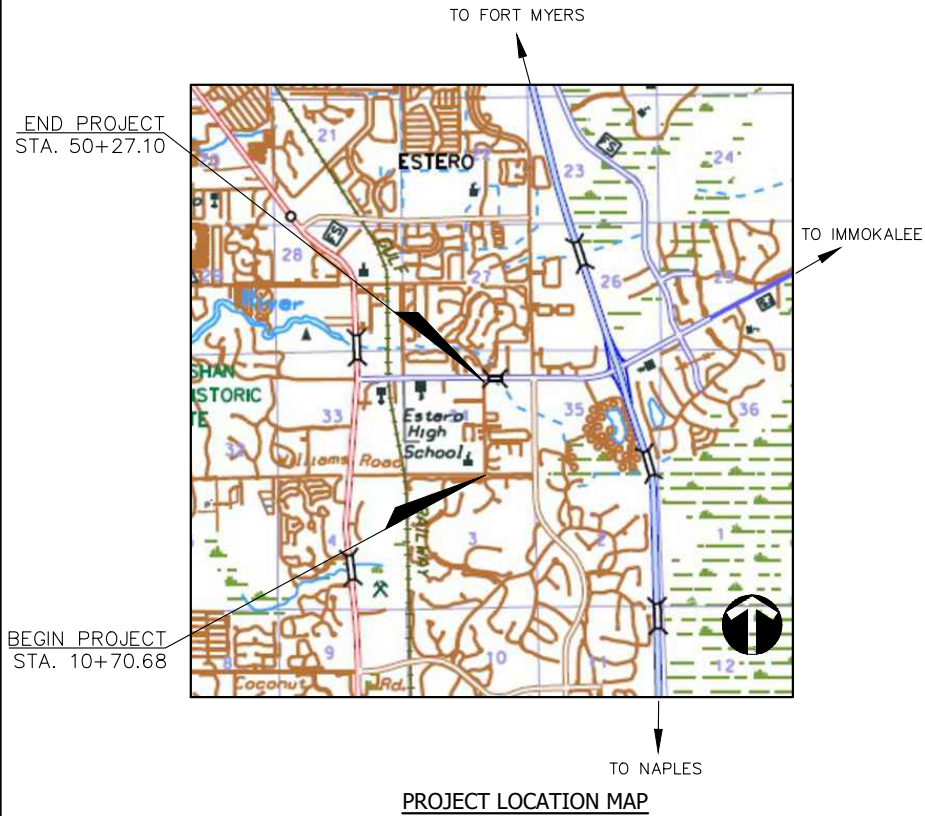


# VILLAGE OF ESTERO

## RIVER RANCH ROAD ROADWAY IMPROVEMENTS FROM WILLIAMS ROAD TO CORKSCREW ROAD CW3 PROJECT NUMBER 19-0046

### LANDSCAPE AND IRRIGATION PLANS



SHEET INDEX		SHEET INDEX	
CVR	COVER SHEET	IR-M	IRRIGATION MASTER PLAN
LA-1	LANDSCAPE PLAN	IR-1A & 1B	IRRIGATION PLAN
LA-2	LANDSCAPE PLAN	IR-2A & 2B	IRRIGATION PLAN
LA-3	LANDSCAPE PLAN	IR-3A & 3B	IRRIGATION PLAN
LA-4	LANDSCAPE PLAN	IR-4A & 4B	IRRIGATION PLAN
LA-5	LANDSCAPE PLAN	IR-5A & 5B	IRRIGATION PLAN
LA-6	LANDSCAPE PLAN	IR-6A & 6B	IRRIGATION PLAN
LA-7	LANDSCAPE PLAN	IR-7A & 7B	IRRIGATION PLAN
LA-8	LANDSCAPE PLAN	IR-8A & 8B	IRRIGATION PLAN
LA-9	LANDSCAPE DETAILS	IR-9	IRRIGATION DETAILS & NOTES
LA-10	LANDSCAPE DETAILS	IR-10	IRRIGATION DETAILS & NOTES
LA-11	LANDSCAPE SPECIFICATIONS	IR-11	IRRIGATION DETAILS & NOTES
LA-12	PLANT SCHEDULE	IR-12	IRRIGATION DETAILS & NOTES
		IR-13	IRRIGATION NOTES
		IR-14	IRRIGATION LEGEND

**KNOWN UTILITIES:**

**WATER & SEWER:**  
LEE CO. UTILITIES  
1500 MONROE STREET  
FORT MYERS, FL 33901  
(239) 533-8165

**PHONE:**  
CENTURY LINK  
2820 CARGO ST.  
FORT MYERS, FL 33916  
(239) 336-2020

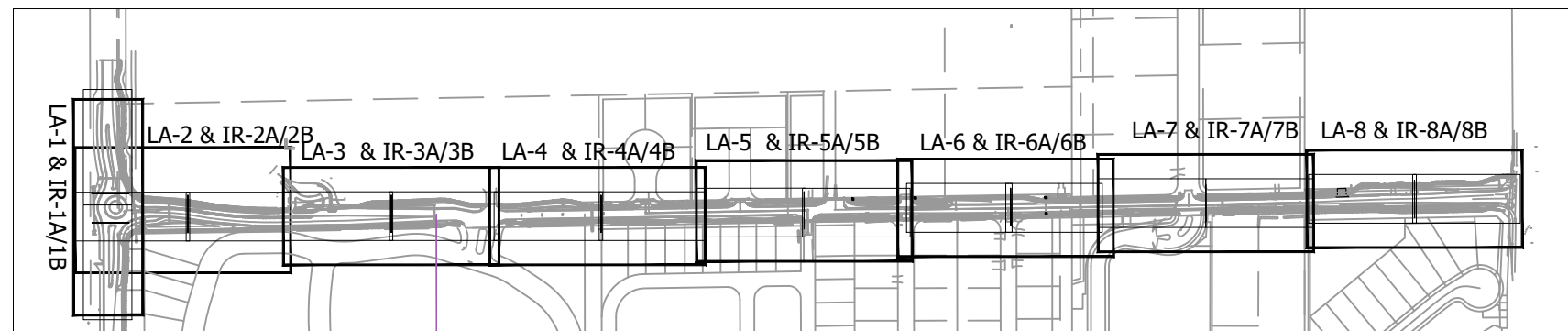
**UTILITY LOCATION SERVICE:**  
SUNSHINE STATE ONE  
CALL CENTER  
(239) 432-4770  
(MINIMUM 48 HOURS  
NOTICE REQUIRED)

**CABLE:**  
COMCAST  
4750 WINKLER AVE.  
FORT MYERS, FL 33901  
(239) 432-1805

**POWER:**  
FLORIDA POWER & LIGHT  
15834 WINKLER RD.  
FORT MYERS, FL 33908  
(239) 415-1236

**FIRE:**  
SOUTH TRAIL FIRE DISTRICT  
5531 HALIFAX AVE.  
FORT MYERS, FL 33912  
(239) 433-0080

**GAS:**  
TECO GAS  
5901 ENTERPRISE PKWY  
FORT MYERS, FL 33905  
(239) 690-5513



KEY MAP



100% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



IN COORDINATION WITH:  
**CW3**  
Engineering, Inc.  
5783 BAYSHORE ROAD, SUITE 113  
NORTH FORT MYERS, FL 33917

PREPARED FOR:  
VILLAGE OF ESTERO

RIVER RANCH ROAD  
ROADWAY IMPROVEMENTS  
CW3 PROJECT NUMBER 19-0046

SCALE:	
DATE:	MAY 2023
PROJECT #:	
REV	DATE DESCRIPTION

COVER  
SHEET

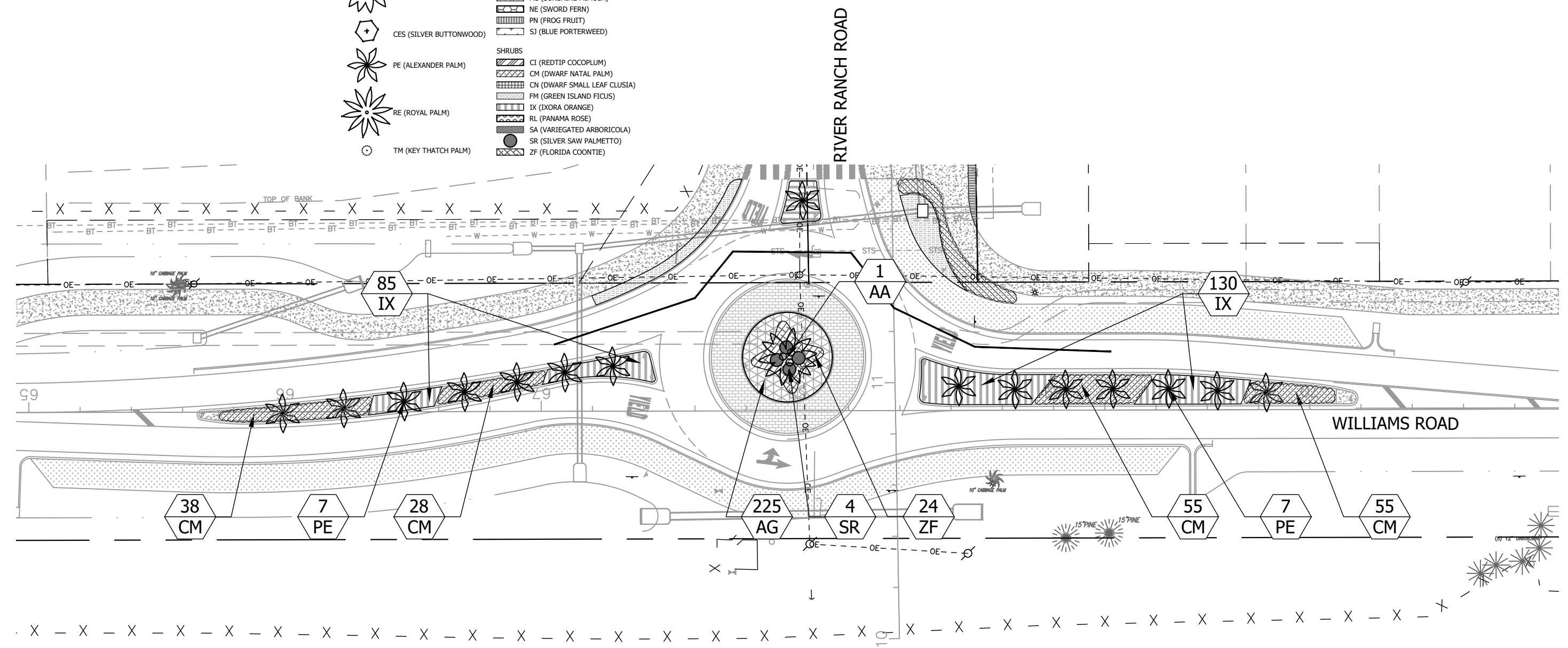
SHEET #  
**CVR**

DAYNA L. FENDRICK, RLA #0001224

C:\Users\tonya\OneDrive\Documents\CLEAN LINES\Urban Green Studio\River Ranch Road\IRR - 100percent.dwg, 5/11/2023 10:34:05 AM

**PLANTING LEGEND**

TREES AND PALMS	GROUND COVERS	MISCELLANEOUS
AA (KING PALM)	AG (PERENNIAL PEANUT)	FLORATAM SOD
CES (SILVER BUTTWOOD)	EL (GOLDEN BEACH CREEPER)	BAHIA SOD
PE (ALEXANDER PALM)	HL (SPIDER LILY)	
RE (ROYAL PALM)	MC (PINK MULHY GRASS)	
TM (KEY THATCH PALM)	MS (SUNSHINE MIMOSA)	
	NE (SWORD FERN)	
	PN (FROG FRUIT)	
	SJ (BLUE PORTERWEED)	
	<b>SHRUBS</b>	
	CI (REDTIP COCOPLUM)	
	CM (DWARF NATAL PALM)	
	CN (DWARF SMALL LEAF CLUSIA)	
	FM (GREEN ISLAND FICUS)	
	IX (IXORA ORANGE)	
	RL (PANAMA ROSE)	
	SA (VARIEGATED ARBORICOLA)	
	SR (SILVER SAW PALMETTO)	
	ZF (FLORIDA COONTIE)	



IN COORDINATION WITH:  
**CW3**  
 Engineering, Inc.  
 5783 BAYSHORE ROAD, SUITE 113  
 NORTH FORT MYERS, FL 33917

PREPARED FOR:  
 VILLAGE OF ESTERO

**RIVER RANCH ROAD  
 ROADWAY IMPROVEMENTS**  
 CW3 PROJECT NUMBER 19-0046

REV	DATE	DESCRIPTION

SCALE: 1" = 40'  
 DATE: MAY 2023  
 PROJECT #:

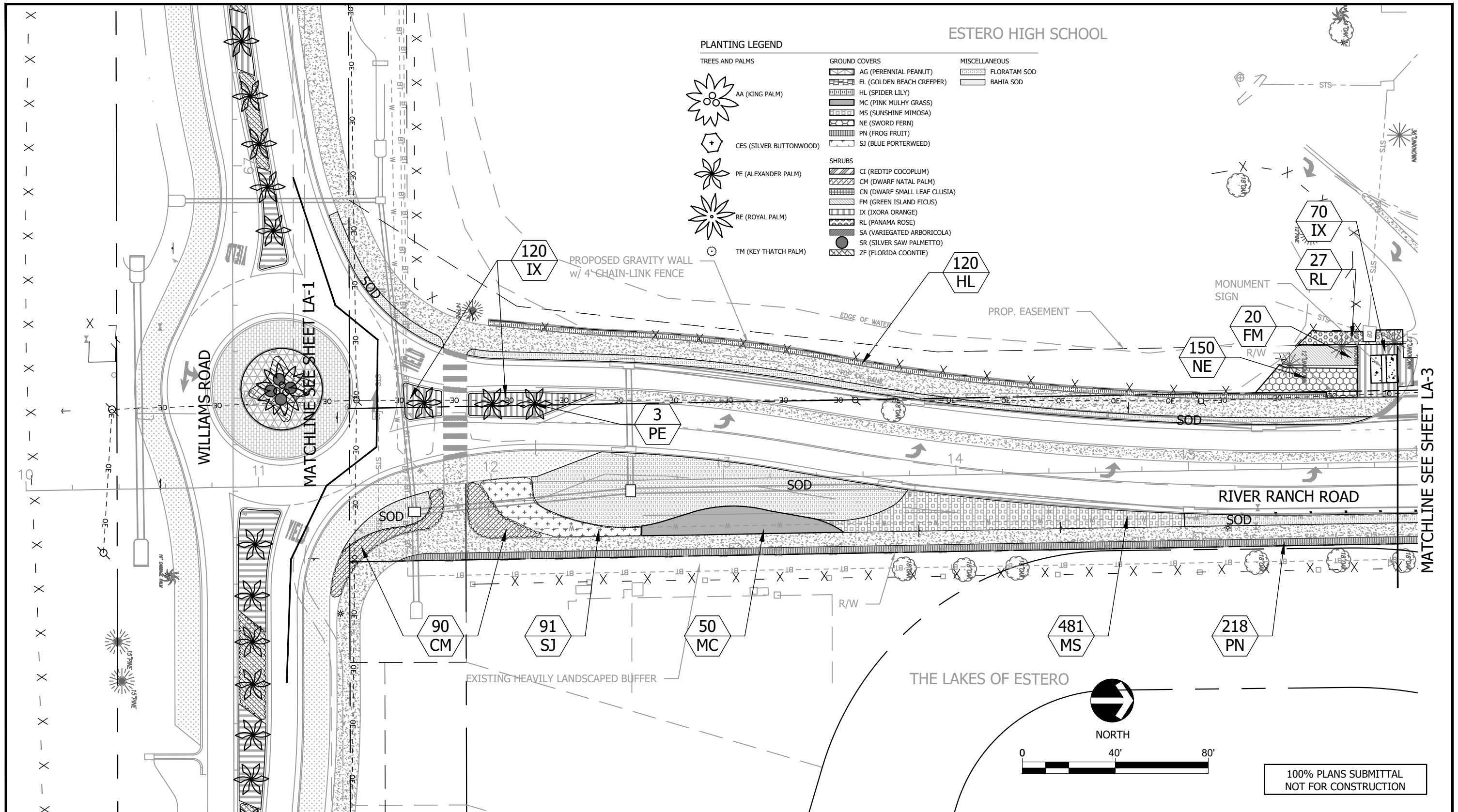
LANDSCAPE PLAN

100% PLANS SUBMITTAL  
 NOT FOR CONSTRUCTION

DAYNA L. FENDRICK, RLA #0001224

SHEET #  
**LA-1**

C:\Users\tonya\OneDrive\Documents\CLEAN LINES\Urban Green Studio\River Ranch Road\RRR - 100percent.dwg, 5/11/2023 10:36:29 AM



IN COORDINATION WITH:  
**CW3**  
 Engineering, Inc.  
 5783 BAYSHORE ROAD, SUITE 113  
 NORTH FORT MYERS, FL 33917

PREPARED FOR:  
 VILLAGE OF ESTERO

RIVER RANCH ROAD  
 ROADWAY IMPROVEMENTS  
 CW3 PROJECT NUMBER 19-0046

REV	DATE	DESCRIPTION

SCALE: 1" = 40'  
 DATE: MAY 2023  
 PROJECT #:

**LANDSCAPE PLAN**

DAYNA L. FENDRICK, RLA #0001224

SHEET #  
**LA-2**

**PLANTING LEGEND**

TREES AND PALMS

- AA (KING PALM)
- CES (SILVER BUTTWOOD)
- PE (ALEXANDER PALM)
- RE (ROYAL PALM)
- TM (KEY THATCH PALM)

GROUND COVERS

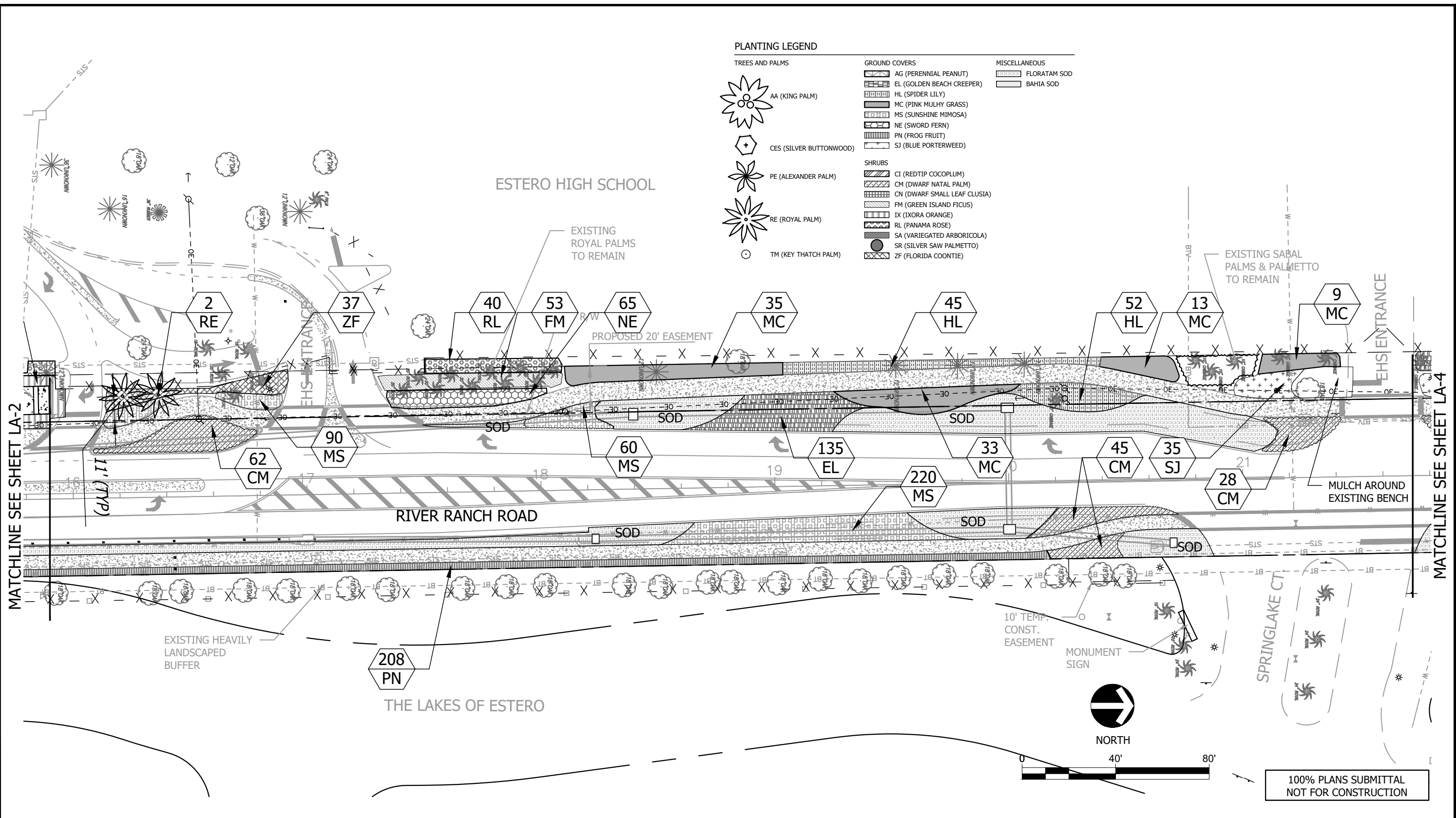
- AG (PERENNIAL PEANUT)
- EL (GOLDEN BEACH CREEPER)
- HL (SPIDER LILY)
- MC (PINK MULHY GRASS)
- MS (SUNSHINE MIMOSA)
- NE (SWORD FERN)
- PN (FROG FRUIT)
- SJ (BLUE PORTERWEED)

SHRUBS

- CI (REDTIP COCOPLUM)
- CM (DWARF NATAL PALM)
- CN (DWARF SMALL LEAF CLUSIA)
- FM (GREEN ISLAND FICUS)
- IX (EXORA ORANGE)
- RL (PANAMA ROSE)
- SA (VARIEGATED ARBORICOLA)
- SR (SILVER SAW PALMETTO)
- ZF (FLORIDA COONTIE)

MISCELLANEOUS

- FLORATAM SOD
- BAHIA SOD



IN COORDINATION WITH:  
**CW3**  
 Engineering, Inc.  
 5783 BAYSHORE ROAD, SUITE 113  
 NORTH FORT MYERS, FL 33917

PREPARED FOR:  
 VILLAGE OF ESTERO

**RIVER RANCH ROAD  
 ROADWAY IMPROVEMENTS**  
 CW3 PROJECT NUMBER 19-0046

REV	DATE	DESCRIPTION

SCALE: 1" = 40'  
 DATE: MAY 2023  
 PROJECT #:

**LANDSCAPE PLAN**

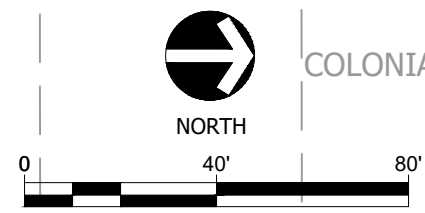
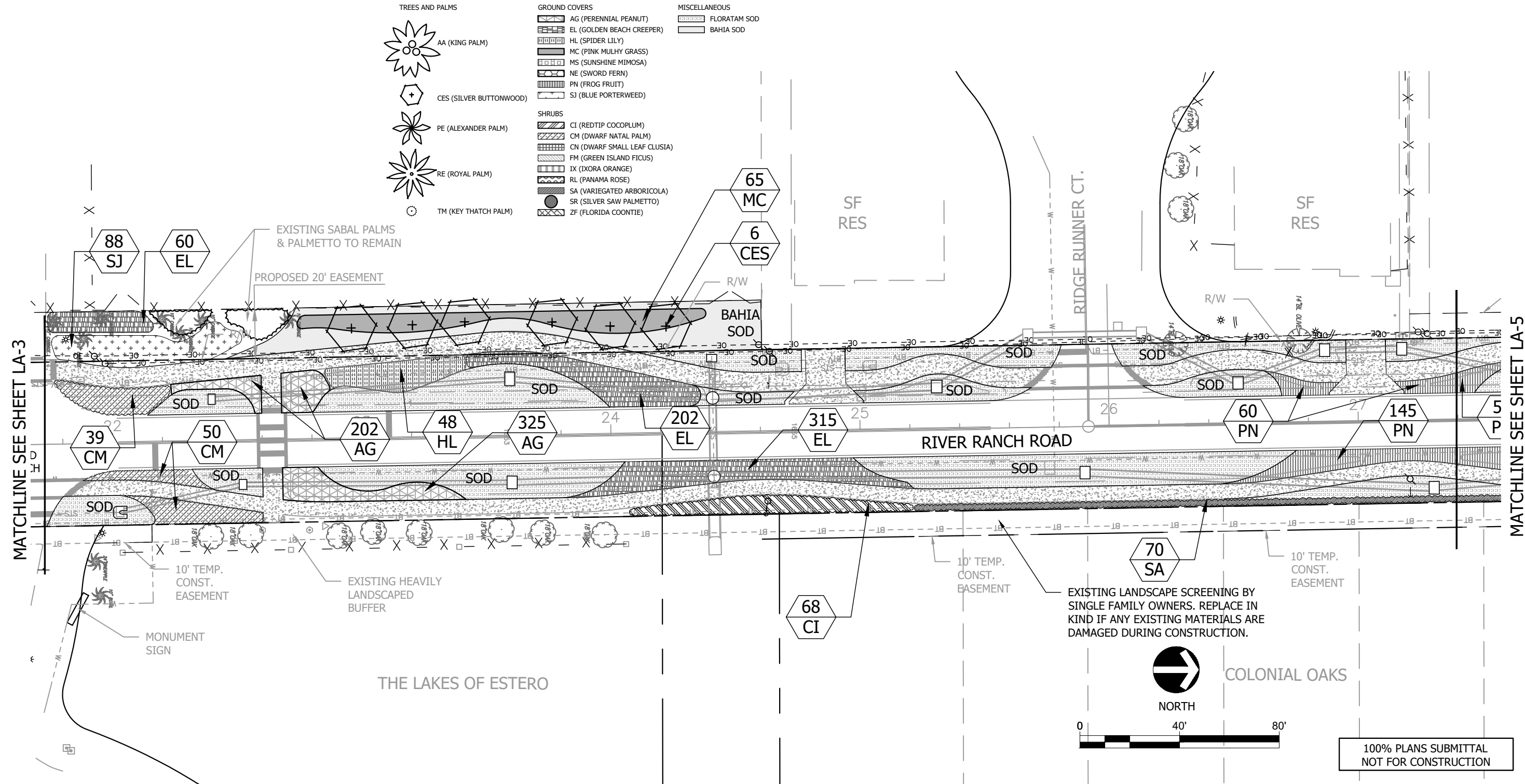
DAYNA L. FENDRICK, RLA #0001224

SHEET #  
**LA-3**

C:\Users\tonya\OneDrive\Documents\CLEAN LINES\Urban Green Studio\River Ranch Road\RRR - 100percent.dwg, 5/11/2023 10:28:43 AM

**PLANTING LEGEND**

- |                         |                              |                      |
|-------------------------|------------------------------|----------------------|
| <b>TREES AND PALMS</b>  | <b>GROUND COVERS</b>         | <b>MISCELLANEOUS</b> |
| AA (KING PALM)          | AG (PERENNIAL PEANUT)        | FLORATAM SOD         |
| CES (SILVER BUTTONWOOD) | EL (GOLDEN BEACH CREEPER)    | BAHIA SOD            |
| PE (ALEXANDER PALM)     | HL (SPIDER LILY)             |                      |
| RE (ROYAL PALM)         | MC (PINK MULHY GRASS)        |                      |
| TM (KEY THATCH PALM)    | MS (SUNSHINE MIMOSA)         |                      |
|                         | NE (SWORD FERN)              |                      |
|                         | PN (FROG FRUIT)              |                      |
|                         | SJ (BLUE PORTERWEED)         |                      |
|                         | <b>SHRUBS</b>                |                      |
|                         | CI (REDTIP COCOPLUM)         |                      |
|                         | CM (DWARF NATAL PALM)        |                      |
|                         | CN (DWARF SMALL LEAF CLUSIA) |                      |
|                         | FM (GREEN ISLAND FICUS)      |                      |
|                         | IX (XORA ORANGE)             |                      |
|                         | RL (PANAMA ROSE)             |                      |
|                         | SA (VARIEGATED ARBORICOLA)   |                      |
|                         | SR (SILVER SAW PALMETTO)     |                      |
|                         | ZF (FLORIDA COONTIE)         |                      |



100% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



IN COORDINATION WITH:  
**CW3**  
Engineering, Inc.  
5783 BAYSHORE ROAD, SUITE 113  
NORTH FORT MYERS, FL 33917

PREPARED FOR:  
VILLAGE OF ESTERO

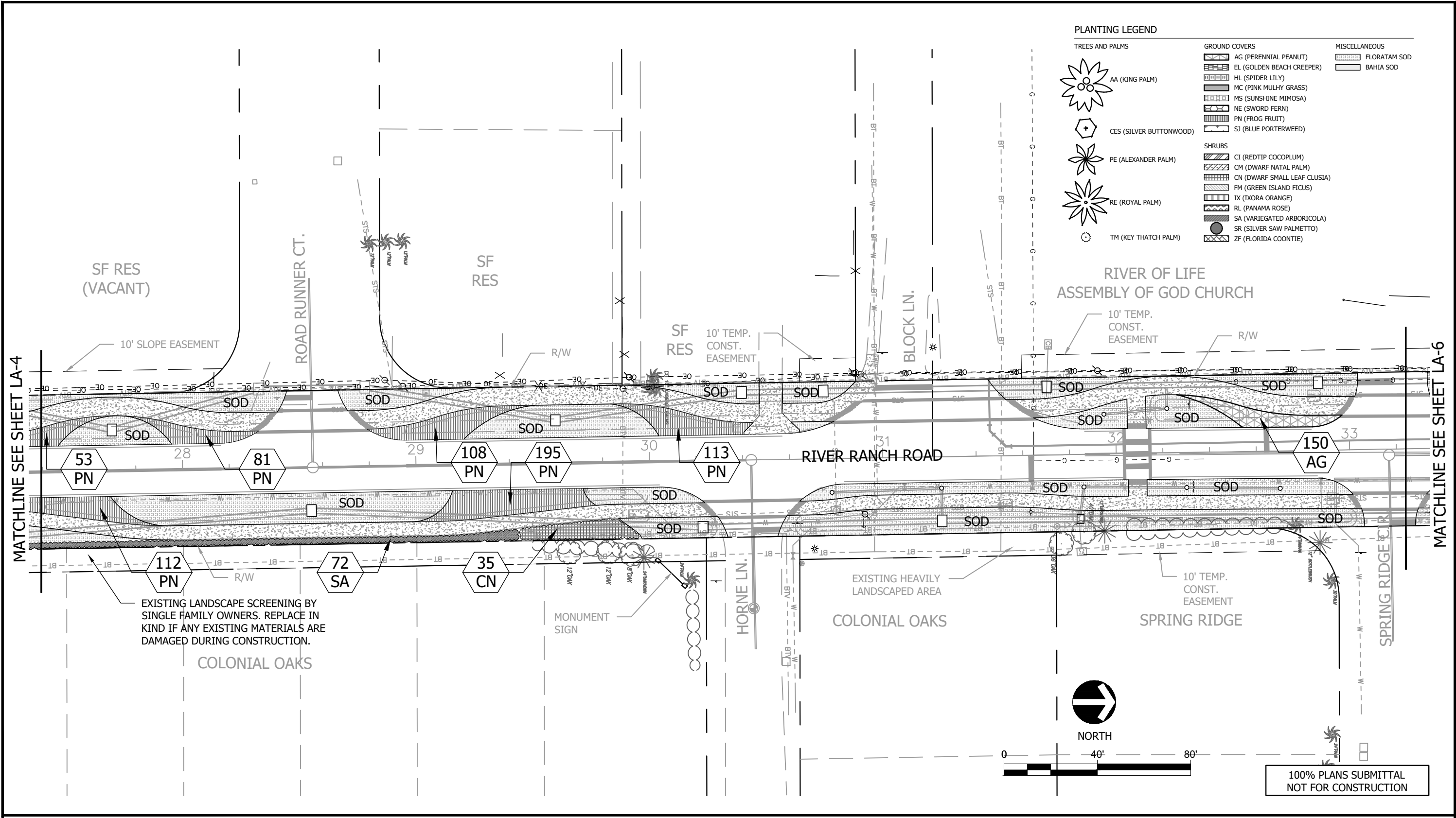
RIVER RANCH ROAD  
ROADWAY IMPROVEMENTS  
CW3 PROJECT NUMBER 19-0046

SCALE:	1" = 40'	
DATE:	MAY 2023	
PROJECT #:		
REV	DATE	DESCRIPTION

**LANDSCAPE PLAN**

SHEET #  
**LA-4**

DAYNA L. FENDRICK, RLA #0001224



100% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



IN COORDINATION WITH:  
**CW3**  
Engineering, Inc.  
5783 BAYSHORE ROAD, SUITE 113  
NORTH FORT MYERS, FL 33917

PREPARED FOR:  
VILLAGE OF ESTERO

RIVER RANCH ROAD  
ROADWAY IMPROVEMENTS  
CW3 PROJECT NUMBER 19-0046

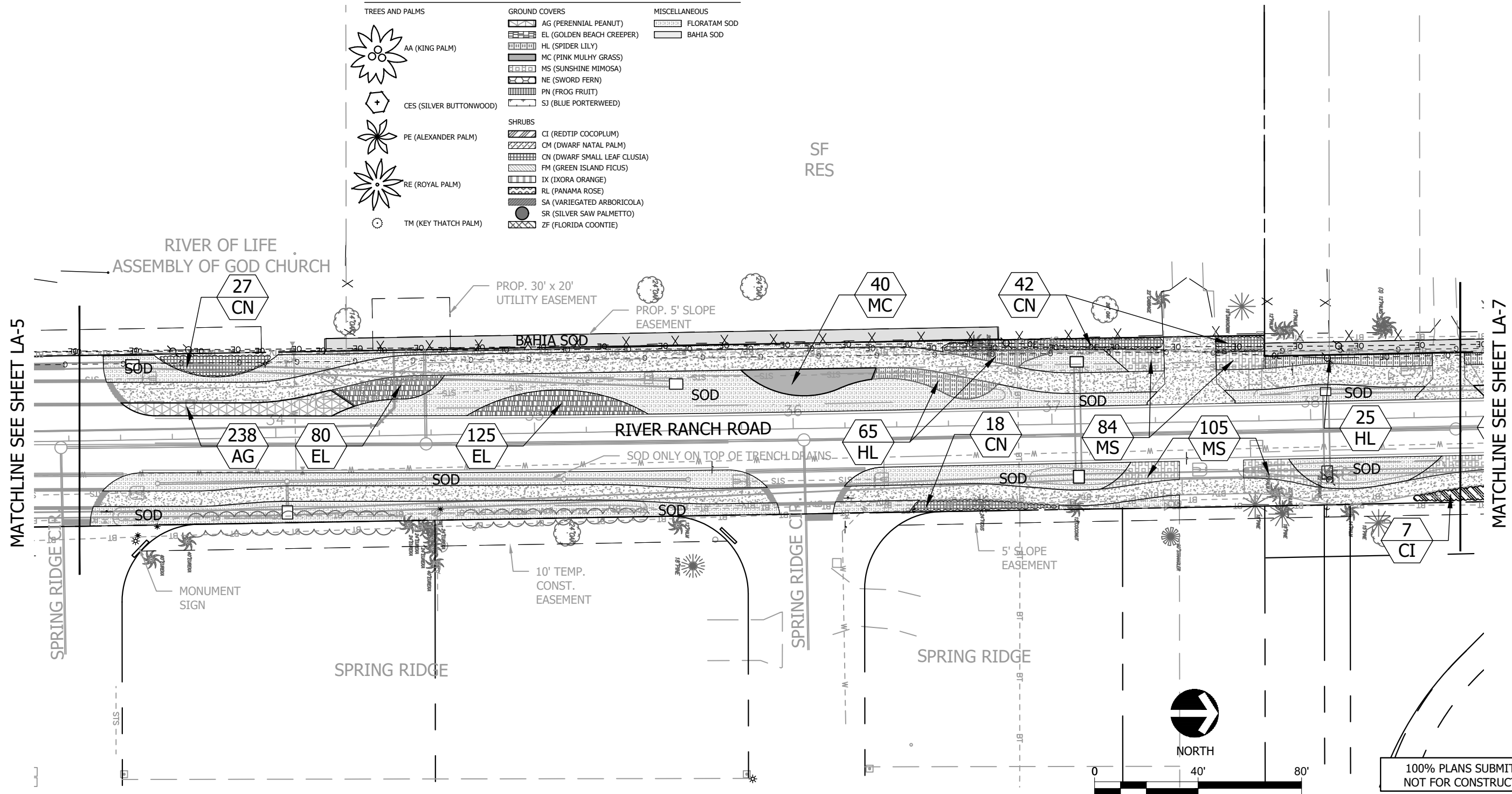
SCALE:	1" = 40'	
DATE:	MAY 2023	
PROJECT #:		
REV	DATE	DESCRIPTION

LANDSCAPE PLAN

SHEET #  
**LA-5**

**PLANTING LEGEND**

- |   |  |   |
|---|--|---|
| <p><b>TREES AND PALMS</b></p> <ul style="list-style-type: none"> <li>AA (KING PALM)</li> <li>CES (SILVER BUTTONWOOD)</li> <li>PE (ALEXANDER PALM)</li> <li>RE (ROYAL PALM)</li> <li>TM (KEY THATCH PALM)</li> </ul> | <p><b>GROUND COVERS</b></p> <ul style="list-style-type: none"> <li>AG (PERENNIAL PEANUT)</li> <li>EL (GOLDEN BEACH CREEPER)</li> <li>HL (SPIDER LILY)</li> <li>MC (PINK MULHY GRASS)</li> <li>MS (SUNSHINE MIMOSA)</li> <li>NE (SWORD FERN)</li> <li>PN (FROG FRUIT)</li> <li>SJ (BLUE PORTERWEED)</li> </ul> <p><b>SHRUBS</b></p> <ul style="list-style-type: none"> <li>CI (REDTIP COCOPLUM)</li> <li>CM (DWARF NATAL PALM)</li> <li>CN (DWARF SMALL LEAF CLUSIA)</li> <li>FM (GREEN ISLAND FICUS)</li> <li>IX (IXORA ORANGE)</li> <li>RL (PANAMA ROSE)</li> <li>SA (VARIEGATED ARBORICOLA)</li> <li>SR (SILVER SAW PALMETTO)</li> <li>ZF (FLORIDA COONTIE)</li> </ul> | <p><b>MISCELLANEOUS</b></p> <ul style="list-style-type: none"> <li>FLORATAM SOD</li> <li>BAHIA SOD</li> </ul> |
|---|--|---|



100% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



IN COORDINATION WITH:  
**CW3**  
Engineering, Inc.  
5783 BAYSHORE ROAD, SUITE 113  
NORTH FORT MYERS, FL 33917

PREPARED FOR:  
VILLAGE OF ESTERO

RIVER RANCH ROAD  
ROADWAY IMPROVEMENTS  
CW3 PROJECT NUMBER 19-0046

SCALE:	1" = 40'	
DATE:	MAY 2023	
PROJECT #:		
REV	DATE	DESCRIPTION

LANDSCAPE PLAN

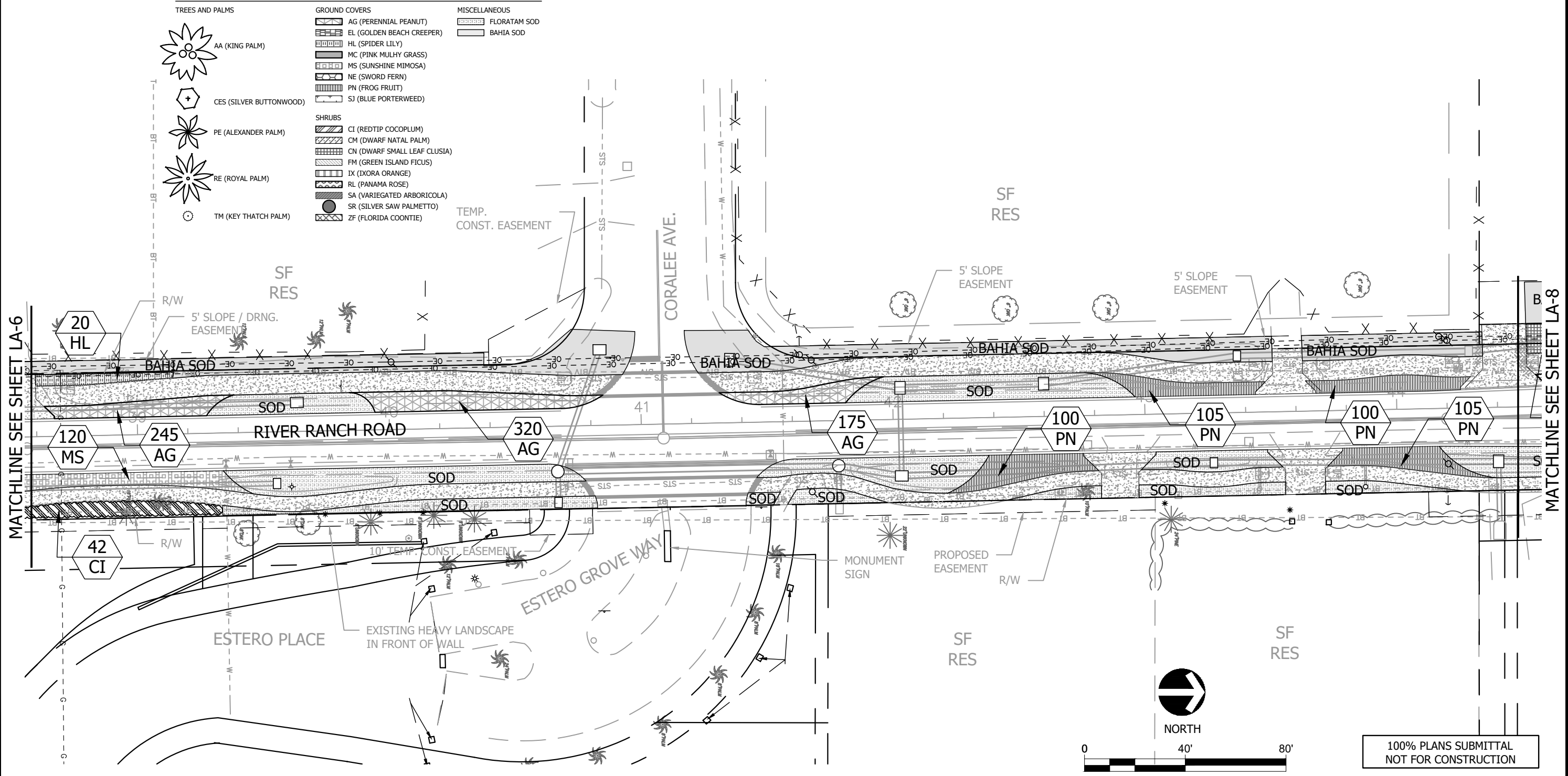
SHEET #  
**LA-6**

DAYNA L. FENDRICK, RLA #0001224

C:\Users\tonya\OneDrive\Documents\CLEAN LINES\Urban Green Studio\River Ranch Road\RRR - 100percent.dwg, 5/11/2023 10:33:37 AM

**PLANTING LEGEND**

- |                        |                              |                      |
|------------------------|------------------------------|----------------------|
| <b>TREES AND PALMS</b> | <b>GROUND COVERS</b>         | <b>MISCELLANEOUS</b> |
| AA (KING PALM)         | AG (PERENNIAL PEANUT)        | FLORATAM SOD         |
| CES (SILVER BUTTWOOD)  | EL (GOLDEN BEACH CREEPER)    | BAHIA SOD            |
| PE (ALEXANDER PALM)    | HL (SPIDER LILY)             |                      |
| RE (ROYAL PALM)        | MC (PINK MULHY GRASS)        |                      |
| TM (KEY THATCH PALM)   | MS (SUNSHINE MIMOSA)         |                      |
|                        | NE (SWORD FERN)              |                      |
|                        | PN (FROG FRUIT)              |                      |
|                        | SJ (BLUE PORTERWEED)         |                      |
|                        | <b>SHRUBS</b>                |                      |
|                        | CI (REDTIP COCOPLUM)         |                      |
|                        | CM (DWARF NATAL PALM)        |                      |
|                        | CN (DWARF SMALL LEAF CLUSIA) |                      |
|                        | FM (GREEN ISLAND FIGUS)      |                      |
|                        | IX (IXORA ORANGE)            |                      |
|                        | RL (PANAMA ROSE)             |                      |
|                        | SA (VARIEGATED ARBORICOLA)   |                      |
|                        | SR (SILVER SAW PALMETTO)     |                      |
|                        | ZF (FLORIDA COONTIE)         |                      |



MATCHLINE SEE SHEET LA-6

MATCHLINE SEE SHEET LA-8



NORTH



100% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



IN COORDINATION WITH:  
**CW3**  
Engineering, Inc.  
5783 BAYSHORE ROAD, SUITE 113  
NORTH FORT MYERS, FL 33917

PREPARED FOR:  
VILLAGE OF ESTERO

RIVER RANCH ROAD  
ROADWAY IMPROVEMENTS  
CW3 PROJECT NUMBER 19-0046

SCALE:	1" = 40'	
DATE:	MAY 2023	
PROJECT #:		
REV	DATE	DESCRIPTION

**LANDSCAPE PLAN**

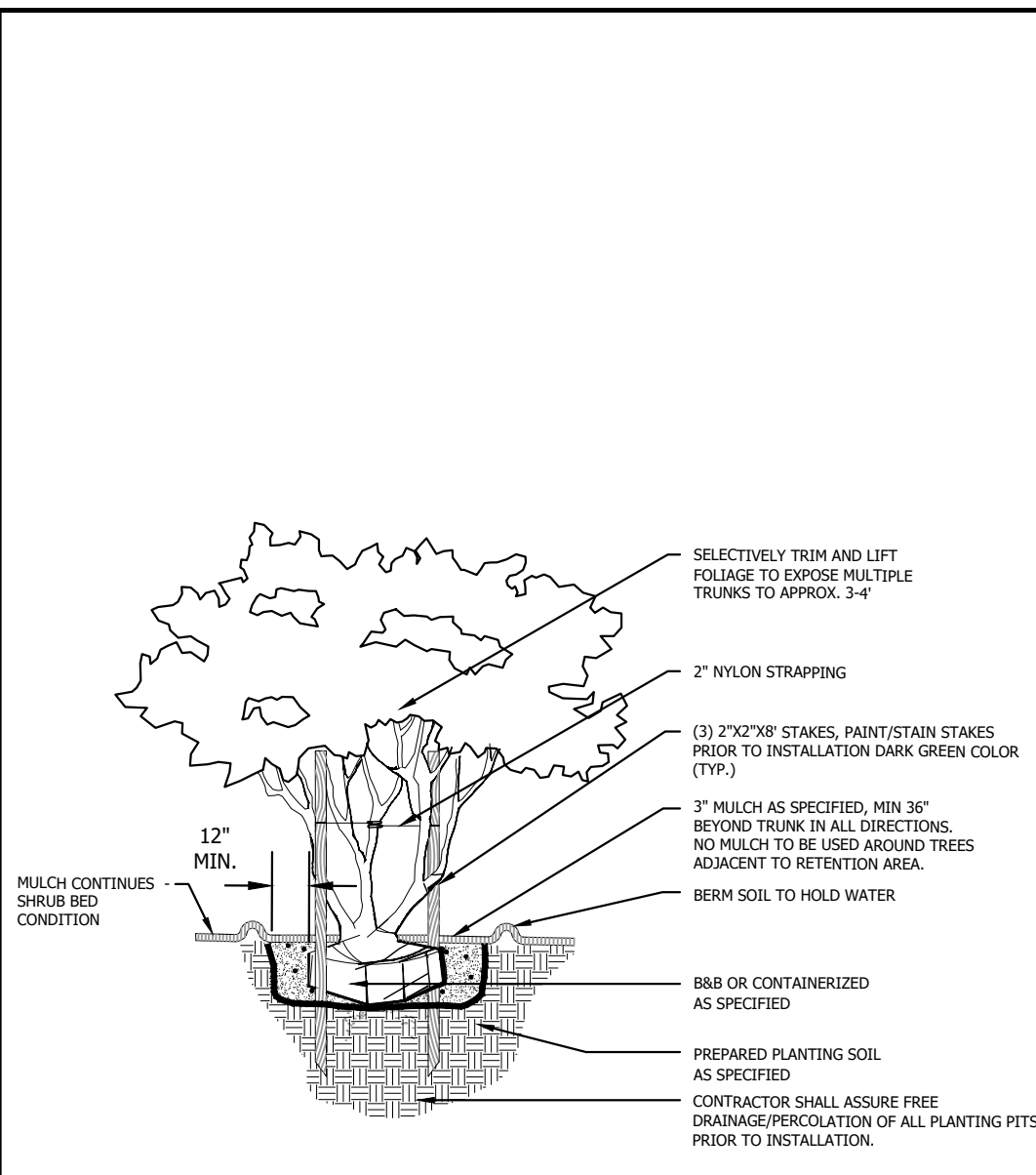
SHEET #  
**LA-7**

DAYNA L. FENDRICK, RLA #0001224



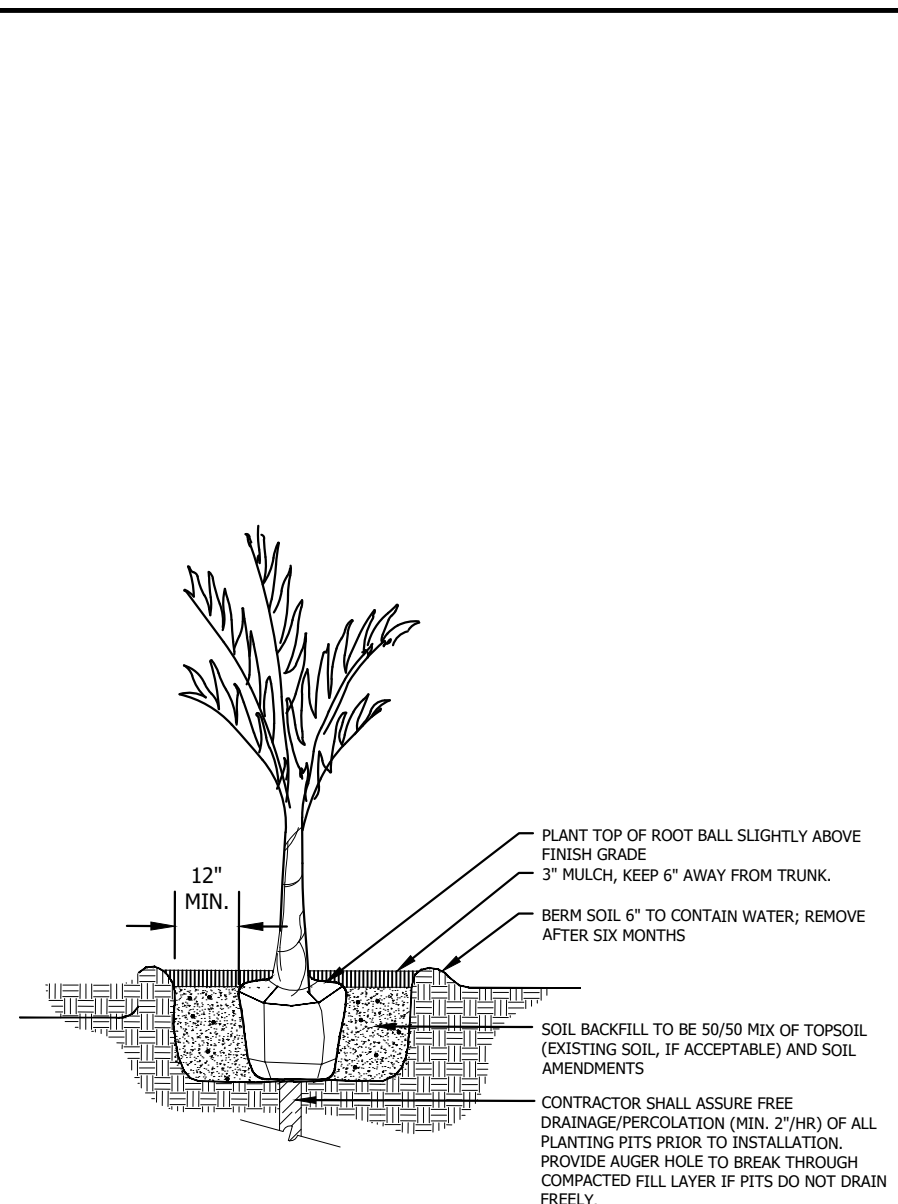


C:\Users\tonya\OneDrive\Documents\CLEAN LINES\Urban Green Studio\River Ranch Road\RRR - 100percent.dwg, 5/11/2023 10:30:36 AM



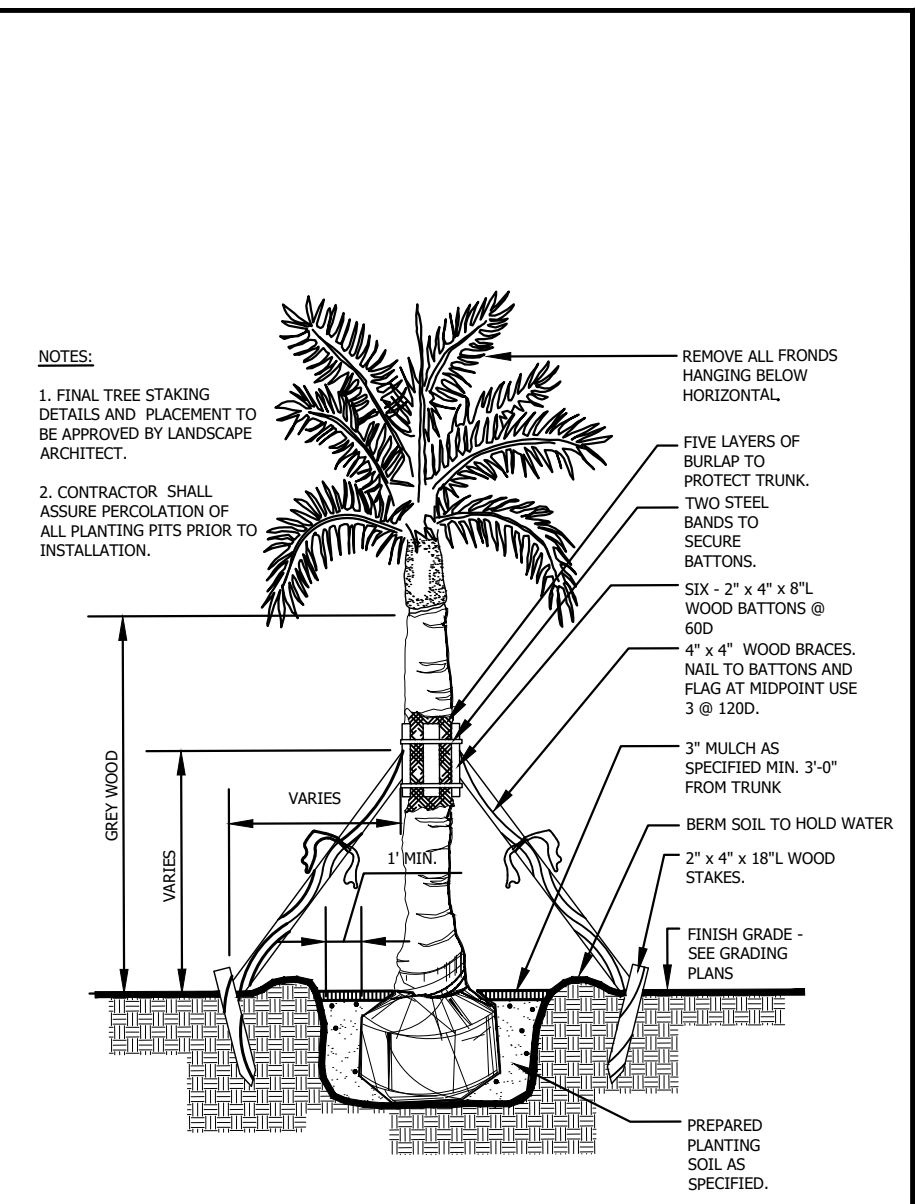
**MULTI-TRUNK TREE**

N.T.S.



**SLENDER PALM**

N.T.S.



**ROYAL PALM**

N.T.S.

**NOTES:**

1. FINAL TREE STAKING DETAILS AND PLACEMENT TO BE APPROVED BY LANDSCAPE ARCHITECT.

2. CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION.

100% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



IN COORDINATION WITH:  
**CW3**  
Engineering, Inc.  
5783 BAYSHORE ROAD, SUITE 113  
NORTH FORT MYERS, FL 33917

PREPARED FOR:  
VILLAGE OF ESTERO

RIVER RANCH ROAD  
ROADWAY IMPROVEMENTS  
CW3 PROJECT NUMBER 19-0046

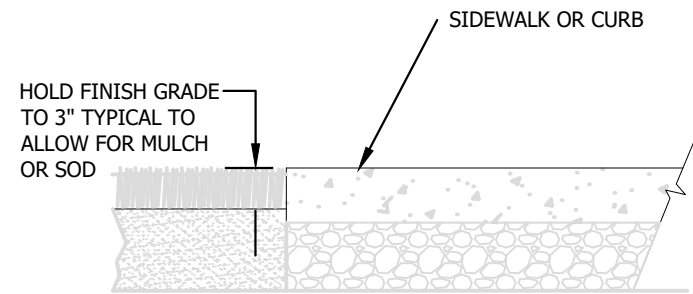
REV	DATE	DESCRIPTION	SCALE:
			DATE: MAY 2023
			PROJECT #:

LANDSCAPE DETAILS

DAYNA L. FENDRICK, RLA #0001224

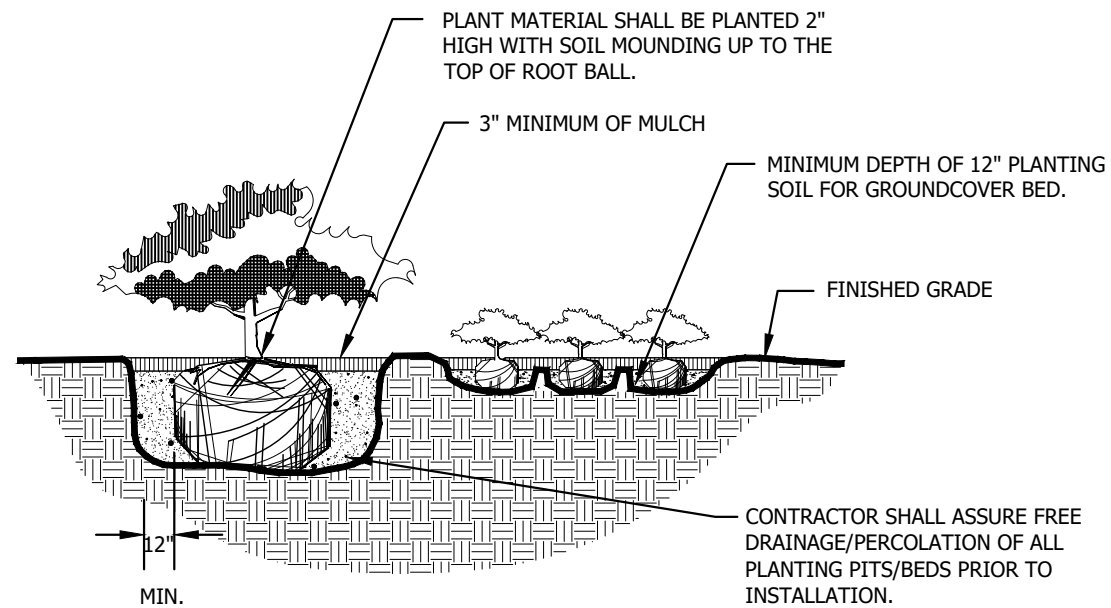
SHEET #  
**LA-9**

C:\Users\tonya\OneDrive\Documents\CLEAN LINES\Urban Green Studio\River Ranch Road\RRR - 100percent.dwg, 5/11/2023 10:33:01 AM



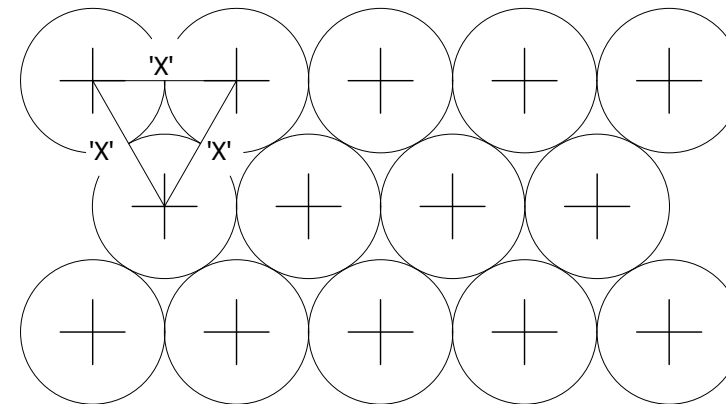
**SOD / MULCH AT PAVEMENT EDGE**

N.T.S.



**SHRUBS AND GROUND COVER**

N.T.S.

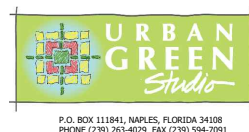


ALL SHRUBS AND GROUND COVER  
MASSES TO USE TRIANGULAR  
SPACING EXCEPT WHERE NOTED  
REFER TO PLANT LIST FOR  
INDIVIDUAL PLANT SPACING 'X'.

**TYPICAL PLANT SPACING**

N.T.S.

100% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



IN COORDINATION WITH:  
**CW3**  
Engineering, Inc.  
5783 BAYSHORE ROAD, SUITE 113  
NORTH FORT MYERS, FL 33917

PREPARED FOR:  
VILLAGE OF ESTERO

RIVER RANCH ROAD  
ROADWAY IMPROVEMENTS  
CW3 PROJECT NUMBER 19-0046

REV	DATE	DESCRIPTION

SCALE:  
DATE: MAY 2023  
PROJECT #:

**LANDSCAPE DETAILS**

DAYNA L. FENDRICK, RLA #0001224

SHEET #  
**LA-10**

C:\Users\tonya\OneDrive\Documents\CLEAN LINES\Urban Green Studio\River Ranch Road\RRR - 100percent.dwg, 5/11/2023 10:35:31 AM

# SPECIFICATIONS

## GENERAL

- PRIOR TO CONSTRUCTION, THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR CONTACTING SUNSHINE ONE (CALL 811, OR TOLL FREE 800-432-4770), LOCATING ALL UNDERGROUND UTILITIES AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING CONSTRUCTION. SHOULD THE LANDSCAPE CONTRACTOR CAUSE DAMAGE TO ANY UTILITIES, NECESSARY REPAIRS SHALL BE MADE AS QUICKLY AS PRACTICABLE, AT LANDSCAPE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS NOT PROVIDED FOR BY THE OWNER PRIOR TO COMMENCING ANY WORK.
- THE CONTRACTOR IS RESPONSIBLE FOR TESTING THE pH OF THE WELL WATER PRIOR TO SOIL PREPARATION.
- THE CONTRACTOR IS RESPONSIBLE FOR KEEPING A FULL SIGNED AND SEALED PLAN SET ON SITE AT ALL TIMES. THE CONTRACTOR SHALL MAINTAIN A REDLINED COPY OF ALL FIELD ADJUSTMENTS MADE, AND PROVIDE A COPY OF THE REDLINED PLANS TO THE LANDSCAPE ARCHITECT FOR PREPARING THE AS-BUILT PLANS AT THE COMPLETION OF THE JOB.
- THE CONSTRUCTION BID PRICES FOR ITEMS THAT REQUIRE DEMOLITION AND/OR REMOVAL OF EXISTING MATERIALS SHALL INCLUDE THE COST OF DEMOLITION AND PROPER DISPOSAL OF THE EXISTING MATERIALS, SUCH AS PLANTINGS, ASPHALT, LIMESTONE, FILL DIRT, AND CONCRETE.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING, IN FULL ALL PLANTING AREAS (INCLUDING WATERING, SPRAYING, MULCHING, MOWING, FERTILIZING, ETC.) UNTIL THE JOB IS ACCEPTED BY THE OWNER AND LANDSCAPE ARCHITECT.
- ALL PLANT MATERIAL SHALL BE OF FLORIDA NO. 1 OR BETTER QUALITY AT TIME OF INSTALLATION AND SHALL BE MAINTAINED IN THIS SAME CONDITION UNTIL FINAL ACCEPTANCE. DECLINE IN CONDITION OF PLANT MATERIAL DURING THE MAINTENANCE PERIOD SHALL BE GROUNDS FOR REJECTION AND REPLACEMENT.
- PRIOR TO PURCHASE AND/OR DELIVERY TO THE SITE, THE LANDSCAPE ARCHITECT AND AN OWNER'S REPRESENTATIVE WILL ACCOMPANY THE CONTRACTOR TO FIELD TAG GUMBO LIMBO TREES AND BUCCANEER PALMS. THE CONTRACTOR SHALL PREVIEW THE POTENTIAL NURSERY SOURCES AND NARROW DOWN THE SELECTION TO THE TWO OR THREE BEST QUALITY SOURCES.
- SAMPLES OF ALL PLANT AND HARDSCAPE MATERIAL TO BE SUBMITTED FOR OWNER AND/OR LANDSCAPE ARCHITECT APPROVAL PRIOR TO INSTALLATION.
- SAMPLES OF ALL PLANT AND HARDSCAPE MATERIAL TO BE SUBMITTED FOR OWNER AND/OR LANDSCAPE ARCHITECT APPROVAL PRIOR TO INSTALLATION.
- ALL QUANTITIES INDICATED ON THE PLANS ARE INTENDED AS A GUIDE FOR THE BIDDER AND DOES NOT RELIEVE THE BIDDER OF HIS RESPONSIBILITY TO DO A COMPREHENSIVE PLANT QUANTITY TAKE OFF. IN THE CASE OF A CONFLICT BETWEEN THE DRAWINGS AND THE BID FORM, THE DRAWINGS SHALL GOVERN.
- AFTER RECEIPT OF BIDS, PRICES FOR ANY QUANTITIES ADDED TO OR DELETED FROM THE BID SCHEDULE BY THE LANDSCAPE ARCHITECT WILL BE BASED ON THE UNIT PRICE SCHEDULE SUBMITTED BY CONTRACTOR.

## MAINTENANCE OF TRAFFIC CONTROL NOTES:

- THE PREPARATION OF THE TRAFFIC CONTROL PLAN FOR THIS PROJECT SHALL BE IN ACCORDANCE WITH THE 2003 EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD PART VI, TRAFFIC CONTROLS FOR STREET AND HIGHWAY CONSTRUCTION), AS REVISED TO DATE. FOR GENERAL TRAFFIC CONTROL ZONE REQUIREMENTS AND ADDITIONAL INFORMATION, REFER TO THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) BOOKLET "DESIGN STANDARDS" DATED JANUARY 2006 INDEX NOS. 600 THROUGH 660, AS APPLICABLE AND PER COLLIER COUNTY M.O.T. POLICY.
- THE CONTRACTOR IS RESPONSIBLE FOR THE PREPARATION OF THE TRAFFIC CONTROL PLAN (T.C.P.), THE COST OF WHICH SHALL BE INCLUDED IN PAY ITEM- MAINTENANCE OF TRAFFIC. THE T.C.P. SHALL BE PREPARED BY AN INDIVIDUAL WITH THE ADVANCED FDOT "WORK ZONE TRAFFIC CONTROL" CERTIFICATION. THIS PLAN SHALL BE SUBMITTED TO THE PROJECT MANAGER FOR APPROVAL WITH THE APPLICATION FOR THE RIGHT-OF-WAY PERMIT.

## MEDIAN GRADING AND SOIL PREPARATION SPECIFICATIONS:

- (16) SOIL BORINGS HAVE BEEN PERFORMED ON SITE. THE SOILS REPORT, WHICH INDICATES pH, SOIL COMPOSITION AND PERCOLATION RATES, WILL BE MADE AVAILABLE TO BIDDERS.
- IF ANY LIMEROCK BASE MATERIAL, ROCK, OR OTHER DELETERIOUS MATERIALS ARE ENCOUNTERED DURING GRADING, IRRIGATION, OR PLANTING, THOSE MATERIALS MUST BE REMOVED AND DISPOSED OF OFF-SITE. ANY COMPACTED FILL OR SUBGRADE MUST BE PIERCED THROUGH COMPLETELY TO ALLOW FOR PERCOLATION AND DRAINAGE.
- INSTALL IRRIGATION MAIN LINES, WIRING, AND STUB UP VALVE LOCATIONS TO WITHIN EIGHT INCHES OF EXISTING SURFACE GRADE.
- SPRAY EXISTING MEDIANS WITH CONTACT HERBICIDE FOR 100% KILL OF EXISTING GRASS AS APPROVED BY LANDSCAPE ARCHITECT AND MAINTAIN MEDIANS WEED-FREE DURING INSTALLATION UNTIL FINAL ACCEPTANCE.
- CUT EXISTING SOIL BEHIND BACK OF CURBING IF REQUIRED TO PROPOSED 2" DEPTH AND SPREAD CUT INWARD TOWARD THE CENTER OF THE MEDIAN AND ROUGH GRADE PER PROFILE.
- ROTOR TILL MEDIAN TO AN 8-10" DEPTH TO WITHIN 18 INCHES OF THE BACK OF CURBING. ROTOR TILLING MEANS 6 TOTAL PASSES OF THE AREA TILLED WITH REVERSE ROTOR TYPE TILLER OR DISC PLOW.
- FINE GRADE MEDIANS TO PROPOSED PROFILES AND REMOVE ALL DEBRIS LARGER THAN 1 INCH IN DIAMETER FROM WITHIN THE TOP 4 INCHES OF THE FINISHED GRADE.
- ADD FINISHED SOIL LAYER MATERIAL AS REQUIRED TO PROVIDE FOR PROPOSED GRADES/PROFILES. MAKE ONE MORE PASS WITH ROTOR TILLER/DISC TO MIX ADDITIONAL TOPSOIL INTO EXISTING SOIL.
- TOPSOIL SHALL NOT BE EXTREMELY ACIDIC OR ALKALINE, NOR CONTAIN TOXIC SUBSTANCES WHICH MAY BE HARMFUL TO PLANT GROWTH. THE pH SHALL BE IN THE RANGE OF 6.5 TO 7.5. IF NECESSARY, THE CONTRACTOR TOPSOIL pH SHALL APPLY THE APPROPRIATE SOIL AMENDMENTS ADJUSTING SOIL pH TO ASSURE A pH RANGE OF 6.5 TO 7.5.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING TOPSOIL TESTED. REPRESENTATIVE SAMPLES ARE TO BE TESTED FOR ACIDITY, FERTILITY, AND GENERAL COMPOSITION BY A RECOGNIZED COMMERCIAL OR GOVERNMENT AGENCY. THE CONTRACTOR SHALL FURNISH ONE (1) COPY OF THE SOIL ANALYSIS AND RECOMMENDED AMENDMENTS (TO MEET THE DESIRED pH, NUTRITIONAL AND ORGANIC LEVELS DETERMINED TO BE ADEQUATE FOR THE AREA) PREPARED BY THE TESTING AGENCY, TO THE LANDSCAPE ARCHITECT PRIOR TO APPLICATION OF ANY AMENDMENTS OR FERTILIZER.
- TOPSOIL SHALL BE NATURAL, FERTILE, AGRICULTURAL SOIL CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH. IT SHALL BE OF UNIFORM COMPOSITION THROUGHOUT, WITHOUT ADMIXTURE OF SUBSOIL, CLAY, STONES, LUMPS, LIVE PLANTS AND THEIR ROOTS, STICKS, AND OTHER EXTRANEIOUS MATTER. REMOVE ALL ROCKS AND OTHER OBJECTS OVER 1 INCH IN DIAMETER.
- INSTALLATION OF SHELL TO TAKE PLACE AFTER IRRIGATION TRENCHING, GRADING & PLANTING AND MULCHING OPERATIONS. TAKE CARE TO KEEP A CLEAN SHELL SURFACE AND AVOID DIRT AND DEBRIS FROM CONTAMINATING SHELL AREA.
- INSTALL EDGING PRIOR TO MULCHING AND SHELL PLACEMENT.

## PLANTING

- ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL, FREE OF PESTS AND DISEASES. ALL PLANT MATERIAL SHALL BE IN FULL AND STRICT ACCORDANCE TO FLORIDA NO. 1 GRADE, ACCORDING TO THE "GRADES AND STANDARD FOR NURSERY PLANTS", 1998, 2ND EDITION, PUBLISHED BY FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES. PLANT MATERIALS IN SOME INSTANCES EXCEED NO. 1 GRADE IN ORDER TO MEET THE MINIMUM REQUIREMENTS OF THIS PROJECT.
- ALL PLANTS NOT LISTED IN GRADES AND STANDARDS FOR NURSERY PLANTS, 1998, 2ND EDITION, SHALL CONFORM TO A FLORIDA NO. 1 AS TO: 1. HEALTH AND VITALITY; 2. CONDITION OF FOLIAGE; 3. ROOT SYSTEM; 4. FREEDOM FROM PEST OR MECHANICAL DAMAGE; 5. HEAVILY BRANCHED AND DENSELY FOLIATED ACCORDING TO THE ACCEPTED NORMAL SHAPE OF THE SPECIES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTS MEETING SPECIFICATION AS NOTED PRIOR TO INSTALLATION. CONTRACTOR SHALL IMMEDIATELY REMOVE ALL PLANT MATERIAL THAT DOES NOT CONFORM TO SPECIFICATIONS.
- ALL ROOTBALLS SHALL CONFORM TO THE SIZE STANDARDS SET FORTH IN "AMERICAN STANDARDS FOR NURSERY STOCK".
- ALL PLANT MATERIAL SHALL BE PROTECTED DURING TRANSPORT AND DELIVERY TO JOB SITE WITH SHADE CLOTH OR OTHER ACCEPTABLE MEANS OF WINDBURN PREVENTION.
- CONTRACTOR SHALL FIELD VERIFY ALL INFORMATION PRIOR TO INITIATING PLANTING INSTALLATION. ALL EXISTING PLANTING SHALL REMAIN INTACT AND UNDISTURBED UNLESS OTHERWISE NOTED ON THE PLANS.
- ALL TREES MUST BE STRAIGHT TRUNKED, FULL HEADED, AND MEET ALL REQUIREMENTS SPECIFIED.
- ANY SUBSTITUTIONS IN SIZE AND/OR PLANT MATERIAL MUST BE APPROVED BY THE LANDSCAPE ARCHITECT AND OWNER. ALL PLANTS WILL BE SUBJECT TO APPROVAL BY LANDSCAPE ARCHITECT BEFORE PLANTING CAN BEGIN.
- THE CONTRACTOR SHALL FIELD STAKE THE LOCATION OF ALL PLANT MATERIAL AND BEDLINES PRIOR TO INITIATING INSTALLATION FOR THE REVIEW AND APPROVAL OF THE LANDSCAPE ARCHITECT.
- TYPICALLY, SHRUB AND GROUNDCOVER PLANTINGS ARE SHOWN AS MASS PLANTING BEDS. PLANTS SHALL BE PLACED ON A TRIANGULAR SPACING CONFIGURATION (STAGGERED SPACING) AS SHOWN IN THE PLANTING DETAILS. PLANT CENTER TO CENTER DIMENSIONS (O.C.) ARE LISTED ON THE PLANT LIST.
- INSTALLATION - ALL PLANT MATERIAL SHALL BE INSTALLED IN A SOUND, WORKMANLIKE MANNER AND ACCORDING TO ACCEPTED GOOD PLANTING PROCEDURES WITH THE QUALITY OF PLANT MATERIALS AS HEREINAFTER DESCRIBED. ALL ELEMENTS OF LANDSCAPING SHALL BE INSTALLED SO AS TO MEET ALL APPLICABLE ORDINANCES AND CODE REQUIREMENTS.
- CONTRACTOR SHALL ASSURE DRAINAGE AND PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION OF PLANT MATERIAL. CONTRACTOR SHALL FILL ALL TREE PITS WITH WATER BEFORE PLANTING TO ASSURE THAT PROPER DRAINAGE AND PERCOLATION IS AVAILABLE. CORRECT IF REQUIRED TO ASSURE PERCOLATION. CONTRACTOR IS RESPONSIBLE FOR REPLACEMENT OF ALL PLANTS LOST DUE TO INADEQUATE DRAINAGE CONDITIONS.
- TREES GROWN IN GROW BAGS OR GROW BAG TYPE MATERIAL MUST HAVE THE GROW BAG REMOVED ENTIRELY PRIOR TO PLANTING.
- BALLED AND BURLAPPED MATERIAL SHALL HAVE THE TOP ONE HALF (1/2) OF THE BURLAP AROUND THE BASE OF THE TRUNK CUT AND PULLED BACK. DO NOT REMOVE BURLAP. WIRE CAGES, STRAPS, ETC. MUST BE CUT AND REMOVED PRIOR TO INSTALLATION. ALL PLASTIC WRAPPING SHALL BE REMOVED PRIOR TO INSTALLATION.
- CONTRACTOR TO REPLACE REJECTED PLANT MATERIAL WITHIN ONE (1) WEEK OF NOTICE FROM THE OWNER OR LANDSCAPE ARCHITECT.
- CONTRACTOR SHALL REFER TO THE LANDSCAPE PLANTING DETAILS, PLANTS LIST, GENERAL NOTES AND THE PLANTING SPECIFICATIONS FOR COMPLETE LANDSCAPE PLANTING INSTRUCTIONS.
- FERTILIZATION  
PALMS 8-2-12 PLUS MINOR ELEMENTS - SLOW RELEASE 1/2 LB FERTILIZER PER 1/2 INCH CALIPER. SUPPLEMENT WITH SOPO-MAG MICRONUTRIENTS. APPLY GRANULAR SULPHUR AT THE RECOMMENDED APPLICATION RATES.  
SHRUBS AND GROUNDCOVERS 8-10-10 PLUS MINOR ELEMENTS - SLOW RELEASE 1/2 LB FERTILIZER PER 100 FT2  
TREES 8-6-6 PLUS MINOR ELEMENTS - SLOW RELEASE 1/2 LB FERTILIZER PER 1/2 INCH CALIPER  
TURF 16-4-8 PLUS MINOR ELEMENTS - SLOW RELEASE 1 LB FERTILIZER PER 1000 FT2  
 \* THE COST FOR LANDSCAPE FERTILIZER AS DESCRIBED ABOVE SHALL BE INCLUDED IN THE PER PLANT PRICE.
- GUYING / STAKING PRACTICES SHALL NOT PERMIT NAILS, SCREWS, WIRES ETC., TO PENETRATE OUTER SURFACE OF TREE OR PALM. TREES OR PALMS REJECTED DUE TO THIS PRACTICE SHALL BE REPLACED.
- CONTRACTOR SHALL MULCH ALL PLANT MATERIAL THROUGHOUT AND COMPLETELY TO A THREE (3) INCH WATERED-IN DEPTH WITH CLEAN, WEED FREE MULCH AS SPECIFIED.

## SOIL AMENDMENTS / BACKFILL MIX

- CONTRACTOR TO APPLY "RONSTAR" OR APPROVED PRE-EMERGENT HERBICIDE IN ACCORDANCE WITH MANUFACTURER'S RATE AND SPECIFICATIONS.
- PLANTING SOIL MIX FOR TREES, SHRUBS, AND GROUNDCOVERS SHALL CONSIST OF A THOROUGHLY BLENDED MIXTURE OF:  
 50% TOPSOIL / EXISTING SOIL IF ACCEPTABLE  
 50% COMPOSTED SOIL AMENDMENTS, WHICH SHALL CONSIST OF PEAT, COMPOSTED PINE BARK AND HARDWOOD FINES  
 PROVIDE THE FOLLOWING AMOUNT OF COMPOSTED SOIL AMENDMENTS PER PLANT:  
 -13 CF / LARGE TREE (>16')  
 -9 CF / MEDIUM TREE OR PALM (10-16')  
 -6 CF / SMALL TREE OR PALM (<10')  
 -1 CF / 3 GAL SHRUB OR LARGER  
 -5 CF / 1 GAL GROUNDCOVER  
 -6" DEPTH ALL ANNUAL BEDS
- COMPOST MIX SHALL BE FREE OF DELETERIOUS MATERIALS THAT WOULD BE HARMFUL TO PLANT GROWTH, SHALL BE FREE OF NEMATODES, SHALL BE OF UNIFORM QUALITY AND SHALL HAVE A PH VALUE BETWEEN 6.5 AND 7.0 (AS DETERMINED IN ACCORDANCE WITH ASTM E70). FLORIDA PEAT SHALL BE STERILIZED TO MAKE FREE OF ALL VIABLE NUT GRASS AND OTHER UNDESIRABLE WEEDS.

## PROJECT COMPLETION AND WARRANTY

- COMPLETION OF THE WORK SHALL MEAN THE FULL AND EXACT COMPLIANCE AND CONFORMITY WITH THE PROVISIONS EXPRESSED OR IMPLIED IN THE DRAWINGS AND SPECIFICATIONS, AND ASSOCIATED CHANGE ORDERS.
- SUBSTANTIAL COMPLETION: UPON NOTIFICATION BY THE CONTRACTOR THAT THE INSTALLATION IS COMPLETE, THE LANDSCAPE ARCHITECT WILL PERFORM A SUBSTANTIAL COMPLETION SITE OBSERVATION TO DETERMINE IF THE CONTRACTOR HAS COMPLETED THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. IF FINAL ACCEPTANCE IS NOT GIVEN, THE LANDSCAPE ARCHITECT WILL PREPARE A "PUNCH LIST." THE NOTIFICATION BY THE CONTRACTOR MUST BE MADE AT LEAST THREE (3) WORKING DAYS BEFORE THE ANTICIPATED SUBSTANTIAL COMPLETION SITE OBSERVATION.
- FINAL ACCEPTANCE: UPON NOTIFICATION BY THE CONTRACTOR THAT ALL DEFECTS HAVE BEEN CORRECTED, THE LANDSCAPE ARCHITECT WILL PERFORM A FINAL SITE OBSERVATION. FINAL ACCEPTANCE WILL BE GIVEN UPON SATISFACTORY COMPLETION OF ALL WORK, INCLUDING "PUNCH LIST" ITEMS. THE NOTIFICATION BY CONTRACTOR MUST BE MADE AT LEAST THREE (3) WORKING DAYS BEFORE THE ANTICIPATED FINAL SITE OBSERVATION.
- CONTRACTOR TO GUARANTEE PLANT MATERIAL FOR A 12 MONTH PERIOD. THE CONTRACTOR SHALL VISIT THE SITE ONCE A MONTH TO REVIEW THE STATUS OF MAINTENANCE BY THE OWNER AND ADVISE IN WRITING ANY ACTIVITIES OR DISCREPANCIES THAT ARE POTENTIALLY DETRIMENTAL TO THE LANDSCAPE INSTALLATION OR MAY VOID WARRANTY.
- LANDSCAPE WHICH WAS INSTALLED IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS AND IS DAMAGED OR DESTROYED THROUGH VANDALISM, THEFT, OR TRAFFIC, SHALL BE REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE THROUGH THE CONSTRUCTION PERIOD AND UNTIL FINAL ACCEPTANCE.
- AFTER FINAL ACCEPTANCE BY THE LANDSCAPE ARCHITECT, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE LANDSCAPING. IT SHALL BE UNDERSTOOD THAT IN ACCORDANCE WITH THE TERMS OF THE WARRANTY THAT THE CONTRACTOR MUST PROMPTLY INFORM THE OWNER IF PROPER MAINTENANCE IS NOT BEING GIVEN TO THE INSTALLATION. INSPECTIONS BY CONTRACTOR OF THE JOB SHALL BE MADE DURING THE WARRANTY PERIOD TO DETERMINE IF PROPER MAINTENANCE IS BEING GIVEN.
- AT THE END OF THE ONE YEAR WARRANTY PERIOD, INSPECTIONS SHALL BE MADE JOINTLY BY THE OWNER, LANDSCAPE ARCHITECT AND CONTRACTOR. ALL PLANTS NOT IN A HEALTHY GROWING CONDITION SHALL BE REMOVED AND REPLACED WITH PLANTS OF A LIKE KIND AND SIZE, EXCEPT FOR DEFECTS RESULTING FROM NEGLIGENCE BY OWNER, ABUSE OR DAMAGE BY OTHERS, OR UNUSUAL PHENOMENA OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL.
- ALL REPLACEMENT STOCK SHALL BE SUBJECT TO THE SAME WARRANTY REQUIREMENTS AS THE ORIGINAL STOCK, PERIOD TO BEGIN UPON ACCEPTANCE OF THE REPLACEMENT BY THE LANDSCAPE ARCHITECT. ANY DAMAGE DUE TO REPLACEMENT OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR.

100% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



IN COORDINATION WITH:



5783 BAYSHORE ROAD, SUITE 113  
NORTH FORT MYERS, FL 33917

PREPARED FOR:

VILLAGE OF ESTERO

RIVER RANCH ROAD  
ROADWAY IMPROVEMENTS  
CW3 PROJECT NUMBER 19-0046

SCALE:	
DATE:	MAY 2023
PROJECT #:	
REV	DATE DESCRIPTION

LANDSCAPE SPECIFICATIONS

SHEET #

LA-11

DAYNA L. FENDRICK, RLA #0001224

PLANT SCHEDULE & TABULATION OF QUANTITIES

May 10, 2023

KEY	NATIVE	BOTANICAL NAME	COMMON NAME	SIZE/SPACING	UNIT	TOTAL QTY	KEY	QUANTITIES BY SHEET NUMBER								
								LA-1	LA-2	LA-3	LA-4	LA-5	LA-6	LA-7	LA-8	
<b>TREES &amp; PALMS</b>																
AA		Archontophoenix alexandrae	King Palm	14-15' oa ht, triple trunk, full head, heavy trunks	EA	1	AA	1								
CES	*	Conocarpus erectus "sericeous"	Silver Buttonwood	6-8' ht, 4-5' spr, multi-trunk treeform, selectively trim to lift foliage to 3' ht	EA	6	CES				6					
PE		Ptychosperma elegans	Alexander Palm	12-14' oa ht, full head, heavy trunk	EA	17	PE	14	3							
RE	*	Roystonea elata	Royal Palm	5-6' GW, full head, heavy trunk	EA	2	RE			2						
TM	*	Thrinax morrissii	Key Thatch Palm (silver)	25 gal, 3-4' ht, double trunk	EA	5	TM									5
						Total Trees & Palms										
						Native Species (42%)										
<b>SHRUBS &amp; GROUND COVERS</b>																
AG		Arachis glabrata	Perennial Peanut	4" pots, 18" oc	EA	2343	AG	225			527	150	238	740	463	
CI	*	Chrysobalanus icaco "redtip"	Redtip Cocoplum	7 gal, 30" x 24", 3' oc	EA	117	CI			68			7	42		
CM		Carissa macrocarpa "Emerald Blanket"	Dwarf Natal Plum	3 gal, 15" x 15", 3' oc	EA	473	CM	159	90	135	89					
CN		Clusia rosea "Nana"	Dwarf Small Leaf Clusia	3 gal, 12" x 12", 3' oc	EA	194	CN					35	87		72	
EL	*	Ernodea littoralis	Golden Beach Creeper	1 gal, 10" x 10", 24" oc	EA	1291	EL			577			205		509	
FM		Ficus microcarpa "Green Island"	Green Island Ficus	3 gal, 15" x 15", 3' oc	EA	118	FM		20	53					45	
HL	*	Hymenocallis latifolia	Spider Lily	3 gal, 18" x 18", 3' oc	EA	593	HL		120	97	48		90	20	218	
IX		Ixora "Petite" Orange	Ixora Orange Taiwan Dwarf	3 gal, 15" x 15", 3' oc	EA	405	IX	215	190							
MC	*	Muhlenbergia capillaris	Pink Muhly Grass	3 gal, 18" x 18", 3' oc	EA	595	MC		50	90			40		415	
MS	*	Mimosa strigilosa	Sunshine Mimosa	1 gal, 6" x 12", 24" oc	EA	1345	MS		481	555			189	120		
NE		Nephrolepis exaltata	Sword Fern	1 gal, 12" x 12", 24" oc	EA	215	NE		150	65						
PN	*	Phyla nodiflora	FrogFruit	1 gal, 6' x 6", 24" oc	EA	1743	PN		218	208	245	662		410		
RL		Rondeletia leucophylla	Panama Rose	3 gal, 15" x 15", 3' oc	EA	67	RL		27	40						
SA		Scheffera arboricola "Acapella"	Variegated Arboricola	7 gal, 30" x 24", 3' oc	EA	142	SA				70	72				
SJ	*	Stachytarpheta jamaicensis	Blue Porterweed (verify native)	3 gal, 15" x 15", 3' oc	EA	359	SJ		91	35	88				145	
SR	*	Serenoa repens "Cinerea"	Silver Saw Palmetto	15 gal, 30" x 30"	EA	4	SR	4								
ZF	*	Zamia floridana	Florida Coontie	3 gal, 15" x 15", 3' oc	EA	61	ZF	24		37						
						Total Shrubs										
						Native Species (63%)										
<b>MISCELLANEOUS</b>																
SOD		Stenotaphrum secundatum "Fltm"	Floritam sod	Solid sod, Sand grown, free of weeds & pests	SF	TBD										
BAHIA SOD		Paspalum notatum	Argentine Bahia Sod	Solid sod, Sand grown, free of weeds & pests	SF	TBD										
		Coco Brown Mulch	Brown Mulch by Forestry Resources or Suwannee River	3" depth, all planting bed areas and tree rings. 2 CF bags. No more than 25% Cypress content allowed.	BAGS	TBD										
		Soil Amendments		Provide qty per trees & palms according to Specs and details	CY	TBD										

NOTE: TBD = TO BE DETERMINED BY CONTRACTOR

100% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



IN COORDINATION WITH:  
  
 5783 BAYSHORE ROAD, SUITE 113  
 NORTH FORT MYERS, FL 33917

PREPARED FOR:  
 VILLAGE OF ESTERO

RIVER RANCH ROAD  
 ROADWAY IMPROVEMENTS  
 CW3 PROJECT NUMBER 19-0046

SCALE:	
DATE:	MAY 2023
PROJECT #:	
REV	DATE DESCRIPTION

PLANT SCHEDULE

DAYNA L. FENDRICK, RLA #0001224

SHEET #  
**LA-12**

SPECIMEN  
MULTI-TRUNK PALM

IRRIGATION MAIN TAP WILL BE  
LOCATED ON THE CORNER  
OF WILLIAMS AND THREE OAKS  
AND INSTALLED TO THIS  
LOCATION BY OTHERS.

MATCHLINE SEE SHEET IR-1B

90% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



2  
1 1/2" 32.1

3  
1 1/2" 31.



IN COORDINATION WITH:  
**CW3**  
Engineering, Inc.  
5783 BAYSHORE ROAD, SUITE 113  
NORTH FORT MYERS, FL 33917

PREPARED FOR:  
VILLAGE OF ESTERO

RIVER RANCH ROAD  
ROADWAY IMPROVEMENTS  
CW3 PROJECT NUMBER 19-0046

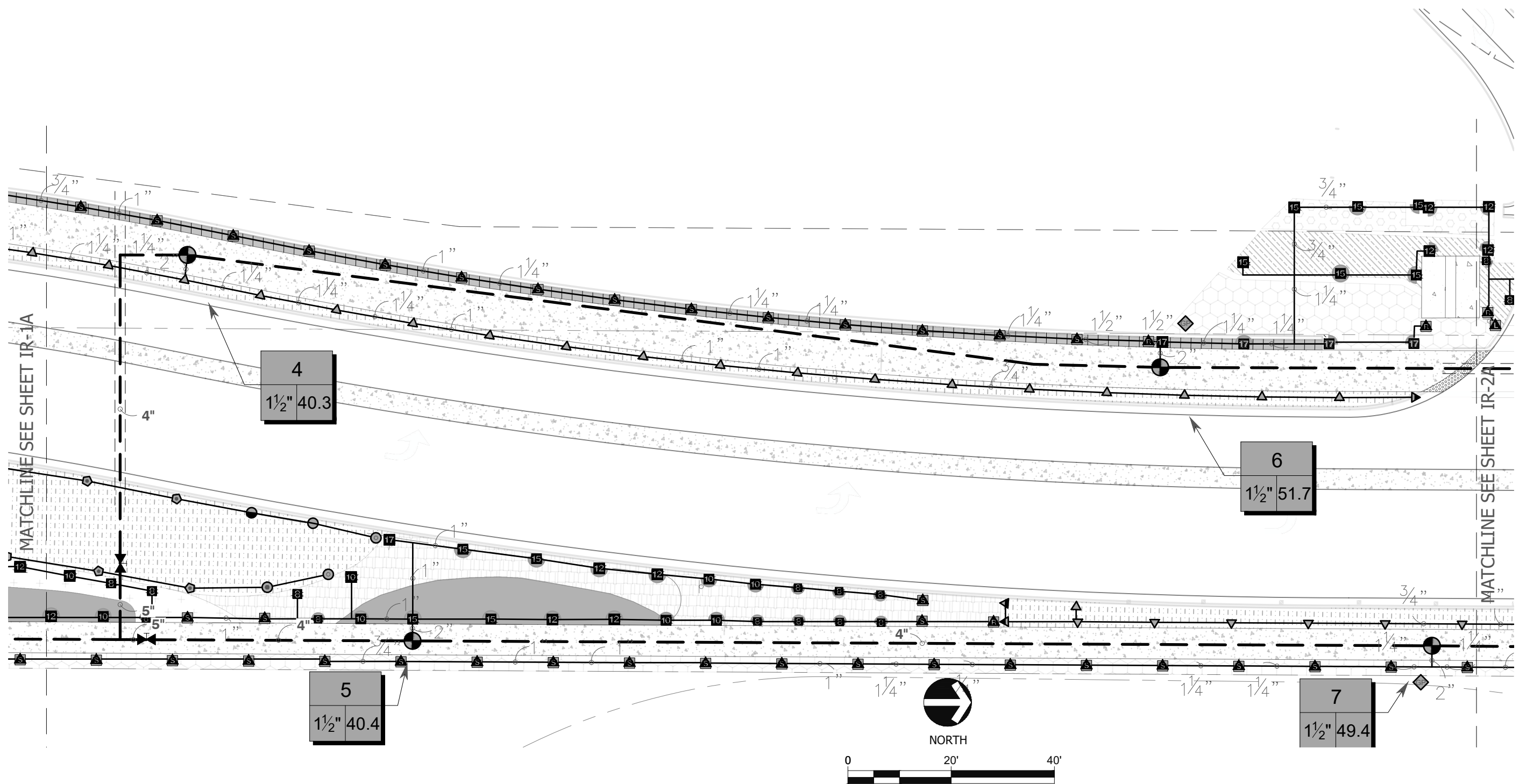
REV	DATE	DESCRIPTION

SCALE:  
DATE: JANUARY 2023  
PROJECT #:

IRRIGATION  
PLAN

DAYNA L. FENDRICK, RLA #0001224

SHEET #  
**IR-1A**



90% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



P.O. BOX 111841, NAPLES, FLORIDA 34108  
PHONE (239) 363-4025 FAX (239) 594-7091

IN COORDINATION WITH:



5783 BAYSHORE ROAD, SUITE 113  
NORTH FORT MYERS, FL 33917

PREPARED FOR:

VILLAGE OF ESTERO

RIVER RANCH ROAD  
ROADWAY IMPROVEMENTS  
CW3 PROJECT NUMBER 19-0046

REV	DATE	DESCRIPTION

SCALE:

DATE: JANUARY 2023

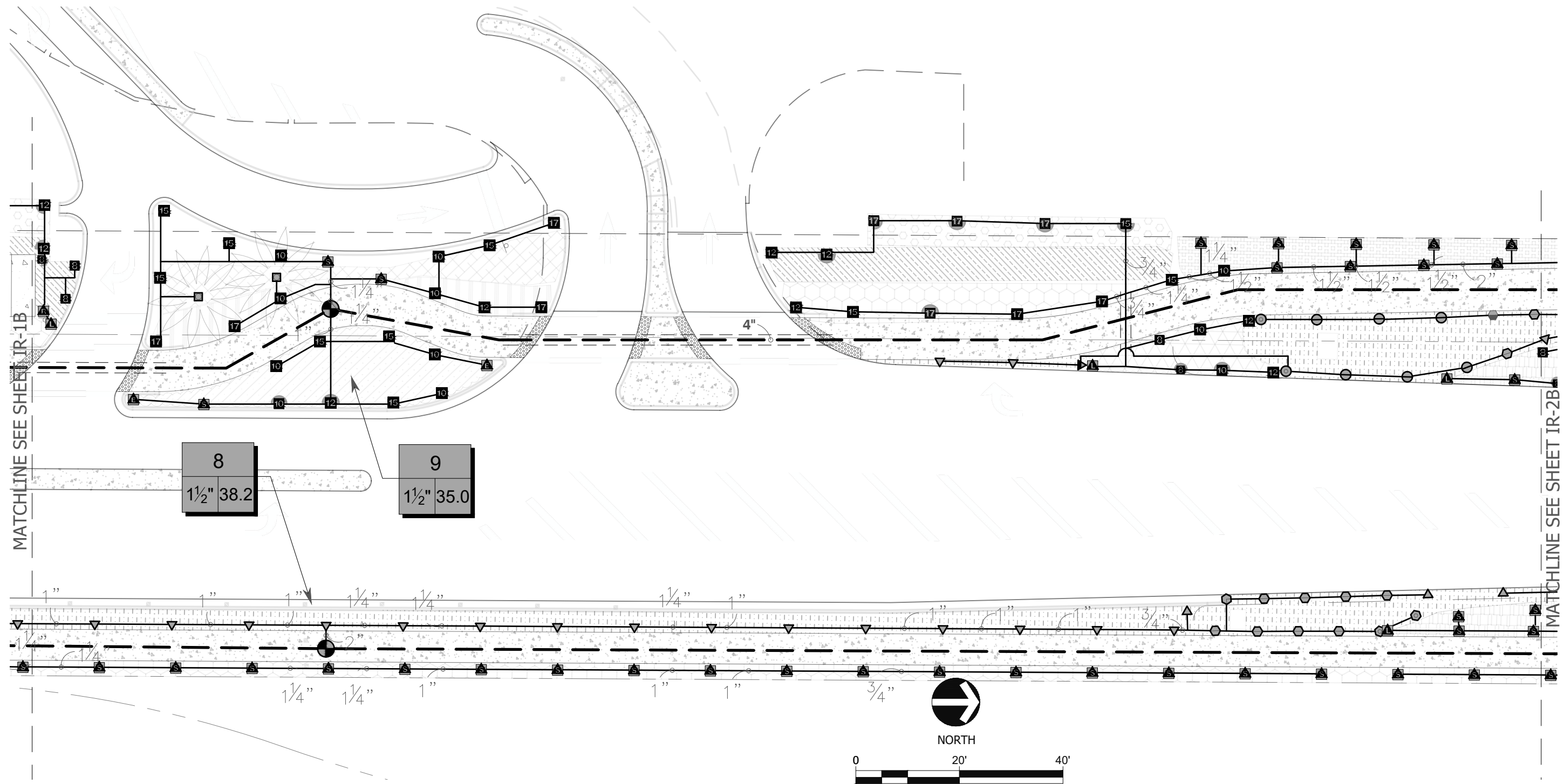
PROJECT #:

IRRIGATION  
PLAN

SHEET #

IR-1B

DAYNA L. FENDRICK, RLA #0001224



90% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



P.O. BOX 111841, NAPLES, FLORIDA 34108  
PHONE (239) 363-4025 FAX (239) 594-7091

IN COORDINATION WITH:



5783 BAYSHORE ROAD, SUITE 113  
NORTH FORT MYERS, FL 33917

PREPARED FOR:

VILLAGE OF ESTERO

RIVER RANCH ROAD  
ROADWAY IMPROVEMENTS  
CW3 PROJECT NUMBER 19-0046

REV	DATE	DESCRIPTION

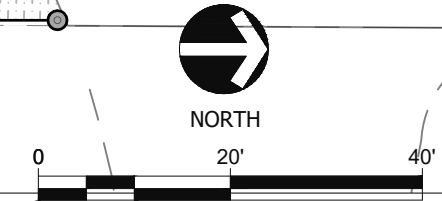
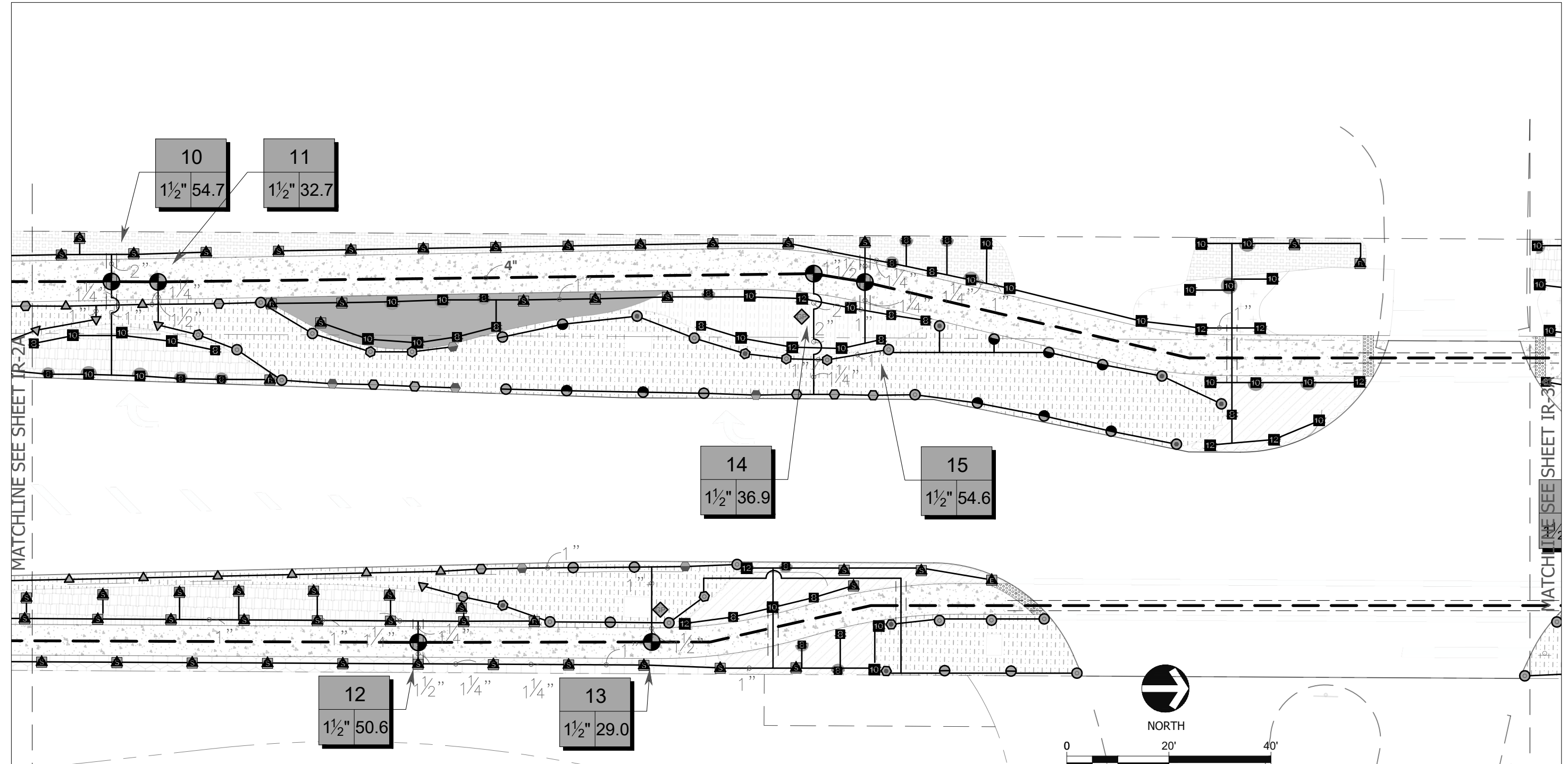
SCALE:  
DATE: JANUARY 2023  
PROJECT #:

## IRRIGATION PLAN

DAYNA L. FENDRICK, RLA #0001224

SHEET #  
**IR-2A**





90% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



IN COORDINATION WITH:  
  
 5783 BAYSHORE ROAD, SUITE 113  
 NORTH FORT MYERS, FL 33917

PREPARED FOR:  
 VILLAGE OF ESTERO

RIVER RANCH ROAD  
 ROADWAY IMPROVEMENTS  
 CW3 PROJECT NUMBER 19-0046

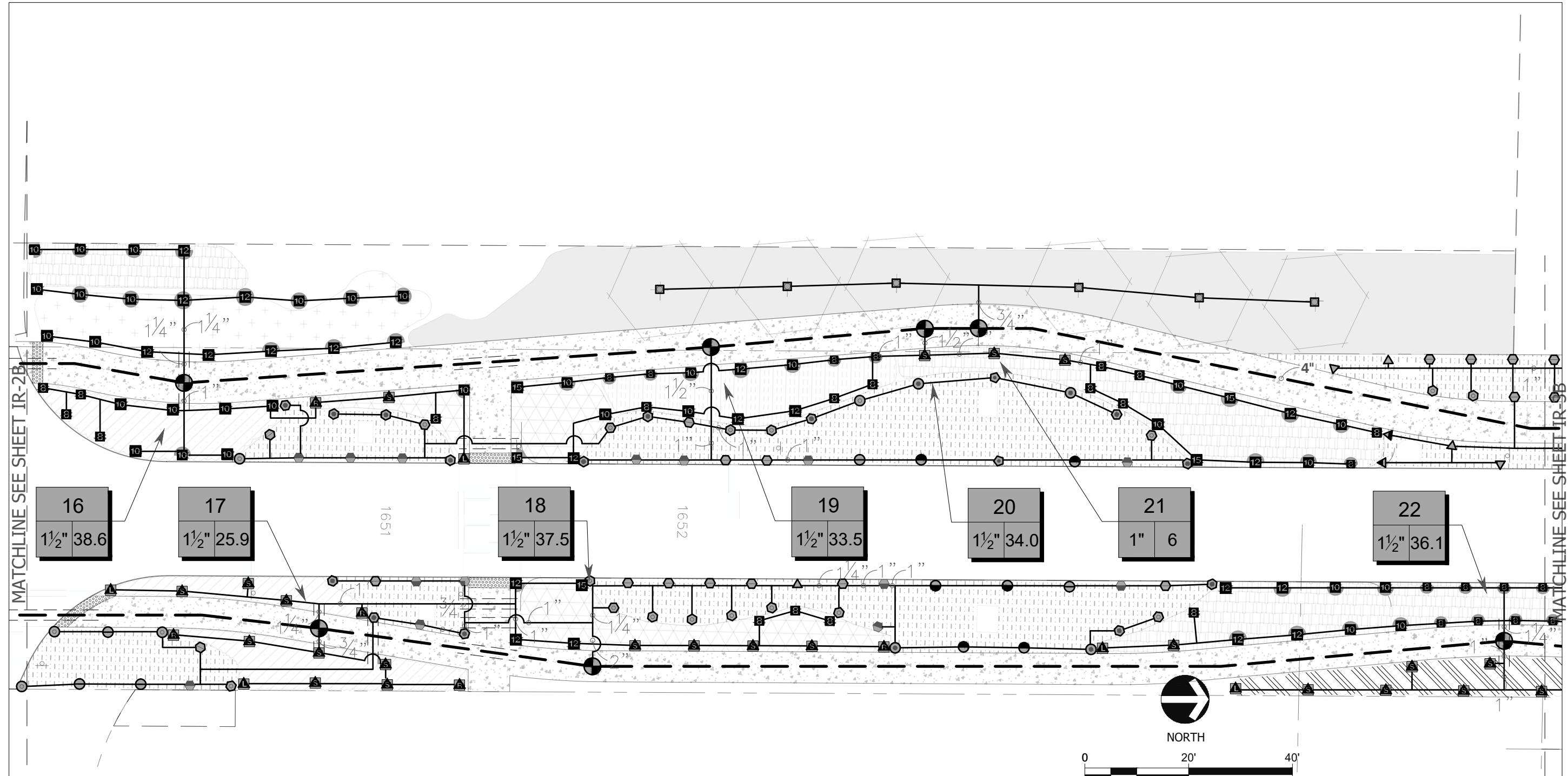
REV	DATE	DESCRIPTION

SCALE:  
 DATE: JANUARY 2023  
 PROJECT #:

# IRRIGATION PLAN

DAYNA L. FENDRICK, RLA #0001224

SHEET #  
**IR-2B**



MATCHLINE SEE SHEET IR-2B

MATCHLINE SEE SHEET IR-3B

90% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



IN COORDINATION WITH:  
  
 5783 BAYSHORE ROAD, SUITE 113  
 NORTH FORT MYERS, FL 33917

PREPARED FOR:  
 VILLAGE OF ESTERO

RIVER RANCH ROAD  
 ROADWAY IMPROVEMENTS  
 CW3 PROJECT NUMBER 19-0046

REV	DATE	DESCRIPTION

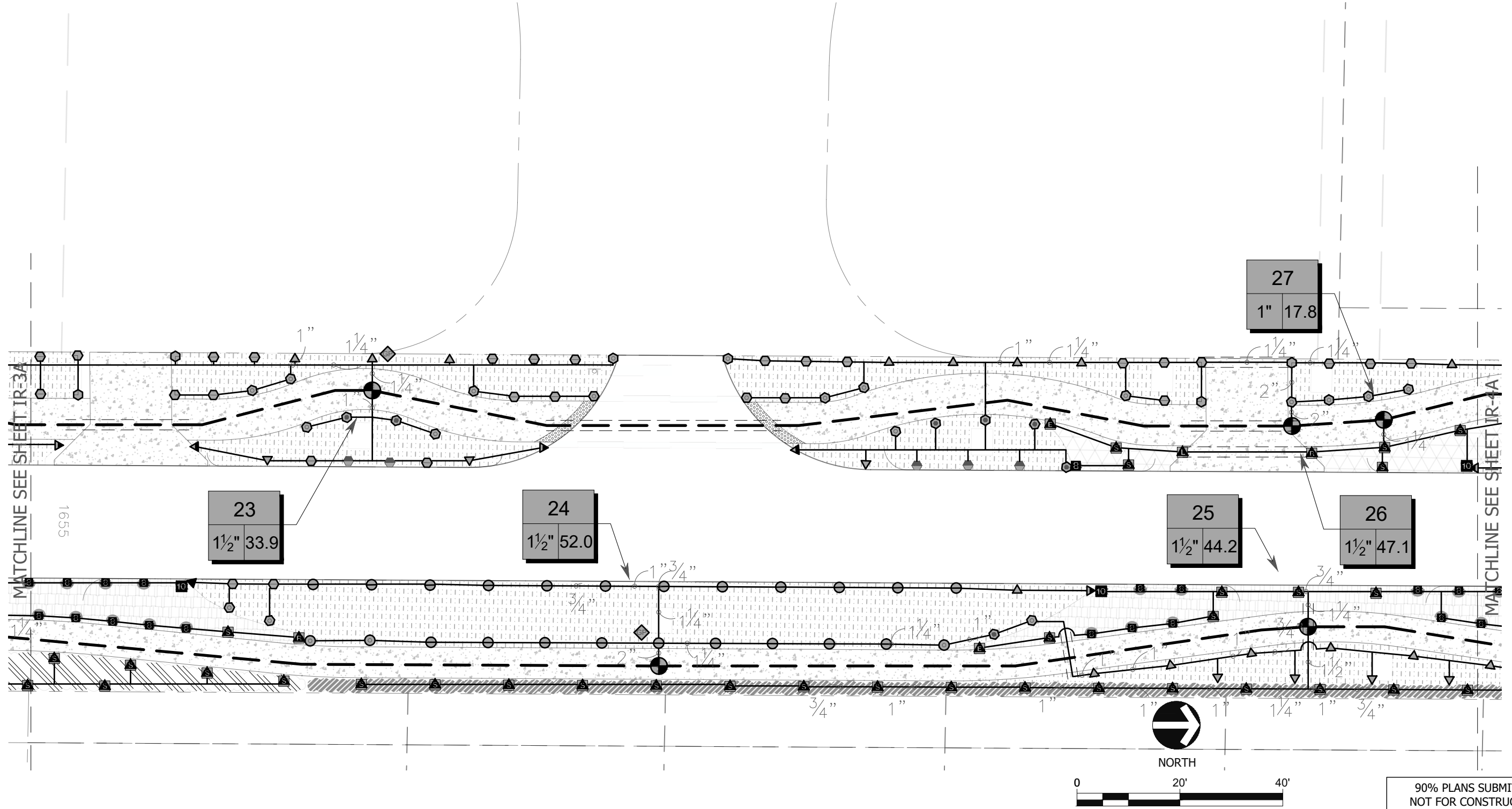
SCALE:  
 DATE: JANUARY 2023  
 PROJECT #:

## IRRIGATION PLAN

DAYNA L. FENDRICK, RLA #0001224

SHEET #  
**IR-3A**

P.O. BOX 111841, NAPLES, FLORIDA 34108  
 PHONE (239) 363-4029 FAX (239) 594-7091



MATCHLINE SEE SHEET IR-3A

MATCHLINE SEE SHEET IR-4A

1655

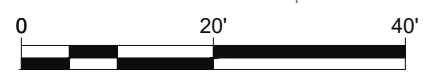
23  
1 1/2" 33.9

24  
1 1/2" 52.0

25  
1 1/2" 44.2

26  
1 1/2" 47.1

27  
1" 17.8



90% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



IN COORDINATION WITH:  
**CW3**  
Engineering, Inc.  
5783 BAYSHORE ROAD, SUITE 113  
NORTH FORT MYERS, FL 33917

PREPARED FOR:  
VILLAGE OF ESTERO

RIVER RANCH ROAD  
ROADWAY IMPROVEMENTS  
CW3 PROJECT NUMBER 19-0046

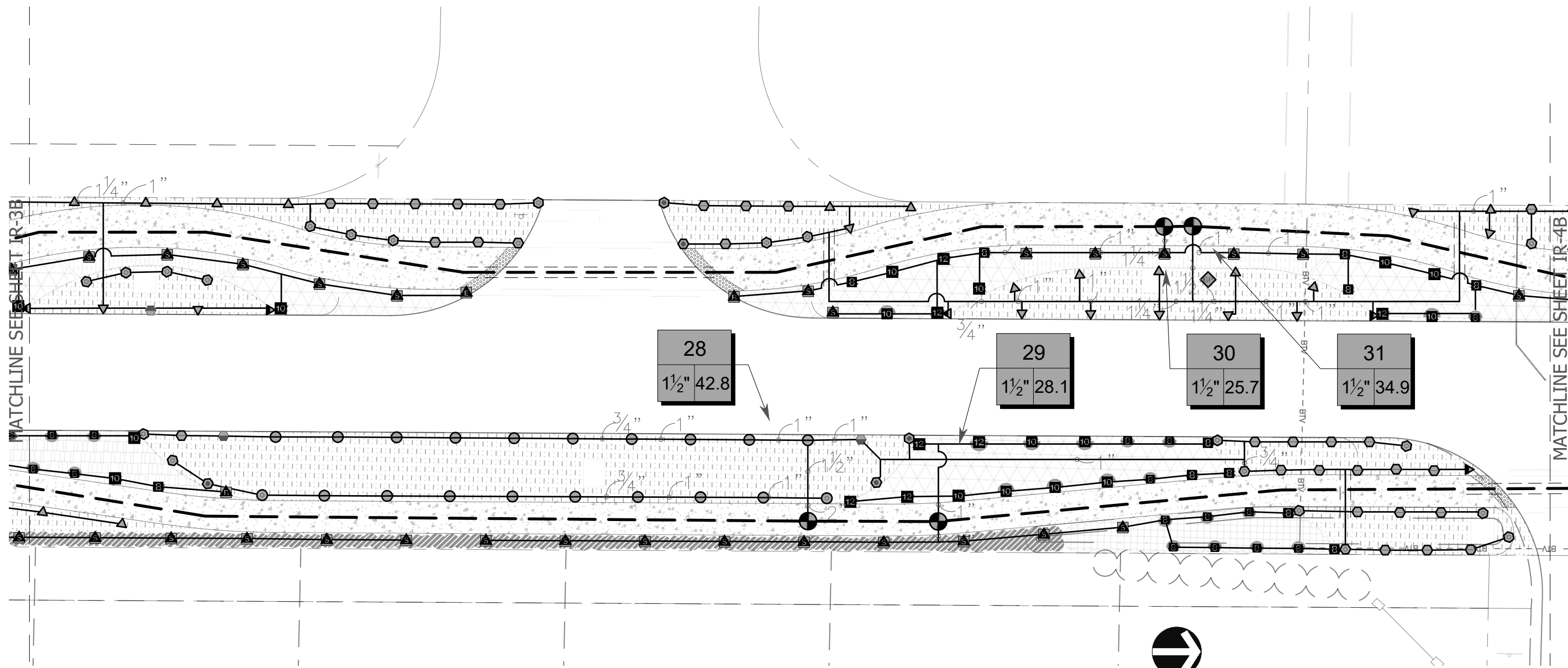
REV	DATE	DESCRIPTION

SCALE:  
DATE: JANUARY 2023  
PROJECT #:

IRRIGATION  
PLAN

DAYNA L. FENDRICK, RLA #0001224

SHEET #  
**IR-3B**



90% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



P.O. BOX 111841, NAPLES, FLORIDA 34108  
PHONE (239) 363-4029 FAX (239) 594-7091

IN COORDINATION WITH:



5783 BAYSHORE ROAD, SUITE 113  
NORTH FORT MYERS, FL 33917

PREPARED FOR:  
VILLAGE OF ESTERO

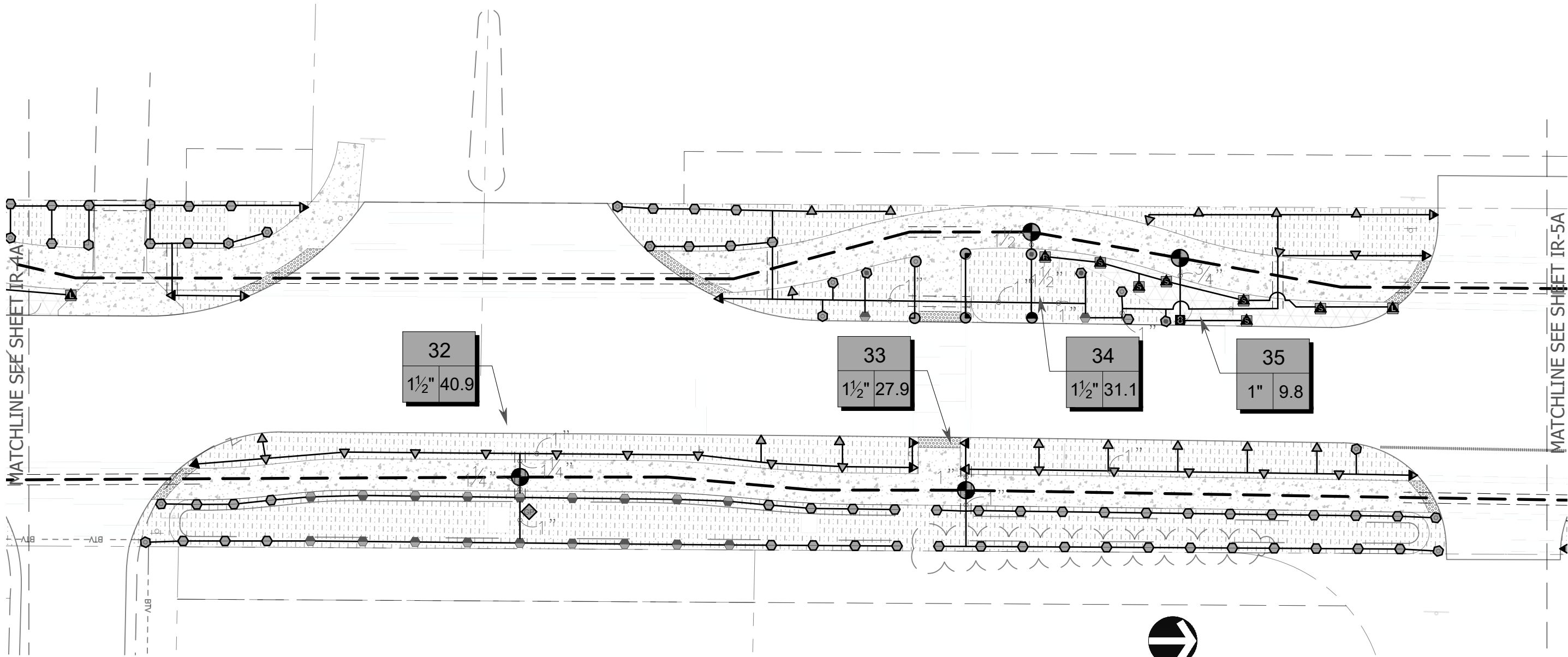
RIVER RANCH ROAD  
ROADWAY IMPROVEMENTS  
CW3 PROJECT NUMBER 19-0046

SCALE:	
DATE:	JANUARY 2023
PROJECT #:	
REV	DATE DESCRIPTION

# IRRIGATION PLAN

SHEET #  
**IR-4A**

DAYNA L. FENDRICK, RLA #0001224

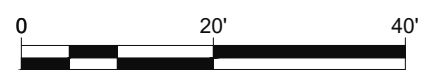


MATCHLINE SEE SHEET IR-4A

MATCHLINE SEE SHEET IR-5A



NORTH



90% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



P.O. BOX 111841, NAPLES, FLORIDA 34108  
PHONE (239) 363-4029 FAX (239) 594-7091

IN COORDINATION WITH:



5783 BAYSHORE ROAD, SUITE 113  
NORTH FORT MYERS, FL 33917

PREPARED FOR:

VILLAGE OF ESTERO

RIVER RANCH ROAD  
ROADWAY IMPROVEMENTS  
CW3 PROJECT NUMBER 19-0046

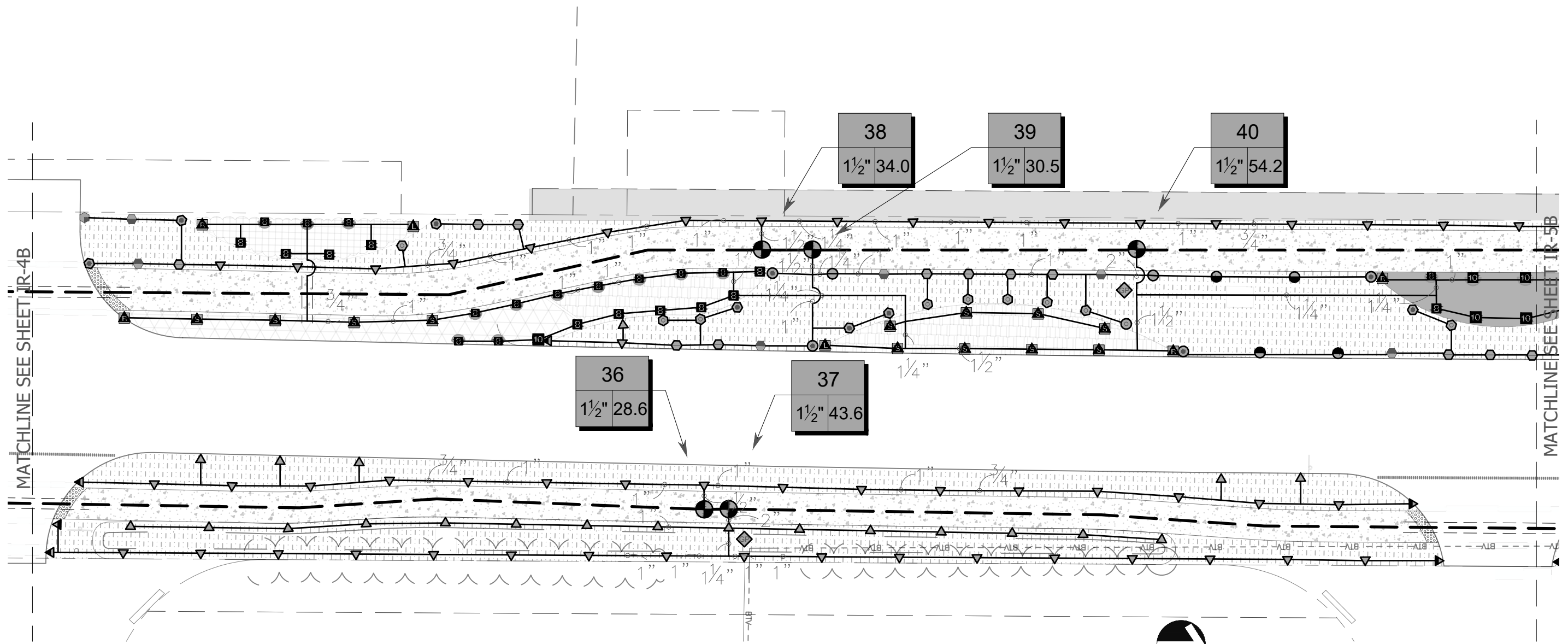
REV	DATE	DESCRIPTION

SCALE:  
DATE: JANUARY 2023  
PROJECT #:

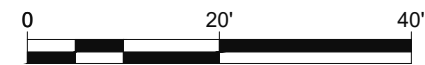
## IRRIGATION PLAN

DAYNA L. FENDRICK, RLA #0001224

SHEET #  
**IR-4B**



NORTH



90% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



P.O. BOX 111841, NAPLES, FLORIDA 34108  
PHONE (239) 363-4029 FAX (239) 594-7091

IN COORDINATION WITH:



5783 BAYSHORE ROAD, SUITE 113  
NORTH FORT MYERS, FL 33917

PREPARED FOR:

VILLAGE OF ESTERO

RIVER RANCH ROAD  
ROADWAY IMPROVEMENTS  
CW3 PROJECT NUMBER 19-0046

REV	DATE	DESCRIPTION

SCALE:

DATE: JANUARY 2023

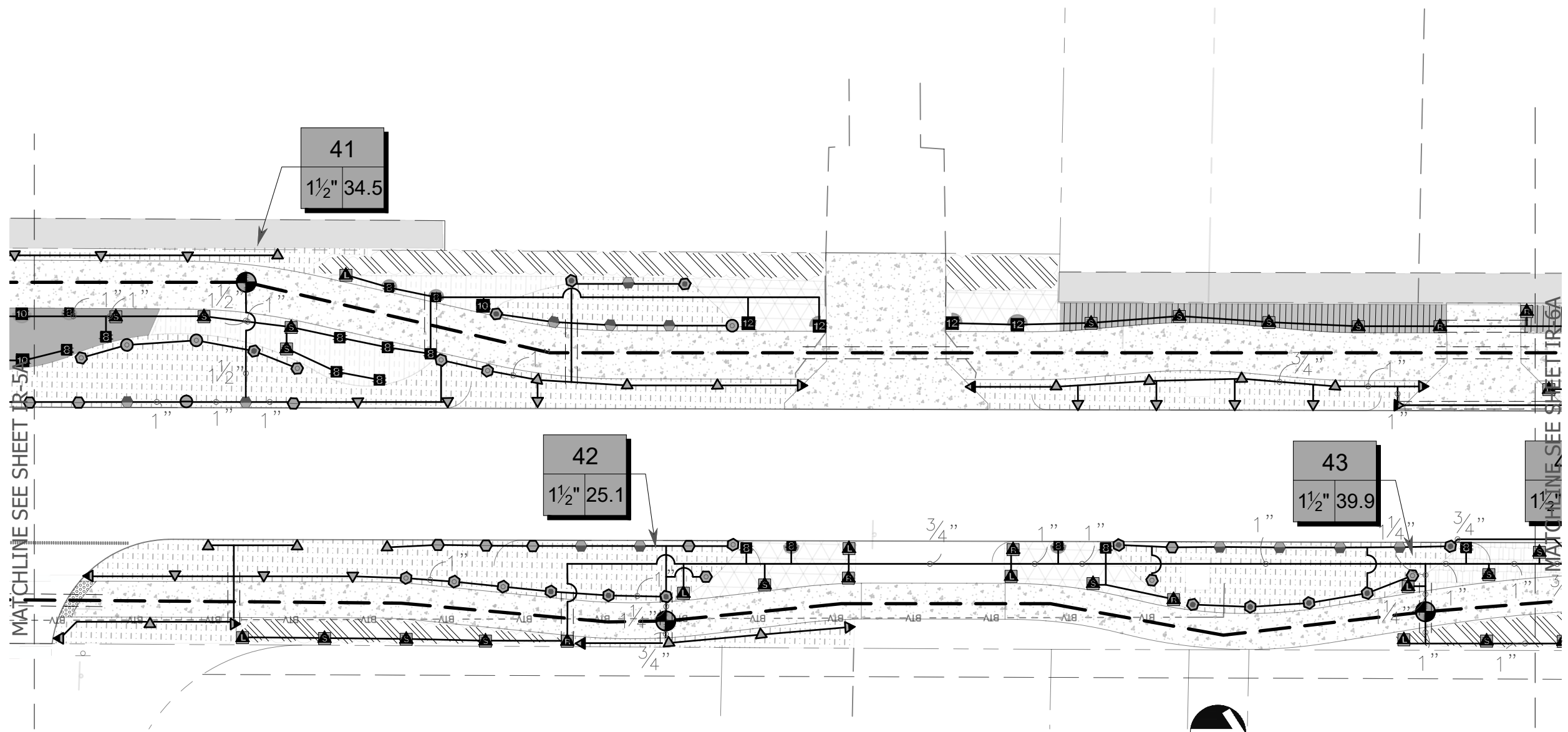
PROJECT #:

# IRRIGATION PLAN

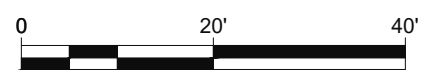
SHEET #

IR-5A

DAYNA L. FENDRICK, RLA #0001224



NORTH



90% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



IN COORDINATION WITH:  
**CW3**  
Engineering, Inc.  
5783 BAYSHORE ROAD, SUITE 113  
NORTH FORT MYERS, FL 33917

PREPARED FOR:  
VILLAGE OF ESTERO

RIVER RANCH ROAD  
ROADWAY IMPROVEMENTS  
CW3 PROJECT NUMBER 19-0046

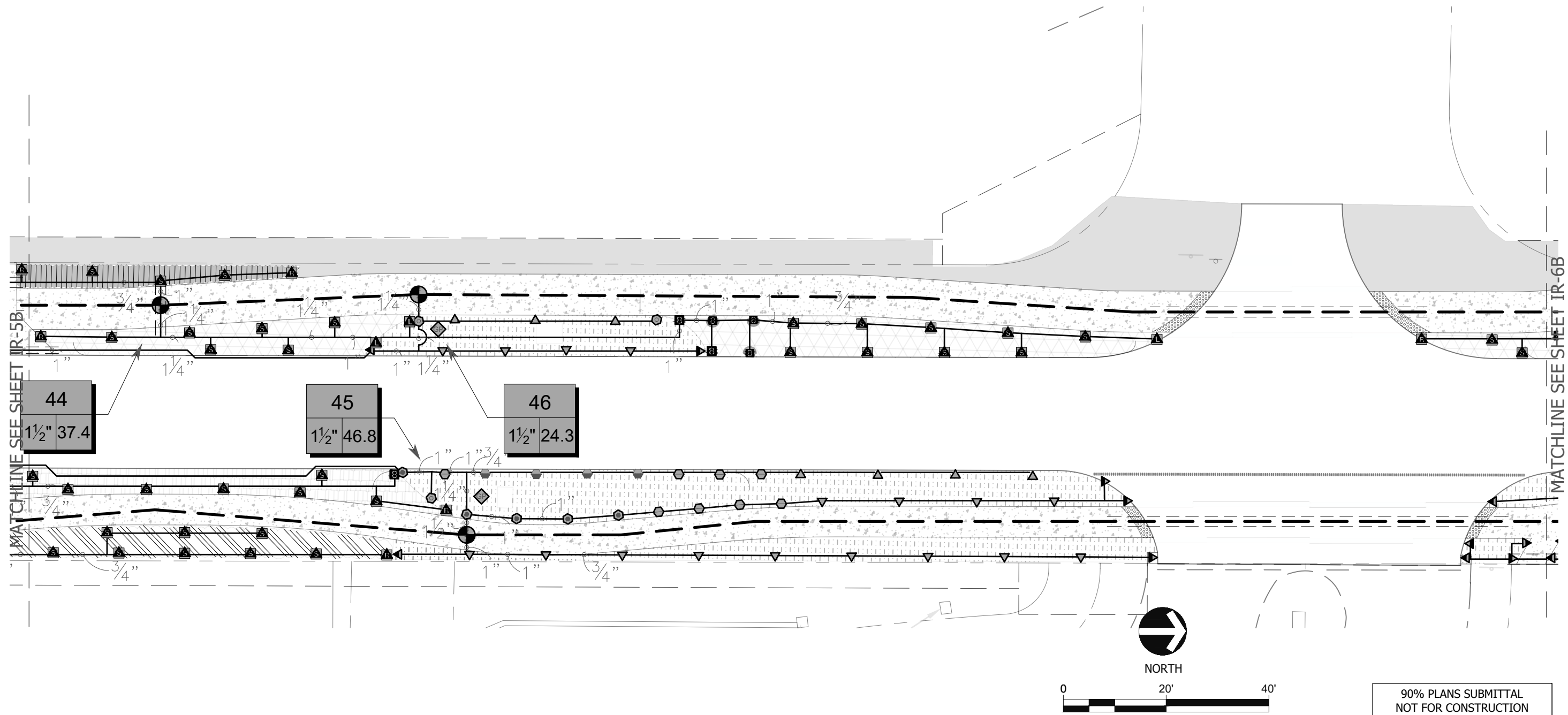
REV	DATE	DESCRIPTION

SCALE:  
DATE: JANUARY 2023  
PROJECT #:

# IRRIGATION PLAN

DAYNA L. FENDRICK, RLA #0001224

SHEET #  
**IR-5B**



P.O. BOX 111841, NAPLES, FLORIDA 34108  
PHONE (239) 363-4029 FAX (239) 594-7091

IN COORDINATION WITH:



5783 BAYSHORE ROAD, SUITE 113  
NORTH FORT MYERS, FL 33917

PREPARED FOR:  
VILLAGE OF ESTERO

RIVER RANCH ROAD  
ROADWAY IMPROVEMENTS  
CW3 PROJECT NUMBER 19-0046

REV	DATE	DESCRIPTION

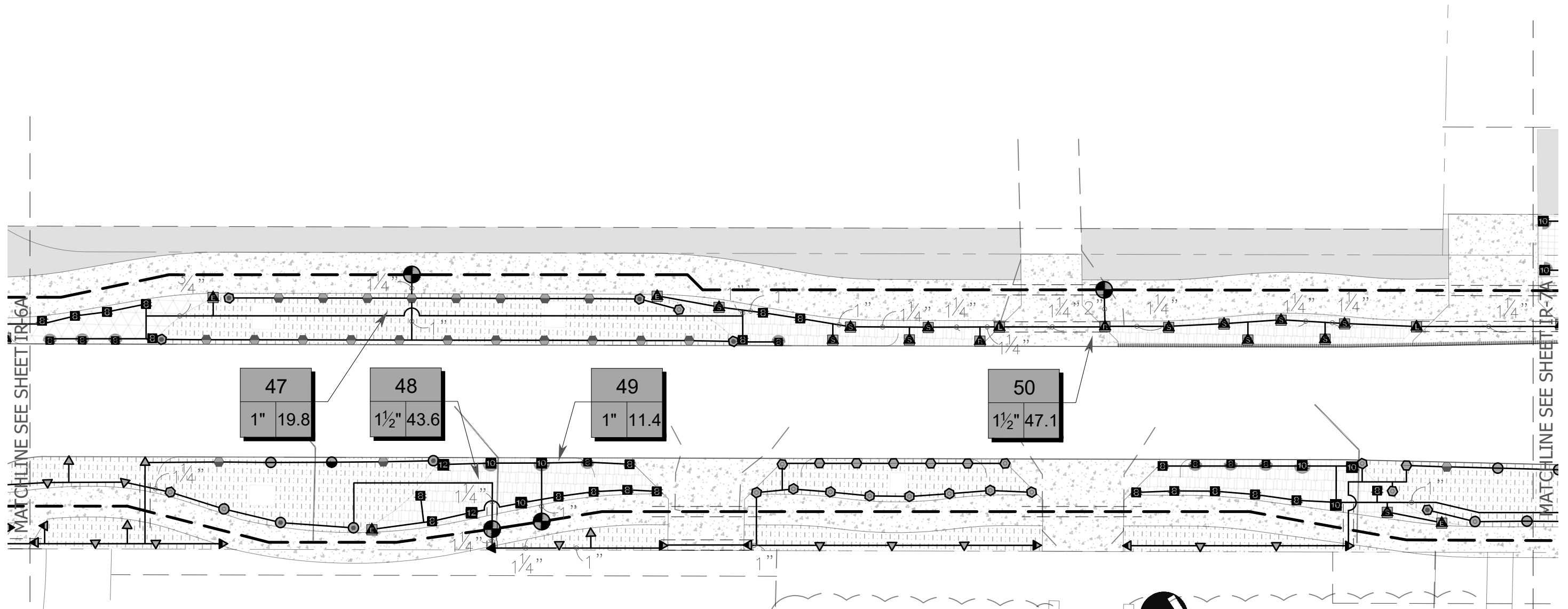
SCALE:  
DATE: JANUARY 2023  
PROJECT #:

# IRRIGATION PLAN

DAYNA L. FENDRICK, RLA #0001224

SHEET #  
**IR-6A**





MATCHLINE SEE SHEET IR-6A

MATCHLINE SEE SHEET IR-7A

47  
1" 19.8

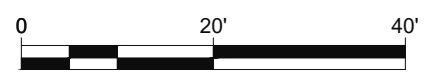
48  
1 1/2" 43.6

49  
1" 11.4

50  
1 1/2" 47.1



NORTH



90% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



P.O. BOX 111841, NAPLES, FLORIDA 34108  
PHONE (239) 363-4025 FAX (239) 594-7091

IN COORDINATION WITH:  
**CW3**  
Engineering, Inc.  
5783 BAYSHORE ROAD, SUITE 113  
NORTH FORT MYERS, FL 33917

PREPARED FOR:  
VILLAGE OF ESTERO

RIVER RANCH ROAD  
ROADWAY IMPROVEMENTS  
CW3 PROJECT NUMBER 19-0046

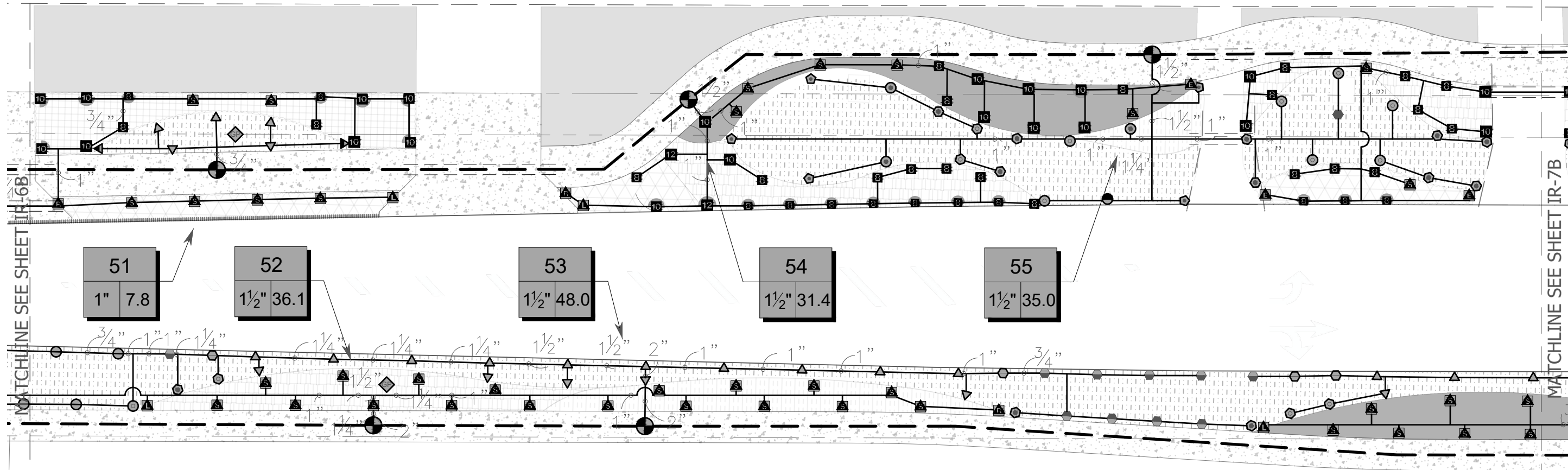
REV	DATE	DESCRIPTION

SCALE:  
DATE: JANUARY 2023  
PROJECT #:

## IRRIGATION PLAN

DAYNA L. FENDRICK, RLA #0001224

SHEET #  
**IR-6B**



51  
1" 7.8

52  
1 1/2" 36.1

53  
1 1/2" 48.0

54  
1 1/2" 31.4

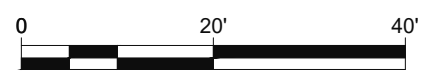
55  
1 1/2" 35.0

MATCHLINE SEE SHEET IR-6B

MATCHLINE SEE SHEET IR-7B



NORTH



90% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



P.O. BOX 111841, NAPLES, FLORIDA 34108  
PHONE (239) 363-4025 FAX (239) 594-7091

IN COORDINATION WITH:



5783 BAYSHORE ROAD, SUITE 113  
NORTH FORT MYERS, FL 33917

PREPARED FOR:

VILLAGE OF ESTERO

RIVER RANCH ROAD  
ROADWAY IMPROVEMENTS  
CW3 PROJECT NUMBER 19-0046

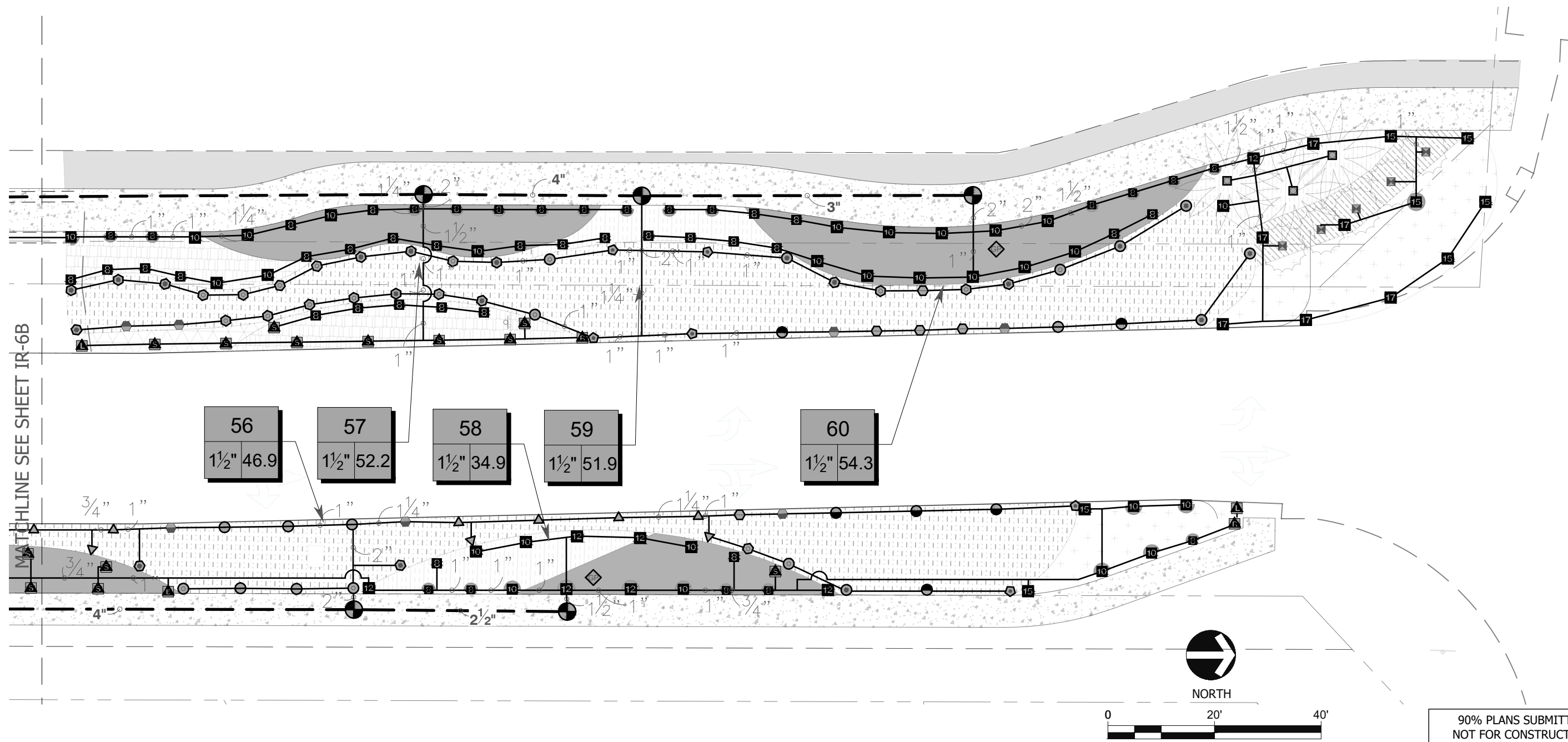
REV	DATE	DESCRIPTION

SCALE:  
DATE: JANUARY 2023  
PROJECT #:

# IRRIGATION PLAN

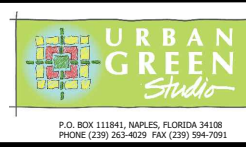
SHEET #  
**IR-7A**

DAYNA L. FENDRICK, RLA #0001224



MATCHLINE SEE SHEET IR-6B

56	57	58	59	60
1 1/2" 46.9	1 1/2" 52.2	1 1/2" 34.9	1 1/2" 51.9	1 1/2" 54.3



IN COORDINATION WITH:  
  
 5783 BAYSHORE ROAD, SUITE 113  
 NORTH FORT MYERS, FL 33917

PREPARED FOR:  
 VILLAGE OF ESTERO

RIVER RANCH ROAD  
 ROADWAY IMPROVEMENTS  
 CW3 PROJECT NUMBER 19-0046

REV	DATE	DESCRIPTION

SCALE:  
 DATE: JANUARY 2023  
 PROJECT #:

## IRRIGATION PLAN

90% PLANS SUBMITTAL  
 NOT FOR CONSTRUCTION

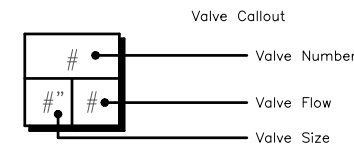
DAYNA L. FENDRICK, RLA #0001224

SHEET #  
**IR-7B**

**IRRIGATION SCHEDULE**

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
	Rain Bird 1806-NP Strip Series Turf Spray, 6in. Pop-Up. With Reclaimed Purple Body Cap. Co-molded wiper seal with UV Resistant Material.	388	30
	Rain Bird 1806-NP 8 Series Turf Spray, 6in. Pop-Up. With Reclaimed Purple Body Cap. Co-molded wiper seal with UV Resistant Material.	190	30
	Rain Bird 1806-NP 10 Series Turf Spray, 6in. Pop-Up. With Reclaimed Purple Body Cap. Co-molded wiper seal with UV Resistant Material.	112	30
	Rain Bird 1806-NP 12 Series Turf Spray, 6in. Pop-Up. With Reclaimed Purple Body Cap. Co-molded wiper seal with UV Resistant Material.	76	30
	Rain Bird 1806-NP 15 Series Turf Spray, 6in. Pop-Up. With Reclaimed Purple Body Cap. Co-molded wiper seal with UV Resistant Material.	33	30
	Rain Bird 1806-NP Adj Series Turf Spray, 6in. Pop-Up. With Reclaimed Purple Body Cap. Co-molded wiper seal with UV Resistant Material.	334	30
	Rain Bird 1812-NP with Hunter Nozzle Strip Series Shrub Spray, 12in. Pop-Up. With Reclaimed Purple Body Cap. Co-molded wiper seal with UV Resistant Material.	446	30
	Rain Bird 1812-NP with Hunter Nozzle 8 Series Shrub Spray, 12in. Pop-Up. With Reclaimed Purple Body Cap. Co-molded wiper seal with UV Resistant Material.	128	30
	Rain Bird 1812-NP with Hunter Nozzle 10 Series Shrub Spray, 12in. Pop-Up. With Reclaimed Purple Body Cap. Co-molded wiper seal with UV Resistant Material.	71	30
	Rain Bird 1812-NP with Hunter Nozzle 12 Series Shrub Spray, 12in. Pop-Up. With Reclaimed Purple Body Cap. Co-molded wiper seal with UV Resistant Material.	32	30
	Rain Bird 1812-NP with Hunter Nozzle 15 Series Shrub Spray, 12in. Pop-Up. With Reclaimed Purple Body Cap. Co-molded wiper seal with UV Resistant Material.	14	30
	Rain Bird 1812-NP with Hunter Nozzle 17 Series Shrub Spray, 12in. Pop-Up. With Reclaimed Purple Body Cap. Co-molded wiper seal with UV Resistant Material.	7	30
	Rain Bird 1812-NP with Hunter Nozzle Adj Series Shrub Spray, 12in. Pop-Up. With Reclaimed Purple Body Cap. Co-molded wiper seal with UV Resistant Material.	333	30
	Rain Bird 1800-1400 Flood Fixed flow rate 0.25 GPM - 2.0 GPM, full circle bubbler, 1/2in. FIPT.	19	30

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird PESB-IVM 1in., 1-1/2in., 2in. Plastic Industrial Smart Valves w/ Factory Installed IVM-SOL. Low Flow Operating Capability, Globe Configuration. With Scrubber Technology for Reliable Performance in Dirty Water Irrigation Applications.	60
	Nibco T-113 Class 125 bronze gate shut off valve with wheel handle, same size as mainline pipe diameter at valve location. Size Range - 1/4in. - 3in.	2
	Rain Bird ESPLXIVM-LXMM-LXMPED 60 Station, 2-Wire Controller w/ Smart Valve Technology. (1) ESPLXIVM 60-Station, Indoor/Outdoor, Plastic Wall Mount Enclosure. Install in Rain Bird LXMM-LXMPED Powder Coated Metal Cabinet w/ Pedestal. System Requirements: Rain Bird LXIVM-XXX Integrated Valve Modules & 2-Wire Devices. Use Paige Electric Cable P7072D & Rain Bird WC20 Dry Splices ONLY. Ground System w/ (X) LXIVMSD Surge Device in Rain Bird Round Valve Boxes. Install Per Manufacturers Recommendations.	1
	Rain Bird WR2-RFS Wireless Rain/Freeze Sensor.	1
	Amiad 3-A-MSIG-Steel Screen Amiad 3in. Mini Sigma, Angled Self-Cleaning Filter, flange and groove coupling. Stainless Steel Weavewire Screen Element. ADI-P Bluetooth Range Controller. Maximum working pressure 116psi.	1
	Grounding Plate Rain Bird IVM-SD with grounding plate as per Manufacturer's Specifications	17
	Water Meter 3"	1
	Irrigation Lateral Line: PVC Class 200 SDR 21	24,189 l.f.
	Irrigation Mainline: PVC Schedule 40	7,481 l.f.
	Pipe Sleeve: PVC Schedule 40	1,803 l.f.



90% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



IN COORDINATION WITH:  
**CW3**  
Engineering, Inc.  
5783 BAYSHORE ROAD, SUITE 113  
NORTH FORT MYERS, FL 33917

PREPARED FOR:  
VILLAGE OF ESTERO

RIVER RANCH ROAD  
ROADWAY IMPROVEMENTS  
CW3 PROJECT NUMBER 19-0046

SCALE:	
DATE:	JANUARY 2023
PROJECT #:	
REV	DATE DESCRIPTION

**IRRIGATION PLAN**

DAYNA L. FENDRICK, RLA #0001224

SHEET #  
**IR-8**

VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	WIRE	PSI	PSI @ POC	PRECIP
1	Rain Bird PESB-IVM	2"	Shrub Spray	59.34	164.7	37.9		1.68 in/h
2	Rain Bird PESB-IVM	1-1/2"	Turf Spray	32.08	194.4	35.9		1.45 in/h
3	Rain Bird PESB-IVM	1-1/2"	Turf Spray	31.72	237.1	35.6		1.36 in/h
4	Rain Bird PESB-IVM	1-1/2"	Turf Spray	40.3	361.9	38.7		1.49 in/h
5	Rain Bird PESB-IVM	1-1/2"	Shrub Spray	40.41	331.0	35.6		1.75 in/h
6	Rain Bird PESB-IVM	1-1/2"	Shrub Spray	51.72	551.7	41.2		1.53 in/h
7	Rain Bird PESB-IVM	1-1/2"	Shrub Spray	49.4	528.4	39.7		1.6 in/h
8	Rain Bird PESB-IVM	1-1/2"	Turf Spray	38.19	593.8	38.1		1.72 in/h
9	Rain Bird PESB-IVM	1-1/2"	Shrub Spray	35.01	673.5	34.7		1.76 in/h
10	Rain Bird PESB-IVM	1-1/2"	Shrub Spray	54.7	924.6	37.4		1.71 in/h
11	Rain Bird PESB-IVM	1-1/2"	Turf Spray	32.67	933.7	36.2		1.77 in/h
12	Rain Bird PESB-IVM	1-1/2"	Shrub Spray	50.64	904.0	36.1		1.91 in/h
13	Rain Bird PESB-IVM	1-1/2"	Turf Spray	29.04	949.8	36.6		1.68 in/h
14	Rain Bird PESB-IVM	1-1/2"	Turf Spray	36.9	1,062	35.3		1.71 in/h
15	Rain Bird PESB-IVM	1-1/2"	Shrub Spray	54.59	1,072	36.6		1.77 in/h
16	Rain Bird PESB-IVM	1-1/2"	Shrub Spray	38.62	1,235	34.4		1.55 in/h
17	Rain Bird PESB-IVM	1-1/2"	Shrub Spray	25.86	1,179	36.4		1.92 in/h
18	Rain Bird PESB-IVM	1-1/2"	Turf Spray	37.48	1,232	36.8		1.82 in/h
19	Rain Bird PESB-IVM	1-1/2"	Turf Spray	33.45	1,337	36.0		1.73 in/h
20	Rain Bird PESB-IVM	1-1/2"	Shrub Spray	34.01	1,378	35.5		1.86 in/h
21	Rain Bird PESB-IVM	1"	Bubbler	6	1,388	32.1		3.4 in/h
22	Rain Bird PESB-IVM	1-1/2"	Shrub Spray	36.08	1,408	34.8		1.74 in/h
23	Rain Bird PESB-IVM	1-1/2"	Turf Spray	33.91	1,567	35.5		1.74 in/h
24	Rain Bird PESB-IVM	1-1/2"	Turf Spray	52.03	1,538	37.8		1.74 in/h
25	Rain Bird PESB-IVM	1-1/2"	Shrub Spray	44.15	1,665	37.6		1.6 in/h
26	Rain Bird PESB-IVM	1-1/2"	Turf Spray	47.07	1,747	36.3		1.88 in/h
27	Rain Bird PESB-IVM	1"	Shrub Spray	17.75	1,765	34.8		1.78 in/h
28	Rain Bird PESB-IVM	1-1/2"	Turf Spray	42.79	1,845	36.6		1.63 in/h
29	Rain Bird PESB-IVM	1-1/2"	Shrub Spray	28.14	1,870	35.0		1.53 in/h
30	Rain Bird PESB-IVM	1-1/2"	Shrub Spray	25.7	1,999	35.3		2.01 in/h
31	Rain Bird PESB-IVM	1-1/2"	Turf Spray	34.9	2,004	36.8		1.77 in/h
32	Rain Bird PESB-IVM	1-1/2"	Turf Spray	40.88	2,079	35.2		1.66 in/h
33	Rain Bird PESB-IVM	1-1/2"	Turf Spray	27.92	2,165	35.6		1.74 in/h
34	Rain Bird PESB-IVM	1-1/2"	Turf Spray	31.12	2,265	36.3		1.66 in/h
35	Rain Bird PESB-IVM	1"	Shrub Spray	9.8	2,294	32.2		2.21 in/h
36	Rain Bird PESB-IVM	1-1/2"	Turf Spray	28.6	2,404	36.8		1.84 in/h
37	Rain Bird PESB-IVM	1-1/2"	Turf Spray	43.55	2,408	36.4		2.24 in/h
38	Rain Bird PESB-IVM	1-1/2"	Turf Spray	34.02	2,505	37.6		1.6 in/h
39	Rain Bird PESB-IVM	1-1/2"	Turf Spray	30.45	2,514	36.0		1.56 in/h
40	Rain Bird PESB-IVM	1-1/2"	Shrub Spray	54.18	2,576	38.9		1.77 in/h
41	Rain Bird PESB-IVM	1-1/2"	Turf Spray	34.47	2,688	36.5		1.42 in/h
42	Rain Bird PESB-IVM	1-1/2"	Turf Spray	25.05	2,668	36.1		1.89 in/h
43	Rain Bird PESB-IVM	1-1/2"	Shrub Spray	39.91	2,796	38.5		2.03 in/h
44	Rain Bird PESB-IVM	1-1/2"	Shrub Spray	37.36	2,930	38.5		1.77 in/h
45	Rain Bird PESB-IVM	1-1/2"	Turf Spray	46.79	2,899	39.5		1.72 in/h
46	Rain Bird PESB-IVM	1-1/2"	Turf Spray	24.27	2,980	37.6		2.19 in/h
47	Rain Bird PESB-IVM	1"	Turf Spray	19.8	3,275	33.5		1.73 in/h
48	Rain Bird PESB-IVM	1-1/2"	Turf Spray	43.61	3,201	36.4		1.78 in/h
49	Rain Bird PESB-IVM	1"	Shrub Spray	11.44	3,211	32.2		2.06 in/h
50	Rain Bird PESB-IVM	1-1/2"	Shrub Spray	47.07	3,411	41.2		1.92 in/h
51	Rain Bird PESB-IVM	1"	Turf Spray	7.8	3,531	32.0		1.65 in/h
52	Rain Bird PESB-IVM	1-1/2"	Shrub Spray	36.05	3,471	36.3		2.06 in/h
53	Rain Bird PESB-IVM	1-1/2"	Turf Spray	48.04	3,523	37.6		1.85 in/h
54	Rain Bird PESB-IVM	1-1/2"	Shrub Spray	31.4	3,626	35.7		1.74 in/h
55	Rain Bird PESB-IVM	1-1/2"	Turf Spray	35.01	3,718	35.4		1.53 in/h
56	Rain Bird PESB-IVM	1-1/2"	Turf Spray	46.9	3,754	36.6		1.71 in/h
57	Rain Bird PESB-IVM	1-1/2"	Shrub Spray	52.24	3,864	37.0		1.94 in/h
58	Rain Bird PESB-IVM	1-1/2"	Shrub Spray	34.94	3,794	37.4		1.73 in/h
59	Rain Bird PESB-IVM	1-1/2"	Turf Spray	51.92	3,905	36.7		1.7 in/h
60	Rain Bird PESB-IVM	1-1/2"	Shrub Spray	54.32	3,967	36.9		1.91 in/h
	Common Wire				7,481			

WATERING SCHEDULE

NUMBER	MODEL	TYPE	PRECIP	IN./WEEK	MIN./WEEK	GAL./WEEK	GAL./DAY
1	Rain Bird PESB-IVM	Shrub Spray	1.68 in/h	1	36	2,136	
2	Rain Bird PESB-IVM	Turf Spray	1.45 in/h	1.25	52	1,668	
3	Rain Bird PESB-IVM	Turf Spray	1.36 in/h	1.25	56	1,776	
4	Rain Bird PESB-IVM	Turf Spray	1.49 in/h	1.25	51	2,055	
5	Rain Bird PESB-IVM	Shrub Spray	1.75 in/h	1	35	1,414	
6	Rain Bird PESB-IVM	Shrub Spray	1.53 in/h	1	40	2,069	
7	Rain Bird PESB-IVM	Shrub Spray	1.6 in/h	1	38	1,877	
8	Rain Bird PESB-IVM	Turf Spray	1.72 in/h	1.25	44	1,680	
9	Rain Bird PESB-IVM	Shrub Spray	1.76 in/h	1	35	1,225	
10	Rain Bird PESB-IVM	Shrub Spray	1.71 in/h	1	36	1,969	
11	Rain Bird PESB-IVM	Turf Spray	1.77 in/h	1.25	43	1,405	
12	Rain Bird PESB-IVM	Shrub Spray	1.91 in/h	1	32	1,621	
13	Rain Bird PESB-IVM	Turf Spray	1.68 in/h	1.25	45	1,307	
14	Rain Bird PESB-IVM	Turf Spray	1.71 in/h	1.25	44	1,623	
15	Rain Bird PESB-IVM	Shrub Spray	1.77 in/h	1	34	1,856	
16	Rain Bird PESB-IVM	Shrub Spray	1.55 in/h	1	39	1,506	
17	Rain Bird PESB-IVM	Shrub Spray	1.92 in/h	1	32	827	
18	Rain Bird PESB-IVM	Turf Spray	1.82 in/h	1.25	42	1,574	
19	Rain Bird PESB-IVM	Turf Spray	1.73 in/h	1.25	44	1,472	
20	Rain Bird PESB-IVM	Shrub Spray	1.86 in/h	1	33	1,122	
21	Rain Bird PESB-IVM	Bubbler	3.4 in/h	1	18	108	
22	Rain Bird PESB-IVM	Shrub Spray	1.74 in/h	1	35	1,263	
23	Rain Bird PESB-IVM	Turf Spray	1.74 in/h	1.25	44	1,492	
24	Rain Bird PESB-IVM	Turf Spray	1.74 in/h	1.25	44	2,289	
25	Rain Bird PESB-IVM	Shrub Spray	1.6 in/h	1	38	1,678	
26	Rain Bird PESB-IVM	Turf Spray	1.88 in/h	1.25	40	1,883	
27	Rain Bird PESB-IVM	Shrub Spray	1.78 in/h	1	34	604	
28	Rain Bird PESB-IVM	Turf Spray	1.63 in/h	1.25	47	2,011	
29	Rain Bird PESB-IVM	Shrub Spray	1.53 in/h	1	40	1,126	
30	Rain Bird PESB-IVM	Shrub Spray	2.01 in/h	1	30	771	
31	Rain Bird PESB-IVM	Turf Spray	1.77 in/h	1.25	43	1,501	
32	Rain Bird PESB-IVM	Turf Spray	1.66 in/h	1.25	46	1,880	
33	Rain Bird PESB-IVM	Turf Spray	1.74 in/h	1.25	44	1,229	
34	Rain Bird PESB-IVM	Turf Spray	1.66 in/h	1.25	46	1,431	
35	Rain Bird PESB-IVM	Shrub Spray	2.21 in/h	1	28	274	
36	Rain Bird PESB-IVM	Turf Spray	1.84 in/h	1.25	41	1,173	
37	Rain Bird PESB-IVM	Turf Spray	2.24 in/h	1.25	34	1,481	
38	Rain Bird PESB-IVM	Turf Spray	1.6 in/h	1.25	48	1,633	
39	Rain Bird PESB-IVM	Turf Spray	1.56 in/h	1.25	49	1,492	
40	Rain Bird PESB-IVM	Shrub Spray	1.77 in/h	1	34	1,842	
41	Rain Bird PESB-IVM	Turf Spray	1.42 in/h	1.25	53	1,827	
42	Rain Bird PESB-IVM	Turf Spray	1.89 in/h	1.25	40	1,002	
43	Rain Bird PESB-IVM	Shrub Spray	2.03 in/h	1	30	1,197	
44	Rain Bird PESB-IVM	Shrub Spray	1.77 in/h	1	34	1,270	
45	Rain Bird PESB-IVM	Turf Spray	1.72 in/h	1.25	44	2,059	
46	Rain Bird PESB-IVM	Turf Spray	2.19 in/h	1.25	35	850	
47	Rain Bird PESB-IVM	Turf Spray	1.73 in/h	1.25	44	871	
48	Rain Bird PESB-IVM	Turf Spray	1.78 in/h	1.25	43	1,875	
49	Rain Bird PESB-IVM	Shrub Spray	2.06 in/h	1	30	343	
50	Rain Bird PESB-IVM	Shrub Spray	1.92 in/h	1	32	1,506	
51	Rain Bird PESB-IVM	Turf Spray	1.65 in/h	1.25	46	359	
52	Rain Bird PESB-IVM	Shrub Spray	2.06 in/h	1	30	1,082	
53	Rain Bird PESB-IVM	Turf Spray	1.85 in/h	1.25	41	1,970	
54	Rain Bird PESB-IVM	Shrub Spray	1.74 in/h	1	35	1,099	
55	Rain Bird PESB-IVM	Turf Spray	1.53 in/h	1.25	49	1,715	
56	Rain Bird PESB-IVM	Turf Spray	1.71 in/h	1.25	44	2,063	
57	Rain Bird PESB-IVM	Shrub Spray	1.94 in/h	1	31	1,619	
58	Rain Bird PESB-IVM	Shrub Spray	1.73 in/h	1	35	1,223	
59	Rain Bird PESB-IVM	Turf Spray	1.7 in/h	1.25	45	2,336	
60	Rain Bird PESB-IVM	Shrub Spray	1.91 in/h	1	32	1,738	
		TOTALS:			2,367	87,349	

90% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



IN COORDINATION WITH:  
**CW3**  
Engineering, Inc.  
5783 BAYSHORE ROAD, SUITE 113  
NORTH FORT MYERS, FL 33917

PREPARED FOR:  
VILLAGE OF ESTERO

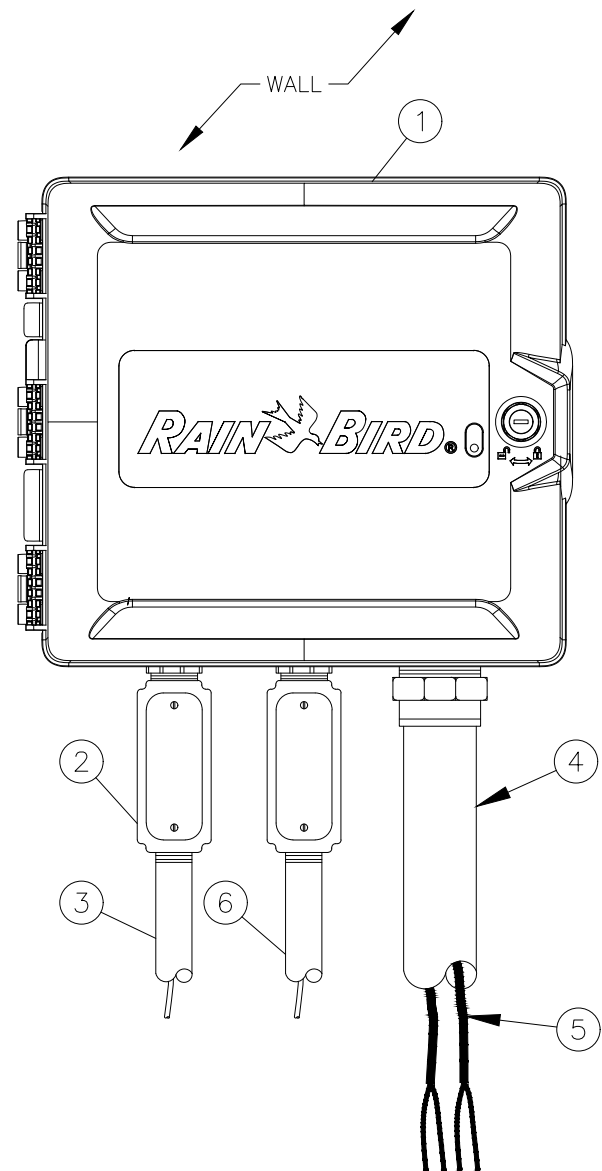
RIVER RANCH ROAD  
ROADWAY IMPROVEMENTS  
CW3 PROJECT NUMBER 19-0046

SCALE:		
DATE:	JANUARY 2023	
PROJECT #:		
REV	DATE	DESCRIPTION

IRRIGATION  
PLAN

DAYNA L. FENDRICK, RLA #0001224

SHEET #  
**IR-9**



- ① TWO-WIRE CONTROLLER:  
RAIN BIRD ESP-LXIVM/PRO IN PLASTIC CABINET WITH WALL MOUNT. INSTALL CONTROLLER AND CABINET ON WALL PER MANUFACTURER'S RECOMMENDATIONS.
- ② JUNCTION BOX
- ③ 1-INCH CONDUIT AND FITTINGS FOR POWER SUPPLY WIRE
- ④ 2-INCH CONDUIT AND FITTINGS FOR TWO-WIRE CABLE
- ⑤ MAXICABLE TWO-WIRE PATH TO FIELD DEVICES  
USE A DIFFERENT CABLE JACKET COLOR FOR EACH PATH.
- ⑥ 1-INCH CONDUIT AND FITTINGS FOR GROUND WIRE. ONLY FOR OUTDOOR INSTALLATIONS.

NOTES:

- 1. ESP-LXIVM CONTROLLER IS AVAILABLE IN TWO MODELS. THE LXIVM WITH 60 STATIONS AND THE LMIVM-PRO WITH 240 STATIONS. REFER TO THE CHART BELOW FOR DIFFERENCES BETWEEN THE TWO MODELS.
- 2. USE STEEL CONDUIT FOR ABOVE GRADE AND SCH 40 PVC CONDUIT FOR BELOW GRADE CONDITIONS.
- 3. PROVIDE PROPER GROUNDING COMPONENTS TO ACHIEVE GROUND RESISTANCE OF 10 OHMS OR LESS. IF CONTROLLER IS MOUNTED INDOORS, USE POWER SUPPLY GROUND.

KEY SPECIFICATIONS

FEATURE	MAX PROGRAMS		STATIONS		MAX SIMULSTATIONS		MASTER VALVES		FLOW SENSORS		WEATHER SENSORS	
MODEL												
LX-IVM	10	60	8	5	5	4						
LX-IVM PRO	40	240	16	10	10	8						

**1** RAIN BIRD ESP-IVM CONTROLLER  
NTS

P-RE-RAI-21

90% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



P.O. BOX 111841, NAPLES, FLORIDA 34108  
PHONE (239) 363-4029 FAX (239) 594-7991

IN COORDINATION WITH:



5783 BAYSHORE ROAD, SUITE 113  
NORTH FORT MYERS, FL 33917

PREPARED FOR:

VILLAGE OF ESTERO

RIVER RANCH ROAD  
ROADWAY IMPROVEMENTS  
CW3 PROJECT NUMBER 19-0046

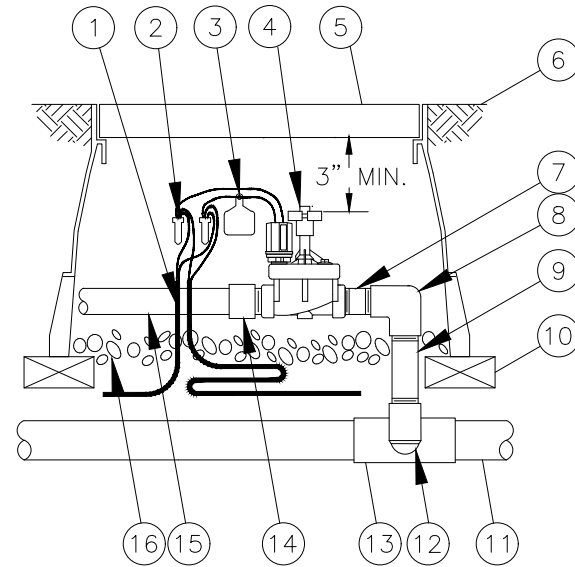
REV	DATE	DESCRIPTION

SCALE:  
DATE: JANUARY 2023  
PROJECT #:

IRRIGATION  
PLAN

DAYNA L. FENDRICK, RLA #0001224

SHEET #  
**IR-10**

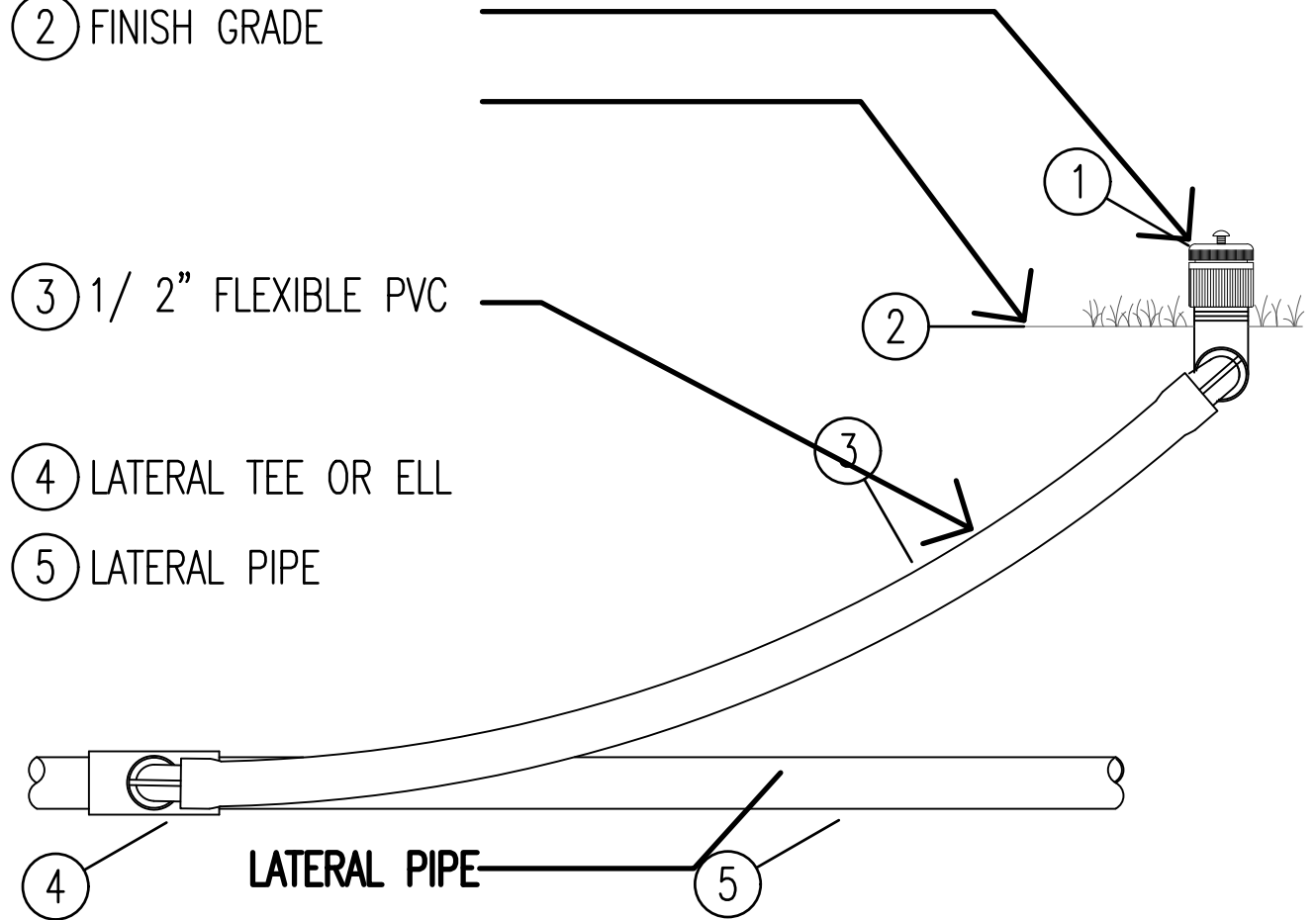


- ① 30-INCH LENGTH OF 2-WIRE CABLE
- ② WATERPROOF CONNECTION RAIN BIRD WC20 (TWO REQUIRED)
- ③ ID TAG: RAIN BIRD VID SERIES
- ④ REMOTE CONTROL VALVE: RAIN BIRD PEB/PESB/PESB-R WITH IVM
- ⑤ VALVE BOX WITH COVER: RAIN BIRD VB-STD
- ⑥ FINISH GRADE/TOP OF MULCH
- ⑦ PVC SCH 80 NIPPLE (CLOSE)
- ⑧ PVC SCH 40 ELL
- ⑨ PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
- ⑩ BRICK (1 OF 4)
- ⑪ PVC MAINLINE PIPE
- ⑫ SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND SCH 40 ELL
- ⑬ PVC SCH 40 TEE OR ELL
- ⑭ PVC SCH 40 MALE ADAPTER
- ⑮ PVC LATERAL PIPE
- ⑯ 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL

② PESB WITH IVM  
1" = 1"

P-RE-RAI-18

- ① MODEL 1400 BUBBLER
- ② FINISH GRADE
- ③ 1/2" FLEXIBLE PVC
- ④ LATERAL TEE OR ELL
- ⑤ LATERAL PIPE



③ RAINBIRD 1400 BUBBLER  
NTS

P-RE-RAI-12

90% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



IN COORDINATION WITH:  
**CW3**  
Engineering, Inc.  
5783 BAYSHORE ROAD, SUITE 113  
NORTH FORT MYERS, FL 33917

PREPARED FOR:  
VILLAGE OF ESTERO

RIVER RANCH ROAD  
ROADWAY IMPROVEMENTS  
CW3 PROJECT NUMBER 19-0046

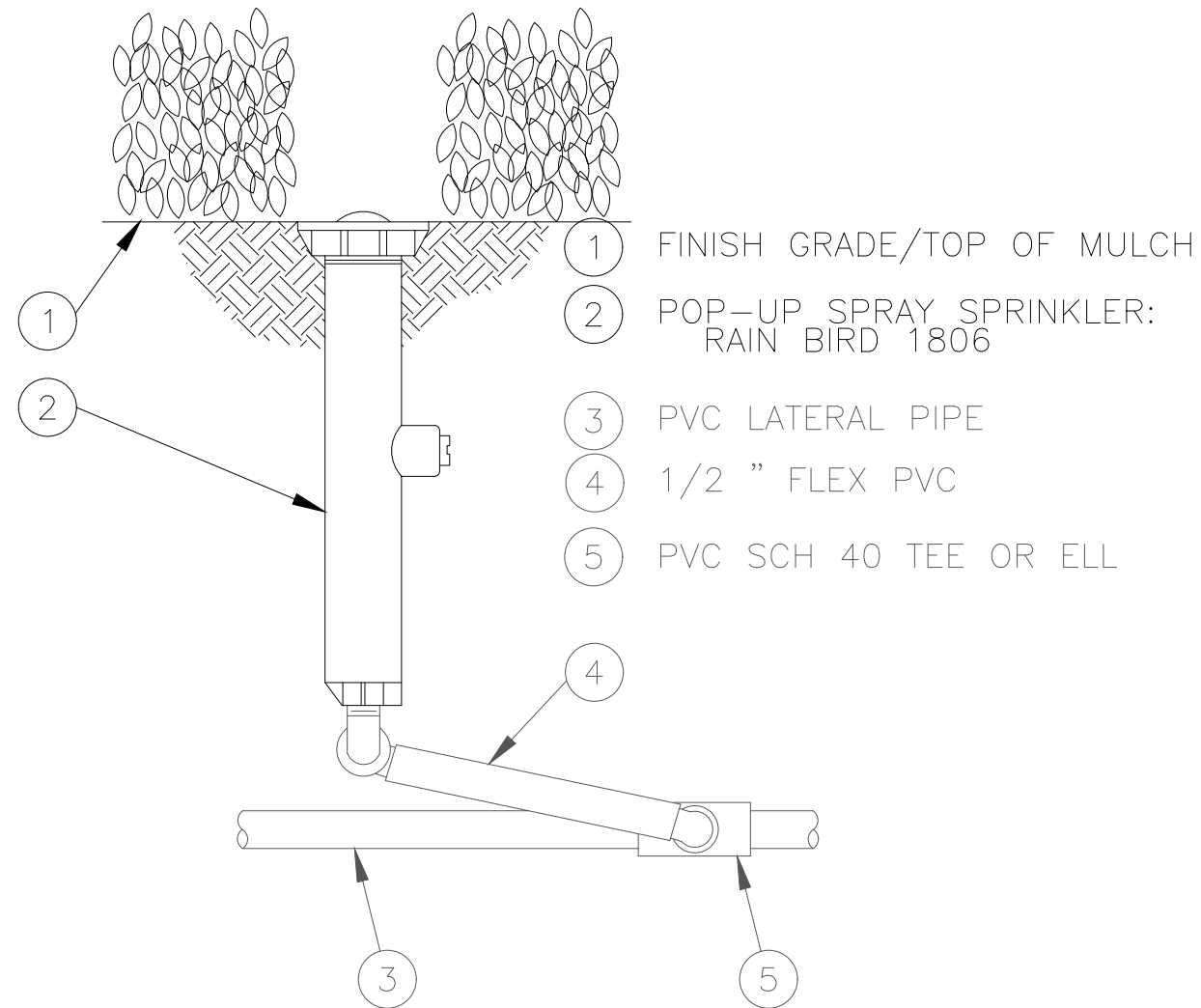
REV	DATE	DESCRIPTION

SCALE:  
DATE: JANUARY 2023  
PROJECT #:

IRRIGATION  
PLAN

DAYNA L. FENDRICK, RLA #0001224

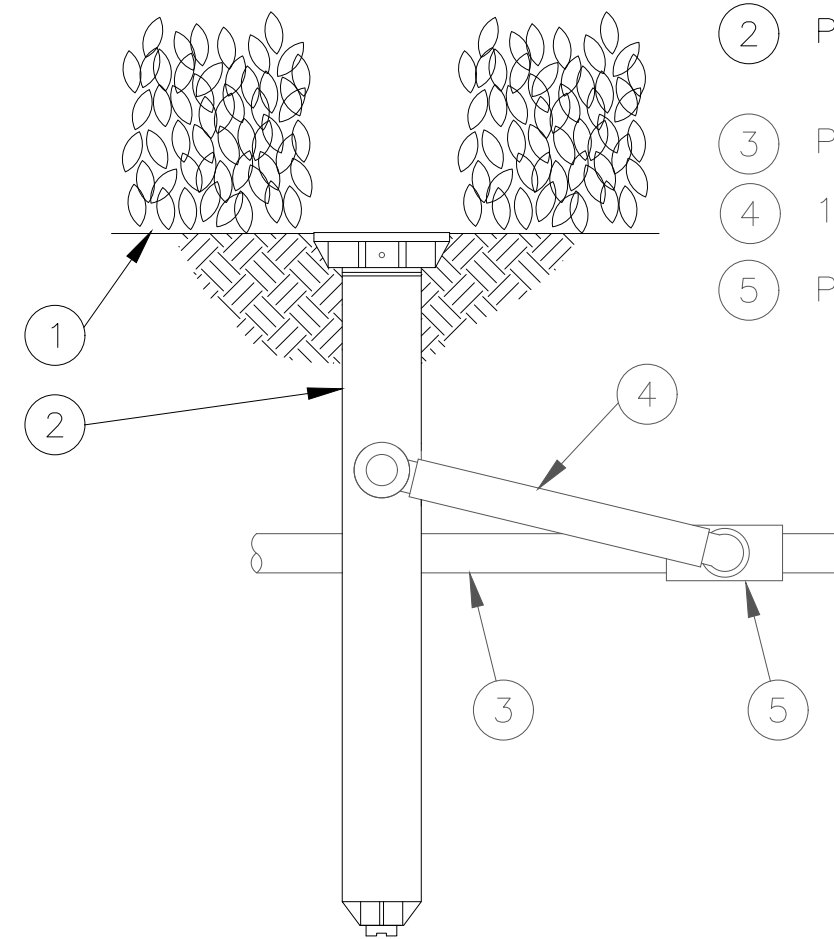
SHEET #  
**IR-11**



- ① FINISH GRADE/TOP OF MULCH
- ② POP-UP SPRAY SPRINKLER:  
RAIN BIRD 1806
- ③ PVC LATERAL PIPE
- ④ 1/2 " FLEX PVC
- ⑤ PVC SCH 40 TEE OR ELL

**4** RAINBIRD 1806  
1" = 1"

P-RE-RAI-02



- ① FINISH GRADE/TOP OF MULCH
- ② POP-UP SPRAY SPRINKLER:  
RAIN BIRD 1812
- ③ PVC LATERAL PIPE
- ④ 1/2 " FLEX PVC
- ⑤ PVC SCH 40 TEE OR ELL

**5** RAINBIRD 1812  
NTS

P-RE-RAI-03

90% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



IN COORDINATION WITH:  
**CW3**  
Engineering, Inc.  
5783 BAYSHORE ROAD, SUITE 113  
NORTH FORT MYERS, FL 33917

PREPARED FOR:  
VILLAGE OF ESTERO

RIVER RANCH ROAD  
ROADWAY IMPROVEMENTS  
CW3 PROJECT NUMBER 19-0046

REV	DATE	DESCRIPTION

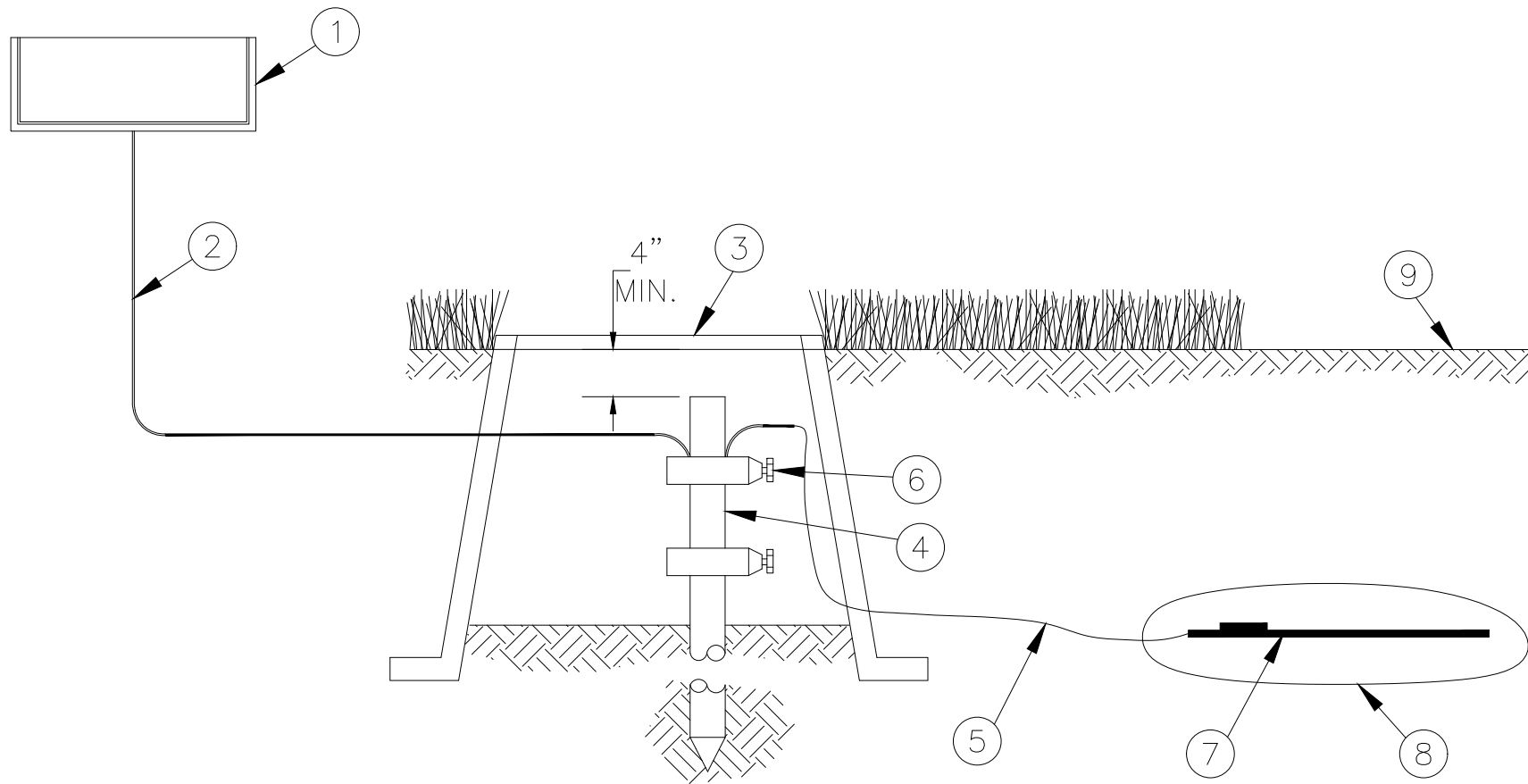
SCALE:  
DATE: JANUARY 2023  
PROJECT #:

IRRIGATION  
PLAN

DAYNA L. FENDRICK, RLA #0001224

SHEET #  
**IR-12**





- ① CONTROLLER
- ② SOLID BARE COPPER WIRE (#10 AWG) FROM GROUNDING ROD TO CONTROLLER. AS SHORT AND STRAIGHTS AS POSSIBLE
- ③ COVER GROUNDING ROD WITH #10 ROUND VALVE BOX AS SHOWN
- ④ 5/8-INCH X 10 FT COPPER CLAD GROUNDING ROD OR GROUNDING PLATE. INSTALL RODS IN SOIL IN A TRIANGULAR PATTERN SPACED A MINIMUM OF 16 FT APART FROM EACH OTHER. GROUNDING GRID TO HAVE A RESISTANCE OF TEN (10) OHMS OR LESS
- ⑤ BARE COPPER WIRE (#6 AWG MIN.) BETWEEN GROUNDING ROD AND GROUNDING PLATE
- ⑥ GROUND ROD CLAMP OR WELDS
- ⑦ COPPER GROUNDING PLATE
- ⑧ GROUND ENHANCEMENT MATERIAL (IF REQUIRED)
- ⑨ FINISH GRADE

**6** GROUNDING PLATE AND ROD  
1" = 1"

P-CO-24

90% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



IN COORDINATION WITH:  
**CW3**  
Engineering, Inc.  
5783 BAYSHORE ROAD, SUITE 113  
NORTH FORT MYERS, FL 33917

PREPARED FOR:  
VILLAGE OF ESTERO

RIVER RANCH ROAD  
ROADWAY IMPROVEMENTS  
CW3 PROJECT NUMBER 19-0046

REV	DATE	DESCRIPTION

SCALE:  
DATE: JANUARY 2023  
PROJECT #:

IRRIGATION  
PLAN

DAYNA L. FENDRICK, RLA #0001224

SHEET #  
**IR-13**

LAMINATED IDENTIFICATION TAGS  
IDENTIFY ZONE CONTROL VALVE  
PROGRAMMABLE RECEIVER/DECODER.

FINISH GRADE

COMPACTED CLEAN  
BACKFILL

PROGRAMMABLE RECEIVER/  
DECODER

VALVE BOX AS SPECIFIED  
LEVEL & FLUSH WITH GRADE  
12" RECTANGULAR IF TWO OR  
MORE UNITS ARE TO BE SERVED.

AWG 10 GAUGE WIRES FROM  
TWO-WIRE CONTROL SYSTEM.

NON-WOVEN FILTER FABRIC  
ATTACH TO VALVE BOX WITH  
DUCT TAPE, PROVIDE 4" OVERLAP

RIVER GRAVEL OR #89 STONE,  
2"+/- LAYER.

T-W  
DECODER

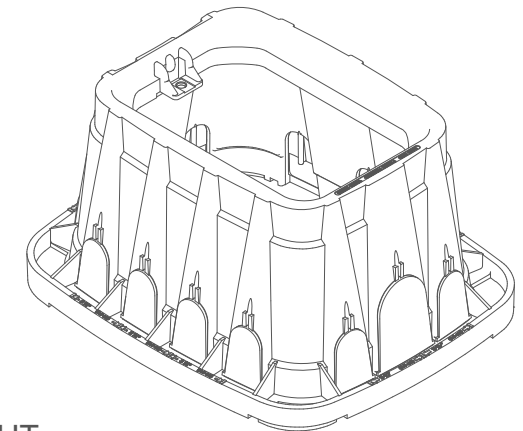
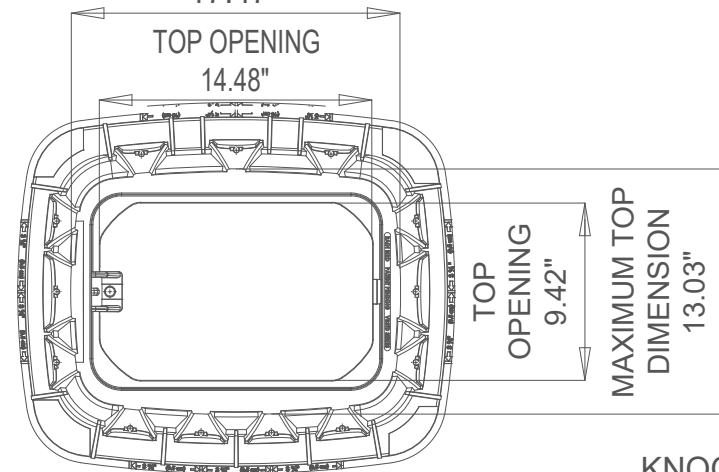
AWG 14 GAUGE WIRES TO  
ZONE VALVE(S) LOCATION(S).  
TWO WIRES PER ZONE CONTROL VALVE,  
DO NOT SHARE WIRES. EACH VALVE  
MUST HAVE TWO INDEPENDENT WIRES.

NOTE:

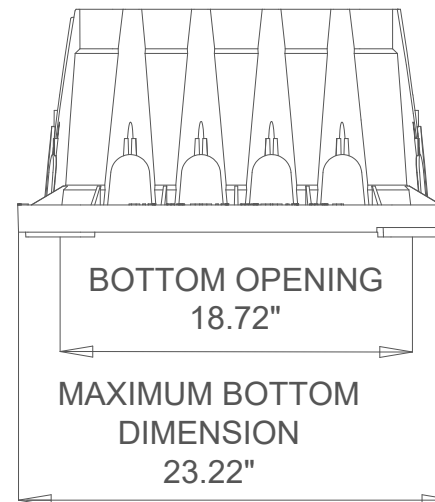
EACH ZONE CONTROL VALVE NOT CONNECTED DIRECTLY TO THE TWO-WIRE SYSTEM AWG 10 GAUGE WIRES  
MUST HAVE ITS OWN TWO WIRES. DO NOT SHARE AWG 14 GAUGE WIRES WITH OTHER ZONE CONTROL VALVES.

TOP VIEW  
MAXIMUM TOP  
DIMENSION  
17.47"

TOP OPENING  
14.48"

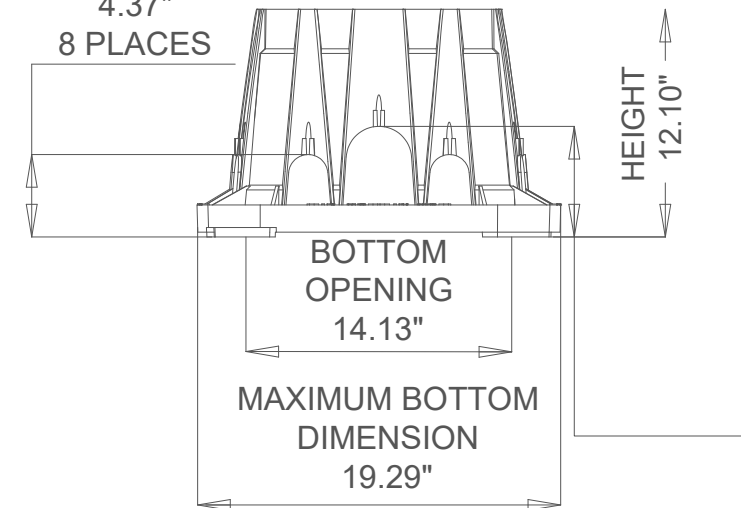


SIDE VIEW



KNOCKOUT  
HEIGHT  
4.37"  
8 PLACES

END VIEW



7

## TWO WIRE SPLICE BOX

NTS

P-CO-14

8

## RAIN BIRD STANDARD VALVE BOX DIMENSIONS

N.T.S.

FX-IR-RB-VBOX-13

90% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



P.O. BOX 111841, NAPLES, FLORIDA 34108  
PHONE (239) 363-4029 FAX (239) 594-7091

IN COORDINATION WITH:



5783 BAYSHORE ROAD, SUITE 113  
NORTH FORT MYERS, FL 33917

PREPARED FOR:

VILLAGE OF ESTERO

RIVER RANCH ROAD  
ROADWAY IMPROVEMENTS  
CW3 PROJECT NUMBER 19-0046

REV DATE DESCRIPTION

SCALE:

DATE: JANUARY 2023

PROJECT #:

IRRIGATION  
PLAN

DAYNA L. FENDRICK, RLA #0001224

SHEET #

IR-14

## CRITICAL ANALYSIS

Generated: 2023-03-13 13:09

P.O.C. NUMBER: 01

Water Source Information:

### FLOW AVAILABLE

Water Meter Size: 3"  
Flow Available: 225 GPM

### PRESSURE AVAILABLE

Static Pressure at POC: 60 PSI  
Elevation Change: 5.00 ft  
Service Line Size: 4"  
Length of Service Line: 20 ft  
Pressure Available: 57 PSI

### DESIGN ANALYSIS

Maximum Multi-valve Flow: 100 GPM  
Flow Available at POC: 225 GPM  
Residual Flow Available: 125 GPM

Design Pressure: 30 PSI  
Friction Loss: 6.92 PSI  
Fittings Loss: 0.69 PSI  
Elevation Loss: 0 PSI  
Loss through Valve: 3.57 PSI  
Pressure Req. at Critical Station: 41.2 PSI  
Loss for Fittings: 0.33 PSI  
Loss for Main Line: 3.31 PSI  
Loss for POC to Valve Elevation: 0 PSI  
Loss for Backflow: 0 PSI  
Loss for Water Meter: 2.4 PSI  
Critical Station Pressure at POC: 47.2 PSI  
Pressure Available: 57 PSI  
Residual Pressure Available: 9.77 PSI

90% PLANS SUBMITTAL  
NOT FOR CONSTRUCTION



P.O. BOX 111841, NAPLES, FLORIDA 34108  
PHONE (239) 363-4029 FAX (239) 594-7991

IN COORDINATION WITH:



5783 BAYSHORE ROAD, SUITE 113  
NORTH FORT MYERS, FL 33917

PREPARED FOR:

VILLAGE OF ESTERO

RIVER RANCH ROAD  
ROADWAY IMPROVEMENTS  
CW3 PROJECT NUMBER 19-0046

REV	DATE	DESCRIPTION

SCALE:

DATE: JANUARY 2023

PROJECT #:

IRRIGATION  
PLAN

DAYNA L. FENDRICK, RLA #0001224

SHEET #

IR-15