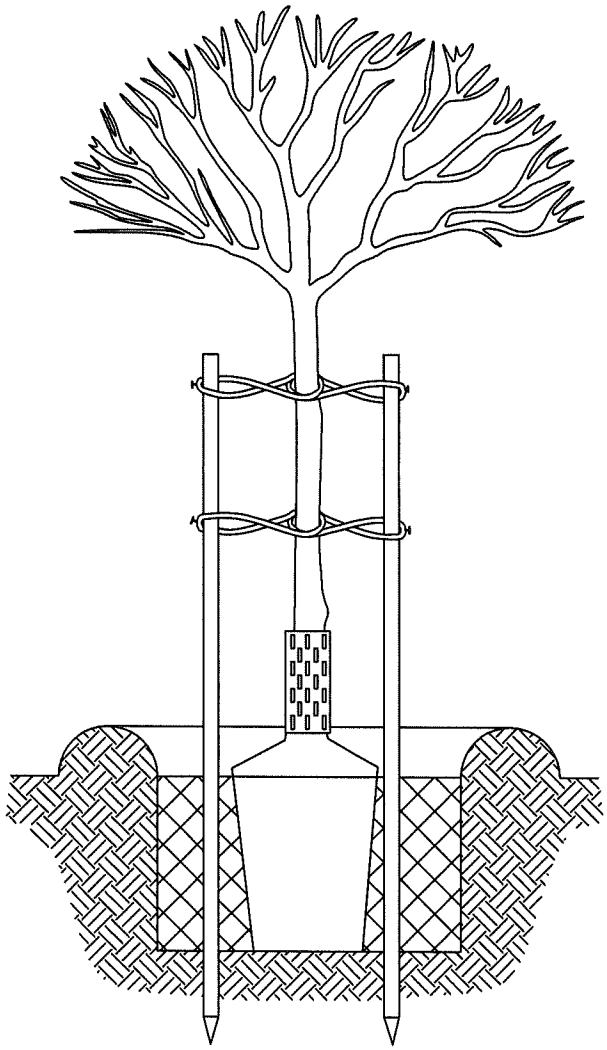
CITY OF HUNTINGTON BEACH

DEPARTMENT OF PUBLIC WORKS

LANDSCAPE STANDARD PLANS AND SPECIFICATIONS

700 SERIES



2013

SERIES 700 LANDSCAPE STANDARD PLANS AND DETAILS

701	IRRIGATION BACKFLOW DEVICE ENCLOSURE
702	QUICK COUPLER VALVE
703	GATE VALVE
704 SHT. 1OF2	REMOTE CONTROL VALVE
704 SHT. 2OF2	REMOTE CONTROL VALVE
705 SHT. 1OF2	SPRINKLER HEAD – TYPE A
705 SHT. 2OF2	SPRINKLER HEAD – TYPE B
706	MEDIAN IRRIGATION LAYOUT – STREET SECTION OR MEDIAN TO MEDIAN
707	QUICK COUPLER– VALVE MANIFOLD
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708 SHT. 2OF4	IRRIGATION CONTROLLER ENCLOSURE CABINET
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712	SHRUB PLANTING
713	PALM QUAD POD
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715 SHT. 1OF4	ARTERIAL PALMWELL PLANTING
715 SHT. 2OF4	ARTERIAL TREEWELL PLANTING
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716	TREE AND PALM SUMP
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725 SHT. 1OF2	PARKWAY HARDSCAPE FILL LAYOUT
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732	LANDSCAPE MEDIAN BACKFILL
733 SHT. 1OF2	SINGLE TREE WELL AND SIDEWALK DETAIL FOR NEW TREE
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LANDSCAPE STANDARD PLAN INDEX SHEET

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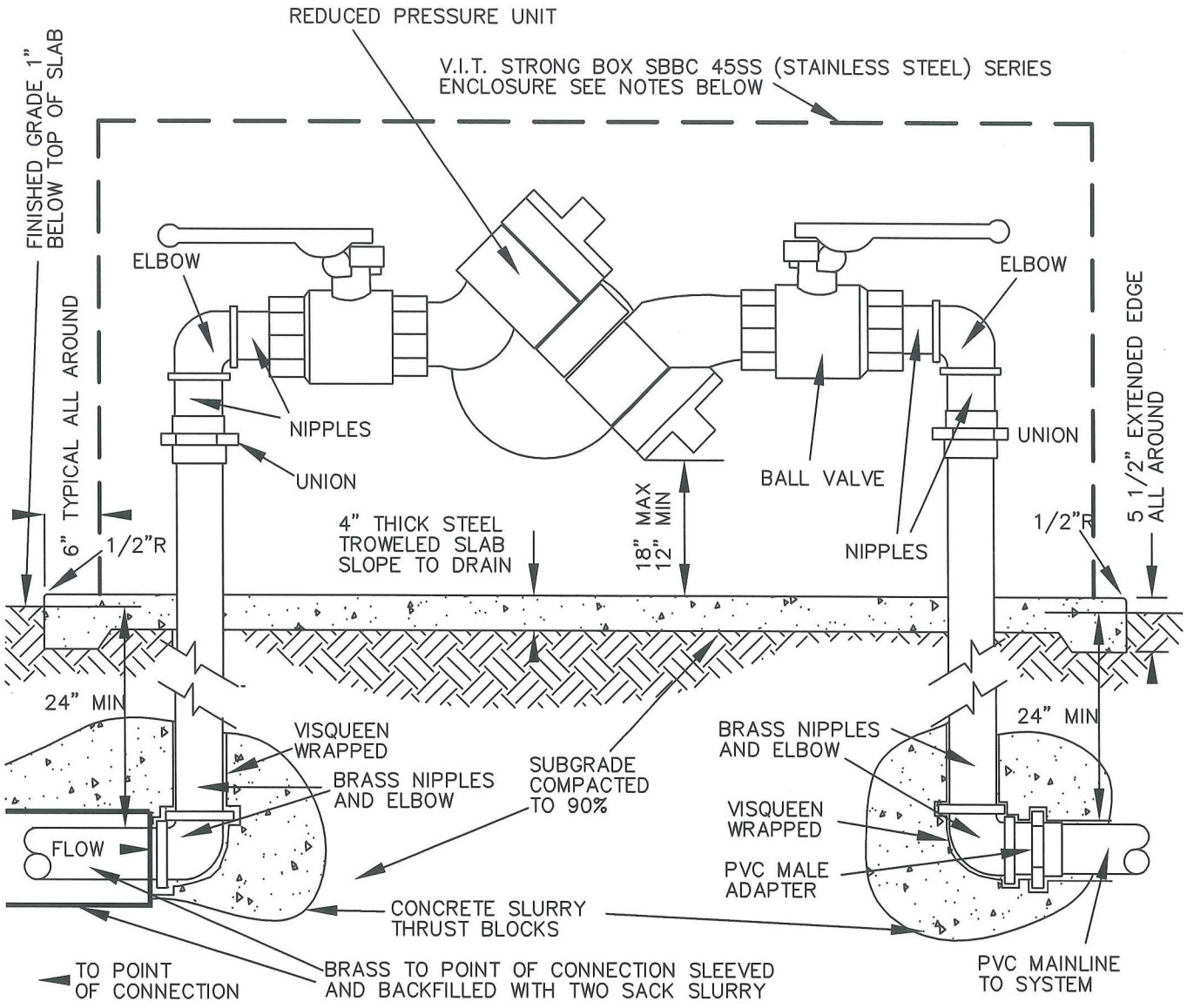
CITY ENGINEER

CITY OF HUNTINGTON BEACH

DEPARTMENT OF PUBLIC WORKS

2013

STANDARD PLAN **700** SERIES



GENERAL NOTES

INSTALL PER CITY OF HUNTINGTON BEACH PLUMBING CODE AND WATER DEPT. STANDARD PLANS.

FITTINGS AND PIPE SHALL BE BRASS AND PER CITY APPROVED PLANS AND SPECIFICATIONS.

REDUCED PRESSURE ASSEMBLY SHALL BE FEBCO 825Y OR APPROVED EQUAL. PAINT TWO COATS SINCLAIR 'NEVADA' #4840 BROWN ENAMEL. ENCLOSURE TO BE PAINTED THE SAME (FROM THE FACTORY).

REMOVE ALL HANDLES AND DELIVER TO THE CITY PUBLIC WORKS INSPECTOR.

THRUST BLOCK TO BE TWO SACK SLURRY MIX (1 CU. FT EACH ELBOW) AROUND ELBOW ASSEMBLY THAT HAS THE PIPE AND ELBOW WRAPPED WITH VISQUEEN.

UNITS HAVING A 'Y' STRAINER REQUIRES AN ADDITIONAL SIZED ENCLOSURE, A V.I.T. STRONG BOX SBBC STAINLESS STEEL DOUBLE CLAM-SHELL. PAINTED AT THE FACTORY AS PER NOTE ABOVE.

BACKFLOW PREVENTION - REDUCED PRESSURE TYPE

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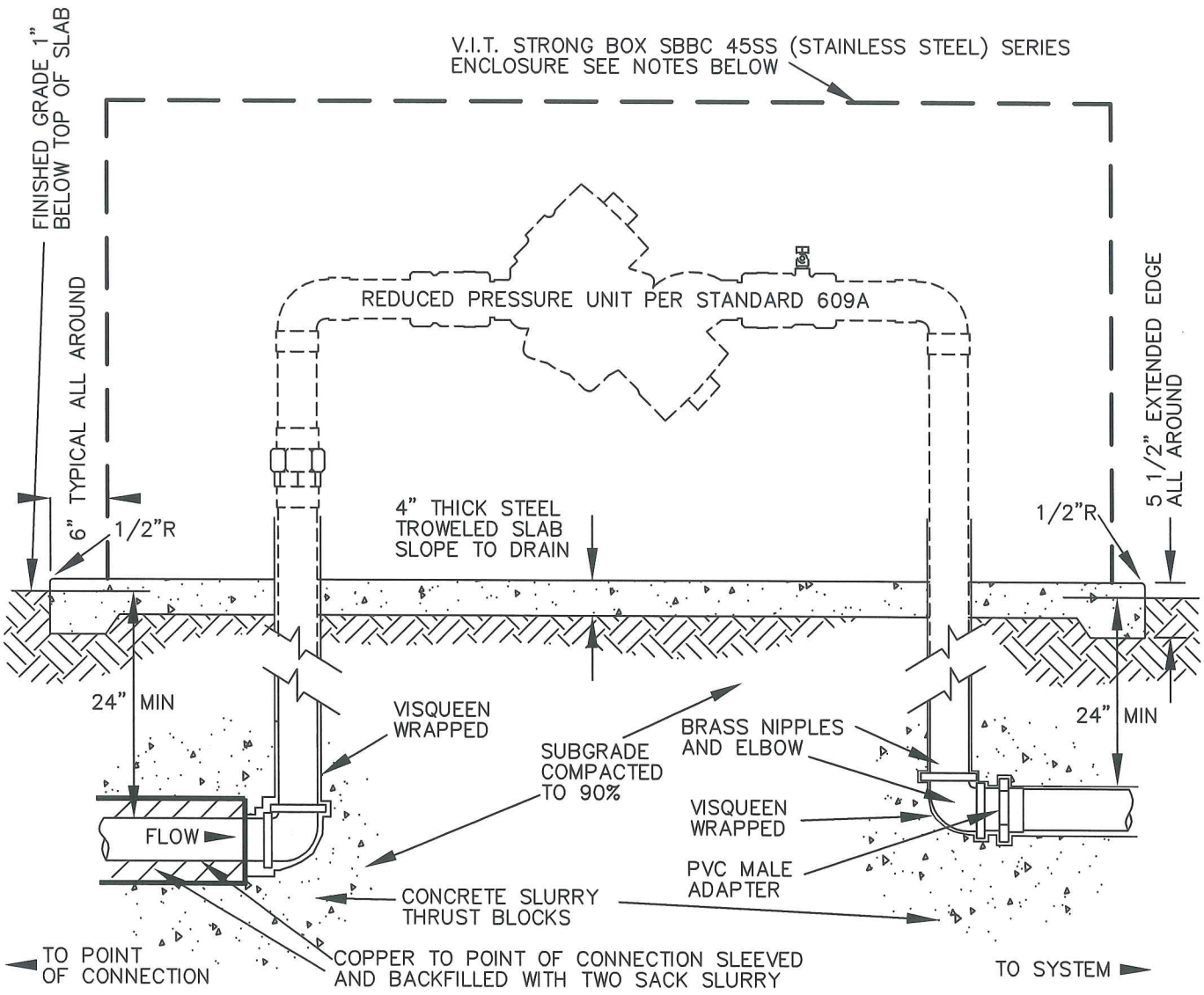
DEPARTMENT OF PUBLIC WORKS

2013

STANDARD PLAN **701**

1 OF 1



GENERAL NOTES

INSTALL PER CITY OF HUNTINGTON BEACH PLUMBING CODE AND WATER DIVISION STANDARD PLANS.

FITTINGS AND PIPE SHALL BE BRASS AND PER CITY APPROVED PLANS AND SPECIFICATIONS.

REDUCED PRESSURE ASSEMBLY SHALL BE INSTALLED PER CITY STANDARD 609A. PAINT ENCLOSURE TWO COATS SINCLAIR 'NEVADA' #4840 BROWN ENAMEL (FROM THE FACTORY).

REMOVE ALL HANDLES AND DELIVER TO THE CITY PUBLIC WORKS INSPECTOR.

THRUST BLOCK TO BE TWO SACK SLURRY MIX (1 CU. FT EACH ELBOW) AROUND ELBOW ASSEMBLY THAT HAS THE PIPE AND ELBOW WRAPPED WITH VISQUEEN.

UNITS HAVING A 'Y' STRAINER REQUIRES AN ADDITIONAL SIZED ENCLOSURE, A V.I.T. STRONG BOX SBBC STAINLESS STEEL DOUBLE CLAM-SHELL. PAINTED AT THE FACTORY AS PER NOTE ABOVE.

IRRIGATION BACKFLOW DEVICE ENCLOSURE

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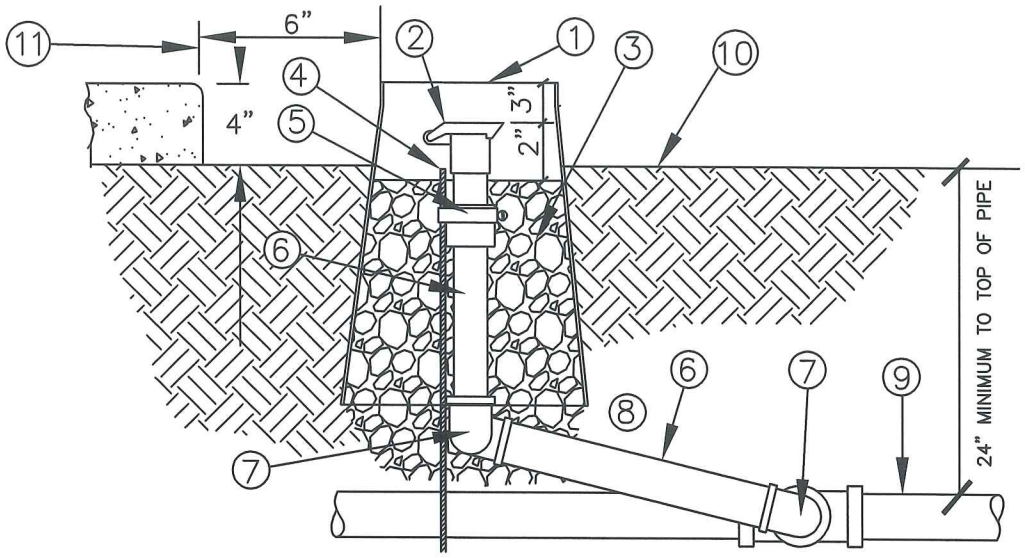
CITY OF HUNTINGTON BEACH

DEPARTMENT OF PUBLIC WORKS

2013

STANDARD PLAN **701**

1 OF 1



1. 6" ROUND VALVE BOX. HEAT BRAND "QCV" ON LID IN 2" HIGH LETTERS. TOP OF COVER LEVEL W/STAMPED CONCRETE
2. QUICK COUPLER VALVE 2" MAXIMUM BELOW TOP OF COVER.
3. SMOOTH GRAVEL FILL TO 3" BELOW TOP OF COVER.
4. #4 REBAR 24" LONG.
5. STAINLESS STEEL CLAMP.
6. BRASS NIPPLE.
7. THREADED BRASS STREET ELL
8. 90° BRASS ELL.
9. PVC MAINLINE.
10. FINISH GRADE.
11. EDGE OF STAMPED CONCRETE IN MEDIANS

GENERAL NOTES

RAIN BIRD QUICK COUPLER 44LRC IN 6 INCH ROUND VALVE BOX SET FLUSH WITH STAMPED CONCRETE AND 6 INCHES AWAY FROM EDGE.
ALL NIPPLES AND FITTINGS TO BE BRASS.
USE TEFLON TAPE ON ALL MALE PIPE THREADS.
QUICK COUPLER TO HAVE YELLOW RUBBER LOCKABLE COVER.
NO QUICK COUPLERS SHALL BE INSTALLED ON RECLAIMED WATER SYSTEMS.
LOCATIONS NOT WITHIN MEDIANS SHALL HAVE TOP OF BOX (1) FLUSH WITH LAWN OR 3" ABOVE GRADE IN GROUNDCOVER AREAS.

QUICK COUPLER VALVE

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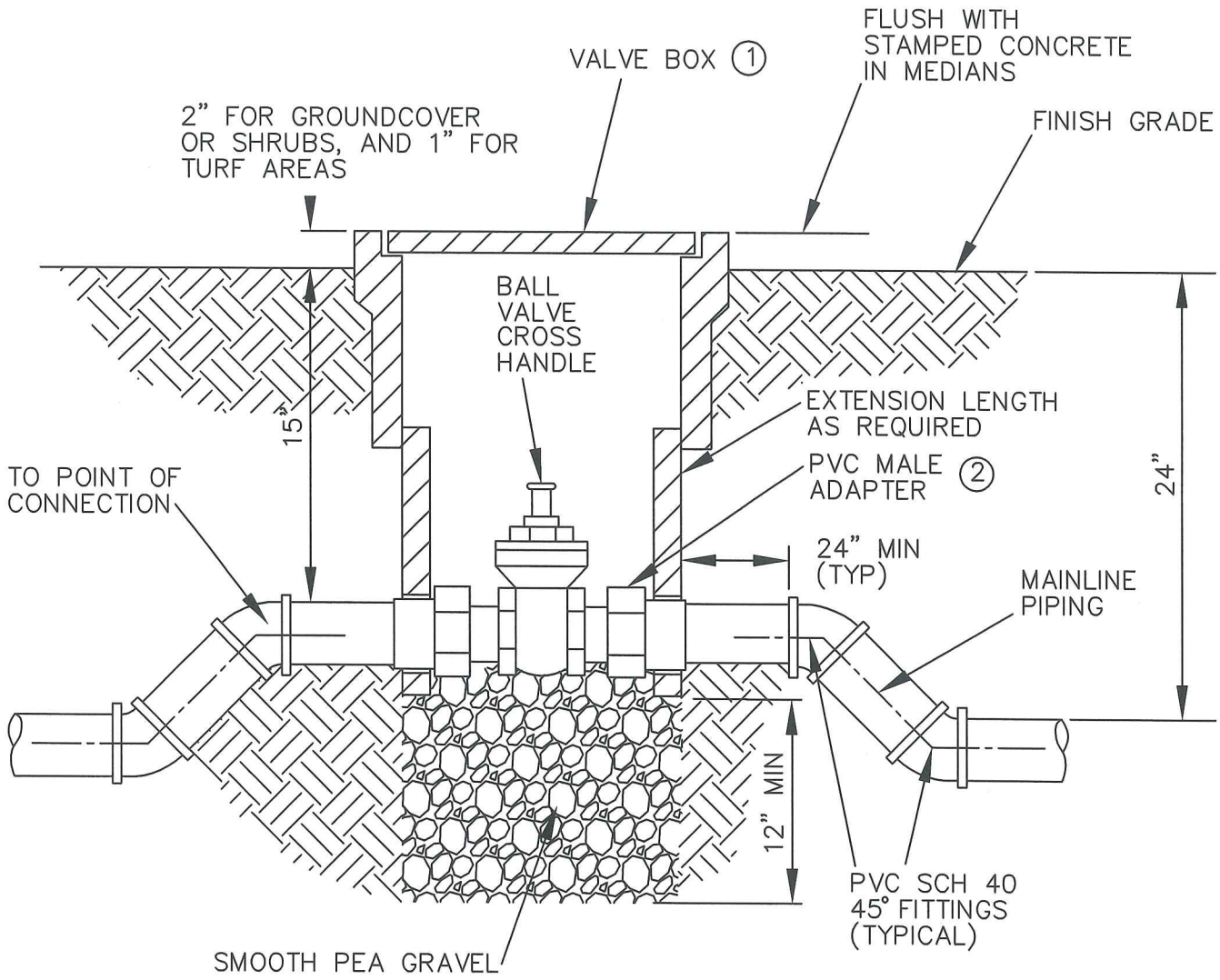
DEPARTMENT OF PUBLIC WORKS
2013

STANDARD PLAN 702
1 OF 1



NOTE:

(1) PER CITY STANDARD PLANS

(2) USE TEFLON TAPE ON ALL MALE THREADS

GATE VALVE

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CITY OF HUNTINGTON BEACH

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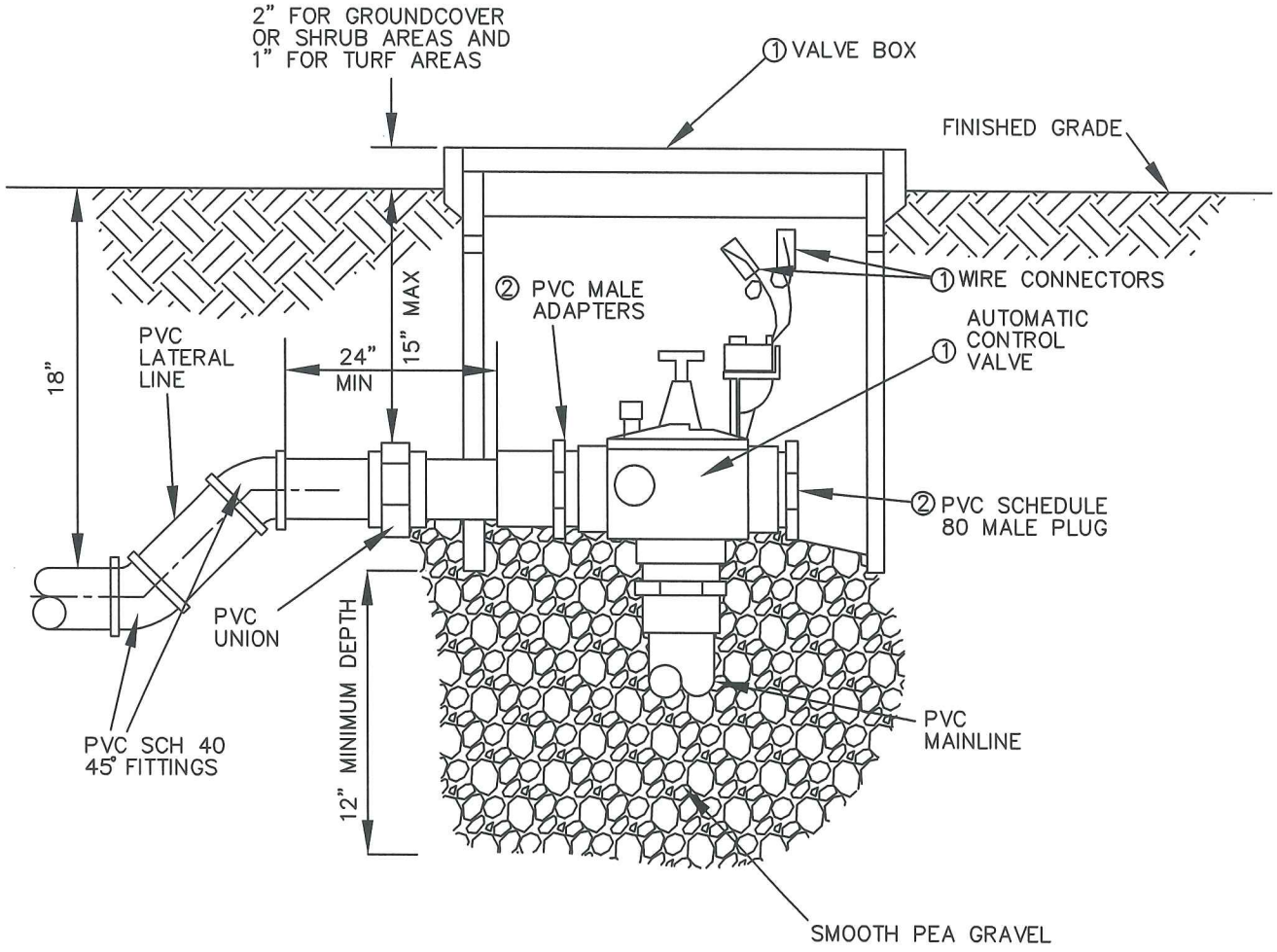
2013

STANDARD PLAN **703**

1 OF 1



① PER CITY STANDARD PLANS

② USE TEFLON TAPE ON ALL MALE PIPE THREADS

REMOTE CONTROL VALVE

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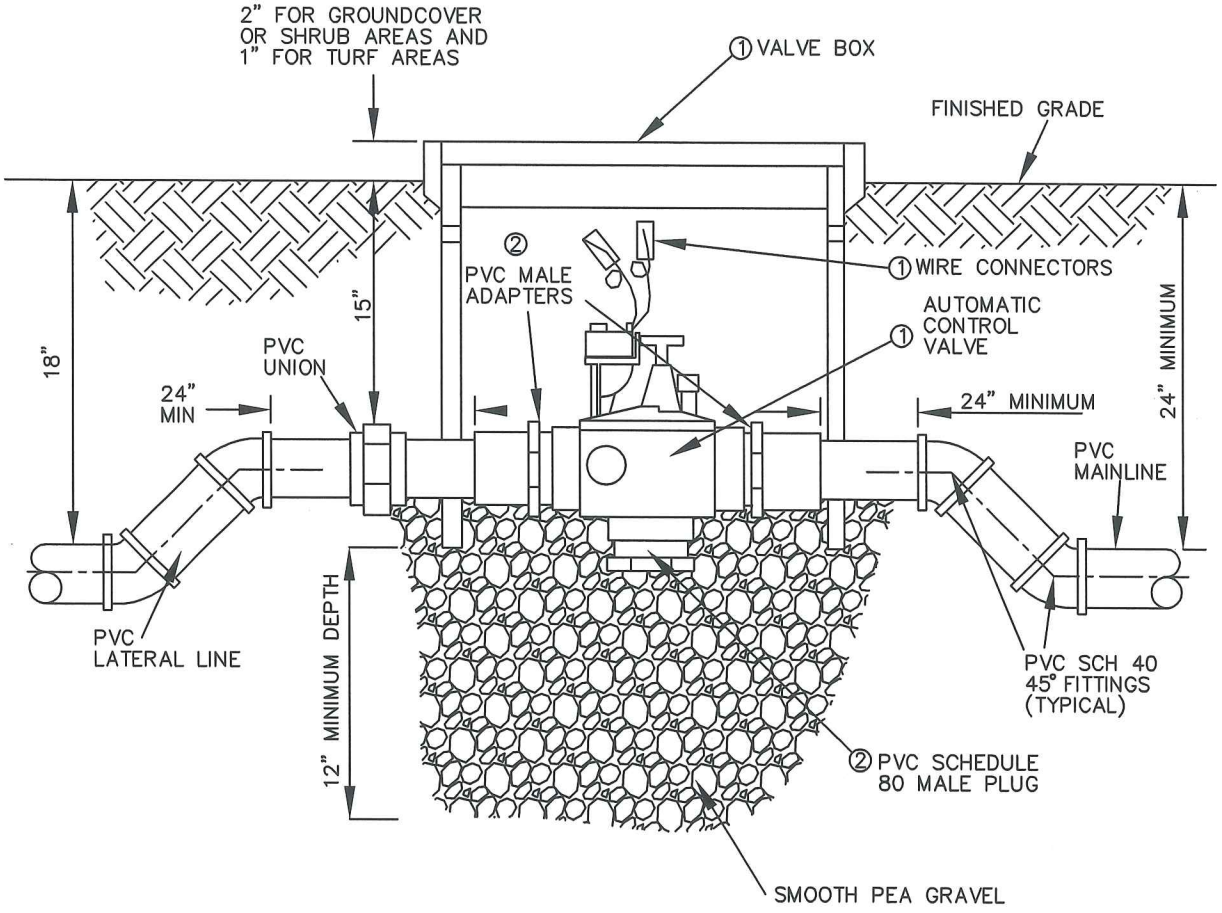
CITY ENGINEER

CITY OF HUNTINGTON BEACH

DEPARTMENT OF PUBLIC WORKS

2013

STANDARD PLAN **704** 1 OF 2



① PER CITY STANDARD PLANS

② USE TEFLON TAPE ON ALL MALE PIPE THREADS

REMOTE CONTROL VALVE

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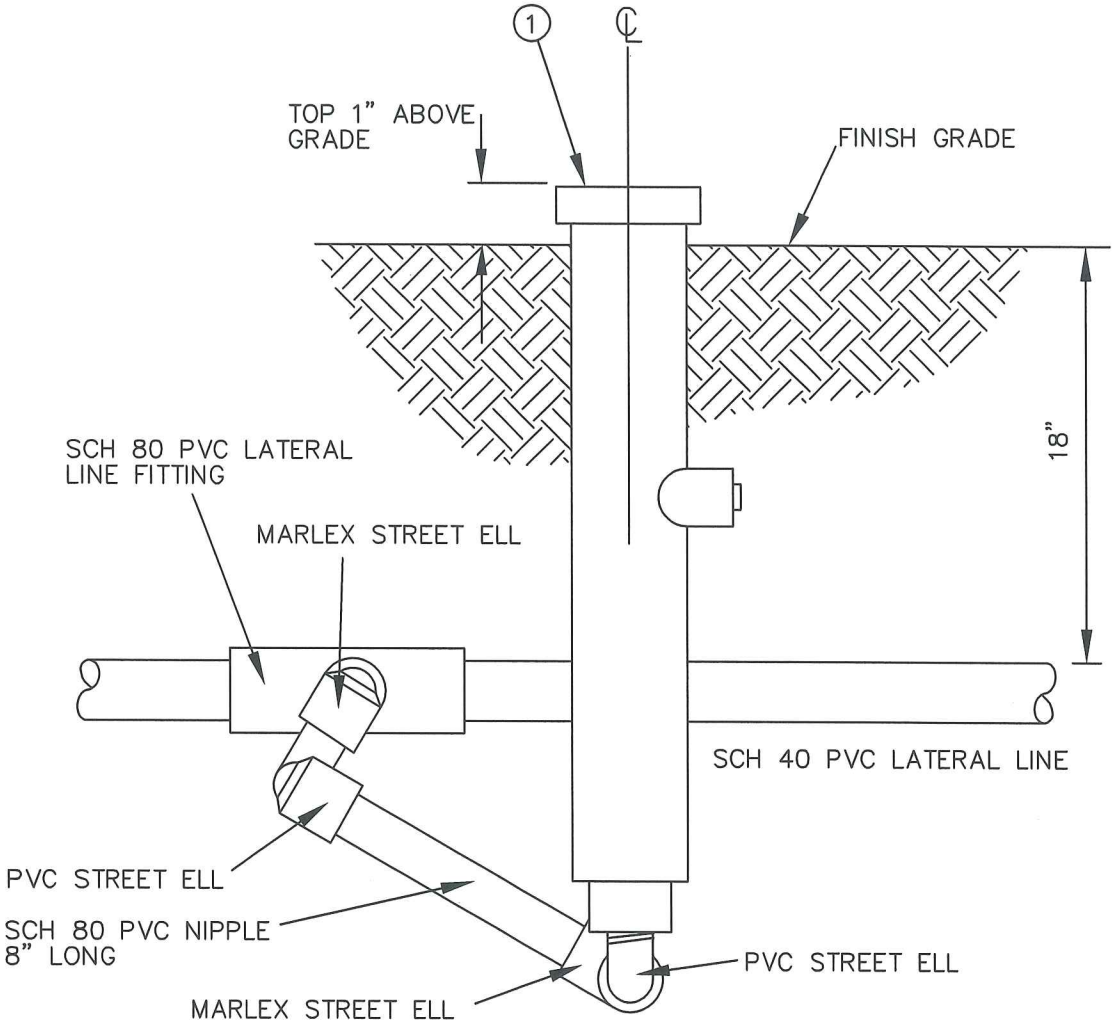
DEPARTMENT OF PUBLIC WORKS

2013

STANDARD PLAN **704**

2 OF 2



(1) HEADS REQUIRING SNAP–ON PURPLE (RECLAIMED WATER DESIGNATOR) RINGS/CAP TO BE GLUED ON.

THERE ARE TO BE (4) FOUR ELLS AT EACH HEAD TYPICAL.
LATERAL LINES SHALL BE BEHIND BOMANITE/CONCRETE WITH TEE FACING TOWARD MEDIAN CENTER OR THE CENTER OF THE PLANTING AREA.

SPRINKLER HEAD TYPE A

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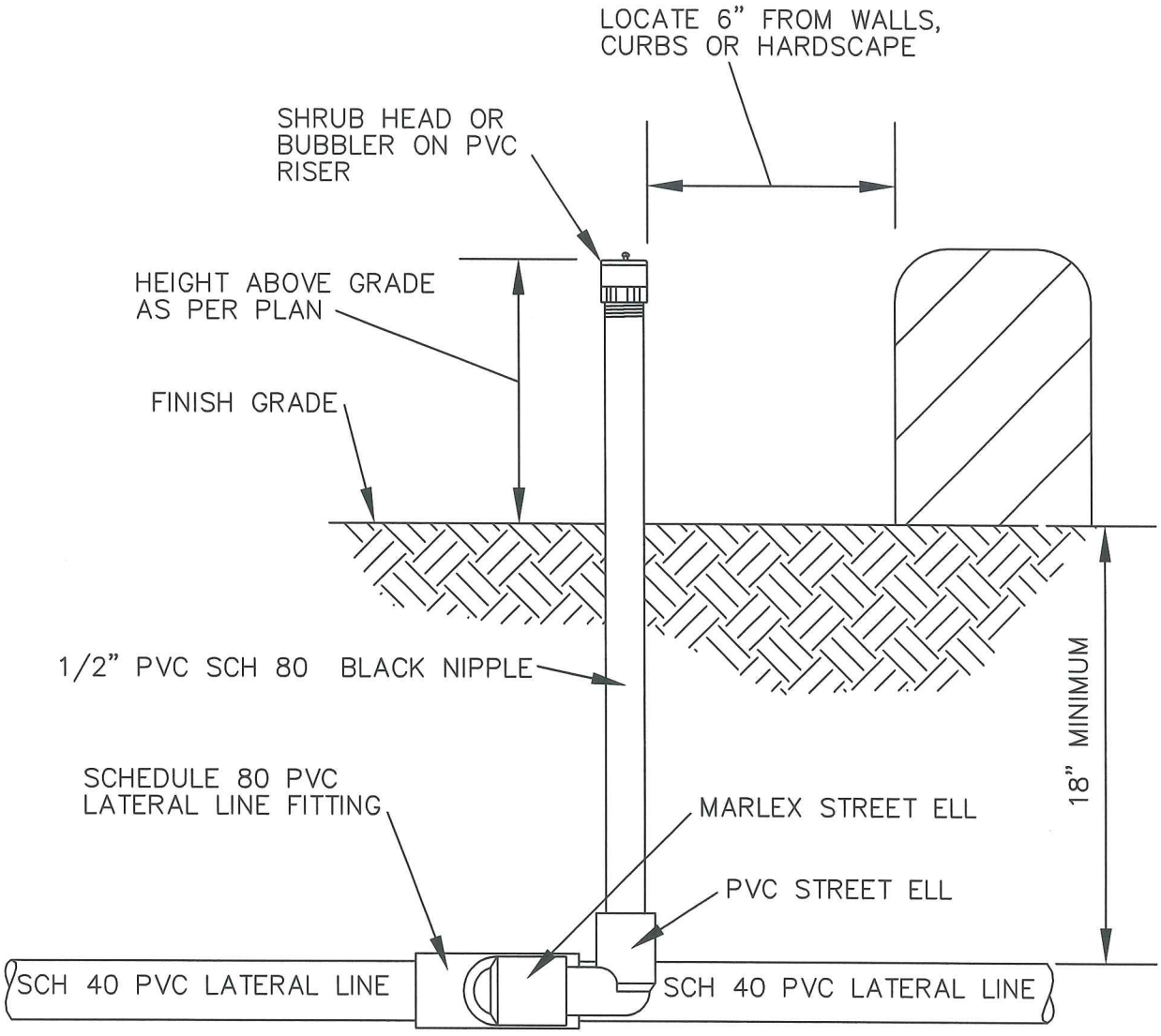
2013

STANDARD PLAN **705**

1 OF 2



GENERAL NOTES
1 FOUR (4) ELLS AT EACH HEAD
2 HEADS REQUIRING SNAP-ON PURPLE (RECLAIMED WATER DESIGNATOR) RINGS/CAP (TO BE USED ON RECLAIMED WATER SYSTEMS ONLY) SHALL BE GLUED IN PLACE.

SPRINKLER HEAD TYPE B

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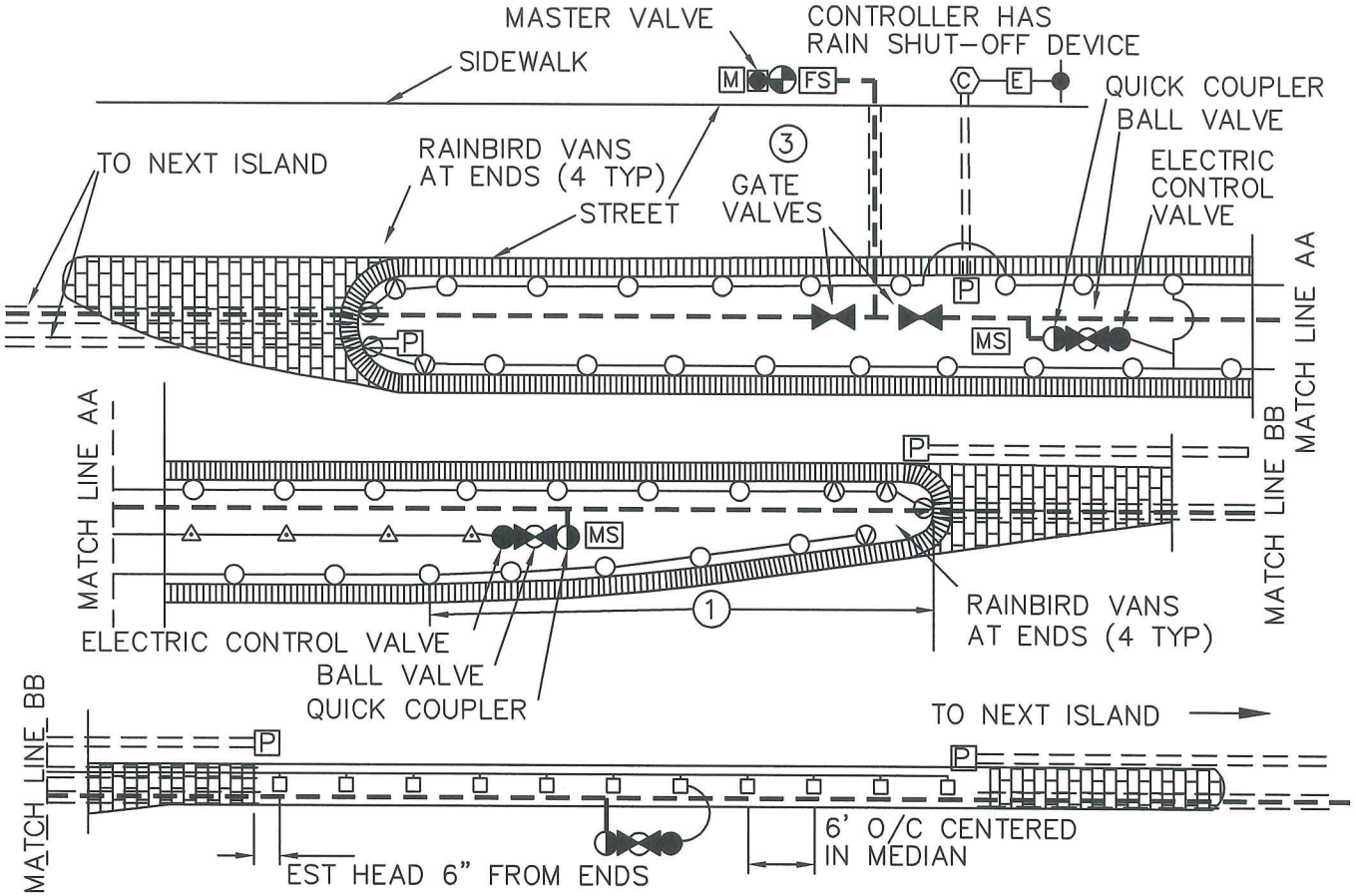
CITY OF HUNTINGTON BEACH
DEPARTMENT OF PUBLIC WORKS
2013

STANDARD PLAN 705
2 OF 2



- M WATER SERVICE
- C IRRIGATION CONTROLLER
- E ELECTRIC SERVICE
- S.C.E. POWER SOURCE
- BACKFLOW PREVENTER
- GATE VALVE
- BALL VALVE
- ELECTRIC MASTER VALVE (MATCHED TO CONTROLLER)
- P CONTROL WIRING PULL BOX (WITH 3' COIL OF WIRE MIN.)
- FS FLOW SENSOR
- MS MOISTURE SENSOR

- MAIN IRRIGATION SUPPLY (PVC SCH 40, 24" COVER)
- IRRIGATION MAIN CROSSOVER IN SCH 40 SLEEVE
- LATERAL IRRIGATION LINE (SCH 40, 18" COVER)
- CONTROL WIRES IN SCH 40 SLEEVE
- POP-UP SHRUB HEAD (RAINBIRD 1812 VAN NOZZLES)
- POP-UP SHRUB HEAD (RAINBIRD 1812)
- PALM/TREE BUBBLER ON 3" RISER (OWN SYSTEM)
- POP-UP SHRUB HEAD (RAINBIRD 1812) (OWN SYSTEM)
- ELECTRIC REMOTE CONTROL VALVE (GRISWOLD)
- QUICK COUPLER

NOTES:

1. HEAD SPACING IN LESS THAN FULL-WIDTH MEDIAN AREAS ARE TO BE ADJUSTED TO PROVIDE COMPLETE COVERAGE WITHOUT OVERTHROWING ONTO CONC. OR A/G.
2. TYPE OF EQUIPMENT AND EXACT LOCATIONS ARE TO BE PER PUBLIC WORKS APPROVED PLANS.
3. EQUIPMENT OTHER THAN CROSS-OVERS SHOWN IN STREET SECTIONS ARE TO BE A MINIMUM OF 18" BEHIND CURB.

MEDIAN IRRIGATION LAYOUT
STREET SECTION OR MEDIAN TO MEDIAN

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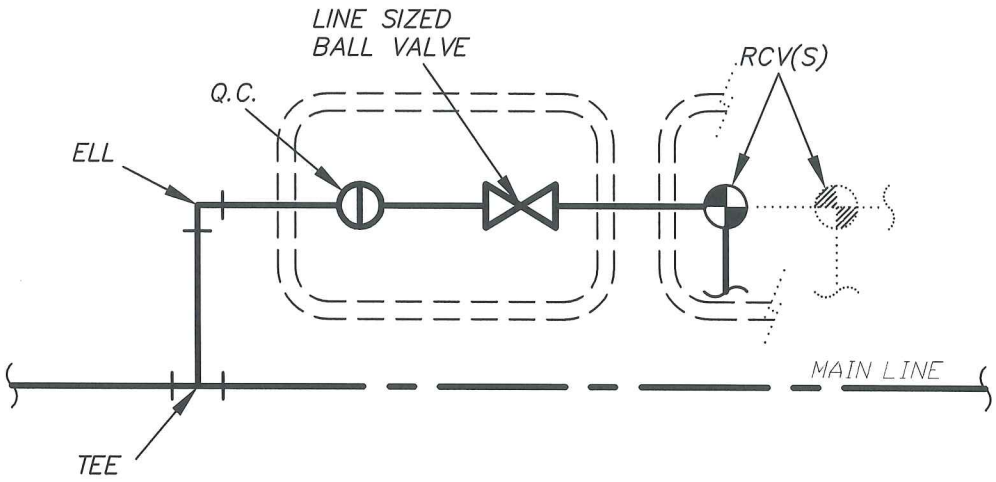
CITY OF HUNTINGTON BEACH

DEPARTMENT OF PUBLIC WORKS

2013

STANDARD PLAN **706**

1 OF 1



- NOTE: Q.C.
  QUICK COUPLER TO BE RAINBIRD #44 LRC
- NOTE:
  INSTALL QUICK COUPLER AND LINE SIZED
  BALL VALVE IN THE SAME VALVE BOX.
- RCV(S) TO BE GRISWOLD 2000 SERIES, EPOXY COATED.
- MAIN LINE TO BE:
  - SCHEDULE 40 FOR SIZES $1\frac{1}{2}$" AND SMALLER.
  - CLASS 315 FOR SIZES 2" AND LARGER.
- NOTE: ALL RCV'S, SINGLE OR MANIFOLDED SHALL
  HAVE THIS DETAIL APPLY.

QUICK COUPLER - VALVE MANIFOLD

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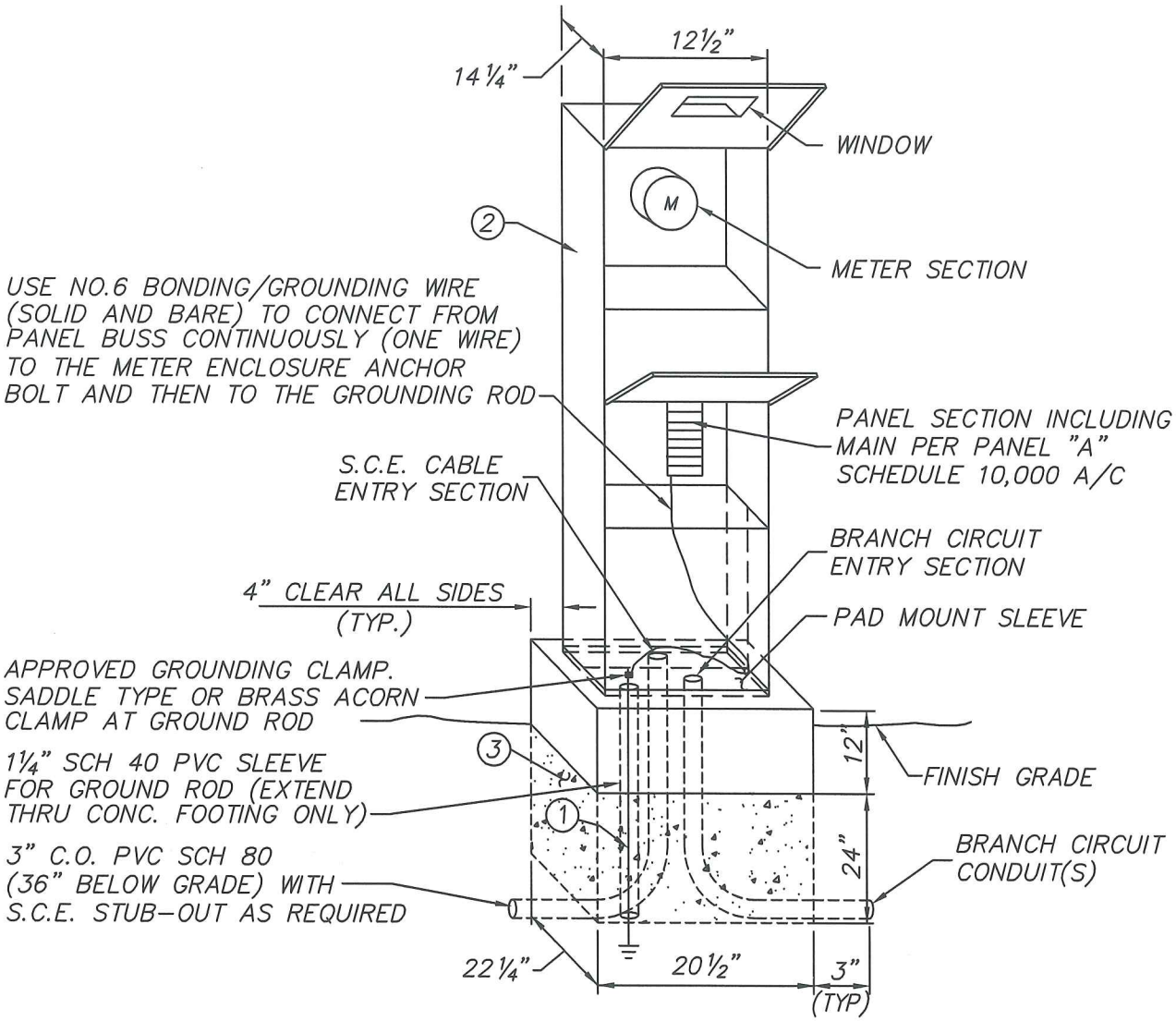
2013

STANDARD PLAN **707** 1 OF 1



NOTES:

(1) PROVIDE ¾"ø STAINLESS STEEL DRIVEN GROUND ROD WITH APPROVED GROUND CLAMP AT A MIN. OF 10' BELOW FINISH GRADE PER ART. 250.83 OF 2005 N.E.C. AND INSTALL PER CITY OF HUNTINGTON BEACH BUILDING INSPECTION REQUIREMENTS.

(2) MYERS METER PEDESTAL STAINLESS STEEL PAINTED MEUG16X-M100, 120 V, 1ø, 3W. METER PEDESTAL FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. PAINT WITH 2 COATS OF SINCLAIR "NEVADA" NO. 4840 BROWN ENAMEL.

(3) ELECTRICAL CONTRACTOR SHALL PROVIDE CONCRETE FOUNDATION (2800 PSI @ 28 DAYS) AS SHOWN AND PER REQUIREMENTS OF MYERS COMPANY. VERIFY EXACT SIZE OF FOUNDATION (LxW) WITH MYER'S PRIOR TO ROUGH-IN.

GENERAL NOTES:

1. METER PEDESTAL TO BE SECURELY ANCHORED TO CONCRETE FOUNDATION WITH APPROVED ANCHOR BOLTS AND PER MANUFACTURERS RECOMMENDATIONS. PEDESTAL SHALL HAVE A MINIMUM CLEARANCE OF 36" FROM ACCESS DOORS OR PANELS TO ANY FIXED OBJECT.

ELECTRIC METER PEDESTAL

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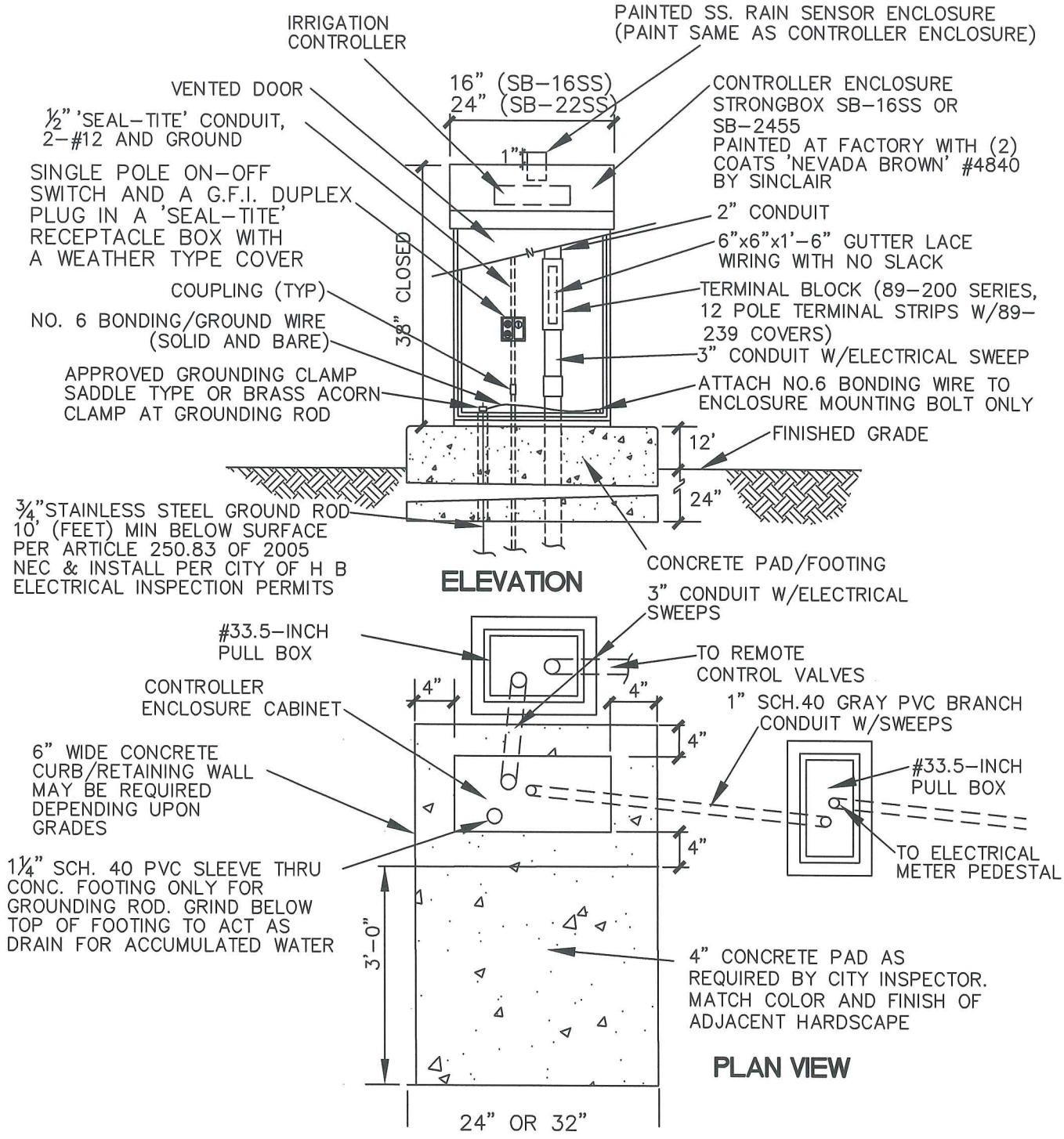
CITY OF HUNTINGTON BEACH

DEPARTMENT OF PUBLIC WORKS

2013

STANDARD PLAN **708**

1 OF 4



GENERAL NOTES:

1. REFER TO STANDARD PLAN 708, SHT 4 OF 4 FOR INSTALLATION/CONSTRUCTION SPECS

IRRIGATION CONTROLLER ENCLOSURE CABINET

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CITY ENGINEER

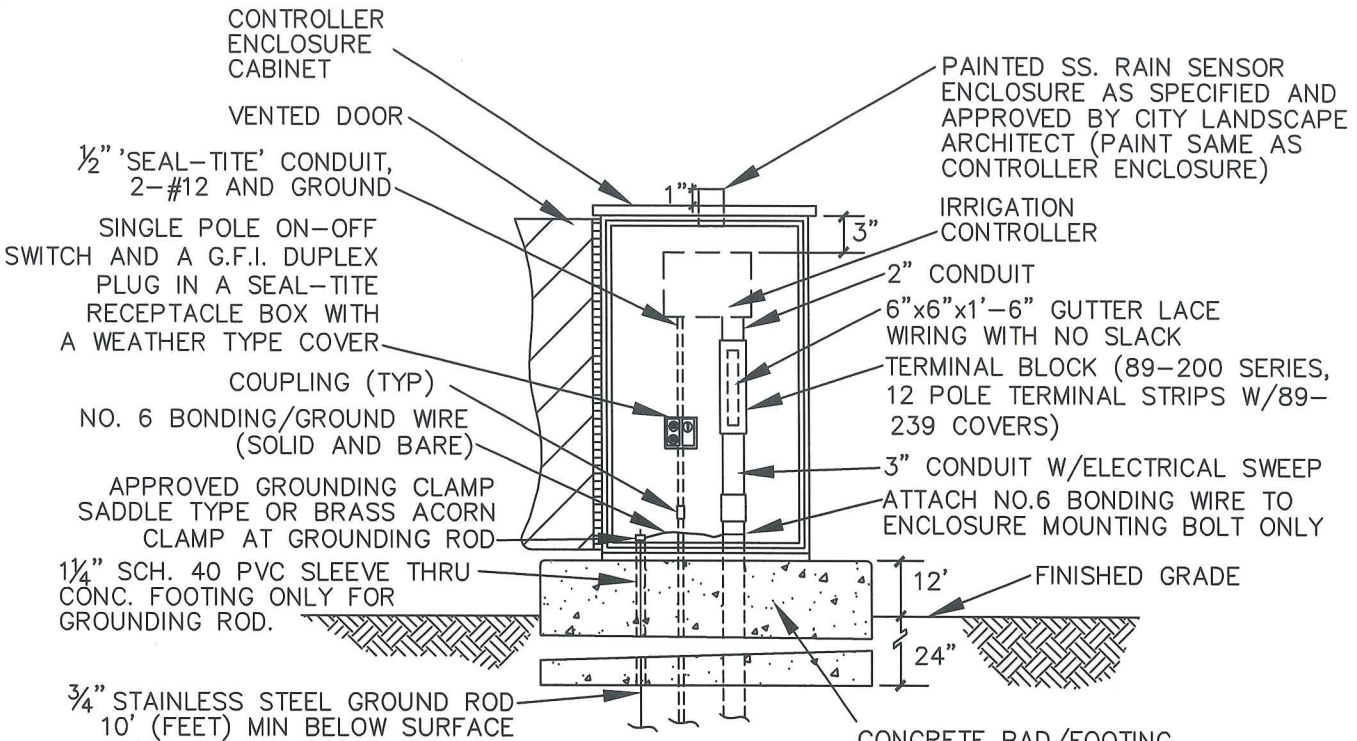
CITY OF HUNTINGTON BEACH

DEPARTMENT OF PUBLIC WORKS

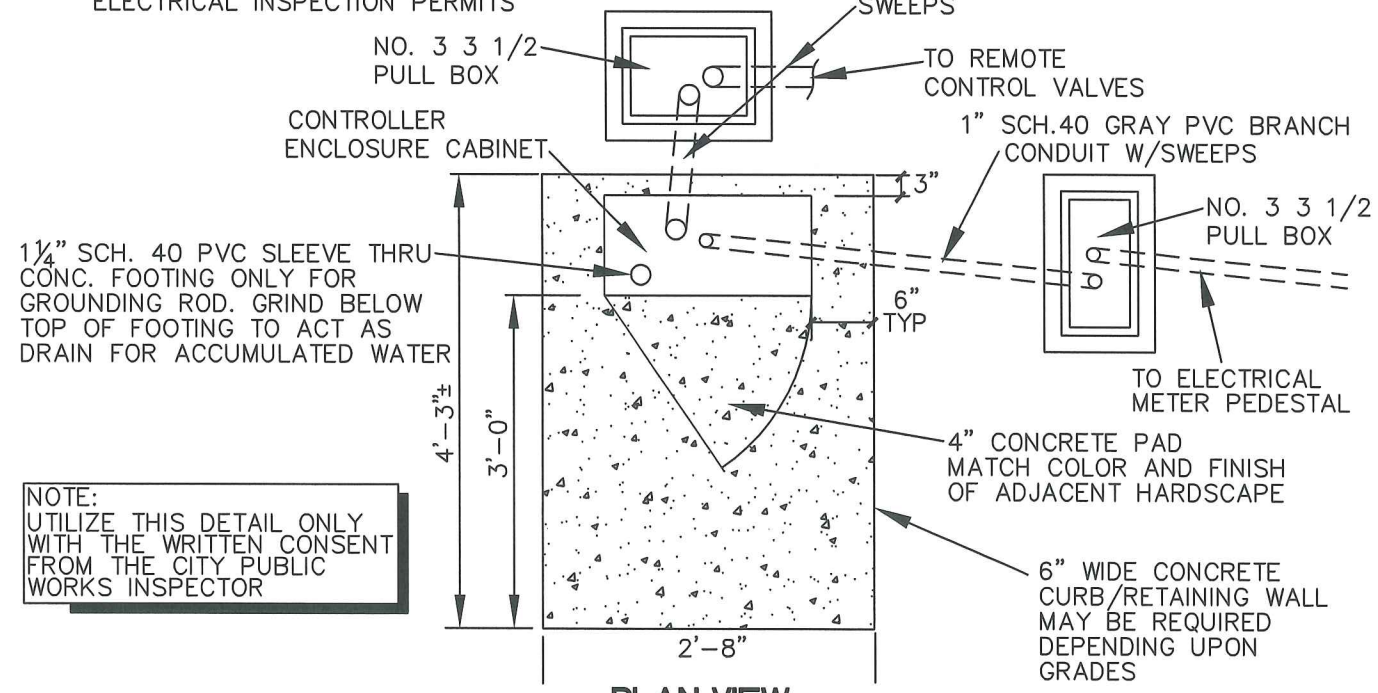
2013

STANDARD PLAN **708**

2 OF 4



ELEVATION



NOTE:
UTILIZE THIS DETAIL ONLY WITH THE WRITTEN CONSENT FROM THE CITY PUBLIC WORKS INSPECTOR

PLAN VIEW

GENERAL NOTES:

1. REFER TO STANDARD PLAN 708, SHT 4 OF 4 FOR INSTALLATION/CONSTRUCTION SPECS

IRRIGATION CONTROLLER ENCLOSURE CABINET

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CITY OF HUNTINGTON BEACH

DEPARTMENT OF PUBLIC WORKS

2013

STANDARD PLAN **708**

3 OF 4

INSTALLATION/CONSTRUCTION SPECIFICATIONS

1. ALL CONDUITS SHALL BE SCHEDULE 40, GRAY IN COLOR AND HAVE ELECTRICAL SWEEPS IN UNDERGROUND LOCATIONS. EXPOSED SWEEPS SHALL BE SCHEDULE 80, ALL NON-EXPOSED SHALL BE SCHEDULE 40, SUBJECT TO THE DISCRETION OF THE PUBLIC WORKS INSPECTOR.
2. "DUCT-SEAL" SHALL BE UTILIZED ON EITHER END OF ALL CONDUITS AND 'J' BOXES.
3. THE INSTALLATION OF 120 VOLT AND GREATER ELECTRICAL SYSTEMS SHALL BE BY AN EDISON APPROVED CONTRACTOR OR APPROVED EQUAL BY THE CITY UTILITY INSPECTOR.
4. THE FOUNDATION SHALL BE OF CONCRETE RATED 520-C-2500 TYPE V CONCRETE.
5. THE SIDE CORNERS OF THE PEDESTAL SHALL BE BEVELED AT A 45 ANGLE.
6. LOCATE A 1¼" SCHEDULE 40 PVC SLEEVE ON THE SERVICE PANEL SIDE OF THE CABINET (EDISON METER SIDE) FOR THE STAINLESS STEEL GROUND ROD. CUT THE TOP OF THE CONDUIT SLEEVE FLUSH WITH THE TOP OF THE FOUNDATION SO THE CONDUIT MAY BE UTILIZED FOR AN INSIDE CABINET DRAIN.
7. UTILIZE 3" CONDUIT FROM EDISON SERVICE TO METER BOX.
8. ALL CONDUIT ENDS SHALL HAVE BUSHINGS.
9. ALL BONDING/GROUNDING SHALL BE WITH #6 AWG SOLID & BARE GROUND WIRE.
10. DUPLEX RECEPTACLE OR GANG BOXES SHALL BE SEAL-TIGHT AND CONDUIT FLEX MATERIAL SHALL BE SEAL-TIGHT.
11. CONCRETE CURBS SHALL BE PROVIDED WHERE SLOPE CONDITIONS OCCUR, SUBJECT TO INSPECTOR'S INTERPRETATION TO KEEP CONCRETE PADS FROM EROSION IMPACTS. REFER TO STANDARD PLAN 422 FOR APPLICATIONS. RE: PULL BOXES.
12. ALL WORK SHALL BE IN COMPLIANCE WITH THE CURRENT/LATEST N.E.C.
13. ALL SERVICE FEED CONDUCTORS FROM THE EDISON HANDHOLD SHALL BE A NO. 2 AWG TO THE METER PEDESTAL.
14. CHANGES OR MODIFICATIONS TO THESE STANDARDS ARE SUBJECT TO THE DISCRETION OF THE INSPECTOR.
15. PROVIDE A 50 AMP (MIN.) MAIN BREAKER WITH A 15 AMP BRANCH BREAKER FOR EACH CONTROLLER AND ANOTHER BRANCH BREAKER FOR PUMPS, FOR LIGHTING, ETC.

ELECTRIC CONTROLLER/METER ENCLOSURE SPEC'S

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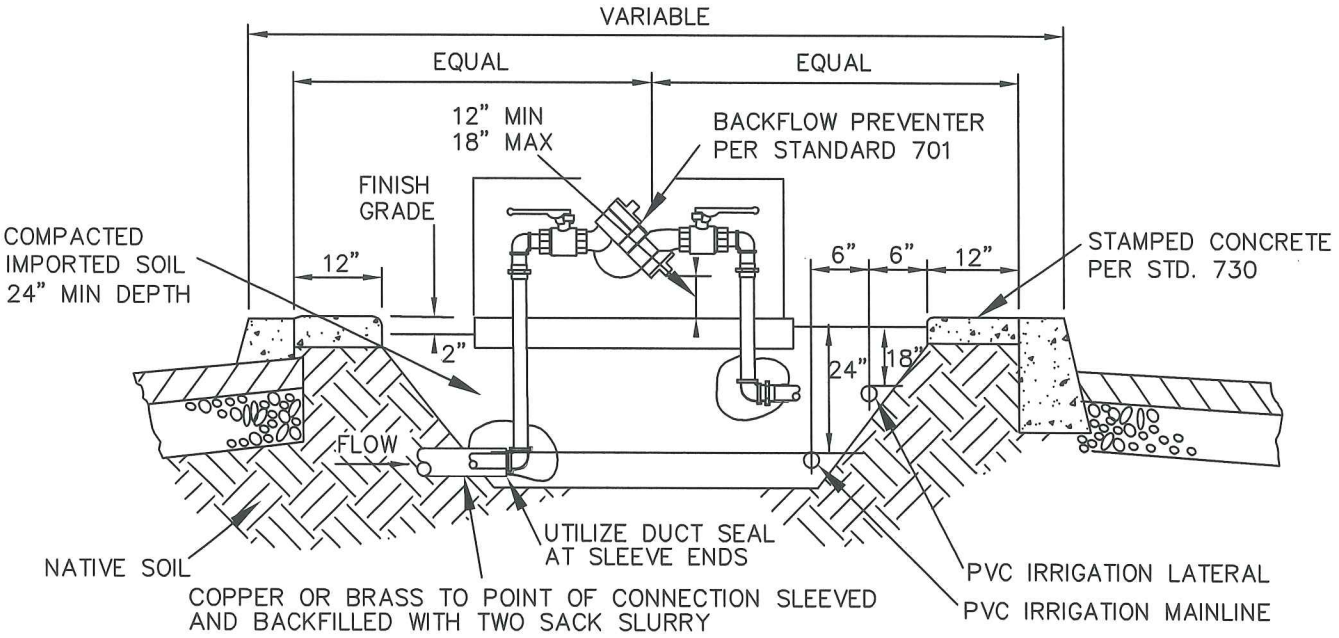
STANDARD PLAN 708
4 OF 4

NOTE
LOCATE BACKFLOW UNIT IN MEDIAN ONLY
WITH WRITTEN APPROVAL FROM THE
CITY ENGINEER



GENERAL NOTES

- ALL PIPE AND FITTINGS SHALL BE PER CITY APPROVED PLANS AND SPECIFICATIONS
- CONTROL WIRES SHALL BE AT SAME DEPTH AS ADJACENT MAINLINE
- ALL PIPE, SLEEVES AND CONDUITS IN STATE RIGHT-OF-WAY SHALL BE INSTALLED PER CALTRANS REQUIREMENTS.

MEDIAN PROFILE - TYPE 1 AND 2

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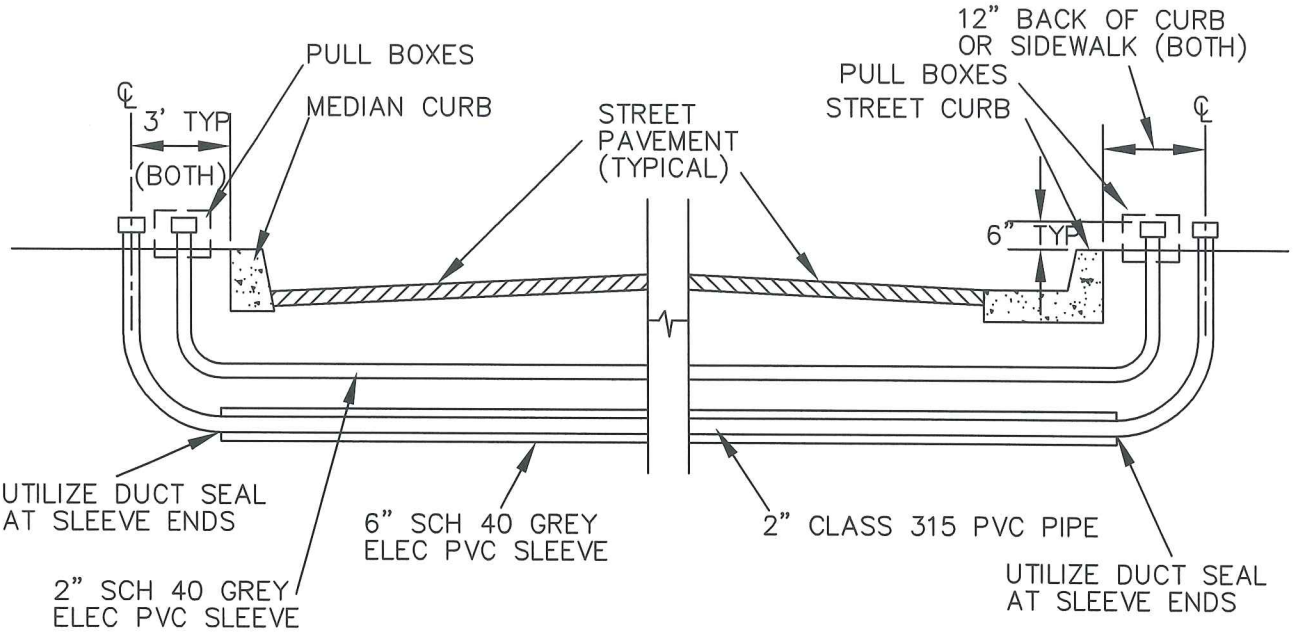
CITY OF HUNTINGTON BEACH
DEPARTMENT OF PUBLIC WORKS
2013

STANDARD PLAN
709
1 OF 1



1 PIPE CONDUIT SHALL BE A MINIMUM OF 30 INCHES BELOW PAVEMENT AND A MAXIMUM DEPTH OF 42 INCHES, UNLESS OTHERWISE NOTED.

2 PIPE AND CONDUIT ENDS SHALL BE SEALED WITH SOLVENT WELDED PVC CAPS

3 ALL PIPE AND CONDUIT BENDS SHALL BE MANUFACTURED SWEEP ELLS WITH A MINIMUM 24 INCH RADIUS.

4 CONDUITS SHALL CONTAIN ONE #14 PULL WIRE CONTINUOUS FROM CONDUIT CUT END TO CUT END.

5 CONDUIT AND PIPE SHALL BE LAID IN THE SAME TRENCH AND SHALL BE DUCT-TAPED TOGETHER AT BOTH ENDS ONE FOOT BELOW GRADE.

6 CONDUIT AND PIPE UNDER STATE HIGHWAYS SHALL BE INSTALLED PER CALTRANS STANDARDS AND SPECIFICATIONS.

7 PIPE AND CONDUITS SHALL BE CONNECTED WITH SOLVENT WELDED SCHEDULE 40 PVC FITTINGS.

8 RISERS SHOWN IN PAVEMENT AREAS SHALL BE CAPPED 12 INCHES BELOW PAVEMENT.

9 PIPE SLEEVES UNDER STAMPED CONCRETE MAY BE 4 INCH DIAMETER AT LATERAL LINES (18 INCHES DEEP) AND 4 INCH DIAMETER AT MAIN LINES (24 INCHES DEEP).

10 UTILIZE DUCT SEAL TO CLOSE ENDS OF CONDUIT WITH OR WITHOUT PIPING.

IRRIGATION CROSSOVER

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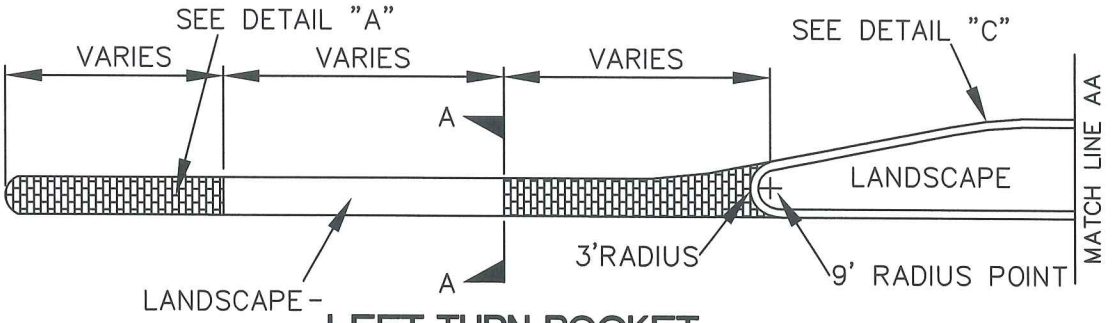
DEPARTMENT OF PUBLIC WORKS

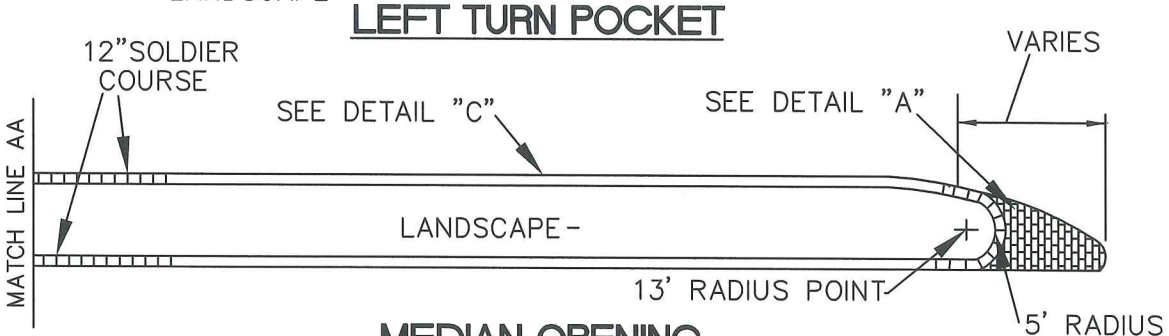
2013

STANDARD PLAN 710

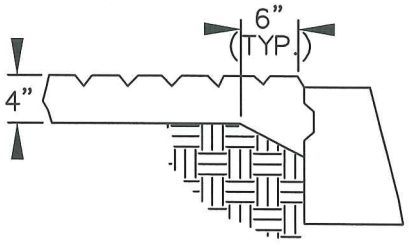
1 OF 1



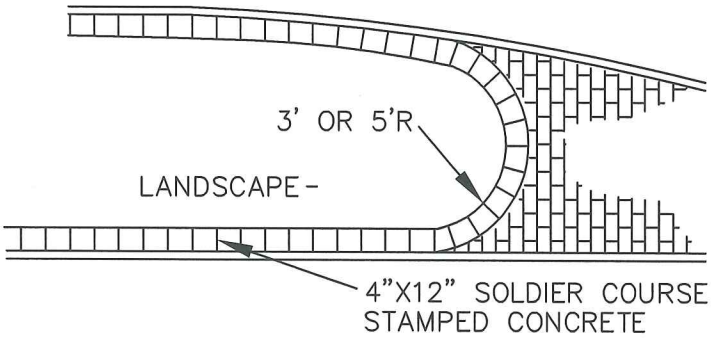
LEFT TURN POCKET



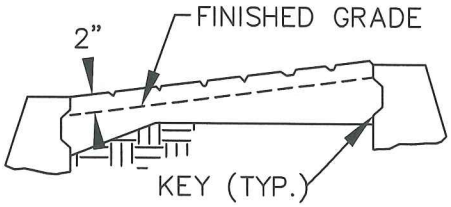
MEDIAN OPENING



DETAIL "A"



DETAIL "C"



SECTION A-A

GENERAL NOTES:

1. SEE STANDARD PLAN 711, SHEET 2 OF 2, FOR SPECIFICATIONS.
2. RADIUS POINT DIMENSIONS ARE FROM CURB FACE.
3. STAMPED CONCRETE TO BE PLACED ON NATIVE OR 90% COMPACTED BACKFILL SOIL.

STAMPED CONCRETE

APPROVED:

CITY ENGINEER

CITY OF HUNTINGTON BEACH
DEPARTMENT OF PUBLIC WORKS
2013

STANDARD PLAN **711**
1 OF 2

SPECIFICATIONS FOR STAMPED CONCRETE INSTALLATION:

1. STAMPED CONCRETE INSTALLATION SHALL CONFORM TO SECTION 303-6 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1988 EDITION OF THESE SPECIFICATIONS.

2. THE USE OF A SIX (6) SACK PEA GRAVEL MIX IS ACCEPTABLE FOR PUMPING CONCRETE TO MEDIANS.

3. COLOR – CONTACT THE CITY OF HUNTINGTON BEACH PUBLIC WORKS INSPECTOR AT (714) 536-5431 FOR SPECIFIC COLOR APPLICATIONS GENERALLY DESCRIBED AS:
   A. "DARK RED" (A-27) COLOR AS MANUFACTURED BY L.M. SCOFIELD CO, ON NEW INSTALLATIONS, OR,
   B. "BRICK RED" (A-26) COLOR AS MANUFACTURED BY L.M. SCOFIELD CO. WHEN MATCHING EXISTING STAMPED CONCRETE.

   IN BOTH INSTANCES THE COLOR SHALL BE APPLIED PER SECTION 303-6.3.1 (DRY SHAKE) METHOD "A" OF THE STANDARD SPECIFICATIONS.

4. THE PATTERN SHALL BE "RUNNING BOND COBBLESTONE" AS DESIGNATED BY THE BOMANITE CORPORATION AND AS DETAILED ON STANDARD PLAN 711, SHEET 1 OF 2. USE DETAIL "B" FOR CROSSWALK AREAS ONLY.

5. COLORED CONCRETE SHALL BE CURED WITH LITHOCHROME COLORWAX OF THE MATCHING COLOR AS DESIGNATED BY L. M. SCOFIELD COMPANY.

6. THE PRICE BID FOR STAMPED CONCRETE SHALL BE CONSIDERED TO INCLUDE FULL PAYMENT FOR ALL MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS REQUIRED TO INSTALL STAMPED CONCRETE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

STAMPED CONCRETE SPECIFICATIONS

APPROVED:

CITY ENGINEER

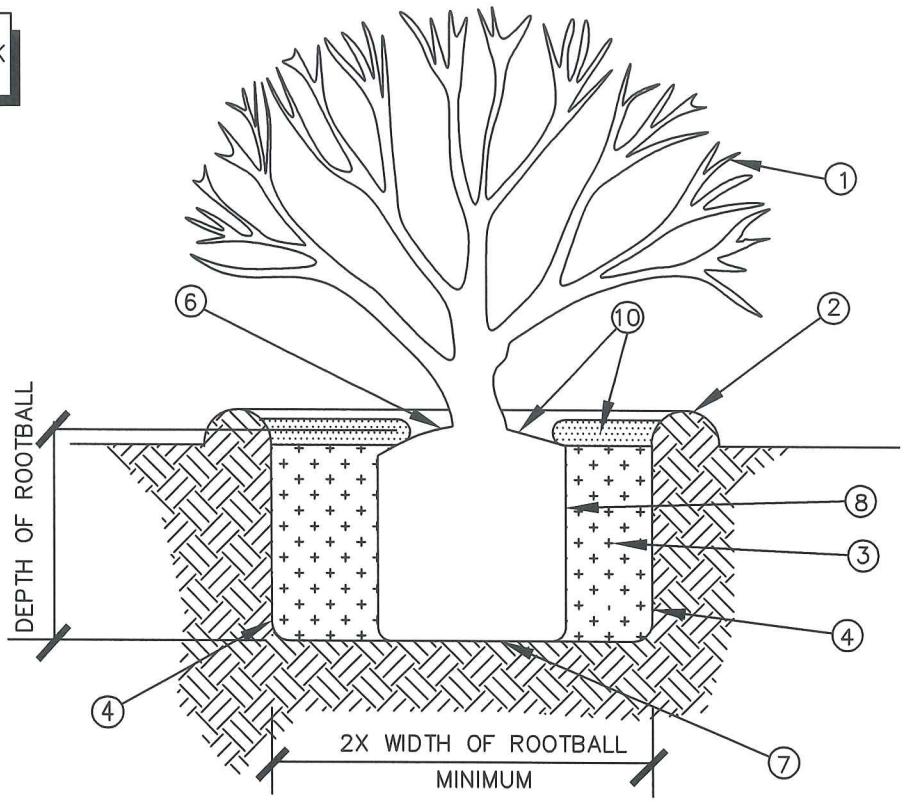
CITY OF HUNTINGTON BEACH
DEPARTMENT OF PUBLIC WORKS
2013

STANDARD PLAN 711
2 OF 2

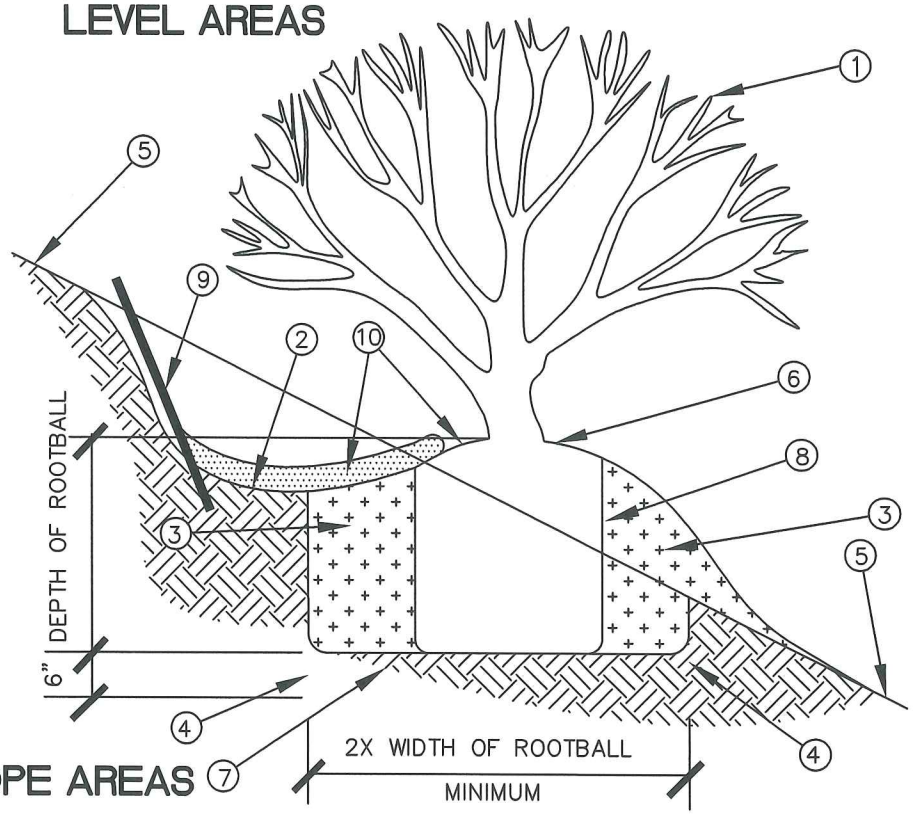
ALL PLANTINGS MUST FOLLOW ANSI A300 PART 6, GREEN BOOK REFERENCE SECTION 308.

① 1, 5, 15, OR BOXED SHRUB OR TREES.
② WATER BASIN 5" MINIMUM DEPTH BEHIND OR AROUND TREEWELL/WATER BASIN SHRUB OR TREE.
③ BACKFILL PER CITY OF HUNTINGTON BEACH LANDSCAPE SPECIFICATIONS, SEE STANDARD 714.
④ SCARIFY SIDES AND BOTTOM OF PLANTING PIT.
⑤ EXISTING 2:1 MAXIMUM SLOPE.
⑥ SET TRUNK FLARE HEIGHT TO ¾" ABOVE FINISH GRADE.
⑦ UNDISTURBED NATIVE SOIL
⑧ LIGHTLY SCARIFY AND CUT ROOTS ALONG ROOTBALL.
⑨ SLOUGH WALL AND MATERIAL APPROVED BY THE CITY OF HB
⑩ 3" THICK WOOD CHIP MULCH (PER APPROVED PLANS) (NOT AROUND TRUNK FLARE)

NOTE: PRIOR TO PLANT OR TREE PLACEMENT, FILL ALL PITS WITH WATER AND ALLOW TO PERCOLATE INTO THE SUBGRADE. PLANT AND BACKFILL MUST BE THOROUGHLY WATERED IN DIRECTLY UPON INITIAL PLANTING. ALL PLANTS & TREES SHALL BE GRADE "A" NO. 1 NURSERY STOCK AND SHALL HAVE PLANT TAGS (LABELS) IDENTIFYING GENUS, SPECIES AND CULTIVARS OF EACH.



LEVEL AREAS



SLOPE AREAS ⑦

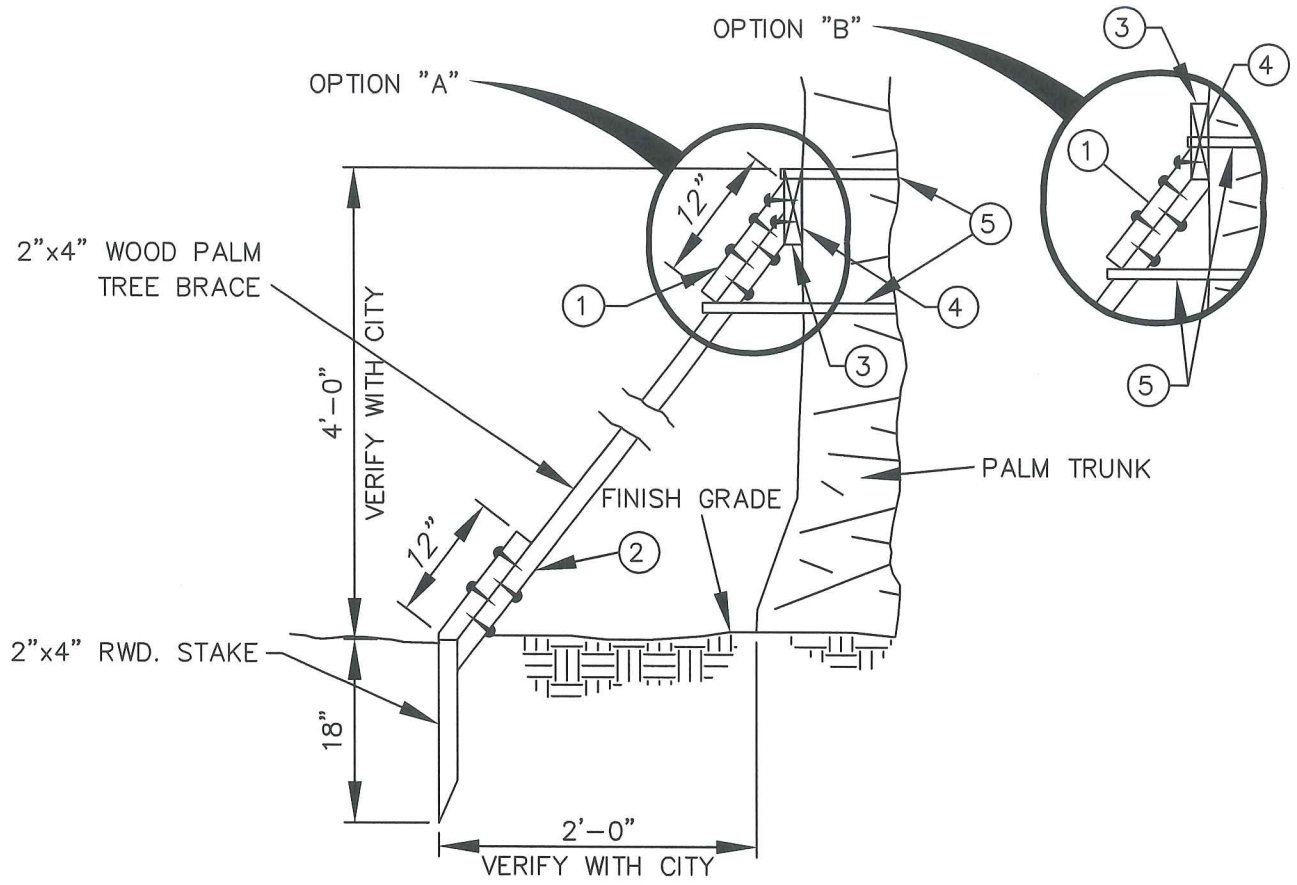
SHRUB PLANTING

APPROVED:

CITY ENGINEER

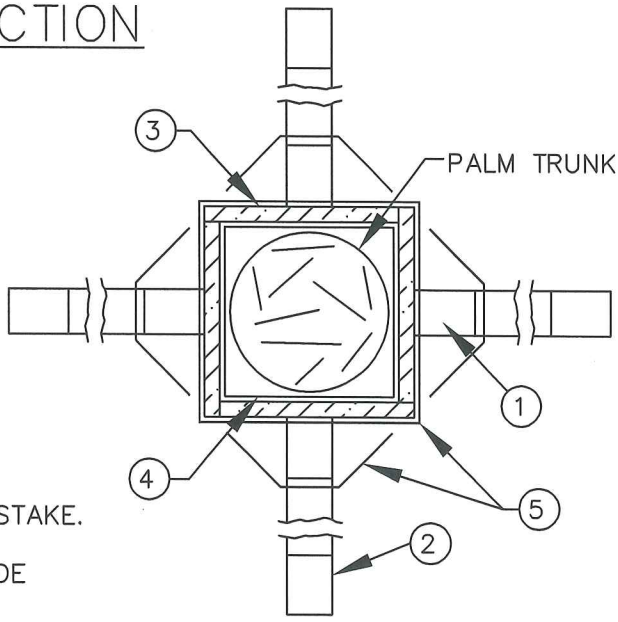
CITY OF HUNTINGTON BEACH
DEPARTMENT OF PUBLIC WORKS
2013

STANDARD PLAN 712
1 OF 1



SECTION

ALL PLANTINGS MUST FOLLOW ANSI A300 PART 6, GREEN BOOK REFERENCE SECTION 308.



PLAN VIEW

NOTES:

1. 2"X4" WOOD BLOCK, NAIL TO FRAME.
2. 2"X4" WOOD BLOCK, NAIL TO BRACE & STAKE.
3. 2"X8" WOOD FRAME WITH CARPET ON SIDE FACING PALM.
4. CARPET CUSHION: STAPLE TO INSIDE OF FRAME.
5. STEEL TREE BOX BANDING STRAP (2 BANDS).

PALM QUAD POD

APPROVED:

CITY ENGINEER

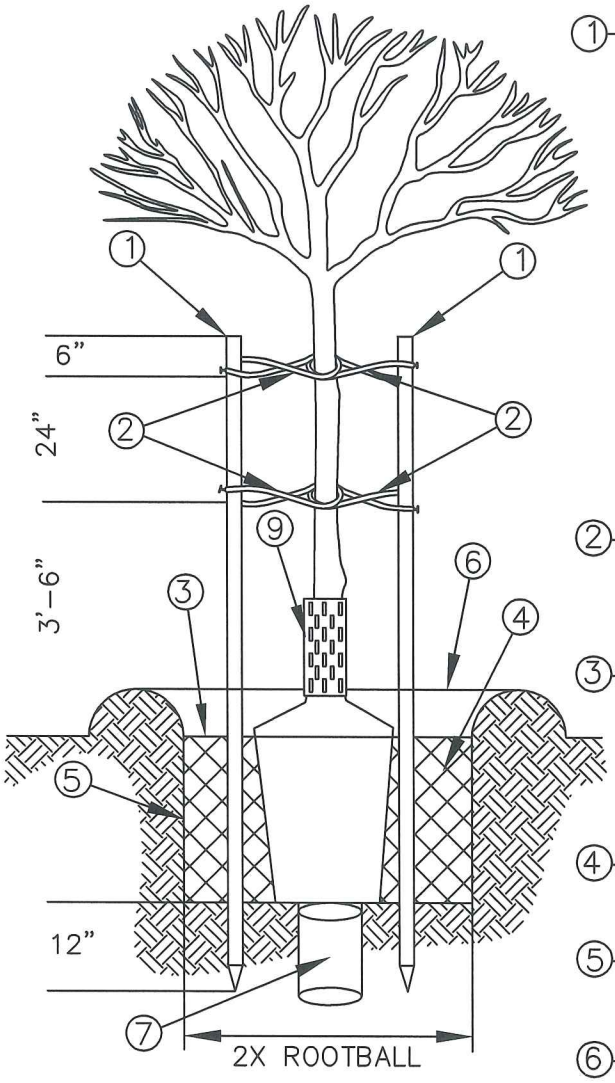
CITY OF HUNTINGTON BEACH

DEPARTMENT OF PUBLIC WORKS

2013

STANDARD PLAN **713**

1 OF 1



CALL THE CITY OF HB PUBLIC WORKS INSPECTOR AT (714) 536-5431 FOR TREE SPECIES, SIZE, SPACING, NURSERY SOURCES AND/OR FIELD ADJUSTMENTS BEFORE PLANTING.

ALL PLANTINGS MUST FOLLOW ANSI A300 PART 6, GREEN BOOK REFERENCE SECTION 308.

① STAKES 2" DIAMETER LODGE POLE PINE (2) EACH. COPPER NAPTHANATE TREATED AND DRIVEN 12" BELOW THE BOTTOM OF PLANT HOLE. STAKES TO BE DRIVEN INTO THE GROUND WITH A STAKE POUNDER OR A METHOD APPROVED BY THE PUBLIC WORKS INSPECTOR. (USE OF SLEDGE HAMMERS, HAMMERS OR AUGURING TOOLS WILL NOT BE PERMITTED). STAKES ARE TO BE PLUMB. ADJUST STAKE LENGTH PER TREE VARIETY OR AS DIRECTED BY THE PUBLIC WORKS INSPECTOR. STAKES ARE TO BE PARALLEL WITH THE ROADWAY. A THIRD STAKE AND TWO EXTRA
TIES MAY BE REQUIRED IN SPECIAL CONDITIONS.

② TIES 32" LONG (MIN) 'CINCH TIES' (4EA PER TREE). ATTACH WITH 4D GALVANIZED ROOFING NAILS BENT OVER BACK OF STAKES (ONE NAIL PER CINCH TIE). PRE DRILL ALL HOLES.

③ TREE PLANTING PLANT HOLE SIZE TO BE A MINIMUM OF (2) TIMES LARGER THAN THE CONTAINER. DUST ENTIRE HOLE WITH GYPSUM BEFORE BACKFILLING. PLANT THE TREE WITH BOTTOM OF TRUNK FLARE ¾" ABOVE FINISH SOIL GRADE.

④ BACKFILL 2 PARTS CLASS A TOPSOIL TO BE THOROUGHLY MIXED WITH (1) PART NITROLIZED SAWDUST CERTIFIED WEED FREE.

⑤ ROOTBARRIER FOR TREES WITHIN 6' OF HARDSCAPE OR LOW WALLS, SEE STD PLAN 718 (LINEAR ROOT BARRIER).

⑥ WATER BASIN 3" HIGH WATER BASIN IN GROUNDCOVER AREAS. IN LAWN AREAS USE A 24" DIAMETER OF 3" SHREDDED BARK (NO BASIN).

⑦ SUMP SEE STD PLAN 716 (TREE/PALM SUMP) OR 716A.

⑧ TREES IN LAWN AREAS SHALL HAVE A 36" DIA. AREA CLEAR OF LAWN, CENTERED AROUND THE TREE TRUNK, AND MULCHED WITH 3" OF "MEDIUM GRIND MULCH" FROM RECYCLED WOOD PRODUCTS OR EQUAL.

⑨ TRUNK PROTECTOR INSTALL STRING TRIMMER PROTECTOR SUCH AS ARBORGARD OR APPROVED EQUAL.

TREE PLANTING AND STAKING

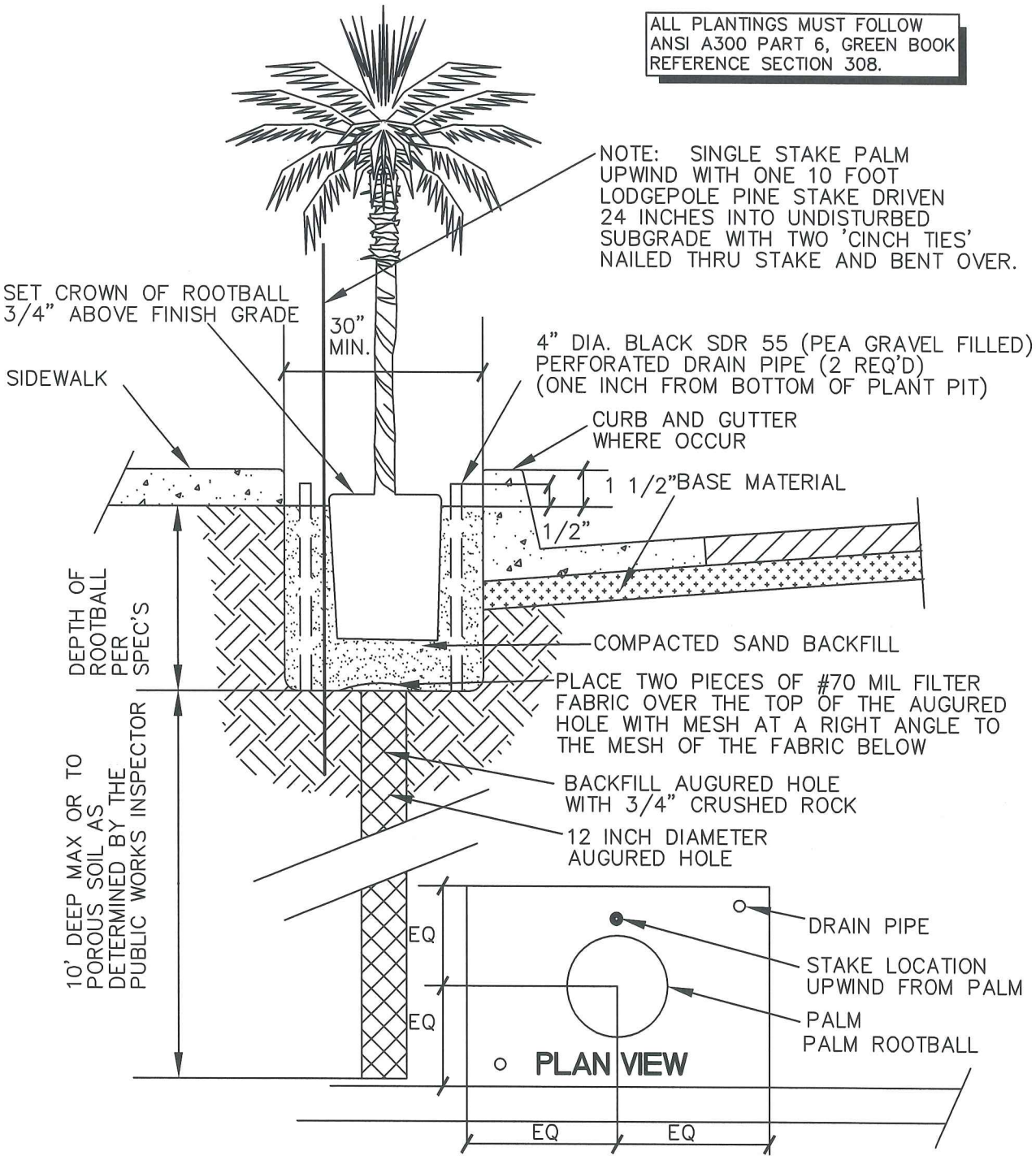
APPROVED:

CITY ENGINEER

CITY OF HUNTINGTON BEACH
DEPARTMENT OF PUBLIC WORKS
2013

STANDARD PLAN 714
1 OF 1

ALL PLANTINGS MUST FOLLOW ANSI A300 PART 6, GREEN BOOK REFERENCE SECTION 308.



- NOTE: AUGER THE HOLE TO THE MAXIMUM DEPTH OF 10 FEET UNLESS GROUNDWATER OR A POROUS MATERIAL IS ENCOUNTERED AND APPROVED AS POROUS BY THE PUBLIC WORKS INSPECTOR
- NOTE: REFER TO SPEC'S ON STANDARD PLAN 715, 3 OF 3

ARTERIAL PALMWELL PLANTING

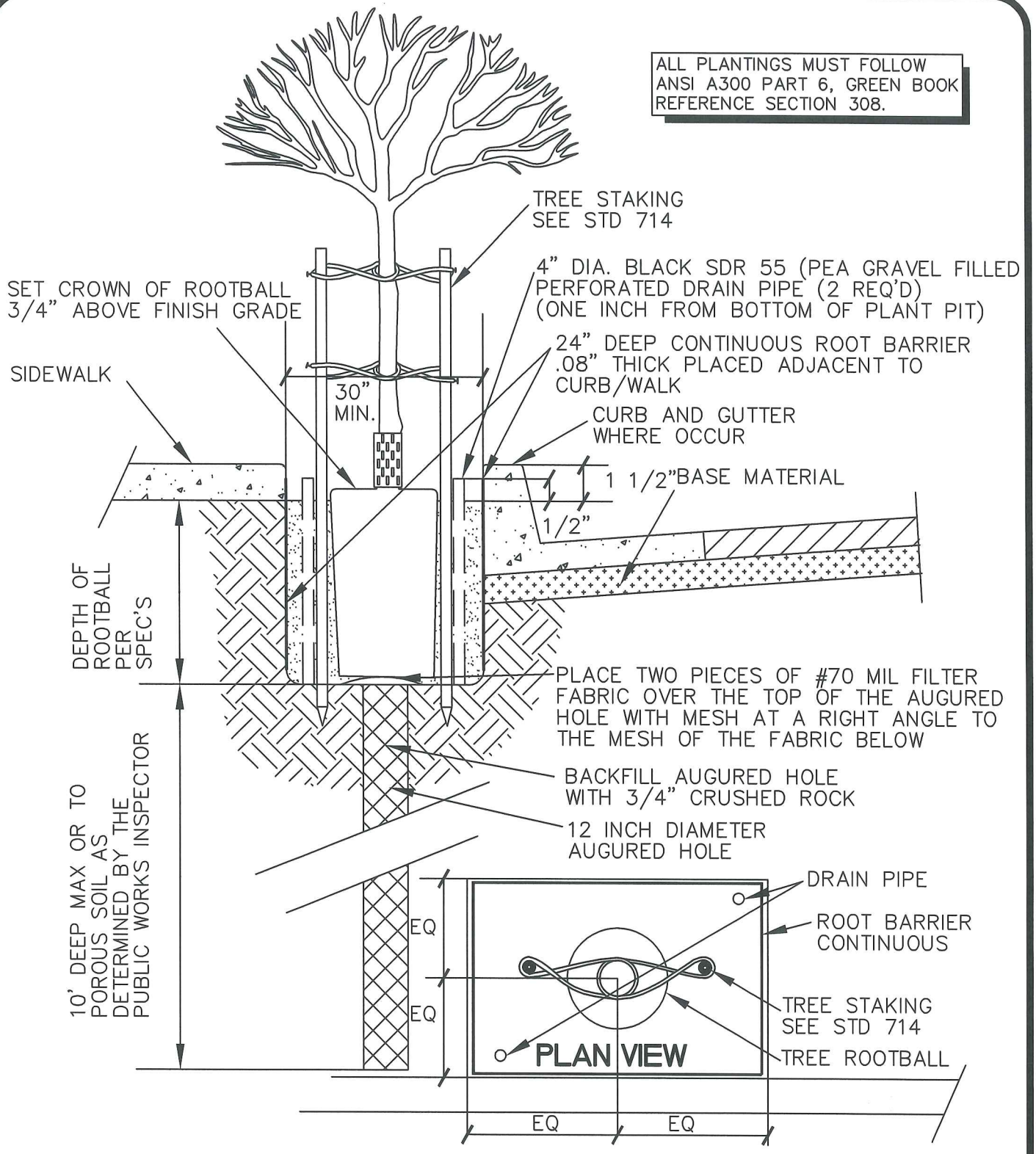
APPROVED:

CITY ENGINEER

CITY OF HUNTINGTON BEACH
DEPARTMENT OF PUBLIC WORKS
2013

STANDARD PLAN 715
1 OF 4

ALL PLANTINGS MUST FOLLOW ANSI A300 PART 6, GREEN BOOK REFERENCE SECTION 308.



- NOTE: AUGER THE HOLE TO THE MAXIMUM DEPTH OF 10 FEET UNLESS GROUNDWATER OR A POROUS MATERIAL IS ENCOUNTERED AND APPROVED AS POROUS BY THE PUBLIC WORKS INSPECTOR
- NOTE: REFER TO SPEC'S ON STANDARD PLAN 715, 3 OF 3

ARTERIAL TREEWELL PLANTING

APPROVED:

CITY ENGINEER

CITY OF HUNTINGTON BEACH

DEPARTMENT OF PUBLIC WORKS

2013

STANDARD PLAN 715

2 OF 4

PLANTING SPECIFICATIONS

1. PRIOR TO EXCAVATING OR BORING, NOTIFY DIG ALERT TO FIELD MARK EXISTING UTILITIES. PROTECT IN PLACE. IF FIELD CONFLICT EXISTS, NOTIFY THE PUBLIC WORKS INSPECTOR. PROCEED WITH WORK ONLY AFTER NEW DIRECTIONS HAVE BEEN GIVEN BY THE PUBLIC WORKS INSPECTOR.

2. EXCAVATE PLANT HOLE TO SIZE AND DEPTH SHOWN.

3. EXCAVATE AND CONSTRUCT DRAINAGE SUMP PER 'TREE/PALM SUMP' STANDARD PLAN NO. 716.

4. CONNECT EACH 2' LONG X 2' WIDE PIECE OF 'DEEP ROOT' ROOT BARRIER PANELING TO ANOTHER 2' LONG X 2' WIDE PIECE WITH THE MANUFACTURERS JOINER STRIP TO FORM ONE CONTINUOUS 10' LENGTH. BEND 10 ' LENGTH OF ROOT BARRIER TOGETHER INTO CONFIGURATION AS SHOWN AROUND ROOTBALL AND CONNECT ENDS USING ANOTHER JOINER STRIP. DEEP ROOT BARRIER SHALL BE FLUSH WITH THE EDGE OF CONCRETE PAVING. DO NOT USE ROOT BARRIER WITH PALMS UNLESS DIRECTED BY THE PUBLIC WORKS INSPECTOR.

5. INSTALL 6" PERFORATED ABS PLASTIC SDR 35 DRAIN PIPE IN ALTERNATE CORNERS VERTICALLY AND FILL WITH 3/4" CRUSHED DRAIN ROCK. PERFORATIONS SHALL BE A MINIMUM OF 1/2" IN DIAMETER IN THREE LOCATIONS AROUND THE CIRCUMFERENCE.

6. FOR TREES, BACKFILL PLANT HOLE APPROXIMATELY 6" TO 12" DEEP WITH PREPARED BACKFILL AS SPECIFIED IN THE CITY OF HUNTINGTON BEACH LANDSCAPE SPECIFICATIONS. FILL THE REMAINDER OF THE HOLE WITH WATER TO SETTLE. FOR PALMS, BACKFILL WITH PURE CLEAN COARSE SAND. COMPACT SAND WITH A 'BUSHWACKER' AND WATER TO CREATE A SOLID BASE FOR THE PALM.

7. AFTER BACKFILL HAS SUFFICIENTLY SETTLED AND DRIED AS DIRECTED BY THE PUBLIC WORKS INSPECTOR, INSTALL THE TREE ROOTBALL WITH THE TOP LEVEL AND 1" ABOVE THE BOTTOM OF THE ADJACENT SIDEWALK. FOR PALMS, BACKFILL WITH CLEAN, COARSE SAND AND COMPACT WITH 'BUSHWACKER' AND WATER TO THE SATISFACTION OF THE PUBLIC WORKS INSPECTOR.

8. BACKFILL THE REMAINING TREE WELL VOIDS WITH SPECIFIED BACKFILL AND WATER TO SETTLE.

9. STAKE TREE PER STANDARD PLAN NO. 714. ALL PALMS IN MEDIAN ISLANDS AND PALMS WITH 10' OF BROWN TRUNK OR GREATER TO BE STAKE ANCHORED WITH PALM QUAD PODS PER STANDARD PLAN NO. 713. PALMS WITH LESS THAN 10' OF BROWN TRUCK AND NOT IN MEDIAN ISLANDS SHALL BE STAKED WITH A 10' LONG, 2" DIAMETER COPPER NAPHANATE TREATED LODGE POLE PINE STAKE, DRIVEN A MINIMUM OF 3' INTO THE GROUND AND 12" BELOW THE BOTTOM OF THE PLANT HOLE. TIE TO PALM WITH 'GRO-STRAIGHT' RUBBER TIRE TIES (24" TO 36" LONG) SIZE AS REQUIRED TO ENCIRCLE STAKE AND PALM LOOSELY. ATTACH TO STAKE WITH A 16D NAIL AND BEND NAIL ON BACK OF STAKE. INSTALL STRING TRIMMER PROTECTOR SUCH AS ARBORGARD OR APPROVED EQUAL.

ARTERIAL PALM/TREEWELL PLANTING SPECIFICATIONS

APPROVED:

CITY ENGINEER

CITY OF HUNTINGTON BEACH

DEPARTMENT OF PUBLIC WORKS

2013

STANDARD PLAN **715**

3 OF 4

PLANTING SPECIFICATIONS CONTINUED

⑩ AFTER BACKFILL HAS SUFFICIENTLY SETTLED AND DRIED, BRING BACKFILL TO GRADE SHOWN.

⑪ PRIOR TO DELIVERY, ALL TREES, INCLUDING PALMS, PLANTS, SHRUBS, ETC. SHALL BE APPROVED BY THE CITY.

NOTE: WHEN PLANTING TREES ON STATE HIGHWAYS REFER TO STATE DIVISION OF HIGHWAYS LANDSCAPING SPECIFICATIONS AS WELL AS CITY SPECIFICATIONS.

① ONE–HUNDRED (100) FEET BACK OF BEGINNING CURB RETURNS ON ARTERIAL HIGHWAYS AT APPROACHES TO OTHER ARTERIAL HIGHWAYS.

② TWENTY–FIVE (25) FEET BACK OF BEGINNING CURB RETURNS AT INTERSECTIONS.

③ FIFTEEN (15) FEET FROM LIGHT STANDARDS.

④ EIGHT (8) FEET FROM FIRE HYDRANTS.

⑤ EIGHT (8) FEET FROM SERVICE WALKS OR DRIVEWAYS.

⑥ SIX (6) FEET FROM WATER METERS. (IN THE INTEREST OF PUBLIC SAFETY OR WHEN THERE IS A VARIATION IN THE LOCATION OF TREES, AS DESCRIBED HEREIN, THE AFOREMENTIONED SPACING PROCEDURE SHALL BE CHECKED AND MAY BE MODIFIED BY THE PARK, TREE AND LANDSCAPE SUPERVISOR OR DESIGNEE.

ARTERIAL PALM/TREEWELL PLANTING SPECIFICATIONS

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CITY ENGINEER

CITY OF HUNTINGTON BEACH

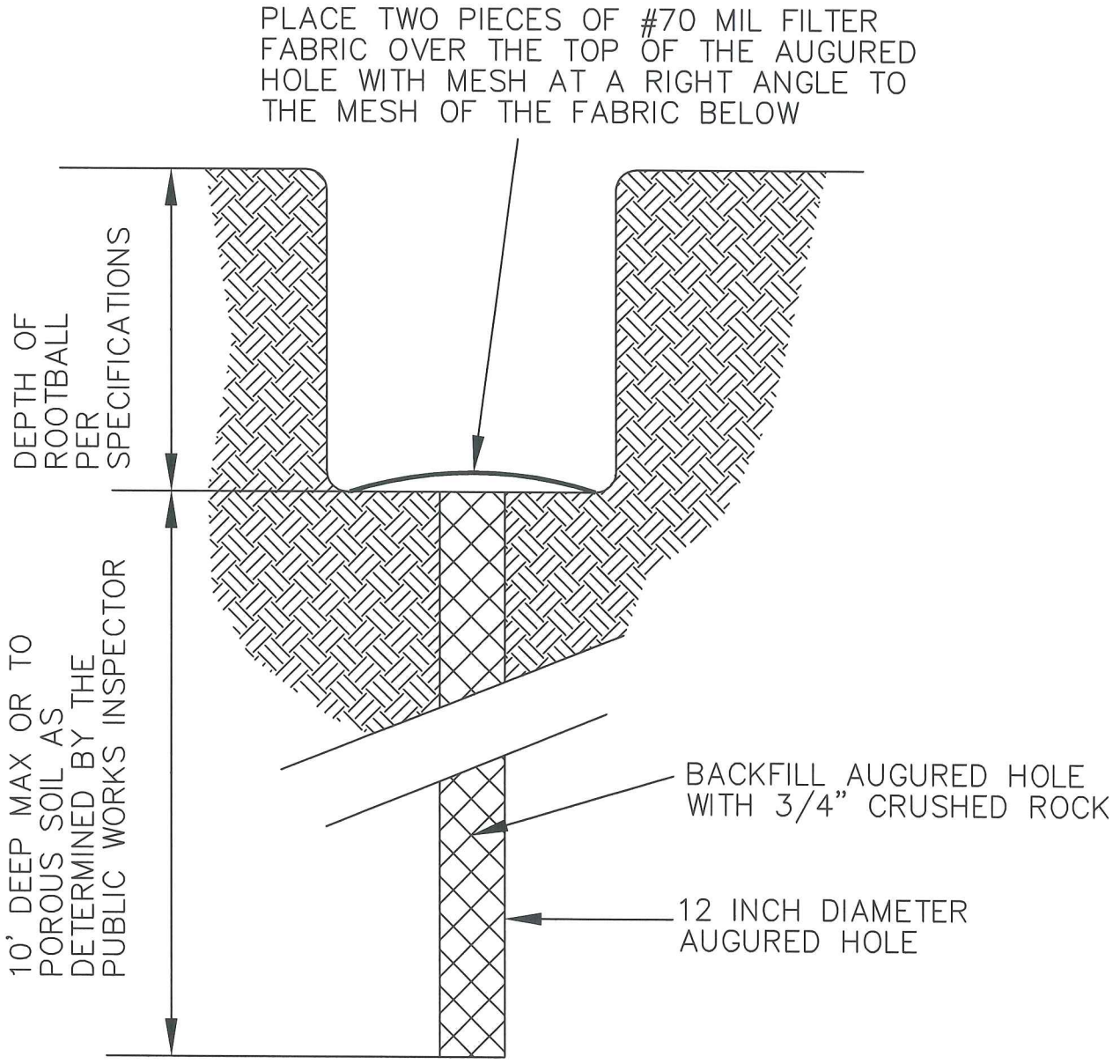
DEPARTMENT OF PUBLIC WORKS

2013

STANDARD PLAN 715

4 OF 4

ALL PLANTINGS MUST FOLLOW ANSI A300 PART 6, GREEN BOOK REFERENCE SECTION 308.



NOTE: AUGER THE HOLE TO THE MAXIMUM DEPTH OF 10 FEET UNLESS GROUNDWATER OR A POROUS MATERIAL IS ENCOUNTERED AND APPROVED AS POROUS BY THE PUBLIC WORKS INSPECTOR

TREE AND PALM SUMP

APPROVED:

CITY ENGINEER

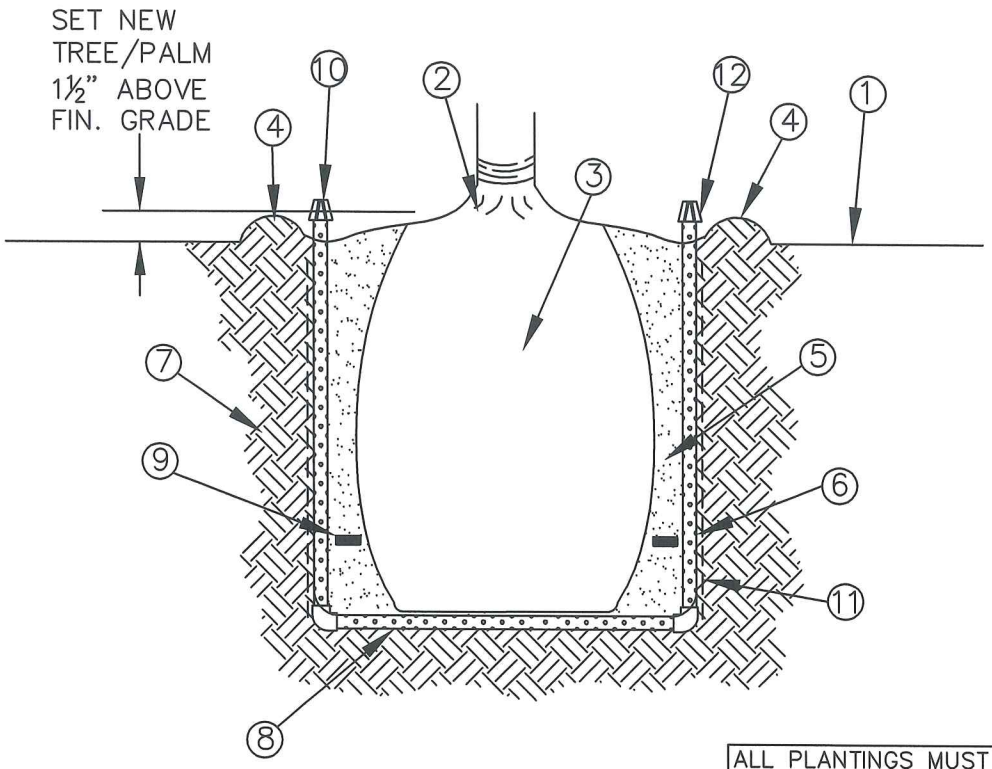
CITY OF HUNTINGTON BEACH

DEPARTMENT OF PUBLIC WORKS

2013

STANDARD PLAN **716**

1 OF 1



ALL PLANTINGS MUST FOLLOW ANSI A300 PART 6, GREEN BOOK REFERENCE SECTION 308.

① — FINISH GRADE IN PLANTING AREA

② — PALM/TREE TRUNK.

③ — PALM/TREE ROOTBALL.

④ — BERM TO FORM WATERING BASIN ON TOP PALM TREE ROOTBALL. REMOVE PRIOR TO THE END OF MAINTENANCE PERIOD.

⑤ — 100% SAND BACKFILL PER PLANTING PLANTING SPECIFICATIONS. FOR PALMS JET SAND OR BACKFILL WITH WATER TO PREVENT AIR POCKETS.

⑥ — 4" DIA. PERFORATED PIPE VERTICAL ON TWO SIDES OF PALM TREE ROOTBALL, WRAPPED WITH FILTER SOCK.

⑦ — NATIVE SOIL.

⑧ — 4" DIA. PERFORATED PIPE WRAPPED WITH A FILTER SOCK UNDER TREE ROOTBALL. NOTCH INTO BOTTOM OF EXCAVATED PIT SO THAT ROOT BALL WEIGHT WILL NOT BE ON PIPE.

⑨ — PALM FERTILIZER TABS–QUANTITY PER THE MANUFACTURER'S SPECS. PLACE TABS ON PALM ROOTBALL PRIOR TO PLANTING FOR REVIEW BY THE PUBLIC WORKS INSPECTOR

⑩ — INSTALL ATRIUM GRATE (NDS 75) ON TOP OF VERTICAL PIPES (TWO PLACES) IN PLANTING AREA.

⑪ — SIDES OF PLANTING PIT SHALL BE MADE ROUGH.

⑫ — EXTEND FILTER SOCK BEYOND TOP OF PIPE, TIE KNOT, PUSH KNOT INTO INTO PIPE. LOCK IN PLACE WITH ATRIUM GRATE.

TREE AND PALM "U" DRAIN / SUMP ALTERNATIVE

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CITY ENGINEER

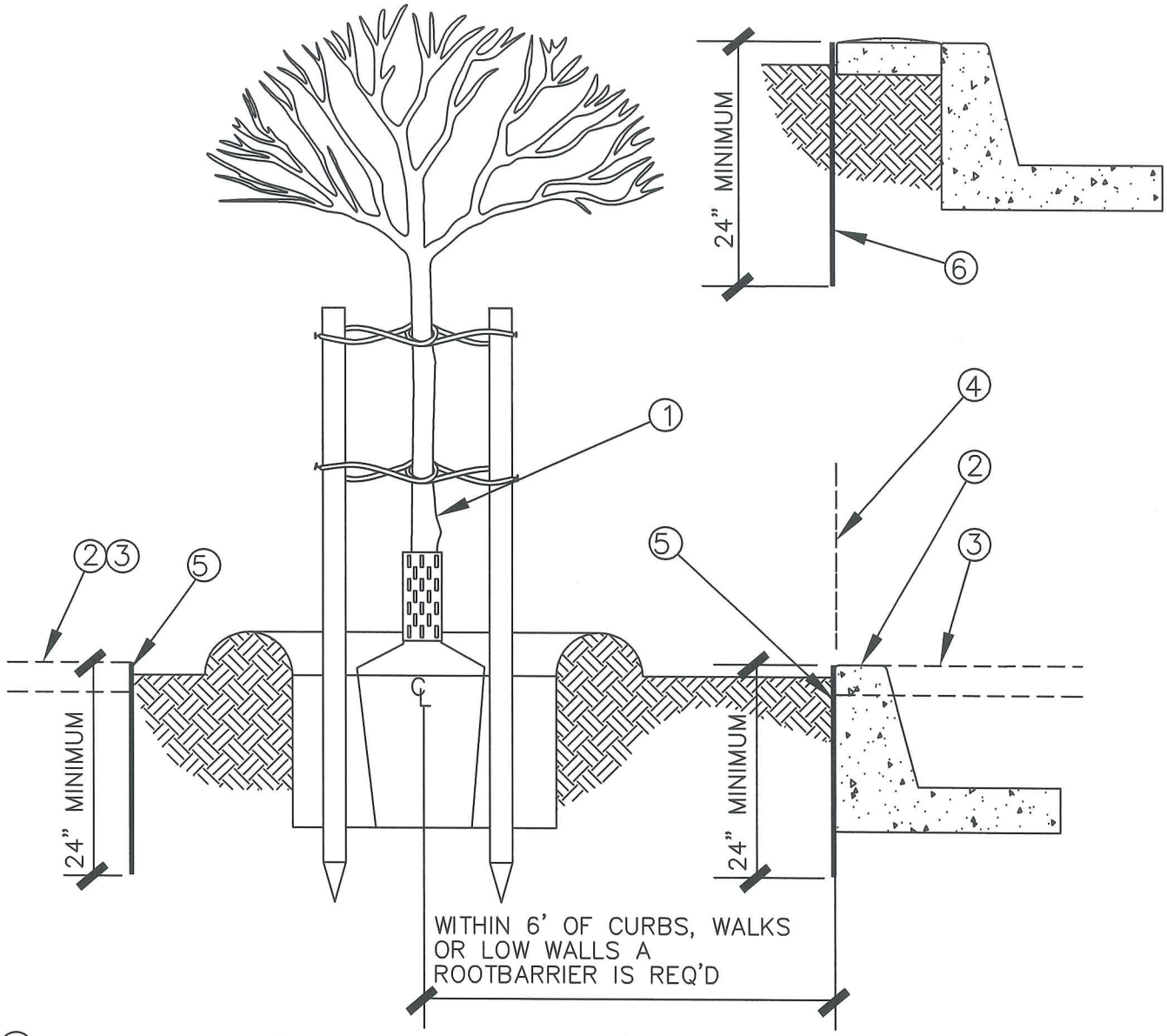
CITY OF HUNTINGTON BEACH

DEPARTMENT OF PUBLIC WORKS

2013

STANDARD PLAN **716A**

1 OF 1



① TREE: ONE, FIVE, FIFTEEN GALLON OR BOXED TREE.

② CONCRETE CURB OR SIDEWALK WHERE OCCURS.

③ HARDSCAPE WHERE OCCURS

④ EDGE OF MASONRY WALL UNDER 4' IN HEIGHT.

⑤ 24" DEEP X .08" THICK X 12' LONG PVC ROOT BARRIER CENTERED ON THE TREE. LOCATE FLUSH WITH TOP OF CURB OR HARDSCAPE.

⑥ WHERE ROOT BARRIER OCCURS IN MEDIANS WITH STAMPED CONCRETE, PLACE FLUSH WITH THE TOP OF STAMPED CONCRETE.

ALL PLANTINGS MUST FOLLOW ANSI A300 PART 6, GREEN BOOK REFERENCE SECTION 308.

LINEAR ROOT BARRIER

APPROVED:

CITY ENGINEER

CITY OF HUNTINGTON BEACH

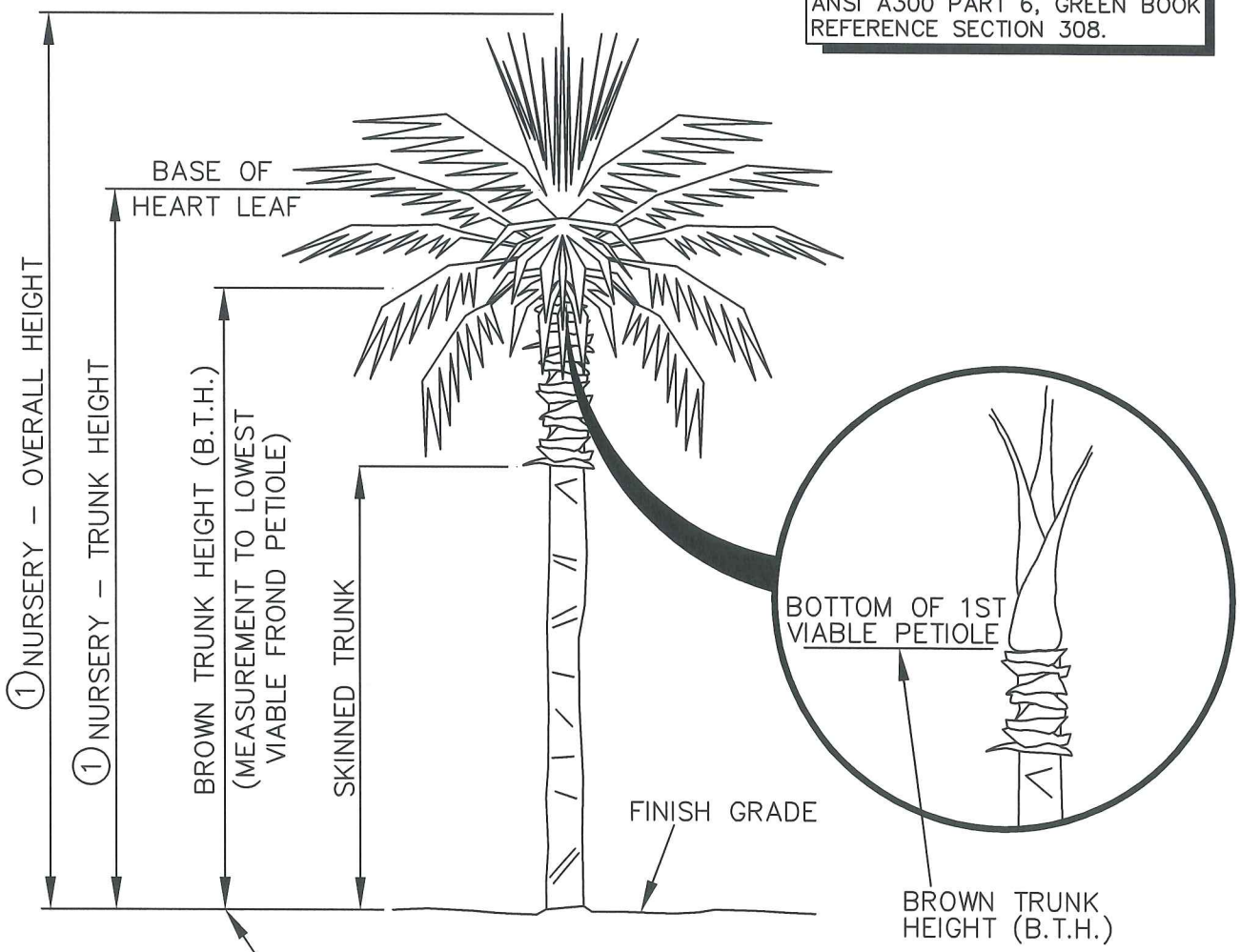
DEPARTMENT OF PUBLIC WORKS

2013

STANDARD PLAN **718**

1 OF 1

ALL PLANTINGS MUST FOLLOW ANSI A300 PART 6, GREEN BOOK REFERENCE SECTION 308.



BROWN TRUNK HEIGHT (B.T.H.) IS THE MEASUREMENT REFERENCED IN AND REQUIRED BY THE CITY OF HUNTINGTON BEACH ORDINANCE CODE.

NOTES:

① AMERICAN STANDARD FOR NURSERY STOCK–HEIGHT MEASUREMENT CRITERIA DIFFERS FROM BROWN TRUNK HEIGHT–WHICH IS MEASURED FROM FINISH GRADE TO THE BOTTOM OF THE FIRST VIABLE PETIOLE.

NOTE: NURSERIES SELL PALMS WITH ONE OF THESE TWO MEASUREMENTS.

PALM HEIGHT MEASUREMENT

APPROVED:

CITY ENGINEER

CITY OF HUNTINGTON BEACH

DEPARTMENT OF PUBLIC WORKS

2013

STANDARD PLAN 719

1 OF 1

SERIES 700 LANDSCAPE IRRIGATION MANUFACTURERS GUIDE

BACKFLOW PREVENTERS:

- FEBCO 825Y–825YA ¾" TO 2" SERVICE

NOTE: ALL BACKFLOWS TO BE RIGID INSTALLATION, BRASS UPSTREAM AND DOWNSTREAM OF DEVICE.

IRRIGATION CONTROLLERS:

- CALSENSE 2000E
- RAINMASTER SENTAR
- LEIT SOLAR

SERVICE VALVES:

- MATCO RESILIENT WEDGE W/ SERVICE HANDLE 2" AND UP
- NIBCO OR EQUIVALENT 2" OR UNDER

REMOTE CONTROL VALVES:

- GRISWOLD 2000 SERIES

QUICK COUPLING VALVES:

- RAINBIRD R44 1" INLET (RIGID INSTALL)

SPRINKLERS:

- RAINBIRD 900–950E 1½" INLET (VALVE IN HEAD)
- RAINBIRD 8005 W/STAINLESS STEEL RISER 1" INLET HEAD
- RAINBIRD 5004 INCH – 5006 INCH W/STAINLESS STEEL RISER ¾" INLET
- TORO 570 SERIES 3,4,6,12 INCH POP–UPS ½" INLET
- TORO 300 SERIES STREAM ROTORS ¾" INLET HEAD

NOTE:
ANY AND ALL LANDSCAPE & IRRIGATION PRODUCTS SHALL BE SUBMITTED TO THE HUNTINGTON BEACH LANDSCAPE & IRRIGATION DIVISION FOR APPROVAL PRIOR TO INSTALLATION.

PRODUCTS OF LISTED ACCEPTABLE MANUFACTURERS SHALL MEET SPECIFICATIONS NOTWITHSTANDING THE FACT THAT MANUFACTURER IS "LISTED". THE CITY RESERVES THE RIGHT TO REJECT SUBMITTALS AND PRODUCTS FROM "ACCEPTABLE MANUFACTURERS" IF PRODUCTS FAIL TO DEMONSTRATE COMPLIANCE WITH SPECIFICATIONS.

THE CITY OF HUNTINGTON BEACH RESERVES THE RIGHT TO REJECT PRODUCT SUBSTITUTIONS SOLELY ON THE BASIS OF MAINTENANCE ECONOMIES OF SCALE AVAILABLE TO THE CITY PARK TREES & LANDSCAPE DIVISION THROUGH STANDARDIZATION OF MANUFACTURERS AND CONTROLLED SPARE PARTS INVENTORIES.

① — 12" WIDE X 6" DEEP CONCRETE BARRIER, STEEL TROWEL FINISH. 1/2" RADIUS AT EDGES. SCORE LINES EVERY 10', 3/8" FELT EXPANSION JOINTS AT 20' ON CENTER OR AT WALLS, CURBS OR SIDEWALKS.

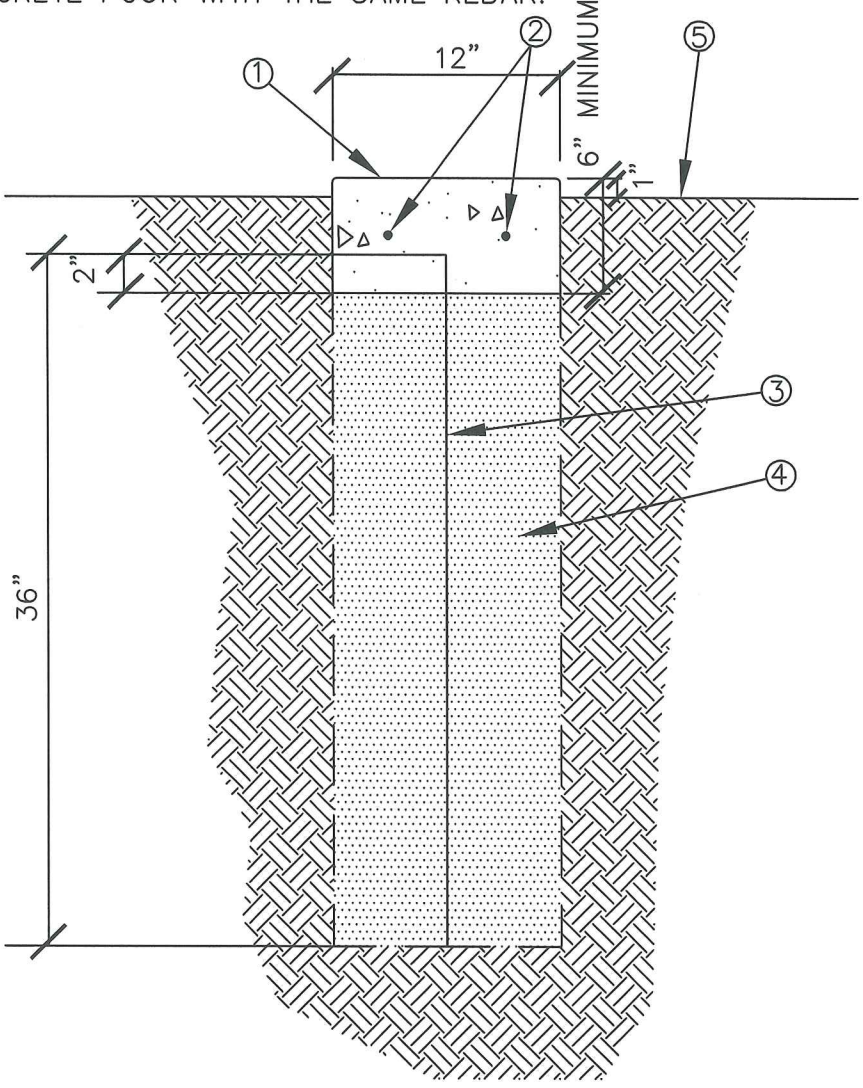
② — TWO (2) #3 REBAR CONTINUOUS.

③ — 36" DEEP X .08" MINIMUM THICKNESS ONE PIECE CONTINUOUS POLYPROPYLENE OR POLYETHYLENE BARRIER EMBEDDED 2" INTO CONCRETE BARRIER.

④ — 90% COMPACTED FILL.

⑤ — FINISH GRADE.

⑥ — ACCEPTABLE ALTERNATIVE IS A 12" WIDE X 36" DEEP SOLID CONCRETE POUR WITH THE SAME REBAR.



BARRIER BETWEEN RECLAIMED AND POTABLE WATER

APPROVED:

CITY ENGINEER

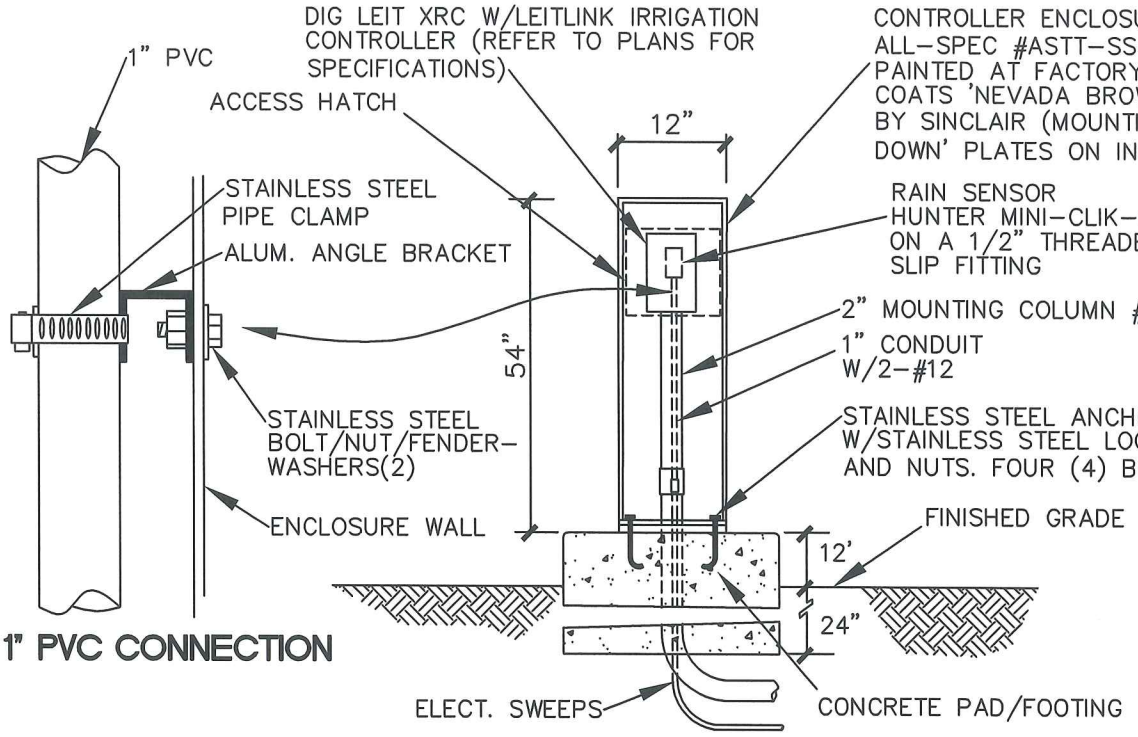
CITY OF HUNTINGTON BEACH

DEPARTMENT OF PUBLIC WORKS

2013

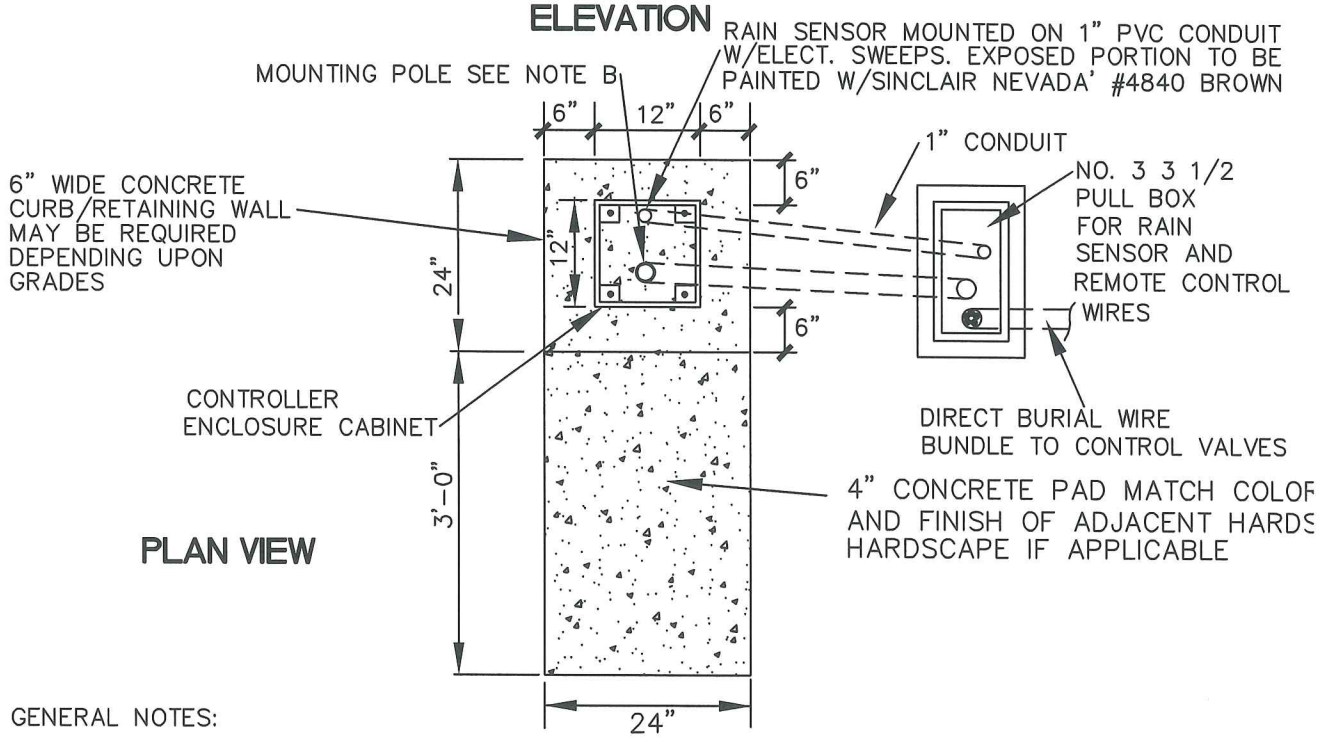
STANDARD PLAN 721

1 OF 1



1" PVC CONNECTION

ELEVATION



PLAN VIEW

GENERAL NOTES:

A: REFER TO STANDARD PLAN 722, SHT 2 OF 2 FOR INSTALLATION/CONSTRUCTION SPECS

B: MOUNTING POLE W/EXTENSION ATTACHED. EXPOSED PORTION OF GALV. MOUNTING POLE TO BE COVERED W/SCH. 40 PVC SLEEVE AND PAINTED W/SINCLAIR NEVADA' #4840 BROWN AND SILICONE CAULKED AT TOP AND BOTTOM OF SLEEVE.

SOLAR IRRIGATION CONTROLLER ENCLOSURE CABINET

APPROVED:

CITY ENGINEER

CITY OF HUNTINGTON BEACH

DEPARTMENT OF PUBLIC WORKS

2013

STANDARD PLAN **722**

1 OF 2

SOLAR CONTROLLER AND ENCLOSURE SPECIFICATIONS

INSTALLATION/CONSTRUCTION SPECIFICATIONS

1. ALL CONDUITS SHALL BE SCHEDULE 40, GRAY IN COLOR AND HAVE ELECTRICAL SWEEPS IN UNDERGROUND LOCATIONS. EXPOSED SWEEPS SHALL BE SCHEDULE 80, ALL NON-EXPOSED SHALL BE SCHEDULE 40, SUBJECT TO THE DISCRETION OF THE PUBLIC WORKS INSPECTOR.
2. ALL CONDUIT ENDS SHALL HAVE BUSHINGS.
3. DUCT SEAL SHALL BE UTILIZED ON EITHER END OF ALL CONDUITS.
4. THE FOUNDATION SHALL BE OF CONCRETE RATED 520-C-2500 TYPE V CONCRETE.
5. THE SIDE CORNERS OF THE PEDESTAL SHALL BE BEVELED AT A 45 DEGREE ANGLE.
6. CONCRETE CURBS SHALL BE PROVIDED WHERE SLOPE CONDITIONS OCCUR, SUBJECT TO INSPECTOR'S INTERPRETATION TO KEEP CONCRETE PADS FROM EROSION IMPACTS. REFER TO STANDARD PLAN 422 FOR APPLICATIONS. RE: PULL BOXES.
7. CHANGES OR MODIFICATIONS TO THESE STANDARDS ARE SUBJECT TO THE DISCRETION OF THE INSPECTOR.
8. THE ALL-SPEC ENCLOSURE MODEL #ASTT-SS-8100 (12" X 12" X 54" HIGH STAINLESS STEEL-POWDERCOATED AT THE FACTORY WITH SINCLAIR 'NEVADA' #4840), SHALL HAVE A GALVANIZED MOUNTING COLUMN #MCOLXL (50" LONG) AND BE INSTALLED WITH A DIG-LEIT XRC-(NUMBER OF STATIONS PER THE PLAN LEGEND) CONTROLLER. THE INSTALLATION HEIGHT OF THE CONTROLLER SHALL ALLOW THE HEAD OF THE CONTROLLER TO BE FACING AND BE ACCESSED DIRECTLY THROUGH THE ACCESS HATCH ON THE ENCLOSURE. (ORDER WITH "BOLT DOWN" PLATES ON THE INSIDE OF THE ENCLOSURE).
9. CONTRACTOR SHALL PROVIDE AND INSTALL A PVC SCH. 40 SLEEVE OVER THE GALVANIZED MOUNTING COLUMN THAT SHALL FIT SNUGLY BETWEEN THE CONTROLLER AND THE CONCRETE FOUNDATION. THE CONTRACTOR SHALL SEAL THE SPACE BETWEEN THE CONTROLLER AND THE PVC SLEEVE AND BETWEEN THE PVC SLEEVE AND THE CONCRETE FOUNDATION WITH SILICONE CAULKING. THE PVC SLEEVE SHALL BE PAINTED WITH SINCLAIR 'NEVADA' #4840 BROWN PAINT.
10. CONTRACTOR SHALL EMBED ½" DIA. STAINLESS STEEL ANCHOR BOLTS INTO THE FOOTING WHILE THE CONCRETE IS WET USING A PRE-MADE TEMPLATE TO INSURE THE PROPER LOCATIONS TO MATCH THE ENCLOSURE. STAINLESS STEEL LOCK WASHERS AND NUTS SHALL BE USED TO TIE THE ENCLOSURE TO THE FOOTING ANCHOR BOLTS.
11. ALL WIRING IN PULL BOXES SHALL BE COILED INDIVIDUALLY AND EACH WIRE SHALL BE SIX FEET IN LENGTH. THERE SHALL BE NO SPLICES IN REMOTE CONTROL WIRES.
12. THE HUNTER MINI-CLIK-C RAIN SENSOR SHALL BE INSTALLED ON A 1/2" THREAD BY 1" SLIP COUPLING ON A 1" SCHEDULE 40 PVC RIGID CONDUIT. THE COUPLING AND PIPE CONDUIT SHALL BE PAINTED SINCLAIR 'NEVADA' #4840-BROWN. THE RIGID PVC CONDUIT SHALL EXTEND DOWN THROUGH THE FOOTING AND TO THE PULL BOX UTILIZING A 1" PVC ELECTRICAL SWEEP. THE INSTALLED HEIGHT OF THE RAIN SENSOR SHALL BE 50" ABOVE THE FOUNDATION TO THE TOP OF THE RAIN SENSOR.

SOLAR IRRIGATION CONTROLLER ENCLOSURE CABINET

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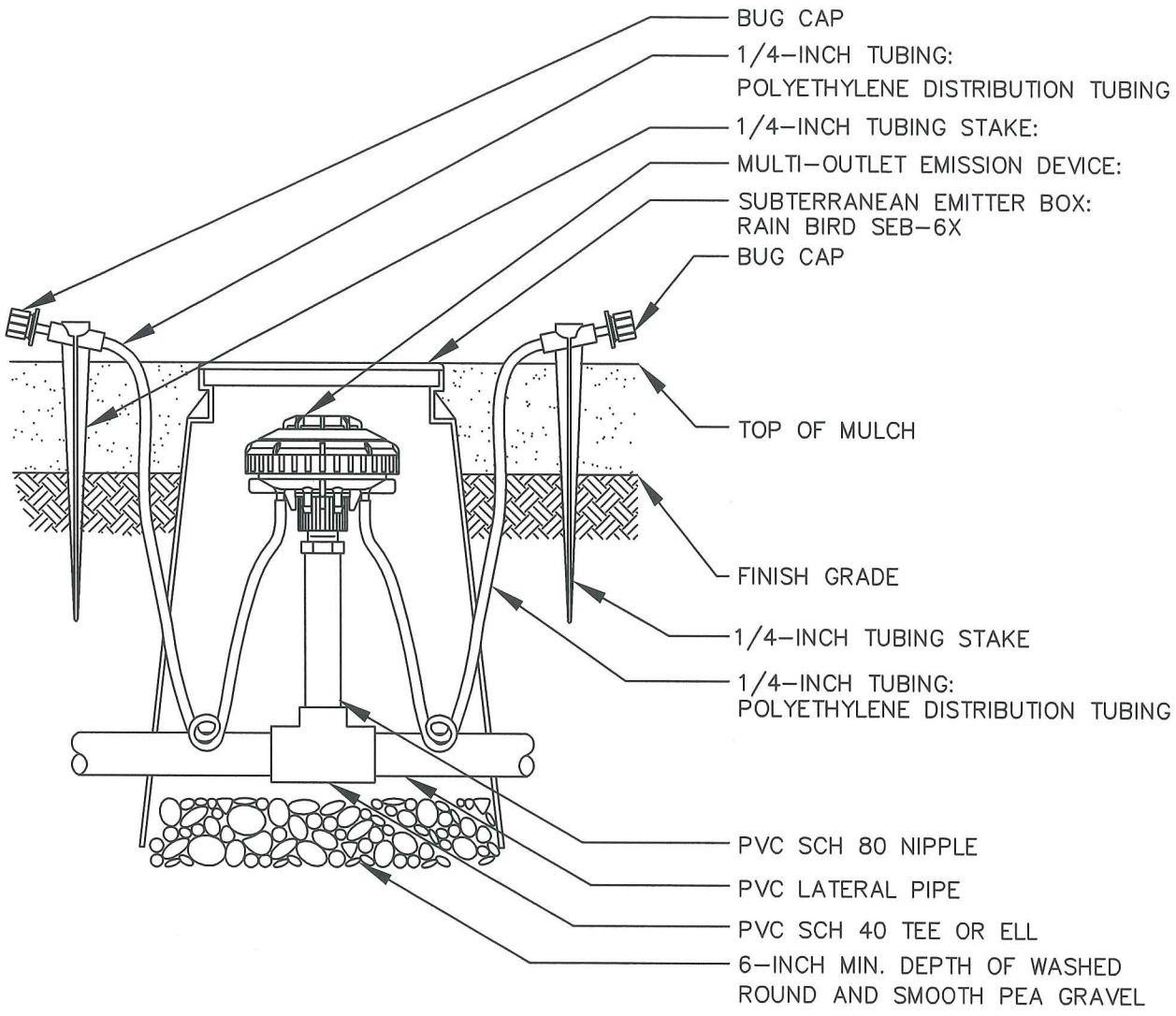
CITY OF HUNTINGTON BEACH
DEPARTMENT OF PUBLIC WORKS
2013

STANDARD PLAN 722
2 OF 2



NOTE:

1. COIL ADDITIONAL 9–INCHES OF TUBING FOR EACH EMITTER IN VALVE BOX TO FACILITATE MAINTENANCE.

MULTIPLE OUTLET DRIP EMITTER DETAIL

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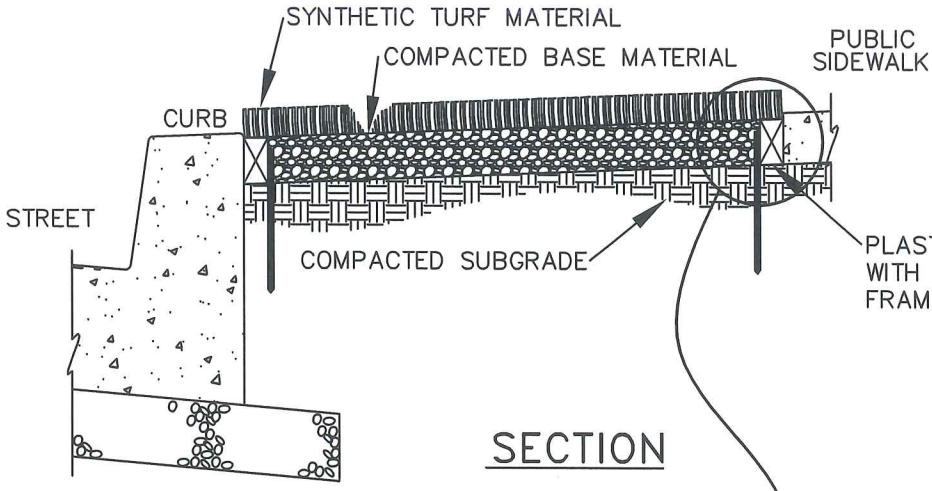
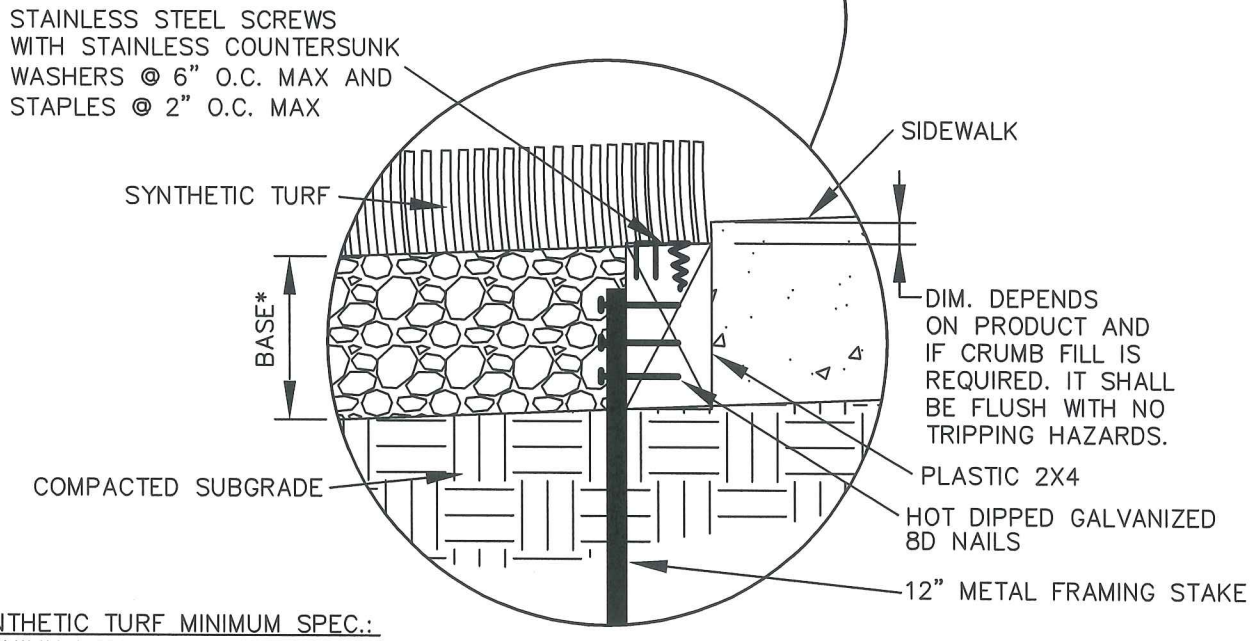
STANDARD PLAN **723**

1 OF 1



SECTION



SYNTHETIC TURF MINIMUM SPEC.:
- MINIMUM THREE COLORS FOR MATERIAL
- TWO COLORS FOR BLADES, PLUS DIFFERENT COLOR FOR THATCH
- BACKING MATERIAL MUST HAVE DRAIN HOLES MAXIMUM 6" O.C.
- MINIMUM 15 YEAR WARRANTY FOR TURF AND INSTALLATION
- MINIMUM 80LB MATERIAL
- MUST HAVE APPEARANCE OF NATURAL TURF AND THREE DIMENSIONAL ("3D") QUALITIES
- TURF SAMPLE SHALL BE PROVIDED TO THE CITY AND APPROVED PRIOR TO INSTALLATION

*BASE: MATERIAL AND DEPTH PER MANUFACTURER.

NOTE: OWNER SHALL GUARANTEE THAT THE TURF MATERIAL AND INSTALLATION MATERIAL WILL NOT BECOME A TRIPPING HAZARD OR BECOME WEATHERED IN APPEARANCE. MATERIAL SHALL BE REPLACED PRIOR TO THOSE CONDITIONS OCCURRING. REPLACEMENT MATERIAL AND INSTALLATION METHODS THERE OF SHALL BE APPROVED IN ADVANCE. INSPECTION IS REQUIRED DURING AND AFTER INSTALLATION.

SYNTHETIC TURF SHALL NOT BE INSTALLED WITHIN 15 FEET OF EXISTING PARKWAY TREE OR 8 FEET FROM PROPOSED TREE, UNLESS SPECIFICALLY APPROVED BY THE TREE MAINTENANCE SUPERVISOR.

SYNTHETIC TURF INSTALLATION DETAIL FOR PARKWAY

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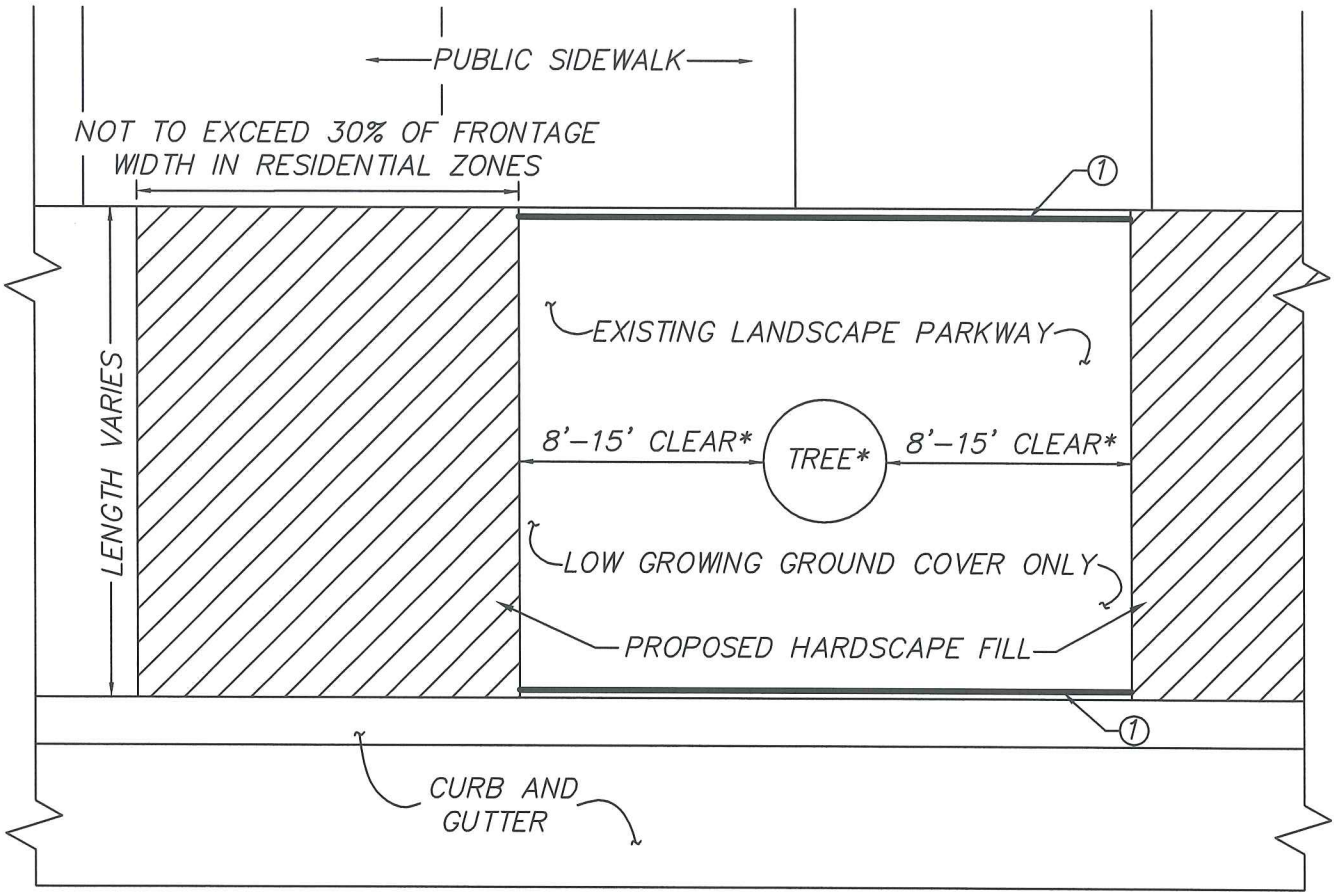
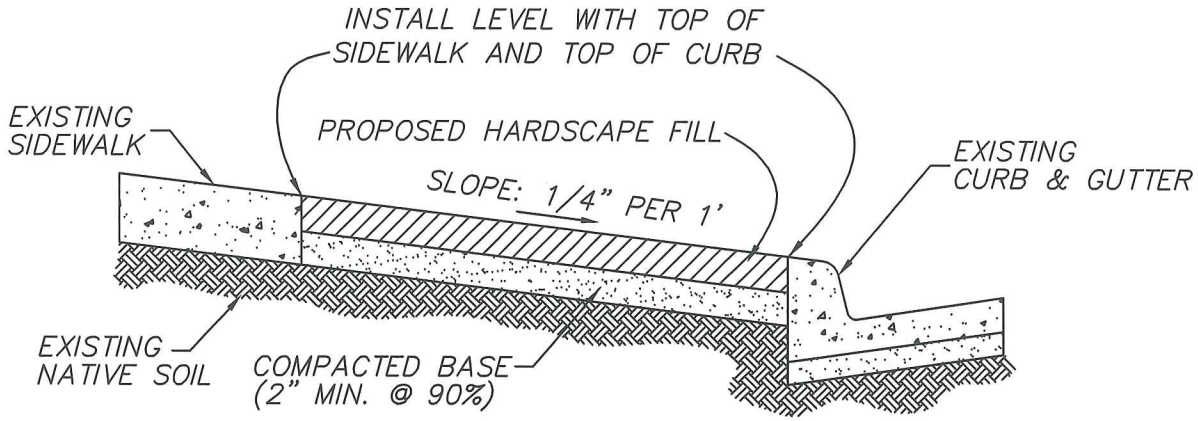
STANDARD PLAN **724**
1 OF 1



PLAN VIEW

*HARDSCAPE FILL IS NOT PERMITTED WITHIN 15' FEET OF EXISTING TREE TRUNK, IN EACH DIRECTION. IF TREE IS PROPOSED HARDSCAPE FILL IS NOT PERMITTED WITHIN 8 FEET OF TREE TRUNK, IN EACH DIRECTION. ONLY LAWN OR LOW GROWING GROUND COVER IS PERMITTED WITHIN THIS 16' OR 30' AREA.

①PROTECT EXISTING ROOT BARRIER IN PLACE IF PRESENT.



PROFILE

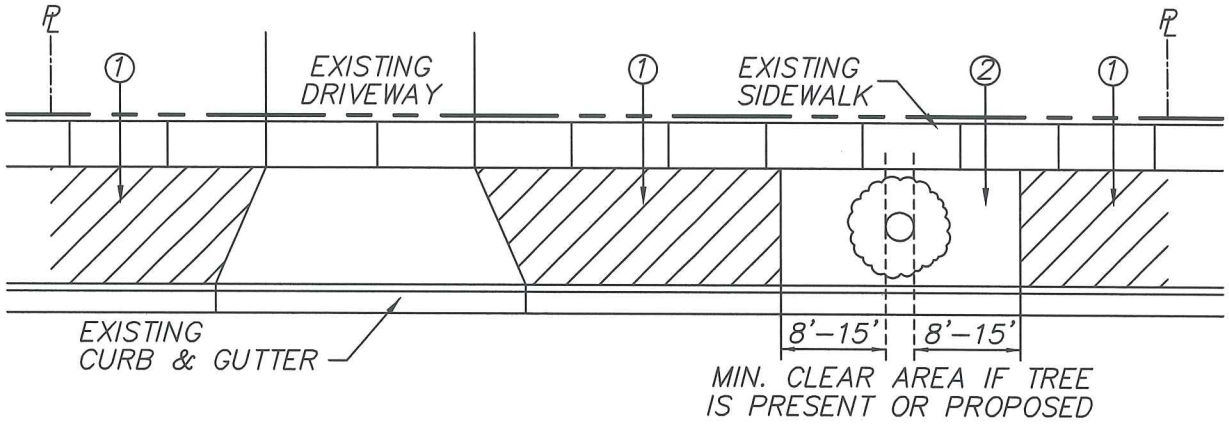
PARKWAY HARDSCAPE FILL

APPROVED:

CITY ENGINEER

CITY OF HUNTINGTON BEACH
DEPARTMENT OF PUBLIC WORKS
2013

STANDARD PLAN **725** 1 OF 2



① ALLOWABLE AREA FOR PARKWAY HARDSCAPE FILL. NOT TO EXCEED 30% OF TOTAL FRONTAGE WIDTH.

② ONLY LAWN OR LOW GROWING GROUND COVER IS PERMITTED WITHIN 8 TO 15 FEET OF EXISTING PARKWAY TREES AND OTHER NON HARDSCAPE AREAS BETWEEN THE CURB AND SIDEWALK.

FILL MATERIAL NOTE:

"PARKWAY FILL" SHALL BE DEFINED AS UN–MORTARED BRICK OR INTER–LOCKING PAVERS ON A COMPACTED BASE, CONCRETE, STONE PAVING ON A CONCRETE BASE OR MORTARED BRICK ON A CONCRETE BASE; ALL OF WHICH SHALL HAVE AN EVEN SURFACE AND FLUSH GROUT JOINTS SO AS TO NOT CAUSE ANY TRIPPING HAZARDS. THE BASE FOR ALL HARDSCAPE SHALL BE COMPACTED TO 90%.

GENERAL NOTES:

1. PARKWAY FILL SHALL BE INSTALLED LEVEL WITH TOP OF SIDEWALK, CURB, METER BOXES, AND/OR OTHER EXISTING HARDSCAPE IMPROVEMENTS.
2. PARKWAY FILL SHALL BE SLOPED AT 1/4" PER 1' TOWARDS STREET AS LONG AS THE SLOPE DOES NOT CONFLICT WITH ABOVE NOTE 1.
3. PARKWAY FILL IS NOT PERMITTED WITHIN 8' OF PROPOSED TREE OR 15' OF EXISTING TREE.
4. MAX. FILL WIDTH IN RESIDENTIAL AREAS SHALL NOT EXCEED 30% OF FRONTAGE WIDTH.
5. IF UTILITY MAINTENANCE IS PERFORMED BY PUBLIC AGENCIES WHEN HARDSCAPE FILL IS PRESENT, THE FILL WILL BE REMOVED AND SET ASIDE ON OWNERS PROPERTY AND SHALL BE REPLACED AT OWNERS EXPENSE & LABOR.
6. NO REINFORCING MESH OR REBAR IS ALLOWED.
7. USE STANDARD PLAN 217 IF UTILITY BOX IS PRESENT IN HARDSCAPE AREA.
8. PROPERTY OWNER IS RESPONSIBLE FOR MAINTAINING ALL HARDSCAPE AND LANDSCAPE IMPROVEMENTS WITHIN THE PARKWAY. IF THE CITY DETERMINES THAT THE AREA IS CREATING A HEALTH AND SAFETY CONCERN, THE PROPERTY OWNER SHALL CORRECT THE DEFICIENCY TO THE SATISFACTION OF THE CITY ENGINEER, WHICH MAY INCLUDE REMOVAL AND REPLACEMENT WITH TURF OR APPROVED GROUNDCOVER. IF THE DEFICIENCIES ARE NOT CORRECTED, THE CITY WILL REMOVE THE IMPROVEMENTS AND BILL THE PROPERTY OWNER FOR THE COSTS.

IF THE CITY FINDS THAT THE PARKWAY FILL MUST BE REMOVED AT A LATER DATE FOR TREE PLANTING OR PARKWAY MAINTENANCE, THE HOMEOWNER SHALL BEAR ALL FINANCIAL COSTS FOR HARDSCAPE REMOVAL AND REPLACEMENT.

PARKWAY HARDSCAPE FILL

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CITY ENGINEER

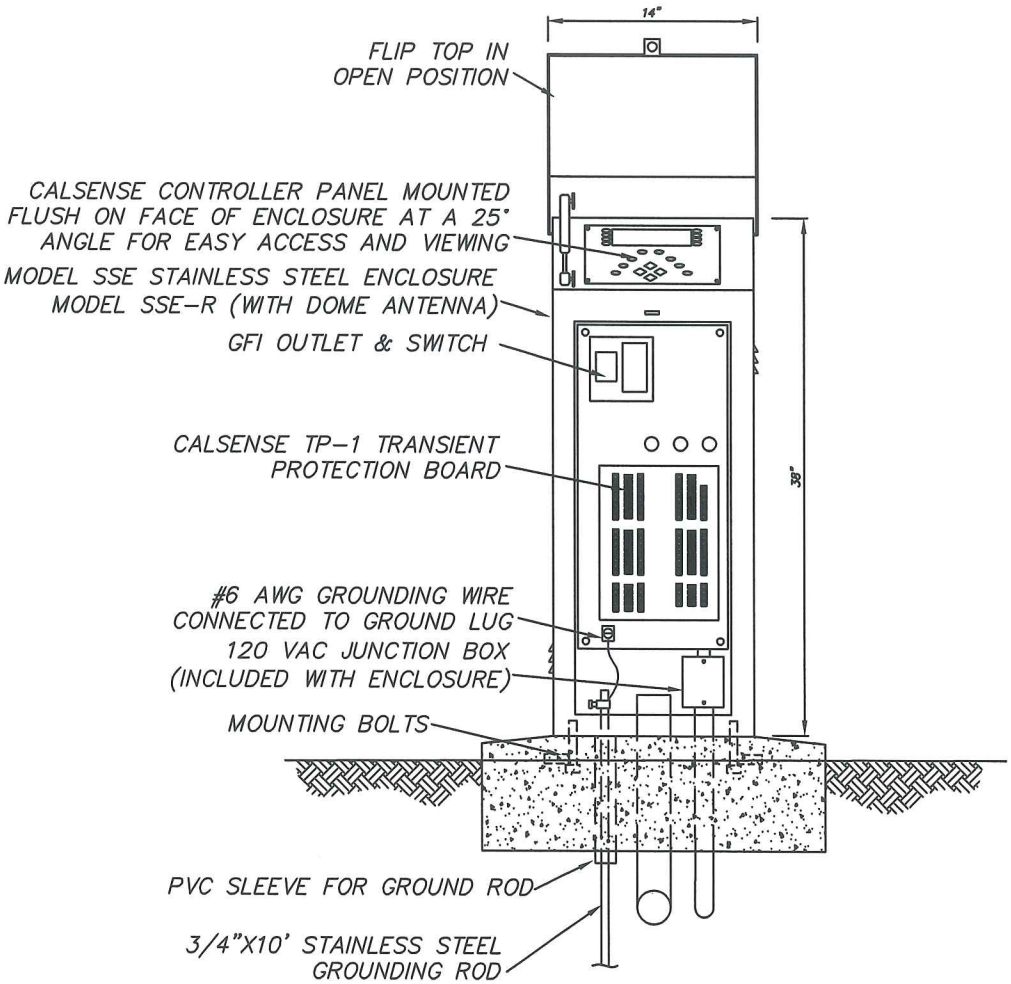
CITY OF HUNTINGTON BEACH

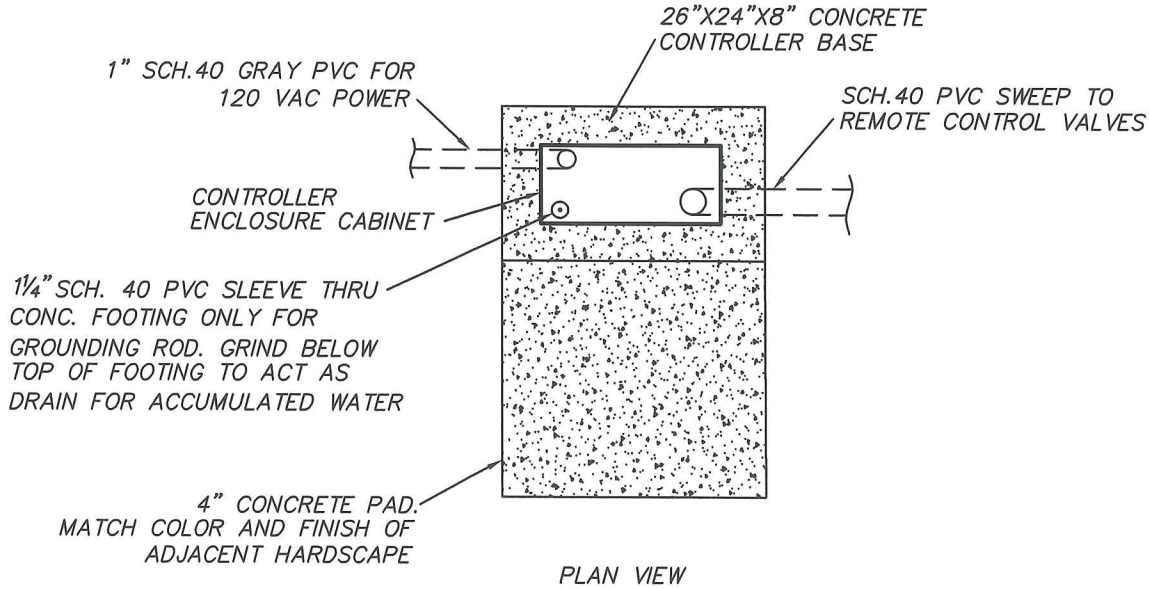
DEPARTMENT OF PUBLIC WORKS

2013

STANDARD PLAN **725**

2 OF 2





PLAN VIEW

CALSENSE STAINLESS STEEL ENCLOSURE

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CITY ENGINEER

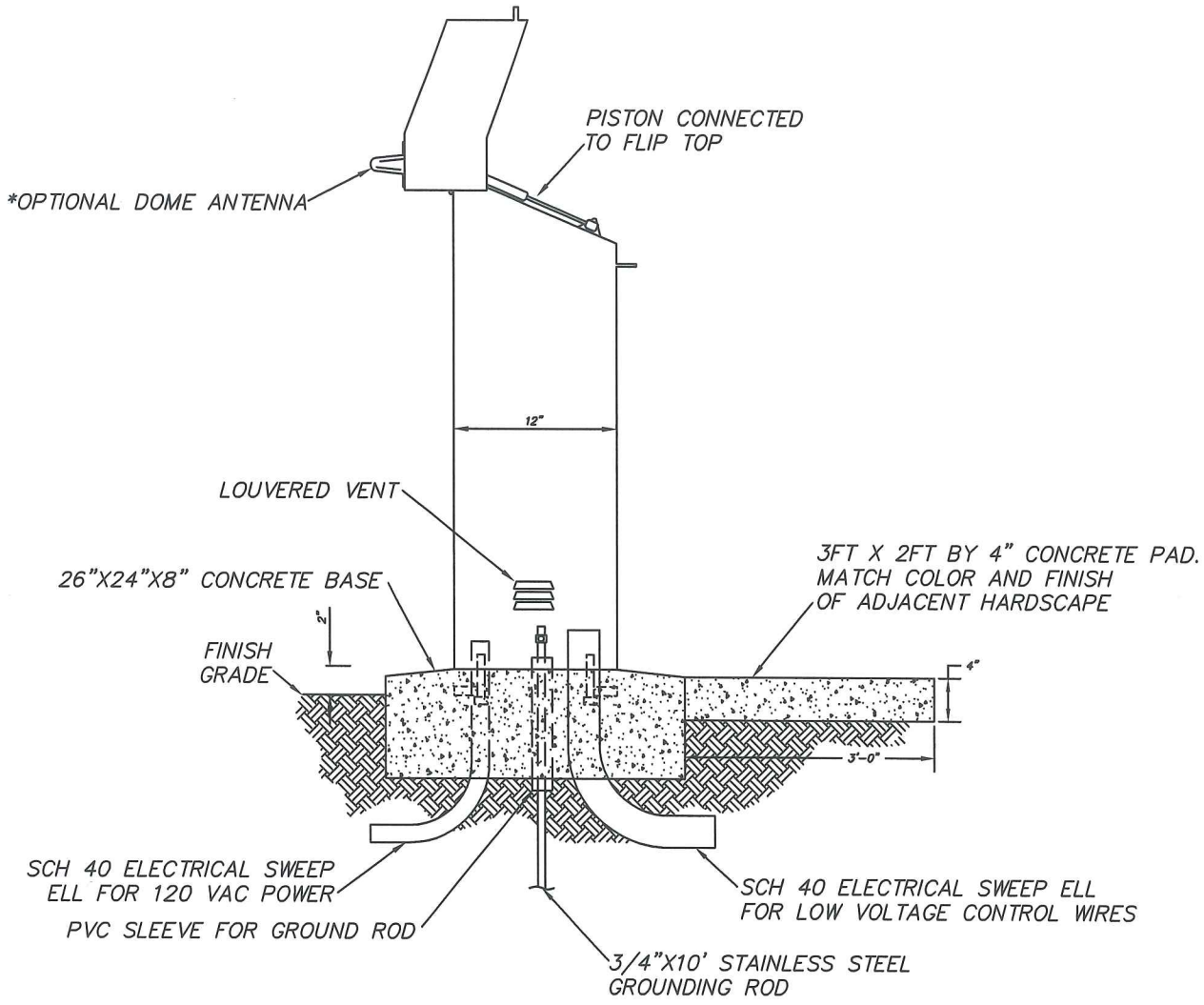
CITY OF HUNTINGTON BEACH

DEPARTMENT OF PUBLIC WORKS

2013

STANDARD PLAN **726**

1 OF 2



NOTES:

*OPTIONAL DOME ANTENNA:
MODEL LR–DOME (LOCAL RADIO)
MODEL LR–DOME–RRE (LOCAL RADIO AND RRE RADIO REMOTE OPTION)
MODEL RRE–DOME (RRE RADIO REMOTE OPTION)

CALSENSE STAINLESS STEEL ENCLOSURE

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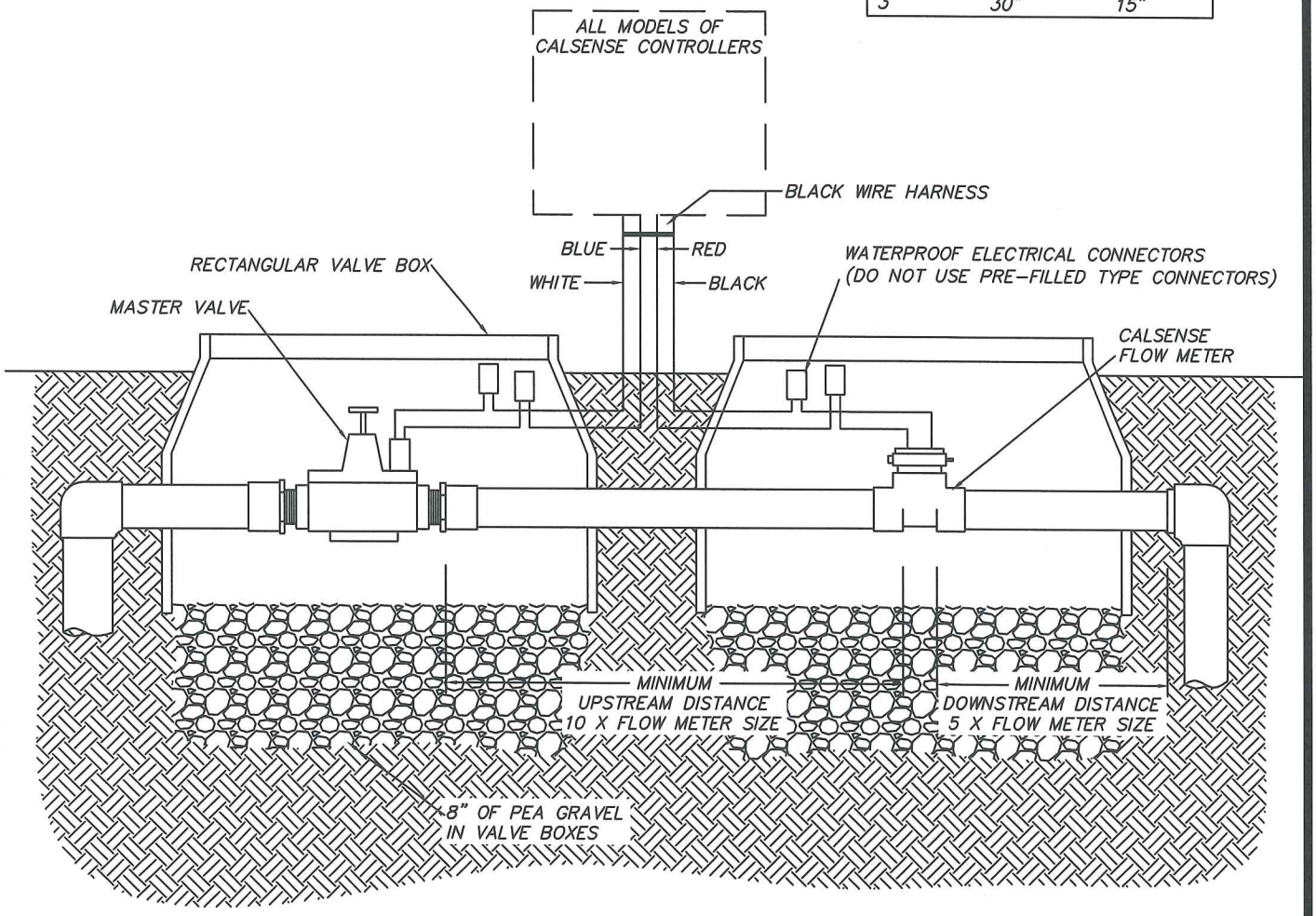
STANDARD PLAN 726

2 OF 2

PIPE SIZING CHART		
F.M. SIZE	UPSTREAM LENGTH	DOWNSTREAM LENGTH
1"	10"	5"
1.25"	12.5"	6.25"
1.5	15"	7.5"
2"	20"	10"
3"	30"	15"



FLOW METER INSTALLATION

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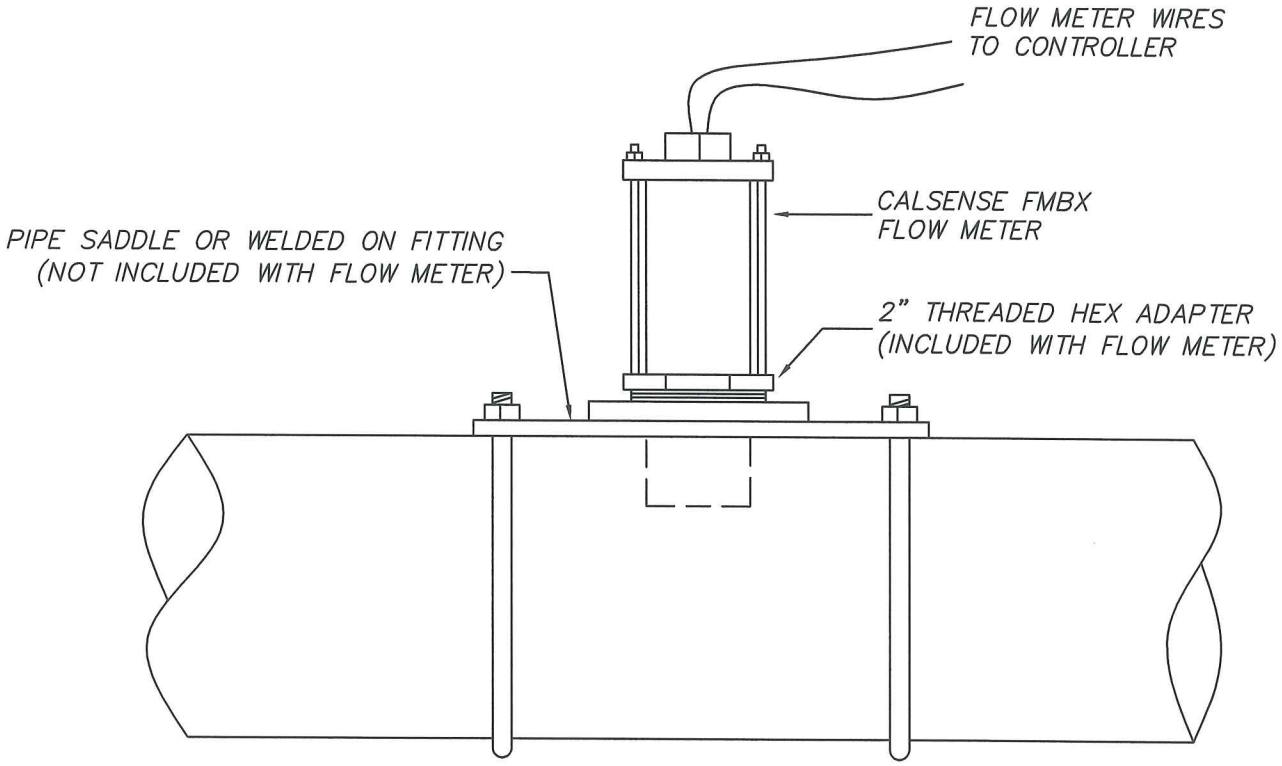
2013

STANDARD PLAN **727**

1 OF 1



FLOW METER FBMX INSTALLATION

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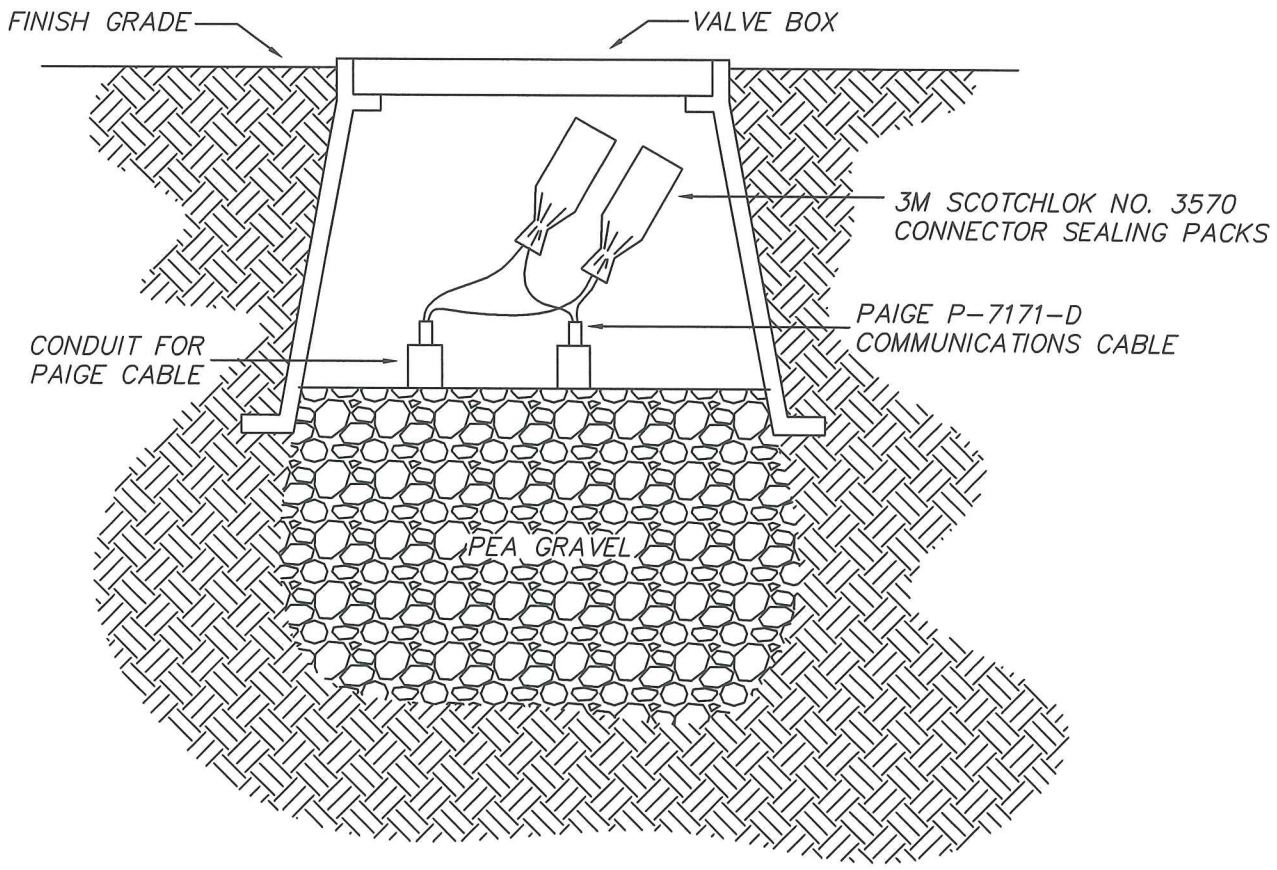
2013

STANDARD PLAN **728**

1 OF 1

COMMUNICATIONS CABLE SPLICE DETAIL



IRRIGATION CONTROL WIRE SPLICE

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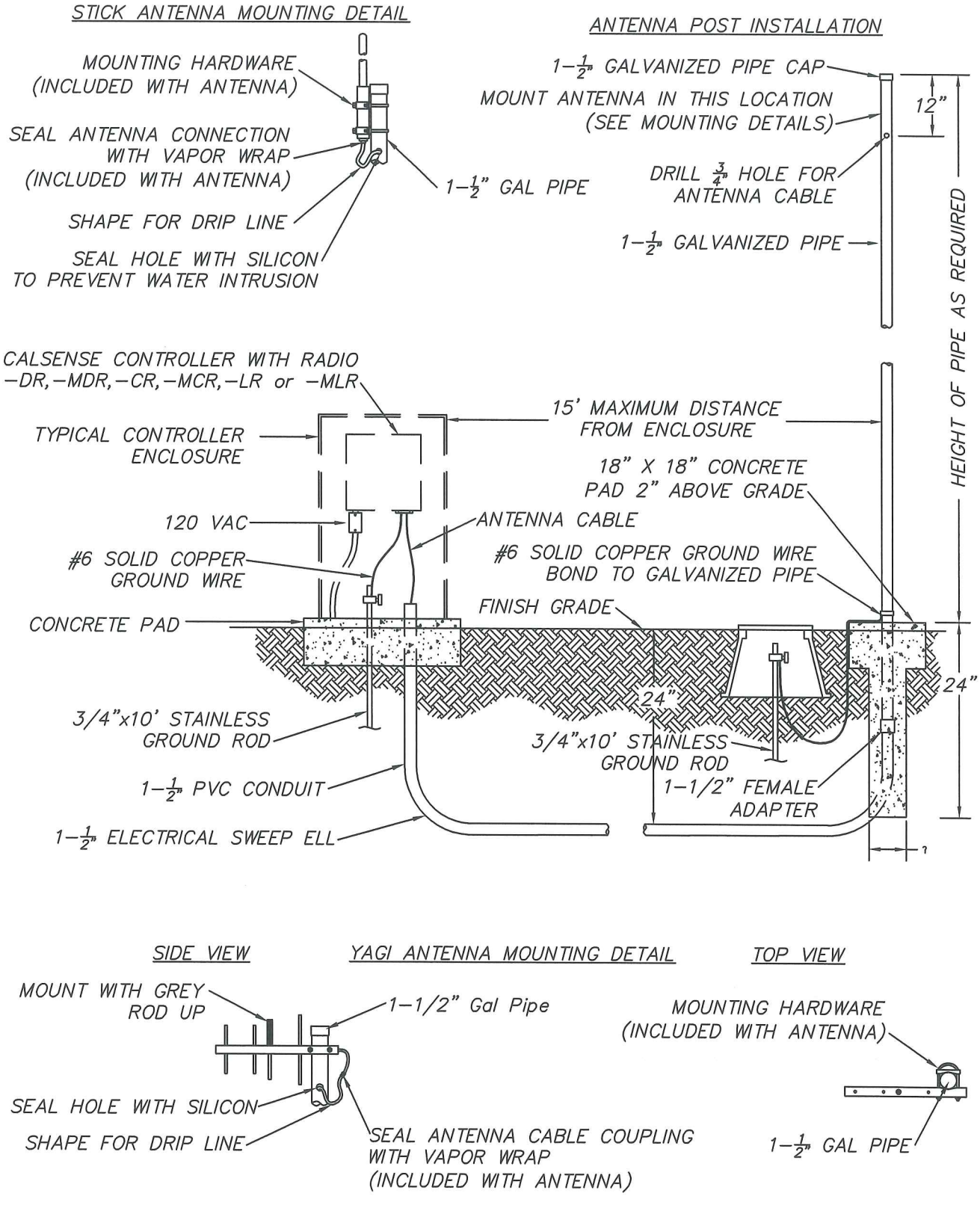
2013

STANDARD PLAN **729**

1 OF 1



IRRIGATION CONTROLLER ANTENNA POST INSTALLATION

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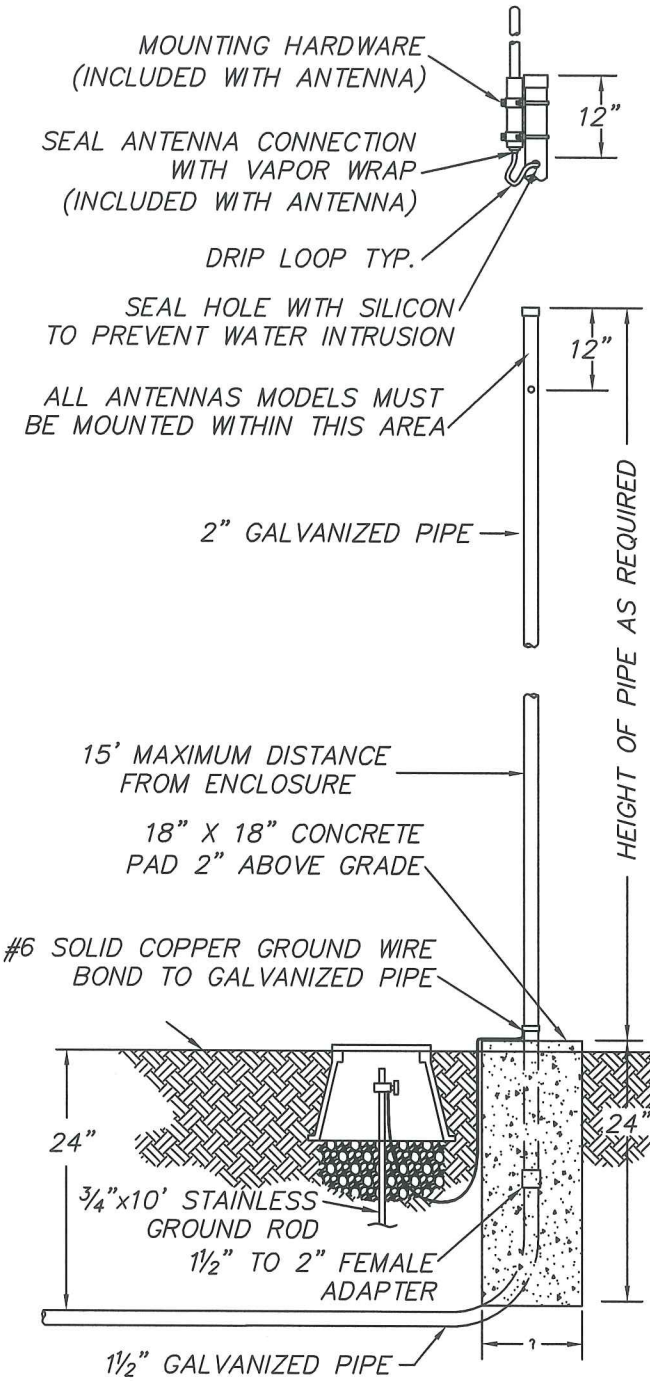
2013

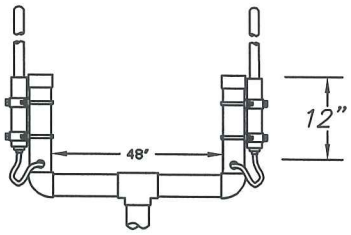
STANDARD PLAN **730**

1 OF 1

STICK ANTENNA MOUNTING DETAIL

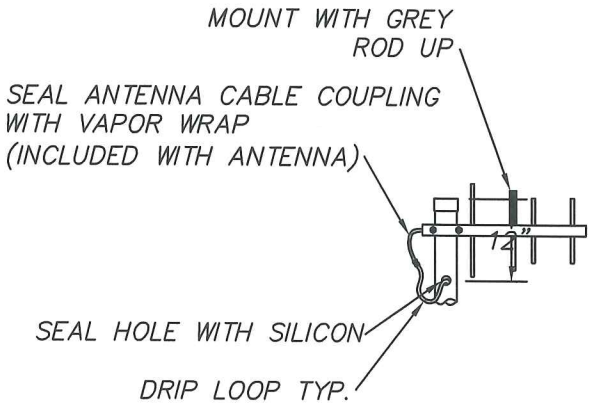


DUAL STICK ANTENNA MOUNTING DETAIL

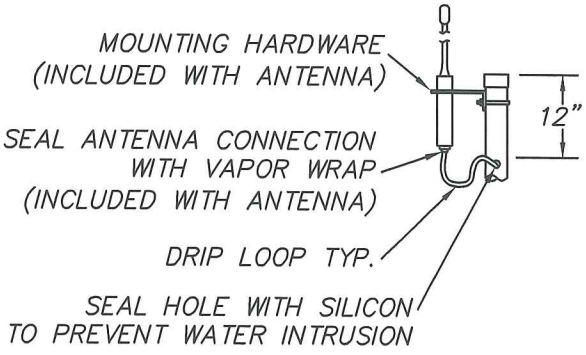


YAGI ANTENNA MOUNTING DETAIL

SIDE VIEW



WHIP ANTENNA MOUNTING DETAIL



IRRIGATION CONTROLLER ANTENNA ARRAYS

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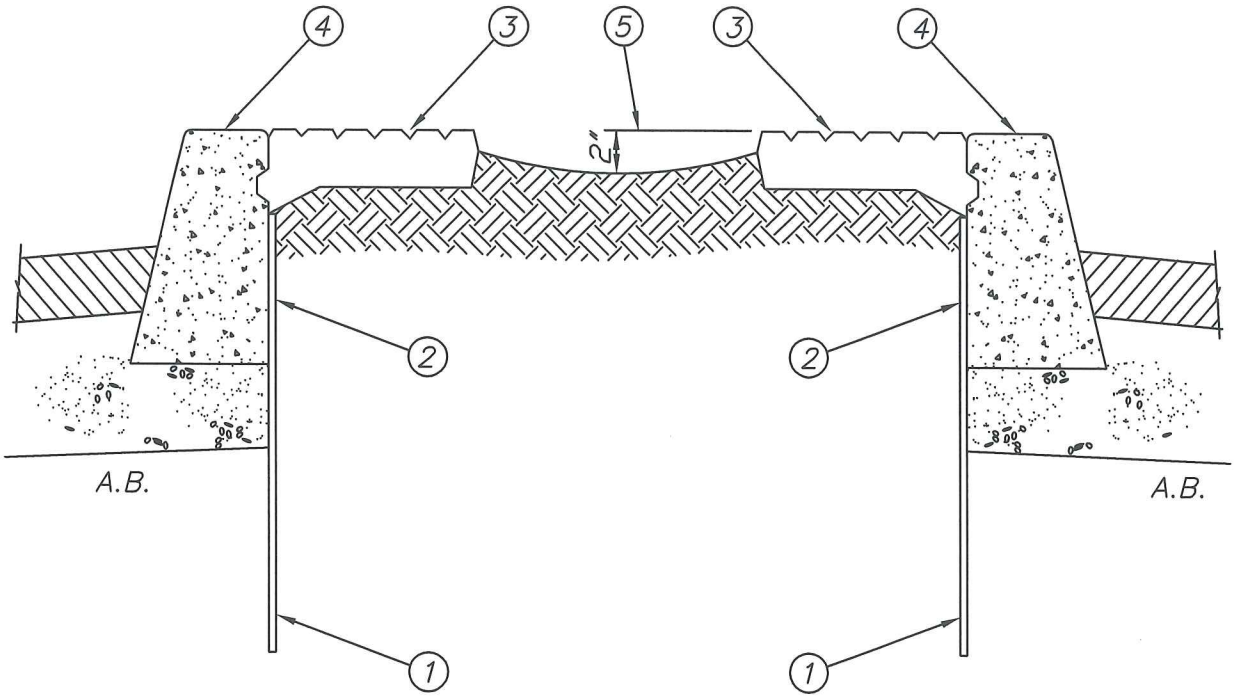
2013

STANDARD PLAN **731**

1 OF 1



NOTES:

(1) A CONTINUOUS SINGLE 10 MIL. P.V.C. LINER OR IF TREES ARE LOCATED WITHIN THE MEDIAN A 0.08" THICK ROOT BARRIER, 36" IN DEPTH.

(2) APPLY HENRY'S STD. ASPHALT EMULSION #107 TO BACK OF CURB AND BOTH SIDES OF P.V.C. LINER. KEEP TOP OF LINER 4" BELOW GRADE.

(3) 4"X12" SOLDIER COURSE STAMPED CONCRETE PER STANDARD 711.

(4) MEDIAN CURB PER STANDARD 201.

(5) MEDIAN BACKFILL SHALL BE 2" BELOW CURB AND CONCAVED IN NATURE.

LANDSCAPE MEDIAN BACKFILL

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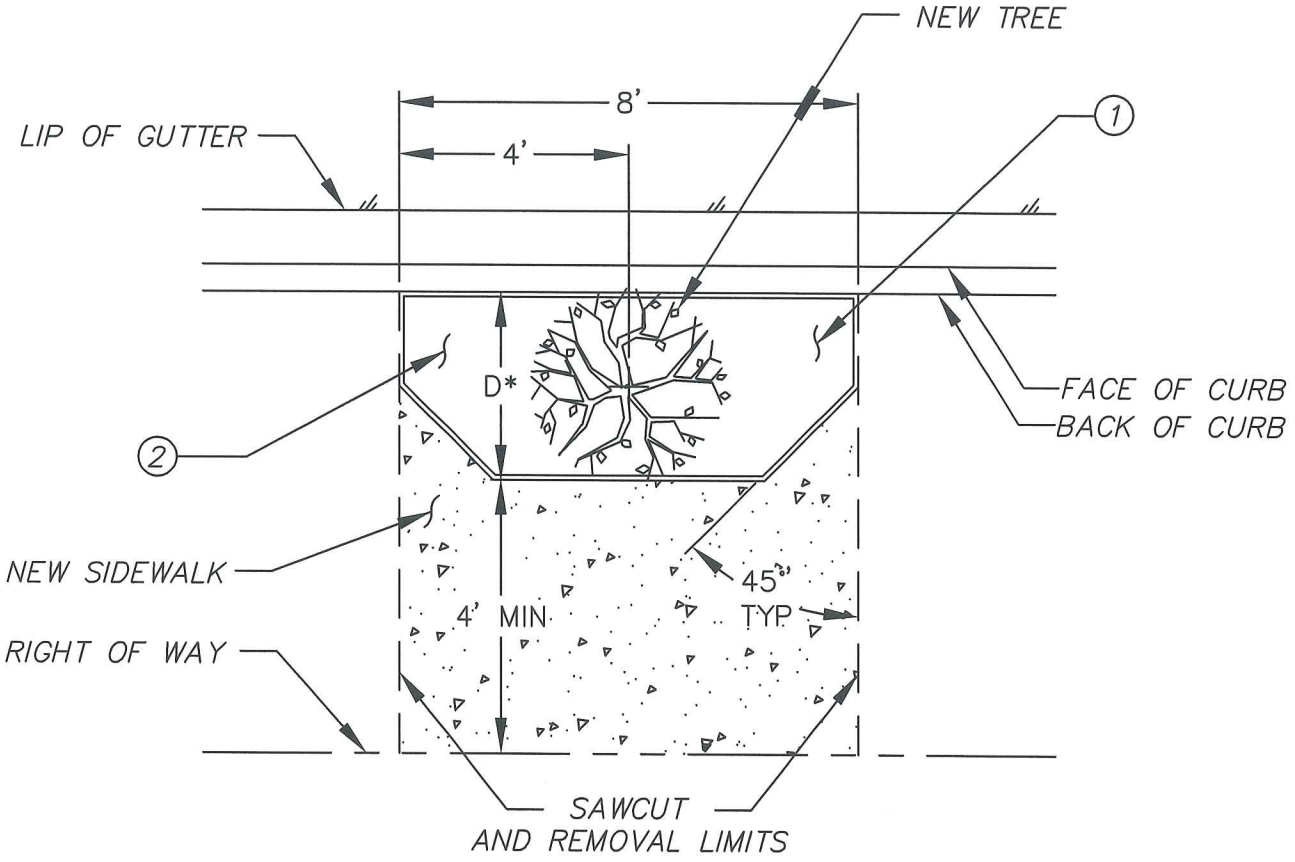
DEPARTMENT OF PUBLIC WORKS
2013

STANDARD PLAN 732
1 OF 1



NOTES:

1. NEW TREE WELL PREPARE SOIL AND PLANT NEW 24" BOX TREES PER HB STD PLANS 714, 715, 716, 718 AND 719, MODIFIED AS SHOWN. FINAL LOCATION AND SPECIES TO BE DETERMINES BY CITY STREET TREE SUPERVISOR.
2. NON-CHEMICAL WEED CONTROL BARRIER (ENTIRE TREE WELL)

* NOTE:
MIN D=3'
MAX D=4'

SINGLE TREE WELL AND SIDEWALK DETAIL FOR NEW TREE

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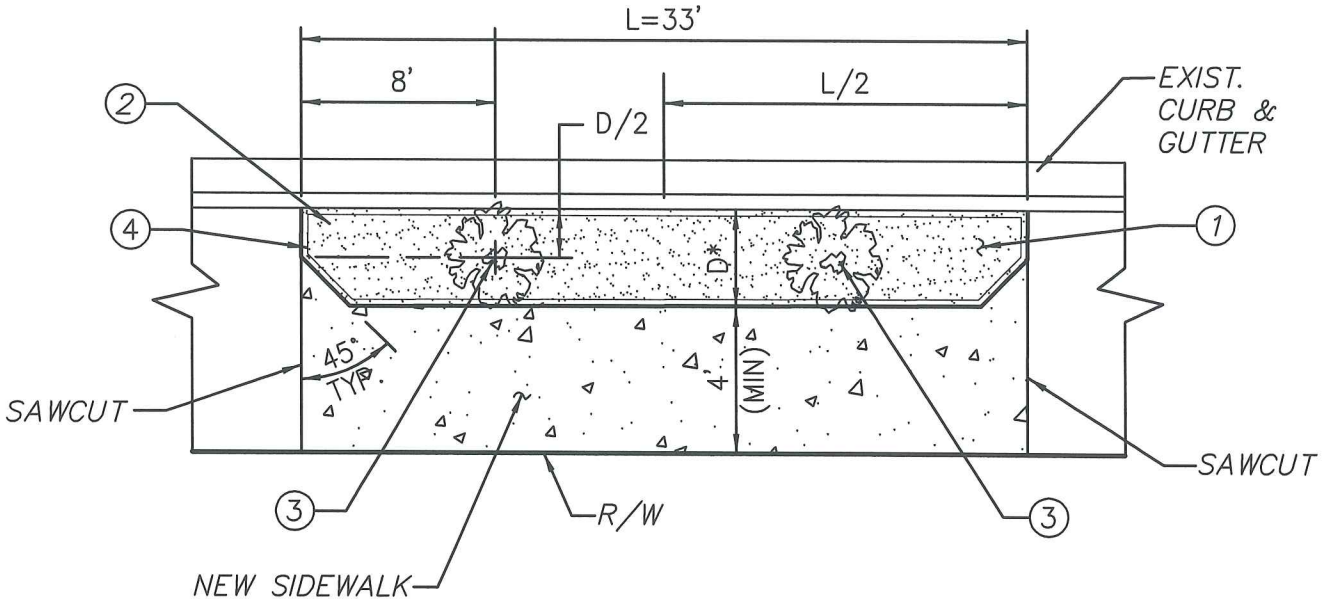
STANDARD PLAN 733
1 OF 2



NOTES:

1. NEW TREE WELL PREPARE SOIL AND PLANT NEW 24" BOX TREES PER HB STD PLANS 714, 715, 716, 718 AND 719, MODIFIED AS SHOWN. FINAL LOCATION AND SPECIES TO BE DETERMINES BY CITY STREET TREE SUPERVISOR.
2. NON-CHEMICAL WEED CONTROL BARRIER (ENTIRE TREE WELL)
3. NEW TREE WITH ARBORGARD OR APPROVED EQUAL
4. ROOT BARRIER CONTINUOUS AROUND TREE WELL.

* NOTE:
MIN D=3'
MAX D=4'

DOUBLE TREE WELL AND SIDEWALK DETAIL FOR NEW TREE

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STANDARD PLAN **733**

2 OF 2