COUNTY OF MANATEE

PROPOSED INTELLIGENT TRANSPORTATION

SYSTEMS (ITS) PLANS FOR

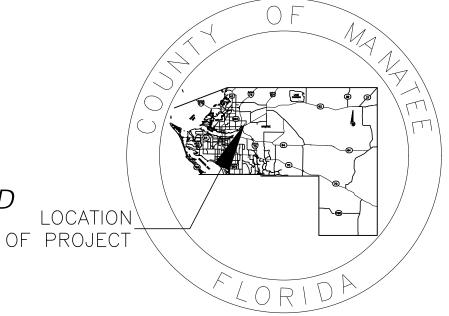
60TH AVE. EAST FROM US 301 TO MENDOZA RD

MANATEE COUNTY

ELLENTON, FLORIDA

MANATEE COUNTY PROJECT No: 6083160

MANATEE COUNTY PROJECT MANAGER: JIM SHULER, P.E.



90% PLANS JUNE 2022

No. 81581

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 ANY ELECTRONIC COPIES.

INTELLIGENT TRANSPORTATION SYSTEMS PLANS PROFESSIONAL OF RECORD: BURAK KONUK, P.E. NO. 81581 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET, SUITE 400 TAMPA, FL 33602





ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN ENLARGED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

GOVERNING DESIGN STANDARDS:

INDEX OF ITS PLANS

DESCRIPTION

KEY SHEET

GENERAL NOTES

ITS PLANS

FIBER ROUTE MARKER DETAIL

DIRECTIONAL BORE AND CONDUIT

DETAILS

SPLICING DIAGRAM

WIRING DIAGRAMS

CABINET DETAILS

ITS MOUNTING DETAILS

MANAGED FIELD ETHERNET

SWITCH PORT ASSIGNMENT DETAIL

ITS CROSS SECTIONS

SHEET NO.

1T-1

1T-2 - 1T-4

IT-5 - #####

IT-15

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IT-19 - IT-20

IT-21 - IT-23

IT-24 - IT-25

IT-26

IT-27 - IT-28

FLORIDA DEPARTMENT OF TRANSPORTATION, FY 2022-23 DESIGN STANDARDS EBOOK (DSeB) AND APPLICABLE DESIGN STANDARDS REVISIONS (DSRs) AT THE FOLLOWING WEBSITE:

https://www.fdot.gov/design/standardplans/current/default.shtm

GOVERNING STANDARD SPECIFICATIONS:

FLORIDA DEPARTMENT OF TRANSPORTATION, JULY 2022 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AT THE FOLLOWING WEBSITE:

http://www.fdot.gov/programmanagement/Implemented/SpecBooks

CONSTRUCTION FISCAL SHEET NO.

N/A 2023 1T-1

- 3. ALL FIELD WIRING SHALL BE NEATLY BUNDLED AND CLEARLY IDENTIFIED AT THE TIME OF INSTALLATION WITH PERMANENT, LEGIBLE, WEATHERPROOF TAGS THAT ARE SECURELY ATTACHED TO EACH CABLE IN ACCORDANCE WITH FDOT SPECIFICATIONS.
- 4. CONTRACTOR SHALL SUPPLY ALL MATERIAL SUBMITTALS TO THE ENGINEER, PRIOR TO CONSTRUCTION, FOR APPROVAL.
- 5. THE ACCEPTANCE OF ANY SUBMITTED DATA FOR MATERIALS, EQUIPMENT, APPARATUS, DEVICES, ARRANGEMENTS AND/OR LAYOUTS SHALL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY OF PLACING SAME AND PROPER DIMENSIONS, CAPACITIES, SIZES, QUANTITY AND INSTALLATIONS DETAILS TO EFFICIENTLY PERFORM THE REQUIREMENTS AND INTENT OF THE CONTRACT. SUCH ACCEPTANCE SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS OF ANY SORT ON THE SUBMITTAL DATA.
- 6. ANY SIGNIFICANT VARIATION FROM THE PROPOSED ROUTING OF THE CONDUIT AND PLACEMENT OF THE PROJECT ELEMENTS SHALL BE VERIFIED WITH AND APPROVED BY THE ENGINEER AND THE FDOT AND SHALL BE INCORPORATED IN THE "AS-BUILT" PLANS.
- 7. THE CONTRACTOR IS TO ENSURE THAT ANY EXISTING WALLS, EARTHEN EMBANKMENTS, AND STRUCTURES ARE NOT UNDERMINED DURING FOUNDATION EXCAVATION AND INSTALLATION. METHODS TO SHORE UP WALLS AND EMBANKMENTS SHALL BE APPROVED BY THE FDOT.
- 8. THE CONTRACTOR IS TO DE-WATER THE POLE FOUNDATION EXCAVATION IF THE ELEVATION OF WATER IS HIGHER THAN THE ELEVATION OF THE FOUNDATION BASE.
- 9. THE TYPE OF EQUIPMENT USED IN THE INSTALLATION OF MAST ARMS/FOUNDATIONS SHALL MEET THE FOLLOWING REQUIREMENT:
- 9.a. OVERHEAD LINES SHALL STAY IN PLACE BOTH VERTICALLY AND HORIZONTALLY; AND
- CONTRACTOR SHALL MEET ALL APPLICABLE OSHA REQUIREMENTS. ANY COST ASSOCIATED WITH THE TYPE OF EQUIPMENT REQUIRED FOR THIS INSTALLATION SHALL BE INCLUDED IN THE RELATED PAY ITEMS.
- 10. CONTRACTOR SHALL UTILIZE THE FDOT STANDARD PLANS INDEX 102 SERIES FOR TRAFFIC CONTROL THROUGH WORK ZONES, AS APPLICABLE, DURING MAINTENANCE OF TRAFFIC OPERATIONS.
- 11. DURING NON-WORKING HOURS, NO EQUIPMENT, VEHICLES, OR MATERIALS SHALL BE PARKED OR STORED WITHIN THE CLEAR ZONE OF THE ROADWAY.
- 12. ALL MATERIALS, EQUIPMENT, AND OTHER CONTRACTOR SUPPLIED ITEMS SHALL BE INSTALLED AND MAINTAINED ACCORDING TO THE MANUFACTURERS' RECOMMENDATIONS, UNLESS SPECIFICALLY DIRECTED OTHERWISE BY THE
- 13. THE LOCATION OF ALL PROPOSED EQUIPMENT TO BE INSTALLED SHALL BE CONSIDERED APPROXIMATE. ADJUSTMENTS MAY BE NECESSARY DUE TO FIELD CONDITIONS; VARIATIONS FROM THE LOCATIONS DEPICTED IN THE PLANS MUST BE VERIFIED BY THE ENGINEER.
- 14. THE CONTRACTOR IS TO TAKE CARE WHEN WORKING IN AND AROUND LANDSCAPED AREAS IN ORDER TO MINIMIZE IMPACTS.
- 15. AT LEAST FIVE (5) BUSINESS DAYS PRIOR TO BEGINNING THE TRAFFIC SIGNAL INSTALLATION, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING DEPARTMENTS TO INFORM THEM OF CONSTRUCTION OPERATIONS:

MANATEE COUNTY TRAFFIC OPERATIONS DIVISION MR. AARON BURKETT 2904 12TH STREET COURT EAST BRADENTON, FLORIDA 34208 PHONE: (941) 708-7450, EXT. 7509

MANATEE COUNTY TRAFFIC ENGINEERING DIVISION MR. VISHAL KAKKAD, P.E. PTOE 2101 47TH TERRACE EAST BRADENTON, FLORIDA 34208

DESCRIPTION

PHONE: (941) 749-3500 EXT. 7812

DATA ON ALL ITEMS TO THE MR. AARON BURKETT, THE MANATEE COUNTY TRAFFIC OPERATIONS DIVISION MANAGER AT

DATE

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

PROJECT #

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SEC./TWN./RGE

SCALE

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6/1/22

2904 12TH/ ST CT E, BRADENTON, FLORIDA 34208.

17. WHEN CONSTRUCTION IS COMPLETE, IN ADDITION TO THE REQUIREMENT OF STANDARD SPECIFICATION 9-8.1(H), PROVIDE A SET OF "AS-BUILT" PLANS TO:

MANATEE COUNTY TRAFFIC DIVISION MANAGER P.O. BOX 1000 BRADENTON, FL 34206-1000

MR. VISHAL S. KAKKAD, P.E., PTOE MANATEE COUNTY PUBLIC WORKS DEPARTMENT TRAFFIC DESIGN DIVISION MANAGER 2101 47TH TERRACE EAST BRADENTON, FL 34203 PHONE: (941) 749-3500 EXT. 7812

18. WHEN CONSTRUCTION IS COMPLETE, PROVIDE A SET OF "AS-BUILT" PLANS IN ELECTRONIC FORM (PDF) TO:

FDOT TRAFFIC OPERATIONS RENJAN JOSEPH, P.E., TRAFFIC SIGNAL SYSTEM MANAGER 801 N. BROADWAY AVE. BARTOW, FL 33830-1249 EMAIL: RENJAN.JOSEPH@DOT.STATE.FL.US

PHONE: (863) 519-2746

DELIVER THREE HARD-COPY SETS OF AS-BUILT RECORD DRAWINGS, TWO SETS OF ISMA INSPECTION FORMS, AND ONE COMPACT DISK OF RECORD DRAWINGS IN ADOBE ACROBAT (.PDF) AND AUTOCAD (.DWG) FORMAT TO MANATEE COUNTY TRAFFIC DESIGN DIVISION (ATTN: MR. VISHAL S. KAKKAD, P.E., PTOE) AT 2101 47TH TERRACE EAST, BRADENTON, FL 34203. RECORD DRAWINGS AND INSPECTION FORMS MUST BE DELIVERED TO THE COUNTY AT LEAST TWO (2) BUSINESS DAYS PRIOR TO SCHEDULING THE FINAL INSPECTION

19. FORTY-EIGHT (48) HOURS PRIOR TO CONTRACT START DATE, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AGENCIES IN WRITING GIVING THE LOCATION, START DATE AND EMERGENCY NUMBERS FOR AFTERHOURS REPAIRS:

FLORIDA HIGHWAY PATROL POST OFFICE BOX 20009 BRADENTON, FLORIDA 34203 PHONE #: (941) 751-7646

MANATEE SHERIFF'S OFFICE 515 11TH/ STREET WEST BRADENTON, FLORIDA 34205 PHONE #: (941) 747-3011

PULL AND SPLICE BOXES NOTES:

- 1. ALL PULL BOX AND SPLICE BOX COVERS TO BE FURNISHED AND INSTALLED SHALL BE NON-METALLIC.
- 2. FIBER OPTIC PULL BOX DIMENSIONS SHALL BE 24"X36"X36" AND THE FIBER OPTIC SPLICE BOX DIMENSIONS SHALL BE 30"X60"X48". FIBER OPTIC PULL AND SPLICE BOX LIDS SHALL BE STAMPED "MANATEE COUNTY FIBER OPTIC SYSTEM" ON THE COVER.

CONDUIT NOTES:

- 1. ALL HDPE CONDUIT CONNECTIONS SHALL BE JOINED WITH A FUSION COUPLER OR FUSION SPLICE.
- 2. THE CONTRACTOR SHALL ADJUST THE CONDUIT RUNS, DEVICE POLES, BORES AND SERVICE POLE PLACEMENT TO AVOID ANY UTILITY CONFLICTS IDENTIFIED BY THE LOCATES. ANY SIGNIFICANT CHANGE SHALL BE APPROVED BY THE ENGINEER.
- 3. THE CONDUITS TO BE INSTALLED ARE TO BE PLACED SO AS TO TOTALLY AVOID ANY CONFLICTS WITH EXISTING UTILITIES ALONG THE ROUTE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE NECESSARY INFORMATION REQUIRED TO PLAN THE WORK AHEAD FOR THE INSTALLATION OF THE REQUIRED CONDUITS WITHIN DESIGN OR SPECIFIED PARAMETERS AND HIS TIME FRAME. THE CONTRACTOR SHALL ADJUST CONDUIT VERTICALLY OR HORIZONTALLY TO AVOID CONFLICT WITH UNDERGROUND UTILITIES. THE CONTRACTOR SHALL USE HAND EXCAVATION METHODS WHEN EXCAVATING NEAR EXISTING UTILITIES, NO SEPARATE PAYMENT SHALL BE MADE FOR THIS WORK. EXTREME CAUTION SHALL BE USED BY THE CONTRACTOR WHEN EXCAVATING, INSTALLING, BACK FILLING AND COMPACTING AROUND EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY UTILITY.
- 4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD LOCATE ALL ABOVEGROUND AND UNDERGROUND CONFLICTS IN ADVANCE OF THE PLACEMENT OF ANY CONDUIT OR OTHER FACILITIES. THE CONTRACTOR SHALL FIELD MARK THE PROPOSED ALIGNMENT FOR REVIEW AND CONCURRENCE BY THE ENGINEER PRIOR TO TRENCHING AND/OR PLACEMENT. NO PULL BOXES SHALL BE LOCATED IN DRAINAGE SWALES OR PAVED SHOULDERS.

LICENSE NUMBER 81581 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602

BURAK KONUK, P.E.



NUMBER

- 7. WHEN TRENCHING FOR INSTALLATION, THE CONTRACTOR MAY RUN COMMUNICATIONS AND POWER SERVICE IN THE SAME TRENCH. THE POWER SERVICE SHALL HAVE SEPARATE PULL BOXES FOR ACCESS. THE CONTRACTOR SHALL NOT INSTALL COMMUNICATIONS AND POWER SERVICE IN THE SAME CONDUIT, PULL BOX OR MANHOLE.
- 8. THE CONTRACTOR SHALL PLACE ALL CONDUITS IN A MANNER THAT MINIMIZES DEFLECTION BOTH HORIZONTALLY AND VERTICALLY. THUS, MINIMIZES STRESS ON CABLES DURING CABLE INSTALLATION. CONDUIT FOR FIBER OPTIC CABLE IN TRENCHES SHALL NOT DEFLECT MORE THAN 1 INCH PER FOOT VERTICALLY OR HORIZONTALLY. BENDS SHALL NOT BE PERMITTED EXCEPT AS SPECIFIED ON THE PLANS.
- 9. THE CONDUIT DETAILS GIVEN ARE MEANT TO BE SCHEMATIC IN NATURE. DUE TO ACTUAL FIELD CONDITIONS AND/OR NEEDS, DEVIATIONS MAY BE NECESSARY. DIMENSIONAL DISTANCES FOR CONDUIT LOCATIONS ARE PROVIDED TO ASSIST THE CONTRACTOR WITH CONDUIT PLACEMENT. THE CONTRACTOR SHALL TAKE THIS INTO ACCOUNT WHEN PLACING CONDUIT. THE CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATING CONDUIT AROUND EXISTING UTILITIES AND OBSTRUCTIONS.
- 10. ALL CONDUIT TRENCHES SHALL BE BACKFIELD COMPLETELY TO PROVIDE SAFE CROSSING BY THE END OF THE WORKING DAY OR WHENEVER THE WORK ZONE BECOMES INACTIVE, DO NOT OPEN ANY AREA THAT CANNOT BE BACKFILLED IN THE SAME DAY/NIGHT OPERATION.

BRACKETS AND SPACERS WHICH ARE REQUIRED TO OFFSET THE RIGID METAL CONDUIT FROM THE MOUNTING, SHALL BE OF SIMILAR MATERIALS TO PREVENT CATHODIC REACTION.

- 11. ALL NEW CONDUIT SHALL BE PLACED AT A MINIMUM DEPTH OF 30 INCHES UNLESS PLACED IN AN AREA OF NEW FILL, IN WHICH CASE THE CONDUIT SHALL BE 48 INCHES, DIRECTIONALLY BORED CONDUIT SHALL BE AT A MINIMUM DEPTH OF 48 INCHES,
- 12. IT SHOULD BE NOTED THAT NO TEST BORINGS WERE MADE WHERE CONDUIT RUNS ARE TO BE INSTALLED BY JACKING OR BORING.
- 13. IN AREAS WHERE CONDUIT INSTALLATIONS IMPACT EXISTING SIDEWALK REPLACE COMPLETE FLAGS OF SIDEWALK, PATCHING OF SIDEWALK WILL NOT BE ACCEPTED.
- 14. #14 XHHW PULL WIRE SHALL BE INSTALLED IN ALL CONDUITS. AT LEAST 2 FEET OF PULL WIRE SHALL BE ACCESSIBLE AT EACH CONDUIT TERMINATION AND SECURED IN THE PULL BOX OR PLACE OF TERMINATION.

ITS EQUIPMENT AND ELECTRICAL INSTALLATION NOTES:

DESCRIPTION

- ALL ELECTRICAL WIRING SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE PUBLISHED BY THE NATIONAL FIRE PROTECTION ASSOCIATION.
- 2. UNDER COUNTY'S SUPERVISION. THE CONTRACTOR SHALL PERFORM AN INITIAL OPERATION TEST TO ENSURE THE CCTV ASSEMBLY HAS BEEN INSTALLED CORRECTLY AS A COMPLETE AND FUNCTIONALLY ACCEPTABLE INSTALLATION.
- GROUNDING: ALL COSTS FOR GROUNDING SHALL BE INCLUDED IN THE COST OF THE ITEM BEING GROUNDED. ALL GROUND ROD ASSEMBLIES FOR POLES, SERVICES, CABINETS, AND OTHER RELATED EQUIPMENT SHALL BE BONDED TOGETHER TO FORM AN INTEGRATED GROUNDING SYSTEM USING #6 AWG THHN COPPER WIRE. THE UPPER END OF ALL GROUND RODS SHALL BE 18 INCHES BELOW GROUND ELEVATION. MARK GROUND ROD LOCATION WITH PERMANENT MARKER SUCH AS AN EPOXIED STICKER LOCATED ON THE NEAREST CURB AND PROVIDE AS-BUILT DRAWINGS WITH THE LOCATION OF GROUND RODS MARKED. GROUNDING CONDUCTOR MUST BE #6 OR LARGER INSULATED COPPER.

CONNECTING DEVICES SHALL BE NON-CORROSIVE SPLIT BOLT, CLAMPS, PRESSURE CONNECTORS, OR OTHER APPROVED MEANS TO ENSURE A POSITIVE CONNECTION.

GROUND RESISTANCE TESTER, OR OTHER APPROVED MEANS SHALL BE USED TO ACQUIRE THE GROUND ROD RESISTANCE. THE ENGINEER, OR A REPRESENTATIVE OF THE ENGINEER FROM THE TRAFFIC OPERATIONS DIVISION STAFF BE PRESENT DURING THE TEST.

PROJECT #

SURVEY #

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SCALE

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SUITE 400

4. PROVIDE DRIP LOOPS, FOR EXPOSED CABLING, AS NECESSARY TO PREVENT WATER FROM RUNNING DOWN THE CABLE AND ENTERING EQUIPMENT, POLES CONDUITS, OR EQUIPMENT CABINETS/ENCLOSURES.

DATE

- 5. ALL UPS BATTERIES SHALL BE SEALED LEAD ACID WITH SUSPENDED ELECTROLYTES (ABSORBENT GLASS MAT) WITH A SAFETY VENTING VALVE FOR GAS PRESSURE RELEASE.
- 6. CONTRACTORS PERFORMING FIBER OPTIC CABLE SPLICING, REPAIR, OR REPLACEMENT SHOULD BE QUALIFIED AS A "CORNING LANDSCAPE APPROVED INSTALLER" AND HAVE MEMBERSHIP IN THE "CORNING NETWORK OF PREFERRED INSTALLERS (NPI)" SUCH THAT THEIR WORK ON EXISTING FDOT FIBER OPTIC CABLING WILL NOT VOID THE CURRENT PRODUCT WARRANTY.
- 7. CONDUCTOR SPLICES FOR ELECTRICAL SERVICE WIRE MUST BE PERFORMED AS DESCRIBED IN SECTION 992-1.7 OF THE STANDARD SPECIFICATIONS.
- CONTRACTOR TO CONTACT TRAFFIC ENGINEERING DIVISION: MR. MUKUNDA GOPALAKRISHNA (941-749-3500 EXT. 7813) TO OBTAIN IP ADDRESSES FOR FIELD DEVICES AND ETHERNET SWITCH CONFIGURATION INFORMATION.

UTILITIES NOTES:

- 1. THE LOCATION(S) OF THE UTILITIES SHOWN IN THE PLANS (INCLUDING THOSE DESIGNATED Vv, Vh, AND Vvh) ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATIONS/ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED.
- 2. THE LOCATION OF UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR, VIA SUNSHINE STATE ONE CALL OF FLORIDA, INC. AT 1-800-432-4770, IN COORDINATION WITH UNDERGROUND AND OVERHEAD UTILITY OWNERS. THE CONTRACTOR SHALL NOTIFY UTILITY OWNERS/AGENCIES LISTED WITHIN OR IMPACTED BY THESES PLANS, NOT LESS THAN TWO (2) FULL BUSINESS DAYS IN ADVANCE OF BEGINNING CONSTRUCTION.
- 3. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS IN ADVANCE OF POLE SETTING OPERATIONS WHERE CONFLICT WITH OVERHEAD ELECTRICAL CONDUCTORS IS EXPECTED AND, IN ALL CASES, WHERE JOINT USE POLES ARE CALLED FOR

THE CONTRACTOR SHALL CONTACT THE LOCAL POWER COMPANY FOR THEIR ASSISTANCE IN PERFORMING ALL NECESSARY WORK UNDER POWER LINES AT SIGNAL POLES, SUCH AS THE INSTALLATION OF SIGNAL CABLE, FIBERGLASS INSULATORS, AND SIGNAL

ALL LOCATIONS WHERE THE REQUIRED VERTICAL CLEARANCE TO THE POWER LINE CANNOT BE MAINTAINED, A QUALIFIED REPRESENTATIVE FROM THE POWER COMPANY SHALL BE PRESENT DURING ALL WORK UNDER POWER LINES. ANY COST ASSOCIATED WITH THIS SHALL BE INCLUDED IN THE RELATED PAY ITEMS.

- 4. EXISTING UTILITIES ARE TO REMAIN IN PLACE UNLESS OTHERWISE NOTED
- 5. THE CONTRACTOR IS TO HAND DIG THE FIRST 4' AT EACH POLE INSTALLATION LOCATION IN ORDER TO VERIFY UTILITY CLEARANCE.
- 6. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ANY UTILITY OWNER(S) THAT MAY OR MAY NOT BE A "SUNSHINE ONE-CALL" MEMBER IN ORDER TO COORDINATE UTILITY MARKING AND LOCATING AT A MINIMUM OF TWO DAYS PRIOR TO DIGGING, IT SHOULD BE NOTED THAT FDOT IS NOT A MEMBER OF "SUNSHINE ONE-CALL" AND THAT SEPARATE CONTACT WILL NEED TO BE MADE IN ORDER TO OBTAIN UTILITY LOCATE INFORMATION FOR FDOT FACILITIES.
- 7. COMPLY WITH THE REQUIREMENTS OF FDOT'S UTILITY ACCOMMODATION GUIDE (LATEST EDITION).
- 8. THE CONTRACTOR SHALL HAND DIG THE FIRST 48 INCHES OF THE HOLE FOR THE POLE FOUNDATION OR CONDUIT RUN WHERE UTILITIES ARE IN CLOSE PROXIMITY.

BURAK KONUK, P.E. LICENSE NUMBER 81581 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET TAMPA, FL 33602

Manatee PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES ENGINEERING SERVICES
1022 26th Avenue East, Bradenton, FL 34208

NUMBER

A. USE A MINIMUM OF 2" DIAMETER CONDUIT FOR FIBER OPTIC INTERCONNECT CABLE.

B. USE ROUTE MARKERS FOR FIBER OPTIC CONDUIT RUNS.

630-1-121:

SHALL BE 12-COUNT FIBER OPTIC CABLE.

630-1-123:

SHALL BE 72-COUNT FIBER OPTIC CABLE.

633-3-11:

SHALL BE SIZED TO ACCOMMODATE ENTRY/EXIT LOCATIONS AND NUMBER OF SPLICES.

633-3-15:

SHALL INCLUDE FACTORY TERMINATED PIG-TAILS WITH CONNECTORS INDICATED IN THESE PLANS AND ANY FUSION SPLICING, WITH ASSOCIATED SPLICE TRAYS, BETWEEN THE FACTORY INSTALLED PIGTAILS AND THE FIBER OPTIC CABLE BEING TERMINATED AT THE PATCH PANEL. SHALL ALSO INCLUDE ANY FIBER OPTIC PATCH CORDS REQUIRED TO PROVIDE THE CONNECTIONS INDICATED IN THE PLANS.

635-2-11 OR 635-2-12

A. USE POLYMER CONCRETE CONSTRUCTION PULL BOX WITH A POLYMER CONCRETE COVER MARKED "TRAFFIC SIGNAL" FOR FIBER OPTIC COMMUNICATION. USE 24" X 36" PULL BOXES PLACED A MINIMUM OF 800' APART.

B. PULL BOXES ARE TO BE PLACED BEHIND CURB AND GUTTER. IF THERE IS NO CURB AND GUTTER, PULL BOXES SHALL BE PLACED A MINIMUM OF 7' FROM THE EDGE OF PAVEMENT.

C. USE POLYMER CONCRETE CONSTRUCTION PULL BOXES WITH POLYMER CONCRETE COVERS.

D. PULL BOX DIMENSIONS SHALL BE 17"X 30"X 12"AND THE LID SHALL BE STAMPED "MANATEE COUNTY TRAFFIC SIGNAL"ON THE COVER.

635-2-13:

SHALL BE 30" X 60" RECTANGULAR BOX WITH A 2-PIECE LID.

539-2-1:

PAYMENT MAY BE BASED ON WIRE, OR THE LINEAR FOOT OF A SINGLE CONDUCTOR.

541-2-12:

UNLESS OTHERWISE NOTED IN THE PLANS, ALL SERVICE POLES SHALL BE 36' IN HEIGHT.

541-2-14:

UNLESS OTHERWISE NOTED IN THE PLANS, ALL SERVICE POLES SHALL BE 36' IN HEIGHT AND SHALL NOT EXCEED A HEIGHT OF 40' FROM GROUND LEVEL.

660-3-11.

INCLUDES ALL MOUNTING HARDWARE, CABINET, DEVICE SERVER, CLICK DEVICES AND ANY ADDITIONAL ITEMS TO PROVIDE A FULLY OPERATIONAL SYSTEM FOR THE MVDS.

660-3-12:

ALL MVDS DEVICES SHALL BE INSTALLED WHERE THERE ARE NO LANDSCAPING OBSTRUCTIONS.

<u>676-2-122</u>

THIS PAY ITEM INCLUDES THE INSTALLATION OF TYPE 336S POLE MOUNT ITS CABINET TO HOUSE PATCH PANELS AND/OR CCTV EQUIPMENT. THE CABINET SHALL BE BUILT AND CONFIGURED AS PER SECTION 676-4 OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION INCLUDING SHELVING FOR THE CCTV AND ETHERNET EQUIPMENT, LIGHT, FAN, DUPLEX OUTLET AND SUN SHIELDS.

682-1-133:

CCTV CAMERA HARDWARE AND SOFTWARE SHALL BE COMPATIBLE WITH MANATEE COUNTY'S EXISTING CCTV CAMERA SYSTEM.
CONTACT MAINTAINING AGENCY PRIOR TO ORDERING CCTV CAMERA TO CONFIRM COMPATIBILITY.

THE CCTV CAMERA UNIT SHALL BE BOSCH ITS 7000 STARLITE SERIES 1080P 30X40.

684-1-1

MANAGED FIELD ETHERNET SWITCH (MFES) HARDWARE AND SOFTWARE SHALL BE COMPATIBLE WITH MANATEE COUNTY'S EXISTING CENTRAL CONTROL SOFTWARE. CONTACT MAINTAINING AGENCY PRIOR TO ORDERING MFES TO CONFIRM COMPATIBILITY.

THE ETHERNET SWITCH SHALL BE A RUGGEDCOM SWITCH MODEL NUMBER RSG920P, PART NUMBER 6GK6092-0PS23-0BA0-ZA05+B05+C02+D02.

685-1-12:

SHALL INCLUDE AN UNINTERRUPTED POWER SUPPLY UNIT (UPS) MODEL NO. ALPHA FXM 1100 EQUIPPED WITH AN ETHERNET PORT. ALL UNINTERRUPTIBLE POWER SUPPLIES SHALL SUPPORT SNMP (PROTOCOL) FOR REMOTE MONITORING AND MANAGEMENT. THE UPS SHALL BE SIZED TO ACCOMMODATE THE MAXIMUM CONNECTED LOAD. THE BATTERY BANK SHALL BE SIZED TO PROVIDE A MINIMUM OF 8 HOURS RUN TIME UNDER FULL LOAD.

	ITS POLE #	1	1 A
POLE DATA TABLE	DEVICES	MVDS	MVDS / CCTV
	POLE MOUNTED CABINET NEMA 3R		3365
	PLAN SHEET	IT-6	IT-9
	STATION	16+00 段 SURVEY 60TH AVE. E	38+68 ॡ SURVEY 60TH AVE. E
	OFFSET	41' LT	11' LT
	POLE LENGTH	36'-0"	36'-0"
	FOUNDATION DEPTH	10'	10'

<i>LEGEND</i>)
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— • — PROPOSED UNDERGROUND CONDUIT (OPEN TRENCH)

PROPOSED MVDS

- • • — PROPOSED UNDERGROUND CONDUIT (DIRECTIONAL BORE)

PROPOSED ELECTRICAL PULL BOX

PROPOSED MVDS DETECTION ZONE

PROPOSED CCTV

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PROPOSED SPLICE VAULT

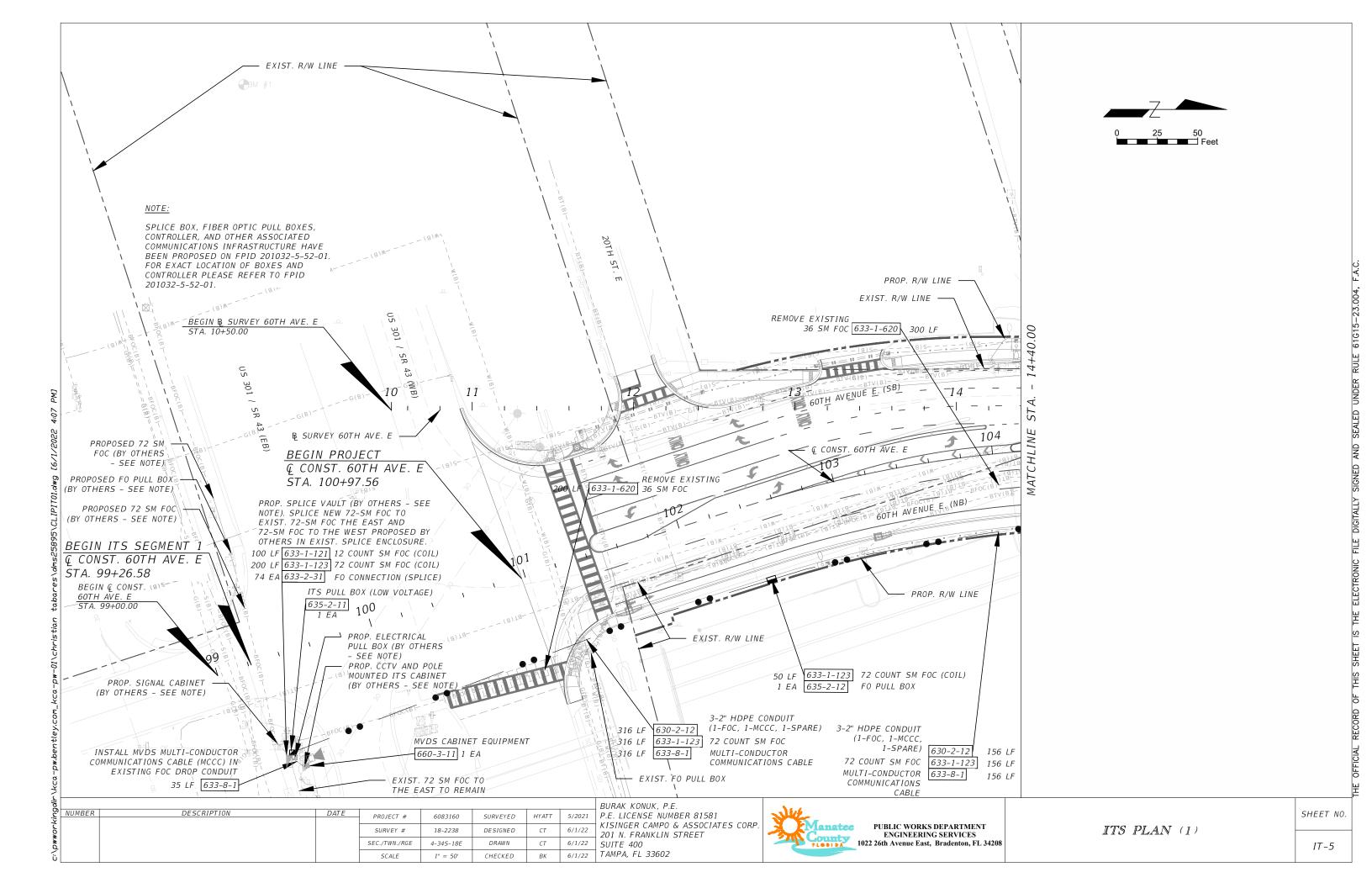
PROPOSED PULL BOX

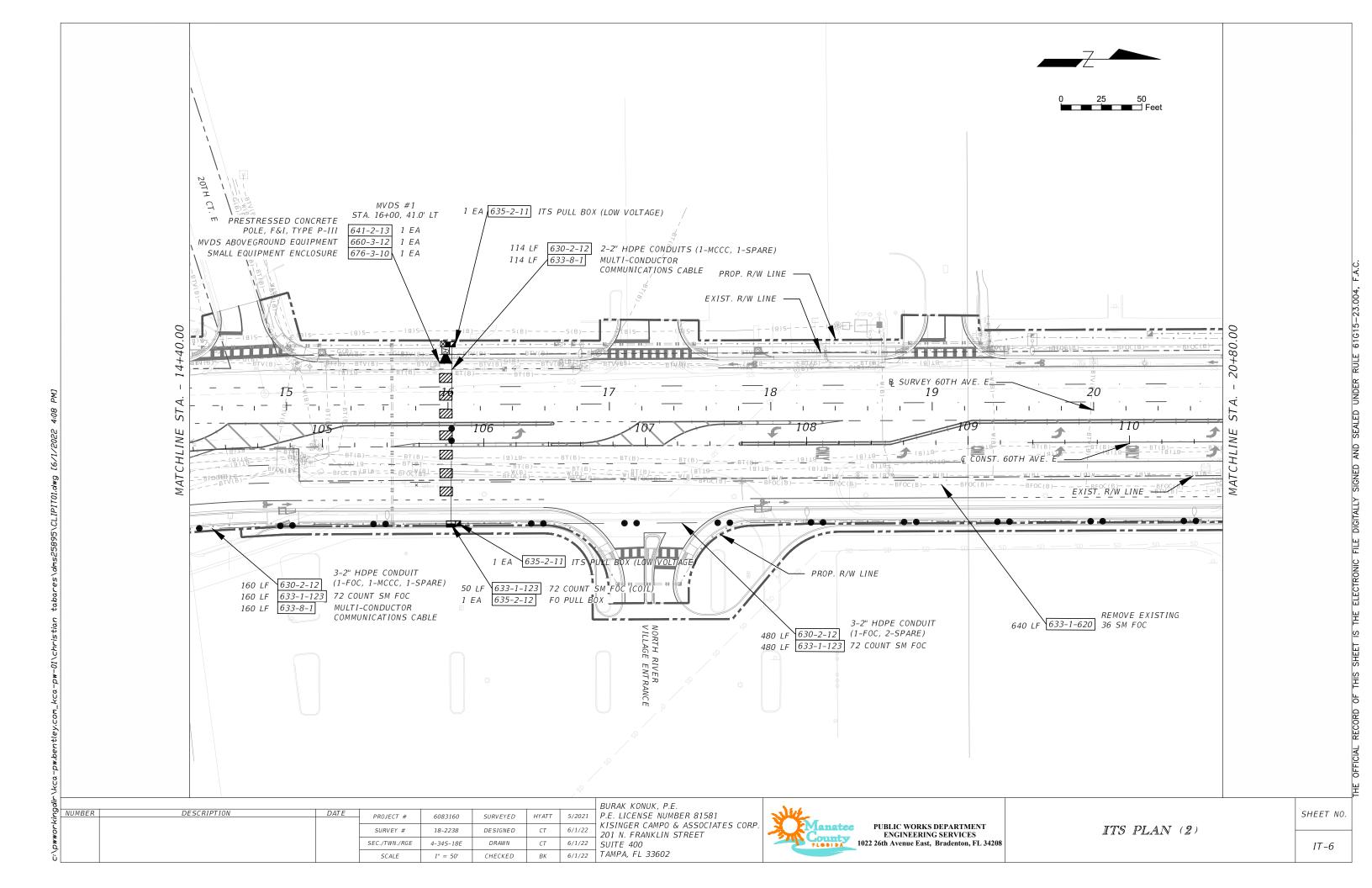
PROPOSED ITS CABINET (POLE MOUNTED)

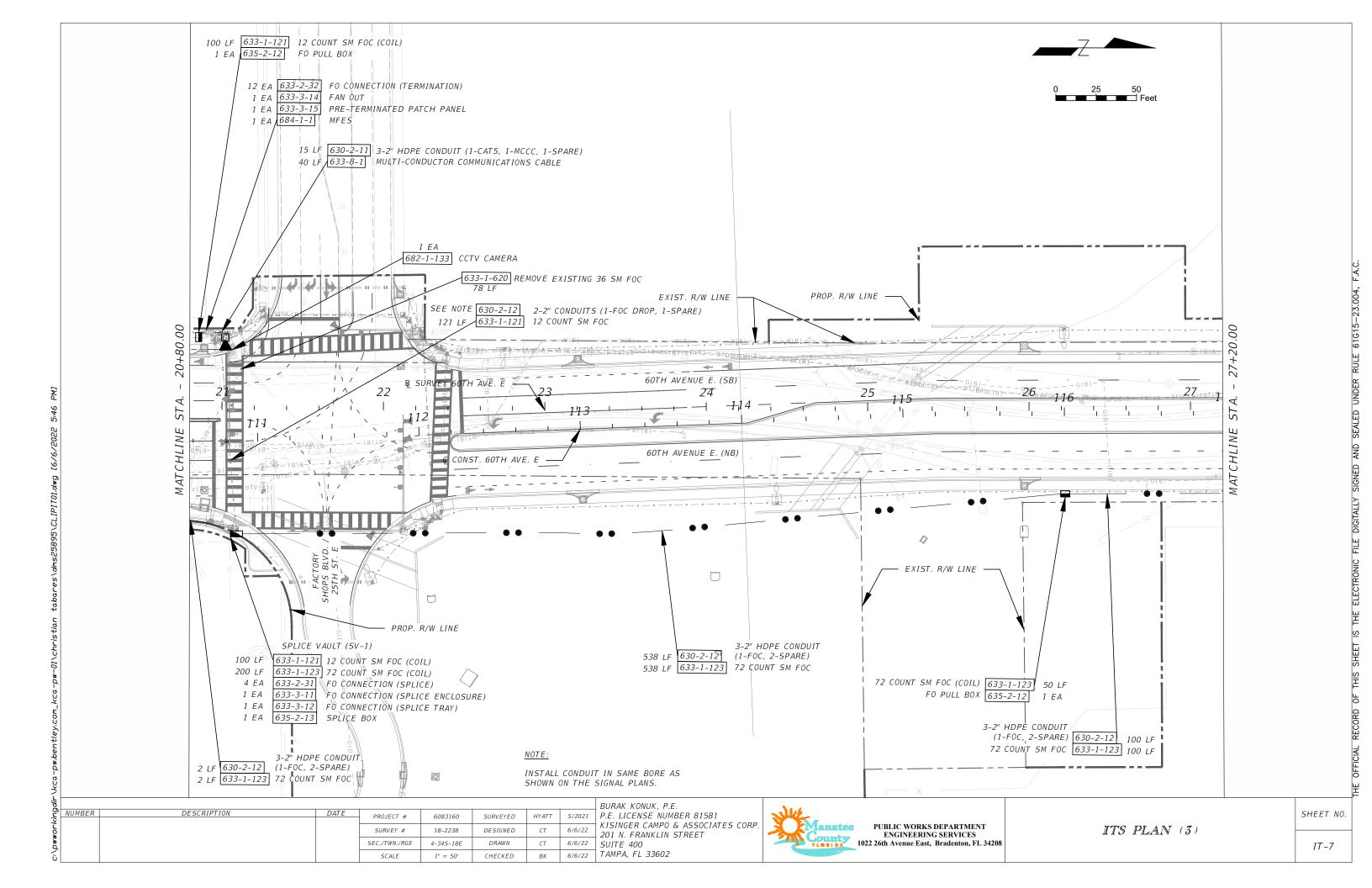
DESCRIPTION NUMBER DATE PROJECT # 6083160 SURVEYED HYATT 5/2021 6/1/22 SURVEY # 18-2238 DESIGNED CTSEC./TWN./RGE 4-345-18E DRAWN CT6/1/22 SCALE NTS CHECKED BK 6/1/22

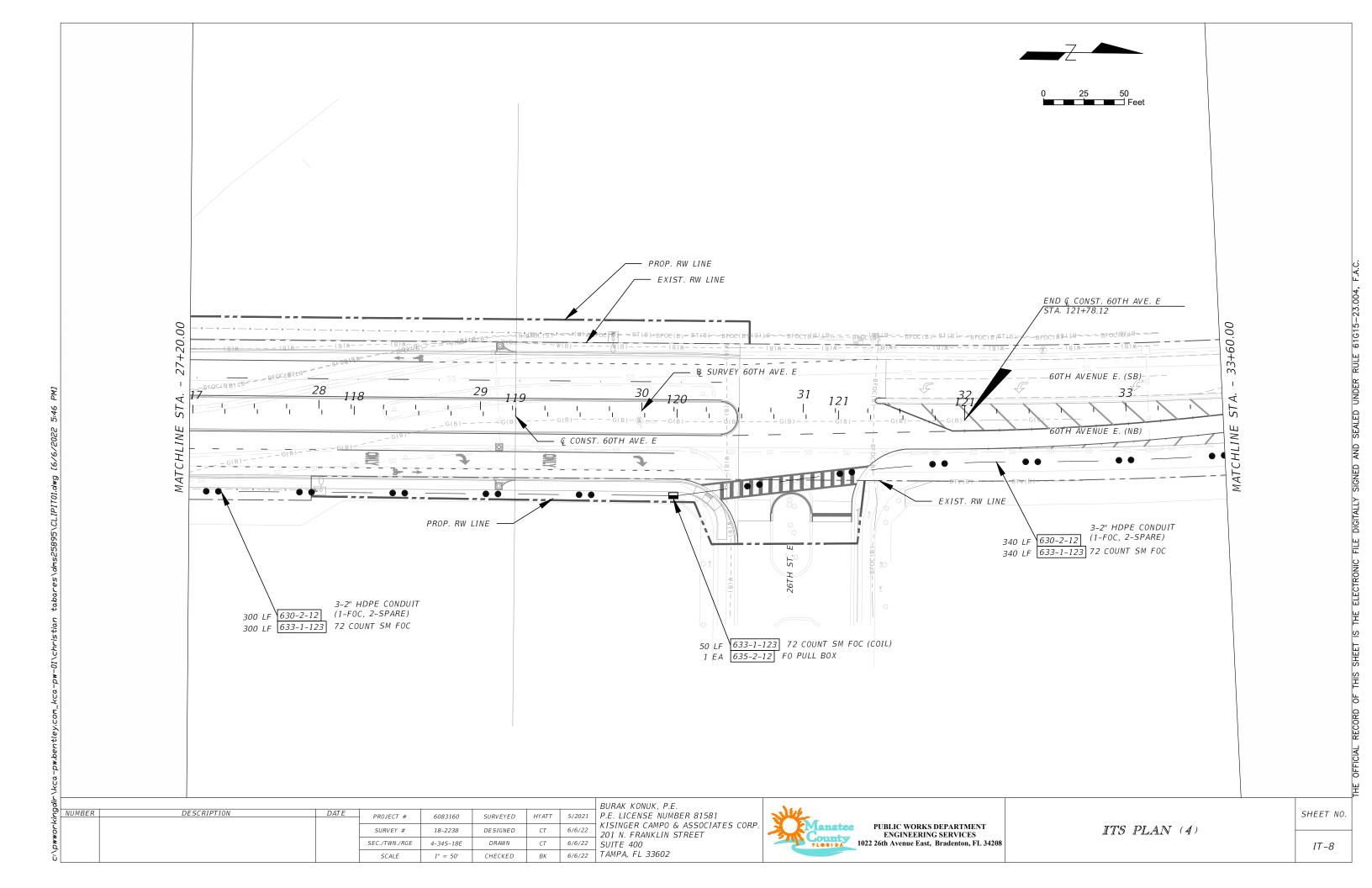
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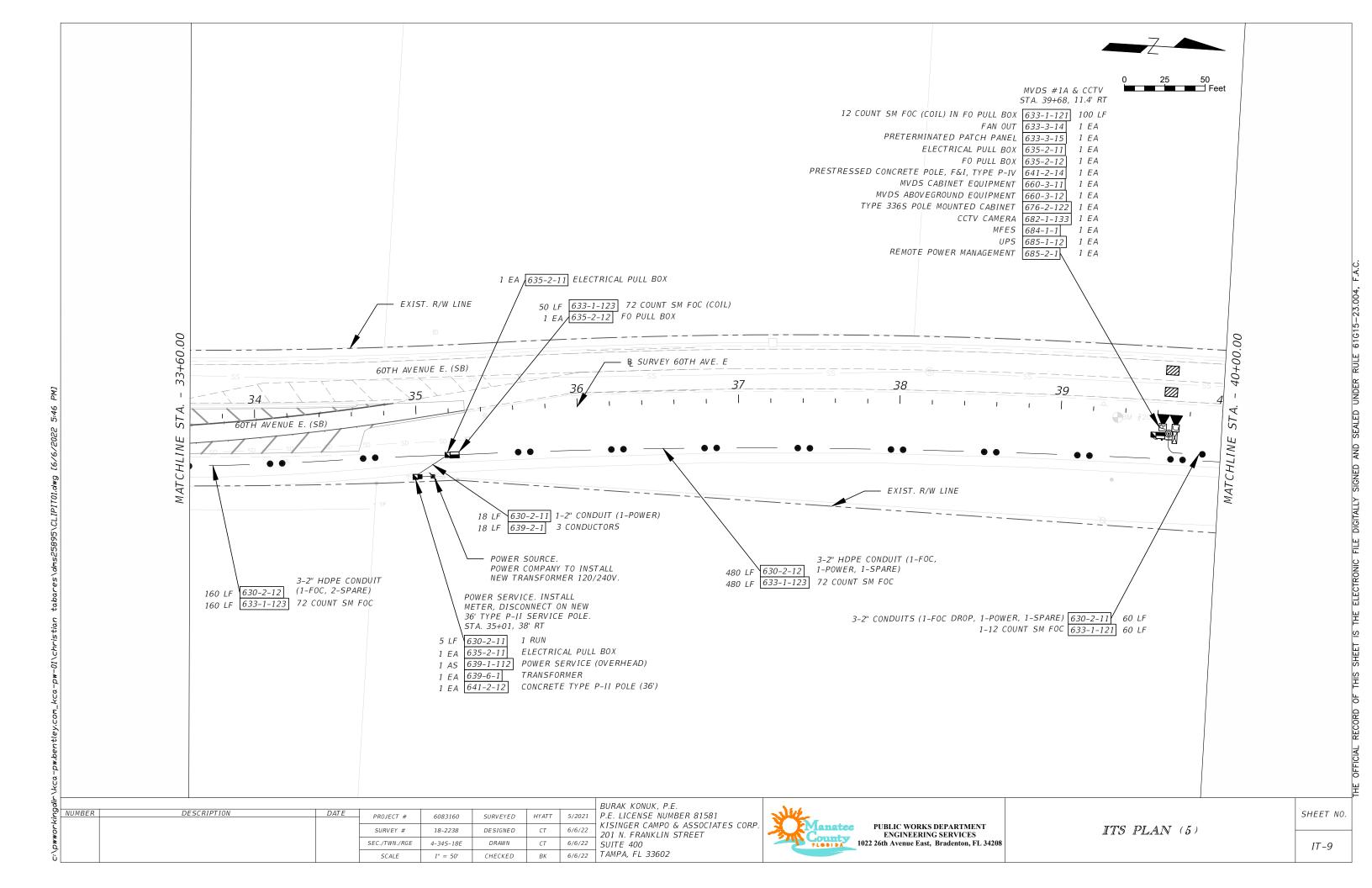


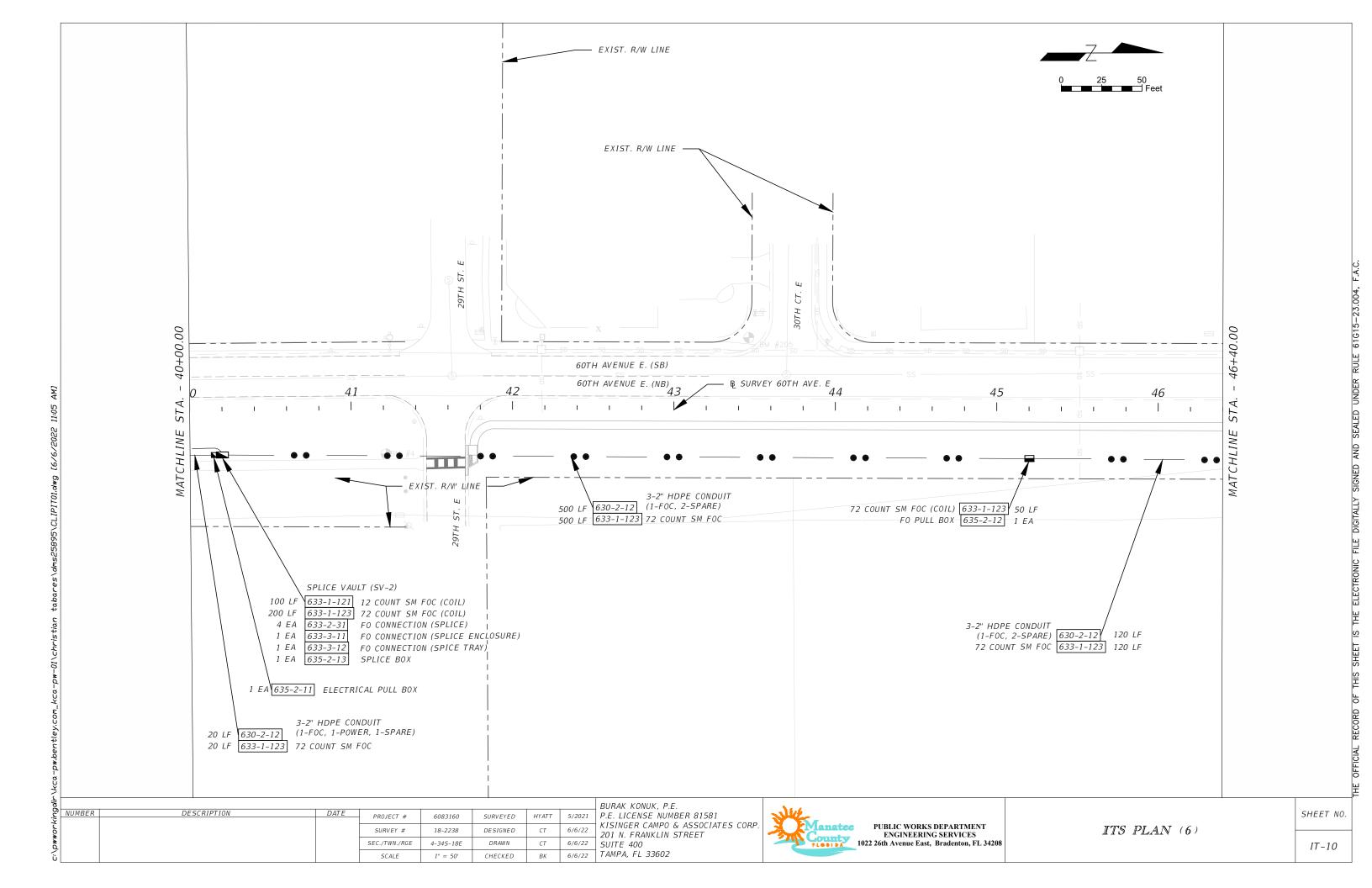


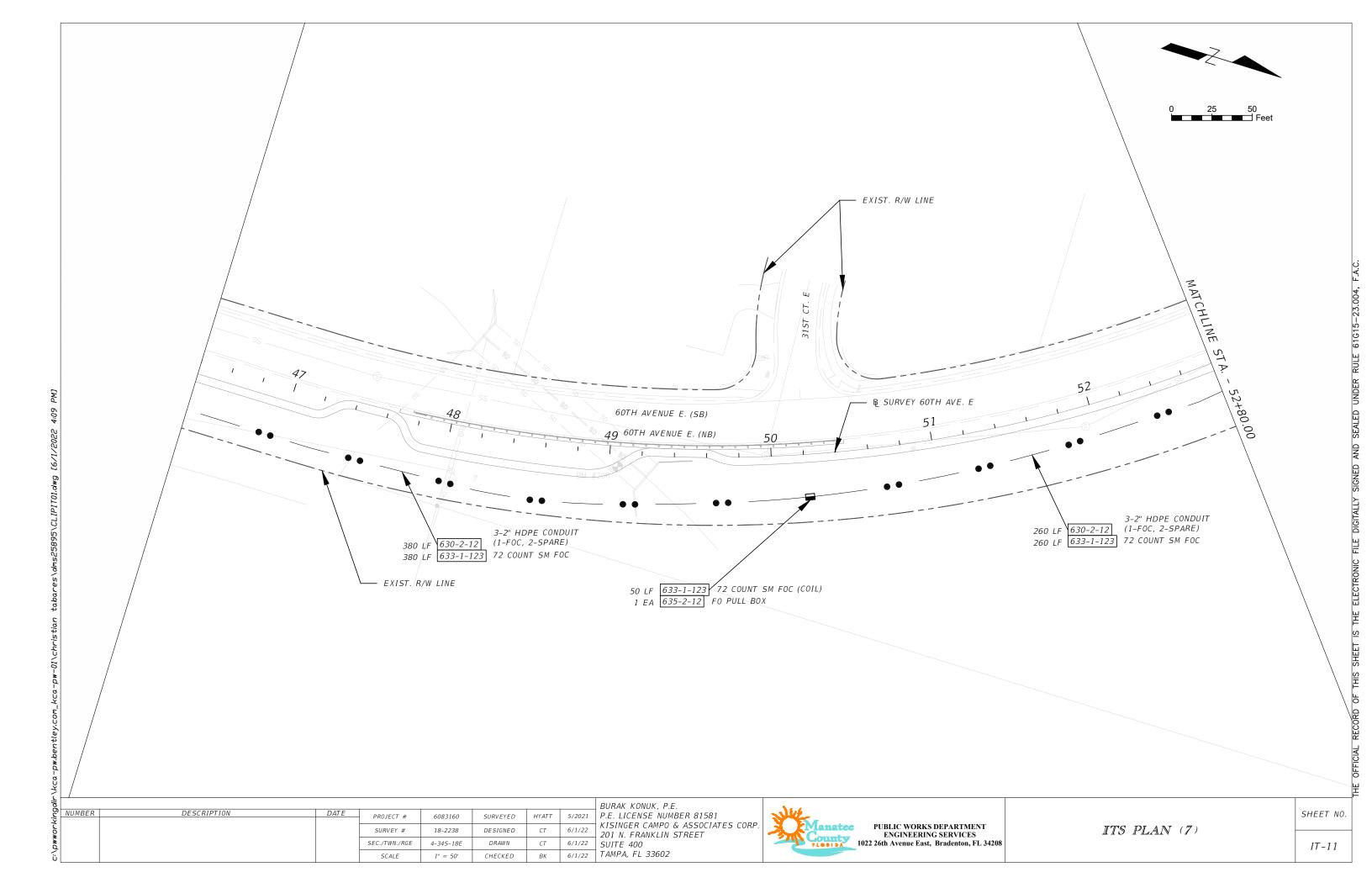


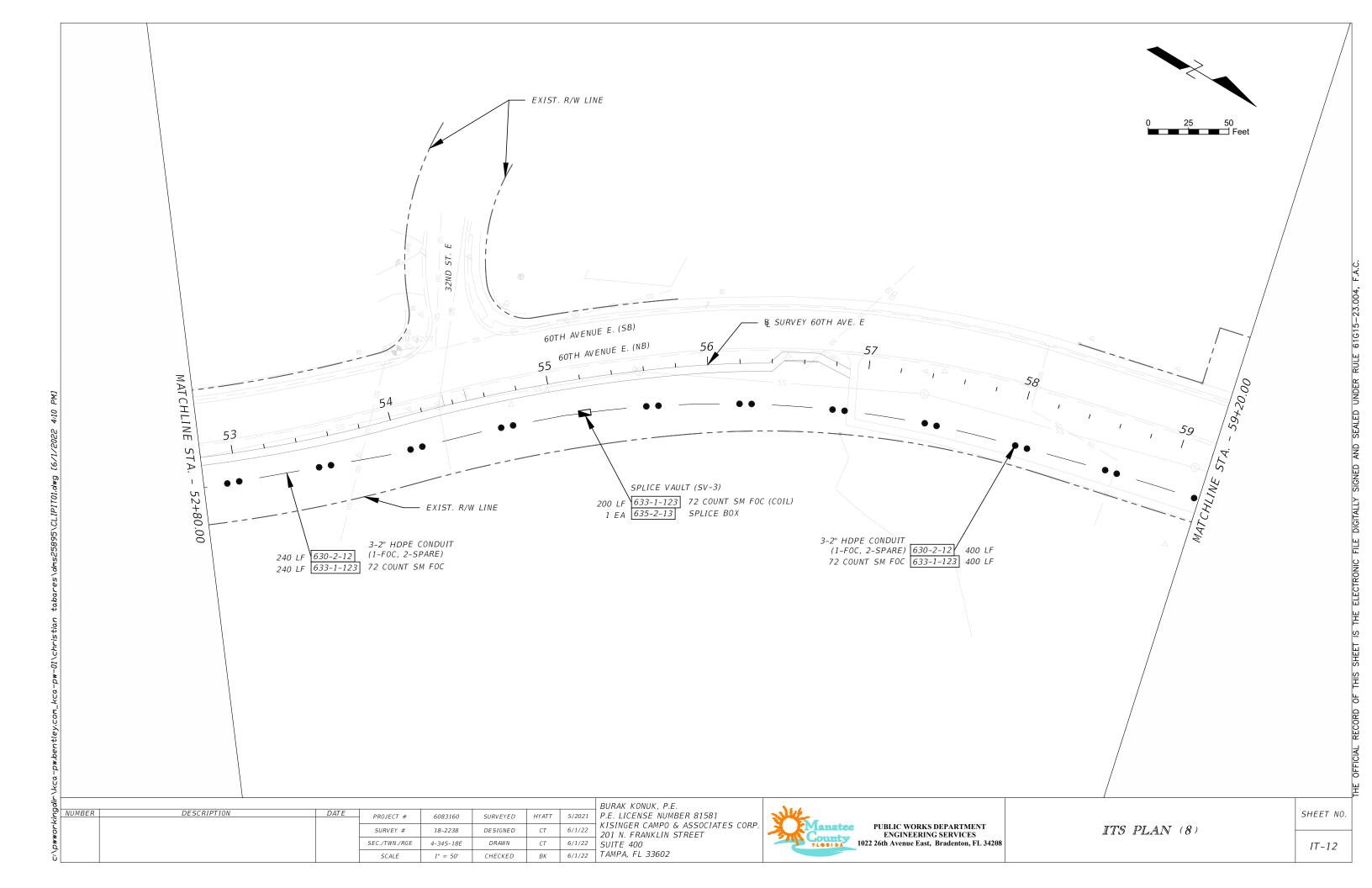


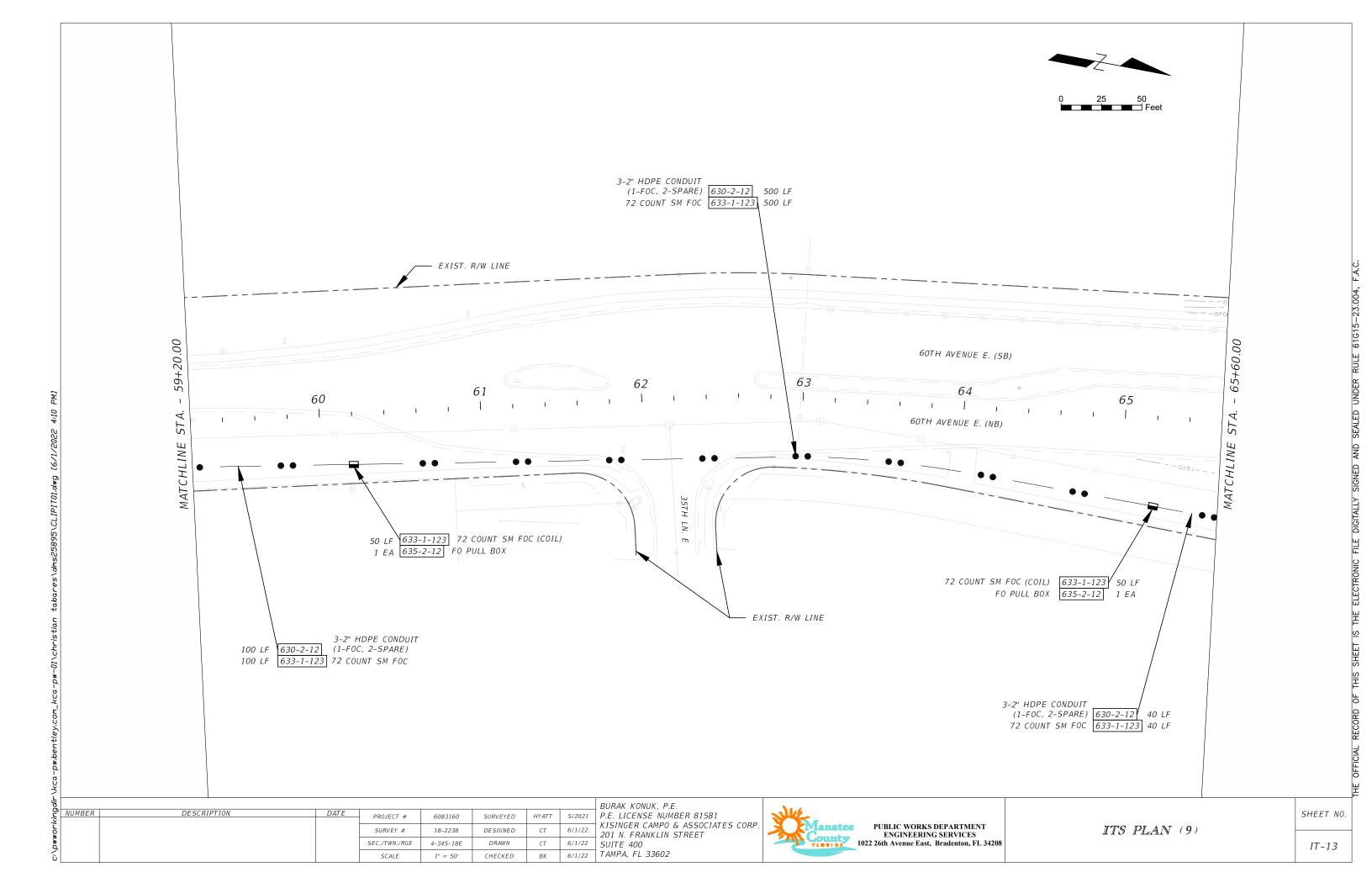


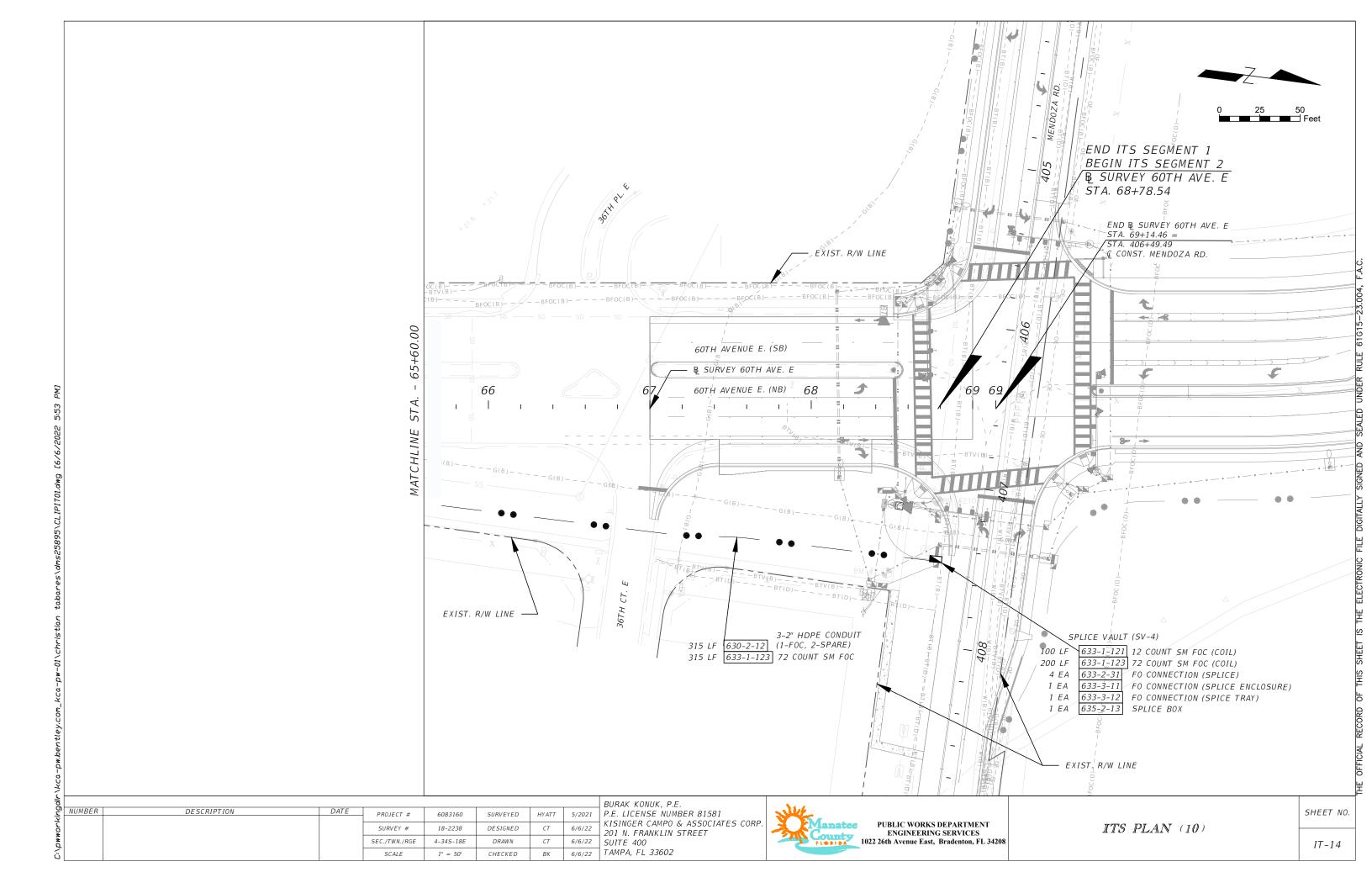


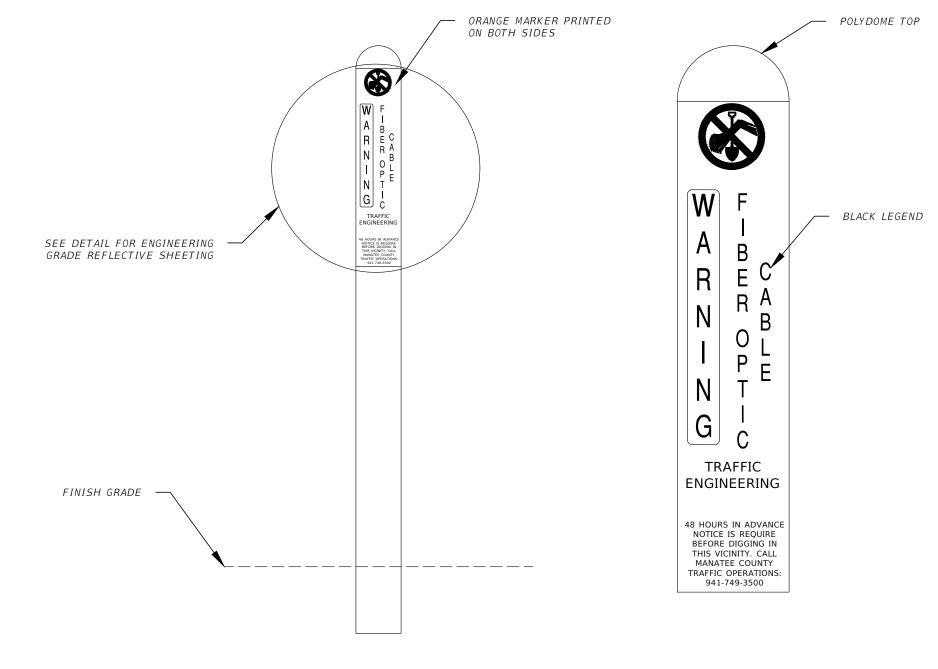












FIBER OPTIC CABLE ROUTE MARKER N.T.S.

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)	NUMBER DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	L
			SURVEY #	18-2238	DESIGNED	СТ	6/1/22	1 K
L			SEC./TWN./RGE	4-345-18E	DRAWN	СТ	6/1/22	S
			SCALE	NTS	CHECKED	BK	6/1/22] 7

BURAK KONUK, P.E. LICENSE NUMBER 81581 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602



FIBER OPTIC MARKER DETAIL

SHEET NO.

LICENSE NUMBER 81581

201 N. FRANKLIN STREET

KISINGER CAMPO & ASSOCIATES CORP.

HYATT

CT

CT

BK

5/2021

5/25/22

5/25/22 | SUITE 400

5/25/22 TAMPA, FL 33602

SURVEYED

DESIGNED

DRAWN

CHECKED

PROJECT #

SURVEY #

SEC./TWN./RGE

SCALE

6083160

18-2238

4-345-18E

NTS

NUMBER

DESCRIPTION

PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES
1022 26th Avenue East, Bradenton, FL 34208

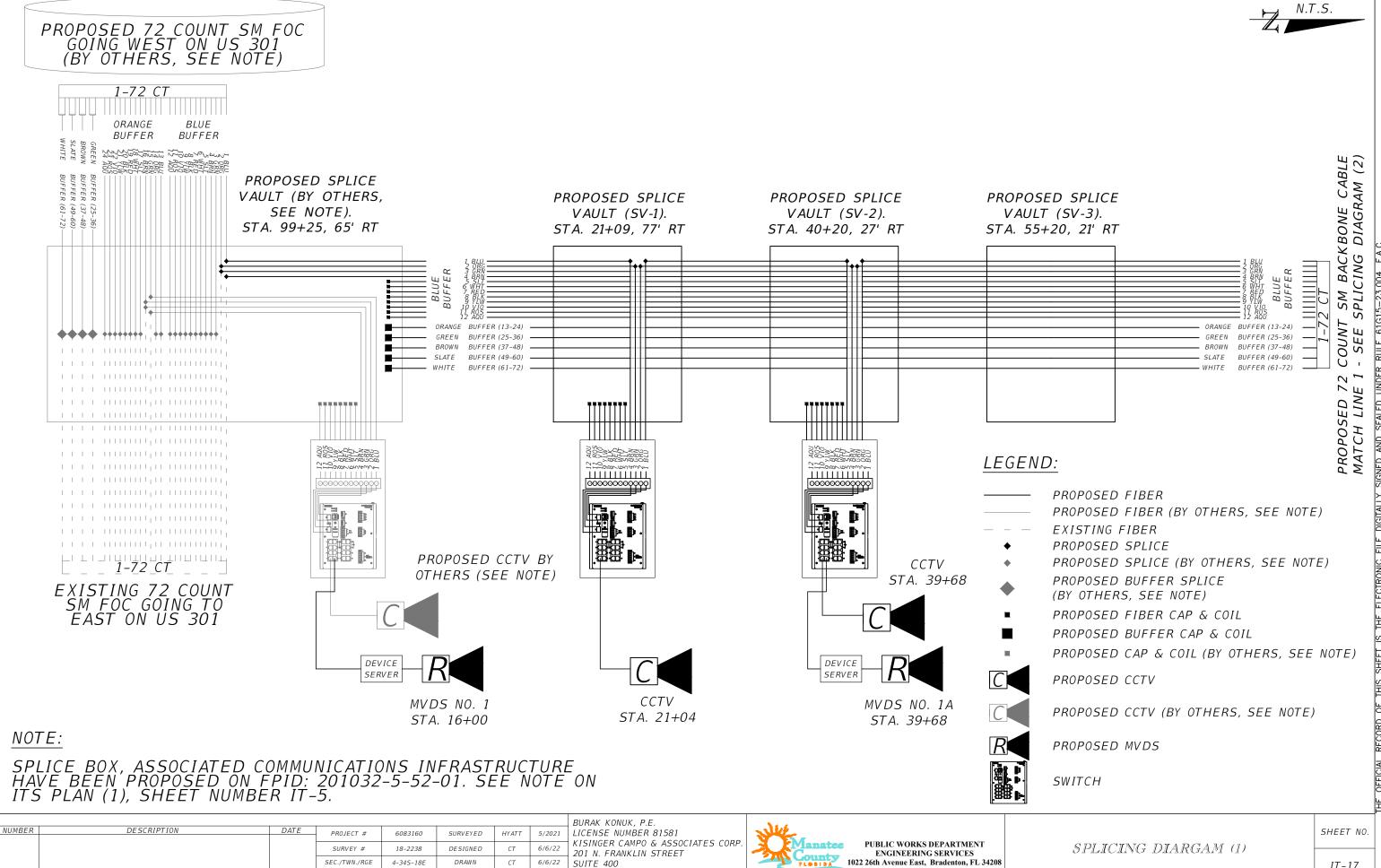
DIRECTIONAL BORE AND CONDUIT

DE TAILS

IT-16

SHEET NO.

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



6/6/22 TAMPA, FL 33602

NTS

CHECKED

GREEN BUFFER (25-36)
BROWN BUFFER (37-48) SLATE BUFFER (49-60)

NOTE:

SPLICES TO BE PROPOSED ON SEGMENT 2 PLANS.

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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	L
			SURVEY #	18-2238	DESIGNED	CT	6/6/22] '
			SEC./TWN./RGE	4-345-18E	DRAWN	CT	6/6/22]
			SCALE	NTS	CHECKED	BK	6/6/22]

PROPOSED SPLICE VAULT (SV-4) - SEE NOTE.

STA. 68+79, 94' RT

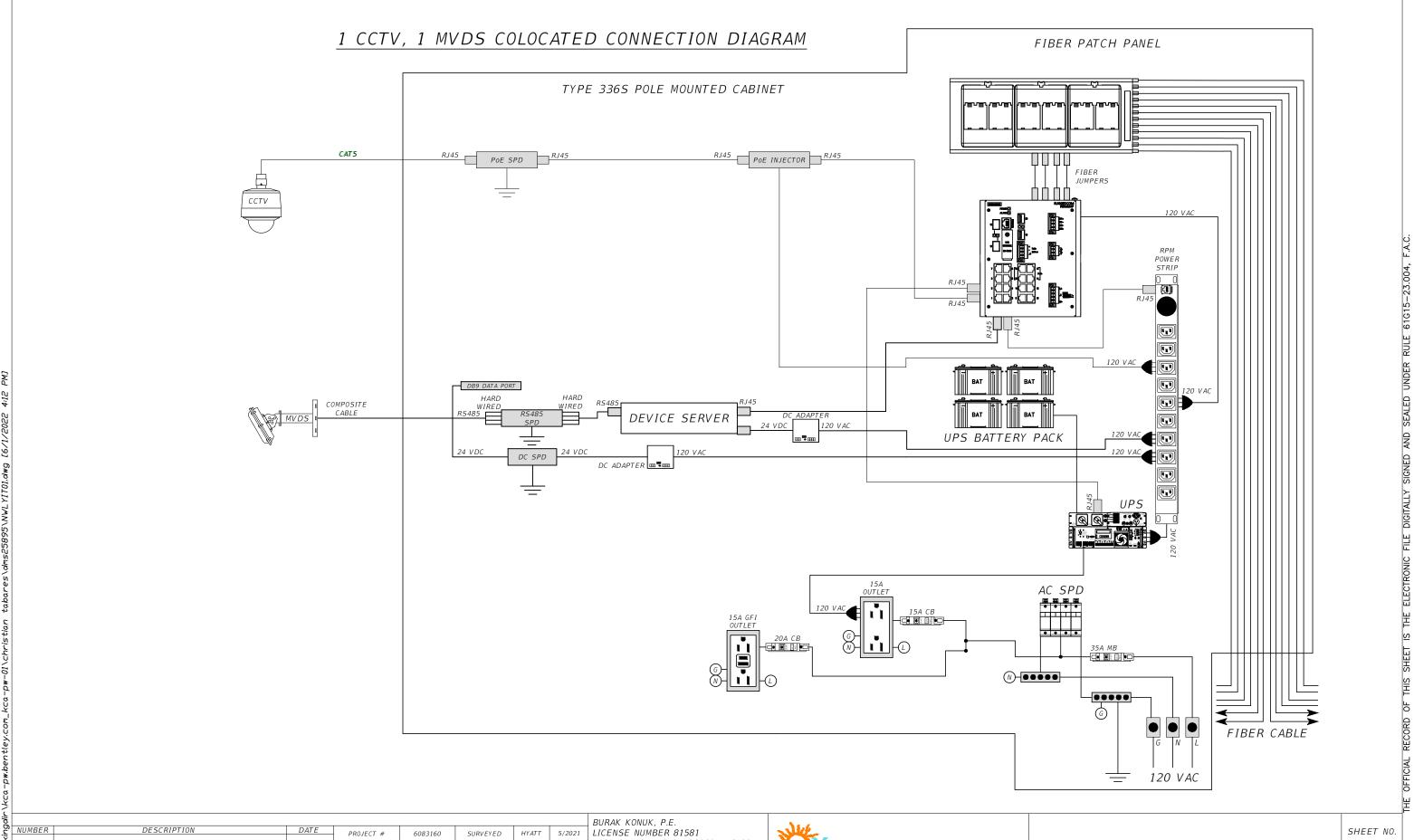
PROPOSED 72 COUNT SM BACKBONE - SEE SPLICING SEG 2 PLANS

BURAK KONUK, P.E. LICENSE NUMBER 81581 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602



SPLICING DIARGAM (2)

SHEET NO.



 NUMBER
 DESCRIPTION
 DATE
 PROJECT #
 6083160
 SURVEYED
 HYATT
 5/2021

 SURVEY #
 18-2238
 DESIGNED
 CT
 6/1/22

 SEC./TWN./RGE
 4-345-18E
 DRAWN
 CT
 6/1/22

 SCALE
 NTS
 CHECKED
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 6/1/22

BURAK KONUK, P.E.

5/2021 LICENSE NUMBER 81581

KISINGER CAMPO & ASSOCIATES CORP.
201 N. FRANKLIN STREET

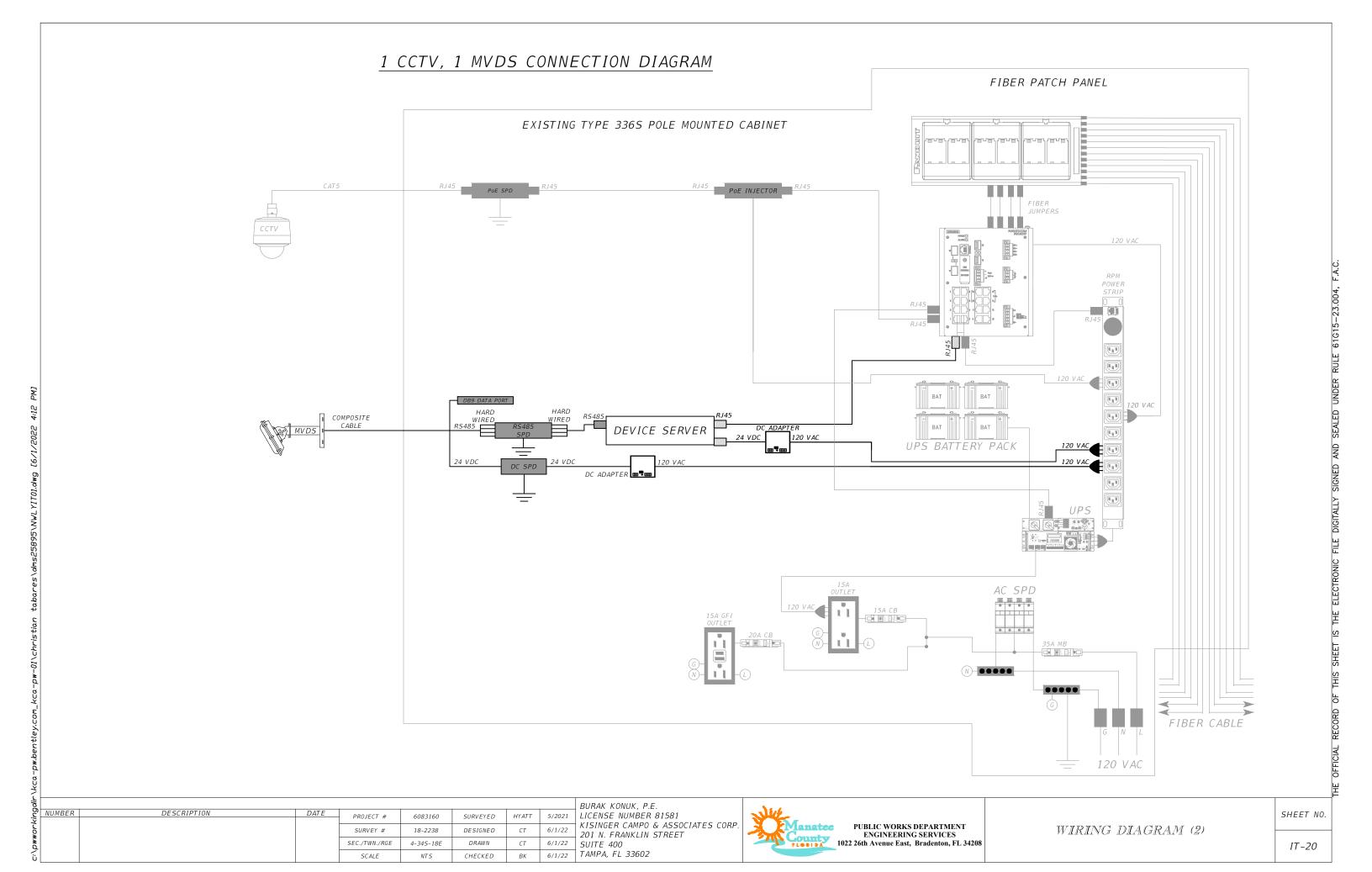
5/1/22 SUITE 400

6/1/22 TAMPA, FL 33602

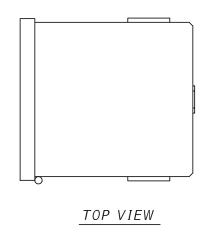


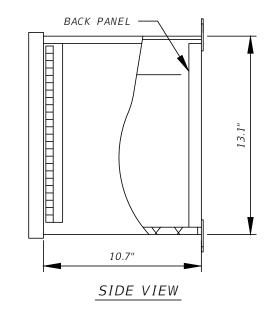
WIRING DIAGRAM (1)

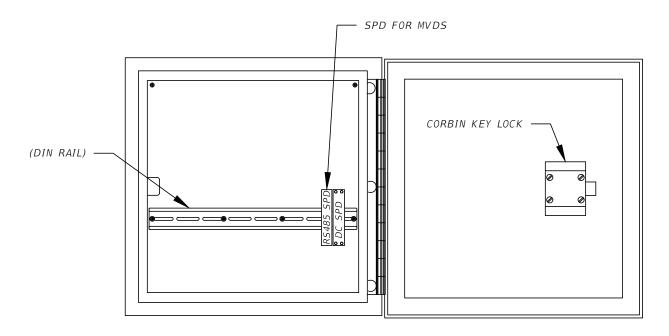
SHEET NO.

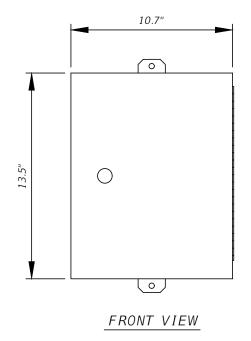


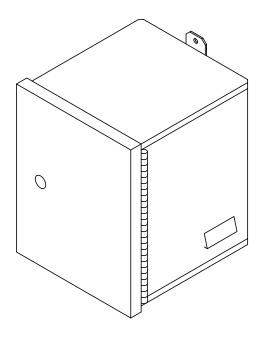
- 1. NEMA ENCLOSURE WITH DC SPD, RS485 SPD AND DIN RAIL TO BE FURNISHED AND INSTALLED BY CONTRACTOR.
- 2. NEMA ENCLOSURE SHALL BE NEMA 3-R AND SIZED TO FIT ALL COMPONENTS AND SHALL PROVIDE ADEQUATE CIRCULATION AND WATERTIGHT TO PREVENT WATER INTRUSION.
- CABINET MATERIAL SHALL BE MADE OF 5052-H32 ALUMINUM 0.125".
- INTERIOR CABINET DIMENSIONS ARE: 13.125"H X 10.75"W X 10.5"D.
- LOCK IS A #2 CORBIN.
- 6. TABS ARE FOR POLE MOUNT.











(NEMA ENCLOSURE) 1-MVDS CALIBRATION CABINET

SURGE PROTECTION DEVICE (SPD) ENCLOSURE N.T.S.

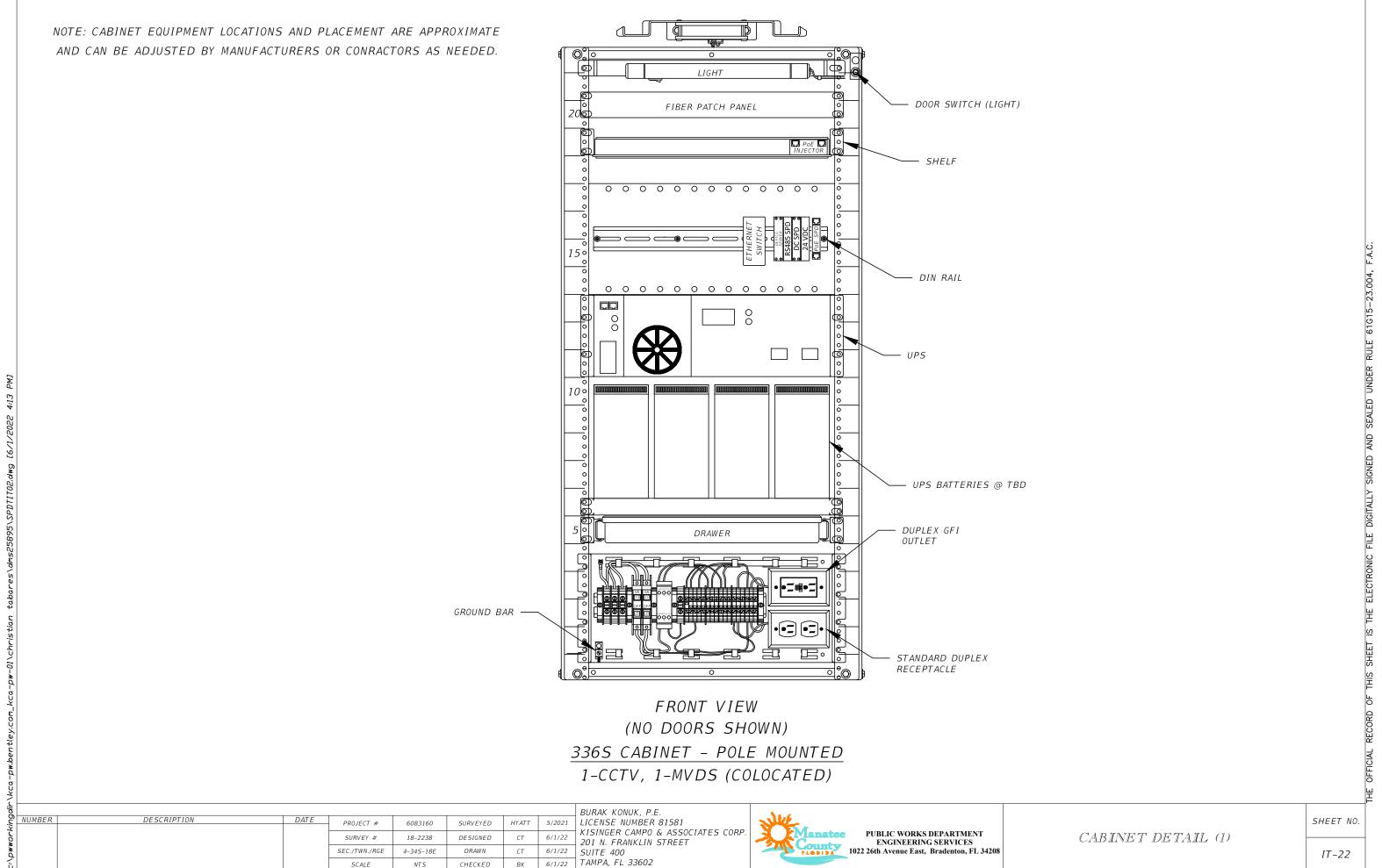
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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	1
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			SURVEY #	18-2238	DESIGNED	CT	6/1/22	
			SEC./TWN./RGE	4-345-18E	DRAWN	СТ	6/1/22	3
			SCALE	NTS	CHECKED	BK	6/1/22	7
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BURAK KONUK, P.E. LICENSE NUMBER 81581 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602



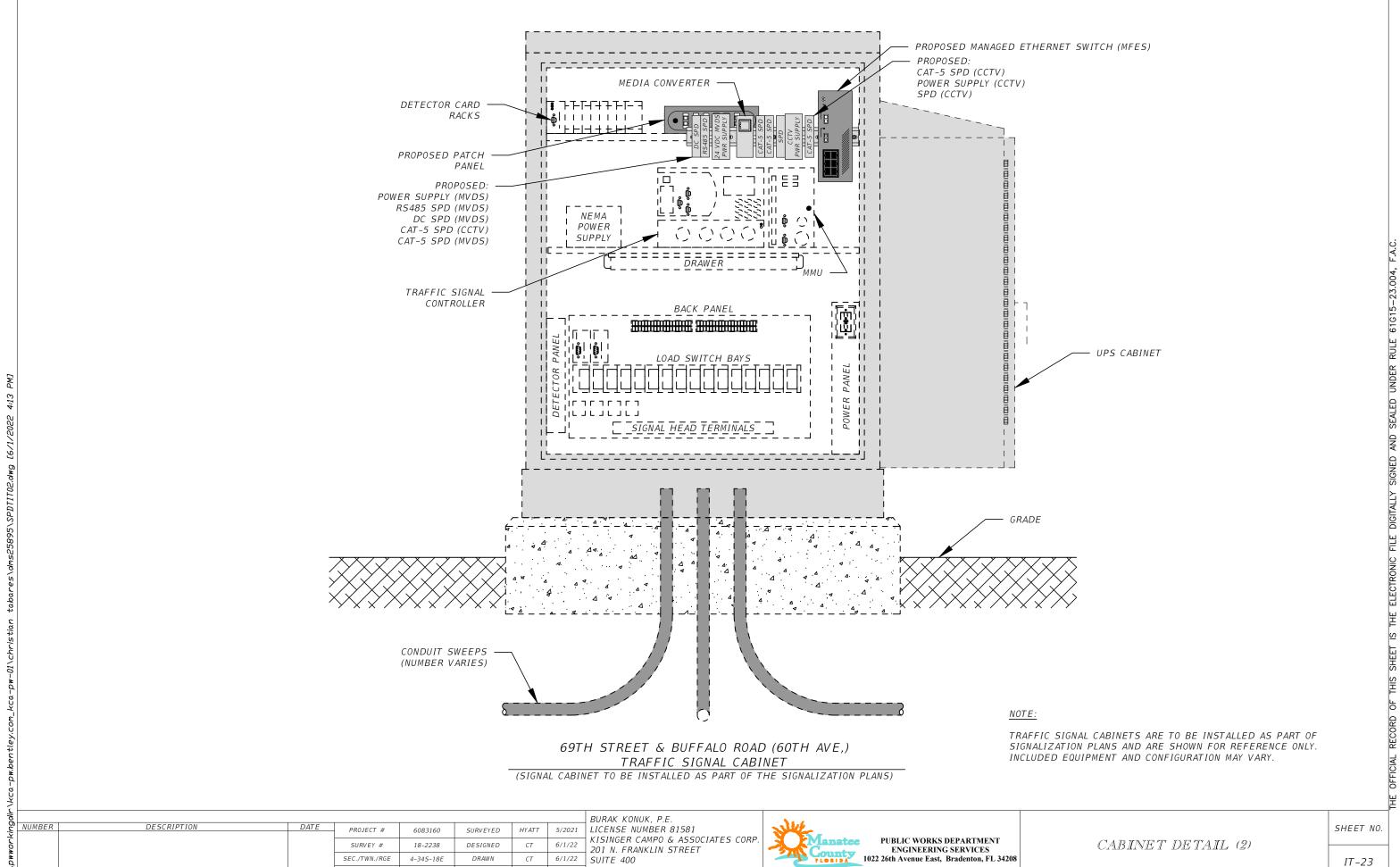
NEMA 3-R CABINET DETAILS

SHEET NO.



NTS

CHECKED



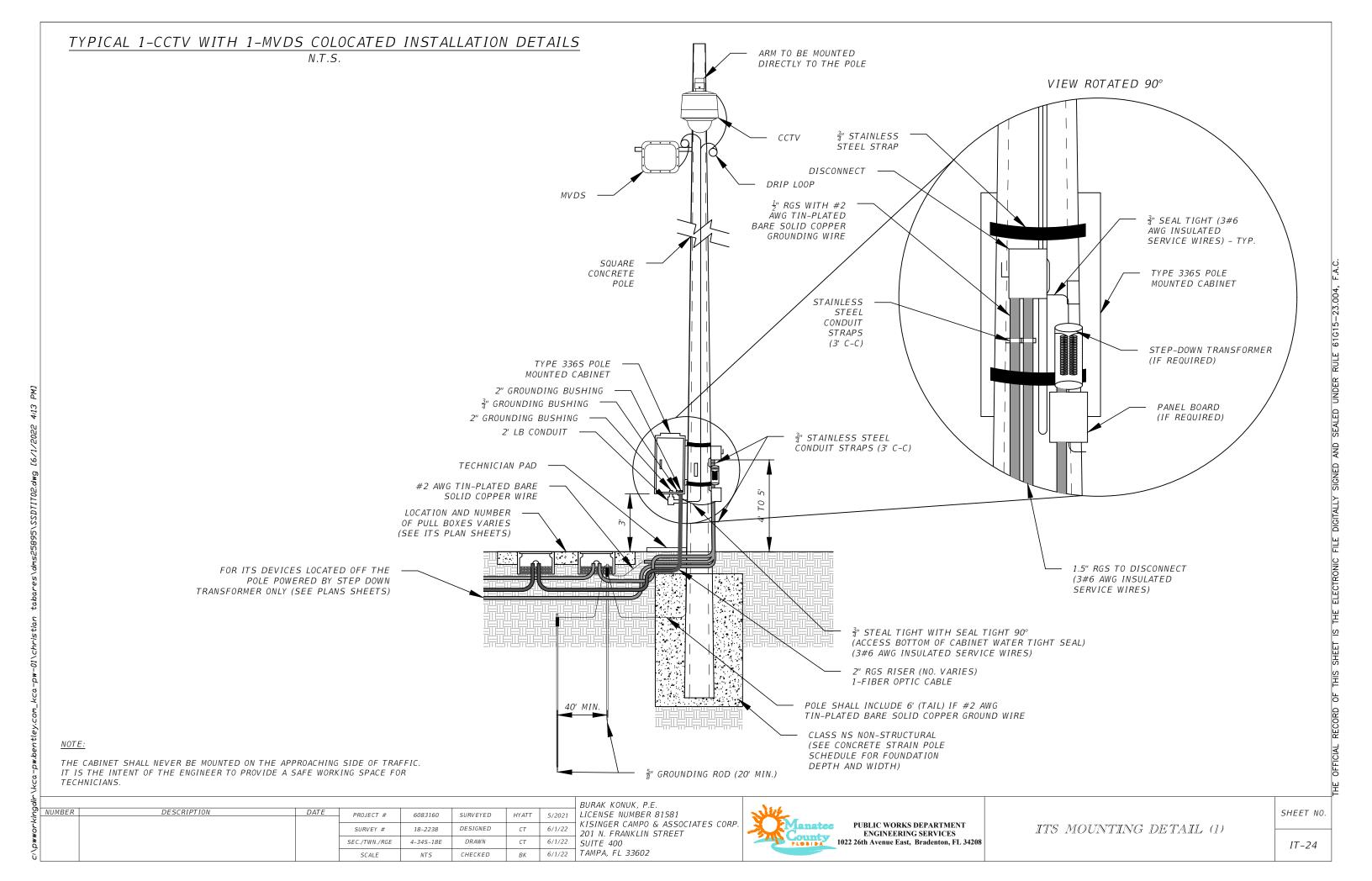
6/1/22 TAMPA, FL 33602

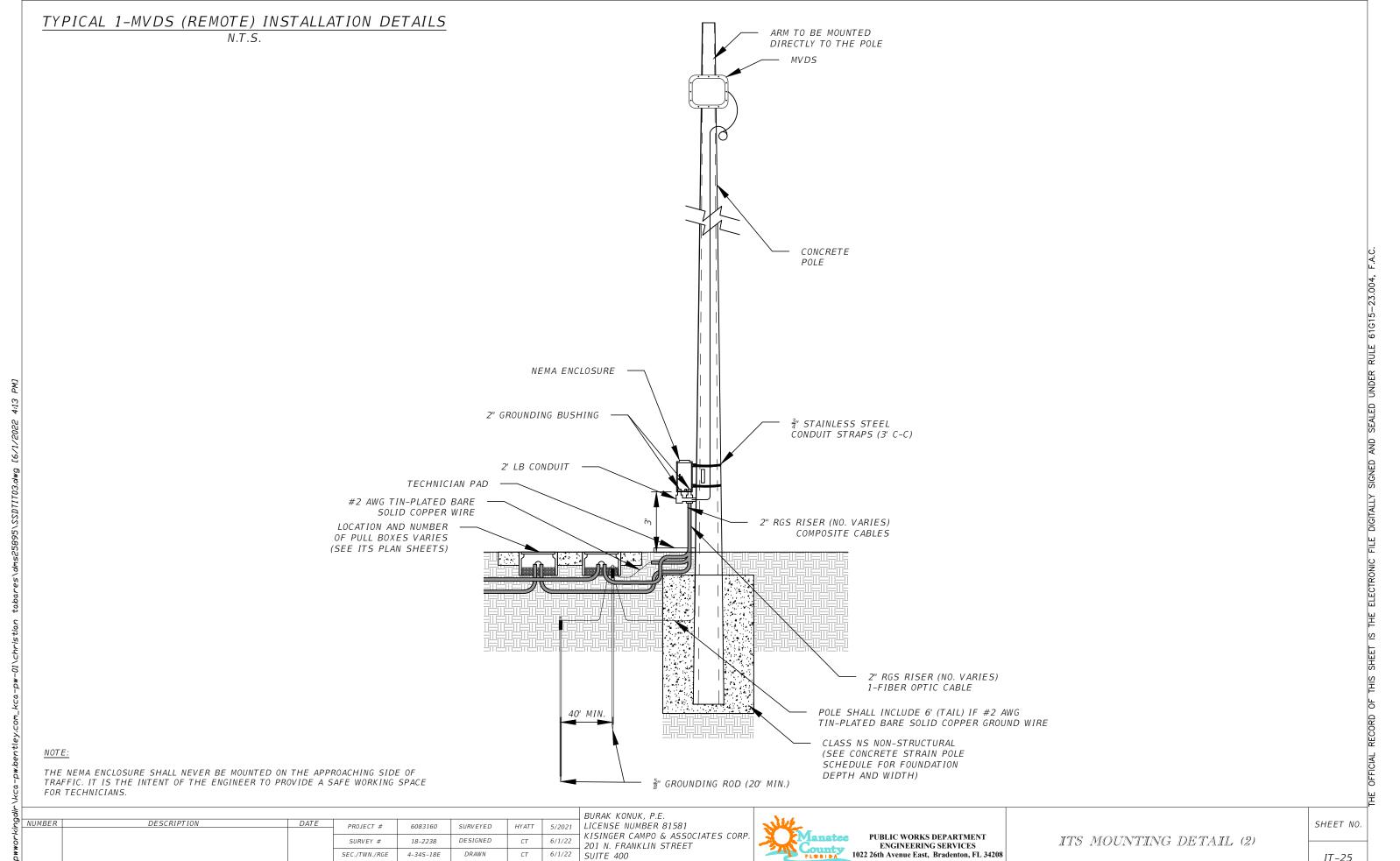
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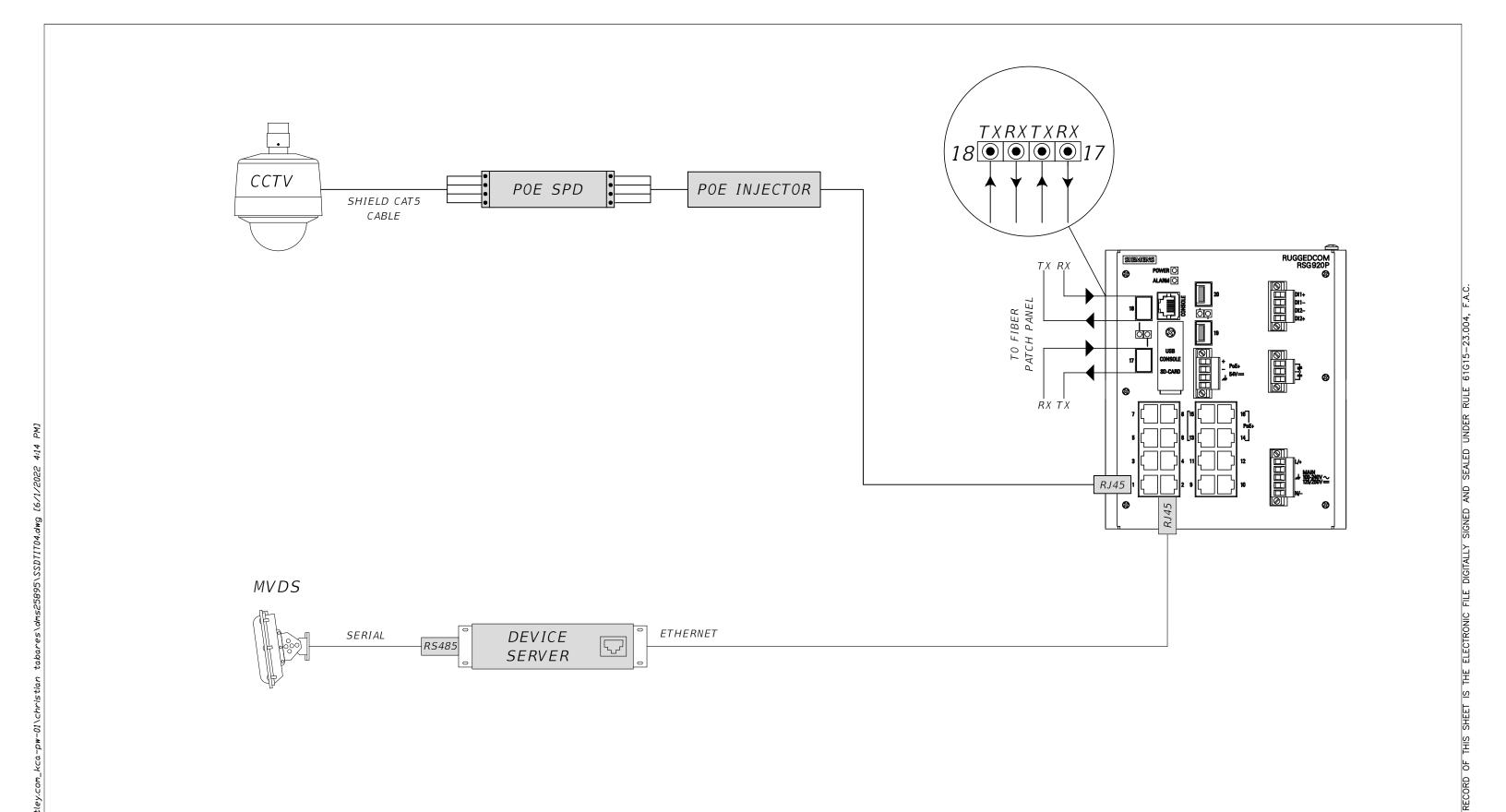
6/1/22 TAMPA, FL 33602

CHECKED

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NTS

SCALE



N.T.S.

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,	NUMBER DESCRIPTION	DATE PROJECT	# 6083160	SURVEYED	HYATT	5/2021	L
5		SURVEY	# 18-2238	DESIGNED	CT	6/1/22	
1		SEC./TWN./	RGE 4-34S-18E	DRAWN	CT	6/1/22	3
j		SCALE	NTS	CHECKED	BK	6/1/22	7

BURAK KONUK, P.E.
LICENSE NUMBER 81581
KISINGER CAMPO & ASSOCIATES CORP.
201 N. FRANKLIN STREET
SUITE 400
TAMPA, FL 33602



PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208 MANAGED FIELD ETHERNET SWITCH PORT ASSIGNMENT DETAIL SHEET NO.

