

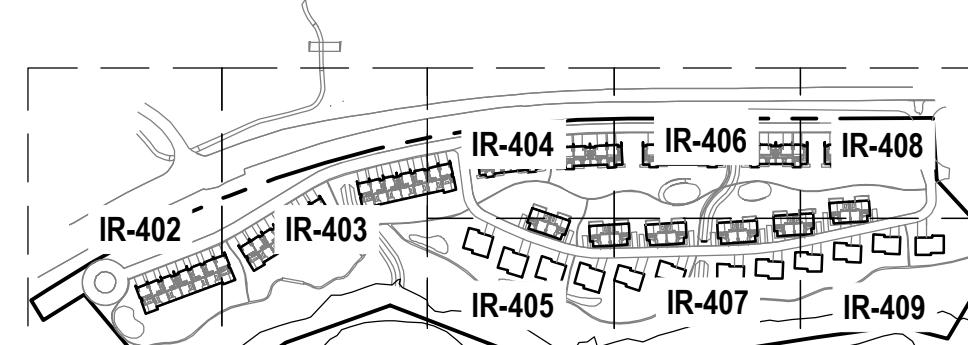
IRRIGATION SCHEDULE				
SYMBOL	MANUFACTURER	MODEL NO.	DESCRIPTION	DETAIL NO.
	HUNTER	PROS-06-CV-PRS20-R WITH PRO-SPRAY NOZZLE	POPUP SPRAY HEAD	1
	HUNTER	PROS-06-CV-PRS20-R WITH PRO-SPRAY SST, CORNER NOZZLE	POPUP SPRAY HEAD	1
	HUNTER	PROS-12-PRS20-CV-R WITH MP-ROTATOR SERIES NOZZLE (M1-MP-1000, M2-MP-2000, M3-MP3000 & M5-MP5000)	POPUP ROTATOR HEAD	1
	HUNTER	PROS-12-PRS20-CV-R WITH MP-ROTATOR SERIES NOZZLE (M1-MP-1000, M2-MP-2000, M3-MP3000 & M5-MP5000)	HI-POP SPRAY HEAD	2
	HUNTER	PROS-12-PRS40-CV-R WITH MP-ROTATOR SERIES NOZZLE (M1-MP-1000, M2-MP-2000, M3-MP3000 & M5-MP5000)	HI-POP ROTATOR HEAD	2
	HUNTER	I-20-06-55-R WITH # STANDARD NOZZLE (BLUE)	GEAR DRIVEN ROTOR	3
	HUNTER	I-20-06-55 WITH #20 & #28 NOZZLES	GEAR DRIVEN ROTOR	3
	HUNTER	I-20-12-R WITH # STANDARD NOZZLE (BLUE)	HI-POP GEAR DRIVEN ROTOR	3
	HUNTER	I-20-12-R WITH #MPR25 MATCHED PRECIPITATION NOZZLE (RED)	HI-POP ROTOR HEAD	4
	HUNTER	I-20-12-R WITH #MPR25 MATCHED PRECIPITATION NOZZLE (RED)	HI-POP ROTOR HEAD	4
	HUNTER	I-20-12-R WITH #MPR25 MATCHED PRECIPITATION NOZZLE (RED)	HI-POP ROTOR HEAD	4
	RAIN BIRD	ICV-PRS-D W/DECODER	ELECTRIC CONTROL VALVE	7 & 10
	RAIN BIRD	44- NP	QUICK COUPLING VALVE	5
	BASELINE	3200 WEB ACCESSIBLE	2-WIRE ELECTRIC CONTROLLER	19 & 20
	FEBCO	880	RF BACKFLOW PREVENTER	23 & 24
N/S	STRONG BOX	SBBC-40-ALHP	BACKFLOW PREVENTER ENCLOSURE	25
N/S	OLDCASTLE / CARSON	REFER TO SPECIFICATIONS AND DETAILS	VALVE BOXES	NS
N/S	MACDONALD	AY 1/4 TURN - 1"	MANUAL DRAIN VALVE	6
		LINE SIZE - 2 1/2" AND SMALLER	GATE VALVE	21
		LINE SIZE - 3" AND LARGER	GATE VALVE	22
	APCO	BERMAD	AIR RELEASE VALVE	26
N/S	LEEMCO		MECHANICAL JOINT RESTRAINTS	18
		CLASS 200 BE - 2 1/2" & SMALLER	PVC MAINLINE	16
		CLASS 200 RT - 3" & LARGER	PVC MAINLINE	16 & 18
		CLASS 160	PVC SLEEVING	17
	RAIN BIRD	XCZ-100-PRB-COM	Drip valve assembly	13 & 10
	RAIN BIRD	XERI-BUG	Drip blow-out	15
N/S	RAIN BIRD	XERI-BUG	Drip emitters	14
N/S	BASELINE	ICD-100	VALVE DECODER	10
N/S	BASELINE	ICD-SEN	SENSOR DECODER	9
-----	PAIGE	P1354D #12 AVG	2-WIRE DECODER CABLE	NS
	HUNTER	AT LOCATIONS SHOWN	SURGE PROTECTION	11
	PPS	CB##V1C015X00093-085V32B2410NS-4	PRIMARY PUMP	P1, P2, P3
	BY OTHERS		WATER METER	BY OTHERS
	RAIN BIRD	XERI-BUG WITH CHECK VALVE	TREE Drip RINGS	27
	OCTAVE	3600CT03GAL01	METER	9 & 10
	HUNTER	ICV-391-R	MASTER VALVE	8 & 10
CONTROLLER & STATION NO. CONTROL VALVE SIZE				

IRRIGATION CONSTRUCTION NOTES

1. DRAWINGS AND BASE INFORMATION - ALL BASE AND PLANTING INFORMATION HAVE BEEN PROVIDED BY WENK ASSOCIATES. THE CONTRACTOR IS RESPONSIBLE TO NOTIFY HYDROSYSTEMS*KDI OF ANY DISCREPANCIES BETWEEN THE UTILITY OR PLANTING PLANS AND THE IRRIGATION PLAN. IF CONTRACTOR FAILS TO NOTIFY HYDROSYSTEMS*KDI AND MAKES CHANGES TO THE IRRIGATION SYSTEM DESIGN, HE ASSUMES ALL COSTS AND LIABILITIES ASSOCIATED WITH THOSE FIELD CHANGES. REFER TO SPECIFICATIONS FOR ADDITIONAL PROJECT REQUIREMENTS. CONTACT IRRIGATION CONSULTANT FOR CURRENT SPECIFICATIONS IF NOT PROVIDED.
2. SYSTEM PRESSURE - HYDROSYSTEMS*KDI HAS CONTACTED THE LOCAL WATER DISTRICT THAT SERVES THIS SITE AND THEY HAVE BEEN TOLD THAT THE STATIC WATER PRESSURE IN THIS AREA SHOULD BE TBD PSI. THE CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY PRESSURE PRIOR TO COMMENCING ANY CONSTRUCTION AND NOTIFY HYDROSYSTEMS*KDI OF ANY VARIANCE FROM THE STATED PRESSURE IMMEDIATELY. WRITTEN DOCUMENTATION OF PRESSURE TEST AND RESULTS SHALL BE PROVIDED TO HYDROSYSTEMS*KDI AT CONSTRUCTION ONSET. IF CONTRACTOR FAILS TO FIELD VERIFY PRESSURE AND/OR NOTIFY HYDROSYSTEMS*KDI OF ANY VARIATIONS FROM THIS PRESSURE, THEN HE ASSUMES ALL CONSTRUCTION AND ENGINEERING COSTS ASSOCIATED WITH SYSTEM MODIFICATIONS REQUIRED TO ACCOMMODATE ACTUAL SITE PRESSURE. THIS SYSTEM HAS BEEN DESIGNED FOR A REQUIRED STATIC PRESSURE OF 85 PSI MINIMUM.
3. NON-POTABLE WATER SOURCE - THIS SITE HAS BEEN DESIGNED TO BE IRRIGATED WITH NON-POTABLE WATER. ALL CAPS ON HEADS, VALVE HANDLES, VALVE BOX LIDS SHALL BE CONSTRUCTED OF PURPLE MATERIALS AND LABELED TO INDICATE NON-POTABLE WATER SUPPLY. ALL MAINLINE AND LATERAL PIPING SHALL BE PURPLE. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING SIGNS NOTIFYING THE PUBLIC OF THE USE OF NON-POTABLE WATER ON THIS SITE. SEE STATE REGULATIONS FOR CONTENT AND SIZE OF NOTIFICATION SIGNS. INSTALLATION CREWS ARE TO BE INFORMED OF THE USE OF NON-POTABLE WATER.
4. IRRIGATION SYSTEM OPERATION INTENT - THIS IRRIGATION SYSTEM HAS BEEN DESIGNED TO IRRIGATE THE ESTABLISHED LANDSCAPE WITHIN A SIX NIGHT PER WEEK SIX HOUR PER NIGHT WATERING WINDOW. ESTABLISHMENT WATERING WILL REQUIRE UP TO TWICE AS MUCH IRRIGATION FOR A FOUR TO SIX WEEK PERIOD. THE DESIGN IS BASED ON THE FOLLOWING PROJECTED WEEKLY APPLICATION RATES AFTER ESTABLISHMENT. THESE FIGURES ARE BASED ON A 30-YEAR AVERAGE WEATHER DATA AND WILL NEED TO BE ADJUSTED DUE TO SEASONAL CHANGES AND WEATHER CONDITIONS ABOVE AND BELOW THE AVERAGE VALUES UTILIZED.
 - BLUEGRASS TURF 1.39" PER WEEK PEAK SEASON
 - ORNAMENTAL PLANTINGS 0.77" PER WEEK PEAK SEASON
 - NATIVE SEED MIXES 0.10" PER WEEK PEAK SEASON
5. EQUIPMENT INSTALLATION - IT IS THE INTENT OF THIS DESIGN THAT ALL IRRIGATION EQUIPMENT BE INSTALLED WITHIN PROPERTY LIMITS AND WITHIN LANDSCAPED AREAS. ANY EQUIPMENT OTHER THAN VALVE BOXES OR SLEEVING THAT CONTAINS PIPE OR WIRES SHOWN OUTSIDE OF THESE LIMITS IS SHOWN IN THAT LOCATION FOR GRAPHICAL CLARITY ONLY. ALL VALVE BOXES SHALL BE INSTALLED A MINIMUM OF 2'-0" FROM EDGE OF ANY PAVED SURFACES UNLESS SPECIFICALLY INDICATED ON PLANS. BOXES INSTALLED IN OPEN TURF AREAS SHALL BE KEPT TO EDGES AND STAKED FOR REVIEW IF ALONG HIGH TRAFFIC AREAS. ALL VALVE BOXES SHALL BE PLACED A MINIMUM OF 3'-0" FROM THE CENTERLINE OF ANY DRAINAGE SNAKE. ALL VALVE BOXES WITHIN PAVEMENT SHALL BE TIED TO RATED BOXES FOR HEAVY DUTY NON-DELIBERATE TRAFFIC. BOX LID COLOR SHALL MATCH ADJACENT MATERIALS, I.E. GREEN IN TURF, TAN IN WOOD MULCH, GRAY IN STONE MULCH, PURPLE FOR RECLAIMED WATER SYSTEMS (IF REQUIRED). REFER TO LANDSCAPE PLANS FOR MATERIAL COLORS AND TYPES. ALL BOXES SHALL BE INSTALLED TO BE FLUSH WITH GRADE AND IN AN ORDERLY MANNER.
6. PIPING INSTALLATION - IRRIGATION PIPING SHALL MAINTAIN A MINIMUM DISTANCE FROM BUILDING FOUNDATIONS OF 5 FEET OR AS DESCRIBED IN SOILS REPORT, WHICHEVER IS GREATER. NO SPRAY IRRIGATION SHALL OCCUR WITHIN 10 FEET OF THE FOUNDATION. NO Drip IRRIGATION SHALL OCCUR WITHIN 5 FEET OF THE FOUNDATION UNLESS SOIL MOISTURE SENSORS ARE INSTALLED ON VALVES SERVICING THESE AREAS.
7. MANUAL DRAIN VALVES - CONTRACTOR TO INSTALL ONE MANUAL DRAIN VALVE ON PRESSURE SUPPLY LINE DIRECTLY DOWNSTREAM OF BACKFLOW PREVENTER AND AT ALL LOW POINTS AND DEAD ENDS OF PRESSURE SUPPLY PIPING TO ENSURE COMPLETE DRAINAGE OF SYSTEM. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THESE LOCATIONS IN-FIELD AND INSTALLATION LOCATIONS SHALL BE NOTED ON AS-BUILTS.
8. POP-UP SPRAY NOZZLES - CONTRACTOR TO INSTALL PLASTIC NOZZLES ON ALL POP-UP SPRAY HEADS. INSTALL '17' SERIES NOZZLES ON ALL HEADS SPACED AT 16' TO 15'. INSTALL '15' SERIES NOZZLES ON ALL HEADS SPACED AT 12' TO 14'. INSTALL '12' SERIES NOZZLES ON ALL HEADS SPACED 10' TO 11'. INSTALL '10' SERIES NOZZLES ON ALL HEADS SPACED AT 8' TO 9'. INSTALL '8' SERIES NOZZLES ON ALL HEADS SPACED AT 6' TO 7'. INSTALL '5' NOZZLES ON ALL HEADS SPACED AT 5'. INSTALL SIDE STRIP NOZZLES ON ALL HEADS WITH AN 'S' DESIGNATION AND RIGHT AND LEFT CORNER STRIP NOZZLES ON ALL HEADS WITH AN 'L' OR 'R' DESIGNATION. VARIABLE ARC NOZZLES SHOULD BE UTILIZED ADJACENT TO CURVILINEAR SHRUB BEDS OR FOR ANY ANGLES THAT ARE NOT A STANDARD NOZZLE ANGLE. WHERE INDICATED, INSTALL LOW FLOW SQ SERIES SQUARE NOZZLES AT SPACING SHOWN.
9. Drip Irrigation - Refer to Irrigation Detail Sheet for drip emitter quantities / drip tubing flow and placement.
10. Unlabeled Piping - All unlabeled lateral piping shall be 1" minimum unless otherwise noted.
11. Sleeving - All sleeving under paved surfaces shown on plans is by contractor unless otherwise noted. Sleeving shall be installed in the sizes and quantities shown on plans or based on the schedule below. Where sleeves are shown, but not labeled, follow the schedule below. All mainline, control wires and drip lines under paved surfaces are to be installed in sleeving. All mainline sleeve locations to include a separate wire sleeve.
12. Wire System Notes - Contractor shall install all two-wire components per manufacturers recommendations and standards.
13. Contractor shall use only manufactured 2-wire decoder cable (see schedule for specific 2-wire cable).
14. Only use single station decoders (see schedule for specific model).
15. Only use sensor decoder for flow sensor (see schedule for specific model) if indicated on plans.
16. Loop 5' of 2-wire decoder cable into all valve boxes (with decoders and splices) for maintenance.
17. Use only 3M DBR-6 waterproof connectors on all wire splices and all wire splices are to be made within a valve box with control valves or a separate 10' round valve box for wire splices.
18. Install surge protector rods or plates 8' LF. from valves, decoders, and communication wire.
19. Ground all decoders and decoder wire a minimum of every 500' of wire or every 8th decoder and at all ends of 2-wire decoder cable run.
20. Loop extra 10' of 2-wire decoder cable into a valve box at phasing lines for future connection (if indicated on plans).
21. Adjustment - Contractor shall fine tune/adjust the irrigation system to reduce/avoid overspray onto hard surfaces by adjusting nozzle direction and nozzle radius.
22. Plans and Specifications - Contractor responsible to ensure work conforms to plans and specifications. At onset of construction, verify plans are current. Where required by city or town, contractor shall construct only off city or town stamped plans. Revisions to city or town stamped plans shall conform to city or town field change procedures and documentation.
23. Existing Irrigation Damage - Contractor shall repair or replace any existing irrigation systems damaged during new installation. Repair or replacement shall be determined by owner or owner's representative and paid for by the landscape contractor.
24. Existing Irrigation Coordination - Existing irrigation system shall not be turned off for more than 24 hours maximum. Contractor shall coordinate turn off of system with owner or maintenance staff 72 hours prior to any new construction.
25. Simultaneous Zone Operation - This irrigation system has been designed to operate multiple zones simultaneously based on individual zone flow. The design is intended to operate multiple valves, up to the maximum flow in the point of connection note. Refer to controller specification for maximum simultaneous valve count.
26. All temporary irrigation zones shall be abandoned at the time of final acceptance per section 1000 of the town of erie standards and specifications unless applicable raw water fees have been paid. Abandonment of irrigation zones shall be verified by town of erie.

RED MOUNTAIN RANCH-RAW		
TAP #	85	PRESSURE REQUIRED
1	85	PRESSURE AVAILABLE
PUMP	93	GPM MAXIMUM FLOW

RED MOUNTAIN RANCH-POTABLE		
TAP #	70	PRESSURE REQUIRED
TBD	TBD	PRESSURE AVAILABLE
3"	93	GPM MAXIMUM FLOW



PROJECT
RED MOUNTAIN
RANCH

PARCEL 1
17500 US-6
EAGLE, CO 81631

ARCHITECT/
GENERAL CONTRACTOR

tres birds

PROJECT TEAM

MIKE MOORE
303-324-3622
MMM@TRESBIRDS.COM

DOUG NEWBY
720-563-7289
DN@TRESBIRDS.COM

DAVID HOFFMAN
561-386-5528
DH@TRESBIRDS.COM

NOT FOR
CONSTRUCTION

COPYRIGHT 2025
TRES BIRDS
ALL RIGHTS RESERVED
ALL DRAWINGS PROVIDED BY THIS OFFICE ARE
COPYRIGHTED UNDER THE ARCHITECTURAL
WORKS COPYRIGHT ACT OF 1991. ANY USE OF
THE INFORMATION APPEARING HEREON,
INCLUDING BUT NOT LIMITED TO REPLICATION OF THE
ORIGINAL DESIGN, IS PROHIBITED WITHOUT
EXPRESS WRITTEN CONSENT.

CONSULTANTS

STRUCTURAL ENGINEERING
KLA&
JAKE HOHMANN, PE
JHOHMANN@KLAACOM
303-384-9910

LANDSCAPE
WENK ASSOCIATES
TYLER KIGGINS
TKIGGINS@WENKLA.COM
720-669-3112

CIVIL ENGINEERING
WILSON & CO
BEN BEISLER
BEN.BEISLER@WILSONCO.COM
303-501-1217

MEP ENGINEERING
EV STUDIO
ERIC REITAN
ERIC.REITAN@EVSTUDIO.COM
303-670-7242

DIRECTORY

IRRIGATION SCHEDULE IR-401

IRRIGATION NOTES IR-401

IRRIGATION PLANS IR-402 - IR-409

IRRIGATION DETAILS IR-410 - IR-413

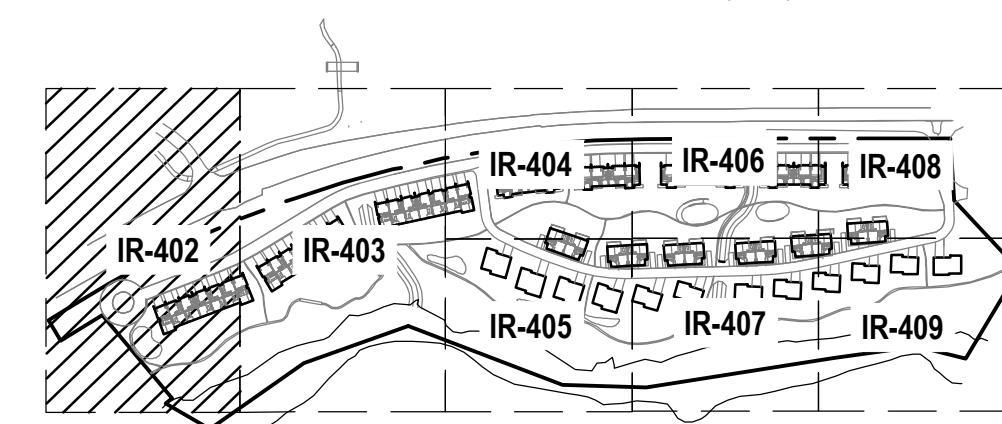
ISSUANCE
**MAJOR
DEVELOPMENT
PERMIT (MDP)**

ISSUE DATE
09.17.2025

CURRENT REVISION

REVISION HISTORY

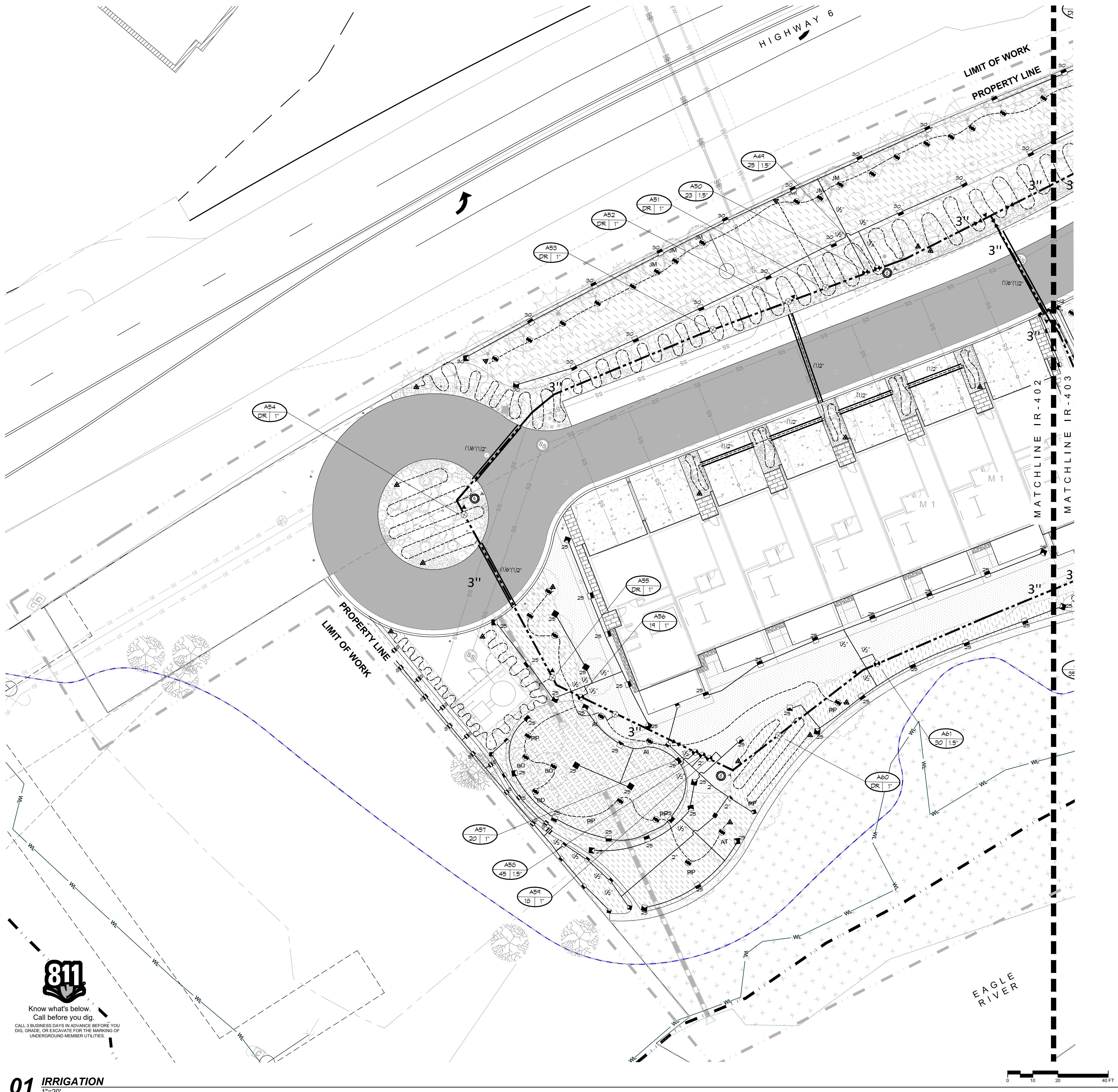
KDI
HydroSystems
Irrigation Consulting & Water Management
13949 W. Colfax Ave, Suite 260
Lakewood, Colorado 80401
o: 303.980.5327
www.hydrosystemskdi.com



KEYMAP
NTS

DRAWING SHEET TITLE
**IRRIGATION
PLAN**

IR-402



PROJECT
RED MOUNTAIN
RANCH

PARCEL 1
17500 US-6
EAGLE, CO 81631

ARCHITECT/
GENERAL CONTRACTOR
tres birds

PROJECT TEAM

MIKE MOORE
303-324-3622
MMM@TRESBIRDS.COM

DOUG NEWBY
720-563-7289
DN@TRESBIRDS.COM

DAVID HOFFMAN
561-386-5528
DH@TRESBIRDS.COM

NOT FOR
CONSTRUCTION

COPYRIGHT 2025
TRES BIRDS
ALL RIGHTS RESERVED
ALL DRAWINGS ARE THE PROPERTY OF TRES BIRDS.
COPYRIGHTED UNDER THE ARCHITECTURAL
WORKS COPYRIGHT ACT OF 1991. ANY USE OF
THE INFORMATION APPEARING HEREON,
INCLUDING BUT NOT LIMITED TO REPRODUCTION OF THE
ORIGINAL DESIGN, IS PROHIBITED WITHOUT
EXPRESS WRITTEN CONSENT.

CONSULTANTS

STRUCTURAL ENGINEERING
KLA&
JAKE HOHMANN, PE
JHOHMANN@KLAACOM
303-384-9910

LANDSCAPE
WENK ASSOCIATES
TYLER KIGGINS
TKIGGINS@WENKLA.COM
720-669-3112

CIVIL ENGINEERING
WILSON & CO
BEN BEISLER
BEN.BEISLER@WILSONCO.COM
303-501-1217

MEP ENGINEERING
EV STUDIO
ERIC REITAN
ERIC.REITAN@EVSTUDIO.COM
303-670-7242

DIRECTORY
IRRIGATION SCHEDULE IR-401
IRRIGATION NOTES IR-401
IRRIGATION PLANS IR-402 - IR-409
IRRIGATION DETAILS IR-410 - IR-413

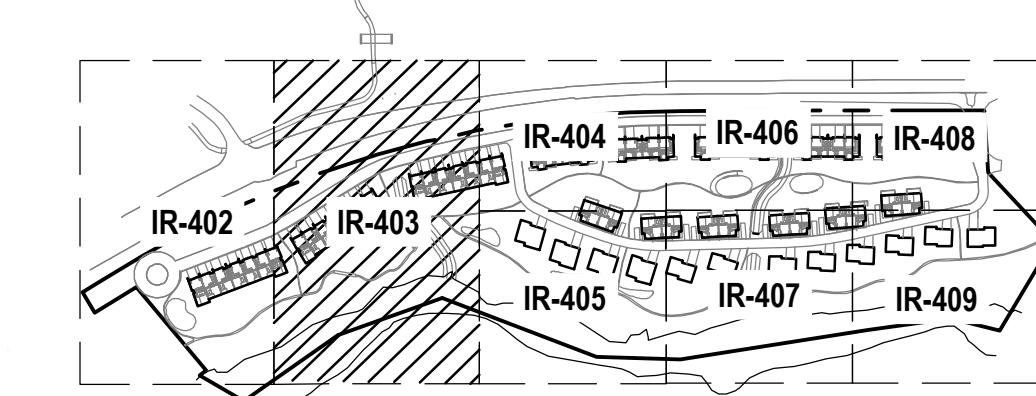
ISSUANCE
**MAJOR
DEVELOPMENT
PERMIT (MDP)**

ISSUE DATE
09.17.2025

CURRENT REVISION

 **KDI**
HydroSystems
Irrigation Consulting & Water Management
13949 W. Colfax Ave, Suite 260
Lakewood, Colorado 80401
o: 303.980.5327
www.hydrosystems.kdi.com

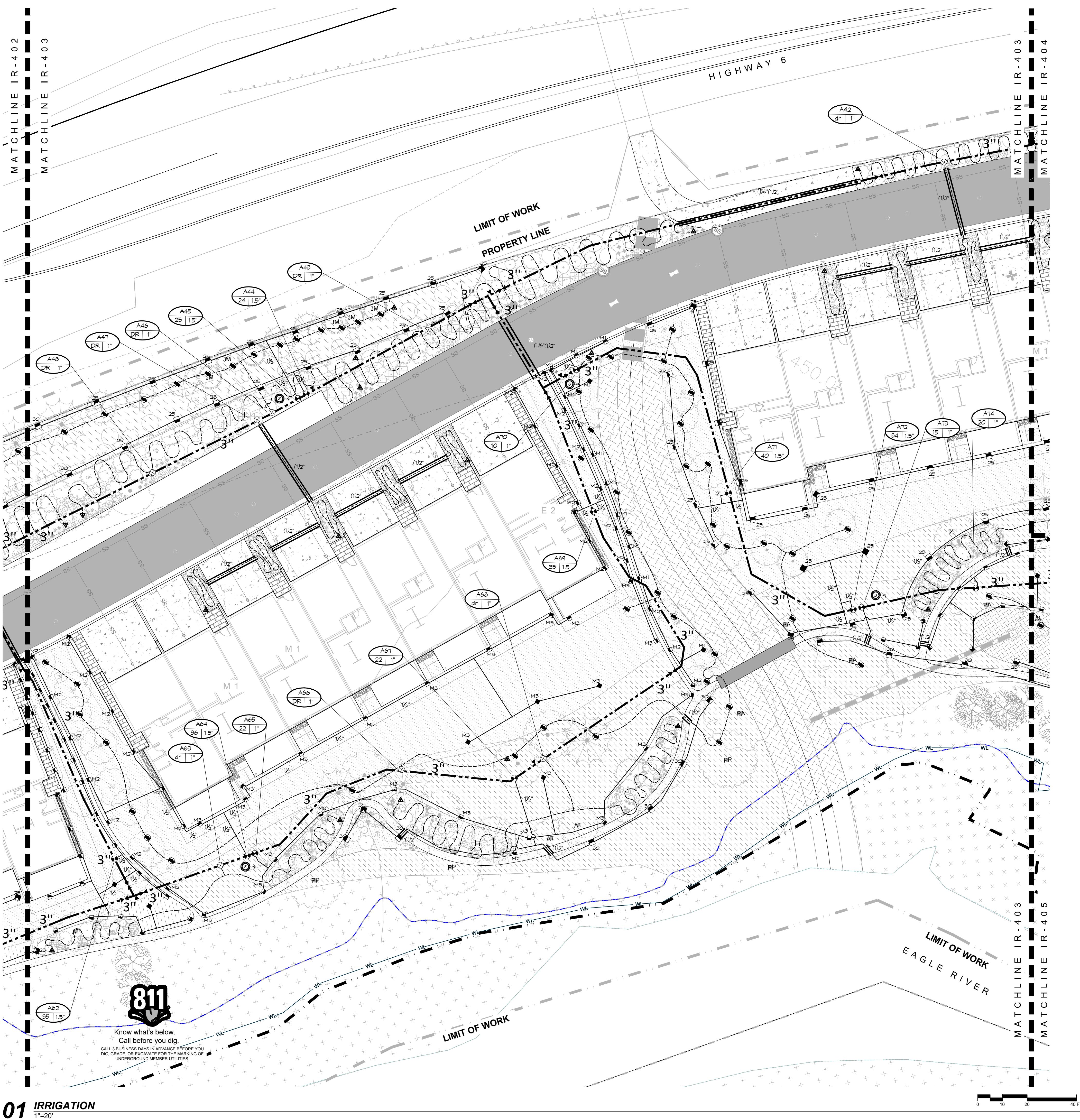
REVISION HISTORY



DRAWING SHEET TITLE
**IRRIGATION
PLAN**

IR-403

KEYMAP
NTS



NOT FOR CONSTRUCTION

COPYRIGHT 2025
TRES BIRDS
ALL RIGHTS RESERVED

ALL DRAWINGS CREATED BY THIS OFFICE ARE
COPYRIGHTED UNDER THE ARCHITECTURAL
WORKS COPYRIGHT ACT OF 1991. ANY USE OF
THE INFORMATION APPEARING HEREON,
INCLUDING COPYING OR MODIFICATION OF THE
ORIGINAL DESIGN, IS PROHIBITED WITHOUT
EXPRESS WRITTEN CONSENT.

CONSULTANTS
STRUCTURAL ENGINEERING
KL&A
JAKE HOHMANN, PE
JHOHMANN@KLAA.COM
303-384-9910

LANDSCAPE
WENK ASSOCIATES
TYLER KIGGINS
TKIGGINS@WENKLA.COM
720-669-3112

CIVIL ENGINEERING
WILSON & CO
BEN BEISLER
BEN.BEISLER@WILSONCO.COM
303-501-1217

MEP ENGINEERING
EV STUDIO
ERIC REITAN
ERIC.REITAN@EVSTUDIO.COM
303-670-7242

ISSUANCE **MAJOR DEVELOPMENT PERMIT (MDP)**

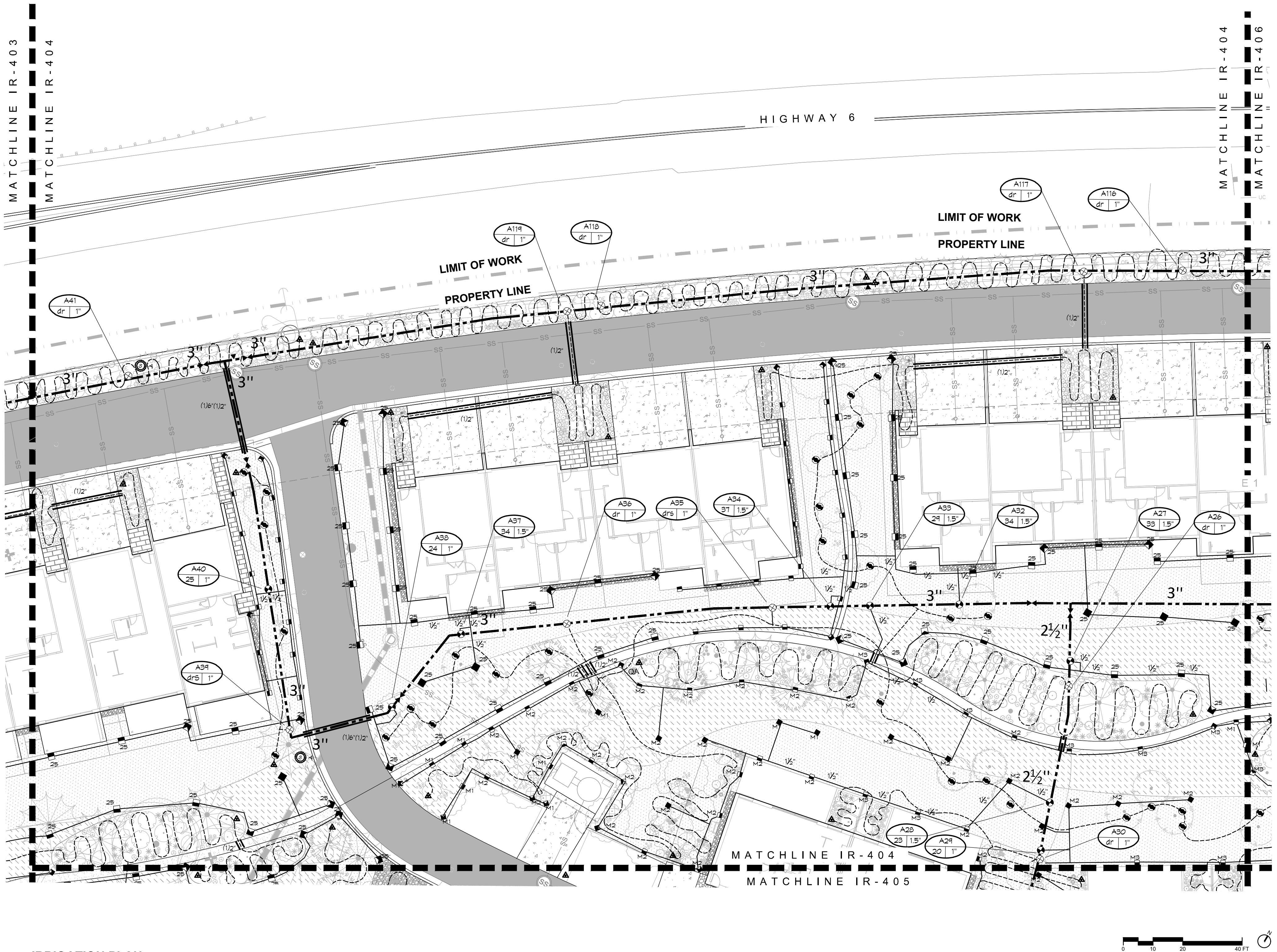
ISSUE DATE
09.17.2025

REVISION HISTORY

DRAWING SHEET TITLE

**IRRIGATION
PLAN**

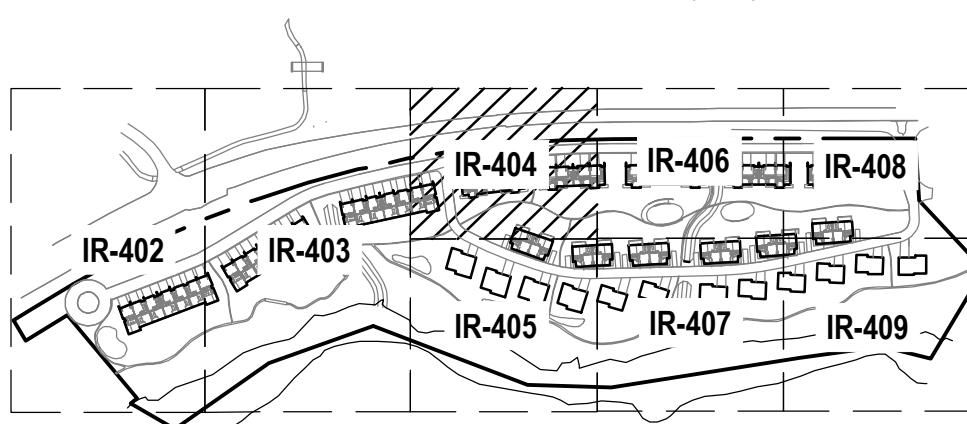
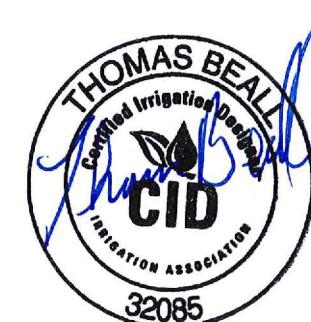
IR-404



01 IRRIGATION PLAN 1"-20'

The logo for 811 features the number '811' in a large, bold, black font. Below the '1' is a stylized icon of a shovel, also in black, with a white 'V' shape pointing downwards.

DIRECTORY	
IRRIGATION SCHEDULE	IR-401
IRRIGATION NOTES	IR-401
IRRIGATION PLANS	IR-402 - IR-409
IRRIGATION DETAILS	IR-410 - IR-413



KEYMAP

NOT FOR CONSTRUCTION

COPYRIGHT 2025
TRES BIRDS
ALL RIGHTS RESERVED

ALL DRAWINGS CREATED BY THIS OFFICE ARE
COPYRIGHTED UNDER THE ARCHITECTURAL
WORKS COPYRIGHT ACT OF 1991. ANY USE OF
THE INFORMATION APPEARING HEREON,
INCLUDING COPYING OR MODIFICATION OF THE
ORIGINAL DESIGN, IS PROHIBITED WITHOUT
EXPRESS WRITTEN CONSENT.

CONSULTANTS
STRUCTURAL ENGINEERING
KL&A
JAKE HOHMANN, PE
JHOHMANN@KLAA.COM
202-384-2010

LANDSCAPE
WENK ASSOCIATES
TYLER KIGGINS
TKIGGINS@WENKLA.COM
720-669-3112

CIVIL ENGINEERING
WILSON & CO
BEN BEISLER
BEN.BEISLER@WILSONCO.COM
303-501-1217

MEP ENGINEERING
EV STUDIO
ERIC REITAN
ERIC.REITAN@EVSTUDIO.COM
303-670-7242

ISSUANCE
**MAJOR
DEVELOPMENT
PERMIT (MDP)**

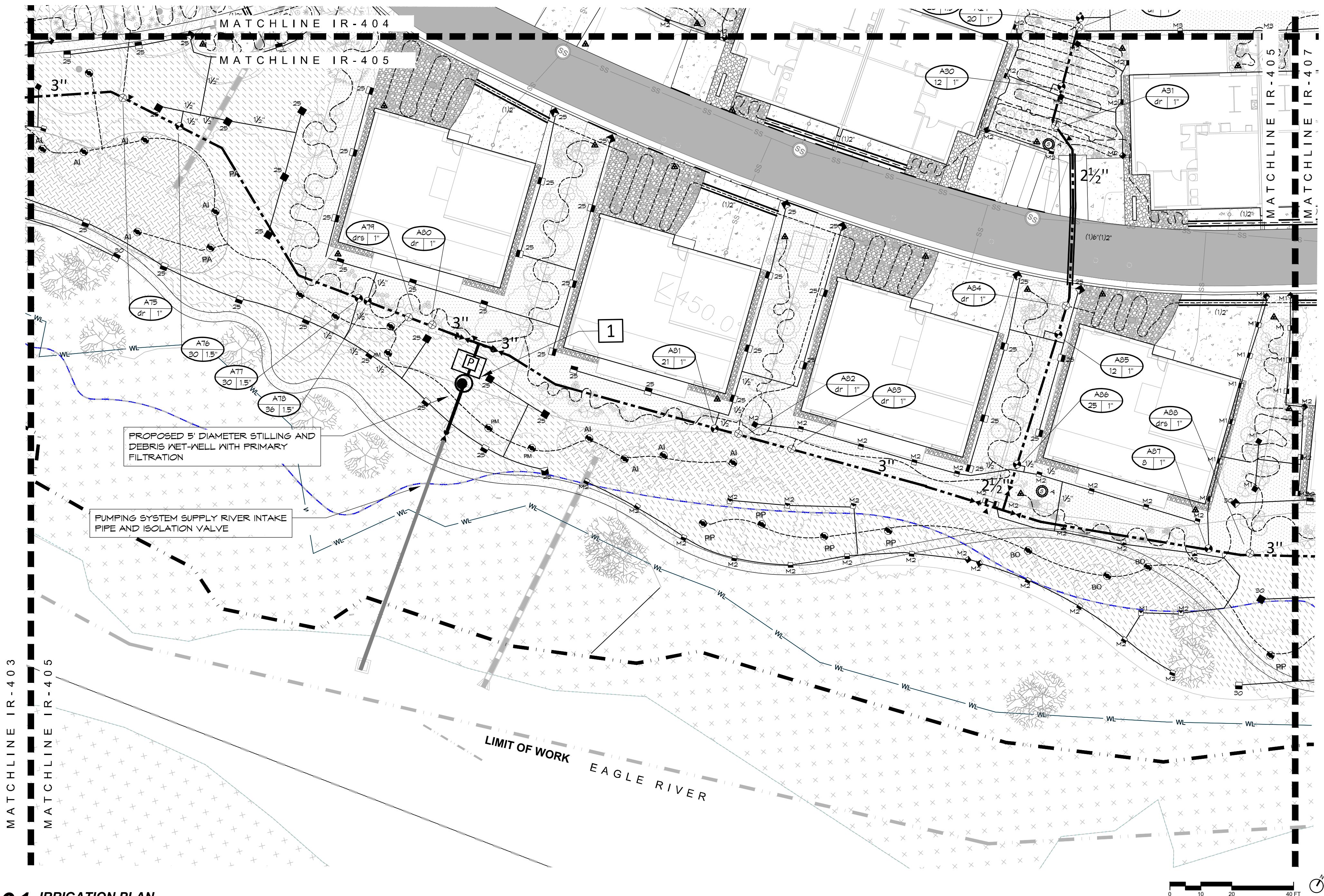
ISSUE DATE
09.17.2025

REVISION HISTORY

REVISION HISTORY

DRAWING SHEET TITLE
**IRRIGATION
PLAN**

IR-405



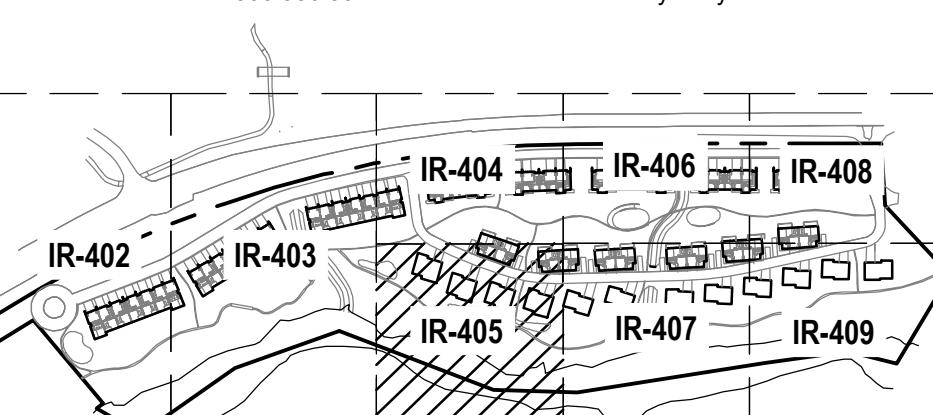
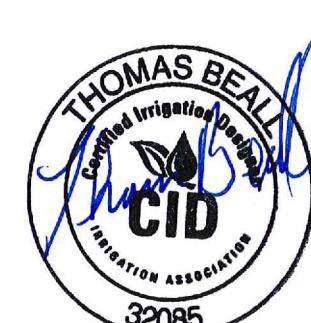
01 IRRIGATION PLAN

1 POINT OF CONNECTION #1 - 3" PUMP SUPPLY

PEAK FLOW REQUIREMENT: 93 GPM. REQUIRED STATIC PRESSURE: 85 PSI
INSTALL ONE PRE-MANUFACTURED SKID MOUNTED AND TESTED NON-POTABLE PUMPING SYSTEM WITH VFD DRIVE, FILTRATION, CELL COMMUNICATION AND COORDINATED FIELD FABRICATED ENCLOSURE

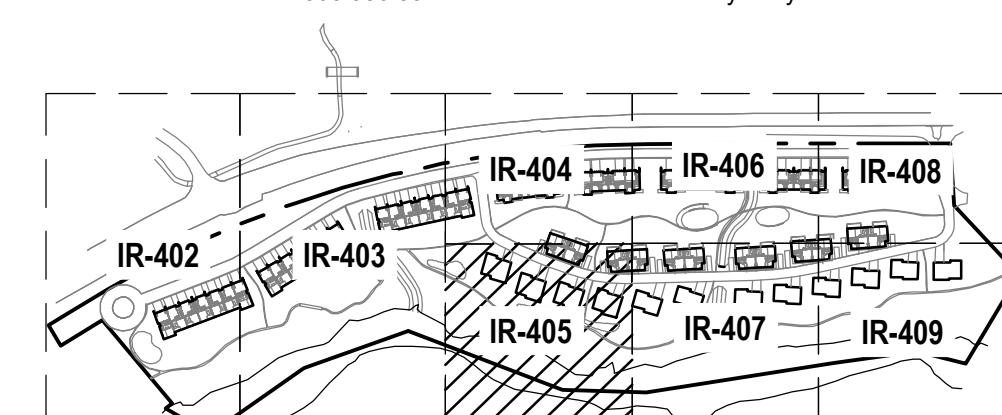


Know what's below.
Call before you dig.
CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU
DIG, GRADE, OR EXCAVATE FOR THE MARKING OF
UNLINED DRAWS AND LINES WITH INK.

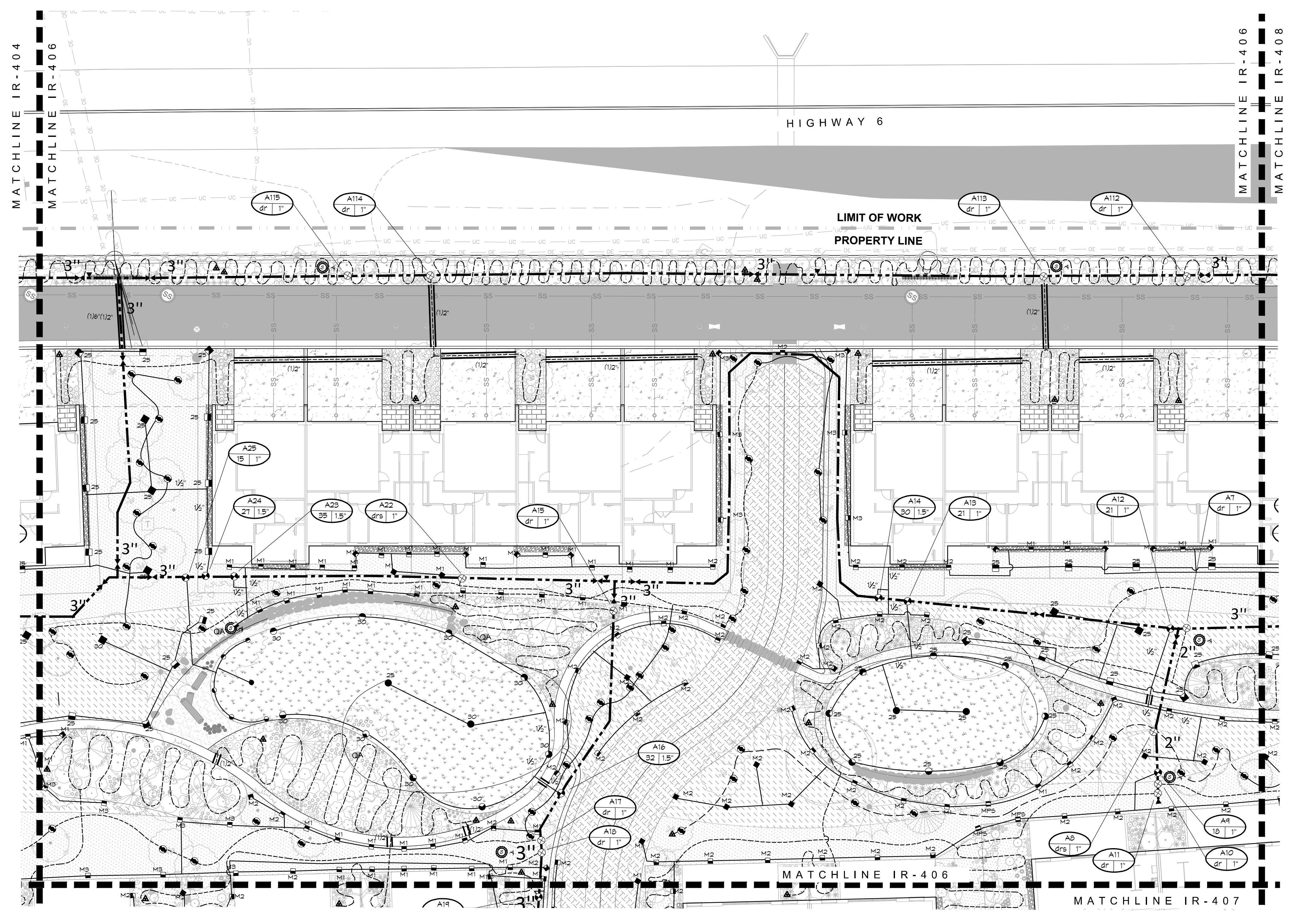


DIRECTORY

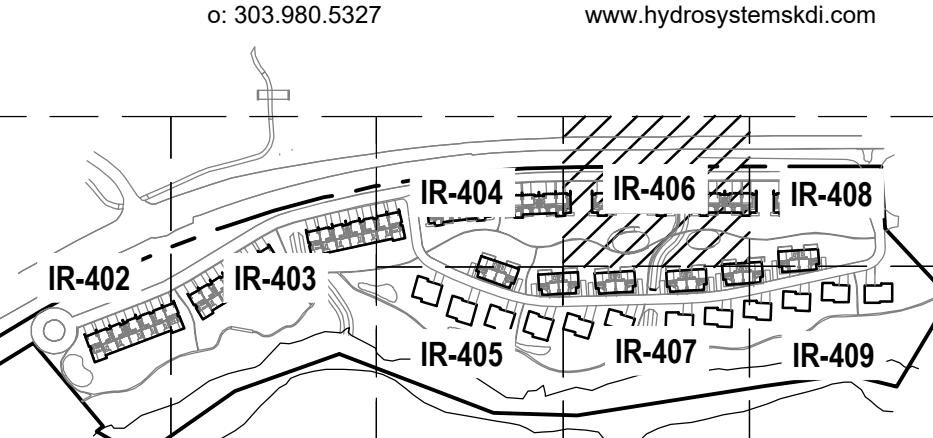
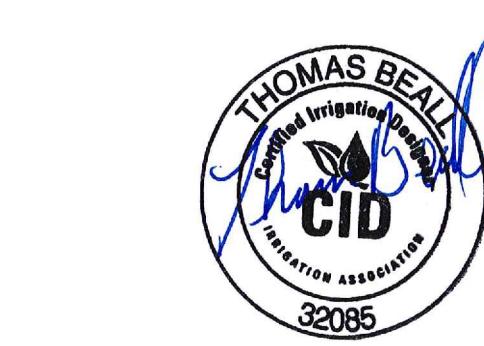
<u>DIRECTORY</u>	
IRRIGATION SCHEDULE	IR-401
IRRIGATION NOTES	IR-401
IRRIGATION PLANS	IR-402 - IR-409
IRRIGATION DETAILS	IR-410 - IR-413



KEYMAP
1"-400

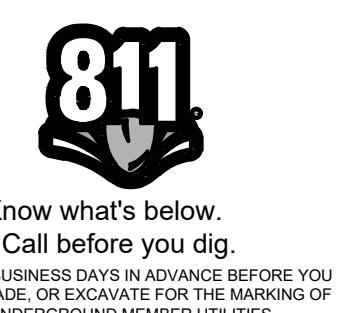


01 IRRIGATION PLAN
1"=20'



KEYMAP
1"=400

HydroSystems
KDI
Irrigation Consulting & Water Management
13949 W. Colfax Ave, Suite 260
Lakewood, Colorado 80401
o: 303.980.5327
www.hydrosystemskdi.com



Know what's below.
Call before you dig.
CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU
DIG, GRADE, OR EXCAVATE FOR THE MARKING OF
UNDERGROUND MEMBER UTILITIES.

DIRECTORY
IRRIGATION SCHEDULE IR-401
IRRIGATION NOTES IR-401
IRRIGATION PLANS IR-402 - IR-409
IRRIGATION DETAILS IR-410 - IR-413

**NOT FOR
CONSTRUCTION**

COPYRIGHT 2025
TRES BIRDS
ALL RIGHTS RESERVED
ALL DRAWINGS ARE THE PROPERTY OF TRES BIRDS.
COPYRIGHTED UNDER THE ARCHITECTURAL
WORKS COPYRIGHT ACT OF 1991. ANY USE OF
THE INFORMATION APPEARING HEREON,
INCLUDING THE REPRODUCTION OR
TRANSMISSION OF THE ORIGINAL DESIGN, IS PROHIBITED WITHOUT
EXPRESS WRITTEN CONSENT.

CONSULTANTS

STRUCTURAL ENGINEERING
KL&A
JAKE HOHMANN, PE
JHOHMANN@KLAA.COM
303-384-9910

LANDSCAPE
WENK ASSOCIATES
TYLER KIGGINS
TKIGGINS@WENKLA.COM
720-669-3112

CIVIL ENGINEERING
WILSON & CO
BEN BEISLER
BEN.BEISLER@WILSONCO.COM
303-501-1217

MEP ENGINEERING
EV STUDIO
ERIC REITAN
ERIC.REITAN@EVSTUDIO.COM
303-670-7242

ISSUANCE
**MAJOR
DEVELOPMENT
PERMIT (MDP)**

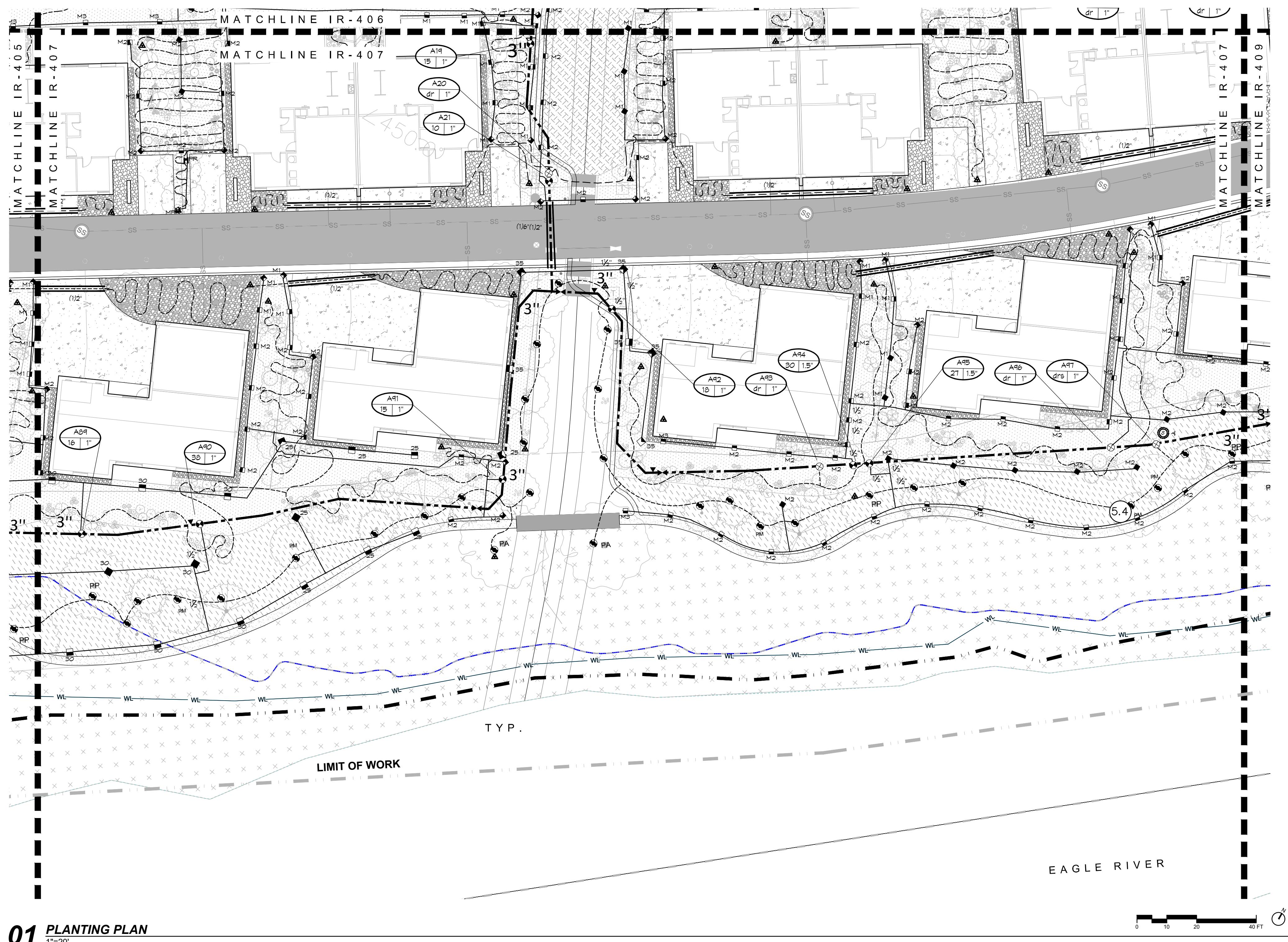
ISSUE DATE
09.17.2025

CURRENT REVISION

REVISION HISTORY

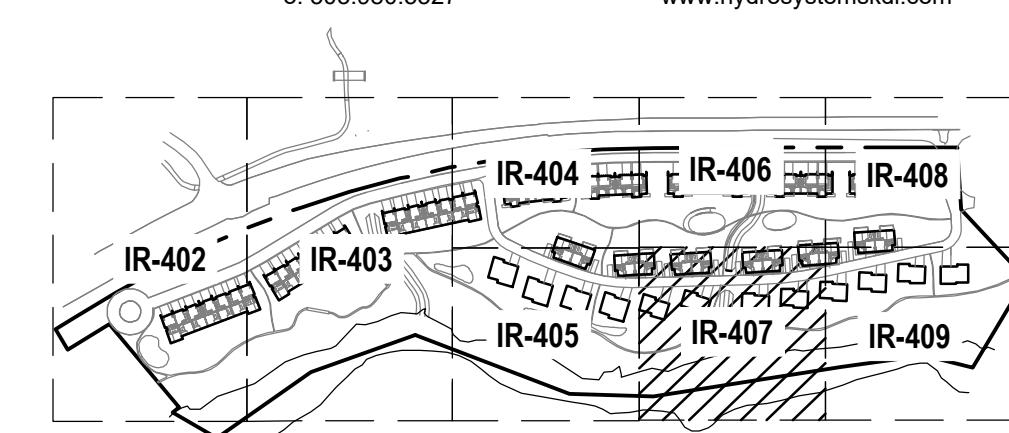
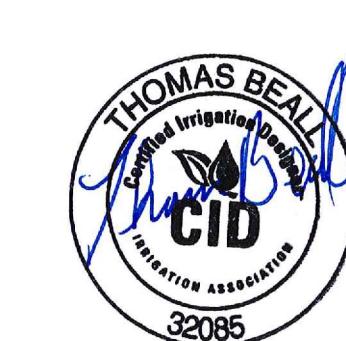
DRAWING SHEET TITLE
**IRRIGATION
PLAN**

IR-407



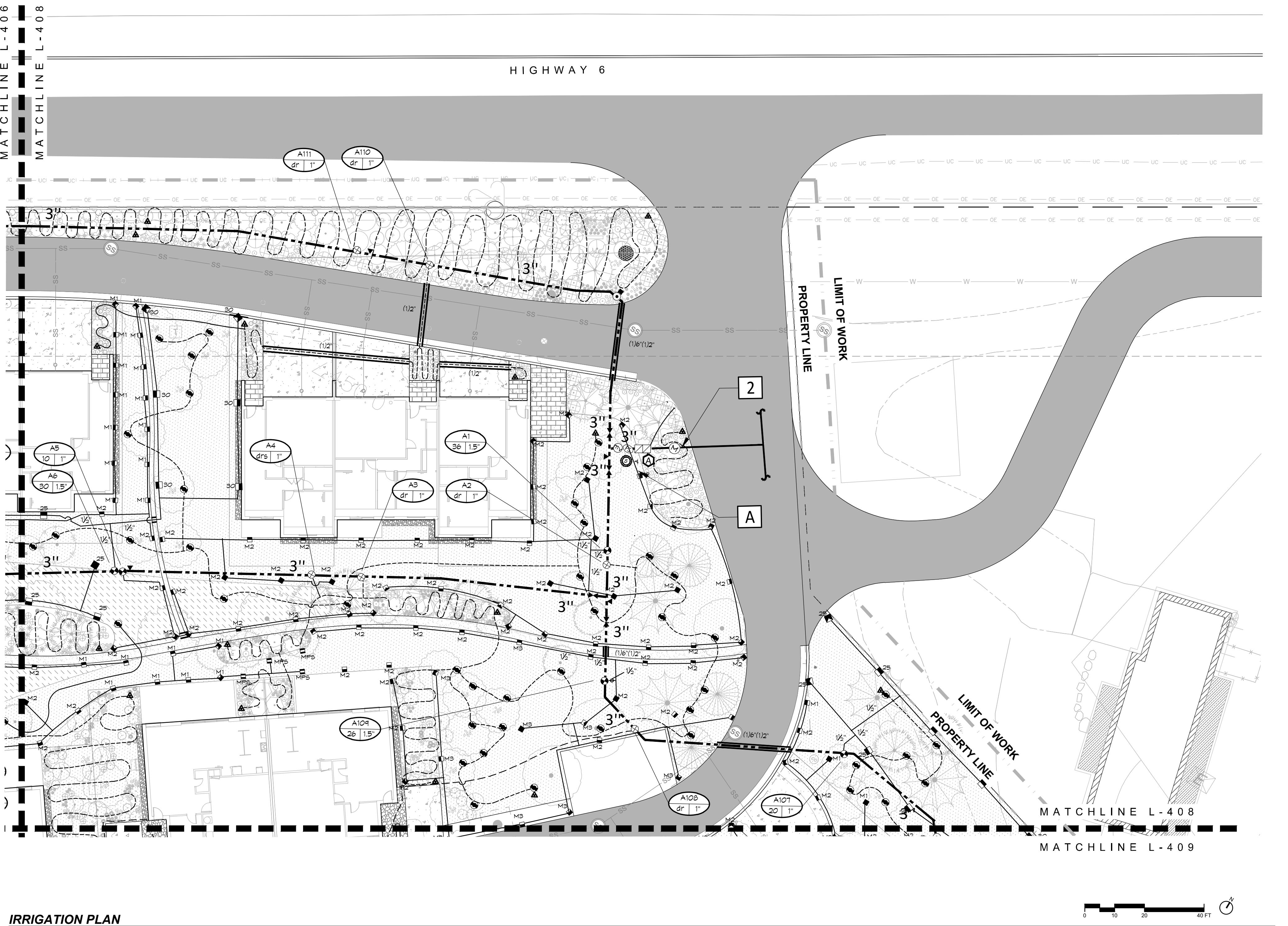
Know what's below.
Call before you dig.
DIG, GRADE, OR EXCAVATE FOR THE MARKING OF
UNDERGROUND MEMBER UTILITIES.

DIRECTORY
IRRIGATION SCHEDULE IR-401
IRRIGATION NOTES IR-401
IRRIGATION PLANS IR-402 - IR-409
IRRIGATION DETAILS IR-410 - IR-413



KEYMAP
1"=400

HydroSystems
KDI
Irrigation Consulting & Water Management
13949 W. Colfax Ave, Suite 260
Lakewood, Colorado 80401
o: 303.980.5327
www.hydrosystemskdi.com



01 IRRIGATION PLAN

1"=20'

A CONTROLLER LOCATION "A"

PEDESTAL MOUNT ONE CONTROLLER (REFER TO SCHEDULE FOR MODEL & STATION COUNT), WEB ACCESS READY AT INDICATED LOCATION. 120 VOLT POWER IS AVAILABLE WITHIN 50' LF. OF CONTROLLER LOCATION FROM RESIDENTIAL PEDESTAL, BY OTHERS. ELECTRICAL METER, WIRE/CONDUIT AND POWER CONNECTION TO CONTROLLER IS BY CONTRACTOR WITH WORK CONFORMING TO LOCAL CODES. FEES AND PERMITS ASSOCIATED WITH WORK ARE TO BE OBTAINED AND PAID BY CONTRACTOR. FINAL CONTROLLER LOCATION SHALL BE APPROVED BY OWNER OR OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. MOUNT ONE WEATHER SENSOR ON BUILDING CONTROLLER ENCLOSURE WHERE THERE IS 10' FT. OF CLEARANCE FROM ANY OVERHANG OR OBSTRUCTING FEATURE. CONNECT MASTER VALVE WITH 2-WIRE DECODER AND FLOW SENSOR WITH 2-WIRE SENSOR DECODER. FINAL WEATHER SENSOR LOCATION SHALL BE APPROVED BY OWNER OR OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.

2 POINT OF CONNECTION #2 - 3" (SUPPLEMENTAL)

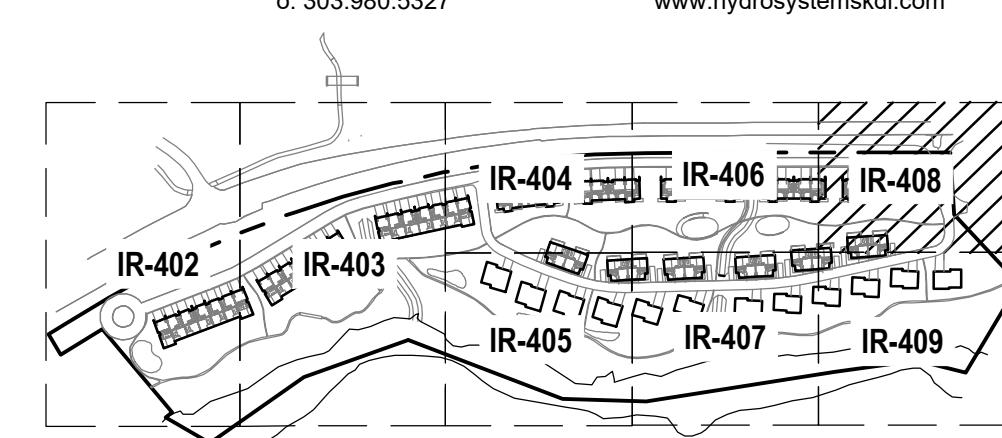
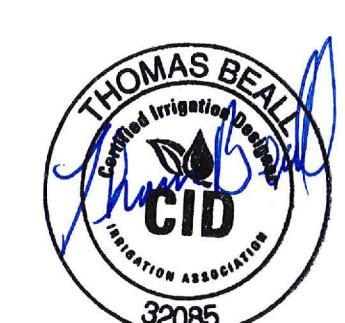
PEAK FLOW REQUIREMENT: 93 GPM. REQUIRED STATIC PRESSURE: 85 PSI
INSTALL ONE 3" TAP INTO EXISTING DOMESTIC WATER LINE AT INDICATED LOCATION AND EXTEND 3" CL 50 P.I. PIPE AT 54" DEPTH TO BACKFLOW PREVENTER LOCATION. INSTALL ONE 3" WATER METER PER DISTRICT STANDARDS, ONE 3" GATE VALVE WITH DRAIN, ONE 3" REDUCED PRESSURE BACKFLOW PREVENTER WITH PROTECTIVE ENCLOSURE, ONE MANUAL DRAIN VALVE, ONE MANUAL DRAIN VALVE, ONE FLOW SENSOR, ONE GATE VALVE, ONE QUICK COUPLING VALVE, ONE MASTER VALVE, AND EXTEND PVC MAINLINE AS SHOWN. CONNECT FLOW SENSOR AND MASTER VALVE TO ASSOCIATED CONTROLLER VIA TWO-WIRE COMMUNICATION CABLE PER MANUFACTURER'S REQUIREMENTS. SEE DETAIL SHEET FOR REQUIRED PIPE LENGTHS UPSTREAM AND DOWNSTREAM OF FLOW SENSING UNIT. SEE DETAIL SHEET FOR REQUIRED PIPE LENGTHS UPSTREAM AND DOWNSTREAM OF FLOW SENSING UNIT. WORK SHALL CONFORM TO LOCAL CODE. FEES, PERMITS AND INSPECTIONS ASSOCIATED WITH WORK ARE TO BE OBTAINED AND PAID FOR BY CONTRACTOR. FINAL LOCATION OF BACKFLOW PREVENTER SHALL BE REVIEWED AND APPROVED BY CONSULTANT PRIOR TO START OF WORK.



Know what's below.
Call before you dig.
CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU
DIG, GRADE, OR EXCAVATE FOR THE MARKING OF
UNDERGROUND MEMBER UTILITIES.

DIRECTORY

IRRIGATION SCHEDULE	IR-401
IRRIGATION NOTES	IR-401
IRRIGATION PLANS	IR-402 - IR-409
IRRIGATION DETAILS	IR-410 - IR-413



KEYMAP

**NOT FOR
CONSTRUCTION**

COPYRIGHT 2025
TRES BIRDS
ALL RIGHTS RESERVED
ALL DRAWINGS ARE THE PROPERTY OF TRES BIRDS.
COPYRIGHT UNDER THE ARCHITECTURAL
WORKS COPYRIGHT ACT OF 1991. ANY USE OF
THE INFORMATION APPEARING HEREON,
INCLUDING THE REPRODUCTION OR
TRANSMISSION OF THE ORIGINAL DESIGN, IS PROHIBITED WITHOUT
EXPRESS WRITTEN CONSENT.

CONSULTANTS

STRUCTURAL ENGINEERING
KLA&
JAKE HOHMANN, PE
JHOHMANN@KLAACOM
303-384-9910

LANDSCAPE
WENK ASSOCIATES
TYLER KIGGINS
TKIGGINS@WENKLA.COM
720-669-3112

CIVIL ENGINEERING
WILSON & CO
BEN BEISLER
BEN.BEISLER@WILSONCO.COM
303-501-1217

MEP ENGINEERING
EV STUDIO
ERIC REITAN
ERIC.REITAN@EVSTUDIO.COM
303-670-7242

DIRECTORY

IRRIGATION SCHEDULE IR-401
IRRIGATION NOTES IR-401
IRRIGATION PLANS IR-402 - IR-409
IRRIGATION DETAILS IR-410 - IR-413

ISSUANCE
**MAJOR
DEVELOPMENT
PERMIT (MDP)**

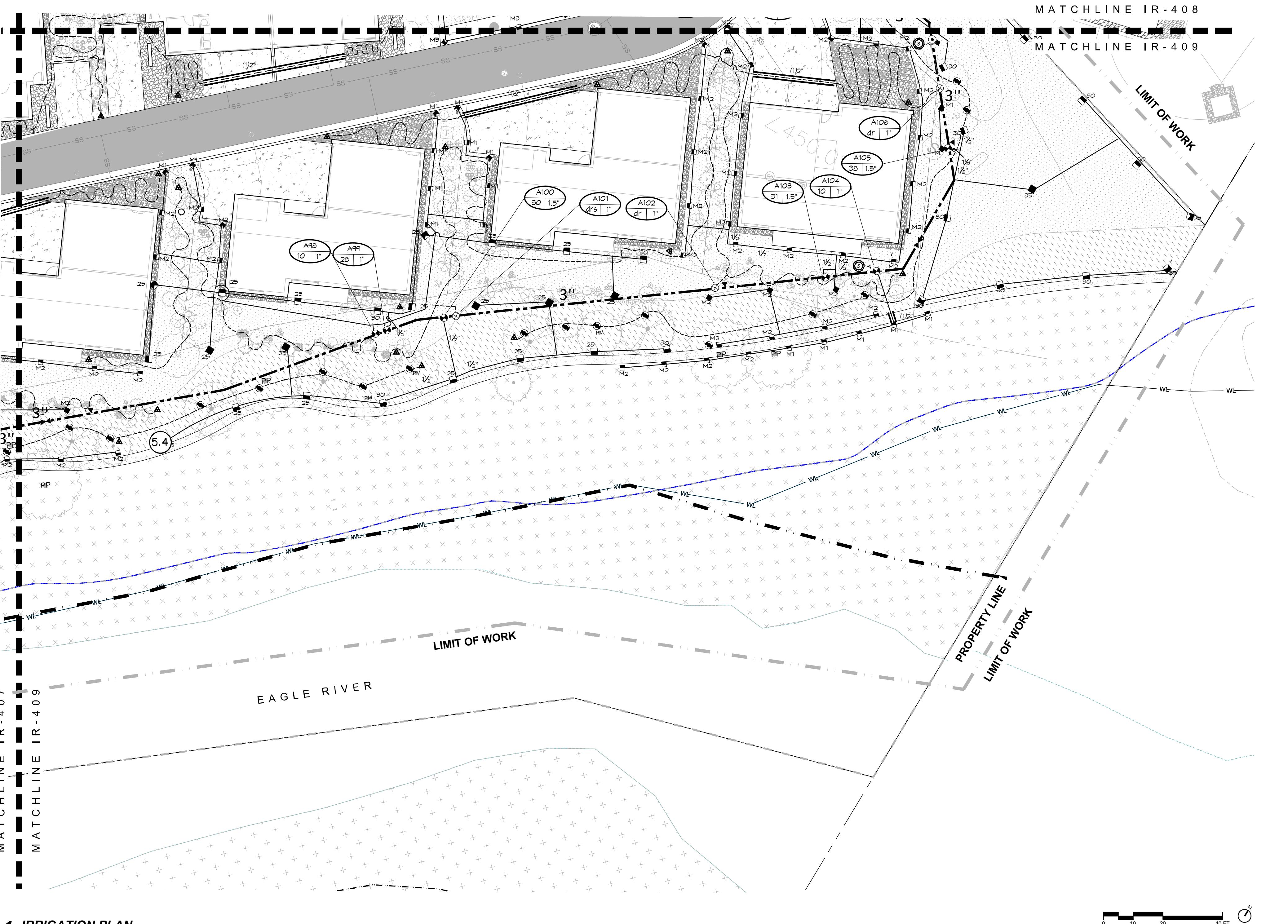
ISSUE DATE
09.17.2025

CURRENT REVISION

REVISION HISTORY

DRAWING SHEET TITLE
**IRRIGATION
PLAN**

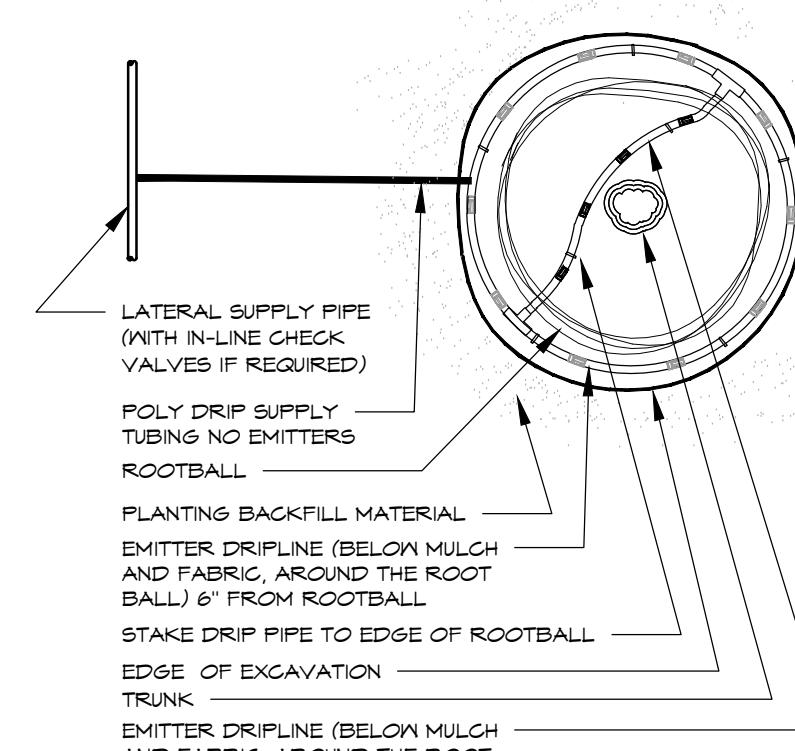
IR-409



01 IRRIGATION PLAN

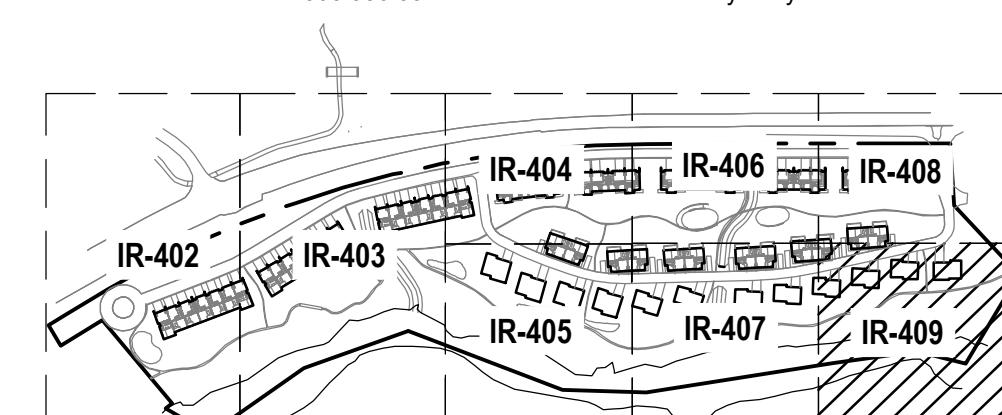
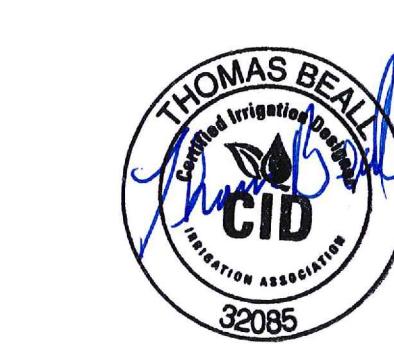
1"=20'

0 10 20 40 FT



PLANT SIZE	MINIMUM EMMITTER QTY. PER TREE
5 GALLON SHRUBS	THREE EACH
1/2" CALIPER TREE	EIGHT EACH
2" CALIPER TREE	TWELVE EACH
2 1/2" CALIPER TREE	SIXTEEN EACH
3" CALIPER TREE	TWENTY EACH
3 1/2" CALIPER TREE	TWENTY-TWO EACH
4" CALIPER TREE	TWENTY-FOUR EACH
6 FT. CONIFEROUS TREE	TWELVE EACH
8 FT. CONIFEROUS TREE	EIGHTEEN EACH
10 FT. CONIFEROUS TREE	TWENTY-FOUR EACH
12 FT. CONIFEROUS TREE	TWENTY-EIGHT EACH

NOTES:
• EMMITTERS SHALL BE EQUALLY SPACED AROUND
ROOT BALL.
• EMMITTER FLOW RATE PER SCHEDULE.
• DRIPLINE EMMITTER SPACING PER SCHEDULE.



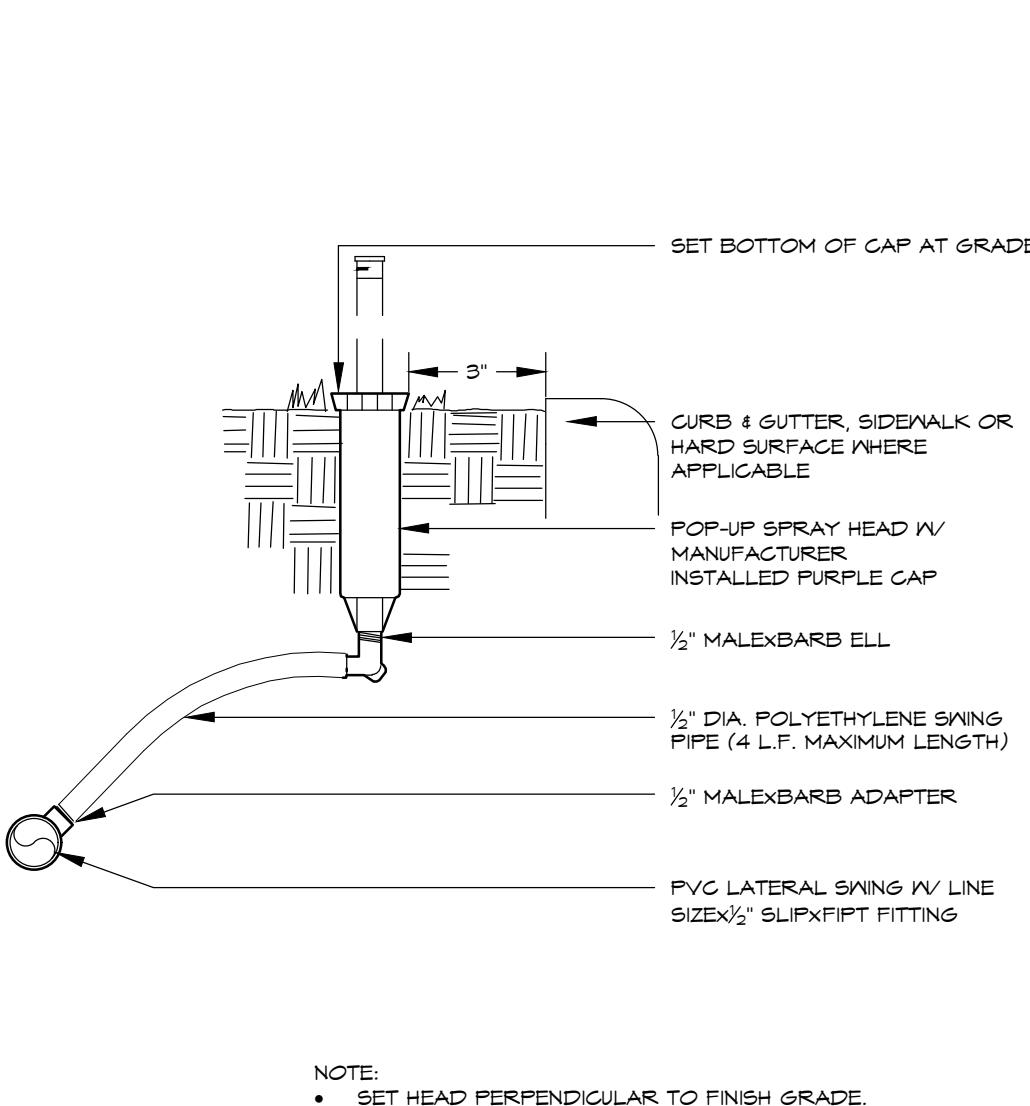
KEYMAP
1"=400

KDI
HydroSystems
Irrigation Consulting & Water Management
13949 W. Colfax Ave, Suite 260
Lakewood, Colorado 80401
o: 303.980.5327
www.hydrosystemskdi.com

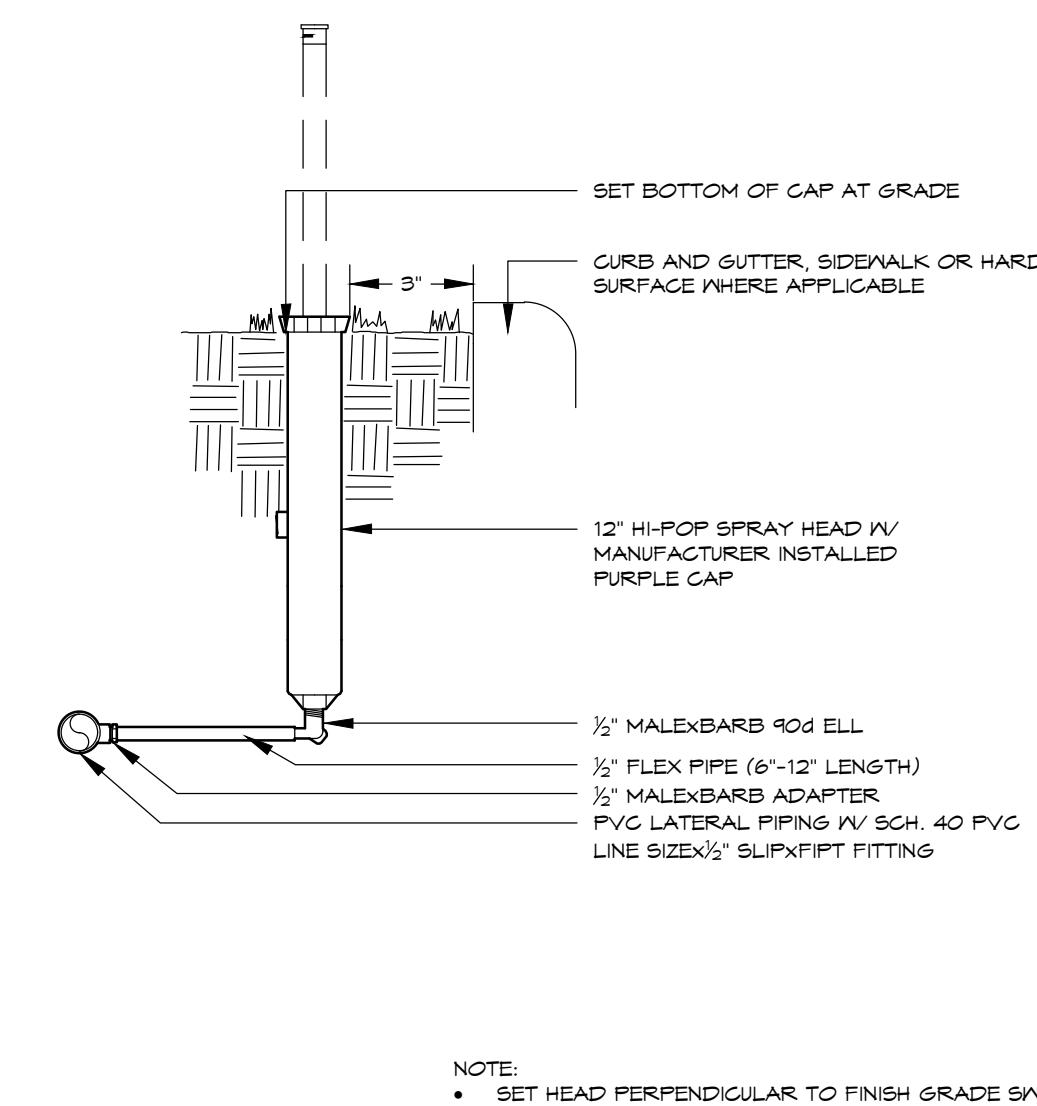


CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU
DIG, GRADE, OR EXCAVATE FOR THE MARKING OF
UNDERGROUND MEMBER UTILITIES.

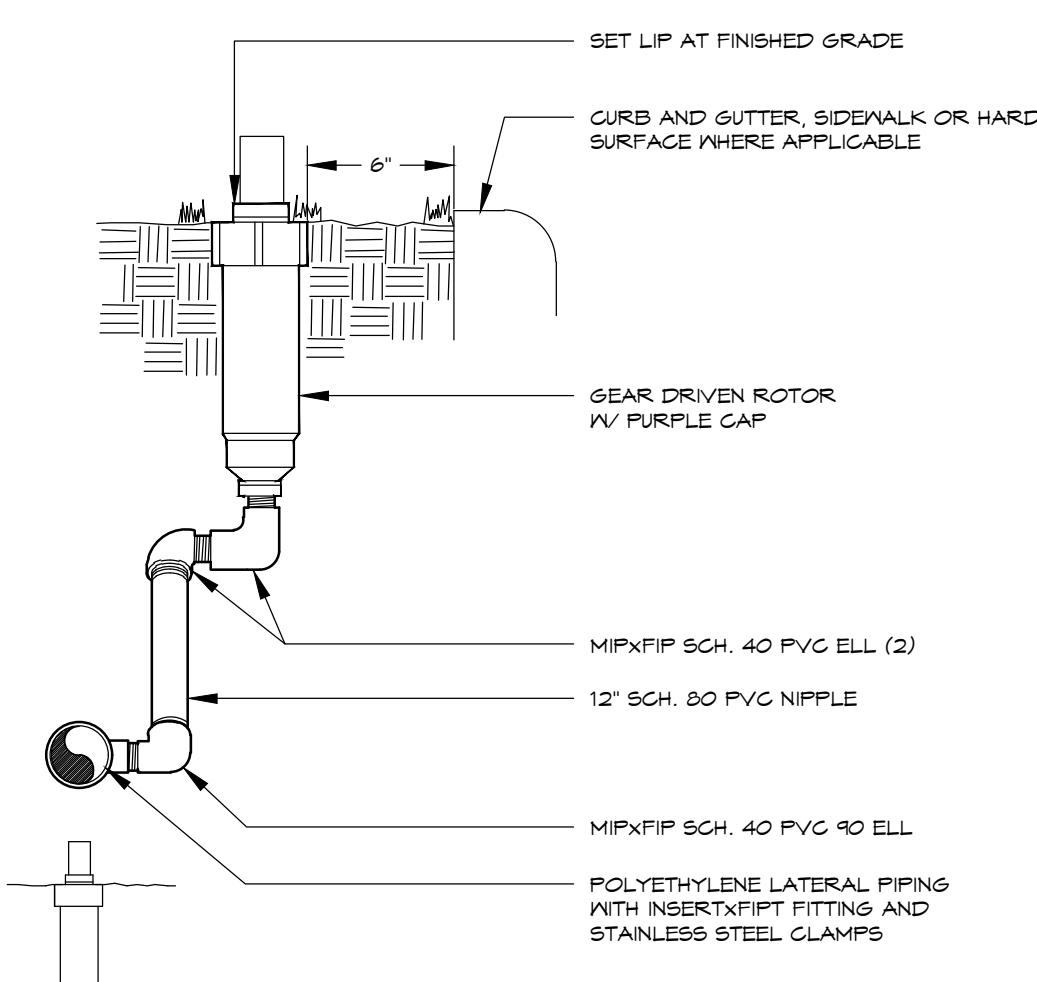
**NOT FOR
CONSTRUCTION**



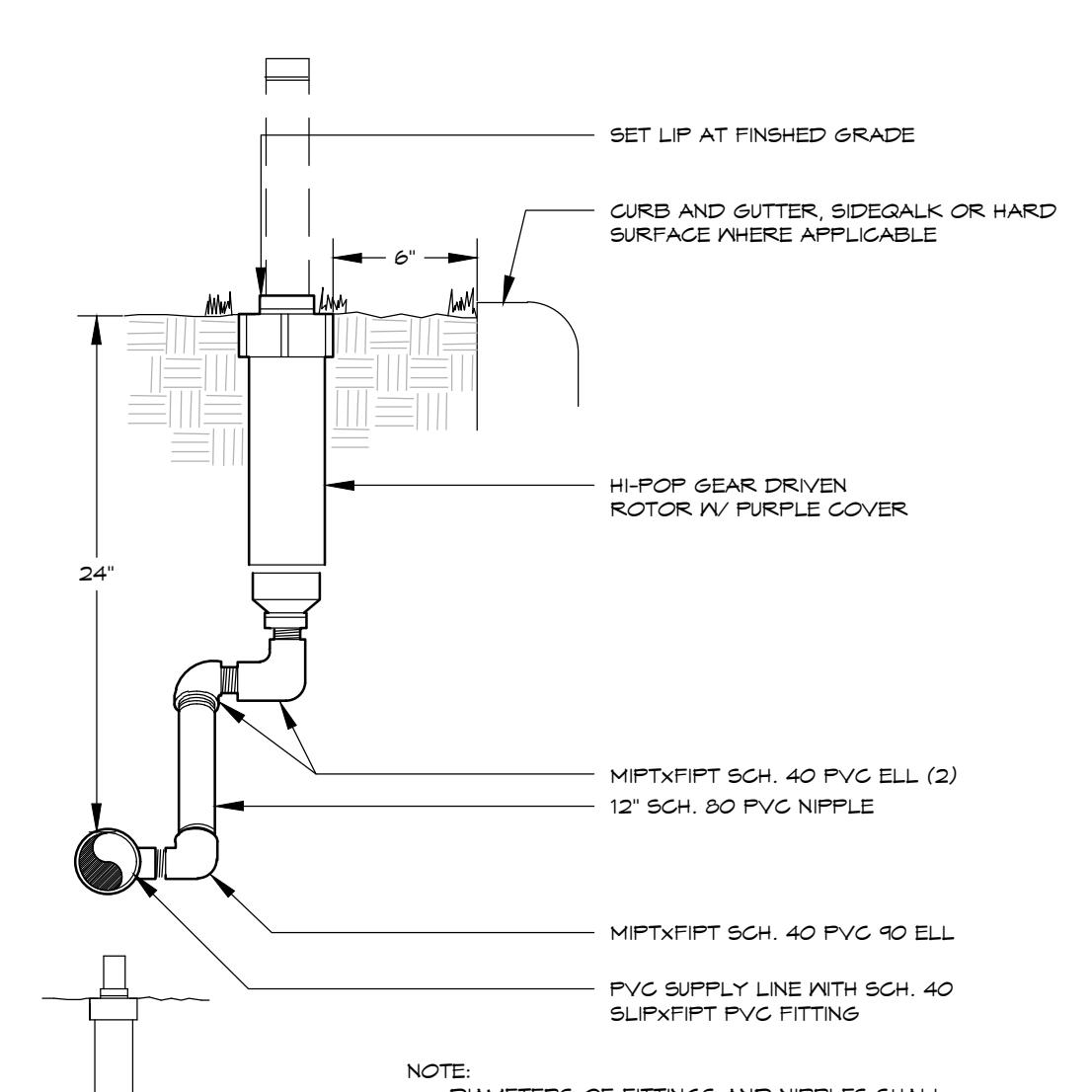
POP-UP SPRAY HEAD
SWING PIPE - PVC - NON-POTABLE



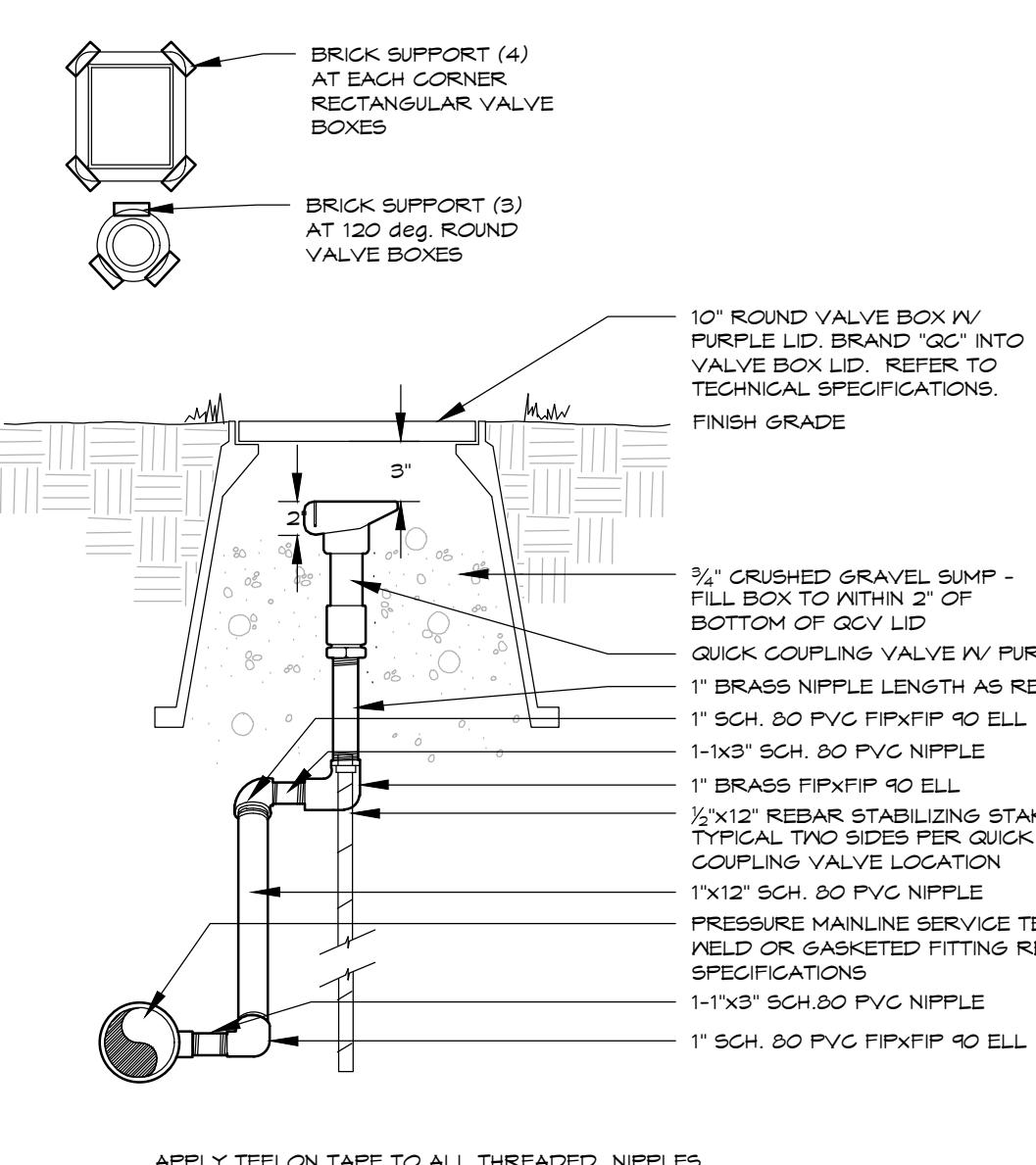
HI-POP SPRAY HEAD
SWING PIPE - PVC - NON-POTABLE



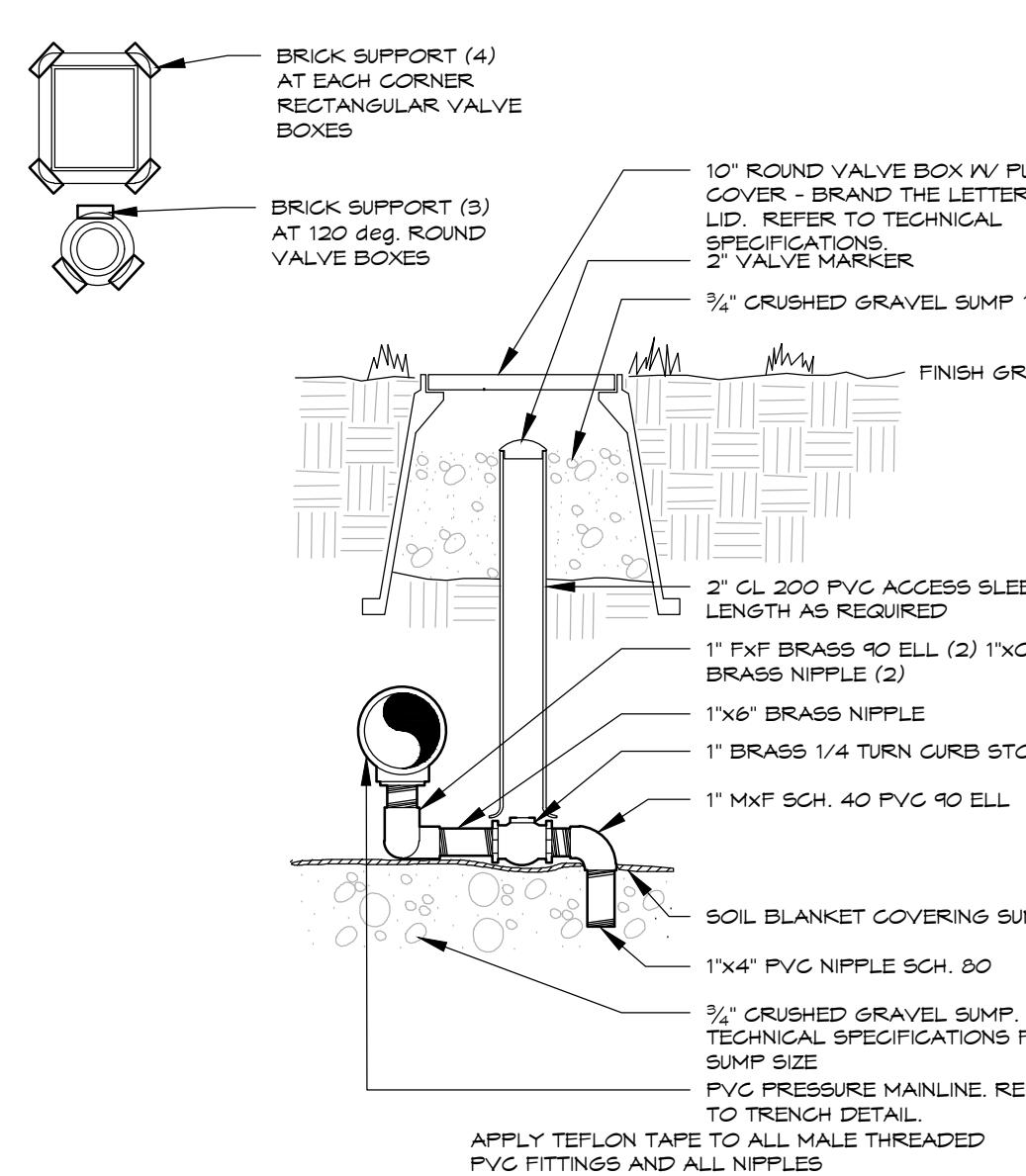
GEAR DRIVEN ROTOR
SWING JOINT - POLY - NON-POTABLE



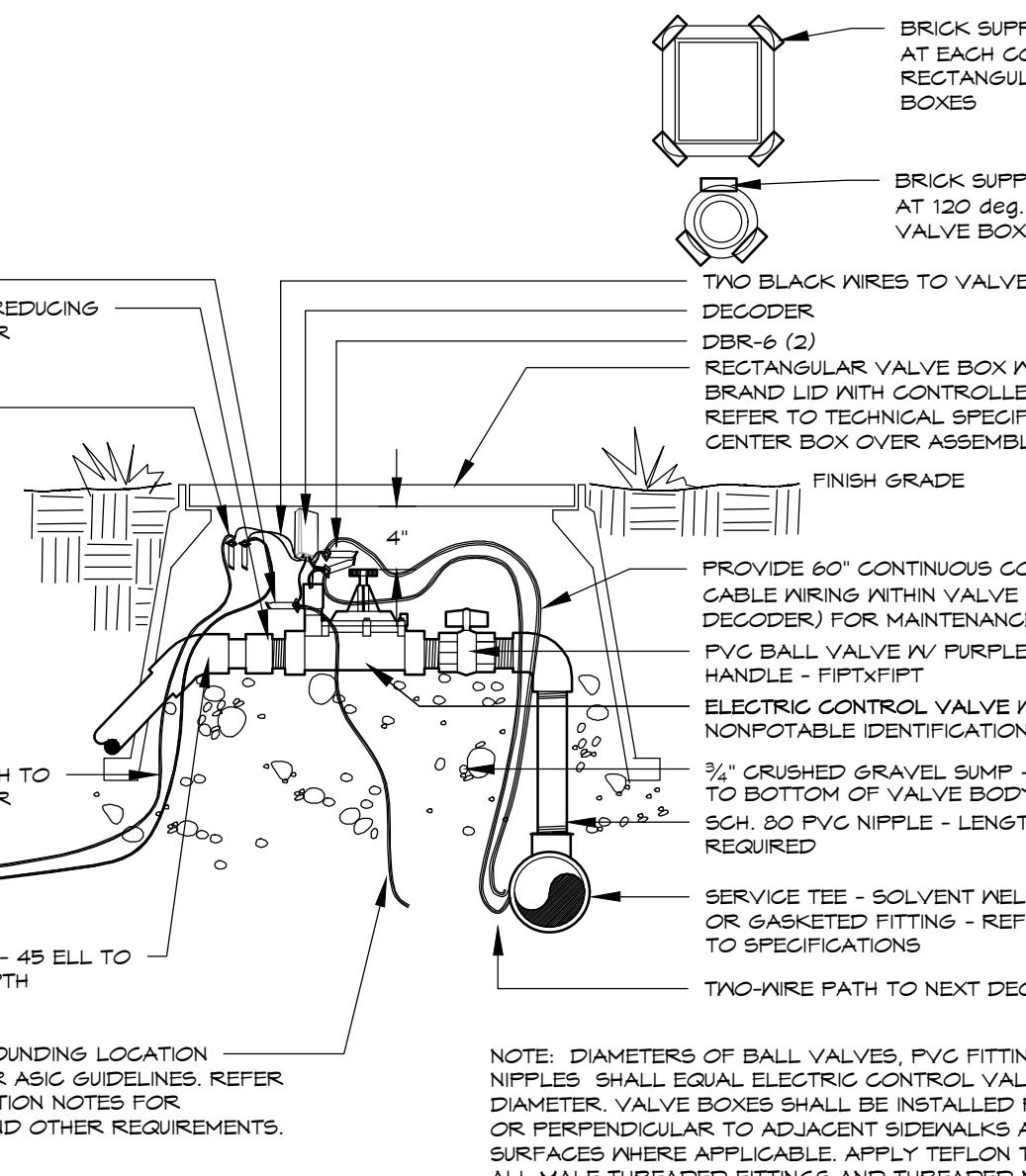
HI-POP GEAR DRIVEN ROTOR
PVC - NON-POTABLE



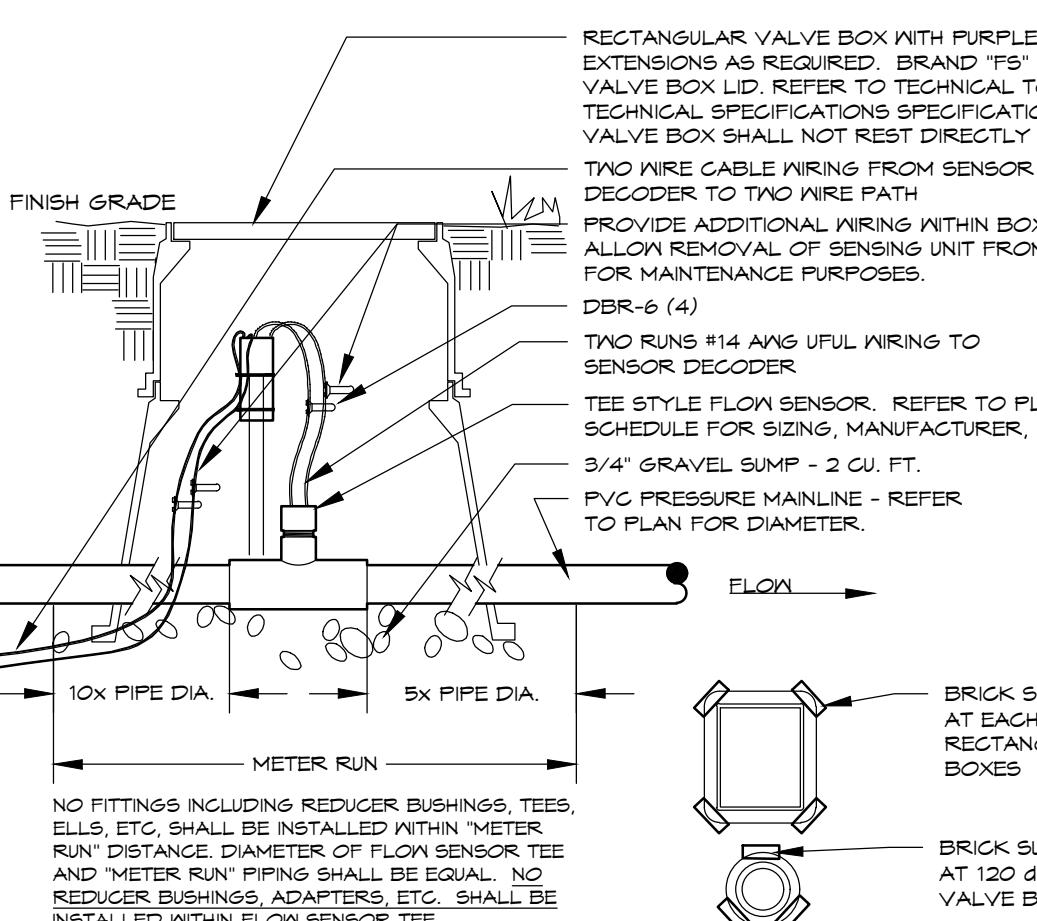
QUICK COUPLING VALVE
GENERIC SWING - NON-POTABLE



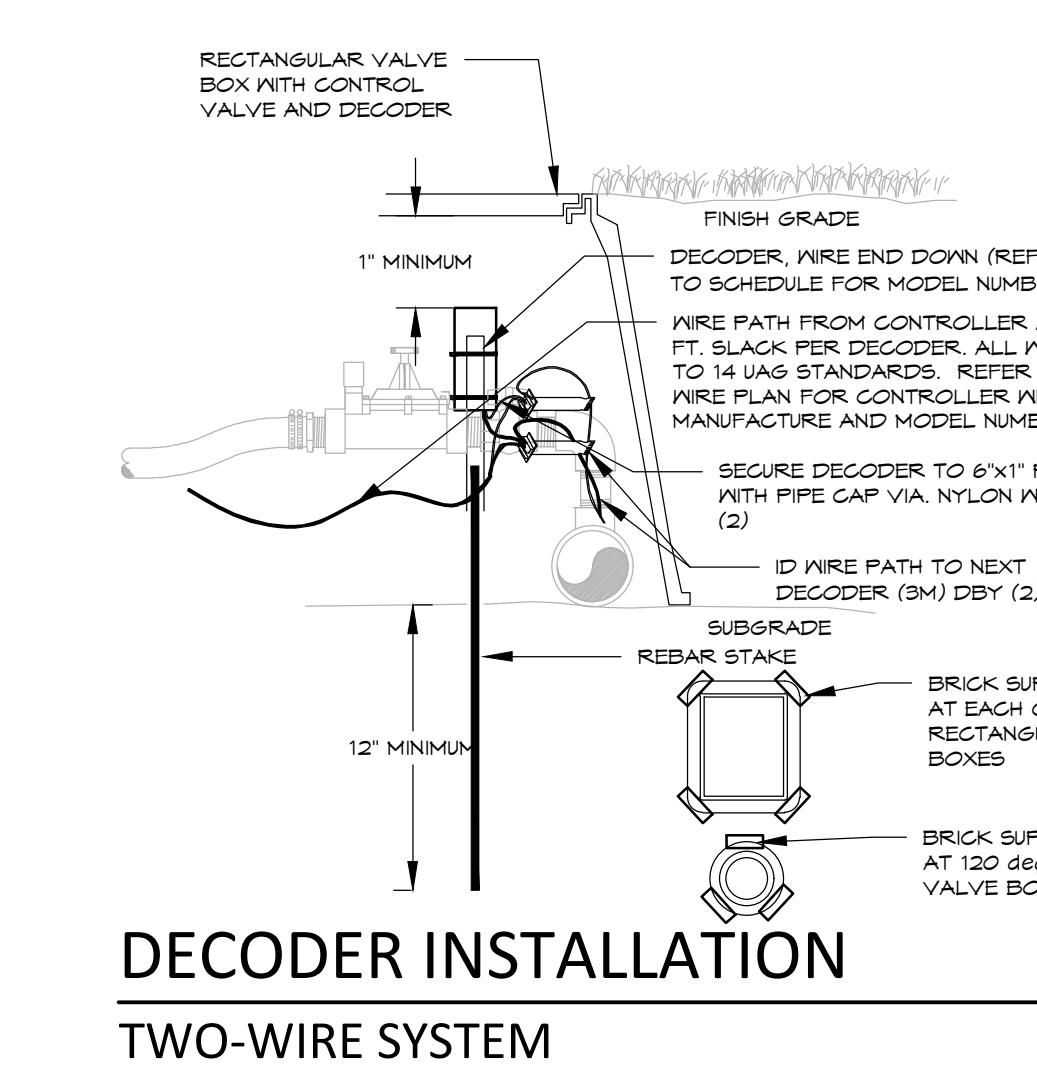
MANUAL DRAIN VALVE
NON-POTABLE



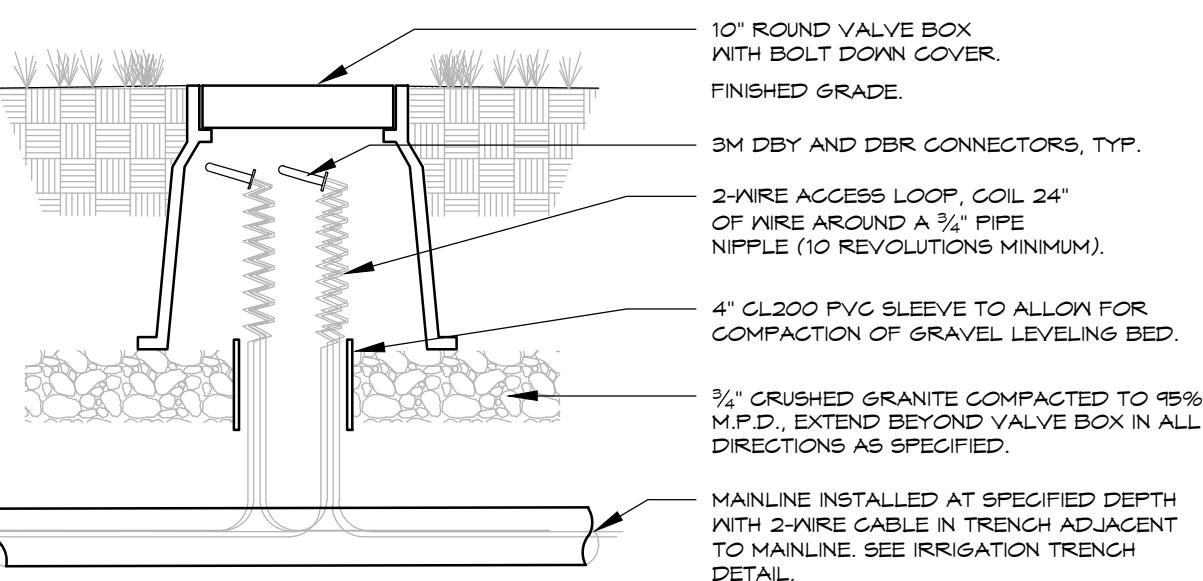
ELECTRIC CONTROL VALVE
TWO-WIRE SYSTEM - PVC PIPE - NON-POTABLE



FLOW SENSOR
VIA DECODER - TEE STYLE - NON-POTABLE

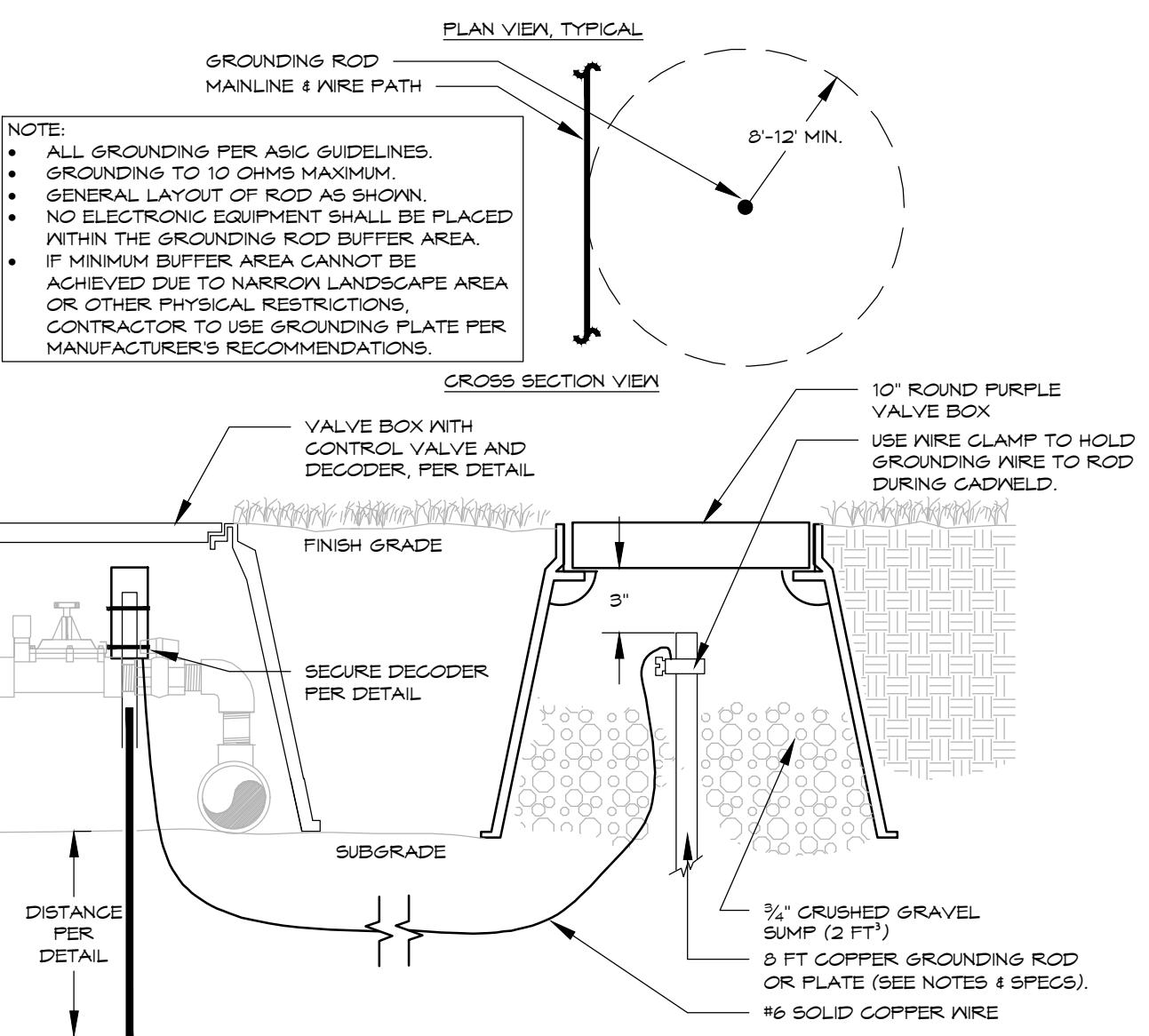


DECODER INSTALLATION
TWO-WIRE SYSTEM

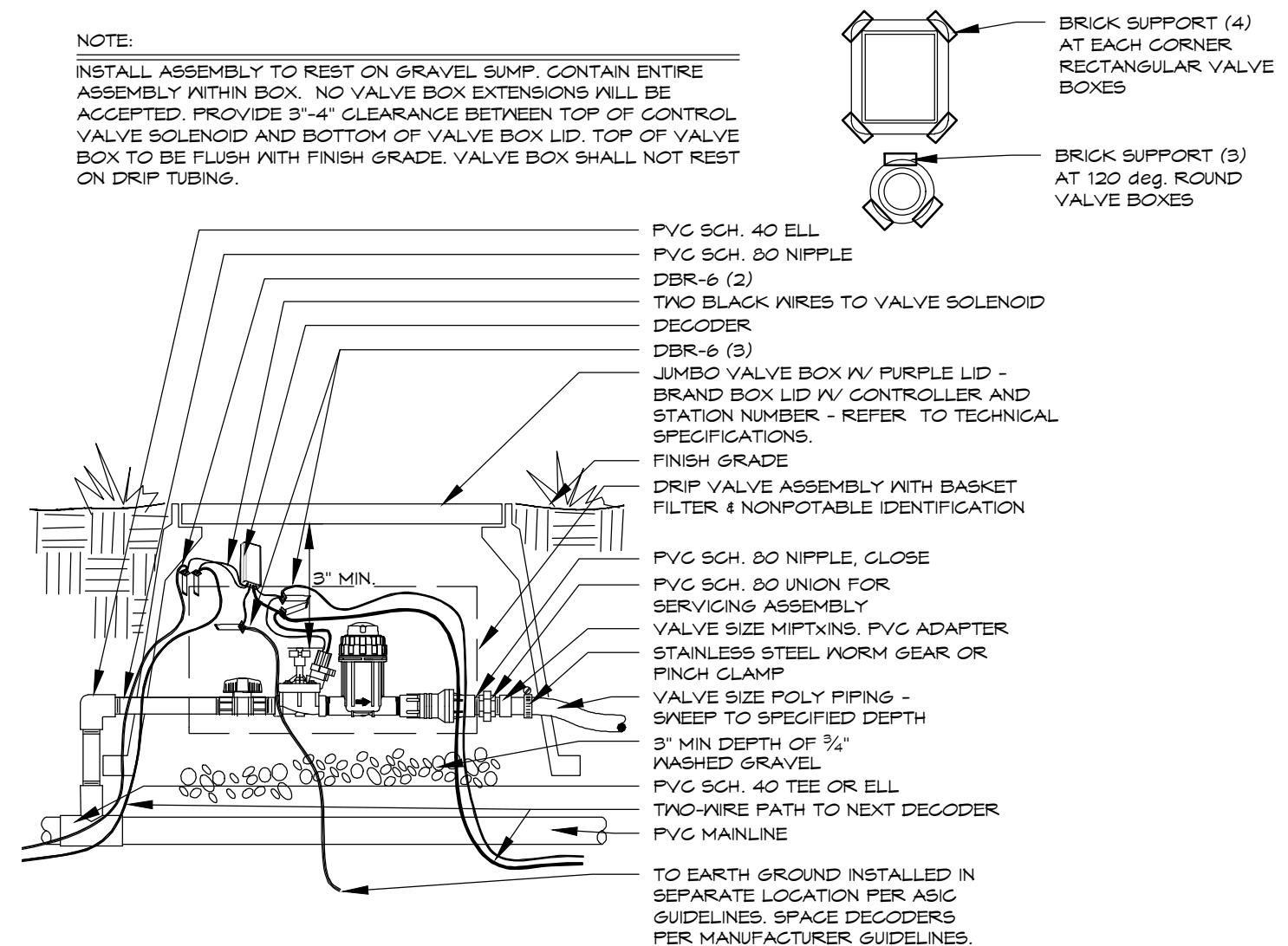
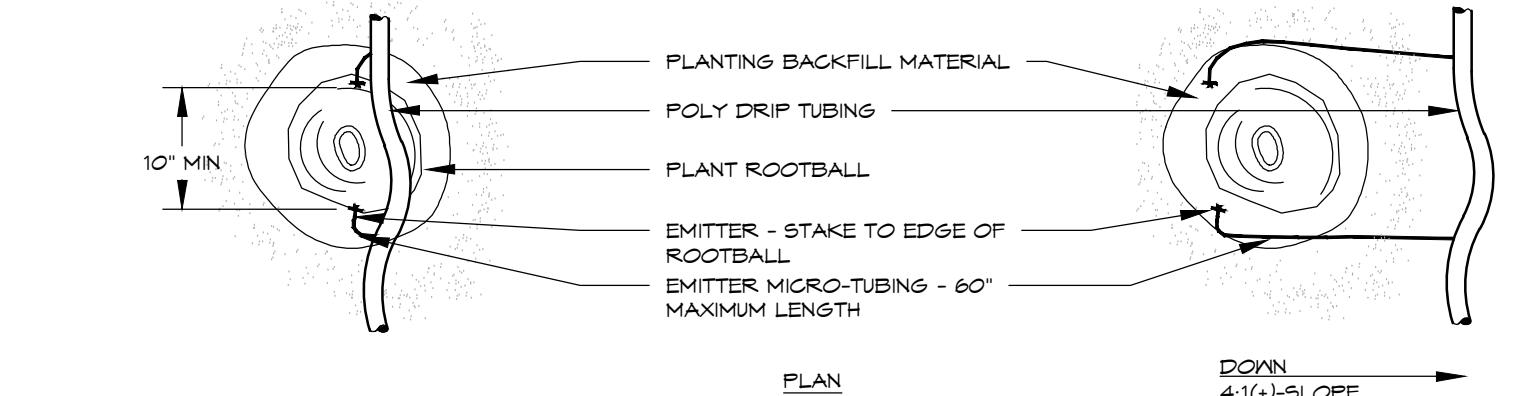


WIRE SPLICING BOX
TWO-WIRE SYSTEM

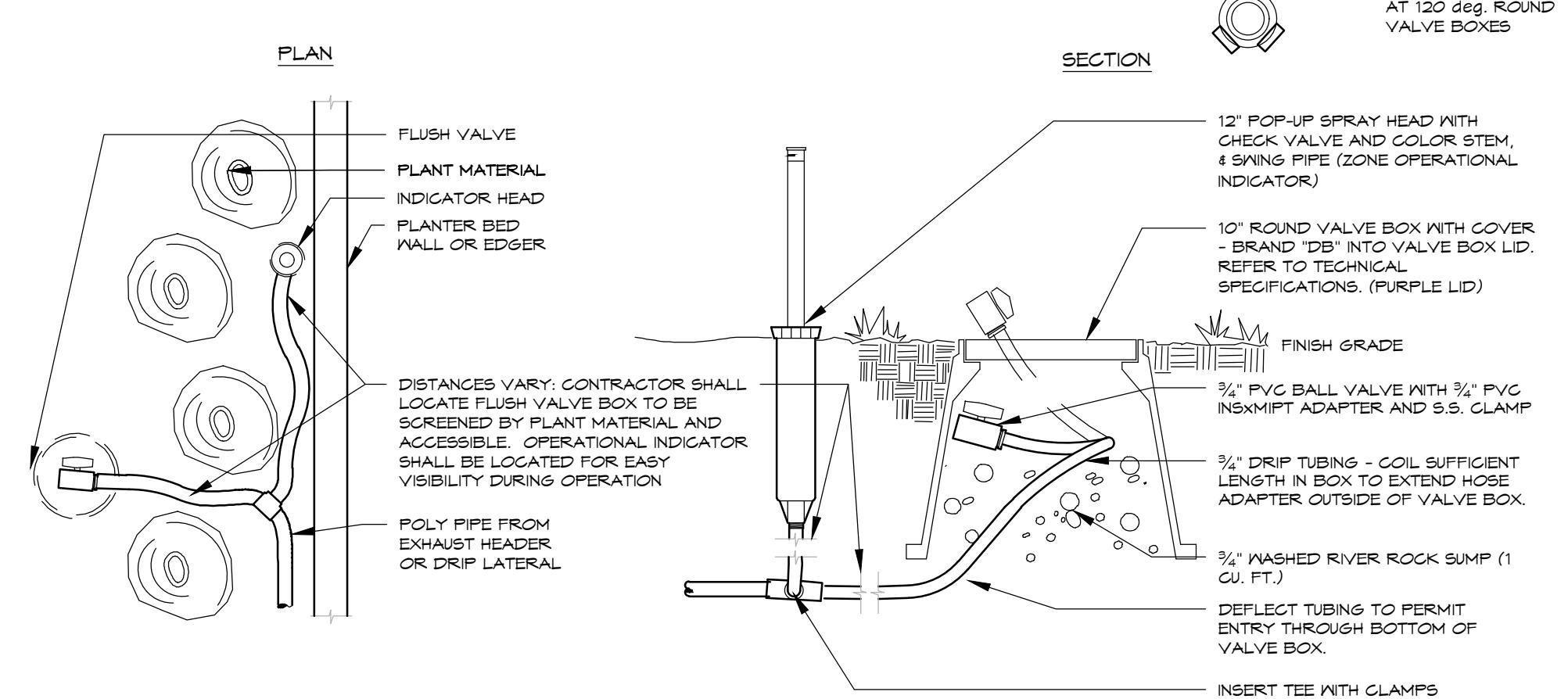
11



ACC GROUNDING
TWO-WIRE SYSTEM - NON-POTABLE

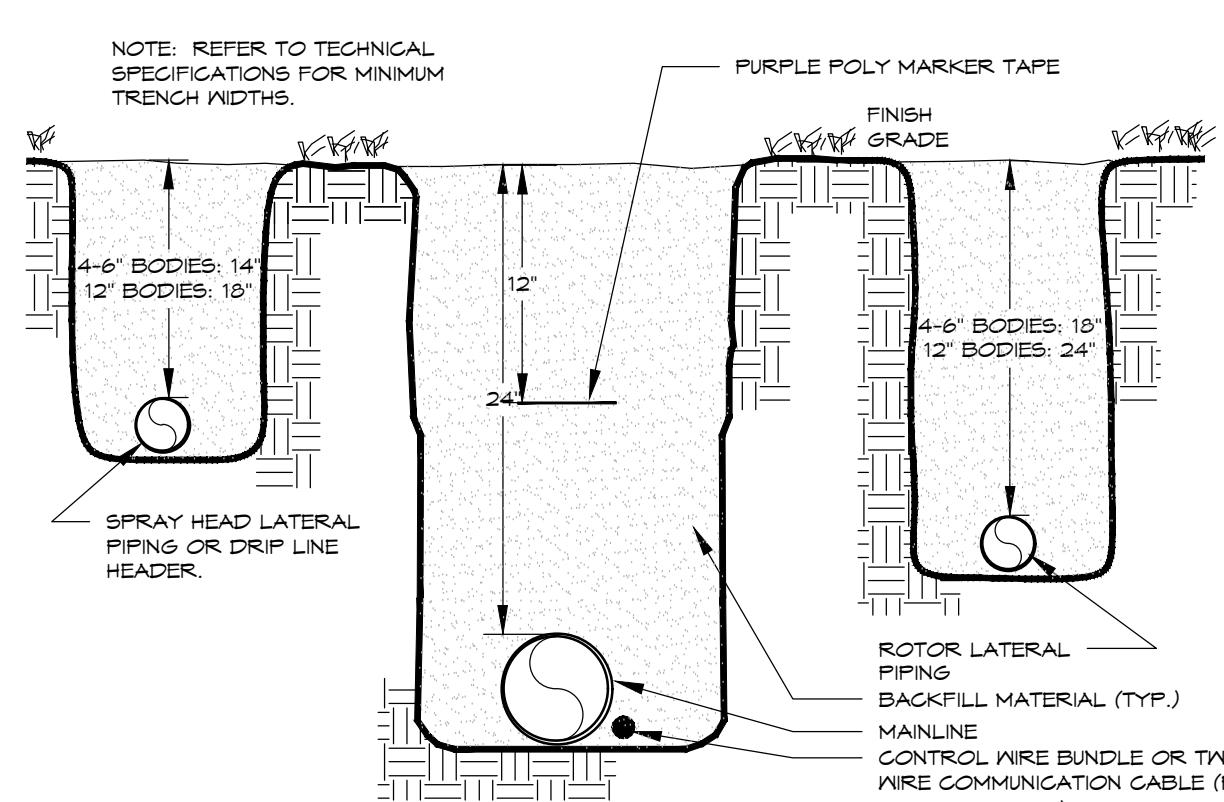


DRIP VALVE
TWO-WIRE SYSTEM - BASKET - POLY PIPE -
NON-POTABLE



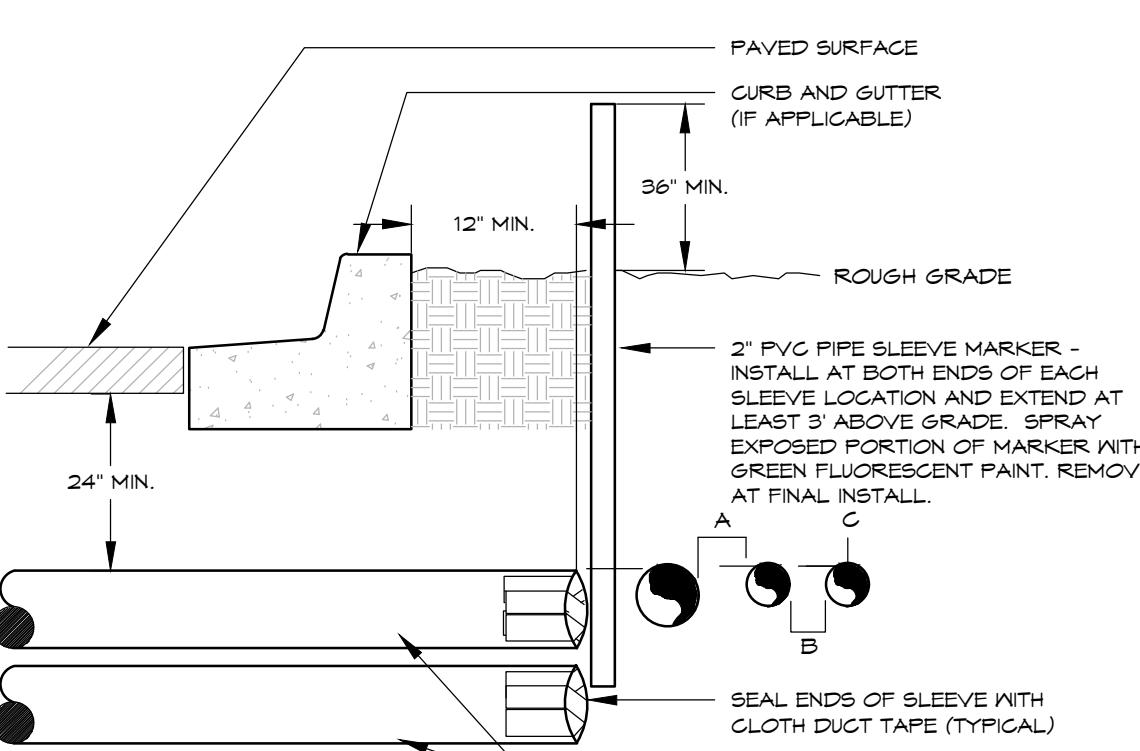
DRIP FLUSH VALVE

15



TRENCH
24" MAINLINE - PURPLE TAPE

16



IRRIGATION SLEEVING
TYPICAL

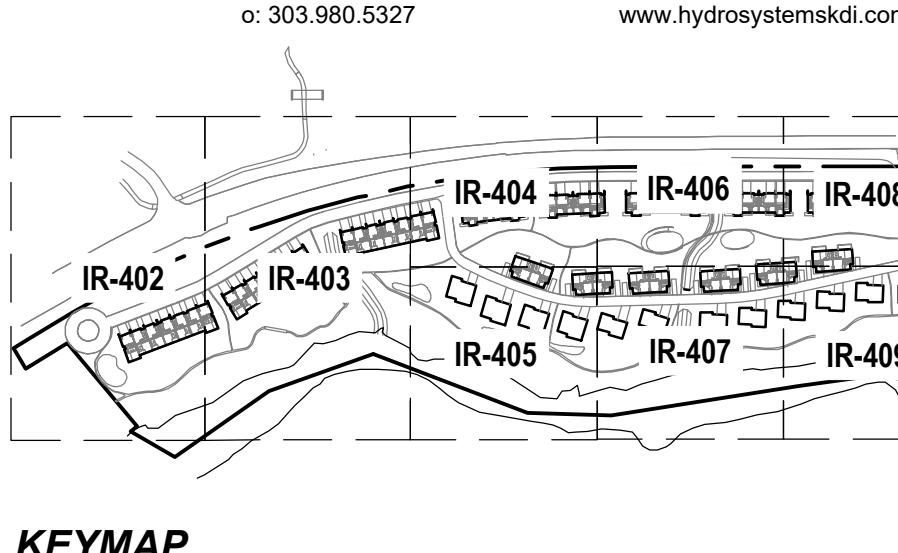
17



Irrigation Consulting & Water Management

13949 W. Colfax Ave, Suite 260
Lakewood, Colorado 80401
o: 303.980.5327

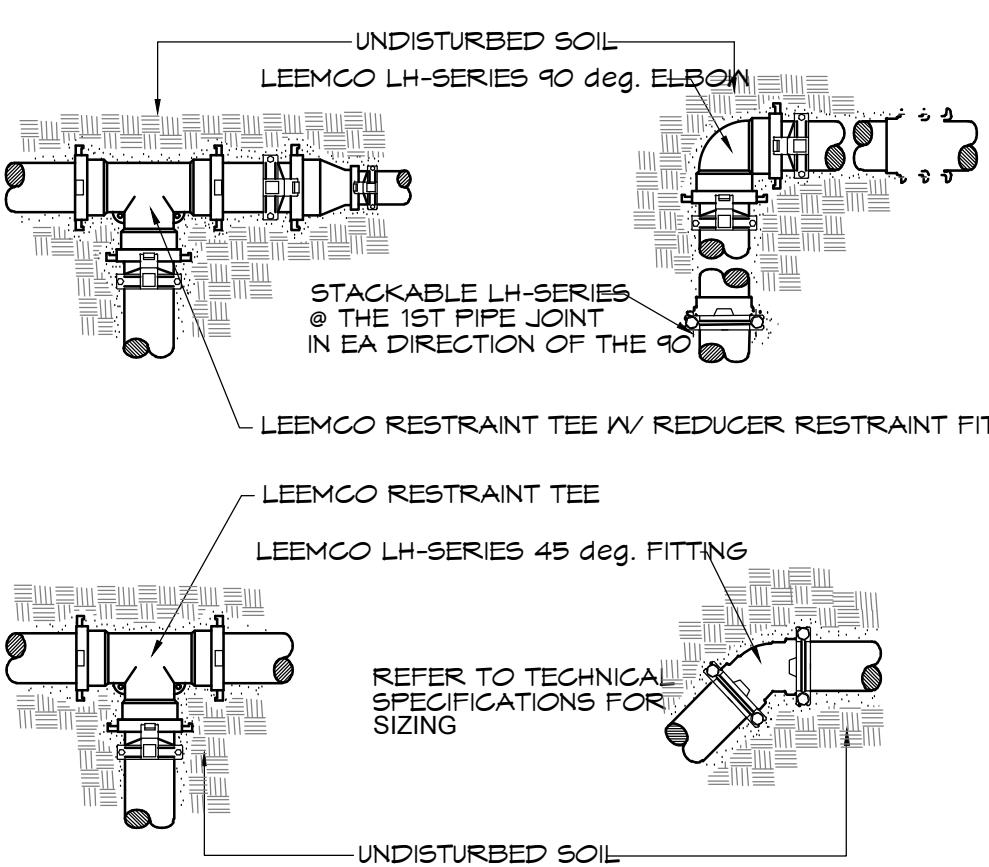
www.hydrosystems.kdi.com



KEYMAP
1' = 400



Know what's below.
Call before you dig.
CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

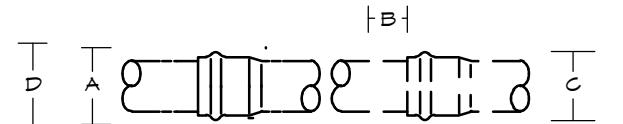


JOINT RESTRAINT INSTALLATION GUIDE

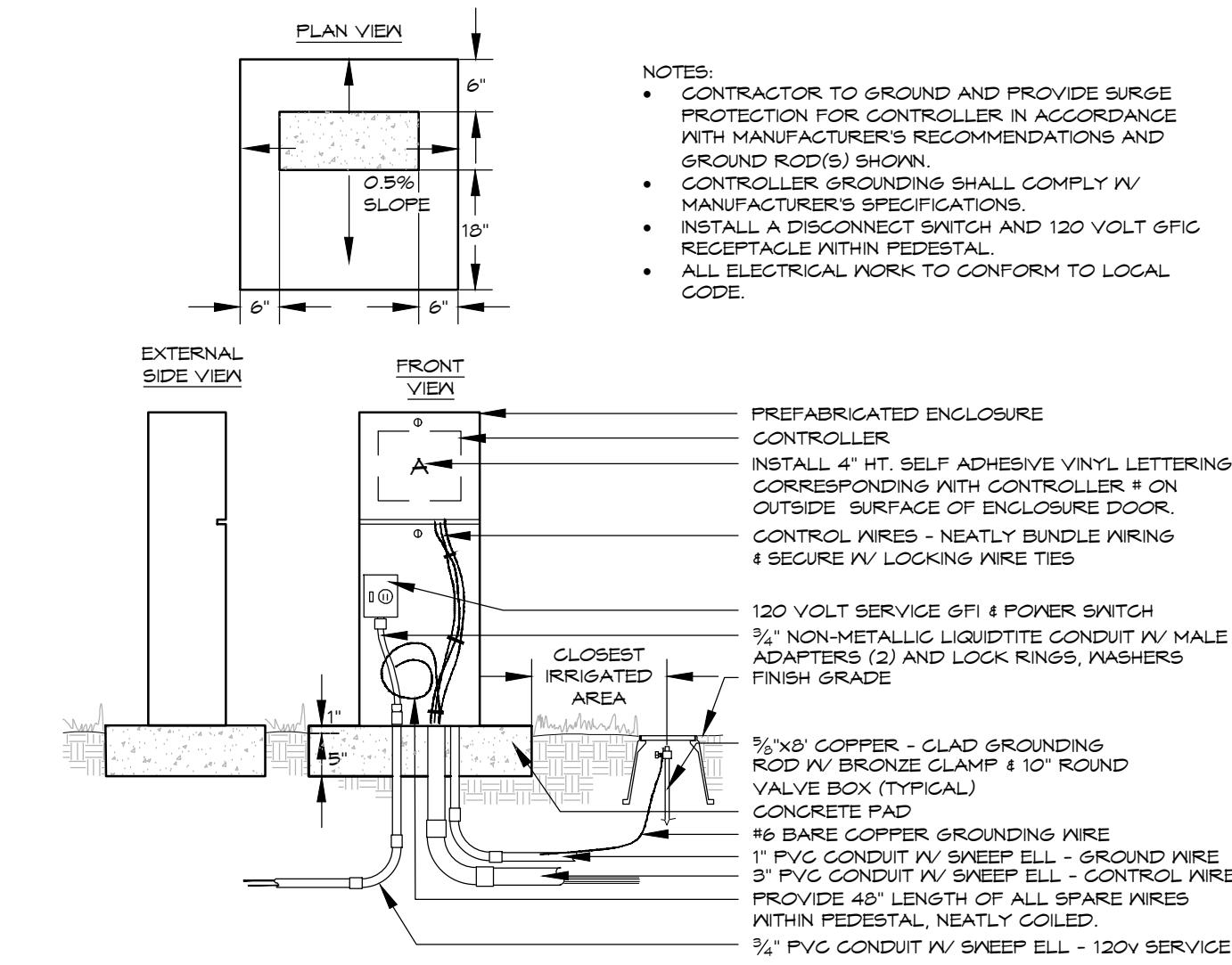
NOTE:
WHEN THE DISTANCE BETWEEN A FITTING AND THE NEXT JOINT IS LESS THAN 20 FEET, THE FOLLOWING TABLE MUST BE USED. THE TABLE BELOW SHOWS THE DISTANCE (IN FEET) BETWEEN JOINTS WITHIN WHICH IF THERE IS A JOINT, IT MUST BE MECHANICALLY RESTRAINED. THE TABLE IS BASED ON 125 PSI, TYPE 3 TRENCH, AND 2-4 FEET DEPTH OF BURY (SMALL TO LARGE) DEPENDING ON PIPE SIZE FOR OTHER PRESSURE MULTIPLY THE NUMBERS IN THE TABLE (FEET) BY THE ACTUAL PRESSURE AND DIVIDE BY 125.

PIPE SIZE	11	22	45	90	1	2	3	END	DEAD	GATE VALVE
2"	1	2	6						19	10
2.5"	1	2	4	9	4				23	12
3"	2	3	6	11	8	10			30	15
4"	2	4	9	20	14	20			31	23
6"	3	6	13	29	30	40			53	31
8"	4	8	15	38	33	55			63	31
10"	5	9	19	45	31	56			75	48
12"	5	10	21	53	54	58			79	112
14"	6	11	24	58	30	70			74	118
16"	6	13	27	65		54			90	130

HARDWARE SIZE AND TORQUE REQUIREMENTS

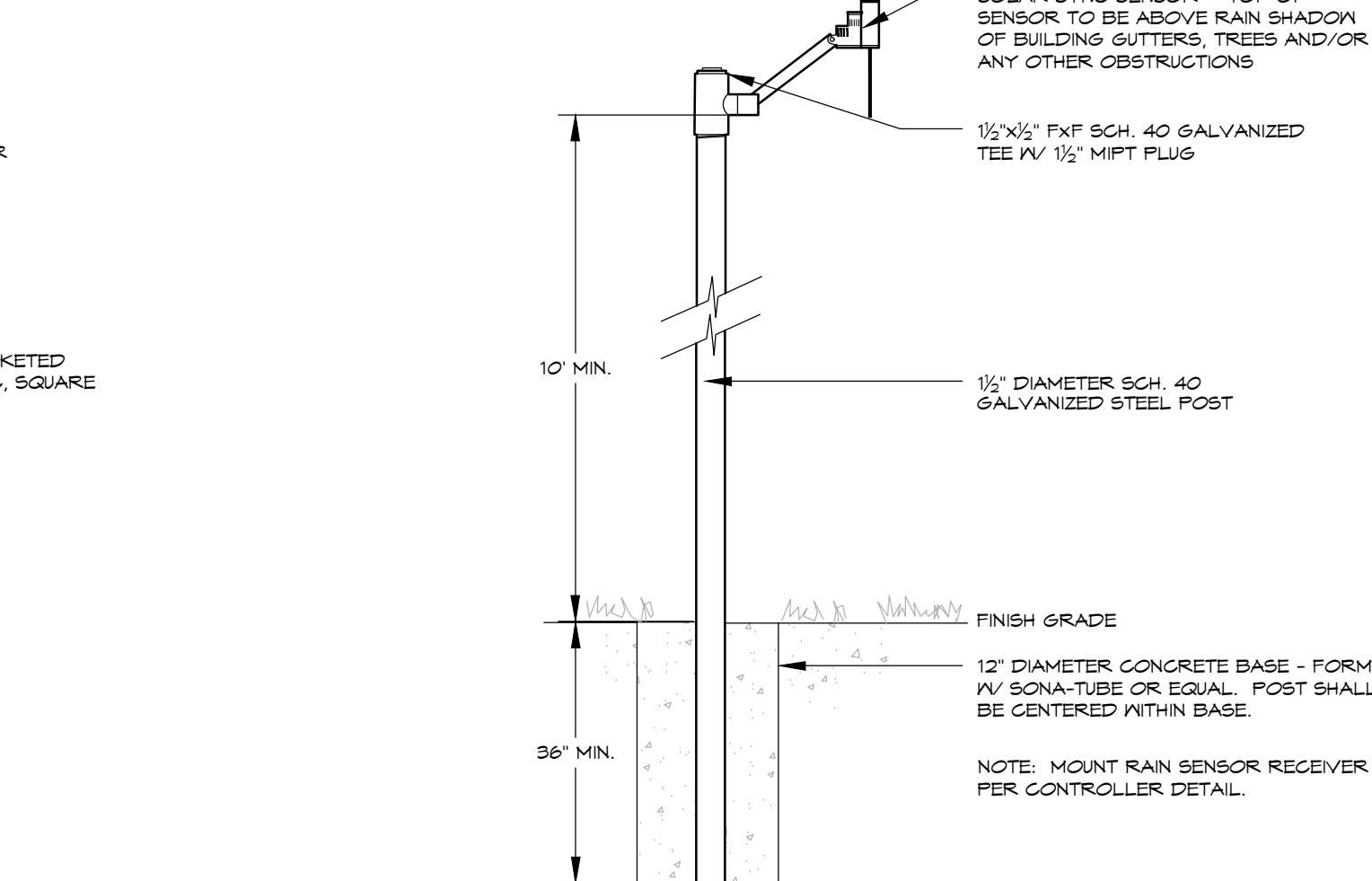


PIPE SIZE	PIPE O.D.	NO OF BOLTS	BOLT SIZE	TORQUE FT-LB	DIMENSIONS (INCH)
					A B C D
2"	2.375	2	3/8-16 X 2.5	20	4.1 3.1 4.8 5.0
2.5"	2.875	2	3/8-16 X 2.5	20	5.1 3.1 5.0 5.5
3"	3.500	2	3/8-16 X 2.5	20	5.6 3.4 5.9 6.5
4"	4.300	2	1/2-13 X 3	50	6.7 3.8 7.3 7.6
6"	6.625	2	1/2-13 X 3.5	50	9.0 4.6 9.8 9.9
8"	8.625	4	1/2-13 X 4	50	11.2 5.9 12.0 12.2
10"	10.750	4	5/8-11 X 5.5	100	13.4 7.3 14.8 14.8
12"	12.750	4	5/8-11 X 5.5	100	15.4 8.8 17.5 16.7
14"	15.300	4	5/8-11 X 5.5	100	23.0 9.5 21.0 29.0
16"	17.400	4	5/8-11 X 5.5	100	25.0 10.5 23.5 31.0



ELECTRIC CONTROLLER

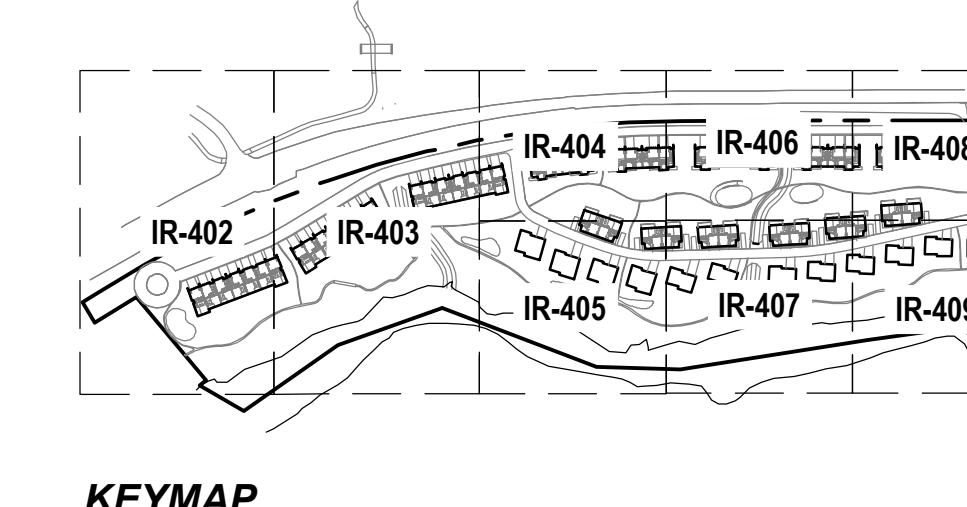
PEDESTAL - FRONT OPENING - TYPICAL



WEATHER SENSOR

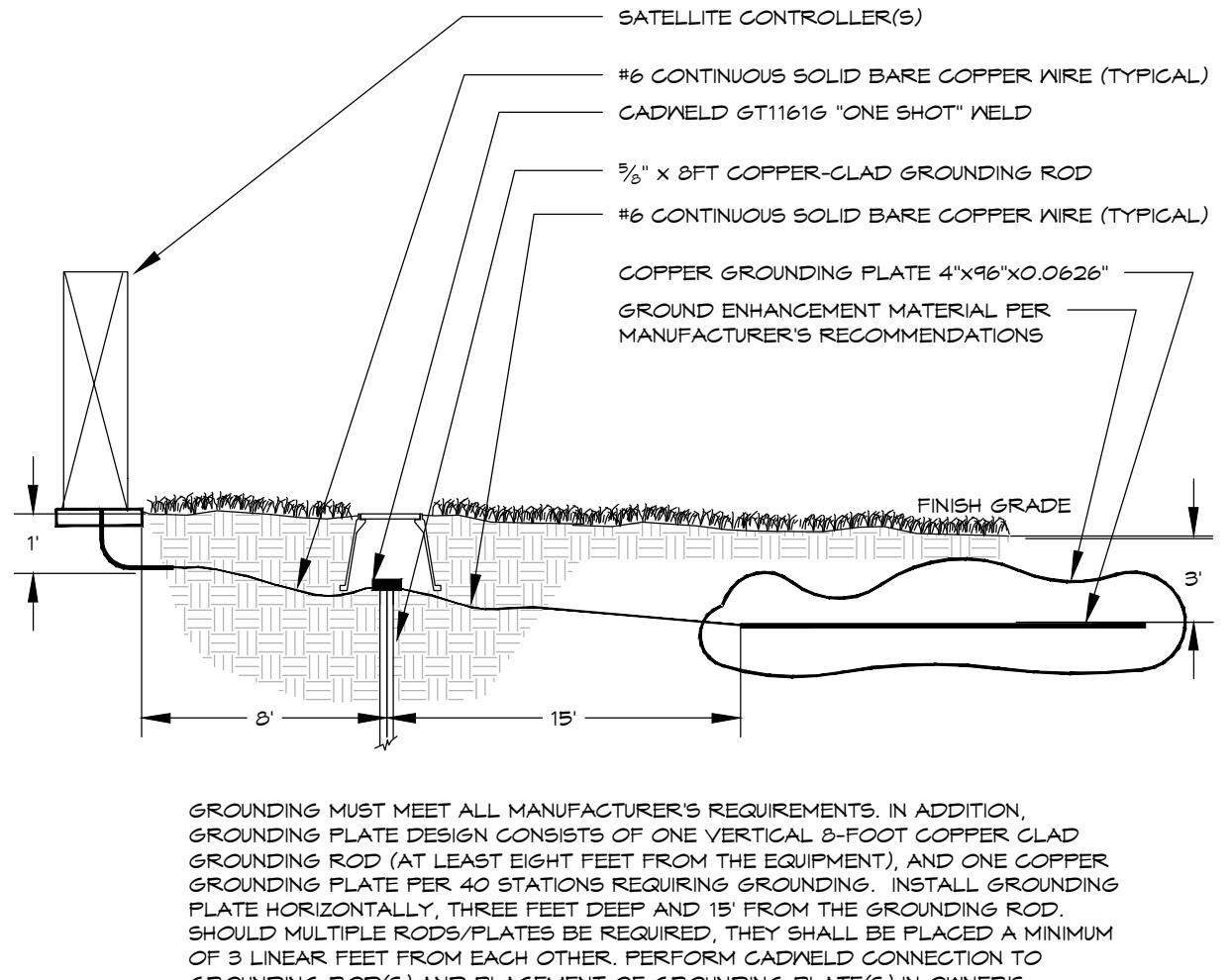
POLE MOUNTED - SolarSync

KDI
HydroSystems
Irrigation Consulting & Water Management
13949 W. Colfax Ave, Suite 260
Lakewood, Colorado 80401
o: 303.980.5327
www.hydrosystems.kdi.com



MECHANICAL RESTRAINT

18



CONTROLLER GROUNDING

20

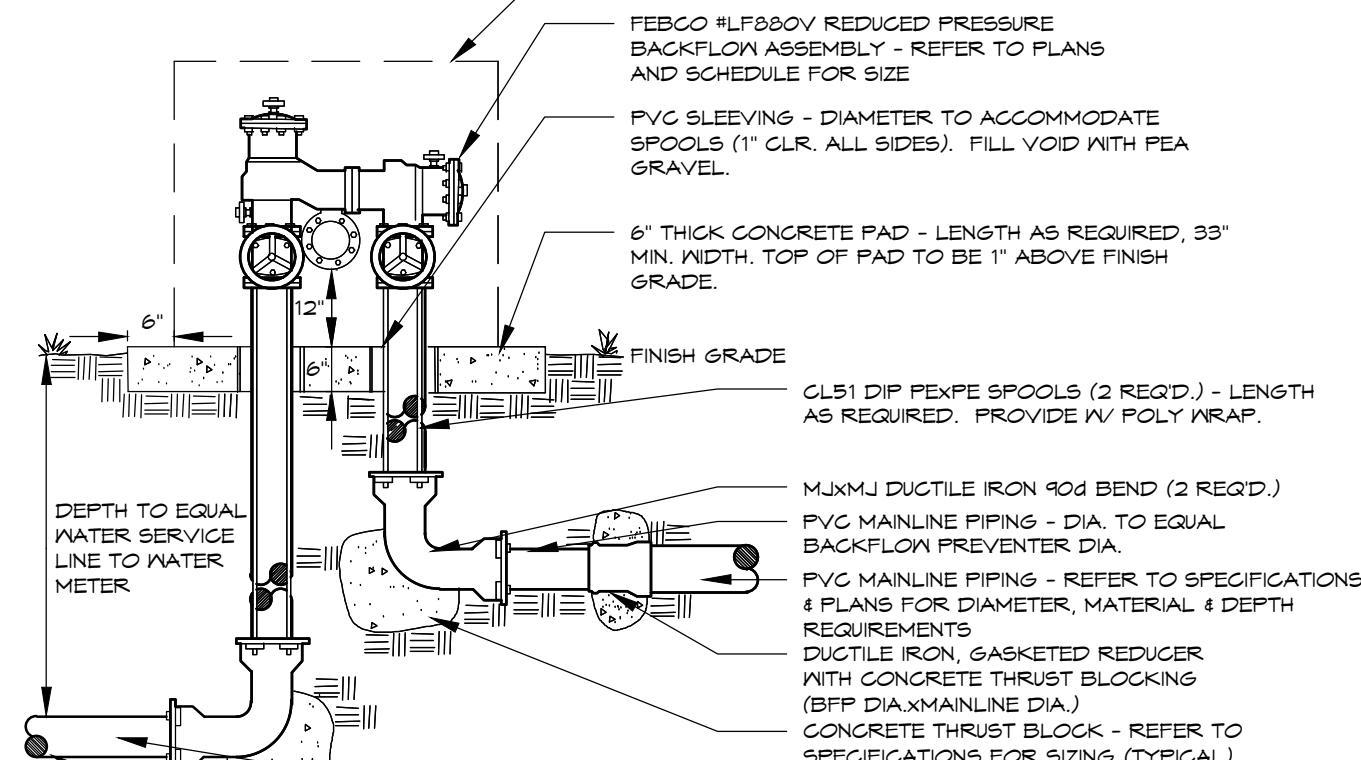
TWO-WIRE SYSTEM - Pedestal Mount

GATE VALVE

21

2.5" & SMALLER - X-HANDLE

SPECIFIED ENCLOSURE



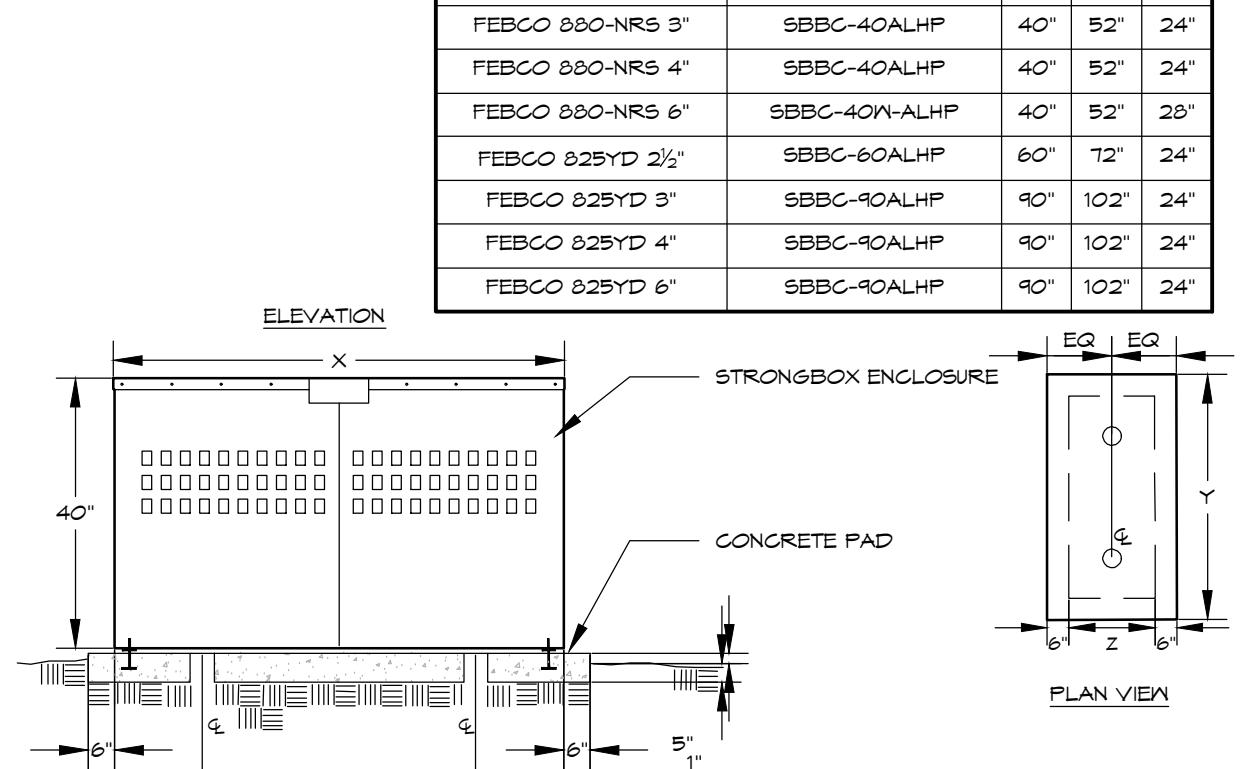
811

Know what's below.
Call before you dig.

CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

BACKFLOW PREVENTER
3" & LARGER - TYPICAL

ELEVATION



BACKFLOW ENCLOSURE
STRONGBOX - 3" & LARGER SYSTEMS

GATE VALVE

22

3" & LARGER - JOINTRESTRAINT - NON-POTABLE

- PROVIDE ALL MJ FITTINGS WITH RODDING OR MEGA-LUG RESTRAINTS.
- DIAMETER OF PIPING AND FITTINGS SHALL EQUAL BACKFLOW PREVENTER DIAMETER UNLESS NOTED OTHERWISE.

AIR RELIEF VALVE

26

NOTE: AIR RELEASE ASSEMBLY SHALL REST ON GRAVEL SUMP FIELD. LOCATE AIR RELEASE AT HIGH POINT IN MANLINE PIPING. APPLY TEFLO TAPE TO ALL MALE THREADED FITTINGS AND NIPPLES.

KEYMAP
1'=400

