

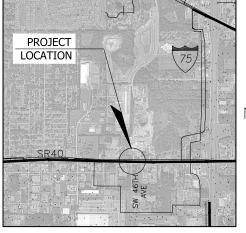
# CITY OF OCALA OFFICE OF THE CITY ENGINEER

# SR 40 AT SW 46TH AVENUE STRAIN POLE SIGNALIZATION PLANS BID PLANS - JANUARY 2025 CONTRACT NUMBER CIP/250303

	INDEX OF PLANS
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T-05	INTERSECTION IMPROVEMENT PLAN
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T-11	SPAN TABULATION
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L-01	LIGHTING QUANTITIES
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L-03	LIGHTING POLE DATA AND LEGEND
L-04	LIGHTING PLAN

SR 40 POSTED/DESIGN SPEED = 50 MPH SW 46TH AVE POSTED/DESIGN SPEED = 45 MPH NW 46TH AVE POSTED/DESIGN SPEED = 40 MPH

	LENGTH OF PROJECT	
	LINEAR FEET	MILES
ROADWAY	947	0.179
BRIDGES	N/A	N/A
NET LENGTH OF PROJECT	N/A	N/A
EXCEPTIONS	N/A	N/A
GROSS LENGTH OF PROJECT	N/A	N/A



# PROJECT LOCATION MAP

(NOT TO SCALE)
SECTIONS: 15; TOWNSHIP: 15 SOUTH; RANGE: 21 EAST
MARION COUNTY, FLORIDA

UTILITY	/ COMPANIES	
UTILITY COMPANY	CONTACT PERSON	PHONE NUMBER
TECO PEOPLES GAS	LANDON MEAHL	(407) 408-5566
LUMEN LOCAL	JOHN PLAMONDON	(352) 425-4444
COX	BRIAN WILLIAMS	(352) 996-8107
CITY OF OCALA WATER & SEWER	STACEY FERRANTE	(352) 351-6775
CITY OF OCALA FIBER	OSHANE PARKER	(352) 401-6950
CITY OF OCALA ELECTRIC	STEVE SHORT	(352) 374-3274
CITY OF OCALA TRAFFIC	NICK BLIZZARD	(352) 351-6733

## ENGINEER'S CERTIFICATION

I HEREBY CERTIFY THAT THE WORK PROPOSED BY THESE PLANS COMPLIES WITH THE APPLICABLE STANDARDS AND SPECIFICATIONS AS REQUIRED BY THE LAND DEVELOPMENT CODE OF MARION COUNTY, FLORIDA, AND FDOT STANDARD PLANS EXCEPT AS NOTED OR SHOWN.

AMBER L. GARTNER, P.E. KIMLEY-HORN AND ASSOCIATES, INC. (REGISTRY 35106) 1700 SE 17TH STREET, SUITE 200 OCALA, FLORIDA 34471 FLORIDA P.E. NO. 72294

SIGNATURE



SIGNALIZATION PLANS

2 20 MEGRATION PLANS

2 20 MEGRATION PLANS

KEY SHEET

2 MEGRATION PLANS

2 MEGRATION PLANS

3 MEGRATION PLANS

4 MEGRATION P

40 AT SW 46TH AVENUE S POLE SIGNALIZATION PL VEV SHEET

> SHEET T-01

# CITY OFFICIALS

MAYOR - BEN MARCIANO

DISTRICT 1 - COUNCIL MEMBER BARRY MANSFIELD

DISTRICT 2 - COUNCIL PRESIDENT PRO-TEM IRE BETHEA, SR.

DISTRICT 3 - COUNCIL MEMBER JAY MUSLEH

DISTRICT 4 - COUNCIL PRESIDENT KRISTEN DREYER

DISTRICT 5 - COUNCIL MEMBER JAMES HILTY, SR.

CITY ENGR./ENGINEERING DIRECTOR - SEAN LANIER, P.E., CFM

# CONSTRUCTION REFERENCES

BID SPECIFICATIONS AND CONTRACT

CITY OF OCALA LAND DEVELOPMENT CODE, LATEST EDITION

CITY OF OCALA STANDARD SPECIFICATIONS FOR CONSTRUCTION OF STREETS,

STORMWATER, TRAFFIC, WATER AND SEWER INFRASTRUCTURE, JANUARY 2024

FDOT STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION, FY 2024-25 FDOT STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, FY 2024-25

MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND

MAINTENANCE FOR STREETS AND HIGHWAYS (FLORIDA GREENBOOK), FDOT, 2018

MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, 2009

EDITION, INCLUDING REVISIONS 1 AND 2 USDOT, FHWA

FDOT DISTRICT 5 - SMART SIGNAL DESIGN GUIDANCE APRIL, 2023

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:



ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC COPIES.

KIMLEY-HORN AND ASSOCIATES, INC. 1700 SE 17TH STREET, SUITE 200 OCALA, FL 34471 REGISTRY 35106 AMBER L. GARTNER, P.E. NO. 72294

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

SHEET NO.	SHEET DESCRIPTION
T-02 T-03, T-04	KEY SHEET SIGNATURE SHEET GENERAL NOTES & QUANTITIES INTERSECTION IMPROVEMENT PLAN
T-06	GRADING PLAN
	TEMPORARY PEDESTRIAN CONTROL
	SIGNALIZATION PLAN
T-10 T-11	IMC DETECTION & MOUNTING DIAGRAM SPAN TABULATION
T-13	DETECTOR CHART
T-14	CABINET & WIRING DETAIL
T-15	GUIDESIGN WORKSHEETS
T-16	INTERCONNECT PLAN
L-01	LIGHTING QUANTITIES
L-02	LIGHTING NOTES AND SERVICE POINT DETAILS
L-03 L-04	LIGHTING POLE DATA AND LEGEND LIGHTING PLAN
L-04	LIGITING FLAN

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:



ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC COPIES.

KIMLEY-HORN AND ASSOCIATES, INC. 189 SOUTH ORANGE AVENUE, SUITE 1000, ORLANDO, FL 32801 REGISTRY 35106 NOLAN B. VILLATORO, P.E. NO. 93862

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

SHEET NO.	SHEET DESCRIPTION
T-02	SIGNATURE SHEET
T-12	STRAIN POLE ASSEMBLIES DATA TABLE

BID PLANS OCAL A OFFICE OF THE CITY ENGINEER
1895 NE 30TH AVE, BLDG 600
CCALA, IC 34470 SR 40 AT SW 46TH AVENUE STRAIN
POLE SIGNALIZATION PLANS
SIGNATURE SHEET
FROM RECORD OF THIS PHE ELECTRONG PLET

### **GENERAL NOTES**

- 1. THE MAINTAINING AGENCY IS CITY OF OCALA.
- 2. THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH THE CITY OF OCALA STANDARD SPECIFICATIONS FOR CONSTRUCTION OF STREETS, STORMWATER, TRAFFIC, WATER, AND SEWER INFRASTRUCTURE (JANUARY 2024), THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD); THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (FY 2024-25) AND THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD PLANS FOR ROAD CONSTRUCTION (FY 2024-25), AND ALL SUPPLEMENTS APPLICABLE THERETO.
- ALL WORK SHALL CONFORM TO SECTION 34 41 13 TRAFFIC SIGNALS, OF THE CITY OF OCALA STANDARD SPECIFICATIONS FOR CONSTRUCTION
  OF STREETS, STORMWATER, TRAFFIC, WATER, AND SEWER INFRASTRUCTURE.
- 4. THESE PLANS REFLECT CONDITIONS KNOWN AT THE TIME OF PLAN DEVELOPMENT. IN THE EVENT THAT ACTUAL FIELD CONDITIONS PREVENT THE APPLICATION OF THESE PLANS, AND/OR THE SPECIFICATIONS OR THE PROGRESSION OF THE WORK SPECIFIED IN THE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND CITY OF OCALA ENGINEER'S OFFICE IMMEDIATELY AND PRIOR TO ANY FURTHER EXECUTION OF THE WORK
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITY LOCATION COORDINATION EFFORTS AS REQUIRED BY OSHA AND FLORIDA STATUTE REGARDING PROTECTION OF EXISTING UTILITIES. THE CONTRACTOR IS REMINDED THAT NOT ALL UTILITY PROVIDERS ARE SUBSCRIBERS TO THE SUNSHINE STATE ONE-CALL SYSTEM, AND IT SHALL BE INCUMBENT UPON THE CONTRACTOR TO MAKE EVERY EFFORT TO ENSURE THAT ALL UTILITIES ARE LOCATED PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY DEPARTMENT AT LEAST TWO (2) BUSINESS DAYS IN ADVANCE OF POLE SETTING
  AND OPERATIONS WHERE CONFLICT WITH OVERHEAD ELECTRICAL UTILITIES IS EXPECTED, WITH TRENCHING OPERATIONS, OR ANYWHERE
  LITLITY CONFLICTS MAY BE ENCOLUNTERED.
- 7. CONTRACTOR SHALL NOTIFY TECO A MINIMUM OF 2 BUSINESS DAYS IN ADVANCE OF WORK BEING DONE WITHIN 3 FEET OF AN ACTIVE GAS MAIN FOR TECO OPERATIONS PERSONNEL TO BE ON SITE DURING WORK FOR PROTECTION OF THEIR UTILITIES TO REMAIN IN PLACE.
- 8. IN THE EVENT OF CONFLICT WITH THE CROSSING OF EXISTING UNDERGROUND UTILITIES, THE CONTRACTOR SHALL ADJUST THE DEPTH OF PROPOSED CONDUIT AS INSTRUCTED BY THE ENGINEER IN CHARGE TO PROVIDE VERTICAL SEPARATION PER PREVAILING STANDARDS
- 9. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL CONTACT OCALA ELECTRIC UTILITY TO CONFIRM SAFETY PREPARATIONS AND CLEARANCE REQUIREMENTS WHEN WORKING NEAR OVERHEAD ELECTRIC LINES. CONTRACTOR TO INSTALL NON-CONDUCTIVE INSULATORS WHERE CATENARY WIRE CROSSES OVERHEAD POWER CONDUCTORS. CONTRACTOR TO COORDINATE WITH OCALA ELECTRIC UTILITY PRIOR TO PROCUREMENT OF MATERIALS TO CONFIRM REQUIREMENTS FOR CROSSING OF THE ELECTRIC LINES.
- 10. AS PER FDOT DISTRICT 5 REQUIREMENTS, THE CONTRACTOR SHALL HAND DIG THE FIRST 4' AT EACH POLE LOCATION AND THE FIRST 2' AT EACH PEDESTAL LOCATION
- 11. THE CONTRACTOR SHALL NOTIFY CITY OF OCALA AT LEAST SEVEN (7) BUSINESS DAYS PRIOR TO BEGINNING CONSTRUCTION
- 12. CONTRACTOR SHALL APPLY FOR A RIGHT-OF-WAY UTILIZATION PERMIT, AT LEAST 5 BUSINESS DAYS PRIOR TO STARTING WORK DATE, FOR ANY WORK BEING DONE WITHIN THE CITY'S RIGHT-OF-WAY.
- 13. IN THE EVENT THAT TRAFFIC SIGNAL CONSTRUCTION ACTIVITY AT THE INTERSECTION REQUIRES CLOSURE OF A LANE OR LANES, THE CONTRACTOR SHALL PROCURE THE SERVICES OF TRAFFIC CONTROL OFFICER TO DIRECT TRAFFIC FOR THE DURATION OF THE CLOSURE(S). PAYMENT FOR THE OFFICER SHALL BE INCIDENTAL TO THE WORK AND WILL NOT BE PAID SHARTELY.
- 14. ALL MAINTENANCE OF TRAFFIC FOR THIS INSTALLATION SHALL CONFORM TO THE FDOT STANDARD INDEX(ES) 102-600 THROUGH 102-670 THAT ARE MOST APPLICABLE TO THE INTENT OF THE CONSTRUCTION ACTIVITY IN PROGRESS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF TRAFFIC FOR THE PURPATION OF THIS PROJECT.
- 15. VARIABLE MESSAGE SIGNS SHALL BE INSTALLED ON SR 40, SW 46TH AVENUE, AND NW 46TH AVENUE 500 FEET IN ADVANCE OF THE TRAFFIC SIGNAL. THE SIGNAL THE SIGNAL THE SIGNAL THE SIGNAL SIGNAL SHEAD THE SIGNAL SIGNAL SIGNAL SHEAD.
- CONTRACTOR IS REQUIRED TO HAVE AN I.M.S.A. LEVEL II SIGNAL TECHNICIAL ON SITE THROUGH ALL PHASES OF CONSTRUCTION AND ON CALL WITH A 2 HOUR MAXIMUM RESPONSE TIME.
- 17. THE CONTRACTOR IS REQUIRED TO INSPECT THE INSTALLATION OF THE TRAFFIC SIGNALS IN ACCORDANCE WITH FDOT SPECIFICATION 105-8-10. THE CONTRACTOR SHALL COORDINATE THE FINAL ACCEPTANCE INSPECTION IN ACCORDANCE WITH FDOT SPECIFICATION 611-22. CONTRACTOR TO CONTACT FOOT TRAFFIC OPS TRAFFIC SIGNAL OR MANAGER AT 386-934-5329 10 DAYS PRIOR TO SIGNAL TURN ON AND ENSURE FDOT TRAFFIC OPS WILL BE AT THE SIGNAL TURN ON. CONTRACTOR TO CONTACT FDOT STRUCTURES AT 386-740-3463 10 DAYS PRIOR TO SIGNAL TURN ON TO SCHEDULE AN INSPECTION.THE CITY OF OCCUA PUBLIC WORKS DEPARTMENT ((352):351-6733) AND THE FDOT PERMIT OFFICE SHOULD ALSO BE CONTACTED AT LEAST TEN DAYS BEFORE THE INSPECTION IS TO BE PERFORMED SO THEY MAY BE PRESENT.
- 18. DURING NON-WORKING HOURS, THE CONTRACTOR SHALL NOT STORE ANY MATERIALS OR PARK ANY EQUIPMENT WITHIN 30 FEET OF THE EDGE OF THE TRAVELED WAY. IF THE ABOVE IS NOT POSSIBLE, THE CONTRACTOR SHALL APPOINT AN APPROVED STORAGE AREA AND SUCH AREA SHALL BE PROPERLY DELINEATED AND ADVANCE WARNING SHALL BE UTILIZED.
- 19. PER FDOT STANDARD SPECIFICATIONS, ALL FIELD WIRING SHALL BE CLEARLY IDENTIFIED WITH WEATHERPROOF TAGS THAT ARE SECURELY ATTACHED TO EACH CABLE. THE CONTRACTOR SHALL SUBMITTHE PROPOSED TAGGING SYSTEM WITH THE SUBMITTALS PACKAGE AS REQUIRED FOR PERMIT JOBS.

- 19. PRIOR TO FINAL ACCEPTANCE BY THE CITY, SUBMIT TO THE CITY TRAFFIC ENGINEER TWO (2) COMPLETE AND COMPREHENSIVE SETS OF AS-BUILT PLANS ON TWENTY-FOUR INCH BY THIRTY-SIX INCH (24"x36") PLAN SHEETS AND ONE ELECTRONIC FILE COPY ON READABLE CD. AS-BUILT DRAWINGS SHALL ACCURATELY REFLECT THE ACTUAL, AS-BUILT CABINET IN THE FIELD AND SHALL IDENTIFY THE FOLLOWING INFORMATION
  - a. ABANDONED AND UNUSED PULL BOXES SHALL BE CLEARLY LABELED DISTANCES FROM THE INTERSECTION OF EACH INSTALLED PULL BOX SHALL BE MEASURED FROM THE PERPENDICULAR EDGE OF CURB AND FROM THE EDGE OF THE NEAREST CURB TO INDICATE LOCATION IN RELATION TO THE ROADWAY.
  - THE INSTALLED CONDUIT'S SIZE AND NUMBER OF RUNS SHALL BE CLEARLY NOTED AS WELL AS THE DISTANCE AWAY FROM THE NEAREST
  - IF INSTALLED, THE LOCATION OF SIGNAL POLES, CONTROLLER CABINET, UNINTERRUPTIBLE POWER SUPPLY AND BATTERY BACKUP

    INSTALLED, THE LOCATION OCABLE, VIDEO DETECTION CAMERAS AND CABLE, ITS CAMERAS AND CABLE, OVERHEAD MOUNTED STREET

    NAME SIGNS, LIGHTED OR NON-LIGHTED AND CABLE RUNS, AND POWER CABLE SHALL BE SHOWN ON THE PLANS.
  - d. TWO (2) SETS OF SIGNAL WIRING COLOR CODE FORMS SHALL BE INCLUDED WITH THE AS-BUILT PLANS.
- e. CONTRACTOR SHAL CORRECT ANY ERRORS TO THE AS-BUILT PLANS UPON REVIEW BY THE ENGINEER BEFORE FINAL ACCEPTANCE IS
- 20. THE CONTRACTOR SHALL SUBMIT CERTIFICATES OF INSPECTION FROM THE MANUFACTURER THAT THE EQUIPMENT AND MATERIALS TO BE SUPPLIED HAVE BEEN INSPECTED AT THE PLANT AND MEET THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. THESE CERTIFICATES SHALL BE SUBMITTED PRIOR TO BEGINNING WORK.
- 21. THE CABINET DOOR SHALL BE ORIENTED SO THAT THE DOOR OPENS AWAY FROM THE INTERSECTION
- 22. THREE SPARE CONDUCTORS PER SIGNAL CABLE ARE REQUIRED. SPARES SHALL BE BOUND TOGETHER AND GROUNDED TO THE BUS GROUNDING FACILITY IN THE CONTROLLER CABINET.
- 23. ALL TRAFFIC SIGNAL HEAD ASSEMBLIES SHALL HAVE A MINIMUM LOW POINT OF CLEARANCE OF 17.5' AND A MAXIMUM HIGH POINT OF CLEARANCE OF 19' FROM THE BOTTOM OF THE ASSEMBLY TO THE ROADWAY.
- 24. THE CONTRACTOR SHALL VERIFY COLOR CODES WITH CITY OF OCALA FOR THE SIGNAL CABLE CONDUCTORS PRIOR TO ORDERING.
- 25. CONCRETE STRAIN POLES SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH INDEX 641-010 OF THE FDOT FY 2024-25, STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION.
- 26. CIRCULAR DRIP LOOPS (MINIMUM ONE CIRCLE) ARE TO BE PROVIDED AT ALL AERIAL DISCONNECT HANGERS, INTERCONNECT JUNCTION BOX, ELECTRICAL SIGN, AND POLE LOCATIONS.
- 27. CABLE GRIP SHALL BE OF SUFFICIENT SIZE TO NOT COMPROMISE THE INSULATION ON THE SIGNAL CABLE.
- 28. ALL CABLE SHALL BE PULLED IN THE CONDUIT WITH A CABLE GRIP DESIGNED TO PROVIDE A FIRM HOLD ON THE EXTERIOR COVERING OF THE CABLE. A WINCH WITH A SLIP CLUTCH SHALL BE USED TO ENSURE THAT THE ALLOWABLE TENSION IS NOT EXCEEDED. AN APPROVED LUBRICANT SHALL BE USED TO FACILITATE THE PULLING OF THE CABLE.

### ADA NOTES

- 1. THE PROJECT SHALL BE CONSTRUCTED TO MEET CURRENT ADA STANDARD FOR ACCESSIBLE DESIGN.
- 2. CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE FDOT STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION.
- BEFORE PLACING PAVEMENT, CONTRACTOR SHALL VERIFY THAT SUITABLE ACCESSIBLE PEDESTRIAN ROUTES EXIST ALONG SIDEWALKS, CROSSWALKS, AND ACCESSIBLE ROUTES. IN NO CASE SHALL AN ACCESSIBLE RAMP SLOPE EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK OR CROSSWALK CROSS SLOPE EXCEED 2.0 PERCENT. IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPE EXCEED 5.0 PERCENT.
- 4. CONTRACTOR SHALL TAKE FIELD SLOPE MEASUREMENTS ON FINISHED SUBGRADE AND FORM BOARDS PRIOR TO PLACING PAVEMENT TO VERIFY THAT ADA SLOPE REQUIREMENTS ARE PROVIDED. CONTRACTOR SHALL CONTACT ENGINEER PRIOR TO PAYING IF ANY EXCESSIVE SLOPES ARE ENCOUNTERED. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR ADA SLOPE COMPLIANCE ISSUES.

Find your place OCALA, FL

EXWHOM NO ASSOCIATE, NC.
E. LONG NO. 7234
E. LONG NO. 723

0

0 AT SW 46TH AVENUE STRAIN OLE SIGNALIZATION PLANS GENERAL NOTES & QUANTITIES

T-03

DOT PAY ITEM NUMBER	DESCRIPTION	UNIT	QUANTIT
101-1	MOBILIZATION AND SPECIAL PROVISIONS	LS	1
102-1	MAINTENANCE OF TRAFFIC	LS	1
N/A	AS-BUILT PLANS AND CONSTRUCTION LAYOUT SURVEY	LS	1
520-1-10	CONCRETE CURB & GUTTER, TYPE F	LF	161
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"THICK (FOR CURB RAMPS AND SIDEWALK RECONSTRUCTION)	SY	155
527-2	DETECTABLE WARNINGS	SF	69
611-1-1	ITSFM SUBSURFACE DOCUMENTATION- PROJECT LENGTH	MI	0.179
611-2-1	ITSFM LOCATION DOCUMENTATION- INTERSECTION	EA	1
630-2-11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	1525
630-2-12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	210
632-7-1	SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PI	1
633-3-11	FIBER OPTIC CONNECTION HARDWARE, F&I, SPLICE ENCLOSURE	EA	1
	FIBER OPTIC CONNECTION HARDWARE, F&I, PATCH PANEL- FIELD TERMINATED	EA	2
633-6	FIBER OPTIC CABLE LOCATOR	LS	1
	SPAN WIRE ASSEMBLY, F&I, TWO POINT, BOX SPAN	PI	1
635-2-11	PULL & SPLICE BOX; FURNISH & INSTALL; 13"x24"	EA	40
	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR FROM POWER COMPANY	AS	1
	ELECTRICAL POWER SERVICE, FAI, UNDERGROUND, METER PORCHASED BY CONTRACTOR PROMPOWER COMPAINT	LF	
639-2-1		_	70
	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA	1
	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II PEDESTAL	EA	8
	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA	1
	PRESTRESSED CONCRETE POLE, INSTALL	EA	4
650-1-24	VEHICULAR TRAFFIC SIGNAL, F&I, POLYCARBONATE W/ALUM TOP, 3 SECTION, 1 WAY	AS	8
	VEHICULAR TRAFFIC SIGNAL, F&I POLYCARBONATE W/ALUM TOP, 4 SECTION, 1 WAY	AS	4
653-1-11	PEDESTRIAN SIGNAL, FURNISH & INSTALL LED COUNTDOWN, 1 WAY	AS	8
	LOOP DETECTOR INDUCTIVE, F&I, TYPE 9	EA	13
	LOOP DETECTOR INDUCTIVE, F&I, TYPE 10	EA	1
	LOOP ASSEMBLY, F&I, TYPE B	AS	17
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	AS	13
660-6-121	VEHICLE DETECTION SYSTEM- AVI, BLUETOOTH, FURNISH & INSTALL, CABINET EQUIPMENT	EA	1
660-6-122	VEHICLE DETECTION SYSTEM- AVI, BLUETOOTH, FURNISH & INSTALL, ABOVE GROUND EQUIPMENT	EA	1
660-9-11	TRAFFIC DATA DETECTION SYSTEM- VIDEO, FURNISH AND INSTALL, CABINET EQUIPMENT	EA	1
660-9-12	TRAFFIC DATA DETECTION SYSTEM- VIDEO, FURNISH AND INSTALL, ABOVE GROUND EQUIPMENT	EA	2
665-1-11	PEDESTRIAN DETECTOR, FURNISH & INSTALL, STANDARD	EA	8
670-5-300	TRAFFIC CONTROLLER ASSEMBLY, INSTALL	AS	1
682-1-113	ITS CCTV CAMERA, F&I, DOME PTZ ENCLOSURE - PRESSURIZED, IP, HIGH DEFINITION	EA	1
684-1-1	MANAGED FIELD ETHERNET SWITCH, FURNISH & INSTALL	EA	1
684-1-10	MANAGED FIELD ETHERNET SWITCH, LAYER 3, FURNISH & INSTALL	EA	1
685-1-11	UNINTERRUPTIBLE POWER SUPPLY, FURNISH AND INSTALL, LINE INTERACTIVE	EA	1
685-2-1	REMOTE POWER MANAGEMENT UNIT- RPMU, FURNISH AND INSTALL	EA	1
700-1-600	SINGLE COLUMN GROUND SIGN ASSEMBLY, REMOVE	EA	2
700-2-114	MULTI-COLUMN GROUND SIGN ASSEMBLY, F&I GROUND MOUNT, 30.1-50.0 SF	AS	2
	SIGN PANEL, FURNISH & INSTALL OVERHEAD MOUNT, UP TO 12 SF	EA	4
700-5-201	INTERNALLY ILLUMINATED SIGN, FURNISH & INSTALL OVERHEAD MOUNT, UP TO 12 SF	EA	2
700-5-21	INTERNALLY ILLUMINATED SIGN, FURNISH & INSTALL OVERHEAD MOUNT, 12-18 SF	EA	2
706-1-3	RAISED PAVEMENT MARKER, TYPE B	EA	79
710-90	PAINTED PAVEMENT MARKINGS - FINAL SURFACE	LS	1
	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK	LF	586
	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24" FOR STOP LINE	LF	137
	THERMOPLASTIC, STANDARD, WHITE, 6-10 GAP EXTENSION, 6"	GM	0.020
	THERMOPLASTIC, STANDARD, WHITE, BICYCLIST SYMBOL	EA	2
	THERMOPLASTIC, STANDARD, WHITE, ARROW	EA	10
	THERMOPLASTIC, STANDARD, YELLOW, SOLID, 18" FOR DIAGONAL	LF	87
	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	467
	THERMOPLASTIC, STANDARD-OTHER SURFACES, WHITE, SOLID, 6"	GM	0.148
711-16-201	THERMOPLASTIC, STANDARD-OTHER SURFACES, YELLOW, SOLID, 6"	GM	0.302
711-17-1	THERMOPLASTIC, REMOVE EXISTING THERMOPLASTIC PAVEMENT MARKINGS- SURFACE TO REMAIN	LS	1

## PAY ITEM NOTES

(ALL TRAFFIC EQUIPMENT MUST BE ON THE FDOT APPROVED PRODUCT LIST (APL), AND MUST BE APPROVED BY CITY OF OCALA BEFORE

INCLUDES STRIPING AND RPMS NECESSARY FOR MAINTENANCE OF TRAFFIC APPLICATIONS, AND STRIPING AND RPMS NOT ON FINAL SURFACE. INCLUDES SIGNS, CHANNELIZING DEVICES, AND TEMPORARY SIDEWALK CONSTRUCTION NECESSARY TO IMPLEMENT PEDESTRIAN MAINTENANCE OF TRAFFIC AT THE INTERSECTION

#### PAY ITEM NO. 611-1-1 AND 611-2-1

SHALL INCLUDE DOCUMENTATION OF ALL FEATURES WITHIN THE PROJECT AS REQUIRED PER FDOT STANDARD SPECIFICATIONS SECTION 611.

## PAY ITEM NOs. 630-2-11, AND 630-2-12

CONDUIT IS TO BE 2" SCH 40 PVC INSTALLED AT A 36" MINIMUM DEPTH. ENSURE THAT THE CONDUIT IS TERMINATED INSIDE OF THE PROPOSED

#### PAY ITEM NOs 635-2-11

PULL BOXES AND COVERS SHALL BE NON-METALLIC CONSTRUCTION WITH RECESSED COVER LOGO "TRAFFIC SIGNAL" OR "FIBER OPTIC" AS APPROPRIATE. SHALL INCLUDE CONSTRUCTION OF A 12" WIDE BY 6" DEEP CONCRETE APRON AROUND THE NEW PULL BOX.

#### PAY ITEM NO 641-2-30

SHALL INCLUDE ALL LABOR AND EQUIPMENT TO INSTALL TYPE P-VIII PRESTRESSED CONCRETE POLES TO BE FURNISHED BY THE CITY OF OCALA. SHALL INCLUDE TRANSPORT BY THE CONTRACTOR OF THE FURNISHED POLES TO THE CONSTRUCTION SITE.

SHALL BE DIALIGHT BRAND XLF OF XOD SERIES WITH TINTED LENSES OR LATER, AND CONFORM TO THE MUTCD AND SECTION 650 OF THE FDOT STANDARD SPECIFICATIONS. SHALL INCLUDE INSTALLATION OF RETROREFLECTIVE BACKPLATES, VEHICULAR SIGNAL DISPLAYS SHALL BE FLAT BLACK IN COLOR.

### PAY ITEM NO 653-1-11

PEDESTRIAN SIGNAL HEADS SHALL BE ALUMINUM.

#### PAY ITEM NOs 660-6-121 AND 660-6-122

TRAVEL TIME READER SHALL BE ITERIS BLUETOAD SPECTRA RSU-CV2X SYSTEM WITH SHORT ANTENNAE KIT, COMPATIBLE WITH THE CITY'S EXISTING TRAVEL TIME READER SOFTWARE.

### PAY ITEM NOs 660-9-11 AND 660-9-12

## SHALL INCLUDE ALL WORK NECESSARY TO FURNISH AND INSTALL CAMERAS, MOUNTING ARMS,

BRACKETS, WIRING, HARDWARE, AND ALL ANCILLARY COMPONENTS, AS WELL AS ALL DATA AND POWER CABLING REQUIRED FOR A COMPLETE DEPLOYMENT. CAMERAS SHALL BE INSTALLED ON A J-POLE USING AN ALUMINUM EXTENSION ARM ATTACHED TO THE CONCRETE STRAIN POLE. SHALL CONSIST OF ALL LABOR AND MATERIALS NEED TO ACHIEVE VIDEO DETECTION ZONES AS SHOWN IN PLANS. INTERSECTION MOVEMENT COUNT PLATFORM SHALL BE MIOVISION-SMARTSENSE OR AN APPROVED EQUIVALENT LISTED ON THE FDOT APPROVED PRODUCTS LIST.

SHALL BE POLARA ENGINEERING BDL3 SERIES PIEZO PUSH BUTTON. CONTRACTOR SHALL CONFIRM THAT A 4'X4' FLAT LANDING AREA IS PRESENT ADJACENT TO THE DETECTOR.

# PAY ITEM NO. 670-5-300

SHALL INCLUDE ALL LABOR AND EQUIPMENT TO INSTALL TRAFFIC CONTROLLER ASSEMBLY WITH CABINET TO BE FURNISHED BY THE CITY OF OCALA. SHALL INCLUDE CONSTRUCTION OF THE CONCRETE BASE AND ALL ITEMS REQUIRED FOR INSTALLATION SPECIFIED IN THE CITY OF OCALA STANDARD SPECIFICATIONS FOR CONSTRUCTION, SECTION 34 41 13.

# PAY ITEM NO. 682-1-113

CCTV CAMERA SHALL BE AXIS Q6315-LE PTZ DOME CCTV CAMERA. CONTACT THE PUBLIC WORKS TRAFFIC DIVISION (352-351-6733) FOR THE CURRENTLY APPROVED MANUFACTURERS. CAMERA SHALL BE INSTALLED ON A J-POLE AFFIXED TO THE SAME ALUMINUM EXTENSION ARM AS THE

PAY ITEM NO. 684-1-1 SHALL BE ALCATEL OS 6465 SERIES, FL

SHALL CONSIST OF AN ALPHA TECHNOLOGIES FXM HP1100 UNINTERRUPTED POWER SUPPLY (UPS) WITH AN ALPHA TECHNOLOGIES SE48-1616 BBS ENCLOSURE AND FOUR (4) ALPHA-CELL 100 XTV 12-VOLT BATTERIES COMPATIBLE WITH THE CITY'S EXISTING UPS/BBS SOFTWARE.

### PAY ITEM NOs 700-5-21 AND 700-5-22

LED STREET NAME SIGNS SHALL BE POWERED FROM A BREAKER LOCATED IN THE ELECTRICAL SIGNAL SERVICE DISCONNECT AND THE PHOTO CELL SHALL ALSO BE INSTALLED ON THE OUTSIDE OF THE ELECTRICAL SIGNAL SERVICE DISCONNECT. SHALL BE TRANSPORTATION CONTROL SYSTEMS FREE SWINGING DUAL FACE LED BRITELITE TCSSIGNBL SERIES.

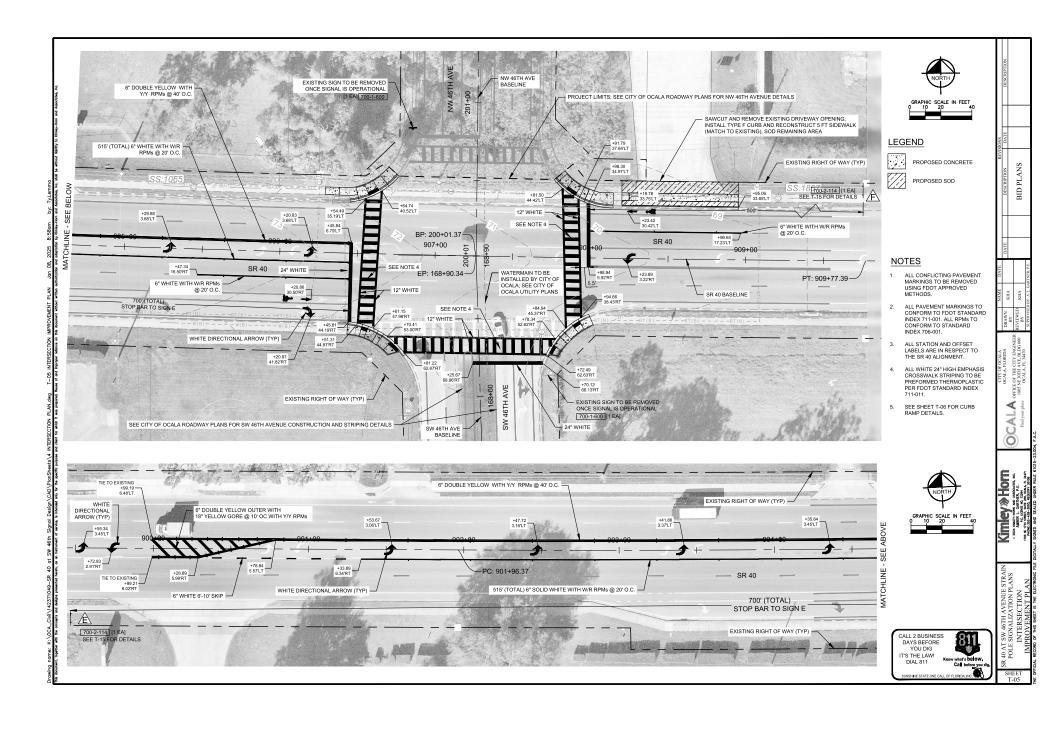
INCLUDES ALL LABOR AND EQUIPMENT TO REMOVE CONFLICTING PAVEMENT MARKINGS WITHIN THE PROJECT AREA. MEANS AND METHODS SHALL BE APPROVED BY THE CITY AND FDOT PRIOR TO WORK TO ENSURE MINIMUM DAMAGE TO THE EXISTING ASPHALT SURFACE.

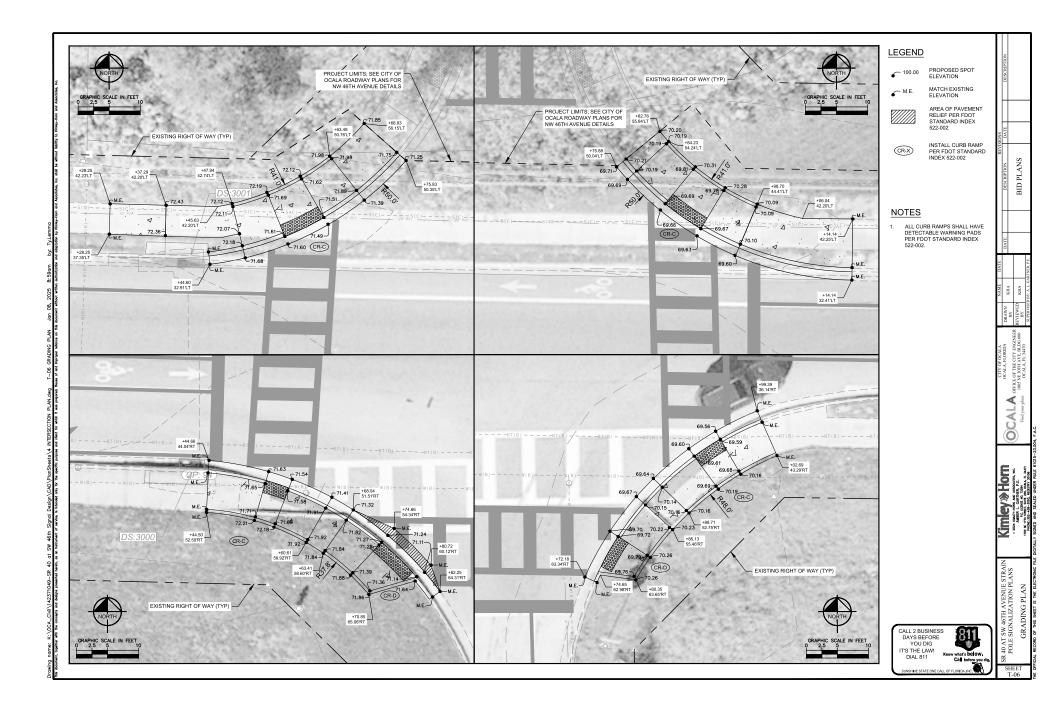
BID PLANS

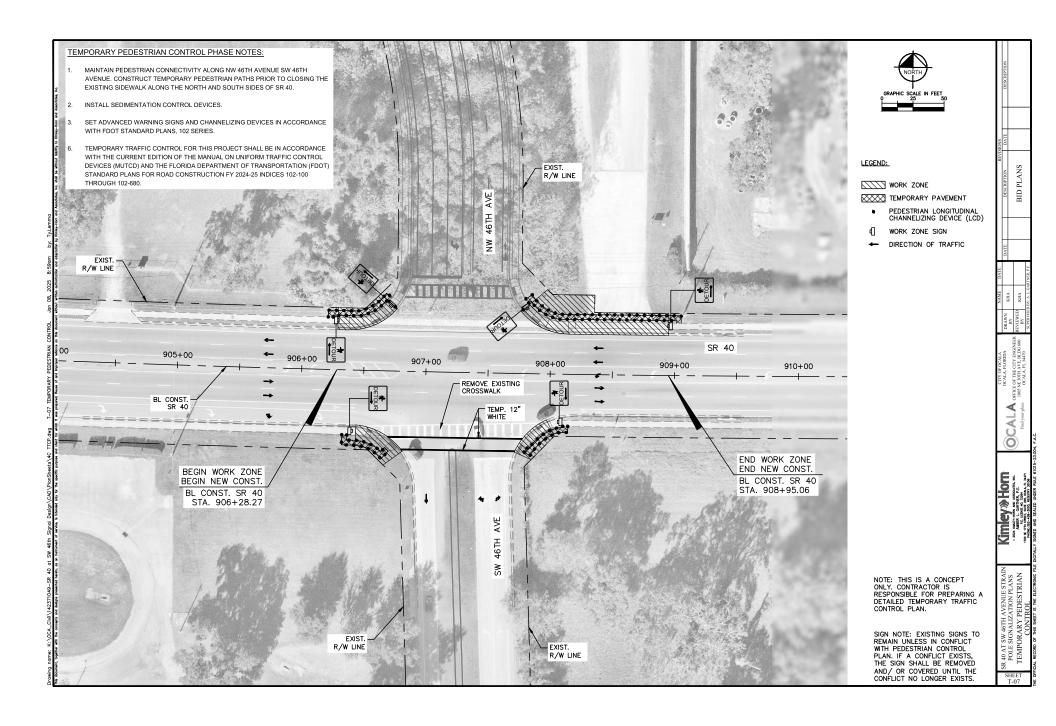
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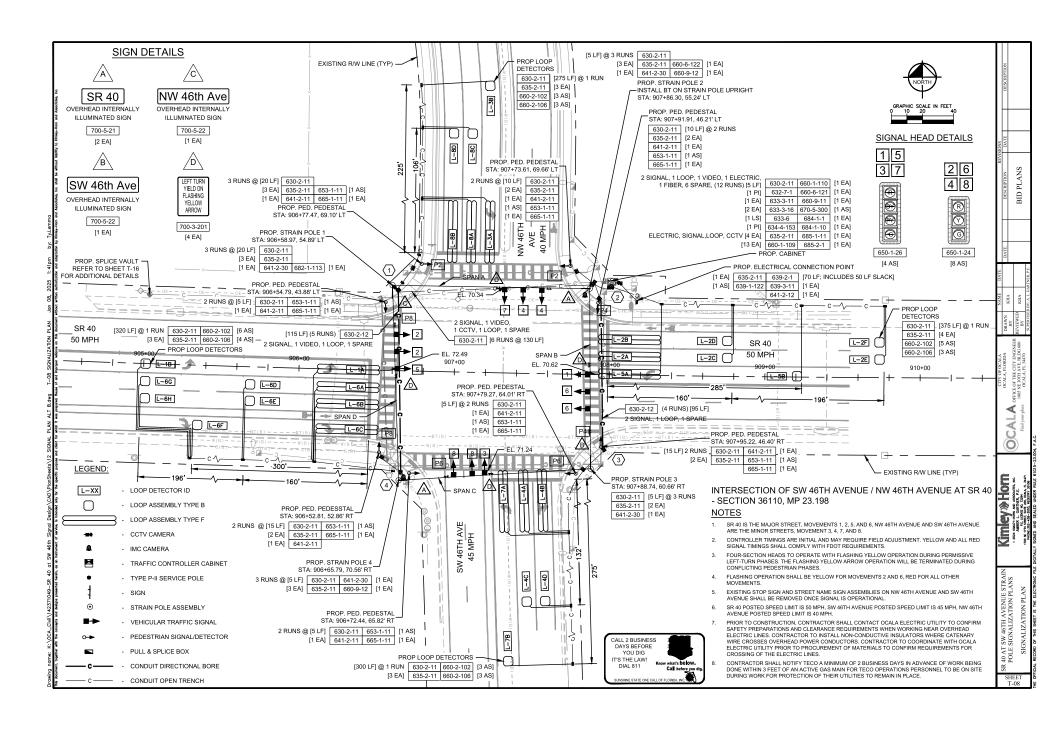
**Kimley**≫Horn

46TH AVENUE STRAIN
ANALIZATION PLANS
ERAL NOTES &







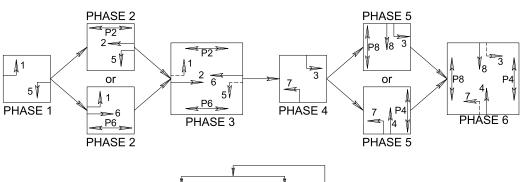


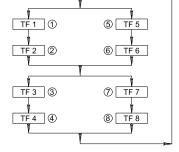
CALL 2 BUSINESS DAYS BEFORE

> Know what's below. Call before you o

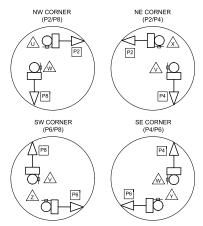
YOU DIG

# SIGNAL OPERATING PLAN 10





# PED POLE DETAILS N.T.S.



# PED SIGN DETAILS N.T.S.



R10-3i 9" x 18" 1 EA TO BE INCLUDED IN THE COST OF PAY ITEMS



9" x 18" 3 EA TO BE INCLUDED IN THE COST OF PAY ITEMS 665-1-11



R10-3i 9" x 18" 1 EA TO BE INCLUDED IN THE COST OF PAY ITEMS 665-1-11



R10-3i 9" x 18" 1 EA TO BE INCLUDED IN THE COST OF PAY ITEMS



R10-3i 9" x 18" 1 EA TO BE INCLUDED IN THE COST OF PAY ITEMS 665-1-11



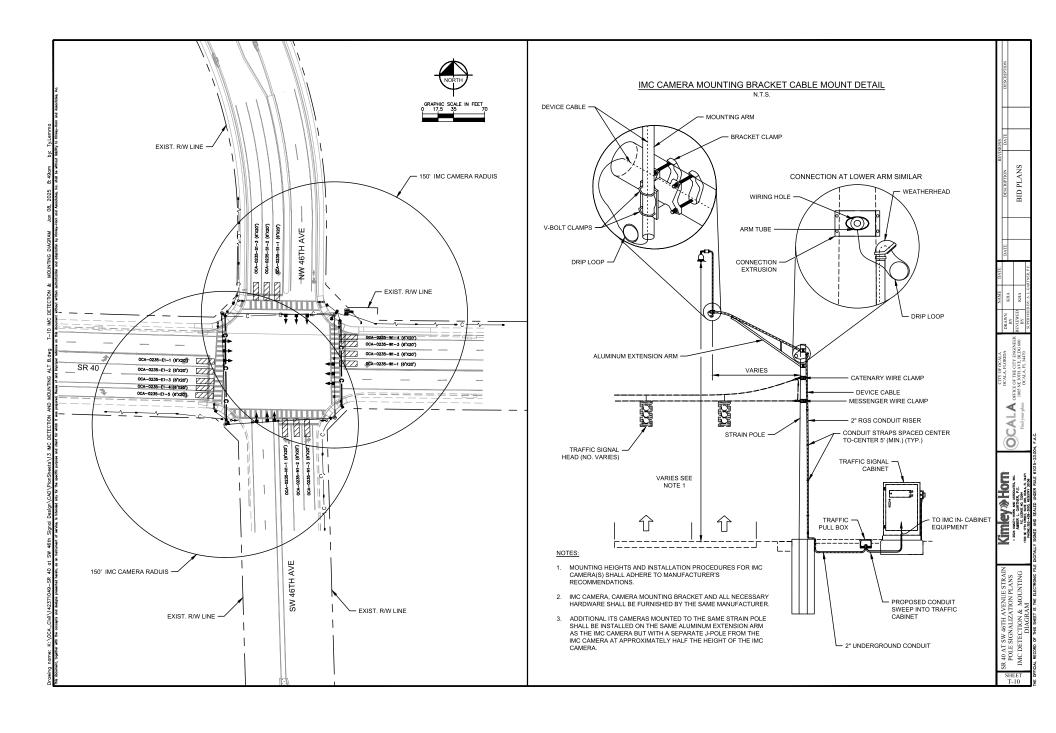
R10-3i 9" x 18" 1 EA TO BE INCLUDED IN THE COST OF PAY ITEMS 665-1-11 TRAIN KIMEY» Hom

Find your place OCALA, EL 3470

BID PLANS

SR 40 AT SW 46TH AVENUE STRAIN POLE SIGNALIZATION PLANS SIGNALIZATION PLAN

ET



SPAN BACK-LENGTH PLATES

(Y/N) POLE D1 (ft)

3

4

38.5

35.4

31.6

(ft)

126.9

115.9

123.8

125.6

POLE ID

4

SPAN

Α

В

С

D

SIGNAL DATA

3

3

S D3 (ft)

60.5

55.4

53.6

D2 (ft)

49.5

47.4

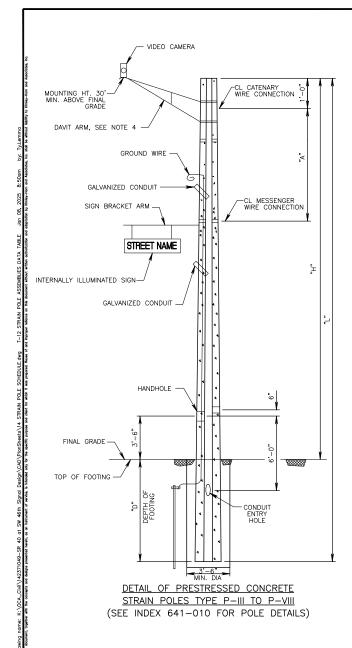
42.6

S

3

3

3



GENERAL NOTES:

- 1. THIS DESIGN IS FOR SPAN WIRE ASSEMBLY WITH TWO-POINT ATTACHMENTS. INSTALLATION SHALL BE IN ACCORDANCE WITH THE FY 2024-25 EDITION OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- 2. FOUNDATION PARAMETERS USED IN DESIGN:

STRAIN POLE 1: BORING: B-2 CLASSIFICATION: COHESIONLESS SOIL (SAND) AND COHESIVE SOIL (CLAY) COHESION: 1,350 PSF UNIT WEIGHT: 47 PCF N-SPT #: 13

SOIL LAYER THICKNESS: 16 FT

DESIGN WATER TABLE: O' BELOW SURFACE (ASSUMED)

STRAIN POLE 2: BORING: B-1 CLASSIFICATION: COHESIONLESS SOIL (SAND) FRICTION ANGLE: 33.6 DEG UNIT WEIGHT: 48.4 PCF

N-SPT #: 23 SOIL LAYER THICKNESS: 16 FT

DESIGN WATER TABLE: O' BELOW SURFACE (ASSUMED)

STRAIN POLE 3: BORING: B-3 CLASSIFICATION: COHESIONLESS SOIL (SAND) FRICTION ANGLE: 32 DEG UNIT WEIGHT: 47 PCF N-SPT #: 14.8 SOIL LAYER THICKNESS: 16 FT DESIGN WATER TABLE: 0' BELOW SURFACE (ASSUMED)

STRAIN POLE 4: BORING: B-4 CLASSIFICATION: COHESIONLESS SOIL (SAND) FRICTION ANGLE: 32 DEG UNIT WEIGHT: 47 PCF N-SPT #: 20 SOIL LAYER THICKNESS: 16 FT DESIGN WATER TABLE: O' BELOW SURFACE (ASSUMED)

- 3. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SPECIFIED.
- 4. CONTRACTOR TO COORDINATE WITH MAINTAINING AGENCY FOR DAVIT ARM SPECIFICATIONS.
- 5. PRESTRESSED CONCRETE STRAIN POLES SHALL BE CONSTRUCTED WITH A CONCRETE FOOTING AS PER SECTION 641-4.2 OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, FY
- 6. WORK THIS SHEET WITH THE FDOT FY 2024-25 STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION, WITH APPLICABLE DESIGN STANDARD MODIFICATIONS. SEE INDEX 641-010 FOR CONCRETE POLES, INDEX 700-050 FOR FREE SWINGING, INTERNAL ILLUMINATED STREET SIGN AND 634-001 FOR SIGN CABLE AND SPAN WIRE INSTALLATION DETAILS.
- 7. DESIGN WIND SPEED = 150 MPH
- 8. FOUNDATION DESIGN IS BASED ON SUBSURFACE SOIL EXPLORATION AND GEOTECHNICAL ENGINEERING REPORT PROVIDED BY GEOTECH INC., PROJECT NO. - 23 - 3006.203.1 DATED JANUARY 29, 2024.

# **ESTIMATED VERTICAL CLEARANCES**

OCALA

Kimley» Hom

T SW 46TH AVENUE STRAIN E SIGNALIZATION PLANS N POLE ASSEMBLIES DATA TABLE

POLE ID	SPAN	ESTIMATED VERTICAL CLEARANCE (ft)					
1		19.18'					
2	^	13.10					
2	В	18.98'					
3		10.30					
3	l c	18.80'					
4		15.00					
4	D	18.04'					
1		10.04					

# CONCRETE STRAIN POLE SCHEDULE

POLE	SHEET	POLE LO	CATION	POLE	POLE LENGTH	POLE HEIGHT	DEPTH	DIMENSION	FINA	L GRADE	CROWN	CATENARY WIRE	MESSENGER WIRE DIA. (IN.) /
ID	NO.	STATION OFFSET		TYPE	(L)	(H)	(D)	(A)	POLE	ELEVATION	ELEVATION	DIA. (IN.) / GRADE	GRADE
1	T-08	906+58.97	54.89' LT	P-VIII	51'	35'	16'	7.25'	1	70.89	70.34	7/16" /	7/16" /
	1-00	900+36.97	34.09 L1	r-viii	31	35	10	7.25	2 70.08		70.34	UTILITY GRADE	UTILITY GRADE
2	T-08	907+86.30	55.24' LT	P-VIII	52'	36'	16'	7.25'	2	70.08	70.62	7/16" /	7/16" /
2	1-00	907+66.30	55.24 L1	P-VIII	52	30	16	7.25	3	70.30	70.62	UTILITY GRADE	UTILITY GRADE
2	T-08	907+88.74	60.66' RT	P-VIII	52'	36'	16'	7.25'	3	70.30	71.24	7/16" /	7/16" /
3	1-00	901700.14	00.00 K1	P-VIII	32	30	16	7.25	4	71.84	71.24	UTILITY GRADE	UTILITY GRADE
	T-08	906+65.79	70.56' RT	P-VIII	50'	34'	16'	7.25'	4	71.84	72.49	7/16" /	7/16" /
4	1-08	900-65.79	70.00 KT	F-VIII	50	34	10	7.25	1	70.89	12.49	UTILITY GRADE	UTILITY GRADE

		6488	CULANINE	DETECTOR	DETECTOR	DIRECTION		ADD CDEED	DROTECTED	DEDA HOOME	OVER AD	DEL 41/	DETECTOR	70115	DISTANCE TO	DETECTOR	
SIGNAL	BIU	CARD	CHANNEL	DETECTOR	DETECTOR	DIRECTION	MOVEMENT			PERMISSIVE	OVERLAP	DELAY	DETECTOR	ZONE	DISTANCE TO		
ID	NO.	NO.	NO.	ID			TYPE	MPH	PHASE	PHASE		SEC.	SYSTEM	SIZE	STOP BAR	TYPE	TYPE
			1	XXXXX01	L-1A	EB	L	50	1				LOOP	40'X6'	0	PD	V
		1	2	XXXXX02	L-6A	EB	Т	50	6				LOOP	40'X6'	0	PD	V
			3	XXXXX03	L-6B	EB	Т	50	6				LOOP	40'X6'	0	PD	V
		2	4	XXXXX04	L-6C	EB	R	50	6R			10	LOOP	40'X6'	0	PD	V
			5	XXXXX05	L-6D	EB	Т	50	6				LOOP	6'X6'	160	AD	V
		3	6	XXXXX06	L-6E	EB	T	50	6				LOOP	6'X6'	160	AD	V
			7	XXXXX07	L-6F	EB	R	50	6R				LOOP	6'X6'	300	AD, QD	V
	1	4	8	XXXXX08	L-1B	EB	L	50	1				LOOP	6'X6'	356	AD, QD	V
			9	XXXXX09	L-6G	EB	Т	50	6				LOOP	6'X6'	356	AD	V
		5	10	XXXXX10	L-6H	EB	T	50	6				LOOP	6'X6'	356	AD	V
			11	XXXXX11	L-7A	NB	L	45	7				LOOP	40'X6'	0	PD	V
		6	12	XXXXX12	L-4A	NB	Т	45	4				LOOP	40'X6'	0	PD	V
			13	XXXXX13	L-4B	NB	T	45	4				LOOP	40'X6'	0	PD	V
		7	14	XXXXX14	L-4C	NB	Т	45	4				LOOP	6'X6'	132	AD	V
			15	XXXXX15	L-4D	NB	Т	45	4				LOOP	6'X6'	132	AD	V
		8	16	XXXXX16	L-7B	NB	L	45	7				LOOP	6'X6'	275	AD, QD	V
l			17	XXXXX17	L-5A	WB	L	50	5				LOOP	40'X6'	0	PD	V
		9	18	XXXXX18	L-2A	WB	Т	50	2				LOOP	40'X6'	0	PD	V
			19	XXXXX19	L-2B	WB	T	50	2				LOOP	40'X6'	0	PD	V
		10	20	XXXXX20	L-2C	WB	Т	50	2				LOOP	6'X6'	160	AD	V
			21	XXXXX21	L-2D	WB	Т	50	2				LOOP	6'X6'	160	AD	V
		11	22	XXXXX22	L-5B	WB	L	50	5				LOOP	6'X6'	285	AD, QD	V
			23	XXXXX23	L-2E	WB	Т	50	2				LOOP	6'X6'	356	AD	V
	.	12	24	XXXXX24	L-2F	WB	Т	50	2				LOOP	6'X6'	356	AD	V
	2		25	XXXXX25	L-3A	SB	L	40	3				LOOP	40'X6'	0	PD	V
		13	26	XXXXX26	L-8A	SB	Т	40	8				LOOP	40'X6'	0	PD	V
			27	XXXXX27	L-8B	SB	Т	40	8				LOOP	40'X6'	0	PD	v
		14	28	XXXXX28	L-8C	SB	Т	40	8				LOOP	6'X6'	106	AD	v
			29	XXXXX29	L-8D	SB	T	40	8				LOOP	6'X6'	106	AD	v
		15	30	XXXXX30	L-3B	SB	L	40	3				LOOP	6'X6'	225	AD, QD	V
			31	XXXXX31	SPARE											,	
		16	32	XXXXX32	SPARE												
0235			33	XXXXX33	SPARE												
		17	34	XXXXX34	SPARE												
			35	XXXXX35	SPARE												
		18	36	XXXXXX36	SPARE												
		- 10	37	XXXXX37	SPARE												
		19	38	XXXXX38	SPARE												
		- 13	39	XXXXX39	SPARE												
		20	40	XXXXX40	SPARE												
	3		41	XXXXX41	SPARE												
		21	42	XXXXX42	SPARE												
			43	XXXXX43	SPARE												
		22	44	XXXXX44	SPARE												
			45	XXXXX45	SPARE												
		23	46	XXXXX46	SPARE												
			47	XXXXX47	SPARE												
		24	48	XXXXX48	SPARE												
			49	XXXXX49	SPARE												
		25	50	XXXXX50	SPARE												
			51	XXXXX51	SPARE												$\vdash$
		26	52	XXXXX52	SPARE												
			53	XXXXX53	SPARE												
		27	54	XXXXX54	SPARE												
			55	XXXXX55	SPARE												
		28	56	XXXXXX56	SPARE												$\vdash$
	4	20	57	XXXXX57	SPARE												
		29	58	XXXXX58	SPARE												$\vdash$
		23	59	XXXXX59	SPARE												$\vdash$
		30	60	XXXXX60	SPARE												
		30	61	XXXXX60 XXXXX61	SPARE												$\vdash$
		31	62	XXXXX62	SPARE												$\vdash$
		31	63	XXXXX62 XXXXX63	SPARE												$\vdash$
		32	64	XXXXX64	SPARE												$\vdash$
		32	04	^^^^0	SPARE								I				

# LEGEND:

PD - PRESENCE DETECTION AD - ADVANCED DETECTION V - VEHICLE QD - QUEUE DETECTION

L - LEFT T - THRU R - RIGHT

SIN 40 AT SW 46TH AVENUE STRAIN
POLE SIGNALIZATION PLANS
DETECTOR CHART
DETECTOR CHART

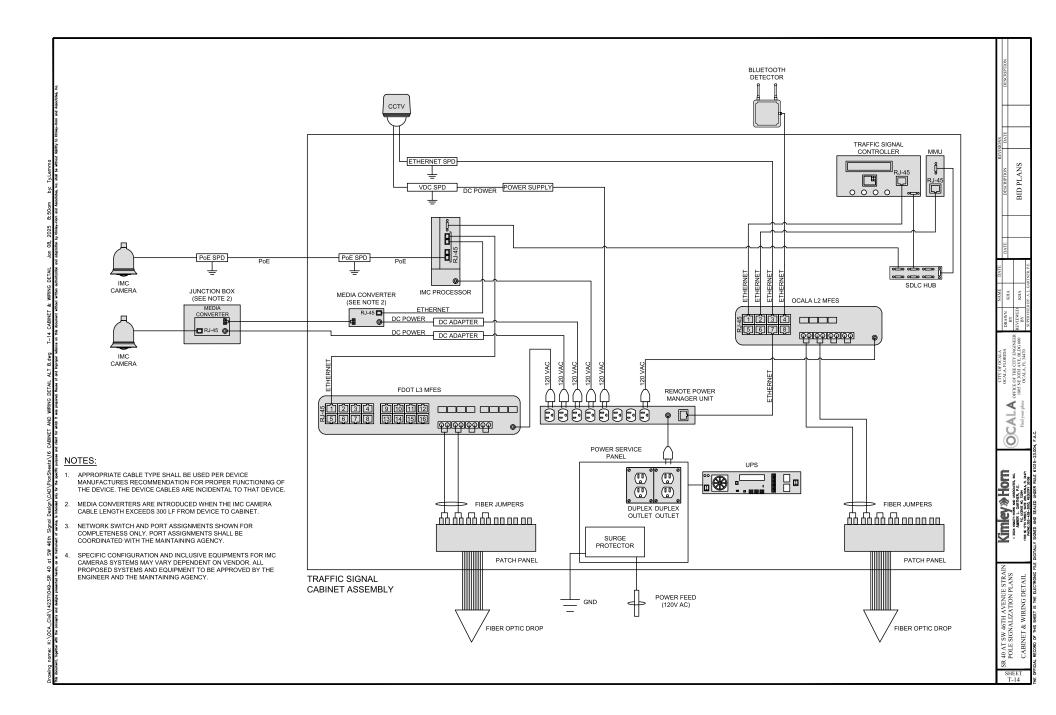
CTTY OF OCALA

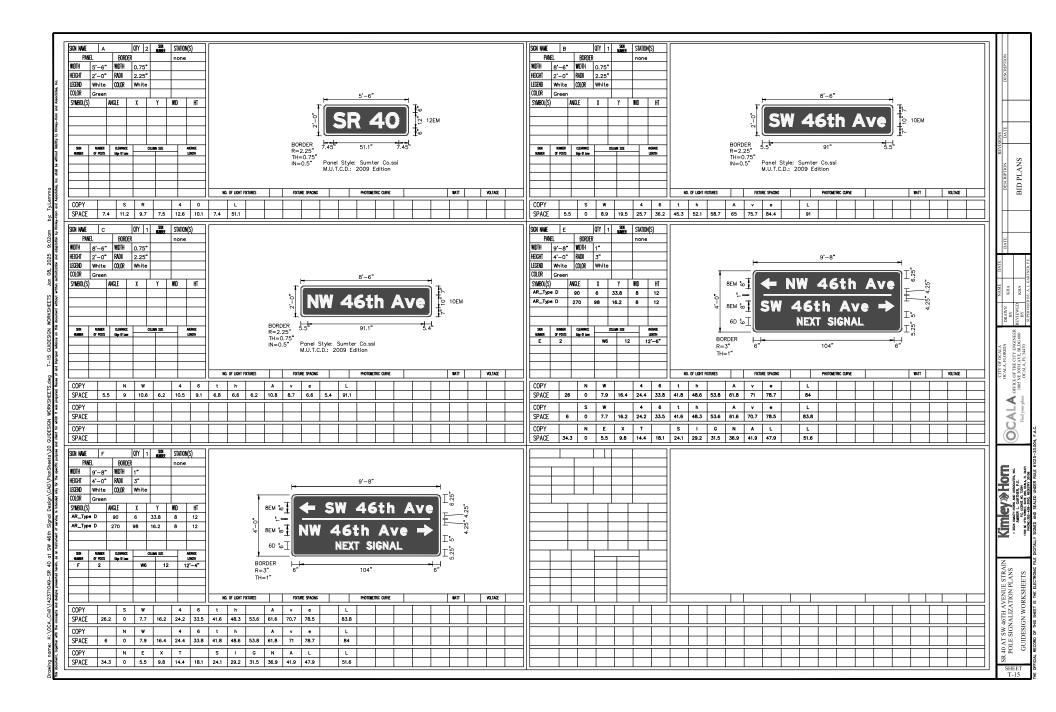
OCALA, FLOREDA

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CCALA, FL3470

BID PLANS





### INTERCONNECT NOTES

- 1. CONDUIT RUNS, PULL BOXES, AND SPLICE VAULTS TO BE CONSTRUCTED AS INDICATED BELOW.
- 2. EXISTING PEDESTAL IS AT UTILITY POLE L68.
- 3. FIBER CONNECTION TO THE PROPOSED SIGNAL CABINET TO BE INSTALLED BY CITY OF OCALA FIBER.

FDOT PAY	DESCRIPTION	UNIT	QUANTITY
630-2-11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	301
630-2-12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	100
635-2-12	PULL & SPLICE BOX; FURNISH & INSTALL; 24"x36"	EA	3
635-2-13	PULL & SPLICE BOX, F&I, 36" ROUND COVER SIZE	EA	1

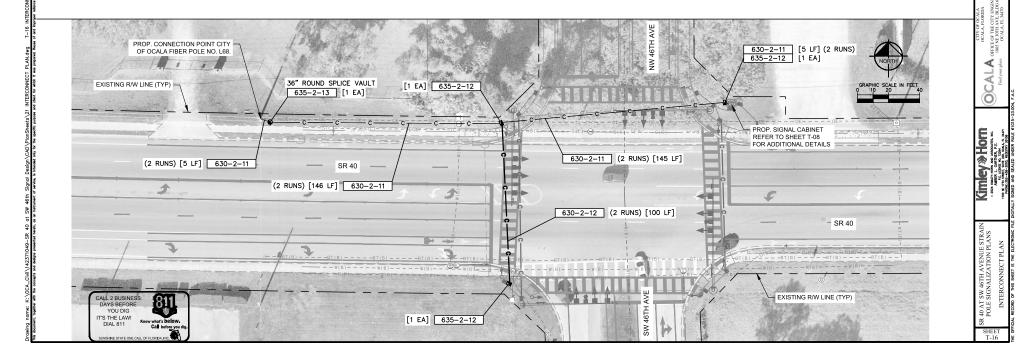
## PAY ITEM NOTES

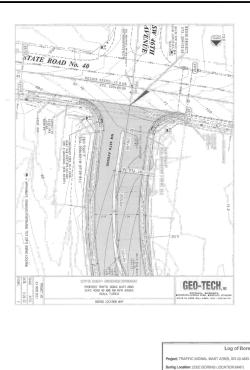
(ALL TRAFFIC EQUIPMENT MUST BE ON THE FDOT APPROVED PRODUCT LIST (APL), AND MUST BE APPROVED BY CITY OF OCALA BEFORE PROCUREMENT)

PAY ITEM NOs. 630-2-11, AND 630-2-12 CONDUIT IS TO BE 2" SCH 40 PVC INSTALLED AT A 36" MINIMUM DEPTH. ENSURE THAT THE CONDUIT IS TERMINATED INSIDE OF THE PROPOSED CONTROLLER CABINET.

BID PLANS

PAY ITEM NOs. 635-2-12, AND 635-2-13
PULL BOXES AND COVERS SHALL BE NON-METALLIC CONSTRUCTION WITH RECESSED COVER LOGO "TRAFFIC SIGNAL" OR "FIBER OPTIC" AS APPROPRIATE. SHALL INCLUDE CONSTRUCTION OF A 12" WIDE BY 6" DEEP CONCRETE APRON AROUND THE NEW PULL BOX.





boring	Locati	FFIC SIGNAL-MAST ARMS, SR 40 AND NW on: (SEE BORING LOCATION MAP) OF OCALA - ENGINEERING DEPARTMENT		Project Enginer Enclosu	ir: NJE	//CAH		ENSINEERING CONSU 10 16 SE 3rd Aven Coals, Ricrida 302 604 7711 WWW.GEOTECHTL	ie
Depth (ft)	Symbol	Description	Consistency	Depth/Elev.	Number	Type	Blowsift	Standard Penetratic N-Values 0 20 40 60	on Test 80 100
0-		Ground Surface FINE SAND		0.0	-	. 7	-		-
1 2 3 4 5 5		BROWN FINE SAND (SP)	HAND AUGERED POSSIBLE UTILITIES						
7			LOOSE	8.0	1	Н	9	9	
9 10 11 12	/	CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC)	MEDIUM DENSE	6.0	2	П	21	21	
13 14 15 16 17 1			DENSE		3	П	35	35	
17 18 19 20 21			MEDIUM DENSE		4	И	25	25	
23	/	LIMESTONE LIGHT BROWN LIMESTONE End of Borehole	60 BLOWS - 0*	25.0 26.0	5	П	50	\_so	
30 31 32 33 34 35				a x				0 PD	
		ter Dipth: GREATER THAN 10.0 FEET IAY 4, 2023						y: WH/CM/LE nod: ASTM D-1586	

Boring	Locati	Log of Bore FFIC SIGNAL MAST ARMS, SR 40 AND J SEC. (SEE BORING LOCATION MAP)  OF OCALA - ENGINEERING DEPARTME	WW 46TH AVE	Project Engines Enclose	et NJH	VĈAH		GEO-TEI ENGINEERING CONS 1016 SE 376 AM Ocals, Fiorid 302.694.771 WWW.GEOTECHE	nue 1
Depth (fl)	Symbol	Description	Consistency	DeptivElev	Number	Type	Blowsift	Standard Penetra N-Values 0 20 40 60	tion Tes
0 1 2 3 4 5 5		Ground Surface. FINE SAND BROWN FINE SAND (SP)	HAND AUGERED POSSIBLE UTILITIES	0.0		D. Carrier			į
7 8 9 10 11 11 11 11 11 11 11 11 11 11 11 11		CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC) SUGHTLY SANDY CLAY GREY AND YELLOWISH BROWN	LOOSE	9.0	1 2		13	13	
12 13 14 15 16 17		SLIGHTLY SANDY CLAY (CH)	STIFF		3	П	9		
18-119-119-119-119-119-119-119-119-119-1			STIFF		4	П	10	,10	
24- 25- 26- 27- 28- 29- 29-		LIMESTONE	WOH (23.5-27.5)	28.5	5	П	0	0	
30 31 32 33 34 35 36 36		LIGHT BROWN LIMESTONE  End of Borehole	50 BLOWS - 3"	31.0	6	П	50	, so	
Drill	Date: M	or Depth: GREATER THAN 10.0 FEET NY 4, 2023 P) UNIFIED SOIL CLASSIFICATION SY	MBOLAS DETERMIN	ED BY	AOI IX	Dri	II Moth	: WH/CM/LE od: ASTM D-1586	

BID PLANS

OCALA, FLORIDA
OCTICE OF THE CITY ENGINEER
Find your place 1895 NE OTHE CONTROL FL 4470

SIX 40 AT SW 46TH AVENUE STRAIN
POLE SIGNALIZATION PLANS
SOIL BORING MAP & LOGS
SPROM, RECORD OF THIS SHEET IS THE ELECTRONIC PILE DIS

Boring	Locati	Log of Boreho FFIC SIGNAL MAST ARMS, SR 40 AND NM on: (SEE BORING LOCATION MAP) OF OCALA - ENGINEERING DEPARTMENT					GEO-TECH, NO. ENGINEERING CONSULTANTS 1018 SE 304 Avenue Colle, Florida 302,984,7711 /WWW.GEOTECHFL.COM		
Depth (ft)	Symbol	Description	Consistency	Depth/Elev.	Number	Type	Blows/ft	Standard Penetration Test  A N-Values A 0 20 40 60 80 100	
0 1 2		Ground Surface FINE SAND BROWN FINE SAND (SP)	HAND AUGERED POSSIBLE	0.0	F		P		
3 4 5			LOOSE		1	П	4		
6			LOOSE		2	Ш	8	8	
9- 10- 11-			LOOSE		3	11	9		
12- 13- 14- 15- 16-	_	CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC)	DENSE	13.5	4	п	40	<b>1</b>	
17- 18- 19- 20- 21- 22-			MEDIUM DENSE		5	П	23	23	
23- 24- 25- 26- 27-			MEDIUM DENSE		6	П	15	15	
28- 29- 30- 31-			WOH (28.5-31.0)		7	п	0	6	
32- 33- 34- 35- 36-		LIMESTONE LIGHT BROWN LIMESTONE End of Borehole	50 BLOWS - 3"	33.0 34.0	8	П	50	<b>1</b> 60	
(Drill	Date: h	tor Depth: GREATER THAN 10.0 FEET MAY 16, 2023 SP) UNIFIED SOIL CLASSIFICATION SYME	IO AS DETERMIN	ED BY	Oleitv	Dr	II Meti	y: WH/CM/LE nod: ASTM D-1586	

	Locati	FFIC SIGNAL MAST ARMS, SR 40 AND N on: (SEE BORING LOCATION MAP). DF OCALA - ENGINEERING DEPARTME		Project Enginer Enclosu	er: NJF	VCAH		ENGINEERING CONSULTANTS 1016 SE 3rd Avenue Code, Revide 352.694.7711 WWW.GEOTECHFL.COM
Depth (ff)	Symbol	Description	Consistency	Depth/Elev.	Number	Type	Blows/ft	Standard Penetration Test
0-		Ground Surface		0.0	00			
21		BROWN FINE SAND (SP)	HAND AUGERED POSSIBLE	2.0				
3	/	CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC)	UTILITIES					
5 6			MEDIUM DENSE		1	Ш	12	12
7-			MEDIUM DENSE		2	П	20	20
9 10 11 12 12		2	MEDIUM DENSE		3	Ш	19	.19
13 14 15 16 17	/		DENSE		4	П	35	-  35   Fot
18 19 20 21 22			MEDIUM DENSE		5	П	26	26
23 24 25 26 27			MEDIUM DENSE		6	П	23	23
28- 29- 30- 31-	,		MEDIUM DENSE	31.0	7	П	19	119
32 33 34 35 36		End of Borehole						

CITY OF COLALA, TORIDA OCALA, TORIDA OFFICE OF THE CITY EXGINER Find your place 1805 N. SOTALA, EL 3.4470 600

LE SIGNALIZATION PLANS LIGHTING QUANTITIES

SHEET L-01

# ROADWAY LIGHTING GENERAL NOTES

- 1. SEE ROADWAY PLANS FOR UTILITY ADJUSTMENT SHEETS.
- 2. THE LOCATION(S) OF THE UTILITY SHOWN IN THE PLANS ARE BASED ON LIMITED INVESTIGATION AND SHOULD BE CONSIDERED APPROXIMATE ONLY.
- 3. STAKE ALL POLE LOCATIONS AND REQUEST UTILITY COMPANIES TO LOCATE AND STAKE UNDERGROUND UTILITIES PRIOR TO EXCAVATING.
- 4. CONTRACTOR IS TO VERIFY THAT OVERHEAD UTILITY RELOCATIONS AND OPERATIONS ARE COMPLETE PRIOR TO THE INSTALLATION OF POLES IN AREAS WHERE OVERHEAD CONDUCTORS WOULD OTHERWISE BE IN CONFLICT WITH OSHA CLEARANCE REQUIREMENTS.
- 5. SUBMIT SHOP DRAWINGS WITH SIGNED AND SEALED STRUCTURAL CALCULATIONS MEETING FDOT REQUIREMENTS FOR ALL LIGHT POLES.
- 6. ALL LUMINAIRES TO BE ORIENTED PERPENDICULAR TO NEAREST EDGE OF PAVEMENT SIGNIFIED BY PLAN ORIENTATION.
- 7. SEE FDOT FY 2024-25 STANDARD PLAN INDEX 715-003 FOR UTILITY CONFLICT LIGHT POLE.

PROPOSED LOAD CENTER A 120/240V, SINGLE PHASE, 3 WIRE + GROUND STA. 908+15.00, 61.25 LT. ( SURVEY SR 40)

LOAD CENTER DESIGNATION	MAIN & CIRCUIT BREAKER SIZES	# OF BRANCH CIRCUITS	TOTAL DEMAND LOAD (AMPS)	TOTAL DESIGN LOAD (AMPS)	# SERVICE ENTRANCE CONDUCTORS & CONDUIT AND BRANCH CIRCUIT SIZE
А	100 A, 2P	1	11.4	14.2	# 4 AWG
A-1	40 A, 1P		11.4	14.2	# 6 AWG

## POLE DATA

POLE NO.	CIRCUIT	STATION	POLE OFFSET	LUMINAIRE WATTAGE	MOUNT I NG HE I GHT	ARM LENGTH	IES FILE	POLE SETBACK*	PAY ITEM
01	A - 1	905+72.00	55.25 LT.	136	40'	10'	RFL - 135W80LED4K - G2 - R35	9.0'	715-61-321
02	A - 1	906+70.25	67.75 LT.	136	35'	16'	RFL - 135W80LED4K - G2 - R3S	13.5'	715-65-266
03	A - 1	906+71.00	74.75 RT.	243	40 '	10'	RFL-241W112LED4K-G2-R3S	15.3'	715-61-321
04	A - 1	907+74.00	123.25 LT.	243	40 '	10'	RFL-241W112LED4K-G2-R3S	9.2'	715-61-321
0.5	A - 1	907+77.50	115.00 RT.	243	40'	10'	RFL - 241W112LED4K - G2 - R35	7.1'	715-61-321
06	A - 1	907+90.75	73.00 LT.	136	40'	10'	RFL-135W80LED4K-G2-R3S	24.9'	715-61-321
07	A-1	907+92.50	55.50 RT.	136	40'	10'	RFL-135W80LED4K-G2-R3S	11.7'	715-61-321

<sup>\*</sup> SETBACK MEASURED FROM NEAREST EDGE OF PAVEMENT TO FACE OF POLE

## LEGEND

MANUFACTURER: LUMEC BY SIGNIFY: → # RFL-135WB0LED4K-G2-R3S-UNV-DMG-RCD7-SP2-BK # RFL-241W112LED4K-G2-R3S-UNV-DMG-RCD7-SP2-BK

WAS USED AS THE BASIS OF DESIGN, WIRED FOR 120V OPERATION. SEE POLE DATA TABLE FOR WATTAGE, MOUNTING HEIGHT, ARM LENGTH, AND FULL IES DESIGNATION. NEW LIGHT POLE AND LUMINAIRE.

→ REMOVE EXIST. BRACKET ARM AND LUMINAIRE

MANUFACTURER: LUMEC BY SIGNIFY: SY # RFL-135WBOLED4K-G2-R35-UNV-DMG-RCD7-SP2-BK

> WAS USED AS THE BASIS OF DESIGN, WIRED FOR 120V OPERATION. SEE POLE DATA TABLE FOR WATTAGE, MOUNTING HEIGHT, ARM LENGTH, AND FULL IES DESIGNATION. NEW UTILITY CONFLICT LIGHT POLE AND LUMINAIRE.

MANUFACTURER: LUMEC BY SIGNIFY: # RFL-135W80LED4K-G2-R3S-UNV-DMG-RCD7-SP2-BK

WAS USED AS THE BASIS OF DESIGN, WIRED FOR VOLTAGE PRESCRIBED BY OCALA ELECTRIC. NEW LUMINAIRE WITH 29 MOUNTING HEIGHT AND 10' BRACKET ARM PROCURED AND INSTALLED BY OCALA ELECTRIC.

D PROPOSED LOAD CENTER

PROPOSED LOCATION OF 13" X 24" LIGHTING PULL BOX

---- C ---- 2" DIRECT BURIED CONDUIT

— c— 2" DIRECTIONAL DRILLED CONDUIT

# NEW OR RECONSTRUCTION SIGNALIZED INTERSECTION LIGHTING DESIGN CRITERIA

AVERAGE INITIAL INTENSITY: 3.0 H.F.C. (1.5 MIN.) / 1.5 V.F.C. (1.2 MIN.)

UNIFORMITY RATIO AVG. / MIN.: 4:1 OR LESS\*\*
UNIFORMITY RATIO MAX. / MIN.: 10:1 OR LESS\*\*

DESIGN WIND SPEED: 140 MPH

\*\*ILLUMINATION UNIFORMITY RATIOS DO NOT APPLY TO V.F.C.

SR 40 AT SW 46TH AVENUE STRAIN

THE SIGNALIZATION PLANS

THE SIGNALIZATION PLANS

THE STATE AND STREET AND STR

BID PLANS

