

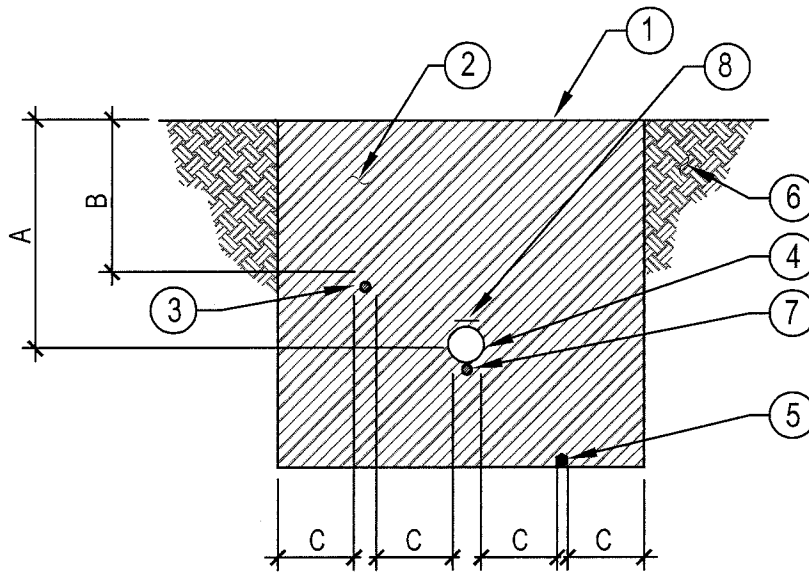
STANDARD DRAWINGS



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Rev. 08-01-2015



DIMENSION	A	B	C
1/2" TO 2-1/2" PIPE SIZE	18"	12"	6"

LEGEND:

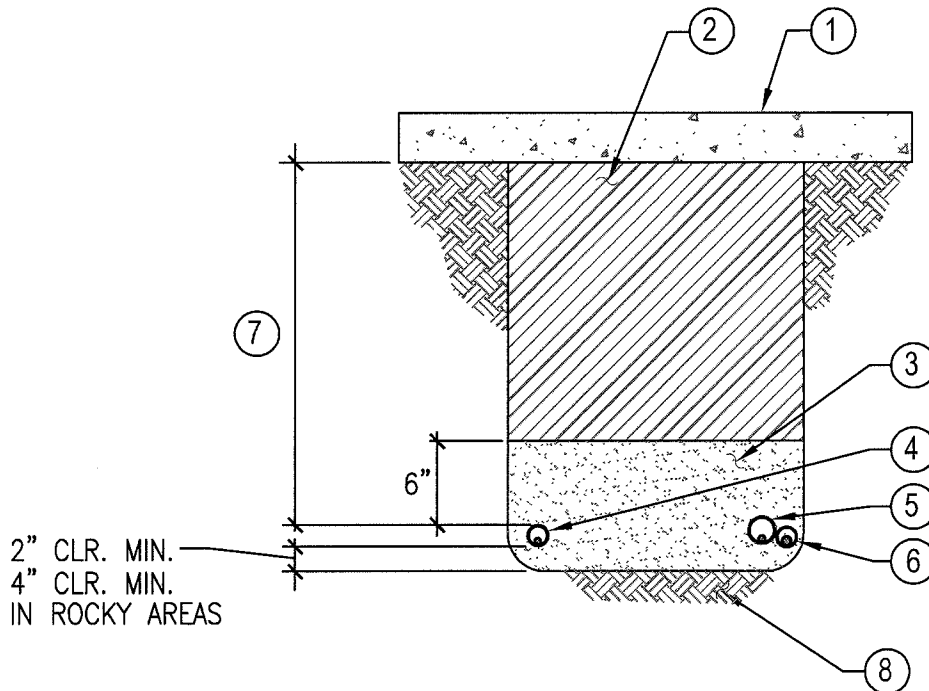
- ① FINISH SOIL GRADE.
- ② CLEAN COMPACTED BACKFILL. NO PARTICLES LARGER THAN ONE INCH.
- ③ LATERAL LINES, SEE SPECS.
- ④ PRESSURE MAINLINE, SEE SPECS.
- ⑤ CONTROL WIRES TO BE LOCATED 24" BELOW FINISH SOIL GRADE.
- ⑥ UNDISTURBED SOIL.
- ⑦ TRACER WIRE COPPER 14 AWG TO FOLLOW MAIN LINE.
- ⑧ METALLIC BACKED MARKING TAPE - MARKED "IRRIGATION"

NOTES:

- 1. PRESSURE MAINLINE SHALL BE INSTALLED ON A 6" SAND BED AND COVERED BY 6" OF SAND PRIOR TO ANY OTHER BACKFILL MATERIAL.
- 2. CONTRACTOR SHALL GUARANTEE TRENCH LINES FROM SETTLING FOR ONE YEAR FROM DATE OF PROJECT ACCEPTANCE.

* SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS

Approved By: <i>Chatterjee</i>	Date AUG 01, 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	TRENCHING - AREAS w/o PAVING	Drawing No. I-1



LEGEND:

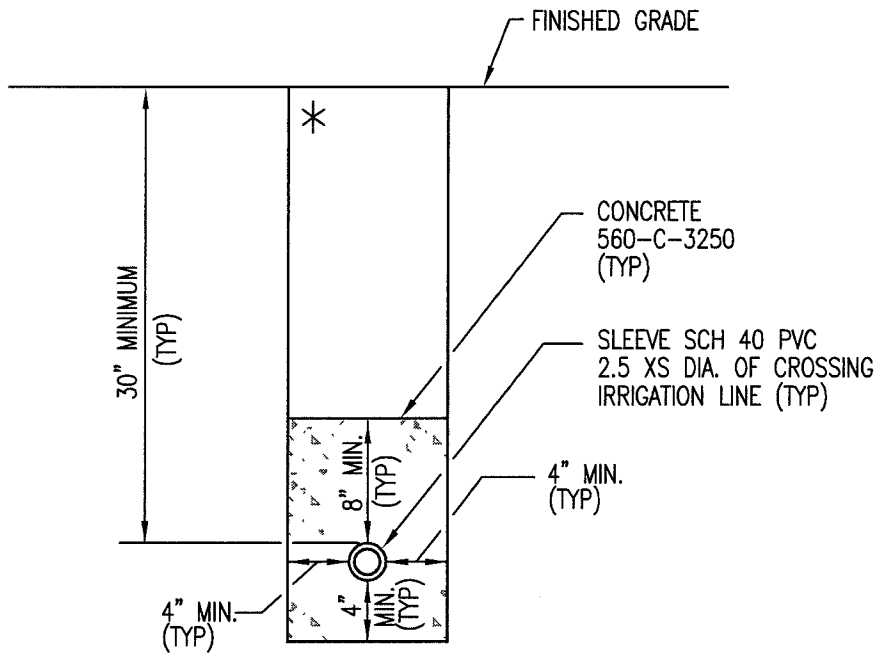
- ① PAVING/HARDSCAPE SURFACE.
- ② CLEAN NATIVE BACKFILL AS REQUIRED TO BE COMPACTED TO 95% IN 6" LIFTS.
- ③ CLEAN SAND.
- ④ LATERAL LINE WITH SLEEVE.
- ⑤ PRESSURE MAIN LINE WITH SLEEVE. TRACER WIRE TO FOLLOW ENTIRE LENGTH OF MAINLINE. 14 AWG INSIDE SLEEVE
- ⑥ CONTROL WIRES & RELAY WIRE SLEEVE.
- ⑦ MIN. DEPTH: TOP OF SUB-GRADE TO TOP OF SLEEVE
24" UNDER WALKS.
30" UNDER DRIVEWAYS AND PARKING LOTS.
30" UNDER STREETS - SEE CITY OF SAN MARCOS CROSSING DETAIL.
- ⑧ UNDISTURBED SOIL.

NOTES:

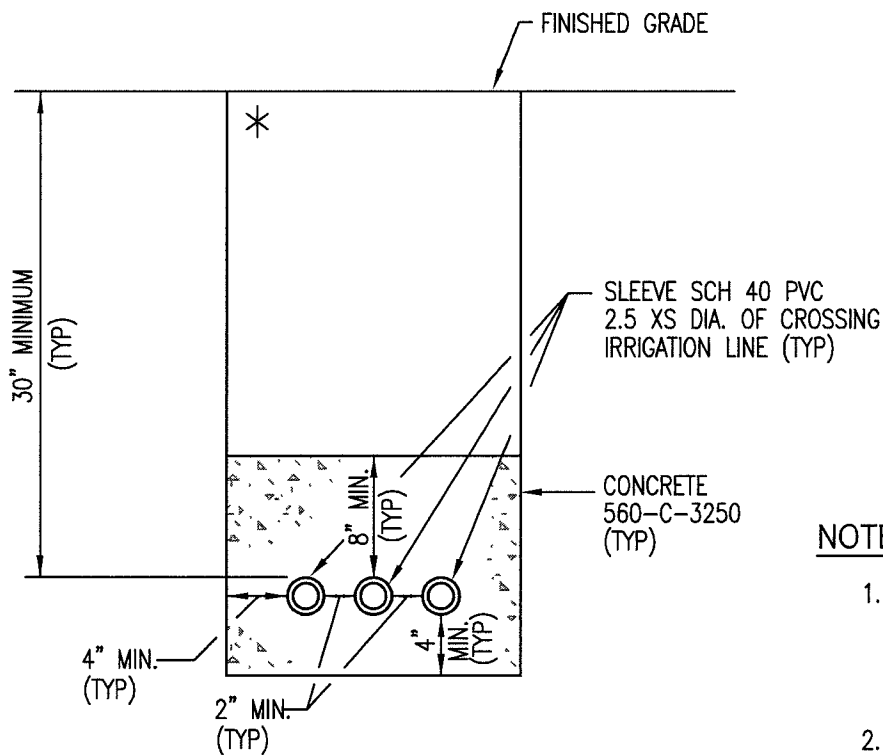
- 1. ALL SLEEVES TO BE PVC SCH. 40 & 2 1/2 TIMES THE DIAMETER OF THE WORKING PIPE.
- 2. ALL SLEEVES TO RUN A MIN. OF 12" BEYOND PAVING/HARDSCAPE EDGES.
- 3. CLEAN NATIVE BACKFILL TO BE FREE OF ROCKS GREATER THAN 1".

* SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS

Approved By: <i>[Signature]</i>	Date AUG 01, 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	SLEEVING - AREAS WITH PAVING	Drawing No. I-2



SINGLE PIPE IRRIGATION



MULTIPLE PIPE IRRIGATION

NOTES:

1. THE LETTER "I" SHALL BE STAMPED OR CHISELED ON (CURB OR SIDEWALK) DIRECTLY ABOVE THE PRESSURE LINE.
2. COORDINATE WITH ENGINEERING INSPECTORS.

* SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS

Approved By: <i>Sheila Busch</i>	Date MAY 10, 2010	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	STREET IRRIGATION CROSSING	Drawing No. I-3

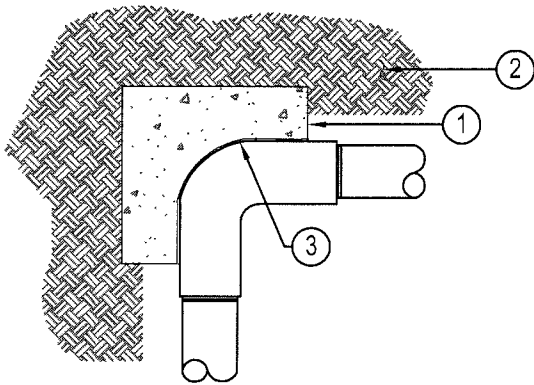


FIG. 1 (90° ELL)

SCALE: NTS

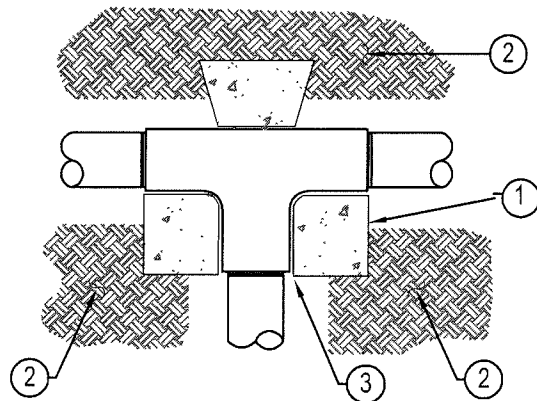


FIG. 2a (TEE)

SCALE: NTS

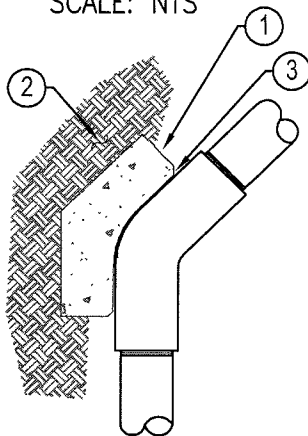


FIG. 3 (45°, 22.5°, 11.5° ELL)

SCALE: NTS

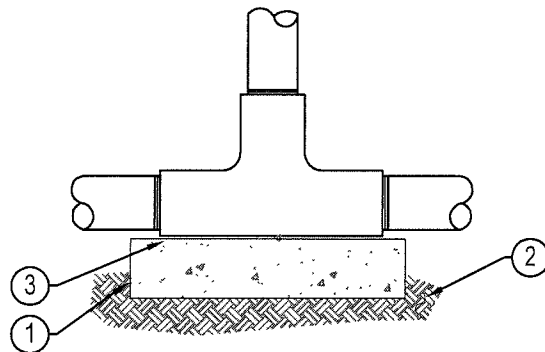


FIG. 2b (VERTICAL TEE)

SCALE: NTS

LEGEND:

- ① CONCRETE THRUST BLOCK, SEE BEARING AREA CHART FOR SIZING.
- ② THRUST BLOCKS TO EXTEND INTO UNDISTURBED SOIL.
- ③ INSTALL PLASTIC 4 MIL SHEETING BETWEEN PIPE AND THRUST BLOCK.

NOTES:

1. THRUST BLOCKS TO BE CONSTRUCTED OF PORTLAND CEMENT WITH A MINIMUM STRENGTH OF 2500 PSI (520-C-2500)
2. THRUST BLOCKS SHALL BE USED FOR PRESSURE MAINLINES WITH 2" DIAMETER OR LARGER.
3. EVACUATE INTO UNDISTURBED SOIL BEHIND FITTING AS NECESSARY TO INSTALL THRUST BLOCK WITH REQUIRED BEARING AREA. MINIMUM AREA BETWEEN THRUST BLOCK AND UNDISTURBED SOIL TO BE 6" ON SMALLER PIPE. NO THRUST BLOCKS UNDER 1 CU.FT.

BEARING AREA IN CUBIC FEET (BEARING AREA IS THE AREA OF CONTACT BETWEEN THE THRUST BLOCK AND UNDISTURBED SOIL DIRECTLY BEHIND FITTING)					
PIPE SIZE	FIG. 1	FIG. 2a & 2b	FIG. 3		
	90°	TEES	45°	22.5°	11.5°
2"	1	1	1	1	1
2 1/2"	2	2	1	1	1
3"	4	3	2	1	1
4"	5	4	3	1	1
6"	9	7	5	3	1

4. INSTALL TRUST BLOCKS AS DETAILED UNLESS OTHERWISE DIRECTED BY CITY INSPECTOR.

Approved By:

Chetler

Date

AUG. 01, 2015

CITY OF SAN MARCOS

Scale

N.T.S.

Drawn By:

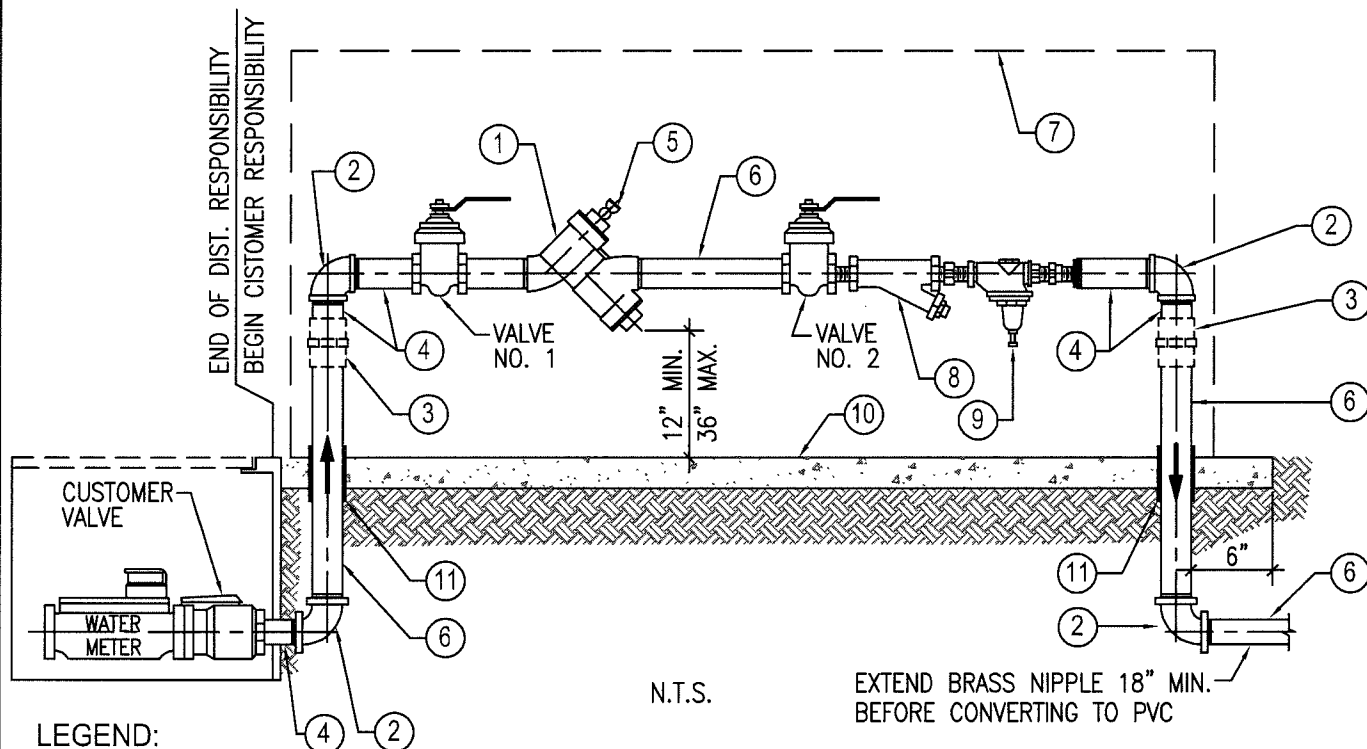
LCP

Date

CONCRETE THRUST BLOCKS

Drawing No.

I-4



LEGEND:

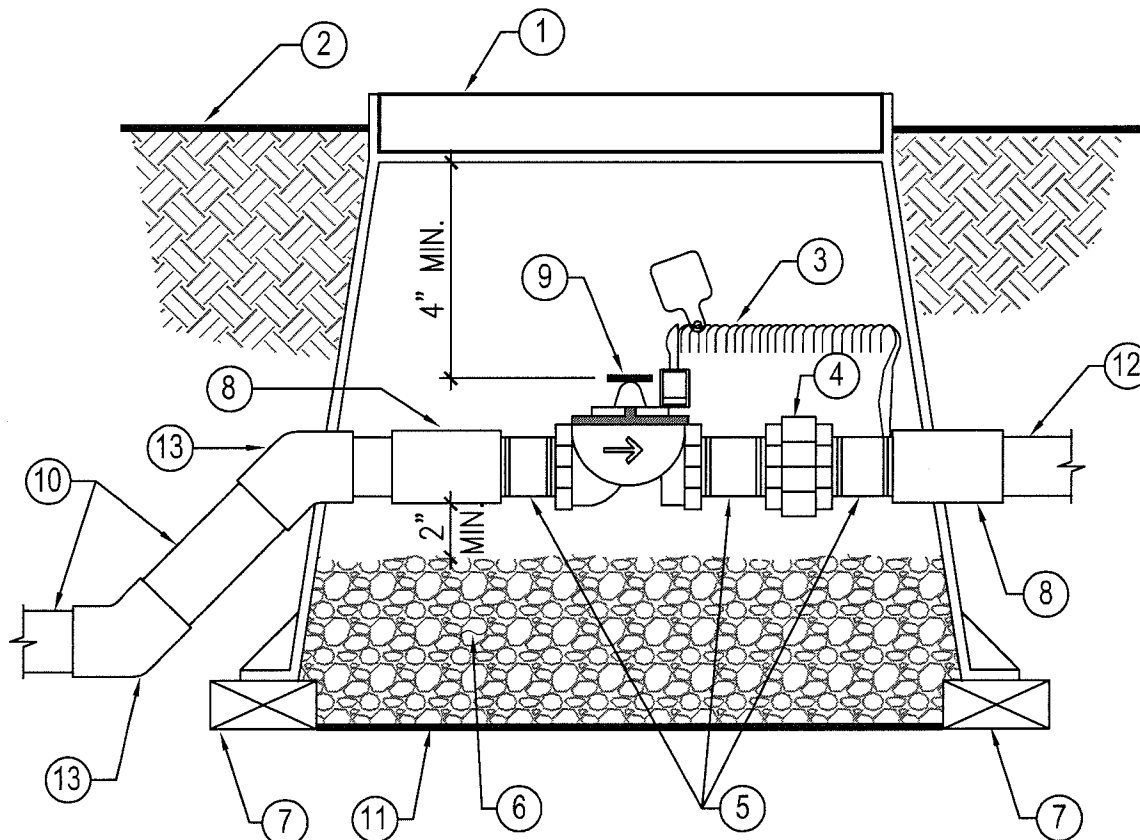
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|--|--|
| ① APPROVED BACKFLOW PREVENTION DEVICE. | ⑦ BACKFLOW PREVENTER ENCLOSURE. |
| ② RED BRASS 90° ELBOW. | ⑧ BRONZE STRAINERS WITH LOOSE KEY CLEANOUT. |
| ③ RED BRASS THREADED UNION. | ⑨ "HIGH RANGE" PRESSURE REGULATOR. |
| ④ RED BRASS NIPPLE, VARIES IN LENGTH. | ⑩ CONCRETE PAD |
| ⑤ TEST COCK (4 REQUIRED). | ⑪ 10 MIL. PVC PIPE WRAP TAPE – WRAP PIPE 2" ABOVE AND BELOW CONCRETE |
| ⑥ RED BRASS. | |

NOTES:

- ALL INSTALLATIONS SHALL BE ABOVE GROUND.
- ALL BACKFLOW PREVENTION DEVICES SHALL BE AS CLOSE TO THE WATER METER AS POSSIBLE.
- NO CONNECTION SHALL BE MADE BETWEEN THE WATER METER AND THE BACKFLOW PREVENTION DEVICE.
- CONCRETE PAD SHALL BE 4" THICK x 18" WIDE MINIMUM X LENGTH AS REQUIRED. MINIMUM STRENGTH OF 2500 PSI (520-C-2500)
- REFER TO STANDARD DRAWINGS FOR INSTALLATION OF WATER METER AND SERVICE.
- CLOSE NIPPLES SHALL NOT BE USED.
- TEFLON TAPE 3/4" WIDE SHALL BE USED ON ALL THREADED CONNECTIONS.
- ALL BRASS COMPONENTS TO BE LEAD FREE
- IRRIGATION METER TO BE 1' MINIMUM.
- RP BACKFLOW SIZE TO BE 1/2" GREATER THEN WATER METER.

* SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS

Approved By: <i>[Signature]</i>	DATE AUG 01, 2017	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	BACKFLOW PREVENTION DEVICE	Drawing No. I-5



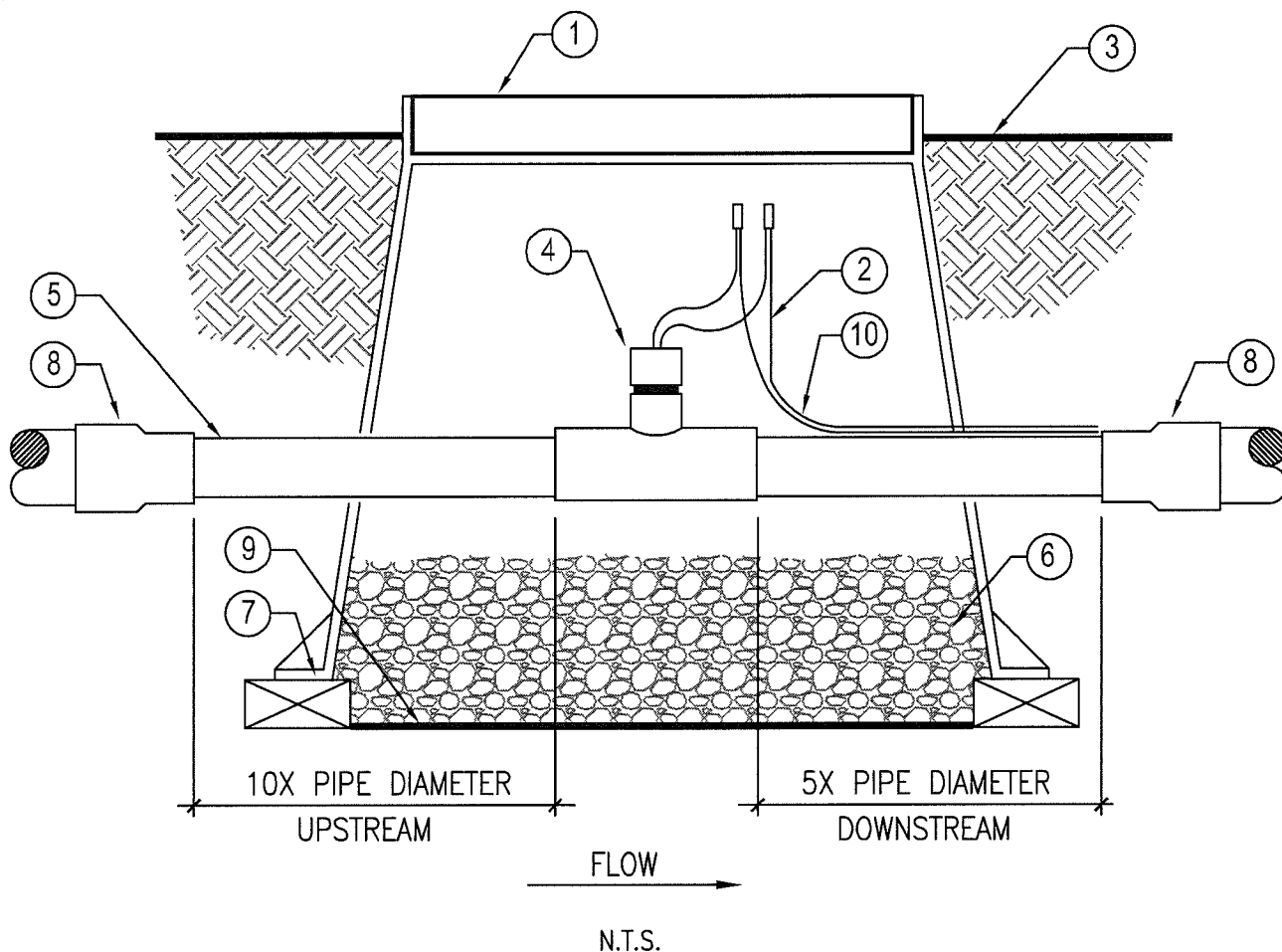
N.T.S.

LEGEND:

- | | |
|--|--|
| <p>① TRAFFIC RATED JUMBO RECTANGULAR CONCRETE BOX W/ LOCKING CAST IRON COVER IN HARDSCAPE AREAS. PLASTIC JUMBO RECTANGULAR BOX WITH LOCKING COVER AND STAINLESS STEEL BOLTS IN LANDSCAPE AREAS. GRIND/HEAT BRAND "MV" ON TOP OF COVER.</p> <p>② FINISH GRADE – INSTALL BOX 1" ABOVE FINISH GRADE IN TURF AREAS,, 2" IN SHRUB AREAS AND FLUSH IN PAVED AREAS.</p> <p>③ 36" WIRE LOOP WITH APPROVED CONNECTORS AND VALVE ID TAGS.</p> <p>④ BRASS UNION.</p> <p>⑤ BRASS NIPPLES</p> <p>⑥ 3/4" ROCK, 2 CUBIC FT.</p> <p>⑦ BRICK SUPPORTS OR CONCRETE BLOCKINGS, 4 MINIMUM.</p> | <p>⑧ PVC SCH. 80 COUPLING.</p> <p>⑨ MASTER CONTROL VALVE, SEE LEGEND FOR SPEC.</p> <p>⑩ PVC MAINLINE PIPE FROM BACKFLOW PER SPECS.– SEE TRENCHING DETAIL.</p> <p>⑪ LANDSCAPE FABRIC.</p> <p>⑫ PVC MAINLINE TO FLOW SENSOR, PIPE PER SPECS.</p> <p>⑬ SCH. 80 45°.</p> |
|--|--|

*** SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS**

Approved By: <i>[Signature]</i>	Date AUG. 01, 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	MASTER CONTROL VALVE	Drawing No. I-6

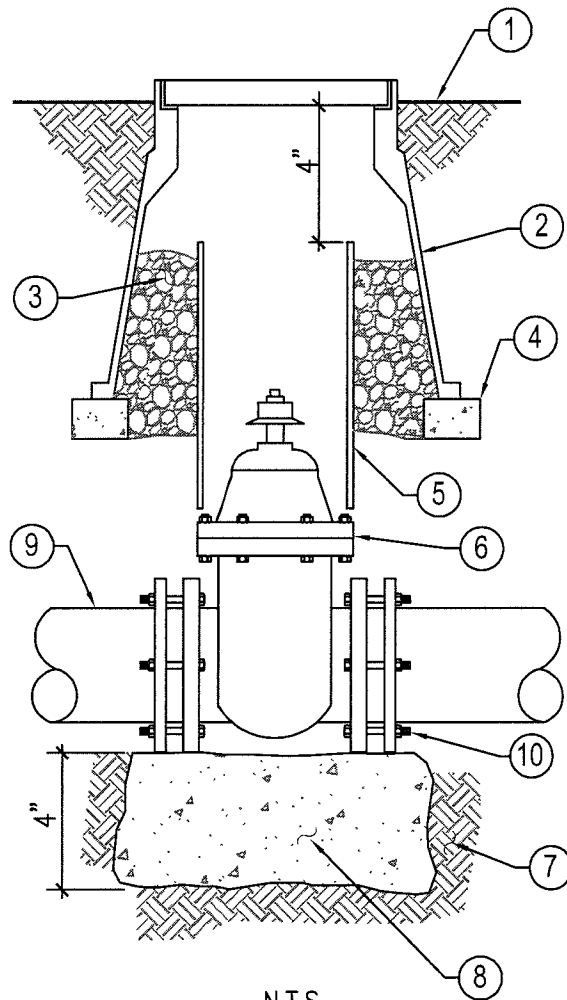


LEGEND:

- | | |
|--|--|
| <p>① TRAFFIC RATED STANDARD RECTANGULAR CONCRETE BOX W/ LOCKING CAST IRON COVER IN HARDSCAPE AREAS. PLASTIC STANDARD RECTANGULAR BOX WITH LOCKING COVER AND STAINLESS STEEL BOLTS IN LANDSCAPE AREAS. GRIND/HEAT BRAND "FS" ON TOP OF COVER.</p> <p>② 36" WIRE LOOP WITH APPROVED WATER PROOF CONNECTORS.</p> <p>③ FINISH GRADE – INSTALL BOX 1" ABOVE FINISH GRADE IN TURF AREAS, 2" IN SHRUB AREAS AND FLUSH IN PAVED AREAS.</p> <p>④ FLOW SENSOR</p> <p>⑤ PVC MAINLINE – REDUCED TO FLOW SENSOR SIZE PER MANUFACTURERS RECOMMENDATIONS.</p> | <p>⑥ 3/4" ROCK, 2 CUBIC FT.</p> <p>⑦ BRICK SUPPORTS OR CONCRETE BLOCKINGS, 4 MINIMUM.</p> <p>⑧ PVC REDUCER COUPLING.</p> <p>⑨ LANDSCAPE FABRIC</p> <p>⑩ APPROVED FLOW SENSOR CABLE</p> |
|--|--|

*** SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS**

Approved By: <i>Sheila Busch</i>	Date DEC. 1, 2012	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	FLOW SENSOR	Drawing No. 1-7



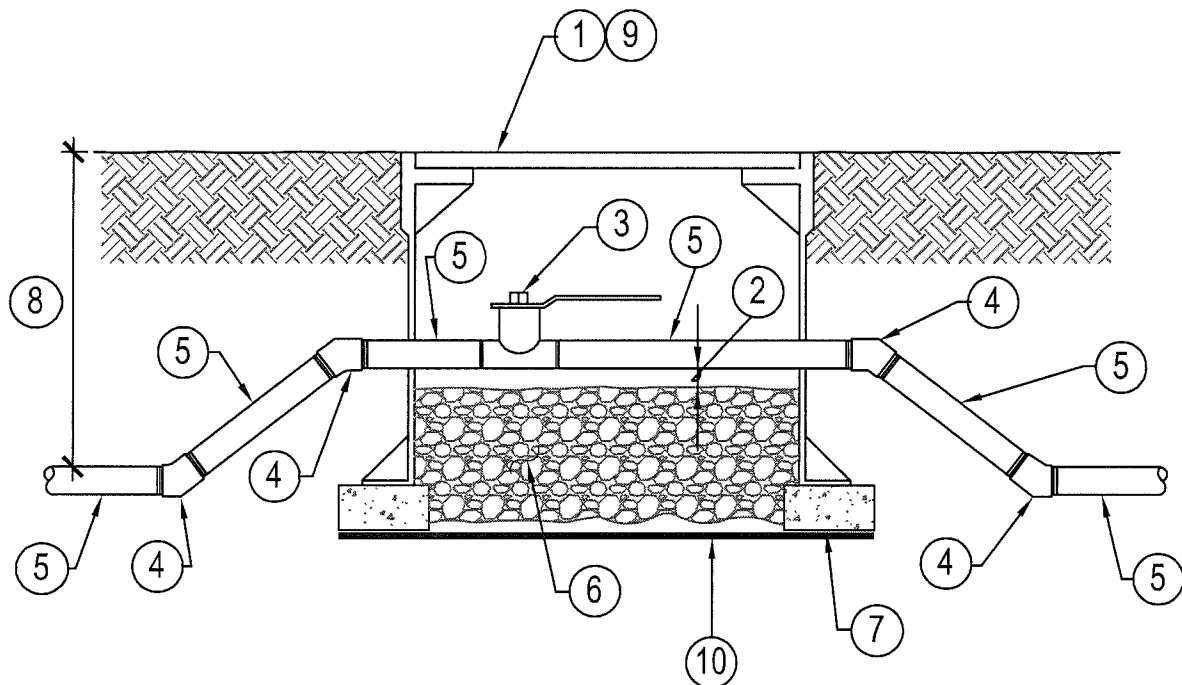
N.T.S.

LEGEND:

- | | |
|---|--|
| <p>① FINISH GRADE – INSTALL BOX 2" ABOVE FINISH GRADE IN PLANTER/SHRUB AREAS. 1" IN TURF.</p> <p>② 10" ROUND VALVE BOX, BRAND "GV" INTO VALVE BOX LID.</p> <p>③ 3/4" CRUSHED ROCK – 2 CUBIC FT.</p> <p>④ BRICKS FOR LEVELING, 4 MINIMUM.</p> <p>⑤ 6" DIA. CLASS 160 PVC – LENGTH AS REQUIRED.</p> | <p>⑥ CAST IRON GATE VALVE MECHANICAL OR GASKETED JOINT WITH SQUARE OPERATING NUT.</p> <p>⑦ UNDISTURBED SOIL.</p> <p>⑧ CONCRETE THRUST BLOCK.</p> <p>⑨ PVC PRESSURE SUPPLY LINE.</p> <p>⑩ STAINLESS STEEL NUTS AND BOLTS.</p> |
|---|--|

*** SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS**

Approved By: <i>Sheila Busch</i>	Date MAY 1, 2010	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	RESILIENT WEDGE VALVE	Drawing No. 1-8

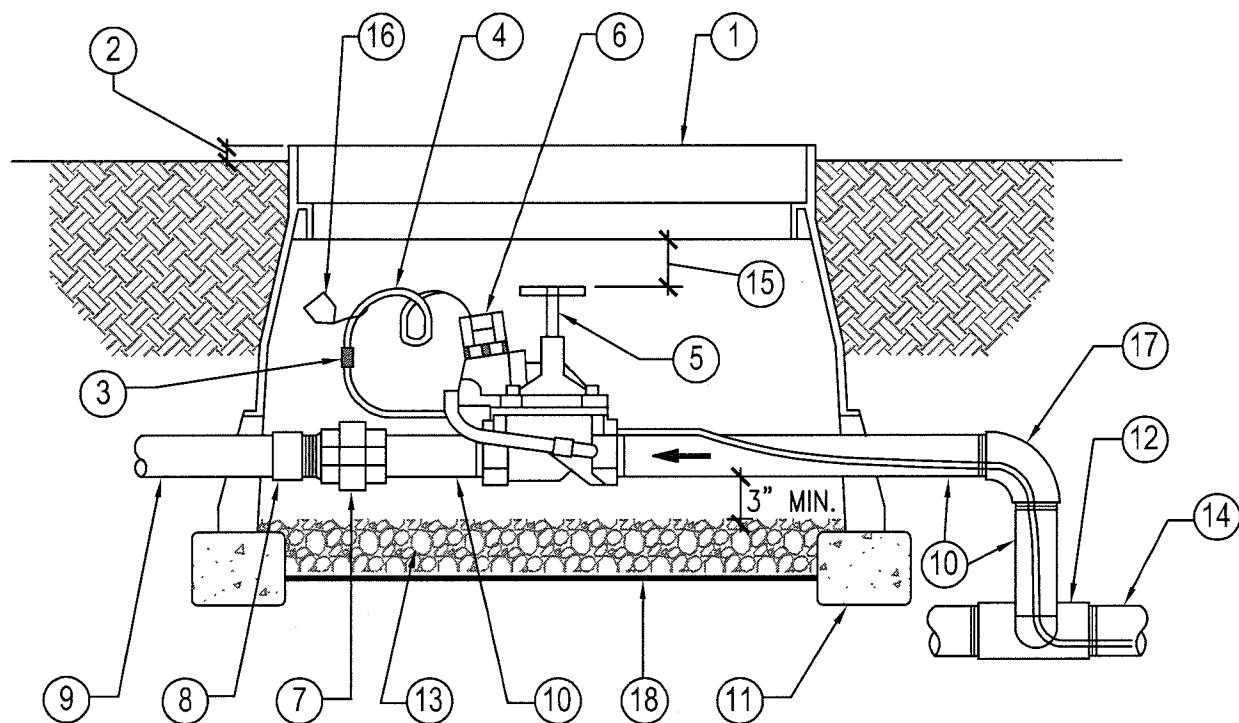


LEGEND:

- ① 2" OR LARGER VALVES REQUIRE JUMBO BOX. ALL BOXES REQUIRE LOCKING COVER WITH STAINLESS STEEL BOLT. SET 2" ABOVE GRADE IN PLANTER/SHRUB AREAS - 1" IN TURF.
- ② MINIMUM 3" CLEARANCE BETWEEN ROCK AND BOTTOM OF PIPE.
- ③ 100% BRASS BALL VALVE.
- ④ PVC SCH. 80, 45° ELL (TYP).
- ⑤ PVC PRESSURE MAINLINE PIPE.
- ⑥ 4" MINIMUM 3/4" CRUSHED ROCK.
- ⑦ 2" x 4" BRICK OR CONCRETE BLOCKING
- ⑧ DEPTH - SEE TRENCHING DETAIL.
- ⑨ BRAND (BV) ON LID WITH 2" LETTERS.
- ⑩ LANDSCAPE FILTER FABRIC.

*** SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS**

Approved By: <i>[Signature]</i>	Date AUG. 01, 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	ISOLATION BALL VALVE	Drawing No. 1-9



LEGEND:

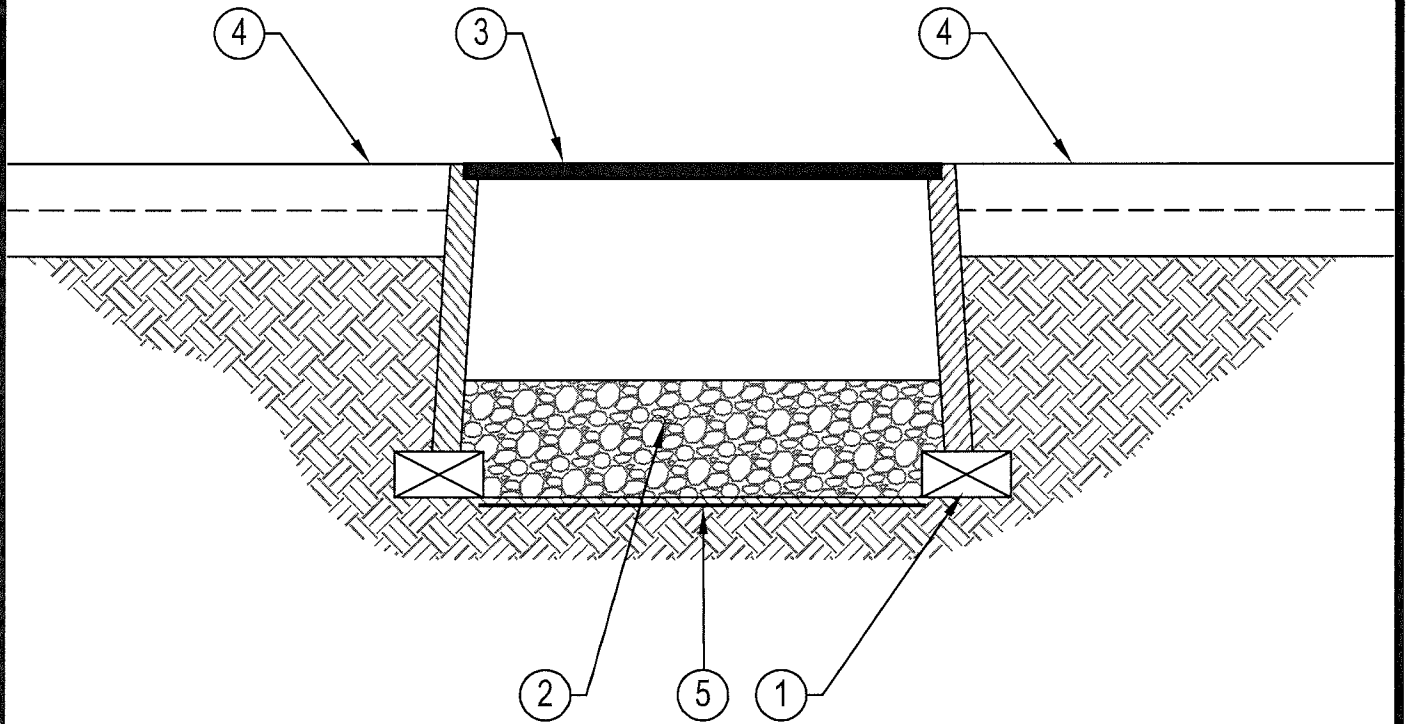
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|---|---|
| <p>① GREEN PLASTIC RECTANGULAR 12" STANDARD VALVE BOX WITH LOCKING COVER AND STAINLESS STEEL BOLT. TRAFFIC RATED CONCRETE BOXES REQUIRED IN PAVEMENT/HARDSCAPE. BRAND/GRIND LID WITH 2' LETTERS.</p> <p>② ONE INCH IN TURF. 2" IN PLANTER/SHRUB AREAS; FLUSH IN PAVEMENT AREAS.</p> <p>③ APPROVED WIRE CONNECTORS.</p> <p>④ CONTROL WIRES, BUNDLE AND TAPE (WITH 36" MIN. EXTRA WIRE).</p> <p>⑤ REMOTE CONTROL VALVE.</p> <p>⑥ SOLENOID.</p> <p>⑦ PVC SCH. 80 UNION</p> | <p>⑧ PVC SCH. 80 MALE ADAPTER.</p> <p>⑨ PVC NON-PRESSURE PIPE.</p> <p>⑩ PVC SCH 80 NIPPLE (LENGTH AS REQUIRED).</p> <p>⑪ 2x4 BRICK OR CONCRETE BLOCKING.</p> <p>⑫ PVC SCH 80 TEE OR ELL ON MAINLINE.</p> <p>⑬ 4" MINIMUM 3/4" CRUSHED ROCK – MINIMUM 3" CLEARANCE BELOW PIPE.</p> <p>⑭ PVC PRESSURE PIPE</p> <p>⑮ 6" CLEARANCE TOP OF VALVE TO BOTTOM OF LID.</p> <p>⑯ TAG I.D. – REQUIRED FOR ALL VALVES.</p> <p>⑰ PVC SCH 80 90° ELL.</p> <p>⑱ LANDSCAPE FILTER FABRIC.</p> |
|---|---|

NOTE:

- VALVES TO BE LOCATED 18" AWAY FROM PARALLEL MAINLINE ROUTING.

*** SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS**

Approved By: <i>[Signature]</i>	Date AUG. 01, 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	REMOTE CONTROL VALVE - BRASS	Drawing No. I-10

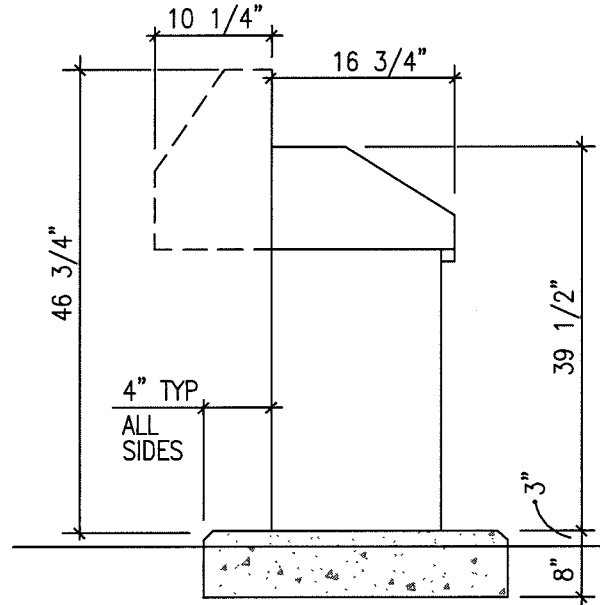
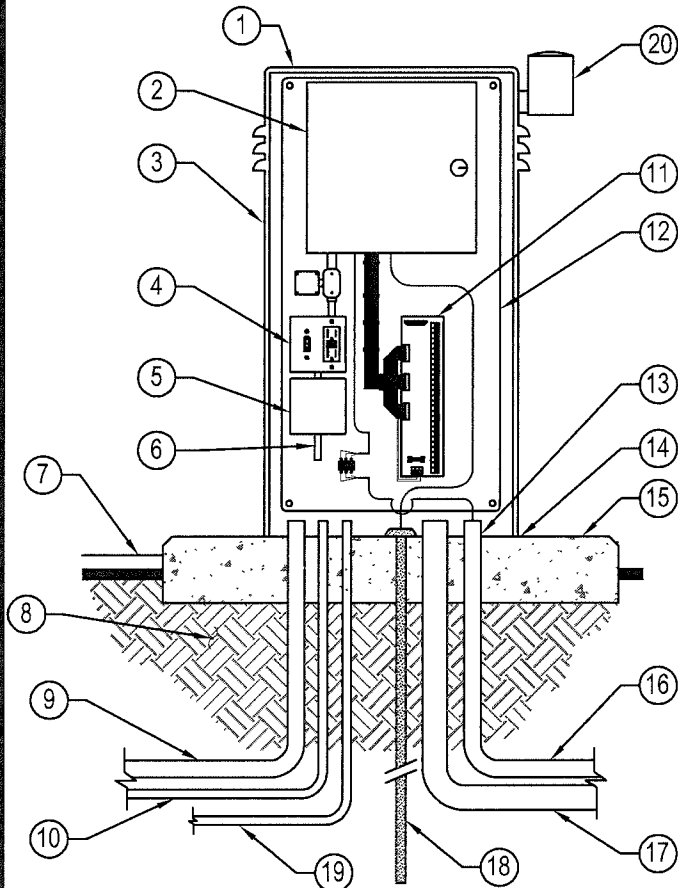


LEGEND:

- ① INSTALL BOX LEVEL WITH
4 STANDARD BRICKS.
- ② 4" DEPTH 3/4" CRUSHED
ROCKS.
- ③ TRAFFIC RATED CONCRETE
VALVE BOX WITH HINGED
LOCKING CAST IRON COVER –
SIZE AS REQUIRED PER
LANDSCAPE SPECIFICATIONS.
GRIND 2" ID LETTERS ON LID.
- ④ ADJACENT PAVING.
- ⑤ LANDSCAPE FILTER FABRIC.

*** SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS**

Approved By: <i>Antonio Galt</i>	Date AUG 01, 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	IRRIGATION VALVE BOX IN PAVED AREAS	Drawing No. I-11



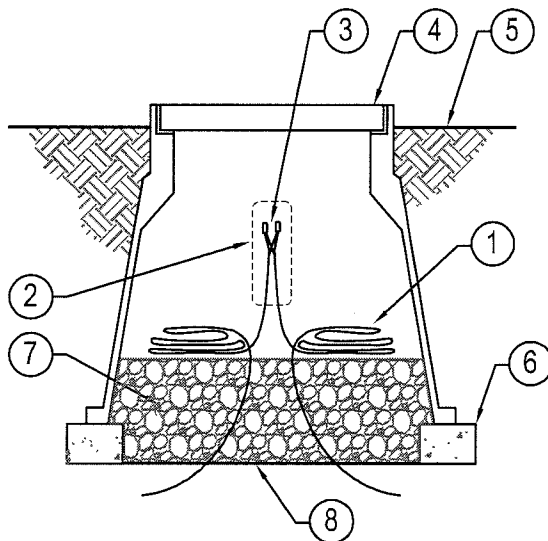
LEGEND:

- ① ADDRESS ID GOLD BACKING, 2" BLACK LETTERS - (CFD XX WHEN REQ'D.)
- ② CONTROLLER.
- ③ STAINLESS STEEL 24" WIDE TOP ENTRY CONTROLLER ENCLOSURE NEMA 3R RAIN PROOF RATED.
- ④ POWER SWITCH AND GFI RECEPTACLE.
- ⑤ HIGH FLOW SYSTEM
- ⑥ TERMINAL BLOCK FOR COMMUNICATION CABLE (USE IF REQUIRED)
- ⑦ FINISH GRADE.
- ⑧ COMPACTED SITE SOIL.
- ⑨ 1 1/4" PVC CONDUIT/ SWEEP FOR ELECTRIC SERVICE
- ⑩ 1" PVC CONDUIT/SWEEP FOR FLOW SENSOR/MCV WIRES (WHEN REQUIRED).

- ⑪ TERMINAL STRIP FOR CONTROL WIRES.
- ⑫ STAINLESS STEEL, U.L. LISTED, PRE-DRILLED, REMOVABLE BACKBOARD.
- ⑬ SEAL ALL CONDUIT OPENINGS WITH EXPANDABLE FOAM SEALANT.
- ⑭ SEAL ENTIRE BASE OF CABINET WITH SILICONE CAULKING.
- ⑮ 11" THICK PCC PAD 520-C-2500 AS DIRECTED BY CITY INSPECTOR. 3" ABOVE GRADE, 8" BELOW GRADE
- ⑯ 1 1/4" PVC CONDUIT/SWEEP FOR COMMUNICATION CABLE TO OTHER CONTROLLERS (IF REQUIRED).
- ⑰ 3" PVC CONDUIT/SWEEP FOR CONTROL WIRES TO VALVES.
- ⑱ 5/8" DIA. X 8' COPPER GROUND ROD WITH #10 SOLID COPPER GROUND WIRE AND CLAMP.
- ⑲ 1" CONDUIT FOR TELEPHONE LINE (WHEN REQUIRED).
- ⑳ VANDAL RESISTANT RAIN SENSOR GUARD.

*** SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS**

Approved By: <i>[Signature]</i>	Date AUG. 01, 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	IRRIGATION CONTROLLER ASSEMBLY	Drawing No. I-12



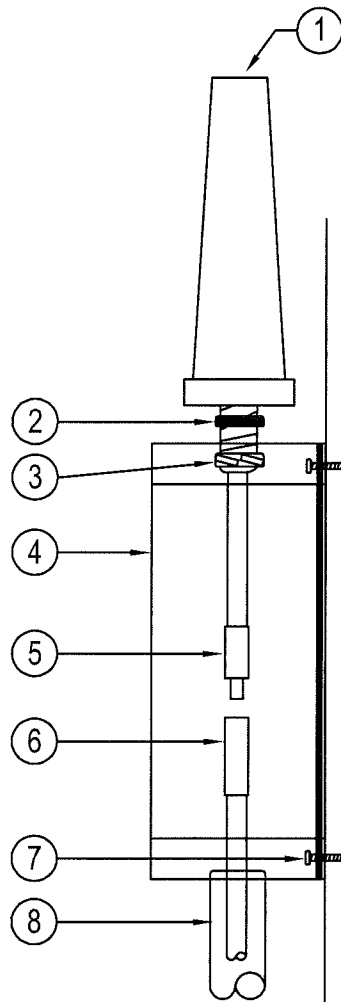
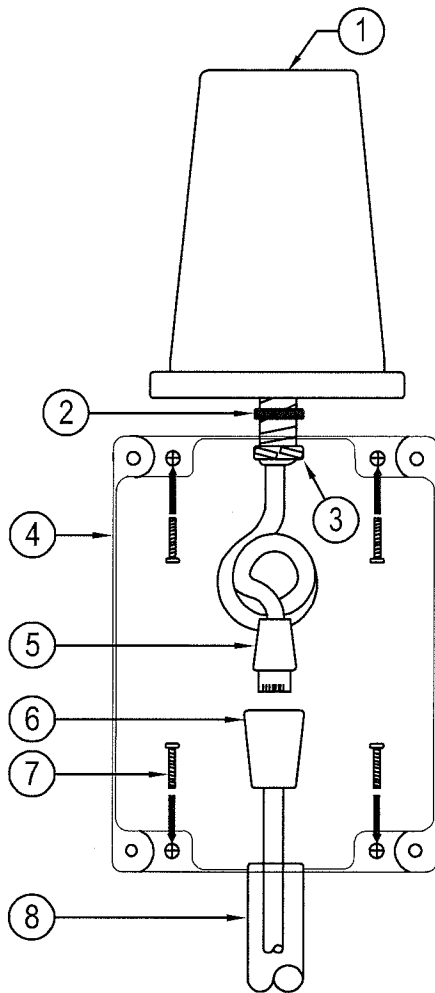
N.T.S.

LEGEND:

- | | |
|--|--|
| <p>① PE CABLE (36" LOOP).</p> <p>② PRE-FORMED SUPER SERVICEAL WATERPROOF WIRE SPLICE K1.</p> <p>③ APPROVED UAL CONNECTORS</p> <p>④ TRAFFIC RATED 10" ROUND CONCRETE BOX W/ LOCKING CAST IRON COVER IN HARDSCAPE AREAS. PLASTIC 10" ROUND BOX WITH LOCKING COVER AND STAINLESS STEEL BOLTS IN LANDSCAPE AREAS. GRIND/HEAT BRAND "SPLICE" ON TOP OF COVER.</p> <p>⑤ FINISH GRADE – INSTALL BOX 1" ABOVE FINISH GRADE IN TURF AREAS,, 2" IN SHRUB AREAS AND FLUSH IN PAVED AREAS.</p> | <p>⑥ BRICKS SUPPORT OR CONCRETE BLOCKINGS, 4 MINIMUM.</p> <p>⑦ 3/4" CRUSHED ROCK – 2 CUBIC FT.</p> <p>⑧ LANDSCAPE FABRIC</p> |
|--|--|

*** SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS**

Approved By: <i>[Signature]</i>	Date AUG. 01, 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	MAXICOM PE-CABLE SPLICE	Drawing No. I-13



N.T.S.

LEGEND:

- ① ET MANAGER RECEIVER (ETMR)
- ② RUBBER GASKET (INCLUDED)
- ③ 1/2" CONDUIT NUT (INCLUDED)
- ④ JUNCTION BOX WITH COVER AND 3/4" SCREWS (INCLUDED)
- ⑤ CABLE AND CONDUIT FOR ET MANAGER RECEIVER
- ⑥ 30' EXTENSION CABLE WITH RJ45 MALE AND FEMALE CONNECTIONS (INCLUDED)

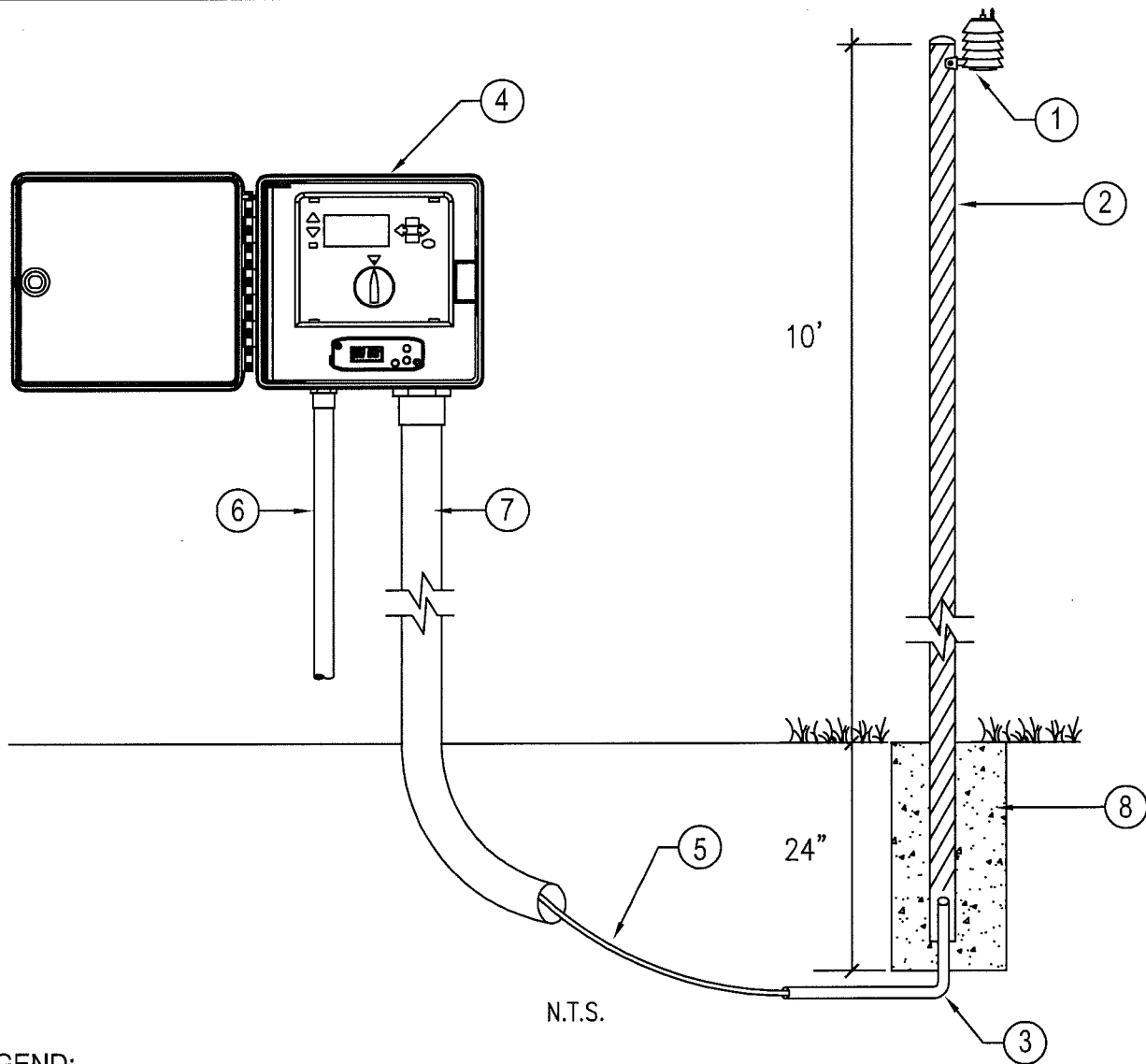
- ⑦ 1" #6 GALVANIZED STEEL SCREW WITH APPROPRIATE HARDWARE FOR MOUNTING SURFACE.
- ⑧ 3/4" CONDUIT (NOT INCLUDED)

NOTE:

1. MOUNT ETMR USING REMOTE MOUNTING KIT (ETM-RMK) ON FLAT SURFACE NO FURTHER THAN 30' AWAY FROM CONTROLLER. INSTALL RECEIVER VERTICALLY AS SHOWN.

*** SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS**

Approved By: <i>Sheila Busch</i>	Date MAY 1, 2010	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	RAIN BIRD - ET MANAGER RECEIVER	Drawing No. I-14



LEGEND:

- | | |
|--|---|
| <p>① WEATHER SENSOR</p> <p>② APPROVED POST, POLE, OR GUTTER MOUNT. MOUNT IN LOCATION WHERE SENSOR CAN RECEIVE FULL SUN, IS OPEN TO RAINFALL AND OUT OF SPRINKLER SPRAY. LOCATION MUST BE APPROVED BY LANDSCAPE INSPECTOR. 1 5/8" X 12' 16-GAUGE GALVANIZED STEEL POST WITH ALUMINUM CAP.</p> <p>③ 1/2" CONDUIT SWEEP INSERTED INTO GALVANIZED PIPE.</p> <p>④ IRRIGATION CONTROLLER</p> | <p>⑤ COMMUNICATION WIRE</p> <p>⑥ PVC CONDUIT FOR ELECTRICAL POWER.</p> <p>⑦ PVC CONDUIT, SIZE AS REQUIRED (UP TO 2 1/2") FOR CONTROL WIRES & SENSOR WIRES.</p> <p>⑧ 0.67 CU FT. CONCRETE FOOTING. 24" DEEP (90LB. BAG READY MIX CONCRETE)</p> |
|--|---|

NOTE: WEATHER SENSOR INSTALLATION AND LOCATION MAY VARY BASED ON SITE CONDITIONS

*** SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS**

Approved By: <i>[Signature]</i>	Date AUG. 01, 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	IRRIGATION WEATHER SENSOR	Drawing No. I-15

CITY OF SAN MARCOS

WIRE COLOR CHART	
1	BLACK
2	ORANGE
3	YELLOW
4	PURPLE
5	BROWN
6	TAN
7	PINK
8	GRAY
9	RED WITH BLACK STRIPE
10	RED WITH YELLOW STRIPE
11	RED WITH BLUE STRIPE
12	RED WITH GREEN STRIPE
13	RED WITH PURPLE STRIPE
14	RED WITH BROWN STRIPE
15	WHITE WITH GRAY STRIPE
16	WHITE WITH RED STRIPE
17	WHITE WITH PINK STRIPE
18	WHITE WITH BLACK STRIPE
19	WHITE WITH ORANGE STRIPE
20	BLACK WITH RED STRIPE
21	BLACK WITH WHITE STRIPE

WIRE COLOR CHART CONT.	
22	BLACK WITH BLUE STRIPE
23	BLACK WITH PURPLE STRIPE
24	ORANGE WITH RED STRIPE
25	ORANGE WITH BLACK
26	ORANGE WITH WHITE
27	BLUE WITH ORANGE STRIPE
28	BLUE WITH RED STRIPE
29	BLUE WITH BLACK STRIPE
30	BLUE WITH WHITE STRIPE
31	BLUE WITH GREEN STRIPE
32	YELLOW WITH WHITE STRIPE
33	YELLOW WITH PURPLE STRIPE
34	YELLOW WITH BLACK STRIPE
35	PURPLE WITH ORANGE STRIPE
36	PURPLE WITH RED STRIPE
37	PURPLE WITH GREEN STRIPE
38	PURPLE WITH BLACK STRIPE
39	PURPLE WITH YELLOW STRIPE
40	BROWN WITH ORANGE STRIPE
41	PINK WITH RED STRIPE
42	GRAY WITH BLACK STRIPE

NEUTRAL WIRES: WHITE (#12 AWG)

SPARE WIRES: RED (#14 AWG)

GROUND WIRES: BARE (#6 AWG)

MASTER VALVE WIRES: BLUE (#14 AWG)

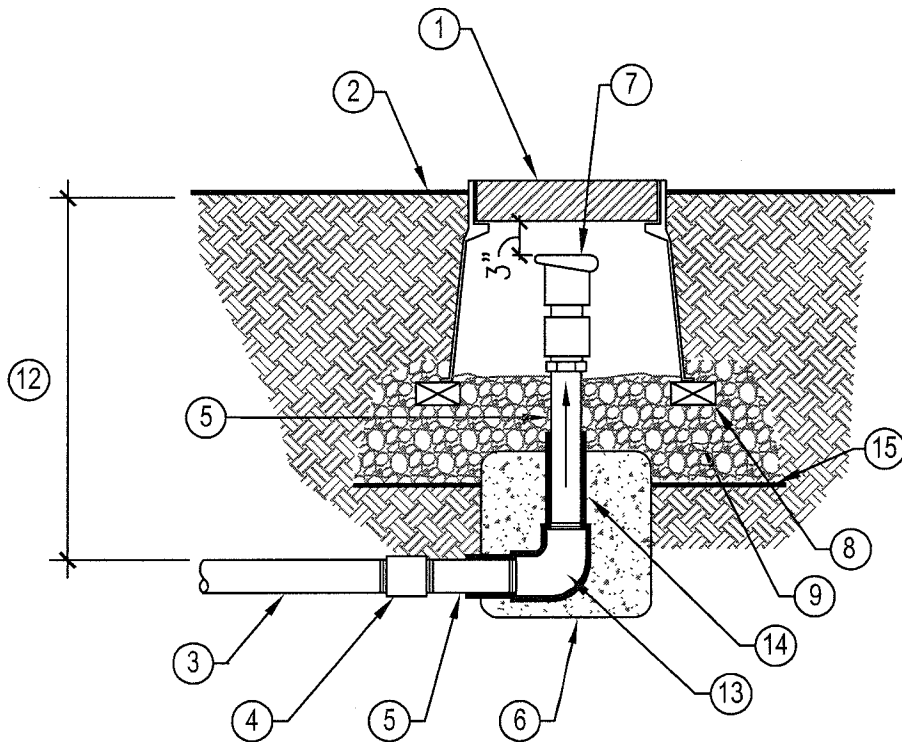
FLOW SENSOR WIRES: APPROVED CABLE

NOTES:

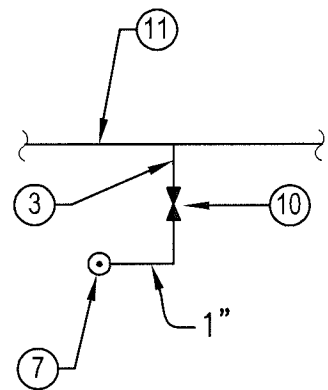
1. COLOR SEQUENCE SHALL BE REPEATED IF THE CONTROLLER EXCEEDS 42 STATIONS.
2. FOR WIRE RUNS EXCEEDING 2000 FT. REFER TO VALVE MANUFACTURERS RECOMMENDATIONS FOR APPROPRIATE WIRE GAUGE.
3. CONTRACTOR SHALL TEST ALL WIRES FOR CONTINUITY, OPEN CIRCUITS, AND UNINTENTIONAL GROUNDS PRIOR TO CONNECTING TO EQUIPMENT OR BACKFILLING. THE MINIMUM INSULATION RESISTANCE TO GROUND SHALL BE 10 OHMS. ANY WIRING NOT MEETING THIS REQUIREMENT SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.

* SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS

Approved By: <i>Sheila Busch</i>	Date DEC. 1, 2012	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	CONTROL WIRE COLOR CHART	Drawing No. I-16



N.T.S.



SCHEMATIC PLAN

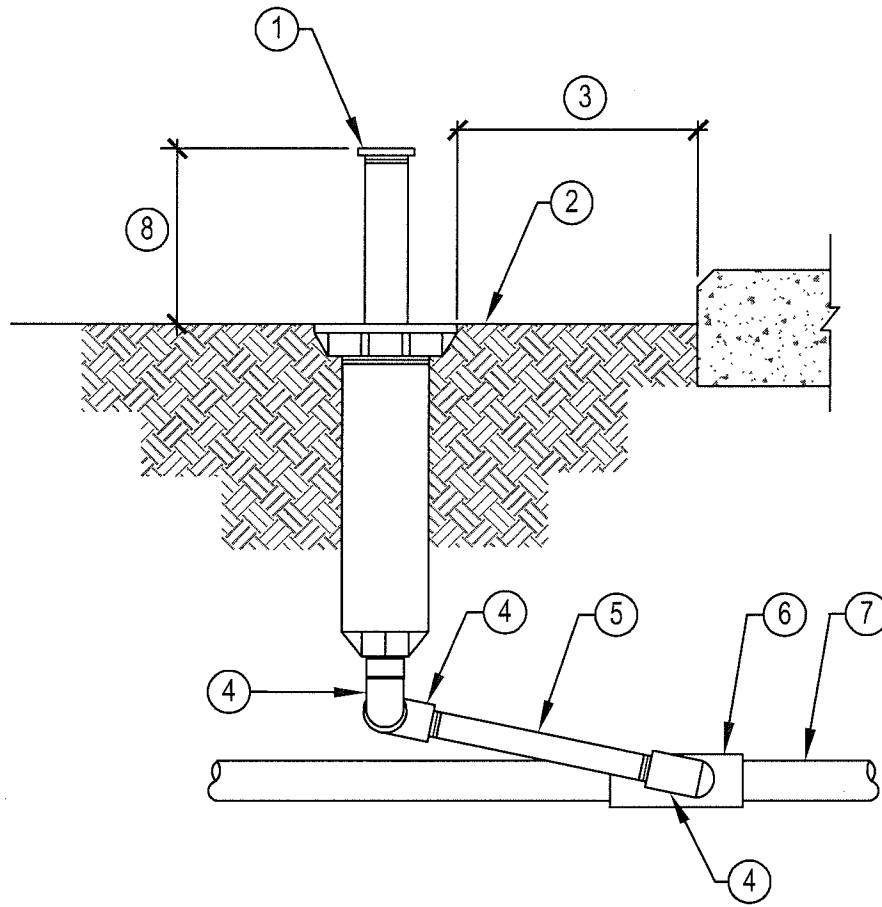
LEGEND:

- ① TRAFFIC RATED 10" ROUND CONCRETE BOX W/ LOCKING CAST IRON COVER IN HARDSCAPE AREAS. PLASTIC 10" ROUND BOX WITH LOCKING COVER AND STAINLESS STEEL BOLTS IN LANDSCAPE AREAS. GRIND/HEAT BRAND "QCV" ON TOP OF COVER.
- ② FINISH GRADE - INSTALL BOX 1" ABOVE FINISH GRADE IN TURF AREAS,, 2" IN SHRUB AREAS AND FLUSH IN PAVED AREAS.
- ③ 1" PVC SCH. 40 IRRIGATION LINE.
- ④ PVC SCH. 80 ADAPTER.
- ⑤ BRASS NIPPLES AND RISERS (TYP) LENGTH AS REQUIRED.
- ⑥ 1 CU. FT. CONCRETE ANCHOR BLOCK.
- ⑦ QUICK COUPLER VALVE.

- ⑧ BRICK SUPPORTS OR CONCRETE BLOCKINGS, 4 MINIMUM.
- ⑨ 3/4" CLEAN CRUSHED ROCKS 4" DEEP SUMP IN, UNDER, AND AROUND VALVE BOX.
- ⑩ ISOLATION BALL VALVE. ALL QUICK COUPLERS SHALL BE SEPARATED FROM THE MAINLINE BY AN ISOLATION VALVE AS INDICATED ON THE SCHEMATIC PLAN ABOVE. BALL VALVE TO BE INSTALLED PER CITY OF SAN MARCOS STD. DWG.
- ⑪ IRRIGATION MAINLINE.
- ⑫ DEPTH - SEE TRENCHING DETAIL.
- ⑬ BRASS THREADED 90°.
- ⑭ 10 MIL. PVC PIPE WRAP TAPE - WRAP PIPE 2" BEYOND EDGE OF CONCRETE.
- ⑮ LANDSCAPE FILTER FABRIC.

* SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS

Approved By: <i>[Signature]</i>	Date AUG. 01, 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	QUICK COUPLER VALVE	Drawing No. I-17

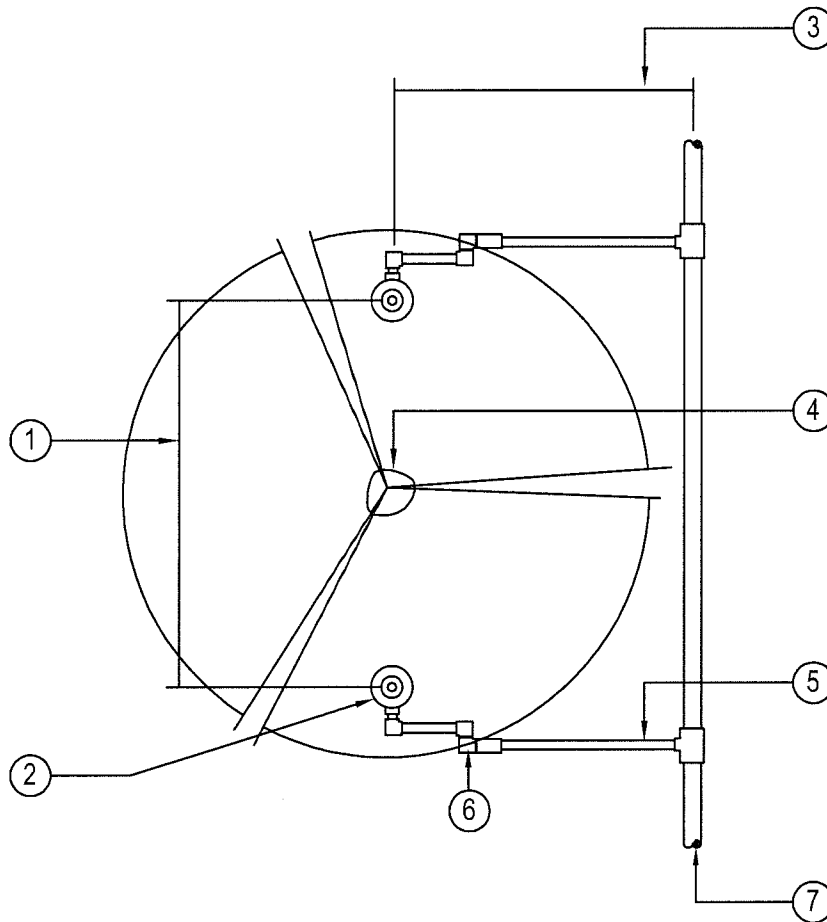


LEGEND:

- ① POP-UP SPRAY HEAD.
- ② FINISH GRADE AT TOP OF MULCH IN PLANTER/SHRUB AREAS – FINISH GRADE IN TURF.
- ③ HEADS TO BE 24" CLEAR OF ALL HARDSCAPE SURFACES.
- ④ SCH. 40 STREET ELL, TYPICAL.
- ⑤ 1/2" PVC SCH. 80 NIPPLE, 6" MINIMUM LENGTH.
- ⑥ PVC SCH. 40 TEE.
- ⑦ PVC LATERAL LINE SCH. 40 PVC.
- ⑧ POP-UP HEIGHT – SEE IRRIGATION LEGEND.

*** SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS**

Approved By: <i>[Signature]</i>	Date AUG. 01, 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	POP-UP SPRAY HEAD	Drawing No. I-18



LEGEND:

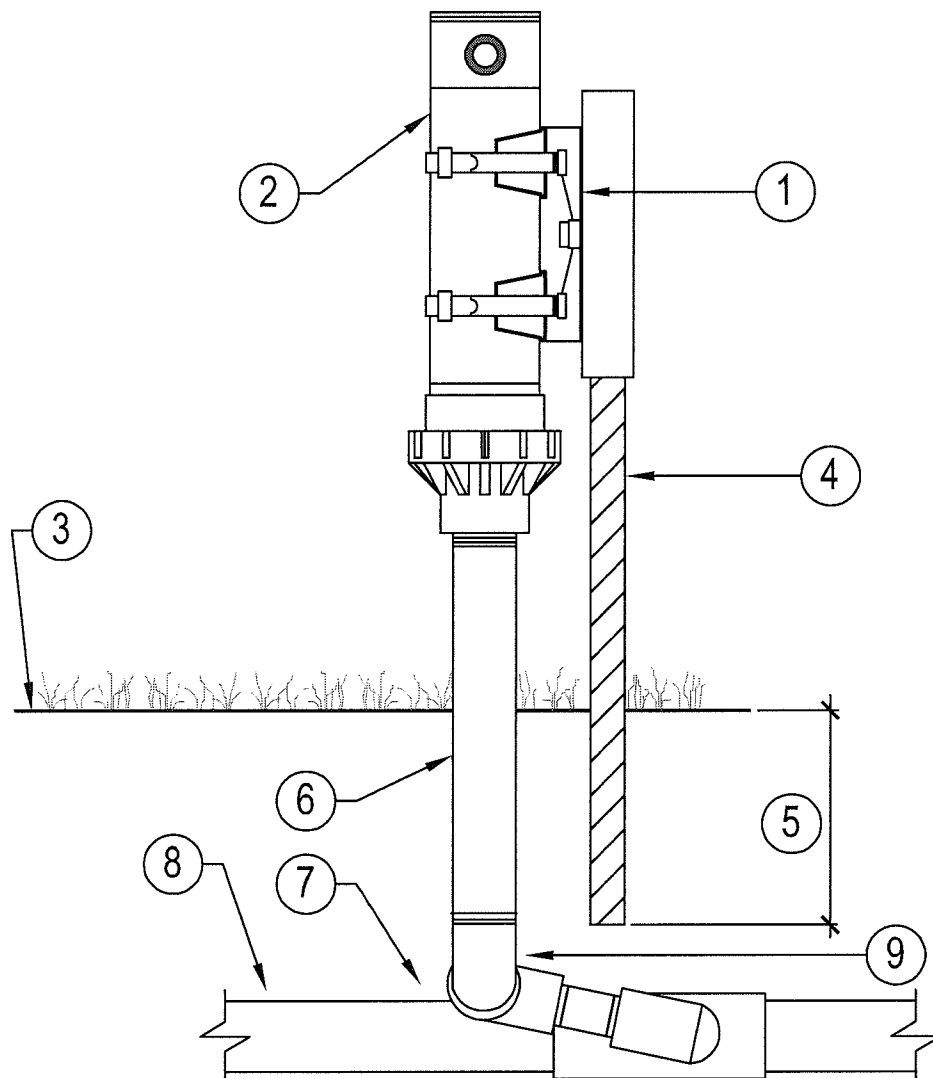
- ① LOCATE HEADS 6" OFF ROOTBALL
- ② 4" POP-UP HEAD WITH HUNTER MSBN-10F NOZZLE.
USE 2 PER TREE
- ③ VARIES - LENGTH AS REQUIRED
- ④ TREE TRUNK
- ⑤ 1/2" SCH 40 PVC LATERAL PIPE.
- ⑥ 1/2" SCH 80 NIPPLE 6" MINIMUM LENGTH, SCH 40 STREET ELL
TYPICAL SWING JOINT
- ⑦ PVC LATERAL PIPING

NOTE:

REFER TO DETAIL I-18 FOR
INSTALLATION OF POP-UP BUBBLER.

*** SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS**

Approved By: <i>[Signature]</i>	Date AUG. 01, 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	BUBBLER SYSTEM FOR TREES	Drawing No. I-19

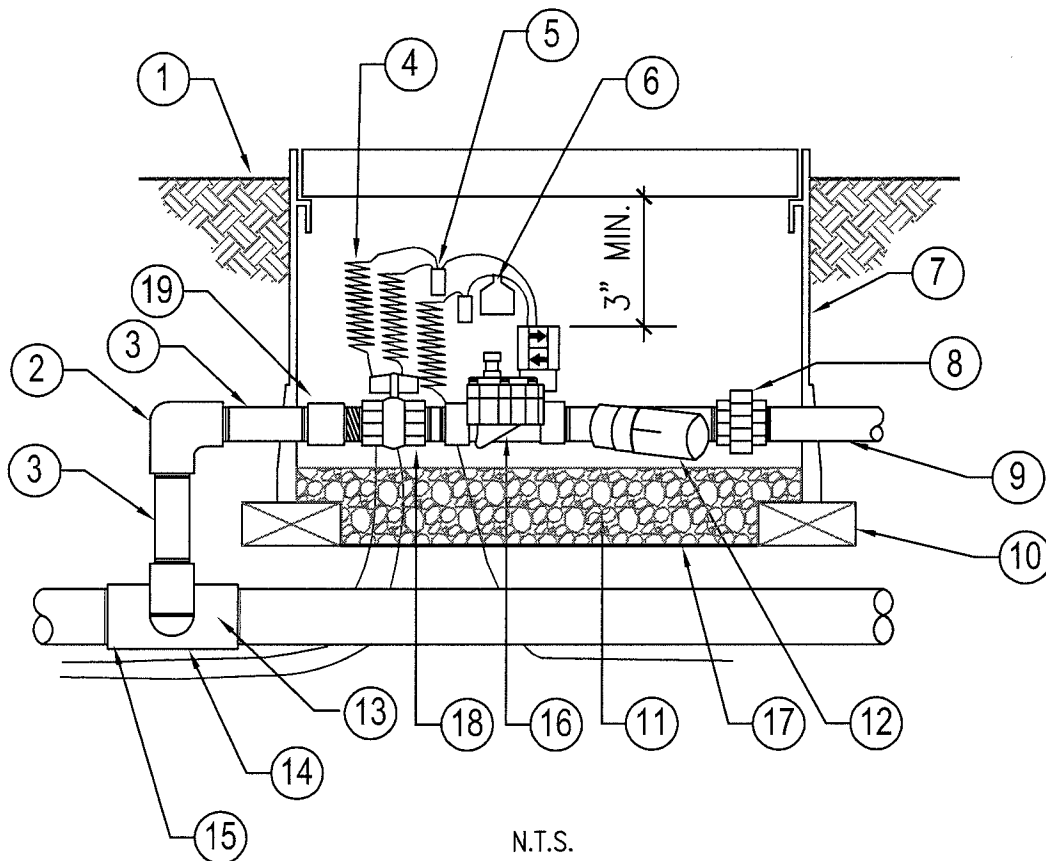


LEGEND:

- | | |
|--|--|
| ① APPROVED STAKING KIT. | ⑧ PVC LATERAL LINE, TYP. SCH. 40 |
| ② ABOVE GROUND SPRINKLER HEAD. | ⑨ SWING JOINT ASSEMBLY
1/2" PVC SCH 80 NIPPLE 6" MINIMUM
LENGTH SCH 40 STREET ELL TYPICAL. |
| ③ FINISH GRADE. | |
| ④ NO. 4 REBAR (0.500) | |
| ⑤ DRIVE REBAR INTO GROUND 12" MINIMUM. | |
| ⑥ PVC RISER, TYP. SCH. 80 | |
| ⑦ PVC TEE, TYP. SCH. 40 | |

*** SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS**

Approved By: <i>[Signature]</i>	Date AUG. 01, 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	STAKING KIT INSTALLATION	Drawing No. I-20

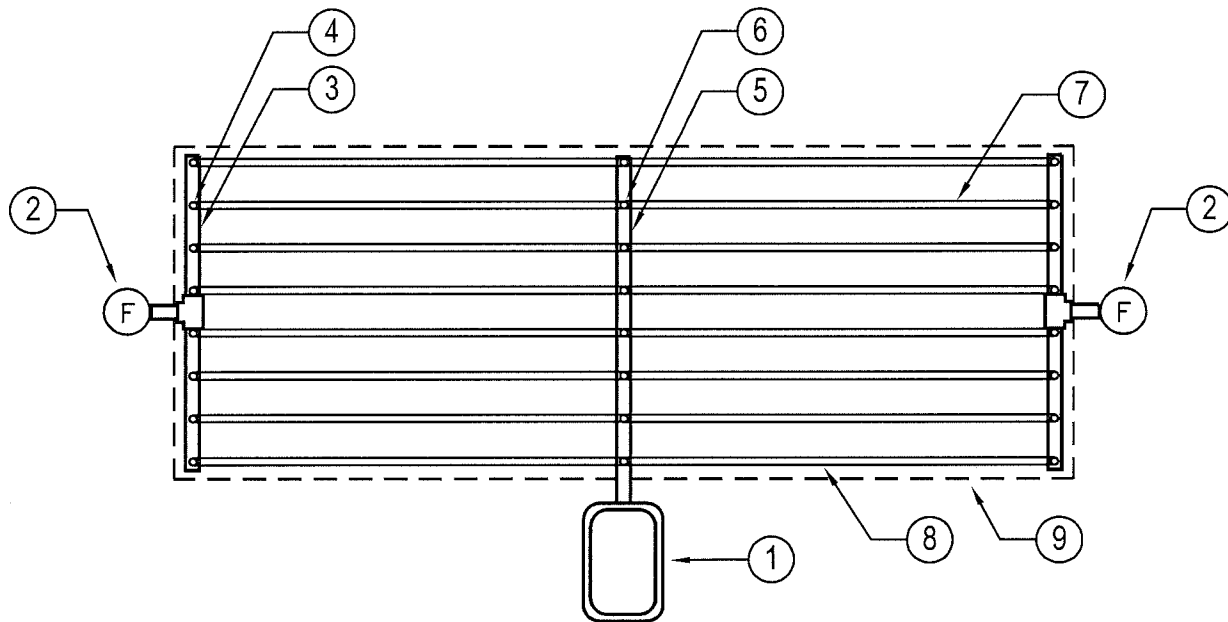


LEGEND:

- | | |
|--|--|
| <p>① FINISH GRADE – INSTALL BOX 1" ABOVE FINISH GRADE IN TURF AREAS,, 2" IN SHRUB AREAS AND FLUSH IN PAVED AREAS.</p> <p>② PVC SCH 80 THREADED ELL.</p> <p>③ PVC SCH 80 NIPPLE (LENGTH AS REQUIRED).</p> <p>④ 36-INCH LINEAR LENGTH OF WIRE, COILED.</p> <p>⑤ WATERPROOF CONNECTORS SPLICE (1 OF 2).</p> <p>⑥ ID TAG.</p> <p>⑦ TRAFFIC RATED STANDARD RECTANGULAR CONCRETE BOX W/ LOCKING CAST IRON COVER IN HARDSCAPE AREAS. PLASTIC JUMBO RECTANGULAR BOX WITH LOCKING COVER AND STAINLESS STEEL BOLTS IN LANDSCAPE AREAS. GRIND/HEAT BRAND CONTROLLER AND STATION NUMBER ON TOP OF COVER.</p> | <p>⑧ PVC SCH 80 THREADED UNION</p> <p>⑨ LATERAL PIPE.</p> <p>⑩ BRICK (1 OF 4)</p> <p>⑪ 3/4" CRUSHED ROCK – 2 CUBIC FT.</p> <p>⑫ PRESSURE REGULATING FILTER.</p> <p>⑬ PVC SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) & PVC SCH 80 ELL.</p> <p>⑭ PVC SCH 80 TEE OR ELL.</p> <p>⑮ PVC MAINLINE.</p> <p>⑯ DRIP REMOTE CONTROL VALVE</p> <p>⑰ LANDSCAPE FABRIC</p> <p>⑱ SCH. 80 BALL VALVE</p> <p>⑲ SCH. 80 MALE ADAPTER</p> |
|--|--|

*** SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS**

Approved By: <i>[Signature]</i>	Date AUG. 01 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	1" CONTROL ZONE DRIP ASSEMBLY WITH PRESSURE REGULATING FILTER	Drawing No. I-21



LEGEND:

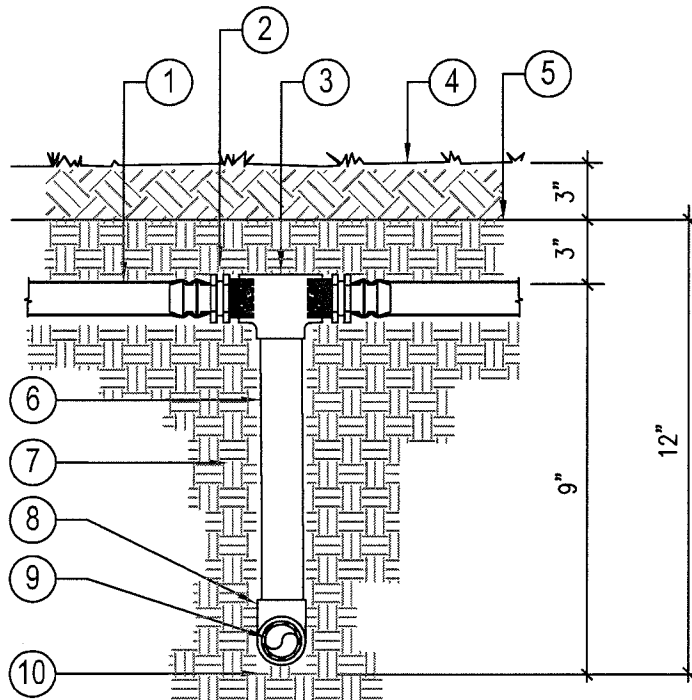
- ① DRIP CONTROL ZONE ASSEMBLY – SEE DETAIL I-21.
- ② AUTO FLUSHING VALVE
- ③ DRIPLINE EXHAUST HEADER MANIFOLD – SEE DETAIL I-24
- ④ DRIPLINE EXHAUST HEADER RISER – SEE DETAILS I-24
- ⑤ DRIPLINE INTAKE HEADER MANIFOLD – SEE DETAIL I-23
- ⑥ DRIPLINE INTAKE HEADER RISER – SEE DETAIL I-23
- ⑦ 1/2" NOMINAL DRIPLINE TUBING – MODEL # W/ EMITTER SPACING AND FLOW PER PLAN
- ⑧ PERIMETER TUBING 2" TO 4" FROM EDGE OF PLANTING AREA.
- ⑨ EDGE OF PLANTING AREA

NOTE:

- 1. ALL DRIPLINE TUBING AND FITTINGS SHALL BE MATCHED BY MANUFACTURER AND STAKED ACCORDING TO SPECIFICATIONS

*** SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS**

Approved By: <i>[Signature]</i>	Date AUG. 01, 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	DRIPLINE LAYOUT (SHRUB/ AREAS)	Drawing No. I-22



LEGEND:

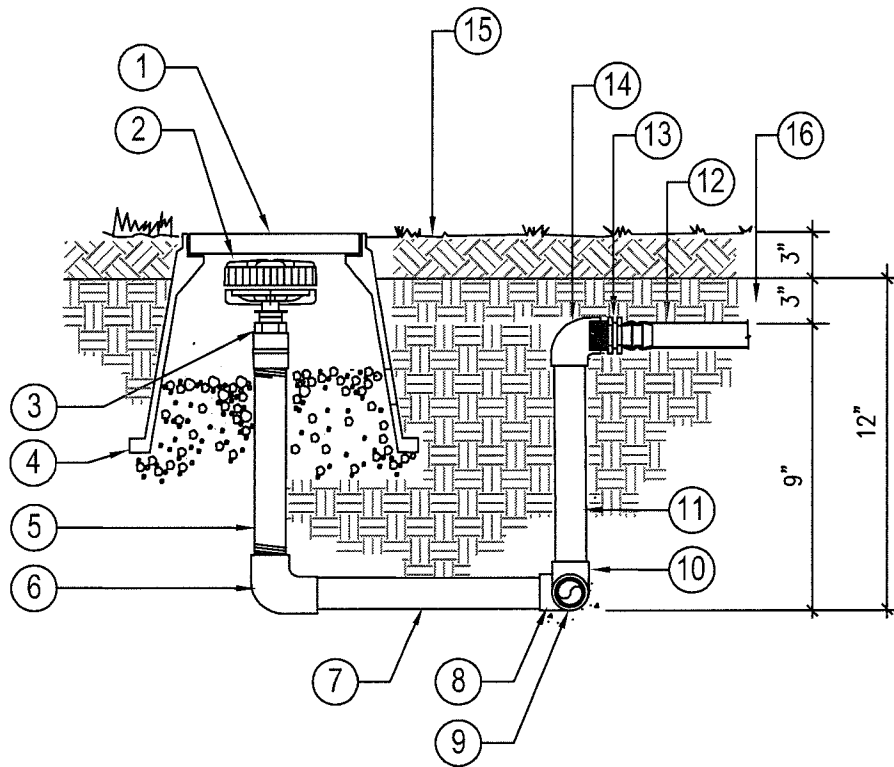
- ① 1/2" NOMINAL DRIPLINE TUBING (MODEL# PER PLAN).
INSTALL BELOW MULCH.
- ② PVC/POLY ADAPTER
- ③ 1/2" SLIP X 1/2" FPT TEE
- ④ MULCH LAYER 3"
- ⑤ SOIL LAYER 3" OVER DRIPLINE
- ⑥ 1/2" X 8" SCHD. 80 THREADED NIPPLE
- ⑦ TRENCH FOR SUPPLY AND EXHAUST HEADERS
- ⑧ 1" X 1' X 1/2" SCH 40 PVC TEE
- ⑨ 1" SCH 40 PVC SUPPLY HEADER.
- ⑩ TRENCH BOTTOM

NOTE:

- 1. ALL DRIPLINE TUBING AND FITTINGS SHALL BE MATCHED BY MANUFACTURER AND STAKED ACCORDING TO SPECIFICATIONS

*** SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS**

Approved By: <i>[Signature]</i>	Date AUG. 01, 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	DRIPLINE INTAKE HEADER MANIFOLD	Drawing No. I-23



LEGEND:

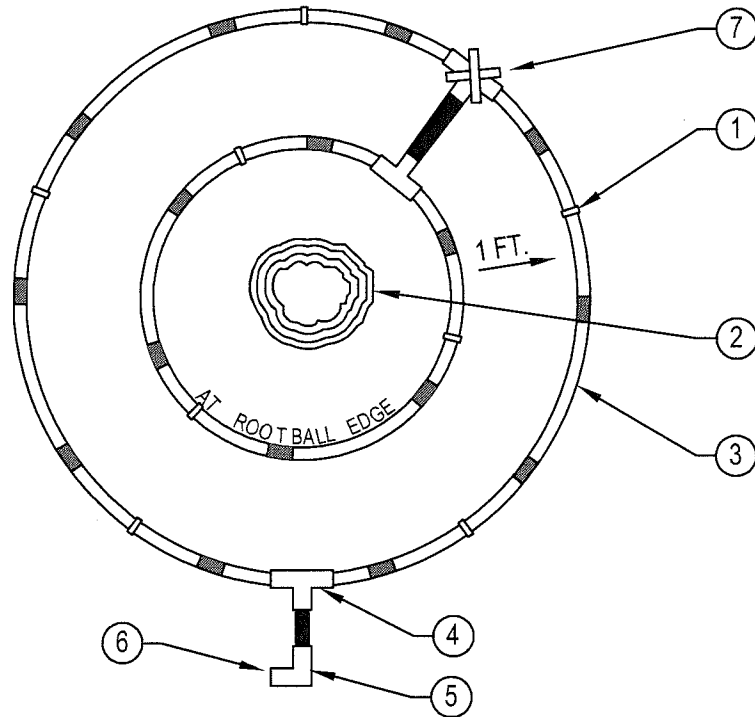
- | | |
|--|--|
| <p>① 10" ROUND VALVE BOX – REFER TO TECHNICAL SPECIFICATIONS.</p> <p>② AUTO FLUSHING VALVE ABOVE GRADE</p> <p>③ 1/2" THREADED SCH. 40 PVC COUPLING</p> <p>④ VALVE BOX TO REST ON GRAVEL SUMP</p> <p>⑤ 1/2" SCH 80 PVC RISER – LENGTH AS REQUIRED.</p> <p>⑥ 1/2" SXT SCH 40 90° ELL</p> <p>⑦ 1/2" SCH 40 PVC PIPING – LENGTH AS REQUIRED.</p> <p>⑧ 1/2" SCH 40 PVC TEE TO FLUSH VALVE</p> <p>⑨ 1/2" SCH 40 PVC EXHAUST HEADER</p> | <p>⑩ 1/2" SCH 40 PVC TEE</p> <p>⑪ 1/2" X 8" SCH 40 PVC RISER</p> <p>⑫ 1/2" NOMINAL DRIPLINE TUBING (MODEL# w/ EMITTER SPACING AND FLOW PER PLAN) INSTALL BELOW MULCH.</p> <p>⑬ PVC/POLY ADAPTER</p> <p>⑭ 1/2" SLIP X 1/2" FPT 90° ELL</p> <p>⑮ MULCH LAYER 3"</p> <p>⑯ SOIL LAYER 3" OVER DRIPLINE</p> |
|--|--|

NOTE:

- ALL DRIPLINE TUBING AND FITTINGS SHALL BE MATCHED BY MANUFACTURER AND STAKED ACCORDING TO SPECIFICATIONS.

*** SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS**

Approved By: <i>[Signature]</i>	Date AUG. 01, 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	DRIPLINE EXHAUST HEADER MANIFOLD	Drawing No. I-24



LEGEND:

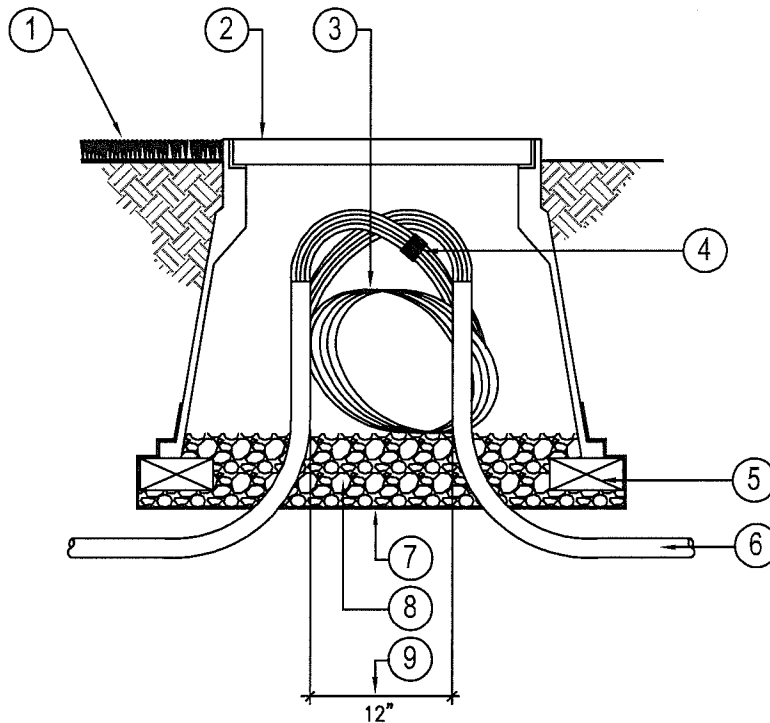
- ① TIE DOWN STAKE at 3' O.C.
- ② TREE TRUNK
- ③ 1/2" NOMINAL DRIPLINE TUBING - MODEL # W/ EMITTER SPACING AND FLOW PER PLAN
- ④ COMPRESSION TEE.
- ⑤ COMPRESSION ELBOW.
- ⑥ SWING JOINT ASSEMBLY
- ⑦ DOUBLE STAKED AT CONNECTION

NOTES:

- 1. TO BE INSTALLED ONLY AT TREES AS DIRECTED BY CITY.
- 2. ALL DRIPLINE TUBING AND FITTINGS SHALL BE MATCHED BY MANUFACTURER AND STAKED ACCORDING TO SPECIFICATIONS.

* SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS

Approved By: <i>[Signature]</i>	Date AUG. 01, 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	DRIPLINE AROUND TREE	Drawing No. I-25

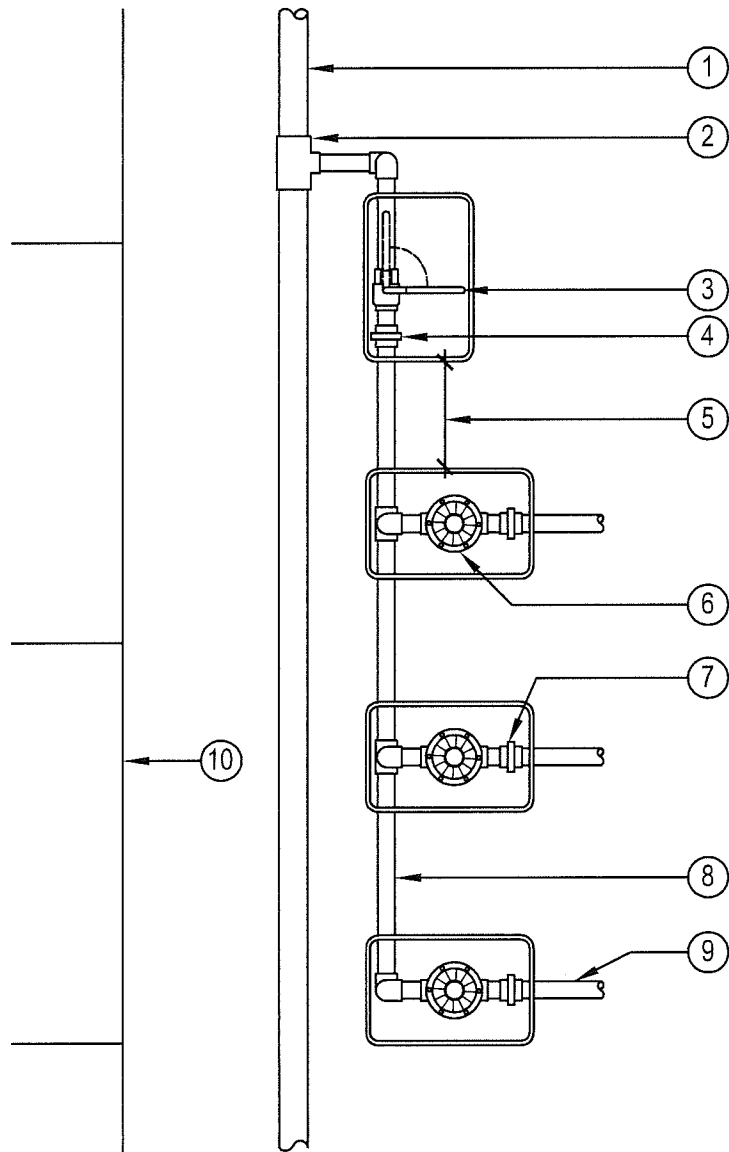


LEGEND:

- ① INSTALL BOX 1" ABOVE FINISH GRADE IN TURF AREAS: 2" IN SHRUB AREAS: FLUSH IN PAVED AREAS
- ② IN TURF/SHRUB AREAS USE PLASTIC STANDARD RECTANGULAR VALVE BOX WITH LOCKING COVER, USE STAINLESS STEEL BOLT, NUT AND WASHER. IN HARDSCAPE AREAS USE TRAFFIC RATED STANDARD RECTANGULAR CONCRETE BOX W/LOCKING CAST IRON COVER. BRAND/GRIND PB ON BOX LID.
- ③ 72" WIRE LOOP – TYPICAL.
- ④ WIRE CONNECTORS (SEE CITY OF SAN MARCOS IRRIGATION AND LANDSCAPE APPROVED MATERIAL LIST FOR ACCEPTABLE CONNECTORS).
- ⑤ BRICK SUPPORTS OR CONCRETE BLOCKING – 4 MINIMUM.
- ⑥ PVC ELECTRICAL SWEEP IF INSTALLED IN CONDUIT.
- ⑦ LANDSCAPE FABRIC.
- ⑧ 3/4" CRUSHED ROCK, 2 CUBIC FT.
- ⑨ 12" SEPARATION FOR SWEEPS INTO PULL BOX.

*** SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS**

Approved By: <i>Sheila Busch</i>	Date DEC. 1, 2011	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	IRRIGATION PULL BOX w/ CONTROL WIRE LOOP OR SPLICE	Drawing No. I-26

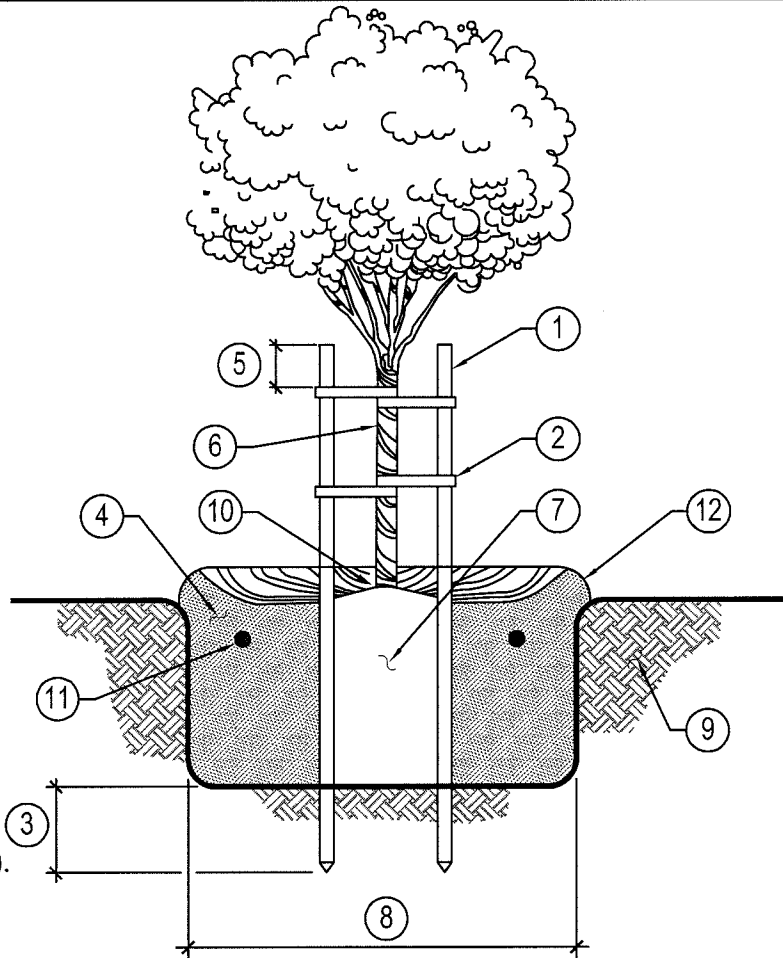


LEGEND:

- | | |
|--|---|
| ① IRRIGATION MAINLINE | ⑥ REMOTE CONTROL VALVE. |
| ② SCH. 80 PVC TEE, SxSxT MAINLINE X MANIFOLD SIZE. | ⑦ SCH. 80 PVC UNION. |
| ③ BALL TYPE ISOLATION VALVE. | ⑧ IRRIGATION SUB-MAINLINE. |
| ④ SCH. 80 PVC UNION. | ⑨ LATERAL LINE TO SPRINKLERS. |
| ⑤ MINIMUM 12", MAXIMUM 36" SEPARATION BETWEEN ALL VALVE BOXES. | ⑩ HARDSCAPE EDGE. INSTALL MAINLINE 12"-18" OFF OF HARDSCAPE EDGE. |

*** SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS**

Approved By: <i>Sheila Busch</i>	Date DEC. 1, 2011	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	R.C. VALVE MANIFOLD LAYOUT	Drawing No. 1-27



LEGEND:

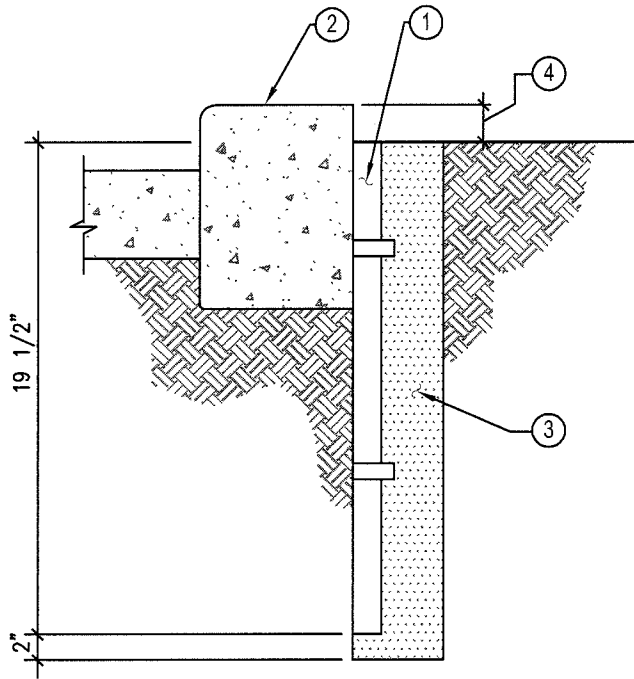
- ① 2" DIA. PINE STAKE (2 REQUIRED).
- ② CINCH TIES.
(4 REQUIRED PER TREE).
- ③ 24" MINIMUM.
- ④ SOIL AMENDMENTS – PER SOILS
REPORT. COMBINED WITH NATIVE SOIL.
- ⑤ 12" MINIMUM.
- ⑥ TREE TRUNK.
- ⑦ ROOTBALL. – SET ROOT CROWN
2" ABOVE FINISH SOIL GRADE.
- ⑧ 2X ROOTBALL WIDTH.
- ⑨ UNDISTURBED NATIVE SOIL.
- ⑩ 3" DEPTH OF BARK MULCH,
2" FROM TREE TRUNK.
- ⑪ PLANT TABLETS PER SAN MARCOS
STD. DWG. 2/3 UP FROM PIT BOTTOM.
SEE STANDARD DETAIL L-8
- ⑫ 4" DEEP WATER RETENTION BERM
PER CITY DIRECTION.

NOTES:

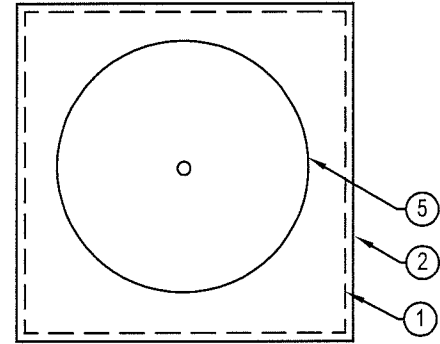
- 1. A 12" TO 18" DIAMETER CIRCLE
CUTOUT WITH A MINIMUM OF
3" BARK MULCH SHALL BE
PROVIDED FOR ALL TREES
PLANTED IN TURF AREAS.
- 2. INSTALL ONE (1) TREE STAKE ON
THE UPWIND SIDE OF THE TREE AND
ONE (1) TREE STAKE ON THE
DOWNWIND SIDE OF THE TREE.
- 3. ROOT BARRIER – SEE STANDARD
DETAIL L-2

* SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS

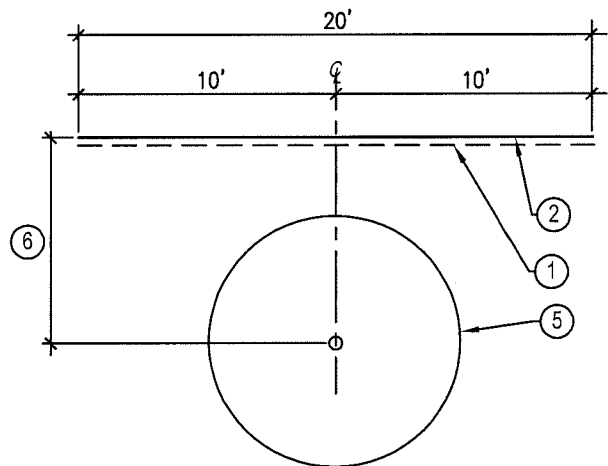
Approved By: <i>[Signature]</i>	Date AUG. 01, 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	DOUBLE STAKING (15 GALLON OR LARGER)	Drawing No. L-1



CROSS SECTION



PLAN VIEW @ TREE WELL



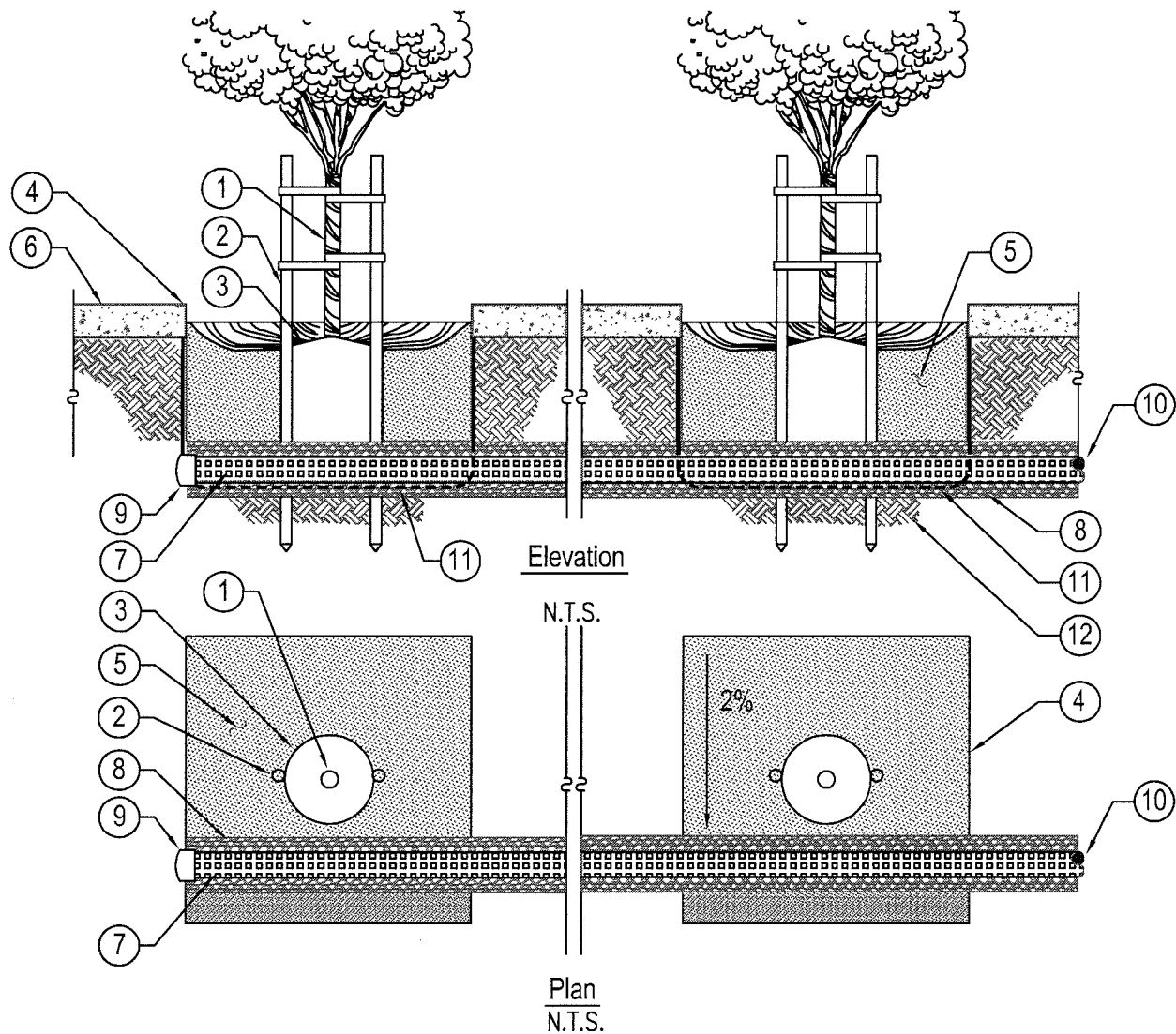
PLAN VIEW @ HARDSCAPE EDGE

LEGEND:

- ① ROOT CONTROL BARRIER. PLACE NODULES (BUMPS) TOWARD ROOTS OR PLANTING.
- ② HARDSCAPE EDGE, SIDEWALK, CURB, SWALE, OR PAVEMENT.
- ③ ROOT CONTROL BARRIER TRENCH BACKFILLED WITH CLEAN SOIL.
- ④ INSTALL 2" BELOW TOP OF PAVEMENT.
- ⑤ TREE.
- ⑥ ROOT CONTROL BARRIERS SHALL BE PROVIDED AS SHOWN ON THIS DETAIL WHERE TREES ARE PLANTED WITHIN 10 FEET OR CLOSER FROM THE HARDSCAPE EDGE AND ALL SIDES OF TREE WELLS.

* SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS

Approved By: <i>[Signature]</i>	Date AUG. 01, 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	ROOT CONTROL BARRIER	Drawing No. L-2



LEGEND:

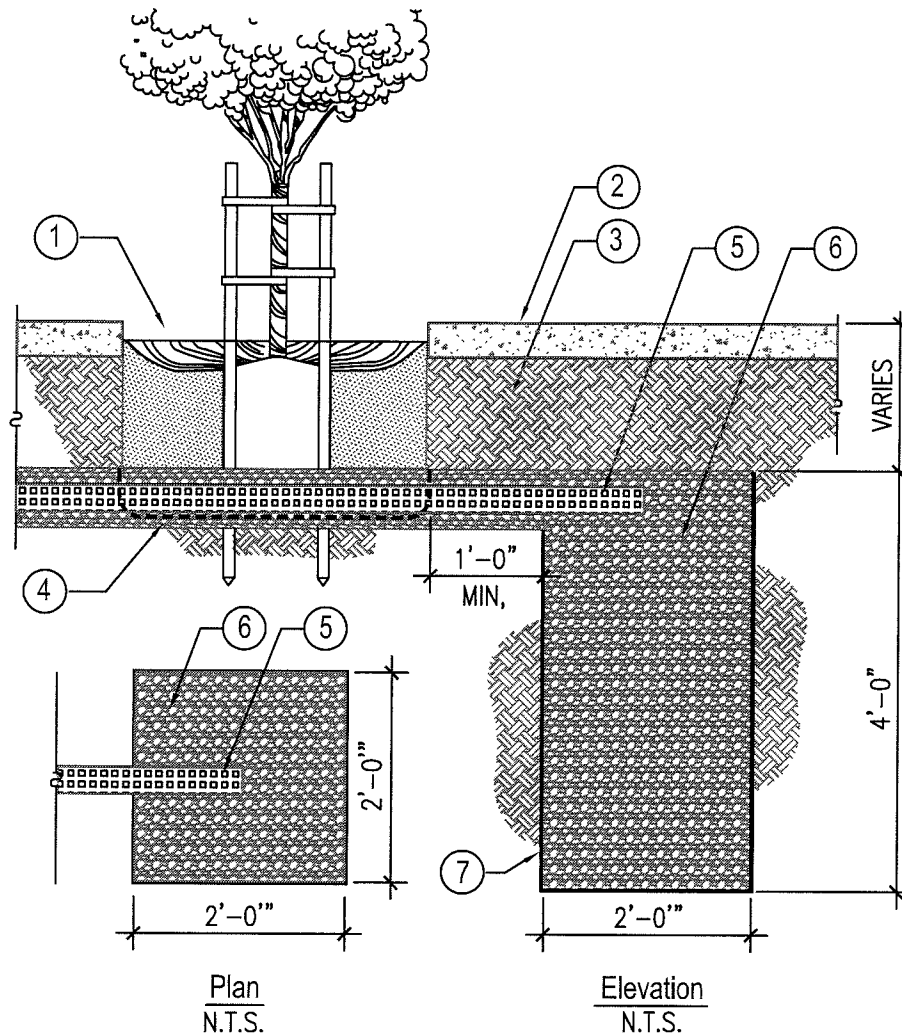
- | | |
|--|---|
| ① TREE TRUNK | ⑧ 6" OF 3/4" CRUSHED ROCK SURROUNDING PERFORATED PIPE |
| ② TREE STAKE | ⑨ PVC CAP AT LAST TREE ON UPHILL END OF PIPING. |
| ③ TREE ROOTBALL | ⑩ EXTEND PERFORATED PIPE AT MINIMUM 1% SLOPE THROUGH THREE (3) TREE WELLS (MAX.) AND CONNECT TO SUMP AS PER STANDARD DETAIL L-4 |
| ④ EDGE OF TREE WELL IN PAVING | ⑪ BOTTOM OF PLANTING PIT. 2% FALL TOWARDS DRAIN |
| ⑤ BACKFILL PLANTING MIX | ⑫ UNDISTURBED SOIL |
| ⑥ PAVING AROUND TREE WELL | |
| ⑦ 4" PERFORATED SDR-35 PVC PIPING (WHITE IN COLOR) WRAPPED IN LANDSCAPE FILTER FABRIC. | |

NOTE:

1. TREE DRAINAGE SYSTEM REQUIRED ONLY WHEN PERK TEST FAILS AND AS DIRECTED BY CITY.

*** SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS**

Approved By: <i>[Signature]</i>	Date AUG. 01, 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	TREE DRAINAGE SYSTEM	Drawing No. L-3

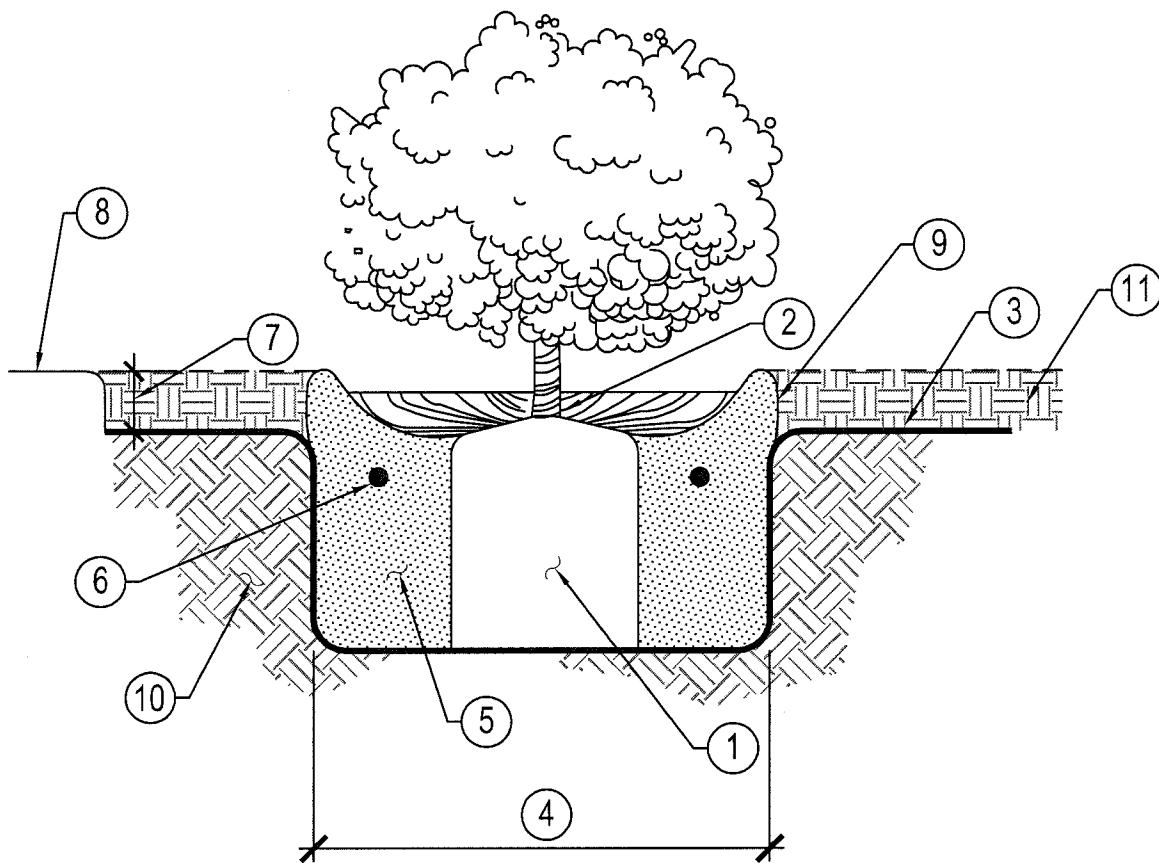


LEGEND:

- ① TREE WELL
- ② PAVING
- ③ SOIL
- ④ BOTTOM OF PLANTING PIT
- ⑤ 4" PERFORATED SDR-35 PVC PIPING EXTEND TO CENTER OF DRAINAGE SUMP WITH OPEN END. PIPE MUST BE INSTALLED AT MINIMUM 1% SLOPE TO SUMP. WRAPPED IN LANDSCAPE FILTER FABRIC.
- ⑥ 2'x2'x4' DEEP DRAINAGE SUMP – FILL WITH 3/4" CRUSHED ROCK
- ⑦ WRAP TOP, BOTTOM AND SIDES OF SUMP WITH APPROVED FILTER FABRIC.

* SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS

Approved By: <i>[Signature]</i>	Date AUG. 01 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	TREE DRAINAGE SUMP	Drawing No. L-4



LEGEND:

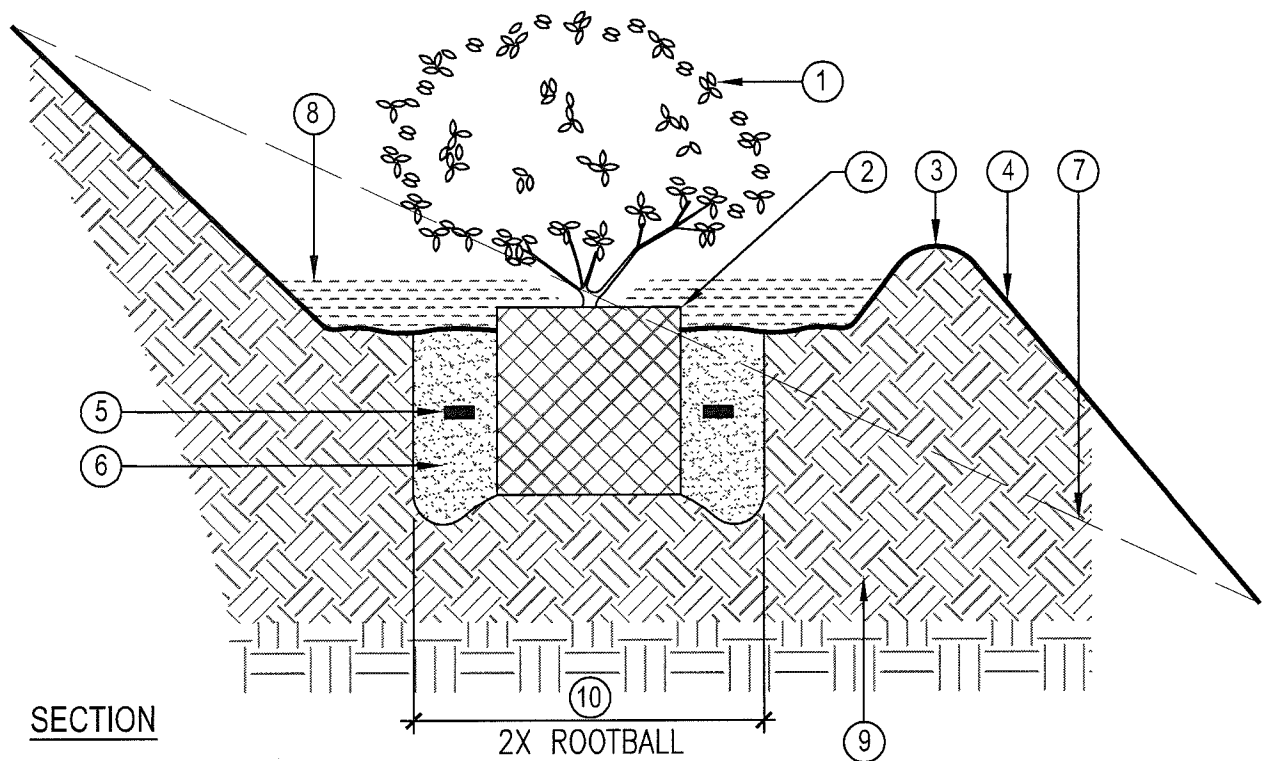
- ① ROOTBALL.
- ② ROOTBALL CROWN - 1" ABOVE FINISH SOIL GRADE.
- ③ FINISH SOIL GRADE.
- ④ 2X ROOTBALL DIAMETER.
- ⑤ SOIL AMENDMENTS - PER SOILS REPORT. COMBINED WITH NATIVE SOIL.
- ⑥ PLANT TABLETS PER SAN MARCOS STD. L-8 2/3 UP FROM PIT BOTTOM.
- ⑦ FINISH SOIL GRADE TO BE 3" BELOW PAVEMENT/HARDSCAPE.
- ⑧ TOP OF PAVING.
- ⑨ 4" DEEP WATER RETENTION BERM PER CITY DIRECTION WITH MULCH. KEEP MULCH 2" FROM BASE OF SHRUB.
- ⑩ UNDISTURBED NATIVE SOIL.
- ⑪ 3" LAYER MULCH

NOTE:

ALL SHRUB BEDS LESS THAN 3:1 SLOPE SHALL RECEIVE A 3" LAYER OF LANDSCAPE MULCH.

*** SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS**

Approved By: <i>Victor Soto</i>	Date AUG. 01, 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	SHRUB PLANTING	Drawing No. L-5



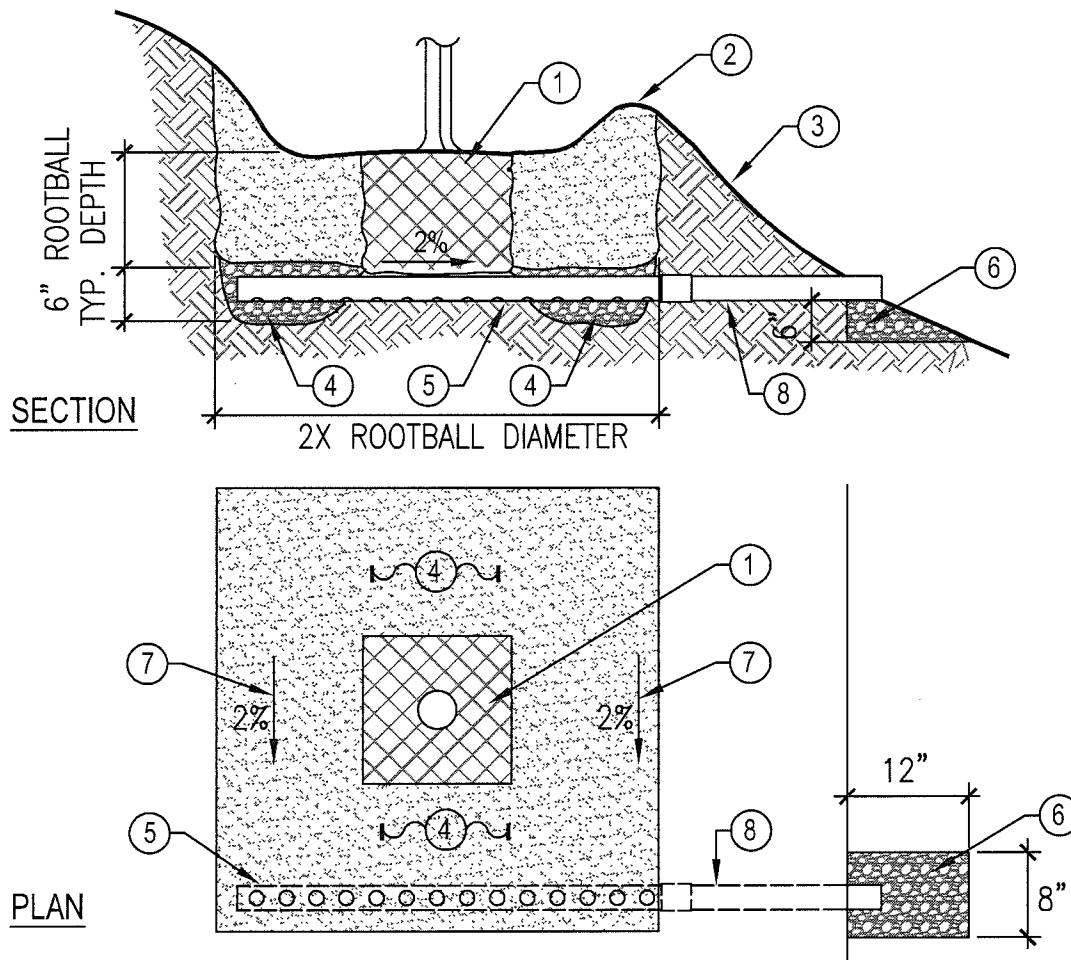
SECTION

LEGEND:

- | | |
|---|--|
| ① SHRUB OR TREE | ⑧ MULCH 3" DEPTH - 2" FROM TRUNK OF TREE/SHRUB. |
| ② SET ROOTBALL CROWN 2" ABOVE FINISH GRADE FOR TREES; 1" ABOVE FINISH GRADE FOR SHRUBS. | ⑨ EXISTING SOIL. |
| ③ 4" DEEP WATER RETENTION BERM PER CITY DIRECTION. | ⑩ EXCAVATE PLANTING PIT 2X THE DIAMETER OF ROOTBALL. |
| ④ PLANTING PIT FINISH GRADE. | |
| ⑤ PLANT TABLETS PER CITY OF SAN MARCOS STANDARD DRAWING L-8. | |
| ⑥ SOIL AMENDMENTS - PER SOILS REPORT COMBINED WITH NATIVE SOILS. | |
| ⑦ GRADIENT OF EXISTING SLOPE. | |

* SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS

Approved By: <i>Sheila Busch</i>	Date DEC. 1, 2011	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	TREE & SHRUB PLANTING ON SLOPE	Drawing No. L-5a



LEGEND:

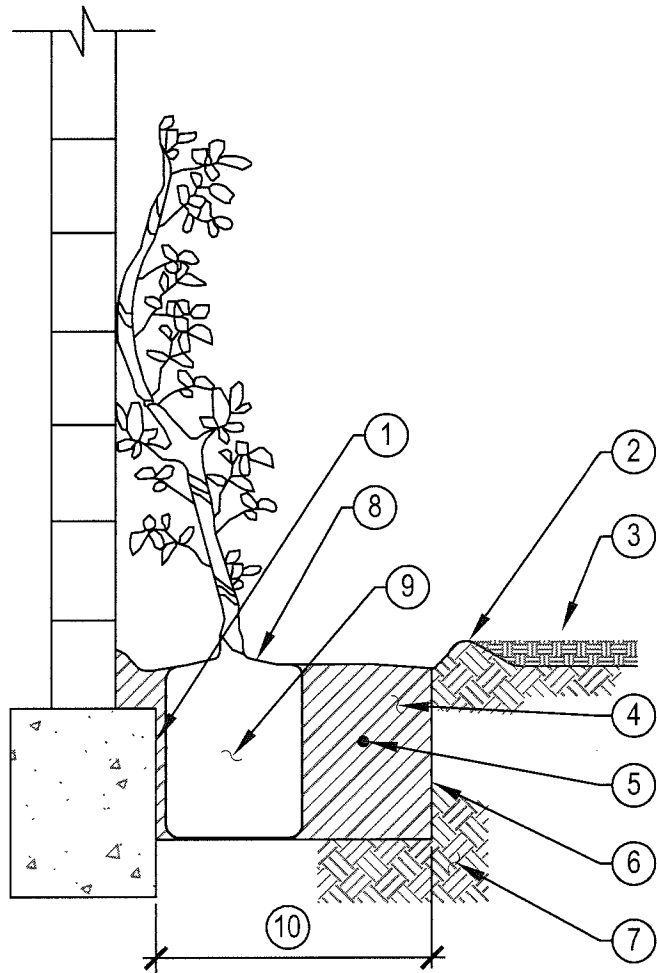
- ① ROOTBALL – FOR TREE PLANTING DETAIL, REFER TO CITY OF SAN MARCOS DETAIL L-5(A).
- ② WATER RETENTION BERM – TYPICAL.
- ③ PLANTING PIT FINISH GRADE OF SLOPE.
- ④ 6" DEEP TRENCH AROUND ALL SIDES OF ROOTBALL FILLED WITH 3/4" CRUSHED GRAVEL.
- ⑤ 4" PERFORATED DRAIN PIPE WRAPPED WITH DRAIN SOCK, INSTALL FLAT DRAIN GRATE @ DAYLIGHT END. GRATE TO BE GREEN OR BLACK. ORIENT DRAIN PIPE HOLES FACING DOWN.
- ⑥ 8" WIDE x 12" LONG x 12" DEPTH LAYER OF 3/4" CRUSHED GRAVEL BELOW DRAIN DAYLIGHT.
- ⑦ SLOPE PLANTING PIT TOWARD PERFORATED DRAIN PIPE.
- ⑧ 4" SOLID (NON-PERFORATED) DRAIN PIPE

NOTE:

PERFORATED DRAINS SHALL BE UTILIZED IN ALL TREE PITS THAT DO NOT DRAIN PER CITY OF SAN MARCOS LANDSCAPE SPECIFICATIONS AS ASCERTAINED BY PERCOLATION TESTING.

*** SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS**

Approved By: <i>[Signature]</i>	Date AUG. 01, 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	TREE PLANTING PIT DRAIN	Drawing No. L-5b



LEGEND:

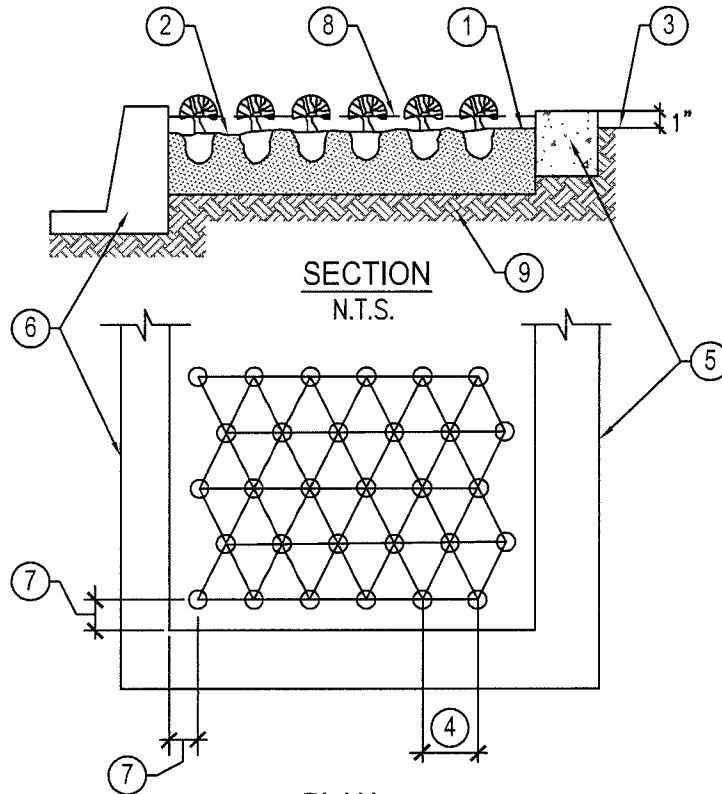
- ① SET VINE OR ESPALIER AS CLOSE TO BACK SURFACE OF PIT AS POSSIBLE.
- ② 4" DEEP WATERING BASIN.
- ③ FINISH GRADE.
- ④ SOIL AMENDMENTS IN NATIVE SOIL PER SOILS REPORT COMBINED WITH NATIVE SOIL.
- ⑤ PLANTING TABLETS. PLACE IN PIT 2/3" UP FROM PIT BOTTOM. PER L-8
- ⑥ SCARIFY SIDES AND BOTTOM OF PLANTING PIT.
- ⑦ UNDISTURBED NATIVE SOIL.
- ⑧ SET TOP OF ROOTBALL 1" ABOVE SURROUNDING GRADE AND SLOPE FOR DRAINAGE.
- ⑨ ROOTBALL.
- ⑩ 2X ROOTBALL DIAMETER (3 SIDES).
- ⑪ 3" OF MULCH

NOTE:

ALL VINES SHALL BE ATTACHED TO ADJACENT WALLS WITH APPROVED VINE TIE SYSTEM. REMOVE NURSERY STAKE.

*** SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS**

Approved By: <i>[Signature]</i>	Date AUG. 01, 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	VINE PLANTING	Drawing No. L-6



SECTION
N.T.S.

PLAN
N.T.S.

LEGEND:

- ① AREAS WITH GROUND COVER – FINISH SOIL GRADE TO BE 3" BELOW HARDSCAPE/PAVEMENT.
- ② SOIL AMENDMENTS – PER SOILS REPORT INCORPORATED INTO NATIVE SOIL.
- ③ FINISH GRADE OF MULCH TO BE 1" BELOW HARDSCAPE/PAVEMENT.
- ④ EQUAL (X) – SEE PLANT LEGEND FOR ON CENTER SPACING.
- ⑤ CONCRETE MOW STRIP, OR HARDSCAPE IMPROVEMENT, AS INDICATED ON PLAN.
- ⑥ CONCRETE CURB OR HARDSCAPE IMPROVEMENT, AS INDICATED ON PLAN.
- ⑦ SEE PLANT LEGEND FOR MINIMUM CLEARANCE.
- ⑧ GROUND COVER PLANTED FROM CONTAINER SHALL RECEIVE 2" LANDSCAPE MULCH.
- ⑨ UNDISTURBED NATIVE SOIL.

* SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS

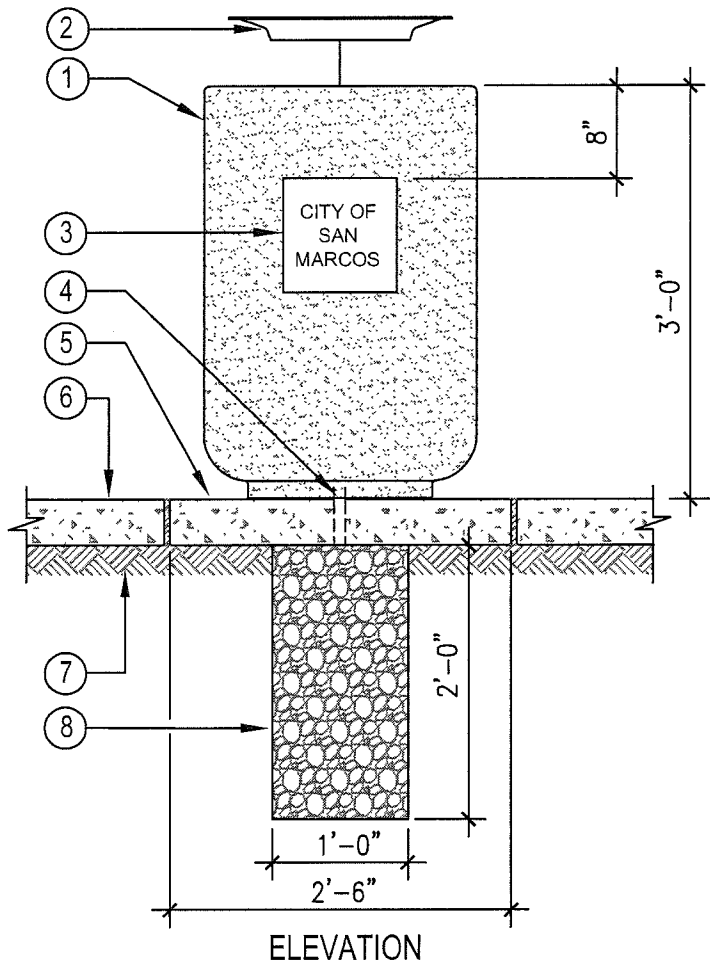
Approved By: <i>Sheila Busch</i>	Date MAY 1, 2010	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	GROUND COVER PLANTING	Drawing No. L-7

PLANT TABLET LEGEND
FERTILIZER APPLICATION RATE FOR PLANTS OR POTS

1 GALLON PLANT	1 TABLET	21 GRAM
5 GALLON PLANT	3 TABLETS	21 GRAM
15 GALLON PLANT	4 TABLETS	21 GRAM
24" BOX	6 TABLETS	21 GRAM
36" & 48" BOXES	8 TABLETS	21 GRAM
PALMS	8 TABLETS	21 GRAM

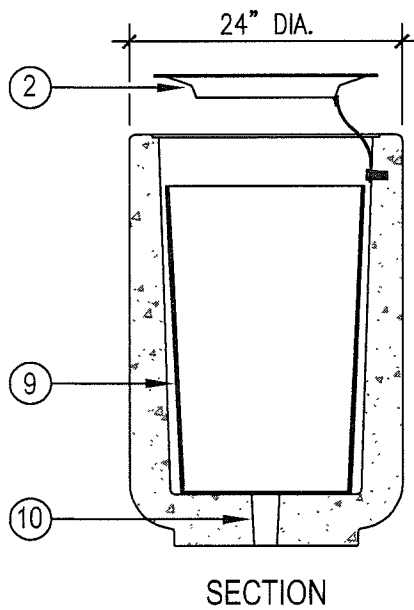
*** SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS**

Approved By: <i>Sheila Busch</i>	Date MAY 1, 2010	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	PLANT TABLET LEGEND	Drawing No. L-8



DETAIL LEGEND

- ① TRASH CONTAINER - MODEL #QR-CAL2436W-A19 (MODIFIED)
- ② TRASH CONTAINER LID - MODEL #A19 w/ 12" OPENING, 21" STEEL SECURITY CABLE & TAMPER PROOF BOLT
- ③ CITY OF SAN MARCOS LOGO - 10" SQ. CAST-IN PLACE, LETTERS PAINTED BROWN COLOR, BACKGROUND PAINTED C3-LATTE COLOR.
- ④ CORE DRILL - 2" DIAMETER
- ⑤ 4" THICK CONCRETE PAD; 520-C-2500 MIN.
- ⑥ ADJACENT PAVING
- ⑦ COMPACTED SUBGRADE
- ⑧ 3/4" CRUSHED ROCK
- ⑨ 23 GAL. PLASTIC LINE - MODEL #QR-PL27A
- ⑩ 2" DIA. DRILL HOLE



SPECIFICATIONS:

PRODUCT: QR-CAL2436W-A19 (MODIFIED)

CONCRETE COLOR: C-II-ADOBE TAUPE

TEXTURE: T2-LSB LIGHT-SANDBLAST FINISH

LID: A19 STEEL, BROWN COLOR

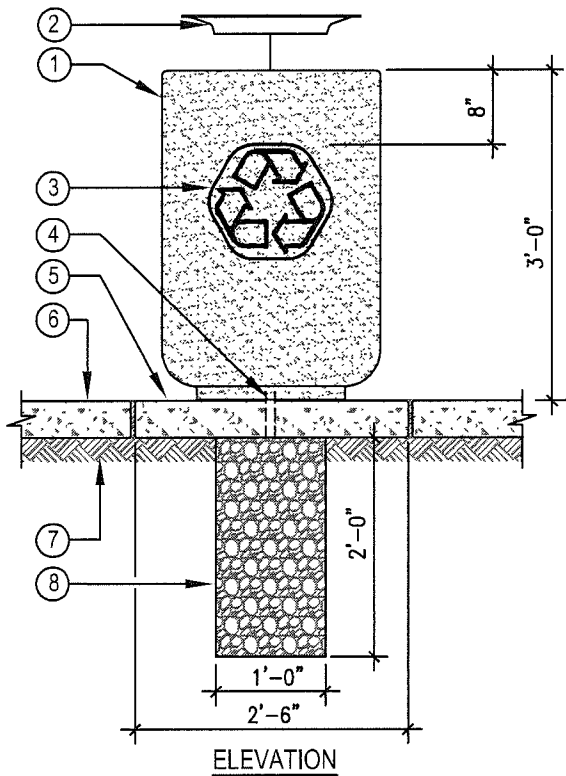
LOGO: 10" SQ. CAST-IN PLACE, LETTERS PAINTED BROWN COLOR, BACKGROUND PAINTED C3-LATTE COLOR. TO READ: CITY OF SAN MARCOS

NOTES:

BASE OF TRASH RECEPTACLE TO BE SECURED TO CONCRETE BASE WITH INDUSTRIAL GRADE EPOXY

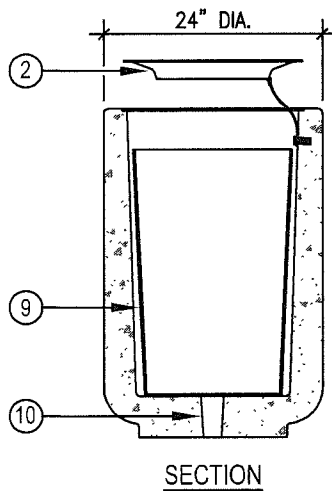
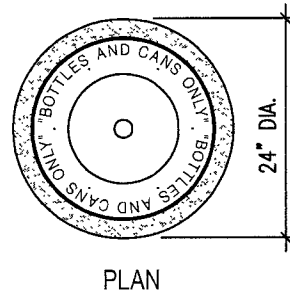
* SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS

Approved By: <i>[Signature]</i>	Date AUG. 01, 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	TRASH RECEPTACLE	Drawing No. M-1



DETAIL LEGEND

- ① TRASH CONTAINER - MODEL #QR-CAL2436W-A19 (MODIFIED)
- ② TRASH CONTAINER LID - MODEL #A19 w/ 12" OPENING, 21" STEEL SECURITY CABLE & TAMPER PROOF BOLT
- ③ RECYCLED LOGO - CAST IN PLACE PAINTED STD. GREEN COLOR.
- ④ CORE DRILL - 2" DIAMETER
- ⑤ 4" THICK CONCRETE PAD; 520-C-2500 MIN.
- ⑥ ADJACENT PAVING
- ⑦ COMPACTED SUBGRADE
- ⑧ 3/4" CRUSHED ROCK
- ⑨ 23 GAL. PLASTIC LINE - MODEL #QR-PL27A
- ⑩ 2" DIA. DRILL HOLE



SPECIFICATIONS:

PRODUCT: QR-CAL2436W-A19 (MODIFIED)

CONCRETE COLOR: C-II-ADOBE TAUPE

TEXTURE: T2-LSB LIGHT-SANDBLAST FINISH

LID: A19 STEEL, GREEN COLOR W/ STENCILED LETTERS "BOTTLE AND CANS ONLY" FONT: HELVETICA HEAVY HT: 1 1/4", STENCIL COLOR WHITE.

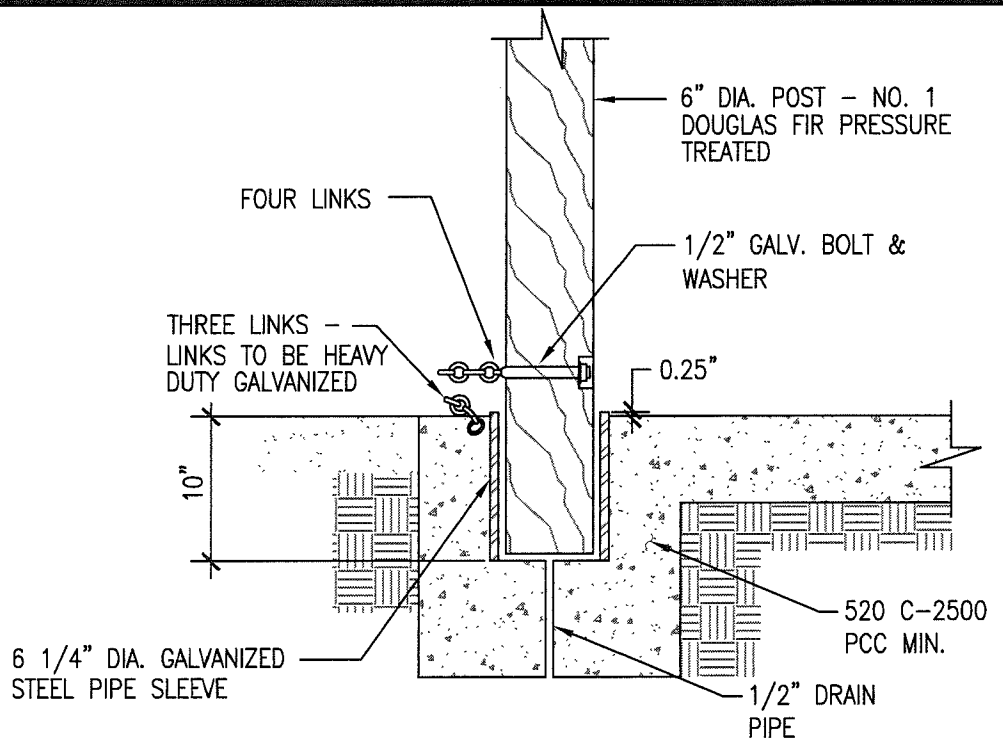
LOGO: CAST-IN PLACE RECYCLED LOGO, PAINTED STD. GREEN COLOR

NOTES:

BASE OF TRASH RECEPTACLE TO BE SECURED TO CONCRETE BASE WITH INDUSTRIAL GRADE EPOXY

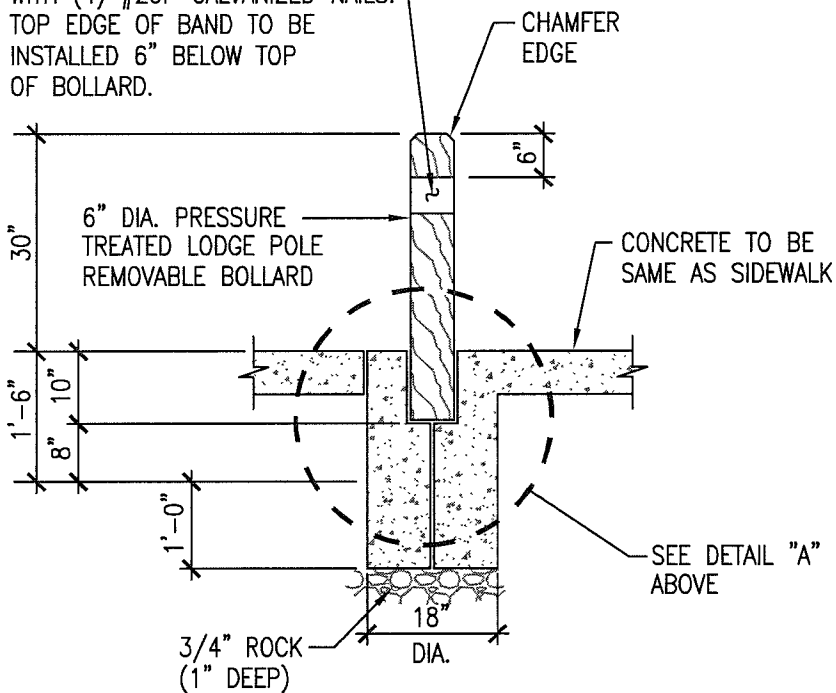
* SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS

Approved By: <i>[Signature]</i>	Date AUG. 01, 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	TRASH RECEPTACLE (RECYCLED)	Drawing No. M-2



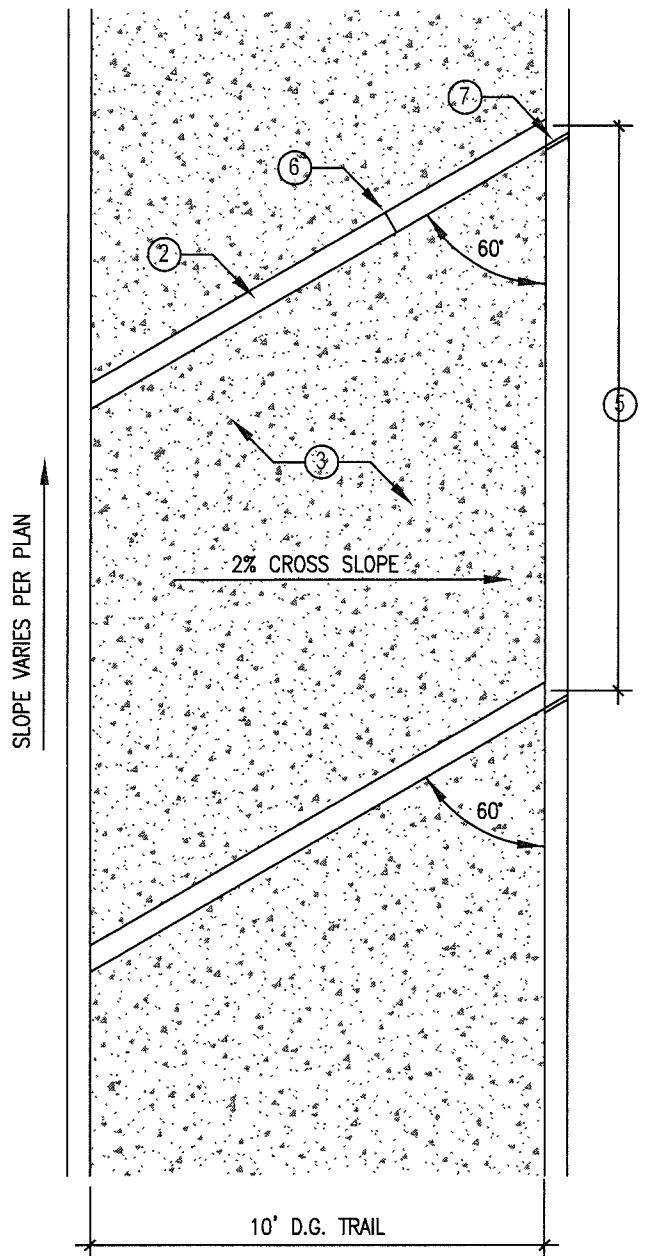
DETAIL "A"
SCALE: N.T.S.

3" WIDE YELLOW REFLECTIVE TARGET PLATE BAND COMPLETELY AROUND EACH BOLLARD. 1/2" COUNTERSUNK GAUGE OF BAND SHALL BE 0.050 MIN. SECURE EACH BAND WITH (4) #20P GALVANIZED NAILS. TOP EDGE OF BAND TO BE INSTALLED 6" BELOW TOP OF BOLLARD.



* SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS

Approved By: <i>Sheila Busch</i>	Date MAY 1, 2010	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	REMOVABLE BOLLARD	Drawing No. M-4



PLAN VIEW

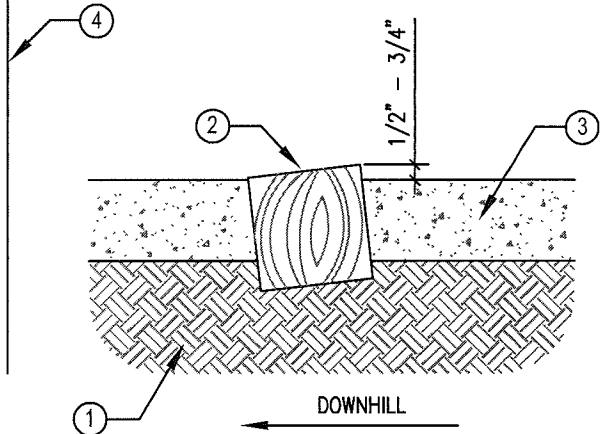
LEGEND:

- ① COMPACTED SUBGRADE
- ② GRADE A RAILROAD TIE EROSION DIVERTER (5' MINIMUM TIE LENGTH)
- ③ DECOMPOSED GRANITE (STABILIZED)
- ④ TRAIL DITCH - SEE DETAIL
- ⑤ RAILROAD TIE SPACING:

SLOPE	DISTANCE
5-10%	35' O.C.
11-15%	25' O.C.
16-20%	15' O.C.
21%>	12' O.C.
- ⑥ BUTT JOINT (EACH DIVERTER SHALL HAVE ONE JOINT ONLY)
- ⑦ 3/4" X 3/4" SLOT IN DITCH OR CURB TYPICAL

NOTES:

MORTAR JOINT BETWEEN END OF DIVERTER AND DITCH/CURB.
 EXTEND DIVERTER THROUGH PLANTED AREAS AS DIRECTED.



SECTION

* SEE CITY OF SAN MARCOS IRRIGATION & LANDSCAPE APPROVED MATERIAL LISTS

Approved By: <i>Chatterjee</i>	Date AUG. 01, 2015	CITY OF SAN MARCOS	Scale N.T.S.
Drawn By: LCP	Date	D.G. TRAIL WATER DIVERTER	Drawing No. M-5