

SAN. SWR. MH.
RIM ELEV. 19.69'
30" FL. (N) 8.52'
8" FL. (SE) 9.43'
30" FL. (S) 8.49'

MONARCH
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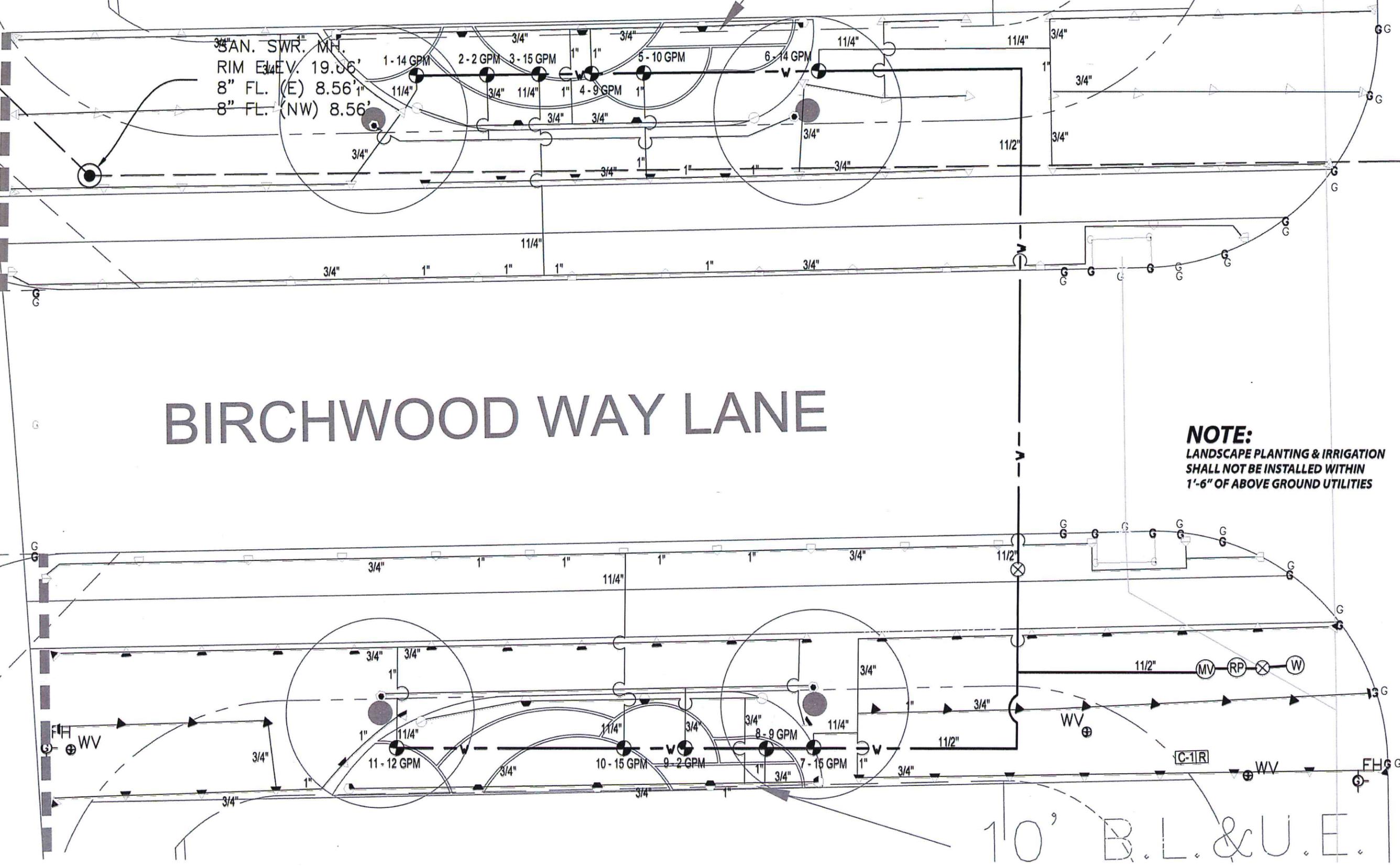
Landscape Architects & Contractors
Landscape Construction
Irrigation & Drainage
Chemical Application
Project Maintenance

CLIENT:
BAY VIEW

PROJECT LOCATION:
League City, Texas

DATE ISSUED:
October 11, 2017 Issued for Permit
November 15, 2017 Issued for Permit

SEAL:



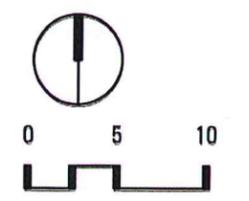
BIRCHWOOD WAY LANE

NOTE:
LANDSCAPE PLANTING & IRRIGATION
SHALL NOT BE INSTALLED WITHIN
1'-6" OF ABOVE GROUND UTILITIES

NORTH:



15 NOV 2017



SCALE: 1" = 10'

SHEET TITLE:
Irrigation Plan

SHEET NUMBER:
L3.01

10' B.L. & U.E.

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IRRIGATION MATERIAL LEGEND

SYMBOL	MANUFACT.	MODEL NO. / DESCRIPTION	GPM	PRECIP	PSI	RADIUS	DETAIL
▲	RAIN BIRD	1806-SAM-PRS POP-UP TURF HEAD w/ 5 NOZZLE	.10, .13, .20	1.83	30	5 FT	1
▼	RAIN BIRD	1806-SAM-PRS POP-UP TURF HEAD w/ U8 NOZZLE	.26, .35, .52, 1.05	1.83	30	8 FT	1
▽	RAIN BIRD	1806-SAM-PRS POP-UP TURF HEAD w/ U10 NOZZLE	.39, .52, .79, 1.57	1.83	30	10 FT	1
▣	RAIN BIRD	1806-SAM-PRS POP-UP TURF HEAD w/ U12 NOZZLE	.65, .87, 1.3, 2.6	2.01	30	12 FT	1
▢	RAIN BIRD	1806-SAM-PRS POP-UP TURF HEAD w/ U15 NOZZLE	.93, 1.23, 1.85, 3.70	1.83	30	15 FT	1
⊠	RAIN BIRD	1806-SAM-PRS POP-UP TURF HEAD w/ 15RCS/15LCS/15SST NOZZLE	.49, .49, 1.21	1.97	30	4x15 FT 4x30 FT	1
▲	RAIN BIRD	1812-SAM-PRS POP-UP SHRUB HEAD w/ 5 NOZZLE	.10, .13, .20	1.83	30	5 FT	1
●	RAIN BIRD	1812-SAM-PRS POP-UP SHRUB HEAD w/ U8 NOZZLE	.26, .35, .52, 1.05	1.83	30	8 FT	1
○	RAIN BIRD	1812-SAM-PRS POP-UP SHRUB HEAD w/ U10 NOZZLE	.39, .52, .79, 1.57	1.83	30	10 FT	1
●	RAIN BIRD	1812-SAM-PRS POP-UP SHRUB HEAD w/ U12 NOZZLE	.65, .87, 1.3, 2.6	2.01	30	12 FT	1
○	RAIN BIRD	1812-SAM-PRS POP-UP SHRUB HEAD w/ U15 NOZZLE	.93, 1.23, 1.85, 3.70	1.83	30	15 FT	1
⊠	RAIN BIRD	1812-SAM-PRS POP-UP SHRUB HEAD w/ 15RCS/15LCS/15SST NOZZLE	.49, .49, 1.21	1.97	30	4x15 FT 4x30 FT	1

NOTE: ALL TREE BUBBLER LOCATIONS ARE DIAGRAMMATIC. EVERY SITE TREE SHALL HAVE THE INDICATED NUMBER OF BUBBLERS ALIGNED AT OPPOSING ROOTBALL EDGES PER DETAILS. RELOCATED, REPOSITIONED, OR NEW TREES SHALL BE PLUMBED WITH APPROPRIATELY SIZED LATERALS TO THE NEAREST TREE ZONE VALVE.

WHEN RADIUS OF SPRINKLER HEADS, REQUIRED FOR PROPER COVERAGE, IS LESS THAN RADIUS SHOWN ON LEGEND, THE CONTRACTOR SHALL EQUIP HEAD WITH A RAIN BIRD "PCS" PRESSURE COMPENSATING SCREEN FOR FLOW AND RADIUS CONTROL. SELECT SCREEN ON PCS NOZZLE SCREEN SELECTION CHART, PROVIDED BY MANUFACTURER, FOR APPROPRIATE RADIUS.

WHEN INSTALLING SPRINKLER HEADS USING NOZZLES THAT REQUIRE ARC PATTERNS OTHER THAN THE STANDARD ARC PATTERNS (360, 180, 120, 90, ETC.) THE CONTRACTOR SHALL USE VARIABLE ARC OR ADJUSTABLE NOZZLES, RADIUS OF ADJUSTABLE NOZZLES SELECTED TO MATCH SITE CONDITIONS.

NOTE: PRECIPITATION RATES ARE IN INCHES PER HOUR (INH) BASED ON TRIANGULAR SPACING, 50% DIAMETER OF THROW, COLLECTED IN ZERO WIND CONDITIONS.

IRRIGATION MATERIAL LEGEND (POTABLE WATER)

SYMBOL	MANUFACT.	MODEL NO. / DESCRIPTION	DETAIL
⊙	P.O.C.	POTABLE IRRIGATION WATER METER (SEE NOTES FOR DESIGNATION AND SIZES). VERIFY ACTUAL LOCATION, SIZE, AND WATER PRESSURE IN THE FIELD PRIOR TO COMMENCING WORK AND PURCHASING EQUIPMENT.	N/A
⊙	WILKINS	975XLVSR SERIES, BACKFLOW PREVENTION ASSEMBLY W/ MODEL "YBP" WYE STRAINER. ALL PIPING BETWEEN METER AND BACKFLOW DEVICE SHALL BE "K" COPPER OR RED BRASS.	1
⊙	HUNTER	ICV-101 1" MASTER CONTROL VALVE BOX WITH LOCKING T-COVER AND "MCV" HEAT BRANDED ON COVER.	3
⊕	LASCO	LINE SIZE, MODEL NUMBER Vxx101IN-SC, TRUE UNION PVC BALL VALVE. 2" AND SMALLER USE EPDM SEALED NON-THREADED SOCKET ENDS. SET IN RECT. VALVE BOX WITH T-COVER, HEAT BRAND LID WITH "BV".	5
NO SYMBOL	RAIN BIRD	33RC QUICK COUPLER VALVE, INSTALLED IN 10" ROUND VALVE BOX WITH LOCKING COVER AND "QCV" HEAT BRANDED ON COVER. INSTALL QCV ON A 1 1/2" STUB-OUT OFF MAINLINE. EACH QCV SHALL BE ISOLATED FROM THE MAINLINE BY A 1 1/2" BALL VALVE AND INSTALLED ONE ON EACH SIDE OF THE STREET	6
⊕	HUNTER	PGV SERIES PLASTIC PRESSURE REGULATING CONTROL VALVE. SIZE AS SHOWN, INSTALL ONE VALVE PER STD. RECT. VALVE BOX WITH LOCKING COVER AND "RCV" HEAT BRANDED ON COVER. VALVES SHALL BE INSTALLED IN MANIFOLDS ISOLATED FROM THE MAINLINE BY A BALL VALVE. SIZE BALL VALVE PER THE LARGEST RCV IN THE MANIFOLD. USE DC-LATCHING SOLENOIDS	7
⊕	HUNTER	XC-1200-SSHBRID SOLAR POWERED CONTROLLER. USE DC-SOLENOID FOR VALVES. INSTALL ON XCHSPOLE WITH XCHSPB MOUNTING BRACKET	4
⊕	HUNTER	SOLAR-SYNC ET SENSOR, MOUNT TO ENCLOSURE AND WIRE TO CONTROLLER.	4
AS APPROVED		PVC SOLVENT WELD LATERAL PIPE WITH SCH.40 FITTINGS, 3/4"-1 1/2" SCH. 40, 12" DEPTH	N/A
AS APPROVED		PVC PIPE MAINLINES, DEPTH AS PER DETAIL, 1 1/2" SOLVENT WELD SCH.40 WITH SCH.40 SOLVENT WELD FITTINGS, 18" DEPTH	N/A
NO SYMBOL	AS APPROVED	PVC PIPE AS SLEEVING, TWICE THE DIAMETER OF PIPE OR WIRE BUNDLE CARRIED PLACE BELOW ALL PAVING, HARDSCAPE, ETC., AND AS DIRECTED BY OWNER'S AUTHORIZED REPRESENTATIVE. ALL 4" AND SMALLER SLEEVING SHALL BE PVC1220 SCH. 40, TYPE 1, GRADE 1 MATERIAL CONFORMING TO ASTM STANDARD D-1785-4. ALL 6" AND LARGER SLEEVING SHALL BE PVC1220 CLASS 200 SDR21, TYPE 1, GRADE 1 MATERIAL CONFORMING TO ASTM STANDARD D-2241. SLEEVES UNDER BROW DITCHES OR OBSTRUCTIONS SHALL BE ENCASED IN CONCRETE A MINIMUM OF 6" THICK ON ALL SIDES OF PIPE. EXTEND ALL SLEEVES 12" MINIMUM PAST HARDSCAPE EDGES, MARK HARDSCAPE CURBS WITH 15" IN 2" HIGH LETTERS FOR LOCATION(S). EXTEND ALL PIPE 18" PAST SLEEVE PRIOR TO ANY FITTINGS.	N/A
NO SYMBOL	AS APPROVED	14AWG DIRECT BURIAL IRRIGATION CONTROL WIRE	N/A
NO SYMBOL	3M	DBY-6 OR DBR-6 PRE-FILLED WIRE CONNECTORS, USE ON ALL WIRE CONNECTIONS IN VALVE OR PULL BOXES ONLY.	N/A
NOT SHOWN	HUNTER	HCV SERIES ADJUSTABLE CHECK VALVE, USED ON ALL SPRINKLERS WITH LOW HEAD DRAINAGE UNCONTROLLABLE BY FACTORY INTEGRAL SPRINKLER HEAD CHECK VALVE.	N/A

IRRIGATION NOTES

- ALL LOCAL MUNICIPAL AND STATE LAWS, RULES AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR.
- THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, STRUCTURES AND SERVICES BEFORE COMMENCING WORK. THE LOCATIONS OF UTILITIES, STRUCTURES AND SERVICES SHOWN IN THESE PLANS ARE APPROXIMATE ONLY. ANY DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL OBTAIN THE PERTINENT ENGINEERING OR ARCHITECTURAL PLANS BEFORE BEGINNING WORK.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED TO PERFORM THE WORK INDICATED HEREIN BEFORE BEGINNING WORK.
- THIS DESIGN IS DIAGRAMMATIC. ALL EQUIPMENT SHOWN IN PAVED AREAS IS FOR DESIGN CLARITY ONLY AND IS TO BE INSTALLED WITHIN PLANTING AREAS.
- THE CONTRACTOR SHALL NOT WILLFULLY INSTALL ANY EQUIPMENT AS SHOWN ON THE PLANS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN CONDITIONS EXIST THAT WERE NOT EVIDENT AT THE TIME THESE PLANS WERE PREPARED. ANY SUCH CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE PRIOR TO ANY WORK OR THE IRRIGATION CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ANY FIELD CHANGES DEEMED NECESSARY BY THE OWNER.
- INSTALL ALL EQUIPMENT AS SHOWN IN THE DETAILS AND SPECIFICATIONS. CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH LOCAL CITY, COUNTY AND STATE REQUIREMENTS FOR BOTH EQUIPMENT AND INSTALLATION.
- ACTUAL LOCATION FOR THE INSTALLATION OF THE BACKFLOW PREVENTER AND THE AUTOMATIC CONTROLLER IS TO BE DETERMINED IN THE FIELD BY THE OWNER'S AUTHORIZED REPRESENTATIVE.
- ALL PIPE UNDER PAVED AREAS TO BE INSTALLED IN SLEEVING 2.5 TIMES THE DIAMETER OF THE PIPE CARRIED. SEE LEGEND FOR TYPE. ALL WIRE UNDER PAVED AREAS TO BE INSTALLED IN A SCH. 40 SLEEVE THE SIZE REQUIRED TO EASILY PULL WIRE THROUGH. ALL SLEEVES TO BE INSTALLED WITH A MINIMUM DEPTH AS SHOWN ON THE SLEEVING DETAILS. SLEEVES TO EXTEND AT LEAST 12" PAST THE EDGE OF THE PAVING.
- ALL QUICK COUPLER AND REMOTE CONTROL VALVES TO BE INSTALLED IN SHRUB OR GROUND COVER AREAS WHERE POSSIBLE. ALL QUICK COUPLER AND REMOTE CONTROL VALVES TO BE INSTALLED AS SHOWN ON THE INSTALLATION DETAILS. INSTALL ALL QUICK COUPLER AND REMOTE CONTROL VALVES WITHIN 18" OF HARDSCAPE.
- ALL HEADS ARE TO BE INSTALLED WITH THE NOZZLE, SCREEN AND ARCS SHOWN ON THE PLANS. ALL HEADS ARE TO BE ADJUSTED TO PREVENT OVERSPRAY ONTO BUILDINGS, WALLS, FENCES AND HARDSCAPE. THIS INCLUDES, BUT NOT LIMITED TO, ADJUSTMENT OF DIFFUSER PIN OR ADJUSTMENT SCREW, REPLACEMENT OF PRESSURE COMPENSATING SCREENS, REPLACEMENT OF NOZZLES WITH MORE APPROPRIATE RADIUS UNITS AND THE REPLACEMENT OF NOZZLES WITH ADJUSTABLE ARC UNITS.
- CONTRACTOR SHALL INSTALL ADDITIONAL CHECK VALVES TO HEADS AND LATERALS AS REQUIRED TO PREVENT LOW HEAD DRAINAGE.
- THE CONTRACTOR SHALL USE PROPER GROUNDING TECHNIQUES FOR GROUNDING THE CONTROLLER AND RELATED EQUIPMENT PER MANUFACTURERS SPECIFICATIONS.



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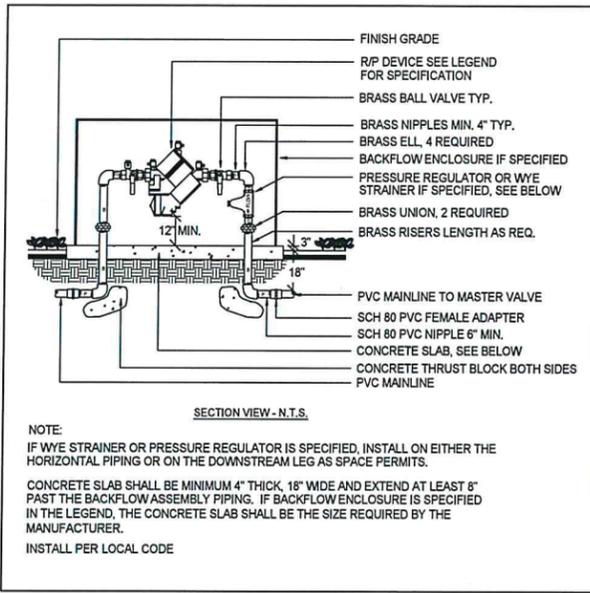
NORTH:

SCALE: N.T.S.

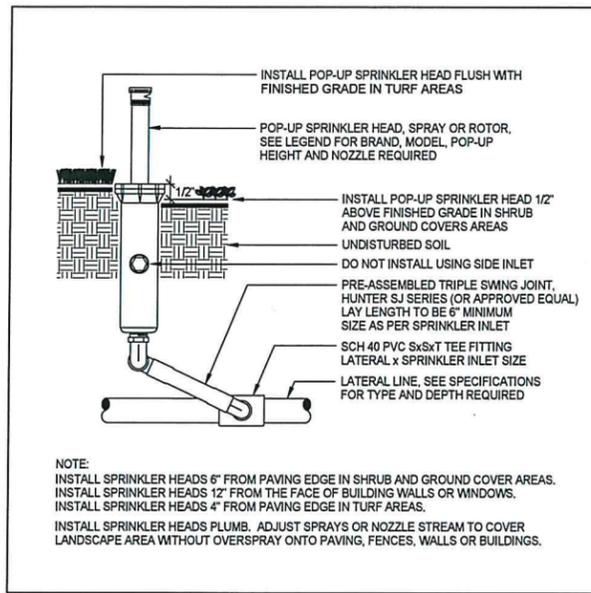
SHEET TITLE:
**Irrigation
Legend**

SHEET NUMBER:
L3.02

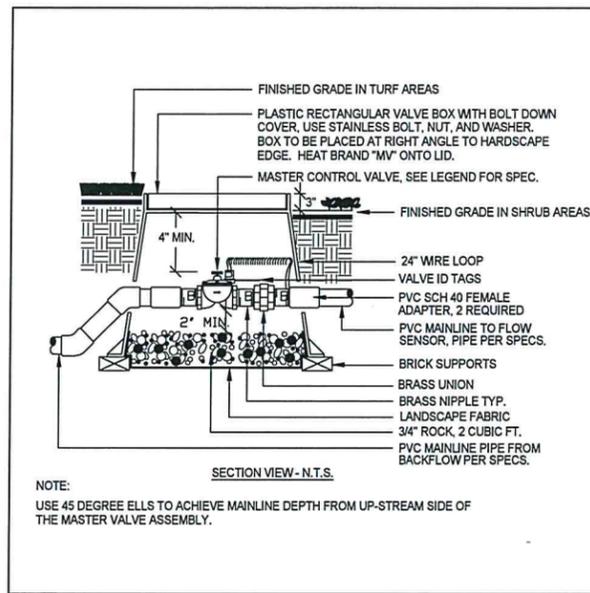
C:\Users\tkochanek\Documents\Irrigation\Irrigation Details\Irrigation Details.dwg | TKOCHANEK | ANSI FULL BLEED D (22.00 X 34.00 INCHES) | 10/27/2017



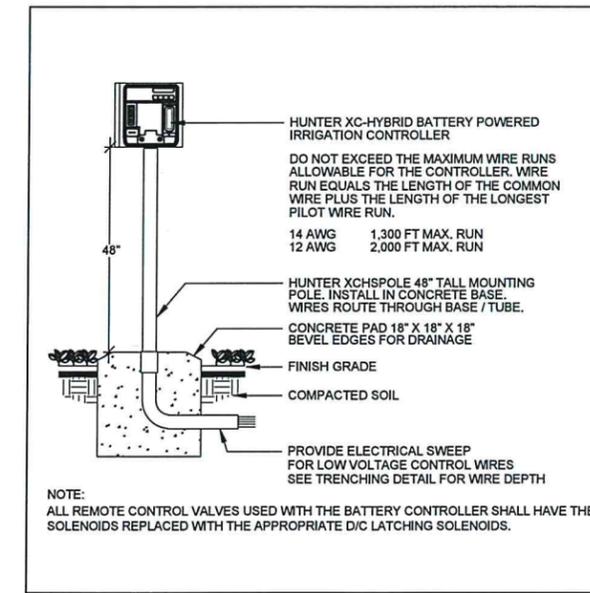
1 - BACKFLOW



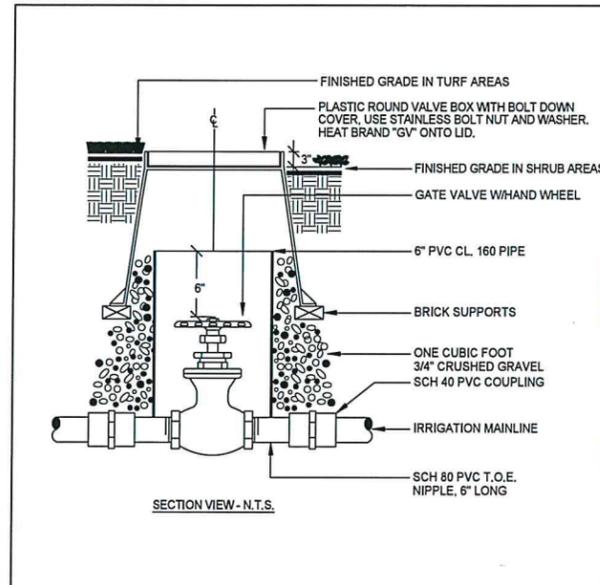
2 - POP-UP HEAD



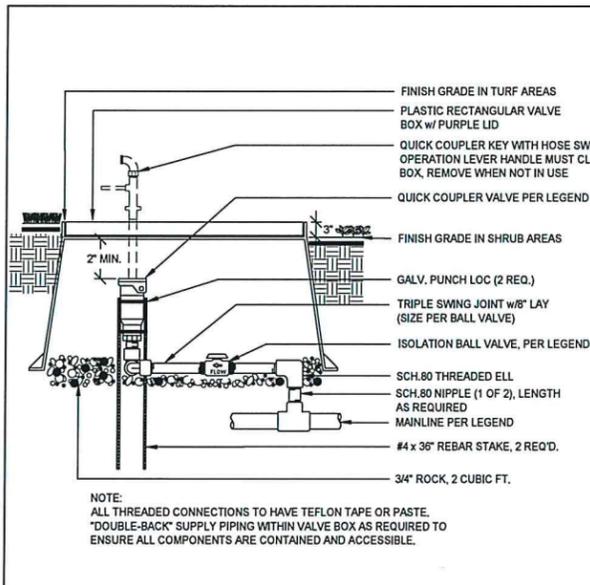
3 - MASTER VALVE



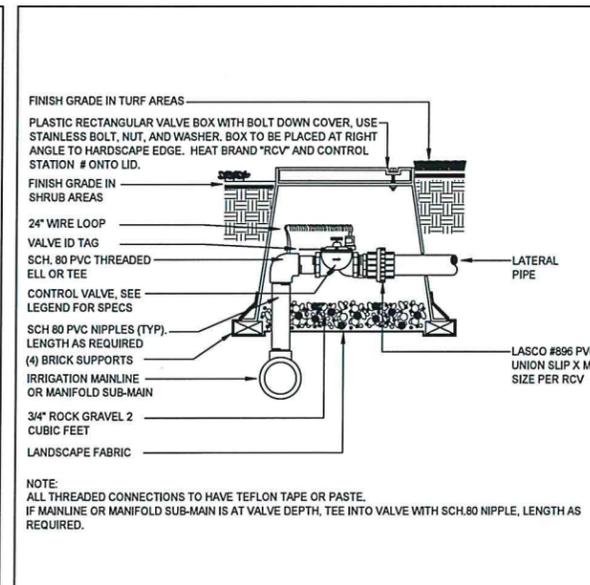
4 - CONTROLLER



5 - ISOLATION VALVE



6 - QUICK COUPLER VALVE



7 - REMOTE CONTROL VALVE



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**Irrigation
Details**

SHEET NUMBER:
L3.03