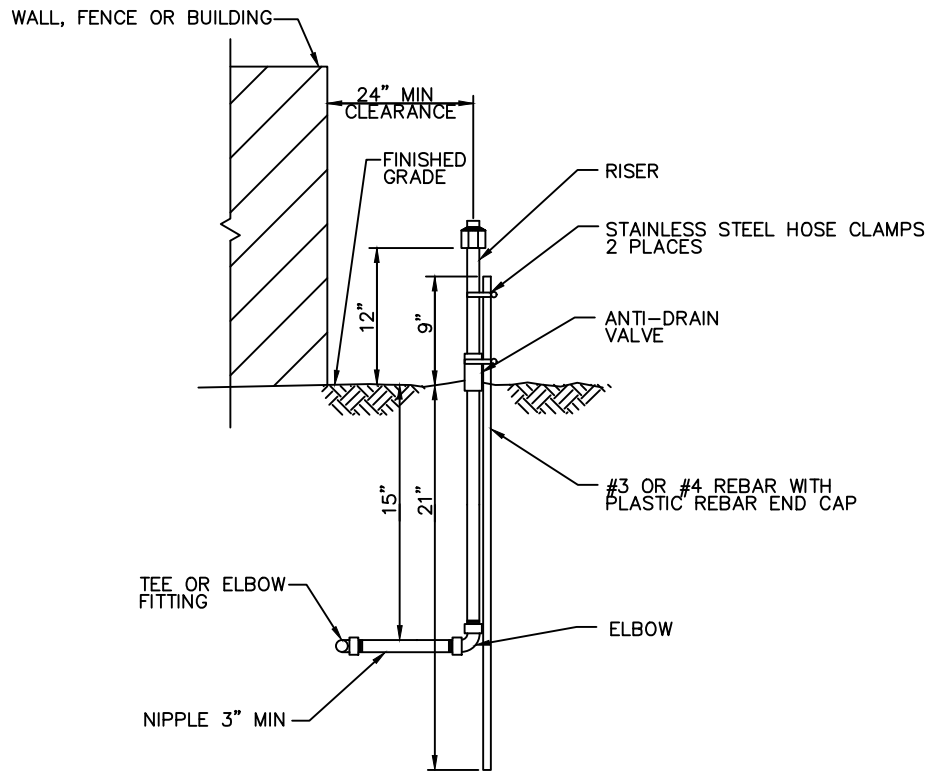


SPRINKLER IRRIGATION SYSTEMS



NOTES:

1. FITTINGS SHALL BE PVC SCH 40.
2. NIPPLES AND RISERS SHALL BE PVC SCH 80.
3. TEFLON TAPE SHALL BE USED ON THREADED CONNECTIONS.
4. CLOSE NIPPLES SHALL NOT BE USED.
5. NO FIXED RISERS IN RIGHT-OF-WAY OR WITHIN 10' OF VEHICULAR OR PEDESTRIAN TRAFFIC.
6. ANTI-DRAIN VALVES SHALL BE INSTALLED UNDER ALL HEADS.

LEGEND ON PLANS

SHOW A NUMBER TO INDICATE TYPE HEAD 

| Revision | By | Approved | Date |
|----------|----|------------|-------|
| ORIGINAL | | Kercheval | 12/75 |
| Reviewed | EW | T. Stanton | 10/18 |
| Reviewed | RP | S. Engeda | 03/22 |
| | | | |
| | | | |

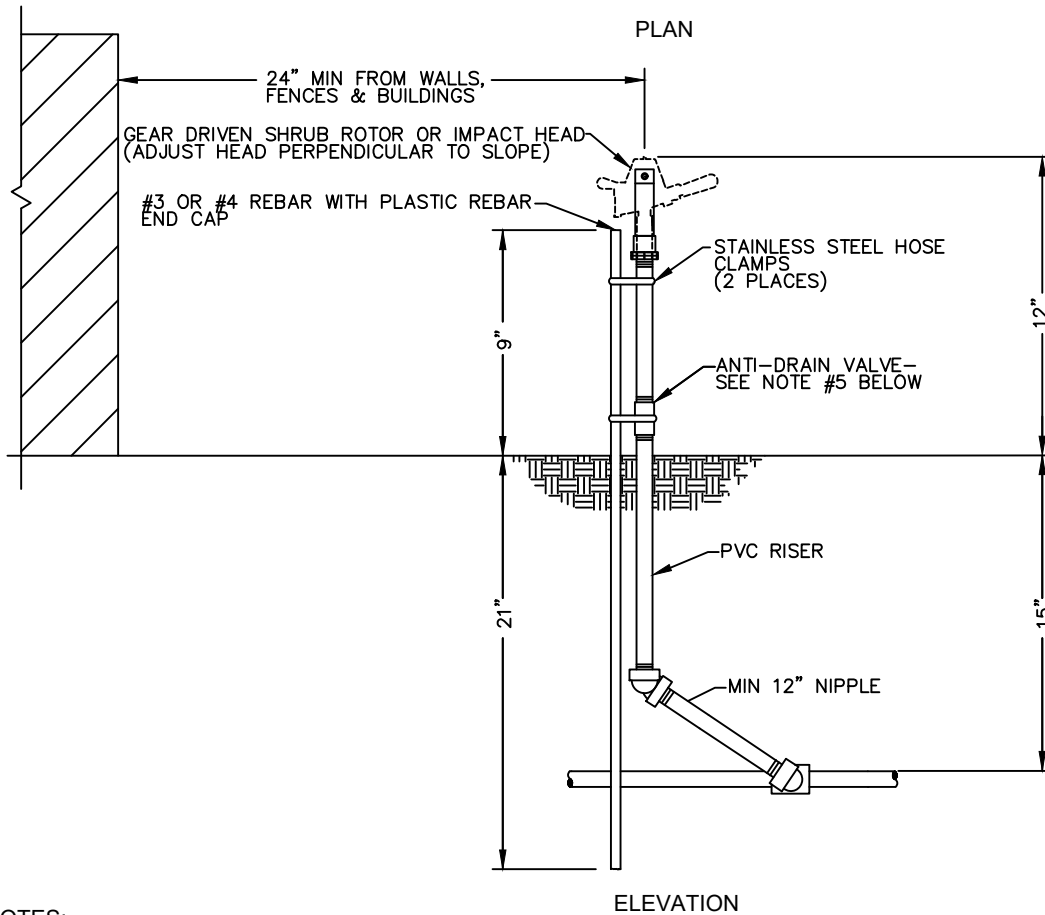
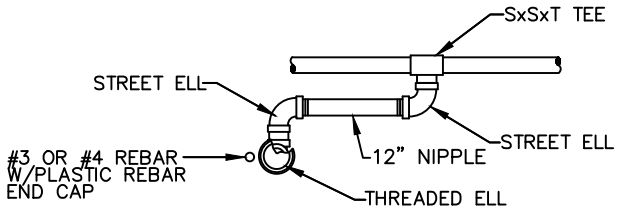
SAN DIEGO REGIONAL STANDARD DRAWING

**SHRUB SPRAY HEAD
ON FIXED RISER**

RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE

 03/24/2022
Chairperson R.C.E. 52241 Date

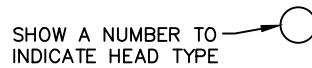
DRAWING NUMBER **I-01**



NOTES:

1. FITTINGS SHALL BE PVC SCH 40.
2. NIPPLES AND RISERS SHALL BE PVC SCH 80.
3. TEFLON TAPE SHALL BE USED ON THREADED CONNECTIONS.
4. CLOSE NIPPLES SHALL NOT BE USED.
5. ANTI-DRAIN VALVES SHALL BE INSTALLED UNDER OR IN ALL HEADS.
6. NO FIXED RISERS ALLOWED IN RIGHT-OF-WAY OR WITHIN 10' OF VEHICULAR OR PEDESTRIAN TRAFFIC.

LEGEND ON PLANS



| Revision | By | Approved | Date |
|----------|----|------------|-------|
| ORIGINAL | | Parkinson | 05/92 |
| Reviewed | EW | T. Stanton | 10/18 |
| Reviewed | RP | S. Engeda | 03/22 |
| | | | |
| | | | |

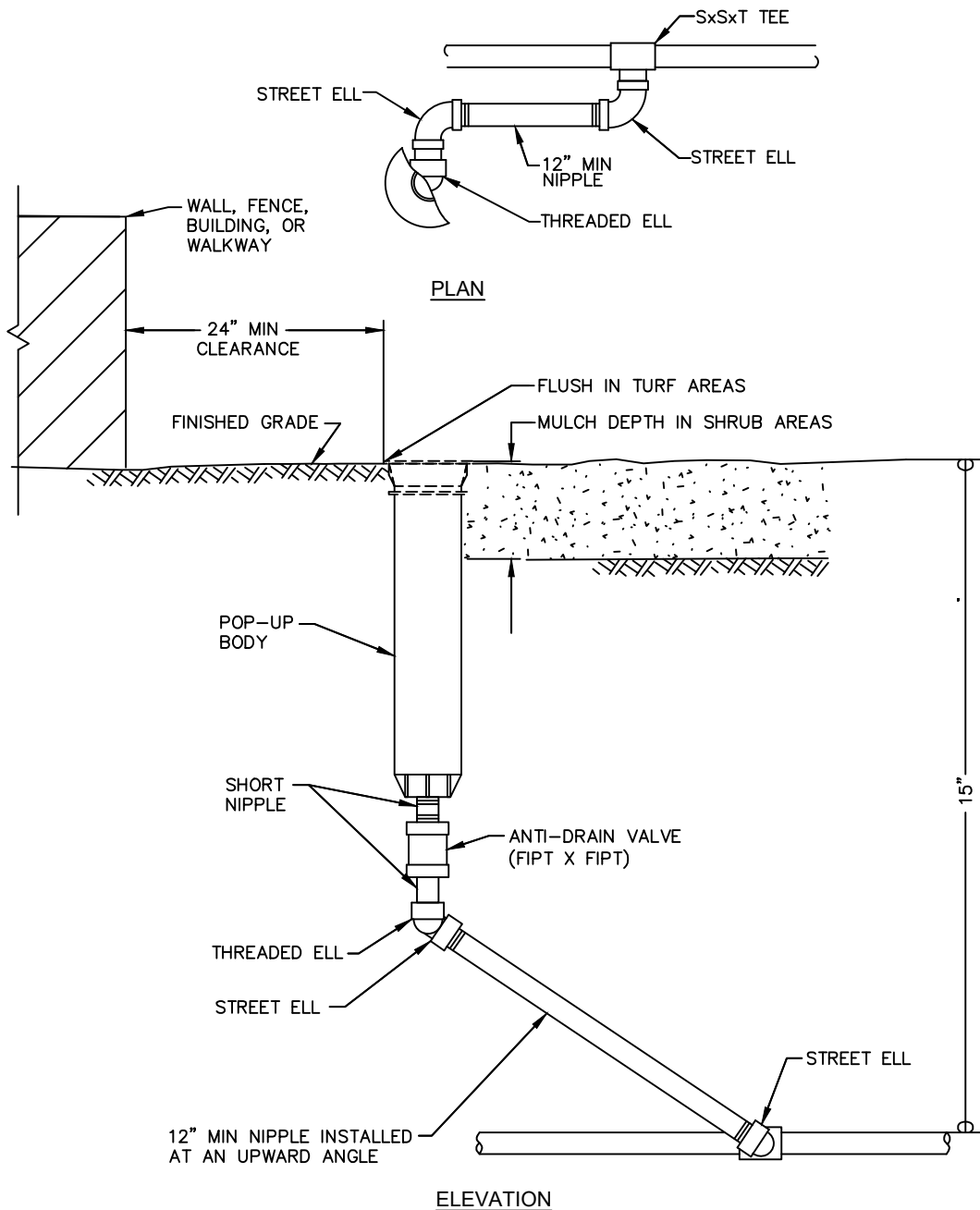
SAN DIEGO REGIONAL STANDARD DRAWING

**ROTOR OR IMPACT HEAD
ON FIXED RISER**

RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE

Saman Engeda 03/24/2022
Chairperson R.C.E. 52241 Date

DRAWING NUMBER **I-02**



NOTES:

1. FITTINGS SHALL BE PVC SCH 40.
2. NIPPLES AND RISERS SHALL BE PVC SCH 80.
3. TEFLON TAPE SHALL BE USED ON THREADED CONNECTIONS.
4. CLOSE NIPPLES SHALL NOT BE USED.
5. ANTI-DRAIN VALVES SHALL BE INSTALLED UNDER OR IN ALL HEADS.
6. LATERAL DEPTH SHALL BE 18" WHEN 12" POP-UP BODIES ARE USED.

LEGEND ON PLANS

SHOW A NUMBER TO INDICATE TYPE HEAD

| Revision | By | Approved | Date |
|----------|----|------------|-------|
| ORIGINAL | | Kercheval | 12/75 |
| Reviewed | EW | T. Stanton | 10/18 |
| Reviewed | RP | S. Engeda | 03/22 |
| | | | |
| | | | |

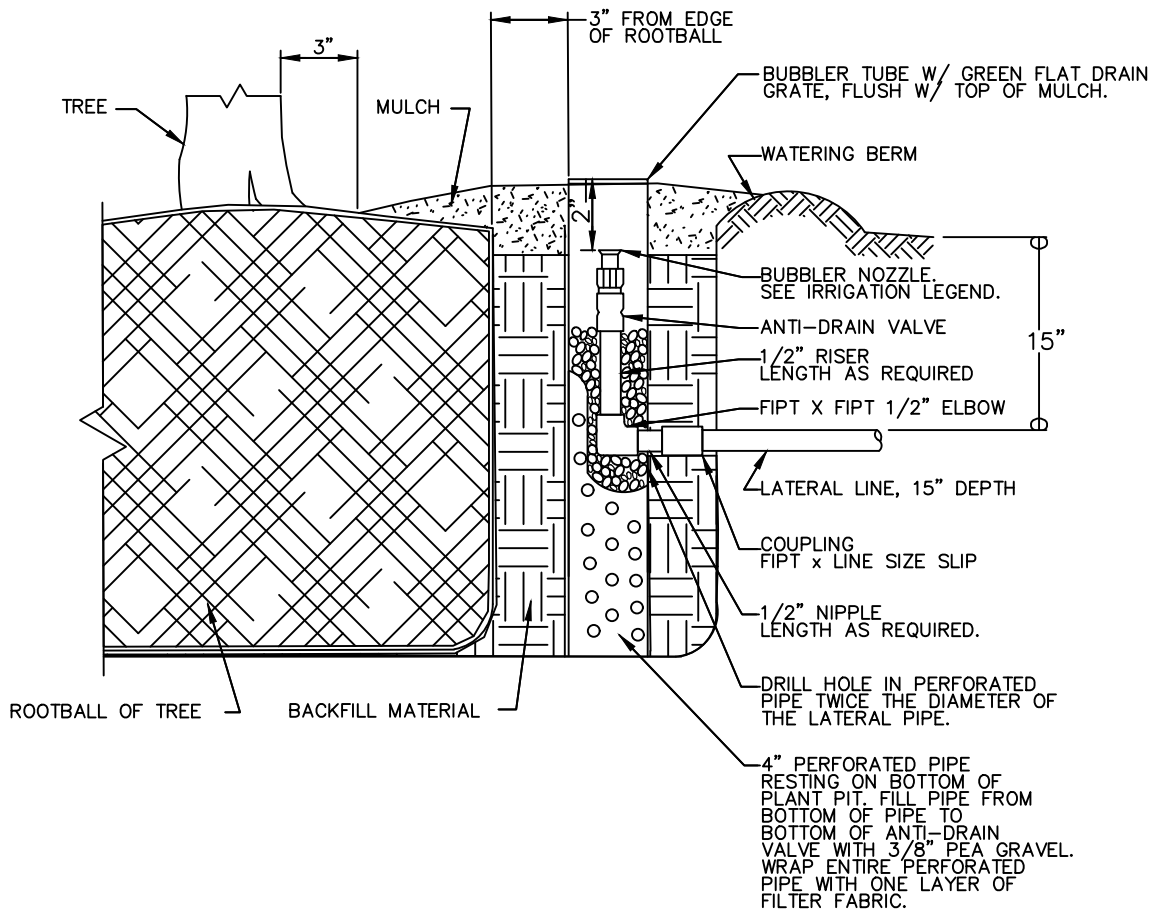
SAN DIEGO REGIONAL STANDARD DRAWING

**ROTOR, SPRAY, OR BUBBLER
POP-UP HEAD**

RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE

Samantha Engeda 03/24/2022
Chairperson R.C.E. 52241 Date

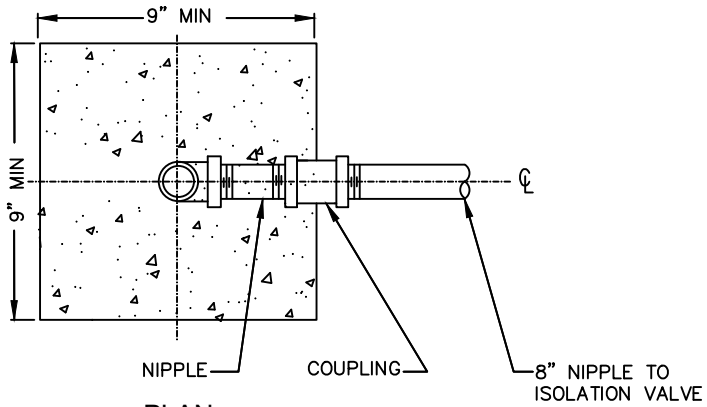
DRAWING NUMBER **I-03**



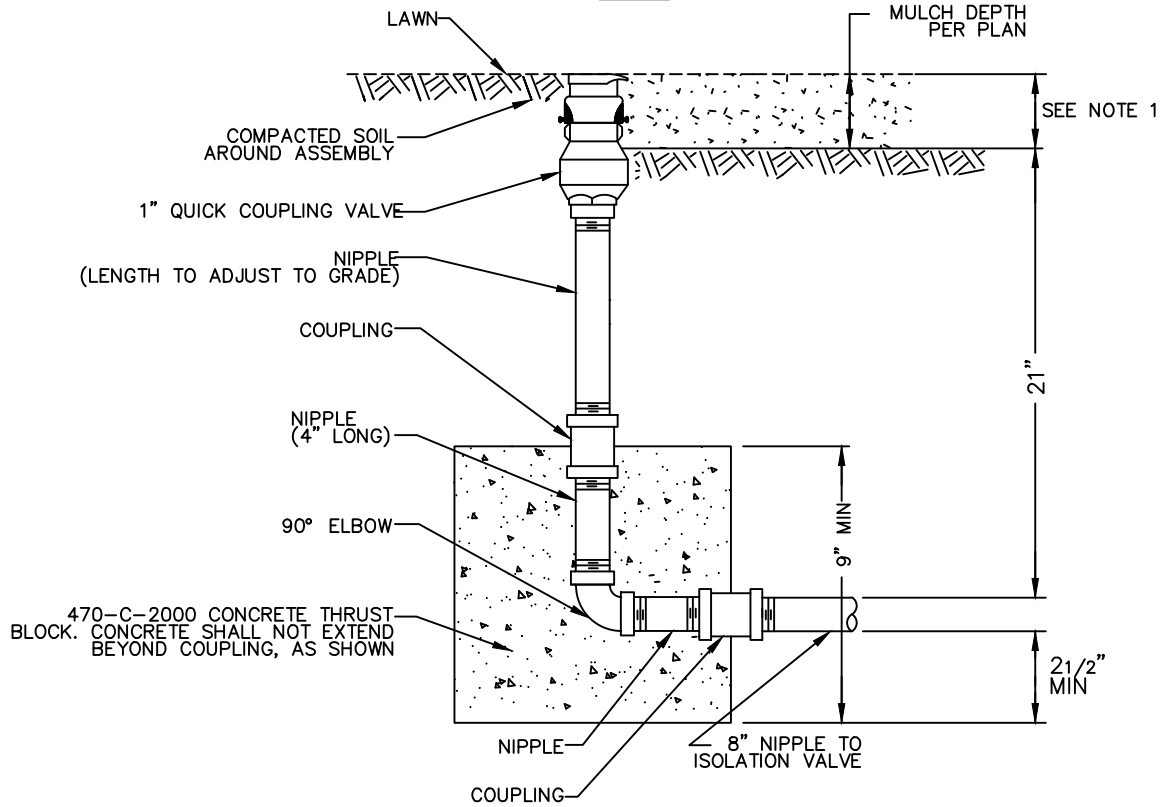
NOTES:

1. FOR BUBBLER LOCATION, REFER TO TREE PLANTING AND STAKING DRAWING.
2. EACH TREE SHALL HAVE A 2" POP-UP HEAD WITH BUBBLER NOZZLE PER 1-3 AND A FIXED BUBBLER NOZZLE IN A PERFORATED PIPE.
3. NIPPLES AND RISERS SHALL BE PVC SCH 80.
4. FITTINGS SHALL BE PVC SCH 40.
5. TEFLON TAPE SHALL BE USED ON THREADED CONNECTIONS.
6. CLOSE NIPPLES SHALL NOT BE USED.
7. ANTI-DRAIN VALVES SHALL BE INSTALLED UNDER ALL HEADS.

| Revision | By | Approved | Date | SAN DIEGO REGIONAL STANDARD DRAWING | | RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE |
|----------|----|------------|-------|-------------------------------------|-------------|--|
| ORIGINAL | | M. CARO | 02/05 | DEEP ROOT TREE BUBBLER | | <i>Samantha Engeda</i> 03/24/2022 Chairperson R.C.E. 52241 Date |
| Reviewed | EW | T. Stanton | 10/18 | | | |
| Reviewed | RP | S. Engeda | 03/22 | | | |
| | | | | | | |
| | | | | DRAWING NUMBER | I-04 | |



PLAN




ELEVATION

NOTES:

1. QUICK COUPLING VALVES SHALL BE SET FLUSH IN LAWN AND PER MULCH DEPTH ABOVE FINISH GRADE IN SHRUB / GROUND COVER AREAS.
2. CLOSE NIPPLES SHALL NOT BE USED.
3. NIPPLES, COUPLINGS, AND ELBOWS SIZE SHALL BE 1" RED BRASS.
4. TEFLON TAPE SHALL BE USED ON THREADED CONNECTIONS.
5. UPON PROJECT ACCEPTANCE, THE CONTRACTOR SHALL PROVIDE TWO SETS OF APPROPRIATE QUICK COUPLER VALVE KEY WITH 1" BRASS BALL VALVE AND SWIVEL ADAPTER INCLUDED IN THE ASSEMBLY.
6. INSTALL VALVE BOX PER AGENCY STANDARDS.

LEGEND ON PLANS

QCV 

| Revision | By | Approved | Date |
|----------|----|------------|-------|
| ORIGINAL | | Kercheval | 12/75 |
| Reviewed | KA | N. Batta | 10/15 |
| Reviewed | EW | T. Stanton | 10/18 |
| Reviewed | RP | S. Engeda | 03/22 |

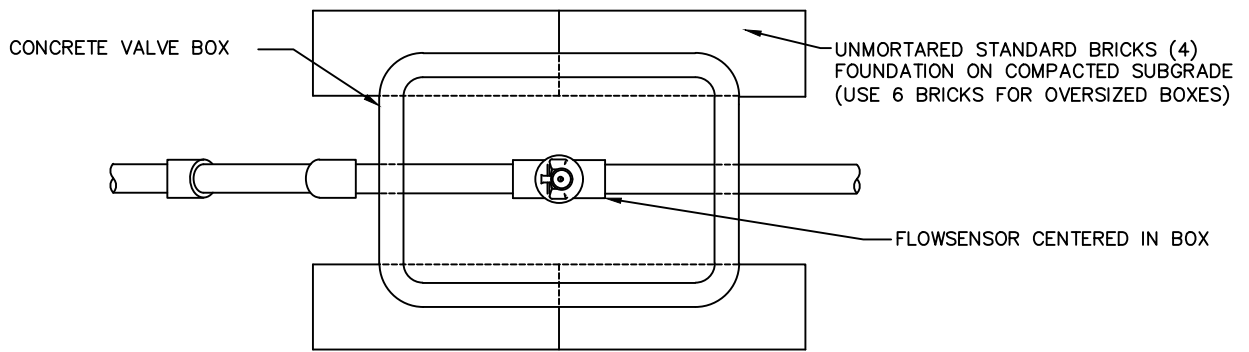
SAN DIEGO REGIONAL STANDARD DRAWING

QUICK COUPLING VALVE

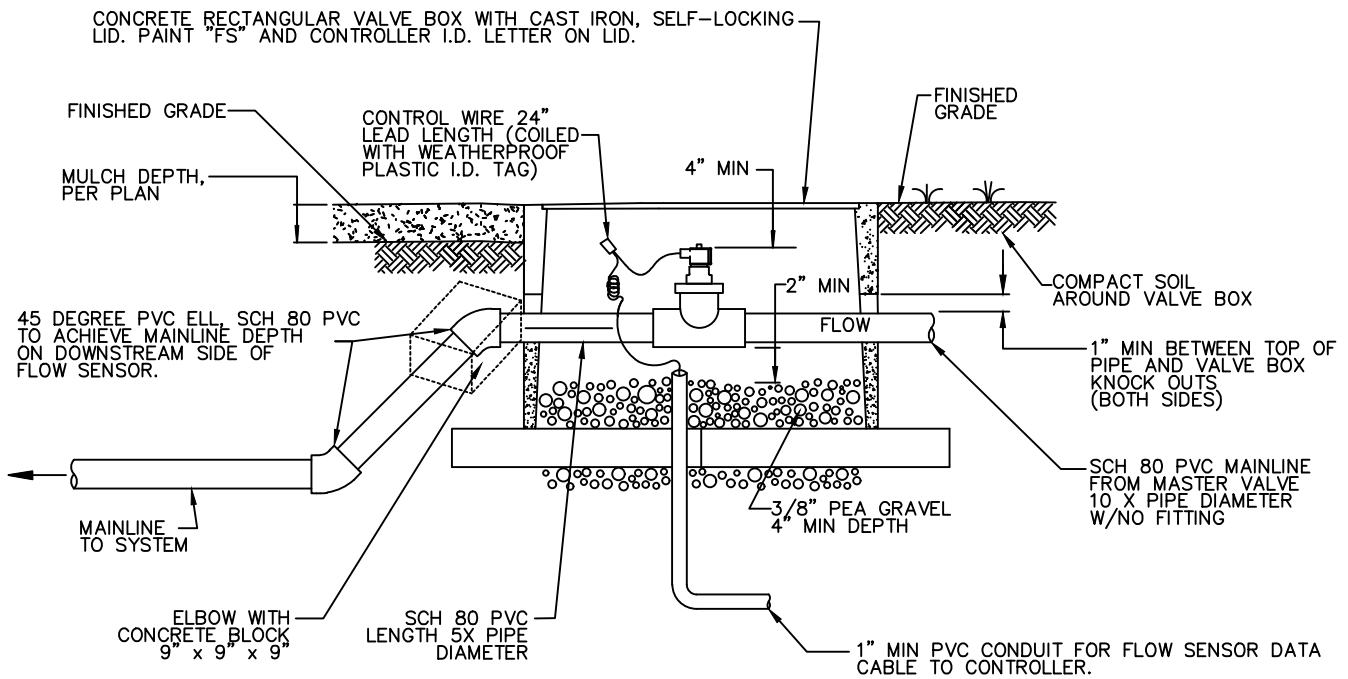
RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE

Samantha Engeda 03/24/2022
Chairperson R.C.E. 52241 Date

DRAWING NUMBER **I-05**



PLAN



ELEVATION

NOTES:

1. SPLICES SHALL BE SOLDERED WITH A PROPERLY SET MECHANICAL SPLICE CONNECTOR, ENTIRELY ENCLOSED IN SELF-CURING RESIN AND SHALL BE COMPLETELY WATER-PROOF.
2. SEAL CONDUIT OPENINGS WITH ELECTRICAL SEALANT.
3. KNOCK OUTS SHALL NOT BE ENLARGED.
4. INSTALL ONLY ONE FLOW SENSOR PER BOX.
5. VALVE BOXES SHALL BE SET PERPENDICULAR TO HARDSCAPE PER MULCH DEPTH IN SHRUB / GROUND COVER AREAS. IF NECESSARY TO BE SET IN TURF, VALVE BOXES SHALL BE SET FLUSH WITH FINISHED GRADE.

LEGEND ON PLANS

(F) FS

| Revision | By | Approved | Date |
|----------|----|------------|-------|
| ORIGINAL | KA | N. Batta | 11/11 |
| Reviewed | KA | N. Batta | 10/15 |
| Reviewed | EW | T. Stanton | 10/18 |
| Reviewed | RP | S. Engeda | 03/22 |

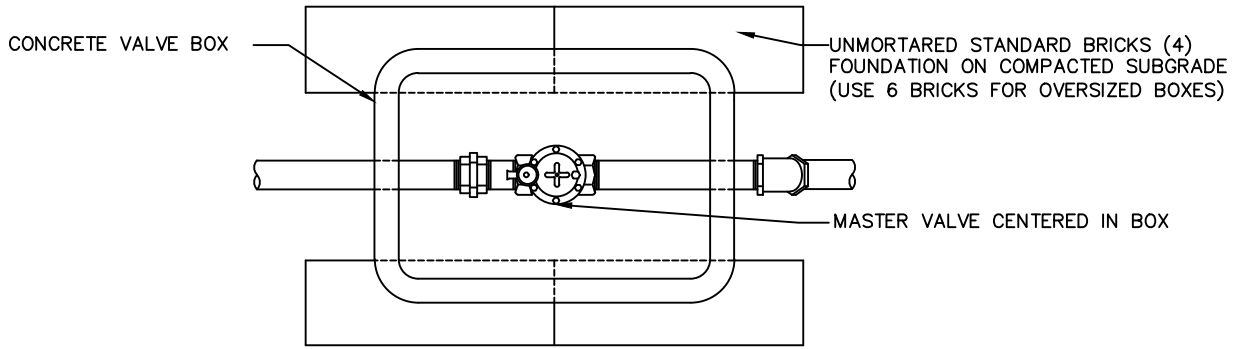
SAN DIEGO REGIONAL STANDARD DRAWING

FLOW SENSOR

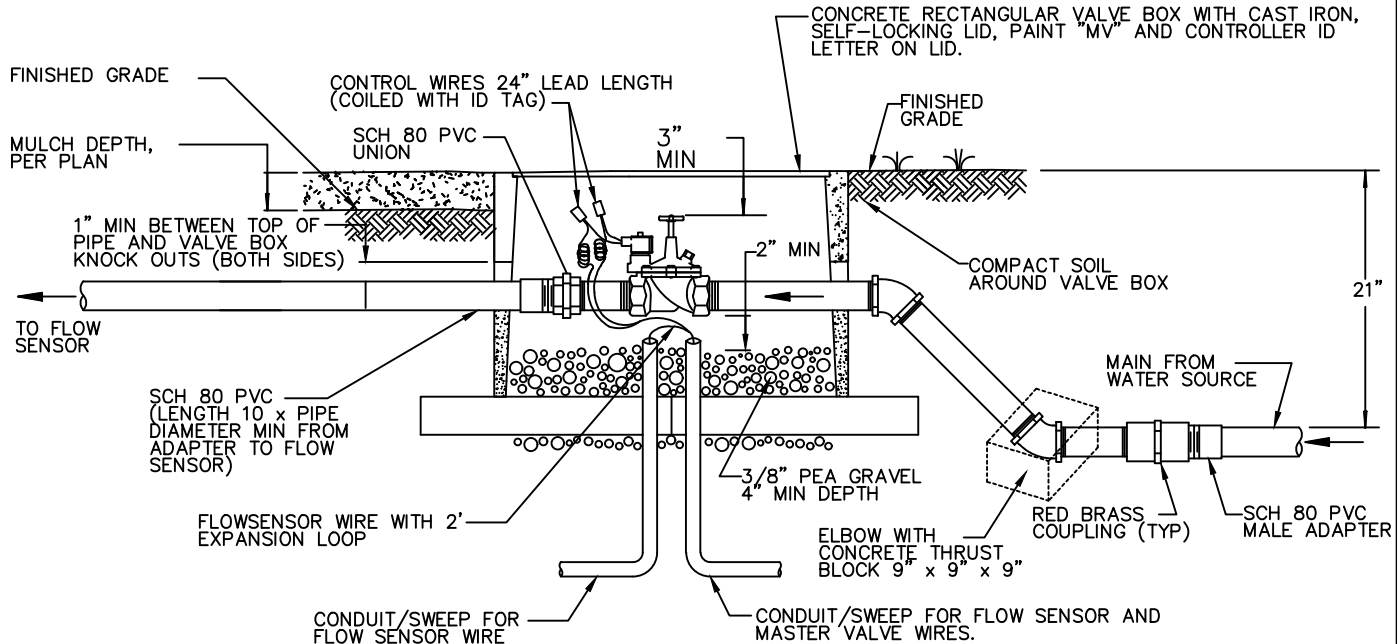
RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE

Samantha Engeda 03/24/2022
Chairperson R.C.E. 52241 Date

DRAWING NUMBER **I-09**



PLAN



ELEVATION

NOTES:

1. SPLICING SHALL BE MADE IN VALVE BOXES AND PULL BOXES ONLY. SEE STANDARD DRAWING SDI-115 FOR SPLICE / SOLDERING NOTES.
2. SPLICES SHALL BE SOLDERED WITH A PROPERLY SET MECHANICAL SPLICE CONNECTOR, ENTIRELY ENCLOSED IN SELF-CURING RESIN AND SHALL BE COMPLETELY WATER-PROOF.
3. SEAL CONDUIT OPENINGS WITH ELECTRICAL CONDUIT SEALANT AS APPROVED BY THE AGENCY.
4. PVC CONDUIT SHALL BE 1" MINIMUM.
5. VALVE / CONTROLLER IDENTIFICATION SHALL BE LABELED OUTSIDE ON THE VALVE BOX LID AND TAGGED INSIDE THE BOX ON THE VALVE.
6. KNOCK OUTS SHALL NOT BE ENLARGED.
7. INSTALL ONLY ONE VALVE PER BOX.
8. VALVE BOXES SHALL BE SET PERPENDICULAR TO HARDSCAPE, ABOVE FINISHED GRADE IN SHRUB / GROUND COVER AREAS, PER MULCH DEPTH. IF NECESSARY TO BE SET IN TURF, VALVE BOXES SHALL BE SET FLUSH WITH FINISHED GRADE.
9. CLOSE NIPPLES SHALL NOT BE USED.
10. NIPPLES, ELBOWS, AND FITTINGS SHALL BE THREADED RED BRASS, FROM COUPLING THROUGH THE MASTER VALVE. PIPE AND FITTINGS DOWNSTREAM SHALL BE SCH 80 PVC.
11. TEFLON TAPE SHALL BE USED ON THREADED CONNECTOR.

LEGEND ON PLANS

▼ MV

| Revision | By | Approved | Date |
|----------|----|------------|-------|
| ORIGINAL | | Kercheval | 12/75 |
| Reviewed | KA | N. Batta | 10/15 |
| Reviewed | EW | T. Stanton | 10/18 |
| Reviewed | RP | S., Engeda | 03/22 |

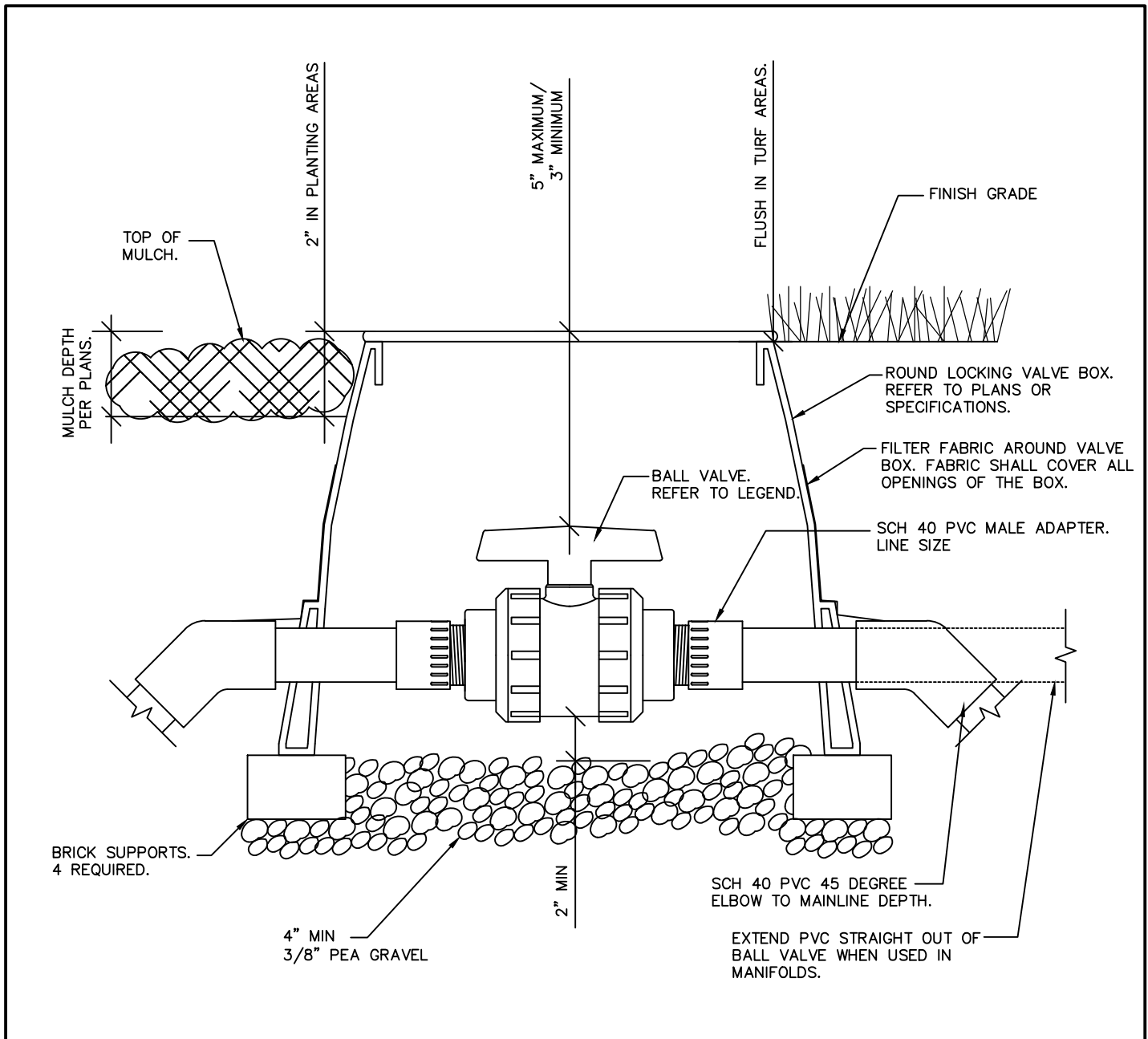
SAN DIEGO REGIONAL STANDARD DRAWING

IRRIGATION MASTER VALVE

RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE

Samantha Engeda 03/24/2022
Chairperson R.C.E. 52241 Date

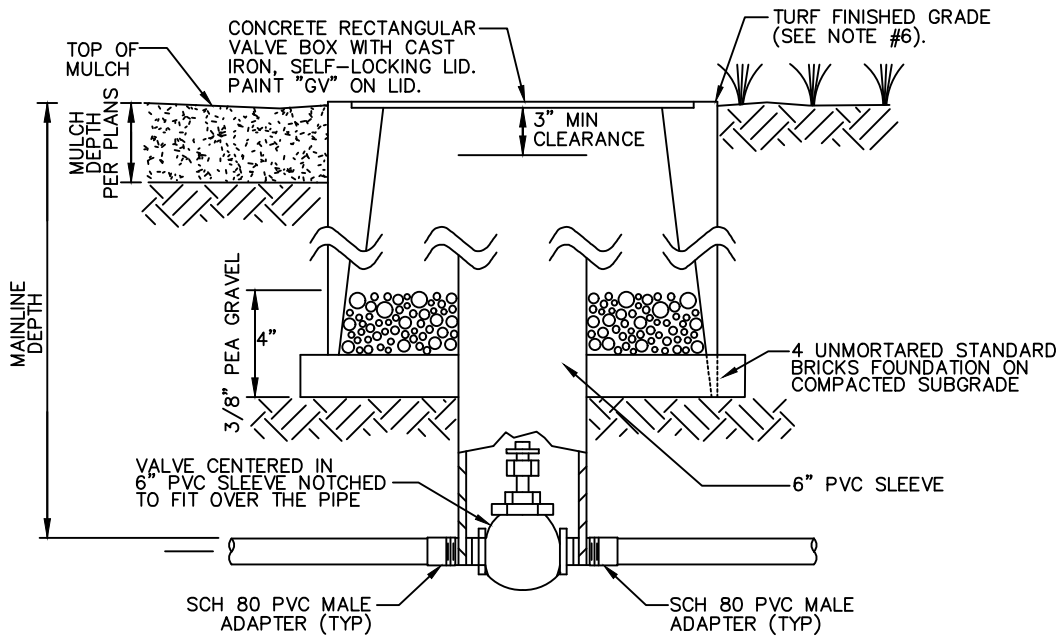
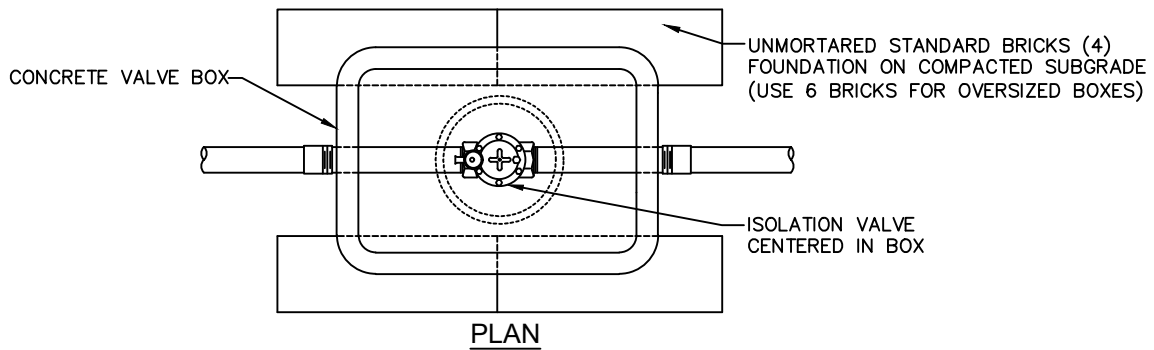
DRAWING NUMBER **I-10**



NOTES:

1. TEFLON TAPE, 3/4" WIDE, SHALL BE USED ON ALL THREADED CONNECTIONS
2. CLOSE NIPPLES SHALL NOT BE USED.
3. ALL PVC PIPE USED IN MANIFOLD ASSEMBLIES SHALL BE OF THE SAME CLASS AS SPECIFIED FOR THE MAINLINE.
4. ALL PLASTIC VALVE BOXES SHALL BE HEAT BRANDED WITH THE APPROPRIATE IDENTIFICATION. REFER TO PLANS AND SPECIFICATIONS.
5. DO NOT CUT ADDITIONAL HOLES IN VALVES BOXES.
6. ADD SINGLE UNIONS ON EACH SIDE OF VALVE WHEN TRUE UNION BALL VALVES ARE NOT USED.

| | | | | | |
|----------|----|------------|-------|--|---|
| Revision | By | Approved | Date | SAN DIEGO REGIONAL STANDARD DRAWING | RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE |
| ORIGINAL | | Kercheval | 12/75 | | |
| Reviewed | KA | N. Batta | 10/15 | ISOLATION BALL VALVE 2" AND SMALLER | <i>Saman Engeda</i> 03/24/2022 |
| Reviewed | EW | T. Stanton | 10/18 | | Chairperson R.C.E. 52241 Date |
| Reviewed | RP | S. Engeda | 03/22 | | DRAWING NUMBER I-11 |



NOTES:

1. GLOBE VALVES SHALL BE FURNISHED WITH A STANDARD BRONZE CROSS HANDLE, CENTERED IN PIPE SLEEVE.
2. VALVE SHALL BE INSTALLED WITHIN 12" OF HARDSCAPE.
3. GLOBE VALVES SHALL BE FURNISHED WITH A REMOVABLE BONNET AND PACKING GLAND NUT.
4. TEFLON TAPE SHALL BE USED ON THREADED CONNECTIONS.
5. VALVE BOX SHALL BE MOUNTED FLUSH WITH FINISH GRADE IN TURF AREAS AND PER MULCH DEPTH IN SHRUB AREAS.
6. LOCATE OUTSIDE OF TURF WHEN POSSIBLE.
7. GATE VALVE SHALL BE USED ONLY ON LOOPED MAINLINE.
8. VALVE BOX SHALL BE SET PERPENDICULAR TO HARDSCAPE.
9. PROVIDE TWO VALVE KEYS TO OPERATE VALVE AT DEPTH.

LEGEND ON PLANS



| Revision | By | Approved | Date |
|----------|----|------------|-------|
| ORIGINAL | KA | N. Batta | 11/11 |
| Reviewed | KA | N. Batta | 10/15 |
| Reviewed | EW | T. Stanton | 10/18 |
| Reviewed | RP | S. Engeda | 03/22 |

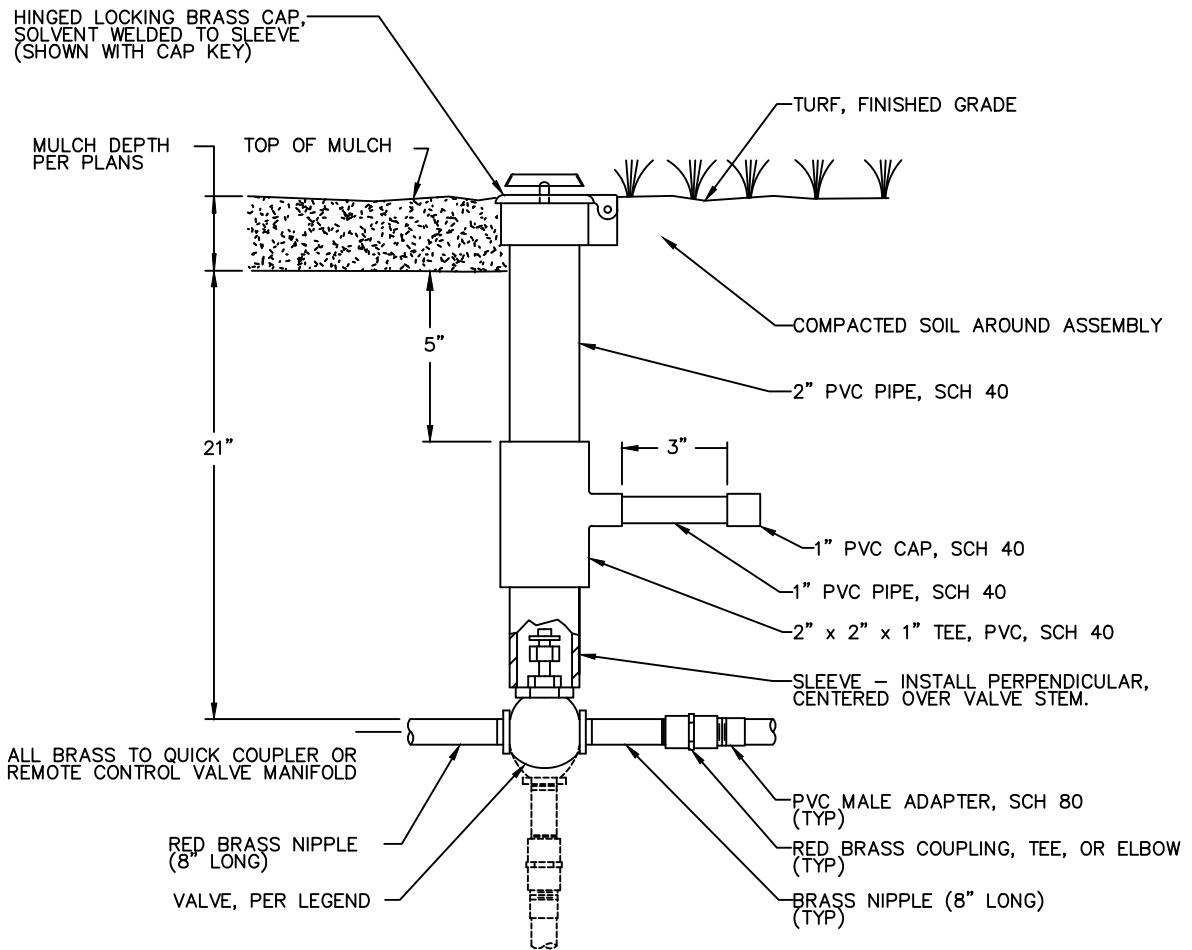
SAN DIEGO REGIONAL STANDARD DRAWING

**ISOLATION GLOBE/GATE VALVE
2 1/2" AND LARGER**

RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE

Samantha Engeda 03/24/2022
Chairperson R.C.E. 52241 Date

DRAWING NUMBER **I-12**



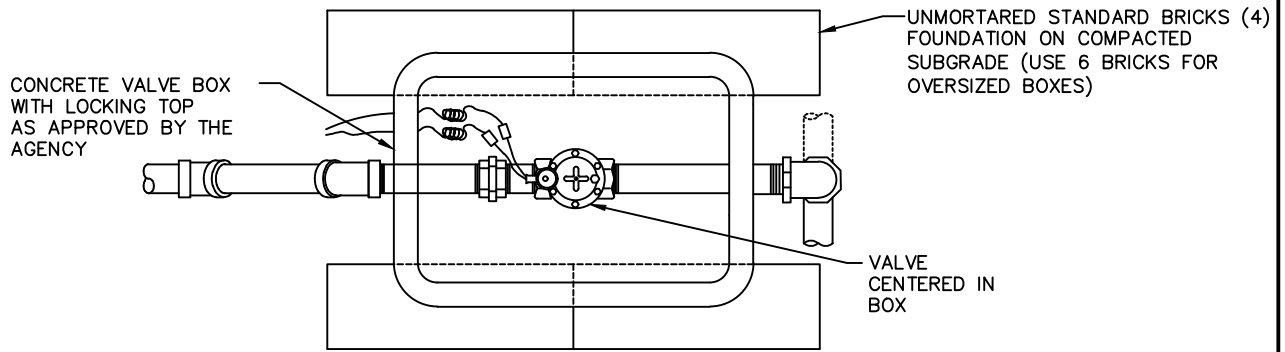
NOTES:

1. GLOBE VALVES SHALL BE FURNISHED WITH A STANDARD BRONZE CROSS HANDLE, CENTERED IN PIPE SLEEVE.
2. VALVES SHALL BE INSTALLED WITHIN 12" OF HARDSCAPE.
3. GLOBE VALVES SHALL BE FURNISHED WITH A REMOVABLE BONNET AND PACKING GLAND NUT.
4. CLOSE NIPPLES SHALL NOT BE USED.
5. LOCKING CAP SHALL BE MOUNTED FLUSH WITH FINISHED GRADE IN TURF AREAS AND ABOVE FINISHED GRADE IN SHRUB AREAS, PER DEPTH OF MULCH.
6. PROVIDE APPROPRIATE LOCKING CAP KEY AND VALVE KEY TO OPERATE VALVE AT DEPTH.
7. LOCATE OUTSIDE OF TURF WHEN POSSIBLE.
8. TEFLON TAPE SHALL BE USED ON ALL THREADED CONNECTIONS.
9. WHEN INSTALLED AS MAINLINE ISOLATION VALVE, NIPPLES AND FITTINGS MAY BE SCH 80 PVC.
10. INSTALL VALE BOX PER AGENCY STANDARDS.

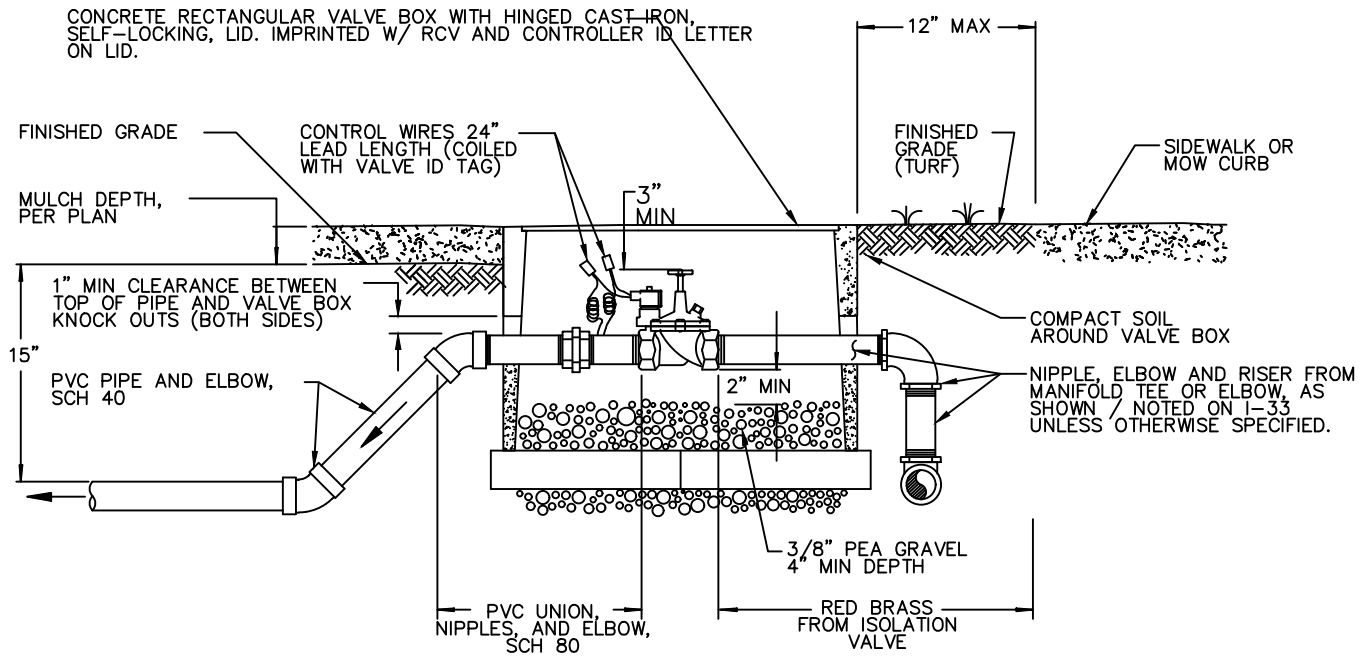
LEGEND



| Revision | By | Approved | Date | SAN DIEGO REGIONAL STANDARD DRAWING | | RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE | |
|----------|----|------------|-------|--|--|---|-------------|
| ORIGINAL | | Kercheval | 12/75 | ISOLATION BALL VALVE 2" AND SMALLER | | <i>Samantha Engeda</i> 03/24/2022 | |
| Reviewed | KA | N. Batta | 10/15 | | | Chairperson R.C.E. 52241 | Date |
| Reviewed | EW | T. Stanton | 10/18 | | | DRAWING NUMBER | I-13 |
| Reviewed | RP | S. Engeda | 03/22 | | | | |



PLAN



ELEVATION

NOTES:

1. SPLICING SHALL BE MADE IN VALVE BOXES AND PULL BOXES ONLY. SEE I-15 FOR SPLICE /SOLDERING NOTES.
2. SPLICES SHALL BE SOLDERED WITH A PROPERLY SET MECHANICAL SPLICE CONNECTOR, ENTIRELY ENCLOSED IN SELF-CURING RESIN AND SHALL BE COMPLETELY WATER-PROOF.
3. KNOCK OUTS SHALL NOT BE ENLARGED.
4. INSTALL ONLY ONE VALVE PER BOX.
5. VALVE BOXES SHALL BE SET PERPENDICULAR TO HARDSCAPE, ABOVE FINISHED GRADE IN SHRUB / GROUNDCOVER AREAS, PER MULCH DEPTH. IF NECESSARY TO BE SET IN TURF, VALVE BOXES SHALL BE SET FLUSH WITH FINISHED GRADE.
6. CLOSE NIPPLES SHALL NOT BE USED.
7. NIPPLES, ELBOWS, AND FITTINGS SHALL BE THREADED RED BRASS FROM ISOLATION VALVE THROUGH THE VALVE, UNLESS OTHERWISE SPECIFIED.
8. TEFLON TAPE SHALL BE USED ON THREADED CONNECTIONS

LEGEND ON PLANS

▼ RCV

| Revision | By | Approved | Date |
|----------|----|------------|-------|
| ORIGINAL | | R. Munoz | 03/97 |
| Reviewed | KA | N. Batta | 10/15 |
| Reviewed | EW | T. Stanton | 10/18 |
| Reviewed | RP | S. Engeda | 03/22 |

SAN DIEGO REGIONAL STANDARD DRAWING

REMOTE CONTROL VALVE

RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE

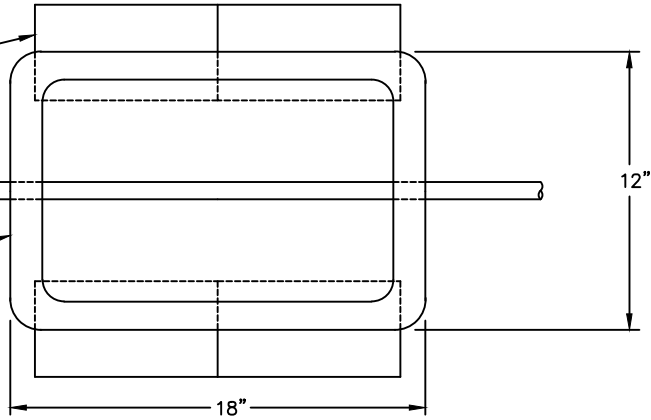
Samantha Engeda 03/24/2022
Chairperson R.C.E. 52241 Date

DRAWING NUMBER **I-14**

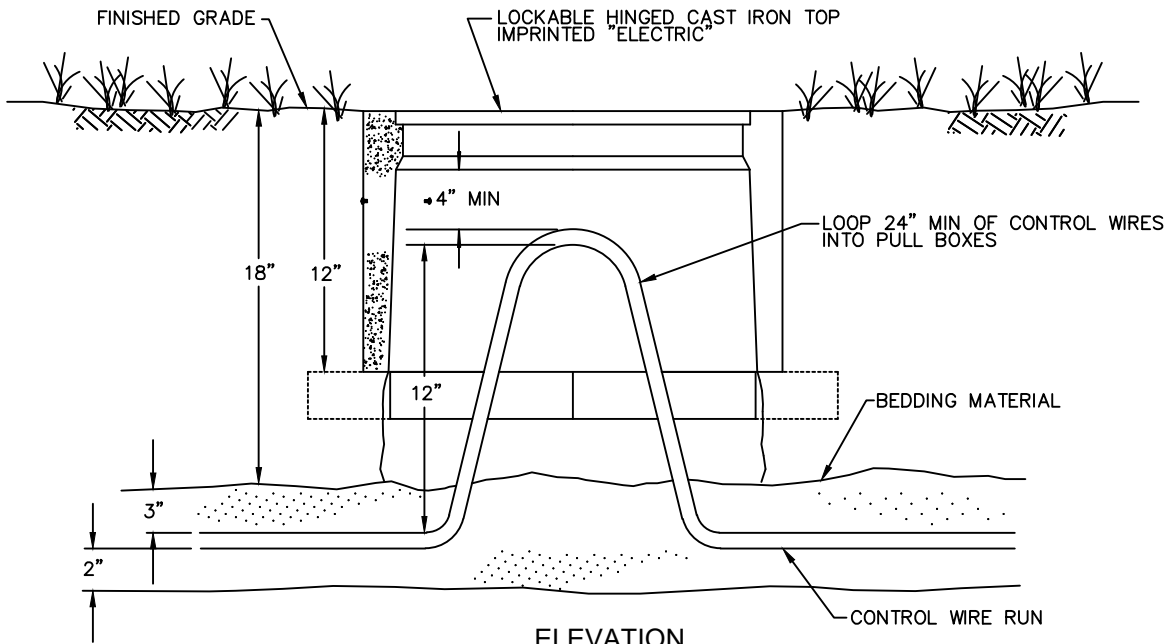
UNMORTARED STANDARD BRICKS (4)
FOUNDATION ON COMPACTED SUBGRADE
(USE 6 BRICKS FOR OVERSIZED BOXES)

CONDUIT WIRE RUN

CONCRETE PULL BOX



PLAN VIEW

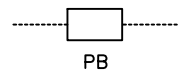


ELEVATION

NOTES:

1. INSTALL PULL BOXES AS SHOWN ON PLANS AND AT EACH END OF CONDUITS. SWEEPS RUNNING UNDER VEHICULAR PAVEMENT.
2. PULL BOX COVER SHALL BE PERMANENTLY MARKED "ELECTRIC".
3. CONDUCTORS FOR EACH CONTROLLER CLOCK SHALL BE HARNESSED SEPARATELY AND AT SUFFICIENT INTERVALS TO MAINTAIN A DEFINITE BUNDLE.
4. SPLICES SHALL ONLY BE MADE IN PULL BOXES, WITH A PROPERLY SET MECHANICAL SPLICE CONNECTOR, SOLDERED WITH METALLIC ALLOY, ENTIRELY ENCLOSED IN SELF-CURING RESIN AND SHALL BE COMPLETELY WATER-PROOF.
5. SPARE WIRE ENDS SHALL BE INSULATED IN THE SAME MANNER AS WIRE SPLICES.
6. MINIMUM SIZE PULL BOX SHALL BE AS SHOWN ABOVE. LARGER BOXES MAY BE NECESSARY TO MEET 4" CLEARANCE REQUIRED.
7. NO SPLICES SHALL BE PERMITTED ON WIRE RUNS OF LESS THAN 300'.
8. THE LETTER "E" SHALL BE STAMPED OR CHISELED ON THE IMPROVEMENT (CURB-SIDEWALK) DIRECTLY ABOVE THE CONTROL WIRE.

LEGEND ON PLANS



| Revision | By | Approved | Date |
|----------|----|------------|-------|
| ORIGINAL | | Kercheval | 12/75 |
| Reviewed | KA | N. Batta | 10/15 |
| Reviewed | EW | T. Stanton | 10/18 |
| Reviewed | RP | S. Engeda | 03/22 |

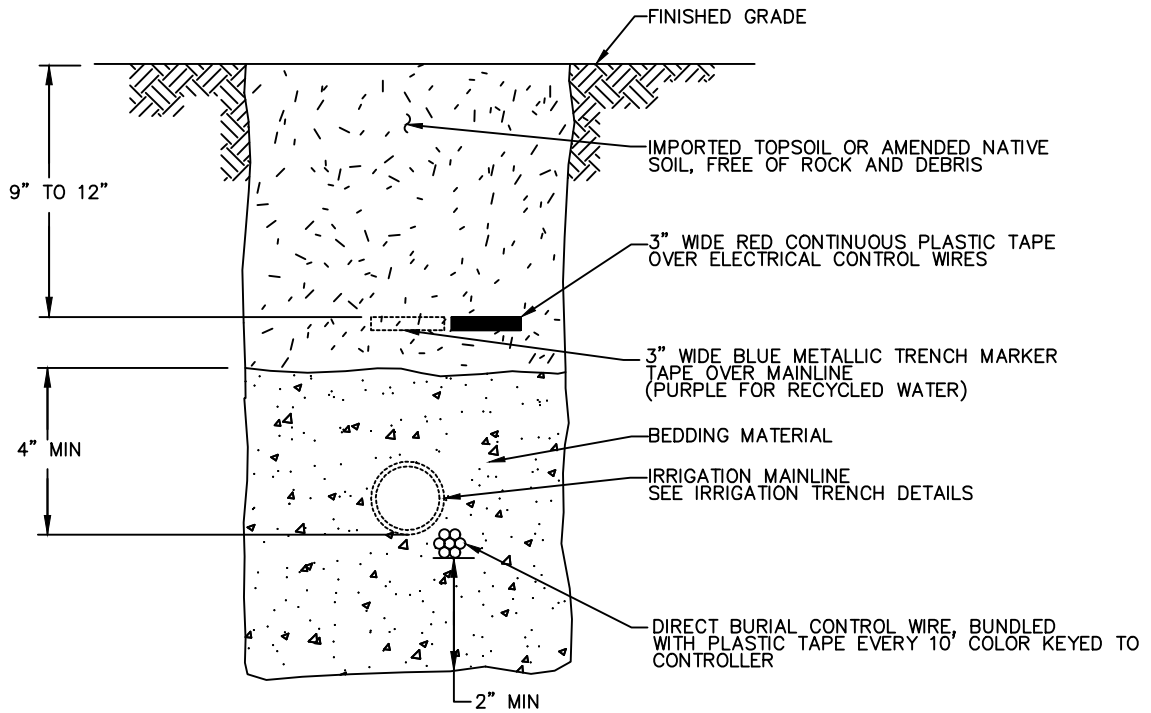
SAN DIEGO REGIONAL STANDARD DRAWING

**ELECTRICAL PULL BOX
FOR DIRECT BURIAL CONTROL WIRES
AND SPLICING NOTES**

RECOMMENDED BY THE SAN DIEGO
REGIONAL STANDARDS COMMITTEE

Samantha Engeda 03/24/2022
Chairperson R.C.E. 52241 Date

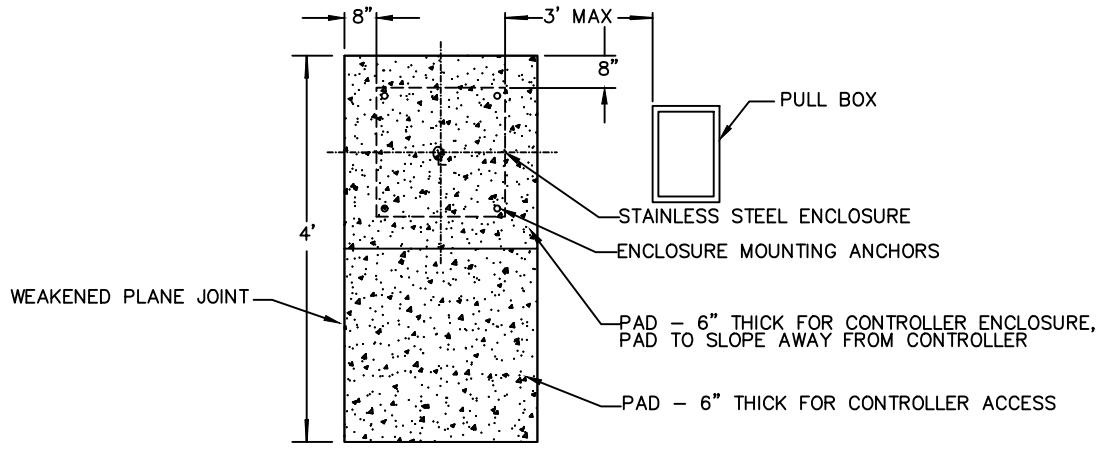
DRAWING
NUMBER **I-15**



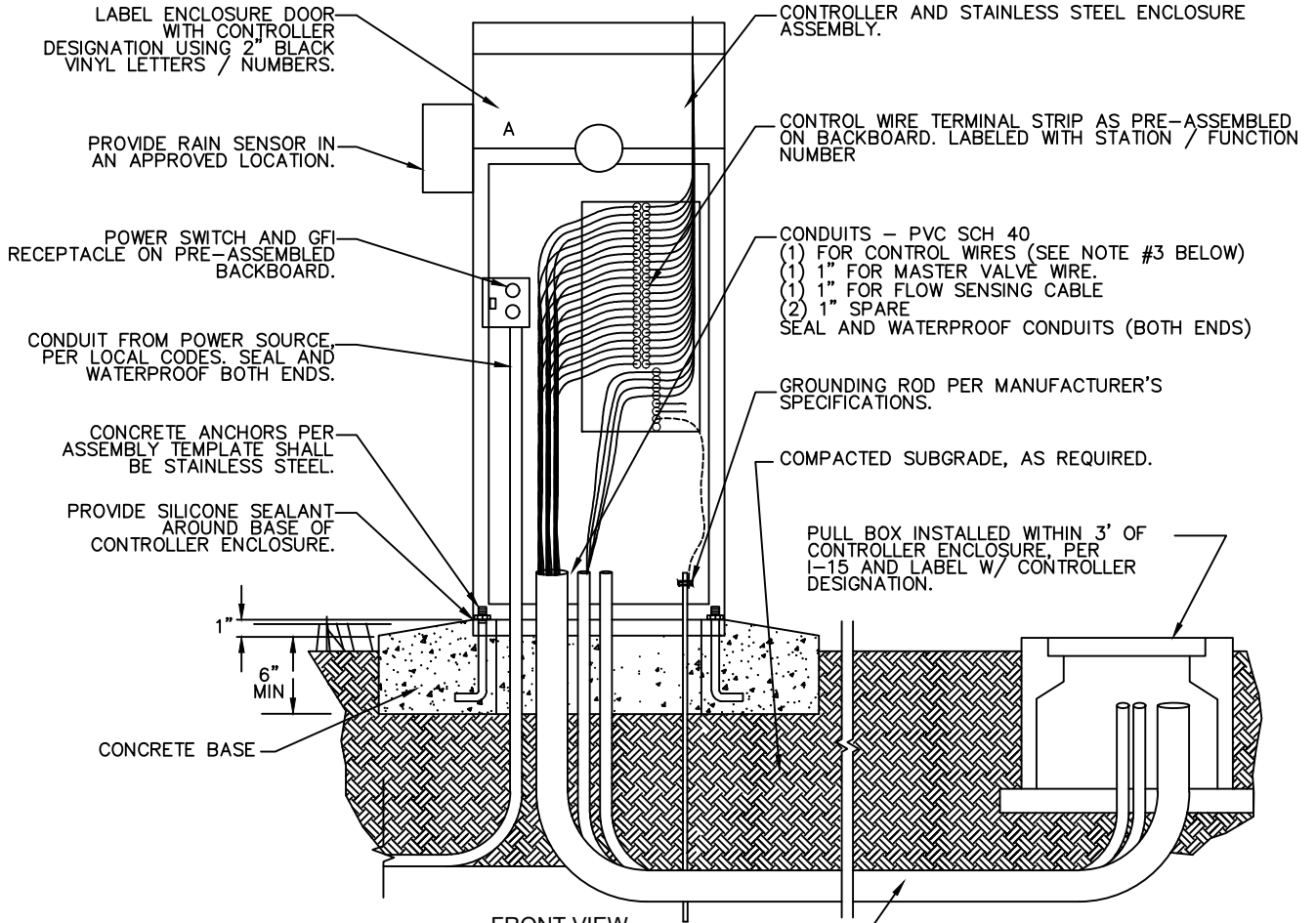
NOTES:

1. BEDDING MATERIAL SHALL BE SE 50 PLASTER OR MORTAR SAND.
2. WIRES WHICH RUN UNDER PAVED AREAS SHALL BE INSTALLED IN PVC CONDUIT TWICE THE DIAMETER OF THE WIRE BUNDLE (2" MINIMUM SIZE), EXTENDING 12" MINIMUM BEYOND EDGE OF PAVEMENT.
3. THE LETTER E SHALL BE STAMPED OR CHISELED ON THE IMPROVEMENT(CURB-SIDEWALK) DIRECTLY ABOVE THE CONTROL WIRE / CABLE.
4. WHEN CONTROL WIRING CANNOT BE INSTALLED IN A PIPE TRENCH, IT SHALL BE INSTALLED A MINIMUM 18" BELOW FINISH GRADE BUNDLED WITH PLASTIC TAPE.

| Revision | By | Approved | Date | SAN DIEGO REGIONAL STANDARD DRAWING | | RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE |
|----------|----|------------|-------|--------------------------------------|--|--|
| ORIGINAL | | Kercheval | 12/75 | CONTROL WIRE INSTALLATION | | <i>Samantha Engeda</i> 03/24/2022 Chairperson R.C.E. 52241 Date |
| Reviewed | KA | N. Batta | 10/15 | | | |
| Reviewed | EW | T. Stanton | 10/18 | | | |
| Reviewed | RP | S. Engeda | 03/22 | | | |
| | | | | | | DRAWING NUMBER I-16 |



PLAN VIEW (FOR CONCRETE PAD)



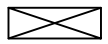
FRONT VIEW

CONDUIT SWEEPS TO TRENCH DEPTH. REFER TO TRENCH DETAIL.

NOTES:

1. ALL CONTROLLER ASSEMBLIES AND OPTIONS SHALL BE COMPLETELY PRE-ASSEMBLED IN A STAINLESS STEEL ENCLOSURE.
2. CONTROL WIRE CONDUIT SHALL BE TWICE THE DIAMETER OF THE WIRE BUNDLE, 2" MINIMUM.
3. PROVIDE SEPARATE CIRCUIT BREAKER FOR CONTROLLER(S) AT ELECTRICAL CONTROL PANEL AND LABEL.
4. SEAL CONDUIT OPENINGS WITH ELECTRICAL SEALANT, AS APPROVED BY THE AGENCY.

LEGEND ON PLANS



| Revision | By | Approved | Date |
|----------|----|------------|-------|
| ORIGINAL | | Kercheval | 12/75 |
| Reviewed | KA | N. Batta | 10/15 |
| Reviewed | EW | T. Stanton | 10/18 |
| Reviewed | RP | S. Engeda | 03/22 |

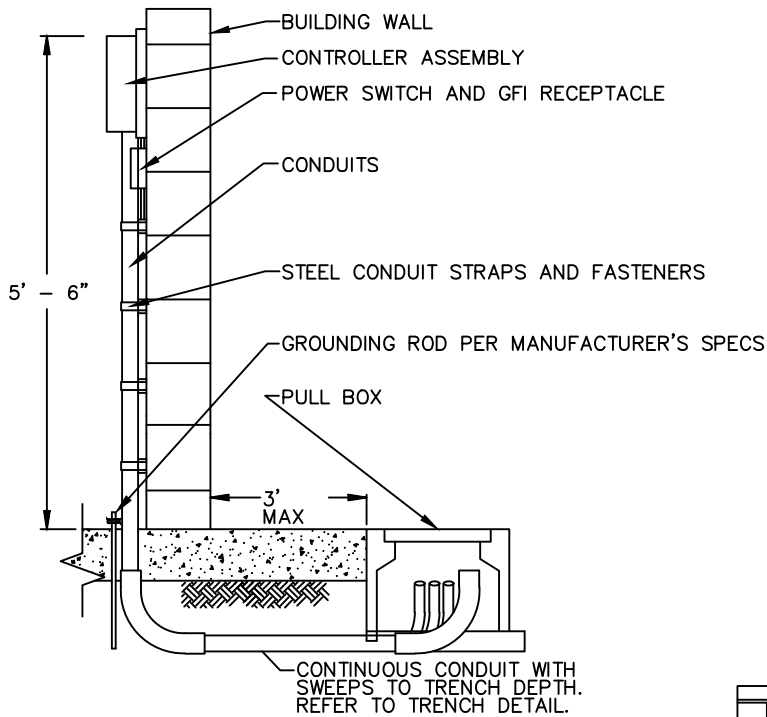
SAN DIEGO REGIONAL STANDARD DRAWING

**AUTOMATIC IRRIGATION CONTROLLER
PEDESTAL MOUNTED**

RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE

Samantha Engeda 03/24/2022
Chairperson R.C.E. 52241 Date

DRAWING NUMBER **I-17**



LEGEND ON PLANS



SIDE VIEW

LABEL ENCLOSURE DOOR WITH CONTROLLER DESIGNATION USING 2" BLACK VINYL LETTERS/NUMBERS.

BUILDING WALL

CONTROLLER

POWER SOURCE CONDUIT

POWER SWITCH AND GFI RECEPTACLE

CONDUITS - PVC SCH 40

SEAL CONDUITS AT BOTH ENDS

(1) FOR CONTROL WIRES.

SEE NOTE #1 BELOW.

(1) 1" FOR MASTER VALVE WIRE.

(1) 1" FOR FLOW SENSING CABLE.

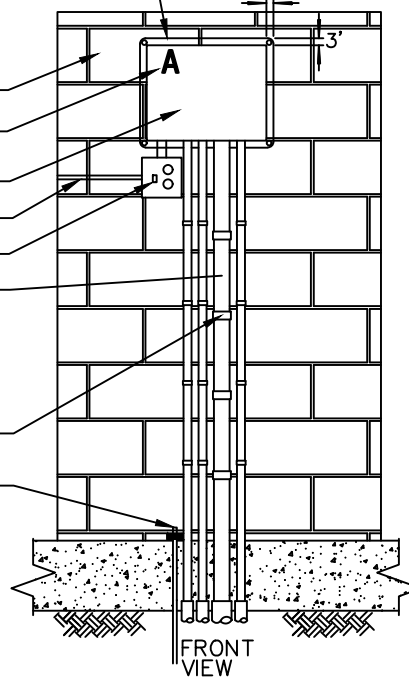
(2) 1" SPARE.

STEEL CONDUIT STRAPS AND FASTENERS, 4 PER CONDUIT.

GROUNDING ROD PER MANUFACTURER SPECS

CONTINUOUS CONDUIT WITH SWEEPS TO TRENCH DEPTH. REFER TO TRENCH DETAIL.

PRE ASSEMBLED STAINLESS STEEL BACK BOARD MOUNTED PER MANUFACTURERS RECOMMENDATIONS



FRONT VIEW

NOTES:

1. CONTROL WIRE CONDUIT SHALL BE TWICE THE DIAMETER OF THE WIRE BUNDLE, 2" MINIMUM.
2. PROVIDE SEPARATE CIRCUIT BREAKERS FOR CONTROLLER(S) AT ELECTRICAL CONTROL PANEL, AND LABEL.
3. PROVIDE RAIN SENSOR AND INSTALL IN AN APPROVED LOCATION.

| Revision | By | Approved | Date |
|----------|----|------------|-------|
| ORIGINAL | | Kercheval | 12/75 |
| Reviewed | KA | N. Batta | 10/15 |
| Reviewed | EW | T. Stanton | 10/18 |
| Reviewed | RP | S. Engeda | 03/22 |

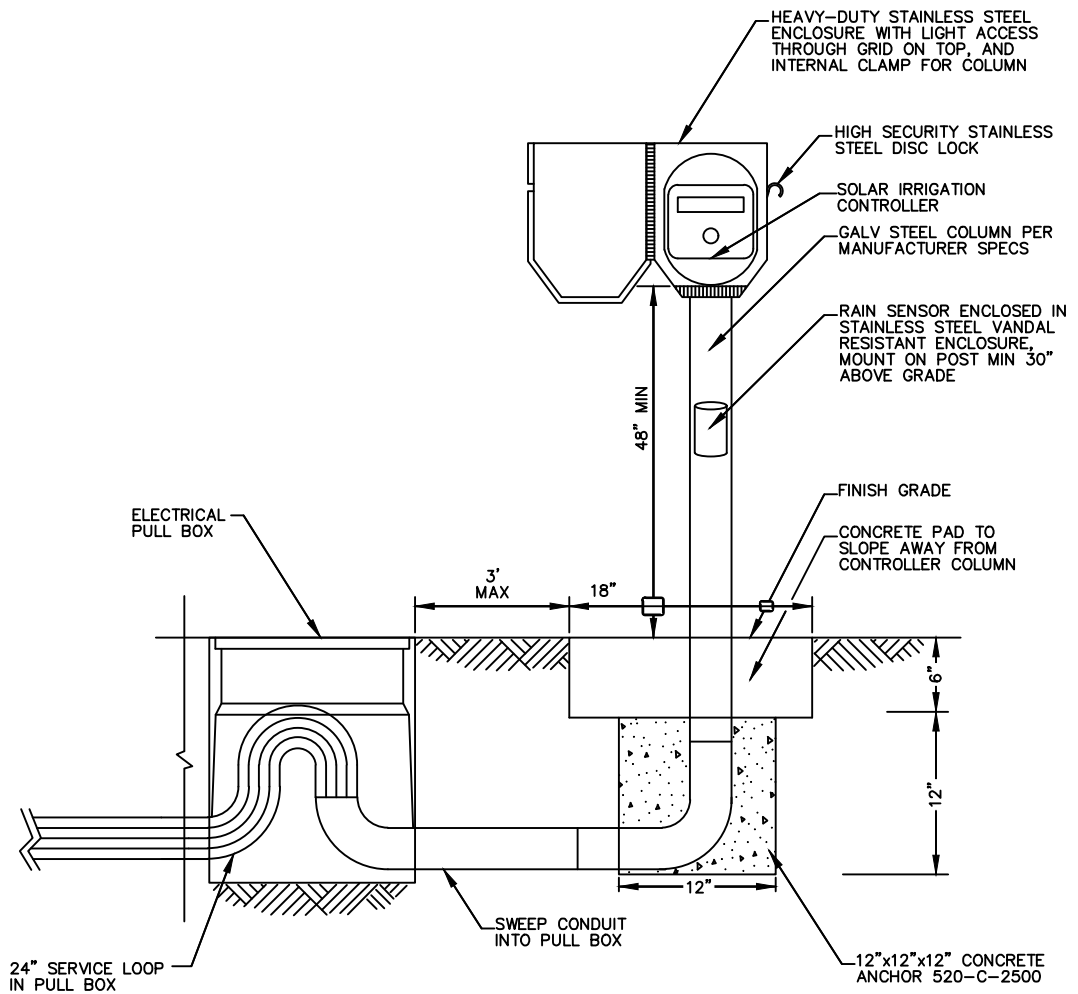
SAN DIEGO REGIONAL STANDARD DRAWING

AUTOMATIC IRRIGATION CONTROLLER INDOOR WALL MOUNTED

RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE

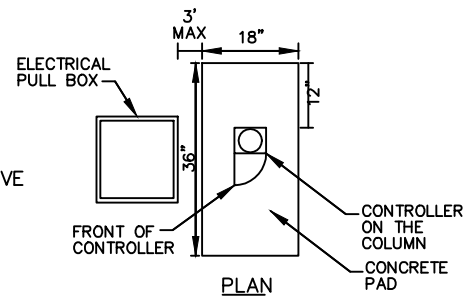
Saman Engeda 03/24/2022
Chairperson R.C.E. 52241 Date

DRAWING NUMBER **I-18**



NOTES:

1. PROVIDE SOLENOID ADAPTOR TO SUPPORT SOLAR CLOCK FUNCTION ON VALVE.
2. MAXIMUM RUN OF CONTROL WIRE TO REMOTE CONTROL VALVE (RCV) IS 1500' UNLESS OTHERWISE SPECIFIED.
3. SEAL CONDUIT OPENINGS WITH ELECTRICAL SEALANT.



| Revision | By | Approved | Date |
|----------|----|------------|-------|
| ORIGINAL | KA | T. Stanton | 10/11 |
| Reviewed | KA | N. Batta | 10/15 |
| Reviewed | EW | T. Stanton | 10/18 |
| Reviewed | RP | S. Engeda | 03/22 |

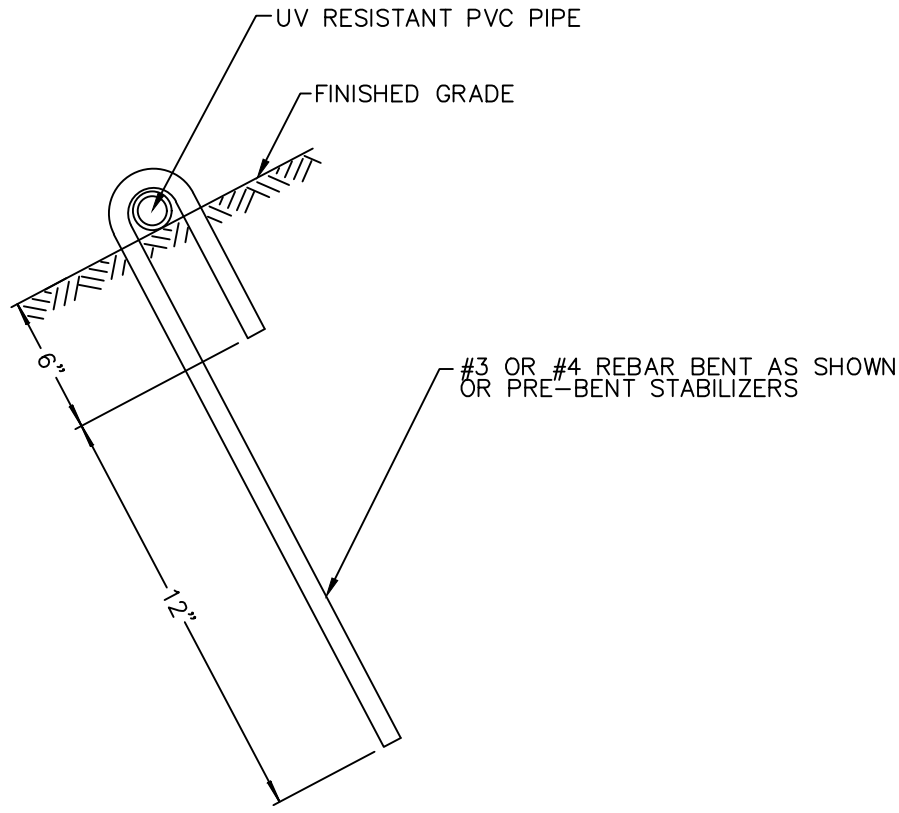
SAN DIEGO REGIONAL STANDARD DRAWING

**SOLAR IRRIGATION
CONTROLLER**

RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE

Saman Engeda 03/24/2022
Chairperson R.C.E. 52241 Date

DRAWING NUMBER **I-19**



SIDE VIEW

NOTE:

STABILIZERS SHALL BE PLACED NO GREATER THAN 10' APART, AT EACH RISER AND AT ALL FITTINGS.

| Revision | By | Approved | Date |
|----------|----|------------|-------|
| ORIGINAL | | Kercheval | 12/75 |
| Reviewed | KA | N. Batta | 10/15 |
| Reviewed | EW | T. Stanton | 10/18 |
| Reviewed | RP | S. Engeda | 03/22 |

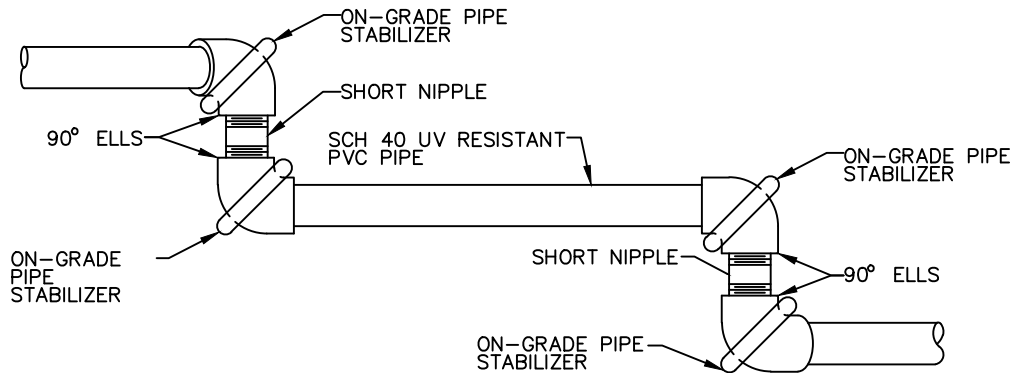
SAN DIEGO REGIONAL STANDARD DRAWING

**ON-GRADE PIPE STABILIZATION
TEMPORARY INSTALLATION**

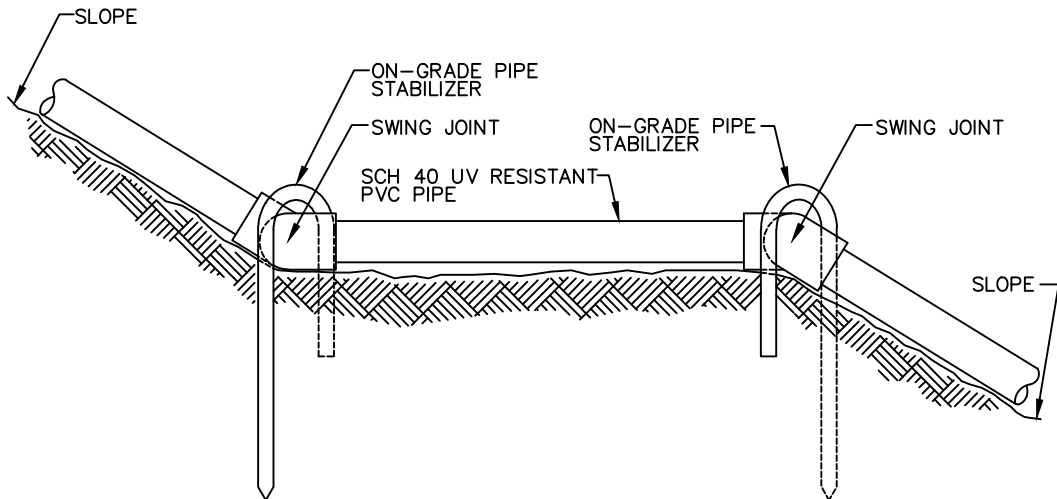
RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE

Saman Engeda 03/24/2022
Chairperson R.C.E. 52241 Date

DRAWING NUMBER **I-20**



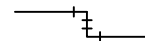
PLAN



ELEVATION

NOTE:
SWING JOINTS SHALL BE USED AT EACH CHANGE OF GRADE.

LEGEND ON PLANS



| Revision | By | Approved | Date |
|----------|----|------------|-------|
| ORIGINAL | | Kercheval | 12/75 |
| Reviewed | KA | N. Batta | 10/15 |
| Reviewed | EW | T. Stanton | 10/18 |
| Reviewed | RP | S. Engeda | 03/22 |

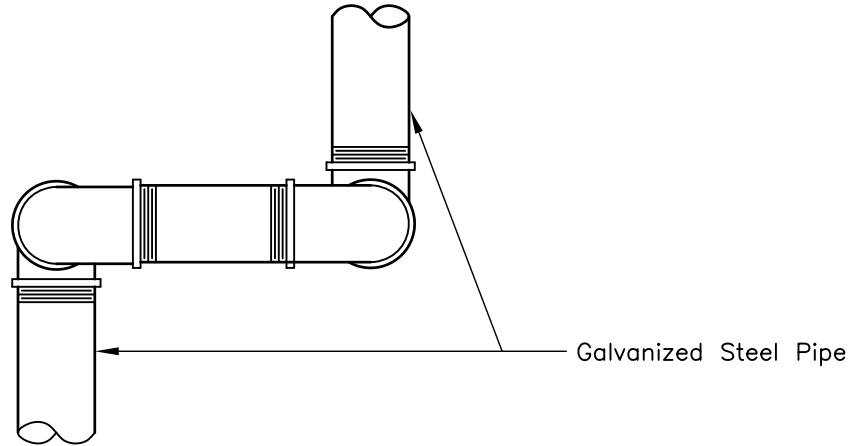
SAN DIEGO REGIONAL STANDARD DRAWING

SWING JOINT AND PIPE INSTALLATION ON SLOPES ABOVE GROUND

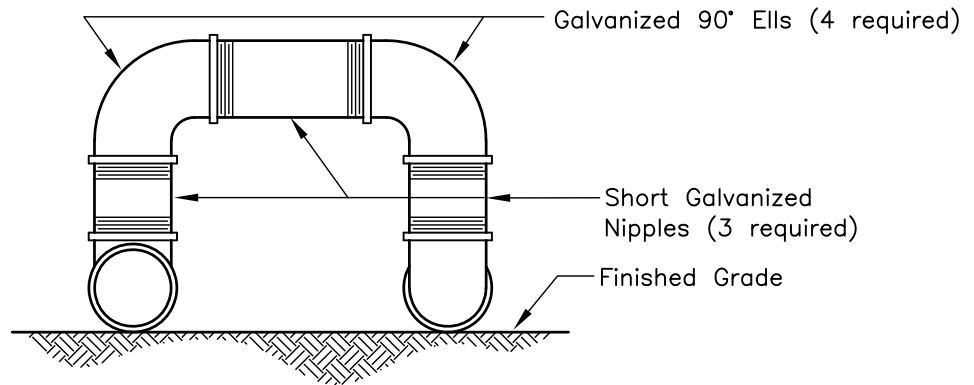
RECOMMENDED BY THE SAN DIEGO
REGIONAL STANDARDS COMMITTEE

Samantha Engeda 03/24/2022
Chairperson R.C.E. 52241 Date

DRAWING
NUMBER **I-23**



PLAN

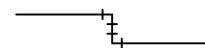


ELEVATION

NOTES

1. Double swing joint shall be used where changes of grade and alignment occur simultaneously.
2. Double swing joint shall be used for expansion joint on long runs of galvanized pipe. (91.44m (300') maximum runs)

LEGEND ON PLANS



| Revision | By | Approved | Date |
|----------|----|------------|-------|
| ORIGINAL | | Kercheval | 12/75 |
| Reviewed | KA | N. Batta | 10/15 |
| Reviewed | EW | T. Stanton | 10/18 |
| Reviewed | RP | S. Engeda | 03/22 |

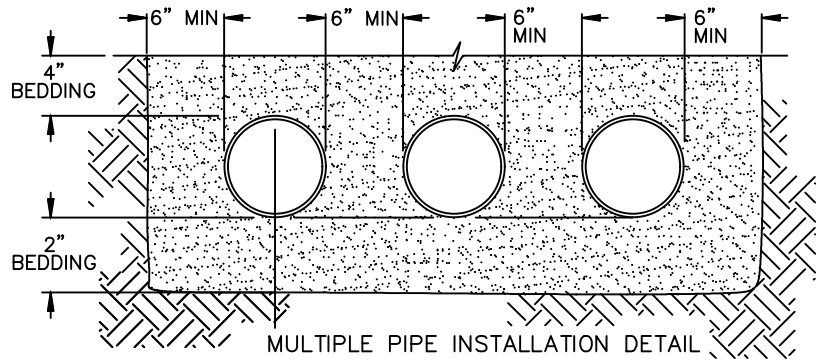
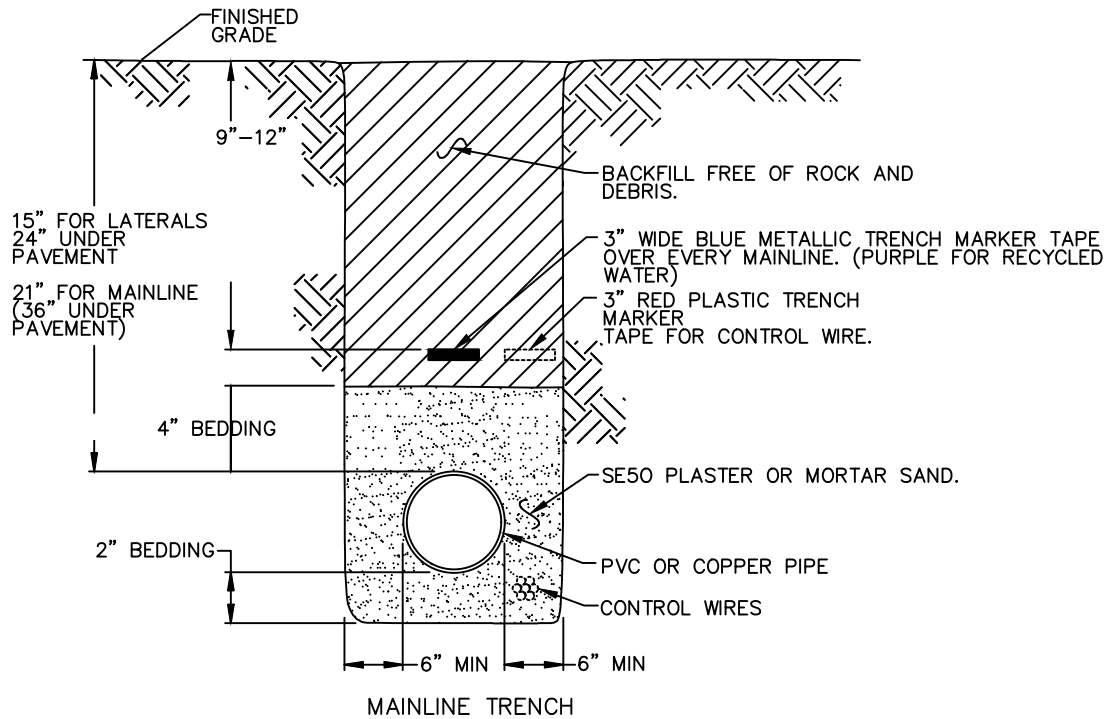
SAN DIEGO REGIONAL STANDARD DRAWING

**DOUBLE SWING JOINT
ABOVE GROUND PIPE INSTALLATIONS**

RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE

Somson Engeda 03/24/2022
Chairperson R.C.E. 52241 Date

DRAWING NUMBER **I-24**



- NOTES:
1. BACKFILL MATERIAL SHALL BE COMPACTED TO A RELATIVE COMPACTION OF 90% MINIMUM.
 2. PIPE SHALL LAY FREE IN THE TRENCH WITH NO INDUCED STRAIN AND WITH SUFFICIENT ALLOWANCE FOR EXPANSION AND CONTRACTION.
 3. PVC PIPE UNDER PAVEMENT SHALL BE INSTALLED IN A SCH 40 PVC SLEEVE TWICE THE DIAMETER OF THE PIPE (2" MINIMUM SIZE) AND EXTEND 12" MINIMUM BEYOND THE EDGE OF PAVEMENT.
 4. THE LETTER "W" SHALL BE STAMPED OR CHISELED ON THE IMPROVEMENT (CURB/ SIDEWALK) DIRECTLY ABOVE THE PRESSURE PIPELINE SLEEVE.
 5. NO PVC PRESSURE PIPELINE SHALL BE INSTALLED WITHIN 3' OF ANY UTILITY, UNLESS OTHERWISE SPECIFIED.

| Revision | By | Approved | Date |
|----------|----|------------|-------|
| ORIGINAL | | Kercheval | 12/75 |
| Reviewed | KA | N. Batta | 10/15 |
| Reviewed | EW | T. Stanton | 10/18 |
| Reviewed | RP | S. Engeda | 03/22 |

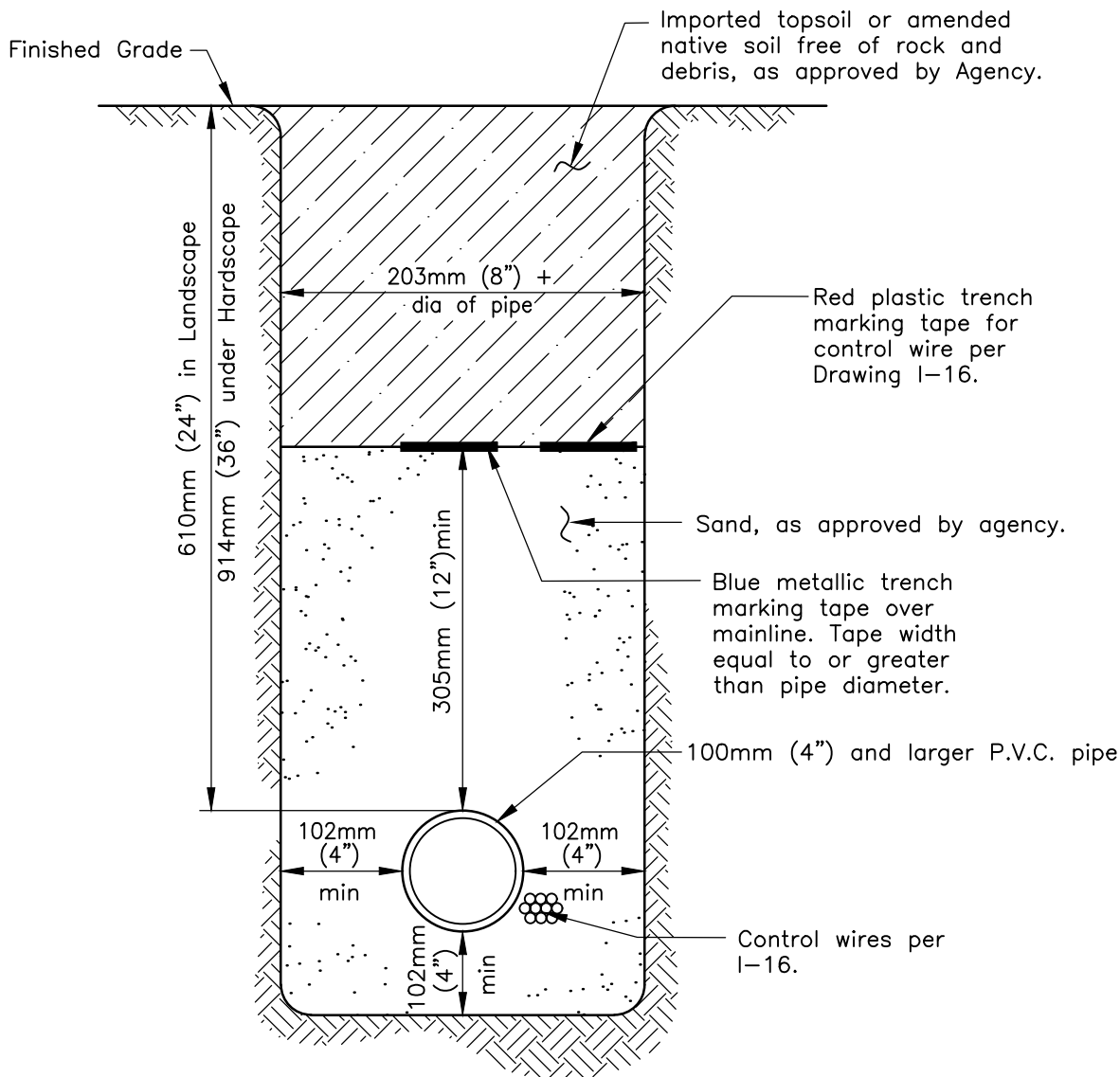
SAN DIEGO REGIONAL STANDARD DRAWING

**IRRIGATION TRENCH PVC
OR COPPER PIPE**

RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE

Saman Engeda 03/24/2022
Chairperson R.C.E. 52241 Date

DRAWING NUMBER **I-25**



NOTES

1. Backfill material shall be compacted to a relative compaction of 90% or more.
2. All pipeline fittings shall be epoxy coated ductile iron. All fittings shall have thrust blocks per W-17 or joint restraints.
3. The letter 'W', for pressure pipeline and 'E', for control wires shall be stamped or chiseled on the improvement (curb-sidewalk) directly above the pressure pipeline and wires respectively.
4. No P.V.C. pressure pipeline shall be installed within 914mm (3') of any utility, unless otherwise specified.

| Revision | By | Approved | Date |
|----------|----|------------|-------|
| ORIGINAL | | Kercheval | 12/75 |
| Reviewed | EW | T. Stanton | 10/18 |
| Reviewed | RP | S. Engeda | 03/22 |
| | | | |
| | | | |

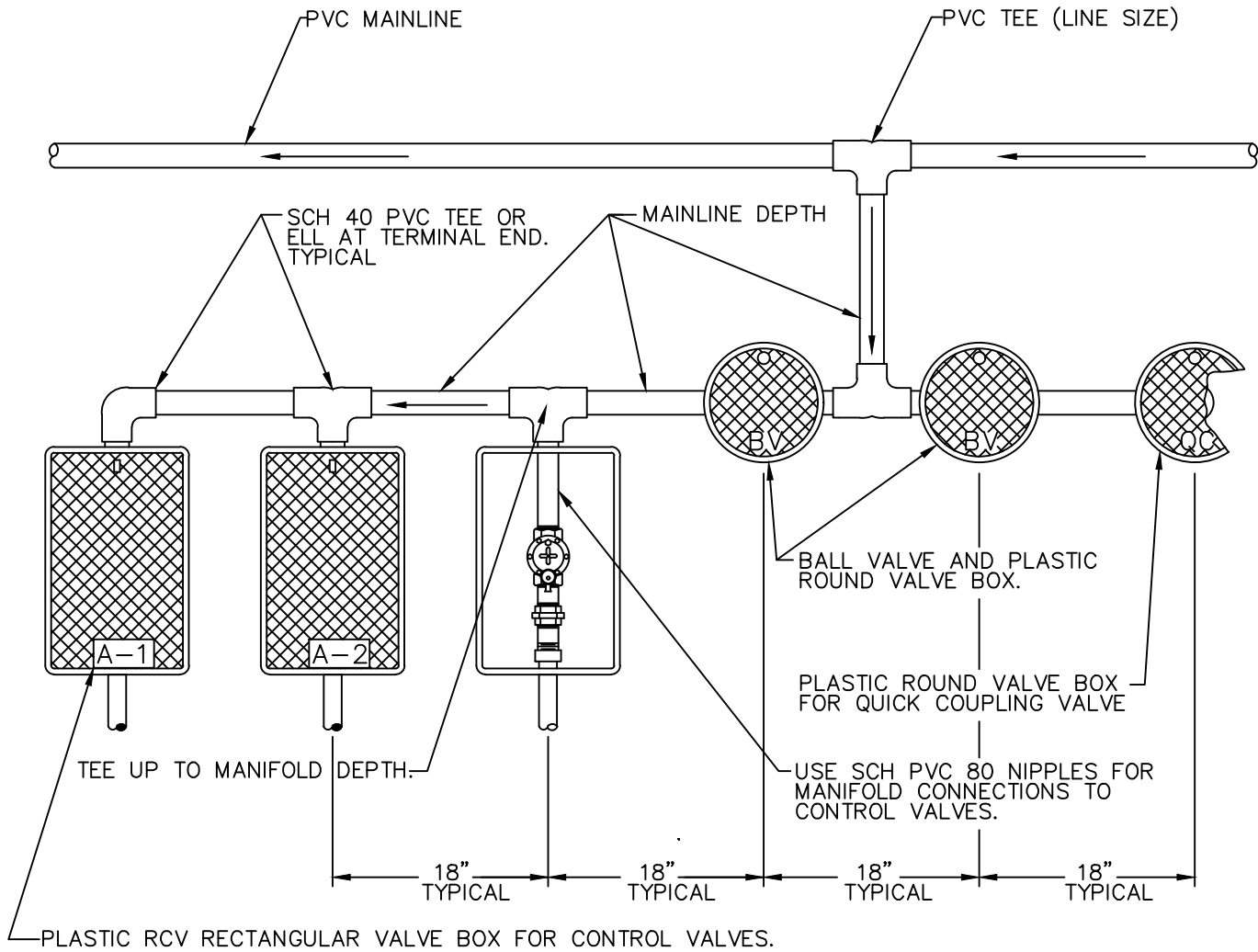
SAN DIEGO REGIONAL STANDARD DRAWING

IRRIGATION TRENCH DETAIL
100mm (4") AND LARGER P.V.C. MAINLINE

RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE

Saman Engeda 03/24/2022
Chairperson R.C.E. 52241 Date

DRAWING NUMBER **I-26**



NOTES:

1. PVC PIPE USED IN MANIFOLD ASSEMBLIES SHALL BE THE SAME CLASS AS SPECIFIED FOR THE MAINLINE.
2. VALVE BOXES SHALL BE HEAT BRANDED WITH CONTROLLER AND VALVE IDENTIFICATION.

| Revision | By | Approved | Date |
|----------|----|------------|-------|
| ORIGINAL | | Kercheval | 12/75 |
| Reviewed | KA | N. Batta | 10/15 |
| Reviewed | EW | T. Stanton | 10/18 |
| Reviewed | RP | S. Engeda | 03/22 |

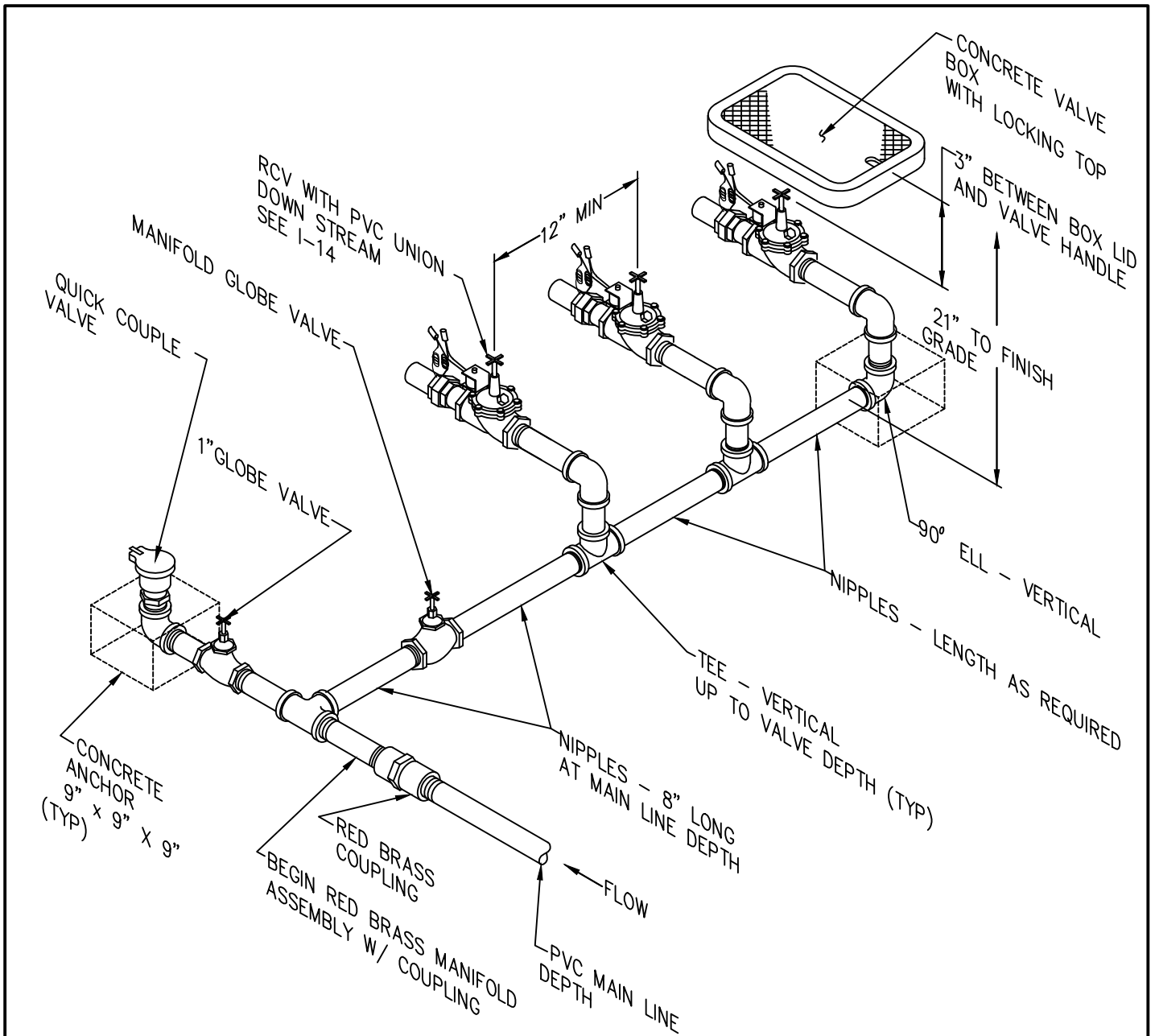
SAN DIEGO REGIONAL STANDARD DRAWING

**REMOTE CONTROL VALVE MANIFOLD
ASSEMBLY WITH PVC PIPE
(TEMPORARY SYSTEMS)**

RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE

Samantha Engeda 03/24/2022
Chairperson R.C.E. 52241 Date

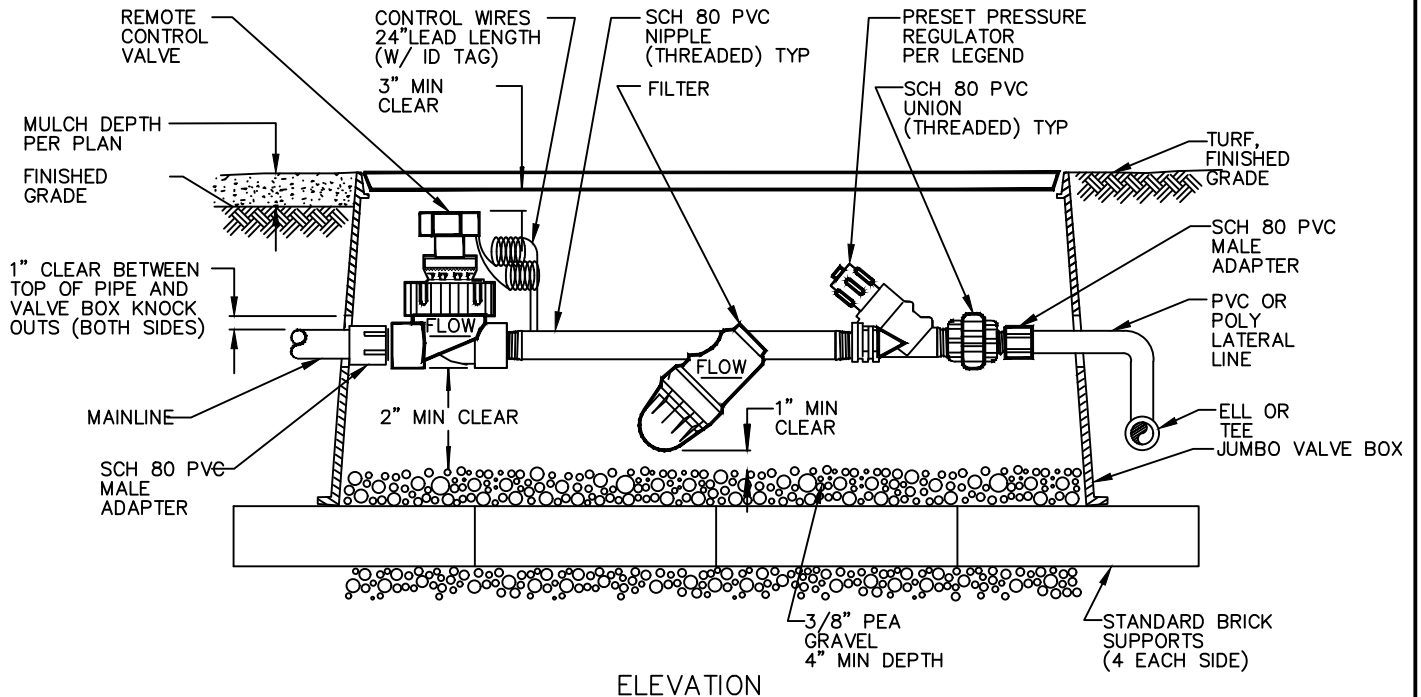
DRAWING NUMBER **I-32**



NOTES:

1. ALL PIPES, NIPPLES, AND FITTINGS AFTER MALE ADAPTER SHALL BE RED BRASS.
2. VALVE AND CONTROLLER IDENTIFICATION SHALL BE LABELED OUTSIDE ON THE VALVE BOX LID AND TAGGED INSIDE THE BOX ON THE VALVE.
3. TEFLON TAPE SHALL BE USED ON THREADED CONNECTIONS.

| Revision | By | Approved | Date | SAN DIEGO REGIONAL STANDARD DRAWING | | RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE |
|----------|----|------------|-------|---|--|---|
| ORIGINAL | | Kercheval | 12/75 | REMOTE CONTROL VALVE MANIFOLD ASSEMBLY WITH BRASS PIPE | |  03/24/2022 Chairperson R.C.E. 52241 Date |
| Reviewed | KA | N. Batta | 10/15 | | | |
| Reviewed | EW | T. Stanton | 10/18 | | | |
| Reviewed | RP | S. Engeda | 03/22 | | | |
| | | | | DRAWING NUMBER | | I-33 |

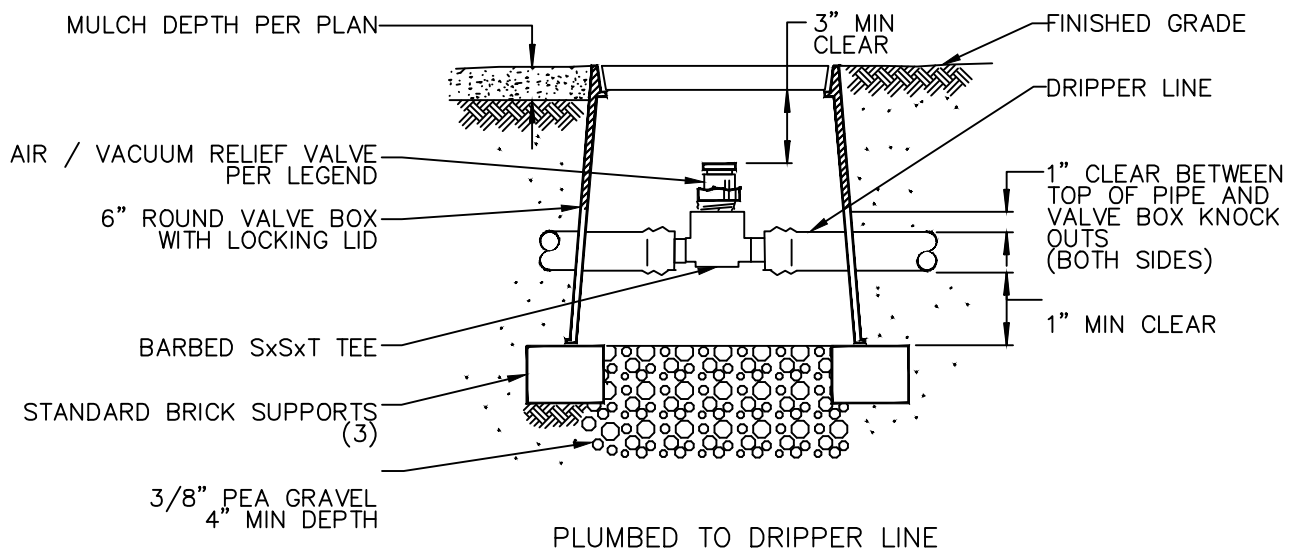
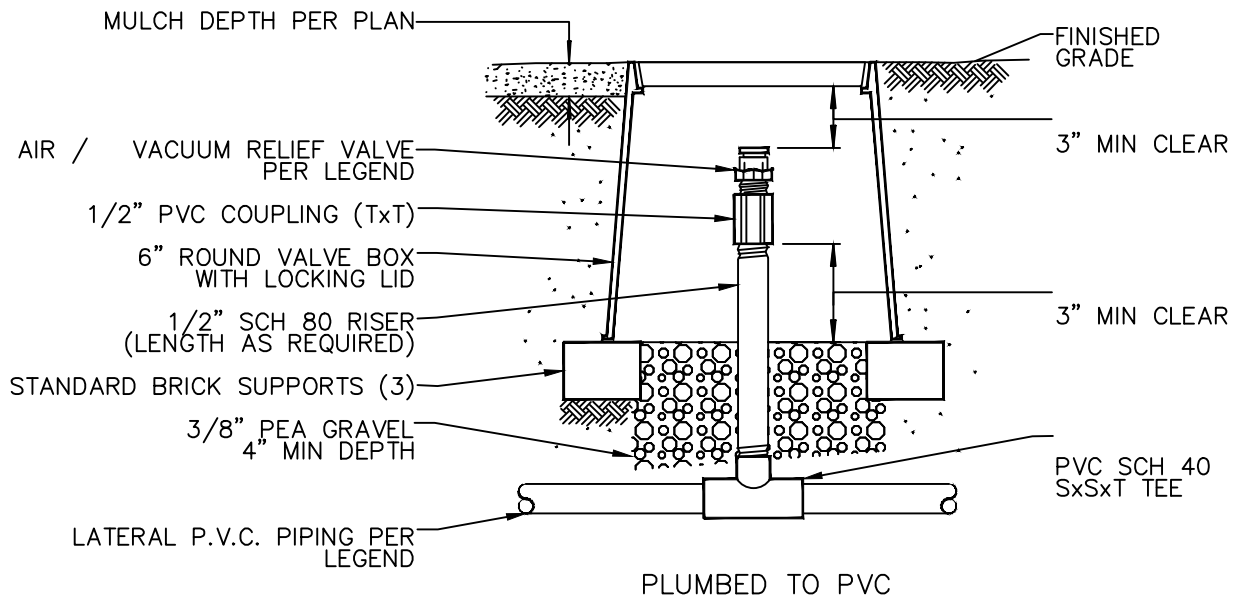


NOTES:

1. WIRE SPlicing SHALL BE MADE IN VALVE BOXES AND PULL BOXES ONLY. SEE I-15 FOR SPlice / SOLDERING NOTES.
2. SPARE WIRES TERMINATING IN VALVE BOXES SHALL HAVE THEIR ENDS INSULATED, THE SAME AS FOR A SPlice.
3. WHEN TWO OR MORE VALVES ARE INSTALLED IN THE SAME LOCATION, SEE REMOTE CONTROL VALVE MANIFOLD ASSEMBLY.
4. VALVE / CONTROLLER IDENTIFICATION SHALL BE PERMANENTLY LABELED EXTERNALLY ON THE VALVE BOX AND INTERNALLY, WITH A PERMANENT IDENTIFICATION TAG ATTACHED TO THE VALVE.
5. KNOCK OUTS SHALL NOT BE ENLARGED UNLESS APPROVED BY THE AGENCY.
6. INSTALL ONLY ONE VALVE ASSEMBLY PER BOX.
7. VALVE BOXES SHALL BE SET PERPENDICULAR TO HARDSCAPE, A MAXIMUM 12 INCHES FROM EDGE OF HARDSCAPE, 2" ABOVE FINISHED GRADE IN SHRUB / GROUNDCOVER AREAS, PER MULCH DEPTH. IF NECESSARY TO BE SET IN TURF, VALVE BOXES SHALL BE SET FLUSH WITH FINISHED GRADE.
8. CLOSE NIPPLES SHALL NOT BE USED.
9. FILTER SHALL BE INSTALLED TO ALLOW FOR MAINTENANCE ACCESS.
10. TEFLON TAPE SHALL BE USED ON THREADED CONNECTIONS.

LEGEND ON PLANS
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| | | | | | | |
|----------|----|------------|-------|---|---|-------------|
| Revision | By | Approved | Date | SAN DIEGO REGIONAL STANDARD DRAWING | RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE | |
| ORIGINAL | | M. Caro | 12/75 | | | |
| Reviewed | KA | N. Batta | 10/15 | REMOTE CONTROL VALVE DRIP IRRIGATION | <i>Saman Engeda</i> 03/24/2022 | |
| Reviewed | EW | T. Stanton | 10/18 | | Chairperson R.C.E. 52241 Date | |
| Reviewed | RP | S. Engeda | 03/22 | | DRAWING NUMBER | I-35 |
| | | | | | | |



NOTES:

1. INSTALL AIR / VACUUM RELIEF VALVE AT HIGH POINT(S) IN VALVE CIRCUIT.
2. HEAT-BRAND VALVE BOX LID "AR".
3. VALVE SHALL BE CENTERED IN BOX.
4. TEFLON TAPE SHALL BE USED ON THREADED CONNECTIONS.

LEGEND ON PLANS

(A)

| Revision | By | Approved | Date |
|----------|----|------------|-------|
| ORIGINAL | | M. Caro | 1/06 |
| Reviewed | KA | N. Batta | 10/15 |
| Reviewed | EW | T. Stanton | 10/18 |
| Reviewed | RP | T. Stanton | 10/18 |

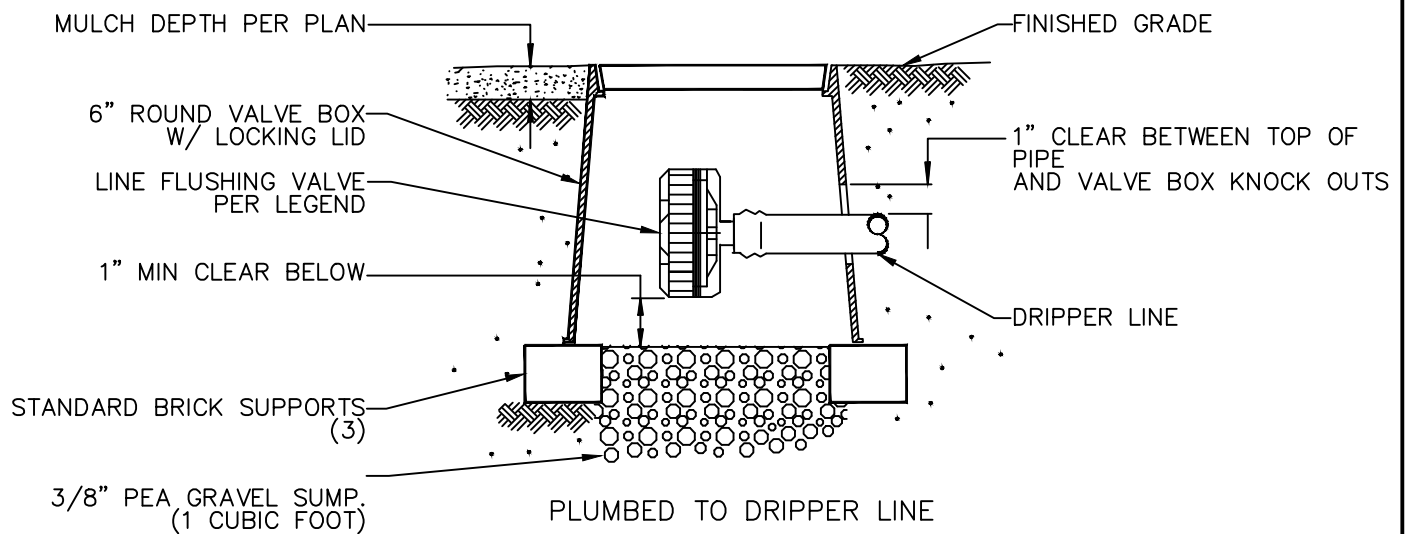
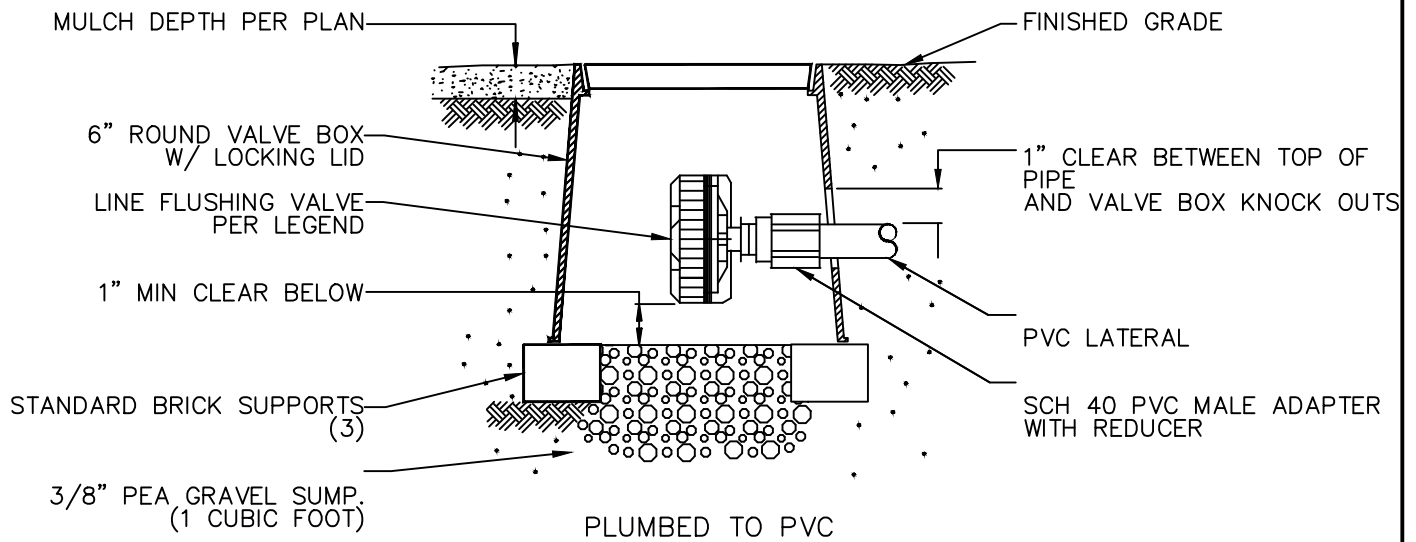
SAN DIEGO REGIONAL STANDARD DRAWING

AIR / VACUUM RELIEF VALVE

RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE

Samantha Engeda 03/24/2022
Chairperson R.C.E. 52241 Date

DRAWING NUMBER **I-36**



NOTES:

1. INSTALL FLUSH VALVE(S) AT THE LOWEST POINTS IN THE VALVE CIRCUIT
2. HEAT BRAND VALVE BOX LIDS "FV".
3. VALVE SHALL BE CENTERED IN BOX.

LEGEND ON PLANS

(FV)

| Revision | By | Approved | Date |
|----------|----|------------|-------|
| ORIGINAL | RH | A. Oskoui | 12/75 |
| Reviewed | KA | N. Batta | 10/15 |
| Reviewed | EW | T. Stanton | 10/18 |
| Reviewed | RP | S. Engeda | 03/22 |

SAN DIEGO REGIONAL STANDARD DRAWING

**DRIP IRRIGATION
FLUSH VALVE (AUTOMATIC)**

RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE

Saman Engeda 03/24/2022
Chairperson R.C.E. 52241 Date

DRAWING NUMBER **I-37**