

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

JINHAO MAI, P.E.
 LICENSE NO. 91872
 315 E. ROBINSON ST.
 SUITE 400
 ORLANDO, FL 32801
 PHONE 407.420.4200
 FAX 407.420.4242



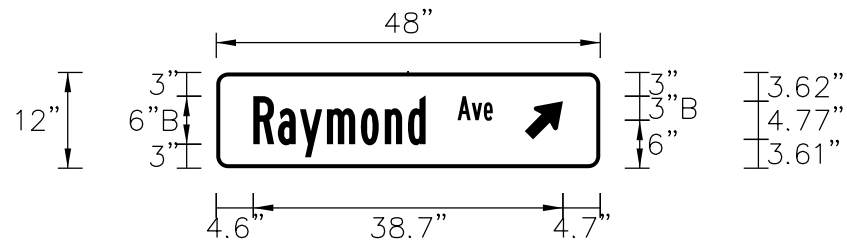
SEMINOLE COUNTY
 ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1

ROAD	COUNTY CIP No.
RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084

PALM SPRINGS DR.
 PAVEMENT MARKING DETAIL

SHEET NO.
 S-30

SIGN NAME 1		QTY 2	SIGN NUMBER	STATION(S)
PANEL	BORDER	D	10016+84	
WIDTH 4'-0"	WIDTH 0.5"	D	10019+21	
HEIGHT 1'-0"	RADII 1.5"			
LEGEND White	COLOR White			
COLOR Green				
SYMBOL(S)	ANGLE	X	Y	WID HT
AR_Type D	315	35.3	3.6	4 6
SIGN NUMBER	NUMBER OF POSTS	CLEARANCE Edge Of Land	COLUMN SIZE	AVERAGE LENGTH

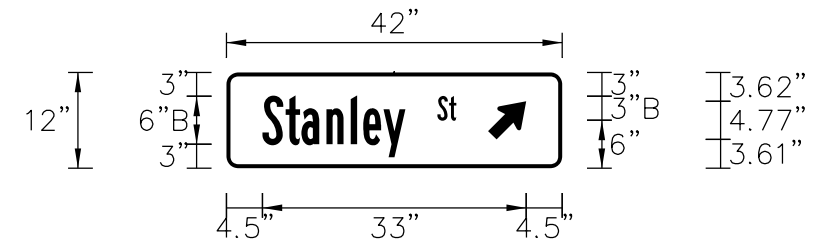


NO. OF LIGHT FIXTURES	FIXTURE SPACING	PHOTOMETRIC CURVE	WATT	VOLTAGE

COPY	R	a	y	m	o	n	d	A	v	e	L			
SPACE	4.6	3.1	2.8	3.4	4.3	3	2.9	2.2	4	1.8	1.5	1.1	13.4	29.9

COPY														
SPACE														
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SIGN NAME 2		QTY 2	SIGN NUMBER	STATION(S)
PANEL	BORDER	I	10018+27	
WIDTH 3'-6"	WIDTH 0.5"	F	30022+62	
HEIGHT 1'-0"	RADII 1.5"			
LEGEND White	COLOR White			
COLOR Green				
SYMBOL(S)	ANGLE	X	Y	WID HT
AR_Type D	315	32.7	3.6	4 6
SIGN NUMBER	NUMBER OF POSTS	CLEARANCE Edge Of Land	COLUMN SIZE	AVERAGE LENGTH

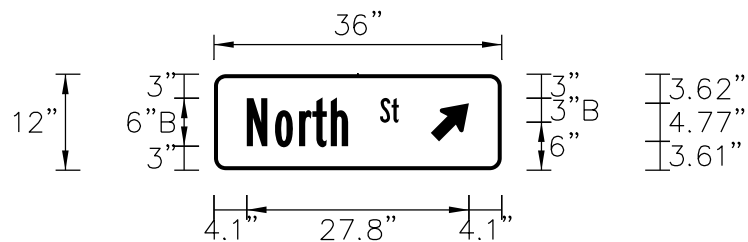


NO. OF LIGHT FIXTURES	FIXTURE SPACING	PHOTOMETRIC CURVE	WATT	VOLTAGE

COPY	s	t	a	n	l	e	y	S	t	L			
SPACE	4.5	2.9	2	3.1	3.1	1.6	2.5	2.8	4	1.4	0.9	13.3	24.2

COPY														
SPACE														
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SIGN NAME 3		QTY 2	SIGN NUMBER	STATION(S)
PANEL	BORDER	F	20014+95	
WIDTH 3'-0"	WIDTH 0.5"	F	20016+76	
HEIGHT 1'-0"	RADII 1.5"			
LEGEND White	COLOR White			
COLOR Green				
SYMBOL(S)	ANGLE	X	Y	WID HT
AR_Type D	315	27.1	3.6	4 6
SIGN NUMBER	NUMBER OF POSTS	CLEARANCE Edge Of Land	COLUMN SIZE	AVERAGE LENGTH

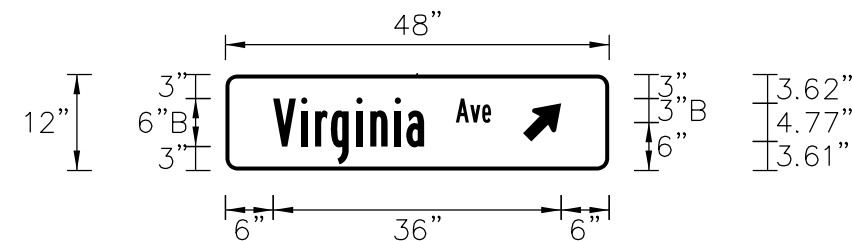


NO. OF LIGHT FIXTURES	FIXTURE SPACING	PHOTOMETRIC CURVE	WATT	VOLTAGE

COPY	N	o	r	t	h	S	t	L			
SPACE	4.1	3.5	3	1.7	2.3	2.2	4	1.4	0.9	12.9	19

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SPACE														
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SIGN NAME 4		QTY 1	SIGN NUMBER	STATION(S)
PANEL	BORDER	H	20015+97	
WIDTH 4'-0"	WIDTH 0.5"			
HEIGHT 1'-0"	RADII 1.5"			
LEGEND White	COLOR White			
COLOR Green				
SYMBOL(S)	ANGLE	X	Y	WID HT
AR_Type D	315	37.2	3.6	4 6
SIGN NUMBER	NUMBER OF POSTS	CLEARANCE Edge Of Land	COLUMN SIZE	AVERAGE LENGTH



NO. OF LIGHT FIXTURES	FIXTURE SPACING	PHOTOMETRIC CURVE	WATT	VOLTAGE

COPY	v	i	r	g	i	n	i	a	A	v	e	L			
SPACE	6	3.5	1.7	2	3.2	1.7	3.1	1.4	2.2	4	1.8	1.5	1.1	14.8	27.2

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SPACE														
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SEMINOLE COUNTY
 ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1

ROAD	COUNTY CIP No.
RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084

GUIDE SIGN WORKSHEET

SHEET NO.
S-31

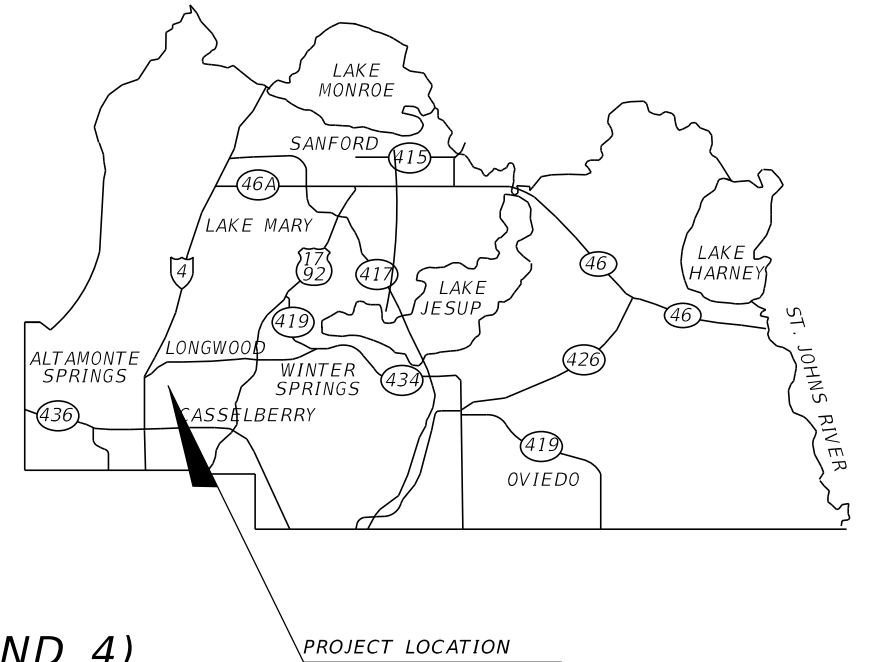
*SEMINOLE COUNTY
ENGINEERING DIVISION*

CONTRACT PLANS



*ROLLING HILLS AREA ROADWAYS PHASE 1
SEMINOLE COUNTY CIP No. 01907084 (DISTRICT 3 AND 4)*

SIGNALIZATION PLANS



INDEX OF SIGNALIZATION PLANS

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T-21	GUIDE SIGN WORK SHEET
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**90% PLANS
SEPTEMBER 2022**

*SIGNALIZATION PLANS
ENGINEER OF RECORD:
JINHAO MAI, PE
PE LICENSE NO. 91872
HDR ENGINEERING, INC.
315 E. ROBINSON STREET, SUITE 400
ORLANDO, FL 32801*

*COUNTY PROJECT MANAGERS:
ANGELA CARDONA, PE
ENGINEERING DIVISION
100 EAST 1st STREET
SANFORD, FL 32771*

<i>FISCAL YEAR</i>	<i>SHEET NO.</i>
21-22	T-1

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS														TOTAL THIS SHEET		GRAND TOTAL			
			T-5		T-6		T-8		T-9		T-13		T-14		T-15		T-16		PLAN	FINAL	PLAN	FINAL
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL						
630-2-11	CONDUIT, (F&I), (OPEN TRENCH)	LF	70		166		139		57		57							489		489		
630-2-12	CONDUIT, (F&I), (DIRECTIONAL BORE)	LF			794								1357		200			2351		2351		
632-7-1	SIGNAL CABLE - NEW OR RECONSTRUCTED INTERSECTION, (F&I)	PI					1											1		1		
632-7-6	SIGNAL CABLE - REMOVE - INTERSECTION	PI			1													1		1		
633-1-122	FIBER OPTIC CABLE, F&I, UNDERGROUND, 13-48 FIBERS	LF								272								272		272		
633-1-123	FIBER OPTIC CABLE, F&I, UNDERGROUND, 72 FIBERS	LF								1485		1632		1545		1500		6162		6162		
633-1-620	FIBER OPTIC CABLE, REMOVE, UNDERGROUND	LF								1285		1430		1445		1300		5460		5460		
633-2-31	FIBER OPTIC CONNECTION, INSTALL, SPLICE	EA								98						4		102		102		
633-2-32	FIBER OPTIC CONNECTION, INSTALL, TERMINATION	EA								20								20		20		
633-3-11	FIBER OPTIC CONNECTION HARDWARE, F&I, SPLICE ENCLOSURE	EA								1								1		1		
633-3-12	FIBER OPTIC CONNECTION HARDWARE, F&I, SPLICE TRAY	EA								8								8		8		
633-3-16	FIBER OPTIC CONNECTION HARDWARE, F&I, PATCH PANEL - FIELD TERMINATED	EA								1								1		1		
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	2		7		1		1									11		11		
635-2-12	PULL & SPLICE BOX, F&I, 24" X 36" COVER SIZE	EA								1		4		1				6		6		
635-2-13	PULL & SPLICE BOX, F&I, 36" ROUND COVER SIZE	EA								1								1		1		
635-2-14	PULL & SPLICE BOX, F&I, 17" X 30" COVER SIZE	EA			4		6											10		10		
639-1-122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS					1											1		1		
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS			1													1		1		
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF			33		15											48		48		
639-2-6	ELECTRICAL SERVICE WIRE, REMOVE	LF			100													100		100		
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPR P-11 SERVICE POLE	EA					1											1		1		
641-2-60	PRESTRESSED CONCRETE POLE, COMPLETE POLE REMOVAL - PEDESTAL/SERVICE POLE	EA			1													1		1		
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL	EA					8											8		8		
646-1-42	ALUMINUM SIGNALS POLE, RELOCATE, PEDESTRIAN DETECTOR POST	EA	1															1		1		
646-1-60	ALUMINUM SIGNALS POLE, REMOVE	EA			3													3		3		
649-21-18	STEEL MAST ARM ASSEMBLY, F&I, DOUBLE ARM 70' -50'	EA					1											1		1		
649-21-25	STEEL MAST ARM ASSEMBLY, F&I, DOUBLE ARM 78' -60'	EA					1											1		1		
649-26-3	STEEL MAST ARM ASSEMBLY, REMOVE, SHALLOW FOUNDATION-BOLT ON ATTACHMENT	EA			1													1		1		
650-1-14	VEHICULAR TRAFFIC SIGNAL, F&I ALUMINUM, 3 SECTION, 1 WAY	AS			7													7		7		
650-1-16	VEHICULAR TRAFFIC SIGNAL, F&I ALUMINUM, 4 SECTION, 1 WAY	AS			4													4		4		
650-1-19	VEHICULAR TRAFFIC SIGNAL, F&I ALUMINUM, 5 SECTION CLUSTER, 1 WAY	AS			1													1		1		
653-1-11	PEDESTRAIN SIGNAL, (F&I), LED COUNTDOWN, 1-WAY	AS			8													8		8		
660-1-109	LOOP DETECTOR INDUCTIVE, F&I, TYPE 9	EA					2											2		2		
660-2-102	LOOP ASSEMBLY, (F&I), TYPE B	AS			4													4		4		
660-2-106	LOOP ASSEMBLY, (F&I), TYPE F	AS	4		9				3									16		16		
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F&I, CABINET EQUIPMENT	EA					1											1		1		
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA			1													1		1		
663-1-121	SIGNAL PRIORITY AND PREEMPTION SYSTEM, F&I, GPS, CABINET ELECTRONICS	EA					1											1		1		
663-1-122	SIGNAL PRIORITY AND PREEMPTION SYSTEM, F&I, GPS, DETECTOR	EA					1											1		1		
663-1-400	SIGNAL PRIORITY AND PREEMPTION SYSTEM, RELOCATE	EA			2													2		2		
665-1-12	PEDESTRIAN DETECTOR, (F&I), ACCESSIBLE	EA					8											8		8		
670-5-112	TRAFFIC CONTROLLER ASSEMBLY, F&I, NEMA, 2 PREEMPTION	AS					1											1		1		
670-5-600	TRAFFIC CONTROLLER ASSEMBLY, REMOVE CONTROLLER WITH CABINET	AS			1													1		1		
684-1-1	MANAGED FIELD ETHERNET SWITCH, F&I	EA					1											1		1		
685-1-13	UNINTERRUPTIBLE POWER SUPPL. F&I, LINE INTERACTIVE	EA					1											1		1		
700-3-201	SIGN PANEL, F&I, OVERHEAD MOUNT, UP TO 12 SF	EA			4													4		4		
700-5-22	INTERNALLY ILLUMINATED SIGN, F&I, OVERHEAD MOUNT, 12-18 SF	EA			4													4		4		
700-11-391	ELECTRONIC DISPLAY SIGN, F&I, OVERHEAD MOUNT, AC POWERED, BLANK OUT SIGN, < 12 SF	AS			2													2		2		

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SEMINOLE COUNTY
 ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1

ROAD: RAYMOND AVE., NORTH ST., PALM SPRINGS DR.
 COUNTY CIP No.: 01907084

TABULATION OF QUANTITIES

SHEET NO.
T-2

SIGNALIZATION NOTES

1. THE CONTRACTOR SHALL CONTACT SEMINOLE COUNTY TRAFFIC ENGINEERING AT LEAST 48 HOURS PRIOR TO BEGINNING ANY WORK IN ANY INTERSECTIONS MAINTAINED BY SEMINOLE COUNTY.
2. UNLESS OTHERWISE NOTED, ALL REMOVED EQUIPMENT SHALL BE TURNED OVER TO SEMINOLE COUNTY EXCEPT CONCRETE POLES, WHICH SHALL BE DISPOSED OF BY THE CONTRACTOR.
3. THE CONTRACTOR SHALL NOTIFY SEMINOLE COUNTY TRAFFIC ENGINEERING 24 HOURS PRIOR TO DESTROYING EXISTING ROADWAY SENSORS. AT NO TIME IS THE CONTRACTOR TO CHANGE ANY SIGNAL TIMINGS WITHOUT COMMUNICATING WITH SEMINOLE COUNTY TRAFFIC ENGINEERING. IF LOOPS (NOT TEMPORARY DETECTION) ARE FUNCTIONING, RECALLS MAY BE REMOVED BY THE CONTRACTOR WITH APPROVAL FROM SEMINOLE COUNTY TRAFFIC ENGINEERING.
4. THE MAINTENANCE RESPONSIBILITY FOR ALL SIGNALS WITHIN THE CONSTRUCTION LIMITS SHALL REMAIN THE FULL RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL HAVE A I.M.S.A. LEVEL 2 SIGNAL TECHNICIAN ON SITE THROUGH ALL PHASES OF CONSTRUCTION AND ON CALL WITH A 2 HOUR MAXIMUM RESPONSE TIME.
5. A TERMINAL BLOCK WITH A MINIMUM OF A 6 MM WIRE INSERTION ORIFICE SHALL BE USED TO CONNECT CABLES AT THE SIGNAL POLE HAND HOLE WITH A MAXIMUM OF THREE 14 GAUGE CONDUCTORS PER LUG. AT LEAST 6' OF SLACK CABLE SHALL BE AVAILABLE FOR TROUBLESHOOTING.
6. INDIVIDUAL PEDESTRIAN POLES SHALL BE THE ALUMINUM BREAK-AWAY TYPE.
7. ALL VEHICLE AND PEDESTRIAN DISPLAYS, STREET ID'S, LUMINAIRES AND BLANK OUT SIGNS SHALL BE L.E.D. ALL PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE.
8. THE LUMINARIES/ILLUMINATED STREET ID'S SHALL BE POWERED FROM A SEPARATE BREAKER LOCATED IN THE BREAKER BOX, NOT THE SIGNAL CABINET. ALL PHOTOCELLS SHALL BE MOUNTED ON THE BREAKER BOX AND BE 15 AMPERE CAPACITY MINIMUM. ALL ILLUMINATED STREET ID'S SHALL BE MOUNTED PERPENDICULAR TO THE ROADWAY.
9. ALL CABLES WILL HAVE THREE SPARE CONDUCTORS.
10. CONDUIT SHALL BE INSTALLED ON ALL 4 SIDES OF THE INTERSECTION, CONDUIT THAT STARTS ON THE CABINET CORNER SHALL HAVE FOUR EACH, 2" INCH CONDUIT FOR EACH CROSSING OR BORE.
11. THE LOAD CENTER SHALL BE 125AMP, 8 SPACE, NEMA 3R RAINPROOF ENCLOSURE.
12. TYPE "F" LOOPS SHALL BE 6' X 40' AND SHALL EXTEND 5' PAST THE STOP BAR. WHEN "F" LOOPS ARE 6' X 20' AS SHOWN ON PLAN SET THE LOOP SHOULD BE 1' BEHIND STOP BAR.
13. EXISTING CONTROLLER CABINET SHALL BE RETURNED TO SEMINOLE COUNTY TRAFFIC ENGINEERING. THE CONTROLLER ASSEMBLY SHALL CONSIST OF A NEMA TS2 TYPE 6 CABINET (70006-TS2/FLPP64-E2-WCD9110600) AND A TS2-1 ATC CONTROLLER THAT IS COMPATIBLE WITH SEMINOLE COUNTY'S ADVANCED TRAFFIC MANAGEMENT SYSTEM. THE CONTROLLER ASSEMBLY SHALL HAVE ALL THE NECESSARY HARDWARE TO COMMUNICATE WITH THE SIGNAL SYSTEM.
14. THE CONTROLLER ASSEMBLY UPS SHALL BE LINE-INTERACTIVE AND COMPATIBLE WITH SEMINOLE COUNTY'S ADVANCE TRAFFIC MANAGEMENT SYSTEM.
15. FIBER OPTIC CABLE/INTERCONNECT: EACH SIGNAL CABINET SHALL HAVE A 24" X 36" PULL BOX IN FRONT OF THE CABINET WITH 100FT OF SLACK. CONNECTION TO THE SIGNAL CABINET SHALL BE A 12 FIBER SINGLE-MODE DROP WITH T CONNECTORS AND A MID-ENTRY SPLICE INTO THE BACKBONE CABLE. NO FIBER STRAND SHALL BE LEFT UNTERMINATED OR UN-SPLICED UNLESS OTHERWISE SPECIFIED. FIBER OPTIC CABLE IS CONSIDERED "CRITICAL COMMUNICATIONS" AND SHALL BE IN SERVICE AT ALL TIMES, CUT OVER TO NEW FIBER SHALL BE DONE DURING OFF PEAK HOURS AND COORDINATED WITH SEMINOLE COUNTY TRAFFIC ENGINEERING (407-665-5677).
16. EXISTING DETECTION SHALL BE MAINTAINED FOR ALL ACTUATED MOVEMENTS. IF TEMPORARY OVERHEAD DETECTION IS USED, THE CONTRACTOR SHALL WIRE ISOLATION PANELS BETWEEN THE CONTROLLER ASSEMBLY AND OVERHEAD DETECTION WITHIN 24 HRS OF COMPROMISING EXISTING DETECTION.
17. EXISTING OPTICOM SHALL REMAIN OPERATIONAL DURING CONSTRUCTION. ALL OPTICOM DETECTORS ON MAST ARMS SHALL BE MOUNTED IN AN UPRIGHT POSITION. THE OPTICOM MULTIMODE PHASE SELECTOR SHALL BE A PLUG-IN FOUR CHANNEL, DUAL PRIORITY, MULTIMODE ENCODED SIGNAL DEVICE DESIGNED FOR USE WITH BOTH OPTICOM INFRARED EMITTERS AND DETECTORS AND OPTICOM GPS RADIO/GPS INTERSECTION UNITS AND VEHICLE EQUIPMENT. SYSTEM SHALL INCLUDE AUXILIARY INTERFACE PANEL (AIP) AND GPS RADIO UNIT MOUNTED TO THE NEAREST MAST ARM OR STRAIN POLE. THE ASSEMBLY AND INCLUDED EQUIPMENT SHALL BE COMPATIBLE WITH THE SEMINOLE COUNTY'S FIRE DEPARTMENT STANDARDS.
18. CONTACT SEMINOLE COUNTY TRAFFIC ENGINEERING (TONY MOZICK 407-665-5588) TO OBTAIN CABINET BASE TEMPLATE PRIOR TO CONSTRUCTING CABINET BASE.


REVISIONS				JINHAO MAI, P.E. LICENSE NO. 91872 315 E. ROBINSON ST. SUITE 400 ORLANDO, FL 32801 PHONE 407.420.4200 FAX 407.420.4242	SEMINOLE COUNTY ENGINEERING DIVISION ROLLING HILLS AREA ROADWAYS PHASE 1		SHEET NO. T-3
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD	COUNTY CIP No.	
				RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084	GENERAL NOTES	

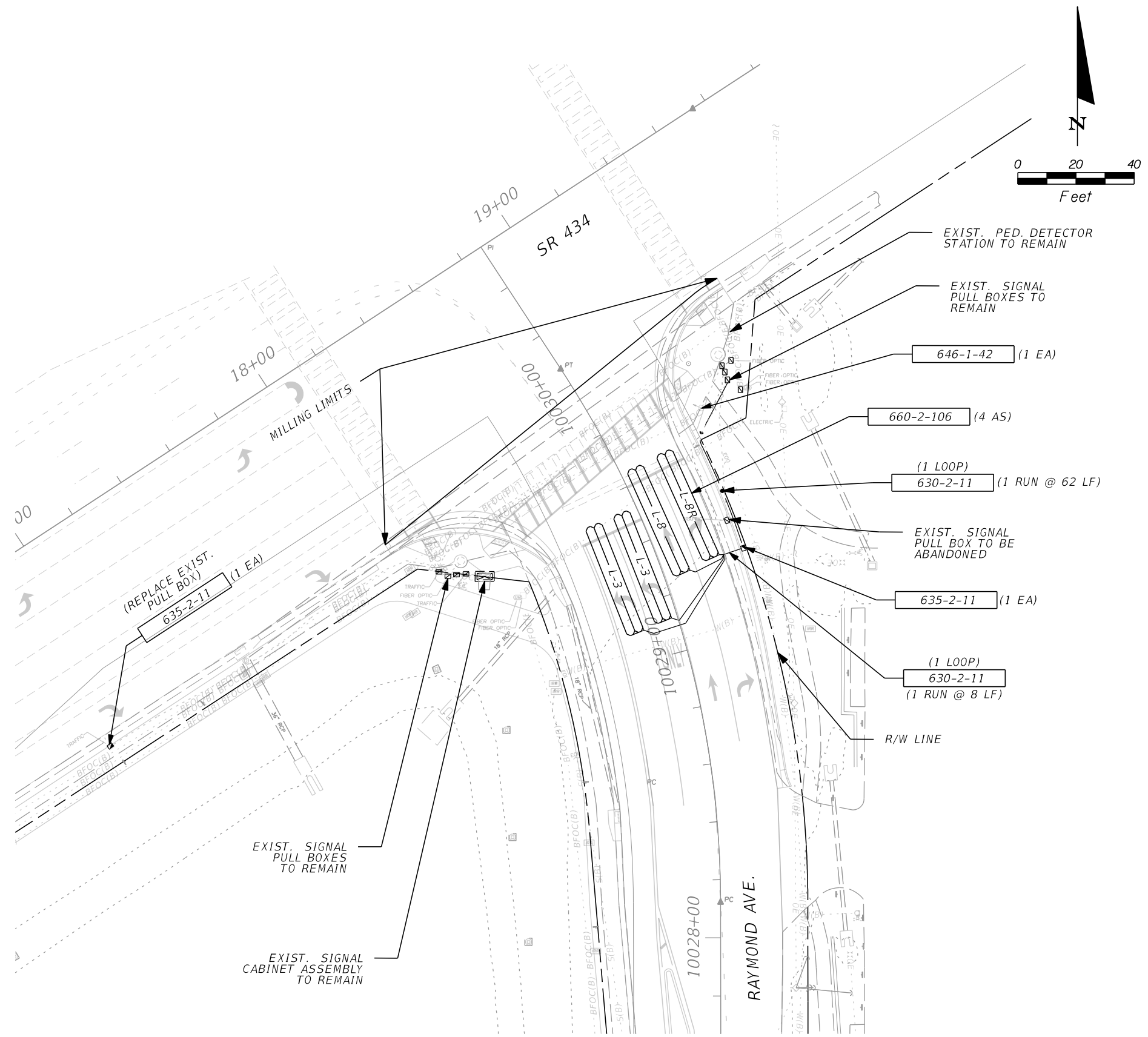
DUKE ENERGY POWER SERVICE NOTES:

DUKE ENERGY TRANSMISSION RGB NOTES:

1. WHEN THE ORIGINAL METER IS REMOVED, IT WILL DISCONNECT THE ACCOUNT ASSOCIATED WITH IT.
2. SEMINOLE COUNTY OR THE NEW ACCOUNT OWNER WILL NEED TO SET UP A NEW ACCOUNT AT THE NEW LOCATION. THEY WILL NEED TO CONTACT DUKE ENERGY SI (SERVICE INSTALLATION) / CONSTRUCTION CALL CENTER GROUP DIRECTLY AT: 866-372-4663.
3. THEY WILL NEED TO PROVIDE THE NEW PERMITTING ADDRESS WHERE THE SERVICE WILL BE LOCATED AND ADVISE THE CALL CENTER REPRESENTATIVE THAT A NEW METERED SERVICE IS BEING REQUESTED.
4. A NEW WORK ORDER WILL BE RECEIVED FOR THE REQUEST FOR THE NEW METERED SERVICE.
5. THE ADDRESS FOR THE NEW METERED SERVICE WILL NEED TO BE THE SAME THAT IS LISTED ON THE SELF-INSPECTION FORM DUKE ENERGY REQUIRES.
6. WE WILL NEED TO RECEIVE A COMPLETED SELF-INSPECTION FORM BEFORE THE METER CAN BE INSTALLED.
7. THE POP-RIVETED LABEL ON THE NEW METER CAN WILL NEED TO MATCH THE ADDRESS OF THE NEW ACCOUNT.
8. ALSO THE NEW SERVICE WILL NEED TO BE BROUGHT TO THE DESIGNATED PEDESTAL AND LEAVE 6' TAIL SO THAT OUR LINEMAN WILL HAVE ENOUGH WIRING TO WORK WITH WHEN IT IS TAPPED UP INTO THE PEDESTAL.

1. CONTACT: GEORGE BAXTER @ (727) 483-3242.
2. NOTIFICATIONS TO DET:
 - a. WHEN REQUESTING OUTAGES, THE CONTRACTOR MUST FOLLOW THE FOLLOWING GUIDELINES:
 - i. THE ROADWAY CONTRACTOR MUST PROVIDE AN OUTAGE PACKAGE INDICATING: THE SCOPE OF WORK, START TO FINISH SCHEDULE, TYPE OF EQUIPMENT UTILIZED, CONTRACTOR TEAM CONTACT INFORMATION, DESIGN DRAWINGS AND OTHER INFORMATION AS IDENTIFIED BY DET AS NECESSARY. OUTAGE INITIATION REQUIRES A MINIMUM OF 28-DAYS FROM THE APPROVAL OF THE OUTAGE PACKAGE. IN CASES WHERE MULTIPLE TRANSMISSION LINES ARE IMPACTED BY THE PROJECT, DET WILL ONLY ALLOW ONE CIRCUIT OUT OF SERVICE AT ANY GIVEN TIME.
 - ii. IF AT ANY TIME A DE- ENERGIZED LINE WILL NEED TO BE PLACED BACK INTO SERVICE, SUCH AS A SYSTEM EMERGENCY (e. g. HURRICANE, LOSS OF ANOTHER TRANSMISSION LINE, AND/OR EXTREME LOAD, ETC.) DET WILL ASK THE ROADWAY CONTRACTOR, WITHIN A TWO- HOUR PERIOD, TO SHUT DOWN ANY CONSTRUCTION THAT WOULD RESTRICT DET CONSTRUCTION CREWS FROM PLACING THE DE- ENERGIZED LINE BACK INTO SERVICE.
 - iii. TYPICALLY, ANY DE -ENERGIZING OF ANY DET LINES CAN OCCUR DURING THE FOLLOWING TIME PERIODS: OCTOBER 1ST TO NOVEMBER 15TH, AND MARCH 1ST TO APRIL 15TH. ANY ADDITIONAL REQUIRED DE- ENERGIZED TIME PERIODS NEEDED THROUGHOUT THE PROJECT WILL NEED TO BE COORDINATED WITH THE UAO REPRESENTATIVE PREVIOUSLY LISTED.
 - iv. TYPICALLY AN OUTAGE CANNOT EXCEED A TWO- WEEK DURATION; A NEW REQUEST MAY BE REQUIRED IF ADDITIONAL OUTAGE TIME IS NEEDED.
 - v. DET CANNOT GUARANTEE THAT THE ROADWAY CONTRACTOR WILL GET THE APPROVAL FOR THE OUTAGE; IT IS THE CONTRACTORS RESPONSIBILITY TO FOLLOW UP WITH THE ABOVE- LISTED CONTACT.
 - vi. IF FOR ANY REASON THE OUTAGE WAS APPROVED BUT CAN'T BE ACCOMPLISHED, THE DET WILL RESERVE THE RIGHT TO CANCEL THE OUTAGE WITH 2-HOURS ADVANCE NOTIFICATION.
 - vii. IN CASES WHERE MULTIPLE TRANSMISSION LINES ARE IMPACTED BY THE PROJECT, DET WILL ONLY ALLOW ONE CIRCUIT OUT OF SERVICE AT ANY GIVEN TIME.
 - viii. A RESPONSIBLE REPRESENTATIVE FROM THE ROADWAY CONTRACTOR'S STAFF WILL ATTEND ALL DAILY AND NECESSARY PRE -JOB BRIEFING MEETINGS CONDUCTED BY DET.
 - ix. AN OUTAGE THAT IS REIMBURSABLE TO DET MAY REQUIRE PAYMENT PRIOR TO THE INITIATION OF THE OUTAGE.
3. THIS PROJECT IS TO BE CONSTRUCTED IN THE VICINITY OF ENERGIZED 69 AND 230 kV OH TRANSMISSION.
4. WHEN DOING ANY WORK OR TASK UNDER OR NEAR ANY DET FACILITIES, ALL NESC & OSHA GUIDELINES MUST BE ADHERED TO.
5. WHEN THE ROADWAY CONTRACTOR IS EXCAVATING AROUND DET FACILITIES, THEY SHALL PROVIDE AT LEAST A 15-FOOT HORIZONTAL CLEARANCE TO THE FACILITY; IF THIS CANNOT BE MET, A NOTIFICATION MUST BE SENT TO THE UAO FIELD REPRESENTATIVE LISTED TO ARRANGE FOR A FIELD MEETING.
6. THE ROADWAY CONTRACTOR IS PROHIBITED FROM STACKING MATERIAL (SOILS, FILL DIRT, GRAVEL. ETC.) UNDER OR NEAR ENERGIZED OVERHEAD POWER LINES.

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DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD	COUNTY CIP No.		
				RAYMOND AVE.,NORTH ST.,PALM SPRINGS DR.	01907084			

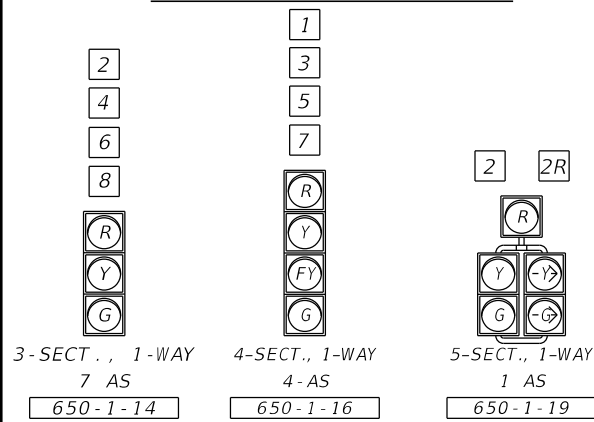


CONTROLLER OPERATIONS:

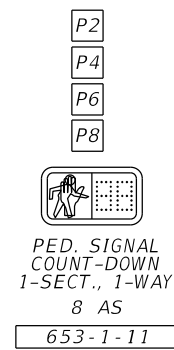
1. EXISTING TIMINGS AND SIGNAL OPERATING PLANS ARE TO REMAIN.

REVISIONS				JINHAO MAI, P.E. LICENSE NO. 91872 315 E. ROBINSON ST. SUITE 400 ORLANDO, FL 32801 PHONE 407.420.4200 FAX 407.420.4242	SEMINOLE COUNTY ENGINEERING DIVISION ROLLING HILLS AREA ROADWAYS PHASE 1		SHEET NO. T-5
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD	COUNTY CIP No.	
					RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084	SIGNALIZATION PLAN

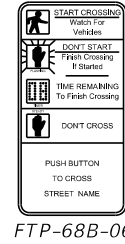
SIGNAL HEAD DETAILS



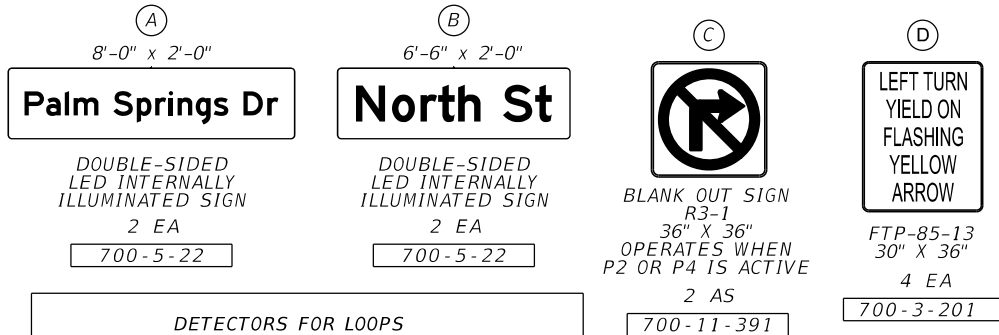
PEDESTRIAN HEAD DETAILS



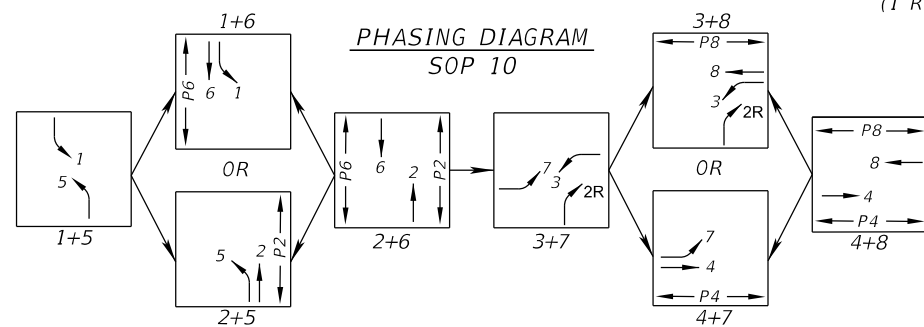
PEDESTRIAN DETECTOR SIGNS



OVERHEAD SIGN DETAILS

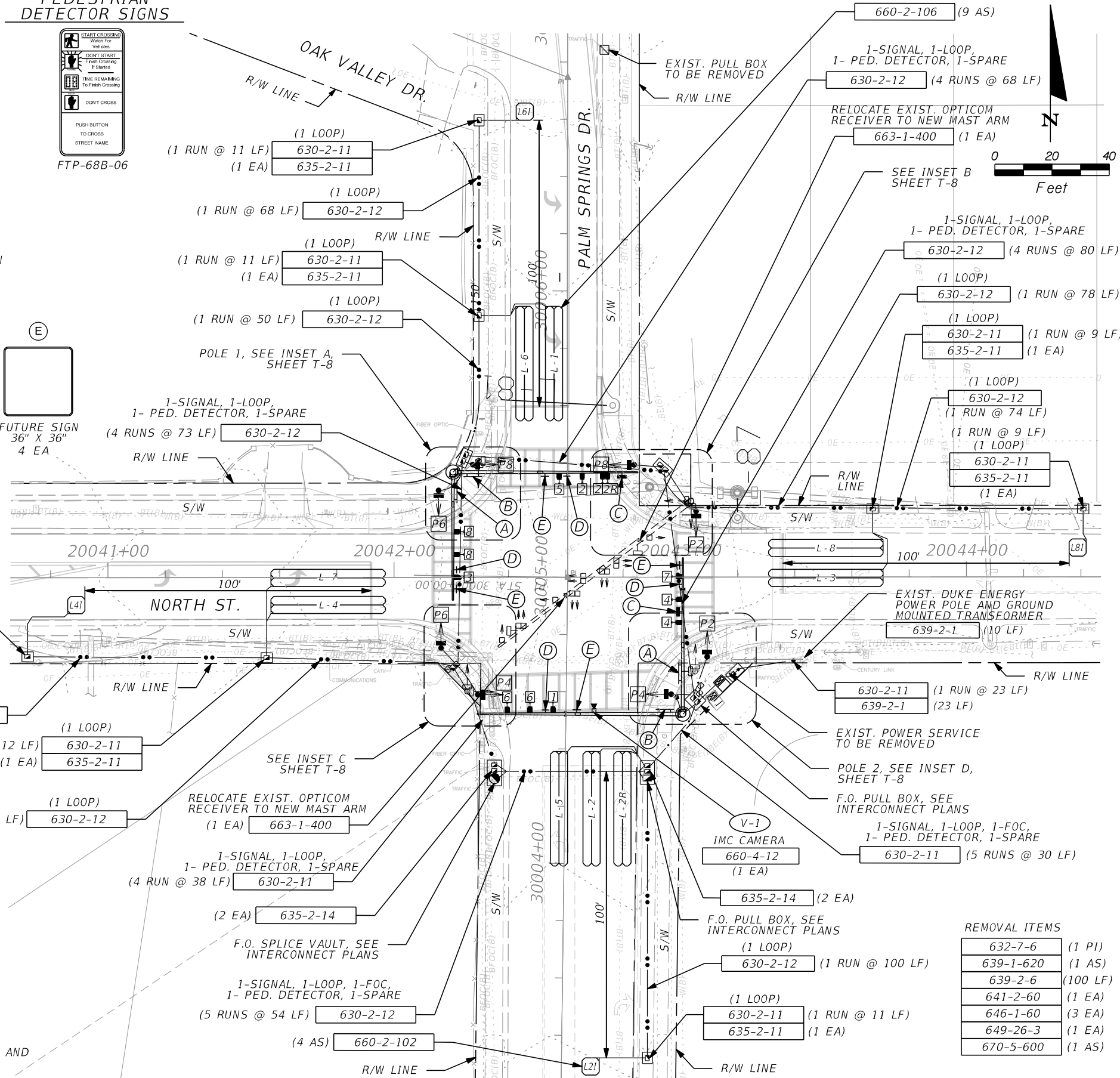


DETECTORS FOR LOOPS				
LOOP	NO. OF LOOPS	NO. OF NEW DETS.	DELAY TIME (SEC)	DETECTOR INPUTS
L-1	1	1	5	CH1
L-2R	1	1	5	CH5
L-2	1	1		CH6
L-2I	1	1		CH13
L-3	1	1	5	CH17
L-4	1	1		CH21
L-4I	1	1		CH30
L-5	1	1	5	CH33
L-6	1	1		CH37
L-6I	1	1		CH45
L-7	1	1	5	CH49
L-8	1	1		CH53
L-8I	1	1		CH64



CONTROLLER OPERATIONS:

1. MAJOR STREET IS PALM SPRINGS DR., 30 MPH NB AND 25 MPH SB, (MOVEMENTS 1, 2, 5 AND 6) AND MINOR STREET IS NORTH ST., 25 MPH EB AND 35 MPH WB, (MOVEMENTS 3, 4, 7 AND 8).



REMOVAL ITEMS	
632-7-6	(1 PI)
639-1-620	(1 AS)
639-2-6	(100 LF)
641-2-60	(1 EA)
646-1-60	(3 EA)
649-26-3	(1 EA)
670-5-600	(1 AS)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

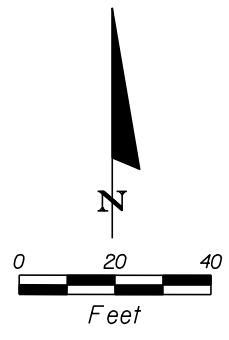
JINHAO MAI, P.E.
LICENSE NO. 91872
315 E. ROBINSON ST.
SUITE 400
ORLANDO, FL 32801
PHONE 407.420.4200
FAX 407.420.4242

SEMINOLE COUNTY
ENGINEERING DIVISION
ROLLING HILLS AREA ROADWAYS PHASE 1

ROAD: RAYMOND AVE., NORTH ST., PALM SPRINGS DR.
COUNTY CIP No.: 01907084

SIGNALIZATION PLAN

SHEET NO. T-6

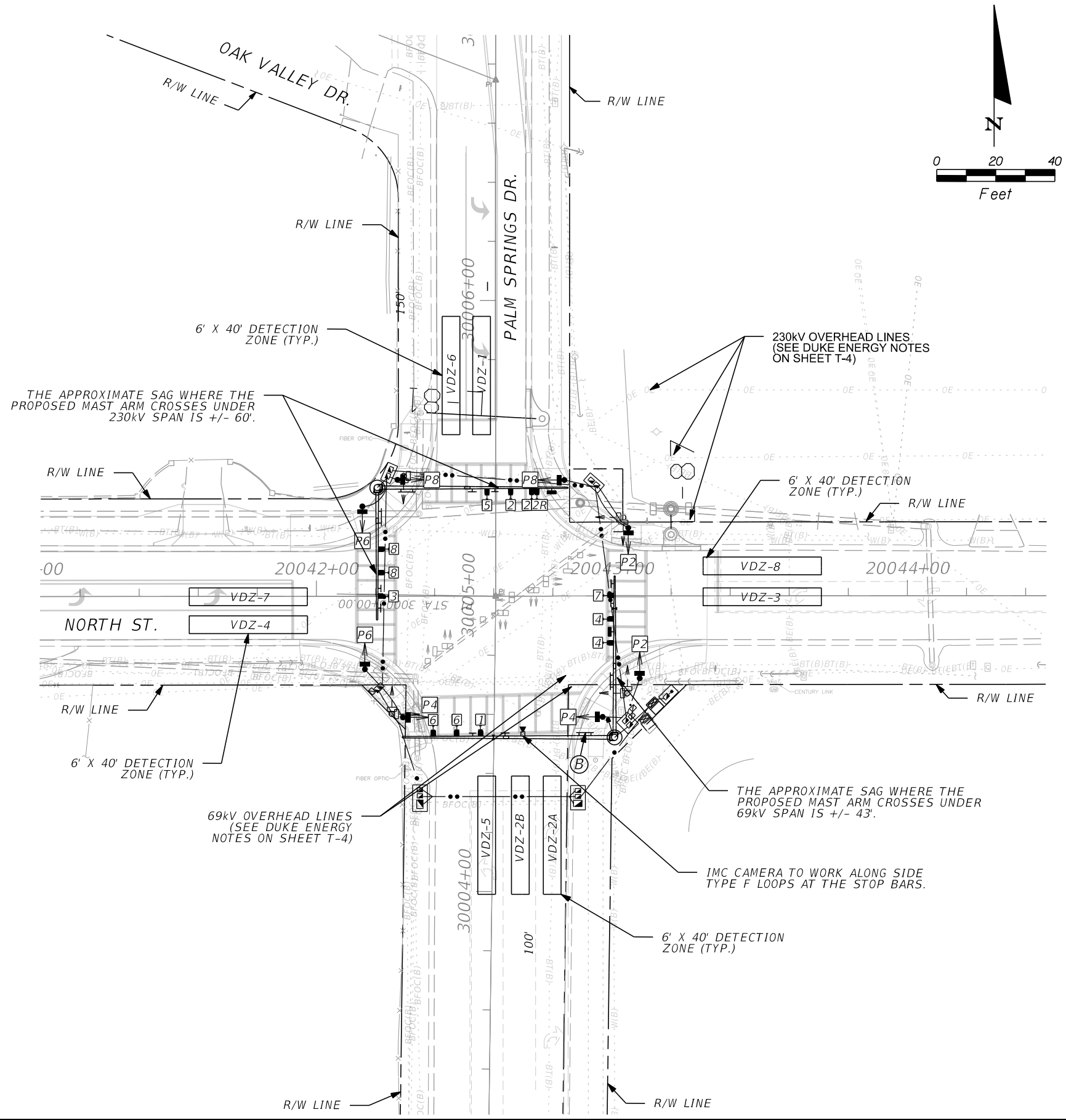


VIDEO VEHICLE DETECTION ASSIGNMENTS			
VIDEO DETECTION	DETECTION ZONE	DELAY (SEC)	DETECTOR INPUTS
V-1	VDZ1	5	CH1
	VDZ2A	5	CH5
	VDZ2B		CH6
	VDZ3	5	CH17
	VDZ4		CH21
	VDZ5	5	CH33
	VDZ6		CH37
	VDZ7	5	CH49
	VDZ8		CH53

DELAY TIME IS INITIAL AND MAY REQUIRE FIELD ADJUSTING AS DIRECTED BY PROJECT ENGINEER.

EXIST. CONTROLLER TIMINGS								
TIMING FUNCTION								
MOVEMENT NUMBER	1	2	3	4	5	6	7	8
MINIMUM GREEN	6	6	6	6	6	6	6	6
EXTENSION	3	4	3	4	3	4	3	4
MAXIMUM GREEN 1	20	45	35	30	20	45	20	30
MAXIMUM GREEN 2	20	45	35	30	20	45	20	30
YELLOW CLEARANCE	*3.4	*3.7	*4.0	*4.0	*3.7	*3.7	*3.4	*4.0
ALL RED	*2.0	*2.0	*2.0	*2.0	*2.0	*2.0	*2.0	*2.0
PEDESTRIAN WALK		7		7		7		7
PED. CLEARANCE	*11		*16		*12		*11	
RECALL		ON				ON		

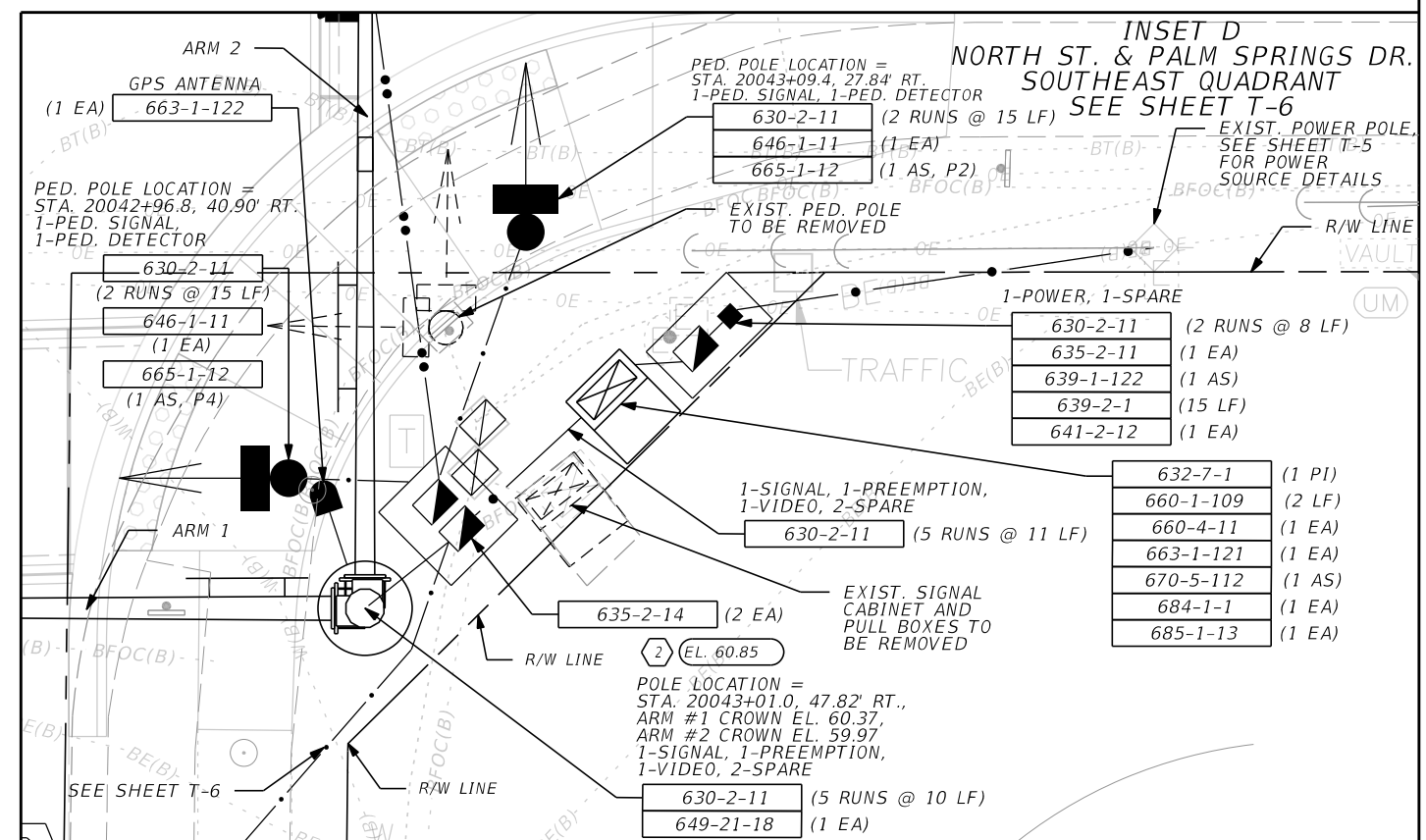
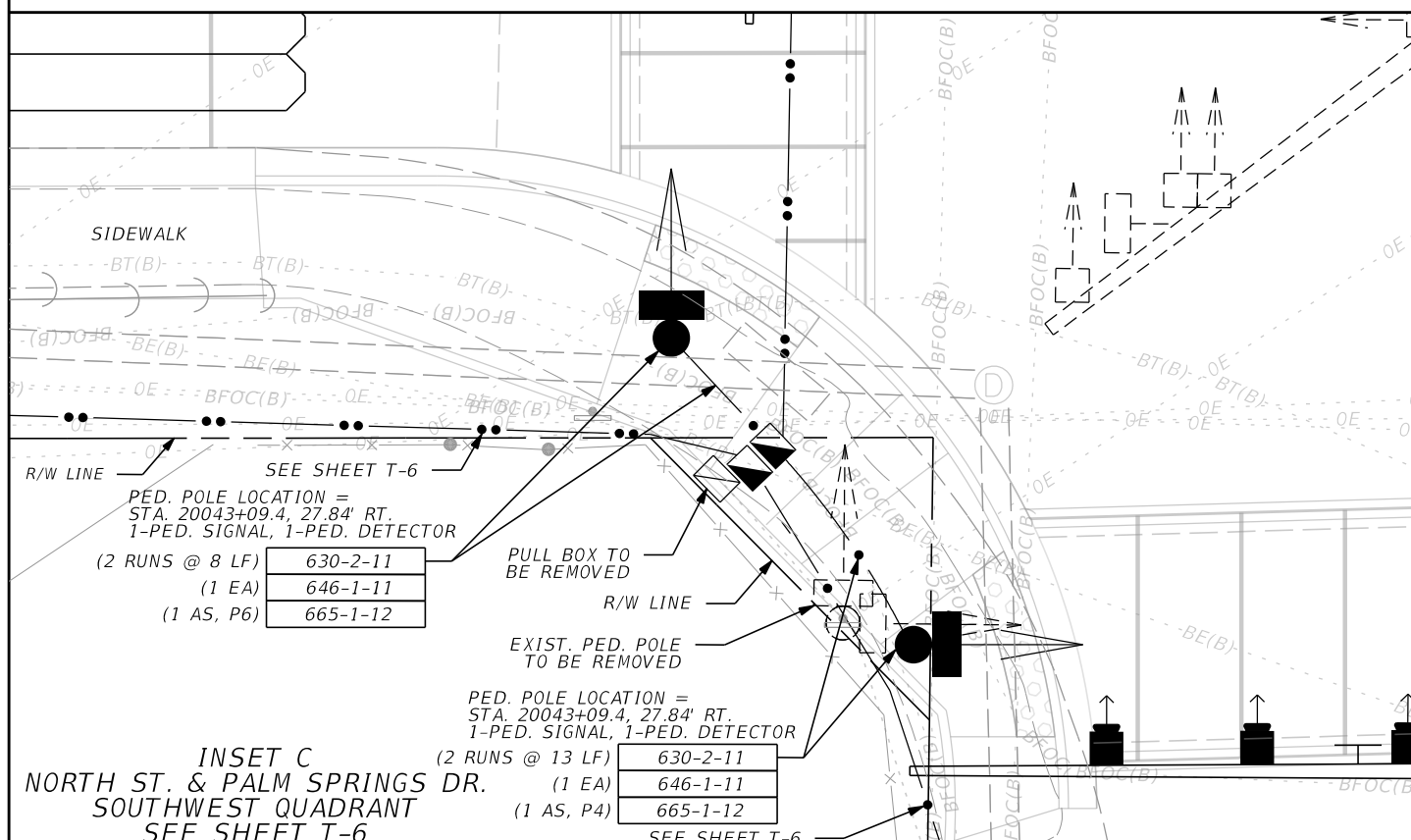
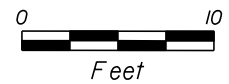
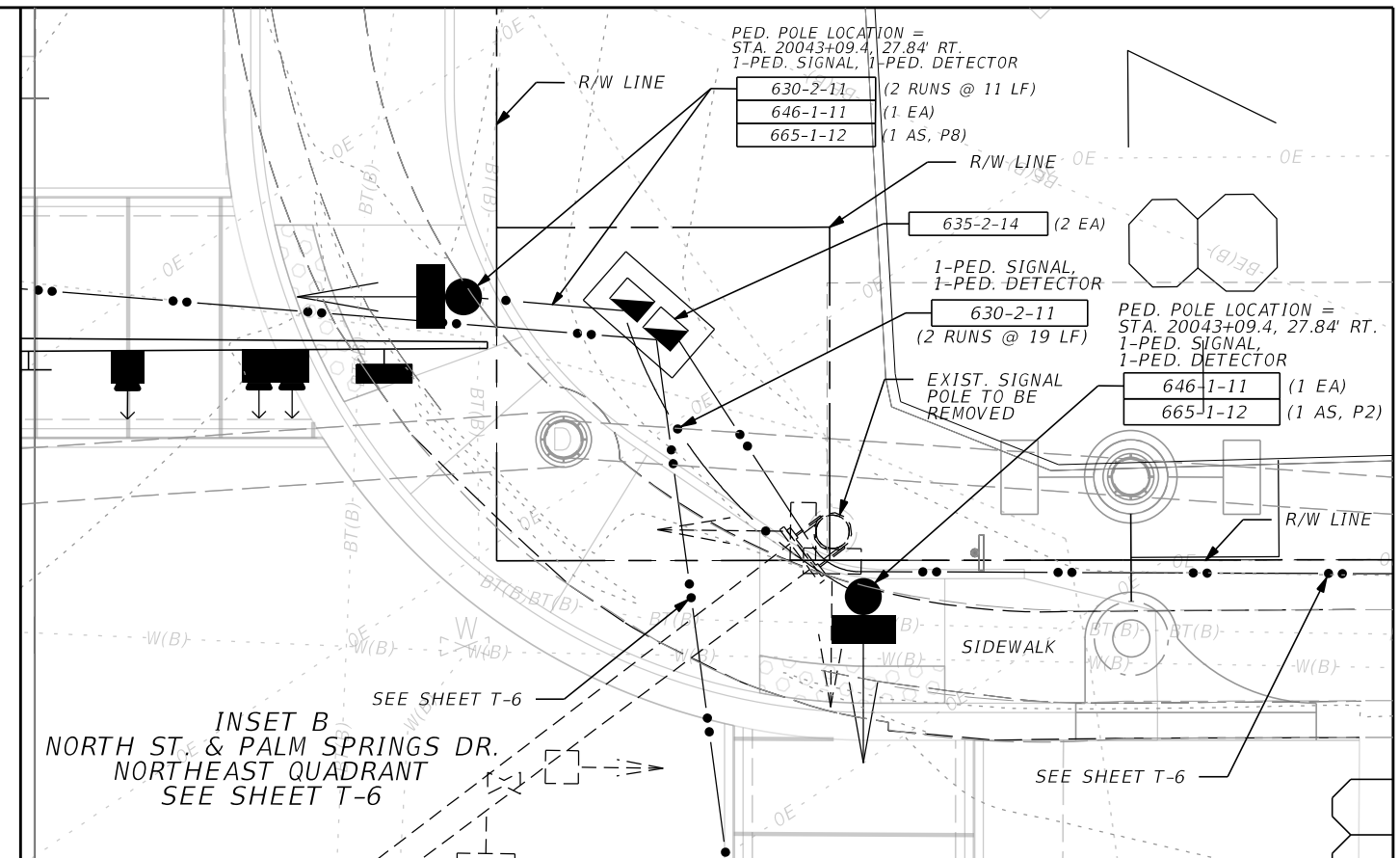
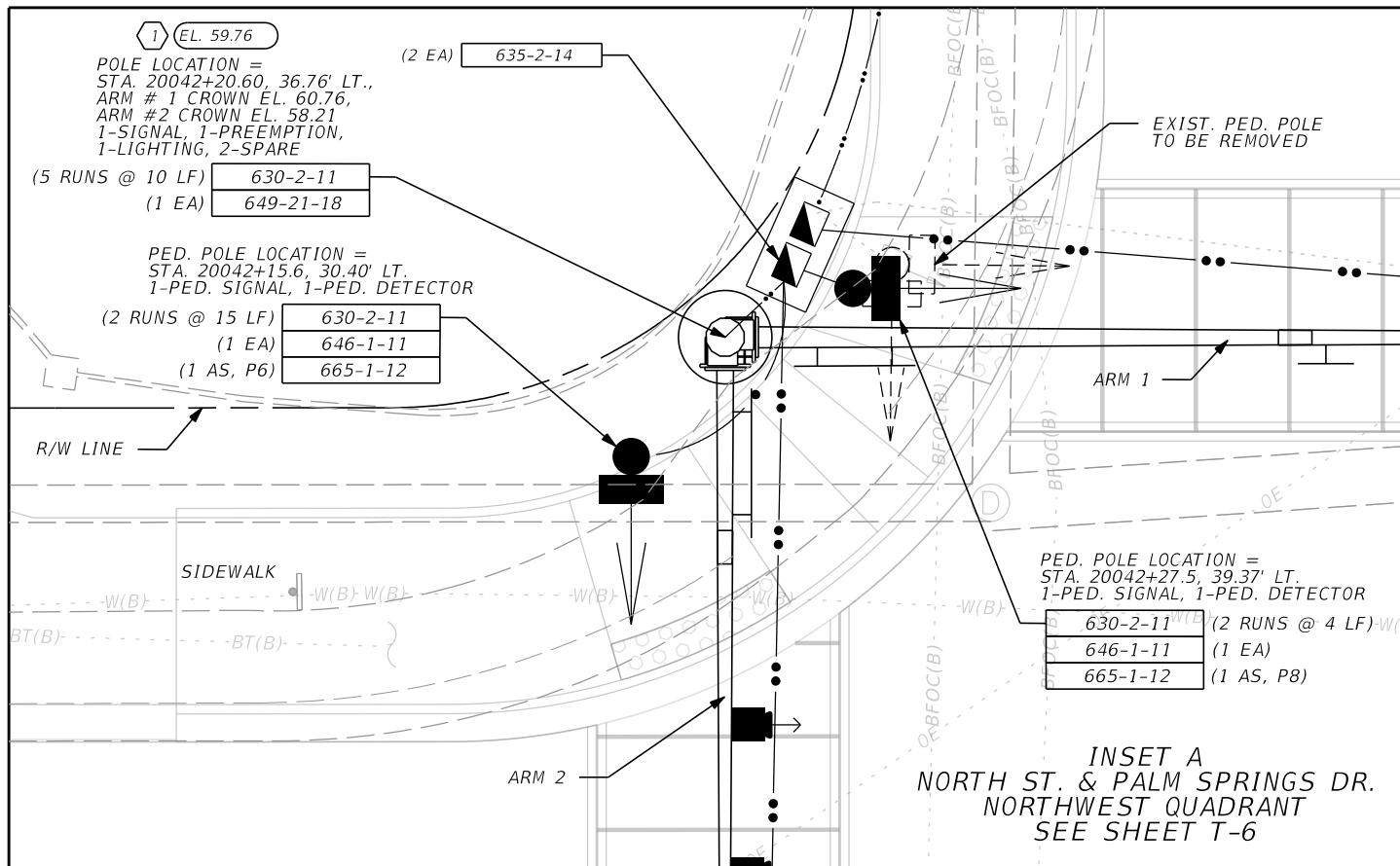
* DENOTES UPDATED YELLOW CLEARANCE, ALL RED AND PED. CLEARANCE DUE TO SPEED LIMIT AND ROADWAY GEOMETRY MODIFICATIONS.



CONTROLLER OPERATIONS:

- MAJOR STREET IS PALM SPRINGS DR., 30 MPH NB AND 25 MPH SB, (MOVEMENTS 1, 2, 5 AND 6) AND MINOR STREET IS NORTH ST., 25 MPH EB AND 35 MPH WB, (MOVEMENTS 3, 4, 7 AND 8).

REVISIONS				JINHAO MAI, P.E. LICENSE NO. 91872 315 E. ROBINSON ST. SUITE 400 ORLANDO, FL 32801 PHONE 407.420.4200 FAX 407.420.4242	SEMINOLE COUNTY ENGINEERING DIVISION ROLLING HILLS AREA ROADWAYS PHASE 1		SHEET NO. T-7
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD	COUNTY CIP No.	
				RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084	SIGNALIZATION PLAN	



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

JINHAO MAI, P.E.
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SEMINOLE COUNTY
ENGINEERING DIVISION
ROLLING HILLS AREA ROADWAYS PHASE 1

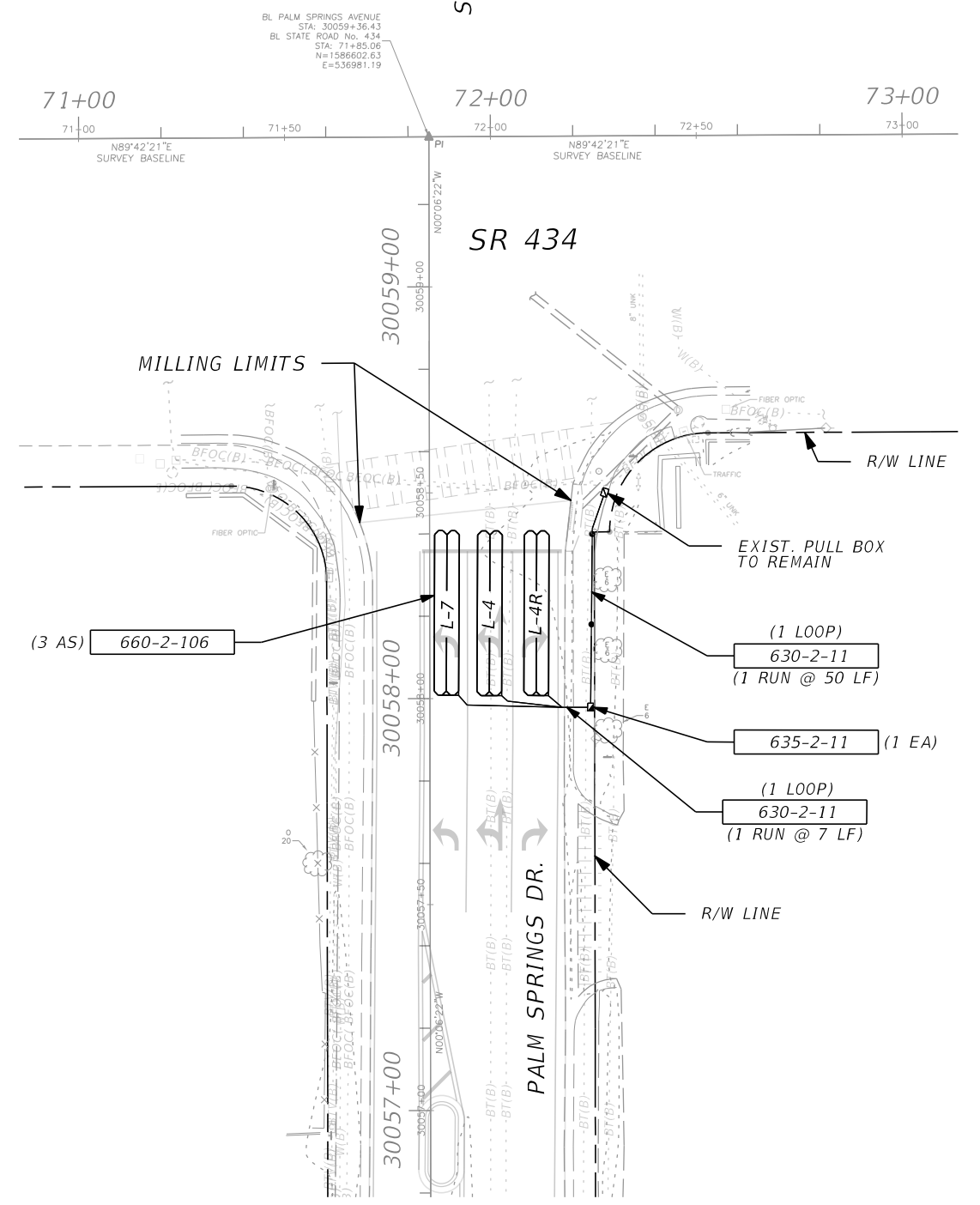
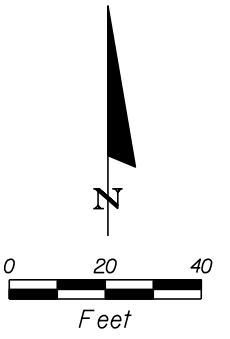
ROAD	COUNTY CIP No.
RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084

SIGNALIZATION PLAN

SHEET NO.
T-8

EXIST. SIGNAL PULL BOXES TO REMAIN

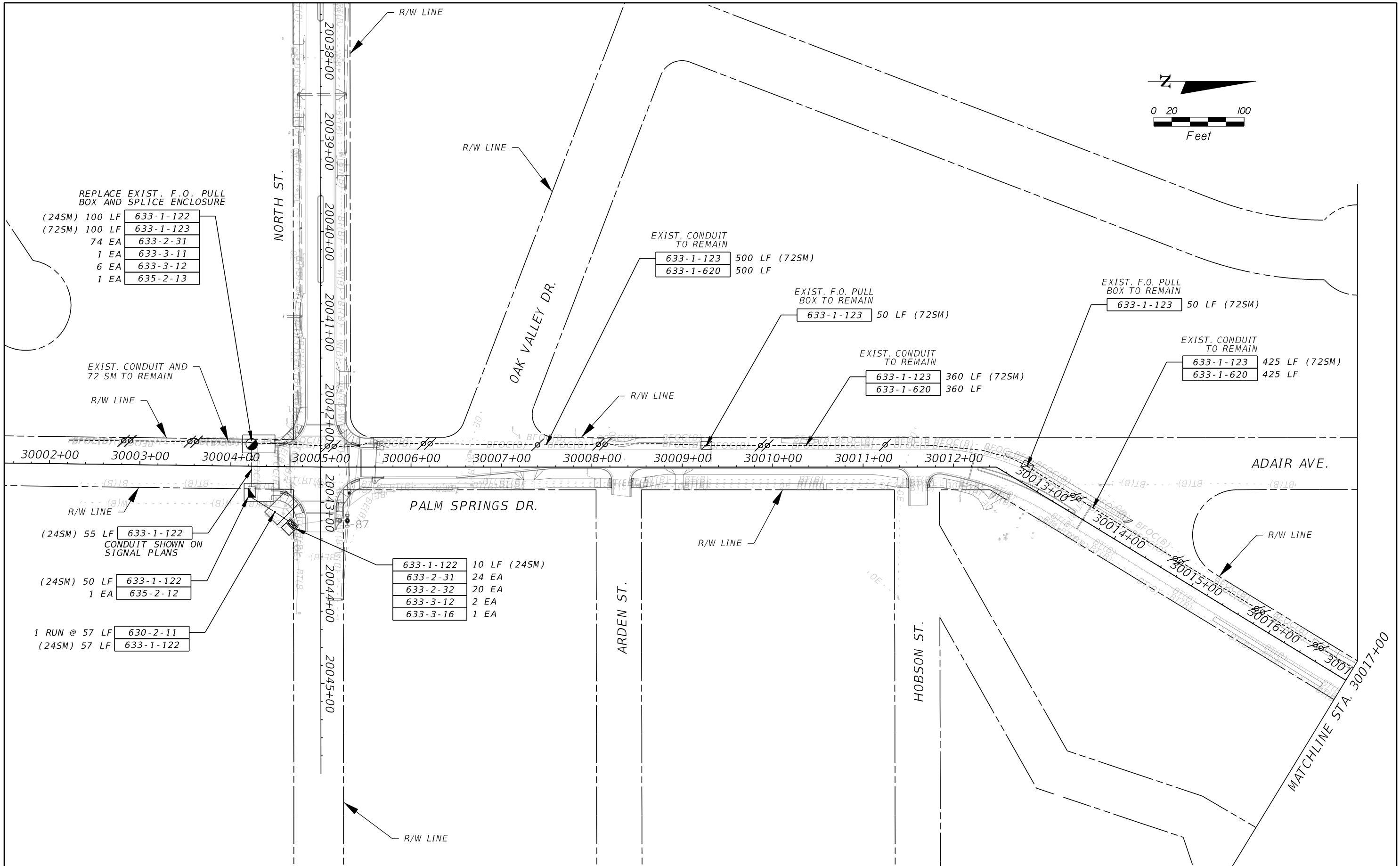
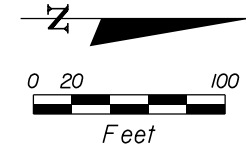
EXIST. SIGNAL CABINET ASSEMBLY TO REMAIN



CONTROLLER OPERATIONS:

- 1. EXISTING TIMINGS AND SIGNAL OPERATING PLANS ARE TO REMAIN.

REVISIONS				JINHAO MAI, P.E. LICENSE NO. 91872 315 E. ROBINSON ST. SUITE 400 ORLANDO, FL 32801 PHONE 407.420.4200 FAX 407.420.4242	SEMINOLE COUNTY ENGINEERING DIVISION ROLLING HILLS AREA ROADWAYS PHASE 1		SIGNALIZATION PLAN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD	COUNTY CIP No.		T-9
					RAYMOND AVE.,NORTH ST.,PALM SPRINGS DR.	01907084		



REPLACE EXIST. F.O. PULL BOX AND SPLICE ENCLOSURE

(24SM) 100 LF	633-1-122
(72SM) 100 LF	633-1-123
74 EA	633-2-31
1 EA	633-3-11
6 EA	633-3-12
1 EA	635-2-13

EXIST. CONDUIT TO REMAIN

633-1-123	500 LF (72SM)
633-1-620	500 LF

EXIST. F.O. PULL BOX TO REMAIN

633-1-123	50 LF (72SM)
-----------	--------------

EXIST. F.O. PULL BOX TO REMAIN

633-1-123	50 LF (72SM)
-----------	--------------

EXIST. CONDUIT TO REMAIN

633-1-123	360 LF (72SM)
633-1-620	360 LF

EXIST. CONDUIT TO REMAIN

633-1-123	425 LF (72SM)
633-1-620	425 LF

CONDUIT SHOWN ON SIGNAL PLANS

(24SM) 55 LF	633-1-122
(24SM) 50 LF	633-1-122
1 EA	635-2-12
1 RUN @ 57 LF	630-2-11
(24SM) 57 LF	633-1-122

633-1-122	10 LF (24SM)
633-2-31	24 EA
633-2-32	20 EA
633-3-12	2 EA
633-3-16	1 EA

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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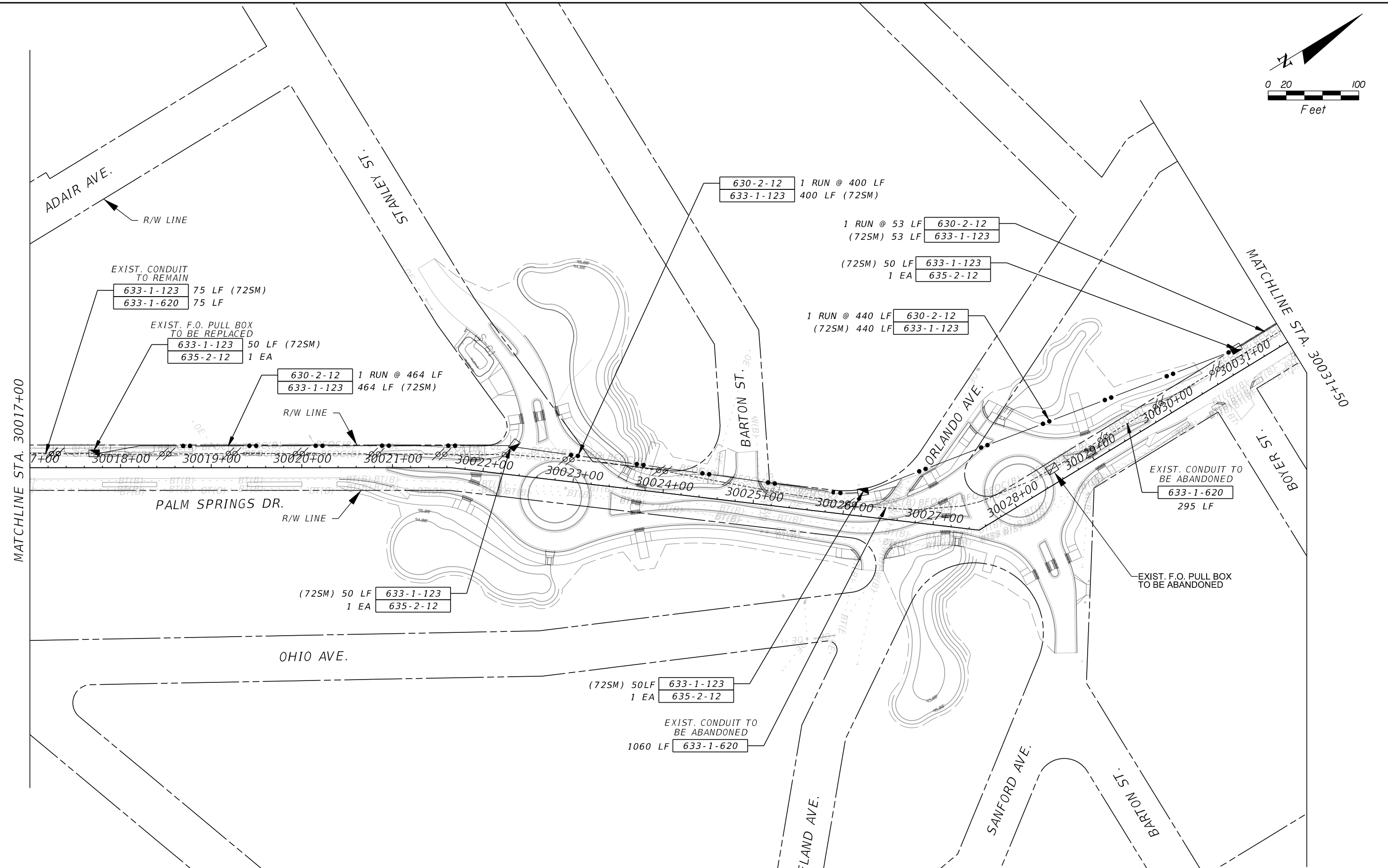
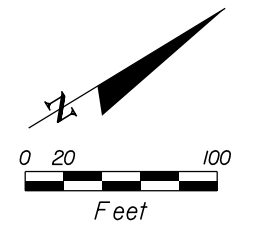


SEMINOLE COUNTY
 ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1

ROAD	COUNTY CIP No.
RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084


INTERCONNECT PLAN
 PALM SPRINGS DR.

SHEET NO.
 T-10



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

JINHAO MAI, P.E.
 LICENSE NO. 91872
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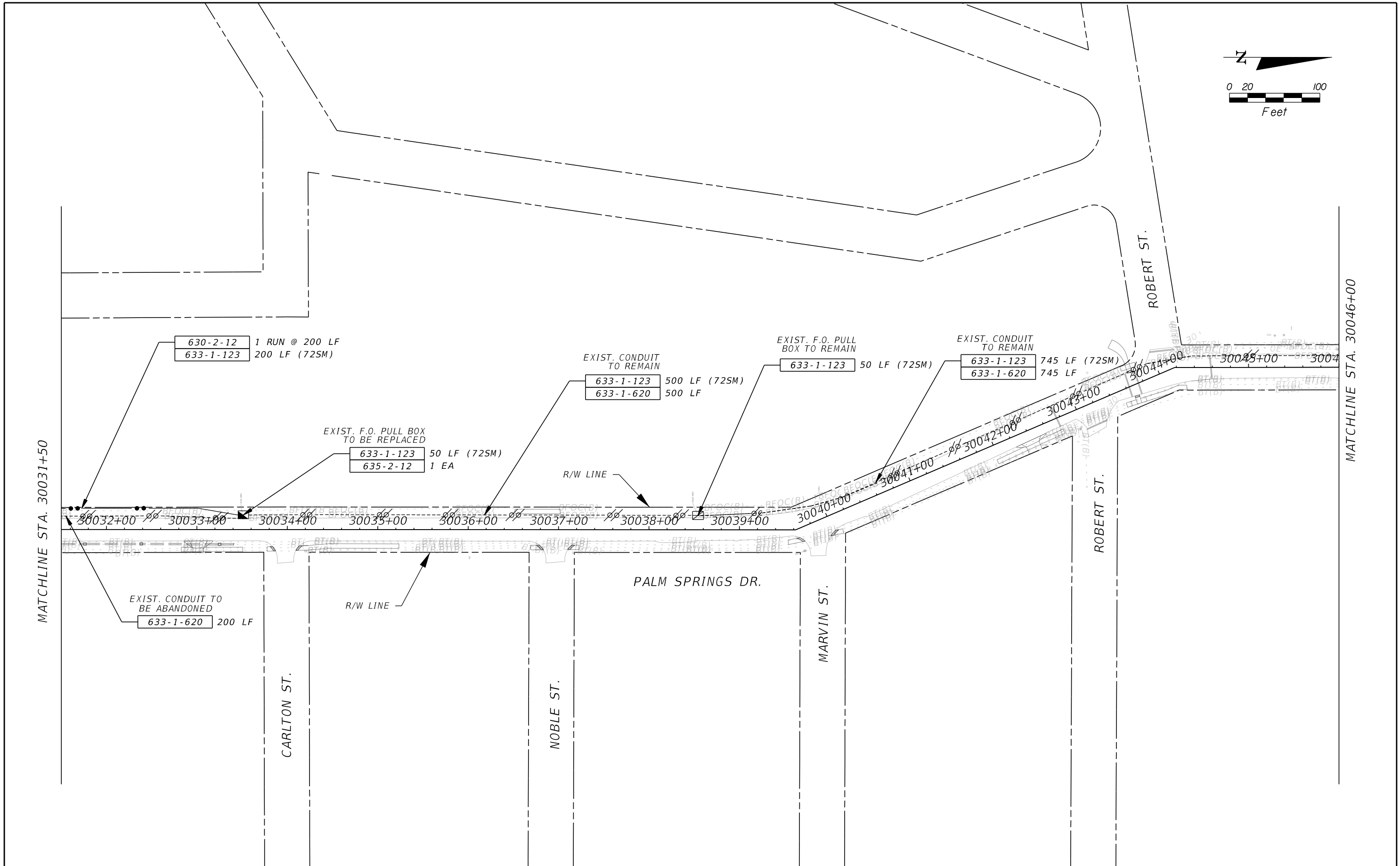
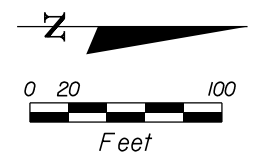


SEMINOLE COUNTY
 ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1

ROAD	COUNTY CIP No.
RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084


INTERCONNECT PLAN
 PALM SPRINGS DR.

SHEET NO.
 T-11



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

JINHAO MAI, P.E.
 LICENSE NO. 91872
 315 E. ROBINSON ST.
 SUITE 400
 ORLANDO, FL 32801
 PHONE 407.420.4200
 FAX 407.420.4242

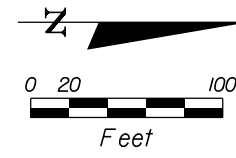


SEMINOLE COUNTY
 ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1

ROAD	COUNTY CIP No.
RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084

INTERCONNECT PLAN
 PALM SPRINGS DR.

SHEET NO.
 T-12



MATCHLINE STA. 30046+00

ROXBORO RD.

PEARL ST.

BANKS ST.

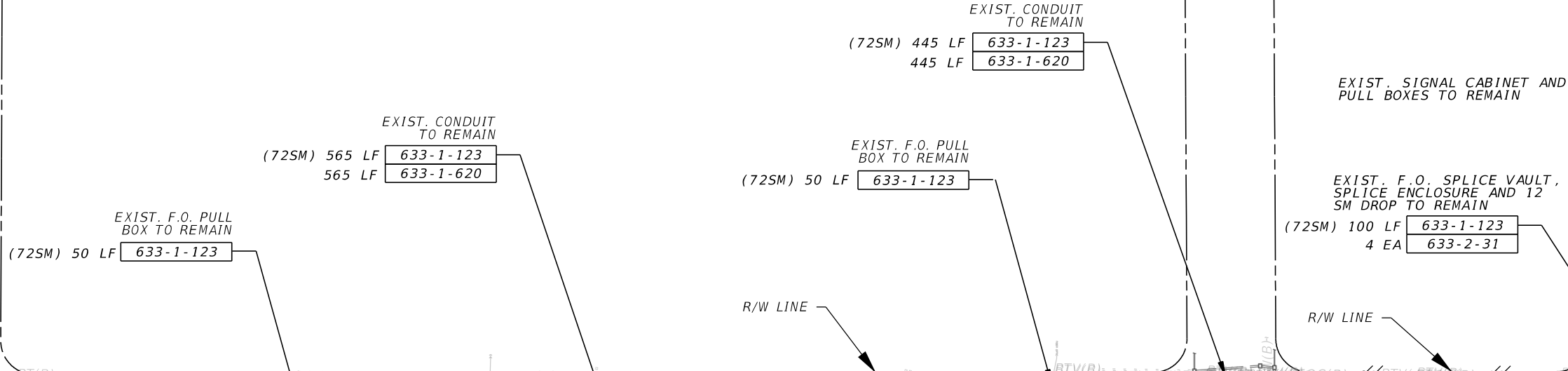
POWELL ST.

SR 434

PALM SPRINGS DR.

30046+00 30047+00 30048+00 30049+00 30050+00 30051+00 30052+00 30053+00 30054+00 30055+00 30056+00 30057+00 30058+00 30059+00

+00
68+00
69+00
70+00
71+00
72+00
73+00
74+00
75+00
76+00



EXIST. CONDUIT TO REMAIN
(72SM) 290 LF 633-1-123
290 LF 633-1-620

R/W LINE

EXIST. 96 SM BACKBONE TO REMAIN

EXIST. DROP CABLE TO REMAIN

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

JINHAO MAI, P.E.
 LICENSE NO. 91872
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SEMINOLE COUNTY
 ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1

ROAD	COUNTY CIP No.
RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084

INTERCONNECT PLAN
 PALM SPRINGS DR.

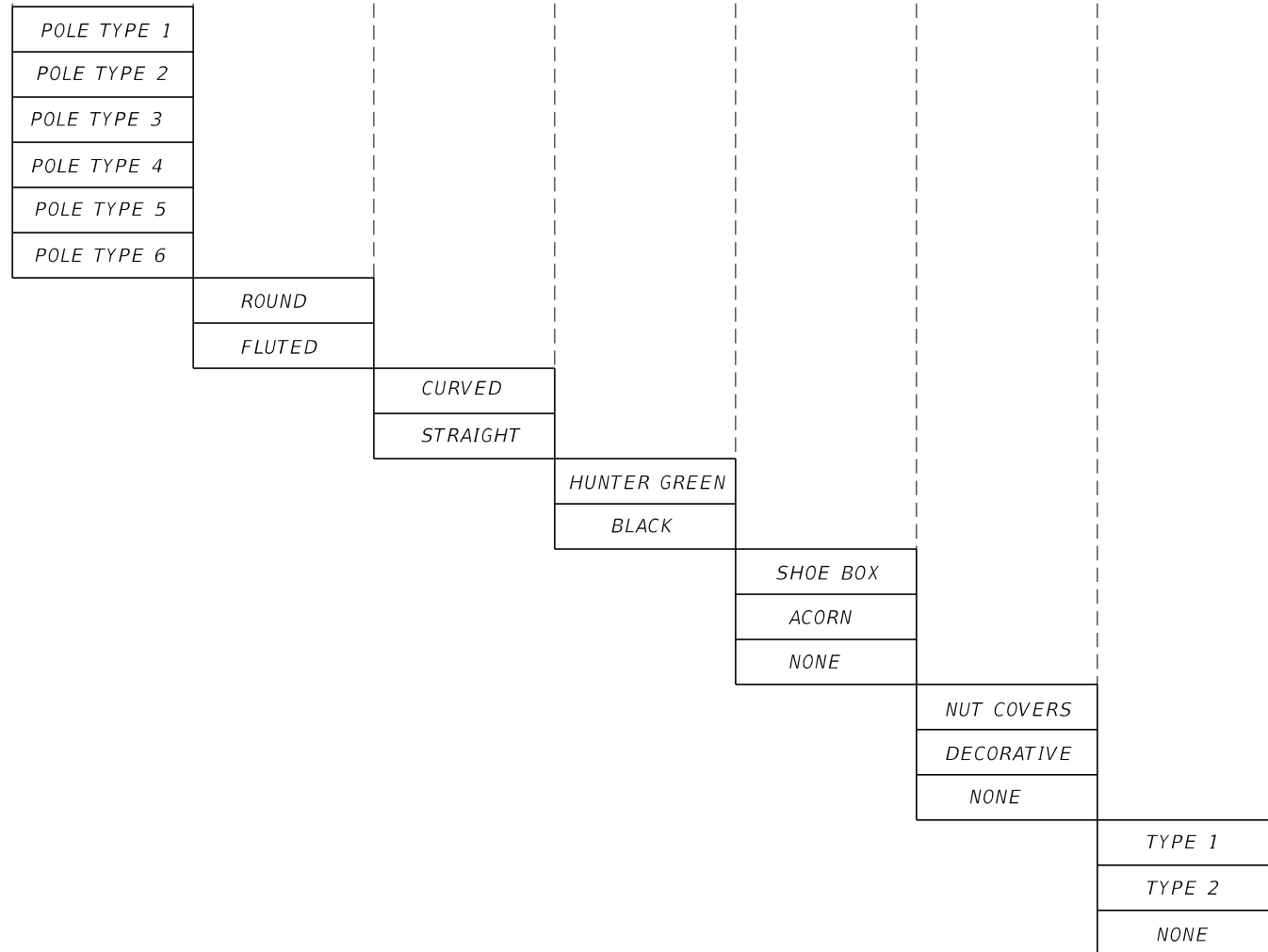
SHEET NO.
 T-13

SPECIFICATION OF MAST ARMS


Mast Arm Structures constructed in accordance with these standards shall be specified as follows:

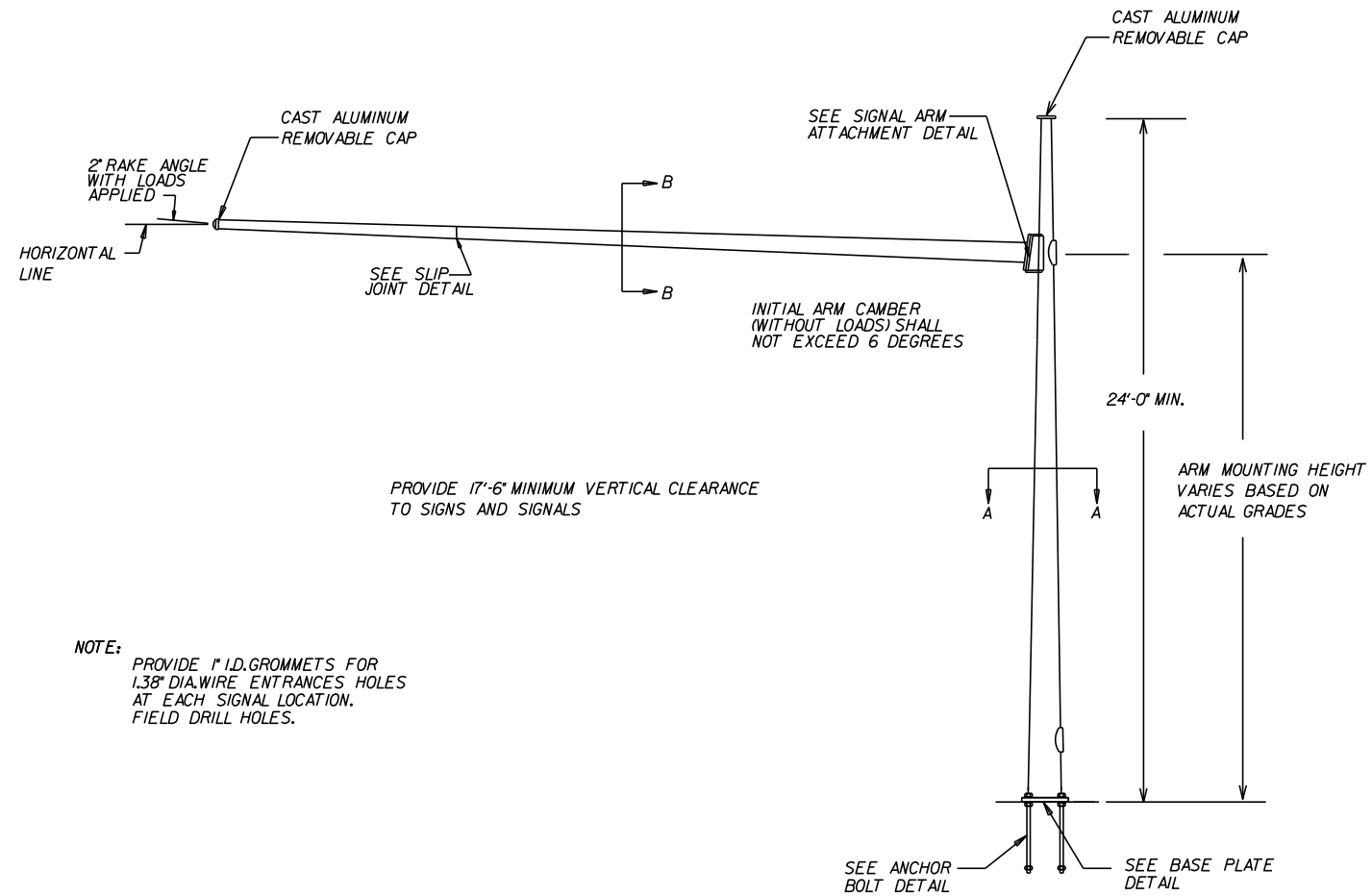
POLE I.D.	POLE TYPE	POLE STYLE	ARM STYLE*	COLOR	LUMINAIRE	BASE	BANNER	FIRST ARM LENGTH	SECOND ARM LENGTH	ANGLE BETWEEN ARMS
POLE 1	POLE TYPE 2	ROUND	STRAIGHT	BLACK	NONE	NUT COVERS	NONE	65'	45'	270°
POLE 2	POLE TYPE 2	ROUND	STRAIGHT	BLACK	NONE	NUT COVERS	NONE	72'	55'	270°

AVAILABLE OPTIONS



* NOTE: ARM STYLE SHALL BE CONSISTANT AT EACH INTERSECTION. EITHER ALL CURVED OR ALL STRAIGHT ARMS SHALL BE USED AT AN INTERSECTION.

REVISIONS				 <small>JINHAO MAI, P.E. LICENSE NO. 91872 315 E. ROBINSON ST. SUITE 400 ORLANDO, FL 32801 PHONE 407.420.4200 FAX 407.420.4242</small>	<small>SEMINOLE COUNTY ENGINEERING DIVISION ROLLING HILLS AREA ROADWAYS PHASE 1</small>		<p style="text-align: center;">POLE SCHEDULE DATA SHEET</p>	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD	COUNTY CIP No.		T-15
					RAYMOND AVE.,NORTH ST.,PALM SPRINGS DR.	01907084		



NOTE: PROVIDE 1" I.D. GROMMETS FOR 1.38" DIA. WIRE ENTRANCES HOLES AT EACH SIGNAL LOCATION. FIELD DRILL HOLES.

ELEVATION

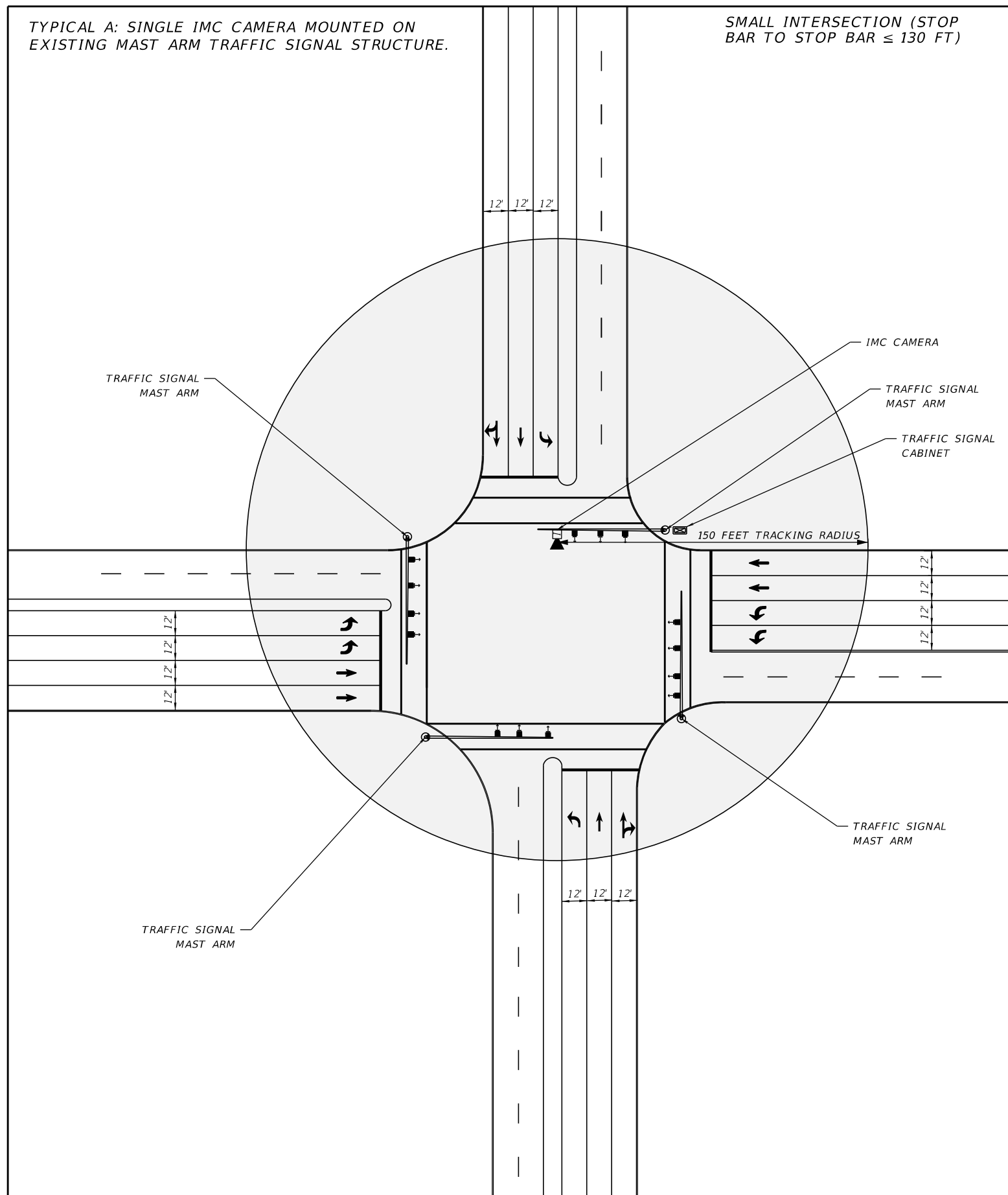
NOTES:
1. SEE SEMINOLE COUNTY 2017 - 2018 (OR LATEST) STANDARD MAST ARM DRAWINGS.

NON-FLUTED POLE WITHOUT LUMINAIRE
STRAIGHT ARM

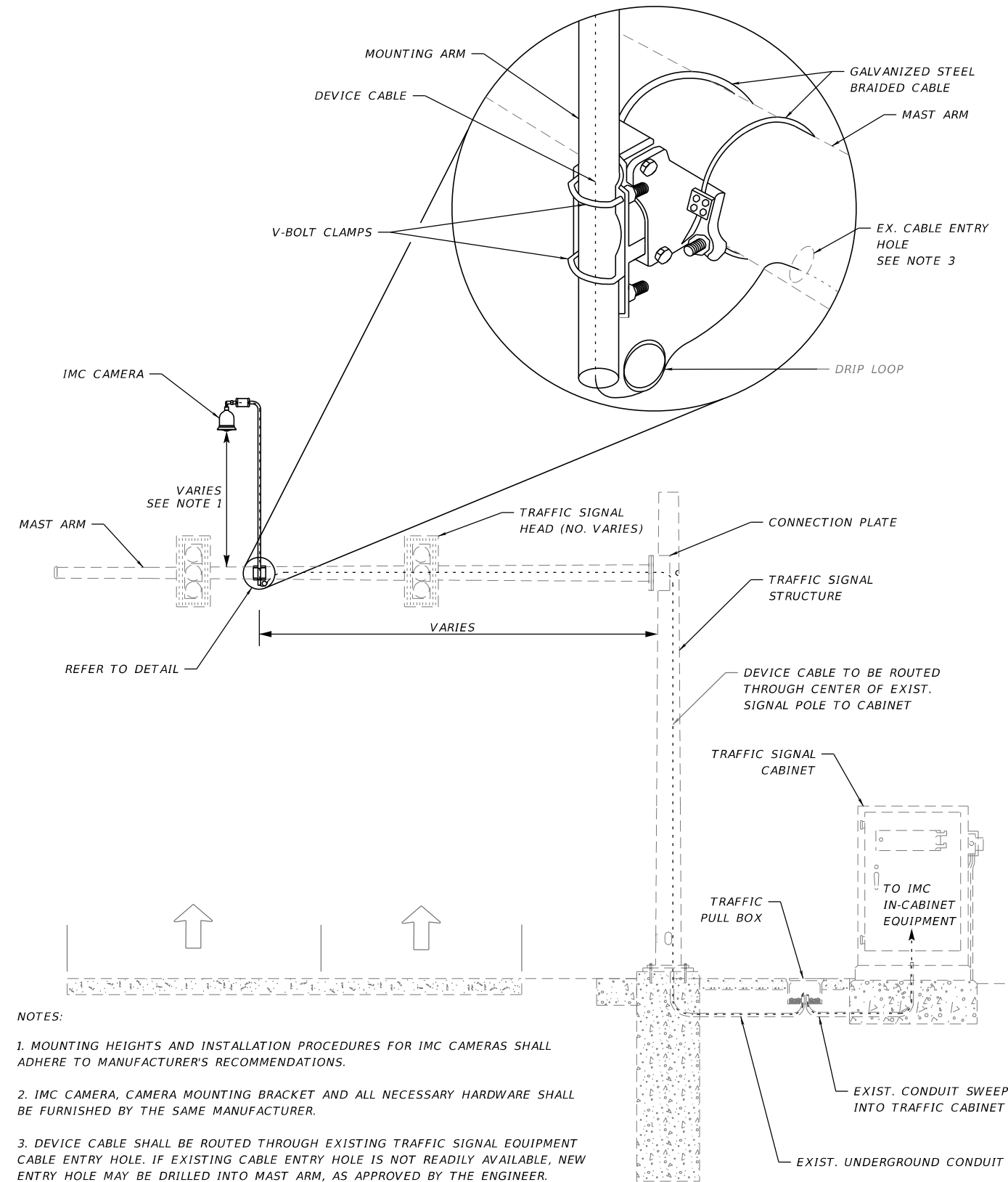
REVISIONS				JINHAO MAI, P.E. <small>LICENSE NO. 91872 315 E. ROBINSON ST. SUITE 400 ORLANDO, FL 32801 PHONE 407.420.4200 FAX 407.420.4242</small>	SEMINOLE COUNTY ENGINEERING DIVISION ROLLING HILLS AREA ROADWAYS PHASE 1		MAST ARM DETAIL	SHEET NO. T-16
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD	COUNTY CIP No.		
					RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084		

TYPICAL A: SINGLE IMC CAMERA MOUNTED ON EXISTING MAST ARM TRAFFIC SIGNAL STRUCTURE.

SMALL INTERSECTION (STOP BAR TO STOP BAR ≤ 130 FT)



IMC CAMERA MOUNTING BRACKET CABLE MOUNT DETAIL
N.T.S.



NOTES:

1. MOUNTING HEIGHTS AND INSTALLATION PROCEDURES FOR IMC CAMERAS SHALL ADHERE TO MANUFACTURER'S RECOMMENDATIONS.
2. IMC CAMERA, CAMERA MOUNTING BRACKET AND ALL NECESSARY HARDWARE SHALL BE FURNISHED BY THE SAME MANUFACTURER.
3. DEVICE CABLE SHALL BE ROUTED THROUGH EXISTING TRAFFIC SIGNAL EQUIPMENT CABLE ENTRY HOLE. IF EXISTING CABLE ENTRY HOLE IS NOT READILY AVAILABLE, NEW ENTRY HOLE MAY BE DRILLED INTO MAST ARM, AS APPROVED BY THE ENGINEER.

LEGEND:

- EXISTING EQUIPMENT
- PROPOSED EQUIPMENT

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

JINHAO MAI, P.E. LICENSE NO. 91872
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 SUITE 400
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SEMINOLE COUNTY
 ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1

ROAD	COUNTY CIP No.
RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084


MOUNTING DETAILS
 IMC CAMERA

SHEET NO.
 T-17

<i>DRILLED SHAFT FOUNDATION TABLE</i>					
<i>POLE ID NO.</i>	<i>SOIL TYPE</i>	<i>DESIGN MOMENT</i> <i>(KIP-FEET)</i>	<i>DESIGN TORSION</i> <i>(KIP-FEET)</i>	<i>SHAFT LENGTH</i> <i>(FEET)</i>	<i>STIRRUP SPACING</i> <i>(IN.) (MAX.)</i>
<i>POLE 1</i>	<i>30-50-15</i>	<i>282.1</i>	<i>345.8</i>	<i>20</i>	<i>8</i>
<i>POLE 2</i>	<i>30-40-06</i>	<i>271.6</i>	<i>366.3</i>	<i>35</i>	<i>8</i>

GENERAL NOTES:

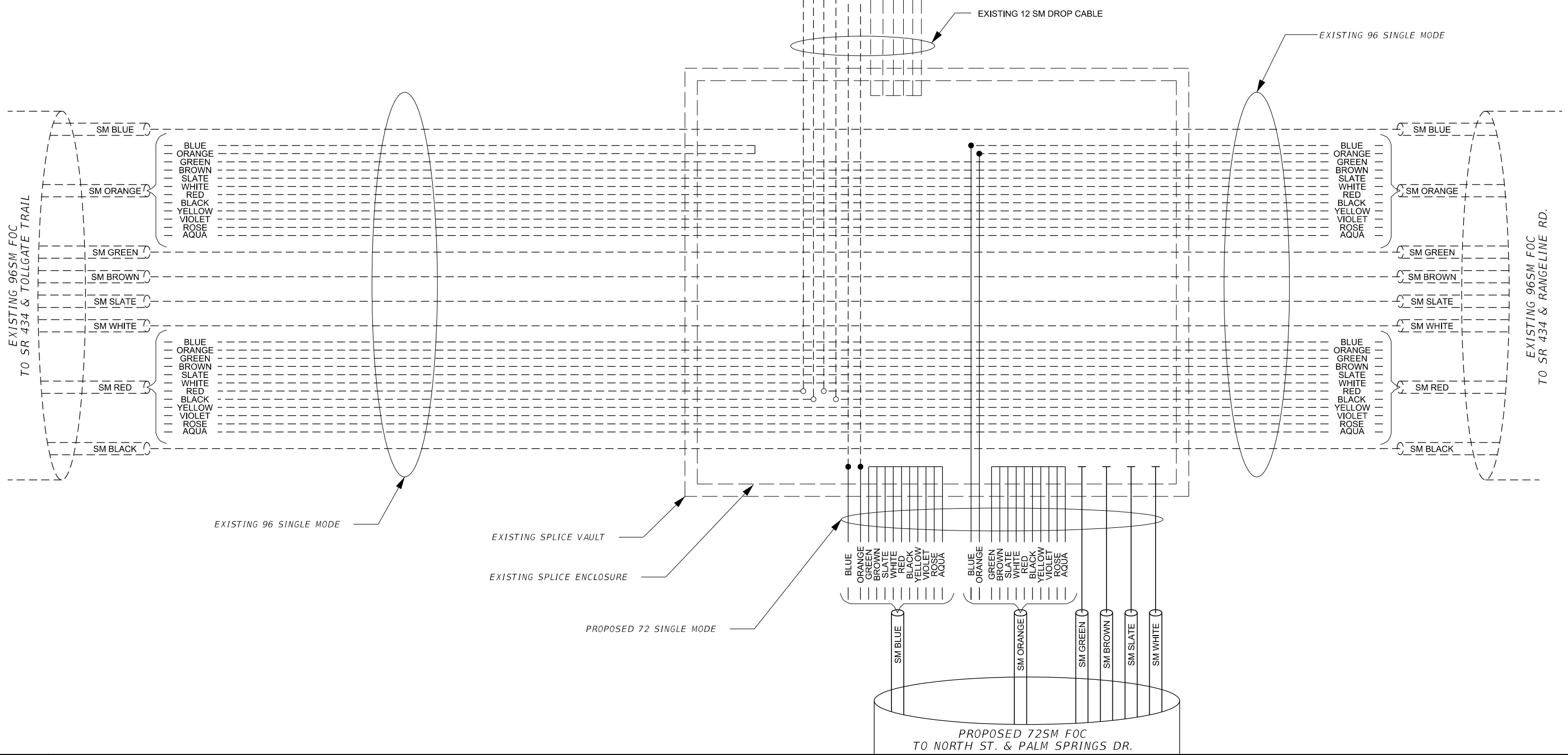
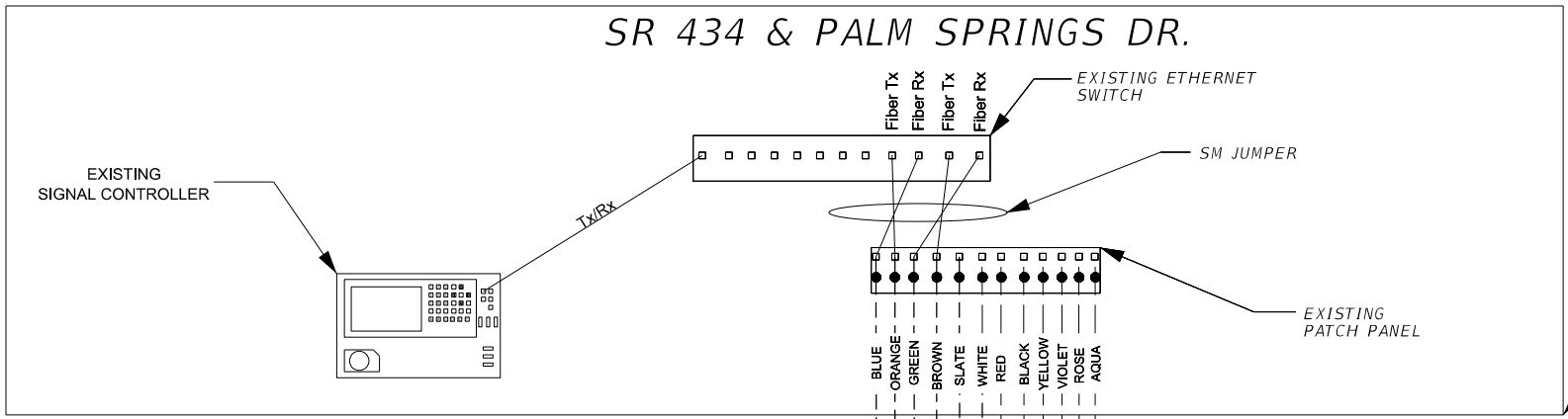
1. WORK THIS SHEET WITH THE "MAST ARM TABULATION" SHEET.
2. WORK WITH "SEMINOLE COUNTY 2017-18 STANDARD MAST ARM DRAWINGS".
3. DESIGN IS BASED ON SOIL DATA CONTAINED IN THE 09/08/2022 GEOTECHNICAL REPORT PREPARED BY GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS, INC. AND SIGNED AND SEALED BY VERNA E. WILLIFORD IV, P.E.
4. THE FOUNDATION SHALL BE REDESIGNED IF ACTUAL FOUNDATION FORCES COMPUTED BY CONTRACTOR'S MAST ARM FABRICATOR EXCEED THE DESIGN FORCES PROVIDED IN THE DRILLED SHAFT FOUNDATION TABLE.
5. MEDIUM DENSE TO DENSE SAND WAS ENCOUNTERED AT APPROXIMATE DEPTHS OF 13 TO 23 FEET IN BORINGS MAB-1 AND MAB-2. FOUNDATION EXCAVATION INTO THESE MATERIALS MAY BE DIFFICULT AND MAY REQUIRE SPECIALIZED EQUIPMENT. BE PREPARED TO EXCAVATE INTO THESE MATERIALS.

<i>REVISIONS</i>				 <small>QING WANG, P.E. LICENSE NO. 93345 315 E. ROBINSON ST. SUITE 400 ORLANDO, FL 32801 PHONE 407.420.4200 FAX 407.420.4242</small>	<small>SEMINOLE COUNTY ENGINEERING DIVISION ROLLING HILLS AREA ROADWAYS PHASE 1</small>		<p style="text-align: center;"><i>MAST ARM DRILLED SHAFT FOUNDATION TABLE</i></p>	<small>SHEET NO.</small> <i>T-18</i>
<small>DATE</small>	<small>DESCRIPTION</small>	<small>DATE</small>	<small>DESCRIPTION</small>		<small>ROAD</small>	<small>COUNTY CIP No.</small>		
					<small>RAYMOND AVE.,NORTH ST.,PALM SPRINGS DR.</small>	<small>01907084</small>		

SR 434 & PALM SPRINGS DR.

- NOTES:
- CONTACT SEMINOLE COUNTY BEFORE SPLICING TO OBTAIN THE MOST CURRENT SPLICE DETAILS.
 - CAP AND COIL UNUSED FIBERS.

- LEGEND:
- PROPOSED 72 SINGLE MODE
 - - - EXISTING 96 SINGLE MODE
 - - - EXISTING 12 SM DROP CABLE
 - PROPOSED FIBER SPLICE
 - EXISTING FIBER SPLICE



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

JINHAO MAI, P.E.
 LICENSE No. 91872
 315 E. ROBINSON ST.
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 PHONE 407.420.4200
 FAX 407.420.4242

SEMINOLE COUNTY
 ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1

ROAD	COUNTY CIP No.
RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084

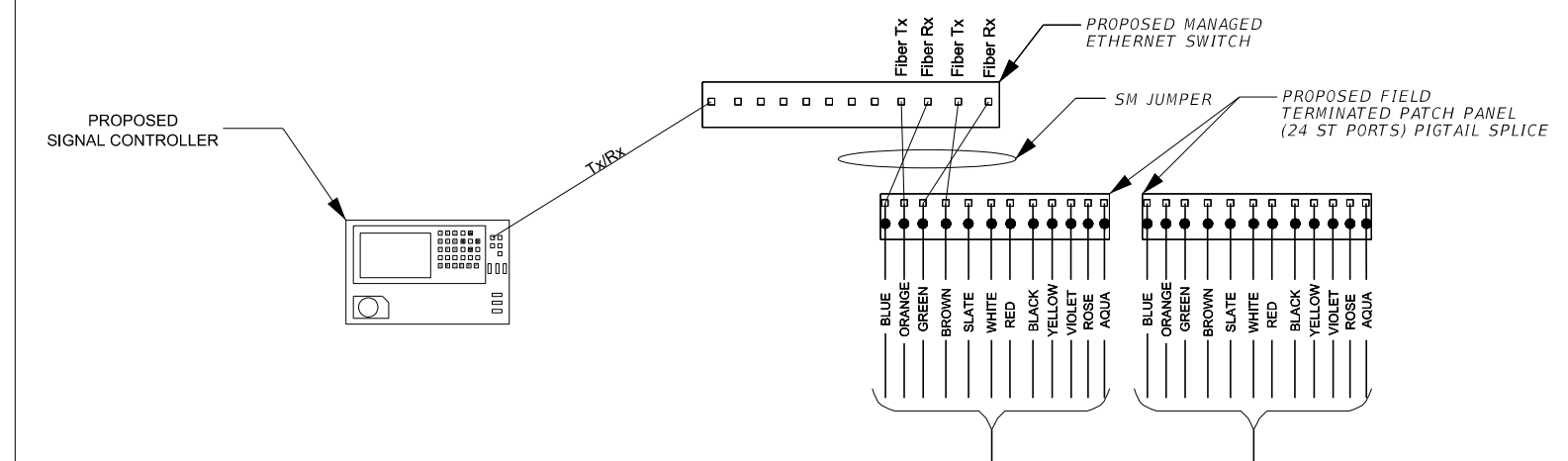
**FIBER SPLICING
 DIAGRAM**

SHEET NO.
 T-19

PALM SPRINGS DR. & NORTH ST.

NOTES:

1. CONTACT SEMINOLE COUNTY BEFORE SPLICING TO OBTAIN THE MOST CURRENT SPLICE DETAILS.
2. CAP AND COIL UNUSED FIBERS.



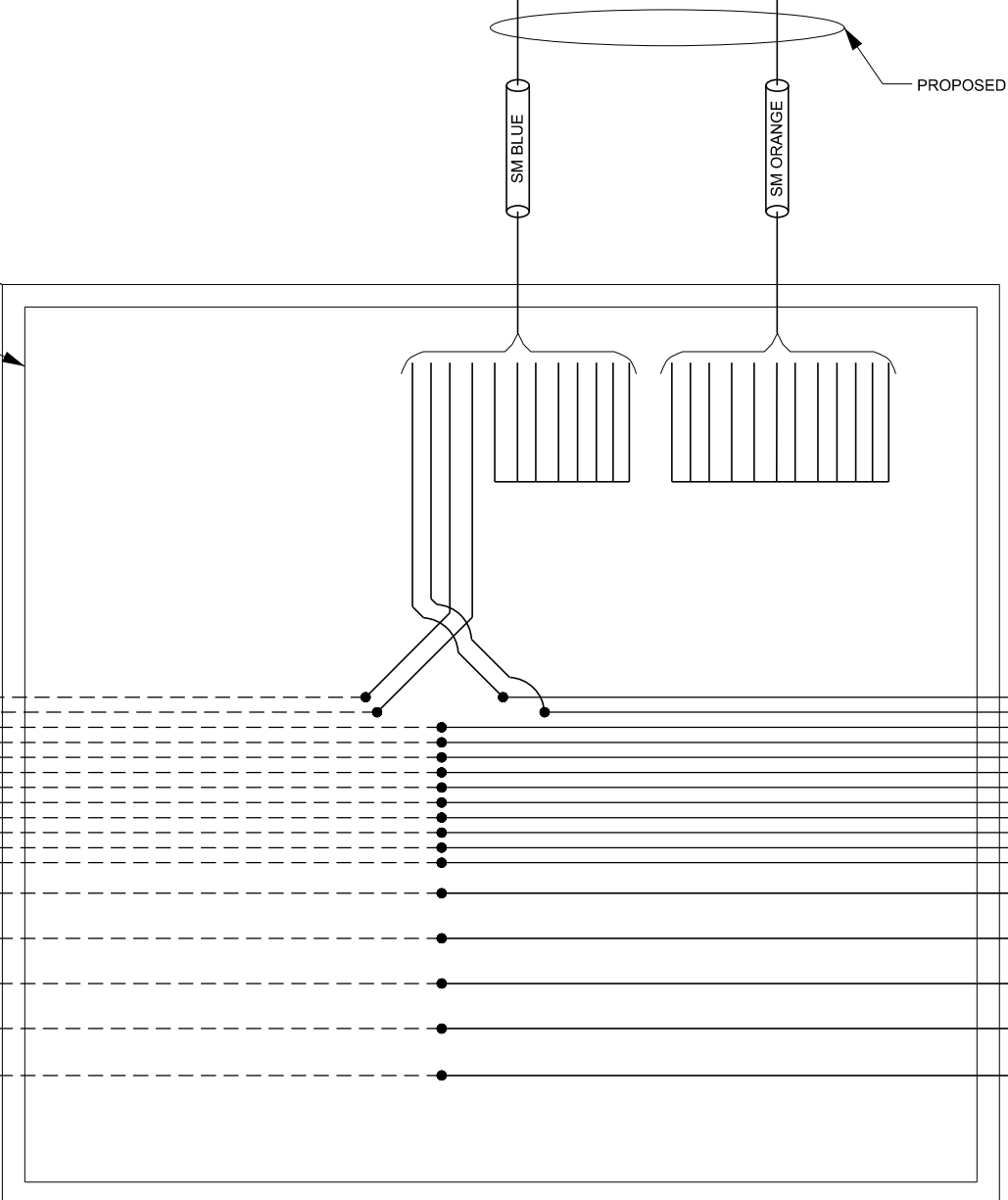
EXISTING SIGNAL CABINET

LEGEND:

- PROPOSED 72 SINGLE MODE
- - - EXISTING 72 SINGLE MODE
- PROPOSED 24 SM DROP CABLE
- PROPOSED FIBER SPLICE

PROPOSED SPLICE BOX
EXISTING SPLICE ENCLOSURE

PROPOSED 24 SM DROP CABLE



EXISTING 72 SINGLE MODE

EXISTING 72SM FOC TO CENTRAL PKWY. & PALM SPRINGS DR.

PROPOSED 72SM FOC TO SR 434 & PALM SPRINGS DR.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

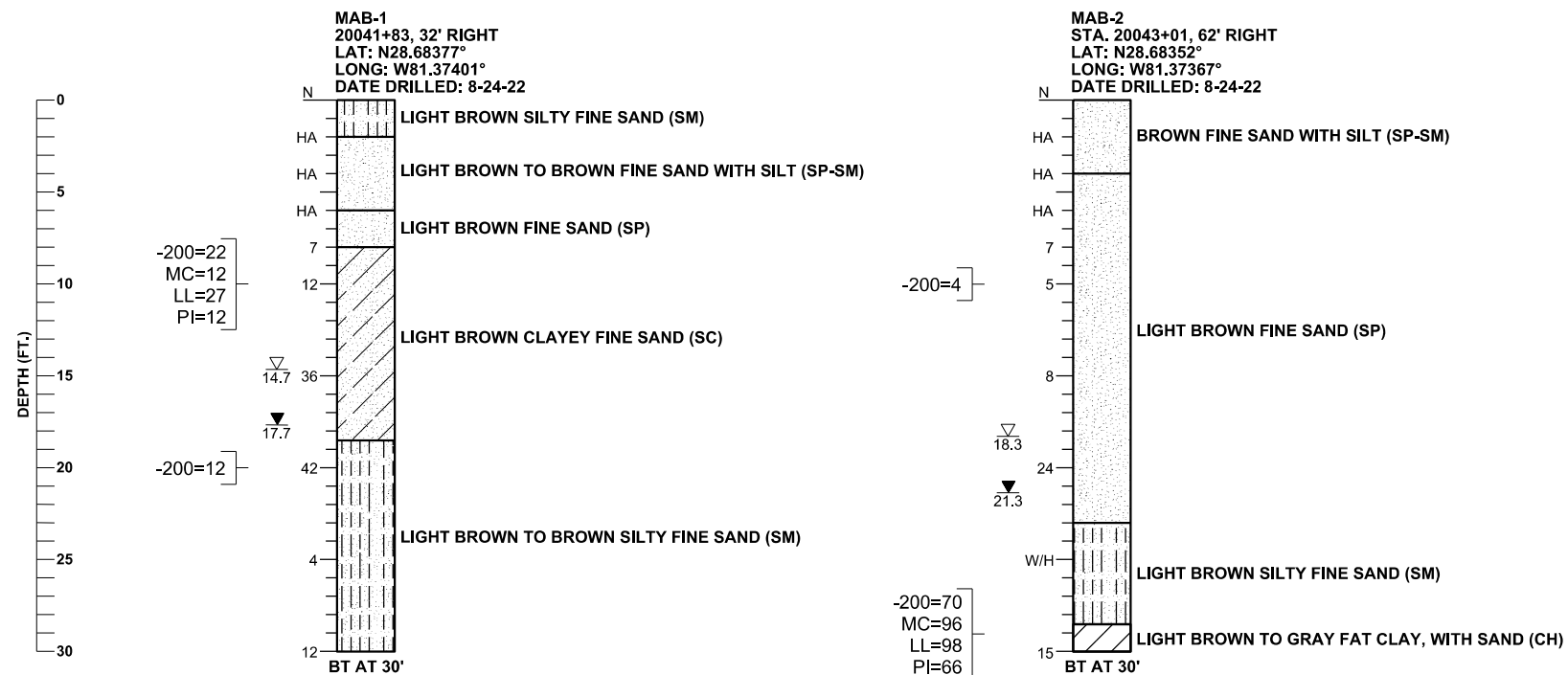
JINHAO MAI, P.E.
LICENSE NO. 91872
315 E. ROBINSON ST.
SUITE 400
ORLANDO, FL 32801
PHONE 407.420.4200
FAX 407.420.4242



SEMINOLE COUNTY
ENGINEERING DIVISION
ROLLING HILLS AREA ROADWAYS PHASE 1
ROAD: RAYMOND AVE., NORTH ST., PALM SPRINGS DR.
COUNTY CIP No.: 01907084

FIBER SPLICING
DIAGRAM

SHEET NO.
T-20



LEGEND

- N STANDARD PENETRATION RESISTANCE, BLOWS PER FOOT
- HA HAND AUGERED FOR UTILITY CLEARANCE
- W/H WEIGHT OF HAMMER
- ▽ 14.7 ESTIMATED SEASONAL HIGH GROUNDWATER DEPTH (FT.)
- ▼ 17.7 ENCOUNTERED GROUNDWATER DEPTH (FT.) 24 HRS. AFTER DATE DRILLED
- BT BORING TERMINATED AT DEPTH INDICATED
- 200= PERCENT PASSING NO. 200 U.S. STANDARD SIEVE
- MC= PERCENT NATURAL MOISTURE CONTENT
- LL= LIQUID LIMIT
- PI= PLASTICITY INDEX
- SAND
- SAND AND SILT
- SAND AND CLAY
- CLAY

GENERAL NOTES

SUBSURFACE CONDITIONS SHOWN ON THE BORINGS REPRESENT THE CONDITIONS ENCOUNTERED AT THE BORING LOCATIONS. ACTUAL CONDITIONS BETWEEN THE BORINGS MAY VARY FROM THOSE SHOWN. UNIFIED SOIL CLASSIFICATIONS SHOWN ON THE BORINGS ARE BASED ON VISUAL EXAMINATION AND THE LABORATORY TESTING SHOWN.

STANDARD PENETRATION TEST BORINGS WERE PERFORMED IN ACCORDANCE WITH ASTM D-1586. STANDARD PENETRATION RESISTANCES ARE SHOWN ON THE BORINGS AT THE TEST DEPTHS IN IN BLOWS PER FOOT UNLESS OTHERWISE NOTED.

THE BORING LOCATIONS WERE ESTABLISHED IN THE FIELD BY MEASURING DISTANCES FROM EXISTING SITE FEATURES SHOWN ON PLANS PROVIDED BY HDR ENGINEERING, INC. BORING LOCATIONS WERE NOT SURVEYED. STATION AND OFFSET REFERENCE THE NORTH STREET CENTERLINE OF CONSTRUCTION.

ACCORDING TO THE SEPTEMBER 2017 POTENTIOMETRIC CONTOURS USGS MAP, "UPPER FLORIDAN AQUIFER POTENTIOMETRIC SURFACE", THE POTENTIOMETRIC SURFACE OF THE FLORIDA AQUIFER IN THE VICINITY OF THE SUBJECT INTERSECTION IS APPROXIMATELY +42 FEET NGVD. THE CONTRACTOR SHALL BE PREPARED TO HANDLE ARTESIAN HEAD LEVELS UP TO +42 FEET NGVD.

SPLIT SPOON SAMPLER:
 INSIDE DIAMETER: 1.375 IN.
 OUTSIDE DIAMETER: 2.0 IN.
 AVERAGE HAMMER DROP: 30 IN.
 HAMMER WEIGHT: 140 LBS.

SECTIONS: 1 AND 12
 TOWNSHIP: 21 SOUTH
 RANGE: 29 EAST

CORRELATION OF STANDARD PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY OF SOIL

MANUAL HAMMER (SAFETY)		
GRANULAR SOILS	N VALUE (blows per foot)	RELATIVE DENSITY
SANDS	0-4	VERY LOOSE
	4-10	LOOSE
	10-30	MEDIUM DENSE
	30-50	DENSE
	OVER 50	VERY DENSE
MANUAL HAMMER (SAFETY)		
NON-GRANULAR SOILS	N VALUE (blows per foot)	CONSISTENCY
SILTS, CLAYS, MUCK, PEAT	0-2	VERY SOFT
	2-4	SOFT
	4-8	FIRM
	8-15	STIFF
	15-30	VERY STIFF
	OVER 30	HARD

FIGURE 6

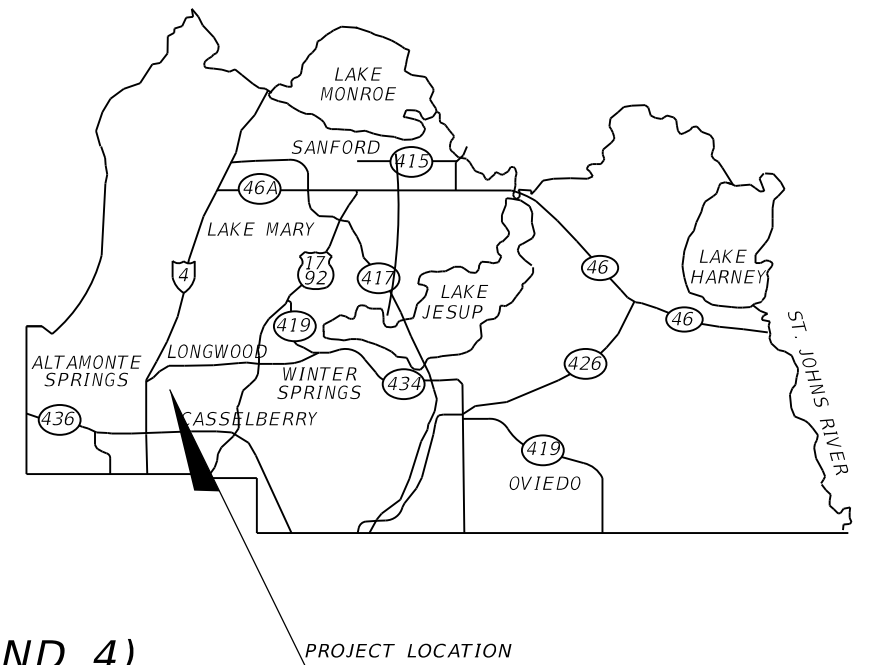
REVISIONS				VERNA E. WILLIFORD IV, P.E. P.E. LICENSE NUMBER 82275 GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS, INC. 919 LAKE BALDWIN LANE ORLANDO, FL. 32814	SEMINOLE COUNTY ENGINEERING DIVISION ROLLING HILLS AREA ROADWAYS PHASE 1	ROAD RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	COUNTY CIP No. 01907084	SPT BORING RESULTS FOR MAST ARM SIGNAL POLES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION						T-22

*SEMINOLE COUNTY
ENGINEERING DIVISION*

CONTRACT PLANS



**ROLLING HILLS AREA ROADWAYS PHASE 1
SEMINOLE COUNTY CIP No. 01907084 (DISTRICT 3 AND 4)
LANDSCAPE PLANS**



INDEX OF LANDSCAPE PLANS

<i>SHEET NO.</i>	<i>SHEET DESCRIPTION</i>
LD-1	KEY SHEET
LD-2	LANDSCAPE NOTES
LD-3	TABULATION OF QUANTITIES AND PLANT SCHEDULE
LD-4	PROJECT LAYOUT
LD-5	TREE DISPOSITION PLAN
LD-6 TO LD-14	LANDSCAPE PLAN
LD-15 TO LD-17	LANDSCAPE DETAILS
LD-18 TO LD-27	HARDSCAPE PLAN
LD-28 TO LD-36	IRRIGATION PLAN
LD-37	IRRIGATION NOTES AND SCHEDULE
LD-38 TO LD-39	IRRIGATION SCHEDULE
LD-40 TO LD-42	IRRIGATION DETAILS

**90% PLANS
SEPTEMBER 2022**

LANDSCAPE PLANS
LANDSCAPE ARCHITECT OF RECORD:
MAGUED HANNA, R.L.A.
LICENSE NO. LA6667254
HDR ENGINEERING, INC.
315 E. ROBINSON STREET, SUITE 400
ORLANDO, FL 32801

COUNTY PROJECT MANAGER:
ANGELA CARDONA, PE
ENGINEERING DIVISION
100 EAST 1st STREET
SANFORD, FL 32771

<i>FISCAL YEAR</i>	<i>SHEET NO.</i>
21-22	LD-1

LANDSCAPE NOTES

1. FLAG ALL PLANTING LOCATIONS PRIOR TO INSTALLATION. ALL PLANTING LOCATIONS MUST BE APPROVED BY AND MAY BE ADJUSTED BY THE LANDSCAPE ARCHITECT.

2. ALL PLANT MATERIALS ARE SUBJECT TO INSPECTION AND APPROVAL BY THE LANDSCAPE ARCHITECT AT THE GROWING SITE, NURSERY OR HANDLING AREA DESIGNATED FOR THE PROJECT SITE.

3. THE CONTRACTOR IS RESPONSIBLE FOR PLANT QUANTITY TAKE-OFFS AND TO PROVIDE ALL PLANT MATERIAL REQUIRED AS SHOWN ON LANDSCAPE PLANS.

4. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL FACILITIES. LANDSCAPE MATERIAL SHALL BE ADJUSTED IN THE FIELD TO AVOID CONFLICTS WITH ANY UTILITY STRUCTURES, DRAINAGE STRUCTURES, DITCHES, UNDERDRAINS, DITCH BLOCK, STORMWATER MANAGEMENT FACILITIES, DRAINAGE DISCHARGE PATHS, TRAFFIC SIGNAGE, ITS CAMERAS, LIGHTING AND THEIR APPURTENANCES. IF A CONFLICT EXISTS, THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT PRIOR TO THE COMMENCEMENT OF ANY ACTIVITY. ANY COSTS TO REMOVE AND / OR REPAIR WORK PLACED THAT HAS NOT BEEN APPROVED BY THE LANDSCAPE ARCHITECT SHALL BE AT THE CONTRACTOR'S EXPENSE.

- IN CASE OF ANY DAMAGES THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AND TEMPORARILY FIX THE DAMAGE IN LESS THAN FOUR HOURS OF OCCURRENCE AND FOLLOW WITH A PERMANET FIX USING AN APPROVED METHOD.

5. PRE-EMERGENT GRANULAR HERBICIDE SHALL BE APPLIED TO ALL INDIVIDUAL MULCH RINGS. THE HERBICIDE ACTIVE INGREDIENTS SHALL BE SUITABLE FOR CONTROL OF ANNUAL AND PERENNIAL BROADLEAF WEEDS AND GRASSES. THE GRANULAR HERBICIDE SHALL BE APPLIED BY HAND AFTER PLANTING AND BEFORE PLACING MULCH. THE HERBICIDE SHALL BE APPLIED AT A RATE RECOMMENDED BY THE MANUFACTURER.

6. TREAT THE ROOT BALL OF ALL TREES IN THE UPPER 8-10 INCHES OF THE PLANTING HOLE WITH THE MANUFACTURER'S RECOMMENDED AMOUNT OF MYCORRHIZAL FUNGAL INOCULANTS, TO INCLUDE AT A MINIMUM THE FOLLOWING :

- ENDOMYCORRHIZAL FUNGUS.
- ECTOMYCORRHIZAL FUNGUS.
- FULVIC ACID.
- TRICHODERMA.
- PHOSPHATE SOLUBILIZATING, NITROGEN FIXING AND GROWTH PROMOTING BACTERIA.
- HUMIC ACID DERIVED FROM LEONARDITE.
- SEA KELP EXTRACT (ASCOPHYLLUM NODOSUM).
- YUCCA PLANT EXTRACT (YUCCA SCHIDIGERA).
- WATER HOLDING POLYMER (CROSS LINKED ACRYLAMIDE AND POTASSIUM ACRYLATE).
- PARTICAL SIZE : 0.8 MM TO 2.0 MM .
- PERCENT SOLUBLE : LESS THAN 0.05% .
- ABSORPTION RATE : 300 - 400 TIMES IN DISTILLED WATER.

SUBMIT SAMPLE OF MYCORRHIZAL INOCULANT FOR ACCEPTANCE BY THE LANDSCAPE ARCHITECT.

7. SEE PLANS FOR LANDSCAPE SETBACKS FROM UTILITIES. WHEN NO SETBACK IS NOTED THE FOLLOWING SHALL APPLY:

FENCE	6'
DRAINAGE STRUCTURES	5'
OVERHEAD UTILITIES	10'
UNDERGROUND UTILITIES	5'
BACK OF GUARDRAIL	6'

8. TEST AND AMEND SOIL AS NEEDED TO PROVIDE OPTIMUM MEDIUM FOR PLANT GROWTH. SOIL AMENDMENTS SHALL BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR REVIEW PRIOR PLANTING.

9. THE CONTRACTOR SHOULD SUBMIT A STORM WATER PREVENTION POLLUTION PLAN (SWPP) TO THE COUNTY FOR APPROVAL PRIOR TO ANY CONSTRUCTION.

10. RE-SOD ALL SLOPE AREAS AROUND NEWLY PLANTED TREES AND DISTURBED AREAS WHERE EARTHWORK IS SPECIFIED TO PRESERVE TREE WATERING RINGS.

11. ALL EXISTING TREES SHALL REMAIN UNLESS OTHERWISE INDICATED ON THE TREE DISPOSITION CHART (LD-5).

12. UNIFORMLY APPLY A LAYER OF MIN. 3" DEPTH OF MULCH MATERIAL CONSISTING OF MINI PINE BARK NUGGET MULCH.

13. ALL LANDSCAPE MATERIAL SHALL BE A MINIMUM OF FLORIDA #1 ACCORDING TO THE CURRENT EDITION OF THE FLORIDA GRADES AND STANDARDS FOR NURSERY PLANTS


14. ALL PLANT MATERIAL SHALL RECEIVE FERTILIZER (AGRIFORM TABLETS) AT THE TIME OF PLANTING PER MANUFACTURERS RECOMMENDATION

15. ALL PLANT MATERIAL BACKFILL SOIL SHALL BE A 60/40 SOIL MIXTURE

16. ALL DEBRIS SHALL BE REMOVED FROM PLANTING BEDS PRIOR TO PLANTING. THIS INCLUDES BUT IS NOT LIMITED TO ROCK, GRAVEL, TRASH, WOOD, ETC.

17. COORDINATE WITH THE CITY OF LONGWOOD TO DETERMINE ANY NECESSARY TREE RELOCATION/IRRIGATION ADJUSTMENTS BEHIND THE MAST ARM ON SR 434/RAYMOND AVENUE SOUTHWEST CORNER
CONTACT: ERIC NAGOWSKI (ENAGOWSKI@LONGWOODFL.ORG)

18. REGRADE AND/OR REPLACE ANY SOD THAT IS DISTURBED BY THE CONSTRUCTION OF THIS PROJECT WITH THE SAME SOD TYPE

REVISIONS				 MAGUED HANNA, R.L.A. LICENSE NO. LA6667254 315 E. ROBINSON ST. SUITE 400 ORLANDO, FL 32801 PHONE 407.420.4200 FAX 407.420.4242	SEMINOLE COUNTY ENGINEERING DIVISION ROLLING HILLS AREA ROADWAYS PHASE 1		LANDSCAPE NOTES	SHEET NO. LD-2
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD	COUNTY CIP No.		
					RAYMOND AVE.,NORTH ST.,PALM SPRINGS DR.	01907084		

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G10-11.001, F.A.C.

SYM	DESCRIPTION	MAX MAINTAINED SIZE	REMARKS	UNIT	SHEET NUMBERS												GRAND TOTAL			
					LD-6		LD-7		LD-8		LD-9		LD-10		LD-11		LD-12		PLAN	FINAL
					PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL				
	<i>Small Plants</i>			EA																
AG	<i>Arachis glabrata</i> - Perennial Peanut, Carpet Roll Sod			EA			2,228		8,009		768		3,920		2,502		791	18,218		
HP	<i>Hamelia patens</i> - Firebush, 7 Gal, 48" OC	18"		EA					101				42					143		
JP	<i>Juniperus parsonii</i> 'Grey Owl' - Grey Owl Juniper, 3 Gal, 36" OC			EA																
PN	<i>Paspalum notatum</i> - Bahiagrass			SY			6		40		51		323		65			485		
TA	<i>Trachelospermum asiaticum</i> - Dwarf Confederate Jasmine, 3 Gal, 24" OC	18"		EA			945		840				703					2,488		
TV	<i>Tulbaghia violacea</i> - Society Garlic, 1 Gal, 18" OC	18"		EA									1,121					1,121		
VO	<i>Viburnum odoratissimum</i> - Sweet Viburnum, 24" OC	18"		EA									140					140		
ZI	<i>Zamia integrifolia</i> - Coontie, 7 Gal, 36" OC			EA																
	<i>Large Plants</i>																			
BN	<i>Bismarckia nobilis</i> - Bismarck Palm, 12' OA			EA																
LN	<i>Livistona nitida</i> - Nitida Palm, 12' CT			EA					6									6		
MG	<i>Magnolia grandiflora</i> - Southern Magnolia, 12'-14'H, 6' SPRD, FTG			EA			8		3				7		9		2	30		
QV	<i>Quercus virginiana</i> - Live Oak, 16'H, 8' SPRD, Container Grown, 3" Cal.			EA									3					3		

SYM	DESCRIPTION	MAX MAINTAINED SIZE	REMARKS	UNIT	SHEET NUMBERS												GRAND TOTAL	
					LD-13		LD-14										PLAN	FINAL
					PLAN	FINAL	PLAN	FINAL										
	<i>Small Plants</i>			EA														
AG	<i>Arachis glabrata</i> - Perennial Peanut, Carpet Roll Sod			EA	3,620		2,445											6,065
HP	<i>Hamelia patens</i> - Firebush, 7 Gal, 48" OC	18"		EA			18											18
JP	<i>Juniperus parsonii</i> 'Grey Owl' - Grey Owl Juniper, 3 Gal, 36" OC			EA	30		106											136
PN	<i>Paspalum notatum</i> - Bahiagrass			SY	398		499											897
TA	<i>Trachelospermum asiaticum</i> - Dwarf Confederate Jasmine, 3 Gal, 24" OC	18"		EA														
TV	<i>Tulbaghia violacea</i> - Society Garlic, 1 Gal, 18" OC	18"		EA	590		587											1,177
VO	<i>Viburnum odoratissimum</i> - Sweet Viburnum, 24" OC	18"		EA														
ZI	<i>Zamia integrifolia</i> - Coontie, 7 Gal, 36" OC			EA	26		26											52
	<i>Large Plants</i>																	
BN	<i>Bismarckia nobilis</i> - Bismarck Palm, 12' overall			EA	3		2											5
LN	<i>Livistona nitida</i> - Nitida Palm, 12' CT			EA														
MG	<i>Magnolia grandiflora</i> - Southern Magnolia, 12'-14'H, 6' SPRD, FTG			EA	3		3											6
QV	<i>Quercus virginiana</i> - Live Oak, 16'H, 8' SPRD, Container Grown, 3" Cal.			EA														

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MAGUED HANNA, R.L.A. LICENSE NO. LA6667254
315 E. ROBINSON ST.
SUITE 400
ORLANDO, FL 32801
PHONE 407.420.4200
FAX 407.420.4242



SEMINOLE COUNTY
ENGINEERING DIVISION
ROLLING HILLS AREA ROADWAYS PHASE 1

ROAD COUNTY CIP No.
RAYMOND AVE.,NORTH
ST.,PALM SPRINGS DR. 01907084

TABULATION OF QUANTITIES
& PLANT SCHEDULE

SHEET NO.
LD-3

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G10-11.001, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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 315 E. ROBINSON ST.
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SEMINOLE COUNTY ENGINEERING DIVISION ROLLING HILLS AREA ROADWAYS PHASE 1	
ROAD	COUNTY CIP No.
RAYMOND AVE.,NORTH ST.,PALM SPRINGS DR.	01907084

PROJECT LAYOUT

SHEET NO.
LD-4

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G10-11.001, F.A.C.

TREE DISPOSITION CHART

VERIFICATION DATE: 11-29-2021

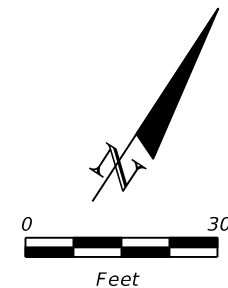
TREE NO.	COMMON NAME	NATIVE	DBH (IN.) FOR TREES/ CTH (FT.) FOR PALMS	DISPOSITION	STATION	OFFSET	NOTES/CONDITION
1	PINE TREE	Y	18	REMOVE	10015+92.43		
2	PINE TREE	Y	18	REMOVE	10016+42.13		
3	PINE TREE	Y	18	REMOVE	10016+54.24		
4	PINE TREE	Y	18	REMOVE	10017+01.92		
5	PINE TREE	Y	17	REMOVE	10018+36.36		
6	PINE TREE	Y	22	REMOVE	10018+63.48		
7	PINE TREE	Y	15	REMOVE	10019+20.25		
8	OAK TREE	Y	12	REMOVE	10020+09.40		
9	OAK TREE	Y	38	REMOVE	30021+21.88		
10	OAK TREE	Y	30	REMOVE	30022+13.23		
11	OAK TREE	Y	45	REMOVE	30022+60.72		
12	OAK TREE	Y	54	REMOVE	30023+02.02		
13	GUM TREE	UNKNOWN	15	REMOVE	30022+64.67		
14	ELM TREE	Y	10	REMOVE	30021+95.23		
15	OAK TREE	Y	48	REMOVE	30026+73.37		
16	SABAL PALM	Y	6	RELOCATE	30026+76.98		RELOCATE OUTSIDE OF THE PROJECT AS NEEDED.
17	SABAL PALM	Y	11	RELOCATE	30027+51.31		RELOCATE OUTSIDE OF THE PROJECT AS NEEDED.
18	SABAL PALM	Y	11	RELOCATE	30027+67.71		RELOCATE OUTSIDE OF THE PROJECT AS NEEDED.
19	PINE TREE	Y	27	REMOVE	30027+96.24		
20	PINE TREE	Y	11	REMOVE	30027+91.17		
21	SABAL PALM	Y	8	RELOCATE	2900+75.07		RELOCATE OUTSIDE OF THE PROJECT AS NEEDED.
22	PINE TREE	Y	16	REMOVE	2900+80.57		
23	PINE TREE	Y	18	REMOVE	10011+52.48		
24	PINE TREE	Y	20	REMOVE	10011+63.09		

REVISIONS				 MAGUED HANNA, R.L.A. LICENSE NO. LA6667254 315 E. ROBINSON ST. SUITE 400 ORLANDO, FL 32801 PHONE 407.420.4200 FAX 407.420.4242	SEMINOLE COUNTY ENGINEERING DIVISION ROLLING HILLS AREA ROADWAYS PHASE 1	<h3 style="margin: 0;">TREE DISPOSITION SHEET</h3>	SHEET NO.	
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD		COUNTY CIP No.	LD-5
					RAYMOND AVE.,NORTH ST.,PALM SPRINGS DR.		01907084	

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10+00 11+00 12+00 13+00 14+00

STATE ROAD 434

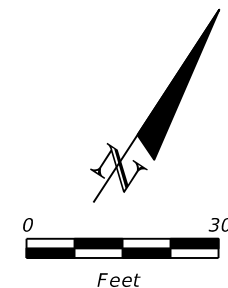


NO LANDSCAPE THIS SHEET.

MATCHLINE (SEE BELOW)

15+00 16+00 17+00 18+00

STATE ROAD 434



EXISTING TREES BEHIND MAST ARM TO BE RELOCATED
(COORDINATION WITH THE CITY OF LONGWOOD)

NO NEW LANDSCAPE THIS SHEET.

MATCHLINE (SEE ABOVE)

10030+00

MATCHLINE LD-7

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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SEMINOLE COUNTY ENGINEERING DIVISION ROLLING HILLS AREA ROADWAYS PHASE 1	
ROAD	COUNTY CIP No.
RAYMOND AVE.,NORTH ST.,PALM SPRINGS DR.	01907084

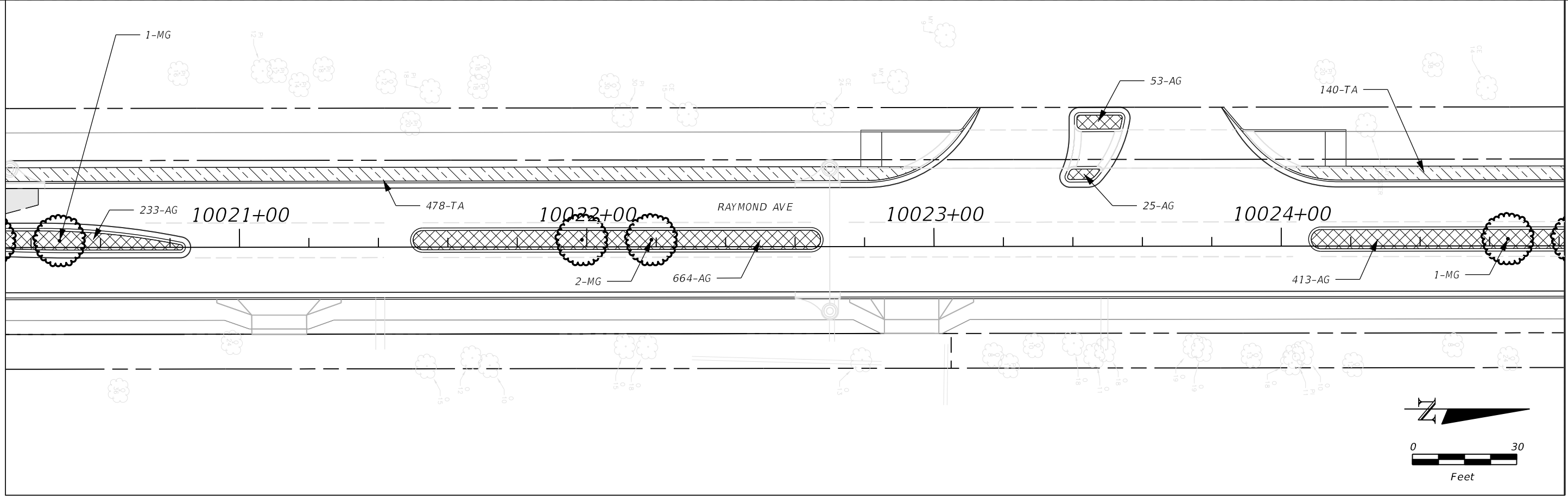
**LANDSCAPE PLAN
STATE ROAD 434**

SHEET NO.
LD-6

SUSERS SDATES STIMES SFILES

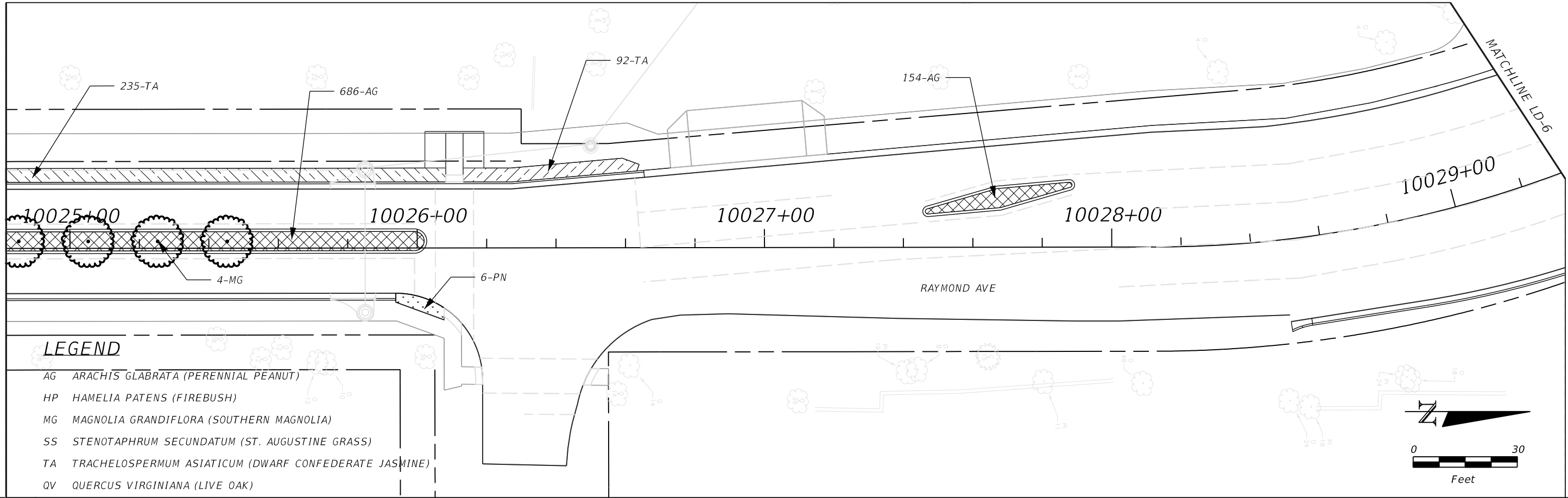
MATCHLINE LD-8

MATCHLINE (SEE BELOW)



MATCHLINE (SEE ABOVE)

MATCHLINE LD-6



LEGEND

- AG ARACHIS GLABRATA (PERENNIAL PEANUT)
- HP HAMELIA PATENS (FIREBUSH)
- MG MAGNOLIA GRANDIFLORA (SOUTHERN MAGNOLIA)
- SS STENOTAPHRUM SECUNDATUM (ST. AUGUSTINE GRASS)
- TA TRACHELOSPERMUM ASIATICUM (DWARF CONFEDERATE JASMINE)
- QV QUERCUS VIRGINIANA (LIVE OAK)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MAGUED HANNA, R.L.A. LICENSE NO. LA6667254
 315 E. ROBINSON ST. SUITE 400
 ORLANDO, FL 32801
 PHONE 407.420.4200
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SEMINOLE COUNTY
 ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1

ROAD	COUNTY CIP No.
RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084

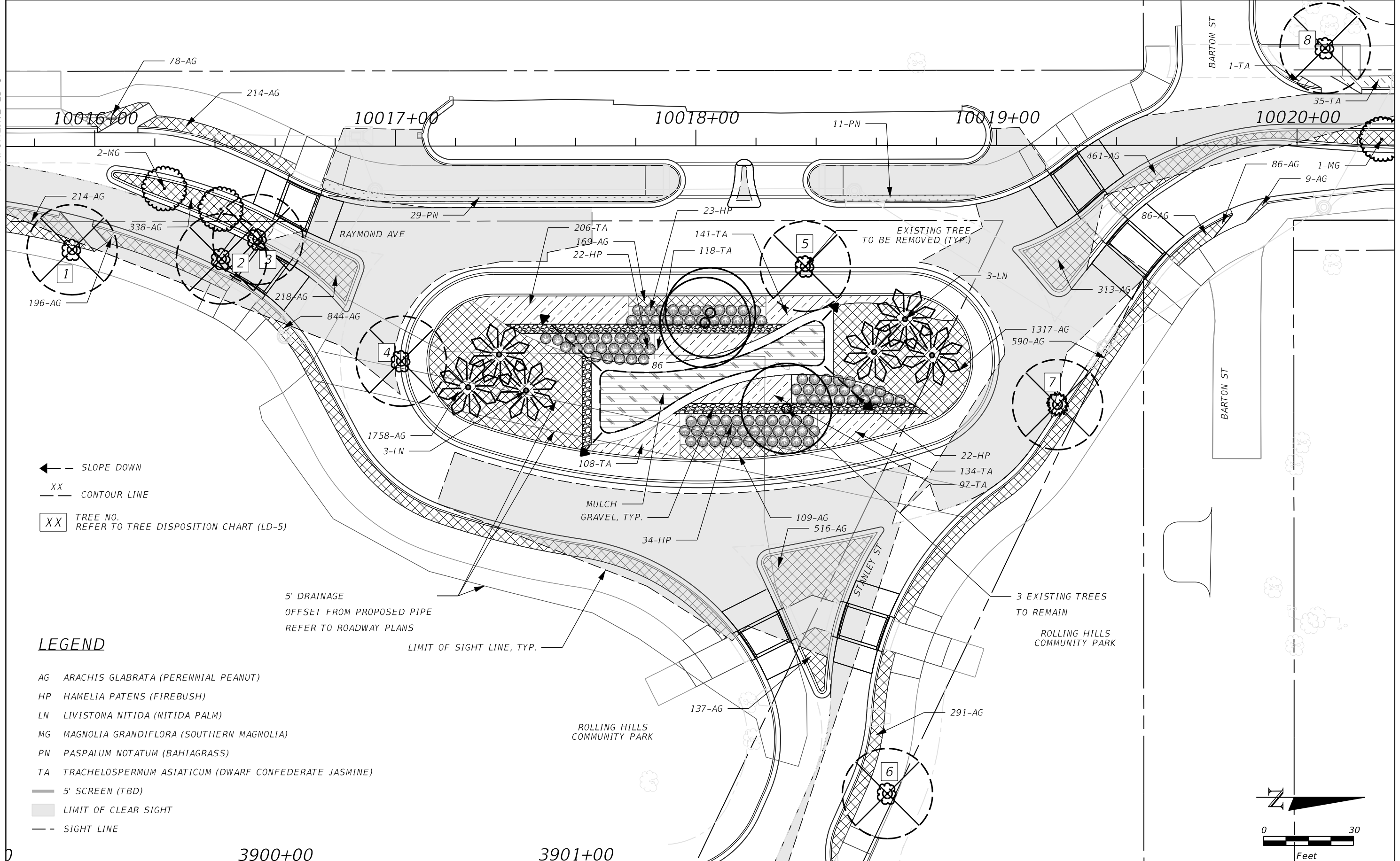
LANDSCAPE PLAN
 RAYMOND AVENUE (1)

SHEET NO.
 LD-7

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G10-11.001, F.A.C.

MATCHLINE LD-9

MATCHLINE LD-7



← SLOPE DOWN
 XX CONTOUR LINE
 XX TREE NO. REFER TO TREE DISPOSITION CHART (LD-5)

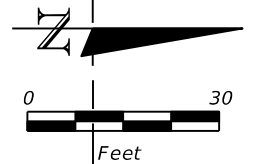
LEGEND

- AG ARACHIS GLABRATA (PERENNIAL PEANUT)
- HP HAMELIA PATENS (FIREBUSH)
- LN LIVISTONA NITIDA (NITIDA PALM)
- MG MAGNOLIA GRANDIFLORA (SOUTHERN MAGNOLIA)
- PN PASPALUM NOTATUM (BAHIAGRASS)
- TA TRACHELOSPERMUM ASIATICUM (DWARF CONFEDERATE JASMINE)
- 5' SCREEN (TBD)
- LIMIT OF CLEAR SIGHT
- - SIGHT LINE

5' DRAINAGE
 OFFSET FROM PROPOSED PIPE
 REFER TO ROADWAY PLANS

LIMIT OF SIGHT LINE, TYP.

3 EXISTING TREES
 TO REMAIN
 ROLLING HILLS
 COMMUNITY PARK



REVISIONS	
DATE	DESCRIPTION

MAGUED HANNA, R.L.A.
 LICENSE NO. LA6667254
 315 E. ROBINSON ST.
 SUITE 400
 ORLANDO, FL 32801
 PHONE 407.420.4200
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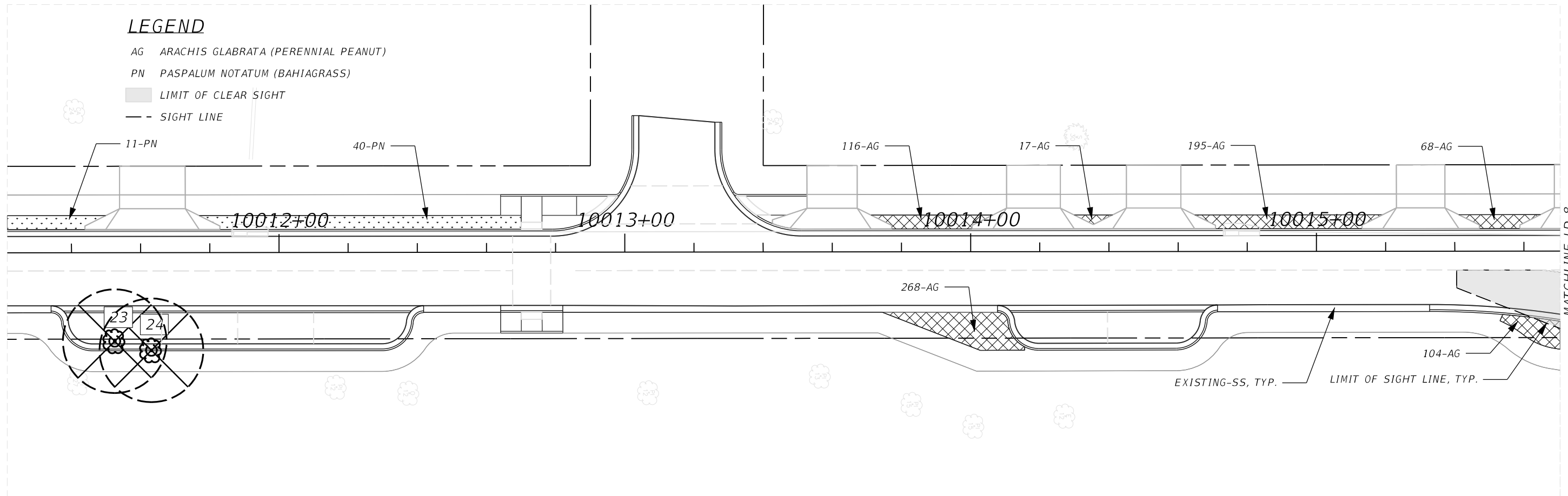
SEMINOLE COUNTY
 ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1

ROAD	COUNTY CIP No.
RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084

LANDSCAPE PLAN
 RAYMOND AVENUE (2)

SHEET NO.
LD-8

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LEGEND

- AG ARACHIS GLABRATA (PERENNIAL PEANUT)
- PN PASPALUM NOTATUM (BAHIAGRASS)
- LIMIT OF CLEAR SIGHT
- - SIGHT LINE

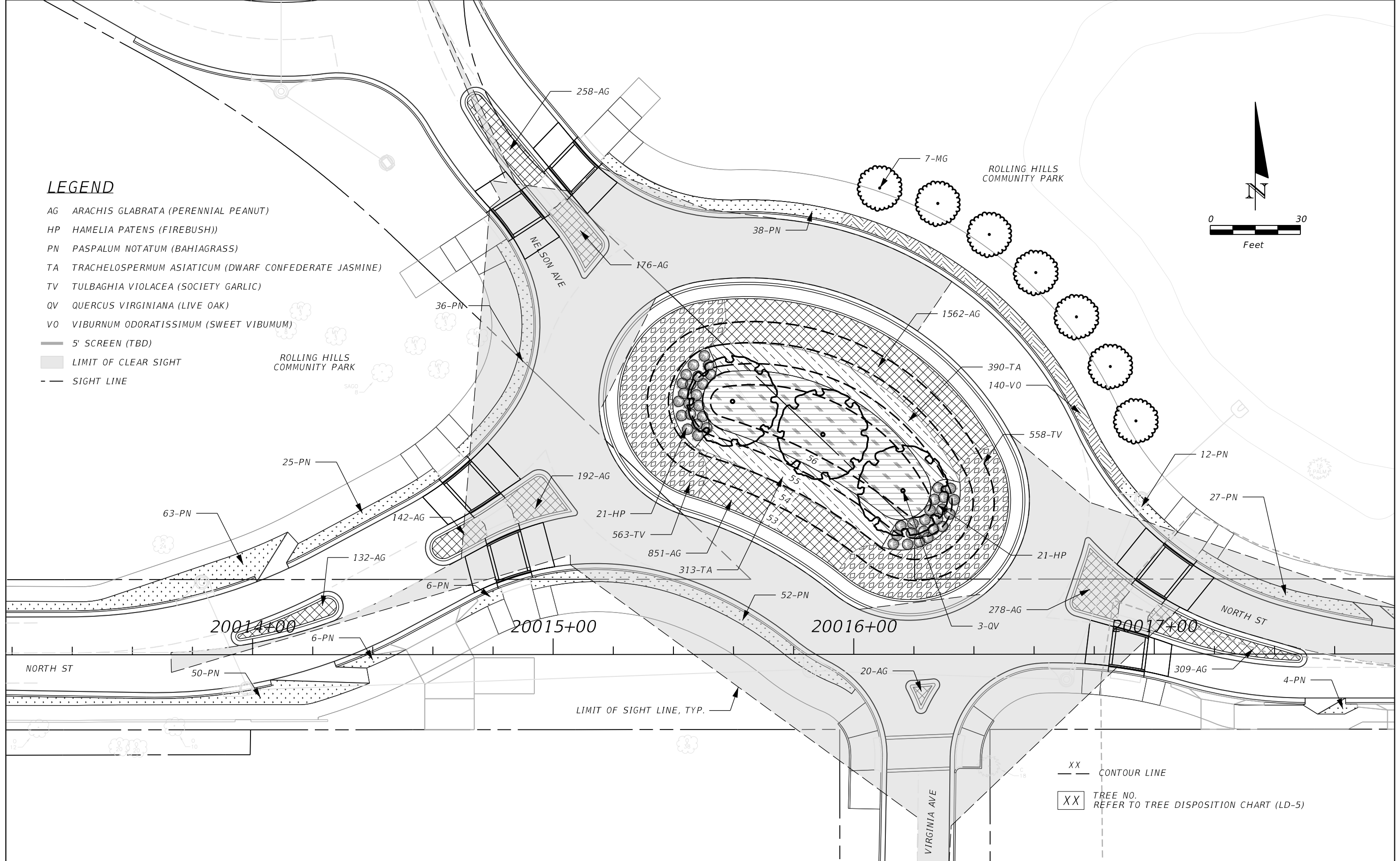
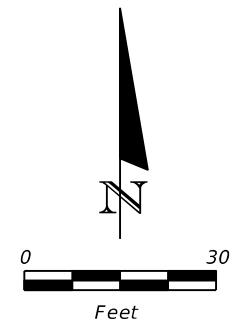
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G10-11.001, F.A.C.

REVISIONS					SEMINOLE COUNTY ENGINEERING DIVISION ROLLING HILLS AREA ROADWAYS PHASE 1		LANDSCAPE PLAN RAYMOND AVENUE (3)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD	COUNTY CIP No.		LD-9
				MAGUED HANNA, R.L.A. LICENSE NO. LA6667254 315 E. ROBINSON ST. SUITE 400 ORLANDO, FL 32801 PHONE 407.420.4200 FAX 407.420.4242	RAYMOND AVE.,NORTH ST.,PALM SPRINGS DR.	01907084		

SUSERS SDATES STIMES SFILES

LEGEND

- AG ARACHIS GLABRATA (PERENNIAL PEANUT)
- HP HAMELIA PATENS (FIREBUSH)
- PN PASPALUM NOTATUM (BAHIAGRASS)
- TA TRACHELOSPERMUM ASIATICUM (DWARF CONFEDERATE JASMINE)
- TV TULBAGHIA VIOLACEA (SOCIETY GARLIC)
- QV QUERCUS VIRGINIANA (LIVE OAK)
- VO VIBURNUM ODORATISSIMUM (SWEET VIBURNUM)
- 5' SCREEN (TBD)
- LIMIT OF CLEAR SIGHT
- SIGHT LINE



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MAGUED HANNA, R.L.A.
 LICENSE NO. LA6667254
 315 E. ROBINSON ST.
 SUITE 400
 ORLANDO, FL 32801
 PHONE 407.420.4200
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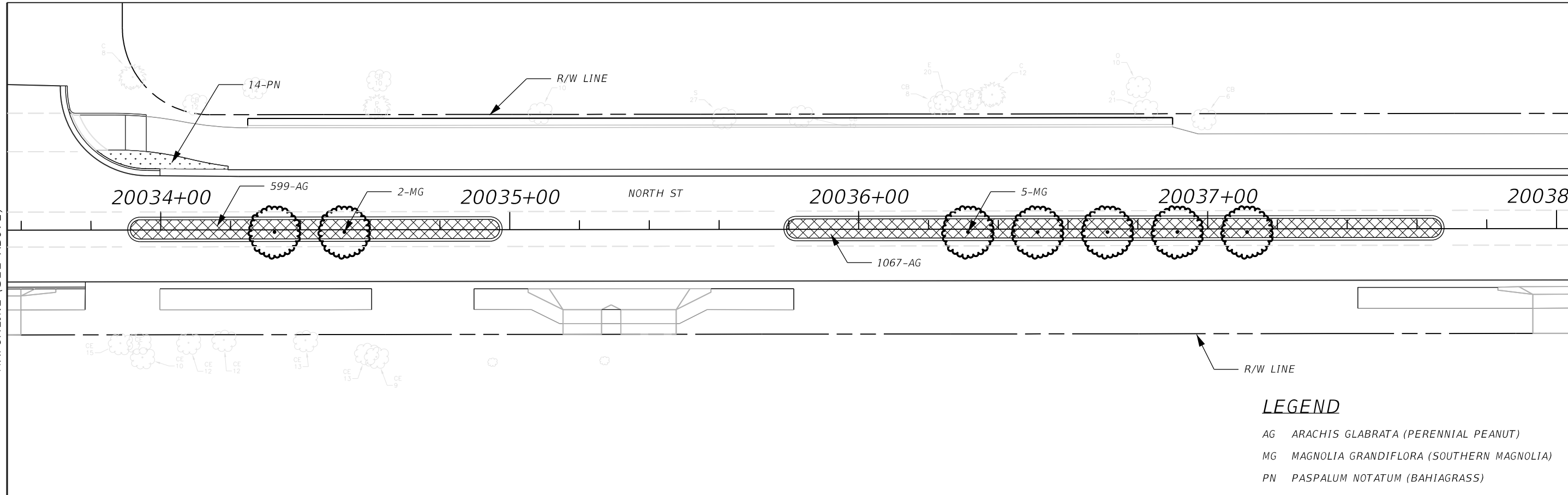
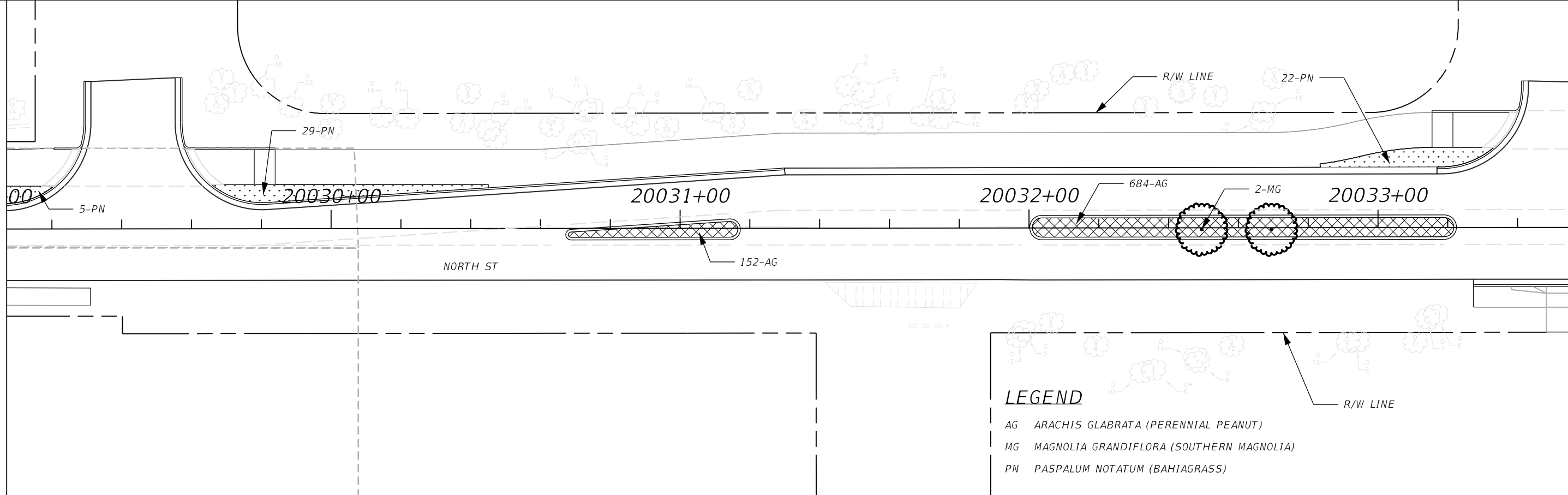
SEMINOLE COUNTY
 ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1

ROAD	COUNTY CIP No.
RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084

LANDSCAPE PLAN
 NORTH STREET (1)

SHEET NO.
 LD-10

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MATCHLINE (SEE ABOVE)

MATCHLINE (SEE BELOW)

MATCHLINE LD-12

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MAGUED HANNA, R.L.A.
 LICENSE NO. LA6667254
 315 E. ROBINSON ST.
 SUITE 400
 ORLANDO, FL 32801
 PHONE 407.420.4200
 FAX 407.420.4242



SEMINOLE COUNTY
 ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1

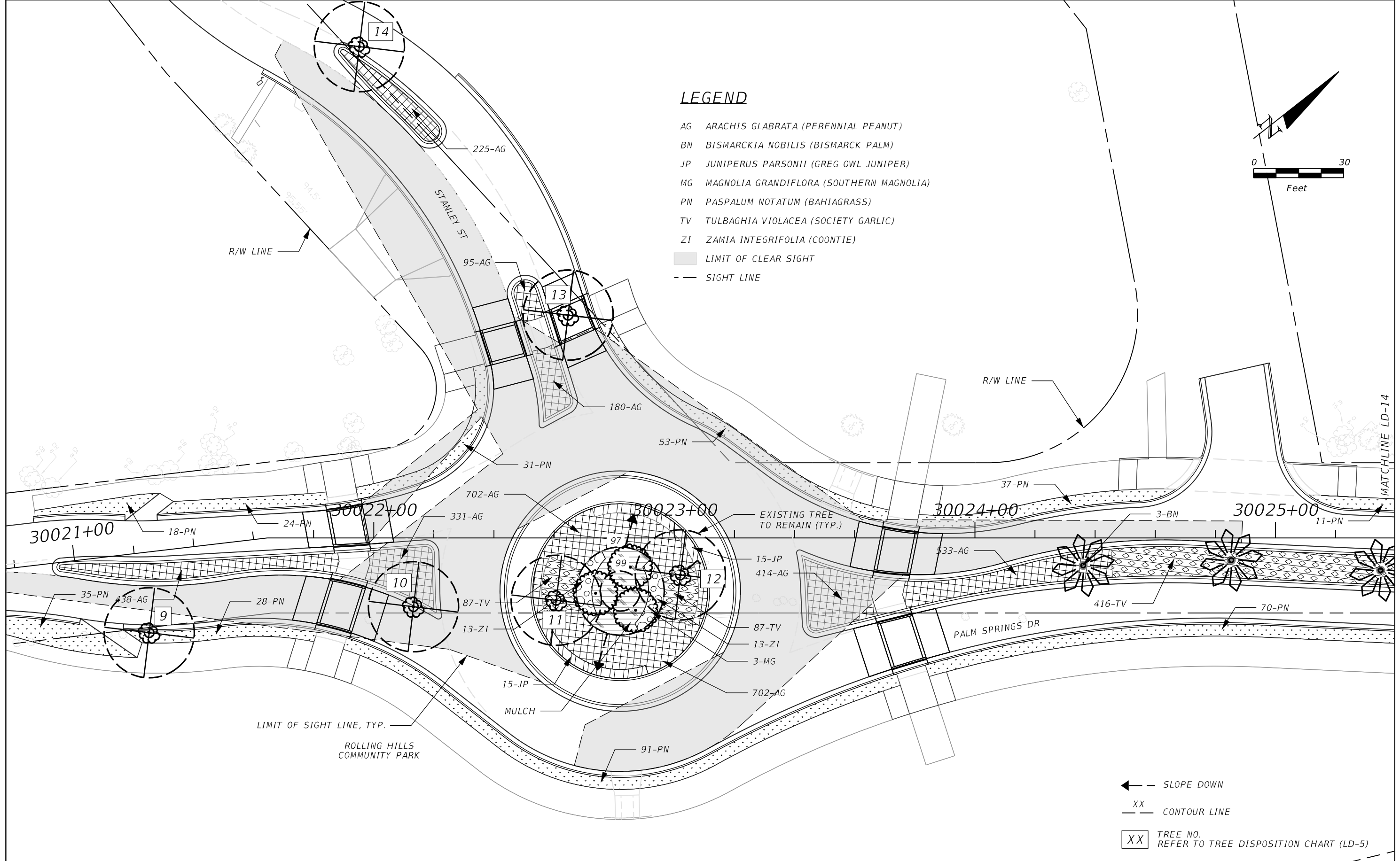
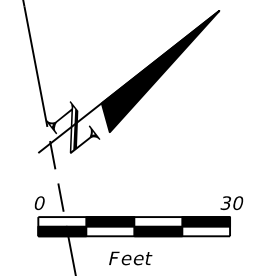
ROAD	COUNTY CIP No.
RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084

LANDSCAPE PLAN
 NORTH STREET (2)

SHEET NO.
 LD-11

LEGEND

- AG ARACHIS GLABRATA (PERENNIAL PEANUT)
- BN BISMARCKIA NOBILIS (BISMARCK PALM)
- JP JUNIPERUS PARSONII (GREG OWL JUNIPER)
- MG MAGNOLIA GRANDIFLORA (SOUTHERN MAGNOLIA)
- PN PASPALUM NOTATUM (BAHIA GRASS)
- TV TULBAGHIA VIOLACEA (SOCIETY GARLIC)
- ZI ZAMIA INTEGRIFOLIA (COONTIE)
- LIMIT OF CLEAR SIGHT
- SIGHT LINE



- ← SLOPE DOWN
- XX CONTOUR LINE
- XX TREE NO. REFER TO TREE DISPOSITION CHART (LD-5)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MAGUED HANNA, R.L.A. LICENSE NO. LA6667254
 315 E. ROBINSON ST. SUITE 400
 ORLANDO, FL 32801 PHONE 407.420.4200
 FAX 407.420.4242



SEMINOLE COUNTY ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1

ROAD	COUNTY CIP No.
RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084

LANDSCAPE PLAN
 PALM SPRINGS DRIVE (1)

SHEET NO.
 LD-13

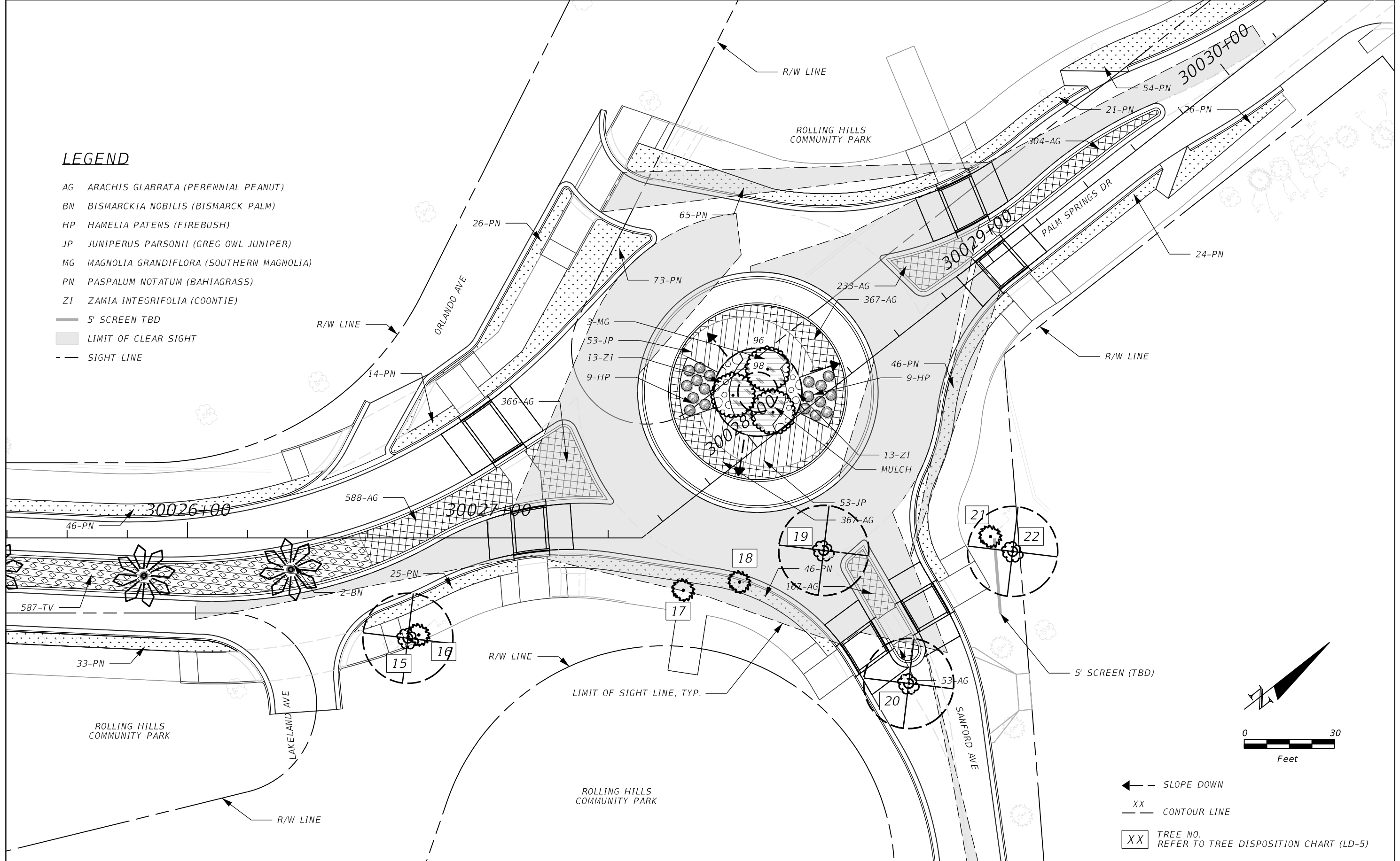
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G10-11.001, F.A.C.

LEGEND

- AG ARACHIS GLABRATA (PERENNIAL PEANUT)
- BN BISMARCKIA NOBILIS (BISMARCK PALM)
- HP HAMELIA PATENS (FIREBUSH)
- JP JUNIPERUS PARSONII (GREG OWL JUNIPER)
- MG MAGNOLIA GRANDIFLORA (SOUTHERN MAGNOLIA)
- PN PASPALUM NOTATUM (BAHIAGRASS)
- ZI ZAMIA INTEGRIFOLIA (COONTIE)

- 5' SCREEN TBD
- LIMIT OF CLEAR SIGHT
- - SIGHT LINE

MATCHLINE LD-13



- ← SLOPE DOWN
- - - CONTOUR LINE
- XX TREE NO. REFER TO TREE DISPOSITION CHART (LD-5)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MAGUED HANNA, R.L.A. LICENSE NO. LA6667254
 315 E. ROBINSON ST. SUITE 400
 ORLANDO, FL 32801 PHONE 407.420.4200
 FAX 407.420.4242



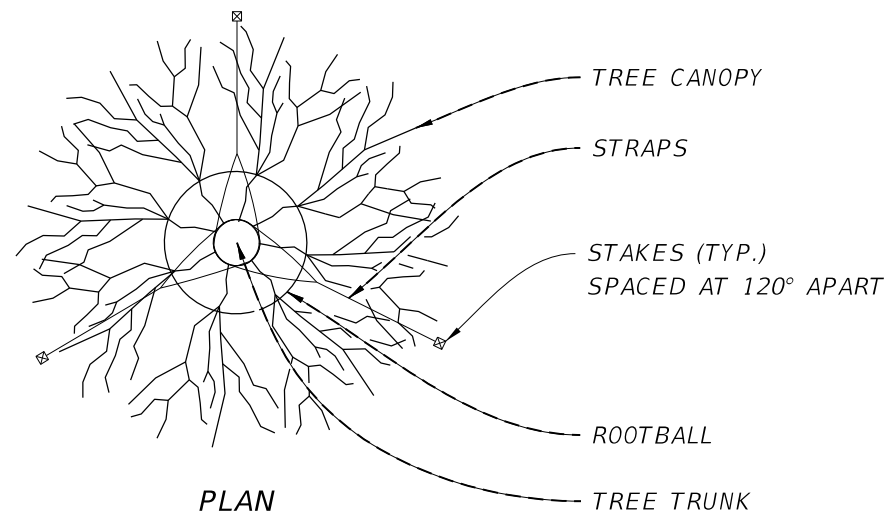
SEMINOLE COUNTY ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1

ROAD	COUNTY CIP No.
RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084

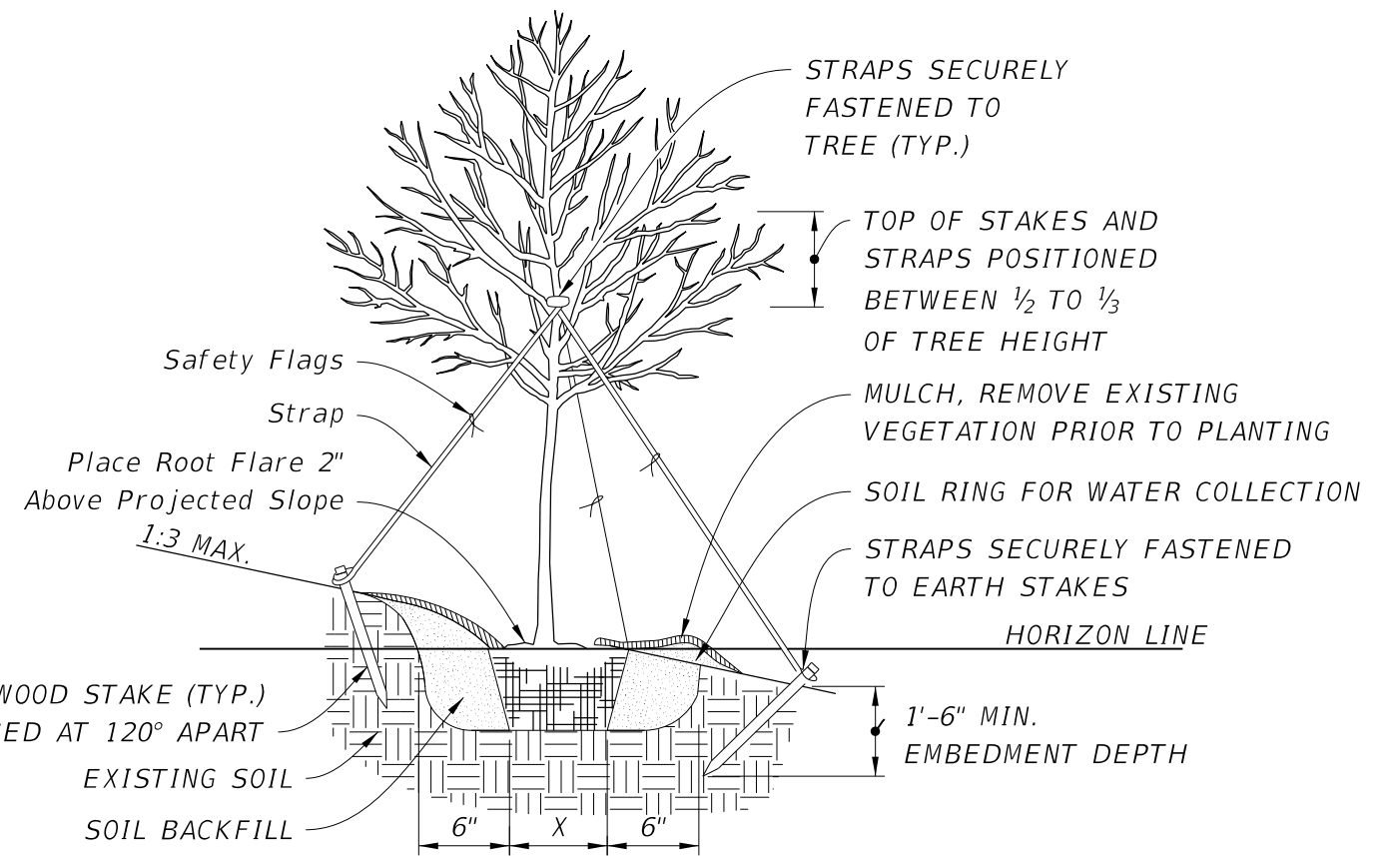
**LANDSCAPE PLAN
 PALM SPRINGS DRIVE (2)**

SHEET NO.
LD-14

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G10-11.001, F.A.C.

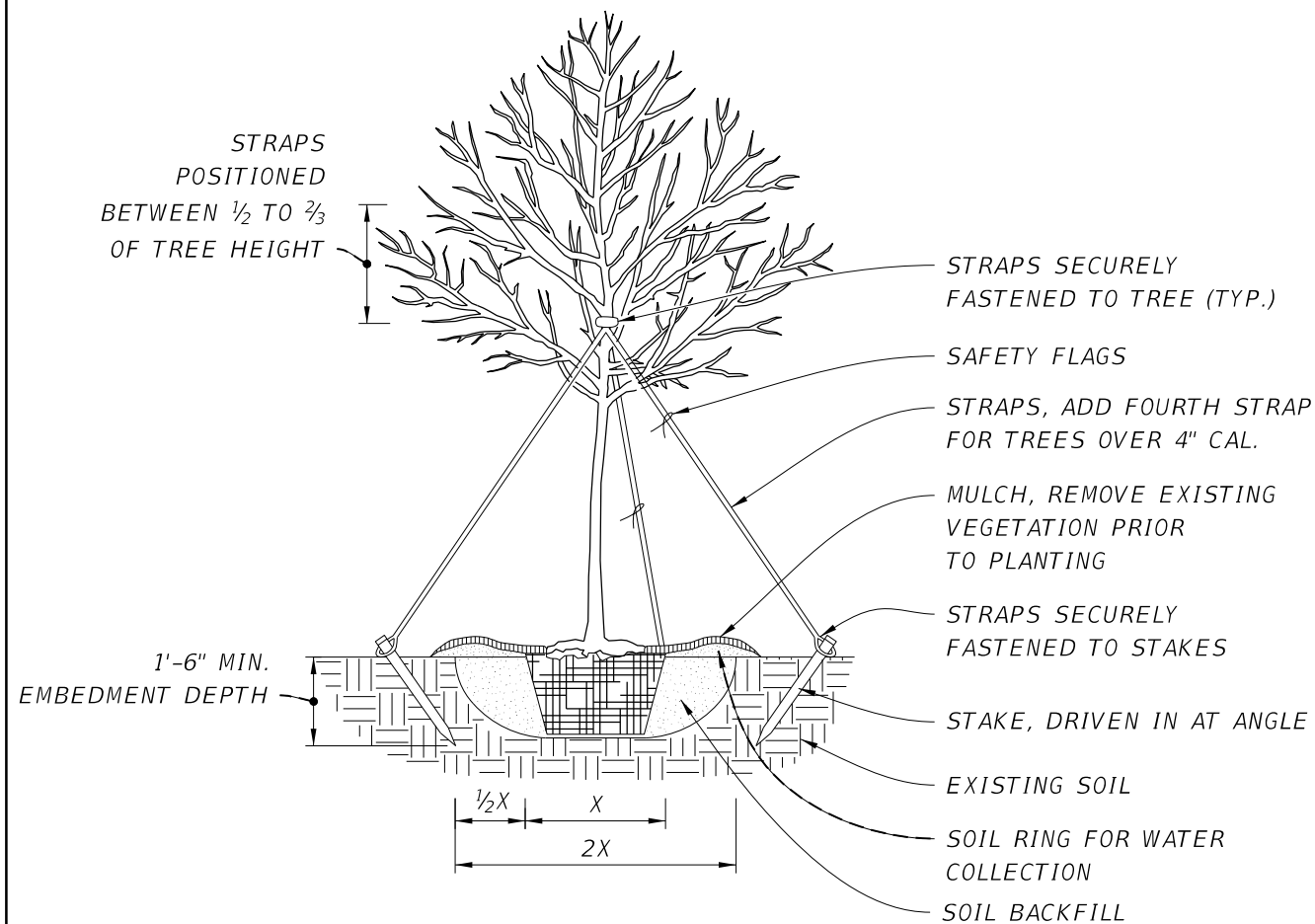


PLAN



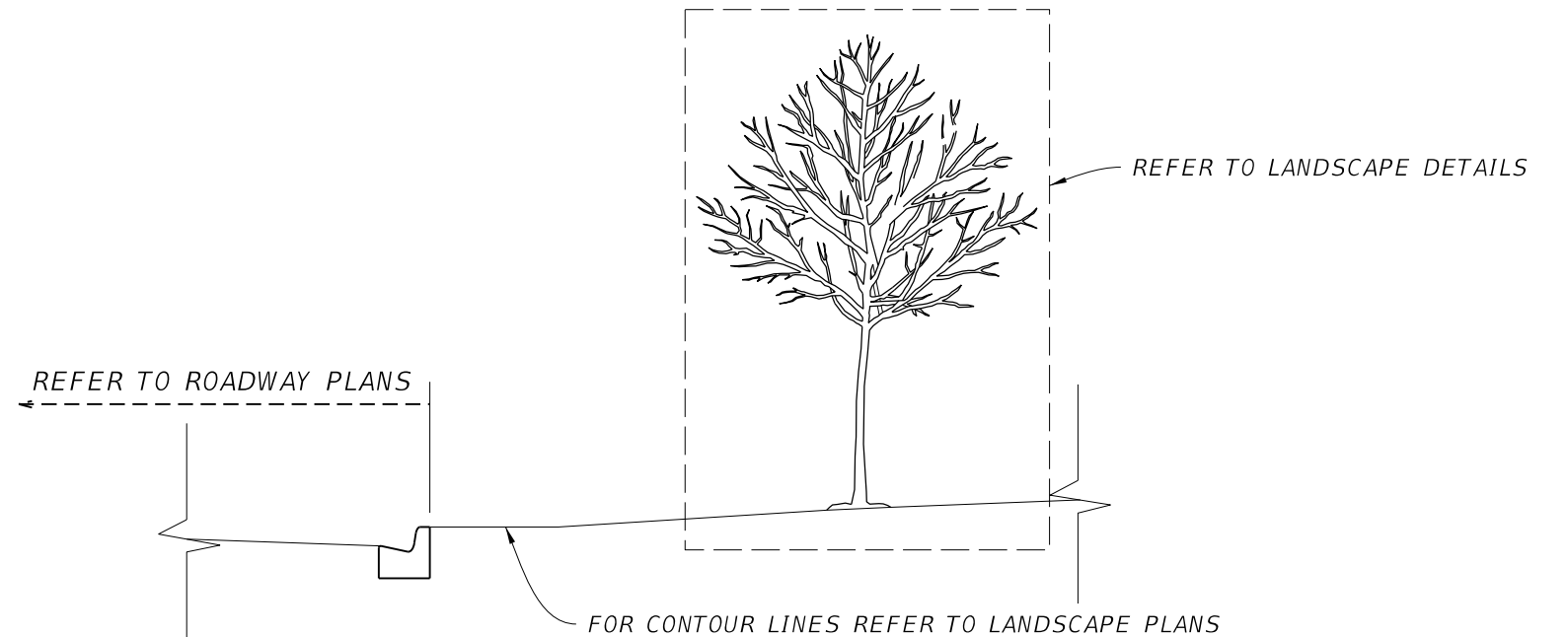
ELEVATION

2 1/2" TO 6" CALIPER TREE PLANTING ON SLOPE



ELEVATION

2 1/2" TO 6" CALIPER TREE PLANTING



ROUNDBABOUT GRADING AND PLANTING

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MAGUED HANNA, R.L.A.
LICENSE NO. LA6667254
315 E. ROBINSON ST.
SUITE 400
ORLANDO, FL 32801
PHONE 407.420.4200
FAX 407.420.4242



SEMINOLE COUNTY
ENGINEERING DIVISION
ROLLING HILLS AREA ROADWAYS PHASE 1

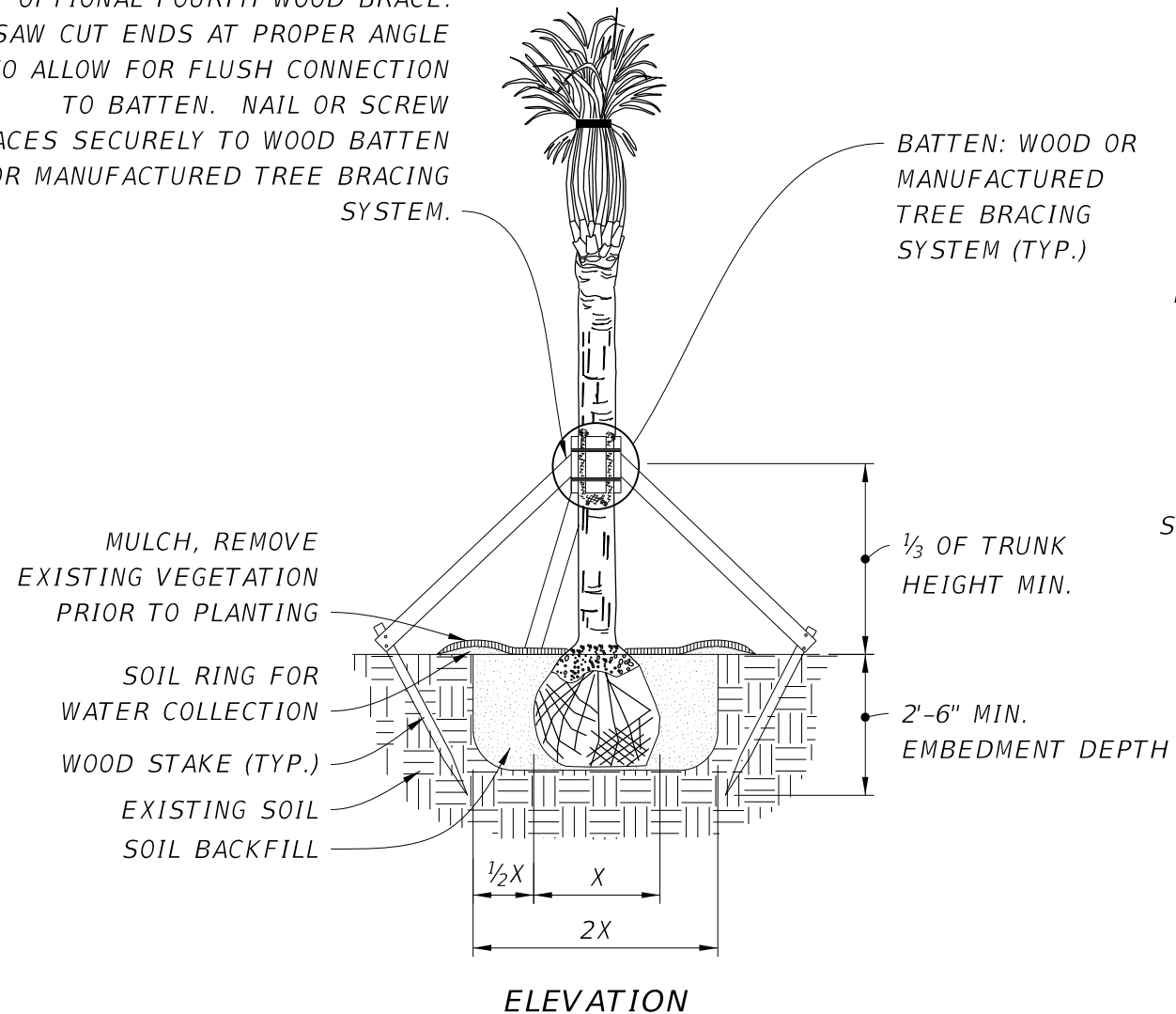
ROAD	COUNTY CIP No.
RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084

LANDSCAPE DETAILS

SHEET NO.
LD-15

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G10-11.001, F.A.C.

MINIMUM OF THREE WOOD BRACES
 SPACED AT 120° APART WITH
 OPTIONAL FOURTH WOOD BRACE.
 SAW CUT ENDS AT PROPER ANGLE
 TO ALLOW FOR FLUSH CONNECTION
 TO BATTEN. NAIL OR SCREW
 BRACES SECURELY TO WOOD BATTEN
 OR MANUFACTURED TREE BRACING
 SYSTEM.

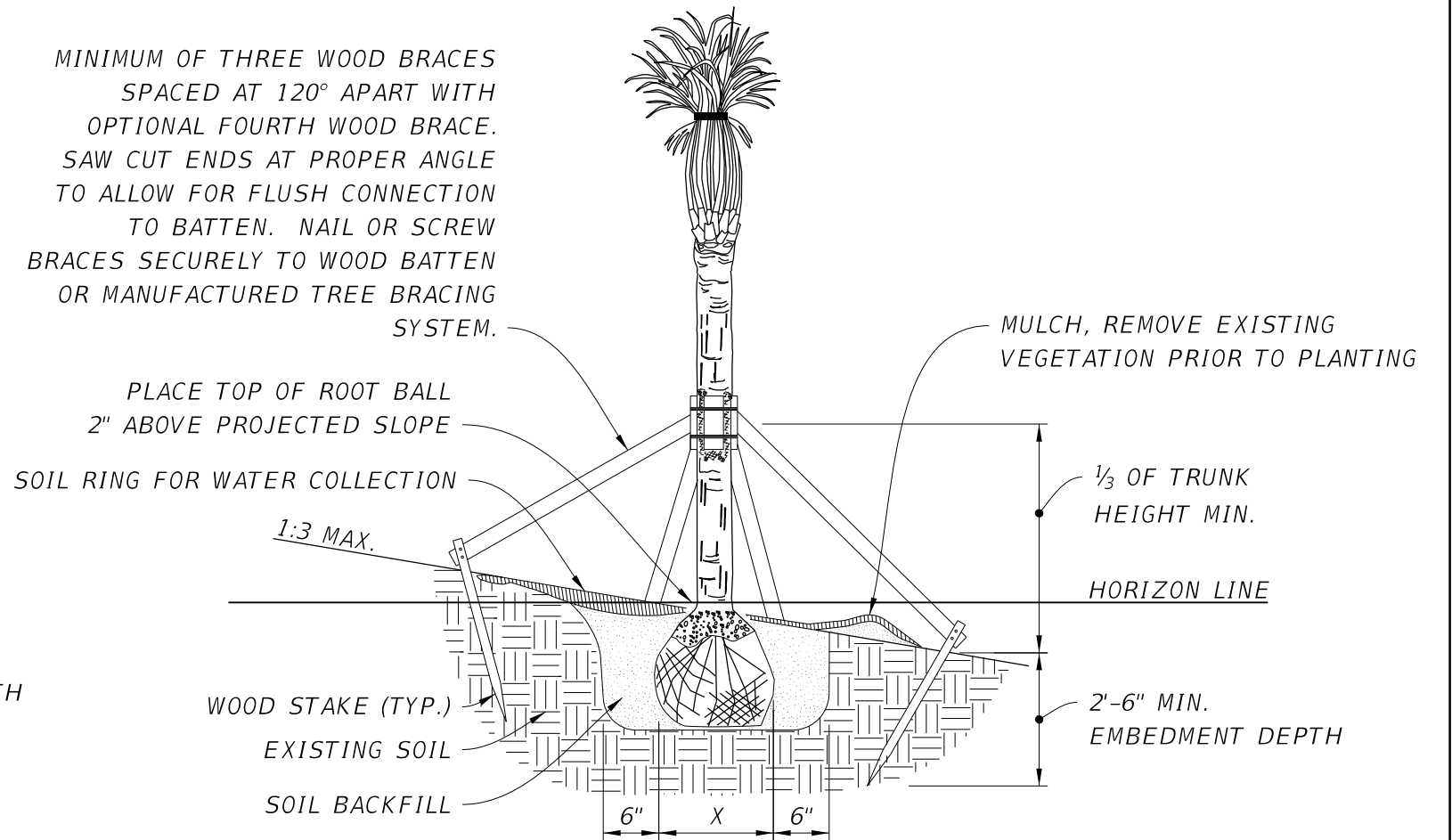


ELEVATION

NOTE: MAY BE USED ON LARGE CALIPER CANOPY TREES, ADJUST BANDING EVERY
 6 MONTHS OR AS NEEDED (FOR FAST GROWING SPECIES) TO PREVENT GIRDLING.

PALM PLANTING

MINIMUM OF THREE WOOD BRACES
 SPACED AT 120° APART WITH
 OPTIONAL FOURTH WOOD BRACE.
 SAW CUT ENDS AT PROPER ANGLE
 TO ALLOW FOR FLUSH CONNECTION
 TO BATTEN. NAIL OR SCREW
 BRACES SECURELY TO WOOD BATTEN
 OR MANUFACTURED TREE BRACING
 SYSTEM.



ELEVATION

NOTE: MAY BE USED ON LARGE CALIPER CANOPY TREES PENDING SLOPE AND ROOTBALL
 WIDTH, ADJUST BANDING EVERY 6 MONTHS OR AS NEEDED (FOR FAST GROWING
 SPECIES) TO PREVENT GIRDLING.

PALM PLANTING ON SLOPE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MAGUED HANNA, R.L.A.
 LICENSE NO. LA6667254
 315 E. ROBINSON ST.
 SUITE 400
 ORLANDO, FL 32801
 PHONE 407.420.4200
 FAX 407.420.4242

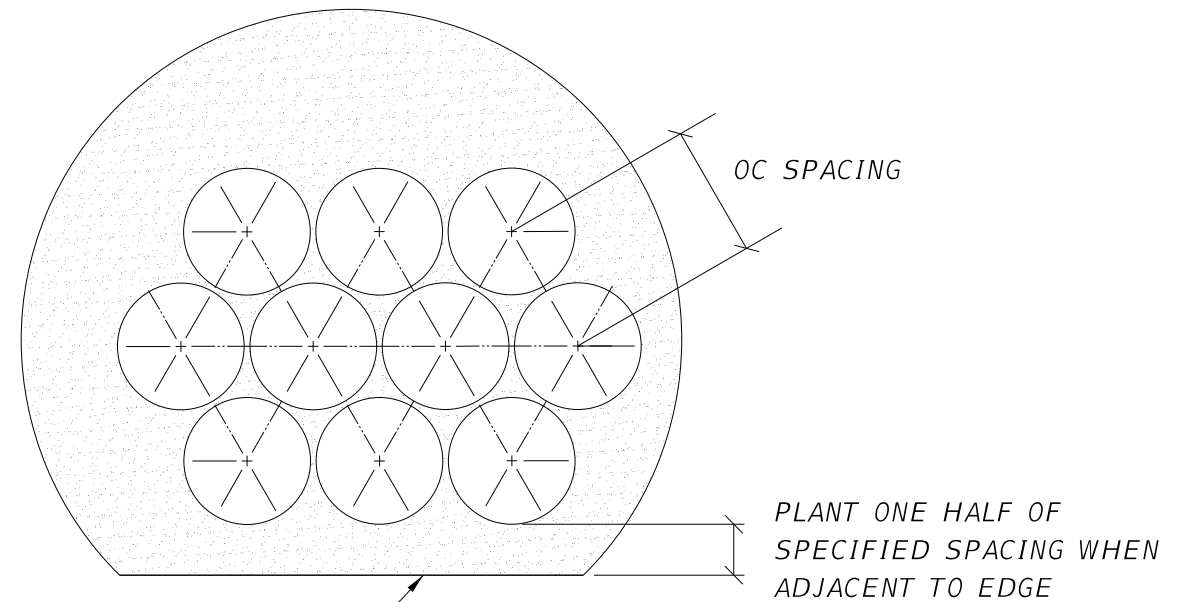


SEMINOLE COUNTY ENGINEERING DIVISION ROLLING HILLS AREA ROADWAYS PHASE 1	
ROAD	COUNTY CIP No.
RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084

LANDSCAPE DETAILS

SHEET NO.
LD-16

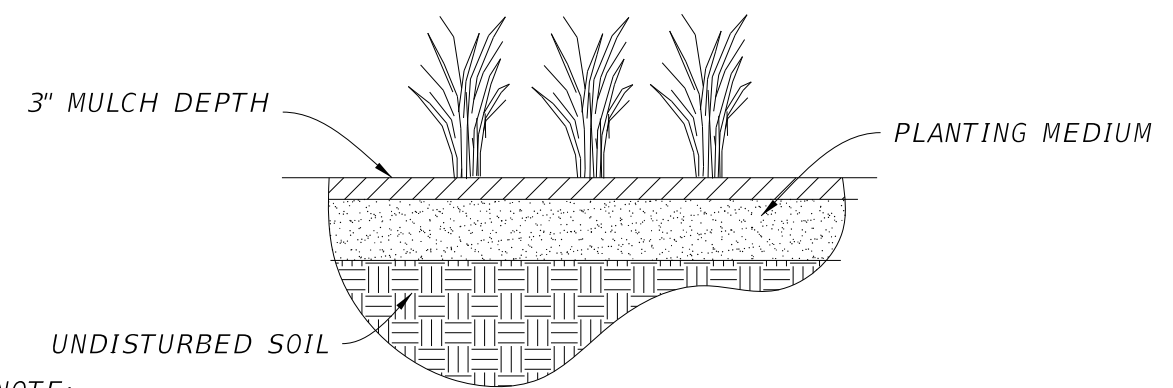
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PAVING OR LAWN EDGE, TYP

NOTES:

1. ALL GROUNDCOVER SHALL BE PLANTED AT OC SPACING AS SPECIFIED ON THE PLANT SCHEDULE SHEET.
2. LOCATE GROUNDCOVER ONE HALF OF SPECIFIED SPACING DISTANCE FROM ANY CURB, SIDEWALK, OR OTHER HARD SURFACE, UNLESS OTHERWISE SPECIFIED.



NOTE:

KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.

GROUNDCOVER PLANTING DETAIL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MAGUED HANNA, R.L.A. LICENSE NO. LA6667254
 315 E. ROBINSON ST.
HR SUITE 400
 ORLANDO, FL 32801
 PHONE 407.420.4200
 FAX 407.420.4242

SEMINOLE COUNTY
 ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1

ROAD	COUNTY CIP No.
RAYMOND AVE.,NORTH ST.,PALM SPRINGS DR.	01907084

LANDSCAPE DETAILS

SHEET NO.
LD-17

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G10-11.001, F.A.C.

MATCHLINE LD-19

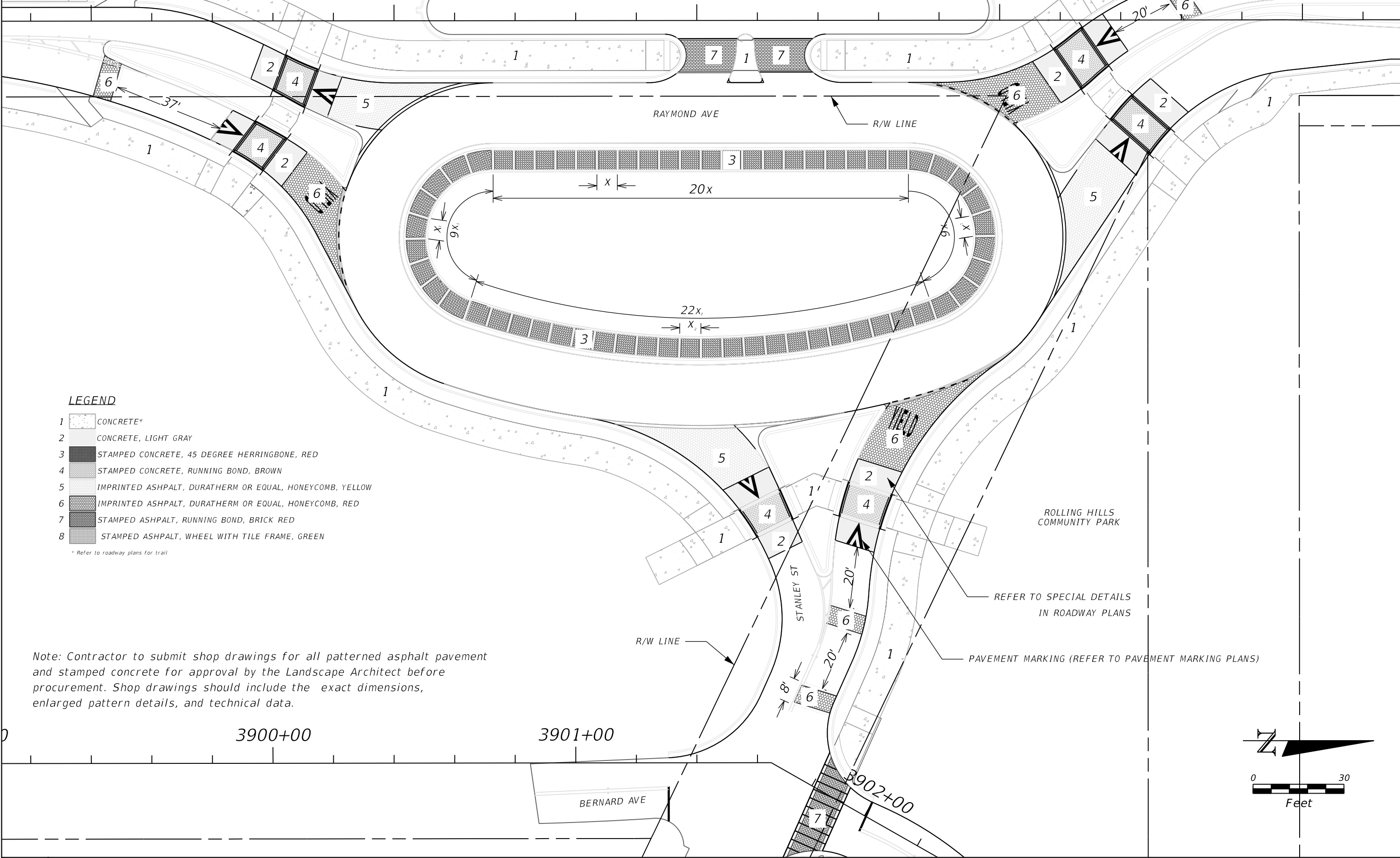
10016+00

10017+00

10018+00

10019+00

10020+00



LEGEND

- 1 CONCRETE*
- 2 CONCRETE, LIGHT GRAY
- 3 STAMPED CONCRETE, 45 DEGREE HERRINGBONE, RED
- 4 STAMPED CONCRETE, RUNNING BOND, BROWN
- 5 IMPRINTED ASPHALT, DURATHERM OR EQUAL, HONEYCOMB, YELLOW
- 6 IMPRINTED ASPHALT, DURATHERM OR EQUAL, HONEYCOMB, RED
- 7 STAMPED ASPHALT, RUNNING BOND, BRICK RED
- 8 STAMPED ASPHALT, WHEEL WITH TILE FRAME, GREEN

* Refer to roadway plans for trail

Note: Contractor to submit shop drawings for all patterned asphalt pavement and stamped concrete for approval by the Landscape Architect before procurement. Shop drawings should include the exact dimensions, enlarged pattern details, and technical data.

REFER TO SPECIAL DETAILS IN ROADWAY PLANS
PAVEMENT MARKING (REFER TO PAVEMENT MARKING PLANS)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MAGUED HANNA, R.L.A.
 LICENSE NO. LA6667254
 315 E. ROBINSON ST.
 SUITE 400
 ORLANDO, FL 32801
 PHONE 407.420.4200
 FAX 407.420.4242



SEMINOLE COUNTY
 ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1

ROAD	COUNTY CIP No.
RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084

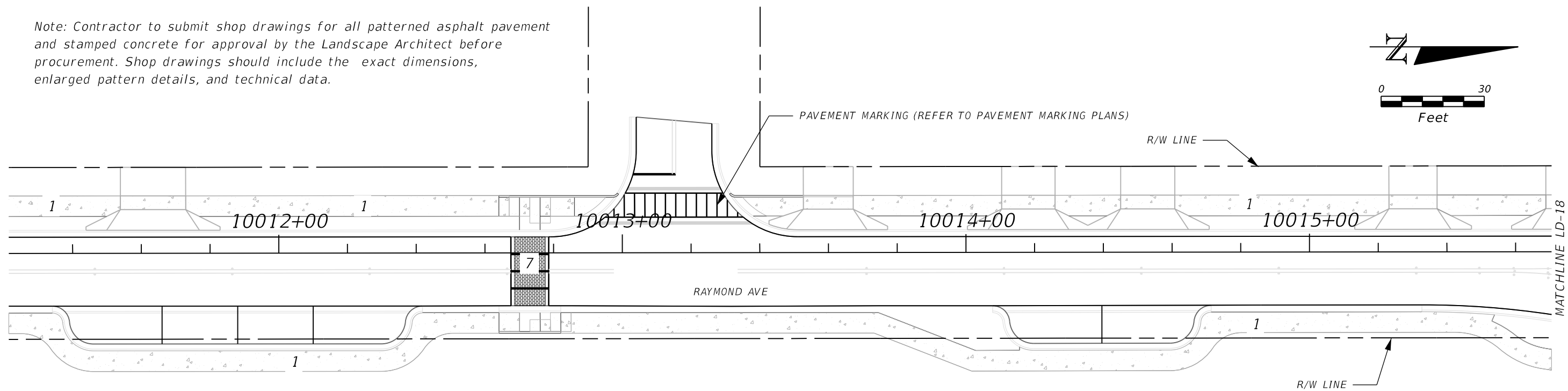
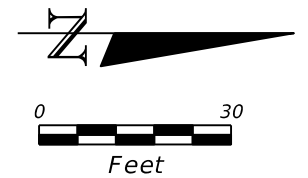
HARDSCAPE PLAN
RAYMOND AVENUE (1)

SHEET NO.	LD-18
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SUSERS SDATES STIMES SFILES

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Note: Contractor to submit shop drawings for all patterned asphalt pavement and stamped concrete for approval by the Landscape Architect before procurement. Shop drawings should include the exact dimensions, enlarged pattern details, and technical data.



MATCHLINE LD-18

LEGEND

- 1 CONCRETE*
- 2 CONCRETE, LIGHT GRAY
- 3 STAMPED CONCRETE, 45 DEGREE HERRINGBONE, RED
- 4 STAMPED CONCRETE, RUNNING BOND, BROWN
- 5 IMPRINTED ASPHALT, DURATHERM OR EQUAL, HONEYCOMB, YELLOW
- 6 IMPRINTED ASPHALT, DURATHERM OR EQUAL, HONEYCOMB, RED
- 7 STAMPED ASPHALT, RUNNING BOND, BRICK RED
- 8 STAMPED ASPHALT, WHEEL WITH TILE FRAME, GREEN

* Refer to roadway plans for trail

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MAGUED HANNA, R.L.A. LICENSE NO. LA6667254
 315 E. ROBINSON ST.
 SUITE 400
 ORLANDO, FL 32801
 PHONE 407.420.4200
 FAX 407.420.4242



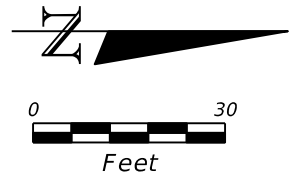
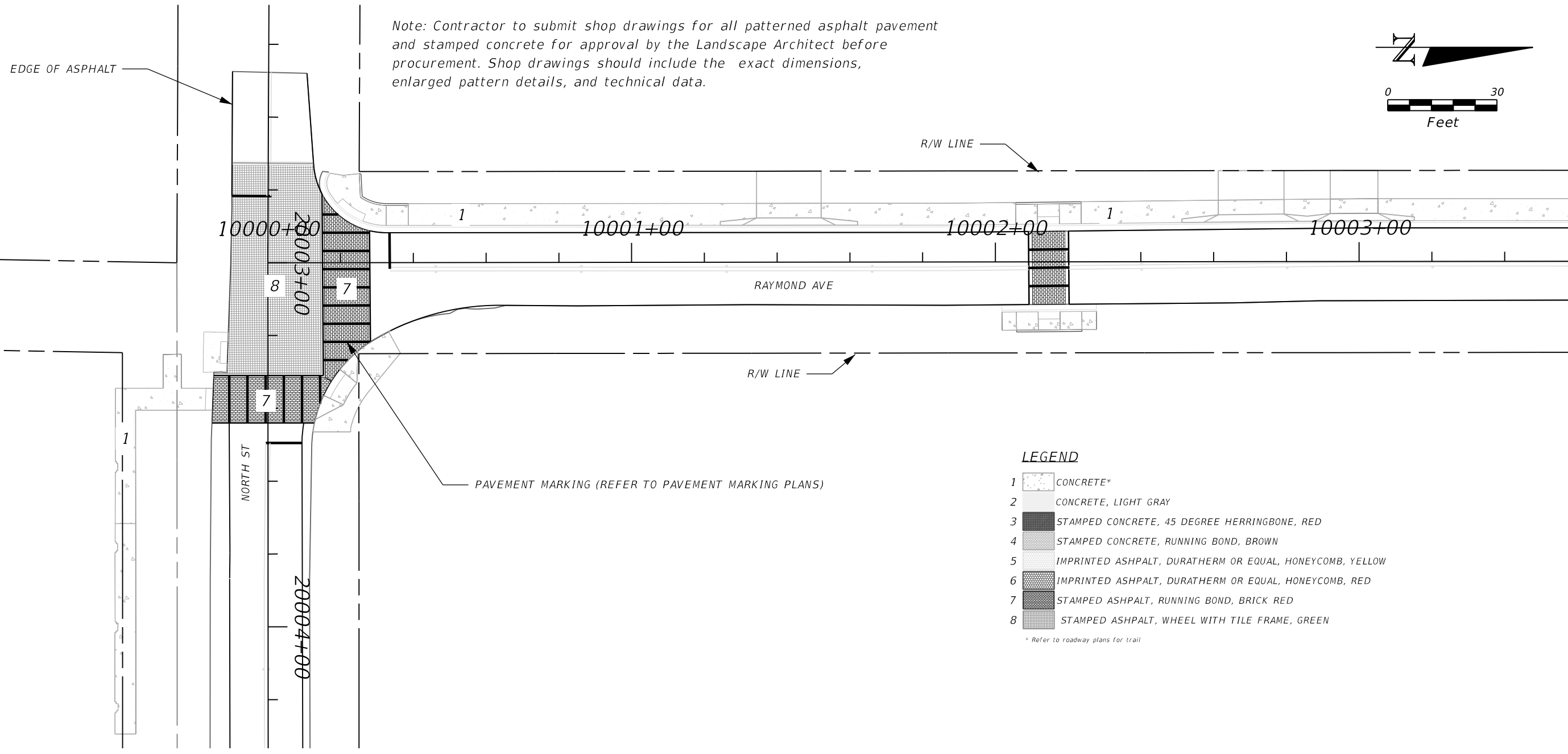
SEMINOLE COUNTY
 ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1

ROAD	COUNTY CIP No.
RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084

HARDSCAPE PLAN
 RAYMOND AVENUE (2)

SHEET NO.
 LD-19

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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 315 E. ROBINSON ST.
 SUITE 400
 ORLANDO, FL 32801
 PHONE 407.420.4200
 FAX 407.420.4242



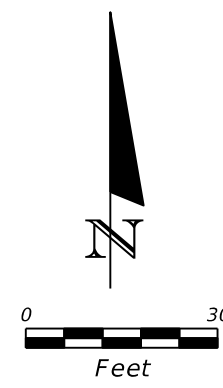
SEMINOLE COUNTY
 ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1

ROAD	COUNTY CIP No.
RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084

HARDSCAPE PLAN
 RAYMOND AVENUE (3)

SHEET NO.
 LD-20

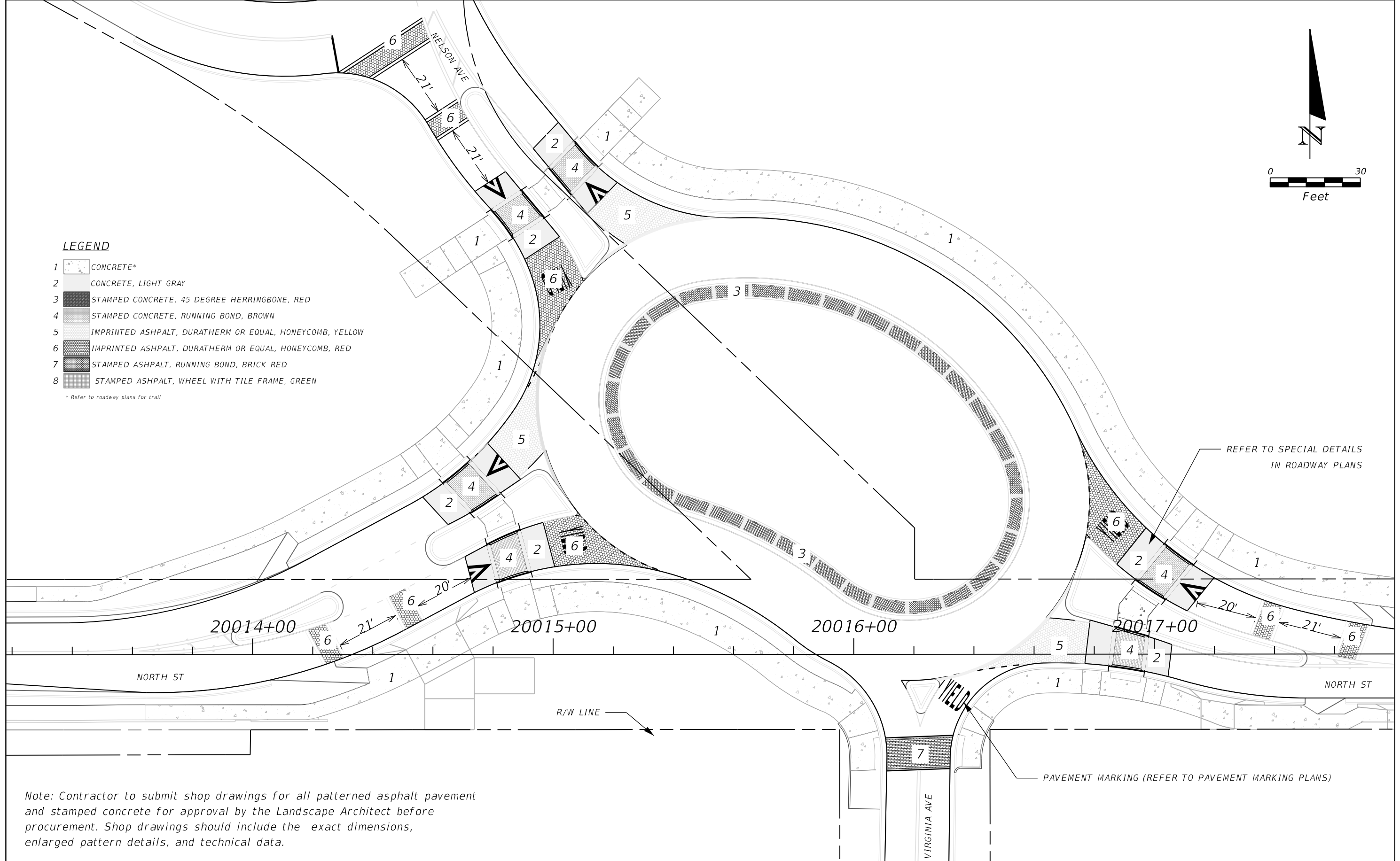
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G10-11.001, F.A.C.



LEGEND

- 1 CONCRETE*
- 2 CONCRETE, LIGHT GRAY
- 3 STAMPED CONCRETE, 45 DEGREE HERRINGBONE, RED
- 4 STAMPED CONCRETE, RUNNING BOND, BROWN
- 5 IMPRINTED ASPHALT, DURATHERM OR EQUAL, HONEYCOMB, YELLOW
- 6 IMPRINTED ASPHALT, DURATHERM OR EQUAL, HONEYCOMB, RED
- 7 STAMPED ASPHALT, RUNNING BOND, BRICK RED
- 8 STAMPED ASPHALT, WHEEL WITH TILE FRAME, GREEN

* Refer to roadway plans for trail

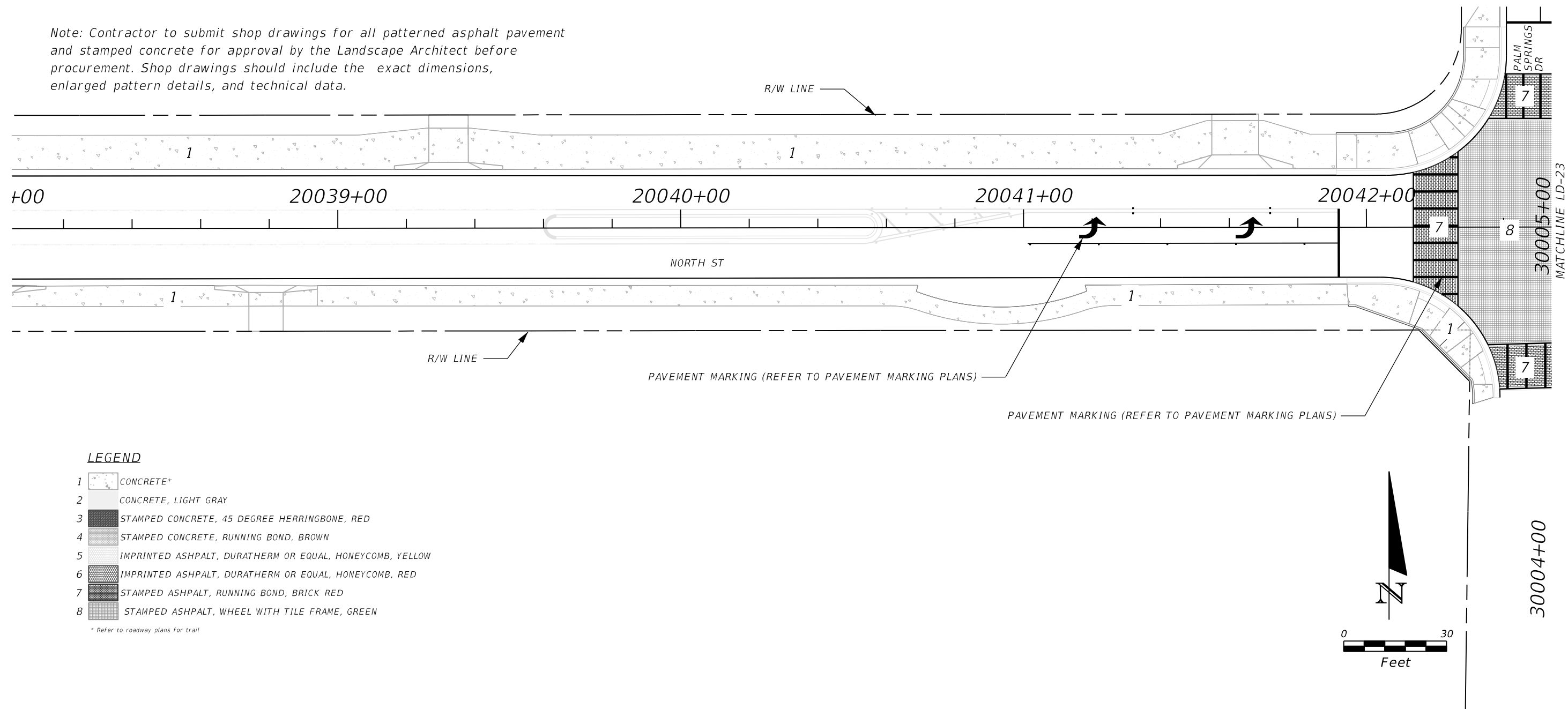


Note: Contractor to submit shop drawings for all patterned asphalt pavement and stamped concrete for approval by the Landscape Architect before procurement. Shop drawings should include the exact dimensions, enlarged pattern details, and technical data.

REVISIONS					SEMINOLE COUNTY ENGINEERING DIVISION ROLLING HILLS AREA ROADWAYS PHASE 1		HARDSCAPE PLAN NORTH STREET (1)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD	COUNTY CIP No.		LD-21
				MAGUED HANNA, R.L.A. LICENSE NO. LA6667254 315 E. ROBINSON ST. SUITE 400 ORLANDO, FL 32801 PHONE 407.420.4200 FAX 407.420.4242	RAYMOND AVE.,NORTH ST.,PALM SPRINGS DR.	01907084		

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LEGEND

- 1 CONCRETE*
- 2 CONCRETE, LIGHT GRAY
- 3 STAMPED CONCRETE, 45 DEGREE HERRINGBONE, RED
- 4 STAMPED CONCRETE, RUNNING BOND, BROWN
- 5 IMPRINTED ASPHALT, DURATHERM OR EQUAL, HONEYCOMB, YELLOW
- 6 IMPRINTED ASPHALT, DURATHERM OR EQUAL, HONEYCOMB, RED
- 7 STAMPED ASPHALT, RUNNING BOND, BRICK RED
- 8 STAMPED ASPHALT, WHEEL WITH TILE FRAME, GREEN

* Refer to roadway plans for trail

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MAGUED HANNA, R.L.A. LICENSE NO. LA6667254
 315 E. ROBINSON ST.
 SUITE 400
 ORLANDO, FL 32801
 PHONE 407.420.4200
 FAX 407.420.4242

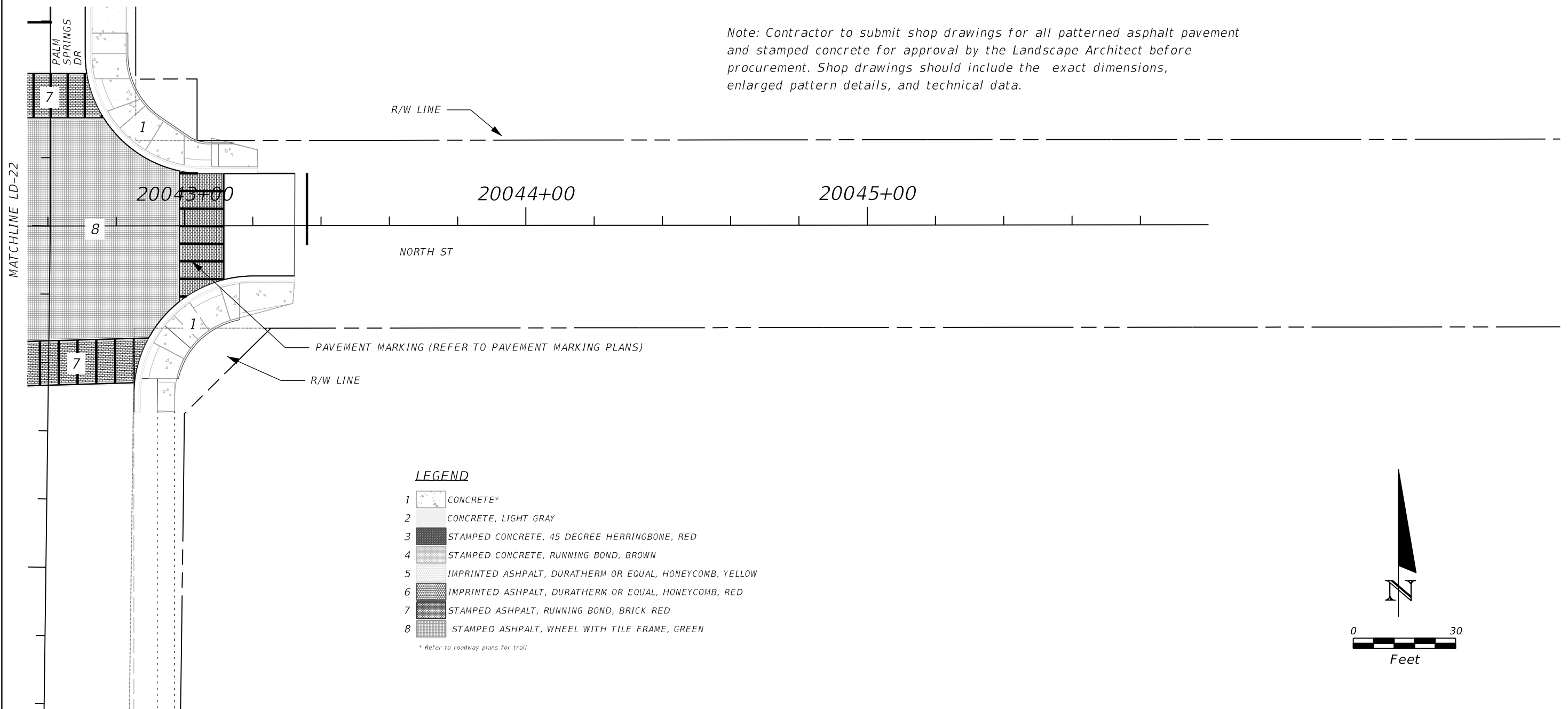


SEMINOLE COUNTY ENGINEERING DIVISION ROLLING HILLS AREA ROADWAYS PHASE 1	
ROAD	COUNTY CIP No.
RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084

**HARDSCAPE PLAN
NORTH STREET (2)**

SHEET
NO.
LD-22

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G10-11.001, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MAGUED HANNA, R.L.A. LICENSE NO. LA6667254
 315 E. ROBINSON ST.
 SUITE 400
 ORLANDO, FL 32801
 PHONE 407.420.4200
 FAX 407.420.4242



SEMINOLE COUNTY
 ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1

ROAD	COUNTY CIP No.
RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084

HARDSCAPE PLAN
 NORTH STREET (3)

SHEET NO.
 LD-23

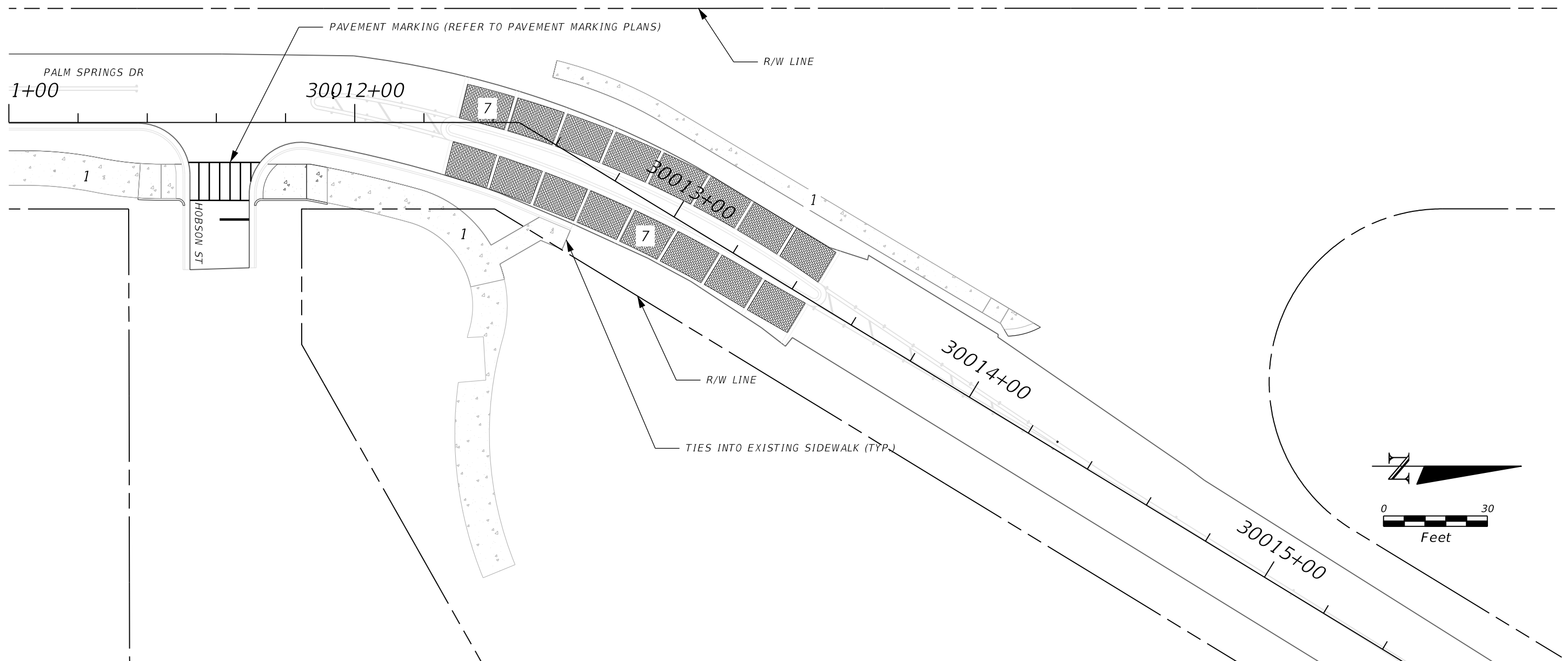
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G10-11.001, F.A.C.

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LEGEND

- 1 CONCRETE*
- 2 CONCRETE, LIGHT GRAY
- 3 STAMPED CONCRETE, 45 DEGREE HERRINGBONE, RED
- 4 STAMPED CONCRETE, RUNNING BOND, BROWN
- 5 IMPRINTED ASPHALT, DURATHERM OR EQUAL, HONEYCOMB, YELLOW
- 6 IMPRINTED ASPHALT, DURATHERM OR EQUAL, HONEYCOMB, RED
- 7 STAMPED ASPHALT, RUNNING BOND, BRICK RED
- 8 STAMPED ASPHALT, WHEEL WITH TILE FRAME, GREEN

* Refer to roadway plans for trail



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MAGUED HANNA, R.L.A.
 LICENSE NO. LA6667254
 315 E. ROBINSON ST.
 SUITE 400
 ORLANDO, FL 32801
 PHONE 407.420.4200
 FAX 407.420.4242



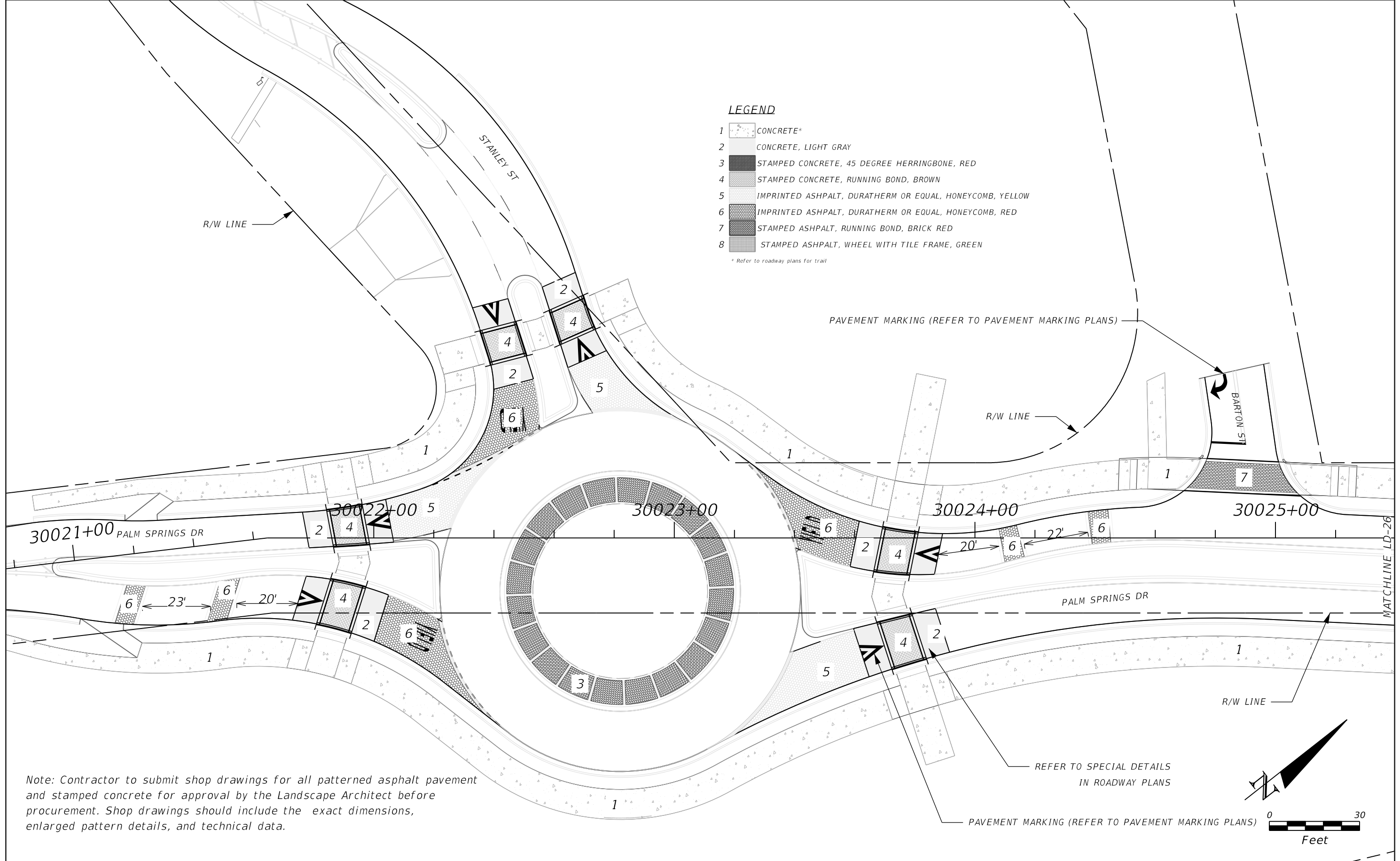
SEMINOLE COUNTY
 ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1

ROAD	COUNTY CIP No.
RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084

HARDSCAPE PLAN
 PALM SPRINGS DRIVE (1)

SHEET NO.
 LD-24

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LEGEND

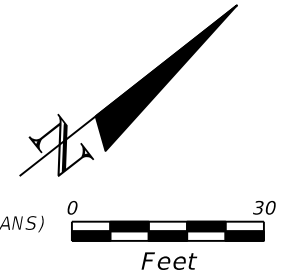
- 1 CONCRETE*
- 2 CONCRETE, LIGHT GRAY
- 3 STAMPED CONCRETE, 45 DEGREE HERRINGBONE, RED
- 4 STAMPED CONCRETE, RUNNING BOND, BROWN
- 5 IMPRINTED ASPHALT, DURATHERM OR EQUAL, HONEYCOMB, YELLOW
- 6 IMPRINTED ASPHALT, DURATHERM OR EQUAL, HONEYCOMB, RED
- 7 STAMPED ASPHALT, RUNNING BOND, BRICK RED
- 8 STAMPED ASPHALT, WHEEL WITH TILE FRAME, GREEN

* Refer to roadway plans for trail

Note: Contractor to submit shop drawings for all patterned asphalt pavement and stamped concrete for approval by the Landscape Architect before procurement. Shop drawings should include the exact dimensions, enlarged pattern details, and technical data.

REFER TO SPECIAL DETAILS
IN ROADWAY PLANS

PAVEMENT MARKING (REFER TO PAVEMENT MARKING PLANS)



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MAGUED HANNA, R.L.A. LICENSE NO. LA6667254
 315 E. ROBINSON ST. SUITE 400
 ORLANDO, FL 32801
 PHONE 407.420.4200
 FAX 407.420.4242



SEMINOLE COUNTY
 ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1

ROAD	COUNTY CIP No.
RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084

HARDSCAPE PLAN
 PALM SPRINGS DRIVE (2)

SHEET NO.
 LD-25

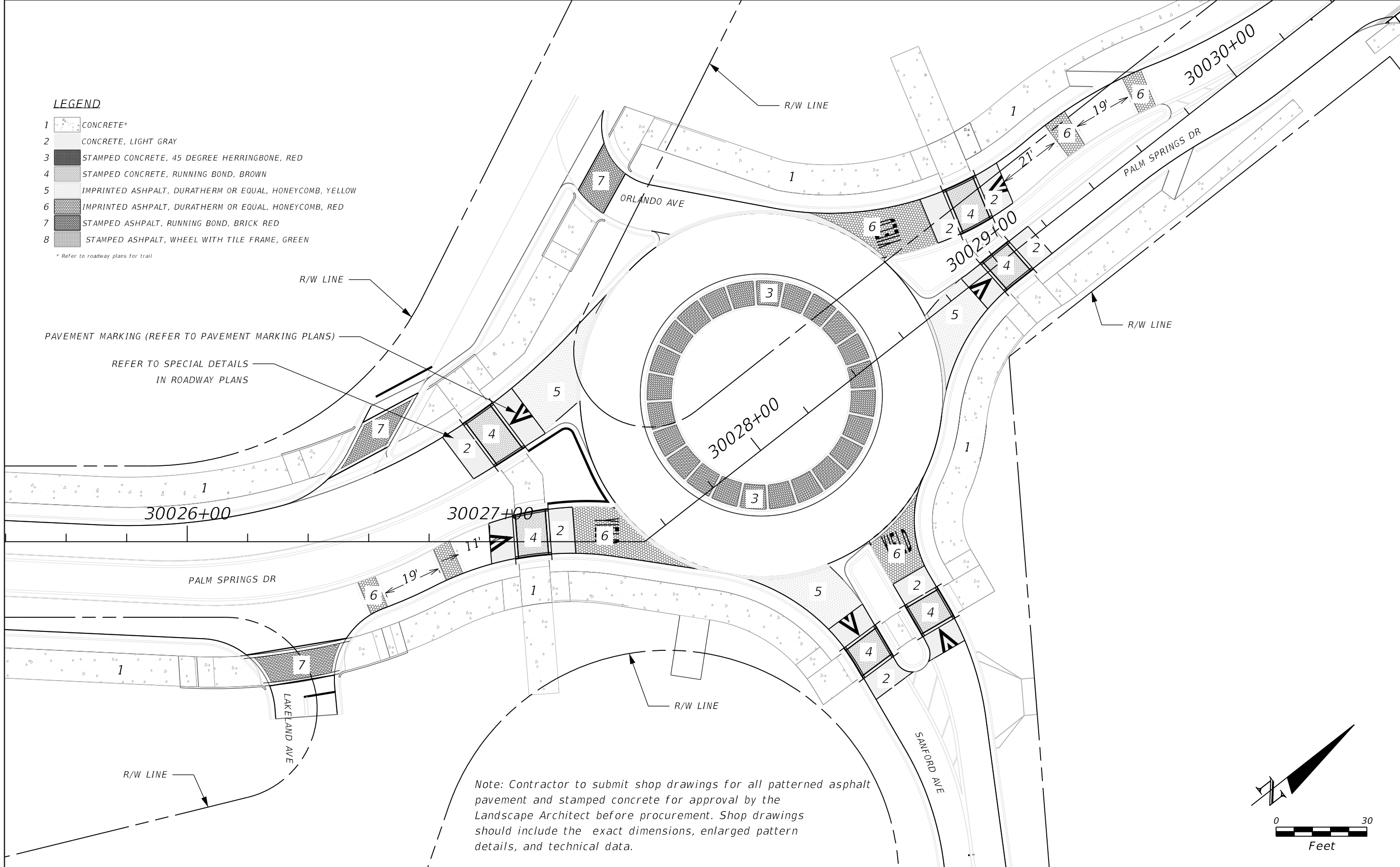
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G10-11.001, F.A.C.

LEGEND

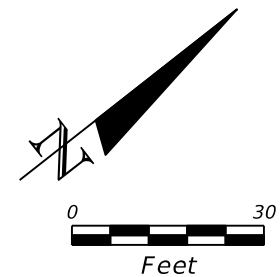
- 1 CONCRETE*
- 2 CONCRETE, LIGHT GRAY
- 3 STAMPED CONCRETE, 45 DEGREE HERRINGBONE, RED
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- 8 STAMPED ASPHALT, WHEEL WITH TILE FRAME, GREEN

* Refer to roadway plans for trail

MATCHLINE LD-25



Note: Contractor to submit shop drawings for all patterned asphalt pavement and stamped concrete for approval by the Landscape Architect before procurement. Shop drawings should include the exact dimensions, enlarged pattern details, and technical data.



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 ORLANDO, FL 32801
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SEMINOLE COUNTY
 ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1

ROAD	COUNTY CIP No.
RAYMOND AVE.,NORTH ST.,PALM SPRINGS DR.	01907084

HARDSCAPE PLAN
 PALM SPRINGS DRIVE (3)

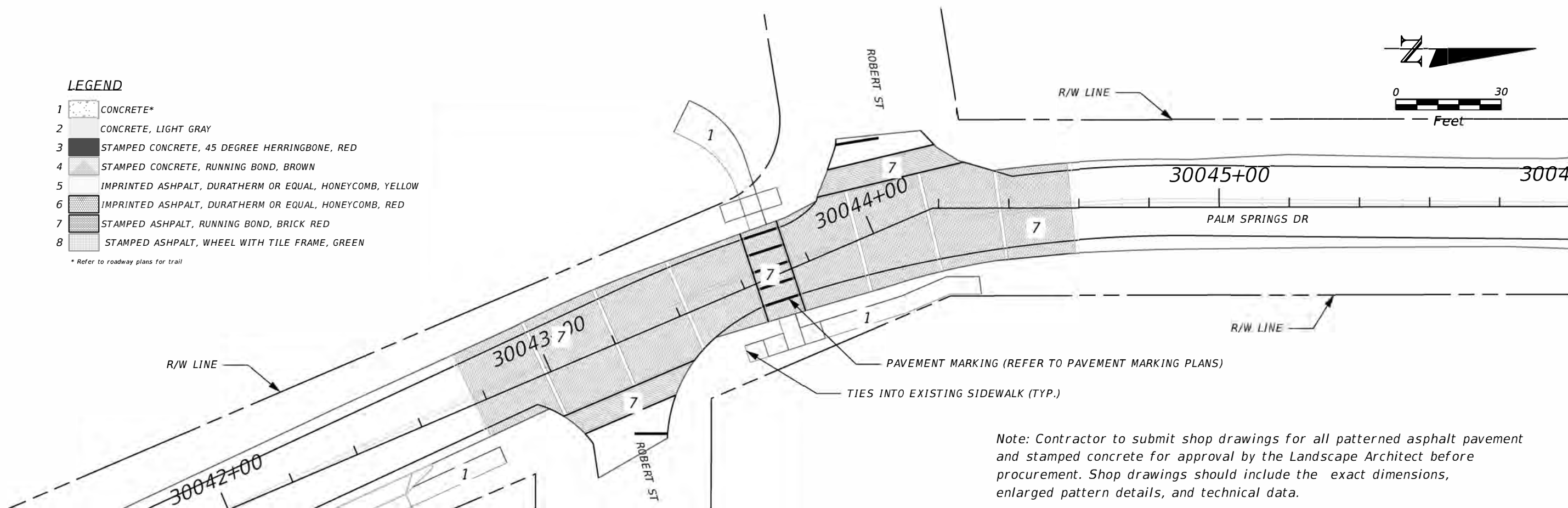
SHEET NO.
 LD-26

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LEGEND

- 1 CONCRETE*
- 2 CONCRETE, LIGHT GRAY
- 3 STAMPED CONCRETE, 45 DEGREE HERRINGBONE, RED
- 4 STAMPED CONCRETE, RUNNING BOND, BROWN
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- 7 STAMPED ASPHALT, RUNNING BOND, BRICK RED
- 8 STAMPED ASPHALT, WHEEL WITH TILE FRAME, GREEN

* Refer to roadway plans for trail



Note: Contractor to submit shop drawings for all patterned asphalt pavement and stamped concrete for approval by the Landscape Architect before procurement. Shop drawings should include the exact dimensions, enlarged pattern details, and technical data.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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 315 E. ROBINSON ST.
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 ORLANDO, FL 32801
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SEMINOLE COUNTY
 ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1

ROAD	COUNTY CIP No.
RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084

HARDSCAPE PLAN PLAN
 PALM SPRINGS DRIVE (4)

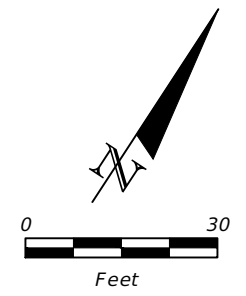
SHEET NO.
 LD-27

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10+00 11+00 12+00 13+00 14+00

STATE ROAD 434

PROVIDE LABOR AND MATERIALS TO REPLACE ALL IRRIGATION EQUIPMENT ALONG S.R. 434. INSTALL THIS SYSTEM TO PROVIDE HEAD TO HEAD COVERAGE. SET ALL NOZZLES TO NOT OVER SPRAY ONTO IMPERVIOUS AREAS. FIELD VERIFY EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.



MATCHLINE: SEE BELOW

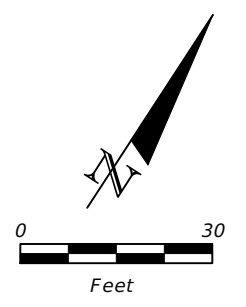
NO IRRIGATION CONTENT ON THIS SHEET

NO LANDSCAPE THIS SHEET.

15+00 16+00 17+00 18+00

STATE ROAD 434

NO IRRIGATION CONTENT ON THIS SHEET



MATCHLINE: SEE ABOVE

PROVIDE LABOR AND MATERIALS TO REPLACE ALL IRRIGATION EQUIPMENT ALONG S.R. 434. INSTALL THIS SYSTEM TO PROVIDE HEAD TO HEAD COVERAGE. SET ALL NOZZLES TO NOT OVER SPRAY ONTO IMPERVIOUS AREAS. FIELD VERIFY EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.




INSTALL ALL THE IRRIGATION EQUIPMENT TO AVOID CONFLICTS WITH INSTALLED UTILITIES, TREE INSTALLATION AND EXISTING TREES TO REMAIN. THE IRRIGATION MAINLINE, LATERAL LINE, AND IRRIGATION SPRINKLER LOCATIONS ARE SHOWN SCHEMATICALLY AND SHALL BE ADJUSTED BASED ON FIELD CONDITIONS. ALL LANDSCAPED AREAS ARE TO RECEIVE 100% COVERAGE BY THE IRRIGATION SYSTEM (TYP.)

MATCHLINE: SEE SHEET LD-29

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MAGUED HANNA, R.L.A.
 LICENSE NO. LA6667254
 315 E. ROBINSON ST.
 SUITE 400
 ORLANDO, FL 32801
 PHONE 407.420.4200
 FAX 407.420.4242



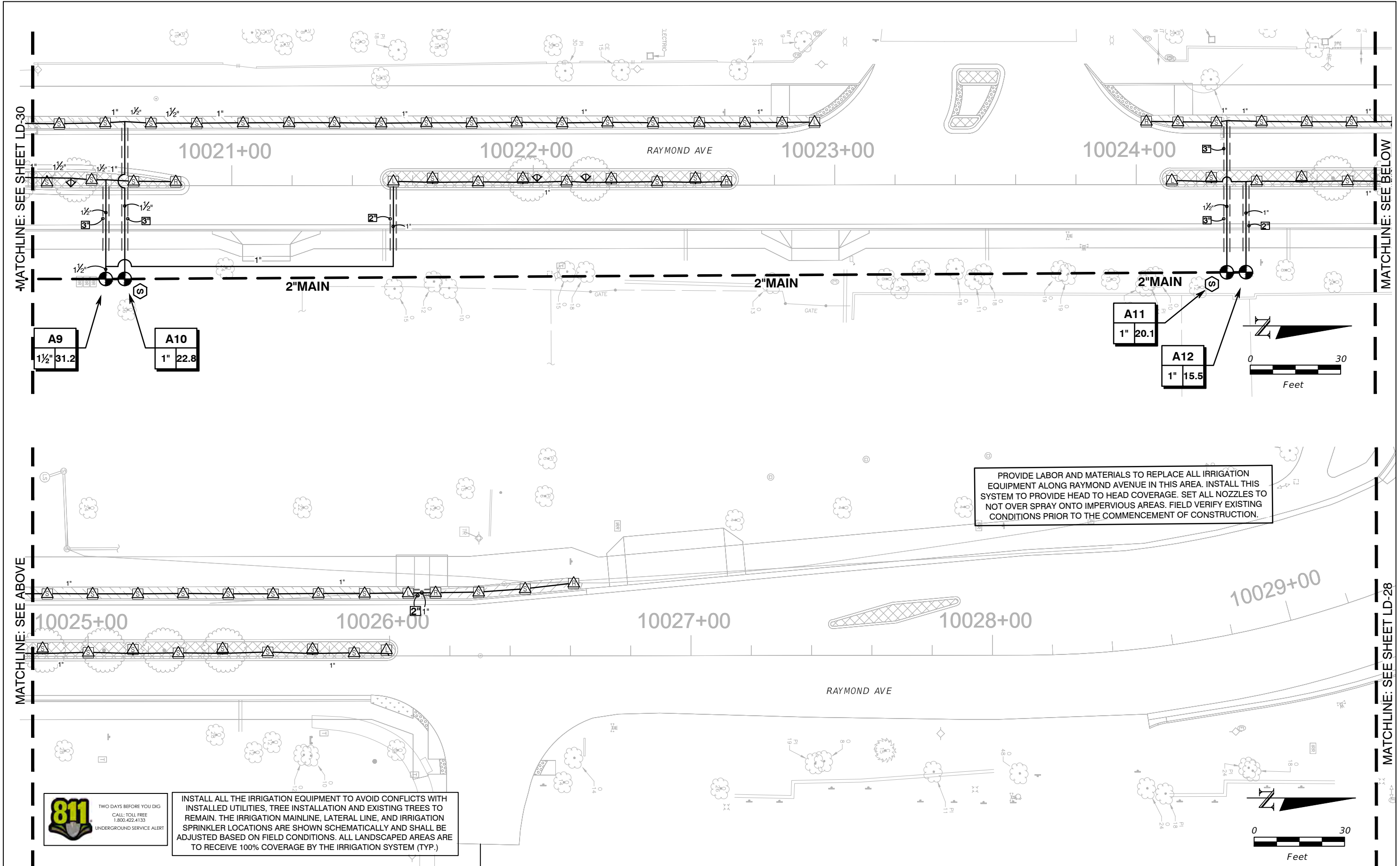
SEMINOLE COUNTY
 ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1

ROAD	COUNTY CIP No.
RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084

IRRIGATION PLAN
 STATE ROAD 434

SHEET NO.
 LD-28

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G10-11.011, F.A.C.



PROVIDE LABOR AND MATERIALS TO REPLACE ALL IRRIGATION EQUIPMENT ALONG RAYMOND AVENUE IN THIS AREA. INSTALL THIS SYSTEM TO PROVIDE HEAD TO HEAD COVERAGE. SET ALL NOZZLES TO NOT OVER SPRAY ONTO IMPERVIOUS AREAS. FIELD VERIFY EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

INSTALL ALL THE IRRIGATION EQUIPMENT TO AVOID CONFLICTS WITH INSTALLED UTILITIES, TREE INSTALLATION AND EXISTING TREES TO REMAIN. THE IRRIGATION MAINLINE, LATERAL LINE, AND IRRIGATION SPRINKLER LOCATIONS ARE SHOWN SCHEMATICALLY AND SHALL BE ADJUSTED BASED ON FIELD CONDITIONS. ALL LANDSCAPED AREAS ARE TO RECEIVE 100% COVERAGE BY THE IRRIGATION SYSTEM (TYP.)



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 ORLANDO, FL 32801
 PHONE 407.420.4200
 FAX 407.420.4242

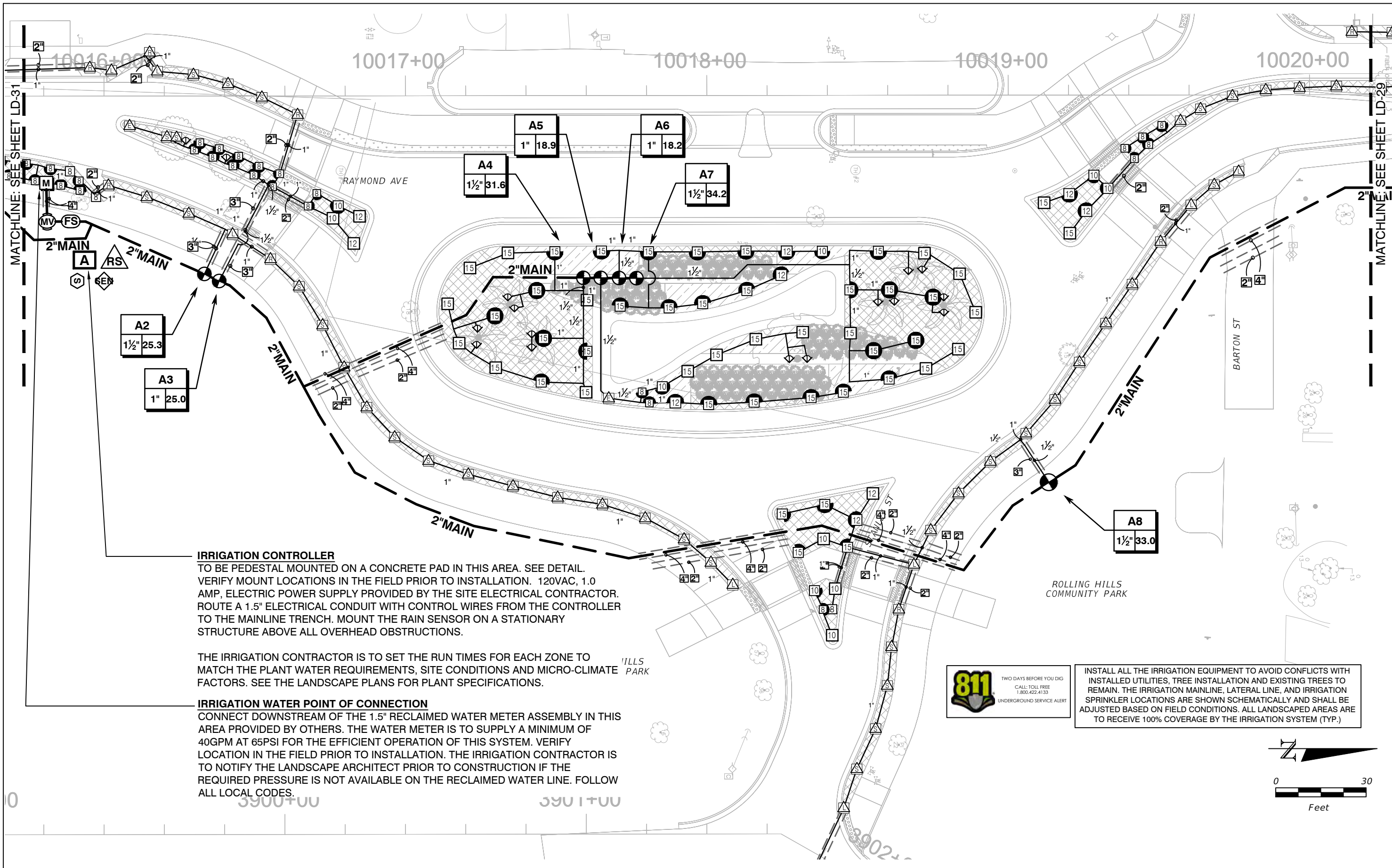


SEMINOLE COUNTY
 ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1
 ROAD COUNTY CIP No.
 RAYMOND AVE., NORTH ST., PALM SPRINGS DR. 01907084

IRRIGATION PLAN
 RAYMOND AVENUE (1)

SHEET NO.
 LD-29

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G10-11.011, F.A.C.

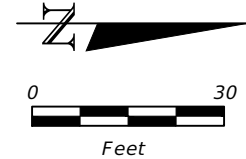



IRRIGATION CONTROLLER
 TO BE PEDESTAL MOUNTED ON A CONCRETE PAD IN THIS AREA. SEE DETAIL. VERIFY MOUNT LOCATIONS IN THE FIELD PRIOR TO INSTALLATION. 120VAC, 1.0 AMP, ELECTRIC POWER SUPPLY PROVIDED BY THE SITE ELECTRICAL CONTRACTOR. ROUTE A 1.5" ELECTRICAL CONDUIT WITH CONTROL WIRES FROM THE CONTROLLER TO THE MAINLINE TRENCH. MOUNT THE RAIN SENSOR ON A STATIONARY STRUCTURE ABOVE ALL OVERHEAD OBSTRUCTIONS.

THE IRRIGATION CONTRACTOR IS TO SET THE RUN TIMES FOR EACH ZONE TO MATCH THE PLANT WATER REQUIREMENTS, SITE CONDITIONS AND MICRO-CLIMATE FACTORS. SEE THE LANDSCAPE PLANS FOR PLANT SPECIFICATIONS.

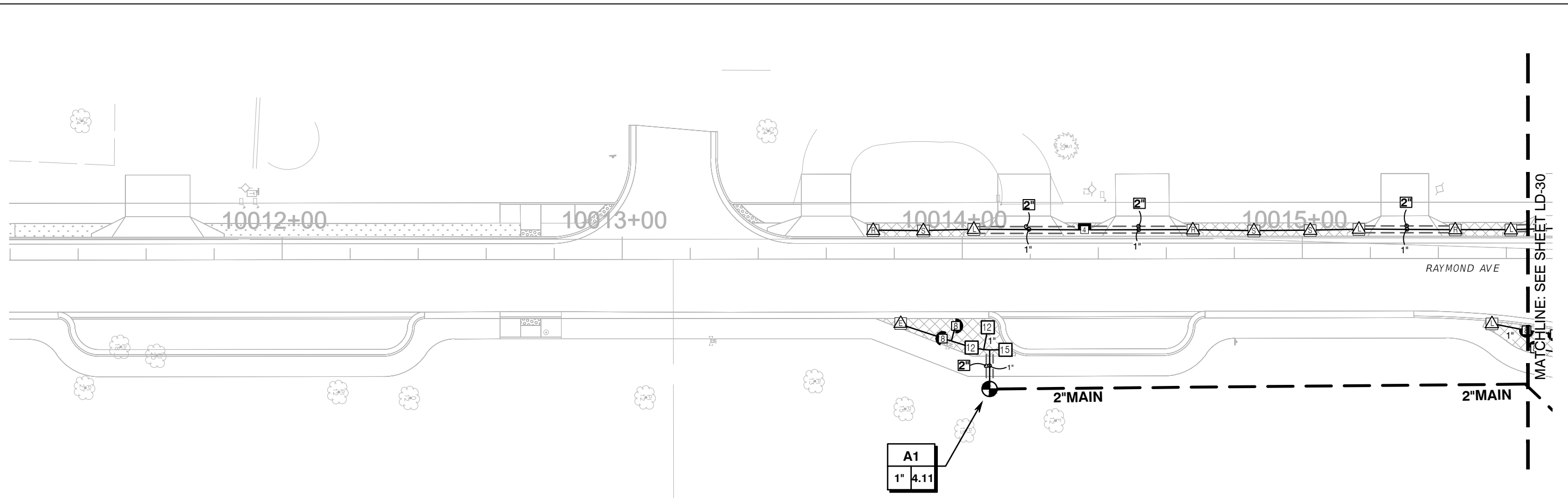
IRRIGATION WATER POINT OF CONNECTION
 CONNECT DOWNSTREAM OF THE 1.5" RECLAIMED WATER METER ASSEMBLY IN THIS AREA PROVIDED BY OTHERS. THE WATER METER IS TO SUPPLY A MINIMUM OF 40GPM AT 65PSI FOR THE EFFICIENT OPERATION OF THIS SYSTEM. VERIFY LOCATION IN THE FIELD PRIOR TO INSTALLATION. THE IRRIGATION CONTRACTOR IS TO NOTIFY THE LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION IF THE REQUIRED PRESSURE IS NOT AVAILABLE ON THE RECLAIMED WATER LINE. FOLLOW ALL LOCAL CODES.

INSTALL ALL THE IRRIGATION EQUIPMENT TO AVOID CONFLICTS WITH INSTALLED UTILITIES, TREE INSTALLATION AND EXISTING TREES TO REMAIN. THE IRRIGATION MAINLINE, LATERAL LINE, AND IRRIGATION SPRINKLER LOCATIONS ARE SHOWN SCHEMATICALLY AND SHALL BE ADJUSTED BASED ON FIELD CONDITIONS. ALL LANDSCAPED AREAS ARE TO RECEIVE 100% COVERAGE BY THE IRRIGATION SYSTEM (TYP.)



REVISIONS				MAGUED HANNA, R.L.A.  LICENSE NO. LA6667254 315 E. ROBINSON ST. SUITE 400 ORLANDO, FL 32801 PHONE 407.420.4200 FAX 407.420.4242	SEMINOLE COUNTY ENGINEERING DIVISION ROLLING HILLS AREA ROADWAYS PHASE 1		IRRIATION PLAN RAYMOND AVENUE (2)	SHEET NO. LD-30
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD	COUNTY CIP No.		
					RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084		

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MATCHLINE: SEE SHEET LD-30

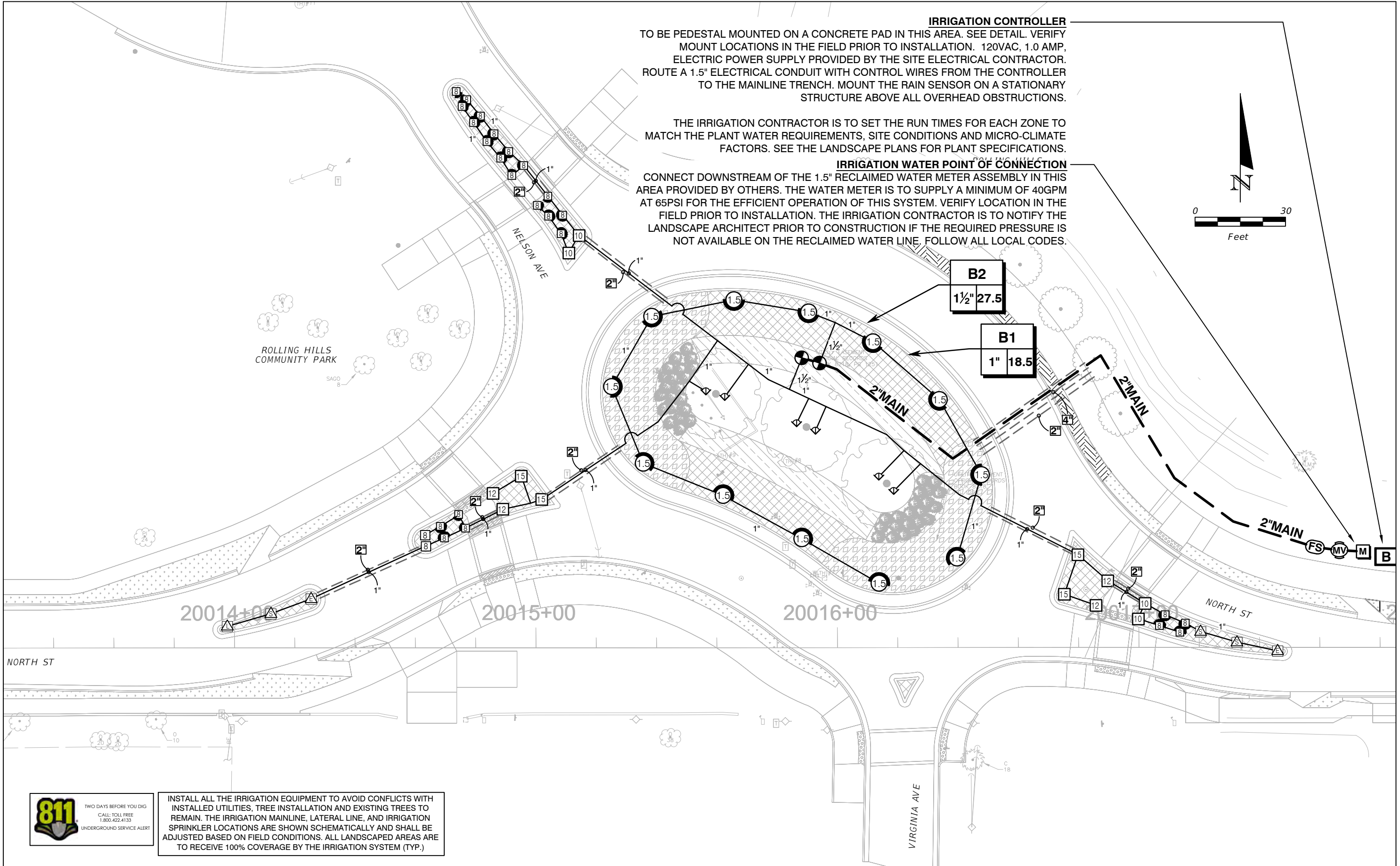


INSTALL ALL THE IRRIGATION EQUIPMENT TO AVOID CONFLICTS WITH INSTALLED UTILITIES, TREE INSTALLATION AND EXISTING TREES TO REMAIN. THE IRRIGATION MAINLINE, LATERAL LINE, AND IRRIGATION SPRINKLER LOCATIONS ARE SHOWN SCHEMATICALLY AND SHALL BE ADJUSTED BASED ON FIELD CONDITIONS. ALL LANDSCAPED AREAS ARE TO RECEIVE 100% COVERAGE BY THE IRRIGATION SYSTEM (TYP.)

REVISIONS				MAGUED HANNA, R.L.A. HR LICENSE NO. LA6667254 315 E. ROBINSON ST. SUITE 400 ORLANDO, FL 32801 PHONE 407.420.4200 FAX 407.420.4242	SEMINOLE COUNTY ENGINEERING DIVISION ROLLING HILLS AREA ROADWAYS PHASE 1		IRRIGATION PLAN RAYMOND AVENUE (3)	SHEET NO. LD-31
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD	COUNTY CIP No.		
					RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084		

SUSERS SDATES STIMES SFILES

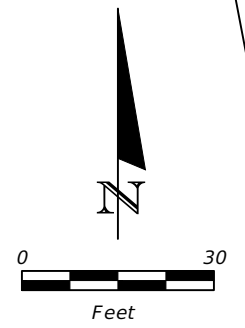
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G10-11.011, F.A.C.



IRRIGATION CONTROLLER
 TO BE PEDESTAL MOUNTED ON A CONCRETE PAD IN THIS AREA. SEE DETAIL. VERIFY MOUNT LOCATIONS IN THE FIELD PRIOR TO INSTALLATION. 120VAC, 1.0 AMP, ELECTRIC POWER SUPPLY PROVIDED BY THE SITE ELECTRICAL CONTRACTOR. ROUTE A 1.5" ELECTRICAL CONDUIT WITH CONTROL WIRES FROM THE CONTROLLER TO THE MAINLINE TRENCH. MOUNT THE RAIN SENSOR ON A STATIONARY STRUCTURE ABOVE ALL OVERHEAD OBSTRUCTIONS.

THE IRRIGATION CONTRACTOR IS TO SET THE RUN TIMES FOR EACH ZONE TO MATCH THE PLANT WATER REQUIREMENTS, SITE CONDITIONS AND MICRO-CLIMATE FACTORS. SEE THE LANDSCAPE PLANS FOR PLANT SPECIFICATIONS.

IRRIGATION WATER POINT OF CONNECTION
 CONNECT DOWNSTREAM OF THE 1.5" RECLAIMED WATER METER ASSEMBLY IN THIS AREA PROVIDED BY OTHERS. THE WATER METER IS TO SUPPLY A MINIMUM OF 40GPM AT 65PSI FOR THE EFFICIENT OPERATION OF THIS SYSTEM. VERIFY LOCATION IN THE FIELD PRIOR TO INSTALLATION. THE IRRIGATION CONTRACTOR IS TO NOTIFY THE LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION IF THE REQUIRED PRESSURE IS NOT AVAILABLE ON THE RECLAIMED WATER LINE. FOLLOW ALL LOCAL CODES.

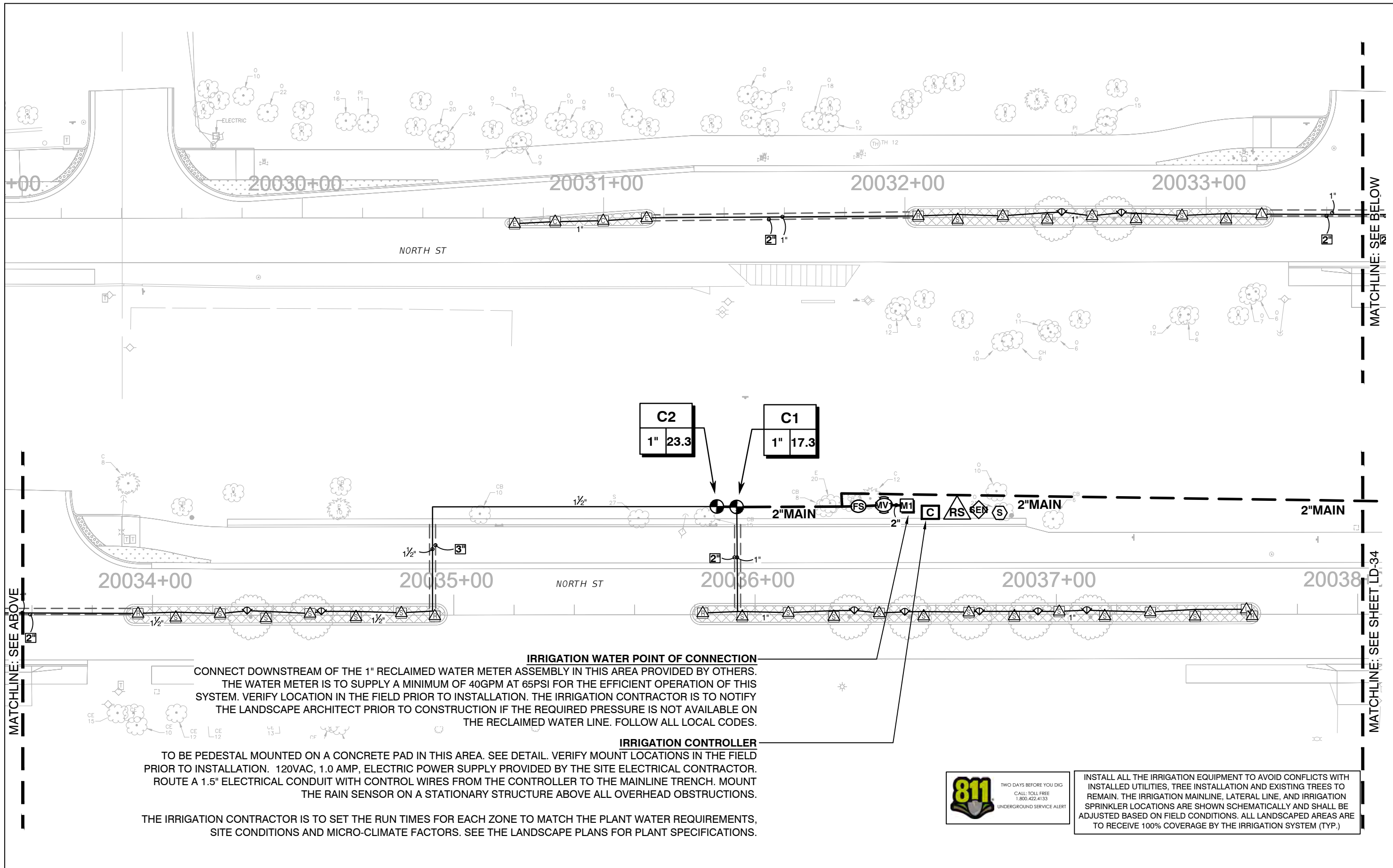


INSTALL ALL THE IRRIGATION EQUIPMENT TO AVOID CONFLICTS WITH INSTALLED UTILITIES, TREE INSTALLATION AND EXISTING TREES TO REMAIN. THE IRRIGATION MAINLINE, LATERAL LINE, AND IRRIGATION SPRINKLER LOCATIONS ARE SHOWN SCHEMATICALLY AND SHALL BE ADJUSTED BASED ON FIELD CONDITIONS. ALL LANDSCAPED AREAS ARE TO RECEIVE 100% COVERAGE BY THE IRRIGATION SYSTEM (TYP.)

REVISIONS		MAGUED HANNA, R.L.A.		SEMINOLE COUNTY ENGINEERING DIVISION		IRRIGATION PLAN	
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD	COUNTY CIP No.	NORTH STREET (1)	
				RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084		
				LICENSE NO. LA6667254 315 E. ROBINSON ST. SUITE 400 ORLANDO, FL 32801 PHONE 407.420.4200 FAX 407.420.4242		SHEET NO. LD-32	

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SUSERS SDATES STIMES SFILES




IRRIGATION WATER POINT OF CONNECTION
 CONNECT DOWNSTREAM OF THE 1" RECLAIMED WATER METER ASSEMBLY IN THIS AREA PROVIDED BY OTHERS. THE WATER METER IS TO SUPPLY A MINIMUM OF 40GPM AT 65PSI FOR THE EFFICIENT OPERATION OF THIS SYSTEM. VERIFY LOCATION IN THE FIELD PRIOR TO INSTALLATION. THE IRRIGATION CONTRACTOR IS TO NOTIFY THE LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION IF THE REQUIRED PRESSURE IS NOT AVAILABLE ON THE RECLAIMED WATER LINE. FOLLOW ALL LOCAL CODES.

IRRIGATION CONTROLLER
 TO BE PEDESTAL MOUNTED ON A CONCRETE PAD IN THIS AREA. SEE DETAIL. VERIFY MOUNT LOCATIONS IN THE FIELD PRIOR TO INSTALLATION. 120VAC, 1.0 AMP, ELECTRIC POWER SUPPLY PROVIDED BY THE SITE ELECTRICAL CONTRACTOR. ROUTE A 1.5" ELECTRICAL CONDUIT WITH CONTROL WIRES FROM THE CONTROLLER TO THE MAINLINE TRENCH. MOUNT THE RAIN SENSOR ON A STATIONARY STRUCTURE ABOVE ALL OVERHEAD OBSTRUCTIONS.

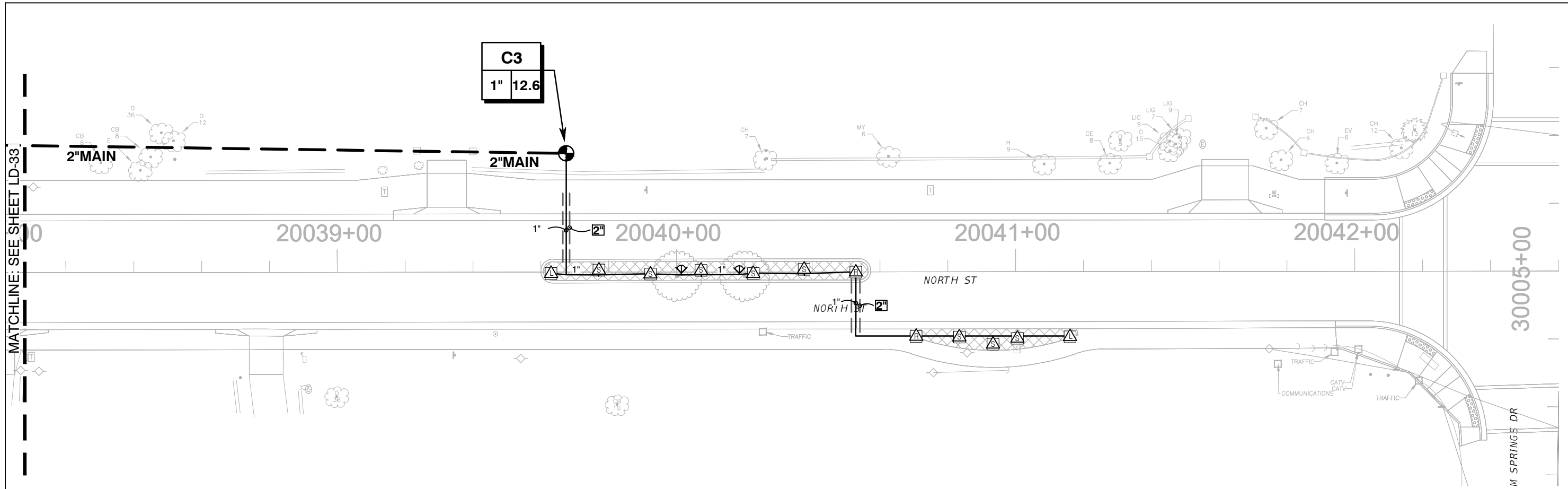
THE IRRIGATION CONTRACTOR IS TO SET THE RUN TIMES FOR EACH ZONE TO MATCH THE PLANT WATER REQUIREMENTS, SITE CONDITIONS AND MICRO-CLIMATE FACTORS. SEE THE LANDSCAPE PLANS FOR PLANT SPECIFICATIONS.



INSTALL ALL THE IRRIGATION EQUIPMENT TO AVOID CONFLICTS WITH INSTALLED UTILITIES. TREE INSTALLATION AND EXISTING TREES TO REMAIN. THE IRRIGATION MAINLINE, LATERAL LINE, AND IRRIGATION SPRINKLER LOCATIONS ARE SHOWN SCHEMATICALLY AND SHALL BE ADJUSTED BASED ON FIELD CONDITIONS. ALL LANDSCAPED AREAS ARE TO RECEIVE 100% COVERAGE BY THE IRRIGATION SYSTEM (TYP.)

REVISIONS				MAGUED HANNA, R.L.A.  LICENSE NO. LA6667254 315 E. ROBINSON ST. SUITE 400 ORLANDO, FL 32801 PHONE 407.420.4200 FAX 407.420.4242	SEMINOLE COUNTY ENGINEERING DIVISION ROLLING HILLS AREA ROADWAYS PHASE 1		IRRIIGATION PLAN NORTH STREET (2)	SHEET NO. LD-33
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD	COUNTY CIP No.		
					RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084		

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MATCHLINE: SEE SHEET LD-33

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INSTALL ALL THE IRRIGATION EQUIPMENT TO AVOID CONFLICTS WITH INSTALLED UTILITIES, TREE INSTALLATION AND EXISTING TREES TO REMAIN. THE IRRIGATION MAINLINE, LATERAL LINE, AND IRRIGATION SPRINKLER LOCATIONS ARE SHOWN SCHEMATICALLY AND SHALL BE ADJUSTED BASED ON FIELD CONDITIONS. ALL LANDSCAPED AREAS ARE TO RECEIVE 100% COVERAGE BY THE IRRIGATION SYSTEM (TYP.)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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 315 E. ROBINSON ST. SUITE 400
 ORLANDO, FL 32801
 PHONE 407.420.4200
 FAX 407.420.4242

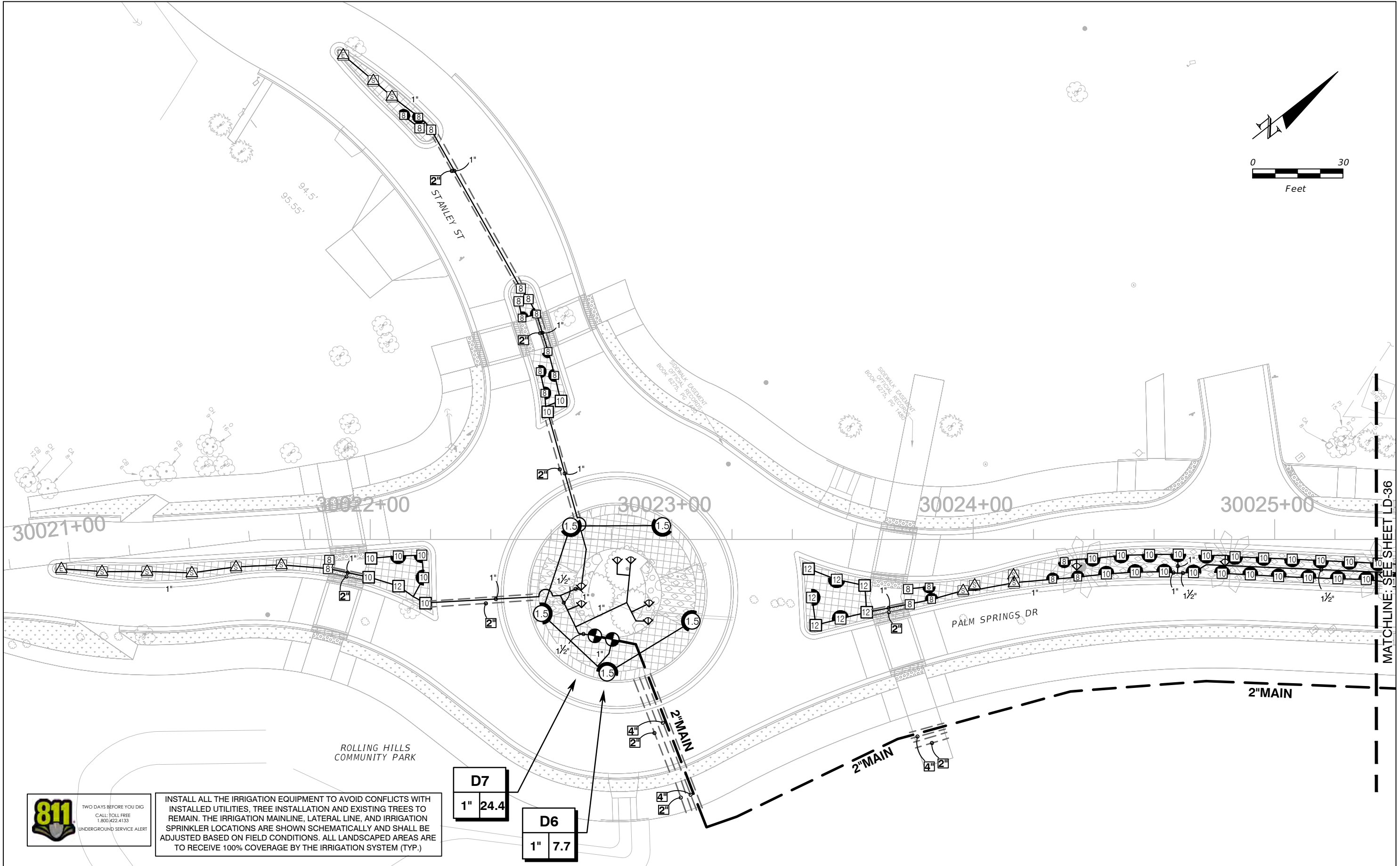
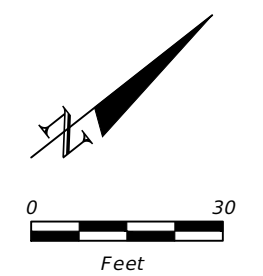


SEMINOLE COUNTY ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1
 ROAD COUNTY CIP No.
 RAYMOND AVE., NORTH ST., PALM SPRINGS DR. 01907084

IRRIGATION PLAN
 NORTH STREET (3)

SHEET NO.
 LD-34

SUSERS SDATES STIMES SFILES



INSTALL ALL THE IRRIGATION EQUIPMENT TO AVOID CONFLICTS WITH INSTALLED UTILITIES, TREE INSTALLATION AND EXISTING TREES TO REMAIN. THE IRRIGATION MAINLINE, LATERAL LINE, AND IRRIGATION SPRINKLER LOCATIONS ARE SHOWN SCHEMATICALLY AND SHALL BE ADJUSTED BASED ON FIELD CONDITIONS. ALL LANDSCAPED AREAS ARE TO RECEIVE 100% COVERAGE BY THE IRRIGATION SYSTEM (TYP.)

D7
1" 24.4

D6
1" 7.7

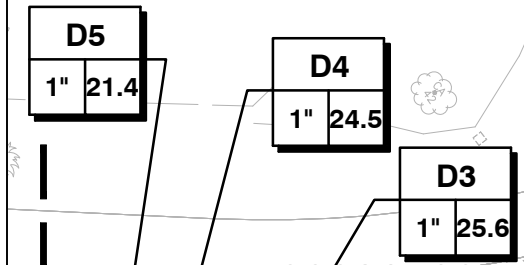
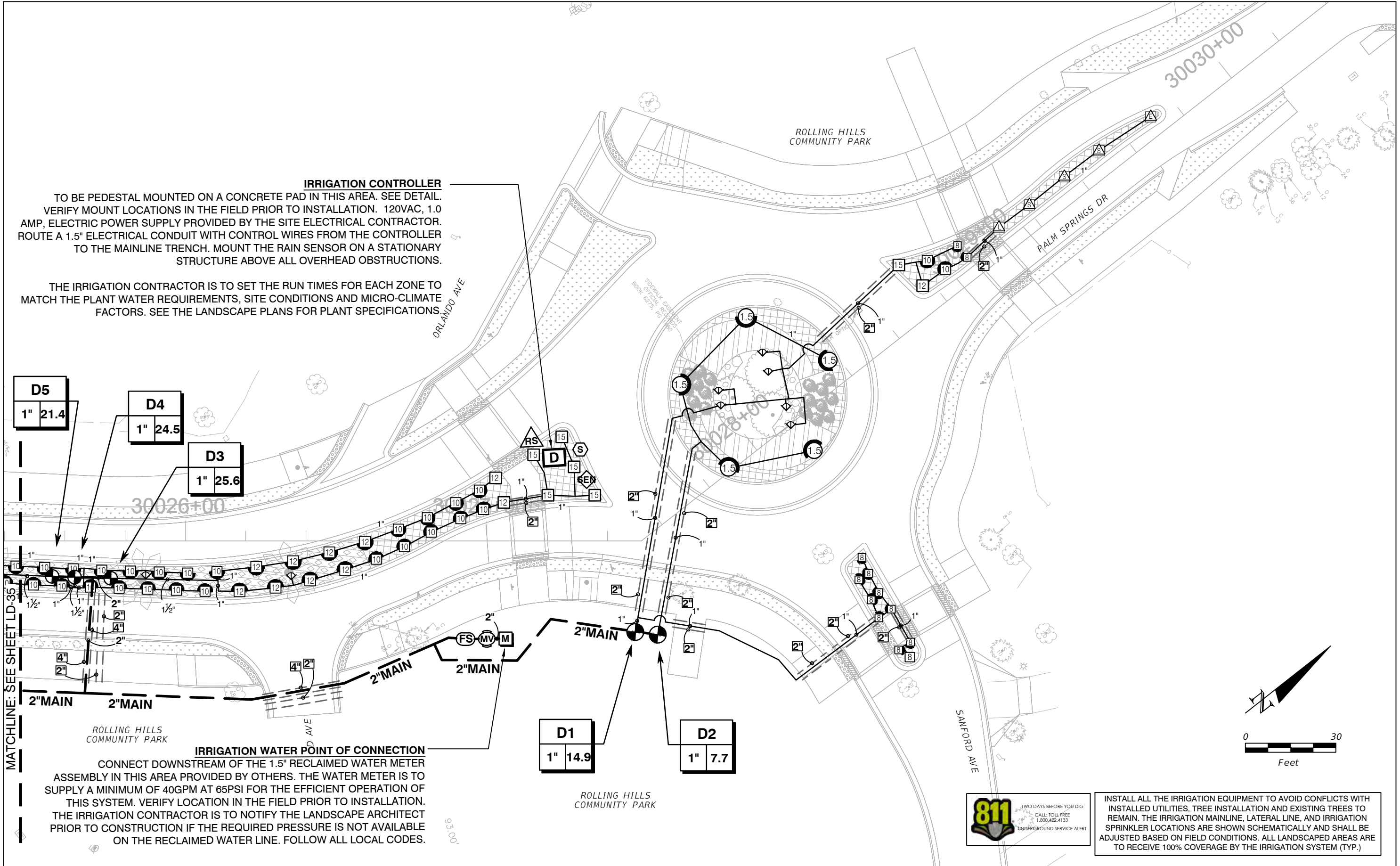
MATCHLINE: SEE SHEET LD-36
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G10-11.011, F.A.C.

REVISIONS				MAGUED HANNA, R.L.A. LICENSE NO. LA6667254 315 E. ROBINSON ST. SUITE 400 ORLANDO, FL 32801 PHONE 407.420.4200 FAX 407.420.4242	SEMINOLE COUNTY ENGINEERING DIVISION ROLLING HILLS AREA ROADWAYS PHASE 1		IRRIGATION PLAN PALM SPRINGS DRIVE (1)	SHEET NO. LD-35
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD	COUNTY CIP No.		
					RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084		

SUSERS SDATES STIMES SFILES

IRRIGATION CONTROLLER
 TO BE PEDESTAL MOUNTED ON A CONCRETE PAD IN THIS AREA. SEE DETAIL. VERIFY MOUNT LOCATIONS IN THE FIELD PRIOR TO INSTALLATION. 120VAC, 1.0 AMP, ELECTRIC POWER SUPPLY PROVIDED BY THE SITE ELECTRICAL CONTRACTOR. ROUTE A 1.5" ELECTRICAL CONDUIT WITH CONTROL WIRES FROM THE CONTROLLER TO THE MAINLINE TRENCH. MOUNT THE RAIN SENSOR ON A STATIONARY STRUCTURE ABOVE ALL OVERHEAD OBSTRUCTIONS.

THE IRRIGATION CONTRACTOR IS TO SET THE RUN TIMES FOR EACH ZONE TO MATCH THE PLANT WATER REQUIREMENTS, SITE CONDITIONS AND MICRO-CLIMATE FACTORS. SEE THE LANDSCAPE PLANS FOR PLANT SPECIFICATIONS.



MATCHLINE: SEE SHEET LD-35

IRRIGATION WATER POINT OF CONNECTION
 CONNECT DOWNSTREAM OF THE 1.5" RECLAIMED WATER METER ASSEMBLY IN THIS AREA PROVIDED BY OTHERS. THE WATER METER IS TO SUPPLY A MINIMUM OF 40GPM AT 65PSI FOR THE EFFICIENT OPERATION OF THIS SYSTEM. VERIFY LOCATION IN THE FIELD PRIOR TO INSTALLATION. THE IRRIGATION CONTRACTOR IS TO NOTIFY THE LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION IF THE REQUIRED PRESSURE IS NOT AVAILABLE ON THE RECLAIMED WATER LINE. FOLLOW ALL LOCAL CODES.



INSTALL ALL THE IRRIGATION EQUIPMENT TO AVOID CONFLICTS WITH INSTALLED UTILITIES, TREE INSTALLATION AND EXISTING TREES TO REMAIN. THE IRRIGATION MAINLINE, LATERAL LINE, AND IRRIGATION SPRINKLER LOCATIONS ARE SHOWN SCHEMATICALLY AND SHALL BE ADJUSTED BASED ON FIELD CONDITIONS. ALL LANDSCAPED AREAS ARE TO RECEIVE 100% COVERAGE BY THE IRRIGATION SYSTEM (TYP.)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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 LICENSE NO. LA6667254
 315 E. ROBINSON ST.
 SUITE 400
 ORLANDO, FL 32801
 PHONE 407.420.4200
 FAX 407.420.4242



SEMINOLE COUNTY
 ENGINEERING DIVISION
 ROLLING HILLS AREA ROADWAYS PHASE 1
 ROAD COUNTY CIP No.
 RAYMOND AVE., NORTH ST., PALM SPRINGS DR. 01907084

**IRRIGATION PLAN
 PALM SPRINGS DRIVE (2)**

SHEET NO.
LD-36

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G10-11.001, F.A.C.

IRRIGATION NOTES

1. THE PLANS AND DRAWINGS ARE DIAGRAMMATIC OF THE WORK TO BE PERFORMED. SOME COMPONENTS MAY BE SHOWN OUTSIDE THE WORK AREA FOR CLARITY. THE WORK SHALL BE EXECUTED IN A MANNER TO AVOID CONFLICTS WITH UTILITIES AND OTHER ELEMENTS OF CONSTRUCTION, INCLUDING LANDSCAPE MATERIALS. ALL DEVIATIONS FROM THE PLANS SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE BEFORE BEING INSTALLED.
2. THE IRRIGATION SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE PLANS, IRRIGATION SYSTEM SPECIFICATIONS AND ALL CONTRACT DOCUMENTS. THE CONTRACTOR SHALL COMPLY WITH ALL CURRENT LOCAL CODES, ORDINANCES, AND REGULATIONS.
3. ALL IRRIGATION MAINLINE AND LATERAL LINES ARE TO NOT EXCEED A VELOCITY OF 5FPS.
4. THE CONTRACTOR SHALL NOT WILLFULLY INSTALL ANY ASPECT OF THE IRRIGATION SYSTEM AS SHOWN ON THE PLANS AND DRAWINGS, WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES, OR DISCREPANCIES EXIST THAT MIGHT NOT HAVE BEEN KNOWN DURING THE DESIGN OF THE IRRIGATION SYSTEM. IN THE EVENT THAT NOTIFICATION OF THE CONFLICT IS NOT APPROVED BY THE OWNER'S REPRESENTATIVE, THE CONTRACTOR WILL ASSUME FULL RESPONSIBILITY FOR ALL REVISIONS.
5. REFER TO THE LANDSCAPE PLANS WHEN TRENCHING TO AVOID TREE ROOT BALLS WHEN INSTALLING IRRIGATION EQUIPMENT. CALL 811 AND REFER TO UTILITY PLANS PRIOR TO TRENCHING.
6. IRRIGATION CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS, INCLUDING UTILITY LOCATIONS BEFORE INSTALLATION OF THE IRRIGATION SYSTEM. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING INSTALLATION WITH ALL OTHER CONSTRUCTION ON SITE, ESPECIALLY LANDSCAPE INSTALLATION. THE IRRIGATION SYSTEM SHALL BE RELOCATED AT NO ADDITIONAL COST FOR ANY CONFLICT WITH LANDSCAPE INSTALLATION OR ANY OTHER SITE CONSTRUCTION OR EXISTING CONDITIONS.
7. VERIFY THE REQUIRED MINIMUM STATIC WATER PRESSURE IS AVAILABLE AT THE PROJECT SITE PRIOR TO BEGINNING THE IRRIGATION INSTALLATION. NOTIFY THE IRRIGATION DESIGN CONSULTANT AND LANDSCAPE ARCHITECT IN WRITING IF THE MINIMUM STATIC WATER PRESSURE OR WATER VOLUME IS NOT AVAILABLE. SEE PLAN SHEET FOR REQUIREMENTS.
8. WHERE EXISTING OR NEW TREES, LIGHT FIXTURES, SIGNS, ELECTRONIC CONTROLLERS AND/OR OTHER OBJECTS ARE AN OBSTRUCTION TO AN IRRIGATION SPRINKLER'S PATTERN, THE COMPONENT AND PIPING SHALL BE RELOCATED AS NECESSARY TO OBTAIN PROPER COVERAGE OF AN IRRIGATION SPRINKLER'S PATTERN. THE COMPONENT AND PIPING SHALL BE RELOCATED AS NECESSARY TO OBTAIN THE PROPER COVERAGE WITHOUT DAMAGING THE OBSTRUCTION.
9. 100% HEAD TO HEAD COVERAGE IS REQUIRED. ASSURE THAT ANY MODIFIED SPACING DOES NOT EXCEED THE SPACING SHOWN IN THE PLANS.
10. IRRIGATION CONTRACTOR SHALL ADJUST ALL SPRINKLERS TO AVOID OVER SPRAY ONTO IMPERVIOUS AREAS.
11. ALL MATERIALS AND EQUIPMENT SHOWN SHALL BE NEW AND INSTALLED AS SHOWN ON THE PLANS. IF THE DRAWINGS DO NOT THOROUGHLY DESCRIBE THE TECHNIQUES TO BE USED, THE INSTALLER SHALL FOLLOW THE INSTALLATION METHODS AND INSTRUCTIONS RECOMMENDED BY THE PRODUCT MANUFACTURER.
12. THE LOCATION OF THE IRRIGATION MAINLINE SHALL BE IDENTIFIED IN THE FIELD AND APPROVED BY THE OWNER'S REPRESENTATIVE BEFORE INSTALLATION.
13. CONTRACTOR IS TO SUBMIT PRODUCT SPECIFICATION SHEETS FOR ALL IRRIGATION EQUIPMENT TO BE USED FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
14. THE QUANTITIES SHOWN IN THE LEGEND SHEETS SHALL NOT BE USED FOR BIDDING PURPOSES. THE CONTRACTOR WILL BE RESPONSIBLE FOR CONDUCTING A COMPREHENSIVE MATERIALS TAKEOFF TO DETERMINE THE ACTUAL QUANTITIES OF MATERIAL NECESSARY TO EXECUTE THE WORK DESCRIBED IN THE DOCUMENTS.
15. ALL TRENCHES SHALL BE BACKFILLED WITH CLEAN DEBRIS-FREE MATERIALS.
16. IRRIGATION CONTRACTOR IS TO INSTALL CHRISTY ZONE TAGS WITH THE CORRESPONDING CONTROLLER ZONE NUMBER AT EACH CONTROL VALVE.
17. AS BUILT DOCUMENTS ARE TO BE PROVIDED TO THE OWNER UPON COMPLETION OF THE PROJECT. THE MAINLINE, CONTROL VALVES, ISOLATION VALVES, GROUND RODS AND SPLICE BOXES SHALL BE LOCATED WITH A MEASUREMENT FROM TWO FIXED POINTS.
18. IRRIGATION CONTRACTOR SHALL SECURE ANY AND ALL NECESSARY PERMITS FOR THE WORK PRIOR TO COMMENCEMENT OF ON-SITE OPERATIONS.
19. A MAINLINE PRESSURE TEST IS TO BE CONDUCTED BEFORE BACKFILLING. ALL FINDINGS ARE TO BE REPORTED TO THE LANDSCAPE ARCHITECT WITHIN TWENTY FOUR HOURS POST TEST.
20. ALL SLEEVES ARE TO BE TWO TIMES THE SIZE OF THE PIPE.
21. ROUTE AN ELECTRICAL CONDUIT FROM THE CONTROLLER TO THE MAINLINE TRENCH FOR THE CONTROL WIRES. RUN THE CONDUIT AND CONTROL WIRES PARALLEL TO THE MAINLINE.
22. THE IRRIGATION SYSTEM IS TO BE INSPECTED AND APPROVED BY THE PROJECT OWNER PRIOR TO RECEIVING CERTIFICATION.
23. ANY PRODUCT SUBSTITUTIONS MADE BY THE IRRIGATION CONTRACTOR ARE TO BE REVIEWED AND APPROVED BY THE OWNER PRIOR TO INSTALLATION.

PRE-CONSTRUCTION MEETING

PRIOR TO INSTALLATION OF TWO-WIRE IRRIGATION SYSTEM, A PRE-CONSTRUCTION MEETING SHALL BE CONDUCTED WITH PROJECT OWNER'S REPRESENTATIVE, INSTALLING CONTRACTOR, AND IRRIGATION TWO-WIRE MANUFACTURER AT NO ADDITIONAL COST FROM MANUFACTURER.

*CONTACT THE PRODUCT MANUFACTURER FOR TECHNICAL SUPPORT.

TWO-WIRE NOTES

- 1) EACH REMOTE CONTROL VALVE FOR EACH CONTROLLER SHALL BE INSTALLED WITH A LXIVMSOL INTEGRATED VALVE MODULE WITH 2-WIRE DECODER/SOLENOID. SYSTEM WIRE TO BE PAIGE ELECTRIC CABLE P7072D 14-2 AWG 2-CONDUCTOR CABLE DIRECT BURIAL WIRE. LXIVMSD SURGE PROTECTION DEVICE SHALL BE INSTALLED AT THE END OF EACH 2-WIRE PATH AND ALONG THE THE 2-WIRE PATH AT AN ON CENTER SPACING NOT TO EXCEED 500 FEET OR EVERY 15 DEVICES; WHICHEVER IS SMALLER. INSTALL THE LXIVMSD SURGE PROTECTION DEVICE AND GROUNDING ROD IN A RAIN BIRD VB ROUND VALVE BOX. INSTALL ONE LXIVMSD SURGE DEVICE MINIMUM 8' FROM CONTROLLER. INSTALL PER RAIN BIRD MANUFACTURERS RECOMMENDATIONS.
- 2) PAIGE ELECTRIC - THE CONTROLLER SHALL BE GROUNDED USING A #182000 5/8" X 8" COPPER CLAD GROUND ROD, A #182005 CAST BRONZE ROD CLAMP AND THE REQUIRED LENGTH OF #6AWG BARE, SINGLE STRAND COPPER GROUND WIRE. INSTALL INSIDE A RAIN BIRD VB 10" ROUND VALVE BOX. NO SYMBOL N/A/ 120 VOLTS ELECTRICAL POWER FOR CONTROLLER, PROVIDED BY ELECTRICIAN VERIFY ACTUAL LOCATION IN THE FIELD.

* ALL EQUIPMENT SPECIFICATION IS OR EQUAL

VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	PRECIP
A1	RAIN BIRD PESB-IVM-R	1"	SHRUB SPRAY	4.11	1.38 in/h
A2	RAIN BIRD PESB-IVM-R	1-1/2"	SHRUB SPRAY	25.3	1.61 in/h
A3	RAIN BIRD PESB-IVM-R	1"	SHRUB SPRAY	24.95	1.74 in/h
A4	RAIN BIRD PESB-IVM-R	1-1/2"	SHRUB SPRAY	31.6	1.3 in/h
A5	RAIN BIRD PESB-IVM-R	1"	SHRUB SPRAY	18.91	1.12 in/h
A6	RAIN BIRD PESB-IVM-R	1"	SHRUB SPRAY	18.22	1.05 in/h
A7	RAIN BIRD PESB-IVM-R	1-1/2"	SHRUB SPRAY	34.23	1.51 in/h
A8	RAIN BIRD PESB-IVM-R	1-1/2"	SHRUB SPRAY	32.98	1.56 in/h
A9	RAIN BIRD PESB-IVM-R	1-1/2"	SHRUB SPRAY	31.22	1.83 in/h
A10	RAIN BIRD PESB-IVM-R	1"	SHRUB SPRAY	22.76	1.89 in/h
A11	RAIN BIRD PESB-IVM-R	1"	SHRUB SPRAY	20.11	1.85 in/h
A12	RAIN BIRD PESB-IVM-R	1"	SHRUB SPRAY	15.5	1.48 in/h
B1	RAIN BIRD PESB-IVM-R	1"	SHRUB ROTOR	18.48	0.47 in/h
B2	RAIN BIRD PESB-IVM-R	1-1/2"	SHRUB SPRAY	27.54	1.5 in/h
C1	RAIN BIRD PESB-IVM-R	1"	SHRUB SPRAY	17.28	1.66 in/h
C2	RAIN BIRD PESB-IVM-R	1"	SHRUB SPRAY	23.33	1.61 in/h
C3	RAIN BIRD PESB-IVM-R	1"	SHRUB SPRAY	12.64	1.65 in/h
D1	RAIN BIRD PESB-IVM-R	1"	SHRUB ROTOR	7.7	0.35 in/h
D2	RAIN BIRD PESB-IVM-R	1"	SHRUB SPRAY	14.9	1.55 in/h
D3	RAIN BIRD PESB-IVM-R	1"	SHRUB SPRAY	25.59	1.52 in/h
D4	RAIN BIRD PESB-IVM-R	1"	SHRUB SPRAY	24.46	1.71 in/h
D5	RAIN BIRD PESB-IVM-R	1"	SHRUB SPRAY	21.38	1.63 in/h
D6	RAIN BIRD PESB-IVM-R	1"	SHRUB ROTOR	7.7	0.38 in/h
D7	RAIN BIRD PESB-IVM-R	1"	SHRUB SPRAY	24.39	1.62 in/h

THE IRRIGATION CONTRACTOR IS TO SET THE RUN TIMES FOR EACH ZONE TO MATCH THE PLANT WATER REQUIREMENTS, SITE CONDITIONS AND MICRO-CLIMATE FACTORS. SEE THE LANDSCAPE PLANS FOR PLANT SPECIFICATIONS. ALL EQUIPMENT SPECIFICATION IS OR EQUAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

MAGUED HANNA, R.L.A.



LICENSE NO. LA6667254
315 E. ROBINSON ST.
SUITE 400
ORLANDO, FL 32801
PHONE 407.420.4200
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SEMINOLE COUNTY ENGINEERING DIVISION ROLLING HILLS AREA ROADWAYS PHASE 1	
ROAD	COUNTY CIP No.
RAYMOND AVE.,NORTH ST.,PALM SPRINGS DR.	01907084

IRRIGATION NOTES & SCHEDULE

SHEET
NO.

LD-37

SUSERS

SDATES

STIMES

SFILES

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G10-11.011, F.A.C.

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	
	RAIN BIRD RD-12-P30-F-NP-U SQ SERIES 12" POP-UP, WITH 30 PSI IN-STEM PRESSURE REGULATION, FLOW-SHIELD TECHNOLOGY, AND NON-POTABLE COVER (PURPLE CAP). 1/2" NPT FEMALE THREADED INLET.	1	30	
	RAIN BIRD RD-12-P30-F-NP-U 15 STRIP SERIES 12" POP-UP, WITH 30 PSI IN-STEM PRESSURE REGULATION, FLOW-SHIELD TECHNOLOGY, AND NON-POTABLE COVER (PURPLE CAP). 1/2" NPT FEMALE THREADED INLET.	206	30	
	RAIN BIRD RD-12-P30-F-NP-U U8 SERIES 12" POP-UP, WITH 30 PSI IN-STEM PRESSURE REGULATION, FLOW-SHIELD TECHNOLOGY, AND NON-POTABLE COVER (PURPLE CAP). 1/2" NPT FEMALE THREADED INLET.	80	30	
	RAIN BIRD RD-12-P30-F-NP-U U10 SERIES 12" POP-UP, WITH 30 PSI IN-STEM PRESSURE REGULATION, FLOW-SHIELD TECHNOLOGY, AND NON-POTABLE COVER (PURPLE CAP). 1/2" NPT FEMALE THREADED INLET.	58	30	
	RAIN BIRD RD-12-P30-F-NP-U U12 SERIES 12" POP-UP, WITH 30 PSI IN-STEM PRESSURE REGULATION, FLOW-SHIELD TECHNOLOGY, AND NON-POTABLE COVER (PURPLE CAP). 1/2" NPT FEMALE THREADED INLET.	17	30	
	RAIN BIRD RD-12-P30-F-NP-U U15 SERIES 12" POP-UP, WITH 30 PSI IN-STEM PRESSURE REGULATION, FLOW-SHIELD TECHNOLOGY, AND NON-POTABLE COVER (PURPLE CAP). 1/2" NPT FEMALE THREADED INLET.	29	30	
	RAIN BIRD RD-12-P30-F-NP-U HE-VAN SERIES 12" POP-UP, WITH 30 PSI IN-STEM PRESSURE REGULATION, FLOW-SHIELD TECHNOLOGY, AND NON-POTABLE COVER (PURPLE CAP). 1/2" NPT FEMALE THREADED INLET.	78	30	
	RAIN BIRD 1804-NP-1400 FLOOD FLOOD BUBBLER 4" POPUP WITH NON-POTABLE PURPLE CAP.	54	30	
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	RADIUS
	RAIN BIRD 5012-PL-PC-SAM-R-NP 1.5 SHRUB ROTOR, 12" POP-UP WITH PLASTIC RISER. ADJUSTABLE TO FULL CIRCLE. STANDARD ANGLE NOZZLE, IN-STEM PRESSURE REGULATOR, AND FLOW SHUT-OFF DEVICE. WITH SEAL-A-MATIC CHECK VALVE, AND NON-POTABLE PURPLE COVER.	22	45	35'
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY		
	RAIN BIRD PESB-IVM-R 1", 1-1/2", 2" PLASTIC INDUSTRIAL SMART VALVES W/ FACTORY INSTALLED IVM-SOL. LOW FLOW OPERATING CAPABILITY, GLOBE CONFIGURATION. WITH SCRUBBER TECHNOLOGY FOR RELIABLE PERFORMANCE IN DIRTY WATER IRRIGATION APPLICATIONS.	24		
	RAIN BIRD PESB-IVM - MASTER VALVE 1-1/2" 1", 1-1/2", 2" PLASTIC INDUSTRIAL SMART VALVES W/ FACTORY INSTALLED IVM-SOL. LOW FLOW OPERATING CAPABILITY, GLOBE CONFIGURATION. WITH SCRUBBER TECHNOLOGY FOR RELIABLE PERFORMANCE IN DIRTY WATER IRRIGATION APPLICATIONS.	1		

	RAIN BIRD PESB-IVM - MASTER VALVE 2" 1", 1-1/2", 2" PLASTIC INDUSTRIAL SMART VALVES W/ FACTORY INSTALLED IVM-SOL. LOW FLOW OPERATING CAPABILITY, GLOBE CONFIGURATION. WITH SCRUBBER TECHNOLOGY FOR RELIABLE PERFORMANCE IN DIRTY WATER IRRIGATION APPLICATIONS.	3
	RAIN BIRD ESPLXIVM-LXMM-LXMPED 60 STATION, 2-WIRE CONTROLLER W/ SMART VALVE TECHNOLOGY. (1) ESPLXIVM 60-STATION, INDOOR/OUTDOOR, PLASTIC WALL MOUNT ENCLOSURE. INSTALL IN RAIN BIRD LXMM-LXMPED POWDER COATED METAL CABINET W/ PEDESTAL. SYSTEM REQUIREMENTS: RAIN BIRD LXIVM-XXX INTEGRATED VALVE MODULES & 2-WIRE DEVICES. USE PAIGE ELECTRIC CABLE P7072D & RAIN BIRD WC20 DRY SPLICES ONLY. GROUND SYSTEM W/ (X) LXIVMSD SURGE DEVICE IN RAIN BIRD ROUND VALVE BOXES. INSTALL PER MANUFACTURERS RECOMMENDATIONS.	1
	RAIN BIRD ESPLXIVM-LXMM-LXMPED 60 STATION, 2-WIRE CONTROLLER W/ SMART VALVE TECHNOLOGY. (1) ESPLXIVM 60-STATION, INDOOR/OUTDOOR, PLASTIC WALL MOUNT ENCLOSURE. INSTALL IN RAIN BIRD LXMM-LXMPED POWDER COATED METAL CABINET W/ PEDESTAL. SYSTEM REQUIREMENTS: RAIN BIRD LXIVM-XXX INTEGRATED VALVE MODULES & 2-WIRE DEVICES. USE PAIGE ELECTRIC CABLE P7072D & RAIN BIRD WC20 DRY SPLICES ONLY. GROUND SYSTEM W/ (X) LXIVMSD SURGE DEVICE IN RAIN BIRD ROUND VALVE BOXES. INSTALL PER MANUFACTURERS RECOMMENDATIONS.	1
	RAIN BIRD ESPLXIVM-LXMM-LXMPED 60 STATION, 2-WIRE CONTROLLER W/ SMART VALVE TECHNOLOGY. (1) ESPLXIVM 60-STATION, INDOOR/OUTDOOR, PLASTIC WALL MOUNT ENCLOSURE. INSTALL IN RAIN BIRD LXMM-LXMPED POWDER COATED METAL CABINET W/ PEDESTAL. SYSTEM REQUIREMENTS: RAIN BIRD LXIVM-XXX INTEGRATED VALVE MODULES & 2-WIRE DEVICES. USE PAIGE ELECTRIC CABLE P7072D & RAIN BIRD WC20 DRY SPLICES ONLY. GROUND SYSTEM W/ (X) LXIVMSD SURGE DEVICE IN RAIN BIRD ROUND VALVE BOXES. INSTALL PER MANUFACTURERS RECOMMENDATIONS.	1
	RAIN BIRD ESPLXIVM-LXMM-LXMPED 60 STATION, 2-WIRE CONTROLLER W/ SMART VALVE TECHNOLOGY. (1) ESPLXIVM 60-STATION, INDOOR/OUTDOOR, PLASTIC WALL MOUNT ENCLOSURE. INSTALL IN RAIN BIRD LXMM-LXMPED POWDER COATED METAL CABINET W/ PEDESTAL. SYSTEM REQUIREMENTS: RAIN BIRD LXIVM-XXX INTEGRATED VALVE MODULES & 2-WIRE DEVICES. USE PAIGE ELECTRIC CABLE P7072D & RAIN BIRD WC20 DRY SPLICES ONLY. GROUND SYSTEM W/ (X) LXIVMSD SURGE DEVICE IN RAIN BIRD ROUND VALVE BOXES. INSTALL PER MANUFACTURERS RECOMMENDATIONS.	1
	RAIN BIRD LXIVMSD SURGE DEVICE PROVIDES NECESSARY PROTECTION ON THE ESPLXIVM(P) CONTROLLER, 2 WIRE PATH. INSTALL (1) LXIVMSD EVERY 500FT OR 15 FIELD DEVICES (WHICHEVER IS SMALLER).	6
	RAIN BIRD LXIVMSEN SENSOR DEVICE INTERFACES W/ FLOW OR WEATHER SENSOR AND ESP-LX-IVM(P) CONTROLLER. FLOW SENSOR CAN BE INSTALLED ANYWHERE ON THE 2-WIRE PATH.	4
	RAIN BIRD WR2-RC WIRELESS RAIN SENSOR COMBO, INCLUDES 1 RECEIVER AND 1 RAIN SENSOR TRANSMITTER	4

<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>DATE</th> <th>DESCRIPTION</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				DATE	DESCRIPTION	DATE	DESCRIPTION					<p>MAGUED HANNA, R.L.A.</p> <p>HR</p> <p>LICENSE NO. LA6667254 315 E. ROBINSON ST. SUITE 400 ORLANDO, FL 32801 PHONE 407.420.4200 FAX 407.420.4242</p>	<p>SEMINOLE COUNTY ENGINEERING DIVISION ROLLING HILLS AREA ROADWAYS PHASE 1</p> <table border="1"> <thead> <tr> <th>ROAD</th> <th>COUNTY CIP No.</th> </tr> </thead> <tbody> <tr> <td>RAYMOND AVE., NORTH ST., PALM SPRINGS DR.</td> <td>01907084</td> </tr> </tbody> </table>	ROAD	COUNTY CIP No.	RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084	<p>SHEET NO.</p> <p>IRRIGATION SCHEDULE</p> <p>LD-38</p>
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FS

RAIN BIRD FS-100-P
1" FLOW SENSOR, PLASTIC PVC MODEL. SUGGESTED OPERATING RANGE 5.4 GPM TO 54 GPM. SIZE FOR FLOW NOT ACCORDING TO PIPE SIZE. RAIN BIRD COMPATIBLE CONTROLLERS: ESP-LXIVM(P) | LXD | LXME2(P) | ME3, OR CONTROLLERS ACCEPTING CUSTOM K-FACTOR AND OFFSET. INSTALL IN RAIN BIRD VALVE BOX

1

FS

RAIN BIRD FS-150-P
1-1/2" FLOW SENSOR, PLASTIC PVC MODEL. SUGGESTED OPERATING RANGE 5.0 GPM TO 100.0 GPM. SIZE FOR FLOW NOT ACCORDING TO PIPE SIZE. RAIN BIRD COMPATIBLE CONTROLLERS: ESP-LXIVM(P) | LXD | LXME2(P) | ME3, OR CONTROLLERS ACCEPTING CUSTOM K-FACTOR AND OFFSET. INSTALL IN RAIN BIRD VALVE BOX.

3

M

WATER METER 1-1/2"

3

M1

WATER METER 1"

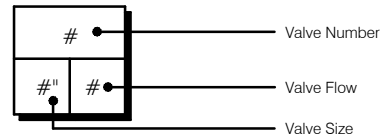
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———— IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21-NP 8,324 L.F.


----- IRRIGATION MAINLINE: PVC CLASS 200 SDR 21-NP 2,561 L.F.

===== PIPE SLEEVE: PVC SCHEDULE 40 1,831 L.F.

Valve Callout



THE QUANTITIES SHOWN IN THE LEGEND SHEETS SHALL NOT BE USED FOR BIDDING PURPOSES. THE CONTRACTOR WILL BE RESPONSIBLE FOR CONDUCTING A COMPREHENSIVE MATERIALS TAKEOFF TO DETERMINE THE ACTUAL QUANTITIES OF MATERIAL NECESSARY TO EXECUTE THE WORK DESCRIBED IN THE DOCUMENTS.

REVISIONS				 MAGUED HANNA, R.L.A. LICENSE NO. LA6667254 315 E. ROBINSON ST. SUITE 400 ORLANDO, FL 32801 PHONE 407.420.4200 FAX 407.420.4242	SEMINOLE COUNTY ENGINEERING DIVISION ROLLING HILLS AREA ROADWAYS PHASE 1		IRRIGATION SCHEDULE	SHEET NO. LD-39
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD	COUNTY CIP No.		
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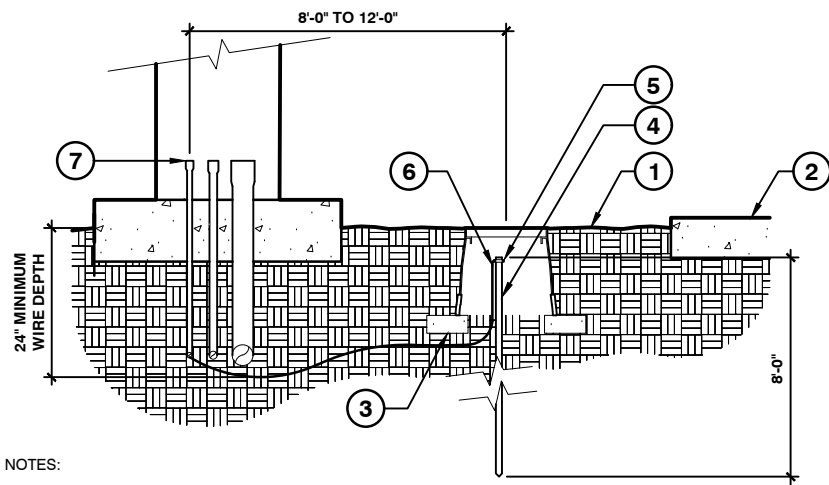
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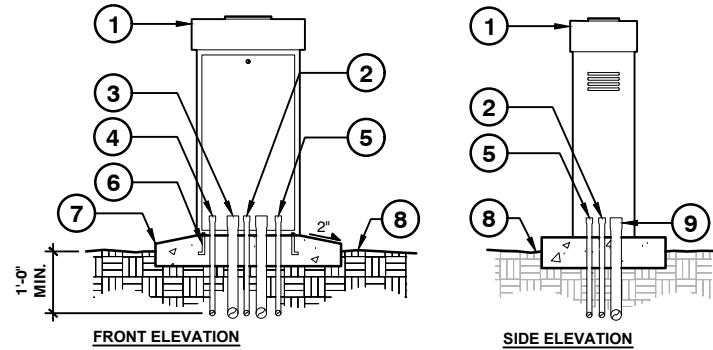
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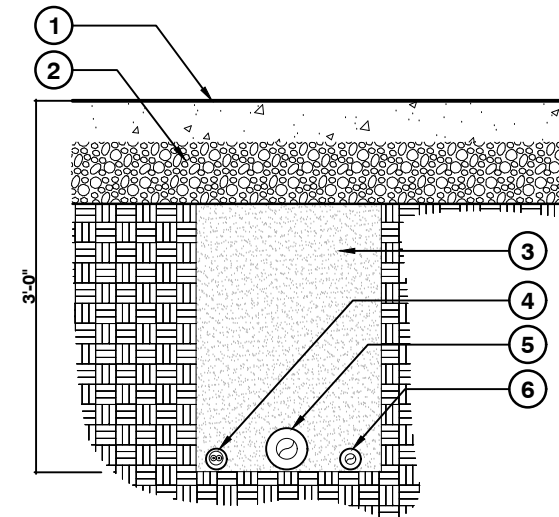
- NOTES:
- ALL GROUNDING REQUIREMENTS FOR CONTROLLERS SHALL CONFORM TO LOCAL ELECTRIC CODES.
 - GROUNDING ROD SHALL NOT BE LOCATED IN THE SAME TRENCH AS IRRIGATION MAINLINES OR LATERAL LINES.
 - VALVE BOX SHALL BE WRAPPED WITH A MINIMUM 3 MIL THICK PLASTIC AND SECURED TO THE VALVE BOX USING DUCT TAPE OR ELECTRICAL TAPE.
 - INSTALL GROUNDING ROD PER THE CONTROLLER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
- FINISH GRADE
 - PAVEMENT
 - THREE (3) 4" x 8" BRICKS
 - 5/8" x 8'-0" COPPER GROUNDING ROD
 - GROUNDING ROD CLAMP
 - #6 AWG BARE COPPER WIRE
 - 1/2" PVC ELECTRICAL CONDUIT AND SWEEP FOR EARTH GROUND

1 GROUNDING ROD
1" = 1'-0" FX-IR-FX-AUXEQ-01



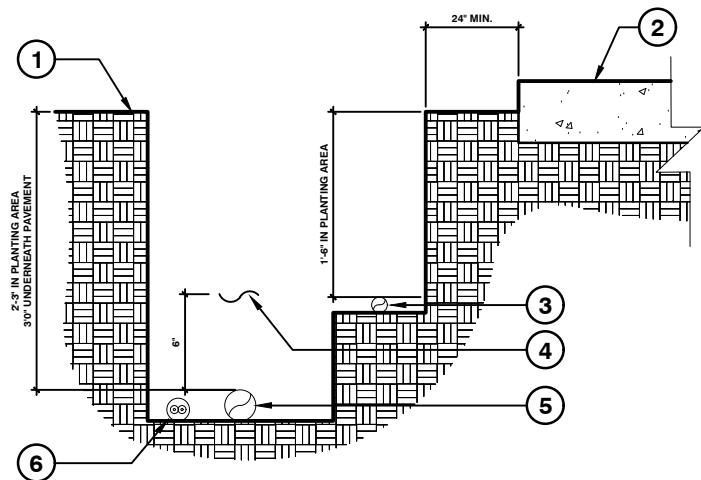
- NOTES:
- COMMON AND CONTROLLER WIRE TO BE BUNDLED USING ELECTRICAL TAPE AT 10'-0" ON CENTER.
 - GROUNDING RODS SHALL BE LOCATED BETWEEN 8'-0" AND 12'-0" AWAY FROM THE CONTROLLER. GROUNDING RODS SHALL BE 3/8" IN DIAMETER X 8' IN LENGTH. CONNECT THE GROUNDING ROD TO THE CONTROLLER USING 6 GAUGE BARE COPPER WIRE OR PER THE MANUFACTURER'S SPECIFICATIONS. SEE GROUNDING ROD DETAIL.
 - ET STATION TO BE INSTALLED NO FURTHER THAN 90' AWAY FROM THE CONTROLLER AND A MINIMUM OF 15' OFF OF THE GROUND, OUT FROM UNDER ANY OVERHEAD OBSTRUCTIONS SUCH AS, BUT NOT LIMITED TO BUILDING OVERHANGS, TREES, OR UTILITIES.
- PEDESTAL MOUNTED CONTROLLER (SEE IRRIGATION LEGEND FOR MAKE AND MODEL. INSTALL CONTROLLER PER MANUFACTURER SPECIFICATIONS)
 - 1" PVC ELECTRICAL CONDUIT FOR GROUNDING WIRE
 - 2" PVC ELECTRICAL CONDUIT FOR REMOTE CONTROL WIRES UP TO 24 STATIONS
 - 1" PVC ELECTRICAL CONDUIT FOR INPUT POWER PER LOCAL AND NATIONAL CODES
 - 1" PVC ELECTRICAL CONDUIT FOR SENSOR WIRES
 - 1/2" x 4" CADMIUM PLATED 'J' ANCHOR BOLTS AT FOUR LOCATIONS
 - CONCRETE FOOTING (INSTALL PER MANUFACTURER'S SPECIFICATION)
 - FINISHED GRADE
 - OPTIONAL 2" PVC ELECTRICAL CONDUIT FOR AN ADDITIONAL 24 STATIONS

2 PEDESTAL MOUNTED CONTROLLER
1/2" = 1'-0" FX-IR-FX-CONT-04



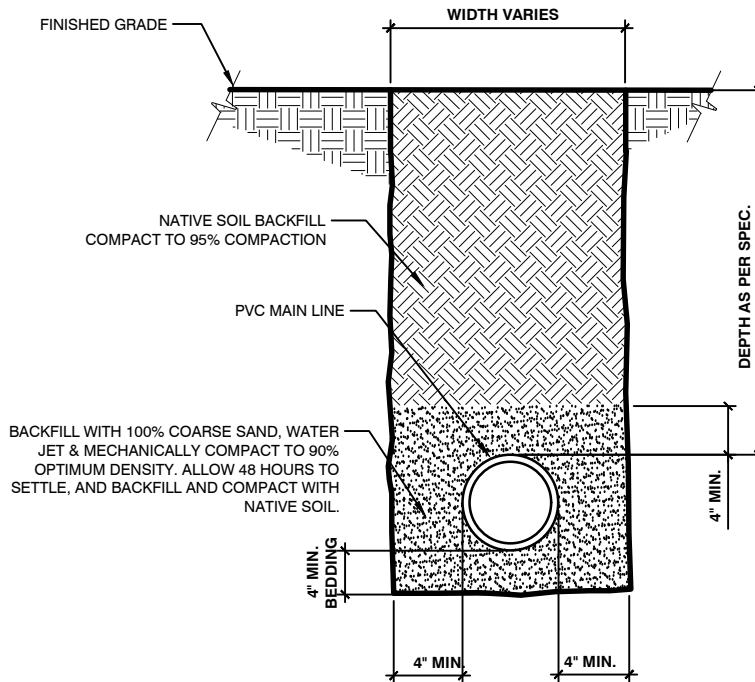
- NOTES:
- SEE IRRIGATION LEGEND FOR MAINLINE SIZE AND TYPE.
 - ALL SLEEVES SHALL BE SCH. 40 PVC PIPE.
 - ALL SLEEVES SHALL EXTEND 12" BEYOND THE EDGE OF PAVEMENT.
 - END OF SLEEVES SHALL BE LOCATED WITH A WOODEN STAKE OR PVC PIPE. LOCATORS SHALL RUN CONTINUOUSLY FROM THE END OF THE SLEEVE TO FINISHED GRADE.
- PAVEMENT
 - BASE ROCK
 - CLEAN BACKFILL, 95% RELATIVE COMPACTION UNDER PAVING OR PER CIVIL ENGINEER'S PLANS
 - TWO-WIRE CONTROL WIRES IN CONDUIT. SLEEVE UNDER PAVING. INSTALL ADJACENT TO PRESSURIZED MAINLINE. BUNDLE SHALL BE NO MORE THAN 50% OF PIPE DIAMETER
 - MAINLINE, SLEEVE UNDER PAVING TO BE TWO TIMES THE DIAMETER OF THE PRESSURIZED MAINLINE PIPE
 - NON-PRESSURIZED LINE, SLEEVE UNDER PAVING TO BE TWO TIMES THE DIAMETER OF THE LATERAL LINE

3 PIPE BENEATH PAVEMENT - TWO WIRE
N.T.S. I-04

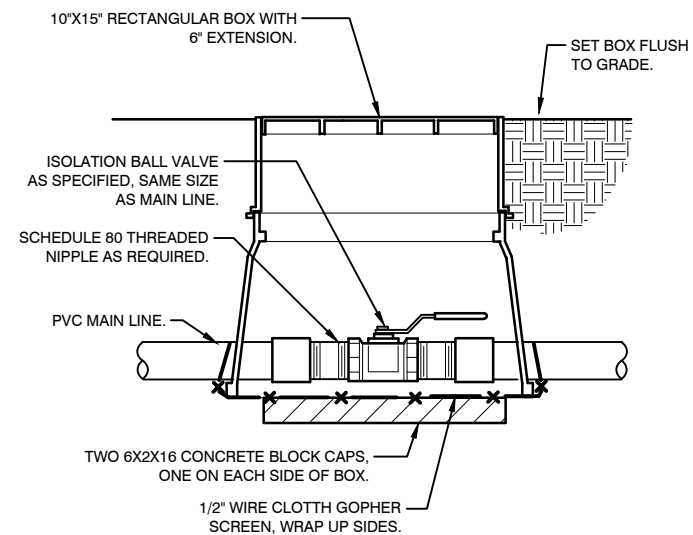


- NOTES:
- SEE IRRIGATION LEGEND FOR MAINLINE AND LATERAL LINE PIPE SIZE AND TYPE.
 - 2-WIRE IRRIGATION WIRE SHALL BE INSTALLED IN SCH. 40 PVC ELECTRICAL CONDUIT.
 - DETECTABLE LOCATOR TAPE SHALL BE LOCATED SIX INCHES (6") ABOVE THE ENTIRE MAINLINE RUN.
- FINISH GRADE
 - PAVEMENT
 - NON-PRESSURIZED LINE (LATERAL LINE)
 - DETECTABLE LOCATOR TAPE
 - PRESSURIZED LINE (MAINLINE)
 - TWO WIRE CONTROL WIRES IN CONDUIT

4 IRRIGATION TRENCHING - TWO WIRE
N.T.S. I-05



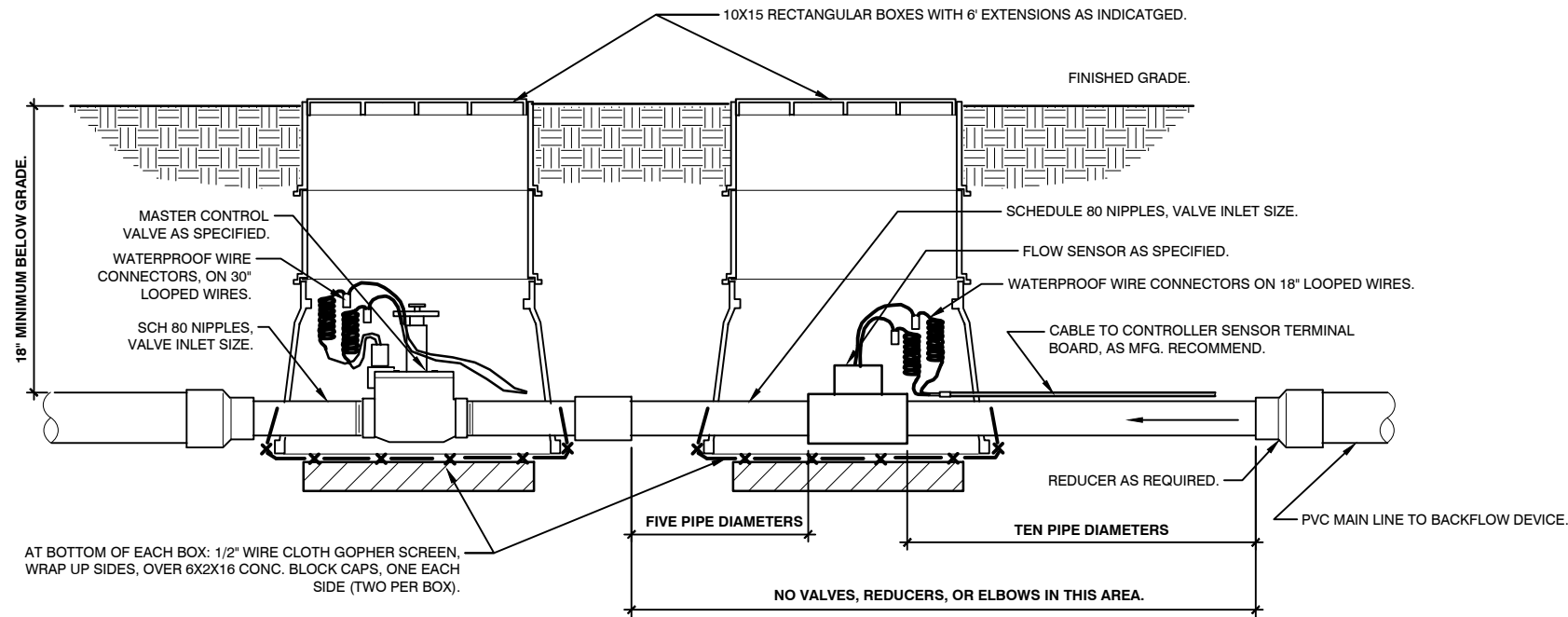
5 SLEEVE AT ROAD
1 1/2" = 1'-0" FX-IR-FX-AUXEQ-15



6 BRASS BALL ISOLATION VALVE
1 1/2" = 1'-0" FX-IR-FX-ISOV-02

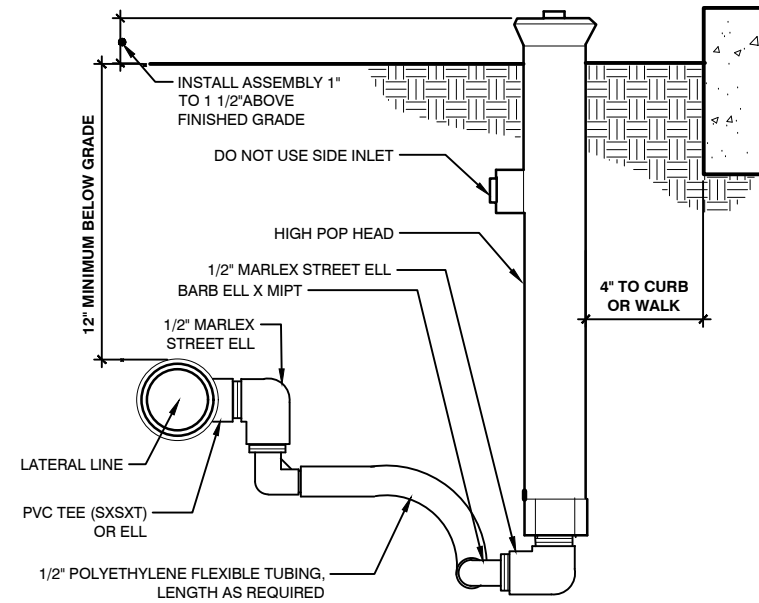
REVISIONS				MAGUED HANNA, R.L.A. LICENSE NO. LA6667254 315 E. ROBINSON ST. SUITE 400 ORLANDO, FL 32801 PHONE 407.420.4200 FAX 407.420.4242	SEMINOLE COUNTY ENGINEERING DIVISION ROLLING HILLS AREA ROADWAYS PHASE 1		SHEET NO. LD-40
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD	COUNTY CIP No.	
					RAYMOND AVE., NORTH	01907084	IRRIGATION DETAILS
					ST., PALM SPRINGS DR.		

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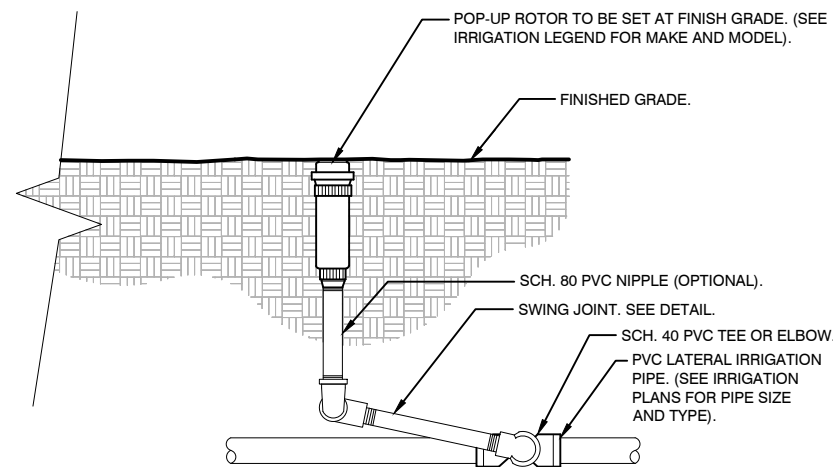
1 MASTER VALVE/FLOW SENSOR ASSEMBLY
1 1/2" = 1'-0"

FX-IR-FX-MAST-04



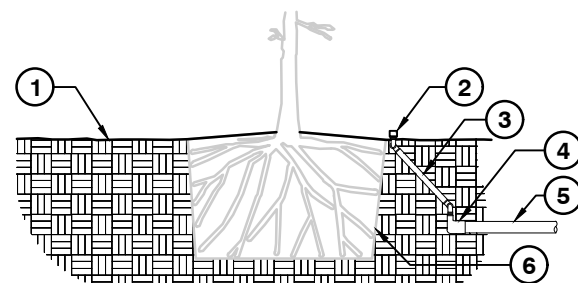
2 SHRUB SPRAY HIGHPOP W/FLEX ASSEMBLY
3" = 1'-0"

FX-IR-FX-HEAD-08



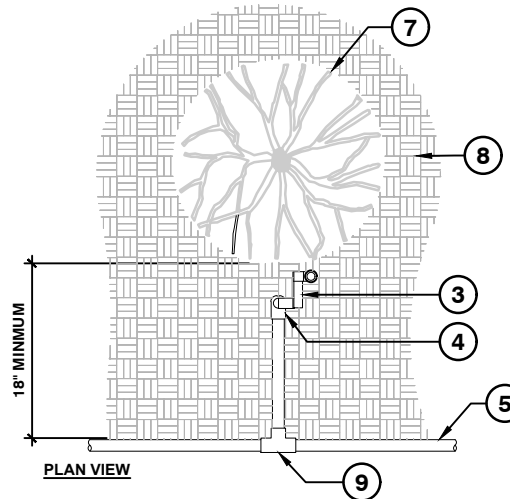
3 ROTOR SPRAYHEAD
1 1/2" = 1'-0"

FX-IR-FX-HEAD-01



SECTION VIEW

- 1 FINISHED GRADE
- 2 PRESSURE COMPENSATING BUBBLER SHALL BE SET 1" ABOVE FINISHED GRADE (SEE IRRIGATION SCHEDULE FOR MAKE AND MODEL)
- 3 SWING JOINT, SEE DETAIL
- 4 SCH. 40 PVC 90° ELBOW SLIP TO THREAD
- 5 LATERAL LINE IRRIGATION (SEE IRRIGATION PLANS FOR SIZING)
- 6 EDGE OF ROOT BALL. SETTLE BACKFILL SO IRRIGATION FLOWS THROUGH ROOT BALL
- 7 EDGE OF ROOT BALL
- 8 EXISTING OR MODIFIED SOIL (SEE SPECIFICATIONS FOR SOIL MODIFICATION)
- 9 SCH. 40 PVC TEE OR 90° ELBOW



PLAN VIEW

NOTES:

- 1. ALL IRRIGATION FITTINGS SHALL BE SCH. 40 PVC UNLESS SPECIFIED OTHERWISE.
- 2. ALL THREADED CONNECTIONS FROM SCH. 40 TO SCH. 80 PVC SHALL BE MADE USING TEFLON TAPE.
- 3. CONTRACTOR SHALL SETTLE THE AREA AROUND THE BUBBLER AND EDGE OF THE ROOT BALL SO THAT ALL IRRIGATION FLOWS THROUGH THE ROOT BALL.

4 IRRIGATION BUBBLER W/ LAYOUT
3/4" = 1'-0"

FX-IR-FX-BUBB-04

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MAGUED HANNA, R.L.A. LICENSE NO. LA6667254
315 E. ROBINSON ST. SUITE 400
ORLANDO, FL 32801
PHONE 407.420.4200
FAX 407.420.4242

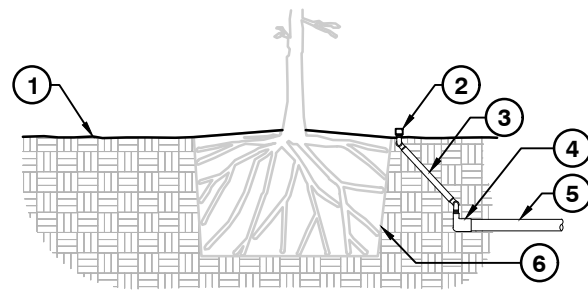


SEMINOLE COUNTY
ENGINEERING DIVISION
ROLLING HILLS AREA ROADWAYS PHASE 1
ROAD COUNTY CIP No.
RAYMOND AVE., NORTH ST., PALM SPRINGS DR. 01907084

IRRIGATION DETAILS

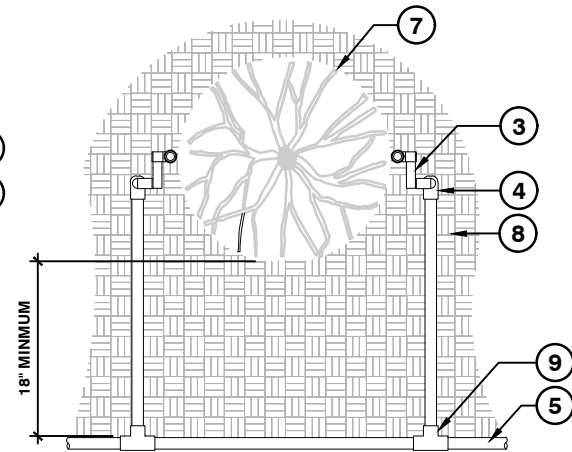
SHEET NO.
LD-41

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SECTION VIEW

- ① FINISHED GRADE
- ② PRESSURE COMPENSATING BUBBLER SHALL BE SET 1" ABOVE FINISHED GRADE (SEE IRRIGATION SCHEDULE FOR MAKE AND MODEL)
- ③ SWING JOINT, SEE DETAIL
- ④ SCH. 40 PVC 90° ELBOW SLIP TO THREAD
- ⑤ LATERAL LINE IRRIGATION (SEE IRRIGATION PLANS FOR SIZING)
- ⑥ EDGE OF ROOT BALL. SETTLE BACKFILL SO IRRIGATION FLOWS THROUGH ROOT BALL
- ⑦ EDGE OF ROOT BALL
- ⑧ EXISTING OR MODIFIED SOIL (SEE SPECIFICATIONS FOR SOIL MODIFICATION)
- ⑨ SCH. 40 PVC TEE OR 90° ELBOW



PLAN VIEW

NOTES:

1. ALL IRRIGATION FITTINGS SHALL BE SCH. 40 PVC UNLESS SPECIFIED OTHERWISE.
2. ALL THREADED CONNECTIONS FROM SCH. 40 TO SCH. 80 PVC SHALL BE MADE USING TEFLON TAPE.
3. CONTRACTOR SHALL SETTLE THE AREA AROUND THE BUBBLER AND EDGE OF THE ROOT BALL SO THAT ALL IRRIGATION FLOWS THROUGH THE ROOT BALL.

1 IRRIGATION BUBBLER (2) W/ LAYOUT
3/4" = 1'-0"

FX-IR-FX-BUBB-01

REVISIONS				MAGUED HANNA, R.L.A. HR LICENSE NO. LA6667254 315 E. ROBINSON ST. SUITE 400 ORLANDO, FL 32801 PHONE 407.420.4200 FAX 407.420.4242	SEMINOLE COUNTY ENGINEERING DIVISION ROLLING HILLS AREA ROADWAYS PHASE 1		IRRIGATION DETAILS	SHEET NO. LD-42
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD	COUNTY CIP No.		
					RAYMOND AVE., NORTH ST., PALM SPRINGS DR.	01907084		

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