

COUNTY OF PALM BEACH
STATE OF FLORIDA

LYONS ROAD

FROM L.W.D.D. L-30 CANAL TO BOYNTON BEACH BLVD.
SIGNALIZATION PLANS

INDEX OF SIGNALIZATION PLANS

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BOARD OF COUNTY COMMISSIONERS
PROJECT NO. 2018503

MARIA G. MARINO
DISTRICT 1

GREGG K. WEISS
DISTRICT 2

MARCI WOODWARD
VICE MAYOR
DISTRICT 4

SARA BAXTER
MAYOR
DISTRICT 6



JOEL G. FLORES
DISTRICT 3

MARIA SACHS
DISTRICT 5

BOBBY POWELL JR.
DISTRICT 7

This item has been digitally signed and sealed by Majharul Alam on the date adjacent to the seal.

Signature must be verified on any electronic copies.

FINAL SUBMITTAL

GOVERNING STANDARDS:

THE FDOT ROADWAY & TRAFFIC DEISGN STANDARDS FY 2024-25 AND SUPPLEMENTS AND ALL PROVISIONS THERETO NOTED IN THE CONTRACT FOR THIS PROJECT.

GOVERNING SPECIFICATIONS ARE CONTAINED IN THE CONTRACT DOCUMENTS FOR THIS PROJECT.

ENGINEER'S CERTIFICATION

I HEREBY CERTIFY THAT THE ATTACHED PLANS AND DESIGN ARE IN SUBSTANTIAL COMPLIANCE WITH THE DESIGN STANDARDS AND CRITERIA IN EFFECT ON THIS DATE FOR PALM BEACH COUNTY ENGINEERING DEPARTMENT AND THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION.

APPROVED BY: MAJHARUL, ALAM, PE, PMP

DATE: 3/9/2026

P.E. NO.: FL REGISTRATION NO 61600



PROPEL ENGINEERING, LLC.
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Seal:

MAJHARUL ALAM, PE
P.E.# 61600

No.	Revisions	By	Date



PALM BEACH COUNTY
ENGINEERING AND PUBLIC WORKS
ROADWAY PRODUCTION
P.O. BOX 21229, WEST PALM BEACH, FLORIDA

SCALE: N.T.S.
APPROVED: MA
DRAWN: DS
CHECKED: IA
DATE: 3/9/2026

LYONS ROAD
L.W.D.D. L-30 CANAL TO BOYNTON BEACH BLVD.
COVER SHEET

SHEET: T-1
OF: T-12
PROJECT NO.
2018503

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS		SHEET NUMBERS		TOTAL THIS SHEET		GRAND TOTAL	
			T - 6		T - 8					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11-2A	ADDITIONAL 2" PVC (SCH 40) CONDUIT, IN OPEN TRENCH	LF	40		45		85		85	
630-2-12-2-4	4-2" (HDPE SDR 11) UNDER PAVEMENT CONDUIT (DIRECTIONAL BORE)	LF	365				365		365	
632-7-4	SIGNAL CABLE, ADJUST	PI	1				1		1	
632-7-6	SIGNAL CABLE, REMOVE - IN INTERSECTIONADJUST	PI			1		1		1	
635-2-12-A	PULL BOX (17" X 30" X 12"D) HEAVY DUTY COVERS (TIER 22)	EA	7		3		10		10	
639-1-121	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER FURNISHED BY POWER COMPANY	AS			1		1		1	
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA			1		1		1	
641-2-12-16	PRESTRESSED CONCRETE POLE, F&I, 16' TYPE P-II SERVICE POLE	EA			1		1		1	
641-2-80	CONCRETE POLE REMOVAL - DEEP (INCLUDES POLE AND COMPLETE REMOVAL OF THE POLE FOUNDATION DEPTH OF UP TO 25 FEET) INCLUDES DISPOSAL OF POLE WHEN INSTRUCTED BY ENGINEER	EA			2		2		2	
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL	EA	1		2		3		3	
646-1-60	ALUMINUM SIGNALS POLE, REMOVE	EA	2		1		3		3	
649-22-1L	MAST ARM ASSEMBLY WITH STREET LIGHT, FURNISH AND INSTALL ON EXISTING FOUNDATION, SINGLE ARM 30' (A30/S-P1/S/L)	EA			1		1		1	
649-22-6L	MAST ARM ASSEMBLY WITH STREET LIGHT, FURNISH AND INSTALL ON EXISTING FOUNDATION, SINGLE ARM 50' (A50/S-P3/S/L)	EA			1		1		1	
649-22-21L-HD	MAST ARM ASSEMBLY WITH STREET LIGHT, FURNISH AND INSTALL ON EXISTING FOUNDATION, SINGLE ARM 78' HEAVY DUTY (A78/S-P6/S /L-HD)	EA			1		1		1	
649-2-12-40	DRILLED SHAFT FOUNDATION ASSEMBLY, 12' DEEP AND 4.0' DIAMETER, FURNISH AND INSTALL (DS/12/4.0)	EA			1		1		1	
649-2-18-45	DRILLED SHAFT FOUNDATION ASSEMBLY, 18' DEEP AND 4.5' DIAMETER, FURNISH AND INSTALL (DS/18/4.5)	EA			1		1		1	
649-2-20-50	DRILLED SHAFT FOUNDATION ASSEMBLY, 20' DEEP AND 5.0' DIAMETER, FURNISH AND INSTALL (DS/20/5.0)	EA			1		1		1	
649-2-20-50-AD	ADDITIONAL DEPTH FOR DRILLED SHAFT FOUNDATION ASSEMBLY, 20' DEEP AND 5.0' DIAMETER, FURNISH AND INSTALL (DS/20/5.0)	LF			4		4		4	
650-1-13	VEHICULAR TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 3 SECTION, 1 WAY	AS			7		7		7	
650-1-14	VEHICULAR TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 4 SECTION, 1 WAY	AS			2		2		2	
653-191	PEDESTRIAN SIGNAL - COUNT DOWN (1-WAY) ALUMINUM	EA			2		2		2	
653-192	PEDESTRIAN SIGNAL - COUNT DOWN (2-WAY) ALUMINUM	EA	1		2		3		3	
660-1-109	LOOP DETECTOR INDUCTIVE, F&I, TYPE 9	EA	12		9		21		21	
660-2-106-B	LOOP ASSEMBLY (TYPE F - 46')	EA	12		9		21		21	
665-1-11	PEDESTRIAN DETECTOR, FURNISH & INSTALL, STANDARD	EA	2		2		4		4	
690-80	REMOVE SPAN WIRE ASSEMBLY	PI			1		1		1	
700-5-22	INTERNALLY ILLUMINATED SIGN (8') FLUORESCENT	EA			3		3		3	
715-11-211-L2	FURNISH AND INSTALL 263 WATT COBRAHEAD LED LUMINAIRE	EA			3		3		3	

SIGNALIZATION GENERAL NOTES:
PRIOR TO CONSTRUCTION:

1. CONTRACTOR SHOULD REVIEW AND ADHERE TO THE PALM BEACH COUNTY TRAFFIC SIGNAL INSTALLATION STANDARDS AND DETAILS 2024 (OR LATEST REVISED EDITION) AND THE FDOT ROADWAY DESIGN STANDARDS 2024-2025 (LATEST EDITION).
2. PRIOR TO EQUIPMENT ORDER, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE EOR AND PALM BEACH COUNTY TRAFFIC DIVISION EQUIPMENT SPECIFICATIONS OR DESIGN DATA FOR ALL MATERIAL PROPOSED FOR THE PROJECT. THIS SHALL INCLUDE, BUT IS NOT LIMITED TO:
 - I. NON-STRUCTURAL SUBMITTALS
ALL GUIDE SIGN LEGENDS (IF DIFFERENT FROM DETAILED)
CONTROLLER CABINET AND ASSEMBLY
VIDEO DETECTION SYSTEM.
 - II. STRUCTURAL SUBMITTALS
SIGN STRUCTURES, INCLUDING CANTILEVER TRUSSES AND FOUNDATIONS
MAST ARM, POLE, AND FOUNDATIONS
MAST ARM POLES WITH LUMINAIRE ATTACHMENTS SHALL BE PROVIDE WITH SHOP DRAWINGS AND CALCULATIONS.
3. SHOP DRAWINGS AND DESIGN DATA SHALL BE SUBMITTED ELECTRONICALLY TO THE EOR WITH A COPY SENT TO PALM BEACH COUNTY TRAFFIC DIVISION AT ENG-TRAFF-INSPECTION@PBCGOV.ORG ALLOW 30 DAYS TURN AROUND FOR SUBMITTALS.
4. THE CONTRACTOR SHALL CONTACT PBC TRAFFIC OPERATIONS AT 561-233-3900 FORTY-EIGHT (48) HOURS PRIOR TO CONSTRUCTION IF WORK IS BEING DONE WITHIN 10 FEET OF ANY SIGNAL EQUIPMENT OR IN ADVANCE OF ANY SIGNAL RELATED INSTALLATION WORK.
5. ALL SIGNS AND OTHER TRAFFIC CONTROL DEVICES, EXCEPT EQUIPMENT SHOWN OR NOTED ON THE PLAN SHEETS FOR REMOVAL BY OTHERS, SHALL BE REMOVED BY THE CONTRACTOR AND STOCKPILED WITHIN THE RIGHT OF WAY ONLY AFTER 48 HOUR NOTICE TO THE MAINTAINING AGENCY. CONTROL DEVICES SHALL THEN BE REMOVED BY OTHERS FOR DELIVERY TO THE NOTIFIED AGENCY.
6. ALL REMOVED ITEMS TO BE DELIVERED TO PBCTED AT 2555 VISTA PARKWAY WEST PALM BEACH FL - CALL 48 HOURS PRIOR TO DELIVERY (561) 233-3900. CONCRETE POLES CAN BE DISCARDED/PROPERLY DISPOSED OF.
7. DURING DEEP REMOVAL OF MAST ARM FOUNDATION (AND ANY OTHER POLE REMOVAL), IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE ANY OTHER FOUNDATION OR STRUCTURE IN THE CLOSE PROXIMITY OF THE FOUNDATION BEING REMOVED. IF THE CONTRACTOR DETERMINES ANY STRUCTURE OR FOUNDATION IN CLOSE PROXIMITY OF FOUNDATION REMOVED COULD POTENTIALLY BE COMPROMISED, THEY SHALL SECURE IT.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD CHECKING INTERSECTION OPERATIONS AS THEY RELATE TO THE INSTALLATION OF MAST ARMS.
9. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THE MAST ARM LOCATIONS ARE CLEAR OF ANY UNDERGROUND CONFLICTS PRIOR TO ORDERING THE MAST ARMS.
10. TEMPORARY DETECTION REQUIRED IF THE EXISTING VEHICLE DETECTION WILL BE IMPACTED AND OUT OF SERVICE FOR MORE THAN 30 DAYS AND IF PEDESTRIAN DETECTION OUT OF SERVICE FOR MORE THAN 3 DAYS WHILE LOCATION IS UNDER CONSTRUCTION.
11. ALL PUBLIC LAND CORNERS AND MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE PROTECTED BY THE CONTRACTOR AS FOLLOWS: CORNERS AND MONUMENTS IN CONFLICT WITH THE WORK AND IN DANGER OF BEING DAMAGED, DESTROYED, OR COVERED HAVE TO BE PROPERLY REFERENCED BY A PROFESSIONAL LAND SURVEYOR. THIS SHALL BE DONE IN ACCORDANCE WITH THE MINIMUM TECHNICAL STANDARDS OF THE FLORIDA BOARD OF PROFESSIONAL LAND SURVEYORS. PRIOR TO BEGINNING WORK AT THE SITE, THE CONTRACTOR SHALL RETAIN A LAND SURVEYOR TO REFERENCE THE RESTORE, UPON COMPLETION OF THE WORK, ALL SUCH CORNERS AND MONUMENTS. THE CONTRACTOR SHALL FURNISH, TO THE DISTRICT LOCATION SURVEYOR, A SIGNED AND SEALED COPY OF THE LAND SURVEYOR'S REFERENCE DRAWING.
12. ALL SURVEY BENCHMARK MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED AND REFERENCED BY THE CONTRACTOR IN THE SAME WAY AS PUBLIC LAND CORNERS, EXCEPT THAT THE LAND SURVEYOR SHALL NOT BE REQUIRED TO RESTORE THE NGVD BENCH MARK UPON COMPLETION OF THE WORK. THE CONTRACTOR SHALL PROMPTLY TRANSMIT ALL DISPLACED FOR DAMAGED NGVD DISCS TO THE DISTRICT LOCATION SURVEYOR, WHO WILL NOTIFY THE GEODETIC INFORMATION CENTER.
13. ALL EXISTING SIGNALIZATION EQUIPMENT IS ASSUMED TO BE IN GOOD WORKING ORDER UNLESS PBCTED IS NOTIFIED IN WRITING PRIOR TO START OF CONSTRUCTION. ANY SUBSEQUENT DAMAGE TO THE SIGNAL EQUIPMENT SHALL BE REPAIRED BY THE CONTRACTOR.
14. EXISTING COMMUNICATIONS OR COMMAND WIRE CONNECTIONS SHALL BE MAINTAINED AT ALL SIGNALIZED LOCATIONS DURING CONSTRUCTION. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, INTERCONNECT, RAILROAD FLASHING BEACONS, RAILROAD PREEMPTION, EMERGENCY VEHICLE PREEMPTION, AND SCHOOL ZONE FLASHERS. CONTRACTOR TO PROVIDE TEMPORARY LINES AND CONNECTIONS IF NECESSARY. COST OF MAINTAINING COMMUNICATION INCLUDING TEMPORARY CONNECTIONS SHALL BE INCLUDED IN PAY ITEM 102-1 MOT. A CELLULAR COMMUNICATION PLAN MAY NEED TO BE INSTALLED AND APPROVED BY THE COUNTY TO MAINTAIN CONTINUOUS COMMUNICATION THROUGHPUT THE PROJECT.
15. THE CONTRACTOR SHALL PREPARE TRAFFIC CONTROL PLANS AND SUBMIT THEM FOR REVIEW AND APPROVAL BY THE ENGINEER OF RECORD AND THE TRAFFIC DIVISION - MOT SECTION AT LEAST TWO (2) WEEKS IN ADVANCE OF PROPOSED WORK. NO LANE CLOSURES ARE ALLOWED DURING AM AND PM PEAK HOURS (BASED ON LANE CLOSURE ANALYSIS).
16. ALL PEDESTRIAN DETOURS FOR MOT TO BE PRE-APPROVED BY PBC TRAFFIC ENGINEERING DIVISION.
17. NO EXISTING PEDESTRIAN CROSSING TO BE ELIMINATED AT ANY TRAFFIC SIGNAL WITHOUT PRE-APPROVAL FROM PBC TRAFFIC ENGINEERING.
18. IT SHOULD BE NOTED THAT NO TEST BORINGS WERE MADE WHERE CONDUIT RUNS ARE TO BE INSTALLED BY DIRECTIONAL BORING OR TRENCHING. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS IN ACCORDANCE WITH SECTION 2-4 OF THE FDOT STANDARD SPECIFICATIONS.
19. THE CONTRACTOR IS TO USE CAUTION WHEN WORKING IN OR AROUND AREAS OF EXISTING LOOP AND LEAD IN WIRE, OVERHEAD TRANSMISSION LINES AND UNDERGROUND UTILITIES. THE CONTRACTOR SHALL EXCAVATE BY HAND WHERE CONFLICTS MAY EXIST. DAMAGE TO LOOPS AND ANY SIGNAL EQUIPMENT CAUSED BY CONSTRUCTION OF THIS PROJECT SHALL BE REPAIRED OR REPLACED TO ORIGINAL OR BETTER CONDITION AT NO COST TO PALM BEACH COUNTY.

DURING CONSTRUCTION:

20. CONTRACTOR TO MAINTAIN EXISTING SIGNAL OPERATIONAL AT ALL TIMES.
21. MAST ARM CONCRETE FOUNDATION SHALL BE POURED IN A SINGLE POUR, FOUNDATIONS THAT DO NOT COMPLY WITH THIS REQUIREMENT SHALL BE COMPLETELY REMOVED AND RE-POURED AT THE CONTRACTOR'S EXPENSE. A DRILL SHAFT INSTALLATION PLAN SHALL BE PART OF THE SHOP DRAWINGS.
22. CONTRACTOR IS RESPONSIBLE FOR THE PROPER BOLT PROJECTION ABOVE FINISHED SIDEWALK GRADE. THE CONTRACTOR SHALL ENSURE THAT THE DRILL SHAFT AND BOLT PATTERNS ARE INSTALLED CORRECTLY SO THAT THE MAST ARM WILL BE ANGLED AS SHOWN ON THE PLANS.
23. IF PHASE 1 (UNDERGROUND ONLY) AND PHASE 2 (ABOVE GROUND) IS PROPOSED ON PERMITTING PROJECTS, CONTRACTOR IS RESPONSIBLE TO ENSURE EXPOSED BOLTS ARE PROTECTED FROM THE ELEMENTS (INSTALL BOLT CAPS).
24. FOR MAST ARM SIGNAL INSTALLATIONS, THE CONTRACTOR SHALL INSTALL WIRE MESH SUPPORT GRIPS FOR STRAIN RELIEF. ALL SIGNAL CABLE MUST BE HELD BY A STRAIN RELIEF (LE GRAND BC0750FSS) ATTACHED TO THE J HOOK INSIDE OF A MAST ARM. TO USE APPROVED EQUIVALENT, SHOP DRAWINGS SHALL BE SUBMITTED TO PBC ENGINEER FOR PREAPPROVAL. WRITTEN APPROVAL FOR SHOP DRAWINGS SHALL BE PROVIDED AT TIME OF FINAL SIGNAL INSPECTION.
25. THE DRILL SHAFT FOUNDATION SHALL BE FLUSH WITH THE SIDEWALK (GROUND LEVEL), NOT BELOW GROUND LEVEL. STRUCTURAL GROUT PAD MUST NOT EXTEND HIGHER THAN A 2" ELEVATION ABOVE FOUNDATION PER FDOT STANDARDS.

26. SIGNAL CABLE - CONTRACTOR SHALL INSTALL TRAFFIC SIGNAL CABLE IN ACCORDANCE WITH PBC STANDARDS. THERE SHALL BE NO SPLICING. IF CONTINUOUS RUNS ARE NOT POSSIBLE, THEN TERMINAL BLOCK SHALL BE USED.
27. CONTROLLER CABINET - THE CONTROLLER CABINET SHALL BE INSTALLED SUCH THAT THE CONTROLLER DOOR WILL OPEN AWAY FROM THE ROADWAY TRAVEL LANES AND POSITIONED TO ALLOW THE TECHNICIAN TO SEE THE INTERSECTION.
28. CONTRACTOR TO PROVIDE A MINIMUM 2 FEET CABLE SLACK AT ALL PULL BOXES AND HAND HOLDS.
29. PEDESTRIAN SIGNALS - EACH PEDESTRIAN SIGNAL SHALL BE FED WITH ONE 7 CONDUCTOR CABLE FOR PEDESTRIAN SIGNAL HEAD AND ONE 4 CONDUCTOR CABLE FOR THE PEDESTRIAN DETECTOR/PUSH BUTTON. THESE CABLES WILL RUN FROM EACH PEDESTRIAN SIGNAL/DETECTOR DIRECTLY TO CONTROL BOX WITH NO SPLICES.
30. POSITION PULL BOXES, CABINETS, POLES AND OTHER OBSTRUCTIVE ITEMS CLEAR OF CURB CUT RAMPS. PULL BOXES SHALL BE PLACED BEHIND CURB AND GUTTER. IF THERE IS NO CURB AND GUTTER, THEN PULL BOXES SHALL BE PLACED AT LEAST 10 FEET FROM THE EDGE OF PAVEMENT. PULL BOXES SHALL NOT BE LOCATED AT THE BOTTOM OF ANY DITCH OR RETENTION AREA/POND. ALL PULL BOXES SHALL HAVE A 1' WIDE (MIN.) X 6" DEEP CONTINUOUS CONCRETE APRON SLOPED AWAY FROM BOX (TYPICALLY 1%)
31. SPARE CABINET CONDUIT SHALL BE STUBBED AND CAPPED IN THE NEAREST PULL BOX. USE GEL CAPS FOR ANY SPARE/USED CONDUIT.
32. THE USE OF "JONES" PLUGS FOR SIGNAL INSTALLATIONS SHALL BE PROHIBITED.
33. ALL FIELD WIRING SHALL BE NEATLY BUNDLED AND CLEARLY IDENTIFIED WITH PERMANENT LEGIBLE, WEATHERPROOF TAGS THAT ARE SECURELY ATTACHED TO EACH CABLE. THE TAGGING SYSTEM PROPOSED SHALL BE SUBMITTED FOR APPROVAL WITH THE OTHER EQUIPMENT SUBMITTALS REQUIRED FOR THIS PROJECT.
34. THE CONTRACTOR SHALL VERIFY COLOR CODES OF SIGNAL CABLE WITH PALM BEACH COUNTY BEFORE ORDERING.
35. DO NOT INSTALL LOOP LEAD-INS WITHIN PAVERS OR IN THE AREA BETWEEN PAVERS AND EDGE OF CURB.FOR ANY INTERSECTIONS WITH PAVERS, THE LEAD-INS NEED TO RUN THROUGH CONDUITS UNDER THE PAVERS.
36. INSTALL PEDESTRIAN SIGNALS PER ADA CLEARANCES, PROVIDING CONTINUOUS UNOBSTRUCTED PEDESTRIAN/WHEELCHAIR CIRCULATION PATH TO PEDESTRIAN AREAS (PUSH BUTTON, RAMP, ETC).
37. THE T-BASE (PEDESTRIAN PEDESTAL BASE) SHALL BE ORIENTED SO THE TECHNICIAN CAN OPEN THE DOOR AND ALSO SEE ON-COMING TRAFFIC. CAULK AS NEEDED IF THERE IS A LARGE GAP BETWEEN CONCRETE FOUNDATION/SIDEWALK AND THE PEDESTAL BASE.
38. PEDESTAL POLE BASE NUT SHOULD BE LARGE ENOUGH TO COVER HOLE AND WASHER.
39. ALL SET SCREWS MUST BE INSTALLED (NONE SHOULD BE MISSING). MOST MANUFACTURES HAVE THEM DESIGNED INTO THE PEDESTRIAN BASES FROM FACTORY. WHEN PEDESTAL POLE IS SET AT PROPER DIRECTION, DRILL AND TAP HOLE THRU BASE AND ALUMINUM CONDUIT. SET SCREWS SHOULD GO THROUGH SIDE OF BASE INTO PEDESTAL POLE TO PENETRATE INTO PIPE TO KEEP IT FROM ROTATING. USING A ¼"X20 SS HEX HEAD BOLT WILL LOCK THE PIPE FROM TURNING.
40. BOLTS SHOULD BE LONG ENOUGH TO PROTRUDE THROUGH THE THREADED HOLE AND HOLD WASHER AND NUT.
41. CAULKING/SEALANT TO BE APPLIED AT ALL SIGNALS FLANGE CONNECTIONS, INCLUDING BUT NOT LIMITED TO THE TOP OF THE FLASHER SIGNAL.
42. THE CONTRACTOR SHALL BUILD NEW ELECTRICAL POWER SERVICE AND DISCONNECT ON MONUMENT WITH A MINIMUM HEIGHT OF EIGHT (8) FEET.
43. THE CONTRACTOR SHALL COORDINATE AND FIELD VERIFY LOCATION(S) OF ELECTRICAL SERVICE POINT PRIOR TO INSTALLING CONDUIT, DISCONNECT SWITCH, TRANSFORMER AND PULL BOXES.
44. POWER SOURCE -ON MODIFICATIONS/UPGRADES TO EXISTING TRAFFIC SIGNALS A) IF ADDING LOAD, THEN ADD METER; B) IF NOT ADDING LOAD (IE JUST RELOCATING SAME EQUIPMENT) KEEP EXISTING POWER SOURCE. ALL NEW INSTALLED SIGNALS WILL BE METERED. CONTRACTOR SHALL COORDINATE WITH FPL FOR NEW INSTALLATION AS REQUIRED. ELECTRIC SERVICE TO BE SET UP IN CONTRACTOR'S NAME, THEN TRANSFERRED TO PBC TRAFFIC DIVISION AFTER 90 DAY BURN AND FINAL ACCEPTANCE.
45. THE CONTRACTOR SHALL COORDINATE WORK SCHEDULE, COORDINATE TIMING AND AUTHORIZATION OF POWER SERVICE WITH PALM BEACH COUNTY TRAFFIC ENGINEERING. CONTACT TIMING ENGINEER (561-684-4030) 2 WEEKS IN ADVANCE OF CONSTRUCTION AND TO COORDINATE TIMING CHANGES PRIOR TO LOOP DAMAGE. CONTACT PBC TRAFFIC OPERATIONS (561-233-3900) TO COORDINATE REPLACING THE OLD SCHOOL FLASHERS AND RETIMING THE NEW SCHOOL FLASHERS.
46. ANY SIGNAL MODIFICATION NECESSARY IN ORDER TO CARRY OUT PROJECT CONSTRUCTION SHALL BE SUBMITTED TO PBC TRAFFIC ENGINEERING DIVISION FOR APPROVAL. SIGNAL MODIFICATION SUBMITTAL TO BE IN A FORM OF A LEGIBLE PLAN THAT CLEARLY SHOWS THE SIGNAL HEAD FACES AND ALIGNMENT WITH THE PROPOSED LANE MODIFICATION, AND SIGNAL PHASING. ALL SIGNAL MODIFICATIONS TO FOLLOW MUTCD MINIMUM REQUIREMENTS.
47. MOT PLANS WILL NOT BE APPROVED UNTIL THE SIGNAL MODIFICATION PLANS HAVE BEEN APPROVED BY PBC TRAFFIC ENGINEERING.
48. THE CONTRACTOR SHALL INSTALL BARRICADES TO CLOSE SIDEWALK RAMP ON THE SW CORNER AT THE TEMPORARY SIGNAL ONCE CONSTRUCTION BEGINS. NOTIFY PBC TRAFFIC OPERATIONS AT 561-233-3900 TO PICK UP EXISTING BARRICADES.

INSPECTION AND ACTIVATION:

49. THE CONTRACTOR SHALL SUBMIT IN WRITING TO THE MAINTAINING AGENCY FOR FINAL INSPECTION ALLOW TWO (2) WEEKS OR INSPECTION. TO SCHEDULE A SIGNAL INSPECTION, PLEASE EMAIL IF YOUR PROJECT IS PART OF PBC ROADWAY PROJECT, THEN COPY IN CONSTRUCTION COORDINATOR/ROAD INSPECTOR.
50. AT THE TIME OF FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL FURNISH PALM BEACH COUNTY WITH TWO (2) COMPLETE COPIES OF SIGNED AND SEALED "AS-BUILT" PLANS AND CONSULTANT TO PROVIDE ELECTRONIC CAD FILES.
51. A 90 DAY BURN-IN PERIOD IS REQUIRED FOR ALL TRAFFIC SIGNAL EQUIPMENT. THE BURN-IN PERIOD WILL COMMENCE UPON A WRITTEN CONDITIONAL ACCEPTANCE BY THE COUNTY AND WILL TERMINATE NINETY (90) CONSECUTIVE DAYS, THEREAFTER, UNLESS AN EQUIPMENT MALFUNCTION OCCURS.
52. AFTER THE SIGNAL INSPECTION IS COMPLETED AND ALL OUTSTANDING ISSUES ARE RESOLVED (PUNCH LIST ITEMS COMPLETED), THE CONTRACTOR CAN REQUEST PB COUNTY TO SCHEDULE THE SIGNAL ACTIVATION. CONTRACTOR OR CEI SHALL REQUEST ACTIVATION TWO WEEKS IN ADVANCE.
53. WITH NEW TRAFFIC SIGNAL INSTALLATION AND PRIOR TO ACTIVATION: VARIABLE MESSAGE SIGNS SHALL BE INSTALLED SEVEN (7) DAYS BEFORE AND SEVEN (7) DAYS AFTER SIGNAL ACTIVATION AS FOLLOWS:

PRIOR TO SIGNAL ACTIVATION

PANEL 1 - TRAFFIC SIGNAL WILL BE PANEL 2- ACTIVE ON DATE (IE THURS JUNE 25)

AFTER SIGNAL ACTIVATION

PANEL 1 - TRAFFIC SIGNAL PANEL 2- NOW ACTIVE

NOTES ADDED JANUARY 2021

54. DURING CONSTRUCTION OF NEW SIGNAL EQUIPMENT AT EXISTING SIGNALIZED INTERSECTION, THE CONTRACTOR SHALL COORDINATE THEIR ACTIVITIES TO ENSURE THAT FUNCTIONING TRAFFIC SIGNALS REMAIN VISIBLE TO MOTORISTS.
55. SPAN WIRE SIGNALS ONLY - DISCONNECTS FOR SIGNAL HEADS ON SPAN WIRE SIGNALS SHALL BE MODEL # 1150-18-T APL 659-004-007 WITH TRI STUD SPAN WIRE CLAMP ADAPTER MODEL # 1156-T APL 659-016-002. BOTH ARE MANUFACTURED BY ENGINEERING CASTINGS AND SUPPLIED BY PELCO PRODUCTS. ALL EQUIPMENT TO BE APPROVED BY PBC TRAFFIC PRIOR TO ORDERING VIA THE SHOP DRAWINGS.



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Seal:

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P.E.# 61600

No.	Revisions	By	Date



PALM BEACH COUNTY
ENGINEERING AND PUBLIC WORKS
ROADWAY PRODUCTION
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LYONS ROAD
L.W.D.D. L-30 CANAL TO BOYNTON BEACH BLVD.
GENERAL NOTES

SHEET: T-4
OF: T-12
PROJECT NO.
2018503

PAY ITEM NOTES:

635-2-12 A TYPICAL SIGNAL PULL BOXES SHALL BE 17" X 30" X12" IN DIMENSION AND HEAVY DUTY TIER 22 OR HIGHER. LIDS TO BE MARKED "PBC TRAFFIC"

635-2-12 D TYPICAL ITS PULL BOXES SHALL BE 17" X 30" X 24" (SMALL) OR 30" X 48" X24" (LARGE) AND HEAVY DUTY TIER 22 OR HIGHER. LIDS TO BE MARKED "PBC TRAFFIC ITS".

649-XX-XXX AT THE DISCRETION OF THE ENGINEER OF RECORD AND WITH MUTUAL AGREEMENT OF PBC TRAFFIC ENGINEERING FINAL LOCATIONS OF THE MAST ARMS MAY BE ADJUSTED IN THE FIELD IF THERE IS ANY CONFLICT WITH UTILITIES. SIGNAL CONTRACTOR SHALL VERIFY THE PROPOSED FOUNDATION ELEVATIONS.

650-1-XX TRAFFIC SIGNAL HEADS ARE TO BE CAST ALUMINUM. LED MODULES SHALL BE INSTALLED ON ALL SIGNAL DISPLAYS, INCLUDING ARROWS. THESE MODULES SHALL INCLUDE A MANUFACTURER'S WARRANTY OF AT LEAST FIVE YEARS. THE MAXIMUM POWER RATING SHALL BE 10 WATTS FOR RED BALLS, 14 WATTS FOR GREEN BALLS, AND 7 WATTS FOR THE ARROWS. ALL SIGNAL HEADS SHALL HAVE TUNNEL VISORS AND BACK PLATES.

660-2-XXX TYPICAL LOOP SIZE IS 46' LONG.

665-1-XX ALL PEDESTRIAN PUSH BUTTONS SHALL BE ADA COMPLIANT. PBC PREFERS THE POLARA ENGINEERING INC BDL3 BULLDOGS III SERIES PUSH BUTTONS (APL 665-003-011) WITH COUNTY LOGO. CONTACT MANUFACTURER FOR THE CUSTOM ETCHED LOGO AND REFER TO BDL3-B-CE. COSTS OF PEDESTRIAN SIGN SHALL BE INCLUDED IN UNIT PRICE FOR PEDESTRIAN DETECTORS.

670-1-110 TRAFFIC CONTROLLER ASSEMBLY IS TYPE 6 W/ ATC CONTROLLER NEMA.

700-5-XX ILLUMINATED STREET NAME SIGNS SHALL BE DOUBLE SIDED AND FREE SWINGING MOUNTED EXCEPT WHERE NOTED. CONTRACTOR SHALL INSTALL ONE PHOTOCELL PER INTERNALLY ILLUMINATED STREET NAME SIGN. PER THE FDOT PAY ITEM DETAIL, ALL MOUNTING HARDWARE IS INCLUDED IN THE SIGN PAY ITEM. PER MUTCD, USE CORRECT GREEN TRANSLUCENT FILM FOR SIGN PANEL.

715-11-XXX LUMINAIRE SHALL BE AUTOBAHN SERIES ATB2 LED (ATB2- P604, R4, 263 WATT, 3000K, MVOLT=120 VOLTS) AND EACH FIXTURE SHALL BE PROVIDED WITH PHOTOELECTRIC CELL. A SEPARATE CIRCUIT/BREAKER SHALL BE PROVIDED IN SIGNAL DISCONNECT FOR MAST ARMS WITH LUMINAIRES, COST OF WHICH IS INCLUDED UNDER THE PAY ITEM.



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FLORIDA BUSINESS CERT. NO. 31050
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Seal:

MAJHARUL ALAM, PE
P.E.# 61600

No.	Revisions	By	Date

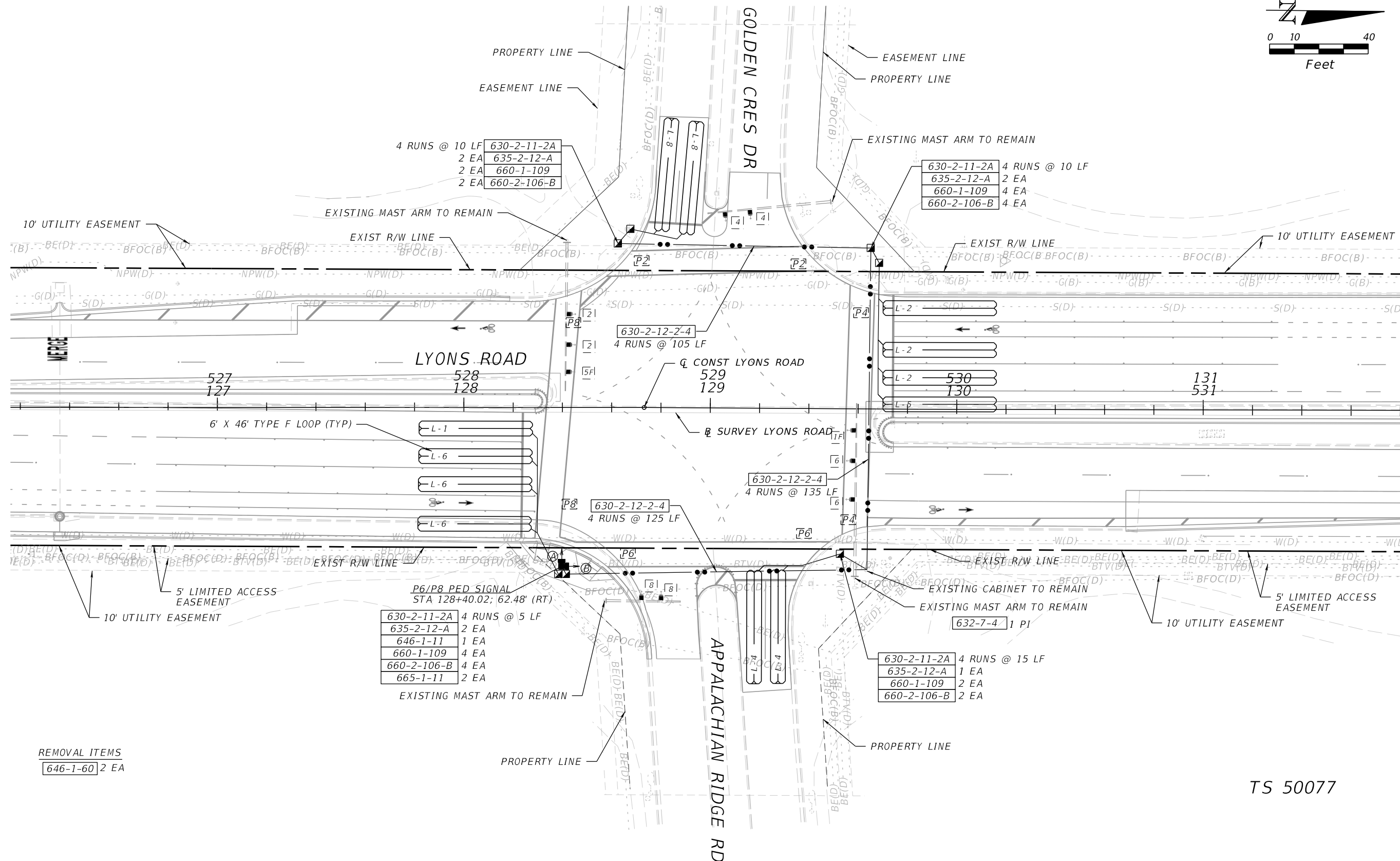
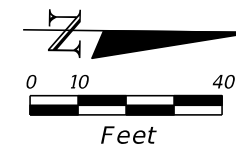


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LYONS ROAD
L.W.D.D. L-30 CANAL TO BOYNTON BEACH BLVD.
GENERAL NOTES

SHEET: T-5
OF: T-12
PROJECT NO.
2018503



REMOVAL ITEMS
646-1-60 2 EA

TS 50077



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LYONS ROAD
L.W.D.D. L-30 CANAL TO BOYNTON BEACH BLVD.
SIGNALIZATION PLANS

SHEET: T-6
OF: T-12
PROJECT NO.
2018503

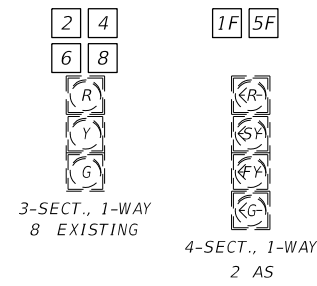
Shuvo

3/9/2026

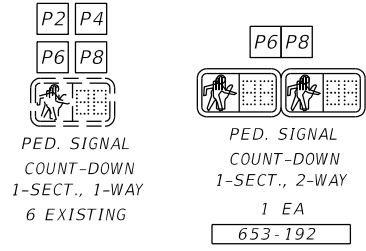
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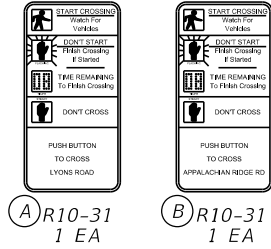
SIGNAL HEAD DETAILS



PEDESTRIAN SIGNAL HEAD DETAILS



SIGN DETAILS

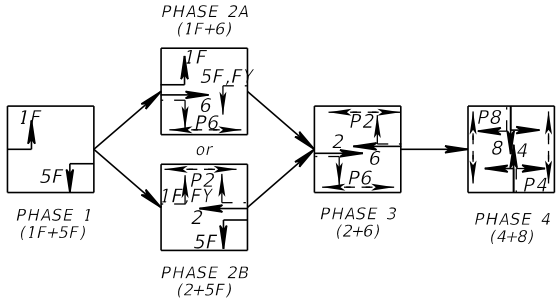


CONTROLLER NOTES:

- 1. EXISTING SIGNAL PHASING AND TIMINGS TO REMAIN
- 2. FLASHING OPERATIONS:
YELLOW --- 2 AND 6
RED ----- 4 AND 8
- 3. SPEED LIMIT
LYONS ROAD:
POSTED SPEED: 45 MPH
DESIGN SPEED: 45 MPH
APPALACHIAN RIDGE ROAD:
POSTED SPEED: 25 MPH

LOOP DETECTOR CONNECTION		
DETECTOR UNIT NO.	DETECTOR OPERATION	CONNECTED TO LOOP
1	DELAY /NORMAL	L1
2	NORMAL	L2
3	NORMAL	L4
4	DELAY /NORMAL	L5
5	NORMAL	L6
6	NORMAL	L8

SPECIAL S.O.P.



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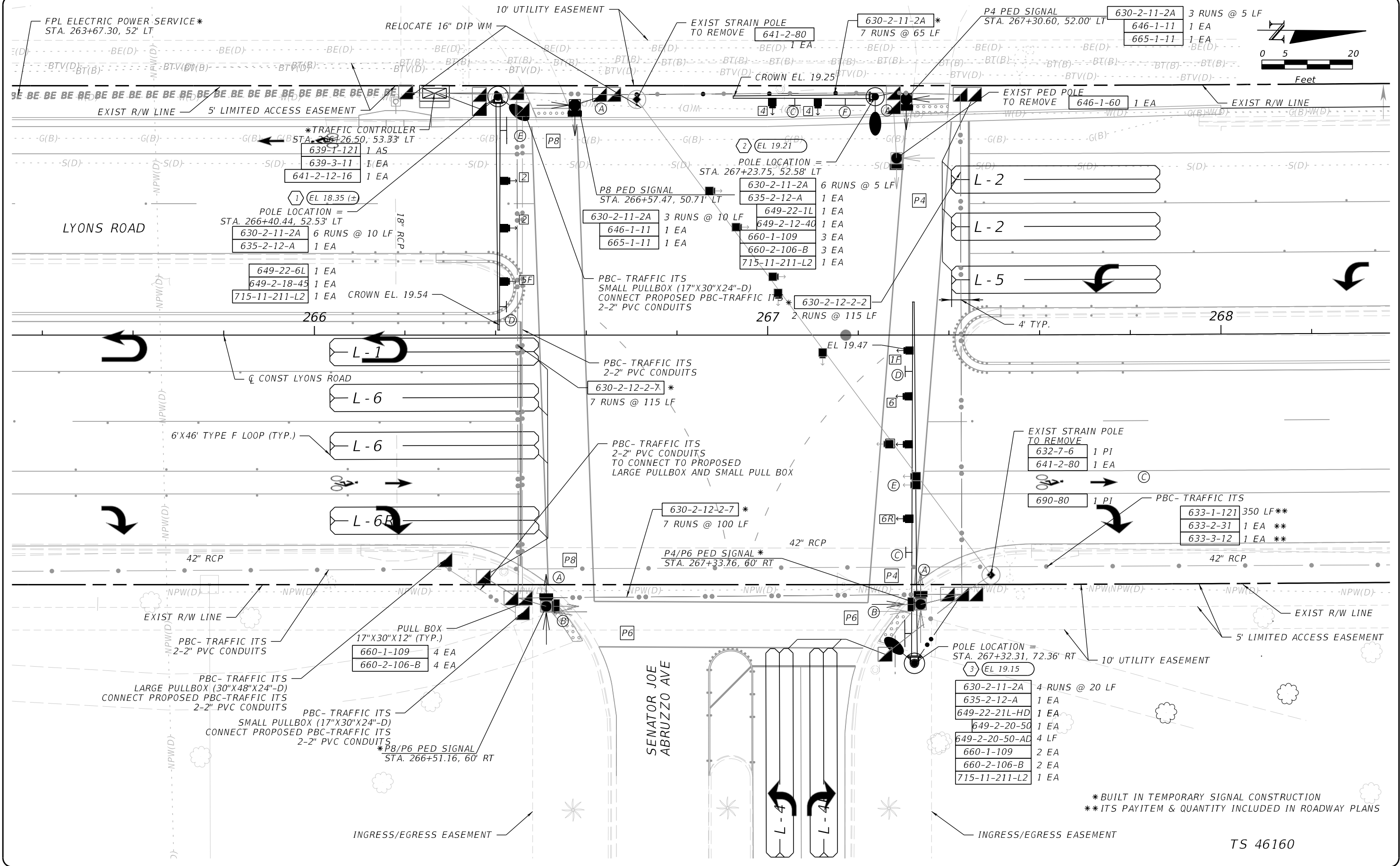


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LYONS ROAD
L.W.D.D. L-30 CANAL TO BOYNTON BEACH BLVD.
SIGNALIZATION PLANS

SHEET: T-7
OF: T-12
PROJECT NO.
2018503



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3/9/2026

LYONS ROAD
L.W.D.D. L-30 CANAL TO BOYNTON BEACH BLVD.

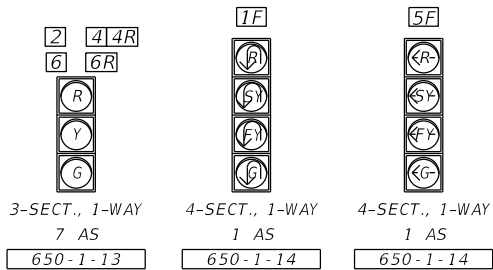
SIGNALIZATION PLANS

SHEET: T-8
OF: T-12

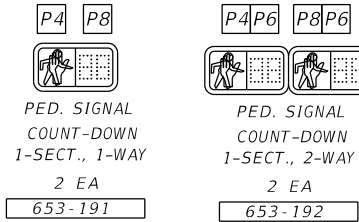
PROJECT NO.
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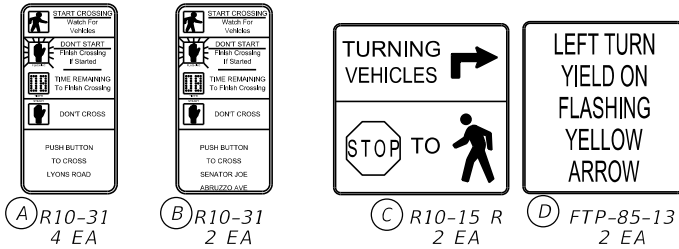
SIGNAL HEAD DETAILS



PEDESTRIAN SIGNAL HEAD DETAILS



SIGN DETAILS

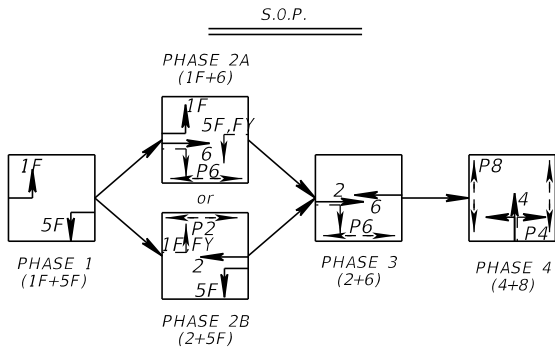


CONTROLLER NOTES:

- EXISTING SIGNAL PHASING AND TIMINGS TO REMAIN
- FLASHING OPERATIONS:
YELLOW --- 2 AND 6
RED ----- 4
- SPEED LIMIT
LYONS ROAD:
POSTED SPEED: 45 MPH
DESIGN SPEED: 45 MPH
SENATOR JOE ABRUZZO AVENUE:
POSTED SPEED: 30 MPH

LOOP DETECTOR CONNECTION		
DETECTOR UNIT NO.	DETECTOR OPERATION	CONNECTED TO LOOP
1	DELAY/NORMAL	L1
2	NORMAL	L2
3	NORMAL	L4
4	DELAY/NORMAL	L5
5	NORMAL	L6

	MOVEMENT NUMBER				
	1	2	4	5	6
GREEN	7	10	12	7	10
YELLOW CLEARANCE (SEC)	5	5	4	5	5
RED CLEARANCE (SEC)	3	3	3	3	3
PEDESTRIAN WALK (SEC)		7	7		7
PEDESTRIAN CLEARANCE (SEC)		32.8	37		24.2



TS 46160



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LYONS ROAD
L.W.D.D. L-30 CANAL TO BOYNTON BEACH BLVD.
SIGNALIZATION PLANS

SHEET: T-9
OF: T-12
PROJECT NO.
2018503

* DENOTES NUMBER OF SECTIONS IN SIGNAL HEAD ASSEMBLY

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LYONS ROAD
L.W.D.D. L-50 CANAL TO BOYNTON BEACH BLVD.

MAST ARM TABULATION

SHEET: T-10
OF: T-12
PROJECT NO.
2018503

Shuvo

3/9/2026

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STANDARD MAST ARM ASSEMBLIES DATA TABLE											
STRUCTURE ID NUMBERS	DESTINATION	FIRST ARM		SECOND ARM		UF (deg)	LL (deg)	POLE			DRILLED SHAFT ID
		ARM ID	FAA (ft.)	ARM ID	FAA (ft.)			POLE TYPE	UAA (ft.)	UB (ft.)	
1	A50/S-P3/S-DS/18/4.5	A50/S					45.00	P3/S/L		22.00	SD/18/4.5
2	A30/S-P1/S/L-DS/12/4	A30/S					90.00	P1/S/L		20.00	SD/12/4
3	A78/S/H-P6/S/L-DS/24/5	A78/S					45.00	P6/S/L-HD		21.00	SD/24/5

NOTES:

- 1. 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
- 2. 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.
- 3. ARM MOUNTING HEIGHT UB MUST BE BETWEEN 18-22 FEET.
- 4. POLE TYPE P5 AND LARGER REQUIRE A MINIMUM 5.0 FOOT DIAMETER DRILLED SHAFT.
- 5. WORK WITH INDEX 649-030 AND 649-031.
- 6. DESIGN WIND SPEED = 170 MPH.

FOUNDATION NOTES:

- 1. THE FOUNDATION WERE DESIGN BASED ON THE FOLLOWING GEOTECHNICAL PARAMETERS FROM THE GEOTECHNICAL REPORT PREPARED BY THE GCME, INC, PBC PROJECT NO.2018503 DATED JULY 8, 2021.
- 2. POLE 1:
BORING: MA-1
FRICTION ANGLE: 31
UNIT WEIGHT: 42.7 PCF
N-SPT #: 10

POLE 2:
BORING: MA-3
FRICTION ANGLE: 33
UNIT WEIGHT: 54.9 PCF
N-SPT #: 20

POLE 3:
BORING: MA-2
FRICTION ANGLE: 30
UNIT WEIGHT: 42.5 PCF
N-SPT #: 10



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LYONS ROAD
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MAST ARM DATA TABLE

SHEET: T-11
OF: T-12
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