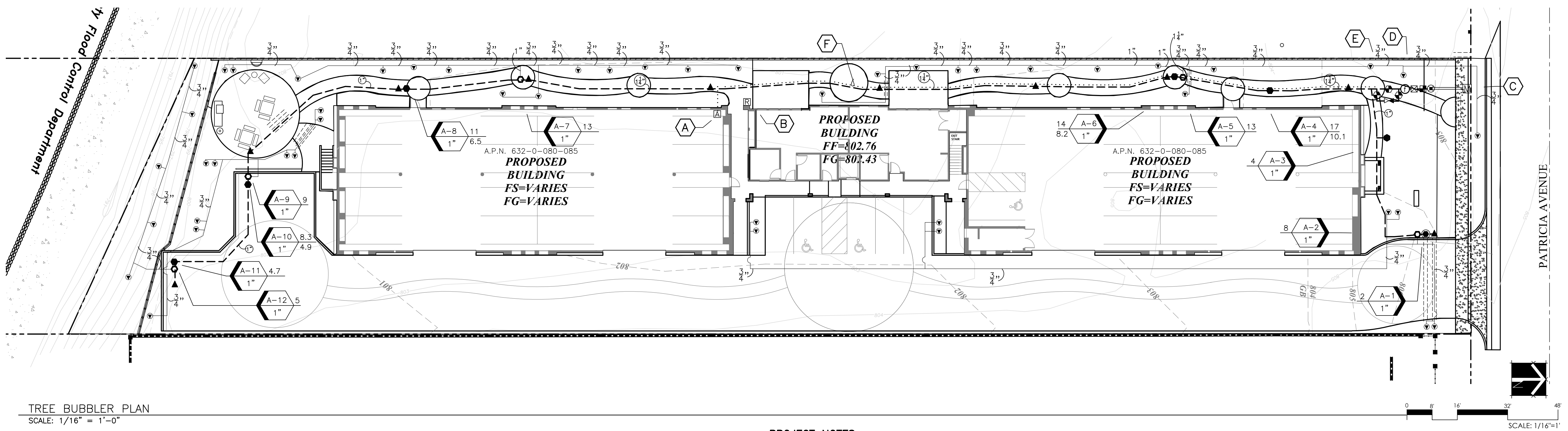
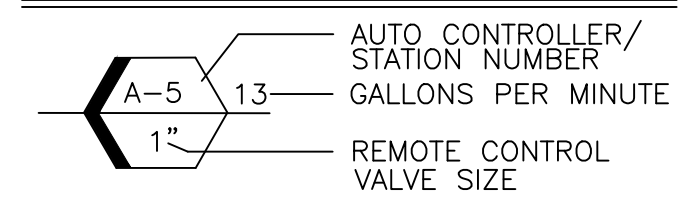


EMITTER & DRIPPER TUBING PLAN  
SCALE: 1/16" = 1'-0"

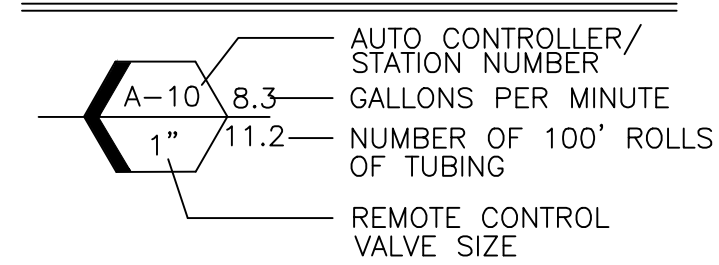


TREE BUBBLER PLAN  
SCALE: 1/16" = 1'-0"

REMOTE CONTROL VALVE KEY



DRIPPER LINE REMOTE CONTROL VALVE KEY



PROJECT NOTES

1. FIELD VERIFY EXISTING STATIC WATER PRESSURE AND NOTIFY THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING ANY WORK.
2. CONTACT UNDERGROUND SERVICE ALERT AT 1-800-227-2600 TO IDENTIFY AND LOCATE ALL ON-SITE UTILITIES PRIOR TO BEGINNING WORK. THE LANDSCAPE SUB CONTRACTOR SHALL COORDINATE WITH THE PROJECT SUPERINTENDENT AND REVIEW THE EXISTING SITE PRIOR TO BEGINNING WORK TO AVOID CONFLICTS WITH EXISTING UTILITIES AND PROPOSED NEW CONSTRUCTION.
3. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY TRENCH SETTLING OR IRRIGATION HEAD SETTLING. ALL TRENCHES WILL BE BACK FILLED WITH CLEAN SOIL, COMPACTED AND REPLANTED WITH APPROVED SHRUB OR GROUND COVER TO MATCH EXISTING PLANTING. ALL HEADS THAT SETTLE WILL BE RAISED TO 1/2" ABOVE FINISH GRADE. PROVIDE ADDITIONAL SOIL AS NECESSARY AND HAND TAMP AROUND HEAD TO PREVENT FUTURE SETTLING. PROVIDE NEW SEED OR PLANT MATERIAL AS NEEDED TO COMPLETE REPAIR.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SLEEVING INSTALLED UNDER ALL PAVED SURFACES. PROVIDE SEPARATE INDIVIDUAL SLEEVES FOR MAINLINE, LATERALS, AND REMOTE CONTROL VALVE WIRES. LATERAL SLEEVING SHALL BE SIZED (3) PIPE SIZES LARGER THAN THE LATERAL PIPE TO BE SLEEVED.
5. THE IRRIGATION SYSTEM IS SHOWN DIAGRAMMATICALLY. INSTALL ALL IRRIGATION EQUIPMENT WITHIN PROPERTY LINES AND WITHIN LANDSCAPE PLANTERS WHENEVER POSSIBLE.
6. THE CONTRACTOR WILL BRAND INTO THE REMOTE CONTROL VALVE BOX LIDS THE NEW VALVE STATION NUMBER AND RELATED NEW AUTO CONTROLLER LETTER. PROVIDE CHRISTY STANDARD SIZE I.D. TAGS CONNECTED TO EACH VALVE SOLENOID WITH NEW STATION NUMBER AND RELATED NEW AUTO CONTROLLER LETTER.
7. THE CONTRACTOR SHALL INSTALL ALL IRRIGATION REMOTE CONTROL VALVES, GATE VALVES, AND QUICK COUPLING VALVES A MINIMUM DISTANCE OF 10'-0" FROM ALL TREE TRUNK LOCATIONS ILLUSTRATED ON PLANTING PLAN. CONFIRM LAYOUT OF PROPOSED TREE LOCATIONS PRIOR TO INSTALLING ANY VALVE.
8. UTILITIES MAY HAVE BEEN OMITTED ON THE IRRIGATION SHEETS. REVIEW CIVIL ENGINEER'S DRAWINGS AND EXERCISE CARE IN EXCAVATION WHILE PROTECTING EXISTING UTILITIES IN PLACE.



NO.	DATE	DESCRIPTION

CLIENT  
**FABIO MALEK**  
211 PASEO DE SUEÑA  
REDONDO BEACH, CA  
PHONE: (310) 918-5455

PROJECT TITLE  
**IRRIGATION PLAN**

PROJECT  
**28 UNIT APARTMENT COMPLEX**  
1424 PATRICIA AVE.  
SIMI VALLEY, CA 93065  
APN: 632-0-080-085

DRAWN: .MHB	CHECKED: .MG	PRINTED FOR: .10/4/18

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IRRIGATION LEGEND

SYMBOL	DESCRIPTION	MANUFACTURER	MODEL / REMARKS
-----	SLEEVING	PACIFIC PLASTICS	SCH. 40 PVC - 3 PIPE SIZES LARGER THAN THE PIPE TO BE SLEEVED - 24" BELOW GRADE
=====	COPPER PIPE	U.S. STEEL	TYPE 'K' COPPER - 1" SIZE - SOLDER WELD - 24" BELOW GRADE
-----	MAINLINE	PACIFIC PLASTICS	SIZE PER PLAN - SCH. 40 PVC - SOLVENT WELD - 24" BELOW GRADE
-----	SUB-SURFACE DRIPLINE	TORO	RGP-412-XX - DRIPLINE TUBING - 1.0 GPH EMITTER @ 12" O.C. - 4" BELOW GRADE - LINES SPACED @ 18" O.C.
-----	LATERAL	PACIFIC PLASTICS	SCH. 40 PVC - 3/4" SIZE UNLESS OTHERWISE NOTED ON PLAN - SOLVENT WELD - 12" BELOW GRADE
-----	FLOW SENSING CABLE	RAINMASTER	EV-CAB-SEN - INSTALL IN 1" ELECTRICAL CONDUIT
[M]	IRRIGATION ONLY WATER METER	UNKNOWN	1" SIZE - INSTALL PER CITY OF SIMI VALLEY PUBLIC WORKS STANDARDS
⊗	PRESS. REDUCING VALVE	WILKINS	500 SERIES - INSTALL ON DOWNSTREAM SIDE OF REDUCED PRESSURE BACKFLOW DEVICE ASSEMBLY
☒	NORMALLY CLOSED MASTER VALVE	SUPERIOR	3200 SERIES - 1" SIZE - INSTALL IN A STANDARD RECTANGULAR VALVE BOX
⊖	FLOW SENSOR	IRRITROL	MODEL FS10 - SCH. 40 PVC BODY - 1" SIZE @ EACH P.O.C. - SOLVENT WELD - IN RECTANGULAR VALVE BOX
▶	AUTOMATIC FERTILIZER DISPENSER	EZ-FLO	MODEL EZ-005-FX INSTALLED IN A CARSON JUMBO VALVE BOX MODEL 1730-18 (32"L x 18"H x 19"W) INSTALL ALL REQUIRED EZ-FLO FITTINGS. MODEL CBV-200, ON TO THE MAINLINE AS PER MANUF. SPECS.
[A]	AUTO CONTROLLER	IRRITROL / RAIN MASTER	RME-12EG-B - AUTO CONTROLLER WALL MOUNTED ON EXTERIOR WALL OF BUILDING. INSTALL A IRRITROL WIRELESS RAIN SHUT OFF DEVICE TO AUTO CONTROLLER PER MANUFACTURER'S SPECIFICATIONS DIRECTLY ABOVE AUTO CONTROLLER HIGH ENOUGH TO AVOID VANDALISM. 12 STATIONS
☒	WEATHER SENSOR	IRRITROL	WIRELESS MODEL RS1000 - MOUNT DIRECTLY ABOVE AUTO CONTROLLER LOCATION AT ELEVATION TO AVOID VANDALISM
⊙	LOW FLOW DRIP RCV ASSEMBLY	IRRITROL	700DK-1-LF SERIES - 1" SIZE - IN A JUMBO VALVE BOX
⊙	REMOTE CONTROL VALVE	IRRITROL	700 - SERIES - SIZES NOTED - IN A STANDARD RECTANGULAR VALVE BOX
⊙	DRIP RCV ASSEMBLY	IRRITROL	700DK-1-MF SERIES - 1" SIZE - IN A JUMBO VALVE BOX
▲	QUICK COUPLER	RAIN BIRD	33-DRC - 3/4" - IN 6" ROUND VALVE BOX
●	SCH. 80 PVC BALL VALVE	COLONIAL / LASCO	VXX101N-SC SERIES - LINE SIZE - INSTALLED IN A RECTANGULAR VALVE BOX
■	REDUCED PRESSURE BACKFLOW	WILKINS	975XLSE- SERIES - 1" SIZE - INSTALL PER CITY OF SIMI VALLEY PUBLIC WORKS STANDARDS
▼	DRIP SYSTEM FLUSH VALVE	SPEARS/KBI/EQUAL	3/4" SCH. 80 PVC ECONOMY BALL VALVE, SOCKET INLET & OUTLET, IN VALVE BOX WITH 3"-0" OF FLEXIBLE PVC HOSE
■	DRIP AIR RELIEF VALVE	RAIN BIRD	MODEL ARV050 - INSTALLED ON BURIED TUBING - IN A ROUND VALVE BOX WITH GRAVEL SUMP
■	DRIP SYSTEM INDICATOR	TORO	570Z-12P-PRX-COM-0-T-5Q - TURN X-FLOW WATER SHUT OFF DEVICE IN RISER COMPLETELY TO THE OFF POSITION
☒	ROOT ZONE WATERING SYSTEM	RAIN BIRD	RWS-B-C-1402-RWS-SOCK (TWO PER SYMBOL)
			PSI RAD Q TH H F GPM GPM GPM GPM GPM
			30 1 1 1 1 0.50
○	DRIP EMITTER (2 G.P.H.)	G.P.H.	MODEL GPSTCV2 BLACK COLORED EMITTER WITH GREEN CAP EQUIPPED WITH A BUILT IN CHECK VALVE. INSTALL (1) EMITTER PER EACH SHRUB ON 1/2" IRRIGATION SIZE (3/8" IPS) FLEXIBLE PVC HOSE, G.P.H. MODEL GPVCAR050IRR (BLACK IN COLOR) WITH (2) SOLVENT WELD G.P.H. MODEL G436073B BLACK MALE ADAPTERS. CUT LENGTH OF FLEXIBLE PVC TUBING STARTING FROM RIGID PVC LATERAL SUPPLY TO LENGTH NEEDED TO INSTALL EMITTER WITHIN PLANT BASIN IN THE FIELD. USE I.P.S. PIPE PRIMER MODEL "P-70" AND I.P.S. SOLVENT CEMENT MODEL "795" FOR ALL FLEXIBLE PVC TUBING WELDS TO BLACK COLORED G.P.H. MALE ADAPTERS.
			30 1 1 1 1 0.03
●	DRIP EMITTER (4 G.P.H.)	G.P.H.	MODEL GPSTCV4 BLACK COLORED EMITTER WITH YELLOW CAP EQUIPPED WITH A BUILT IN CHECK VALVE. INSTALL (1) EMITTER PER EACH SHRUB ON 1/2" IRRIGATION SIZE (3/8" IPS) FLEXIBLE PVC HOSE, G.P.H. MODEL GPVCAR050IRR (BLACK IN COLOR) WITH (2) SOLVENT WELD G.P.H. MODEL G436073B BLACK MALE ADAPTERS. CUT LENGTH OF FLEXIBLE PVC TUBING STARTING FROM RIGID PVC LATERAL SUPPLY TO LENGTH NEEDED TO INSTALL EMITTER WITHIN PLANT BASIN IN THE FIELD. USE I.P.S. PIPE PRIMER MODEL "P-70" AND I.P.S. SOLVENT CEMENT MODEL "795" FOR ALL FLEXIBLE PVC TUBING WELDS TO BLACK COLORED G.P.H. MALE ADAPTERS.
			30 1 1 1 1 0.06

WATER EFFICIENT LANDSCAPE WORKSHEET (COMPLETE FORM FOR EACH IRRIGATION POINT OF CONNECTION)					REFERENCE (E <sub>0</sub> ) 51				
HYDROZONE # DESCRIPTION a	VALVE #	PLANT FACTOR (PF)	IRRIGATION METHOD b	IRRIGATION EFFICIENCY (IE) c	ETAF (PF/IE)	LANDSCAPE AREA (SQ.FT.)	ETAF X AREA	ESTIMATED TOTAL WATER USE (ETWU) d	
REGULAR LANDSCAPE AREAS									
HYDROZONE #1 LOW WATER USE DRIPPER TUBE		.3	DRIPPER TUBE	.81	.37	2,645	979	30,956	
HYDROZONE #2 MED. WATER USE DRIPPER TUBE		.5	DRIPPER TUBE	.81	.62	2,036	1,262	39,904	
HYDROZONE #3 LOW WATER USE BUBBLERS/DRIP		.3	BUBBLERS/DRIP	.81	.37	1,916	709	22,419	
HYDROZONE #4 MED. WATER USE BUBBLERS/DRIP		.5	BUBBLERS/DRIP	.81	.62	1,141	707	22,355	
HYDROZONE #5 MED. BUBBLERS IN LOW DRIP TUBE		.2	BUBBLERS	.81	.25	352	88	2,783	
						TOTALS	7,737	3,745	
								ETWU TOTAL	118,417
								MAXIMUM ALLOWED WATER ALLOWANCE (MAWA) e	134,554

IRRIGATION CALCULATIONS

DESCRIPTION	RCV A-9 9 GPM
AVAILABLE STATIC WATER PRESSURE @ P.O.C.	98.0 PSI
LOSS AT 1" WATER METER	0.6 PSI
LOSS THROUGH COPPER SERVICE LINE	0.3 PSI
PRESSURE REDUCING VALVE SET @ 60 PSI	
LOSS AT BACKFLOW DEVICE	12.0 PSI
MASTER VALVE & FLOW SENSOR	1.0 PSI
LOSS THROUGH MAINLINE	4.4 PSI
LOSS RCV TO LAST HEAD (LATERALS)	1.0 PSI
TOTAL PRESSURE LOSS	18.4 PSI
OPERATING PRESSURE	41.6 PSI

NOTE:  
IRRIGATION CALCULATIONS ARE BASED ON A MINIMUM STATIC WATER PRESSURE AVAILABLE ON SITE OF 98.0 PSI. CONTRACTOR TO VERIFY AVAILABLE STATIC WATER PRESSURE ON SITE AND NOTIFY LANDSCAPE ARCHITECT OF RESULTS PRIOR TO BEGINNING ANY WORK.

<sup>g</sup>HYDROZONE #/PLANTING DESCRIPTION  
E.G.  
1) FRONT LAWN  
2) LOW WATER USE PLANTINGS  
3) MEDIUM WATER USE PLANTING

<sup>b</sup>IRRIGATION METHOD  
OVERHEAD SPRAY  
OR DRIP

<sup>c</sup>IRRIGATION EFFICIENCY  
0.75 FOR SPRAY HEAD  
0.81 FOR DRIP

<sup>d</sup>ETWU (ANNUAL GALLONS REQUIRED) =  
E<sub>0</sub> X 0.62 X ETAF X AREA  
WHERE 0.62 IS A CONVERSION FACTOR THAT CONVERTS ACRE-INCHES PER ACRE PER YEAR TO GALLONS PER SQUARE FOOT PER YEAR.

<sup>e</sup>MAWA (ANNUAL GALLONS ALLOWED) = (E<sub>0</sub>) (0.62) {(ETAF X LA) + (1-ETAF X SLA)}  
WHERE 0.62 IS A CONVERSION FACTOR THAT CONVERTS ACRE-INCHES PER ACRE PER YEAR TO GALLONS PER SQUARE FOOT PER YEAR, LA IS THE TOTAL LANDSCAPE AREA IN SQUARE FEET, SLA IS THE TOTAL SPECIAL LANDSCAPE AREA IN SQUARE FEET, AND ETAF IS 0.55 FOR RESIDENTIAL AREAS AND 0.45 FOR NON-RESIDENTIAL AREAS.

AVERAGE ETAF FOR REGULAR LANDSCAPE AREAS MUST BE 0.55 OR BELOW FOR RESIDENTIAL AREAS, AND 0.45 OR BELOW FOR NON-RESIDENTIAL AREAS.

ETAF CALCULATIONS

REGULAR LANDSCAPE AREAS	E <sub>0</sub> FOR SIMI VALLEY =51
TOTAL ETAF X AREA	3,745
TOTAL AREA	7,737
<b>AVERAGE ETAF</b>	.48

ALL LANDSCAPE AREAS

TOTAL ETAF X AREA	3,745
TOTAL AREA	7,737
<b>SITEWIDE ETAF</b>	.48

PROJECT KEY NOTES

- A** WALL MOUNTED 12 STATION AUTO CONTROLLER:  
CONTRACTOR SHALL INSTALL A 12 STATION AUTO CONTROLLER IN A PAINTED STEEL BOX. LOCATION SHALL BE DETERMINED IN THE FIELD BY OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT. INSTALL 120 VOLT, 60 HERTZ, 2 AMP. ELECTRICAL POWER SUPPLY TO ALL AUTO CONTROLLER LOCATION. ALL ELECTRICAL WORK MUST BE PERFORMED BY A LICENSED ELECTRICIAN AND AS PER LOCAL CITY CODE. INSTALL A 2" SCH. 40 PVC ELECTRICAL CONDUIT FROM BASE OF PEDESTAL MOUNTED AUTO CONTROLLER TO A DEPTH OF 24" BELOW FINISH GRADE TO HOUSE ALL REQUIRED IRRIGATION 14 GAUGE SPRINKLER WIRES AS WELL AS FLOW SENSING CABLE. END OF 2" SCH. 40 PVC WIRE CONDUIT SHALL BE FURNISHED WITH A SCH. 40 PVC SWEEP ELBOW AND SHALL TERMINATE INTO A STANDARD RECTANGULAR VALVE BOX WITH A VALVE BOX BASE EXTENSION. WIRES SHALL BE FORMED INTO A 3'-0" HAND LOOP. BEGIN 1-1/4" SCH. 40 PVC CONDUIT RUN FOR FLOW SENSING CABLE HERE. ALL REMAINING 14 GAUGE WIRES SHALL BE DIRECT BURIED TO ALL REMOTE CONTROL VALVES AND THE NORMALLY CLOSED MASTER VALVE.
- B** WIRELESS RAIN SENSOR FOR ALL AUTO CONTROLLERS:  
MOUNT WIRELESS RAIN SHUT OFF DEVICE ON EXTERIOR WALL OF BUILDING WALL DIRECTLY ABOVE THE WALL MOUNTED AUTO CONTROLLER AT AN ELEVATION THAT IS SAFE FROM VANDALISM AS WELL AS FREE OF ANY BUILDING OVERHANG SO THAT DEVICE IS EXPOSED TO DIRECT RAINFALL CONTACT. PROVIDE ALL REQUIRED BATTERIES AND POSITION DEVICE WITHIN OPERATING SPECIFICATIONS PROVIDED BY MANUFACTURER, IRRITROL SYSTEMS.
- C** IRRIGATION POINT OF CONNECTION:  
INSTALL 1" IRRIGATION ONLY WATER METER. INSTALL 1" TYPE 'K' COPPER FROM METER TO A 1" SCH. 80 PVC BALL VALVE TO USE AS AN ISOLATION VALVE. CONTINUE 1" TYPE 'K' COPPER FROM DISCHARGE OF SCH. 80 PVC BALL VALVE TO 1" REDUCED PRESSURE BACKFLOW ASSEMBLY WITH PRESSURE REDUCING VALVE SET AT 60 PSI. ON DISCHARGE SIDE OF 1" REDUCED PRESSURE BACKFLOW DEVICE, INSTALL A 24" LONG 1" SCH. 40 PVC MAINLINE SEGMENT TO SUPPLY A 1" MASTER VALVE. CONTINUE 1" SCH. 40 PVC MAINLINE ON DISCHARGE SIDE OF MASTER VALVE TO FLOW SENSOR. CUT 1" PVC PIPE LENGTHS INTO AND OUT OF FLOW SENSOR AS PER MANUFACTURER'S SPECIFICATIONS. ON DISCHARGE SIDE OF FLOW SENSOR, ENLARGE PVC MAINLINE TO SIZE AS PER PLANS AND CONTINUE TO SUPPLY LIQUID FERTILIZER INJECTOR AND ALL REMOTE CONTROL VALVES AND QUICK COUPLERS AS ILLUSTRATED ON THE IRRIGATION PLAN.
- D** 1" NORMALLY CLOSED MASTER VALVE & 1" FLOW SENSOR  
INSTALL 1" NORMALLY CLOSED MASTER VALVE IN A SEPARATE RECTANGULAR VALVE BOX DOWNSTREAM ILLUSTRATED ON PLAN. INSTALL 1" PVC FLOW SENSOR IN A SEPARATE RECTANGULAR VALVE BOX DOWNSTREAM OF MASTER VALVE. INSTALL 1" SCH. 40 PVC MAINLINE PIPING INTO AND OUT OF FLOW SENSOR AS PER MANUFACTURER'S SPECIFICATIONS. INSTALL A CONTINUOUS 1-1/4" SCH. 40 PVC ELECTRICAL CONDUIT FROM FLOW SENSOR TO AUTO CONTROLLER LOCATION TO HOUSE FLOW SENSING CABLE, RAINMASTER 'EV-CAB-SEN'. INSTALL WIRE PULL BOXES AT ALL DIRECTIONAL CHANGES WITH 1-1/4" SCH. 40 PVC SWEEP ELBOWS INTO AND OUT OF ALL VALVE BOXES. CABLE SHALL BE INSTALLED 24" BELOW GRADE. ALL WIRE CONNECTIONS SHALL BE MADE WITH APPROVED WATER PROOF WIRE CONNECTORS, 3M MODEL DBR-6Y, OR APPROVED EQUAL.
- E** EZ-FLO AUTOMATIC FERTILIZER DISPENSER:  
INSTALL EZ-FLO FERTILIZER DISPENSER ON TO PVC MAINLINE AS PER MANUFACTURER'S SPECIFICATIONS AND DETAILS. THE PVC TANK SHALL BE INSTALLED BELOW GRADE AND COVERED WITH A JUMBO VALVE BOX, CARSON MODEL 1730-18 (MINIMUM DIMENSIONS OF 30"L x 18"H x 19"W). INSTALL (3) SCH. 80 PVC BALL VALVES ON MAINLINE IN SEPARATE VALVE BOXES WITH MAINLINE SEGMENTS ARRANGED TO CREATE A SUB-MANLINE OR BY-PASS TO ISOLATE LIQUID FERTILIZER DISPENSER FROM PRIMARY MAINLINE DISCHARGE WHEN TANK IS NOT IN USE. THE EXACT LOCATION OF THE LIQUID FERTILIZER TANK SHALL BE SPOTTED IN THE FIELD BY THE OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT. TANK MUST BE POSITIONED UPSTREAM OF THE CLOSEST REMOTE CONTROL VALVE LOCATION ON IRRIGATION MAINLINE.
- F** FLOW SENSING CABLE IN A 1-1/4" SCH. 40 PVC ELECTRICAL CONDUIT:  
INSTALL RAIN MASTER FLOW SENSING CABLE, MODEL 'EV-CAB-SEN', IN A 1-1/4" SCH. 40 PVC ELECTRICAL CONDUIT INSTALLED 18" BELOW FINISH GRADE. INSTALL CABLE PULL BOXES, CARSON MODEL 1419-12 AT ALL CHANGES OF CABLE DIRECTION AND ON EITHER SIDE OF PAVEMENT CROSSINGS. PROVIDE 1-1/4" SWEEP ELBOWS INTO AND OUT OF ALL CABLE PULL BOXES AND INTO FLOW SENSOR VALVE BOX. CONNECT CABLE TO AUTO CONTROLLER AS PER MANUFACTURER'S SPECIFICATIONS. SPLICE CABLE TO FLOW SENSOR LEAD WIRES WITH 3M WATER RESISTANT WIRE CONNECTORS, MODEL DBR-6Y.

SEASONAL MAINTENANCE SCHEDULE

- CLEAN AND FLUSH ALL DRIP FILTERS ONCE (1) EVERY (2) MONTHS.
- FLUSH PVC DRIP LATERAL PIPING A MINIMUM OF TWICE A YEAR.
- ROTATE ALL BALL VALVE HANDLES A MINIMUM OF (4) TIMES PER YEAR.

SEASONAL IRRIGATION APPLICATION SCHEDULE

VALVE NO.	WINTER		SPRING		SUMMER		FALL	
	MINUTES	DAYS ON	MINUTES	DAYS ON	MINUTES	DAYS ON	MINUTES	DAYS ON
1	8	2	10	3	15	3	10	3
2	8	2	10	3	15	3	10	3
3	8	2	10	3	15	3	10	3
4	10	2	15	2	20	3	15	2
5	8	2	10	3	15	3	10	3
6	10	2	15	2	20	3	15	2
7	8	2	10	3	15	3	10	3
8	10	2	15	2	20	3	15	2
9	8	2	10	3	15	3	10	3
10	10	2	15	2	20	3	15	2
11	8	2	10	3	15	3	10	3
12	8	2	10	3	15	3	10	3

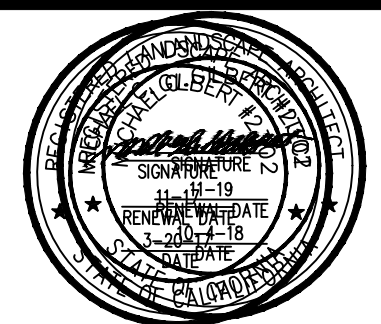
CALCULATIONS ARE BASED ON OPERATING TIMES PER CALENDAR WEEK

CALCULATIONS ARE FOR ESTABLISHED PLANTING AREA AND SHOULD NOT BE USED DURING PLANT ESTABLISHMENT PERIOD

PROJECT ESTIMATED APPLIED WATER USE

VALVE NUMBER / HYDROZONE NUMBER	EXPOSURE TO SUN / DESCRIPTION OF SPRINKLER	AVERAGE IRRIGATION EFFICIENCY	SIMI VALLEY ETO	PLANT WATER USE TYPE	PLANT FACTOR	LANDSCAPE AREA (SQ. FT.)	ESTIMATED APPLIED WATER USE IN GALLONS PER YEAR
1	SUN / HIGH FLOW EMITTERS	.81	51	LOW	0.3	516	6,043
2	SUN / TREE FLOOD BUBBLERS	.81	51	LOW	0.3	48	562
3	SHADE / HIGH FLOW DRIP EMITTERS	.81	51	MEDIUM	0.5	1,077	21,021
4	SUN / DRIPLINE TUBING SYSTEM	.81	51	LOW	0.3	1,704	19,956
5	SUN / TREE FLOOD BUBBLERS	.81	51	MEDIUM	0.2	(176)	1,374
6	SHADE / DRIPLINE TUBING SYSTEM	.81	51	MEDIUM	0.5	1,187	23,168
7	SUN / TREE FLOOD BUBBLERS	.81	51	MEDIUM	0.2	(176)	1,374
8	SUN / DRIPLINE TUBING SYSTEM	.81	51	LOW	0.3	941	11,020
9	SUN / TREE FLOOD BUBBLERS	.81	51	MEDIUM	0.5	64	1,249
10	SUN / DRIPLINE TUBING SYSTEM	.81	51	MEDIUM	0.5	849	16,571
11	SUN / HIGH FLOW EMITTERS	.81	51	LOW	0.3	1,272	14,896
12	SUN / TREE FLOOD BUBBLERS	.81	51	LOW	0.3	80	937
TOTALS						7,738	118,171

**JORDAN, GILBERT & BAIN**  
LANDSCAPE ARCHITECTS, INC.  
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REVISIONS	NO.	DATE	DESCRIPTION

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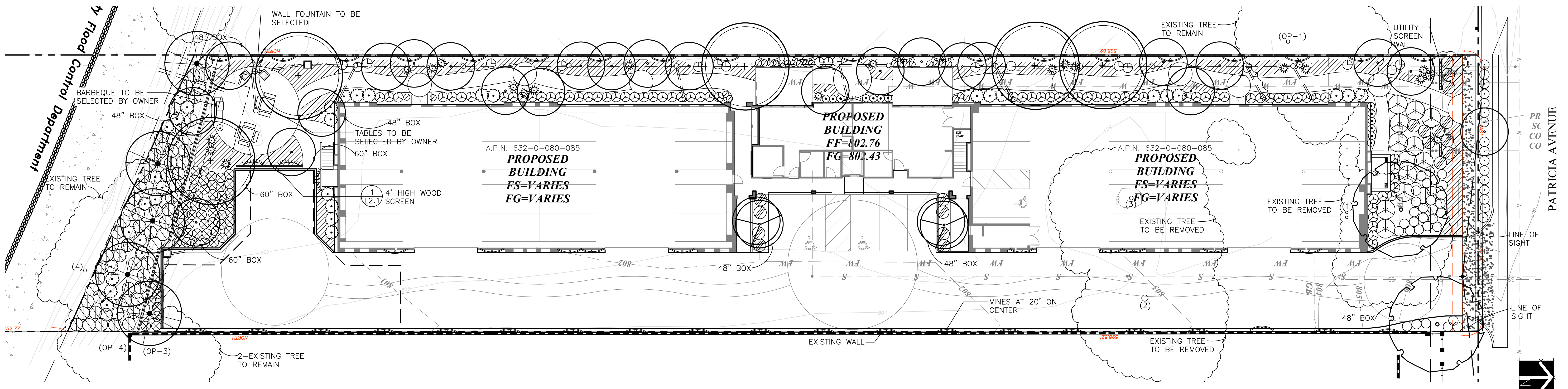
**IRRIGATION LEGEND, NOTES & CALCULATIONS**  
PROJECT  
**28 UNIT APARTMENT COMPLEX**  
1424 PATRICIA AVE.  
SIMI VALLEY, CA 93065  
APN: 632-0-080-085

DRAWN: .MHB	DATE: .10/4/18
CHECKED: .JMG	DATE: .
PRINTED FOR:	CONSTRUCTION DATE:
SUBMITTAL:	
BID:	

DRAWING  
**L1.2**  
SHEET 2 OF 7  
PROJECT NO. 16.51

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**LEGEND**

SYMBOL	BOTANICAL NAME/ COMMON NAME	SIZE	QUAN	HT. & SPRED.	WUCOLS RATING
<b>TREES</b>					
	KOELREUTERIA PANICULATA GOLDEN RAIN TREE	48" BOX	1	15' X 6'	L
	CHITALPA X TASHKENTENSIS 'PINK DAWN' PINK DAWN CHITALPA	24" BOX 60" BOX	4 1	8' X 3' 15' X 6'	L
	GLEDTISIA TRIACANTHOS HONEY LOCUST	15 GAL	5	12' X 4'	L
	PYRUS 'ARISTOCRAT' ORNAMENTAL PEAR	24" BOX 48" BOX 60" BOX	21 2 2	8' X 3' 12' X 5' 15' X 6'	M
	CERCIS OCCIDENTALIS WESTERN REDBUD	48" BOX	2	8' X 3' 12' X 5'	L
<b>SHRUBS</b>					
	MAHONIA LOMARIFOLIA MAHONIA	5 GAL	72		M
	BOUGAINVILLEA 'PURPLE QUEEN' DWARF BOUGAINVILLEA	5 GAL	19		L
	MYOPORUM P. 'PROSTRATUM' PROSTRATE MYOPORUM	1 GAL	16		L
	AGAVE 'BLUE FLAME' AGAVE	5 GAL	22		L
	HESPERALOE PARVIFOLIA RED YUCCA	5 GAL	19		L
	LIRIOPE MUSCARI BLUE LILY TURF	1 GAL	25		M
	CALLISTEMON C. 'LITTLE JOHN' DWARF BOTTLEBRUSH	5 GAL	38		L
	NANDINA 'HARBOR DWARF' DWARF HEAVENLY BAMBOO	5 GAL	13		M
	LIRIOPE GIGANTEA BIG BLUE LILY TURF	1 GAL	31		M
	CEANOTHUS G. 'ANCHOR BAY' CALIFORNIA LILAC	1 GAL	12		L
	LONICERA JAPONICA JAPANESE HONEYSUCKLE	1 GAL	48		L
	ROSA 'CECIL BRUNNER' PINK CLIMBING ROSE	5 GAL	8		M
	ARCTOTIS 'BIG MAGENTA' AFRICAN DAISY	1 GAL @ 12" O.C.			L
	LANTANA MONTEVIDENSIS LANTANA	1 GAL	55		L
	ACACIA 'LOW BOY' PROSTRATE ACACIA	1 GAL	60		L

NOTE: ALL PLANTING AREAS SHALL RECEIVE 3" LAYER OF AGROMIN ES-2 MULCH.

**PLANTING NOTES**

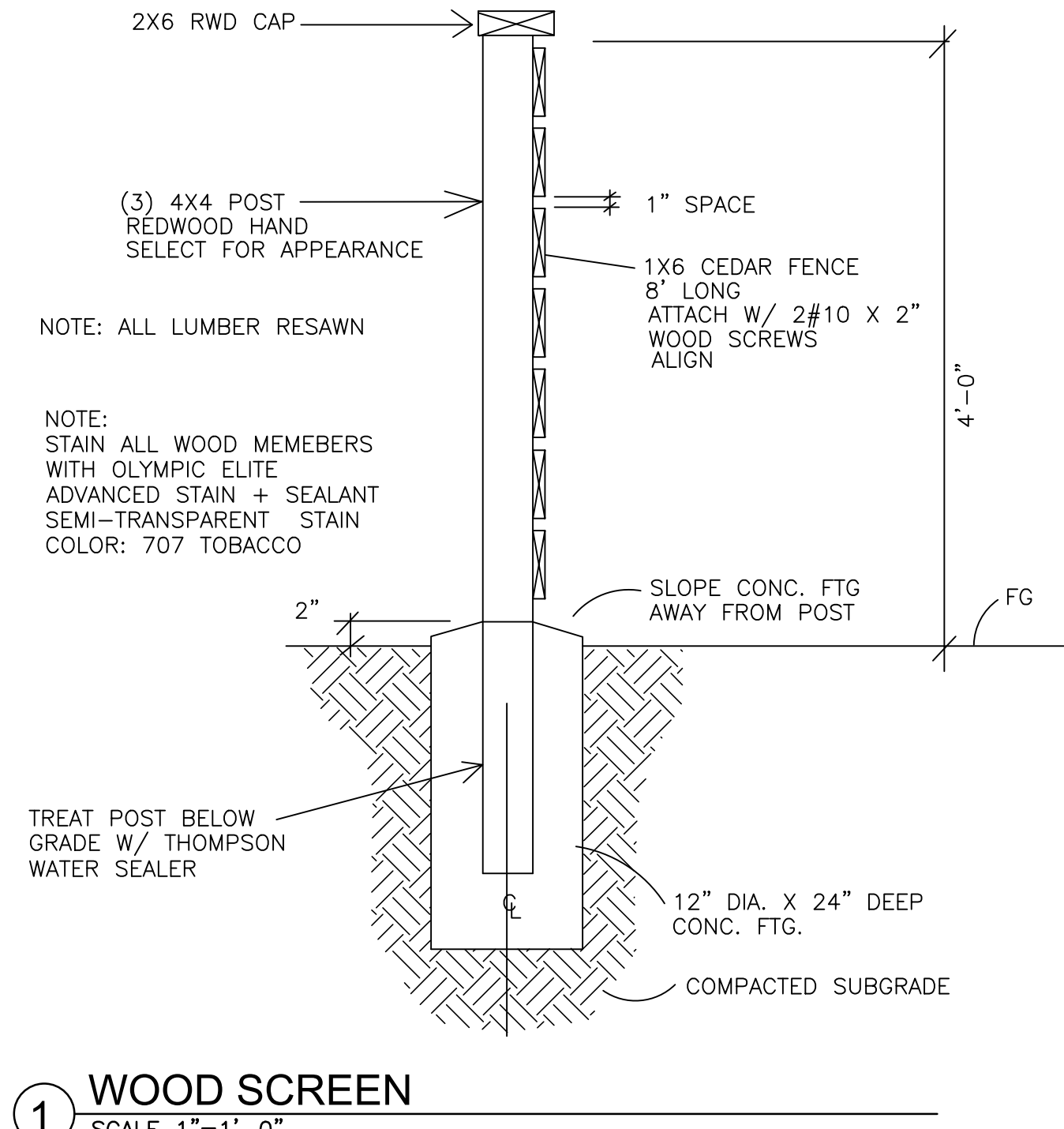
- TRANSFORMERS, BACKFLOWS, AND ALL ABOVE GRADE UTILITIES SHALL BE SCREENED PER CITY OF SIMI VALLEY DESIGN GUIDELINES.
- THIS PLAN COMPLIES WITH THE REQUIREMENTS OF THE CITY OF SIMI VALLEY MUNICIPAL CODE AND STATE WATER CONSERVATION ORDINANCES.
- THE STREET TREES/PLANT MATERIAL AND IRRIGATION SYSTEM WITHIN THE PROPERTY AND STREET RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE DEVELOPMENT/HOA/PROPERTY OWNER IN PERPETUITY AND PURSUANT TO SVMC 7-3.19

**PROJECT INFORMATION:**  
 TOTAL SITE: 50,944 SQ. FT.  
 EXTERIOR PARKING AREA: 972 SQ. FT.  
 EXTERIOR PARKING PERIMETER PLANTING: 173 SQ. FT.  
 TOTAL LANDSCAPE AREA: 7,737 SQ. FT.

**TREE MITIGATION**

TREE SIZE	QTY X UNIT	= COST
60" BOX TREES	4 X	\$3,000 = \$12,000
48" BOX TREES	5 X	\$1,250 = \$6,250
<b>TOTAL MITIGATION REPLACEMENT</b>		<b>= \$18,250</b>
<b>MITIGATION AMOUNT REQUIRED</b>		<b>= \$17,100</b>

NOTE:  
 1. THIS PLAN COMPLIES WITH THE REQUIREMENTS OF THE TREE REPORT PREPARED FOR THIS PROJECT, AND TREE MITIGATION OUTLINED THEREIN.  
 2. TREE LABELS IN PARENTHESES ON PLAN CORRESPOND TO THE LABELS IN THE TREE REPORT DATED APRIL 12, 2016



**1 WOOD SCREEN**  
 SCALE 1"=1'-0"

**JORDAN, GILBERT & BAIN**  
 LANDSCAPE ARCHITECTS, INC.  
 459 N. VENTURA AVE., VENTURA CA 93001  
 (805) 642-3641 FAX (805) 653-7874  
 Jordan, Gilbert & Bain Landscape Architects, Inc. © 2018



NO.	DATE	DESCRIPTION

**CLIENT**  
**FABIO MALEK**  
 211 PASEO DE SUEÑA  
 REDONDO BEACH, CA  
 PHONE: (310) 918-5455

**PROJECT**  
**28 UNIT APARTMENT COMPLEX**  
 1424 PATRICIA AVE.  
 SIMI VALLEY, CA 93065  
 APN: 632-0-080-085

DRAWN: MHB	DATE: 10/4/18
CHECKED: MG	DATE:
PRINTED FOR:	DATE:
SUBMITTAL:	DATE:
BID:	DATE:
CONSTRUCTION:	DATE:

DRAWING  
**L2.1**  
 SHEET 3 OF 7  
 PROJECT No. 16.51

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NO.	DATE	DESCRIPTION

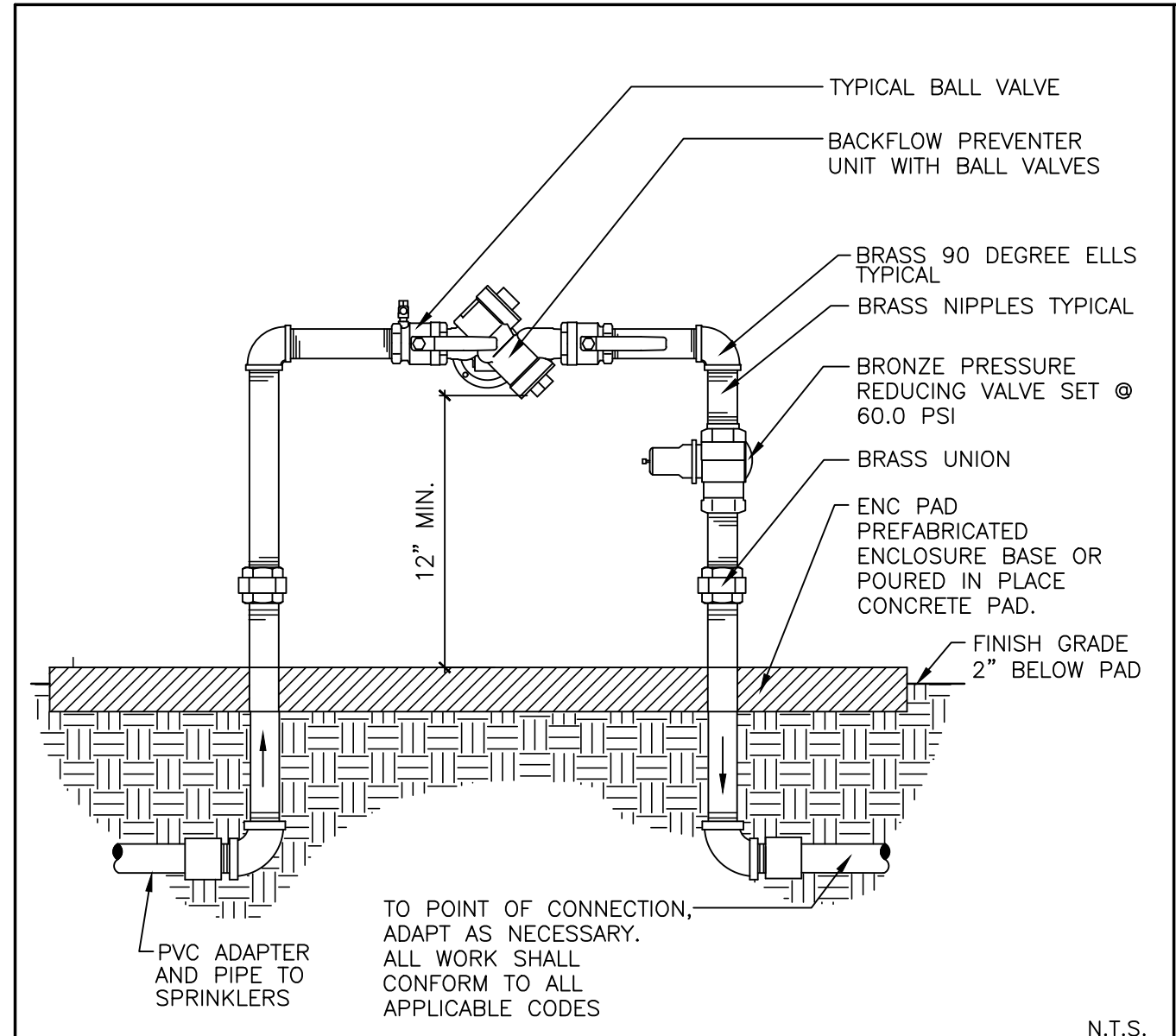
CLIENT  
**FABIO MALEK**  
 211 PASEO DE SUEÑA  
 REDONDO BEACH, CA  
 PHONE: (310) 918-5455

SHEET TITLE  
**LANDSCAPE DETAILS**

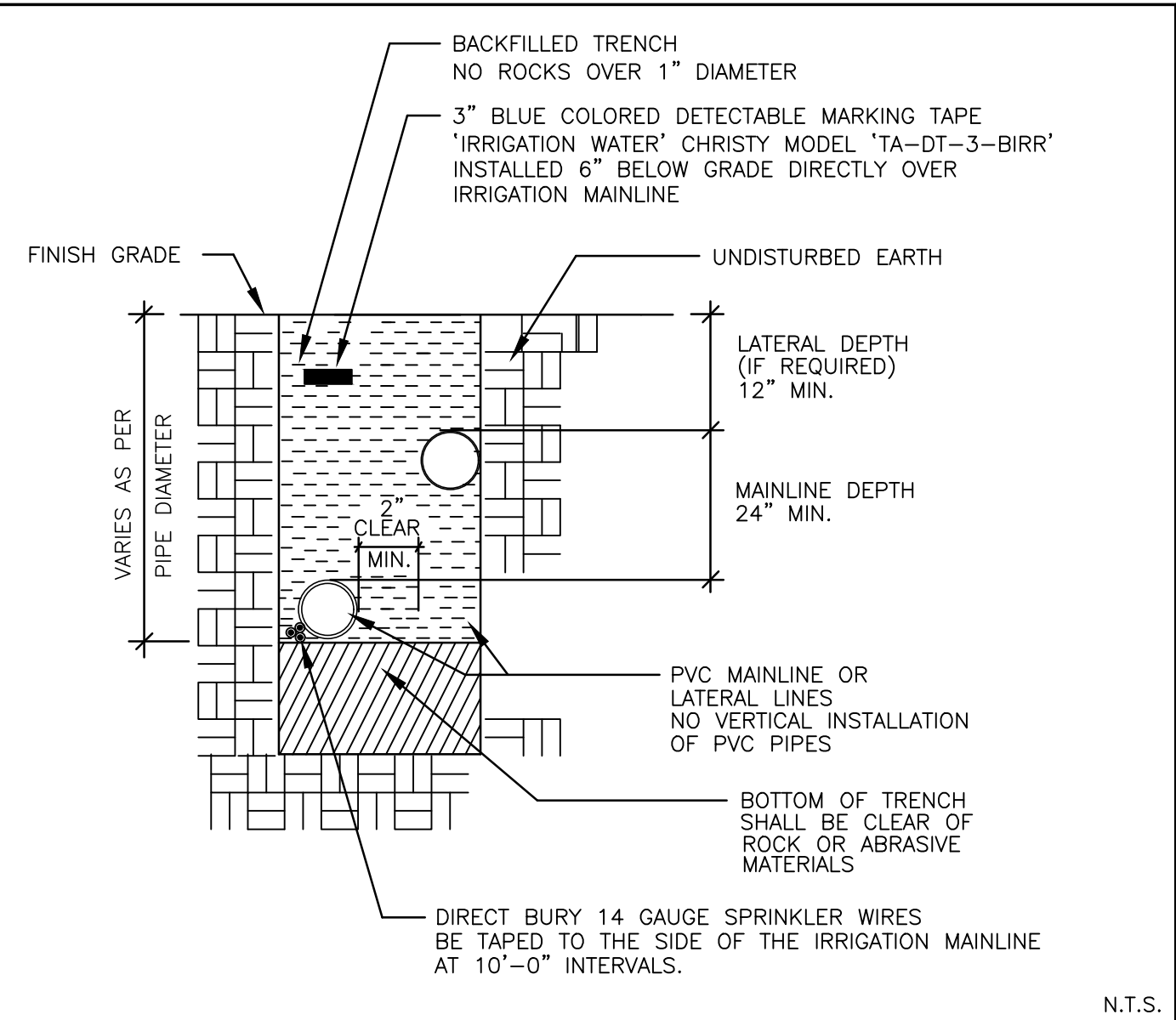
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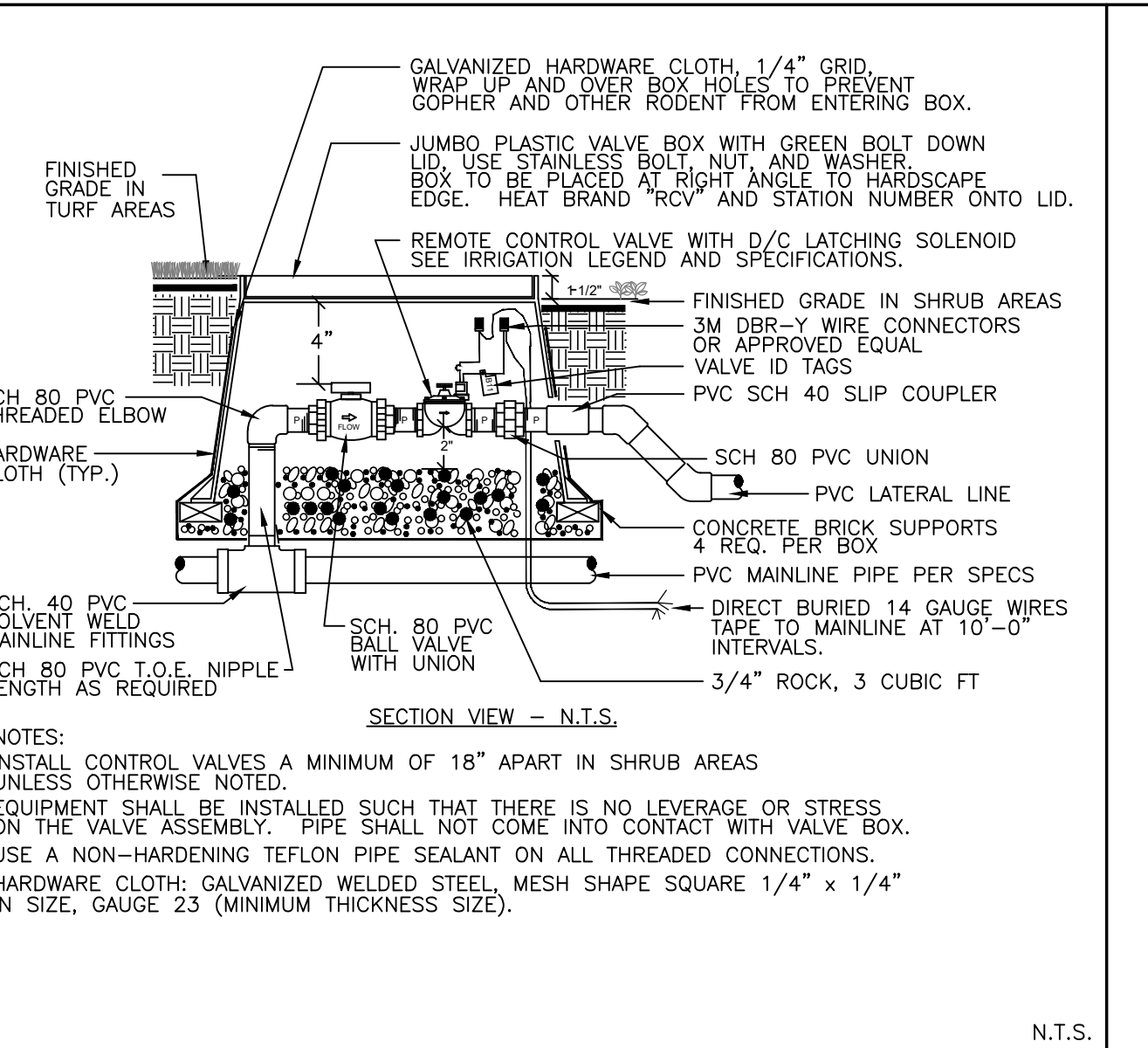
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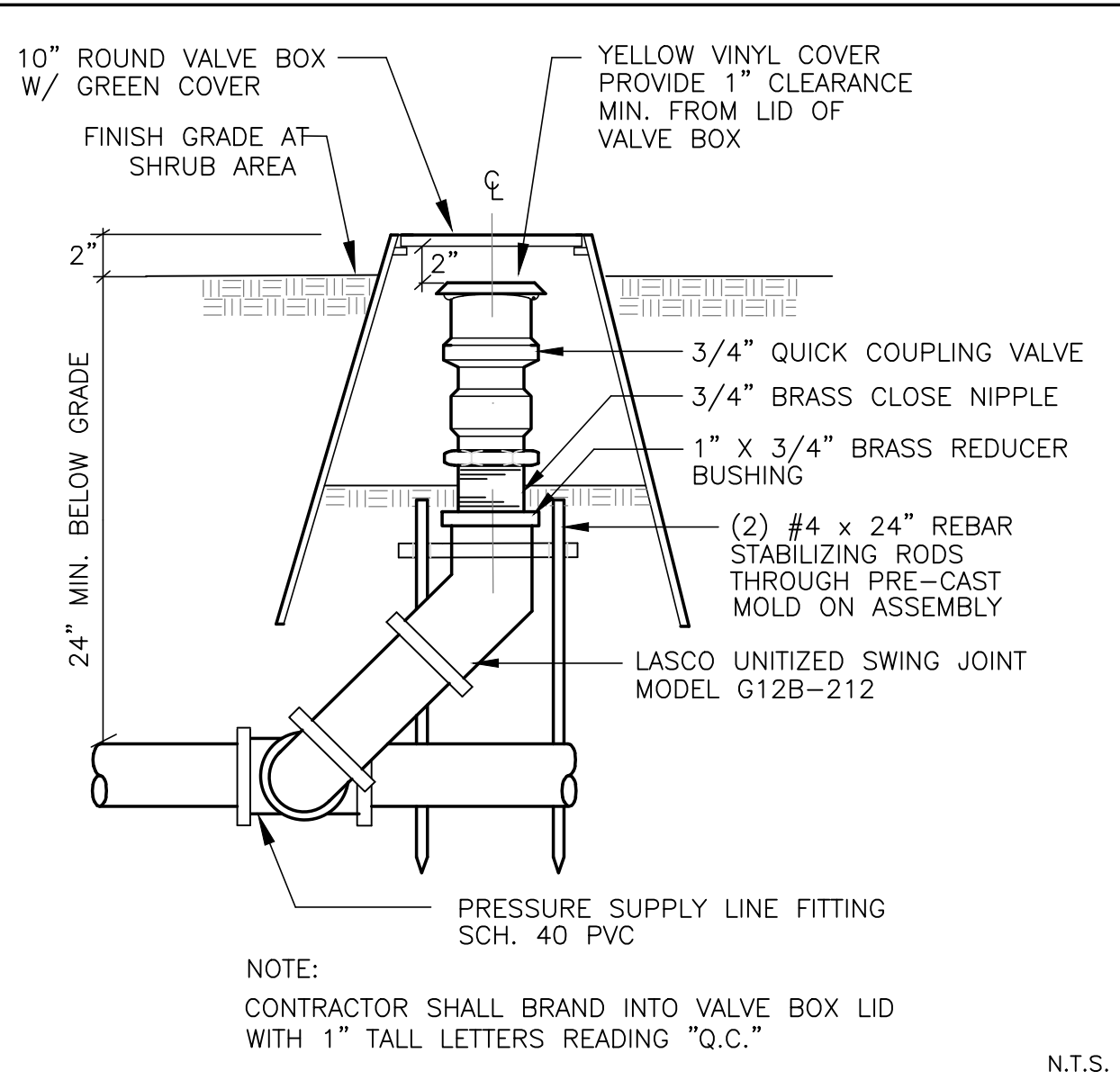
1 BACKFLOW DEVICE N.T.S.



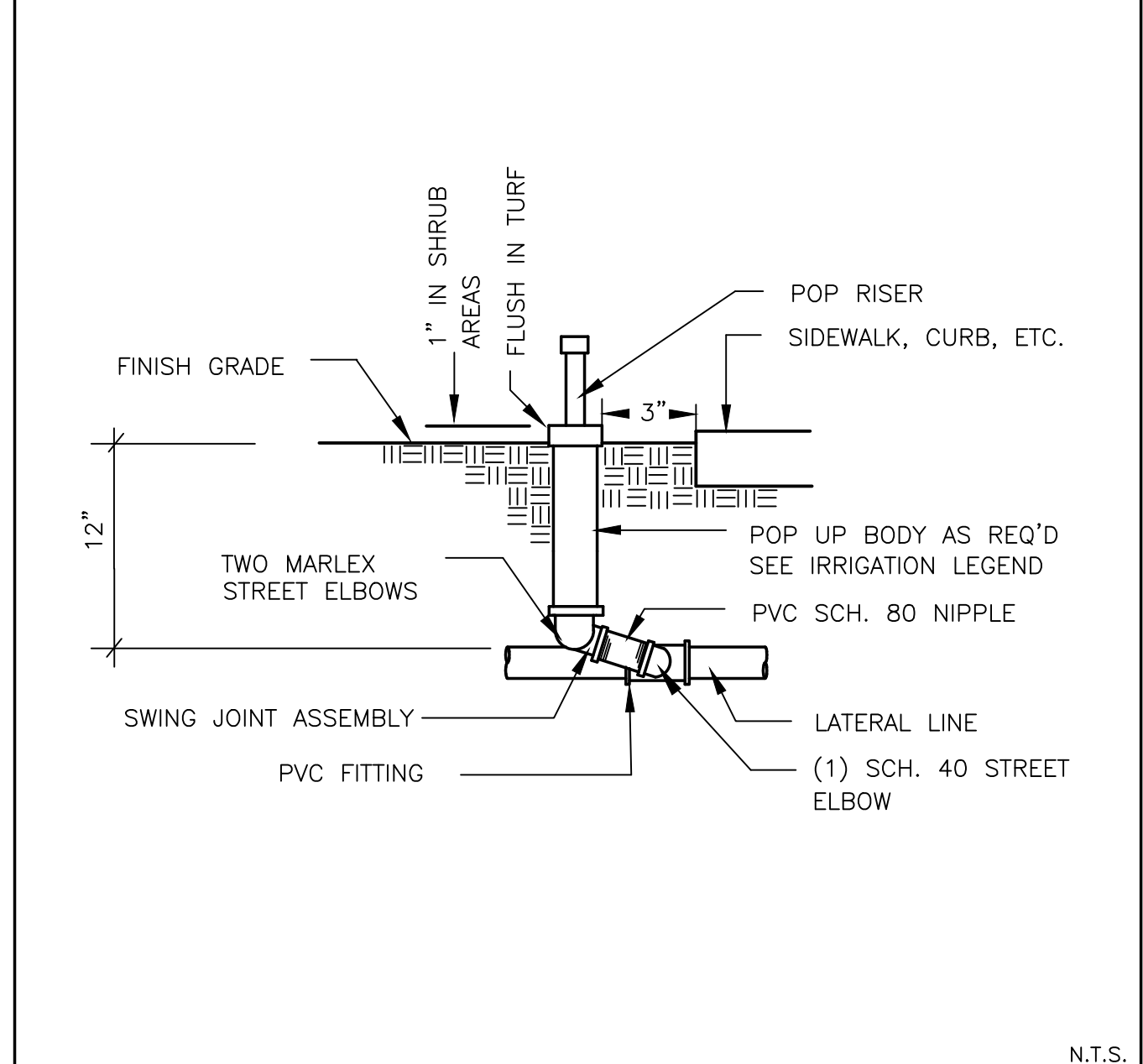
2 IRRIGATION PIPE AND CONDUIT TRENCH SECTION N.T.S.



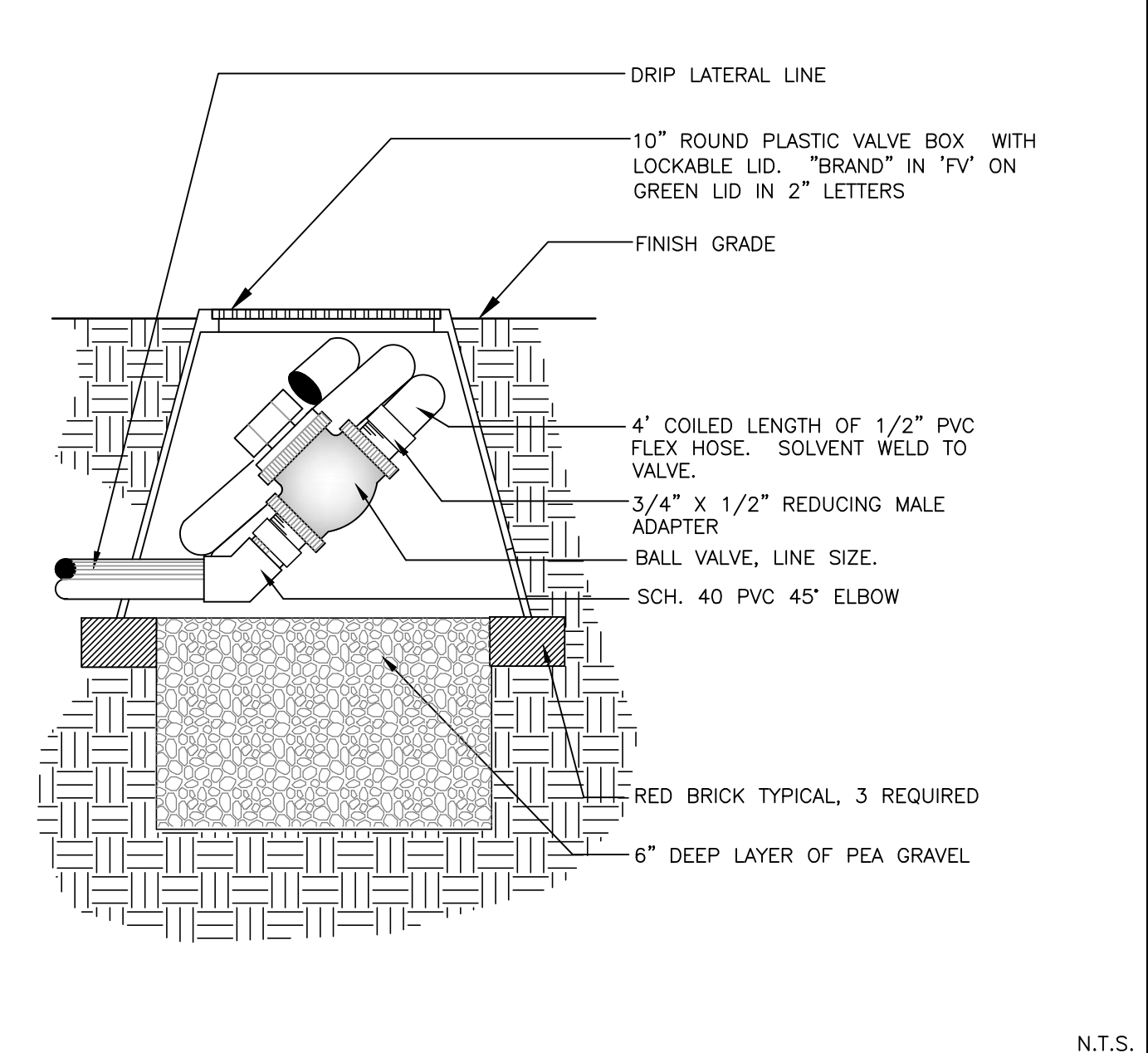
3 REMOTE CONTROL VALVE N.T.S.



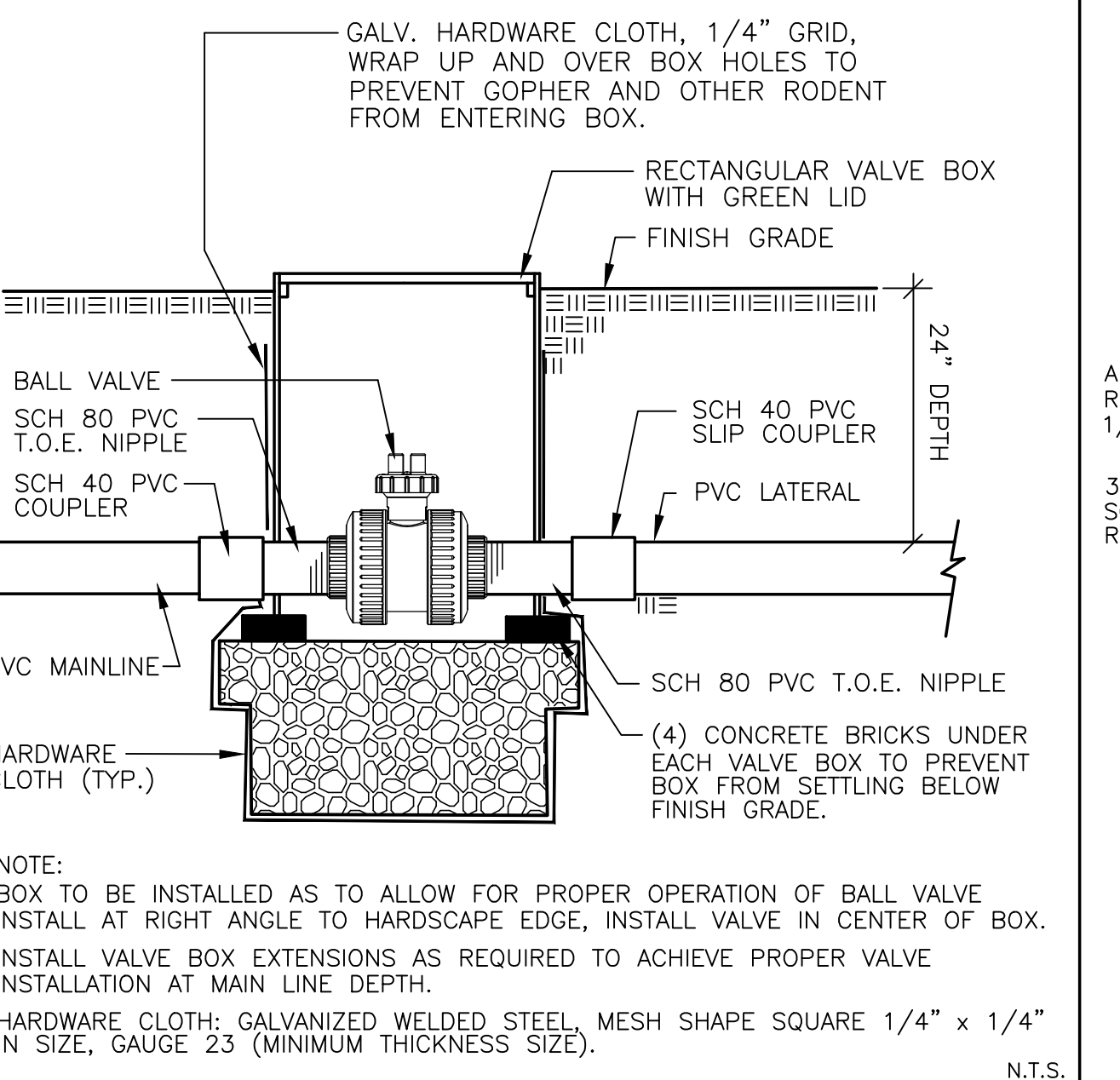
4 QUICK COUPLER N.T.S.



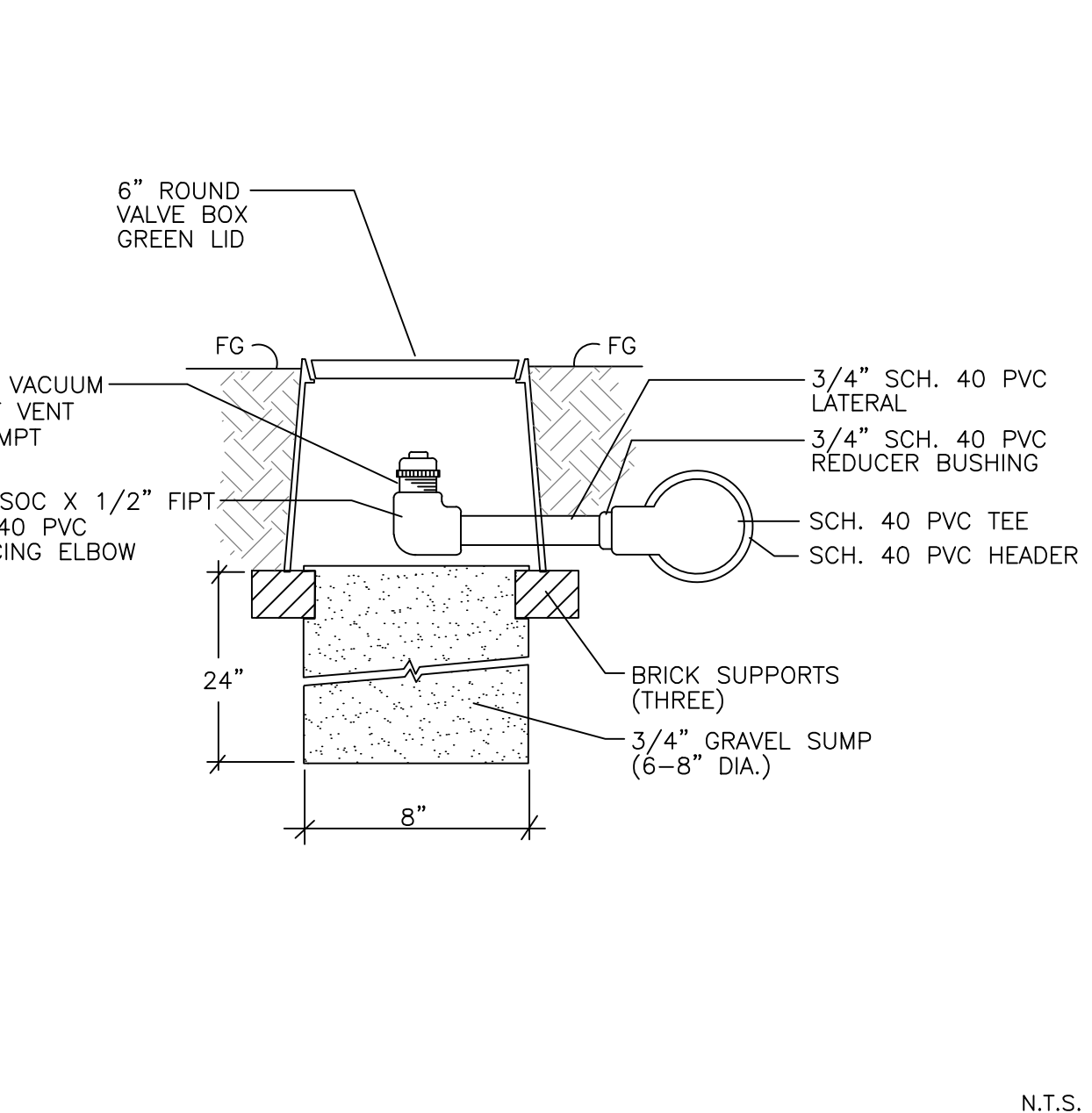
5 DRIP SYSTEM OPERATION INDICATOR N.T.S.



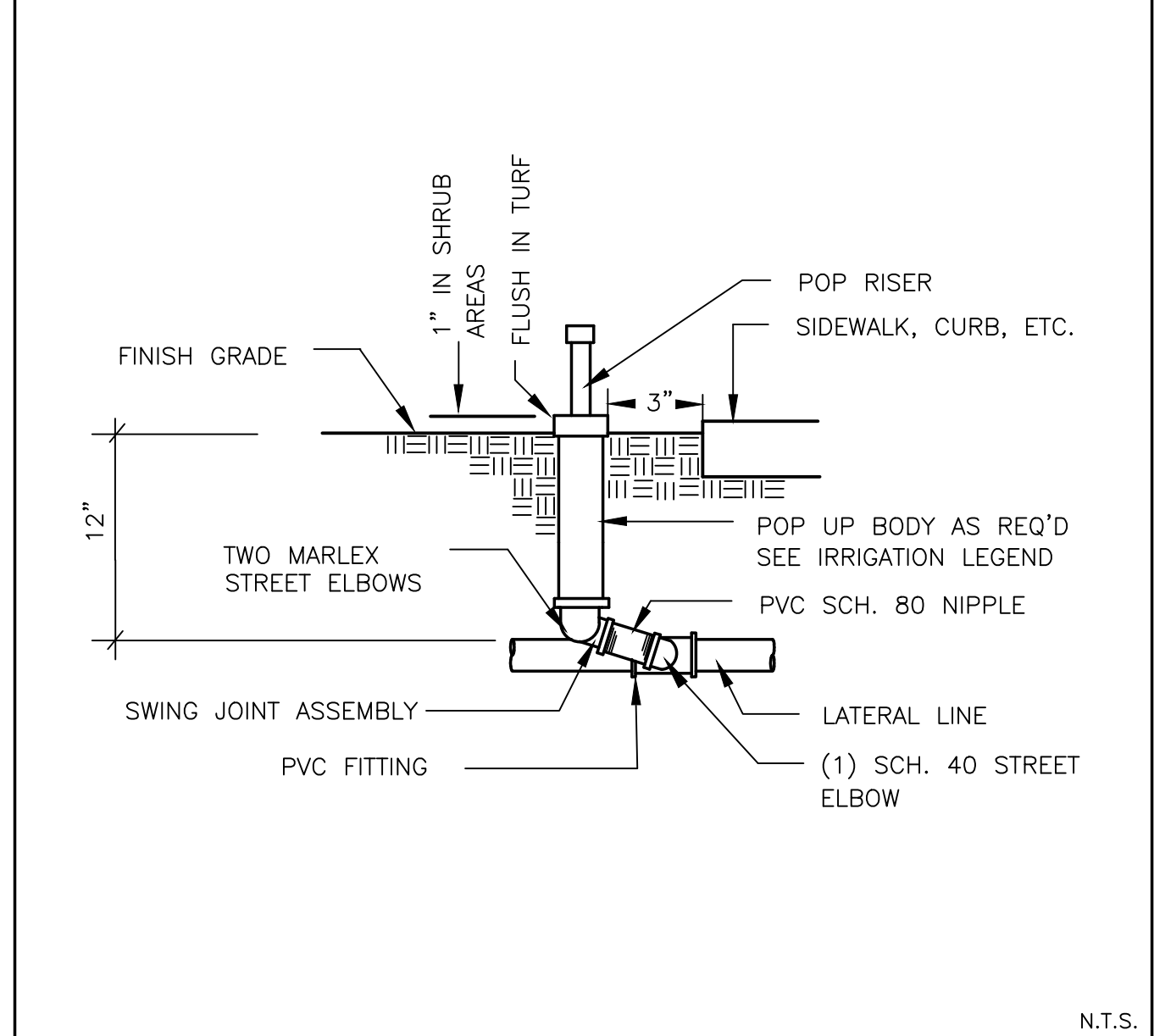
6 DRIP SYSTEM FLUSH VALVE N.T.S.



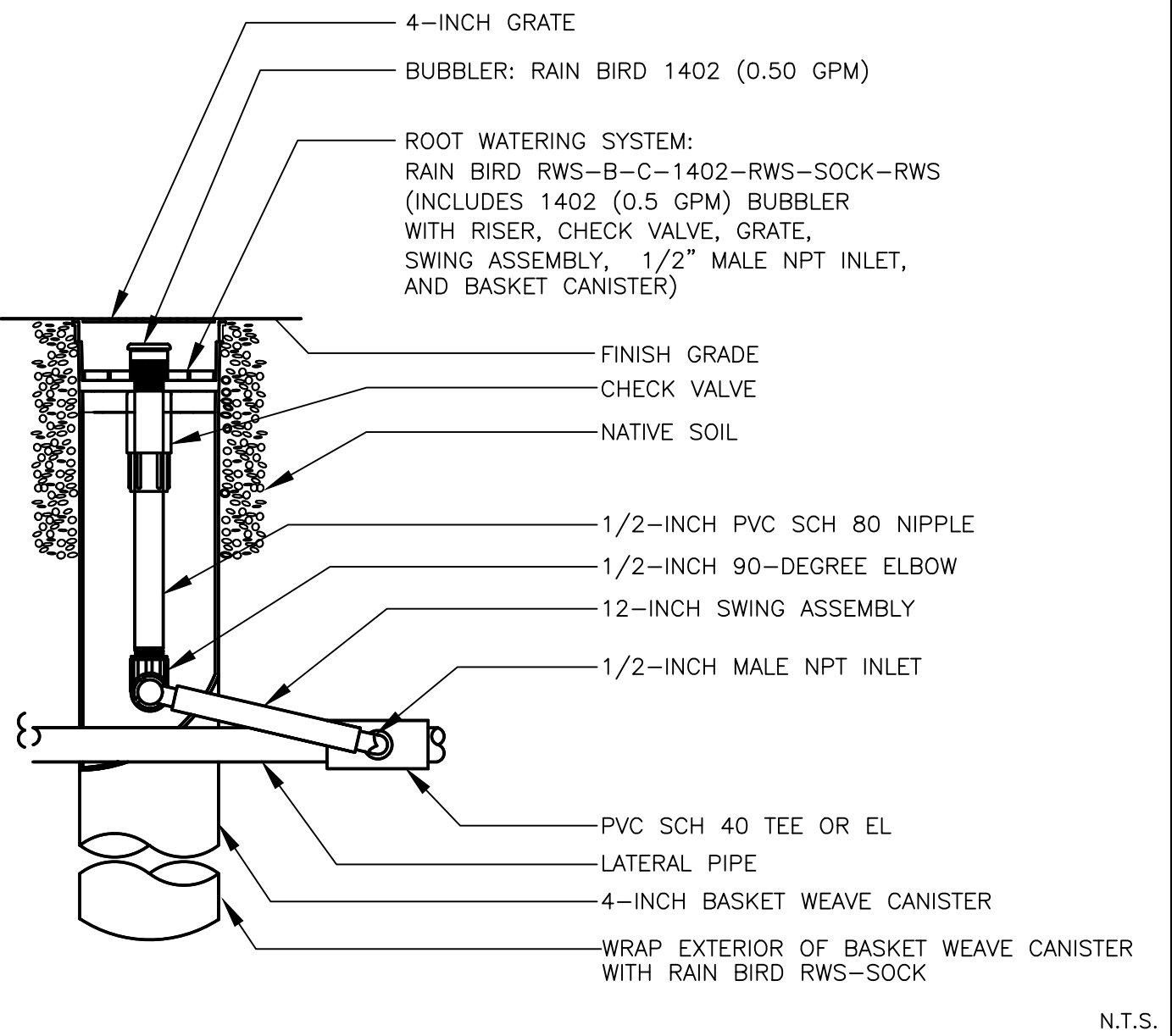
7 SCH. 80 PVC BALL VALVE ON 1-1/2" PVC MAINLINE OR LESS N.T.S.



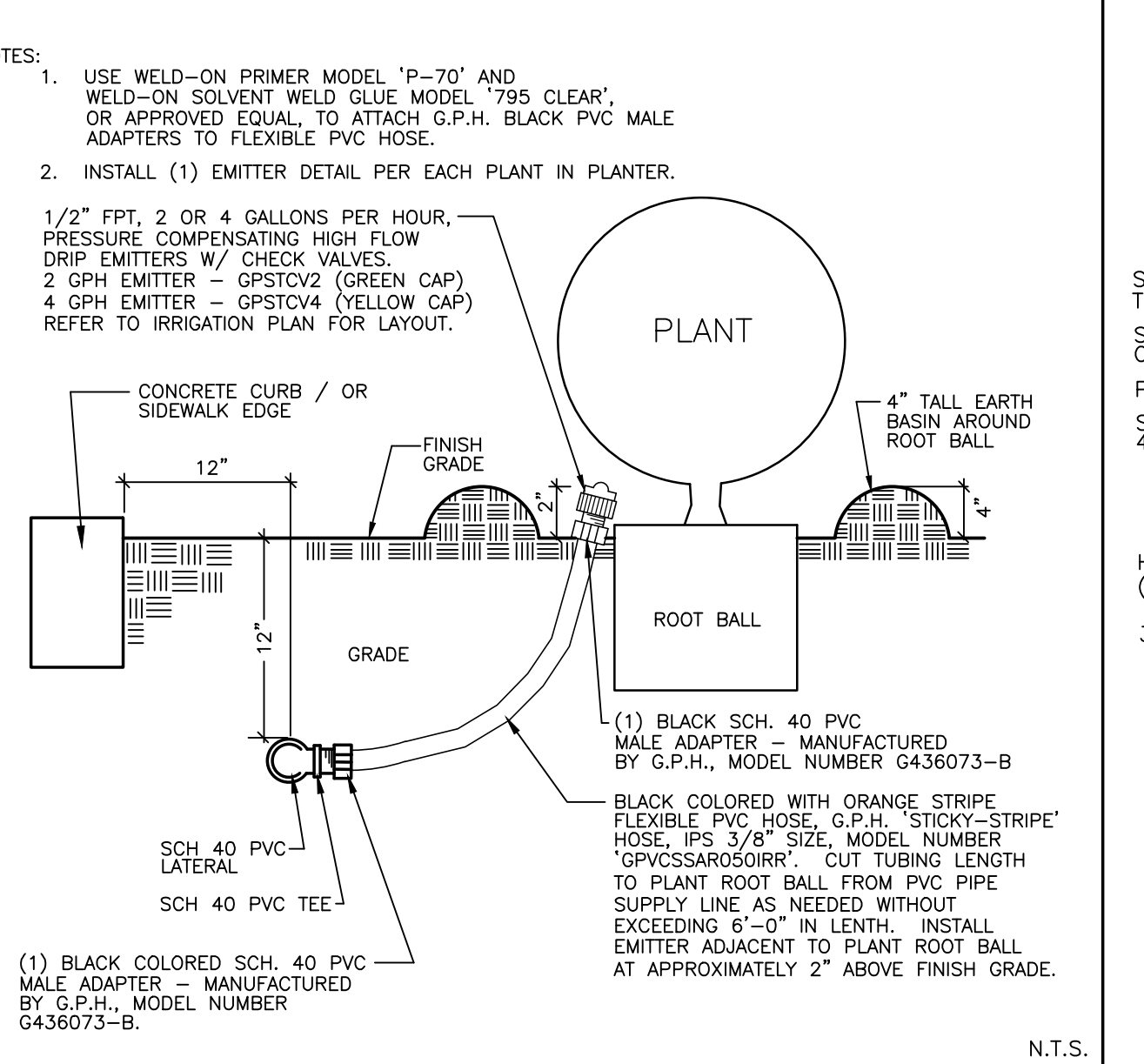
8 DRIPLINE TUBING SYSTEM - AIR / VACUUM RELIEF VALVE N.T.S.



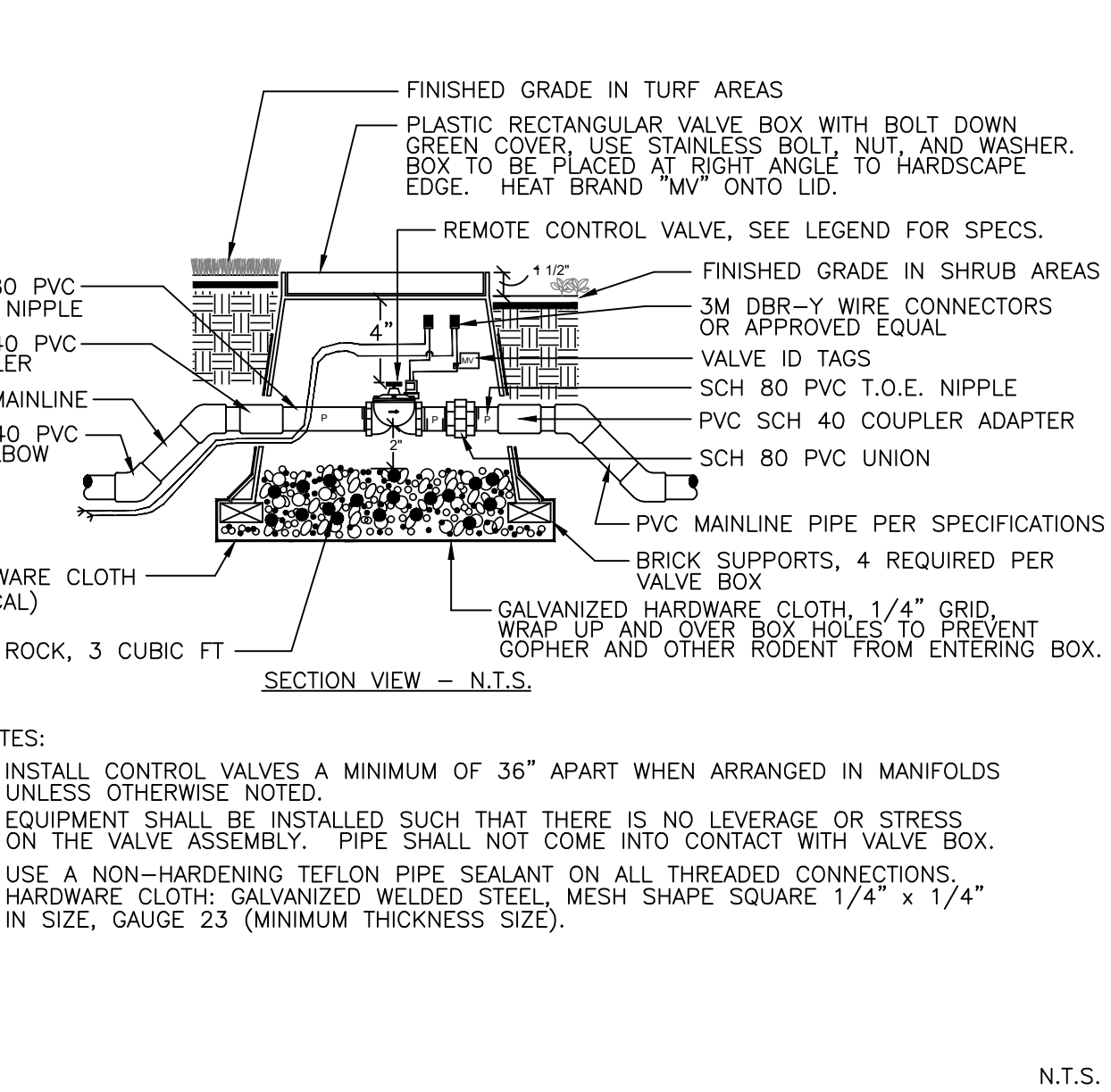
9 POP-UP SPRAY HEAD N.T.S.



10 ROOT WATERING SYSTEM N.T.S.



11 DRIP OR HIGH FLOW DRIP EMITTER ON FLEXIBLE PVC PIPE N.T.S.



12 NORMALLY CLOSED MASTER VALVE N.T.S.



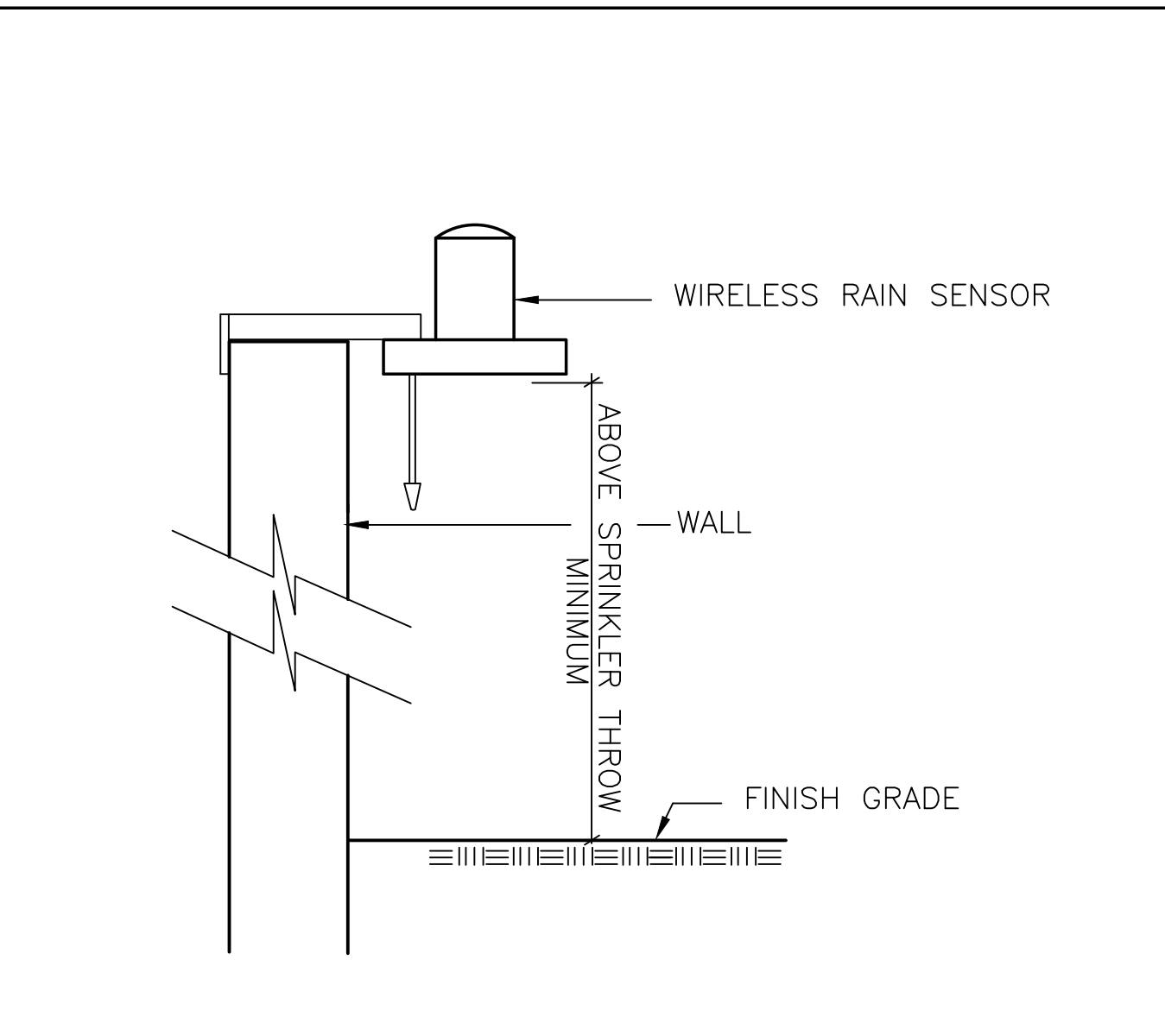
NO.	DATE	BY	DESCRIPTION
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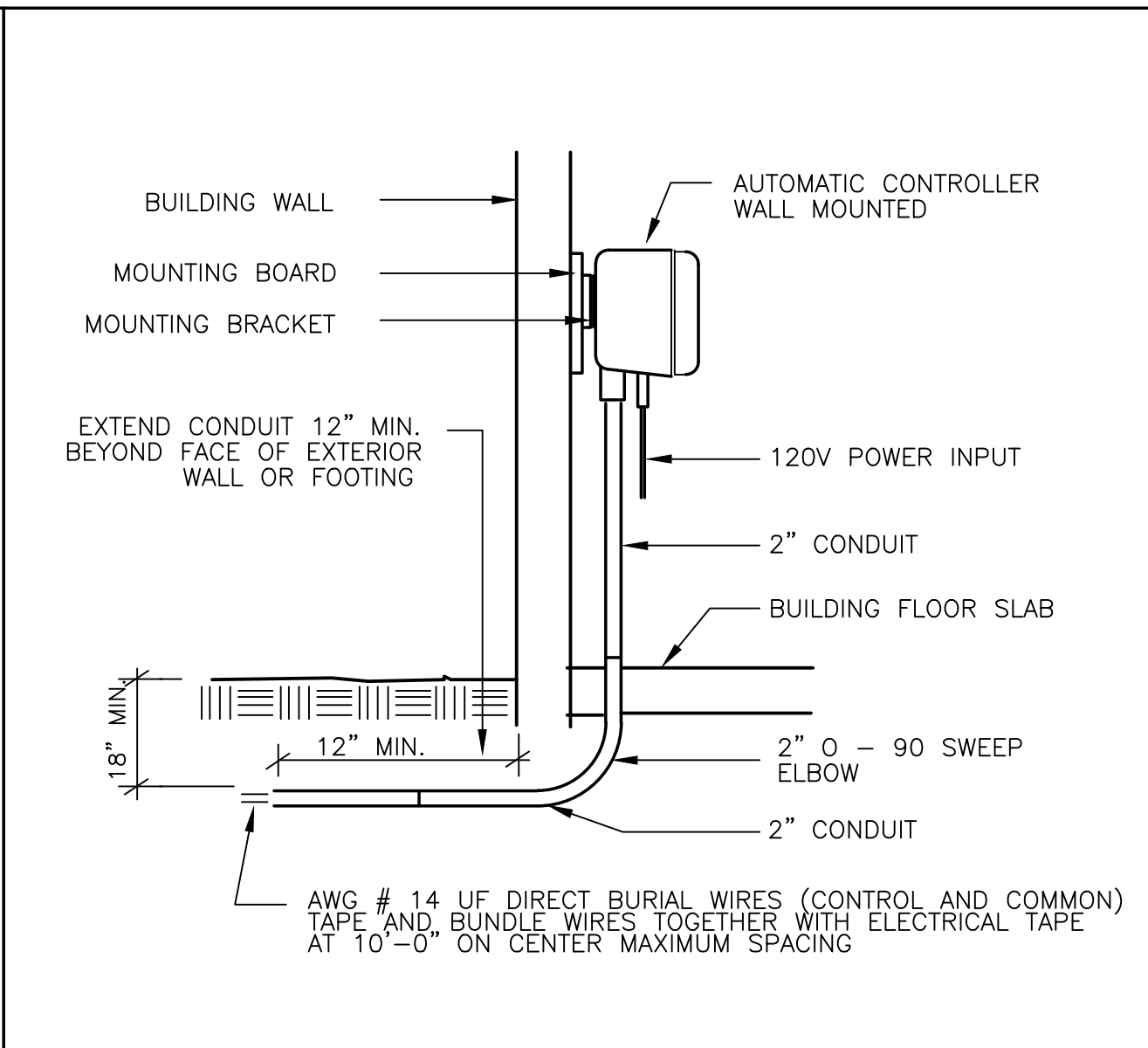
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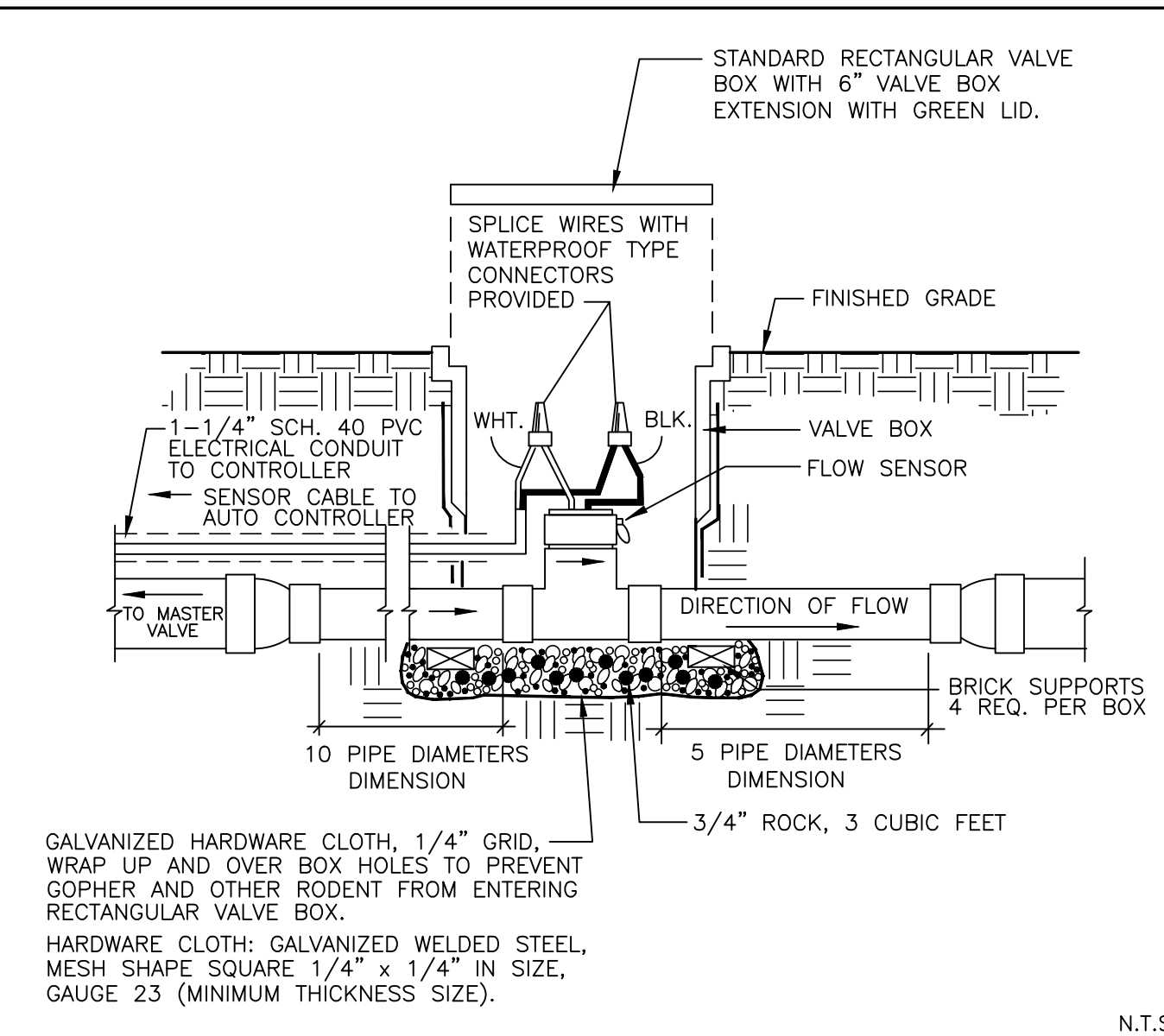
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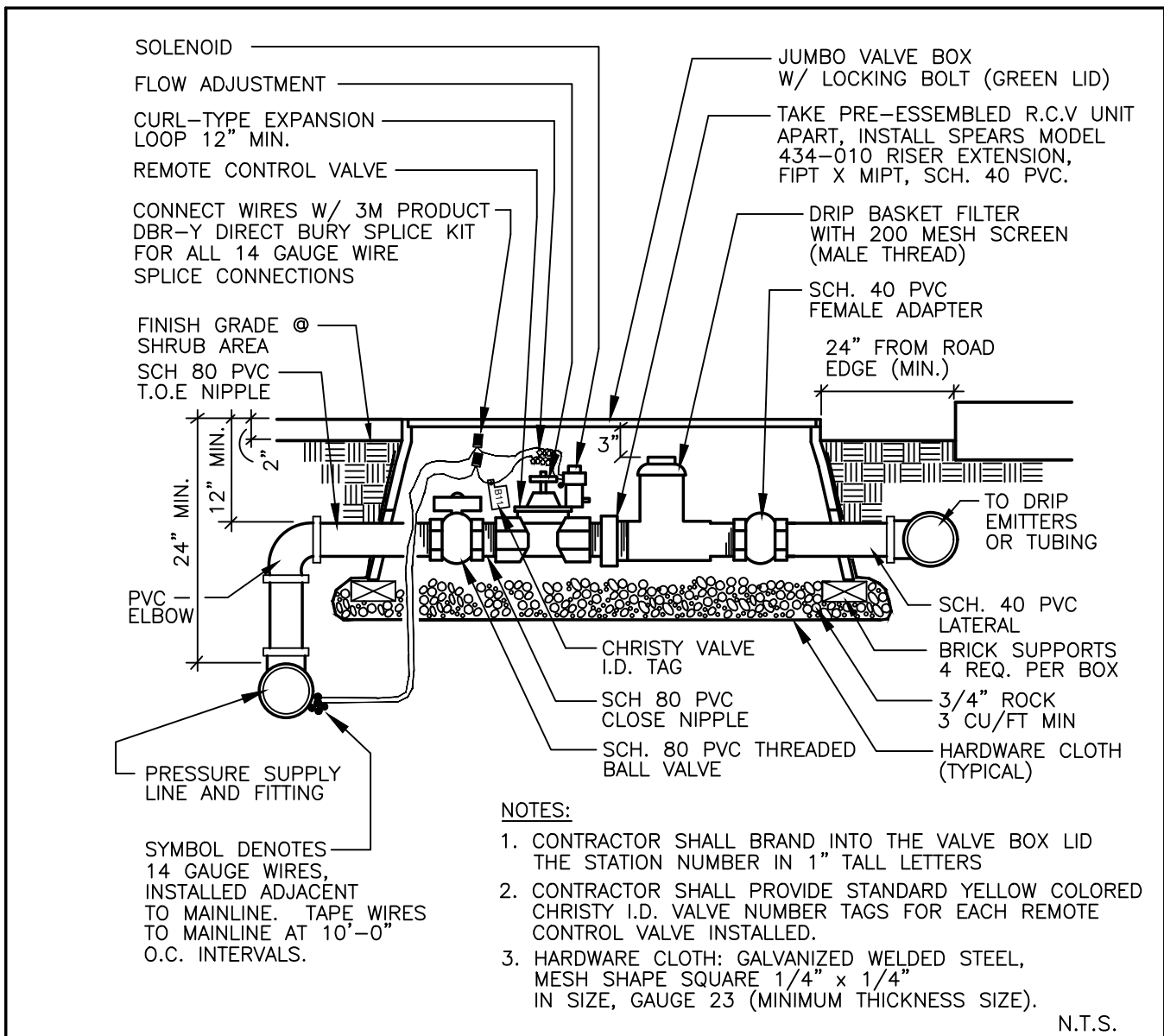
4 WIRELESS RAIN SENSOR



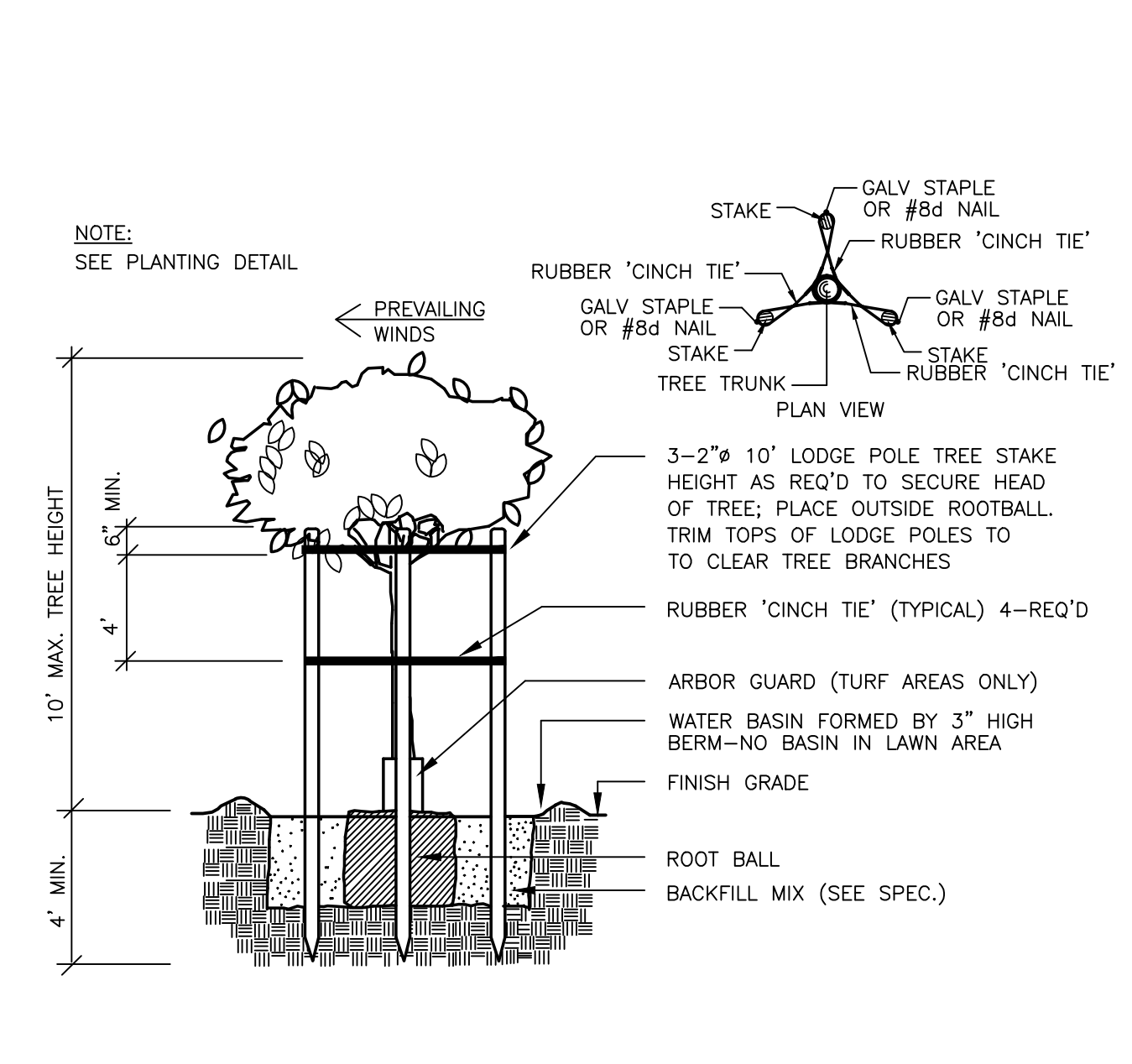
3 AUTO CONTROLLER



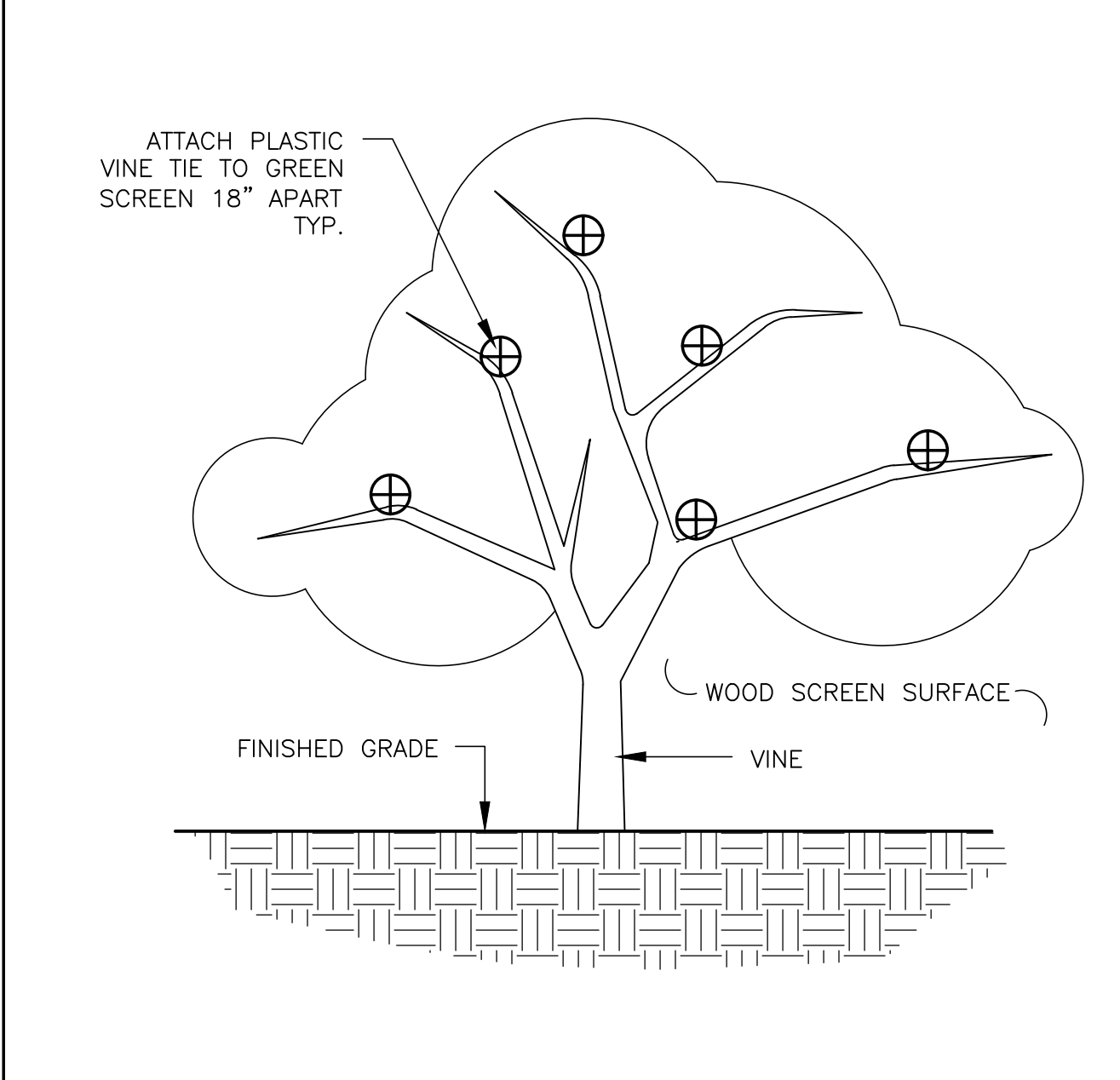
2 FLOW SENSOR



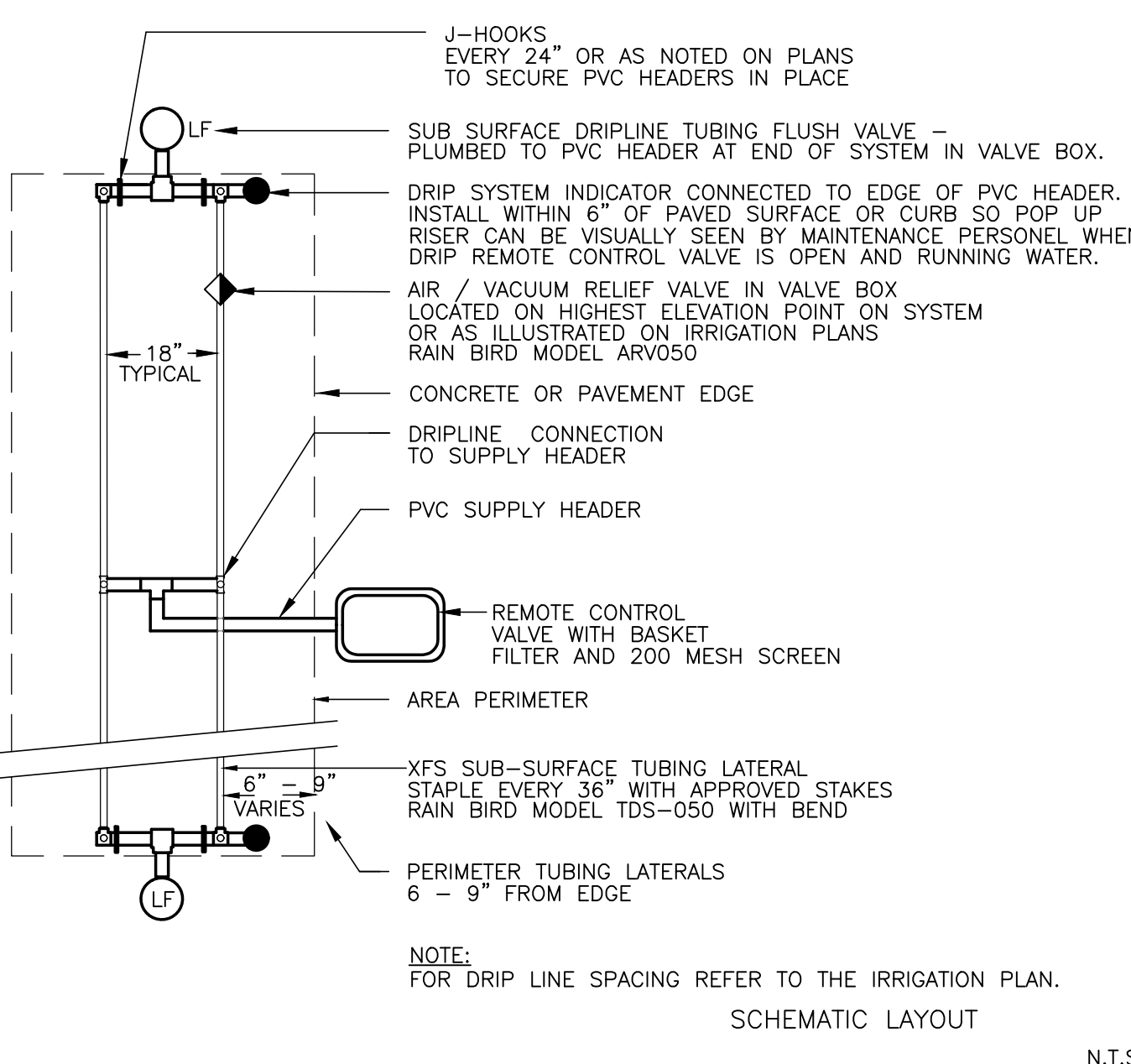
1 REMOTE CONTROL VALVE ASSEMBLY FOR DRIP SYSTEM



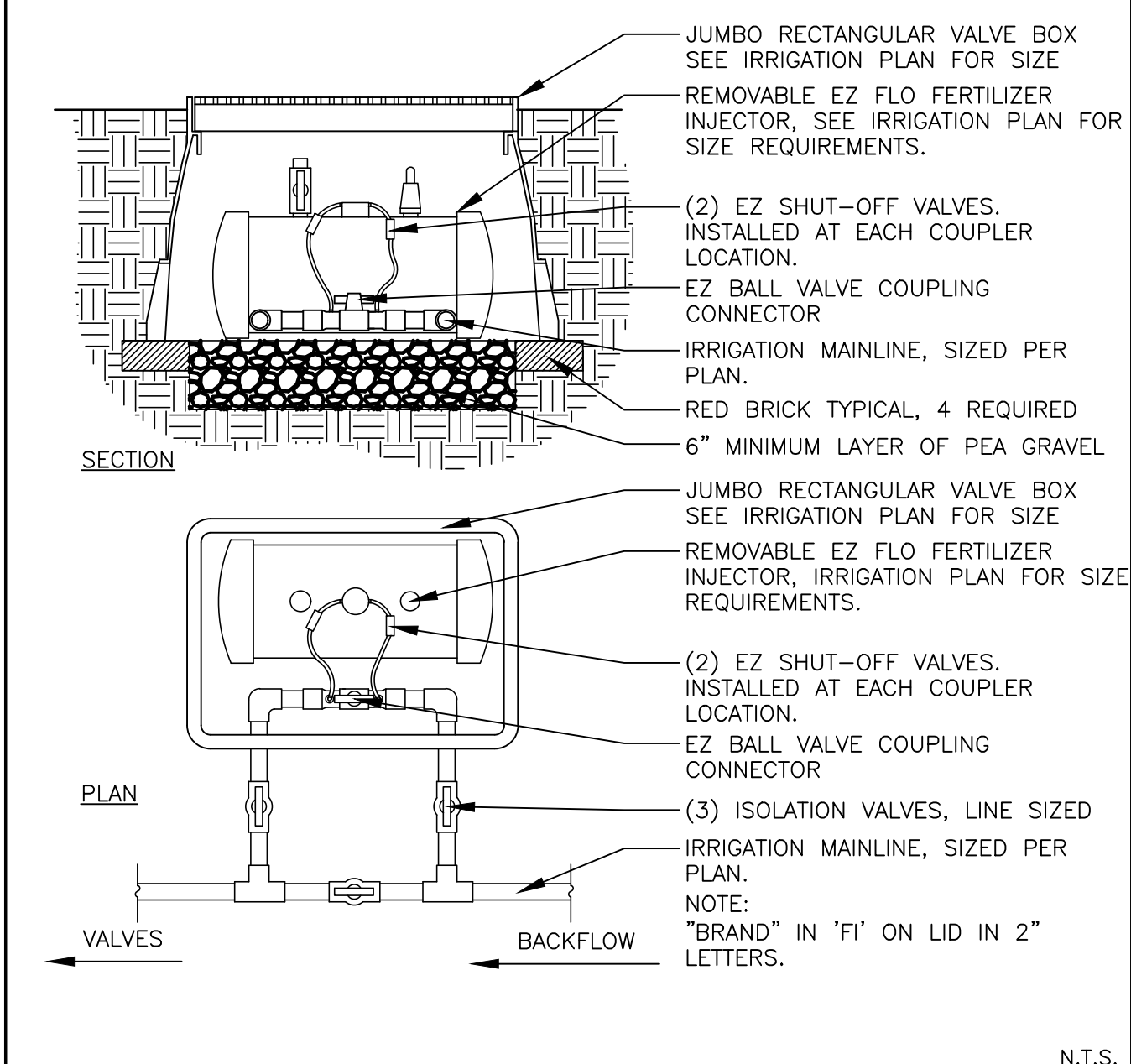
8 TREE STAKING - 36" BOX SIZE TO 48" BOX SIZE



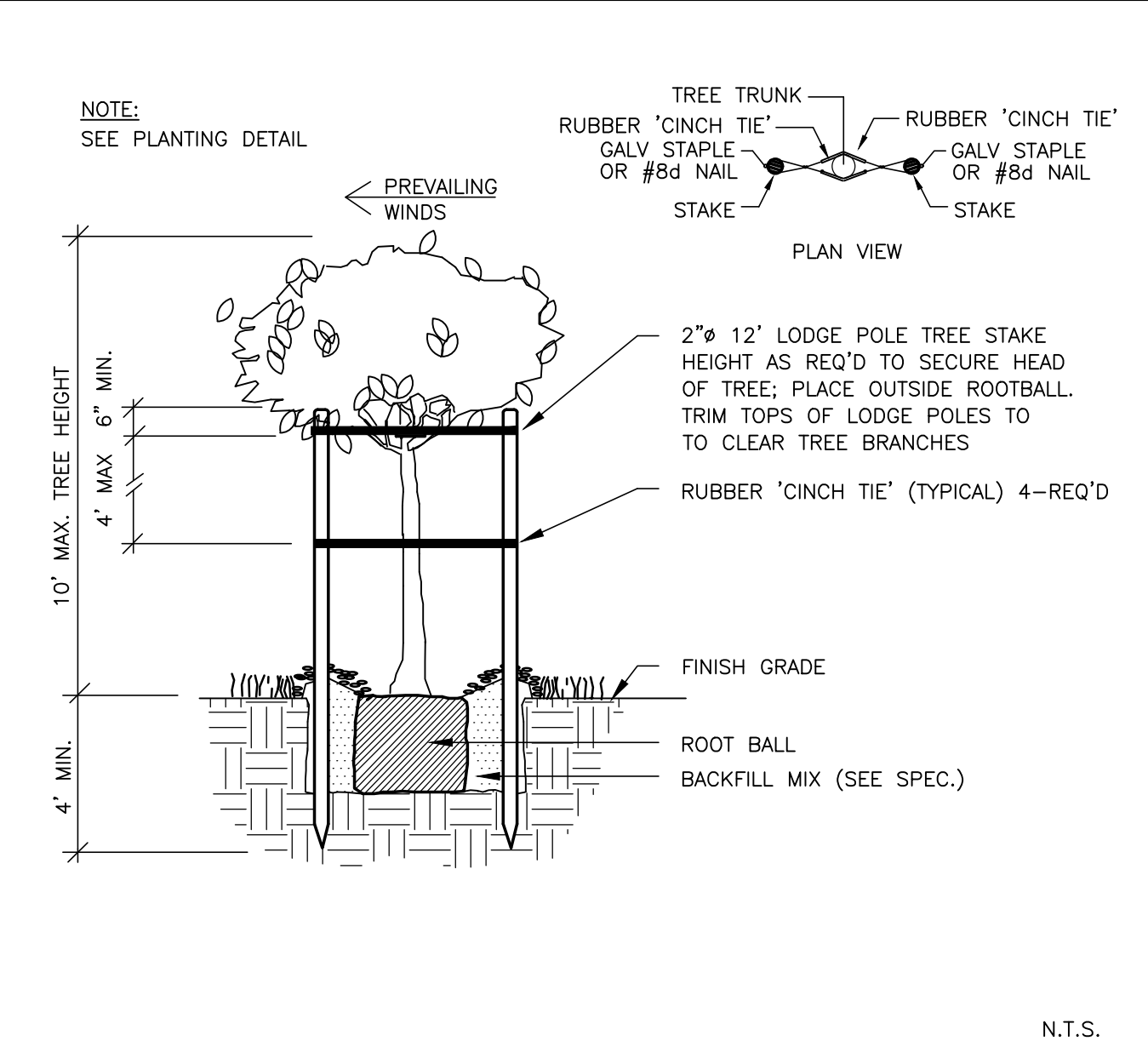
7 VINE PLANTING ON WALLS



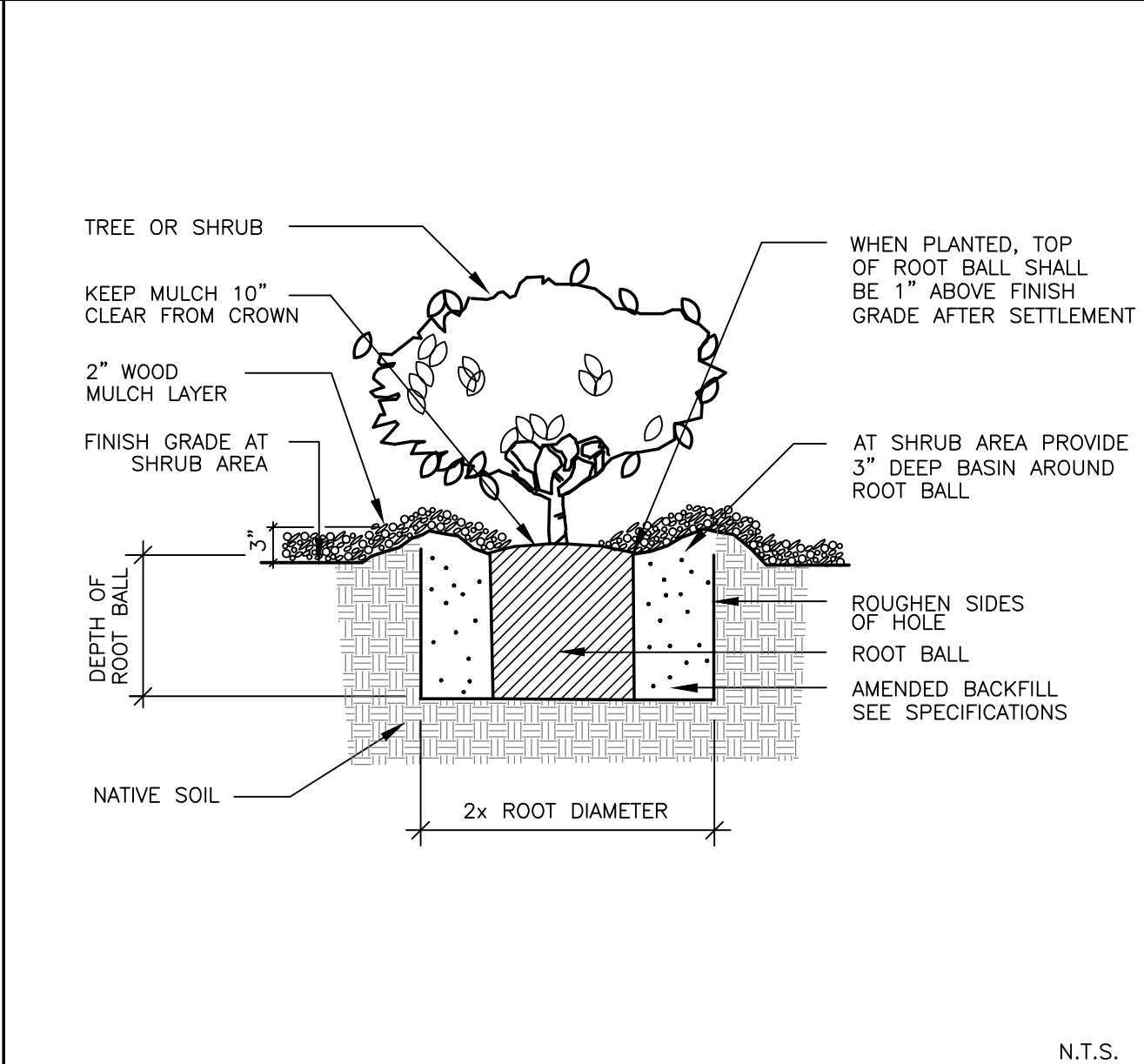
6 TYPICAL SUB-SURFACE TUBING PLUMBED WITH CENTER FEED



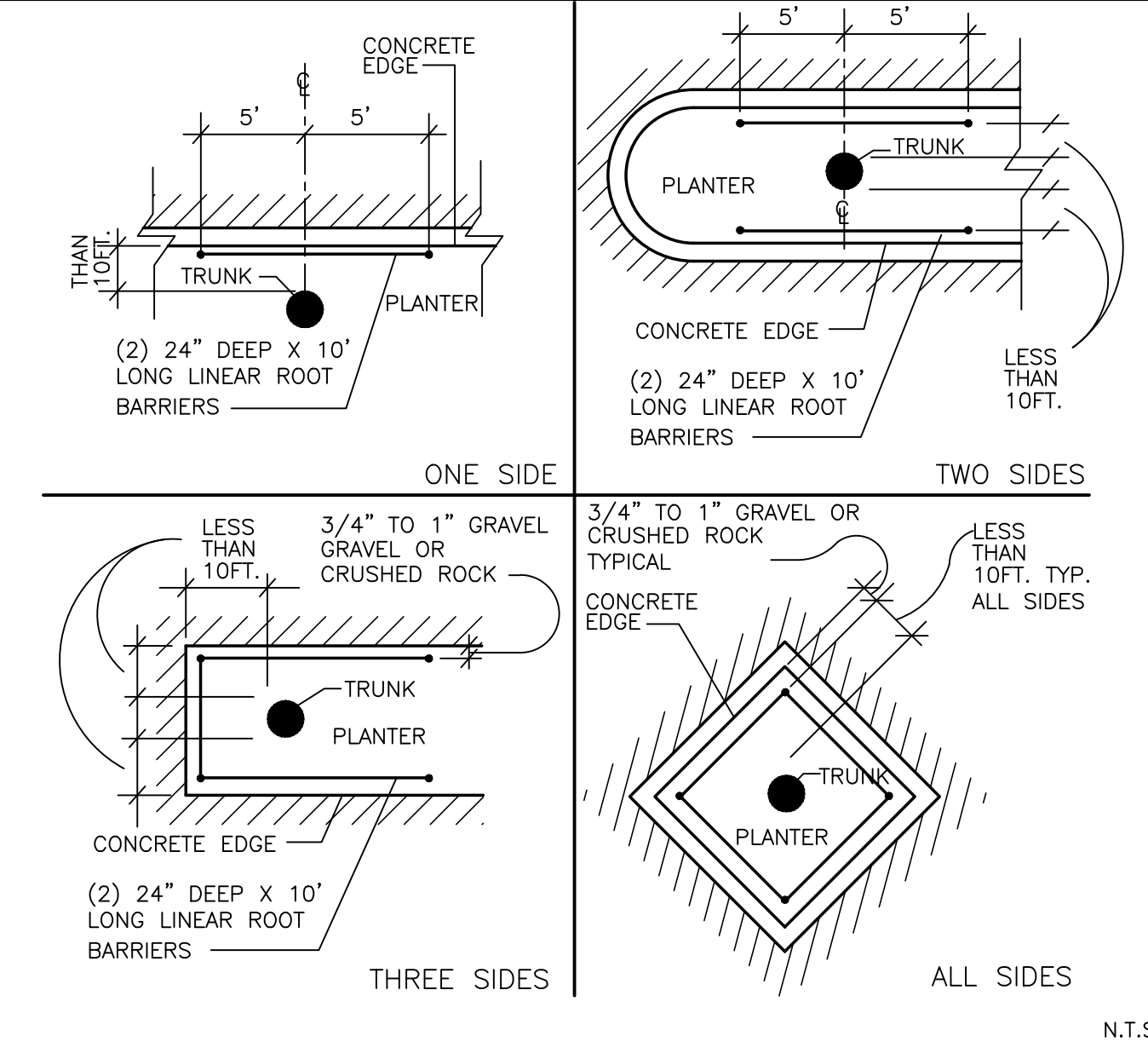
5 LIQUID FERTILIZER DISPENSER



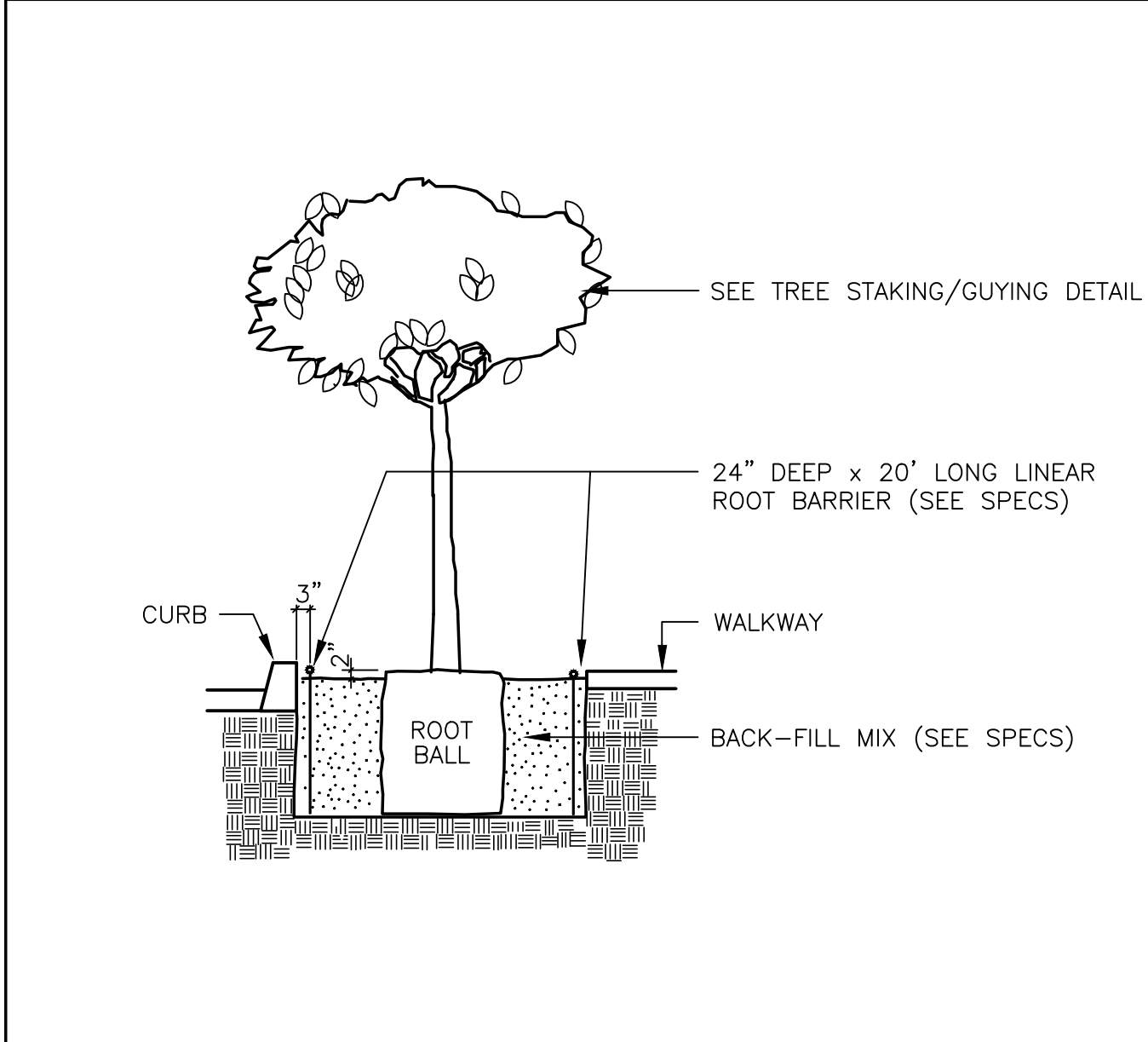
11 TREE STAKING - 24" BOX SIZE



10 SHRUB & TREE PLANTING



9 ROOT BARRIER - SECTION & PLAN VIEWS



9 ROOT BARRIER - SECTION & PLAN VIEWS



**SECTION 02830 - IRRIGATION SYSTEM**

PART 1 GENERAL

1.01 SECTION INCLUDES

GENERAL REQUIREMENTS FOR IRRIGATION SYSTEM.

1.02 DESCRIPTION

FURNISH ALL LABOR, MATERIALS, EQUIPMENT, AND OPERATIONS REQUIRED TO COMPLETE THE INSTALLATION OF THE IRRIGATION SYSTEM.

1.03 REQUIREMENTS AND REGULATORY AGENCIES

A. COMPLY WITH ALL LOCAL AND STATE CODES, ORDINANCES, SAFETY ORDERS, AND REGULATIONS OF ALL LEGALLY CONSTITUTED AUTHORITIES HAVING JURISDICTION OVER THIS WORK.

B. OBTAIN AND PAY FOR ALL PLUMBING PERMITS AND ALL INSPECTIONS REQUIRED BY AUTHORITIES STATED ABOVE.

C. NOTIFY THE LANDSCAPE ARCHITECT IN THE EVENT ANY EQUIPMENT OR METHODS INDICATED ON THE DRAWINGS OR IN THE SPECIFICATIONS CONFLICT WITH LOCAL CODES, PRIOR TO INSTALLATION.

1.04 RECORD DRAWINGS

A. THE CONTRACTOR SHALL MAINTAIN A COMPLETE AND ACCURATE SET OF "AS BUILT" DRAWINGS. THESE DRAWINGS SHALL BE KEPT UP TO DATE WITH THE PROGRESS OF THE WORK. THE OWNER SHALL FURNISH A SET OF DRAWINGS ON WHICH TO RECORD "AS BUILT" CONDITIONS. AS-BUILTS SHALL BE UPDATED ON A WEEKLY BASIS.

B. THE CONTRACTOR SHALL INDICATE CLEARLY AND CORRECTLY WORK INSTALLED DIFFERENTLY FROM THAT SHOWN ON THE CONTRACT DRAWINGS BY DIMENSIONING FROM TWO PERMANENT POINTS OF REFERENCE. SHOW CONNECTIONS TO EXISTING WATER LINES, GATE VALVES, PRESSURE SUPPLY PIPE, CONTROL VALVES, QUICK COUPLERS AND CONTROL WIRING.

C. ON COMPLETION OF THE WORK, THE CONTRACTOR SHALL OBTAIN ONE (1) SET OF THE IRRIGATION DRAWINGS FROM THE LANDSCAPE ARCHITECT, AND ALL CHANGES AS NOTED ON THE RECORD SET SHALL BE DRAWN ON THE PRINTS. THE PRINTS SHALL BE SIGNED BY THE CONTRACTOR AS COMPLETE AND ACCURATE "RECORD DRAWINGS." THIS SET OF PRINTS SHALL BE DELIVERED TO THE LANDSCAPE ARCHITECT.

1.05 CONTROLLER CHARTS

A. RECORD DRAWINGS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT BEFORE CHARTS ARE PREPARED.

B. PROVIDE ONE CONTROLLER CHART FOR EACH CONTROLLER SUPPLIED.

C. THE CHART SHALL SHOW THE AREA CONTROLLED BY THE AUTOMATIC CONTROLLER AND SHALL BE THE MAXIMUM-SIZE CONTROLLER THE DOOR WILL ALLOW.

D. THE CHART IS TO BE A REDUCED DRAWING OF THE ACTUAL RECORD DRAWINGS. HOWEVER, IN THE EVENT THE CONTROLLER SEQUENCE IS NOT LEGIBLE WHEN THE DRAWING IS REDUCED, IT SHALL BE ENLARGED TO A SIZE THAT WILL BE READABLE WHEN REDUCED.

E. THE CHART SHALL BE BLACKLINE PRINT AND DIFFERENT COLOR SHALL BE USED TO SHOW THE AREA OF COVERAGE FOR EACH STATION.

F. THE CHART SHALL BE MOUNTED USING VELCRO OR AN APPROVED EQUAL TYPE OF TAPE.

G. WHEN COMPLETED AND APPROVED, THE CHART SHALL BE HERMETICALLY SEALED BETWEEN TWO PIECES OF PLASTIC, EACH PIECE BEING A MINIMUM 20 MILS THICK.

H. THE CONTROLLER CHART SHALL BE COMPLETED AND APPROVED PRIOR TO FINAL INSPECTION OF THE IRRIGATION SYSTEM.

1.06 CATALOG CUTS

TEN (10) DAYS AFTER AWARD OF CONTRACT, SUBMIT TO THE LANDSCAPE ARCHITECT, FOR APPROVAL, FIVE (5) COPIES OF ALL MANUFACTURERS' CATALOG CUTS AND SPECIFICATIONS FOR ALL REQUIRED MATERIALS AND PRODUCTS.

1.07 DRAWINGS

FOR PURPOSES OF LEGIBILITY, IRRIGATION LINES ARE ESSENTIALLY DIAGRAMMATIC, ALTHOUGH SIZE AND LOCATION OF IRRIGATION EQUIPMENT ARE DRAWN TO SCALE WHEREVER POSSIBLE. MAKE USE OF ALL DATA IN ALL OF THE CONTRACT DOCUMENTS AND VERIFY THIS INFORMATION AT CONSTRUCTION SITE.

1.08 MATERIALS TO BE FURNISHED

A. PRIOR TO FINAL APPROVAL, THE CONTRACTOR SHALL FURNISH THE FOLLOWING MATERIALS TO THE OWNER:

1. TWO WRENCHES FOR DISASSEMBLING AND ADJUSTING EACH TYPE OF IRRIGATION HEAD SUPPLIED.
2. TWO KEYS FOR EACH AUTOMATIC CONTROLLER.
3. FOUR KEYS FOR LOOSE KEY HOSE BIBS.
4. TWO LONG NECK OPERATING WRENCHES FOR BUTTERFLY VALVES

1.09 ON-SITE OBSERVATIONS

A. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT FORTY- (48) HOURS IN ADVANCE FOR ALL REQUIRED ON-SITE OBSERVATIONS. THE FINAL ON-SITE OBSERVATION SHALL REQUIRE SEVEN (7) DAYS ADVANCE NOTICE. THE FOLLOWING ARE REQUIRED ON-SITE OBSERVATIONS:

1. JOB START MEETING PRIOR TO STARTING ANY WORK TO REVIEW THE SITE CONDITIONS THAT AFFECT THE WORK.
2. REVIEW THE MAINLINE PRIOR TO BACKFILLING AND WHEN THE PRESSURE TEST IS COMPLETE.
3. REVIEW SYSTEM COVERAGE WHEN INSTALLATION IS COMPLETE. COVERAGE MUST BE APPROVED PRIOR TO STARTING ANY PLANTING WORK.

B. RECORD DRAWINGS MUST BE CURRENT AND ON-SITE AT THE TIME OF THE ON-SITE OBSERVATIONS.

C. MAIN LINES SHALL BE TESTED UNDER HYDROSTATIC PRESSURE OF 150 POUNDS PER SQUARE INCH FOR A PERIOD OF 2 HOURS.

PART 2 PRODUCTS

2.01 GENERAL

ALL IRRIGATION EQUIPMENT SHALL BE NEW AND UNUSED PRIOR TO INSTALLATION, AND SHALL CONFORM TO THE IRRIGATION PLAN AND LEGEND AS SPECIFIED.

2.02 CONTROL WIRES

CONTROL WIRES SHALL BE 24 VOLT CONDUCTORS, UL LISTED TYPE U.F., SOLID COPPER, 14 AWG. UL HEAVY DUTY PVC, COLORED, INSULATION. COMMON SHALL BE WHITE COLOR, SPARE COMMON SHALL BE RED. CONTROL WIRES FOR AUTO CONTROLLER 'A' SHALL BE ORANGE, CONTROL WIRES FOR AUTO CONTROLLER 'B' SHALL BE GREEN IN COLOR.

2.03 GALVANIZED FITTINGS

GALVANIZED FITTINGS SHALL BE GALVANIZED MALLEABLE STEEL, SCHEDULE 40.

2.04 SOLVENTS

PVC PRIMER AND SOLVENTS SHALL BE APPROVED FOR PVC APPLICATION MEETING ASTM D-2564.

2.05 THREAD SEALANT

THREAD SEALANT SHALL BE SMOOTH, NON-HARDENING SEALANT, COMPATIBLE WITH THE PIPE MATERIALS SPECIFIED, CHRISTY'S ULTRA SEAL OR APPROVED EQUAL.

2.06 MAIN LINE FITTINGS

MAIN LINE FITTINGS SHALL BE SCHEDULE 40 PVC, TYPE 1, GRADE 1, CELL CLASSIFICATION 12454-B, SIDE GATED, LASCO OR APPROVED EQUAL.

2.07 MAIN LINE PIPE

MAIN LINE PIPE SHALL BE PVC SCHEDULE 40 OR CLASS 315 PVC, SOLVENT WELD PIPE, WHITE IN COLOR. PIPE SHALL BE IN CONFORMANCE WITH ASTM D-1785.

2.08 LATERAL PIPE FITTINGS

LATERAL LINE FITTINGS SHALL BE SCHEDULE 40 PVC, TYPE 1, GRADE 1, CELL CLASSIFICATION 12454-B, SIDE GATED, LASCO OR APPROVED EQUAL.

2.09 LATERAL PIPING

LATERAL PIPE SHALL BE PVC SCHEDULE 40, SOLVENT WELD PIPE, WHITE IN COLOR. PIPE SHALL BE IN CONFORMANCE WITH ASTM D-1785.

2.10 SUB-SURFACE DRIPLINE TUBING

DUAL-LAYERED POLYETHYLENE TUBING FURNISHED WITH .9 GPH EMITTERS SPACED AT 12" O.C., TUBING FITTINGS SHALL BE 17 MM IN SIZE, BARBED OR SPIN LOCK, AND SHALL CONFORM TO ALL MANUFACTURER'S SPECIFICATIONS.

PART 3 EXECUTION

3.01 SITE CONDITIONS

A. BEFORE STARTING WORK ON IRRIGATION SYSTEM, CAREFULLY CHECK ALL GRADES TO DETERMINE THAT WORK MAY SAFELY PROCEED, KEEPING WITHIN THE SPECIFIED MATERIAL DEPTHS.

B. DO NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM AS INDICATED ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS, FIELD DIMENSIONS, OR GRADE DIFFERENCES EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT.

C. THE INSTALLATION OF ALL IRRIGATION MATERIALS, INCLUDING PIPE, SHALL BE COORDINATED WITH THE LANDSCAPE DRAWINGS TO AVOID INTERFERING WITH THE TREES, SHRUBS, OR OTHER PLANTING.

D. LAY OUT IRRIGATION HEADS AND MAKE ANY MINOR ADJUSTMENTS REQUIRED DUE TO DIFFERENCES BETWEEN SITE AND DRAWINGS. ANY SUCH DEVIATIONS IN LAYOUT SHALL BE WITHIN THE INTENT OF THE ORIGINAL DRAWINGS, AND WITHOUT ADDITIONAL COST TO THE OWNER. WHEN DIRECTED BY THE LANDSCAPE ARCHITECT, THE LAYOUT SHALL BE APPROVED BEFORE INSTALLATION.

3.02 WATER SUPPLY

CONNECTIONS TO THE EXISTING OUTLETS SHALL BE AT THE APPROXIMATE LOCATION(S) SHOWN ON THE DRAWINGS.

3.03 PIPE FITTINGS

A. ALL PLASTIC THREADED PIPE AND FITTINGS SHALL BE ASSEMBLED USING NON-HARDENING SEALANT, APPLY TO THE MALE THREADS ONLY.

B. ALL PLASTIC SLIP FITTINGS SHALL BE SOLVENT-WELDED AS PER PIPE MANUFACTURER'S RECOMMENDATIONS.

3.04 LINE CLEARANCE

ALL LINES SHALL HAVE A MINIMUM CLEARANCE OF FOUR (4) INCHES FROM EACH OTHER, AND SIX (6) INCHES FROM LINES OF OTHER TRADES. PARALLEL LINES SHALL BE INSTALLED DIRECTLY OVER ONE ANOTHER.

3.05 TRENCHING

A. DIG TRENCH AND SUPPORT PIPE CONTINUOUSLY ON BOTTOM OF DITCH. SNAKE PIPE IN TRENCH TO AN EVEN GRADE AS NOTED.

B. PROVIDE MINIMUM COVER OF TWENTY-FOUR (24) INCHES FOR ALL PRESSURE SUPPLY LINES.

C. PROVIDE MINIMUM COVER OF TWENTY-FOUR (24) INCHES FOR ALL CONTROL WIRES.

D. PROVIDE MINIMUM COVER OF TWELVE (12) INCHES FOR ALL OTHER NON-PRESSURE LINES.

E. ALL LINES UNDER DRIVEWAY AND ROADWAY PAVEMENT SHALL HAVE A TWENTY-FOUR (24) INCH MINIMUM COVER BELOW SUBGRADE.

3.06 BACKFILLING

A. BACKFILL FOR TRENCHING SHALL BE COMPACTED TO A DRY DENSITY EQUAL TO THE ADJACENT UNDISTURBED SOIL, AND SHALL CONFORM TO THE ADJACENT GRADES WITHOUT DIPS, SUNKEN AREAS, HUMPS OR OTHER IRREGULARITIES. INITIAL BACKFILL ON ALL LINES SHALL BE OF A FINE GRANULAR MATERIAL WITH NO FOREIGN MATTER LARGER THAN ONE (1) INCH IN SIZE AN SIX (6) TO EIGHT (8) INCHES DEEP.

B. ALL IRRIGATION LINES UNDER PAVING SHALL BE BACKFILLED ENTIRELY WITH SAND AND COMPACTED BY MEANS OF POWER COMPACTION.

C. TRENCHES SHALL BE BACKFILLED PROMPTLY AFTER THE OPEN TRENCH REVIEW.

3.07 CONTROL WIRES

A. UNLESS OTHERWISE SPECIFIED, CONNECTIONS BETWEEN CONTROLLER AND REMOTE CONTROL VALVES SHALL BE MADE WITH DIRECT BURIAL WIRE AWG-UF TYPE, INSTALLED IN ACCORDANCE WITH VALVE MANUFACTURER'S WIRE CHART AND SPECIFICATIONS.

B. BETWEEN CONTROLLER AND REMOTE CONTROL VALVES, USE A CONTINUOUS WIRE. UNDER NO CIRCUMSTANCES SHALL SPLICES EXIST.

C. WHERE MORE THAN ONE WIRE IS PLACED IN A TRENCH, THE WIRING SHALL BE TAPED TOGETHER AND TO MAIN LINE AT INTERVALS OF TEN (10) FEET AND UNDERNEATH THE MAIN LINE.

D. WIRING SHALL OCCUPY THE SAME TRENCH AND SHALL BE INSTALLED ALONG THE SAME ROUTE AS THE PRESSURE SUPPLY LINE WHEREVER POSSIBLE.

E. AN EXPANSION LOOP OF EIGHTEEN (18) INCHES SHALL BE PROVIDED AT EACH WIRE CONNECTION AND/OR DIRECTIONAL TURN.

F. SIZING OF WIRE SHALL BE ACCORDING TO MANUFACTURER'S RECOMMENDATIONS, IN NO CASE LESS THAN #14 IN SIZE.

G. INSTALL (1) SPARE COMMON WIRE, RED IN COLOR, AND LOOP INTO ALL REMOTE CONTROL VALVES INSTALLED ON THIS PROJECT.

3.08 FLUSHING THE SYSTEM

AFTER ALL NEW IRRIGATION PIPE LINES AND RISERS ARE IN PLACE AND CONNECTED, ALL NECESSARY DIVERSION WORK HAS BEEN COMPLETED, AND PRIOR TO INSTALLATION OF IRRIGATION HEADS, THE CONTROL VALVES SHALL BE OPENED AND A FULL HEAD OF WATER USED TO FLUSH OUT THE SYSTEM.

3.09 ADJUSTING OF SYSTEM

A. ADJUST VALVES, AND ALIGNMENT AND COVERAGE OF ALL IRRIGATION HEADS.

B. IF IT IS DETERMINED THAT ADJUSTMENTS IN THE IRRIGATION EQUIPMENT OR NOZZLE CHANGES WILL PROVIDE PROPER AND MORE ADEQUATE COVERAGE, MAKE ALL NECESSARY CHANGES, WITHOUT ADDITIONAL COST TO THE OWNER, PRIOR TO ANY PLANTING.

C. THE ENTIRE SYSTEM SHALL BE OPERATING PROPERLY BEFORE ANY PLANTING OPERATIONS COMMENCE.

3.10 CLEAN-UP AND REPAIR

A. UPON COMPLETION OF THE WORK, MAKE THE GROUND SURFACE LEVEL, REMOVE EXCESS MATERIALS, RUBBISH, DEBRIS, ETC., AND REMOVE CONSTRUCTION AND INSTALLATION EQUIPMENT FROM THE PREMISES. DISPOSE OF IN A SAFE AND LEGAL MANNER.

B. REPLACE AND/OR REPAIR TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT ALL EXISTING PAVING DISTURBED DURING THE COURSE OF THIS WORK. NEW PAVING SHALL BE THE SAME TYPE, STRENGTH, TEXTURE, FINISH, AND BE EQUAL IN EVERY WAY TO THE MATERIAL REMOVED.

3.11 GUARANTEE

THE ENTIRE IRRIGATION SYSTEM SHALL BE GUARANTEED BY THE CONTRACTOR AS TO MATERIAL AND WORKMANSHIP, INCLUDING SETTLING OF BACKFILLED AREAS FOR A PERIOD OF ONE-YEAR FOLLOWING THE DATE OF FINAL ACCEPTANCE OF THE WORK.

**SECTION 02550 - CARPENTRY**

PART 1 GENERAL

1.01 RELATED DOCUMENTS

DRAWINGS AND GENERAL PROVISIONS OF CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION-1 SPECIFICATION SECTION, APPLY TO THIS SECTION.

1.02 DESCRIPTION

FURNISH ALL LABOR, MATERIAL, EQUIPMENT AND OPERATIONS REQUIRED TO COMPLETE ALL CARPENTRY WORK INDICATED ON THE CONTRACT DOCUMENTS.

PART 2 PRODUCTS

2.01 SALVAGED LUMBER

A. EXISTING 2 X 12 LUMBER TO BE REMOVED MAY BE CUT TO SIZE AND REUSED FOR NEW WOOD SCREEN CONSTRUCTION PROVIDED IT IS FREE OF DEMOLITION DAMAGE, CRACKS, TERMITE DAMAGE, AND OTHER DEFECTS THAT WOULD MAKE IT UNSIGHTLY FOR REUSE.

B. ALL SALVAGED MATERIAL MUST RECEIVE APPROVAL FROM THE INSPECTOR PRIOR TO REUSE.

C. FURNISH ENOUGH MATERIAL, APPROVED SALVAGED LUMBER AND NEW LUMBER, AS NECESSARY TO COMPLETE THE WORK.

2.02 NEW LUMBER

A. CAP - CON-HEART REDWOOD, RESAWN.

B. 1 X 6 VERTICAL FENCING - CEDAR NO. 1 RESAWN.

C. 4 X 4 POST - CON-HEART REDWOOD, RESAWN.

2.03 NAILS

GALVANIZED COMMON FOR FRAMING, GALVANIZED FINISH FOR FENCE ATTACHMENT TO RAILS.

2.04 OTHER MATERIALS

ALL OTHER MATERIALS NOT SPECIFICALLY DESCRIBED, BUT REQUIRED FOR A COMPLETE AND PROPER INSTALLATION, SHALL BE NEW, FREE FROM RUST, BEST QUALITY OF THEIR RESPECTIVE KINDS.

PART 3 EXECUTION

3.01 FIELD MEASUREMENTS

MAKE ALL REQUIRED MEASUREMENTS IN THE FIELD TO ENSURE PROPER AND ADEQUATE CONNECTIONS.

3.02 MILLING

INSOFAR AS POSSIBLE, SHOP MILL ALL LUMBER SUITABLE FOR REUSE.

3.03 GENERAL CARPENTRY

A. ALL WORK SHALL BE STRAIGHT, TRUE, PLUMB, WITH SOUND CONNECTIONS.

B. USE ONLY GALVANIZED NAILS, SLIGHTLY PUNCH FINISH NAILS, AND AVOID UNSIGHTLY HAMMER MARKS.

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REVISIONS	NO.	DATE	BY	DESCRIPTION
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SHEET TITLE  
**LANDSCAPE SPECIFICATIONS**  
 PROJECT  
**28 UNIT APARTMENT COMPLEX**  
 1424 PATRICIA AVE.  
 SIMI VALLEY, CA 93065  
 APN: 632-0-080-085

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