

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION
SIGNALIZATION PLANS

FINANCIAL PROJECT ID 429576-3-52-01,
429576-3-52-02, & 429576-3-52-03
(FEDERAL FUNDS)
BROWARD COUNTY (86100, 86110)
STATE ROAD NO. 7 (US 441)
TRANSIT CORRIDOR IMPROVEMENTS GROUP/PRIORITY 2

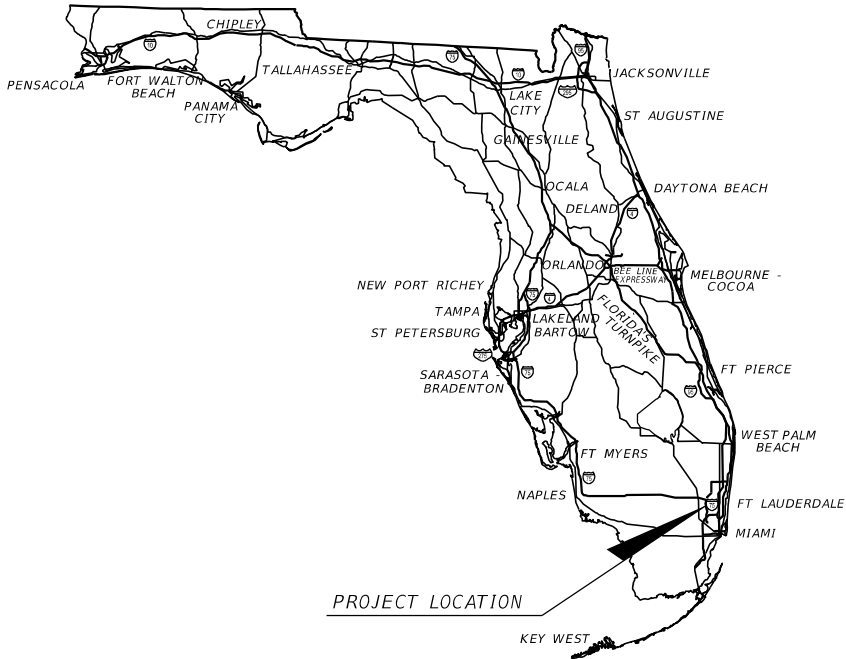
PROJECT LOCATION URL: <https://tinyurl.com/mkurv3cb>

PROJECT LIMITS: BEGIN MP 6.462 - END MP 8.105

EXCEPTIONS: NONE

BRIDGE LIMITS: NONE

RAILROAD CROSSING: NONE



SIGNALIZATION PLANS
ENGINEER OF RECORD:

JOSE A LOPEZ P.E.
P.E. LICENSE NUMBER 81014
HBC ENGINEERING COMPANY
8935 NW 35TH LANE, SUITE 201
DORAL, FL 33172
PHONE (305) 232-7932 FAX (305) 232-7933
CONTRACT NO. CA133
VENDOR NO. 223936061

FDOT PROJECT MANAGER:

ROBERT LOPES, P.E.

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
T 4712	25	T-1

CONTRACT PLANS COMPONENTS

ROADWAY PLANS
SIGNING AND PAVEMENT MARKING PLANS
SIGNALIZATION PLANS
LIGHTING PLANS
LANDSCAPE PLANS

INDEX OF SIGNALIZATION PLANS

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T-3	TABULATION OF QUANTITIES
T-4	PROJECT LAYOUT
T-5	GENERAL NOTES
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T-11	MAST ARM TABULATION
T-12	STANDARD MAST ARM DATA TABLE
T-13	PEDESTAL MOUNTED SIGNAL SHALLOW FOUNDATION DETAIL
T-14	SPECIAL DETAILS
T-15	SERVICE POINT DETAIL
T-16	CONCRETE SLAB DETAIL

GOVERNING STANDARD PLANS:

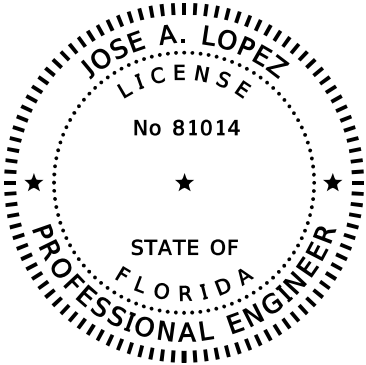
Florida Department of Transportation, FY2024-25 Standard Plans for Road and Bridge Construction and applicable Interim Revisions (IRs).

Standard Plans for Road Construction and associated IRs are available at the following website: <https://www.fdot.gov/design/standardplans>

GOVERNING STANDARD SPECIFICATIONS:

Florida Department of Transportation, FY2024-25 Standard Specifications for Road and Bridge Construction at the following website: <https://www.fdot.gov/programmanagement/Implemented/SpecBooks>

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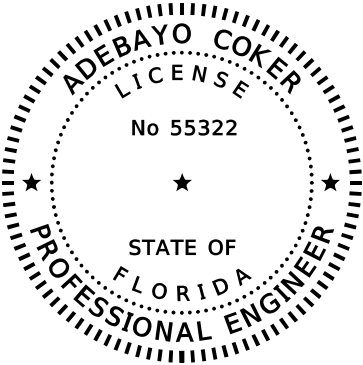
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HBC ENGINEERING COMPANY
8935 NW 35TH LANE, SUITE 201
DORAL, FL. 33172
JOSE A. LOPEZ, P.E. NO. 81014

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

SHEET NO.	SHEET DESCRIPTION
T-1	KEY SHEET
T-2	SIGNATURE SHEET
T-3	TABULATION OF QUANTITIES
T-4	PROJECT LAYOUT
T-5	GENERAL NOTES
T-6 - T-10	SIGNALIZATION PLAN
T-11	MAST ARM TABULATION
T-14	SPECIAL DETAILS



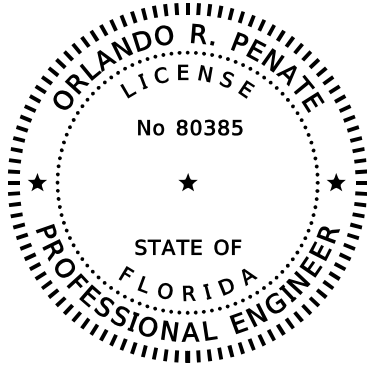
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8935 NW 35TH LANE, SUITE 201
DORAL, FL. 33172
ADEBAYO COKER, P.E. NO. 55322

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE
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SHEET NO.	SHEET DESCRIPTION
T-2	SIGNATURE SHEET
T-12	STANDARD MAST ARM DATA TABLE
T-13	PEDESTAL MOUNTED SIGNAL SHALLOW FOUNDATION DETAIL
T-16	CONCRETE SLAB DETAIL



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HBC ENGINEERING COMPANY
8935 NW 35TH LANE, SUITE 201
DORAL, FL. 33172
ORLANDO R. PENATE, P.E. NO. 80385

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FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004 F.A.C.

SHEET NO.	SHEET DESCRIPTION
T-2	SIGNATURE SHEET
T-15	SERVICE POINT DETAIL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

HBC ENGINEERING COMPANY
8935 NW 35TH LANE, SUITE 201,
DORAL, FLORIDA, 33172
PHONE: (305) 232-7932 FAX: (305) 232-7933
ENGINEER OF RECORD: JOSE A. LOPEZ, P.E.
P.E. LICENSE NUMBER 81014

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 7	BROWARD	429576-3-52-01

SIGNATURE SHEET	SHEET NO.
	T - 2

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TABULATION OF QUANTITIES																		
PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS										TOTAL THIS SHEET		GRAND TOTAL			
			T-6		T-7		T-8		T-9		T-10							
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL		
0630-2-11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	98		9		607		44		13		771		771			
0630-2-12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	465		141		304		219		72		1201		1201			
0632-7-1	SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PI	1		1		1		1		1		5		5			
0633-6	FIBER OPTIC CABLE LOCATOR	DA											409		409			
0635-2-11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	11		2		16		9		2		40					
0635-2-12	PULL & SPLICE BOX, F&I, 24" X 36" COVER SIZE	EA					1						1					
0639-1-122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1				1						2		2			
0639-1-123	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER NOT REQUIRED	AS					1						1		1			
0639-2-1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	296				871						1167		1167			
0641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA	1				2						3		3			
0641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE POLE REMOVAL- PEDESTAL/SERVICE POLE	EA	1										1		1			
0646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL	EA	3		1		2		5				11		11			
0646-1-60	ALUMINUM SIGNALS POLE, REMOVE	EA	1		1				2				4		4			
0649 21 3	STEEL MAST ARM ASSEMBLY, FURNISH AND INSTALL, SINGLE ARM 40'	EA					1						1		1			
0650 1 14	VEHICULAR TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 3 SECTION, 1 WAY	AS					2						2		2			
0653-1-11	PEDESTRIAN SIGNAL, FURNISH & INSTALL LED COUNTDOWN, 1 WAY	AS	3		1		2		4				10		10			
0653-1-12	PEDESTRIAN SIGNAL, FURNISH & INSTALL LED COUNTDOWN, 2 WAYS	AS							2				2		2			
0653-1-60	PEDESTRIAN SIGNAL, REMOVE PED SIGNAL - POLE/PEDESTAL TO REMAIN	AS							3				3		3			
0654-2-28	MIDBLOCK CROSSWALK: REC RAPID FLASHING BEACON, FURNISH/INSTALL- SOLAR, SIGN ASSEMBLY- BACK-BACK ACCESSIBLE DETECTOR	AS									2		2		2			
0665-1-11	PEDESTRIAN DETECTOR, FURNISH & INSTALL, STANDARD	EA	3		1				8				12		12			
0665-1-12	PEDESTRIAN DETECTOR, FURNISH & INSTALL, ACCESSIBLE	EA					2						2		2			
0665-1-60	PEDESTRIAN DETECTOR, REMOVE- POLE/PEDESTAL TO REMAIN	EA							3				3		3			
0670 5140	TRAFFIC CONTROLLER ASSEMBLY, FURNISH & INSTALL MODEL 2070						1						1		1			
0671-2-40	TRAFFIC CONTROLLER, MODIFY	AS	1		1				1				3		3			

PAY ITEM NOTE:

636-1-122 INCLUDES THE CONTRACTOR COORDINATION WITH FPL ENGINEERS FOR THE INSTALLATION OF THE FPL RISER WHICH INCLUDES THE CONNECTION FEE

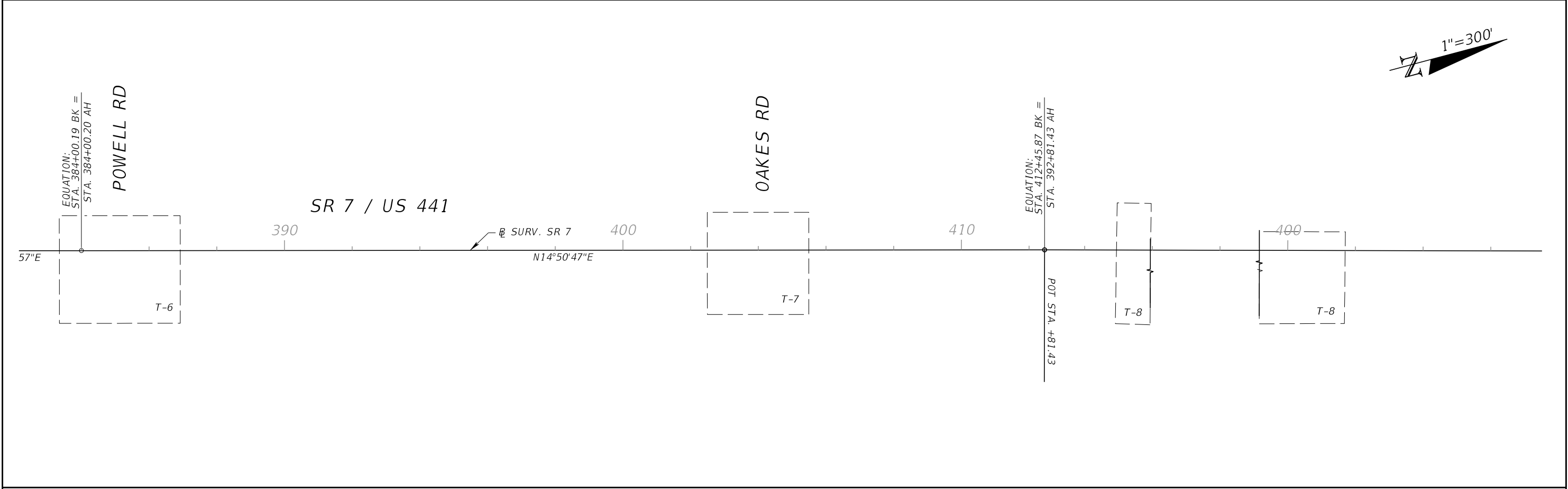
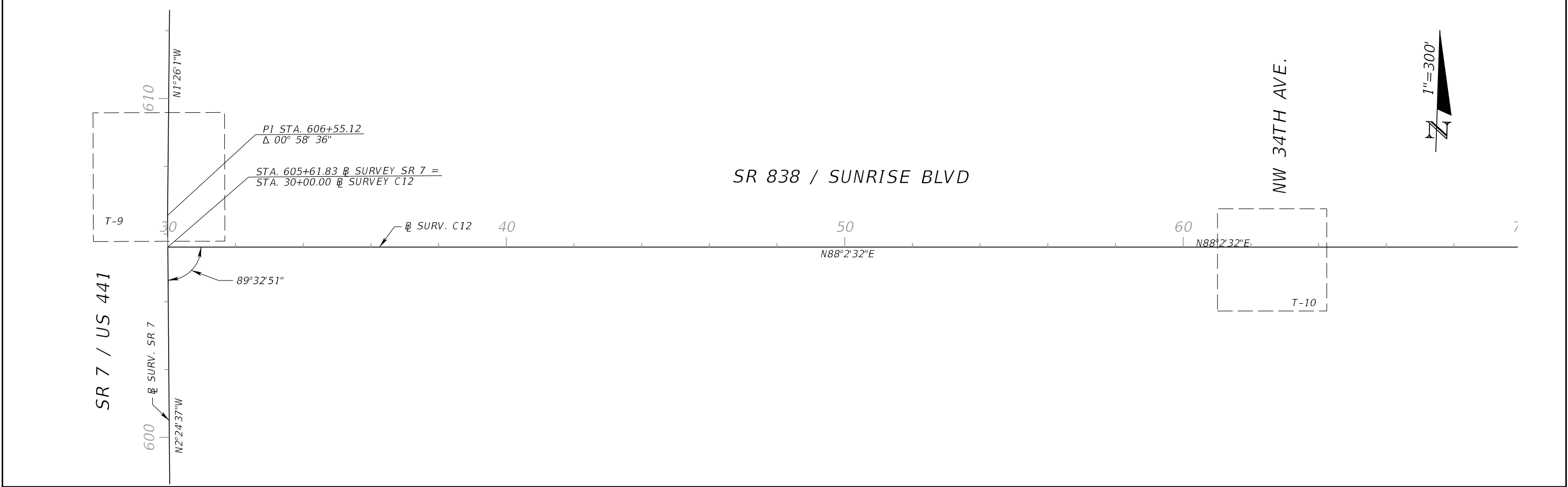
TABULATION OF QUANTITIES																								
PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																		TOTAL THIS SHEET		GRAND TOTAL	
			28*		29*		30*		31*		32*		33*		34*		35*		36*					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
0635-2-11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	3		5		7		4		1		9		1		1		6		37		77	
0635-2-12	PULL & SPLICE BOX, F&I, 24" X 36" COVER SIZE	EA	1		3		1		1		2		1						1		10		11	

* SEE ROADWAY PLANS

REVISIONS				HBC ENGINEERING COMPANY 8935 NW 35TH LANE, SUITE 201, DORAL, FLORIDA, 33172 PHONE: (305) 232-7932 FAX: (305) 232-7933 ENGINEER OF RECORD: JOSE A. LOPEZ, P.E. P.E. LICENSE NUMBER 81014	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TABULATION OF QUANTITIES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 7	BROWARD	429576-3-52-01		T-3

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REVISIONS				HBC ENGINEERING COMPANY 8935 NW 35TH LANE, SUITE 201, DORAL, FLORIDA, 33172 PHONE: (305) 232-7932 FAX: (305) 232-7933 ENGINEER OF RECORD: JOSE A. LOPEZ, P.E. P.E. LICENSE NUMBER 81014	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PROJECT LAYOUT	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		T-4
					SR 7	BROWARD	429576-3-52-01		

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GENERAL NOTES (IMPROVEMENTS WITHIN BROWARD COUNTY ROW)

1. STATIONS AND OFFSETS SHOWN ON SHEETS T-6 TO T-9 ARE BASED ON \varnothing SURV. SR 7 AND SHEET T-10 ARE BASED ON \varnothing SURV. C12
2. FOR SHEETS T-6 TO T-9 THE AGENCY RESPONSIBLE FOR MAINTENANCE OF THE TRAFFIC SIGNALS AND RELATED COMMUNICATIONS EQUIPMENT IS BROWARD COUNTY TRAFFIC ENGINEERING DIVISION (BCTED). PROVIDE SUBMITTAL DATA THAT IS COMPATIBLE WITH THE MAINTAINING AGENCY. PROVIDE THE MAINTAINING AGENCY'S REQUIRED EQUIPMENT AND VERIFY WITH THE MAINTAINING AGENCY PRIOR TO PURCHASING SUCH EQUIPMENT. BECOME FAMILIAR WITH AND COMPLY WITH BCTED'S INSPECTION PROCEDURES.
3. THE CONTRACTOR SHALL COORDINATE A FIELD MEETING WITH THE SIGNAL SUPERVISOR, PRIOR TO REMOVING ANY EXISTING EQUIPMENT, TO DETERMINE WHICH EQUIPMENT SHOULD BE DELIVERED TO BCTED. THE AGREED UPON EQUIPMENT SHALL BE DISASSEMBLED INTO THEIR COMPONENT PARTS, TAGGED AS TO LOCATION, PACKAGED AS NEEDED FOR PROTECTION FROM DAMAGE AND DELIVERED TO:

BROWARD COUNTY TRAFFIC ENGINEERING DIVISION
2300 WEST COMMERCIAL BLVD
FORT LAUDERDALE, FL 33309
4. THE SIGNAL SUPERVISOR IS TO BE CONTACTED AT 954-847-2600 AT LEAST 48 HOURS PRIOR TO DELIVERY. WRITTEN ACKNOWLEDGEMENT OF EQUIPMENT RECEIPT SHALL BE OBTAINED FROM THE SIGNAL SUPERVISOR IN THE FORM OF A SIGNED RECEIPT BEARING THE CONTRACTOR'S LETTERHEAD. THIS ITEMIZED RECEIPT SHALL STATE THAT ALL OF THE EQUIPMENT REMOVED FROM EACH LOCATION WAS RETURNED TO BCTED IN GOOD CONDITION. THE CONTRACTOR SHALL PRESENT THE RECEIPT TO BCTED AT THE TIME OF SIGNAL INSPECTION. ABSENCE OF SUCH RECEIPT SHALL BE RECORDED ON THE PUNCH LIST AS AN ITEM TO BE CORRECTED PRIOR TO FINAL APPROVAL OF THE INSTALLATION.

GENERAL NOTES (IMPROVEMENTS WITHIN BROWARD COUNTY ROW)

1. FOR SHEET T-9 THE AGENCY RESPONSIBLE FOR MAINTENANCE OF THE TRAFFIC SIGNALS AND RELATED COMMUNICATIONS EQUIPMENT IS THE CITY OF LAUDERHILL. PROVIDE THE MAINTAINING AGENCY'S REQUIRED EQUIPMENT AND VERIFY WITH THE MAINTAINING AGENCY PRIOR TO PURCHASING SUCH EQUIPMENT.
2. PRIOR TO CONSTRUCTION ACQUIRE ALL REQUIRED PERMITS AND AGREEMENTS FROM THE CITY OF LAUDERILL.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

HBC ENGINEERING COMPANY
8935 NW 35TH LANE, SUITE 201,
DORAL, FLORIDA, 33172
PHONE: (305) 232-7932 FAX: (305) 232-7933
ENGINEER OF RECORD: JOSE A. LOPEZ, P.E.
P.E. LICENSE NUMBER 81014

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 7	BROWARD	429576-3-52-01

GENERAL NOTES

SHEET NO.

T-5

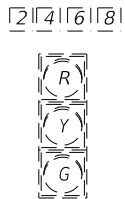
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EXISTING SIGNAL HEADS

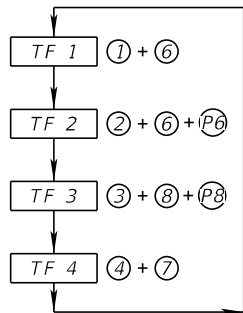
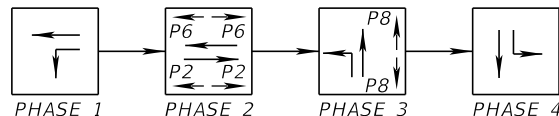


5-SECT., 1-WAY
(TO REMAIN)

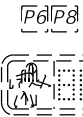


3-SECT., 1-WAY
(TO REMAIN)

EXISTING S.O.P.

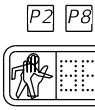


EXISTING PEDESTRIAN
HEAD DETAILS



PED. SIGNAL
COUNT-DOWN
1-SECT., 1-WAY
(TO REMAIN))

PROPOSED PEDESTRIAN
HEAD DETAILS



PED. SIGNAL
COUNT-DOWN
1-SECT., 1-WAY
3 AS
653-1-11

EXISTING VIDEO DETECTION:

VIDEO DETECTION ZONE			
EXIST. VIDEO CAMERA	MOVEMENTS	ZONE	
V-1	3, 8	VD 3-1	VD 8-1
V-2	2	VD 2-1	VD 2-2
		VD 2-3	VD 2-4
V-3	7, 4	VD 7-1	VD 4-1
V-4	1, 6	VD 1-1	VD 6-1
		VD 6-2	VD 6-3

EXISTING SIGNAL TIMING:

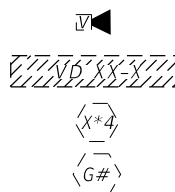
CONTROLLER TIMINGS

CONTROLLER PHASE	1	2	3	4	5	6	7	8
FACE NUMBER	1	2	3	4	5	6	7	8
DIRECTION	SBL	NB	WBL	EB	NBL	SB	EBL	WB
INITIAL GREEN (MIN)	4	12	6	4	4	12	4	6
VEHICLE EXT. GAP	1.5	3	2	2	1.5	3	2	2
MAXIMUM GREEN I	12	50	20	12	12	50	12	20
MAXIMUM GREEN II		--	--	--	--	--	--	--
YELLOW CLEARANCE	5	5	4	4	5	5	4	4
ALL RED CLEARANCE	2	2	2	2	2	2	2	2
PHASE RECALL	OFF	MIN	OFF	OFF	OFF	MIN	OFF	OFF
WALK		--	--	--	--	--	--	7
PED. CLEARANCE		--	--	--	--	--	--	29
PERMISSIVE		--	--	--	--	--	--	--
FLASH OPERATION	YELLOW	YELLOW	RED	RED	YELLOW	YELLOW	RED	RED
GREEN RETURN		--	--	--	--	--	--	--

EXISTING SIGNAL OPERATIONS:

- MAJOR STREET IS S.R. 7/U.S. 441
MINOR STREET IS BROWARD LANDFILL/POWELLS ROAD
- FLASHING OPERATION:
HEADS: 2 & 6 - FLASHING YELLOW
HEADS: 4/7, 3/8, 4, & 8 - FLASHING RED
- EXISTING SIGNAL OPERATION TO REMAIN

LEGEND



EXIST. SIGN
(TO REMAIN)

EXIST. VEHICLE VIDEO DETECTION CAMERA

EXIST. VEHICLE DETECTION ZONE

EXIST. MAST ARM TO REMAIN

EXIST. PEDESTRIAN COUNTDOWN
PEDESTALS TO REMAIN

EXIST. INTERNALLY ILLUMINATED SIGN



PROPOSED SIGN PANELS



FTP-68B-06
9"X18"
1 AS



FTP-68B-06
9"X18"
2 AS

CONTROLLER ITEMS

632-7-1 1 PI
635-2-11 5 EA
671-2-40 1 AS

CONTROLLER ITEMS

630-2-11 14 LF
635-2-11 2 EA
639-1-122 1 AS
639-2-1 62 LF
641-2-12 1 EA
641-2-60 1 EA

S.R. 7 / U.S. 441

SURVEY SR 7 PI STA. 384+00.19
SURVEY EQUATION:
384+00.19 (BK) = 384+00.20 (AH)
 $\Delta = 00^{\circ} 02' 10''$ (LT)

N14°50'47"E

1 RUN (1 PED. SIGNAL)

107 LF 630-2-12

POWELL RD

PROP. PEDESTAL
STA. 384+42.71
89.71' RT
630-2-11 9 LF
635-2-11 1 EA
646-1-11 1 EA
665-1-11 1 EA

EXIST. CONTROLLER
(TO REMAIN)

PROP. PEDESTAL
STA. 385+87.02
81.14' RT

630-2-11 11 LF
635-2-11 1 EA
646-1-11 1 EA
665-1-11 1 EA

EXIST. PEDESTAL
(TO BE REMOVED)
646-1-60 1 EA

630-2-11 55 LF

1 RUN (1 PED. SIGNAL)
PROP. PED. PEDESTAL
W/ SHALLOW FOUNDATION
STA. 385+40.34
92.40' RT

630-2-11 9 LF
635-2-11 1 EA
646-1-11 1 EA
665-1-11 1 EA

1"=40'

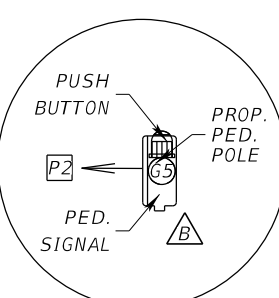
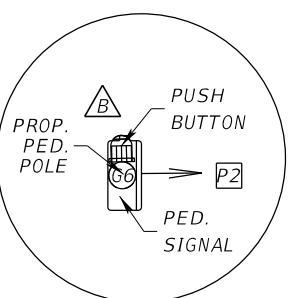
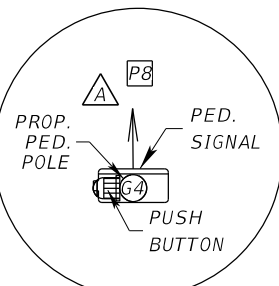
EXIST. DISCONNECT
(TO BE REMOVED)
EXIST. FPL POWER
PICK UP PNT

1 EA 635-2-11

PROP. SERVICE POINT DISCONNECT
& METER CAN
STA. 387+24.00
44.22' LT.

387

N14°50'47"E



SR 7 / US 441 & BROWARD LANDFILL / POWELLS RD
BC TS: 3382

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

HBC ENGINEERING COMPANY
8935 NW 35TH LANE, SUITE 201,
DORAL, FLORIDA, 33172
PHONE: (305) 232-7932 FAX: (305) 232-7933
ENGINEER OF RECORD: JOSE A. LOPEZ, P.E.
P.E. LICENSE NUMBER 81014

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

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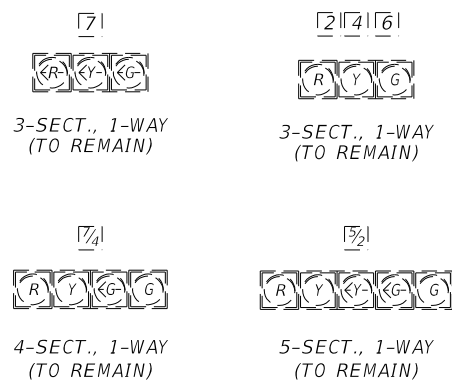
SIGNALIZATION PLAN

SHEET
NO.

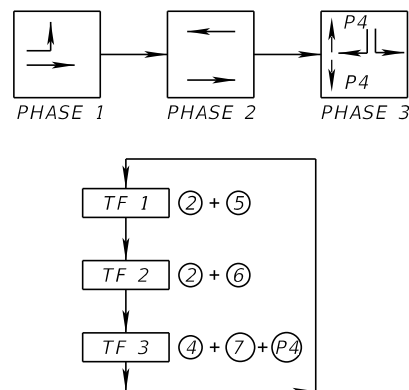
T-6

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EXISTING SIGNAL HEADS



EXISTING S.O.P.



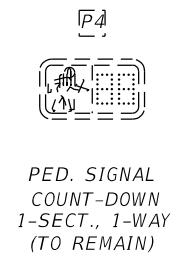
EXISTING SIGNAL TIMING:

CONTROLLER TIMINGS								
CONTROLLER PHASE	1	2	3	4	5	6	7	8
FACE NUMBER	1	2	3	4	5	6	7	8
DIRECTION		NB		EB	NBL	SB	EBL	
INITIAL GREEN (MIN)		7		6	4	7	6	
VEHICLE EXT. GAP		1.5		2	1.5	1.5	2	
MAXIMUM GREEN I		45		35	12	45	35	
MAXIMUM GREEN II		--		--	--	--	--	
YELLOW CLEARANCE		5		4		5	4	
ALL RED CLEARANCE		2		2		2	2	
PHASE RECALL		MIN		OFF	OFF	MIN	OFF	
WALK		--		7		--	--	
PED. CLEARANCE		--		29		--	--	
PERMISSIVE		--		--		--	--	
FLASH OPERATION		YELLOW		RED		YELLOW	RED	
GREEN RETURN		--		--		--	--	

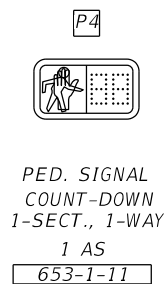
EXISTING SIGNAL OPERATIONS.

1. MAJOR STREET IS S.R. 7/U.S. 441
MINOR STREET IS OAKES ROAD
2. FLASHING OPERATION:
HEADS: 2 & 6 - FLASHING YELLOW
HEAD: 4 - FLASHING RED
3. EXISTING SIGNAL OPERATION TO REMAIN

EXISTING PEDESTRIAN HEAD DETAILS



PROPOSED PEDESTRIAN HEAD DETAILS

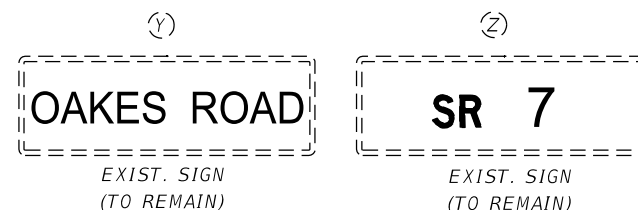


PROPOSED SIGN PANELS



FTP-68B-06
9"X18"
1 AS

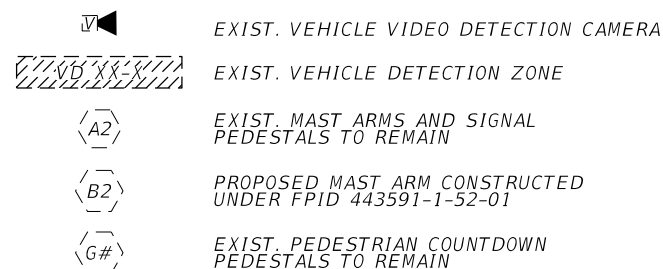
EXIST. INTERNALLY ILLUMINATED SIGN



EXISTING VIDEO DETECTION:

VIDEO DETECTION ZONE			
EXIST. VIDEO CAMERA	MOVEMENTS	ZONE	
V-1	6	VD 6-1	VD 6-2
		VD 6-3	
V-2	5, 2	VD 5-1	VD 2-1
		VD 2-2	VD 2-3
V-3	7, 4	VD 7-1	VD 7-2
		VD 4-1	

LEGEND

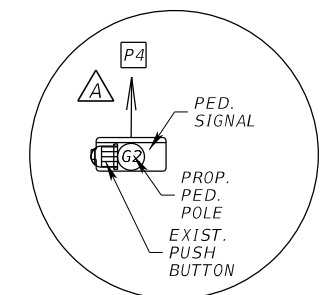
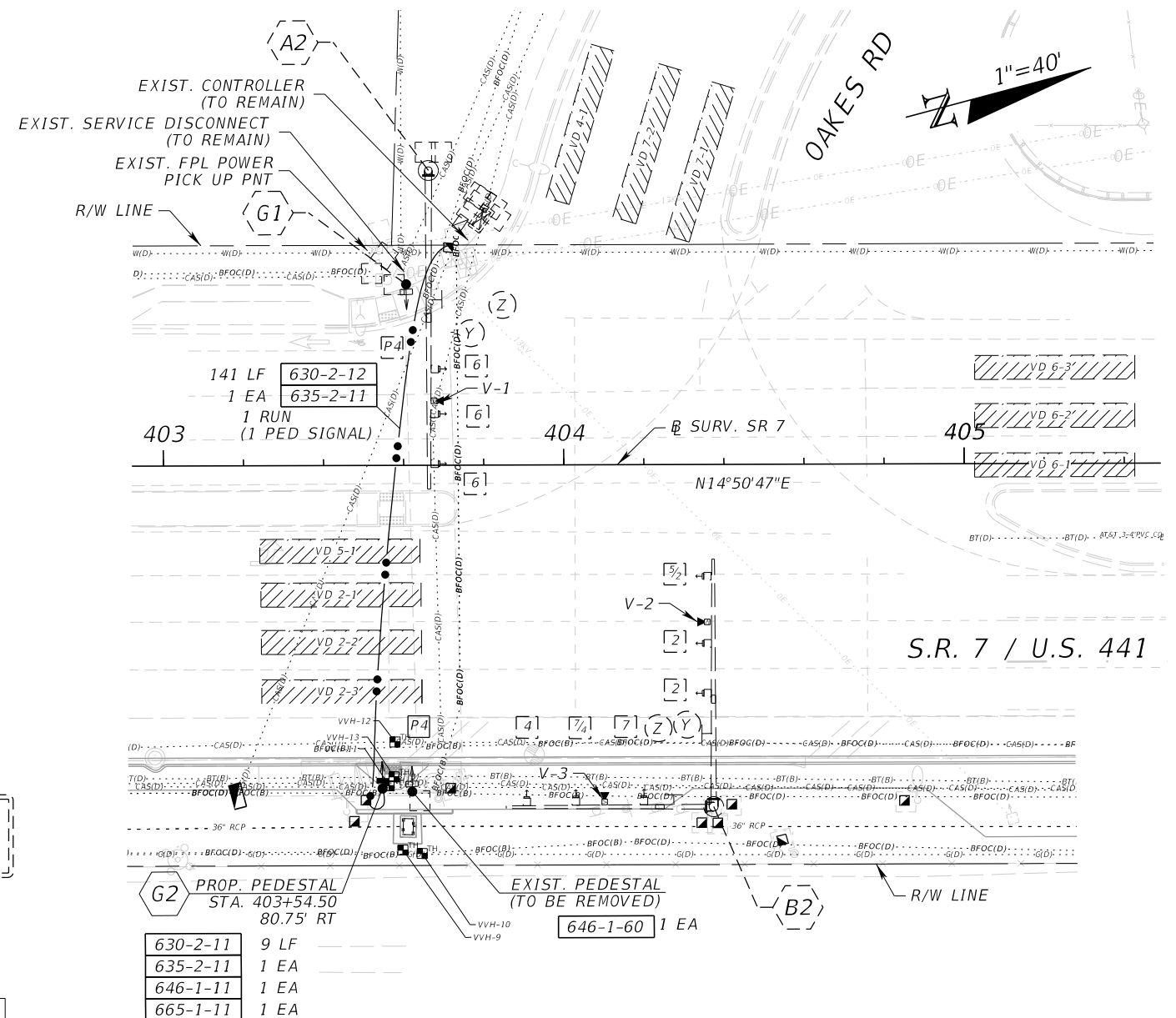


CONTROLLER ITEMS

632-7-1	1 PI
671-2-40	1 AS

NOTE:

PLANS SHOW PROPOSED IMPROVEMENTS CONSTRUCTED UNDER
FPJD 443591-1-52-01

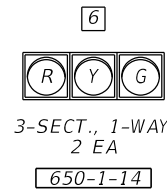


SR 7 / US 441 & OAKES RD
BC TS: 2084

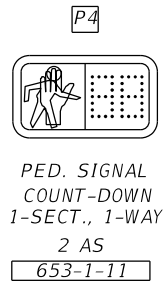
REVISIONS				HBC ENGINEERING COMPANY 8935 NW 35TH LANE, SUITE 201, CORAL FLORIDA, 33172 PHONE: (305) 232-7932 FAX: (305) 232-7933 ENGINEER OF RECORD: JOSE A. LOPEZ, P.E. P.E. LICENSE NUMBER 81014	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			<i>SIGNALIZATION PLAN</i>	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 7	BROWARD	429576-3-52-01		T-7

10/31/2024 6:21:52 PM GB154
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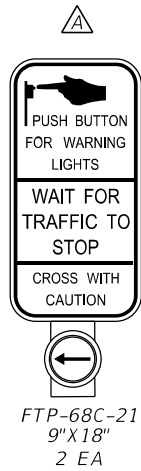
PROPOSAL SIGNAL HEADS



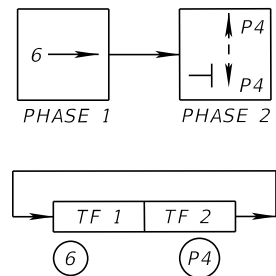
PROPOSED PEDESTRIAN
HEAD DETAILS



PROPOSED SIGN PANAL



PROPOSED S.O.P.



- SIGNAL OPERATION:
1. MAJOR STREET: I-595 ON RAMP
 2. PHASE 2 ACTUATED, PHASE 1 RECALL
 3. PEDESTRIAN SIGNAL UPON ACTUATION ONLY

CONTROLLER TIMINGS

CONTROLLER PHASE	1	2	3	4	5	6	7	8
FACE NUMBER	1	2	3	4	5	6	7	8
DIRECTION						NB		
INITIAL GREEN (MIN)						15		
VEHICLE EXT. GAP						3.0		
MAXIMUM GREEN I						60		
MAXIMUM GREEN II						--		
YELLOW CLEARANCE						4.8		
ALL RED CLEARANCE						2.0		
PHASE RECALL						MAX		
WALK				7		--		
PED. CLEARANCE				12		--		
PERMISSIVE				--		--		
FLASH OPERATION				RED		YELLOW		
GREEN RETURN				--		--		

SERVICE POINT NO. 1

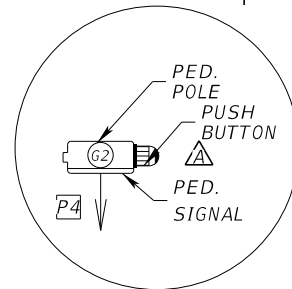
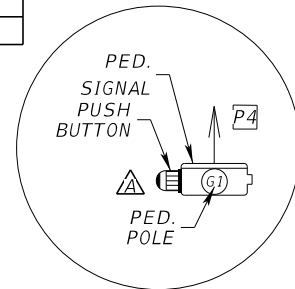
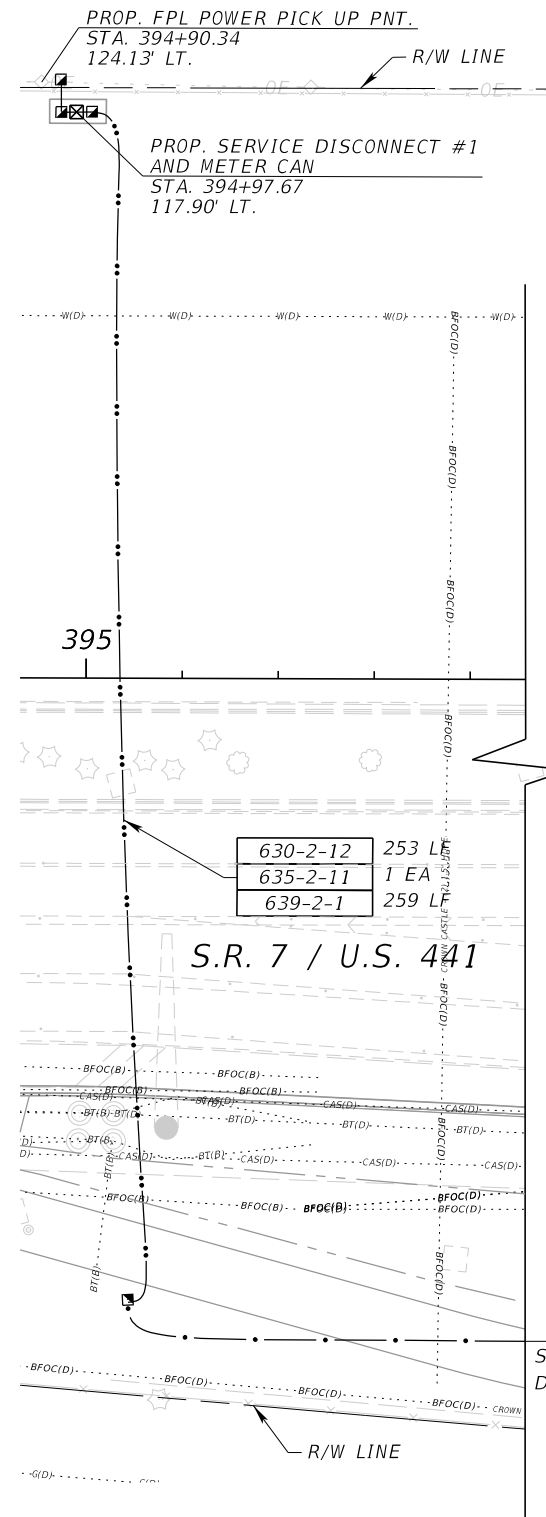
630-2-11	14 LF
635-2-11	3 EA
639-1-122	1 AS
639-2-1	62 LF
641-2-12	1 EA

SERVICE POINT NO. 2

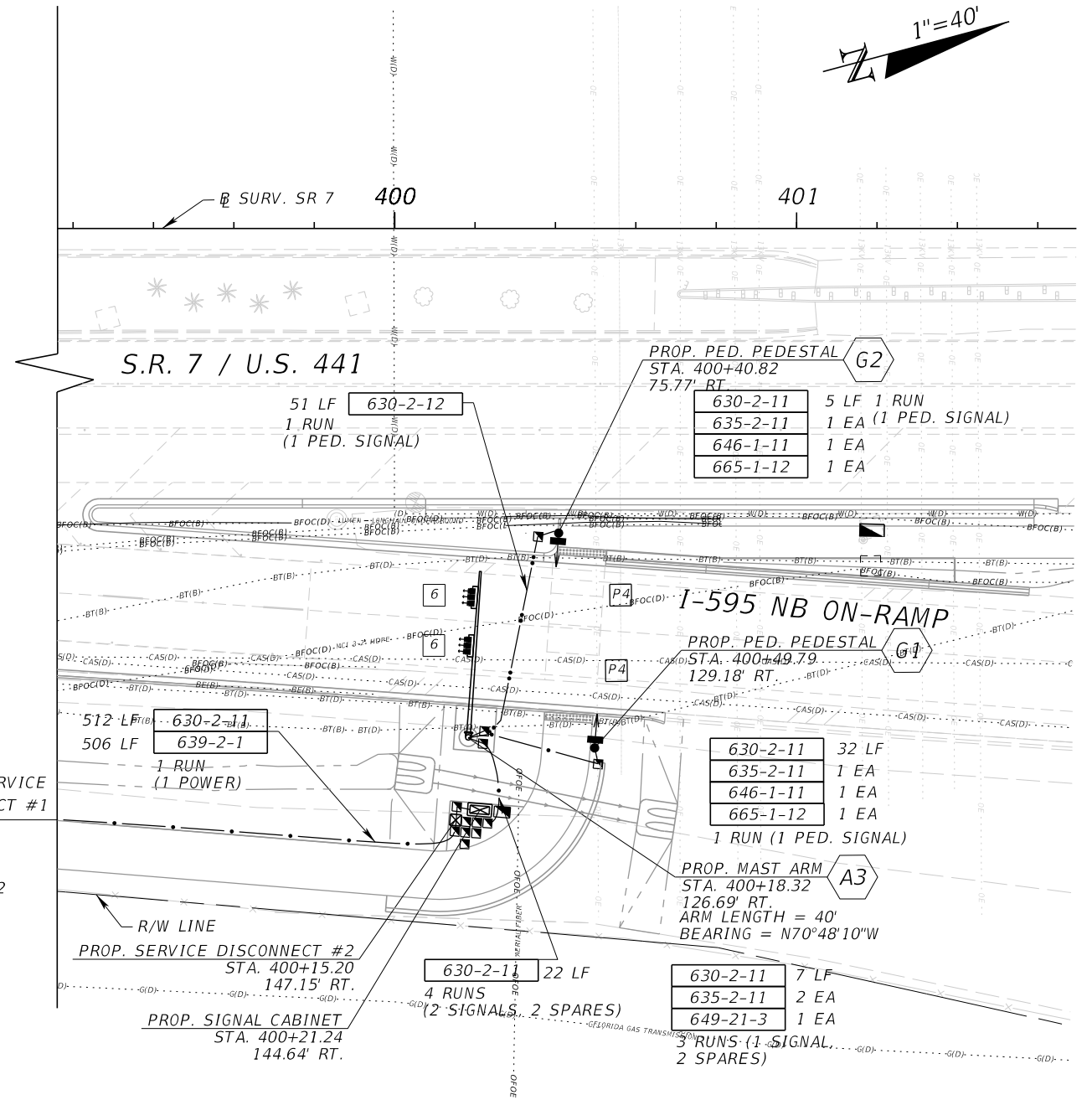
630-2-11	8 LF
635-2-11	2 EA
639-1-123	1 AS
639-2-1	44 LF
641-2-12	1 EA

CONTROLLER ITEMS

630-2-11	7 LF
632-7-1	1 PI
635-2-11	6 EA
635-2-12	1 EA
670-5-140	1 AS



SERVICE
DISCONNECT #1
SERVICE
DISCONNECT #2



NOTE
1. CONTROLLER 2070-LN WITH TS2- TYPE 1
CABINET SHALL BE USED

SR 7 AT I-595 NB ON-RAMP

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

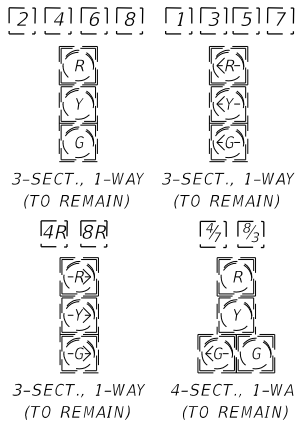
HBC ENGINEERING COMPANY
8935 NW 35TH LANE, SUITE 201,
DORAL, FLORIDA, 33172
PHONE: (305) 232-7932 FAX: (305) 232-7933
ENGINEER OF RECORD: JOSE A. LOPEZ, P.E.
P.E. LICENSE NUMBER 81014

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 7	BROWARD	429576-3-52-01

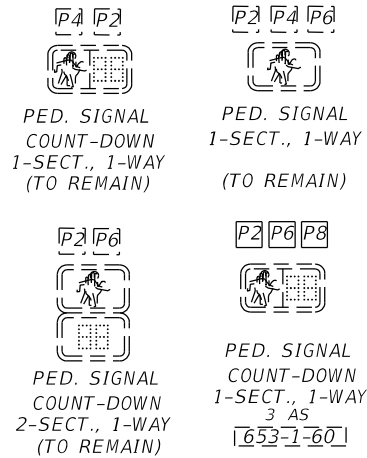
SIGNALIZATION PLAN

SHEET
NO.
T-8

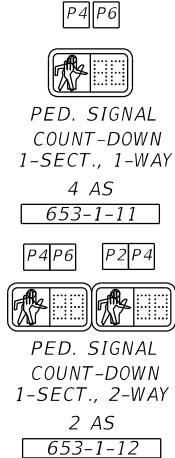
EXISTING SIGNAL HEADS



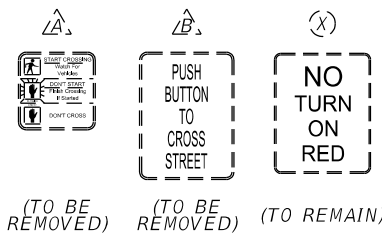
EXISTING PEDESTRIAN HEAD DETAILS



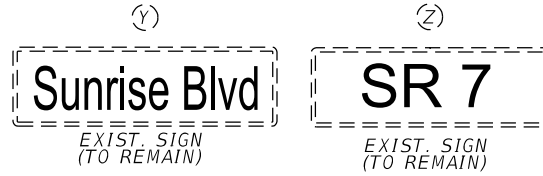
PROPOSED PEDESTRIAN HEAD DETAILS



EXISTING SIGN PANELS



EXIST. INTERNALLY ILLUMINATED SIGN



EXISTING LOOP DETECTION:

DETECTORS FOR LOOPS

LOOP	NO. OF LOOPS	NO. OF NEW DETS.	NO. OF EXIST. DETS.	DELAY TIME (SEC)
L-1	4	-	4	
L-2	3	-	3	
L-3	2	-	2	
L-4	2	-	2	
L-5	4	-	4	
L-6	3	-	3	
L-7	2	-	2	
L-8	2	-	2	

EXISTING SIGNAL TIMING:

CONTROLLER TIMINGS

CONTROLLER PHASE	1	2	3	4	5	6	7	8
FACE NUMBER								
DIRECTION	SBL	N/S	SBCL	NBL	EB	EBCL	WB	
INITIAL GREEN (MIN)	5	10	5	5	6	3	6	
VEHICLE EXT. GAP	1.5	--	--	1.5	2.0	--	2.0	
MAXIMUM GREEN I	25	60	5	20	28	3	20	
MAXIMUM GREEN II	--	--	--	--	--	--	--	
YELLOW CLEARANCE	4.5	4.5	4.5	4.5	5.0	5.0	5.0	
ALL RED CLEARANCE	2	2	2	2	2	2	2	
PHASE RECALL	OFF	MAX	OFF	OFF	OFF	OFF	OFF	
WALK		7	--	--	7	--	7	
PED. CLEARANCE		7	--	--	18	--	18	
PERMISSIVE	DUAL	--		DUAL	--	--		
FLASH OPERATION	RED	RED	--	RED	RED	--	RED	
GREEN RETURN		--	--	--	--	--	--	

CONTROLLER ITEMS

632-7-1	1 PI
635-2-11	6 EA
671-2-40	1 AS

PROPOSED SIGN PANELS



FTP-68B-06
9"x18"
4 AS

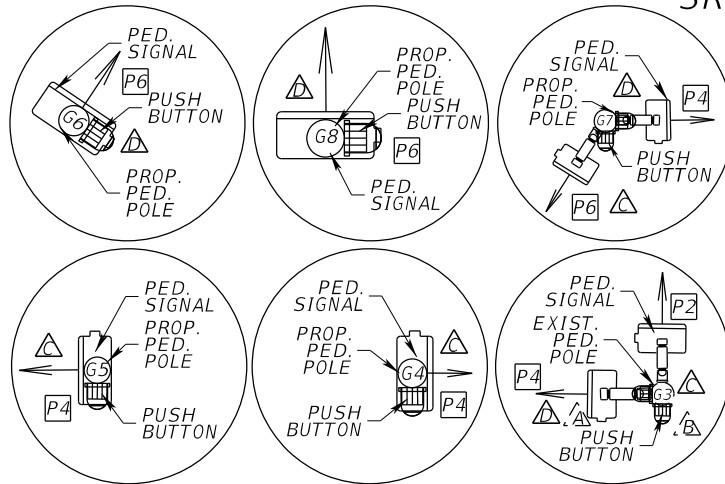
FTP-68B-06
9"x18"
4 AS

EXISTING SIGNAL OPERATIONS:

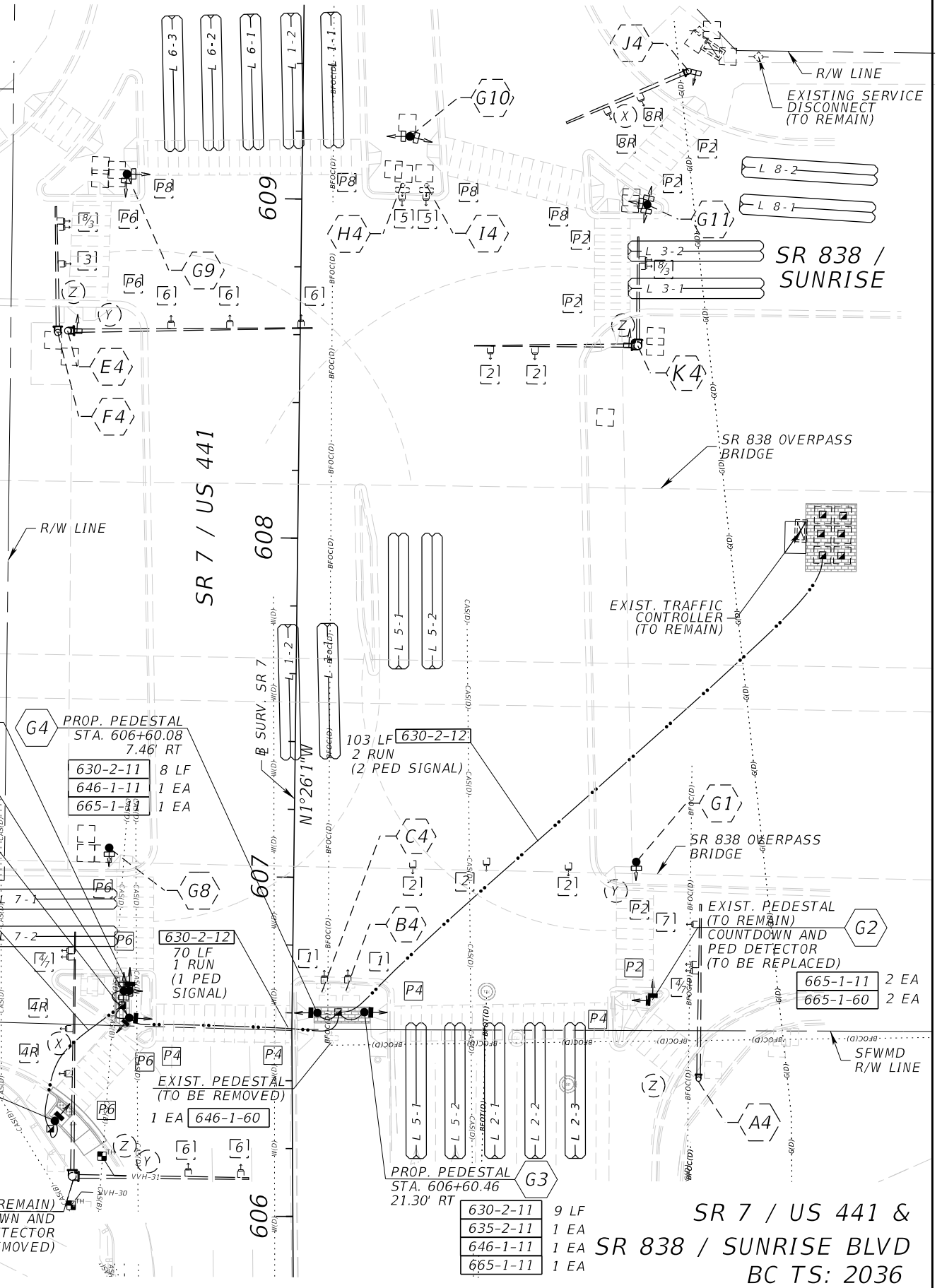
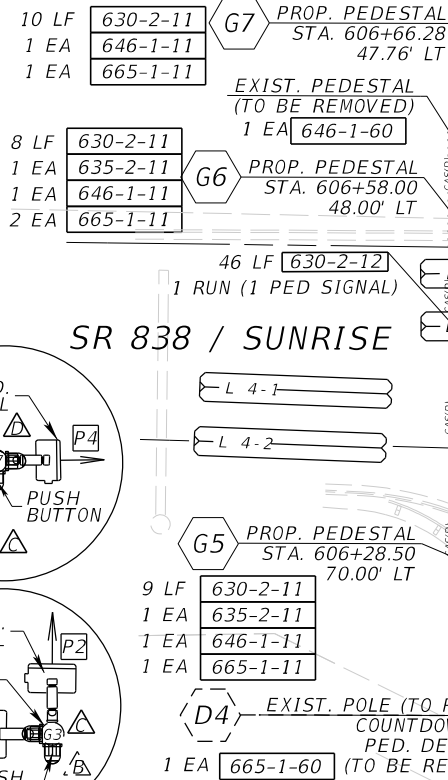
- MAJOR STREET IS SR 7/U.S. 441
MINOR STREET IS SR 838 / SUNRISE BLVD
- FLASHING OPERATION:
HEADS: 1, 2, 4, 5 & 7 - FLASHING RED
- EXISTING SIGNAL OPERATIONS TO REMAIN

LEGEND

- EXIST. VEHICLE VIDEO DETECTION CAMERA
- EXIST. LOOP DETECTORS
- EXIST. MAST ARMS AND SIGNAL PEDESTALS TO REMAIN
- EXIST. PEDESTRIAN COUNTDOWN PEDESTALS TO REMAIN



SR 838 / SUNRISE



SR 7 / US 441 &
SR 838 / SUNRISE BLVD
BC TS: 2036

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

HBC ENGINEERING COMPANY
8935 NW 35TH LANE, SUITE 201,
DORAL, FLORIDA, 33172
PHONE: (305) 232-7932 FAX: (305) 232-7933
ENGINEER OF RECORD: JOSE A. LOPEZ, P.E.
P.E. LICENSE NUMBER 81014

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 7	BROWARD	429576-3-52-01

SIGNALIZATION PLAN

SHEET
NO.

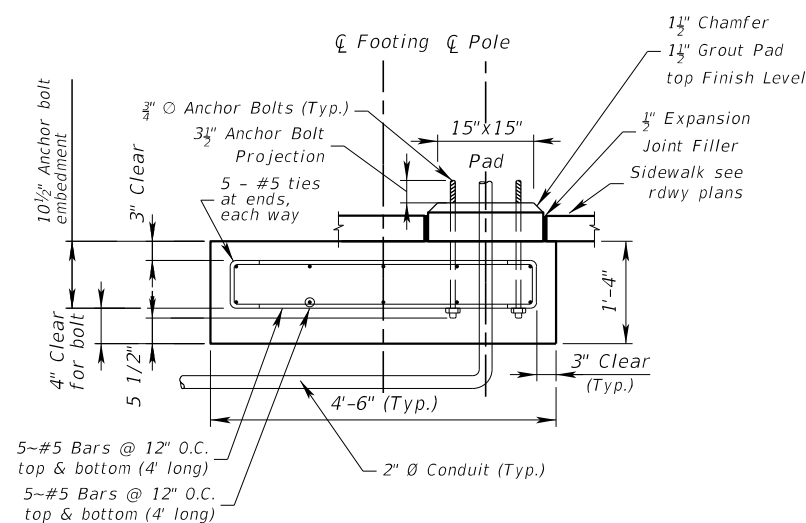
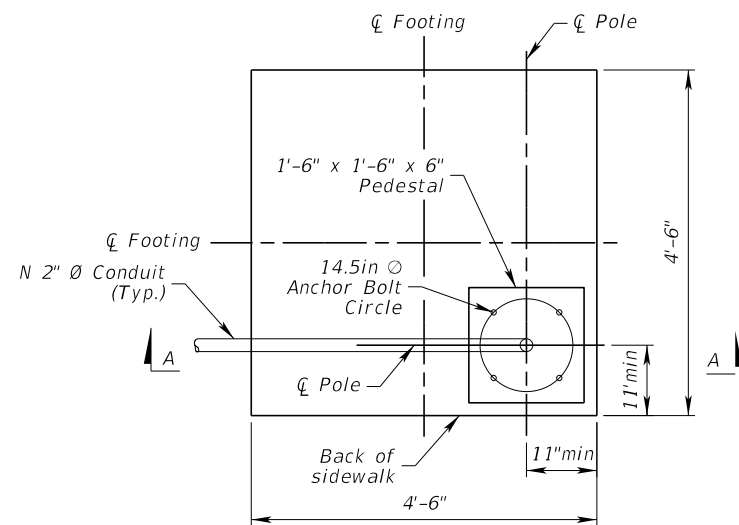
T-9

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STANDARD MAST ARM ASSEMBLIES DATA TABLE											
STRUCTURE ID NUMBERS	DESIGNATION	FIRST ARM		SECOND ARM		UF (deg)	LL (deg)	POLE			DRILLED SHAFT ID
		ARM ID	FAA (ft.)	ARM ID	SAA (ft.)			POLE ID	UAA (ft.)	UB (ft.)	
A-3	A40/S - P2/S - DS/12/4.5	A40/S						P2/S	23.0	20.0	DS/12/4.5

- NOTES:
- IF AN ENTRY APPEARS IN COLUMN FAA, A SHORTER ARM IS REQUIRED. THIS IS OBTAINED BY REMOVING LENGTH FROM THE ARM TIP AND THE ARM LENGTH SHORTENED FROM FA TO FAA. SAA SIMILAR.
 - IF AN ENTRY APPEARS IN COLUMN UAA, A SHORTER POLE IS REQUIRED. THIS IS OBTAINED BY REMOVING LENGTH FROM THE POLE TIP AND THE POLE HEIGHT SHORTENED FROM UA TO UAA.
 - ARM MOUNTING HEIGHT UB MUST BE BETWEEN 18-22 FEET.
 - POLE TYPES P2 AND LARGER REQUIRE A MINIMUM 4.5 FOOT DIAMETER DRILLED SHAFT. POLE TYPES P5 AND LARGER REQUIRE A MINIMUM 5.0 FOOT DIAMETER DRILLED SHAFT.
 - WORK THIS SHEET WITH THE SIGNAL DESIGNER'S "MAST ARM TABULATION". SEE "MAST ARM TABULATION" FOR SPECIAL INSTRUCTIONS THAT INCLUDE NON-STANDARD HANDHOLE LOCATION, PAINT COLOR, TERMINAL COMPARTMENT REQUIREMENT, AND PEDESTRIAN FEATURES.
 - WORK WITH INDEX 649-030 AND 649-031.

REVISIONS				HBC ENGINEERING COMPANY 8935 NW 35TH LANE, SUITE 201, DORAL, FLORIDA, 33172 PHONE: (305) 232-7932 FAX: (305) 232-7933 ENGINEER OF RECORD: ADEBAYO COKER, P.E. P.E. LICENSE NUMBER 55322	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			STANDARD MAST ARM DATA TABLE
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR 7	BROWARD	429576-3-52-01	



SECTION A-A
SHALLOW FOUNDATION DETAIL

NOTES:

1. FOOTING CONSTRUCTION TO BE IN ACCORDANCE WITH SECTION 455 OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND SUPPLEMENTS THERETO.
2. THE FOOTING HAS BEEN DESIGNED FOR A SIGNAL POLE OF UP TO 10 FT IN HEIGHT, AND A DESIGN WIND SPEED OF 160 MPH IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN MANUAL, VOLUME 3 (MODIFICATIONS TO AASHTO LRFDLTS-1), FOR STRUCTURES EQUAL TO OR SMALLER THAN 50 FT IN HEIGHT. THE POLE IS DESIGNED TO SUPPORT TWO SETS OF SIGNALS AND SIGNS TO ACCOMMODATE TWO CROSSINGS.
3. MATERIALS:
 - A. CONCRETE: CONCRETE SHALL BE CLASS IV, F'C = 5,500PSI, IN ACCORDANCE WITH SPECIFICATION SECTION 346.
 - B. REINFORCING STEEL: ALL REINFORCING STEEL SHALL BE ASTM A615, GRADE 60.
 - C. ANCHOR BOLTS SHALL BE IN ACCORDANCE WITH ASTM F1554 GRADE 55.
 - D. NUTS SHALL BE IN ACCORDANCE WITH ASTM A563, GRADE DH, HEAVY HEX NUTS.
 - E. WASHERS SHALL BE IN ACCORDANCE WITH ASTM F436, TYPE 1.

ALL BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM F2329.

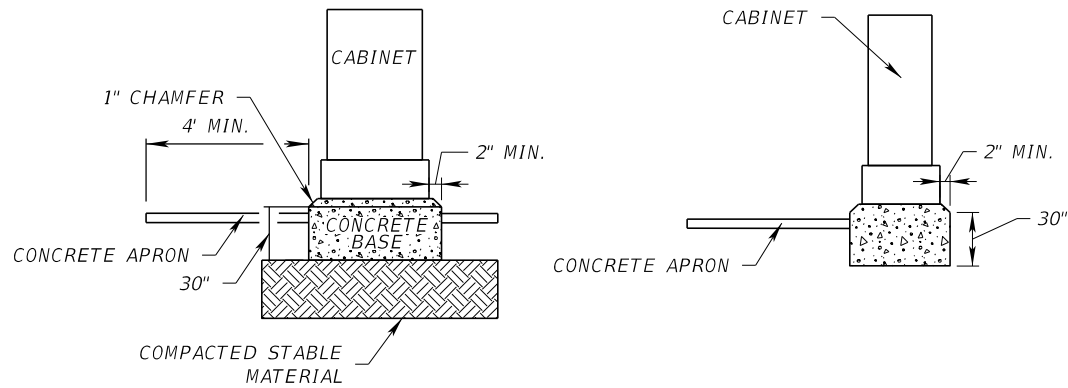
4. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING UTILITIES AND STRUCTURES PRIOR TO BEGINNING WORK AND NOTIFY THE ENGINEER OF ANY CONFLICTS.

THE REQUIRED SOIL COVER UNDER THE FOOTING AND ABOVE THE UTILITY BEING CLEARED SHALL BE VERIFIED WITH THE RESPECTIVE UTILITY OWNER. THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED IN THE EVENT THE REQUIRED COVER IS NOT ACHIEVABLE UNDER THE CURRENT DESIGN. ANY ADJUSTMENTS TO THE CURRENT DESIGN SHALL BE AS APPROVED BY THE ENGINEER IN COORDINATION WITH THE ENGINEER OF RECORD.

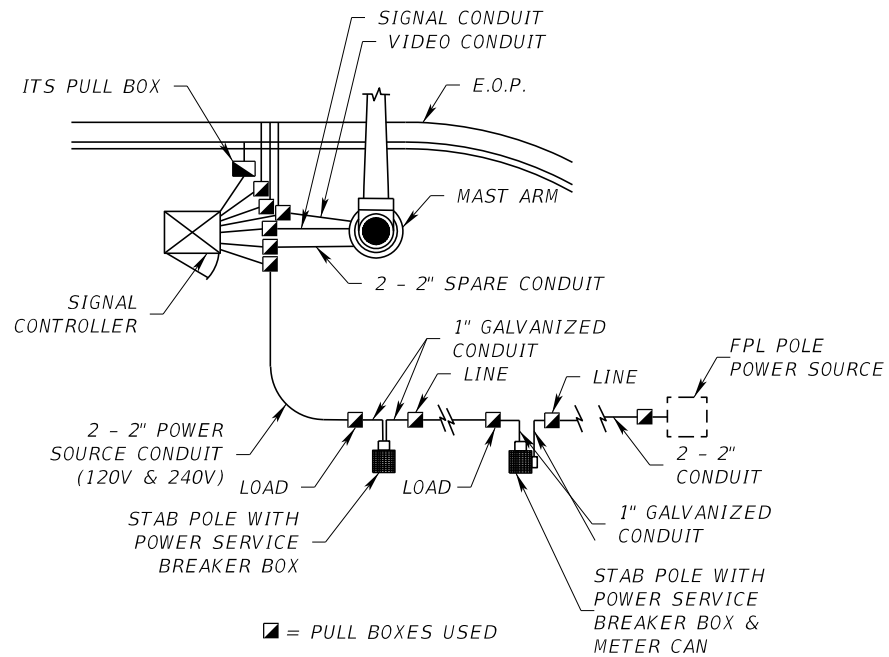
ANY DAMAGES TO EXISTING UTILITIES DURING EXCAVATION, BACK FILLING, AND CONSTRUCTION OF THE FOOTING SHALL BE REPAIRED SOLELY AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE UTILITY OWNER.

5. ADJUST REINFORCING BARS AS REQUIRED TO AVOID CONFLICT WITH CONDUITS.
6. ENVIRONMENTAL CLASSIFICATION = MODERATELY AGGRESSIVE.
7. THE SPREAD FOOTING DESIGN IS BASED ON A NOMINAL BEARING RESISTANCE OF 5000 PSF.
8. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THE ANCHOR BOLT CONFIGURATION IS COMPATIBLE WITH THE SIGNAL POLE BASE PLATE. SUBMIT MODIFICATIONS OF THE ANCHOR BOLT DESIGN TO THE ENGINEER FOR APPROVAL.
9. ALL CONDUIT SHALL BE P.V.C SCHEDULE 40. CONDUIT ROUTING SHOWN IS SCHEMATIC ONLY AND MAY BE ADJUSTED FOR EACH LOCATION AS REQUIRED.

REVISIONS				HBC ENGINEERING COMPANY 8935 NW 35TH LANE, SUITE 201, DORAL, FLORIDA 33172 PHONE: (305) 232-7932 FAX: (305) 232-7933 ENGINEER OF RECORD: ADEBAYO COKER, P.E. P.E. LICENSE NUMBER 55322	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PEDESTAL MOUNTED SIGNAL SHALLOW FOUNDATION DETAIL	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		T-13
					SR 7	BROWARD	429576-3-52-01		



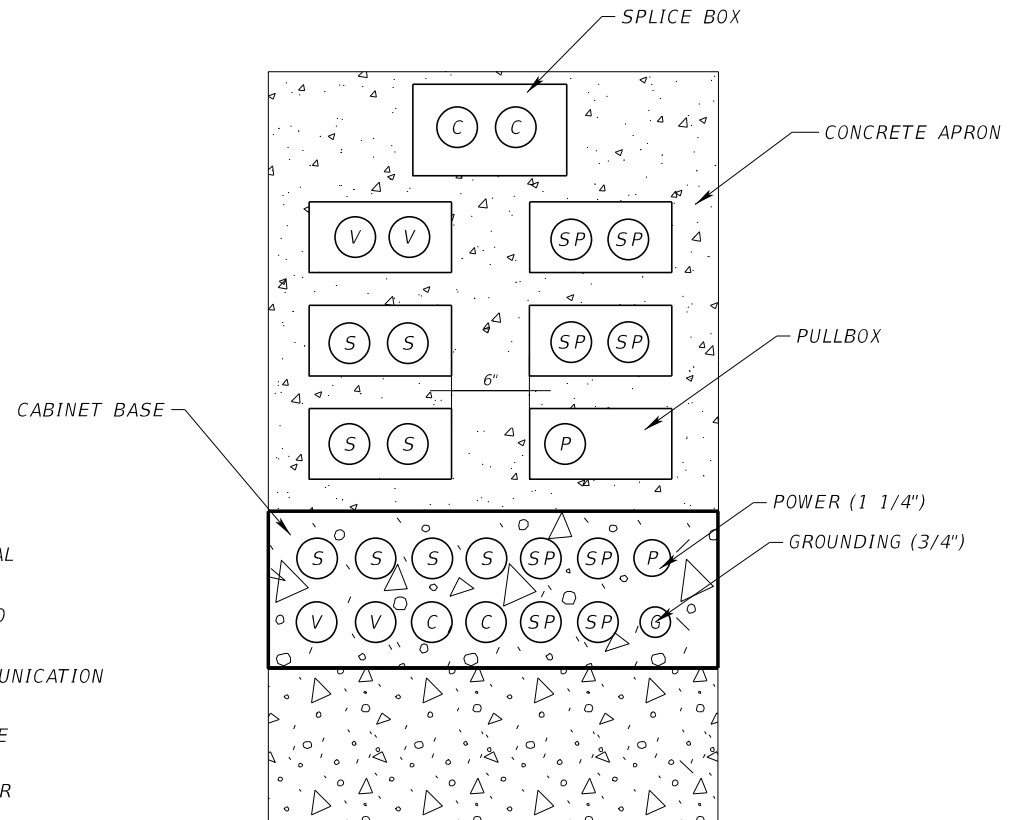
CABINET PAD DETAIL
N.T.S.



POWER SERVICE PLAN VIEW DETAIL
N.T.S.

LEGEND

- (S) SIGNAL
- (V) VIDEO
- (C) COMMUNICATION
- (SP) SPARE
- (P) POWER
- (G) GROUND
- [Concrete Symbol] CONCRETE

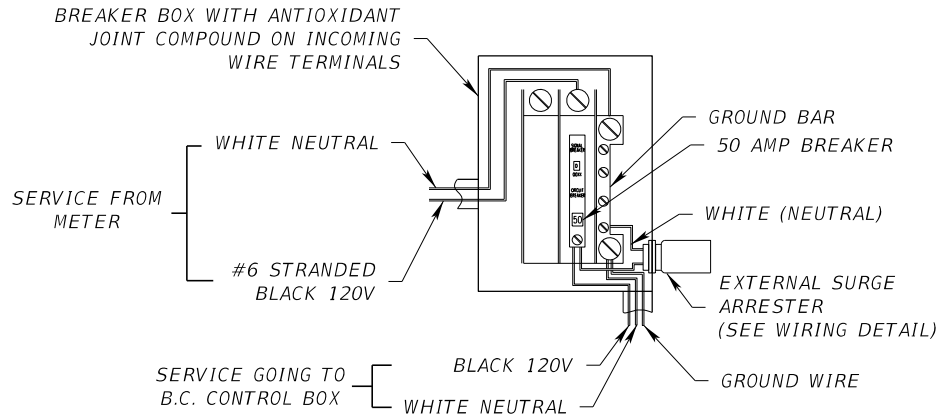


PULL BOX CABINET CONDUIT DETAILS
N.T.S.

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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.

REVISIONS				<div>HBC ENGINEERING COMPANY 8935 NW 35TH LANE, SUITE 201, DORAL, FLORIDA, 33172 PHONE: (305) 232-7932 FAX: (305) 232-7933 ENGINEER OF RECORD: JOSE A. LOPEZ, P.E. P.E. LICENSE NUMBER 81014</div>	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SPECIAL DETAILS	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 7	BROWARD	429576-3-52-01		T-14

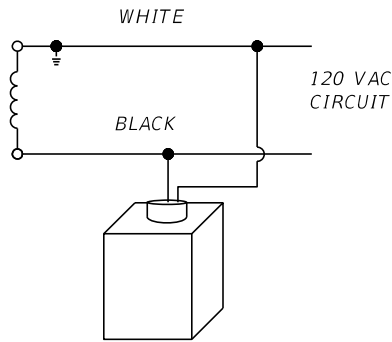


NOTES

1. ALL TERMINALS MUST HAVE DIE ELECTRIC GREASE TO PREVENT CORROSION
2. SURGE ARRESTER SHALL BE WIRED ON THE LOAD SIDE OF THE DISCONNECT
3. DISCONNECT SHALL USE BREAKERS, NO FUSES OR EXTERNAL SWITCHES PERMITTED

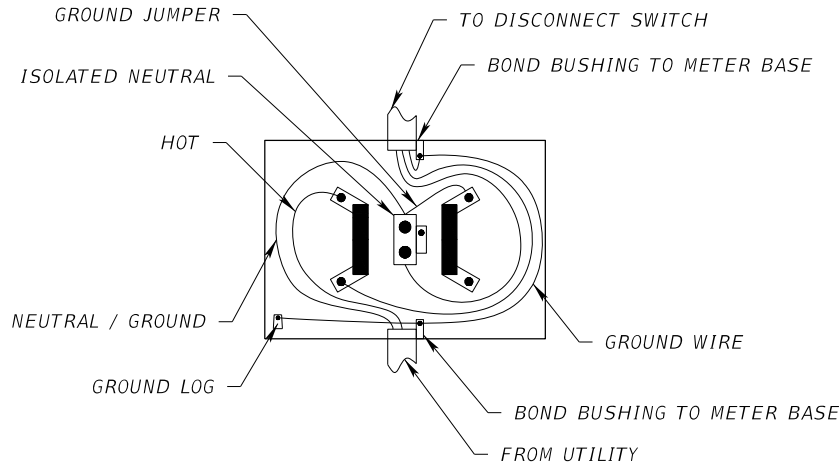
SERVICE DISCONNECT/BREAKER ASSEMBLY

N.T.S.



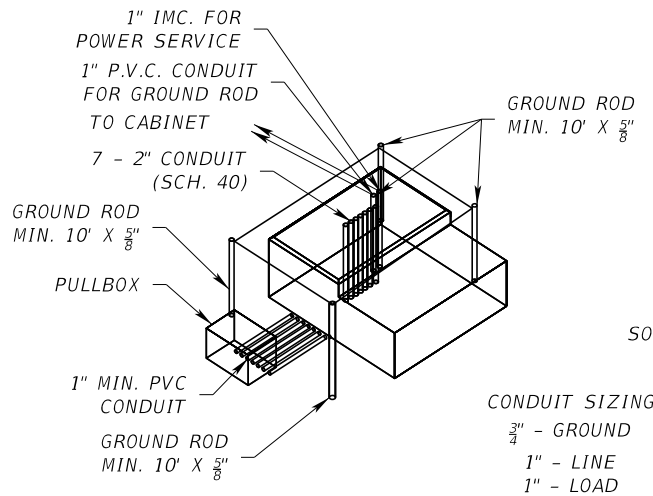
SURGE ARRESTER WIRING DETAILS

N.T.S.



METER SOCKET DETAIL

N.T.S.

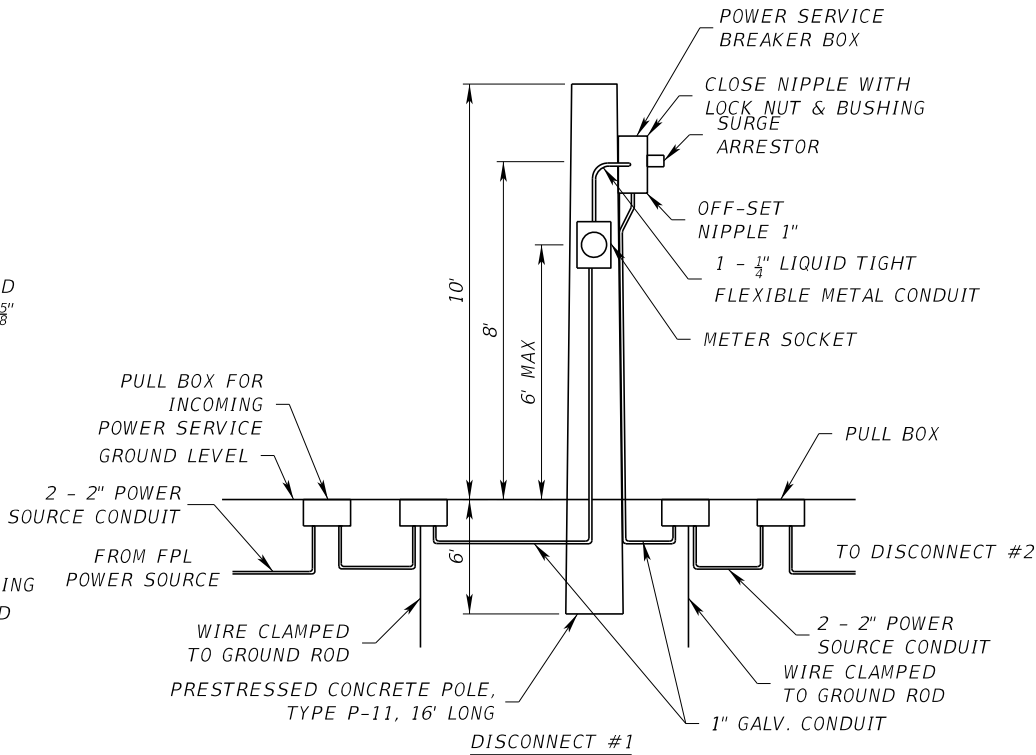


TYPICAL GROUND ROD ARRAY

N.T.S.

NOTES:

1. FOUR (4) PERIMETER GROUND RODS SHALL BE BURIED 6" BELOW GROUND LEVEL (BOUNDED)
2. ALL DUCTS SHALL BE SEALED

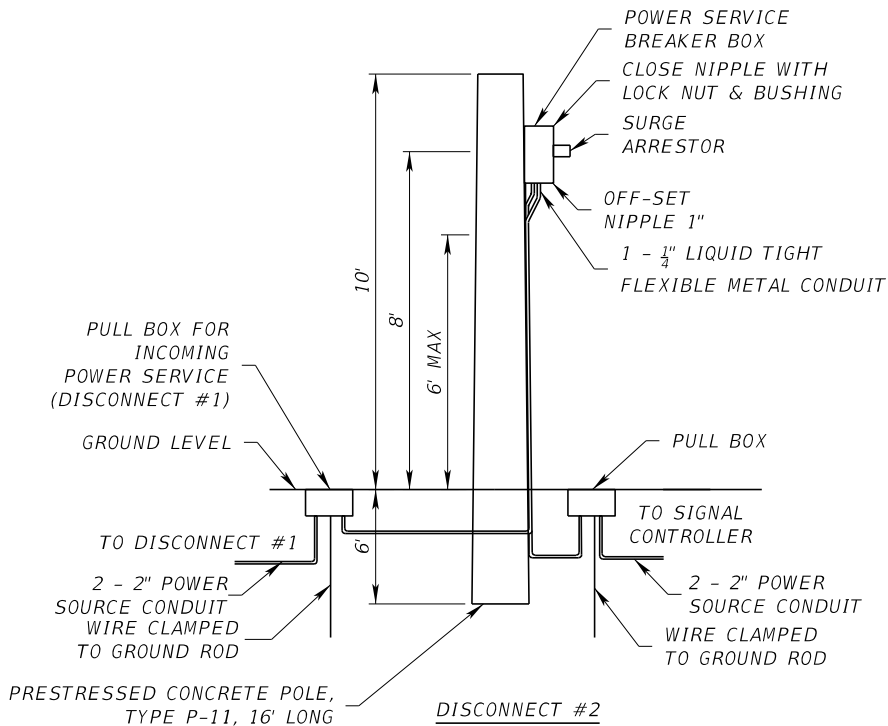


STUB POLE DETAIL

N.T.S.

NOTES

1. METER SHALL BE ORIENTED ON SIDE OF CONCRETE POLE FACING ONCOMING TRAFFIC

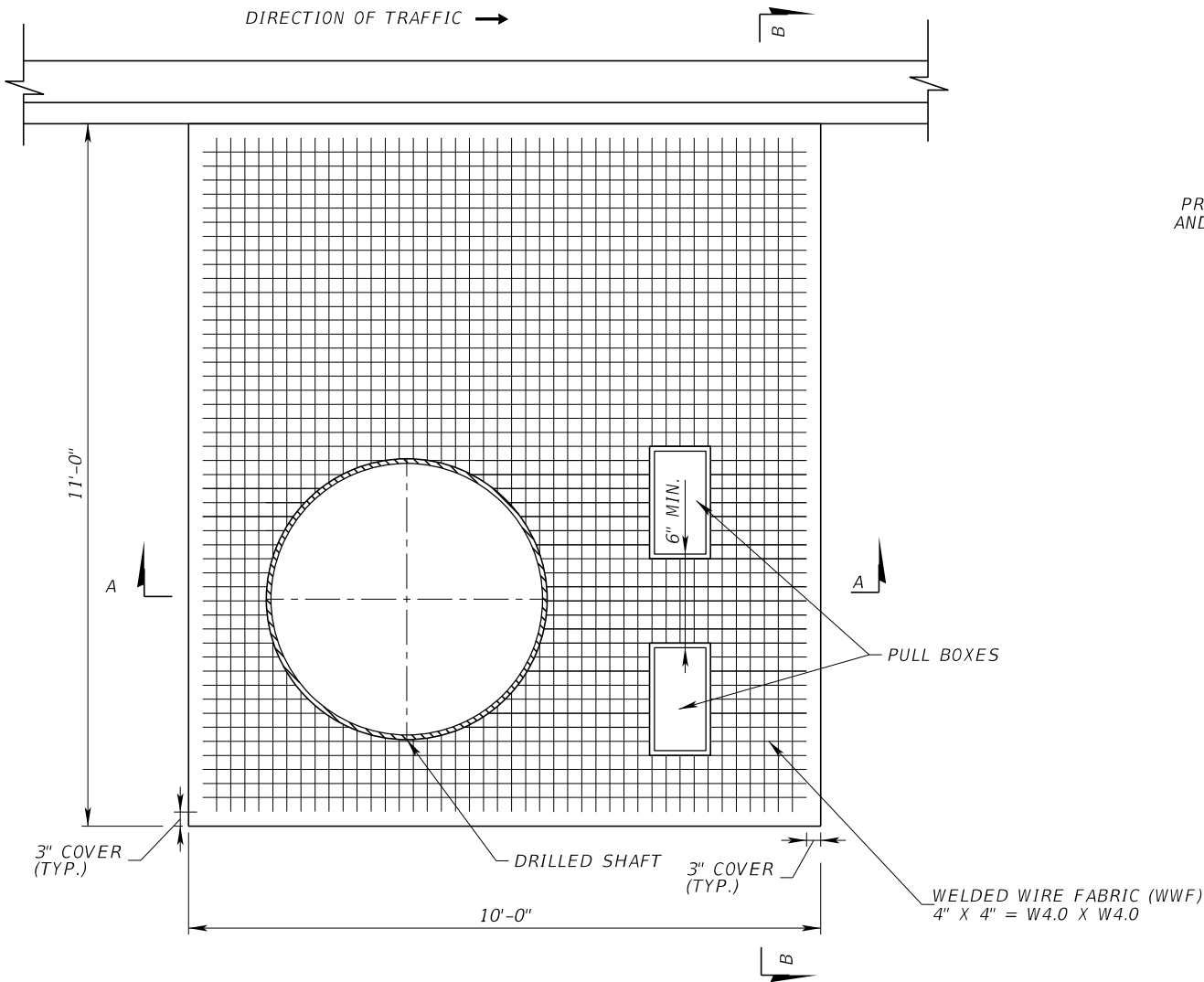


SERVICE POINT DETAIL

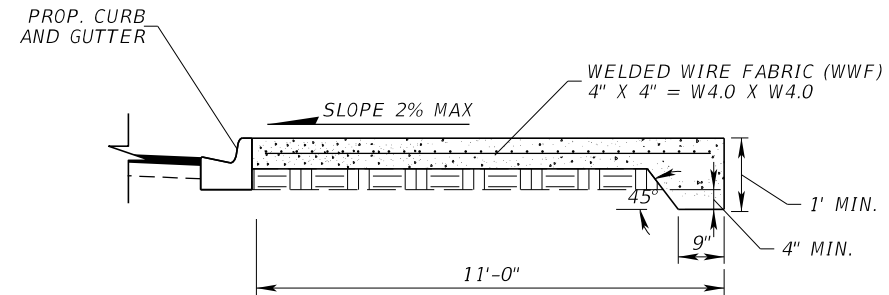
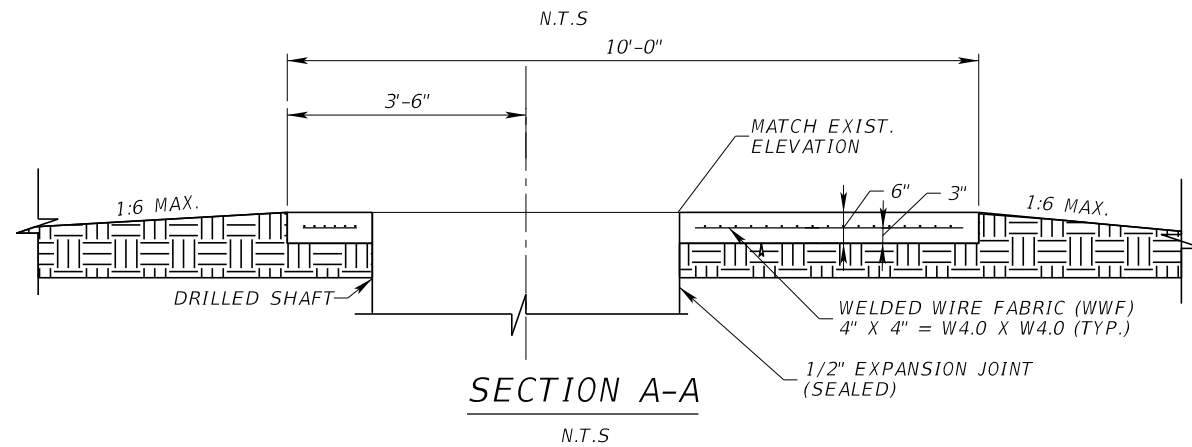
SHEET NO.

T-15

10/31/2024 6:22:23 PM GB154
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SLAB DIMESIONS AND REINFORCEMENT LAYOUT



SECTION B-B
N.T.S

NOTES:

1. CONCRETE FOR SLABS AROUND MAST ARMS AND PULL BOXES SHALL BE INCLUDED IN THE PRICE OF MAST ARM OR PULL BOX.
2. DRILL SHAFT CONCRETE SHALL NOT SUBJECTED TO VIBRATIONS UNTIL CONCRETE SLAB HAS ATTAINED FINAL COMPRESSIVE STRENGTH.
3. SEAL WITH A HOT POURED ELASTIC JOINT SEALER THE 1/2" EXPANSION JOINT BETWEEN THE POLE SHAFT AND SLAB.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

HBC ENGINEERING COMPANY
8935 NW 35TH LANE, SUITE 201,
DORAL, FLORIDA, 33172
PHONE: (305) 232-7932 FAX: (305) 232-7933
ENGINEER OF RECORD: ADEBAYO COKER, P.E.
P.E. LICENSE NUMBER 55322

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			CONCRETE SLAB DETAIL	SHEET NO.
ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
SR 7	BROWARD	429576-3-52-01		T-16