US 1 AND SR442 FDOT LANDSCAPE BEAUTIFICATION

CITY OF EDGEWATER, VOLUSIA COUNTY, FLORIDA

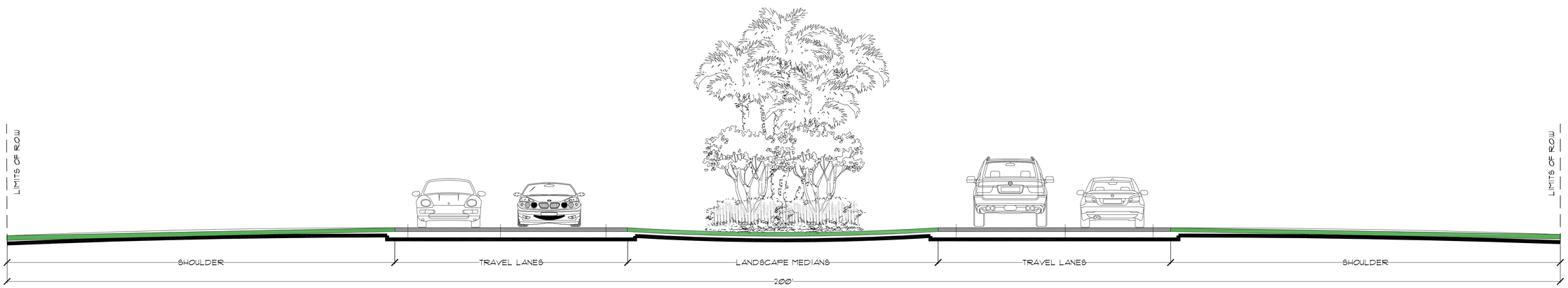
LANDSCAPE PLANS

(VOLCO RD. – BOSTON RD.) – 2 MILES

(LAMONT ST. – 10th ST.) – 1 MILE

(I-95 AND SR 442) – .5 MILES

FDOT FINANCIAL MANAGEMENT # 435465-1-58-01



US 1 CROSS SECTION – 200' R.O.W.

MAYOR ***MICHAEL IGNASIAK***
CITY MANAGER ***TRACEY BARLOW***
PUBLIC WORKS DIRECTOR ***BRENDA DEWEES***

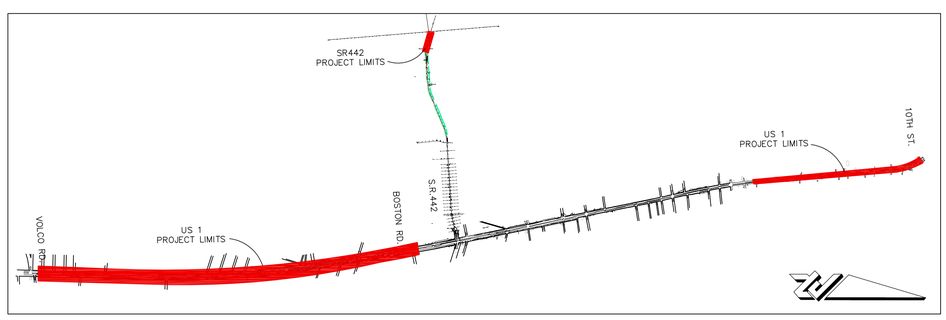
CITY COMMISSION:
DISTRICT 1 : CHRISTINE POWER
DISTRICT 2 : GIGI BENNINGTON
DISTRICT 3 : DAN BLAZI
DISTRICT 4 : GARY CONROY

APPLICANT:

CITY OF EDGEWATER
104 N. RIVERSIDE DR.
EDGEWATER, FLORIDA 32132
(386) 424-2472
CONTACT: BRENDA DEWEES,
DIRECTOR OF PUBLIC WORKS
& UTILITIES

LANDSCAPE ARCHITECT:

ZEV COHEN & ASSOCIATES, INC.
300 INTERCHANGE BLVD.
ORMOND BEACH, FL., 32174
(386) 677-2482
(386) 677-2505 (FAX)
CONTACT: STEVEN R. BURNS, RLA



VICINITY MAP

SCALE: 1" = 2000'

US 1 SHEET INDEX:

CVR	COVER SHEET
D1	LANDSCAPE NOTES & DETAILS
D2	MAINTENANCE OF TRAFFIC PLANS
LAYOUT	LAYOUT SHEET – LANDSCAPE
DEM	DEMOLITION PLAN
LA1	LANDSCAPE PLAN (MEDIANS 1A – 3A)
LA2	LANDSCAPE PLAN (MEDIANS 3B – 5A)
LA3	LANDSCAPE PLAN (MEDIANS 5B – 6A)
LA4	LANDSCAPE PLAN (MEDIANS 6B – 9A)
LA5	LANDSCAPE PLAN (MEDIANS 9B – 9C)
LA6	LANDSCAPE PLAN (MEDIANS 9B – 9C)
LA7	LANDSCAPE PLAN (MEDIANS 9B – 9C)
LAYOUT	LAYOUT SHEET – IRRIGATION
IR1-1	IRRIGATION PLANS
IR1-2	IRRIGATION PLANS
IR1-3	IRRIGATION PLANS
IR1-4	IRRIGATION PLANS
IR1-5	IRRIGATION PLANS
IR1-6	IRRIGATION PLANS
IR1-7	IRRIGATION PLANS
IR1-8	IRRIGATION PLANS NOTES & DETAILS
IR1-9	IRRIGATION PLANS NOTES & DETAILS

SR442 SHEET INDEX:

D1-1	LANDSCAPE NOTES & DETAILS
D2-1	MAINTENANCE OF TRAFFIC PLANS
DEM-1	DEMOLITION PLAN
LA1-1	LANDSCAPE PLAN
LA2-1	LANDSCAPE PLAN
IR1-1	IRRIGATION PLAN
IR2-1	IRRIGATION PLAN NOTES & DETAILS
IR3-1	IRRIGATION PLAN NOTES & DETAILS

GOVERNING STANDARDS AND SPECIFICATIONS:

FLORIDA DEPARTMENT OF TRANSPORTATION, 2016 DESIGN STANDARDS AND REVISED INDEX DRAWINGS AS APPENDED HEREIN, AND JANUARY 2016 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AS AMENDED BY CONTRACT DOCUMENTS.

FOR "DESIGN STANDARDS" FOLLOW LINK BELLOW:
HTTP://WWW.DOT.STATE.FL.US/RDDESIGN/

FOR "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION FOLLOW LINK BELLOW:
HTTP: /WWW.DOT.STATE.FL.US/SPECIFICATIONSOFFICE/

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REVISIONS:

US 1 AND SR442 BEAUTIFICATION
LANDSCAPE PLANS
COVER SHEET

CITY OF EDGEWATER — VOLUSIA COUNTY, FLORIDA

ZEV COHEN & ASSOCIATES, INC.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS
PLANNERS • TRANSPORTATION • ENVIRONMENTAL
WWW.ZEVCOHEN.COM

PROJECT NO: 14021 — DRAFTED BY: AKS
ISSUE DATE: 7-14-14 — CHECKED BY: SBK/PM
DESIGNED BY: PM — DRAWING FILE: 14021LA KPS-FINAL.DWG

SEAL

SCALE: N/A

SHEET CVR OF

GENERAL CONSTRUCTION NOTES

1. THE LOCATION(S) OF THE UTILITIES SHOWN IN THE PLANS (INCLUDING THOSE Vv, Vh, AND Vvh) ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATIONS/ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED.

2. EXISTING UTILITIES ARE TO REMAIN IN PLACE UNLESS OTHERWISE NOTED.

3. THE CONTRACTOR SHALL CONTACT SUNSHINE ONE CALL OF FLORIDA, INC. AS REQUIRED BY CHAPTER 556 OF THE FLORIDA STATUTES.

   UTILITY AGENCY.OWNER – TELEPHONE NUMBER
   ELECTRIC – FLORIDA POWER & LIGHT, BEVERLY HUTTO (386) 322-3439
   GAS – TECO PEOPLES GAS, GEORGE SMITH (386) 671-2232
   FIBER OPTIC CABLE – AT&T, MICHAEL MOORE (386) 254-8550
   TELEPHONE – BRIGHT HOUSE, SEAN RIDEN (386) 760-9941
   TRAFFIC MONITORING SITES– FDOT, CHERYL BURKE (386) 943-5380
   VOLUSIA COUNTY TRAFFIC ENGINEERING – (386) 736-5968

4. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH RULE CHAPTER 14-40, FLORIDA ADMINISTRATIVE CODE, THE FDOT 2016 DESIGN STANDARDS AND REVISED INDEX DRAWINGS AS APPENDED HEREIN, THE JANUARY 2016 FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION EDITION AND THE FDOT UAM 2010 EDITION. CONTRACTOR TO FOLLOW ALL REQUIREMENTS OF CITY/FDOT JPA AND FDOT APPROVAL.

5. CONTRACTOR TO PROVIDE EROSION AND SILTATION CONTROL MEASURES AND COORDINATED /APPROVED BY FDOT AND INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION. THESE MEASURES ARE TO BE INSPECTED BY THE CONTRACTOR ON A REGULAR BASIS AND ARE TO BE MAINTAINED IN ACCORDANCE WITH SJRWMD, DEP NPDES, AND BEST MANAGEMENT PRACTICES (BMP'S) STANDARDS AND REPAIRED ON AN IMMEDIATE BASIS AS REQUIRED. CONTRACTOR TO OBTAIN DEP NPDES PERMIT, IF REQUIRED.

6. ANY EXISTING STRIPING ON US1 DAMAGED BY THIS PROJECT MUST BE REPLACED.

7. CONTRACTOR TO STAKE-OUT EACH MEDIAN FOR PLANT/TREE LOCATIONS FOR LANDSCAPE ARCHITECT APPROVAL PRIOR TO INSTALLATION.

8. CONTRACTOR WILL BE RESPONSIBLE TO DO ANY GRADING WORK NECESSARY TO ASSURE PROPER DRAINAGE FLOW. CONTRACTOR SHALL MAINTAIN EXISTING DRAINAGE PATTERNS, SWALES CONVEYANCE, AND RUNOFF STORAGE CAPACITY DURING AND POST CONSTRUCTION ACTIVITIES. THE EXISTING DRAINAGE STRUCTURES SHALL NOT BE OBSTRUCTED OR MODIFIED ANYTIME.

9. IT IS THE RESPONSIBILITY OF THE CITY TO MAINTAIN THE PROPOSED PROJECT LIMIT AREAS IN ACCORDANCE WITH THE FDOT MAINTENACE RATING PROGRAM STANDARDS (MRP). REFER TO THEIR CRITERIA THROUGH THE LINK PROVIDED. http://www.dot.state.fl.us/statemaintenanceoffice/MaintRatingProgram.shtm, ALSO, REFER TO THE 'A GUIDE FOR TREE, PALM MAINTENANCE FOR URBAN ROADSIDES AND LANDSCAPE AREAS.

LANDSCAPE NOTES

1. FLORIDA #1: ALL PLANT MATERIAL SHALL BE GRADE FLORIDA NO. 1 OR BETTER IN QUALITY AS DESIGNATED IN THE MOST RECENT PUBLICATION OF "GRADES AND STANDARDS FOR NURSERY PLANTS", PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES.

2. SOD: SOD SHALL BE ARGENTINE BAHIA GRASS UNLESS OTHERWISE SPECIFIED ON THE PLANS AS .'FLORATAM' ST. AUGUSTINE. ALL SOD SHALL BE ROLLED. CONTRACTOR TO SOD ALL AREAS THAT ARE WITHIN MEDIANS WORKED. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THE SOD IS FREE OF WEEDS UPON INSTALLATION AND FOR THE DURATION OF THE 90 DAY MAINTENANCE PERIOD. SOD QUANTITY TAKEOFFS ARE THE RESPONSIBILITY OF THE CONTRACTOR ALL TURF AREAS SHALL BE SMOOTH AND FREE OF ANY TRACK RUTS OR OTHER UNSIGHTLY IMPRINTS CAUSED BY CONTRACTOR MACHINERY DURING CONSTRUCTION/INSTALLATION. ALL REPLACEMENT SOD SHALL BE 'FLORATAM' ST. AUGUSTINE.
   ALL TURF AREAS SHALL BE SMOOTH AND FREE OF ANY TRACK RUTS OR OTHER UNSIGHTLY IMPRINTS CAUSED BY CONTRACTOR MACHINERY DURING CONSTRUCTION/INSTALLATION. ALL REPLACEMENT SOD SHALL BE ARGENTINE BAHIA.

3. MULCH: ALL PLANTING BEDS SHALL BE TOP DRESSED WITH 3" PINE BARK MULCH, GRADE "B" OR BETTER. ALL TREES NOT IN BEDS SHALL HAVE A 5' DIAMETER MULCH RING.

4. QUANTITIES: IN THE EVENT OF A VARIATION BETWEEN THE QUANTITIES SHOWN ON THE PLANT LISTS AND THE ACTUAL QUANTITY OF PLANTS SHOWN ON THE PLANS, THE PLANS SHALL CONTROL. SOD QUANTITY TAKEOFFS ARE THE RESPONSIBILITY OF THE CONTRACTOR.

5. UNFORESEEN CONFLICTS: CONTRACTOR SHALL NOT WILLFULLY INSTALL ANY PORTION OF THE LANDSCAPE PLAN AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNFORESEEN OBSTRUCTIONS, GRADE DIFFERENCES, STANDING WATER, SOIL CONDITIONS OR OTHER CONFLICTS EXIST. SUCH UNFORESEEN CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

6. SUBSTITUTIONS: NO SUBSTITUTIONS OR VARIATIONS OF ANY PLANT MATERIAL OR ITS INSTALLED LOCATION WILL BE PERMITTED WITHOUT THE PRIOR WRITTEN CONSENT AND APPROVAL FROM THE LANDSCAPE ARCHITECT.

7. CONTAINERS: IF GALLONAGE FOR PLANTS OR TREES IS SHOWN THEY SHALL BE CONTAINER GROWN AND THE SIZE SHOWN SHALL REPRESENT THE MINIMUM ALLOWABLE GALLONAGE ACCEPTED. IN ALL CASES THE PLANT SPECIFIED SIZE SHALL GOVERN OVER THE GALLONAGE INDICATED.

8. SOIL: CONTRACTOR SHALL VERIFY THAT SOIL CONDITIONS ARE SUITABLE TO THE PLANT SPECIES SPECIFIED. IF SOIL CONDITIONS ARE DEEMED UNSUITABLE FOR PROPER PLANT HEALTH, CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT AND PROPER SUBSTITUTIONS SHALL BE SPECIFIED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. ADDITIONALLY, IF PRESENT, THE CONTRACTOR SHALL REMOVE LIME ROCK, CONCRETE AND OTHER DELETERIOUS DEBRIS FROM PLANTING BEDS. IF DEBRIS IS INTEGRATED IN THE SOIL, THE SOIL MUST BE EXCAVATED AND REPLACED WITH ACCEPTABLE SOIL. LASTLY, ALL FILL TO BE PLACED IN LANDSCAPE AREAS MUST HAVE A pH RANGE BETWEEN 5.8 AND 7.5, BE ORGANIC IN NATURE, AND BE FREE OF ROCKS AND DEBRIS.

9. TOPSOIL: TOPSOIL MATERIAL, IF REQUIRED, SHALL BE FREE FROM ALL HARD CLODS, WEEDS, STONES OVER 1" IN DIAMETER, CLAY, HARD PAN, NOXIOUS PLANTS, SOD, INSECTS, OR OTHER UNDESIRABLE PLANTS, SEEDS, OR MATERIAL WHICH MAY BE HARMFUL FOR GROWTH AND SHALL BE CERTIFIED AS STERILE.

10. WEEDS: IF PRESENT, THE CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE ANY WEEDS FROM PLANTING AREAS PRIOR TO THE INSTALLATION OF PROPOSED PLANT MATERIAL AND MULCH COVER. CONTRACTOR SHALL BE RESPONSIBLE TO KEEP BEDS FREE OF WEEDS FOR THE DURATION OF THE 90 DAY MAINTENANCE PERIOD.

11. GRADING: UNLESS OTHERWISE STATED ON THESE PLANS, THE LANDSCAPE CONTRACTOR SHALL FINE GRADE ALL AREAS TO BE PLANTED AND SODDED IN ORDER TO ELIMINATE BUMPS AND DEPRESSIONS. FINE GRADING SHALL BE DEFINED AS THE FINAL 2" OF GRADE TO BE ACHIEVED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING AND REGRADING WASHOUT AREAS CAUSED BY EROSION UNTIL FINAL ACCEPTANCE OF THE PROJECT.

12. STAKING: ALL TREES, SHRUBS AND GROUND COVERS ARE TO BE PLANTED ACCORDING TO THE DETAILS IN THESE PLANS. IF THE CONTRACTOR PREFERS TO USE OTHER STAKING METHODS THAN SHOWN IN THE DETAILS, HE OR SHE MUST SUBMIT PROPOSED STAKING DETAILS TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION. THE LANDSCAPE CONTRACTOR SHALL STRAIGHTEN, REPAIR, AND/OR REPLACE ANY PLANTS DAMAGED BY FAILURE TO PROPERLY STAKE OR GUY ANY TREES IN SITE, AT THEIR OWN EXPENSE.

13. FERTILIZER: OSMOCOTE SLOW RELEASE FERTILIZER OR EQUIVALENT SHALL BE APPLIED TO ALL TREE, SHRUB, AND GROUNDCOVER PLANTING AREAS AT THE RATE OF THREE (3) TABLESPOONS PER 2 S.F. OF PLANTING AREA.

14. DRAINAGE: THE LANDSCAPE CONTRACTOR SHALL ASSURE THAT THIS WORK DOES NOT INTERRUPT EXISTING OR PROPOSED DRAINAGE PATTERNS AND SHALL NOTIFY THE OWNERS REPRESENTATIVE IMMEDIATELY SHALL A CONFLICT ARISE.

15. SPECIFICATIONS: THE LANDSCAPE ARCHITECT SHALL BE PERMITTED THE RIGHT DURING INSTALLATION, TO REJECT ANY AND ALL PLANT MATERIAL AND WORKMANSHIP WHICH IN HIS OR HER OPINION DOES NOT MEET THE REQUIREMENTS OF THESE SPECIFICATIONS.

16. PERCOLATION: PERCOLATION TESTS ARE REQUIRED FOR ALL PLANTING PITS FOR PHOENIX SPP. PALM TREES. AFTER THE PLANTING PIT IS DUG TO THE PROPER DEPTH, FILL PIT WITH WATER AND DOCUMENT THE AMOUNT OF TIME IT TAKES FOR THE WATER TO DRAIN FROM THE PIT COMPLETELY. NOTIFY THE OWNER'S REPRESENTATIVE TO WITNESS THE TEST.

17. TURNOVER: CONTRACTOR SHALL CONTACT OWNERS REPRESENTATIVE FOR A TURNOVER DATE TO INCLUDE A WALK-THROUGH AND ACCEPTANCE OF WORK BY THE LANDSCAPE ARCHITECT. ANY WORK DEEMED UNACCEPTABLE SHALL BE CORRECTED IMMEDIATELY AND REINSPECTED AS SCHEDULED.

18. MAINTENANCE: CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE TO BEGIN AFTER EACH PLANT HAS BEEN INSTALLED AND SHALL CONTINUE 90 DAYS AFTER FINAL WRITTEN ACCEPTANCE BY THE OWNER. MAINTENANCE SHALL INCLUDE WATERING, PRUNING. WEEDING, MULCHING, MOWING, REPLACEMENT OF SICK OR DEAD PLANTS, AND ANY OTHER CARE NECESSARY IN ORDER TO MAINTAIN PROPER PLANT HEALTH AND SOIL MOISTURE CONTENT.

19. GUARANTEE: CONTRACTOR SHALL GUARANTEE ALL INSTALLED PLANT MATERIAL FOR ONE (1) CALENDAR YEAR STARTING FROM THE TURNOVER DATE SHOULD WORK BE FOUND ACCEPTABLE. ANY CORRECTED WORK SHALL HAVE A PROPORTIONAL EXTENSION OF WARRANTY ONCE APPROVED. ANY SICK OR DEAD MATERIAL SHALL BE REPLACED IMMEDIATELY. THE LANDSCAPE CONTRACTOR SHALL NOT BE RESPONSIBLE TO HONOR ANY WARRANTY FOR THE LOSS OF ANY PLANT MATERIAL CAUSED BY FLOODING, FIRE, FREEZING TEMPERATURES, WINDS OVER 50 MPH, LIGHTNING, ANY OTHER NATURAL DISASTER, OR ANY LOSS/DAMAGE CAUSED BY VANDALISM OR NEGLIGENCE ON THE PART OF THE OWNER.

IRRIGATION NOTES

1. AN AUTOMATIC TIME CONTROLLED IRRIGATION SYSTEM WITH A RAIN SENSOR SHALL BE INSTALLED TO PROVIDE 100% HEAD TO HEAD COVERAGE OF ALL NEW PLANTINGS. IRRIGATION PLAN SHALL BE PROVIDED UPON SUBSTANTIAL SITE PLAN APPROVAL.

QUALIFICATION OF CONTRACTORS

1. THE CITY OF EDGEWATER BEACH RESERVES THE RIGHT TO REQUIRE ANY BIDDER TO SUBMIT SUCH EVIDENCE OF QUALIFICATIONS AS IT MAY DEEM NECESSARY AND MAY CONSIDER EVIDENCE AVAILABLE CONCERNING THE FINANCIAL AND OTHER QUALIFICATIONS AND ABILITIES OF A CONTRACTOR. FAILURE TO PROVIDE ALL REQUIRED INFORMATION MAY RESULT IN THE PROPOSAL BEING REJECTED AS NONRESPONSIVE. THE MINIMUM QUALIFICATIONS FOR THIS PROJECT ARE AS FOLLOWS:
   1. THE CONTRACTOR MUST HAVE A MINIMUM TEN (10) YEARS EXPERIENCE INSTALLING (NOT MAINTAINING) LANDSCAPE AND IRRIGATION SYSTEMS ON PROJECTS OF A SIMILAR SCOPE IN NATURE WITH VERIFIABLE REFERENCES IN THE FOLLOWING AREAS: MUNICIPAL LANDSCAPE AND IRRIGATION CONTRACTS, PROJECTS WITHIN FDOT RIGHTS OF WAY, PROJECTS EXCEEDING $100K AS PRIME CONTRACTOR, TWENTY (20) OR MORE DATE PALMS ON A SINGLE SITE AND PROJECT FUNDED BY COUNTY, STATE OR FEDERAL FUNDS.

BASE INFORMATION

1. BASE PLANS USED IN THE DEVELOPMENT OF THIS PROJECT DESIGN WERE PROVIDED BY FDOT. CONTRACTOR TO CONFIRM FINAL LAYOUT AND DIMENSIONS PRIOR TO COMMENCING WORK.

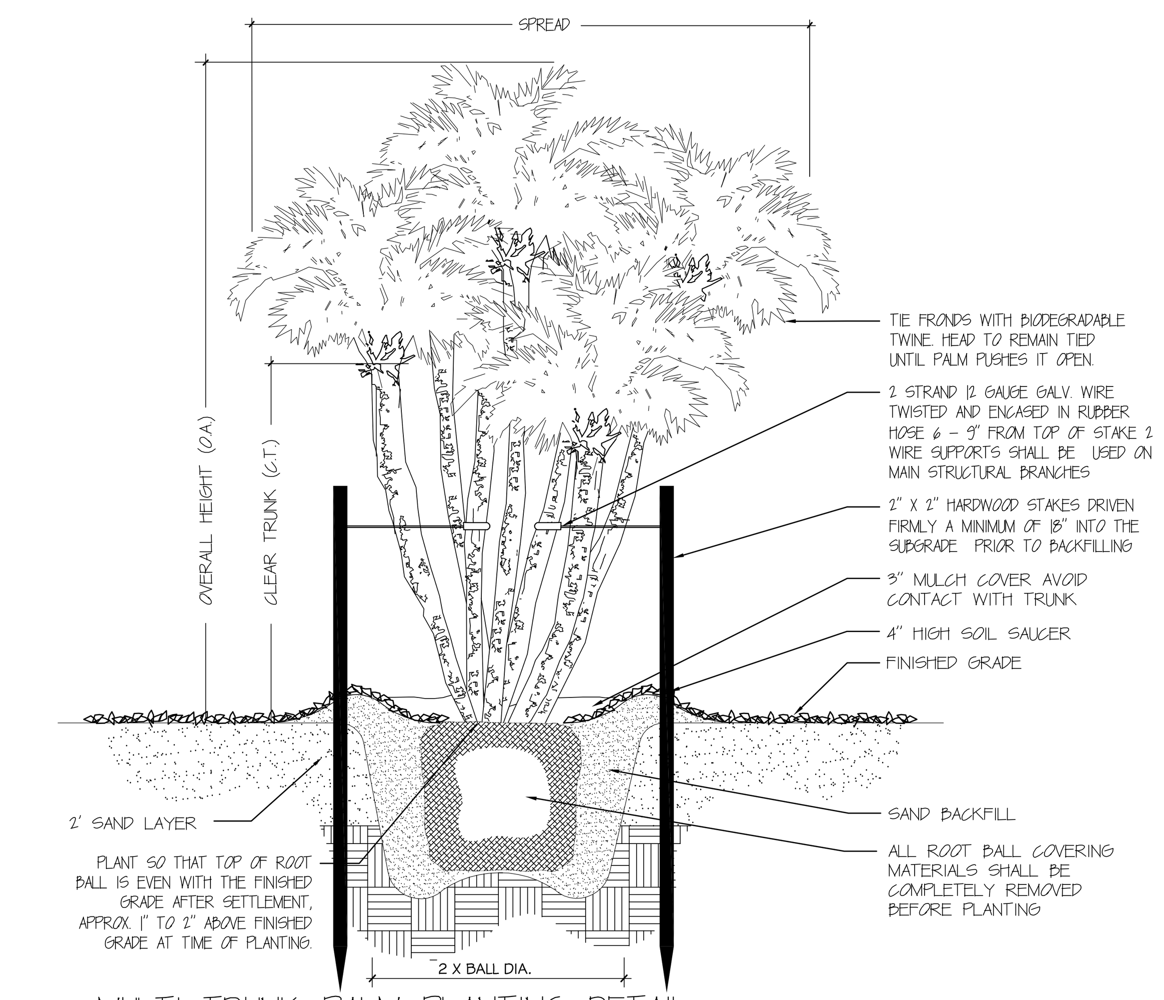
2. MEDIAN LINES ARE DRAWN IN PER GOOGLE MAP IMAGES (FIELD VERIFY)

5 (revision delta)

MASTER PLANT LIST

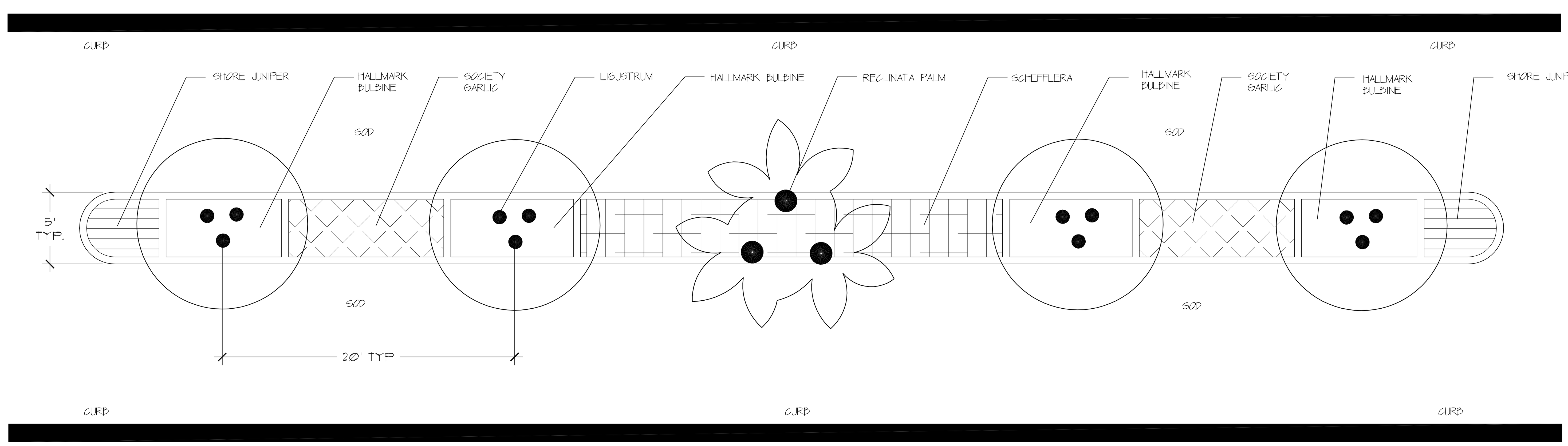
SYMB.	QUAN.	SPECIES	COMMON NAME	SPECIFICATIONS
PALMS				
LN	11	LIVISTONA NITIDA	CARNARVON GORGE PALM	14' C.T. MATCHED, DIAMOND CUT
PR	9	PHOENIX RECLINATA	RECLINATA PALM	10' -12' C.T. HT., MIN. 8-10 TRUNK, 4" MAX.
TREES				
LI	20	LAGERSTROEMIA INDICA 'MUSKOGEE'	LAVENDER CRAPE MYRTLE	65 GAL., 3 1/2" CAL., 12' HT., 8.5' C.T.
LJ	24	LIGUSTRUM JAPONICum 'TREE FORM'	LIGUSTRUM TREE	12' x 12', M.T., 8.5' C.T., PRUNED
SHRUBS & GROUNDCOVERS				
BF	463	BULBINE FRUTESCENS	YELLOW BULBINE	3 GAL., 12" HT. X 12" SPRD., FULL, 18" O.C.
JC	64	JUNIPERUS CONFERTA	SHORE JUNIPER	3 GAL., 18" HT. X 18" SPRD., FULL, 30" O.C.
SA	152	SCHEFFLERA ARBORICOLA 'TRINETTE'	VARIEGATED SCHEFFLERA	7 GAL., 18" SPD. X 24" HT., FULL, 30" O.C.
TV	304	TULBAGHIA VIOLACEA	SOCIETY GARLIC	1 GAL., 12" SPRD., 18" O.C.

NOTE: SEE LANDSCAPE PLAN, SHEETS LA1 THRU LA7, FOR INDIVIDUAL MEDIAN QUANTITIES.



1 MULTI-TRUNK PALM PLANTING DETAIL

SCALE: N.T.S.



5 MEDIAN PLANTING DETAIL

SCALE: N.T.S.

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NOTES & DETAILS

CITY OF EDGEWATER VOLUSIA COUNTY, FLORIDA

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(EB 4516) (LC 62)
PLANNERS • TRANSPORTATION • ENVIRONMENTAL
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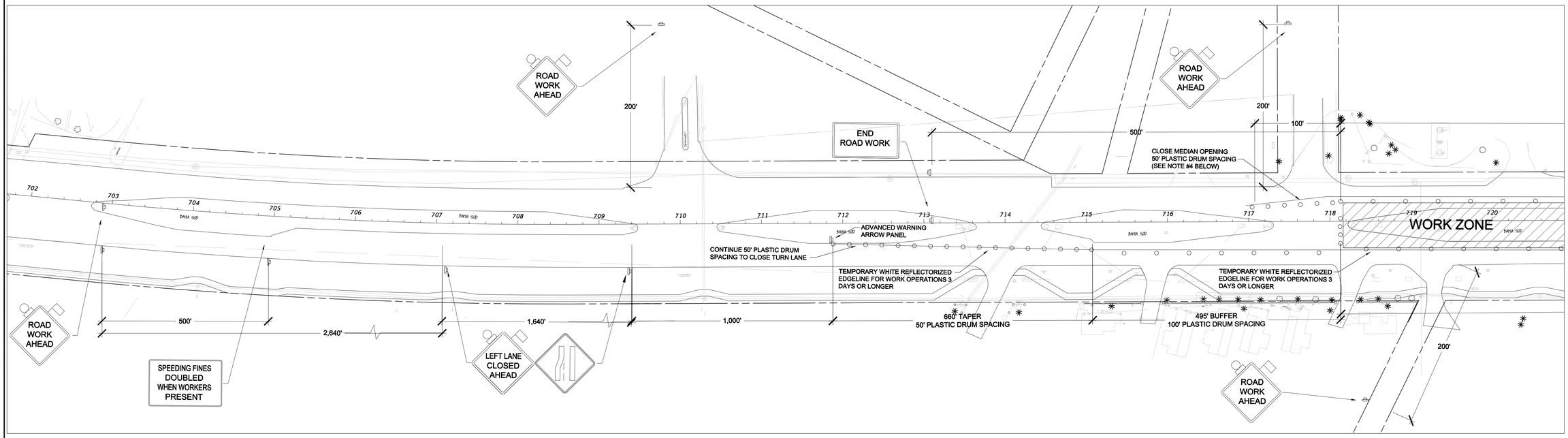
SEAL

SCALE:

SHEET D1 OF 2



NOTES

1. M.O.T. SHALL CONFORM TO THE FDOT INDICES, 2016 EDITION.
2. M.O.T. SHOWN AS A GUIDE, CONTRACTOR REQUIRED TO COORDINATE WITH FDOT FOR FINAL M.O.T. DESIGN AND APPROVAL.
3. CONTRACTOR TO PROVIDE M.O.T SHOP DRAWINGS AND OBTAIN APPROVAL FROM F.D.O.T. CONSTRUCTION OFFICE PRIOR TO CONSTRUCTION ON EACH MEDIAN (AS FUNDING ALLOWS). M.O.T. PROVIDED HEREON IS TYPICAL AND WILL APPLY TO EACH MEDIAN CONSTRUCTION.
4. NO LANE CLOSURES DURING CITY SPECIAL EVENTS, HOLIDAYS, PEAK TRAVEL TIMES (6-8AM, 5-7PM). SIGNALIZED INTERSECTIONS SHALL BE FREE OF BARRIER DEVICES AT ALL TIMES.
5. THE WORK ZONE SPEED LIMITS THROUGHOUT THE DESIGNATED PROJECT LIMITS WILL REMAIN THE SAME AS THE POSTED 55, 45 & 40 MPH.
6. "SPECIAL EVENTS" INCLUDE, BUT ARE NOT LIMITED TO, DAYTONA SPEED WEEKS, DAYTONA BIKE WEEK, SPRING BREAK AND BIKETOBERFEST.

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REVISIONS:

US 1 AND SR442 BEAUTIFICATION LANDSCAPE PLANS MAINTENANCE OF TRAFFIC

CITY OF EDGEWATER VOLUSIA COUNTY, FLORIDA

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SEAL

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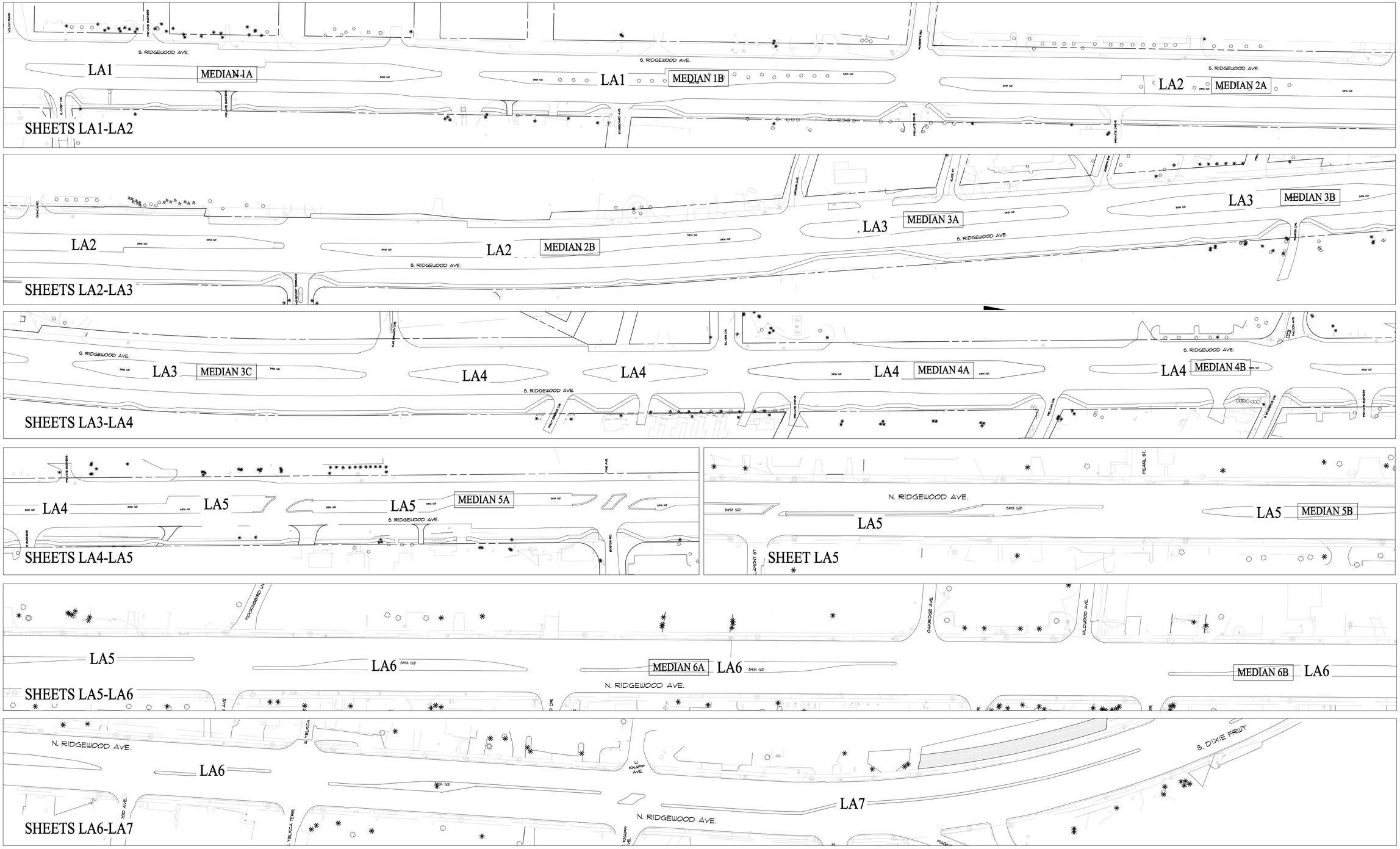
SHEET D2 OF 2



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AMELIA ISLAND
914 ATLANTIC AVE., STE 2-D FERNANDINA BEACH, FL 32034
(904) 491-5436 FAX (904) 491-4159

NO.	DATE	DESCRIPTION	BY
1.	3-12-15	REVISED PER FDOT COMMENTS, DATED 2-13-15	SMG
2.	5-4-15	REVISED PER FDOT COMMENTS, DATED 4-16-15	SMG
3.	6-4-15	REVISED PER FDOT COMMENTS, DATED 5-20-15	SMG
4.	12-18-15	REVISED PER CITY REQUEST	SMG
5.	3-18-16	REVISED PER CITY REQUEST	SMG
6.	4-10-16	REVISED PER FDOT COMMENTS, DATED 4-4-16	SMG
4.	9-6-16	RVISED PER BID REQUEST	SMG
5.	9-9-16	REVISED PER BID DOCUMENTS CHANGE REQUEST, DELTA #5	SMG

REVISIONS:

US 1 AND SR442 BEAUTIFICATION LANDSCAPE PLANS LAYOUT SHEET

CITY OF EDGEWATER VOLUSIA COUNTY, FLORIDA

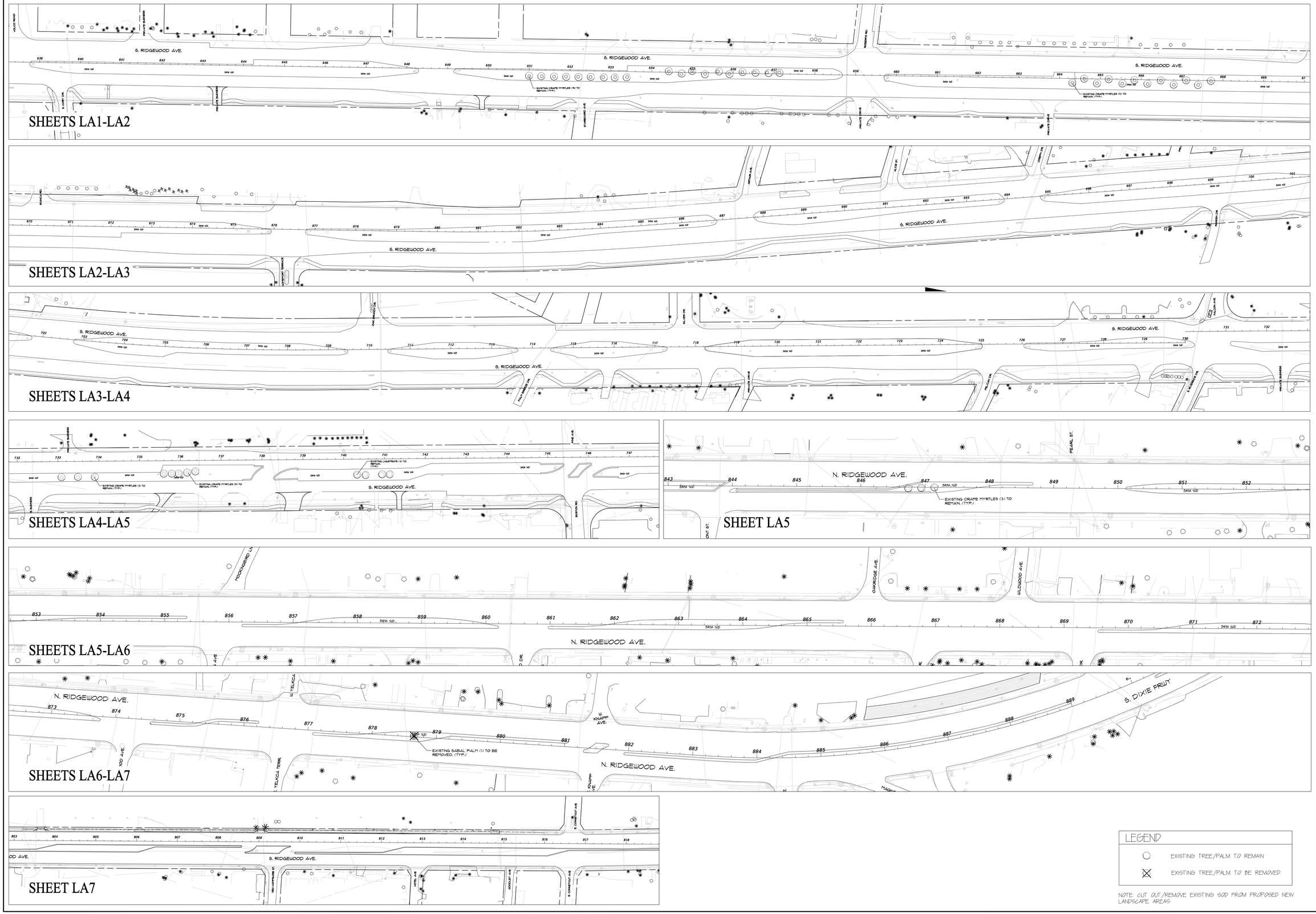
ZEV COHEN & ASSOCIATES, INC.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS
PLANNERS • TRANSPORTATION • ENVIRONMENTAL
WWW.ZEVCOHEN.COM

PROJECT NO: 14021
DRAFTED BY: AKS
ISSUE DATE: 7-14-14
CHECKED BY: SBK/PM
DESIGNED BY: PM
DRAWING FILE: 14021LA
XREFS: 14021BASE

SEAL

SCALE:

SHEET KEY1 OF 1



LEGEND

○ EXISTING TREE/PALM TO REMAIN

⊠ EXISTING TREE/PALM TO BE REMOVED

NOTE: CUT OUT/REMOVE EXISTING SOD FROM PROPOSED NEW LANDSCAPE AREAS

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6.	4-10-16	REVISED PER FDOT COMMENTS, DATED 4-4-16	SMG
4.	9-6-16	RVISED PER BID REQUEST	SMG
5.	9-9-16	REVISED PER BID DOCUMENTS CHANGE REQUEST, DELTA #5	SMG

REVISIONS:

US 1 AND SR442 BEAUTIFICATION LANDSCAPE PLANS DEMOLITION PLAN

CITY OF EDGEWATER VOLUSIA COUNTY, FLORIDA

ZEV COHEN & ASSOCIATES, INC.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS
PLANNERS • TRANSPORTATION • ENVIRONMENTAL
WWW.ZEVCOHEN.COM

PROJECT NO: 14021
DRAFTED BY: AKS
ISSUE DATE: 7-14-14
CHECKED BY: SBK/PM
DESIGNED BY: PM
DRAWING FILE: 14021LA
XREFS: 14021BASE

SEAL

SCALE:

SHEET DEM OF 1

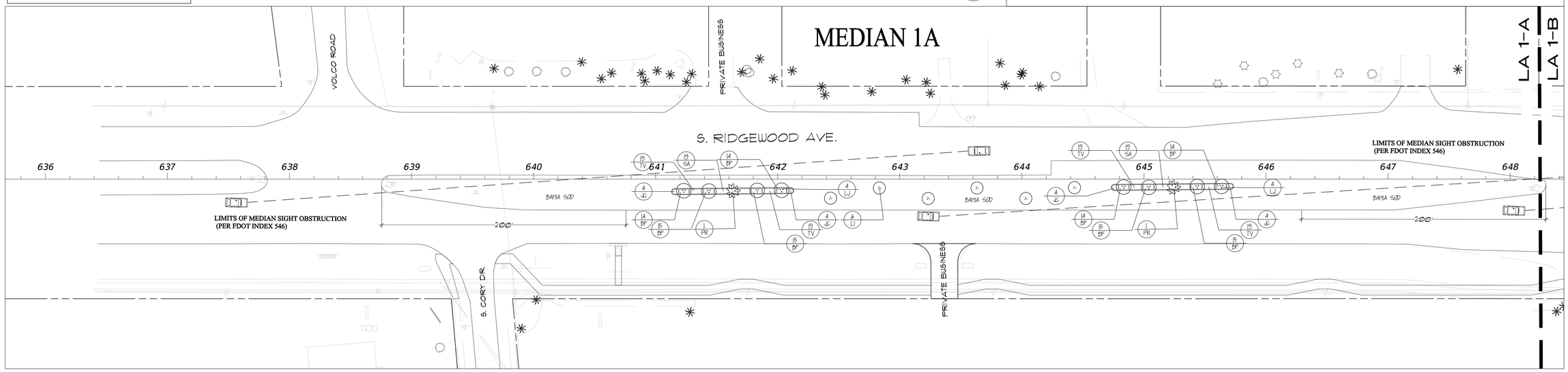
LA 1-A

POSTED SPEED 55 MPH

DESIGN SPEED 55 MPH

PLANT LIST: MEDIAN 1A

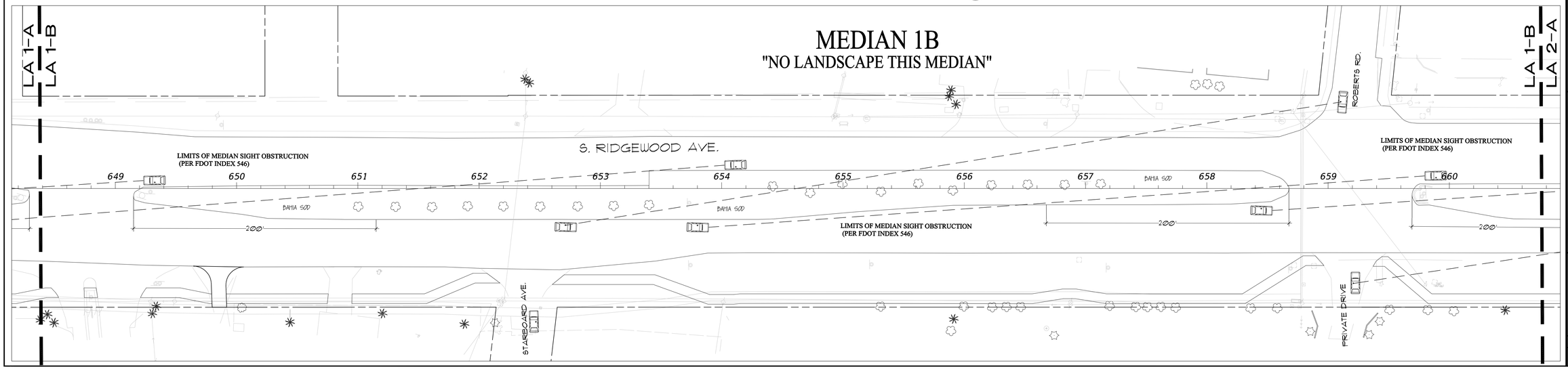
		SPECIES	COMMON NAME	SPECIFICATIONS
PALMS				
PR	2	PHOENIX RECLINATA	RECLINATA PALM	10' -12' C.T. HT., MIN. 8-10 TRUNK, 4" MAX.
TREES				
LI	6	LAGERSTROEMIA INDICA 'MUSKOGEE'	LAVENDER CRAPE MYRTLE	65 GAL., 3 1/2" CAL., 12' HT., 8.5' C.T.
LJ	8	LIGUSTRUM JAPONICUM 'TREE FORM'	LIGUSTRUM TREE	12' x 12' , M.T., 8.5' C.T., PRUNED
SHRUBS & GROUNDCOVERS				
BF	116	BULBINE FRUTESCENS	YELLOW BULBINE	3 GAL., 12" HT. X 12" SPRD., FULL, 18" O.C.
JC	16	JUNIPERUS CONFERTA	SHORE JUNIPER	3 GAL., 18" HT. X 18" SPRD., FULL, 30" O.C.
SA	38	SCHEFFLERA ARBORICOLA 'TRINETTE'	VARIEGATED SCHEFFLERA	7 GAL., 18" SPD. X 24" HT., FULL, 30" O.C.
TV	76	TULBAGHIA VIOLACEA	SOCIETY GARLIC	1 GAL., 12" SPRD., 18" O.C.



LA 1-B

POSTED SPEED 55 MPH

DESIGN SPEED 55 MPH



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5.	9-9-16	REVISED PER BID DOCUMENTS CHANGE REQUEST, DELTA #5	SMG

REVISIONS:

US 1 AND SR442 BEAUTIFICATION LANDSCAPE PLANS

CITY OF EDGEWATER VOLUSIA COUNTY, FLORIDA

ZEV COHEN & ASSOCIATES, INC.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS
PLANNERS • TRANSPORTATION • ENVIRONMENTAL
WWW.ZEVCOHEN.COM

PROJECT NO: 14021 DRAFTED BY: AKS

ISSUE DATE: 7-14-14 CHECKED BY: SBK/PM

DESIGNED BY: PM DRAWING FILE: 14021LA XREFS: 14021BASE

SEAL

SCALE:

SHEET LA1 OF 7

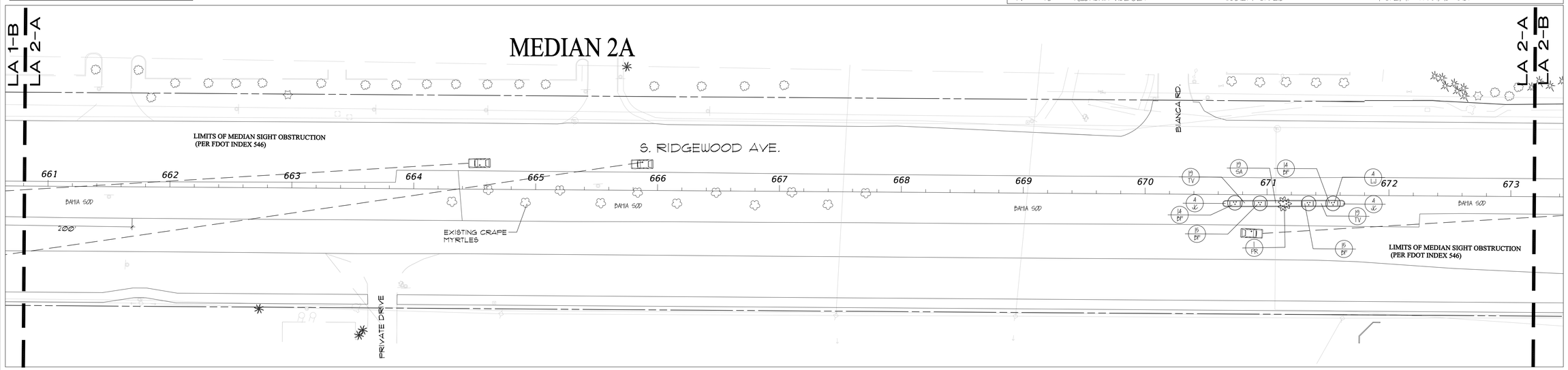
LA 2-A

POSTED SPEED 55 MPH

DESIGN SPEED 55 MPH

PLANT LIST: MEDIAN 2A

	SPECIES	COMMON NAME	SPECIFICATIONS
PALMS			
PR 1	PHOENIX RECLINATA	RECLINATA PALM	10' -12' C.T. HT., MIN. 8-10 TRUNK, 4" MAX.
TREES			
LJ 4	LIGUSTRUM JAPONICUM 'TREE FORM'	LIGUSTRUM TREE	12' x 12' , M.T., 8.5' C.T., PRUNED
SHRUBS & GROUNDCOVERS			
BF 58	BULBINE FRUTESCENS	YELLOW BULBINE	3 GAL., 12" HT. X 12" SPRD., FULL, 18" O.C.
JC 8	JUNIPERUS CONFERTA	SHORE JUNIPER	3 GAL., 18" HT. X 18" SPRD., FULL, 30" O.C.
SA 19	SCHEFFLERA ARBORICOLA 'TRINETTE'	VARIEGATED SCHEFFLERA	7 GAL., 18" SPD. X 24" HT., FULL, 30" O.C.
TV 38	TULBAGHIA VIOLACEA	SOCIETY GARLIC	1 GAL., 12" SPRD., 18" O.C.



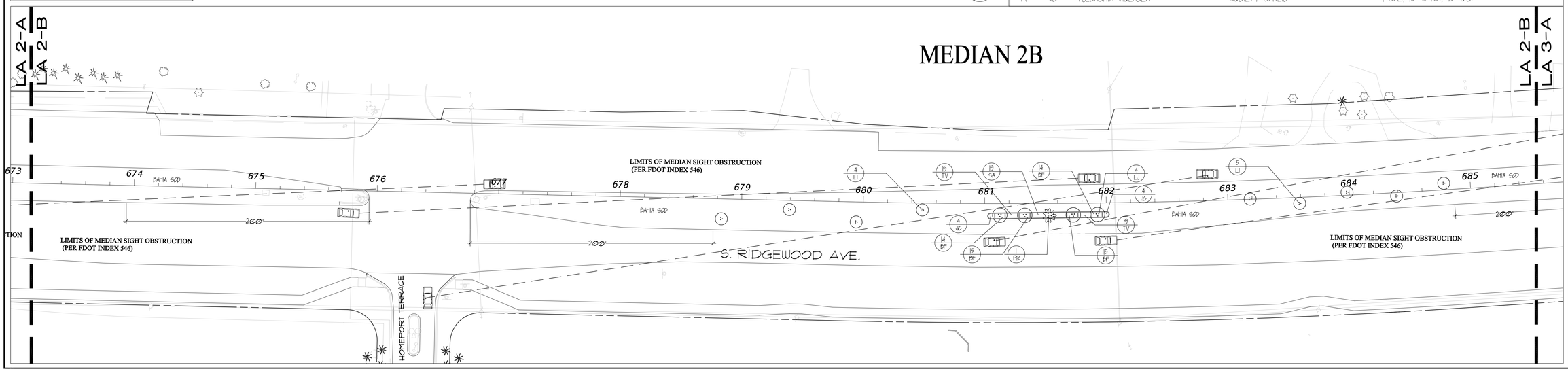
LA 2-B

POSTED SPEED 55 MPH

DESIGN SPEED 55 MPH

PLANT LIST: MEDIAN 2B

	SPECIES	COMMON NAME	SPECIFICATIONS
PALMS			
PR 1	PHOENIX RECLINATA	RECLINATA PALM	10' -12' C.T. HT., MIN. 8-10 TRUNK, 4" MAX.
TREES			
LI 9	LAGERSTROEMIA INDICA 'MUSKOGEE'	LAVENDER CRAPE MYRTLE	65 GAL., 3 1/2" CAL., 12' HT., 8.5' C.T.
LJ 4	LIGUSTRUM JAPONICUM 'TREE FORM'	LIGUSTRUM TREE	12' x 12' , M.T., 8.5' C.T., PRUNED
SHRUBS & GROUNDCOVERS			
BF 58	BULBINE FRUTESCENS	YELLOW BULBINE	3 GAL., 12" HT. X 12" SPRD., FULL, 18" O.C.
JC 8	JUNIPERUS CONFERTA	SHORE JUNIPER	3 GAL., 18" HT. X 18" SPRD., FULL, 30" O.C.
SA 19	SCHEFFLERA ARBORICOLA 'TRINETTE'	VARIEGATED SCHEFFLERA	7 GAL., 18" SPD. X 24" HT., FULL, 30" O.C.
TV 38	TULBAGHIA VIOLACEA	SOCIETY GARLIC	1 GAL., 12" SPRD., 18" O.C.



ZEV COHEN & ASSOCIATES INC. 2014

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5.	3-18-16	REVISED PER CITY REQUEST	SMG
6.	4-10-16	REVISED PER FDOT COMMENTS, DATED 4-4-16	SMG
4.	9-6-16	REVISED PER CITY REQUEST	SMG
5.	9-9-16	REVISED PER BID DOCUMENTS CHANGE REQUEST, DELTA #5	SMG

REVISIONS:

US 1 AND SR442 BEAUTIFICATION LANDSCAPE PLANS

CITY OF EDGEWATER

VOLUSIA COUNTY, FLORIDA

ZEV COHEN & ASSOCIATES, INC.
CIVIL ENGINEERS · LANDSCAPE ARCHITECTS
PLANNERS · TRANSPORTATION · ENVIRONMENTAL
WWW.ZEVCOHEN.COM

PROJECT NO: 14021 | DRAFTED BY: AKS

ISSUE DATE: 7-14-14 | CHECKED BY: SBK/PM

DESIGNED BY: PM | DRAWING FILE: 14021LA (REPORT & PLANS)

SEAL

SCALE:

SHEET LA2 OF 7

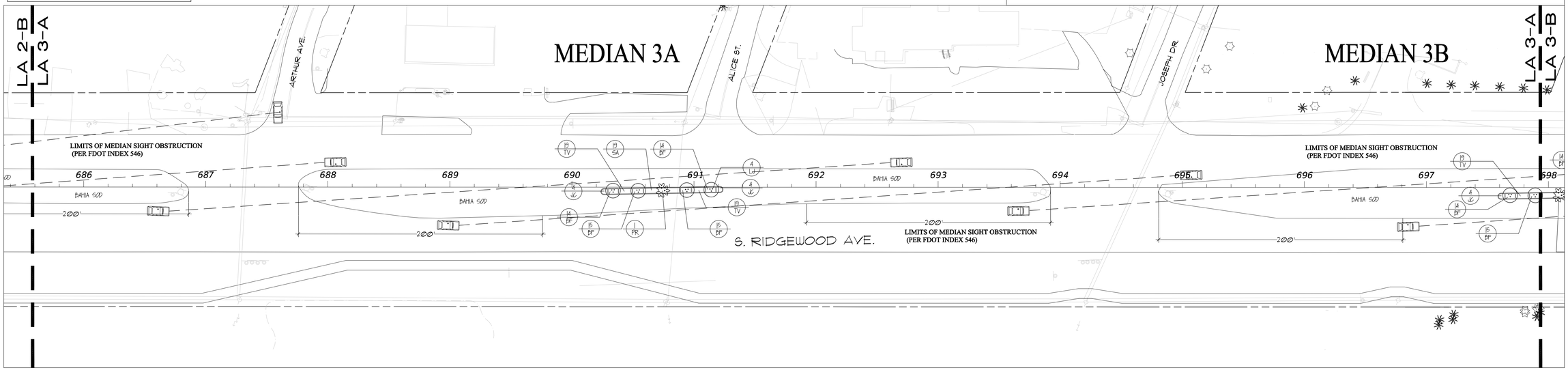
LA 3-A

POSTED SPEED 55 MPH

DESIGN SPEED 55 MPH

PLANT LIST: MEDIAN 3A

		SPECIES	COMMON NAME	SPECIFICATIONS
PALMS				
PR	1	PHOENIX RECLINATA	RECLINATA PALM	10' -12' C.T. HT., MIN. 8-10 TRUNK, 4" MAX.
TREES				
LJ	4	LIGUSTRUM JAPONICUM 'TREE FORM'	LIGUSTRUM TREE	12' x 12' , M.T., 8.5' C.T., PRUNED
SHRUBS & GROUNDCOVERS				
BF	58	BULBINE FRUTESCENS	YELLOW BULBINE	3 GAL., 12" HT. X 12" SPRD., FULL, 18" O.C.
JC	8	JUNIPERUS CONFERTA	SHORE JUNIPER	3 GAL., 18" HT. X 18" SPRD., FULL, 30" O.C.
SA	19	SCHEFFLERA ARBORICOLA 'TRINETTE'	VARIEGATED SCHEFFLERA	7 GAL., 18" SPD. X 24" HT., FULL, 30" O.C.
TV	38	TULBAGHIA VIOLACEA	SOCIETY GARLIC	1 GAL., 12" SPRD., 18" O.C.



LA 3-B

POSTED SPEED 55 MPH

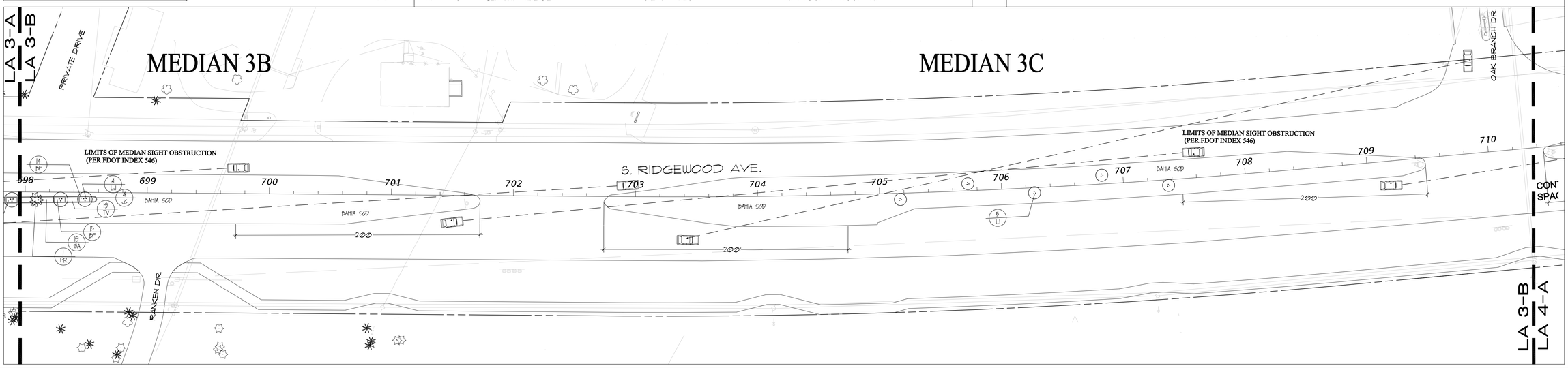
DESIGN SPEED 55 MPH

PLANT LIST: MEDIAN 3B

		SPECIES	COMMON NAME	SPECIFICATIONS
PALMS				
PR	1	PHOENIX RECLINATA	RECLINATA PALM	10' -12' C.T. HT., MIN. 8-10 TRUNK, 4" MAX.
TREES				
LJ	4	LIGUSTRUM JAPONICUM 'TREE FORM'	LIGUSTRUM TREE	12' x 12' , M.T., 8.5' C.T., PRUNED
SHRUBS & GROUNDCOVERS				
BF	58	BULBINE FRUTESCENS	YELLOW BULBINE	3 GAL., 12" HT. X 12" SPRD., FULL, 18" O.C.
JC	8	JUNIPERUS CONFERTA	SHORE JUNIPER	3 GAL., 18" HT. X 18" SPRD., FULL, 30" O.C.
SA	19	SCHEFFLERA ARBORICOLA 'TRINETTE'	VARIEGATED SCHEFFLERA	7 GAL., 18" SPD. X 24" HT., FULL, 30" O.C.
TV	38	TULBAGHIA VIOLACEA	SOCIETY GARLIC	1 GAL., 12" SPRD., 18" O.C.

PLANT LIST: MEDIAN 3C

		SPECIES	COMMON NAME	SPECIFICATIONS
TREES				
LI	5	LAGERSTRŒMIA INDICA 'MUSKOGEE'	LAVENDER CRAPE MYRTLE	65 GAL., 3 1/2" CAL., 12' HT., 8.5' C.T.



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5.	3-18-16	REVISED PER CITY REQUEST	SMG
6.	4-10-16	REVISED PER FDOT COMMENTS, DATED 4-4-16	SMG
7.	5-4-16	REVISED PER BID REQUEST	SMG
8.	9-9-16	REVISED PER BID DOCUMENTS CHANGE REQUEST, DELTA #5	SMG

REVISIONS:

US 1 AND SR442 BEAUTIFICATION LANDSCAPE PLANS

CITY OF EDGEWATER — VOLUSIA COUNTY, FLORIDA

PROJECT NO: 14021 — DRAFTED BY: AKS

ISSUE DATE: 7-14-14 — CHECKED BY: SBK/PM

DESIGNED BY: PM — DRAWING FILE NAME: 14021LA PER 3-18-16 REVISE

SEAL

SCALE:

SHEET LA3 OF 7

LA 4-A

POSTED SPEED 55 MPH

DESIGN SPEED 55 MPH

PLANT LIST: MEDIAN 4A

		SPECIES	COMMON NAME	SPECIFICATIONS
PALMS				
PR	1	PHOENIX RECLINATA	RECLINATA PALM	10' -12' C.T. HT., MIN. 8-10 TRUNK, 4" MAX.
TREES				
LJ	4	LIGUSTRUM JAPONICUM 'TREE FORM'	LIGUSTRUM TREE	12' x 12' , M.T., 8.5' C.T., PRUNED
SHRUBS & GROUNDCOVERS				
BF	58	BULBINE FRUTESCENS	YELLOW BULBINE	3 GAL., 12" HT. X 12" SPRD., FULL., 18" OC.
JC	8	JUNIPERUS CONFERTA	SHORE JUNIPER	3 GAL., 18" HT. X 18" SPRD., FULL., 30" OC.
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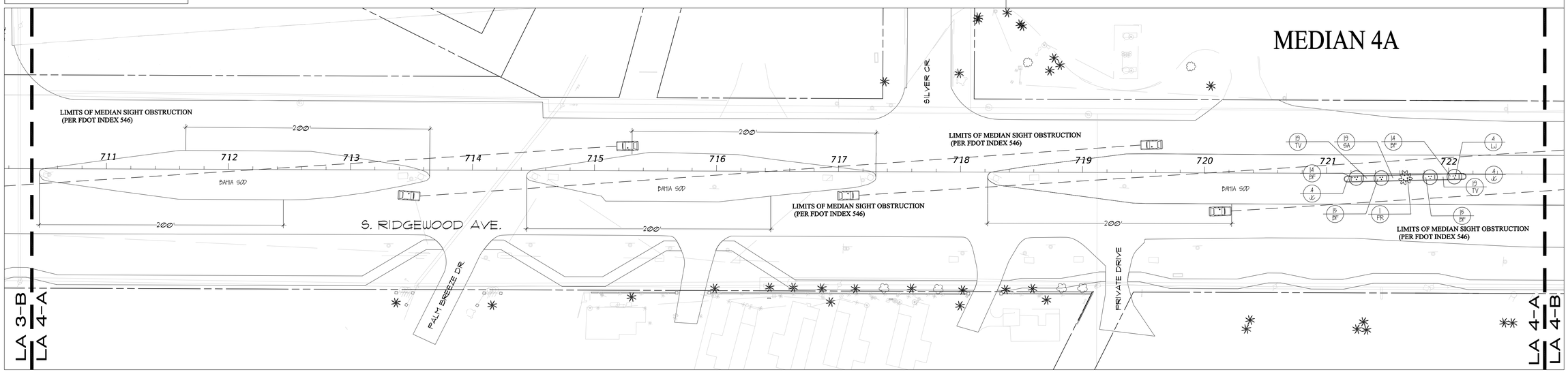
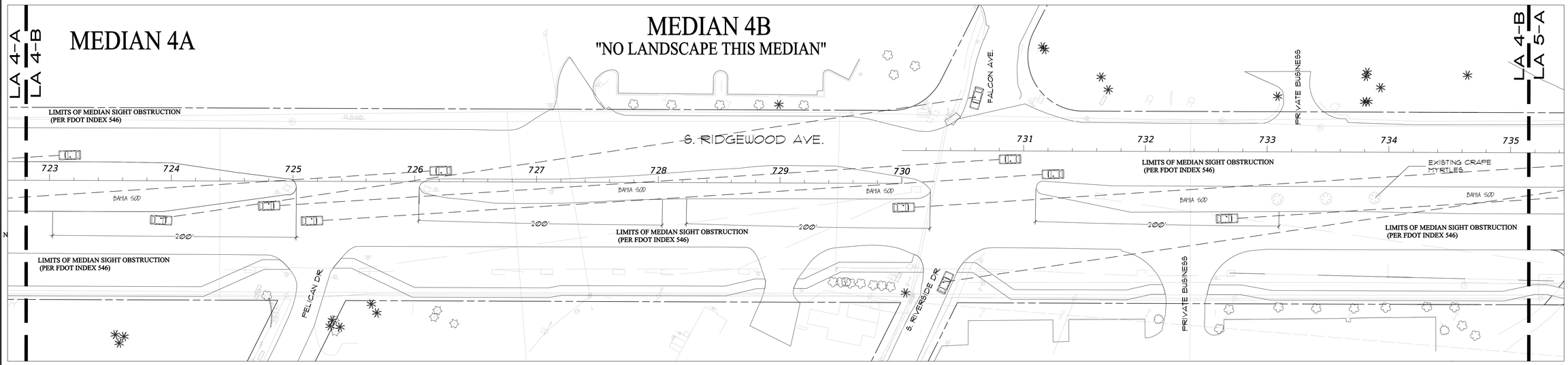
TV	38	TULBAGHIA VIOLACEA	SOCIETY GARLIC	1 GAL., 12" SPRD., 18" OC.



LA 4-B

POSTED SPEED 45 MPH

DESIGN SPEED 50 MPH



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REVISIONS:

US 1 AND SR442 BEAUTIFICATION LANDSCAPE PLANS

CITY OF EDGEWATER — VOLUSIA COUNTY, FLORIDA

PROJECT NO: 14021 — DRAFTED BY: AKS
ISSUE DATE: 7-14-14 — CHECKED BY: SBK/PM
DESIGNED BY: PM — DRAWING FILE: 14021LA (PER PLAN SHEET)

SEAL

SCALE:

SHEET LA4 OF 7

LA 5-A

POSTED SPEED 45 MPH

DESIGN SPEED 50 MPH

PLANT LIST: MEDIAN 5A

		SPECIES	COMMON NAME	SPECIFICATIONS
PALMS				
PR	2	PHOENIX RECLINATA	RECLINATA PALM	10' -12' C.T. HT., MIN. 8-10 TRUNK, 4" MAX.
TREES				
LJ	4	LIGUSTRUM JAPONICUM TREE FORM	LIGUSTRUM TREE	12' x 12' , M.T., 8.5' C.T., PRUNED
SHRUBS & GROUNDCOVERS				
BF	58	BULBINE FRUTESCENS	YELLOW BULBINE	3 GAL., 12" HT. X 12" SPRD., FULL, 18" O.C.
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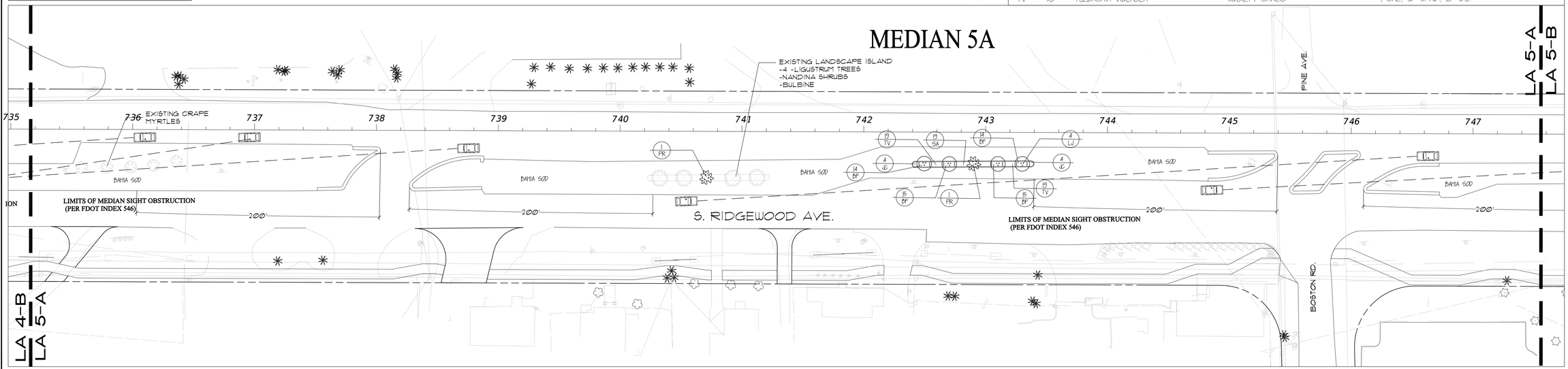
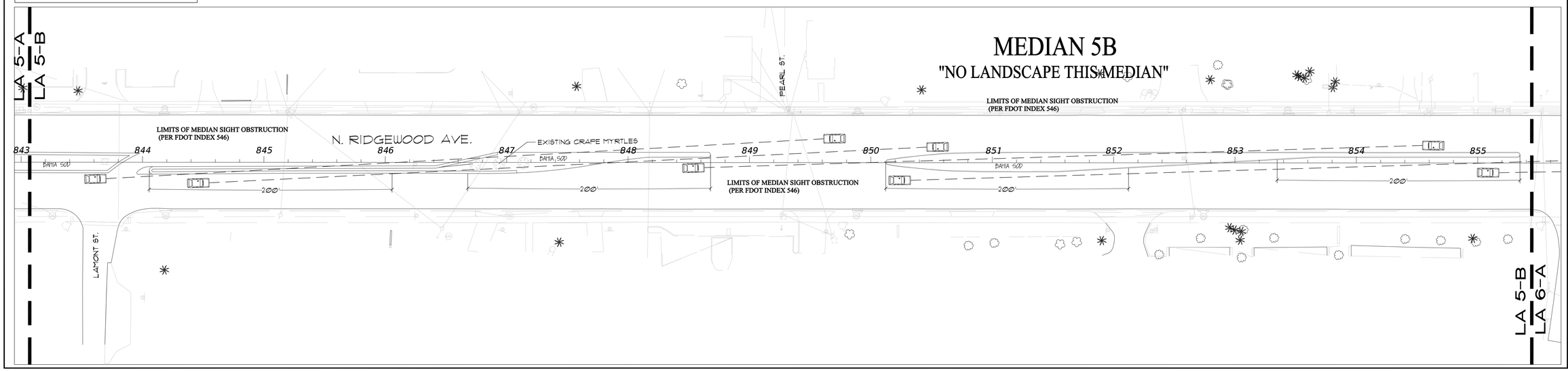


LA 5-B

POSTED SPEED 45 MPH

DESIGN SPEED 50 MPH



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REVISIONS:

US 1 AND SR442 BEAUTIFICATION LANDSCAPE PLANS

CITY OF EDGEWATER

VOLUSIA COUNTY, FLORIDA

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PROJECT NO: 14021	DRAFTED BY: AKS
ISSUE DATE: 7-14-14	CHECKED BY: SBK/PM
DESIGNED BY: PM	DRAWING FILE: 14021LA PROPOSED RESEAL

SEAL

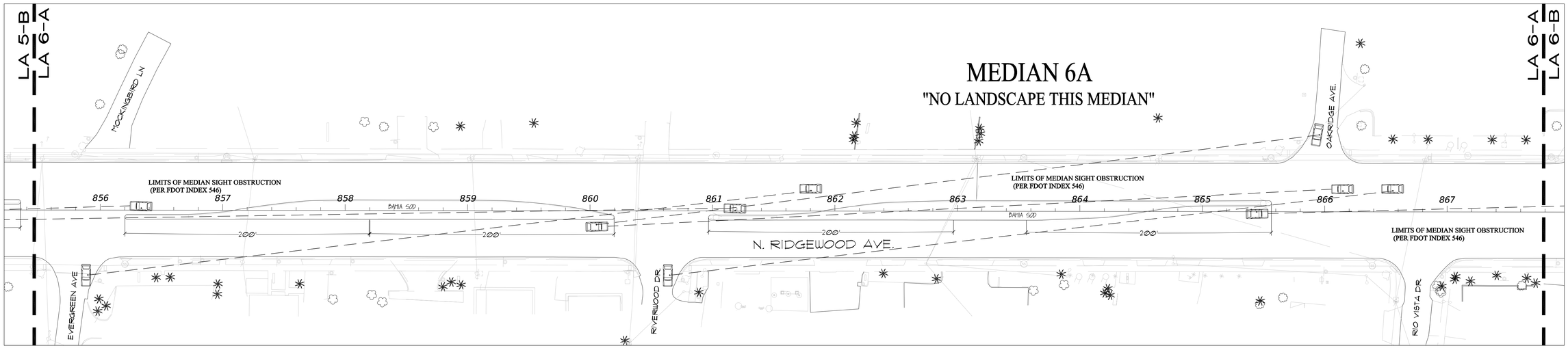
SCALE:

SHEET LA5 OF 7

LA 6-A

POSTED SPEED 45 MPH

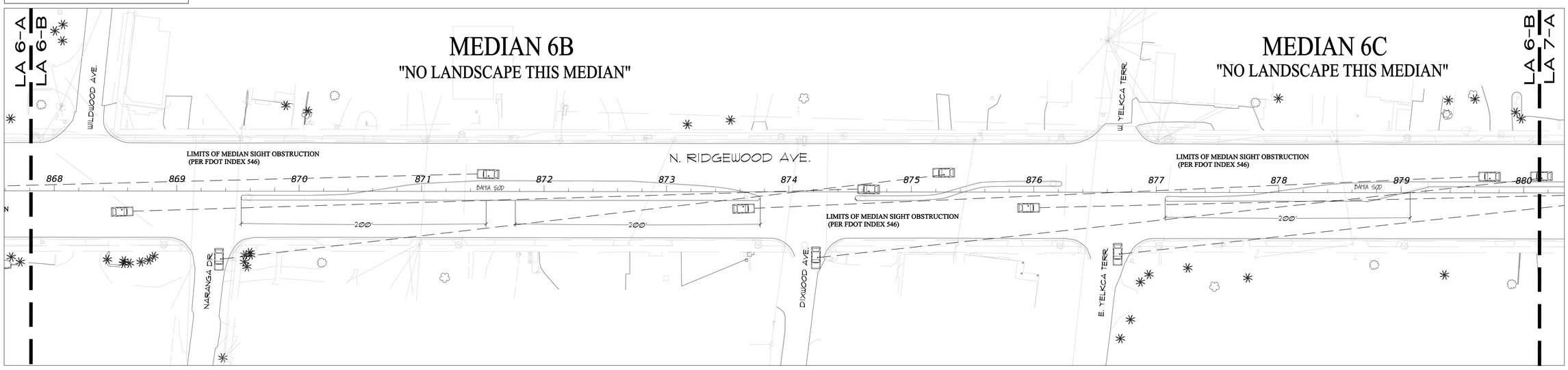
DESIGN SPEED 50 MPH



LA 6-B

POSTED SPEED 45 MPH

DESIGN SPEED 50 MPH



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(904) 797-1610 FAX (904) 797-4159

AMELIA ISLAND
914 ATLANTIC AVE., STE 2-D FERNANDINA BEACH, FL 32034
(904) 491-5436 FAX (904) 491-4159

NO.	DATE	DESCRIPTION	BY
1.	3-12-15	REVISED PER FDOT COMMENTS, DATED 2-13-15	SMG
2.	5-4-15	REVISED PER FDOT COMMENTS, DATED 4-16-15	SMG
3.	6-4-15	REVISED PER FDOT COMMENTS, DATED 5-20-15	SMG
4.	12-18-15	REVISED PER CITY REQUEST	SMG
5.	3-18-16	REVISED PER CITY REQUEST	SMG
6.	4-10-16	REVISED PER FDOT COMMENTS, DATED 4-4-16	SMG
4.	9-6-16	RVISED PER BID REQUEST	SMG
5.	9-9-16	REVISED PER BID DOCUMENTS CHANGE REQUEST, DELTA #5	SMG

REVISIONS:

US 1 AND SR442 BEAUTIFICATION LANDSCAPE PLANS

CITY OF EDGEWATER VOLUSIA COUNTY, FLORIDA

ZEV COHEN & ASSOCIATES, INC.
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PROJECT NO: 14021 DRAFTED BY: AKS

ISSUE DATE: 7-14-14 CHECKED BY: SBK/PM

DESIGNED BY: PM DRAWING FILE: 14021LA XREF'S: 14021BASE

SEAL

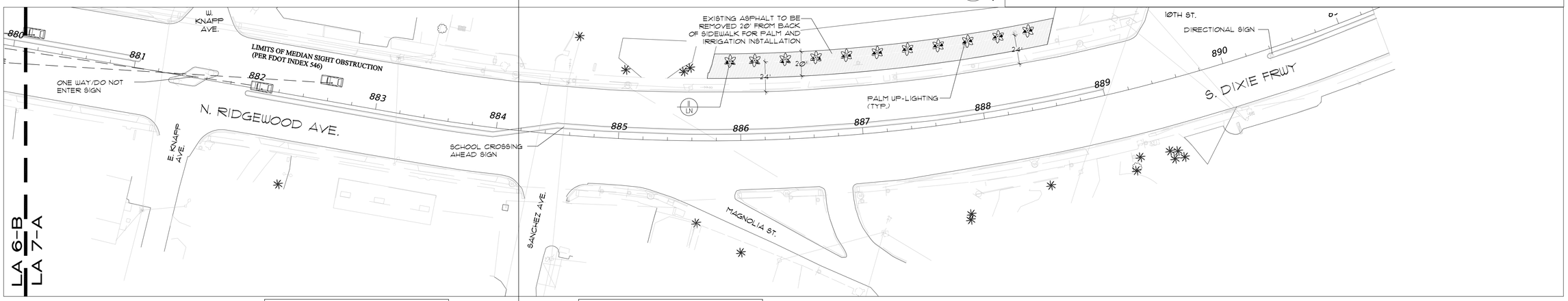
SCALE:

SHEET LA6 OF 7

LA 7-A

PLANT LIST – 10TH ST PARK

SPECIES	COMMON NAME	SPECIFICATIONS
PALMS		
LN II LIVISTONA NITIDA	CARNARVON GORGE PALM	14' C.T. MATCHED



LA 6-B
LA 7-A

POSTED SPEED 45 MPH
DESIGN SPEED 50 MPH

POSTED SPEED 40 MPH
DESIGN SPEED 45 MPH

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(904) 491-5406 FAX (904) 491-4159

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2.	5-4-15	REVISED PER FDOT COMMENTS, DATED 4-16-15	SMG
3.	6-4-15	REVISED PER FDOT COMMENTS, DATED 5-20-15	SMG
4.	12-18-15	REVISED PER CITY REQUEST	SMG
5.	3-18-16	REVISED PER CITY REQUEST	SMG
6.	4-10-16	REVISED PER FDOT COMMENTS, DATED 4-4-16	SMG
4.	9-6-16	REVISED PER CITY REQUEST	SMG
5.	9-9-16	REVISED PER BID DOCUMENTS CHANGE REQUEST, DELTA #5	SMG

REVISIONS:

US 1 AND SR442 BEAUTIFICATION LANDSCAPE PLANS

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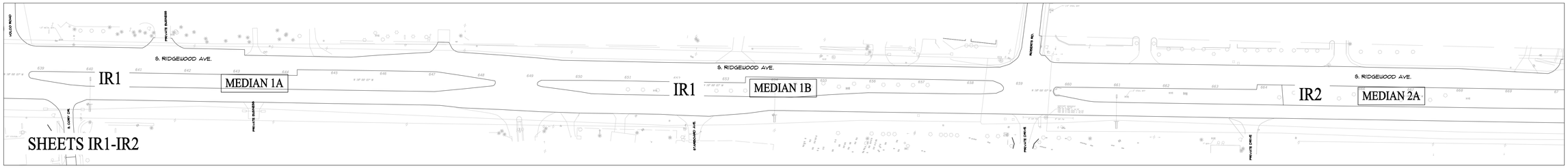
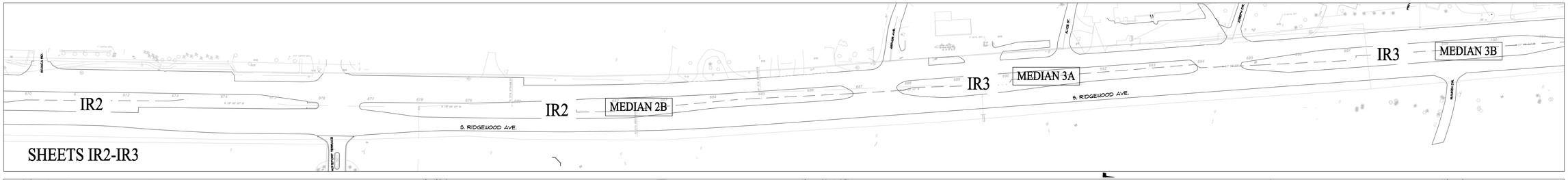
PROJECT NO: 14021 — DRAFTED BY: AKS
ISSUE DATE: 7-14-14 — CHECKED BY: SBK/PM
DESIGNED BY: PM — DRAWING FILE: 14021LA 2015-9_REVISE

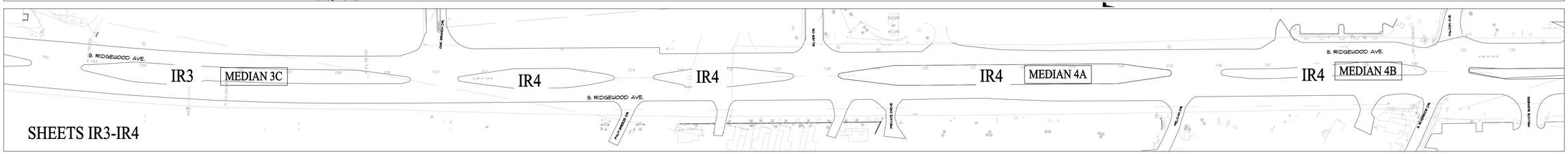
SEAL

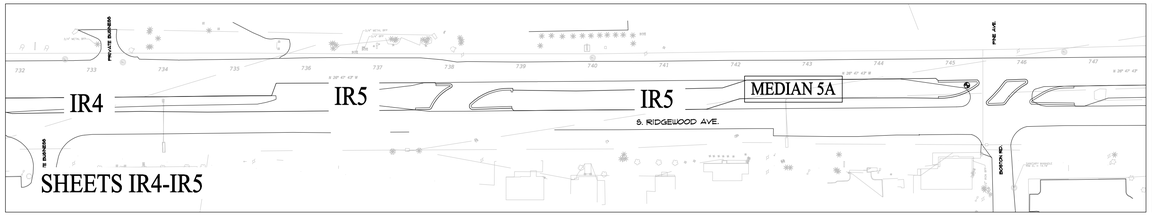
SCALE:

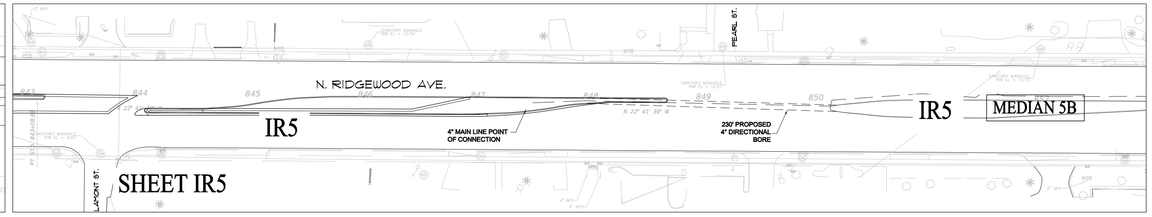
SHEET LA7 OF 7

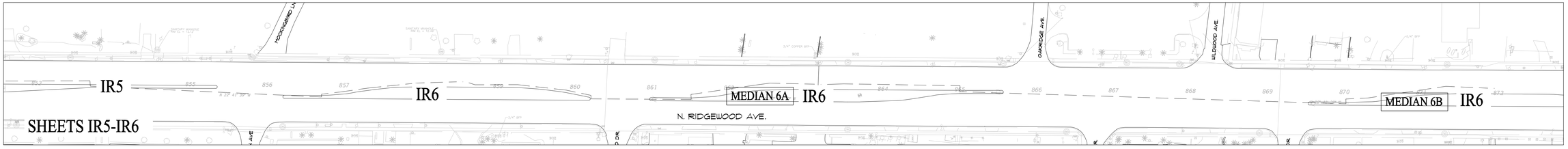


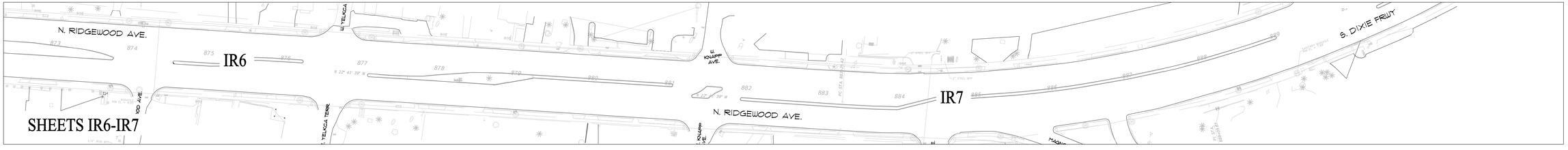












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3.	8-24-16	RVISED PER BID REQUEST	SMG
4.	9-6-16	RVISED PER BID REQUEST	SMG

REVISIONS:

US 1 AND SR442 BEAUTIFICATION
IRRIGATION PLANS
LAYOUT SHEET

CITY OF EDGEWATER — VOLUSIA COUNTY, FLORIDA

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PROJECT NO: 14021
ISSUE DATE: 4-8-15
DESIGNED BY: JC
DRAFTED BY: JC
CHECKED BY: SMG/PM
DRAWING FILE NAME: 14021R_US1 DRWG REVISIONS

FILE LOCATION -

SEAL

NOT VALID WITHOUT EMBOSSED SEAL

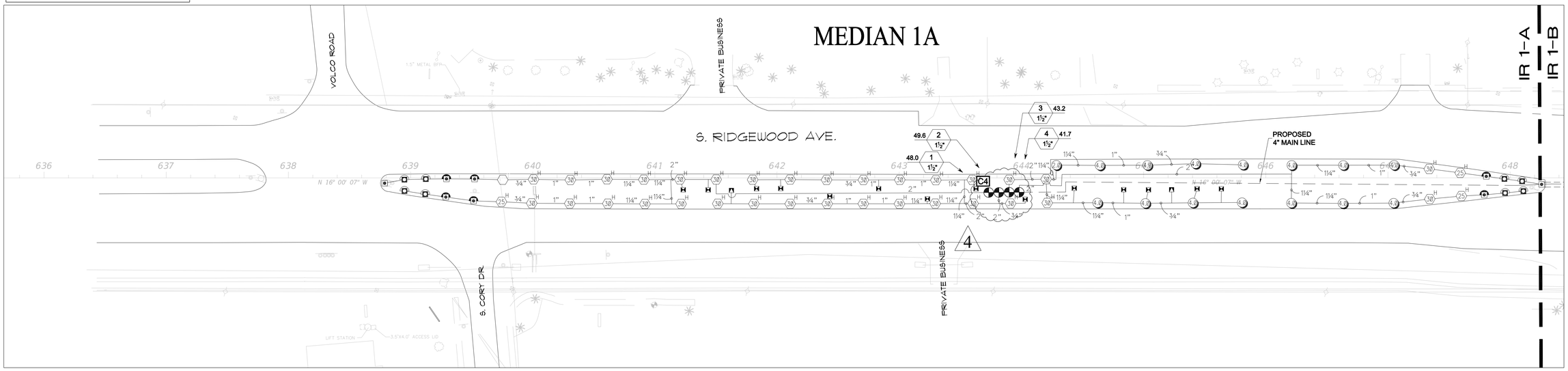
SCALE:

SHEET LAYOUT OF 1

IR 1–A

POSTED SPEED 55 MPH

DESIGN SPEED 55 MPH



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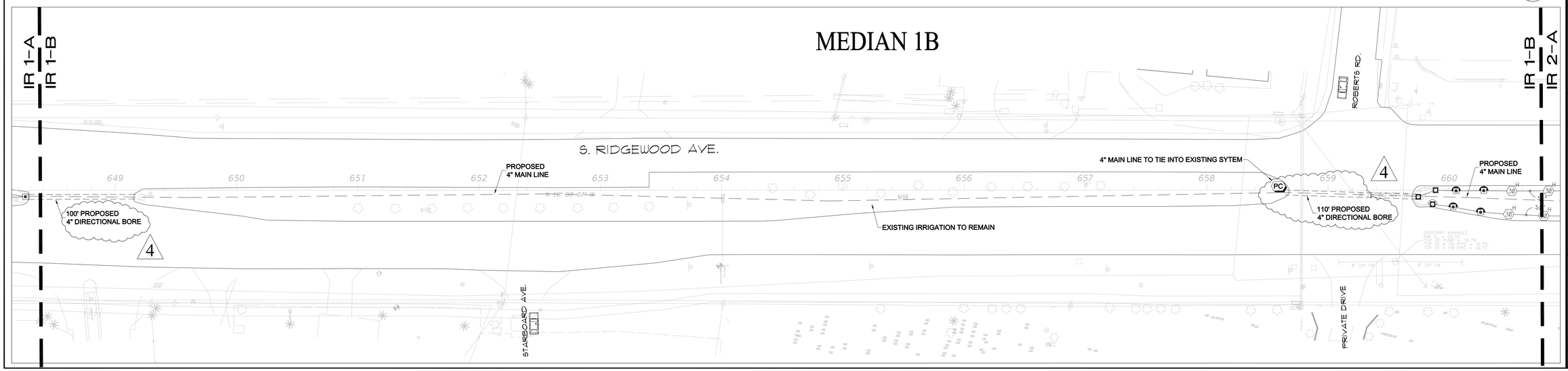
DESIGN SPEED 55 MPH



Valve Callout
- Valve Number
- Valve Flow
- Valve Size

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4.	9-6-16	RVISED PER BID REQUEST	SMG

REVISIONS:

US 1 AND SR442 BEAUTIFICATION IRRIGATION PLANS

CITY OF EDGEWATER

VOLUSIA COUNTY, FLORIDA

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PROJECT NO: 14021
ISSUE DATE: 4-8-15
DESIGNED BY: JC
DRAFTED BY: JC
CHECKED BY: SMG/RM
DRAWING FILE NAME: 14021R_US1
PAPER SIZE: 24X36

FILE LOCATION -

SEAL

NOT VALID WITHOUT EMBOSSED SEAL

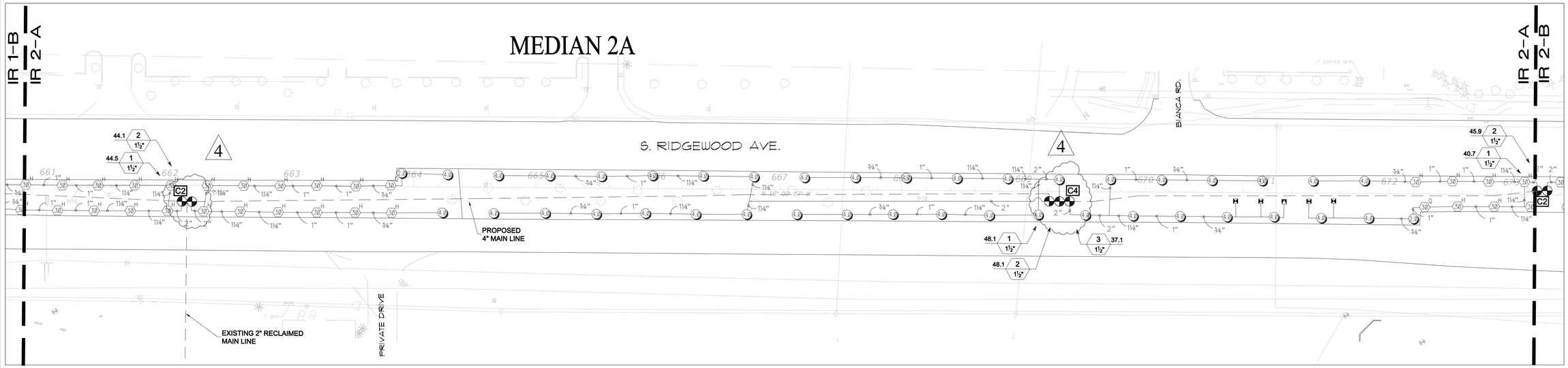
SCALE:

SHEET IR1 OF 9

IR 2-A

POSTED SPEED 55 MPH

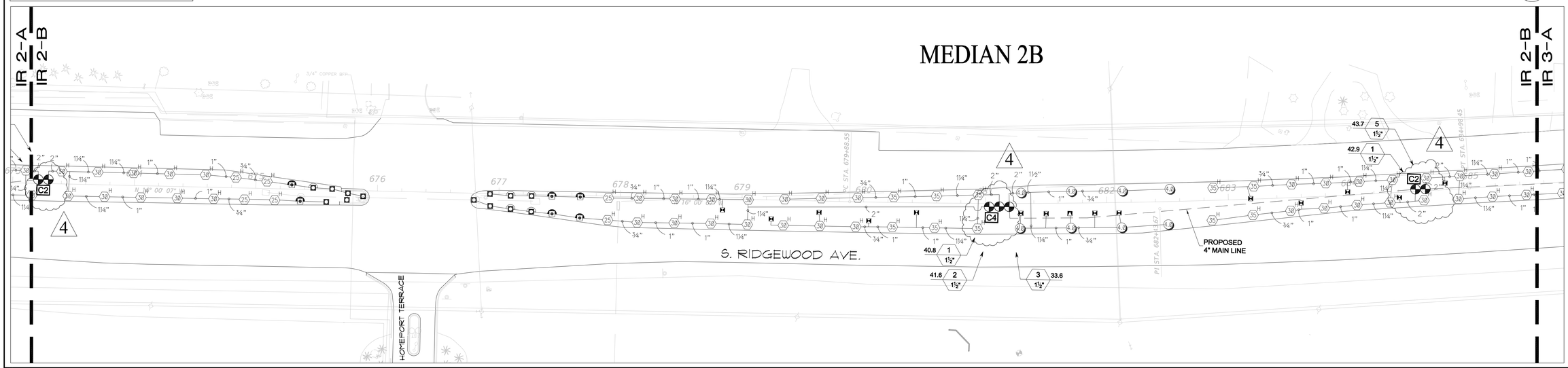
DESIGN SPEED 55 MPH



IR 2-B

POSTED SPEED 55 MPH

DESIGN SPEED 55 MPH



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NO.	DATE	DESCRIPTION	BY
1.	12-18-15	RVISED PER CITY REQUEST	SMG
2.	3-18-16	RVISED PER CITY REQUEST	SMG
3.	8-4-16	RVISED PER PROJECT	SMG
4.	9-6-16	RVISED PER BID REQUEST	SMG

REVISIONS:

US 1 AND SR442 BEAUTIFICATION IRRIGATION PLANS

CITY OF EDGEWATER

VOLUSIA COUNTY, FLORIDA

PROJECT NO: 14021

ISSUE DATE: 4-8-15

DESIGNED BY: JC

DRAFTED BY: JC

CHECKED BY: SMG/PM

DRAWING FILE NAME: 14021R_US1 (PRINT IN BW/GRAYSCALE)

FILE LOCATION -

SEAL

NOT VALID WITHOUT EMBOSSED SEAL

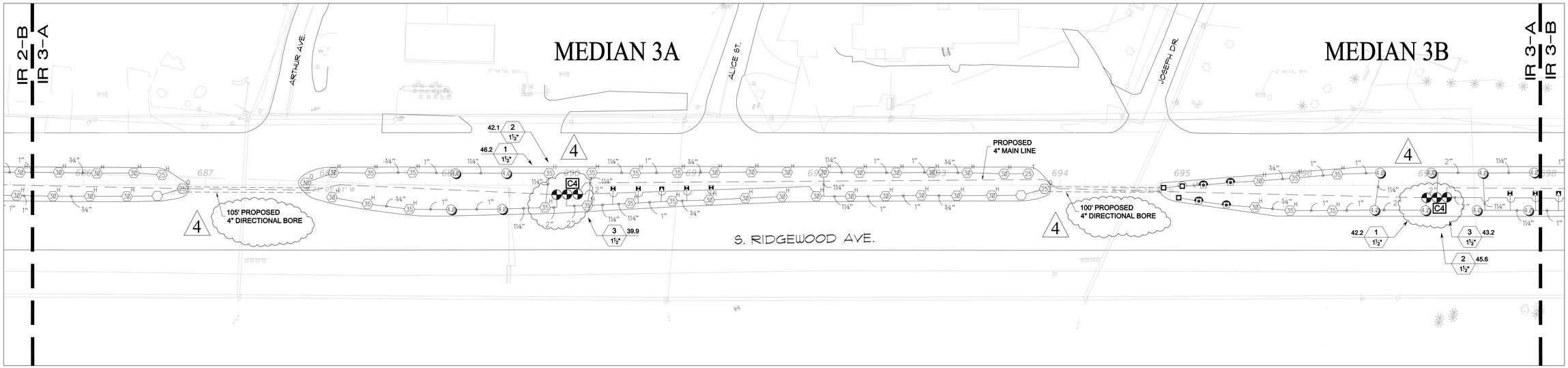
SCALE:

SHEET IR2 OF 9

IR 3-A

POSTED SPEED 55 MPH

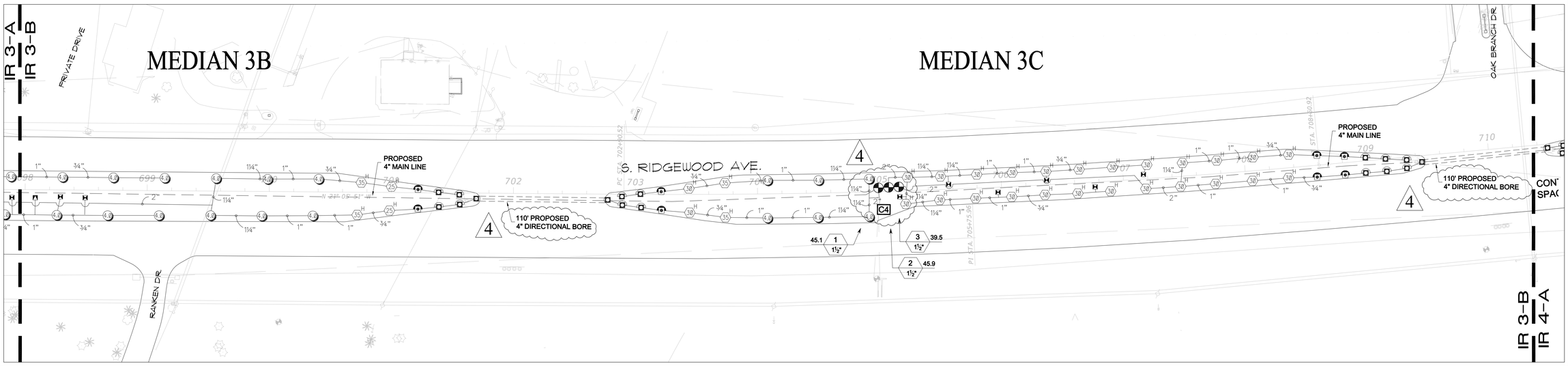
DESIGN SPEED 55 MPH



IR 3-B

POSTED SPEED 55 MPH

DESIGN SPEED 55 MPH



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REVISIONS:

US 1 AND SR442 BEAUTIFICATION IRRIGATION PLANS

CITY OF EDGEWATER

VOLUSIA COUNTY, FLORIDA

PROJECT NO: 14021

ISSUE DATE: 4-8-15

DRAFTED BY: JC

CHECKED BY: SMG/RM

DRAWING FILE NAME: 14021R_US1 (REF'S: R-BASE)

DESIGNED BY: JC

FILE LOCATION -

SEAL

NOT VALID WITHOUT EMBOSSED SEAL

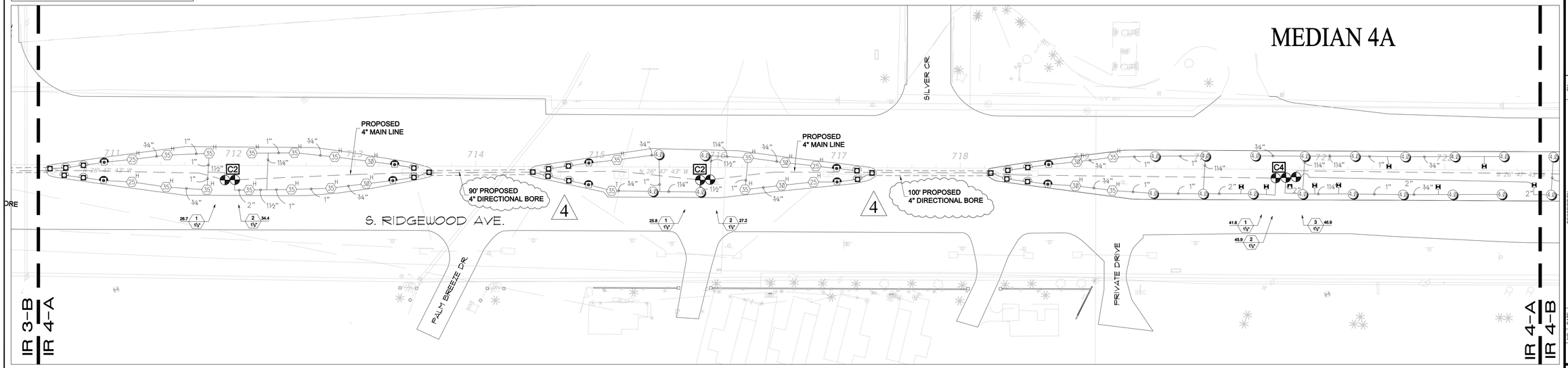
SCALE:

SHEET IR3 OF 9

IR 4-A

POSTED SPEED 55 MPH

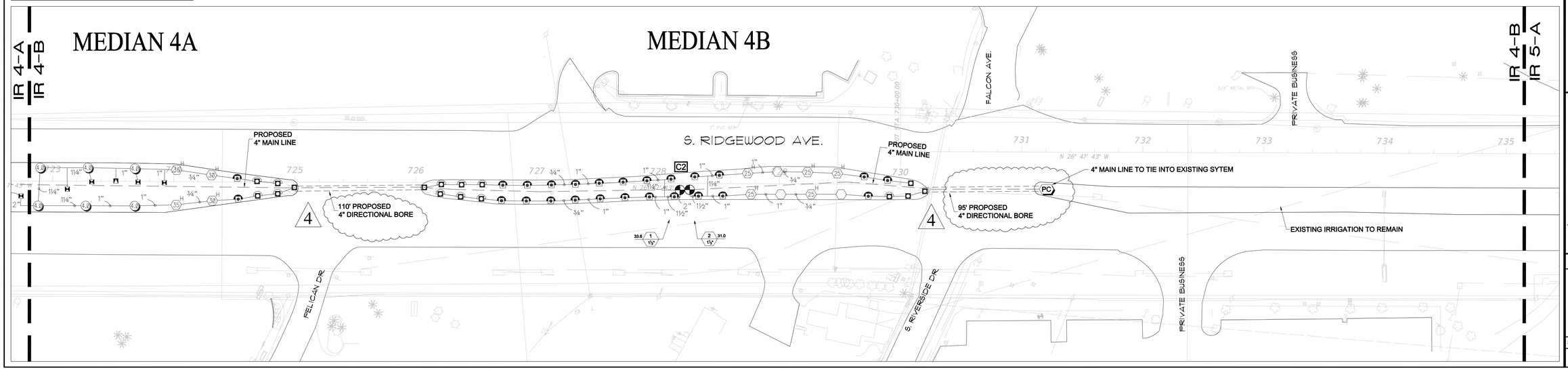
DESIGN SPEED 55 MPH



IR 4-B

POSTED SPEED 45 MPH

DESIGN SPEED 55 MPH



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REVISIONS:

US 1 AND SR442 BEAUTIFICATION IRRIGATION PLANS

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PROJECT NO: 14021
DRAFTED BY: JC
ISSUE DATE: 4-8-15
CHECKED BY: SMGPM
DESIGNED BY: JC
DRAWING FILE: 14021IR_US1
XREFS: 14021BASE

FILE LOCATION -

SEAL

NOT VALID WITHOUT EMBOSSED SEAL

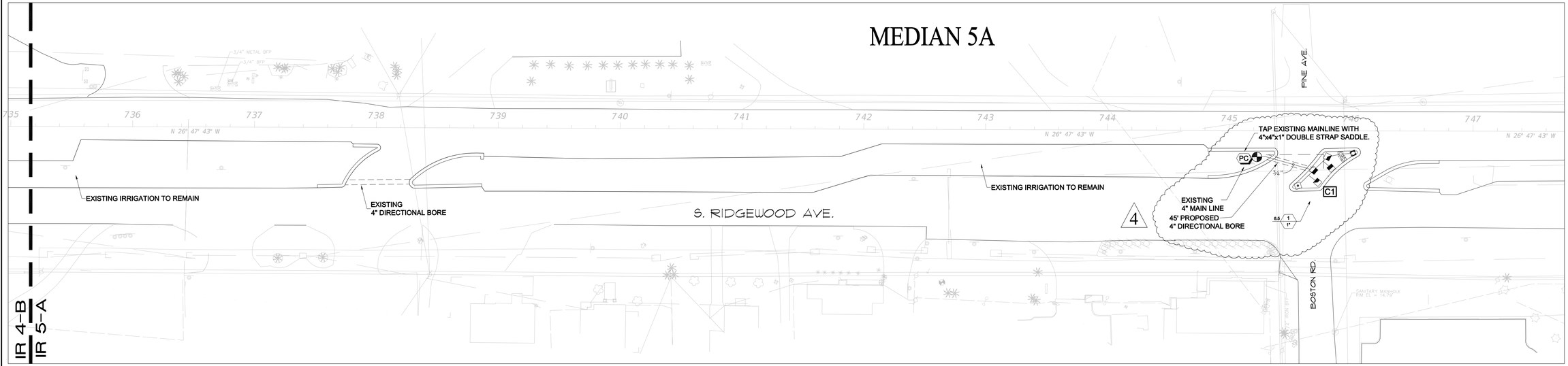
SCALE:

SHEET IR4 OF 9

IR 5-A

POSTED SPEED 45 MPH

DESIGN SPEED 55 MPH



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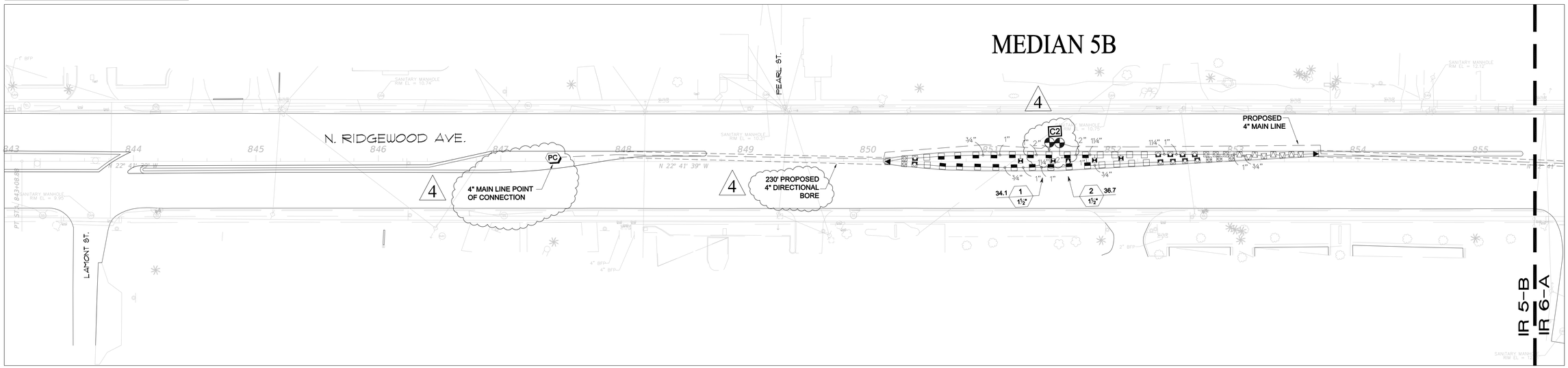

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REVISIONS:

US 1 AND SR442 BEAUTIFICATION IRRIGATION PLANS

CITY OF EDGEWATER

VOLUSIA COUNTY, FLORIDA

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ISSUE DATE: 4-8-15
DESIGNED BY: JC
DRAFTED BY: JC
CHECKED BY: SMG/RM
DRAWING FILE NAME: 14021R_US1 (REF'S IN REMARKS)

FILE LOCATION -

SEAL

NOT VALID WITHOUT EMBOSSED SEAL

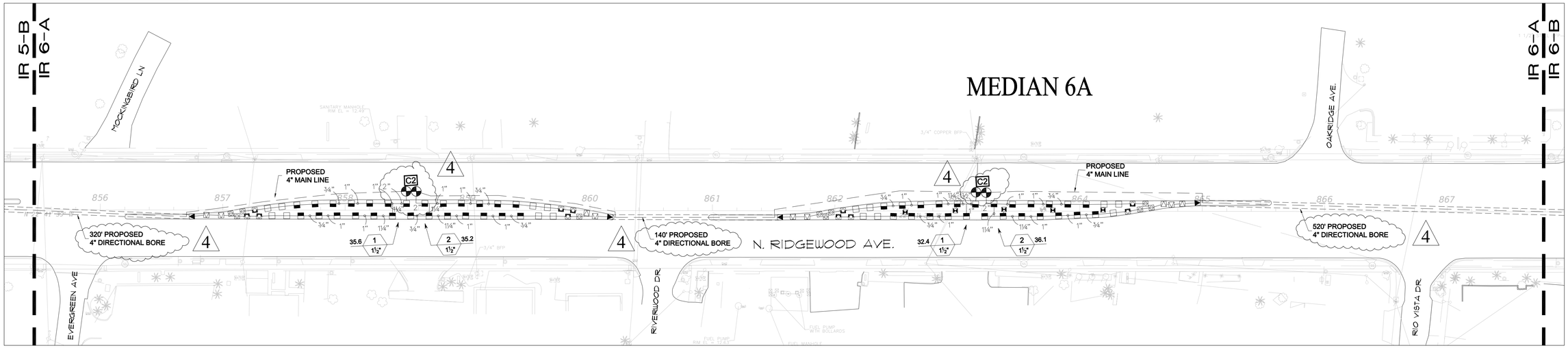
SCALE:

SHEET IR5 OF 9

IR 6-A

POSTED SPEED 45 MPH

DESIGN SPEED 55 MPH



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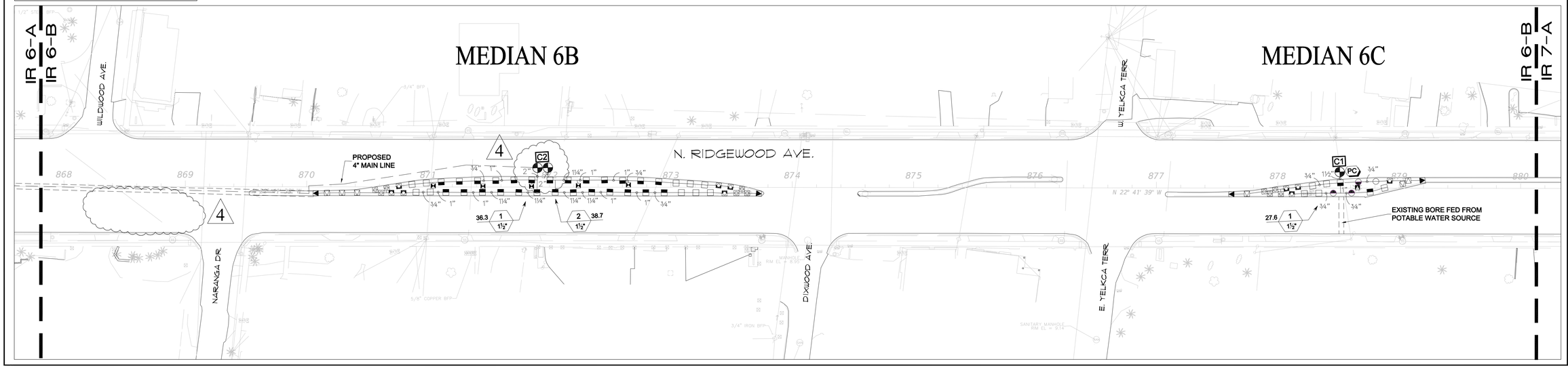

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3.	8-24-16	RVISED PER BID REQUEST	SMG
4.	9-6-16	RVISED PER BID REQUEST	SMG

REVISIONS:

US 1 AND SR442 BEAUTIFICATION IRRIGATION PLANS

CITY OF EDGEWATER VOLUSIA COUNTY, FLORIDA

ZEV COHEN & ASSOCIATES, INC.
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PLANNERS • TRANSPORTATION • ENVIRONMENTAL
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PROJECT NO: 14021 DRAFTED BY: JC

ISSUE DATE: 4-8-15 CHECKED BY: SMG/PM

DESIGNED BY: JC DRAWING FILE: 14021IR_US1 XREF'S: 14021BASE

FILE LOCATION -

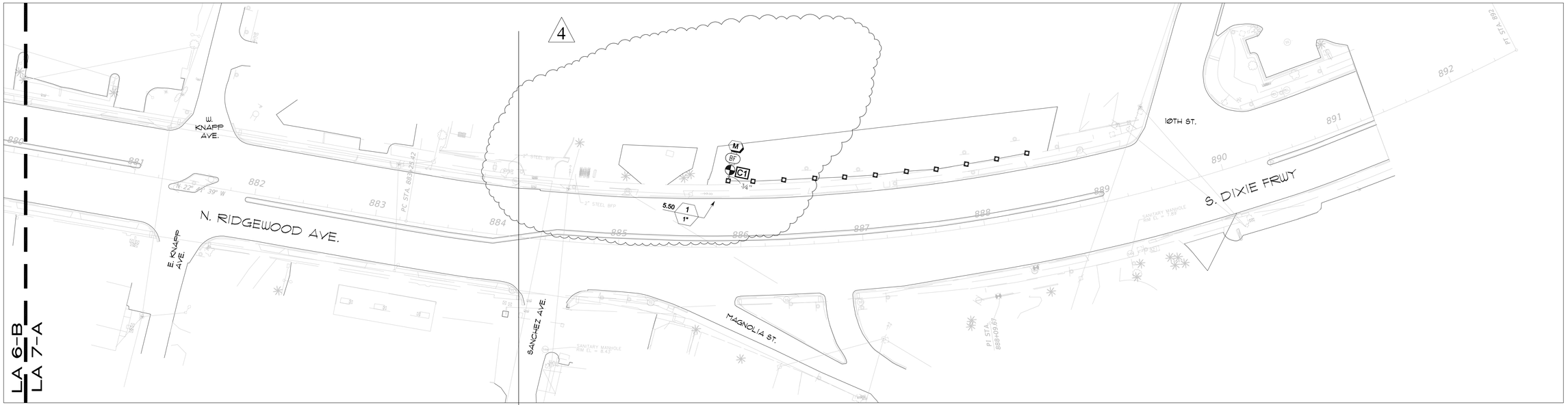
SEAL

NOT VALID WITHOUT EMBOSSED SEAL

SCALE:

SHEET IR6 OF 9

IR 7-A



POSTED SPEED 45 MPH

DESIGN SPEED 55 MPH

POSTED SPEED 40 MPH

DESIGN SPEED 55 MPH

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AMELIA ISLAND
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(904) 491-5436 FAX (904) 491-4159

NO.	DATE	DESCRIPTION	BY
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2.	3-18-16	RVISED PER CITY REQUEST	SMG
3.	8-24-16	RVISED PER BID REQUEST	SMG
4.	9-6-16	RVISED PER BID REQUEST	SMG

REVISIONS:

US 1 AND SR442 BEAUTIFICATION IRRIGATION PLANS

CITY OF EDGEWATER

VOLUSIA COUNTY, FLORIDA

ZEV COHEN & ASSOCIATES, INC.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS
PLANNERS • TRANSPORTATION • ENVIRONMENTAL
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PROJECT NO: 14021 | DRAFTED BY: JC
ISSUE DATE: 4-8-15 | CHECKED BY: SMG/PM
DESIGNED BY: JC | DRAWING FILE: 14021R_US1 PROTO - NEELANE

FILE LOCATION -

SEAL

NOT VALID WITHOUT EMBOSSED SEAL

SCALE:

SHEET IR7 OF 9

IRRIGATION_SCHEDULE

SYMBOL	MANUFACTURER/MODEL	QTY	ARC	PSI	GPM	RADIUS
	Hunter PROS-06-PRS30-R or approved equal 15 Strip Series	10	EST	30	0.61	4'x15'
	Hunter PROS-06-PRS30-R or approved equal 15 Strip Series	23	SST	30	1.21	4'x30'
	Hunter PROS-06-PRS30-R or approved equal 8 Series MPR	30	180	30	0.52	8'
	Hunter PROS-06-PRS30-R or approved equal 10 Series MPR	31	180	30	0.79	10'
	Hunter PROS-06-PRS30-R or approved equal 12 Series MPR	40	180	30	1.30	12'
	Hunter PROS-06-PRS30-R or approved equal 15 Series MPR	98	180	30	1.85	15'
	Hunter PROS-06-PRS30-R or approved equal 15 Series MPR	2	120	30	1.23	15'
	Hunter PROS-06-PRS30-R or approved equal 10 Series VAN	1	Adj	30		10'
	Hunter PROS-06-PRS30-R or approved equal 15 Series VAN	1	Adj	30		15'
	Hunter PROS-06-PRS30-R or approved equal 12 Series MPR	1	180	30	1.30	12'
	Hunter PROS-06-PRS30-R or approved equal 15 Series MPR	3	180	30	1.85	15'
	Hunter PROS-06-PRS40-R MP2000 or approved equal	30	CST	40	0.01	17'
	Hunter PROS-06-PRS40-R MP3000 or approved equal	5	CST	40	0.01	23'
	Hunter PROS-06-PRS40-R MP2000 or approved equal	78	180	40	0.92	17'
	Hunter PROS-06-PRS40-R MP3000 or approved equal	105	180	40	1.73	23'
	Hunter PROS-06-PRS40-R MP3000 or approved equal	2	90	40	0.87	23'
	Hunter PCB-25 Bubbler or approved equal	80	360	30	0.25	1'
	Two Hunter PCB-25 Bubbler or approved equal	13	360	30	2x.25	1'
	Hunter PROS-06-PRS30-R w/Maxijet ARCRHFR09H or approved equal	11	360	30	0.40	5'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	GPM	RADIUS
25 ARC	Hunter PGP-04-CV-R 2.0LA or approved equal	58	45		25'
30 ARC	Hunter PGP-04-CV-R 2.5LA or approved equal	231	45		30'
35 ARC	Hunter PGP-04-CV-R 3.0LA or approved equal	60	45		35'
2.0	Hunter PGP-04-CV-R 2.0 or approved equal	5	45	2.07	37'
4.0	Hunter PGP-04-CV-R 4.0 or approved equal	125	45	4.01	42'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Area to Receive Dripline Hunter PLD-10-12 or approved equal On-Surface Pressure Compensating Landscape Dripline. 0.9GPH emitters at 12.0" O.C. Dripline laterals spaced at 16.0" apart, with emitters offset for triangular pattern. UV Resistant.	3,000 s.f.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Hunter ICV-FS or aprroved equal in 10" Purple Valve Box with DC latching solenoid.	55
	Hunter ICZ or approved equal in Jumbo Purple Valve Box with DC latching solenoid.	2
C1	Hunter NODE-100 or approved equal install in valve box for zone 1.	3
C2	Hunter NODE-200 or approved equal install in valve box for zone 2.	11
C4	Hunter NODE-400 or approved equal install in valve box for zone 2.	10
M	Water Meter 1" Potable by others	1
BF	Wilkins 975XL 1" Backflow Preventer or approved equal	1
PC	Point of Connection into 4" Reclaimed Water Main Install 4" mechanical joint fitting with megalug for connection into existing mainline.	5
S	Point of Connection- Install 4x4x1" saddle on existing 4" mainline.	1
F	Future Point of Connection- Install 2" reclaim water main from median and cap for future connection.	1
	Irrigation Lateral Line: PVC Class 200 Purple	27,500 l.f.
	Irrigation Mainline: PVC 4" Class 200 Purple Gasket Bell	11,200 l.f.
	Directional Bore: HDPE 3608 IPS directional bore sized per plan. Extend bores a minimum of 30" past hardscape. See note 28	

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4

IRRIGATION NOTES:

1. THE PLANS AND DRAWINGS ARE DIAGRAMMATIC OF THE WORK TO BE PERFORMED. SOME COMPONENTS MAY BE SHOWN OUTSIDE THE WORK AREA FOR CLARITY. THE WORK SHALL BE EXECUTED IN A MANNER TO AVOID CONFLICTS WITH UTILITIES AND OTHER ELEMENTS OF CONSTRUCTION, INCLUDING LANDSCAPE MATERIALS. ALL DEVIATIONS FROM THE PLANS SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE BEFORE BEING INSTALLED. THE CONTRACTOR SHALL NOT WILLFULLY INSTALL ANY ASPECT OF THE IRRIGATION SYSTEM AS SHOWN ON THE PLANS AND DRAWINGS, WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES, OR DISCREPANCIES EXIST THAT MIGHT NOT HAVE BEEN KNOWN DURING THE DESIGN OF THE IRRIGATION SYSTEM. IN THE EVENT THAT NOTIFICATION OF THE CONFLICT IS NOT APPROVED BY THE OWNER'S REPRESENTATIVE, THE CONTRACTOR WILL ASSUME FULL RESPONSIBILITY FOR ALL REVISIONS.
2. THE IRRIGATION SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE PLANS, IRRIGATION SYSTEM SPECIFICATIONS AND ALL CONTRACT DOCUMENTS. THE CONTRACTOR SHALL COMPLY WITH ALL PREVAILING LOCAL CODES, ORDINANCES, AND REGULATIONS.
3. CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS, INCLUDING UTILITY LOCATIONS, BEFORE INSTALLATION OF THE IRRIGATION SYSTEM. ALL UTILITIES AND STRUCTURES MAY NOT BE SHOWN ON THE PLANS - CONTRACTOR TO VERIFY. COORDINATE ALL IRRIGATION SYSTEM CONSTRUCTION WITH EXISTING AND NEW PLANTINGS TO AVOID CONFLICT OR INTERFERENCE WITH LOCATION OF PIPING, SLEEVING, CABLES, AND SERVICE UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING INSTALLATION WITH ALL OTHER CONSTRUCTION ON SITE, ESPECIALLY LANDSCAPE INSTALLATION. IRRIGATION SYSTEM SHALL BE RELOCATED AT NO ADDITIONAL COST FOR ANY CONFLICT WITH LANDSCAPE INSTALLATION OR ANY OTHER SITE CONSTRUCTION OR EXISTING CONDITIONS. ALL COMPONENTS THAT ARE NOT CONTAINED WITHIN THE SPECIFIC AREAS SHOWN OR CALLED OUT ON THE DRAWINGS WILL NOT BE ACCEPTED. ALL PIPING AND OTHER COMPONENTS ARE TO REMAIN WITHIN THE PROPERTY OF THE OWNER.
4. WHERE EXISTING OR NEW TREES, LIGHT STANDARDS, SIGNS, ELECTRONIC CONTROLLERS AND/OR OTHER OBJECTS ARE AN OBSTRUCTION TO AN IRRIGATION SPRINKLER'S PATTERN, THE COMPONENT AND PIPING SHALL BE RELOCATED AS NECESSARY TO OBTAIN PROPER COVERAGE OF AN IRRIGATION SPRINKLER'S PATTERN, THE COMPONENT AND PIPING SHALL BE RELOCATED AS NECESSARY TO OBTAIN THE PROPER COVERAGE WITHOUT DAMAGING THE OBSTRUCTION. OWNER'S REPRESENTATIVE SHALL DETERMINE WHETHER AN OBSTRUCTION OCCURS OR NOT.
5. COMPONENT SPACINGS ARE MAXIMUM. DO NOT EXCEED SPACINGS SHOWN OR NOTED ON THE PLANS. COMPONENT SPACINGS MAY BE ADJUSTED TO ACCOMMODATE CHANGES IN TERRAIN AND PLANTING LAYOUT AS LONG AS THE MODIFIED SPACINGS DO NOT EXCEED THE SPACINGS SHOWN IN THE PLANS. UNLESS SHOWN OTHERWISE, CONTRACTOR SHALL PROVIDE 100% COVERAGE.
6. ALL MATERIALS AND EQUIPMENT SHOWN SHALL BE NEW AND INSTALLED AS DETAILED ON THE PLANS. IF THE DRAWINGS DO NOT THOROUGHLY DESCRIBE THE TECHNIQUES TO BE USED, THE INSTALLER SHALL FOLLOW THE INSTALLATION METHODS AND INSTRUCTIONS RECOMMENDED BY THEIR MANUFACTURER.
7. THE LOCATION OF THE IRRIGATION MAINLINE SHALL BE IDENTIFIED IN THE FIELD AND APPROVED BY THE OWNER'S REPRESENTATIVE BEFORE INSTALLATION. MAINLINE TO BE INSTALLED A MINIMUM OF FIVE FEET OFF EDGE OF PAVEMENT IN MEDIANS. SHOWN OUTSIDE FOR CLARITY PURPOSES ONLY.
8. IRRIGATION CONTRACTOR SHALL ADJUST ALL SPRINKLERS, CONTROLLER AND OTHER DEVICES TO OBTAIN SPECIFIED OPERATING PARAMETERS, INCLUDING COVERAGE, OPERATING PRESSURE, FLOW RATES AND OPERATION TIME, AS INDICATED ON THE DRAWINGS AND IN THE IRRIGATION SYSTEM SPECIFICATIONS.
9. CONTRACTOR TO PROVIDE INSTALLATION SHOP DRAWINGS AND MANUFACTURER PRODUCT INFORMATION FOR ALL IRRIGATION COMPONENTS. ALL INSTALLATIONS SHALL BE AS RECOMMENDED BY MANUFACTURERS. THE QUANTITIES SHOWN IN THE LEGENDS AND SYMBOL SHEETS SHALL NOT BE USED FOR BIDDING PURPOSES. THE CONTRACTOR WILL BE RESPONSIBLE FOR CONDUCTING A COMPREHENSIVE MATERIALS TAKEOFF TO DETERMINE THE ACTUAL QUANTITIES OF MATERIAL NECESSARY TO EXECUTE THE WORK DESCRIBED IN THE DOCUMENTS.
10. ALL TRENCHES SHALL BE BACKFILLED WITH CLEAN, DEBRIS-FREE MATERIALS. CLEAN SAND SHALL BE USED FOR BEDDING MATERIAL IF PARENT SOIL CANNOT BE ADEQUATELY RID OF ROCK ($^5/_8$" AND LARGER) AND OTHER EXTRANEOUS DEBRIS. PULLING PIPE SHALL BE PROHIBITED.
11. ALL SOLVENT WELDING SHALL BE PRECEDED BY PRIMING OF THE FITTINGS AND PIPE AS RECOMMENDED BY THE MANUFACTURER.
12. CONTRACTOR TO LABEL ALL VALVE BOX COVERS WITH THE CORRESPONDING CONTROLLER ZONE NUMBER. NUMBERING SIZE 1". ALL VALVE BOXES TO HAVE BOLT DOWN COVER WITH BOLT INSTALLED.
13. CONTRACTOR TO PLACE TREE SPRAYS OR BUBBLERS AT OUTER EDGE OF ROOT BALL, NOT OUTER EDGE OF PLANTING HOLE.
14. ALL WIRE SPLICES TO BE MADE WITH KINGBLACK WIRE CONNECTORS OR APPROVED EQUAL.
15. IRRIGATION CONTRACTOR SHALL INSTALL A IRROMETER WATERMARK 200SS SOIL MOISTURE SENSOR COMPATIBLE WITH DC VOLTAGE FOR EACH CONTROLLER. INSTALL SOIL MOISTURE SENSOR THREE FEET OFF EDGE OF PAVEMENT. LOCATION SHALL BE DOCUMENTED ON AS BUILT PLANS WITH A MINIMUM OF TWO REFERENCE POINTS. INSTALL SOIL MOISTURE SENSOR PER MANUFACTURE SPECIFICATIONS.
16. LOCATE ALL VALVES WITH A MINIMUM OFFSET OF 5'-0" FROM BACK OF CURB OR EDGE OF PAVEMENT.
17. THE IRRIGATION CONTRACTOR SHALL BE DIRECTLY RESPONSIBLE FOR ALL DIRECTIONAL BORING.
18. ALL UN-SIZED PIPE SHALL BE 3/4".
19. IRRIGATION LATERAL LINES TO BE BURIED AT A DEPTH OF 16".
20. IRRIGATION MAINLINES TO BE BURIED AT A DEPTH OF 20".
21. ALL COMPONENTS INSTALLED BY THE IRRIGATION CONTRACTOR, SHALL BE LOCATED ON THE "AS-BUILT" DRAWINGS. THE EXACT LOCATION AND DEPTH BELOW FINISH GRADE OF ALL COMPONENTS SHALL BE NOTED ON THE "AS-BUILT" DRAWINGS.
22. IRRIGATION CONTRACTOR SHALL SECURE ANY AND ALL NECESSARY PERMITS FOR THE WORK PRIOR TO COMMENCEMENT OF HIS OPERATIONS ON-SITE. COPIES OF THE PERMITS SHALL BE SENT TO THE LANDSCAPE SUPERVISOR. WORK IN THE RIGHT OF WAY SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF LOCAL AND/OR STATE HIGHWAY JURISDICTION.
23. INSTALLATION OF WORK SHALL BE COORDINATED WITH OTHER CONTRACTORS IN SUCH A MANNER AS TO ALLOW FOR A SPEEDY AND ORDERLY FLOW OF VEHICULAR TRAFFIC AND COMPLETION OF ALL WORK ON THE SITE.
24. IRRIGATION CONTRACTOR SHALL CONTACT THE CITY OF EDGEWATER TO COORDINATE INSTALLATION OF POTABLE WATER METER AND BE RESPONSIBLE FOR ALL ASSOCIATED COST FOR THE INSTALLATION.
25. THE CITY OF EDGEWATER SHALL BE RESPONSIBLE FOR ALL CONSUMPTION COST FOR WATER SERVICE TO IRRIGATION SYSTEM.

4

26. DIRECTIONAL BORES SHALL BE INSTALLED IN ACCORDANCE WITH FDOT SPECIFICATIONS SECTION 555 FOR PRESSURIZED PIPES. INSTALL HARCO 4" IPS STAINLESS STEEL TRANSITION FITTINGS ON 4" PIPE AND USE DIRECTIONAL BORE AS MAINLINE. INSTALL HDPE X SCHEDULE 40 FUSED ENDS FOR 2" CROSSING AT MEDIAN IN FRONT OF CEMETERY. INSTALL HDPE X SCHEDULE 40 FUSED END ON 1" DIRECTIONAL BORE IN MEDIAN ACROSS FROM BOSTON ROAD AND USE AS A LATERAL PIPE INTO ISLAND.
27. INSTALL RECLAIM WATER ADVISORY SIGNS AT EACH GROUP OF CONTROL VALVES PER LOCAL CODE.

4

28. INSTALL DUCTILE IRON 4"X4"X2" GASKET SERVICE TEE WITH LEEMCO RESTRAINT FITTINGS INTO NEW 4" MAINLINE AT EACH GROUP OF VALVES.
29. ALL MAINLINE AND IRRIGATION EQUIPMENT TO BE INSTALLED WITHIN THE MEDIAN. SHOWN OUTSIDE FOR CLARITY PURPOSES ONLY.

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US 1 AND SR442 BEAUTIFICATION
IRRIGATION PLANS
NOTES & DETAILS

CITY OF EDGEWATER VOLUSIA COUNTY, FLORIDA

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CIVIL ENGINEERS • LANDSCAPE ARCHITECTS
(EB 4516) (LC 62)
PLANNERS • TRANSPORTATION • ENVIRONMENTAL
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FILE LOCATION -

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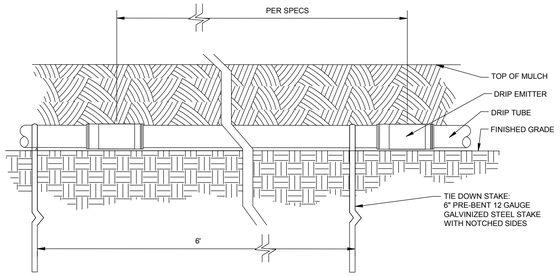
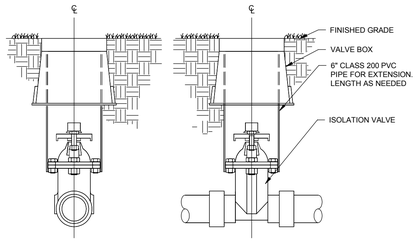
SCALE:

SHEET IR8 OF 9



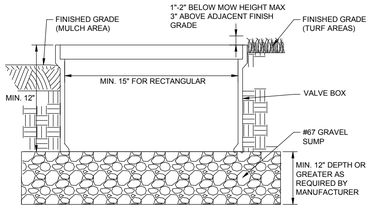
DRIP TUBE ON GRADE WITH MULCH COVER

SCALE: NTS



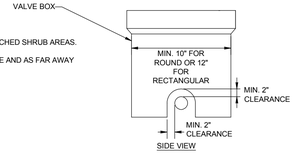
ISOLATION VALVE DETAIL

SCALE: NTS



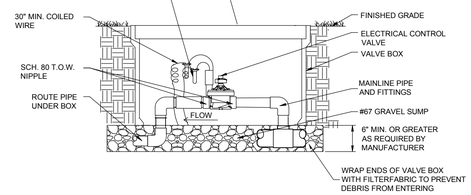
NOTES:

1. INSTALL BOX TOP BETWEEN 1"-2" BELOW MOW HEIGHT IN TURF AREAS. INSTALL BOX 2" ABOVE MULCH IN MULCHED SHRUB AREAS.
2. INSTALL ALL VALVES, QUICK COUPLER VALVES, VIRE SPECS, ETC., IN LANDSCAPED BEDS WHEREVER POSSIBLE AND AS FAR AWAY FROM VEHICULAR TRAVEL LANES AS FEASIBLE.
3. INSTALL ONE VALVE PER VALVE BOX.
4. SEE PLANS FOR BOX LOCATION, SIZE, AND SHAPE.



VALVE BOX DETAIL

SCALE: NTS



ELECTRIC CONTROL VALVE

SCALE: NTS

1) SIGNS MUST BE 12" HIGH AND 18" LONG IN SIZE AND HAVE A BLUE REFLECTIVE BACKGROUND

2) LETTERS ARE TO BE WHITE REFLECTIVE AND BE TWO INCHES IN HEIGHT

3) SIGNS MUST HAVE A 1/2" WHITE REFLECTIVE BORDER

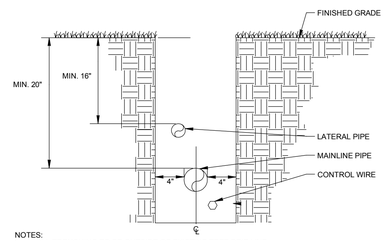
4) SIGNS MUST BE ALUMINUM AND HAVE A MINIMUM OF .063 GAUGE.

ALL SIGNS MUST BE VISIBLY POSTED AT EACH ENTRANCE AND BE A MINIMUM OF 24" ABOVE FINISHED GRADE OF ROAD CROWN AND WITHIN 5 FEET OF EDGE OF CURB

SC-21

RECLAIMED WATER ADVISORY SIGN

SCALE: NTS

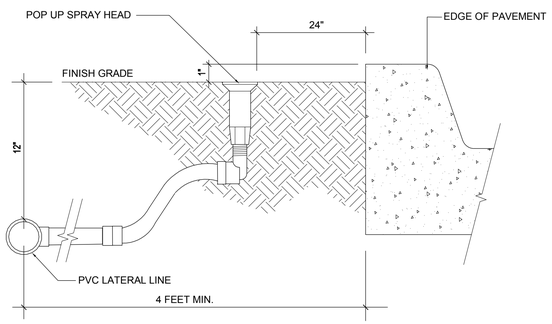


NOTES:

1. ALL TRENCHING TO BE OUTSIDE OF EXISTING TREE DRIP LINE.
2. NO ROCKS, BOULDERS, OR SHAPR OBJECTS TO BE IN TRENCH BACKFILL.
3. ALL PIPE TO BE INSTALLED AS RECOMMENDED BY MANUFACTURER.
4. AT EACH CHANGE IN MAINLINE DIRECTION INSTALL A 30" LOOP OF EXTRA WIRE.
5. BUNDLE WIRE WITH ELECTRICAL TAPE EVERY 10'.

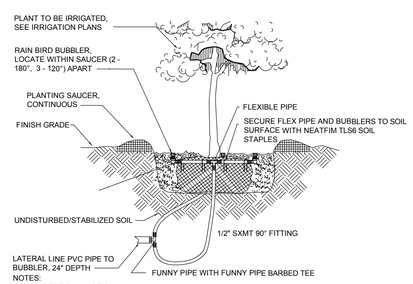
TRENCH, PIPE, AND WIRE DETAIL

SCALE: NTS



IRRIGATION HEAD INSTALLATION NEXT TO ROADWAY

SCALE: NTS

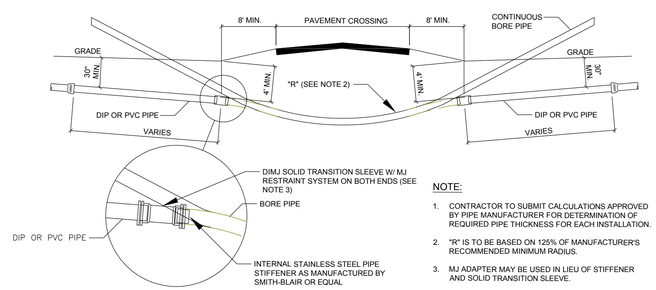


NOTES:

1. BUBBLERS SHALL BE PLACED ON THE UPHILL SIDE OF ANY SLOPES & ON THE OPPOSING SIDES OF EACH ROOTBALL WITHIN THE SAUCER
2. BUBBLERS TO BE INSTALLED ADJACENT TO ROOTBALL PERIMETER, DO NOT INSTALL BUBBLER ON TOP OF ROOTBALL OR NEXT TO TRUNK
3. REFER TO LEGEND FOR BUBBLER FLOW VOLUME AND BUBBLER QUANTITIES.

BUBBLER INSTALLATION

SCALE: NTS



CONNECTION DETAIL (TYP. BOTH SIDES)

NOTE:

1. CONTRACTOR TO SUBMIT CALCULATIONS APPROVED BY PIPE MANUFACTURER FOR DETERMINATION OF REQUIRED PIPE THICKNESS FOR EACH INSTALLATION.
2. "R" IS TO BE BASED ON 125% OF MANUFACTURER'S RECOMMENDED MINIMUM RADIUS.
3. MJ ADAPTER MAY BE USED IN LIEU OF STIFFENER AND SOLID TRANSITION SLEEVE.
4. A "GO/NOGO" MANDREL DEVICE, SIZED AT 80% OF THE PIPE I.D. SHALL BE PULLED THROUGH THE COMPLETED PIPELINE. REFER TO SPECIFICATION SECTION 02446.

DIRECTIONAL BORE DETAIL

SCALE: NTS

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REVISIONS:

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IRRIGATION PLANS

CITY OF EDGEWATER — VOLUSIA COUNTY, FLORIDA

ZEV COHEN
& ASSOCIATES, INC.
CIVIL ENGINEERS - LANDSCAPE ARCHITECTS
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FILE LOCATION -

SEAL

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SCALE:

SHEET IR9 OF 9

GENERAL CONSTRUCTION NOTES

1. THE LOCATION(S) OF THE UTILITIES SHOWN IN THE PLANS (INCLUDING THOSE Vv, Vh, AND Vvh) ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATIONS/ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED.
2. EXISTING UTILITIES ARE TO REMAIN IN PLACE UNLESS OTHERWISE NOTED.
3. THE CONTRACTOR SHALL CONTACT SUNSHINE ONE CALL OF FLORIDA, INC. AS REQUIRED BY CHAPTER 556 OF THE FLORIDA STATUTES.

   UTILITY AGENCY.OWNER – TELEPHONE NUMBER
   ELECTRIC – FLORIDA POWER & LIGHT, BEVERLY HUTTO (386) 322-3439
   GAS – TECO PEOPLES GAS, GEORGE SMITH (386) 671-2232
   FIBER OPTIC CABLE – AT&T, MICHAEL MOORE (386) 254-8550
   TELEPHONE – BRIGHTHOUSE, SEAN RIDEN (386) 760-9941
   TRAFFIC MONITORING SITES– FDOT, CHERYL BURKE (386) 943-5380
   VOLUSIA COUNTY TRAFFIC ENGINEERING – (386) 736-5968
4. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH RULE CHAPTER 14-40, FLORIDA ADMINISTRATIVE CODE, THE FDOT 2016 DESIGN STANDARDS AND REVISED INDEX DRAWINGS AS APPENDED HEREIN, THE JANUARY 2016 FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION EDITION AND THE FDOT UAM 2010 EDITION. CONTRACTOR TO FOLLOW ALL REQUIREMENTS OF CITY/FDOT JPA AND FDOT APPROVAL.
5. CONTRACTOR TO PROVIDE EROSION AND SILTATION CONTROL MEASURES AND COORDINATED /APPROVED BY FDOT AND INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION. THESE MEASURES ARE TO BE INSPECTED BY THE CONTRACTOR ON A REGULAR BASIS AND ARE TO BE MAINTAINED IN ACCORDANCE WITH SJRWMD, DEP NPDES, AND BEST MANAGEMENT PRACTICES (BMP'S) STANDARDS AND REPAIRED ON AN IMMEDIATE BASIS AS REQUIRED. CONTRACTOR TO OBTAIN DEP NPDES PERMIT, IF REQUIRED.
6. ALL EXISTING UTILITY BOXES AND APPURTENANCES SHALL BE RAISED TO PROPOSED GRADE AS NECESSARY. INTERRUPTIONS TO PROPOSED RIBBON CURBS MAY BE REQUIRED, CONTRACTOR TO COORDINATE IN FIELD WITH CITY OF EDGEWATER AND LANDSCAPE ARCHITECT.
7. ANY EXISTING STRIPING ON SR442 DAMAGED BY THIS PROJECT MUST BE REPLACED.
8. CONTRACTOR TO STAKE-OUT EACH MEDIAN FOR PLANT/TREE LOCATIONS FOR LANDSCAPE ARCHITECT APPROVAL PRIOR TO INSTALLATION.
9. CONTRACTOR WILL BE RESPONSIBLE TO DO ANY GRADING WORK NECESSARY TO ASSURE PROPER DRAINAGE FLOW. CONTRACTOR SHALL MAINTAIN EXISTING DRAINAGE PATTERNS, SWALES CONVEYANCE, AND RUNOFF STORAGE CAPACITY DURING AND POST CONSTRUCTION ACTIVITIES. THE EXISTING DRAINAGE STRUCTURES SHALL NOT BE OBSTRUCTED OR MODIFIES ANYTIME.
10. IT IS THE RESPONSIBILITY OF THE CITY TO MAINTAIN THE PROPOSED PROJECT LIMIT AREAS IN ACCORDANCE WITH THE FDOT MAINTENACE RATING PROGRAM STANDARDS (MRP). REFER TO THEIR CRITERIA TROUGH THE LINK PROVIDED. http://www.dot.state.fl.us/statemaintenanceoffice/MaintRatingProgram.shtm

LANDSCAPE NOTES

1. FLORIDA #1: ALL PLANT MATERIAL SHALL BE GRADE FLORIDA NO. 1 OR BETTER IN QUALITY AS DESIGNATED IN THE MOST RECENT PUBLICATION OF "GRADES AND STANDARDS FOR NURSERY PLANTS", PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES.
2. SOD: SOD SHALL BE 'FLORATAM' ST. AUGUSTINE GRASS UNLESS OTHERWISE SPECIFIED ON THE PLANS AS ARGENTINE BAHIA. ALL SOD SHALL BE ROLLED. CONTRACTOR TO SOD ALL AREAS THAT ARE WITHIN MEDIANS WORKED. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THE SOD IS FREE OF WEEDS UPON INSTALLATION AND FOR THE DURATION OF THE 90 DAY MAINTENANCE PERIOD. SOD QUANTITY TAKEOFFS ARE THE RESPONSIBILITY OF THE CONTRACTOR ALL TURF AREAS SHALL BE SMOOTH AND FREE OF ANY TRACK RUTS OR OTHER UNSIGHTLY IMPRINTS CAUSED BY CONTRACTOR MACHINERY DURING CONSTRUCTION/INSTALLATION. ALL REPLACEMENT SOD SHALL BE 'FLORATAM' ST. AUGUSTINE.
3. MULCH: ALL PLANTING BEDS SHALL BE TOP DRESSED WITH 3" PINE BARK MULCH, GRADE "B" OR BETTER. ALL TREES NOT IN BEDS SHALL HAVE A 5' DIAMETER MULCH RING.
4. QUANTITIES: IN THE EVENT OF A VARIATION BETWEEN THE QUANTITIES SHOWN ON THE PLANT LISTS AND THE ACTUAL QUANTITY OF PLANTS SHOWN ON THE PLANS, THE PLANS SHALL CONTROL. SOD QUANTITY TAKEOFFS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
5. UNFORESEEN CONFLICTS: CONTRACTOR SHALL NOT WILLFULLY INSTALL ANY PORTION OF THE LANDSCAPE PLAN AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNFORESEEN OBSTRUCTIONS, GRADE DIFFERENCES, STANDING WATER, SOIL CONDITIONS OR OTHER CONFLICTS EXIST. SUCH UNFORESEEN CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
6. SUBSTITUTIONS: NO SUBSTITUTIONS OR VARIATIONS OF ANY PLANT MATERIAL OR ITS INSTALLED LOCATION WILL BE PERMITTED WITHOUT THE PRIOR WRITTEN CONSENT AND APPROVAL FROM THE LANDSCAPE ARCHITECT.
7. CONTAINERS: IF GALLONAGE FOR PLANTS OR TREES IS SHOWN THEY SHALL BE CONTAINER GROWN AND THE SIZE SHOWN SHALL REPRESENT THE MINIMUM ALLOWABLE GALLONAGE ACCEPTED. IN ALL CASES THE PLANT SPECIFIED SIZE SHALL GOVERN OVER THE GALLONAGE INDICATED.
8. SOIL: CONTRACTOR SHALL VERIFY THAT SOIL CONDITIONS ARE SUITABLE TO THE PLANT SPECIES SPECIFIED. IF SOIL CONDITIONS ARE DEEMED UNSUITABLE FOR PROPER PLANT HEALTH, CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT AND PROPER SUBSTITUTIONS SHALL BE SPECIFIED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. ADDITIONALLY, IF PRESENT, THE CONTRACTOR SHALL REMOVE LIME ROCK, CONCRETE AND OTHER DELETERIOUS DEBRIS FROM PLANTING BEDS. IF DEBRIS IS INTEGRATED IN THE SOIL, THE SOIL MUST BE EXCAVATED AND REPLACED WITH ACCEPTABLE SOIL. LASTLY, ALL FILL TO BE PLACED IN LANDSCAPE AREAS MUST HAVE A pH RANGE BETWEEN 5.8 AND 7.5, BE ORGANIC IN NATURE, AND BE FREE OF ROCKS AND DEBRIS.
9. TOPSOIL: TOPSOIL MATERIAL, IF REQUIRED, SHALL BE FREE FROM ALL HARD CLODS, WEEDS, STONES OVER 1" IN DIAMETER, CLAY, HARD PAN, NOXIOUS PLANTS, SOD, INSECTS, OR OTHER UNDESIRABLE PLANTS, SEEDS, OR MATERIAL WHICH MAY BE HARMFUL FOR GROWTH AND SHALL BE CERTIFIED AS STERILE.
10. WEEDS: IF PRESENT, THE CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE ANY WEEDS FROM PLANTING AREAS PRIOR TO THE INSTALLATION OF PROPOSED PLANT MATERIAL AND MULCH COVER. CONTRACTOR SHALL BE RESPONSIBLE TO KEEP BEDS FREE OF WEEDS FOR THE DURATION OF THE 90 DAY MAINTENANCE PERIOD.
11. GRADING: UNLESS OTHERWISE STATED ON THESE PLANS, THE LANDSCAPE CONTRACTOR SHALL FINE GRADE ALL AREAS TO BE PLANTED AND SODDED IN ORDER TO ELIMINATE BUMPS AND DEPRESSIONS. FINE GRADING SHALL BE DEFINED AS THE FINAL 2" OF GRADE TO BE ACHIEVED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING AND REGRADING WASHOUT AREAS CAUSED BY EROSION UNTIL FINAL ACCEPTANCE OF THE PROJECT.
12. LAYOUT: CONTRACTOR SHALL FIELD LOCATE AND STAKE ALL PROPOSED LOCATIONS OF DATE PALMS WITHIN MEDIANS FOR FDOT INSPECTION AND APPROVAL PRIOR TO PLANTING. CONTRACTOR RESPONSIBLE FOR COORDINATION WITH FDOT ON INSPECTION TIME(S)/DATE(S).
13. STAKING: ALL TREES, SHRUBS AND GROUND COVERS ARE TO BE PLANTED ACCORDING TO THE DETAILS IN THESE PLANS. IF THE CONTRACTOR PREFERS TO USE OTHER STAKING METHODS THAN SHOWN IN THE DETAILS, HE OR SHE MUST SUBMIT PROPOSED STAKING DETAILS TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION. THE LANDSCAPE CONTRACTOR SHALL STRAIGHTEN, REPAIR, AND/OR REPLACE ANY PLANTS DAMAGED BY FAILURE TO PROPERLY STAKE OR GUY ANY TREES IN SITE, AT THEIR OWN EXPENSE.
14. FERTILIZER: OSMOCOTE SLOW RELEASE FERTILIZER OR EQUIVALENT SHALL BE APPLIED TO ALL TREE, SHRUB, AND GROUNDCOVER PLANTING AREAS AT THE RATE OF THREE (3) TABLESPOONS PER 2 S.F. OF PLANTING AREA.
15. DRAINAGE: THE LANDSCAPE CONTRACTOR SHALL ASSURE THAT THIS WORK DOES NOT INTERRUPT EXISTING OR PROPOSED DRAINAGE PATTERNS AND SHALL NOTIFY THE OWNERS REPRESENTATIVE IMMEDIATELY SHALL A CONFLICT ARISE.
16. SPECIFICATIONS: THE LANDSCAPE ARCHITECT SHALL BE PERMITTED THE RIGHT DURING INSTALLATION, TO REJECT ANY AND ALL PLANT MATERIAL AND WORKMANSHIP WHICH IN HIS OR HER OPINION DOES NOT MEET THE REQUIREMENTS OF THESE SPECIFICATIONS.
17. PERCOLATION: PERCOLATION TESTS ARE REQUIRED FOR ALL PLANTING PITS FOR PHOENIX SPP. PALM TREES. AFTER THE PLANTING PIT IS DUG TO THE PROPER DEPTH, FILL PIT WITH WATER AND DOCUMENT THE AMOUNT OF TIME IT TAKES FOR THE WATER TO DRAIN FROM THE PIT COMPLETELY. NOTIFY THE OWNER'S REPRESENTATIVE TO WITNESS THE TEST.
18. TURNOVER: CONTRACTOR SHALL CONTACT OWNERS REPRESENTATIVE FOR A TURNOVER DATE TO INCLUDE A WALK-THROUGH AND ACCEPTANCE OF WORK BY THE LANDSCAPE ARCHITECT. ANY WORK DEEMED UNACCEPTABLE SHALL BE CORRECTED IMMEDIATELY AND REINSPECTED AS SCHEDULED.
19. MAINTENANCE: CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE TO BEGIN AFTER EACH PLANT HAS BEEN INSTALLED AND SHALL CONTINUE 90 DAYS AFTER FINAL WRITTEN ACCEPTANCE BY THE OWNER. MAINTENANCE SHALL INCLUDE WATERING, PRUNING. WEEDING, MULCHING, MOWING, REPLACEMENT OF SICK OR DEAD PLANTS, AND ANY OTHER CARE NECESSARY IN ORDER TO MAINTAIN PROPER PLANT HEALTH AND SOIL MOISTURE CONTENT.
20. GUARANTEE: CONTRACTOR SHALL GUARANTEE ALL INSTALLED PLANT MATERIAL FOR ONE (1) CALENDAR YEAR STARTING FROM THE TURNOVER DATE SHOULD WORK BE FOUND ACCEPTABLE. ANY CORRECTED WORK SHALL HAVE A PROPORTIONAL EXTENSION OF WARRANTY ONCE APPROVED. ANY SICK OR DEAD MATERIAL SHALL BE REPLACED IMMEDIATELY. THE LANDSCAPE CONTRACTOR SHALL NOT BE RESPONSIBLE TO HONOR ANY WARRANTY FOR THE LOSS OF ANY PLANT MATERIAL CAUSED BY FLOODING, FIRE, FREEZING TEMPERATURES, WINDS OVER 50 MPH, LIGHTNING, ANY OTHER NATURAL DISASTER, OR ANY LOSS/DAMAGE CAUSED BY VANDALISM OR NEGLIGENCE ON THE PART OF THE OWNER.

IRRIGATION NOTES

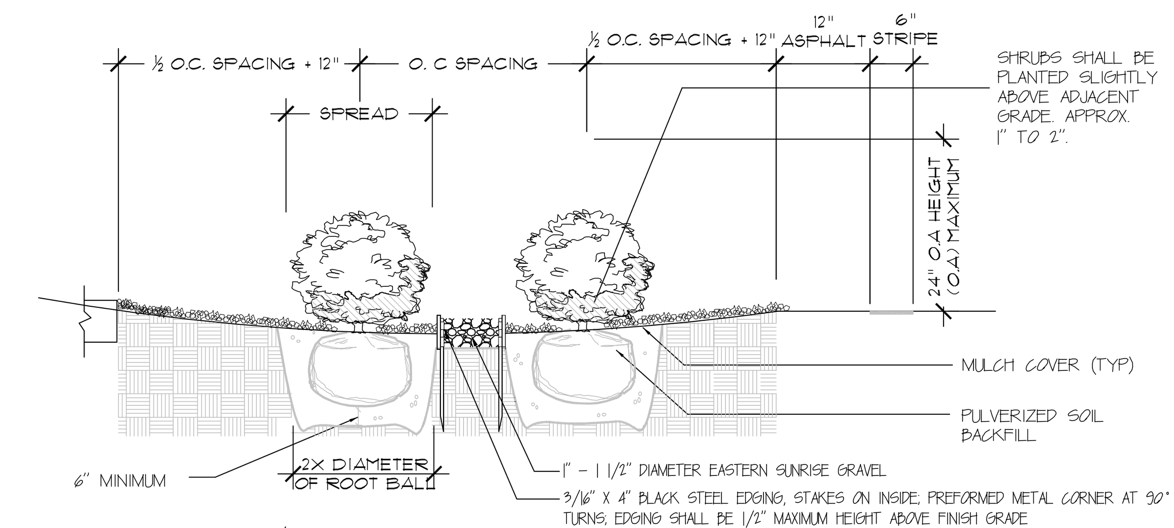
1. AN AUTOMATIC TIME CONTROLLED IRRIGATION SYSTEM WITH A RAIN SENSOR SHALL BE INSTALLED TO PROVIDE 100% HEAD TO HEAD COVERAGE OF ALL NEW PLANTINGS. IRRIGATION PLAN SHALL BE PROVIDED UPON SUBSTANTIAL SITE PLAN APPROVAL.

QUALIFICATION OF CONTRACTORS

1. THE CITY OF EDGEWATER BEACH RESERVES THE RIGHT TO REQUIRE ANY BIDDER TO SUBMIT SUCH EVIDENCE OF QUALIFICATIONS AS IT MAY DEEM NECESSARY AND MAY CONSIDER EVIDENCE AVAILABLE CONCERNING THE FINANCIAL AND OTHER QUALIFICATIONS AND ABILITIES OF A CONTRACTOR. FAILURE TO PROVIDE ALL REQUIRED INFORMATION MAY RESULT IN THE PROPOSAL BEING REJECTED AS NONRESPONSIVE. THE MINIMUM QUALIFICATIONS FOR THIS PROJECT ARE AS FOLLOWS:
   1. THE CONTRACTOR MUST HAVE A MINIMUM TEN (10) YEARS EXPERIENCE INSTALLING (NOT MAINTAINING) LANDSCAPE AND IRRIGATION SYSTEMS ON PROJECTS OF A SIMILAR SCOPE IN NATURE WITH VERIFIABLE REFERENCES IN THE FOLLOWING AREAS: MUNICIPAL LANDSCAPE AND IRRIGATION CONTRACTS, PROJECTS WITHIN FDOT RIGHTS OF WAY, PROJECTS EXCEEDING $100K AS PRIME CONTRACTOR, TWENTY (20) OR MORE DATE PALMS ON A SINGLE SITE AND PROJECT FUNDED BY COUNTY, STATE OR FEDERAL FUNDS.

BASE INFORMATION

BASE PLANS USED IN THE DEVELOPMENT OF THIS PROJECT DESIGN WERE PROVIDED BY FDOT. CONTRACTOR TO CONFIRM FINAL LAYOUT AND DIMENSIONS PRIOR TO COMMENCING WORK.



1 PLANTING/EDGING DETAIL

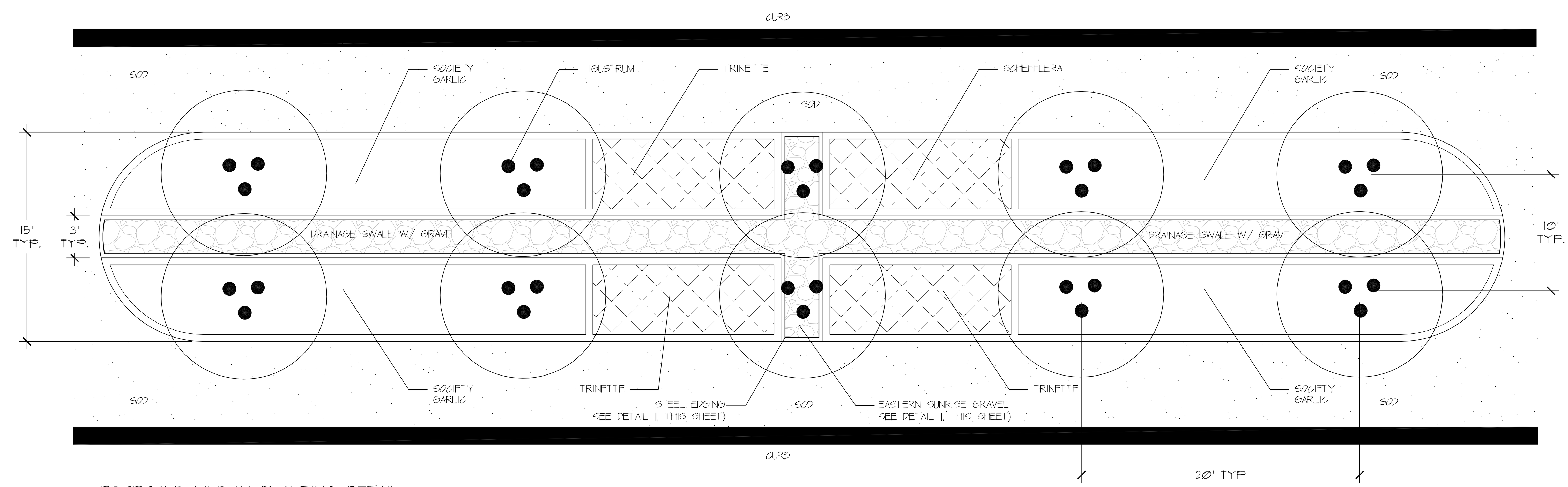
SCALE: N.T.S.

5

MASTER PLANT LIST

SYMB.	QUAN.	SCIENTIFIC NAME	COMMON NAME	SIZE & SPACING
PALMS				
PC	13	PHOENIX CANARIENSIS	CANARY DATE PALM	12'-14' C.T., SPECIMEN
PC1	8	PHOENIX CANARIENSIS	CANARY DATE PALM	10' C.T., SPECIMEN
TREES				
LI	10	LAGERSTROEMIA INDICA 'MUSKOGEE'	LAVENDER CRAPE MYRTLE	65 GAL., 3 1/2" CAL., 12' HT., 8.5' C.T.
LJ	20	LIGUSTRUM JAPONICA 'TREE FORM'	LIGUSTRUM TREE	12' x 12', M.T., 8.5' C.T., PRUNED
NO	6	NERIUM OLEANDER	PINK OLEANDER	45 GAL., 12' HT., 8' C.T.
SHRUBS & GROUNDCOVERS				
HD	54	HELIANTHUS DEBILIS	BEACH SUNFLOWER	1 GAL., 10" HT. X 10" SPRD., FULL, 18" OC.
MUC	105	MUHLENBERGIA CAPILLARIS	MUHLY GRASS	7 GAL., 18" HT. X 18" SPRD., 30" O.C.
NF	364	NANDINA 'FIREPOWER'	FIREPOWER NANDINA	3 GAL., 24" HT., 18" OC., 3-4 PPP
PSF	200	PENNISETUM SETACEUM	FOUNTAIN GRASS	7 GAL., 24" HT., FULL, 36" OC.
SA	180	SCHEFFLERA ARBORICOLA 'TRINETTE'	VARIEGATED SCHEFFLERA	7 GAL., 18" SPD. X 24" HT., FULL., 30" OC.
TV	568	TULBAGHIA VIOLACEA	SOCIETY GARLIC	1 GAL., 12" SPRD., 18" O.C.
ZP	320	ZAMIA PUMILA	COONTIE	3 GAL., 24" HT. X 18" SPRD., FULL, 36" O.C.

NOTE: SEE LANDSCAPE PLAN, SHEETS LA1 & LA2, FOR INDIVIDUAL QUANTITIES.



A PROPOSED MEDIAN PLANTING DETAIL

SCALE: N.T.S.

ZEV COHEN & ASSOCIATES INC. 2012

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AMELIA ISLAND
914 ATLANTIC AVE., STE 2-D FERNANDINA BEACH, FL 32034
(904) 491-5436 FAX (904) 491-4159

NO.	DATE	DESCRIPTION	BY
1.	3-12-15	REVISED PER FDOT COMMENTS, DATED 2-13-15	SMG
2.	5-4-15	REVISED PER FDOT COMMENTS, DATED 4-16-15	SMG
3.	6-4-15	REVISED PER FDOT COMMENTS, DATED 5-20-15	SMG
4.	12-18-15	REVISED PER CITY REQUEST	SMG
5.	3-18-16	REVISED PER CITY REQUEST	SMG
2.	8-19-16	REVISED PER BID DOCUMENTS CHANGE REQUEST	SMG
5.	9-9-16	REVISED PER BID DOCUMENTS CHANGE REQUEST, DELTA #5	SMG

REVISIONS:

US 1 AND SR442 BEAUTIFICATION
LANDSCAPE PLANS
NOTES & DETAILS

CITY OF EDGEWATER VOLUSIA COUNTY, FLORIDA

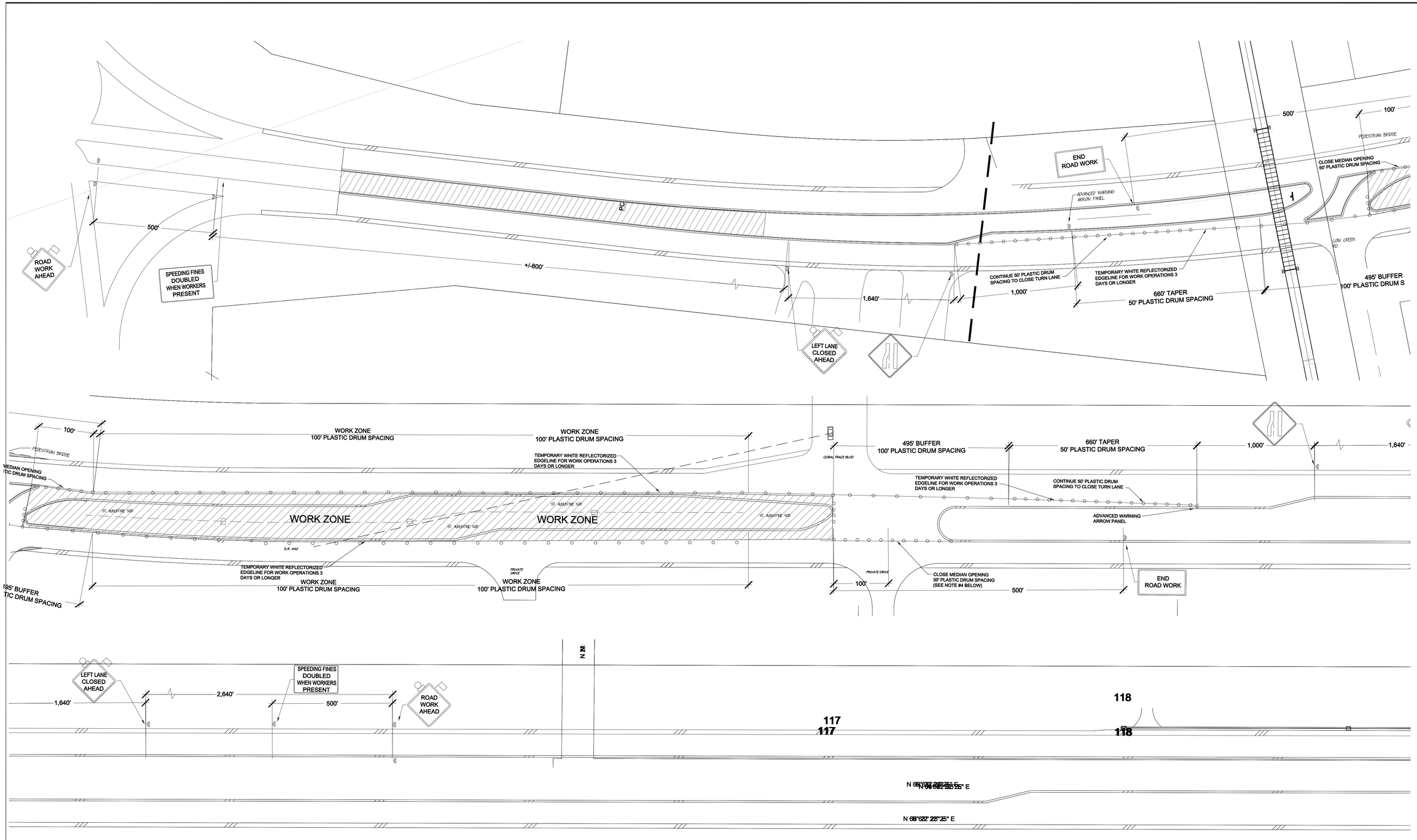
ZEV COHEN & ASSOCIATES, INC.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS (EB 4516) (LC 62)
PLANNERS • TRANSPORTATION • ENVIRONMENTAL
WWW.ZEVCOHEN.COM

PROJECT NO: 14021 | DRAFTED BY: AKS
ISSUE DATE: 7-14-14 | CHECKED BY: SBK/PM
DESIGNED BY: PM | DRAWING FILE: 14021LA XREFS: 14021BASE

SEAL

SCALE:

SHEET D1-1 OF 2



NOTES

1. M.O.T. SHALL CONFORM TO THE FDOT INDICES, 2016 EDITION.
2. M.O.T. SHOWN AS A GUIDE, CONTRACTOR REQUIRED TO COORDINATE WITH FDOT FOR FINAL M.O.T. DESIGN AND APPROVAL.
3. CONTRACTOR TO PROVIDE M.O.T SHOP DRAWINGS AND OBTAIN APPROVAL FROM F.D.O.T. CONSTRUCTION OFFICE PRIOR TO CONSTRUCTION ON EACH MEDIAN (AS FUNDING ALLOWS). M.O.T. PROVIDED HEREON IS TYPICAL AND WILL APPLY TO EACH MEDIAN CONSTRUCTION.
4. NO LANE CLOSURES DURING CITY SPECIAL EVENTS, HOLIDAYS, PEAK TRAVEL TIMES (6-8AM, 5-7PM). SIGNALIZED INTERSECTIONS SHALL BE FREE OF BARRIER DEVICES AT ALL TIMES.
5. THE WORK ZONE SPEED LIMITS THROUGHOUT THE DESIGNATED PROJECT LIMITS WILL REMAIN THE SAME AS THE POSTED 55, 45 & 40 MPH.
6. "SPECIAL EVENTS" INCLUDE, BUT ARE NOT LIMITED TO, DAYTONA SPEED WEEKS, DAYTONA BIKE WEEK, SPRING BREAK AND BIKETOBERFEST.

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4.	12-18-15	REVISED PER CITY REQUEST	SMG
5.	3-18-16	REVISED PER CITY REQUEST	SMG
2.	8-19-16	REVISED PER BID DOCUMENTS CHANGE REQUEST	SMG
5.	9-9-16	REVISED PER BID DOCUMENTS CHANGE REQUEST, DELTA #5	SMG

REVISIONS:

US 1 AND SR442 BEAUTIFICATION LANDSCAPE PLANS MAINTENANCE OF TRAFFIC

CITY OF EDGEWATER — VOLUSIA COUNTY, FLORIDA

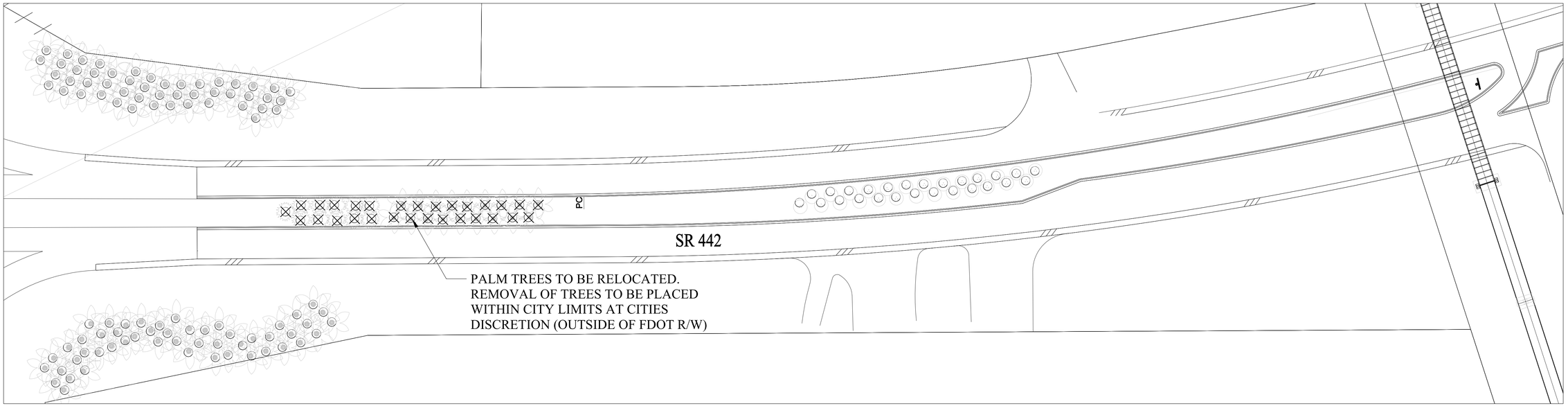
ZEV COHEN & ASSOCIATES, INC.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS
PLANNERS • TRANSPORTATION • ENVIRONMENTAL
WWW.ZEVCOHEN.COM

PROJECT NO: 14021	DRAFTED BY: AKS
ISSUE DATE: 7-14-14	CHECKED BY: SBK/PM
DESIGNED BY: PM	DRAWING FILE: 14021LA XREF'S: 14021BASE

SEAL

SCALE:

SHEET D2-1 OF 2



SHEETS LA1

0 25' 50' 75' 100'

N

LEGEND

EXISTING TREE/PALM TO BE REMAIN

EXISTING TREE/PALM TO BE REMOVED

NOTE: CUT OUT/REMOVE EXISTING SOD FROM PROPOSED NEW LANDSCAPE AREAS

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4.	12-18-15	REVISED PER CITY REQUEST	SMG
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3.	9-9-16	REVISED PER BID DOCUMENTS CHANGE REQUEST, DELTA #5	SMG

REVISIONS:

US 1 AND SR442 BEAUTIFICATION
LANDSCAPE PLANS
DEMOLITION PLAN

CITY OF EDGEWATER — VOLUSIA COUNTY, FLORIDA

ZEV COHEN & ASSOCIATES, INC.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS
SURVEYORS
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PROJECT NO. 14021	DRAFTED BY: AKS
ISSUE DATE: 7-14-14	CHECKED BY: SBK/PM
DESIGNED BY: PM	DRAWING FILE: 14021LA XREFS: 14021BASE

SEAL

SCALE:

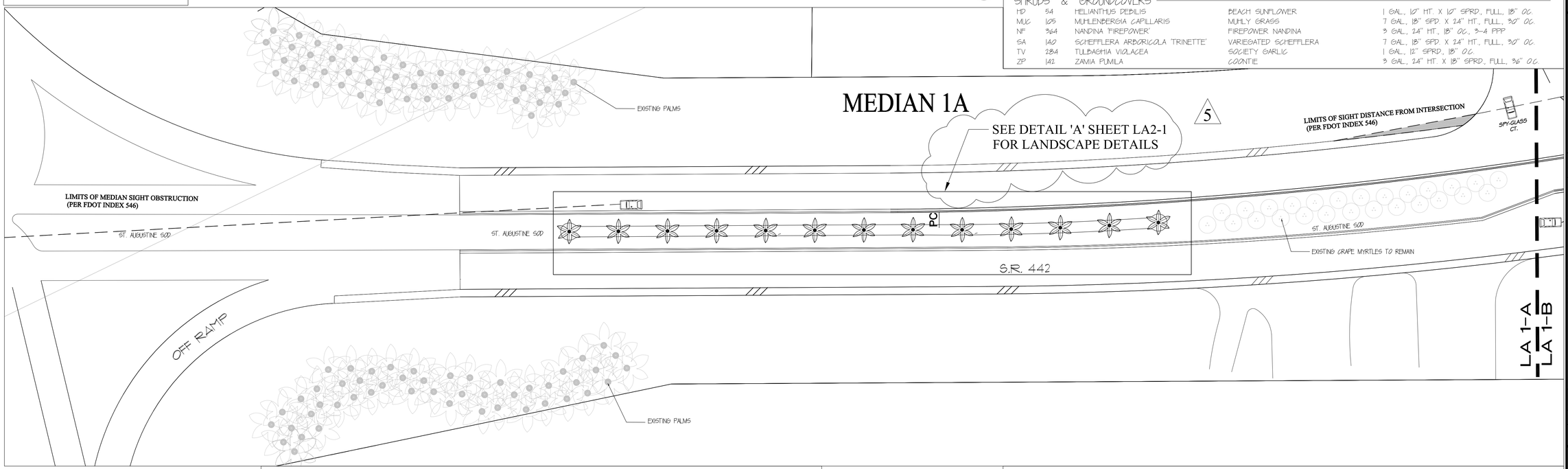
SHEET DEM-1 OF 1

LA 1-A

POSTED SPEED 55 MPH
DESIGN SPEED 60 MPH

PLANT LIST: MEDIAN 1A

SYMB.	QUAN.	SCIENTIFIC NAME	COMMON NAME	SIZE & SPACING
PALMS				
PC	13	PHOENIX CANARIENSIS	CANARY DATE PALM	12'-14' C.T., SPECIMEN
TREES				
LJ	10	LIGUSTRUM JAPONICA TREE FORM	LIGUSTRUM TREE	12' x 12' , M.T., 8.5' C.T., PRUNED
SHRUBS & GROUNDCOVERS				
HD	54	HELIANTHUS DEBILIS	BEACH SUNFLOWER	1 GAL., 10" HT. X 10" SPRD., FULL, 18" OC.
MUC	105	MUHLENBERGIA CAPILLARIS	MUHLY GRASS	7 GAL., 18" SPD. X 24" HT., FULL, 30" OC.
NF	364	NANDINA "FIREPOWER"	FIREPOWER NANDINA	3 GAL., 24" HT., 18" OC., 3-4 PPP
SA	140	SCHEFFLERA ARBORICOLA 'TRINETTE'	VARIEGATED SCHEFFLERA	7 GAL., 18" SPD. X 24" HT., FULL, 30" OC.
TV	284	TULBAGHIA VIOLACEA	SOCIETY GARLIC	1 GAL., 12" SPRD., 18" OC
ZP	142	ZAMIA PUMILA	COONTIE	3 GAL., 24" HT. X 18" SPRD., FULL, 36" OC



LA 1-B

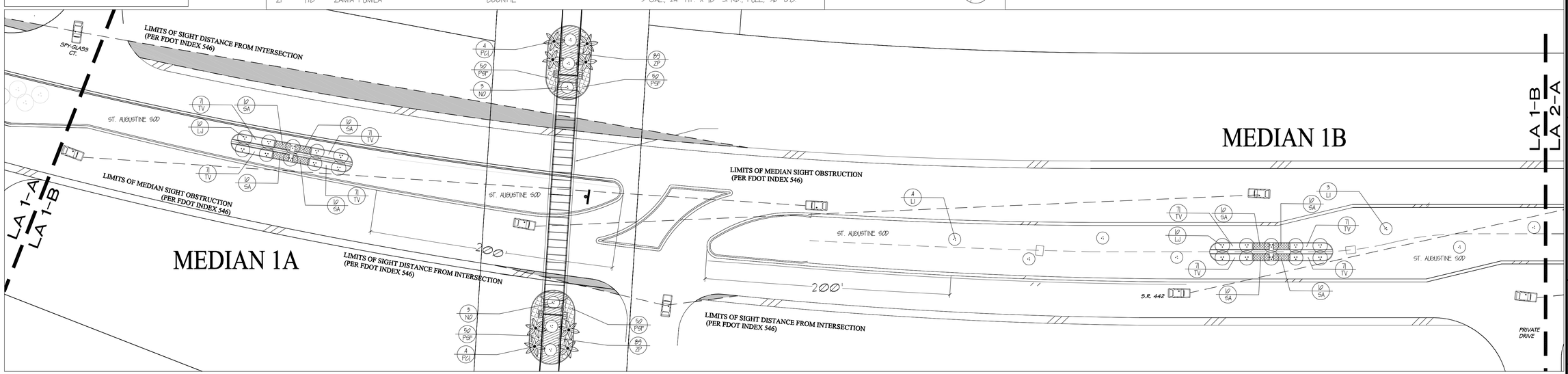
POSTED SPEED 55 MPH
DESIGN SPEED 60 MPH

PLANT LIST: PEDESTRIAN BRIDGE

SYMB.	QUAN.	SCIENTIFIC NAME	COMMON NAME	SIZE & SPACING
PALMS				
PCI	8	PHOENIX CANARIENSIS	CANARY DATE PALM	10' C.T., SPECIMEN
TREES				
NO	6	NERIUM OLEANDER	PINK OLEANDER	45 GAL., 12' HT., 8' C.T.
SHRUBS & GROUNDCOVERS				
PSF	200	PENNISETUM SETACEUM	FOUNTAIN GRASS	7 GAL., 24" HT., FULL, 36" OC.
ZP	178	ZAMIA PUMILA	COONTIE	3 GAL., 24" HT. X 18" SPRD., FULL, 36" OC.

PLANT LIST: MEDIAN 1B

SYMB.	QUAN.	SCIENTIFIC NAME	COMMON NAME	SIZE & SPACING
TREES				
LI	10	LAGERSTROEMIA INDICA 'MUSKOGEE'	LAVENDER CRAPE MYRTLE	65 GAL., 3 1/2" CAL., 12' HT., 8.5' C.T.
LJ	10	LIGUSTRUM JAPONICA 'TREE FORM'	LIGUSTRUM TREE	12' x 12' , M.T., 8.5' C.T., PRUNED
SHRUBS & GROUNDCOVERS				
SA	40	SCHEFFLERA ARBORICOLA 'TRINETTE'	VARIEGATED SCHEFFLERA	7 GAL., 18" SPD. X 24" HT., FULL, 30" OC.
TV	284	TULBAGHIA VIOLACEA	SOCIETY GARLIC	1 GAL., 12" SPRD., 18" OC.



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US 1 AND SR442 BEAUTIFICATION
LANDSCAPE PLANS

CITY OF EDGEWATER — VOLUSIA COUNTY, FLORIDA

PROJECT NO: 14021 — DRAFTED BY: AKS
ISSUE DATE: 7-14-14 — CHECKED BY: SBK/PM
DESIGNED BY: PM — DRAWING FILE: 14021LA, XREFS: 14021BASE

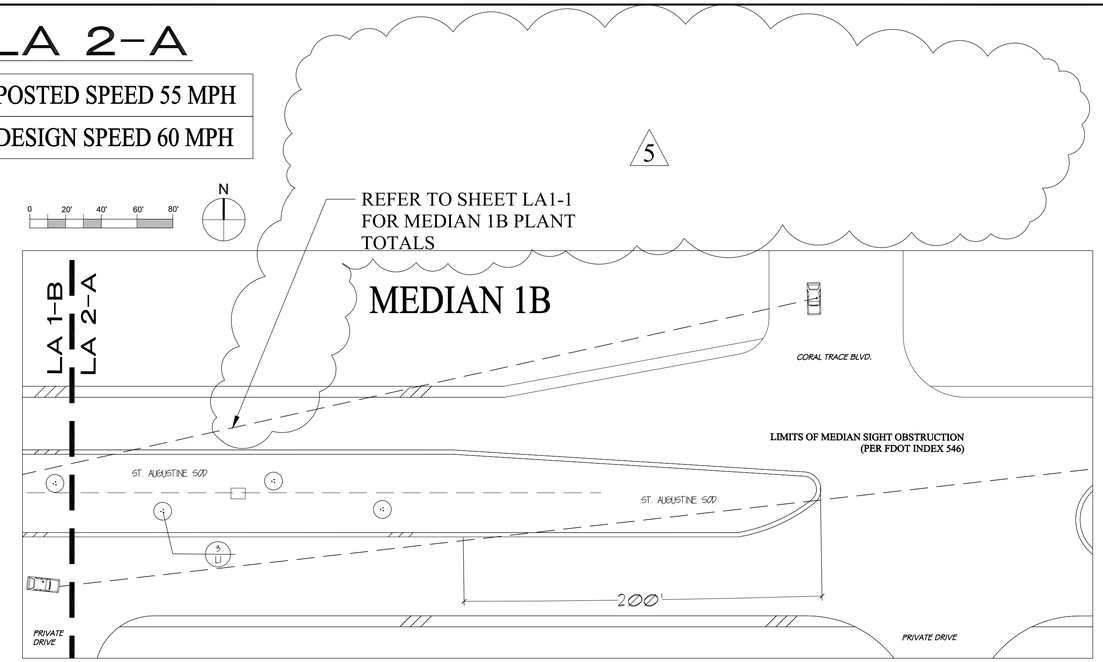
SEAL

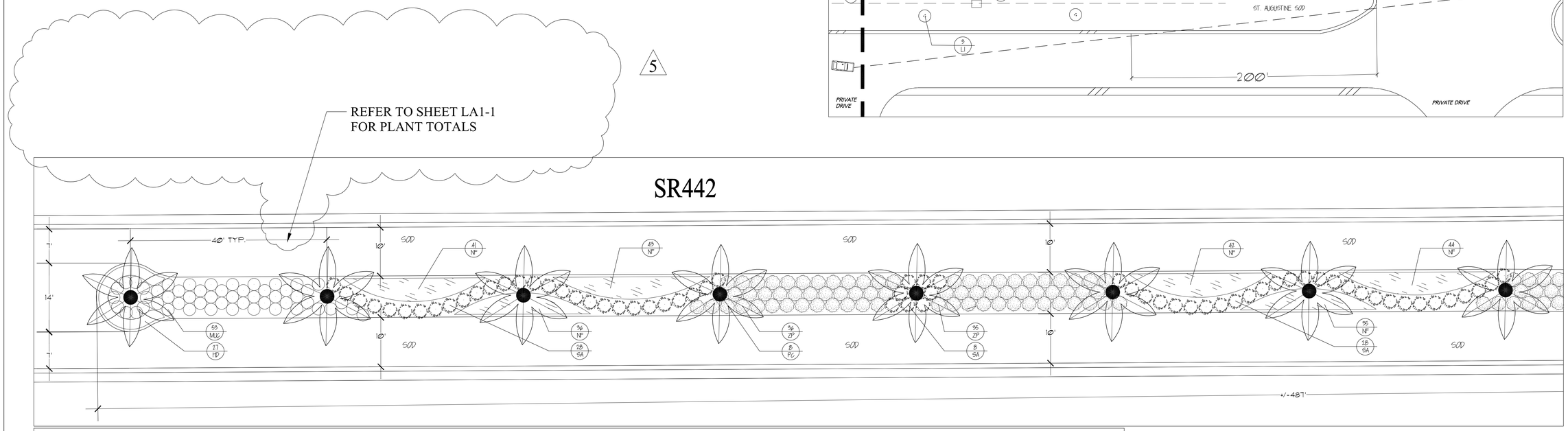
SCALE:

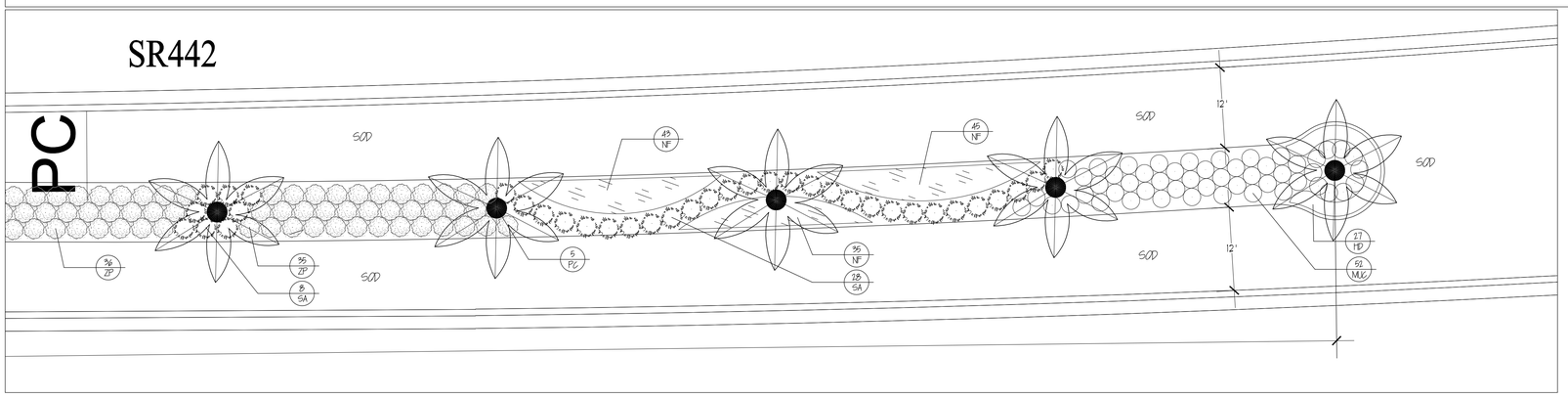
SHEET LA1-1 OF 2

LA 2-A

POSTED SPEED 55 MPH
DESIGN SPEED 60 MPH







(A) MEDIAN PLANTING BLOW-UP

SCALE: 1"=10'

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NO.	DATE	DESCRIPTION	BY
1.	3-12-15	REVISED PER FDOT COMMENTS, DATED 2-13-15	SMG
2.	5-4-15	REVISED PER FDOT COMMENTS, DATED 4-16-15	SMG
3.	8-4-15	REVISED PER CITY COMMENTS, DATED 7-30-15	SMG
4.	12-18-15	REVISED PER CITY REQUEST	SMG
5.	3-18-16	REVISED PER CITY REQUEST	SMG
6.	8-19-16	REVISED PER BID DOCUMENTS CHANGE REQUEST	SMG
7.	9-9-16	REVISED PER BID DOCUMENTS CHANGE REQUEST, DELTA #5	SMG

REVISIONS:

US 1 AND SR442 BEAUTIFICATION LANDSCAPE PLANS

CITY OF EDGEWATER — VOLUSIA COUNTY, FLORIDA

ZEV COHEN & ASSOCIATES, INC.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS
PLANNERS • TRANSPORTATION • ENVIRONMENTAL
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PROJECT NO: 14021	DRAFTED BY: AKS
ISSUE DATE: 7-14-14	CHECKED BY: SBK/PM
DESIGNED BY: PM	DRAWING FILE: 14021LA XREF'S: 14021BASE

SEAL

SCALE:

SHEET LA2-1 OF 2

IR 1–A

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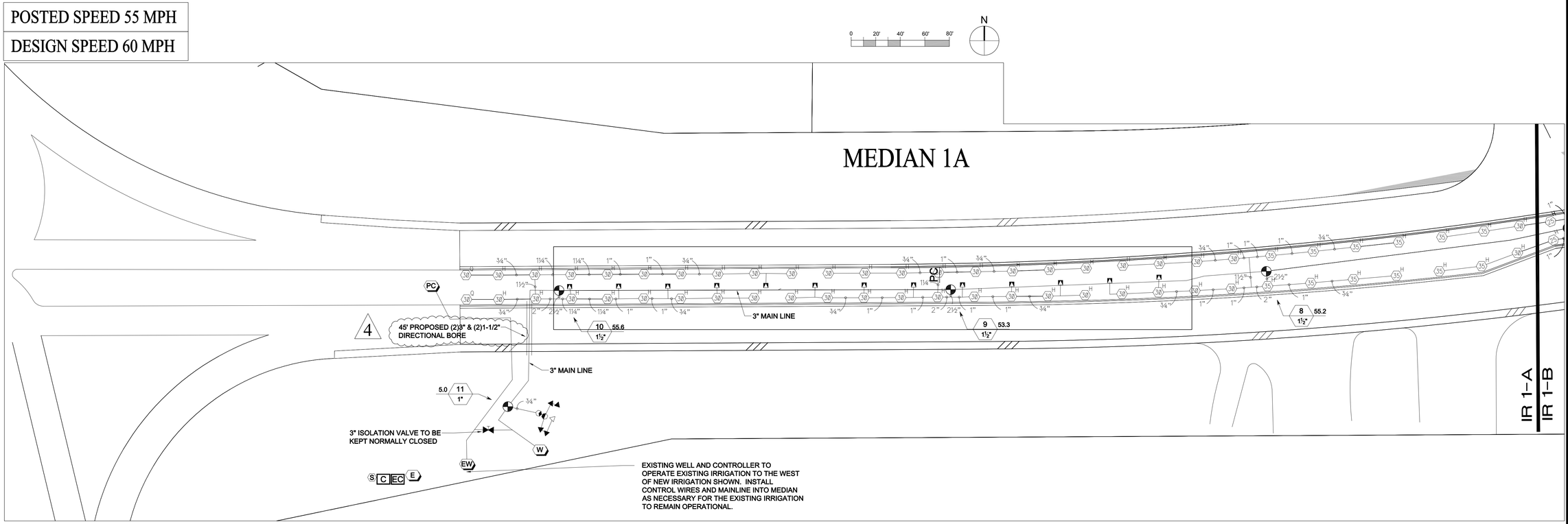
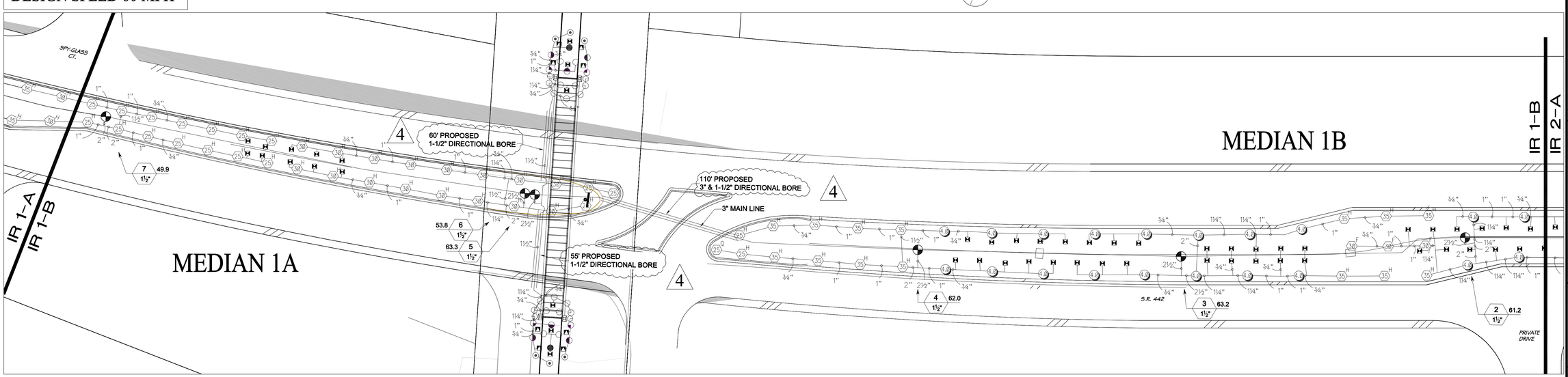
DESIGN SPEED 60 MPH



IR 1–B

POSTED SPEED 55 MPH
DESIGN SPEED 60 MPH

Valve Callout
Valve Number
Valve Flow
Valve Size



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NO.	DATE	DESCRIPTION	BY
1.	12-18-15	REVISED PER CITY REQUEST	SMG
2.	8-18-16	REVISED PER BID DOCUMENTS CHANGE REQUEST	JC
3.	9-9-16	RVISED PER BID REQUEST	SMG

REVISIONS:

US 1 AND SR442 BEAUTIFICATION IRRIGATION PLANS

CITY OF EDGEWATER — VOLUSIA COUNTY, FLORIDA

PROJECT NO: 14021
ISSUE DATE: 4-7-15
DESIGNED BY: JC
DRAFTED BY: JC
CHECKED BY: SMG/PM
DRAWING FILE: 14021R_SR442 IRRIG-1-IR1&IR2.DWG

SEAL

SCALE:

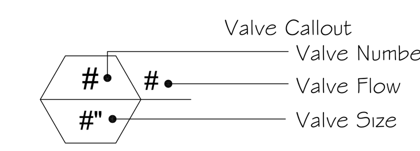
SHEET IR1-1 OF 3

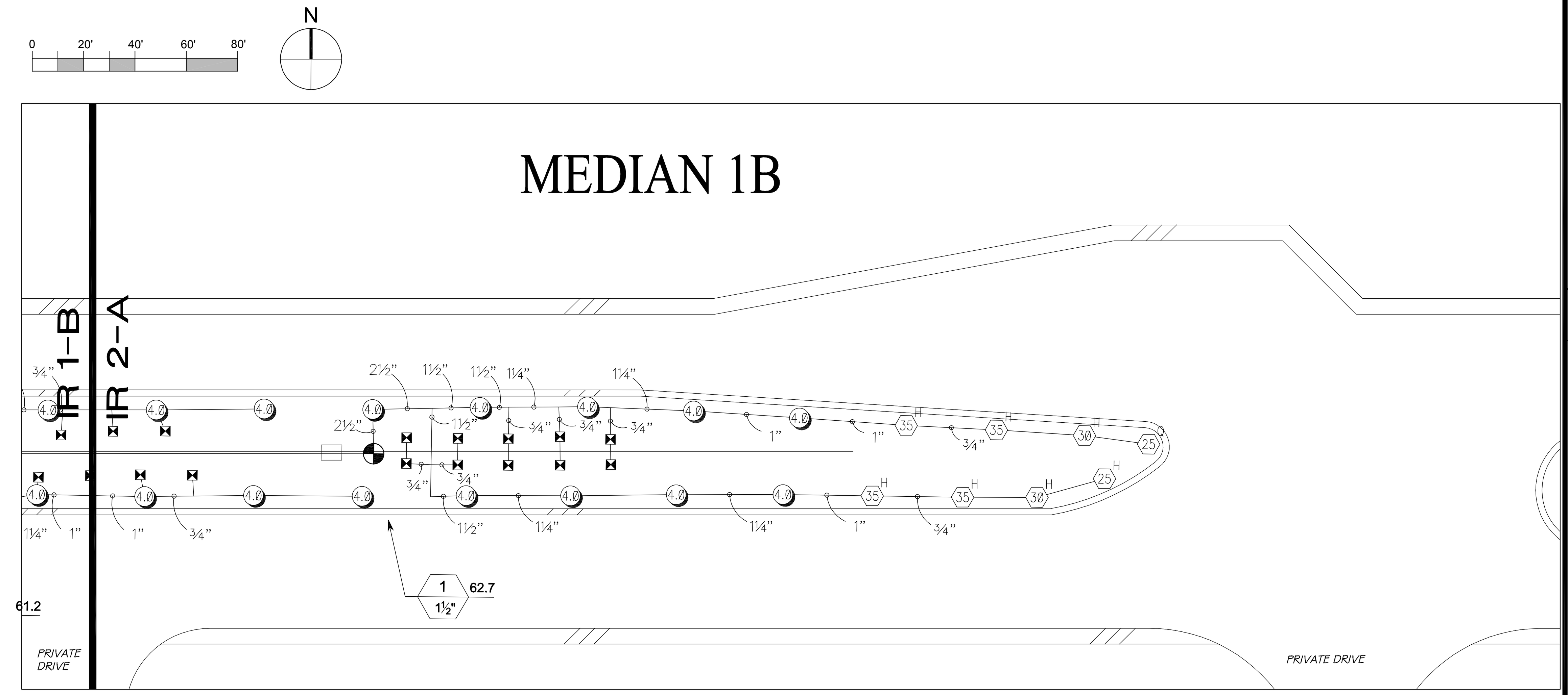
IRRIGATION NOTES:

1. THE PLANS AND DRAWINGS ARE DIAGRAMMATIC OF THE WORK TO BE PERFORMED. SOME COMPONENTS MAY BE SHOWN OUTSIDE THE WORK AREA FOR CLARITY. THE WORK SHALL BE EXECUTED IN A MANNER TO AVOID CONFLICTS WITH UTILITIES AND OTHER ELEMENTS OF CONSTRUCTION, INCLUDING LANDSCAPE MATERIALS. ALL DEVIATIONS FROM THE PLANS SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE BEFORE BEING INSTALLED. THE CONTRACTOR SHALL NOT WILLFULLY INSTALL ANY ASPECT OF THE IRRIGATION SYSTEM AS SHOWN ON THE PLANS AND DRAWINGS, WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES, OR DISCREPANCIES EXIST THAT MIGHT NOT HAVE BEEN KNOWN DURING THE DESIGN OF THE IRRIGATION SYSTEM. IN THE EVENT THAT NOTIFICATION OF THE CONFLICT IS NOT APPROVED BY THE OWNER'S REPRESENTATIVE, THE CONTRACTOR WILL ASSUME FULL RESPONSIBILITY FOR ALL REVISIONS.
2. THE IRRIGATION SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE PLANS, IRRIGATION SYSTEM SPECIFICATIONS AND ALL CONTRACT DOCUMENTS. THE CONTRACTOR SHALL COMPLY WITH ALL PREVAILING LOCAL CODES, ORDINANCES, AND REGULATIONS.
3. CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS, INCLUDING UTILITY LOCATIONS, BEFORE INSTALLATION OF THE IRRIGATION SYSTEM. ALL UTILITIES AND STRUCTURES MAY NOT BE SHOWN ON THE PLANS - CONTRACTOR TO VERIFY. COORDINATE ALL IRRIGATION SYSTEM CONSTRUCTION WITH EXISTING AND NEW PLANTINGS TO AVOID CONFLICT OR INTERFERENCE WITH LOCATION OF PIPING, SLEEVING, CABLES, AND SERVICE UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING INSTALLATION WITH ALL OTHER CONSTRUCTION ON SITE, ESPECIALLY LANDSCAPE INSTALLATION. IRRIGATION SYSTEM SHALL BE RELOCATED AT NO ADDITIONAL COST FOR ANY CONFLICT WITH LANDSCAPE INSTALLATION OR ANY OTHER SITE CONSTRUCTION OR EXISTING CONDITIONS. ALL COMPONENTS THAT ARE NOT CONTAINED WITHIN THE SPECIFIC AREAS SHOWN OR CALLED OUT ON THE DRAWINGS WILL NOT BE ACCEPTED. ALL PIPING AND OTHER COMPONENTS ARE TO REMAIN WITHIN THE PROPERTY OF THE OWNER.
4. WHERE EXISTING OR NEW TREES, LIGHT STANDARDS, SIGNS, ELECTRONIC CONTROLLERS AND/OR OTHER OBJECTS ARE AN OBSTRUCTION TO AN IRRIGATION SPRINKLER'S PATTERN, THE COMPONENT AND PIPING SHALL BE RELOCATED AS NECESSARY TO OBTAIN PROPER COVERAGE OF AN IRRIGATION SPRINKLER'S PATTERN, THE COMPONENT AND PIPING SHALL BE RELOCATED AS NECESSARY TO OBTAIN THE PROPER COVERAGE WITHOUT DAMAGING THE OBSTRUCTION. OWNER'S REPRESENTATIVE SHALL DETERMINE WHETHER AN OBSTRUCTION OCCURS OR NOT.
5. COMPONENT SPACINGS ARE MAXIMUM. DO NOT EXCEED SPACINGS SHOWN OR NOTED ON THE PLANS. COMPONENT SPACINGS MAY BE ADJUSTED TO ACCOMMODATE CHANGES IN TERRAIN AND PLANTING LAYOUT AS LONG AS THE MODIFIED SPACINGS DO NOT EXCEED THE SPACINGS SHOWN IN THE PLANS. UNLESS SHOWN OTHERWISE, CONTRACTOR SHALL PROVIDE 100% COVERAGE.
6. ALL MATERIALS AND EQUIPMENT SHOWN SHALL BE NEW AND INSTALLED AS DETAILED ON THE PLANS. IF THE DRAWINGS DO NOT THOROUGHLY DESCRIBE THE TECHNIQUES TO BE USED, THE INSTALLER SHALL FOLLOW THE INSTALLATION METHODS AND INSTRUCTIONS RECOMMENDED BY THEIR MANUFACTURER.
7. THE LOCATION OF THE IRRIGATION MAINLINE SHALL BE IDENTIFIED IN THE FIELD AND APPROVED BY THE OWNER'S REPRESENTATIVE BEFORE INSTALLATION. MAINLINE TO BE INSTALLED A MINIMUM OF FIVE FEET OFF EDGE OF PAVEMENT IN MEDIANS. SHOWN OUTSIDE FOR CLARITY PURPOSES ONLY.
8. IRRIGATION CONTRACTOR SHALL ADJUST ALL SPRINKLERS, CONTROLLER AND OTHER DEVICES TO OBTAIN SPECIFIED OPERATING PARAMETERS, INCLUDING COVERAGE, OPERATING PRESSURE, FLOW RATES AND OPERATION TIME, AS INDICATED ON THE DRAWINGS AND IN THE IRRIGATION SYSTEM SPECIFICATIONS.
9. CONTRACTOR TO PROVIDE INSTALLATION SHOP DRAWINGS AND MANUFACTURER PRODUCT INFORMATION FOR ALL IRRIGATION COMPONENTS. ALL INSTALLATIONS SHALL BE AS RECOMMENDED BY MANUFACTURERS. THE QUANTITIES SHOWN IN THE LEGENDS AND SYMBOL SHEETS SHALL NOT BE USED FOR BIDDING PURPOSES. THE CONTRACTOR WILL BE RESPONSIBLE FOR CONDUCTING A COMPREHENSIVE MATERIALS TAKEOFF TO DETERMINE THE ACTUAL QUANTITIES OF MATERIAL NECESSARY TO EXECUTE THE WORK DESCRIBED IN THE DOCUMENTS.
10. ALL TRENCHES SHALL BE BACKFILLED WITH CLEAN, DEBRIS-FREE MATERIALS. CLEAN SAND SHALL BE USED FOR BEDDING MATERIAL IF PARENT SOIL CANNOT BE ADEQUATELY RID OF ROCK (5/8" AND LARGER) AND OTHER EXTRANEOUS DEBRIS. PULLING PIPE SHALL BE PROHIBITED.
11. ALL MAINLINE CHANGE OF DIRECTION FITTINGS TO BE DUCTILE IRON THRUST BLOCKED PER DETAIL. ALL SERVICE TEES TO CONTROL VALVES SHALL BE PVC GASKET.
12. ALL SOLVENT WELDING SHALL BE PRECEDED BY PRIMING OF THE FITTINGS AND PIPE AS RECOMMENDED BY THE MANUFACTURER.
13. CONTRACTOR TO LABEL ALL VALVE BOX COVERS WITH THE CORRESPONDING CONTROLLER ZONE NUMBER. NUMBERING SIZE 1". ALL VALVE BOXES TO HAVE BOLT DOWN COVER WITH BOLT INSTALLED.
14. CONTRACTOR TO PLACE BUBBLERS AT OUTER EDGE OF ROOT BALL, NOT OUTER EDGE OF PLANTING HOLE.
15. INSTALL HUNTER IDWIRE1 CONTROL WIRE OR APPROVED EQUAL FROM CONTROLLER TO ALL NEW VALVES SHOWN. INSTALL HUNTER HUNTER DUAL-1 DECODERS OR APPROVED EQUAL AT ALL VALVE LOCATIONS. ALL WIRE SPLICES TO BE MADE INTO HUNTER IDWIRE1 SHALL BE MADE WITH 3M-DBR6 CONNECTORS OR APPROVED EQUAL. ALL WIRES SPLICES FROM DECODER TO CONTROL VALVE SHALL BE MADE WITH 3M-DBY CONNECTORS OR APPROVED EQUAL.
16. LOCATE ALL VALVES WITH A MINIMUM OFFSET OF 5'-0" FROM BACK OF CURB OR EDGE OF PAVEMENT.
17. THE IRRIGATION CONTRACTOR SHALL BE DIRECTLY RESPONSIBLE FOR ALL DIRECTIONAL BORING.
18. ALL UN-SIZED PIPE SHALL BE 3/4".
19. IRRIGATION LATERAL LINES TO BE BURIED AT A DEPTH OF 16".
20. IRRIGATION MAINLINES TO BE BURIED AT A DEPTH OF 20".
21. ALL COMPONENTS INSTALLED BY THE IRRIGATION CONTRACTOR, SHALL BE LOCATED ON THE "AS-BUILT" DRAWINGS. THE EXACT LOCATION AND DEPTH BELOW FINISH GRADE OF ALL COMPONENTS SHALL BE NOTED ON THE "AS-BUILT" DRAWINGS.
22. IRRIGATION CONTRACTOR SHALL SECURE ANY AND ALL NECESSARY PERMITS FOR THE WORK PRIOR TO COMMENCEMENT OF HIS OPERATIONS ON-SITE. COPIES OF THE PERMITS SHALL BE SENT TO THE LANDSCAPE SUPERVISOR. WORK IN THE RIGHT OF WAY SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF LOCAL AND/OR STATE HIGHWAY JURISDICTION.
23. INSTALLATION OF WORK SHALL BE COORDINATED WITH OTHER CONTRACTORS IN SUCH A MANNER AS TO ALLOW FOR A SPEEDY AND ORDERLY FLOW OF VEHICULAR TRAFFIC AND COMPLETION OF ALL WORK ON THE SITE.
24. DIRECTIONAL BORES SHALL BE INSTALLED IN ACCORDANCE WITH FDOT SPECIFICATIONS SECTION 555 FOR PRESSURIZED PIPES. INSTALL HARCO IPS MJ BELL X PE BUTT FUSION ADAPTER ON 3" DIRECTIONAL BORES AND USE FOR MAINLINE PIPING. INSTALL WIRE THROUGH 1-1/2" DIRECTIONAL BORES RUNNING WITH MAINLINE. INSTALL HDPE X SCHEDULE 40 FUSED ENDS ON 1-1/2" DIRECTIONAL BORES AT WALKOVER BRIDGE AND USE FOR LATERAL PIPING. 4
25. IRRIGATION CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING IRRIGATION SYSTEM THAT IS DUE TO THE INSTALLATION OF THE NEW IRRIGATION SYSTEM.
26. IRRIGATION CONTRACTOR SHALL ADJUST EXISTING IRRIGATION HEAD AROUND WELCOME SIGN SO THEY DO NOT OVERLAP NEW IRRIGATION HEADS AND PROVIDE COMPLETE COVERAGE PER ORIGINAL DESIGN. ZONE 11 TO OPERATE SIMULTANEOUSLY WITH ZONE 5.
27. CITY OF EDGEWATER WILL PROVIDE A 120 VOLT 20 AMP AND 240 VOLT 40 AMP BREAKER IN PANEL BOX. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR ELECTRICAL WORK FROM BREAKERS TO NEW PUMP AND IRRIGATION CONTROLLER. 4

IR 2-A

POSTED SPEED 55 MPH
DESIGN SPEED 60 MPH





IRRIGATION_SCHEDULE

SYMBOL	MANUFACTURER/MODEL	QTY	ARC	PSI	GPM	RADIUS
	Hunter PROS-12-PRS-30 or approved equal 15 Strip Series	4	EST	30	0.61	4'x15'
	Hunter PROS-12-PRS-30 or approved equal 15 Strip Series	1	SST	30	1.21	4'x30'
	Hunter PROS-12-PRS-30 or approved equal 8 Series MPR	4	90	30	0.26	8'
	Hunter PROS-12-PRS-30 or approved equal 10 Series MPR	1	180	30	0.79	10'
	Hunter PROS-12-PRS-30 or approved equal 10 Series MPR	1	120	30	0.53	10'
	Hunter PROS-12-PRS-30 or approved equal 12 Series MPR	4	360	30	2.60	12'
	Hunter PROS-12-PRS-30 or approved equal 12 Series MPR	10	180	30	1.30	12'
	Hunter PROS-12-PRS-30 or approved equal 12 Series MPR	4	90	30	0.65	12'
	Hunter PROS-12-PRS-30 or approved equal 15 Series MPR	2	360	30	3.70	15'
	Hunter PROS-12-PRS-30 or approved equal 15 Series MPR	6	180	30	1.85	15'
	Hunter PROS-12-PRS-30 or approved equal 15 Series MPR	4	90	30	0.92	15'
	Hunter PROS-12-PRS-30 or approved equal 15 Series	6	Adj	30	15'	
	Hunter PCB-25 Bubbler or approved equal	68	360	30	0.25	1'
	Two Hunter PCB-25 Bubbler or approved equal	21	360	30	2x.25	1'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	GPM	RADIUS
25 ARC	Hunter PGP-04 2.0LA or approved equal	22	45		25'
30 ARC	Hunter PGP-04 2.5LA or approved equal	67	45		30'
35 ARC	Hunter PGP-04 3.0LA or approved equal	30	45		35'
4.0	Hunter PGP-04 4.0 or approved equal	34	45	4.01	42'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Hunter ICV-FS in 10" Valve Box	11
EC	Existing Hunter ICC Controller see note	1
C	New Hunter IC-600PI with DUAL48M Two Wire Module to be used for all new valves shown. Install DUAL decoders at all valves. Install Hunter PSR-52 pump start relay to control new pump.	1
E	Existing Electrical Service	1
EW	Existing 4" Well and 5hp Pump	1
W	New 4" well with 5hp submersible pump to produce 65gpm @ 55 psi. Install 2" check valve, 2" pressure relief valve and 2" Vu-Flo filter with 100 mesh screen at discharge of well. Install pump discharge and equipment in a lock box fiberglass enclosure LB3000 on concrete pad.	1
	Irrigation Lateral Line: PVC Class 200 SDR 21	6,500 l.f.
	Irrigation Mainline: PVC 3" Class 200 SDR 21Gasket	2,500 l.f.
	Directional Bore: HDPE 3608 IPS directional bore sized per plan. Extend bores a minimum of 30" past hardscape.	

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NO.	DATE	DESCRIPTION	BY
1.	12-18-15	REVISED PER CITY REQUEST	SMG
2.	8-19-16	REVISED PER BID DOCUMENTS CHANGE REQUEST	JC
4.	9-6-16	RVISED PER BID REQUEST	SMG

REVISIONS:

US 1 AND SR442 BEAUTIFICATION
IRRIGATION PLANS
NOTES & DETAILS
CITY OF EDGEWATER VOLUSIA COUNTY, FLORIDA

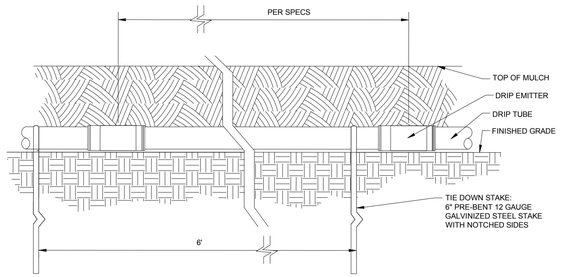
ZEV COHEN & ASSOCIATES, INC.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS (EB 4516) (LC 62)
PLANNERS • TRANSPORTATION • ENVIRONMENTAL
WWW.ZEVCOHEN.COM

PROJECT NO: 14021 | DRAFTED BY: JC
ISSUE DATE: 4-7-15 | CHECKED BY: SMG/PM
DESIGNED BY: JC | DRAWING FILE: 14021IR_SR442 XREF'S: 14021BASE

SEAL

SCALE:

SHEET IR2-1 OF 3



DRIP TUBE ON GRADE WITH MULCH COVER

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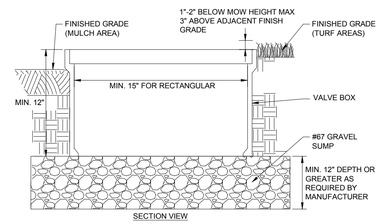
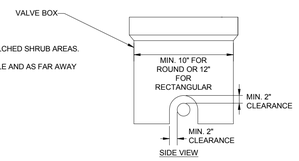


NOTES:

1. INSTALL BOX TOP BETWEEN 1"-2" BELOW MOW HEIGHT IN TURF AREAS. INSTALL BOX 2" ABOVE MULCH IN MULCHED SHRUB AREAS.
2. INSTALL ALL VALVES, QUICK COUPLER VALVES, VIRE SPECS, ETC., IN LANDSCAPED BEDS WHEREVER POSSIBLE AND AS FAR AWAY FROM VEHICULAR TRAVEL LANES AS FEASIBLE.
3. INSTALL ONE VALVE PER VALVE BOX.
4. SEE PLANS FOR BOX LOCATION, SIZE, AND SHAPE.



VALVE BOX DETAIL

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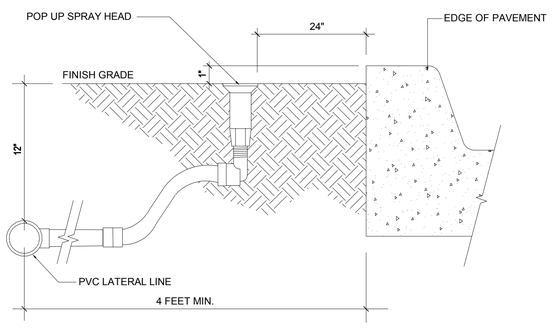
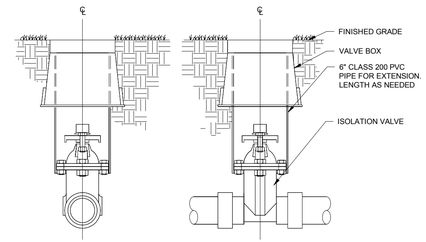


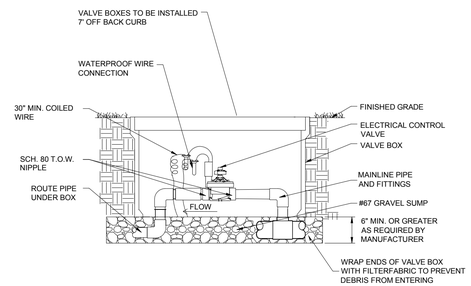
IRRIGATION HEAD INSTALLATION NEXT TO ROADWAY

SCALE: NTS



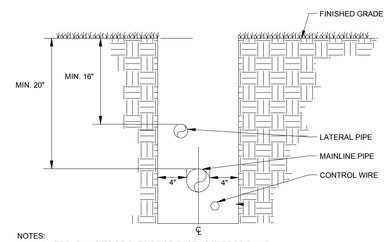
ISOLATION VALVE DETAIL

SCALE: NTS



ELECTRIC CONTROL VALVE

SCALE: NTS

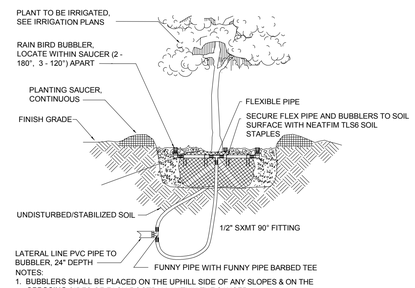


NOTES:

1. ALL TRENCHING TO BE OUTSIDE OF EXISTING TREE DRIP LINE.
2. NO ROCKS, BOULDERS, OR SHAPR OBJECTS TO BE IN TRENCH BACKFILL.
3. ALL PIPE TO BE INSTALLED AS RECOMMENDED BY MANUFACTURER.
4. AT EACH CHANGE IN MAINLINE DIRECTION INSTALL A 30" LOOP OF EXTRA WIRE.
5. BUNDLE WIRE WITH ELECTRICAL TAPE EVERY 10'.

TRENCH, PIPE, AND WIRE DETAIL

SCALE: NTS

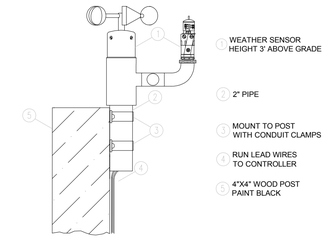


NOTES:

1. BUBBLERS SHALL BE PLACED ON THE UPHILL SIDE OF ANY SLOPES & ON THE OPPOSING SIDES OF EACH ROOTBALL WITHIN THE SAUCER
2. BUBBLERS TO BE INSTALLED ADJACENT TO ROOTBALL PERIMETER, DO NOT INSTALL BUBBLER ON TOP OF ROOTBALL OR NEXT TO TRUNK
3. REFER TO LEGEND FOR BUBBLER FLOW VOLUME AND BUBBLER QUANTITIES.

BUBBLER INSTALLATION

SCALE: NTS

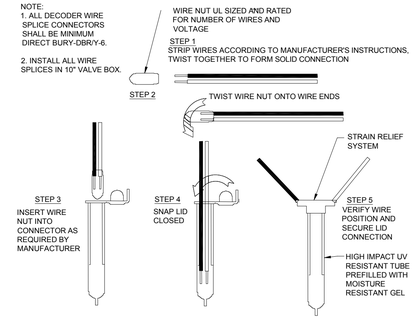


WEATHER SENSOR

SCALE: NTS

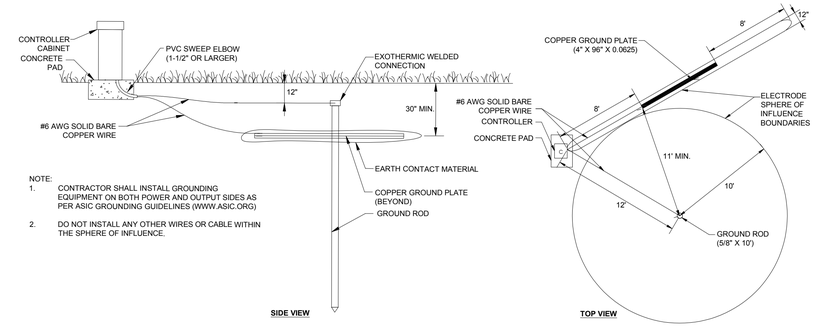
NOTE:

1. ALL DECODER WIRE SPLICE CONNECTORS SHALL BE MINIMUM DIRECT BURY-DBR/Y-6.
2. INSTALL ALL WIRE SPLICES IN 10" VALVE BOX.



WATERPROOF WIRE CONNECTION

SCALE: NTS

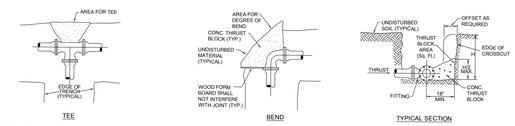


NOTE:

1. CONTRACTOR SHALL INSTALL GROUNDING EQUIPMENT ON BOTH POWER AND OUTPUT SIDES AS PER ASIC GROUNDING GUIDELINES (WWW.ASIC.ORG)
2. DO NOT INSTALL ANY OTHER WIRES OR CABLE WITHIN THE SPHERE OF INFLUENCE.

CONTROLLER AND DECODER GROUNDING DETAIL

SCALE: NTS



SCHEDULE FOR THRUST BLOCK AREAS

PIPE SIZE (inches)	90° BEND (Sq. Ft.)	45° BEND (Sq. Ft.)	22 1/2° BEND (Sq. Ft.)	11 1/4° BEND (Sq. Ft.)	TEE & PLUG (Sq. Ft.)	DESIGN PRESSURE (P.S.I.)
3	1.2	.6	.3	.2	1.0	150

NOTE: Thrust block areas computed on basis of 2000 lbs. per sq. ft. soil resistance bearing.

THRUST BLOCK NOTES

1. THRUST BLOCK BEARING AREAS SHALL BE POURED AGAINST UNDISTURBED MATERIAL. WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE ALL LOOSE MATERIAL AND EXTEND TO UNDISTURBED MATERIAL.
2. EXTEND THRUST BLOCK FOR FULL LENGTH OF FITTINGS. PUT BOARD IN FRONT OF PLUG BEFORE POURING CONCRETE. JOINTS SHALL NOT BE COVERED BY THRUST BLOCK.
3. ROUGH BLOCKING FORMS SHALL BE USED ALONG SIDES OF THRUST BLOCKS.
4. THRUST BLOCKS SHALL BE USED IN COMBINATION, AS REQUIRED, TO SUIT THE SPECIFIC FITTING ARRANGEMENT.
5. ALTERNATE DESIGNED RESTRAINING SYSTEMS SHALL BE PROVIDED WHERE STANDARD THRUST BLOCKING IS NOT SUITABLE.
6. ALL WOOD BLOCKING SHALL BE PRESSURE TREATED WITH PRESERVATIVE.

THRUST BLOCK DETAILS

SCALE: NTS

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REVISIONS:

NO.	DATE	DESCRIPTION	BY
1.	12-18-15	REVISED PER CITY REQUEST	SMG
2.	8-18-16	REVISED PER BID DOCUMENTS CHANGE REQUEST	JC
4.	9-9-16	RVISED PER BID REQUEST	SMG

US 1 AND SR442 BEAUTIFICATION
IRRIGATION PLANS
NOTES & DETAILS

CITY OF EDGEWATER — VOLUSIA COUNTY, FLORIDA

ZEV COHEN & ASSOCIATES, INC.
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PLANNERS • TRANSPORTATION • ENVIRONMENTAL
WWW.ZEVCOHEN.COM

PROJECT NO: 14021 — DRAFTED BY: JC
ISSUE DATE: 4-7-15 — CHECKED BY: SMG/PM
DESIGNED BY: JC — DRAWING FILE: 14021R_SR442 IRRIGATION REVISIONS

SEAL

SCALE:

SHEET IR3-1 OF 3