

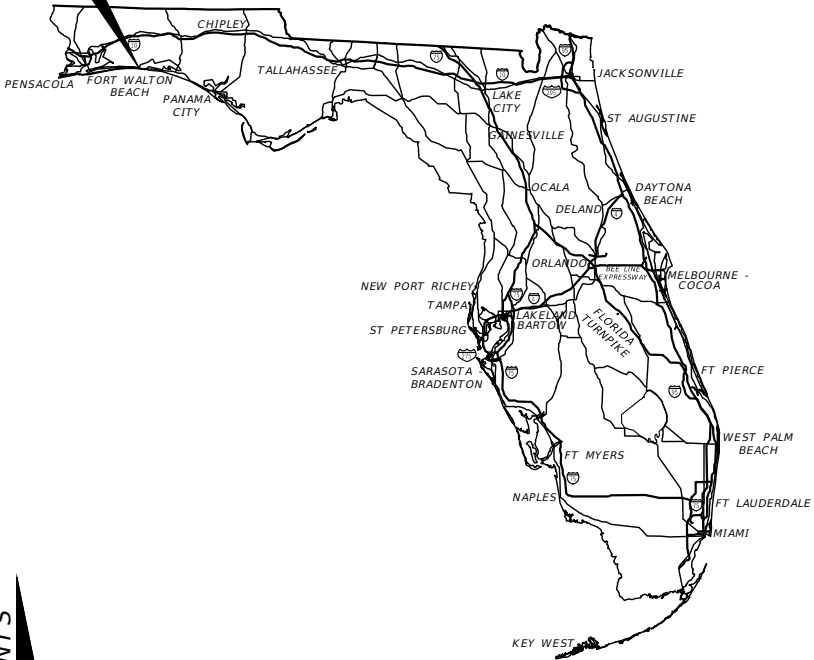
CONTRACT PLANS COMPONENTS
ROADWAY PLANS (INCLUDES SIGNING & PAVEMENT MARKING PLANS)
LIGHTING PLANS
LANDSCAPE PLANS



OKALOOSA COUNTY
PUBLIC WORKS

CONTRACT PLANS

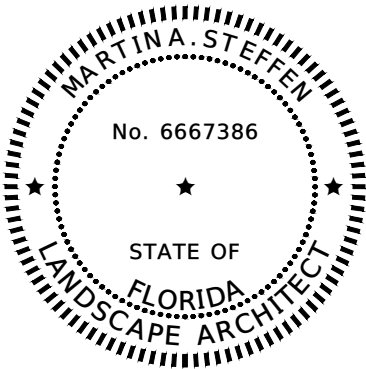
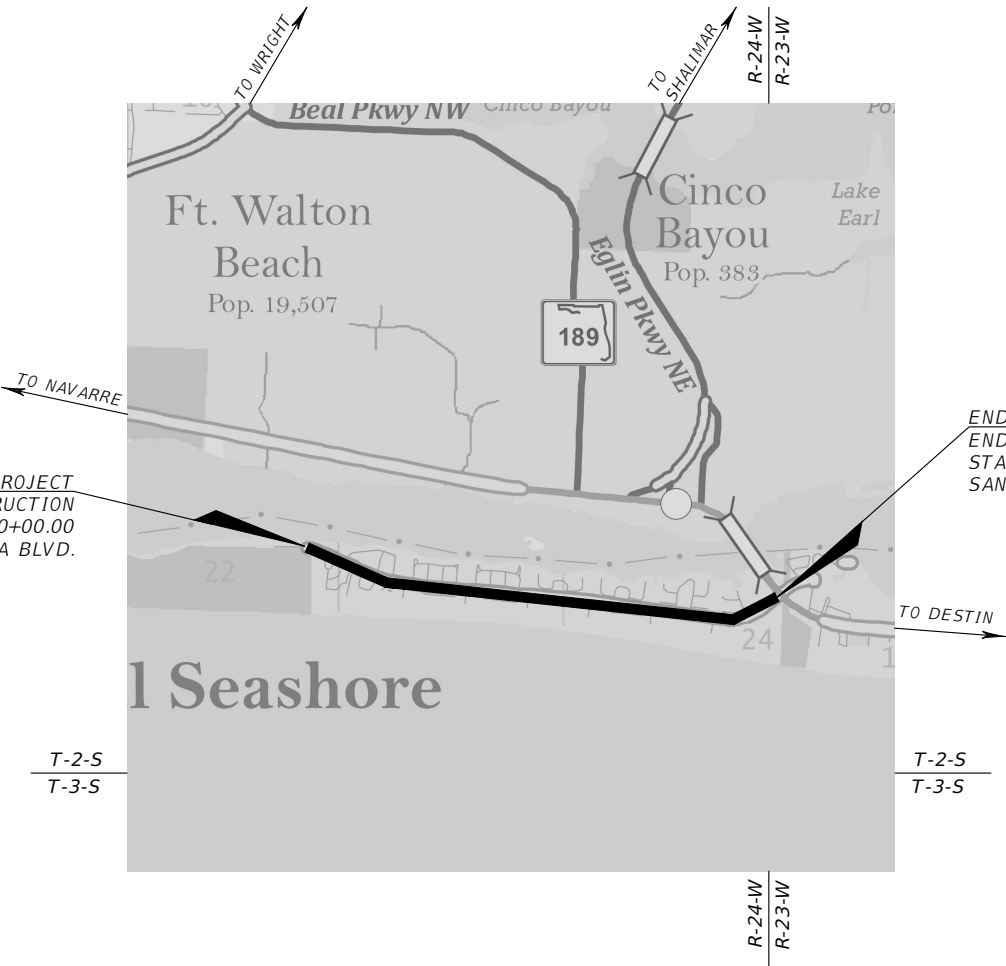
PROJECT LOCATION



INDEX OF LANDSCAPE PLANS

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SANTA ROSA BOULEVARD ROADWAY IMPROVEMENTS
FROM EAST TO EGLIN AIR FORCE BASE
TO WEST OF SR 30 (US 98/MIRACLE STRIP PARKWAY SE)



THIS ITEM HAS BEEN DIGITALLY
SIGNED AND SEALED BY

BEGIN PROJECT
BEGIN CONSTRUCTION
STA. 100+00.00
SANTA ROSA BLVD.

END PROJECT
END CONSTRUCTION
STA. 210+87.51
SANTA ROSA BLVD.

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE
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ON ANY ELECTRONIC COPIES.

HALFF ASSOCIATES, INC.
2255 KILLEARN CENTER BLVD, SUITE 200
TALLAHASSEE, FL 32309
MARTIN A. STEFFEN, PLA NO. 6667386

THE ABOVE NAMED PROFESSIONAL LANDSCAPE ARCHITECT SHALL BE
RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE
61G10-11.011, F.A.C.

GOVERNING STANDARD PLANS:

Florida Department of Transportation, FY2023-2024 Standard Plans for
Road and Bridge Construction and applicable Interim Revisions (IRs).

Standard Plans for Road Construction and associated IRs are available at
the following website:
<http://www.fdot.gov/design/standardplans>

GOVERNING STANDARD SPECIFICATIONS:

Florida Department of Transportation, FY 2023-2024 Standard Specifications
for Road and Bridge Construction at the following website:
<http://www.fdot.gov/programmanagement/Implemented/SpecBooks>

LANDSCAPE PLANS

LANDSCAPE ARCHITECT OF RECORD:



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COUNTY PROJECT MANAGER

CARISSE LEJEUNE, SURTAX PROJECT MANAGER
OKALOOSA COUNTY PUBLIC WORKS
1759 S. FERDON BLVD.
CRESTVIEW, FL 32536

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
		LD-1

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

PROJECT NOTES:

1. THIS PROJECT IS BASED ON THE FLORIDA STATE PLANE COORDINATE SYSTEM NAD 1983/99 HORIZONTAL DATUM. THE VERTICAL DATUM IS BASED ON NAVD 1988.
2. NOTIFY THE PROJECT REPRESENTATIVE A MINIMUM OF 5 BUSINESS DAYS PRIOR TO DELIVERY OF PLANT MATERIAL SO A REPRESENTATIVE MAY BE PRESENT TO VERIFY THAT PLANT MATERIAL STILL MEETS PROJECT REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR THE HEALTH AND MAINTENANCE OF ALL PLANTS DURING THE INSTALLATION AND ESTABLISHMENT PERIODS. MAINTENANCE SHALL INCLUDE BUT IS NOT LIMITED TO REPLACEMENT, PRUNING, WATERING, FERTILIZATION, AND PEST AND DISEASE MANAGEMENT. MAINTAIN ALL PLANT MATERIAL TO THE ORIGINAL STANDARDS.
3. ADJUST LANDSCAPE MATERIAL AND ASSOCIATED DEVICES IN THE FIELD TO AVOID CONFLICTS WITH ANY PROPOSED OR EXISTING-TO-REMAIN STRUCTURES OR REGULATORY REQUIREMENTS, INCLUDING BUT NOT LIMITED TO UTILITY STRUCTURES, DRAINAGE STRUCTURES, DITCHES, UNDERDRAINS, DITCH BLOCKS, STORM WATER MANAGEMENT FACILITIES, ITS INFRASTRUCTURE (SUCH AS CONDUIT, ACCESS VAULTS, ETC.), DRAINAGE DISCHARGE PATHS, TRAFFIC SIGNAGE (SUCH AS SLIP BASE SUPPORTS, DIRECTIONAL GANTRIES, MAST ARM ASSEMBLIES, ETC), LIMITS OF CLEAR SIGHT, CLEAR ZONES, OUTDOOR ADVERTISING VIEW ZONES, AND LIGHTING AND THEIR APPURTENANCES. DO NOT KNOWINGLY PLACE THE PROPOSED IMPROVEMENTS IF A CONFLICT EXISTS. ANY COSTS TO REMOVE AND/OR REPAIR AND/OR RELOCATE WORK PLACED THAT HAS NOT BEEN APPROVED IN WRITING BY THE PROJECT REPRESENTATIVE WILL BE AT THE CONTRACTOR'S EXPENSE.
4. IMMEDIATELY NOTIFY THE PROJECT REPRESENTATIVE OF ANY UNFORESEEN SITE CONDITIONS (OBSTRUCTIONS, COMPACTED SOIL/SUBGRADE, POOR DRAINAGE, UTILITY AND ITS INFRASTRUCTURE CONFLICTS, ETC.) PRIOR TO PROCEEDING WITH LANDSCAPE INSTALLATION. THE PROJECT REPRESENTATIVE WILL REVIEW PLANT RELOCATION OR OTHER ACTION PROPOSED BY THE CONTRACTOR.

UTILITY NOTES:

1. THE LOCATION OF UNDERGROUND UTILITIES SHOWN IN THE PLANS IS BASED UPON INFORMATION AVAILABLE AT THE TIME OF PLANS PREPARATION. LOCATIONS SHOWN ARE APPROXIMATE, AND THIS INFORMATION SHOULD NOT BE ASSUMED TO BE COMPREHENSIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT ALL FACILITIES INCLUDING UNDERGROUND INFRASTRUCTURE THAT IS AN INTEGRAL PART OF THE STATE HIGHWAY SYSTEM THAT WOULD NOT NORMALLY BE LOCATED THROUGH SUNSHINE 811 IN ACCORDANCE WITH THE EXEMPTION AFFORDED TO THE DEPARTMENT VIA FLORIDA STATUTE 556.105(5). LOCATES TO BE PERFORMED BY THE CONTRACTOR INCLUDE ALL NECESSARY COORDINATION WITH FDOT, ASSET MAINTENANCE CONTRACTORS, AND OTHER APPLICABLE AGENCIES.
2. THE LOCATIONS OF THE ABOVE GROUND UTILITIES SHOWN IN THE PLANS (INCLUDING THOSE DESIGNATED VV, VH, AND VVH) ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE APPROXIMATE LOCATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED.

3.

UTILITY OWNERS		
COMPANY	CONTACT PERSON	CONTACT NUMBER
AT&T COMMUNICATIONS/FIBER	KEVIN TALECK/ MIKE GAMBOA	(610) 200-3365
AT&T/DISTRIBUTION	DINO FARRUGGIO	(800) 247-2020
CHELCO, ICN. EGLIN	CHRIS EDDY	(850) 307-1229
CENTURY LINK	BILL MCCLLOUD	(850) 599-1444
COX COMMUNICATION INC.	TODD ARDOIN	(337) 281-9889
CITY OF FORT WALTON BEACH	DEBORAH FOUSEK	(850) 833-9613
FLORIDA POWER & LIGHT - FT WALTON EAST	USIC DISPATCH CENTER	(800) 778-9140
OKALOOSA COUNTY TRAFFIC SIGNALS	AL POUDRIER	(850) 651-7295
OKALOOSA COUNTY INFORMATION TECHNOLOGY	RONALD HEGBERG	(850) 978-0330
OKALOOSA COUNTY GAS DISTRICT	MITCH ANDERSON	(850) 428-1295
OKALOOSA COUNTY WATER AND SEWER	CHRIS CRAWFORD	(850) 244-5800
UNITI FIBER LLC	CHARLIE CROFY	(251) 214-7059

4. A UTILITY REPRESENTATIVE IS TO BE PRESENT IF LANDSCAPING REQUIRES ANY EXCAVATIONS GREATER THAN 36" DEPTH WITHIN 15 FT OF UNDERGROUND UTILITY, TO AVOID ANY UTILITY CONFLICTS.
5. COORDINATE WITH THE UTILITY COMPANIES DURING CONSTRUCTION. NO UTILITY IS TO BE RELOCATED. ADJUST PLANTING HORIZONTALLY, AT THE DIRECTION OF THE PROJECT REPRESENTATIVE, TO AVOID ANY UTILITY CONFLICTS.
6. PREFERRED PLANT MATERIAL SETBACKS (TO CENTER OF PLANT):

5 FT	FROM BOTTOM OF SWALE TO TREES AND PALMS
10 FT	FROM UNDERGROUND UTILITIES TO TREES AND PALMS
15 FT	FROM OVERHEAD UTILITY LINE SETBACK TO PALMS
15 FT	FROM OVERHEAD UTILITY LINE SETBACK TO UNDERSTORY TREES

REVISIONS				 MARTIN A. STEFFEN, PLA PLA NO. 6667386 HALFF ASSOCIATES, INC. TALLAHASSEE, FLORIDA 32309		OKALOOSA COUNTY		GENERAL NOTES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			PROJECT	LD-2		
						SANTA ROSA BOULEVARD			

GENERAL LANDSCAPE NOTES:

1. WORK WITHIN 15 FT OF EXISTING TREES TO REMAIN SHALL BE PERFORMED BY HAND. ANY DISTURBED ROOTS SHALL BE SEVERED USING CLEAN, SHARP TOOLS.
2. PROVIDE THE FOLLOWING SUBMITTALS AND NOTIFICATIONS AS A MINIMUM FOR BIDDING PURPOSES:

A. PLANT MATERIAL DELIVERY

B. UNFORESEEN SITE CONDITIONS

C. PRODUCT SAMPLES – SUBMIT PRODUCT SAMPLES AND DATA SHEETS FOR ALL PROPOSED MATERIALS, INCLUDING BUT NOT LIMITED TO PLANT MATERIAL, STAKING AND BRACING KITS, MYCORRHIZAL SOIL INOCULATE, FERTILIZER, MULCH, EROSION CONTROL FABRIC, TOPSOIL, AND "BLENDED SOIL" FOR REVIEW AND WRITTEN APPROVAL BY THE PROJECT REPRESENTATIVE TO DELIVERY.

D. FIELD-GROWN TREE CERTIFICATIONS

E. NATIVE GRASSES NURSERY GROWN DOCUMENTATION

F. SOIL SAMPLE LOCATIONS, TESTING LABORATORY, ANALYSIS, RECOMMENDATIONS, AND AMENDMENTS

G. TOPSOIL ANALYSIS

H. CERTIFIED ARBORIST CREDENTIALS – SUBMIT CERTIFIED ARBORIST CREDENTIALS FOR REVIEW AND WRITTEN APPROVAL TO THE PROJECT REPRESENTATIVE. SEE ESTABLISHMENT PERIOD MAINTENANCE PLAN NOTES FOR ADDITIONAL INFORMATION.
3. ORNAMENTAL GRASSES MUST BE NURSERY GROWN. PLANT ORIGIN MUST BE DOCUMENTED WITH BILL OF LADING OR SIMILAR FROM NURSERY.
4. CONTAINER GROWN PLANTS: A MINIMUM OF 80% OF THE CONTAINER ROOTBALL MUST BE BOUND BY THE ROOT SYSTEM. ENCIRCLING OR "RING" ROOTS ARE PROHIBITED.
5. FIELD GROWN TREES CERTIFIED BY THE GROWER WILL BE HARDENED A MINIMUM OF 60 DAYS AFTER DIGGING, PRIOR TO SHIPPING. PRESENT CERTIFICATION TO THE PROJECT REPRESENTATIVE FOR REVIEW AND WRITTEN APPROVAL. FIELD GROWN TREES WITHOUT THIS CERTIFICATION WILL NOT BE PERMITTED.
6. PALM NOTES: THE FOLLOWING SHALL APPLY TO REGENERATED ROOT SABAL PALMS:

A. PALMS WILL HAVE NEW REGENERATED ROUND TIPPED ROOTS THAT HAVE EMERGED FROM THE ROOT INITIATION ZONE AND ARE WHITISH-YELLOW IN COLOR WITH TAPERED ENDS.

B. NEW REGENERATED ROOTS ARE PRESENT ON ALL SIDES OF THE ROOTBALL.

C. PALMS SHALL HAVE BEEN PLACED IN CONTAINERS OR CONTAINED WITHIN PLASTIC FABRIC OR FILM MATERIAL AFTER HARVESTING AND DURING THE ROOT REGENERATION PERIOD.

D. PALMS WILL HAVE A MINIMUM OF THREE FULLY EXPANDED FRONDS. FRONDS SHALL MEET THE MINIMUM REQUIREMENTS TO BE CONSIDERED "EXCELLENT LEAVES," AS DEFINED BY THE GLOSSARY OF TERMS IN THE LATEST EDITION OF GRADES AND STANDARDS FOR NURSERY PLANTS – PALMS & CYCADS (FLORIDA DEPT. OF AGRICULTURE AND CONSUMER SERVICES).
7. AS PART OF THE CONTRACTOR'S RESPONSIBILITY TO ENSURE LONG TERM HEALTH AND VIABILITY OF PLANT MATERIAL, DETERMINE, AT A MINIMUM, SITE CONDITIONS, PLANT MATERIAL AVAILABILITY, SOIL ANALYSIS/AMENDMENTS, FERTILIZER APPLICATION RATES, MYCORRHIZAL SOIL INOCULATE APPLICATION RATES AND WATERING REQUIREMENTS.
8. ASSUME THE FOLLOWING CONCERNING SOIL ANALYSIS, RECOMMENDATIONS, AND AMENDMENTS.

A. COLLECT SOIL SAMPLES AT A MINIMUM OF 3 PLANTING LOCATIONS DISTRIBUTED EVENLY THROUGHOUT THE PROJECT.

B. SUBMIT TESTING LOCATIONS TO THE PROJECT REPRESENTATIVE FOR WRITTEN APPROVAL PRIOR TO TAKING SAMPLES.

C. SEND SAMPLES TO AN AGRONOMIC SOILS TESTING LABORATORY APPROVED BY THE PROJECT REPRESENTATIVE, STATING PROPOSED PLANT MATERIAL AT EACH TEST LOCATION.

D. ANALYSIS TO INCLUDE, AT A MINIMUM, PH, NPK, ORGANIC CONTENT, TEXTURE, AND SOLUBLE SALTS.

E. SUBMIT RESULTS/RECOMMENDATIONS AND PROPOSED FERTILIZER ANALYSIS/AMENDMENTS TO THE PROJECT REPRESENTATIVE.

F. COSTS OF FERTILIZER AND AMENDMENTS TO BE INCLUDED IN THE LUMP SUM COST OF THE PROJECT.
9. ASSUME THE FOLLOWING CONCERNING FERTILIZER. FOR INITIAL INSTALLATION OF TREES, SHRUBS/NATIVE GRASSES, AND GROUNDCOVERS:

A. FERTILIZER IS ASSUMED TO BE CONTROLLED RELEASE FERTILIZER WITH A 15-9-12 ANALYSIS AND CONTAINING TRACE ELEMENTS MG, S, B, CU, FE, MN, MO, AND ZN. FERTILIZER GRANULES TO BE COMPOSED OF DRY NUTRIENTS ENCAPSULATED IN MULTIPLE LAYERS OF POLYMERIC RESIN.

B. FOR INITIAL INSTALLATION OF PALMS: FERTILIZER IS ASSUMED TO BE 100% CONTROLLED RELEASE FERTILIZER WITH A 8-2-12 (8N-2P/20/5-12K/20+4MG) ANALYSIS, AND CONTAINING TRACE ELEMENTS S, B, CU, FE, MN AND ZN. FERTILIZER GRANULES TO BE COMPOSED OF DRY NUTRIENTS ENCAPSULATED IN MULTIPLE LAYERS OF POLYMERIC RESIN. INCORPORATE FERTILIZER INTO PLANTING SOILS AND BACKFILL.

C. FOR INITIAL INSTALLATION OF SOD: FERTILIZER IS ASSUMED TO BE CONTROLLED RELEASE FERTILIZER WITH A 16-4-8 (BAH1A).

D. SOURCE FOR N TO BE RESIN-COATED UREA OR RESIN-COATED AMMONIUM SALTS. MN, ZN, AND CU TO BE SULFATE FORMS. FE TO BE GRANULAR CHELATED IRON.

E. THE FOLLOWING APPLICATION RATES ARE PROVIDED AS A RECOMMENDATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE APPROPRIATE FERTILIZER/AMENDMENTS TO ENSURE PROPER ESTABLISHMENT AND VIGOR OF PLANT MATERIAL:

1.0 OZ PER EA 1 GALLON CONTAINER

6.0 OZ PER EA 7 GALLON CONTAINER

96.0 OZ PER EA 300 GALLON CONTAINER

32.0 OZ PER EA PALM

FOR GRASSING AND SOD AREAS:

3.0 OZ PER EA 3 GALLON CONTAINER

24.0 OZ PER EA 45 GALLON CONTAINER

APPLY 6 LBS/1000SF.

10. THE FOLLOWING WATERING SCHEDULE IS PROVIDED AS A RECOMMENDATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SUFFICIENT WATER TO ENSURE PROPER ESTABLISHMENT AND VIGOR OF PLANT MATERIAL.

SIZE OF NURSERY STOCK:	WATERING SCHEDULE
1/3/7 GAL CONTAINER:	DAILY FOR 2 WEEKS; EVERY OTHER DAY FOR 2 MONTHS; WEEKLY UNTIL ESTABLISHED
45 GAL CONTAINER:	DAILY FOR 1 MONTH; EVERY OTHER DAY FOR 3 MONTHS; WEEKLY UNTIL ESTABLISHED
300 TREE:	DAILY FOR 6 WEEKS; EVERY OTHER DAY FOR 5 MONTHS; WEEKLY UNTIL ESTABLISHED
PALM:	DAILY FOR 1 MONTH; EVERY OTHER DAY FOR 3 MONTHS; WEEKLY UNTIL ESTABLISHED
SOD:	DAILY FOR 1 WEEK; EVERY OTHER DAY FOR 2 WEEKS; 2X PER WEEK FOR 2 WEEKS

11. TREES AND PALMS: AT EACH IRRIGATION, APPLY WATER TO SUFFICIENTLY SOAK THE ENTIRE ROOT ZONE. DO NOT WATER IF ROOT ZONE IS WET OR SATURATED ON THE IRRIGATION DAY.

12. SHRUBS/ORNAMENTAL GRASSES AND GROUNDCOVERS: AT EACH IRRIGATION, APPLY WATER TO SUFFICIENTLY SOAK THE ENTIRE ROOT ZONE. DO NOT WATER IF ROOT ZONE IS WET OR SATURATED ON THE IRRIGATION DAY.

13. SOD: AT EACH IRRIGATION, APPLY WATER TO SUFFICIENTLY SOAK 3" BELOW DEPTH OF ROOT ZONE. DO NOT WATER IF ROOT ZONE IS WET OR SATURATED ON IRRIGATION DAY.

14. THE CONTRACTOR SHALL REPAIR AND/OR REPLACE EXISTING IMPROVEMENTS DISTURBED OR DAMAGED DURING INSTALLATION, ESTABLISHMENT, OR MAINTENANCE ACTIVITIES. EXISTING IMPROVEMENTS INCLUDE, BUT NOT LIMITED TO, LANDSCAPE MATERIAL, SIDEWALKS, CURBING, DITCH PAVEMENTS, DRAINAGE PATTERNS. ANY COSTS ASSOCIATED WITH REPAIRS, REMOVAL, AND/OR REPLACEMENT SHALL BE AT THE CONTRACTORS EXPENSE. DAMAGED MATERIAL SHALL BE RESTORED TO LIKE NEW CONDITION. DRAINAGE PATTERNS SHALL BE RESTORED TO PROVIDE PROPER FUNCTION, AND PLANT MATERIAL REPLACED WITH SAME SPECIES AND SIMILAR CONTAINER SIZE.

15. PROTECT EXISTING TREES AND SHRUBS TO REMAIN. DAMAGE TO PLANTS DESIGNATED TO REMAIN SHALL OBLIGATE THE CONTRACTOR TO REPLACE WITH SPECIMENS OF LIKE SIZE AND MINIMUM FLORIDA #1 GRADE.

16. PROVIDE AN IN-GROUND, PERMANENT, AUTOMATIC IRRIGATION SYSTEM IN AREAS AS SHOWN ON IRRIGATION PLANS, NOTES, AND DETAILS. SUPPLY SUFFICIENT WATER TO ALL NEWLY PLANTED AREAS INCLUDING ANY AREAS NOT SUPPLIED WITH PERMANENT IRRIGATION.

PLANTING AREA PREPARATION NOTES:

1. PLANTING AREA PREPARATION TO OCCUR AS FOLLOWS:

A. LAY OUT AND STAKE LOCATIONS OF PLANTINGS TO ACCURATELY REFLECT PLANS. COORDINATE WITH THE PROJECT REPRESENTATIVE TO REVIEW LAYOUT AND STAKING ON SITE. PROVIDE A MINIMUM OF 5 BUSINESS DAYS ADVANCED NOTIFICATION OF PROPOSED INSPECTION. MAKE MODIFICATIONS AS REQUESTED BY THE PROJECT REPRESENTATIVE AND OBTAIN WRITTEN APPROVAL PRIOR TO LANDSCAPE INSTALLATION.

B. APPLY HERBICIDE WHERE PLANT BEDS, MULCH ON GRADE AREAS, AND SOD AREAS ARE PROPOSED. BEGIN PROCESS A MINIMUM OF 28 DAYS PRIOR TO PLANTING AS FOLLOWS: SPRAY AREA TO BE KILLED WITH GLYPHOSATE PER MANUFACTURER RECOMMENDATIONS. 7 DAYS AFTER SPRAYING, CLOSE MOW TO 1" HEIGHT. 14 DAYS AFTER CLOSE MOWING, RE-SPRAY AREA TO BE KILLED WITH GLYPHOSATE PER MANUFACTURER RECOMMENDATIONS. 7 DAYS AFTER RE-SPRAYING, PROCEED WITH TURF REMOVAL AS INSTRUCTED BELOW. PROPOSED INDIVIDUAL TREE RINGS DO NOT REQUIRE HERBICIDE APPLICATION.

C. WHERE INDIVIDUAL TREE RINGS, PLANT BEDS, AND SOD AREAS ARE PROPOSED, EXISTING TURF TO BE CLEARED AND GRUBBED TO A MINIMUM DEPTH OF 4". REMOVE EXCAVATED MATERIAL FROM THE SITE AND DISPOSE OF IN A LAWFUL MANNER. THOROUGHLY REMOVE TURF PRIOR TO THE PLANTING AND BACKFILL PROCESS. INSTALLED MULCH (3" DEPTH) TO BE 1" BELOW FINISHED GRADE. THERE SHALL BE EXPOSED SOIL LEFT AT THE END OF EACH DAY. ALL EXPOSED SOIL SHALL BE MULCHED OR SODDED PRIOR TO THE CONCLUSION OF WORK FOR THE DAY. ALL EXPOSED SOIL SHALL BE MULCHED OR SODDED PRIOR TO INCLEMENT WEATHER.

D. WHERE MULCH ON GRADE AREAS ARE PROPOSED, AFTER SPRAYING WITH HERBICIDE, LEAVE KILLED TURF IN PLACE. REMOVE KILLED TURF ONLY AT EDGES OF BED, APPROXIMATELY 12" WIDTH, DEPTH WILL VARY AS REQUIRED TO ESTABLISH A TAPERED DIFFERENCE IN GRADE SO THAT INSTALLED MULCH (3" DEPTH) WILL BE FLUSH TO 1" BELOW ADJACENT TURF.THERE SHALL BE EXPOSED SOIL LEFT AT THE END OF EACH DAY. ALL EXPOSED SOIL SHALL BE MULCHED OR SODDED PRIOR TO THE CONCLUSION OF WORK FOR THE DAY. ALL EXPOSED SOIL SHALL BE MULCHED OR SODDED PRIOR TO INCLEMENT WEATHER.

E. EXCAVATE PLANTING PITS AS SHOWN IN CONTRACT DOCUMENTS. THE DEPTH OF THE HOLE WILL BE 1"-2" SHALLOWER THAN THE BOTTOM OF ROOTBALL; DIG DEEPER AROUND THE HOLE'S PERIMETER, CREATING A FIRM CENTRAL PLATEAU SO THAT EXCESS WATER WILL FLOW AWAY FROM ROOTBALL.

F. TO ASSURE DRAINAGE/PERCOLATION OF PLANTING PITS PRIOR TO INSTALLATION, FILL SAMPLE TREE PITS (1 IN 5) WITH WATER AND OBSERVE PERCOLATION. HOLES SHOULD PERCOLATE IN 30 MINUTES OR LESS. BRING DISCREPANCIES TO THE PROJECT REPRESENTATIVE'S ATTENTION.

(CONTINUED ON NEXT PAGE)

R E V I S I O N S				 MARTIN A. STEFFEN, PLA PLA NO. 6667386 HALFF ASSOCIATES, INC. TALLAHASSEE, FLORIDA 32309		OKALOOSA COUNTY	GENERAL NOTES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			PROJECT		LD-3
						SANTA ROSA BOULEVARD		

PLANTING AREA PREPARATION NOTES (CONTINUED):

- G. FILL IN PLANTING PIT WITH PLANTING BACKFILL MIXTURE.
- H. INSTALL MYCORRHIZAL INOCULANT PER MANUFACTURER RECOMMENDATIONS.
- I. FILL PLANTING PIT WITH PLANTING BACKFILL MIXTURE IN LIFTS AND TAMP LIGHTLY AROUND EACH AND EVERY PLANT. THOROUGHLY FLUSH WITH WATER AT EACH LIFT AND MAKE ADJUSTMENTS TO PROVIDE PROPERLY SET PLANT MATERIAL. INSTALL FERTILIZER PER MANUFACTURER RECOMMENDATIONS.
- J. ESTABLISH FINISHED PRE-MULCHING GRADE.
- K. APPLY PRE-EMERGENT HERBICIDE TO ALL INDIVIDUAL TREE RINGS, PLANT BEDS, MULCH ON GRADE AREAS, AND SOD AREAS. USE SUITABLE ACTIVE INGREDIENTS FOR CONTROL OF ANNUAL AND PERENNIAL BROADLEAF WEEDS AND GRASSES. STRICTLY ADHERE TO MANUFACTURER RECOMMENDATIONS FOR APPLICATION METHOD, TIMING AND APPLICATION RATE.
- L. EVENLY SPREAD PINE STRAW MULCH ACROSS INDIVIDUAL TREE RINGS, PLANT BEDS, AND MULCH ON GRADE AREAS TO A SETTLED DEPTH OF 3".

2. SOD AREAS WILL RECEIVE 2" (AVERAGE DEPTH) TOPSOIL, RAKED SMOOTH TO ESTABLISH FINISHED GRADE 2" BELOW TOP OF CURB. ENSURE EXISTING GRADES ARE RE-ESTABLISHED. BUTT SOD PIECES TOGETHER CLOSELY AND PEG IN PLACE AS NEEDED TO NOT IMPEDE MAINTENANCE OPERATIONS. ENSURE EDGES ARE TRIMMED EVENLY AND SOD IS ROLLED TO AN EVEN FINISHED GRADE AND APPEARANCE.

3. MEDIAN EXCAVATION AND BACKFILL
- A. THE CONTRACTOR WILL EXCAVATE MEDIANS TO REMOVE EXISTING SOIL AND ANY DEBRIS, ROCK, ASPHALT, CONCRETE, ROADWAY BASE OR OTHER OBSTRUCTIONS TO A DEPTH OF 24" OR TO A DEPTH SUFFICIENT TO REMOVE ALL OBSTRUCTIONS, WHICHEVER IS GREATER. PROTECT CURB DURING OPERATIONS. EXCAVATION WILL BEGIN AT THE BACK OF CURB OR BACK OF FINSHED EDGE OF RAISED PLANTER. EXCAVATE TO A DEPTH OF 24" MINIMUM. ALL MEDIAN EXCAVATION AND SOIL REPLACEMENT/RAISED PLANTER BACKFILL IS INCIDENTAL TO THE LUMP SUM BID PRICE.
- B. ALL REMOVED SOIL AND OTHER MATERIALS WILL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
- C. PREPARED MEDIAN BACKFILL AND RAISED PLANTER SOIL MIXTURE WILL CONSIST OF 50% SIEVED IMPORTED TOPSOIL, 25% COURSE SAND, AND 25% "BLENDED SOIL". "BLENDED SOIL" WILL CONSIST OF: 1/3 MUSHROOM COMPOST OR PEAT, 1/3 COMMERCIALLY PROCESSED COW MANURE AND 1/3 COMPOSTED BARK. SEE PROJECT NOTES FOR PRODUCT SAMPLE/DATA SHEET SUBMITTAL REQUIREMENTS.
- D. BACKFILL MEDIANS AND RAISED PLANTERS AND ESTABLISH FINISH GRADE 3" BELOW TOP OF CURB AFTER SETTLING, GRADE TO PROVIDE 2% CROWN.

4. PLANTING BACKFILL MIXTURE FOR TREES, SHRUBS/ORNAMENTAL GRASSES, AND GROUNDCOVERS WILL CONSIST OF 25% COARSE SAND, 25% "BLENDED SOIL" OR EQUAL, AND 50% EXISTING SOIL. PLANTING BACKFILL FOR PALMS WILL BE 50% COARSE SAND AND 50% EXISTING SOIL (DO NOT USE "BLENDED SOIL"). ALL PLANTING BACKFILL MIXTURES ARE SUBJECT TO THE LANDSCAPE ARCHITECT AND PROJECT ADMINISTRATOR'S WRITTEN APPROVAL. MIX THOROUGHLY PRIOR TO INSTALLATION ACCORDING TO THE FOLLOWING SCHEDULE:

1 GALLON:	0.003 CY (0.08 CF) COARSE SAND AND 0.003 CY (0.08 CF) "BLENDED SOIL"
3 GALLON:	0.006 CY (0.16 CF) COARSE SAND AND 0.006 CY (0.16 CF) "BLENDED SOIL"
7 GALLON:	0.015 CY (0.4 CF) COARSE SAND AND 0.015 CY (0.4 CF) "BLENDED SOIL"
15 GALLON:	0.03 CY (0.8 CF) COARSE SAND AND 0.03 CY (0.8 CF) "BLENDED SOIL"
45 GALLON:	0.11 CY (2.9 CF) COARSE SAND AND 0.11 CY (2.9 CF) "BLENDED SOIL"
300 GALLON:	1.37 CY (37 CF) COARSE SAND AND 1.37 CY (37 CF) "BLENDED SOIL"
PALM:	0.51 CY (13.8 CF) COARSE SAND (DO NOT ADD "BLENDED SOIL")

REMOVE EXCESS SOIL FROM SITE AND DISPOSE OF IN A LAWFUL MANNER. REFER TO DETAILS FOR MINIMUM PLANTING PIT DIMENSIONS.

5. "BLENDED SOIL" WILL CONSIST OF: 1/3 MUSHROOM COMPOST OR PEAT, 1/3 COMMERCIALLY PROCESSED AND COMPOSTED COW MANURE AND 1/3 COMPOSTED BARK. SEE LANDSCAPE NOTES FOR PRODUCT SAMPLE/DATA SHEET SUBMITTAL REQUIREMENTS.
6. MYCORRHIZAL INOCULANT FOR PLANTING PITS
- USE AND APPLY INOCULANT TO EACH PLANTING PIT PER MANUFACTURER'S RECOMMENDATIONS. THE INOCULANT IS TO CONTAIN LIVE ENDO AND ECTOMYCORRHIZAL INOCULANTS COMBINED WITH HUMIC ACIDS, TRICHODERMA, STIMULANTS, BENEFICIAL BACTERIA, SOLUBLE SEA KELP, YUCCA PLANT EXTRACTS, AND A WATER RETENTION GEL, AS LISTED BELOW. THE COST WILL BE INCLUDED IN THE LUMP SUM PROJECT COST. SEE LANDSCAPE NOTES FOR PRODUCT SAMPLE/DATA SHEET SUBMITTAL REQUIREMENTS.

- A. FOR TREES, SHRUBS/ORNAMENTAL GRASSES, AND GROUNDCOVER

- a. ENDOMYCORRHIZAL FUNGI (MINIMUM 12.5 PROPAGULES PER CUBIC CENTIMETER: GLOMUS MOSSEAE (2), GLOMUS INTRARADICES (2), GLOMUS FASCICULATUM (2), GLOMUS DUSSII (2), GLOMUS CLARUM (2), GLOMUS DESERTICOLA (1.25), GLOMUS MICROAGGREGATUM (1.25).)
- b. ECTOMYCORRHIZAL FUNGI (MINIMUM 180,400 CFU'S PER CUBIC CENTIMETER TO INCLUDE: PISOLITHUS TINCTORIUS (155,400), RHIZOPOGON (25,000).)
- c. NITROGEN FIXING, PHOSPHATE SOLUBILIZING AND GROWTH PROMOTING BACTERIA (1,000,000 CFU'S PER CUBIC CENTIMETER OF GENUS BACILLUS (BACILLUS MEGATERIUM, BACILLUS SUBTILLA, BACILLUS AMYLOLIQUEFACIENS, BACILLUS AZOTOFORMANS, BACILLUS LICHENIFORMIS, BACILLUS PUMULUS, BACILLUS FIRMUS, BACILLUS COAGULANS, GEOBACILLUS STEAROTHERMOPHILUS, PAENIBACILLUS POLYMYXA), GENUS PSEUDOMONAS (PSEUDOMONAS PUTIDA, PSEUDOMONAS FLUORESCENCE, PSEUDOMONAS AUREOFACEANS, PSEUDOMONAS. DURUM), GENUS STREPTOMYCES (STREPTOMYCES LYDICUS, STREPTOMYCES GRISEUS, STREPTOMYCES COELICOLOR).)
- d. TRICHODERMA (72,600 CFU'S PER CUBIC CENTIMETER GENUS TRICHODERMA (TRICHODERMA HAMATUM, TRCHODERMA HARZIANIUM, TRICHODERMA VIRIDE, TRICHODERMA REESEI).)
- e. SEA KELP EXTRACT (10% ASCOPHYLLUM NODOSUM); YUCCA PLANT EXTRACT (4% YUCCA SCHIDIGERA); HUMIC ACIDS (21% DERIVED FROM LEONARDITE).
- f. WATER RETENTION GEL, MINIMUM 29% (PARTICLE SIZE 0.8 MM TO 2.0 MM; PERCENT SOLUBLE LESS THAN 0.05%; ABSORPTION RATE 300-400 TIMES IN DISTILLED WATER).
- g. ROOT PROMOTING VITAMINS (B, B2, B3, B6, B7, B12, C, K, BIOTIN, FULVIC ACID).
- h. AMINO ACIDS (PROTEIN): ANIMAL AND PLANT PROTEINS.

- B. FOR PALMS:

- a. ENDOMYCORRHIZAL FUNGI: 5.0 PROPAGULES PER CUBIC CENTIMETER; GLOMUS MOSSEAE (1.0), GLOMUS INTRARADICES (1.0), GLOMUS FASCICULATUM (1.0), GLOMUS DUSSII (0.5), GLOMUS CLARUM (0.5), GLOMUS DESERTICOLA (0.5), GLOMUS MICROAGGREGATUM (0.5).
- b. NITROGEN FIXING, PHOSPHATE SOLUBILIZING AND GROWTH PROMOTING BACTERIA: 750,000 CFU'S PER CUBIC CENTIMETER TO INCLUDE: GENUS BACILLUS (BACILLUS AMYLOLIQUEFACIENS, BACILLUS POLYMYXA, BACILLUS LICHENIFORMIS, BACILLUS PUMULIS, BACILLUS SUBTILLA, BACILLUS MEGATERIUM) GENUS PSEUDOMONAS (PSEUDOMONAS FLUORESCENCE, PSEUDOMONAS PUTIDA, PSEUDOMONAS AUREOFACEANS, PSEUDOMONAS DURUM) GENUS STREPTOMYCES (STREPTOMYCES LYDICUS, STREPTOMYCES GRISEUS, STREPTOMYCES COELICOLOR).
- c. TRICHODERMA: 50,000 CFU'S PER CUBIC CENTIMETER GENUS TRICHODERMA (TRICHODERMA HAMATUM, TRCHODERMA HARZIANIUM, TRICHODERMA VIRIDE, TRICHODERMA REESEI).)
- d. SEA KELP EXTRACT (2% ASCOPHYLLUM NODOSUM), YUCCA PLANT EXTRACT (1% YUCCA SCHIDIGERA), HUMIC ACID (2% DERIVED FROM LEONARDITE), CO-POLYMER (27% CROSSED LINKED ACRYLAMIDE AND POTASSIUM ACRYLATE).
- e. ROOT PROMOTING VITAMINS: B, B2, B3, B6, B7, B12, C, K, BIOTIN, FULVIC ACID.
- f. AMINO ACIDS (PROTEIN): ANIMAL AND PLANT PROTEINS.

- C. FOR SOD:

- a. AFTER GROUND PREPARATION AND BEFORE SOD IS PLACED, BROADCAST AT THE RATE OF 3 POUNDS PER 100 SQUARE FEET WORKED INTO THE FIRST 2 INCHES OF SOIL A COMPOUND CONTAINING:
- b. MYCORRHIZAL FUNGAL INOCULATES OF DIVERSE ENDOMYCORRHIZAL (18 PROPAGULES PER CUBIC CENTIMETER: GLOMUS MOSSEAE (3.6), GLOMUS INTRARADICES (3.6), GLOMUS FASCICULATUM (3.6), GLOMUS DUSSII (1.8), GLOMUS CLARUM (1.8), GLOMUS DESERTICOLA (1.8), GLOMUS MICROAGGREGATUM (1.8).
- c. NITROGEN FIXING, PHOSPHATE SOLUBILIZING AND GROWTH PROMOTING BACTERIA 353.000 CFU'S PER CUBIC CENTIMETER, (BACILLUS (10 SPECIES), PSEUDOMONAS (3 SPECIES), STREPTOMYCES (3 SPECIES)).
- d. MYCORRHIZAL ENHANCER (TRICHODERMA (3 SPECIES) 30,500 COLONY FORMING UNITS PER CUBIC CENTIMETER.
- e. ORGANIC BIOSTIMULANTS TO STIMULATE MICROBIAL ACTIVITY IN THE GROUND AND PROMOTE ROOT GROWTH.
- f. AGRICULTURAL GRADE PLANTING GEL (5%) TO MAINTAIN MOISTURE IN THE ROOT ZONE.

7. TOPSOIL FOR SODDED AREAS WILL BE SIEVED, WEED FREE TOPSOIL IMPORTED TO THE SITE, FREE OF ROCK AND DEBRIS. SUBMIT SOIL ANALYSIS RESULTS FROM AN APPROVED AGRONOMIC SOILS TESTING LABORATORY FOR A MINIMUM OF PH, ORGANIC CONTENT, SOLUBLE SALTS, AND TEXTURE WITH A STATEMENT OF SUITABILITY FOR {SPECIES} SOD GROWTH. INSTALL AT ALL PROPOSED SOD AREAS (2" AVERAGE DEPTH). IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE SUITABILITY FOR GROWTH OF PROPOSED PLANT MATERIAL.

8. MULCH FOR PLANT BEDS, MULCH ON GRADE AREAS, AND INDIVIDUAL TREE RINGS WILL BE PINE STRAW MULCH, FULL LENGTH, DRY, BRIGHT IN COLOR, FRESHLY BALED, AND 3" DEPTH AFTER SETTLING, COMPOSED ONLY OF NEEDLES OF SLASH, LOBLOLLY, OR LONGLEAF PINE. DO NOT USE MULCH IF IT IS ROTTED OR MOLDY, OR CONTAINS SEED, TUBERS, OR RHIZOMES OF ANY NOXIOUS SPECIES. THE ENTIRE LOT OF PINE STRAW WILL BE REJECTED IF THERE IS ANY EVIDENCE THAT THE PINE STRAW WAS HARVESTED FROM A SITE INFESTED WITH LYGODIUM JAPONICUM OR LYGODIUM MICROPHYLLUM (CLIMBING FERN). UNIFORMLY SPREAD MULCH OVER THE FULL DIAMETER OF EACH PLANTING BED, MULCH ON GRADE AREA, AND INDIVIDUAL TREE RINGS. MULCH INCLUDES INITIAL INSTALLATION (3" DEPTH) PLUS RE-MULCHING (1.5" DEPTH MINIMUM) A MINIMUM ONCE PER YEAR DURING THE ESTABLISHMENT PERIOD. DO NOT PLACE MULCH AGAINST TRUNKS OR STEMS OF PLANTS.

R E V I S I O N S				 OKALOOSA COUNTY	GENERAL NOTES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			
						LD-4

MARTIN A. STEFFEN, PLA
PLA NO. 6667386
HALFF ASSOCIATES, INC.
TALLAHASSEE, FLORIDA 32309

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

ESTABLISHMENT PERIOD MAINTENANCE NOTES:

(TO COMMENCE AFTER FINAL ACCEPTANCE OF THE INSTALLATION PERIOD)

PERFORM THE FOLLOWING OPERATIONS DURING THE ESTABLISHMENT PERIOD. CONTRACTOR TO ASSUME RESPONSIBILITY FOR THE PROPER MAINTENANCE, SURVIVAL, AND CONDITION OF ALL NEWLY INSTALLED LANDSCAPE ITEMS UNDER THIS CONTRACT WITHIN THE HIGHLIGHTED AREAS DEPICTED ON THE CONTINUING MAINTENANCE PLAN. THE FOLLOWING IS AN OUTLINE OF STATE STANDARD MINIMUM MAINTENANCE ACTIVITIES.

1. MOWING

A. AT A MINIMUM, MOW ALL NEWLY PLANTED SOD MONTHLY. MAINTAIN A 10' MOWED EDGE ADJACENT TO ALL NEWLY INSTALLED MULCH.

B. PICK UP ALL LITTER PRIOR TO MOWING.

C. DEPENDING ON SPECIES, TURF AREAS SHOULD BE MAINTAINED TO A HEIGHT OF NO MORE THAN FIVE (5) INCHES NOR LESS THAN TWO (2) INCHES, TO FOSTER PHOTOSYNTHESIS AND HEALTHY ROOT DEVELOPMENT.
2. FERTILIZER

APPLY AT LEAST 2 TIMES PER YEAR (MARCH AND SEPTEMBER) OR AS DIRECTED BY THE PROJECT REPRESENTATIVE.
3. EDGING

A. ON A REGULAR BASIS, A MINIMUM OF 12 TIMES PER YEAR, PERFORM EDGING TO COINCIDE WITH THE MOWING SCHEDULE.

B. WHERE TURF ABUTS MULCH OR CURB, EDGE WITH A MECHANICAL EDGER. TAKE CARE NOT TO SCAR OR DAMAGE HARDSCAPE.

C. KEEP ALL MULCH INSTALLED UNDER THIS CONTRACT CLEAN AND WELL DEFINED IN ORDER TO PREVENT ENCROACHMENT BY TURF GRASSES.

D. CHEMICAL EDGING IS NOT ALLOWED.
4. WEED CONTROL

A. PROVIDE WEED CONTROL ON ALL MULCHED AND TURF AREAS ON A ROUTINE BASIS TO MAINTAIN A WEED-FREE CONDITION.

B. IMMEDIATELY REMOVE WEEDS FROM THESE AREAS BY HAND.

C. HERBICIDES MAY BE UTILIZED IN PROBLEM AREAS AND TURF AREAS. APPLY HERBICIDES WITH EXTREME CAUTION TOPREVENT POTENTIAL DAMAGE TO LANDSCAPE.

D. A REGIMEN OF PRE-AND POST-EMERGENT HERBICES WILL BE USED. A MINIMUM OF THREE PRE-EMERGENT HERBICIDE APPLICATIONS PER YEAR WILL BE REQUIRED.
5. HERBICIDE/PESTICIDE

A. REMOVE ALL INVASIVE, EXOTIC SPECIES (PER FLORIDA EXOTIC PEST PLANT COUNCIL CAT. 1 & 2 LISTS).

B. PROVIDE INSECT AND DISEASE CONTROL INSPECTIONS FOR ALL PLANTS CONTINUALLY AND TREAT AS NECESSARY.
6. TRIMMING AND PRUNING

A. HAND TRIMMING, NOT SHEARING, IS THE PRIMARY METHOD TO SHAPE AND CONTROL PLANT SIZE AND WILL BE ACCOMPLISHED UNDER THE SUPERVISION OF AN INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) CERTIFIED ARBORIST WITH A MINIMUM 5 YEARS OF EXPERIENCE ON SIMILAR PROJECTS TO ENSURE THIS FUNCTION IS IN ACCORDANCE WITH RECOMMENDED HORTICULTURAL PRACTICES.

B. PERFORM SELECTIVE HAND TRIMMING AS NECESSARY ON ALL TREES, SHRUBS, AND GROUNDCOVERS IN ORDER TO MAINTAIN THE NATURAL HABIT OF THE PLANT IN A FLORIDA #1 CONDITION AND ENSURE HEALTH AND VIGOR THROUGHOUT THE ESTABLISHMENT PERIOD. REVIEW AT EACH MAINTENANCE VISIT. MAINTAIN ONE DOMINANT LEADER IN CANOPY TREES.

C. TRIM PALMS ONCE ANNUALLY IN EARLY MARCH AND AS NEEDED TO MAINTAIN GOOD APPEARANCE. REMOVE DEAD FRONDS, FRUITING BODIES, AND LOOSE BOOTS ONLY.

D. HOLLIES ARE TO BE 3 FT CLEAR TRUNK UNLESS OTHERWISE DIRECTED BY THE PROJECT REPRESENTATIVE. TRIM ONCE ANNUALLY IN EARLY MARCH AND AS NEEDED TO MAINTAIN GOOD APPEARANCE (OVAL SHAPE) AND FLORIDA #1 CONDITIONS.

E. CRAPE MYRTLE TREES MAY BE TRIMMED DURING THE DORMANT SEASON (CUTS THROUGH SMALLER DIAMETER BRANCHES 1 YEAR OLD OR LESS). TOPPING (REMOVAL OF LARGE DIAMETER STEMS) IS NOT AN ACCEPTABLE PRUNING METHOD. REMOVE CROSS BRANCHING ANNUALLY.

F. CUT BACK ORNAMENTAL GRASSES IN EARLY MARCH, IF DIRECTED, TO MAINTAIN A NEAT APPEARANCE. REVIEW ANNUALLY WITH THE DISTRICT LANDSCAPE ARCHITECT OR PROJECT ADMINISTRATOR.

G. PRUNE AND TRIM ALL PLANT MATERIAL AS NEEDED TO ENSURE COMPLIANCE WITH CLEAR ZONE, LIMIT OF CLEAR SIGHT AND MRP REQUIREMENTS.

H. PRUNE DWARF PALMETTO ONCE ANNUALLY TO REMOVE DEAD/DYING FRONTS AND FRUITING BODIES.
7. MULCH

A. MAINTAIN MULCH AT A 3" COMPRESSED DEPTH. RE-MULCH AS NEEDED (A MINIMUM OF ONCE PER YEAR, 1.5" DEPTH MINIMUM) WITH PINE STRAW. SPREAD MULCH EVENLY. DO NOT PLACE MULCH AGAINST TRUNKS OR STEMS OF PLANTS.

- B. PINE STRAW SHALL BE FULL LENGTH, DRY, BRIGHT IN COLOR, FRESHLY BALED, AND COMPOSED ONLY OF NEEDLES OF SLASH, LOBLOLLY, OR LONGLEAF PINE. DO NOT USE MULCH IF IT IS ROTTED OR MOLDY, OR CONTAINS SEED, TUBERS, OR RHIZOMES OF ANY NOXIOUS SPECIES. REJECT THE ENTIRE LOT OF PINE STRAW IF THERE IS ANY EVIDENCE THAT THE PINE STRAW LOT WAS HARVESTED FROM A SITE INFESTED WITH LYGODIUM JAPONICUM OR LYGODIUM MICROPHYLLUM (CLIMBING FERN).
8. SPECIAL CARE REQUIREMENTS

A. PROTECT HARDSCAPE ELEMENTS FROM DAMAGE DURING MAINTENANCE ACTIVITIES. ENSURE AREAS ADJACENT TO MAINTENANCE ACTIVITIES ARE CLEANED, SWEEPED OR BLOWN AFTER EACH MAINTENANCE VISIT.

B. DO NOT BLOW GRASS OR CLIPPINGS INTO PAVED AREAS OR DRAINAGE STRUCTURES.
9. LITTER PICK-UP

ENSURE LITTER PICKUP WITHIN THE PROJECT LIMITS AT EACH MAINTENANCE VISIT AND PRIOR TO MOWING.
10. TREE STAKING

A. MAINTAIN ALL STAKING AND GUYING DURING THE FIRST YEAR OF THE ESTABLISHMENT PERIOD.

B. REMOVE ALL STAKING AT THE END OF THE FIRST YEAR OF THE ESTABLISHMENT PERIOD IF TREES ARE ESTABLISHED.
11. EARTH SAUCERS

REMOVE, GRADE SMOOTH, AND RE-MULCH SOIL RINGS AT TREES AT THE END OF THE FIRST YEAR OF THE ESTABLISHMENT PERIOD IF TREES ARE ESTABLISHED.
12. IRRIGATION SYSTEM

A. INSPECT IRRIGATION SYSTEM AT EACH MAINTENANCE VISIT. OBSERVE IN OPERATION AND MAKE NECESSARY ADJUSTMENTS/REPAIRS.

B. REVIEW AND ADJUST WATERING SCHEDULES SEASONALLY AS NEEDED (A MINIMUM OF 4 TIMES PER YEAR).

LONG TERM LANDSCAPE CARE NOTES:

(THE FOLLOWING CARE BEGINS AT THE CONCLUSION OF THE ESTABLISHMENT PERIOD AND IS PROVIDED BY THE MAINTAINING AGENCY. THIS WORK IS NOT INCLUDED IN THE CONSTRUCTION CONTRACTOR'S BID.)

1. MOWING

A. AT A MINIMUM, MOW ALL NEWLY PLANTED SOD MONTHLY. MAINTAIN A 10' MOWED EDGE ADJACENT TO ALL NEWLY INSTALLED MULCH.

B. PICK UP ALL LITTER PRIOR TO MOWING.

C. DEPENDING ON SPECIES, TURF AREAS SHOULD BE MAINTAINED TO A HEIGHT OF NO MORE THAN FIVE (5) INCHES NOR LESS THAN TWO (2) INCHES, TO FOSTER PHOTOSYNTHESIS AND HEALTHY ROOT DEVELOPMENT.
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B. WHERE TURF ABUTS MULCH OR CURB, EDGE WITH A MECHANICAL EDGER. TAKE CARE NOT TO SCAR OR DAMAGE HARDSCAPE.

C. KEEP ALL MULCH INSTALLED UNDER THIS CONTRACT CLEAN AND WELL DEFINED IN ORDER TO PREVENT ENCROACHMENT BY TURF GRASSES.

D. CHEMICAL EDGING IS NOT ALLOWED.
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A. PROVIDE WEED CONTROL ON ALL MULCHED AND TURF AREAS ON A ROUTINE BASIS TO MAINTAIN A WEED-FREE CONDITION.

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(CONTINUED ON NEXT PAGE)

R E V I S I O N S				 MARTIN A. STEFFEN, PLA PLA NO. 6667386 HALFF ASSOCIATES, INC. TALLAHASSEE, FLORIDA 32309		OKALOOSA COUNTY	GENERAL NOTES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			PROJECT		LD-5
						SANTA ROSA BOULEVARD		

LONG TERM LANDSCAPE CARE NOTES (CONTINUED):

6. TRIMMING AND PRUNING
- A. HAND TRIMMING, NOT SHEARING, IS THE PRIMARY METHOD TO SHAPE AND CONTROL PLANT SIZE AND WILL BE ACCOMPLISHED UNDER THE SUPERVISION OF AN INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) CERTIFIED ARBORIST WITH A MINIMUM 5 YEARS OF EXPERIENCE ON SIMILAR PROJECTS TO ENSURE THIS FUNCTION IS IN ACCORDANCE WITH RECOMMENDED HORTICULTURAL PRACTICES.

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C. TRIM PALMS ONCE ANNUALLY IN EARLY MARCH AND AS NEEDED TO MAINTAIN GOOD APPEARANCE. REMOVE DEAD FRONDS, FRUITING BODIES, AND LOOSE BOOTS ONLY.

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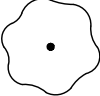
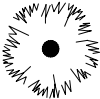
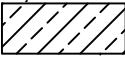
H. PRUNE SILVER SAW PALMETTO AND DWARF PALMETTO ONCE ANNUALLY TO REMOVE DEAD/DYING FRONTS AND FRUITING BODIES.
7. MULCH
- A. MAINTAIN MULCH AT A 3" COMPRESSED DEPTH, RE-MULCH AS NEEDED (A MINIMUM OF ONCE PER YEAR, 1.5" DEPTH MINIMUM). SPREAD MULCH EVENLY. DO NOT PLACE MULCH AGAINST TRUNKS OR STEMS OF PLANTS.

B. PINE STRAW SHALL BE FULL LENGTH, DRY, BRIGHT IN COLOR, FRESHLY BALE, AND 3" DEPTH AFTER SETTLING, COMPOSED ONLY OF NEEDLES OF SLASH, LOBLOLLY, OR LONGLEAF PINE. DO NOT USE MULCH IF IT IS ROTTED OR MOLDY, OR CONTAINS SEED, TUBERS, OR RHIZOMES OF ANY NOXIOUS SPECIES. THE ENTIRE LOT OF PINE STRAW WILL BE REJECTED IF THERE IS ANY EVIDENCE THAT THE PINE STRAW WAS HARVESTED FROM A SITE INFESTED WITH LYGODIUM JAPONICUM OR LYGODIUM MICROPHYLLUM (CLIMBING FERN).
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- ENSURE LITTER PICKUP WITHIN THE PROJECT LIMITS AT EACH MAINTENANCE VISIT AND PRIOR TO MOWING.
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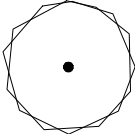
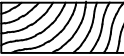
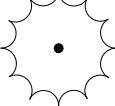
LEGEND

TREES	BOTANICAL / COMMON NAME
	ILEX CASSINE / DAHOON HOLLY
	LAGERSTROEMIA FAURIEI 'MUSKOGEE' / MUSKOGEE CRAPE MYRTLE
	VITEX AGNUS-CASTUS / CHASTE TREE
PALMS	BOTANICAL / COMMON NAME
	SABAL PALMETTO / CABBAGE PALM
SHRUBS/GROUNDCOVERS/SOD	BOTANICAL / COMMON NAME
	ARACHIS GLABRATA / PERENNIAL PEANUT
	HEMEROCALLIS X 'HAPPY RETURNS' / HAPPY RETURNS DAYLILY
	LIRIOPE MUSCARI 'EMERALD GODDESS' / LIRIOPE
	ILEX VOMITORIA 'NANA' / DWARF YAUPON HOLLY
	MUHLENBERGIA CAPILLARIS / PINK MUHLY GRASS
	NERIUM OLEANDER 'PETITE PINK' / DWARF OLEANDER
	PASPALUM NOTATUM 'ARGENTINE' / BAHIA SOD
	TRIPSACUM FLORIDANUM / DWARF FAKAHATCHEE GRASS
	TULBAGHIA VIOLACEA / SOCIETY GARLIC
	VIBURNUM OBOVATUM / WALTER'S VIBURNUM
	SPARTINA BAKERI / SAND CORDGRASS

ABBREVIATION LIST

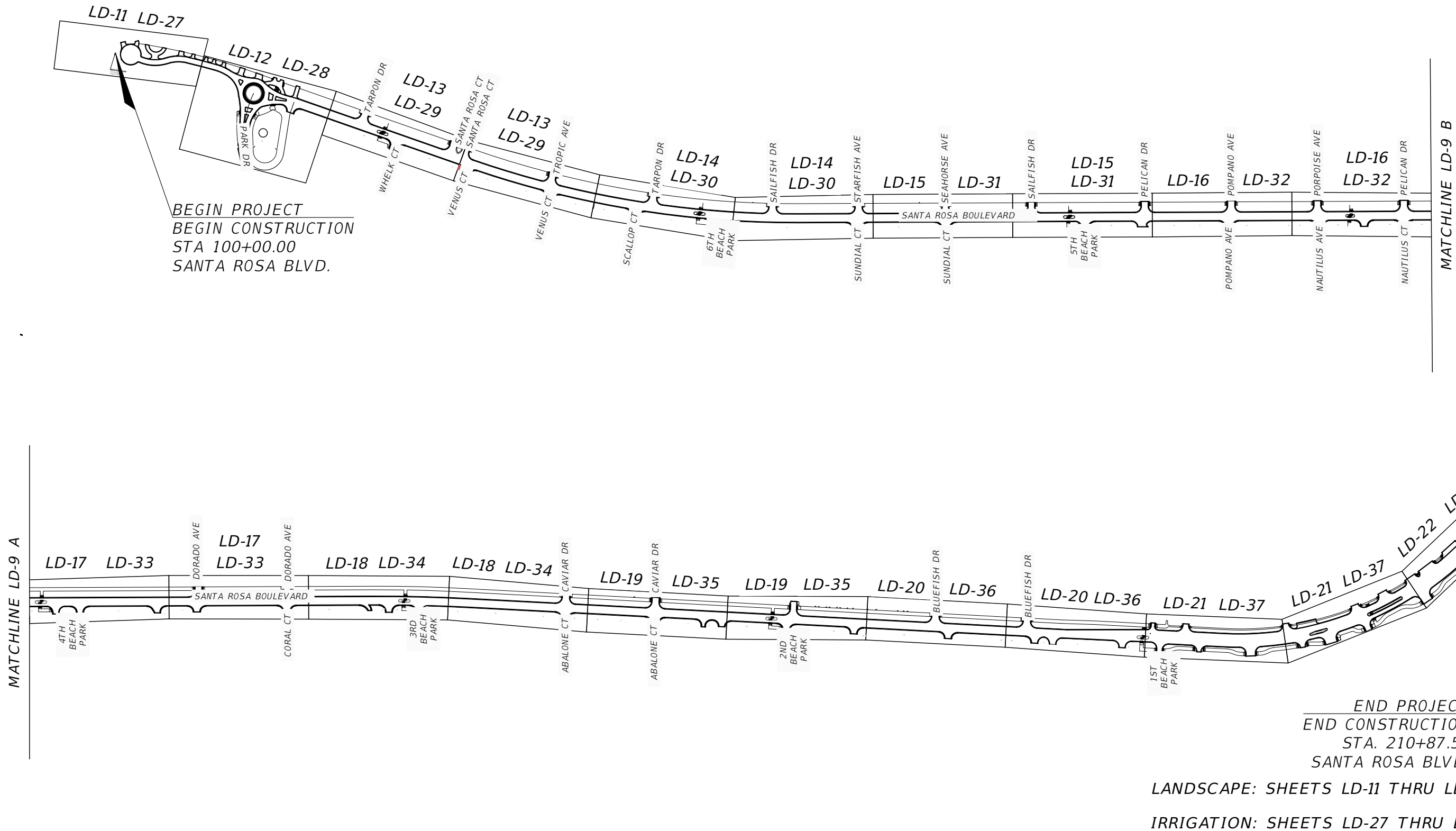
BFO	BURIED FIBER OPTICS
BT	BURIED TELEPHONE
CAL	CALIPER
CAT	CATEGORY
CF	CUBIC FEET
CT	CLEAR TRUNK
CZ	CLEAR ZONE
FDM	FLORIDA DESIGN MANUAL
FG	FIELD GROWN
GAL	GALLON
HT	HEIGHT
LO	LATERAL OFFSET
MED	MEDIUM
MRP	MAINTENANCE RATING PROGRAM
NIC	NOT IN CONTRACT
OE	OVERHEAD ELECTRIC
SPD	SPREAD
ST	STORM PIPE
TBD	TO BE DETERMINED
W	WATER

TYPOLOGIES LEGEND

SHRUBS / GROUNDCOVERS	BOTANICAL / COMMON NAME	SHRUBS / GROUNDCOVERS	BOTANICAL / COMMON NAME
	HYDRANGEA QUERCIFOLIA / OAKLEAF HYDRANGEA		ZAMIA PUMILA / COONTIE
	MUHLENBERGIA CAPILLARIS / PINK MUHLY GRASS		LIRIOPE MUSCARI 'EMERALD GODDESS' / LIRIOPE
	NERIUM OLEANDER 'PETITE PINK' / DWARF OLEANDER		HEMEROCALLIS X 'HAPPY RETURNS' / HAPPY RETURNS DAYLILY
	SABAL MINOR / DWARF PALMETTO		
	TRIPSACUM FLORIDANUM / DWARF FAKAHATCHEE GRASS		
	VIBURNUM OBOVATUM / WALTER'S VIBURNUM		

R E V I S I O N S				 MARTIN A. STEFFEN, PLA PLA NO. 6667386 HALFF ASSOCIATES, INC. TALLAHASSEE, FLORIDA 32309		OKALOOSA COUNTY		GENERAL NOTES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			PROJECT			LD-6
						SANTA ROSA BOULEVARD			

PLANT SCHEDULE						
LABEL	DESCRIPTION	MAX. MAINT. SIZE	QUANTITY	SITE NO.	LOCATION DESCRIPTION	DESIGN NOTES
	TYPE A1 - 1,700 LF					
	HYDRANGEA QUERCIFOLIA / OAKLEAF HYDRANGEA, 3 GAL, 24"-36" HT X 24" SPD, SPACING AS SHOWN		85			
	NERIUM OLEANDER 'PETITE PINK' / DWARF OLEANDER, 3 GAL, 24"-36" HT X 24" SPD, SPACING AS SHOWN		612			
	VIBURNUM OBOVATUM / WALTER'S VIBURNUM, 3 GAL, 24"-36" HT X 24" SPD, SPACING AS SHOWN		425			
	TYPE B - 199 LF					
	VIBURNUM OBOVATUM / WALTER'S VIBURNUM, 3 GAL, 24"-36" HT X 24" SPD, SPACING AS SHOWN		52			
	TYPE C - 1,012 LF					
	MUHLENBERGIA CAPILLARIS / PINK MUHLY GRASS. 1 GAL, 12"-18" HT, FULL CLUMP, SPACING AS SHOWN		207			
	SABAL MINOR / DWARF PALMETTO, 7 GAL, 18"-24" HT X 18"-24" SPD, SPACING AS SHOWN		155			
	HEMEROCALLIS X 'HAPPY RETURNS' / HAPPY RETURNS DAYLILY 1 GAL, 12" HT X 12" SPD, FULL CLUMP, 18" O.C		200			
	TYPE C1 - 582 LF					
	MUHLENBERGIA CAPILLARIS / PINK MUHLY GRASS. 1 GAL, 12"-18" HT, FULL CLUMP, SPACING AS SHOWN		186			
	TRIPSACUM FLORIDANUM / DWARF FAKAHATCHEE GRASS, 1 GAL, 12"-18" HT, FULL CLUMP, SPACING AS SHOWN		140			
	ZAMIA PUMILA / COONTIE, 3 GAL, 18"-24" HT X 18" SPD, FULL TO POT, SPACING AS SHOWN		180			



BEGIN PROJECT
BEGIN CONSTRUCTION
STA 100+00.00
SANTA ROSA BLVD.

END PROJECT
END CONSTRUCTION
STA. 210+87.51
SANTA ROSA BLVD.

LANDSCAPE: SHEETS LD-11 THRU LD-22
IRRIGATION: SHEETS LD-27 THRU LD-38

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION



MARTIN A. STEFFEN, PLA
PLA NO. 6667386
HALFF ASSOCIATES, INC.
TALLAHASSEE, FLORIDA 32309



OKALOOSA COUNTY

PROJECT

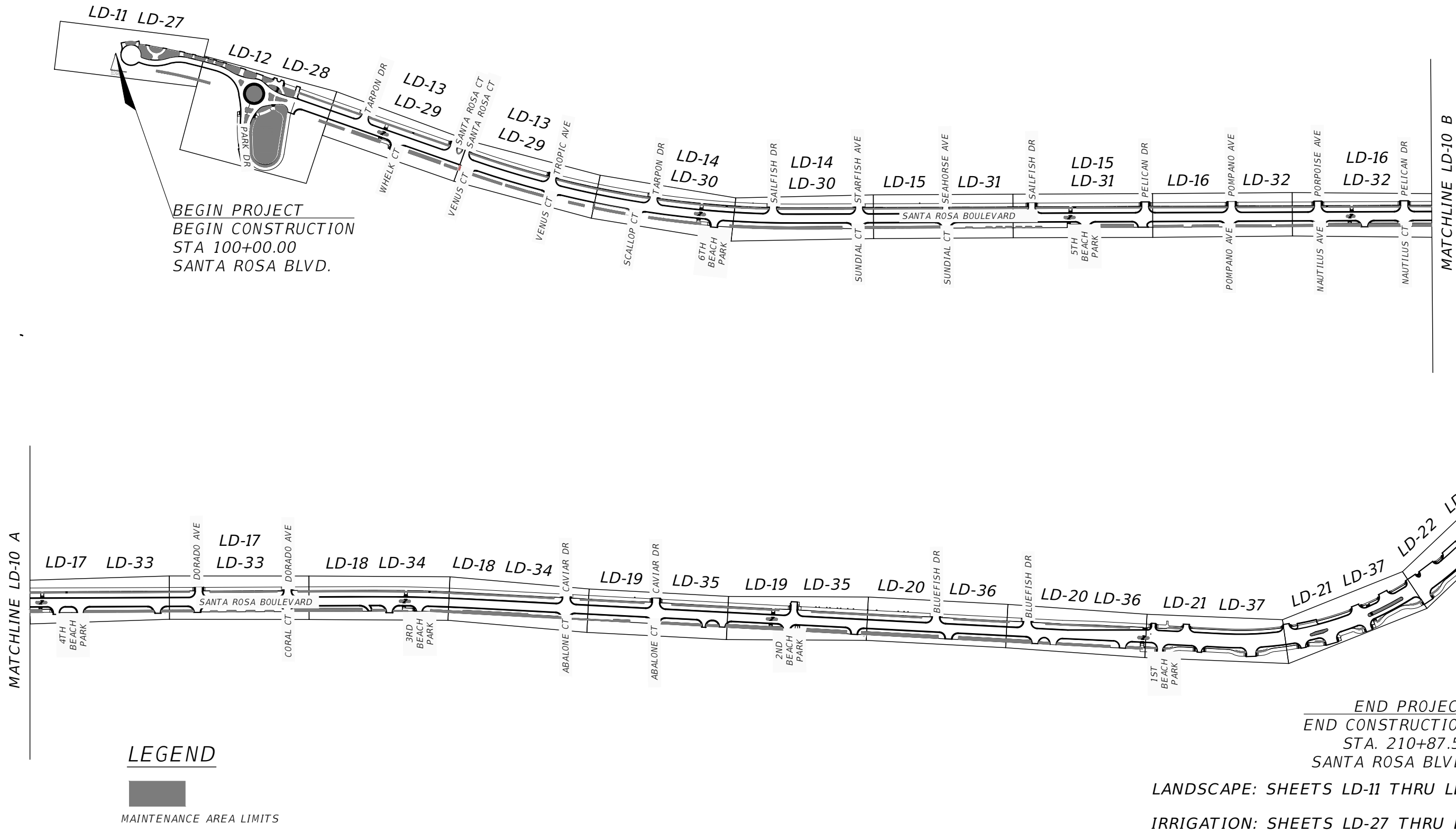
SANTA ROSA BOULEVARD

PROJECT LAYOUT

SHEET NO.

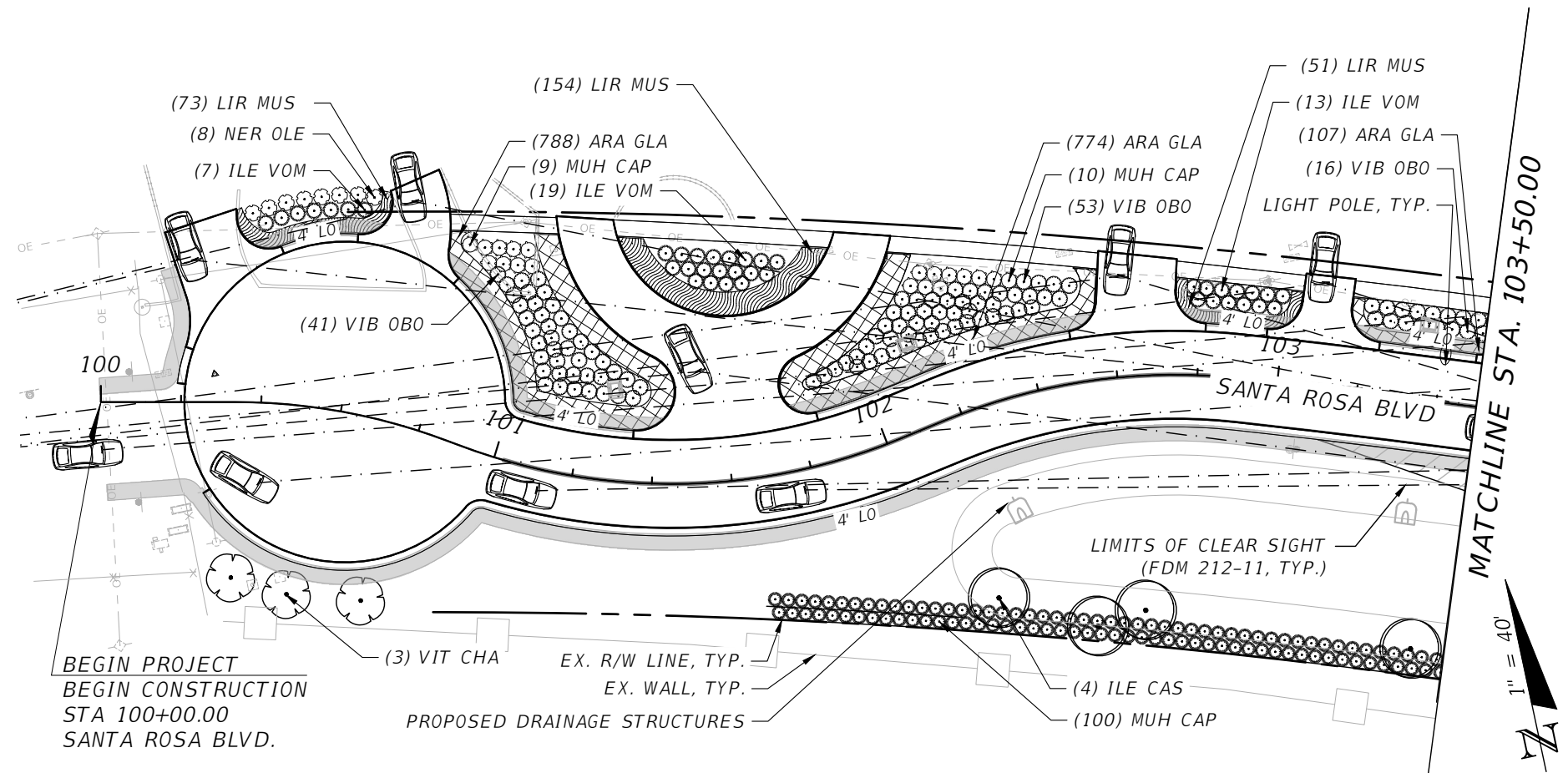
LD-9

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REVISIONS				 MARTIN A. STEFFEN, PLA PLA NO. 6667386 HALFF ASSOCIATES, INC. TALLAHASSEE, FLORIDA 32309	 OKALOOSA COUNTY PROJECT SANTA ROSA BOULEVARD	CONTINUING MAINTENANCE PLAN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION				LD-10

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BEGIN PROJECT
BEGIN CONSTRUCTION
STA 100+00.00
SANTA ROSA BLVD.

PROPOSED DRAINAGE STRUCTURES

LIMITS OF CLEAR SIGHT
(FDM 212-11, TYP.)

MATCHLINE STA. 103+50.00

1" = 40'

LEGEND

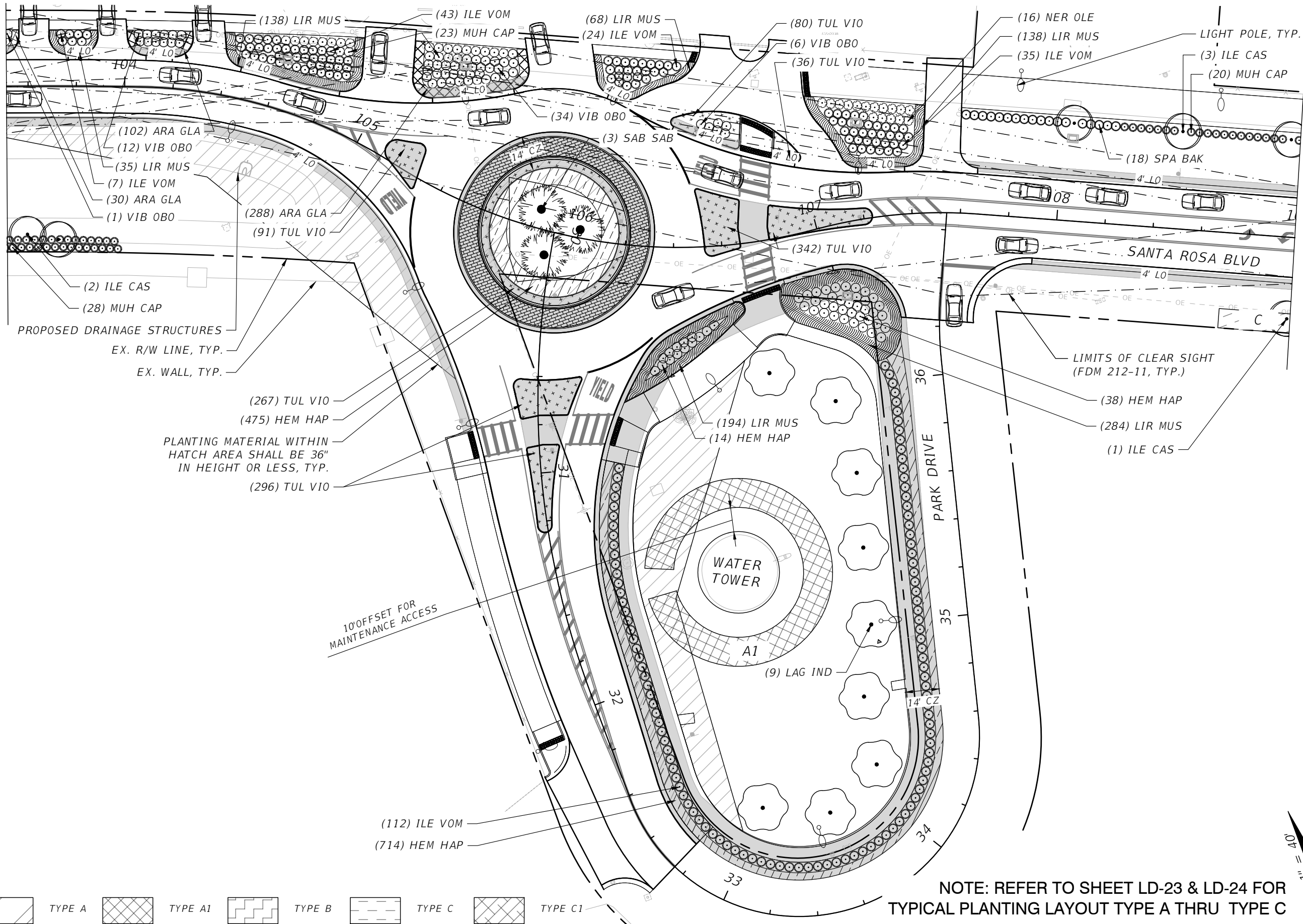
	TYPE A		TYPE A1		TYPE B		TYPE C		TYPE C1
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NOTE: REFER TO SHEET LD-23 & LD-24 FOR
TYPICAL PLANTING LAYOUT TYPE A THRU TYPE C

REVISIONS				 MARTIN A. STEFFEN, PLA PLA NO. 6667386 HALFF ASSOCIATES, INC. TALLAHASSEE, FLORIDA 32309	 OKALOOSA COUNTY PROJECT SANTA ROSA BOULEVARD	LANDSCAPE PLANS	SHEET NO. LD-11
DATE	DESCRIPTION	DATE	DESCRIPTION				

MATCHLINE STA. 103+50.00

MATCHLINE STA. 109+00.00



PROPOSED DRAINAGE STRUCTURES

EX. R/W LINE, TYP.

EX. WALL, TYP.

PLANTING MATERIAL WITHIN
HATCH AREA SHALL BE 36"
IN HEIGHT OR LESS, TYP.

10' OFFSET FOR
MAINTENANCE ACCESS

LIMITS OF CLEAR SIGHT
(FDM 212-11, TYP.)

(38) HEM HAP

(284) LIR MUS

(1) ILE CAS

LEGEND



TYPE A



TYPE A1



TYPE B



TYPE C



TYPE C1

NOTE: REFER TO SHEET LD-23 & LD-24 FOR
TYPICAL PLANTING LAYOUT TYPE A THRU TYPE C

REVISIONS	
DATE	DESCRIPTION

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PLA NO. 6667386
HALFF ASSOCIATES, INC.
TALLAHASSEE, FLORIDA 32309

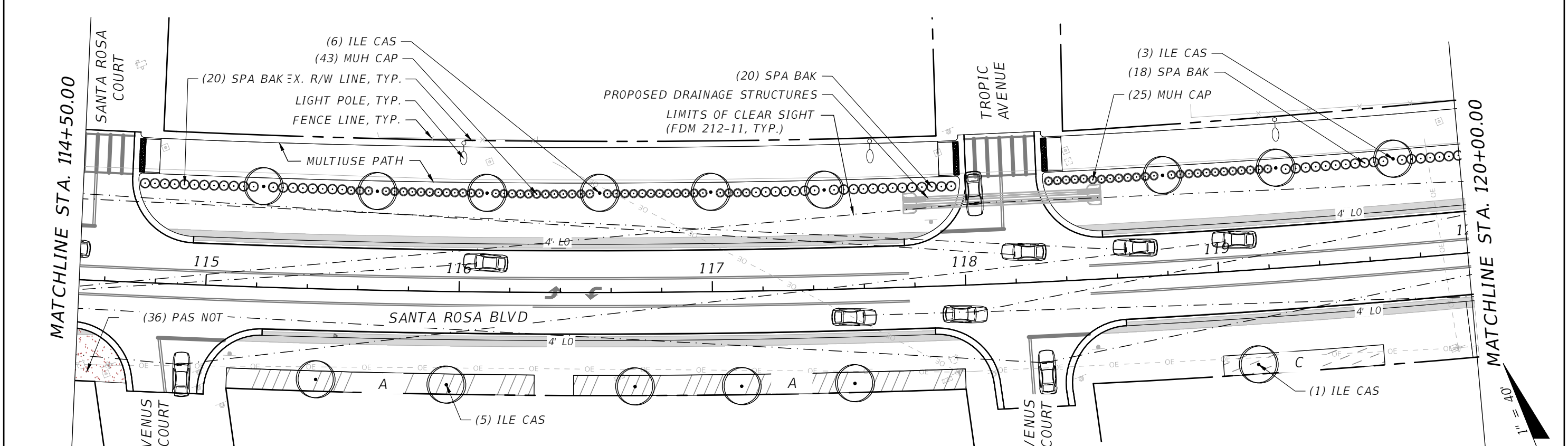
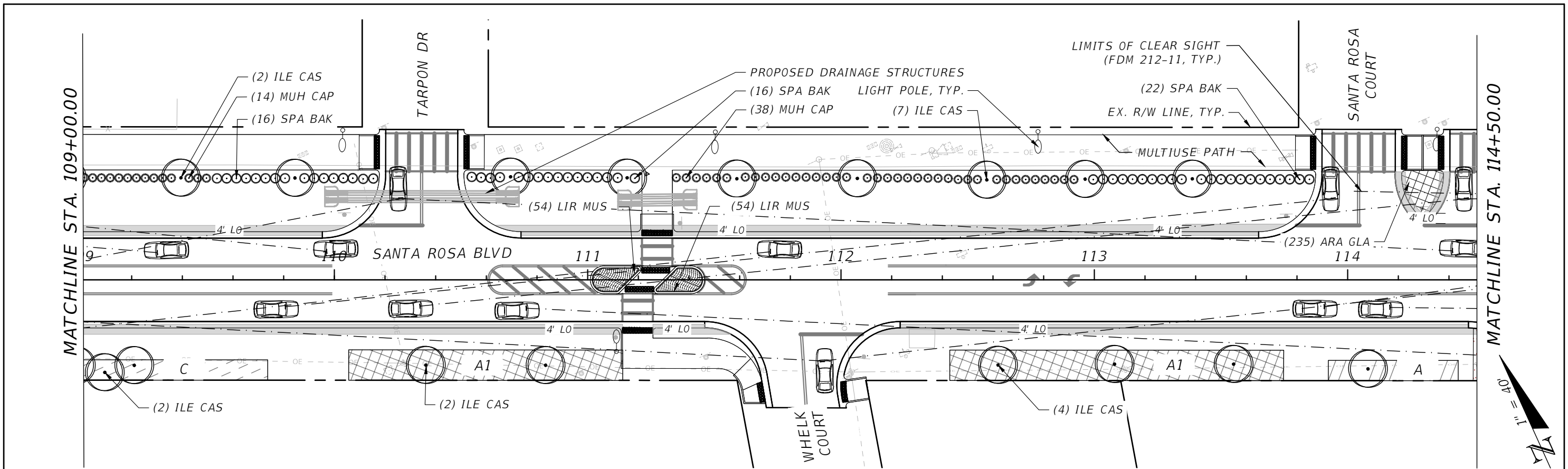


OKALOOSA COUNTY
PROJECT
SANTA ROSA BOULEVARD

LANDSCAPE PLANS

SHEET
NO.

LD-12



LEGEND

	TYPE A		TYPE A1		TYPE B		TYPE C		TYPE C1
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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

MARTIN A. STEFFEN, PLA
PLA NO. 6667386
HALFF ASSOCIATES, INC.
TALLAHASSEE, FLORIDA 32309

OKALOOSA COUNTY

OKALOOSA COUNTY

PROJECT

SANTA ROSA BOULEVARD

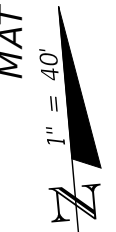
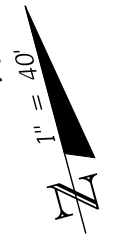
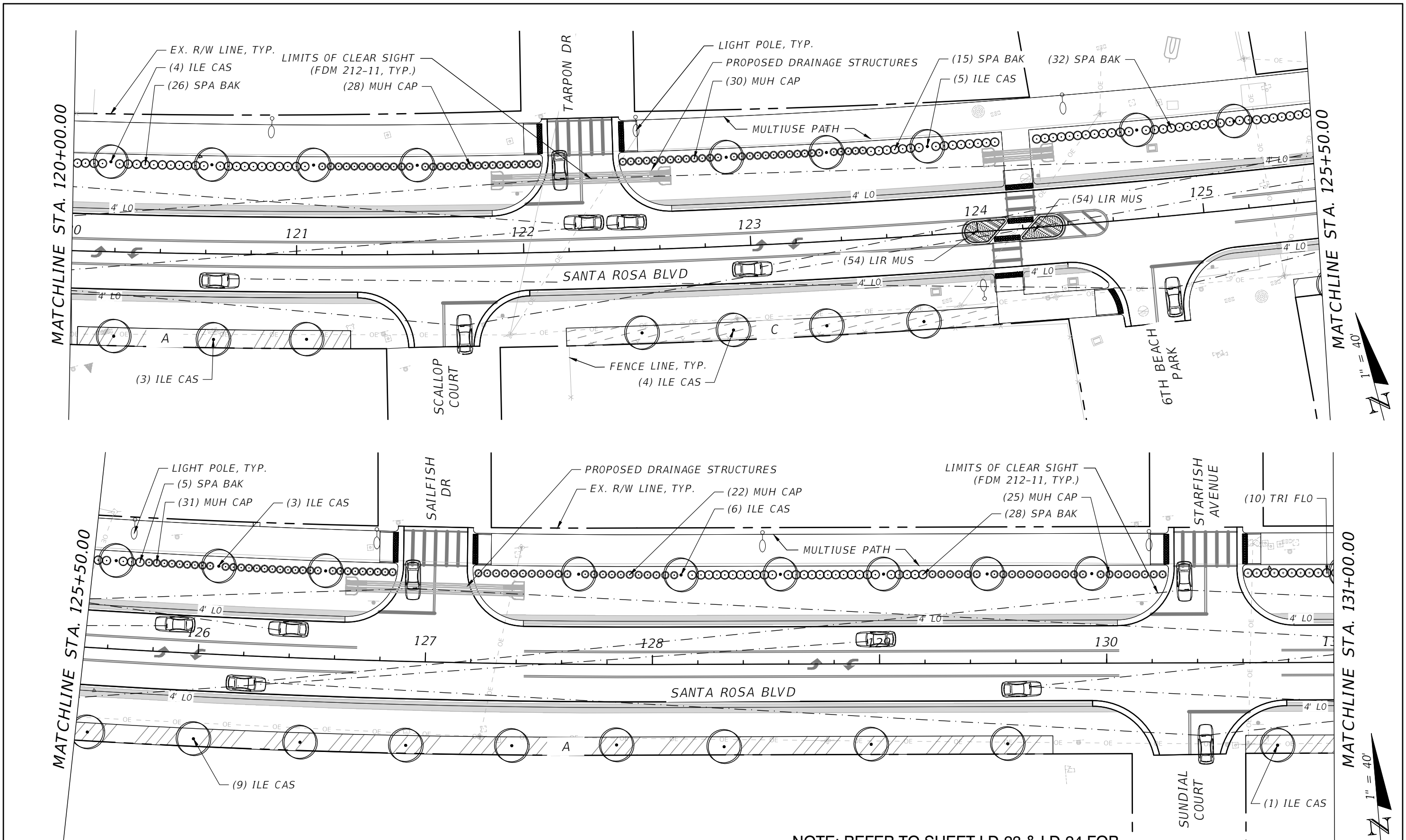
LANDSCAPE PLANS

SHEET NO.

LD-13

NOTE: REFER TO SHEET LD-23 & LD-24 FOR TYPICAL PLANTING LAYOUT TYPE A THRU TYPE C

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LEGEND

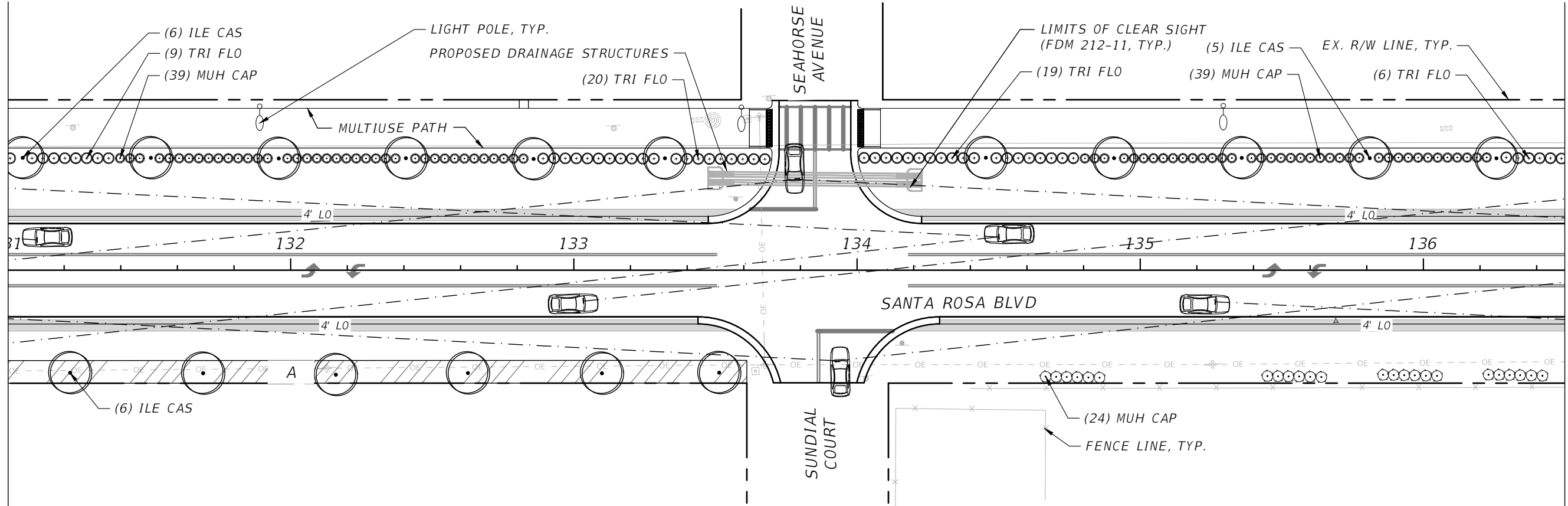
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NOTE: REFER TO SHEET LD-23 & LD-24 FOR TYPICAL PLANTING LAYOUT TYPE A THRU TYPE C

REVISIONS		DESCRIPTION		 MARTIN A. STEFFEN, PLA PLA NO. 6667386 HALFF ASSOCIATES, INC. TALLAHASSEE, FLORIDA 32309	 OKALOOSA COUNTY PROJECT SANTA ROSA BOULEVARD	LANDSCAPE PLANS	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION				LD-14

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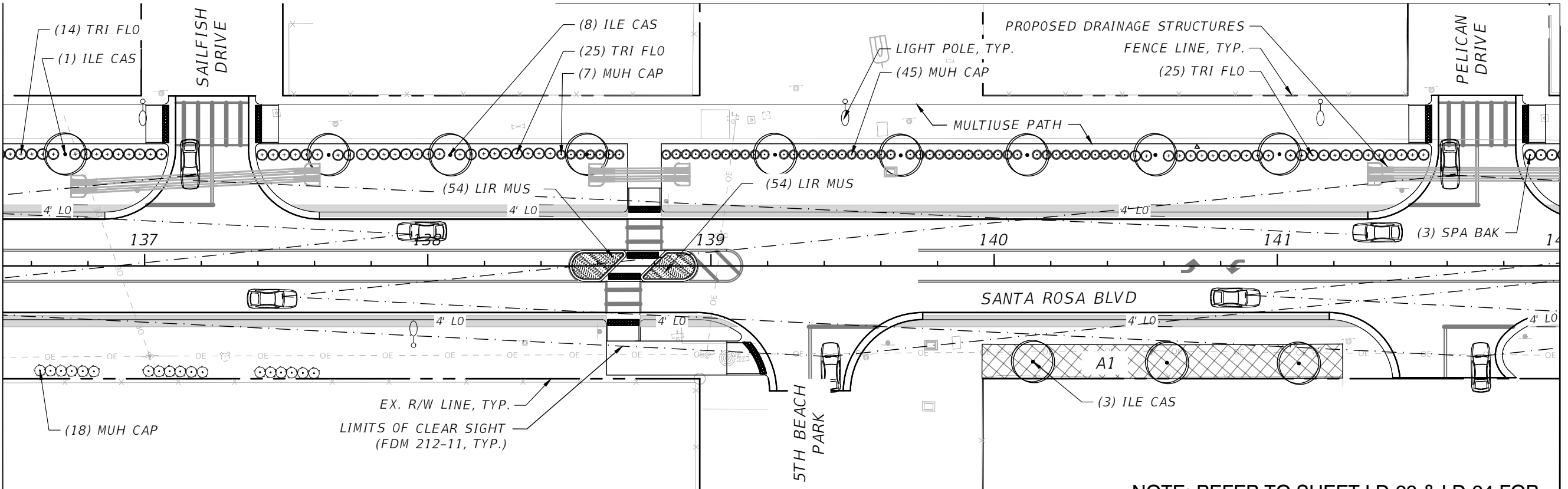
MATCHLINE STA. 131+00.00



MATCHLINE STA. 136+50.00



MATCHLINE STA. 136+50.00



MATCHLINE STA. 142+00.00



LEGEND

	TYPE A		TYPE A1		TYPE B		TYPE C		TYPE C1
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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

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OKALOOSA COUNTY
PROJECT
SANTA ROSA BOULEVARD

NOTE: REFER TO SHEET LD-23 & LD-24 FOR
TYPICAL PLANTING LAYOUT TYPE A THRU TYPE C

LANDSCAPE PLANS

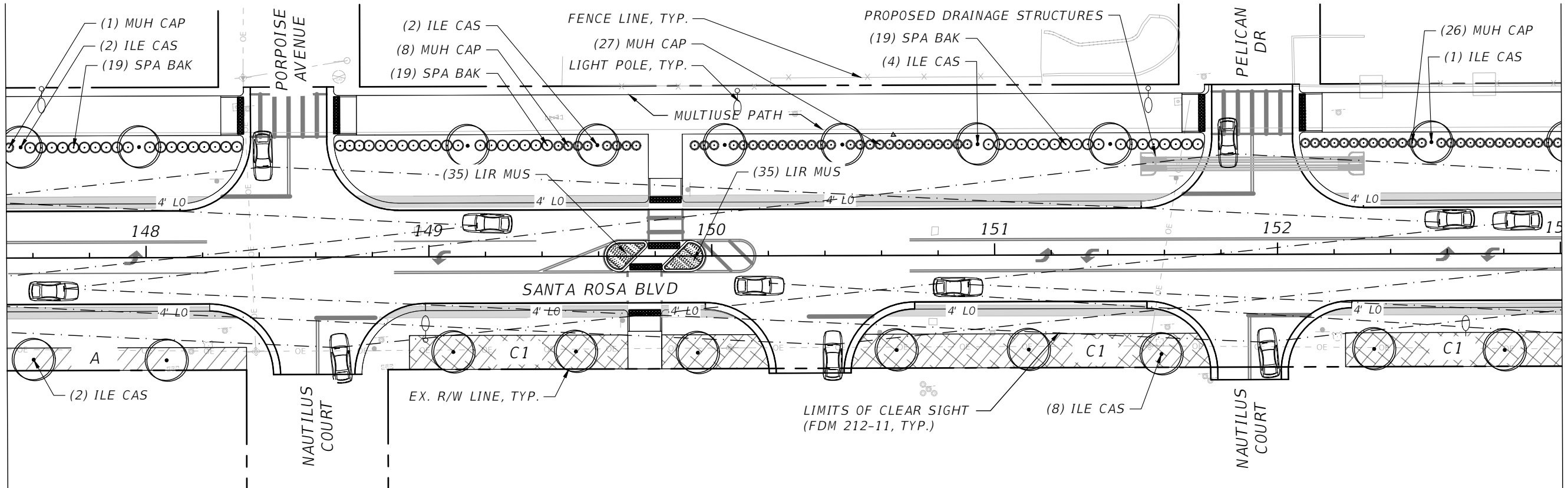
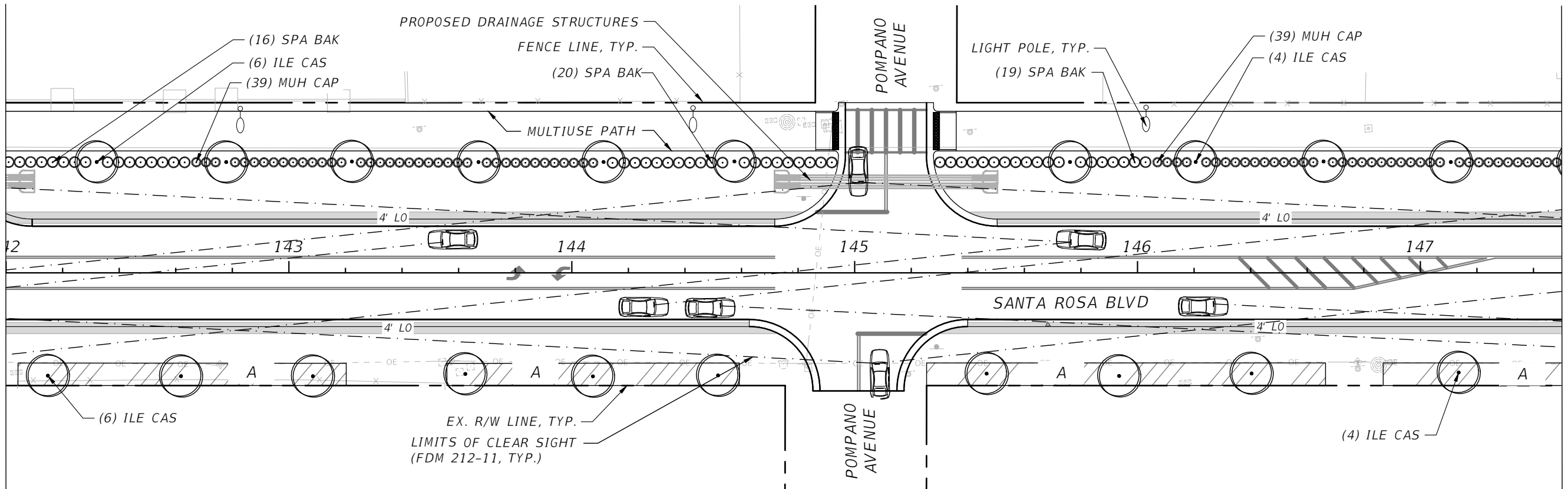
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NO.
LD-15

MATCHLINE STA. 142+00.00

MATCHLINE STA. 147+50.00

MATCHLINE STA. 147+50.00

MATCHLINE STA. 153+00.00



LEGEND

	TYPE A		TYPE A1		TYPE B		TYPE C		TYPE C1
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DATE	DESCRIPTION	DATE	DESCRIPTION

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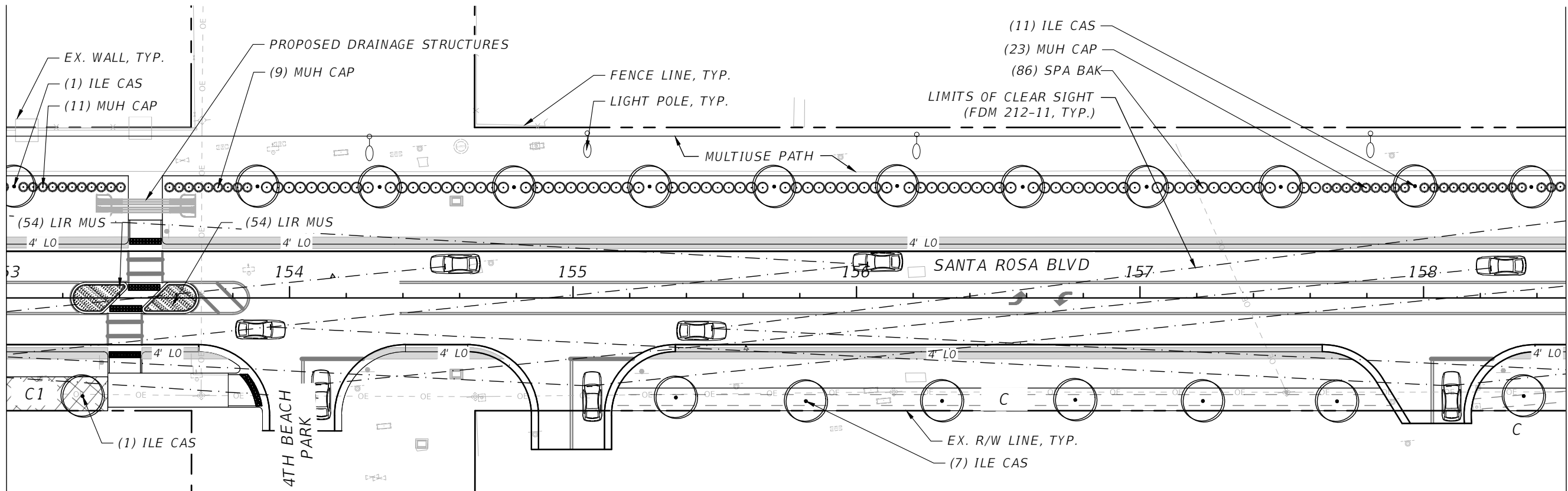
OKALOOSA COUNTY
PROJECT
SANTA ROSA BOULEVARD

NOTE: REFER TO SHEET LD-23 & LD-24 FOR
TYPICAL PLANTING LAYOUT TYPE A THRU TYPE C

LANDSCAPE PLANS

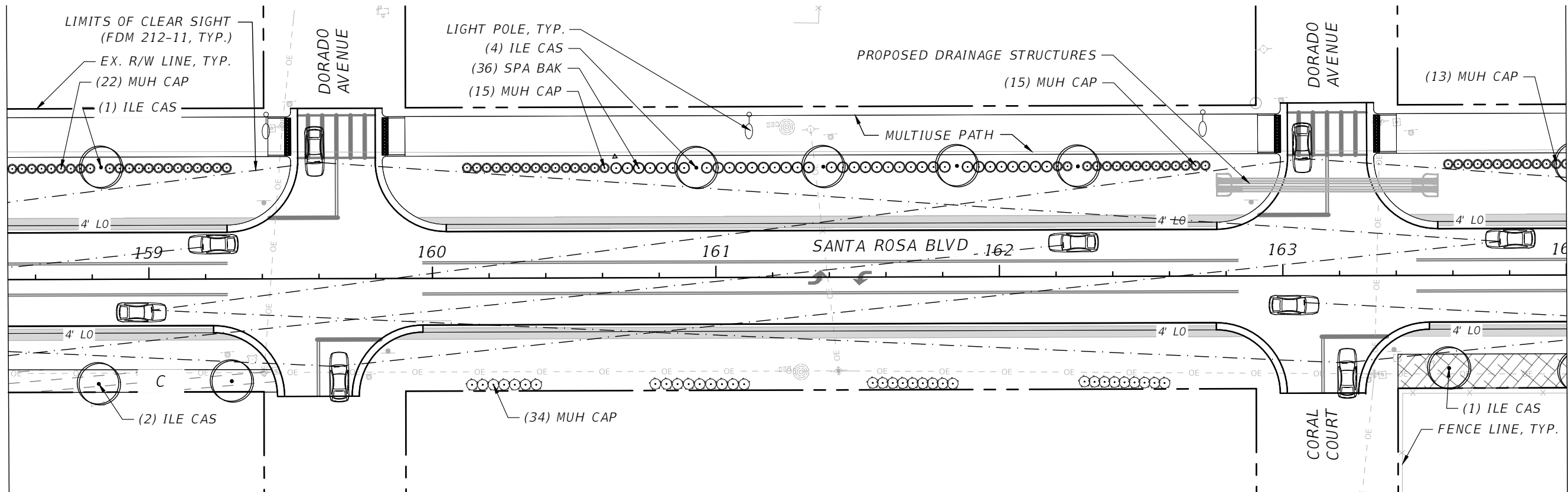
SHEET
NO.
LD-16

MATCHLINE STA. 153+00.00



MATCHLINE STA. 158+50.00

MATCHLINE STA. 158+50.00



MATCHLINE STA. 164+00.00

LEGEND

	TYPE A		TYPE A1		TYPE B		TYPE C		TYPE C1
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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

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OKALOOSA COUNTY
PROJECT
SANTA ROSA BOULEVARD

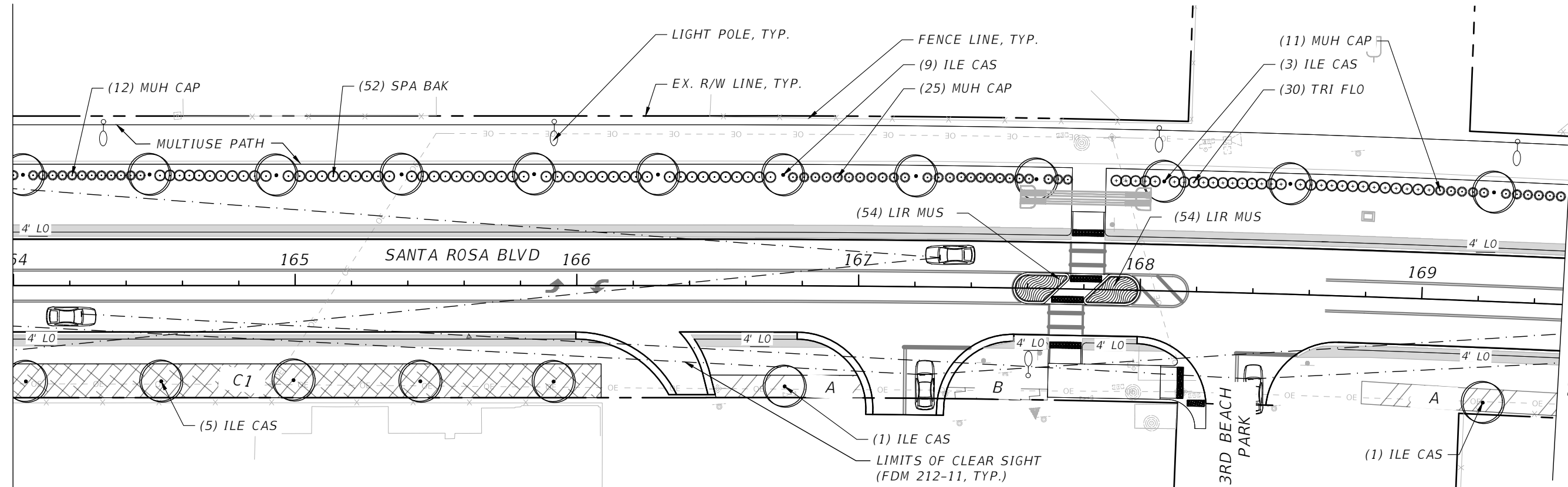
NOTE: REFER TO SHEET LD-23 & LD-24 FOR
TYPICAL PLANTING LAYOUT TYPE A THRU TYPE C

LANDSCAPE PLANS

SHEET
NO.
LD-17

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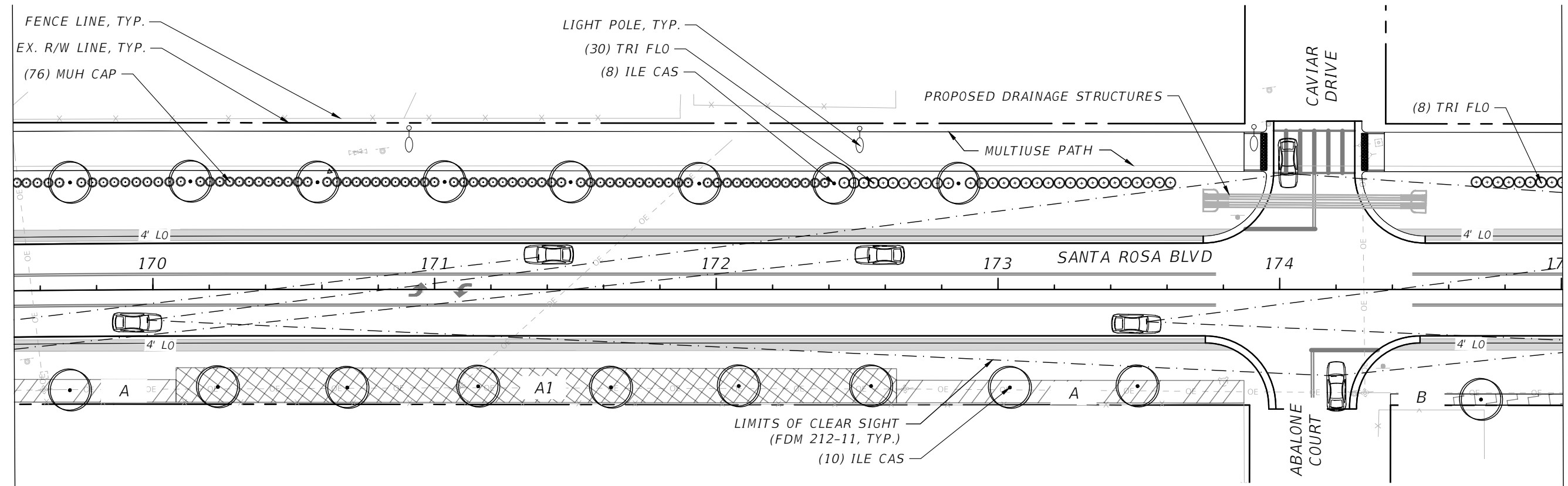
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MATCHLINE STA. 169+50.00



MATCHLINE STA. 169+50.00



MATCHLINE STA. 175+00.00



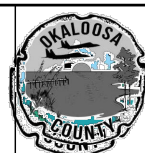
LEGEND

	TYPE A		TYPE A1		TYPE B		TYPE C		TYPE C1
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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

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OKALOOSA COUNTY
PROJECT
SANTA ROSA BOULEVARD

NOTE: REFER TO SHEET LD-23 & LD-24 FOR
TYPICAL PLANTING LAYOUT TYPE A THRU TYPE C

LANDSCAPE PLANS

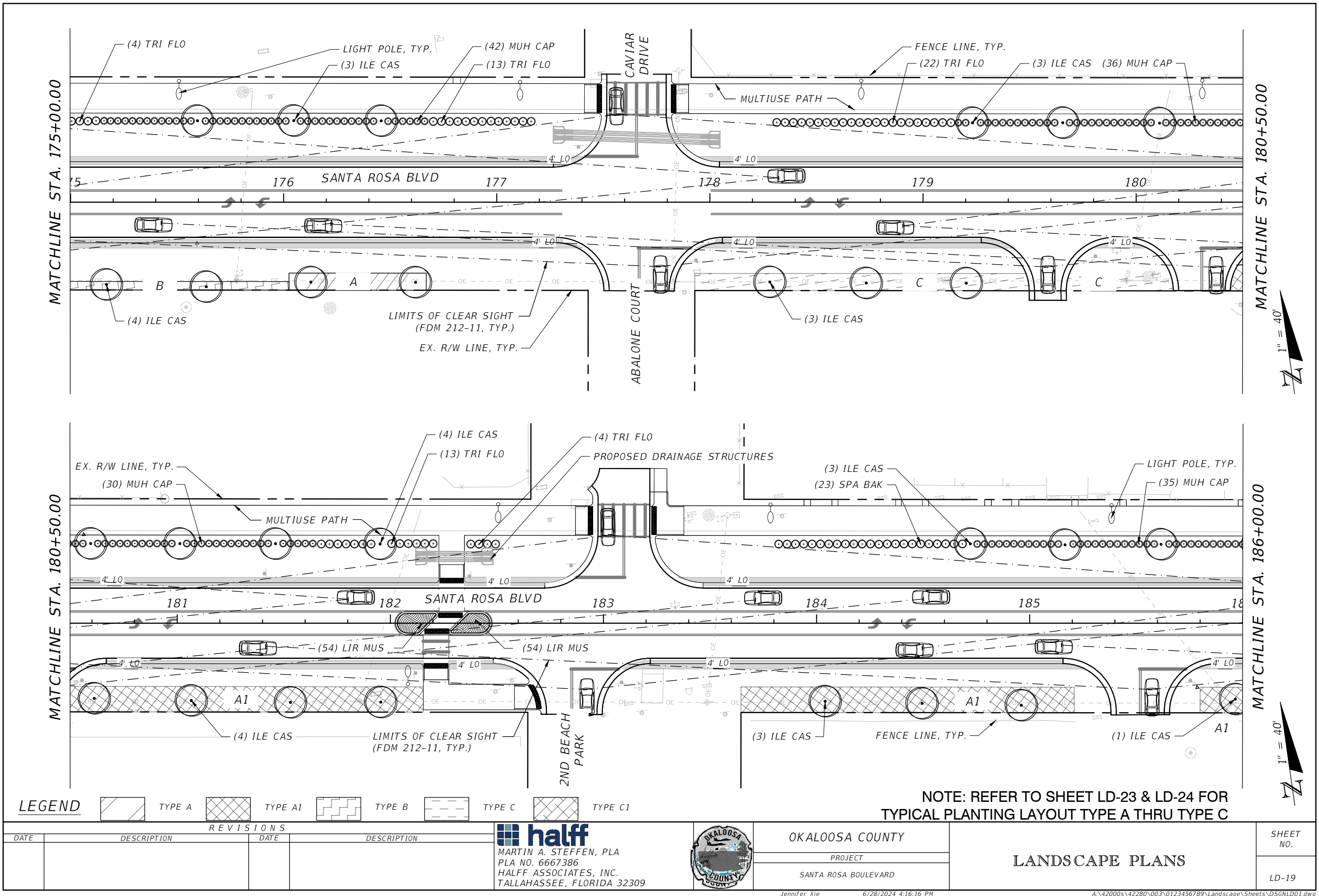
SHEET
NO.
LD-18

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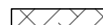
Jennifer Xie

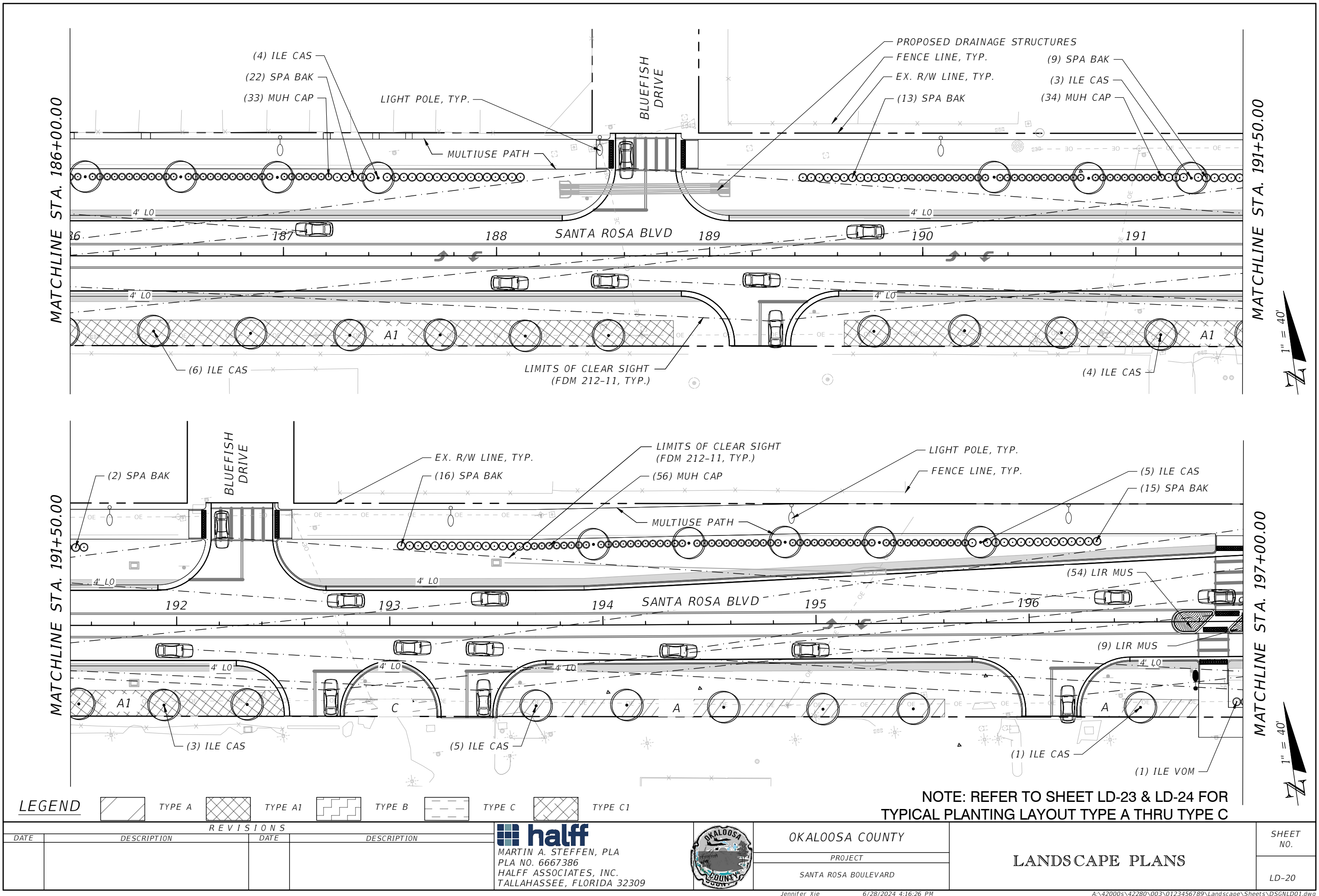
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<u>LEGEND</u>			TYPE A		TYPE A1		TYPE B		TYPE C		TYPE C1	NOTE: REFER TO SHEET LD-23 & LD-24 FOR TYPICAL PLANTING LAYOUT TYPE A THRU TYPE C																	
REVISIONS <table><thead><tr><th>DATE</th><th>DESCRIPTION</th><th>DATE</th><th>DESCRIPTION</th></tr></thead><tbody><tr><td> </td><td> </td><td> </td><td> </td></tr></tbody></table>												DATE	DESCRIPTION	DATE	DESCRIPTION					 MARTIN A. STEFFEN, PLA PLA NO. 6667386 HALFF ASSOCIATES, INC. TALLAHASSEE, FLORIDA 32309				OKALOOSA COUNTY PROJECT SANTA ROSA BOULEVARD		LANDSCAPE PLANS		SHEET NO.	
DATE	DESCRIPTION	DATE	DESCRIPTION																										
						LD-19																							
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MATCHLINE STA. 186+00.00

MATCHLINE STA. 191+50.00

MATCHLINE STA. 191+50.00

MATCHLINE STA. 197+00.00



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LEGEND

	TYPE A		TYPE A1		TYPE B		TYPE C		TYPE C1
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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

halff
MARTIN A. STEFFEN, PLA
PLA NO. 6667386
HALFF ASSOCIATES, INC.
TALLAHASSEE, FLORIDA 32309

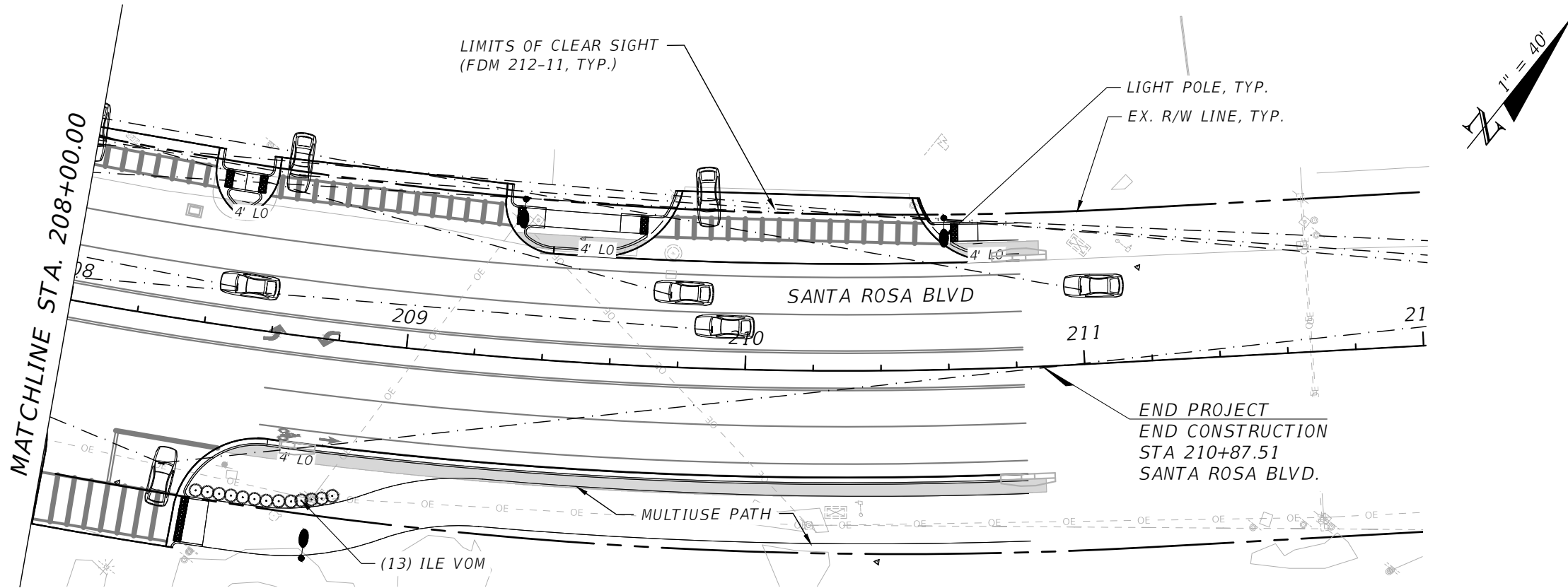
OKALOOSA COUNTY
PROJECT
SANTA ROSA BOULEVARD

NOTE: REFER TO SHEET LD-23 & LD-24 FOR TYPICAL PLANTING LAYOUT TYPE A THRU TYPE C

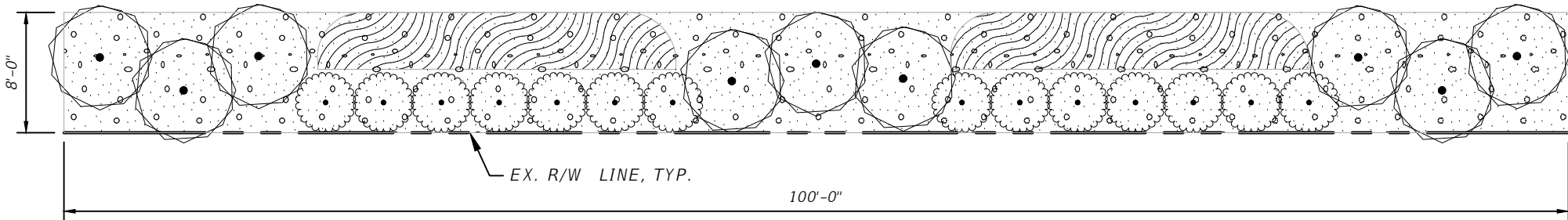
LANDSCAPE PLANS

SHEET NO.
LD-20

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REVISIONS				 MARTIN A. STEFFEN, PLA PLA NO. 6667386 HALFF ASSOCIATES, INC. TALLAHASSEE, FLORIDA 32309	 OKALOOSA COUNTY	PROJECT SANTA ROSA BOULEVARD	LANDSCAPE PLANS		SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION						LD-22

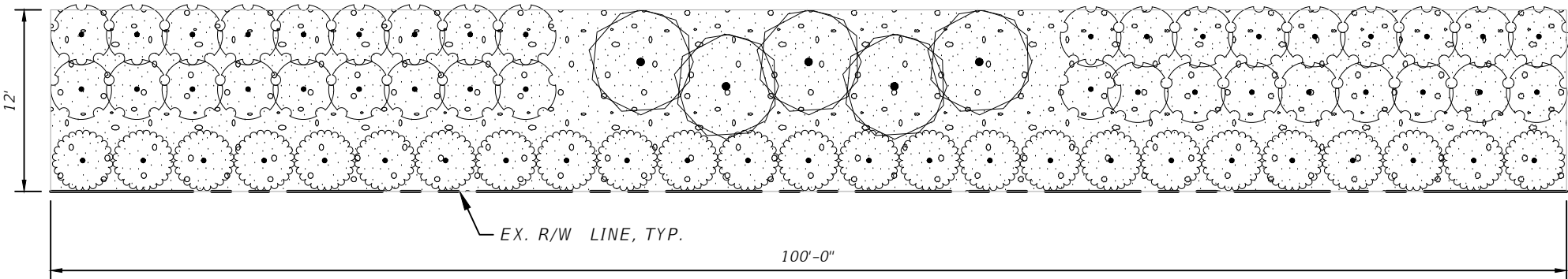


PLANT SCHEDULE TYPE A PER 100 LF

SYMBOL	QTY	BOTANICAL / COMMON NAME
SHRUBS		
	9	HYDRANGEA QUERCIFOLIA / OAKLEAF HYDRANGEA
	14	VIBURNUM OBOVATUM / WALTER'S VIBURNUM
GROUND COVERS		
	180	LIRIOPE MUSCARI 'EMERALD GODESS' / LIRIOPE
	7	PINE STRAW / MULCH (CY)

1 TYPE A TYPICAL LANDSCAPE LAYOUT

NTS

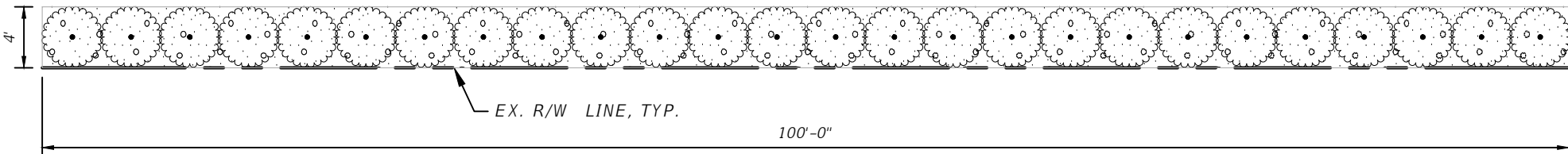


PLANT SCHEDULE TYPE A1 PER 100 LF

SYMBOL	QTY	BOTANICAL / COMMON NAME
SHRUBS		
	5	HYDRANGEA QUERCIFOLIA / OAKLEAF HYDRANGEA
	36	NERIUM OLEANDER 'PETITE PINK' / DWARF OLEANDER
	25	VIBURNUM OBOVATUM / WALTER'S VIBURNUM
GROUND COVERS		
	10	PINE STRAW / MULCH (CY)

2 TYPE A1 TYPICAL LANDSCAPE LAYOUT

NTS



PLANT SCHEDULE TYPE B PER 100 LF

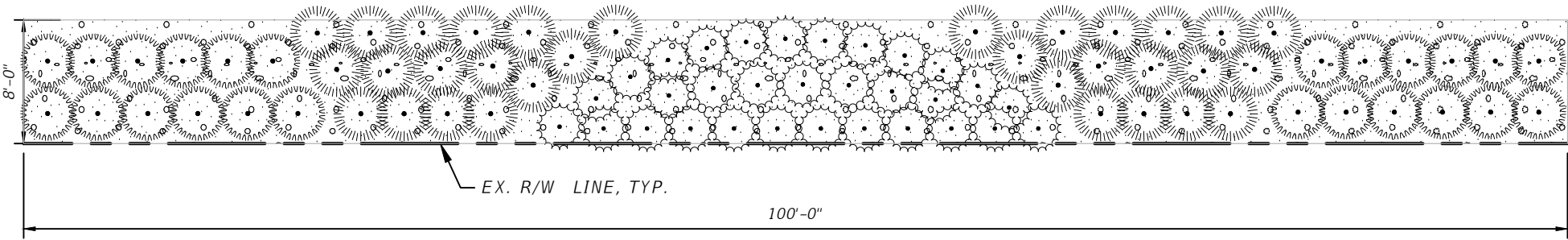
SYMBOL	QTY	BOTANICAL / COMMON NAME
SHRUBS		
	26	VIBURNUM OBOVATUM / WALTER'S VIBURNUM
GROUND COVERS		
	4	PINE STRAW / MULCH (CY)

3 TYPE B TYPICAL LANDSCAPE LAYOUT

NTS

REVISIONS				 MARTIN A. STEFFEN, PLA PLA NO. 6667386 HALFF ASSOCIATES, INC. TALLAHASSEE, FLORIDA 32309		OKALOOSA COUNTY PROJECT SANTA ROSA BOULEVARD	LANDSCAPE DETAILS	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION					LD-23

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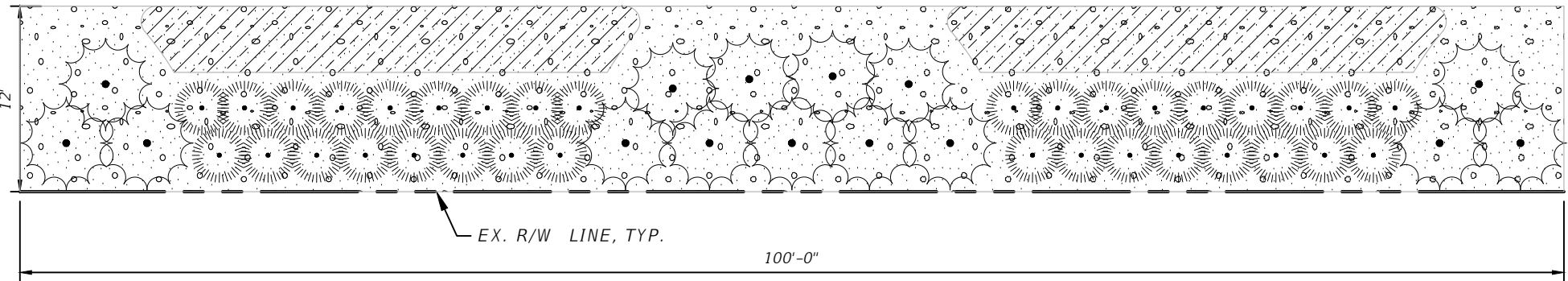


1 TYPE C TYPICAL LANDSCAPE LAYOUT
NTS

PLANT SCHEDULE TYPE C1 PER 100 LF

SYMBOL	QTY	BOTANICAL / COMMON NAME
SHRUBS		
	32	MUHLENBERGIA CAPILLARIS / PINK MUHLY GRASS
	24	TRIPSACUM FLORIDANUM / DWARF FAKAHATCHEE GRASS
	31	ZAMIA PUMILA / COONTIE

GROUND COVERS		
	7	PINE STRAW / MULCH (CY)

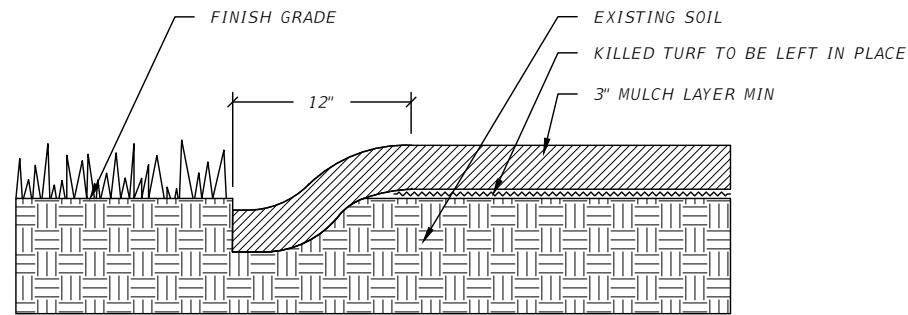


2 TYPE C1 TYPICAL LANDSCAPE LAYOUT
NTS

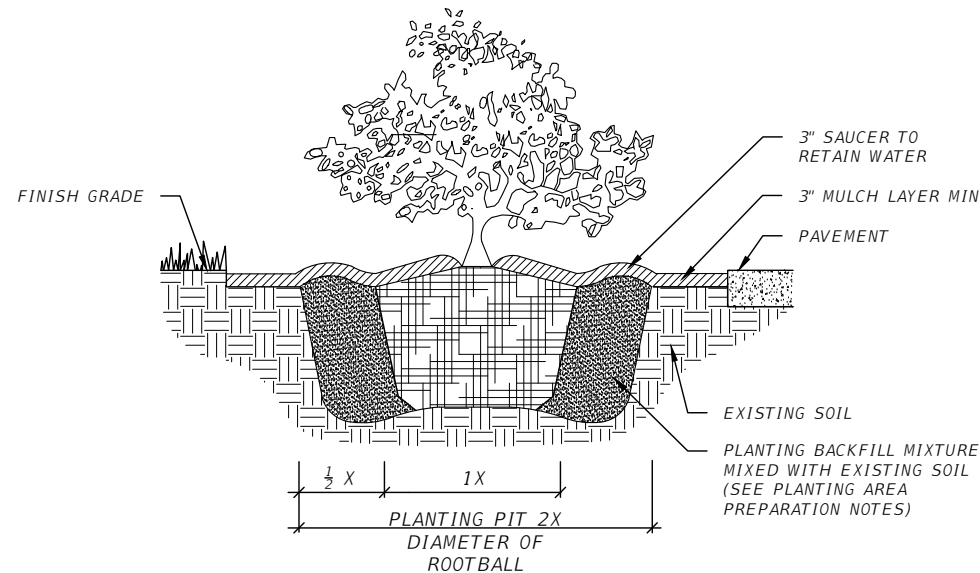
PLANT SCHEDULE TYPE C PER 100 LF

SYMBOL	QTY	BOTANICAL / COMMON NAME
SHRUBS		
	34	MUHLENBERGIA CAPILLARIS / PINK MUHLY GRASS
	15	SABAL MINOR / DWARF PALMETTO
GROUND COVERS		
	122	HEMEROCALLIS X 'HAPPY RETURNS' / HAPPY RETURNS DAYLILY
	10	PINE STRAW / MULCH (CY)

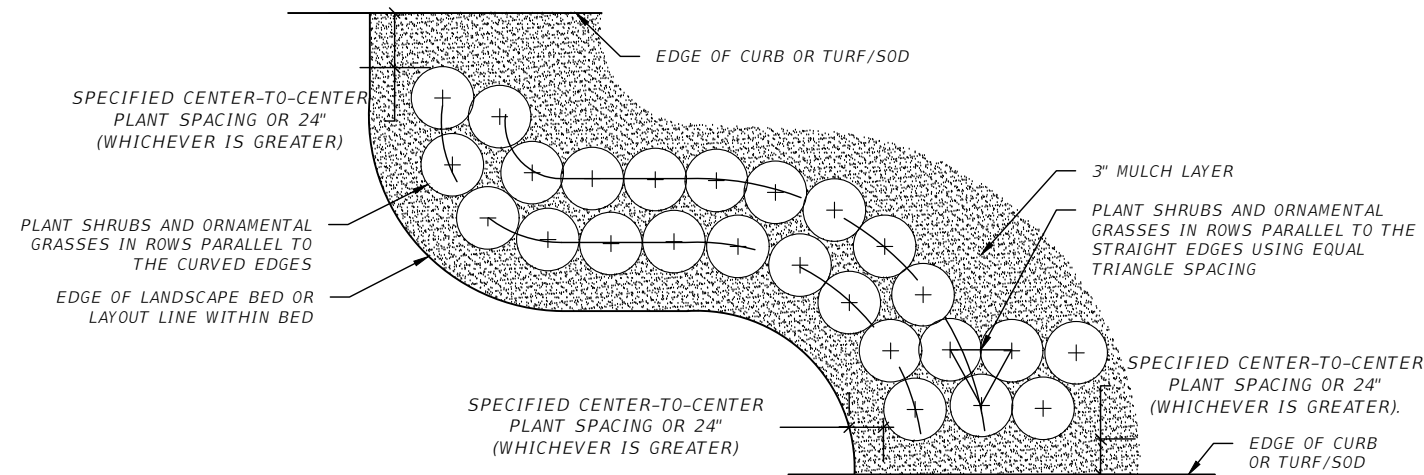
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DATE	DESCRIPTION	DATE	DESCRIPTION			PROJECT		LD-24
						SANTA ROSA BOULEVARD		



PLANTING DETAIL - MULCH ON GRADE AREAS
NTS



PLANTING DETAIL - TYPICAL SHRUB/NATIVE GRASSES
NTS



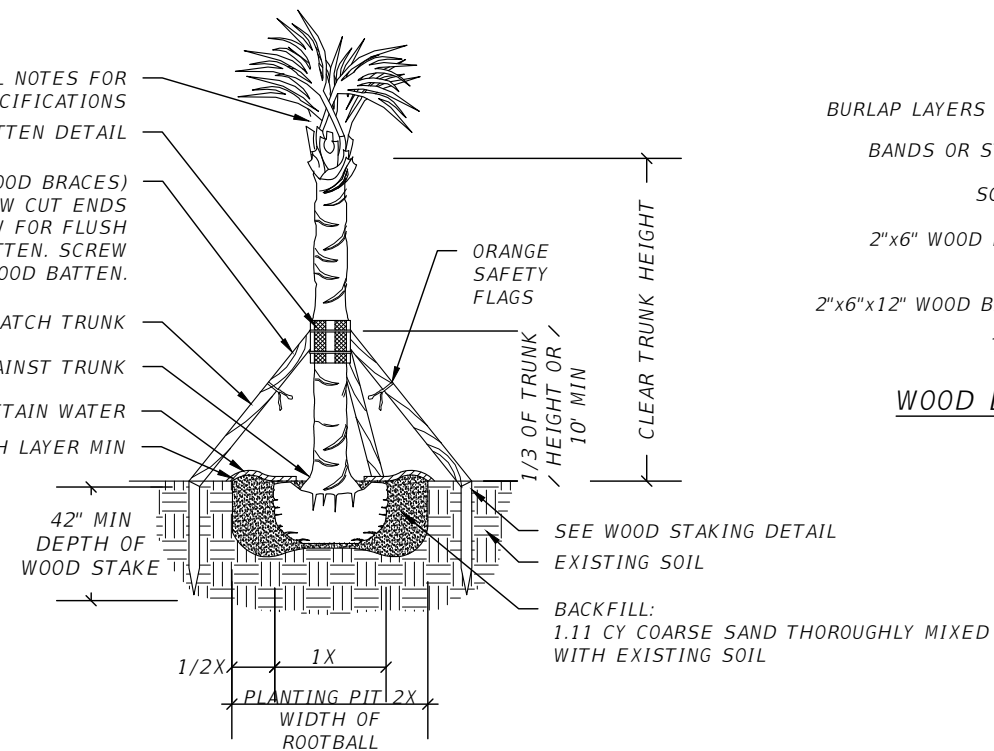
LAYOUT DETAIL - TYPICAL SHRUB WITH O.C. SPACING
NTS

SEE GENERAL NOTES FOR FOLIAGE SPECIFICATIONS
SEE WOOD BATTEN DETAIL

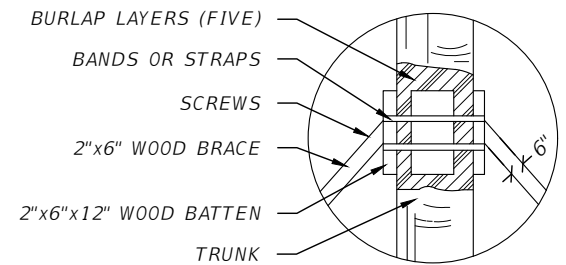
2"x6" WOOD BRACES (MIN 3 WOOD BRACES)
SPACED 120 DEGREES APART. SAW CUT ENDS
AT PROPER ANGLE TO ALLOW FOR FLUSH
CONNECTION TO WOOD BATTEN. SCREW
WOOD BRACES SECURELY TO WOOD BATTEN.

PAINT BRACES TO MATCH TRUNK
DO NOT PLACE MULCH AGAINST TRUNK

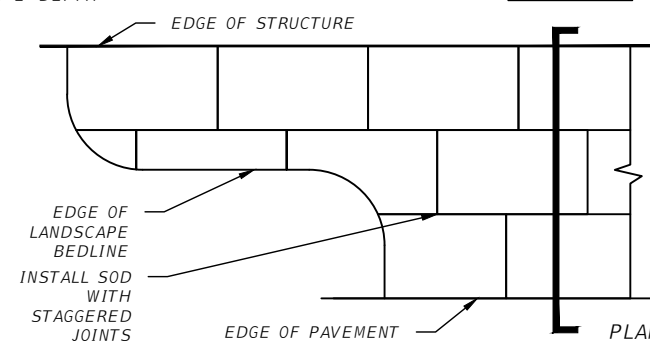
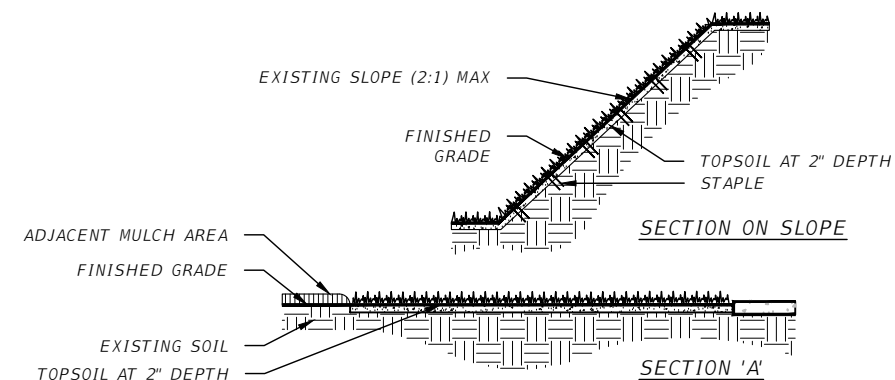
6" SAUCER TO RETAIN WATER
3" MULCH LAYER MIN



PLANTING DETAIL - "REGENERATED ROOTS" SABAL PALM
WITH ABOVE GROUND BRACING
NTS



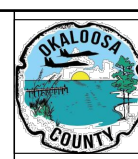
WOOD BATTEN DETAIL FOR PALMS



TYPICAL SOD INSTALLATION
NTS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

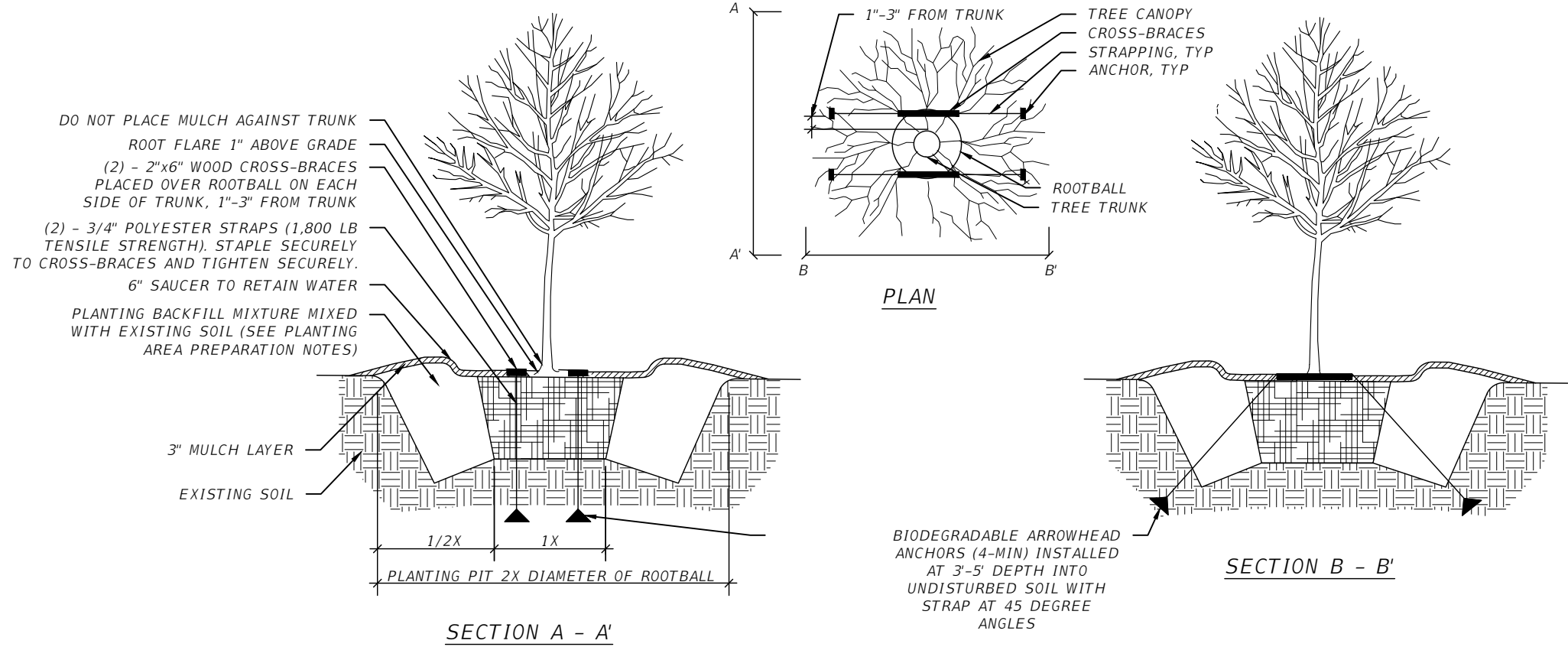
halff
MARTIN A. STEFFEN, PLA
PLA NO. 6667386
HALFF ASSOCIATES, INC.
TALLAHASSEE, FLORIDA 32309



OKALOOSA COUNTY
PROJECT
SANTA ROSA BOULEVARD

LANDSCAPE DETAILS

SHEET
NO.
LD-25



PLANTING DETAIL - 30/45 GAL TREES WITH UNDERGROUND BRACING (SINGLE STEM & MULTI STEM TREES)

NTS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

halff
 MARTIN A. STEFFEN, PLA
 PLA NO. 6667386
 HALFF ASSOCIATES, INC.
 TALLAHASSEE, FLORIDA 32309

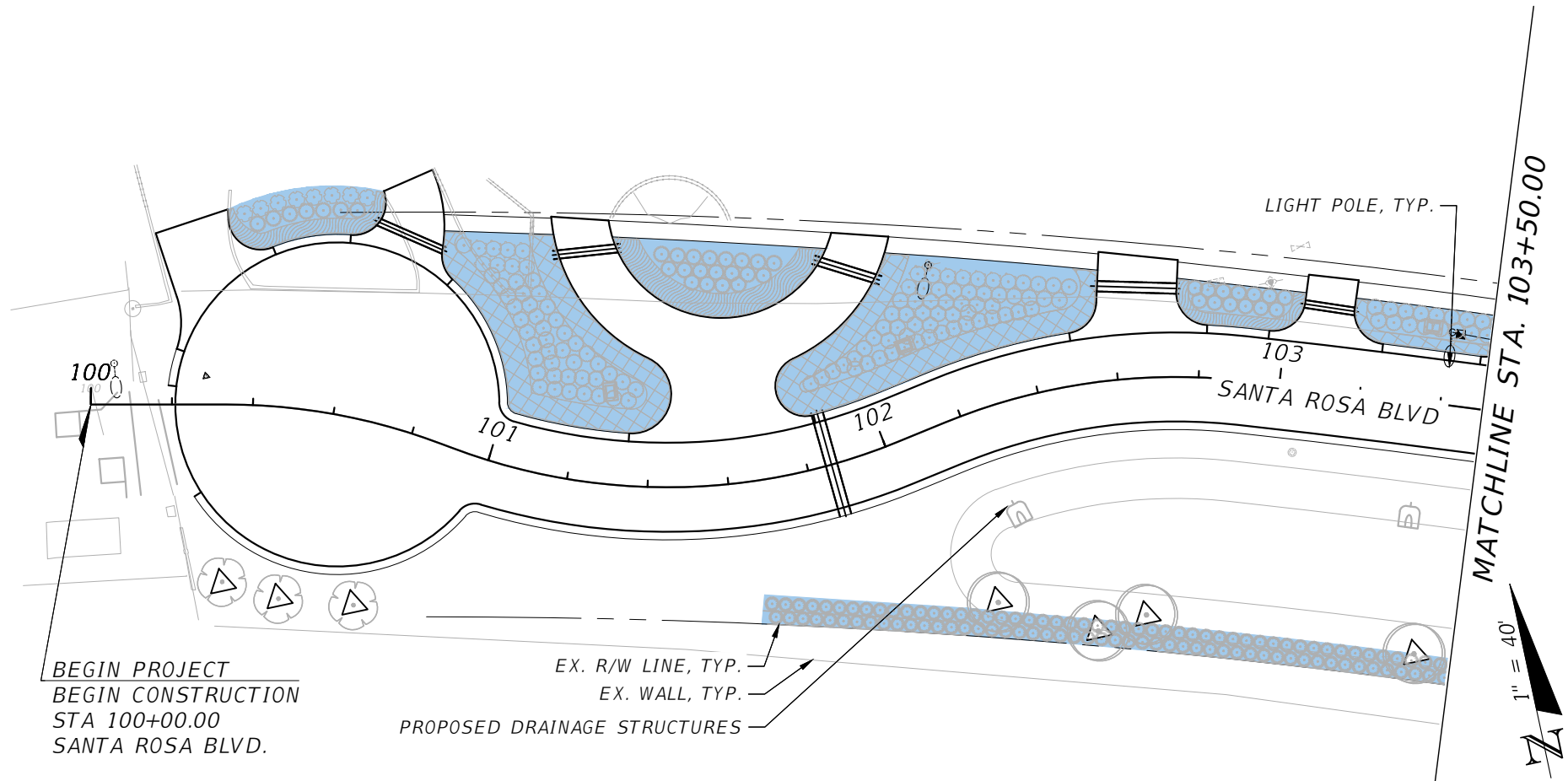


OKALOOSA COUNTY
 PROJECT
 SANTA ROSA BOULEVARD

LANDSCAPE DETAILS

SHEET
 NO.
 LD-26

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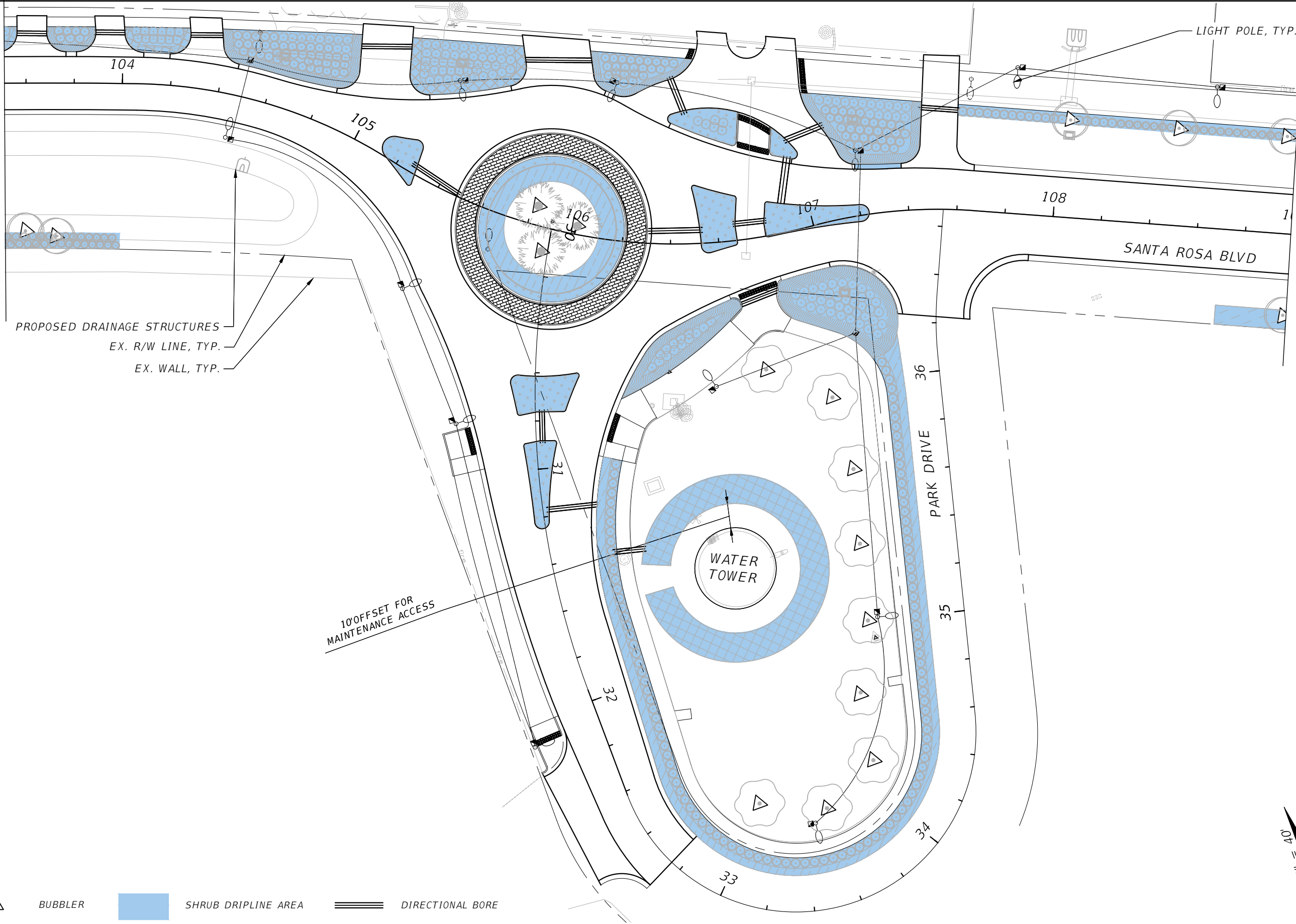


LEGEND

- BUBBLER
- SHRUB DRIPLINE AREA
- DIRECTIONAL BORE

REVISIONS				halff MARTIN A. STEFFEN, PLA PLA NO. 6667386 HALFF ASSOCIATES, INC. TALLAHASSEE, FLORIDA 32309	OKALOOSA COUNTY PROJECT SANTA ROSA BOULEVARD	IRRIGATION PLANS	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION				LD-27

MATCHLINE STA. 103+50.00



PROPOSED DRAINAGE STRUCTURES
EX. R/W LINE, TYP.
EX. WALL, TYP.

10' OFFSET FOR
MAINTENANCE ACCESS

SANTA ROSA BLVD

PARK DRIVE

WATER
TOWER

LIGHT POLE, TYP.

MATCHLINE STA. 109+00.00

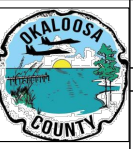
LEGEND

- BUBBLER
- SHRUB DRIPLINE AREA
- DIRECTIONAL BORE



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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TALLAHASSEE, FLORIDA 32309



OKALOOSA COUNTY

PROJECT

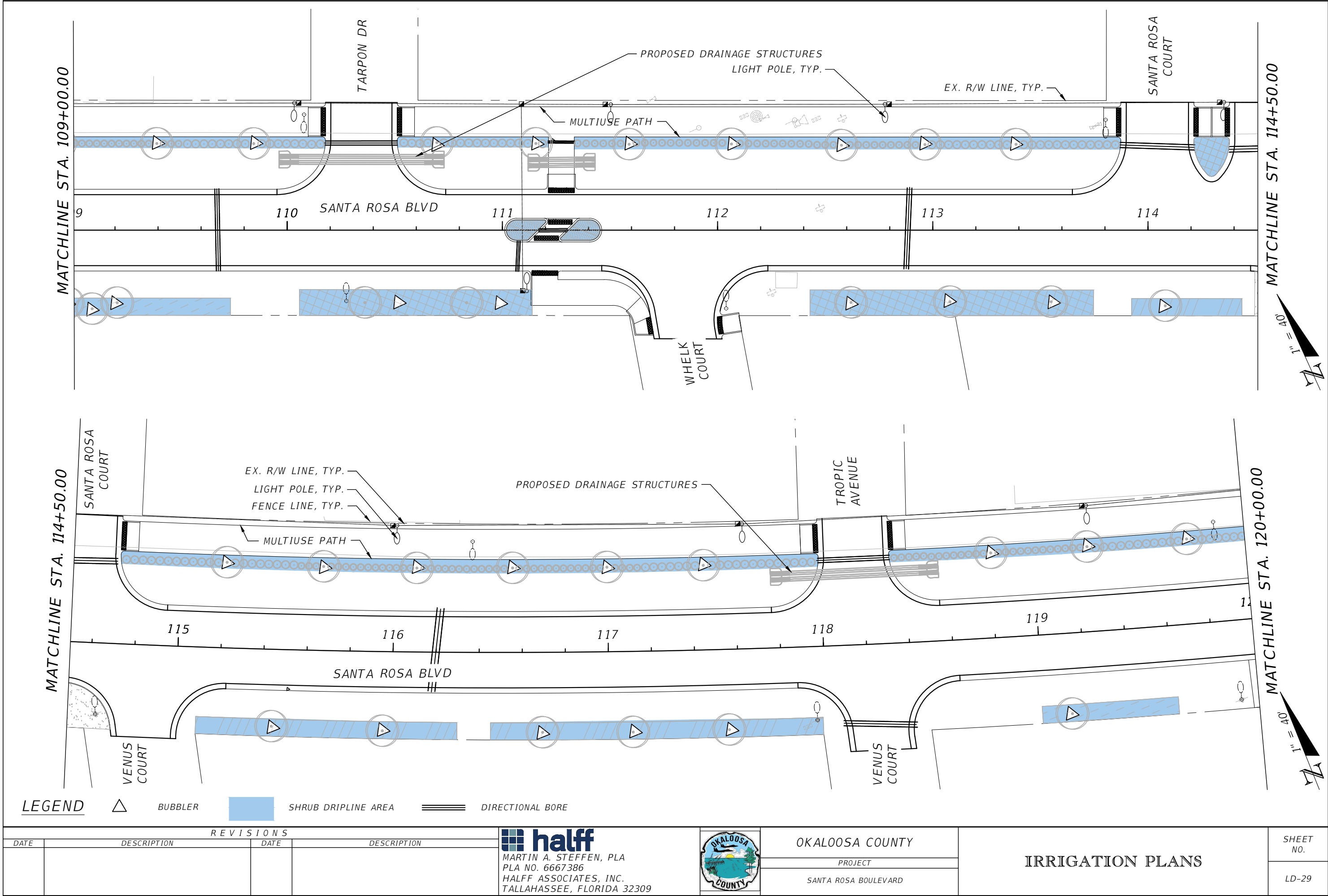
SANTA ROSA BOULEVARD

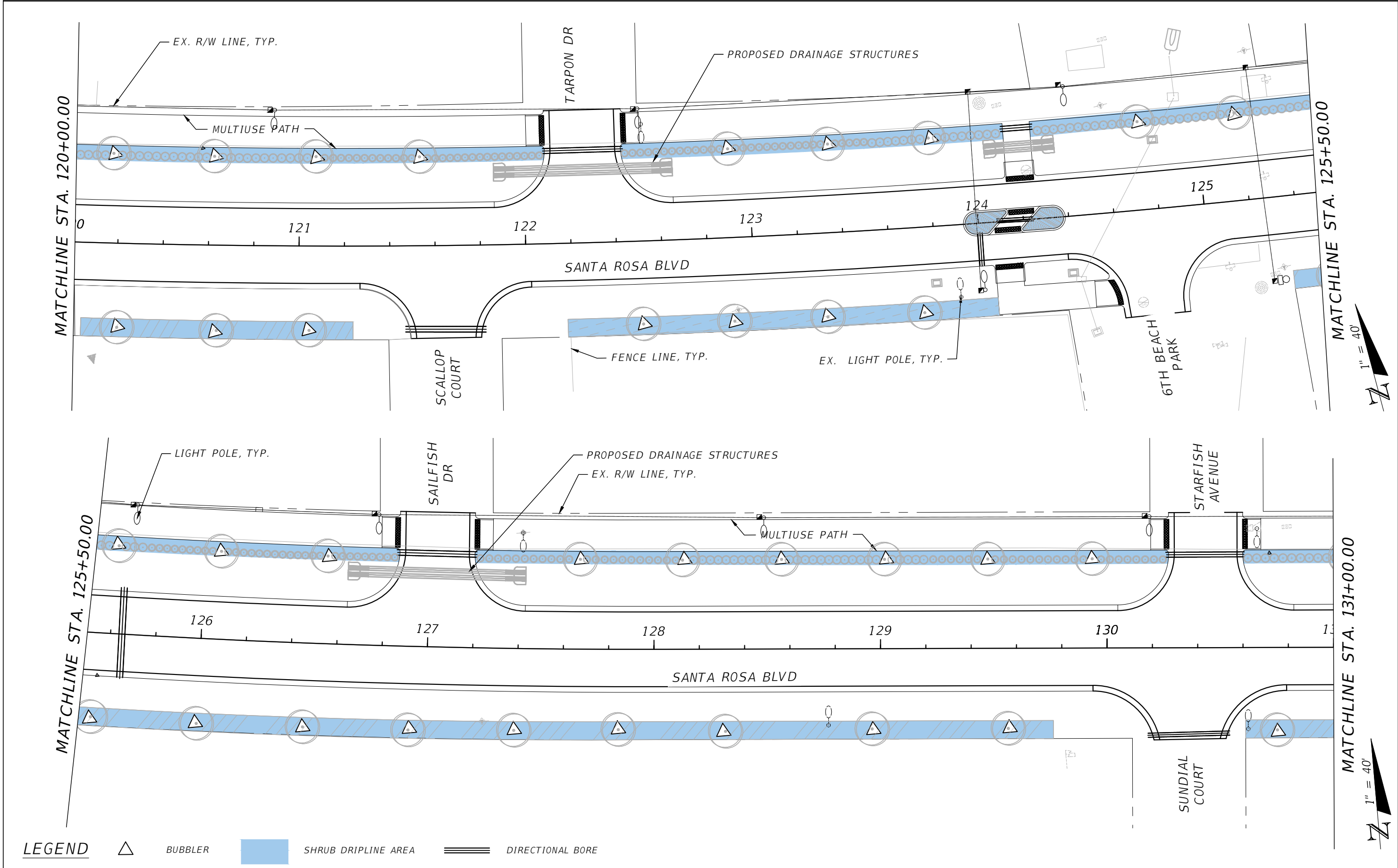
IRRIGATION PLANS

SHEET NO.

LD-28

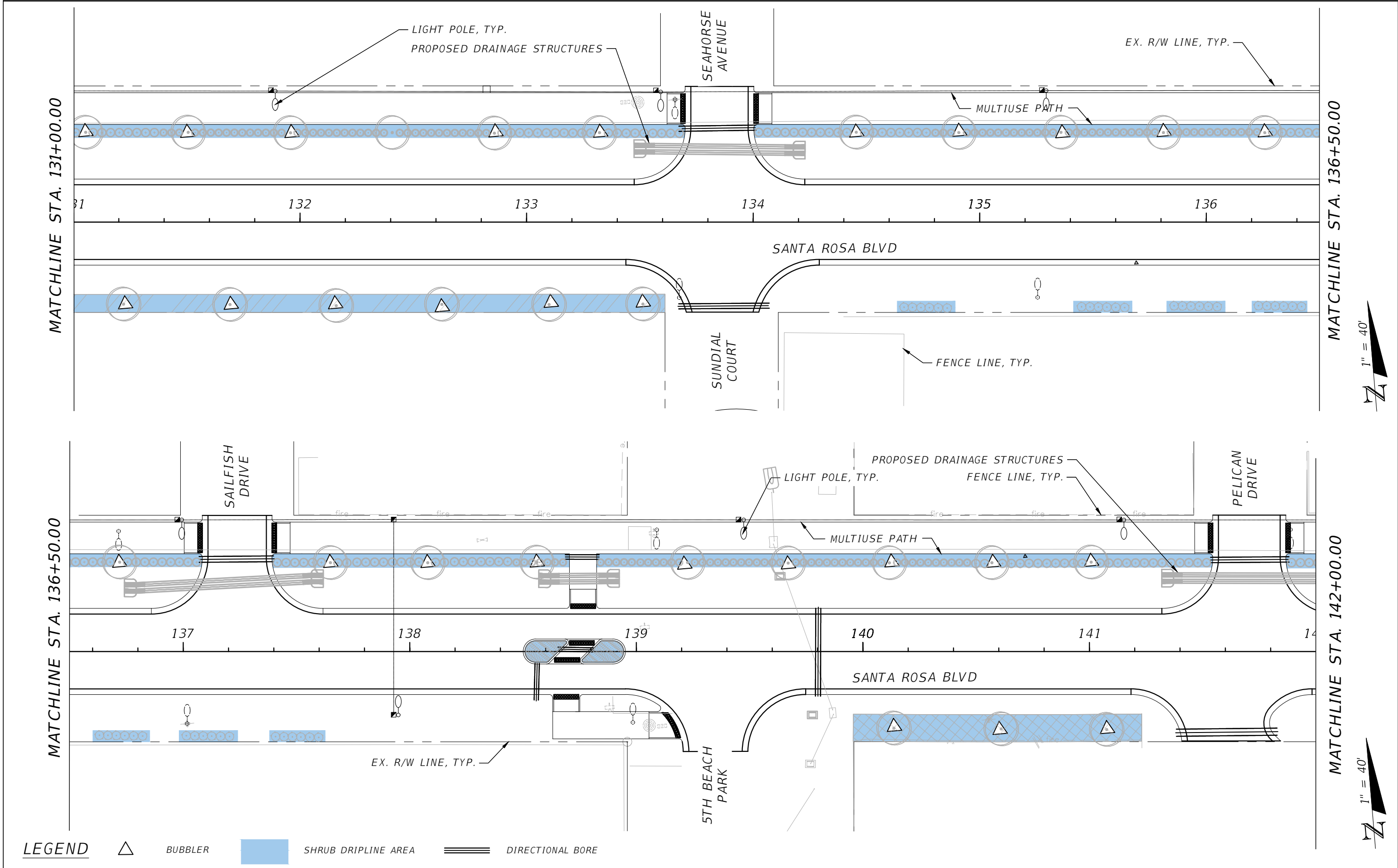
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DATE	DESCRIPTION	DATE	DESCRIPTION				



LEGEND

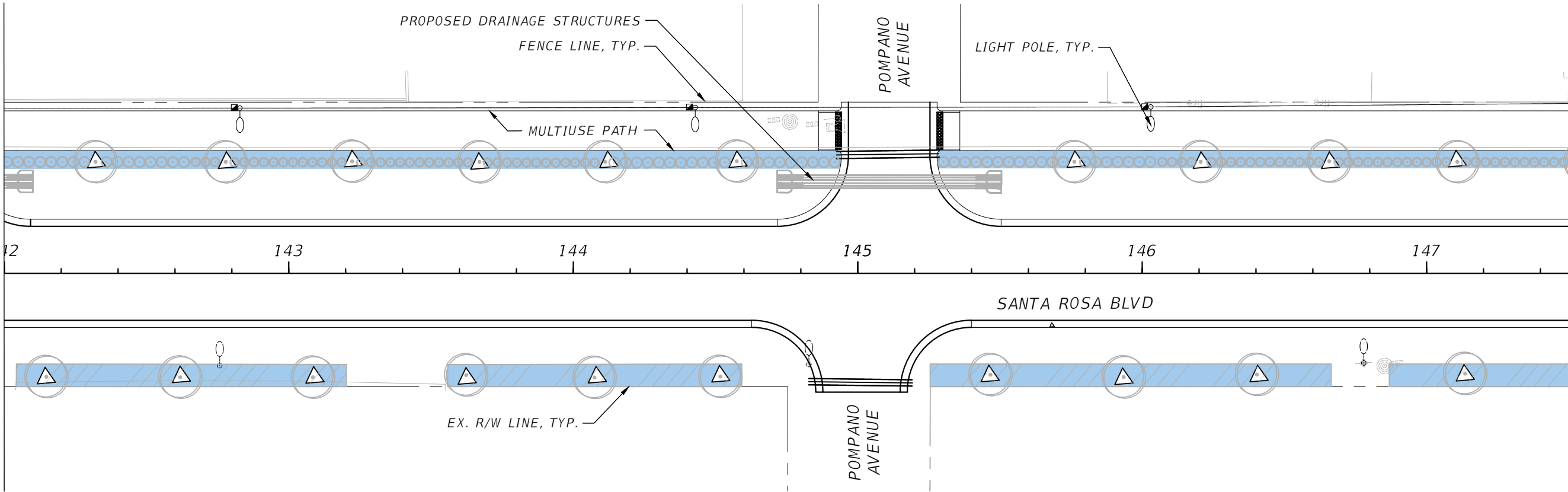
	BUBBLER		SHRUB DRIPLINE AREA		DIRECTIONAL BORE
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REVISIONS				 MARTIN A. STEFFEN, PLA PLA NO. 6667386 HALFF ASSOCIATES, INC. TALLAHASSEE, FLORIDA 32309	 OKALOOSA COUNTY PROJECT SANTA ROSA BOULEVARD	IRRIGATION PLANS	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION				LD-31

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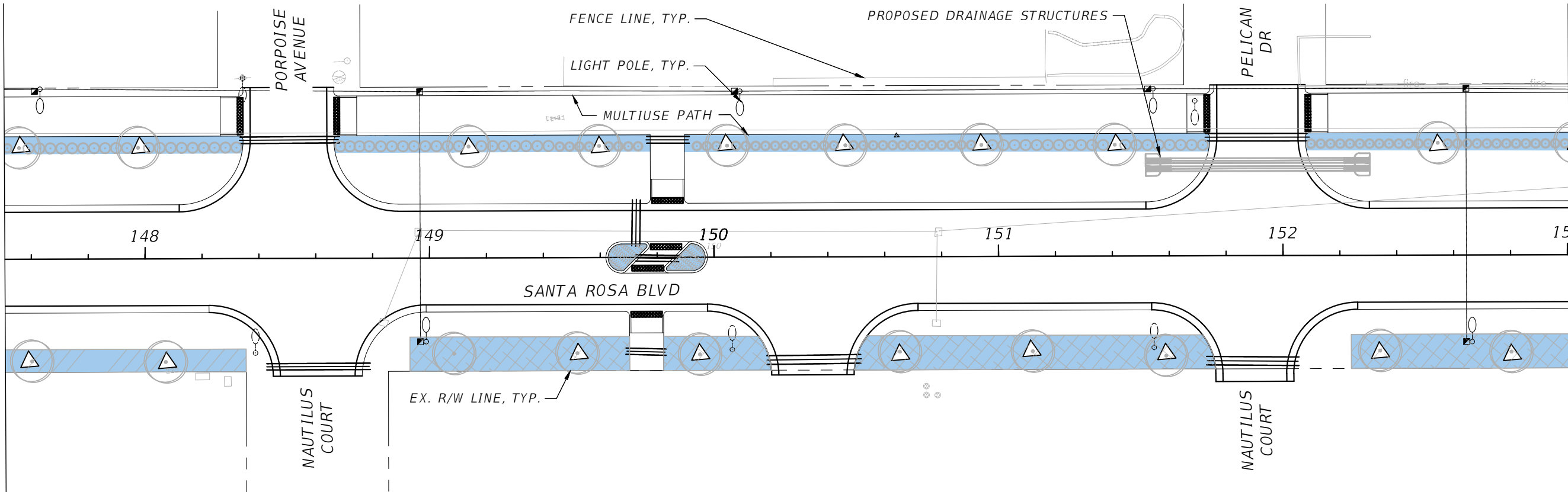
MATCHLINE STA. 142+00.00

MATCHLINE STA. 147+50.00



MATCHLINE STA. 147+50.00

MATCHLINE STA. 153+00.00



LEGEND

- △ BUBBLER
SHRUB DRIPLINE AREA
DIRECTIONAL BORE

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

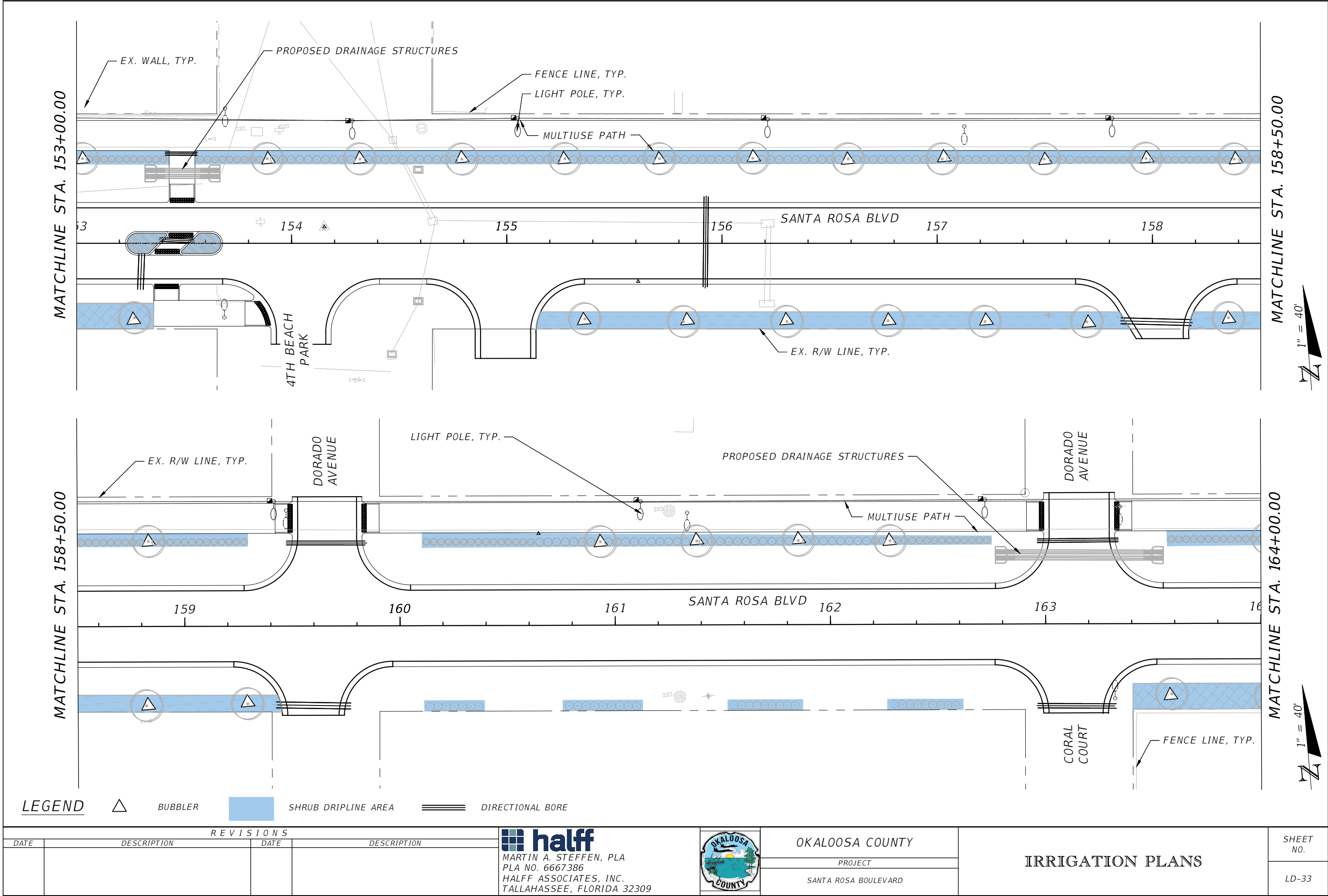
halff
MARTIN A. STEFFEN, PLA
PLA NO. 6667386
HALFF ASSOCIATES, INC.
TALLAHASSEE, FLORIDA 32309



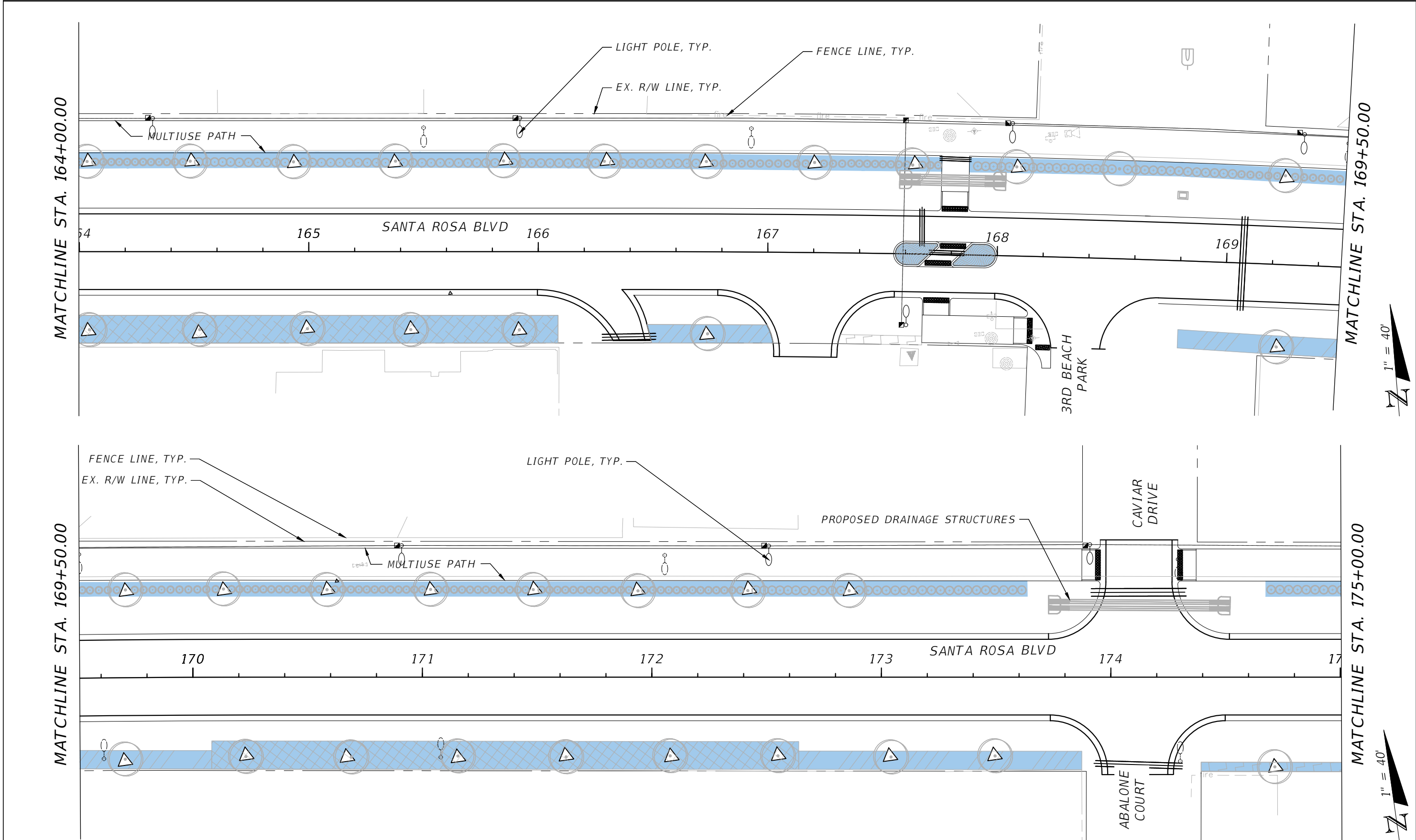
OKALOOSA COUNTY
PROJECT
SANTA ROSA BOULEVARD

IRRIGATION PLANS

SHEET NO.
LD-32



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LEGEND

- BUBBLER
- SHRUB DRIPLINE AREA
- DIRECTIONAL BORE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MARTIN A. STEFFEN, PLA
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TALLAHASSEE, FLORIDA 32309

OKALOOSA COUNTY

OKALOOSA COUNTY

PROJECT

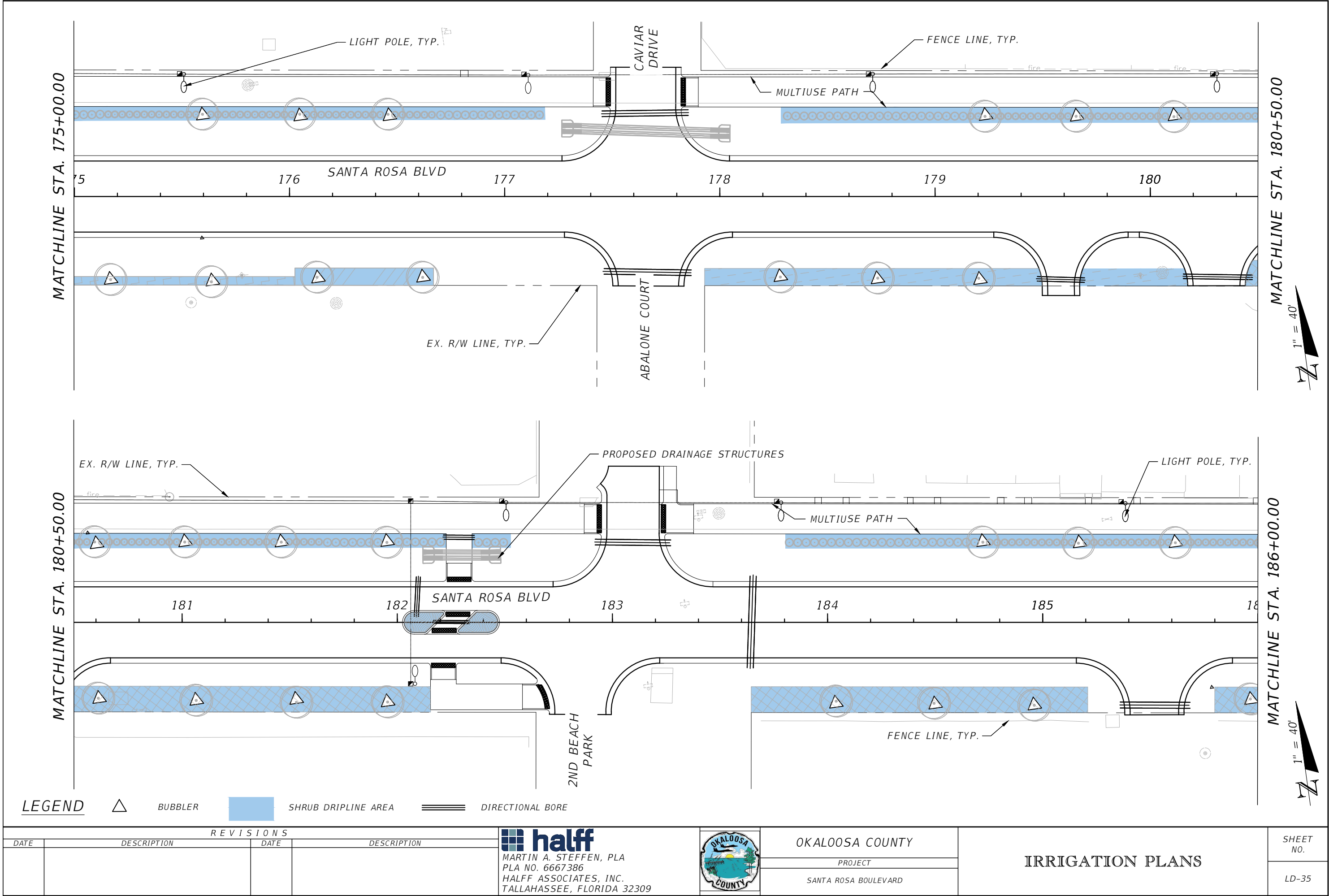
SANTA ROSA BOULEVARD

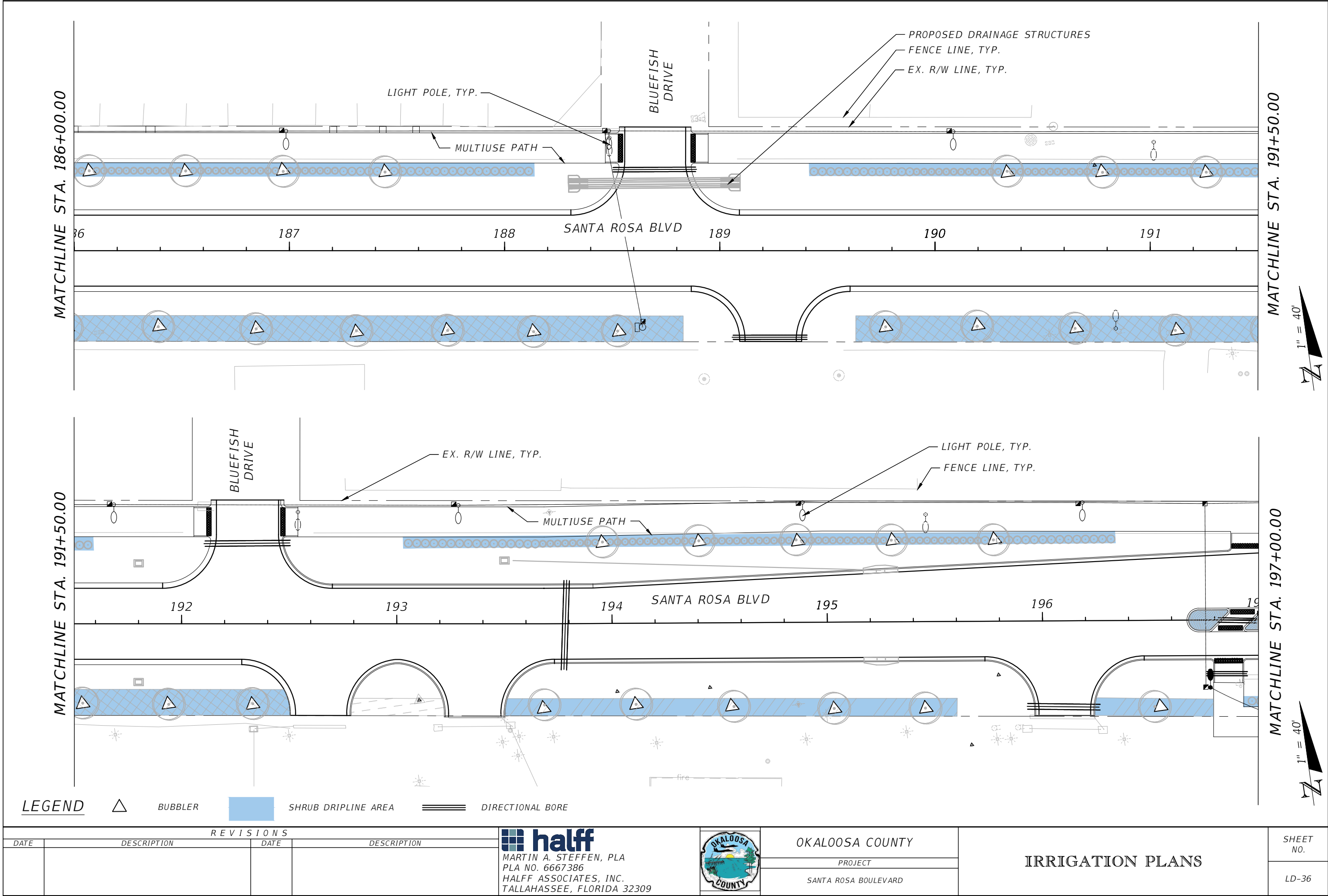
IRRIGATION PLANS

SHEET NO.

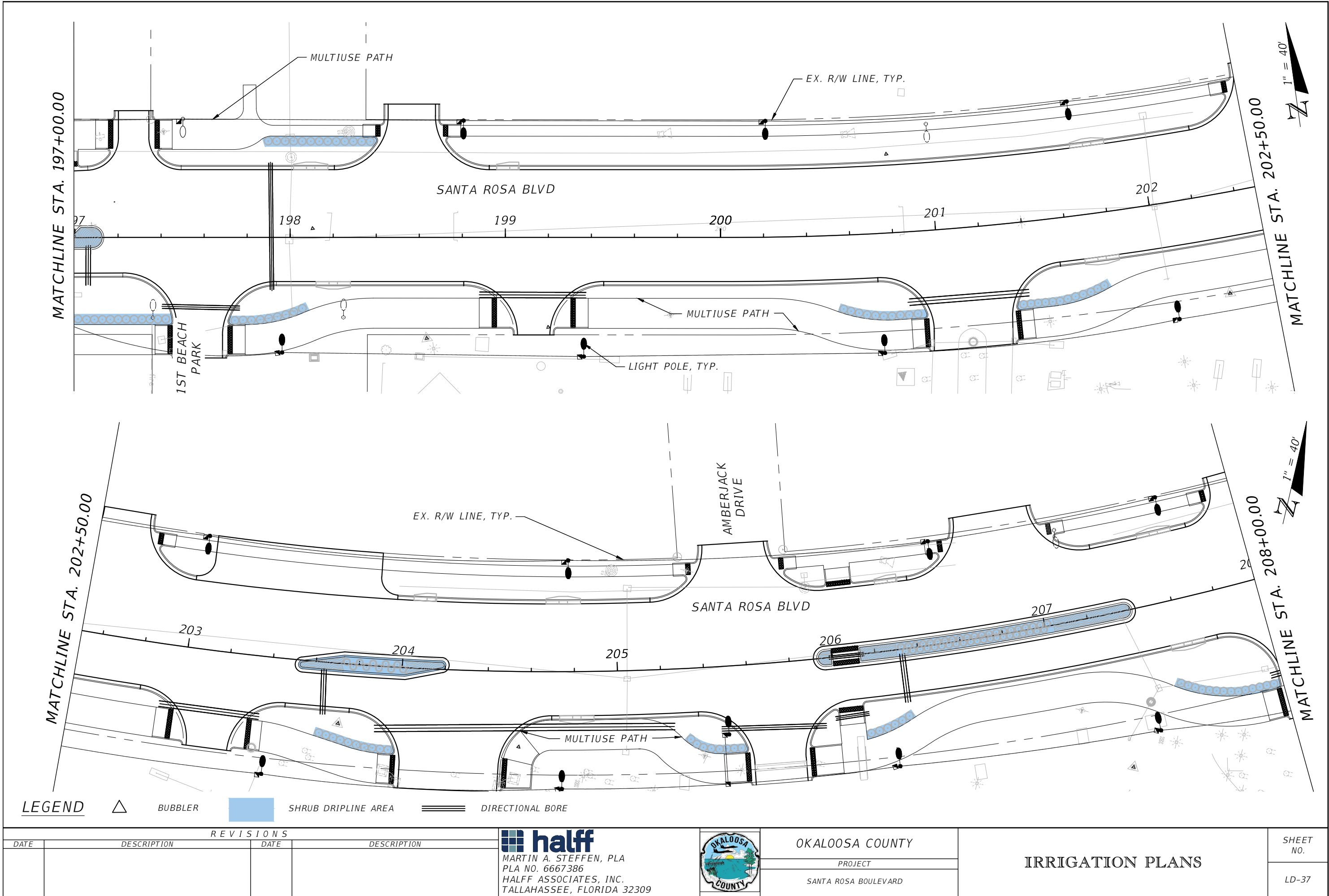
LD-34

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION



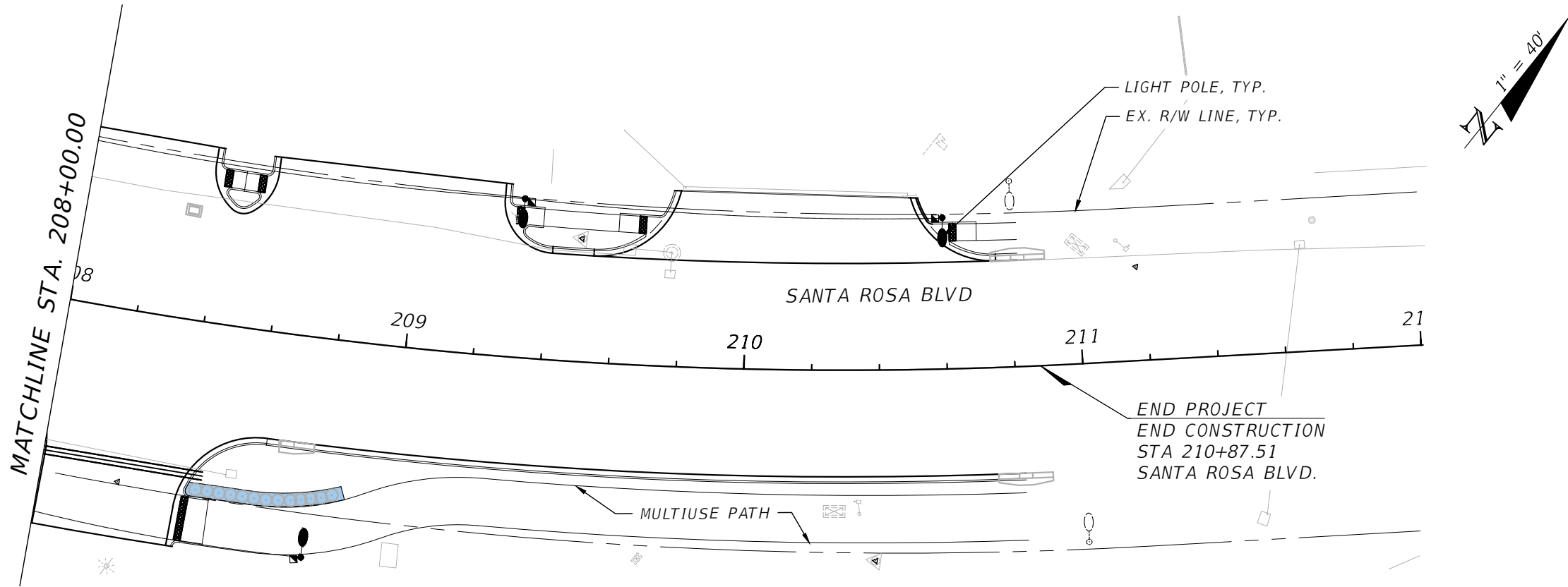
MARTIN A. STEFFEN, PLA
PLA NO. 6667386
HALFF ASSOCIATES, INC.
TALLAHASSEE, FLORIDA 32309



OKALOOSA COUNTY
PROJECT
SANTA ROSA BOULEVARD

IRRIGATION PLANS
LD-37

SHEET NO.
LD-37



LEGEND

△ BUBBLER

SHRUB DRIPLINE AREA

==== DIRECTIONAL BORE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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OKALOOSA COUNTY

PROJECT

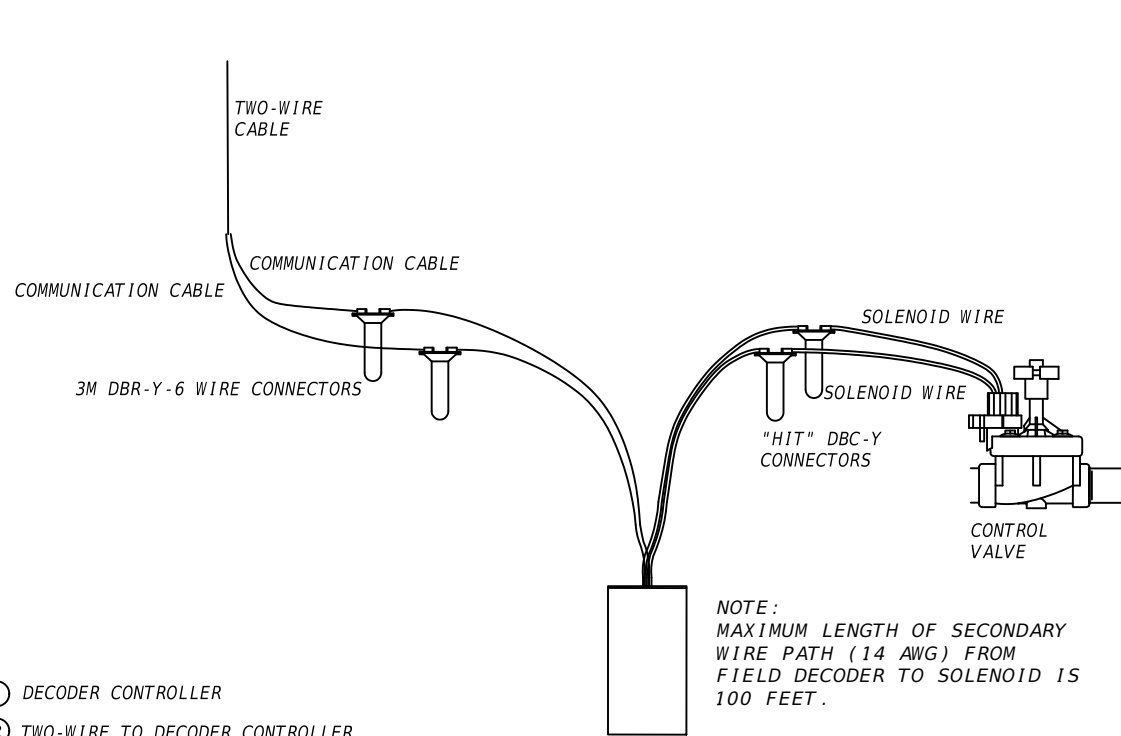
SANTA ROSA BOULEVARD

IRRIGATION PLANS

SHEET NO.

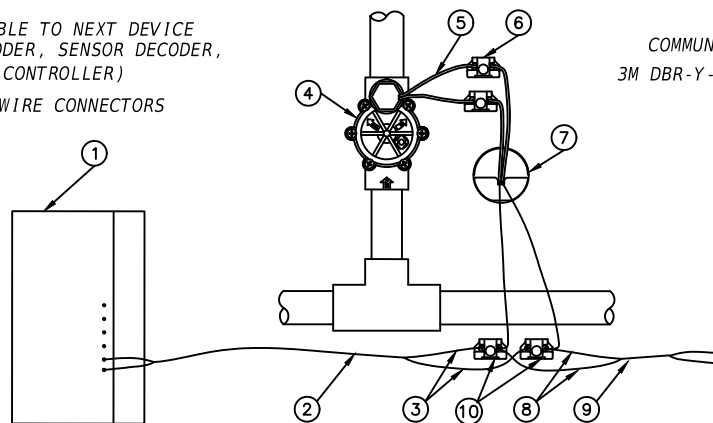
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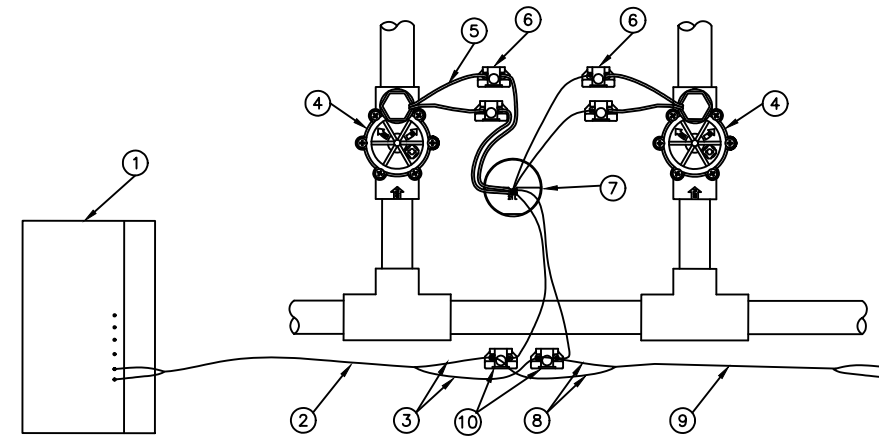
- ① DECODER CONTROLLER
- ② TWO-WIRE TO DECODER CONTROLLER
- ③ COMMUNICATION WIRE TO DECODER CONTROLLER
- ④ REMOTE CONTROL VALVE
- ⑤ 5' MIN. LENGTH OF 14-2 GAUGE SOLENOID WIRE
- ⑥ "HIT" DBC-Y CONNECTORS (1 OF 2)
- ⑦ SINGLE ADDRESS DECODER
- ⑧ COMMUNICATION WIRE TO NEXT DEVICE (FIELD DECODER, SENSOR DECODER, DECODER CONTROLLER)
- ⑨ TWO WIRE CABLE TO NEXT DEVICE (FIELD DECODER, SENSOR DECODER, OR DECODER CONTROLLER)
- ⑩ 3M DBR-Y-6 WIRE CONNECTORS

**SINGLE ADDRESS
DECODER WIRING DIAGRAM**



NOTE:
MAXIMUM LENGTH OF SECONDARY
WIRE PATH (14 AWG) FROM FIELD
DECODER TO SOLENOID IS 100 FEET.

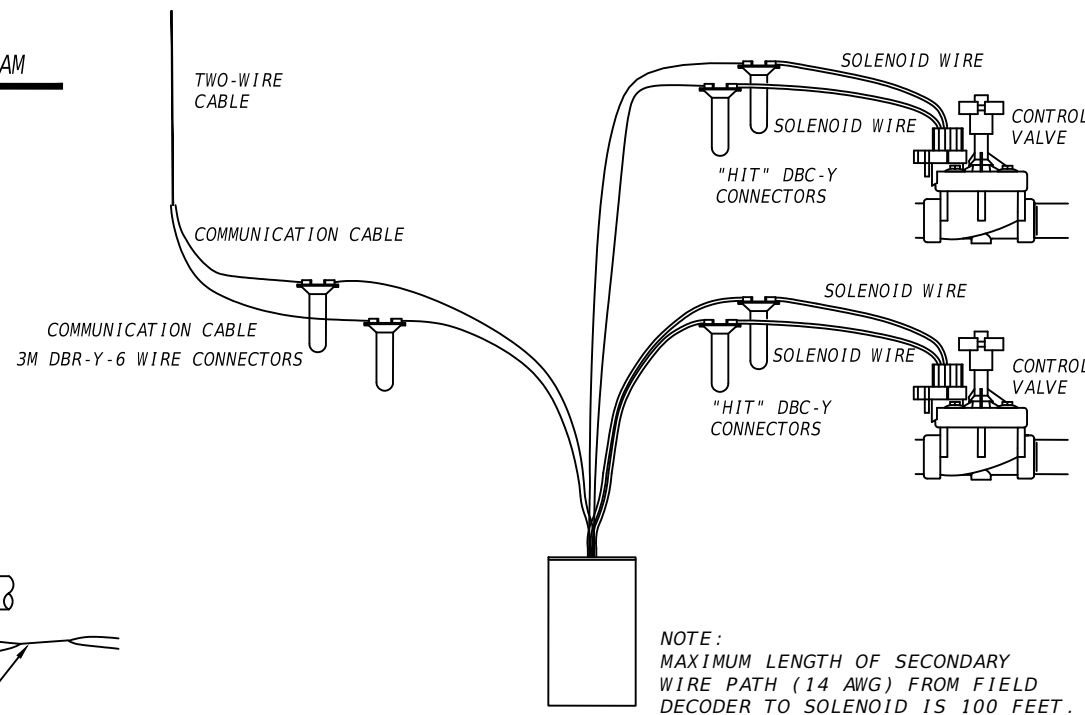
**SINGLE ADDRESS DECODER
WIRING TO VALVE AND CONTROLLER**



NOTE:
MAXIMUM LENGTH OF SECONDARY WIRE PATH
(14 AWG) FROM DECODER TO SOLENOID IS 100 FEET.

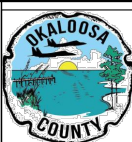
**TWO ADDRESS DECODER
WIRING TO VALVES AND CONTROLLER**

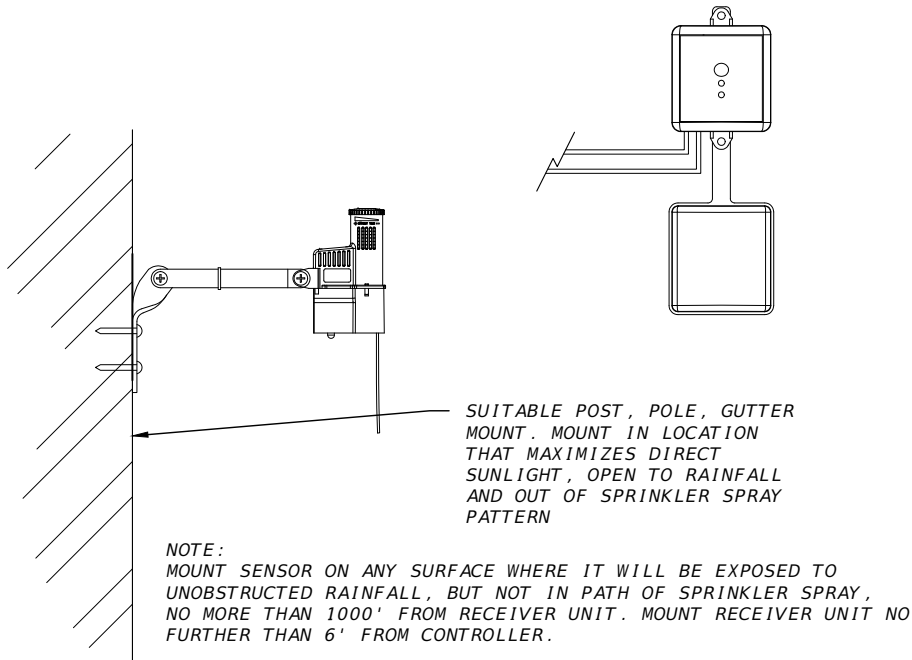
- ① DECODER CONTROLLER
- ② TWO-WIRE TO DECODER CONTROLLER
- ③ COMMUNICATION WIRE TO DECODER CONTROLLER
- ④ REMOTE CONTROL VALVE
- ⑤ 5' MIN. LENGTH OF 14-2 GAUGE SOLENOID WIRE
- ⑥ "HIT" DBC-Y CONNECTORS (1 OF 4)
- ⑦ TWO ADDRESS DECODER
- ⑧ COMMUNICATION WIRE TO NEXT DEVICE (FIELD DECODER, SENSOR DECODER, DECODER CONTROLLER)
- ⑨ TWO WIRE CABLE TO NEXT DEVICE (FIELD DECODER, SENSOR DECODER, OR DECODER CONTROLLER)
- ⑩ 3M DBR-Y-6 WIRE CONNECTORS



NOTE:
MAXIMUM LENGTH OF SECONDARY
WIRE PATH (14 AWG) FROM FIELD
DECODER TO SOLENOID IS 100 FEET.

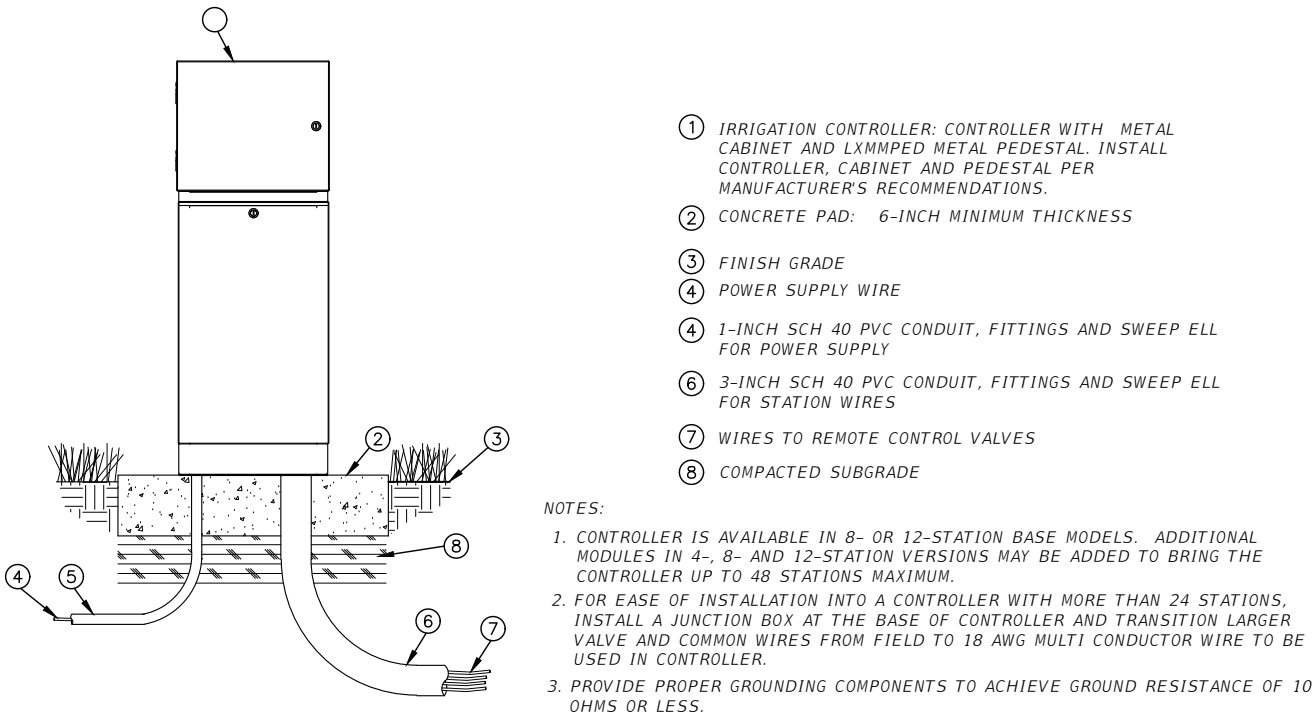
**TWO ADDRESS
DECODER WIRING DIAGRAM - VALVE**

REVISIONS				 MARTIN A. STEFFEN, PLA PLA NO. 6667386 HALFF ASSOCIATES, INC. TALLAHASSEE, FLORIDA 32309	 OKALOOSA COUNTY PROJECT SANTA ROSA BOULEVARD	IRRIGATION DETAILS & NOTES	SHEET NO. LD-39
DATE	DESCRIPTION	DATE	DESCRIPTION				



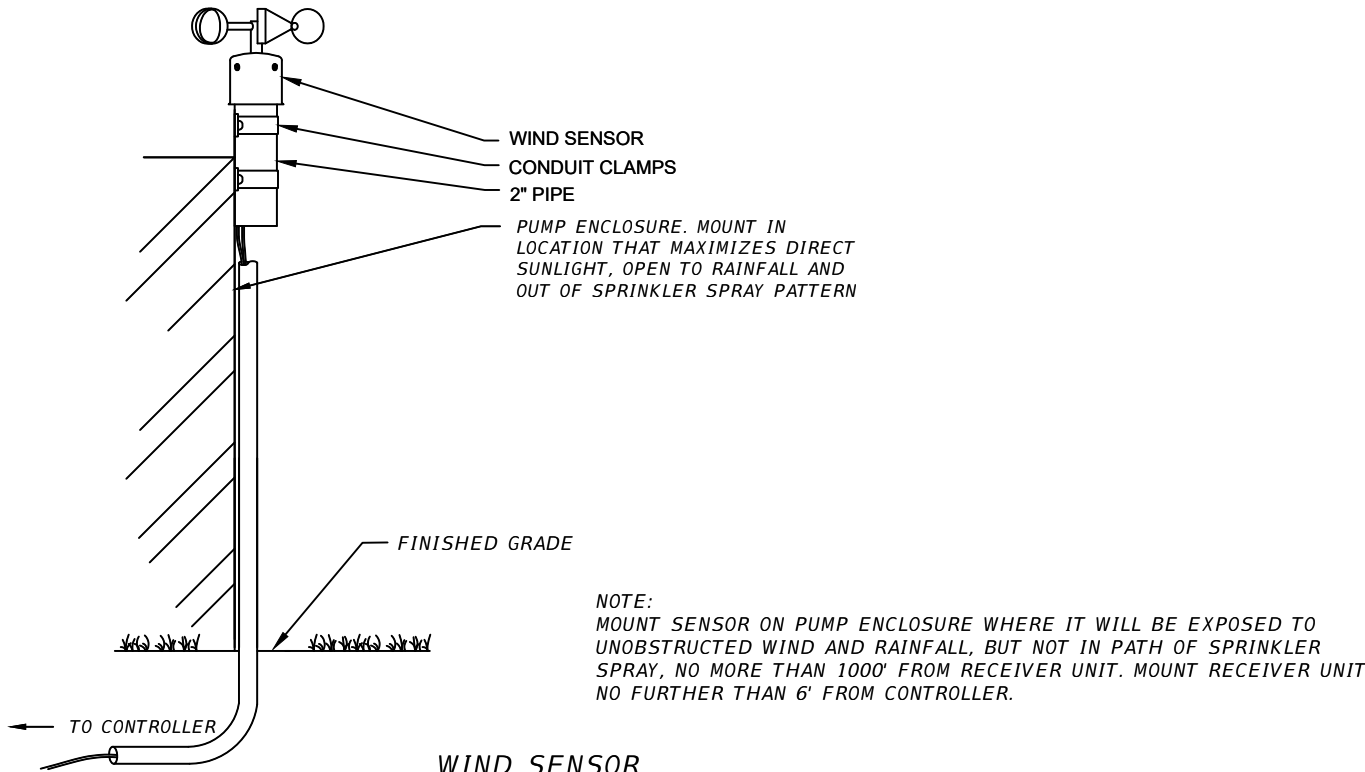
WIRELESS RAIN/FREEZE SENSOR

NTS



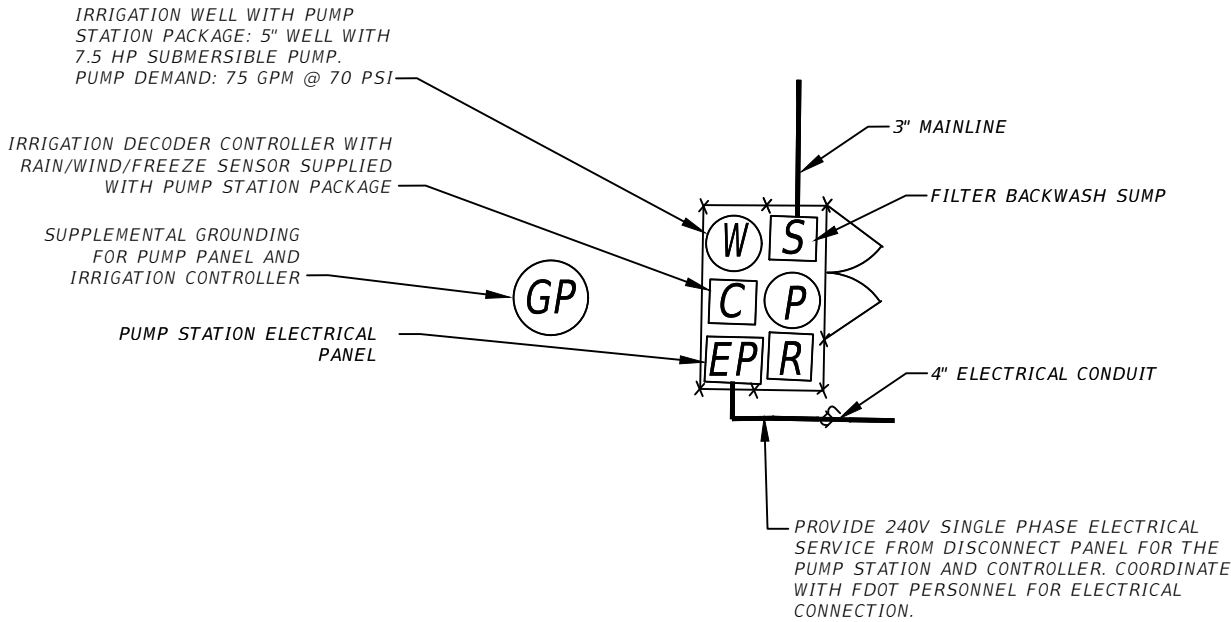
CONTROL TIMER

NTS



WIND SENSOR

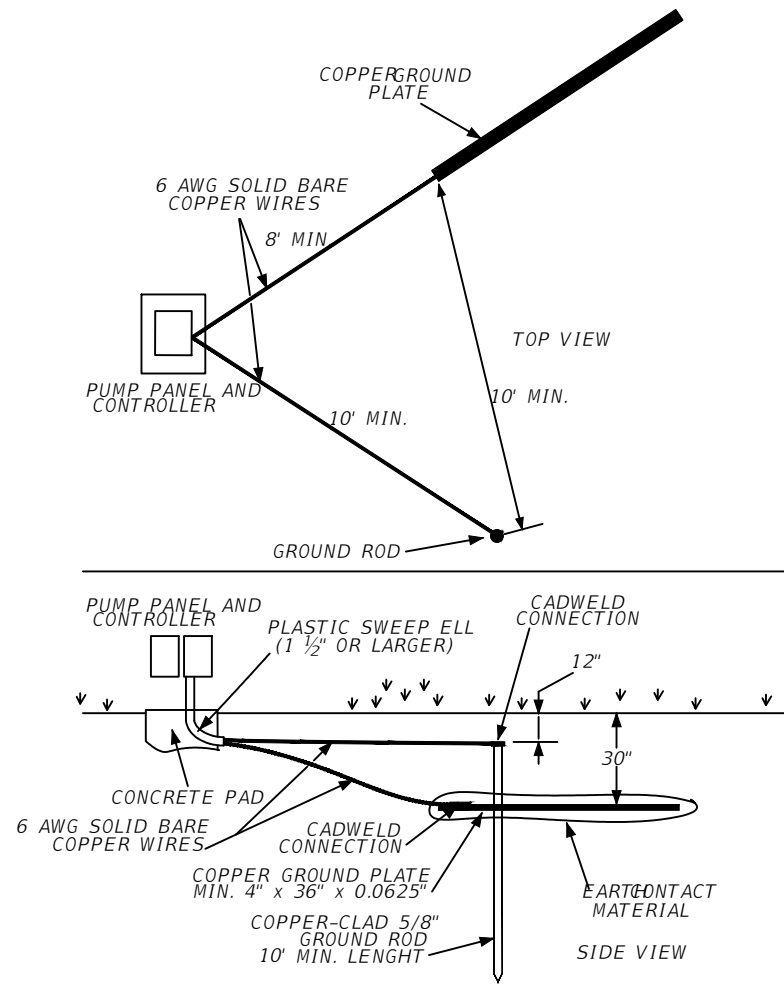
NTS



WELL/PUMP STATION LAYOUT

NTS

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DATE	DESCRIPTION	DATE	DESCRIPTION			PROJECT			LD-40
						SANTA ROSA BOULEVARD			

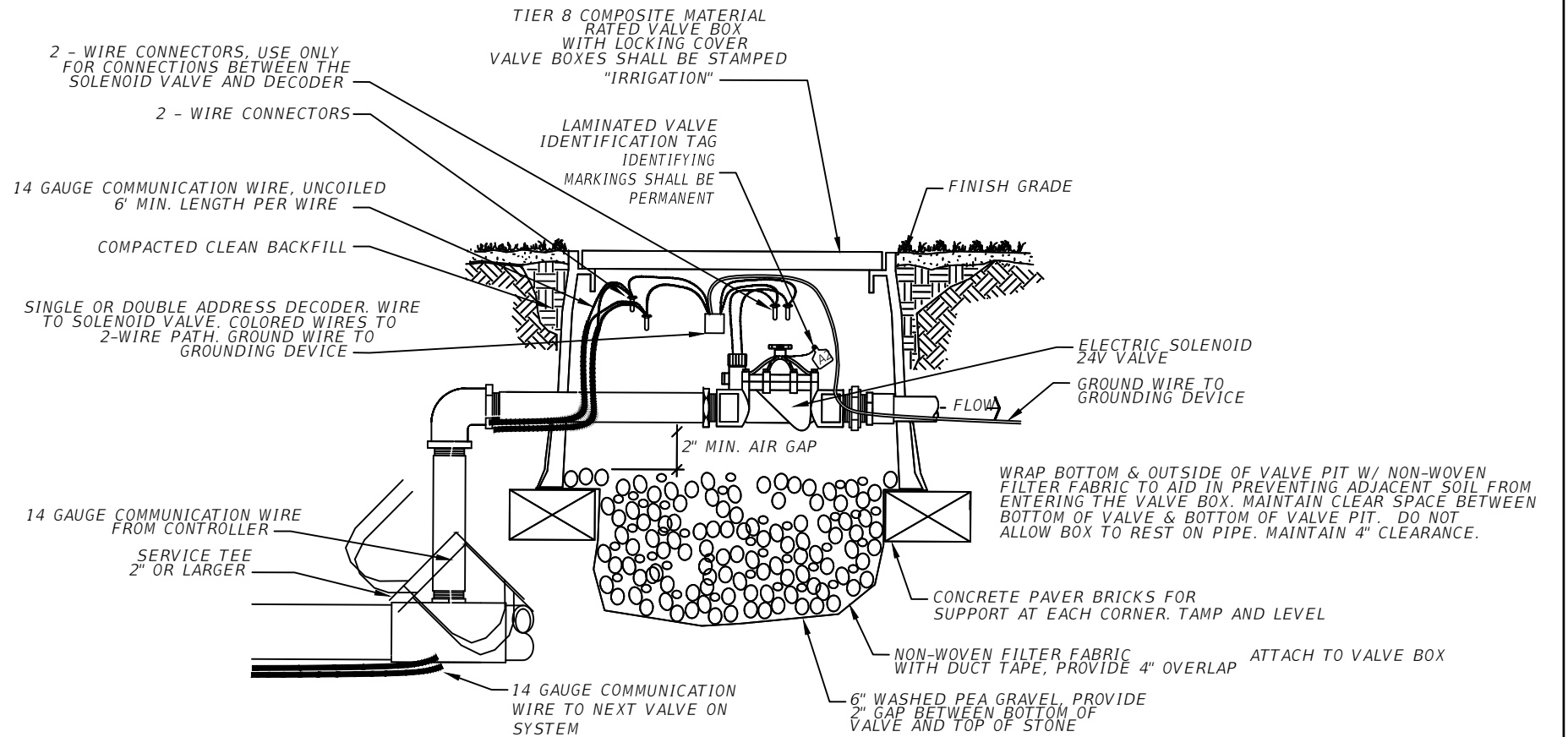


GROUNDING PLATE - PUMP DETAIL
NTS

GROUNDING NOTE

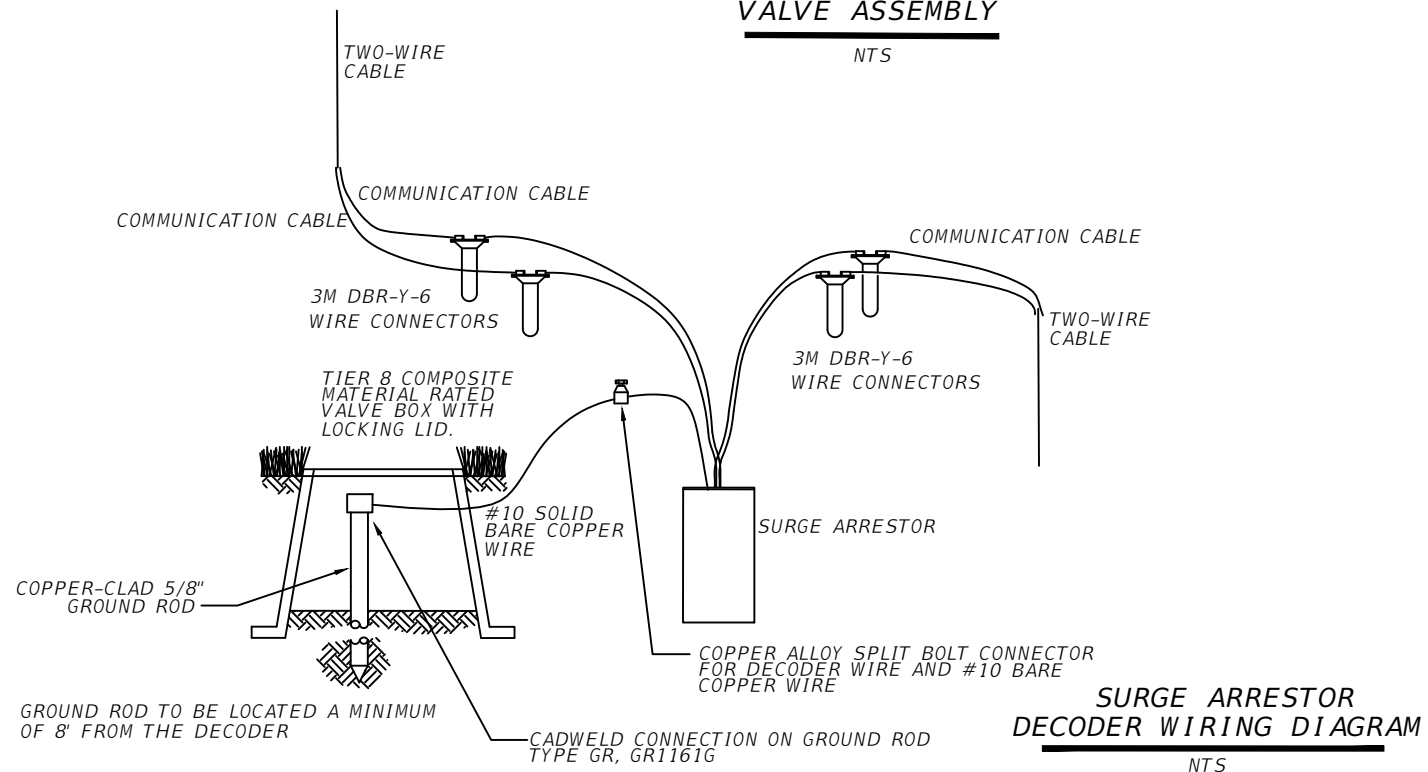
MINIMUM LEVEL OF SURGE PROTECTION IS TO HAVE ONE DECODER GROUNDED AT THE END OF EACH WIRE PATH AND ONE DECODER GROUNDED EVERY 500/1,000 FEET OF WIRE RUN. BOTH THE CONTROLLER AND SURGE ARRESTORS (WHERE SHOWN) ARE GROUNDED TO GROUND RODS OR PLATES WITH LESS THEN 10 OHMS RESISTANCE. THE GROUND SHOULD BE MEASURED WITH A GROUND RESISTANCE METER. EACH GROUND TEST SHALL BE SUBMITTED TO THE ENGINEER.

DECODER SYSTEM WITH GROUNDING SHALL BE INSTALLED PER MANUFACTURER'S PUBLISHED INSTRUCTIONS.



NOTE: VALVE BOX TO HOUSE TWO OR MORE CONTROL VALVES WHERE APPLICABLE

ELECTRIC CONTROL VALVE ASSEMBLY
NTS

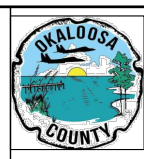


SURGE ARRESTOR DECODER WIRING DIAGRAM
NTS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION



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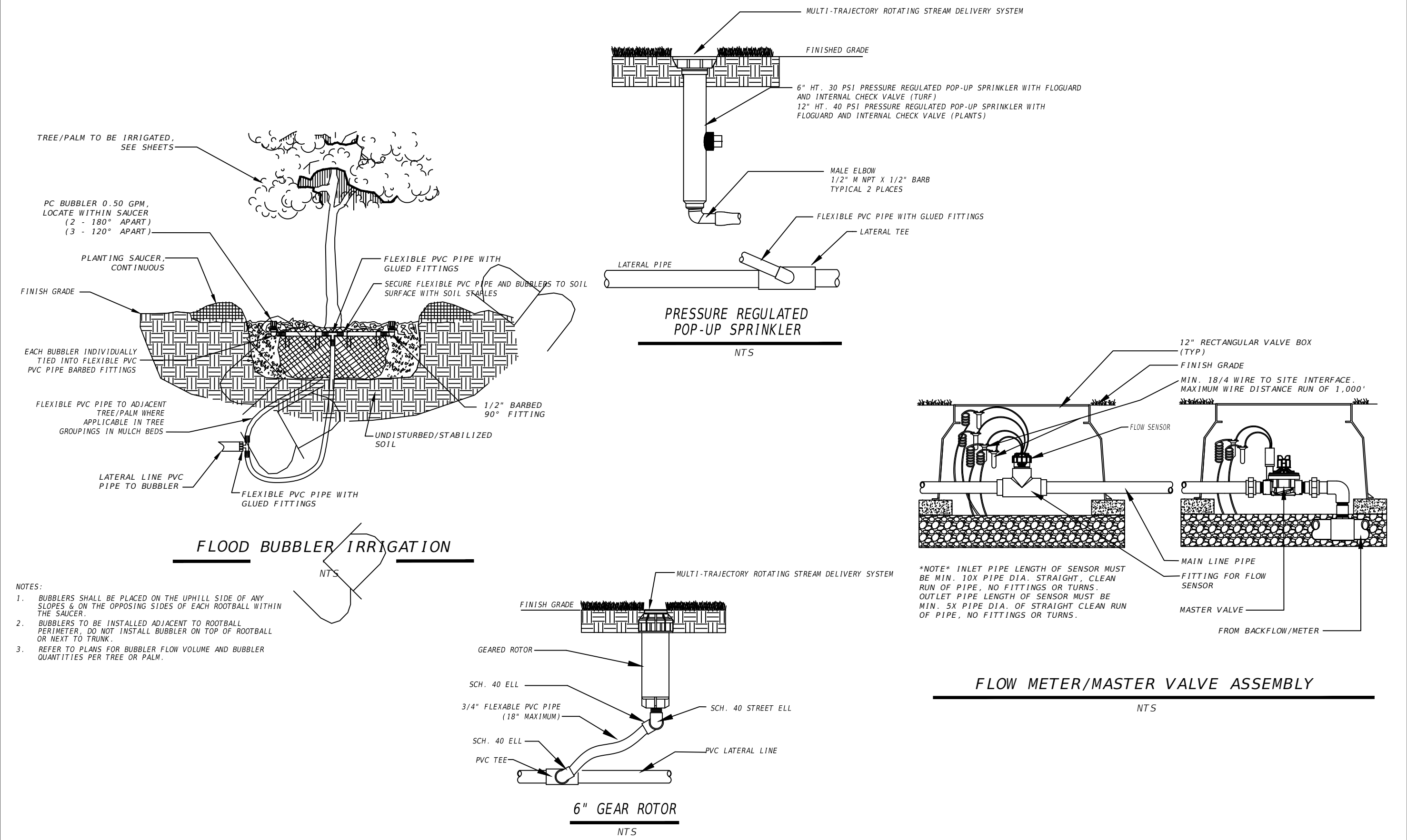


OKALOOSA COUNTY
PROJECT
SANTA ROSA BOULEVARD

IRRIGATION DETAILS & NOTES
LD-41

SHEET NO.
LD-41

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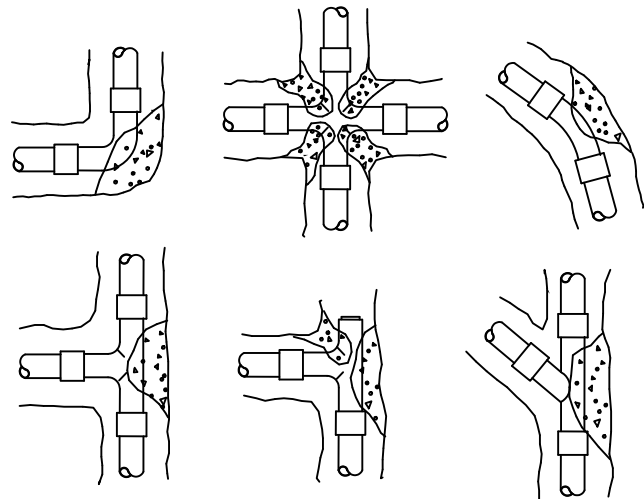


OKALOOSA COUNTY
PROJECT
SANTA ROSA BOULEVARD

IRRIGATION DETAILS & NOTES

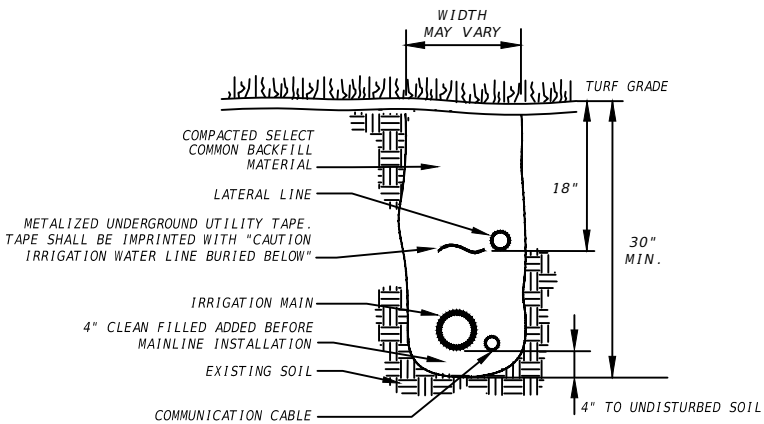
SHEET NO.
LD-42

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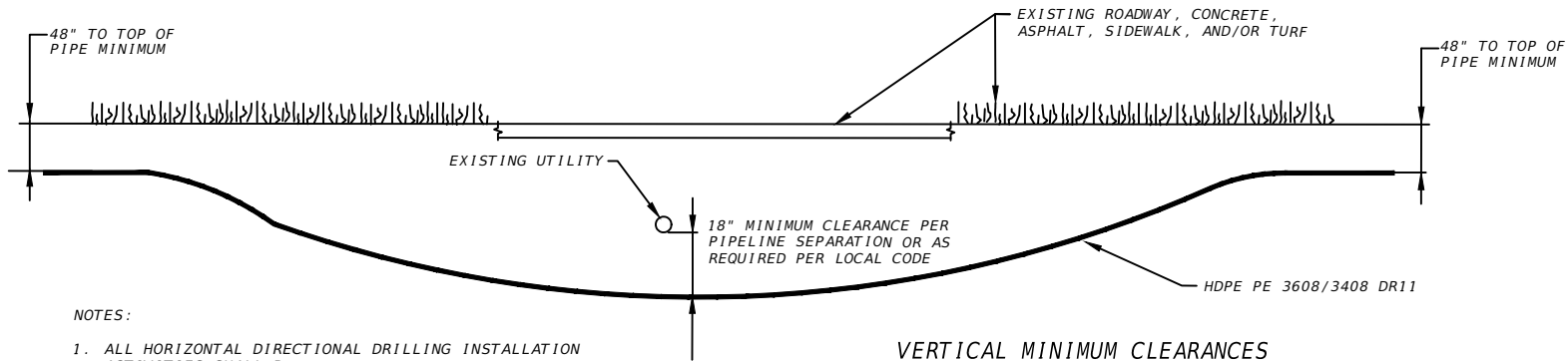
INSTALLATION NOTES
1. 3000 PSI CONCRETE OR BETTER IS TO BE USED FOR THRUST BLOCKS.
2. FOR 45°/90° FITTINGS, MINIMUM OF 2 CUBIC FEET OF CONCRETE TO BE USED.
3. FOR 22-1/2° FITTINGS, MINIMUM OF 0.5 CUBIC FEET OF CONCRETE TO BE USED.
4. FOR TEES, MINIMUM OF 2 CUBIC FEET OF CONCRETE TO BE USED.
THRUST BLOCKS REQUIRED FOR IRRIGATION MAINLINES 2" AND LARGER.

THRUST BLOCK REINFORCEMENT



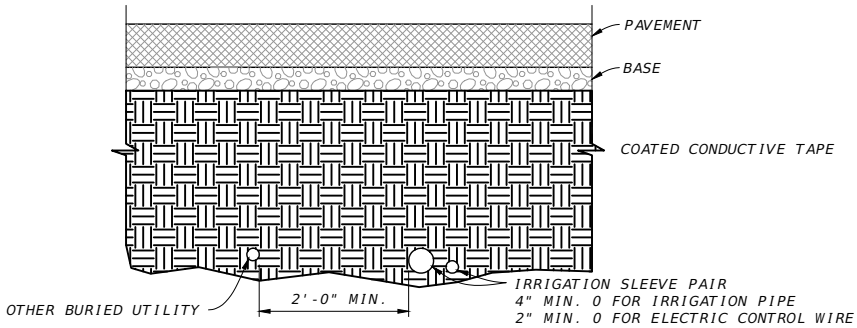
1. DEPTH MEASUREMENTS ARE TO BE DONE FROM FINISH GRADE TO TOP OF PIPE.
2. PROVIDE A 6" MINIMUM VERTICAL SEPARATION BETWEEN MAINLINES AND LATERAL LINES.
3. ALL TRENCHES SHALL BE BACKFILLED WITH CLEAN SOIL FREE OF DEBRIS & NOXIOUS WEEDS. TRENCHES SHALL BE COMPACTED AND ADDITIONAL BACKFILL ADDED TO MEET GRADE.

TRENCHING DETAIL



NOTES:
1. ALL HORIZONTAL DIRECTIONAL DRILLING INSTALLATION ACTIVITIES SHALL BE IN ACCORDANCE WITH THE FDOT UTILITY ACCOMMODATIONS MANUAL AND FDOT LANDSCAPE IRRIGATION SLEEVES STANDARD PLANS 591.
2. TAKE RESPONSIBILITY FOR NOTIFICATION OF AFFECTED AGENCIES AND COORDINATION WITH ALL UTILITIES PRIOR TO CONSTRUCTION.
3. ALL CONSTRUCTION MATERIALS, INCLUDING DRILLING FLUID, SHALL BE REMOVED FROM THE SITE PRIOR TO RESTORATION OF DISTURBED AREAS.
4. EXCAVATIONS SHALL BE RESTORED IN ACCORDANCE WITH THE LOCAL UTILITIES STANDARD MANUAL AND STANDARD DETAILS FOR TRENCH RESTORATION.
5. CASING DIAMETER SHALL BE IN ACCORDANCE WITH THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

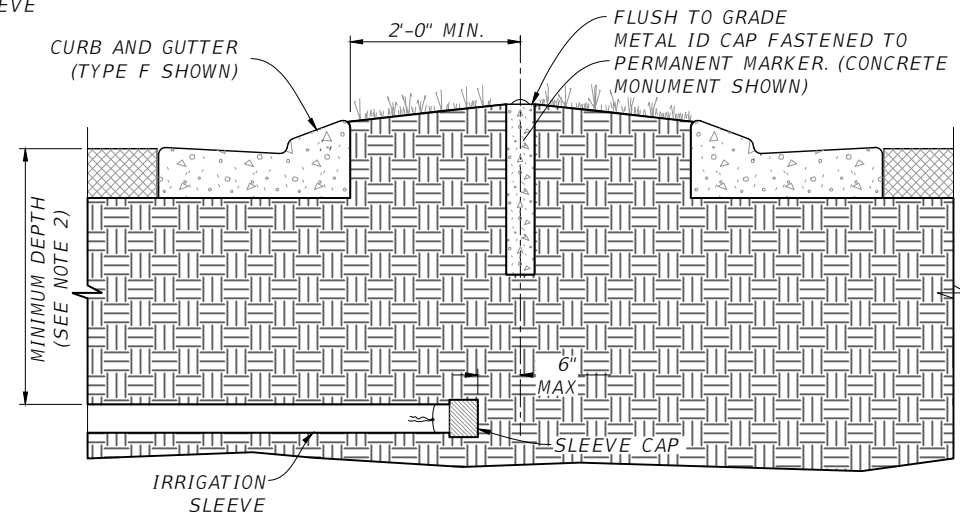
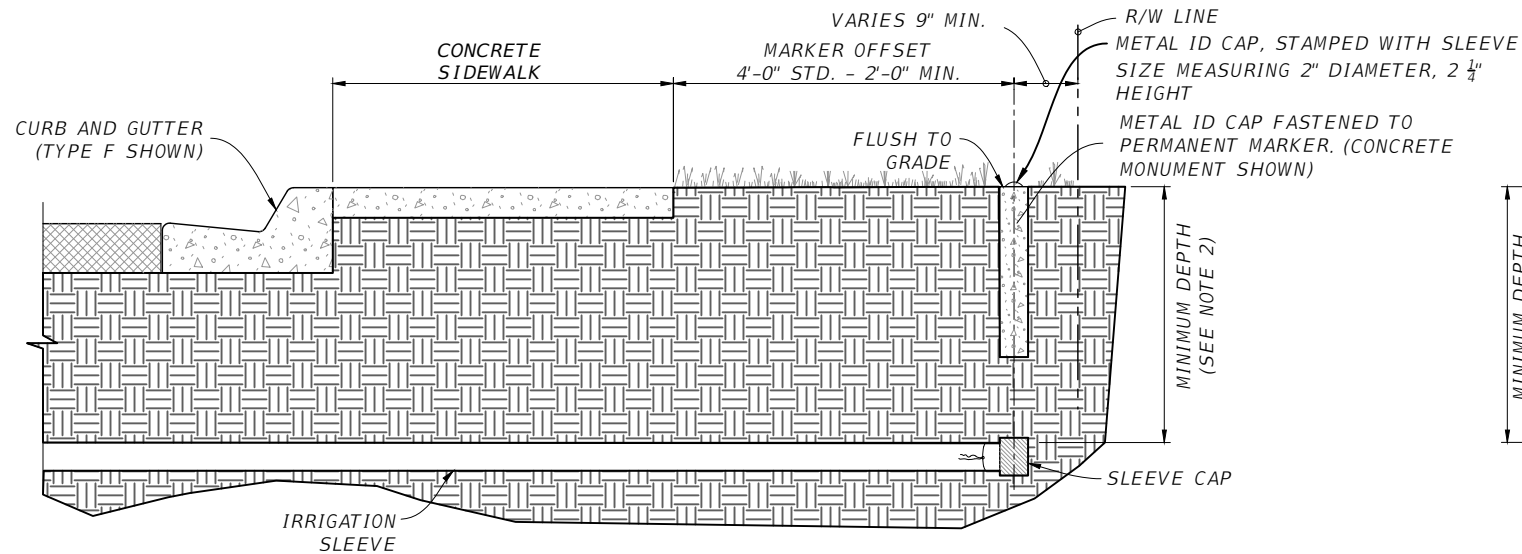
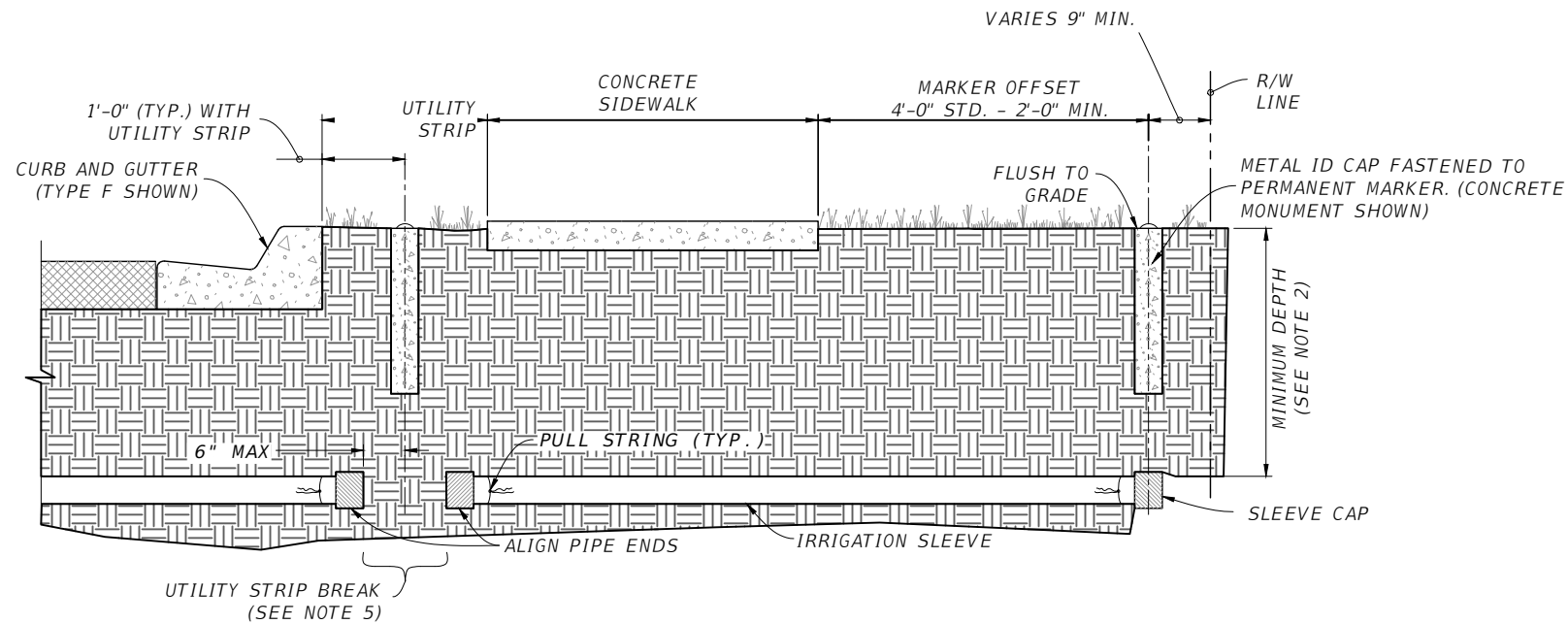
VERTICAL MINIMUM CLEARANCES



HORIZONTAL MINIMUM CLEARANCES

TYPICAL HORIZONTAL DIRECTIONAL DRILL

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DATE	DESCRIPTION	DATE	DESCRIPTION			PROJECT			LD-43
						SANTA ROSA BOULEVARD			



NOTE:

1. WORK THIS INDEX WITH SPECIFICATION 591-001
2. INSTALL SLEEVE WITH THE MINIMUM DEPTH MEASURED FROM THE TOP OF THE IRRIGATION SLEEVE SHOWN IN THE PLANS OR SPECIFIED IN INDEX 630-001
3. WHEN INSTALLING IRRIGATION SLEEVES IN A MEDIAN CROSSOVER, PLACE SLEEVES ALONG THE CENTERLINE
4. IRRIGATION SLEEVES FOR ELECTRICAL CONTROL WIRE AND IRRIGATION PLANS MUST BE NO FURTHER THAN 12" APART
5. INSTALL UTILITY STRIP BREAKS ONLY WHEN SHOWN IN THE PLANS

NOTE:

1. WHERE IRRIGATION DIRECTIONAL BORE SLEEVES ARE INSTALLED UNDER HARDSCAPES, ROADWAYS, AND SIDEWALKS A ID MARKER CAP AND PERMANENT MONUMENT SHALL BE INSTALLED.
2. THE DOMED ID MARKER CAP SHALL BE A MINIMUM OF 2" IN DIAMETER. THE CAP AND SHANK SHALL BE 2 1/4" TALL AND MOUNTED FLUSH TO THE TOP OF THE MONUMENT WITH THE SHANK PERMANENTLY EMBEDDED INTO THE MONUMENT.
3. THE MONUMENT SHALL BE A MINIMUM OF 2" X 2" X 12" AND INSTALLED FLUSH WITH THE SURROUNDING GRADE. THE MONUMENT IS TO BE MADE OF CONCRETE.



SLEEVE LOCATION MARKER

NTS

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DATE	DESCRIPTION	DATE	DESCRIPTION			PROJECT			LD-44
						SANTA ROSA BOULEVARD			

Jennifer Xie

6/28/2024 4:22:43 PM

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GENERAL NOTES

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REMOVE EXISTING IRRIGATION SYSTEM COMPONENTS INCLUDING BUT NOT LIMITED TO: LATERAL PIPE, ROTOR HEADS, SPRAY HEADS, EMITTER TUBING, VALVES, CONTROLLERS, WIRE, ETC. REPAIR DAMAGE TO EXISTING SOD AND LANDSCAPE DESIGNATED TO REMAIN TO MATCH EXISTING.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AND OBTAIN POWER FOR IRRIGATION. CONTACT CHELCO (CRIS EDDY 850-307-1229) TO COORDINATE POWER NEEDED FOR IRRIGATION. LOCATE WELLS AND IRRIGATION CONTROLLER WITHIN 25 FT OF EXISTING POWER POLES. COSTS FOR OBTAINING POWER SERVICE IN INCLUDED IN THE LUMP SUM PRICE OF THE PROJECT. CONTRACTOR IS RESPONSIBLE FOR COST OF POWER THROUGHOUT THE MAINTENANCE AND ESTABLISHMENT PERIOD.
3. BUBBLERS TO BE INSTALLED ON ALL NEW TREES. DRIP IRRIGATION TO BE INSTALLED IN ALL LANDSCAPE AREAS.
4. CHANGES IN HEAD PLACEMENT OR SUBSTITUTION SHOULD ALWAYS BE DONE TAKING INTO CONSIDERATION:

A. WHAT IS BEST FOR THE GROWTH AND MAINTENANCE OF THE SOD AND PLANT MATERIAL.

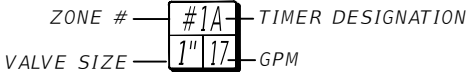
B. MAINTAINING A CONSTANT AND EVEN DISTRIBUTION AND PRECIPITATION RATE. (NEVER INSTALL ROTORS, SPRAYS OR BUBBLERS ON THE SAME ZONE).

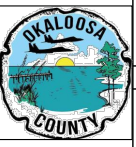
C. THE SPACING BETWEEN HEADS SHALL NOT EXCEED 50% OF THE DIAMETER FOR HEADS SPACED ON A SQUARE PATTERN OR 60% OF THE DIAMETER FOR HEADS SPACED ON A TRIANGULAR PATTERN.
6. AUTOMATIC CONTROL TIMER LOCATION TO BE VERIFIED WITH DISTRICT LANDSCAPE ARCHITECT AND PROJECT ENGINEER. ALL CONTROL WIRE TO BE #14 UF DIRECT BURIAL.
7. FIELD ALTERATIONS MADE IN THE IRRIGATION CONTRACT DRAWING MUST BE IN THE BEST INTEREST OF THE PLANT MATERIAL, SOD AND LANDSCAPE IRRIGATION SYSTEM. CHANGES MADE BY THE IRRIGATION CONTRACTOR WHICH ARE DEEMED, BY THE DISTRICT LANDSCAPE ARCHITECT AND PROJECT ENGINEER, NOT TO BE IN CONFORMITY WITH THIS CRITERIA WILL BE REMOVED AND REPLACED AT THE IRRIGATION CONTRACTOR'S EXPENSE. IF A QUESTION SHOULD ARISE AS TO THE BEST WAY TO COMPLETE A FIELD ALTERATION, CONTACT THE DISTRICT LANDSCAPE ARCHITECT AND PROJECT ENGINEER FOR APPROVAL.
8. THE CONTRACTOR SHALL STAKE OUT THE LOCATION OF EACH RUN OF PIPE, SPRINKLER HEADS, SPRINKLER VALVES PRIOR TO TRENCHING. TRENCHES FOR PIPE SHALL BE CUT TO REQUIRED GRADE LINES, AND COMPACTED TO PROVIDE ACCURATE GRADE AND UNIFORM BEARING FOR THE FULL LENGTH OF THE LINE. THE BOTTOM OF TRENCHES SHALL BE FREE OF ROCK OR OTHER SHARP EDGED OBJECTS. MINIMUM COVER SHALL BE AS FOLLOWS: PRESSURE MAINLINE 24" AT TOP OF PIPE TO FINISH GRADE. LATERAL PIPING 12" AT TOP OF PIPE FROM FINISH GRADE.
9. INITIAL BACKFILL ON PVC LINE SHALL BE PULVERIZED NATIVE SOIL, FREE OF FOREIGN MATTER. WITHIN RADIUS OF 4" OF THE PIPE SHALL BE CLEAN SOIL OR SAND. PLANT LOCATIONS SHALL TAKE PRECEDENCE OVER SPRINKLER AND PIPE LOCATIONS. THE CONTRACTOR SHALL COORDINATE THE PLACING OF SPECIMEN TREES AND SHRUBS WITH THE ROUTING OF LINES AND FINAL HEAD LOCATIONS.
10. THE IRRIGATION AND LANDSCAPE CONTRACTOR SHALL COORDINATE THE PLACEMENT OF THE SPRINKLER EQUIPMENT AND LANDSCAPE MATERIAL WITHIN THE PLANTED AREAS. THE IRRIGATION CONTRACTOR SHALL INSTALL HIS MATERIAL AT THE EDGE OF THE PLANTED AREAS AVOIDING PLANTS, ROOTBALLS, LIGHTS, BOLLARDS, FENCES, ETC.
11. OPEN CUTS IN ASPHALT AND CONCRETE ARE PROHIBITED. USE DIRECTIONAL BORE TO TRAVERSE HARDSCAPE AREAS.
12. TRENCHES MUST BE PROTECTED FROM VEHICLE AND PEDESTRIAN TRAFFIC AT ALL TIMES. IT WILL BE THE IRRIGATION CONTRACTORS RESPONSIBILITY TO BARRICADE AND DIVERT TRAFFIC.
13. SLEEVEING BENEATH SIDEWALKS (NOT SHOWN) SHALL BE LOCATED BY THE IRRIGATION CONTRACTOR. SIZE SLEEVEING TWO TIMES LARGER THAN THE PIPE TO BE PLACED INSIDE THE SLEEVE. SLEEVEING MATERIAL TO BE SCHEDULE 40 PVC. NO SLEEVEING SHALL BE SMALLER THAN (2") SCHEDULE 40 PVC. SLEEVE ALL WIRE CROSSINGS EITHER IN CONDUIT (AS SPECIFIED) OR IN SCHEDULE 40 PVC PIPE (IF CONTROL WIRE IS DIRECT BURIAL).

14. LATERAL PIPE TO BE SIZED AS NOT TO EXCEED 5 FEET PER SECOND BASED ON STANDARD CLASS 200 PVC CHARACTERISTICS.
15. ALL TRENCHES WITHIN (50') OF EXISTING TREES TO BE HAND EXCAVATED TO AVOID CONFLICTS WITH TREES.
16. NO ROOTS SHALL BE CUT WITHIN (50') RADIUS OF ALL EXISTING TREES. IRRIGATION PIPES AND CONDUIT SHOULD BE DIRECTIONAL BORED WITHIN THIS (50') AREA.
17. THE CONSTRUCTION OF THE IRRIGATION SYSTEM REQUIRES THAT THE INSTALLER BECOME FAMILIAR NOT ONLY WITH THE NEW IRRIGATION TO BE ADDED, BUT ALSO WITH ALL EXISTING CONDITIONS.
18. THE DRAWINGS ARE TO BE CONSIDERED DIAGRAMMATIC. THE LOCATIONS OF THE EQUIPMENT SHALL BE COORDINATED IN THE FIELD, AND ADJUSTED AS NECESSARY TO AVOID CONFLICTS, AND TO REACT TO FIELD VARIABLES. DUE TO SMALL SCALE OF DRAWINGS, IT IS OFTEN NECESSARY TO SHOW PIPING OR OTHER ELEMENTS OUTSIDE RIGHTS-OF-WAY OR IN PAVEMENT AREAS. THE INSTALLATION OF ALL PIPING AND OTHER EQUIPMENT SHALL BE IN PERVIOUS AREAS AND WITHIN RIGHTS-OF-WAY UNLESS IT IS SPECIFICALLY NOTED TO THE CONTRARY.
19. THE FOLLOWING LATERAL PIPE SIZING CHART IS BASED ON WATER VELOCITY NOT TO EXCEED FIVE FEET PER SECOND:

PIPE SIZE TABLE	
IRRIGATION ZONE DEMAND GALLONS PER MINUTE (GPM)	MINIMUM PIPE SIZE
0 - 6	3/4"
7 - 11	1"
12 - 19	1 1/4"
20 - 26	1 1/2"
27 - 42	2"
43 - 60	2 1/2"
61 - 90	3"

REFER TO EACH IRRIGATION ZONE ON PLAN DRAWINGS FOR ZONE GPM



R E V I S I O N S					OKALOOSA COUNTY	IRRIGATION DETAILS & NOTES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		PROJECT		
					SANTA ROSA BOULEVARD		LD-45



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