Appendix A Technical Specifications

97294: 7200 AC Skinner Lift Station Fiber Build

JEA DOCUMENT REFERENCES

All construction work shall be completed in accordance with details and specifications contained in the documents listed below. These documents can be found on www.jea.com at Working with JEA / Engineering and Construction / Reference Materials / Reference Materials. JEA Contractors are required to fully understand and comply with these specifications.

- A. Fiber Optic Cable Standards Latest Edition
- B. Underground Distribution Construction Standards Latest Edition
- C. Overhead Distribution Construction Standards Latest Edition

AS-BUILT/POST CONSTRUCTION/POST SPLICING DOCUMENTION REQUIRED:

- 1) Contractor shall mark up supplemental project drawings, site plans, overhead installation and underground installation and submit on supplied drawings to JEA in an as built format.
- 2) Contractor shall provide electronic and hard copies of fiber optic testing documentation before and after installation.
- 3) Contractor shall perform bi-directional tests with a JEA approved OTDR/software package NetTest or EXFO from patch panel to patch panel.
- 4) Contractor shall perform bi-directional tests for Optical Return Loss with a JEA approved power meter and light source on terminated fibers from patch panel to patch panel.
- 5) Contractor shall provide electronic and hard copies of fiber optic testing documentation before and after splicing.

Scope of Work for Fiber Installation and Splicing

- 1. The JEA contractor shall perform a pre-construction test of the new fiber cable (CAIUF0144) to insure its integrity prior to installation.
- 2. All underground construction will include conduit(s) as designed, a locate wire (#12 minimum solid), fiber route cott markers, and fiber optic vaults, as indicated on the construction drawings.
- 3. The Contractor will perform post construction fiber integrity testing. The Contractor will inform JEA the fiber plant is ready for pre splicing inspection. JEA will inspect the completed fiber plant construction within ten working days after the Contractor informs JEA that it is ready for inspection. Upon acceptance by JEA of the fiber, plant construction the Contractor will begin fiber splicing, post splicing testing and documentation.
- 4. The JEA Contractor shall identify and tag all exposed project related fiber cables within the project area with JEA provided tags.

Scope of Work

- 1. Directional Drill along AC Skinner Parkway starting at 7200 AC Skinner Master Lift Station to the corner of Salisbury Rd and along Salisbury Rd.
- 2. Install JEA furnished handhole according to the drawing, some adjustments may be necessary.
- 3. Pull approximately 5280ft of 144ct fiber. The print calls for a 48 count fiber but replaced with a 144 count fiber.
- 4. Install riser pole and pull fiber into substation
- 5. On site design and build into 7200 AC Skinner MLS
 - a. Furnish and install approximately 75ft of 2' conduit
 - b. Furnish and install Nema Cabinet on outside building per drawings
 - c. Install Rack in control building
- 6. Furnish and install patch panel and terminate 12 fibers in AC Skinner Control room
- 7. Terminate 12 fibers and install contractor supplied patch panel in existing rack inside Southside Substation
- 8. Label all fiber terminations and provide as-build per JEA Standards
- 9. Install new ARC conduit from existing power panel to new cabinet. Install (2) new 120v/20amp

JEA shall provide the following:

- 1. 144 count single mode fiber.
- 2. Fiber route markers, fiber optic vaults and hand holes.
- 3. Maps, plans, drawings, design specifications and permits.

Contractor shall provide:

- 1. All equipment, tools and work force.
- 2. All consumables and other materials needed for the underground construction.
- 3. All conduit, inner ducts and locate wire.
- 4. All splicing and consumables.

J-TURNER BUTLER BLVD AC SKINNER PKWY annunununun UNDERGROUND 7200 AC SKINNER PKWY FIBER OPTIC **MASTER LIFT STATION BUILD ROUTE** SEE DRAWING E1-1 & E2-1 FIBER OPTIC **BUILD ROUTE** SOUTHSIDE SUBSTATION

THE IMAGE USED IS WITH THE EXPRESSED WRITTEN PERMISSION FROM GOOGLE INCORPORATED @ 2018 GOOGLE

PROJECT LOCATION MAP NOT TO SCALE



ESTIMATED MATERIAL QUANTITIES									
DESCRIPTION	LINEAR FEET	UNIT QUANTITY							
24 COUNT FIBER OPTIC CABLE	9880'	NA							
2" PVC CONDUIT	100'	NA							
2" HDPE CONDUIT (HDD INSTALLATION)	3800'	NA							
FIBER OPTIC MANHOLES	NA	5							
FIBER OPTIC COTT MARKERS	NA	2							
FIBER OPTIC CURB MARKERS	NA	5							
FO-TX-RIS1C	NA	1							
FO-RIS1W	NA	1							
FO-A	NA	1							
FO-CS (AERIAL STORAGE)	NA	2							
FO-T	NA	15							
FO-TX-DDE	NA	1							

NOTE: CABLE LENGTH ESTIMATE INCLUDES OVERHEAD AND MANHOLE STORAGE ONLY.

JEA - FIBER BUILD PROJECT 7200 AC SKINNER PKWY MASTER LIFT STATION **B&V PROJECT 400479**

PROJECT DRAWING LIST

SHEET	DRAWING	DRAWING
COUNT	NUMBER	TITLE
7 OF 15 8 OF 15	E0-3 E1-1 E1-2 E1-3 E1-4 E1-5 E1-6 E1-7 E1-8	LEGEND, CONSTRUCTION & GENERAL NOTES FIBER OPTIC ROUTING PLAN

- PROJECT OBJECTIVE TO UPGRADE JEA'S FIBER OPTIC COMMUNICATION SYSTEM. THIS ROUTE REQUIRES THE INSTALLATION OF NEW UNDERGROUND CONDUIT AND ATTACHING TO EXISTING DISTRIBUTION AND TRANSMISSION POLES. FROM THE MASTER LIFT STATION ON AC SKINNER PARKWAY RUNNING ALONG THE SOUTH RIGHT-OF-WAY, WEST TO TO SALISBURY RD. CONVERTING TO OVERHEAD INSTALLATION THEN ALONG THE WEST SIDE OF SALISBURY ROAD TO THE TRANSMISSION EASEMENT LEADING INTO THE SOUTHSIDE SUBSTATION AND THE CONTROL BUILDING.
- CONTRACTOR SHALL INSTALL OWNER FURNISHED FIBER OPTIC CABLE IN EXISTING CONDUITS AND MANHOLES ALONG THE ROUTE ADDING CONDUIT AND FIBER OPTIC MANHOLES WHERE NECESSARY. UNDERGROUND INSTALLATION MAY INCLUDE HAND DIGGING, TRENCHING AND HORIZONTAL DIRECTIONAL DRILLING (HDD).
- INSTALLATION METHODS WILL INCLUDE BUT NOT LIMITED TO HDD AND TRENCHING MACHINES, CABLE DOLLY TRUCKS, AND SUPPORT VEHICLES.

2018-2019 FDOT DESIGN STANDARDS ATTACHED FOR REFERENCE ONLY

NOTE: THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING AND COMPLYING WITH NECESSARY STANDARDS

STANDARDS PLANS	JMBER OF HEETS	INDEX TITLE
		OFNEDAL INCODUATION FOR TRAFFIC CONTROL TURQUOU WORK 70VFC
600 102-600	12	GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES
601 102-601	1	TWO-LANE, TWO-WAY, WORK OUTSIDE SHOULDER
602 102-602	1	TWO-LANE, TWO-WAY, WORK ON SHOULDER
603 102-603	3	TWO-LANE, TWO-WAY, WORK WITHIN THE TRAVEL WAY
604 102-604	1	TWO-LANE, TWO-WAY, WORK IN INTERSECTION
605 102-605	1	TWO-LANE, TWO-WAY, WORK NEAR INTERSECTION
611 102-611	1	MULTILANE, WORK OUTSIDE SHOULDER
612 102-612	1	MULTILANE, WORK ON SHOULDER
613 102-613	2	MULTILANE, WORK WITHIN THE TRAVEL WAY MEDIAN OR OUTSIDE LANE
615 102-615	1	MULTILANE, WORK IN INTERSECTION
616 102-616	3	MULTILANE, WORK NEAR INTERSECTION MEDIAN OR OUTSIDE LANE
625 102-625	1	TEMPORARY ROAD CLOSURE - 5 MINUTES OR LESS
660 102-660	1	PEDESTRIAN CONTROL FOR CLOSURE OF SIDEWALKS
670 102-670	1	MOTORIST AWARENESS SYSTEM APPROVED FOR

CONTACTS

PROJECT MANAGER: GREG RAGER (904) 665-8136

PROJECT DESIGNER: KENT BAUGHER (904) 288 - 4257

CONSTRUCTION

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7200 AC SKINNER PARKWAY - MLS FIBER OPTIC BUILD LOCATION MAP. & DESCRIPTION OF WORK

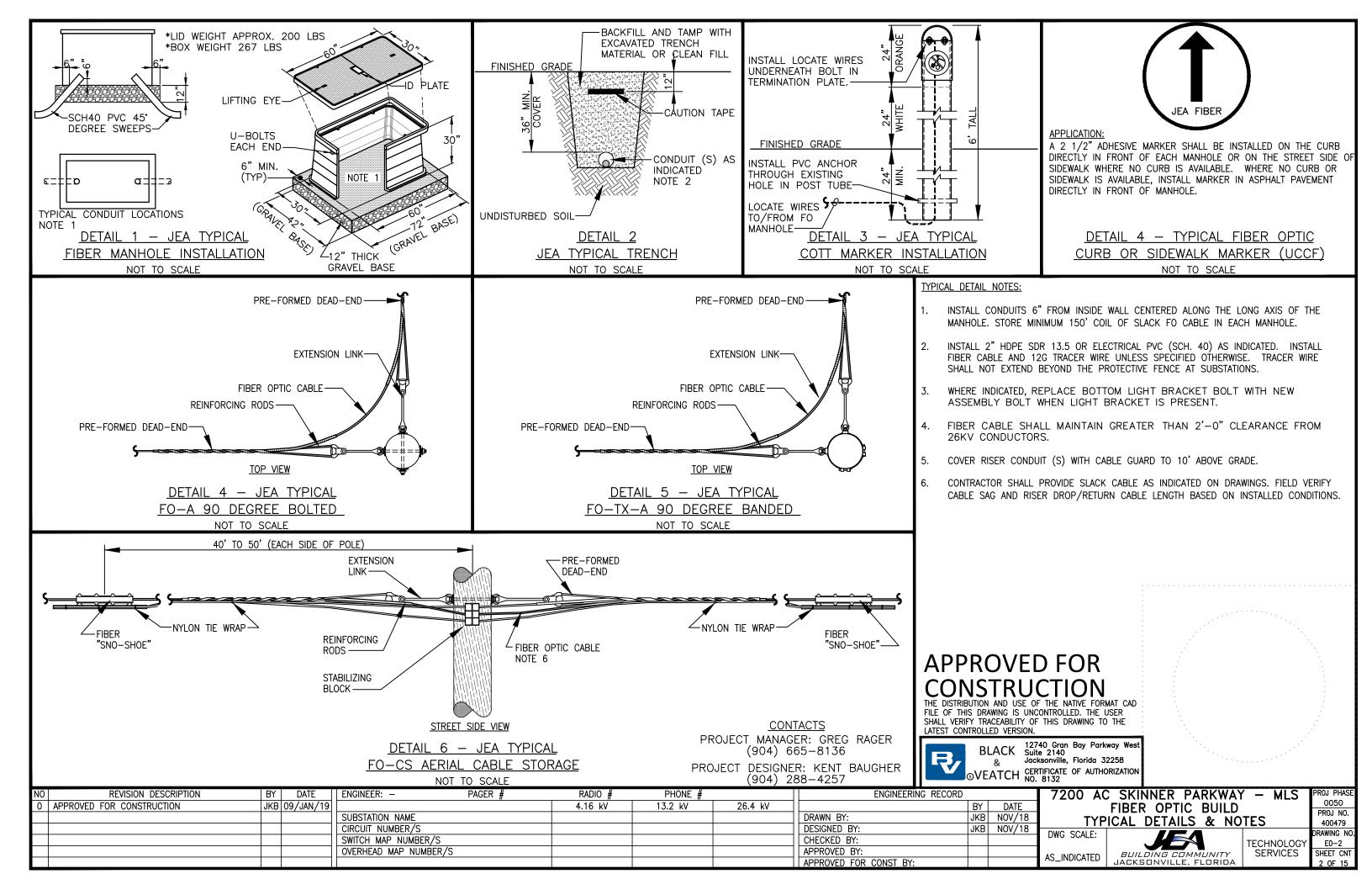
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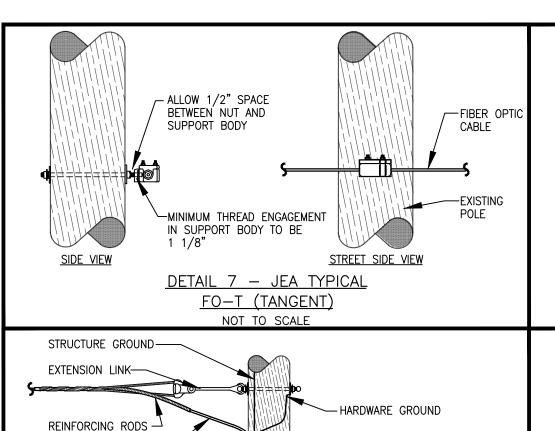
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				OVERHEAD MAP NUMBER/S				APPROVED BY:		
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DETAIL 10 - JEA TYPICAL FIBER OPTIC

OVERHEAD TO UNDERGROUND RISER

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-DOWNLEAD CUSION

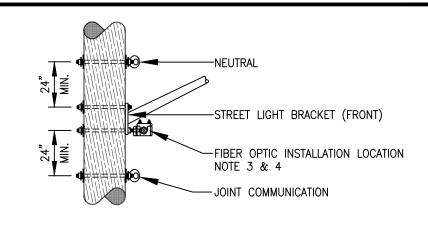
-CABLE GUARD NOTE 5

-FIBER OPTIC CONDUIT

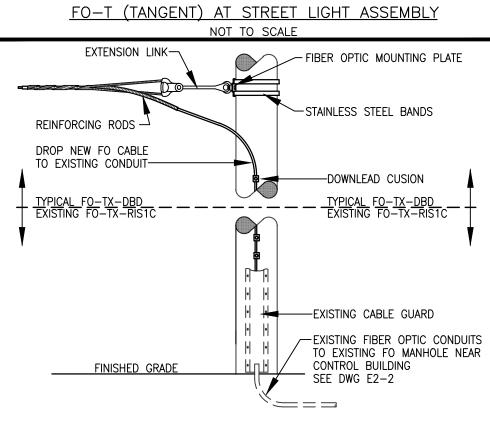
TO FO MANHOLE

TYPICAL FO-D TYPICAL FO-RIS1

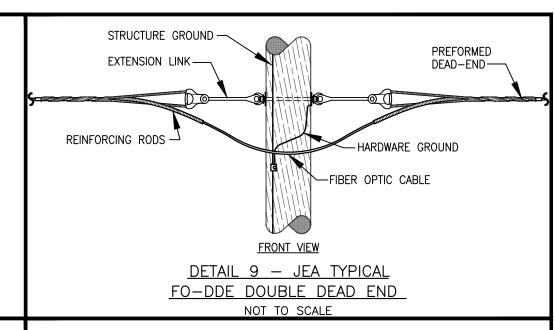
NOTE 6

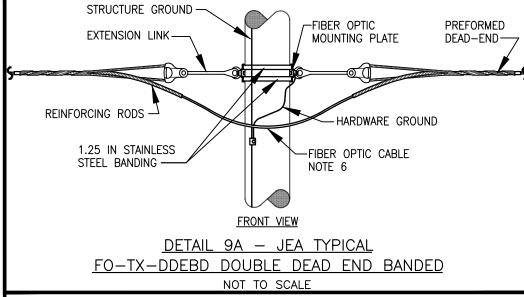


DETAIL 8 - JEA TYPICAL



DETAIL 11 - JEA TYPICAL FIBER OPTIC OVERHEAD TX DOUBLE DEAD END BANDED WITH EXISTING RISER NOT TO SCALE





CONTACTS

PROJECT MANAGER: GREG RAGER (904) 665-8136

PROJECT DESIGNER: KENT BAUGHER (904) 288-4257

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FIBER OPTIC CABLE-

FINISHED GRADE

TYPICAL FO-D TYPICAL FO-RIS1

NOTE 6

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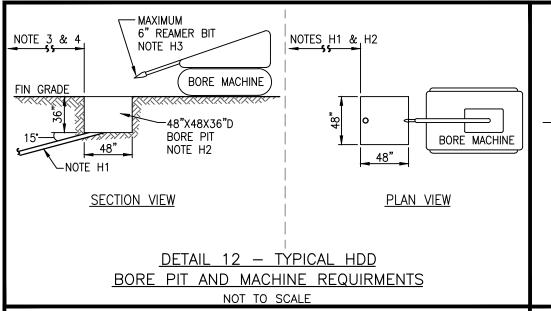
7200 AC SKINNER PARKWAY - MLS FIBER OPTIC BUILD TYPICAL DETAILS

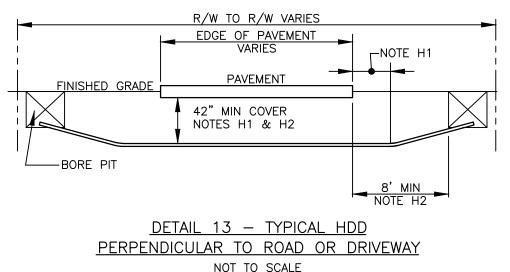
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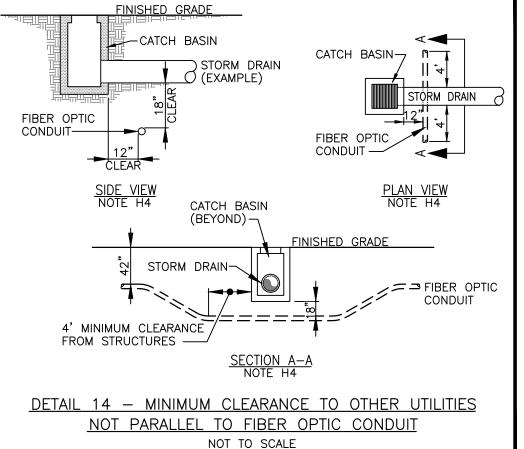


HDD DETAIL NOTES:

- H1. CONDUIT SHALL MAINTAIN 42" MINIMUM COVER FROM TOP OF CONDUIT TO BOTTOM OF PAVEMENT AT LEAST 5' BEYOND PAVEMENT FOR RESIDENTIAL DRIVEWAYS. AND AT LEAST 7' BEYOND EDGE OF PAVEMENT FOR LOCAL OR STATE ROADWAYS.
- BORE PITS MAY BE USED FOR FIBER OPTIC MANHOLE PLACEMENT AFTER CONDUIT IS RETRIEVED AND GRAVEL BASE IS INSTALLED. UNDER STATE ROADWAYS, BORE PITS SHALL BE NO LESS THAN 8' FROM EDGE OF PAVEMENT.
- BORE MACHINE REAMER BITS AND SIMILAR EQUIPMENT SHALL REMAIN ON SITE FOR INSPECTION FOR THE DURATION OF THE CONSTRUCTION PROJECT.
- WHERE UNDERGROUND FIBER OPTIC CONDUIT INTERSECTS EXISTING UTILITIES NOT PARALLEL WITH FIBER OPTIC CONDUIT: BURIAL DEPTH OF FO CONDUIT SHALL INCREASE TO AT LEAST 18" COVER BELOW OTHER UTILITY FOR MINIMUM 48" BEYOND INTERSECTING AREA. EXCEPTIONS WILL BE CONSIDERED INDIVIDUALLY IF OTHER UTILITY ALLOWS FO CONDUIT TO MAINTAIN MIN. 36" COVER AND MINIMUM 18" COVER FROM TOP OF FO CONDUIT TO

NOT BE BORED UNDER WITHOUT PRIOR APPROVAL.

BOTTOM OF OTHER UTILITY PIPE. STRUCTURES SUCH AS CATCH BASINS SHALL



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PROJECT DESIGNER: KENT BAUGHER

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CONTACTS

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(904) 288 - 4257

7200 AC SKINNER PARKWAY - MLS FIBER OPTIC BUILD TYPICAL HDD DETAILS & NOTES

DWG SCALE: AS_INDICATED BUILDING COMMUNITY
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TECHNOLOG' **SERVICES**

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PROJ PHASE 0050

CONSTRUCTION NOTES:

- CONTRACTOR IS RESPONSIBLE FOR LOCATING UTILITIES AT LEAST 72 HOURS PRIOR TO CONSTRUCTION ACTIVITY, USING FLORIDA ONE CALL 1-800-432-4770.
- BURIED CONDUIT FOR FIBER OPTIC CABLE SHALL BE PLACED WITH 36" MINIMUM COVER WITH CAUTION MARKER TAPE PLACED 12" BELOW FINISHED GRADE ABOVE FIBER OPTIC CABLE OR CONDUIT. PROVIDE 18" MINIMUM CLEARANCE TO OTHER BURIED UTILITIES.
- BENDS IN CONDUIT FOR FIBER OPTIC CABLE SHALL BE 36" MINIMUM RADIUS UNLESS SPECIFIED OTHERWISE.
- WHERE INDICATED, STATIONING IS BASED ON INFORMATION OBTAINED IN THE FIELD OR AERIAL MAPS. SOME VARIANCES SHOULD BE ANTICIPATED, ADJUST AS NEEDED.
- CONDUITS TERMINATING IN PULL BOXES OR EMPTY SHALL BE PURGED AND LEFT CLEAN, DRY AND FREE OF DEBRIS. EMPTY CONDUITS SHALL BE CAPPED AT EACH END.
- CONDUIT INSTALLATION MAY BE BY PLOW, OPEN TRENCHING, HAND DIGGING, MISSILE BORE OR HORIZONTAL DIRECTIONAL DRILL, AS INDICATED BY THE CONSTRUCTION DRAWINGS AND ALLOWED PER APPLICABLE STANDARDS.
- CONDUITS PASSING UNDER EXISTING DRIVEWAYS, WALKWAYS, OR SIMILAR IMPROVEMENTS PAVED OR UNPAVED, PERPENDICULAR TO THE PRIMARY ROADWAY SHALL BE INSTALLED BY DIRECTIONAL BORE METHOD. UNLESS NOTED OR OTHERWISE RESTRICTED BY CONDITIONS OR APPLICABLE REGULATIONS, PAVED OR IMPROVED AREAS LESS THAN 15' WIDE, MISSILE BORE IS ACCEPTABLE.
- WORK SITE CLEANUP SHALL BE CONDUCTED ON A DAILY BASIS. TRENCHES, BORE PITS AND DEPRESSIONS GREATER THAN 12" DEEP SHALL BE BACKFILLED AND COMPACTED BEFORE CONTRACTOR LEAVES THE WORK SITE EACH DAY.
- BACKFILL MATERIAL SHALL CONSIST OF CLEAN FILL PLACED IN 6 TO 8 INCH LIFTS ABOVE THE CONDUIT(S). THE METHOD OF COMPACTION AND THE EQUIPMENT USED SHALL BE APPROPRIATE FOR THE MATERIAL TO BE COMPACTED. RELATIVE COMPACTION SHALL BE TO 95 PERCENT STANDARD DENSITY AND AS REQUIRED BY THE LOCAL GOVERNING AGENCY THROUGH WHICH THE WORK IS BEING DONE.
- CURB OR COTT MARKERS SHALL BE PLACED AT NEW FIBER MANHOLES AND EXISTING FIBER MANHOLES WHERE EXISTING MARKER IS DAMAGED OR MISSING.
- 11. FOR UNDERGROUND INSTALLATION IN CONDUIT, 12GA LOCATE WIRE SHALL BE PULLED IN WITH FIBER OPTIC CABLE, EXCEPT WITHIN ELECTRICAL SUBSTATION FENCED AREAS.
- EROSION AND SEDIMENT CONTROL IS THE RESPONSIBILITY OF THE CONTRACTOR. CURB AND GUTTER INLETS SHALL BE PROTECTED BY DOUBLE FILTER SOCK. DITCHES SHALL BE PROTECTED BY HAY BALES AND SILT FENCE.
- EXISTING CONCRETE OR PAVEMENT, DAMAGED OR REMOVED SHALL BE REPLACED FROM JOINT TO JOINT.
- UNLESS INDICATED OTHERWISE OH FIBER CABLES SHALL BE ATTACHED APPROXIMATELY 2'-0' BELOW NEUTRAL CONDUCTOR.
- INSTALLED FIBER OPTIC CABLES SHALL MAINTAIN THE FOLLOWING VERTICAL CLEARANCES:
 - WHERE CABLE IS PARALLEL TO ROADWAY AND CABLE DOES NOT CROSS DRIVE OR ROADWAY: MAINTAIN MINIMUM 16' VERTICAL CLEARANCE FROM PAVEMENT OR GRADE TO LOWEST POINT OF FIBER OPTIC CABLE.
 - WHERE CABLE IS PARALLEL TO ROADWAY AND CABLE CROSSES OVER DRIVE MAINTAIN MINIMUM 18' VERTICAL CLEARANCE FROM PAVEMENT OR GRADE TO LOWEST POINT OF FIBER OPTIC CABLE.
 - WHERE CABLE IS PARALLEL OR CROSSES OVER PAVEMENT WITH LIMITED ROW ACCESS OR AS DIRECTED: MAINTAIN 24' MINIMUM VERTICAL CLEARANCE FROM PAVEMENT OR GRADE TO LOWEST POINT OF FIBER OPTIC CABLE.

GENERAL NOTES:

- CONSTRUCTION ACTIVITIES AND WORK PERFORMED UNDER THIS CONTACT SHALL ADHERE TO THE CURRENT JEA STANDARDS FOR UNDERGROUND AND AERIAL INSTALLATION.
- CONSTRUCTION WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH CURRENT APPLICABLE CODES AND REQUIREMENTS OF JURISDICTIONAL AGENCIES. AND THE RIGHT OF WAY GRANTOR. WORK SHALL COMPLY WITH O.S.H.A. STANDARDS AT ALL TIMES.
- THE EXACT LOCATION OF EXISTING UTILITIES ARE NOT KNOWN. EXISTING UTILITIES, AND OTHER FEATURES, SUCH AS RIGHT-OF-WAY, EASEMENTS, DRIVEWAYS, AND SIMILAR UTILITY FACILITIES UNDERGROUND OR OVERHEAD WHERE SHOWN, HAVE BEEN INDICATED FOR REFERENCE PURPOSES ONLY. THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES AND OBSTRUCTIONS AT LEAST 100 FEET IN ADVANCE OF ANY PHYSICAL INSTALLATION. SO THAT CHANGES IN ROUTE PLACEMENT CAN BE MADE AS NEEDED.
- THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING EXISTING OBJECTS ABOVE GRADE, POLE MOUNTED, AT GRADE AND BURIED, INCLUDING BUT NOT LIMITED TO UTILITIES. THE CONTRACTOR SHALL NOTIFY OWNER OF DAMAGE AND REPAIR OR MAKE ARRANGEMENTS FOR REPAIR OF DAMAGED OBSTRUCTIONS AND UTILITIES.
- EXISTING IMPROVEMENTS SUCH AS, ASPHALT OR CONCRETE PAVEMENT, CURBS, GUTTERS, WALKS, DRAINAGE DITCHES, EMBANKMENTS, SHRUBS, TREES, GRASS, SOD, ETC., IF DAMAGED, SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.
- THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND INTEND TO CONVEY THE DESIGN INTENT, AND GENERAL ARRANGEMENT OF EQUIPMENT, DEVICES, AND UTILITIES, BUT NOT NECESSARILY IN THEIR PRECISE LOCATION. SOME VARIATION SHOULD BE ANTICIPATED. OMISSIONS BY THE ENGINEER DO NOT RELIEVE THE CONTRACTOR OF OBLIGATIONS TO PROVIDE CONTRACTED PRODUCTS AND SERVICES. THE ENGINEER RESERVES THE RIGHT TO PROVIDE CLARIFICATIONS OR INTERPRETATION OF THE DESIGN INTENT OR REQUIREMENTS.

PROTECTION OF HISTORIC ARTIFACTS:

DURING THE CONSTRUCTION PROCESS THE CONTRACTOR SHALL MONITOR EARTH SPOILS FOR SIGNS OF PREHISTORIC OR HISTORIC ARTIFACTS, SUCH AS POTTERY OR CERAMICS, PROJECTILE POINTS, DUGOUT CANOES, METAL IMPLEMENTS, HISTORIC BUILDING MATERIALS, OR ANY OTHER PHYSICAL REMAINS THAT COULD BE ASSOCIATED WITH NATIVE AMERICAN, EARLY EUROPEAN, OR AMERICAN SETTLEMENT.

IF THESE ARE ENCOUNTERED AT ANY TIME WITHIN THE PROJECT SITE AREA, THE PERMITTED PROJECT SHALL CEASE ALL ACTIVITIES INVOLVING SUBSURFACE DISTURBANCE IN THE VICINITY OF THE DISCOVERY. THE CONTRACTOR SHALL NOTIFY JEA, BLACK & VEATCH AND THE FLORIDA DEPARTMENT OF STATE, DIVISION OF HISTORICAL RESOURCES, COMPLIANCE REVIEW SECTION AT (850)-245-6333 IMMEDIATELY. PROJECT ACTIVITIES SHALL NOT RESUME WITHOUT VERBAL AND/OR WRITTEN AUTHORIZATION.

IN THE EVENT THAT UNMARKED HUMAN REMAINS ARE ENCOUNTERED DURING PERMITTED ACTIVITIES, ALL WORK SHALL STOP IMMEDIATELY AND THE PROPER AUTHORITIES NOTIFIED IN ACCORDANCE WITH SECTION 872.05, FLORIDA STATUTES.

LEGEND

NOTE: UNLESS OTHERWISE INDICATED, SYMBOLS MAY BE SHOWN LARGER

THAN ACTUAL SIZE FOR CLARITY. THE SYMBOL LOCATIONS

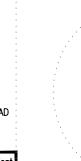
ARE APPROXIMATE ON DESIGN DRAWINGS, TO ALLOW FOR FIELD ADJUSTMENTS DURING CONSTRUCTION. — — — RIGHT OF WAY OR EASEMENT — — — PROPERTY BOUNDARY ---- Existing underground fiber optic conduit — — — UNDERGROUND FIBER OPTIC CABLE IN CONDUIT AERIAL FIBER OPTIC CABLE EXISTING AERIAL FIBER OPTIC CABLE -·---- HDD INSTALLATION ROUTE/AREA \boxtimes FIBER OPTIC BORE PIT (48" X 48" X 36"D) NMH FIBER OPTIC MANHOLE (30" X 60" X 30") EMH EXISTING MANHOLE (30" X 60" X 30" UON) 001 CONSTRUCTION SEQUENCE NUMBER \bowtie FIBER SPLICE LOCATION COTT MARKER POST CURB / SIDEWALK MARKER EXISTING CONCRETE POLE EXISTING WOOD POLE EXISTING SPUN CONCRETE POLE OVERHEAD FIBER STORAGE (FO-CS) STORE 150' OF FIBER OPTIC CABLE EXISTING OVERHEAD FIBER STORAGE

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CONTACTS

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PROJECT DESIGNER: KENT BAUGHER (904) 288-4257

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				CIRCUIT NUMBER/S					DESIGNED BY:	JKB	NOV/18	DWG
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'200 AC SKINNER PARKWAY - MLS FIBER OPTIC BUILD LEGEND AND CONSTRUCTION NOTES

WG SCALE:

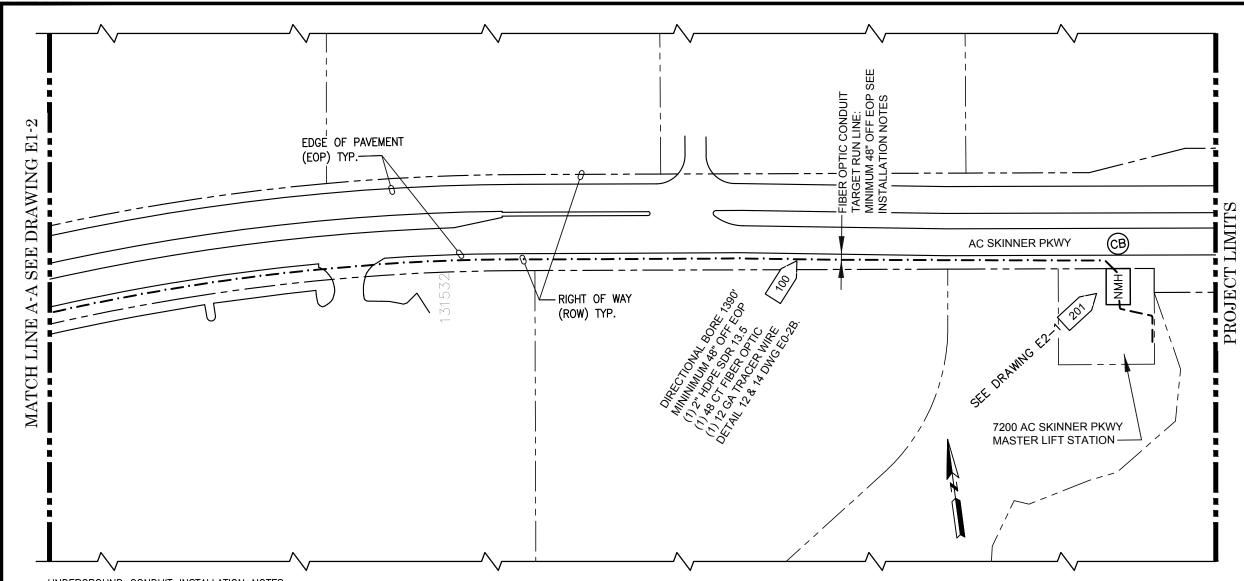
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JACKSONVILLE, FLORIDA

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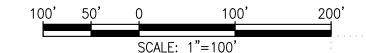
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UNDERGROUND CONDUIT INSTALLATION NOTES:

- CONTRACTOR SHALL FIELD DETERMINE OPTIMUM "RUN-LINE" OFF EDGE OF PAVEMENT FOR CONDUIT INSTALLATION REGARDLESS OF INSTALLATION METHOD. INSTALLATION SHALL REMAIN WITHIN THE ROADWAY RIGHT-OF-WAY BUT NO LESS THAN 48" OFF EOP.
- WHERE EXISTING UTILITIES ARE PARALLEL TO FIBER OPTIC (FO) CONDUIT INSTALLATION, MAINTAIN 18" CLEARANCE. WHERE EXISTING UTILITIES ARE PERPENDICULAR TO FO CONDUIT, PROVIDE 18" MINIMUM VERTICAL CLEARANCE BELOW / UNDER EXISTING UTILITY. SEE DETAILS 12 & 14, DRAWING E0-2B.
- WHERE UTILITY LOCATE SERVICE INDICATES POTENTIAL RUN-LINE CLEAR OF OTHER UTILITIES THE CONTRACTOR MAY AT THEIR OWN RISK, CHOOSE TO INSTALL FO CONDUIT BY PLOWING OR MACHINE TRENCHING.



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CONTACTS PROJECT MANAGER: GREG RAGER

(904) 665-8136

®VEATCH CERTIFICATE OF AUTHORIZATION

7200 AC SKINNER PARKWAY - MLS FIBER OPTIC BUILD FIBER ROUTING PLAN

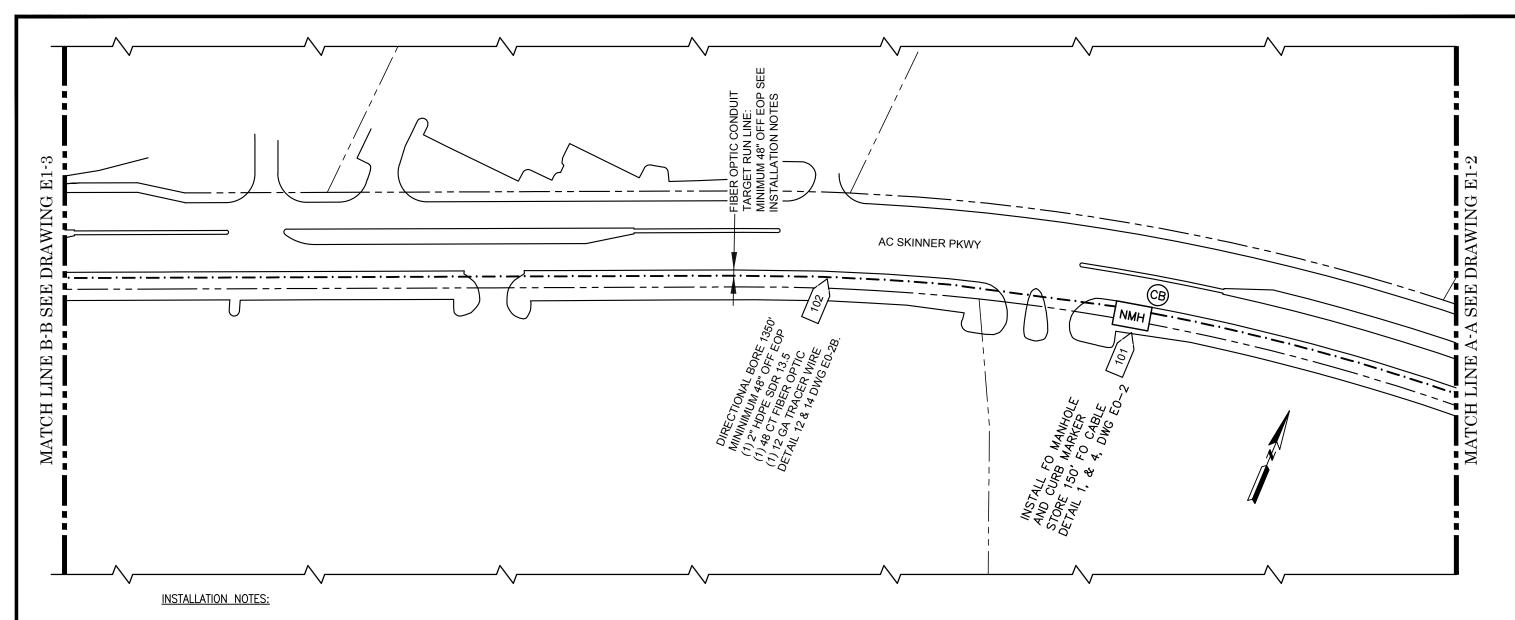
DWG SCALE: AS_INDICATED

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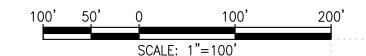
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- CONTRACTOR SHALL FIELD DETERMINE OPTIMUM "RUN-LINE" OFF EDGE OF PAVEMENT FOR CONDUIT INSTALLATION REGARDLESS OF INSTALLATION METHOD. INSTALLATION SHALL REMAIN WITHIN THE ROADWAY RIGHT-OF-WAY BUT NO LESS THAN 48" OFF EOP.
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- WHERE UTILITY LOCATE SERVICE INDICATES POTENTIAL RUN-LINE CLEAR OF OTHER UTILITIES THE CONTRACTOR MAY AT THEIR OWN RISK, CHOOSE TO INSTALL FO CONDUIT BY PLOWING OR MACHINE TRENCHING.



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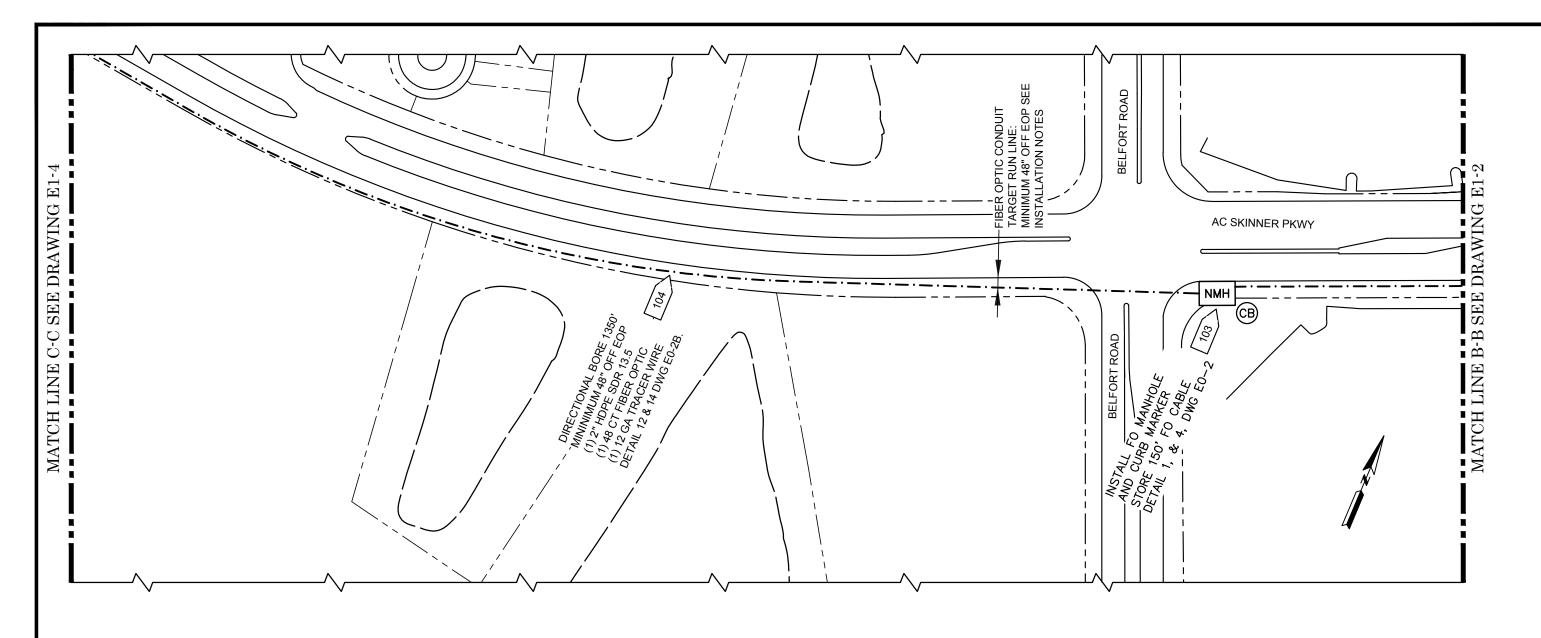
7200 AC SKINNER PARKWAY - MLS FIBER OPTIC BUILD FIBER ROUTING PLAN

DWG SCALE: AS_INDICATED

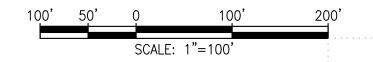
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400479 RAWING NO. **TECHNOLOGY** E1-2 **SERVICES** SHEET CNT

0050



- 1. CONTRACTOR SHALL FIELD DETERMINE OPTIMUM "RUN-LINE" OFF EDGE OF PAVEMENT FOR CONDUIT INSTALLATION REGARDLESS OF INSTALLATION METHOD. INSTALLATION SHALL REMAIN WITHIN THE ROADWAY RIGHT-OF-WAY BUT NO LESS THAN 48" OFF EOP.
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CONTACTS

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PROJECT DESIGNER: KENT BAUGHER (904) 288-4257

BLACK ®VEATCH CERTIFICATE OF AUTHORIZATION 8132

12740 Gran Bay Parkway West Suite 2140 Jacksonville, Florida 32258

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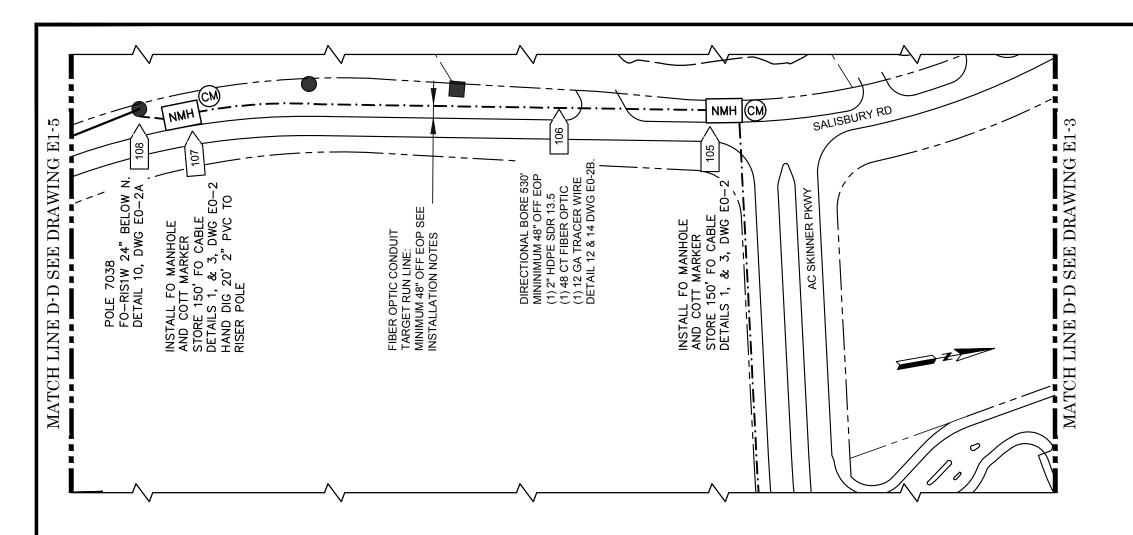
7200 AC SKINNER PARKWAY - MLS FIBER OPTIC BUILD FIBER ROUTING PLAN

DWG SCALE: AS_INDICATED

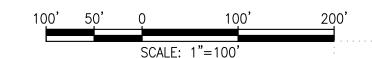
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400479 DRAWING NO. **TECHNOLOGY** E1-3 **SERVICES** SHEET CNT

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CONTACTS PROJECT MANAGER: GREG RAGER

(904) 665-8136

PROJECT DESIGNER: KENT BAUGHER

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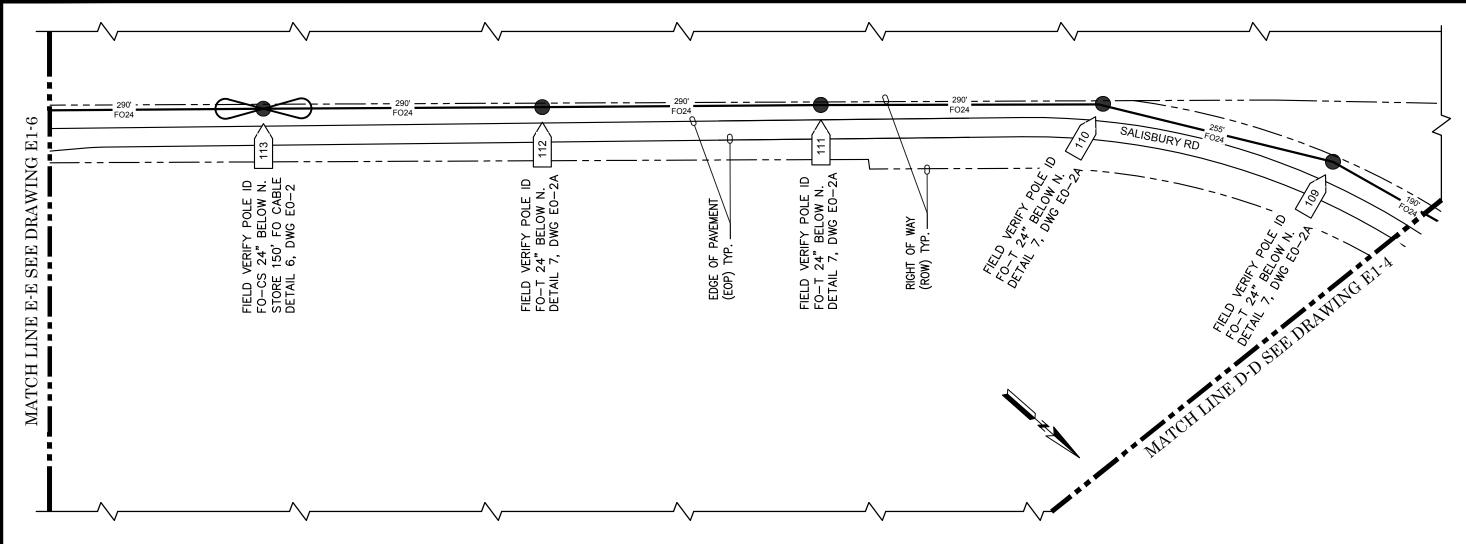
7200 AC SKINNER PARKWAY - MLS FIBER OPTIC BUILD FIBER ROUTING PLAN

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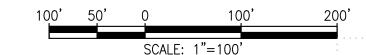
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CONTACTS

PROJECT MANAGER: GREG RAGER

(904) 665-8136

PROJECT DESIGNER: KENT BAUGHER

(904) 288-4257

7200 AC SKINNER PARKWAY - MLS FIBER OPTIC BUILD FIBER ROUTING PLAN

DWG SCALE:

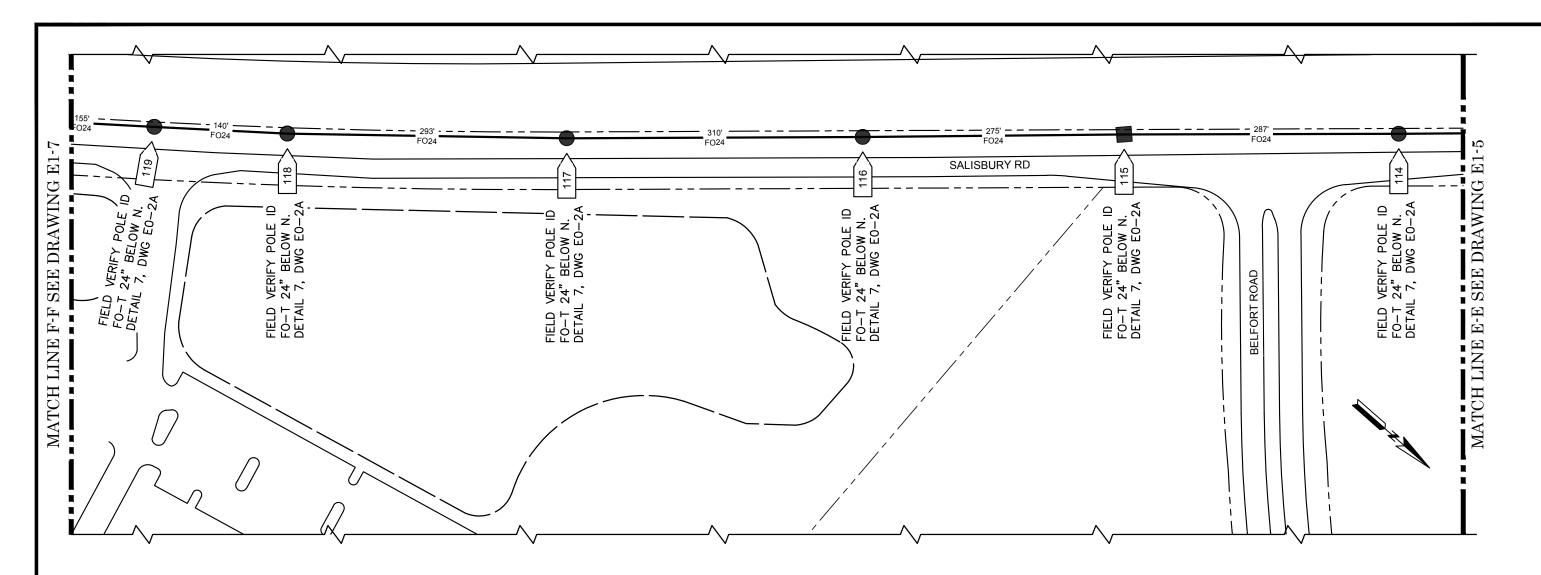
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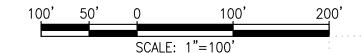
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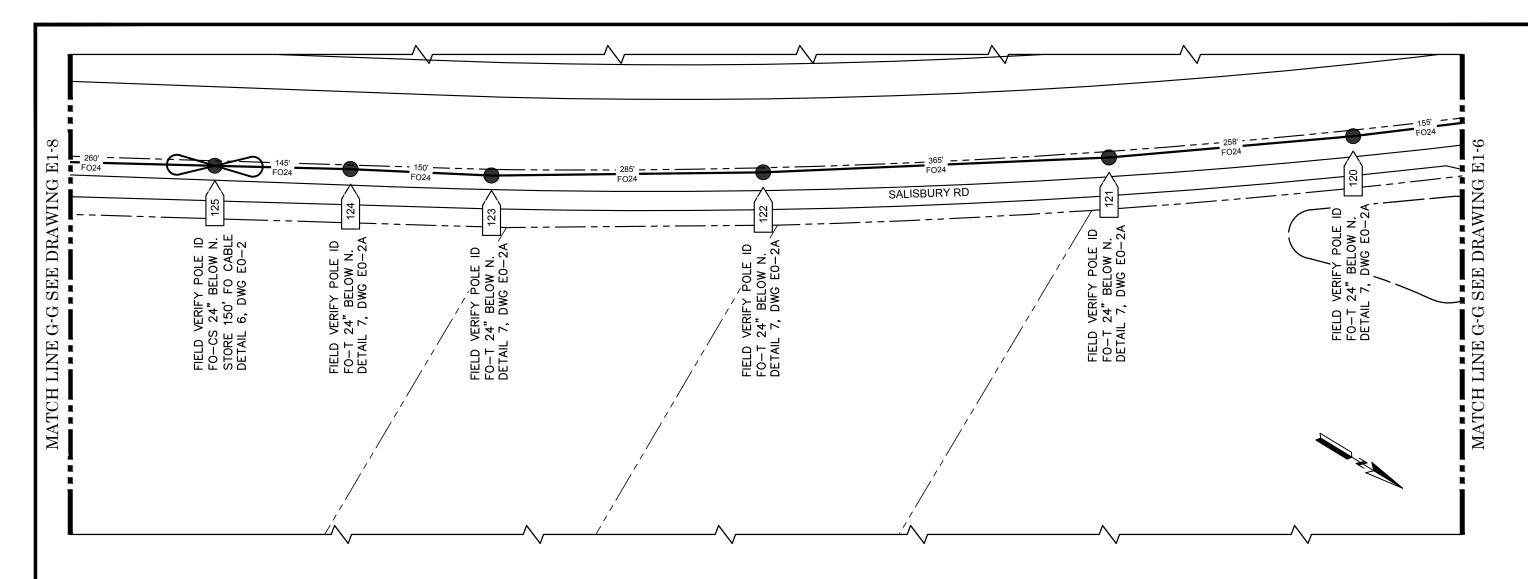
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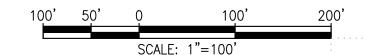
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FIBER OPTIC BUILD FIBER ROUTING PLAN DWG SCALE:



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PROJECT DESIGNER: KENT BAUGHER

(904) 288-4257

7200 AC SKINNER PARKWAY - MLS FIBER OPTIC BUILD FIBER ROUTING PLAN

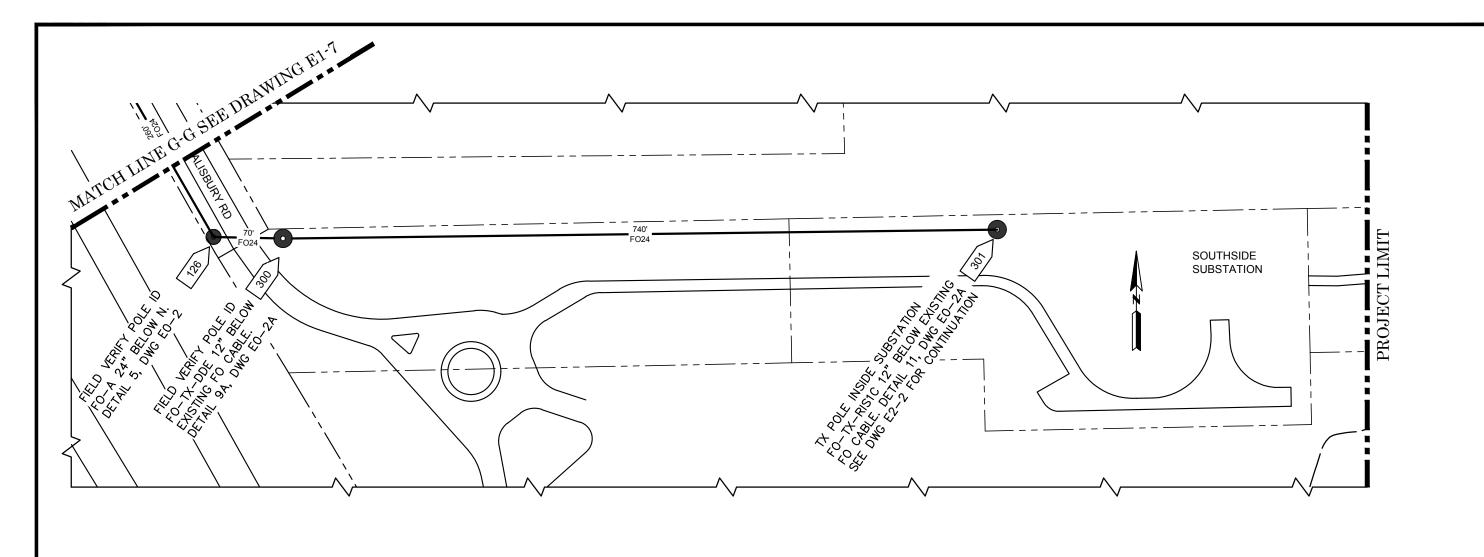
DWG SCALE: AS_INDICATED BUILDING COMMUNITY
JACKSONVILLE, FLORIDA

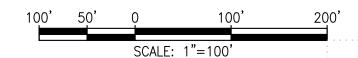
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& Successful Suite 2140

Jacksonville, Florida 32258

PROJECT MANAGER: GREG RAGER (904) 665-8136

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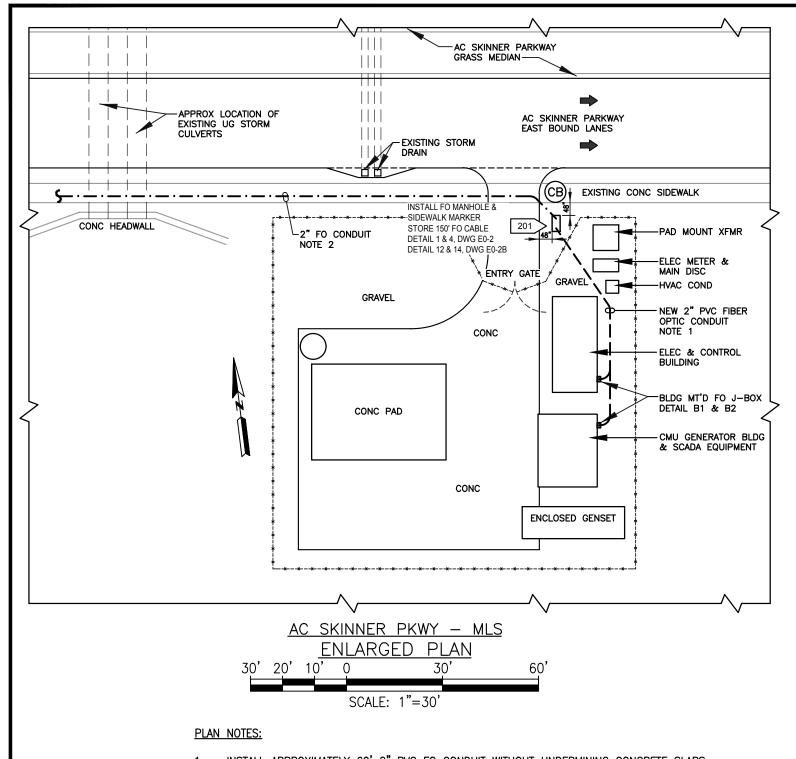
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JACKSONVILLE, FLORIDA AS_INDICATED

DRAWING NO. TECHNOLOGY SERVICES E1-8 SHEET CNT 13 OF 15

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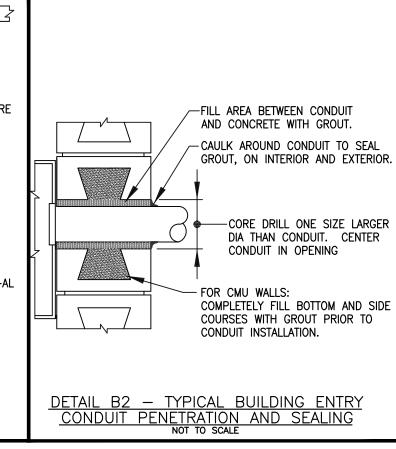
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			CIRCUIT NUMBER/S				DESIGNED BY:	JKB	JAN/19
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DWG SCALE:



- INSTALL APPROXIMATELY 60' 2" PVC FO CONDUIT WITHOUT UNDERMINING CONCRETE SLABS OR FOUNDATIONS. FIELD VERIFY FIBER OPTIC CABLE TERMINATION LOCATION WITH JEA.
- INSTALL 2" CONDUIT FROM NEW MANHOLE, UNDER SIDEWALK USING HDD ACROSS WATER CROSSING. SEE DWG E1-1 FOR INSTALLATION NOTES.

CONTRACTOR PROVIDED -DETAIL B2 8" x 8" x 24" J-BOX HUGHES SUPPLY # RT824 NOTE B1 EXTEND RMC-AL TO TERMINATION ENCLOSURE NOTE B2 PROVIDE STRAPS @ 36" OC-AL-RMC CONDUIT FIBER OPTIC TAG STRAPPED TO CONDUIT-FL00R FINISHED GRADE -LONG SWEEP ELL RMC-AL HDPE OR SCH 40 PVC CONDUIT AS INDICATED ON PLAN DETAIL B1 - TYPICAL FIBER OPTIC CONDUIT TO BUILDING ENTRY



FIBER OPTIC BUILDING ENTRY NOTES:

- B1. INSTALL 2" PVC FROM FO MANHOLE TO BUILDING RISER. TRANSITION TO RMC-AL AT UG ELBOW AS SHOWN. EXTEND RMC-AL TO J-BOX APPROX. 5' ABOVE FINISHED GRADE/PAVEMENT. FIELD VERIFY BOX MOUNTING HEIGHT.
- B2. ROUTE 2" RMC-AL FROM J-BOX THRU WALL TO TERMINATION LOCATION PER JEA. PROVIDE MINIMUM 50' SLACK CABLE INSIDE BUILDING NEAR TERMINATION POINT.

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PAGER # ENGINEER: -RADIO PHONE # ENGINEERING RECORD 13.2 kV 26.4 kV 4.16 kV BY DATE SUBSTATION NAME 00479 DRAWN BY: JKB NOV/18 CIRCUIT NUMBER/S DESIGNED BY: JKB| NOV/18 SWITCH MAP NUMBER/S CHECKED BY: OVERHEAD MAP NUMBER/S APPROVED BY: APPROVED FOR CONST BY:

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PROJECT DESIGNER: KENT BAUGHER

(904) 288-4257

7200 AC SKINNER PARKWAY - MLS FIBER OPTIC BUILD MATER LIFT STATION ENLARGED PLAN

DWG SCALE:

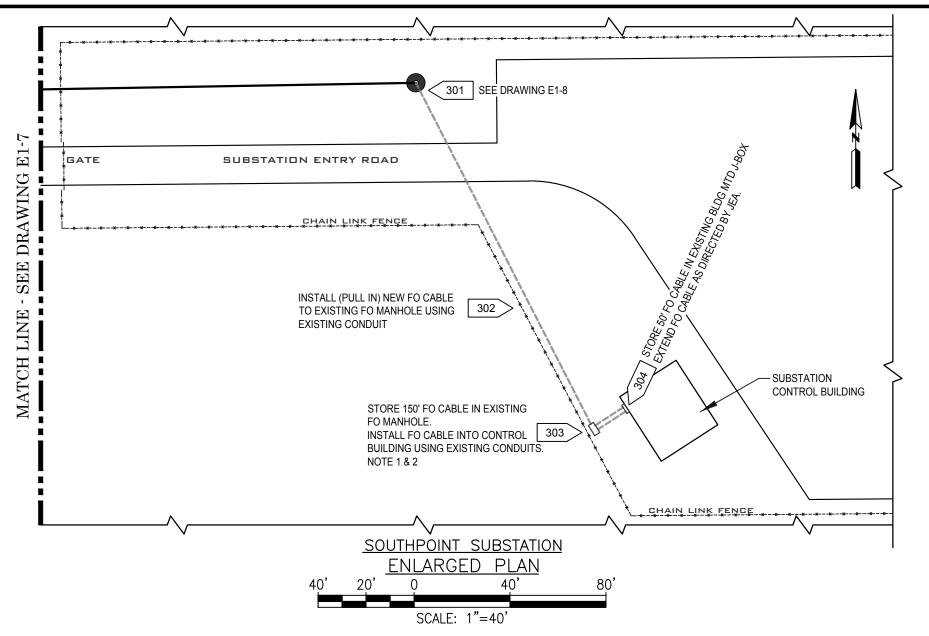
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PROJ NO. 400479 RAWING NO E2-1 SHEET CNT 14 OF 15

ROJ PHASE 0050



PLAN NOTES:

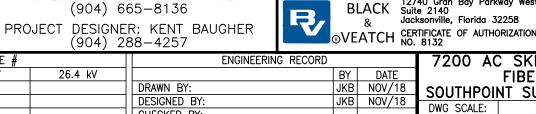
- FIELD VERIFY FIBER OPTIC BUILDING ENTRY AND CABLE TERMINATION LOCATIONS WITH JEA.
- PROVIDE 50' SLACK FO CABLE INSIDE CONTROL BUILDING NEAR TERMINATION LOCATION IDENTIFED BY JEA.

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Jacksonville, Florida 32258



CONTACTS PROJECT MANAGER: GREG RAGER

7200 AC SKINNER PARKWAY - MLS FIBER OPTIC BUILD SOUTHPOINT SUBSTATION ENLARGED PLAN

DWG SCALE: AS_INDICATED BUILDING COMMUNITY
JACKSONVILLE, FLORIDA

400479 RAWING NO. **TECHNOLOGY** E2-1 **SERVICES** SHEET CNT 12 OF 12

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				OVERHEAD MAP NUMBER/S					APPROVED BY:		
									APPROVED FOR CONST BY:		

APPENDIX B RESPONSE FORM 97294: 7200 AC Skinner Lift Station Fiber Build

Submit via email along with other required form	ns to: garijb@jea.com		
Company Name:			
Company's Address			
Phone Number: FAX No: _	Email Address:		
BID SECURITY REQUIREMENTS	TERM OF CONTR	<u>ACT</u>	
None required Certified Check or Bond (Five Percent (5%) of To	One Time Purchas	e ents 1 vm torm	
SAMPLE REQUIREMENTS	otal Bid Price) Annual Requireme SECTION 255.05, FLORIDA S'	ENTS 1 Yr. term	
None required None required	None required	TATUTES CONTRACT BOND	
Samples required prior to Bid Opening	Bond required 100% of Bid A	Award	
Samples may be required subsequent to	Bond required 100% of Bid?	Iwara	
Bid Opening			
QUANTITIES		INSURANCE REQUIREMEN	TS
Quantities indicated are exacting			
Quantities indicated reflect the approximate	quantities to be purchased	Insurance required	
Throughout the Contract period and are subject	to fluctuation in accordance		
with actual requirements.			
PAYMENT DISCOUNTS 1% 20, net 30			
2% 10, net 30			
Other			
None Offered			
			=
ENTER YOUR RESPONSI	E FOR THE ITN 95880	TOTAL BID PRICE	
Total Bid Price for ITN 97294: 7200 A	C Skinner I ift Station Fiber Ruild		
(Transfer total from Appendi		<u>\$</u>	
(Transfer total from Appendi	a D Response Workbook)		
☐ I have read and understood the Sunshine	Law/Public Records clauses conta	ined within this solicitation. I ur	derstand that
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	RESPONDENT'S CERTIFICATION		. 0 1: ::
By submitting this Respone, the Respondent cer that the person signing below is an authorized re			
do business in the State of Florida, and that the			
applicable). The Respondent also certifies that	it complies with all sections (includit	ng but not limited to Conflict Of Ir	nterest and
Ethics) of this Solicitation, and that the Respond			
Technical Specifications stated herein.		1 1	
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PROCUREMENT SERVICES PROCEDURE: OS A0500 PS 120B Contractor Travel

TITLE: Travel Approval and Expense Reimbursement (Contractor)

CREATION DATE: May 26, 1988 REVISED: April 1, 2010

POLICY: JEA's travel requirements for contractors parallel the same travel guidelines in OS A0500 PS 120A for JEA Employee Travel. JEA is authorized to provide reimbursements for certain expenses incurred by a non-JEA employee upon the traveler meeting all the requirements stated in this procedure. The proper approval process must be followed for a non-JEA employee to travel and receive reimbursements for expenses incurred.

OBJECTIVES: Provide assistance to the non-JEA traveler in making travel arrangements and filing a travel claim for reimbursement of travel expenses occurred.

ASSIGNMENT: Director, Procurement Services is responsible for maintenance and implementation of this procedures. All using employees are responsible for compliance herewith.

PROCEDURE:

I. **TRAVEL REQUESTS** - Contractors must request approval for travel on official JEA business prior to commencement of travel. A Travel Request/Reimbursement Form is located in **Quest**, **Enabling Processes**, **Travel** and must be completed and submitted to the traveler's approving authority before travel begins.

II. GENERAL TRAVEL GUIDELINES

- A. Constructive Point of Origin The application of the constructive point of origin regulation will ensure that the traveler travels the shortest reasonable distance on business. Travel shall be deemed to have begun at the usual place of business or residence, or the place where travel actually began, whichever is less.
- B. Constructive Travel Time is the time the traveler actually departs for his/her destination, or at the latest time the traveler could reasonably have departed in order to arrive at his/her destination in time to accomplish the official business, whichever is later. The same applies to the return back to the point of origin.
 - 1. Common Carrier (excluding rental automobile) Travel Time begins two hours prior to the time the traveler's conveyance actually departs.
 - 2. Motor vehicle (including rental automobile) Travel Time begins at the time travelers actually begin driving to their destination.
 - 3. If a traveler conducts personal business during official travel, the personal business shall be considered to have been conducted at the beginning or at the end of the travel.

C. Transportation

- 1. The traveler requesting approval to travel shall choose the most economical means of transportation, considering the nature of the business, the traveler's time, cost of transportation, meals, lodging and incidental expenses required.
- 2. Reimbursement shall be made only for travel performed over usually regularly traveled routes to the destination. When travel is by indirect route for the traveler's own convenience, reimbursement for expenses shall be based only on such charges as would have been incurred over the usually traveled route.
- 3. If the total miles from the departure point to destination exceeds 400 miles round trip, the mileage reimbursement for use of a private motor vehicle shall be limited to the lesser of:
 - a. IRS-authorized mileage rates described in Section 106.706 of the Ordinance Code, City of Jacksonville; or
 - b. the lowest airline common carrier coach fare available to the nearest airport plus IRS-authorized mileage rate per mile from the airport to the destination.

IV. AUTHORIZED EXPENSES

A. Airplane

- 1. Travel by Common Carrier shall be reimbursed at the lowest coach fare rate available (except that the first class rate is authorized if coach fare is not available). The Common Carrier shall complete The Certification of Unavailability of Coach Accommodation (Appendix A)
- 2. Reservations for a Saturday night stay over are encouraged if it results in a net savings after considering all incremental travel related expenses.
- 3. Reimbursement for rented aircraft shall be based on the hourly rental rate for the aircraft, including fuel, if the cost of renting the aircraft can be demonstrated to be less than the lowest available common carrier coach fare.
- 4. A copy of the ticket and itinerary must be submitted along with the expense statements.

B. Automobiles

- 1. If travel is by private automobile, reimbursement shall be based on IRS authorized mileage rate in existence at the time of travel. All mileage shall be completed from the constructive point of origin to the point of destination. Vicinity mileage incurred while driving on official business may also be reimbursed. Current mileage rates are listed on **Quest, Enabling Processes, Travel**.
- 2. No other reimbursement for expenses related to the operation, maintenance and ownership of a vehicle shall be allowed when a private motor vehicle is used on public business.

C. Car Rental

- 1. Rental cars shall be approved only if taxis or other means of transportation are less economical or otherwise impractical. Avis Car Rental is JEA's current rental car agency. Complete rental car information on **Quest, Enabling Processes, Travel.**
- 2. Every effort shall be made to coordinate travel so that travelers share a rental car and thereby eliminate multiple cars at the same location.
- 3. Travelers shall use the Compact (Class B) vehicles unless the number of passengers or the volume of equipment makes the compact class impractical.

- 4. Personal accident insurance purchased by the traveler will not be reimbursed by JEA.
- 5. A copy of itemized rental car charges will be made and submitted with the expense statement.

D. Lodging

- 1. Reasonable reimbursement will be made for the cost of overnight lodging when a traveler is away from his/her place of residence. Travelers shall select lodging which is the most economically available, consistent with the duties being performed.
- 2. Travelers will be reimbursed for a single room rate; double occupancy rates may be obtained if two travelers share a room.
- 3. An extended stay facility may be obtained, however the expense must be reasonable and the daily cost shall not exceed \$100 per night.
- 4. Travelers must document all lodging expenses with itemized statement and paid receipt from lodging facility. A copy of the receipt must be submitted with the expense statement.

E. Meals

- 1. IRS per diem rates vary from City to City. The maximum rate allowed for JEA travel is \$50 per day. You may travel in cities whose IRS per diem rates are less than JEA's per diem rates. If that is the case, the lessor rate applies. There are no meal reimbursements over the maximum JEA rate of \$50 unless travel is international. International travel is calculated at twice the JEA per diem rate of \$50.
- 2. Per diem is reimburseable as follows:
 - a. Breakfast when Travel Time begins before 6:00 a.m. and extends beyond 8:00 a.m.
 - b. Lunch when Travel Time begins before 12:00 noon and extends beyond 2:00 p.m.
 - c. Dinner when Travel Time begins before 6:00 p.m. and extends beyond 8:00 p.m.
 - d. International Travel for travel outside of the United States, the per diem rate is doubled to \$100 per day.
- 3. The maximum JEA per diem rate of up to \$50 will be paid for an entire day when Travel Time for that day begins before 6:00 a.m. and extends beyond 8:00 p.m. Lessor IRS rates apply if applicable to your travel city.
- 4. Per diem rates may not be claimed for meals (except those provided by common carrier transportation) made available without specific charge at a seminar, conference or training session.
- 5. Current per diem for various cities is located on Quest, Enabling Processess, Travel.

F. Telephone Calls

- 1. Communication expenses, necessary to conduct official JEA business shall be allowed as a reimbursable expense.
- 2. Personal long distance phone charges shall be allowed as a reimbursable expense when travelers must call family members, or caretakers for dependents, to tell of travel delays. Any other routine or non-emergency personal calls shall be at the expense of the traveler and shall not be reimbursed.
- 3. A receipt documenting the telephone charges shall be submitted with the Travel Expense Statement.

G. Incidental Transportation Expenses

The following expenses incidental to transportation of the traveler may be reimbursed:

- 1. Taxi fare
- 2. Ferry fares, bridge, rail and tunnel tolls
- 3. Storage and parking fees
- 4. Reasonable tips for transportation of baggage (not to exceed \$1.00 per bag per transfer/2 bags maximum). Receipts not required.

V. TRAVEL REIMBURSEMENT:

- A. JEA will reimburse the contractor in accordance with the payment terms and conditions as outlined in the company's contract or purchase order. All invoices must be submitted to Travel Services for auditing purposes. Once approved, the traveler's claim will be submitted to Accounts Payable for payment. A Direct Deposit form must be completed for payment. Form located on **Quest, Enabling Processes, Travel.**
- B. JEA will only reimburse the contractor for travel expenses that are documented with receipts submitted with the expense statement.
- C. The traveler's copy of the itinerary, ticket stubs, detailed paid hotel bill, rental car receipt, parking receipts, toll receipts, storage receipts, taxi receipts, telephone charges receipt, must accompany the request for reimbursement.

VI. DOCUMENTATION AND FORMS REQUIRED:

The Contractor's Travel Request/Reimbursement Form shall include, but not be limited to:

- A. Name of each traveler
- B. Destination of the traveler (place of departure and destination)
- C. Dates encompassed by the travel (the time & date of departure and the time & date of return)
- D. Each day of travel will be entered in a separate column/line. Items of travel applicable to that day will be entered on the appropriate column/line. The cost of transportation (air, rental car) may be entered on day 1 of the travel.
- E. Per diem or meal allowance will be claimed as provided in Section IV. E. of this document. Subsistence rates for eligible meals will be entered in the column/line of the day claimed.
- F. Traveler shall include the actual miles traveled on official business. Current IRS mileage rates may be viewed on **Quest, Enabling Processes, Travel.**
- G. All other expenses associated with travel are to be itemized and entered on the specific day incurred on the appropriate column/line of the form.
- H. A Direct Deposit form must be completed and submitted to Accounts Payable. A Direct Deposit Form is located on **Quest, Enabling Processes, Travel.**

		SIGNED:	John P	. McCarthy	
		EFFECTIVE DA	TE:	April 1, 2010	
Revised:	6/25/07: 12/11/2001; 6/18/2001:	: 11/29/200			