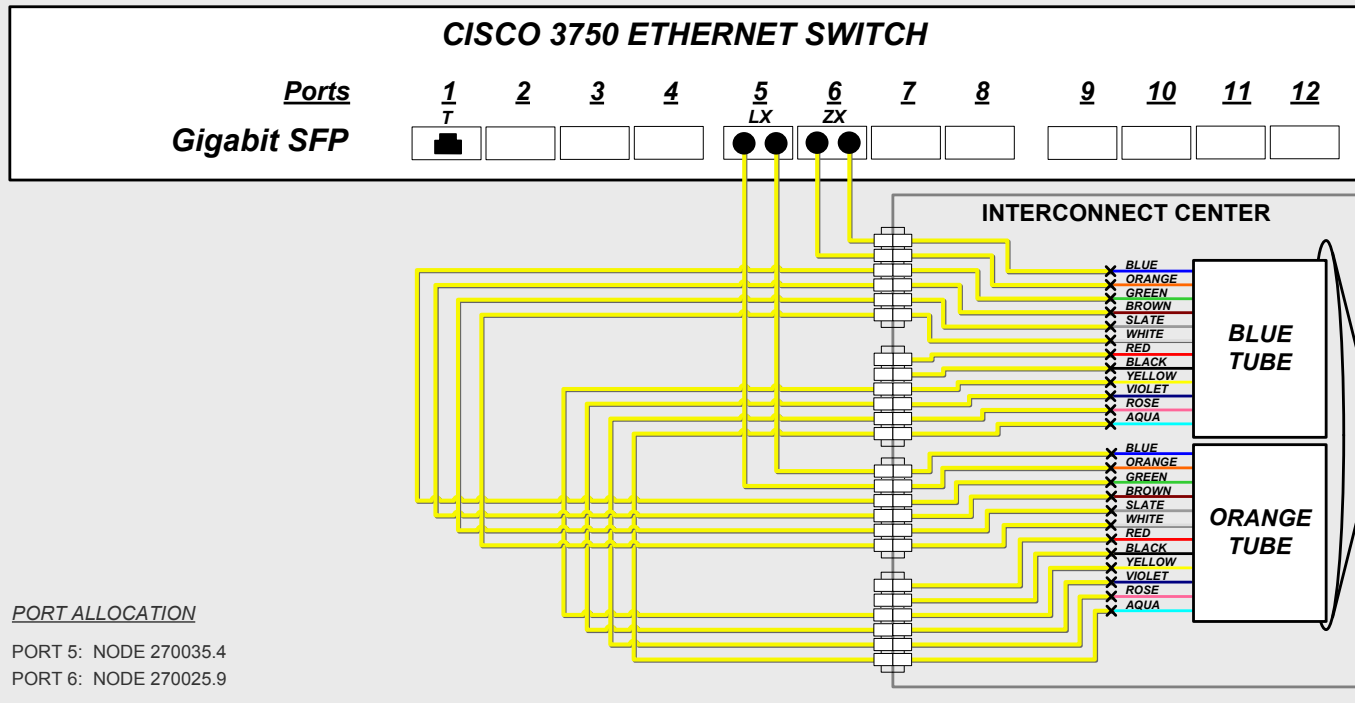
CONSTRUCTION AS-BUILT

**NODE # 270025.9**  
REFER TO SHEET 64 FOR  
CONSTRUCTION PLAN DETAILS

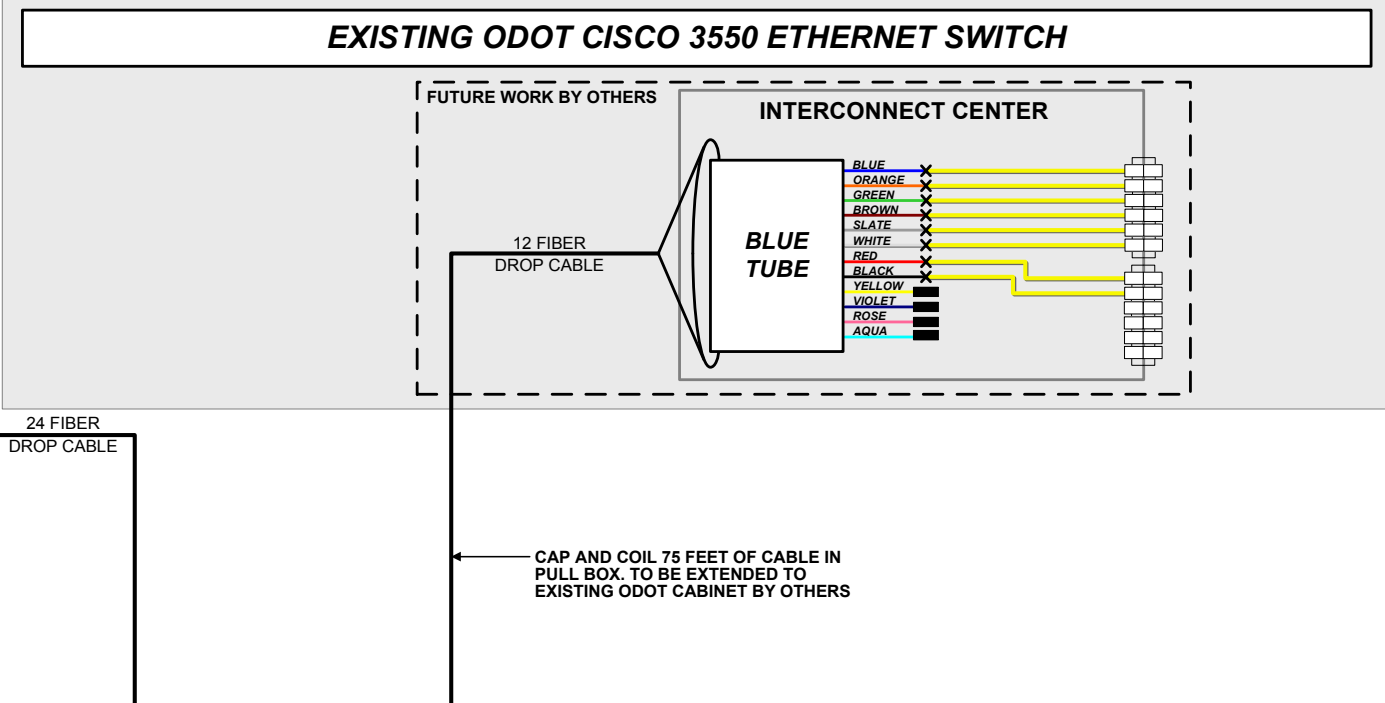
**KEY**

- EQUIPMENT CONNECTION FIBER OPTIC JUMPER
- FIBER OPTIC PIGTAIL
- CONNECTOR MODULE
- EXISTING/PROPOSED FIBER OR BUFFER TUBE LEFT COILED IN SPLICE ENCLOSURE
- FUSION SPLICE - SINGLE FIBER
- FUSION SPLICE - 12 FIBER BUFFER TUBE
- TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS LESS THAN 6.2 MILES
- TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS GREATER THAN 6.2 MILES

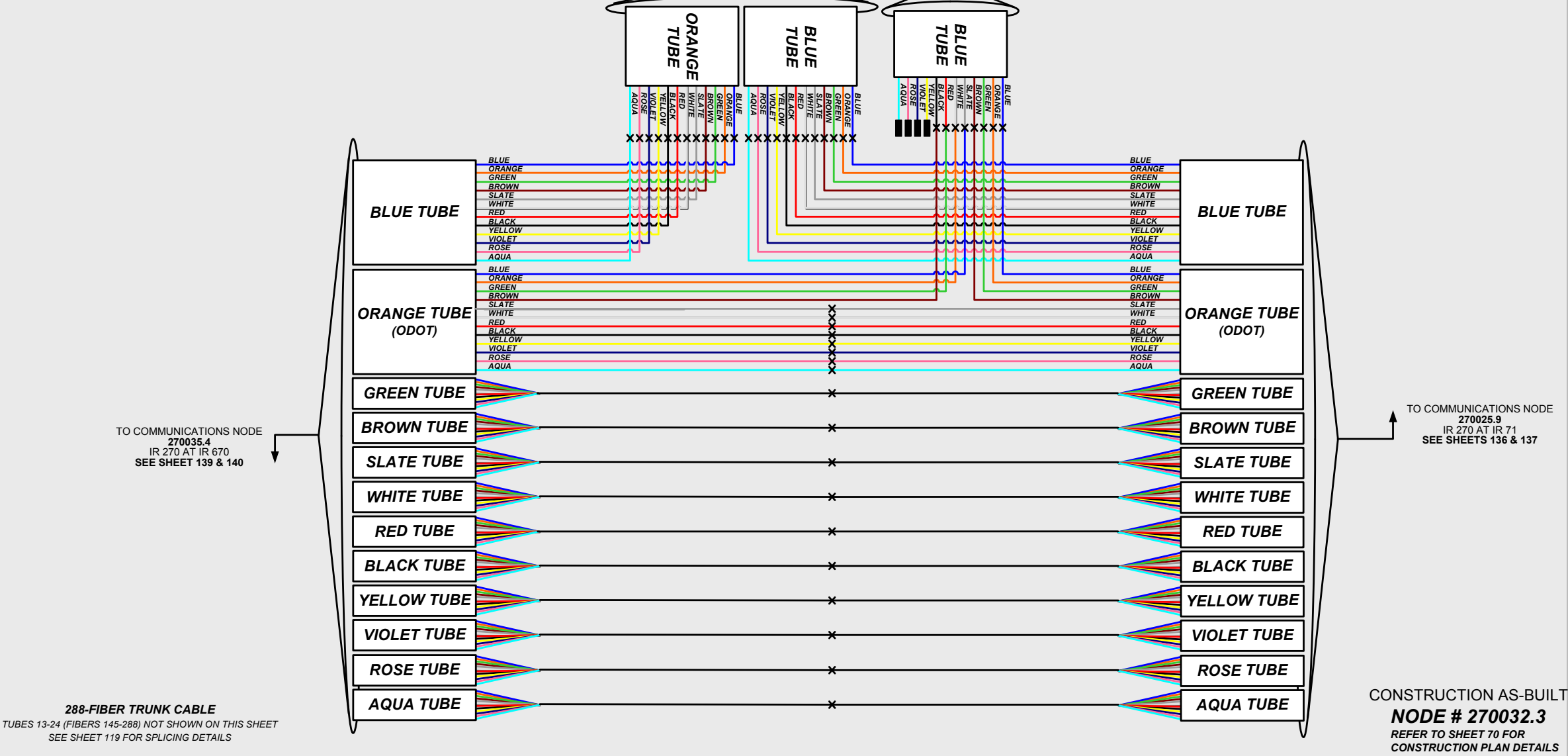
**NODE CABINET ASSEMBLY**



**EXISTING COMMUNICATIONS CABINET**



**UNDERGROUND SPLICE ENCLOSURE**

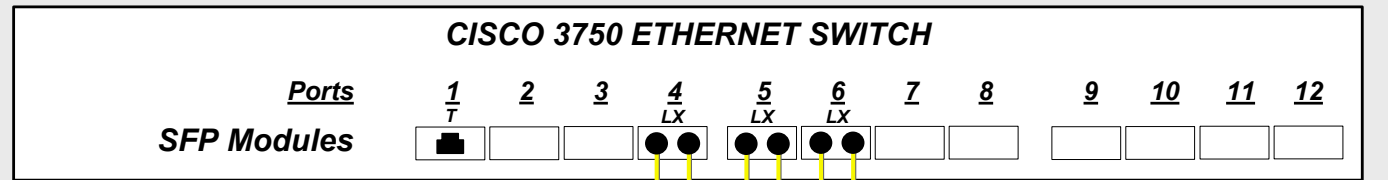


**KEY**

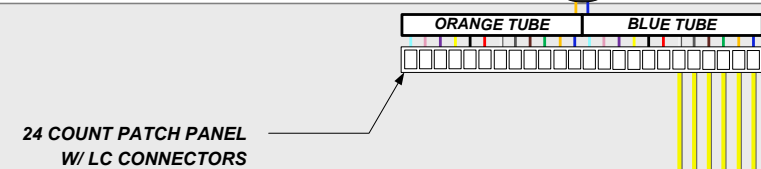
- EQUIPMENT CONNECTION
- FIBER OPTIC JUMPER
- FIBER OPTIC PIGTAIL
- CONNECTOR MODULE
- EXISTING/PROPOSED FIBER OR BUFFER TUBE LEFT COILED IN SPLICE ENCLOSURE
- FUSION SPLICE - SINGLE FIBER
- FUSION SPLICE - 12 FIBER BUFFER TUBE
- LX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS LESS THAN 6.2 MILES
- ZX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS GREATER THAN 6.2 MILES

CONSTRUCTION AS-BUILT  
**NODE # 270032.3**  
REFER TO SHEET 70 FOR CONSTRUCTION PLAN DETAILS

**PROPOSED NODE CABINET #2  
CLIMATE CONTROLLED W/ COMMUNICATIONS  
EQUIPMENT**



24 STRAND SMF CABLE THROUGH 4" UNDERGROUND CONDUIT



**PROPOSED NODE CABINET #1  
FIBER TERMINATION CENTER**

TERMINATE ALL FIBERS AT DOT PATCH PANELS FOR EACH DROP CABLE

PRE-TERMINATED 288 FIBER PATCH PANEL DOT - #1 W/ LC CONNECTORS  
FROM NODE 270039.5 - IR 270 AT E. BROAD ST  
SPLICE DROP CABLE DOT - #1 TO PATCH PANEL CONNECTORS 1-144

FROM NODE 670006.5 - IR 670 AT LEONARD AVE  
SPLICE DROP CABLE DOT - #2 TO PATCH PANEL CONNECTORS 145-288

PRE-TERMINATED 144 FIBER PATCH PANEL DOT - #2 W/ LC CONNECTORS  
FROM NODE 270032.2 - IR 270 AT MORSE RD  
SPLICE DROP CABLE DOT - #3 TO PATCH PANEL CONNECTORS 1-144

PRE-TERMINATED 288 FIBER PATCH PANEL CTSS - #1 W/ LC CONNECTORS  
SPLICE DROP CABLE CTSS - #1 TO PATCH PANEL CONNECTORS 1-144

- BLUE - BLUE
- BLUE - ORANGE
- BLUE - GREEN
- BLUE - BROWN
- BLUE - SLATE
- BLUE - WHITE
- BLUE - RED
- BLUE - BLACK
- BLUE - YELLOW
- BLUE - VIOLET
- BLUE - ROSE
- BLUE - AQUA

SPLICE DROP CABLE CTSS - #2 TO PATCH PANEL CONNECTORS 145-288

- BLUE - BLUE
- BLUE - ORANGE
- BLUE - GREEN
- BLUE - BROWN
- BLUE - SLATE
- BLUE - WHITE
- BLUE - RED
- BLUE - BLACK
- BLUE - YELLOW
- BLUE - VIOLET
- BLUE - ROSE
- BLUE - AQUA

PRE-TERMINATED 144 FIBER PATCH PANEL CTSS - #2 W/ LC CONNECTORS  
SPLICE DROP CABLE CTSS - #3 TO PATCH PANEL CONNECTORS 1-144

- BLUE - BLUE
- BLUE - ORANGE
- BLUE - GREEN
- BLUE - BROWN
- BLUE - SLATE
- BLUE - WHITE
- BLUE - RED
- BLUE - BLACK
- BLUE - YELLOW
- BLUE - VIOLET
- BLUE - ROSE
- BLUE - AQUA

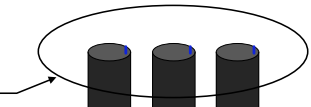
PORT ALLOCATION

- PORT 4: NODE 270032.2
- PORT 5: NODE 670006.5
- PORT 6: NODE 270039.5

**NOTES:**

1. SEE SHEET 118A FOR CABINET EQUIPMENT LAYOUT

CAP AND COIL 75 FEET OF CABLE IN PULL BOX. TO BE EXTENDED TO EXISTING ODOT CABINET BY OTHERS



BLUE TUBE TERMINATIONS SHOWN ONLY - TERMINATE ALL FIBERS AT CTSS PATCH PANELS FOR EACH DROP CABLE

12 SMF DROP CABLE - ODOT  
12 SMF DROP CABLE - ODOT  
12 SMF DROP CABLE - ODOT

144 SMF DROP CABLE - DOT - #1  
144 SMF DROP CABLE - DOT - #2  
144 SMF DROP CABLE - DOT - #3  
144 SMF DROP CABLE - CTSS - #1  
144 SMF DROP CABLE - CTSS - #2  
144 SMF DROP CABLE - CTSS - #3

MATCHLINE B SEE SHEET 140 OF 147

MATCHLINE A SEE SHEET 140 OF 147

CONSTRUCTION AS-BUILT

**NODE # 270035.4**  
REFER TO SHEET 73 FOR  
CONSTRUCTION PLAN DETAILS

**KEY**

- EQUIPMENT CONNECTION FIBER OPTIC JUMPER
- FIBER OPTIC PIGTAIL
- CONNECTOR MODULE
- EXISTING/PROPOSED FIBER OR BUFFER TUBE LEFT COILED IN SPLICE ENCLOSURE
- FUSION SPLICE - SINGLE FIBER
- FUSION SPLICE - 12 FIBER BUFFER TUBE
- LX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS LESS THAN 6.2 MILES
- ZX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS GREATER THAN 6.2 MILES



MATCHLINE A SEE SHEET 139 OF 147  
TO PROPOSED COMMUNICATIONS CABINET  
270032.2: IR 270 AT MORSE RD

MATCHLINE B SEE SHEET 139 OF 147  
TO EXISTING ODOT COMMUNICATIONS CABINET

**UNDERGROUND SPLICE ENCLOSURE**









**UNDERGROUND SPLICE ENCLOSURE**

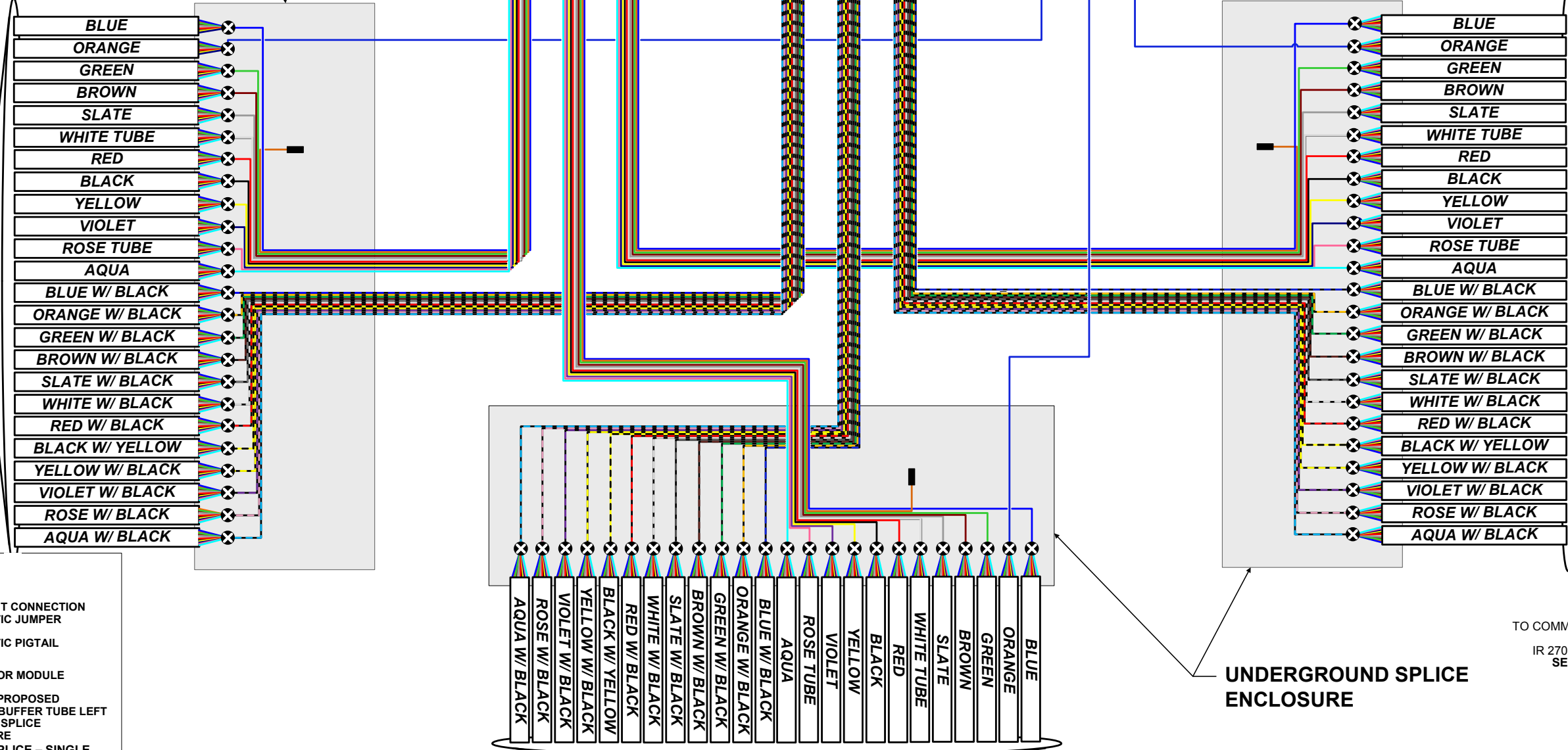
TO COMMUNICATIONS NODE  
270032.3  
IR 270 AT MORSE RD  
SEE SHEET 138

TO COMMUNICATIONS NODE  
270039.5  
IR 270 AT E BROAD ST  
SEE SHEET 141

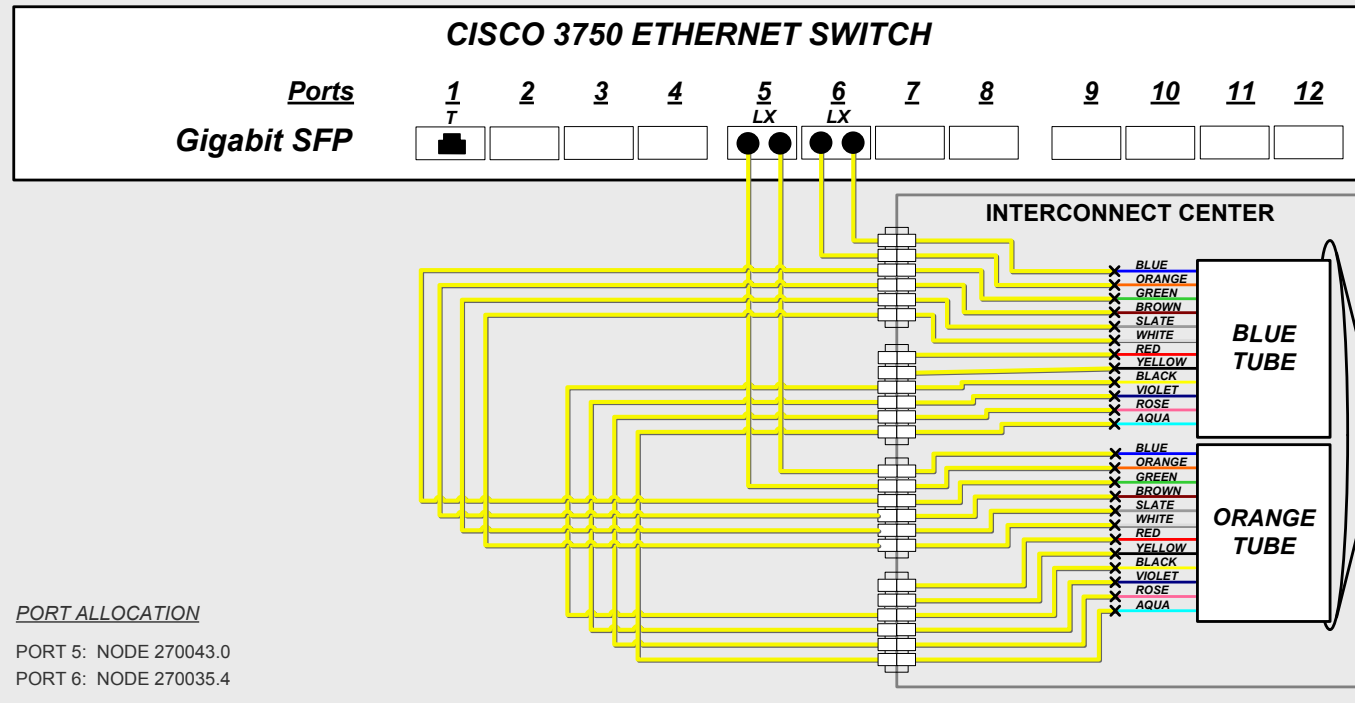
TO COMMUNICATIONS NODE  
670006.5  
IR 670 AT LEONARD AVE  
SEE SHEET 147

**KEY**

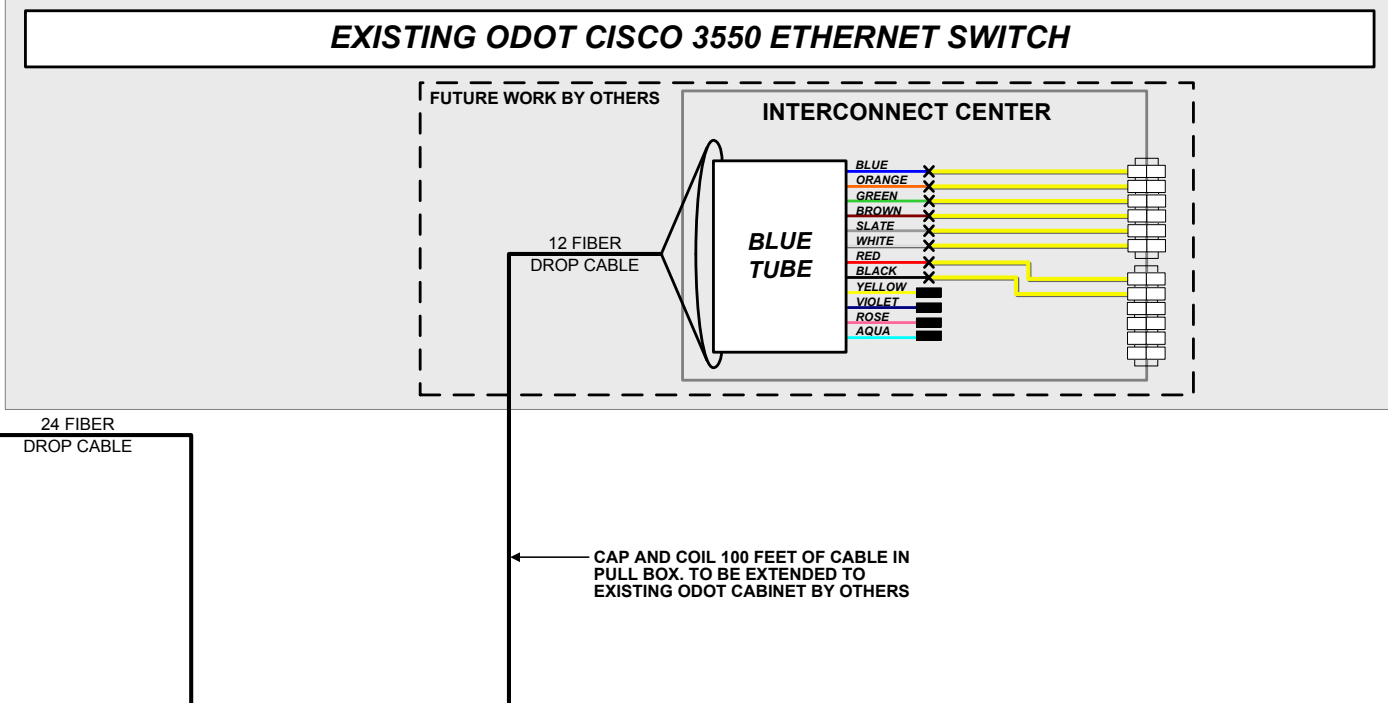
-  EQUIPMENT CONNECTION FIBER OPTIC JUMPER
-  FIBER OPTIC PIGTAIL
-  CONNECTOR MODULE
-  EXISTING/PROPOSED FIBER OR BUFFER TUBE LEFT COILED IN SPLICE ENCLOSURE
-  FUSION SPLICE - SINGLE FIBER
-  FUSION SPLICE - 12 FIBER BUFFER TUBE
-  LX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS LESS THAN 6.2 MILES
-  ZX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS GREATER THAN 6.2 MILES



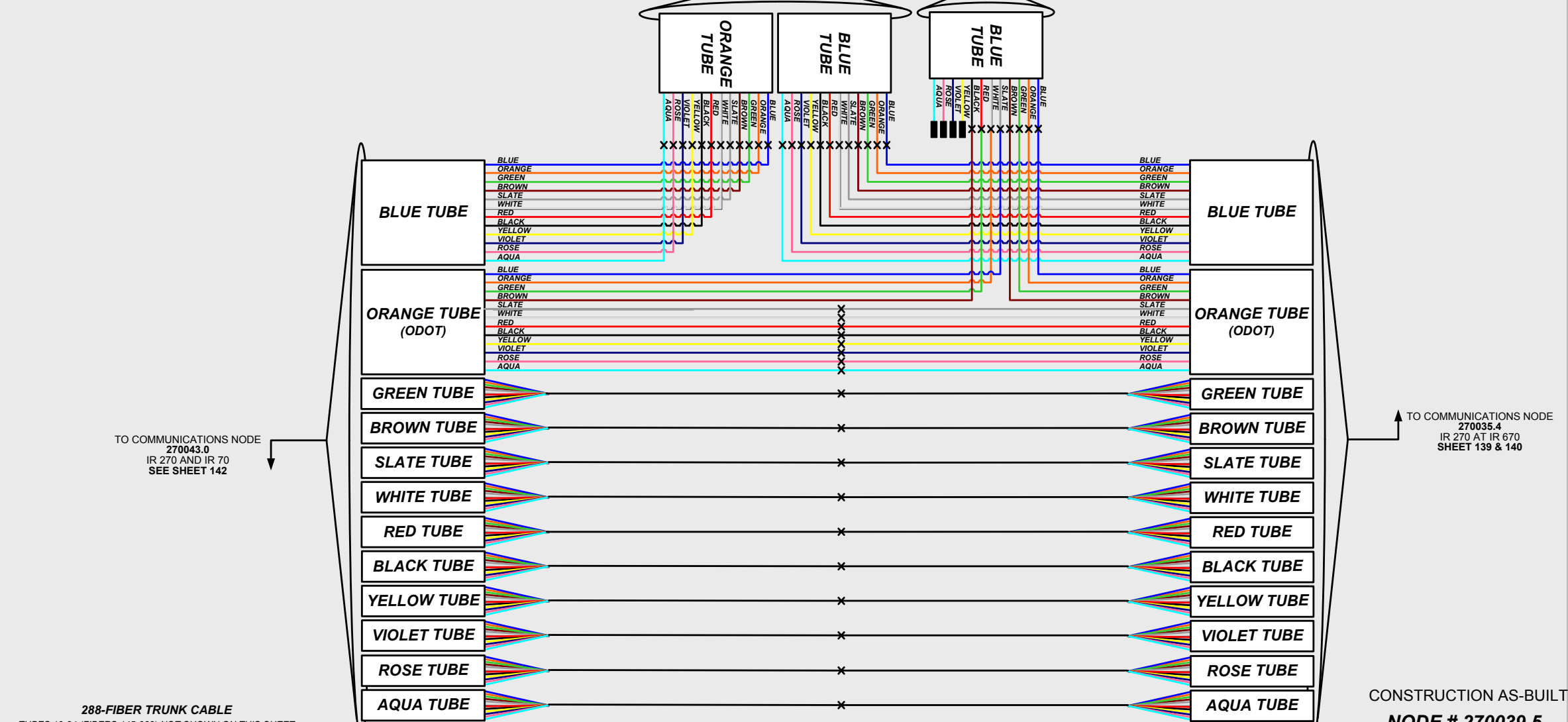
**NODE CABINET ASSEMBLY**



**EXISTING COMMUNICATIONS CABINET**



**UNDERGROUND SPICE ENCLOSURE**



**KEY**

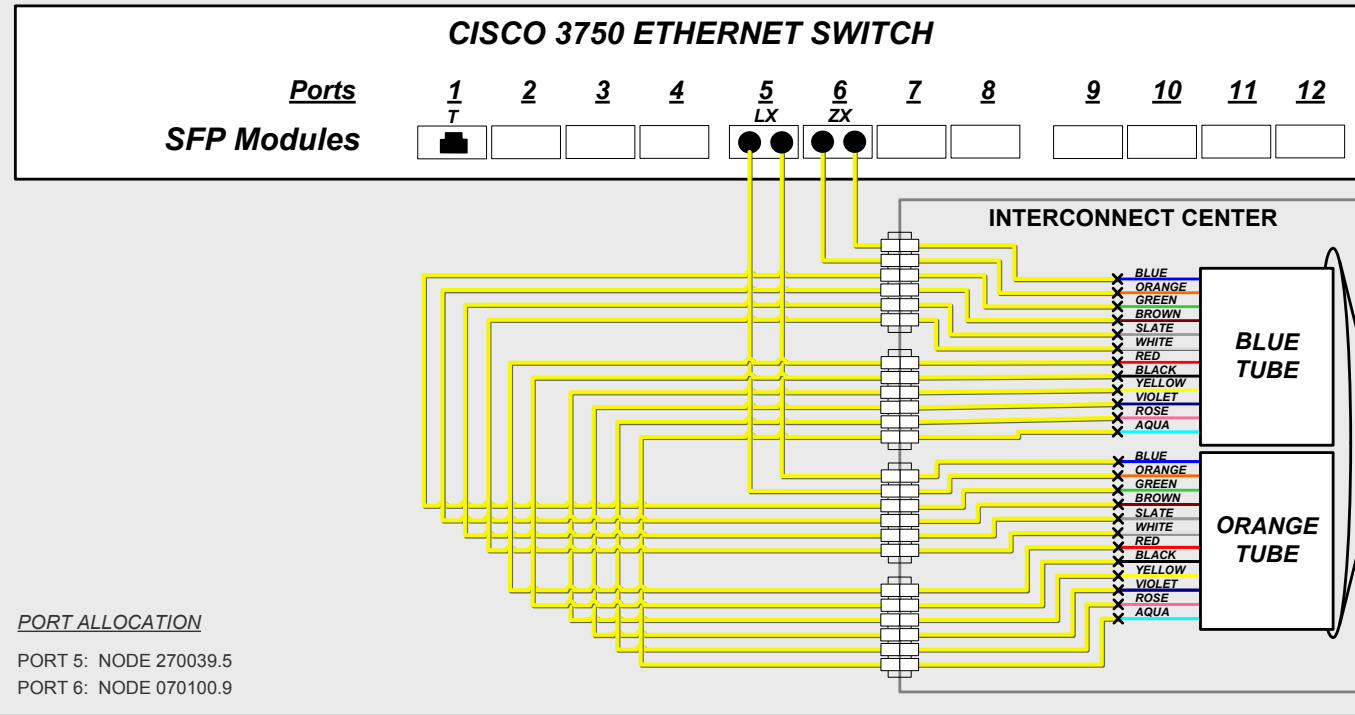
- EQUIPMENT CONNECTION FIBER OPTIC JUMPER
- FIBER OPTIC PIGTAIL
- CONNECTOR MODULE
- EXISTING/PROPOSED FIBER OR BUFFER TUBE LEFT COILED IN SPLICE ENCLOSURE
- FUSION SPLICE - SINGLE FIBER
- FUSION SPLICE - 12 FIBER BUFFER TUBE
- LX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS LESS THAN 6.2 MILES
- ZX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS GREATER THAN 6.2 MILES

288-FIBER TRUNK CABLE  
TUBES 13-24 (FIBERS 145-288) NOT SHOWN ON THIS SHEET  
SEE SHEET 119 FOR SPLICING DETAILS

288-FIBER TRUNK CABLE  
TUBES 13-24 (FIBERS 145-288) USED BY OTHERS

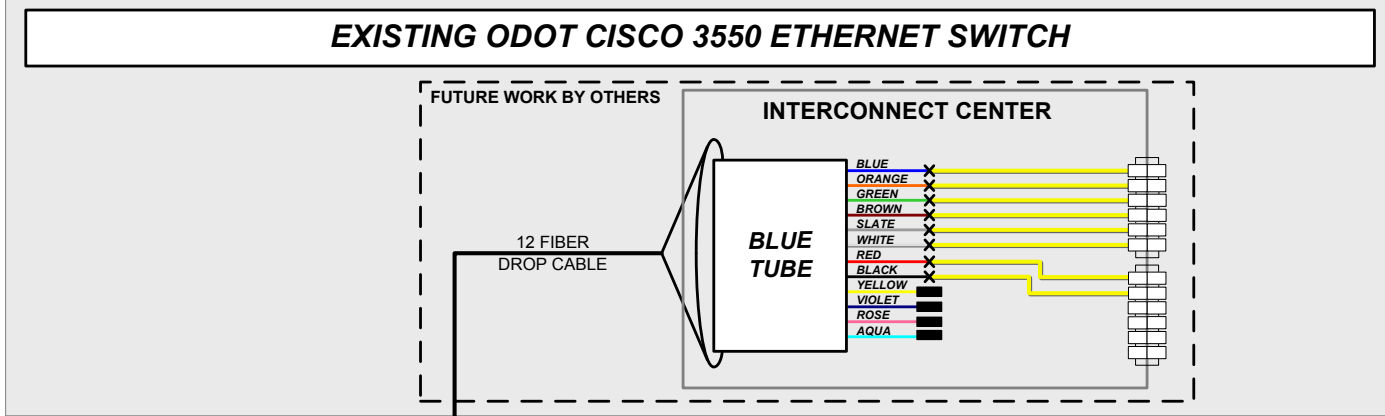
CONSTRUCTION AS-BUILT  
**NODE # 270039.5**  
REFER TO SHEET 77 FOR CONSTRUCTION PLAN DETAILS

**NODE CABINET ASSEMBLY**

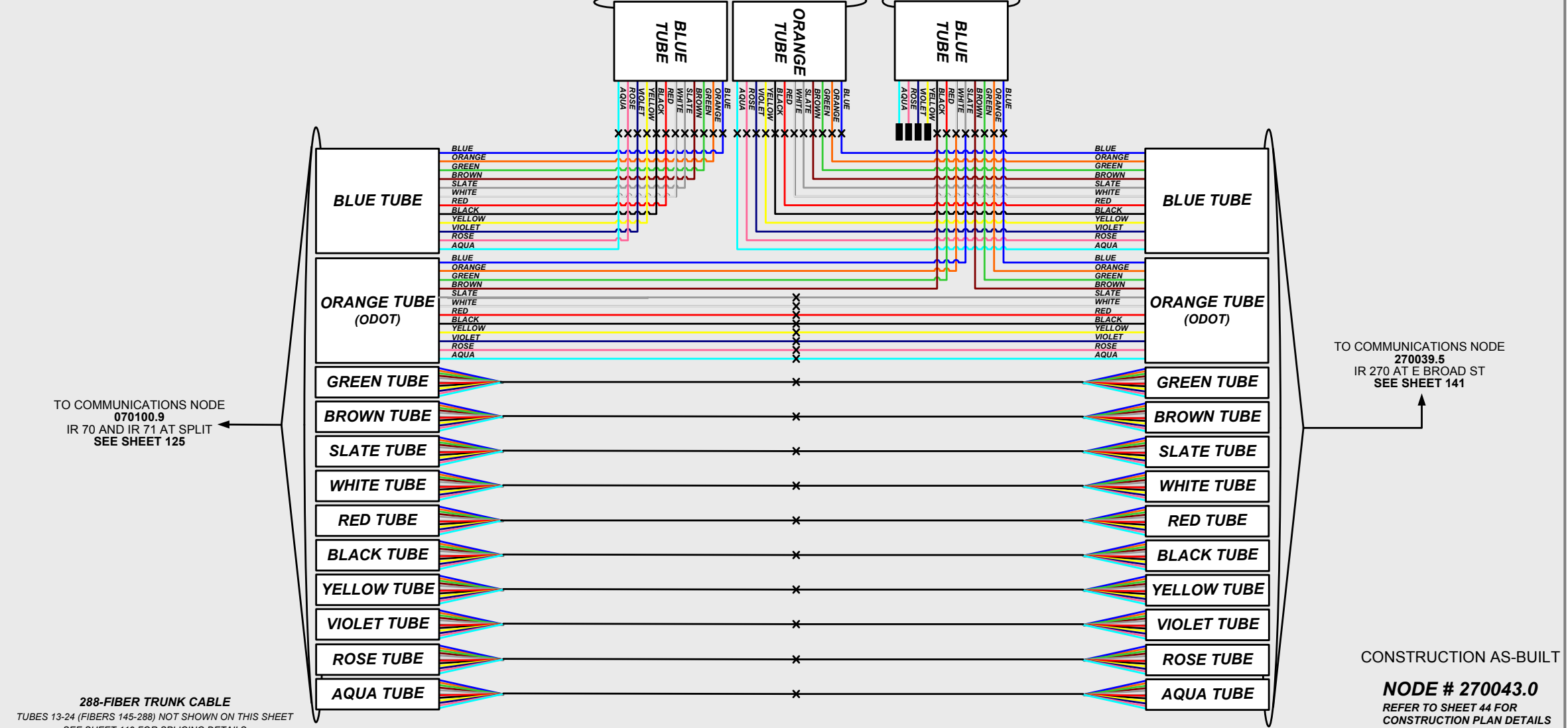


**PORT ALLOCATION**  
 PORT 5: NODE 270039.5  
 PORT 6: NODE 070100.9

**EXISTING COMMUNICATIONS CABINET**



**UNDERGROUND SPlice ENCLOSURE**

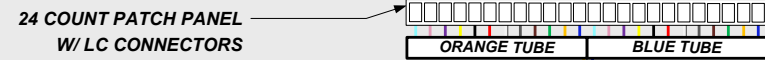
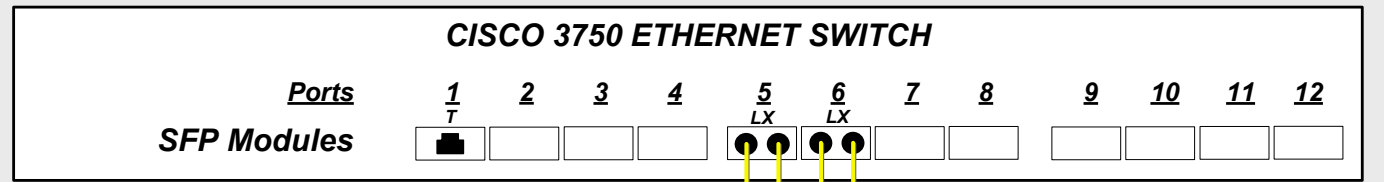


**KEY**

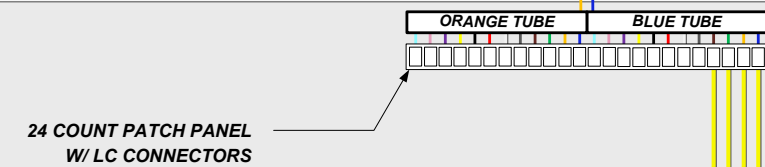
- EQUIPMENT CONNECTION
- FIBER OPTIC JUMPER
- FIBER OPTIC PIGTAIL
- CONNECTOR MODULE
- EXISTING/PROPOSED FIBER OR BUFFER TUBE LEFT COILED IN SPLICE ENCLOSURE
- FUSION SPLICE - SINGLE FIBER
- FUSION SPLICE - 12 FIBER BUFFER TUBE
- LX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS LESS THAN 6.2 MILES
- ZX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS GREATER THAN 6.2 MILES

CONSTRUCTION AS-BUILT  
**NODE # 270043.0**  
 REFER TO SHEET 44 FOR CONSTRUCTION PLAN DETAILS

**PROPOSED NODE CABINET #2  
CLIMATE CONTROLLED W/ COMMUNICATIONS  
EQUIPMENT**



24 STRAND SMF CABLE THROUGH 4" UNDERGROUND CONDUIT



**PROPOSED NODE CABINET #1  
FIBER TERMINATION CENTER**

PRE-TERMINATED 288 FIBER PATCH PANEL DOT - #1 W/ LC CONNECTORS  
FROM NODE 315000.9 - SR 315 AT BROAD ST  
SPLICE DROP CABLE DOT - #1 TO PATCH PANEL CONNECTORS 1-144

FROM NODE 315005.2 - SR 315 AT ACKERMAN RD  
SPLICE DROP CABLE DOT - #2 TO PATCH PANEL CONNECTORS 145-288

PRE-TERMINATED 288 FIBER PATCH PANEL CTSS - #1 W/ LC CONNECTORS  
SPLICE DROP CABLE CTSS - #1 TO PATCH PANEL CONNECTORS 1-144

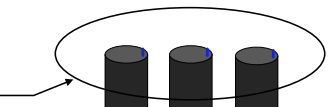
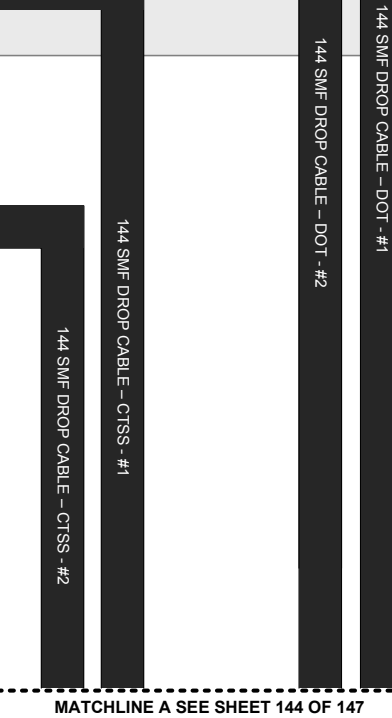
- BLUE - BLUE
- BLUE - ORANGE
- BLUE - GREEN
- BLUE - BROWN
- BLUE - SLATE
- BLUE - WHITE
- BLUE - RED
- BLUE - BLACK
- BLUE - YELLOW
- BLUE - VIOLET
- BLUE - ROSE
- BLUE - AQUA

SPLICE DROP CABLE CTSS - #2 TO PATCH PANEL CONNECTORS 145-288

- BLUE - BLUE
- BLUE - ORANGE
- BLUE - GREEN
- BLUE - BROWN
- BLUE - SLATE
- BLUE - WHITE
- BLUE - RED
- BLUE - BLACK
- BLUE - YELLOW
- BLUE - VIOLET
- BLUE - ROSE
- BLUE - AQUA

TERMINATE ALL FIBERS AT  
DOT PATCH PANELS FOR  
EACH DROP CABLE

BLUE TUBE TERMINATIONS  
SHOWN ONLY -  
TERMINATE ALL FIBERS AT  
CTSS PATCH PANELS FOR  
EACH DROP CABLE



MATCHLINE B SEE SHEET 144 OF 147

MATCHLINE A SEE SHEET 144 OF 147

CONSTRUCTION AS-BUILT

**NODE # 315001.3**  
REFER TO SHEET 80 FOR  
CONSTRUCTION PLAN DETAILS

**NOTES:**

1. SEE SHEET 118A FOR CABINET EQUIPMENT LAYOUT

**KEY**

- EQUIPMENT CONNECTION FIBER OPTIC JUMPER
- FIBER OPTIC PIGTAIL
- CONNECTOR MODULE
- EXISTING/PROPOSED FIBER OR BUFFER TUBE LEFT COILED IN SPLICE ENCLOSURE
- FUSION SPLICE - SINGLE FIBER
- FUSION SPLICE - 12 FIBER BUFFER TUBE
- LX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS LESS THAN 6.2 MILES
- ZX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS GREATER THAN 6.2 MILES

PORT ALLOCATION

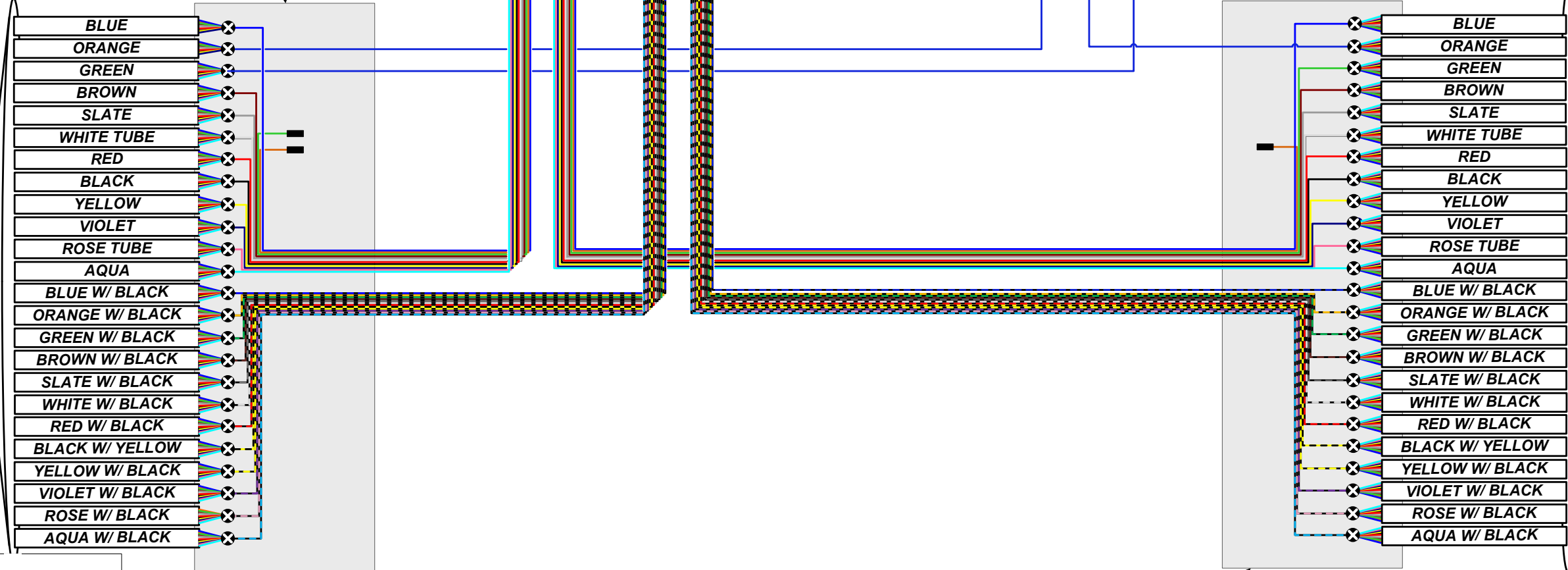
PORT 5: NODE 315005.2  
PORT 6: NODE 315000.9

MATCHLINE A SEE SHEET 143 OF 147  
TO PROPOSED COMMUNICATIONS CABINET  
315001.3: SR 315 AT IR 670

MATCHLINE B SEE SHEET 143 OF 147  
TO EXISTING ODOT COMMUNICATIONS CABINET

**UNDERGROUND SPLICE ENCLOSURE**

TO COMMUNICATIONS NODE  
315005.2  
SR 315 AT ACKERMAN RD  
SEE SHEET 145



**KEY**

- EQUIPMENT CONNECTION
- FIBER OPTIC JUMPER
- FIBER OPTIC PIGTAIL
- CONNECTOR MODULE
- EXISTING/PROPOSED FIBER OR BUFFER TUBE LEFT COILED IN SPLICE ENCLOSURE
- FUSION SPLICE - SINGLE FIBER
- FUSION SPLICE - 12 FIBER BUFFER TUBE
- TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS LESS THAN 6.2 MILES
- TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS GREATER THAN 6.2 MILES

**UNDERGROUND SPLICE ENCLOSURE**

TO FUTURE COMMUNICATIONS NODE  
315000.9  
SR 315 AND W. BROAD STREET

CONSTRUCTION AS-BUILT

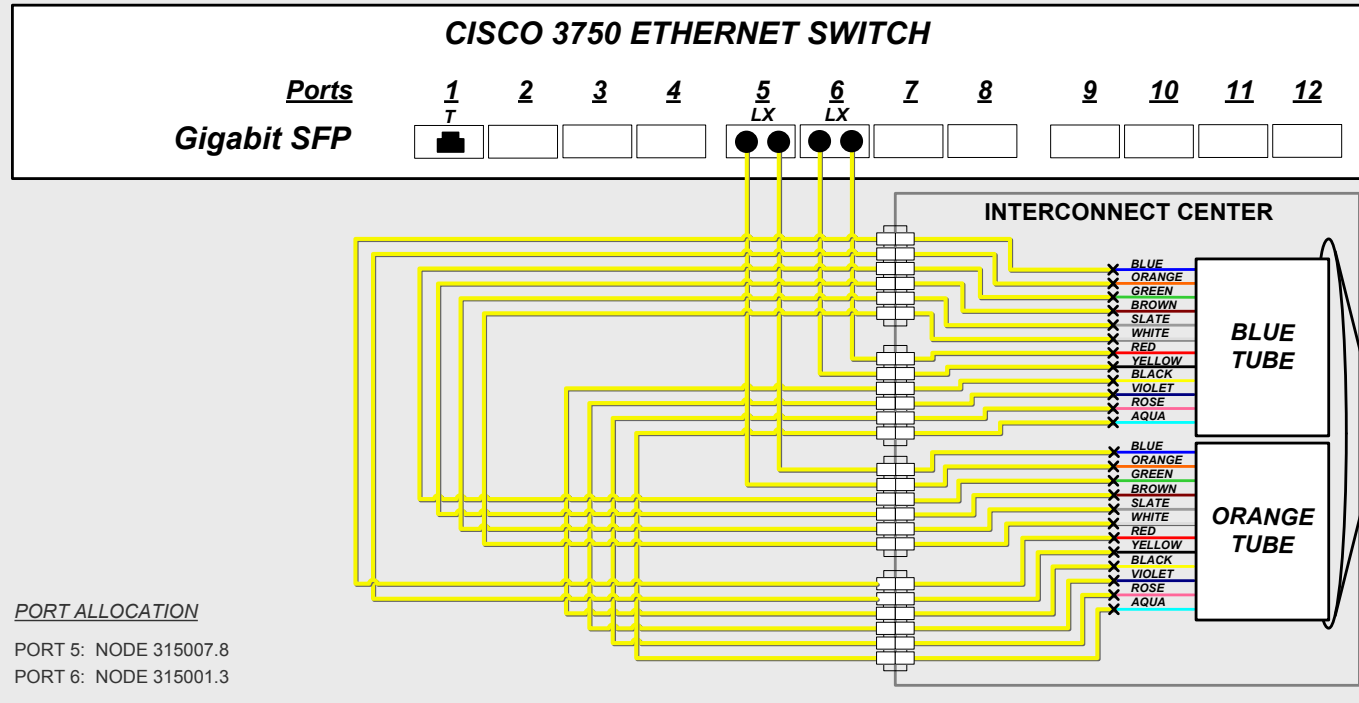
**NODE # 315001.3**  
REFER TO SHEET 80 FOR  
CONSTRUCTION PLAN DETAILS

PID NUMBER 82540  
2643 DR. E  
FEDERAL ID NO E070 (617)

COMMUNICATIONS NODE 315001.3: SR 315 AT IR 670  
COMMUNICATIONS CABINET

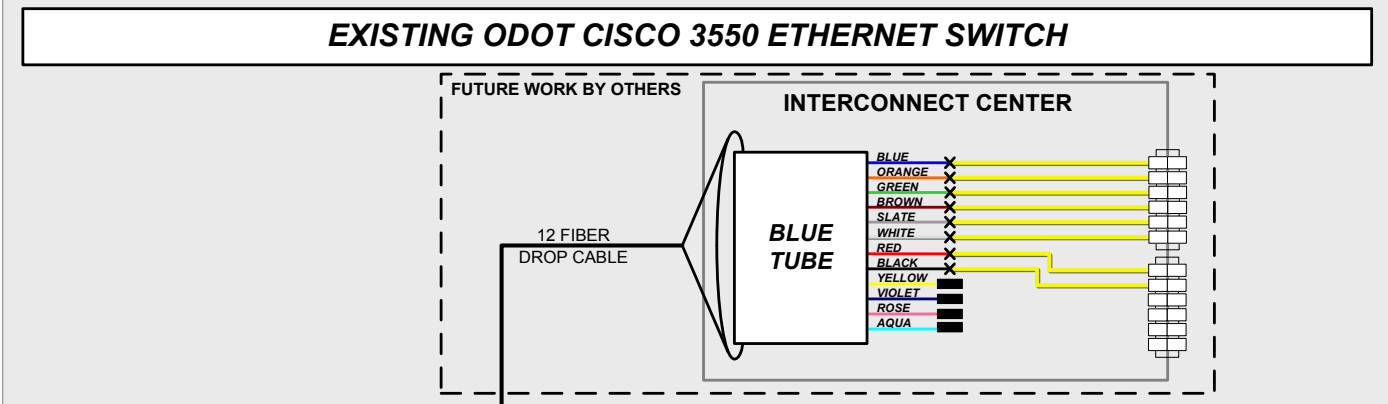
CITY OF COLUMBUS TRAFFIC SIGNAL SYSTEMS  
(CTSS) PHASE A

**NODE CABINET ASSEMBLY**

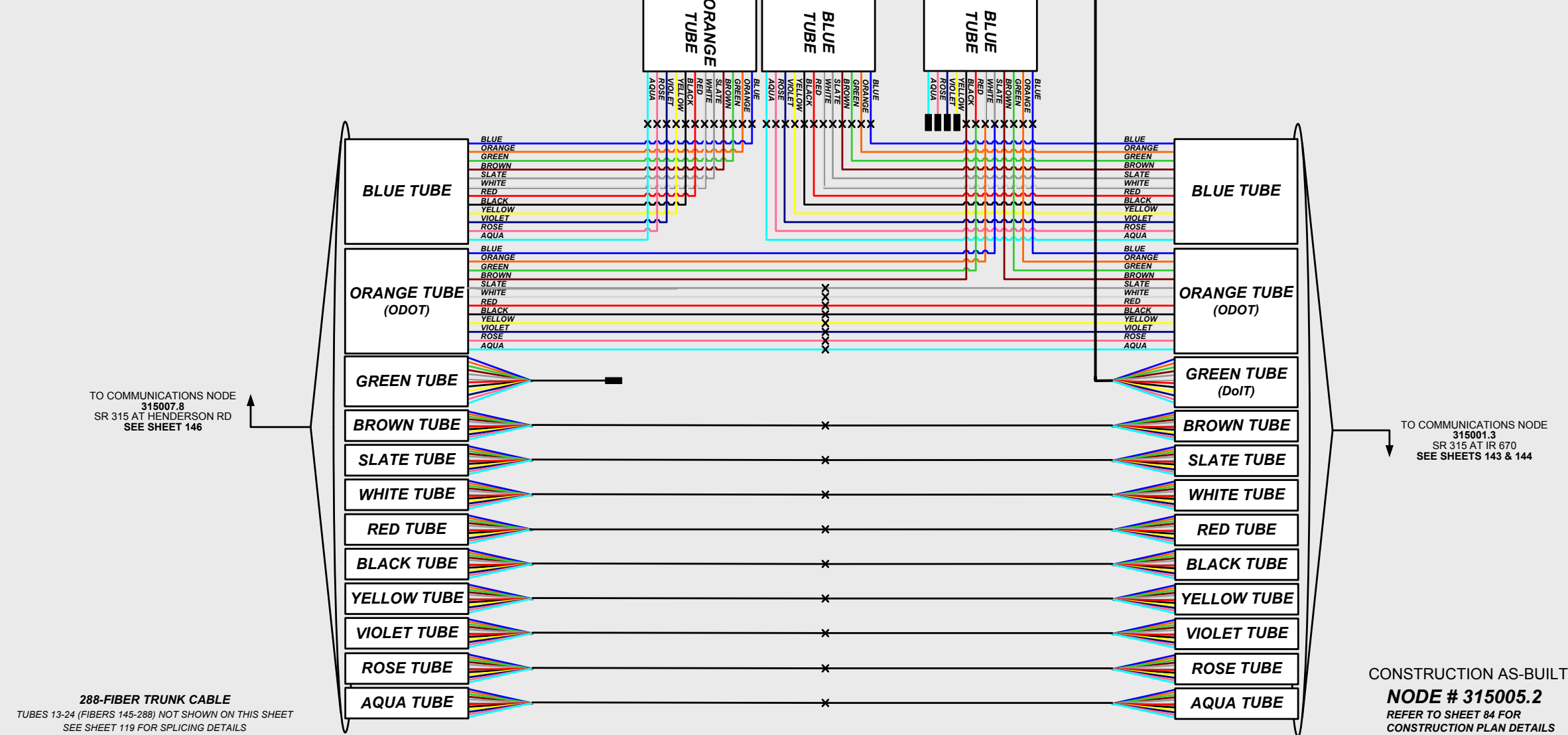


**PORT ALLOCATION**  
 PORT 5: NODE 315007.8  
 PORT 6: NODE 315001.3

**EXISTING COMMUNICATIONS CABINET**



**UNDERGROUND SPLICE ENCLOSURE**



TO COMMUNICATIONS NODE  
 315007.8  
 SR 315 AT HENDERSON RD  
 SEE SHEET 146

TO COMMUNICATIONS NODE  
 315001.3  
 SR 315 AT IR 670  
 SEE SHEETS 143 & 144

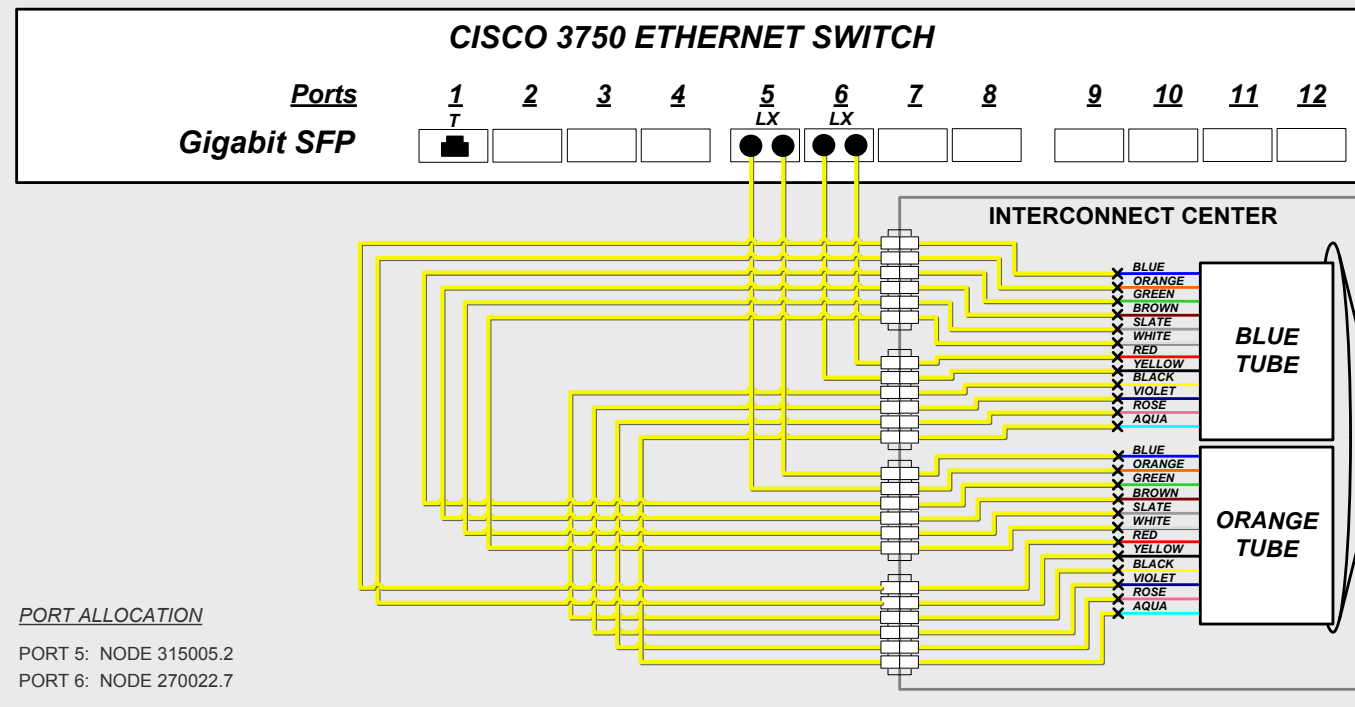
**288-FIBER TRUNK CABLE**  
 TUBES 13-24 (FIBERS 145-288) NOT SHOWN ON THIS SHEET  
 SEE SHEET 119 FOR SPLICING DETAILS

CONSTRUCTION AS-BUILT  
**NODE # 315005.2**  
 REFER TO SHEET 84 FOR  
 CONSTRUCTION PLAN DETAILS

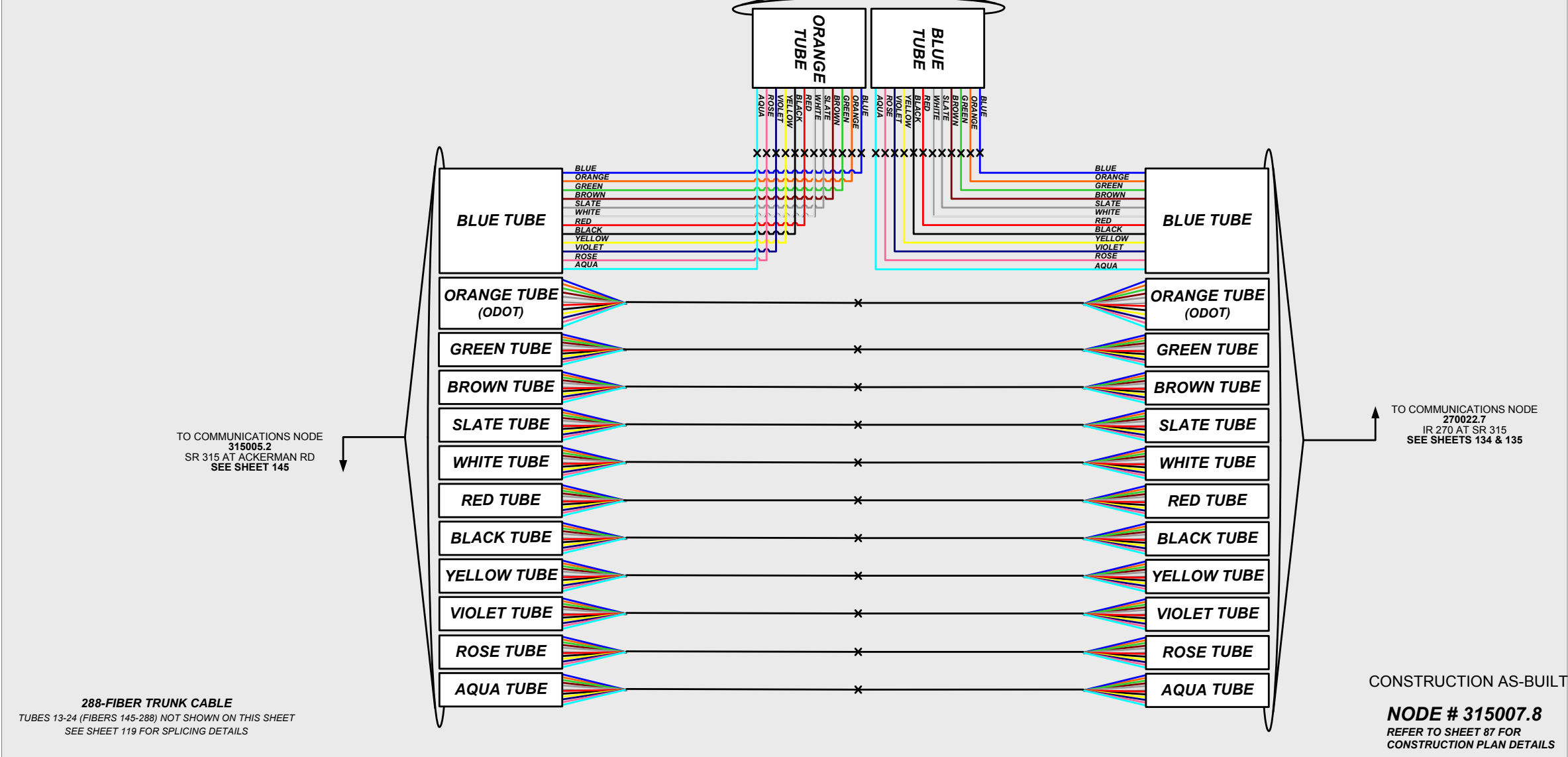
**KEY**

- EQUIPMENT CONNECTION
- FIBER OPTIC JUMPER
- FIBER OPTIC PIGTAIL
- CONNECTOR MODULE
- EXISTING/PROPOSED FIBER OR BUFFER TUBE LEFT COILED IN SPLICE ENCLOSURE
- FUSION SPLICE - SINGLE FIBER
- FUSION SPLICE - 12 FIBER BUFFER TUBE
- TRANSCEIVER MODULE
- LX** DISTANCE BETWEEN NODES IS LESS THAN 6.2 MILES
- ZX** DISTANCE BETWEEN NODES IS GREATER THAN 6.2 MILES

**NODE CABINET ASSEMBLY**



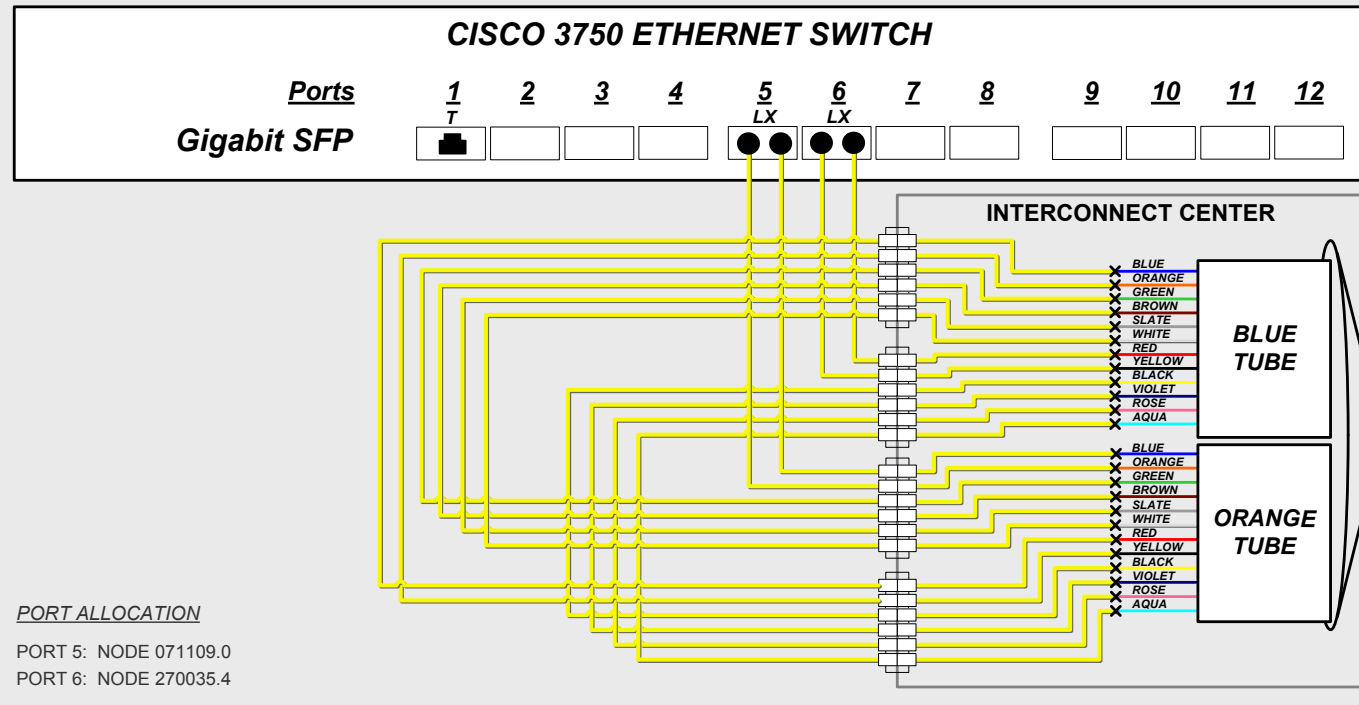
**UNDERGROUND SPLICE ENCLOSURE**



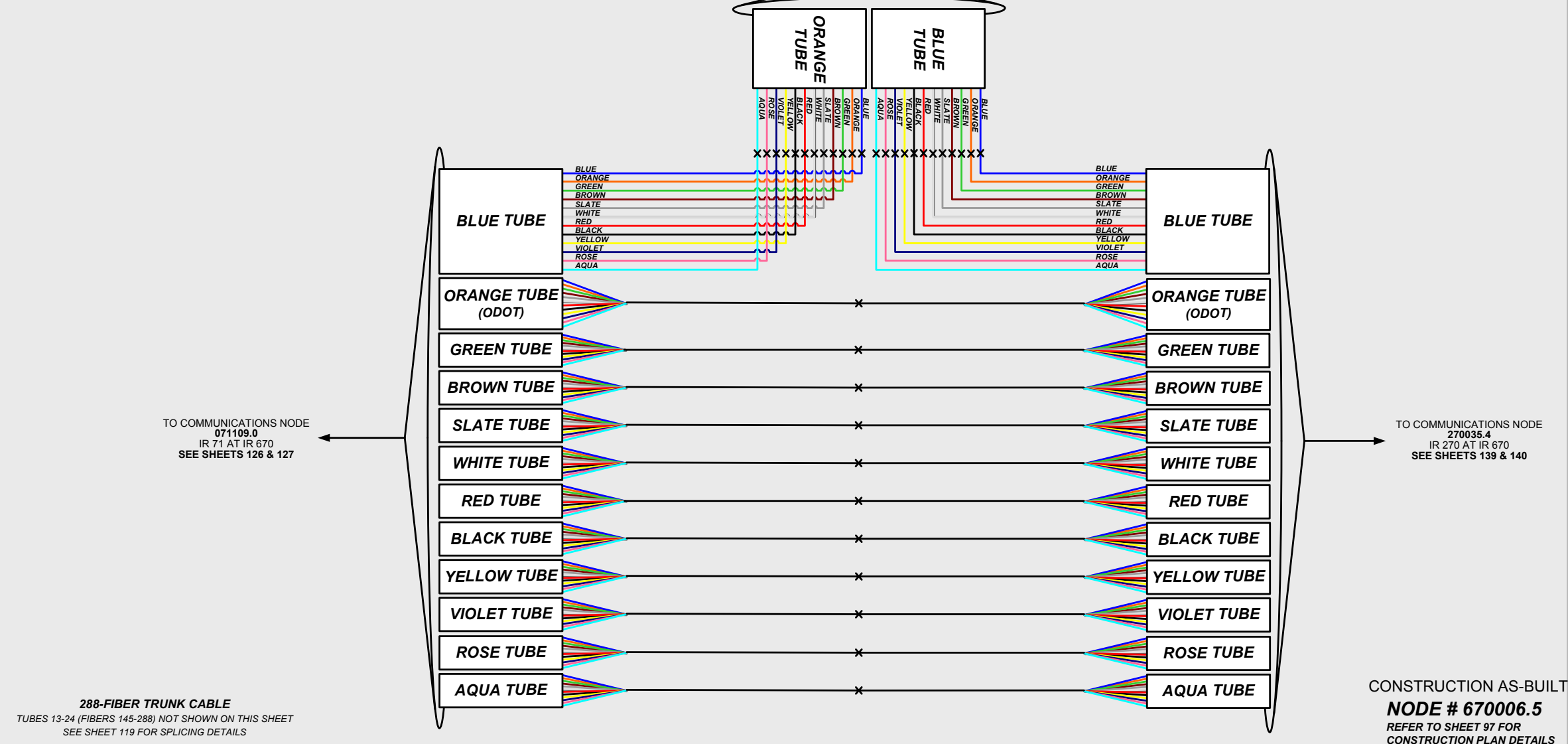
**KEY**

- EQUIPMENT CONNECTION
- FIBER OPTIC JUMPER
- FIBER OPTIC PIGTAIL
- CONNECTOR MODULE
- EXISTING/PROPOSED FIBER OR BUFFER TUBE LEFT COILED IN SPLICE ENCLOSURE
- FUSION SPLICE - SINGLE FIBER
- FUSION SPLICE - 12 FIBER BUFFER TUBE
- TRANSCEIVER MODULE
- DISTANCE BETWEEN NODES IS LESS THAN 6.2 MILES
- DISTANCE BETWEEN NODES IS GREATER THAN 6.2 MILES

**NODE CABINET ASSEMBLY**



**UNDERGROUND SPlice ENCLOSURE**



**KEY**

- EQUIPMENT CONNECTION FIBER OPTIC JUMPER
- FIBER OPTIC PIGTAIL
- CONNECTOR MODULE
- EXISTING/PROPOSED FIBER OR BUFFER TUBE LEFT COILED IN SPLICE ENCLOSURE
- FUSION SPLICE - SINGLE FIBER
- FUSION SPLICE - 12 FIBER BUFFER TUBE
- LX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS LESS THAN 6.2 MILES
- ZX TRANSCEIVER MODULE DISTANCE BETWEEN NODES IS GREATER THAN 6.2 MILES