MANATEE COUNTY PUBLIC WORKS DEPARTMENT

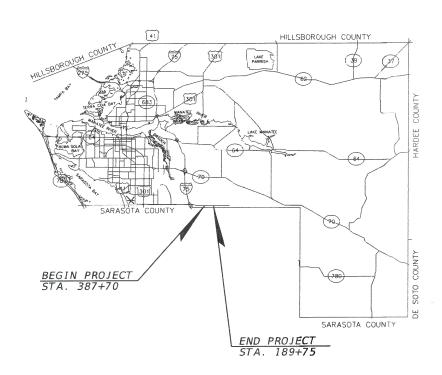
CONTRACT PLANS

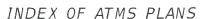
MANATEE COUNTY (13160)

COUNTY PROJECT 6052010

UNIVERSITY PARKWAY FROM MARKET STREET TO LORRAINE ROAD

ATMS PLANS





IT-44

SHEET NO.	SHEET DESCRIPTION
IT-1 IT-2 - IT-3 IT-4 IT-5 IT-6 IT-7	KEY SHEET TABULATION OF QUANTITIES PROJECT NOTES SURVEY REFERENCE POINTS COMMUNICATION OVERVIEW ITS DEVICE SUMMARY SHEET
IT-8 - IT-23 IT-24 - IT-25	ATMS PLAN CROSS SECTIONS
IT-26 - IT-28	SPLICE DIAGRAM
IT-20 = 11-28	CCTV AND SMART SENSOR ADVANCE MOUNTING DETAIL
IT-30	TYPICAL MVDS INSTALLATION DETAILS
IT-31	CCTV AND SMART SENSOR ADVANCE BLOCK DIAGRAM
IT-32	BLOCK DIAGRAM FOR MVDS
IT-33	ITS CABINET & LINE DIAGRAM DETAILS
IT-34	CABINET TYPE 336S DETAILS
IT-35 - IT-37	TYPE 332 ITS CABINET DETAILS
IT-38	CABINET TYPE 332 POWER PANEL MAIN DETAIL
IT-39	CONCRETE APRON DETAILS
IT-40	CONCRETE PAD DETAILS FOR ITS CABINET
IT-41	FIBER OPTIC SPLICE BOX DETAILS
IT-42	CABLE ROUTE MARKER DETAILS
IT-43	POWER SERVICE DETAILS

GROUNDING INSPECTION BOX DETAILS

GOVERNING STANDARDS AND SPECIFICATIONS: FLORIDA DEPARTMENT OF TRANSPORTATION 2016 DESIGN STANDARDS AND REVISED INDEX DRAWINGS, AS APPENDED HEREIN, AND ALL OF DIVISIONS II & III OF THE JULY 2015 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AS AMENDED BY CONTRACT DOCUMENTS.

FOR DESIGN STANDARDS CLICK ON THE ""DESIGN STANDARDS""LINK AT THE FOLLOWING WEB SITE: HTTP://WWW.DOT.STATE.FL.US/RDDESIGN/

FOR THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION CLICK ON THE ""SPECIFICATIONS""LINK AT THE FOLLOWING WEB SITE: HTTP://WWW.DOT.STATE.FL.US/SPECIFICATIONSOFFICE/

MANATEE COUNTY TRANSPORTION DEPARTMENT HIGHWAY, TRAFFIC, AND STORMWATER STANDARDS 2007

PENSACOLA

TALLAHASSEE

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MAPLES

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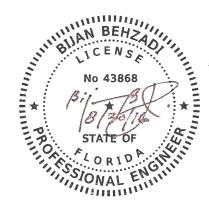
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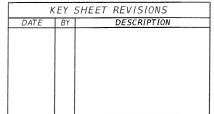
KEY WEST

ATMS SHOP DRAWINGS TO BE SUBMITTED TO: BIJAN BEHZADI, PE HDR ENGINEERING, INC. 5426 BAY CENTER DRIVE, STE. 400 TAMPA, FLORIDA 33609-3444 PHONE NO. (813) 282-2300

PLANS PREPARED BY:
HDR ENGINEERING, INC.
2601 CATTLEMEN ROAD., STE. 400
SARASOTA, FLORIDA 34232-6233
PHONE NO. (941) 342-2700
FAX (941) 342-6589
CONTRACT NO. 12348
VENDOR NO. VF-470680568
CERTIFICATE OF AUTHORIZATION No. 4213



NOTE: THE SCALE OF THESE PLANS MAY HAVE CHANGED DUE TO REPRODUCTION.



8/30/2016

ATMS PLANS ENGINEER OF RECORD: BIJAN BEHZADI, P.E.

P.E. NO.: 43868

FISCAL YEAR	SHEET NO.
16	IT-1

MANATEE COUNTY PROJECT MANAGER: MICHAEL STURM, PE

TABULATION OF QUANTITIES

PAY ITEM		SHEET NUMBERS								TOTAL THIS			GRAND TOTAL				
NO.	DESCRIPT I ON	UNIT	11-8	IT		IT - 10		T - 11	IT - 12	IT - 13	IT - 14	IT - 15		EET		1	SHEE
			PLAN FI	NAL PLAN	FINAL	PLAN FI	NAL PLA	N FINAL	PLAN FINAL	L PLAN FINAL	PLAN FINAL	PLAN FINAL	PLAN	FINAL	PLAN	FINAL	
01-1	MOBILIZATION	L5														-	
102-1	MAINTENANCE OF TRAFFIC	L5									ļ						
	MISC CONCRETE	CY					0.		0.17	0.75			1.255				
530-2-11	CONDUIT (F & I) (OPEN TRENCH)	LF	145				7	57	50	542			1494				-
630-2-14	CONDUIT (F & 1) (ABOVE GROUND)	LF								9			6		-		
633-1-121	FIBER OPTIC CABLE (F&I) (UNDERGROUND) (2-12 FIBERS)	LF							-	61			145				
633-1-320	FIBER OPTIC CABLE, INSTALL, UNDERGROUND	LF	145							4			100				
	FIBER OPTIC CONNECT (INSTALL SPLICE)	EA	96		TORON STATE OF THE					4			100	7			
633-3-11	FIBER OPTIC CONNECTION HARDWARE (F&I) (SPLICE ENCLOSURE)	EA								1				7			
	FIBER OPTIC CONNECTION HARDWARE (F&I) (SPLICE TRAY)	EA				-			7	1 1	-			2			
	FIBER OPTIC CONNECTION HARDWARE (F&I) (PATCH PANEL, PRETERMINATED)	EA				426			895	1		285	1606	5			
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE (F&I)	LF				420		7	7	2		203	1000				
	PULL & SPLICE BOX (F&I)(PULL BOX) (17" x 30")	EA EA				 				1				1			
635-2-13	PULL & SPLICE BOXES (F&I) (SPLICE VAULT) (30" x 60" x 48")					-											
639-1-112	ELECTRICAL POWER SERVICE (F&I) (OVERHEAD) (METER	AS		100000000000000000000000000000000000000													
630 2 1	PURCHASED BY CONTRACTOR)	LF					22	71		1554			3825	5			
	ELECTRICAL SERVICE WIRE (F&I) ELECTRICAL SERVICE DISCONNECT (F&I) (POLE MOUNT)	EA							7	1			2				
	PRESTRESSED CONCRETE POLE (F&I) TYPE II, 12 FT SERVICE POLE	EA															
	PRESTRESSED CONCRETE POLE (F&I) TYPE II, 12 FT SERVICE FOLE PRESTRESSED CONCRETE POLE (F&I) TYPE III	EA								1				7			
641-2-13 660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE (FURNISH ONLY) (CABINET EQUIPMENT)	EA	7			1			1			1	4	7			
660-3-11	VEHICLE DETECTION SYSTEM-MICROWAVE (FURNISH ONLY) (ABOVE GROUND	EA	2			2	-		4	1		2	1.	1			
000-3-12	EQUIPMENT)						-										
660-6-121	VEHICLE DETECTION SYSTEM-AVI-BLUETOOTH (F&I) (CABINET EQUIPMENT)	EA					Vision					1		7			
660-6-122	VEHICLE DETECTION SYSTEM-AVI-BLUETOOTH (F&I) (ABOVE GROUND EQUIPMENT)	EA					Special Specia					1		1			
671-2-11	TRAFFIC CONTROLLER WITHOUT CABINET, F&I IN EXISTING CABINET, NEMA	EA	1			1	and a second		1			1		1			
	TS2 TYPE 1						-								-		
	TRAFFIC CONTROLLER, REMOVE-CABINET TO REMAIN	EA				1			7			1		3			
676-2-122	ITS CABINET (F&I) POLE MOUNT WITH SUNSHIELD, 336S, 24" W x 46" H x 22" D	EA]				1	2000		
676-2-143	ITS CABINET (F&I) BASE MOUNT WITH SUNSHIELD, 332, 24" W x 66" H x 30" D	EA							1					1			
682-1-113	CCTV CAMERA, DOME PTZ ENCLOSURE, PRESSURIZED, IP, HIGH DEFINITION	EA	1 00000			1			1			1	-	3			
684-1-1	MANAGED FIELD ETHERNET SWITCH (F&I)	EA	1											!			
	MANAGED FIELD INTERNET SWITCH (ADJUST/MODIFY)	EA				1			1			1		3			
685-1-11	UNINTERRUPTIBLE POWER SUPPLY, (F&I) LINE INTERACTIVE	EA							1	1				?			
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				CHECKED BY
No.	REVISIONS	DATE	BY	CR



HDR Engineering, Inc. 2601 Cattlemen Road Suite 400 Sarasota, FL 34232-6233 FBPR Certificate of Authorization No. 4213

DATE 6/3/2016 PROJECT NO.

6052010



Manatee MANATEE COUNTY County PUBLIC WORKS

DESIGN ENGINEER BIJAN BEHZADI FL. LICENSE NO.

TABULATION OF QUANTITIES

SHEET NO. IT-2

TABULATION OF QUANTITIES

PAY ITEM	05500157151		SHEET NUMBERS										T 0 1 T H	TAL IS	GRAND	REF			
NO.	DESCRIPTION	UNIT	IT - 16	IT - 17	IT-	18 I	T - 19	1	T-20	IT-	21	IT	-22	IT-	23	SHE		TOTAL	SHEE
			PLAN FINAL	PLAN FINAL	PLAN	FINAL PLA	N FINA	AL PLA	N FINAL	LPLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN FINA	AL
01-1	MOBILIZATION	LS																1	
102-1	MAINTENANCE OF TRAFFIC	L5																1	
400-0-13	MISC CONCRETE	CY				0.	34									0.34		1.595	
630-2-11	CONDUIT (F & I) (OPEN TRENCH)	LF				3	91									391		1885	100
530-2-14	CONDUIT (F & I) (ABOVE GROUND)	LF		***			9								-	9		18	
	FIBER OPTIC CABLE (F&I) (UNDERGROUND) (2-12 FIBERS)	LF					21									21		82	
	FIBER OPTIC CABLE, INSTALL, UNDERGROUND	LF		1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -														145	-
	FIBER OPTIC CONNECT (INSTALL SPLICE)	EA					4									4		104	
	FIBER OPTIC CONNECTION HARDWARE (F&I) (SPLICE ENCLOSURE)	EA														and the same of th		1	1
	FIBER OPTIC CONNECTION HARDWARE (F&I) (SPLICE TRAY)	EA																1	
	FIBER OPTIC CONNECTION HARDWARE (F&I) (PATCH PANEL, PRETERMINATED)	EA					1			410						1		3	
	MULTI-CONDUCTOR COMMUNICATION CABLE (F&I)	LF			430					100				267		697		2303	
	PULL & SPLICE BOX (F&I)(PULL BOX) (17" x 30")	EA		and the second s			2									2		7	
	PULL & SPLICE BOXES (F&I) (SPLICE VAULT) (30" x 60" x 48")	ΕA				1				4								1	
	ELECTRICAL POWER SERVICE (F&I) (OVERHEAD) (METER	A5			-		1	1000								1		1	
	PURCHASED BY CONTRACTOR)																		
	ELECTRICAL SERVICE WIRE (F&I)	LF				10	71									1071		4896	
539-3-11	ELECTRICAL SERVICE DISCONNECT (F&I) (POLE MOUNT)	EA					1									1		3	
	PRESTRESSED CONCRETE POLE (F&I) TYPE II, 12 FT SERVICE POLE	EA				***************************************	1									1		1	
541-2-13	PRESTRESSED CONCRETE POLE (F&I) TYPE III	EA					1									1		2	
	VEHICLE DETECTION SYSTEM-MICROWAVE (FURNISH ONLY) (CABINET EQUIPMENT)	EA			1									1	-	2	-	6	
560-3-12	VEHICLE DETECTION SYSTEM-MICROWAVE (FURNISH ONLY) (ABOVE GROUND	EA			2		1							2		5		16	
	EQUIPMENT)														100				
660-6-121	VEHICLE DETECTION SYSTEM-AVI-BLUETOOTH (F&I) (CABINET EQUIPMENT)	EA			1									1		2		3	
660-6-122	VEHICLE DETECTION SYSTEM-AVI-BLUETOOTH (F&I) (ABOVE GROUND EQUIPMENT)	EA			1									1		2		3	1
571-2-11	TRAFFIC CONTROLLER WITHOUT CABINET, F&I IN EXISTING CABINET, NEMA	EA			1				and the same of th					1		2		6	
	TS2 TYPE 1																		
571-2-60	TRAFFIC CONTROLLER, REMOVE-CABINET TO REMAIN	EA			1				100					7		2		5	
76-2-122	ITS CABINET (F&I) POLE MOUNT WITH SUNSHIELD, 336S, 24" W x 46" H x 22" D	EA					1									1		2	
	ITS CABINET (F&I) BASE MOUNT WITH SUNSHIELD, 332, 24" W x 66" H x 30" D	EA														1		1	-
82-1-113	CCTV CAMERA, DOME PTZ ENCLOSURE, PRESSURIZED, IP, HIGH DEFINITION	EA			1									1		2		5	
84-1-1	MANAGED FIELD ETHERNET SWITCH (F&I)	EA																1	
84-1-5	MANAGED FIELD INTERNET SWITCH (ADJUST/MODIFY)	EA			1									1		2		5	
85-1-11	UNINTERRUPTIBLE POWER SUPPLY, (F&I) LINE INTERACTIVE	EA					1									1		3	
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No.	REVISIONS	DATE	BY	CR	



HDR Engineering, Inc. 2601 Cattlemen Road Suite 400 Sarasota, FL 34232-6233 FBPR Certificate of Authorization No. 4213

DATE 6/3/2016 PROJECT NO.

6052010



Manatee MANATEE COUNTY
County PUBLIC WORKS

DESIGN ENGINEER BIJAN BEHZADI FL. LICENSE NO.

TABULATION OF **QUANTITIES**

SHEET NO.

IT-3

ATMS PROJECT NOTES

- CONTACT THE ENGINEER AND MANATEE COUNTY'S PROJECT MANAGEMENT DIVISION BEFORE STARTING WORK
- ONE WEEK PRIOR TO THE BEGINNING OF THE ATMS INSTALLATION, THE CONTRACTOR SHALL NOTIFY:

MANATEE COUNTY PROJECT MANAGEMENT DIVISION MICHAEL STURM 1026 26TH AVENUE EAST BRADENTON, FLORIDA 34208 PHONE: 941-708-7450 EXT. 7331

MANATEE COUNTY TRAFFIC ENGINEERING DIVISION VISHAL KAKKAD 2101 47TH TERRACE EAST BRADENTON, FLORIDA 34203 PHONE: 941-749-3500 EXT. 7812

- PRIOR TO ORDERING MATERIALS, THE CONTRACTOR SHALL CONTACT THE TRAFFIC OPERATIONS DIVISION THROUGH THE PROJECT MANAGEMENT DIVISION AND VERIFY FIBER OPTIC BUFFER TUBES TO BE USED.
- DELIVER THREE SETS OF RECORD DRAWINGS AND TEST RECORDS FOR ALL FIBER, SUCH AS OTDR REPORTS AND ONE COMPACT DISC OF RECORD DRAWINGS TO MR. VISHAL KAKKAD, DIVISION MANAGER AT 2101 47TH TERRACE EAST BRADENTON, FL 34203. RECORD DRAWINGS MUST BE DELIVERED TO THE COUNTY 48 HOURS PRIOR TO SCHEDULING THE FINAL INSPECTION.
- UPON PASSING THE FINAL INSPECTION THE CONTRACTOR SHALL SEND A WRITTEN REQUEST TO THE PROJECT MANAGEMENT DIVISION AND THE TRANSPORTATION DIVISION TO TRANSFER MAINTENANCE FROM THE CONTRACTOR TO MANATEE COUNTY. MANATEE COUNTY WILL RESPOND WITHIN 5 WORKING DAYS TO ESTABLISH A TIME TABLE FOR THE TRANSFER OF MAINTENANCE RESPONSIBILITY.
- 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 811 OR 1-800-432-4770 AND COORDINATION WITH UNDERGROUND AND OVERHEAD UTILITY OWNERS A MINIMUM OF 2 FULL BUSINESS DAYS
- HAND DIG THE FIRST 48 INCHES OF THE HOLE WHERE ITS POLES OR CCTV POLES AND FIBER OPTIC PULL BOXES.
- ALL MATERIALS, EQUIPMENT, AND OTHER CONTRACTOR SUPPLIED ITEMS SHALL BE INSTALLED AND MAINTAINED ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS, UNLESS SPECIFICALLY DIRECTED OTHERWISE BY THE ENGINEER.
- 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.
- 10. GROUND RESISTANCE TESTER, OR OTHER APPROVED MEANS WILL BE USED TO ACQUIRE THE GROUND ROD RESISTANCE. THE ENGINEER, OR A REPRESENTATIVE OF THE ENGINEER FROM THE TRAFFIC OPERATIONS DIVISION STAFF SHALL BE PRESENT DURING
- 11. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW FOR ALL EQUIPMENT AND MATERIALS. THE CONTRACTOR SHALL FURNISH COPIES OF ALL DRAWINGS, SCHEDULES AND COMPLETE DESCRIPTIVE AND TECHNICAL DATA ON ALL ITEMS TO THE PROJECT MANAGER.

- 14. THE CONTRACTOR SHALL RETURN ALL DISTURBED AREAS TO PRE-CONSTRUCTION CONDITIONS WITHIN 72 HOURS OF THE CONSTRUCTION ACTIVITY, INCLUDING BUT NOT LIMITED TO: RESTORATION OF GRADE; REMOVAL OF CONSTRUCTION TRASH; REPLACEMENT OF SIDEWALK; REPLACEMENT OF PAVEMENT; RESTORATION OF DRIVEWAYS; RESTORATION OF LANDSCAPE IRRIGATION, ETC. THE CONTRACTOR SHALL VERIFY THE LOCATION AND FUNCTION OF EXISTING IRRIGATION LINES PRIOR TO INITIALIZING CONSTRUCTION PRIOR TO INITIALIZING CONSTRUCTION.
- 15. THE CONTRACTOR SHALL INSTALL ALL PROJECT INFRASTRUCTURE AND FIELD ELEMENTS WITHIN THE RIGHT-OF-WAY.
- 16. ALL MATERIALS NOT CLAIMED BY THE COUNTY SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF BY THE CONTRACTOR IN AREAS PROVIDED BY THE CONTRACTOR. OVERALL CLEANUP SHALL BE ACCOMPLISHED BY THE CONTRACTOR TO THE SATISFACTION OF THE COUNTY. ANY AND ALL EXPENSES INCURRED FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE FOR MOBILIZATION.

PRIOR TO CLAIMING OWNERSHIP OF ANY REMOVED MATERIALS, THE CONTRACTOR SHALL CONTACT GERARDO TRAVERSO, MANATEE COUNTY TRAFFIC DESIGN AT (941) 749-3500.

CONDUIT NOTES

- 1. ALL HDPE CONDUIT CONNECTIONS SHALL BE JOINED WITH A FUSION COUPLER OR FUSION SPLICE.
- 2. ADJUST THE CONDUIT RUNS TO AVOID ANY UTILITY CONFLICT IDENTIFIED BY THE LOCATES. ANY SIGNIFICANT CHANGE SHALL BE APPROVED BY THE ENGINEER.
- 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 CAUSED BY HIM.
- 4. PLACE ALL CONDUITS IN A MANNER THAT MINIMIZES DEFLECTION BOTH HORIZONTALLY AND VERTICALLY, THUS MINIMIZING 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.
- 5. #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.
- DURING TRENCHING OPERATIONS, THE CONTRACTOR SHALL AVOID LANDSCAPING WHICH MIGHT 6. BE AFFECTED BY SUCH OPERATIONS.
- CONTRACTOR SHALL CONTACT GERARDO TRAVERSO, MANATEE COUNTY TRAFFIC DESIGN AT (941) 749-3500, EXT. 7859. REGARDING ROUTE MARKER LABELING DESIGN. ROUTE MARKERS SHOULD BE INSTALLED PER SECTION 630-3.10 OF THE FDOT SPECIFICATIONS.

PAY ITEM NOTES

635-2-11, 635-2-12 & 635-2-13: PULL BOXES SHALL BE TRAFFIC BEARING, ALL POLYMER CONSTRUCTION (NOT CONCRETE), PULL BOXES AND LIDS. (QUAZITE OR ANOTHER EQUIVALENT FDOT APPROVED MANUFACTURER). 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.

STANDARD PULL BOX DIMENSIONS SHALL BE 17" x 30" x 12". PULL BOX LIDS SHALL BE STAMPED "MANATEE COUNTY TRAFFIC SIGNAL" ON THE COVER.

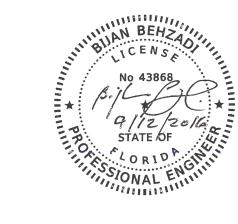
FIBER OPTIC PULL BOX DIMENSIONS SHALL BE 24" x 36" x 36". FIBER OPTIC PULL BOX LIDS SHALL BE STAMPED "MANATEE COUNTY FIBEROPTIC SYSTEM" ON THE COVER.

FIBER OPTIC SPLICE VAULT DIMENSIONS SHALL BE 30" x 60" x 48". FIBER OPTIC SPLICE VAULT LIDS SHALL BE STAMPED "MANATEE COUNTY FIBEROPTIC SYSTEM" ON THE COVER.

- SHALL INCLUDE ALL NECESSARY WAVETRONIX CLICKS UNITS FOR A COMPLETE AND OPERATIONAL SETUP.
- 660-3-12: SHALL INCLUDE WAVETRONIX SMARTSENSOR ADVANCE AS NOTED IN PLANS. THIS PAY ITEM WILL INCLUDE ALL NECESSARY MOUNTING BRACKETS. AND CLAMPING EQUIPMENT. SHALL INCLUDE ANY COST ASSOCIATED WITH PHYSICAL INSTALLATION OF SENSOR AND ANY SOFTWARE NECESSARY TO PROGRAM THE SENSOR.

PAY ITEM NOTES

- SHALL INCLUDE FURNISHING WAVETRONIX SMART SENSOR ADVANCE TO MANATEE COUNTY TRAFFIC ENGINEERING DIVISION.
- 671-2-11 CONTROLLER SHALL BE A NAZTEC 980 ATC. THE NAZTEC 980 ATC CONTROLLER SUPPLIED SHALL COME EQUIPPED WITH FOUR SERIAL PORTS AND ONE ETHERNET PORT.
- 671-2-40 SHALL INCLUDE FURNISHING NAZTEC 980 ATC TO MANATEE COUNTY TRAFFIC ENGINEERING DIVISION. THE NAZTEC 980 ATC CONTROLLER SHALL COME EQUIPPED WITH FOUR SERIAL PORTS AND ONE ETHERNET PORT.
- 682-1-113: CCTV DOME ENCLOSURE CAMERAS SHALL BE A BOSCH VG5-AUTODOME ITS1080P-30X4 CCTV CAMERA.
- 684-1-1: SHALL INCLUDE A RUGGEDCOM SWITCH MODEL NUMBER RSG920P 6GK6092-0PS23-0BAO-Z A05+B05+C02+D02 AND EXTERNAL POWER SUPPLY MODEL NUMBER RPS 1300, ALONG WITH ALL THE NECESSARY SYSTEM COMPONENTS FOR INTEGRATION INTO AN ETHERNET BASED FIBER OPTIC NETWORK.
- 660-6-121 & 660-6-122: SEE TECHNICAL SPECIAL PROVISIONS.



LEGEND

POLE MOUNTED ITS CABINET \bowtie



R MVDS

CCTV CAMERA

FIBER OPTIC PULL BOX ELECTRICAL PULL BOX

0 SPLICE BOX

EXISTING PULL BOX

EXISTING SPLICE BOX

2 EXISTING CONTROLLER CABINET

OPEN TRENCH CONDUIT

DIRECTIONAL BORE CONDUIT

BLUE TOAD

—ø— EXIST. OPEN TRENCH CONDUIT

--≠≠- EXIST. DIRECTIONAL BORE CONDUIT

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HDR Engineering, Inc. 2601 Cattlemen Road Suite 400 Sarasota, FL 34232-6233 FBPR Certificate of Authorization No. 4213

DATE 6/3/2016 PROJECT NO.

6052010



Manatee MANATEE COUNTY PUBLIC WORKS

DESIGN ENGINEER BLIAN BEHZADI

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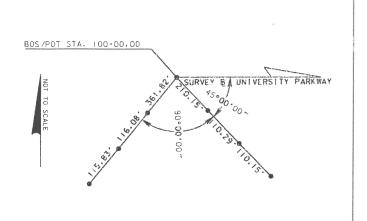
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PROJECT NOTES

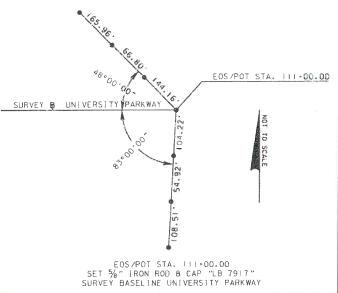
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IT-4

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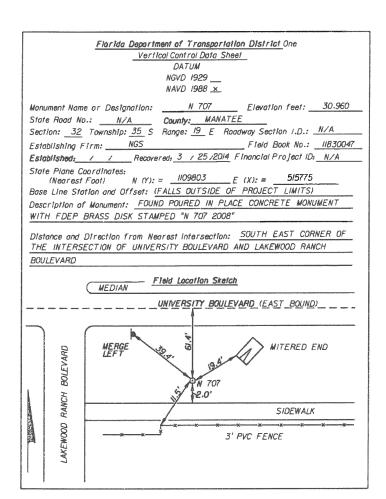


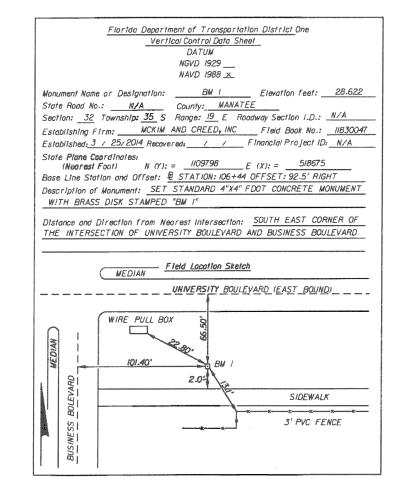
BOS/POT STA. 100+00.00 SET 5%" IRON ROD & CAP "LB 7917" SURVEY BASELINE UNIVERSITY PARKWAY

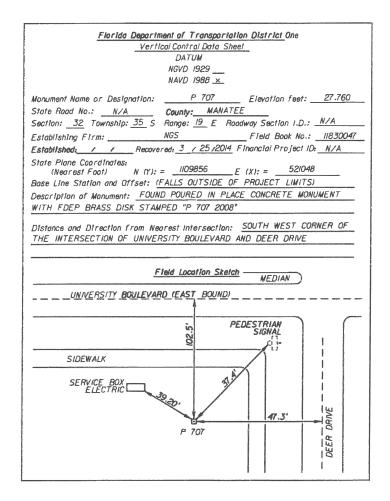












UNIVERSITY PARKWAY SURVEY PERFORMED BY: MCKIM & CREED, INC. SURVEY DATE: APRIL 14, 2014

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McKim & Creed, Inc. (LB 7917) 5701 Division Dr., Suite A Fort Myers, FL 33972

DATE 06/31/2016 PROJECT NO 6052010



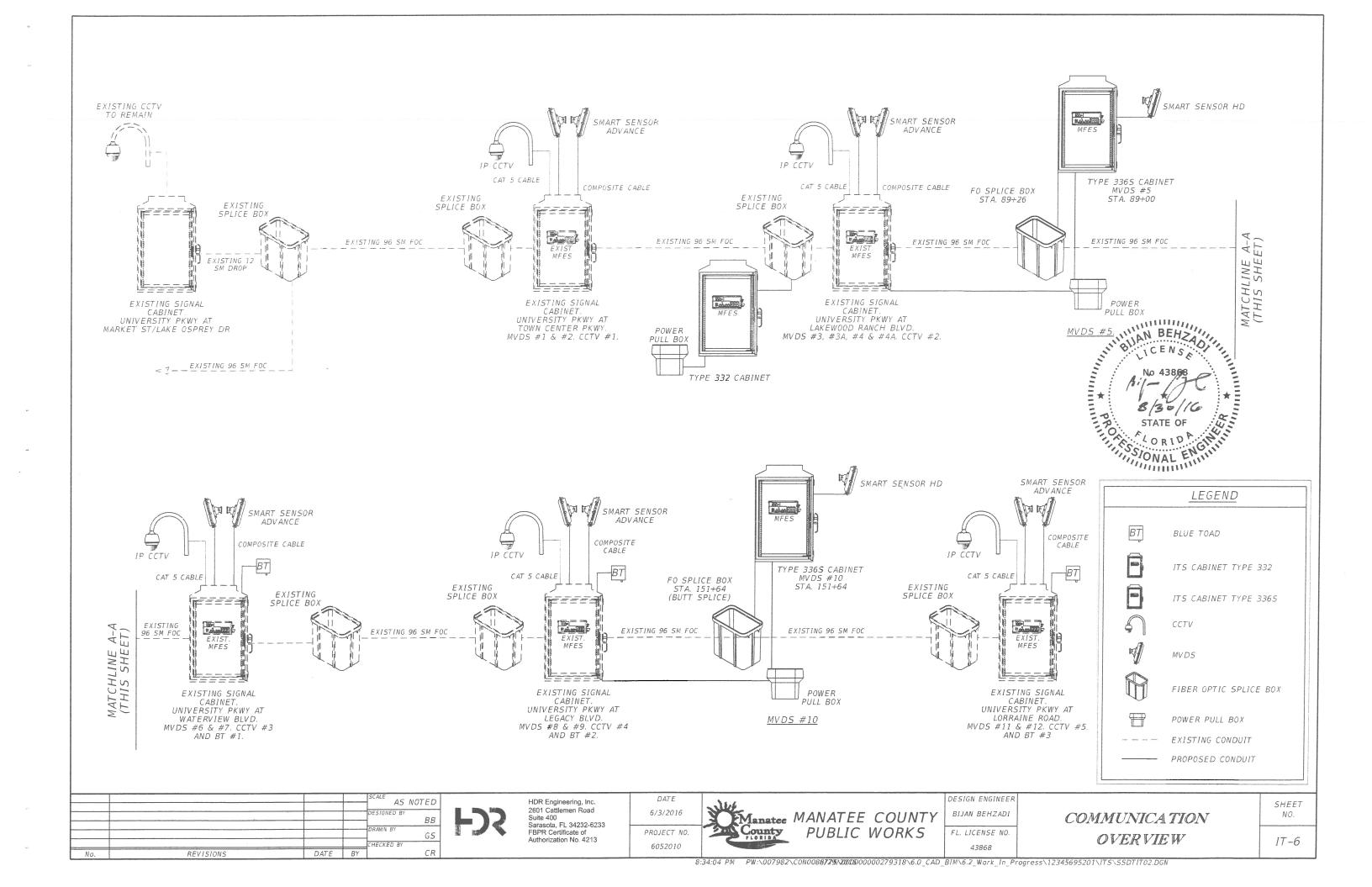
Manatee MANATEE COUNTY **PUBLIC WORKS**

PSM THOMAS HALSTEAD FL. LICENSE NO.

SURVEY REFERENCE POINTS

NO. IT-5

SHEET



TYPE 336S CABINET

DEVICE NAME	STATION	ATMS PLAN SHEET	MOUNTING TYPE
336S CABINET	STA. 89+00	4	POLE MOUNT
336S CABINET	STA. 151+64	8	POLE MOUNT

TYPE 332 CABINET

DEVICE	STATION &	ATMS PLAN	MOUNTING
NAME	OFFSET	SHEET	TYPE
332 CABINET	STA. 76+90, 84' RT	3A	GROUND MOUNT

SMART SENSOR ADVANCE SITES

DEVICE NAME	STATION & OFFSET	ATMS PLAN SHEET	COVERAGE
HD MVDS #1	ON EXISTING MAST ARM	2A	UNIVERSITY PKWY WB
HD MVDS #2	ON EXISTING MAST ARM	2A	UNIVERSITY PKWY EB
HD MVDS #3	ON EXISTING MAST ARM	3A	UNIVERSITY PKWY WB
HD MVDS #3A	ON EXISTING MAST ARM	3A	LAKEWOOD RANCH SB
HD MVDS #4	ON EXISTING MAST ARM	3A	UNIVERSITY PKWY EB
HD MVDS #4A	ON EXISTING MAST ARM	3A	LAKEWOOD RANCH NB
HD MVDS #6	ON EXISTING MAST ARM	5A	UNIVERSITY PKWY WB
HD MVDS #7	ON EXISTING MAST ARM	5A	UNIVERSITY PKWY EB
HD MVDS #8	ON EXISTING MAST ARM	7 <i>A</i>	UNIVERSITY PKWY WB
HD MVDS #9	ON EXISTING MAST ARM	7 <i>A</i>	UNIVERSITY PKWY EB
HD MVDS #11	ON EXISTING MAST ARM	11A	UNIVERSITY PKWY WB
HD MVDS #12	ON EXISTING MAST ARM	11A	UNIVERSITY PKWY EB

CCTV SITES

DEVICE NAME	STATION & OFFSET	ATMS PLAN SHEET	COVERAGE
CCTV #1	ON EXISTING MAST ARM	2A	UNIVERSITY PARKWAY & TOWN CENTER PARKWAY
CCTV #2	ON EXISTING MAST ARM	3A	UNIVERSITY PARKWAY & LAKEWOOD RANCH BLVD
CCTV #3	ON EXISTING MAST ARM	5A	UNIVERSITY PARKWAY & BUSINESS BLVD
CCTV #4	ON EXISTING MAST ARM	7 <i>A</i>	UNIVERSITY PARKWAY & DEER DR
CCTV #5	ON EXISTING MAST ARM	11A	UNIVERSITY PARKWAY & LORRAINE RD

MVDS SITES

DEVICE NAME	STATION & OFFSET	ATMS PLAN SHEET	COVERAGE
HD MVDS #5	STA. 89+00, 64' RT	4	UNIVERSITY PKWY WB/EB
HD MVDS #10	STA. 151+64, 65' RT	8	UNIVERSITY PKWY WB/EB

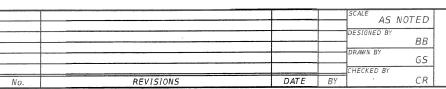
BLUETOOTH SITES

DEVICE NAME	STATION & OFFSET	ATMS PLAN SHEET	COVERAGE
BT #1	ON EXISTING MAST ARM	5A	UNIVERSITY PKWY WB/EB
BT #2	ON EXISTING MAST ARM	7 <i>A</i>	UNIVERSITY PKWY WB/EB
BT #3	ON EXISTING MAST ARM	11A	UNIVERSITY PKWY WB/EB

ITS POLE DATA

ITS PLAN SHEET	STATION & OFFSET / DIRECTION OF TRAVEL	MVDS #	ITS SUPPORT STRUCTURE TYPE	ITS POLE HEIGHT INCLUDING EMBEDMENT (FEET)*	MVDS MOUNTING HEIGHT (FEET) MEASURED FROM FINISHED GRADE
4	STA. 89+00, 73.33' RT / EB/WB	5	TYPE P-III	42'	30'
8	STA. 151+64, 65.16' RT / EB/WB	10	TYPE P-III	42'	30'

^{*} SEE FDOT DESIGN STANDARDS FOR FOUNDATION DETAIL.





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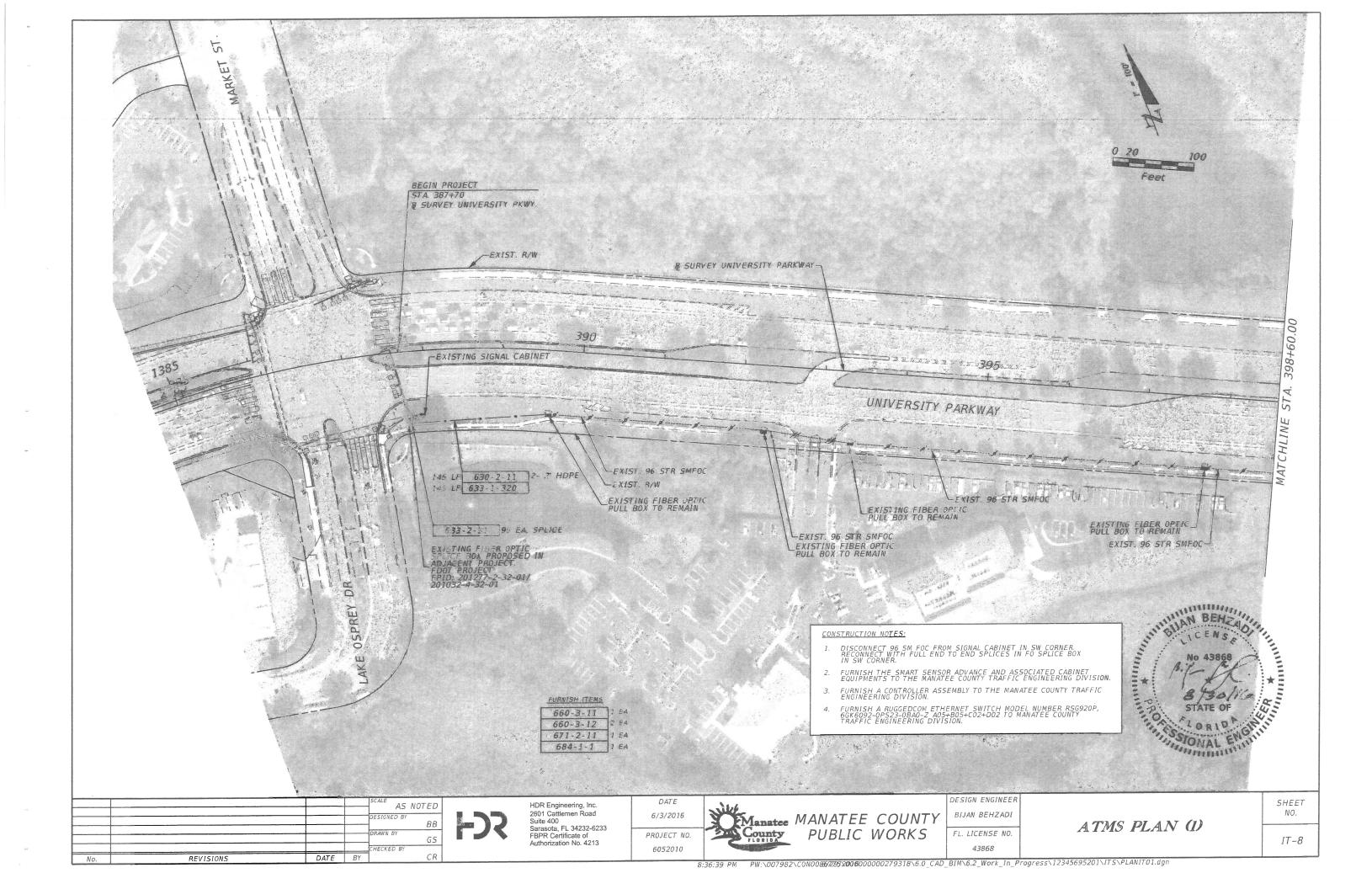


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DESIGN ENGINEER BIJAN BEHZADI FL. LICENSE NO.

ITS DEVICE SUMMARY SHEET SHEET NO. IT-7

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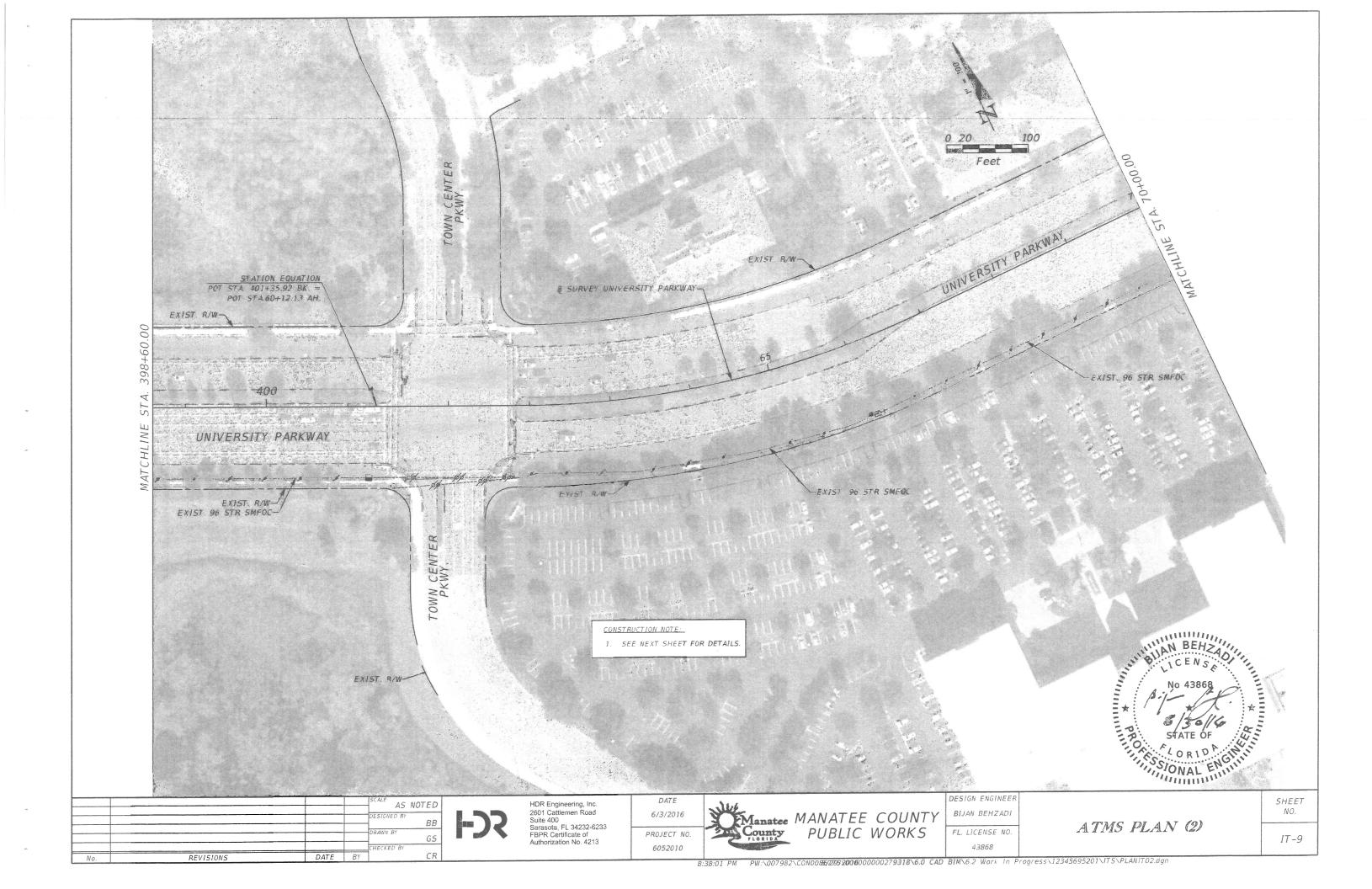
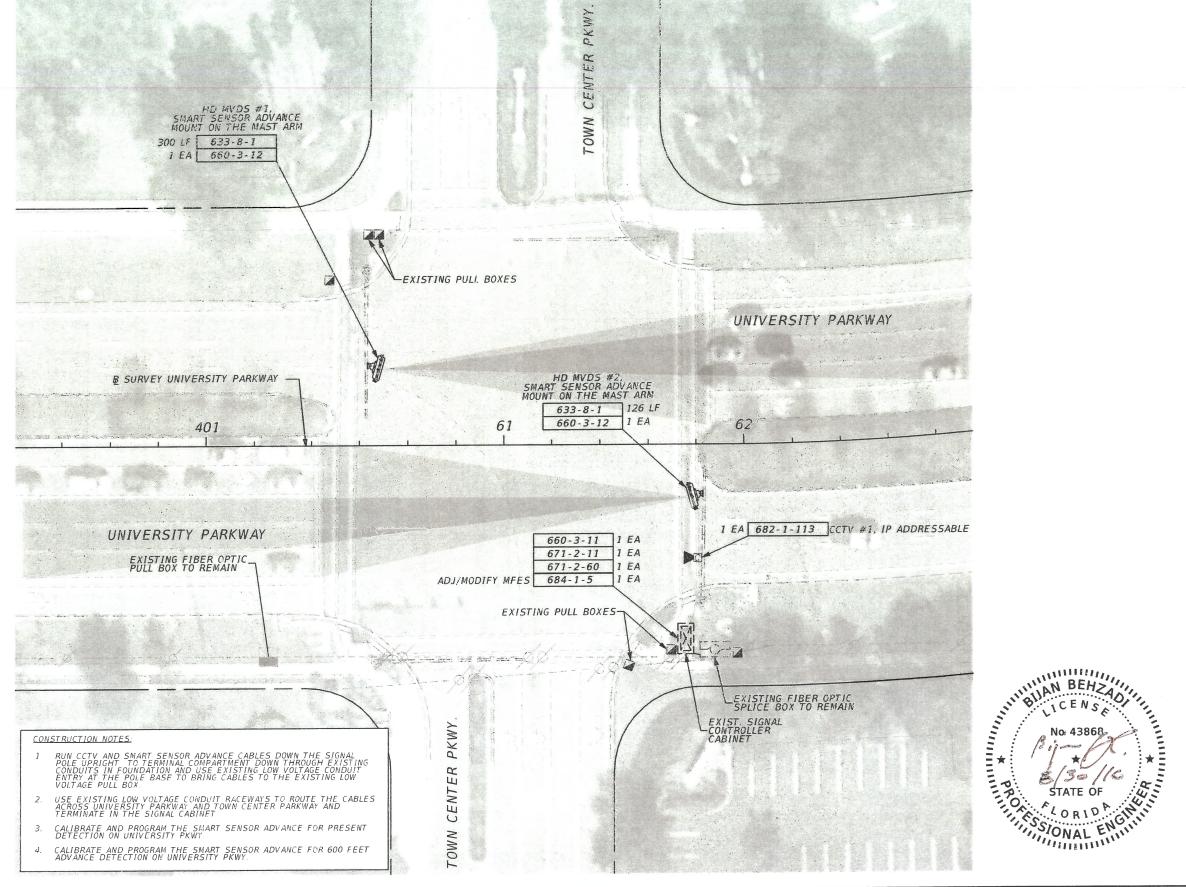




TABLE OF REFERENCES				
DESCRIPTION OF DETAIL	SHEET #			
SPLICE DIAGRAM	IT - 26			
CCTV AND SMART SENSOR ADVANCE MOUNTING DETAIL	IT - 29			
CCTV AND SMART SENSOR ADVANCE BLOCK DIAGRAM	IT - 31			



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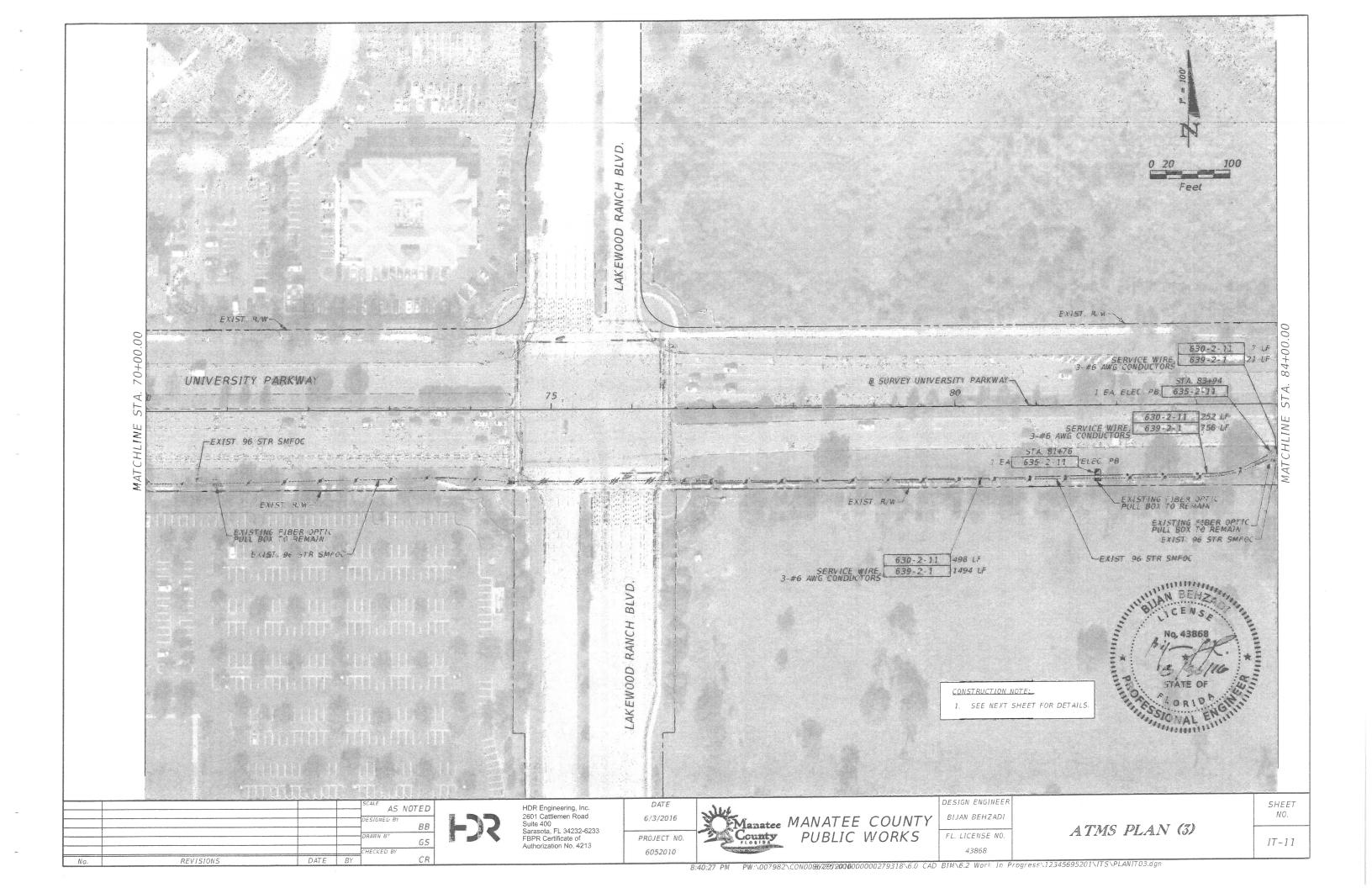
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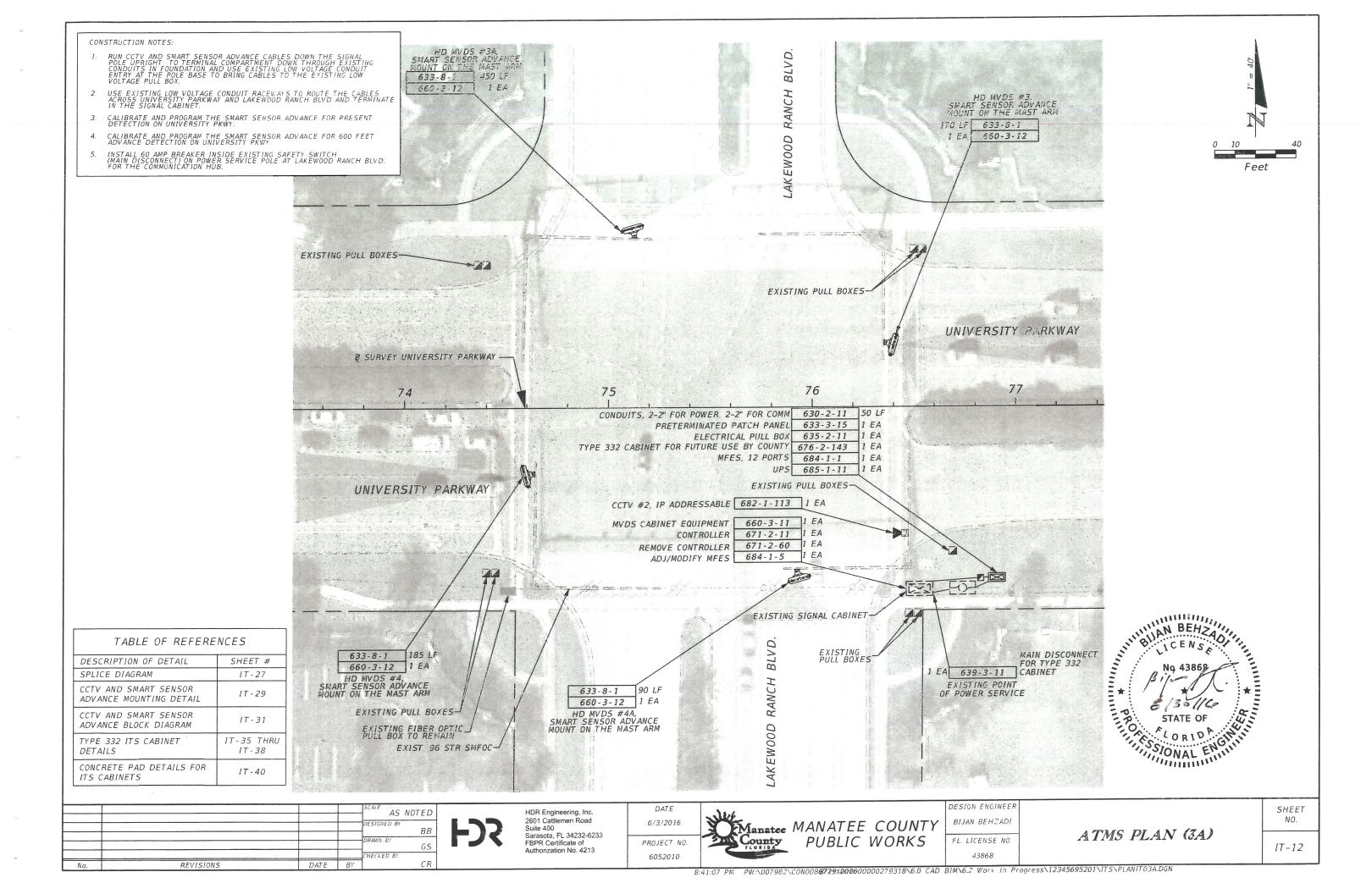
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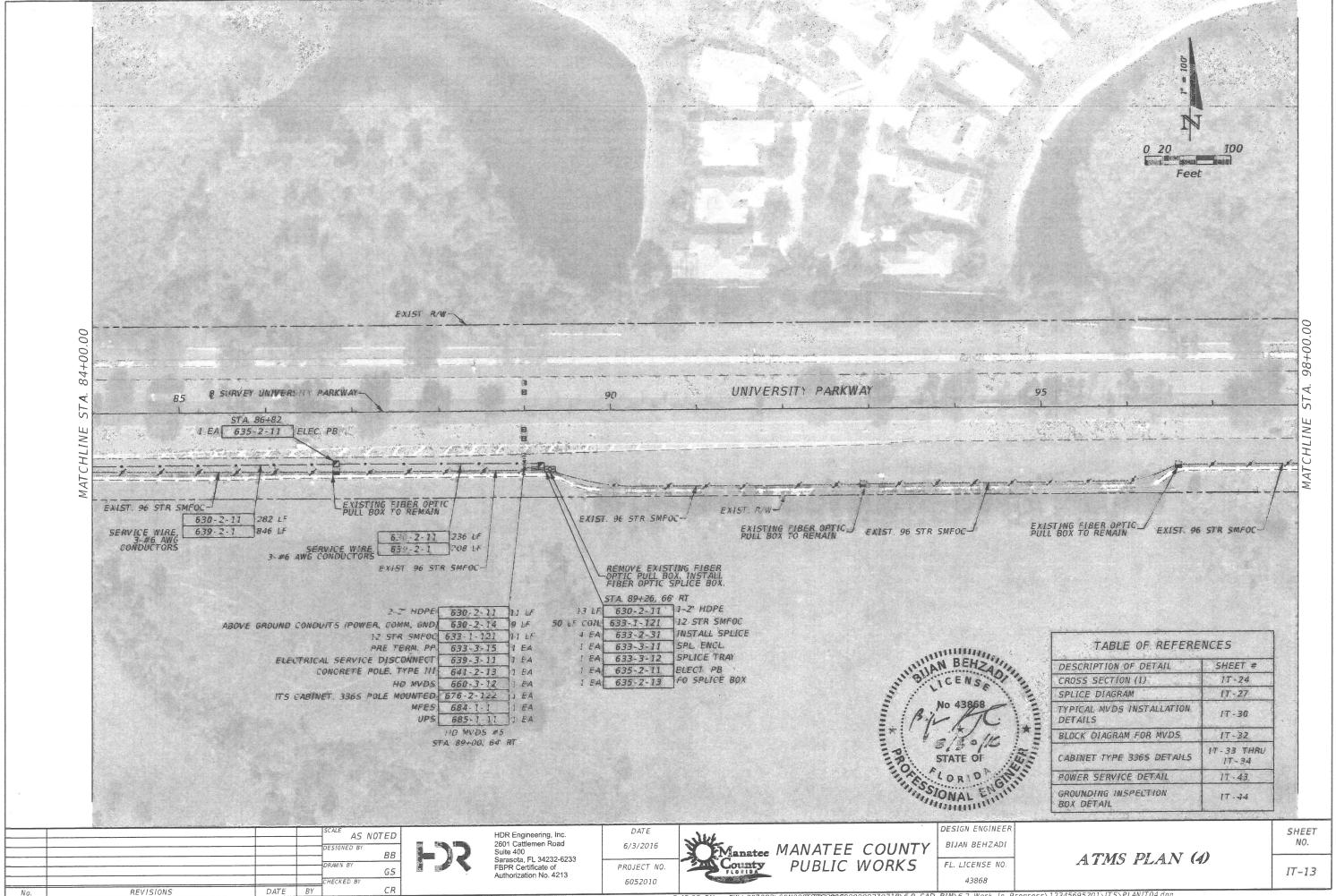
ATMS PLAN (2A)

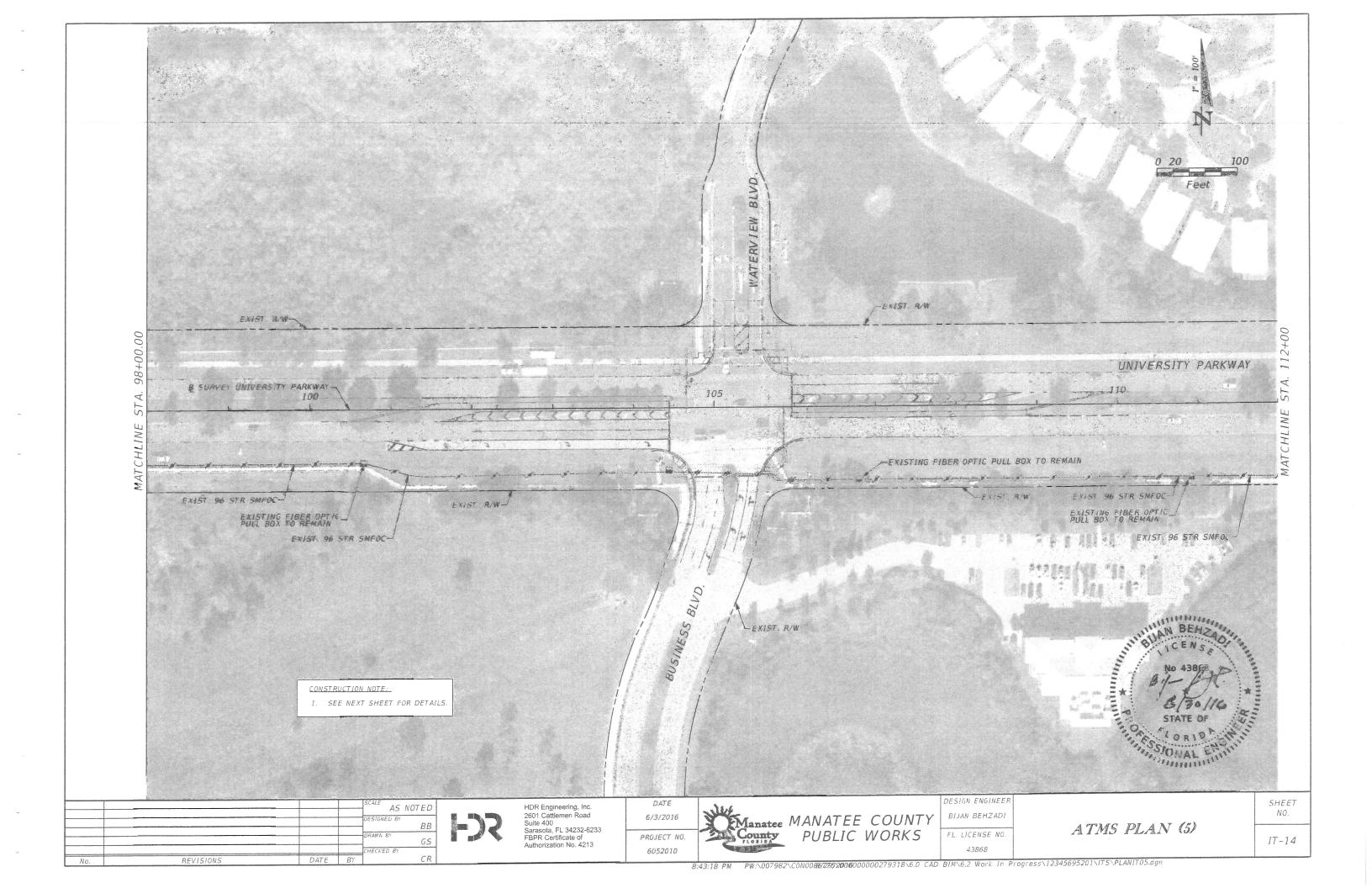
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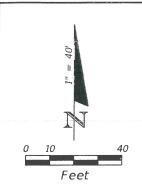
IT-10

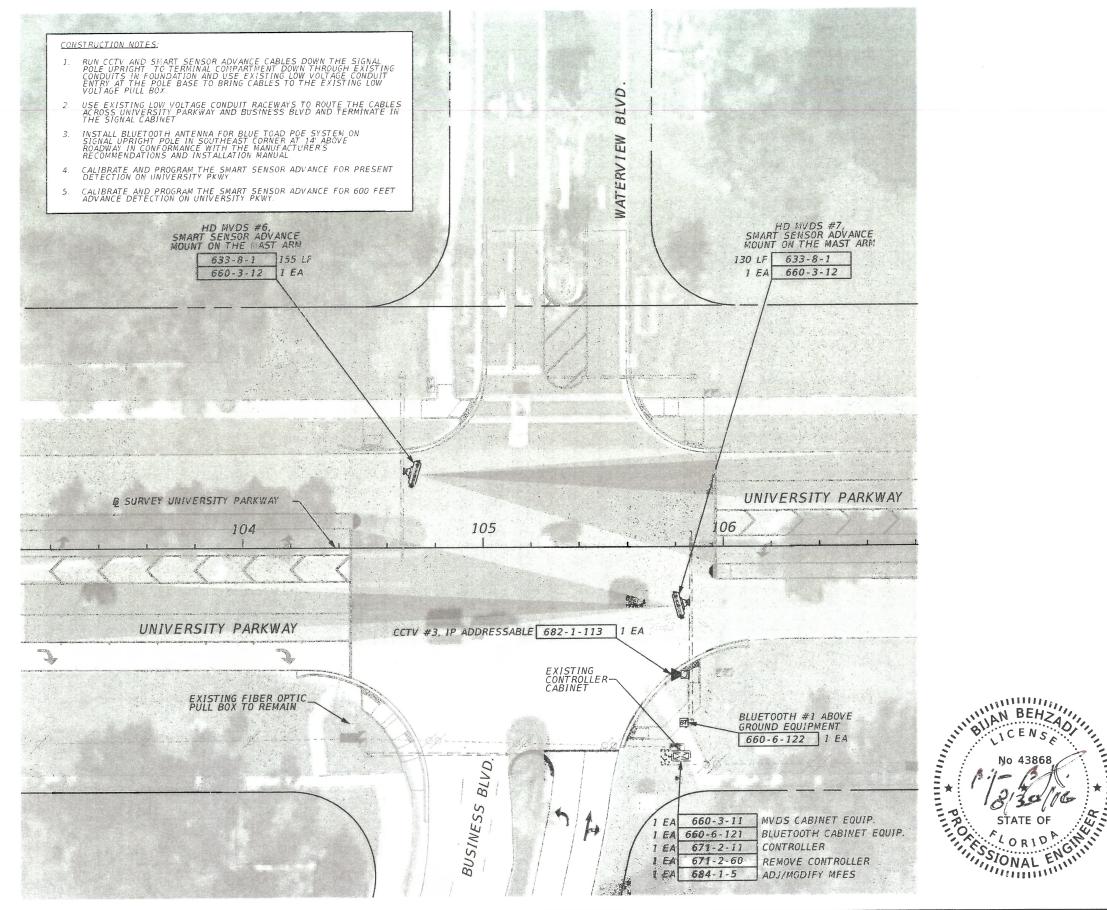












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TABLE OF REFERENCES

SHEET #

1T - 27

IT - 29

IT - 31

DESCRIPTION OF DETAIL

CCTV AND SMART SENSOR

CCTV AND SMART SENSOR

ADVANCE BLOCK DIAGRAM

ADVANCE MOUNTING DETAIL

SPLICE DIAGRAM

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DATE 6/3/2016 PROJECT NO.

6052010

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DESIGN ENGINEER BIJAN BEHZADI FL. LICENSE NO.

ATMS PLAN (5A)

SHEET NO.

IT-15

