SPECIFICATIONS:

1. SCOPE OF PROJECT - THE WORK SHALL INCLUDE (BUT NOT BE LIMITED TO) THE FOLLOWING COMPLETE (AND OPERATING) SYSTEMS AND AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN. CONTRACTOR/DEVELOPER SHALL INSTALL ALL CONDUIT, ENCLOSURES, POLES, LUMINARIES, TRANSFORMER PADS AND SWITCHGEAR GASES. COA WILL BE RESPONSIBLE FOR INSTALLING ALL CONDUCTORS, TRANSFORMERS AND SWITCHGEAR. ALL MAKE UP, CONNECTIONS AND TESTING SHALL BE COMPLETED BY THE C.A..

1.1. PROVIDE WIRING, CONDUIT, AND EQUIPMENT FOR A COMPLETE AND OPERATING UTILITY-GRADE UNDERGROUND ELECTRICAL DISTRIBUTION AND UTILITY LIGHTING SYSTEM WITHIN THE DEVELOPMENT.

1.2. PROVIDE ALL WIRING, CONDUIT, POLES, LUMINAIRES, AND EQUIPMENT TO INSTALL A COMPLETE AND OPERATING UTILITY OWNED STREET LIGHTING SYSTEM.

1.3. ALL CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE REQUIREMENTS FOR THIS TYPE FACILITY AND MEET CITY OF ALACHUA UTILITIES POLICIES AND PRACTICES.

1.4. ALL SPECIFICATIONS AND PLANS SHALL BE APPROVED BY THE ELECTRIC DEPARTMENT PRIOR TO BIDDING.

1.5. "PROVIDE" SHALL MEAN FURNISH, INSTALL, CONNECT, ADJUST, AND TEST EXCEPT WHERE NOTED.

2. MATERIALS AND EQUIPMENT SHALL BE NEW AND SUITABLE FOR THE PURPOSE INTENDED. CUT SHEETS SHALL BE SUBMITTED TO THE ELECTRIC DEPARTMENT PRIOR TO ORDERING FOR APPROVAL. COA WILL PROCURE AT THE DEVELOPER'S EXPENSE ALL MATERIALS NECESSARY FOR THE COMPLETE JOB. CONTRACTOR IS RESPONSIBLE FOR PROCURING AND INSTALLING: CONDUITS, POLES, AND LUMINARIES.

2.1A. UNDERGROUND 15 KV 1/0 AWG AL, 19 STRAND, JACKETED PRIMARY CABLE SHALL HAVE STRAND FILLED CENTRAL CONDUCTOR, SEMI-CONDUCTING CONDUCTOR SHIELD, 175 MIL VIRGIN TREE RETARDANT CROSS-LINKED POLYETHYLENE INSULATION, BLACK CROSS-LINKED POLYETHYLENE SHIELD, FULL CONCENTRIC CU NEUTRAL, WITH INSULATING, BLACK LINEAR LOW DENSITY POLYETHYLENE JACKET EXTRUDED OVER THE NEUTRAL. APPROVED MANUFACTURERS ARE HENDRIX, PIRELLI, PRYSMIAN AND SOUTHWIRE.

2.1B. UNDERGROUND 15 KV 1000 KCMIL AL, 61 STRAND, (3/4 HARD) JACKETED PRIMARY CABLE SHALL HAVE STRAND FILLED CENTRAL CONDUCTOR, SEMI-CONDUCTING CONDUCTOR SHIELD, 175 MIL VIRGIN TREE RETARDANT CROSS-LINKED POLYETHYLENE INSULATION, BLACK CROSS-LINKED POLYETHYLENE SHIELD, 1/3 CONCENTRIC CU NEUTRAL, WITH INSULATING, BLACK LINEAR LOW DENSITY POLYETHYLENE JACKET EXTRUDED OVER THE NEUTRAL. APPROVED MANUFACTURERS ARE HENDRIX, PIRELLI, PRYSMIAN AND SOUTHWIRE.

2.2. UNDERGROUND UD SECONDARY ALUMINUM CABLES SHALL HAVE THERMOSETTING XLP INSULATION WITH YELLOW STRIPE TO IDENTIFY NEUTRAL. 1/0 TRIPLEX - CODE WORD MARION OR BRENAU/EYS; 4/0 TRIPLEX - CODE WORD SWEET BRIAR; #2 TRIPLEX AND #6 TRIPLEX. APPROVED MANUFACTURERS ARE HENDRIX, PIRELLI, AND SOUTHWIRE.

2.3. THE LOAD BREAK ELBOWS SHALL HAVE EPDM RUBBER INSULATION. VERIFY CABLE DIMENSIONS FOR APPLICABILITY. APPROVED MANUFACTURERS ARE ELASTIMOLD, COOPER POWER SYSTEMS, AND RTE.

2.4. SINGLE PHASE PAD MOUNTED TRANSFORMERS SHALL BE DEAD FRONT, LOOP FEED CAPABILITY, HIGH VOLTAGE 12470 GRD Y 7200 VOLTS, LOW VOLTAGE 240 GRD Y/120 VOLT, 95 KV BIL, COMPARTMENTAL TYPE, RATINGS BASED ON 65 DEGREE C WINDING RISE, HIGH GRADE, COLD REDUCED, GRAIN ORIENTED SILICON STEEL CORE, 8.3/14.4 KV CLASS BUSHING WELLS AND LOAD BREAK INSERTS, LOW VOLTAGE TERMINALS SHALL BE STUD TYPE, TANK SHALL BE SEALED AND FURNISHED COMPLETE WITH PCB FREE DIELECTRIC OIL, AND DOORS SHALL BE PAD LOCKABLE. TRANSFORMERS SHALL BE PROTECTED WITH A BAYONET FUSE. SHALL BE EQUIPPED WITH A PRESSURE RELIEF DEVICE. ALL TRANSFORMERS. SHALL MEET OR EXCEED THE JANUARY 1, 2010 D.O.E. EFFICIENCY LEVELS FOR LIQUID FILLED TRANSFORMERS. TRANSFORMERS WILL BE MOUNTED ON A WINDOWED, PRECAST PAD SUITABLE FOR THE TRANSFORMER. APPROVED PRE-CAST PAD MANUFACTURER IS TRENWA OR APPROVED EQUAL. APPROVED TRANSFORMER MANUFACTURERS ARE COOPER SYSTEMS, HOWARD, GENERAL ELECTRIC AND ABB.

2.5. SECONDARY CABLES SHALL BE TERMINATED WITHIN THE TRANSFORMERS ON STUD TYPE TRANSFORMER TERMINALS WITHIN SINGLE PHASE TRANSFORMERS. APPROVED MANUFACTURERS UTILCO, CMC, ESP AND PREFORMED LINE PRODUCTS.

2.6A."SMALL BURIED WIRE ENCLOSURE" (SBWE), SECONDARY JUNCTION BOX SHALL BE MADE OFHIGH DENSITY POLYETHYLENE AND TOP. APPROXIMATE DIMENSTIONS 10" TOP DIAMETER, 19" DEPTH. BASIS OF DESIGN PENCELL PLASTICS PE-10HDH EITH ELECTRIC ID.

2.6B. "LARGE BURIED WIRE ENCLOSURE" (LBWE),F0R SECONDART CONNECTIONS SHALL BE MADE OF POLYMER CONCRETE BOX WITH FIBERGLASS COVER. BASIS OF DESIGN CDR SYSTEM CORP. PA10-1730-18.

2.6C. SECONDARY CONNECTIONS MADE WITHIN ENCLOSURES SHALL BE DIRECT BURIAL, BOLTED TYPE. APPROVED MANUFACTURERS ARE UTILCO, CMC, AND ESP.

2.7. PVC CONDUIT SHALL BE SCHEDULE 40, HEAVY WALL, RATED FOR 90C. CABLE, UL LISTED IN 10 OR 20 FOOT LENGTHS WITH INTEGRAL BELLS. ALL 6" ELBOWS SHALL BE FIBERGLASS WITH 48" RADIUS WITH APPROPRIATE TRANSITION FITTINGS. VERTICAL 6" ELBOWS SHALL BE ANCHORED WITH TWO BAGS OF CEMENT. ALL OTHER ELBOWS SHALL BE PVC SCHEDULE 40 WITH LONG RADIUS SWEEPS.

2.8. PROVIDE PARKING STAND ARRESTORS TO BE INSTALLED AT EACH OPEN POINT AND ELBOW ARRESTORS AT END POINT. APPROVED MANUFACTURER IS ELASTIMOLD.

2.9. ALL TRANSFORMERS SHALL HAVE SCHWEITZER ENGINEERING LABORATORIES (SEL) 3 PHASE FAULT INDICATORS INSTALLED ON B SIDE OF TRANSFORMER. - SHALL BE SEL 3BCRB0200IR. NOT APPLICABLE.

2.10. SEE LIGHTING SCHEDULE FOR STREET LIGHT FIXTURE AND POLE SPECIFICATIONS.

2.11. PROVIDE SERVICE ENTRANCE RATED PANEL BOARD WITH 100 AMP MAIN, 22 kAIR, WEATHER PROOF, SINGLE PHASE 120/240V RATED AND 100A SERVICE.

2.12A. PME 9 PAD-MOUNTED SWITCHGEAR SHALL BE ELBOW CONNECTED (DEADFRONT) AND SHALL HAVE TWO THREE-PHASE 600 AMP EXTERNALLY OPERATED THREE POLE SWITCHES AND TWO THREE-PHASE 200 AMP HOOKSTICK OPERATED FUSED TAPS. PROVIDE SMU-20 FUSE HOLDERS. THE CABINET SHALL BE ALL WELDED STAINLESS STEEL WITH STAINLESS STEEL HARDWARE AND SHALL HAVE ANTI-CONDENSATION ROOF UNDERCOATING. FINISH COLOR SHALL BE PAD-MOUNT GREEN ANSI-32 (MUNSELL NOTATION 7GY3.29/1.5). PROVIDE SEL 3BCRB0600IR FAULT INDICATORS ON 600 AMP CONDUCTORS. ALL BUSHING MUST BE PROVIDED. APPROVED MANUFACTURERS: S&C ELECTRIC CO. 65152R1-A14-F14 WITH 90362. PROVIDE 100E FUSES FOR 200 AMP POSITIONS.

2.12B. PME 11 PAD-MOUNTED SWITCHGEAR SHALL BE ELBOW CONNECTED (DEADFRONT) AND SHALL HAVE THREE THREE-PHASE 600 AMP EXTERNALLY OPERATED THREE POLE SWITCHES AND ONE THREE-PHASE 200 AMP HOOKSTICK OPERATED FUSED TAPS. PROVIDE SMU-20 FUSE HOLDERS. THE CABINET SHALL BE ALL WELDED STAINLESS STEEL WITH STAINLESS STEEL HARDWARE AND SHALL HAVE ANTI-CONDENSATION ROOF UNDERCOATING. FINISH COLOR SHALL BE PAD-MOUNT GREEN ANSI-32 (MUNSELL NOTATION 7GY3.29/1.5). PROVIDE SEL 3BCRB0600IR FAULT INDICATORS ON 600 AMP CONDUCTORS. ALL BUSHING MUST BE PROVIDED. APPROVED MANUFACTURERS: S&C ELECTRIC CO. 65162R1-A14-F14 WITH 90362. PROVIDE 100E FUSES FOR 200 AMP POSITIONS.

2.12C. PME9 AND PME 11 SWITCHES SHALL BE PLACED ON PRECAST BOX AND TOP. PRECAST BOX SHALL BE 5000 PSI CONCRETE MADE BY SOUTHERN PRECAST INC. CATALOG NUMBER SPSWB0016X6 WITH SPGRUPME911 TOP.

2.13 UNDERGROUND JUNCTION BOX "UJB" SHALL BE MADE OF CORRUGATED POLYESTER WALLS AND POLYMER CONCRETE COLLAR AND TOP. BASIS OF DESIGN CDR SYSTEM CORP. PA10-3038-30.

2.14 ALL HORIZONTAL DIRECTIONAL DRILLING(HDD) MATERIALS AND METHODS SHALL MEET THE REQUIREMENTS OF THE CURRENT SECTION 555 - HORIZONTAL BORE OF THE FDOT STANDARD SPECIFICATIONS. MATERIALS SHALL BE IN ACCORDANCE WITH ASTM D3350.

2.15. ALL DIRECTIONAL BORING PIPE SHALL BE HIGH DENSITY POLYETHYLENE (HDPE) THAT MEETS ASTM D3350 WITH SDR 13.5 AND SHALL BE BLACK WITH THREE CONTINOUS RED STRIPES 120 DEGREES APART. APPROVED MANUFACTURERS: PETROFLEX, PERFORMANCE PIPE, CSR POLYPIPE, CARLON A16C9N1A3KA766.

2.16. TRANSITION COUPLINGS SHALL BE PROVIDED FOR HDPE PIPE TO SCHEDULE 40 PVC ELECTRICAL CONDUIT.

2.17. 1000 KCMIL SPLICE BOX "S.B." IS A BURIED CONCRETE BOX WITH OUTSIDE DIMENSIONS OF 88"X58"X3"6 DEEP WITH A 6" THICK CONCRETE LID.THE BOX AND LID ARE HS20 TRAFFIC RATED-32,000#/AXLE. BOX SHALL BE EQUIPPED WITH 2-6" BELL ADAPTERS ON EACH END AND TWO PULLING EYES ON EACH END. LID SHALL BE REINFORCED WITH #5 REBAR. PROVIDE SPLICE BOX FROM TRENWA INC,DRAWING 320182 AND PROVIDE LID FROM TRENWA INC,DRAWING 320187.

GENERAL NOTES:

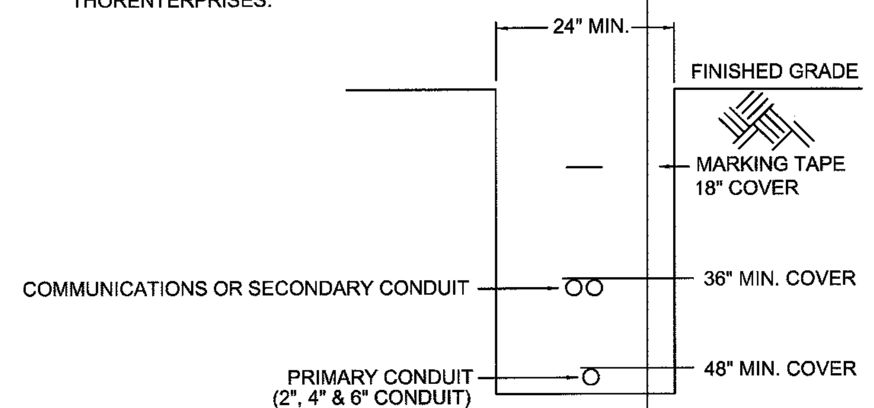
THE DRAWINGS ARE IN PART DIAGRAMMATIC AND ARE INTENDED TO CONVEY THE SCOPE OF THE WORK, INDICATE THE GENERAL LOCATION AND ARRANGEMENT OF CONDUIT AND PADS OR BASES, AND THE LIKE. IT IS NOT INTENDED TO SHOW IN MINUTE DETAIL EVERY AND ALL ACCESSORIES REQUIRED AT EACH LOCATION FOR THE EXECUTION OF THE WORK, BUT IT IS INTENDED THAT ALL ACCESSORIES REQUIRED FOR A COMPLETE SYSTEM BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

EXAMINE ALL DRAWINGS FOR COORDINATION AND ALLOCATION OF SPACE AND AVOID INTERFERENCE WITH SURROUNDS. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS PRACTICAL IN PERFORMING THE WORK. DISCREPANCIES BETWEEN THE ELECTRICAL CONDUIT SYSTEM AND WORK OF OTHER TRADES SHALL BE COORDINATED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER AND AS REQUIRED BY FIELD CONDITIONS.

DISCREPANCIES DISCOVERED DURING THE BID PROCESS SHALL BE REFERRED TO THE ENGINEER PRIOR TO SUBMITTING A BID. THE ENGINEER WILL ISSUE INSTRUCTIONS BY ADDENDUM WHEN NECESSARY. INTERPRETATION OF THE DRAWINGS WILL BE BY THE ENGINEER.

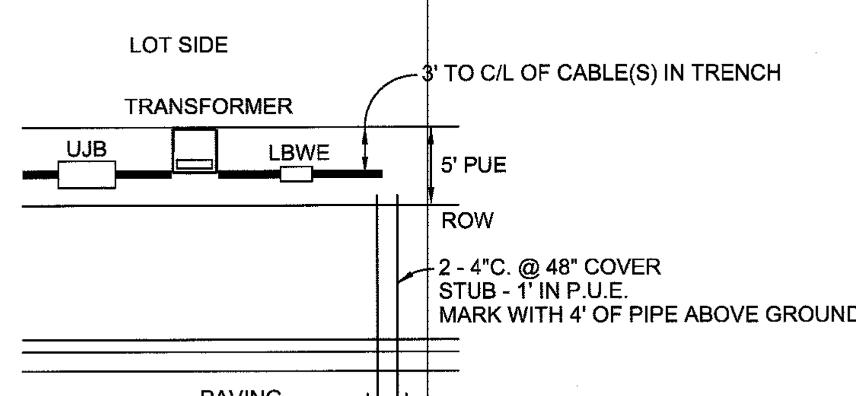
CHANGES FROM THE DRAWINGS THAT ARE NECESSARY TO MAKE WORK CONFORM TO FIELD CONDITIONS, TO FIT WORK OF OTHER TRADES, OR TO RULES OF BODIES HAVING JURISDICTION, WILL BE MADE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT. IN CASE OF DISPUTE, THE ENGINEER WILL RENDER A DECISION ON HOW TO PRECEED.

WARNING TAPE SHALL BE RED WITH CONTINUOUS BLACK MARKINGS "CAUTION CAUTION - CITY OF ALACHUA - ELECTRIC LINE BURIED BELOW SHALL BE ALLENSYSTEM "MARKLINE" OR EQUAL REEFINDUSTRIES OR THORENTERPRISES.



TYPICAL CONDUIT TRENCH DETAIL

NOT TO SCALE



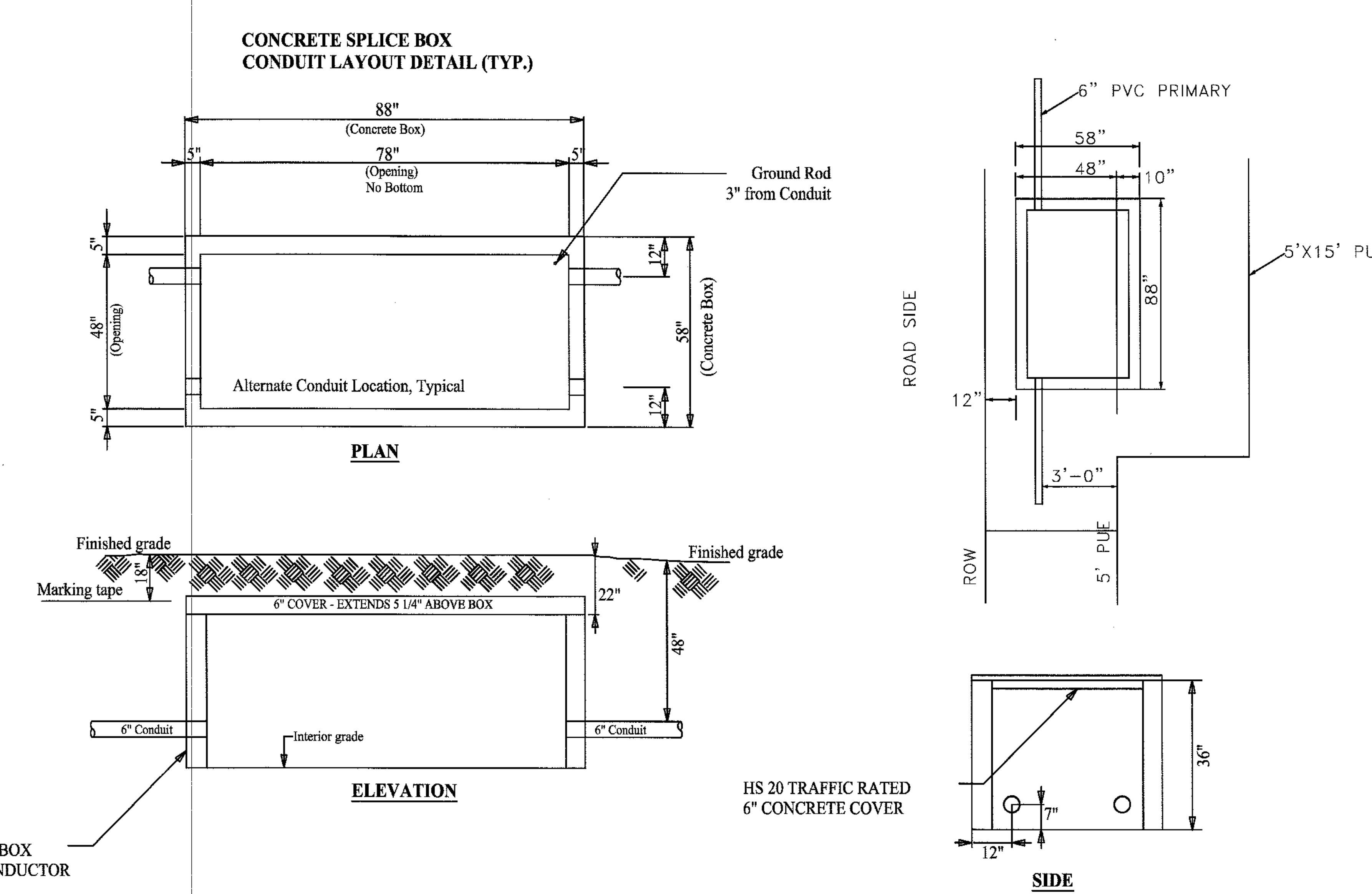
TYPICAL ELECTRIC UTILITY ALLOCATION

NOT TO SCALE

ELECTRICAL UTILITIES LEGEND

KVA	TRANSFORMER ON CONCRETE PAD, 25 KVA PHASE b, 120/240 VOLT SINGLE PHASE SECONDARY
PME	PRIMARY SWITCHGEAR PME9 OR PME11 ON CONCRETE BASE WITH TOP
1/0 P	3-1/0 AL PRIMARY CABLE IN 4" PVC AT 48" MIN. COVER
1/0 b	SINGLE PHASE 1/0 AL PRIMARY CABLE IN 2" PVC (UNLESS OTHERWISE SPECIFIED IN PLANS) AT 48" MIN. COVER "b" DENOTES B PHASE
1000	3-1000 KCMIL AL PRIMARY CABLE IN 6" PVC AT 48" MIN. COVER
6" DIR. BORE	6" HDPE DIRECTIONAL BORE UNDER PAVING, 48" MIN. COVER
4/0TPX	SECONDARY CONDUCTORS AT 36" MIN. CONDUCTOR SIZE AND QUANTITY AS MARKED. CONDUIT FOR 4/0 IS 2 1/2"
#6	SECONDARY CONDUCTORS AT 36" MIN. CONDUCTOR SIZE AND QUANTITY AS MARKED. CONDUIT FOR #6 IS 1 1/4"
SBWE	SMALL BURIED WIRE ENCLOSURE, APPROXIMATELY10" DIA. X 19" DEEP. (TYPICALLY FOR STREETLIGHTING FEEDS - INCLUDED BUT NOT SHOWN ON ALL LIGHTS)
LBWE	LARGE BURIED WIRE ENCLOSURE, APPROXIMATELY 30" X 17"X16" DEEP. TYPICALLY FOR LARGER SECONDARY CONNECTIONS E.G. 4/0 TPX.
UJB	UD JUNCTION BOX 30" X 48" X 30" DEEP - FOR 1/0 PRIMARY CONNECTIONS.
SC	PRIMARY SECTIONALIZING CABINET ON FIBERGLASS BASE - FOR 1/0 PRIMARY VOLTAGE LOOP - WILL BE SOURCE FOR COMMERCIAL LOT TRANSFORMERS.
(M)	ELECTRIC UTILITY METER SOCKET AND ELECTRICAL 100A PANEL & SERVICE- PROVIDE FOR SIGN. PROVIDE SERVICE CONDUCTORS TO LBWE.
S.B.	SPLICE BOX 88" X 58" X 36" DEEP (NOMINAL DIMENSIONS) CONCRETE WITH TRAFFIC RATED TOP. BURIED WITH 22"OF COVER. USED TO SPLICE 1000 KCMIL CABLES.
	CAP STUBS AND MARK WITH 4' STICK OF CONDUIT

SEE SHEET E8 FOR LIGHTING LEGEND FOR "A", "AL", "B" AND "C" DESCRIPTION AND SPECS.



1000 MCM SPLICE BOX DETAILS - "S.B."

NOT TO SCALE

DRAWN

APPROVED
WTS

REVISIONS

SHEET TITLE

WALMART AT ALACHUA COMMERCE PARK

ELECTRIC UTILITY SYSTEM

SEAL

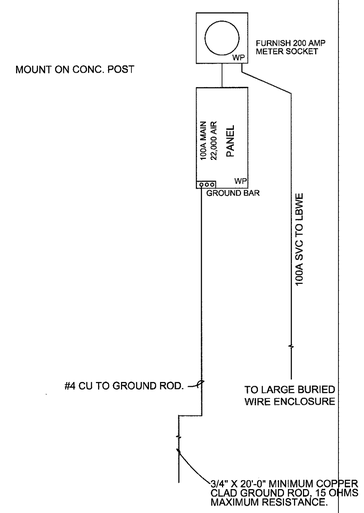
WILLIAM T. STORMANT PE - ELECTRICAL ENGINEER
STORMANTWT@COX.NET
5304 NW 173 Street, Alachua, FL 32615 (352) 472-3642 Lic. # 44156

FILE NO.

DATE
01/23/17

SHEET
E6
OF 12

Tech: ThomasC Plot Date: Jan 24,2017 10:54am Filename: L:\2015\15-0221\Engineering\DWGs\Production Files\Alachua Walmart\15-0221_C3.10-MUT_ALACHUA WALMART.dwg



NOTE
ALL CONDUCTORS SHALL BE COPPER TYPE THWN-2.

ELECTRICAL DISTRIBUTION ONE LINE DIAGRAM

NOT TO SCALE

DRAWN

APPROVED
WTS

REVISIONS

SHEET TITLE

WALMART AT ALACHUA COMMERCE PARK

ELECTRIC UTILITY SYSTEM

SEAL

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FILE NO.

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SHEET
E7
OF 12

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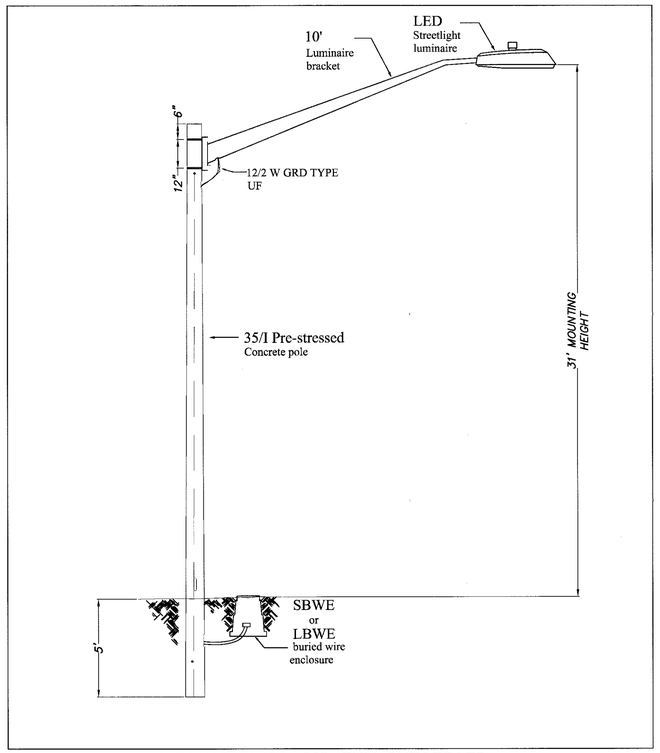


LUMINARIES "B" + "C" - FULL CUTOFF LED

Concrete Light Pole with Underground
Streetlight Riser

250W HPS CLASS "B"

XSP Series

XSP2™ LED Street/Area Luminaire – Double Module – Version C

Product Description

Designed from the ground up as a totally optimized LED street and area lighting system, the XSP Series delivers incredible efficiency without sacrificing application performance. Beyond substantial energy savings and reduced maintenance, Cree achieves greater optical control with our NanoOptic® Precision Delivery Grid™ optic when compared to traditional cobra head luminaires. The XSP Series is the better alternative for traditional street and area lighting with quick payback and improved performance.
Applications: Roadway, parking lots, walkways and general area spaces

Performance Summary

NanoOptic® Precision Delivery Grid™ optic

Made in the U.S.A. of U.S. and imported parts

CRI: Minimum 70 CRI

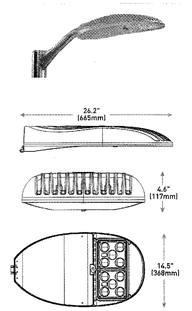
CCT: 3000K (+/- 300K); 4000K (+/- 300K); 5700K (+/- 500K)

Limited Warranty*: 10 years on luminaire/10 years on Colorfast ColorGuard® finish

* See http://lighting.cree.com/warranty for warranty terms

Accessories

Field-Installed	
Backlight Control Shield XA-SP1BLS - Provides 1/2 mounting height cutoff	**Bird Spikes** XA-SP1BRDSPK



Weight
24 lbs. (11kg)

Ordering Information

Example: BXSP-C-HT-2ME-F-30K-UL-SV

BXSP	C	HT			F				
Product	Version	Mounting	Optic		Input Power Designator	CCT	Voltage	Color Options	Options
BXSP	C	HT Horizontal Tenon	2ME* Type II Medium 2LG* Type II Long 3ME* Type III Medium 4ME* Type IV Medium		F 139W	30K 3000K 40K 4000K 57K 5700K	UL Universal 120-277V UH Universal 347-480V	BK Black BZ Bronze SV Silver	N-Q9 **Utility Label and NEMA® Photocell Receptacle** - External wattage label per ANSI C136.15 - 7-pin receptacle per ANSI C136.41 - Factory connected 0-10V dim leads - Photocell and shorting cap by others - Includes Q9 option - Refer to Field Adjustable Output spec sheet for details Q9 **Field Adjustable Output** - Refer to Field Adjustable Output spec sheet for details R **NEMA® Photocell Receptacle** - 7-pin receptacle per ANSI C136.41 - Factory connected 0-10V dim leads - Photocell and shorting cap by others

* Available with Backlight Shield when ordered with field-installed accessory (see table above)
NOTE: Price adder may apply depending on configuration

Rev. Date: V6 08/24/2016

US: lighting.cree.com/lighting T (800) 236-6800 F (262) 504-5415 Canada: www.cree.com/canada T (800) 473-1234 F (800) 890-7507

150 HPS CLASS "C"

XSP Series

XSP1™ LED Street/Area Luminaire – Single Module – Version C

Product Description

Designed from the ground up as a totally optimized LED street and area lighting system, the XSP Series delivers incredible efficiency without sacrificing application performance. Beyond substantial energy savings and reduced maintenance, Cree achieves greater optical control with our NanoOptic® Precision Delivery Grid™ optic when compared to traditional cobra head luminaires. The XSP Series is the better alternative for traditional street and area lighting with quick payback and improved performance.
Applications: Roadway, parking lots, walkways and general area spaces

Performance Summary

NanoOptic® Precision Delivery Grid™ optic

Made in the U.S.A. of U.S. and imported parts

CRI: Minimum 70 CRI

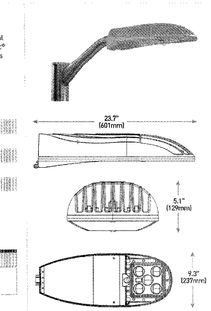
CCT: 3000K (+/- 300K); 4000K (+/- 300K); 5700K (+/- 500K)

Limited Warranty*: 10 years on luminaire/10 years on Colorfast ColorGuard® finish

* See http://lighting.cree.com/warranty for warranty terms

Accessories

Field-Installed	
Backlight Control Shield XA-SP1BLS - Provides 1/2 mounting height cutoff	**Bird Spikes** XA-SP1BRDSPK



Weight
14.5 lbs. (6.6kg)

Ordering Information

Example: BXSP-C-HT-2ME-E-30K-UL-BZ

BXSP	C	HT			E			UL		
Product	Version	Mounting	Optic		Input Power Designator	CCT		Voltage	Color Options	Options
BXSP	C	HT Horizontal Tenon	2ME* Type II Medium 2LG* Type II Long 3ME* Type III Medium 4ME* Type IV Medium		E 117W	30K 3000K 40K 4000K 57K 5700K		UL Universal 120-277V	BK Black BZ Bronze SV Silver	N-Q9 **Utility Label and NEMA® Photocell Receptacle** - External wattage label per ANSI C136.15 - 7-pin receptacle per ANSI C136.41 - Factory connected 0-10V dim leads - Photocell and shorting cap by others - Includes Q9 option - Refer to Field Adjustable Output spec sheet for details Q9 **Field Adjustable Output** - Refer to Field Adjustable Output spec sheet for details R **NEMA® Photocell Receptacle** - 7-pin receptacle per ANSI C136.41 - Factory connected 0-10V dim leads - Photocell and shorting cap by others

* Available with Backlight Shield when ordered with field-installed accessory (see table above)
NOTE: Price adder may apply depending on configuration

Rev. Date: V6 08/23/2016

US: lighting.cree.com/lighting T (800) 236-6800 F (262) 504-5415 Canada: www.cree.com/canada T (800) 473-1234 F (800) 890-7507

LIGHTING LEGEND AND SPECIFICATIONS

◎ FUTURE PEDESTRIAN LIGHT (BY CITY OF ALACHUA), PROVIDE SBWE WHERE NOT ADJACENT TO A LBWE. INSTALL SMALL BURIED WIRE ENCLOSURE.

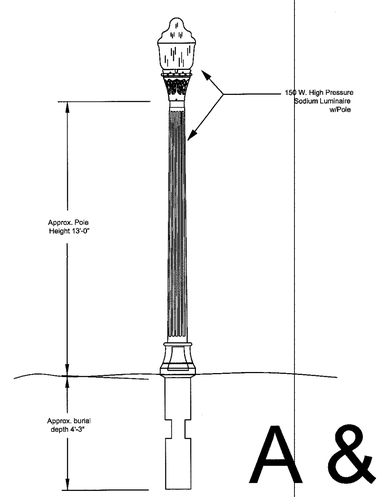
⊗ A — 150 WATT HPS TYPE III DISTRIBUTION, UTILITY GRADE, OAK LEAF PATTERN, ACORN STYLE LUMINAIRE WITH GLASS REFRACTOR, ON 13' (ABOVE GROUND) CONCRETE POLE WITH 10' BURIED WIRE ENCLOSURE (SBWE) AT BASE OF POLE. LOCATE 5' BACK OF CURB TO BACK OF POLE OR 6" FROM SIDEWALK (SEE PLAN). LUMINAIRE SHALL HAVE A INTEGRAL PHOTOCELL. LUMINAIRE - HOLOPHANE GRANVILLE GVLU-15AHP-12-B-3-N-N-U-H POLE -AMERON POLE PRODUCTS VEF-4.0. NOTE: 120V BALLAST.

⊙ AL — 150 WATT HPS TYPE III DISTRIBUTION, UTILITY GRADE, OAK LEAF PATTERN, ACORN STYLE LUMINAIRE WITH GLASS REFRACTOR, ON 13' (ABOVE GROUND) CONCRETE POLE WITH LARGE BURIED WIRE ENCLOSURE (LBWE) AT BASE OF POLE, LOCATE 5' BACK OF CURB TO BACK OF POLE OR 6" FROM SIDEWALK (SEE PLAN). LUMINAIRE SHALL HAVE A INTEGRAL PHOTOCELL. LUMINAIRE - HOLOPHANE GRANVILLE GVLU-15AHP-12-B-3-N-N-U-H POLE -AMERON POLE PRODUCTS VEF-4.0. NOTE: 120V BALLAST.

B — 139W TYPE III MED LED CUTOFF (250 HPS CLASS) ON 10' ARM, 35' TYPE I CONCRETE POLE (POLE 6" FROM S/W TYP.) INCLUDE SBWE UNLESS NOTED.
PROVIDE: -LUMINARE CREE (BXSPC HT 3ME F40K UL SV N-Q9) WITH (XA-XSP4TMNT) SLIP FITTER OR GE EQUIVALENT
-10' BRACKET: CURLEY MACHINERY COMPANY C20011439TWFL
-35' TYPE I CONCRETE POLE, PRE-DRILLED, 1" I.D. P VC CONDUIT FROM 2' TOP OF POLE TO HANDHOLE 4'-6". BOTTOM OF POLE - MANUFACTURER ACCORD INDUSTRIES OR DURA-STRESS

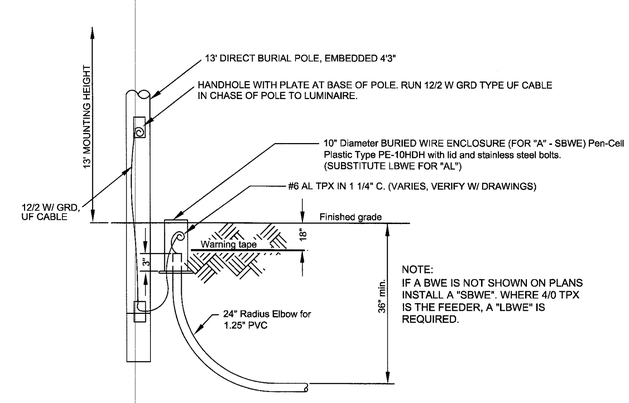
C — 101W TYPE III MED LED CUTOFF (150 HPS CLASS) ON 10' ARM, 35' TYPE I CONCRETE POLE (POLE 6" FROM S/W TYP.) INCLUDE SBWE UNLESS NOTED.
PROVIDE: -LUMINARE CREE (BXS C HT 3ME E 40K UL SV N-Q9) WITH (XA-XSP4TMNT) SLIP FITTER OR GE EQUIVALENT (ERS 10J2E 15402 GRAY GLR)
-10' BRACKET: CURLEY MACHINERY COMPANY C20011439TWFL
-35' TYPE I CONCRETE POLE, PRE-DRILLED, 1" I.D. P VC CONDUIT FROM 2' TOP OF POLE TO HANDHOLE 4'-6". BOTTOM OF POLE - MANUFACTURER ACCORD INDUSTRIES OR DURA-STRESS

NOTE: ALTERNATE HOT LEG USED TO CONNECT LUMINAIRES.



A & AL

150 W. HIGH PRESSURE SODIUM- UTILITY LIGHT
DECORATIVE LUMINAIRE WITH POLE



NOTE:
IF A BWE IS NOT SHOWN ON PLANS INSTALL A "SBWE". WHERE 4/0 TPX IS THE FEEDER, A "LBWE" IS REQUIRED.

NOTE:
CONTRACTOR SHALL FURNISH AND INSTALL ALL POLE MOUNTED LIGHT FIXTURES, POLES, AND BURIED WIRE ENCLOSURES (BWE) AT ALL POLE LOCATIONS.

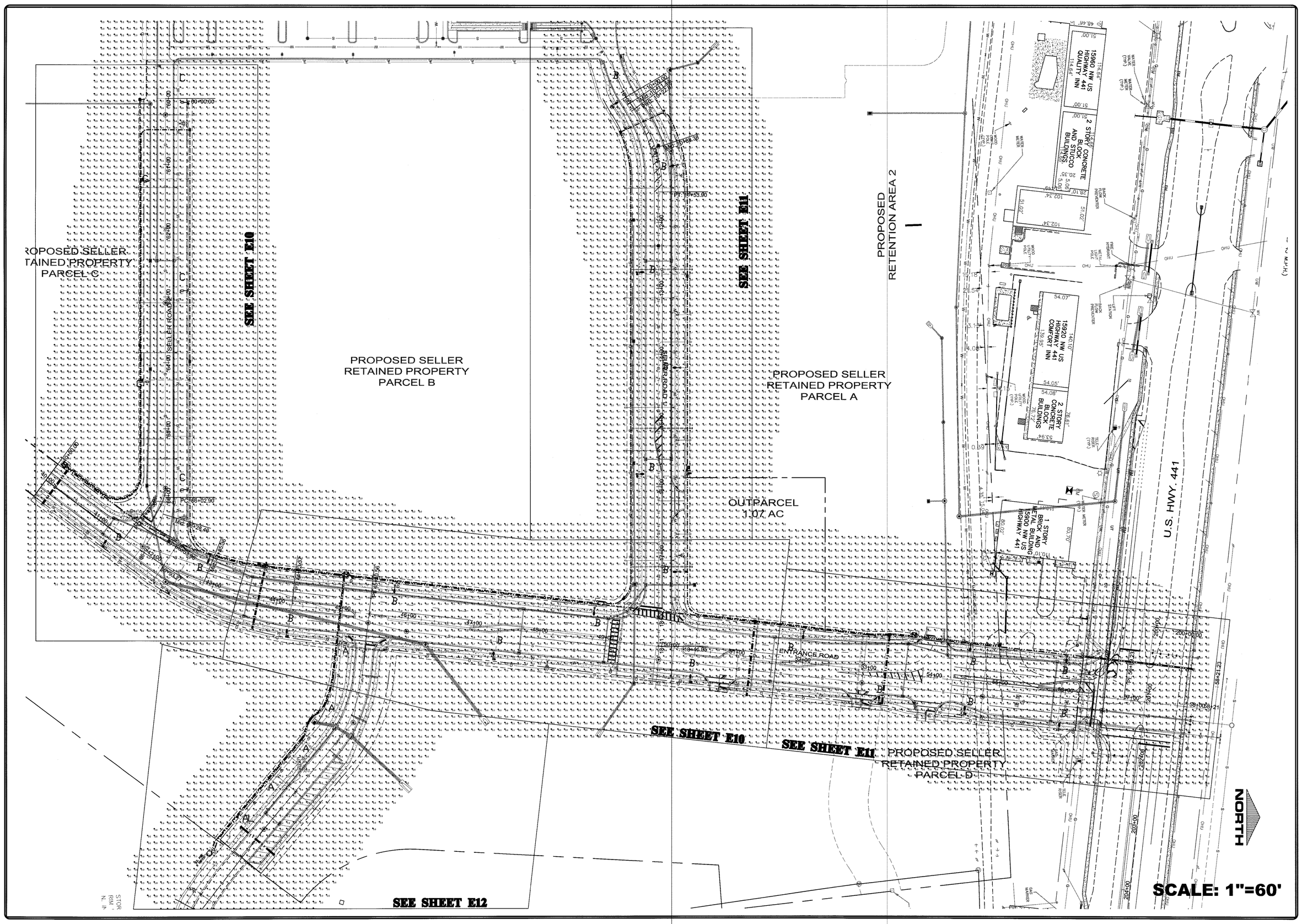
TYPE "A" & "AL" UTILITY STREETLIGHT DETAIL (TYP.)
NOT TO SCALE

DRAWN
APPROVED
WTS
REVISIONS
SHEET TITLE
WALMART AT ALACHUA COMMERCE PARK
ELECTRIC UTILITY SYSTEM
SEAL
3-31-17

WILLIAM T. STORMANT PE - ELECTRICAL ENGINEER
STORMANTWT@COX.NET
5304 NW 173 Street, Alachua, FL 32615 (352) 472-3642 Lic. # 44156

FILE NO.
DATE 01/23/17
SHEET E8
OF 12

Tech: Thomas/C Plot Date: Jan 24,2017 10:28am Filename: L:\2015\15-022\1\Engineering\CWCA\Production Files\Alachua Walmart\15-022_C3.10-MUT_ALACHUA WALMART.dwg



DRAWN

APPROVED WTS

REVISIONS

SHEET TITLE

WALMART AT ALACHUA COMMERCE PARK

ELECTRIC UTILITY SYSTEM

SEAL

3.31.17

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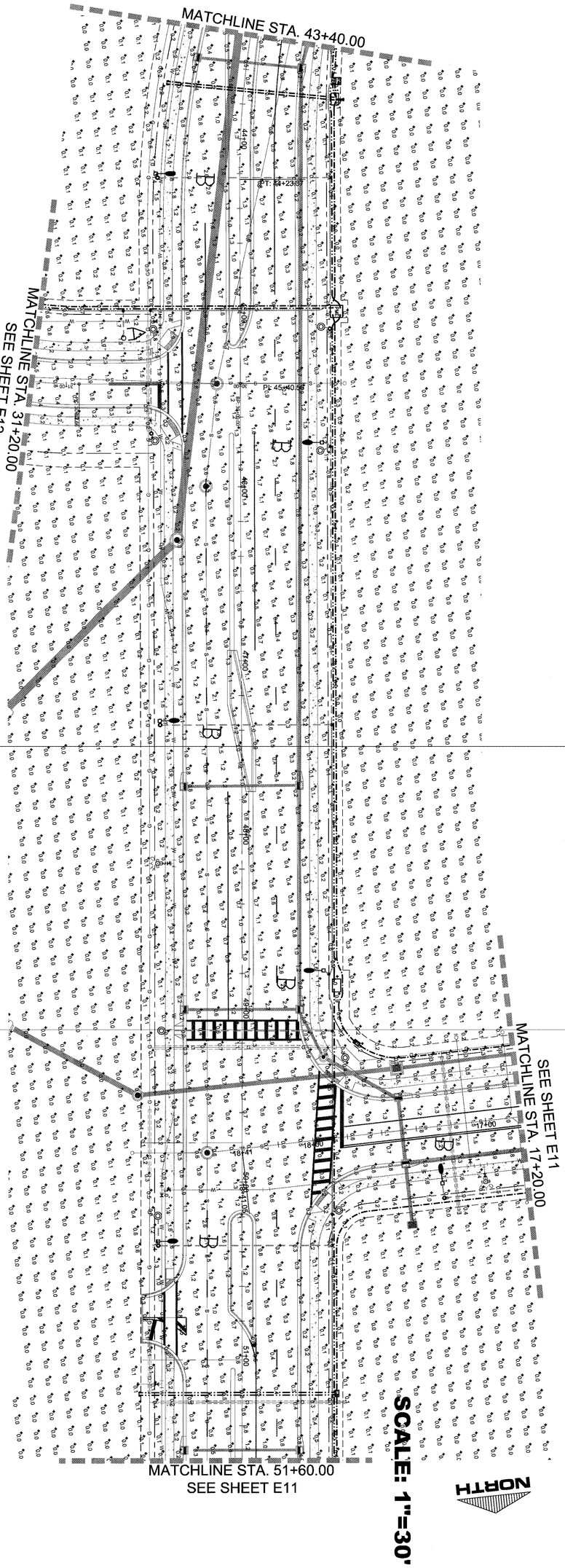
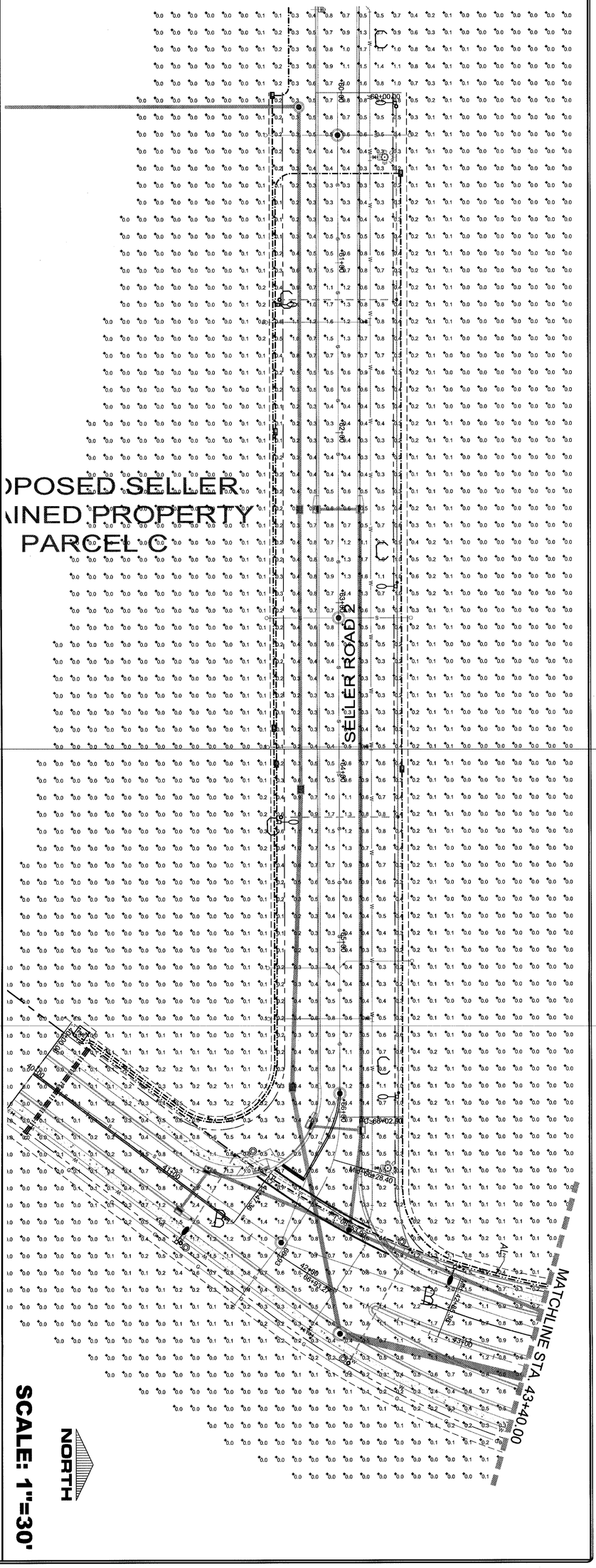
FILE NO.

DATE 01/23/17

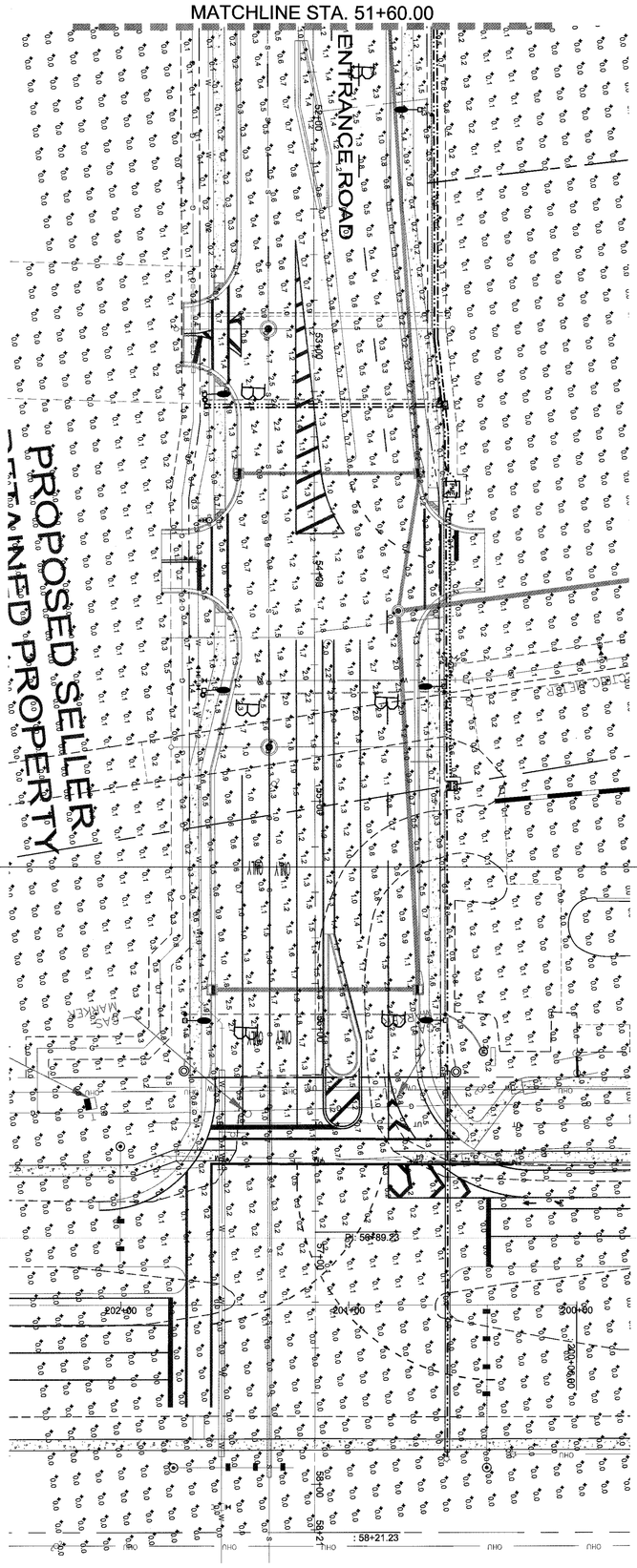
SHEET E9 OF 12





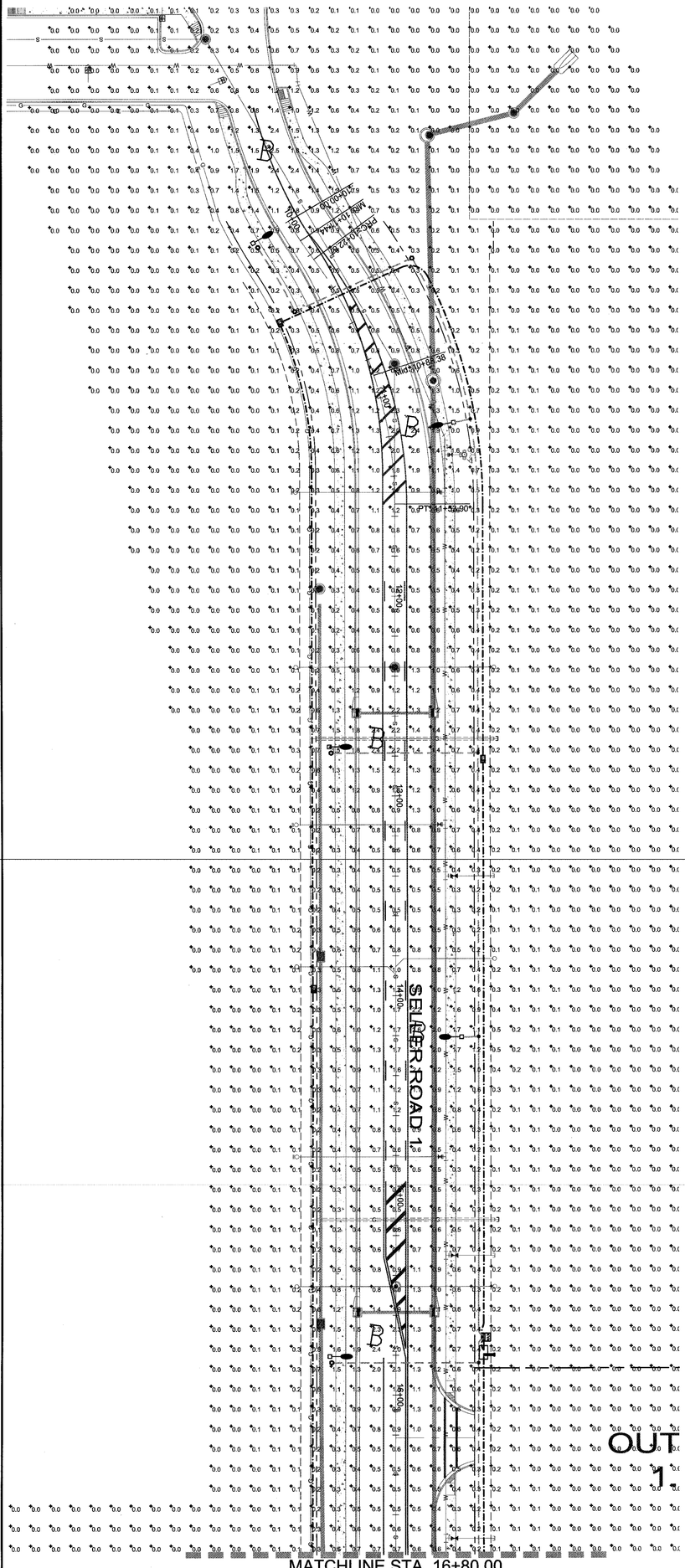
FILE NO.	WILLIAM T. STORMANT PE - ELECTRICAL ENGINEER STORMANTWT@COX.NET 5304 NW 173 Street, Alachua, FL 32615 (352) 472-3642 Lic. # 44156	SEAL	WALMART AT ALACHUA COMMERCE PARK ELECTRIC UTILITY SYSTEM	SHEET TITLE	REVISIONS	DRAWN APPROVED WTS
DATE 01/23/17						
SHEET E10 OF 12						

SEE SHEET E10
MATCHLINE STA. 51+60.00



NORTH

SCALE: 1"=30'



MATCHLINE STA. 16+80.00
SEE SHEET E10

NORTH

SCALE: 1"=30'

OUT 1

FILE NO.	DATE 01/23/17	SHEET E11 OF 12	WILLIAM T. STORMANT PE - ELECTRICAL ENGINEER STORMANTWT@COX.NET 5304 NW 173 Street, Alachua, FL 32615 (352) 472-3642 Lic. # 44156	SEAL	WALMART AT ALACHUA COMMERCE PARK ELECTRIC UTILITY SYSTEM	SHEET TITLE	REVISIONS	APPROVED VTS	DRAWN

NORTH

SCALE: 1"=30'

DRAWN

APPROVED WTS

REVISIONS

SHEET TITLE

WALMART AT ALACHUA COMMERCE PARK

ELECTRIC UTILITY SYSTEM

SEAL

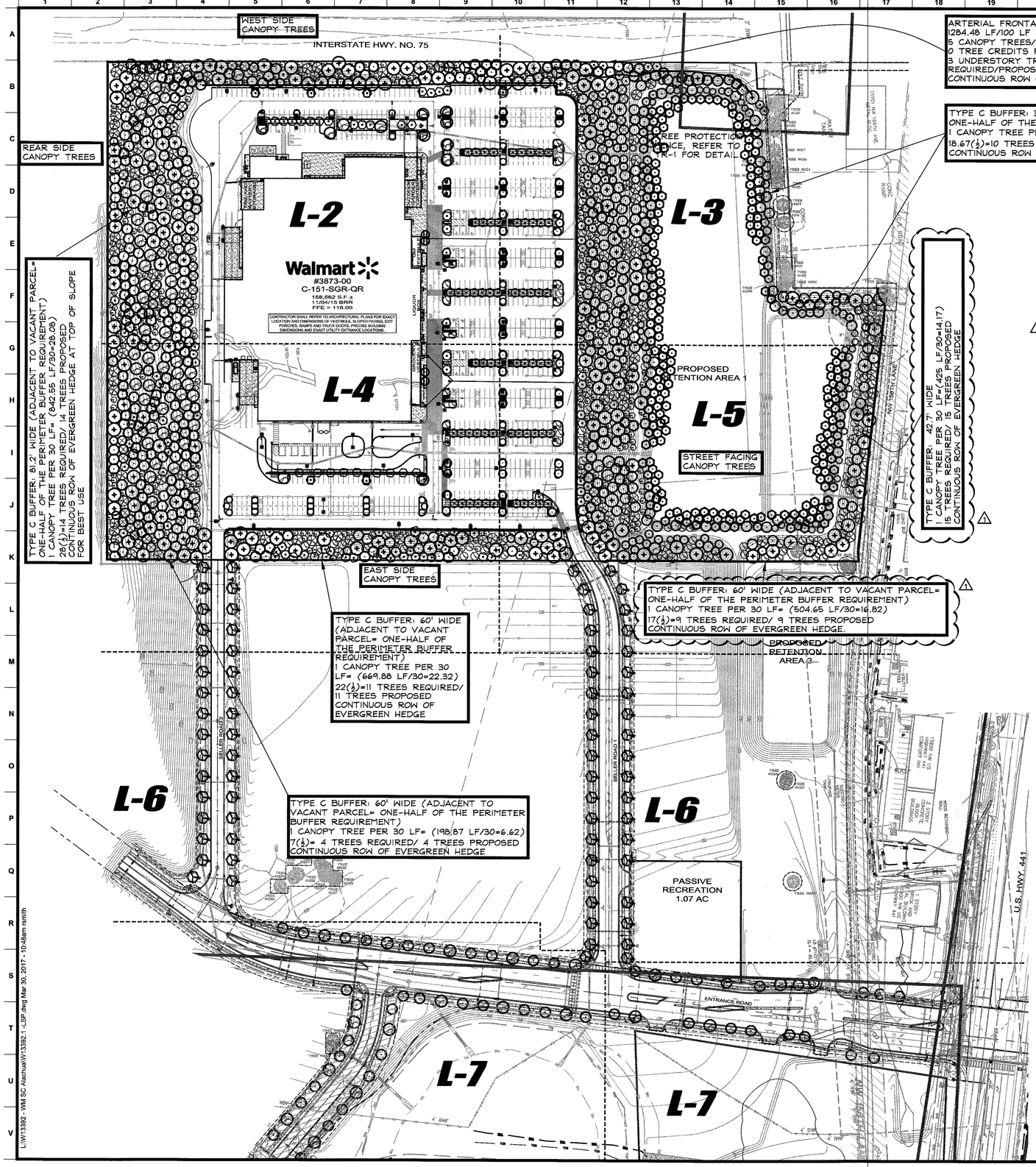
3-31-17

WILLIAM T. STORMANT PE - ELECTRICAL ENGINEER
STORMANTWT@COX.NET
5304 NW 173 Street, Alachua, FL 32615 (352) 472-3642 Lic. # 44156

FILE NO.

DATE 01/23/17

SHEET E12 OF 12



ARTERIAL FRONTAGE SCREENING STANDARD: 49.5' WIDE
1284.48 LF/100 LF = 12.84
5 CANOPY TREES/100 LF=12.84(5)=64.2=64 TREES REQUIRED
0 TREE CREDITS PROVIDED/64 TREES PROPOSED
3 UNDERSTORY TREES/100 LF=12.84(3)=38.52=39 TREES REQUIRED/PROPOSED - 39 PROPOSED
CONTINUOUS ROW OF EVERGREEN HEDGE AT PARKING LOT

TYPE C BUFFER: 35' & 40' WIDE (ADJACENT TO VACANT PARCEL= ONE-HALF OF THE PERIMETER BUFFER REQUIREMENT)
1 CANOPY TREE PER 30 LF=(560 TOTAL LF/30=18.67)
18.67(½)=10 TREES REQUIRED/ 19 TREES PROPOSED
CONTINUOUS ROW OF EVERGREEN HEDGE AT PARKING LOT

0 50 100 200
SCALE: 1"= 100'

ALERT TO CONTRACTOR:

ALL WM GENERAL CONTRACTOR WORK TO BE COMPLETED (EARTHWORK, FINAL UTILITIES, AND FINAL GRADING) BY THE MILESTONE DATE IN PROJECT DOCUMENTS. OUTLOT AREA TO BE KEPT FREE OF JOB TRAILERS AND STORAGE AFTER THE CONTRACT MILESTONE DATE FOR THE OUTLOT. WM GENERAL CONTRACTOR TO PROVIDE CLEAR ACCESS FOR OUTLOT CONTRACTOR TO THE SPECIFIC PARCEL AT ALL TIMES AFTER MILESTONE DATE. PURCHASER OF OUTLOT TO PROVIDE PERMIT DOCUMENTS AND SWPPP REQUIRED BY STATE/LOCAL REQUIREMENTS FOR SPECIFIC OUTLOT.

NOTE TO CONTRACTOR:

18" WIDE MULCH STRIP IS REQUIRED BEHIND ALL CONCRETE CURBS/BUFFERS.

WHERE TURF GRASS WILL BE ESTABLISHED ADJACENT TO CONCRETE CURBS/BUFFERS, EITHER A 16" OR 24" (DEPENDENT ON AVAILABILITY) WIDE SOD STRIP IS REQUIRED.

30% LANDSCAPED AREA REQUIREMENT

PER CITY OF ALACHUA COMPREHENSIVE PLAN POLICY 2.4.1., WHICH STATES THAT THE MINIMUM LANDSCAPED AREA MUST BE 30% OF THE DEVELOPMENT SITE.

TOTAL SITE AREA = 1,315,094.54 S.F. +- 30.19 AC+- REQUIRED 30% = 394,528.36 S.F.
TOTAL PROPOSED LANDSCAPED AREA = 692,663.18 S.F. = 52.7%

10% OPEN SPACE AREA REQUIREMENT

CITY OF ALACHUA LDR SECTION 6.7.3 (A) STATES THAT THE MINIMUM OPEN SPACE SET-ASIDE SHALL BE 10% OF THE DEVELOPMENT SITE. THIS REQUIREMENT IS MET BY THE CALCULATIONS FOR 30% LANDSCAPE, SHOWN WITHIN CHART ON THIS SHEET, WHICH INCLUDE LANDSCAPE BUFFERS, BASINS, AND OTHER LANDSCAPED AREAS. REFER TO SHEET L-6 FOR OPEN SPACE AREAS AND CALCULATIONS.

REQUIRED TREE MITIGATION: SEC. 6.2 6.2.1 (D)(1)(4)(b)(c)

HERITAGE TREES REMOVED: 1125"
REGULATED TREES REMOVED: 130

MITIGATION REQUIRED:

INCH FOR INCH TREE MITIGATION: - REPLACEMENT 1125"/3" = 375 TREES
TREE FOR TREE MITIGATION: 130 TREE TO BE REPLACED = 1.5" EACH (CODE MINIMUM SIZE)
130 TOTAL REPLACEMENT TREES
TOTAL MITIGATION TREES REQUIRED: 505 TREES REQUIRED
AT LEAST 50% OF THE TOTAL REPLACEMENT TREES SHALL BE CANOPY TREES AND AT LEAST 75% SHALL BE CHOSEN FROM RECOMMENDED TREE LIST PER 6.2.1(D)(4(b)

NOTE: ALL TREES TO BE COUNTED TOWARDS MITIGATION REPLACEMENT TREES ARE MARKED "M" ON PLAN. TREES USED FOR MITIGATION ARE SEPARATE FROM AND IN ADDITION TO MINIMUM LANDSCAPE REQUIREMENTS

MITIGATION PROVIDED:
141 IN. /1.5" CAL. 15 GAL. TREES PROVIDED; 375 3" CAL. TREES PROVIDED
TOTAL MITIGATION TREES PROVIDED: 516 TREES PROVIDED
75 MEETS 50% REQUIREMENT FOR CANOPY TREES
100 MEETS 75% REQUIREMENT FOR TREES ARE ON THE RECOMMENDED LIST

SITE LANDSCAPE CALCULATIONS BUSINESS USES: SECTION 6.2.2(D)(1)(c)

DESCRIPTION	TREE REQUIREMENTS	TREES PROVIDED
BUILDING FACADE:		
STREET FACING CANOPY TREES	3 CANOPY TREES PER ACRE 3 X 30 ACRES = 91 TREES REQUIRED	91 TREES PROVIDED
WEST SIDE CANOPY TREES	2 CANOPY TREES PER ACRE 2 X 30 ACRES = 60 TREES REQUIRED	60 TREES PROVIDED
EAST SIDE CANOPY TREES	2 CANOPY TREES PER ACRE 2 X 30 ACRES = 60 TREES REQUIRED	60 TREES PROVIDED
REAR SIDE CANOPY TREES	2 CANOPY TREES PER ACRE 2 X 30 ACRES = 60 TREES REQUIRED	60 TREES PROVIDED
ADDITIONAL BUILDING FACADE 504 L.F. FACADE	4 CANOPY TREES PER 100 L.F. OF FACADE 504 L.F. = 20 TREES REQUIRED 6 ORNAMENTAL/UNDERSTORY TREES PER ACRE, WITH 50% PLANTED IN FRONT AND 25 PERCENT ON EACH SIDE. 6 X 30 = 180 TREES REQUIRED	20 TREES PROVIDED 90 TREES PROVIDED (FRONT) 45 TREES PROVIDED (WEST SIDE) 45 TREES PROVIDED (EAST SIDE)
	TOTAL: 471 REQUIRED	TOTAL: 471 PROPOSED

BUILDING FACADE
*ALL TREES TO BE COUNTED TOWARDS BUILDING FACADE TREES ARE IDENTIFIED WITH AN 'F' NEXT TO THE TREE.

PERIMETER BUFFER LANDSCAPE REQUIREMENTS:

SECTION 6.2.2(D)(3)
NOTE: REFER TO THIS SHEET FOR BUFFER REQUIREMENTS LISTED ADJACENT TO BUFFER LOCATIONS. ALL TREES TO BE COUNTED TOWARDS PERIMETER BUFFER ARE IDENTIFIED WITH A 'B' NEXT TO THE TREE.

PARKING BUFFER LANDSCAPE REQUIREMENTS:

SECTION 6.2.2(D)(2)(b): 4 CANOPY AND 2 UNDERSTORY TREES PER 100 L.F.

PARKING PERIMETER L.F.	TREE AND SHRUB REQUIREMENTS	TREES AND SHRUBS PROVIDED
PARKING PERIMETER 3138.13 L.F.	126 CANOPY TREES 63 UNDERSTORY TREES TOTAL 189 TREES REQUIRED CONTINUOUS EVERGREEN HEDGE	126 CANOPY TREES 63 UNDERSTORY TREES 189 TOTAL TREES PROVIDED CONTINUOUS EVERGREEN HEDGE PROVIDED

*ALL TREES TO BE COUNTED TOWARDS PARKING BUFFER TREES ARE IDENTIFIED WITH AN 'P' NEXT TO THE TREE.

INTERIOR PARKING AREA LANDSCAPE REQUIREMENTS:

SECTION 6.2.2(D)(2)(a): 1 CANOPY/UNDERSTORY TREE FOR EVERY 2,000 S.F., 10 SHRUBS FOR EVERY TREE.

PROPOSED PARKING AREA	384,243.95 S.F. 384,243.95/2000 S.F. = 192 TREES REQUIRED	192 TREES PROVIDED
	192 TREES X 10 SHRUBS = 1920 SHRUBS	1920 SHRUBS PROVIDED

TREE REQUIREMENT SUMMARY

WALMART SITE AREA	REQUIRED	PROPOSED
TOTAL BUFFER TREES		
CANOPY	127	136
UNDERSTORY	39	39
TOTAL PARKING LOT BUFFER TREES		
CANOPY	126	126
UNDERSTORY	63	63
BUILDING FACADE TREES	471	471
PALMS (2=1 TREE CREDIT)		11 (CREDITS)
TOTAL PARKING LOT AREA TREES	192	198
PALMS (2=1 TREE CREDIT)		4 (CREDITS)
TOTAL SITE LANDSCAPE TREES	1018	1048

NOTE:

PRUNE EXISTING TREES TO ALLOW FOR VISIBILITY OF SITE AND BUILDING SIGNAGE. PRUNE IN ACCORDANCE WITH ANSI A300 AND ISA STANDARDS.

NOTE:
1. PROPOSED TREES AND HEDGES MAY BE CREDITED TOWARDS MULTIPLE REQUIREMENTS EXCEPT FOR MITIGATION TREES WHICH ARE SOLELY COUNTED FOR MITIGATION AND FULFILL NO OTHER REQUIREMENT.
2. REFER TO SHEET L-6 FOR FULL LANDSCAPE PLANT LIST

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REGISTERED LANDSCAPE ARCHITECT JAMES K. WITTLER LA 0000911 STATE OF FLORIDA
James K. Wittler, RLA
LA0000911
Mar 30, 2017

No.	Date	Revision	By
1	02-10-17	Revised Per City Comments	JKW

Designed by:	JKW
Drawn by:	ARS
Checked by:	MDS
Approved by:	JKW
Scale:	1"=100'
Date:	5/16
Job No.:	W13392.1

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5200 Belfort Rd., Suite 220
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Licenses:
Eng. C.O.A. No. 3215
Survey L.B. No. 7143
Arch. Lic. No. AA2600926
Lndscp. Lic. No. LC0000298

OVERALL LANDSCAPE PLAN

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STORE NO. 3873-00, ALACHUA (SEC I-75 HWY 441), FLORIDA

Sheet No.
L-1

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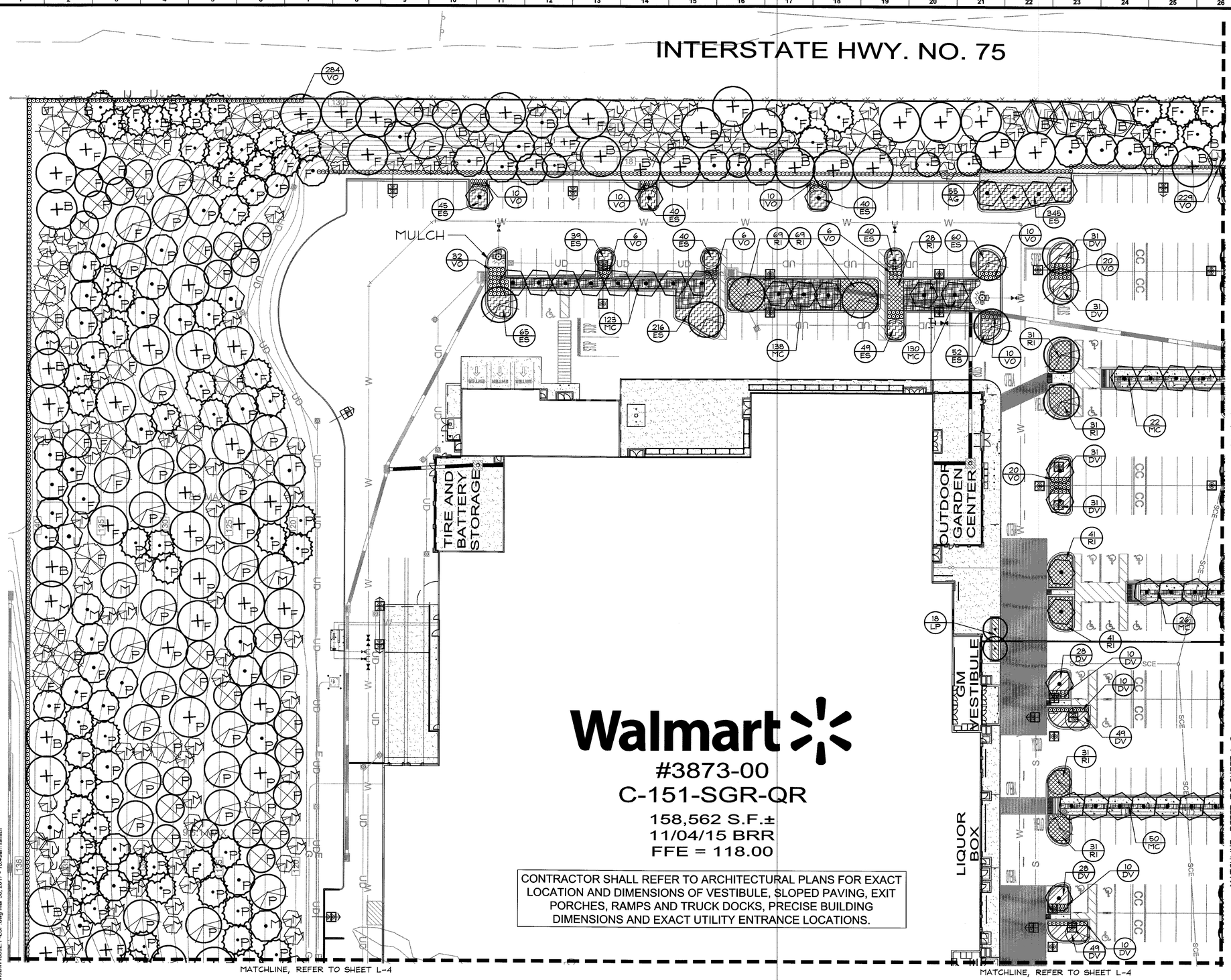

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#3873-00

C-151-SGR-QR

158,562 S.F.±

11/04/15 BRR

FFE = 118.00

CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND DIMENSIONS OF VESTIBULE, SLOPED PAVING, EXIT PORCHES, RAMPS AND TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT UTILITY ENTRANCE LOCATIONS.

PLANT LEGEND

SYM.	COMMON NAME
TREES	
AA	DOWNY SERVICEBERRY
AR	FLORIDA FLAME MAPLE
BN	DURA-HEAT RIVER BIRCH
CC	FOREST PANSY REDBUD
LS	AMERICAN SWEETGUM
LI	CRAPE MYRTLE
LT	TULIP POPLAR
MG	SOUTHERN MAGNOLIA
UA	WINGED ELM
PE	SLASH PINE
PP	LONGLEAF PINE
QS	SHUMARD OAK
QV	LIVE OAK
TD	BALD CYPRESS
HEDGES AND ACCENT PLANTS	
VO	SWEET VIBURNUM
SHRUBS	
AG	EDWARD GOUCHER ABELIA
RI	INDIAN HAWTHORN
LP	PLUM LOROPETALUM
GROUNDCOVER	
DV	AFRICAN IRIS
ES	PURPLE LOVE GRASS
MC	MUHLY GRASS
DT	VARIEGATED FLAX LILY
TA	ASIATIC JASMINE
ZP	COONTIE
SOD	ARGENTINE BAHIA SOD

0 15 30 60

SCALE: 1"= 30'

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REGISTERED LANDSCAPE ARCHITECT — STATE OF FLORIDA — LA 0000911 — James K. Winter, RLA — LA0000911 — Mar-30-2017

No.	Date	Revision	By

Designed by:	JKW
Drawn by:	ARS
Checked by:	MDS
Approved by:	JKW
Scale:	1"=30'
Date:	5/16
Job No.:	W13392.1

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Ph: 904.332.0999
Licensee:
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Survey L.B. No. 7143
Arch. Lic. No. AA26000926
Lndscp. Lic. No. LC0000298

LANDSCAPE PLAN

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Sheet No.

L-2

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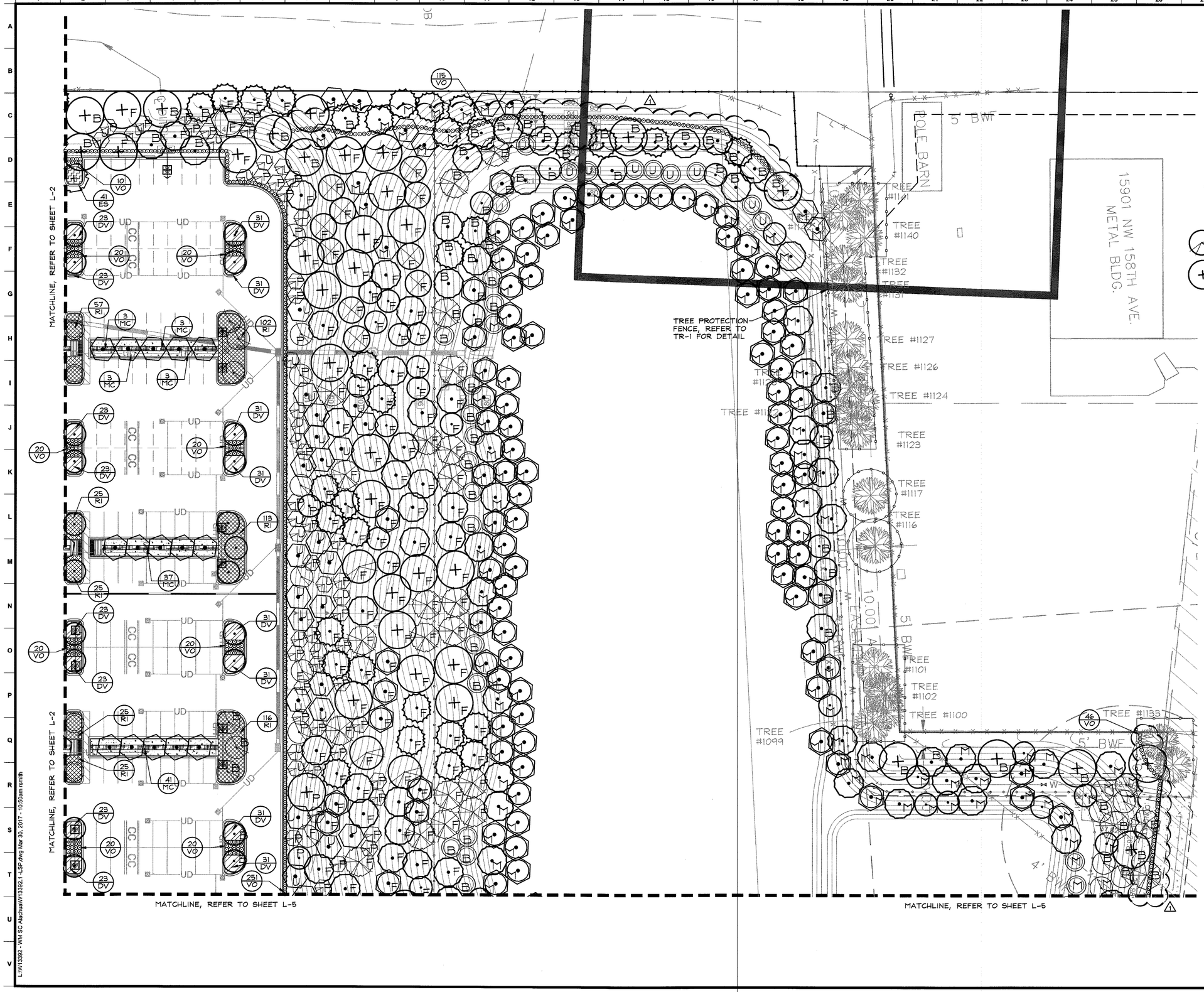

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LT	TULIP POPLAR
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UA	WINGED ELM
PE	SLASH PINE
PP	LONGLEAF PINE
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QV	LIVE OAK
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REGISTERED LANDSCAPE ARCHITECT JAMES K. WINTER LA0000911 STATE OF FLORIDA
James K. Winter, RLA. LA0000911 Mar 30, 2017

No.	Date	Revision	By
1	02-10-17	Revised Per City Comments	JKW

Designed by:	JKW
Drawn by:	ARS
Checked by:	MDS
Approved by:	JKW
Scale:	1"=30'
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LANDSCAPE PLAN

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Sheet No.
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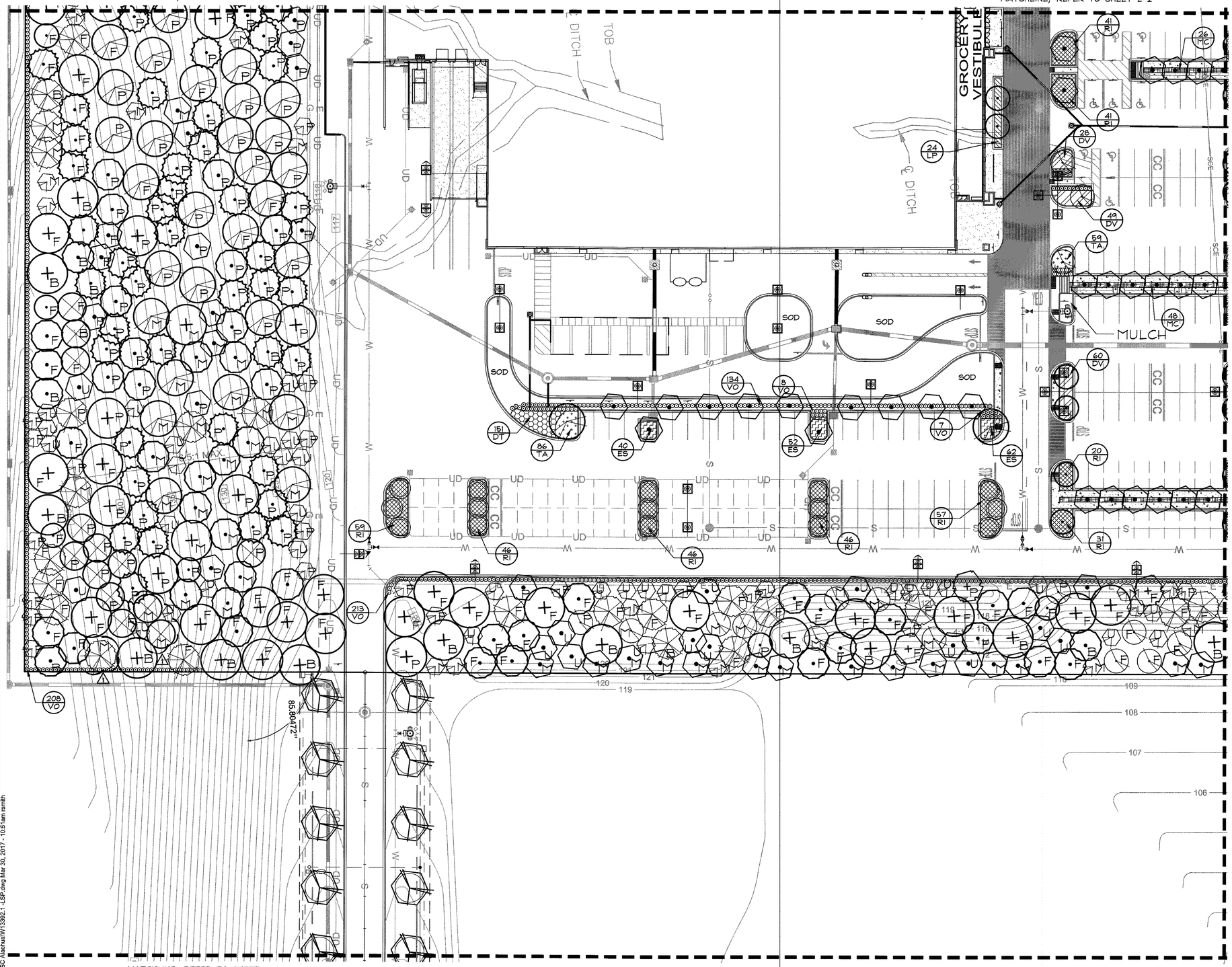

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LANDSCAPE ARCHITECT
JAMES K. WHITE
LA0000911
STATE OF FLORIDA
Jimmy K. White, RLA
LA0000911
Mar 30, 2017

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LANDSCAPE PLAN

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Sheet No.
L-4

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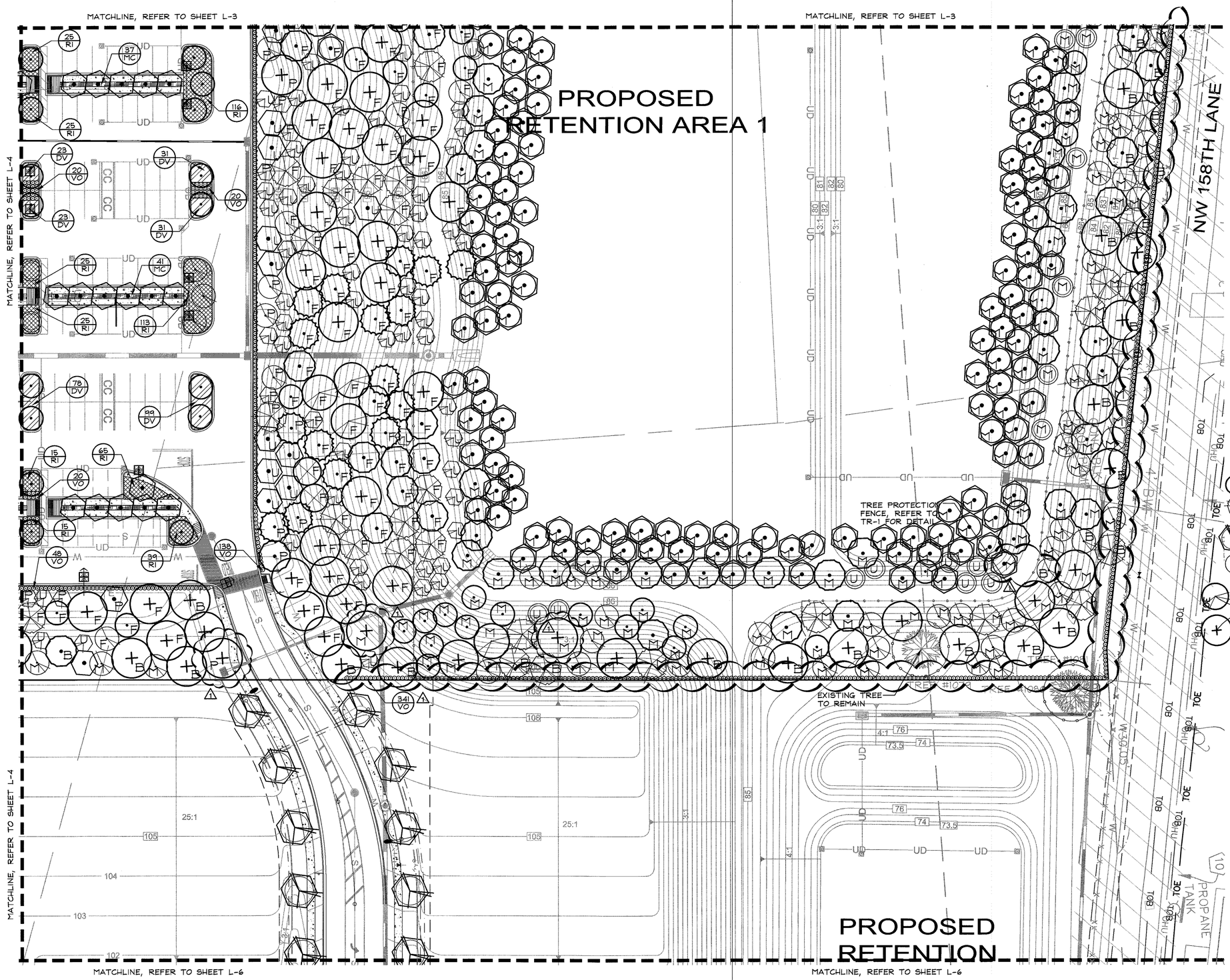

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DT	VARIEGATED FLAX LILY
TA	ASIATIC JASMINE
ZP	COONTIE
SOD	ARGENTINE BAHIA SOD

0 15 30 60

SCALE: 1" = 30'

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REGISTERED LANDSCAPE ARCHITECT LA 0000011 STATE OF FLORIDA James A. Volker, RLA Mar 30, 2017

No.	Date	Revision	By
1	02-10-17	Revised Per City Comments	JKW

Designed by:	JKW
Drawn by:	ARS
Checked by:	MDS
Approved by:	JKW
Scale:	1"=30'
Date:	5/16
Job No.:	W13392.1

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Plans Prepared By:
CPH, Inc.
5200 Belfort Rd., Suite 220
Jacksonville, FL 32256
Ph: 904.332.0999
Licenses:
Eng. C.O.A. No. 3215
Survey L.B. No. 7143
Arch. Lic. No. AA26000926
Lndscp. Lic. No. LC0000298

LANDSCAPE PLAN

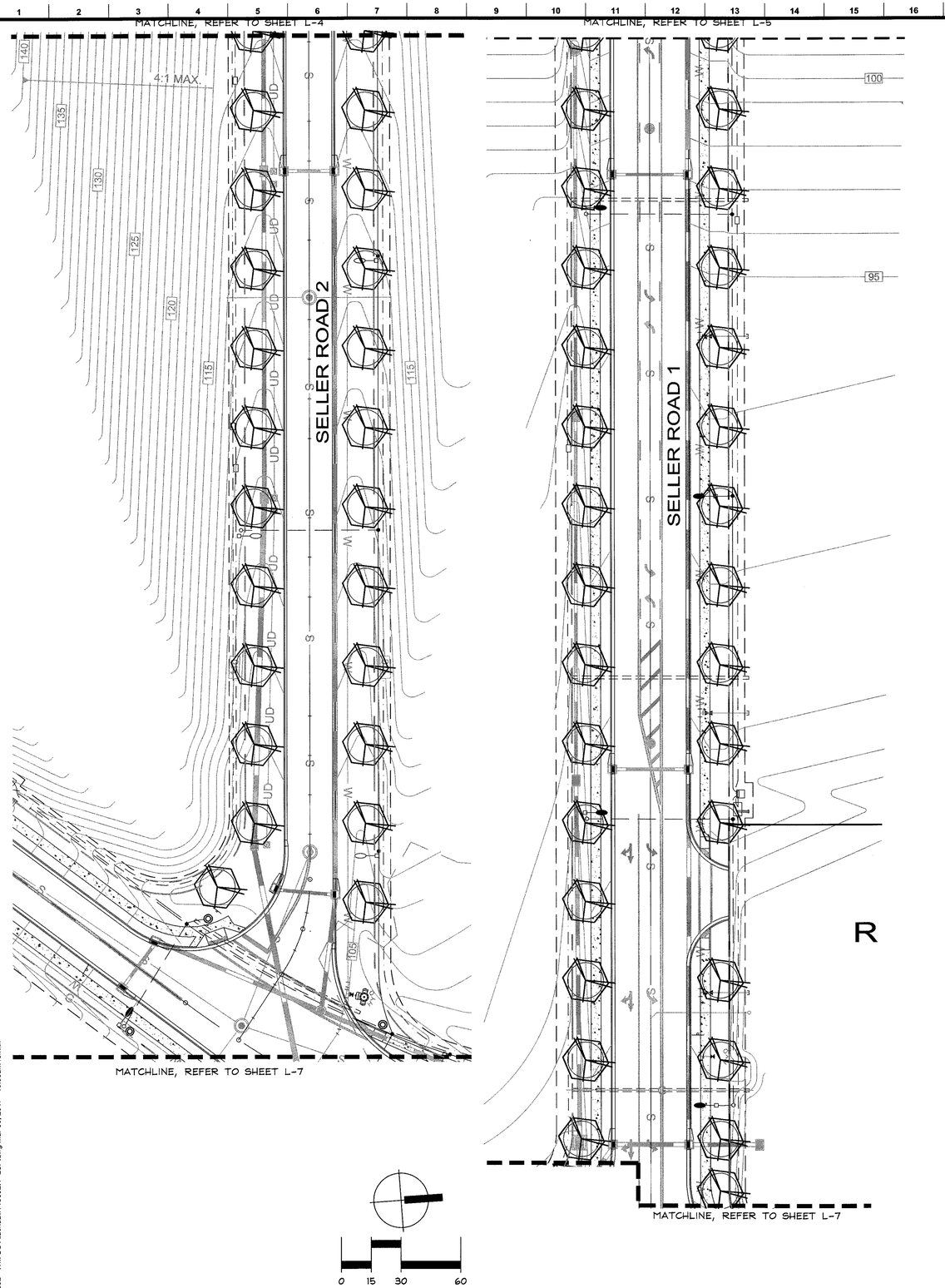
Walmart

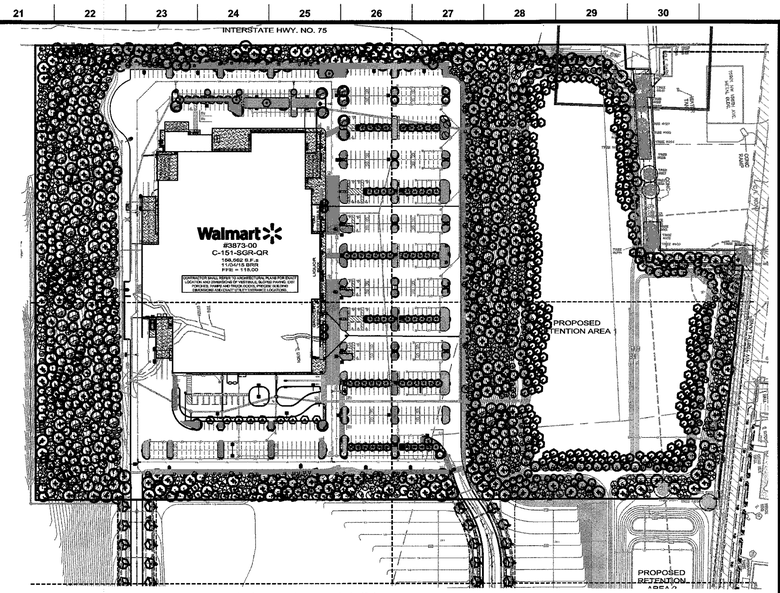
STORE NO. 3873-00, ALACHUA (SEC I-75 HWY 441), FLORIDA

Sheet No.

L-5

L:\W13392 - WM SC Alachua\W13392.1-LSP-Avg Mar 30, 2017 - 10:52am rsmith





LANDSCAPE DATA

OPEN SPACE/LANDSCAPE AREA (WALMART)	768,973.19 S.F.	58.45%
PARKING LOT AREA	546,121.35 S.F.	41.54%
PROPOSED INTERIOR LANDSCAPE AREA	69,984.46 S.F.	(12.8%)

PLANT LIST

SYM.	COMMON NAME	BOTANICAL NAME	DESCRIPTION	QTY
TREES				
AA	DOWNY SERVICEBERRY	AMELANCHIER ARBOREA	15 GAL., 1.5" CAL., 8' MIN. HT.	61
			(M) 15 GAL., 1.5" CAL., 8' MIN. HT.	8
AR	FLORIDA FLAME MAPLE	ACER RUBRUM 'FLORIDA FLAME'	15 GAL., 2" CAL., 8' MIN. HT.	188
			(M) 30 GAL., 3" CAL., 10' MIN. HT.	69
BN	DURA-HEAT RIVER BIRCH	BETULA NIGRA 'BNMTF'	15 GAL., 1.5" CAL., 8' MIN. HT.	91
			(M) 25 GAL., 3" CAL., 10' MIN. HT.	26
CC	FOREST PANSY REDBUD	CERCIS CANADENSIS 'FOREST PANSY'	15 GAL., 1.5" CAL., 8' MIN. HT.	238
			(M) 15 GAL., 1.5" CAL., 8' MIN. HT.	68
LS	AMERICAN SWEETGUM	LIQUIDAMBER STYRACIFLUA	15 GAL., 1.5" CAL., 8' MIN. HT.	88
			(M) 25 GAL., 3" CAL., 10' MIN. HT.	14
LI	CRAPE MYRTLE	LAGERSTROEMIA INDICA 'NATCHEZ'	15 GAL., 1.5" CAL., 8' MIN. HT.	168
			(M) 15 GAL., 1.5" CAL., 8' MIN. HT.	30
LT	TULIP POPLAR	LIRIODENDRON TULIPIFERA	15 GAL., 1.5" CAL., 8' MIN. HT.	75
MG	SOUTHERN MAGNOLIA	MAGNOLIA GRANDIFLORA	15 GAL., 1.5" CAL., 8' MIN. HT.	5
UA	WINGED ELM	ULMUS ALATA	15 GAL., 2" CAL., 8' MIN. HT.	46
			(M) 30 GAL., 3" CAL., 10' MIN. HT.	46
			(M) 15 GAL., 1.5" CAL., 8' MIN. HT.	8
149	SLASH PINE	PINUS ELLIOTTII	15 GAL., 1.5" CAL., 8' MIN. HT.	148
			(M) 15 GAL., 1.5" CAL., 8' MIN. HT.	5
PP	LONGLEAF PINE	PINUS PALUSTRIS	15 GAL., 1.5" CAL., 8' MIN. HT.	52
			(M) 15 GAL., 1.5" CAL., 8' MIN. HT.	3
QS	SHUMARD OAK	QUERCUS SHUMARDII	15 GAL., 1.5" CAL., 8' MIN. HT.	65
			(M) 15 GAL., 1.5" CAL., 8' MIN. HT.	10
QV	LIVE OAK	QUERCUS VIRGINIANA	15 GAL., 1.5" CAL., 8' MIN. HT.	177
			(M) 15 GAL., 1.5" CAL., 8' MIN. HT.	8
TD	BALD CYPRESS	TAXODIUM DISTICHUM	(M) 25 GAL., 3" CAL., 10' MIN. HT.	227
(M)= MITIGATION TREE SIZE				
HEDGES AND ACCENT PLANTS				
VO	SWEET VIBURNUM	VIBURNUM ODORATISSIMUM	3 GAL., 24" MIN. HT., 36" O.C.	2483
SHRUBS				
AG	EDWARD GOUCHER ABELIA	ABELIA GRANDIFLORIA 'EDWARD GOUCHER'	3 GAL, 18" HT X 9" SPR, 30" OC	55
RI	INDIAN HAWTHORN	RHAPHIOLEPIS INDICA	3 GAL, 18" H X 15" SPR, 30" OC	1710
LP	PLUM LOROPETALUM	LOROPETALUM CHINENSE 'PLUM DELIGHT'	3 GAL, 18" H X 15" SPR, 30" OC	42
GROUNDCOVER				
DV	AFRICAN IRIS	DIETES VEGETA	1 GAL., FULL, 24" O.C.	1172
ES	PURPLE LOVE GRASS	ERGROSTIS SPECTABILIS	1 GAL., FULL, 18" O.C.	1226
MC	MUHLY GRASS	MULENBERGIA CAPILLARIS	3 GAL., FULL, 30" O.C.	978
DT	VARIEGATED FLAX LILY	DIANELLA TASMANICA	1 GAL., FULL, 18" O.C.	151
TA	ASIATIC JASMINE	TRACHELOSPERMUM ASIATICUM	1 GAL., FULL, 18" O.C.	145
ZP	COONTIE	ZAMIA PUMILA	3 GAL., 24'' O.C.	79
SOD	ARGENTINE BAHIA SOD	PASPALUM NOTATUM 'ARGENTINE'	SOLID SOD, CONTRACTOR TO VERIFY QTY.	

NOTE:

PLANT DESCRIPTIONS ARE FOR MINIMUM ACCEPTABLE SPECIFICATIONS. ALL CRITERIA LISTED FOR CONTAINER SIZE, CALIPER, HEIGHT, SPREAD, ETC. MUST BE MET FOR PLANT MATERIAL ACCEPTANCE. FOR EXAMPLE, IF A THREE GALLON SHRUB DOES NOT MEET THE HEIGHT OR SPREAD SPECIFICATION, IT WILL NOT BE ACCEPTED.

IF SPECIFIED PLANTS ARE UNAVAILABLE AT TIME OF CONSTRUCTION, CONTRACTOR MAY REPLACE SPECIFIED PLANTS WITH PLANTS APPROVED BY LANDSCAPE ARCHITECT AND CITY STAFF.

ALL OPEN SPACE AREAS WITHIN THE PROPERTY SHALL BE SODDED UNLESS PAVED, SEEDED AND MULCHED OR PLANTED WITH SHRUBS AND GROUND COVER.

ALL LANDSCAPED AREAS WILL BE 100% IRRIGATED WITH A CENTRAL AUTOMATIC IRRIGATION SYSTEM INCLUDING A RAIN SENSOR.

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LANDSCAPE ARCHITECT REGISTRATION NUMBER LA0000911 STATE OF FLORIDA
James K. Walker, RLA
LA0000911
Mar 30, 2017

No.	Date	Revision	By
1	02-10-17	Revised Per City Comments	JKW

Designed by:	JKW
Drawn by:	ARS
Checked by:	MDS
Approved by:	JKW
Scale:	1"=30'
Date:	5/16
Job No.:	W13392.1

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Lndscp. Lic. No. LC0000298

LANDSCAPE PLAN

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STORE NO. 3873-00, ALACHUA (SEC I-75 HWY 441), FLORIDA

Sheet No.
L-6

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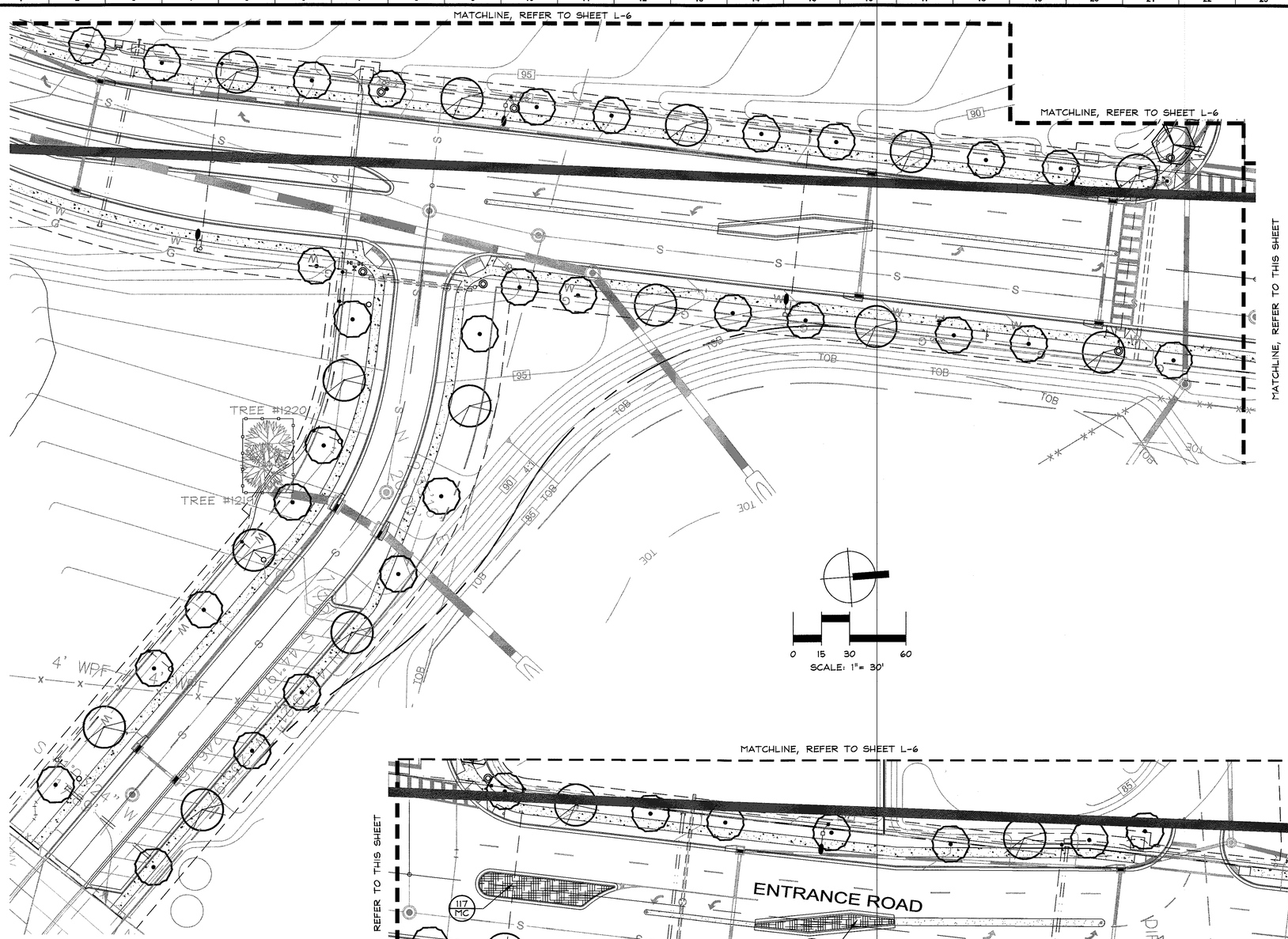

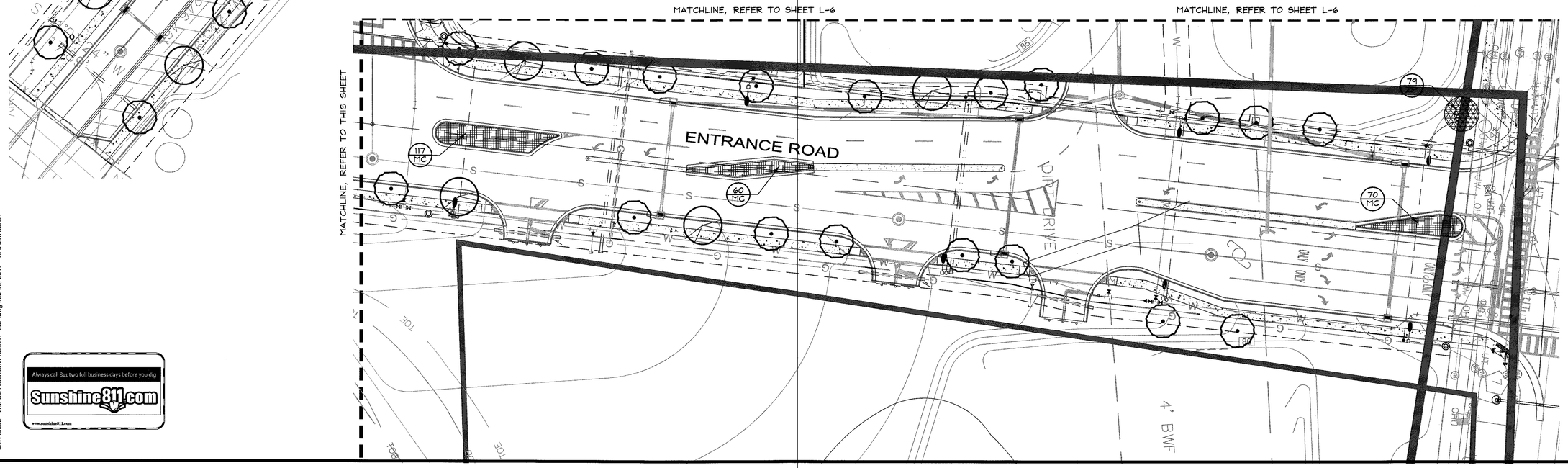

PLANT LEGEND

SYM.	COMMON NAME
TREES	
AA	DOWNY SERVICEBERRY
AR	FLORIDA FLAME MAPLE
BN	DURA-HEAT RIVER BIRCH
CC	FOREST PANSY REDBUD
LS	AMERICAN SWEETGUM
LI	CRAPE MYRTLE
LT	TULIP POPLAR
MG	SOUTHERN MAGNOLIA
UA	WINGED ELM
PE	SLASH PINE
PP	LONGLEAF PINE
QS	SHUMARD OAK
QV	LIVE OAK
TD	BALD CYPRESS
HEDGES AND ACCENT PLANTS	
VO	SWEET VIBURNUM
SHRUBS	
AG	EDWARD GOUCHER ABELIA
RI	INDIAN HAWTHORN
LP	PLUM LOROPETALUM
GROUNDCOVER	
DV	AFRICAN IRIS
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MC	MUHLY GRASS
DT	VARIEGATED FLAX LILY
TA	ASIATIC JASMINE
ZP	COONTIE
SOD	ARGENTINE BAHIA SOD

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REGISTERED LANDSCAPE ARCHITECT James K. Winter, RLA LA 0000011 STATE OF FLORIDA
James K. Winter, RLA
Mar 30, 2017

No.	Date	Revision	By

Designed by:	JKW
Drawn by:	ARS
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LANDSCAPE PLAN

Walmart

STORE NO. 3873-00, ALACHUA (SEC I-75 HWY 441), FLORIDA

Sheet No.
L-7

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

LANDSCAPE NOTES:

1. The landscape Contractor shall be responsible for all materials and all work as called for on the Landscape Plans and in the Landscape Specifications. In the event of variation between quantities shown on plant list and the plans, the plans shall control. The Landscape Contractor shall verify all quantities and report any discrepancies at the time of bidding.
2. The Landscape Contractor shall review architectural/engineering plans and become thoroughly familiar with surface and subsurface utilities.
3. Every possible safeguard shall be taken to protect building surfaces, equipment and furnishings. The Landscape Contractor shall be responsible for any damage or injury to person or property which may occur as a result of negligence in the execution of the work.
4. The work shall be coordinated with other trades to prevent conflicts. Coordinate the planting with the irrigation work to assure availability and proper location of irrigation items and plants.
5. Contractor shall ensure that there are no visual obstructions to vehicle lines of sight and traffic controls. Contractor shall field adjust tree and/or large shrub locations to avoid any such obstructions.
6. Trees shall be maintained by the owner to avoid future such obstructions by pruning trees and/or shrubs as necessary utilizing horticulturally sound techniques.
7. All planting shall be performed by personnel familiar with planting procedure and under the supervision of a qualified planting foreman.
8. All plant material shall be graded Florida No. 1 or better as outlined under Grades and Standards for Nursery Stock, Part I and II, published by the Florida Department of Agriculture and Consumer Services.
9. The Landscape Architect or Owner shall have the right, at any stage of the operations, to reject any and all work and materials which, in his opinion, do not meet with the requirements of these specifications.
10. Except as otherwise specified, the Landscape Contractor's work shall conform to accepted horticultural practices as used in the trade.
11. The minimum acceptable size of all plants, measured after pruning, with branches in normal positions, shall conform to the measurements specified on the plant list or as indicated on the landscape drawing. Height and spread dimensions refer to main body of the plant and not extreme branch tip to tip. The caliper of tree trunks is to be taken one foot above the ground level.
12. Plants shall be protected upon arrival at the site, by being thoroughly watered and properly maintained until planted.
13. All tree pits shall be excavated to size and depth in accordance with the Florida Grades & Standards for Nursery Stock, unless shown otherwise on the drawings, and backfilled with the specified planting soil. The Landscape Contractor shall test fill all tree pits with water before planting to assure proper drainage percolation is available.
14. The Landscape Contractor shall be responsible for proper watering of all plants. All plants shall be thoroughly watered at time of planting and kept adequately watered until time of acceptance. It shall be the Landscape Contractor's responsibility to assure that plants are not over watered.
15. It shall be the Landscape Contractor's responsibility to prevent plants from falling or being blown over, to restraighten and replant all plants which lean or fall and to replace all plants which are damaged due to lack of proper guying or staking. The Landscape Contractor shall be legally liable for any damage caused by instability of any plant material.
16. All trees and all palms shall be guyed or staked or braced. The Landscape Contractor shall determine which small or multi-trunk trees need to be guyed and staked to maintain plumb. Staking of trees and shrubs, if required, shall be done as per staking and guying detail prepared by the Landscape Architect. It shall be the responsibility of the Landscape Contractor to remove guys and stakes from the trees and job site after a period of 1 year.
17. Plants blown over by high winds, within the guaranteed period, shall not be cause for additional expense to the Owner, but shall be the responsibility of the Landscape Contractor. Damaged plants shall be replaced by the Landscape Contractor at no additional cost to the Owner.
18. Sod shall be certified to be free of the imported fire ant. Sod shall have a clean growth of acceptable grass, reasonably free of weeds with not less than 1 1/2" of soil firmly adhering to roots. It shall be the responsibility of the Landscape Contractor to measure and determine the exact amount required. This amount shall be verified with the Owner or Landscape Architect before installation.
19. The Landscape Contractor shall insure adequate vertical drainage in all plant beds, planters, and sod areas. Vertical drilling through any compacted fill to native soil shall be accomplished to insure drainage. If well drained fill is necessary to assure positive drainage, this issue shall be brought up by the Landscape Contractor at time of bidding.
20. The Landscape Contractor shall insure that his work does not interrupt established or projected drainage patterns.
21. The Landscape Contractor shall prune, shape and remove dead foliage/limbs from existing plant material to remain. Confirm with the Landscape Architect or Owner the extent of work required at time of bidding.
22. Mulch - All plant beds shall be top dressed with 4" hardwood mulch (or approved equal).
23. Transplanted Material - The Landscape Contractor shall be responsible for determining and evaluating which plant materials are suitable for transplanting and shall verify this with the Landscape Architect or Owner. The Landscape Contractor shall take all reasonable, horticulturally acceptable measures to assure the successful transplanting of determined plant materials. The Landscape Contractor shall be responsible for replacing any relocated plant materials which die if such measures are not taken, as determined by the Landscape Architect or Owner. Replacement plants shall be of identical species and size if required.
24. MAINTENANCE PRIOR TO FINAL INSPECTION AND ACCEPTANCE:

    Maintenance shall commence after each plant is planted and the maintenance period shall continue until the job or specific phase of the job is accepted by the Landscape Architect or Owner. Extreme care shall be taken to instruct the Owner or his representatives in general maintenance procedures.

    Plant maintenance shall include watering, pruning, weeding, cultivating, mulching, tightening, and repairing of guys, replacement of sick or dead plants, resetting plants to proper grades or upright positions and restoration of the planting saucer and all other care needed for proper growth of the plants.

    During the maintenance period and up to the date of final acceptance, the Landscape Contractor shall do all seasonal spraying and/or dusting of trees and shrubs. Upon completion of all planting, an inspection for acceptance of work will be held. The Landscape Contractor shall notify the Landscape Architect or Owner for scheduling of the inspection 10 days prior to the anticipated date.

    At the time of the inspection, if all of the materials are acceptable, a written notice will be given by the Landscape Architect or Owner to the Landscape Contractor Stating the date when the Maintenance Period ends.

    GUARANTEE AND REPLACEMENT:

    All plant materials shall be guaranteed for one (1) year from the time of final inspection and interim acceptance shall be alive and in satisfactory growth for each specific kind of plant at the end of the guaranteed period.

    At the end of the guarantee period, any plant required under this contract that is dead or not in satisfactory growth, as determined by the Owner or the Landscape Architect, shall be removed and replaced. Replacement plants shall have an extended guarantee, as noted above, from time of replacement.

    All replacements shall be planted of the same kind and size as specified on the plant list. They shall be the responsibility of the Landscape Contractor.
25. TOPSOIL

    Topsoil shall be ASTM D 5268, natural, friable, fertile, fine loamy soil possessing characteristics of representative topsoil in the vicinity that produces heavy growth. Topsoil shall have a pH range of 5.5 to 7.4, free from subsoil, objectionable weeds, litter, sods, stiff clay, stones larger than 1-inch in diameter, stumps, roots, trash, toxic substances, or any other material which may be harmful to plant growth or hinder planting operations. Top soil shall contain a minimum of three percent organic material.
26. UNSUITABLE SUBSOILS

    Locations containing unsuitable subsoil shall be treated by one or more of the following:

    A. Where unsuitability is deemed by Owner or Owner's Representative to be due to excessive compaction caused by heavy equipment and where natural subsoil is other than AASHTO classification of A6 or A7, loosen such areas with spikes, discing, or other means to loosen soil to condition acceptable to Owner. Loosen soil to minimum depth of 12 inches with additional loosening as required to obtain adequate drainage. Contractor may introduce peat moss, sand, or organic matter into the subsoil to obtain adequate measures shall be considered as incidental, without additional cost to Owner.
    B. Where unsuitability is deemed by Owner or Owner's Representative to be due to presence of boards, mortar, concrete, graded aggregate base, or other construction materials in sub grade and where natural subsoil is other than AASHTO classification of A6 or A7, remove debris and objectionable material. Such remedial measures shall be considered as incidental, without additional cost to Owner.
    C. Where unsuitability is deemed by Owner to be because natural subsoil falls into AASHTO classification of A6 or A7 and contains moisture in excess of 30 percent, then installation of sub drainage system or other means described elsewhere in Specifications shall be used. Where such conditions have not been known or revealed prior to planting time and they have not been recognized in preparation of The Drawings and Specifications, then Owner shall issue pricing order to install proper remedial measures.
    D. Planting beds where existing subsoil is determined by Owner to be unsuitable for plant growth in accordance paragraph Unsuitable Subsoil herein shall be excavated to a depth of 12 inches or as needed to provide adequate drainage. Replace excavated soil with planting soil.

ALERT TO CONTRACTOR:

ALL WM GENERAL CONTRACTOR WORK TO BE COMPLETED (EARTHWORK, FINAL UTILITIES, AND FINAL GRADING) BY THE MILESTONE DATE IN PROJECT DOCUMENTS. OUTLOT AREA TO BE KEPT FREE OF JOB TRAILERS AND STORAGE AFTER THE CONTRACT MILESTONE DATE FOR THE OUTLOT. WM GENERAL CONTRACTOR TO PROVIDE CLEAR ACCESS FOR OUTLOT CONTRACTOR TO THE SPECIFIC PARCEL AT ALL TIMES AFTER MILESTONE DATE. PURCHASER OF OUTLOT TO PROVIDE PERMIT DOCUMENTS AND SWPPP REQUIRED BY STATE/LOCAL REQUIREMENTS FOR SPECIFIC OUTLOT.

NOTE TO CONTRACTOR:

18" WIDE MULCH STRIP IS REQUIRED BEHIND ALL CONCRETE CURBS/BUFFERS.

WHERE TURF GRASS WILL BE ESTABLISHED ADJACENT TO CONCRETE CURBS/BUFFERS, EITHER A 16" OR 24" (DEPENDENT ON AVAILABILITY) WIDE SOD STRIP IS REQUIRED.

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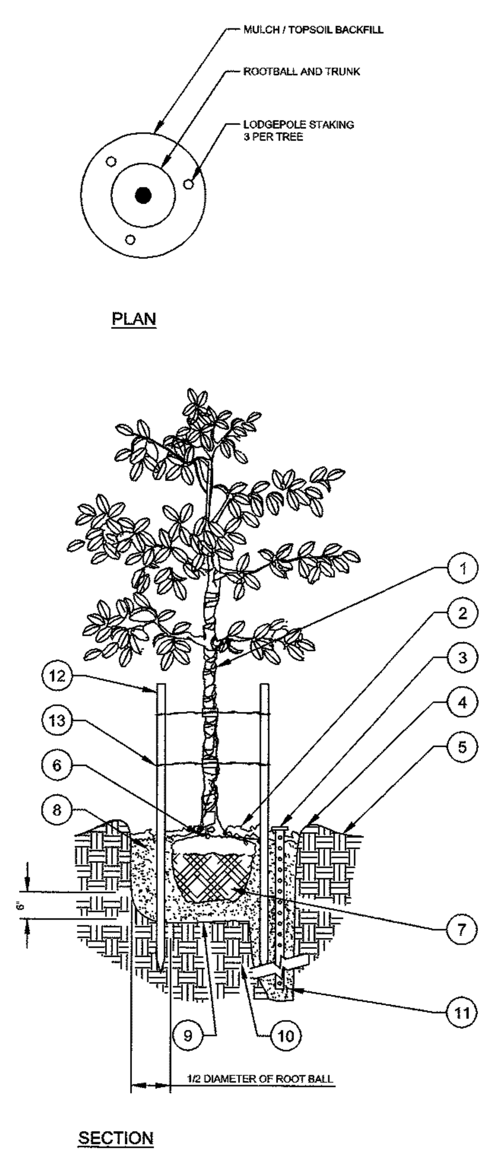


NOTES:

A. FINAL TREE STAKING DETAILS AND PLACEMENT TO BE APPROVED BY OWNER
B. REMOVE BURLAP, WIRE AND STRAPS (ANYTHING THAT COULD GIRDLE TREE OR RESTRICT ROOT GROWTH) ON UPPER 1/3 OF ROOTBALL.
C. SEE LANDSCAPE NOTES FOR THE TYPE OF MULCH MATERIAL TO USE.
D. PRUNE TREE AS DIRECTED BY LANDSCAPE ARCHITECT.
E. BRANCHING HEIGHT TO A.A.N. STANDARDS.
F. INSTALL STAND PIPE AND GRAVEL AT BASE WITH SPECIMEN (24" BOX AND LARGER) TREE ONLY.

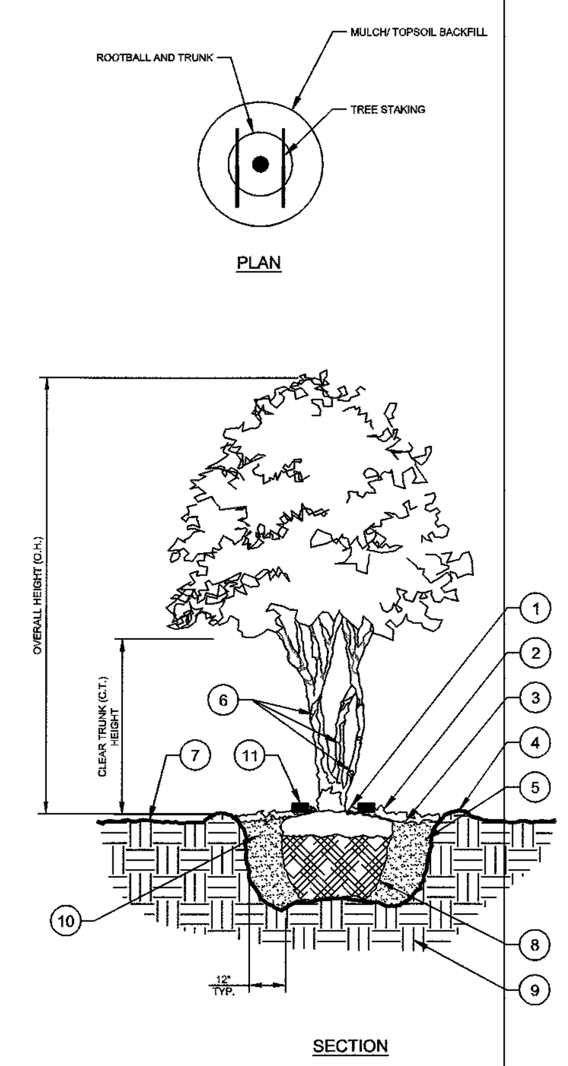
1. TREE WRAP - SET TRUNK PLUMB / CENTER IN PIT
2. 4" MINIMUM OF HARDWOOD BARK MULCH COMPACTED OR AS SPECIFIED.
3. 4" ABS FILTER FABRIC WRAPPED PERFORATED STAND PIPE WITH REMOVABLE PVC CAP.
4. 3" HIGH SOIL BERM TO HOLD WATER.
5. FINISHED GRADE (SEE GRADING PLAN)
6. TOP ROOT BALL MIN. 1" ABOVE FINISHED GRADE
7. B & B OR CONTAINERIZED (SEE SPECIFICATIONS FOR ROOT BALL REQUIREMENTS).
8. PREPARED PLANTING SOIL AS SPECIFIED. REMOVE ROCKS 4" AND LARGER
9. ROOT BALLS GREATER THAN 24" DIAMETER SHALL BE PLACED ON MOUND OF UNDISTURBED SOIL TO PREVENT SETTLING ROOT BALLS SMALLER THAN 24" IN DIA. MAY SIT ON COMPACTED EARTH.
10. SET ROOT BALL IN UNDISTURBED NATIVE SOIL.
11. 3/4" GRAVE, DEPTH OF PIPE
12. 2" DIA. LODGE POLE PINE STAKE, 3 EACH 10' MIN., 12' LONG FOR 24" BOX, 14' FOR 36" BOX. SET ONE STAKE PERPENDICULAR TO PREVAILING WIND. CUT STAKES 6" BELOW CANOPY.
13. "CLINCH TIE" BY U.I.T. OR EQUAL

CANOPY TREE PLANTING

N.T.S.

NOTE TO LA:
ASSURE PERCOLATION OF ALL PLANTING PITS.

09/21/16



NOTES:

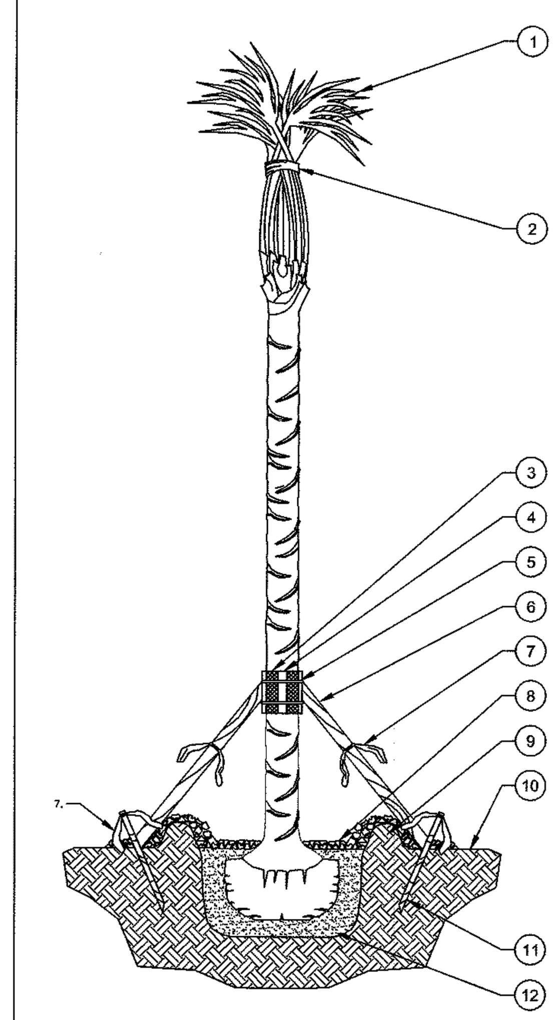
A. FINAL TREE STAKING DETAILS AND PLACEMENT TO BE APPROVED BY OWNER.
B. SET TREE AT ORIGINAL DEPTH. REMOVE BURLAP, WIRE AND STRAPS (ANYTHING THAT COULD GIRDLE TREE OR RESTRICT ROOT GROWTH) ON UPPER 1/3 OF ROOTBALL.
C. SEE LANDSCAPE NOTES FOR THE TYPE OF MULCH MATERIAL TO USE.
D. PRUNE TREE AS DIRECTED BY LANDSCAPE ARCHITECT
E. BRANCHING HEIGHT TO A.A.N. STANDARDS

1. BASE OF TREE SHALL BE PLANTED SLIGHTLY ABOVE (1" MIN.) ADJACENT FINISH GRADE. REMOVE ALL TWINE & STRAPS & CUT BURLAP FROM TOP 1/3 OF ROOT BALL. NO SYNTHETIC BURLAP WILL BE ACCEPTED.
2. 4" SHREDDED HARDWOOD MULCH OR APPROVED EQUAL.
3. DIAMETER OF TREE PIT TO BE TWICE THE DIAMETER OF ROOT BALL-ROUGHEN SIDES OF TREE PIT.
4. 3" HIGH SOIL BERM TO HOLD WATER.
5. TOPSOIL MIX BACKFILL.
6. TREE WRAP.
7. 4" MIN. OF TOPSOIL TO BRING TO FINISHED GRADE (SEE GRADING PLAN).
8. ROOT BALLS GREATER THAN 24" DIAMETER SHALL BE PLACED ON MOUND OF UNDISTURBED SOIL TO PREVENT SETTLING ROOT BALLS SMALLER THAN 24" IN DIA. MAY SIT ON COMPACTED EARTH.
9. UNDISTURBED SUBSOIL.
10. PREPARE PLANTING SOIL AS SPECIFIED.
11. **Tree Frog® RBK40pt** FOR UP TO 4" TREE CALIPER OR **Tree Frog® RBK60pt** FOR GREATER THAN 4" AND UP TO 6" TREE CALIPER. REFER TO SITEWORK SPECIFICATIONS FOR APPROVED MATERIALS AND INSTALLATION REQUIREMENTS.

MULTI-TRUNK TREE PLANTING

NOTE TO LA:
ASSURE PERCOLATION OF ALL PLANTING PITS.

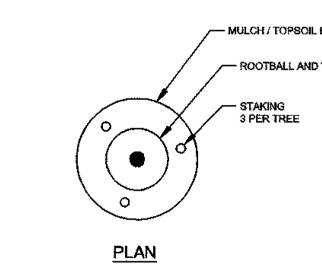
09/21/16



NOTES:

A. FINAL TREE STAKING DETAILS AND PLACEMENT TO BE APPROVED BY OWNER.
B. REMOVE BURLAP, WIRE AND STRAPS (ANYTHING THAT COULD GIRDLE TREE OR RESTRICT ROOT GROWTH) ON UPPER 1/3 OF ROOTBALL.
C. SEE LANDSCAPE NOTES FOR THE TYPE OF MULCH MATERIAL TO USE.

1. MINIMUM OF NINE (9) GOOD PALM FRONDS
2. PRUNE AND TIE FRONDS WITH HEMP TWINE. CABBAGE PALMS TO BE "HURRICANE CUT"
3. 5 LAYERS OF BURLAP TO PROTECT TRUNK.
4. FIVE 2" X 4" X 18" WOOD BATTENS.
5. SECURE BATTENS WITH 2-3/4" CARBON STEEL BANDS TO HOLD BATTENS IN PLACE. NO NAILS SHALL BE DRIVEN INTO PALM. HEIGHT OF BATTENS SHALL BE LOCATED IN RELATION TO THE HEIGHT OF THE PALM FOR ADEQUATE BRACING.
6. ATTACH 3-2" X 4" X 8' (DRILL AND NAIL IF NECESSARY) TO BATTENS AND 2" X 4" STAKES. FLAG AT MIDPOINT AND AT BASE.
7. PROVIDE FLAGGING
8. 3" SPECIFIED MULCH
9. BERM SOIL TO HOLD WATER
10. FINISH GRADE
11. 2" X 4" X 24" (MIN.) P.T. WOOD STAKES (TYP.) NAIL TO SUPPORT POLES
12. PREPARED PLANTING SOIL MIX AS SPECIFIED. COMPACT BENEATH ROOT BALL.

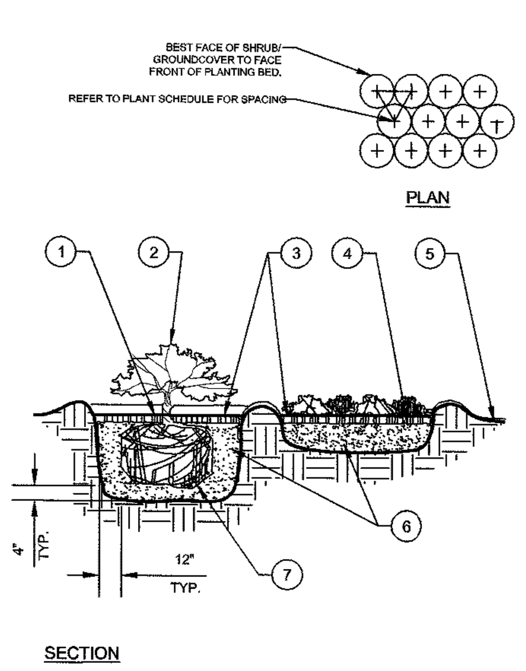


PALM TREE PLANTING

N.T.S.

NOTE TO LA:
ASSURE PERCOLATION OF ALL PLANTING PITS.

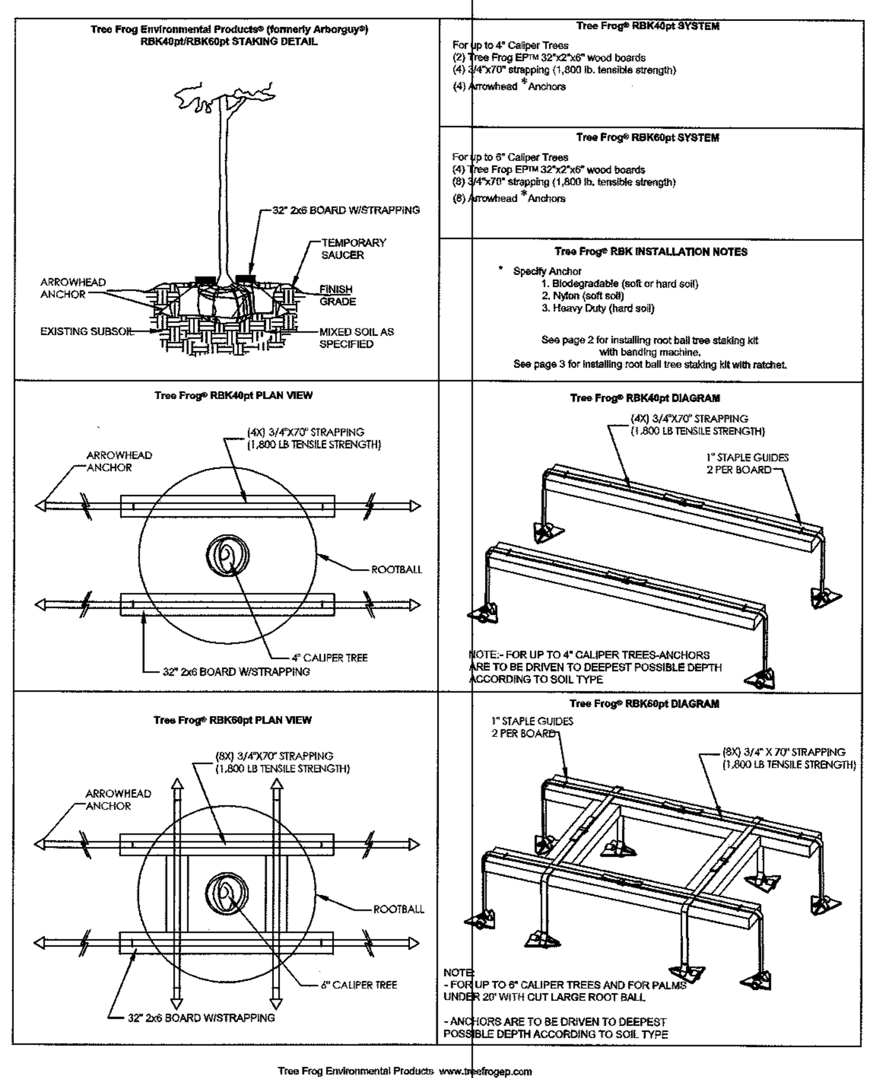
09/21/16



1. TOP OF SHRUB ROOTBALLS TO BE PLANTED 1" - 2" HIGH WITH SOIL MOUNDING UP TO THE TOP OF ROOTBALL.
2. WHEN USED IN MASSES- PRUNE ALL SHRUBS TO ACHIEVE A UNIFORM MASS/HEIGHT.
3. 4" MINIMUM OF HARDWOOD MULCH COMPACTED OR AS SPECIFIED.
4. EXCAVATE ENTIRE BED SPECIFIED FOR GROUNDCOVER BED.
5. 4" MINIMUM OF TOPSOIL TO BRING TO FINISHED GRADE (SEE GRADING PLAN).
6. PREPARED PLANTING SOIL AS SPECIFIED. NOTE: WHEN GROUND- COVERS AND SHRUBS USED IN MASSES ENTIRE BED TO BE AMENDED WITH PLANTING SOIL MIX AS SPECIFIED IN THE PLANTING SPECIFICATION.
7. SCARIFY ROOTBALL SIDES AND BOTTOM.

SHRUB/GROUNDCOVER PLANTING

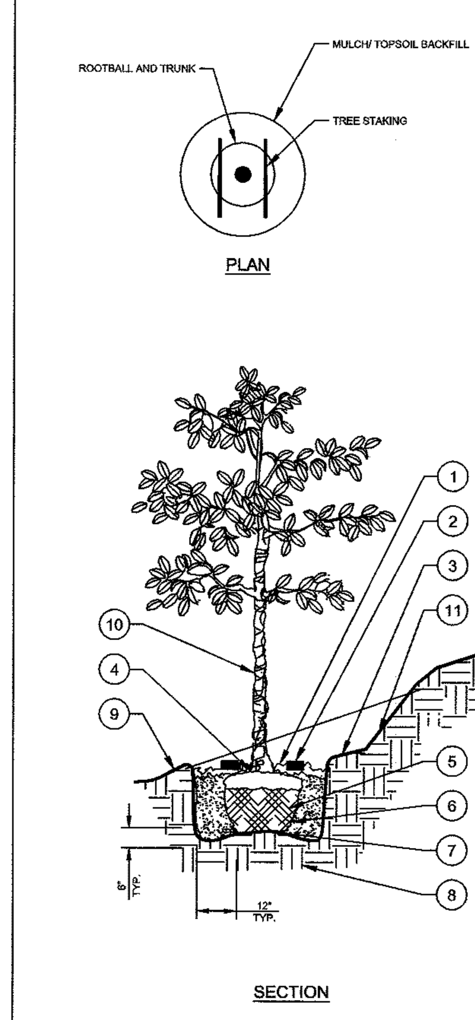
09/21/16



Tree Frog Environmental Products www.treefrogep.com 352-735-7411

"TREE FROG" TREE STAKING

09/21/16



NOTES:

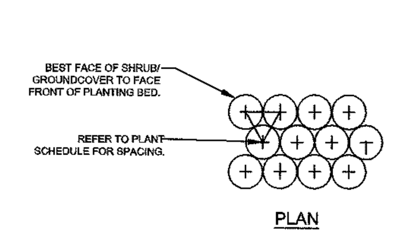
A. FINAL TREE STAKING DETAILS AND PLACEMENT TO BE APPROVED BY OWNER.
B. REMOVE BURLAP, WIRE AND STRAPS (ANYTHING THAT COULD GIRDLE TREE OR RESTRICT ROOT GROWTH) ON UPPER 1/3 OF ROOTBALL.
C. SEE LANDSCAPE NOTES FOR THE TYPE OF MULCH MATERIAL TO USE.
D. PRUNE TREE AS DIRECTED BY LANDSCAPE ARCHITECT.
E. BRANCHING HEIGHT TO A.A.N. STANDARDS.

1. 4" MINIMUM OF HARDWOOD MULCH COMPACTED OR AS SPECIFIED.
2. **Tree Frog® RBK40pt** FOR UP TO 4" TREE CALIPER OR **Tree Frog® RBK60pt** FOR GREATER THAN 4" AND UP TO 6" TREE CALIPER. REFER TO SITEWORK SPECIFICATIONS FOR APPROVED MATERIALS AND INSTALLATION REQUIREMENTS.
3. BACKFILL WITH TOPSOIL IN ACCORDANCE WITH THE PLANTING SPECIFICATIONS.
4. TOP OF ROOT BALL MIN. 1" ABOVE FINISHED GRADE.
5. B&B OR CONTAINED (SEE SPECIFICATIONS FOR ROOT BALL REQUIREMENTS).
6. PREPARE PLANTING SOIL AS SPECIFIED.
7. ROOT BALLS GREATER THAN 24" DIAMETER SHALL BE PLACED ON MOUND OF UNDISTURBED SOIL TO PREVENT SETTLING ROOT BALLS SMALLER THAN 24" IN DIA. MAY SIT ON COMPACTED EARTH.
8. UNDISTURBED SUBSOIL.
9. 3" HIGH SOIL BERM TO HOLD WATER.
10. TREE WRAP.
11. CUT BACK SLOPE TO PROVIDE A FLAT SURFACE FOR PLANTING.

TREE PLANTING ON SLOPE

NOTE TO LA:
ASSURE PERCOLATION OF ALL PLANTING PITS.

09/21/16



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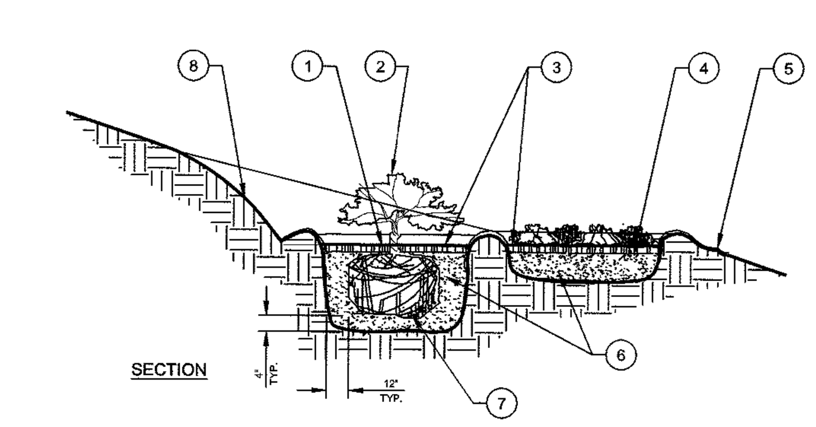

SHRUB/GROUNDCOVER PLANTING ON SLOPE

09/21/16

LANDSCAPE NOTES:

1. ALL LANDSCAPED AREAS ARE TO RECEIVE A MINIMUM OF 4" OF TOPSOIL. SEE 2900 SPECIFICATION.
2. ALL PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS, AND FREE OF PESTS AND DISEASE.
3. ALL PLANT MATERIAL SHALL BE CONTAINER GROWN OR BALLED AND BUR LAPPED AS INDICATED IN THE PLANT LIST.
4. ALL TREES SHALL HAVE A STRAIGHT TRUNK AND FULL HEAD AND MEET ALL REQUIREMENTS SPECIFIED.
5. ALL MATERIALS ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT BEFORE, DURING, AND AFTER INSTALLATION.
6. ALL TREES MUST BE GUYED OR STAKED AS SHOWN IN THE DETAILS.
7. ALL PLANTING AREAS SHALL BE COMPLETELY MULCHED AS SPECIFIED.
8. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING THE COURSE OF THE WORK. LOCATIONS OF EXISTING BURIED UTILITY LINES SHOWN ON THE PLANS ARE BASED UPON BEST AVAILABLE INFORMATION AND ARE TO BE CONSIDERED APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR 1) TO VERIFY THE LOCATIONS OF UTILITY LINES AND ADJACENT TO THE WORK AREA 2) TO PROTECT OF ALL UTILITY LINES DURING THE CONSTRUCTION PERIOD 3) TO REPAIR ANY AND ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC. WHICH OCCURS AS A RESULT OF THE CONSTRUCTION.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON THESE PLANS BEFORE PRICING THE WORK.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERY SCHEDULE AND PROTECTION BETWEEN DELIVERY AND PLANTING PER SPECIFICATIONS TO MAINTAIN HEALTHY PLANT CONDITIONS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULLY MAINTAINING (INCLUDING BUT NOT LIMITED TO: WATERING, SPRAYING, MULCHING, FERTILIZING, ETC.) ALL OF THE PLANT MATERIALS AND LAWN FOR THE PERIOD OF TIME SHOWN IN THE 02900 SPEC.
12. ANY PLANT MATERIAL WHICH IS DISEASED, DISTRESSED, DEAD, OR REJECTED (PRIOR TO SUBSTANTIAL COMPLETION) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE AND MEETING ALL PLANT LIST SPECIFICATIONS.
13. THE CONTRACTOR SHALL COMPLETELY GUARANTEE ALL PLANT MATERIAL FOR A PERIOD DEFINED IN THE 02900 SPEC. THE CONTRACTOR SHALL PROMPTLY MAKE ALL REPLACEMENTS DURING THE NORMAL PLANTING SEASON.
14. AFTER BEING DUG AT THE NURSERY SOURCE, ALL TREES IN LEAF SHALL BE ACCLIMATED FOR TWO (2) WEEKS UNDER A MIST SYSTEM PRIOR TO INSTALLATION.
15. STANDARDS SET FORTH IN "AMERICAN STANDARD FOR NURSERY STOCK" REPRESENT GUIDELINE SPECIFICATIONS ONLY AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIAL.
16. WHERE SHOWN ON THE PLANS AND DETAILS, PLANTING BEDS ARE TO BE COMPLETELY COVERED WITH A HARDWOOD MULCH FROM A LOCAL SOURCE HARVESTED IN A SUSTAINABLE MANNER TO A MINIMUM DEPTH OF FOUR INCHES.
17. REFER TO WALMART SPECIFICATIONS FOR INFORMATION NEEDED FOR IMPLEMENTATION OF PLANTING PLANS.
18. WEED MAT IS REQUIRED IN LANDSCAPED ISLANDS AS SPECIFIED.
19. ALL PLANT MATERIAL QUANTITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE COVERAGE OF ALL PLANTING BEDS AT SPACING SHOWN.
20. THIS PLAN IS TO BE IMPLEMENTED COOPERATIVELY WITH SWPPP PLAN, AS NEEDED, TO MAXIMIZE THE EFFECTIVENESS OF THE SWPPP PLAN FOR THIS SITE.
21. THE CONTRACTOR IS ENCOURAGED TO COMPLETE TEMPORARY OR PERMANENT SEEDING OR SODDING IN STAGES FOR SOIL STABILIZATION AS AREAS ARE COMPLETED AFTER GRADING.
22. THIS PLAN DOES NOT PRESENT ANY TEMPORARY STABILIZATION REQUIRED AS PART OF SWPPP PLAN.

GENERAL PLANTING NOTES

1. ALL ASPHALT, LIMEROCK, AND CONSTRUCTION DEBRIS TO BE REMOVED FROM PLANTING BEDS AND AREAS TO BE SODDED PRIOR TO LANDSCAPE INSTALLATION. PLANTING DEPTH OF SOIL IN SUCH AREAS SHOULD BE AT LEAST 3'. IF FILL MUST BE ADDED, IT MUST BE FLORIDA CLEAN DEEP FILL (FREE OF WEED SEEDS) WITH pH 5.5-6.5.
2. CANOPY TREES SHALL BE A MINIMUM OF EIGHT (8) FEET IN HEIGHT AND ORNAMENTAL OR UNDERSTORY TREES SHALL HAVE A MINIMUM CALIPER OF ONE AND A HALF (1.5) INCHES, UNLESS OTHERWISE SPECIFIED B BY THE LANDSCAPE ARCHITECT.
3. ALL TREES TO BE PLANTED 1"-2" ABOVE FINISHED GRADE.
4. ALL LANDSCAPED AREAS TO BE MULCHED WITH 3" THICKNESS OF MULCH. PINE BARK 'MINI NUGGET' MULCH SHALL BE USED IN ALL AREAS, EXCEPT RETENTION AREAS. PINE STRAW MULCH SHALL BE USED IN RETENTION AREAS.
5. LEADER SHOOTS AND MAIN STRUCTURAL LIMBS OF TREES WILL NOT BE TOPPED OR PRUNED. TREES TO BE STAKED AS NEEDED, GUYLINES TO BE NON-SYNTHETIC BIODEGRADABLE MATERIAL.
6. ALL PLANT MATERIAL TO BE FLORIDA NO.1 OR BETTER, GRADED IN ACCORDANCE WITH GRADES AND STANDARDS FOR NURSERY PLANTS PUBLISHED BY THE STATE OF FLORIDA, DEPARTMENT OF AGRICULTURE.
7. ALL DISTURBED AND UNPAVED AREAS TO BE GRASSED WITH NOXIOUS WEED AND TROPICAL SODA APPLE FREE SOD OR SEEDED AND MULCHED. SEE CIVIL SITE PLANS FOR ADDITIONAL RELATED INFORMATION.
8. SHRUBS AROUND ABOVE GROUND GAS TANK TO BE PLANTED IN FUTURE PHASE.
9. SELECTIVELY CLEAR AREAS AROUND EXISTING TREES TO REMAIN IN AREAS GENERALLY INDICATED ON PLANS. REFER TO SPECIFICATION SECTION 311300 SELECTIVE TREE AND VEGETATION REMOVAL AND TRIMMING.

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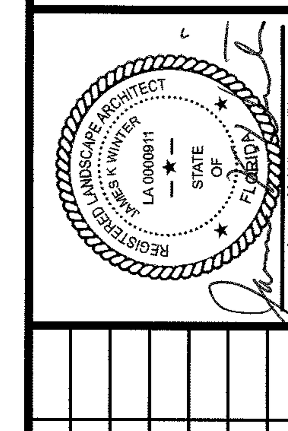

James K. Winter, RLA
LA0000911
Mar 30, 2017

No.	Date	Revision	By
1			
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Designed by:	JKW
Drawn by:	ARS
Checked by:	MDS
Approved by:	JKW
Scale:	NTS
Date:	5/16
Job No.:	W13392.1

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Arch. Lic. No. AA2600926
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LANDSCAPE NOTES AND DETAILS

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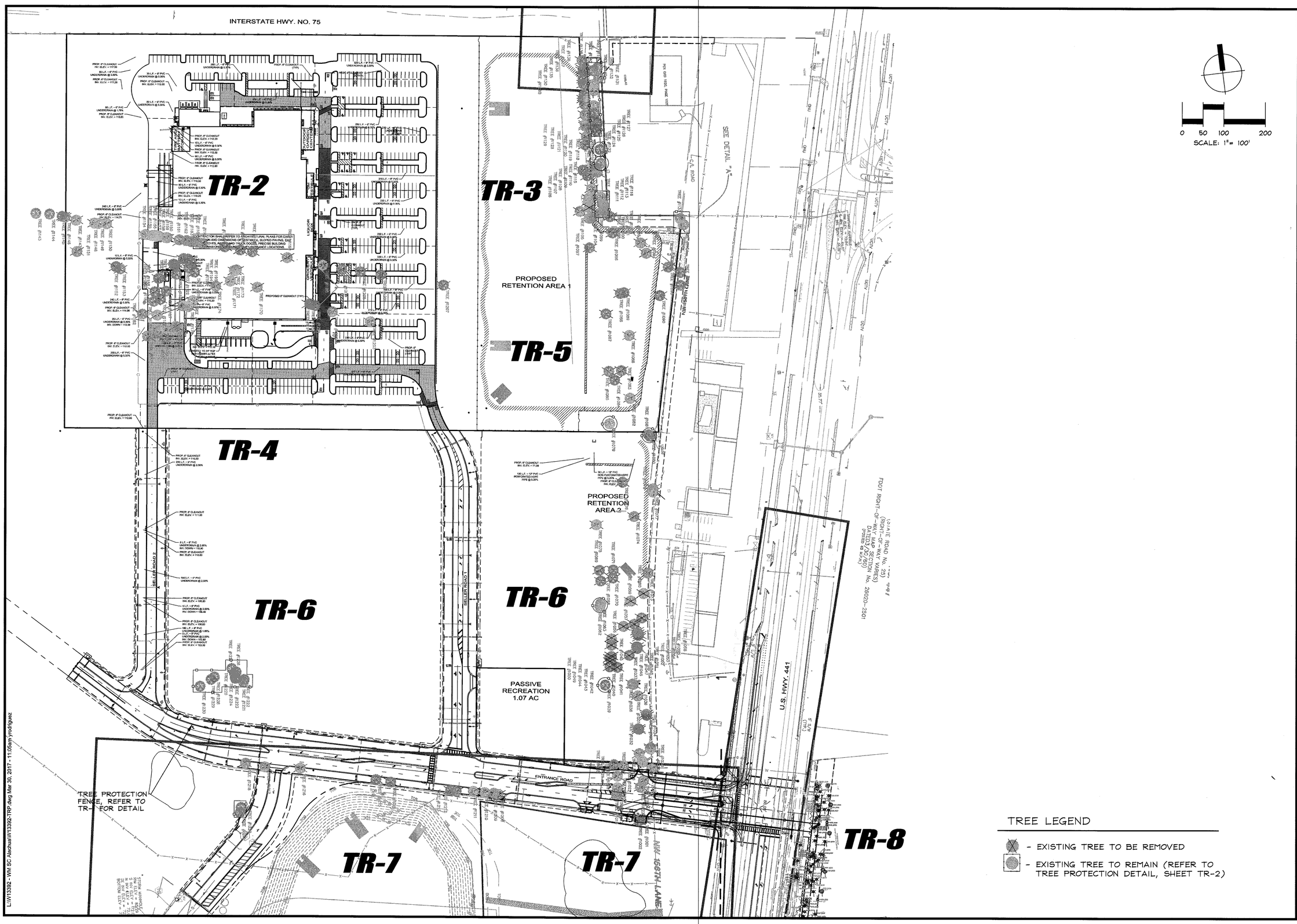

TREE LEGEND

- EXISTING TREE TO BE REMOVED
- EXISTING TREE TO REMAIN (REFER TO TREE PROTECTION DETAIL, SHEET TR-2)

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STATE OF FLORIDA
LICENSE NUMBER 0018739
LA 0000911
James K. Whitler, RLA
LA0000911
Mar 31, 2017

No.	Date	Revision	By
1			
2			
3			
4			
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6			
7			
8			

Designed by:	JKW
Drawn by:	ARS
Checked by:	MDS
Approved by:	JKW
Scale:	1"=100'
Date:	5/16
Job No.:	W13392.1

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OVERALL TREE RETENTION PLAN

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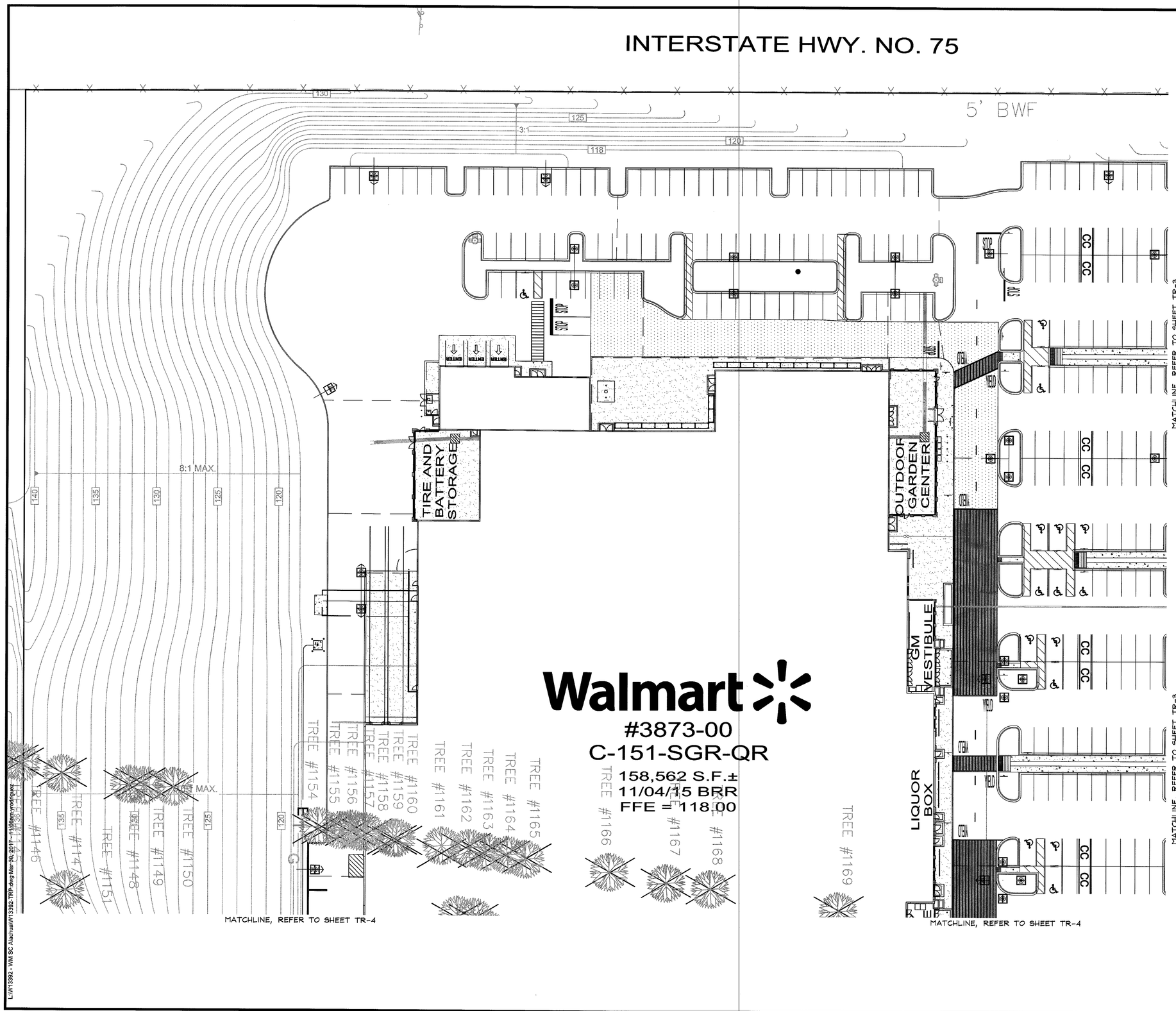

TREE LEGEND

- EXISTING TREE TO BE REMOVED
- EXISTING TREE TO REMAIN (REFER TO TREE PROTECTION DETAIL, SHEET TR-2)

0 15 30 60
SCALE: 1"= 30'

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James K. Winter, RLA
LA0000911
Mar 20, 2017

No.	Date	Revision	By

Designed by: JKW
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Checked by: MDS
Approved by: JKW
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Date: 5/16
Job No.: W13392.1
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TREE RETENTION PLAN

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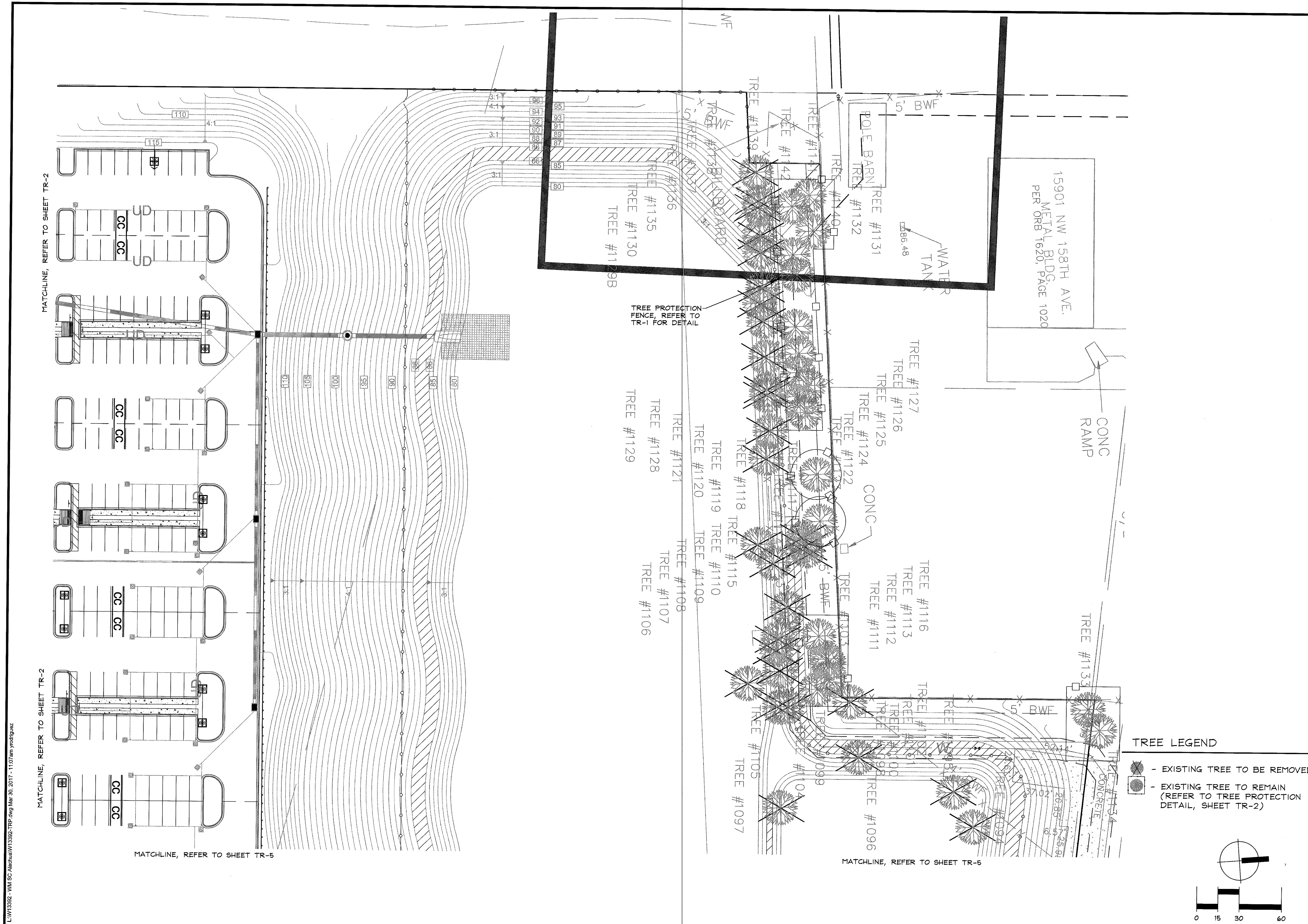

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James K. Winter, RLA
LA0000911
Mar 30, 2017

No.	Date	Revision	By
7			
6			
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Designed by:	JKW
Drawn by:	ARS
Checked by:	MDS
Approved by:	JKW
Scale:	1"=30'
Date:	5/16
Job No.:	W13392.1

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TREE RETENTION PLAN

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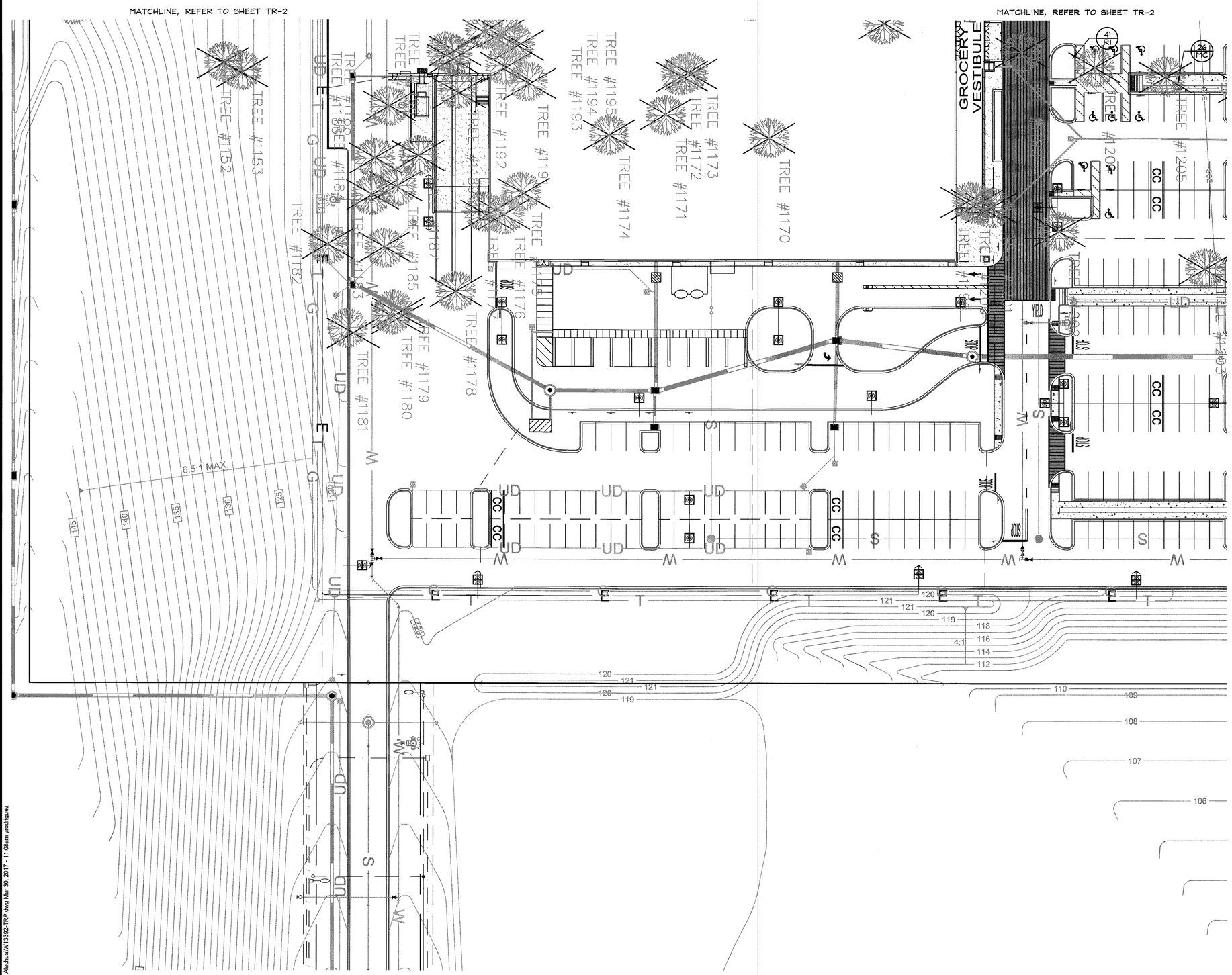

TREE LEGEND

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- EXISTING TREE TO REMAIN (REFER TO TREE PROTECTION DETAIL, SHEET TR-2)

0 15 30 60

SCALE: 1" = 30'

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James K. Winter, RLA
LA000911
Mar 30, 2017

No.	Date	Revision	By

Designed by:	JKW
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Checked by:	MDS
Approved by:	JKW
Scale:	1"=30'
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TREE RETENTION PLAN

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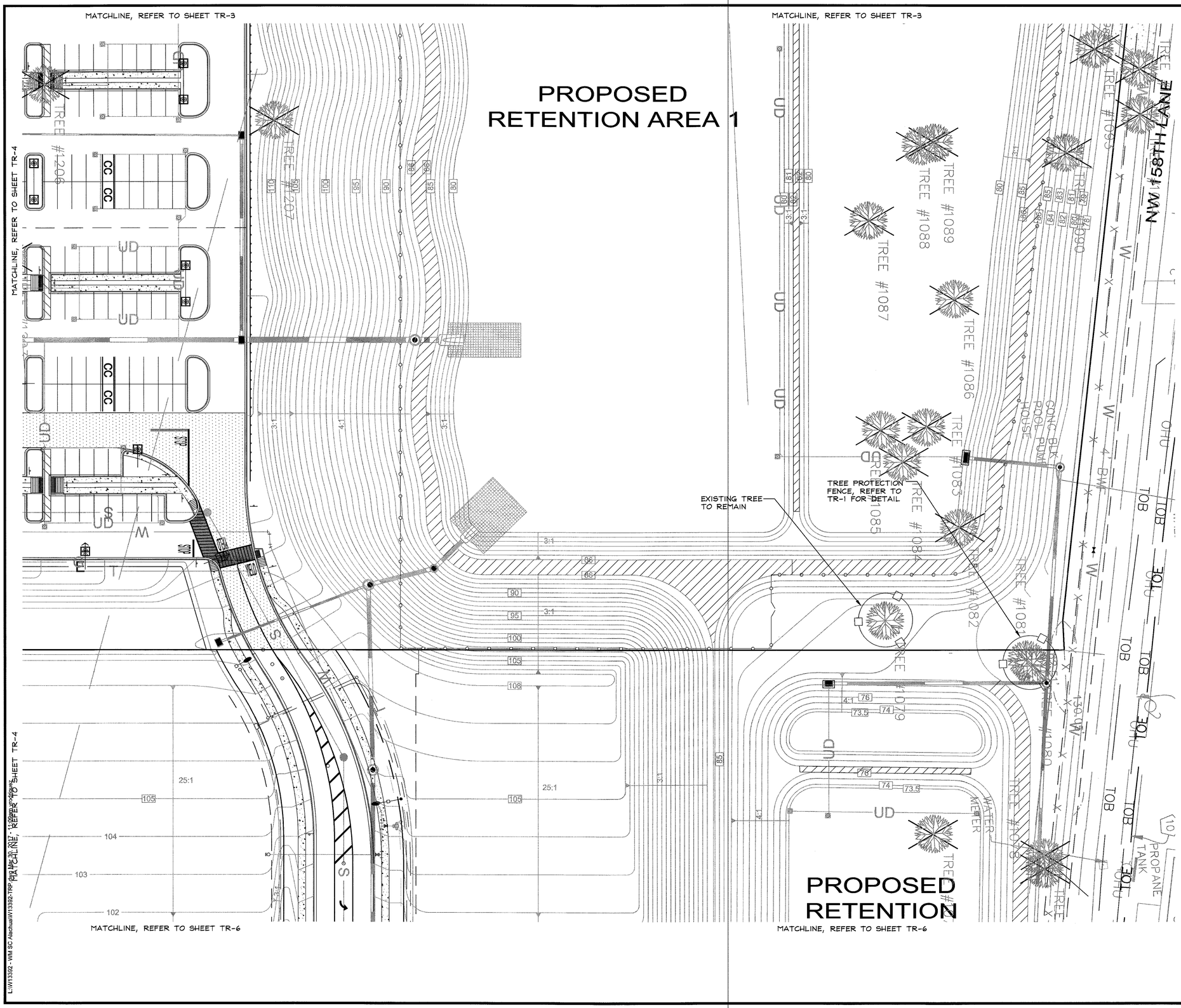

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SCALE: 1"= 30'

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REGISTERED LANDSCAPE ARCHITECT JAMES K. WINTER LA0000511 STATE OF FLORIDA
James K. Winter, RLA
LA0000511
Mar 30, 2017

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Designed by:	JKW
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Checked by:	MDS
Approved by:	JKW
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Job No.:	W13392.1

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TREE RETENTION PLAN

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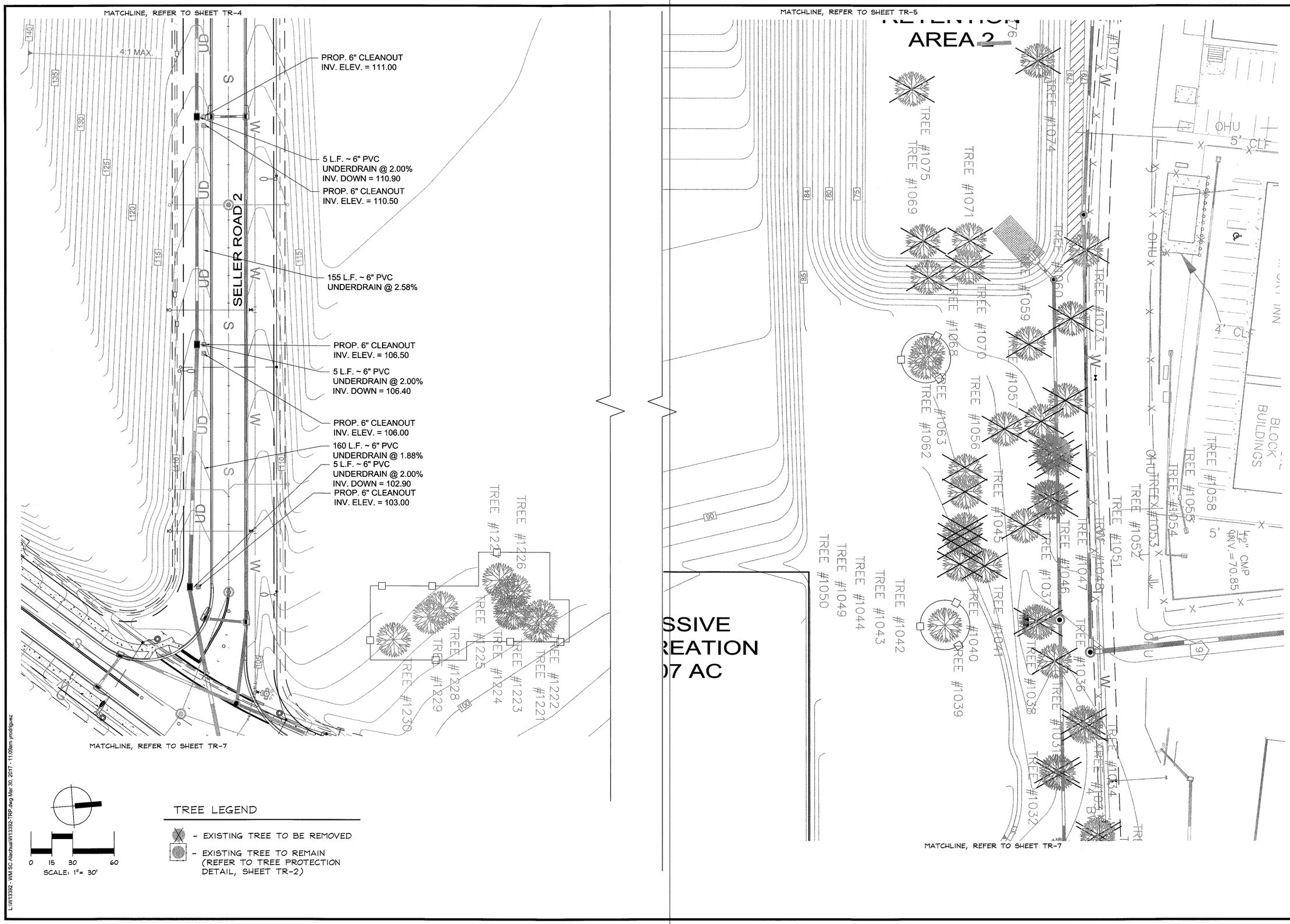

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James K. Winters, Fl. LA0000911, RLA
Mar 30, 2017

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1			
2			
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Designed by:	JKW
Drawn by:	ARS
Checked by:	MDS
Approved by:	JKW
Scale:	1"=30'
Date:	5/16
Job No.:	W13392.1

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TREE RETENTION PLAN

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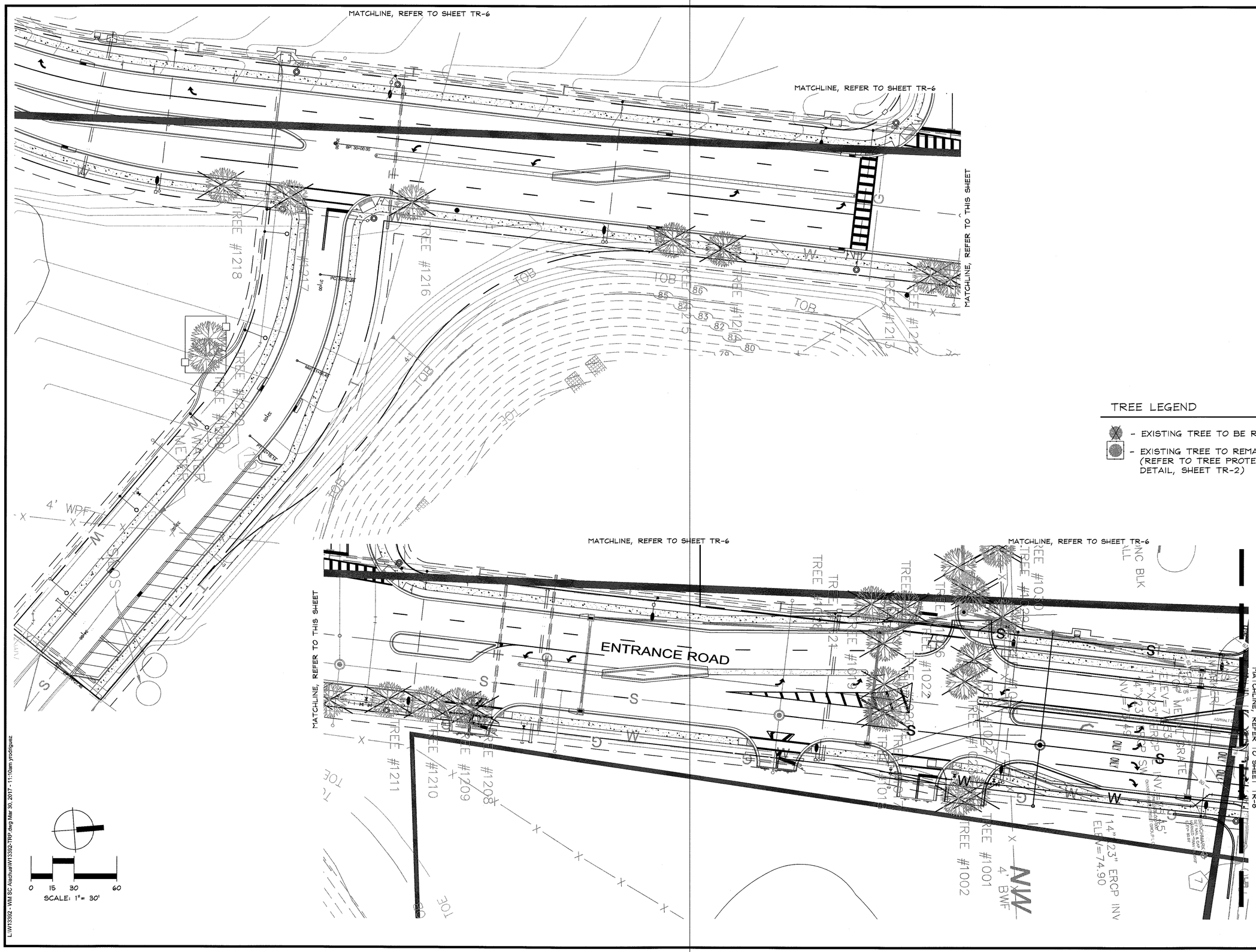

TREE LEGEND

- EXISTING TREE TO BE REMOVED
- EXISTING TREE TO REMAIN (REFER TO TREE PROTECTION DETAIL, SHEET TR-2)

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REGISTERED LANDSCAPE ARCHITECT JAMES K. WINTER LA 0000911 STATE OF FLORIDA

James K. Winter, RLA
Landscape Architect
Mar 30, 2017

No.	Date	Revision	By
1			
2			
3			
4			
5			
6			
7			
8			

Designed by:	JKW
Drawn by:	ARS
Checked by:	MDS
Approved by:	JKW
Scale:	1"=30'
Date:	5/16
Job No.:	W13392.1

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Plans Prepared By:
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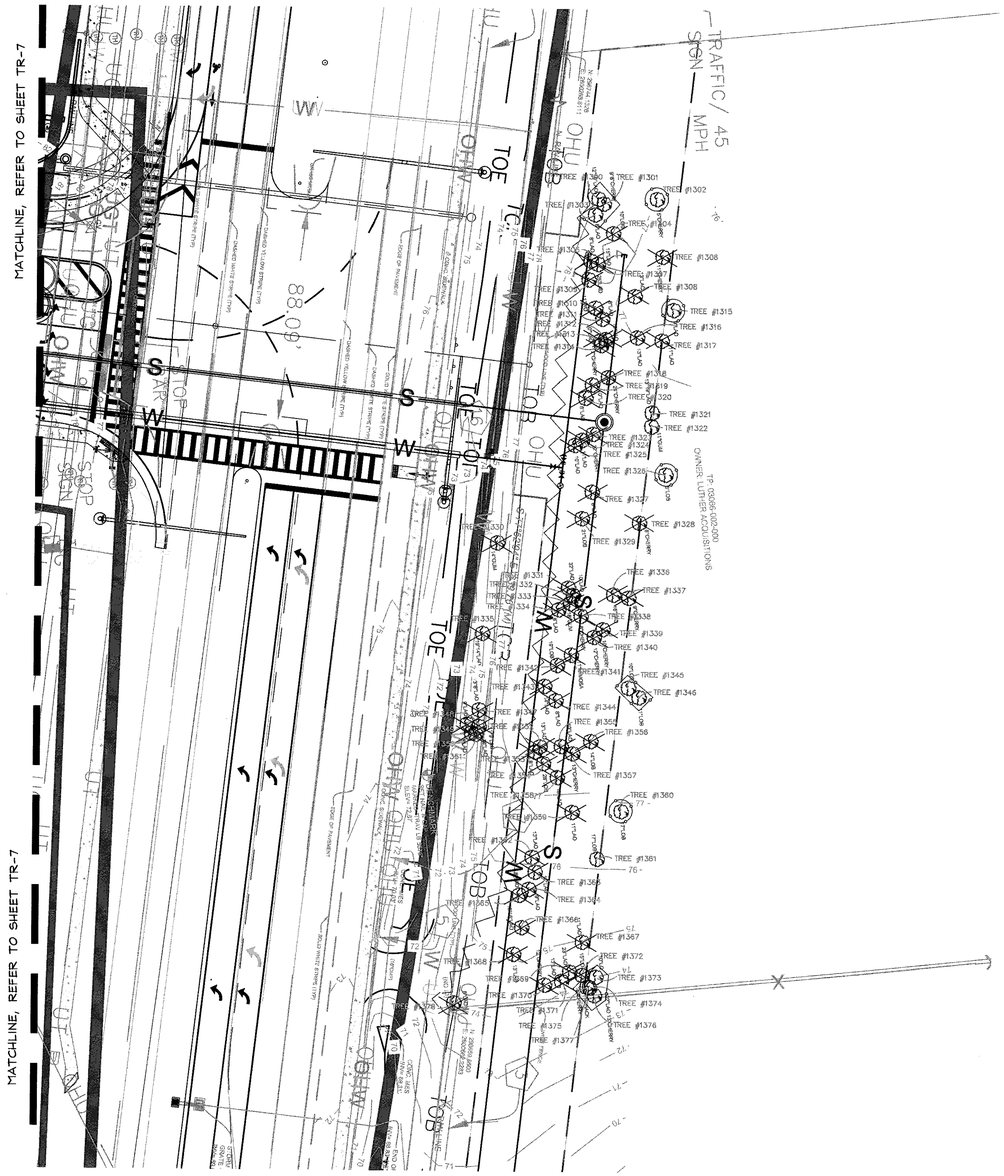
Jacksonville, Fl. 32256
Ph: 904.332.0999
Licenses:
Eng. C.O.A. No. 3215
Survey L.B. No. 7143
Arch. Lic. No. AA2600926
Lndscp. Lic. No. LC0000298

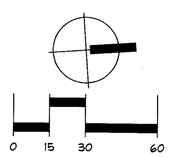
TREE RETENTION PLAN

Walmart

STORE NO. 3873-00, ALACHUA (SEC I-75 HWY 441), FLORIDA

Sheet No.
TR-7





TREE LEGEND

- EXISTING TREE TO BE REMOVED
- EXISTING TREE TO REMAIN (REFER TO TREE PROTECTION DETAIL, SHEET TR-2)

TREE SURVEY DATA SHEET

Date: 2/10/15 & 3/2/15 **Project #:** W13392 **Project Name:** Walmart - Alachua

Field Personnel: David Landers

**** This form must be used for ALL Tree Surveys ****

Wal-Mart Alachua CPH Job No. W13392 Offsite Existing Tree Survey

Tree #	D.B.H.	Tree Name	Scientific Name	Tree Condition	Removed/Saved
1300	12,10	Laurel Oak	*Quercus laurifolia*	Fair	Saved
1301	9,8	Cherry Laurel	*Prunus caroliniana*	Fair	Saved
1302	15	Cherry Laurel	*Prunus caroliniana*	Fair	Saved
1303	8	Laurel Oak	*Quercus laurifolia*	Fair	Saved
1304	10	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1305	8	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1306	11	Cherry Laurel	*Prunus caroliniana*	Fair	Removed
1307	15	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1308	13	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1309	25	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1310	11	Water Oak	*Quercus nigra*	Fair	Removed
1311	17	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1312	13	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1313	10	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1314	17	Cherry Laurel	*Prunus caroliniana*	Fair	Removed
1315	9	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1316	13	Laurel Oak	*Quercus laurifolia*	Fair	Saved
1317	11	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1318	24	Cherry Laurel	*Prunus caroliniana*	Fair	Removed
1319	10	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1320	8	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1321	13,19	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1322	11	Sweetgum	*Liquidambar styraciflua*	Fair	Removed
1323	12	Cherry Laurel	*Prunus caroliniana*	Fair	Removed
1324	11	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1325	10	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1326	8	Loblolly Bay	*Gordonia lasianthus*	Fair	Saved
1327	8	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1328	8	Cherry Laurel	*Prunus caroliniana*	Fair	Removed
1329	21	Loblolly Bay	*Gordonia lasianthus*	Fair	Removed
1330	14	Sweetgum	*Liquidambar styraciflua*	Fair	Removed
1331	32	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1332	10	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1334	8	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1335	19,14	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1336	16	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1337	9	Cherry Laurel	*Prunus caroliniana*	Fair	Removed
1338	18	Sweetgum	*Liquidambar styraciflua*	Fair	Removed
1339	10	Cherry Laurel	*Prunus caroliniana*	Fair	Removed
1340	12	Cherry Laurel	*Prunus caroliniana*	Fair	Removed
1341	11	Mimosa	*Albizia julibrissin*	Fair	Removed
1342	19	Loblolly Bay	*Gordonia lasianthus*	Fair	Removed
1343	14	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1344	8	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1345	10	Loblolly Bay	*Gordonia lasianthus*	Fair	Saved
1346	11	Loblolly Bay	*Gordonia lasianthus*	Fair	Saved
1347	13,8	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1348	11,9	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1349	9	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1350	8	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1351	10	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1352	13	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1353	8	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1354	28	Loblolly Bay	*Gordonia lasianthus*	Fair	Removed
1355	10	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1356	14	Loblolly Bay	*Gordonia lasianthus*	Fair	Removed
1357	13	Cherry Laurel	*Prunus caroliniana*	Fair	Removed
1358	28	Loblolly Bay	*Gordonia lasianthus*	Fair	Removed
1359	11	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1360	17	Loblolly Bay	*Gordonia lasianthus*	Fair	Removed
1361	17	Loblolly Bay	*Gordonia lasianthus*	Fair	Saved
1362	13	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1363	14	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1364	9	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1365	8	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1366	18,16	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1367	11	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1368	13	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1369	23	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1370	12	Cherry Laurel	*Prunus caroliniana*	Fair	Removed
1371	13	Laurel Oak	*Quercus laurifolia*	Fair	Removed
1372	15	Live Oak	*Quercus virginiana*	Fair	Removed
1373	10	Live Oak	*Quercus virginiana*	Fair	Saved
1374	22	Laurel Oak	*Quercus laurifolia*	Fair	Saved
1375	18	Cherry Laurel	*Prunus caroliniana*	Fair	Saved
1376	13	Cherry Laurel	*Prunus caroliniana*	Fair	Saved
1377	15	Hackberry	*Celtis laevigata*	Fair	Saved
1378	8	Laurel Oak	*Quercus laurifolia*	Fair	Removed

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LANDSCAPE ARCHITECT LICENSE NUMBER LA 0000911 STATE OF FLORIDA
James K. Vinson, RLA
Mar 30, 2017

No.	Date	Revision	By
1	02-10-17	Revised Per City Comments	JKW

Designed by:	JKW
Drawn by:	ARS
Checked by:	MDS
Approved by:	JKW
Scale:	1"=30'
Date:	5/16
Job No.:	W13392.1

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Lndscp. Lic. No. LC0000298

OFFSITE TREE RETENTION PLAN

Walmart

STORE NO. 3873-00, ALACHUA (SEC I-75 HWY 441), FLORIDA

Sheet No.
TR-8

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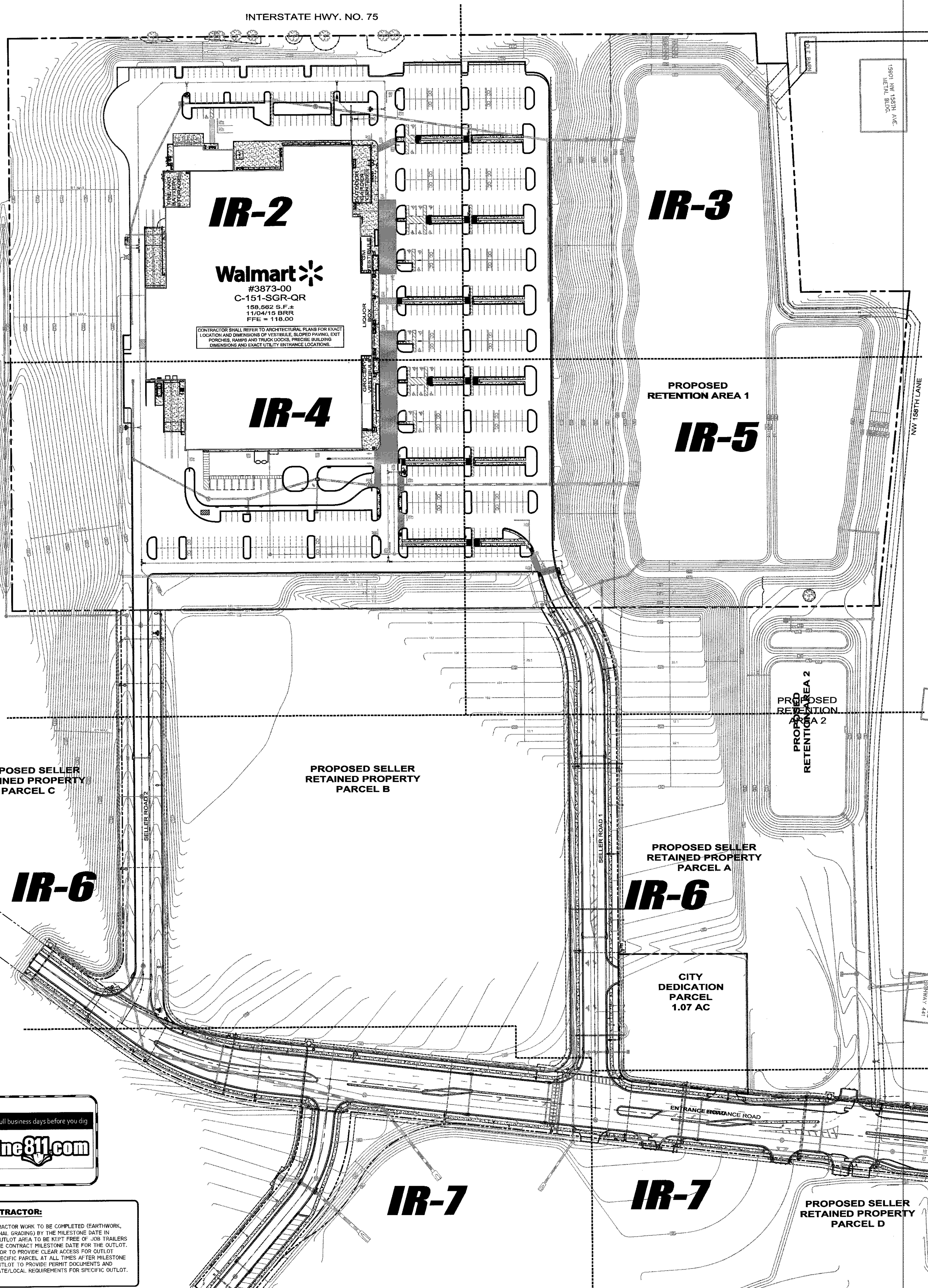

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ALERT TO CONTRACTOR:

ALL WM GENERAL CONTRACTOR WORK TO BE COMPLETED (EARTHWORK, FINAL UTILITIES, AND FINAL GRADING) BY THE MILESTONE DATE IN PROJECT DOCUMENTS. OUTLOT AREA TO BE KEPT FREE OF JOB TRAILERS AND STORAGE AFTER THE CONTRACT MILESTONE DATE FOR THE OUTLOT. WM GENERAL CONTRACTOR TO PROVIDE CLEAR ACCESS FOR OUTLOT CONTRACTOR TO THE SPECIFIC PARCEL AT ALL TIMES AFTER MILESTONE DATE. PURCHASER OF OUTLOT TO PROVIDE PERMIT DOCUMENTS AND SWPPP REQUIRED BY STATE/LOCAL REQUIREMENTS FOR SPECIFIC OUTLOT.

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NOTE: WALMART SPECIFICATIONS (SECTION 2812 AND 2900) INCLUDED BY REFERENCE AND MUST BE ACQUIRED BY ALL BIDDERS. DO NOT BID PROJECT WITHOUT SPECIFICATIONS.

THE DESIGN PROFESSIONAL DENIES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS AND DESIGN INTENT THEY CONVEY OR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW THE DESIGN PROFESSIONALS GUIDANCE WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES OR CONFLICTS WHICH ARE ALLEGED.

CONTROL ZONE "A" TURF WEEKLY DEMAND ZONE CHART (AFTER ESTABLISHMENT PERIOD)

ZONE #	TYPE	WATER USE	GPM	RUN TIME	GPW
A-R1	TURF ROTOR	MOD.	78	100 MIN.	7,800
A-R2	TURF ROTOR	MOD.	75	100 MIN.	7,500
A-R3	TURF ROTOR	MOD.	70	75 MIN.	5,250
A-R4	TURF ROTOR	MOD.	81	75 MIN.	6,075
A-R5	TURF ROTOR	MOD.	70	100 MIN.	7,000
A-R6	TURF ROTOR	MOD.	70	100 MIN.	7,000
A-R7	TURF ROTOR	MOD.	70	100 MIN.	7,000
A-R8	TURF ROTOR	MOD.	70	100 MIN.	7,000
A-R9	TURF ROTOR	MOD.	75	100 MIN.	7,500
A-R10	TURF ROTOR	MOD.	85	75 MIN.	6,375
A-R11	TURF ROTOR	MOD.	87	75 MIN.	6,525
A-R12	TURF ROTOR	MOD.	84	75 MIN.	6,300
A-R13	TURF ROTOR	MOD.	74	100 MIN.	7,400
A-R14	TURF ROTOR	MOD.	72	100 MIN.	7,200
A-R15	TURF ROTOR	MOD.	68	100 MIN.	6,800
A-R16	TURF ROTOR	MOD.	72	100 MIN.	7,200
A-R17	TURF ROTOR	MOD.	74	100 MIN.	7,400
TOTAL				26.25 HR.	117,325

CONTROL ZONE "A" LOW-VOLUME WEEKLY DEMAND ZONE CHART (AFTER ESTABLISHMENT PERIOD)

ZONE #	TYPE	WATER USE	GPM	RUN TIME	GPW
A-D1	DRIP ZONE	LOW	38	60 MIN.	2,280
A-D2	DRIP ZONE	LOW	62	60 MIN.	3,720
A-D3	DRIP ZONE	LOW	20	60 MIN.	1,200
A-D4	DRIP ZONE	LOW	55	60 MIN.	3,300
A-D5	DRIP ZONE	LOW	72	60 MIN.	4,320
A-D6	DRIP ZONE	LOW	65	60 MIN.	3,900
A-D7	DRIP ZONE	LOW	72	60 MIN.	4,320
A-D8	DRIP ZONE	LOW	20	60 MIN.	1,200
A-T1	TREE DRIP RING	LOW	90	60 MIN.	5,400
A-T2	TREE DRIP RING	LOW	90	60 MIN.	5,400
A-T3	TREE DRIP RING	LOW	90	60 MIN.	5,400
A-T4	TREE DRIP RING	LOW	91	60 MIN.	5,460
A-T5	TREE DRIP RING	LOW	90	60 MIN.	5,400
A-T6	TREE DRIP RING	LOW	81	60 MIN.	4,860
A-T7	TREE DRIP RING	LOW	91	60 MIN.	5,460
A-T8	TREE DRIP RING	LOW	91	60 MIN.	5,460
A-T9	TREE DRIP RING	LOW	90	60 MIN.	5,400
A-T10	TREE DRIP RING	LOW	76	60 MIN.	4,560
A-T11	TREE DRIP RING	LOW	55	60 MIN.	3,300
A-T12	TREE DRIP RING	LOW	58	60 MIN.	3,460
A-T13	TREE DRIP RING	LOW	98	60 MIN.	5,880
A-T14	TREE DRIP RING	LOW	91	60 MIN.	5,460
A-T15	TREE DRIP RING	LOW	91	60 MIN.	5,460
TOTAL				23 HR.	94,620

STATION RUN TIMES ARE BASED ON APPROXIMATE AMOUNT OF TIME REQUIRED TO APPLY ¾" OF WATER TO IRRIGATED AREA.

ADDITIONAL RUN TIME MAY BE NEEDED TO ACCOUNT FOR EMISSION DEVICE EFFICIENCIES AND EVAPOTRANSPIRATION.

CONTROL ZONES ARE TO BE STACKED TO MAXIMIZE THE PERFORMANCE OF THE WATER SOURCE WHEN POSSIBLE

JULIE ZIGLER
CID, CLIA #32070

ROTOR HEAD LEGEND AND NOZZLE CHART

Symbol	MFR	DESCRIPTION	Nozzle Type	Radius ft.	PSI	Flow GPM	PRECIP. IN/HR ■	PRECIP. IN/HR ▲
360° Arc ○	RAIN BIRD	5004+FCSR w/ a 5000 Plus MPR Nozzle or approved equal. Installed w/ SPX-FLEX & SPE-075 Barb Elbow	MPR-35-F	35'	45	6.62	.60	.69
			MPR-30-F	30'	45	5.78	.62	.71
			MPR-25-F	25'	45	3.82	.59	.68
180° Arc	RAIN BIRD	5004+FCSR w/ a 5000 Plus MPR Nozzle or approved equal. Installed w/ SPX-FLEX & SPE-075 Barb Elbow	MPR-35-H	35'	45	3.81	.60	.69
			MPR-30-H	30'	45	2.96	.63	.73
			MPR-25-H	25'	45	1.98	.61	.70
90° Arc	RAIN BIRD	5004+FCSR w/ a 5000 Plus MPR Nozzle or approved equal. Installed w/ SPX-FLEX & SPE-075 Barb Elbow	MPR-35-Q	35'	45	1.92	.60	.70
			MPR-30-Q	30'	45	1.40	.60	.69
			MPR-25-Q	25'	45	1.00	.62	.71
360° Arc	RAIN BIRD	5004+FCSR w/ a 5000 Plus Standard Nozzle or approved equal. Installed w/ SPX-FLEX & SPE-075 Barb Elbow	1.5	35'	45	1.54	.24	.28
			2	37'	45	2.07	.29	.34
			2.5	37'	45	2.51	.35	.41
180° Arc	RAIN BIRD	5004+FCSR w/ a 5000 Plus MPR Nozzle or approved equal. Installed w/ SPX-FLEX & SPE-075 Barb Elbow	3	40'	45	3.09	.37	.43
			4	42'	45	4.01	.44	.51
			5	45'	45	5.09	.48	.56
90° Arc	RAIN BIRD	5004+FCSR w/ a 5000 Plus MPR Nozzle or approved equal. Installed w/ SPX-FLEX & SPE-075 Barb Elbow	6	46'	45	6.01	.55	.63
			8	47'	45	8.03	0.7	0.81

XERIGATION/DRIP LEGEND

Symbol	MFR	DESCRIPTION
	RAIN BIRD	XFD-09-12 drip tubing w/ .9 GPH emitters 12" on center, install tubing rows a maximum of 18" apart in shrub areas. All tubing shall be installed 2" below finished grade w/ 9" wire stakes five (5) feet on center, verify the layout and spacing in the field prior to starting work. All connection between drip tubing shall be made using XF dripline fittings.
	APPROVED	PVC supply and or exhaust header to drip tubing connection. If size not indicated then ¾" shall be installed (see details for more information).
▲	RAIN BIRD (NOT SHOWN)	MDCFCOUP & a MDCFCAP flush cap installed at end/middle of dripline PVC flush manifold line. Install flush cap inside a separate valve box. One at the end of tubing runs in each direction. Install a min. of one flush cap per 1000' of tubing in each direction on dripline flush manifold. Install 18" from paving. Install all flush equip. per manufacturer's specifications.
■	RAIN BIRD	SQ Series # SQ FUL installed on a 12" Poly-Flex Riser and SQ Nozzle Adapter #SQ ADP12 The Irrigation Contractor is to install the emission device 2" above the finished mulch layer.
●	RAIN BIRD	XFD-09-12 drip tubing with XF external barbed type fittings and accessories to be installed around trunk of tree (see tree drip ring detail).
○	RAIN BIRD	(2)-1300 A-F adjustable tree bubblers to be installed 3" above grade on a ½" Sch. 80 nipple. Install bubblers at edge of root ball on opposite sides of tree (typ).

ROTARY BODY LEGEND AND NOZZLE CHART

Symbol	MFR	DESCRIPTION	Nozzle Type	Radius ft.	PSI	Flow GPM	PRECIP. IN/HR ■	PRECIP. IN/HR ▲
	RAIN BIRD	1806-SAM-P45 (6" POP-UP) installed w/ SPX-FLEX & SPE-050 Barb Elbow	R13-18Q	18'	45	.49	.61	.70
			R17-24Q	24'	45	.92	.65	.75
	RAIN BIRD	1806-SAM-P45 (6" POP-UP) installed w/ SPX-FLEX & SPE-050 Barb Elbow	R-VAN1318	18'	45	.65	.61	.70
			R-VAN1724	24'	45	1.22	.65	.75
	RAIN BIRD	1806-SAM-P45 (6" POP-UP) installed w/ SPX-FLEX & SPE-050 Barb Elbow	R13-18H	18'	45	.98	.61	.70
			R17-24H	24'	45	1.84	.65	.75
	RAIN BIRD	1806-SAM-P45 (6" POP-UP) installed w/ SPX-FLEX & SPE-050 Barb Elbow	R-VAN1318	18'	45	1.31	.61	.70
			R-VAN1724	24'	45	2.45	.65	.75
	RAIN BIRD	1806-SAM-P45 (6" POP-UP) installed w/ SPX-FLEX & SPE-050 Barb Elbow	R-VAN1318	18'	45	1.47	.61	.70
			R-VAN1724	24'	45	2.76	.65	.75
	RAIN BIRD	1806-SAM-P45 (6" POP-UP) installed w/ SPX-FLEX & SPE-050 Barb Elbow	R13-18F	18'	45	1.96	.61	.70
			R17-24F	24'	45	3.67	.65	.75

PIPE, VALVE AND EQUIPMENT LEGEND

Symbol	MFR	DESCRIPTION
	APPROVED	3" water meter provided by Owners Representative. The Irrigation Contractor shall tie to the discharge side of meter and install a 3" RPZ type backflow device per local code.
	APPROVED	1" water meter provided by Owners Representative. The Irrigation Contractor shall tie to the discharge side of meter and install a 1¼" RPZ type backflow device per local code.
	RAIN BIRD	PEB Series electric remote-control valve & a line size PVC ball valve to be installed within a Rain Bird VB-STD valve box. (refer to valve ID on plan for size).
	RAIN BIRD	PEB Series electric remote-control valve & a line size PVC ball valve and a Large Capacity Disk filter #LCRBY150D to be installed per the manufacturer written installation instructions. Install valve within a Rain Bird VB-SPR valve box per the manufacturer written installation instructions. A Rain Bird XCZ-PRB-150-COM Control zone kit can be used for drip zones with a flow rate less than 40 gpm.
	MATCO	Line size brass gate valve installed in Rain Bird VB-10RND valve box w/ green lid.
	RAIN BIRD	33-DLRC ¾" Quick Coupler installed within a Rain Bird VB-10RND valve box. The IRR. Contractor shall provide (2) Hose Swivels (SH-0), (2) Valve Keys (33-DK) & (2) Locking Cover Keys (2049) to Owners Representative at completion of project.
(A)	HYDROPOINT	HYDROPOINT0021 stainless steel pedestal mounted controller with a HYDROPOINT0042 wireless rain sensor. Owner furnished/contractor installed. Location and installation shall be approved by Owner prior to installation. Input required: 120 VAC +/- 10%, (60 Hz) or 220 VAC +/- 10%, (60 Hz)
(B)	RAIN BIRD	ESP4ME 4 Station controller with a RSD-BEx rain sensor to be installed in this approximate location per the manufacturer written installation instructions. Coordinate actual location with the electrical drawings at the site prior to the start of work. Input required: 120 VAC +/- 10%, 60 Hz.
(C)	RAIN BIRD	ESP12LXME: 12 Station controller 120VAC for controller "C" only. Controller is to be installed in this approximate location. Controller is to be pedestal mounted requiring a #LXMMPED metal pedestal with a #LXMM metal cabinet. Install a RSD-BEx rain sensor for the controller. Coordinate actual location with the electrical drawings and at site prior to the start of work. Install the controller and rain sensor per the manufacturer written instructions. Input required: 120 VAC +/- 10%, 60 Hz.
— — —	APPROVED	PVC Class 200 IPS Plastic Pipe "Mainline". The diagrammatic location shown on plan is approximate and shall be field located per the Owners Representatives approval. Pipe sizes 2½" inch or smaller shall have bell and socket joints. Pipe sizes larger then than 2½" inch shall have snap connections with rubber gasket joints. Install 18" below grade.
—1"—	APPROVED	PVC Class 200 IPS Plastic Pipe "Lateral". The diagrammatic location shown on plan is approximate and shall be field located per the Owners Representatives approval. Pipe sizes 2½" inch or smaller shall have bell and socket joints. Pipe sizes larger then than 2½" inch shall have snap connections with rubber gasket joints. Install 12" below grade.
▬ ▬ ▬	APPROVED	PVC Schedule 40 IPS Plastic Pipe "Sleeve". Sizes shall be twice the diameter of the pipe or wire bundle carried. Place below all paving, hardscape etc. and as directed by the Owners Authorized representative. Extend Sleeves 12" beyond paving at each end.
*	APPROVED	Install three spare control wires plus a common from the irrigation controller location to the nearest valve box located in this approximate area.
	HYDROPOINT	HYDROPOINT0030 flow meter. Owner furnished/contractor installed. Flow Meter shall be installed within a Rain Bird VB-STD-H valve box per manufacturer's written recommendations.
	HYDROPOINT	HYDROPOINT0040 master valve. Owner furnished/contractor installed. Master Valve to be installed within a Rain Bird VB-STD-H valve box per manufacturer's written recommendations.
	HOOVER	Hoover Fiberglass Enclosure and Automatic Flushing Filter (see detail this sheet for more information). Electrical power to irrigation equipment supplied by owners Rep.

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REGISTERED LANDSCAPE ARCHITECT JAMES K WINTER LA 0000911 STATE OF FLORIDA
James K. Winter, RLA
LA0000911
Mar 30, 2017

No.	Date	Revision	By
1			
2			
3			
4			
5			
6			
7			

Designed by:	JSM
Drawn by:	JSM
Checked by:	JKW
Approved by:	JKW
Scale:	1" = 100'
Date:	2/17/15
Job No.:	W13392.1

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OVERALL PRELIMINARY IRRIGATION PLAN

Walmart

STORE NO. 3873-00, ALACHUA (SEC I-75 HWY 441), FLORIDA

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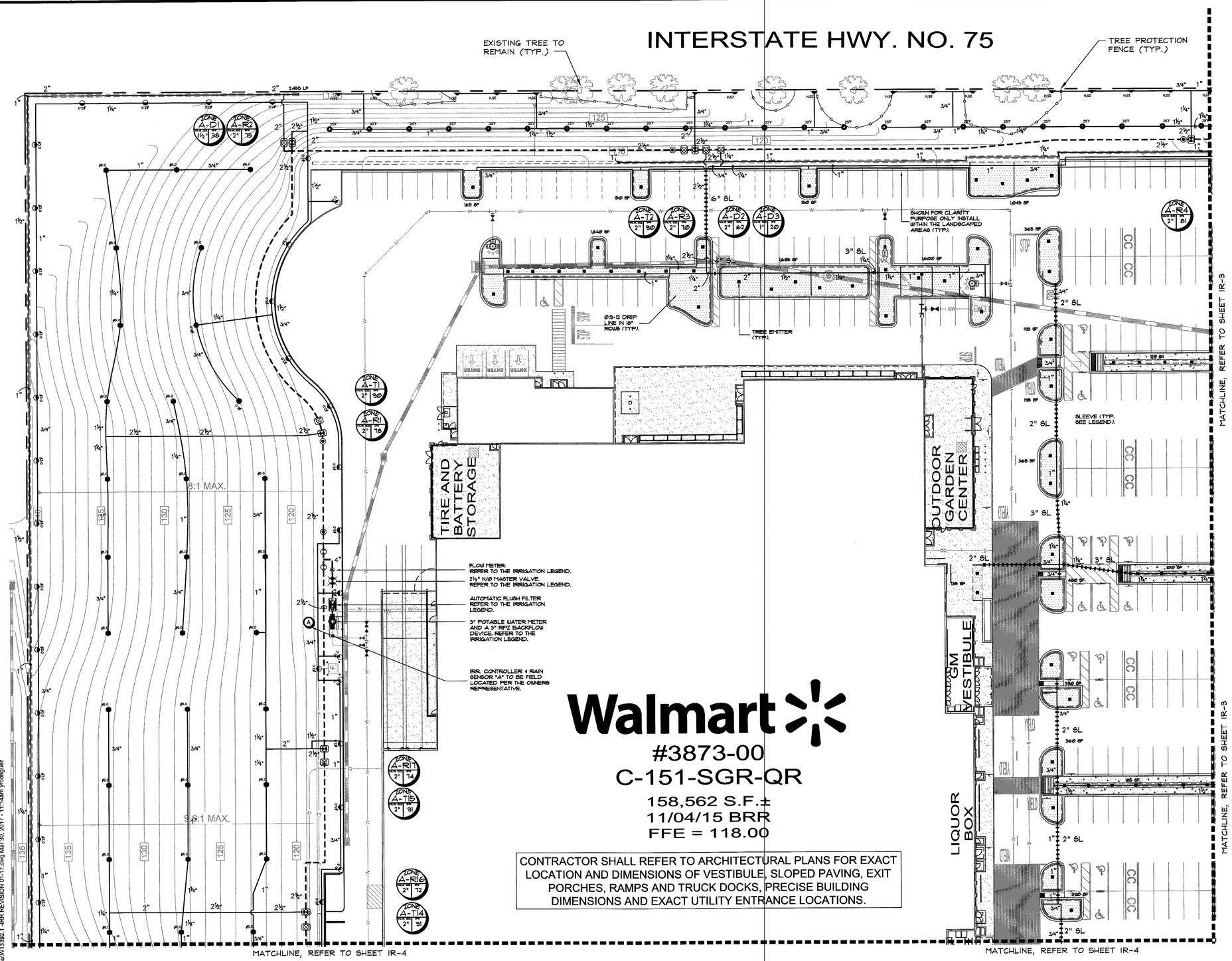
IR-1



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C-151-SGR-QR

158,562 S.F.±
11/04/15 BRR
FFE = 118.00

CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND DIMENSIONS OF VESTIBULE, SLOPED PAVING, EXIT PORCHES, RAMPS AND TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT UTILITY ENTRANCE LOCATIONS.

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SCALE: 1"= 30'

JULIE ZIGLER
CID, CLIA #32070

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- Texas

REGISTERED LANDSCAPE ARCHITECT JAMES K. WALTER STATE OF FLORIDA
James K. Walter, RLA
LA0000911
Mar 30, 2017

No.	Date	Revision	By

Designed by:	JSM
Drawn by:	JSM
Checked by:	JKW
Approved by:	JKW
Scale:	1" = 30'
Date:	2/17/15
Job No.:	W13392.1

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Bob & Jason McElroy
jason@irrdesign.com

PRELIMINARY IRRIGATION PLAN

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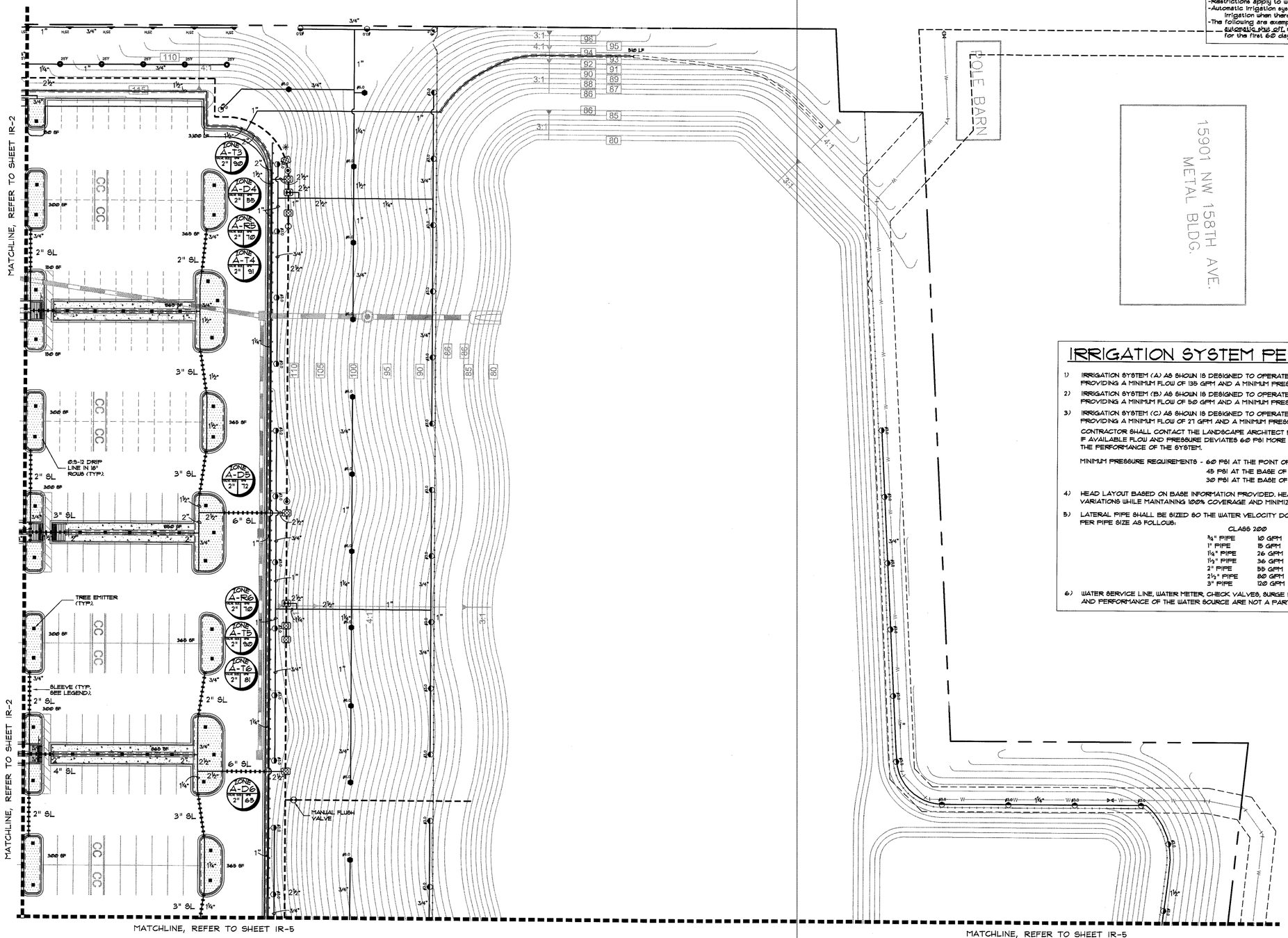
STORE NO. 3873-00, ALACHUA (SEC I-75 HWY 441), FLORIDA

Sheet No.
IR-2

JULIE ZIGLER
CID, CLIA #32070



WATER RESTRICTIONS

Outdoor irrigation is limited to one day a week during Eastern Standard Time (from the first Sunday in November until the second Sunday in March) and two days a week during Daylight Saving Time (from the second Sunday in March until the first Sunday in November).
Water only if necessary and not between 10:00 a.m. and 4:00 p.m.
Water for no more than one hour per zone.

Location	Watering Days (DST)	Watering Days (EST)
Non Residential properties	Tuesday and/or Friday	Tuesday

- Irrigation is restricted between 10 am and 4 pm (when evaporation is greatest).
- Irrigation is limited to no more than one hour or 3/4 inch per irrigation zone per irrigation day.
- Restrictions apply to wells, lakes, creeks, and city water.
- Automatic irrigation systems must have a functioning shut off device which bypasses irrigation when there is sufficient moisture.
- The following are exempt: vegetable gardens, hand watering with a spray nozzle with an automatic shut off, reclaimed water, athletic fields, micro-irrigation, and new landscapes for the first 60 days.

IRRIGATION SYSTEM PERFORMANCE NOTES

1) IRRIGATION SYSTEM (A) AS SHOWN IS DESIGNED TO OPERATE FROM A POTABLE WATER METER PROVIDING A MINIMUM FLOW OF 135 GPM AND A MINIMUM PRESSURE OF 60 PSI.

2) IRRIGATION SYSTEM (B) AS SHOWN IS DESIGNED TO OPERATE FROM A 5 HP PUMP STATION PULLING FROM A CISTERN PROVIDING A MINIMUM FLOW OF 50 GPM AND A MINIMUM PRESSURE OF 60 PSI.

3) IRRIGATION SYSTEM (C) AS SHOWN IS DESIGNED TO OPERATE FROM A POTABLE WATER METER PROVIDING A MINIMUM FLOW OF 21 GPM AND A MINIMUM PRESSURE OF 60 PSI.

CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION IF AVAILABLE FLOW AND PRESSURE DEVIATES 60 PSI MORE THEN 5% AND WILL AFFECT THE PERFORMANCE OF THE SYSTEM.

MINIMUM PRESSURE REQUIREMENTS - 60 PSI AT THE POINT OF CONNECTION
45 PSI AT THE BASE OF THE POP-UP ROTOR HEADS
30 PSI AT THE BASE OF THE DRIP EMITTER

4) HEAD LAYOUT BASED ON BASE INFORMATION PROVIDED. HEADS SHALL BE ADJUSTED TO ACCOMMODATE FIELD VARIATIONS WHILE MAINTAINING 100% COVERAGE AND MINIMIZING OVERSPRAY ONTO PAVED AREAS AND BUILDINGS.

5) LATERAL PIPE SHALL BE SIZED SO THE WATER VELOCITY DOES NOT EXCEED 5 FEET PER SECOND. MAXIMUM GPM PER PIPE SIZE AS FOLLOWS:

CLASS 200

¾" PIPE	10 GPM
1" PIPE	15 GPM
1¼" PIPE	26 GPM
1½" PIPE	36 GPM
2" PIPE	55 GPM
2½" PIPE	80 GPM
3" PIPE	120 GPM

6) WATER SERVICE LINE, WATER METER, CHECK VALVES, SURGE PROTECTION, ETC. AND PERFORMANCE OF THE WATER SOURCE ARE NOT A PART OF THESE DRAWINGS.

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0 15 30 60
SCALE: 1" = 30'

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LANDSCAPE ARCHITECT
LICENSED
LA 0000911
STATE OF FLORIDA
James A. Montgomery, RLA
Mar 30, 2017

No.	Date	Revision	By
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4			
5			
6			
7			

Designed by:	JSM
Drawn by:	JSM
Checked by:	JKW
Approved by:	JKW
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PRELIMINARY IRRIGATION PLAN

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Sheet No.
IR-3

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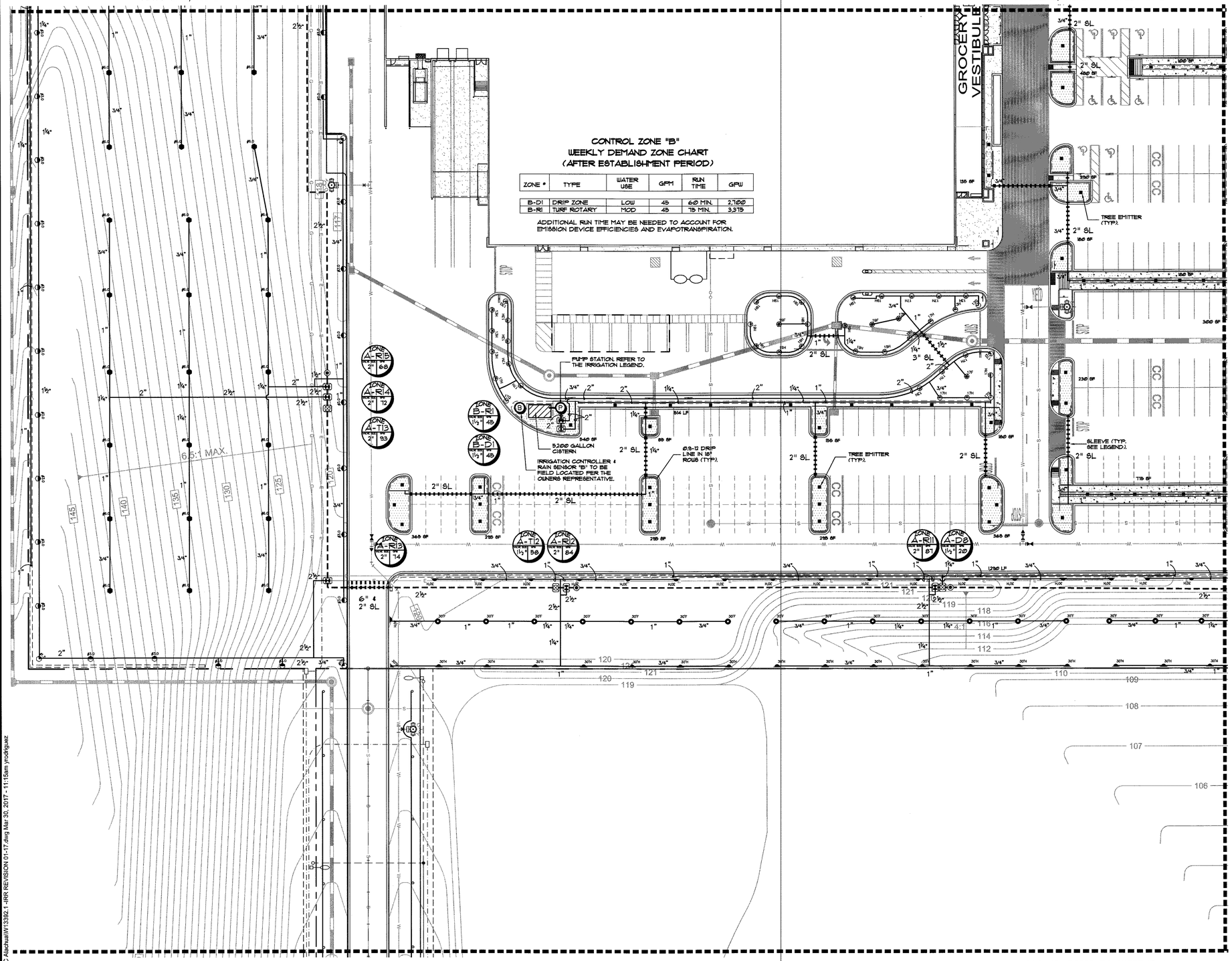
MATCHLINE, REFER TO SHEET IR-2

MATCHLINE, REFER TO SHEET IR-2



MATCHLINE, REFER TO SHEET IR-5

MATCHLINE, REFER TO SHEET IR-5

MATCHLINE, REFER TO SHEET IR-6

MATCHLINE, REFER TO SHEET IR-6

CONTROL ZONE "B" WEEKLY DEMAND ZONE CHART (AFTER ESTABLISHMENT PERIOD)

ZONE #	TYPE	WATER USE	GPM	RUN TIME	GPW
B-D1	DRIP ZONE	LOW	45	60 MIN.	2,700
B-R1	TURF ROTARY	MOD	45	75 MIN.	3,375

ADDITIONAL RUN TIME MAY BE NEEDED TO ACCOUNT FOR EMISSION DEVICE EFFICIENCIES AND EVAPOTRANSPIRATION.

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SCALE: 1" = 30'

JULIE ZIGLER
CID, CLIA #32070

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LANDSCAPE ARCHITECT CERTIFICATE OF AUTHORIZATION #LA0000911 STATE OF FLORIDA
REGISTERED
James K. Kimble, RLA
LA0000911
Mar 30, 2017

No.	Date	Revision	By

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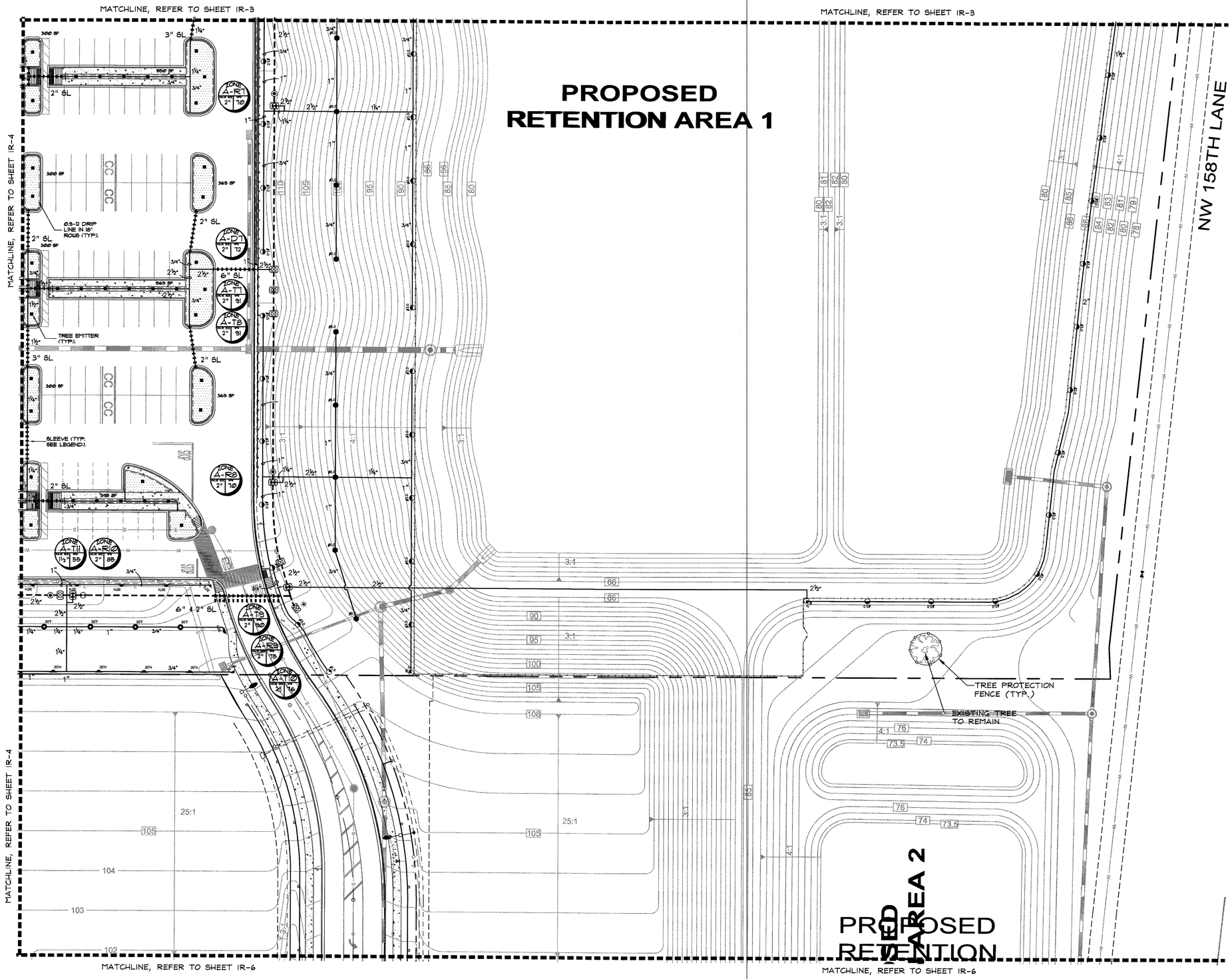

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REGISTERED LANDSCAPE ARCHITECT STATE OF FLORIDA LA 0000011

James K. Winter, RLA
Lic. No. LA0000011
Mar 30, 2017

No.	Date	Revision	By

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PRELIMINARY IRRIGATION PLAN

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Sheet No.
IR-5

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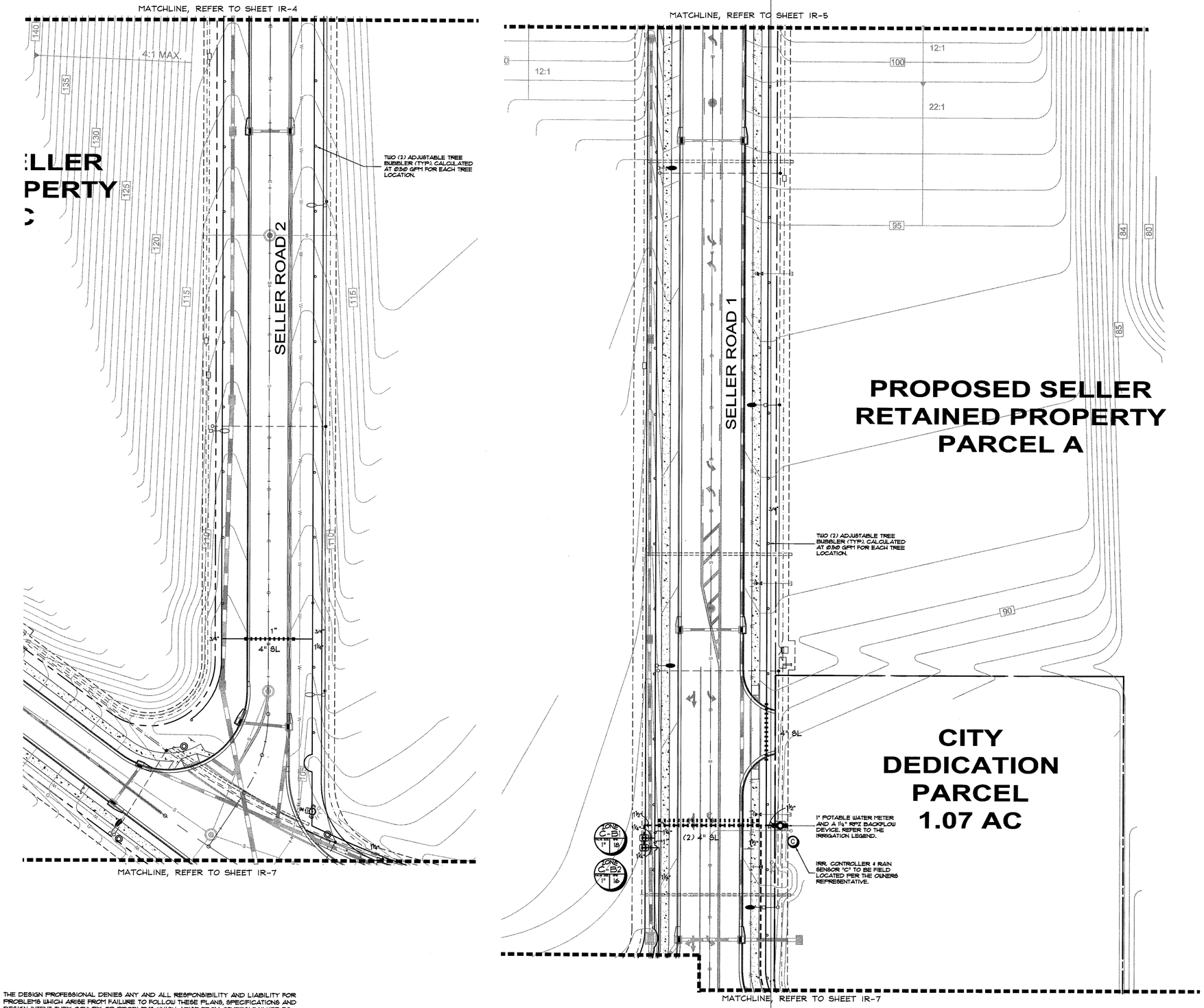

JULIE ZIGLER
CID, CLIA #32070

CONTROL ZONE "C"
WEEKLY DEMAND ZONE CHART
(AFTER ESTABLISHMENT PERIOD)

ZONE #	TYPE	WATER USE	GPM	RUN TIME	GPW
C-B1	TREE BUBBLER	LOW	18	30 MIN.	540
C-B2	TREE BUBBLER	LOW	16	30 MIN.	480
C-B3	TREE BUBBLER	LOW	16	30 MIN.	480
C-B4	TREE BUBBLER	LOW	19	30 MIN.	570
TOTAL				2 HR.	2070

ADDITIONAL RUN TIME MAY BE NEEDED TO ACCOUNT FOR EMISSION DEVICE EFFICIENCIES AND EVAPOTRANSPIRATION.

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REGISTERED LANDSCAPE ARCHITECT JAMES K. WINTER LA 0000911 STATE OF FLORIDA
James K. Winter, RLA
LA0000911
Mar 30, 2017

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IRRIGATION PLAN

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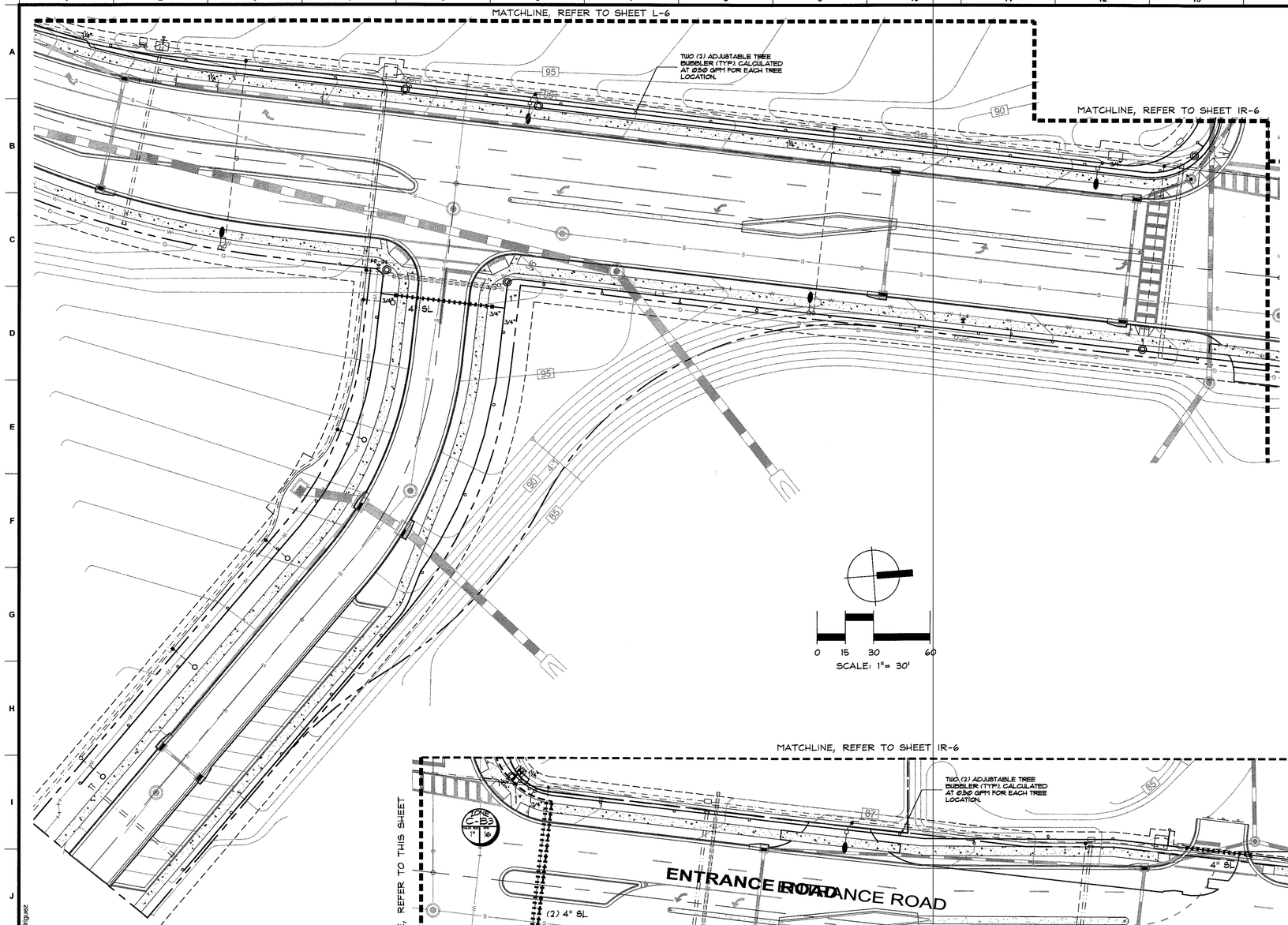
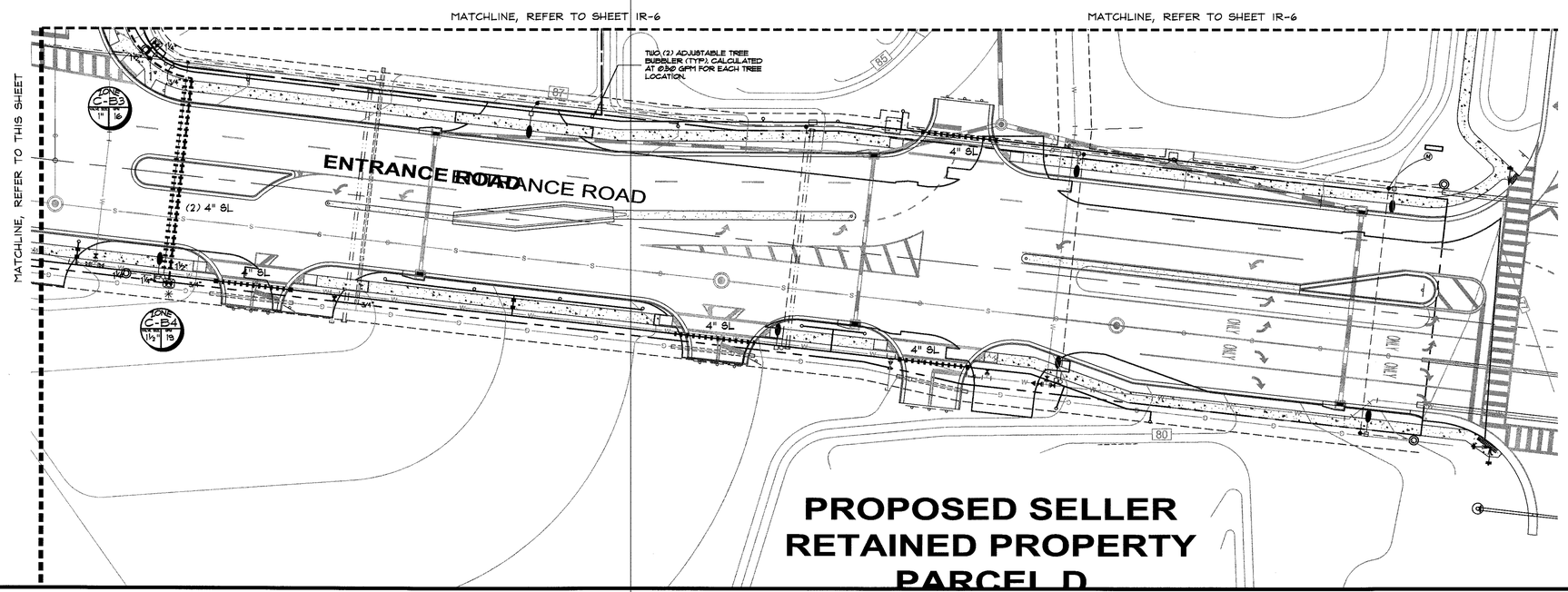
Sheet No.
IR-6





GENERAL NOTES

1. THE DRAWINGS ARE DIAGRAMMATIC. THE CONTRACTOR SHALL NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM WHEN ITS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS, GRADE DIFFERENCES OR DIFFERENCES IN AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTION OR DIFFERENCE SHOULD BE BROUGHT TO THE ATTENTION OF THE OWNERS AUTHORIZED REPRESENTATIVE. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS.
2. ALL WORK SHALL CONFORM TO ANY AND ALL APPLICABLE REGULATIONS AND CODES FOR THE LOCATION OF THE WORK. THE INSTALLER SHALL OBTAIN ANY NECESSARY LOCATES, PERMITS AND INSPECTIONS.
3. ALL WORK SHALL BE CLOSELY COORDINATED WITH THAT OF OTHER TRADES, IN ORDER TO AVOID CONFLICTS. REFER TO LANDSCAPE AND UTILITIES PLANS WHEN TRENCHING TO AVOID TREES, SHRUBS AND UNDERGROUND UTILITIES.
4. ALL MATERIAL AND LABOR REQUIRED TO PROVIDE A COMPLETE, OPERATIONAL AND FULLY GUARANTEED SYSTEM SHALL BE CONSIDERED PART OF THE WORK, WHETHER OR NOT THEY ARE SPECIFICALLY INDICATED IN THE DOCUMENTS.
5. THE CONTRACTOR SHALL PREPARE AN AS-BUILT DRAWING ON A REPRODUCIBLE PAPER (SEPIA OR MYLAR SHOWING ALL IRRIGATION INSTALLED. A MYLAR OR SEPIA OF THE ORIGINAL PLAN MAYBE OBTAINED FROM THE LANDSCAPE ARCHITECT FOR A FEE. THE DRAWING SHALL LOCATE ALL MAINLINE AND VALVES BY SHOWING EXACT MEASUREMENTS FROM LANDMARKS AND HARD SURFACES. INDICATE THE INSTALLED WIRE DIRECTION.
6. ALL HEADS SHALL BE OF THE PROPER TYPE FOR THE AREAS WHERE LOCATED AND SHALL BE INSTALLED PLUMB WITH THE PROPER HEIGHT. ALL HEADS AND OTHER EQUIPMENT SHALL BE INSTALLED WITH ADEQUATE AND UNIFORM CLEARANCE FROM ALL HARD-SCAPING TO MINIMIZE WATER OVER-SPRAY ON IMPERVIOUS AREAS.
7. CONTRACTOR SHALL PERFORM PRESSURE AND VOLUME TEST ON IRRIGATION WATER SOURCE OVER A CONTINUOUS 24 HOUR PERIOD PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION WORK. SHOULD THE AVAILABLE SUPPLY NOT BE ADEQUATE TO MEET THE DEMANDS OF THE IRRIGATION SYSTEM AS DESIGNED THE CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION FOR DESIGN MODIFICATIONS.
8. HIGH VOLTAGE POWER SUPPLY TO THE IRRIGATION CONTROLLER SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE CONTROLLER AND THE LOW VOLTAGE WIRES. THE FINAL LOCATION OF THE AUTOMATIC CONTROLLER(S) SHALL BE APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION.
9. ALL CONTROL WIRING SHALL BE INSTALLED UNDER MAINLINE, IF NOT POSSIBLE THEN ELECTRIC CONDUIT SHALL BE USED FOR WIRE PROTECTION USING FULL BOXES EVERY 150' O.C. WIRES SHALL BE TAPED EVERY 20 L.F. WITH ADEQUATE SLACK AND SURGE/EXPANSION LOOPS AND SHALL BE SPLICED ONLY IN VALVE BOXES, USING RAIN BIRD DB SERIES CONNECTORS. THE CONTROL WIRE SHALL BE 14-1 UF PVC JACKETED, SINGLE CONDUCTOR CABLE, USING RED FOR "HOT" AND WHITE FOR VALVE COMMON. (SEE PLAN FOR SPARE WIRE LOCATIONS).
10. ALL PIPING AND WIRE PASSING UNDER PAVED AREAS SHALL BE SLEEVED WITH SCH. 40 PVC PIPE, SIZED A MINIMUM OF TWO NOMINAL SIZES LARGER THAN CONTAINED PIPE.
11. ANY PIPING SHOWN OUTSIDE THE PROPERTY LINE OR RUNNING OUTSIDE A LANDSCAPE AREA IS SHOWN THERE FOR CLARITY ONLY. ALL LINES SHALL BE INSTALLED ON THE PROPERTY AND INSIDE THE LANDSCAPE AREAS.
12. THE INSTALLER SHALL BE EXPECTED TO BE FAMILIAR WITH AND FOLLOW THE INSTRUCTIONS CONTAINED HEREIN, ON THE DRAWINGS, IN THE CONSTRUCTION DETAILS AND IN THE WRITTEN SPECIFICATIONS. SHOULD A CONFLICT BE DISCOVERED WITHIN THE DOCUMENTS, HE SHALL IMMEDIATELY NOTIFY THE PROJECT MANAGER AND REQUEST CLARIFICATION.
13. THE INSTALLER SHALL PROVIDE THE PROPERTY OWNER WITH AN IRRIGATION MAINTENANCE CHECKLIST & SEASONAL WATERING GUIDELINES.
14. THE IRRIGATION SYSTEM SHALL BE MAINTAINED AND MANAGED TO ENSURE WATER EFFICIENCY AND PREVENT WASTEFUL PRACTICES. THIS SHALL INCLUDE, BUT NOT LIMITED TO, RESETTING THE AUTOMATIC CONTROLLER ACCORDING TO THE SEASON, FLUSHING THE FILTERS, TESTING THE RAIN SENSOR DEVICES, MONITORING, ADJUSTING & REPAIRING THE IRRIGATION EQUIPMENT SUCH THAT THE EFFICIENCY OF THE SYSTEM IS MAINTAINED.
15. ALL WORK SHALL BE GUARANTEED FOR ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE.
16. ALL SPRINKLER EQUIPMENT NOT OTHERWISE DETAILED OR SPECIFIED SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
17. THE CONTROLLER SHALL SCHEDULE PROGRAM "A" TO A REGULAR RUN-TIME SETTINGS FOR AFTER THE ESTABLISHMENT PERIOD OF THE PLANT MATERIAL. PROGRAM "B" SHALL BE USED DURING THE ESTABLISHMENT PERIOD AND TURNED OFF AFTER THE 30-60 DAYS OF PLANT INSTALLATION.

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James K. Walter RLA
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TREE DRIP RING 5.0 GPH (TYP.) REFER TO THE IRRIGATION LEGEND AND DETAILS.

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TIRE AND BATTERY STORAGE

OUTDOOR GARDEN CENTER

GM VESTIBULE

LIQUOR BOX

GROCERY VESTIBULE

PROPOSED RETENTION AREA 1

TREE DRIP RING 5.0 GPH (TYP.) REFER TO THE IRRIGATION LEGEND AND DETAILS.

0 25 50 100
SCALE: 1" = 50'

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REGISTERED LANDSCAPE ARCHITECT JAMES K. WINTER LA 0000911 STATE OF FLORIDA
James K. Winter, RLA
LA 0000911
Mar 30, 2017

No.	Date	Revision	By

Designed by:	JSM
Drawn by:	JSM
Checked by:	JKW
Approved by:	JKW
Scale:	1" = 50'
Date:	2/17/15
Job No.:	W13392.1
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IRR. DESIGN
AN IRRIGATION DESIGN COMPANY
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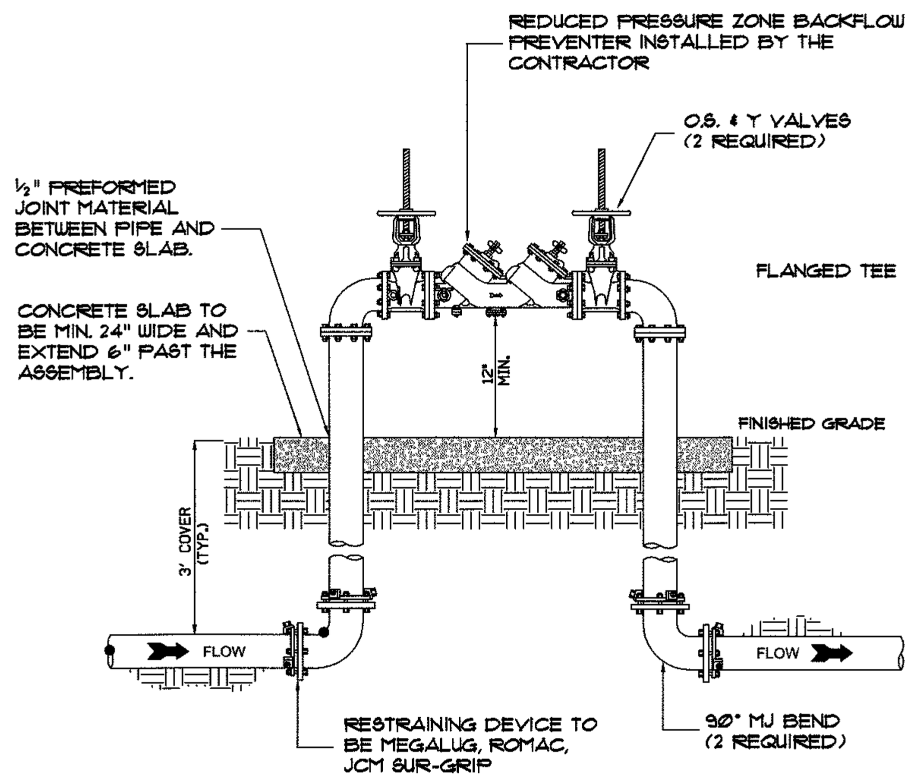
PRELIMINARY TREE IRRIGATION PLAN

Walmart

STORE NO. 3873-00, ALACHUA (SEC I-75 HWY 441), FLORIDA

Sheet No.
IR-8

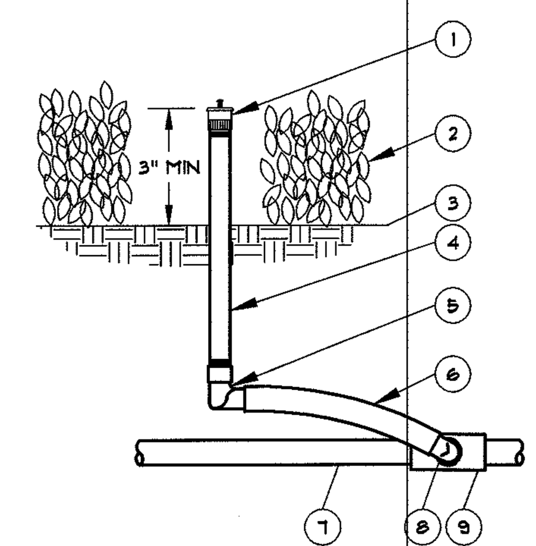


TYPE OF BACKFLOW PREVENTER MUST BE APPROVED BY ENVIRONMENTAL UTILITIES

REDUCED BACKFLOW PREVENTER NOTES:

1. BACKFLOW PREVENTER TO BE LOCATED NO MORE THAN 12" DOWNSTREAM FROM THE WATER METER, UNLESS OTHERWISE PERMITTED
2. ALL PIPE AND FITTINGS 2½" OR LARGER SHALL BE FLANGED DUCTILE IRON.
3. ALL FLANGED FITTINGS SHALL HAVE STAINLESS STEEL BOLTS AND NUTS.

REDUCED PRESSURE BACKFLOW PREVENTER



1. ADJUSTABLE FULL CIRCLE BUBBLER
2. PLANT MATERIAL
3. FINISH GRADE/TOP OF MULCH
4. UV RADIATION RESISTANT 1/2-INCH PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
5. 1/2-INCH FEMALE NPT x 0.490-INCH BARB ELBOW:
6. ½"x12" FLEXIBLE SWING PIPE,
7. PVC LATERAL PIPE
8. 1/2-INCH MALE NPT x .490-INCH BARB ELBOW:
9. SCH 40 TEE OR ELL

ADJUSTABLE FULL CIRCLE BUBBLER ON RISER

ROTARY BODY LEGEND AND NOZZLE CHART

Symbol	MFR	DESCRIPTION	Nozzle Type	Radius ft.	PSI	Flow GPM	PRECIP. IN/HR ■	PRECIP. IN/HR ▲
◔	RAIN BIRD	1806-SAM-P45 (6" POP-UP) Installed w/ SPX-FLEX & SPE-050 Barb Elbow	R13-18Q	18'	45	.49	.61	.70
			R17-24Q	24'	45	.92	.65	.75
◔	RAIN BIRD	1806-SAM-P45 (6" POP-UP) Installed w/ SPX-FLEX & SPE-050 Barb Elbow	R-VAN1318	18'	45	.65	.61	.70
			R-VAN1724	24'	45	1.22	.65	.75
◒	RAIN BIRD	1806-SAM-P45 (6" POP-UP) Installed w/ SPX-FLEX & SPE-050 Barb Elbow	R13-18H	18'	45	.98	.61	.70
			R17-24H	24'	45	1.84	.65	.75
◕	RAIN BIRD	1806-SAM-P45 (6" POP-UP) Installed w/ SPX-FLEX & SPE-050 Barb Elbow	R-VAN1318	18'	45	1.31	.61	.70
			R-VAN1724	24'	45	2.45	.65	.75
◕	RAIN BIRD	1806-SAM-P45 (6" POP-UP) Installed w/ SPX-FLEX & SPE-050 Barb Elbow	R-VAN1318	18'	45	1.47	.61	.70
			R-VAN1724	24'	45	2.76	.65	.75
⊕	RAIN BIRD	1806-SAM-P45 (6" POP-UP) Installed w/ SPX-FLEX & SPE-050 Barb Elbow	R13-18F	18'	45	1.96	.61	.70
			R17-24F	24'	45	3.67	.65	.75

ROTOR HEAD LEGEND AND NOZZLE CHART

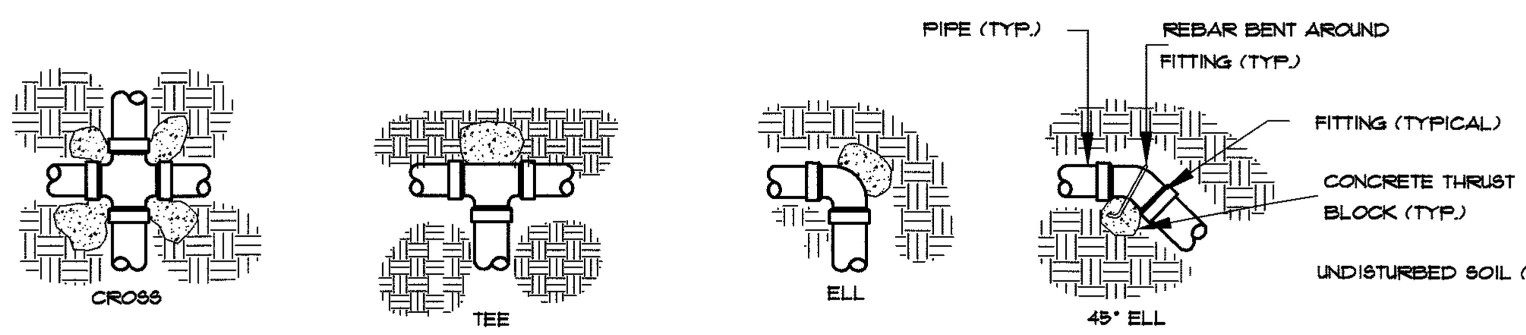
Symbol	MFR	DESCRIPTION	Nozzle Type	Radius ft.	PSI	Flow GPM	PRECIP. IN/HR ■	PRECIP. IN/HR ▲
360° Arc	RAIN BIRD	5004+FCSR w/ a 5000 Plus MPR Nozzle or approved equal. Installed w/ SPX-FLEX & SPE-075 Barb Elbow	MPR-35-F	35'	45	6.62	.60	.69
			MPR-30-F	30'	45	5.78	.62	.71
			MPR-25-F	25'	45	3.82	.59	.68
180° Arc	RAIN BIRD	5004+PCSR w/ a 5000 Plus MPR Nozzle or approved equal. Installed w/ SPX-FLEX & SPE-075 Barb Elbow	MPR-35-H	35'	45	3.81	.60	.69
			MPR-30-H	30'	45	2.96	.63	.73
			MPR-25-H	25'	45	1.98	.61	.70
90° Arc	RAIN BIRD	5004+PCSR w/ a 5000 Plus MPR Nozzle or approved equal. Installed w/ SPX-FLEX & SPE-075 Barb Elbow	MPR-35-Q	35'	45	1.92	.60	.70
			MPR-30-Q	30'	45	1.40	.60	.69
			MPR-25-Q	25'	45	1.00	.62	.71
360° Arc	RAIN BIRD	5004+PCSR w/ a 5000 Plus Standard Nozzle or approved equal. Installed w/ SPX-FLEX & SPE-075 Barb Elbow	1.5	35'	45	1.54	.24	.28
			2	37'	45	2.07	.29	.34
			2.5	37'	45	2.51	.35	.41
180° Arc	RAIN BIRD	5004+PCSR w/ a 5000 Plus MPR Nozzle or approved equal. Installed w/ SPX-FLEX & SPE-075 Barb Elbow	3	40'	45	3.09	.37	.43
			4	42'	45	4.01	.44	.51
90° Arc	RAIN BIRD	5004+PCSR w/ a 5000 Plus MPR Nozzle or approved equal. Installed w/ SPX-FLEX & SPE-075 Barb Elbow	5	45'	45	5.09	.48	.56
			6	46'	45	6.01	.55	.63
			8	47'	45	8.03	.07	.081

XERIGATION/DRIP LEGEND

Symbol	MFR	DESCRIPTION
(dashed box)	RAIN BIRD	XFD-09-12 drip tubing w/ .9 GPH emitters 12" on center, install tubing rows a maximum of 18" apart in shrub areas. All tubing shall be installed 2" below finished grade w/ 9" wire stakes five (5) feet on center, verify the layout and spacing in the field prior to starting work. All connection between drip tubing shall be made using XF dripline fittings.
(line)	APPROVED	PVC supply and or exhaust header to drip tubing connection. If size not indicated then ¾" shall be installed (see details for more information).
▲	RAIN BIRD (NOT SHOWN)	MDCFCOUP & a MDCFCAP flush cap installed at end/middle of dripline PVC flush manifold line. Install flush cap inside a separate valve box. One at the end of tubing runs in each direction. Install a min. of one flush cap per 1000' of tubing in each direction on dripline flush manifold. Install 18" from paving. Install all flush equip. per manufacturer's specifications.
■	RAIN BIRD	SQ Series # SQ FUL installed on a 12" Poly-Flex Riser and SQ Nozzle Adapter #SQ ADP12 The Irrigation Contractor is to install the emission device 2" above the finished mulch layer.
●	RAIN BIRD	XFD-09-12 drip tubing with XF external barbed type fittings and accessories to be installed around trunk of tree (see tree drip ring detail).
∘	RAIN BIRD	(2)-1300 A-F adjustable tree bubblers to be installed 3" above grade on a ½" Sch. 80 nipple. Install bubblers at edge of root ball on opposite sides of tree (typ).

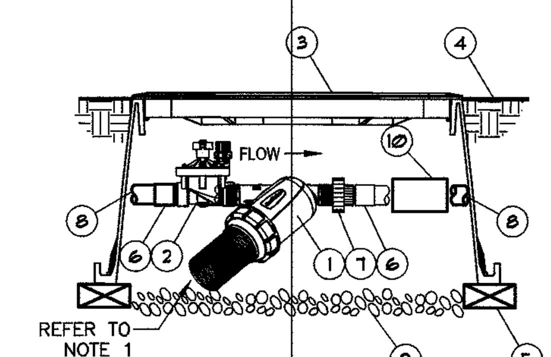
PIPE, VALVE AND EQUIPMENT LEGEND

Symbol	MFR	DESCRIPTION
(meter)	APPROVED	3" water meter provided by Owners Representative. The Irrigation Contractor shall tie to the discharge side of meter and install a 3" RPZ type backflow device per local code.
(meter)	APPROVED	1" water meter provided by Owners Representative. The Irrigation Contractor shall tie to the discharge side of meter and install a 1¼" RPZ type backflow device per local code.
(valve)	RAIN BIRD	PEB Series electric remote-control valve & a line size PVC ball valve to be installed within a Rain Bird VB-STD valve box. (refer to valve ID on plan for size).
(valve)	RAIN BIRD	PEB Series electric remote-control valve & a line size PVC ball valve and a Large Capacity Disk filter #LCRBY150D to be installed per the manufacturer written installation instructions. Install valve within a Rain Bird VB-SPR valve box per the manufacturer written installation instructions. A Rain Bird XCZ-PRB-150-COM Control zone kit can be used for drip zones with a flow rate less than 40 gpm.
(gate valve)	MATCO	Line size brass gate valve installed in Rain Bird VB-10RND valve box w/ green lid.
◉	RAIN BIRD	33-DLRC ¾" Quick Coupler installed within a Rain Bird VB-10RND valve box. The IRR. Contractor shall provide (2) Hose Swivels (SH-0), (2) Valve Keys (33-DK) & (2) Locking Cover Keys (2049) to Owners Representative at completion of project.
Ⓐ	HYDROPOINT	HYDROPOINT0021 stainless steel pedestal mounted controller with a HYDROPOINT0042 wireless rain sensor. Owner furnished/contractor installed. Location and installation shall be approved by Owner prior to installation. Input required: 120 VAC +/- 10%, (60 Hz) or 220 VAC +/- 10%, (60 Hz)
Ⓑ	RAIN BIRD	ESP4ME 4 Station controller with a RSD-BEx rain sensor to be installed in this approximate location per the manufacturer written installation instructions. Coordinate actual location with the electrical drawings at the site prior to the start of work. Input required: 120 VAC +/- 10%, 60 Hz.
Ⓒ	RAIN BIRD	ESP12LXME: 12 Station controller 120VAC for controller "C" only. Controller is to be installed in this approximate location. Controller is to be pedestal mounted requiring a #LXMMPED metal pedestal with a #LXMM metal cabinet. Install a RSD-BEx rain sensor for the controller. Coordinate actual location with the electrical drawings and at site prior to the start of work. Install the controller and rain sensor per the manufacturer written instructions. Input required: 120 VAC +/- 10%, 60 Hz.
— — —	APPROVED	PVC Class 200 IPS Plastic Pipe "Mainline". The diagrammatic location shown on plan is approximate and shall be field located per the Owners Representatives approval. Pipe sizes 2½" inch or smaller shall have bell and socket joints. Pipe sizes larger then than 2½" inch shall have snap connections with rubber gasket joints. Install 18" below grade.
—1"—	APPROVED	PVC Class 200 IPS Plastic Pipe "Lateral". The diagrammatic location shown on plan is approximate and shall be field located per the Owners Representatives approval. Pipe sizes 2½" inch or smaller shall have bell and socket joints. Pipe sizes larger then than 2½" inch shall have snap connections with rubber gasket joints. Install 12" below grade.
▬ ▬ ▬	APPROVED	PVC Schedule 40 IPS Plastic Pipe "Sleeve". Sizes shall be twice the diameter of the pipe or wire bundle carried. Place below all paving, hardscape etc. and as directed by the Owners Authorized representative. Extend Sleeves 12" beyond paving at each end.
✳	APPROVED	Install three spare control wires plus a common from the irrigation controller location to the nearest valve box located in this approximate area.
⊙	HYDROPOINT	HYDROPOINT0030 flow meter. Owner furnished/contractor installed. Flow Meter shall be installed within a Rain Bird VB-STD-H valve box per manufacturer's written recommendations.
(valve)	HYDROPOINT	HYDROPOINT0040 master valve. Owner furnished/contractor installed. Master Valve to be installed within a Rain Bird VB-STD-H valve box per manufacturer's written recommendations.
(enclosure)	HOOVER	Hoover Fiberglass Enclosure and Automatic Flushing Filter (see detail this sheet for more information). Electrical power to irrigation equipment supplied by owners Rep.



THRUST BLOCKS ARE TO BE CONSTRUCTED WITH 3,000 PSI CONCRETE AT 48 HOURS. STEEL REINFORCING RODS WILL BE REQUIRED IF SURROUNDING SOIL HAS A BEARING VALUE OF LESS THAN 2,000 PSF. THRUST BLOCKS REQUIRED AT ALL FITTINGS AND DIRECTION CHANGES ON ALL MAIN LINES 3" OR GREATER. NOTE THRUST BLOCK LOCATIONS ON AS-BUILT DRAWINGS.

THRUST BLOCK DETAIL

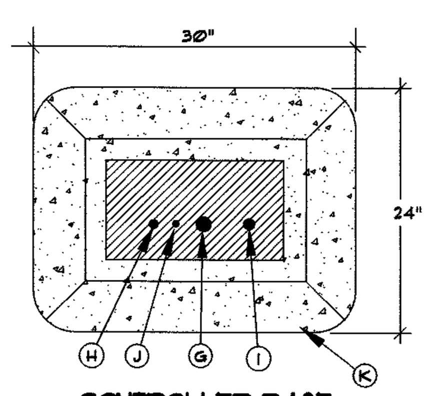


1. 2" RAIN BIRD LARGE CAPACITY FILTER WITH DISC: LCRBY200D SCREEN: LCRBY200S
2. 2" RAIN BIRD REMOTE CONTROL VALVE
3. VALVE BOX WITH COVER: RAIN BIRD VB-SPR-H
4. FINISH GRADE/TOP OF MULCH
5. BRICK (1 OF 4)
6. PVC SCH 40 MALE ADAPTER
7. PVC SCH 40 THREADED UNION
8. PVC LATERAL PIPE
9. 3" MINIMUM DEPTH OF 3/4" WASHED GRAVEL
10. INLINE PRESSURE REGULATOR

NOTE:
1. FILTER ASSEMBLY TO BE INSTALLED WITH SCREEN DIRECTION FACING A 45° DOWNWARD ANGLE WITH ENOUGH SPACE TO REMOVE SCREEN FOR MAINTENANCE. SOME APPLICATIONS MAY REQUIRE RAIN BIRD VALVE BOX EXTENSIONS TO ACHIEVE ACCEPTABLE SCREEN CLEARANCE.

LARGE CAPACITY DISK FILTER TYPICAL DETAIL

- (A) STAINLESS STEEL AUTOMATIC CONTROLLER ENCLOSURE ASSEMBLY.
- (B) LOW PROFILE ANTENNA.
- (C) WeatherTRAK ET PRO SERIES CONTROLLER. SEE DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- (D) CONTROLLER TRANSFORMER.
- (E) GFI ON/OFF POWER SWITCH RECEPTACLE. (OPTIONAL)
- (F) FLOW SENSOR CABLE AND MASTER VALVE WIRES PER SPECIFICATIONS.
- (G) 2" PVC SWEEP ELL AND CONDUIT FOR FLOW SENSOR CABLE AND MASTER VALVE WIRES.
- (H) 1" PVC SWEEP ELL AND CONDUIT FOR 120 VAC FROM METERED POWER SUPPLY.
- (I) 3" PVC SWEEP ELL AND CONDUIT FOR CONTROL WIRES.
- (J) 1" PVC SWEEP ELL AND CONDUIT FOR GROUNDING WIRE. WIRE SHALL BE AS STRAIGHT AS POSSIBLE. INSTALL GROUNDING WIRE PER LOCAL AND NATIONAL ELECTRIC CODES.
- (K) POURED CONCRETE BASE, SLOPE TO DRAIN.
- (L) FINISH GRADE. 2" BELOW TOP OF CONCRETE BASE.
- (M) FILL VOIDS WITH CONCRETE SLURRY MIX. SIZE AS REQUIRED. (OPTIONAL)
- (N) UNIVERSAL RADIO REMOTE INTERFACE.
- (O) NEATLY BUNDLE WIRES AND SECURE WITH WIRE TIES.
- (P) CONTROLLER STATION OUTPUT BOARD.
- (Q) WIRELESS RAIN SENSOR



CONTROLLER BASE DETAIL

NOTE:
MINIMUM CONCRETE BASE REQUIREMENTS. CONTRACTOR SHALL VERIFY NUMBER AND SIZE OF CONDUITS AND GROUND RODS REQUIRED FOR EACH ENCLOSURE INSTALLATION. USE ENCLOSURE MANUFACTURER'S TEMPLATE FOR PROPER LAG BOLT PLACEMENT. PROVIDE A MINIMUM OF 2" OF CONCRETE FROM LAG BOLT TO OPENING IN CONCRETE BASE FOR CONDUITS AND GROUND RODS.

- (A) GALV. NIPPLES (1 OF 8).
- (B) GALV. UNIONS (1 OF 2).
- (C) RPZ TYPE BACKFLOW
- (D) GALV. ELLS (1 OF 2).
- (E) SxT PVC ELL (1 OF 2).

THE IRRIGATION CONTRACTOR SHALL FIELD DETERMINE THE WIRELESS RAIN SENSOR LOCATION & INSTALL PER THE MANUFACTURER WRITTEN INSTALLATION INSTRUCTIONS.

1. (4) BRICKS FOR BOX SUPPORT.
2. 1 OF 2 SCH 80 UNIONS
3. 1 OF 2 SCH 40 SXT COUPLING
4. MASTER VALVE
5. DBY SPLICE CONNECTOR TYPICAL.
6. 1 OF 2 RAIN BIRD VB-STD-H VALVE BOXES
7. FLOW METER

1. 14/1 IRR. WIRE UNDER MAIN.
2. 8" GRAVEL TYP.
3. ASSORTED INTAKE SxS PVC FITTINGS.
4. (4) BRICKS FOR BOX SUPPORT.
5. MANIFOLD TEE
6. DBY SPLICE CONNECTOR TYPICAL.
7. LINE SIZE PVC BALL VALVE
8. 1 OF 2 CONTROL VALVE (TYP). (SEE LEGEND)
9. SCH 80 PVC UNION (TYP).
10. 1 OF 2 SCH 40 SXT COUPLING
11. 1 OF 2 RAINBIRD VB-STD-H VALVE BOX (TYP).
12. PVC 45 ELLS DISCHARGE FITTING (TYP).
13. EXPANSION COIL (TYP).

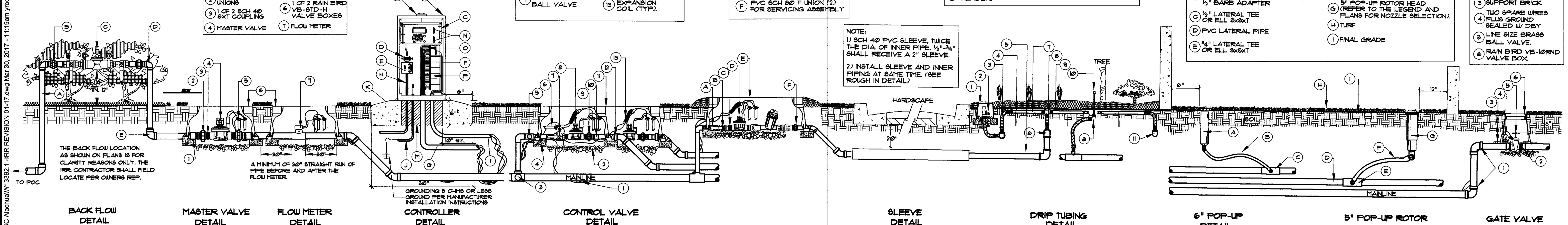
- (A) 1 OF 4 SXT COUPLING
- (B) LINE SIZE PVC BALL VALVE
- (C) 1 OF 8 SCH 80 NIPPLES.
- (D) DRIP VALVE KIT REFER TO THE RAIN BIRD LARGE CAPACITY FILTER DETAIL
- (E) RAINBIRD JB-SPR-H VALVE BOX (TYP).
- (F) PVC SCH 80 1" UNION (2) FOR SERVICING ASSEMBLY

NOTE:
1) SCH 40 PVC SLEEVE, TWICE THE DIA. OF INNER PIPE. ½"-¾" SHALL RECEIVE A 2" SLEEVE.
2) INSTALL SLEEVE AND INNER PIPING AT SAME TIME. (SEE ROUGH IN DETAIL)

1. RAINBIRD VB-6RND VALVE BOX.
2. SHUT OFF/FLUSHING VALVE.
3. BLANK TUBING AS NEEDED
4. SS STAPLES INSTALLED EVERY 3 FEET
5. DRIP ZONE LATERAL PIPE
6. PVC SUPPLY HEADER
7. DRIP TUBING INSTALLED IN 18" ROWS, 2" BELOW GRADE.
8. ASSORTED DRIP LINE INSERT FITTINGS.
9. FINISH GRADE
10. RAIN BIRD SQ NOZZLE & POLYFLEX RISER
11. (1 OF 2) PVC EXHAUST HEADER

- (A) 6" PRESSURE REGULATING SPRAY HEAD (REFER TO THE LEGEND AND PLANS FOR NOZZLE SELECTION).
- (B) ½"x12" FLEXIBLE SWING PIPE, ½" SPIRAL BARB ELBOWS (2), AND ½" BARB ADAPTER
- (C) ½" LATERAL TEE OR ELL SxSxT
- (D) PVC LATERAL PIPE
- (E) ¾" LATERAL TEE OR ELL SxSxT
- (F) ¾"x18" FLEXIBLE SWING PIPE, (2) ¾" SPIRAL BARB ELBOWS & ¾" BARB ADAPTER
- (G) 5" POP-UP ROTOR HEAD (REFER TO THE LEGEND AND PLANS FOR NOZZLE SELECTION).
- (H) TURF
- (I) FINAL GRADE

1. LINE SIZE PVC SxS ELL
2. LINE SIZE PVC MALE ADAPTERS
3. SUPPORT BRICK
4. TWO SPARE WIRES PLUS GROUND SEALED W/ DBY
5. LINE SIZE BRASS BALL VALVE.
6. RAIN BIRD VB-10RND VALVE BOX.



MASTER INSTALLATION DETAIL

NOT TO SCALE

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REGISTERED LANDSCAPE ARCHITECT JAMES K WINTER LA 0000911 STATE OF FLORIDA
James K. Winter, RLA
LA0000911
Mar 30, 2017

No.	Date	Revision	By
1			
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Designed by:	JSM
Drawn by:	JSM
Checked by:	JKW
Approved by:	JKW
Scale:	N/A
Date:	2/17/15
Job No.:	W13392.1

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PRELIMINARY IRRIGATION NOTES AND DETAILS

Walmart

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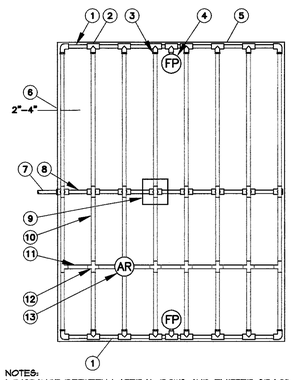
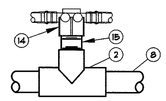
Sheet No.
IR-9



1. PVC EXHAUST HEADER
2. PVC SCH 40 TEE OR EL (TYPICAL)
3. BARB X MALE FITTING: RAIN BIRD XFF-M4 FITTING (TYPICAL)
4. FLUSH POINT (TYPICAL) SEE RAIN BIRD DETAIL "XFS FLUSH POINT" OR "XFS FLUSH POINT WITH BALL VALVE"
5. PERIMETER OF AREA
6. PERIMETER DRIPLINE PIPE TO BE INSTALLED 2"-4" FROM PERIMETER OF AREA
7. PVC SUPPLY PIPE FROM RAIN BIRD CONTROL ZONE KIT (SIZED TO MEET LATERAL FLOW DEMAND)
8. PVC SUPPLY MANIFOLD
9. CONNECTION FROM SUPPLY MANIFOLD TO DRIPLINE (TYPICAL)- SEE INSET A
10. SUB-SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE (TYPICAL) FOTABLE: XFS DRIPLINE NON-POTABLE: XFSP DRIPLINE
11. RAIN BIRD XF SERIES BLANK TUBING
12. BARB X BARB INSERT TEE OR CROSS: RAIN BIRD XFF-TEE OR RAIN BIRD XFD-CROSS (TYPICAL)
13. ½" AIR RELIEF VALVE: RAIN BIRD MODEL: ARV050 SEE RAIN BIRD XFS DETAILS FOR AIR RELIEF INSTALLATION
14. BARB X FEMALE FITTING: RAIN BIRD XFD-TFA-075 FITTING
15. ¾" PVC NIPPLE, LENGTH AS NECESSARY

NOTES:
1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE RAIN BIRD XF-SDI DRIPLINE INSTALLATION GUIDE FOR SUGGESTED SPACINGS.
2. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM LENGTH SHOWN IN THE ACCOMPANYING TABLE.
3. AIR RELIEF VALVE TO BE INSTALLED AT HIGH POINT OF AREA.
4. WHEN USING ITMM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.

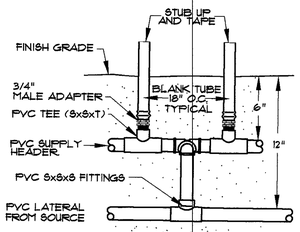
XFS SUB-SURFACE CENTER FEED DRIP LAYOUT DETAIL



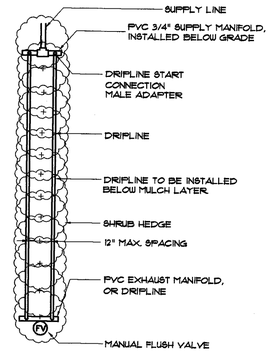
INSET A

XFS Dripline Maximum Lateral Lengths (Feet)

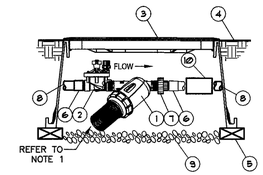
Inlet Pressure psi	12" Spacing		18" Spacing		24" Spacing	
	Nominal Flow (gph)		Nominal Flow (gph)		Nominal Flow (gph)	
	0.6	0.9	0.6	0.9	0.6	0.9
15	273	155	314	250	424	322
20	318	169	353	294	508	368
30	360	230	413	350	586	414
40	395	255	465	402	652	474
50	417	285	528	420	720	488
60	460	290	596	455	780	514



SUPPLY HEADER ROUGH IN DETAIL



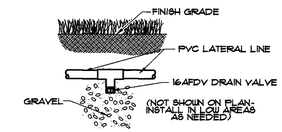
SHRUB DRIP LAYOUT DETAIL



1. 2" RAIN BIRD LARGE CAPACITY FILTER WITH DISC: LCRBY200D SCREEN: LCRBY200S
2. 2" RAIN BIRD REMOTE CONTROL VALVE
3. VALVE BOX WITH COVER: RAIN BIRD VB-5PR-H
4. FINISH GRADE/TOP OF MULCH
5. BRICK (1 OF 4)
6. PVC SCH 40 MALE ADAPTER
7. PVC SCH 40 THREADED UNION
8. PVC LATERAL PIPE
9. 3" MINIMUM DEPTH OF 3/4" WASHED GRAVEL
10. INLINE PRESSURE REGULATOR

NOTE:
1. FILTER ASSEMBLY TO BE INSTALLED WITH SCREEN DIRECTION FACING A 45° DOWNWARD ANGLE WITH ENOUGH SPACE TO REMOVE SCREEN FOR MAINTENANCE. SOME APPLICATIONS MAY REQUIRE RAIN BIRD VALVE BOX EXTENSIONS TO ACHIEVE ACCEPTABLE SCREEN CLEARANCE.

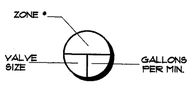
LARGE CAPACITY DISK FILTER TYPICAL DETAIL



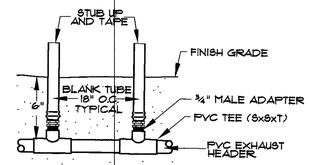
AUTOMATIC DRAIN VALVE

N.T.S.

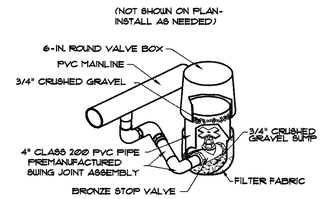
ALL LATERAL LINES SHALL BE EQUIPPED WITH AUTOMATIC DRAIN VALVES AT LOW POINTS



VALVE IDENTIFIER

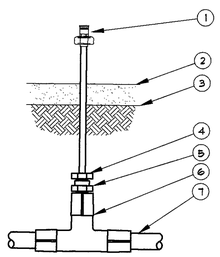


EXHAUST HEADER ROUGH IN DETAIL



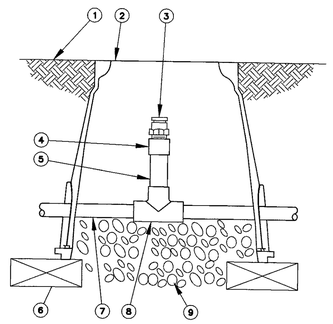
MANUAL DRAIN VALVE

N.T.S.



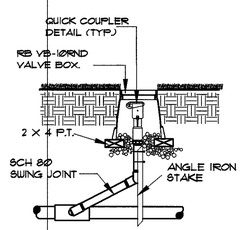
1. SQ SERIES NOZZLE & A POLYFLEX RISER ADAPTER #SQ-ADP
2. TOP OF MULCH
3. FINISH GRADE
4. POLYFLEX RISER & ADAPTER ASSEMBLY #PFR-FRA
5. ½" FEMALE PIPE THREAD ADAPTER: RAIN BIRD MDCFS050FPT
6. ½" COMPRESSION FITTING TEE: RAIN BIRD MDCFTEE
7. ½" POLYETHYLENE TUBING:

SQ NOZZLE W/ ADAPTER ON POLYFLEX RISER INTO ½" POLYETHYLENE TUBING

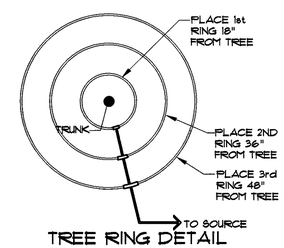


1. FINISH GRADE
2. SUBTERRANEAN EMITTER BOX: RAIN BIRD SEB 7X8
3. ½" AIR RELIEF VALVE: RAIN BIRD ARV050 TO BE INSTALLED AT HIGH POINTS IN DRIP ZONE
4. PVC SCH 40 FEMALE ADAPTER
5. PVC SCH 80 RISER
6. BRICK (1 OF 2)
7. PVC HEADER PIPE
8. PVC SCH 40 TEE
9. 3" MINIMUM DEPTH OF ¾" WASHED GRAVEL

XFS SUB-SURFACE DRIPLINE Ø5 AIR RELIEF VALVE ON HEADER DETAIL



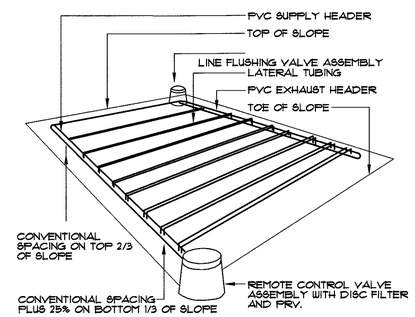
QUICK COUPLER TYPICAL DETAIL



TREE RING DETAIL

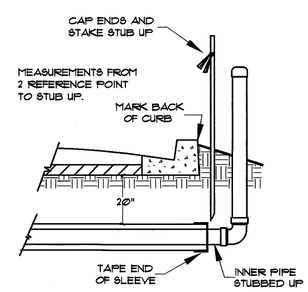
(DESIGNED AS SEPARATE ZONES)

PROVIDE 3 GALLONS PER CALIPER INCH.



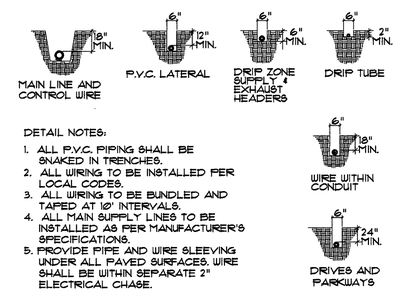
NOTE:
ALIGN LATERALS PARALLEL TO THE CONTOURS OF THE SLOPE

SLOPE FEED LAYOUT DETAIL



SCH.40 SOLVENT-WELD PVC
(REQUIREMENTS VARY - CHECK CODES FIRST)

ROUGH IN SLEEVING DETAIL



DETAIL NOTES:
1. ALL P.V.C. PIPING SHALL BE SNAKED IN TRENCHES.
2. ALL WIRING TO BE INSTALLED PER LOCAL CODES.
3. ALL WIRING TO BE BUNDLED AND TAPED AT 10' INTERVALS.
4. ALL MAIN SUPPLY LINES TO BE INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS.
5. PROVIDE PIPE AND WIRE SLEEVING UNDER ALL PAVED SURFACES. WIRE SHALL BE WITHIN SEPARATE 2" ELECTRICAL CHASE.

TRENCHING DETAIL

ALERT TO CONTRACTOR:

ALL WM GENERAL CONTRACTOR WORK TO BE COMPLETED (EARTHWORK, FINAL UTILITIES, AND FINAL GRADING) BY THE MILESTONE DATE IN PROJECT DOCUMENTS. OUTLOT AREA TO BE KEPT FREE OF JOB TRAILERS AND STORAGE AFTER THE CONTRACT MILESTONE DATE FOR THE OUTLOT. WM GENERAL CONTRACTOR TO PROVIDE CLEAR ACCESS FOR OUTLOT CONTRACTOR TO THE SPECIFIC PARCEL AT ALL TIMES AFTER MILESTONE DATE. PURCHASER OF OUTLOT TO PROVIDE PERMIT DOCUMENTS AND SWPPP REQUIRED BY STATE/LOCAL REQUIREMENTS FOR SPECIFIC OUTLOT.

DRIP TUBING NOTES

1) INSTALL ALL DRIP TUBING BELOW THE MULCH LAYER. USE U SHAPED WIRE STABILIZERS TO HOLD LINES IN PLACE.
2) KEEP ALL DRIP LINES CLEAN AT ALL TIMES BEFORE THE FINAL CONNECTION. TAPE ALL TUBE ENDS OR USE DIRT CAPS.
3) ALL DRIP TUBING SHALL HAVE UNIFORM SPACING AND BURIAL DEPTH.
4) ALWAYS FLUSH ALL LINES BEFORE CONNECTION.
5) REFER TO THE MANUFACTURER DRIP INSTALLATION MANUAL FOR INSTALLATION INSTRUCTIONS. INSTALL PER MANUFACTURER SPECIFICATIONS
6) AVOID SHARP BENDS IN THE TUBING. DO NOT BEND THE TUBING WITH LESS THEN A 1" RADIUS.
7) SPACE TUBING AS NOTED ON THE PLAN. THE PLAN DOES NOT ALWAYS SHOW ALL DRIP TUBING. THE PLAN LAYOUT IS FOR CLARITY ONLY.

NOTE: WALMART SPECIFICATIONS (SECTION 2812 AND 2900) INCLUDED BY REFERENCE AND MUST BE ACQUIRED BY ALL BIDDERS. DO NOT BID PROJECT WITHOUT SPECIFICATIONS.

THE DESIGN PROFESSIONAL DENIES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS AND DESIGN INTENT THEY CONVEY OR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW THE DESIGN PROFESSIONALS GUIDANCE WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES OR CONFLICTS WHICH ARE ALLEGED.

L:\W13392 - WM SC Alachua\W13392.1 -IRR REVISION 01-17.dwg Mar 30, 2017 - 11:20am yrodriguez

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LICENSED PROFESSIONAL ARCHITECT JAMES W. WINTER LA 0009911 STATE OF FLORIDA
James W. Winter, R.L.A. LA0009911 Mar 30, 2017

No.	Date	Revision	By

Designed by:	JSM
Drawn by:	JSM
Checked by:	JKW
Approved by:	JKW
Scale:	N/A
Date:	2/17/15
Job No.:	W13392.1

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AN IRRIGATION DESIGN COMPANY
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ORLANDO, FLORIDA 32806
PHONE (407) 859-5790
www.irrdesign.com
Bob & Jason McElroy
jason@irrdesign.com

PRELIMINARY IRRIGATION NOTES AND DETAILS

Walmart

STORE NO. 3873-00, ALACHUA (SEC I-75 HWY 441), FLORIDA

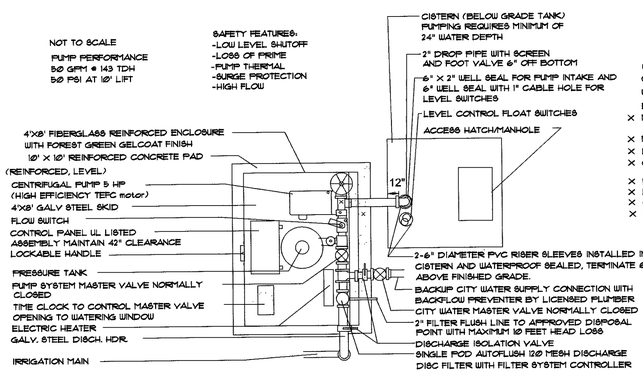
JULIE ZIGLER
CID, CLIA #32070

Sheet No.
IR-10

NOT TO SCALE

PUMP PERFORMANCE
50 GPM @ 143 TDH
50 PSI AT 10' LIFT

SAFETY FEATURES:
-LOW LEVEL SHUTOFF
-LOSS OF PRIME
-PUMP THERMAL
-SURGE PROTECTION
-HIGH FLOW



WATER MANAGEMENT OPTION:
COMMUNICATION VIA CELLULAR MODEM OR 10/100 BASE T DIRECT ETHERNET CONNECTION.
USER DEFINED INTERNET BASED CONTROL PARAMETERS USING STANDARD WEB BROWSER WITH
EVENT LOGGING AND EMAIL ALERTS FOR WARNINGS AND ALARMS AS FOLLOWS:
- X MAXIMUM GALLON PER MINUTE USAGE WITH ADJUSTABLE TIME DELAY AND NUMBER OF RESTART ATTEMPTS
- X MINIMUM TOTAL DAILY WATER USAGE
- X DAILY, MONTHLY AND ANNUAL WATER USAGE BUDGETS
- X GRAPHING OF REAL TIME AND HISTORICAL FLOW AND PRESSURE, UP AND DOWNSTREAM OF DISCHARGE FILTER AND SYSTEM EVENTS WITH TIME AND DATE SHOWN
- X RAIN SENSOR STATUS
- X LEVEL TRANSMITTER GRAPHING
- X HISTORIC WATER USAGE BY DAY AND MONTH
- X STARTER OVERLOAD FAULT SHUTDOWN

NOTE: SUCTION FITTINGS THROUGH 3" DIA. SHALL BE SCHED. 40 PVC SOLVENT. CHECK VALVES 3" AND LARGER SHALL BE SWING TYPE, 2" AND SMALLER SHALL BE POPPET STYLE. ALL EXPOSED SUCTION AND DISCHARGE PIPE ADJACENT TO THE PUMP SYSTEM SHALL BE GALVANIZED STEEL. BUTTERFLY OR BALLVALVE PROVIDED AT EACH PUMP.

NOTE: WHEN LEVEL SENSOR INDICATES ADEQUATE CISTERN WATER LEVEL TIME CLOCK WILL OPEN PUMP SYSTEM MASTER VALVE, WHEN LEVEL SENSOR INDICATES LOW CISTERN WATER TIME CLOCK WILL OPEN CITY WATER MASTER VALVE.

HOOVER PUMPING MODEL: HCF-5PD-230/3-D,F,T,Z
Pompano Beach, Florida, Tel 954-971-7350
FILE. FN13951DWG 11/16

WALMART GAINESVILLE
CENTRIFUGAL PUMP SYSTEM DETAIL
FIBERGLASS ENCLOSED SINGLE CISTERN SUCTION
PRESSURE DEMAND, DISCHARGE FILTER

Wal-Mart Gainesville Cistern Pump System Electrical Service FN13951

The system will be manufactured based on one of the following electrical configurations (listed in order from most preferred to least preferred):

Voltage	Phase	Hertz	Panel Connections
460	Three	60	4 Wires (A, B, C, Ground)
230	Three	60	3 Wires (A, B, C, Neutral, Ground)
230	Open-Delta Three	60	3 Wires (A, B, C, Neutral, Ground)
208	Three	60	3 Wires (A, B, C, Neutral, Ground)
230	Single	60	4 Wires (A, B, Neutral, Ground)
208	Single	60	4 Wires (A, B, Neutral, Ground)

The Hoover Pumping Systems pump system is supplied with an Underwriters Laboratory listed enclosed Industrial Control Panel assembly. The Control Panel assembly contains all of the pump system controls, a main disconnect, and a ground connection. All panel penetrations by the installing electrician must use fittings and methods rated NEMA 4 or NEMA 4X. A separate service disconnect is required for systems less than 40 total horsepower.

The pump station will include the following pump motor loads:

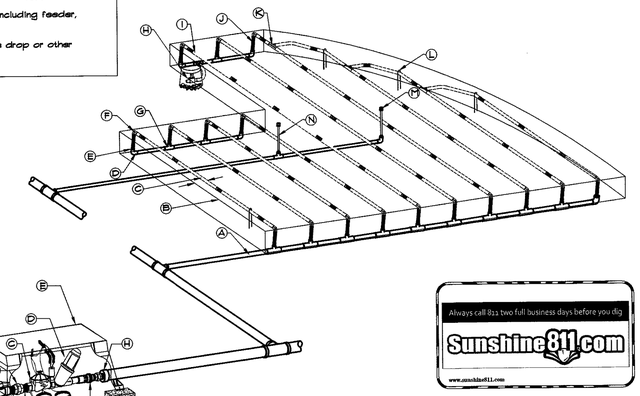
Load	Horsepower	Amps	Service Factor
Pump #1	5	based on voltage/phase	1.15
Control Panel	N/A	3	N/A

The data here may be used for selection of appropriate electrical supply equipment, including feeder, branch circuit protection, and disconnects.

Please contact Hoover Pumping Systems at (954) 971-7350 for assistance with voltage drop or other application considerations. Thank you.

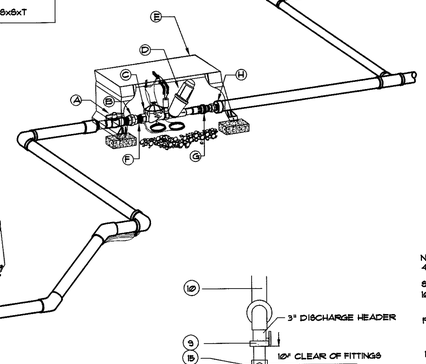
End Feed Drip Detail

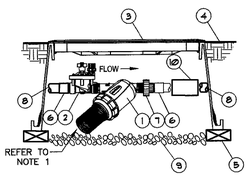
- (A) PVC supply header
- (B) area perimeter
- (C) Perimeter lateral 2" to 4" from edge.
- (D) PVC exhaust header
- (E) Techline starter connection male adapter (typ).
- (F) Netafim insert ell (typ).
- (G) Assorted PVC Sx6xT fittings sized per plans.
- (H) Netafim line flushing valve. Installed in a 1" round box.
- (I) TLVC-9-12 tubing lateral. Installed 2" below grade.
- (J) Blank tubing (typ).
- (K) Netafim insert tee (typ).
- (L) TL66 staples 5' O.C. (typ).
- (M) Rain Bird XFCN nozzle
- (N) Rain Bird PFR-FRA PolyFlex riser and adapter assemblies.



DRIP ZONE CONTROL KIT

- (A) PVC shut off valve
- (B) Sch 80 unions
- (C) Remote control valve (see control valve details for typical installation.
- (D) Large Capacity Disk Filter
- (E) Rain Bird 5PR-H valve box.
- (F) 1 of 2 Sch 80 nipples.
- (G) 40 PSI regulator
- (H) PVC female adapter Sx5xT





1. 2" RAIN BIRD LARGE CAPACITY FILTER WITH DISC: LCRBY200D SCREEN: LCRBY200S
2. 2" RAIN BIRD REMOTE CONTROL VALVE
3. VALVE BOX WITH COVER: RAIN BIRD VB-5PR-H
4. FINISH GRADE/TOP OF MULCH
5. BRICK (1 OF 4)
6. PVC SCH 40 MALE ADAPTER
7. PVC SCH 40 THREADED UNION
8. PVC LATERAL PIPE
9. 3" MINIMUM DEPTH OF 3/4" WASHED GRAVEL
10. INLINE PRESSURE REGULATOR

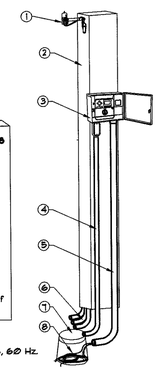
NOTE:
1. FILTER ASSEMBLY TO BE INSTALLED WITH SCREEN DIRECTION FACING A 45° DOWNWARD ANGLE WITH ENOUGH SPACE TO REMOVE SCREEN FOR MAINTENANCE. SOME APPLICATIONS MAY REQUIRE RAIN BIRD VALVE BOX EXTENSIONS TO ACHIEVE ACCEPTABLE SCREEN CLEARANCE.

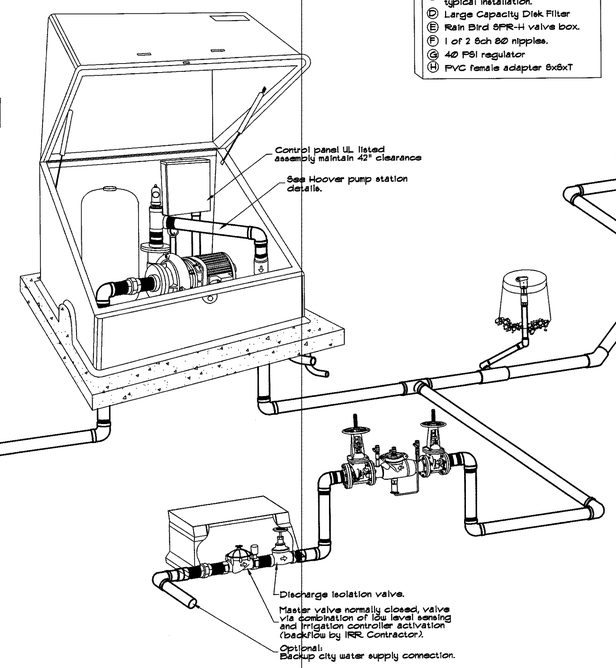
LARGE CAPACITY DISK FILTER
TYPICAL DETAIL

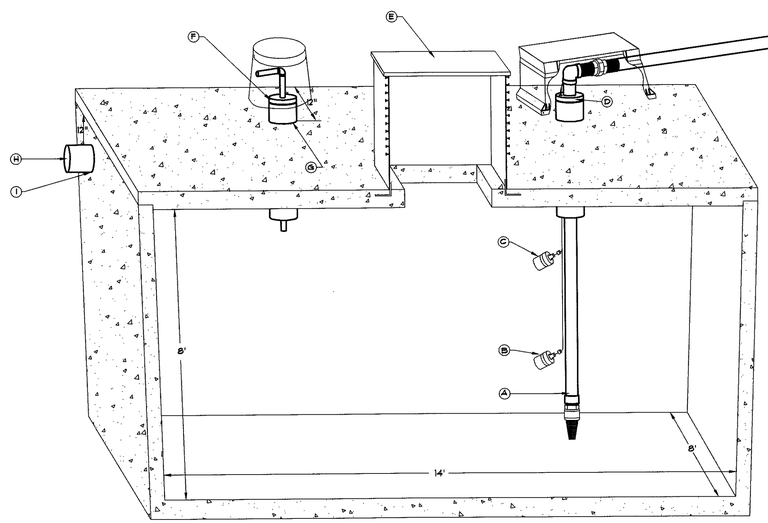
Power Control Details

- (1) Wireless Rain-Click
- (2) 8' Concrete Pole.
- (3) Irrigation Controller
- (4) 110 volt 15 amp. power in PVC electrical conduit.
- (5) Low-voltage irrigation conduit 2" PVC.
- (6) Electrical 90° sweeps for all conduits.
- (7) Rain Bird 10" round valve box.
- (8) Control wire coil with 4' of slack.

NOTE:
Input required: 120 VAC +/- 10%, 60 Hz.





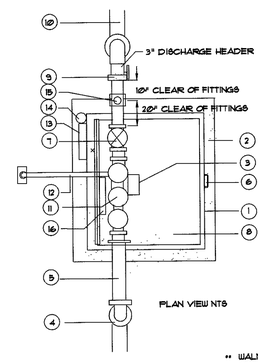


5200 Gallon Underground Concrete Tank
to be installed by General Contractor.

Cistern Details

- (A) 2" drop pipe with screen and foot valve 6" off bottom
  Level control float #1 shall break the master valve to pump start wire on gall 6at 12" off bottom
- (B) Level control float #2 shall make the recharge valve on fall. set 41" off bottom.
- (C) 6" x 2" well seal with 1" cable hole for level switches
- (D) Access hatch or manhole installed 2" above grade
- (E) 6" x 1" well seal to receive a 1" Sch. 40 PVC feeder line from A/C condensation supply line by General Contractor.
- (F) (1 of 3)-6" dia. PVC riser to above grade, cistern penetration waterproof sealed installed 2' on center.
- (G) 6" PVC overflow to storm drain
- (H) (1) 6" Dia. PVC over-flow cistern penetration waterproof sealed installed 12' below lid.

Notes:
1.). Synchronize controller "A" start time for the recharge valve. set to run 1 hour before controller "B" start time.
2.). cistern, access hatch, and (4) 6" PVC water proofing and penetrations to be installed by General Contractor.
3.). 6" PVC over-flow plumbing from cistern to storm water connection by General Contractor.
4.). 1" PVC pipe from cistern to A/C condensation connection by General Contractor.
5.). Power to the pump and irrigation controller by the General Contractor.
6.). All wires not protected by mainline shall be installed inside electrical conduit.
7.). The estimated average water flow from A/C system to Cistern is 2400 gallons per day.



NOTE: DISCHARGE PIPES & HEADER TO IRRIGATION MAIN SHALL BE SCHED 40 GALVANIZED STEEL PIPE WITH GALV. ROLL GROOVE FITTINGS.

SIZE AND INSTALL FILTER BACKWASH LINE SO MAXIMUM HEAD LOSS IS 10 TDH AT 45 GPM MINIMUM 2 INCH PIPE.

PROVIDE MINIMUM OF 4' CLEARANCE ON ALL SIDES OF PUMP SYSTEM

1 4' X 6' FIBERGLASS REINFORCED ENCLOSURE FOREST GREEN GELCOAT FINISH
2 REINFORCED CONCRETE PAD
3 FILTER CONTROLLER, REQUIRES 110VAC POWER
4 RECLAIMED WATER MAINLINE
5 SCHED 40 GALV. STEEL DISCHARGE TO BELOW GRADE
6 LOCKABLE HANDLE
7 MASTER VALVE HYDROPOINT BY WALMART AND INSTALLED BY IRRIGATION CONTRACTOR AND CONNECTION TO HYDROPOINT CONTROLLER BY IRRIGATION CONTRACTOR.
8 GALVANIZED STEEL SKID
9 DISCHARGE ISOLATION VALVE
10 IRRIGATION MAIN
11 THREE POD AUTO-FILTER 120 MESH, CONTROLLER INSTALLED.
12 2" BACKWASH LINE TO APPROVED DISPOSAL
13 HYDROPOINT IRRIGATION CONTROLLER, SUPPLIED BY WALMART AND INSTALLED BY IRRIGATION CONTRACTOR ON PUMP SYSTEM.
14 RAIN SENSOR ON 8' POLE SUPPLIED BY WALMART AND INSTALLED BY IRRIGATION CONTRACTOR ON PUMP SYSTEM.
15 FLOW SENSOR 2" HYDROPOINT BY WALMART AND INSTALLED BY IRRIGATION CONTRACTOR ON PUMP SYSTEM.
16 ELECTRIC HEATER, REQUIRES 110VAC POWER

** WALMART SUPPLIES THE FOLLOWING: HYDROPOINT IRRIGATION CONTROLLER, RAIN SENSOR (CONTRACTOR TO MOUNT ON A 8' POLE), MASTER VALVE AND FLOW METER.

WALMART GAINESVILLE
IRRIGATION POINT OF CONNECTION
FIBERGLASS ENCLOSED, POTABLE WATER, DISCHARGE FILTER
HOOVER PUMPING MODEL: HF-POC-120/1-HQZ
Pompano Beach, Florida, Tel: 954-971-7350

DISC FILTER PERFORMANCE
140 GPM @ 120 MESH FILTRATION
FILE FN13372.DWG 03/16

Wal-Mart Gainesville Potable Filter System Electrical Service FN13372

The system will be manufactured based on one of the following electrical configurations (listed in order from most preferred to least preferred):

Voltage	Phase	Hertz	Panel Connections
120	Single	60	3 Wires (Hot, Neutral, Ground)

The Hoover Pumping Systems pump system is supplied with an Underwriters Laboratory listed enclosed Industrial Control Panel assembly. The Control Panel assembly contains all of the pump system controls, a main disconnect, and a ground connection. All panel penetrations by the installing electrician must use fittings and methods rated NEMA 4 or NEMA 4X. A separate service disconnect is required for systems less than 40 total horsepower.

The filter system will include the following pump motor loads:

Load	Horsepower	Amps	Service Factor
Filter Controller and Heater	N/A	8	N/A

The data here may be used for selection of appropriate electrical supply equipment, including feeder, branch circuit protection, and disconnects.

Please contact Hoover Pumping Systems at (954) 971-7350 for assistance with voltage drop or other application considerations.

JULIE ZIGLER
CID, CLIA #32070

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James K. Winter, RLA
Licensed #LA0000911
Mar 30, 2017

No.	Date	Revision	By
1			
2			
3			
4			
5			
6			
7			

Designed by:	JSM
Drawn by:	JSM
Checked by:	JKW
Approved by:	JKW
Scale:	N/A
Date:	2/17/15
Job No.:	W13392.1

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3215 ELLEN DR
ORLANDO, FLORIDA 32806
PHONE (407) 859-5790
www.irrdesign.com
Bob & Jason McElroy
jason@irrdesign.com

PRELIMINARY IRRIGATION NOTES AND DETAILS

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Sheet No.
IR-11

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L:\W13392 - WM SC Alachua\W13392.1-IRR REVISION 01-17.dwg Mar 30, 2017 - 11:21am ynodriguez

SIGNAL IMPROVEMENT PLANS
FOR
CITY OF ALACHUA
AT
U.S. 441
&
NW 158th LANE

INDEX OF PLANS

SHEET NO.	DESCRIPTION
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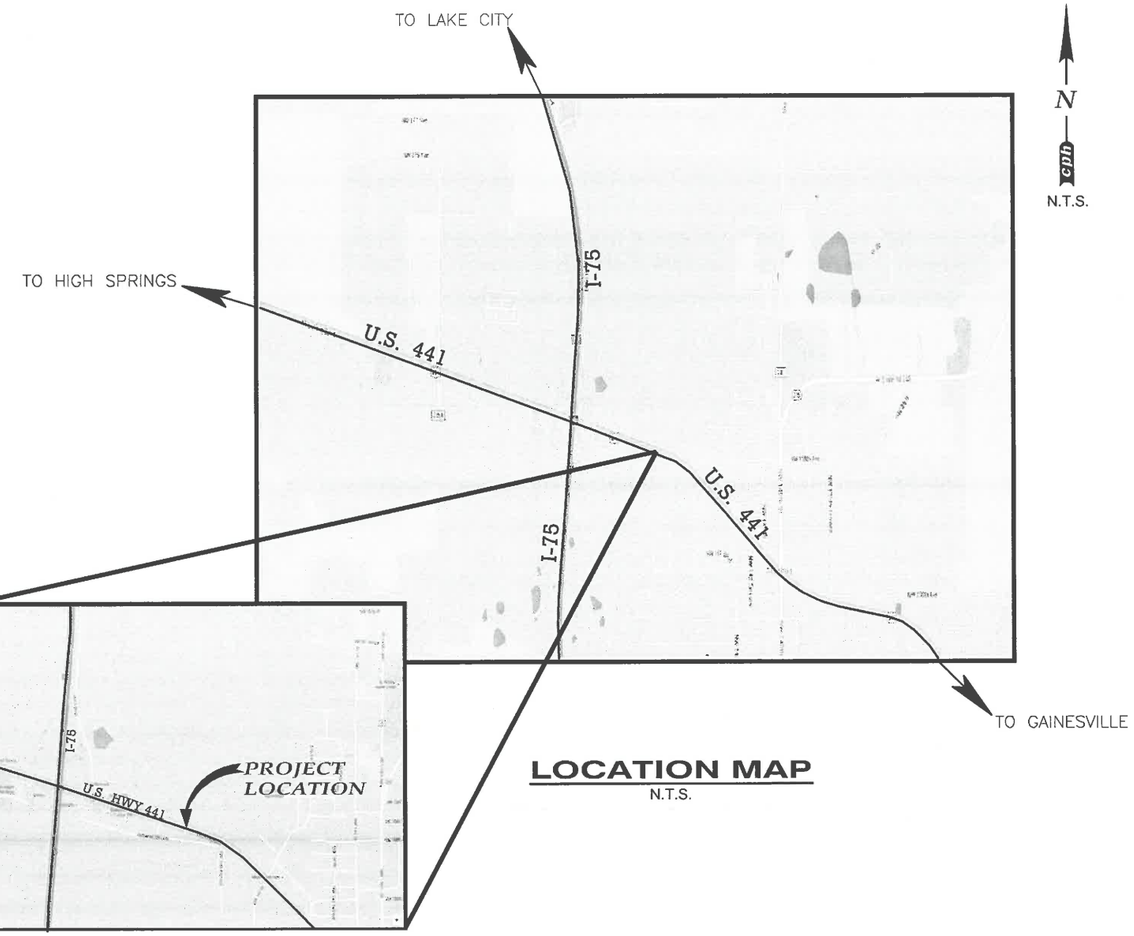
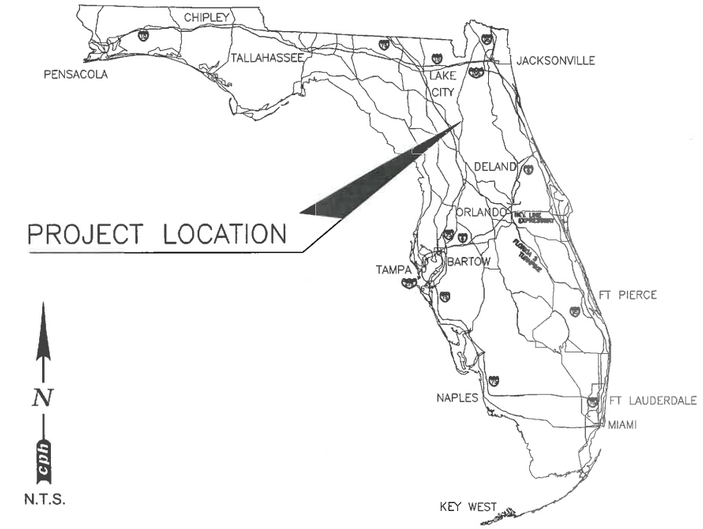
T-7	GUIDESIGN WORKSHEET
T-8 to T-9	BORING SHEETS
TCP-1	TRAFFIC CONTROL NOTES
TCP-2 to TCP-8	FDOT INDEX SHEETS



LOCATION MAP
N.T.S.



SHOP DRAWINGS TO BE SUBMITTED TO:

CPH CORP.
500 W. FULTON STREET
SANFORD, FLORIDA 32771
PHONE 407 322-6841
FAX 407 330-0639

PLANS PREPARED BY:

Engineers (C.O.A. No. 3215)
Architects (Lic. No. AA2600926)
Surveyors (L.B. No. 7143)
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ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

GOVERNING STANDARDS & SPECIFICATIONS: FLORIDA DEPARTMENT OF TRANSPORTATION, DESIGN STANDARDS FISCAL YEAR 2016–17, AND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED 2016 AND THE CITY OF GAINESVILLE ENGINEERING DESIGN & CONSTRUCTION MANUAL (2015)

For Design Standards Revisions click on "Design Standards" at the following web site: htttp://www.dot.state.fl.us/rrdesign/

ALL CONSTRUCTION ACTIVITIES SHALL COMPLY WITH LATEST AMERICANS WITH DISABILITIES ACT (A.D.A.) STANDARDS FOR ACCESSIBLE DESIGN.

SIGNALIZATION PLANS
MARCH 31, 2017

MATTHEW C. CUSHMAN
LICENSE
No. 73150
STATE OF
PROFESSIONAL ENGINEER

SIGNAL & ROADWAY PLANS ENGINEER OF RECORD:
MATTHEW C. CUSHMAN, P.E.
FL. P.E. No. 73150

MAR 31 2017

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SHEET NO.
T-1

TABULATION OF QUANTITIES

PAY ITEM NO.			PAY ITEM DESCRIPTION	UNIT	SHEET NUMBERS T-4 PLAN	T-4 FINAL					TOTAL THIS SHEET PLAN	TOTAL THIS SHEET FINAL	GRAND TOTAL PLAN	GRAND TOTAL FINAL	REF. SHEET
101	1		MOBILIZATION	LS	1						1		1		
102	1		MAINTENANCE OF TRAFFIC	LS	1						1		1		
522	1		CONCRETE, SIDEWALK AND DRIVEWAYS, 4" THICK	SY	10						10		10		
527	2		DETECTABLE WARNINGS	SF	70						70		70		
630	2	11	CONDUIT , F&I, OPEN TRENCH	LF	2,650						2,650		2,650		
630	2	12	CONDUIT, F&I, DIRECTIONAL BORE	LF	440						440		440		
632	7	1	SIGNAL CABLE - NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PI	1						1		1		
633	1	123	FIBER OPTIC CABLE, F&I, UNDERGROUND, 49-96 FIBERS	LF	500						500		500		
633	2	31	FIBER OPTIC CONNECTION, INSTALL, SPLICE	EA	12						12		12		
633	2	32	FIBER OPTIC CONNECTION, INSTALL, TERMINATION	EA	12						12		12		
633	3	11	FIBER OPTIC CONNECTION HARDWARE, F&I, SPLICE ENCLOSURE	EA	2						2		2		
633	3	12	FIBER OPTIC CONNECTION HARDWARE, F&I, SPLICE TRAY	EA	2						2		2		
633	3	14	FIBER OPTIC CONNECTION HARDWARE, F&I, BUFFER TUBE FAN OUT KIT	EA	2						2		2		
633	3	17	FIBER OPTIC CONNECTION HARDWARE, F&I, CONNECTOR PANEL	EA	1						1		1		
635	2	11	PULL & SPLICE BOX, F&I, 13" X 24" COVER SIZE	EA	17						17		17		
635	2	12	PULL & SPLICE BOX, F&I, 24" X 36" COVER SIZE	EA	1						1		1		
635	2	13	PULL & SPLICE BOX, F&I, 30"X60" RECTANGULAR OR 36" ROUND COVER SIZE	EA	2						2		2		
639	1	122	ELECTRICAL POWER SERVICE, F&I, UG, METER PURCHASED BY CONTRACTOR	AS	1						1		1		
639	2	1	ELECTRICAL SERVICE WIRE	LF	450						450		450		
641	2	12	PRESTRESSED CONCRETE SERVICE POLE, F&I, TYPE P-II SERVICE POLE	EA	1						1		1		
646	1	11	ALUMINUM SIGNAL POLE, PEDISTAL, FRANGIBLE BASE	EA	4						4		4		
649	31	308	MAST ARM, F&I, WIND SPEED - 110, SINGLE ARM, WITH LUMINAIRE-60	EA	1						1		1		
649	31	309	MAST ARM, F&I, WIND SPEED - 110, SINGLE ARM, WITH LUMINAIRE-70.5	EA	2						2		2		
650	1	14	TRAFFIC SIGNAL, FURNISH AND INSTALL, ALUMINUM, 3 SECTION, 1 WAY	AS	10						10		10		
653	1	11	PEDESTRIAN SIGNAL, FURNISH AND INSTALL, LED COUNTDOWN, 1 WAY	AS	4						4		4		
660	1	109	LOOP DETECTOR, INDUCTIVE, F&I, TYPE 9, 2CH, SS, RM	EA	7						7		7		
660	2	102	LOOP ASSEMBLY, F&I, TYPE B	AS	8						8		8		
660	2	103	LOOP ASSEMBLY, F&I, TYPE C	AS	6						6		6		
663	1	110	SIGNAL PRIORITY AND PREEMPTION SYSTEM, F&I, OPTICAL, COMPLETE	EA	1						1		1		
665	1	11	PEDESTRIAN DETECTOR, FURNISH AND INSTALL, STANDARD	EA	4						4		4		
670	5	111	TRAFFIC CONTROLLER ASSEMBLY, F&I, NEMA, 1 PREEMPTION PLAN	AS	1						1		1		
682	1	112	CCTV CAMERA, F&I, DOME PTZ, PRESSURIZED, IP, HD	EA	1						1		1		
700	3	201	SIGN PANEL, FURNISH AND INSTALL, OVERHEAD MOUNT, UP TO 12 SF	EA	5						5		5		

PAY ITEM NOTES :

102-1 MAINTENANCE OF TRAFFIC SHALL INCLUDE ALL COSTS ASSOCIATED WITH ALL COMPONENTS OF A COMPLETE MOT PLAN. COSTS SHALL ALSO INCLUDE PER OFFICER / PER HOUR COMPENSATION FOR PROVISION OF A TRAFFIC CONTROL OFFICER AS REQUIRED BY THE M.O.T PLAN. MAINTENANCE OF TRAFFIC SHALL ALSO BE EXTENDED TO INCLUDE CONSTRUCTION ACTIVITIES WITHIN CITY OF ALACHUA OR FDOT R/W FOR ASSOCIATED SITE IMPROVEMENT WORK WITH ANY ASSOCIATED COSTS INCLUDED WITHIN THE SIGNAL MOT PAY ITEM.

639-1-112 SHALL INCLUDE ALL COSTS OF ANY FEES IMPOSED BY THE POWER UTILITY COMPANY FOR ENERGIZING THE POWER SERVICE. CONTRACTOR SHALL VERIFY THE POWER SERVICE REQUIREMENTS WITH THE CITY OF ALACHUA AND THE POWER COMPANY PRIOR TO CONSTRUCTION.

*663-1-1*0* SHALL INCLUDE THE COST FOR FURNISH AND INSTALL OF COMPLETE PREEMPTION SYSTEM TO MATCH EXISTING ALACHUA COUNTY SYSTEM (I.E. OPTICAL, GPS, RADIO FREQUENCY OR OTHER). CONTRACTOR SHALL COORDINATE WITH MAINTAINING AGENCY TO DETERMINE CURRENT MINIMUM SYSTEM REQUIREMENTS.

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MATTHEW C. CUSHMAN LICENSE No. 73150 STATE OF FLORIDA PROFESSIONAL ENGINEER
MAR 31 2017

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Drawn by: JML
Checked by: MCC
Approved by: MCC
Scale:
Date: 3/17/17
Job No.: W13392
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Lndscp. Lic. No. LC0000298

TABULATION OF QUANTITIES

U.S. 441 & NW. 158TH LANE. INTERSECTION No. 26M117
ALACUHA, FLORIDA

Sheet No.
T-2

Drawing name: J:\W13392\Roadway\Signal\PLAN5001.dwg Mar 31, 2017 - 9:03am jlefaso

GENERAL NOTES:

1. The signalization plans have been prepared in accordance with the Florida Department of Transportation (FDOT) Design Standards, FY 2016–17, and FDOT Standard Specifications for Road and Bridge Construction, dated 2016 and the City of Gainesville Engineering Design & Construction Manual (2015).

2. The Maintaining Agency is the City of Alachua.

3. These plans reflect conditions known during plan development. In the event that the actual physical conditions prevent the application or the progression of any work specified in these plans, the Contractor shall immediately notify the Project Engineer prior to any further work activity

4. The Contractor shall adhere to all City and County ordinances and State regulations during all construction operations.

5. All curb ramps and detectable warnings shall be designed in accordance with ADA Standards for Accessible Design (latest edition), the Florida Building Code (latest edition), the Florida Greenbook (latest edition), and FDOT Design Standards as referenced in General Note 1.

6. The Contractor shall provide a two man bucket truck and assist the FDOT and County inspectors in physically examining each signal head the same day it is erected.

7. Traffic signal shall flash for no less than 7 days and no more than 14 days prior to "turn on" inspection.

8. At the time of final project inspection, the Contractor shall furnish the inspector three complete sets of as–built plans.

9. The Contractor shall adjust, as directed by the Engineer, the locations of poles, conduits, pull boxes, etc., to avoid any utility conflicts.

10. Any excavation exceeding 18 inches shall be done by hand within 5 feet of any field located underground utility.

11. It should be noted that no test borings were made where conduit runs are to be installed by jacking or trenching. It shall be the Contractor's responsibility to examine the job site conditions before submitting bid proposals in accordance with FDOT specifications.

12. Concrete areas disturbed by the installation of conduits, pull boxes, "A–Frames", controller cabinets, signal poles, and pedestrian poles, shall be replaced. Replacement shall be to the nearest expansion joint. Cost of replacement of concrete pavement shall be included in the cost of installation.

13. Pull boxes and covers shall be FDOT approved, non–metallic construction with recessed cover logo "Traffic Signal" or "Fiber Optic" as appropriate.

14. All conduit shall be 2" minimum unless otherwise specified in the plans, except for electrical power service and luminaire duct.

15. As directed by the Project Engineer, the Contractor shall adjust conduit and pull box locations horizontally and/or vertically to avoid any possible conflicts with underground utilities.

16. The Contractor shall be responsible for verifying the location of all existing utilities, both horizontally and vertically, prior to any bores. This should be performed by vacuum excavation or comparable, non–destructive method.

17. All right–of–way which is disturbed shall be restored to a condition equal to or better than its pre–construction condition.

18. Where multiple conduit runs are proposed beneath pavement, the first run across shall be paid for under pay item 630–2–12 and the additional runs shall be paid for under pay item 630–2–11.

19. Where jacking under pavement is proposed, the Contractor may use an FDOT approved guided boring system as an alternate method of construction.

20. The Contractor is to provide 3 additional conduit runs pulled and capped from the controller to the nearest pull box. Cost of runs to be included in cost of the installation of the controller.

21. The Contractor shall notify the Maintaining Agency and FDOT at least 24 hours in advance of detector installation.

22. Loop lead–ins, interconnect cable, and signal cable are to be placed in separate conduits and pull boxes.

23. All saw cuts shall be sealed immediately after the loop wires and lead–in wires are placed in the saw cut.

24. All vehicle loops are to be placed prior to the placement of the friction course.

25. Any new or existing striping damaged because of loop placement shall be re–striped prior to acceptance.

26. Each loop shall be treated as an individual loop with separate lead–ins from splice point to cabinet terminal.

27. Shielded wiring shall be used for all loop lead–in cables from the loop splice point to the cabinet terminal.

28. There shall be no loop lead–ins and signal cable in the same conduit or pull box.

29. Wherever possible, all conduit under pavement or sidewalk shall be installed prior to the installation of the base course.

30. The Contractor shall verify color codes of the signal cable with the Maintaining Agency prior to ordering.

31. All field wiring shall be neatly bundled and clearly identified with permanent, legible, and weather–proof tags that are securely fastened to each cable. The tagging system proposed shall be submitted for approval with the other equipment submittals required for this project.

32. No polycarbonate housing or mounting hardware will be permitted for vehicular or pedestrian signal head assemblies.

33. All traffic and pedestrian signal heads shall be LED. All pedestrian signal heads shall be "Count–down" type with international symbols.

34. Signal heads shall be located as shown in the plans. A minimum of 8' horizontal separation shall be maintained between signal heads for each movement.

35. Traffic signal heads shall be mounted on articulating astro–brackets with terminal compartments.

36. All signal assemblies shall have a minimum vertical clearance of 17.5 feet from the bottom of the assembly to the road.

37. All pedestrian phases shall be push button activated.

38. All traffic signal equipment shall be compatible with the existing Gainesville Traffic Management System. The controller and cabinet shall be 100% compatible with the Naztec Trafficware ATMS System.

39. A manual push button cord shall be installed in the controller cabinet.

40. Emergency vehicle preemption system shall be installed for each approach. 3M Opticom 700 series with a detector for each approach shall be provided to meet this requirement. Contractor shall seek final detector placement approval from Maintaining Agency before bidding and installation.

41. Maximum signal timings, preemption timings, and system timings are to be provided by the Maintaining Agency.

42. The controller shall revert to full actuated operation upon disconnecting the coordinating unit when detection is available on the coordinated approaches.

43. Sign panel installation to include all attachment hardware required for installing signs on mast arms including wind beams.

44. Reflective sheeting shall be high intensity or greater reflectivity materials with the exception of regulatory or warning signs. Regulatory or warning signs shall be of prismatic reflectivity or greater.

45. Contractor shall be responsible for verifying the street name sign messages with the Maintaining Agency prior to fabrication of the signs. Shop drawings will be required.

46. Outside corners of street name sign faces are to be cut concentric with border. Border to be mounted parallel to edge of sign.

47. Sheeting for overhead street name signs shall be Type III retro–reflective for legends, border and backgrounds.

48. The Contractor shall notify the Sunshine State One Call at 1–800–432–4770 and the appropriate utility companies at least 2 full business days prior to pole construction operations where conflict with underground utilities or overhead electrical conductors is expected.

49. If required, the Contractor shall provide the necessary equipment for supporting existing utility poles during construction of the new mast arms and mast arm foundations. The Contractor shall coordinate this effort with the utility owners. Payment shall be included with the appropriate mast arm pay item number.

50. Contractor to hand dig the first 4 feet of pole foundations and contact the appropriate utility companies for locates 2 full business days prior to any excavation.

51. The Contractor shall verify all mast arm and roadway elevations prior to fabrication of mast arms.

52. The mast arms shall be painted to meet Federal Standard 595B utilizing color #27038 – black semi–gloss.

53. Any required touch–up of painted surfaces shall be identified by the FDOT or County engineer. All paint applied in the field shall be done with brush, roller, or glove. No spray painting is allowed.

54. Mast arm luminaries shall be mounted perpendicular to the roadway, in line with the mast arm itself.

55. Luminaire to be 250 Watt H.P.S. luminaire with die–cast aluminum housing. Luminaire, bracket arm and all attachment hardware shall be the same color as the mast arm. The luminaire specifications are as follows: IES Type 111, medium, full cutoff distribution, flat glass lens, latch closing mechanism, photoelectric receptacle, auto–regulator balast, terminal block, porcelain socket, plug in starter aide (board), and adjustable slipfitter, 1.25" to 2", wired for 120V operation.

56. Individual pedestrian poles shall be "break–away" type.

57. Contractor to conduct soft digs at each pole location prior to ordering the poles. If a utility conflict in encountered, the contractor shall coordinate with the Project Engineer and the utility owner to find a resolution.

58. The Contractor shall be responsible for contacting the company providing electrical power to determine if a service processing fee is required. If required, the fee shall be included as part of the payment for the electrical power service assembly.

59. The maintenance of the signal shall remain the responsibility of the Contractor from the time the work begins until the time of final acceptance.

60. Contractor shall refer to Standard Specification 611–4 "Field Test of Installation" for minimum testing requirements.

61. Signal Pole placement shall be a minimum of 6 feet from existing overhead utilities. If necessary, the Contractor shall coordinate with Overhead Utility services along North side of US 441 for relocation or adjust of existing poles/overhead lines.

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MATTHEW C. CUSHMAN ★ LICENSE No. 73150 ★ STATE OF FLORIDA ★ PROFESSIONAL ENGINEER
MAR 31 2017

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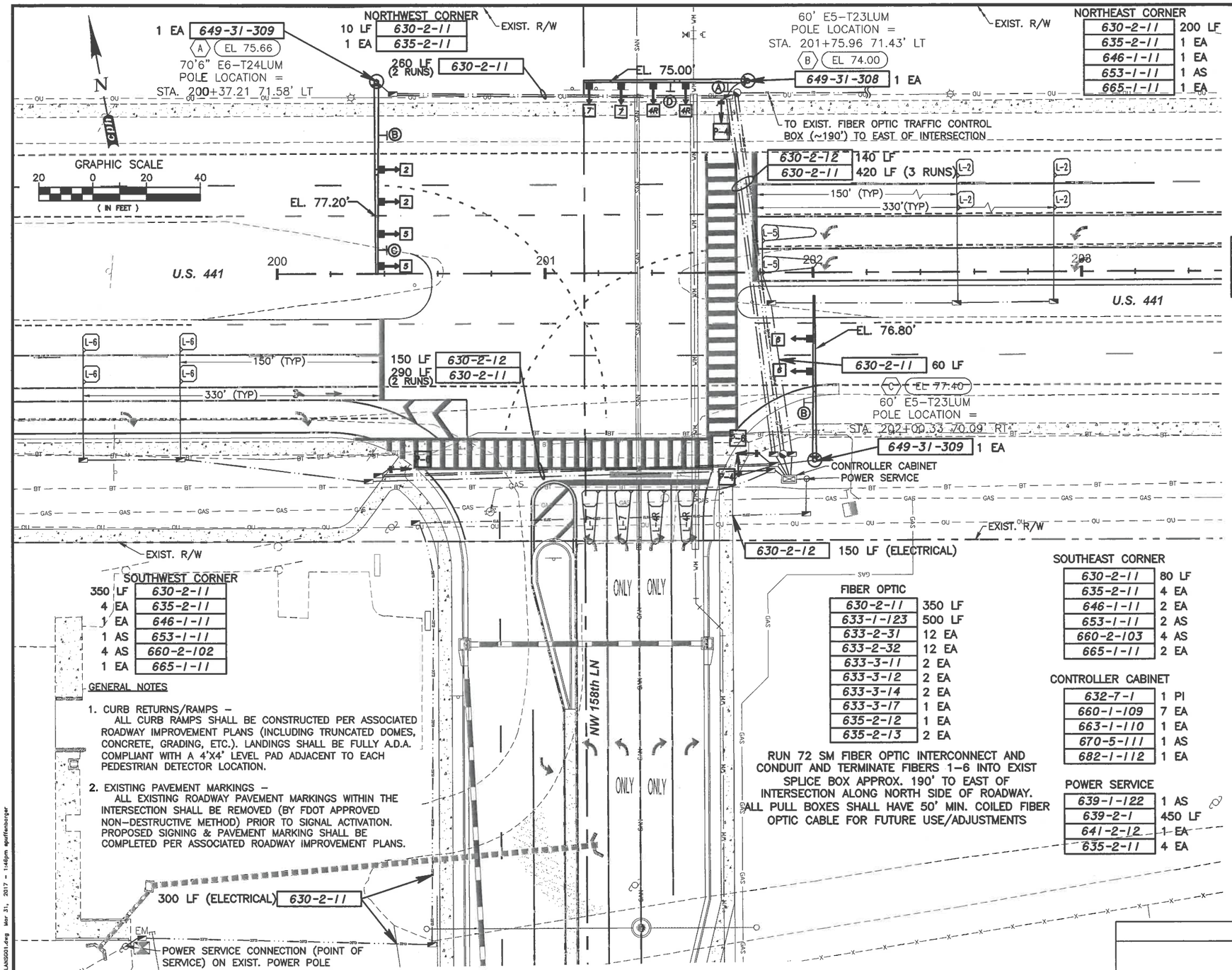
SIGNALIZATION NOTES

U.S. 441 &
NW. 158TH LANE.
INTERSECTION No. 26M117
ALACUHA, FLORIDA

Sheet No.
T-3

Drawing name: J:\W13392\Roadway\Signal\PLANSG01.dwg Mar 31, 2017 – 9:03am jlofaso

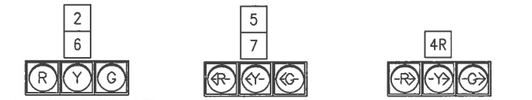


GENERAL NOTES

1. CURB RETURNS/RAMPS –
   ALL CURB RAMPS SHALL BE CONSTRUCTED PER ASSOCIATED ROADWAY IMPROVEMENT PLANS (INCLUDING TRUNCATED DOMES, CONCRETE, GRADING, ETC.). LANDINGS SHALL BE FULLY A.D.A. COMPLIANT WITH A 4'X4' LEVEL PAD ADJACENT TO EACH PEDESTRIAN DETECTOR LOCATION.
2. EXISTING PAVEMENT MARKINGS –
   ALL EXISTING ROADWAY PAVEMENT MARKINGS WITHIN THE INTERSECTION SHALL BE REMOVED (BY FDOT APPROVED NON-DESTRUCTIVE METHOD) PRIOR TO SIGNAL ACTIVATION. PROPOSED SIGNING & PAVEMENT MARKING SHALL BE COMPLETED PER ASSOCIATED ROADWAY IMPROVEMENT PLANS.

SIGNAL HEAD DETAILS

* BACKPLATES REQUIRED FOR ALL SIGNAL HEADS

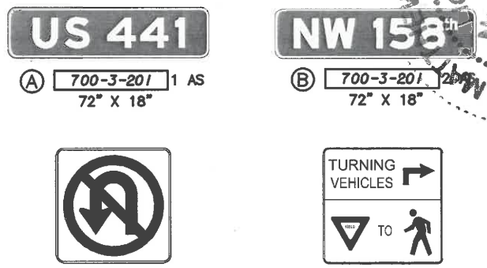


EAST MEDIAN

660-2-102	4 AS
660-2-103	2 AS
630-2-11	330 LF
635-2-11	3 EA

PROPOSED OVERHEAD SIGNS

REFER TO GUIDESIGN WORKSHEET NO. T-7 FOR QUANTITY AND LAYOUT OF SIGN FACES



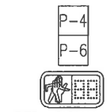
A 700-3-201 1 AS 72" X 18"

B 700-3-201 2 AS 72" X 18"

C 700-3-201 1 AS R03-04 36" X 36"

D 700-3-201 1 AS R10-15 36" X 36"

PEDESTRIAN SIGNAL HEAD DETAILS



PED. SIGNAL LED COUNT-DOWN 1-SECT., 1-WAY

653-1-11	4 AS
665-1-11	4 EA

PEDESTRIAN SIGN DETAILS

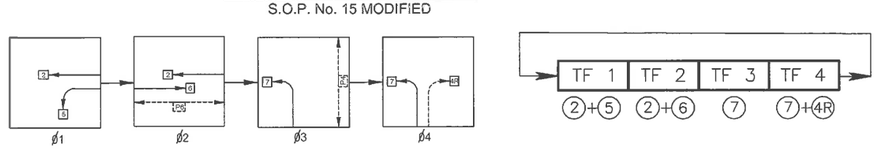
STREET NAMES ARE TO BE:
U.S. 441 (2 EA)
NW 158th LN (2 EA)

FTP-68B-06 4 EA
9"x1'-6"
(INCLUDED IN COST OF PAY ITEM 665-1-11)

CONTROLLER OPERATIONS

1. MAJOR STREET IS U.S. HWY 441 (MOVEMENTS 2, 5 AND 6) AND THE MINOR STREET IS NW 158TH LN. (MOVEMENTS 4R AND 7).
2. CONTROLLER SHALL BE CAPABLE OF SIGNAL OPERATING PLAN No. 15 (MODIFIED) AS DEPICTED.
3. CONTROLLER OPERATION SHALL BE SUCH THAT ACTIVATION OF PEDESTRIAN MOVEMENT P-4 SHALL INHIBIT THE SIMULTANEOUS ACTIVATION OF VEHICULAR MOVEMENT 4R.

SIGNAL OPERATION DETAIL
S.O.P. No. 15 MODIFIED



CONTROLLER TIMINGS

		MOVEMENT NUMBER							
		1	2	3	4R	5	6	7	8
TIMING FUNCTION	MINIMUM GREEN	-	10	-	4	4	10	4	-
	EXTENSION	-	3	-	3	3	3	3	-
	MAXIMUM GREEN 1	-	50	-	29	20	50	29	-
	MAXIMUM GREEN 2	-	-	-	-	-	-	-	-
	YELLOW CLEARANCE	-	4.8	-	4	4.8	4.8	4	-
	ALL RED	-	2	-	2	2	2	2	-
	PEDESTRIAN WALK	-	7	-	7	-	7	7	-
	PED. CLEARANCE	-	-	-	35	-	36	-	-
	RECALL	-	-	-	-	-	-	-	-

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SIGNAL PLAN SHEET

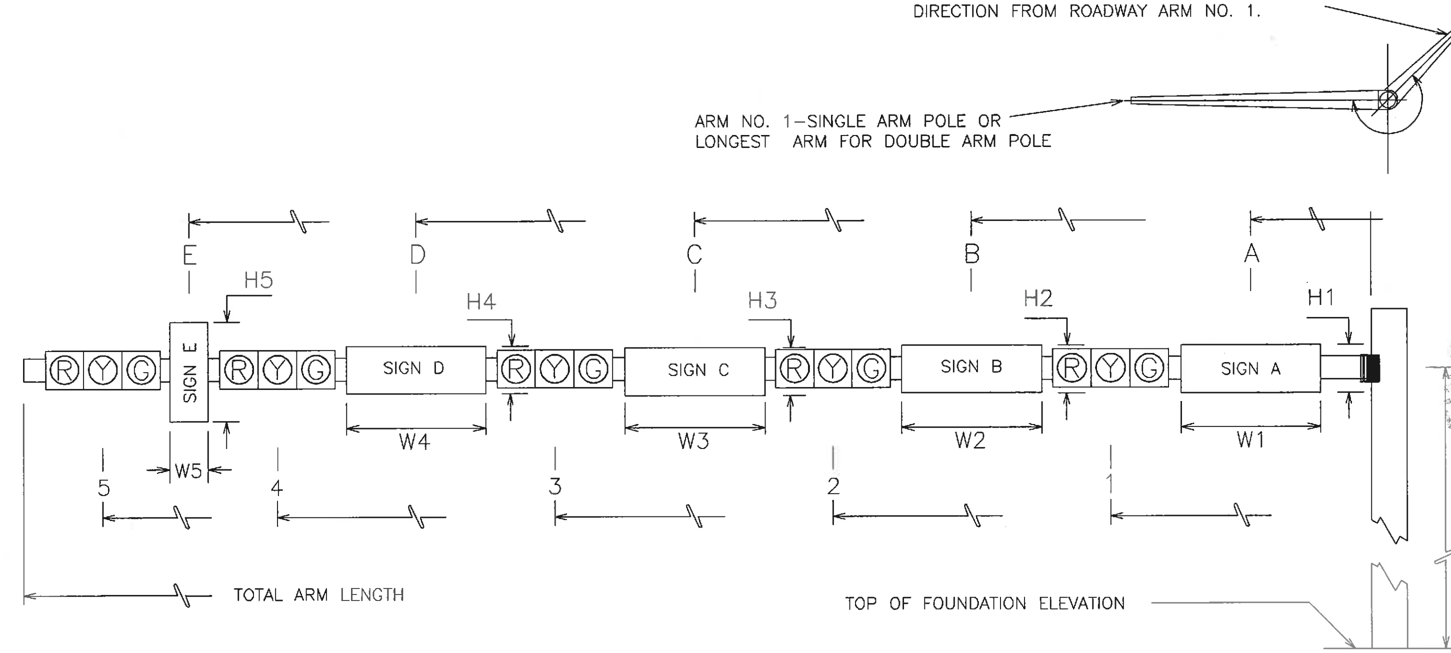
U.S. 441 & NW. 158TH LANE. INTERSECTION No. 26M117
ALACUHA, FLORIDA

Sheet No.
T-4

Drawing name: J:\W13392\Roadway\Signal\PLANS001.dwg Mar 31, 2017 - 1:46pm epuffenberger

ARM # 2 – DOUBLE ARM POLE ORIENTATION TO BE MEASURED IN A COUNTER CLOCKWISE DIRECTION FROM ROADWAY ARM NO. 1.

ARM NO. 1–SINGLE ARM POLE OR LONGEST ARM FOR DOUBLE ARM POLE



SPECIAL INSTRUCTIONS						
ID NO.	PED. BUTTON		PED. SIGNALS		HANDHOLE LOCATION	
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∗ DENOTES NUMBER OF SECTIONS IN SIGNAL HEAD ASSEMBLY.

						SIGNAL DATA																SIGN DATA															
									DISTANCE FROM POLE													DISTANCE FROM POLE / HEIGHT AND WIDTH OF SIGN															
ID NO.	SHEET NO.	LOCATION BY STA.	TOP OF FOUNDATION ELEVATION	RDWY ARM NO.	CROWN ELEV.	SIGNAL V/H	BACK PLATES Y/N	PED. SIGNAL Y/N	1	∗	2	∗	3	∗	4	∗	5	∗	TOTAL ARM LENGTH	ARM M.H.	∠BETWEEN DUAL ARMS 90/270	A	H1	W1	B	H2	W2	C	H3	W3	D	H4	W4	E	H5	W5	PAINT COLOR
A	T–4	STA. 200+37.21	75.0'	1	77.2'	H	Y	N	31.4'	3	43.4'	3	55.4'	3	67.4'	3	–	–	70'6"	21'	–	19.0'	24"	114"	–	–	–	–	–	–	–	–	–	61.4'	36"	36"	BLACK
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B	T–4	STA. 201+75.96	73.6'	1	75.0'	H	Y	N	22.0'	3	34.0'	3	46.0'	3	58.0'	3	–	–	60'	20'	–	6.0'	24"	120"	28.0'	36"	36"	–	–	–	–	–	–	–	–	–	BLACK
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C	T–4	STA. 202+00.33	77.4'	1	76.8'	H	Y	N	32.0'	3	44.0'	3	–	–	–	–	–	–	60'	21'	–	20.0'	24"	114"	–	–	–	–	–	–	–	–	–	–	–	–	BLACK
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FL P.E. No. 73150

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3			
4			
5			
6			
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Drawn by: JML
Checked by: MCC
Approved by: MCC
Scale:
Date: 3/17/17
Job No.: W13392
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MAST ARM TABULATION

U.S. 441 &
NW. 158TH LANE.
INTERSECTION No. 26M117
ALACUHA, FLORIDA

Sheet No.
T-5

STANDARD MAST ARM ASSEMBLIES DESIGN TABLE

STRUCTURE ID NUMBERS	ASSEMBLY NUMBERS (1)	FIRST ARM			SECOND ARM			UF (deg)	POLE				SPECIAL DRILLED SHAFT DATA (4)			
		ARM TYPE	FAA (ft.)(2)	FBA (in.)(2)	ARM TYPE	FAA (ft.)(2)	FBA (in.)(2)		POLE TYPE	UAA (ft.)(3)	UB* (ft.)	UCA (IN.)(3)	DA(FT.)	DB(FT.)	RA	RB
A	E6–T24LUM	E6	–	–	–	–	–	–	T24LUM	–	21'	–	–	–	–	–
B	E5–T23LUM	E5	–	–	–	–	–	–	T23LUM	–	20'	–	–	–	–	–
C	E5–T23LUM	E5	–	–	–	–	–	–	T23LUM	–	21'	–	11'	5'	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
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*CONTRACTOR SHALL VERIFY "UB" DIMENSION PRIOR TO FABRICATION OF THE POLES. DIMENSIONS AND DATA ARE FROM FDOT DESIGN STANDARDS

TABLES NOTES:

1. ASSEMBLY NUMBER LEGEND
   SINGLE ARM:
   ARM TYPE – POLE TYPE = E# – T#
   DOUBLE ARM:
   FIRST ARM TYPE – SECOND ARM TYPE – POLE TYPE = E# – E# – T#
   IF AN ENTRY APPEARS IN COLUMNS "FAA" AND "FBA", A SHORTER ARM IS REQUIRED. THIS IS OBTAINED BY REMOVING LENGTH FROM THE ARM TIP. FOR THESE CASES THE MAST ARM LENGTH SHALL BE SHORTENED FROM "FA" TO "FAA" AND THE TIP DIAMETER SHALL BE INCREASED FROM "FB" TO "FBA".

2. IF AN ENTRY APPEARS IN COLUMNS "UAA" AND "UCA", A SHORTER POLE IS REQUIRED. THIS IS OBTAINED BY REMOVING LENGTH FROM THE POLE TIP. FOR THESE CASES THE POLE HEIGHT SHALL BE SHORTENED FROM "UA" TO "UAA" AND THE POLE TIP DIAMETER SHALL BE INCREASED FROM "UC" TO "UCA".

3. THE FOUNDATIONS FOR STANDARD MAST ARM ASSEMBLIES ARE PRE–DESIGNED AND ARE BASED UPON THE FOLLOWING CONSERVATIVE SOIL CRITERIA WHICH COVERS THE GREAT MAJORITY OF SOIL TYPES FOUND IN FLORIDA. ONLY COMPLETE THE "SPECIAL DRILLED SHAFT DATA" INFORMATION IF SITE CONDITIONS DICTATE DRILLED SHAFTS IN SOILS WITH LESSER STRENGTH PROPERTIES.

CLASSIFICATION	=	COHESIONLESS (FINE SAND)
FRICTION ANGLE	=	30 DEGREES (30°)
UNIT WEIGHT	=	50 LBS./CU.FT. (ASSUMED SATURATED)

GENERAL NOTES:

1. WORK THIS SHEET WITH SIGNAL DESIGNER'S "MAST ARM TABULATION". SEE "MAST ARM TABULATION" FOR SPECIAL INSTRUCTIONS THAT INCLUDE NON–STANDARD HANDHOLE LOCATION, PAINT COLOR, TERMINAL COMPARTMENT REQUIREMENT, AND PEDESTRIAN FEATURES.

2. WORK THIS SHEET WITH DESIGN STANDARDS INDEX NOS. 17743 AND 17745 AS NECESSARY.

3. THE CONTRACTOR SHALL VERIFY ALL ELEVATIONS PRIOR TO FABRICATION OF POLES.

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6			

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Checked by: MCC
Approved by: MCC
Scale:
Date: 3/17/17
Job No.: W13392
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STANDARD MAST ARM ASSEMBLIES

U.S. 441 & NW. 158TH LANE. INTERSECTION No. 26M117
ALACHUA, FLORIDA

Sheet No.
T-6

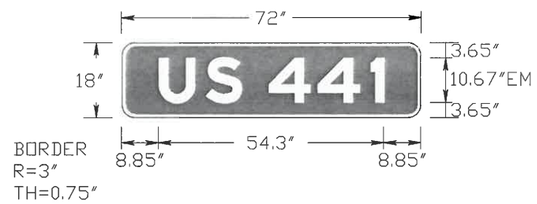
Drawing name: J:\W13392\Roadway\Signal\PLANS001.dwg Mar 31, 2017 - 9:03am jlafaso

SIGN NAME	A		QTY	1	SIGN NUMBER	STATION(S)
PANEL		BORDER				none
WIDTH	6'-0"	WIDTH	0.75"			
HEIGHT	1'-6"	RADII	3"			
LEGEND	White	COLOR	White			
COLOR	Green					

SYMBOL(S)	ANGLE	X	Y	WID	HT

SIGN NUMBER	NUMBER OF POSTS	CLEARANCE Edge Of Lane	COLUMN SIZE		AVERAGE LENGTH

NO. OF LIGHT FIXTURES		FIXTURE SPACING		WATT	
PHOTOMETRIC CURVE				VOLTAGE	



M.U.T.C.D.: 2009 Edition

COPY		U	S		4	4	1		L														
SPACE	8.9	11.3	8.6	6.7	11.7	12.7	3.2	8.9	54.3														
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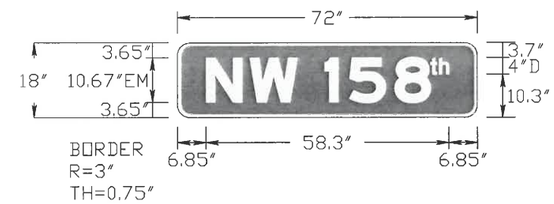
SIGN NAME	B		QTY	2	SIGN NUMBER	STATION(S)
PANEL		BORDER				none
WIDTH	6'-0"	WIDTH	0.75"			
HEIGHT	1'-6"	RADII	3"			
LEGEND	White	COLOR	White			
COLOR	Green					

SYMBOL(S)	ANGLE	X	Y	WID	HT

SIGN NUMBER	NUMBER OF POSTS	CLEARANCE Edge Of Lane	COLUMN SIZE		AVERAGE LENGTH

NO. OF LIGHT FIXTURES		FIXTURE SPACING		WATT	
PHOTOMETRIC CURVE				VOLTAGE	



M.U.T.C.D.: 2009 Edition

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Approved by:	MCC
Scale:	
Date:	3/17/17
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GUIDSIGN WORKSHEET

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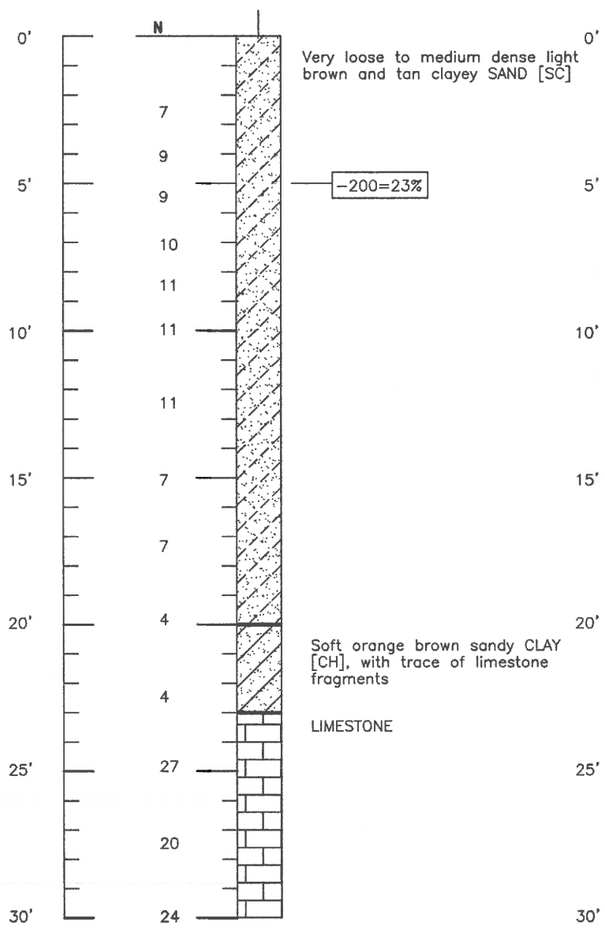
INTERSECTION No. 26M117
ALACUHA, FLORIDA

Sheet No.
T-7

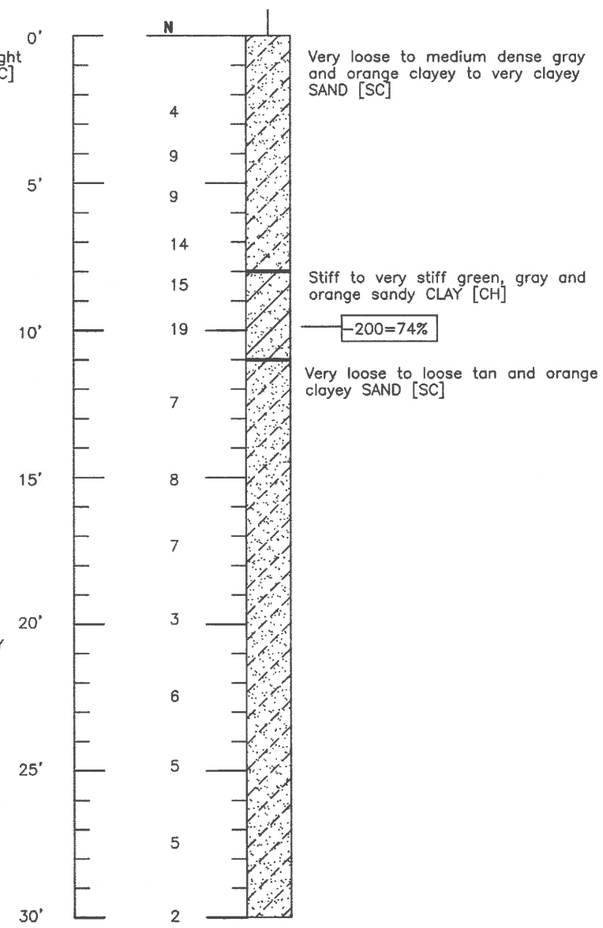
Drawing name: J:\W13392\Roadway\Signs\PLANS001.dwg Mar 31, 2017 - 9:03am jlafaso

B - 1



BORING TERMINATED AT 30 FEET
BORING PERFORMED 05/01/06

B - 2



BORING TERMINATED AT 30 FEET
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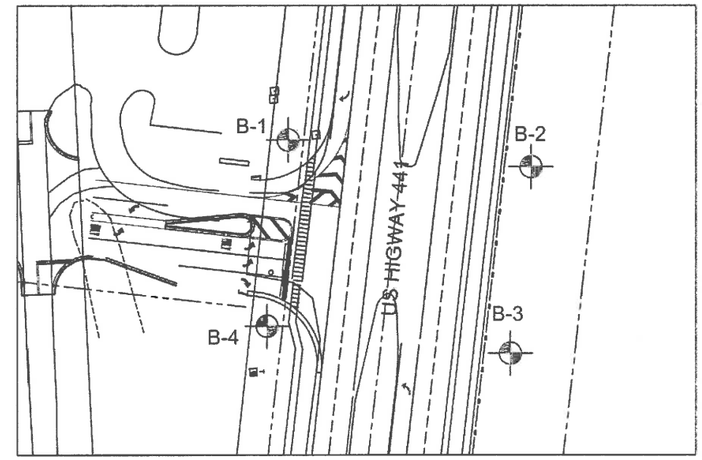

SCALE:1"=100'

KEY TO BORING LOGS

SAND [SP] CLAYEY SAND [SC] SANDY CLAY [CH]

LIMESTONE

ENGINEERING CLASSIFICATION

AUTOMATIC HAMMER

GRANULAR MATERIALS (SILTS, SANDS & GRAVELS)		COHESIVE SOILS (CLAYS)	
CONSISTENCY DESIGNATION	SPT N (BLOWS/FT.)	CONSISTENCY DESIGNATION	SPT N (BLOWS/FT.)
VERY LOOSE	< 3	VERY SOFT	< 1
LOOSE	3 - 7	SOFT	1 - 3
MEDIUM DENSE	7 - 21	FIRM	3 - 6
DENSE	21 - 35	STIFF	6 - 11
VERY DENSE	> 35	VERY STIFF	11 - 21
			> 21

WC= NATURAL MOISTURE CONTENT (%)(FM 1-T 265)
-200= FINES PASSING No.200 SIEVE (%)(FM 1-T 011)
LL= LIQUID LIMIT (%)(FM 1-T 089)
PI= PLASTICITY INDEX (FM 1-T 090)
REC= CORE RECOVERY (%)
pH= pH VALUE
R= RESISTIVITY IN OHM-CM
S= SULFATE CONTENT IN PPM
C= CHLORIDE CONTENT IN PPM

100% CIRCULATION LOSS IN PERCENT

LOCATION OF STANDARD PENETRATION TEST BORING

GROUNDWATER TABLE AND DATE (12/22/04)

STA. 102+00, 9' RT STATION NUMBER OF BORING WITH OFFSET REFERENCED FROM CENTERLINE OF CONSTRUCTION

[SP] UNIFIED SOIL CLASSIFICATION GROUP SYMBOL

N STANDARD PENETRATION RESISTANCE IN BLOWS PER 1 FOOT UNLESS OTHERWISE NOTED

B-1 & B-2 AUTOMATIC HAMMER

HA HAND AUGERED

WOH FELL UNDER WEIGHT OF ROD AND HAMMER

RQD ROCK RECOVERY %

UNIVERSAL ENGINEERING SCIENCES
4475 S.W. 35th TERRACE
GAINESVILLE, FLORIDA
32608

DRAWN BY: K.D.	DATE: 05/22/06	U.E.S. PROJECT NO.:	70080-077-07
CHECKED BY:	DATE:	U.E.S. REPORT NO.:	50261
CERTIFICATE OF AUTHORIZATION NO.: 549		APPENDIX: B	

ENGINEER OF RECORD:
JEFFREY S. PRUETT, P.E.
REGISTERED ENGINEER No. 50775

REPORT OF CORE BORINGS

MAST ARM STRUCTURE

ALACHUA, ALACHUA COUNTY, FLORIDA

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MAR 3 1 2017

No.	Date	Revision	By

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Drawn by: JML
Checked by: MCC
Approved by: MCC
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Date: 3/17/17
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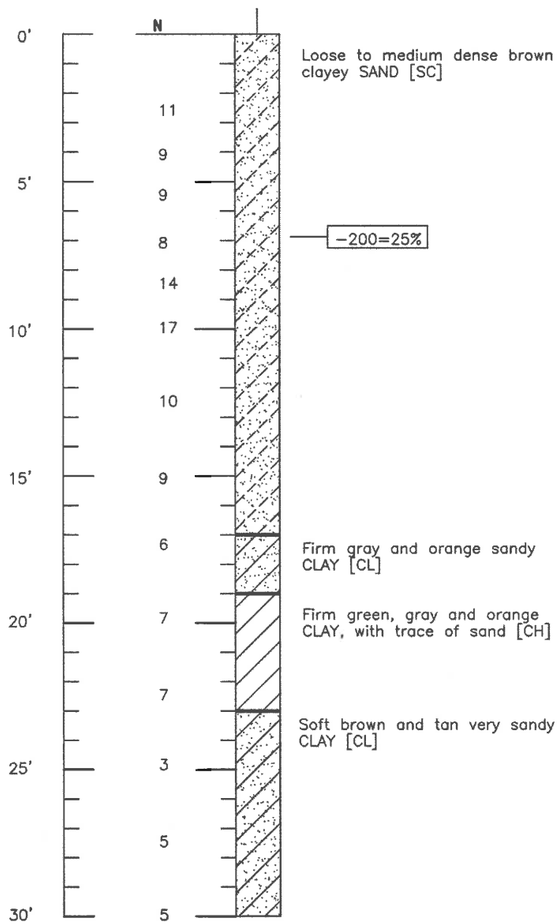
BORING SHEET

U.S. 441 & NW. 158TH LANE. INTERSECTION No. 26M117
ALACUHA, FLORIDA

Sheet No.
T-8

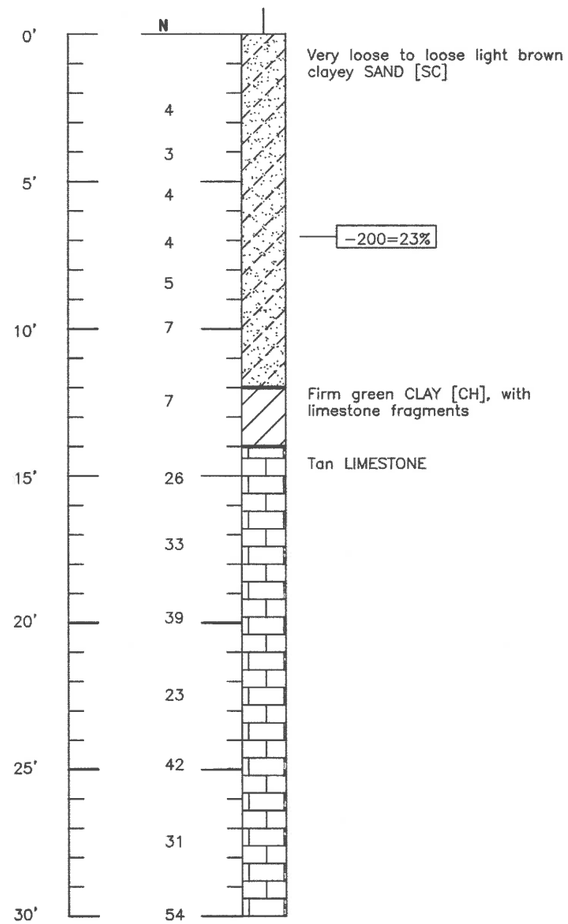
Drawing name: J:\W13392\Roadway\Signal\PLANS001.dwg Mar 31, 2017 - 9:25am jpdaso

B - 3

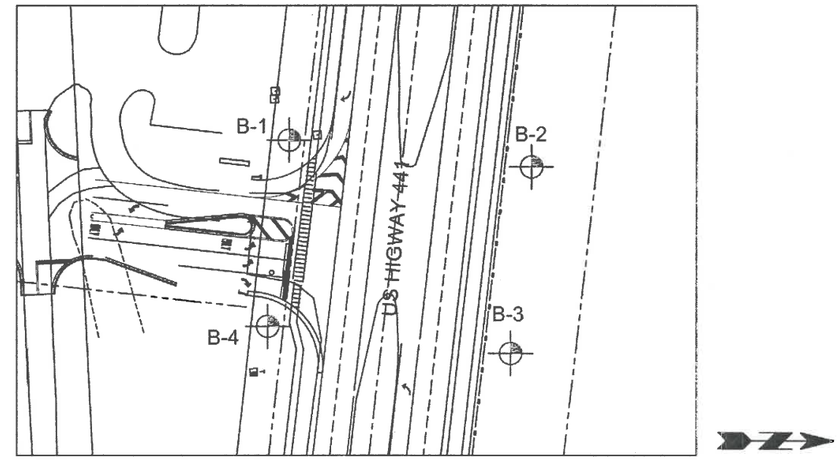


BORING TERMINATED AT 30 FEET
BORING PERFORMED 05/01/06

B - 4



BORING TERMINATED AT 30 FEET
BORING PERFORMED 05/01/06



SCALE:1"=100'

KEY TO BORING LOGS

SAND [SP] CLAYEY SAND [SC] SANDY CLAY [CH]
LIMESTONE CLAY [CH]

ENGINEERING CLASSIFICATION
AUTOMATIC HAMMER

GRANULAR MATERIALS (SILTS, SANDS & GRAVELS)		COHESIVE SOILS (CLAYS)	
CONSISTENCY DESIGNATION	SPT N (BLOWS/FT.)	CONSISTENCY DESIGNATION	SPT N (BLOWS/FT.)
VERY LOOSE	< 3	VERY SOFT	< 1
LOOSE	3 – 7	SOFT	1 – 3
MEDIUM DENSE	7 – 21	FIRM	3 – 6
DENSE	21 – 35	STIFF	6 – 11
VERY DENSE	> 35	VERY STIFF	11 – 21
			> 21

WC= NATURAL MOISTURE CONTENT (%)(FM 1–T 265)
-200= FINES PASSING No.200 SIEVE (%)(FM 1–T 011)
LL= LIQUID LIMIT (%)(FM 1–T 089)
PI= PLASTICITY INDEX (FM 1–T 090)
REC= CORE RECOVERY (%)
pH= pH VALUE
R= RESISTIVITY IN OHM–CM
S= SULFATE CONTENT IN PPM
C= CHLORIDE CONTENT IN PPM

100% CIRCULATION LOSS IN PERCENT

LOCATION OF STANDARD PENETRATION TEST BORING

GROUNDWATER TABLE AND DATE
(12/22/04)

STA. 102+00, 9' RT STATION NUMBER OF BORING WITH OFFSET REFERENCED FROM CENTERLINE OF CONSTRUCTION

[SP] UNIFIED SOIL CLASSIFICATION GROUP SYMBOL

N STANDARD PENETRATION RESISTANCE IN BLOWS PER 1 FOOT UNLESS OTHERWISE NOTED

B–3 & B–4 AUTOMATIC HAMMER

HA HAND AUGERED

WOH FELL UNDER WEIGHT OF ROD AND HAMMER

RQD ROCK RECOVERY %

UNIVERSAL ENGINEERING SCIENCES
4475 S.W. 35th TERRACE
GAINESVILLE, FLORIDA
32608

DRAWN BY: K.D.	DATE: 05/22/06	U.E.S. PROJECT NO.:	70080-077-07
CHECKED BY:	DATE:	U.E.S. REPORT NO.:	50261
CERTIFICATE OF AUTHORIZATION NO.: 549		APPENDIX: B	

ENGINEER OF RECORD:
JEFFREY S. PRUETT, P.E.
REGISTERED ENGINEER No. 50775

REPORT OF CORE BORINGS
MAST ARM STRUCTURE
ALACHUA, ALACHUA COUNTY, FLORIDA
SHEET NO. B-2

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MAR 3 1 2017

No.	Date	Revision	By

Designed by: MCC
Drawn by: JML
Checked by: MCC
Approved by: MCC
Scale:
Date: 3/17/17
Job No.: W13392

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BORING SHEET

U.S. 441 & NW. 158TH LANE. INTERSECTION No. 26M117
ALACHUA, FLORIDA

Sheet No.
T-9

Drawing name: J:\W13392\Roadway\Signal\PLANS001.dwg Mar 31, 2017 - 9:03am jfelsso

TRAFFIC CONTROL GENERAL NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR PREPARING FULLY DETAILED MAINTENANCE-OF-TRAFFIC (M.O.T.) PLANS TO BE UTILIZED FOR TRAFFIC CONTROL OF VEHICLES AND PEDESTRIANS THROUGH THE CONSTRUCTION AREA. THE PREPARATION OF THESE PLANS MUST CONFORM TO ALL THE REQUIREMENTS IDENTIFIED ON THIS PLAN SHEET. THESE PLANS MUST BE PREPARED AND SIGNED AND SEALED BY A FLORIDA REGISTERED ENGINEER WHO HAS THE NECESSARY TRAINING AND EXPERIENCE. THE ENGINEER WHO WILL PREPARE THE PLANS AND THE CONTRACTOR'S PERSONNEL WHO WILL ADMINISTER THE PLANS MUST MEET THE F.D.O.T. TRAINING REQUIREMENTS (F.D.O.T. TRAINING PROCEDURE #625-010-010A).

2. THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN SIGNS WHICH STATE "BUSINESS ENTRANCE" TO BE PROVIDED AT ALL COMMERCIAL DRIVEWAYS ALONG THE PROJECT IMPACTED BY CONSTRUCTION OPERATIONS. THESE SIGNS SHALL HAVE WHITE LETTERING WITH BLUE BACKGROUND AND FOUR INCH (4") LETTERS. SIGNING SHALL BE IN ACCORDANCE WITH THE MUTCD (LATEST EDITION).

3. TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH F.D.O.T. FY 2016-17 DESIGN STANDARDS, INDEX 600 SERIES.

4. TRAFFIC SHALL BE MAINTAINED ON PAVED SURFACES AT ALL TIMES. TEMPORARY TRAVEL LANES SHALL BE A MINIMUM WIDTH OF TEN FEET (10').

5. TRAFFIC CONDITIONS (ACCIDENTS AND OTHER UNFORESEEN CONDITIONS) MAY REQUIRE THE PROJECT ENGINEER TO RESTRICT OR REMOVE LANE CLOSURES OR CHANNELIZATIONS OR REVISE THE IMPLEMENTED M.O.T. PLAN. THE CONTRACTOR SHALL RESPOND AND PROVIDE ADJUSTMENTS AS DIRECTED BY THE PROJECT ENGINEER WITHOUT DELAY UNDER THESE CONDITIONS. THE CONTRACTOR SHALL ALSO RESPOND WITHIN 30 MINUTES UPON NOTIFICATION BY THE CITY OF ALACHUA OR FDOT TO ANY REQUESTS FOR CORRECTION, IMPROVEMENT OR MODIFICATION TO THE TRAFFIC CONTROL PLAN AND/OR DEVICES.

6. ACCESS TO ALL PROPERTIES SHALL BE MAINTAINED AT ALL TIMES.

7. TEMPORARY PAVEMENT MARKINGS SHALL INCLUDE LANE LINES, EDGE LINES, STORAGE AREAS, STOP BARS, AND MESSAGES TO FULLY DEFINE TRAFFIC MOVEMENT. ALL TEMPORARY MARKINGS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 102 OF THE F.D.O.T. STANDARD SPECIFICATIONS. ALL MARKINGS SHALL BE REFLECTORIZED. THESE TEMPORARY MARKINGS SHALL BE PROVIDED AS SOON AS POSSIBLE AT THE END OF EACH DAY'S PAVING OPERATIONS AND PRIOR TO OPENING TO TRAFFIC.

8. UNLESS OTHERWISE SPECIFIED, THE CROSS SLOPE FOR ALL TEMPORARY PAVEMENT WHICH ABUTS EXISTING OR NEW PAVEMENT SHALL MATCH THE CROSS SLOPE OF THE ABUTTING PAVEMENT. CROSS SLOPE TRANSITIONS SHALL CONFORM TO 2016 STANDARD INDEX 511. THE CONTRACTOR SHALL INSURE ADEQUATE DRAINAGE OF ALL TEMPORARY PAVEMENT.

9. A DISCUSSION OF LANE CLOSURE OPERATIONS WILL BE MADE PART OF ALL PRECONSTRUCTION CONFERENCES. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A WRITTEN PLAN WHICH DETAILS EACH ACTIVITY INVOLVED IN THE LANE CLOSURE. THE PLAN SHALL INCLUDE BACK-UP PLANS FOR ACTIVITIES CRITICAL TO REOPENING THE LANES TO TRAFFIC, AND THE BACK-UP FOR ALL SUBCONTRACTOR OPERATIONS AS WELL AS THE PRIME CONTRACTORS.

10. ALL EXISTING PAVEMENT MARKINGS OUTSIDE THE LIMITS OF CONSTRUCTION THAT ARE ALTERED OR DAMAGED SHALL BE REPLACED BY THE CONTRACTOR UPON COMPLETION OF THE PROJECT AT THE CONTRACTOR'S EXPENSE.

11. NOTIFICATION OF LANE CLOSURES OR TEMPORARY DETOURS SHALL BE ACCOMPLISHED 14 WORKING DAYS PRIOR TO CLOSURE OR DETOUR BY SUBMITTING THE REQUIRED LANE CLOSURE FORM, SKETCHES, CALCULATIONS, AND OTHER DATA TO F.D.O.T. AND THE CITY OF ALACHUA.

12. THE TRAFFIC AND TRAVEL WAYS SHALL NOT BE ALTERED BY THE CONTRACTOR TO CREATE A WORK ZONE UNTIL ALL LABOR AND MATERIAL ARE AVAILABLE FOR THE CONSTRUCTION IN THAT AREA.

13. LANE CLOSURES SHALL BE IN ACCORDANCE WITH THE MOST CURRENT LANE CLOSURE RESTRICTIONS AS DETERMINED BY F.D.O.T.

14. AS DETERMINED BY THE FDOT, THE CONTRACTOR SHALL COVER WORK ZONE SIGNS WHEN CONDITIONS NO LONGER WARRANT THEIR USE.

15. CONTRACTOR SHALL REMOVE, RELOCATE OR COVER ANY EXISTING OR PROPOSED SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL PLANS. WHEN THE CONFLICT NO LONGER EXISTS, THE CONTRACTOR SHALL RESTORE THE SIGNS TO THEIR ORIGINAL POSITION.

16. EACH EXISTING STREET NAME AND STOP SIGN AFFECTED BY CONSTRUCTION SHALL BE RELOCATED AND MAINTAINED IN AN APPROPRIATE LOCATION FOR THE DURATION OF THE PROJECT.

17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE REMOVAL OF STORM WATER FROM ROADWAYS UTILIZED FOR MAINTAINING TRAFFIC IN A MANNER APPROVED BY THE FDOT.

18. THE CONTRACTOR SHALL REMOVE ANY EXISTING OR TEMPORARY PAVEMENT MARKINGS THAT CONFLICT WITH THE TRAFFIC CONTROL PLANS. THE CONTRACTOR SHALL UTILIZE A NON-DESTRUCTIVE F.D.O.T. APPROVED METHOD FOR STRIPING REMOVAL. EXCESSIVE DAMAGE TO EXISTING ASPHALT AS DETERMINED BY THE CITY OF ALACHUA AND/OR FDOT AUTHORIZED REPRESENTATIVE, SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

19. TEMPORARY LANE TRANSITIONS, SHIFTS, AND CROSSOVERS SHALL HAVE SOLID LANE AND EDGE LINES FOR THE LENGTH OF THE TRANSITION, SHIFT OR CROSSOVER. IN ADDITION, SOLID LANE AND EDGE LINES SHALL EXTEND 100 FT. ON TANGENT BEYOND EACH END OF THE TRANSITION, SHIFT, OR CROSSOVER. EXCEPTION SHALL BE THROUGH INTERSECTIONS WHERE 2' - 4' SKIP LINES WILL BE PLACED.

20. ALL EXISTING SIDEWALKS WITHIN THE RIGHT-OF-WAY SHALL REMAIN OPEN OR PROVISION OF A TEMPORARY WALKWAY SHALL BE PROVIDED IN ACCORDANCE WITH FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD INDEX 660 "MID-BLOCK SIDEWALK CLOSURE WITH TEMPORARY WALKWAY" UNLESS OTHERWISE APPROVED BY THE MARION COUNTY OFFICE OF THE COUNTY ENGINEER AND/OR FDOT AUTHORIZED REPRESENTATIVE.

21. ALL LANES MUST BE REOPENED TO TRAFFIC WITHIN 12 HOURS AFTER RECEIVING NOTIFICATION A OF A HURRICANE EVACUATION OR ANY OTHER CATASTROPHIC EVENT AND SHALL REMAIN OPEN FOR THE DURATION OF THE EVACUATION OR EVENT AS DIRECTED BY THE PROJECT ADMINISTRATOR AND/OR FDOT AUTHORIZED REPRESENTATIVE.

22. PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE USED (IN ACCORDANCE WITH FDOT DESIGN STANDARDS INDEX 600) TO INDICATE THE PRESENCE OF NEW TRAFFIC SIGNALS DURING CONSTRUCTION FOR 14 DAYS BEFORE AND 14 DAYS AFTER SIGNAL ACTIVATION AND THEY SHALL BE LOCATED 500 FT FROM THE BACK OF THE STOP BAR ON THE EAST AND WEST INTERSECTION APPROACHES AND DISPLAY MESSAGES PANELS AS FOLDOWS:

MESSAGE 1

N E W
S I G N A L
A H E A D

MESSAGE 2

S T A R T
D A T E
X X / X X / X X *

* START DATE TO BE DETERMINED BY CONTRACTOR

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MATTHEW C. CUSHMAN LICENSE No. 73150 STATE OF FLORIDA PROFESSIONAL ENGINEER
MAR 31 2017

No.	Date	Revision	By

Designed by: MCC
Drawn by: JML
Checked by: MCC
Approved by: MCC
Scale:
Date: 3/17/17
Job No.: W13392

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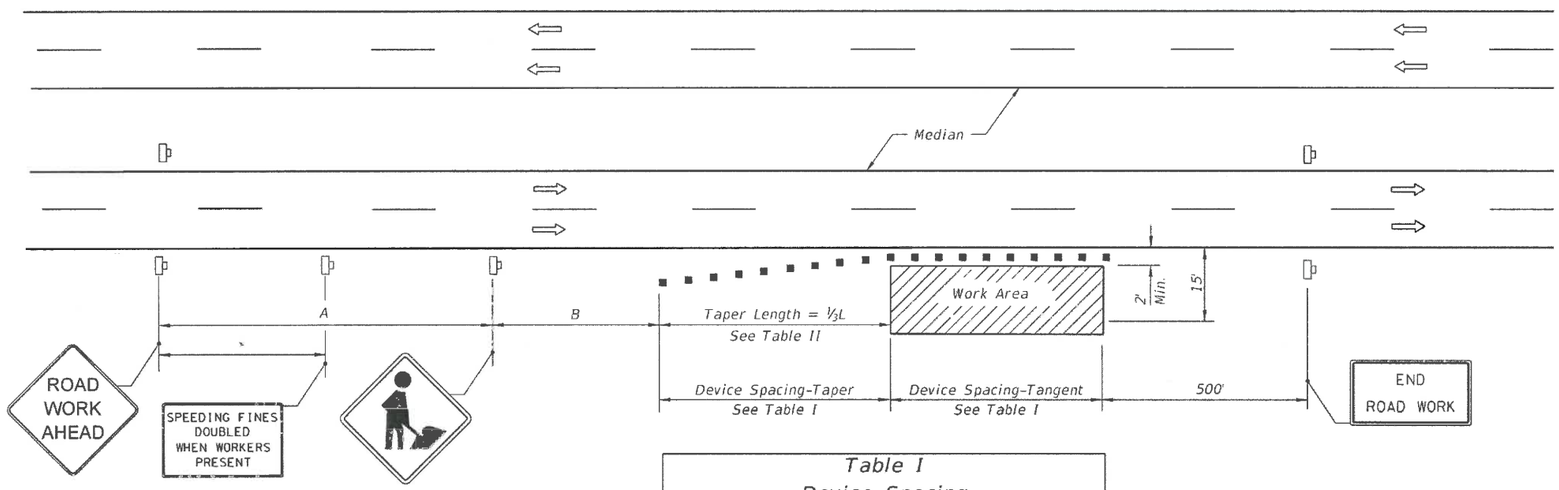
TRAFFIC CONTROL NOTES

U.S. 441 & NW. 158TH LANE. INTERSECTION No. 26M117
ALACUHA, FLORIDA

Sheet No.
TCP-1

Drawing name: J:\W13392\Roadway\Signal\FLAN5031.dwg Mar 31, 2017 - 9:03am jlafao



DISTANCE BETWEEN SIGNS

Speed	Spacing (ft.)	
	A	B
40 mph or less	200	200
45 mph	350	350
50 mph or greater	500	500

* 250' beyond the ROAD WORK AHEAD sign or midway between signs whichever is less.

Table I
Device Spacing

Speed (mph)	Max. Distance Between Devices (ft.)			
	Cones or Tubular Markers		Type I or Type II Barricades or Vertical Panels or Drums	
	Taper	Tangent	Taper	Tangent
25	25	50	25	50
30 to 45	25	50	30	50
50 to 70	25	50	50	100

Table II
Taper Length - Shoulder

Speed (mph)	⅓L (ft.)			Notes
	8' Shldr.	10' Shldr.	12' Shldr.	
25	28	35	42	$L=\frac{WS^2}{60}$
30	40	50	60	
35	55	68	82	
40	72	90	107	
45	120	150	180	L=WS
50	133	167	200	
55	147	183	220	
60	160	200	240	
65	173	217	260	
70	187	233	280	

8' minimum shoulder width.

⅓L = Length of shoulder taper in feet

W = Width of total shoulder in feet (combined paved and unpaved width)

S = Posted speed limit (mph)

SYMBOLS

- Work Area
- Channelizing Device (See Index No. 600)
- Work Zone Sign
- Lane Identification + Direction of Traffic

GENERAL NOTES

1. When a high volume of work vehicles are entering and leaving the Work Area at speeds slower than 10 MPH below the posted speed, place an MOT-5-06 sign in the ROAD WORK AHEAD sign location and shift the ROAD WORK AHEAD sign upstream 500 ft.
2. This TCZ plan also applies to work performed in the median more than 2' but less than 15' from the edge of travelway.
3. When work is being performed on a multilane undivided roadway the signs normally mounted in the median (as shown) shall be omitted.
4. WORKERS signs to be removed or fully covered when no work is being performed.
5. SHOULDER WORK sign may be used as an alternate to the WORKER symbol sign.
6. When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accordance with other applicable TCZ Indexes.
7. For general TCZ requirements and additional information, refer to Index No. 600.

DURATION NOTES

1. Signs and channelizing devices may be omitted if all of the following conditions are met:
   a. Work operations are 60 minutes or less.
   b. Vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.

CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH THE AREA CLOSER THAN 15' BUT NOT CLOSER THAN 2' TO THE EDGE OF TRAVEL WAY.

LAST REVISION	REVISION	DESCRIPTION:	FDOT 2016 DESIGN STANDARDS	MULTILANE, WORK ON SHOULDER	INDEX NO.	SHEET NO.
07/01/15					612	1 of 1

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FDOT INDEX SHEET

U.S. 441 & NW. 158TH LANE. INTERSECTION No. 26M117
ALACUHA, FLORIDA

Sheet No.
TCP-2

Drawing name: J:\W13392\Roadway\Signal\PLANS001.dwg Mar 31, 2017 - 9:03am jlofaso

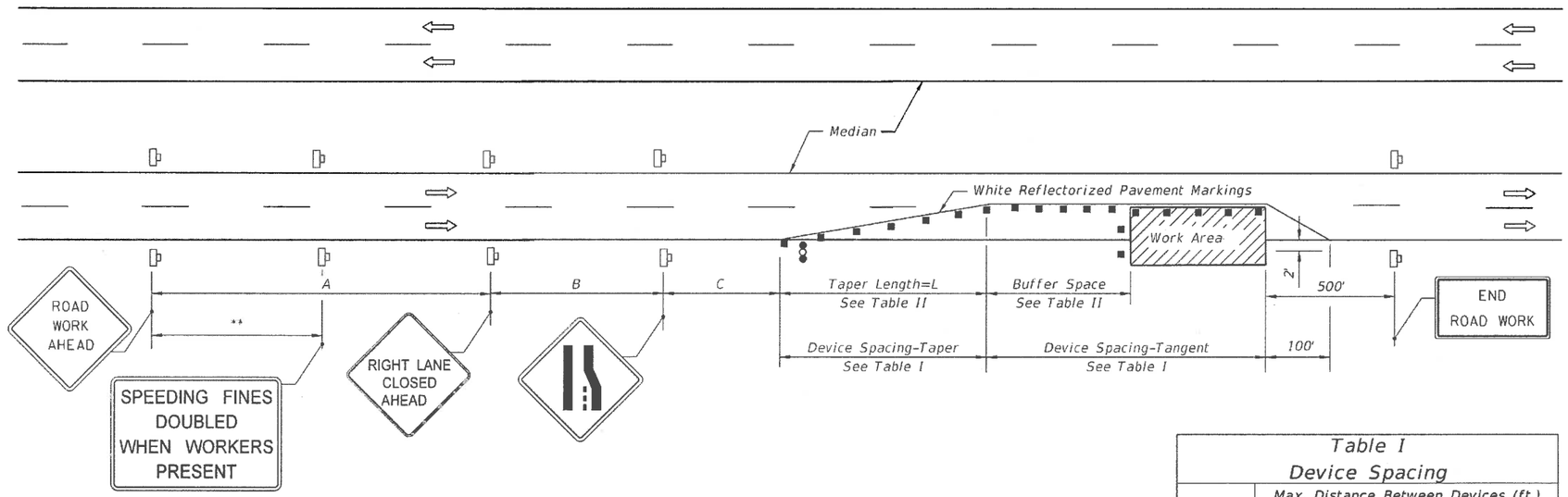

Table II
Buffer Space and Taper Length

Speed (mph)	Buffer Space	Taper Length (12' Lateral Transition)	
	Dist. (ft.)	L (ft.)	Notes (Merge)
25	155	125	$L = \frac{WS^2}{60}$
30	200	180	
35	250	245	
40	305	320	
45	360	540	L = WS
50	425	600	
55	495	660	
60	570	720	
65	645	780	
70	730	840	

When Buffer Space cannot be attained due to geometric constraints, the greatest attainable length shall be used, but not less than 200 ft.

For lateral transitions other than 12', use Where:

L = Length of taper in feet
W = Width of lateral transition in feet
S = Posted speed limit (mph)

Table I
Device Spacing

Speed (mph)	Max. Distance Between Devices (ft.)			
	Cones or Tubular Markers		Type I or Type II Barricades or Vertical Panels or Drums	
	Taper	Tangent	Taper	Tangent
25	25	50	25	50
30 to 45	25	50	30	50
50 to 70	25	50	50	100

DISTANCE BETWEEN SIGNS

Speed	Spacing (ft.)		
	A	B	C
40 mph or less	200	200	200
45 mph	350	350	350
50 mph	500	500	500
*55 mph or greater	2640	1640	1000

* The ROAD WORK 1 MILE sign may be used as an alternate to the ROAD WORK AHEAD sign and the RIGHT LANE CLOSED ½ MILE sign may be used as an alternate to the RIGHT LANE CLOSED AHEAD sign.

** 500' beyond the ROAD WORK AHEAD sign or midway between signs whichever is less.

GENERAL NOTES

1. Work operations shall be confined to one traffic lane, leaving the adjacent lane open to traffic.
2. On undivided highways the median signs as shown are to be omitted.
3. When work is performed in the median lane on divided highways, the channelizing device plan is inverted and left lane closed and lane ends signs substituted for the right lane closed and lane end signs.

   The same applies to undivided highways with the following exceptions:
   a. Work shall be confined within one median lane.
   b. Additional barricades, cones, or drums shall be placed along the centerline abutting the work area and across the trailing end of the work area.

   When work on undivided highways occurs across the centerline so as to encroach on both median lanes, the inverted plan is applied to the approach of both roadways.
4. Signs and traffic control devices are to be modified in accordance with INTERMITTENT WORK STOPPAGE details (sheet 2 of 2) when no work is being performed and the highway is open to traffic.
5. The two channelizing devices directly in front of the work area may be omitted provided vehicles in the work area have high-intensity rotating, flashing, oscillating, or strobe lights operating.
6. When paved shoulders having a width of 8 ft. or more are closed, channelizing devices shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the travel way. See Index No. 612 for shoulder taper formulas.
7. When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accordance with other applicable TCZ Indexes.
8. This TCZ plan does not apply when work is being performed in the middle lane(s) of a six or more lane highway. See Index No. 614.
9. For general TCZ requirements and additional information, refer to Index No. 600.

SYMBOLS

- Work Area
- Channelizing Device (See Index No. 600)
- Work Zone Sign
- Advance Warning Arrow Board

DURATION NOTES

1. Temporary white edgeline may be omitted for work operations less than 3 consecutive calandar days.
2. For work operations up to approximately 15 minutes, signs, channelizing devices, arrow board, and buffer space may be omitted if all of the following conditions are met:
   a. Speed limit is 45 mph or less.
   b. No sight obstructions to vehicles approaching the work area for a distance equal to the buffer space and the taper length combined.
   c. Volume and complexity of the roadway has been considered.
   d. The closed lane is occupied by a class 5 or larger, medium duty truck(s) with a minimum gross weight vehicle rating (GWVR) of 16,001 lb with high-intensity, rotating, flashing, oscillating, or strobe lights mounted above the cab height and operating.
3. For work operations up to 60 minutes, arrow board and buffer space may be omitted if conditions a, b, and c in DURATION NOTE 2 are met, and vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.

CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH ON THE LANE ADJACENT TO EITHER SHOULDER AND THE AREA 2' OUTSIDE THE EDGE OF TRAVEL WAY.

LAST REVISION	REVISION	DESCRIPTION:
07/01/15		

FDOT 2016 DESIGN STANDARDS

MULTILANE, WORK WITHIN TRAVEL WAY
MEDIAN OR OUTSIDE LANE

INDEX NO. 613

SHEET NO. 1 of 2

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No.	Date	Revision	By
1			
2			
3			
4			
5			
6			
7			

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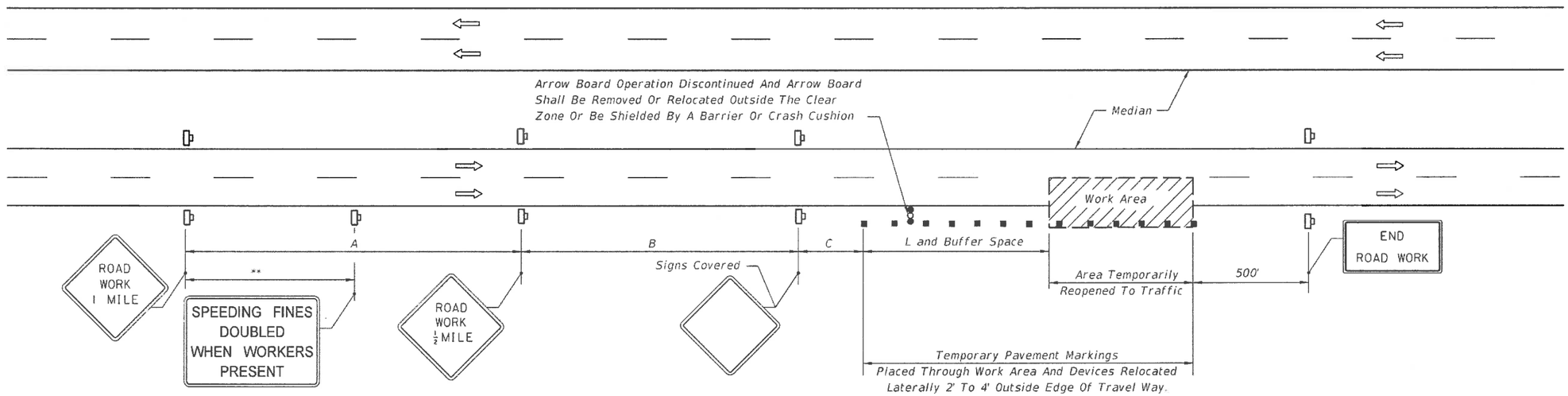
FDOT INDEX SHEET

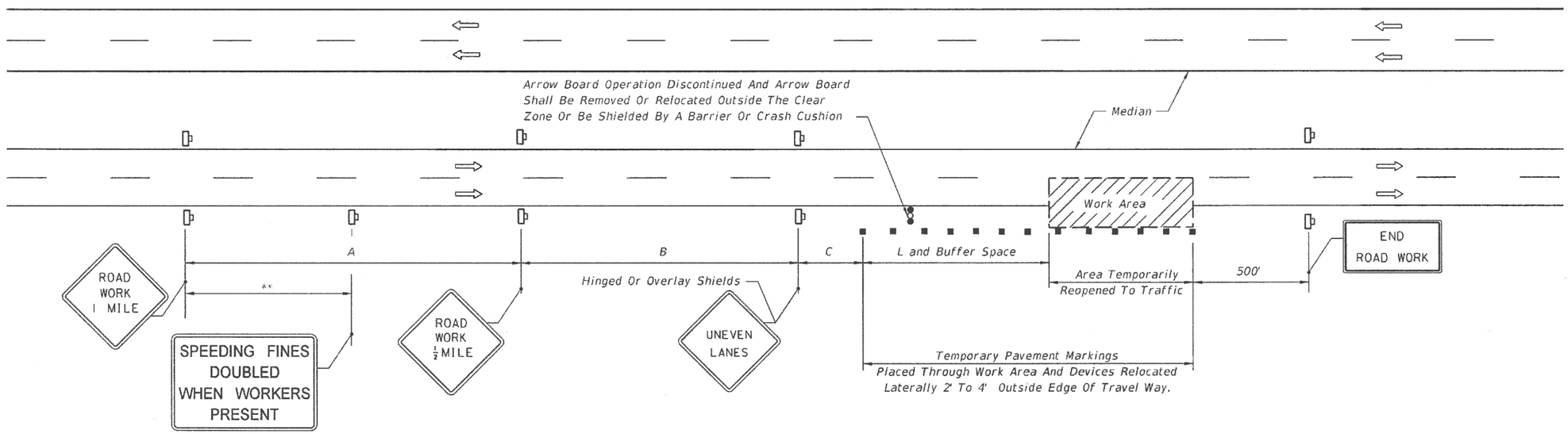
U.S. 441 & NW. 158TH LANE. INTERSECTION No. 26M117
ALACUHA, FLORIDA

Sheet No.
TCP-3

Drawing name: J:\W13392\Roadway\Signal\PLANS001.dwg Mar 31, 2017 - 9:03am jdeleo



EVEN PAVEMENT



UNEVEN PAVEMENT

INTERMITTENT WORK STOPPAGE - LANE REOPENED TO TRAFFIC

LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
07/01/15			FDOT 2016 DESIGN STANDARDS	MULTILANE, WORK WITHIN TRAVEL WAY MEDIAN OR OUTSIDE LANE	613	2 of 2

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FDOT INDEX SHEET

U.S. 441 & NW. 158TH LANE. INTERSECTION No. 26M117
ALACUHA, FLORIDA

Sheet No.
TCP-4

Drawing name: J:\W13392\Roadway\Signal\PLANS001.dwg Mar 31, 2017 - 9:03am jlofaso

GENERAL NOTES

1. Work operations shall be confined to either one lane, or lane combinations as follows:

   a. Outside travel lane;
   b. Outside auxiliary lane;
   c. Outside travel lane and adjoining auxiliary lane;
   d. Inside travel lane △;
   e. Inside auxiliary lane △;
   f. Inside travel lane and adjoining auxiliary lane △
   △ See Sheet 3

   If the work area is confined to an auxiliary lane the work area shall be barricaded and the RIGHT (LEFT) LANE CLOSED AHEAD signs replaced by ROAD WORK AHEAD signs, and the merge symbol signs eliminated.

2. When vehicles in a parking zone block the line of sight to TCZ signs, the signs shall be post mounted and located in accordance with Index No. 17302.

3. If the work space extends across a crosswalk, the crosswalk should be closed using the information in Index No. 660.

4. Signs are required on the median side for divided highways.

5. The two channelizing devices directly in front and directly at the end of the work area may be omitted provided vehicles in the work area have high-intensity rotating, flashing, oscillating, or strobe lights operating.

6. For general TCZ requirements and additional information, refer to Index No. 600.

DURATION NOTES

1. For work operations up to approximately 15 minutes, signs, channelizing devices, and arrow board may be omitted if all of the following conditions are met:

   a. Speed limit is 45 mph or less.
   b. No sight obstructions to vehicles approaching the work area for a distance equal to twice the taper length.
   c. Volume and complexity of the roadway has been considered.
   d. The closed lane is occupied by a class 5 or larger, medium duty truck(s) with a minimum gross weight vehicle rating (GWVR) of 16,001 lb with high-intensity, rotating, flashing, oscillating, or strobe lights mounted above the cab height and operating.

2. For work operations up to 60 minutes, the arrow board may be omitted if conditions a, b, and c in DURATION NOTE 1 are met, and vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.

SYMBOLS

- Work Area
- Work Zone Sign
- Advance Warning Arrow Board
- Type III Barricade
- Channelizing Device (See Index No. 600)
- Lane Identification + Direction of Traffic

LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
07/01/15			FDOT 2016 DESIGN STANDARDS	MULTILANE, WORK NEAR INTERSECTION MEDIAN OR OUTSIDE LANE	616	1 of 3

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No.	Date	Revision	By
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Designed by: MCC
Drawn by: JML
Checked by: MCC
Approved by: MCC
Scale:
Date: 3/17/17
Job No.: W13392
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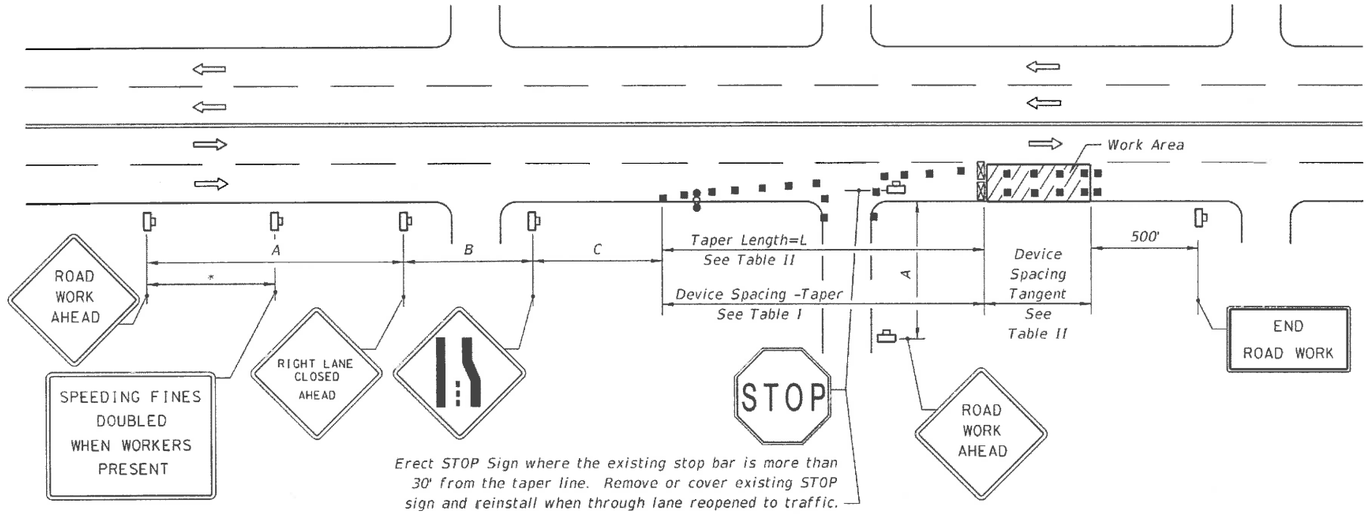
Lndscp. Lic. No. LC0000298

FDOT INDEX SHEET

U.S. 441 & NW. 158TH LANE. INTERSECTION No. 26M117
ALACUHA, FLORIDA

Sheet No.
TCP-5

Drawing name: J:\W13392\Roadway\Signs\PLANS001.dwg Mar 31, 2017 - 9:03am jlafaso

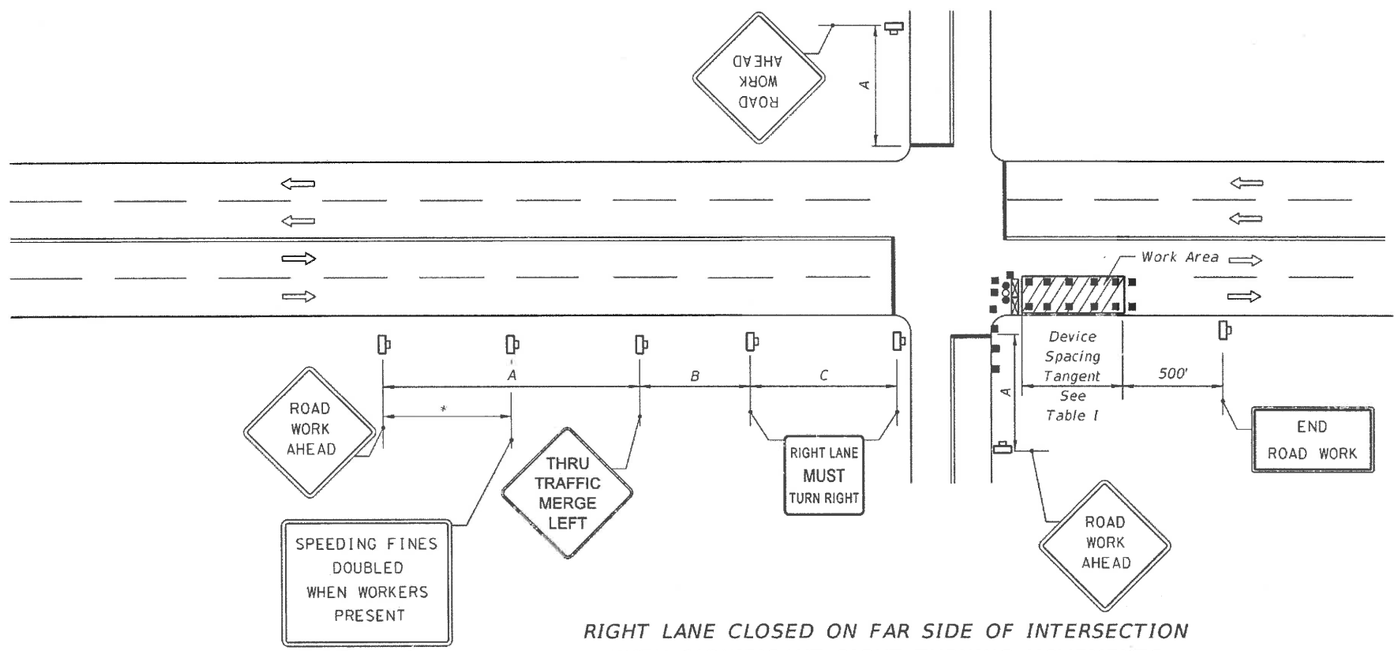


RIGHT LANE CLOSED ON FAR SIDE OF MINOR SIDESTREET

DISTANCE BETWEEN SIGNS			
Speed	Spacing (ft.)		
	A	B	C
40 mph or less	200	200	200
45 mph	350	350	350

* 500' beyond the ROAD WORK AHEAD sign or midway between signs whichever is less.

Table I Device Spacing				
Speed (mph)	Max. Distance Between Devices (ft.)			
	Cones or Tubular Markers		Type I or Type II Barricades or Vertical Panels or Drums	
	Taper	Tangent	Taper	Tangent
25	25	50	25	50
30 to 45	25	50	30	50



RIGHT LANE CLOSED ON FAR SIDE OF INTERSECTION
WITH SIGNIFICANT RIGHT TURNING MOVEMENTS

Table II Taper Length - Merge (12' Lateral Transition)		
Speed (mph)	L (ft)	Notes (Merge)
25	125	$L = \frac{WS^2}{60}$
30	180	
35	245	
40	320	
45	540	L=WS

For lateral transitions other than 12', use formula for L shown in the notes column. Where:
L = Length of taper in feet
W = Width of lateral transition in feet
S = Posted speed limit (mph)

1. The normal procedure is to close on the near side of the intersection any lane that is not carried through the intersection. However, when this results in the closure of a right lane having significant right turning movements, then the right lane may be restricted to right turns only as shown in this detail.
2. For intersection approaches reduced to a single lane, left turning movements may be prohibited to maintain capacity for through vehicular traffic.

LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
07/01/15			FDOT 2016 DESIGN STANDARDS	MULTILANE, WORK NEAR INTERSECTION MEDIAN OR OUTSIDE LANE	616	2 of 3

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1			
2			
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7			
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Checked by: MCC
Approved by: MCC
Scale:
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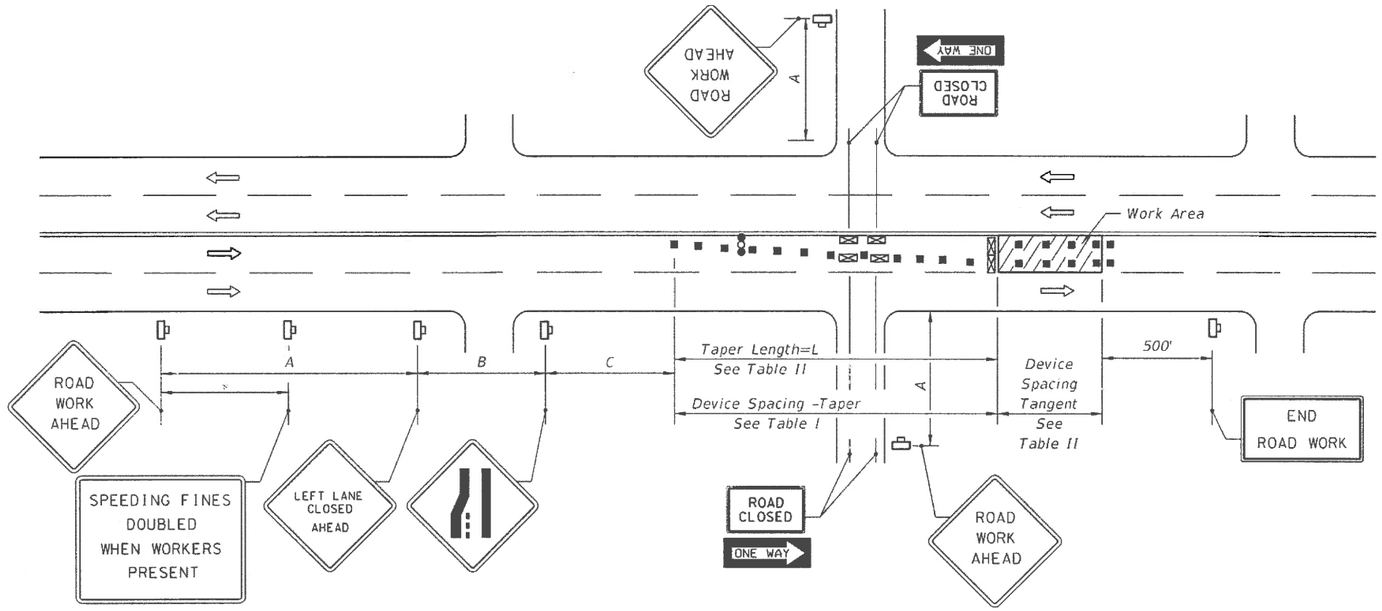
FDOT INDEX SHEET

U.S. 441 & NW. 158TH LANE. INTERSECTION No. 26M117
ALACUHA, FLORIDA

Sheet No.
TCP-6

Drawing name: J:\W13392\Roadway\Signal\PLANS01.dwg Mar 31, 2017 - 9:05am jlafaso

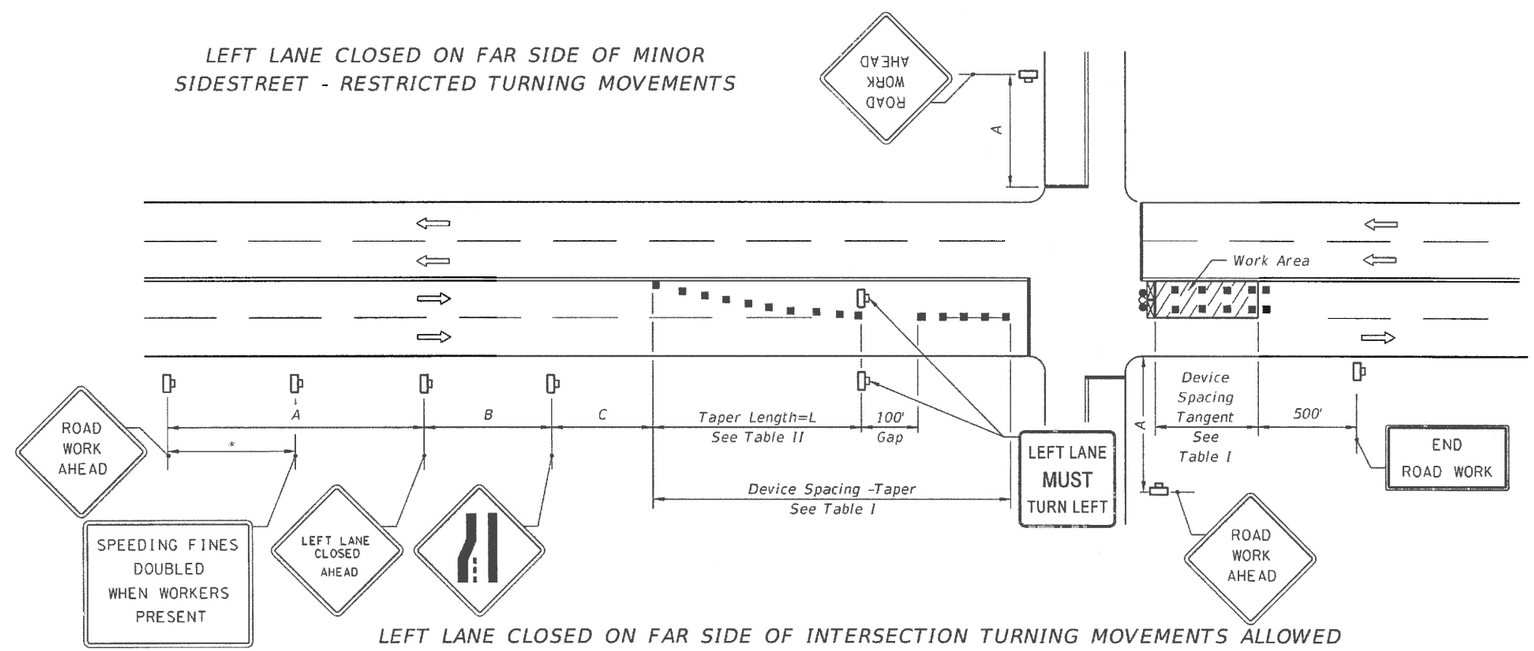


LEFT LANE CLOSED ON FAR SIDE OF MINOR SIDESTREET - RESTRICTED TURNING MOVEMENTS

DISTANCE BETWEEN SIGNS			
Speed	Spacing (ft.)		
	A	B	C
40 mph or less	200	200	200
45 mph	350	350	350

* 500' beyond the ROAD WORK AHEAD sign or midway between signs whichever is less.

Table I Device Spacing				
Speed (mph)	Max. Distance Between Devices (ft.)			
	Cones or Tubular Markers		Type I or Type II Barricades or Vertical Panels or Drums	
	Taper	Tangent	Taper	Tangent
25	25	50	25	50
30 to 45	25	50	30	50



LEFT LANE CLOSED ON FAR SIDE OF INTERSECTION TURNING MOVEMENTS ALLOWED

Table II Taper Length - Merge (12' Lateral Transition)		
Speed (mph)	L (ft.)	Notes (Merge)
25	125	$L = \frac{WS^2}{60}$
30	180	
35	245	
40	320	
45	540	$L = WS$

For lateral transitions other than 12', use formula for L shown in the notes column. Where:
L = Length of taper in feet
W = Width of lateral transition in feet
S = Posted speed limit (mph)

1. The normal procedure is to close on the near side of the intersection any lane that is not carried through the intersection. However, when this results in the closure of a left lane having significant left turning movements, then the left lane may be reopened as a turn bay for left turns only as show in this detail.

LAST REVISION	REVISION	DESCRIPTION:
07/01/15		

FDOT 2016 DESIGN STANDARDS

MULTILANE, WORK NEAR INTERSECTION MEDIAN OR OUTSIDE LANE

INDEX NO. 616

SHEET NO. 3 of 3

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Approved by: MCC
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FDOT INDEX SHEET

U.S. 441 & NW. 158TH LANE. INTERSECTION No. 26M117

ALACUHA, FLORIDA

Sheet No. TCP-7

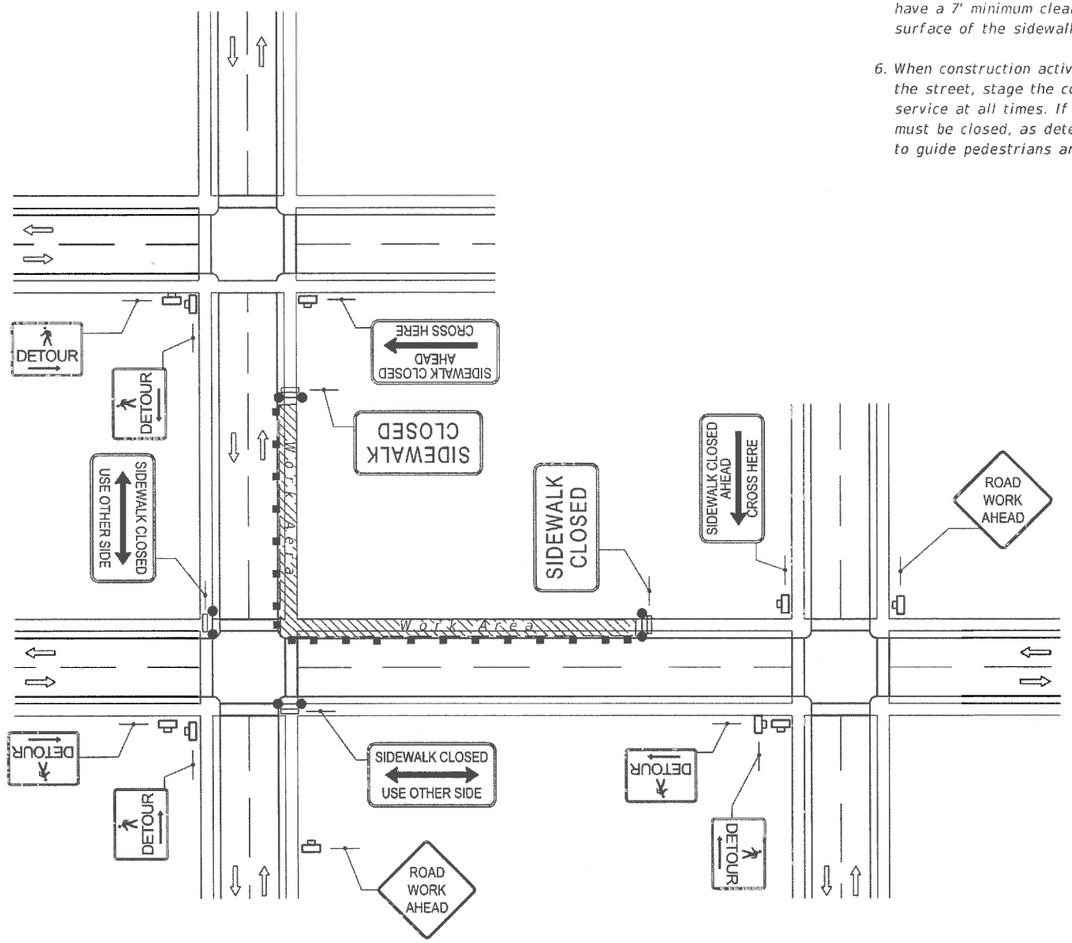
Drawing name: J:\W13392\Roadway\Signal\PLANSCD1.dwg Mar 31, 2017 - 9:03am jakeso

SYMBOLS

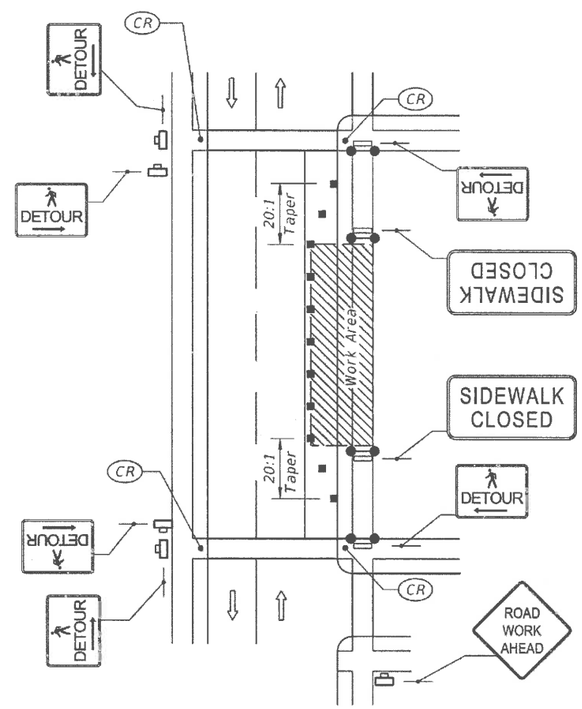
- Work Area
- Channelizing Device (See Index 600)
- Work Zone Sign
- CR — Required Locations For Either Temporary Or Permanent Curb Ramps.
- Lane Identification + Direction of Traffic
- Pedestrian Longitudinal Channelizing Device (LCD) with Mounted Work Zone Sign
- Pedestrian Longitudinal Channelizing Device (LCD)

GENERAL NOTES

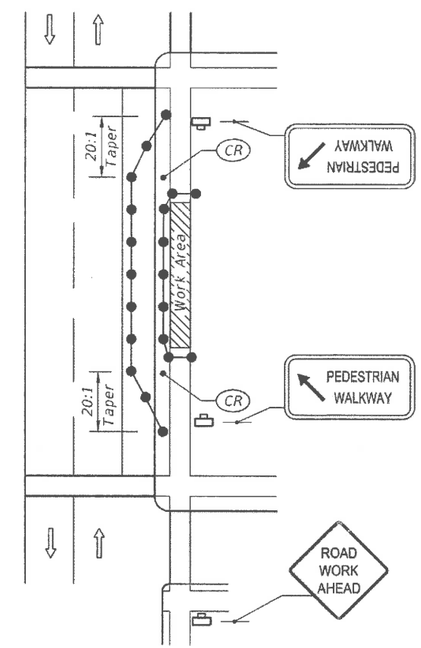
1. Route pedestrian traffic around work areas when construction activities encroach on the sidewalk for more than 60 minutes using the devices and remedies shown on this Index. Use project specific designs for scenarios not included on this Index.
2. For spacing of traffic control devices and general TCZ requirements refer to Index 600. The maximum spacing between barricades, vertical panels, drums or tubular markers is 25'.
3. Use delineators on longitudinal channelizing devices separating the work area from vehicular traffic.
4. Cover or deactivate pedestrian traffic signal display(s) controlling closed crosswalks.
5. Post mounted signs located near or adjacent to a sidewalk must have a 7' minimum clearance from the bottom of sign to the surface of the sidewalk.
6. When construction activities involve sidewalks on both sides of the street, stage the construction so that one sidewalk is in service at all times. If this is not feasible and both sidewalks must be closed, as determined by the Engineer, provide a detour to guide pedestrians around the construction zone.
7. Provide a 5' wide temporary walkway, except where space restrictions warrant a minimum width of 4'. Provide a 5' x 5' passing space for temporary walkways less than 5' in width at intervals not to exceed 200'.
8. Provide a cross-slope with a maximum value of 0.02 for all temporary walkways.
9. Temporary walkway surfaces and ramps must be stable, firm, slip resistant, and kept free of any obstructions and hazards such as holes, debris, mud, construction equipment and stored materials.
10. Remove temporary walkways immediately after reopening of the sidewalk, unless otherwise noted in the plans.
11. Meet the requirements of Index 304 for temporary curb ramps.
12. Place pedestrian longitudinal channelizing device(s) across the full width of the closed sidewalk. For temporary walkways, similar to the Sidewalk Diversion, place LCD's to delineate both sides of the temporary walkway.



CROSSWALK CLOSURE AND PESESTRIAN DETOUR



SIDEWALK DETOUR



SIDEWALK DIVERSION

LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
07/01/15			FDOT 2016 DESIGN STANDARDS	PEDESTRIAN CONTROL FOR CLOSURE OF SIDEWALKS	660	1 of 1

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FDOT INDEX SHEET

U.S. 441 & NW. 158TH LANE. INTERSECTION No. 26M117

ALACUHA, FLORIDA

Sheet No.
TCP-8

Drawing name: J:\W13392\Roadway\Signal\PLANSSD1.dwg Mar 31, 2017 - 9:05am jlefaso

Walmart

B | R | R architecture	March 09, 2017	Alachua, FL #3873 - New Store	Overall Perspective	1

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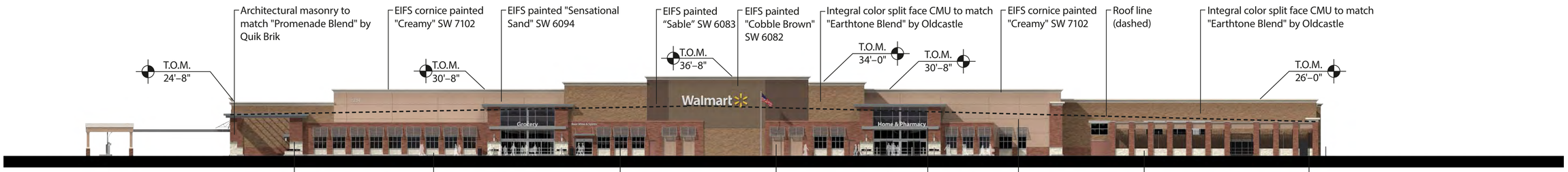
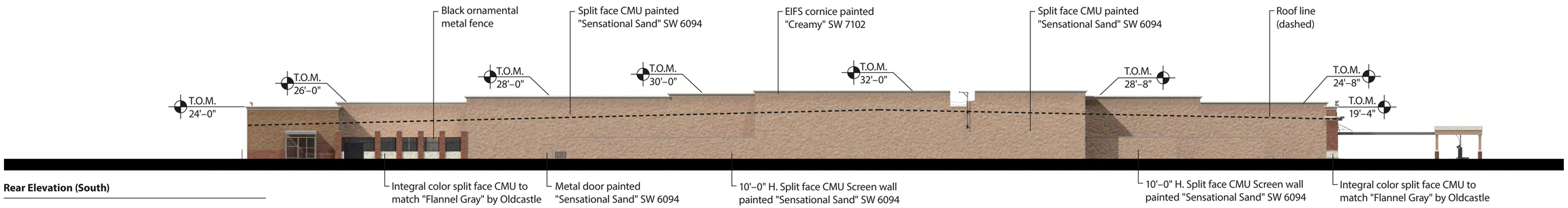
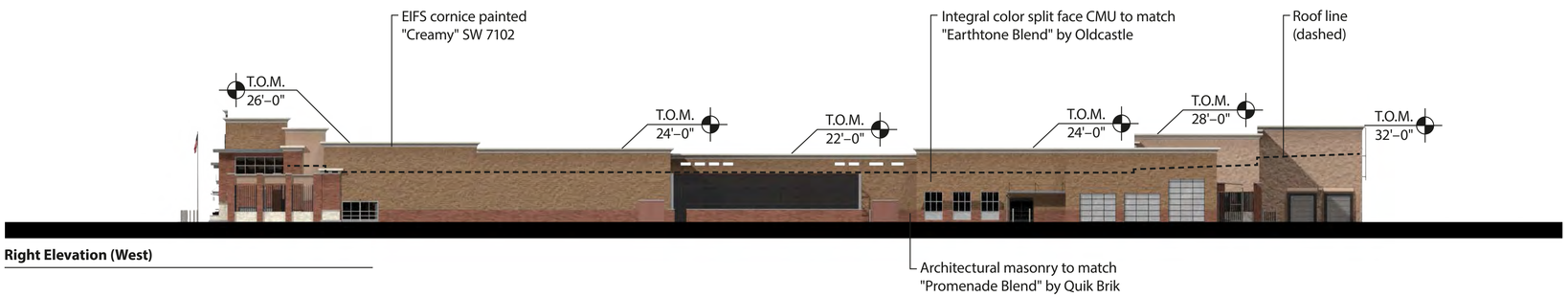


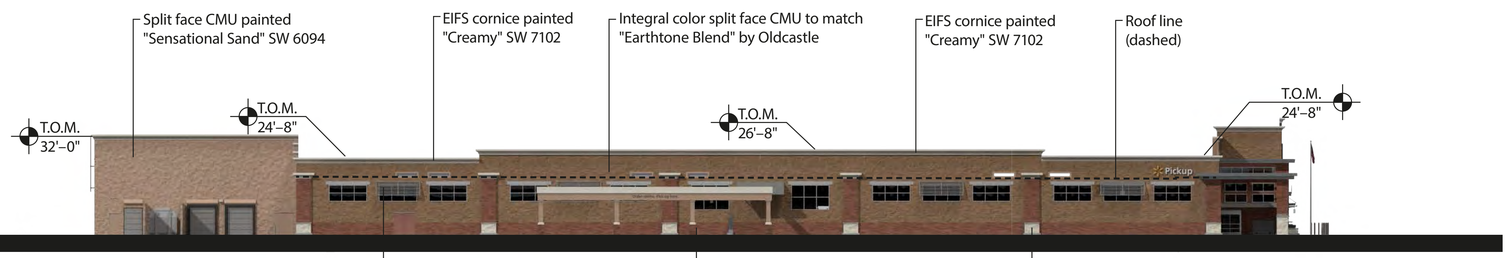
Front Elevation (North)



Rear Elevation (South)



Right Elevation (West)



Left Elevation (East)

Sign	Qty.	Height	Area (S.F.)	Total S.F.
Walmart	1	4'–6"/6'–6"	198.26	198.26
Grocery	1	2'–0"	25.63	25.63
Home & Pharmacy	1	2'–0"	61.85	61.85
Pickup	1	2'–0"	45.56	45.56
Beer Wine & Spirits	1	1'–0"	16.01	16.01
			Total Building Signage	**347.31**

Walmart

B | R | R architecture

March 09, 2017

Alachua, FL #3873 - New Store

Elevations

2

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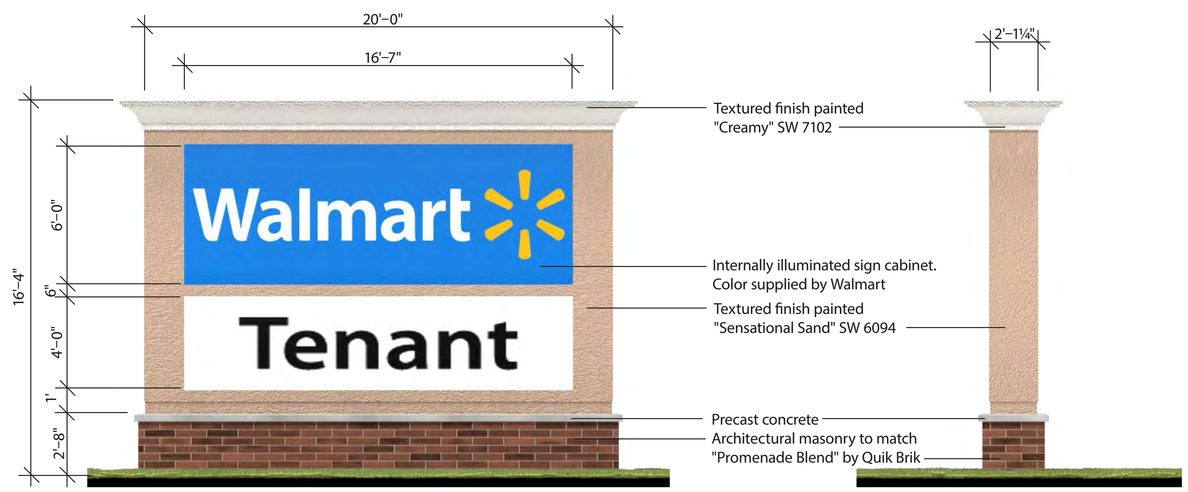
Garden Center View



Multi-Tenant Sign Front Elevation

Sign	Qty.	Illumination	Area (S.F.)	Total S.F.
Walmart	1	Internal	99.50	99.50
			Total Site Signage	**99.50**

Walmart

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March 09, 2017

Alachua, FL #3873 - New Store

Site Signage Calculations

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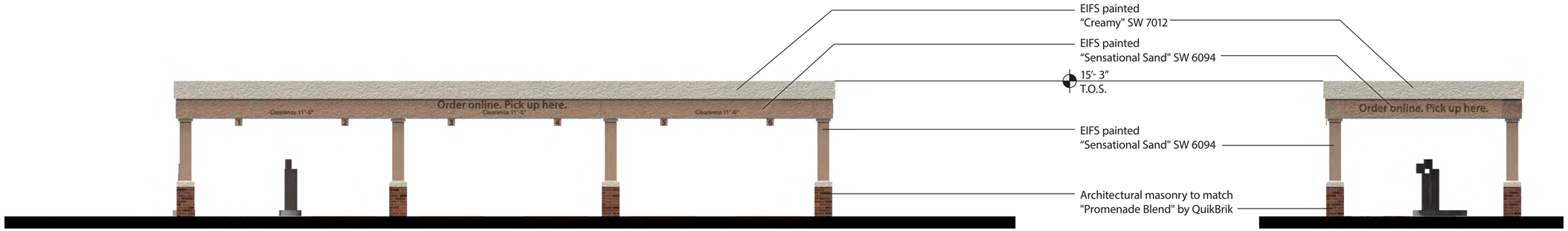
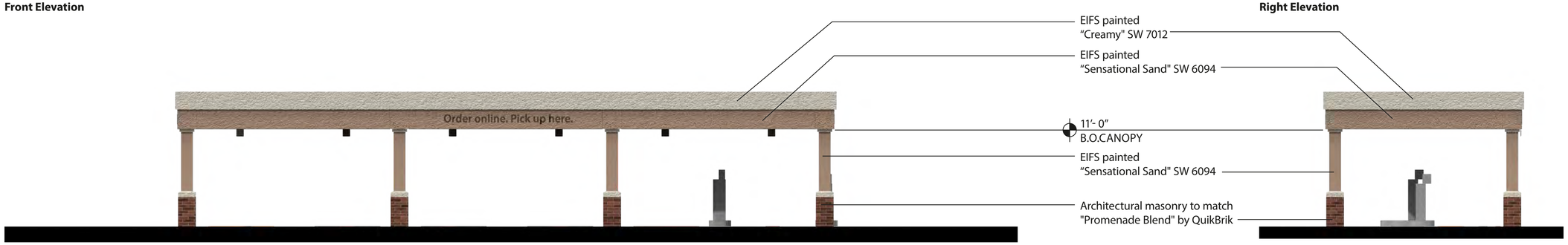


Front Elevation

Right Elevation



Rear Elevation

Left Elevation

Walmart

B | R | R architecture	March 09, 2017	Alachua, FL #3873 - New Store	Pick Up Canopy	4

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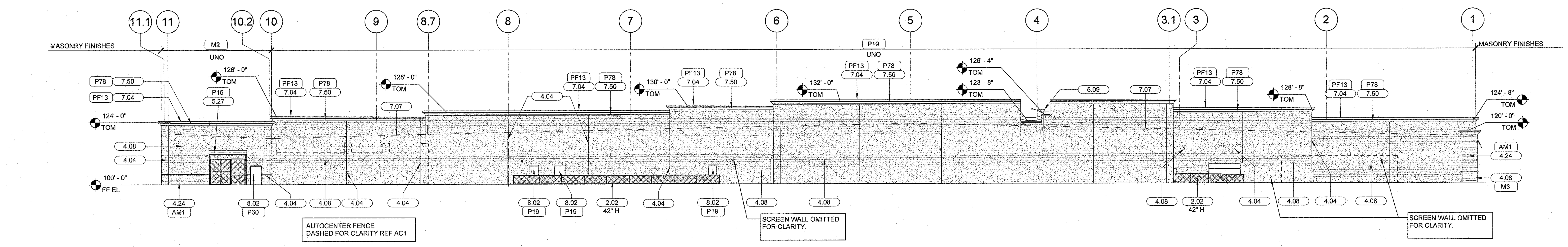
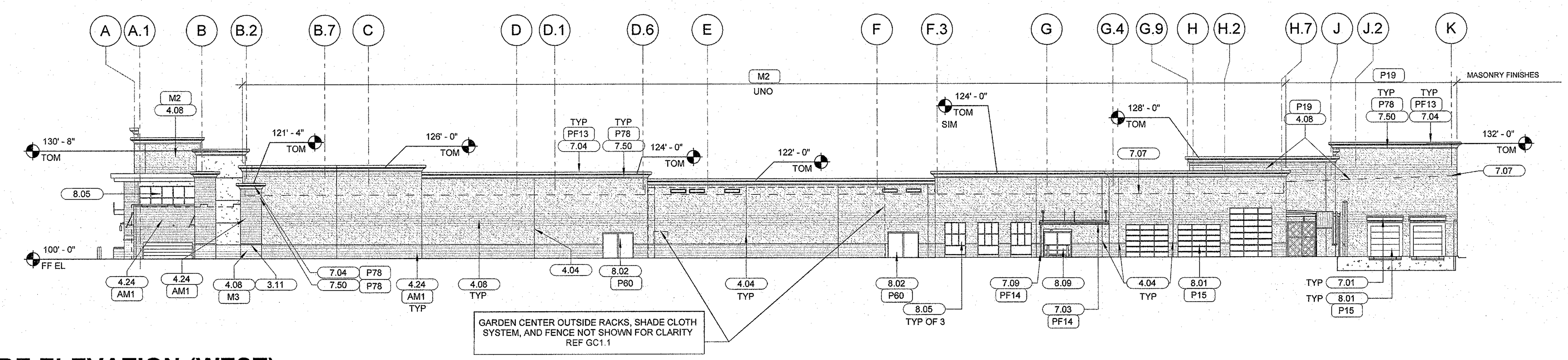
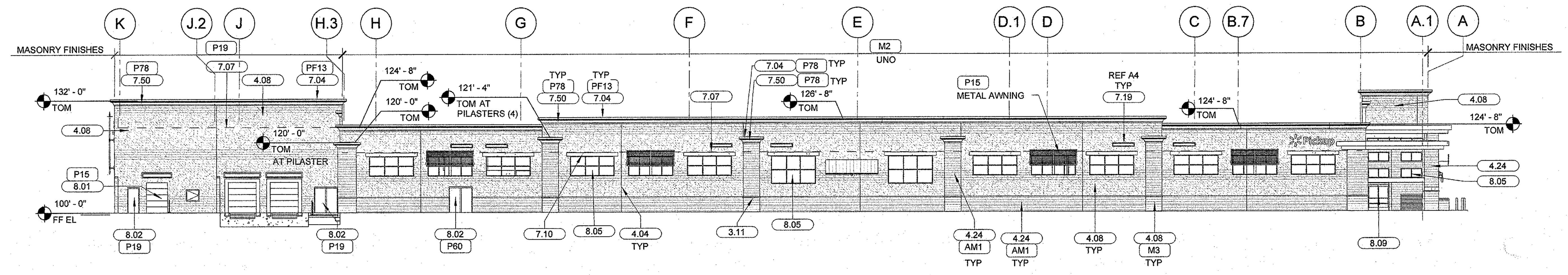


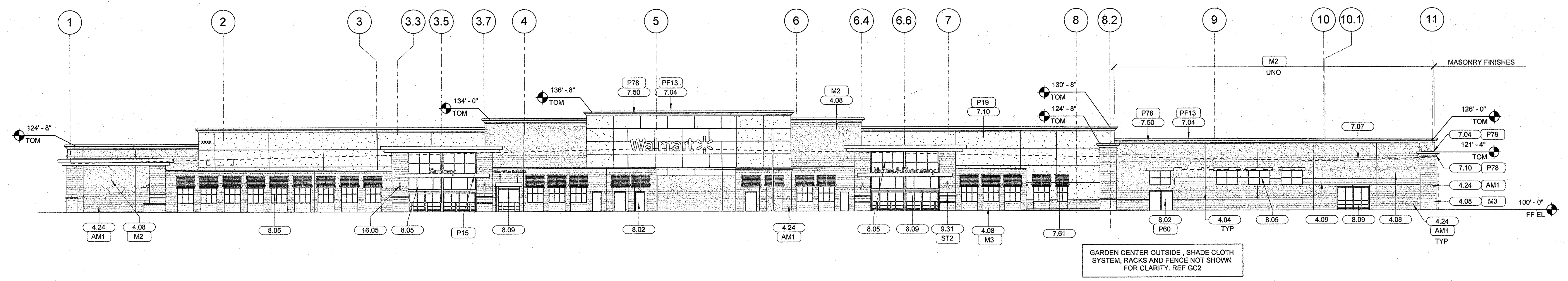
4 REAR ELEVATION (SOUTH)
1" = 20'-0"



3 SIDE ELEVATION (WEST)
1" = 20'-0"



2 SIDE ELEVATION (EAST)
1" = 20'-0"



1 FRONT ELEVATION (NORTH)
1" = 20'-0"

COLOR LEGEND

AM1	ARCHITECTURAL MASONRY TO MATCH PROMENADE BLEND BY QUIK-BRIK
M2	INTEGRAL COLORED BLOCK EARTH TONE BLEND BY OLDCASTLE
M3	INTEGRAL COLORED BLOCK FLANNEL BY OLDCASTLE
P15	"SUMMIT GRAY" SW #7669
P19	"SENSATIONAL SAND" SW #6094
P60	"REDDENED EARTH" SW #6053
P78	"CREAMY WHITE" #2445
PF13	BONE WHITE
PF14	SLATE GRAY
ST2	SLATE "EARTH" TILE BY ARIZONA TILE

KEYNOTE LEGEND

2.02	CHAIN LINK FENCING (HEIGHT NOTED ADJACENT TO KEYNOTE)
3.11	4" HIGH PRECAST CONCRETE SILL, UNPAINTED UNO
4.04	CONTROL JOINT, TYP, REF STRUCTURAL
4.08	SPLIT FACE CMU
4.09	SMOOTH FACE CMU
4.24	ARCHITECTURAL MASONRY
5.09	JIB CRANE HOIST ARM AND RAILING ASSEMBLY
5.27	METAL CANOPY DECK
7.01	SHEET METAL DOOR HOOD PAINTED
7.03	METAL GUTTER, PREFINISHED, UNLESS NOTED OTHERWISE
7.04	METAL FASCIA COVER
7.07	ROOF LINE BEYOND, PREFINISHED
7.09	METAL DOWNSPOUT, PREFINISHED, UNLESS NOTED OTHERWISE
7.10	EXTERIOR INSULATION AND FINISH SYSTEM
7.19	OVERFLOW SCUPPER
7.50	EIFS CORNICE
7.61	AWNING REF SPECS
8.01	SECTIONAL OVERHEAD DOOR TYP
8.02	HOLLOW METAL DOOR AND FRAME
8.05	ALUMINUM STOREFRONT
8.09	AUTOMATIC SLIDING ENTRANCE DOORS
9.31	SLATE TILE REF SPECS
16.05	INSECT CONTROL UNIT. TYPE NOTED ADJACENT TO UNIT. REF N1 FOR LEGEND AND NOTES

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Walmart
ALACHUA, FL
STORE NO: 3873-00

JOB NUMBER:	97100337	PROTO	151

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3/30/17

ELEVATIONS EXHIBIT

SHEET: A00

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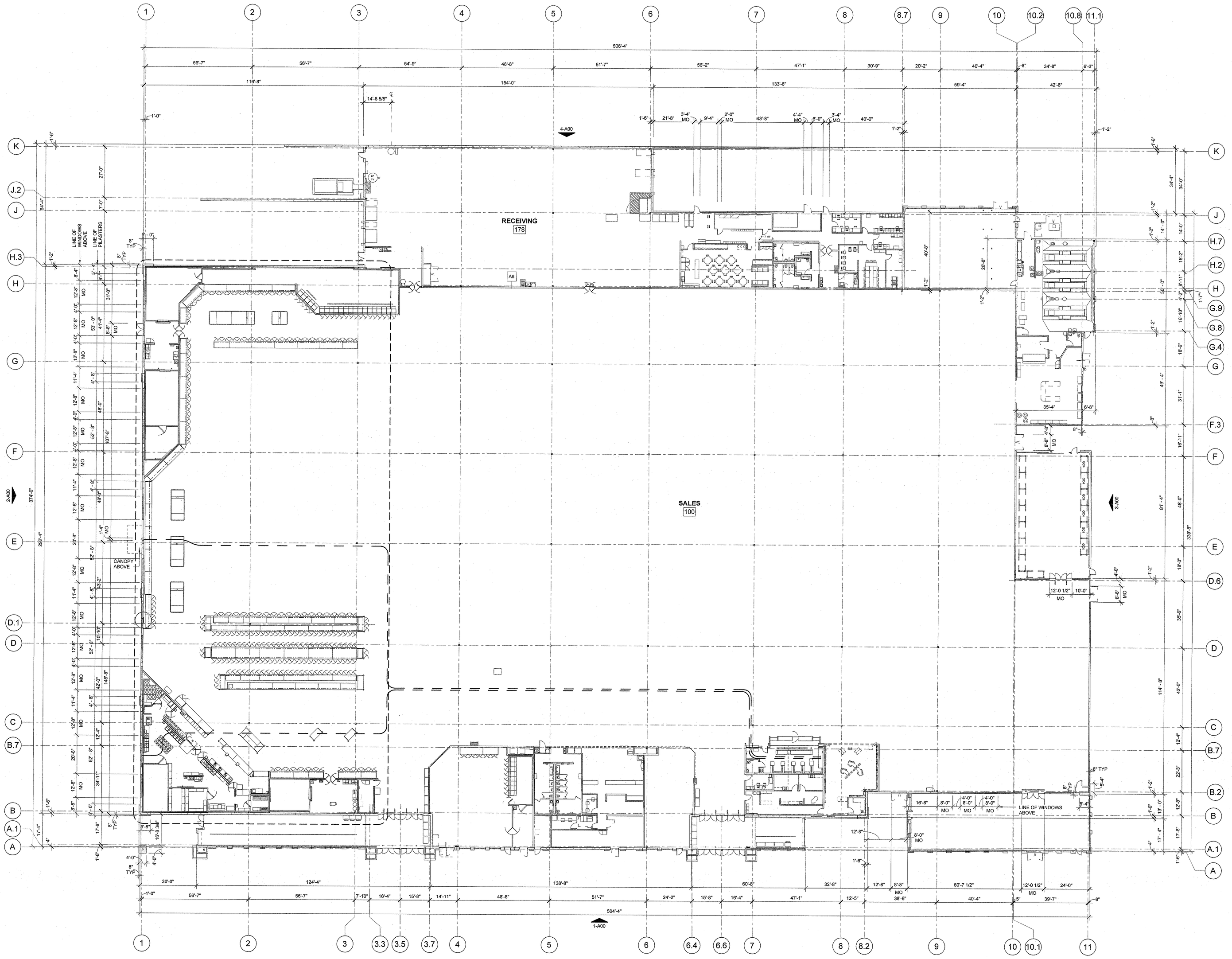
1/12/2017 11:40:25 AM



1 FLOOR PLAN

1" = 20'-0"

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