

SECTION 5000

LANDSCAPING

CONSTRUCTION STANDARDS

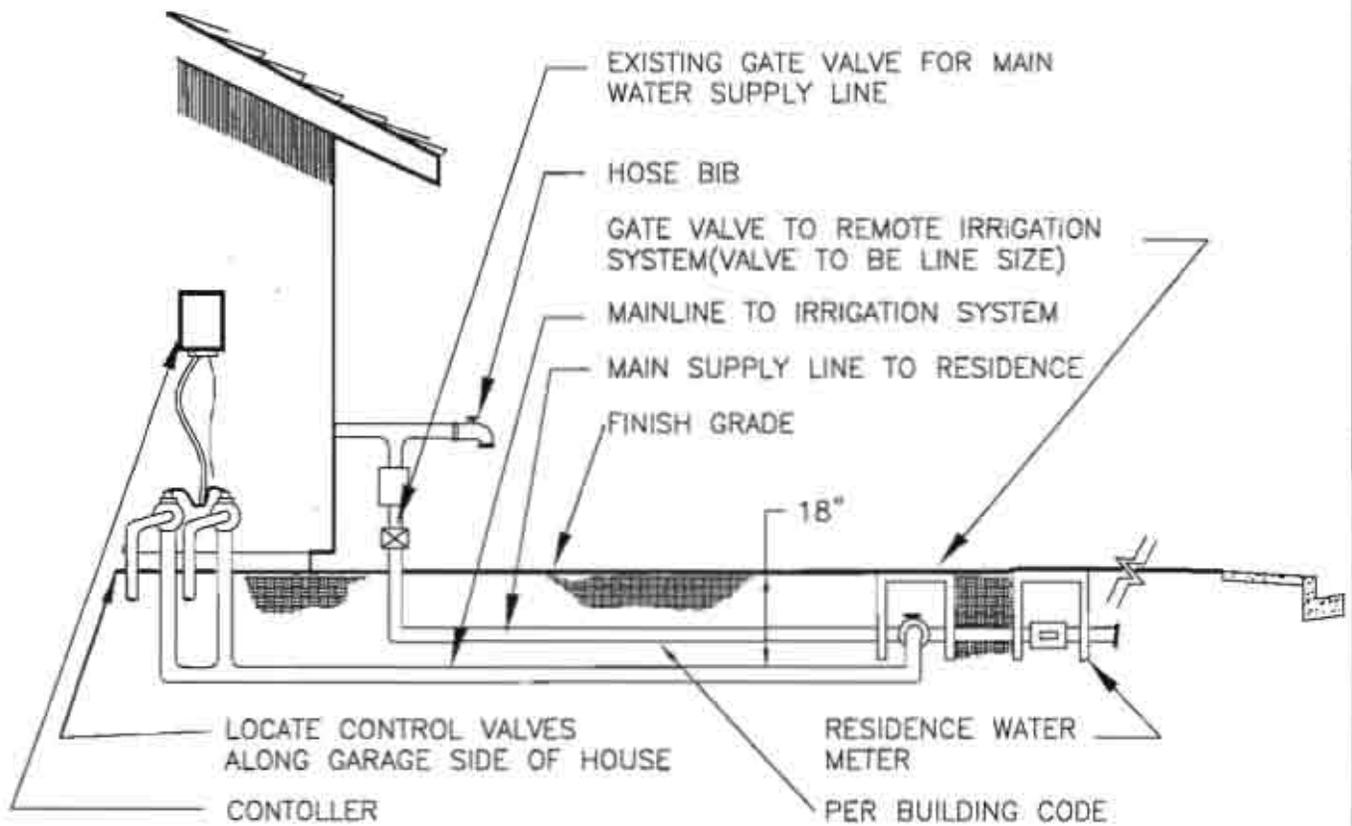
SECTION 5000 – LANDSCAPING

5001	Typical House Connection
5002	Control Placement Detail
5003	Rain Sensor
5004	Rain Guard
5005	Irrigation Controller – Revised 12/12/19
5006	Tipping Bucket
5007	Typical Backflow - Revised 12/12/19
5008	Typical Backflow “Private”
5009	Typical Backflow
5010	Flow Meter/Master Valve – Revised 12/12/19
5011	Typical Brass Remote Control Valve Detail
5012	Automatic Antisiphon Valve
5013	Wire Connector
5014	Wire Connection
5015	Trenching Detail
5016	Piping and Wiring
5017	Splice Box Assembly
5018	Sleeving Detail
5019	Gate Valve
5020	Thrust Block Assembly
5021	Quick Coupler
5022	Swing Joint

CONSTRUCTION STANDARDS

SECTION 5000 – LANDSCAPING (Cont'd)

5023	Lawn/4", 6", 8" Shrub Pop-up Head
5024	Hi Pop Shrub Head
5025	Shrub Spray Head
5026	Bubbler Head
5027	Shrub Rotor
5028	Irrigation at Top of Slope
5029	Shrub Rotor on Slope
5030	Oscillation Head Assembly
5031	Tree Staking
5032	Tree Guying
5033	Tree Placement
5034	Palm Tree Installation
5035	Shrub Planting
5036	Shrub on Slope
5037	Vine Planting
5038	Automatic Drip Valve
5039	Emitter
5040	Emitter Layout
5041	Pot Irrigation
5042	Drip Emitter
5043	Redwood Headerboard
5044	Concrete Mow Curb
5045	Typical Rock Treatment
5046 (3 Sheets)	Tree Grates – Revised 01/14/15



APPROVED BY:

Ricardo Sandoval 10.18.00
 CITY ENGINEER DATE

RICARDO SANDOVAL

REVIEWED BY: Timothy Rostedt

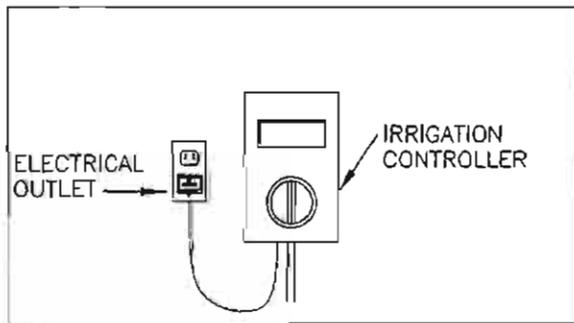
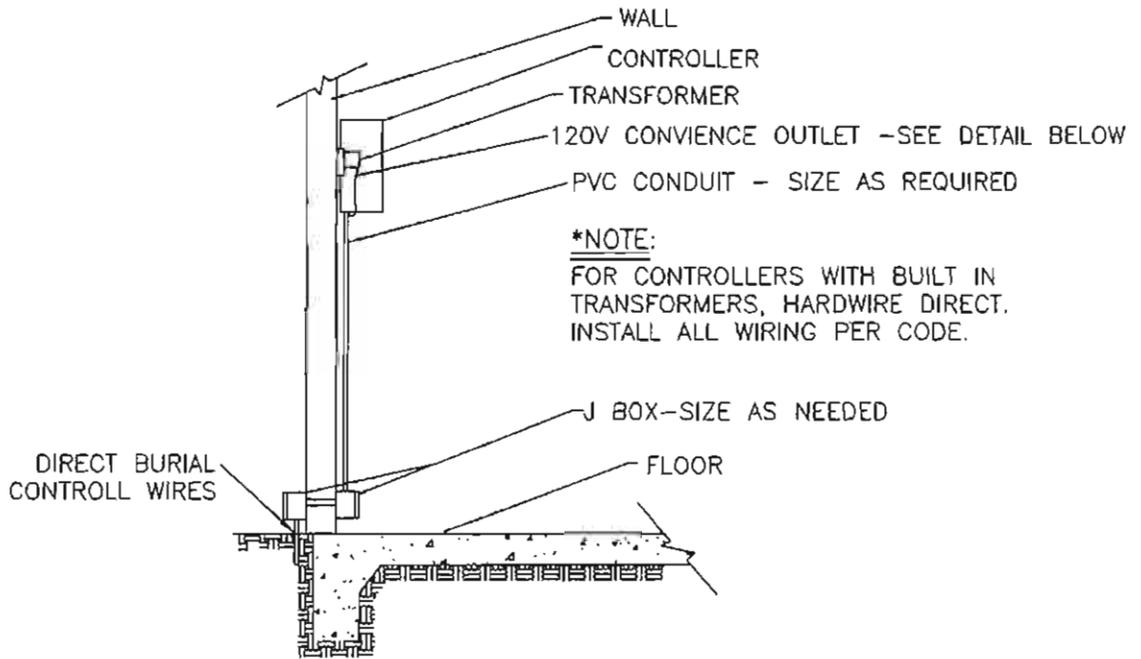
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CITY OF FONTANA

TYP. HOUSE CONNECTION

STD. PLAN NO. 5001

SHT 1 OF 1



NOTE:
CONVENIENCE OUTLET TO BE
PLACED NEAR CONTROLLER.

CONTROL DETAIL



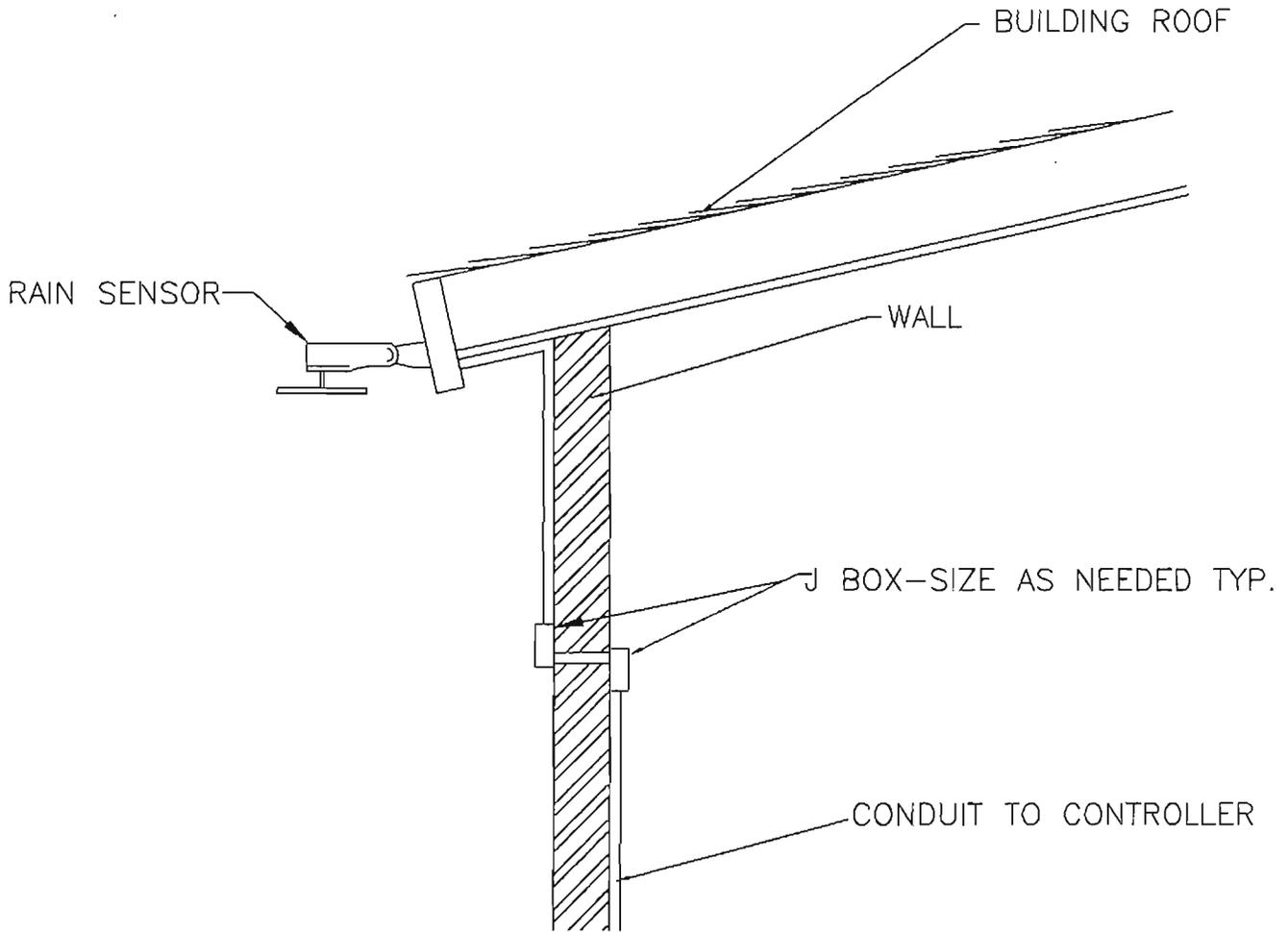
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[Signature] 10.18.00
CITY ENGINEER DATE
RICARDO SANDOVAL
REVIEWED BY: Timothy Rastedt
DATE OF LAST REVISION: 1-28-00

CITY OF FONTANA

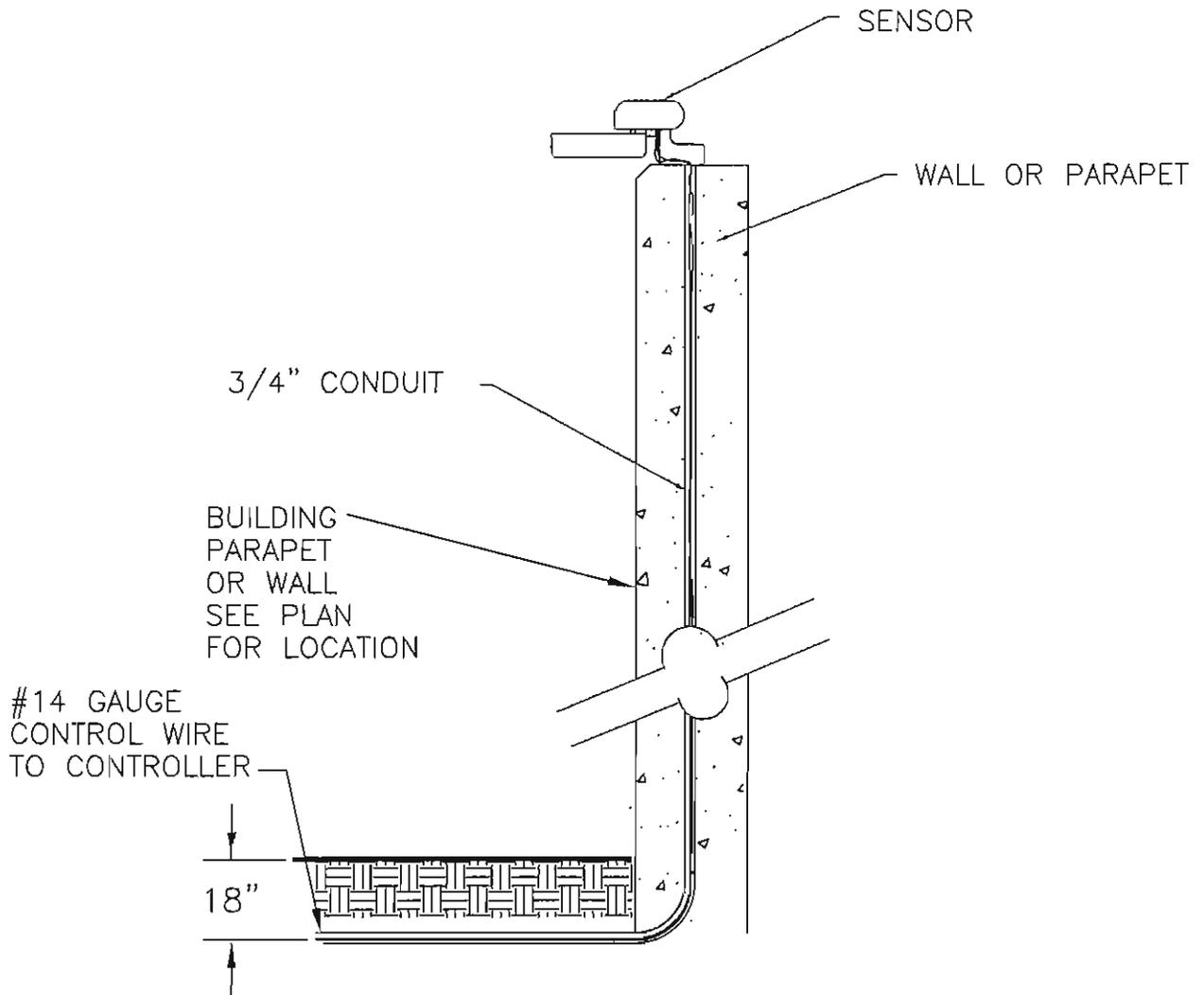
**CONTROL PLACEMENT
DETAIL**

STD. PLAN NO. 5002

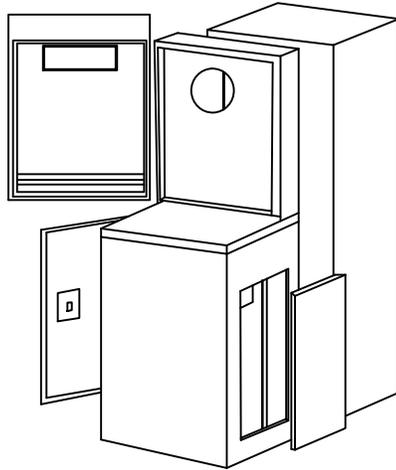
SHT 1 OF 1



	APPROVED BY: <i>Ricardo Sandoval</i>	CITY OF FONTANA		
	CITY ENGINEER RICARDO SANDOVAL	DATE 10-18-06	RAIN SENSOR	
	REVIEWED BY: <u>Timothy Rastedt</u>	DATE OF LAST REVISION: <u>1-28-00</u>		
		STD. PLAN NO. 5003	SHT 1 OF 1	



	APPROVED BY: <i>Ricardo Sandoval</i> 10.18.06 CITY ENGINEER DATE RICARDO SANDOVAL	CITY OF FONTANA	
	REVIEWED BY: <u>Timothy Rostedt</u> DATE OF LAST REVISION: <u>1-28-00</u>	RAIN GUARD	
	STD. PLAN NO. 5004	SHT 1 OF 1	



Model # MPE-A16-100K

EXACT LOCATION OF CONTROLLER SHALL BE AGREED UPON BY EDISON, CITY LANDSCAPE INSPECTOR AND CONTRACTOR PRIOR TO ANY TRENCHING OR WIRE PLACEMENT

GENERAL NOTES:

PROVIDE 100A METER AND 50A/2P MAIN C/B WHERE INDICATED ON DRAWINGS

PROVIDE PANELBOARD WHERE INDICATED ON DRAWINGS.

PROVIDE IRRIGATION CONTROLLER CABINET WHERE INDICATED ON DRAWINGS.

TERMINATE AT EXISTION HANDHOLE. PER S.C.E. COMPANY REQ. VERIFY EXACT LOCATION AND TERMINATION REQ. WITH S.C.E. CO. PRIOR TO TRENCHING

CONDUIT AND CONDUCTOR SIZES ARE BASED ON NONMETALLEC CONDUIT AND COPPER CONDUCTORS WITH TYPE "THHN/THWN" INSULATION.

LOCATION AND POSITIONING OF CABINETS NEED TO VERIFIED AND APPROVED BY THE ENGINEERING PUBLIC WORKS INSPECTOR PRIOR TO ANY INSTALLATIONS



APPROVED BY:

Ricardo Sandoval

12-2-19

CITY ENGINEER
RICARDO SANDOVAL

DATE

REVIEWED BY: KS

DATE OF LAST REVISION: 11-6-19

CITY OF FONTANA

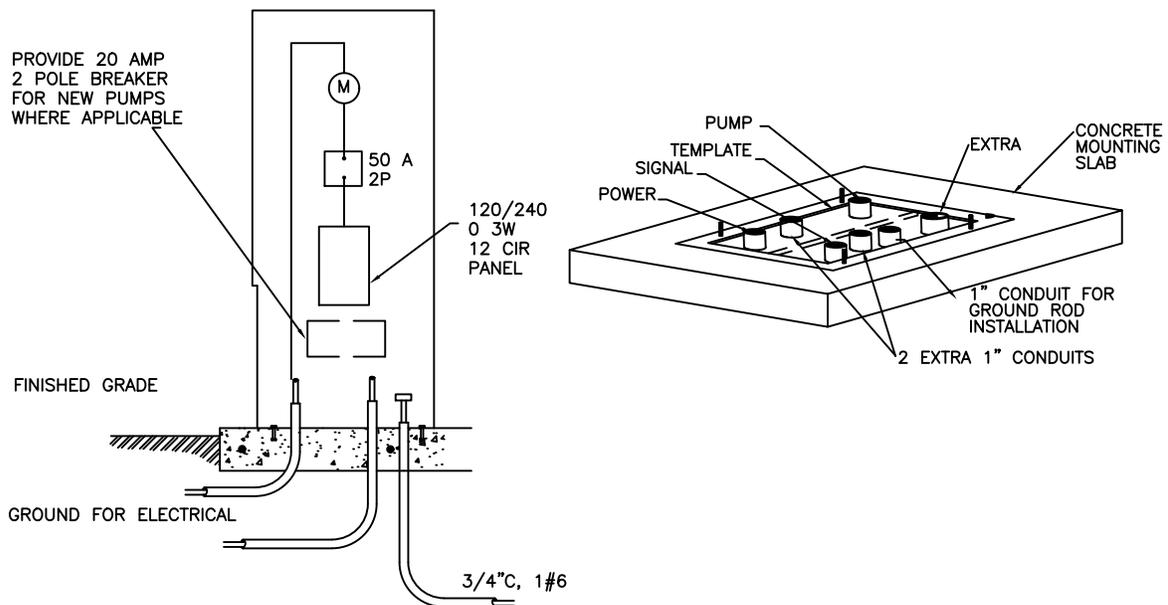
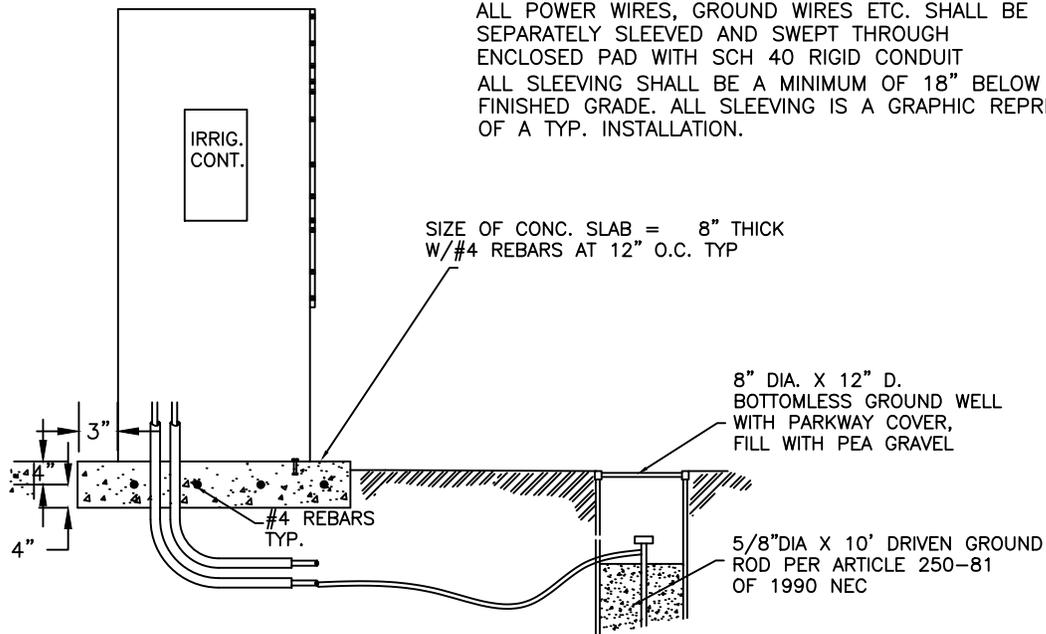
IRRIGATION CONTROLLER

STD. PLAN NO. 5005

SHT 1 OF 3

NOTE:

ALL POWER WIRES, GROUND WIRES ETC. SHALL BE SEPARATELY SLEEVED AND SWEEP THROUGH ENCLOSED PAD WITH SCH 40 RIGID CONDUIT ALL SLEEVING SHALL BE A MINIMUM OF 18" BELOW FINISHED GRADE. ALL SLEEVING IS A GRAPHIC REPRESENTATION OF A TYP. INSTALLATION.



APPROVED BY:

Ricardo Sandoval

12-2-19

CITY ENGINEER
RICARDO SANDOVAL
KS

DATE

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CITY OF FONTANA

IRRIGATION CONTROLLER

STD. PLAN NO. 5005

SHT 2 OF 3

City of Fontana
Irrigation Controller Standard
For Communities Facilities Districts

(CFD)

Toro Sentinel controller installed in an approved stainless steel Edison meter box enclosure.

Contact Imperial Sprinkler Supply with the following numbers for the City of Fontana meter/controller. Phone: (714) 696-7535

Fontana part # for a 48 station controller
SBW48SS5U

Required items to be included with each controller installed:

1. W481-XB Toro Sentinel 48 station wireless output board, level 3 surge protection with XB-Spread Spectrum Radio
2. SHHR Kenwood hand held remote w/ charger set to City of Fontana frequency programming
3. SB-TFRMR-120-60-50-50VA 24VAC Transformer
4. After controller installation contact Imperial Technical Services to schedule inspection for certification which is required prior to starting 90 day maintenace

Contact:

Imperial Technical Services
Phone: (714) 696-7535



APPROVED BY:

Ricardo Sandoval 12-2-19

CITY ENGINEER DATE
RICARDO SANDOVAL

REVIEWED BY: KS

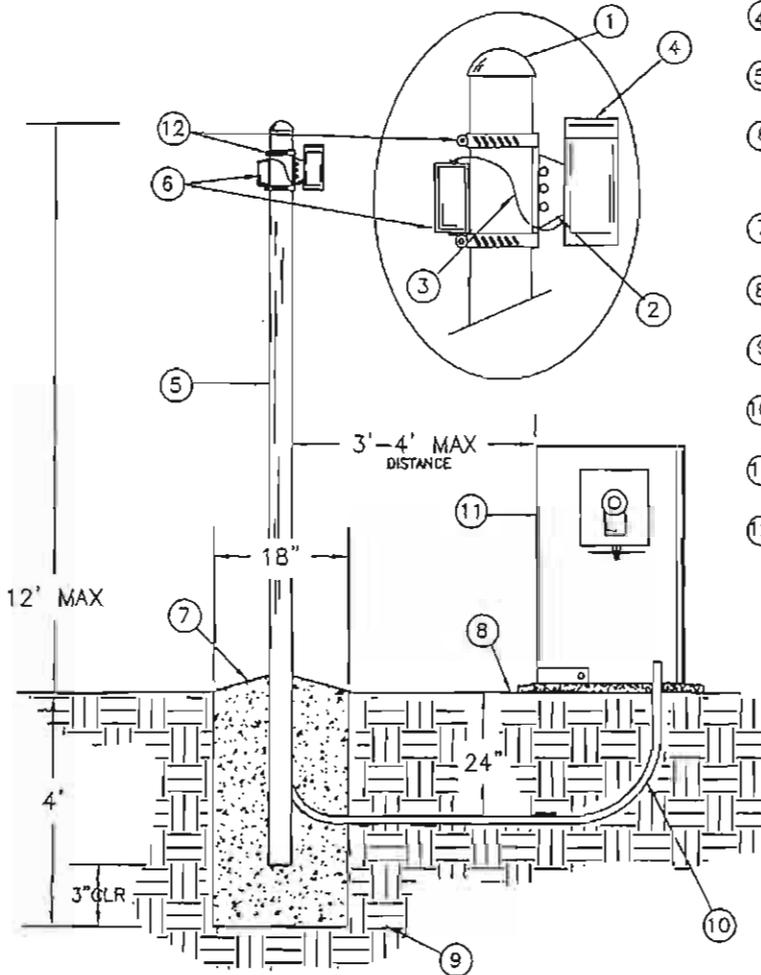
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CITY OF FONTANA

IRRIGATION CONTROLLER

STD. PLAN NO. 5005

SHT 3 OF 3



- ① 4" DIAMETER STEEL POST CAP SECURE TO PIPE.
- ② TIPPING BUCKET BRACKET
- ③ 1/2" DIA. FLEXIBLE ALL WEATHER ELECTRICAL CONDUIT, CONNECT BOX TO BOX.
- ④ TIPPING BUCKET RAIN GAUGE, INSTALL PER MANUFACTURERS RECOMMENDATIONS.
- ⑤ 4" DIA GALVANIZED STEEL PIPE POST.
- ⑥ WEATHER PROOF ELECTRICAL "J" BOX DRILL 1" DIA HOLE THROUGH PIPE AND MOUNT BOX TO PIPE.
- ⑦ SLOPE TOP OF FOOTING AWAY FROM PIPE.
- ⑧ FINISH SURFACE.
- ⑨ NATURAL COMPACTED SOIL.
- ⑩ 1" DIA ELECTRICAL PVC RIDGED CONDUIT FROM PIPE TO CONTROLLER.
- ⑪ PROPOSED CONTROLLER ENCLOSURE
- ⑫ STAINLESS STEEL HOSE CLAMPS (2)EACH

NOTE:
 ACID WASH STEEL PIPE POST, STEEL POST CAP AND ELECTRICAL "J" BOX THOROUGHLY. PAINT WITH 1 COAT RUSTOLEUM PRIMER AND 2 COATS OF FOREST GREEN EXTERIOR HIGH GLOSS PAINT.



APPROVED BY:

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 CITY ENGINEER DATE

RICARDO SANDOVAL

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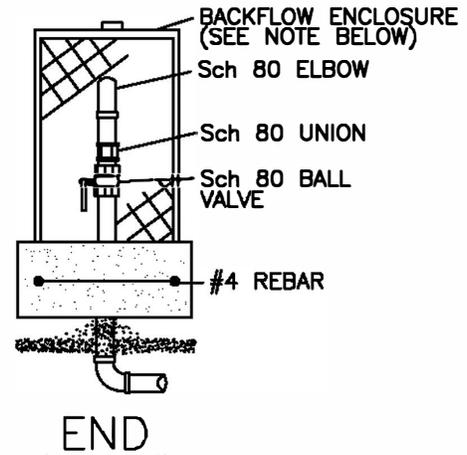
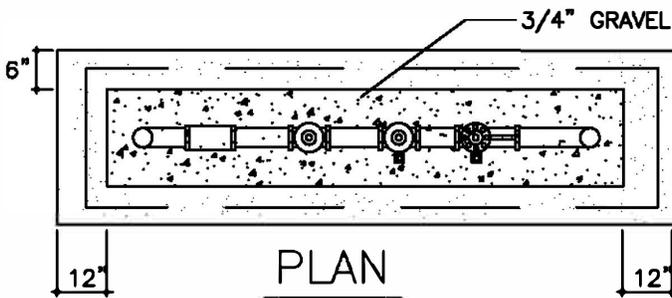
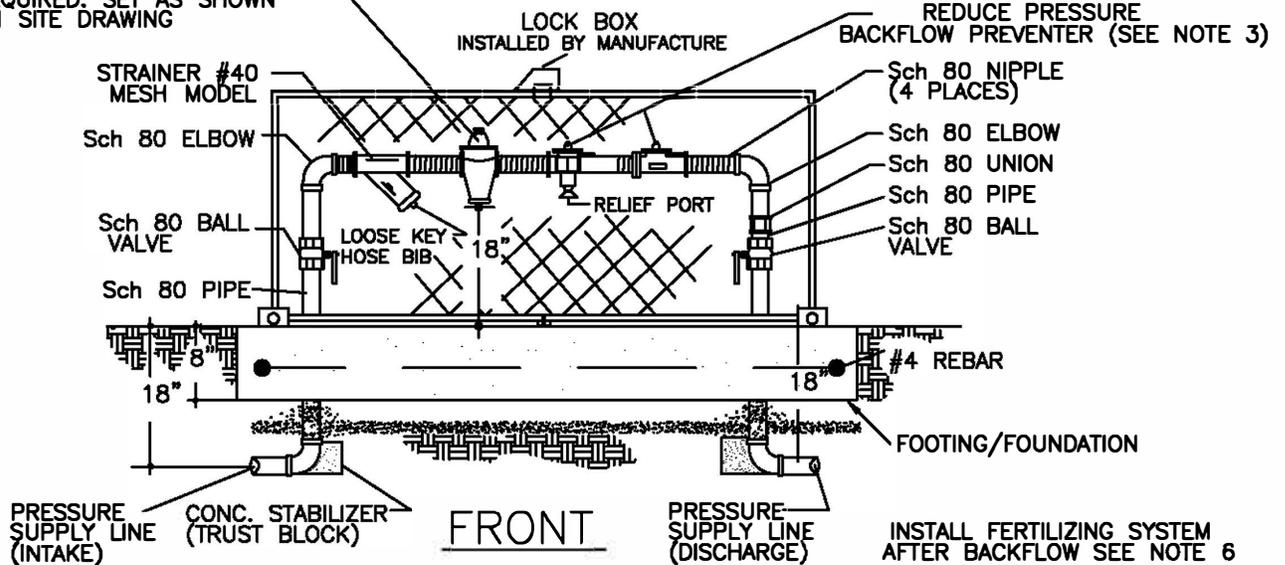
CITY OF FONTANA

TIPPING BUCKET

STD. PLAN NO. 5006

SHT 1 OF 1

PRESSURE REGULATOR
REQUIRED. SET AS SHOWN
ON SITE DRAWING



NOTE: BACKFLOW ENCLOSURE, LE MEUR
OR EQUAL 24"X60"X36" HIGH
HINGED AT BOTH ENDS SECURE TO
6"X8" FOOTING W/4" J BOLTS
(EQUIPMENT TO BE CENTERED INSIDE HOUSING)
COLOR OF ENCLOSURE: HUNTER GREEN

GENERAL NOTES

1. CONTRACTOR SHALL FORM ENCLOSURE AND REQUEST INSPECTION PRIOR TO POURING FOOTING/FOUNDATION
2. CONTRACTOR SHALL USE 520-C-2500 CONCRETE
3. WILKINS 375XL LEAD FREE PLASTIC BACKFLOW PREVENTER
4. WILKINS 500XL REGULATOR LOW RANGE FOR PRESSURE'S FROM 0 PSI TO 75 PSI LEAD FREE
WILKINS 600XL REGULATOR HIGH RANGE FOR PRESSURE'S FROM 75 PSI TO 120 PSI LEAD FREE
5. BACKFLOW CERTIFICATION REQUIRED BY A CERTIFIED PROFESSIONAL PRIOR TO CITY ACCEPTANCE
6. INSTALL EZ-FLO FERTILIZING SYSTEM EZ025-HC INSTALL DIRECTLY IN THE IRRIGATION MAINLINE AFTER THE BACKFLOW PREVENTER SEE DETAILS ON SHEET 2



APPROVED BY:

Ricardo Sandoval

12-2-19

CITY ENGINEER
RICARDO SANDOVAL

DATE

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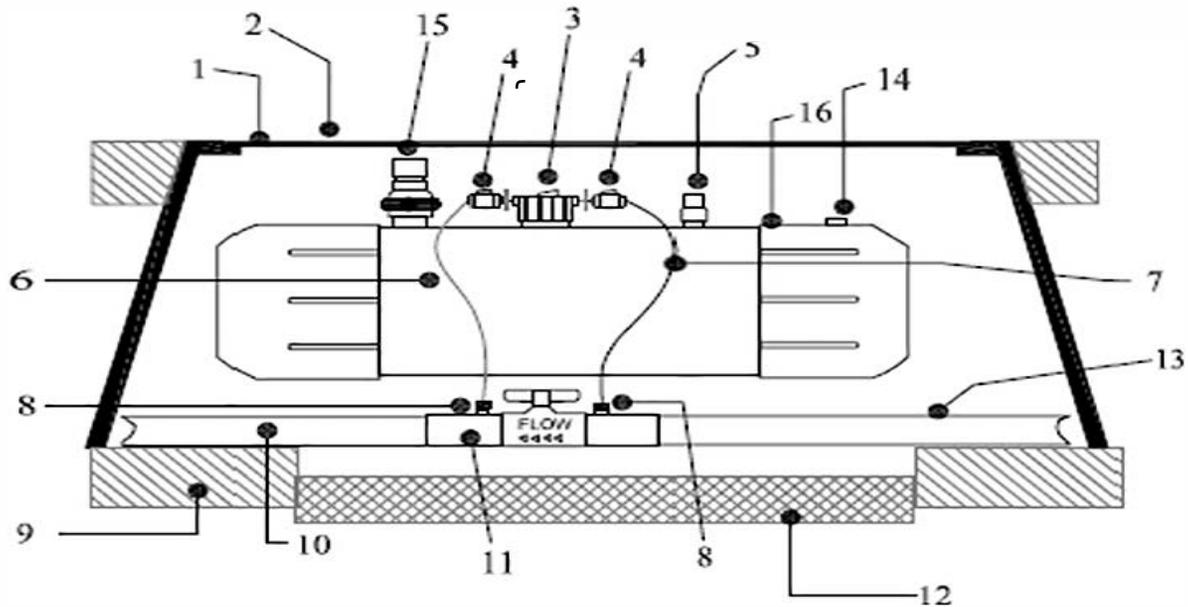
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CITY OF FONTANA

TYP. BACKFLOW

STD. PLAN NO. 5007

SHT 1 OF 2



1. FINISHED GRADE
2. VALVE BOX CARSON BRAND MODEL 2436 (SIZE DETERMINED BY TANK SIZE CHART BELOW)
3. PROPORTIONING CAP WITH FEED ADJUSTMENT KNOB
4. EZ-FLO SHUT OFF VALVES
5. AIR VENT VALVE
6. FERTILIZER OUT - CONNECT CLEAR TUBE TO GREEN CONNECTIONS ON PROPORTIONING CAP AND COUPLING
7. WATER IN- CONNECT BLACK TUBE TO BLUE CONNECTIONS ON PROPORTIONING CAP AND COUPLING
8. TUBING CLAMP - BOTH THE GREEN AND BLUE COUPLING TUBING CONNECTIONS
9. APPROVED BACKFILL
10. PVC MAINLINE TO VALVE MANIFOLD
11. EZ-BALL VALVE COUPLING CONNECTOR INSTALL ACCORDING TO WORKFLOW DIRECTION ARROW AND PER THE SIZE OF THE MAINLINE
12. PEA GRAVEL (3 CU FT)
13. PVC MAINLINE FROM BACKFLOW PREVENTER
14. PRESSURE RELIEF VALVE
15. FILL VALVE (DRAIN VALVE INCLUDED BUT NOT SHOWN)
16. EZ-FLO MODEL (SIZING BASED ON ATTACHED CHART)
17. FERTILIZER TO BE INSTALLED AFTER MASTER VALVE AND FLOW SENSOR

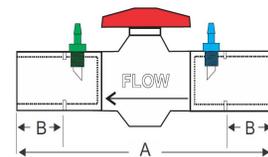
NOTES:

ITEMS 3,4,5,6,7 & 8 ARE INCLUDED WITH THE EZ-FLO SYSTEM. ITEM 11 IS PURCHASED SEPARATELY (BASED ON THE ATTACHED BALL VALVE SIZE CHART)

Sizing the Tank

In the table below refer to the 4-6 week coverage columns to determine the tank size required for the irrigated area

Model	Capacity		Coverage 4-6 Weeks		Unit Size	Valve Box Size
	Gallons	Pounds	Zones	Square Feet	L X W X H	L X W X H
EZ001-CX	1.5	10	5 / 8	10,000	13" X 8" X 11"	15" X 10" X 12"
EZ003-CX	2.5	15	8 / 14	15,000	21" X 8" X 11"	20" X 16" X 12"
EZ005-FX	5.0	30		30,000	28" X 10" X 13"	30" X 18" X 17"
EZ010-FX	9.4	50		50,000	27" X 12" X 14"	30" X 18" X 17"
EZ010-HC	10.0	75		75,000	32" X 12" X 18"	36" X 24" X 24"
EZ017-HC	17.5	150		150,000	36" X 15" X 20"	36" X 24" X 24"
EZ025-HC	25.0	225		225,000	36" X 19" X 23"	36" X 24" X 24"



Part Number	Size	A	B
CBV-075	3/4" SOC	7"	1"
CBV-100	1" SOC	8"	1 1/4"
CBV-125	1 1/4" SOC	9 1/4"	1 1/4"
CBV-150	1 1/2" SOC	10 3/4"	1 1/4"
CBV-200	2" SOC	12 1/2"	1 3/4"
CBV-250	2 1/2" SOC	13"	1 3/4"
CBV-300	3" SOC	16 1/2"	1 3/4"
CBV-400	4" SOC	18 1/2"	2"
CBVT-075	3/4" THD	7"	1"
CBVT-100	1" THD	8"	1 1/4"
CBVT-125	1 1/4" THD	9 1/2"	1 1/4"

Tank sizing is based on 1 lb of product capacity required to service 1000 sqft of landscape for a 4 to 6 week period. This method is intended to simplify the sizing process and allow for a broad range of products to be used with the system while maintaining adequate capacity.



APPROVED BY:
Ricardo Sandoval 12-2-19
CITY ENGINEER DATE
RICARDO SANDOVAL
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DATE OF LAST REVISION: 12-2-19

CITY OF FONTANA
TYP. BACKFLOW
FERTILIZATION SYSTEM
STD. PLAN NO. 5007 **SHT 2 OF 2**

PRESSURE REGULATOR IF
REQUIRED. SET AS SHOWN
ON SITE DRAWING

STRAINER #40
MESH MODEL

BRASS ELBOW

BRASS BALL
VALVE

BRASS PIPE

PRESSURE
SUPPLY LINE
(INTAKE)

CONC. STABILIZER
(TRUST BLOCK)

FRONT

PRESSURE
SUPPLY LINE
(DISCHARGE)

REDUCE PRESSURE
BACKFLOW PREVENT

BRASS NIPPLE
(4 PLACES)

BRASS ELBOW

BRASS UNION

BRASS PIPE

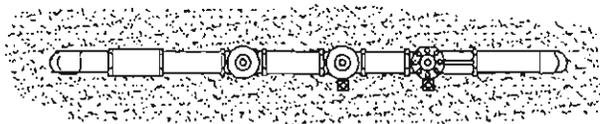
BRASS BALL
VALVE

RELIEF PORT

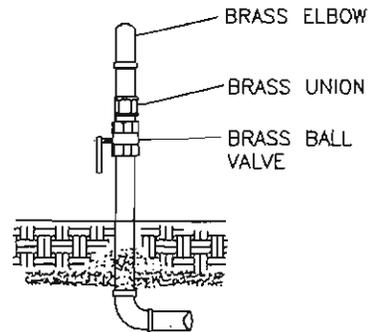
LOOSE KEY
HOSE BIB

18"

18"



PLAN



END

GENERAL NOTES:

1. BACKFLOW TO BE USED ON PRIVATE PROJECTS ONLY.



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Ricardo Sandoval 10.18.06

CITY ENGINEER
RICARDO SANDOVAL

DATE

REVIEWED BY: Timothy Rastedt

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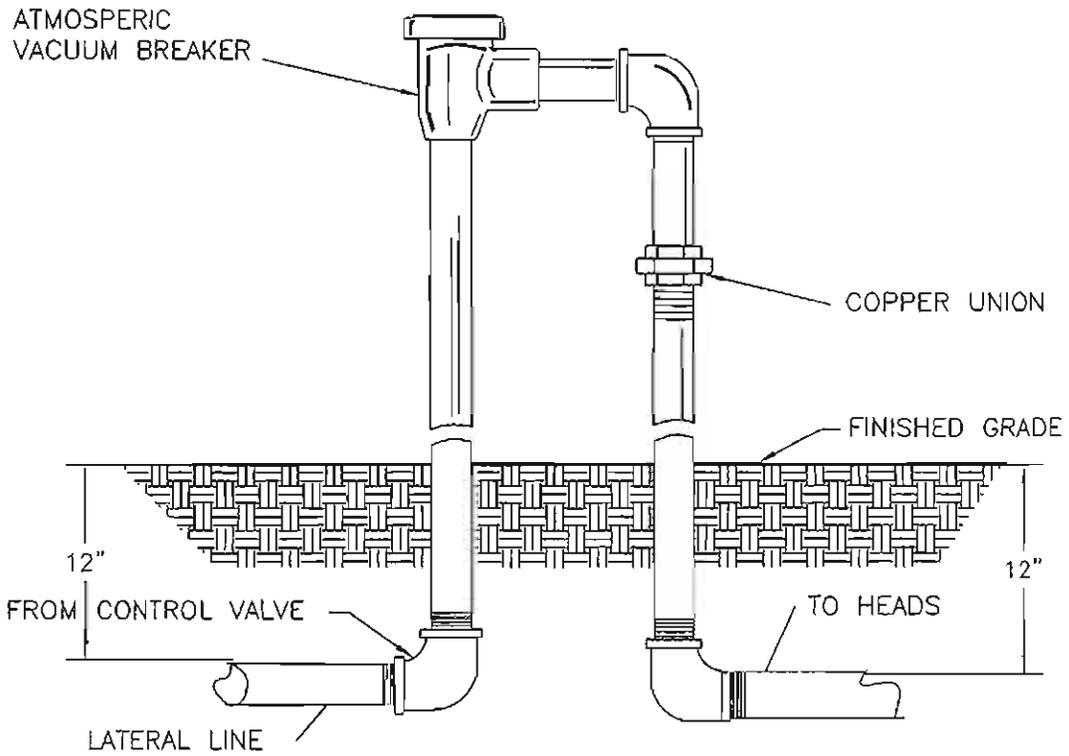
CITY OF FONTANA

TYP. BACKFLOW
"PRIVATE"

STD. PLAN NO. 5008

SHT 1 OF 1

NOTE:
 INSTALL BACKFLOW A MIN. 6" ABOVE
 HIGHEST HEAD



APPROVED BY:

Ricardo Sandoval 10.18.00
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RICARDO SANDOVAL

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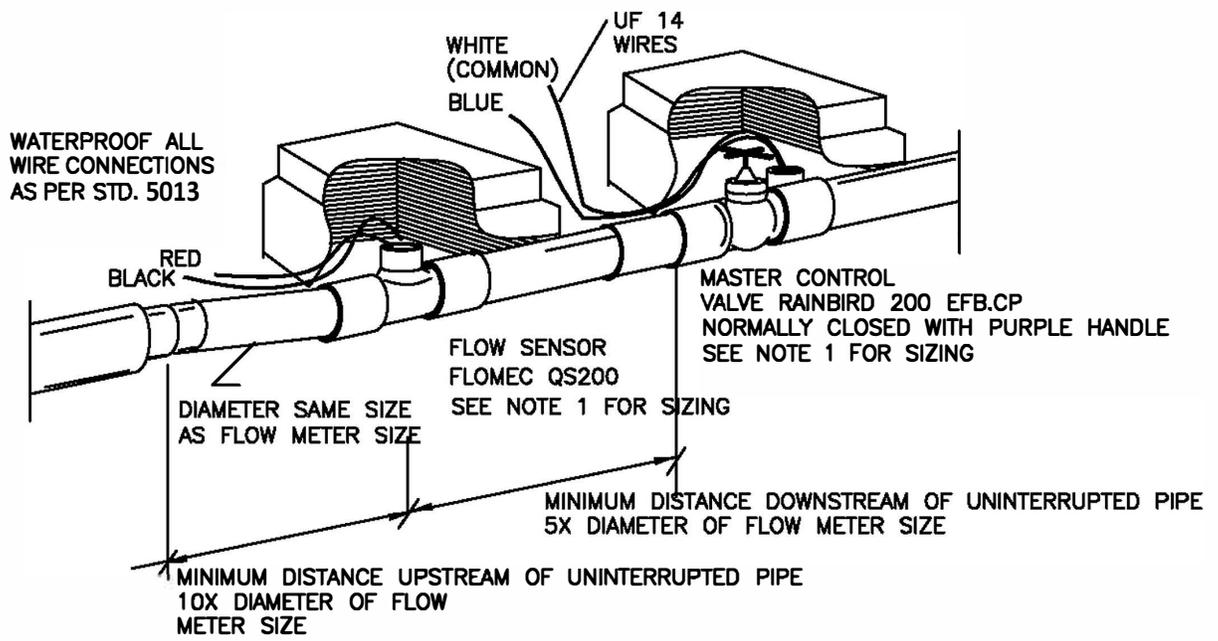
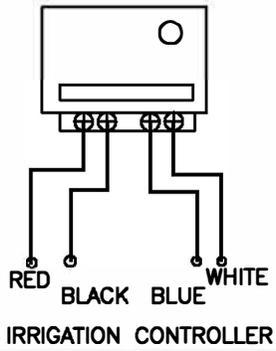
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CITY OF FONTANA

TYPICAL BACKFLOW

STD. PLAN NO. 5009

SHT 1 OF 1



NOTES:

1. MASTER VALVE AND FLOW SENSOR TO MATCH MAINLINE SIZE
2. MAXIMIZE THE DISTANCE BETWEEN THE MASTER VALVE AND THE FLOW SENSOR



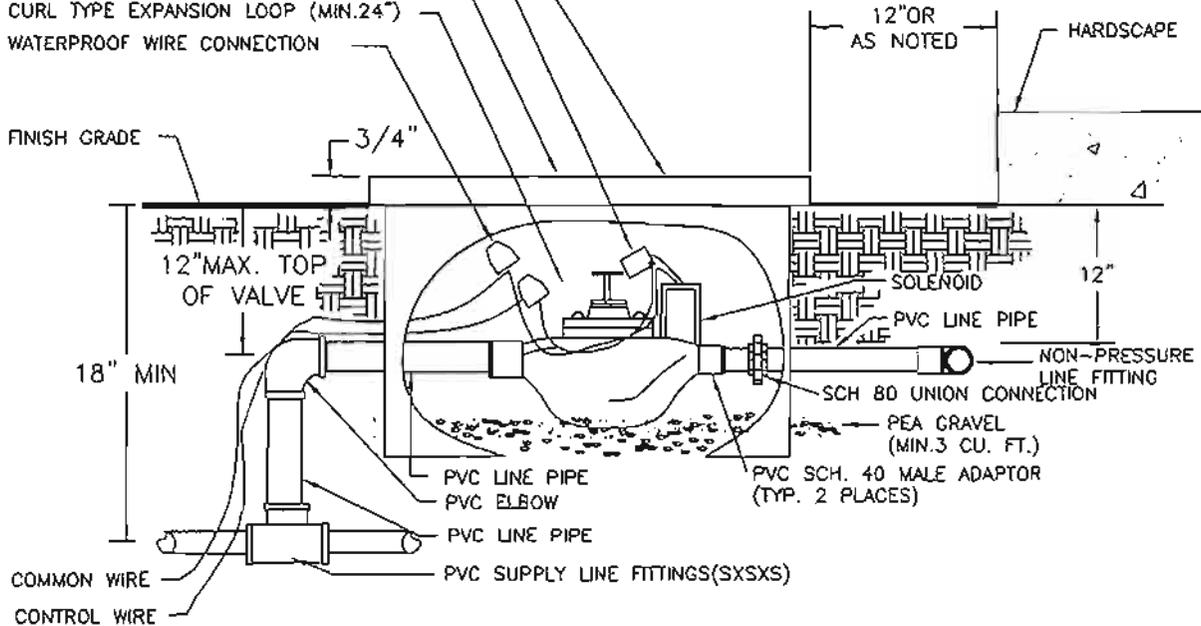
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CITY OF FONTANA	
FLOW METER/ MASTER VALVE	
STD. PLAN NO. 5010	SHT 1 OF 1

BOX TO BE PLACED AT RIGHT ANGLE TO
HARDSCAPE EDGE w/ VALVE # ETCHED IN LID
CHRISTY'S I.D TAG (STANDARD)
SECURE TO SOLENOID PIGTAIL

12"X18" PLASTIC BOX AND COVER WITH
LOCK TOP
CURL TYPE EXPANSION LOOP (MIN.24")
WATERPROOF WIRE CONNECTION

FINISH GRADE



NOTES:

1. VALVES ARE TO BE INSTALLED IN SHRUB AREAS UNLESS OTHERWISE NOTED
2. WHEN MORE THAN ONE VALVE IS LOCATED IN THE SAME AREA, PROVIDE A SPACE A MIN. OF 3 FT. APART.
3. USE TEFLON TAPE ON ALL THREADED FITTINGS.
4. ONE VALVE PER VALVE BOX



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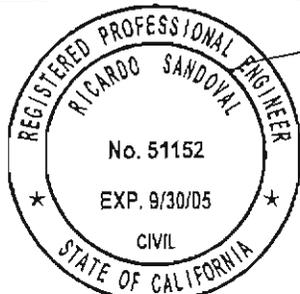
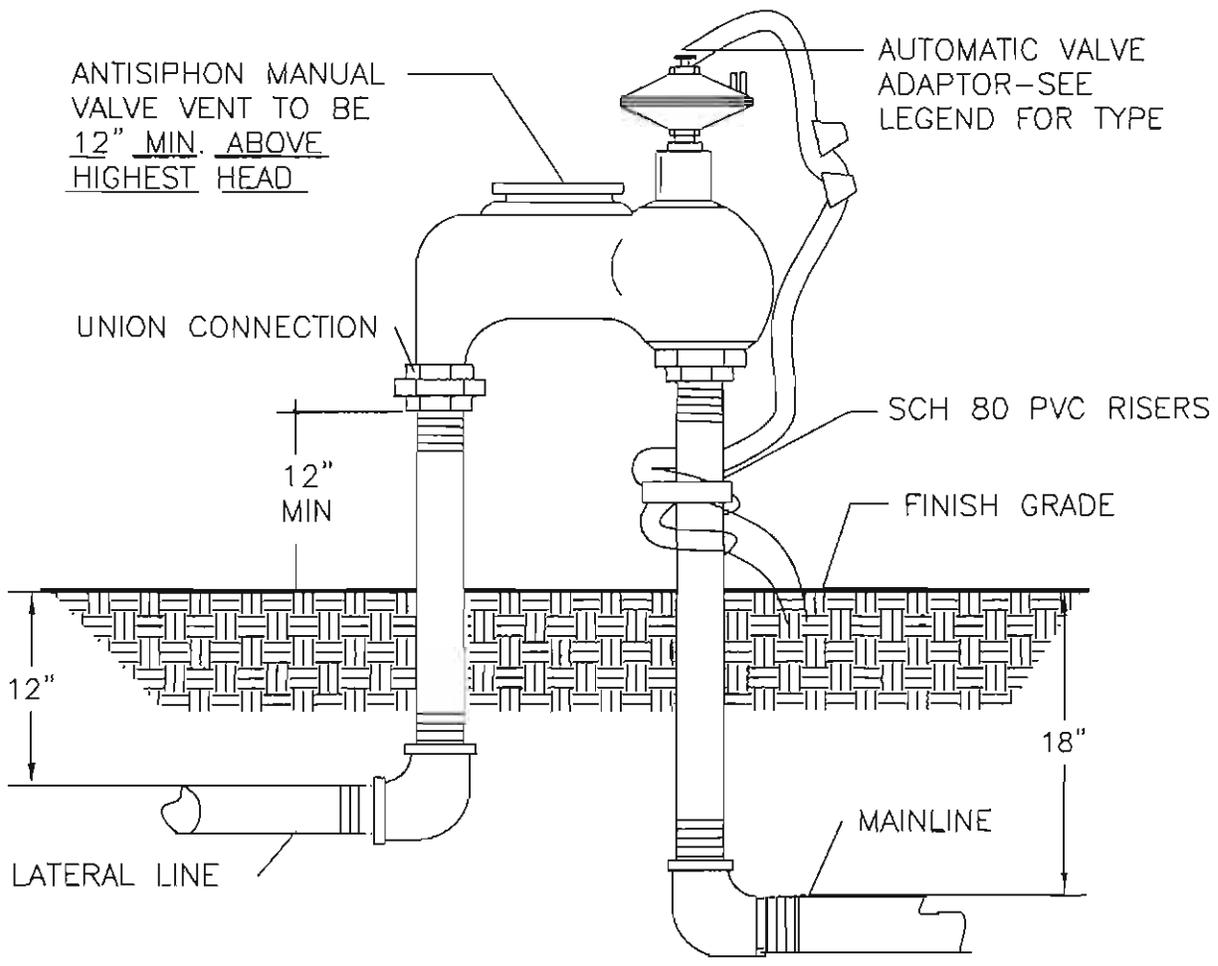
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CITY OF FONTANA

**TYP. BRASS REMOTE
CONTROL VALVE DETAIL**

STD. PLAN NO. 5011

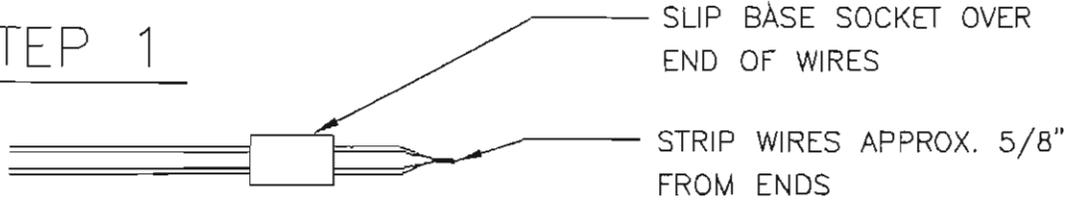
SHT 1 OF 1



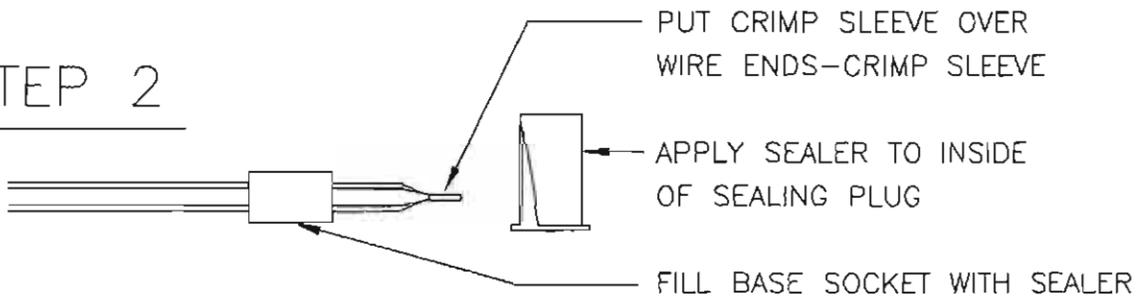
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CITY OF FONTANA	
AUTOMATIC ANTISIPHON VALVE	
STD. PLAN NO. 5012	SHT 1 OF 1

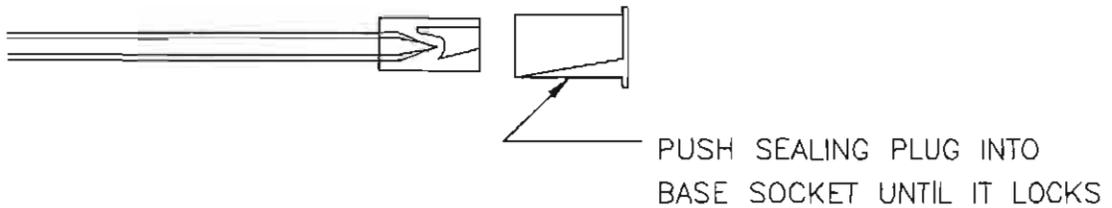
STEP 1



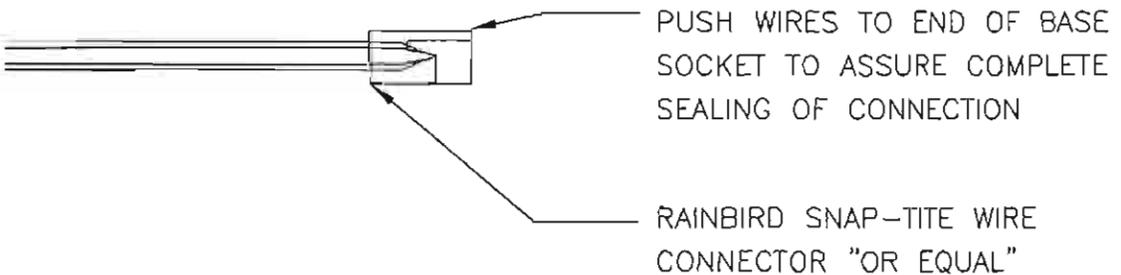
STEP 2



STEP 3



STEP 4



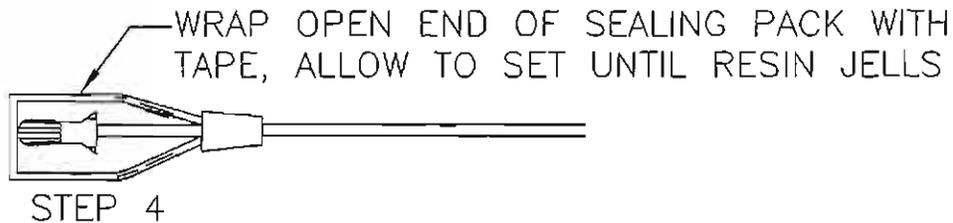
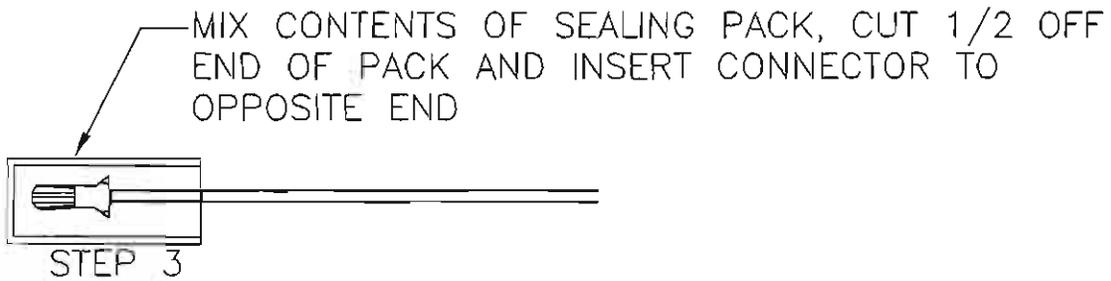
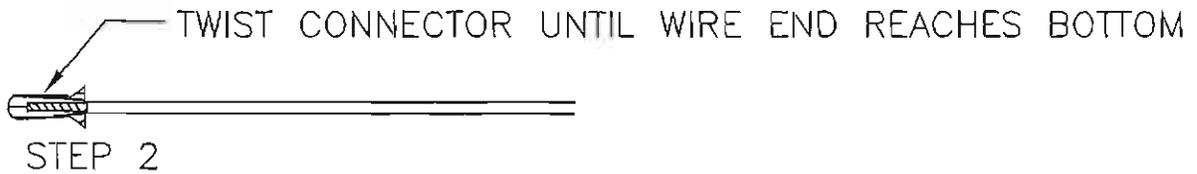
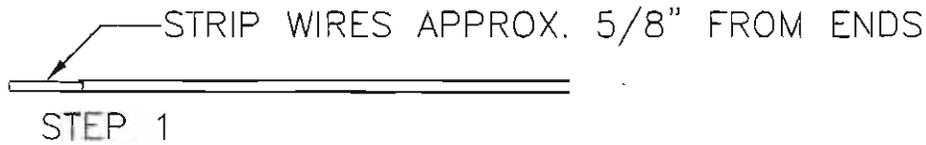
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CITY ENGINEER DATE
RICARDO SANDOVAL
REVIEWED BY: Timothy Rastedt
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CITY OF FONTANA

WIRE CONNECTOR

STD. PLAN NO. 5013

SHT 1 OF 1



"SCOTCH" SEALING PACK



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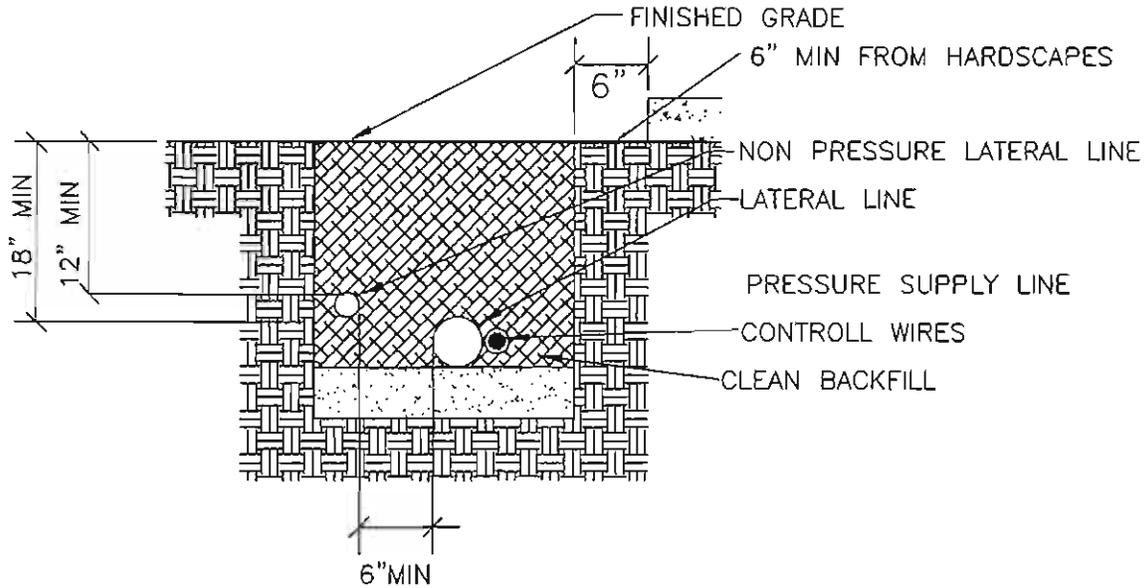
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CITY OF FONTANA

WIRE CONNECTOR

STD. PLAN NO. 5014

SHT 1 OF 1



FINE GRANULAR MATERIAL WILL BE PLACED ON ALL LINES, NO LARGER THAN 1/2" INCH IN SIZE. THIS WILL BE PERMITTED IN THE INITIAL BACKFILL MEASURED 6" FROM THE TOP OF PIPE. THE REMAINDER OF TRENCH CAN BE FILL WITH ROCK SCREENED 2" MINUS.

ALL BACK FILL IS TO BE SATURATED AND COMPACTED TO 90%
 INSTALL ALL PVC PIPE WITH LABEL UP.

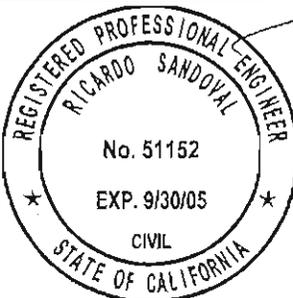
SNAKE ALL PIPE IN TRENCH.

BUNDLE AND TAPE ALL CONTROL WIRES AT 10' O.C. TO PRESSURE SUPPLY LINE AND PROVIDE A SERVICE LOOP AT ALL 90 DEGREE CHANGES IN DIRECTION.

PRESSURE MAIN 2" AND LARGER SHALL BE P.V.C. CLASS 315
 SMALLER THAN 2" SHALL BE P.V.C. SCHEDULE 40.

CONTRACTOR SHALL PROVIDE SLEEVES OR CONDUIT LINES WHEN MAINLINE INSTALLATION IS UNDER ASPHALT OR CONCRETE.

CONTRACTOR SHALL PROVIDE 24" INCHES OF COVER OVER PIPE SERVING A DRINKING FOUNTAIN OR PRESSURE MAINLINE 3" AND LARGER.



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REVIEWED BY: Timothy Rastedt

DATE OF LAST REVISION: 1-28-00

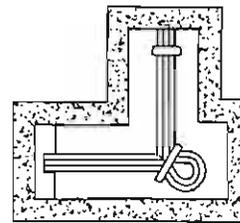
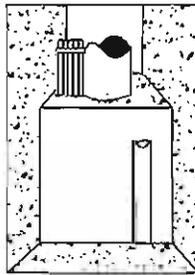
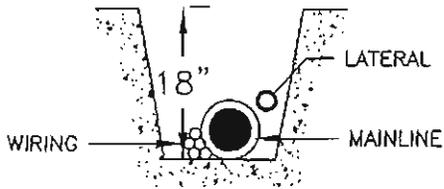
CITY OF FONTANA

TRENCHING DETAIL

STD. PLAN NO. 5015

SHT 1 OF 1

MAIN SUPPLY, LATERAL
AND WIRING



PROVIDE A 20" LOOP OF WIRE
IN ALL CHANGES OF DIRECTION
GREATER THAN 30 DEGREES REMOVE
TIES AFTER ALL CONNECTIONS
HAVE BEEN MADE

PLAN VIEW

NOTE:
DO NOT INSTALL 120 VOLTAGE OR HIGHER WIRE
IN THE SAME TRENCH AS THE IRRIGATION
CONTROL WIRING



APPROVED BY:

Ricardo Sandoval 10/18/06

CITY ENGINEER
RICARDO SANDOVAL

DATE

REVIEWED BY: Timothy Rastedt

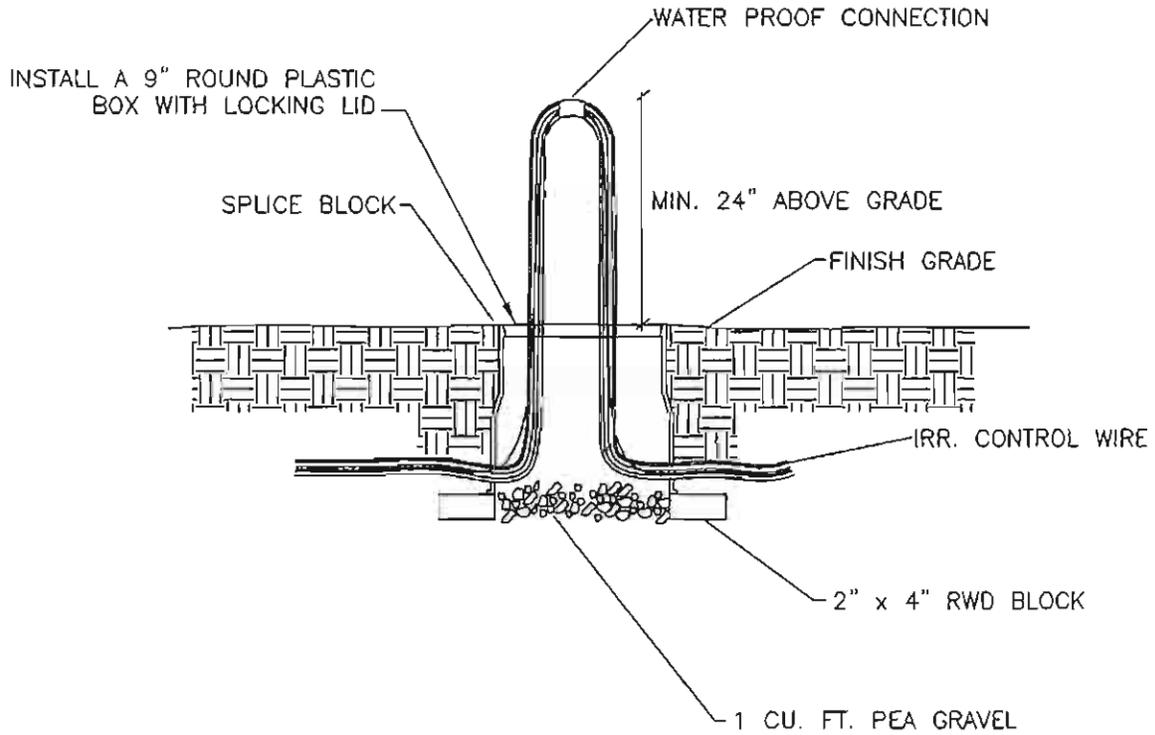
DATE OF LAST REVISION: 1-28-00

CITY OF FONTANA

PIPING AND WIRING

STD. PLAN NO. 5016

SHT 1 OF 1



NOTE:

REMOTE CONTROL BOX MAY BE USED IN LIEU OF SPLICE BOX.



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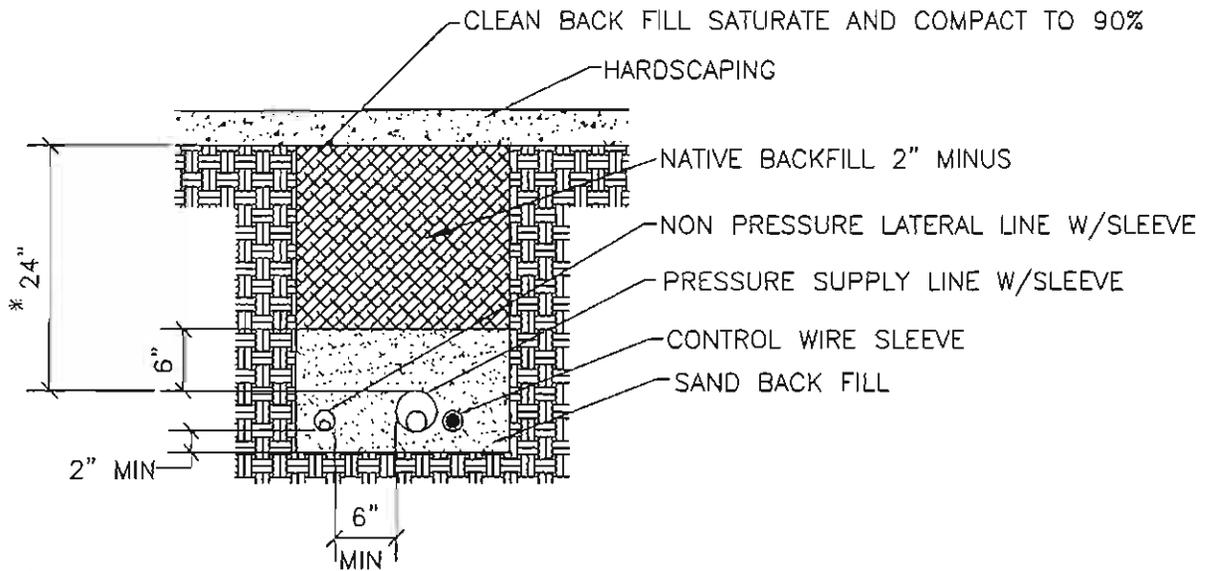
DATE OF LAST REVISION: 1-28-00

CITY OF FONTANA

**SPLICE BOX
ASSEMBLY**

STD. PLAN NO. 5017

SHT 1 OF 1



NOTES:

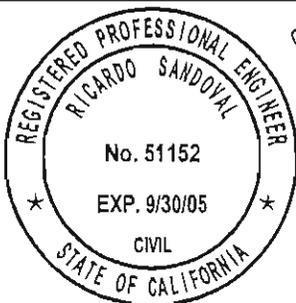
INSTALL CONTROL WIRE SLEEVE ADJACENT TO THE PRESSURE SUPPLY LINE, SIZE PER SPEC.

ALL SLEEVES TO BE SCH. 40 PVC AND TO BE 2X THE DIAMETER OF THE LINE TO BE SLEEVED.

* INCREASE THIS DISTANCE TO 36" WHEN SLEEVING UNDER ROADWAYS AND COMMERCIAL TRAFFIC WAYS WHEN INSTRUCTED BY INSPECTOR.

SLEEVES SHALL BE EXTENDED BEYOND HARDSCAPE TO POINTS AS REQUESTED BY INSPECTOR

IF SLEEVES ARE TO BE USED AT A LATER DATE, CONTRACTOR SHALL TAPE ENDS AND PROVIDE A VERTICAL MARK AT ENDS OF SLEEVING VISIBLE AT GROUND LEVEL.



APPROVED BY:

Ricardo Sandoval 10-18-00

CITY ENGINEER DATE
RICARDO SANDOVAL

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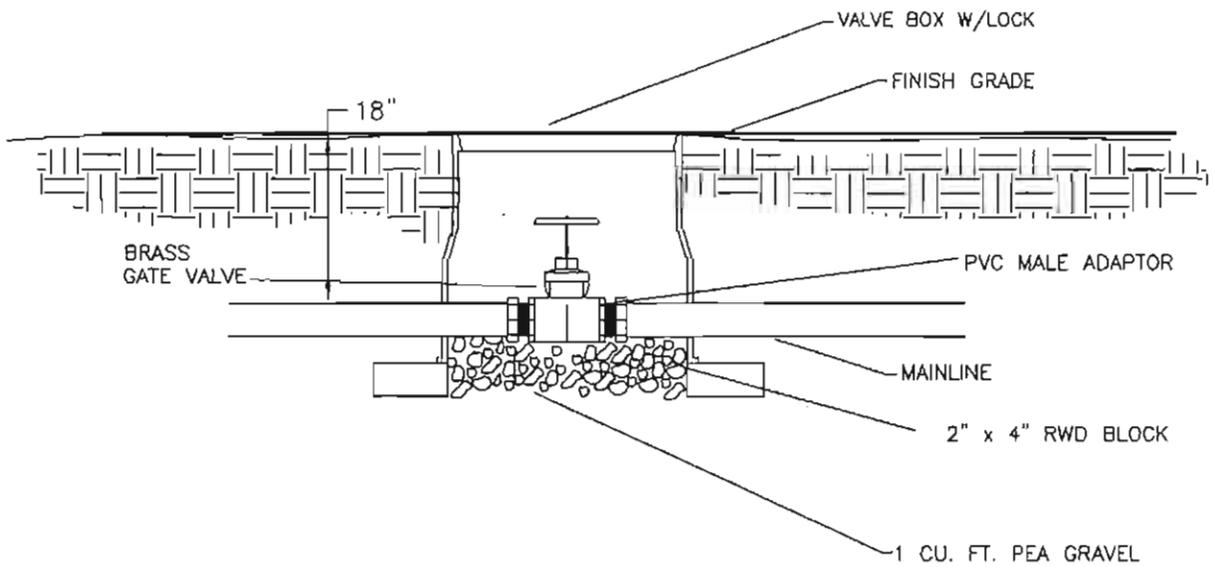
DATE OF LAST REVISION: 1-28-00

CITY OF FONTANA

SLEEVING DETAIL

STD. PLAN NO. 5018

SHT 1 OF 1



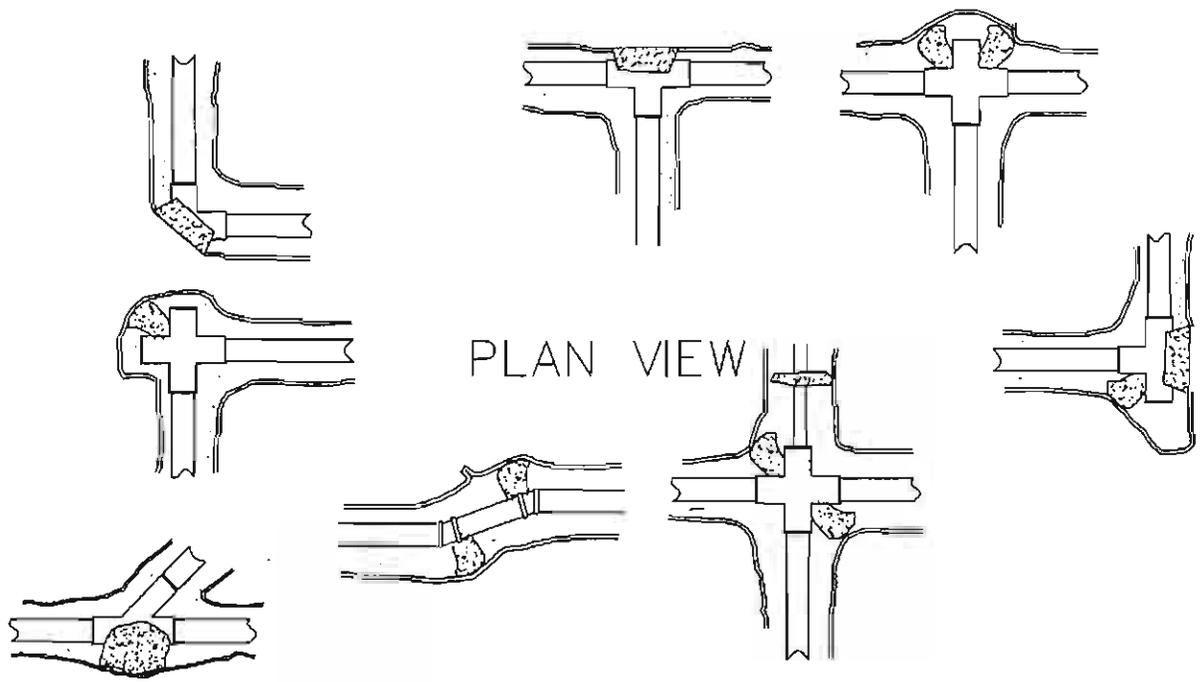
APPROVED BY: *Ricardo Sandoval* 10-18-06
 CITY ENGINEER DATE
RICARDO SANDOVAL
 REVIEWED BY: Timothy Rastedt
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CITY OF FONTANA

GATE VALVE

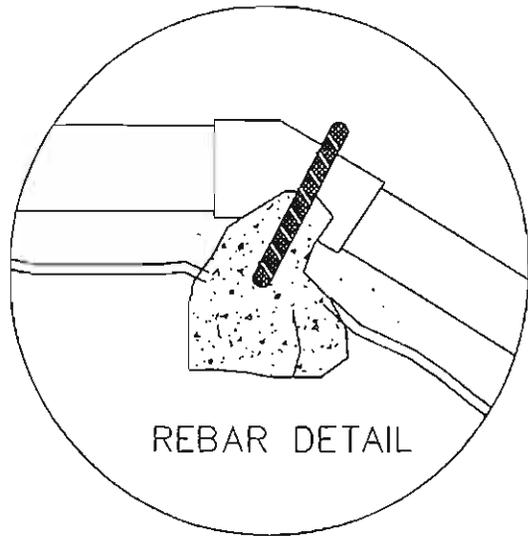
STD. PLAN NO. 5019

SHT 1 OF 1

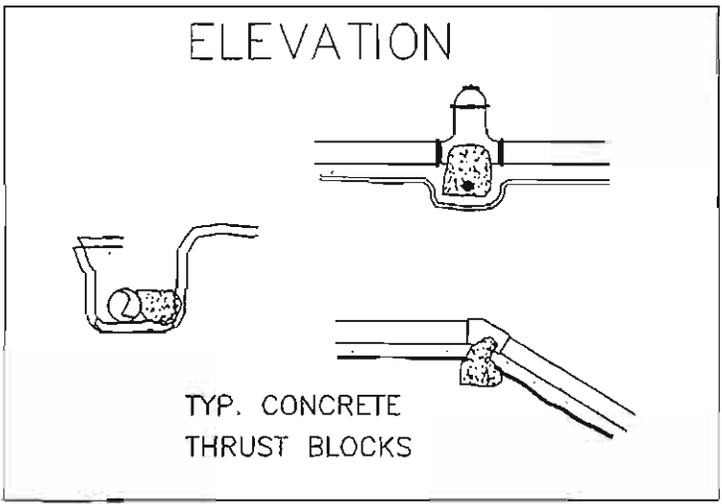


PLAN VIEW

TYP. CONCRETE TO REST AGAINST UNDISTURBED SOIL



REBAR DETAIL



ELEVATION

TYP. CONCRETE THRUST BLOCKS

NOTE: THRUST BLOCKS SHALL BE INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURER'S RECOMMENDATION FOR SIZE OF PIPING REQUIRED.

UTILIZED IN ALL (2 1/2" AND LARGER MAINLINE PIPE)

#3 REBAR TO BE PLACED AROUND PIPE INTO THRUST BLOCK TYP.

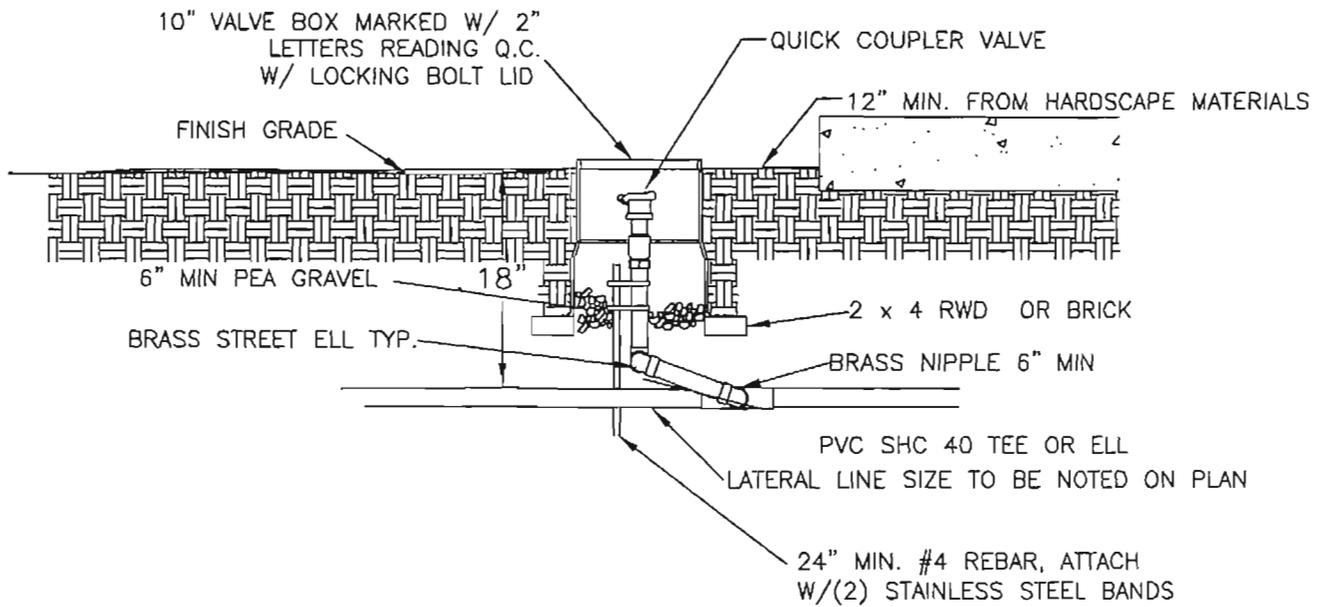


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CITY OF FONTANA

THRUST BLOCK ASSEMBLY

STD. PLAN NO. 5020 SHT 1 OF 1



NOTE:
USE TEFLON TAPE ON ALL THREADED FITTINGS



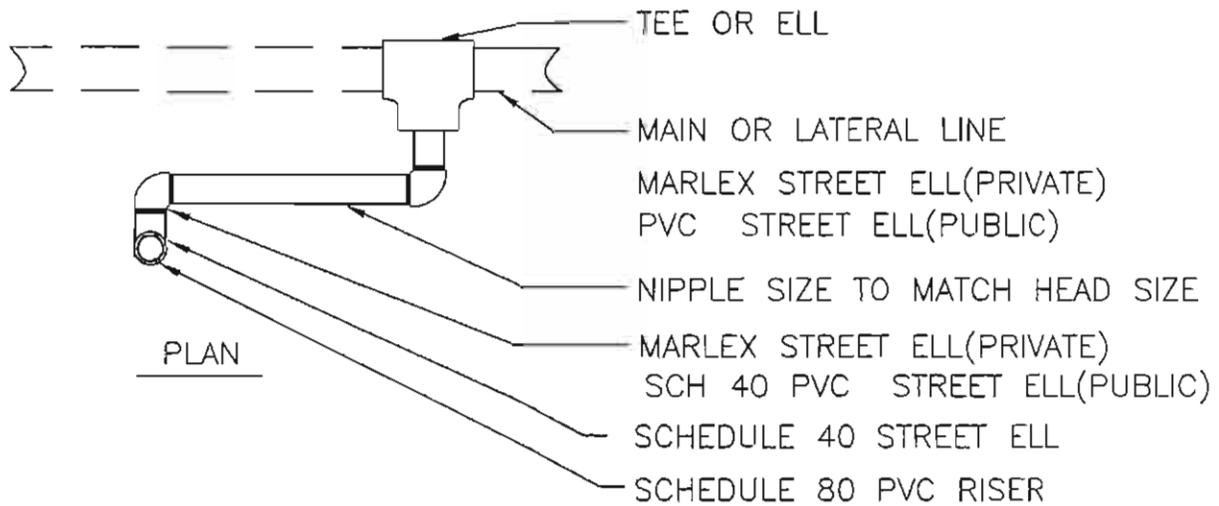
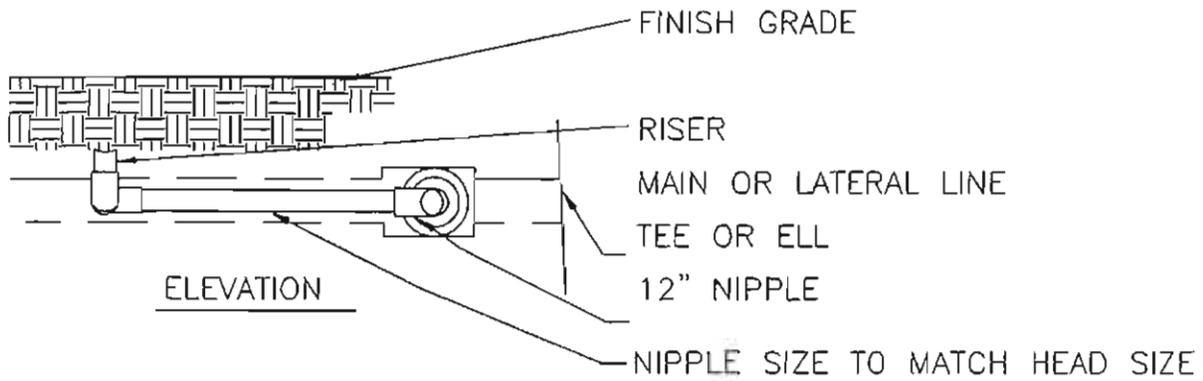
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CITY OF FONTANA

QUICK COUPLER

STD. PLAN NO. 5021

SHT 1 OF 1



NOTE: ALL PIPE AND FITTINGS SHALL BE SCHEDULE 40 PVC UNLESS OTHERWISE SPECIFIED

USE PVC STREET ELLS W/TEFLON TAPE FOR ALL PUBLIC JOBS



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CITY ENGINEER
RICARDO SANDOVAL

DATE

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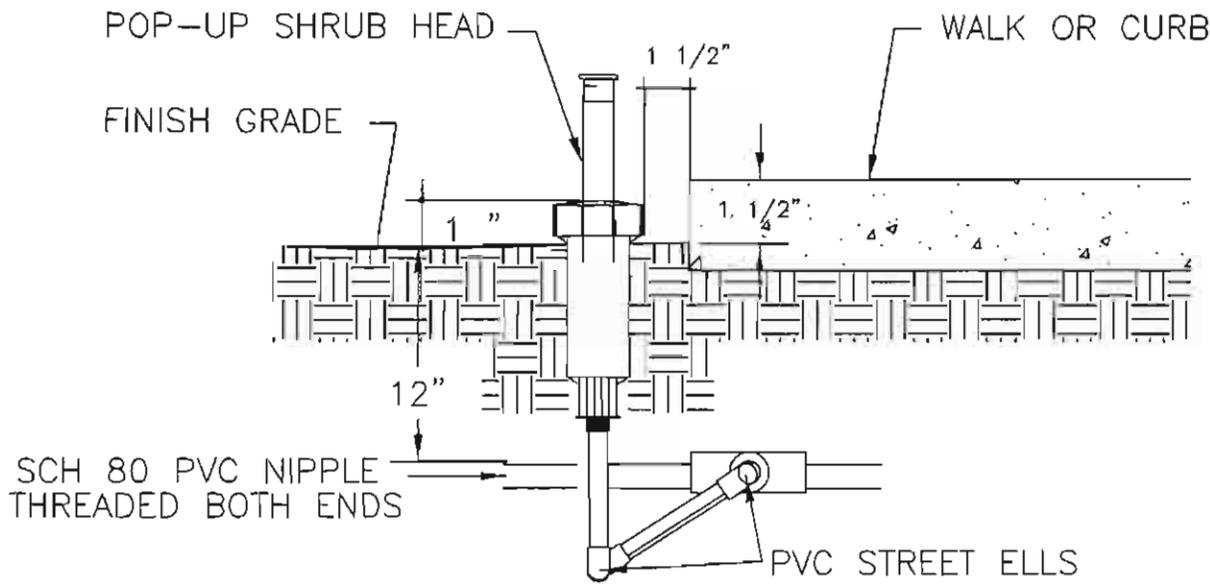
DATE OF LAST REVISION: 1-28-00

CITY OF FONTANA

SWING JOINT

STD. PLAN NO. 5022

SHT 1 OF 1

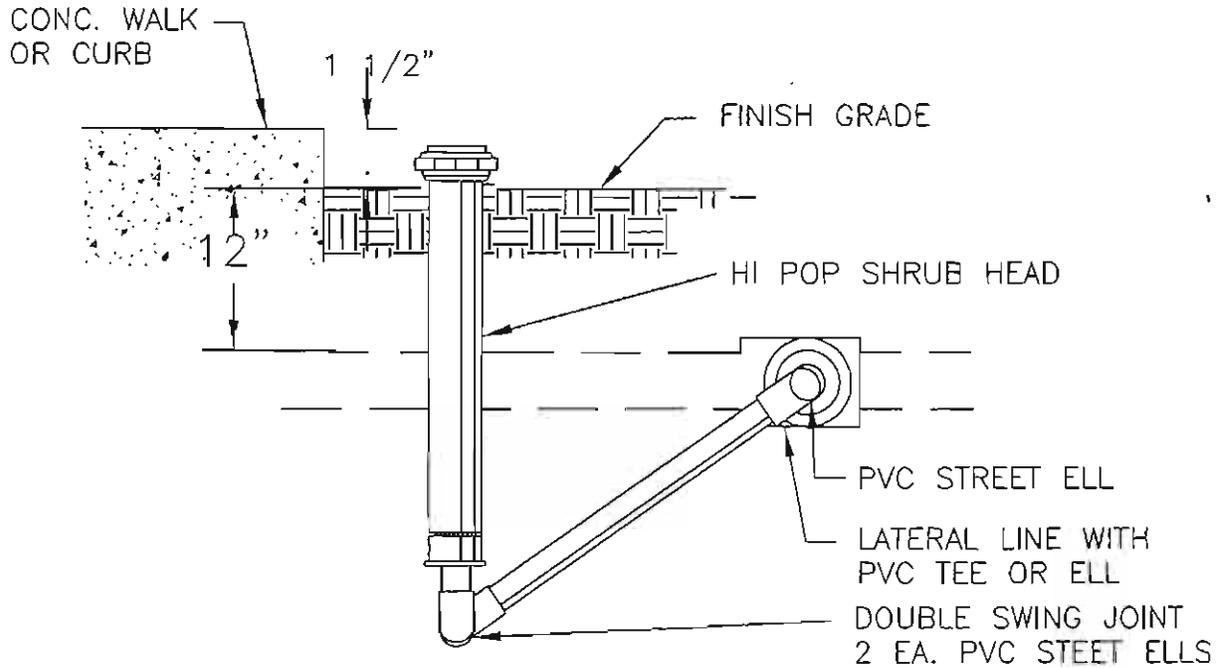


- NOTE:
- INSTALL 12" SHRUB POP-UP HEAD 1 1/2" ABOVE F.G.
 - F.G. - 1 1/2" BELOW WALK OR CURB
 - CHECK VALVE FOR LOW HEAD DRAINAGE



APPROVED BY: *Ricardo Sandoval*
 CITY ENGINEER DATE 10.18.06
 REVIEWED BY: Timothy Rastedt
 DATE OF LAST REVISION: 1-28-00

CITY OF FONTANA	
LAWN / 4" 6" 8" SHRUB POP-UP HEAD	
STD. PLAN NO. 5023	SHT. 1 OF 1



NOTE:

INSTALL HI-POP IRR. HEAD 1 1/2" ABOVE F.G.
F.G. 1 1/2" BELOW HARDSCAPE

INSTALL CHECK VALVES FOR LOW HEAD DRAINAGE



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Ricardo Sandoval
CITY ENGINEER DATE

RICARDO SANDOVAL

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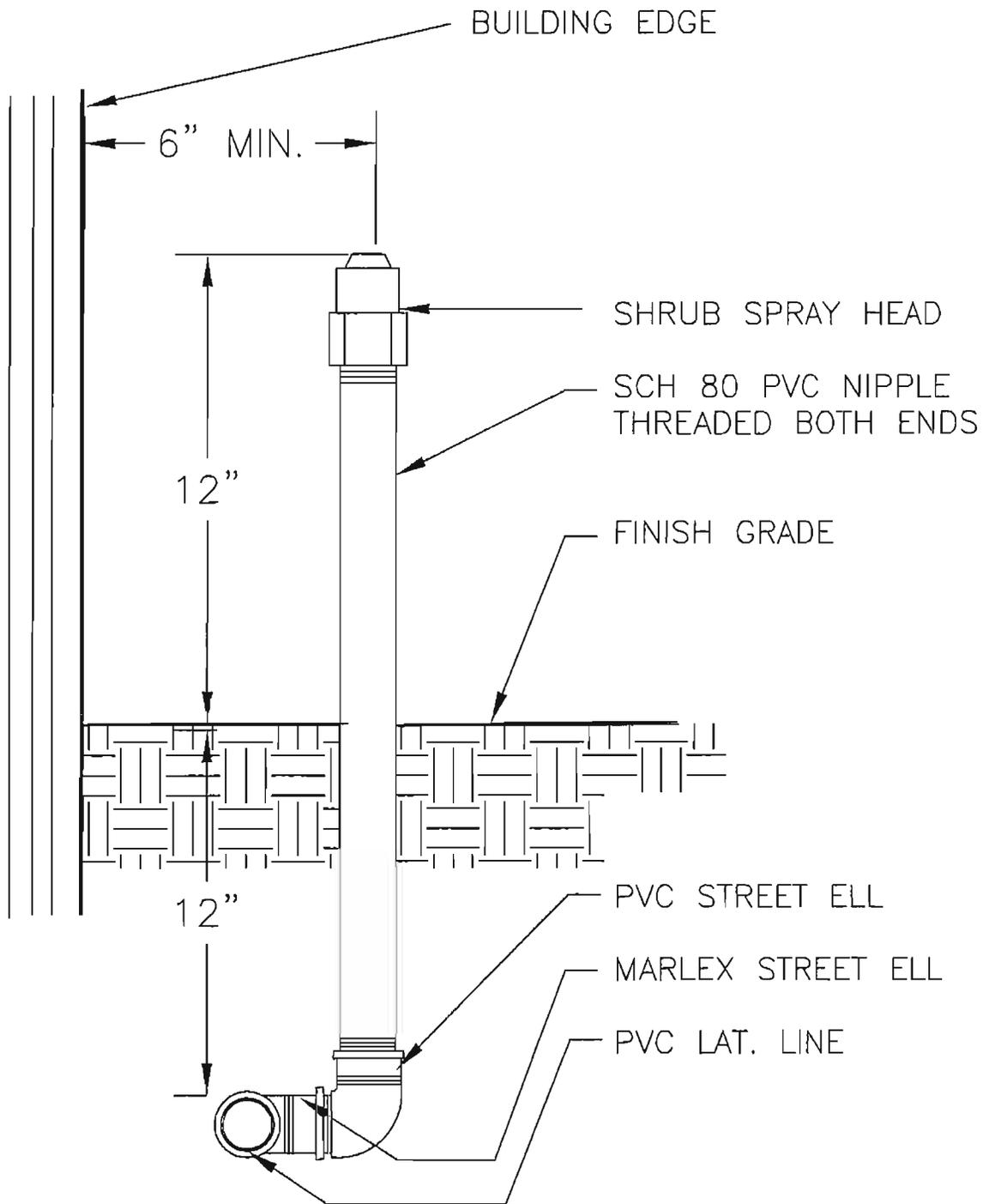
DATE OF LAST REVISION: 1-28-00

CITY OF FONTANA

HI POP SHRUB HEAD

STD. PLAN NO. 5024

SHT 1 OF 1



NOTE: FIXED RAISERS ALLOWED ONLY AGAINST BUILDINGS WALLS, FENCES, ETC.



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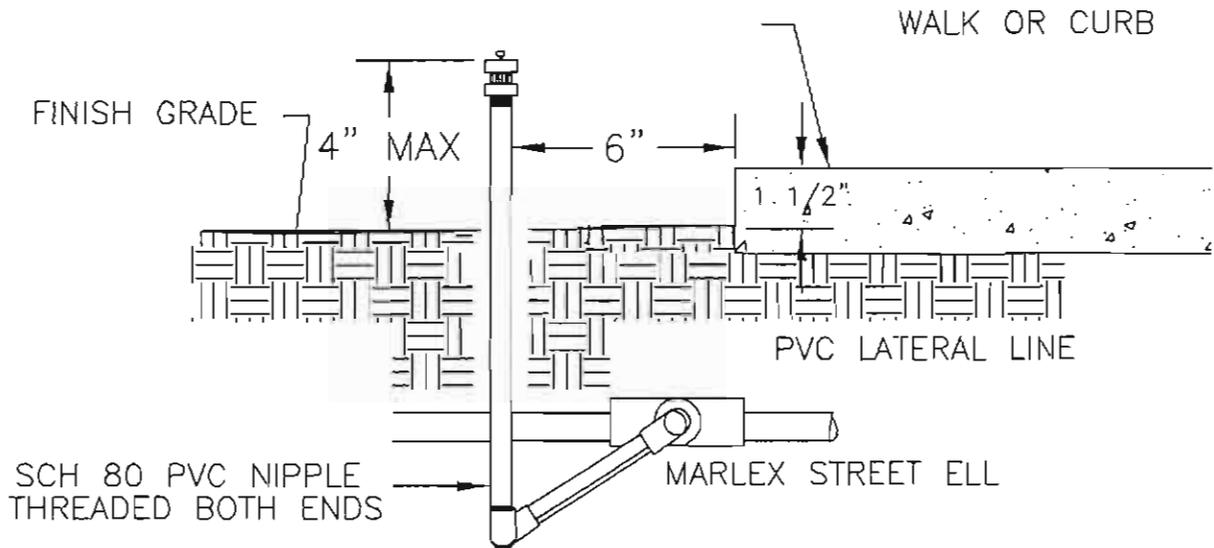
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CITY OF FONTANA

SHRUB SPRAY HEAD

STD. PLAN NO. 5025

SHT 1 OF 1



NOTE:

- ALL BUBBLERS TO BE INSTALLED WITH TRIPLE SWING JOINTS
- F.G. - 1 1/2" BELOW WALK OR CURB



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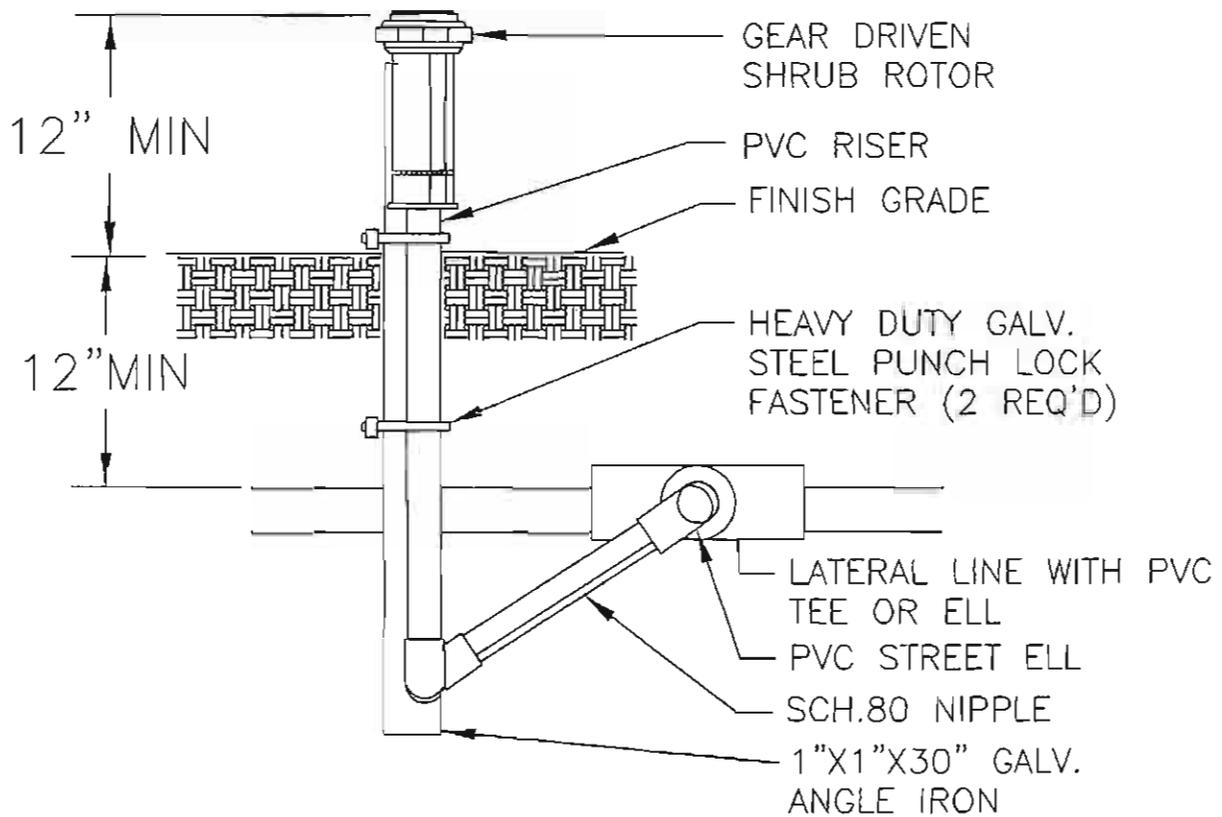
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CITY OF FONTANA

BUBBLER HEAD

STD. PLAN NO. 5026

SHT 1 OF 1



APPROVED BY:

Ricardo Sandoval - 10.18.00

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RICARDO SANDOVAL

REVIEWED BY: Timothy Rastedt

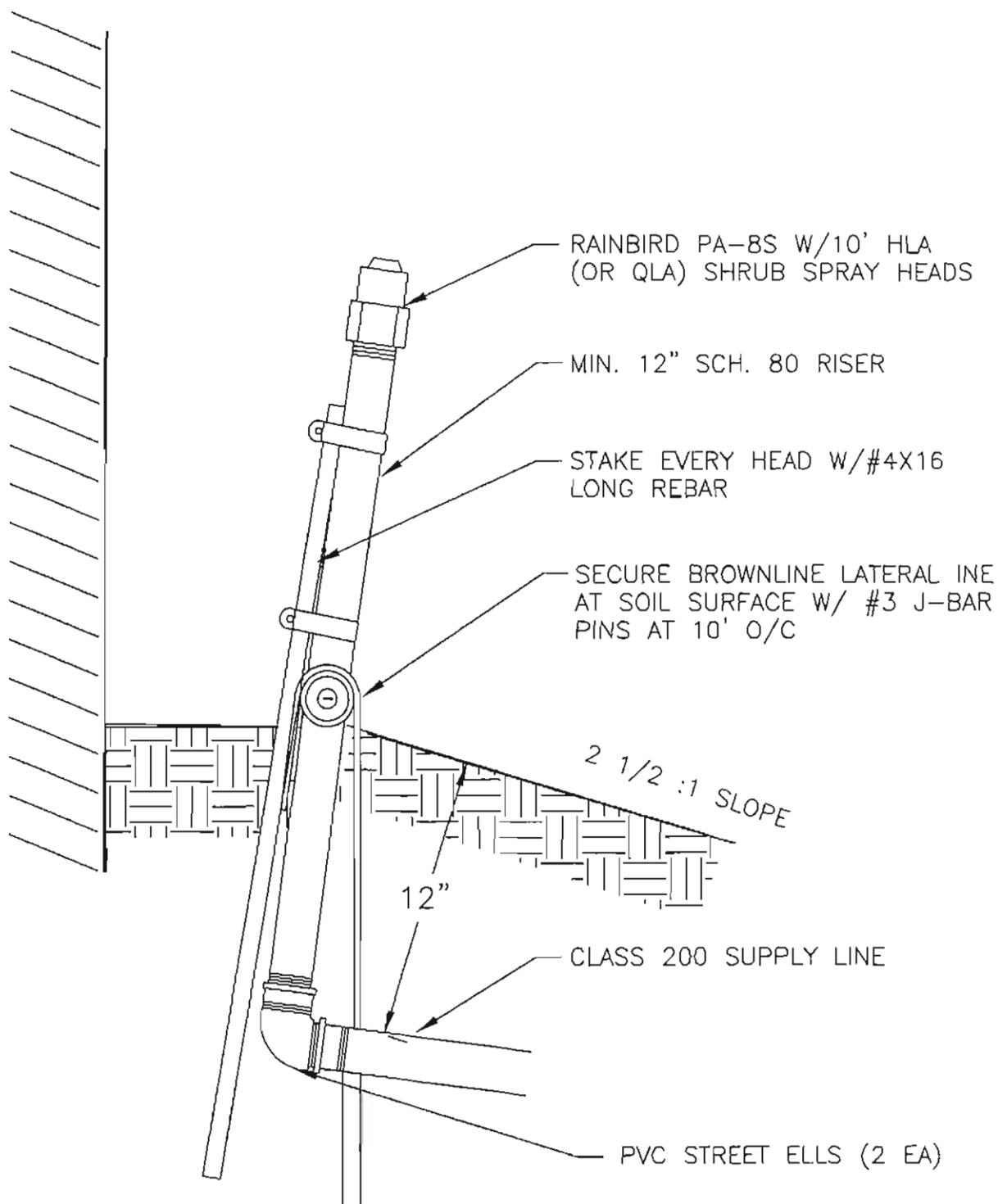
DATE OF LAST REVISION: 1-28-00

CITY OF FONTANA

SHRUB ROTOR

STD. PLAN NO. 5027

SHT 1 OF 1

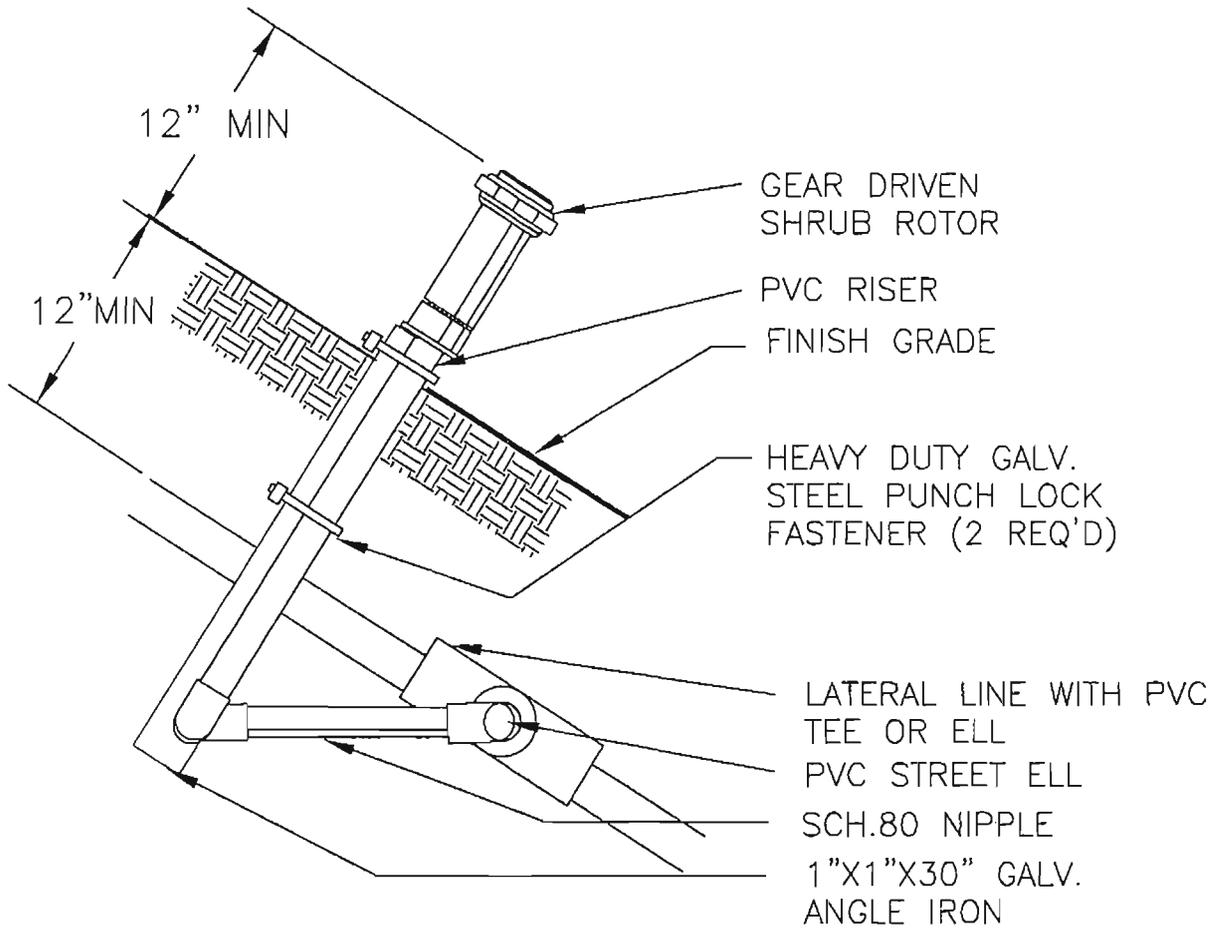


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RICARDO SANDOVAL
 REVIEWED BY: Timothy Rastedt
 DATE OF LAST REVISION: 1-28-00

CITY OF FONTANA

IRRIGATION AT
TOP OF SLOPE

STD. PLAN NO. 5028 SHT 1 OF 1



APPROVED BY:

Ricardo Sandoval 10.18.06

CITY ENGINEER
RICARDO SANDOVAL

DATE

REVIEWED BY: Timothy Rastedt

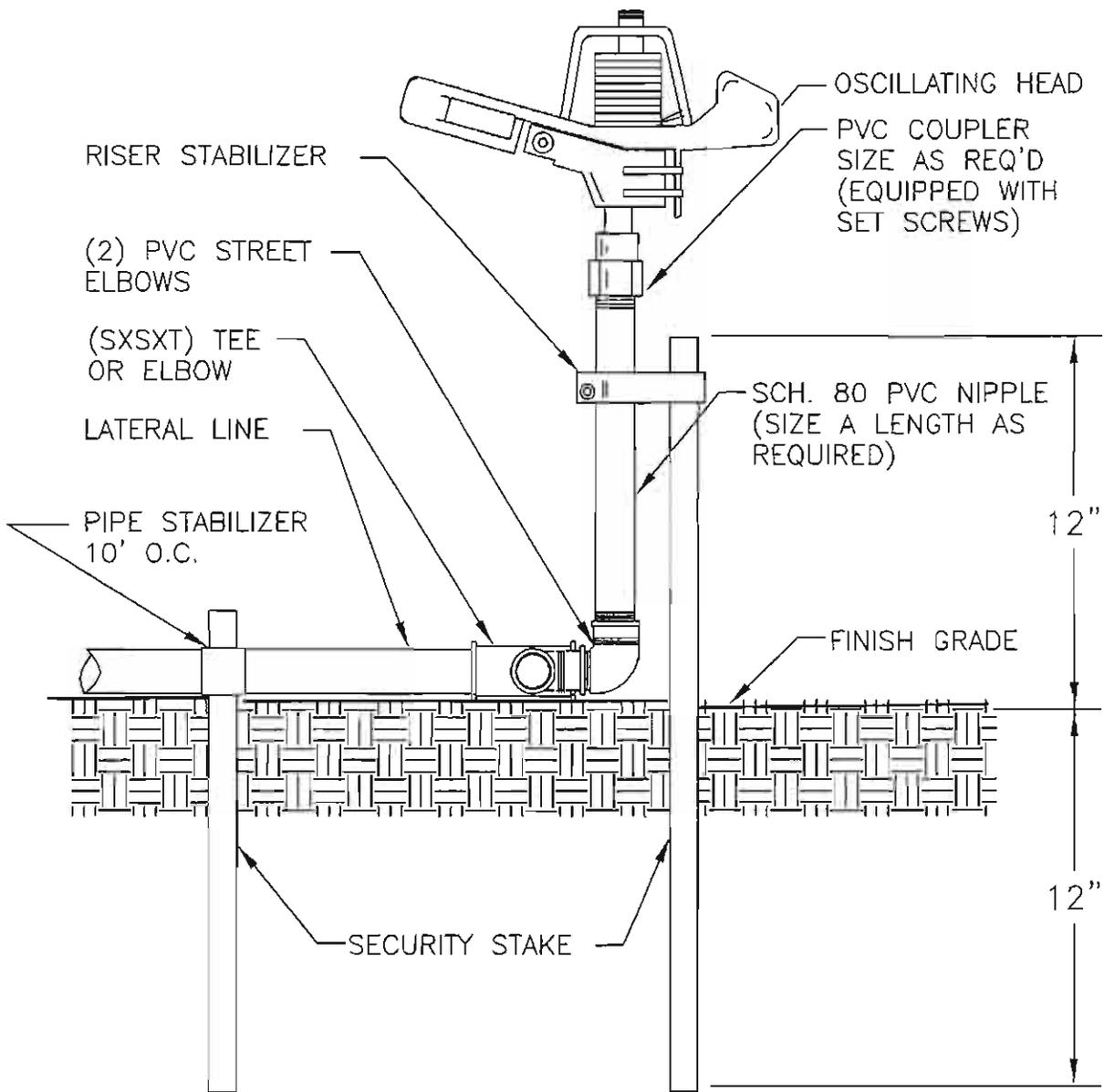
DATE OF LAST REVISION: 1-28-00

CITY OF FONTANA

**SHRUB ROTOR
 ON SLOPE**

STD. PLAN NO. 5029

SHT 1 OF 1



NOTE: CONTRACTOR SHALL TILT HEAD AS REQUIRED TO BEST SUIT SITE COVERAGE



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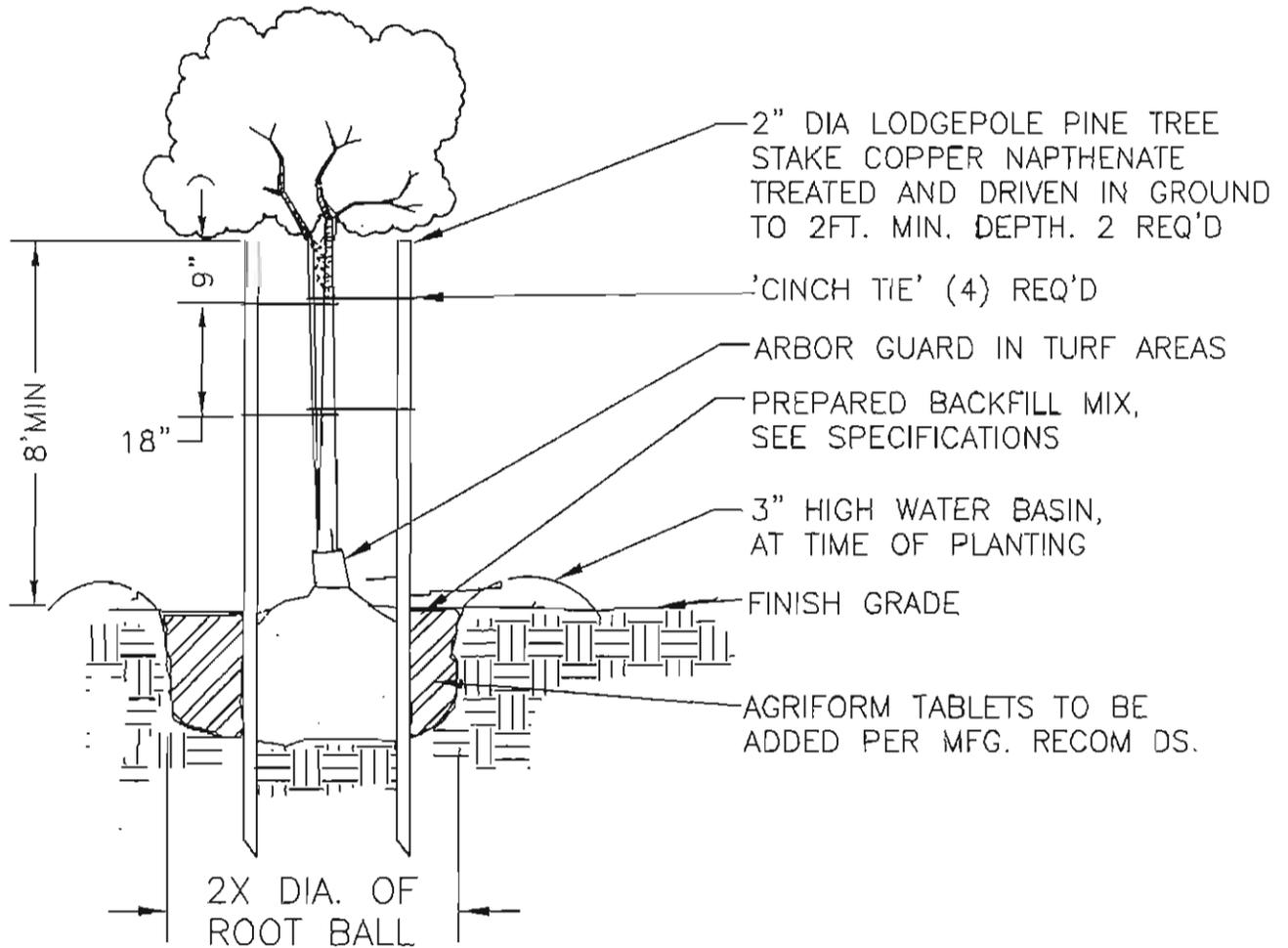
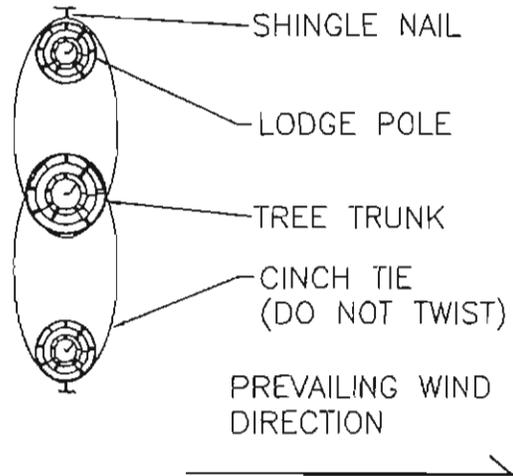
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CITY OF FONTANA

**OSCILLATING HEAD
 ASSEMBLY**

STD. PLAN NO. 5030

SHT 1 OF 1



APPROVED BY:

Ricardo Sandoval 10.18.00
 CITY ENGINEER DATE

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REVIEWED BY: Timothy Rostedt

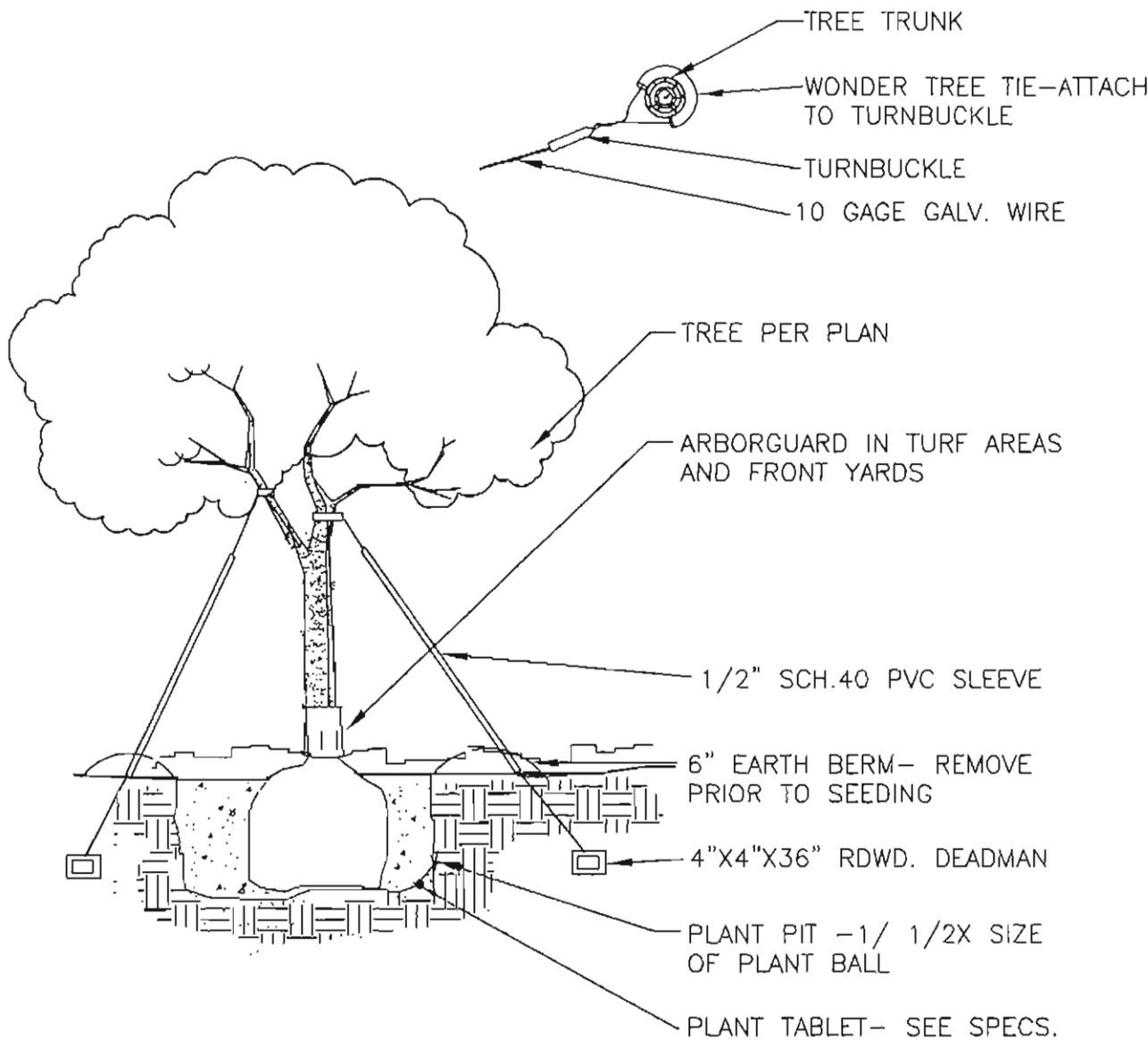
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CITY OF FONTANA

TREE STAKING

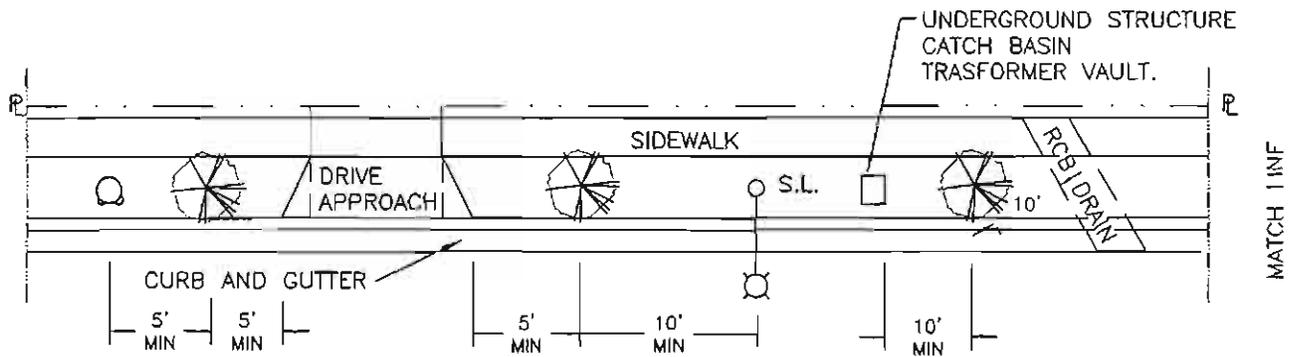
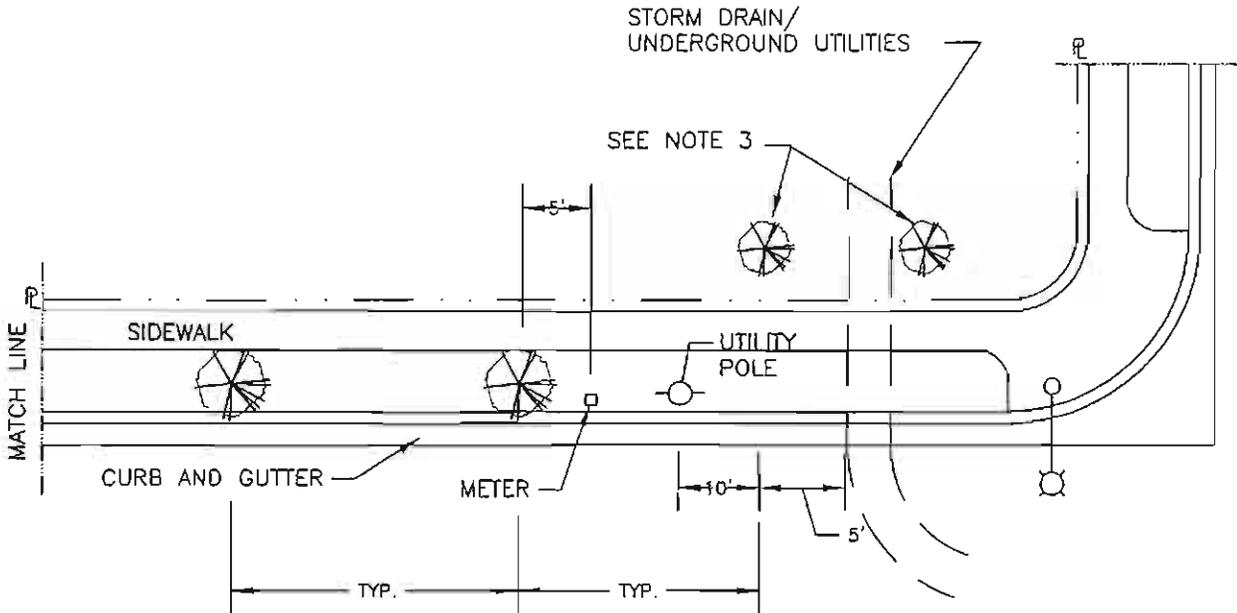
STD. PLAN NO. 5031

SHT 1 OF 1



APPROVED BY: *Ricardo Sandoval* 10.18.00
 CITY ENGINEER DATE
RICARDO SANDOVAL
 REVIEWED BY: Timothy Rastedt
 DATE OF LAST REVISION: 1-28-00

CITY OF FONTANA	
TREE GUYING	
STD. PLAN NO. 5032	SHT 1 OF 1



NOTES:

1. TREE SPACING SHALL CONFORM TO PLANS APPROVED BY THE CITY ENGINEER
2. ALL TREES IN THE R.O.W. ARE SUBJECT TO LINE OF SIGHT CRITERIA AS APPROVED BY TRAFFIC ENGINEER.
3. AT ALL LOCAL RESIDENTIAL INTERSECTIONS THE FIRST TWO PARKWAY TREES AT ALL APPROACHES TO BE PLACED BEHIND SIDEWALK.
4. MAINTAIN 10 FEET FROM CENTER OF STREET TO EDGE OF ALL UNDERGROUND FACILITIES.
4. MAINTAIN 10 FEET FROM ALL STREET LIGHTS, UTILITIES STRUCTURES AND VALVE BOXES.



APPROVED BY:

Ricardo Sandoval 10.18.06
CITY ENGINEER DATE

RICARDO SANDOVAL

REVIEWED BY: Timothy Rastedt

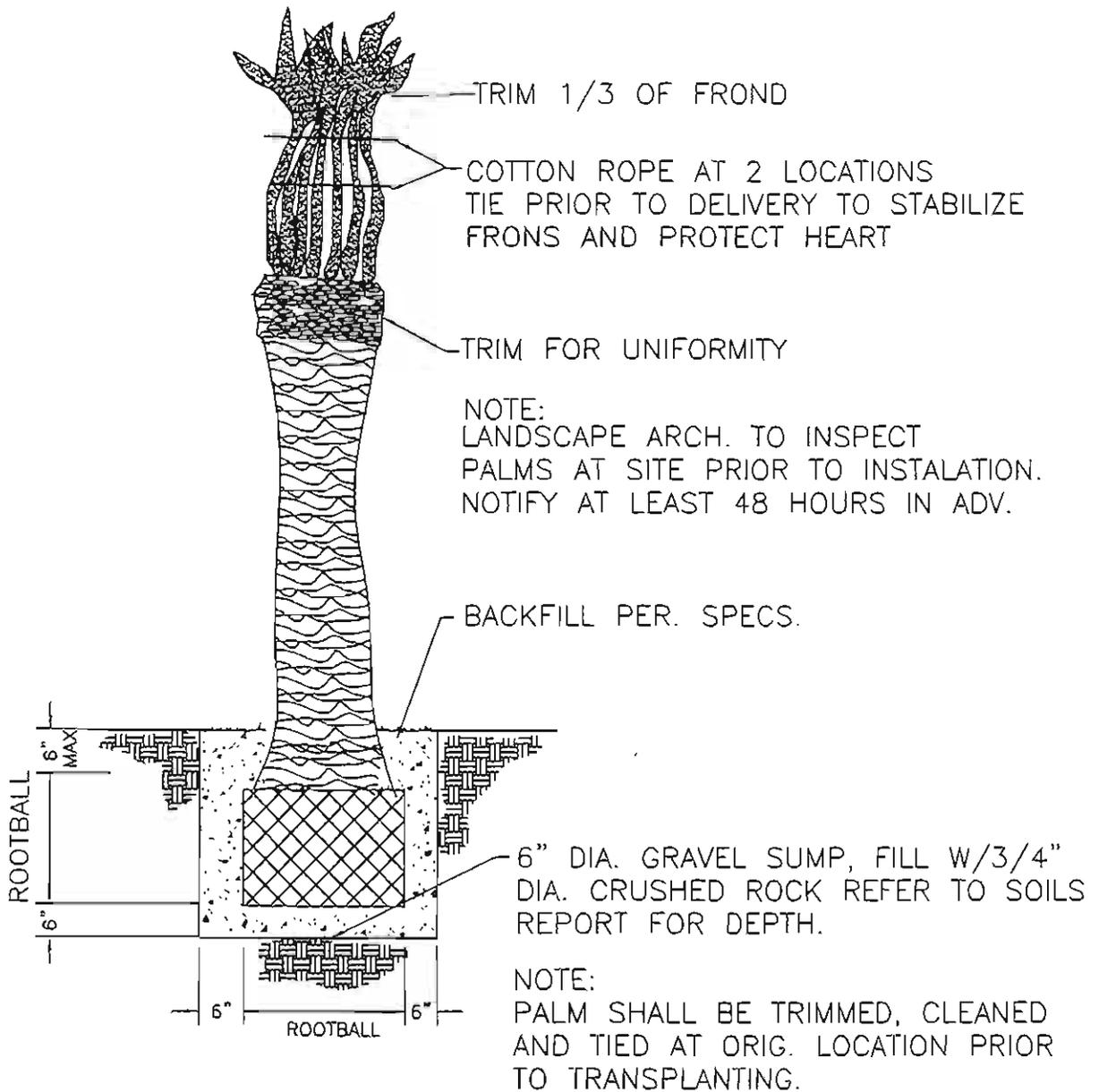
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CITY OF FONTANA

TREE PLACEMENT

STD. PLAN NO. 5033

SHT 1 OF 1



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RICARDO SANDOVAL

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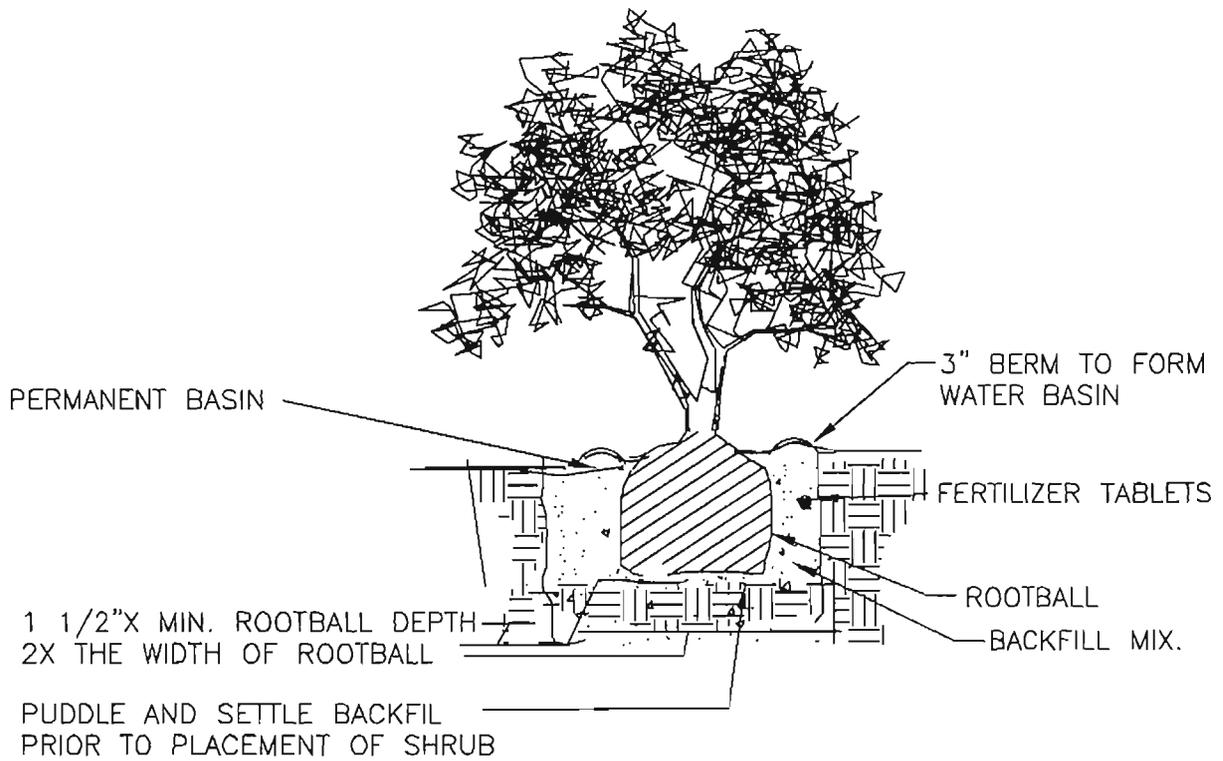
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CITY OF FONTANA

PALM TREE INSTALLATION

STD. PLAN NO. 5034

SHT 1 OF 1



APPROVED BY:

Timothy Rastadt 10.18.00

CITY ENGINEER
RICARDO SANDOVAL

DATE

REVIEWED BY: Timothy Rastadt

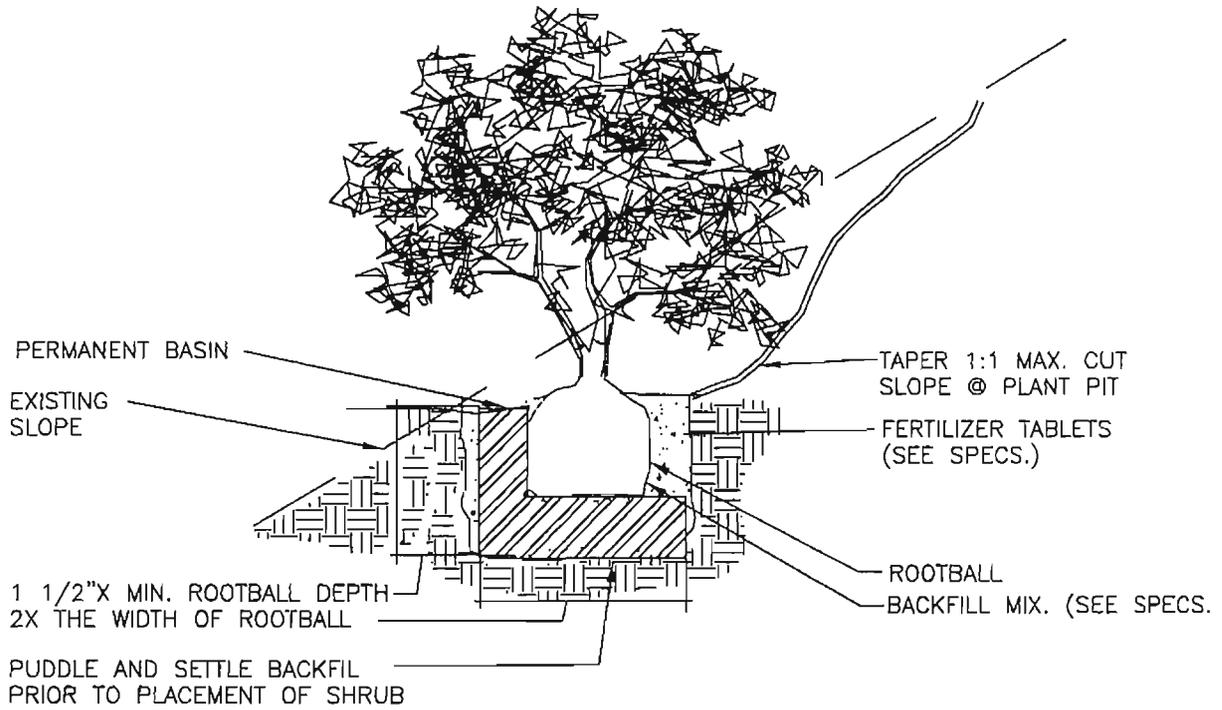
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CITY OF FONTANA

SHRUB PLANTING

STD. PLAN NO. 5035

SHT 1 OF 1



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Ricardo Sandoval 10-13-06

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RICARDO SANDOVAL

DATE

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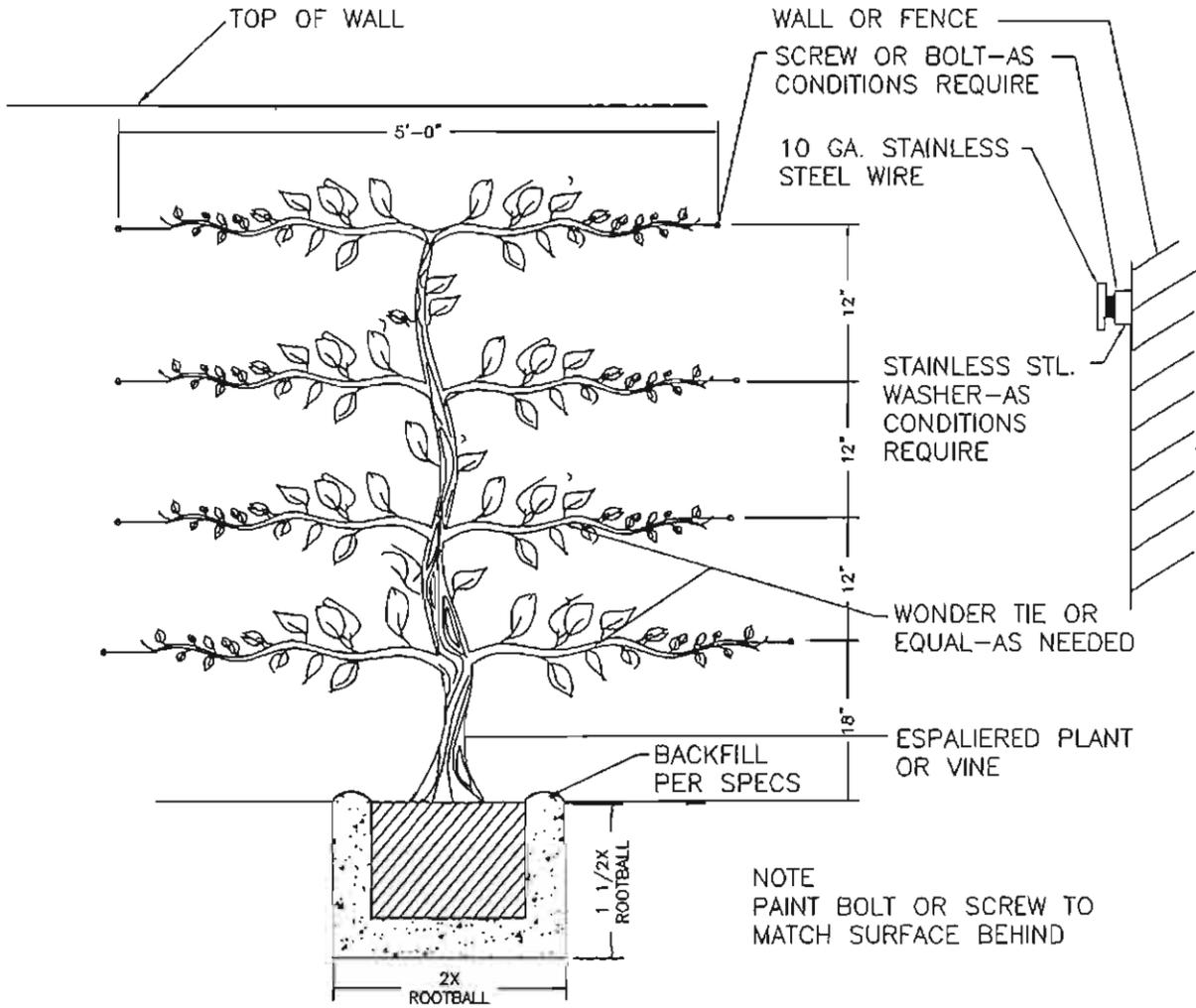
DATE OF LAST REVISION: 1-28-00

CITY OF FONTANA

SHRUB ON SLOPE

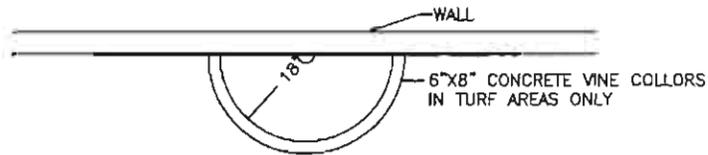
STD. PLAN NO. 5036

SHT 1 OF 1



NOTE
PAINT BOLT OR SCREW TO
MATCH SURFACE BEHIND

ELEVATION VIEW



PLAN VIEW



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Ricardo Sandoval 10-18-00

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RICARDO SANDOVAL

DATE

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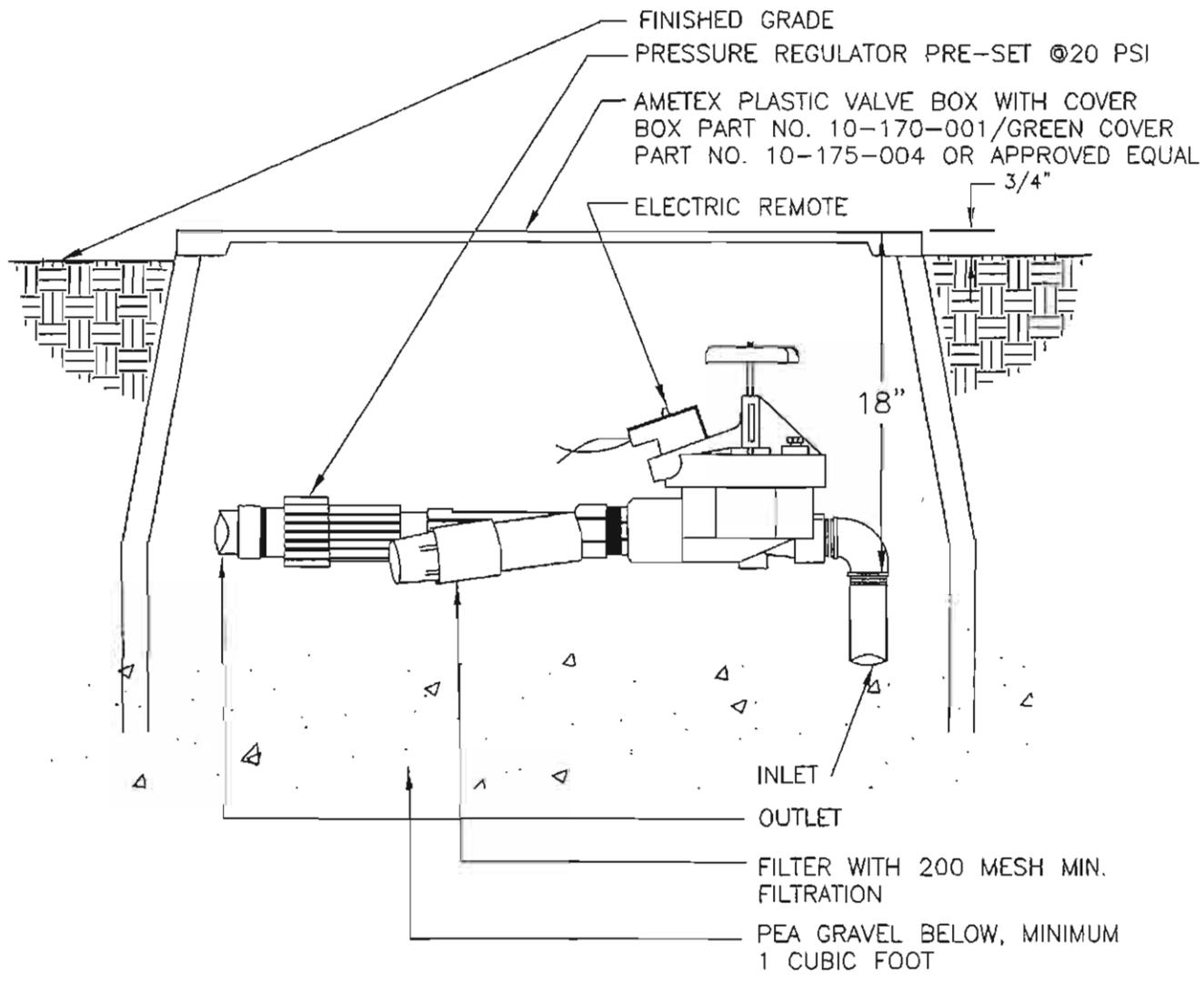
DATE OF LAST REVISION: 1-28-00

CITY OF FONTANA

VINE PLANTING

STD. PLAN NO. 5037

SHT 1 OF 1

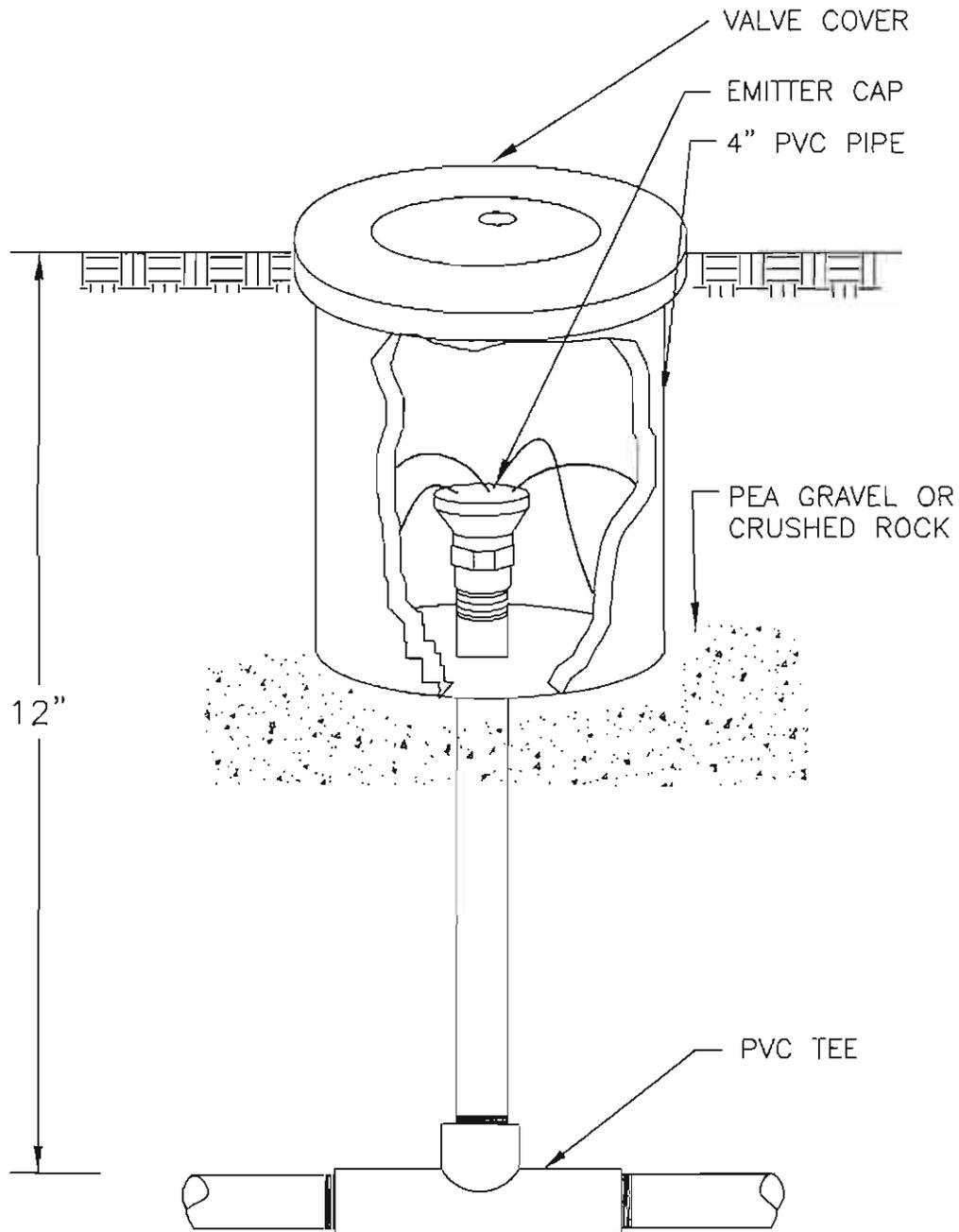


NOTE: INSTALL CONTROL VALVES MINIMUM OF 3 FT. APART
IN SHRUB AREAS UNLESS OTHERWISE NOTED.



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CITY OF FONTANA	
AUTOMATIC DRIP VALVE	
STD. PLAN NO. 5038	SHT 1 OF 1



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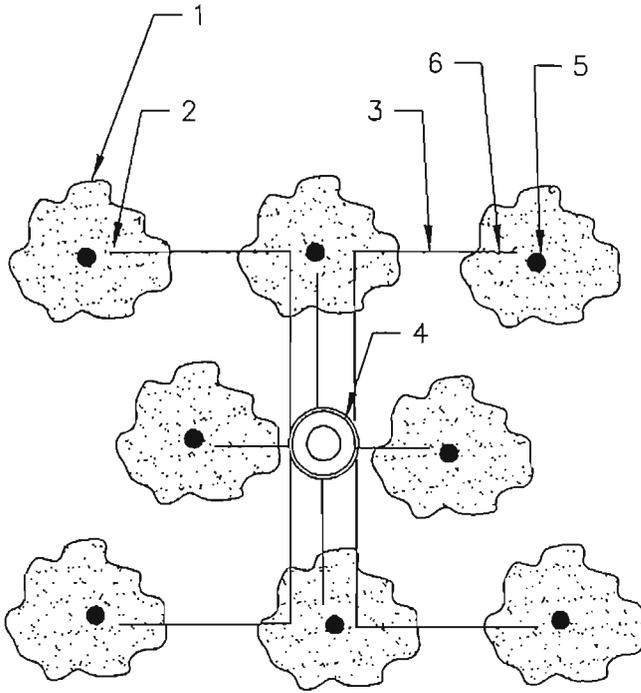
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CITY OF FONTANA

EMITTER

STD. PLAN NO. 5039

SHT 1 OF 1



LEGEND:

1. PLANT MATERIAL TYP.
2. EMISSION POINT, SEE XERI-DETAILS
3. RAIN BIRD MODEL #DT-025 1/4 DISTRIBUTION TUBING. MAX LENGTH PER SPECS.
4. RAIN BIRD XERI-BIRD 8 UNIT FLOW PORT PER IRR. EQUIP. LEGEND
5. RAIN BIRD MODEL # DAC-025 DIFFUSURE BUG CAP(TYP.)
6. RAIN BIRD MODEL #TS-025 TURNING STAKE (TYP.)

NOTE

THE RAINBIRD PRODUCTS LISTED ABOVE ARE SUGESTED ONLY. PRODUCTS OF EQUAL QUALITY CAN BE USED.



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Ricardo Sandoval - 10.18.00

CITY ENGINEER
RICARDO SANDOVAL

DATE

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CITY OF FONTANA

EMITTER LAYOUT

STD. PLAN NO. 5040

SHT 1 OF 1

PROVIDE 1 BUBBLER OR EMITTER, SEE PLAN IN EACH POT AS SHOWN ON IRR. PLAN. LOCATE AWAY FROM CENTER OF POT AS SHOWN

1/2" P.V.C. SUPPLY LINE ANGLE AS SHOWN TO LOCATE BUBBLER AS SHOWN

SOIL LEVEL

1/2" MALE RISER FROM THREAD TO POT

DECORATER POT (TYP.)

BORE 1" DIA. HOLE IN CENTER OF EA. POT

PROVIDE 2" OF PEA GRAVEL

1/2" PVC. FEMALE THREADED RIGGED @ FINISH SURFACE

PROVIDE HOLE IN PAVING TO ALLOW FOR SLEEVE SEAL W/SILICON

PVC SLEEVING 2X DIA. OF PIPE

APPROVED BY:

[Signature] 10.18.06
CITY ENGINEER DATE

RICARDO SANDOVAL

REVIEWED BY: Timothy Rastedt

DATE OF LAST REVISION: 1-28-00

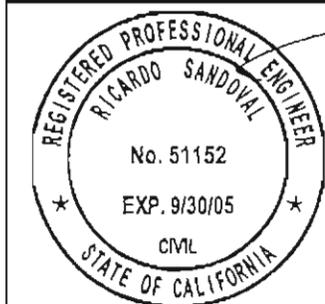
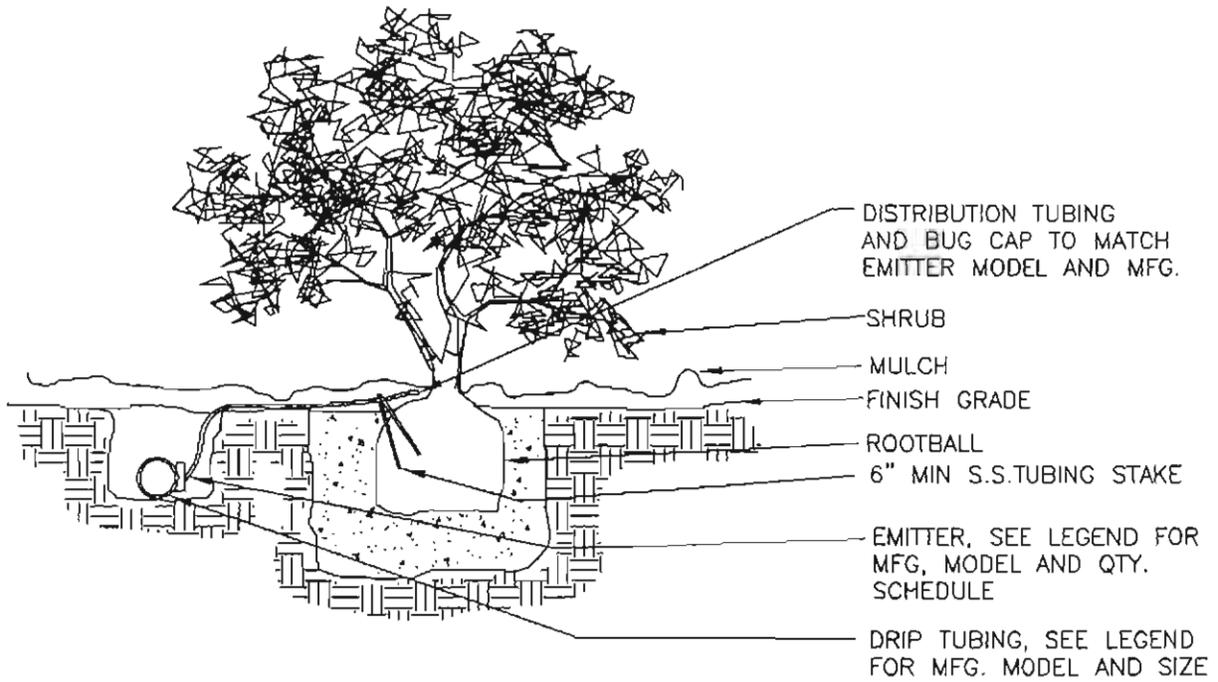
CITY OF FONTANA

POT IRRIGATION

STD. PLAN NO. 5041

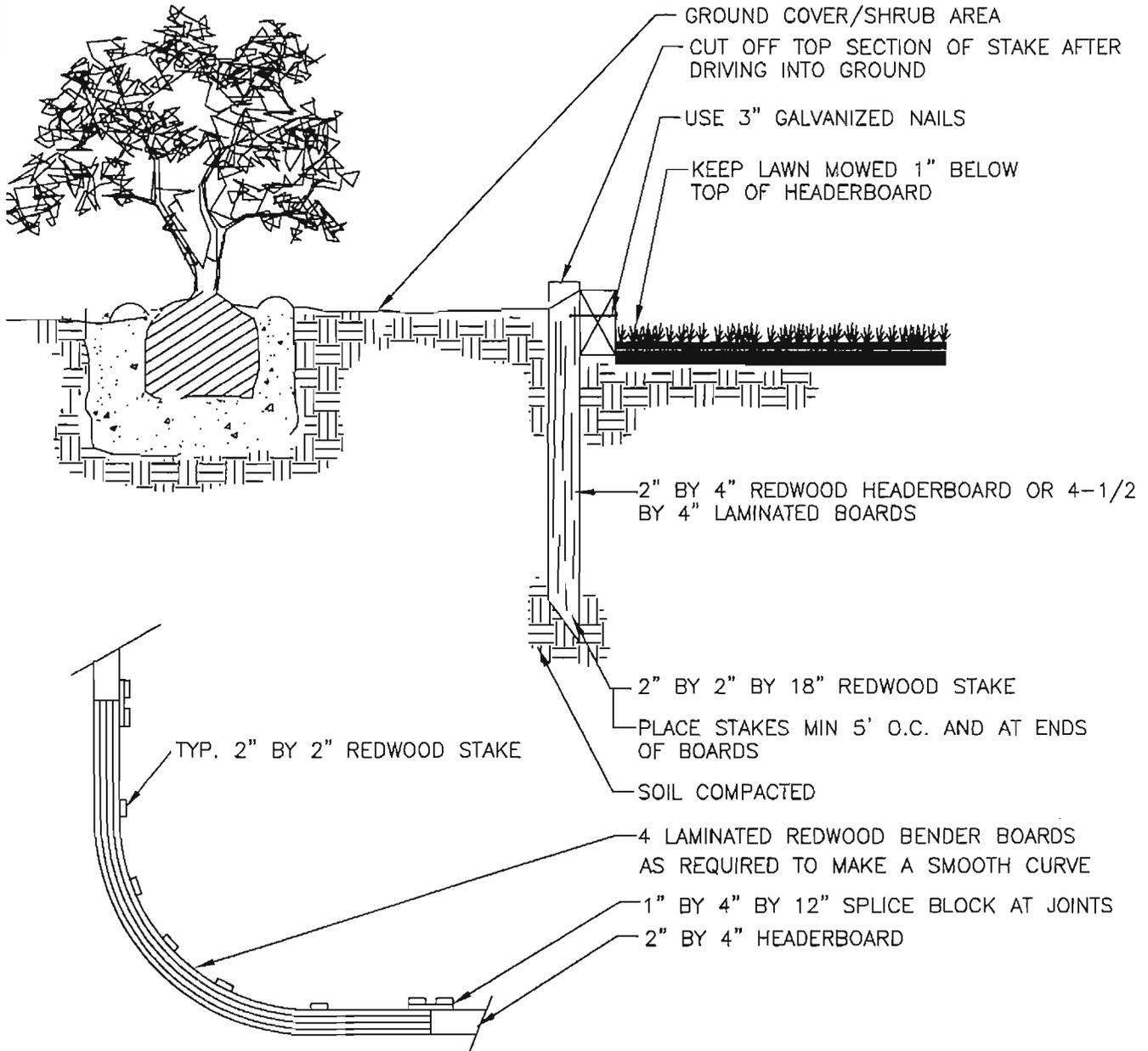
SHT 1 OF 1





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RICARDO SANDOVAL
 REVIEWED BY: Timothy Rostedt
 DATE OF LAST REVISION: 1-28-00

CITY OF FONTANA	
DRIP EMITTER	
STD. PLAN NO. 5042	SHT 1 OF 1



APPROVED BY:

Ricardo Sandoval 10-18-00

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RICARDO SANDOVAL

DATE

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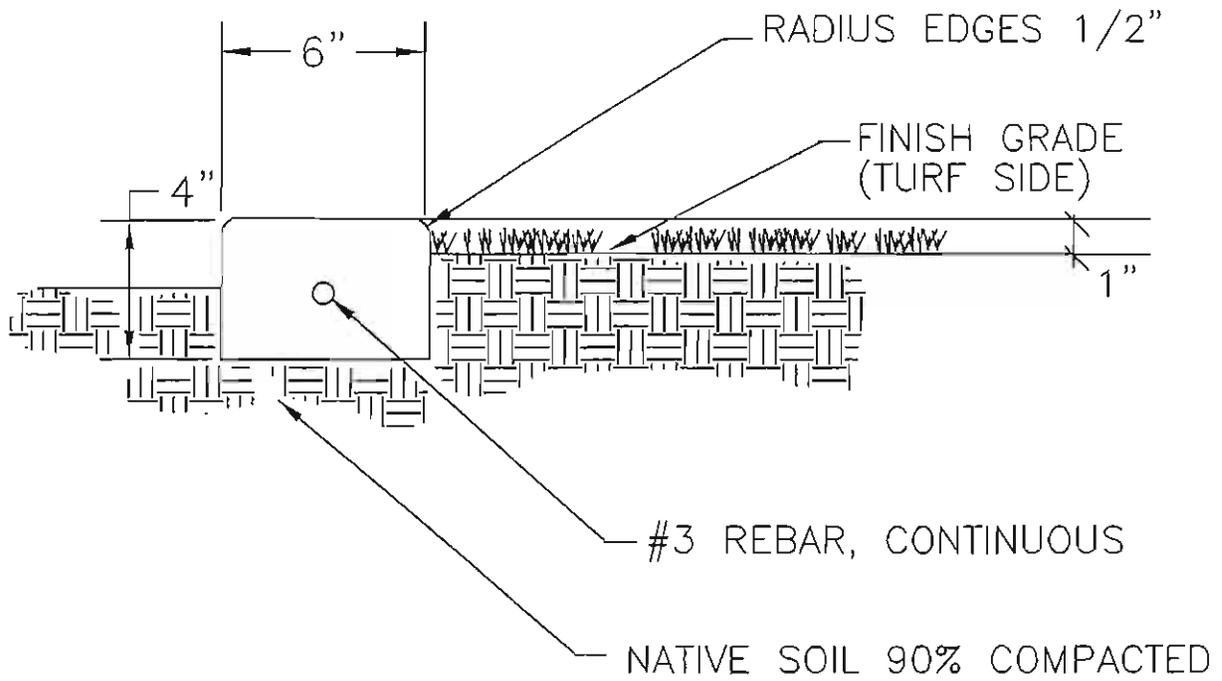
DATE OF LAST REVISION: 1-28-00

CITY OF FONTANA

REDWOOD HEADERBOARD

STD. PLAN NO. 5043

SHT 1 OF 1



NOTE:
 MOW CURB SHALL BE PLACED BETWEEN ALL GRASS AND
 PLANTER AREAS UNLESS OTHERWISE NOTED.



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Ricardo Sandoval 10-18-06

CITY ENGINEER
RICARDO SANDOVAL

DATE

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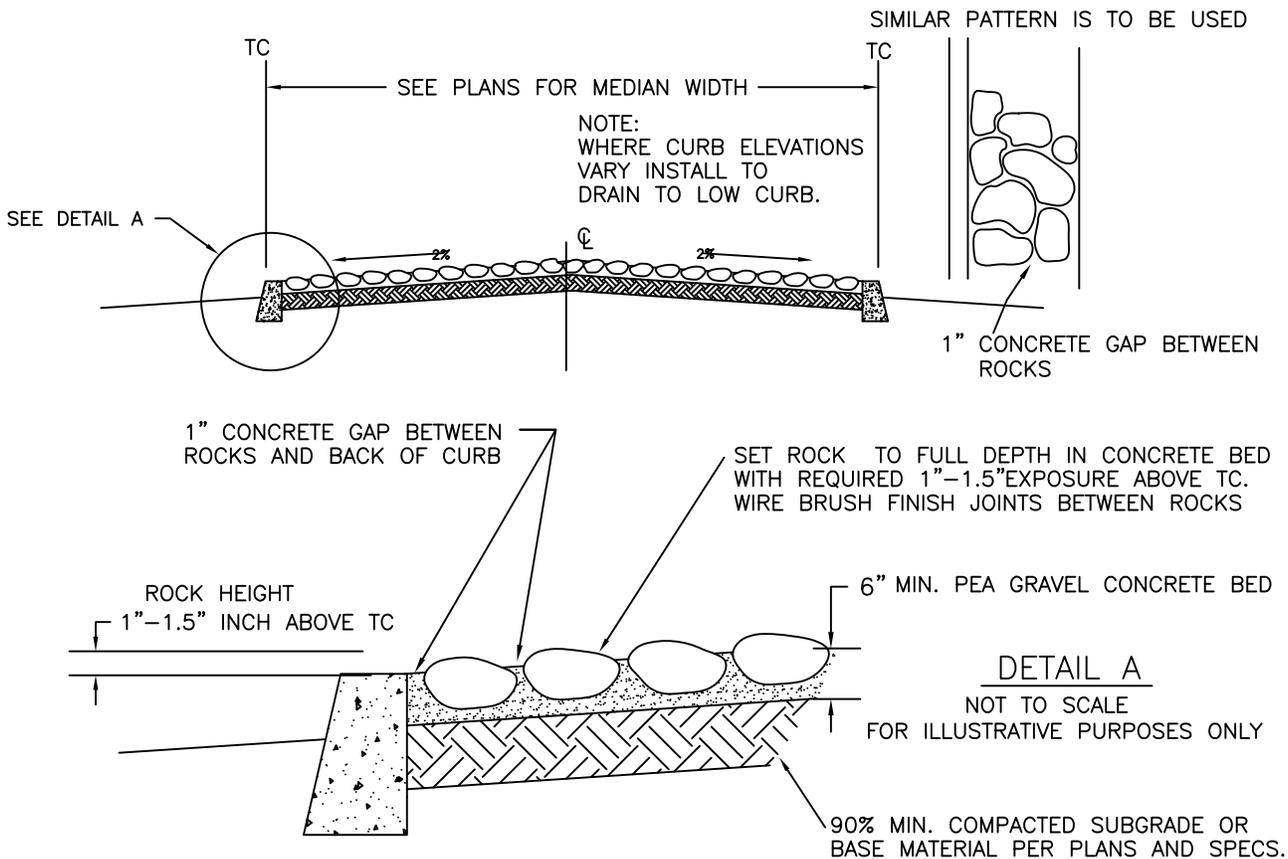
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CITY OF FONTANA

CONCRETE MOW CURB

STD. PLAN NO. 5044

SHT 1 OF 1



1. ROCK SIZES UNLESS OTHERWISE SPECIFIED SHALL BE:
COBBLESTONES: MAX. 12" TO MIN. 6" , NO MORE THAN 50% OF ANY ONE SIZE.
2. A SAMPLE AREA, MIN. 10 SQ. FT. SHALL BE APPROVED BY THE CITY INSPECTOR PRIOR TO PROCEEDING WITH THE REMAINING ROCK WORK.
3. FINAL RESTING POSITION OF ALL ROCKS SHALL BE APPROVED BY THE CITY INSPECTOR.
4. ROCKS SHALL BE SMOOTH, ROUNDED, FREE OF OBJECTIONABLE DISFIGURATIONS AND IRON CONTENT AS APPROVED BY THE CITY INSPECTOR
5. CONCRETE SHALL BE 2500 PSI PEA GRAVEL PUMP MIX CONCRETE.
6. WIRE BRUSH ALL JOINTS AFTER THE INSTALLATION OF THE ROCKS. AFTER CONCRETE HAS SET, CLEAN THE RESIDUE FROM SURFACES OF ROCKS.
7. NO JOINTS GREATER THAN 1" BETWEEN ROCKS WILL BE ACCEPTABLE. 4" FILLER ROCKS WILL BE ACCEPTED TO MAINTAIN THE 1" JOINT.
8. WHERE ROCK BORDERS TURF AREA, PLACE 1" CONCRETE EDGE BETWEEN BACK OF ROCK AND TURF.



APPROVED BY:

Ricardo Sandoval

12-2-19

CITY ENGINEER
RICARDO SANDOVAL

DATE

REVIEWED BY: _____

KS

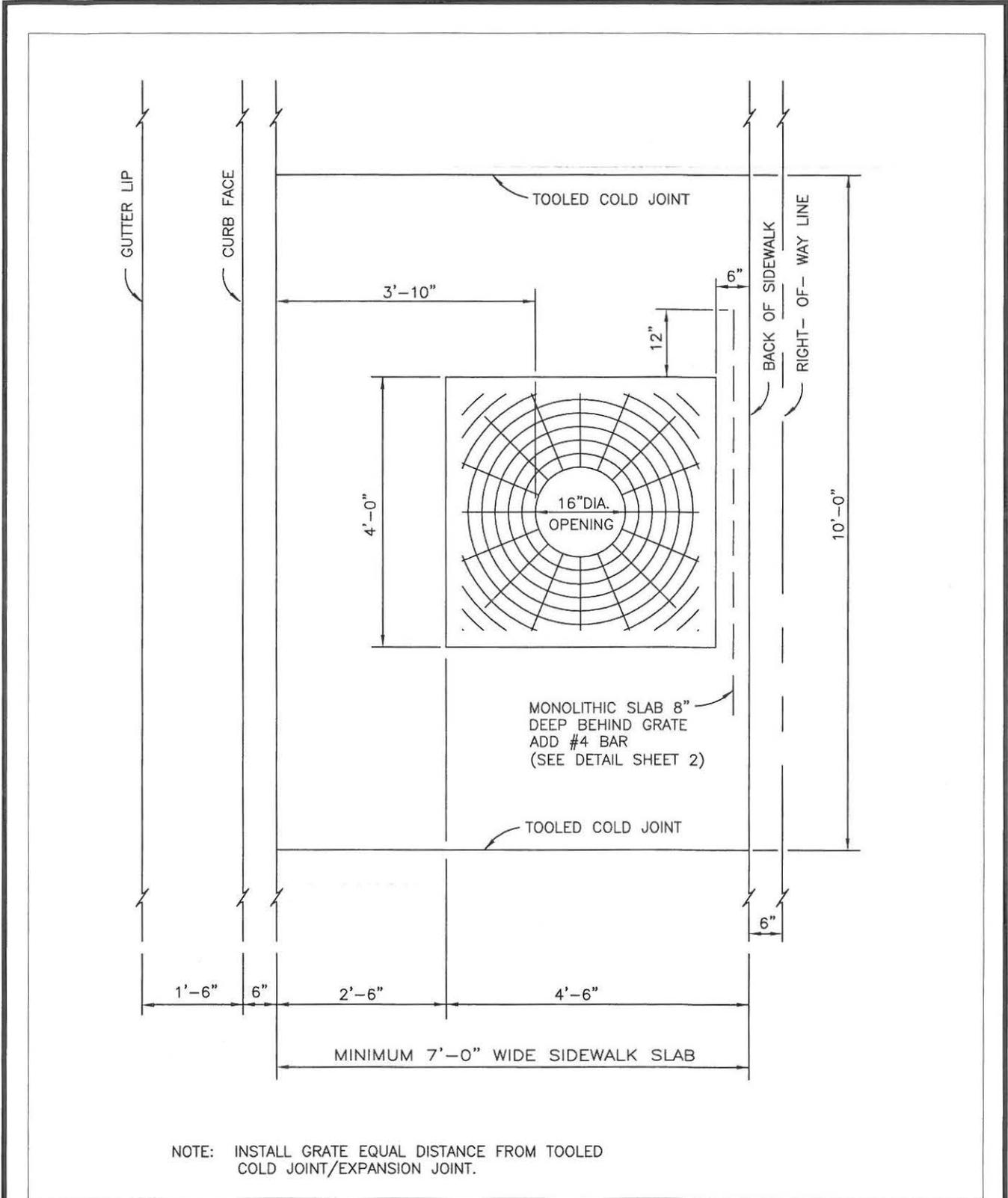
DATE OF LAST REVISION: 10-15-19

CITY OF FONTANA

TYP. ROCK TREATMENT

STD. PLAN NO. 5045

SHT 1 OF 1



NOTE: INSTALL GRATE EQUAL DISTANCE FROM TOOLED COLD JOINT/EXPANSION JOINT.

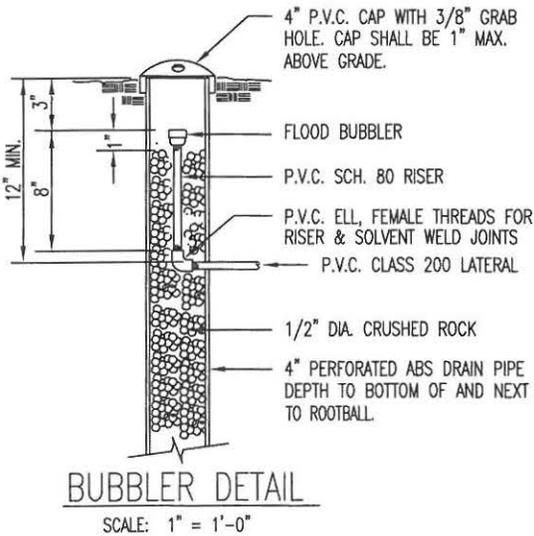
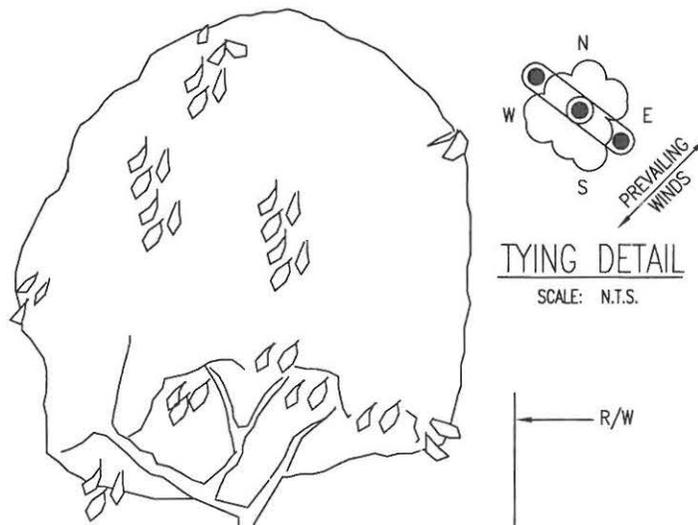
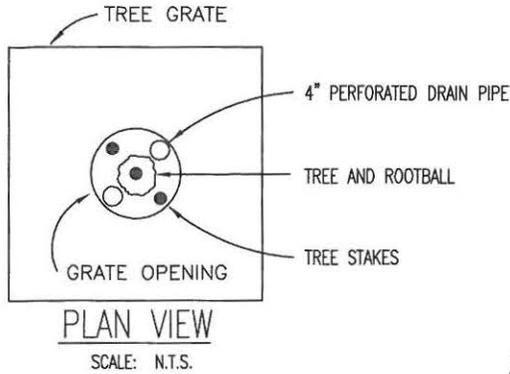


APPROVED BY: *Ricardo Sandoval* 1.16.15
 CITY ENGINEER DATE
RICARDO SANDOVAL
 REVIEWED BY: Kyle Scribner
 DATE OF LAST REVISION: 1-14-15

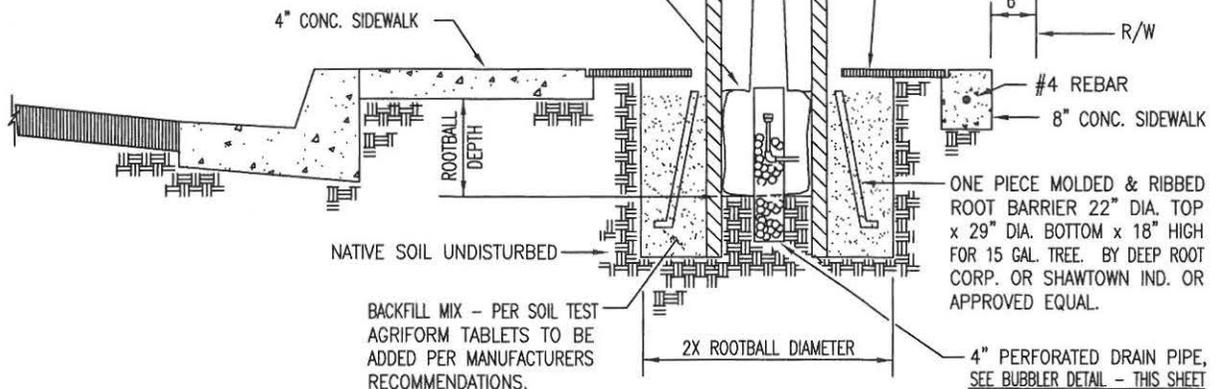
CITY OF FONTANA

TREE GRATES

STD. PLAN NO. 5046 SHT 1 OF 3



IF SETTLEMENT OF ROOTBALL OCCURS, ADJUST TREE SO THAT NURSERY SOIL LINE IS AT GRADE LEVEL.



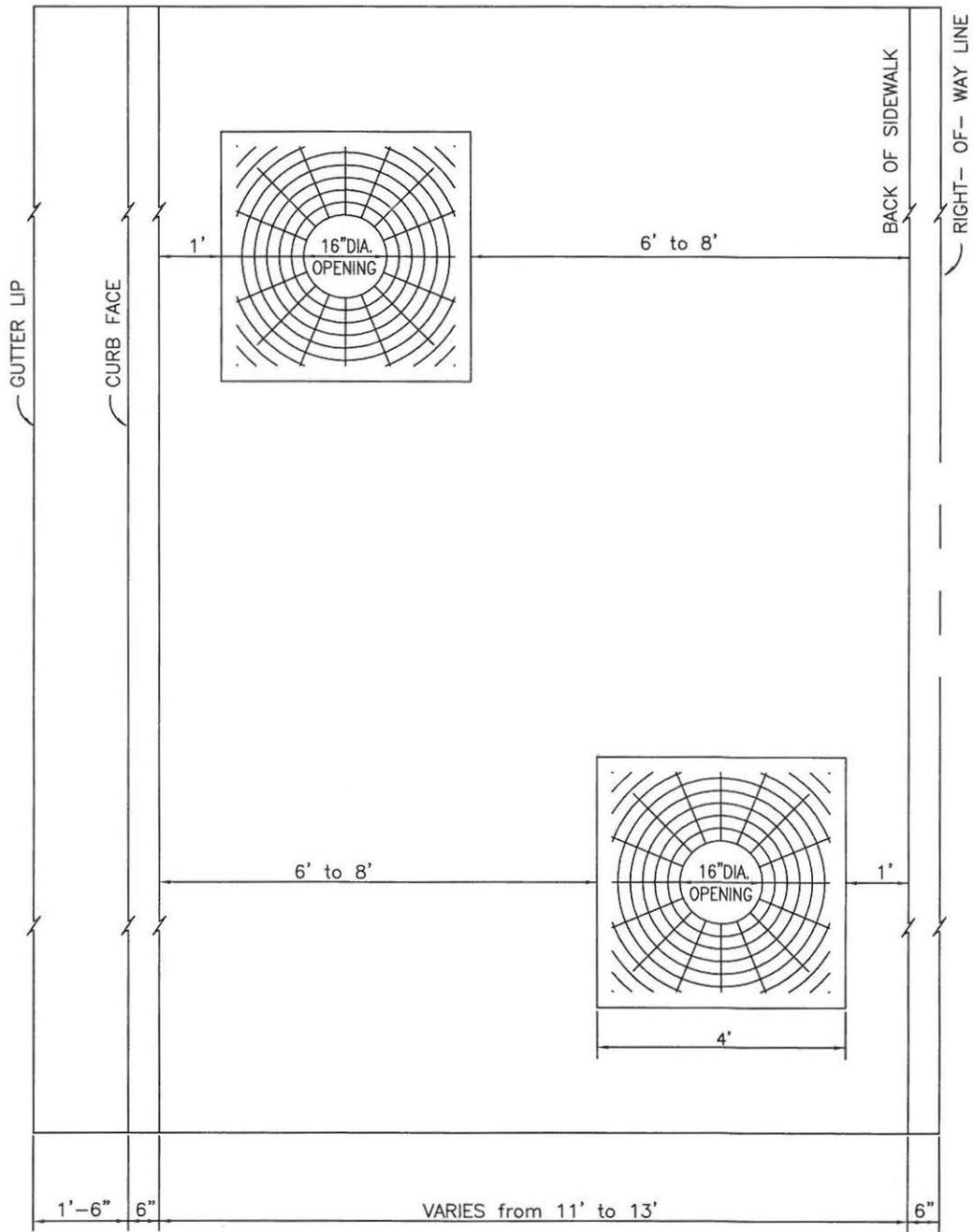
APPROVED BY: *Ricardo Sandoval* 1-16-15
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CITY OF FONTANA

TREE GRATES

STD. PLAN NO. 5046

SHT 2 OF 3



2 ALTERNATIVE TREE/GRATE LOCATIONS
FOR COMMERCIAL AREA PARKWAY SIDEWALKS



APPROVED BY:

Ricardo Sandoval
CITY ENGINEER
RICARDO SANDOVAL

DATE

REVIEWED BY: Kyle Scribner

DATE OF LAST REVISION: 1-14-15

CITY OF FONTANA

TREE GRATES

STD. PLAN NO. 5046

SHT 3 OF 3