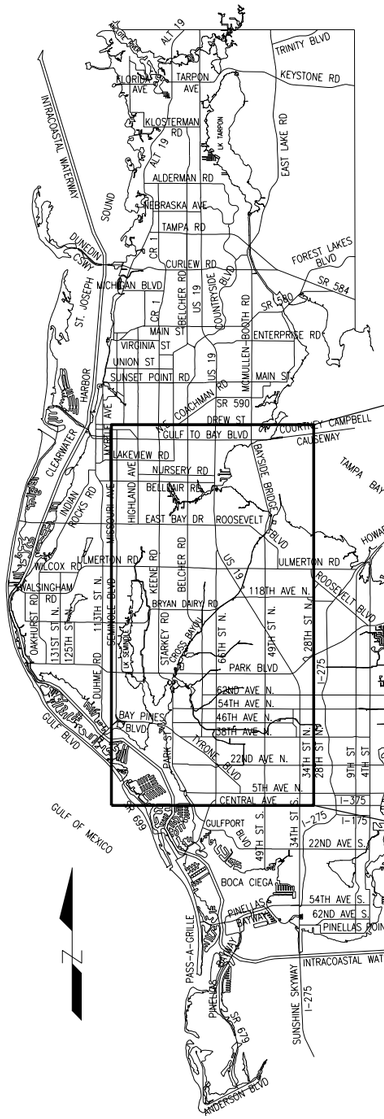
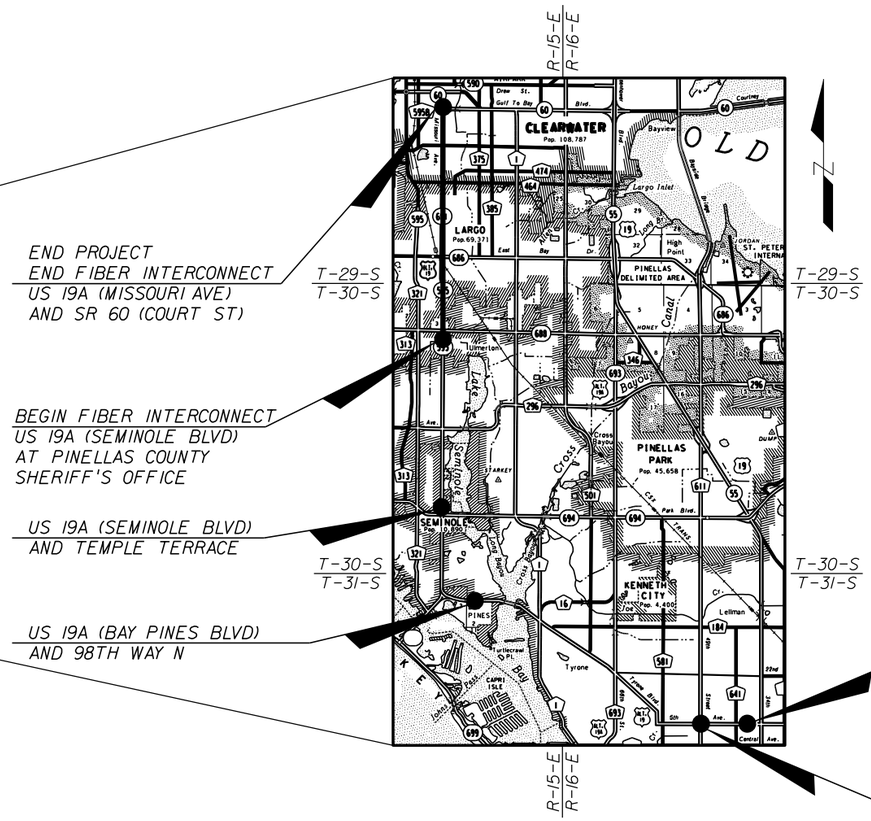
ADVANCED TRAFFIC MANAGEMENT SYSTEM (ATMS)
US 19A SOUTH
US 19 TO SR 60

PID 002598A

FINANCIAL PID 434891-1-58-01





END PROJECT
END FIBER INTERCONNECT
US 19A (MISSOURI AVE)
AND SR 60 (COURT ST)

BEGIN FIBER INTERCONNECT
US 19A (SEMINOLE BLVD)
AT PINELLAS COUNTY
SHERIFF'S OFFICE

US 19A (SEMINOLE BLVD)
AND TEMPLE TERRACE

US 19A (BAY PINES BLVD)
AND 98TH WAY N

BEGIN PROJECT
US 19A (5TH AVE N)
AND 39TH ST

US 19A (5TH AVE N)
AND 49TH ST

SECTIONS 15, 16, 21 AND 22, TOWNSHIP 31 SOUTH, RANGE 16 EAST;
SECTION 2, TOWNSHIP 31 SOUTH, RANGE 15 EAST;
SECTION 27, TOWNSHIP 30 SOUTH, RANGE 15 EAST;
SECTIONS 3, 10, AND 27, TOWNSHIP 30 SOUTH, RANGE 15 EAST;
SECTIONS 15, 22, 27, AND 34, TOWNSHIP 29 SOUTH, RANGE 15 EAST

KEY MAP
NOT TO SCALE

INDEX OF PLANS

PROJECT MANAGER: ROBERT C. MEADOR, P.E.
(727) 464-8731

PINELLAS COUNTY PUBLIC WORKS TRANSPORTATION
22211 US HIGHWAY 19 NORTH
CLEARWATER, FL 33765

PHONE: (727) 464-8922

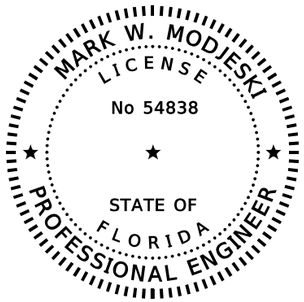
PREPARED BY:

CARDNO
3905 CRESCENT PARK DRIVE
RIVERVIEW, FL 33578

CERTIFICATE OF AUTHORIZATION NO. 29915

MARK W. MODJESKI, P.E. No. 54838
ENGINEER OF RECORD

DATE



THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

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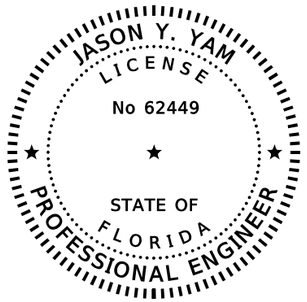
CARDNO
3905 CRESCENT PARK DRIVE
RIVERVIEW, FL 33578
PHONE NUMBER: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915
MARK W. MODJESKI, P.E. 54838

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

Mark W Modjeski
Mark W Modjeski 2018.07.23 15:48:33 -04'00'

ATMS PLANS

SHEET NO.	SHEET DESCRIPTION
1	KEY SHEET
2	SIGNATURE SHEET
3-8	TABULATION OF QUANTITIES
9-11	GENERAL NOTES
12	UTILITY OWNER CONTACT INFORMATION
13-14	PROJECT LAYOUT
15-33	ATMS INTERCONNECT PLAN
34-45	SIGNALIZATION PLAN
46-51	DMS PLAN
53-57	FIBER OPTIC SPLICE DETAILS
58-63	DMS CROSS SECTIONS
72-73	TYPICAL DETAILS
83-84	BEST MANAGEMENT PRACTICES



THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE SHOULD BE VERIFIED ON THE ELECTRONIC DOCUMENTS,

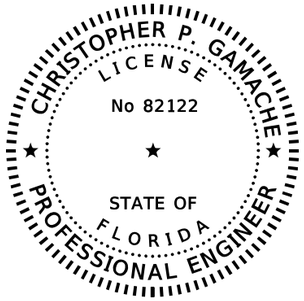
CARDNO
380 PARK PLACE BOULEVARD, SUITE 300
CLEARWATER, FL 33759
PHONE NUMBER: (727) 531-3505
CERTIFICATE OF AUTHORIZATION NO. 29915
JASON Y. YAM, P.E. 62449

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

Jason Yam
Date: 2018.07.23 15:19:19 -04'00'

ATMS PLANS

SHEET NO.	SHEET DESCRIPTION
52	TRAFFIC CONTROL PLAN NOTES



THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

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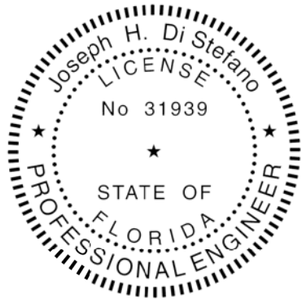
CARDNO
3905 CRESCENT PARK DRIVE
RIVERVIEW, FL 33578
PHONE NUMBER: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915
MARK W. MODJESKI, P.E. 54838

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

Christopher P Gamache
2018.07.23 15:07:52 -04'00'

ATMS PLANS

SHEET NO.	SHEET DESCRIPTION
64-68	BUTTERFLY SIGN STRUCTURE DETAILS
69	BUTTERFLY SIGN STRUCTURES DATA TABLE
70	CANTILEVER SIGN STRUCTURES DATA TABLE
71	CCTV POLE DETAILS



THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE SHOULD BE VERIFIED ON THE ELECTRONIC DOCUMENTS,

MC SQUARED, INC.
5808 A BRECKENRIDGE PARKWAY
TAMPA, FL 33610
PHONE NUMBER (813) 623-3399
CERTIFICATE OF AUTHORIZATION NO. 9191
JOSEPH H. DI STEFANO, P.E. 31939

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

Joseph H Di Stefano
Digitally signed by Joseph H Di Stefano
DN: c=US, o=IdenTrust ACES Business Representative, ou=MC SQUARED, cn=Joseph H Di Stefano, 0.9.2342.19200300.100.1.1=A0109800000014E68C6618800007327
Date: 2018.07.23 13:50:44 -04'00'

ATMS PLANS

SHEET NO.	SHEET DESCRIPTION
74-82	REPORT OF CORE BORINGS

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT: PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION: SIGNATURE SHEET

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 2 OF 84

howard.holley 7/18/2018 10:58:47 AM J:\JOB\0020\00020-180-05\MS\434891158O1\SIGNSG01.DGN

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS														TOTAL THIS SHEET		GRAND TOTAL	
			15		16		17		18		19		20		21					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
101-0100	MOBILIZATION	LS																		
102-0100	MAINTENANCE OF TRAFFIC	LS																		
102-1100	OFF DUTY LAW ENFORCEMENT OFFICER	HR																		
110-4-10	REMOVAL OF EXISTING CONCRETE	SY																		
339-1	MISCELLANEOUS ASPHALT PAVEMENT	TN																		
519-78	BOLLARDS, PERMANENT	EA																		
520-1-10	CONCRETE CURB & GUTTER, TYPE F	LF																		
521-1	MEDIAN CONCRETE BARRIER WALL	LF																		
522-1006	SIDEWALK, CONCRETE, 6" MIN. THICKNESS, REMOVE AND REPLACE	SY					3				6		3				12			
527-2	DETECTABLE WARNINGS	SF																		
544-75-1	VEHICLE IMPACT ATTENUATOR	EA																		
575-0110	SODDING, REPLACE IN-KIND	SY																		
630-2-11	CONDUIT, OPEN TRENCH, UNDERGROUND F & I (2")	LF																		
630-2-12	CONDUIT, F & I, DIRECTIONAL BORE < 6"	LF			1125		1410		1410		1420		1400		1410		8175			
630-2-12A	CONDUIT, F & I, DIRECTIONAL BORE 6" TO < 12"	LF																		
633-1-124	FIBER OPTIC CABLE, UNDERGROUND, F & I, 144 FIBERS	LF	1300		1785		1710		1610		1620		1800		1610		11435			
633-2-31	FIBER OPTIC CONNECTION, INSTALL, SPLICE (FUSION)	EA																		
633-3-11	FIBER OPTIC CONNECTION HARDWARE, F & I, (SPLICE ENCLOSURE)	EA																		
633-3-12	FIBER OPTIC CONNECTION HARDWARE, F & I, SPLICE TRAY	EA																		
633-3-35A	FIBER OPTIC CONNECTOR HARDWARE, F&I PRE-TERM CONNECTOR ASSY (150')	EA																		
633-3-35B	FIBER OPTIC CONNECTOR HARDWARE, F&I PRE-TERM CONNECTOR ASSY (250')	EA																		
633-3-35D	FIBER OPTIC CONNECTOR HARDWARE, F&I PRE-TERM CONNECTOR ASSY (450')	EA																		
635-2-11A	PULL AND SPLICE BOX, F & I, ATMS	EA																		
635-2-11E	PULL AND SPLICE BOX, F & I, ELECTRICAL	EA																		
635-2-11S	PULL AND SPLICE BOX, F & I, SIGNAL	EA																		
635-2-12	PULL & SPLICE BOX, F & I, 24" X 36" COVER SIZE	EA					1				2		2		2		7			
635-2-13	PULL & SPLICE VAULT, F & I, 30" X 60" RECTANGULAR	EA			1		1		1				1				4			
635-2-60	PULL & SPLICE BOX, REMOVAL	EA																		
635-2-70	PULL & SPLICE BOX, MODIFY	EA																		
639-1-112	ELECTRICAL POWER SERVICE, F&I, OVERHEAD METER PURCHASED BY CONTRACTOR FROM POWER COMPANY	AS																		
639-1-122	ELECTRICAL POWER SERVICE, F & I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS																		
639-1-610	ELECTRICAL POWER SERVICE, REMOVE OVERHEAD	AS																		
639-2-1	SIGNALS, ELECTRICAL SERVICE WIRE	LF																		
639-3-11	ELECTRICAL SERVICE DISCONNECT, F & I, POLE MOUNT	EA																		
641-2-12	PRESTRESSED CONCRETE SERVICE POLE, F&I, TYPE II SERVICE POLE (12')	EA																		
641-2-14A	CONCRETE CCTV POLE, FURNISH & INSTALL WITHOUT LOWERING DEVICE, 57'	EA																		
660-2-101	LOOP ASSEMBLY, TYPE A, 6' X 20', F & I	AS																		
660-4-32	VEHICLE DETECTION SYSTEM- VIDEO INSTALL, ABOVE GROUND EQUIPMENT	EA																		
676-2-300	ITS FIELD CABINET, INSTALL	EA																		
682-1-31	CCTV ASSEMBLY, INSTALL, DOME ENCLOSURE - PRESSURIZED	EA																		
700-1-11	SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12 SF	AS																		
700-1-60	SINGLE POST SIGN, REMOVE	AS																		
700-8-436	FRONT ACCESS DYNAMIC MESSAGE SIGN, FULL COLOR 101' TO 200', INSTALL	EA																		
700-10-122	DYNAMIC MESSAGE SIGN SUPPORT STRUCTURE, F & I, CANTILEVER, 21-30 FT	EA																		
700-10-132	DYNAMIC MESSAGE SIGN SUPPORT STRUCTURE, F & I, PEDESTAL, 21-30 FT	EA																		
705-11-3	DELINEATOR, FLEXIBLE HIGH VISABILITY MEDIAN	EA																		
710-11-190	PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, ISLAND NOSE	SF																		
710-11-290	PAINTED PAVEMENT MARKINGS, STANDARD, YELLOW, ISLAND NOSE	SF																		
711-11-102	THERMOPLASTIC, STANDARD, WHITE, SOLID, 8" FOR INTERCHANGE AND URBAN ISLAND	GM																		
711-11-124	THERMOPLASTIC, STANDARD, WHITE, SOLID, 18" FOR DIAGONALS AND CHEVRONS	LF																		
711-14-123	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 12" FOR CROSSWALK	LF																		
711-14-125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF																		
711-17	THERMOPLASTIC, REMOVE EXISTING THERMOPLASTIC PAVEMENT MARKINGS	SF																		

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
TABULATION OF QUANTITIES (1)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 3 OF 84

howard.holley 7/18/2018 10:58:48 AM J:\JOB\0020\00020-180-05\MS\434891\580I\TABQSG01.DGN

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS														TOTAL THIS SHEET		GRAND TOTAL	
			22		23		24		25		26		27		28					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
101-0100	MOBILIZATION	LS																		
102-0100	MAINTENANCE OF TRAFFIC	LS																		
102-1100	OFF DUTY LAW ENFORCEMENT OFFICER	HR																		
110-4-10	REMOVAL OF EXISTING CONCRETE	SY																		
339-1	MISCELLANEOUS ASPHALT PAVEMENT	TN																		
519-78	BOLLARDS, PERMANENT	EA																		
520-1-10	CONCRETE CURB & GUTTER, TYPE F	LF																		
521-1	MEDIAN CONCRETE BARRIER WALL	LF																		
522-1006	SIDEWALK, CONCRETE, 6" MIN. THICKNESS, REMOVE AND REPLACE	SY	3		3		3		3		3		6		3		24			
527-2	DETECTABLE WARNINGS	SF																		
544-75-1	VEHICLE IMPACT ATTENUATOR	EA																		
575-0110	SODDING, REPLACE IN-KIND	SY																		
630-2-11	CONDUIT, OPEN TRENCH, UNDERGROUND F & I (2")	LF																		
630-2-12	CONDUIT, F & I, DIRECTIONAL BORE < 6"	LF	1400		1425		1400		1410		1405		1435		1415		9890			
630-2-12A	CONDUIT, F & I, DIRECTIONAL BORE 6" TO < 12"	LF																		
633-1-124	FIBER OPTIC CABLE, UNDERGROUND, F & I, 144 FIBERS	LF	1800		1725		1500		1810		1705		1735		1715		11990			
633-2-31	FIBER OPTIC CONNECTION, INSTALL, SPLICE (FUSION)	EA																		
633-3-11	FIBER OPTIC CONNECTION HARDWARE, F & I, (SPLICE ENCLOSURE)	EA																		
633-3-12	FIBER OPTIC CONNECTION HARDWARE, F & I, SPLICE TRAY	EA																		
633-3-35A	FIBER OPTIC CONNECTOR HARDWARE, F&I PRE-TERM CONNECTOR ASSY (150')	EA																		
633-3-35B	FIBER OPTIC CONNECTOR HARDWARE, F&I PRE-TERM CONNECTOR ASSY (250')	EA																		
633-3-35D	FIBER OPTIC CONNECTOR HARDWARE, F&I PRE-TERM CONNECTOR ASSY (450')	EA																		
635-2-11A	PULL AND SPLICE BOX, F & I, ATMS	EA																		
635-2-11E	PULL AND SPLICE BOX, F & I, ELECTRICAL	EA																		
635-2-11S	PULL AND SPLICE BOX, F & I, SIGNAL	EA																		
635-2-12	PULL & SPLICE BOX, F & I, 24" X 36" COVER SIZE	EA	4		1		1		2		1		1		1		11			
635-2-13	PULL & SPLICE VAULT, F & I, 30" X 60" RECTANGULAR	EA			1				1		1		1		1		5			
635-2-60	PULL & SPLICE BOX, REMOVAL	EA																		
635-2-70	PULL & SPLICE BOX, MODIFY	EA																		
639-1-112	ELECTRICAL POWER SERVICE, F&I, OVERHEAD METER PURCHASED BY CONTRACTOR FROM POWER COMPANY	AS																		
639-1-122	ELECTRICAL POWER SERVICE, F & I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS																		
639-1-610	ELECTRICAL POWER SERVICE, REMOVE OVERHEAD	AS																		
639-2-1	SIGNALS, ELECTRICAL SERVICE WIRE	LF																		
639-3-11	ELECTRICAL SERVICE DISCONNECT, F & I, POLE MOUNT	EA																		
641-2-12	PRESTRESSED CONCRETE SERVICE POLE, F&I, TYPE II SERVICE POLE (12')	EA																		
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660-2-101	LOOP ASSEMBLY, TYPE A, 6' X 20', F & I	AS																		
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682-1-31	CCTV ASSEMBLY, INSTALL, DOME ENCLOSURE - PRESSURIZED	EA																		
700-1-11	SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12 SF	AS																		
700-1-60	SINGLE POST SIGN, REMOVE	AS																		
700-8-436	FRONT ACCESS DYNAMIC MESSAGE SIGN, FULL COLOR 101' TO 200', INSTALL	EA																		
700-10-122	DYNAMIC MESSAGE SIGN SUPPORT STRUCTURE, F & I, CANTILEVER, 21-30 FT	EA																		
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711-11-102	THERMOPLASTIC, STANDARD, WHITE, SOLID, 8" FOR INTERCHANGE AND URBAN ISLAND	GM																		
711-11-124	THERMOPLASTIC, STANDARD, WHITE, SOLID, 18" FOR DIAGONALS AND CHEVRONS	LF																		
711-14-123	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 12" FOR CROSSWALK	LF																		
711-14-125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF																		
711-17	THERMOPLASTIC, REMOVE EXISTING THERMOPLASTIC PAVEMENT MARKINGS	SF																		

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
TABULATION OF QUANTITIES (2)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 4 OF 84

howard.holley 7/18/2018 10:58:48 AM J:\JOB\0020\00020-180-05\MS\434891\580I\TABQSG02.DGN

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS														TOTAL THIS SHEET		GRAND TOTAL	
			29		30		31		32		33		34		35					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
101-0100	MOBILIZATION	LS																		
102-0100	MAINTENANCE OF TRAFFIC	LS																		
102-1100	OFF DUTY LAW ENFORCEMENT OFFICER	HR																		
110-4-10	REMOVAL OF EXISTING CONCRETE	SY																		
339-1	MISCELLANEOUS ASPHALT PAVEMENT	TN																		
519-78	BOLLARDS, PERMANENT	EA																		
520-1-10	CONCRETE CURB & GUTTER, TYPE F	LF																		
521-1	MEDIAN CONCRETE BARRIER WALL	LF																		
522-1006	SIDEWALK, CONCRETE, 6" MIN. THICKNESS, REMOVE AND REPLACE	SY	6		3		12		3		3						27			
527-2	DETECTABLE WARNINGS	SF																		
544-75-1	VEHICLE IMPACT ATTENUATOR	EA																		
575-0110	SODDING, REPLACE IN-KIND	SY																		
630-2-11	CONDUIT, OPEN TRENCH, UNDERGROUND F & I (2")	LF											10				10			
630-2-12	CONDUIT, F & I, DIRECTIONAL BORE < 6"	LF	1400		1400		1415		1425		1425		130				7195			
630-2-12A	CONDUIT, F & I, DIRECTIONAL BORE 6" TO < 12"	LF																		
633-1-124	FIBER OPTIC CABLE, UNDERGROUND, F & I, 144 FIBERS	LF	1700		1500		2015		1825		1905						8945			
633-2-31	FIBER OPTIC CONNECTION, INSTALL, SPLICE (FUSION)	EA									144						144			
633-3-11	FIBER OPTIC CONNECTION HARDWARE, F & I, (SPLICE ENCLOSURE)	EA									1						1			
633-3-12	FIBER OPTIC CONNECTION HARDWARE, F & I, SPLICE TRAY	EA									6						6			
633-3-35A	FIBER OPTIC CONNECTOR HARDWARE, F&I PRE-TERM CONNECTOR ASSY (150')	EA																		
633-3-35B	FIBER OPTIC CONNECTOR HARDWARE, F&I PRE-TERM CONNECTOR ASSY (250')	EA																		
633-3-35D	FIBER OPTIC CONNECTOR HARDWARE, F&I PRE-TERM CONNECTOR ASSY (450')	EA																		
635-2-11A	PULL AND SPLICE BOX, F & I, ATMS	EA											2				2			
635-2-11E	PULL AND SPLICE BOX, F & I, ELECTRICAL	EA																		
635-2-11S	PULL AND SPLICE BOX, F & I, SIGNAL	EA																		
635-2-12	PULL & SPLICE BOX, F & I, 24" X 36" COVER SIZE	EA	1		1		2		2		3						9			
635-2-13	PULL & SPLICE VAULT, F & I, 30" X 60" RECTANGULAR	EA	1				2		1								4			
635-2-60	PULL & SPLICE BOX, REMOVAL	EA																		
635-2-70	PULL & SPLICE BOX, MODIFY	EA									1						1			
639-1-112	ELECTRICAL POWER SERVICE, F&I, OVERHEAD METER PURCHASED BY CONTRACTOR FROM POWER COMPANY	AS																		
639-1-122	ELECTRICAL POWER SERVICE, F & I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS																		
639-1-610	ELECTRICAL POWER SERVICE, REMOVE OVERHEAD	AS																		
639-2-1	SIGNALS, ELECTRICAL SERVICE WIRE	LF																		
639-3-11	ELECTRICAL SERVICE DISCONNECT, F & I, POLE MOUNT	EA																		
641-2-12	PRESTRESSED CONCRETE SERVICE POLE, F&I, TYPE II SERVICE POLE (12')	EA																		
641-2-14A	CONCRETE CCTV POLE, FURNISH & INSTALL WITHOUT LOWERING DEVICE, 57'	EA																		
660-2-101	LOOP ASSEMBLY, TYPE A, 6' X 20', F & I	AS																		
660-4-32	VEHICLE DETECTION SYSTEM- VIDEO INSTALL, ABOVE GROUND EQUIPMENT	EA																		
676-2-300	ITS FIELD CABINET, INSTALL	EA																		
682-1-31	CCTV ASSEMBLY, INSTALL, DOME ENCLOSURE - PRESSURIZED	EA											1		2		3			
700-1-11	SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12 SF	AS																		
700-1-60	SINGLE POST SIGN, REMOVE	AS																		
700-8-436	FRONT ACCESS DYNAMIC MESSAGE SIGN, FULL COLOR 101' TO 200', INSTALL	EA																		
700-10-122	DYNAMIC MESSAGE SIGN SUPPORT STRUCTURE, F & I, CANTILEVER, 21-30 FT	EA																		
700-10-132	DYNAMIC MESSAGE SIGN SUPPORT STRUCTURE, F & I, PEDESTAL, 21-30 FT	EA																		
705-11-3	DELINEATOR, FLEXIBLE HIGH VISABILITY MEDIAN	EA																		
710-11-190	PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, ISLAND NOSE	SF																		
710-11-290	PAINTED PAVEMENT MARKINGS, STANDARD, YELLOW, ISLAND NOSE	SF																		
711-11-102	THERMOPLASTIC, STANDARD, WHITE, SOLID, 8" FOR INTERCHANGE AND URBAN ISLAND	GM																		
711-11-124	THERMOPLASTIC, STANDARD, WHITE, SOLID, 18" FOR DIAGONALS AND CHEVRONS	LF																		
711-14-123	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 12" FOR CROSSWALK	LF																		
711-14-125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF																		
711-17	THERMOPLASTIC, REMOVE EXISTING THERMOPLASTIC PAVEMENT MARKINGS	SF																		

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
TABULATION OF QUANTITIES (3)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 5 OF 84

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TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS														TOTAL THIS SHEET		GRAND TOTAL	
			36		37		38		39		40		41		42					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
101-0100	MOBILIZATION	LS																		
102-0100	MAINTENANCE OF TRAFFIC	LS																		
102-1100	OFF DUTY LAW ENFORCEMENT OFFICER	HR																		
110-4-10	REMOVAL OF EXISTING CONCRETE	SY																		
339-1	MISCELLANEOUS ASPHALT PAVEMENT	TN									1		0.5				1.5			
519-78	BOLLARDS, PERMANENT	EA																		
520-1-10	CONCRETE CURB & GUTTER, TYPE F	LF																		
521-1	MEDIAN CONCRETE BARRIER WALL	LF																		
522-1006	SIDEWALK, CONCRETE, 6" MIN. THICKNESS, REMOVE AND REPLACE	SY					3		9				9				21			
527-2	DETECTABLE WARNINGS	SF																		
544-75-1	VEHICLE IMPACT ATTENUATOR	EA																		
575-0110	SODDING, REPLACE IN-KIND	SY																		
630-2-11	CONDUIT, OPEN TRENCH, UNDERGROUND F & I (2")	LF	45		25		15		110		25		60		10		290			
630-2-12	CONDUIT, F & I, DIRECTIONAL BORE < 6"	LF	250				260		120		120		375				1125			
630-2-12A	CONDUIT, F & I, DIRECTIONAL BORE 6" TO < 12"	LF							270								270			
633-1-124	FIBER OPTIC CABLE, UNDERGROUND, F & I, 144 FIBERS	LF																		
633-2-31	FIBER OPTIC CONNECTION, INSTALL, SPLICE (FUSION)	EA	4		4		4		6		4		4		4		30			
633-3-11	FIBER OPTIC CONNECTION HARDWARE, F & I, (SPLICE ENCLOSURE)	EA	1		1		1		1		1		1		1		7			
633-3-12	FIBER OPTIC CONNECTION HARDWARE, F & I, SPLICE TRAY	EA	1		1		1		1		1		1		1		7			
633-3-35A	FIBER OPTIC CONNECTOR HARDWARE, F&I PRE-TERM CONNECTOR ASSY (150')	EA	1		1		1		1		1				1		6			
633-3-35B	FIBER OPTIC CONNECTOR HARDWARE, F&I PRE-TERM CONNECTOR ASSY (250')	EA											1				1			
633-3-35D	FIBER OPTIC CONNECTOR HARDWARE, F&I PRE-TERM CONNECTOR ASSY (450')	EA							1								1			
635-2-11A	PULL AND SPLICE BOX, F & I, ATMS	EA							2				1				3			
635-2-11E	PULL AND SPLICE BOX, F & I, ELECTRICAL	EA	2						4								6			
635-2-11S	PULL AND SPLICE BOX, F & I, SIGNAL	EA					3		4		2		5				14			
635-2-12	PULL & SPLICE BOX, F & I, 24" X 36" COVER SIZE	EA																		
635-2-13	PULL & SPLICE VAULT, F & I, 30" X 60" RECTANGULAR	EA																		
635-2-60	PULL & SPLICE BOX, REMOVAL	EA											4				4			
635-2-70	PULL & SPLICE BOX, MODIFY	EA																		
639-1-112	ELECTRICAL POWER SERVICE, F&I, OVERHEAD METER PURCHASED BY CONTRACTOR FROM POWER COMPANY	AS							1								1			
639-1-122	ELECTRICAL POWER SERVICE, F & I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1														1			
639-1-610	ELECTRICAL POWER SERVICE, REMOVE OVERHEAD	AS							1								1			
639-2-1	SIGNALS, ELECTRICAL SERVICE WIRE	LF	265						295								560			
639-3-11	ELECTRICAL SERVICE DISCONNECT, F & I, POLE MOUNT	EA	1						1								2			
641-2-12	PRESTRESSED CONCRETE SERVICE POLE, F&I, TYPE II SERVICE POLE (12')	EA	2														2			
641-2-14A	CONCRETE CCTV POLE, FURNISH & INSTALL WITHOUT LOWERING DEVICE, 57'	EA	1						1								2			
660-2-101	LOOP ASSEMBLY, TYPE A, 6' X 20', F & I	AS							12				11				23			
660-4-32	VEHICLE DETECTION SYSTEM- VIDEO INSTALL, ABOVE GROUND EQUIPMENT	EA			4		4				4				4		16			
676-2-300	ITS FIELD CABINET, INSTALL	EA	1						1								2			
682-1-31	CCTV ASSEMBLY, INSTALL, DOME ENCLOSURE - PRESSURIZED	EA	1		2						1				1		5			
700-1-11	SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12 SF	AS																		
700-1-60	SINGLE POST SIGN, REMOVE	AS																		
700-8-436	FRONT ACCESS DYNAMIC MESSAGE SIGN, FULL COLOR 101' TO 200', INSTALL	EA																		
700-10-122	DYNAMIC MESSAGE SIGN SUPPORT STRUCTURE, F & I, CANTILEVER, 21-30 FT	EA																		
700-10-132	DYNAMIC MESSAGE SIGN SUPPORT STRUCTURE, F & I, PEDESTAL, 21-30 FT	EA																		
705-11-3	DELINEATOR, FLEXIBLE HIGH VISABILITY MEDIAN	EA																		
710-11-190	PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, ISLAND NOSE	SF																		
710-11-290	PAINTED PAVEMENT MARKINGS, STANDARD, YELLOW, ISLAND NOSE	SF																		
711-11-102	THERMOPLASTIC, STANDARD, WHITE, SOLID, 8" FOR INTERCHANGE AND URBAN ISLAND	GM																		
711-11-124	THERMOPLASTIC, STANDARD, WHITE, SOLID, 18" FOR DIAGONALS AND CHEVRONS	LF																		
711-14-123	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 12" FOR CROSSWALK	LF																		
711-14-125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF																		
711-17	THERMOPLASTIC, REMOVE EXISTING THERMOPLASTIC PAVEMENT MARKINGS	SF																		

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
TABULATION OF QUANTITIES (4)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 6 OF 84

howard.holley 7/18/2018 10:58:49 AM J:\JOB\0020\00020-180-05\WS\43489115801\TABQSG04.DGN

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS														TOTAL THIS SHEET		GRAND TOTAL	
			43		44		45		46		47		48		49					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
101-0100	MOBILIZATION	LS																		
102-0100	MAINTENANCE OF TRAFFIC	LS																		
102-1100	OFF DUTY LAW ENFORCEMENT OFFICER	HR																		
110-4-10	REMOVAL OF EXISTING CONCRETE	SY													18		18			
339-1	MISCELLANEOUS ASPHALT PAVEMENT	TN											1.5				1.5			
519-78	BOLLARDS, PERMANENT	EA											6				6			
520-1-10	CONCRETE CURB & GUTTER, TYPE F	LF													158		158			
521-1	MEDIAN CONCRETE BARRIER WALL	LF									80						80			
522-1006	SIDEWALK, CONCRETE, 6" MIN. THICKNESS, REMOVE AND REPLACE	SY	12		3		9				149		3		75		251			
527-2	DETECTABLE WARNINGS	SF													40		40			
544-75-1	VEHICLE IMPACT ATTENUATOR	EA									2						2			
575-0110	SODDING, REPLACE IN-KIND	SY													75		75			
630-2-11	CONDUIT, OPEN TRENCH, UNDERGROUND F & I (2")	LF	120		45		60		120		200		45		70		660			
630-2-12	CONDUIT, F & I, DIRECTIONAL BORE < 6"	LF	450		425		355		340		335		115		685		2705			
630-2-12A	CONDUIT, F & I, DIRECTIONAL BORE 6" TO < 12"	LF									140						140			
633-1-124	FIBER OPTIC CABLE, UNDERGROUND, F & I, 144 FIBERS	LF																		
633-2-31	FIBER OPTIC CONNECTION, INSTALL, SPLICE (FUSION)	EA	4		4		4		4		4		4		4		28			
633-3-11	FIBER OPTIC CONNECTION HARDWARE, F & I, (SPLICE ENCLOSURE)	EA	1		1		1		1		1		1		1		7			
633-3-12	FIBER OPTIC CONNECTION HARDWARE, F & I, SPLICE TRAY	EA	1		1		1		1		1		1		1		7			
633-3-35A	FIBER OPTIC CONNECTOR HARDWARE, F&I PRE-TERM CONNECTOR ASSY (150')	EA					1						1		1		3			
633-3-35B	FIBER OPTIC CONNECTOR HARDWARE, F&I PRE-TERM CONNECTOR ASSY (250')	EA	1		1												2			
633-3-35D	FIBER OPTIC CONNECTOR HARDWARE, F&I PRE-TERM CONNECTOR ASSY (450')	EA							1		1						2			
635-2-11A	PULL AND SPLICE BOX, F & I, ATMS	EA	2		1				2		3		1		2		11			
635-2-11E	PULL AND SPLICE BOX, F & I, ELECTRICAL	EA							2		4		2		5		13			
635-2-11S	PULL AND SPLICE BOX, F & I, SIGNAL	EA	5		5		5										15			
635-2-12	PULL & SPLICE BOX, F & I, 24" X 36" COVER SIZE	EA																		
635-2-13	PULL & SPLICE VAULT, F & I, 30" X 60" RECTANGULAR	EA							1		1		1		1		4			
635-2-60	PULL & SPLICE BOX, REMOVAL	EA	4		4		4										12			
635-2-70	PULL & SPLICE BOX, MODIFY	EA																		
639-1-112	ELECTRICAL POWER SERVICE, F&I, OVERHEAD METER PURCHASED BY CONTRACTOR FROM POWER COMPANY	AS																		
639-1-122	ELECTRICAL POWER SERVICE, F & I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS							1		1		1		1		4			
639-1-610	ELECTRICAL POWER SERVICE, REMOVE OVERHEAD	AS																		
639-2-1	SIGNALS, ELECTRICAL SERVICE WIRE	LF							20		385		160		745		1310			
639-3-11	ELECTRICAL SERVICE DISCONNECT, F & I, POLE MOUNT	EA									1		1		1		3			
641-2-12	PRESTRESSED CONCRETE SERVICE POLE, F&I, TYPE II SERVICE POLE (12')	EA							1		2		2		2		7			
641-2-14A	CONCRETE CCTV POLE, FURNISH & INSTALL WITHOUT LOWERING DEVICE, 57'	EA	1														1			
660-2-101	LOOP ASSEMBLY, TYPE A, 6' X 20', F & I	AS	13		12		12										37			
660-4-32	VEHICLE DETECTION SYSTEM- VIDEO INSTALL, ABOVE GROUND EQUIPMENT	EA																		
676-2-300	ITS FIELD CABINET, INSTALL	EA							1		1		1		1		4			
682-1-31	CCTV ASSEMBLY, INSTALL, DOME ENCLOSURE - PRESSURIZED	EA	1														1			
700-1-11	SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12 SF	AS													1		1			
700-1-60	SINGLE POST SIGN, REMOVE	AS													1		1			
700-8-436	FRONT ACCESS DYNAMIC MESSAGE SIGN, FULL COLOR 101' TO 200', INSTALL	EA							1		2		1		1		5			
700-10-122	DYNAMIC MESSAGE SIGN SUPPORT STRUCTURE, F & I, CANTILEVER, 21-30 FT	EA							1				1		1		3			
700-10-132	DYNAMIC MESSAGE SIGN SUPPORT STRUCTURE, F & I, PEDESTAL, 21-30 FT	EA									1						1			
705-11-3	DELINEATOR, FLEXIBLE HIGH VISABILITY MEDIAN	EA													1		1			
710-11-190	PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, ISLAND NOSE	SF													10		10			
710-11-290	PAINTED PAVEMENT MARKINGS, STANDARD, YELLOW, ISLAND NOSE	SF													10		10			
711-11-102	THERMOPLASTIC, STANDARD, WHITE, SOLID, 8" FOR INTERCHANGE AND URBAN ISLAND	GM													0.093		0.093			
711-11-124	THERMOPLASTIC, STANDARD, WHITE, SOLID, 18" FOR DIAGONALS AND CHEVRONS	LF													68		68			
711-14-123	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 12" FOR CROSSWALK	LF													60		60			
711-14-125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF													66		66			
711-17	THERMOPLASTIC, REMOVE EXISTING THERMOPLASTIC PAVEMENT MARKINGS	SF													100		100			

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
TABULATION OF QUANTITIES (5)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 7 OF 84

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TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS														TOTAL THIS SHEET		GRAND TOTAL	
			50		51															
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
101-0100	MOBILIZATION	LS																	1	
102-0100	MAINTENANCE OF TRAFFIC	LS																	1	
102-1100	OFF DUTY LAW ENFORCEMENT OFFICER	HR																	75	
110-4-10	REMOVAL OF EXISTING CONCRETE	SY																	18	
339-1	MISCELLANEOUS ASPHALT PAVEMENT	TN																	3	
519-78	BOLLARDS, PERMANENT	EA																	6	
520-1-10	CONCRETE CURB & GUTTER, TYPE F	LF																	158	
521-1	MEDIAN CONCRETE BARRIER WALL	LF			80												80		160	
522-1006	SIDEWALK, CONCRETE, 6" MIN. THICKNESS, REMOVE AND REPLACE	SY																	335	
527-2	DETECTABLE WARNINGS	SF																	40	
544-75-1	VEHICLE IMPACT ATTENUATOR	EA			2												2		4	
575-0110	SODDING, REPLACE IN-KIND	SY																	75	
630-2-11	CONDUIT, OPEN TRENCH, UNDERGROUND F & I (2")	LF	90		100												190		1150	
630-2-12	CONDUIT, F & I, DIRECTIONAL BORE < 6"	LF	125		450												575		29665	
630-2-12A	CONDUIT, F & I, DIRECTIONAL BORE 6" TO < 12"	LF																	410	
633-1-124	FIBER OPTIC CABLE, UNDERGROUND, F & I, 144 FIBERS	LF																	32370	
633-2-31	FIBER OPTIC CONNECTION, INSTALL, SPLICE (FUSION)	EA	4		4												8		210	
633-3-11	FIBER OPTIC CONNECTION HARDWARE, F & I, (SPLICE ENCLOSURE)	EA	1		1												2		17	
633-3-12	FIBER OPTIC CONNECTION HARDWARE, F & I, SPLICE TRAY	EA	1		1												2		22	
633-3-35A	FIBER OPTIC CONNECTOR HARDWARE, F&I PRE-TERM CONNECTOR ASSY (150')	EA																	9	
633-3-35B	FIBER OPTIC CONNECTOR HARDWARE, F&I PRE-TERM CONNECTOR ASSY (250')	EA			1												1		4	
633-3-35D	FIBER OPTIC CONNECTOR HARDWARE, F&I PRE-TERM CONNECTOR ASSY (450')	EA	1														1		4	
635-2-11A	PULL AND SPLICE BOX, F & I, ATMS	EA	1		2												3		19	
635-2-11E	PULL AND SPLICE BOX, F & I, ELECTRICAL	EA	2		4												6		25	
635-2-11S	PULL AND SPLICE BOX, F & I, SIGNAL	EA																	29	
635-2-12	PULL & SPLICE BOX, F & I, 24" X 36" COVER SIZE	EA																	27	
635-2-13	PULL & SPLICE VAULT, F & I, 30" X 60" RECTANGULAR	EA																	17	
635-2-60	PULL & SPLICE BOX, REMOVAL	EA																	16	
635-2-70	PULL & SPLICE BOX, MODIFY	EA																	1	
639-1-112	ELECTRICAL POWER SERVICE, F&I, OVERHEAD METER PURCHASED BY CONTRACTOR FROM POWER COMPANY	AS																	1	
639-1-122	ELECTRICAL POWER SERVICE, F & I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1		1												2		7	
639-1-610	ELECTRICAL POWER SERVICE, REMOVE OVERHEAD	AS																	1	
639-2-1	SIGNALS, ELECTRICAL SERVICE WIRE	LF	190		500												690		2560	
639-3-11	ELECTRICAL SERVICE DISCONNECT, F & I, POLE MOUNT	EA	1		1												2		7	
641-2-12	PRESTRESSED CONCRETE SERVICE POLE, F&I, TYPE II SERVICE POLE (12')	EA	2		2												4		13	
641-2-14A	CONCRETE CCTV POLE, FURNISH & INSTALL WITHOUT LOWERING DEVICE, 57'	EA																	3	
660-2-101	LOOP ASSEMBLY, TYPE A, 6' X 20', F & I	AS																	60	
660-4-32	VEHICLE DETECTION SYSTEM- VIDEO INSTALL, ABOVE GROUND EQUIPMENT	EA																	16	
676-2-300	ITS FIELD CABINET, INSTALL	EA	1		1												2		8	
682-1-31	CCTV ASSEMBLY, INSTALL, DOME ENCLOSURE - PRESSURIZED	EA																	9	
700-1-11	SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12 SF	AS																	1	
700-1-60	SINGLE POST SIGN, REMOVE	AS																	1	
700-8-436	FRONT ACCESS DYNAMIC MESSAGE SIGN, FULL COLOR 101' TO 200', INSTALL	EA	1		2												3		8	
700-10-122	DYNAMIC MESSAGE SIGN SUPPORT STRUCTURE, F & I, CANTILEVER, 21-30 FT	EA	1														1		4	
700-10-132	DYNAMIC MESSAGE SIGN SUPPORT STRUCTURE, F & I, PEDESTAL, 21-30 FT	EA			1												1		2	
705-11-3	DELINEATOR, FLEXIBLE HIGH VISABILITY MEDIAN	EA																	1	
710-11-190	PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, ISLAND NOSE	SF																	10	
710-11-290	PAINTED PAVEMENT MARKINGS, STANDARD, YELLOW, ISLAND NOSE	SF																	10	
711-11-102	THERMOPLASTIC, STANDARD, WHITE, SOLID, 8" FOR INTERCHANGE AND URBAN ISLAND	GM																	0.093	
711-11-124	THERMOPLASTIC, STANDARD, WHITE, SOLID, 18" FOR DIAGONALS AND CHEVRONS	LF																	68	
711-14-123	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 12" FOR CROSSWALK	LF																	60	
711-14-125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF																	66	
711-17	THERMOPLASTIC, REMOVE EXISTING THERMOPLASTIC PAVEMENT MARKINGS	SF																	100	

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
TABULATION OF QUANTITIES (6)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 8 OF 84

howard.holley 7/18/2018 10:58:50 AM J:\JOB\0020\00020-180-05\MS\434891\5801\TABQSG06.DGN

GENERAL NOTES

RELATED SPECIFICATIONS AND STANDARDS:

D-1) FLORIDA DEPARTMENT OF TRANSPORTATION DIVISION II AND III OF "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", JULY 2018 AND ALL SUPPLEMENTAL SPECIFICATIONS THERETO. STANDARD SPECIFICATIONS ARE AVAILABLE AT THE FOLLOWING WEBSITE:
HTTP://WWW.FDOT.GOV/PROGRAMMANAGEMENT/IMPLEMENTED/SPECBOOKS

D-2) FLORIDA DEPARTMENT OF TRANSPORTATION FY 2018-19 STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION AND APPLICABLE INTERIM REVISIONS (IRs). STANDARD PLANS FOR ROAD CONSTRUCTION AND IRs ARE AVAILABLE AT THE FOLLOWING WEBSITE:
HTTP://WWW.FDOT.GOV/DESIGN/STANDARDPLANS
COMPLIANCE WITH ALL APPLICABLE INDICES IS REQUIRED.

D-3) STATE OF FLORIDA "MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS", 2016 (FLORIDA GREENBOOK)

D-4) PINELLAS COUNTY "STANDARD TECHNICAL SPECIFICATIONS FOR ROADWAY & RELATED CONSTRUCTION" LATEST EDITION
AVAILABLE ON-LINE:
HTTP://WWW.PINELLASCOUNTY.ORG/TECHNICAL/

D-5) PINELLAS COUNTY "STANDARD ENGINEERING DETAILS" LATEST EDITION
AVAILABLE ON-LINE:
HTTP://WWW.PINELLASCOUNTY.ORG/TECHNICAL/

D-6) PINELLAS COUNTY "TRAFFIC OPERATIONS SIGNAL STANDARDS" LATEST EDITION AVAILABLE BY REQUEST

ALL WORK WITHIN FDOT RIGHT OF WAY SHALL CONFORM TO:

A. FLORIDA DEPARTMENT OF TRANSPORTATION DIVISION II AND III OF "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", JULY 2018 AND ALL SUPPLEMENTAL SPECIFICATIONS THERETO.

B. FLORIDA DEPARTMENT OF TRANSPORTATION FY 2018-19 STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION AND APPLICABLE INTERIM REVISIONS (IRs). COMPLIANCE WITH ALL APPLICABLE INDICES IS REQUIRED.

WHEN FDOT AND PINELLAS COUNTY SPECIFICATIONS DIFFER, PINELLAS COUNTY SPECIFICATIONS SHALL TAKE PRECEDENCE IF PINELLAS COUNTY'S IS MORE STRINGENT AS DETERMINED BY THE ENGINEER.

NOTIFICATIONS:

1. THE CONTRACTOR SHALL CONTACT PINELLAS COUNTY TRAFFIC ENGINEERING, (727-464-8922) PRIOR TO THE BEGINNING OF WORK TO CHECK FOR UPDATES TO STANDARDS OR OTHER INFORMATION.

2. ONE WEEK PRIOR TO THE BEGINNING OF WORK, THE CONTRACTOR SHALL NOTIFY:

MR. JOHN LEMONIAS, PINELLAS COUNTY
22211 US 19 NORTH
CLEARWATER, FL 33765
PHONE: (727) 420-6270

MR. JOE PARRISH, PINELLAS COUNTY
22211 US HIGHWAY 19 NORTH
CLEARWATER, FL 33765
PHONE: (727) 448-4528

MR. WAYNE DEMPSEY
FDOT DISTRICT SEVEN TRAFFIC OPERATIONS
CONSTRUCTION LIAISON
FLORIDA DEPARTMENT OF TRANSPORTATION
11201 NORTH McKINLEY DRIVE
TAMPA, FLORIDA 33612
PHONE (813) 975-6226

3. PRIOR TO ORDERING MATERIALS, THE CONTRACTOR SHALL CONTACT PINELLAS COUNTY TRAFFIC ENGINEERING FOR CURRENT STANDARDS.

4. THE CONTRACTOR SHALL GIVE THE ENGINEER A MINIMUM OF TWO FULL BUSINESS DAYS NOTICE PRIOR TO FOUNDATION EXCAVATION FOR THE DMS STRUCTURES AND CCTV POLES FOR FINAL LOCATION APPROVAL.

5. THE CONTRACTOR IS REQUIRED TO OBTAIN LOCAL PERMITS TO WORK OUTSIDE THE FDOT AND COUNTY RIGHT OF WAY ON LOCAL STREETS. THIS SHALL BE DONE WELL IN ADVANCE OF THE WORK TO BE PERFORMED.

WORK SUPERVISION:

1. THE CONTRACTOR SHALL HAVE AN I.M.S.A. CERTIFIED LEVEL II (ELECTRONICS OR ELECTRICAL) TECHNICIAN ON THE JOB SITE AT ALL TIMES WHEN WORKING WITHIN THE TRAFFIC SIGNAL CONTROLLER CABINET, SIGNAL POLES OR MAST ARM ASSEMBLIES.

2. THE CONTRACTOR SHALL BE AVAILABLE TO RESPOND TO CALLS TWENTY FOUR HOURS A DAY, SEVEN DAYS A WEEK. WITHIN THREE HOURS OF NOTIFICATION OR DOCUMENTED ATTEMPTED NOTIFICATION, THE CONTRACTOR SHALL BE ON SITE MAKING NEEDED REPAIRS OR MODIFICATIONS. FAILURE TO MEET THE TIME REQUIREMENTS GIVES THE COUNTY, AT THEIR DISCRETION, THE RIGHT TO REQUEST ASSISTANCE FROM LOCAL LAW ENFORCEMENT TO CONTROL TRAFFIC FOR THE PERIOD OF TIME UNTIL THE CONTRACTOR RESPONDS AND MAKES NEEDED REPAIRS. THE COST FOR LAW ENFORCEMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COUNTY, AT THEIR DISCRETION, ALSO HAS THE RIGHT TO BRING IN ASSISTANCE TO MAKE NEEDED REPAIRS AND BE REIMBURSED BY THE CONTRACTOR, IF THE CONTRACTOR CANNOT MEET THE TIME REQUIREMENTS.

TRAFFIC CONTROL/EQUIPMENT:

1. ALL EXISTING SIGNALIZATION SHALL REMAIN IN PLACE, INCLUDING VEHICLE ACTUATION AND PEDESTRIAN SIGNAL OPERATIONS. ALL ACTUATED PHASES SHALL BE MAINTAINED DURING THE PROJECT, INCLUDING WHEN LOOPS ARE DAMAGED. THE USE OF MICROWAVE DETECTORS OR THE INSTALLATION OF NEW LOOPS WITHIN 48 HOURS OF DAMAGE SHALL BE REQUIRED. WHEN STARTING WORK ON THE SIGNAL DETECTION PROVISIONS SHALL BE MADE FOR FULL DETECTOR ACTUATION UNTIL VIDEO DETECTION IS ACTIVATED.

2. UNLESS OTHERWISE NOTED, ALL REMOVED AND SURPLUS EQUIPMENT SHALL BE TURNED OVER AND DELIVERED TO THE PINELLAS COUNTY TRAFFIC SIGNAL SHOP, BETWEEN 6:30 AM AND 4:30 PM MONDAY THRU THURSDAY, LOCATED AT 22211 US 19 NORTH, CLEARWATER, FL 33765. THE CONTRACTOR SHALL PROVIDE A MINIMUM FORTY EIGHT HOURS NOTICE PRIOR TO DELIVERY. THE CONTACT PHONE NUMBER IS (727) 464-8922.

3. THE COUNTY WILL PROCURE AND PROVIDE THE SPECIALTY ITEMS. THE WORK TO BE PERFORMED BY THE CONTRACTOR IS INDICATED IN THESE PLAN SETS. NOTE THAT ITEMS SUCH AS SYSTEM SOFTWARE, CCTV SYSTEM SOFTWARE, DMS SYSTEM SOFTWARE AND CENTRAL/FIELD COMMUNICATION EQUIPMENT WILL BE FURNISHED AND INSTALLED BY THE COUNTY. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING ADEQUATE ENTRYWAYS INTO THE CABINET AND INSTALLING THE DMS, CCTV CAMERAS, VEHICLE DETECTION, COMMUNICATION CABLES AND CABINETS FOR EACH CAMERA AND DMSLOCATION AS DESCRIBED IN THE PLANS AND TECHNICAL SPECIAL PROVISIONS.

4. THE CONTRACTOR'S INITIAL PROJECT SCHEDULE SHALL IDENTIFY WHEN THE CONTRACTOR NEEDS COUNTY-FURNISHED EQUIPMENT FROM THE COUNTY. THE COUNTY WILL FURNISH CERTAIN EQUIPMENT THAT SHALL BE INSTALLED BY THE CONTRACTOR, INCLUDING BUT NOT LIMITED TO CCTV CAMERA ASSEMBLIES, VIDS, PRE-TERMINATED CABLE, CCTV/DMS CABLING, AND ITS CABINETS. THE CONTRACTOR SHALL PROVIDE A MINIMUM 48-HOUR NOTICE PRIOR TO RETRIEVING MATERIALS/EQUIPMENT. A SUPERVISOR OR RESPONSIBLE EMPLOYEE OF THE PRIME CONTRACTOR SHALL BE PRESENT TO ACCEPT MATERIALS.

5. THROUGHOUT THE ENTIRE PROJECT, THE CONTRACTOR SHALL MAINTAIN COMMUNICATIONS BETWEEN THE COMPUTERIZED SIGNAL SYSTEM, THE INTERSECTION AND ADJACENT INTERSECTIONS (WHERE APPLICABLE) VIA DEDICATED TELEPHONE LINES AND/OR INTERCONNECT CABLE AND SHALL BE RESPONSIBLE FOR ANY ADDITIONAL COST RELATED TO MAINTAIN THE COMMUNICATIONS. ONE WEEK PRIOR TO ANY WORK WHICH MAY CAUSE DISRUPTION OF PHONE SERVICE, THE CONTRACTOR SHALL CONTACT PINELLAS COUNTY TRAFFIC ENGINEERING.

FIELD VERIFICATION AND ADJUSTMENTS:

1. THESE PLANS AND THE ASSOCIATED TECHNICAL SPECIAL PROVISIONS REFLECT CONDITIONS KNOWN DURING THE DEVELOPMENT OF THIS PROJECT. ALL SCALES, DIMENSIONS, AND LOCATIONS SHOWN IN THESE PLANS ARE APPROXIMATE. ACTUAL PHYSICAL FIELD CONDITIONS SHALL PROVIDE THE BASIS FOR THE APPLICATION OF WORK SHOWN IN THE PLANS AND THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE APPLICATION OF ALL WORK SHOWN IN THE PLANS TO PROVIDE A COMPLETE AND ACCEPTABLE INSTALLATION OF ALL THE PROJECT'S COMPONENTS. IN THE EVENT THAT ACTUAL FIELD CONDITIONS AFFECT OR PREVENT THE APPLICATION OR PROGRESSION OF ANY WORK SHOWN IN THE PLANS OR SPECIFIED IN THE TECHNICAL SPECIAL PROVISIONS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER PRIOR TO ANY FURTHER WORK ACTIVITY.

2. THE CONTRACTOR MAY ADJUST EQUIPMENT OR COMMUNICATION INFRASTRUCTURE FROM LOCATIONS SHOWN ON THE PLANS WHEN NECESSARY DUE TO FIELD CONDITIONS BUT ONLY AFTER APPROVAL FROM THE ENGINEER. ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS SHALL BE RECORDED ON THE AS-BUILT PLANS AND TABULATION SHEETS.

3. THE CONTRACTOR SHALL FIELD VERIFY THE CONDITION OF ANY EXISTING CONDUIT THAT MAY BE PROPOSED FOR USE AS SHOWN IN THE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY LOCATIONS WHERE THE EXISTING CONDUIT IS DAMAGED TO THE POINT THE CONTRACTOR CANNOT USE A SEGMENT.

4. WITH THE EXCEPTION OF THE DMS INSTALLATIONS, NO SURVEY HAS BEEN PROVIDED FOR THIS CONTRACT. RIGHT-OF-WAY LINES SHOWN ON THE PLANS ARE PROVIDED FROM COUNTY TAX MAPS. THE CONTRACTOR SHALL INSTALL ALL PROJECT INFRASTRUCTURE AND FIELD ELEMENTS WITHIN THE RIGHT-OF-WAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING THE BASE-LINE AND RIGHT OF WAY FOR PROPER STAKING OF STRUCTURES AND POLES. IN ACCORDANCE WITH THE CONTRACT, THE CONTRACTOR SHALL USE A FLORIDA LICENSED SURVEYOR FOR SUCH ACTIVITIES.

GENERAL CONSTRUCTION:

1. THE CONTRACTOR SHALL BE REQUIRED TO RETURN ALL DISTURBED AREAS TO PRECONSTRUCTION CONDITIONS WITHIN 72 HOURS OF THE CONSTRUCTION ACTIVITY. THIS INCLUDES RESTORATION OF GRADE AND SODDING FOR STABILIZATION. THE CONTRACTOR SHALL BE REQUIRED TO WATER THE SOD AND ENSURE THE SOD HAS TIME TO ROOT.

2. THE EXACT POSITIONING AND ANGLING OF THE DMS STRUCTURES ARE CRUCIAL TO PROPER SIGN VISIBILITY. THE CONTRACTOR SHALL EXERCISE DUE DILIGENCE TO PROPERLY POSITION THE SIGNS. THE ENGINEER MUST APPROVE ANY ADJUSTMENTS THAT MAY BE NECESSARY DURING SIGN INSTALLATION TO OPTIMIZE VISIBILITY OF THE DMS STRUCTURE.

3. ALL REFERENCES IN THE PLANS TO RIGID CONDUIT SHALL BE INSTALLED AS RIGID GALVANIZED STEEL CONDUIT (RGSC). ALL BRACKETS AND SPACERS WHICH ARE REQUIRED TO OFFSET THE RIGID CONDUIT FROM THE MOUNTING HARDWARE SHALL BE OF SIMILAR MATERIALS TO PREVENT CATHODIC REACTIONS.

4. PRIOR TO FINAL INSPECTION OF THE PROJECT, THE CONTRACTOR SHALL FURNISH THE INSPECTOR AND PINELLAS COUNTY TRAFFIC SIGNAL SHOP THREE COMPLETE SETS OF AS-BUILT PLANS, BORE LOGS, AND RESISTANCE READINGS OF BOTH LOOPS AND GROUND RODS. PLANS MUST INCLUDE DEPTH AND OFFSET OF ALL CABLES INSTALLED. IN ADDITION, SUBMIT ONE SET OF COMPLETE AS-BUILT PLANS TO BOTH FDOT DISTRICT SEVEN TRAFFIC OPERATIONS AND FDOT PINELLAS MAINTENANCE. UPON PASSING THE FINAL INSPECTION THE CONTRACTOR SHALL SEND A WRITTEN REQUEST TO PINELLAS COUNTY TRAFFIC ENGINEERING TO TRANSFER MAINTENANCE FROM THE CONTRACTOR TO THE COUNTY.

5. ALL ELECTRICAL WIRING, INCLUDING ROADWAY LOOP WIRE, SHIELDED LEAD-IN CABLE, DMS CABLE, CCTV CABLE, ANTENNA CABLE, AND VIDS CABLE, SHALL COMPLY WITH ALL APPROPRIATE PROVISIONS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL SAFETY CODE PUBLISHED BY THE NATIONAL FIRE PROTECTION ASSOCIATION.

6. IF SIDEWALK IS DAMAGED OR REMOVED DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL REPLACE THE ENTIRE SIDEWALK SLAB FROM EXPANSION JOINT TO EXPANSION JOINT AT THE CONTRACTOR'S EXPENSE.

7. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW FOR ALL EQUIPMENT AND MATERIALS FURNISHED AND INSTALLED. THE CONTRACTOR SHALL FURNISH COPIES OF ALL DRAWINGS, SCHEDULES, AND COMPLETE DESCRIPTIVE AND TECHNICAL DATA ON ALL ITEMS.

8. THE ACCEPTANCE OF ANY SUBMITTED DATA FOR MATERIALS, EQUIPMENT, APPARATUS, DEVICES, ARRANGEMENTS, AND/OR LAYOUTS SHALL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY OF PLACING PROPER DIMENSIONS, CAPACITIES, SIZES, QUANTITIES, AND INSTALLATION DETAILS TO EFFICIENTLY PERFORM THE REQUIREMENT AND INTENT OF THE CONTRACT. SUCH ACCEPTANCE SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS OF ANY SORT ON THE SUBMITTAL FORM.

9. EXISTING PULL BOXES DAMAGED DURING CONSTRUCTION ACTIVITIES SHALL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE. IF EXISTING PULL BOXES ARE FOUND TO BE ALREADY DAMAGED (EXISTING CONDITION), THE CONTRACTOR SHALL DOCUMENT THE CONDITION OF THE EXISTING PULL BOX IN THE PRE-CONSTRUCTION PICTURES/VIDEO IN ACCORDANCE WITH THE CONTRACT. REMOVAL OF THE EXISTING DAMAGED PULL BOX SHALL BE PAID UNDER PAY ITEM 635-2-60. REPLACEMENT OF THE EXISTING DAMAGED PULL BOX SHALL BE PAID UNDER THE 635-2-XX PAY ITEM AS APPROPRIATE FOR THE SIZE OF THE PULL BOX TO BE REPLACED.

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT: PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION: GENERAL NOTES (1)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 9 OF 84

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GENERAL CONSTRUCTION (CONTINUED)

10. IF THE CONTRACTOR DECIDES TO BORE ADDITIONAL LENGTHS OF CONDUIT, THE COST TO DO SO SHALL BE AT HIS OWN EXPENSE.

11. SIZE THE DIRECTIONAL BORE HOLE TO ACCOMMODATE THE REQUIRED CONDUITS AT EACH LOCATION. NO ADDITIONAL COMPENSATION SHALL BE MADE FOR MULTIPLE CONDUITS.

12. SHOULD TRENCHING UNDER DRIVEWAYS BE REQUIRED, THE CONTRACTOR SHALL COORDINATE WORK OPERATIONS AND TEMPORARY ACCESS TO PROPERTY FOR ALL OPEN-CUT DRIVEWAY (UNDER PAVEMENT) TRENCHING WITH BUSINESS OWNERS AND RESIDENTS ONE WEEK PRIOR TO DIGGING.

13. RIGHT-OF-WAY AS INDICATED ON THE PLANS IS PROVIDED FROM COUNTY TAX MAPS. THE CONTRACTOR SHALL ENSURE THAT ALL PROJECT INFRASTRUCTURE IS INSTALLED WITHIN THE EXISTING RIGHT OF WAY. THE CONTRACTOR SHALLUSE A FLORIDA LICENSED SURVEYOR FOR ANY AREAS WHERE RIGHT-OF-WAY VERIFICATION IS NECESSARY.

14. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT ALL CONSTRUCTION ACTIVITIES WILL CONFORM TO PINELLAS COUNTY CODE CHAPTER 58, ENVIRONMENT, ARTICLE XII – NOISE, SECTION 58-441 THROUGH 58-454.

15. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN AN ALTERNATIVE PEDESTRIAN PATHWAY WITHIN THE CONSTRUCTION AREAS AND ENSURE THOSE ALTERNATIVE PATHWAYS ARE FREE FROM OBSTRUCTIONS AND MEET ADA REQUIREMENTS. THE CONTRACTOR SHALL NOT STOCKPILE ANY MATERIALS ON THE SIDEWALK OR WITHIN THE ALTERNATIVE PEDESTRIAN PATHWAYS. ALTERNATE PATHWAYS SHALL BE SIGNED AS PEDESTRIAN DETOURS IN ACCORDANCE WITH FDOT STANDARD PLANS INDEX 102-660..

UTILITIES:

1. THE LOCATION OF UTILITIES SHOWN IN THE PLANS IS APPROXIMATE. THE EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR, AT HIS EXPENSE AND IN COORDINATION WITH UNDERGROUND AND OVERHEAD UTILITY OWNERS PRIOR TO DIGGING OR ANY DIRECTIONAL BORE EFFORTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITY NOTIFICATIONS AND COORDINATION WITH UTILITY OWNERS FOR ANY ADJUSTMENTS THAT MAY BE NECESSARY TO RESOLVE ANY CONFLICTS THAT MAY ARISE BETWEEN THE CONTRACTOR'S ACTIVITIES AND EXISTING UTILITY LOCATIONS. A CONTRACTOR'S REPRESENTATIVE SHALL BE PRESENT WHEN THE UTILITY OWNERS LOCATE THEIR FACILITIES. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY OWNERS AT LEAST 72 HOURS IN ADVANCE OF FOUNDATION OR POLE SETTING OPERATIONS WHERE CONFLICT WITH OVERHEAD OR UNDERGROUND UTILITIES IS POSSIBLE. WITH APPROVAL FROM THE ENGINEER, THE CONTRACTOR SHALL FIELD ADJUST THE DESIGN AND INSTALLATION TO AVOID CONFLICTS WITH EXISTING UTILITIES WHILE REMAINING WITHIN PUBLIC RIGHT-OF-WAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE TO EXISTING UTILITIES CAUSED BY THE CONTRACTOR DURING CONSTRUCTION. THE COSTS ASSOCIATED WITH UTILITY COORDINATION OR UTILITY LOCATING SHALL BE INCLUDED IN MOBILIZATION.

2. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH THE UTILITY OWNERS FOR ANY ADJUSTMENT OF FACILITIES THAT MAY BE NEEDED. HOWEVER, ANY RELOCATION OF EXISTING OR PROPOSED DUKE ENERGY TRANSMISSION AND DISTRIBUTION FACILITIES THAT ARE REQUIRED TO ACCOMMODATE CONSTRUCTION WILL REQUIRE NOTICE SUFFICIENT TO COVER ANALYSIS, DESIGN, MATERIAL LOGISTICS, MOBILIZATION AND DEMOBILIZATION FOR SAID RELOCATION.

3. THE CONTRACTOR SHALL MEET ALL APPLICABLE OSHA AND NESC REQUIREMENTS IN ORDER TO MAINTAIN THE REQUIRED CLEARANCE FOR ALL EXISTING AND RELOCATED OVERHEAD POWER LINES WITHIN CLOSE PROXIMITY TO DEVICE AND STRUCTURE INSTALLATIONS. THE TYPE OF EQUIPMENT USED WHEN WORKING UNDER OVERHEAD UTILITIES SHALL MEET THE FOLLOWING REQUIREMENTS:

   A.) OVERHEAD LINES SHALL STAY IN PLACE BOTH VERTICALLY AND HORIZONTALLY.
   B.) ANY COSTS ASSOCIATED WITH THE TYPE OF EQUIPMENT AND COORDINATION REQUIRED FOR THIS INSTALLATION IS INCLUDED IN THE RELATED STRUCTURE OR DEVICE PAY ITEMS.
   C.) CONTRACTOR SHALL WORK WITH POWER UTILITY TO DE-ENERGIZE LINES WHEN NECESSARY.

4. THE CONTRACTOR SHALL PERFORM SUBSURFACE UTILITY ENGINEERING (SUE) AT EACH CCTV POLE AND DMS STRUCTURE FOUNDATION. THE SUE EFFORT SHALL BE QUALITY LEVEL A. THE COST TO PERFORM THIS ACTIVITY SHALL BE INCLUDED IN THE DMS STRUCTURE OR CCTV CAMERA POLE PAY ITEM.

5. AT LOCATIONS WHERE UNDERGROUND UTILITIES ARE IN CLOSE PROXIMITY TO THE DEVICE POLE, DMS FOUNDATION OR CONDUIT RUNS, THE CONTRACTOR SHALL HAND DIG THE FIRST 48-INCHES OF THE HOLE FOR THE POLE, FOUNDATION, OR THE CONDUIT RUN. NO SEPARATE PAYMENT SHALL BE MADE FOR THIS WORK. THE COST TO PERFORM THIS ACTIVITY SHALL BE INCLUDED IN THE DMS STRUCTURE, CCTV CAMERA POLE OR CONDUIT INSTALLATION PAY ITEM.

6. FDOT DOES NOT LOCATE THEIR DRAINAGE STRUCTURES AS PART OF SUNSHINE ONE CALL. THE CONTRACTOR SHALL VERIFY EXISTING UNDERDRAIN AT STORM STRUCTURES WITH FDOT MAINTENANCE PERSONNEL. MAINTAIN A MINIMUM OF TWO-FOOT CLEARANCE FROM THE UNDERDRAIN FILTER MATERIAL, PARALLEL AND CROSSING.

7. ALL INFRASTRUCTURE INSTALLED WITHIN THE RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH PRACTICES REFERENCED IN THE STATE OF FLORIDA UTILITY ACCOMMODATIONS MANUAL.

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE POWER UTILITY PROVIDING ELECTRICAL SERVICE TO DETERMINE IF A SERVICE PROCESSING FEE OR SPECIAL IMPACT CONNECTION FEES ARE CHARGED BY THE UTILITY FOR ELECTRICAL SERVICE CONNECTION.

9. AS PART OF THE PAYMENT FOR ELECTRICAL POWER SERVICE ASSEMBLY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A PERMIT AND INSPECTION OF THE ELECTRICAL SERVICE. ALL PERMIT FEES SHALL BE INCLUDED IN THE POWER SERVICE ASSEMBLY COST. THE METER BASE SHALL INCLUDE A BYPASS HANDLE TO ALLOW CONTINUOUS VOLTAGE UNDER METER CHANGE OUT.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING OPERATIONAL POWER AND COMMUNICATIONS SERVICE (DATA CABLES TO DEVICES) INTO THE CABINETS.

11. WHEN DOING ANY WORK OR TASK UNDER OR NEAR ANY DUKE ENERGY TRANSMISSION AND/OR DISTRIBUTION FACILITIES, ALL APPLICABLE OSHA AND NESC RULES SHALL BE FOLLOWED; ALL EQUIPMENT SHALL BE PROPERLY GROUNDED.

12. THE CONTRACTOR IS PROHIBITED FROM STACKING MATERIAL (SOILS, FILL DIRT, GRAVEL, ETC.) UNDER OR NEAR ENERGIZED OVERHEAD POWER LINES.

13. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES.

THE CONTRACTOR SHALL ADJUST THE LOCATION OF PROPOSED FACILITIES TO AVOID CONFLICT OR DAMAGE TO EXISTING UTILITIES UNLESS THE CONFLICT HAS BEEN IDENTIFIED AND ADDRESSED THROUGH A UTILITY RELOCATION SCHEDULE.

ALL UTILITIES IDENTIFIED IN A UTILITY RELOCATION SCHEDULE INTERFERING WITH CONSTRUCTION SHALL BE REMOVED, RELOCATED, OR ADJUSTED BY THEIR RESPECTIVE OWNER AT THEIR EXPENSE. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY OWNERS UPON AWARD OF THE CONTRACT TO ENSURE UTILITY ADJUSTMENTS/RELOCATIONS ARE SCHEDULED OR COMPLETE. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY OWNERS THROUGHOUT THE DURATION OF THE PROJECT AND ENSURE ANY CONFLICTS ARE PROPERLY COORDINATED AND ADDRESSED SO AS NOT TO DELAY THE PROJECT.

PAY ITEM NOTES

102-0100:
SHALL INCLUDE THE COST FOR ALL TRAFFIC CONTROL RELATED PAY ITEMS INCLUDING THOSE REQUIRED BY THE FDOT STANDARD PLANS INDEX 102 SERIES. THIS PAY ITEM SHALL ALSO INCLUDE ALL COSTS TO MAINTAIN ALL TRAFFIC SIGNALIZATION INCLUDING VEHICLE ACTUATION AND PEDESTRIAN SIGNAL OPERATIONS, UNLESS OTHERWISE SHOWN IN THE PLANS. ALL ACTUATED PHASES SHALL BE MAINTAINED DURING THE PROJECT INCLUDING WHEN LOOPS ARE DAMAGED. THE USE OF MICROWAVE OR VIDEO DETECTORS OR ENGINEER APPROVED DETECTION WITHIN 48-HOURS OF NOTICE SHALL BE REQUIRED WHEN DETECTION HAS BEEN CUT OR IS AFFECTED BY CONSTRUCTION.

102-1100:
THIS PAY ITEM INCLUDES COST FOR OFF-DUTY LAW ENFORCEMENT OFFICERS PROVIDED BY THE CONTRACTOR THAT ARE NOT SPECIFICALLY CALLED OUT IN THE TRAFFIC CONTROL PLAN.

110-4-10:
THIS PAY ITEM INCLUDES REMOVAL AND DISPOSAL OF EXISTING CONCRETE OTHER THAN SIDEWALK.

522-1006:
THIS PAY ITEM INCLUDES THE COST OF SIDEWALK REMOVAL AND DISPOSAL. SIDEWALK SHALL BE REPLACED FULL WIDTH AND 5-FEET MINIMUM LONGITUDINAL LENGTH.

630-2-11, 630-2-12:
IT SHOULD BE NOTED THAT NO TEST BORINGS WERE MADE WHERE CONDUIT RUNS ARE TO BE INSTALLED. ALL CONDUIT RUNS SHOWN ON THE PLANS ARE SCHEMATIC AND FIELD ADJUSTMENTS MAY BE NECESSARY. THE CONTRACTOR IS TO DIRECTIONAL BORE ONLY THE SPECIFIED LENGTHS AS SHOWN IN THE PLANS UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ALL CONDUIT INDICATED IN THE PLANS AS FOUR-INCH SHALL INCLUDE AN OUTERDUCT WITH THREE INNERDUCTS. THE OUTERDUCT SHALL BE FOUR-INCH SDR 11 HDPE. THE INNERDUCTS SHALL BE ONE-INCH SDR 13.5 HDPE. THE INNERDUCT COLORS SHALL BE RED, ORANGE AND YELLOW. A LOCATE WIRE SHALL BE INSTALLED WITHIN THE VOID AREA OF THE OUTERDUCT. ALL LOCATE WIRE SHALL BE NO. 12 AWG STRANDED AND MEET FDOT SPECIFICATIONS. A PULL TAPE SHALL BE INSTALLED IN EACH INNERDUCT. AT LEAST THREE FEET OF PULL TAPE SHALL BE ACCESSIBLE AT EACH CONDUIT TERMINATION AND SHALL BE SECURED WITHIN THE PULL BOX OR PLACE OF TERMINATION. PAYMENT SHALL BE BASED PER LINEAR FOOT OF CONDUIT AND INCLUDE OUTERDUCT, INNERDUCTS, LOCATE WIRE AND PULL TAPE.

THESE PAY ITEMS INCLUDES A LOCATE WIRE SYSTEM. THE LOCATE WIRE SYSTEM INCLUDES ROUTE MARKERS, LOCATE WIRE, WIRE GROUNDING UNITS, GROUND RODS AND ALL MISCELLANEOUS ITEMS NEEDED FOR A COMPLETE AND ACCEPTED LOCATE SYSTEM.

630-2-14:
ALL ABOVE GROUND CONDUIT SHALL BE RIGID GALVANIZED STEEL. ALL CONDUITS SHALL BE TWO-INCH DIAMETER FOR FIBER OPTIC CABLE AND POWER CONDUCTORS.

633-1-124:
SHALL BE 144 COUNT SINGLE MODE FIBER OPTIC CABLE. THE CABLE SHALL BE INSTALLED IN THE ORANGE INNERDUCT. THE COST ASSOCIATED WITH REEL TO REEL SPLICES SHALL BE CONSIDERED INCIDENTAL TO THIS PAY ITEM.

633-2-31:
UNLESS NOTED OTHERWISE IN THIS PLAN SET, DROP FIBER SPLICE ENCLOSURES AND TRAYS AS REQUIRED BY THIS CONTRACT SHALL BE SIZED TO ACCOMMODATE A MINIMUM OF 24 SPLICES.

633-3-35A, 633-3-35B, 633-3-35C, 633-3-35D:
THIS PAY ITEM SHALL INCLUDE THE COST OF THE FIBER OPTIC DROP CABLES. THE DROP CABLES SHALL BE 12 COUNT. THE CONTRACTOR MAY SUBMIT ANOTHER PRODUCT THAT INCLUDES 12 COUNT FIBER AND PATCH PANEL WITH DUPLEX ST CONNECTORS IN PLACE OF THE PRE-TERMINATED PATCH PANEL. THE SIZE SHALL NOT EXCEED THAT OF THE FACTORY PRE-TERMINATED PATCH CABLE/PANEL, AND SHALL INCLUDE A SMALL FORM MOUNT AND SHALL BE REVIEWED AND APPROVED BY THE ENGINEER. THE COST FOR EACH PRE-TERMINATED DROP CABLE SHALL INCLUDE TWO DUPLEX FIBER PATCH CABLES. EACH PATCH CABLE SHALL BE THREE FEET LONG AND HAVE ST CONNECTORS ON ONE END AND LC CONNECTORS ON THE OTHER.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE NECESSARY LENGTH OF THE PRE-TERMINATED FIBER OPTIC DROP CABLE AT EACH LOCATION PRIOR TO ORDERING.

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT: PINELLAS COUNTY ATMS — US 19A South From US 19 to SR 60

DESCRIPTION: GENERAL NOTES (2)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 10 OF 84

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PAY ITEM NOTES (CONTINUED)

635-2-11A, 635-2-11E, 635-2-11S:
PULL BOXES SHALL COMPLY WITH ALL THE REQUIREMENTS AS OUTLINED IN SECTION 635 OF THE FLORIDA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. THE PULL BOX LIDS SHALL HAVE THE TEXT STAMPED IN RAISED LETTERS AS INDICATED BELOW:
635-2-11A "ATMS"
635-2-11E "ELECTRICAL"
635-2-11S "TRAFFIC SIGNAL"
ALL EXPOSED SURFACES SHALL BE PAINTED ORANGE.

635-2-12, 635-2-13:
FIBER OPTIC PULL BOXES AND SPLICE VAULT COVERS SHALL HAVE THE TEXT "ATMS" STAMPED IN RAISED LETTERS. THE PROPOSED FIBER OPTIC PULL BOX AND SPLICE BOX DIMENSIONS ARE SPECIFIED IN FDOT SPECIFICATIONS. ALL EXPOSED SURFACES SHALL BE PAINTED ORANGE.

635-2-13:
THIS PAY ITEM INCLUDES MODIFYING THE EXISTING INNERDUCT AND/OR OUTERDUCT LENGTH AND/OR DEPTH FOR PROPER FIBER OPTIC CABLE INSTALLATION AT THE LOCATIONS WHERE PROPOSED FIBER OPTIC SPLICE VAULTS ARE BEING INSTALLED AT EXISTING FIBER OPTIC PULL BOX LOCATIONS.

635-2-60:
THIS PAY ITEM INCLUDES THE COST OF REMOVAL AND DISPOSAL OF EXISTING PULL BOXES. IF THE EXISTING PULL BOX IS LOCATED IN SIDEWALK THE COST OF SIDEWALK REPLACEMENT IS INCLUDED UNDER PAY ITEM 522-1006.

635-2-70:
THIS PAY ITEM INCLUDES THE COST OF MODIFYING EXISTING PULL BOXES AT LOCATIONS WHERE PROPOSED CONDUIT IS INSTALLED. WORK ITEMS INCLUDE BUT ARE NOT LIMITED TO INSTALLATION OF NEW #57 STONE, RAISING/LEVELING, SOIL COMPACTION, REPLACING CONCRETE PADS, ETC. SO THE PULL BOX WILL MEET CURRENT STANDARDS. IF THE EXISTING PULL BOX IS LOCATED IN SIDEWALK THE COST OF REMOVAL AND REPLACEMENT OF THE SIDEWALK IS COMPENSATED UNDER PAY ITEM 522-1006.

639-1-112, 639-1-122:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE LOCAL POWER COMPANY PROVIDING THE ELECTRICAL POWER TO DETERMINE IF A SERVICE PROCESSING OR CONNECTION FEE IS REQUIRED. THE COST OF ANY SUCH FEE, INCLUDING COST IN AID TO CONSTRUCTION (CIAC), SHALL BE INCLUDED AS PART OF THE PAYMENT FOR THE ELECTRICAL POWER ASSEMBLY.

THE COST OF THIS ITEM SHALL INCLUDE THE COST FOR THE APPROPRIATE METER CAN CONTAINING AN INTERNAL BYPASS SHUNT SWITCH AS REQUIRED BY THE LOCAL POWER COMPANY. THE CONTRACTOR SHALL VERIFY THE TYPE OF METER CAN AND A BREAKER BOX TO USE WITH THE PINELLAS COUNTY SIGNAL SHOP.

639-2-1:
THE PAYMENT OF THIS ITEM SHALL BE BASED ON THE LINEAR FOOT OF ALL REQUIRED CONDUCTORS. ALL SERVICE WIRE SHALL BE #6 AWG WITH TYPE XHHW INSULATION UNLESS OTHERWISE INDICATED.

641-2-14A:
THE GROUND WIRE FROM THE AIR TERMINAL TO THE GROUND SHALL BE INSTALLED EXTERNALLY TO THE CCTV POLE AND FOLLOW FDOT STANDARD PLAN INDEX 641-020. THIS PAY ITEM INCLUDES THE REQUIRED CONDUIT SLEEVE AND ATTACHMENT HARDWARE AS SPECIFIED IN THE PLANS AND SPECIFICATIONS.

660-2-101:
THIS PAY ITEM INCLUDES REMOVAL AND DISPOSAL OF ALL EXISTING UNUSED LOOP LEAD-INS FROM ALL AREAS OF EACH INTERSECTION WITH PROPOSED LOOPS.

660-4-32:
VIDS CAMERAS, POWER/DATA CABLING AND ALL REQUIRED INTERFACE PANELS FOR THE VIDS SHALL BE FURNISHED TO THE CONTRACTOR BY PINELLAS COUNTY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE VIDS SYSTEM. ALL VIDS MOUNTING HARDWARE INCLUDING MOUNTING BRACKETS AND HARDWARE SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. THE VIDS CAMERA SHALL BE INSTALLED IN LINE WITH THE LANE LINE BETWEEN THE LEFT MOST THROUGH LANE AND THE LEFT-TURN LANE. THE INSTALLATION COST SHALL INCLUDE PROGRAMMING THE VIRTUAL LOOPS AS INDICATED ON THE PLAN SHEET.

THIS PAY ITEM INCLUDES THE COST OF REMOVAL AND DISPOSAL OF THE EXISTING INDUCTIVE LOOP HOME RUN CABLES CURRENTLY POPULATING EXISTING CONDUIT THAT WILL BE USED FOR THE INSTALLATION OF THE PROPOSED VIDEO DETECTION CABLE FROM THE CAMERA TO THE CABINET.

676-2-300:
THIS PAY ITEM INCLUDES THE INSTALLATION OF POLE AND BASE MOUNT CONTROL CABINETS. AT THE DMS SITE LOCATIONS THE CONTRACTOR SHALL FURNISH AND INSTALL A CONCRETE BASE SUITABLE FOR THE DMS CABINETS FURNISHED BY THE COUNTY. CONTACT THE COUNTY TO OBTAIN BASE DIMENSIONS AND OTHER REQUIREMENTS PRIOR TO INSTALLATION. INSTALL CABINETS AS PER FDOT STANDARDS AND PLAN DETAILS.

682-1-300:
THE COUNTY WILL FURNISH THE CCTV CAMERA AND POWER/DATA CABLING. THE CCTV CABLING SHALL REMAIN UNCUT FROM CAMERA TO CONTROL CABINET TERMINATION POINT. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL OTHER NECESSARY MOUNTING HARDWARE. THE COST TO INSTALL THE CCTV CAMERA SHALL INCLUDE ALL NECESSARY ATTACHMENT HARDWARE AND FOLLOW FDOT DESIGN STANDARDS AND SPECIFICATIONS. MOUNTING FOR MAST ARMS WILL REQUIRE ASTRO-BRACKET HARDWARE AND SHEPARD'S HOOK. THE CONTRACTOR SHALL COORDINATE WITH THE COUNTY TO MATCH THE CCTV ATTACHMENT REQUIREMENTS.

700-8-436:
THE COUNTY WILL FURNISH THE DMS SIGN AND SUPPORTING Z-BARS AND FIBER CONTROL CABLES FOR CONTRACTOR INSTALLATION. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL OTHER NECESSARY MOUNTING HARDWARE, RIGID CONDUIT FOR POWER AND DATA, LIGHTNING PROTECTION, GROUNDING, AND OTHER MISCELLANEOUS ITEMS. THE COST FOR THESE ITEMS SHALL BE INCLUDED IN THIS PAY ITEM.

700-10-122, 700-10-132:
THE DMS STRUCTURE LOCATED ON 5TH AVE NORTH SHALL BE POWDER COATED DARK BRONZE (FEDERAL COLOR CODE 20040) FACTORY APPLIED FINISH. COLOR REFERENCE IS FEDERAL COLOR FAN DECK 595B (JULY 1994). THE CONTRACTOR SHALL FOLLOW APPLICABLE FDOT SPECIFICATIONS INCLUDING BUT NOT LIMITED TO PAINTING AND WARRANTY. ALL WARRANTY PROCESSING AND DOCUMENTS SHALL BEAR THE CITY OF ST. PETERSBURG AS THE OWNER.

THE SIGN STRUCTURES SHALL BE ROTATED AS SHOWN IN THE TYPICAL DETAILS.

LEGEND

- DMS BASE MOUNT CABINET
- CCTV POLE MOUNT CABINET
- EXISTING SPLICE VAULT
- VEHICLE IMAGE DETECTION SYSTEM (VDS) CAMERA
- EXISTING FIBER OPTIC PULL BOX
- CCTV WITH POLE
- SPLICE VAULT
- CCTV
- FIBER OPTIC PULL BOX
- DMS — DYNAMIC MESSAGE SIGN
- PULL BOX
- L-6 — INDUCTIVE LOOP (TYPE A)
- PROPOSED POWER SERVICE PEDESTAL
- VL-2 — VIRTUAL LOOP (VIDS)
- ERM — ELECTRONIC ROUTE MARKER
- WGU — WIRE GROUNDING UNIT

PROPOSED UNDERGROUND CONDUIT
PROPOSED DIRECTIONAL BORE CONDUIT
EXISTING CONDUIT

CONDUIT LABELING:
FO = FIBER OPTIC CONDUIT
LV = LOW VOLTAGE CONDUIT
PS = POWER SERVICE CONDUIT
SP = SPARE CONDUIT*
*SPARE CONDUIT SHALL BE TERMINATED IN THE TYPE OF PULL BOX AS INDICATED BY THE FIRST LABEL FOR THE CONDUIT RUN.

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT: PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION: GENERAL NOTES (3)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 11 OF 84

howard.holley 7/18/2018 10:58:56 AM J:\JOB\0020\00020-180-05\MS\43489115801\gnnt1101.dgn

UTILITY OWNERS

TIM GREEN
FIBERLIGHT LLC.
6089 JOHNS RD SUITE 7
TAMPA, FL 33634
PH. 813-877-7183

DONALD ANTHONY
SPECTRUM MANATEE
700 CARILLON PARKWAY, STE 6
ST PETERSBURG, FL 33716
PH. 727-329-2000 Ext: 42841

TED MELLIS
CITY OF CLEARWATER- TRAFFIC OPERATIONS
1650 N ARCTURAS AVE BLDG E
CLEARWATER, FL 33765
PH. 727-562-4952 Ext: 7252

CHUCK MURA
CITY OF LARGO
5000 150TH AVE N
CLEARWATER, FL 33760
PH. 727-586-6700

BOBBY MORIG
CLEARWATER GAS SYSTEMS
400 N MYRTLE AVE
CLEARWATER, FL 33755
PH. 727-562-4900 Ext: 7401

ROBERT FAHEY, P.E.
C/O CLEARWATER INFRASTRUCTURE GROUP
100 S MYRTLE AVE, #20
CLEARWATER, FL 33758-5520
PH. 727-562-4608

MEGAN VONSTETINA
DUKE ENERGY
2501 25TH ST N
ST PETERSBURG, FL 33713
PH. 727-893-9394

SCOTT M. CLARK
DUKE ENERGY
2501 25TH ST N
ST PETERSBURG, FL 33713
PH. 727-893-9240

DANNY HASKETT
FIBERNET DIRECT
9250 W FLAGLER ST
MIAMI, FL 33174
PH. 305-552-2931

CARLOS BATES
FRONTIER COMMUNICATIONS
3712 W. WALNUT ST
TAMPA, FL 33607
PH. 941-906-6709

JAY YOUNG
KNOLOGY BROADBAND OF FLORIDA DBA WOW
3001 N GANDY BLVD
PINELLAS PARK, FL 33782
PH. 727-217-2631

NETWORK RELATIONS
LEVEL 3 COMMUNICATIONS LLC
1025 ELDORADO BLVD
BROOMFIELD, CO 80021
PH. 877-366-8344 Ext: 2

JAY PERKINS
PINELLAS COUNTY UTILITIES
14 SOUTH FT. HARRISON
CLEARWATER, FL 33756
PH. 727-464-3536

JASMIN GRIMARD
TECO PEOPLES GAS- ST PETERSBURG
1920 9TH AVE N
ST PETERSBURG, FL 33713
PH. 727-423-7140

TRAVIS TOPA
PINELLAS COUNTY TRANSPORTATION
22211 US19 N
CLEARWATER, FL 34625
PH. 727-647-6694

LOUIS SEUFERT
CITY OF ST PETERSBURG
1650 3RD AVE. N.
ST. PETERSBURG, FL 33712
PH. 727-892-5659

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

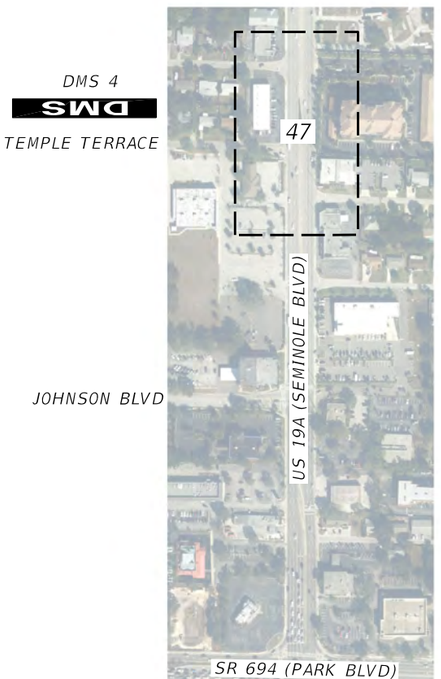
Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

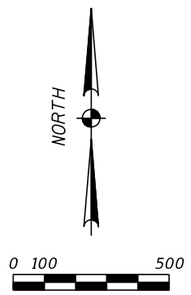
PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

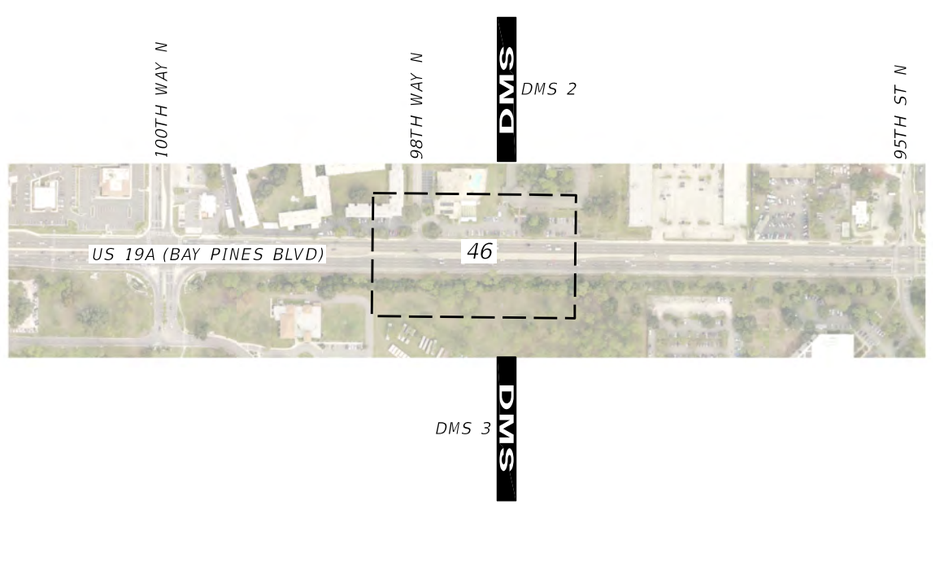
DESCRIPTION:
UTILITY OWNER
CONTACT INFORMATION

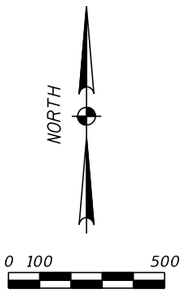
APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

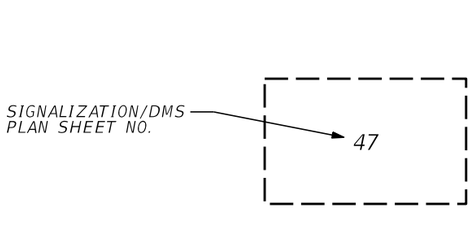
DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 12 OF 84









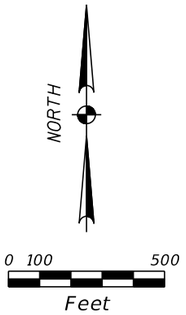


CCTV MOUNTED ON EXISTING STRUCTURE

CCTV MOUNTED ON PROPOSED POLE

CCTV AND CABINET MOUNTED ON PROPOSED POLE

DMS PROPOSED DMS



REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915

3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
PROJECT LAYOUT (1)

APPROVED BY:

MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 13 OF 84

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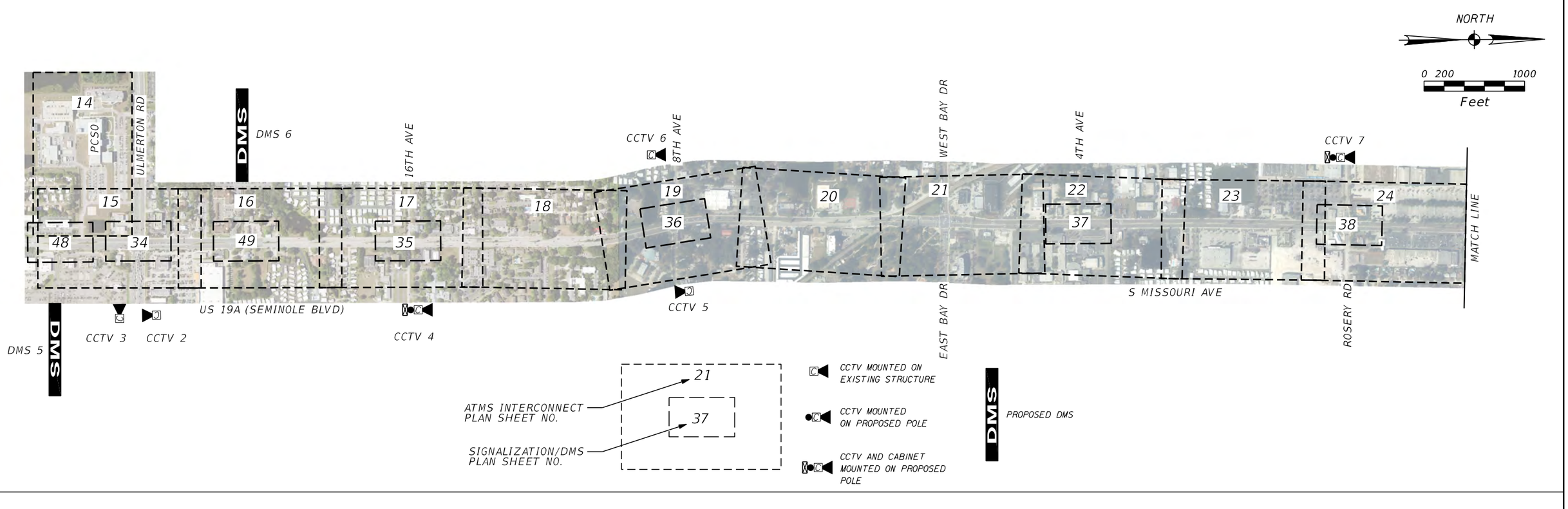

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
PROJECT LAYOUT (2)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 14 OF 84

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THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

NORTH

0 20 100

Feet

EXISTING FIBER OPTIC SPLICE BOX

(144 COUNT SM) 400 LF 633-1-124

900 LF 633-1-124 (144 COUNT SM)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915

3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
ATMS INTERCONNECT PLAN (1)

APPROVED BY:

MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 15 OF 84

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NORTH

0 20 100

Feet

(144 COUNT SM) 100 LF 633-1-124

220 LF 633-1-124 (144 COUNT SM)

MATCH LINE A

CCTV #2 AND #3
SEE SIGNALIZATION PLAN (2)
SHEET 34

R/W LINE

690

695

700

SR 688 (ULMERTON ROAD)

ALT 19 (SEMINOLE BLVD)

MATCH LINE 704+00

ERM
WGU

R/W LINE

DMS #5
SEE DMS PLAN (4)
SHEET 48

140 LF 633-1-124 (144 COUNT SM)

100 LF 633-1-124 (144 COUNT SM)
1 EA 635-2-12

REPLACE EXISTING
FIBER OPTIC SPLICE VAULT

100 LF 633-1-124 (144 COUNT SM)
1 EA 635-2-13

715 LF 630-2-12 (4" W/INNERDUCTS)
715 LF 633-1-124 (144 COUNT SM)

410 LF 630-2-12 (4" W/INNERDUCTS)
410 LF 633-1-124 (144 COUNT SM)

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REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915

3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
ATMS INTERCONNECT PLAN (2)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 16 OF 84

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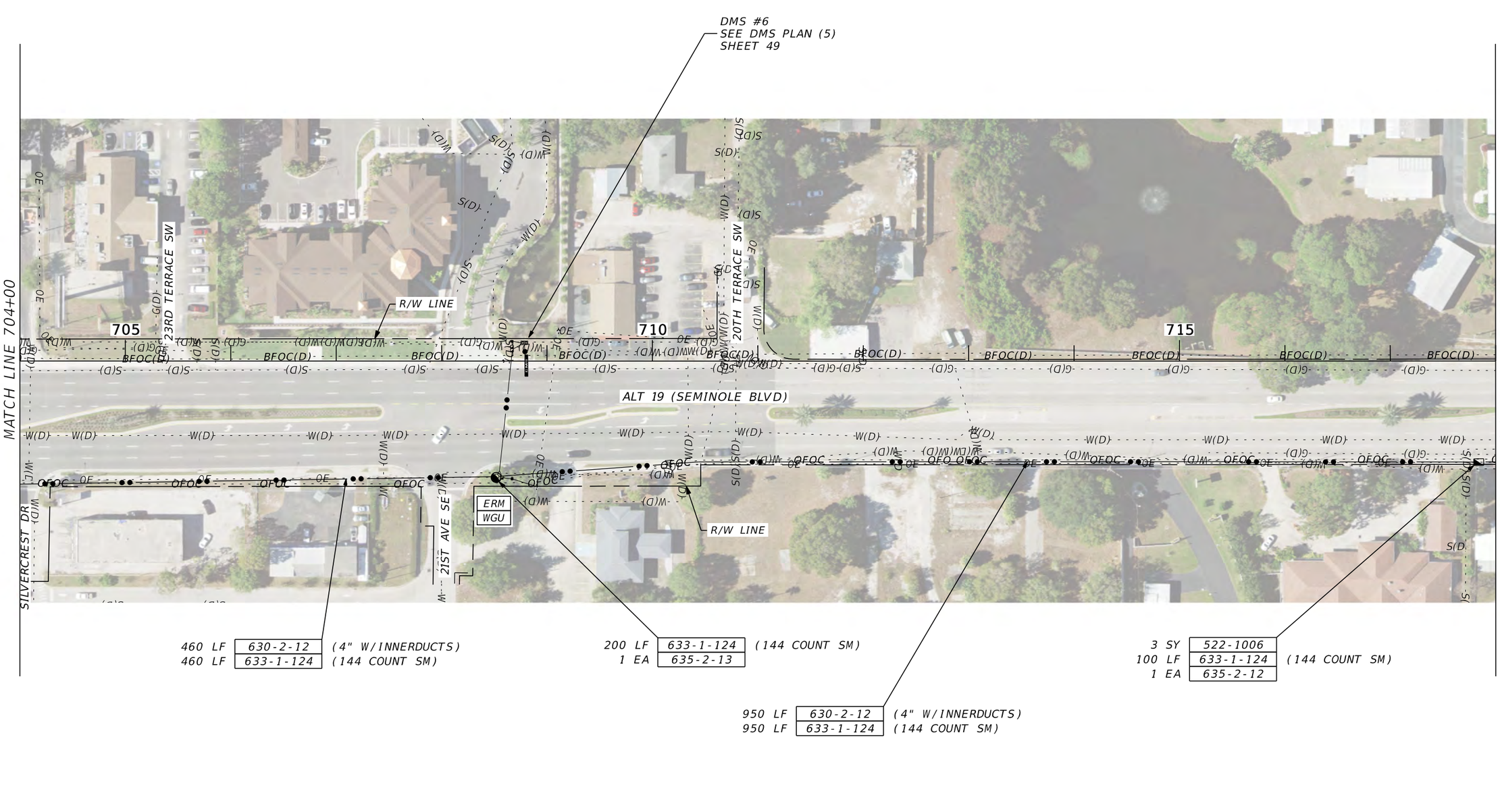
NORTH

0 20 100

Feet



460 LF | 630-2-12 | (4" W/INNERDUCTS)
460 LF | 633-1-124 | (144 COUNT SM)

200 LF | 633-1-124 | (144 COUNT SM)
1 EA | 635-2-13

950 LF | 630-2-12 | (4" W/INNERDUCTS)
950 LF | 633-1-124 | (144 COUNT SM)

3 SY | 522-1006
100 LF | 633-1-124 | (144 COUNT SM)
1 EA | 635-2-12

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REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
ATMS INTERCONNECT PLAN (3)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 17 OF 84

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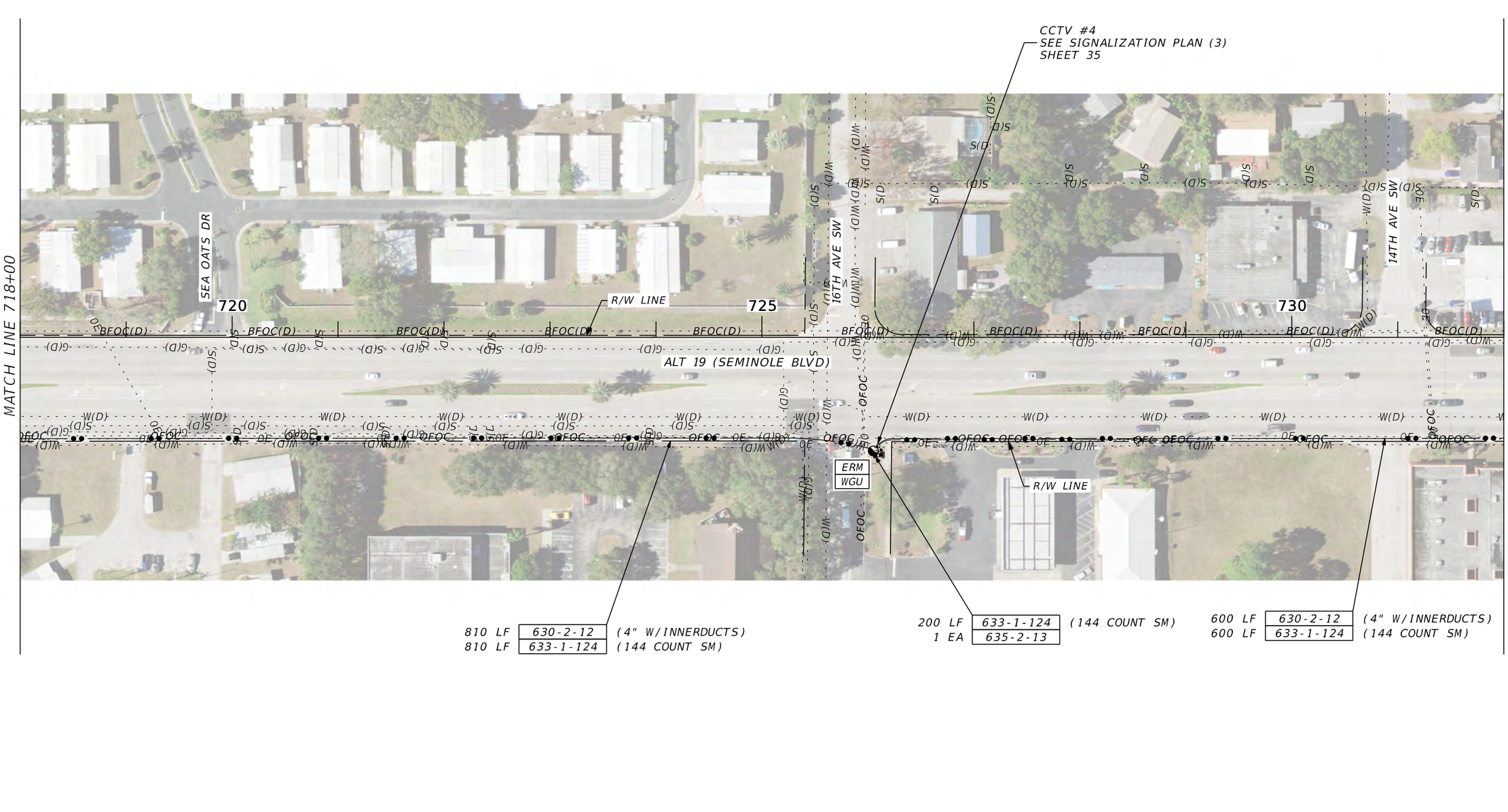
NORTH

0 20 100

Feet



810 LF | 630-2-12 | (4" W/INNERDUCTS)
810 LF | 633-1-124 | (144 COUNT SM)

200 LF | 633-1-124 | (144 COUNT SM)
1 EA | 635-2-13 |

600 LF | 630-2-12 | (4" W/INNERDUCTS)
600 LF | 633-1-124 | (144 COUNT SM)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
ATMS INTERCONNECT PLAN (4)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 18 OF 84

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NORTH

0 20 100

Feet

MATCH LINE 732+00

735

740

745

11TH AVE SW

R/W LINE

ALT 19 (SEMINOLE BLVD)

ERM

MATCH LINE 746+00

200 LF	630-2-12	(4" W/INNERDUCTS)
200 LF	633-1-124	(144 COUNT SM)

3 SY	522-1006	
100 LF	633-1-124	(144 COUNT SM)
1 EA	635-2-12	

920 LF	630-2-12	(4" W/INNERDUCTS)
920 LF	633-1-124	(144 COUNT SM)

3 SY	522-1006	
100 LF	633-1-124	(144 COUNT SM)
1 EA	635-2-12	

300 LF	630-2-12	(4" W/INNERDUCTS)
300 LF	633-1-124	(144 COUNT SM)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915

3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
ATMS INTERCONNECT PLAN (5)

APPROVED BY:

MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 19 OF 84

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NORTH

0 20 100

Feet

CCTV #6
SEE SIGNALIZATION PLAN (4)
SHEET 36

CCTV #5
SEE SIGNALIZATION PLAN (4)
SHEET 36

MATCH LINE 746+00

750

755

MATCH LINE 760+00

8TH AVE SW

ALT 19 (SEMINOLE BLVD)

5TH AVE SE

R/W LINE

ERM
WGU

540 LF	630-2-12	(4" W/INNERDUCTS)
540 LF	633-1-124	(144 COUNT SM)

350 LF	630-2-12	(4" W/INNERDUCTS)
350 LF	633-1-124	(144 COUNT SM)

510 LF	630-2-12	(4" W/INNERDUCTS)
510 LF	633-1-124	(144 COUNT SM)

200 LF	633-1-124	(144 COUNT SM)
1 EA	635-2-13	

100 LF	633-1-124	(144 COUNT SM)
1 EA	635-2-12	

3 SY	522-1006		
100 LF	633-1-124	(144 COUNT SM)	
1 EA	635-2-12		

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915

3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
ATMS INTERCONNECT PLAN (6)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 20 OF 84

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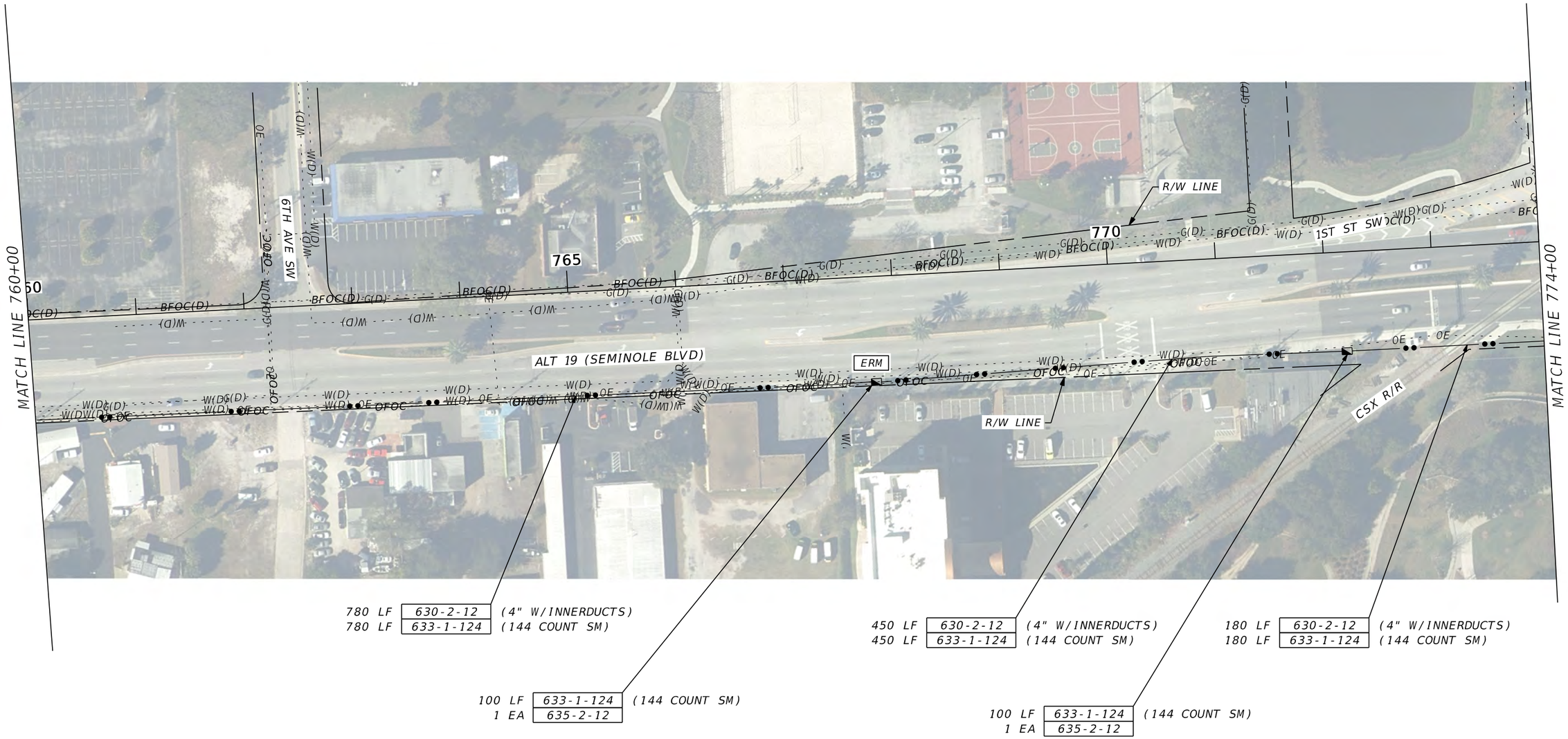
NORTH

0 20 100

Feet



780 LF | 630-2-12 | (4" W/INNERDUCTS)
780 LF | 633-1-124 | (144 COUNT SM)

100 LF | 633-1-124 | (144 COUNT SM)
1 EA | 635-2-12

450 LF | 630-2-12 | (4" W/INNERDUCTS)
450 LF | 633-1-124 | (144 COUNT SM)

180 LF | 630-2-12 | (4" W/INNERDUCTS)
180 LF | 633-1-124 | (144 COUNT SM)

100 LF | 633-1-124 | (144 COUNT SM)
1 EA | 635-2-12

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915

3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
ATMS INTERCONNECT PLAN (7)

APPROVED BY:

MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

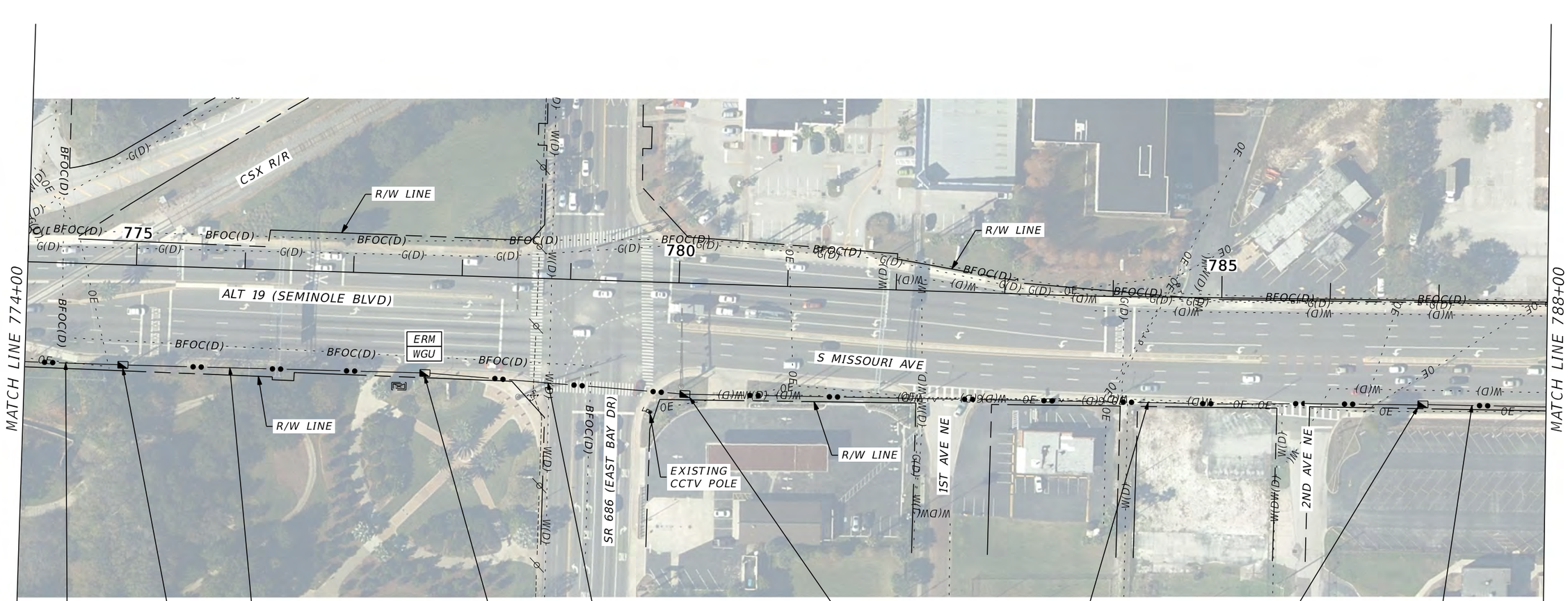
DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 21 OF 84

howard.holley 7/18/2018 11:01:32 AM J:\JOB\0020\00020-180-05\MS\43489II580I\PLANSGI06.dgn

NORTH

0 20 100

Feet



275 LF | 630-2-12 | (4" W/INNERDUCTS)
275 LF | 633-1-124 | (144 COUNT SM)

100 LF | 633-1-124 | (144 COUNT SM)
1 EA | 635-2-12

90 LF | 630-2-12 | (4" W/INNERDUCTS)
90 LF | 633-1-124 | (144 COUNT SM)

3 SY | 522-1006
100 LF | 633-1-124 | (144 COUNT SM)
1 EA | 635-2-12

240 LF | 630-2-12 | (4" W/INNERDUCTS)
240 LF | 633-1-124 | (144 COUNT SM)

100 LF | 633-1-124 | (144 COUNT SM)
1 EA | 635-2-12

680 LF | 630-2-12 | (4" W/INNERDUCTS)
680 LF | 633-1-124 | (144 COUNT SM)

100 LF | 633-1-124 | (144 COUNT SM)
1 EA | 635-2-12

115 LF | 630-2-12 | (4" W/INNERDUCTS
115 LF | 633-1-124 | (144 COUNT SM)

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REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
ATMS INTERCONNECT PLAN (8)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 22 OF 84

howard.holley 7/18/2018 11:01:39 AM J:\JOB\0020\00020-180-05\WS\43489115801\PLANSGI07.dgn

NORTH

0 20 100

Feet

SEE SIGNALIZATION PLAN (5)
SHEET 37

MATCH LINE 788+00

MATCH LINE 802+00

4TH AVE NW

COMMERCE DR S

COMMERCE DR N

S MISSOURI AVE

790

795

800

R/W LINE

ERM

WGU

530 LF | 630-2-12 | (4" W/INNERDUCTS)
530 LF | 633-1-124 | (144 COUNT SM)

200 LF | 633-1-124 | (144 COUNT SM)
1 EA | 635-2-13

825 LF | 630-2-12 | (4" W/INNERDUCTS)
825 LF | 633-1-124 | (144 COUNT SM)

3 SY | 522-1006
100 LF | 633-1-124 | (144 COUNT SM)
1 EA | 635-2-12

70 LF | 630-2-12 | (4" W/INNERDUCTS)
70 LF | 633-1-124 | (144 COUNT SM)

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REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
ATMS INTERCONNECT PLAN (9)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 23 OF 84

howard.holley 7/18/2018 11:01:44 AM J:\JOB\0020\00020-180-05\MS\43489II580I\PLANSGI08.dgn

NORTH

0 20 100

Feet

785 LF	630-2-12	(4" W/INNERDUCTS)
785 LF	633-1-124	(144 COUNT SM)

3 SY	522-1006	
100 LF	633-1-124	(144 COUNT SM)
1 EA	635-2-12	

615 LF	630-2-12	(4" W/INNERDUCTS)
615 LF	633-1-124	(144 COUNT SM)

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REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
ATMS INTERCONNECT PLAN (10)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

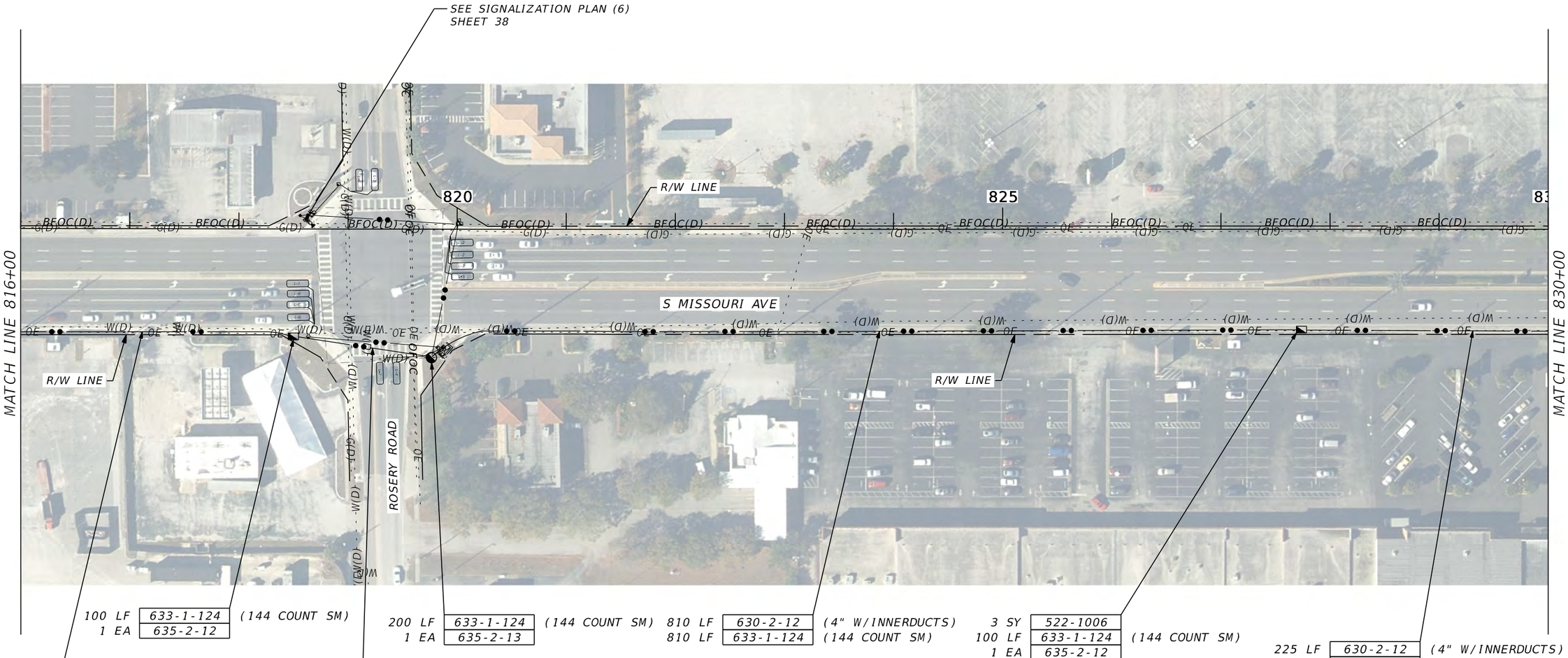
DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 24 OF 84

howard.holley 7/18/2018 11:01:48 AM J:\JOB\0020\00020-180-05\MS\434891\580I\PLANSGI09.dgn

NORTH

0 20 100

Feet



100 LF 633-1-124 (144 COUNT SM)
1 EA 635-2-12

200 LF 633-1-124 (144 COUNT SM)
1 EA 635-2-13

810 LF 630-2-12 (4" W/INNERDUCTS)
810 LF 633-1-124 (144 COUNT SM)

3 SY 522-1006
100 LF 633-1-124 (144 COUNT SM)
1 EA 635-2-12

225 LF 630-2-12 (4" W/INNERDUCTS)
225 LF 633-1-124 (144 COUNT SM)

250 LF 630-2-12 (4" W/INNERDUCTS)
250 LF 633-1-124 (144 COUNT SM)

125 LF 630-2-12 (4" W/INNERDUCTS)
125 LF 633-1-124 (144 COUNT SM)

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REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
ATMS INTERCONNECT PLAN (11)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

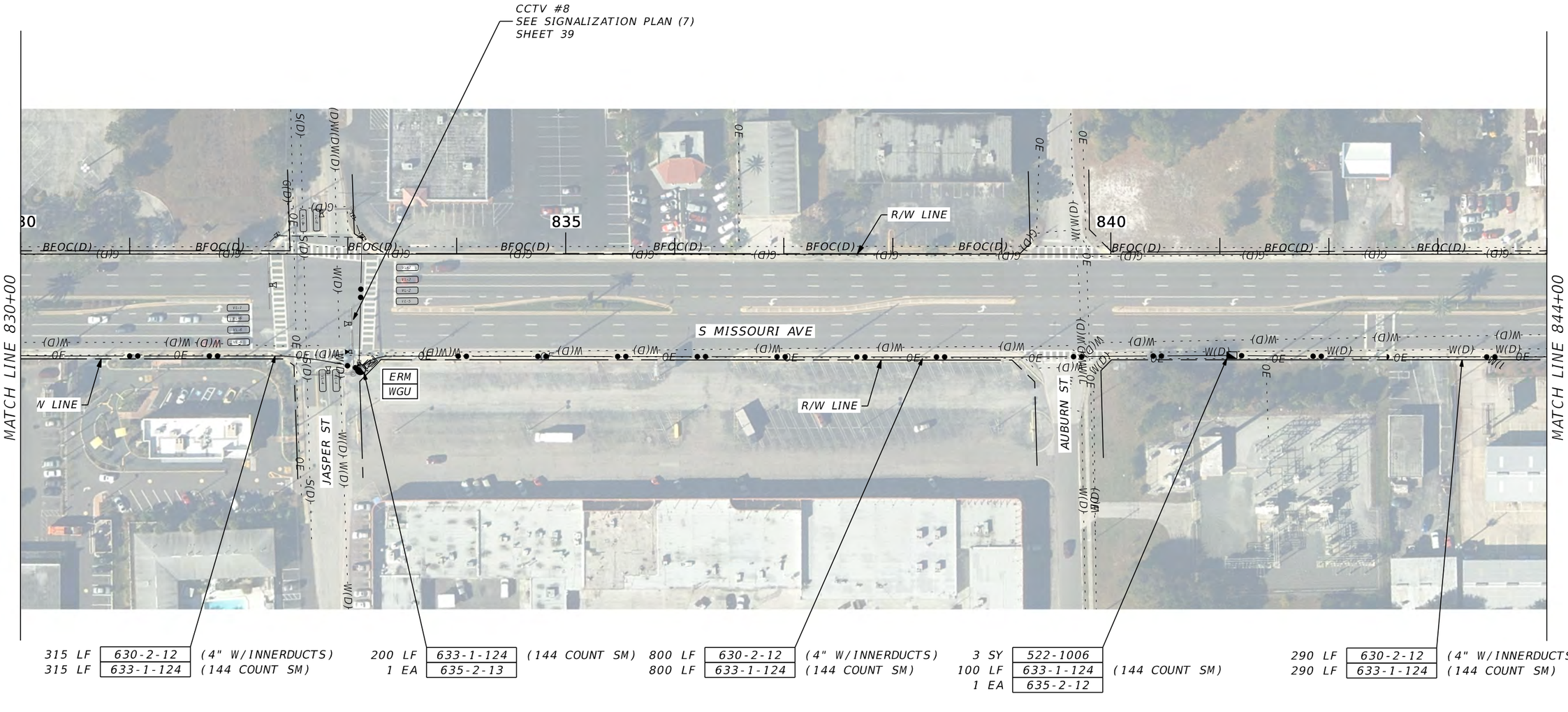
DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 25 OF 84

howard.holley 7/18/2018 11:01:53 AM J:\JOB\0020\00020-180-05\MS\43489111801\PLANSGII0.dgn

NORTH

0 20 100

Feet



315 LF	630-2-12	(4" W/INNERDUCTS)	200 LF	633-1-124	(144 COUNT SM)	800 LF	630-2-12	(4" W/INNERDUCTS)	3 SY	522-1006		290 LF	630-2-12	(4" W/INNERDUCTS)
315 LF	633-1-124	(144 COUNT SM)	1 EA	635-2-13		800 LF	633-1-124	(144 COUNT SM)	100 LF	633-1-124	(144 COUNT SM)	290 LF	633-1-124	(144 COUNT SM)
									1 EA	635-2-12				

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915

3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
ATMS INTERCONNECT PLAN (12)

APPROVED BY:

MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 26 OF 84

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NORTH

0 20 100

Feet

340 LF	630-2-12	(4" W/INNERDUCTS)	
340 LF	633-1-124	(144 COUNT SM)	
3 SY	522-1006		
200 LF	633-1-124	(144 COUNT SM)	
1 EA	635-2-13		
675 LF	630-2-12	(4" W/INNERDUCTS)	
675 LF	633-1-124	(144 COUNT SM)	
3 SY	522-1006		
100 LF	633-1-124	(144 COUNT SM)	
1 EA	635-2-12		
420 LF	630-2-12	(4" W/INNERDUCTS)	
420 LF	633-1-124	(144 COUNT SM)	

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
ATMS INTERCONNECT PLAN (13)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 27 OF 84

howard.holley 7/18/2018 11:02:02 AM J:\JOB\0020\00020-180-05\MS\43489115801\PLANSGII2.dgn

NORTH

0 20 100

Feet

CCTV #9
SEE SIGNALIZATION PLAN (9)
SHEET 41

MATCH LINE 858+00

MATCH LINE 872+00

860

865

870

S MISSOURI AVE

BELLEAIR RD

HOWARD ST

R/W LINE

ERM
WGU

145 LF | 630-2-12 | (4" W/INNERDUCTS)
145 LF | 633-1-124 | (144 COUNT SM)

200 LF | 633-1-124 | (144 COUNT SM)
1 EA | 635-2-13

840 LF | 630-2-12 | (4" W/INNERDUCTS)
840 LF | 633-1-124 | (144 COUNT SM)

3 SY | 522-1006
100 LF | 633-1-124 | (144 COUNT SM)
1 EA | 635-2-12

430 LF | 630-2-12 | (4" W/INNERDUCTS)
430 LF | 633-1-124 | (144 COUNT SM)

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REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915

3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
ATMS INTERCONNECT PLAN (14)

APPROVED BY:

MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

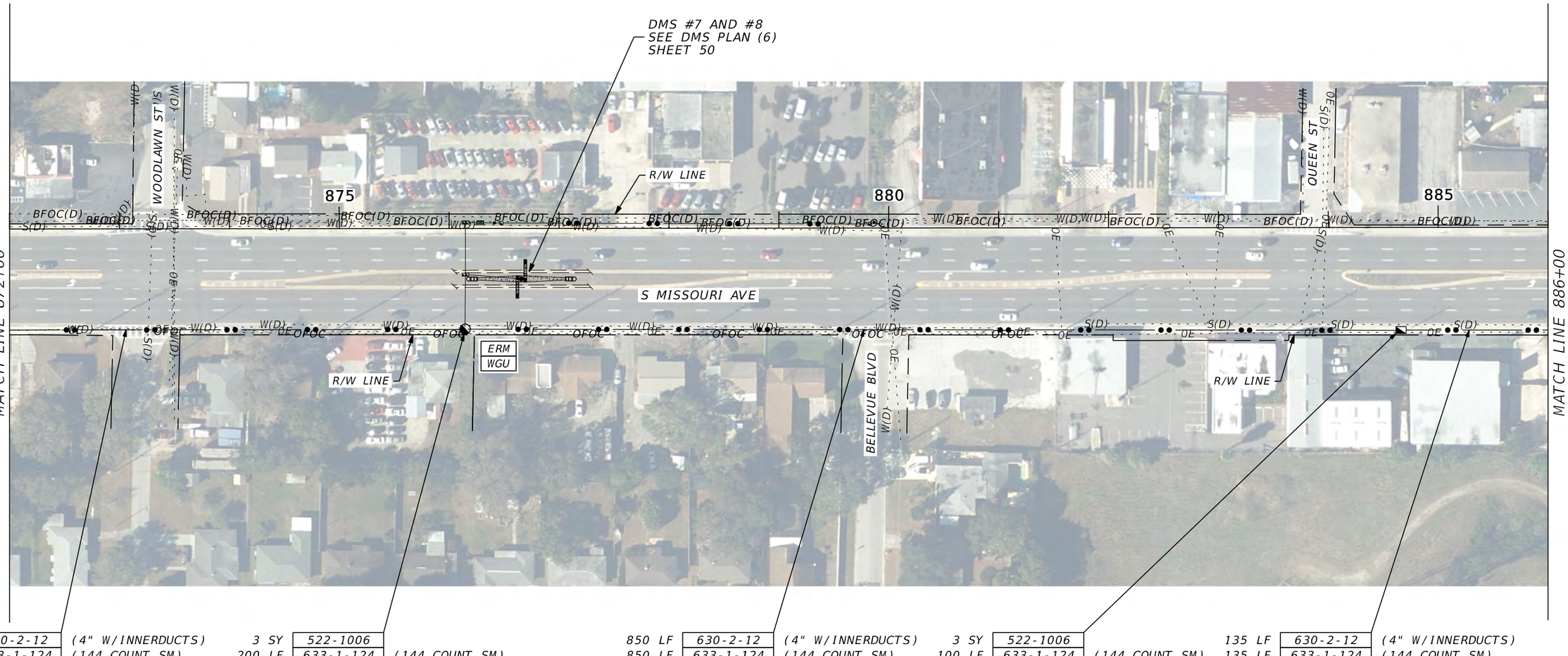
DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 28 OF 84

howard.holley 7/18/2018 11:02:07 AM J:\JOB\0020\00020-180-05\MS\43489111801\PLANSGII3.dgn

NORTH

0 20 100

Feet



415 LF	630-2-12	(4" W/INNERDUCTS)	3 SY	522-1006		850 LF	630-2-12	(4" W/INNERDUCTS)	3 SY	522-1006		135 LF	630-2-12	(4" W/INNERDUCTS)
415 LF	633-1-124	(144 COUNT SM)	200 LF	633-1-124	(144 COUNT SM)	850 LF	633-1-124	(144 COUNT SM)	100 LF	633-1-124	(144 COUNT SM)	135 LF	633-1-124	(144 COUNT SM)
			1 EA	635-2-13					1 EA	635-2-12				

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915

3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
ATMS INTERCONNECT PLAN (15)

APPROVED BY:

MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 29 OF 84

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NORTH

0 20 100

Feet

640 LF	630-2-12	(4" W/INNERDUCTS)	
640 LF	633-1-124	(144 COUNT SM)	

3 SY	522-1006	
100 LF	633-1-124	(144 COUNT SM)
1 EA	635-2-12	

760 LF	630-2-12	(4" W/INNERDUCTS)
760 LF	633-1-124	(144 COUNT SM)

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915

3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
ATMS INTERCONNECT PLAN (16)

APPROVED BY:

MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

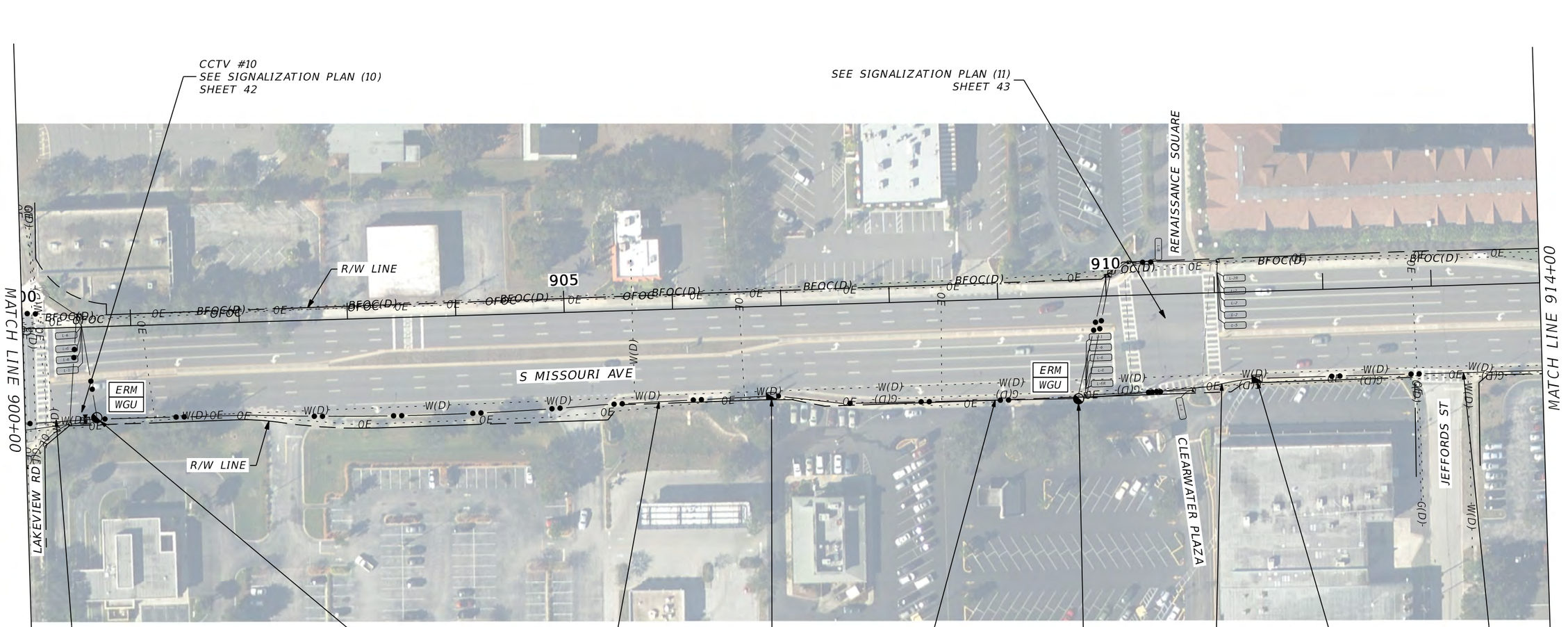
DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 30 OF 84

howard.holley 7/18/2018 11:02:17 AM J:\JOB\0020\00020-180-05\MS\43489115801\PLANSGI15.dgn

NORTH

0 20 100

Feet



70 LF	630-2-12	(4" W/INNERDUCTS)	
70 LF	633-1-124	(144 COUNT SM)	
3 SY	522-1006		
200 LF	633-1-124	(144 COUNT SM)	
1 EA	635-2-13		
3 SY	522-1006		
100 LF	633-1-124	(144 COUNT SM)	
1 EA	635-2-12		
3 SY	522-1006		
200 LF	633-1-124	(144 COUNT SM)	
1 EA	635-2-13		
630 LF	630-2-12	(4" W/INNERDUCTS)	
630 LF	633-1-124	(144 COUNT SM)	
280 LF	630-2-12	(4" W/INNERDUCTS)	
280 LF	633-1-124	(144 COUNT SM)	
170 LF	630-2-12	(4" W/INNERDUCTS)	
170 LF	633-1-124	(144 COUNT SM)	
3 SY	522-1006		
100 LF	633-1-124	(144 COUNT SM)	
1 EA	635-2-12		
265 LF	630-2-12	(4" W/INNERDUCTS)	
265 LF	633-1-124	(144 COUNT SM)	

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REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
ATMS INTERCONNECT PLAN (17)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 31 OF 84

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NORTH

0 20 100

Feet

375 LF	630-2-12	(4" W/INNERDUCTS)	
375 LF	633-1-124	(144 COUNT SM)	
3 SY	522-1006		
100 LF	633-1-124	(144 COUNT SM)	
1 EA	635-2-12		
820 LF	630-2-12	(4" W/INNERDUCTS)	
820 LF	633-1-124	(144 COUNT SM)	
100 LF	633-1-124	(144 COUNT SM)	
1 EA	635-2-12		
110 LF	630-2-12	(4" W/INNERDUCTS)	
110 LF	633-1-124	(144 COUNT SM)	
200 LF	633-1-124	(144 COUNT SM)	
1 EA	635-2-13		
120 LF	630-2-12	(4" W/INNERDUCTS)	
120 LF	633-1-124	(144 COUNT SM)	

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REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915

3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
ATMS INTERCONNECT PLAN (18)

APPROVED BY:

MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 32 OF 84

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NORTH

0 20 100

Feet

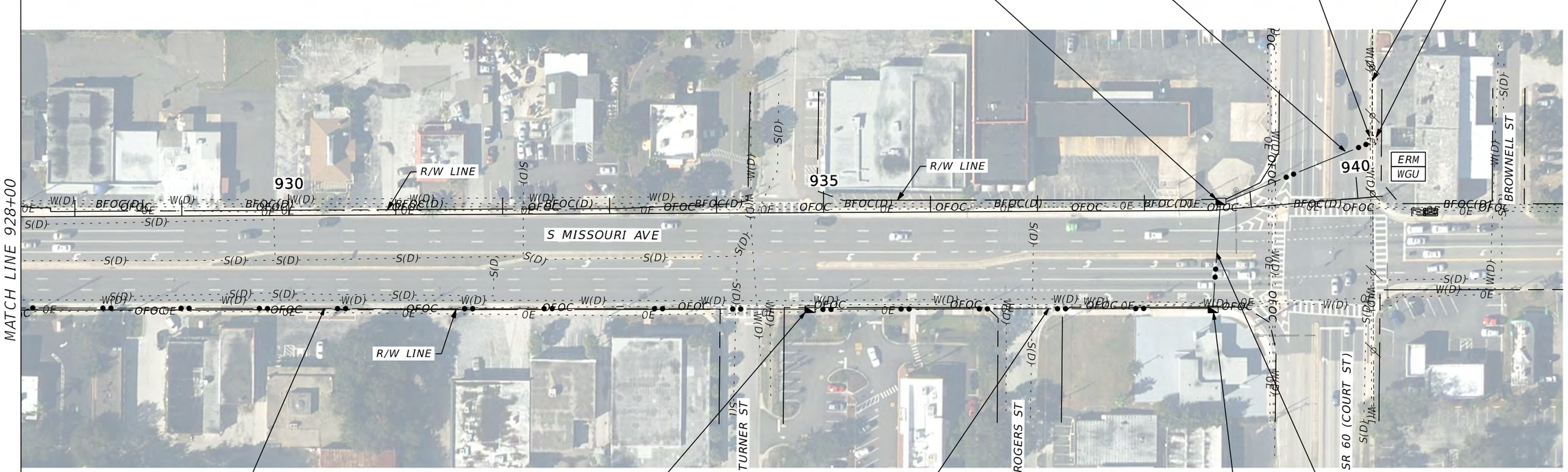
1 EA | 635-2-70
(144 COUNT SM) 200 LF | 633-1-124
144 EA | 633-2-31
1 EA | 633-3-11
6 EA | 633-3-12

155 LF | 630-2-12 | (4" W/INNERDUCTS)
155 LF | 633-1-124 | (144 COUNT SM)

144 COUNT SM FIBER OPTIC CABLE INSTALLED BY OTHERS

MODIFY EXISTING FIBER OPTIC JUNCTION BOX

100 LF | 633-1-124 | (144 COUNT SM)
1 EA | 635-2-12



740 LF | 630-2-12 | (4" W/INNERDUCTS)
740 LF | 633-1-124 | (144 COUNT SM)

3 SY | 522-1006
100 LF | 633-1-124 | (144 COUNT SM)
1 EA | 635-2-12

570 LF | 630-2-12 | (4" W/INNERDUCTS)
380 LF | 633-1-124 | (144 COUNT SM)

150 LF | 630-2-12 | (4" W/INNERDUCTS)
150 LF | 633-1-124 | (144 COUNT SM)

100 LF | 633-1-124 | (144 COUNT SM)
1 EA | 635-2-12

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REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915

3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

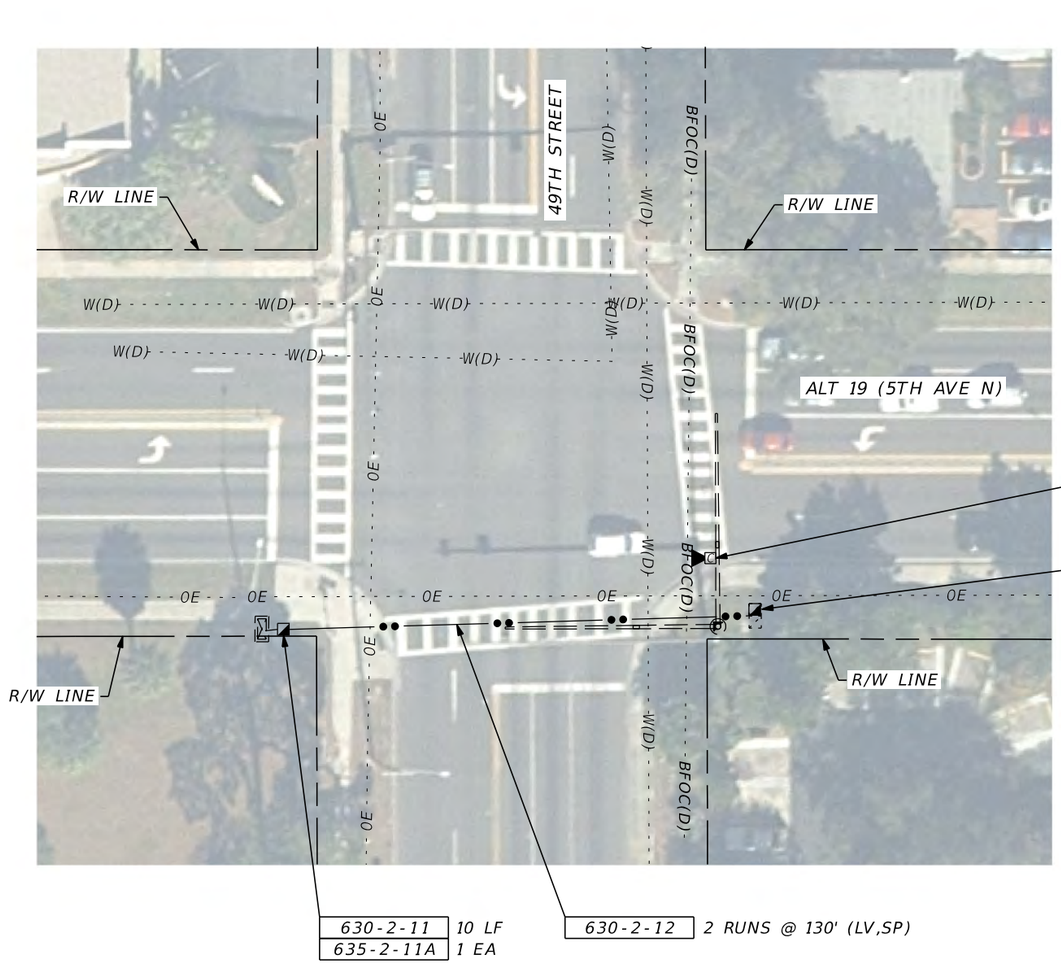
DESCRIPTION:
ATMS INTERCONNECT PLAN (19)

APPROVED BY:

MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 33 OF 84

howard.holley 7/18/2018 11:02:31 AM J:\JOB\0020\00020-180-05\MS\43489115801\PLANSGI18.dgn



NOTES:

USE EXISTING LOW VOLTAGE CONDUIT ENTRY INTO CONTROLLER CABINET FOR PROPOSED CCTV CABLE.

THIS INTERSECTION MAINTAINED BY CITY OF ST. PETERSBURG

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT: PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION: SIGNALIZATION PLAN (1)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

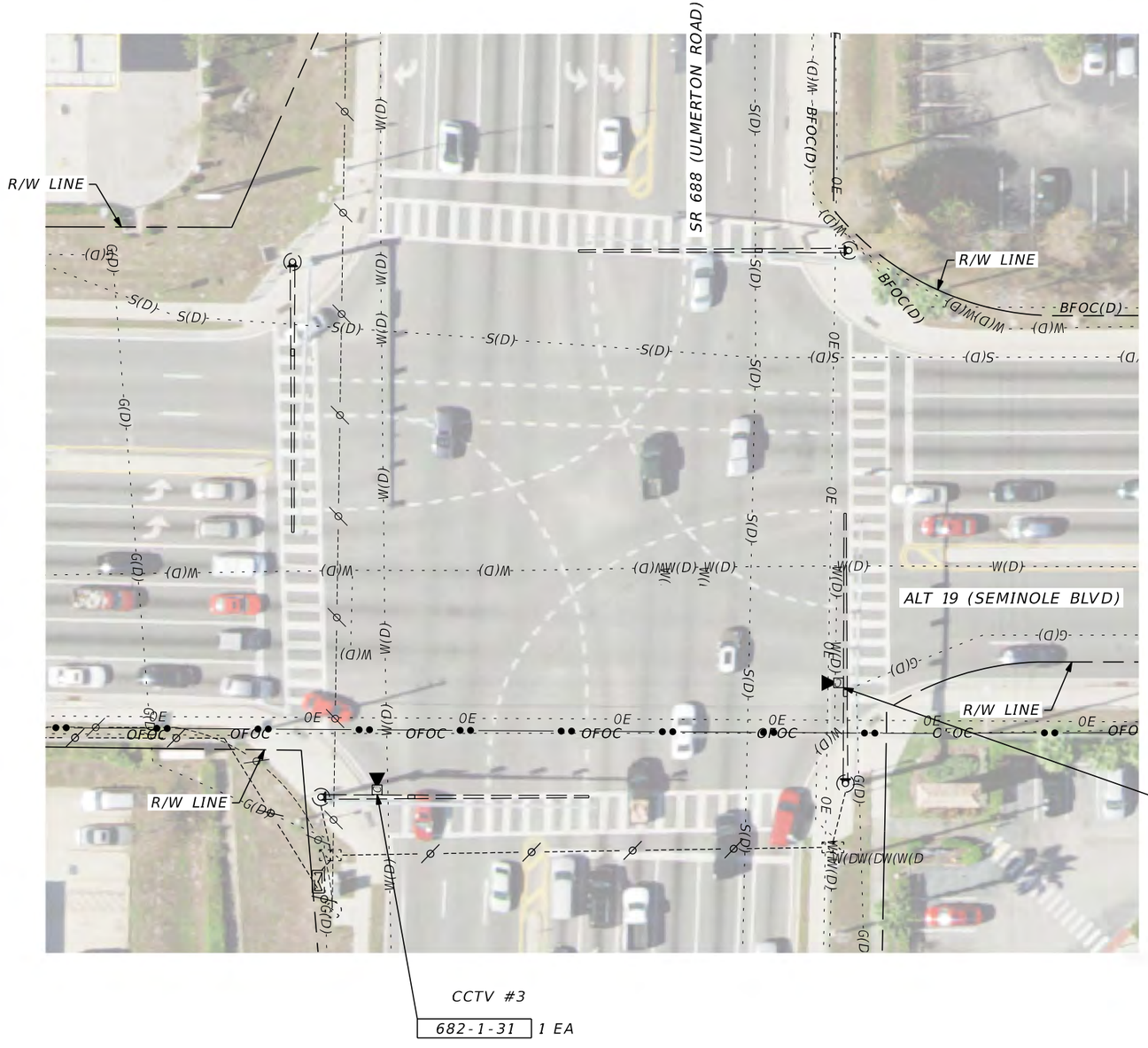
DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 34 OF 84

howard.holley 7/18/2018 11:02:37 AM J:\OB\0020\00020-180-05\MS\43489115801\PLANSG01.dgn

NORTH

0 10 40

Feet



NOTE:

1. USE EXISTING CONDUIT FOR ROADWAY CROSSING, ENTRY INTO CONTROLLER BASE, AND ENTRY INTO EXISTING MAST ARM POLES WITH CCTV CABLE.

THIS INTERSECTION MAINTAINED BY PINELLAS COUNTY

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915

3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

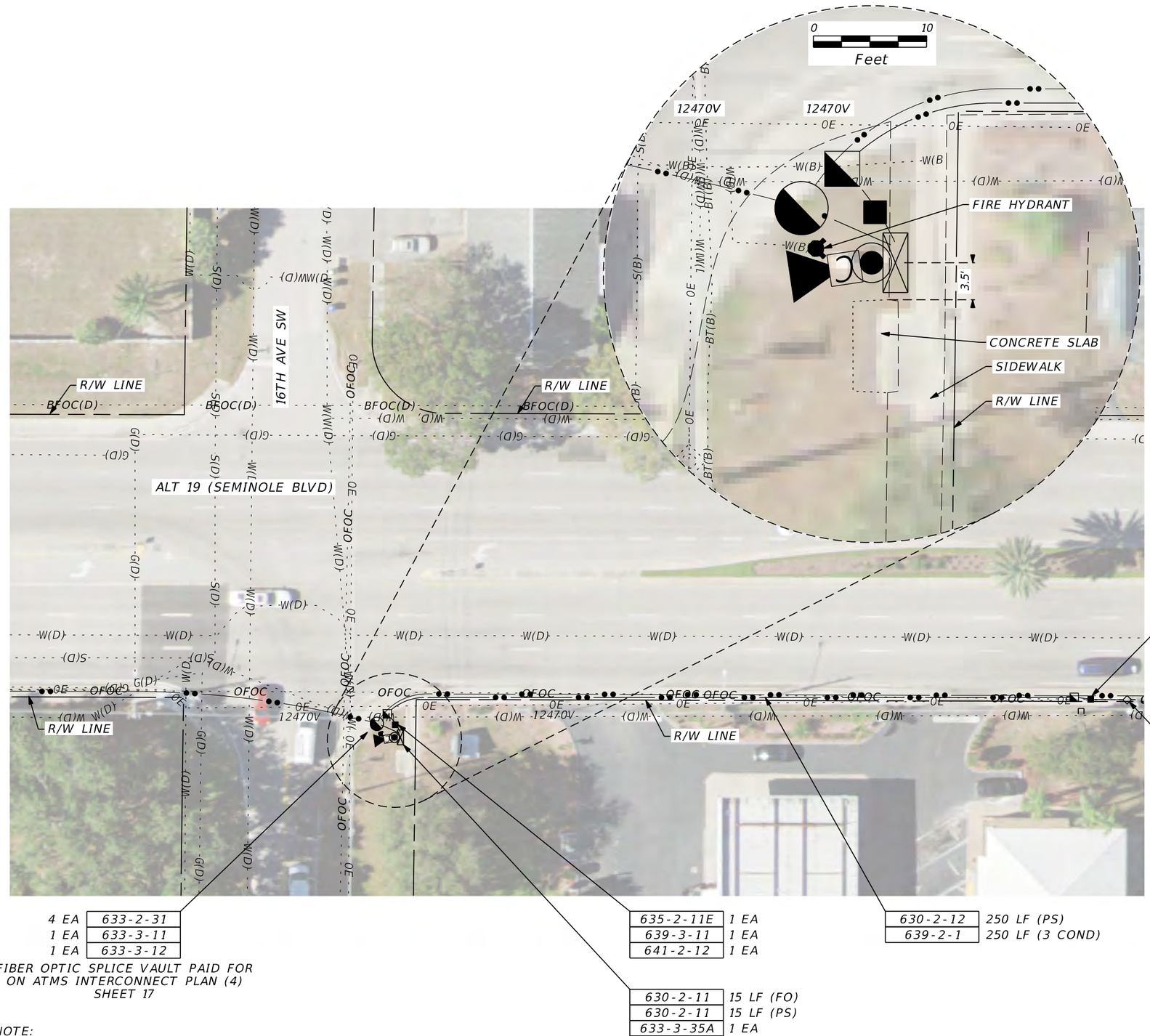
PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
SIGNALIZATION PLAN (2)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 35 OF 84

howard.holley 7/18/2018 11:02:38 AM J:\JOB\0020\00020-180-05\WS\43489115801\PLANSG02.dgn



630-2-11	15 LF (PS)
635-2-11E	1 EA
639-1-122	1 AS
639-2-1	15 LF (2 COND)
641-2-12	1 EA

633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA

FIBER OPTIC SPLICE VAULT PAID FOR ON ATMS INTERCONNECT PLAN (4) SHEET 17

NOTE:
ORIENTATION OF CCTV CAMERA IS SHOWN FOR CLARITY. ENSURE ORIENTATION IN THE FIELD PROVIDES MAXIMUM VIEWING POSSIBLE OF SEMINOLE BOULEVARD.

635-2-11E	1 EA
639-3-11	1 EA
641-2-12	1 EA

630-2-11	15 LF (FO)
630-2-11	15 LF (PS)
633-3-35A	1 EA
641-2-14A	1 EA
676-2-300	1 EA
682-1-31	1 EA

CCTV #4

630-2-12	250 LF (PS)
639-2-1	250 LF (3 COND)

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
SIGNALIZATION PLAN (3)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 36 OF 84

howard.holley 7/18/2018 11:02:41 AM J:\JOB\0020\00020-180-05\MS\43489115801\PLANSG03.dgn

NORTH

0 10 40

Feet

660-4-32 1 EA

CCTV #6
1 EA 682-1-31

1 EA 660-4-32

660-4-32 1 EA

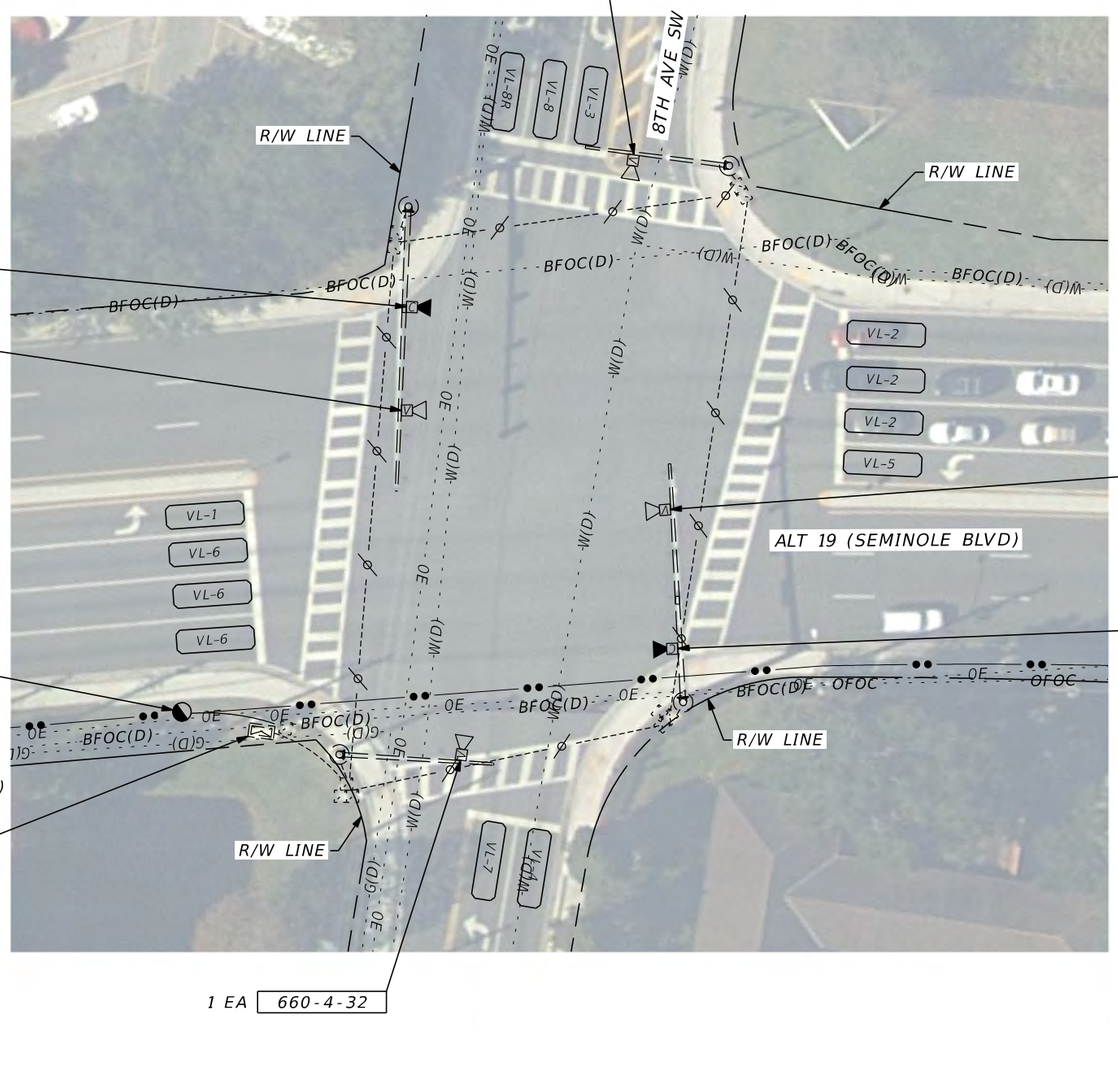
CCTV #5
682-1-31 1 EA

(FO) 25 LF 630-2-11
4 EA 633-2-31
1 EA 633-3-11
1 EA 633-3-12

FIBER OPTIC SPLICE VAULT
PAID FOR ON ATMS INTERCONNECT PLAN (6)
SHEET 19

1 EA 633-3-35A

1 EA 660-4-32



NOTES:

USE EXISTING CONDUIT FOR ROADWAY CROSSINGS, ENTRY INTO CONTROLLER BASE, AND ENTRY INTO EXISTING MAST ARM POLES WITH PROPOSED CABLES.

THIS INTERSECTION MAINTAINED BY PINELLAS COUNTY

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915

3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT: PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION: SIGNALIZATION PLAN (4)

APPROVED BY:

MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 37 OF 84

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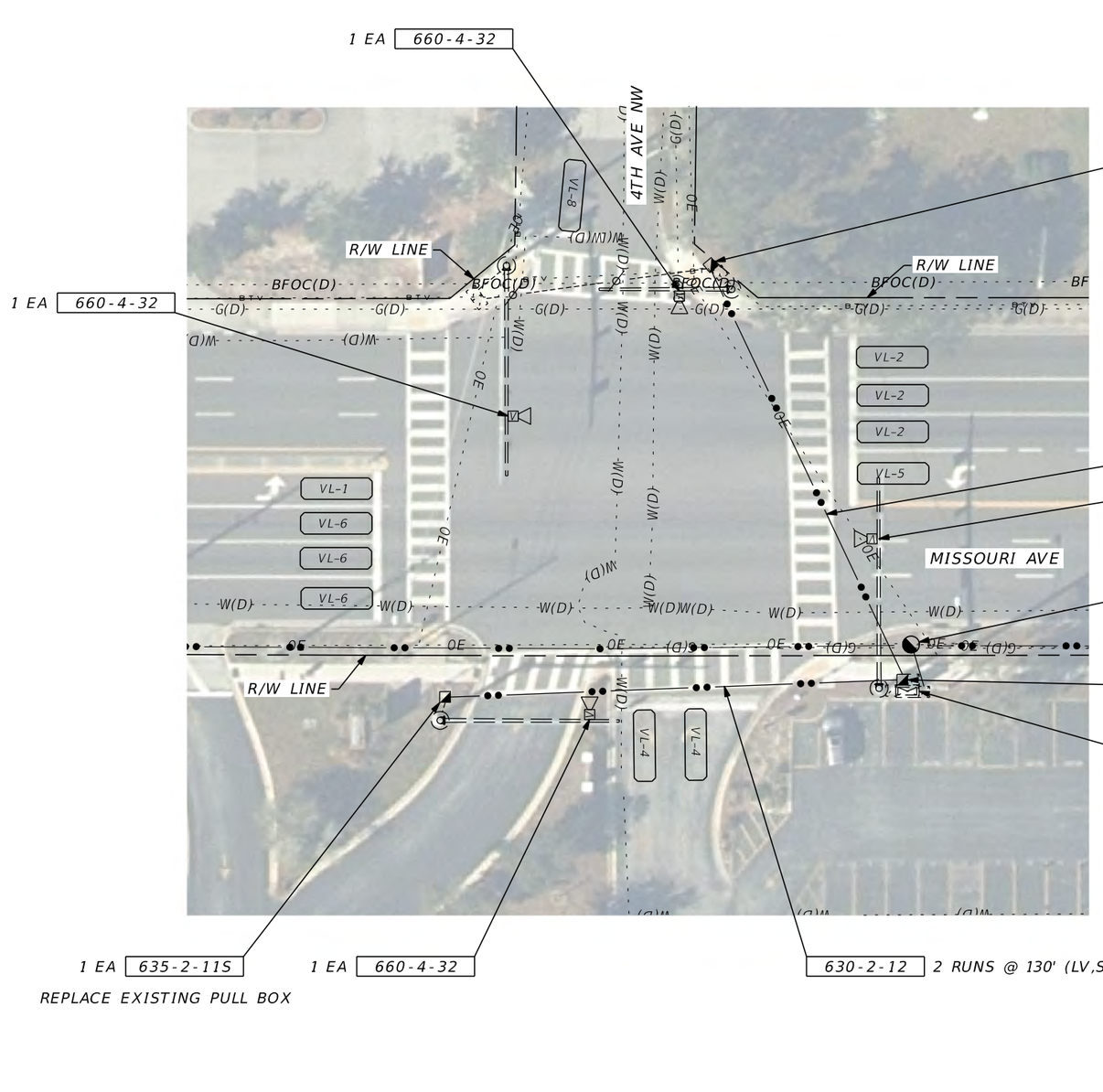
NORTH

0 10 40

Feet



1 EA 660-4-32

1 EA 660-4-32

635-2-11S 1 EA

REPLACE EXISTING SIGNAL CABLE PULL BOX

630-2-12 2 RUNS @ 130' (LV,SP)

660-4-32 1 EA

633-2-31 4 EA
633-3-11 1 EA
633-3-12 1 EA

FIBER OPTIC SPLICE VAULT PAID FOR ON ATMS INTERCONNECT PLAN (9) SHEET 22

635-2-11S 1 EA

REPLACE EXISTING LOOP PULL BOX

522-1006 3 SY
630-2-11 15 LF (FO)
633-3-35A 1 EA

1 EA 635-2-11S

REPLACE EXISTING PULL BOX

1 EA 660-4-32

630-2-12 2 RUNS @ 130' (LV,SP)

NOTES:

1. INSTALL THE PROPOSED VIDEO DETECTION CAMERAS AT LOCATION OF EXISTING CAMERAS. THE EXISTING CAMERA CABLES SHALL REMAIN FULL LENGTH UNCUT AND SUITABLE FOR RE-USE AFTER REMOVAL. DELIVER ALL REMOVED VIDEO CAMERAS AND CABLES TO THE PINELLAS COUNTY SIGNAL SHOP.

2. USE EXISTING CONDUIT FOR WEST APPROACH CROSSING UNDER ROADWAY, ENTRY INTO CONTROLLER BASE, AND EXISTING MAST ARM POLES.

THIS INTERSECTION MAINTAINED BY PINELLAS COUNTY

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REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT: PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

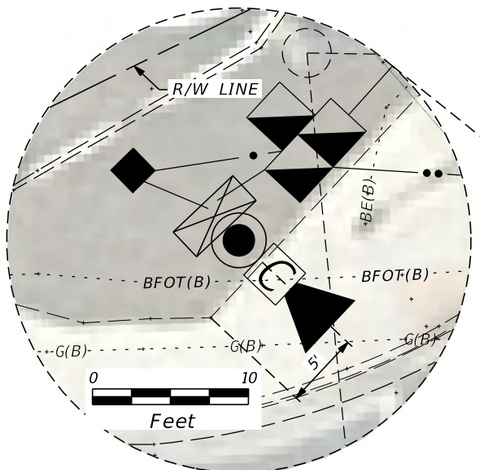
DESCRIPTION: SIGNALIZATION PLAN (5)

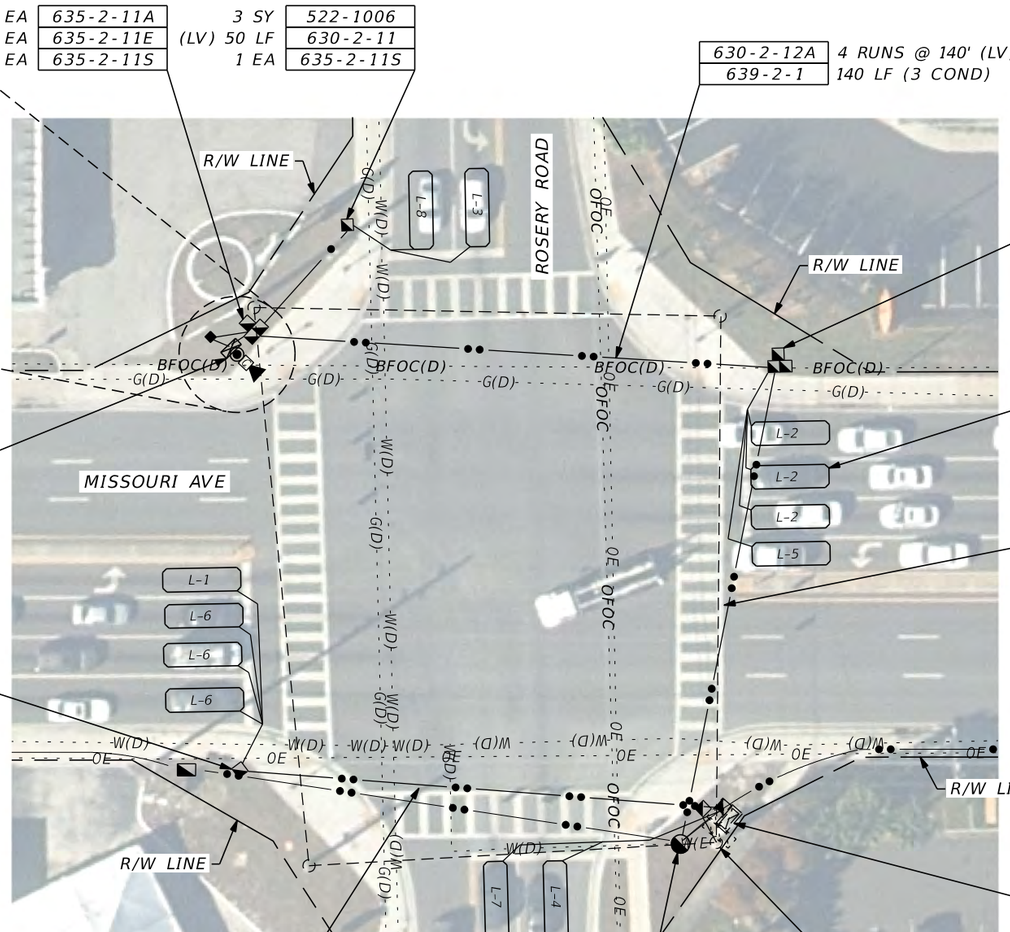
APPROVED BY:

MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 38 OF 84

howard.holley 7/18/2018 11:02:44 AM J:\JOB\0020\00020-180-05\MS\43489115801\PLANSG06.dgn





NORTH

0 10 40

Feet

1 EA 635-2-11A
1 EA 635-2-11E
1 EA 635-2-11S

3 SY 522-1006
(LV) 50 LF 630-2-11
1 EA 635-2-11S

630-2-12A 4 RUNS @ 140' (LV,FO,PS,SP)
639-2-1 140 LF (3 COND)

522-1006 3 SY
630-2-11 10 LF (LV)
635-2-11A 1 EA
635-2-11E 1 EA
635-2-11S 1 EA

660-2-101 12 AS (THIS SHEET)

630-2-12A 4 RUNS @ 130' (LV,FO,PS,SP)
639-2-1 130 LF (3 COND)

CCTV #7

(FO,PS) 2 RUNS @ 10' 630-2-11
1 EA 633-3-35D
(3 COND) 10 LF 639-2-1
1 EA 639-3-11
1 EA 641-2-14A
1 EA 676-2-300

3 SY 522-1006
(LV) 10 LF 630-2-11
1 EA 635-2-11S

630-2-12 2 RUNS @ 120' (LV,SP)

630-2-11 15 LF (FO)
633-2-31 6 EA
633-3-11 1 EA
633-3-12 1 EA

630-2-11 15 LF (PS)
639-2-1 15 LF (3 COND)
639-1-112 1 AS
639-1-610 1 AS

FIBER OPTIC SPLICE VAULT
PAID FOR ON ATMS INTERCONNECT PLAN (11)
SHEET 24

635-2-60 4 EA

REMOVE EXISTING LOOP
PULL BOXES

635-2-11E 1 EA
635-2-11S 1 EA (REPLACE EXISTING SPARE PULL BOX)
633-3-35A 1 EA

NOTES:

1. USE EXISTING CONDUIT FOR ENTRY INTO CONTROLLER BASE.
2. COORDINATE WITH PINELLAS COUNTY DURING REPLACEMENT OF EXISTING TRAFFIC SIGNAL POWER SERVICE. PROVIDE A SEPARATE 30A SINGLE POLE BREAKER TO POWER THE CCTV CABINET.

THIS INTERSECTION MAINTAINED BY PINELLAS COUNTY

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT: PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION: SIGNALIZATION PLAN (6)

APPROVED BY:

MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 39 OF 84

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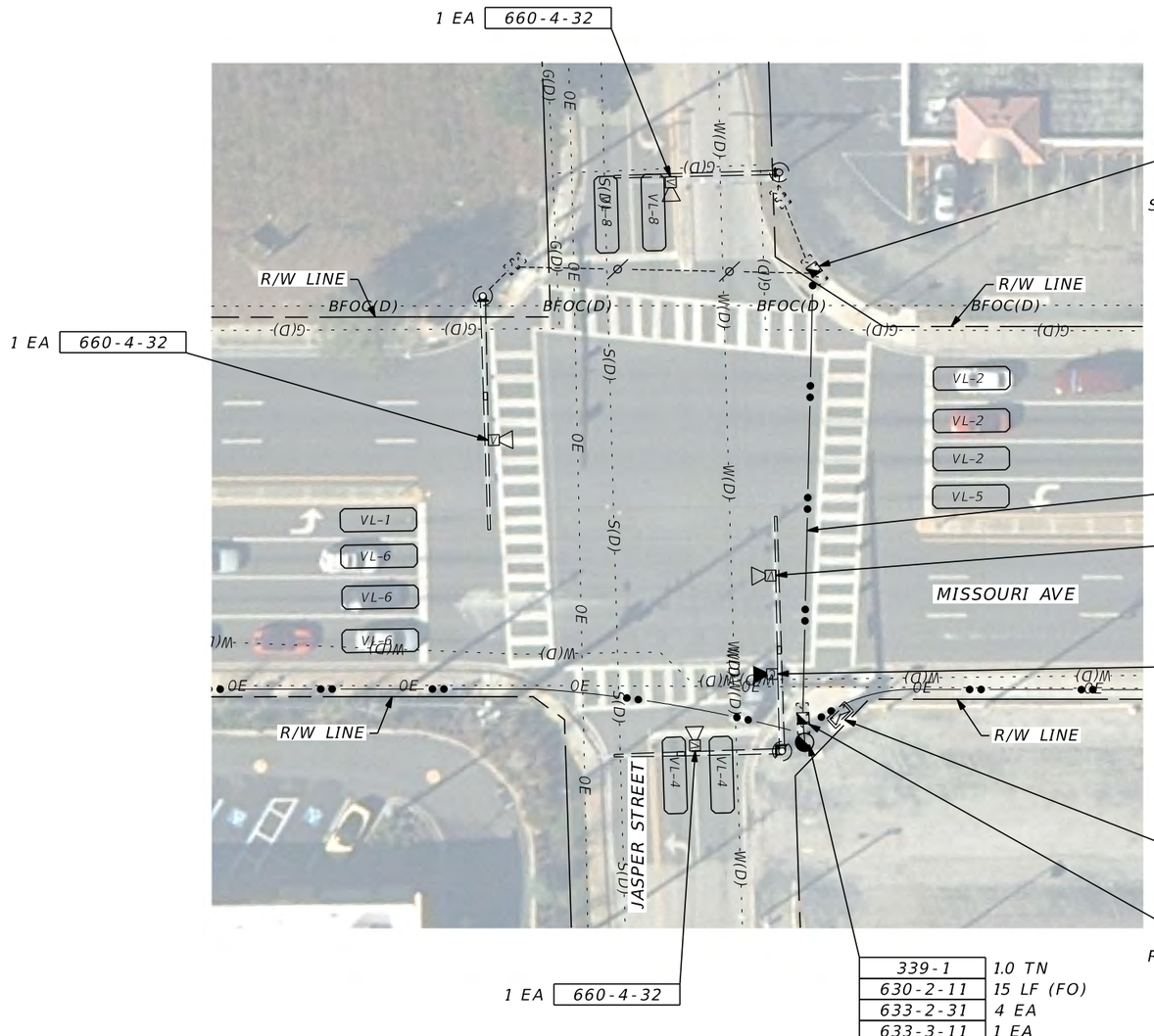
NORTH

0 10 40

Feet



1 EA 660-4-32

1 EA 660-4-32

635-2-11S 1 EA
REPLACE EXISTING
SIGNAL CABLE PULL BOX

630-2-12 2 RUNS @ 120' (LV,SP)

660-4-32 1 EA

CCTV #8

682-1-31 1 EA

630-2-11 10 LF (FO)

633-3-35A 1 EA

635-2-11S 1 EA
REPLACE EXISTING
LOOP PULL BOX

1 EA 660-4-32

339-1	1.0 TN
630-2-11	15 LF (FO)
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA

FIBER OPTIC SPLICE VAULT PAID FOR
ON ATMS INTERCONNECT PLAN (12)
SHEET 25

NOTES:

1. INSTALL THE PROPOSED VIDEO DETECTION CAMERAS AT LOCATION OF EXISTING CAMERAS. THE EXISTING CAMERA CABLES SHALL REMAIN FULL LENGTH UNCUT AND SUITABLE FOR RE-USE AFTER REMOVAL. DELIVER ALL REMOVED VIDEO CAMERAS AND CABLES TO THE PINELLAS COUNTY SIGNAL SHOP.

2. USE EXISTING CONDUIT FOR WEST APPROACH CROSSING UNDER ROADWAY, ENTRY INTO CONTROLLER BASE, AND EXISTING MAST ARM POLES.

THIS INTERSECTION MAINTAINED
BY PINELLAS COUNTY

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915

3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT: PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION: SIGNALIZATION PLAN (7)

APPROVED BY:

MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 40 OF 84

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NORTH

0 10 40

Feet

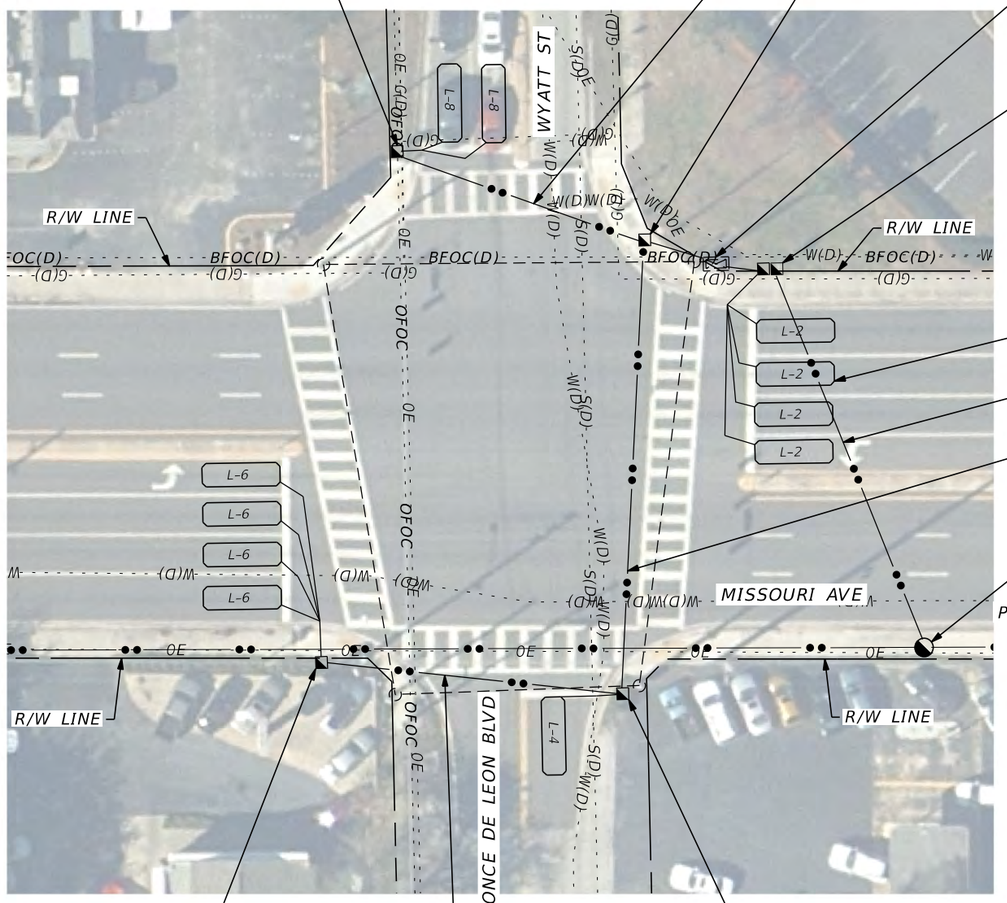
630-2-12 2 RUNS @ 75' (LV,SP)

5 LF 630-2-11
1 EA 635-2-11S

522-1006 3 SY
630-2-11 30 LF
635-2-11S 1 EA

633-3-35B 1 EA

522-1006 3 SY
630-2-11 2 RUNS @ 15' (FO,LV)
635-2-11A 1 EA
635-2-11S 1 EA



660-2-101 11 AS (THIS SHEET)

630-2-12 2 RUNS @ 100' (FO,SP)

630-2-12 2 RUNS @ 120' (LV,SP)

633-2-31 4 EA
633-3-11 1 EA
633-3-12 1 EA

FIBER OPTIC SPLICE VAULT
PAID FOR ON ATMS INTERCONNECT PLAN (13)
SHEET 26

635-2-60 4 EA

REMOVE EXISTING LOOP
PULL BOXES

3 SY 522-1006
5 LF 630-2-11
1 EA 635-2-11S

339-1 0.5 TN
630-2-11 5 LF
635-2-11S 1 EA

630-2-12 2 RUNS @ 80' (LV,SP)

NOTE:

1. USE EXISTING CONDUIT FOR ENTRY INTO CONTROLLER BASE.

THIS INTERSECTION MAINTAINED
BY PINELLAS COUNTY

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915

3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
SIGNALIZATION PLAN (8)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 41 OF 84

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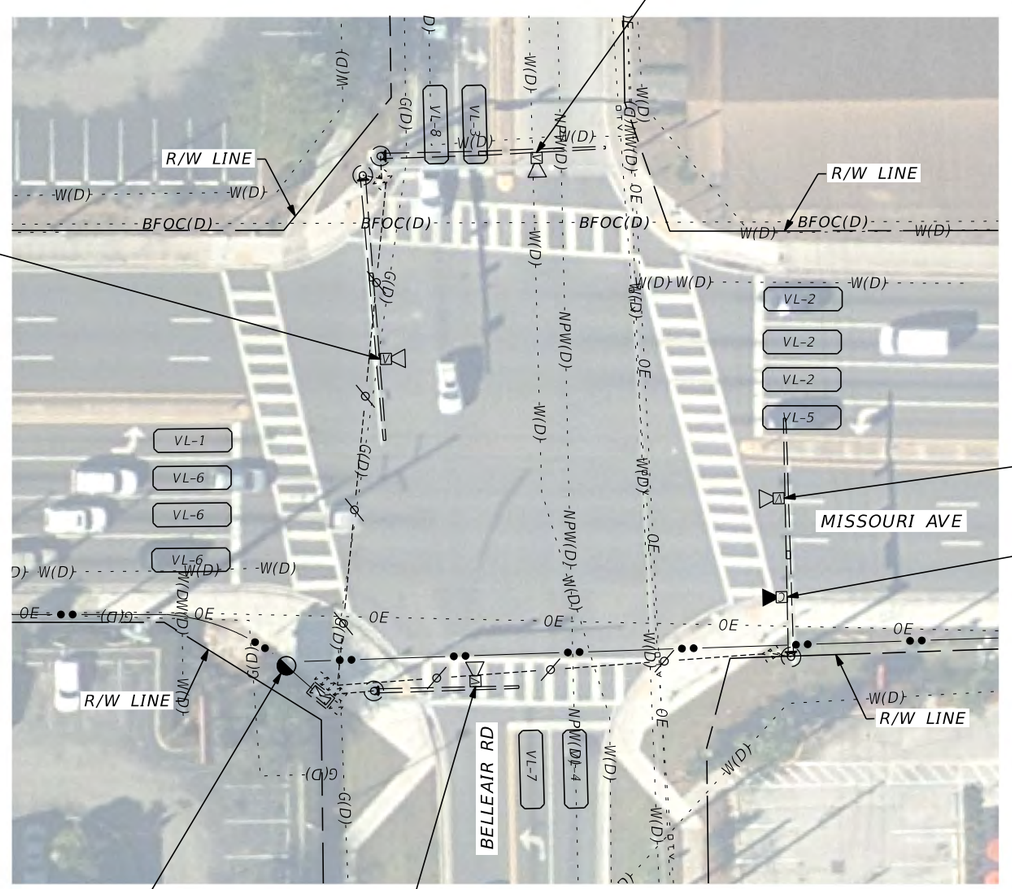
NORTH

0 10 40

Feet



(FO) 10 LF	630-2-11
4 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12
1 EA	633-3-35A

FIBER OPTIC SPLICE VAULT PAID FOR ON ATMS INTERCONNECT PLAN (14) SHEET 27

NOTES:

1. INSTALL THE PROPOSED VIDEO DETECTION CAMERAS AT LOCATION OF EXISTING CAMERAS. THE EXISTING CAMERA CABLES SHALL REMAIN FULL LENGTH UNCUT AND SUITABLE FOR RE-USE AFTER REMOVAL. DELIVER ALL REMOVED VIDEO CAMERAS AND CABLES TO THE CITY OF CLEARWATER SIGNAL SHOP.
2. USE EXISTING CONDUIT FOR ROADWAY CROSSINGS, ENTRY INTO CONTROLLER BASE, AND EXISTING MAST ARM POLES.

THIS INTERSECTION MAINTAINED BY CITY OF CLEARWATER

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915

3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
SIGNALIZATION PLAN (9)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 42 OF 84

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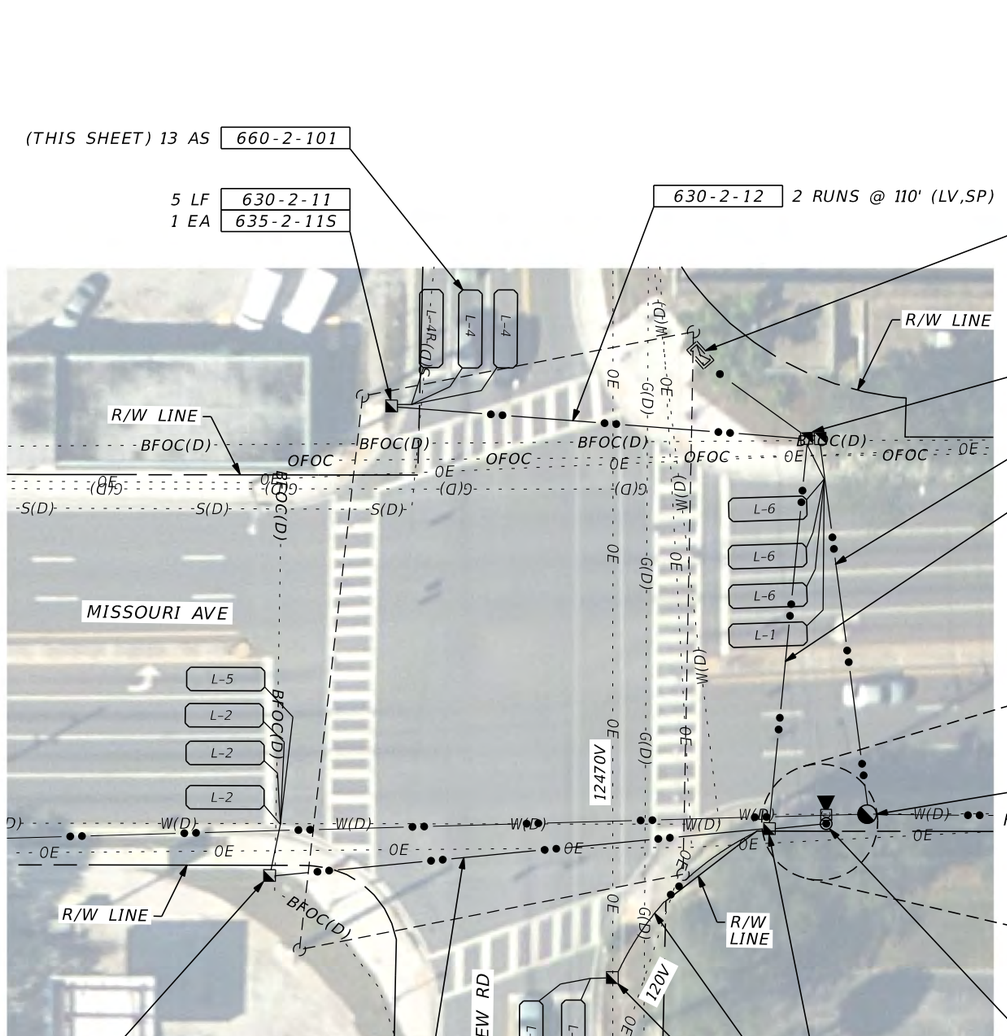


NORTH

0 10 40

Feet

(THIS SHEET) 13 AS 660-2-101

5 LF 630-2-11
1 EA 635-2-11S

630-2-12 2 RUNS @ 110' (LV,SP)

633-3-35B 1 EA

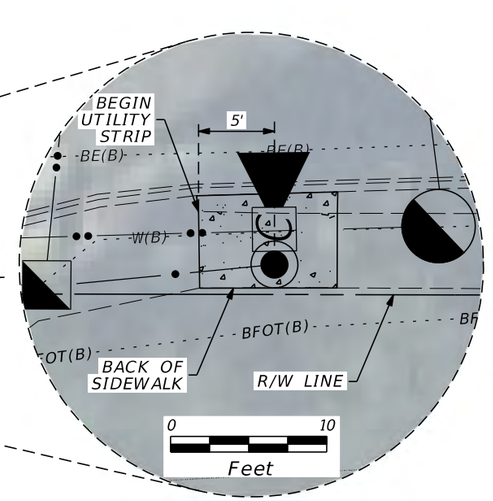
522-1006 3 SY
630-2-11 2 RUNS @ 35' (LV)
635-2-11A 1 EA
635-2-11S 1 EA

630-2-12 2 RUNS @ 110' (FO,SP)

630-2-12 2 RUNS @ 100' (LV,SP)

633-2-31 4 EA
633-3-11 1 EA
633-3-12 1 EA

FIBER OPTIC SPLICE VAULT PAID FOR ON ATMS INTERCONNECT PLAN (17)



522-1006 6 SY
630-2-11 10 LF (LV)
635-2-11A 1 EA
641-2-14A 1 EA
682-1-31 1 EA

CCTV #10

3 SY 522-1006
5 LF 630-2-11
1 EA 635-2-11S

(LV,SP) 2 RUNS @ 130' 630-2-12

635-2-60 4 EA

REMOVE EXISTING LOOP PULL BOXES

635-2-11S 1 EA
630-2-11 60 LF

630-2-11 5 LF
635-2-11S 1 EA

NOTE:

1. USE EXISTING CONDUIT FOR ENTRY INTO CONTROLLER BASE.

THIS INTERSECTION MAINTAINED BY CITY OF CLEARWATER

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REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
SIGNALIZATION PLAN (10)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 43 OF 84

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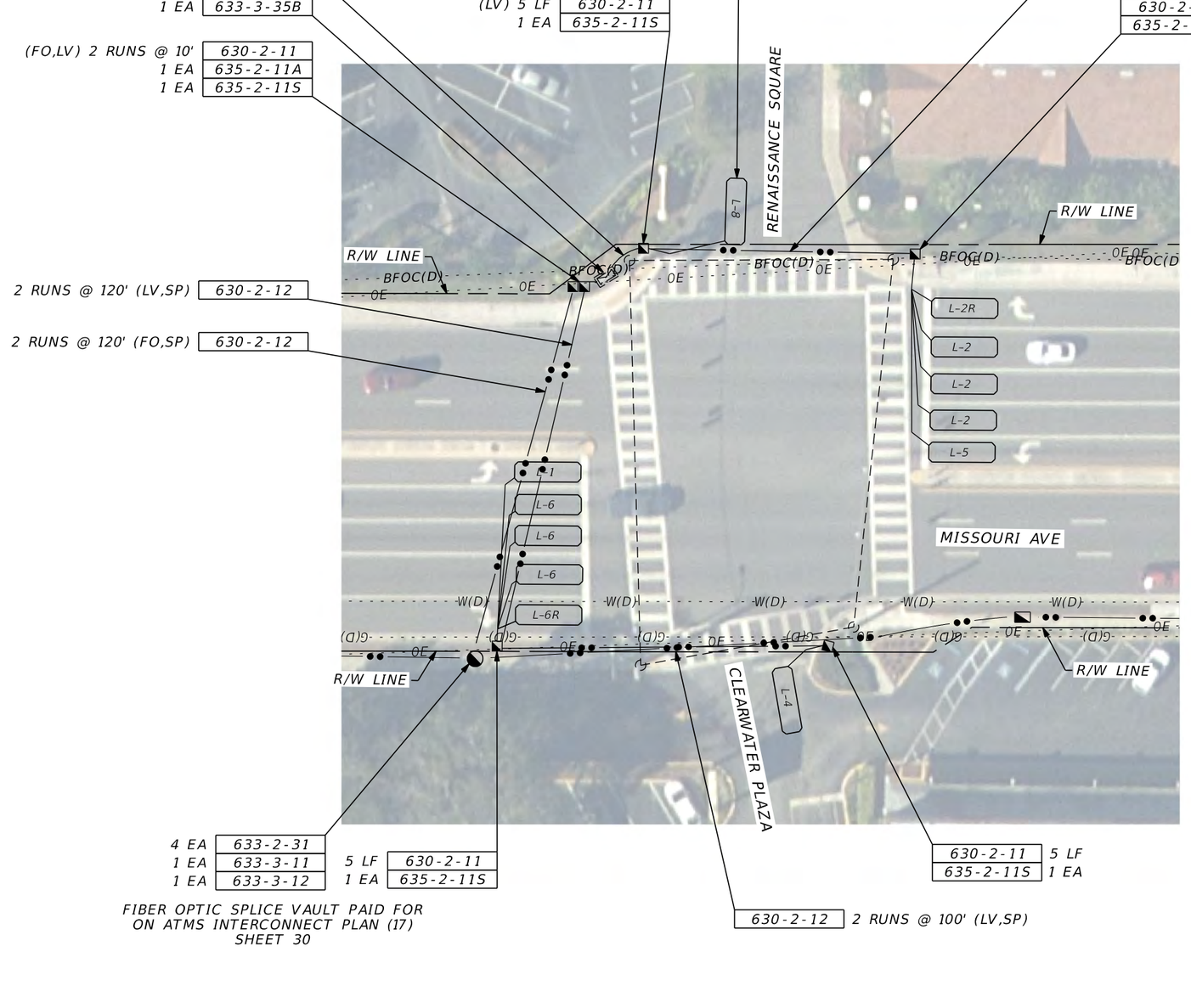

FIBER OPTIC SPLICE VAULT PAID FOR ON ATMS INTERCONNECT PLAN (17) SHEET 30

635-2-60 4 EA

REMOVE EXISTING LOOP PULL BOXES

NOTE:

1. USE EXISTING CONDUIT FOR ENTRY INTO CONTROLLER BASE.

THIS INTERSECTION MAINTAINED BY CITY OF CLEARWATER

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT: PINELLAS COUNTY ATMS — US 19A South From US 19 to SR 60

DESCRIPTION: SIGNALIZATION PLAN (11)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 44 OF 84

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NORTH

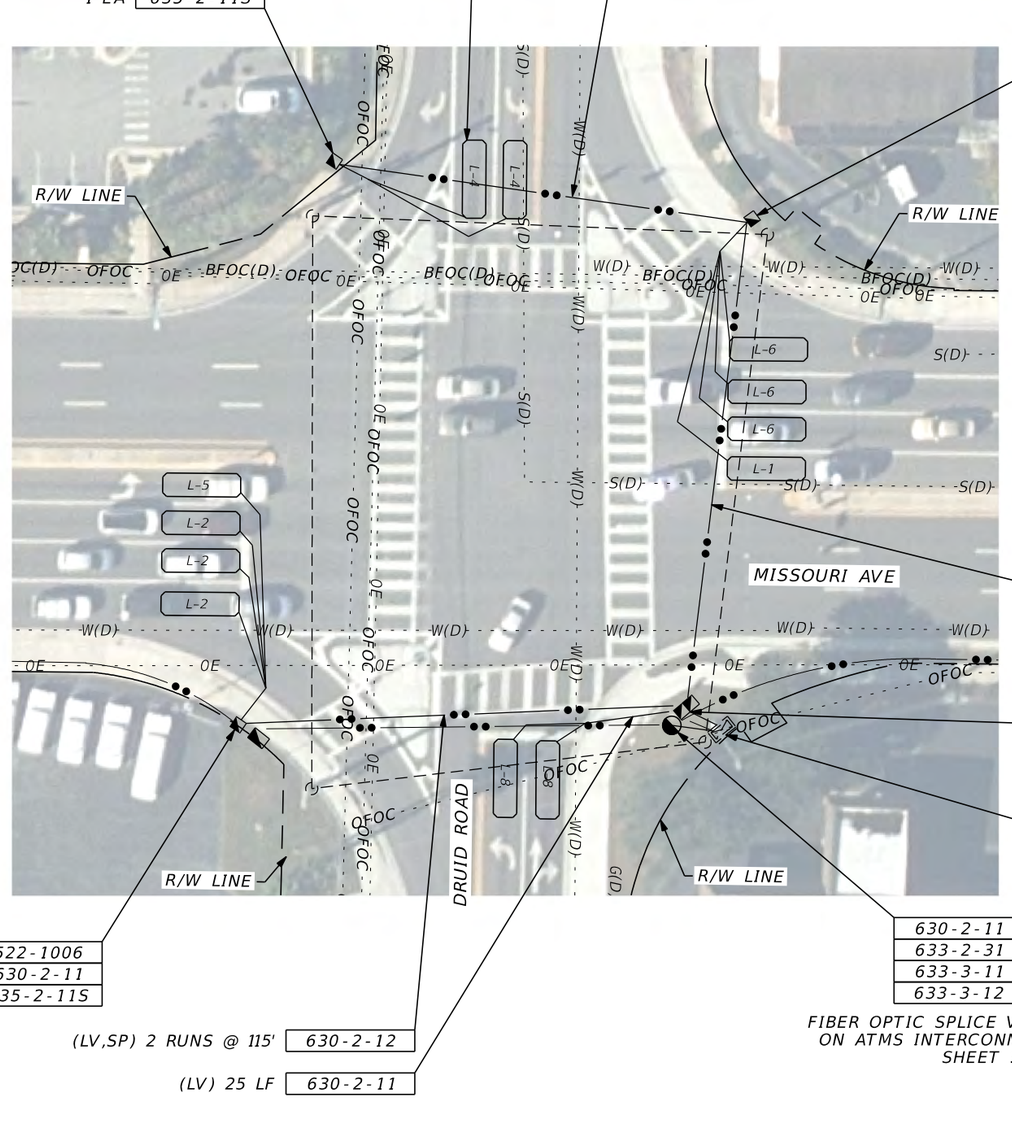
0 10 40
Feet

(THIS SHEET) 12 AS 660-2-101

5 LF 630-2-11
1 EA 635-2-11S

630-2-12 2 RUNS @ 115' (LV,SP)

522-1006 3 SY
630-2-11 5 LF
635-2-11S 1 EA



630-2-12 2 RUNS @ 125' (LV,SP)

522-1006 3 SY
630-2-11 2 RUNS @ 10' (LV)
635-2-11S 2 EA

633-3-35A 1 EA

635-2-60 4 EA
REMOVE EXISTING LOOP PULL BOXES

3 SY 522-1006
5 LF 630-2-11
1 EA 635-2-11S

(LV,SP) 2 RUNS @ 115' 630-2-12

(LV) 25 LF 630-2-11

630-2-11 10 LF (FO)
633-2-31 4 EA
633-3-11 1 EA
633-3-12 1 EA

FIBER OPTIC SPLICE VAULT PAID FOR ON ATMS INTERCONNECT PLAN (18) SHEET 31

NOTE:

1. USE EXISTING CONDUIT FOR ENTRY INTO CONTROLLER BASE.

THIS INTERSECTION MAINTAINED BY CITY OF CLEARWATER

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
SIGNALIZATION PLAN (12)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 45 OF 84

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NORTH

0 10 40

Feet

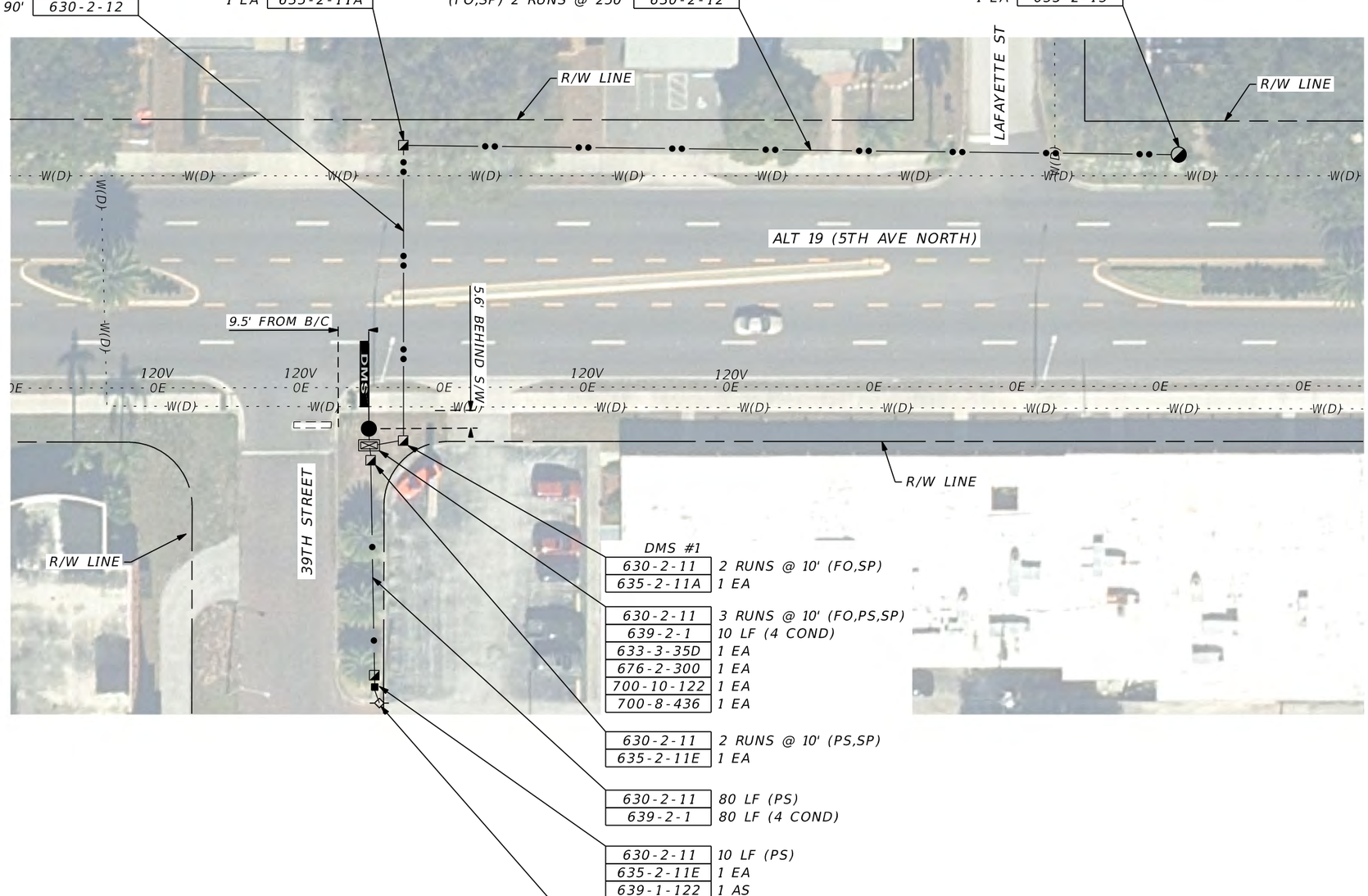
REPLACE EXISTING FIBER OPTIC PULL BOX

4 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12
1 EA	635-2-13

(FO,SP) 2 RUNS @ 90' 630-2-12

1 EA 635-2-11A

(FO,SP) 2 RUNS @ 250' 630-2-12



DMS #1

630-2-11	2 RUNS @ 10' (FO,SP)
635-2-11A	1 EA
630-2-11	3 RUNS @ 10' (FO,PS,SP)
639-2-1	10 LF (4 COND)
633-3-35D	1 EA
676-2-300	1 EA
700-10-122	1 EA
700-8-436	1 EA
630-2-11	2 RUNS @ 10' (PS,SP)
635-2-11E	1 EA
630-2-11	80 LF (PS)
639-2-1	80 LF (4 COND)
630-2-11	10 LF (PS)
635-2-11E	1 EA
639-1-122	1 AS
639-2-1	10 LF (3 COND)
641-2-12	1 EA

POLE 69938
120V/240V POWER SOURCE

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REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
DMS PLAN (1)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 46 OF 84

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REPLACE EXISTING FIBER OPTIC PULL BOX

3 SY	522-1006
4 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12
1 EA	635-2-13

(FO,SP) 2 RUNS @ 275' 630-2-12

1 EA 633-3-35D
1 EA 676-2-300

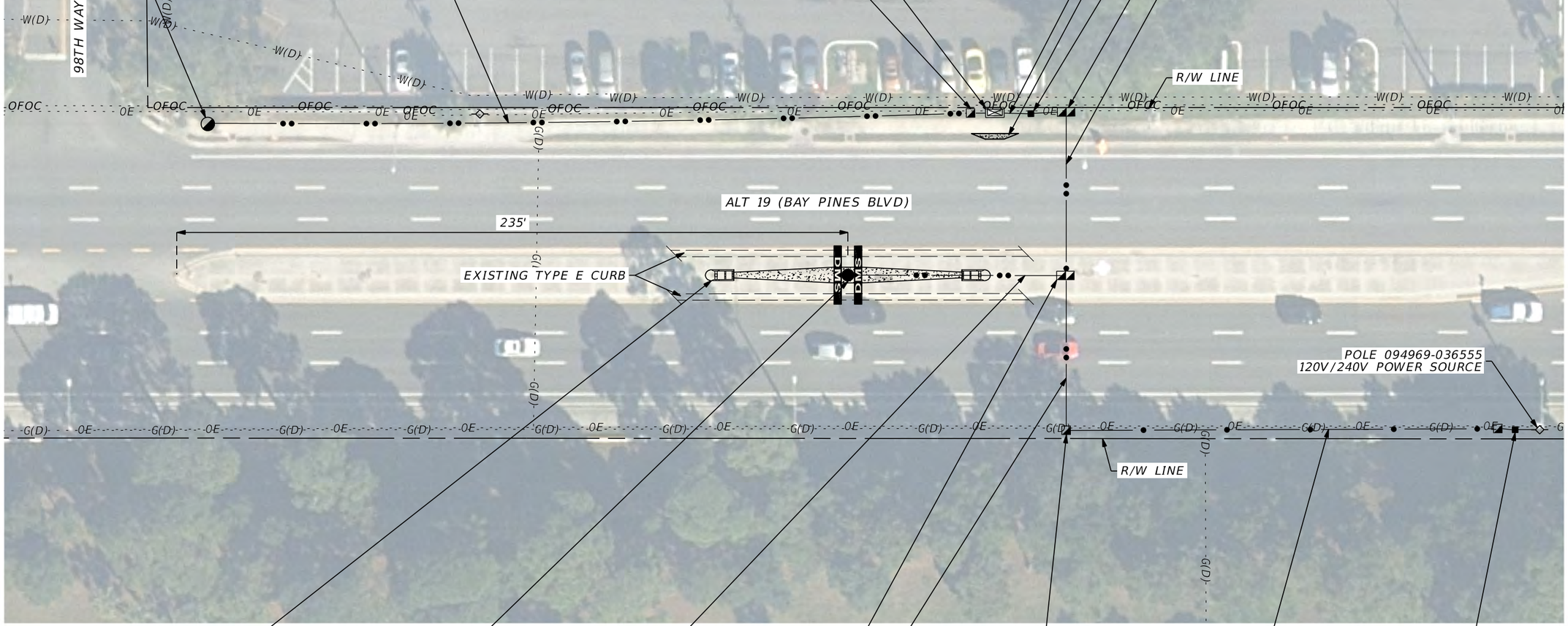
(FO,SP) 2 RUNS @ 10' 630-2-11
1 EA 635-2-11A

INSTALL ONE SPARE FROM CABINET TO EACH PULL BOX

630-2-11	6 RUNS @ 25' (FO,3-PS,2-SP)
639-2-1	25 LF (9-#6, 3-#2 AWG)
522-1006	3 SY
639-3-11	1 EA
641-2-12	1 EA
635-2-11A	1 EA
635-2-11E	1 EA
630-2-12A	5 RUNS @ 60' (FO,3-PS,SP)
639-2-1	60 LF (9-#6, 3-#2 AWG)

NORTH

0 10 40
Feet



80 LF 521-1
143 SY 522-1006
(TYPE TL-2) 2 EA 544-75-1

INSTALL CONCRETE BARRIER WALL PER STANDARD PLAN INDEX 521-001
CRASH CUSHION DESIGN LENGTH 7.25'
SEE STANDARD PLAN INDEX 521-001 FOR MORE INFORMATION

1 EA 700-10-132
2 EA 700-8-436

DMS #2 AND #3

(FO,2-PS,SP) 4 RUNS @ 80' 630-2-12A
(8 COND) 80 LF 639-2-1

1 EA 635-2-11A
1 EA 635-2-11E

630-2-12 2 RUNS @ 60' (PS,SP)
639-2-1 55 LF (1-#6, 3-#2 AWG)

635-2-11E 1 EA

630-2-11 150 LF
639-2-1 150 LF (1-#6, 3-#2 AWG)

630-2-11	15 LF (PS)
635-2-11E	1 EA
639-1-122	1 AS
639-2-1	15 LF (3-#2 AWG)
641-2-12	1 EA

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REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT: PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION: DMS PLAN (2)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 47 OF 84

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INSTALL ONE SPARE FROM CABINET TO EACH PULL BOX

339-1	1.5 TN
519-78	6 EA
630-2-11	4 RUNS @ 10' (PS,FO,2-SP)
633-3-35A	1 EA
635-2-11A	1 EA
635-2-11E	1 EA
639-2-1	20 LF (4 COND)
639-3-11	1 EA
641-2-12	1 EA
676-2-300	1 EA

DMS #4

(FO,PS,SP) 3 RUNS @ 15'	630-2-11
(4 COND) 15 LF	639-2-1
1 EA	700-10-122
1 EA	700-8-436

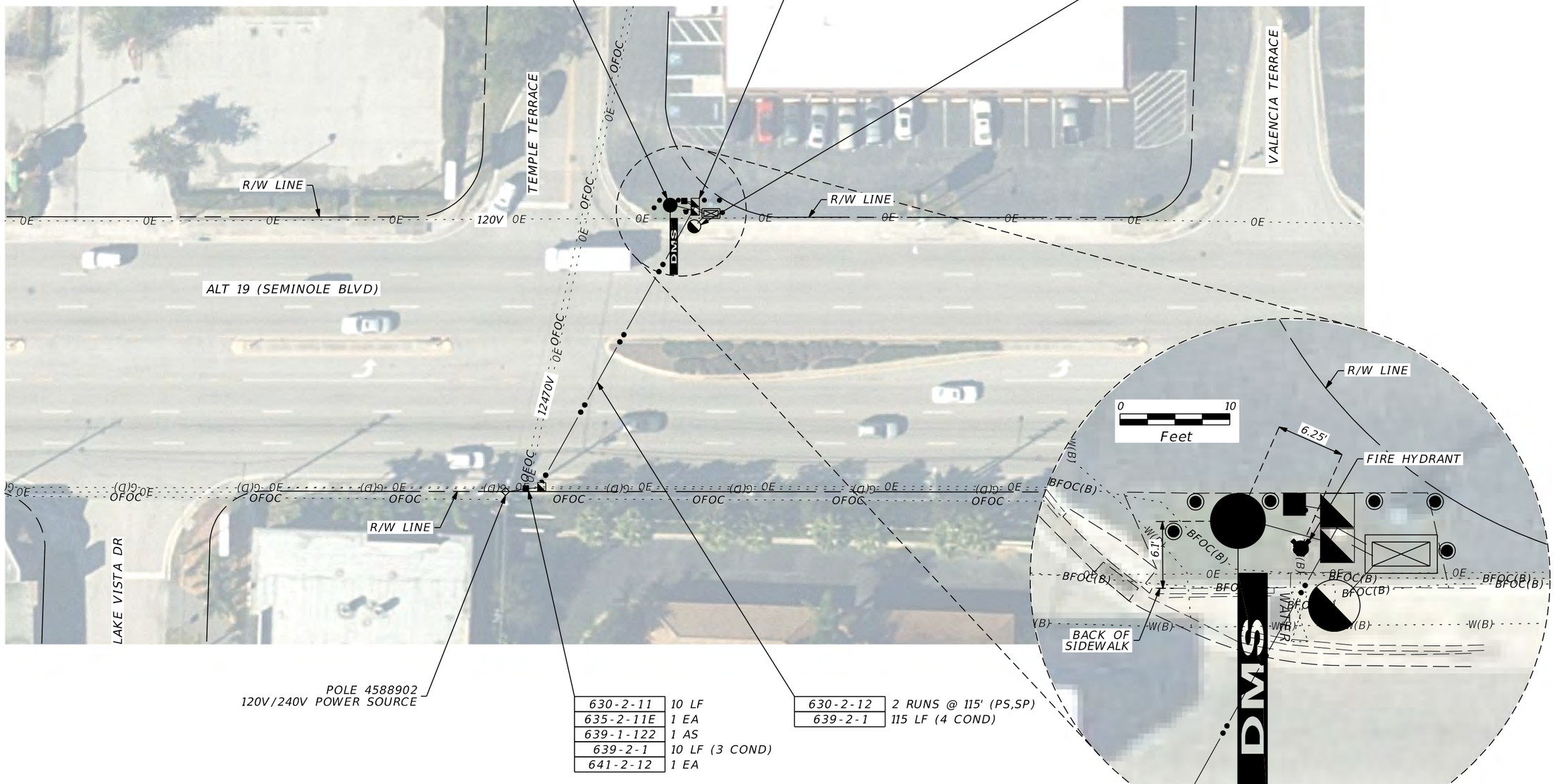
REPLACE EXISTING FIBER OPTIC PULL BOX

522-1006	3 SY
630-2-11	10 LF (FO)
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA
635-2-13	1 EA

NORTH

0 10 40

Feet



630-2-11	10 LF
635-2-11E	1 EA
639-1-122	1 AS
639-2-1	10 LF (3 COND)
641-2-12	1 EA

630-2-12	2 RUNS @ 115' (PS,SP)
639-2-1	115 LF (4 COND)

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REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
DMS PLAN (3)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 48 OF 84

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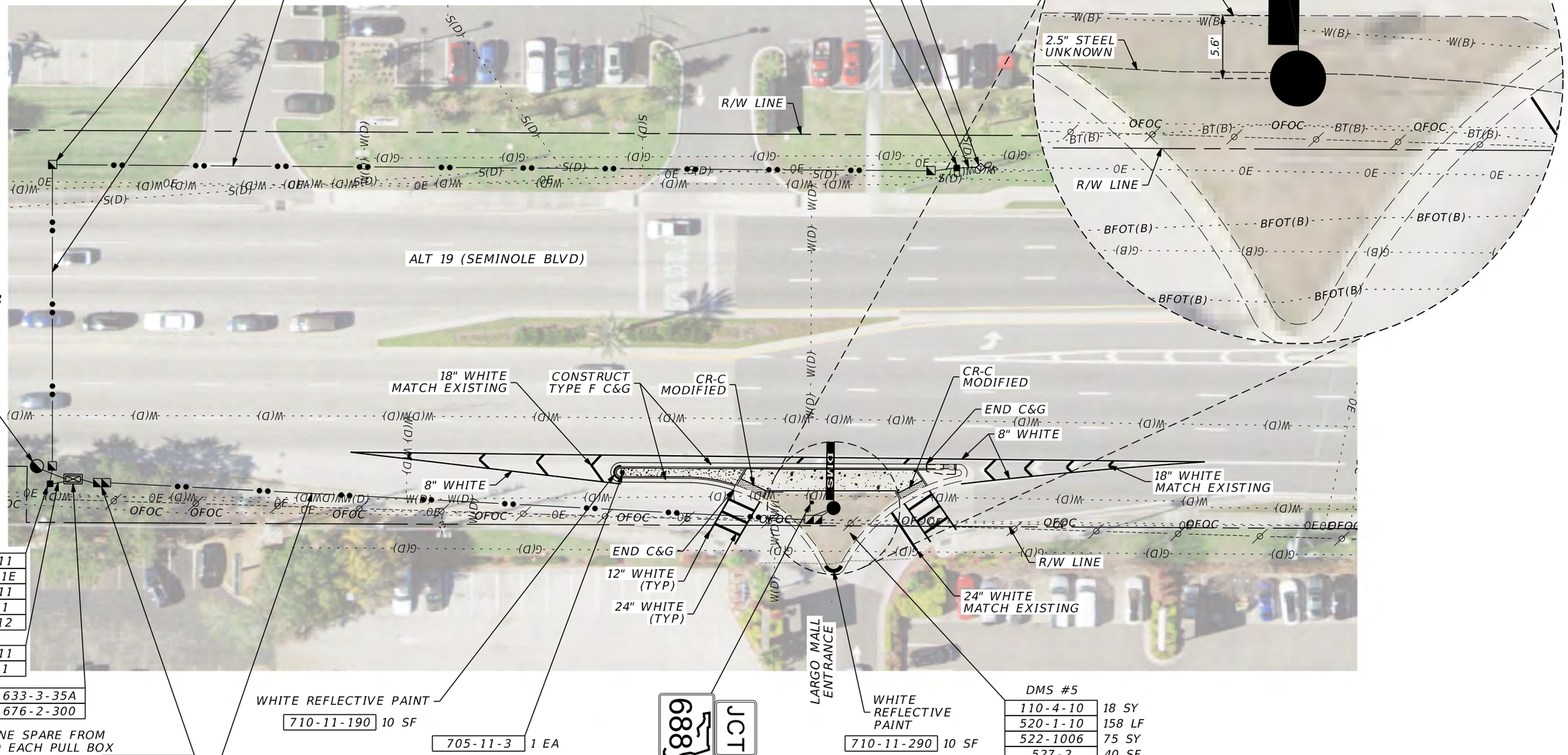
NORTH

0 10 40
Feet

POLE 8170915
120V/240V POWER SOURCE

635-2-11E	1 EA
630-2-12	2 RUNS @ 110' (PS,SP)
639-2-1	110 LF (1-#6,3-#2 AWG)
630-2-12	2 RUNS @ 315' (PS,SP)
639-2-1	315 LF (1-#6,3-#2 AWG)

10 LF	630-2-11
(3-#2 AWG) 10 LF	639-2-1
10 LF	630-2-11
1 EA	635-2-11E
1 AS	639-1-122
(1-#6,3-#2 AWG) 10 LF	639-2-1
1 EA	641-2-12



REPLACE EXISTING FIBER OPTIC PULL BOX

(FO) 10 LF	630-2-11
4 EA	633-2-31
1 EA	633-3-11
1 EA	633-3-12
1 EA	635-2-13

(PS) 10 LF	630-2-11
1 EA	635-2-11E
1 EA	639-3-11
(1-#6,3-#2 AWG) 10 LF	639-2-1
1 EA	641-2-12

(PS) 10 LF	630-2-11
(1-#6,3-#2 AWG) 10 LF	639-2-1

1 EA	633-3-35A
1 EA	676-2-300

INSTALL ONE SPARE FROM CABINET TO EACH PULL BOX

(PS,FO,2-SP) 4 RUNS @ 10'	630-2-11
1 EA	635-2-11A
1 EA	635-2-11E
(4 COND) 10 LF	639-2-1

(PS,FO,SP) 3 RUNS @ 260'	630-2-12
(4 COND) 260 LF	639-2-1

WHITE REFLECTIVE PAINT

710-11-190	10 SF

705-11-3	1 EA

W/W HI VIS DELINEATOR

711-11-102	.093 GM
711-11-124	68 LF
711-14-123	60 LF
711-14-125	66 LF
711-17	100 SF

THERMOPLASTIC ITEMS

700-1-11	1 AS
700-1-60	1 AS

REPLACE EXISTING FTP-17-06 30"X24" M2-1 21"X15"

WHITE REFLECTIVE PAINT

710-11-290	10 SF

DMS #5

110-4-10	18 SY
520-1-10	158 LF
522-1006	75 SY
527-2	40 SF
575-0110	75 SY
630-2-11	3 RUNS @ 10' (FO,PS,SP)
635-2-11A	1 EA
635-2-11E	1 EA
639-2-1	10 LF (4 COND)
700-10-122	1 EA
700-8-436	1 EA

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REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
DMS PLAN (4)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 49 OF 84

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NORTH

0 10 40
Feet

(PS) 10 LF	630-2-11
1 EA	635-2-11A
1 EA	635-2-11E
10 LF (3 COND)	639-2-1
1 EA	639-3-11
1 EA	641-2-12

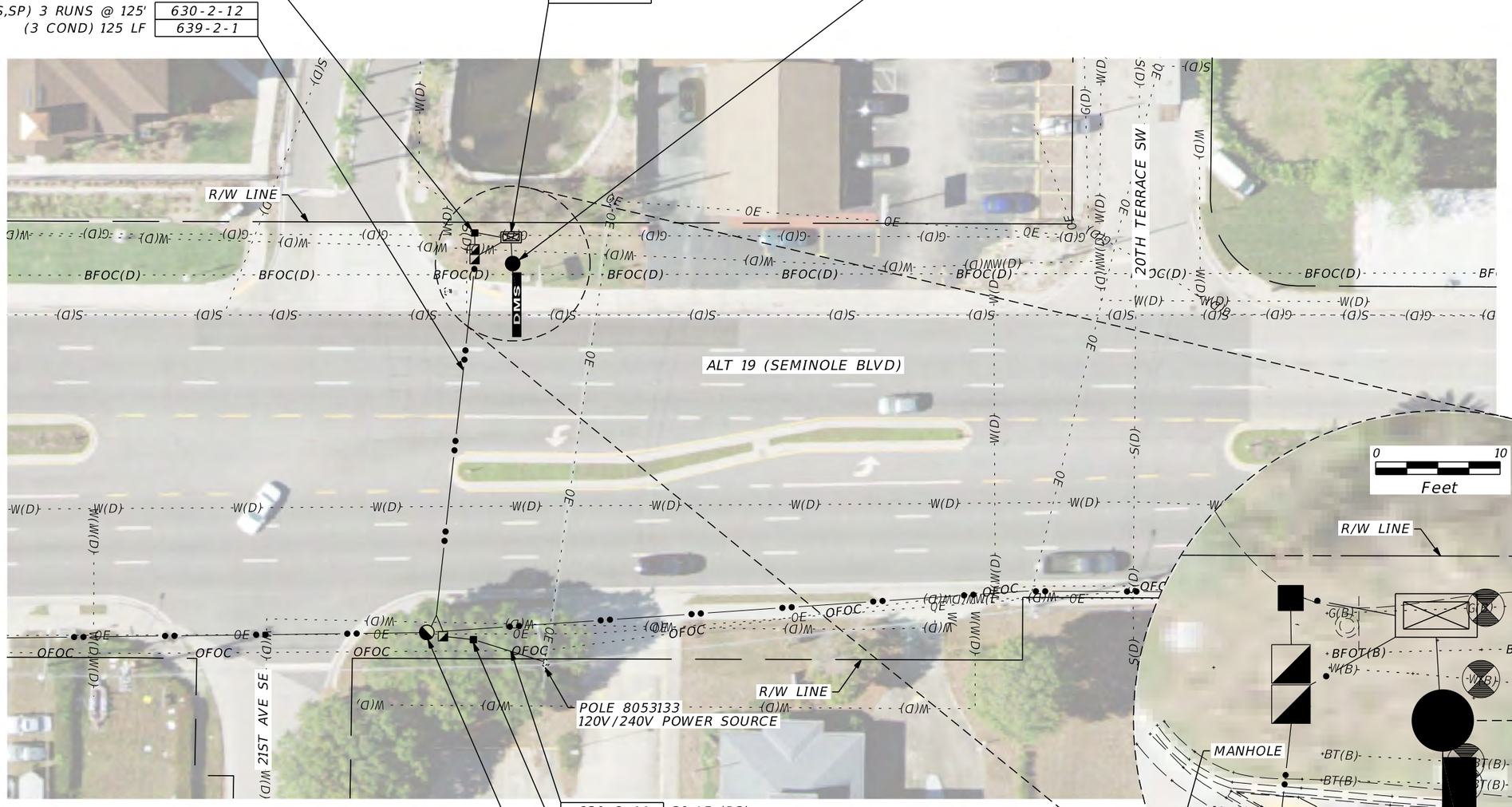
(FO,PS,SP) 3 RUNS @ 125'	630-2-12
(3 COND) 125 LF	639-2-1

INSTALL ONE SPARE FROM CABINET TO EACH PULL BOX

630-2-11	15 LF (PS)
630-2-11	3 RUNS @ 15' (FO, 2-SP)
633-3-35B	1 EA
639-2-1	15 LF (3 COND)
676-2-300	1 EA

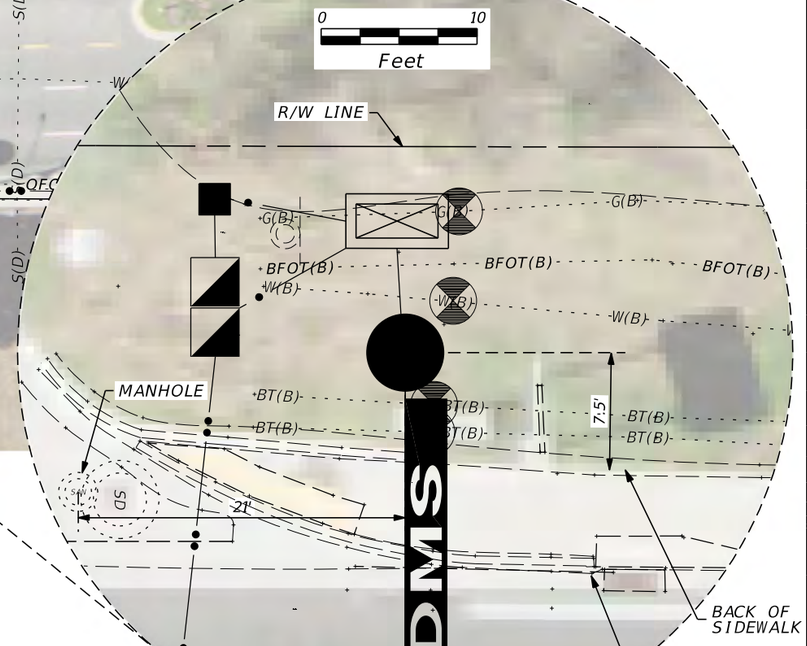
DMS #6

630-2-11	3 RUNS @ 10' (FO,PS,SP)
700-10-122	1 EA
700-8-436	1 EA



630-2-11	30 LF (PS)
639-2-1	30 LF (3 COND)
630-2-11	10 LF (PS)
635-2-11E	1 EA
639-1-122	1 AS
639-2-1	10 LF (4 COND)
641-2-12	1 EA
633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA

FIBER OPTIC SPLICE VAULT PAID FOR ON ATMS INTERCONNECT PLAN (3) SHEET 16



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REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
DMS PLAN (5)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 50 OF 84

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INSTALL ONE SPARE FROM CABINET TO EACH PULL BOX

(FO,PS,2-SP) 4 RUNS @ 20'	630-2-11
1 EA	633-3-35B
1 EA	635-2-11A
1 EA	635-2-11E
(2-#6, 6-#4 AWG) 20 LF	639-2-1
1 EA	676-2-300

(FO,2-PS,SP) 4 RUNS @ 50'	630-2-12
(2-#6, 6-#4 AWG) 50 LF	639-2-1

630-2-11	20 LF (PS)
635-2-11E	1 EA
639-2-1	20 LF (1-#6, 3-#2 AWG)
639-3-11	1 EA
641-2-12	1 EA

(PS,SP) 2 RUNS @ 350'	630-2-12
(1-#6, 3-#2 AWG) 350 LF	639-2-1

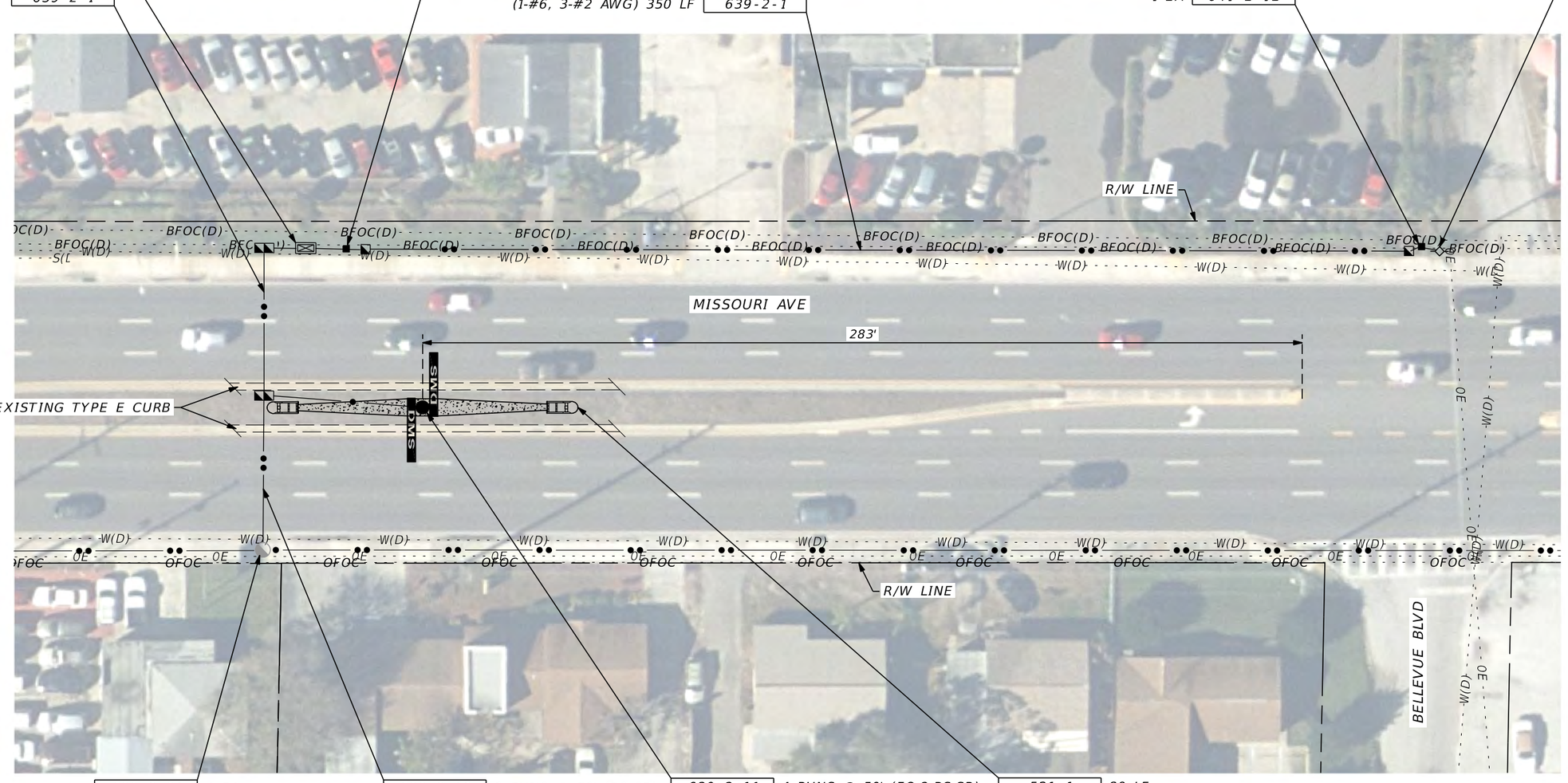
(PS) 10 LF	630-2-11
1 EA	635-2-11E
1 AS	639-1-122
(3-#2 AWG) 10 LF	639-2-1
1 EA	641-2-12

NORTH

0 10 40

Feet

POLE 4832554
120V/240V POWER SOURCE



633-2-31	4 EA
633-3-11	1 EA
633-3-12	1 EA

FIBER OPTIC SPLICE VAULT PAID FOR ON ATMS INTERCONNECT PLAN (15) SHEET 28

630-2-12	2 RUNS @ 50' (FO,SP)

630-2-11	4 RUNS @ 50' (FO,2-PS,SP)
630-2-14	80 LF (FO,PS)
635-2-11A	1 EA
635-2-11E	1 EA
639-2-1	50 LF (2-#6, 6-#4 AWG)
700-10-132	1 EA
700-8-436	2 EA

DMS #7 AND #8

521-1	80 LF
544-75-1	2 EA (TYPE TL-2)

INSTALL CONCRETE BARRIER WALL PER STANDARD PLAN INDEX 521-001
CRASH CUSHION DESIGN LENGTH 7.25'
SEE STANDARD PLAN INDEX 521-001 FOR MORE INFORMATION

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
DMS PLAN (6)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 51 OF 84

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TRAFFIC CONTROL PLAN NOTES

1. MAINTAIN TRAFFIC ON THE EXISTING ROADWAY BY USE OF THE FDOT FY2018-19 STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION, INDEX NUMBERS 102-600 THROUGH 102-670.

2. WHEN INSTALLING CONDUIT AND CABLE, USE THE FDOT STANDARD PLAN INDEX NUMBERS 102-611, 102-612, 102-613 AND 102-670.

3. TRAFFIC CONTROL PLAN FOR CABINET OR DEVICE INSTALLATION: MAINTAIN TRAFFIC ON EXISTING ROADWAY PER FDOT STANDARD PLAN INDEXES 102-600, 102-102-613, 102-615 AND 102-616.

4. DURING NON-WORKING HOURS, NO EQUIPMENT, VEHICLES OR MATERIALS SHALL BE PARKED OR STORED WITHIN THE CLEAR ZONE OF ANY ROADWAY.

5. REGULATORY SPEEDS SHALL BE THE SAME AS THE EXISTING POSTED SPEEDS THROUGHOUT THE PROJECT.

6. GROUND MOUNTED SIGNS MAY BE USED IN LIEU OF POST MOUNTED SIGNS ONLY IF CONSTRUCTION OPERATION WILL NOT EXCEED A 12-HOUR PERIOD. SIGNS ARE TO BE IN ACCORDANCE WITH THE FDOT STANDARD PLAN INDEX 102-600 SERIES AND AS SPECIFIED IN THE MUTCD.

7. THE TRAFFIC CONTROL PLANS FOR INSTALLATION OF ALL SYSTEM EQUIPMENT SHALL BE PER FDOT STANDARD PLAN INDEX NO'S. 102-600, 102-611, 102-612, 102-613, AND 102-670, AS APPROPRIATE FOR THE WORK BEING PERFORMED.

8. THE COST OF MAINTENANCE OF TRAFFIC OPERATIONS SHALL BE INCLUDED UNDER THE LUMP SUM PAY ITEM 102-0100 FOR MAINTENANCE OF TRAFFIC, UNLESS OTHERWISE SPECIFIED IN THE SPECIFICATIONS.

9. A LANE CLOSURE SHALL BE REQUIRED WHENEVER A BOOM ARM OR BUCKET CROSSES A TRAVEL LANE. THIS ALSO APPLIES TO INSTALLING STRUCTURE COMPONENTS AND EQUIPMENT OVER THE TRAVEL LANES. ALL WORK REQUIRING A LANE CLOSURE SHALL BE DONE BETWEEN 10:00 PM AND 6:00 AM. THIS TIME FRAME MAY BE FURTHER LIMITED BY SPECIAL EVENTS OR HOLIDAYS AS OUTLINED IN FDOT SPECIFICATION 8-6.4.

THE CONTRACTOR SHALL, AT THE DISCRETION OF THE ENGINEER, OPEN ANY TEMPORARY LANE CLOSURE CAUSING EXTENDED TRAFFIC CONGESTION (5 MINUTE DELAY) UNTIL TRAFFIC HAS RETURNED TO AN ACCEPTABLE FLOW AS DETERMINED BY THE ENGINEER.

THE CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF 48-HOURS IN ADVANCE OF ANY LANE CLOSURES.

DURING PERIODS OF LANE CLOSURES THE CONTRACTOR SHALL PROVIDE A DEDICATED CREW FOR THE INSTALLATION, MAINTENANCE AND REMOVAL OF THE TRAFFIC CONTROL DEVICES (I.E. BARRICADES, SIGNS, ARROW BOARDS, ETC.). THIS CREW SHALL CONSIST OF AT LEAST THREE MEMBERS OF THE CONTRACTOR'S WORK FORCE WHO'S SOLE RESPONSIBILITY SHALL BE THE MAINTENANCE OF TRAFFIC CONTROL. THE CONTRACTOR SHALL FURNISH A WORK VEHICLE TO AID IN MAINTAINING THE CONTROL DEVICES.

THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT A WRITTEN PLAN WHICH DETAILS EACH ACTIVITY INVOLVED IN THE LANE CLOSURE. THE PLAN SHALL INCLUDE BACK-UP PLANS FOR ACTIVITIES CRITICAL TO RE-OPENING THE LANES TO TRAFFIC. THE BACK-UP PLAN SHALL INCLUDE THE ACTIVITIES OF ALL SUBCONTRACTOR'S OPERATIONS AS WELL AS THE PRIME CONTRACTOR'S. NO LANE CLOSURE WILL BE ALLOWED WITHOUT A PLAN TO ACHIEVE RE-OPENING.

LANE CLOSURES SHALL NOT BE PERFORMED DURING HOLIDAY PERIODS AS IDENTIFIED IN SPECIFICATIONS 8-6.4 AND WEDNESDAY NIGHT PRIOR TO THANKSGIVING DAY. IN ADDITION TO THESE AND PREVIOUSLY SPECIFIED LIMITATIONS ON LANE CLOSURES, THE COUNTY MAY DEFINE SEVEN DAYS WHEN NO LANE CLOSURES WILL BE PERMITTED. THE CONTRACTOR WILL BE PROVIDED NO LESS THAN 14 DAYS NOTICE OF THESE EVENTS AND THEY SHALL BE AT NO ADDITIONAL COSTS OR TIME TO THE COUNTY.

THERE WILL BE NO LANE CLOSURES OR SIGNAL SHUTDOWNS ON COUNTY ROADS MONDAY THROUGH FRIDAY BETWEEN 6:00 AM AND 10:00 PM.

THE CONTRACTOR IS ALERTED THAT CITY ROADS AND STATE ROADS MAY HAVE DIFFERENT TIME PERIODS RESTRICTING LANE CLOSURES. THE CITY AND STATE PERMITS WILL STIPULATE THESE TIMES.

THE CONTRACTOR WILL BE PERMITTED TO WORK IN THE ROADWAY DURING ALL OTHER PERIODS, UNLESS INFORMED OTHERWISE BY THE ENGINEER. FULL TRAFFIC CAPACITY AND SIGNAL OPERATION SHALL BE RESTORED BY THE CONTRACTOR AT THE END OF EACH WORK DAY. IN NO CASE SHALL THE CONTRACTOR CLOSE MORE THAN ONE LANE WITHOUT PRIOR APPROVAL OF THE ENGINEER.

10. THE CONTRACTOR SHALL PROVIDE FOR THE SAFE MOVEMENT OF VEHICLES AND PEDESTRIANS THROUGHOUT ALL PHASES OF CONSTRUCTION, INCLUDING DELIVERIES AND DROP-OFFS IN WORK ZONES. THE CONTRACTOR SHALL FURNISH, ERECT, AND MAINTAIN ANY AND ALL NECESSARY TRAFFIC CONTROL AND SAFETY DEVICES IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION'S MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

11. THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN PATHWAYS WITHIN THE PROJECT LIMITS AT ALL TIMES THROUGHOUT ALL PHASES OF THE CONSTRUCTION. THE CONTRACTOR SHALL NOT STORE ANY EQUIPMENT, MATERIALS, DEBRIS, OR EXCAVATION ON THE SIDEWALK OR WITHIN THE PEDESTRIAN PATHWAY. ALL PEDESTRIAN DETOURS SHALL BE SIGNED IN ACCORDANCE WITH FDOT STANDARD PLAN INDEX 102-660.

12. THE CONTRACTOR SHALL NOTIFY LOCAL LAW ENFORCEMENT OF ANY LANE CLOSURES THAT MAY EXIST LONGER THAN TWO HOURS. ALL LANE CLOSURES SHALL BE APPROVED BY THE ENGINEER.

13. THE CONTRACTOR SHALL COORDINATE WORK OPERATIONS AND TEMPORARY ACCESS TO PROPERTY FOR ALL OPEN-CUT DRIVEWAY TRENCHING WITH BUSINESS OWNERS AND RESIDENTS NO LESS THAN ONE WEEK PRIOR TO DIGGING.

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
TRAFFIC CONTROL PLAN NOTES

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 52 OF 84

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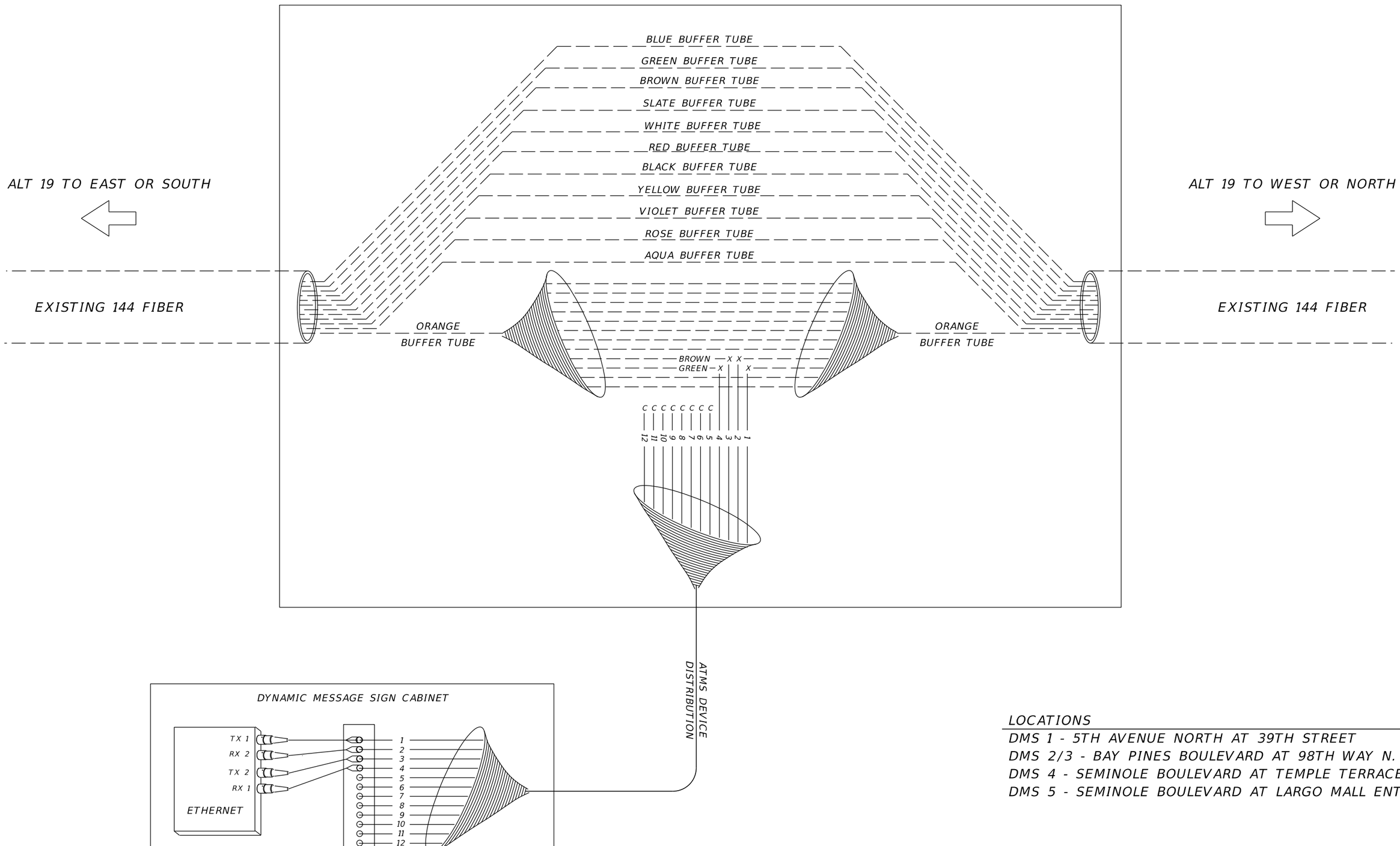

LOCATIONS

DMS 1 - 5TH AVENUE NORTH AT 39TH STREET
DMS 2/3 - BAY PINES BOULEVARD AT 98TH WAY N.
DMS 4 - SEMINOLE BOULEVARD AT TEMPLE TERRACE
DMS 5 - SEMINOLE BOULEVARD AT LARGO MALL ENT.

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
FIBER OPTIC SPLICE DETAILS (1)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 53 OF 84

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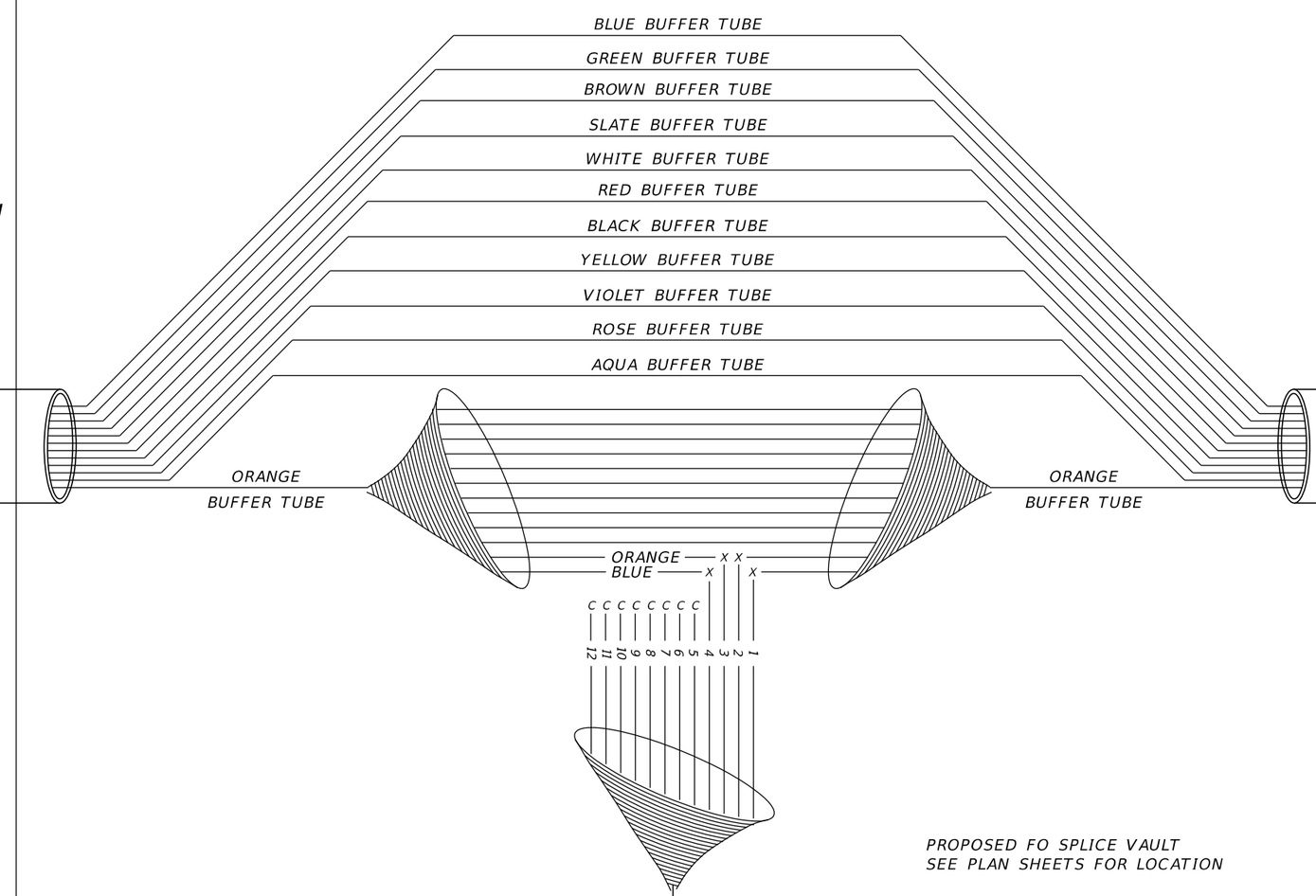
US ALT 19 (SEMINOLE BLVD) TO SOUTH
MISSOURI AVE TO SOUTH

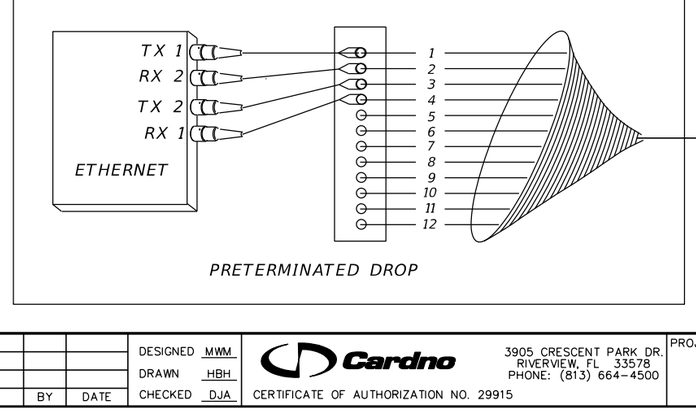
US ALT 19 (SEMINOLE BLVD) TO NORTH
MISSOURI AVE TO NORTH

PROPOSED 144 FIBER

PROPOSED 144 FIBER



ATMS DEVICE DISTRIBUTION



LOCATIONS

DMS 6 - SEMINOLE BOULEVARD AT 20TH TERRACE S.
CCTV 4 - SEMINOLE BOULEVARD AT 16TH AVENUE S.
SEMINOLE BOULEVARD AT 8TH AVENUE S.
S. MISSOURI AVENUE AT 4TH AVENUE N.
S. MISSOURI AVENUE AT JASPER STREET
S. MISSOURI AVENUE AT WYATT STREET
DMS 7/8 - S. MISSOURI AVENUE AT BELLEVUE BLVD.

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915

3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
FIBER OPTIC SPLICE DETAILS (2)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 54 OF 84

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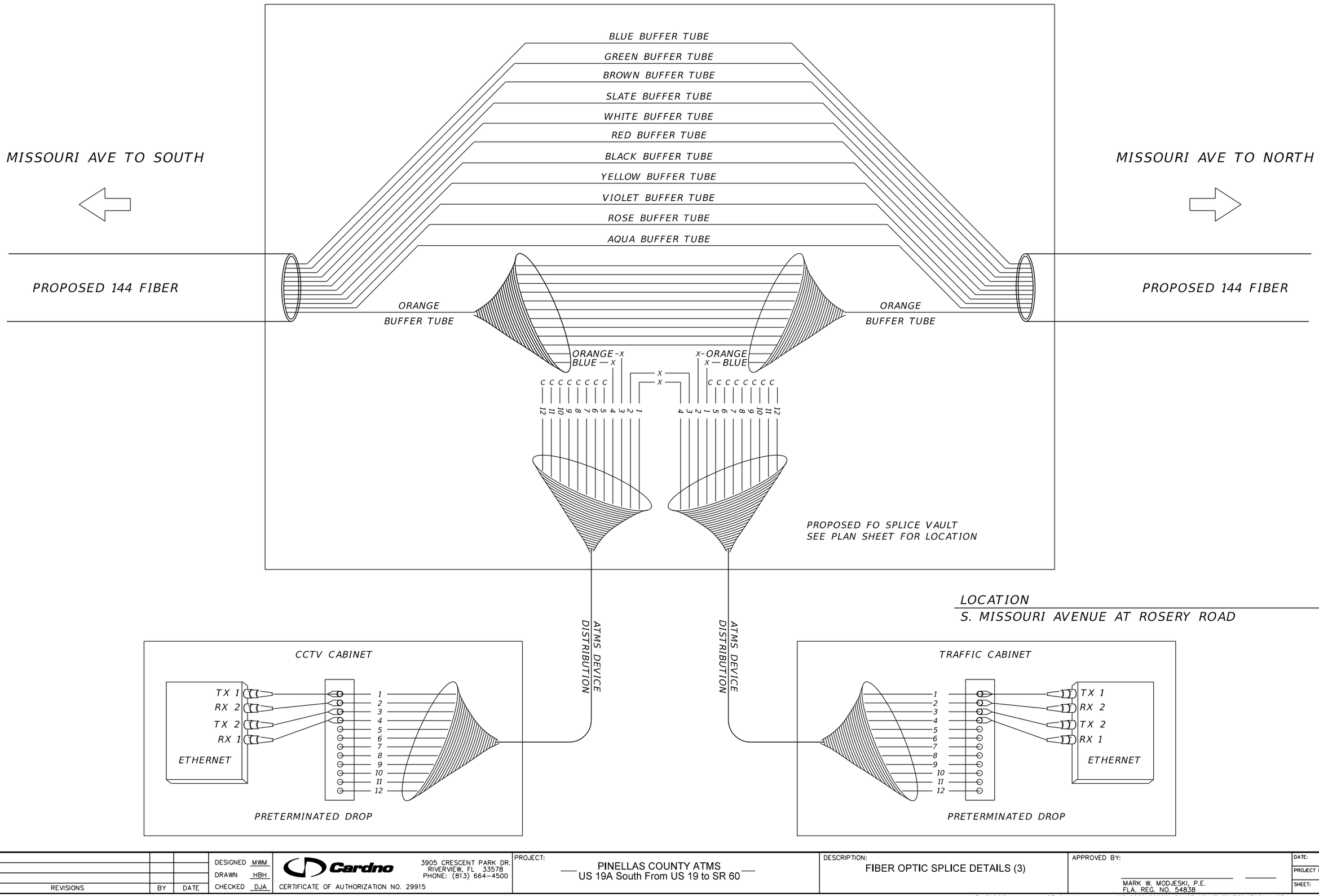


LOCATION

S. MISSOURI AVENUE AT ROSERY ROAD

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

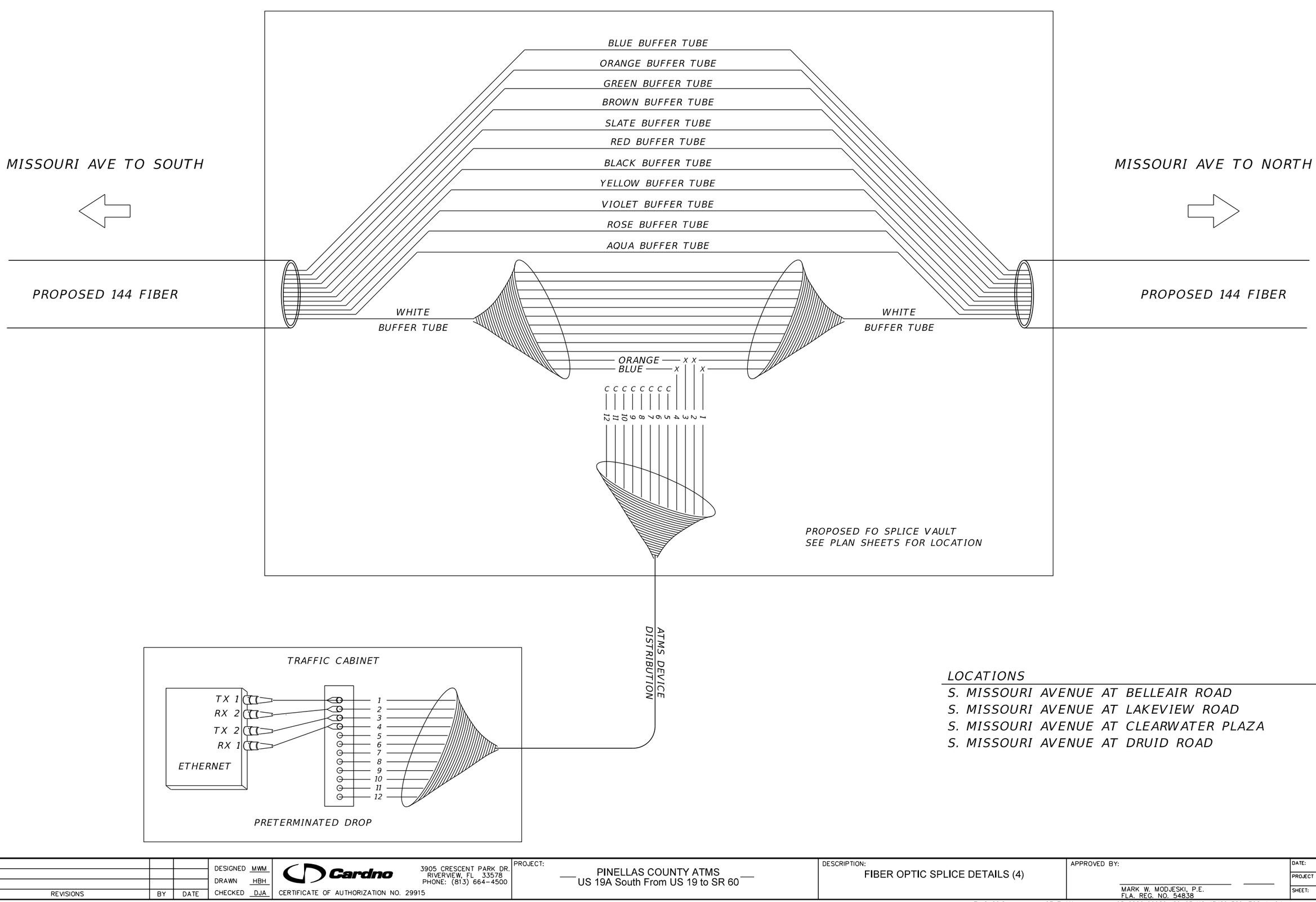
PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
FIBER OPTIC SPLICE DETAILS (3)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 55 OF 84

howard.holley 7/18/2018 11:03:16 AM J:\JOB\0020\00020-180-05\MS\43489115801\FOSplice03.dgn



LOCATIONS

- S. MISSOURI AVENUE AT BELLEAIR ROAD
- S. MISSOURI AVENUE AT LAKEVIEW ROAD
- S. MISSOURI AVENUE AT CLEARWATER PLAZA
- S. MISSOURI AVENUE AT DRUID ROAD

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

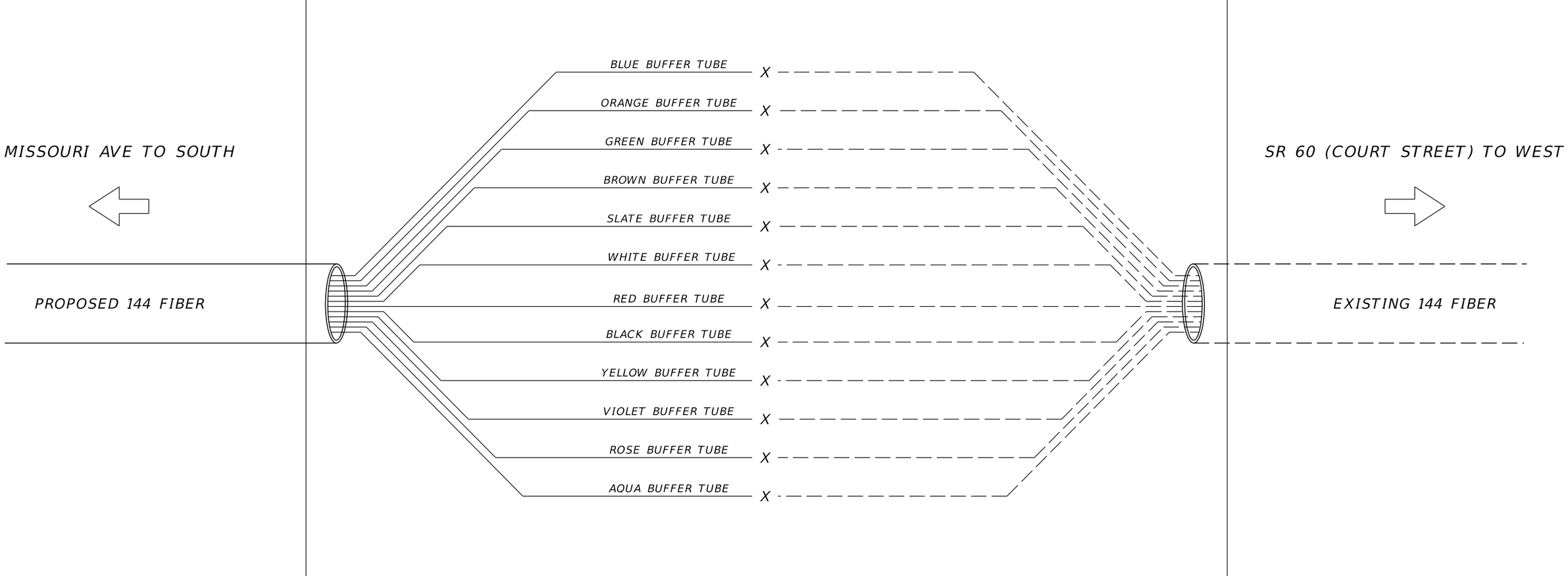
PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
FIBER OPTIC SPLICE DETAILS (4)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 56 OF 84

howard.holley 7/18/2018 11:03:17 AM J:\JOB\0020\00020-180-05\MS\434891I580I\FOSplice04.dgn



LOCATION

SR 60 (COURT STREET) AT MISSOURI AVENUE

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
FIBER OPTIC SPLICE DETAILS (5)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 57 OF 84

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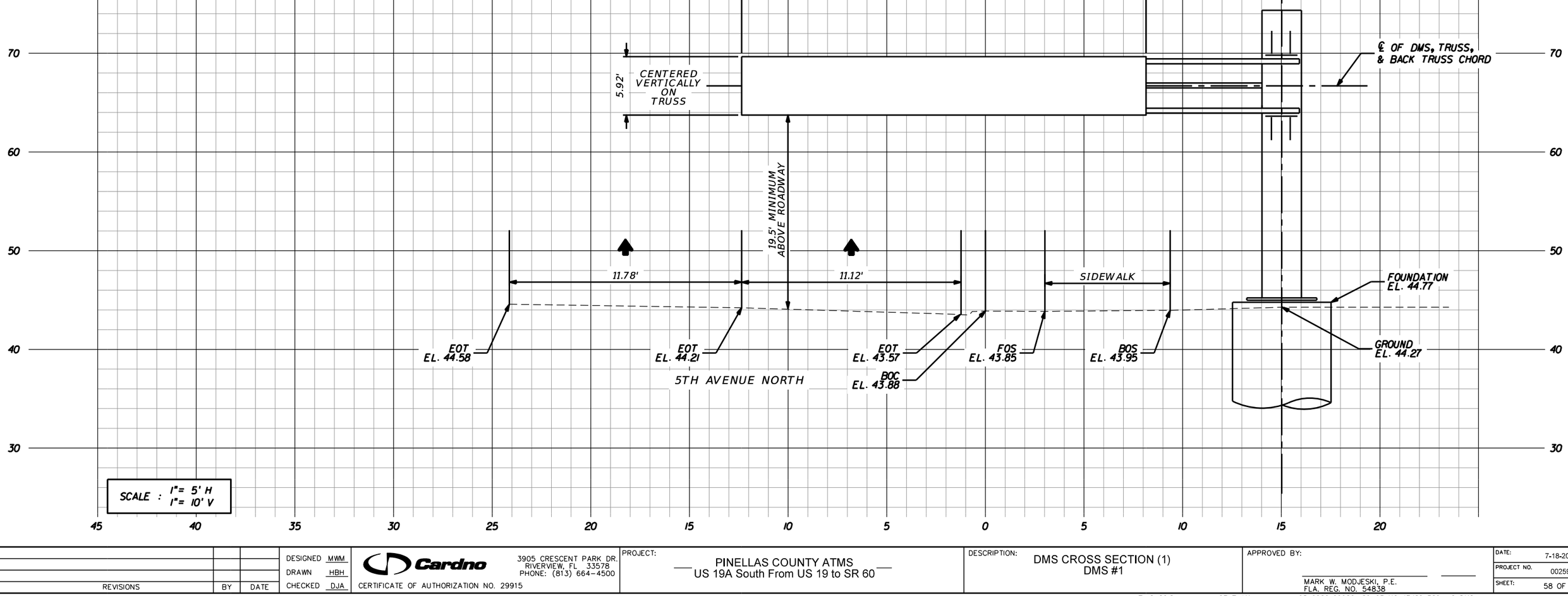
NOTES:
1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN STRUCTURES.

2. SPAN LENGTH FOR THE DMS STRUCTURE IS SPECIFIED IN THE VARIABLES TABLE ON THE DMS STRUCTURES DATA TABLE SHEET.

3. THERE IS NO CENTERLINE OF CONSTRUCTION FOR THIS PROJECT. SEE DMS PLAN (1) FOR LOCATION OF PROPOSED DMS FOUNDATION BASED ON DIMENSIONS FROM EDGE OF PAVEMENT AND/OR OTHER PERMANENT FEATURES.

DMS #1
LOOKING EAST
SEE SHEET 45 FOR STRUCTURE LOCATION

BOC = BACK OF CURB
EOT = EDGE OF TRAVEL LANE
FOS = FRONT OF SIDEWALK
BOS = BACK OF SIDEWALK



REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
DMS CROSS SECTION (1)
DMS #1

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 58 OF 84

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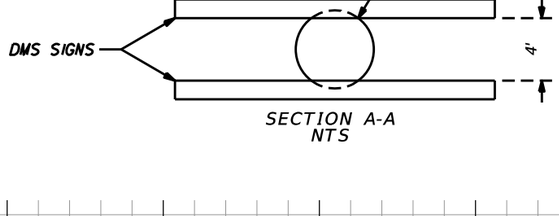
NOTES:
1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN STRUCTURES.

2. SPAN LENGTH FOR THE DMS STRUCTURE IS SPECIFIED IN THE VARIABLES TABLE ON THE DMS STRUCTURES DATA TABLE SHEET.

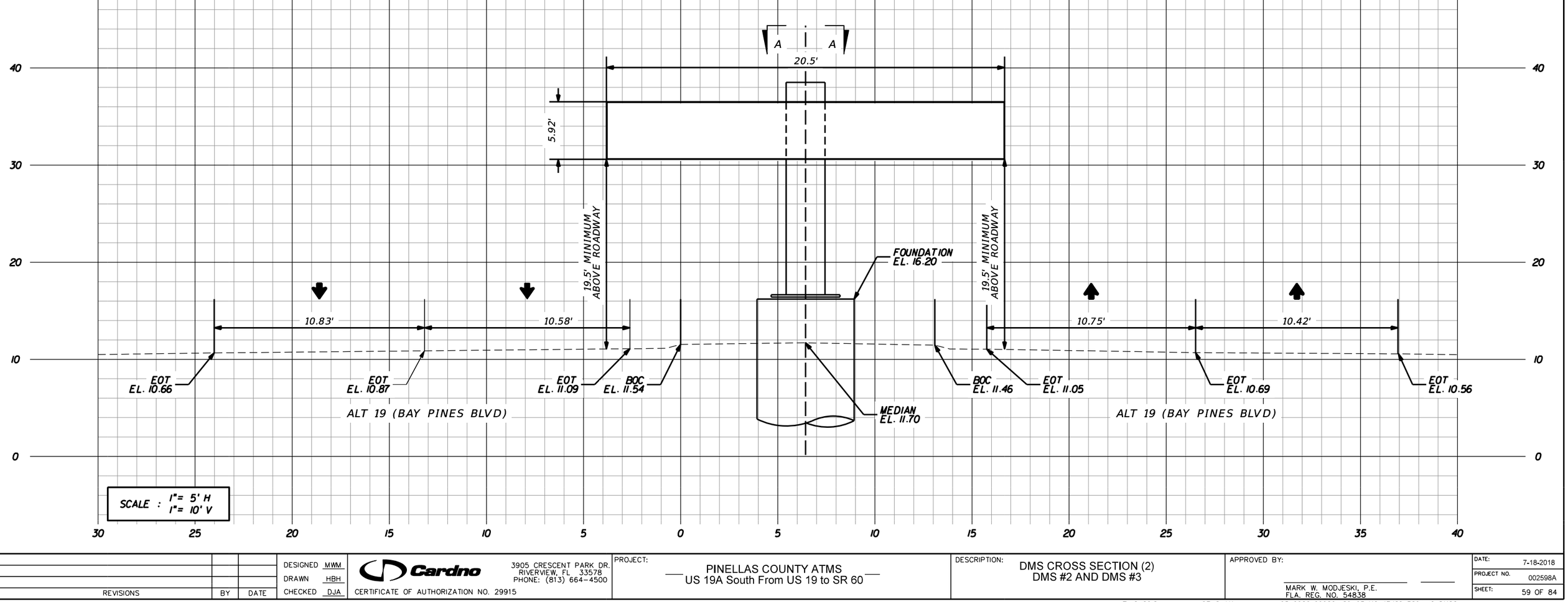
3. THERE IS NO CENTERLINE OF CONSTRUCTION FOR THIS PROJECT. SEE DMS PLAN (2) FOR LOCATION OF PROPOSED DMS FOUNDATION BASED ON DIMENSIONS FROM EDGE OF PAVEMENT AND/OR OTHER PERMANENT FEATURES.

DMS #2, #3
LOOKING WEST
SEE SHEET 46 FOR STRUCTURE LOCATION

BOC = BACK OF CURB
EOT = EDGE OF TRAVEL LANE
FOS = FRONT OF SIDEWALK
BOS = BACK OF SIDEWALK



SECTION A-A
NTS



REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
DMS CROSS SECTION (2)
DMS #2 AND DMS #3

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 59 OF 84

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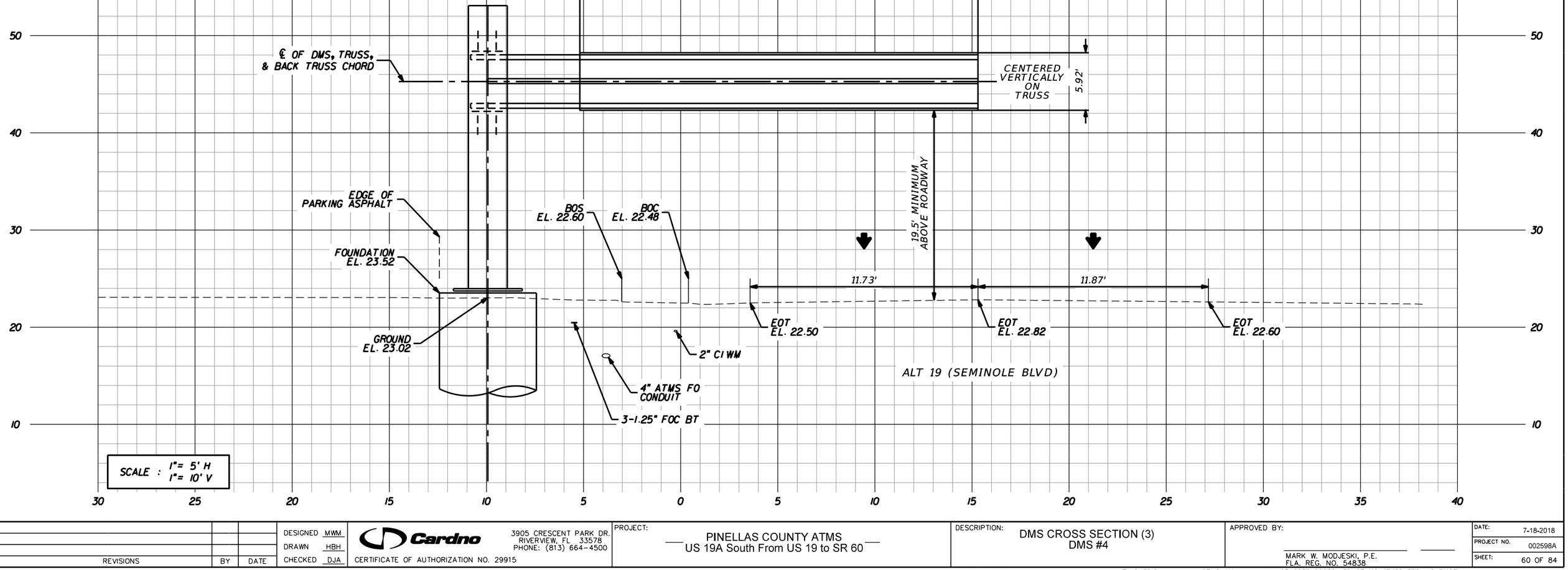
NOTES:
1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN STRUCTURES.

2. SPAN LENGTH FOR THE DMS STRUCTURE IS SPECIFIED IN THE VARIABLES TABLE ON THE DMS STRUCTURES DATA TABLE SHEET.

3. THERE IS NO CENTERLINE OF CONSTRUCTION FOR THIS PROJECT. SEE DMS PLAN (3) FOR LOCATION OF PROPOSED DMS FOUNDATION BASED ON DIMENSIONS FROM EDGE OF PAVEMENT AND/OR OTHER PERMANENT FEATURES.

DMS #4
LOOKING NORTH
SEE SHEET 47 FOR STRUCTURE LOCATION

BOC = BACK OF CURB
EOT = EDGE OF TRAVEL LANE
FOS = FRONT OF SIDEWALK
BOS = BACK OF SIDEWALK



REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
DMS CROSS SECTION (3)
DMS #4

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 60 OF 84

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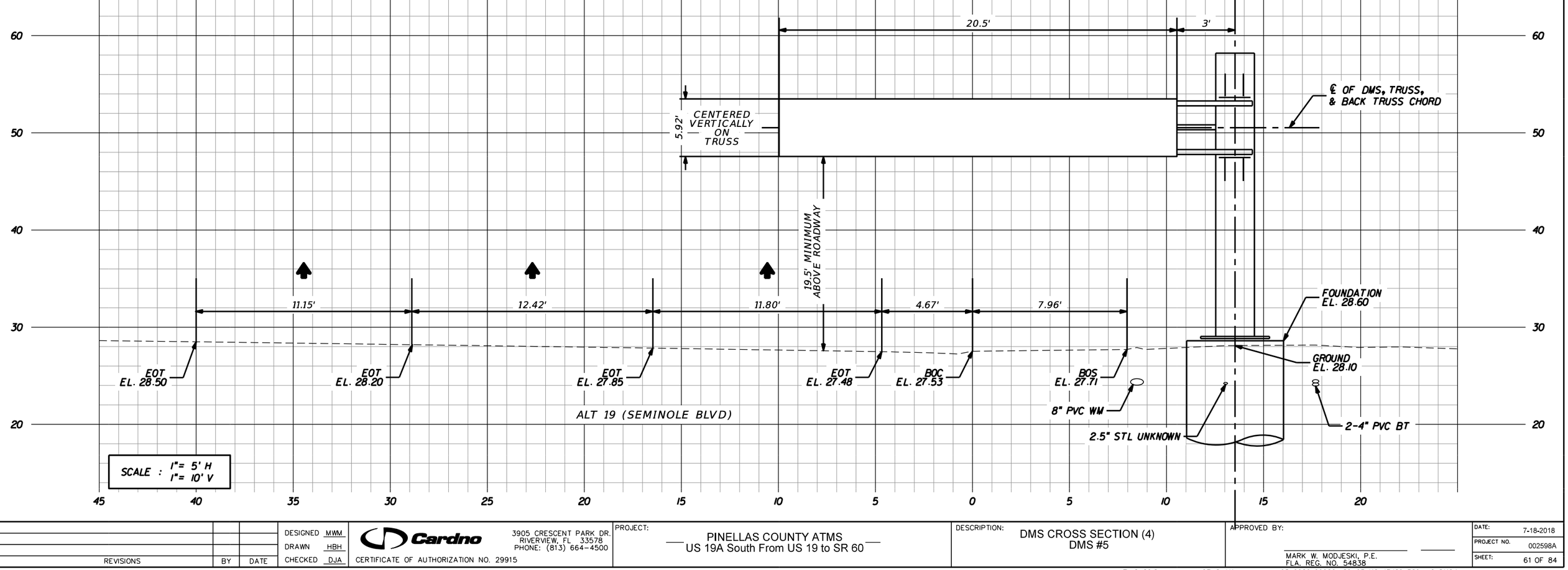
NOTES:
1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN STRUCTURES.

2. SPAN LENGTH FOR THE DMS STRUCTURE IS SPECIFIED IN THE VARIABLES TABLE ON THE DMS STRUCTURES DATA TABLE SHEET.

3. THERE IS NO CENTERLINE OF CONSTRUCTION FOR THIS PROJECT. SEE DMS PLAN (4) FOR LOCATION OF PROPOSED DMS FOUNDATION BASED ON DIMENSIONS FROM EDGE OF PAVEMENT AND/OR OTHER PERMANENT FEATURES.

DMS #5
LOOKING NORTH
SEE SHEET 48 FOR STRUCTURE LOCATION

BOC = BACK OF CURB
EOT = EDGE OF TRAVEL LANE
FOS = FRONT OF SIDEWALK
BOS = BACK OF SIDEWALK



REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
DMS CROSS SECTION (4)
DMS #5

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 61 OF 84

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NOTES:
1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN STRUCTURES.

2. SPAN LENGTH FOR THE DMS STRUCTURE IS SPECIFIED IN THE VARIABLES TABLE ON THE DMS STRUCTURES DATA TABLE SHEET.

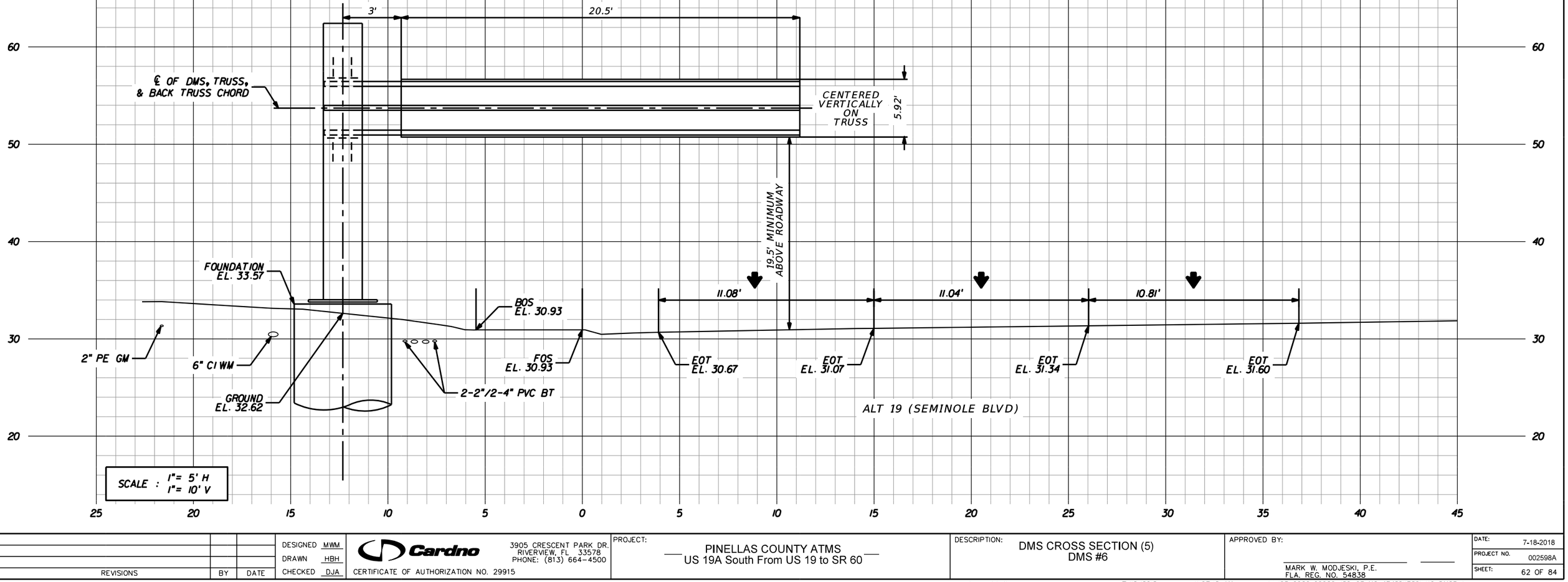
3. THERE IS NO CENTERLINE OF CONSTRUCTION FOR THIS PROJECT. SEE DMS PLAN (5) FOR LOCATION OF PROPOSED DMS FOUNDATION BASED ON DIMENSIONS FROM EDGE OF PAVEMENT AND/OR OTHER PERMANENT FEATURES.

DMS #6

LOOKING NORTH

SEE SHEET 49 FOR STRUCTURE LOCATION

BOC = BACK OF CURB
EOT = EDGE OF TRAVEL LANE
FOS = FRONT OF SIDEWALK
BOS = BACK OF SIDEWALK



REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
DMS CROSS SECTION (5)
DMS #6

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 62 OF 84

howard.holley 7/18/2018 11:03:18 AM J:\JOB\0020\00020-180-05\MS\43489115801\XS_DMS5.dgn

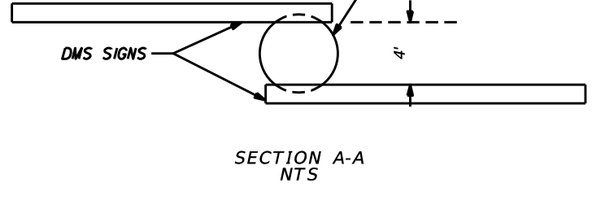
NOTES:
1. UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF SIGN STRUCTURES.
2. SPAN LENGTH FOR THE DMS STRUCTURE IS SPECIFIED IN THE VARIABLES TABLE ON THE DMS STRUCTURES DATA TABLE SHEET.
3. THERE IS NO CENTERLINE OF CONSTRUCTION FOR THIS PROJECT. SEE DMS PLAN (6) FOR LOCATION OF PROPOSED DMS FOUNDATION BASED ON DIMENSIONS FROM EDGE OF PAVEMENT AND/OR OTHER PERMANENT FEATURES.

DMS #7, #8

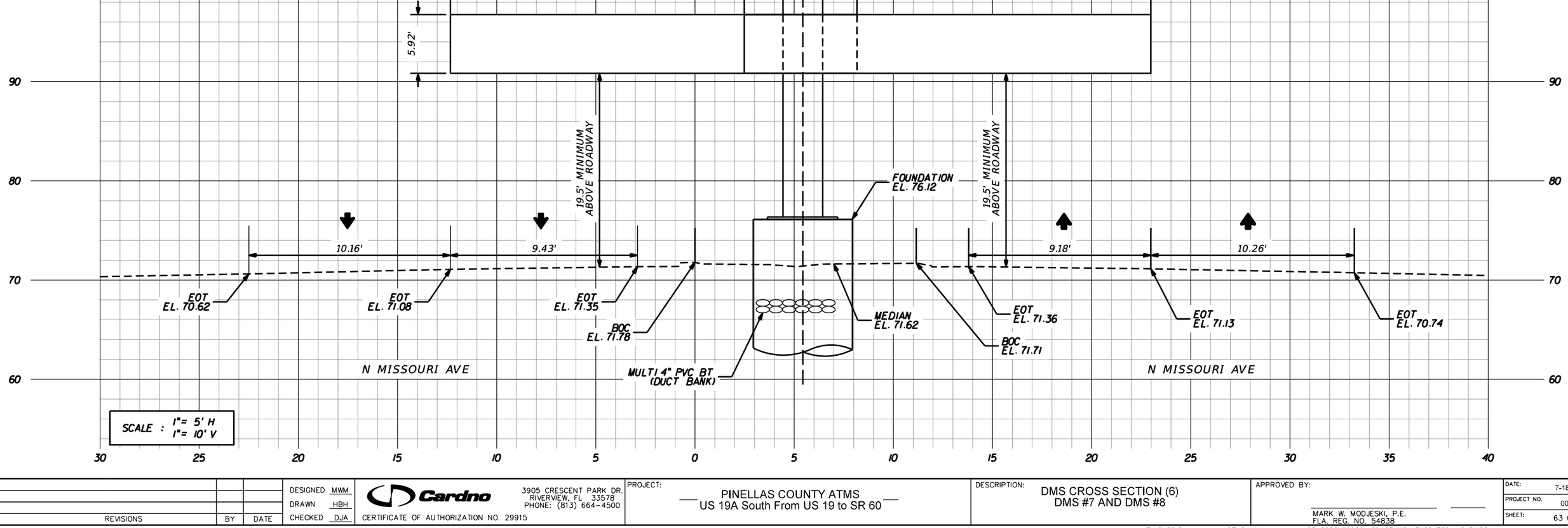
LOOKING NORTH

SEE SHEET 50 FOR STRUCTURE LOCATION

BOC = BACK OF CURB
EOT = EDGE OF TRAVEL LANE
FOS = FRONT OF SIDEWALK
BOS = BACK OF SIDEWALK



SECTION A-A
NTS



REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
DMS CROSS SECTION (6)
DMS #7 AND DMS #8

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 63 OF 84

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NOTES:

1. Work this Index in conjunction with BUTTERFLY SIGN STRUCTURE DATA TABLES in the Plans and Index 700-030.

2. Handholes are required at pole base for DMS Structures. Refer to Index 700-090 for Handhole Details.

3. Shop Drawings are required.

Obtain Shop Drawing approval prior to fabrication. Include the following:
A. Upright Pipe height ('A') and Foundation elevations: Verify dimension in the field prior to submittal to ensure minimum vertical clearances of the sign panel over the roadway.
B. Height of the foundation above adjacent ground.
C. Anchor bolt orientation with respect to centerline of truss and the direction of traffic.
D. Chord Splices
E. Handholes at pole base.

4. Materials:

A. Sign Structure:
   a. Upright and Chords (Steel Pipe): API-5L-X42, 42 ksi yield or ASTM A500, Grade B (Min.)
   b. Steel Angles and Structural Plates and Bars: ASTM A709 Grade 36
   c. Weld Material: E70XX
B. Bolts, Nuts and Washers:
   a. High Strength Bolts: ASTM F3125, Grade A325 Type 1
   b. Nuts: ASTM A563 Grade DH Heavy-Hex
   c. Washers: ASTM F436 Type 1, one under turned element
C. Anchor Bolts, Nuts and Washers
   a. Anchor Bolts: ASTM F1554 Grade 55
   b. Nuts: ASTM A563 Grade A Heavy-Hex (5 per bolt)
   c. Plate Washers: ASTM A36 (2 per bolt)
D. Concrete:
   a. Drilled Shaft concrete: Class IV (Drilled Shaft)
E. Reinforcing Steel: Specification Section 415

5. Fabrication:

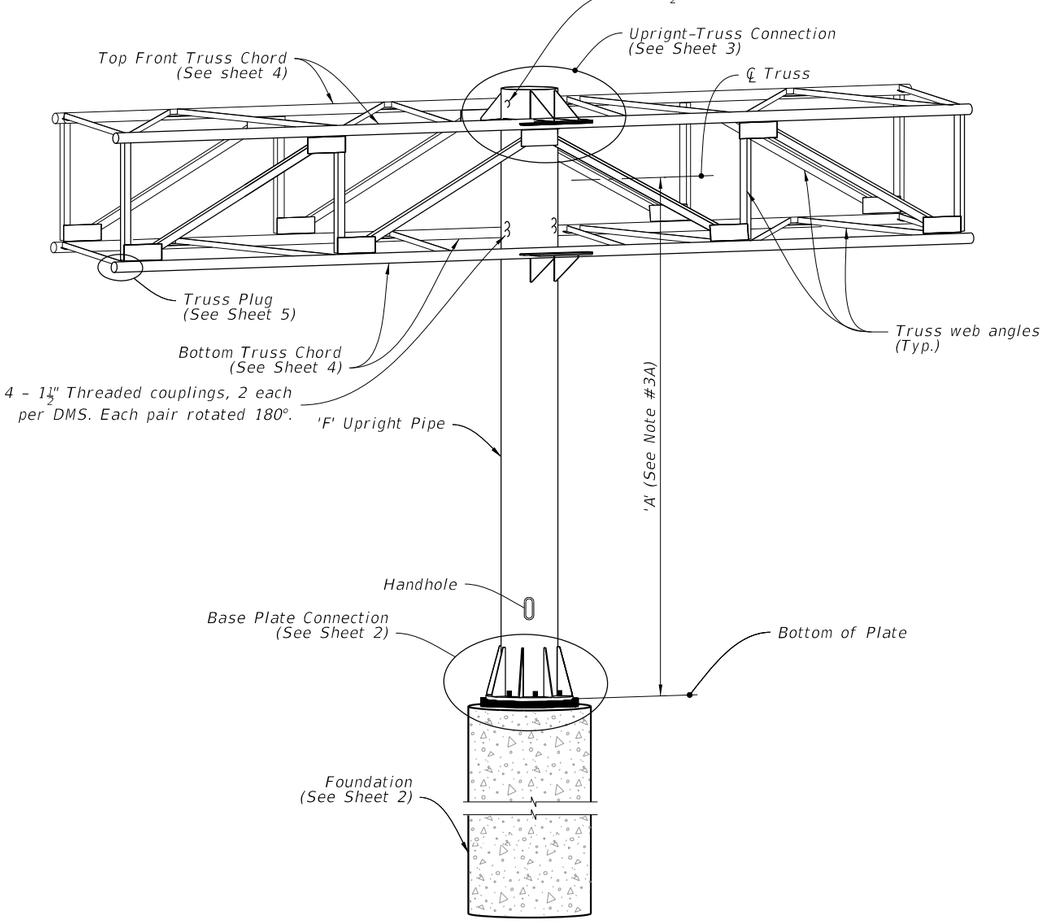
A. Welding: Specification Section 460-6.4
B. Chord Splices: "SD" Panel from upright is the closest panel in which a chord splice may be used. See Plans for BUTTERFLY SIGN STRUCTURE DATA TABLE. Minimum splice spacing is two truss panel lengths apart.
C. Upright splices: Not allowed
D. Structural bolt hole diameters: Bolt diameter plus $\frac{1}{16}$"
E. Anchor bolt hole diameters: Bolt diameter plus $\frac{1}{2}$"
F. Hot Dip Galvanize after fabrication.
G. Shop assemble the entire structure after galvanizing to validate/document alignment and clearance for bolted connections as well as contact between connecting plates. Take remedial action, if necessary, prior to shipment.
H. Disassemble, as necessary, and secure components for shipment.

6. Coatings:

A. Bolts, Nuts and Washers: ASTM F2329
B. All other steel, including Plate Washers, hot dip galvanize: ASTM A123

7. Construction:

A. Construct foundation in accordance with Specification Section 455, except payment is included in the cost of the structure.
B. Prior to erection, record the as-built anchor locations and submit to the Engineer.
C. Place backfill above spread footings prior to installation of the sign panels. Do not remove or reduce backfill without prior approval of the Engineer.
D. Tighten nuts and bolts in accordance with Specification Section 700. Split-Lock Washers are not permitted.
E. Install Aluminum Sign Panels as shown in Production Plans.
F. Place structural grout pad with drain between top of foundation and bottom of baseplate in accordance with Specification Section 649-7.



ISOMETRIC VIEW

SIGN ASSEMBLY

REVISIONS	BY	DATE

DESIGNED PF
DRAWN AAM
CHECKED CPG

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
BUTTERFLY SIGN STRUCTURE DETAILS (1 OF 5)

APPROVED BY:
CHRISTOPHER P. GAMACHE, P.E.
FLA. REG. NO. 82122

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 64 OF 84

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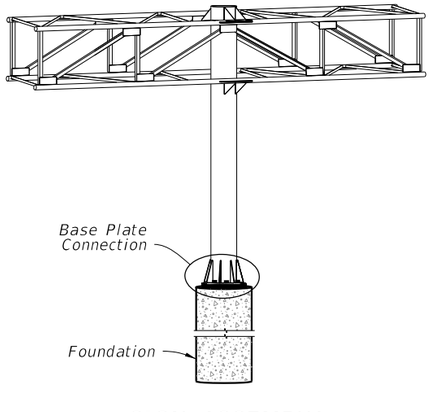
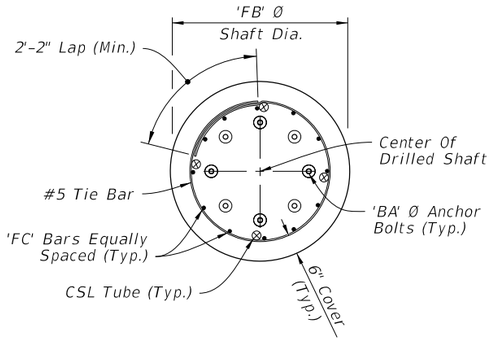
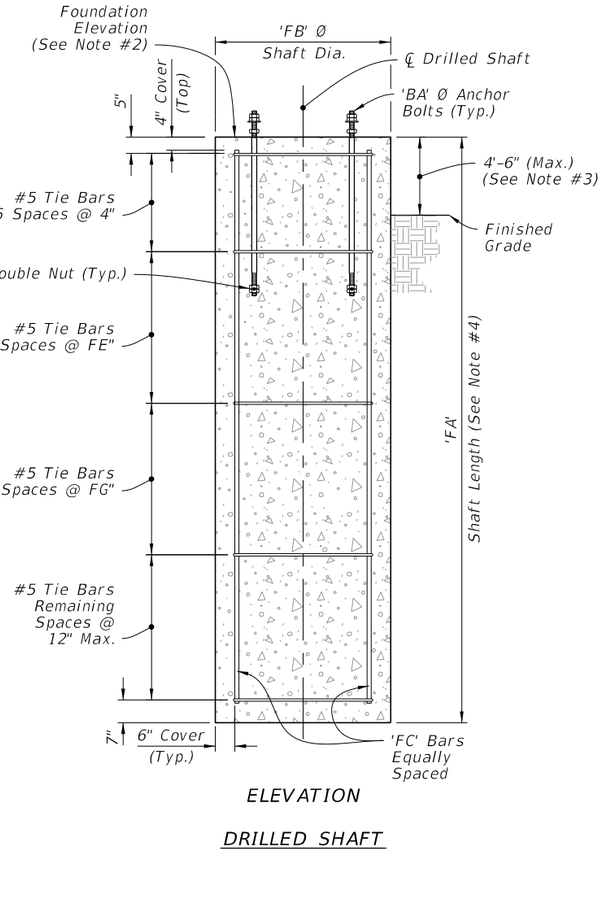


SIGN ASSEMBLY



PLAN

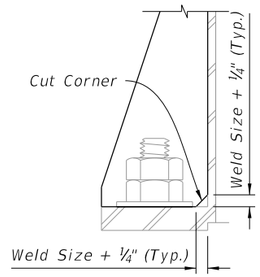


ELEVATION

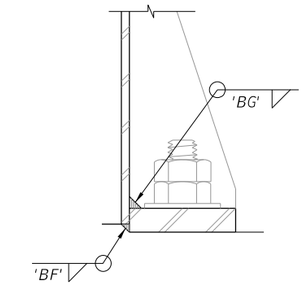
DRILLED SHAFT

NOTES:

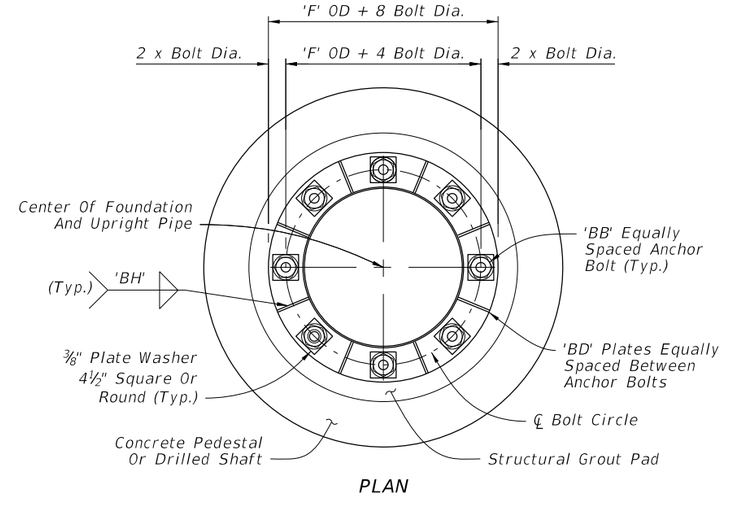
1. Construction joint allowed, roughen surface to ¼" minimum amplitude prior to pour.
2. See Traffic Plans for elevation at top of Foundation.
3. Install Drilled Shaft with a 4'-6" maximum from top elevation of the drill shaft to the finished grade, unless specified otherwise in the plans.
4. The shaft length is based on 4'-6" height above finished grade.
5. Structural Grout Pad dimension may be modified to be less than 3" where the footprint of the Structural Grout Pad does not provide adequate clearance for accessibility considerations.
6. Wrap fillet weld around the stiffner termination on the tube wall.



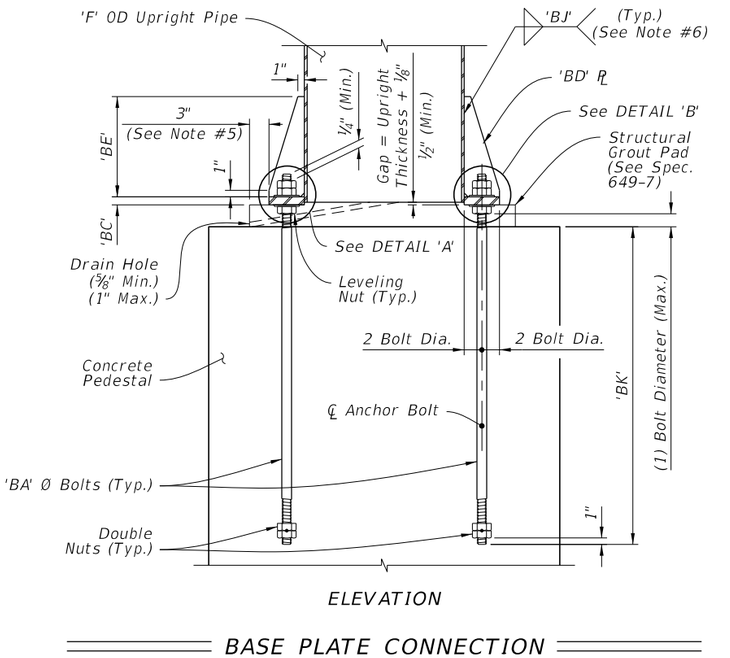
DETAIL 'A'



DETAIL 'B'



PLAN



ELEVATION

BASE PLATE CONNECTION

REVISIONS	BY	DATE

DESIGNED PF
DRAWN AAM
CHECKED CPG

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
BUTTERFLY SIGN STRUCTURE
DETAILS (2 OF 5)

APPROVED BY:
CHRISTOPHER P. GAMACHE, P.E.
FLA. REG. NO. 82122

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 65 OF 84

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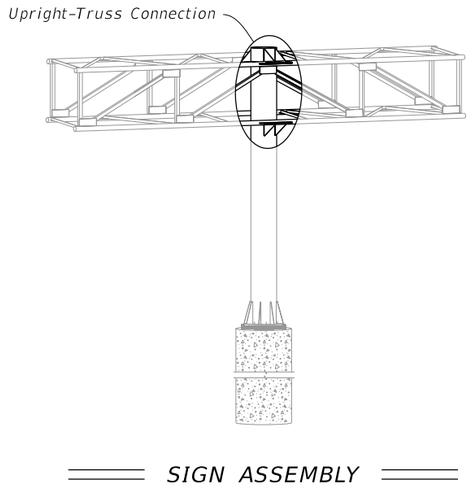
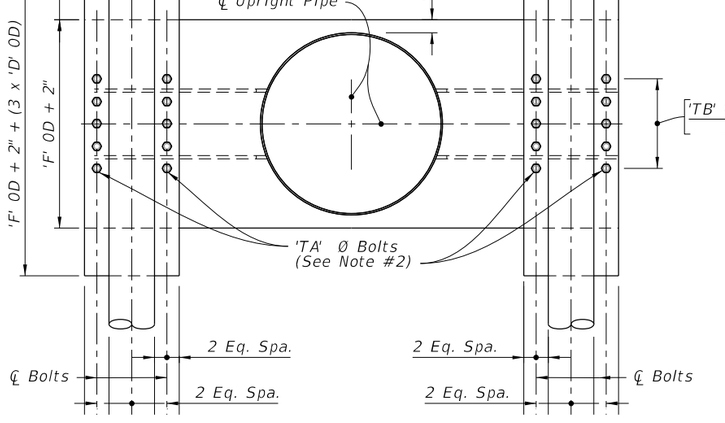
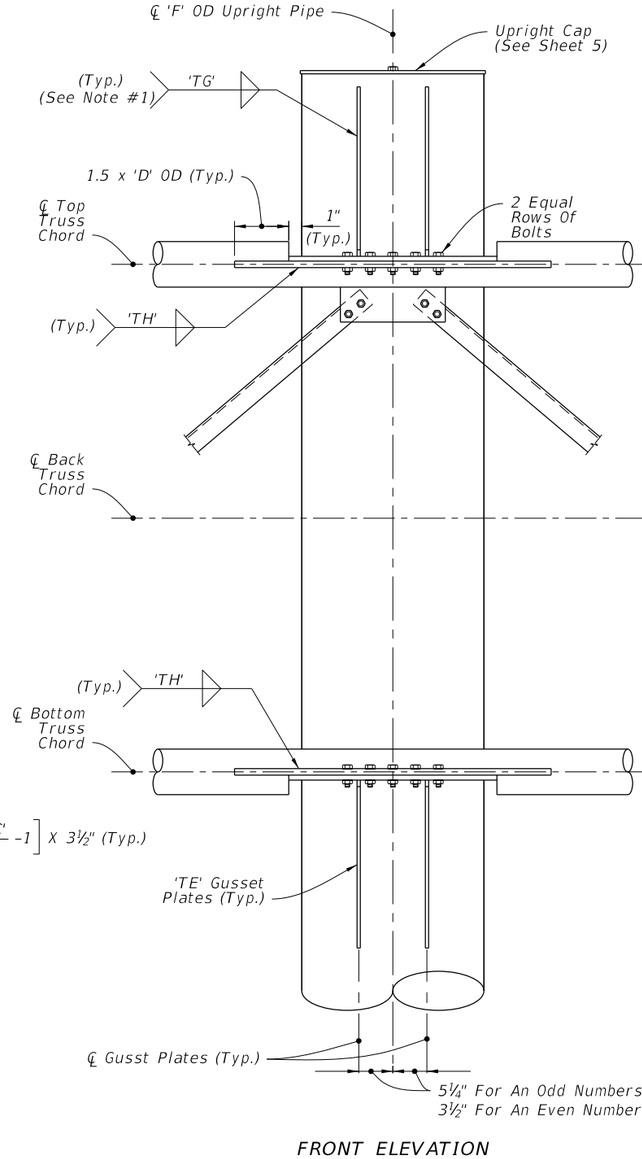


SIGN ASSEMBLY

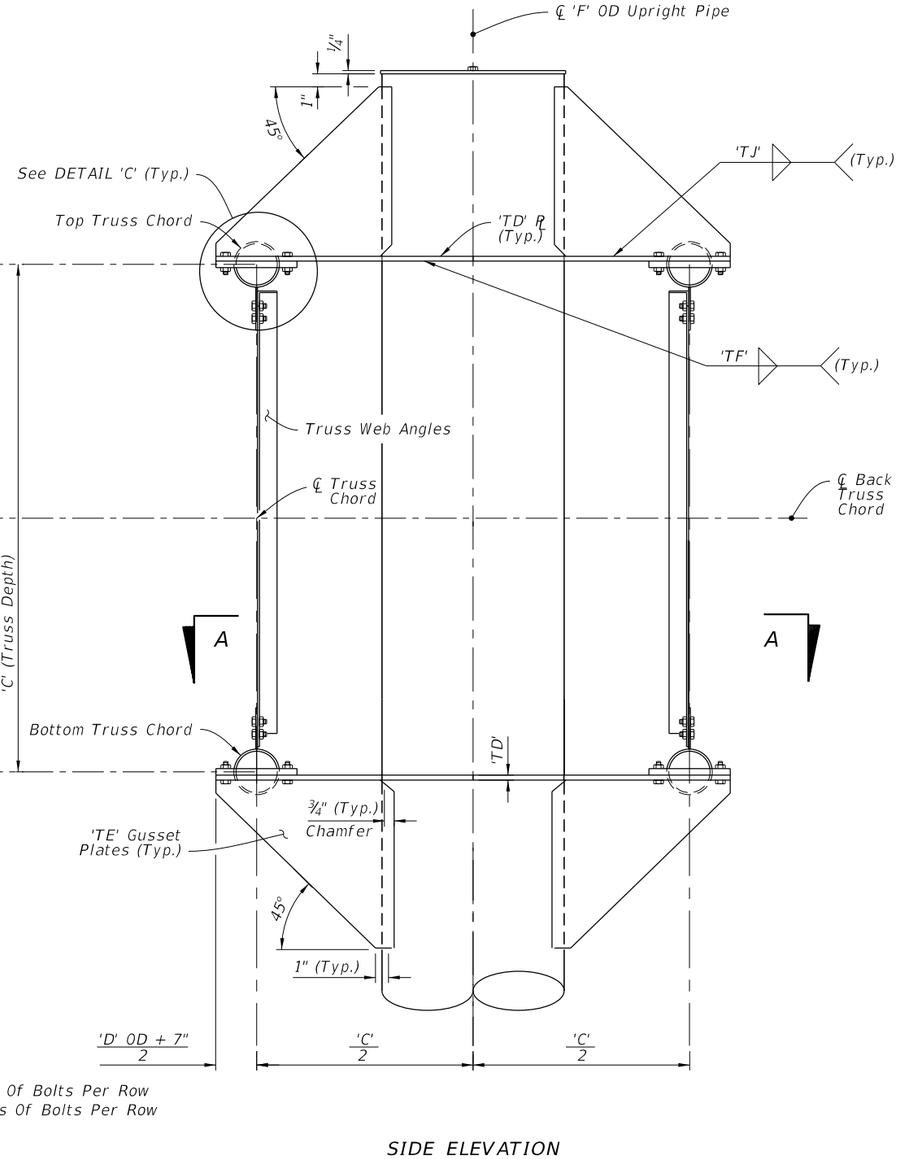


SECTION A-A

(With Gusset Plates And Web Angles Omitted For Clarity)



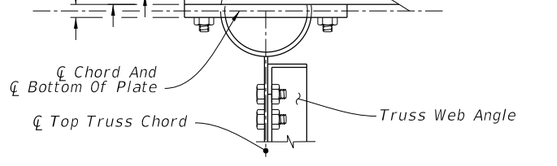
FRONT ELEVATION



SIDE ELEVATION

UPRIGHT-TRUSS CONNECTION DETAIL

(Web Members From Back Truss Chord Omitted For Clarity)



DETAIL 'C'

NOTE:

1. Wrap fillet weld around the stiffner termination on the tube wall.

2. Truss Chord Bolts:
   A. Top and Bottom: Install 'TC' hex head bolts.
   B. Back: Install 'TB' hex head bolts.

REVISIONS	BY	DATE

DESIGNED PF
DRAWN AAM
CHECKED CPG

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915

3905 CRESCENT PARK DR.
RIVERVIEW, FL. 33578
PHONE: (813) 664-4500

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

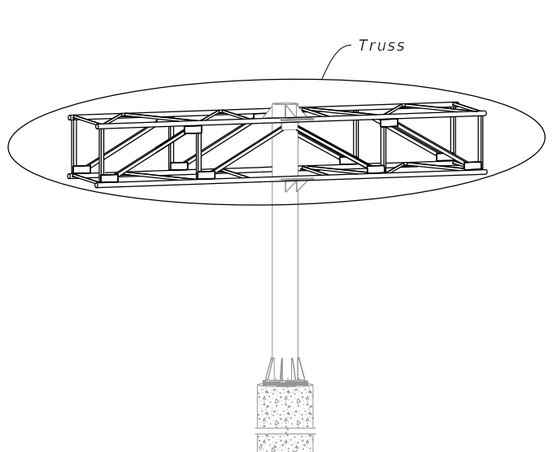
DESCRIPTION:
BUTTERFLY SIGN STRUCTURE DETAILS (3 OF 5)

APPROVED BY:

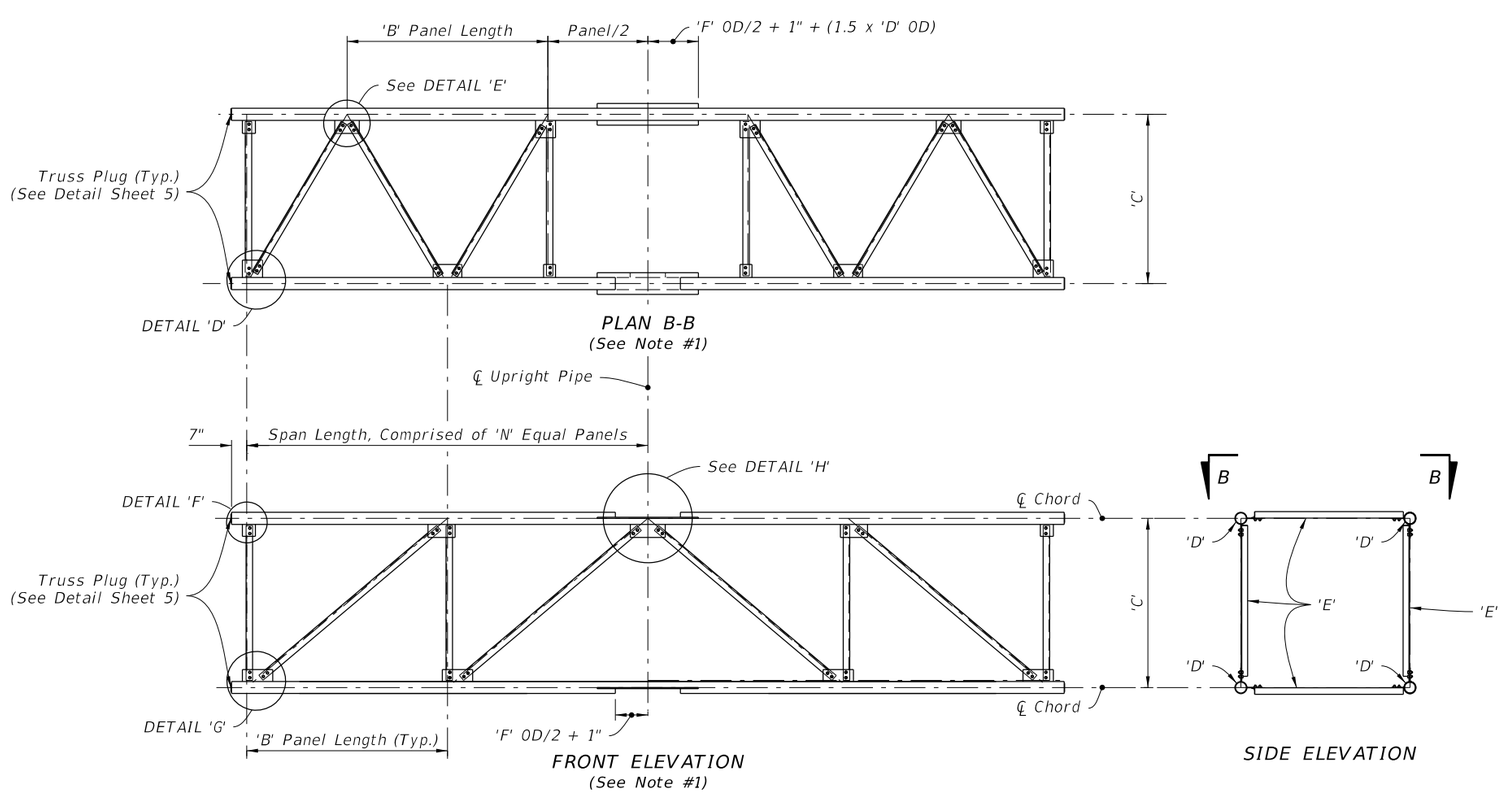
CHRISTOPHER P. GAMACHE, P.E.
FLA. REG. NO. 82122

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 66 OF 84

howard.holley 7/18/2018 11:03:29 AM J:\JOB\0020\00020-180-05\WS\434891158O1\Struct\1310-03.dgn



SIGN ASSEMBLY

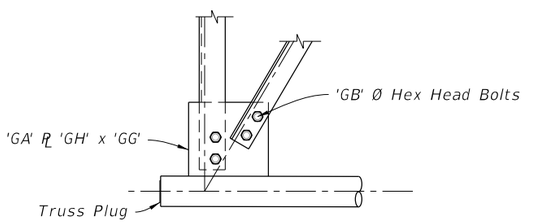


TRUSS

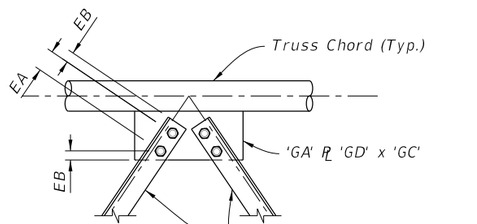
TRUSS NOTES:

1. Out-of-plane members are not shown for clarity.
2. Wrap fillet weld around plate termination on the tube wall.

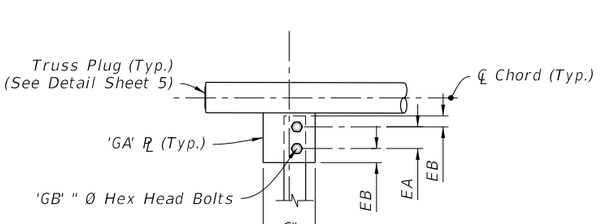
Bolt Size	Distance	
	EA	EB
1¼" Ø	4⅜"	2¼"
1" Ø	3½"	1¾"
⅞" Ø	3"	1½"
¾" Ø	2½"	1¼"
⅝" Ø	2¼"	1⅛"



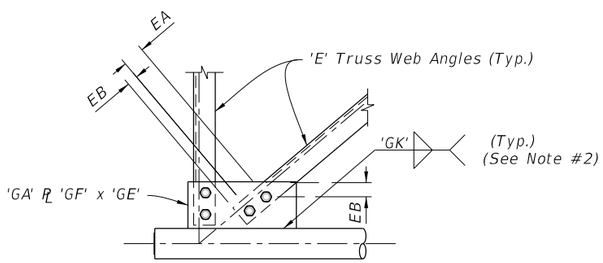
DETAIL 'D'



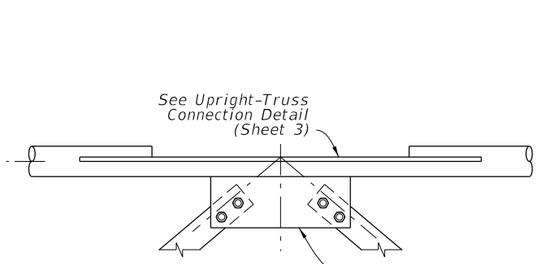
DETAIL 'E'



DETAIL 'F'



DETAIL 'G'



DETAIL 'H'

REVISIONS	BY	DATE

DESIGNED PF
DRAWN AAM
CHECKED CPG

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915

3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
BUTTERFLY SIGN STRUCTURE
DETAILS (4 OF 5)

APPROVED BY:
CHRISTOPHER P. GAMACHE, P.E.
FLA. REG. NO. 82122

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 67 OF 84

howard.holley 7/18/2018 11:03:30 AM J:\JOB\0020\00020-180-05\WS\43489115801\Struct\1310-04.dgn

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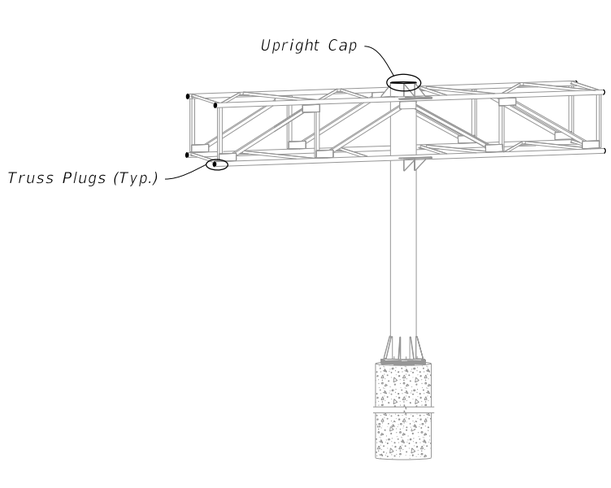
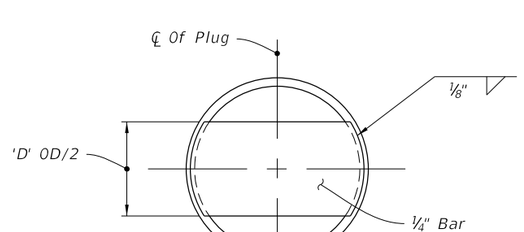
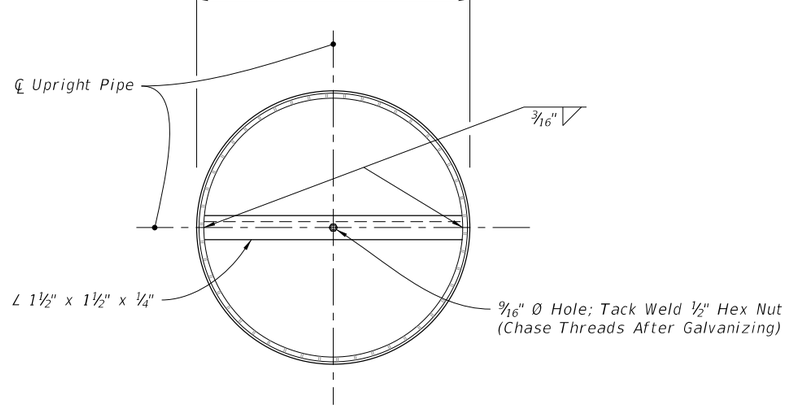


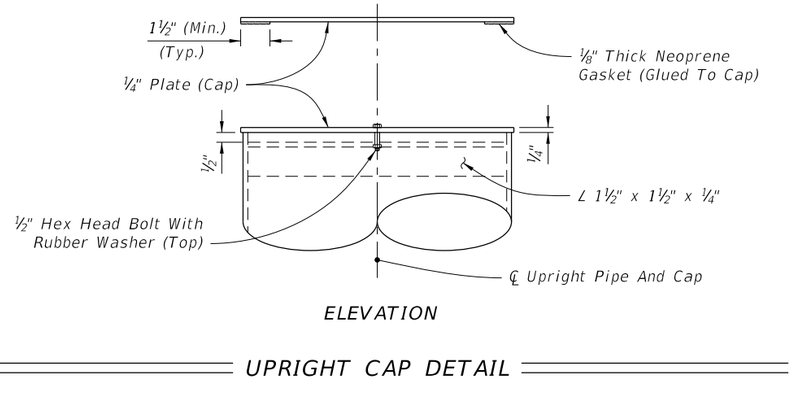
SIGN ASSEMBLY



TRUSS PLUG DETAIL



PLAN



ELEVATION

UPRIGHT CAP DETAIL

REVISIONS	BY	DATE

DESIGNED PF
DRAWN AAM
CHECKED CPG

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
BUTTERFLY SIGN STRUCTURE
DETAILS (5 OF 5)

APPROVED BY:
CHRISTOPHER P. GAMACHE, P.E.
FLA. REG. NO. 82122

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 68 OF 84

howard.holley 7/18/2018 11:03:30 AM J:\JOB\0020\00020-180-05\WS\434891\580I\Struct\I3I0-05.dgn

BUTTERFLY SIGN STRUCTURES DATA TABLE

SIGN NO.	STATION	DIMENSIONS A	DIMENSIONS B		DIMENSIONS C	PANELS N	MEMBER SIZES D (CHORD)	MEMBER SIZES E (WEB)	MEMBER SIZES F (UPRIGHT)	BACKRAKE G
		ft	ft	in	in	#	O. D. x Wall Thk. (in)	Angle (in)	O. D. x Wall Thk. (in)	in
2, 3	/	18.5	5	6	54	2	4.00 x 0.226	3 x 3 x 1/4	20.00 x 0.500	0
7, 8	/	18.5	6	4	54	3	4.00 x 0.226	3 x 3 x 1/4	20.00 x 0.500	0

NOTES:
1. Work these data tables with Butterfly Sign Structure Details.
2. Design Wind Speed = 150 mph.
3. Upright wall thickness given is a minimum dimension.
4. Install handhole at the base of all poles as detailed in Index 700-090.
5. Install threaded couplings for power and communications as shown in Tyical Details.

FOUNDATION NOTES:
1. Design based on Borings taken by MC Squared, Inc. and sealed by Jeffery L. Hooks, P.E.
2. Assumptions and Values used in design:
   Soil Type Silty Sand
   Soil Layer Thickness = Full Depth.
   Soil Friction Angle = 29 deg.
   Soil Weight = 105 pcf
   Design Water Table is 0 ft. below surface

BUTTERFLY SIGN STRUCTURES DATA TABLE (CONT.)

SIGN NO.	GUSSET PLATES GA	GB	GC		GD		GE		GF		GG		GH		GJ		GK	TRUSS CONNECTION TA	TB	TC	TD	TE	TF	TG	TH	TJ
	in	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	in	in	#	#	in	in	in	in	in	in
2, 3	3/8	5/8		11-3/4		6		9-3/4		5		7		9	1	3-1/2	1/8	7/8	6	6	1/2	1/2	3/16	3/16	1/8	1/8
7, 8	3/8	5/8	1	0-1/2		6		10		5		7		9	1	4-1/2	1/8	7/8	6	6	1/2	1/2	3/16	3/16	1/8	1/8

BUTTERFLY SIGN STRUCTURES DATA TABLE (CONT.)

SIGN NO.	BASE CONNECTION BA	BB	BC	BD	BE		BF	BG	BH	BJ	ANCHOR BK		FOOTING - DRILLED SHAFT FA		FB		FC	FD	FE	FF	FG
	in	#	in	in	ft	in	in	in	in	in	ft	in	ft	in	ft	in	# / Size	#	in	#	in
2, 3	1-1/2	12	1-1/2	1/2	1	7-3/4	5/16	5/16	5/16	3/16	2	8	21	0	5	0	19 / 11	3	8	3	8
7, 8	2	12	1-3/4	1/2	2	3	5/16	5/16	5/16	3/16	3	4	24	0	5	0	19 / 11	3	8	3	8

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REVISIONS	BY	DATE

DESIGNED PF
DRAWN AAM
CHECKED CPG

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
BUTTERFLY SIGN
STRUCTURES DATA TABLE

APPROVED BY:
CHRISTOPHER P. GAMACHE, P.E.
FLA. REG. NO. 82122

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 69 OF 84

howard.holley 7/18/2018 11:03:31 AM J:\JOB\0020\00020-180-05\WS\434891\5801\Struct\SignStructCant02.dgn

CANTILEVER SIGN STRUCTURES DATA TABLE

Table Date 07-01-14

SIGN NO.	STATION	DIMENSIONS A	DIMENSIONS B		DIMENSIONS C	PANELS N	MEMBER SIZES D (CHORD)	MEMBER SIZES E (WEB)	MEMBER SIZES F (UPRIGHT)	BACKRAKE G
		ft	ft	in	in	#	O. D. x Wall Thk. (in)	Angle (in)	O. D. x Wall Thk. (in)	in
1	/	22.5000	7	0	54	4	4.00 x 0.226	3 x 3 x 1/4	24.00 x 0.562	2.9543
4	/	22.5000	7	0	54	4	4.00 x 0.226	3 x 3 x 1/4	24.00 x 0.562	2.9543
5	/	22.5000	7	0	54	4	4.00 x 0.226	3 x 3 x 1/4	24.00 x 0.562	2.9543
6	/	22.5000	7	0	54	4	4.00 x 0.226	3 x 3 x 1/4	24.00 x 0.562	2.9543

NOTES:
1. Work these Data Tables with Index 700-040.
2. Design Wind Speed = 150 mph.
3. Upright wall thickness given is a minimum dimension.
4. Install handhole at the base of all poles as detailed in Index 700-090.
5. Install threaded couplings for power and communications as shown in Pinellas County Dynamic Message Sign Details Index I.D. 1730.

FOUNDATION NOTES:
1. Design based on Borings taken by MC Squared, Inc. and sealed by Jeffery L. Hooks, P.E.
2. Assumptions and Values used in design:
   Soil Type Silty Sand
   Soil Layer Thickness = Full Depth.
   Soil Friction Angle = 29 deg.
   Soil Weight = 105 pcf
   Design Water Table is 0 ft. below surface
3. Install Drilled Shaft with a 6" minimum from top elevation of the drill shaft to the finished grade.
4. The shaft length is based on 6" height above finished grade.

CANTILEVER SIGN STRUCTURES DATA TABLE (CONT.)

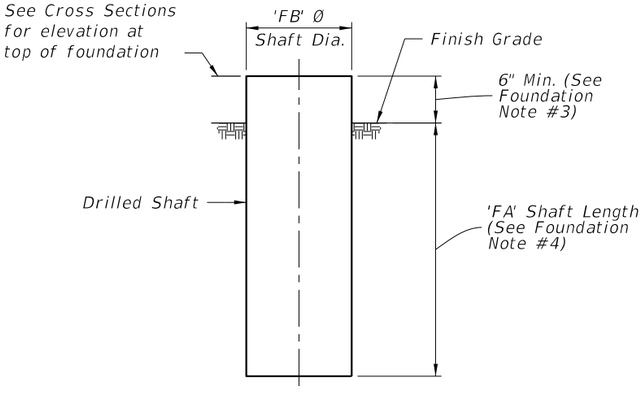
Table Date 01-01-11

SIGN NO.	GUSSET PLATES GA	GB	GC		GD		GE		GF		GG		GH		GJ		GK	TRUSS CONNECTION TA	TB	TC	TD	TE	TF	TG	TH	TJ	SPLICE SA	SB	SC	SD
	in	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	in	in	#	#	in	in	in	in	in	in	Angle (in)	#	in	#
1	3/8	5/8	1	1-3/4		6		11-1/2		5	1	1/4		5-1/2		10-1/4	1/8	7/8	6	6	1/2	1/2	3/16	3/16	1/8	1/8	NO SPLICE	NA	NA	NA
4	3/8	5/8	1	1-3/4		6		11-1/2		5	1	1/4		5-1/2		10-1/4	1/8	7/8	6	6	1/2	1/2	3/16	3/16	1/8	1/8	NO SPLICE	NA	NA	NA
5	3/8	5/8	1	1-3/4		6		11-1/2		5	1	1/4		5-1/2		10-1/4	1/8	7/8	6	6	1/2	1/2	3/16	3/16	1/8	1/8	NO SPLICE	NA	NA	NA
6	3/8	5/8	1	1-3/4		6		11-1/2		5	1	1/4		5-1/2		10-1/4	1/8	7/8	6	6	1/2	1/2	3/16	3/16	1/8	1/8	NO SPLICE	NA	NA	NA

CANTILEVER SIGN STRUCTURES DATA TABLE (CONT.)

Table Date 07-01-15

SIGN NO.	BASE CONNECTION BA	BB	BC	BD	BE		BF	BG	BH	BJ	ANCHOR BK		FOOTING - DRILLED SHAFT FA		FB		FC	FD	FE	FF	FG
	in	#	in	in	ft	in	in	in	in	in	ft	in	ft	in	ft	in	# / Size	#	in	#	in
1	1-1/2	12	1-3/4	1/2	1	7-3/4	5/16	5/16	5/16	1/4	2	7	18	6	5	0	19 / 11	3	12	3	12
4	1-1/2	12	1-3/4	1/2	1	7-3/4	5/16	5/16	5/16	1/4	2	7	18	6	5	0	19 / 11	3	12	3	12
5	1-1/2	12	1-3/4	1/2	1	7-3/4	5/16	5/16	5/16	1/4	2	7	18	6	5	0	19 / 11	3	12	3	12
6	1-1/2	12	1-3/4	1/2	1	7-3/4	5/16	5/16	5/16	1/4	2	7	18	6	5	0	19 / 11	3	12	3	12



DRILLED SHAFT ELEVATION

REVISIONS	BY	DATE

DESIGNED PF
DRAWN AAM
CHECKED CPG

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT: PINELLAS COUNTY ATMS — US 19A South From US 19 to SR 60

DESCRIPTION: CANTILEVER SIGN STRUCTURES DATA TABLE

APPROVED BY:
CHRISTOPHER P. GAMACHE, P.E.
FLA. REG. NO. 82122

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 70 OF 84

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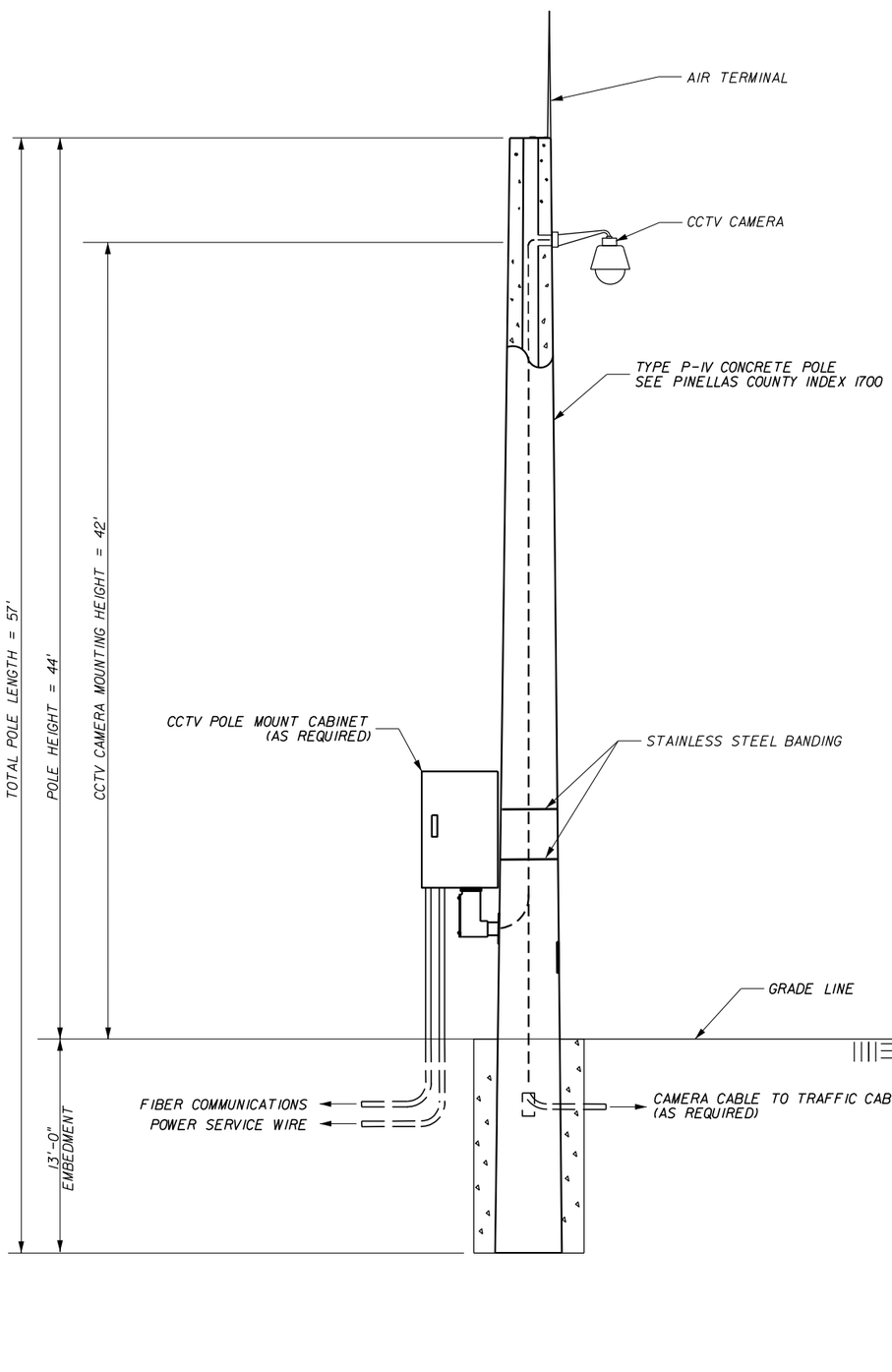


CONCRETE SQUARE CCTV CAMERA POLE DATA TABLE					
EXPOSED POLE LENGTH (ft)	GRADE SLOPE	POLE TIP WIDTH (in)	TOTAL POLE TAPER (in/ft)	EMBEDMENT DEPTH (ft)	TOTAL POLE LENGTH (ft)
44	N/A	8.5	0.162	13	57

CCTV POLE DESIGN NOTES:

1. WORK THIS SHEET WITH PINELLAS COUNTY CONCRETE SQUARE CCTV CAMERA POLE DETAIL INDEX I.D.1700.

CONCRETE CCTV POLE DETAILS
N.T.S

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

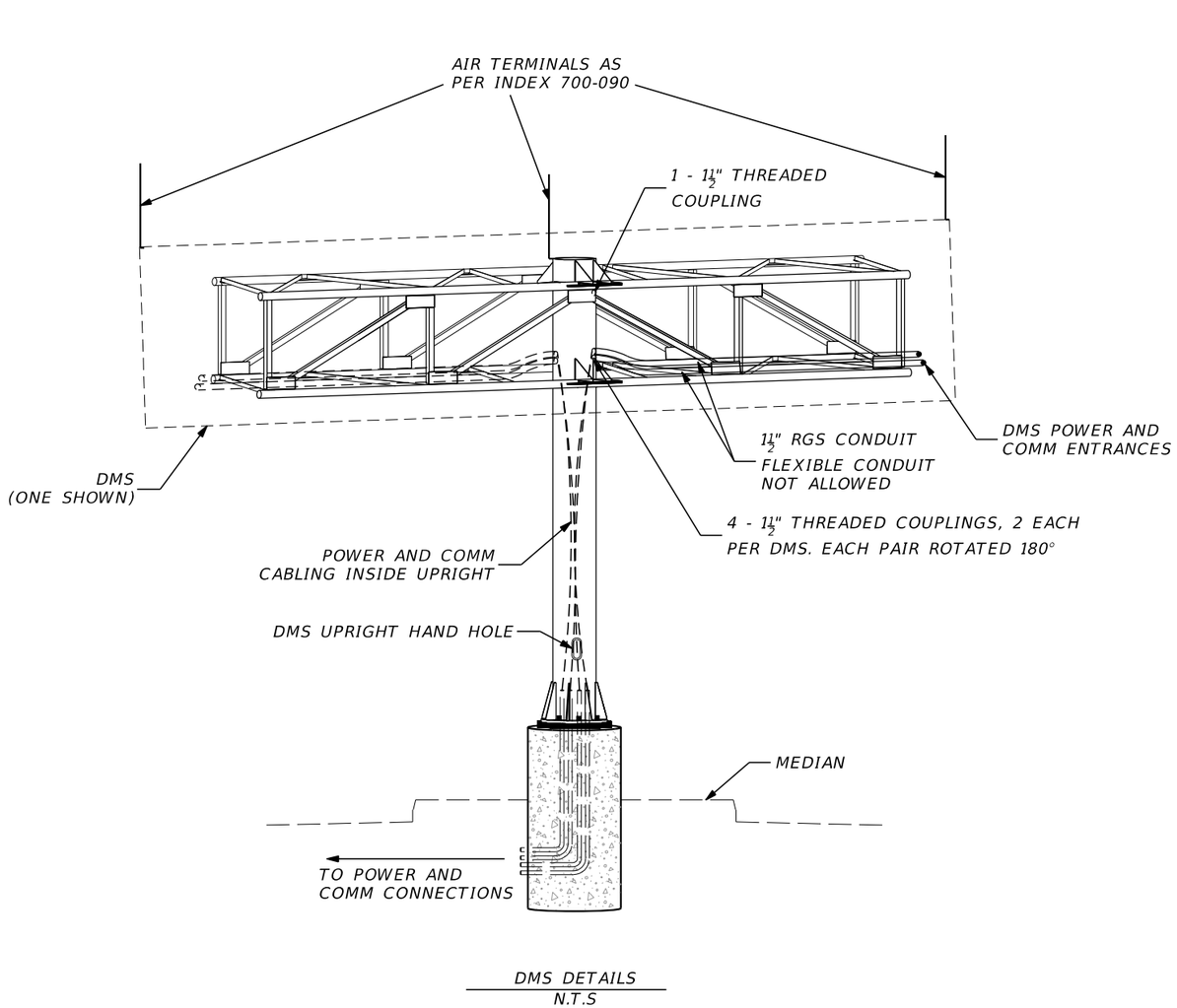
PROJECT: PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION: CCTV POLE DETAILS

APPROVED BY:
CHRISTOPHER P. GAMACHE, P.E.
FLA. REG. NO. 82122

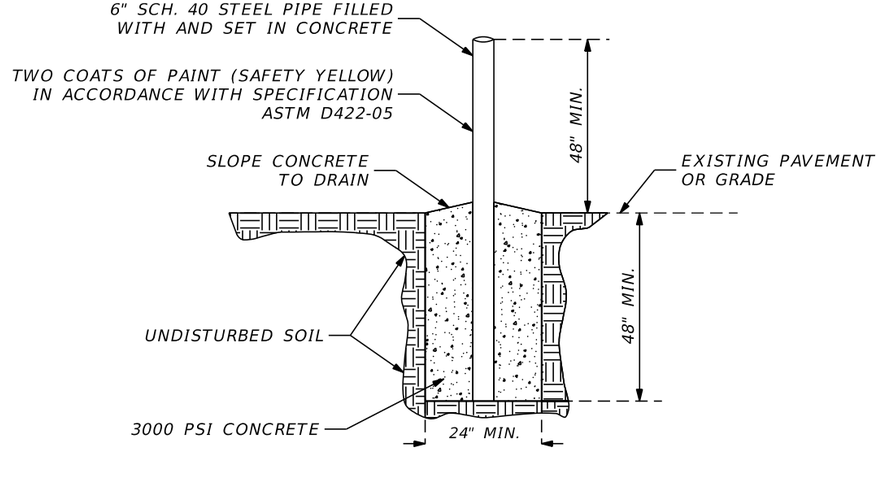
DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 71 OF 84

howard.holley 7/18/2018 11:03:32 AM J:\JOB\0020\00020-180-05\MS\434891\5801\CCTVDET01.dgn

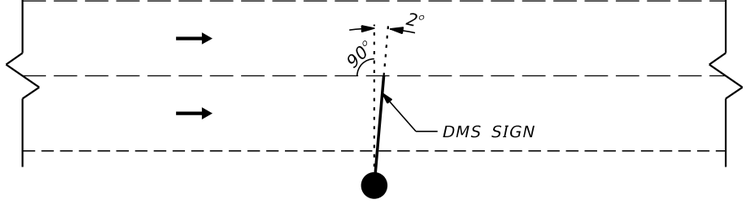


DMS DETAILS
N.T.S

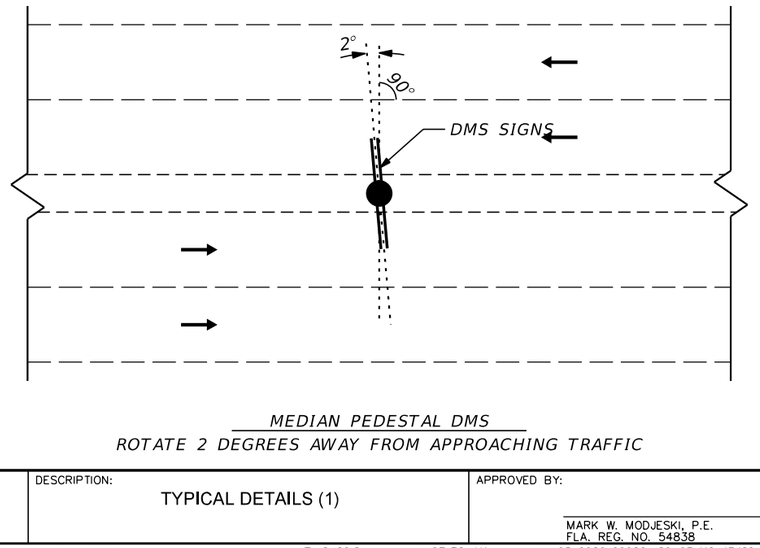
NOTES:
1. THE CONTRACTOR SHALL FURNISH SPECIFIC MOUNTING HARDWARE AS PART OF THE INSTALLATION PAY ITEM(S). SEE PAY ITEM NOTES FOR MORE INFORMATION.



BOLLARD DETAIL



ROADSIDE CANTILEVER DMS
ROTATE 2 DEGREES AWAY FROM APPROACHING TRAFFIC



MEDIAN PEDESTAL DMS
ROTATE 2 DEGREES AWAY FROM APPROACHING TRAFFIC

REVISIONS	BY	DATE
	HBH	5/22/18

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

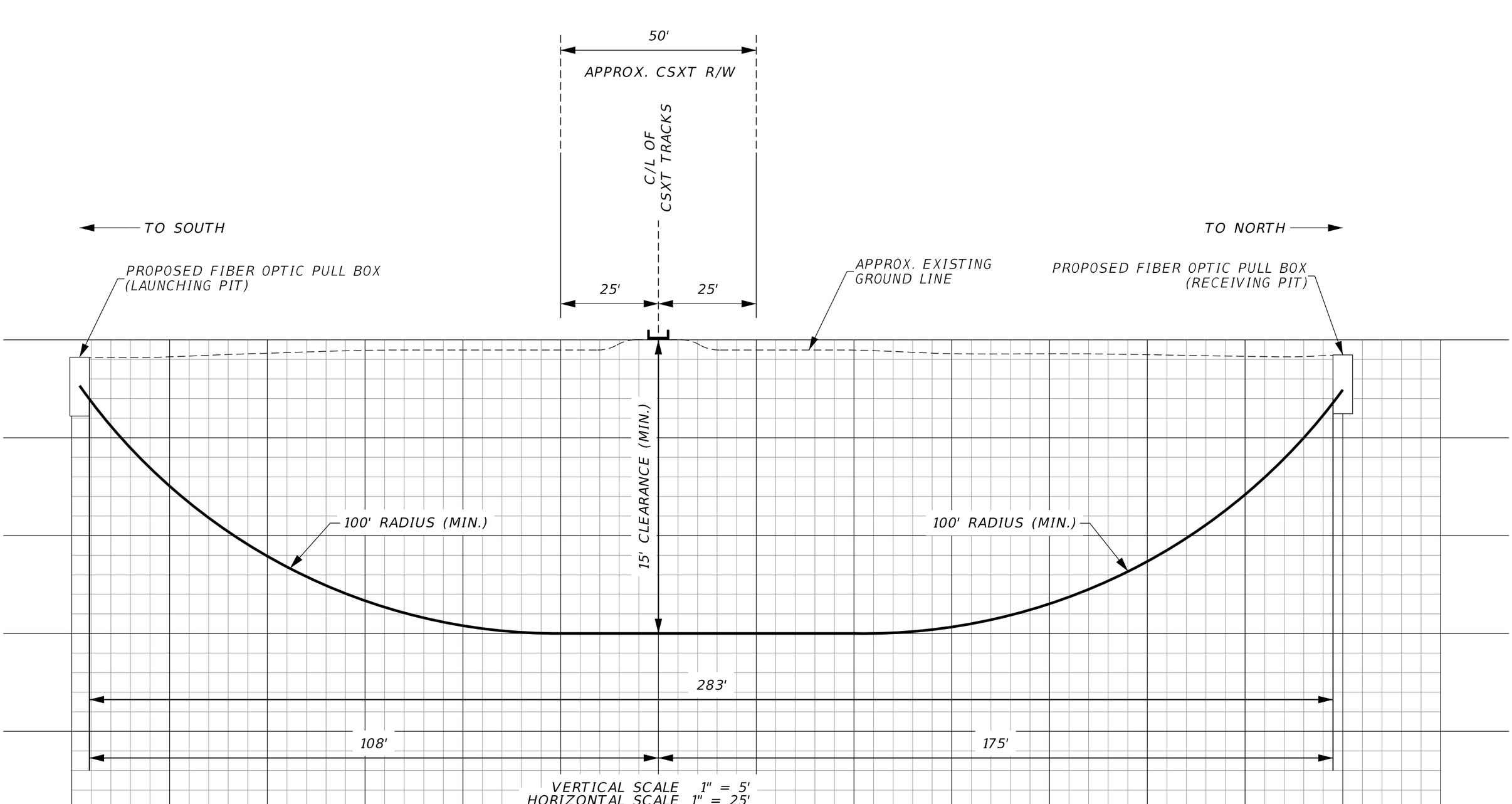
PROJECT: PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION: TYPICAL DETAILS (1)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 72 OF 84

howard.holley 7/18/2018 11:03:32 AM J:\JOB\0020\00020-180-05\MS\43489111801\TypDetail103.dgn



REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT:
PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION:
TYPICAL DETAILS (2)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 73 OF 84

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Summary of Soil Parameters
US 19A CCTV/DMS Design Services (US 19 to SR 60)
Pinellas County, Florida
MC² Project No. T041615.082

Depth (ft)	N Value Range	Soil Classification	Average Unit Weight (γ)**		Angle of Internal Friction ø ** (degrees)	Earth Pressure Coefficients*		Average Undrained Cohesion C_u** (psf)
			Saturated (pcf)	Submerged (pcf)		Active (K_a)	Passive (K_p)	
DMS 1								
0-6	3	SP, SP-SM	100.0	37.6	28	0.361	2.77	0
6-13.5	14-16	SP-SM	110.0	47.6	30	0.333	3.00	0
13.5-30	41-50+	SP-SM	125.0	62.6	34	0.283	3.54	0

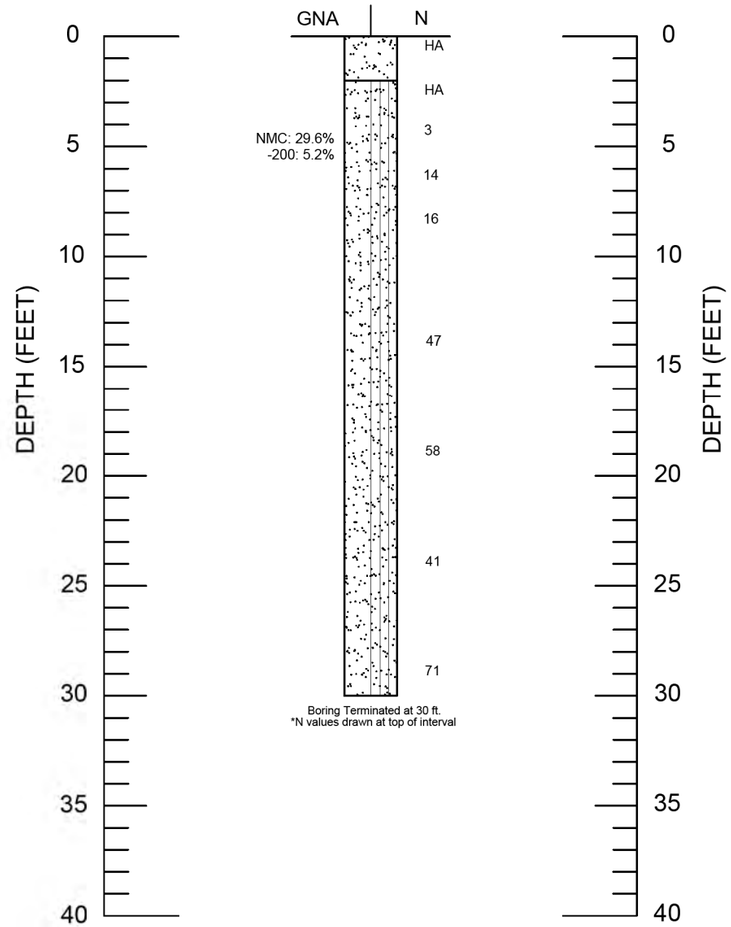
*Values are for level (non-sloping) backfill; no surcharge loads on backfill

**Based on empirical correlations

NOTE: Hand augers were performed in the top 4 feet at all test boring locations to avoid utilities

Source: Google Earth
Image Date: 9/14/17

BORING NO. DMS-01
DATE: 9/18/17



LEGEND

- Brown to yellowish brown, grayish brown, pale brown, very dark brown, poorly graded fine SAND with silt (SP-SM)
- Grayish brown, dark to light gray, clayey fine SAND (SC)
- Light grayish brown to very pale brown, yellowish brown, white, fine SAND (SP)
- Grayish brown, poorly graded fine SAND with clay (SP-SC)
- Very dark brown, grayish brown, silty fine SAND (SM)
- Greenish to light greenish gray, sandy CLAY (CL)
- Concrete
- Limerock based fill material

NOTES:

- WATER TABLE
- HA HAND AUGER
- NMC NATURAL MOISTURE CONTENT (%)
- -200 FINES PASSING A NO. 200 SIEVE (%)
- GNA GROUNDWATER NOT APPARENT

GRANULAR MATERIALS- RELATIVE DENSITY	SPT N-VALUES
VERY LOOSE	0-4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50
SILTS AND CLAYS CONSISTENCY	**SPT N-VALUES**
VERY SOFT	0-2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30

DATE	NAME	REVISION	APPROVED BY:

MC² Geotechnical • Environmental Materials Testing

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FLORIDA ENGINEERING CERTIFICATE OF AUTHORIZATION No. 9191
Joseph H. Di Stefano, P.E.
FLORIDA LICENSE No. 31936

	NAME	DATE
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DRAWN BY:	TC	09/28/2017
CHECKED BY:	WS	09/29/2017
SUPERVISED BY:	JD	

Report of Core Borings DMS-01

US 19A South CCTV/DMS Design Services (US 19 to SR 60)
Pinellas County, Florida

MC² PROJ. NO.: T041615.082

SHEET NO.: 74 OF 84

Summary of Soil Parameters US 19A CCTV/DMS Design Services (US 19 to SR 60) Pinellas County, Florida MC² Project No. T041615.082								
Depth (ft)	N Value Range	Soil Classification	Average Unit Weight (γ)**		Angle of Internal Friction ø ** (degrees)	Earth Pressure Coefficients*		Average Undrained Cohesion C_u** (psf)
			Saturated (pcf)	Submerged (pcf)		Active (K_a)	Passive (K_p)	
DMS 2/3								
0-10	5-12	SP, SP-SM	105.0	42.6	29	0.347	2.88	0
10-28.5	7-12	SP-SC, SC	110.0	47.6	30	0.333	3.00	0
28.5-30	50+	SC	125.0	62.6	34	0.283	3.54	0

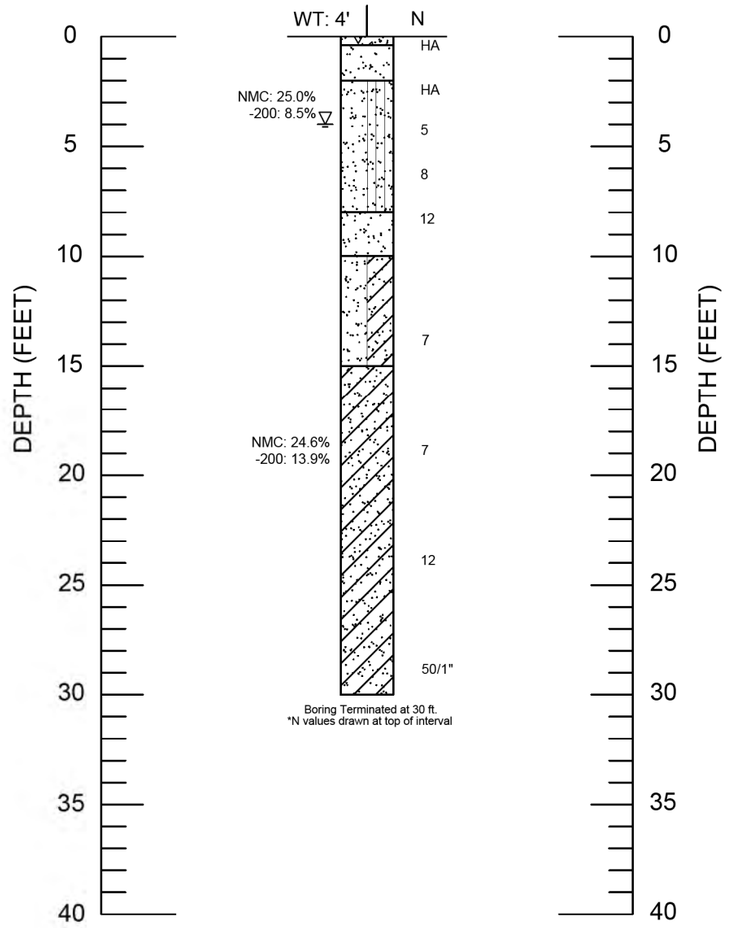
*Values are for level (non-sloping) backfill; no surcharge loads on backfill

**Based on empirical correlations

NOTE: Hand augers were performed in the top 4 feet at all test boring locations to avoid utilities

Source: Google Earth
Image Date: 1/11/17

BORING NO. DMS-02/03
DATE: 9/19/17



LEGEND

- Brown to yellowish brown, grayish brown, pale brown, very dark brown, poorly graded fine SAND with silt (SP-SM)
- Grayish brown, dark to light gray, clayey fine SAND (SC)
- Light grayish brown to very pale brown, yellowish brown, white, fine SAND (SP)
- Grayish brown, poorly graded fine SAND with clay (SP-SC)
- Very dark brown, grayish brown, silty fine SAND (SM)
- Greenish to light greenish gray, sandy CLAY (CL)
- Concrete
- Limerock based fill material

NOTES:

- WATER TABLE
- HA HAND AUGER
- NMC NATURAL MOISTURE CONTENT (%)
- -200 FINES PASSING A NO. 200 SIEVE (%)
- GNA GROUNDWATER NOT APPARENT

GRANULAR MATERIALS- RELATIVE DENSITY	SPT N-VALUES
VERY LOOSE	<4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50
SILTS AND CLAYS CONSISTENCY	**SPT N-VALUES**
VERY SOFT	<2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30

DATE	NAME	REVISION	APPROVED BY:

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	NAME	DATE
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DRAWN BY:	TC	09/28/2017
CHECKED BY:	WS	09/29/2017
SUPERVISED BY:	JD	

Report of Core Borings DMS-02/03

US 19A South CCTV/DMS Design Services (US 19 to SR 60)
Pinellas County, Florida

MC² PROJ. NO. T041615.082

SHEET NO. 75 OF 84

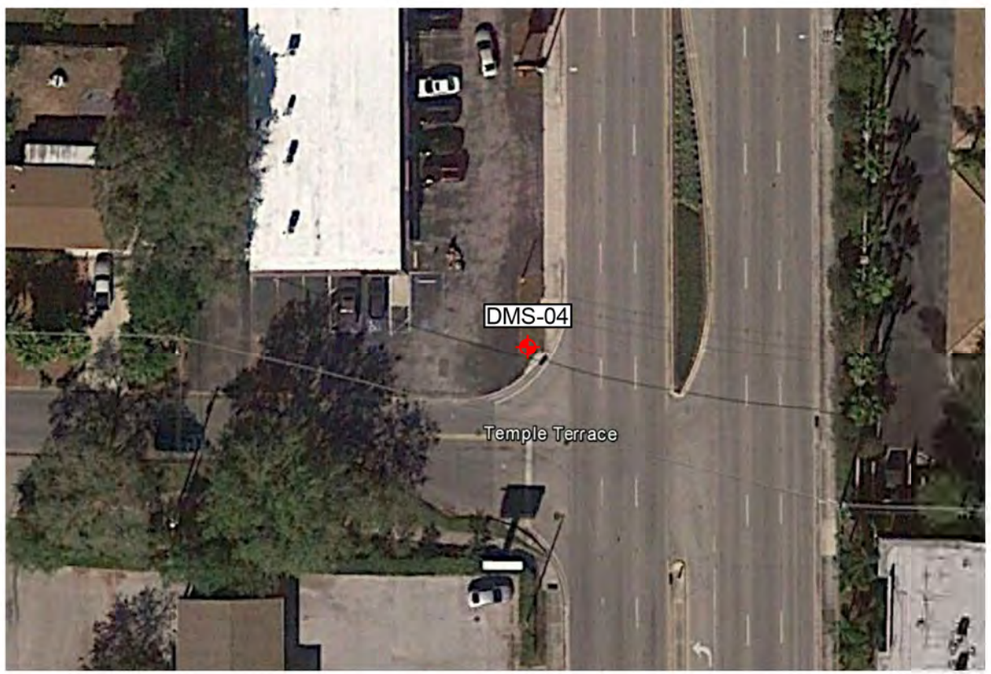
Summary of Soil Parameters
US 19A CCTV/DMS Design Services (US 19 to SR 60)
Pinellas County, Florida
MC² Project No. T041615.082

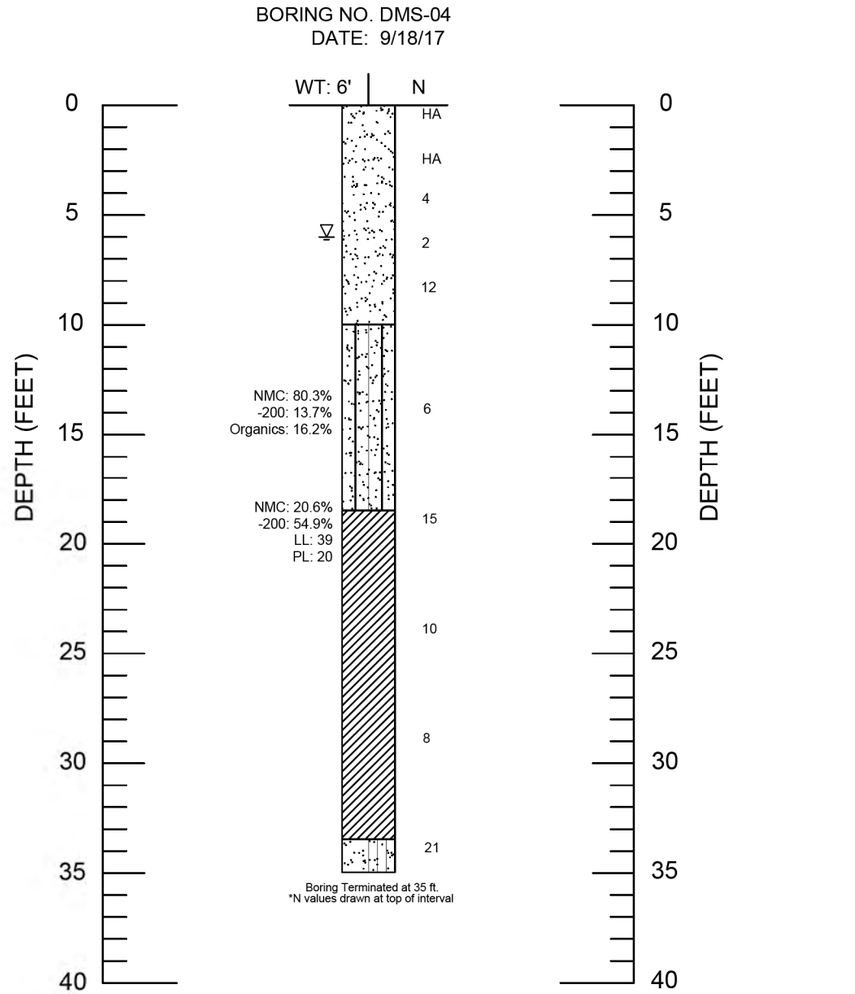
Depth (ft)	N Value Range	Soil Classification	Average Unit Weight (γ)**		Angle of Internal Friction Ø ** (degrees)	Earth Pressure Coefficients*		Average Undrained Cohesion C_u ** (psf)
			Saturated (pcf)	Submerged (pcf)		Active (K_a)	Passive (K_p)	
DMS 4								
0-18.5	2-12	SP, SP-SM, SM	105.0	42.6	29	0.347	2.88	0
18.5-33.5	8-15	CL	120.0	27.6	0	1.000	1.00	1200
33.5-35	21	SP-SM	115.0	52.6	32	0.307	3.25	0

*Values are for level (non-sloping) backfill; no surcharge loads on backfill

**Based on empirical correlations

NOTE: Hand augers were performed in the top 4 feet at all test boring locations to avoid utilities





LEGEND

- Brown to yellowish brown, grayish brown, pale brown, very dark brown, poorly graded fine SAND with silt (SP-SM)
- Grayish brown, dark to light gray, clayey fine SAND (SC)
- Light grayish brown to very pale brown, yellowish brown, white, fine SAND (SP)
- Grayish brown, poorly graded fine SAND with clay (SP-SC)
- Very dark brown, grayish brown, silty fine SAND (SM)
- Greenish to light greenish gray, sandy CLAY (CL)
- Concrete
- Limerock based fill material

NOTES:

- ▽ WATER TABLE
- HA HAND AUGER
- NMC NATURAL MOISTURE CONTENT (%)
- -200 FINES PASSING A NO. 200 SIEVE (%)
- GNA GROUNDWATER NOT APPARENT

GRANULAR MATERIALS- RELATIVE DENSITY	SPT N-VALUES
VERY LOOSE	≤ 4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50
SILTS AND CLAYS CONSISTENCY	**SPT N-VALUES**
VERY SOFT	≤ 2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30

DATE	NAME	REVISION	APPROVED BY:

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DESIGNED BY:	TC	09/28/2017
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CHECKED BY:	WS	09/29/2017
SUPERVISED BY:	JD	

Report of Core Borings DMS-04

US 19A South CCTV/DMS Design Services (US 19 to SR 60)
Pinellas County, Florida

MC² PROJ. NO.: T041615.082

SHEET NO.: 76 OF 84

Summary of Soil Parameters
US 19A CCTV/DMS Design Services (US 19 to SR 60)
Pinellas County, Florida
MC² Project No. T041615.082

Depth (ft)	N Value Range	Soil Classification	Average Unit Weight (γ)**		Angle of Internal Friction Ø ** (degrees)	Earth Pressure Coefficients*		Average Undrained Cohesion C_u** (psf)
			Saturated (pcf)	Submerged (pcf)		Active (K_a)	Passive (K_p)	
DMS 5								
0-8	8	SP	100.0	37.6	28	0.361	2.77	0
8-18.5	16	SP, SP-SM	110.0	47.6	30	0.333	3.00	0
18.5-20	50+	SP-SM	125.0	62.6	34	0.283	3.54	0
20-30	0-3	SP-SM, SP-SC	100.0	37.6	28	0.361	2.77	0
30-36.5	50+	SC	125.0	62.6	34	0.283	3.54	0

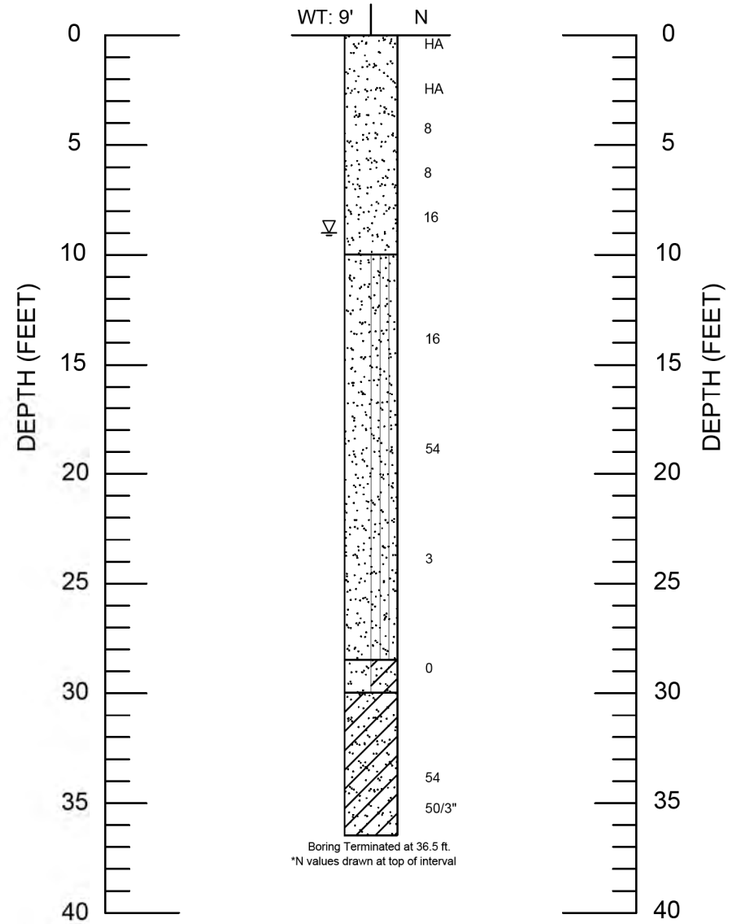
*Values are for level (non-sloping) backfill; no surcharge loads on backfill

**Based on empirical correlations

NOTE: Hand augers were performed in the top 4 feet at all test boring locations to avoid utilities

Source: Google Earth
Image Date: 1/11/17

BORING NO. DMS-05
DATE: 9/19/17



LEGEND

- Brown to yellowish brown, grayish brown, pale brown, very dark brown, poorly graded fine SAND with silt (SP-SM)
- Grayish brown, dark to light gray, clayey fine SAND (SC)
- Light grayish brown to very pale brown, yellowish brown, white, fine SAND (SP)
- Grayish brown, poorly graded fine SAND with clay (SP-SC)
- Very dark brown, grayish brown, silty fine SAND (SM)
- Greenish to light greenish gray, sandy CLAY (CL)
- Concrete
- Limerock based fill material

NOTES:

- WT — WATER TABLE
- HA — HAND AUGER
- NMC — NATURAL MOISTURE CONTENT (%)
- -200 — FINES PASSING A NO. 200 SIEVE (%)
- GNA — GROUNDWATER NOT APPARENT

GRANULAR MATERIALS- RELATIVE DENSITY	SPT N-VALUES
VERY LOOSE	< 4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50
SILTS AND CLAYS CONSISTENCY	**SPT N-VALUES**
VERY SOFT	< 2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30

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CHECKED BY:	WS	09/29/2017
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Report of Core Borings DMS-05

US 19A South CCTV/DMS Design Services (US 19 to SR 60)
Pinellas County, Florida

MC² PROJ. NO.: T041615.082

SHEET NO.: 77 OF 84

Summary of Soil Parameters US 19A CCTV/DMS Design Services (US 19 to SR 60) Pinellas County, Florida MC² Project No. T041615.082								
Depth (ft)	N Value Range	Soil Classification	Average Unit Weight (γ)**		Angle of Internal Friction ø ** (degrees)	Earth Pressure Coefficients*		Average Undrained Cohesion C_u** (psf)
			Saturated (pcf)	Submerged (pcf)		Active (K_a)	Passive (K_p)	
DMS 6								
0-20	5-8	SP, SP-SM, SP-SC	105.0	42.6	29	0.347	2.88	0
20-33.5	2-3	SM, SC	100.0	37.6	26	0.391	2.56	0
33.5-35	50+	SP-SM	125.0	62.6	34	0.283	3.54	0

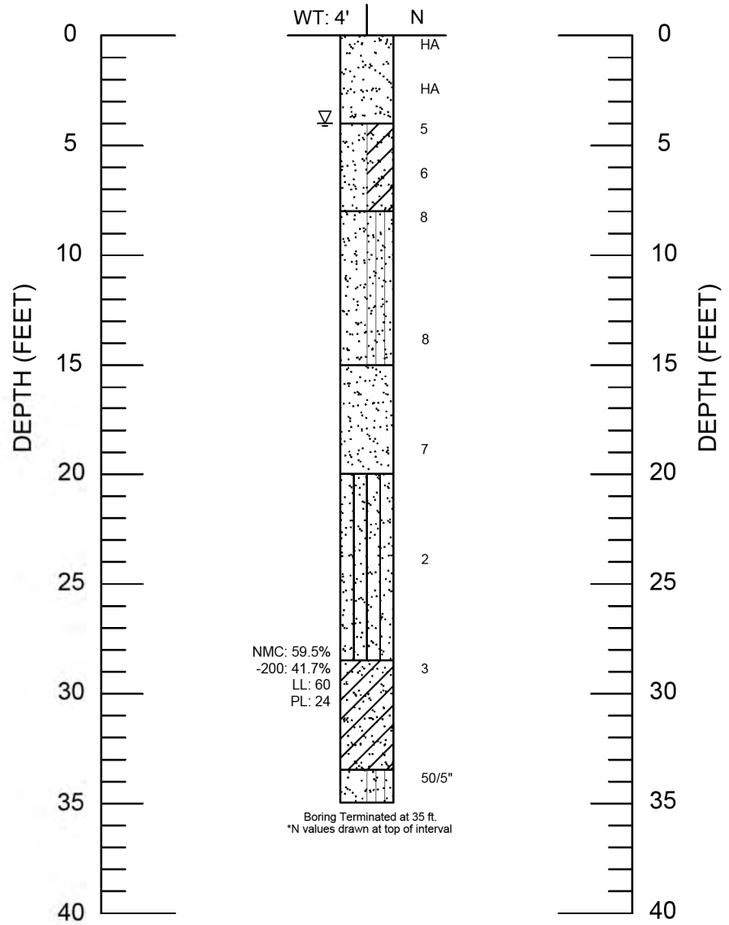
*Values are for level (non-sloping) backfill; no surcharge loads on backfill

**Based on empirical correlations

NOTE: Hand augers were performed in the top 4 feet at all test boring locations to avoid utilities

Source: Google Earth
Image Date: 1/11/17

BORING NO. DMS-06
DATE: 9/18/17



LEGEND

- Brown to yellowish brown, grayish brown, pale brown, very dark brown, poorly graded fine SAND with silt (SP-SM)
- Grayish brown, dark to light gray, clayey fine SAND (SC)
- Light grayish brown to very pale brown, yellowish brown, white, fine SAND (SP)
- Grayish brown, poorly graded fine SAND with clay (SP-SC)
- Very dark brown, grayish brown, silty fine SAND (SM)
- Greenish to light greenish gray, sandy CLAY (CL)
- Concrete
- Limerock based fill material

NOTES:

- WATER TABLE
- HA HAND AUGER
- NMC NATURAL MOISTURE CONTENT (%)
- -200 FINES PASSING A NO. 200 SIEVE (%)
- GNA GROUNDWATER NOT APPARENT

GRANULAR MATERIALS- RELATIVE DENSITY	SPT N-VALUES
VERY LOOSE	≤ 4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50
SILTS AND CLAYS CONSISTENCY	SPT N-VALUES
VERY SOFT	≤ 2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

DATE	NAME	REVISION	APPROVED BY:

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DESIGNED BY:	TC	09/28/2017
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CHECKED BY:	WS	09/29/2017
SUPERVISED BY:	JD	

Report of Core Borings DMS-06

US 19A South CCTV/DMS Design Services (US 19 to SR 60)
Pinellas County, Florida

MC² PROJ. NO. T041615.082

SHEET NO. 78 OF 84

Summary of Soil Parameters
US 19A CCTV/DMS Design Services (US 19 to SR 60)
Pinellas County, Florida
MC² Project No. T041615.082

Depth (ft)	N Value Range	Soil Classification	Average Unit Weight (γ)**		Angle of Internal Friction Ø ** (degrees)	Earth Pressure Coefficients*		Average Undrained Cohesion, S_u** (psf)
			Saturated (pcf)	Submerged (pcf)		Active (K_a)	Passive	
DMS 7/8								
0-13.5	5-12	SP, SP-SM	105.0	42.6	29	0.347	2.88	0
13.5-30	50+	SP-SM	125.0	62.6	34	0.283	3.54	0

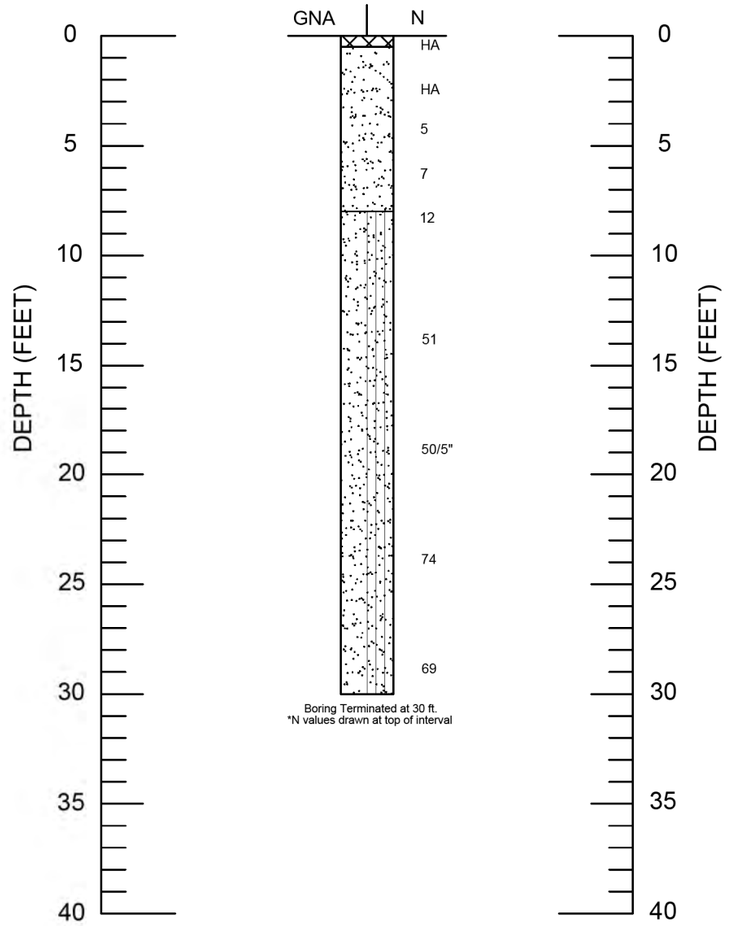
*Values are for level (non-sloping) backfill; no surcharge loads on backfill

**Based on empirical correlations

NOTE: Hand augers were performed in the top 4 feet at all test boring locations to avoid utilities

Source: Google Earth
Image Date: 9/14/17

BORING NO. DMS-07/08
DATE: 9/19/17



LEGEND

- Brown to yellowish brown, grayish brown, pale brown, very dark brown, poorly graded fine SAND with silt (SP-SM)
- Grayish brown, dark to light gray, clayey fine SAND (SC)
- Light grayish brown to very pale brown, yellowish brown, white, fine SAND (SP)
- Grayish brown, poorly graded fine SAND with clay (SP-SC)
- Very dark brown, grayish brown, silty fine SAND (SM)
- Greenish to light greenish gray, sandy CLAY (CL)
- Concrete
- Limerock based fill material

NOTES:

- ▼ WATER TABLE
- HA HAND AUGER
- NMC NATURAL MOISTURE CONTENT (%)
- -200 FINES PASSING A NO. 200 SIEVE (%)
- GNA GROUNDWATER NOT APPARENT

GRANULAR MATERIALS- RELATIVE DENSITY	SPT N-VALUES
VERY LOOSE	≤ 4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50
SILTS AND CLAYS CONSISTENCY	**SPT N-VALUES**
VERY SOFT	≤ 2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

DATE	NAME	REVISION	APPROVED BY:

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DESIGNED BY:	TC	09/28/2017
DRAWN BY:	TC	09/28/2017
CHECKED BY:	WS	09/29/2017
SUPERVISED BY:	JD	

Report of Core Borings DMS-07/08

US 19A South CCTV/DMS Design Services (US 19 to SR 60)
Pinellas County, Florida

MC² PROJ. NO. T041615.082

SHEET NO. 79 OF 84

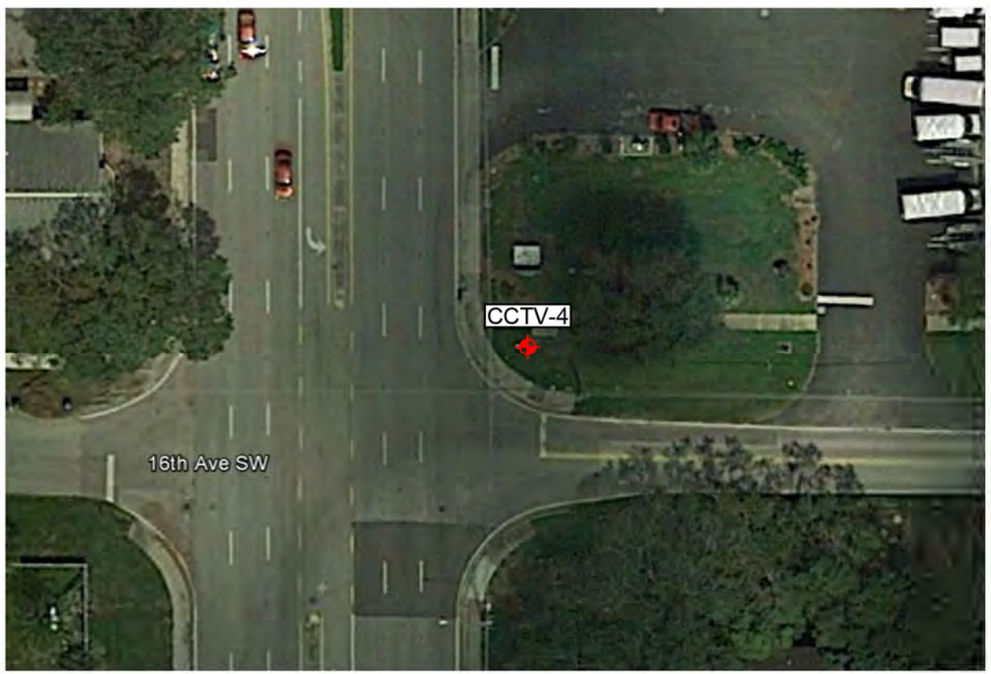
Summary of Soil Parameters
US 19A CCTV/DMS Design Services (US 19 to SR 60)
Pinellas County, Florida
MC² Project No. T041615.082

Depth (ft)	N Value Range	Soil Classification	Average Unit Weight (γ)**		Angle of Internal Friction ø ** (degrees)	Earth Pressure Coefficients*		Average Undrained Cohesion C_u ** (psf)
			Saturated (pcf)	Submerged (pcf)		Active (K_a)	Passive (K_p)	
CCTV 4								
0-6	6	SP-SM	105.0	42.6	29	0.347	2.88	0
6-20	33-50+	SP-SM	120.0	57.6	33	0.295	3.39	0

*Values are for level (non-sloping) backfill; no surcharge loads on backfill

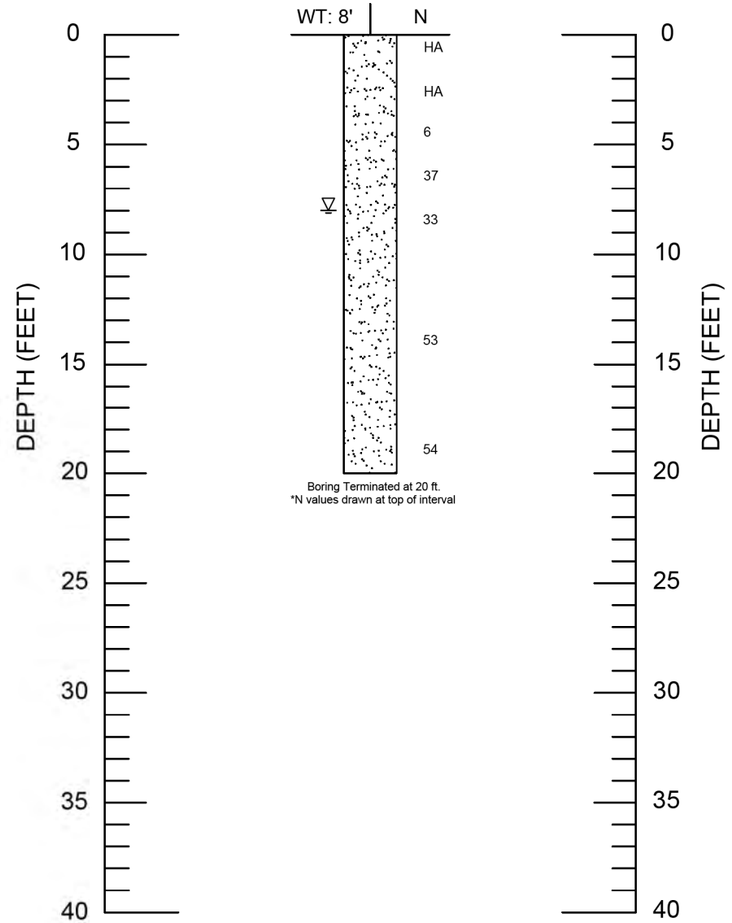
**Based on empirical correlations

NOTE: Hand augers were performed in the top 4 feet at all test boring locations to avoid utilities



Source: Google Earth
Image Date: 9/14/17

BORING NO. CCTV-4
DATE: 10/03/17



LEGEND

- Brown to yellowish brown, grayish brown, pale brown, very dark brown, poorly graded fine SAND with silt (SP-SM)
- Grayish brown, dark to light gray, clayey fine SAND (SC)
- Light grayish brown to very pale brown, yellowish brown, white, fine SAND (SP)
- Grayish brown, poorly graded fine SAND with clay (SP-SC)
- Very dark brown, grayish brown, silty fine SAND (SM)
- Greenish to light greenish gray, sandy CLAY (CL)
- Concrete
- Limerock based fill material

NOTES:

- WATER TABLE
- HA HAND AUGER
- NMC NATURAL MOISTURE CONTENT (%)
- -200 FINES PASSING A NO. 200 SIEVE (%)
- GNA GROUNDWATER NOT APPARENT

GRANULAR MATERIALS- RELATIVE DENSITY	SPT N-VALUES
VERY LOOSE	≤ 4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50
SILTS AND CLAYS CONSISTENCY	**SPT N-VALUES**
VERY SOFT	≤ 2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30

DATE	NAME	REVISION	APPROVED BY:

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	NAME	DATE
DESIGNED BY:	TC	09/28/2017
DRAWN BY:	TC	09/28/2017
CHECKED BY:	WS	09/29/2017
SUPERVISED BY:	JD	

Report of Core Borings CCTV-4

US 19A South CCTV/DMS Design Services (US 19 to SR 60)
Pinellas County, Florida

MC² PROJ. NO.: T041615.082

SHEET NO.: 80 OF 84

Summary of Soil Parameters
US 19A CCTV/DMS Design Services (US 19 to SR 60)
Pinellas County, Florida
MC² Project No. T041615.082

Depth (ft)	N Value Range	Soil Classification	Average Unit Weight (γ)**		Angle of Internal Friction Ø ** (degrees)	Earth Pressure Coefficients*		Average Undrained Cohesion C_u** (psf)
			Saturated (pcf)	Submerged (pcf)		Active (K_a)	Passive (K_p)	
CCTV 7								
0-13.5	6-12	SP, SP-SM	105.0	42.6	29	0.347	2.88	0
13.5-20	34-50+	SP-SM	125.0	62.6	34	0.283	3.54	0

*Values are for level (non-sloping) backfill; no surcharge loads on backfill

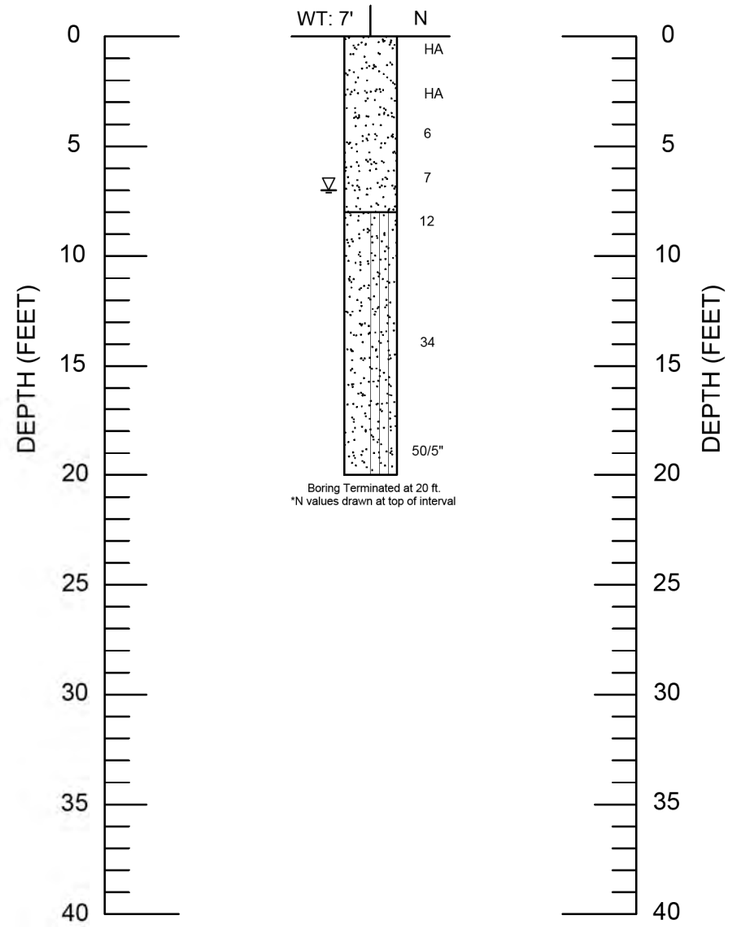
**Based on empirical correlations

NOTE: Hand augers were performed in the top 4 feet at all test boring locations to avoid utilities

0′ 50′ 100′
Graphic Scale (feet)

Source: Google Earth
Image Date: 9/14/17

BORING NO. CCTV-7
DATE: 9/19/17



LEGEND

- Brown to yellowish brown, grayish brown, pale brown, very dark brown, poorly graded fine SAND with silt (SP-SM)
- Grayish brown, dark to light gray, clayey fine SAND (SC)
- Light grayish brown to very pale brown, yellowish brown, white, fine SAND (SP)
- Grayish brown, poorly graded fine SAND with clay (SP-SC)
- Very dark brown, grayish brown, silty fine SAND (SM)
- Greenish to light greenish gray, sandy CLAY (CL)
- Concrete
- Limerock based fill material

NOTES:

- WATER TABLE
- HA HAND AUGER
- NMC NATURAL MOISTURE CONTENT (%)
- -200 FINES PASSING A NO. 200 SIEVE (%)
- GNA GROUNDWATER NOT APPARENT

GRANULAR MATERIALS- RELATIVE DENSITY	SPT N-VALUES
VERY LOOSE	≤ 4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50
SILTS AND CLAYS CONSISTENCY	**SPT N-VALUES**
VERY SOFT	≤ 2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30

DATE	NAME	REVISION	APPROVED BY:

MC² Geotechnical • Environmental Materials Testing

MC SQUARED, INC.
Geotechnical Consultants
5808-A Breckenridge Parkway
Tampa, FL 33610
Ph:813-623-3399 Fax:813-623-6636

FLORIDA ENGINEERING CERTIFICATE OF AUTHORIZATION No. 9191
Joseph H. Di Stefano, P.E.
FLORIDA LICENSE No. 31939

	NAME	DATE
DESIGNED BY:	TC	09/28/2017
DRAWN BY:	TC	09/28/2017
CHECKED BY:	WS	09/29/2017
SUPERVISED BY:	JD	

Report of Core Borings CCTV-7

US 19A South CCTV/DMS Design Services (US 19 to SR 60)
Pinellas County, Florida

MC² PROJ. NO.: T041615.082

SHEET NO.: 81 OF 84

Summary of Soil Parameters
US 19A CCTV/DMS Design Services (US 19 to SR 60)
Pinellas County, Florida
MC² Project No. T041615.082

Depth (ft)	N Value Range	Soil Classification	Average Unit Weight (γ)**		Angle of Internal Friction ϕ ** (degrees)	Earth Pressure Coefficients*		Average Undrained Cohesion C_u ** (psf)
			Saturated (pcf)	Submerged (pcf)		Active (K_a)	Passive (K_p)	
CCTV 10								
0-6	7	SP	105.0	42.6	29	0.347	2.88	0
6-13.5	15-16	SP, SP-SM	110.0	47.6	30	0.333	3.00	0
13.5-20	50+	SP-SM	125.0	62.6	34	0.283	3.54	0

*Values are for level (non-sloping) backfill; no surcharge loads on backfill

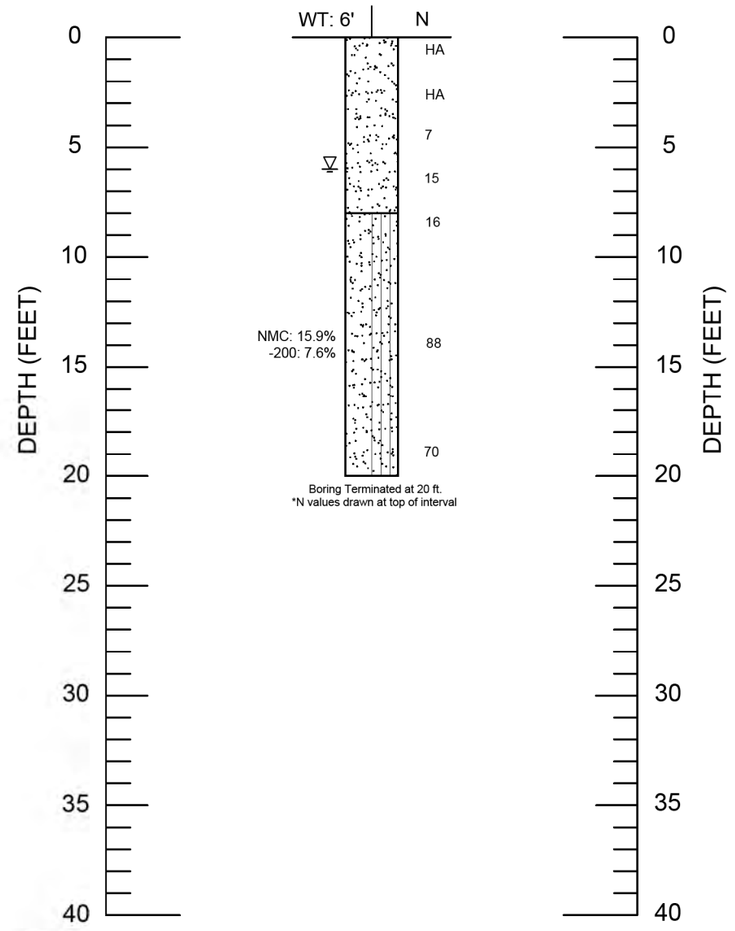
**Based on empirical correlations

NOTE: Hand augers were performed in the top 4 feet at all test boring locations to avoid utilities

0′ 50′ 100′
Graphic Scale (feet)

Source: Google Earth
Image Date: 9/14/17

BORING NO. CCTV-10
DATE: 9/19/17



LEGEND

- Brown to yellowish brown, grayish brown, pale brown, very dark brown, poorly graded fine SAND with silt (SP-SM)
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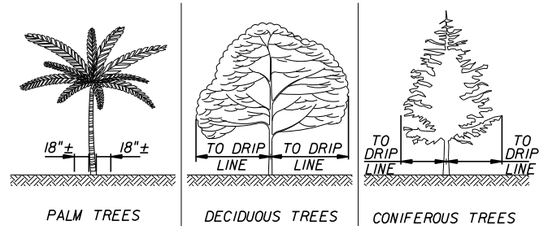
	NAME	DATE
DESIGNED BY:	TC	09/28/2017
DRAWN BY:	TC	09/28/2017
CHECKED BY:	WS	09/29/2017
SUPERVISED BY:	JD	

Report of Core Borings CCTV-10

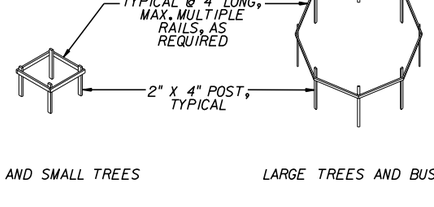
US 19A South CCTV/DMS Design Services (US 19 to SR 60)
Pinellas County, Florida

MC² PROJ. NO.: T041615.082

SHEET NO.: 82 OF 84



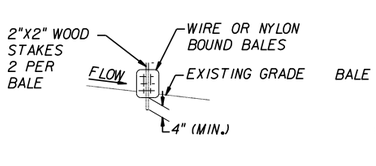
PALM TREES | DECIDUOUS TREES | CONIFEROUS TREES



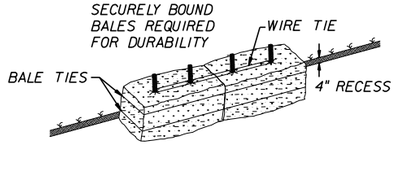
PALM AND SMALL TREES | LARGE TREES AND BUSHES

NOTES:
1. NO TRUCKS OR HEAVY EQUIPMENT ALLOWED WITHIN BARRIERS, ONLY HAND LABOR ALLOWED.
2. NO CONSTRUCTION MATERIALS, SOIL DEPOSITS, OR SOLVENTS SHALL BE ALLOWED WITHIN BARRIERS.
3. BARRIERS ARE TO BE IN PLACE PRIOR TO ANY CONSTRUCTION ACTIVITIES WITHIN TREE AREA.
4. BARRIERS ARE TO STAY IN PLACE UNTIL ALL PAVING, CONSTRUCTION, AND HEAVY EQUIPMENT IS REMOVED FROM THE AREA.

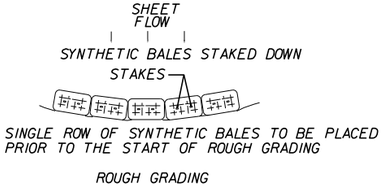
TREE PROTECTION BARRIERS DETAIL
NTS



SECTION

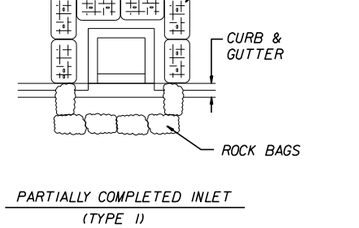


ANCHORING BALES

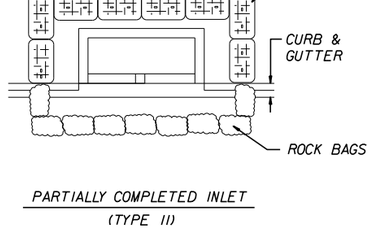


SINGLE ROW OF SYNTHETIC BALES TO BE PLACED PRIOR TO THE START OF ROUGH GRADING

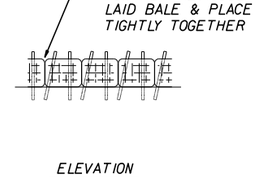
ROUGH GRADING



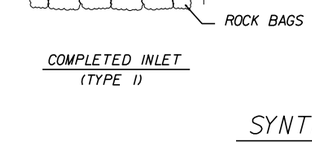
PARTIALLY COMPLETED INLET (TYPE I)



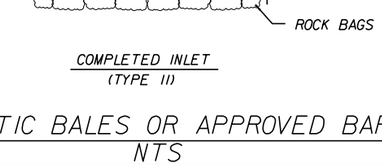
PARTIALLY COMPLETED INLET (TYPE II)



ELEVATION



COMPLETED INLET (TYPE I)

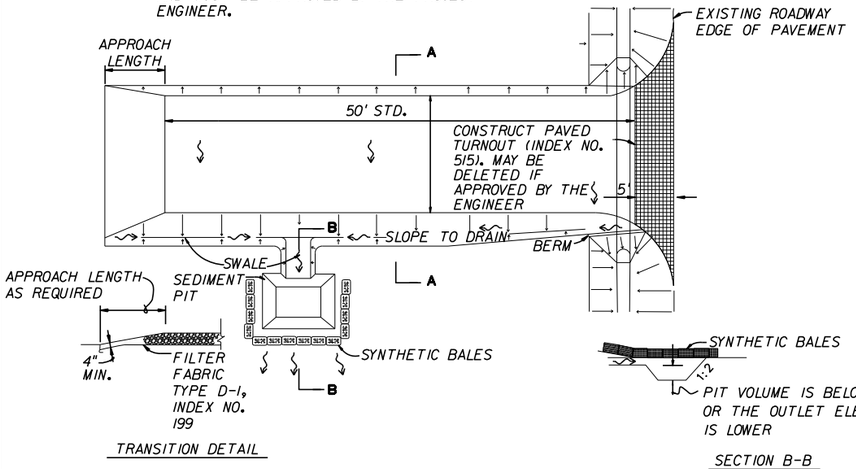


COMPLETED INLET (TYPE II)

DITCH BOTTOM INLET

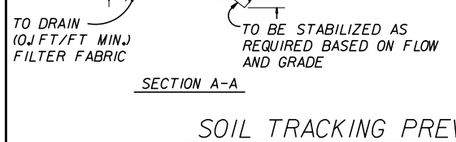
SYNTHETIC BALES OR APPROVED BARRIERS
NTS

NOTE: THESE DIMENSIONS ARE APPROXIMATE AND MUST BE APPROVED BY THE PROJECT ENGINEER.

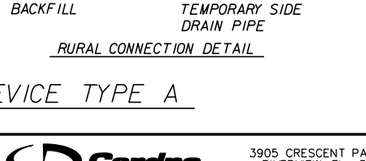


TRANSITION DETAIL

SECTION B-B



SECTION A-A



RURAL CONNECTION DETAIL

SOIL TRACKING PREVENTION DEVICE TYPE A
NTS

SOIL TRACKING PREVENTION DEVICE NOTES

1. A SOIL TRACKING PREVENTION DEVICE (STPD) SHALL BE CONSTRUCTED AT LOCATIONS DESIGNATED BY THE ENGINEER FOR POINTS OF EGRESS FROM UNSTABILIZED AREAS OF THE PROJECT TO PUBLIC ROADS WHERE OFF SITE TRACKING OF MUD COULD OCCUR. TRAFFIC FROM UNSTABILIZED AREAS OF THE CONSTRUCTION PROJECT SHALL BE DIRECTED THROUGH STPD BARRIERS. FLAGGING, OR OTHER POSITIVE MEANS SHALL BE USED AS REQUIRED TO LIMIT AND DIRECT VEHICULAR EGRESS ACROSS THE STPD.
2. THE CONTRACTOR MAY PROPOSE AN ALTERNATIVE TECHNIQUE TO MINIMIZE OFF SITE TRACKING OF SEDIMENT. THE ALTERNATIVE MUST BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO ITS USE.
3. ALL MATERIALS SPILLED, DROPPED, OR TRACKED ONTO PUBLIC ROADS (INCLUDING THE STPD AGGREGATE AND CONSTRUCTION MUD) SHALL BE REMOVED DAILY, OR MORE FREQUENTLY IF SO DIRECTED BY THE ENGINEER.
4. AGGREGATES SHALL BE DESCRIBED IN SECTION 901 EXCLUDING 901-2.3. AGGREGATES SHALL BE FDOT SIZE #1. IF THIS SIZE IS NOT AVAILABLE, THE NEXT AVAILABLE SMALLER SIZE AGGREGATE MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER. SIZES CONTAINING EXCESSIVE SMALL AGGREGATE WILL TRACK OFF THE PROJECT AND ARE NOT SUITABLE.
5. THE SEDIMENT PIT SHOULD PROVIDE A RETENTION VOLUME OF 3600 CUBIC FEET/ACRE OF SURFACE AREA DRAINING TO THE PIT. WHEN THE STPD IS ISOLATED FROM OTHER DRAINAGE AREAS, THE FOLLOWING PIT VOLUMES WILL SATISFY THIS REQUIREMENT:
   15'X50'=100 FT.3
   30'X50'=200 FT.3
   AS AN OPTION TO THE SEDIMENT PIT, THE WIDTH OF THE SWALE BOTTOM CAN BE INCREASED TO OBTAIN THE VOLUME. WHEN THE SEDIMENT PIT OR SWALE VOLUME HAS BEEN REDUCED TO ONE HALF, IT SHALL BE CLEANED. WHEN A SWALE IS USED, SYNTHETIC BALES OR SILT FENCE SHALL BE PLACED ALONG THE ENTIRE LENGTH.
6. THE SWALE DITCH DRAINING THE STPD SHALL HAVE A 0.2% MINIMUM AND A 1.0% MAXIMUM GRADE ALONG THE STPD AND TO THE SEDIMENT PIT.
7. MITERED END SECTIONS ARE NOT REQUIRED WHEN THE SIDE DRAIN PIPE SATISFIES THE CLEAR ZONE REQUIREMENTS.
8. THE STPD SHALL BE MAINTAINED IN A CONDITION THAT WILL ALLOW IT TO PERFORM ITS FUNCTION. TO PREVENT OFFSET TRACKING, THE STPD SHALL BE RINSED (DAILY WHEN IN USE) TO MOVE ACCUMULATED MUD DOWNWARD THROUGH THE STONE. ADDITIONAL STABILIZATION OF THE VEHICULAR ROUTE LEADING TO THE STPD MAY BE REQUIRED TO LIMIT MUD TRACKED.
9. A STPD SHALL BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR SOIL TRACKING PREVENTION DEVICE, EA. THE UNIT PRICE SHALL CONSTITUTE FULL COMPENSATION FOR CONSTRUCTION, MAINTENANCE, REPLACEMENT OF MATERIALS, REMOVAL, AND RESTORATION OF THE AREA UTILIZED FOR THE STPD; INCLUDING BUT NOT LIMITED TO EXCAVATION, GRADING, TEMPORARY PIPE (INCLUDING M.E.S. WHEN REQUIRED), FILTER FABRIC, AGGREGATE, PAVED TURNOUT (INCLUDING ASPHALT AND BASE CONSTRUCTION), DITCH STABILIZATION, APPROACH ROUTE STABILIZATION, SEDIMENT REMOVAL AND DISPOSAL, WATER, RINSING AND CLEANING OF THE STPD AND CLEANING OF PUBLIC ROADS, GRASSING AND SOD. SYNTHETIC BALES SHALL BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR HAY OR STRAW BALED, EA. SILT FENCE SHALL BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE, L.F.
10. THE NOMINAL SIZE OF A STANDARD STPD IS 15'X50' UNLESS OTHERWISE SHOWN IN THE PLANS. IF THE VOLUME OF ENTERING AND EXITING VEHICLES WARRANT, A 30' WIDTH STPD MAY BE USED IF APPROVED BY THE ENGINEER. WHEN A DOUBLE WIDTH (30') STPD IS USED, THE PAY QUANTITY SHALL BE 2 FOR EACH LOCATION.

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
CERTIFICATE OF AUTHORIZATION NO. 29915
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500

PROJECT: PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION: BEST MANAGEMENT PRACTICES (1)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 83 OF 84

howard.holley 7/18/2018 11:04:21 AM J:\JOB\0020\00020-180-05\MS\43489115801\BMP01.dgn

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SOIL AND EROSION AND SEDIMENT CONTROL PLAN NOTES

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTROL AND PREVENT EROSION AND THE TRANSPORTATION OF SEDIMENT TO SURFACE DRAINS AND OUTFALLS USING BEST MANAGEMENT PRACTICES. REFER TO CONSTRUCTION PLANS, DETAILS, SPECIFICATIONS AND APPROVED PERMITS FOR DETAILS. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN THEY REACH ONE HALF THE HEIGHT ON AN EROSION DEVICE OR AS DIRECTED BY THE ENGINEER.

2. DURING THE CONSTRUCTION OF DRAINAGE STRUCTURES, AND OTHER STRUCTURES REQUIRING EXCAVATION, THE CONTRACTOR SHALL PLACE APPROVED BARRIERS OR OTHER APPROVED DEVICES AROUND SUCH STRUCTURES TO PREVENT EROSION AND THE MIGRATION OF SEDIMENT TO POINTS OUTSIDE THE CONSTRUCTION AREA. THE APPROVED BARRIERS OR OTHER APPROVED DEVICES SHALL BE PLACED IN ACCORDANCE WITH REQUIREMENTS OF FLORIDA STORMWATER EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL, 2008, STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL, LATEST EDITION OR AS DIRECTED BY THE ENGINEER.

3. REQUIRED EROSION CONTROL MEASURES MUST REMAIN INTACT THROUGHOUT CONSTRUCTION. FAILURE TO INSTALL OR PROPERLY MAINTAIN REQUIRED EROSION CONTROL WILL RESULT IN ENFORCEMENT ACTION. ALL EROSION CONTROL MEASURES, SAND, SILT, AND DEBRIS SHALL BE REMOVED FROM ALL DRAINAGE PIPES AND STRUCTURES AFTER CONSTRUCTION HAS BEEN COMPLETED AND PRIOR TO COUNTY FINAL WALK-THROUGH.

4. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN SILT/TURBIDITY BARRIERS TO CONTROL EROSION AND SEDIMENT FROM TAKING PLACE OUTSIDE THE PROJECT LIMITS. THE SILT/TURBIDITY BARRIERS SHALL BE PLACED IN ACCORDANCE WITH REQUIREMENTS OF FLORIDA STORMWATER EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL, 2008, STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL, LATEST EDITION AND "PINELLAS COUNTY DEI STANDARD TECHNICAL SPECIFICATIONS FOR ROADWAY RELATED CONSTRUCTION" SECTION 104, THROUGHOUT THE DURATION OF THE PROJECT AND ALL ASPECTS OF CONSTRUCTION. ALL DAMAGED OR INEFFECTIVE EROSION CONTROL DEVICES SHALL BE REPLACED AT NO ADDITIONAL COST TO THE COUNTY.

5. EROSION CONTROL PLAN - ANY MODIFICATIONS TO THIS PLAN MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REPRESENTING THE CONTRACTOR. THESE MODIFICATIONS MUST BE APPROVED BY THE COUNTY AND THE PERMITTING AGENCY. NO CONTRACT DELAYS WILL BE ALLOWED FOR SUCH MODIFICATIONS OR APPROVALS.

6. OUTFALL PROTECTION - PROJECT PIPE OR DITCH DISCHARGES INTO OFF-SITE OUTFALLS SHALL BE INSPECTED DAILY FOR POSSIBLE SEDIMENT BUILDUP OR TRANSPORT. OUTFALLS SHALL BE PROTECTED THROUGH USE OF EROSION CONTROL FEATURES AS NECESSARY TO CONTAIN ANY SEDIMENT LOSS TO THE IMMEDIATE AREA OF THE PROJECT. ANY SEDIMENT BUILDUP OR TRANSPORT OFF-SITE SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REMEDY. THE CONTRACTOR SHALL USE APPROPRIATE MEASURES AS DIRECTED BY THE PROJECT ENGINEER FOR OUTFALL PROTECTION.

7. APPROVED BARRIERS (OR OTHER APPROVED SEDIMENT CONTROL DEVICES) - THESE SHALL BE PLACED AT THE BASE OF ANY SLOPE WHERE A RAINFALL EVENT COULD ERODE A SLOPE AND TRANSPORT SEDIMENTS OFF-SITE. APPROVED BARRIERS SHALL BE DOUBLE STAKED IN ACCORDANCE WITH FLORIDA STORMWATER EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL, 2008, AND STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL, LATEST EDITION. ANY DAMAGED OR INEFFECTIVE APPROVED BARRIERS ARE TO BE REPLACED WITH NEW ONES. THE LOCATION AND INSTALLATION OF APPROVED BARRIERS SHALL BE AS DIRECTED BY THE PROJECT ENGINEER.

8. BACK OF SIDEWALK INLETS OR MEDIAN INLETS - THESE SHALL BE PROTECTED FROM SEDIMENT INTAKE UNTIL PROJECT IS COMPLETE. ELEVATION OF GROUND OUTSIDE INLET TOP SHALL NOT BE HIGHER THAN INLET TOP WITHOUT EROSION PROTECTION. APPROVED BARRIERS OR OTHER APPROVED SEDIMENT CONTROL DEVICES SHALL BE INSTALLED AROUND INLET TOP. A SECOND ROW OF APPROVED BARRIERS OR OTHER APPROVED SEDIMENT CONTROL DEVICES SHALL BE PLACED AROUND INLET APPROXIMATELY 24" OUTSIDE FIRST ROW. BETWEEN ROWS THERE SHALL BE A DEPRESSION TO ACT AS A SEDIMENT BASIN. COMPLETED INLETS IN PAVED AREAS SHALL ALSO BE PROTECTED WITH A SINGLE LINE OF APPROVED BARRIERS OR OTHER APPROVED SEDIMENT CONTROL DEVICES TO PREVENT SEDIMENT INTAKE FROM OTHER AREAS.

9. STOCKPILED MATERIALS SHALL BE PROTECTED BY COVER, APPROVED BARRIERS OR OTHER APPROVED SEDIMENT CONTROL DEVICES.

10. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 3 DAYS AFTER 1#2" RAIN EVENT DISTURBANCE.

11. SEDIMENT TRAPPING MEASURES: SEDIMENT BASINS AND TRAPS, PERIMETER BERMS, FILTER FENCES, BERMS, SEDIMENT BARRIERS, VEGETATIVE BUFFERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT AND/OR PREVENT THE TRANSPORT OF SEDIMENT INTO WATERS OF THE STATE OR NEIGHBORING PROPERTIES SHALL BE INSTALLED, CONSTRUCTED OR, IN THE CASE OF VEGETATIVE BUFFERS, PROTECTED FROM DISTURBANCE, AS A FIRST STEP IN THE LAND ALTERATION PROCESS.

12. CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE NECESSARY DEWATERING PERMITS FROM THE LOCAL WATER MANAGEMENT DISTRICT OR OTHER REGULATORY AGENCY.

13. A DEWATERING PLAN MUST BE SUBMITTED AND APPROVED BY THE ENGINEER PRIOR TO DISCHARGE.

14. WHERE PUMPS ARE TO BE USED TO REMOVE TURBID WATER FROM THE CONSTRUCTION AREA, THE WATER SHALL BE TREATED TO REDUCE TURBIDITY TO STATE WATER QUALITY STANDARDS PRIOR TO DISCHARGE TO THE WETLANDS. TREATMENT METHODS INCLUDE, FOR EXAMPLE, TURBID WATER BEING PUMPED INTO GRASSED SWALES OR APPROPRIATE VEGETATED AREAS (OTHER THAN UPLAND PRESERVATION AREAS AND WETLAND BUFFERS), SEDIMENTS BASINS, OR AREAS CONFINED BY AN APPROPRIATE ENCLOSURE SUCH AS TURBIDITY BARRIERS, AND KEPT CONFINED UNTIL ITS TURBIDITY LEVEL MEETS STATE WATER QUALITY STANDARDS.

15. IF WIND EROSION BECOMES SIGNIFICANT DURING CONSTRUCTION, THE CONTRACTOR SHALL STABILIZE THE AFFECTED AREA USING SPRINKLING, IRRIGATION, OR OTHER ACCEPTABLE METHODS.

16. WHERE APPLICABLE, SOIL TRACKING PREVENTION DEVICES SHALL BE PROVIDED AND MAINTAINED PER PINELLAS COUNTY EROSION & SEDIMENT CONTROL DETAILS.

17. THE EROSION CONTROL DEVICE QUANTITIES SHOWN ON THE BID FORMS ARE ESTIMATES OF THE ACTUAL QUANTITIES THAT MAY BE ENCOUNTERED DURING CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SPECIFY ACTUAL QUANTITIES AND COSTS ASSOCIATED WITH THIS SPECIFIC EROSION CONTROL IMPLEMENTATION SCHEDULE. EROSION CONTROL ITEMS MAY BE ADDED OR DELETED FROM THE PAY ITEM LIST AS THE EROSION CONTROL IMPLEMENTATION SCHEDULE PROVIDED BY THE CONTRACTOR IS MODIFIED TO MEET SITE SPECIFIC CONDITIONS.

18. ALL EROSION CONTROL FENCES, BARRIERS, AND SILTATION DEVICES SHALL BE ERECTED PRIOR TO ANY LAND ALTERATIONS, SHALL BE MAINTAINED IN GOOD WORKING ORDER DURING CONSTRUCTION, AND REMOVED FOLLOWING SOIL STABILIZATION AND FINAL DRESSING. STOCKPILE AREAS SHALL INCLUDE SILT FENCING AROUND THE PERIMETER.

19. THE CONTRACTOR SHALL NOT RESTRICT OR BLOCK THE EXISTING DRAINAGE FLOW OVERLAND OR WITHIN RESHAPED SWALES. FLOW WITHIN EXISTING DRAINAGE PIPES SHALL BE MAINTAINED AT ALL TIMES. STORMWATER WILL BE CONVEYED VIA EXISTING SWALES, DITCHES, OR PROPOSED DITCHES, EXISTING AND PROPOSED STORM SEWERS.

20. THERE IS TO BE NO DISCHARGE (I.E. PUMPING, SHEET FLOW, SWALE, DITCH, ETC.) INTO EXISTING DITCHES OR CANALS WITHOUT THE USE OF SETTLING PONDS. IF THE CONTRACTOR DESIRES TO DISCHARGE INTO EXISTING DITCHES OR CANALS A SETTLING POND PLAN PREPARED BY THE CONTRACTOR MUST BE SUBMITTED TO AND APPROVED BY THE ENGINEER OF RECORD AND LOCAL REGULATORY AGENCY PRIOR TO CONSTRUCTION.

21. DURING DEWATERING OPERATIONS, THE CONTRACTOR SHALL NOT DISCHARGE DIRECTLY TO RECEIVING WATERS, EXISTING CONVEYANCES TO RECEIVING WATERS, OR WETLAND SYSTEMS. TEMPORARY SEDIMENT BASINS, TRAPS, OR SILTATION REDUCTION DEVICES SHALL BE UTILIZED TO COLLECT THE DISCHARGE FROM DEWATERING ACTIVITIES TO ELIMINATE THE POTENTIAL FOR OFF-SITE SEDIMENT TRANSPORT AND TO INSURE THAT DIRECT DISCHARGE DOES NOT OCCUR.

22. BANKS SHALL BE PROTECTED FROM EROSION OR COLLAPSE DURING CONSTRUCTION. BANK PROTECTION MATERIAL SHALL BE CAREFULLY PLACED FROM THE BANK AND NOT DUMPED FROM ABOVE IN AN UNCONTROLLED MANNER. EROSION CONTROL FABRIC SHALL BE USED FOR EROSION PROTECTION WHERE SOD WILL NOT HOLD OR BECOME ESTABLISHED IN TIME TO PROTECT THE BANKS. UNLESS OTHERWISE SPECIFIED IN THE PLANS, UPON COMPLETION OF CONSTRUCTION, ALL BANKS AND WATERWAYS SHALL BE RESTORED TO THEIR PRE-CONSTRUCTION CONFIGURATION AND PROTECTED FROM EROSION.

23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING POND FILTRATION SYSTEMS FROM BEING CLOGGED UNTIL PINELLAS COUNTY DETERMINES THE CONSTRUCTION IS COMPLETE. IF FILTER MATERIAL IS CONTAMINATED, IT SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.

REVISIONS	BY	DATE

DESIGNED MWM
DRAWN HBH
CHECKED DJA

Cardno
3905 CRESCENT PARK DR.
RIVERVIEW, FL 33578
PHONE: (813) 664-4500
CERTIFICATE OF AUTHORIZATION NO. 29915

PROJECT: PINELLAS COUNTY ATMS
US 19A South From US 19 to SR 60

DESCRIPTION: BEST MANAGEMENT PRACTICES (2)

APPROVED BY:
MARK W. MODJESKI, P.E.
FLA. REG. NO. 54838

DATE: 7-18-2018
PROJECT NO. 002598A
SHEET: 84 OF 84

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