

ITEM	MANUFACTURER/MODEL (OR APPROVED EQUAL)
BACKFLOW PREVENTER	FEBCO MODEL 825Y
BACKFLOW PREVENTER ENCLOSURE	STRONG BOX MODEL SBBC-CR (POWDER COATED DARK GREEN)
BOOSTER PUMP	WATERTRONICS
PRESSURE REDUCING VALVE	WILKINS MODEL 600XL
MASTER VALVE	RAIN BIRD PESB SERIES
FLOW SENSOR	RAIN MASTER FM SERIES
GATE VALVE-4" & LARGER	NIBCO P-619-RW
GATE VALVE-3" & SMALLER	LEEMCO LGT-SS SERIES
QUICK COUPLING VALVE	RAIN BIRD 44LRC OR 44NP (RECYCLED WATER SYSTEMS)
CONTROLLER	SITE ONE GREEN TECH DX2 SATELLITE ASSEMBLY
ELECTRIC CONTROL VALVE	RAIN BIRD PEB SERIES
BRASS BALL VALVE	NIBCO T-FP-600A
VALVE BOXES IN PLANTING AREAS	CARSON MODEL 708,910,1419 OR 1324
POP-UP TURF SPRAY SPRINKLER	RAIN BIRD 1806-SAM-PRS SERIES
POP-UP SHRUB SPRAY SPRINKLER	RAIN BIRD 1812-SAM-PRS SERIES
POP-UP ROTOR SPRINKLER	RAIN BIRD 8005 OR 5000 SERIES
BUBBLER	RAIN BIRD 1400 SERIES
DRIPLINE	RAIN BIRD XFCV
INLINE CHECK VALVE	NDS CV SERIES

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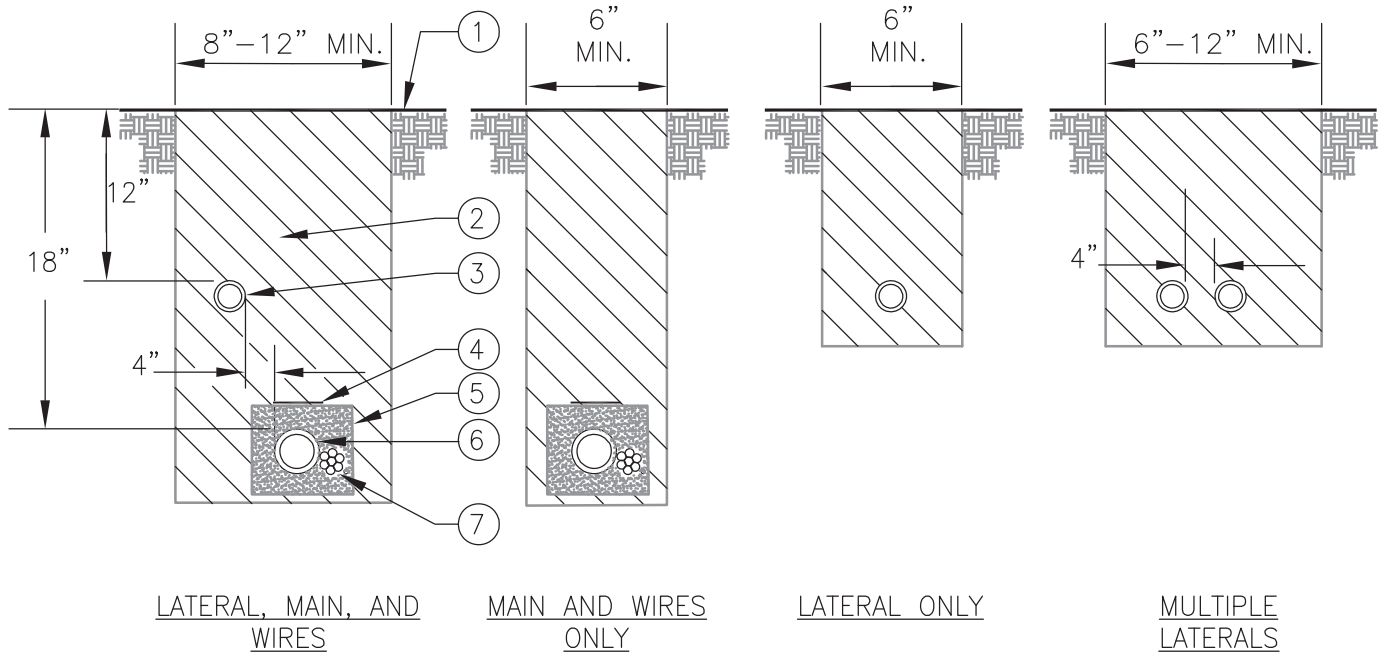
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			DATE: 2019-01-11
			SCALE: NONE

STANDARD DETAIL

IRRIGATION EQUIPMENT LIST

SHEET 1 OF 1

I-1



NOTES:

1. ALL MAIN SUPPLY LINES AND LATERAL LINES SHALL BE PLACED IN SLEEVES UNDER PAVED SURFACES. INSTALL LOW VOLTAGE WIRES WITHIN A SEPARATE CONDUIT UNDER PAVED SURFACES. DO NOT TAPE WIRES WITHIN CONDUIT
2. REUSE SALVAGED EXCAVATED FILL AND COMPACT TO ORIGINAL DENSITY IN LANDSCAPE AREAS. ALL OTHER AREAS SHALL BE AT 85% COMPACTION. BACKFILL MATERIAL SHALL BE THE EARTH EXCAVATED FROM THE TRENCHES, FREE FROM ROCKS (ANYTHING LARGER THAN 2"), CONCRETE CHUNKS, AND OTHER FOREIGN OR COARSE MATERIALS
3. FOR ANY PIPING UNDER PAVEMENT, SEE CITY DETAIL R-5.
4. WHEN 12" POP-UP SPRINKLER HEADS ARE USED, INCREASE THE DEPTH OF LATERAL TO 18" AT THE SPRINKLER LOCATION ONLY

- ① FINISH GRADE
- ② CLEAN BACKFILL MATERIAL
- ③ LATERAL LINE
- ④ 3" DETECTABLE WARNING TAPE OVER MAIN LINE. INSTALL ON TOP OF SAND ENCASUREMENT. USE CHRISTY MODEL #TA-DT-3-BIRR FOR POTABLE IRRIGATION SYSTEMS OR #TA-DT-3-PRW FOR RECYCLED IRRIGATION WATER SYSTEMS
- ⑤ ENCASE MAIN LINE AND WIRES IN SAND. PROVIDE 4" OF SAND ABOVE MAIN AND WIRES AND A MINIMUM OF 2" OF SAND ON THE REMAINING SIDES
- ⑥ MAIN LINE
- ⑦ LOW VOLTAGE CONTROL WIRES OR TWO-WIRE CABLE. TAPE AND BUNDLE CONTROL WIRES AT 10 FT. INTERVALS. WIRING SHALL BE LAID OUT LOOSELY IN THE TRENCH

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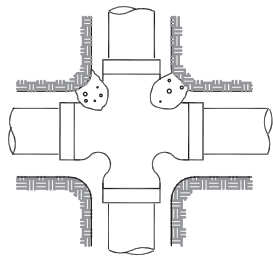
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STANDARD DETAIL

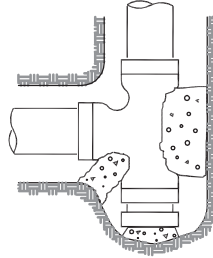
IRRIGATION SYSTEM TRENCHING

SHEET 1 OF 1

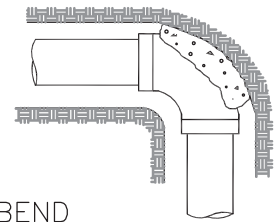
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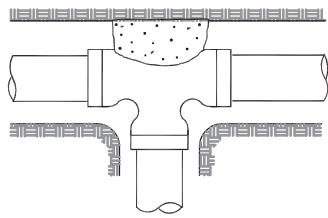
CROSS



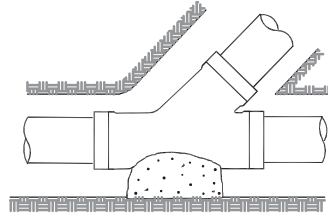
TEE W/ STUB



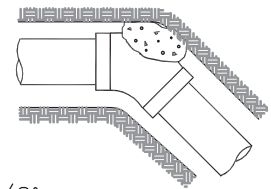
90° BEND



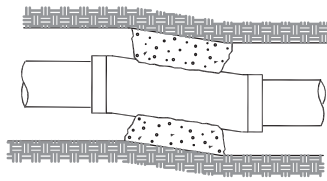
TEE



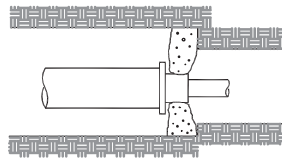
WYE



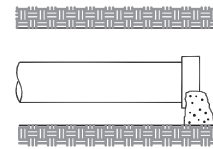
22 1/2°
OR 45° BEND



1 1/4° BEND



REDUCER



END CAP

1. CONCRETE THRUST BLOCK SHALL HAVE CONTACT WITH FITTING ONLY AND REMAIN CLEAR OF PIPE AND JOINTS
2. THRUST BLOCK TO BE CONSTRUCTED OF 3000 PSI CONCRETE
3. BLOCK TO BE POURED AGAINST UNDISTURBED SOIL
4. REFER TO CITY STANDARD DETAIL W-10 FOR THRUST BLOCK SIZING CHART

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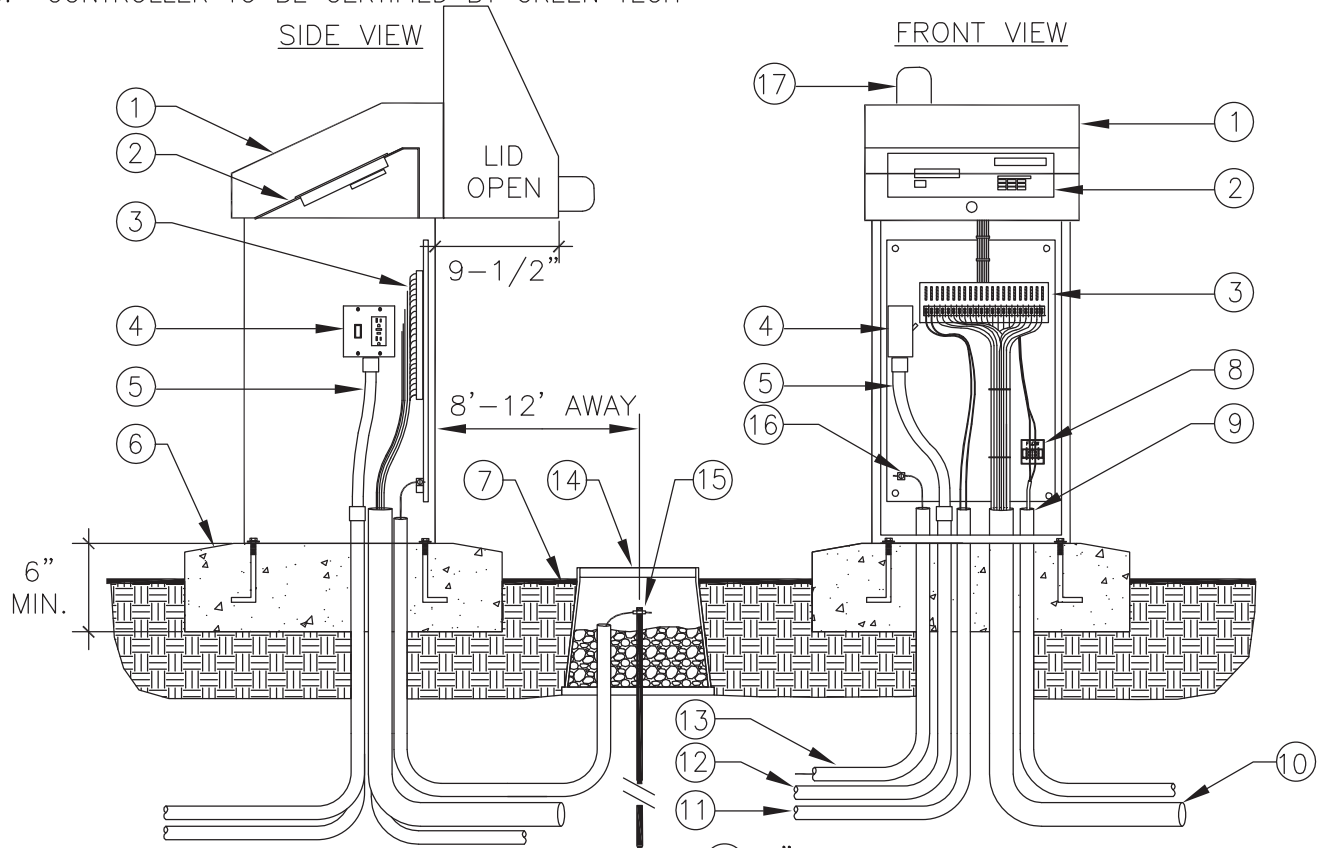
STANDARD DETAIL
IRRIGATION SYSTEM THRUST
BLOCKING

SHEET 1 OF 1

I-3

NOTES:

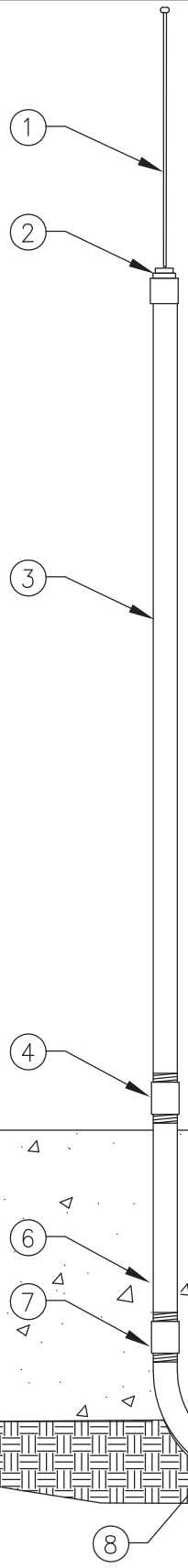
1. PROVIDE (CONTRACTOR) #10 BARE COPPER GROUND WIRE AND 5/8" DIA. (8' LONG) COPPER CLAD GROUNDING ROD(S) AS DIRECTED BY MANUFACTURER
2. UNIT IS TO BE ASSEMBLED, WIRED, AND TESTED BY A MANUFACTURER TRAINED VENDOR.
3. INSTALL (CONTRACTOR) ENCLOSURE TO CONCRETE PAD AS DIRECTED BY ENCLOSURE MANUFACTURER
4. INSTALL SLAB LEVEL AND 1" ABOVE FINISH GRADE. PROVIDE SLOPE TO TOP OF SLAB SURFACE FOR DRAINAGE
5. CONTRACTOR IS RESPONSIBLE TO COORDINATE 120V POWER FOR CONTROLLER WITH CITY PRIOR TO INSTALLATION
6. CONTROLLER TO BE CERTIFIED BY GREEN TECH



- | | |
|---|--|
| <ul style="list-style-type: none"> ① STRONGBOX STAINLESS STEEL NEMA 3R RAINPROOF ENCLOSURE (UL LISTED) ② SATELLITE ASSEMBLY. ASSEMBLED IN ENCLOSURE BY JOHN DEERE GREEN TECH ③ TERMINAL STRIP FOR VALVE WIRES ④ POWER SWITCH / GFCI RECEPTACLE ⑤ ELECTRICAL FLEX CONDUIT FOR POWER ⑥ 6" MIN THICK, CONCRETE PAD WITH ANCHOR BOLTS PER MANUFACTURER RECOMMENDATIONS ⑦ FINISH GRADE ⑧ FLOW SENSOR TERMINAL BOARD ⑨ 1" CONDUIT AND SWEEP ELL WITH FLOW SENSOR CABLE | <ul style="list-style-type: none"> ⑩ 3" CONDUIT AND SWEEP ELL FOR LOW VOLTAGE WIRES ⑪ 1" CONDUIT AND SWEEP ELL FOR MASTER VALVE WIRES ⑫ 1" CONDUIT AND SWEEP ELL FOR 110 VAC POWER LINE ⑬ 1" CONDUIT AND SWEEP ELL FOR GROUND WIRE ⑭ 10" ROUND VALVE BOX AROUND GROUND ROD. FILL WITH 3/4" CRUSHED ROCK ⑮ 5/8" X 8' GROUND ROD WITH #6 GROUND WIRE AND CLAMP. LOCATE 8'-12' FROM ENCLOSURE ⑯ #6 GROUND WIRE SECURED TO BACKBOARD GROUNDING TERMINAL ⑰ REMOTE RADIO ANTENNA |
|---|--|

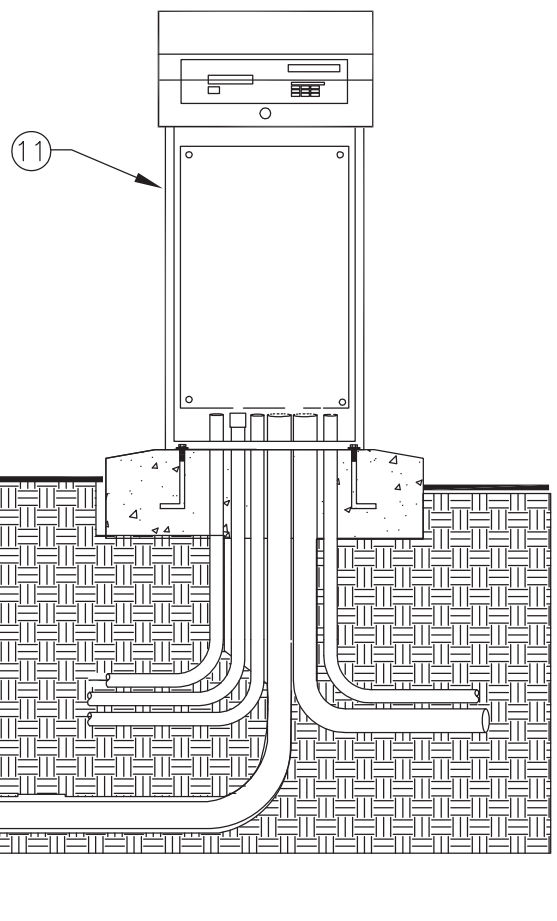
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 CITY OF PITTSBURGH	NO.	DATE	REVISION	DRAWN BY:	CM	STANDARD DETAIL	SHEET 1 OF 1
				CHECKED BY:	MK	CONTROLLER IN PEDESTAL ENCLOSURE	I-4
				DATE:	2019-01-11		
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- ① HIGH GAIN ANTENNA
- ② ANTENNA MOUNTING ASSEMBLY
- ③ 10'-1.5" SCH 40 GALVANIZED STEEL POLE (TOP AND BOTTOM THREADED)
- ④ GALVANIZED COUPLING (1.5"). SET 4" ABOVE CONCRETE FOOTING
- ⑤ 2' x 2' x 2' CONCRETE FOOTING FOR GALVANIZED POLE
- ⑥ 18'-1.5" SCH 40 GALVANIZED STEEL POLE (TOP AND BOTTOM THREADED)
- ⑦ GALVANIZED COUPLING (1.5"). SET IN CONCRETE FOOTING
- ⑧ GALVANIZED SWEEP ELL. SET IN CONCRETE FOOTING
- ⑨ PVC FEMALE ADAPTER OR REDUCING BUSHING TO CONVERT FROM GALVANIZED TO 1.5" PVC CONDUIT
- ⑩ 1-1/2" PVC CONDUIT AND SWEEP ELL INTO IRRIGATION CONTROLLER
- ⑪ SATELLITE CONTROLLER ASSEMBLY

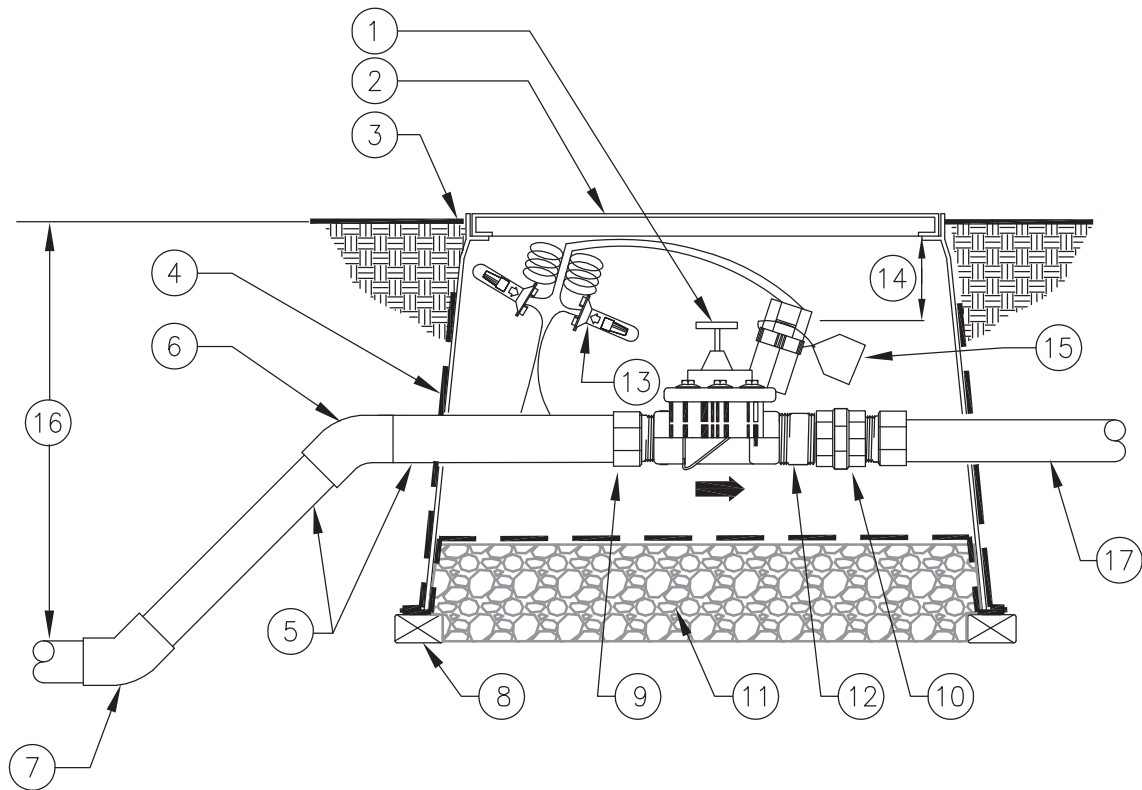
NOTE:
ANTENNA ASSEMBLY
TO BE CERTIFIED BY
GREEN TECH



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- ① MASTER CONTROL VALVE WITH FLOW CONTROL AND MANUAL BLEED (PRESSURE REGULATOR WHERE SHOWN ON PLANS). CENTER WITHIN BOX
- ② 14" X 19" RECTANGULAR PLASTIC VALVE BOX WITH BOLT DOWN LID. INSTALL BOX AS SHOWN IN BOX INSTALLATION DETAIL
- ③ FINISH GRADE
- ④ 19 GAUGE 1/2" SQUARE WIRE MESH. WRAP UP SIDES OF BOX
- ⑤ SCH. 80 PVC PIPE. LENGTH AS REQUIRED
- ⑥ TYP. PVC SCH. 80 45° ELBOW (SxS)-4 TOTAL
- ⑦ PVC MAIN LINE FROM BACKFLOW OR PUMP
- ⑧ BRICK-ONE ON EACH CORNER
- ⑨ SCH. 80 PVC MALE ADAPTER- 2 TOTAL
- ⑩ SCH. 80 PVC THREADED UNION-2 TOTAL
- ⑪ PEA GRAVEL OR 3/4" DRAIN ROCK- 4" DEEP BELOW VALVE (NO SOIL IN VALVE BOX)
- ⑫ 3" LONG SCH. 80 PVC NIPPLE-2 TOTAL. MATCH VALVE SIZE
- ⑬ VALVE CONTROL WIRE- PROVIDE 3M-DBY SEAL PACKS AT ALL SPLICES AND 36" OF EXCESS UF WIRE IN A 1" DIAMETER COIL
- ⑭ 3" MIN 6" MAX
- ⑮ VALVE I.D. TAG (CONTROLLER AND STATION NUMBER)
- ⑯ REFER TO IRRIGATION LEGEND
- ⑰ PVC MAIN LINE TO FLOW SENSOR

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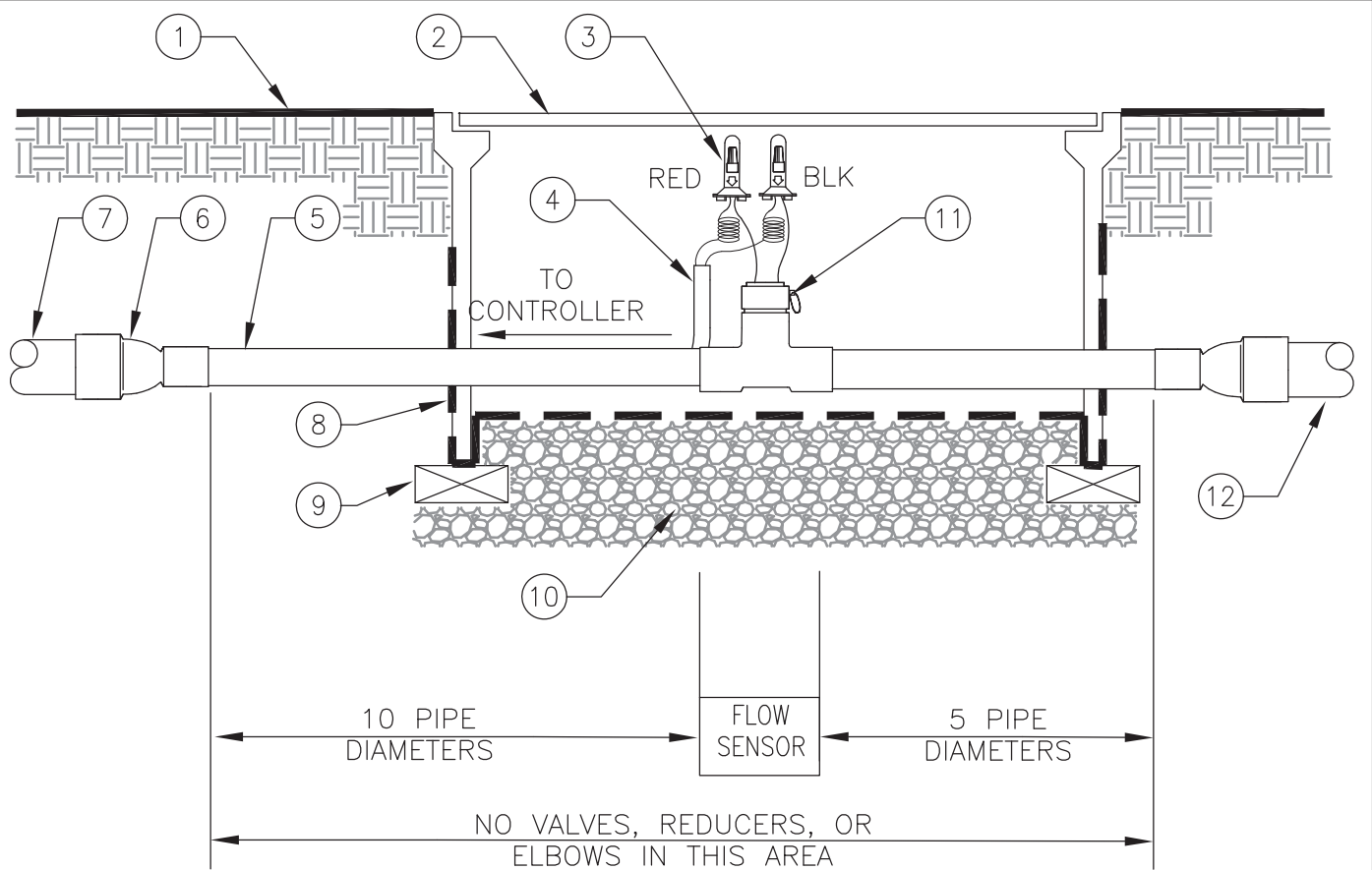
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STANDARD DETAIL

MASTER CONTROL VALVE

SHEET 1 OF 1

I-6




- ① FINISH GRADE
- ② 14" X 19" RECTANGULAR PLASTIC VALVE BOX WITH BOLT DOWN LID. INSTALL BOX AS SHOWN IN BOX INSTALLATION DETAIL
- ③ 18 GAUGE AWG DIRECT BURIAL WIRE. FLOW SENSOR WIRE MUST BE RUN IN 1" PVC CONDUIT FROM FLOW SENSOR TO CONTROLLER ENCLOSURE. PROVIDE 3M-DBY SEAL PACKS AT ALL SPLICES AND 36" OF EXCESS WIRE IN A 1" DIAMETER COIL
- ④ 1" SCH 40 PVC CONDUIT
- ⑤ SCH. 80 PVC PIPE
- ⑥ SCH. 80 PVC REDUCER IF REQUIRED
- ⑦ PVC MAIN LINE TO MASTER CONTROL VALVE
- ⑧ 19 GAUGE 1/2" SQUARE WIRE MESH. WRAP UP SIDES OF BOX
- ⑨ BRICK-ONE ON EACH CORNER
- ⑩ PEA GRAVEL OR 3/4" DRAIN ROCK- 4" DEEP BELOW VALVE (NO SOIL IN VALVE BOX)
- ⑪ FLOW SENSOR MUST BE INSTALLED WITH INSERT (TOP) POSITIONED VERTICALLY AND BODY (TEE) POSITIONED HORIZONTALLY
- ⑫ PVC MAIN LINE TO IRRIGATION SYSTEM

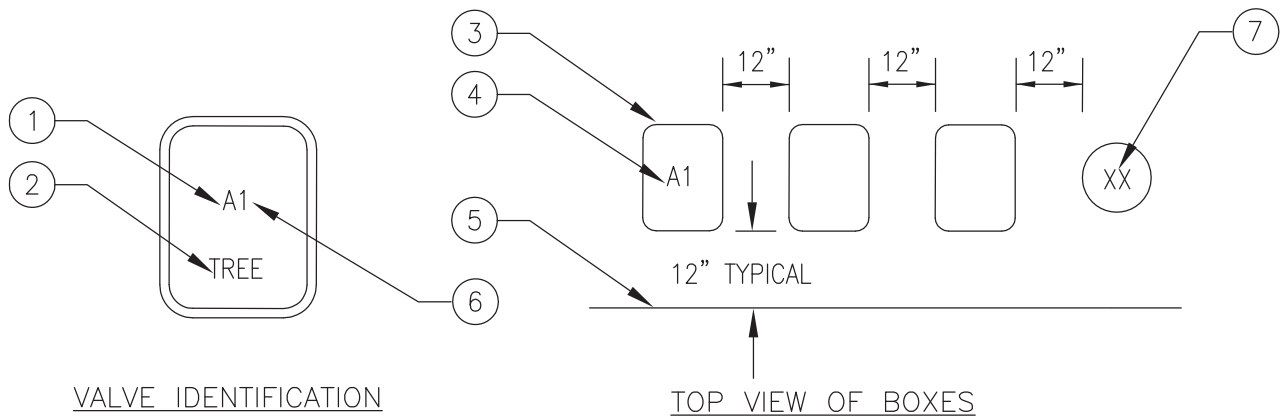
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				CHECKED BY: MK		
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				SCALE: NTS		



- ① CONTROLLER ID
- ② ALL TREE VALVES TO HAVE TREE BRANDED INTO LID
- ③ RECTANGULAR VALVE BOX
- ④ HEAT BRAND VALVE TYPE PER TABLE OR CONTROLLER ID AND STATION NUMBER INTO LID
- ⑤ EDGE OF LAWN, WALK, FENCE, CURB, ETC
- ⑥ STATION NUMBER
- ⑦ ROUND VALVE BOX FOR QCV AND GATE VALVE. HEAT BRAND VALVE TYPE INTO INTO LID PER TABLE

ITEMS TO BRAND:	BRAND CODE
GATE VALVE	GV
PRESSURE REDUCER	PRV
MASTER VALVE	MV
FLOW SENSOR	FS
HYDROMETER	HM
MAIN LINE AIR RELIEF	ARV
REMOTE CONTROL VALVE	A1 → A48
QUICK COUPLER	QC
SPLICE BOX	SB
PULL BOX	PB
LIGHTNING ARRESTOR	LA
GROUND ROD	GR

INSTRUCTIONS:

1. CENTER VALVE BOX OVER REMOTE CONTROL VALVE TO FACILITATE SERVICING VALVE
2. SET BOXES 1" ABOVE FINISH GRADE OR MULCH COVER IN GROUND COVER/SHRUB AREA AND FLUSH WITH FINISH GRADE IN TURF AREA
3. SET RCV AND VALVE BOX ASSEMBLY IN GROUND COVER/SHRUB AREA WHERE POSSIBLE. INSTALL IN LAWN ONLY IF GROUND COVER DOES NOT EXIST ADJACENT TO LAWN
4. SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE OF LAWN, WALK, FENCE, CURB, ETC
5. AVOID HEAVILY COMPACTING SOIL AROUND VALVE BOXES TO PREVENT COLLAPSE AND DEFORMATION OF VALVE BOX SIDES
6. INSTALL EXTENSION BY VALVE BOX MANUFACTURER AS REQUIRED TO COMPLETELY ENCLOSE ASSEMBLY FOR EASY ACCESS

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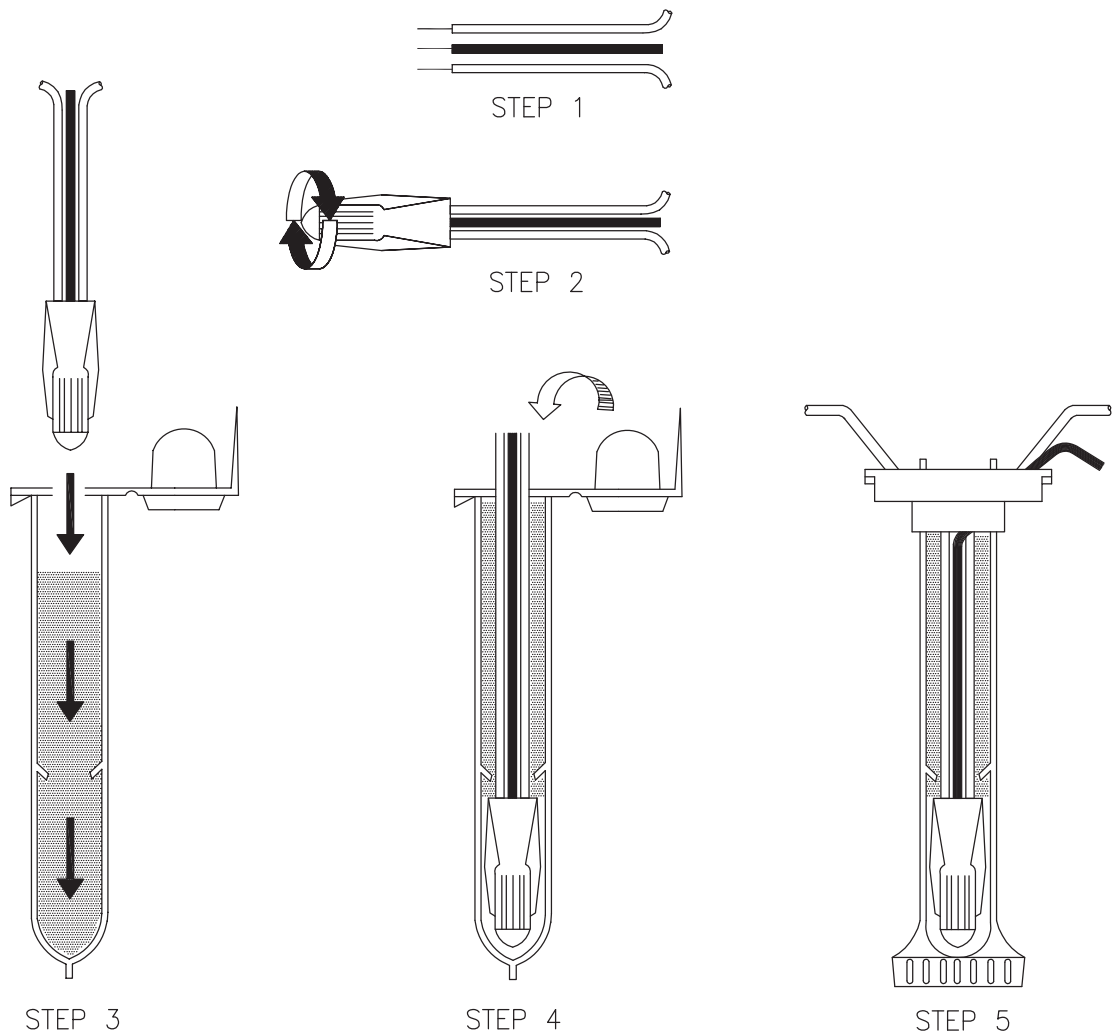
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STANDARD DETAIL
IRRIGATION VALVE BOX
INSTALLATION

SHEET 1 OF 1

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NOTE:

MAXIMUM # OF WIRES PER CONNECTOR:


- 3-#14 GAUGE
- 2-#12 GAUGE

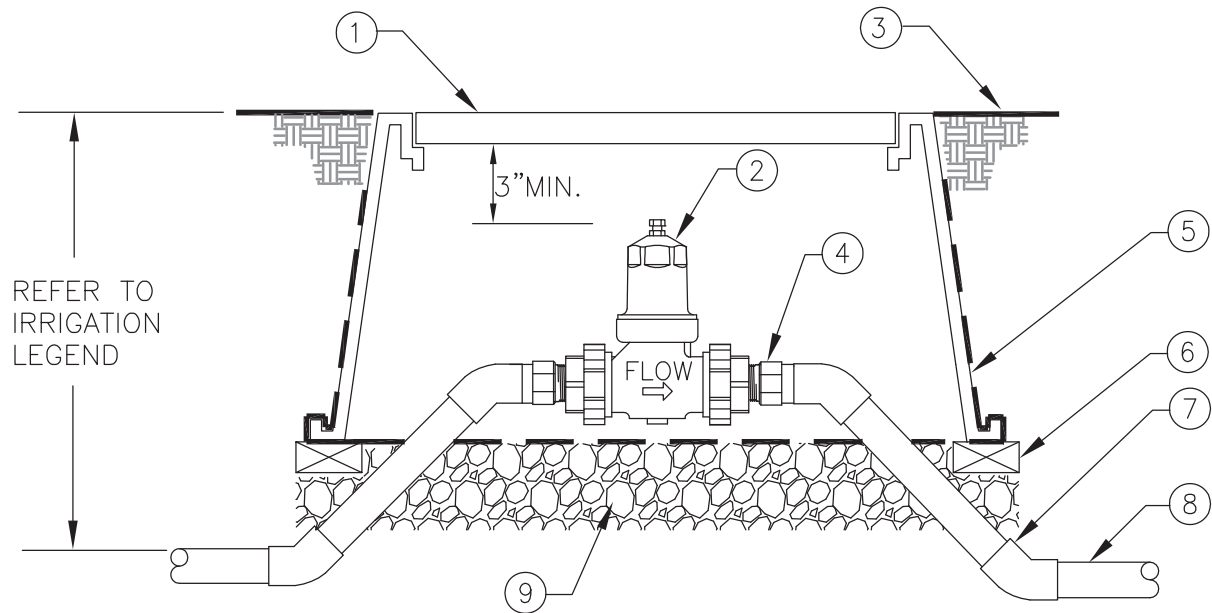
INSTRUCTIONS:

1. STRIP WIRES APPROXIMATELY 1/2" FROM ENDS TO EXPOSE WIRE
2. TWIST CONNECTOR AROUND WIRES CLOCKWISE UNTIL HAND TIGHT, DO NOT OVERTIGHTEN
3. INSERT WIRE ASSEMBLY TO BOTTOM OF GEL-FILLED TUBE. CHECK TO MAKE SURE CONNECTOR HAS BEEN PUSHED PAST LOCKING FINGERS AND IS SEATED AT THE BOTTOM OF THE TUBE
4. PLACE WIRES WHICH EXIT TUBE IN WIRE EXIT HOLES AND CLOSE CAP UNTIL IT SNAPS
5. INSPECT FINAL SPLICE ASSEMBLY THAT IT IS SECURED

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- ① RECTANGULAR PLASTIC VALVE BOX WITH BOLT- DOWN LID. INSTALL BOX AS SHOWN IN BOX INSTALLATION DETAIL. TOP DIMENSION: 15 3/4" X 25 1/4" (15" DEEP)
- ② PRESSURE REDUCING VALVE: WILKINS 600XL OR APPROVED EQUAL
- ③ FINISH GRADE
- ④ SCHEDULE 80 PVC MALE ADAPTER. (2 TOTAL)
- ⑤ 19 GAUGE 1/2" SQUARE WIRE MESH. WRAP UP SIDES OF BOX
- ⑥ BRICK - ONE EACH CORNER OF BOX
- ⑦ TYP. PVC SCHEDULE 80 45° ELBOW (SxS)
- ⑧ PVC MAIN LINE
- ⑨ PEA GRAVEL - 4" DEEP (NO SOIL IN VALVE BOX)

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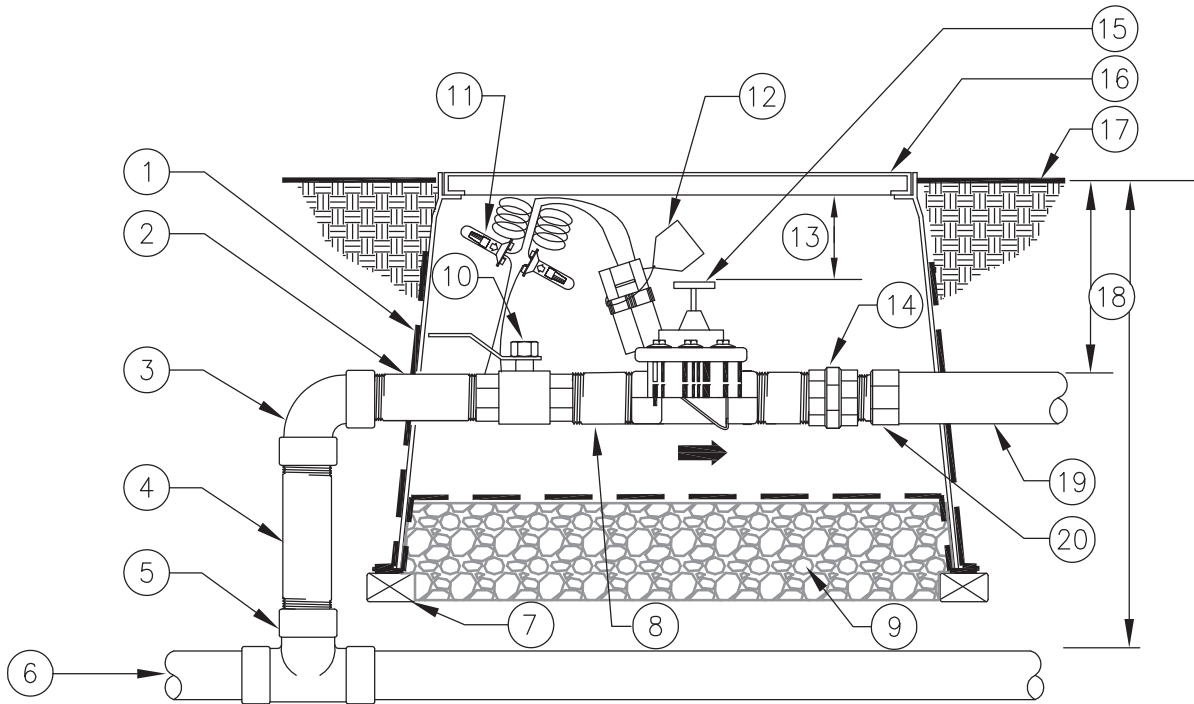
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STANDARD DETAIL

PRESSURE REDUCING VALVE

SHEET 1 OF 1

I-10



- ① 19 GAUGE 1/2" SQUARE WIRE MESH. WRAP UP SIDES OF BOX
- ② SCH. 80 PVC NIPPLE (8"-12" IN LENGTH). LENGTH AS REQUIRED TO PROVIDE CLEARANCE FOR BALL VALVE HANDLE. MATCH VALVE SIZE
- ③ SCH. 80 PVC 90° ELBOW (T×T)
- ④ SCH. 80 PVC NIPPLE. LENGTH AS REQUIRED
- ⑤ SCH. 40 OR 80 PVC TEE. REFER TO LEGEND FOR TYPE
- ⑥ PVC MAIN LINE
- ⑦ BRICK-ONE ON EACH CORNER
- ⑧ 3" LONG SCH. 80 PVC NIPPLE. MATCH VALVE SIZE (2 TOTAL)
- ⑨ PEA GRAVEL OR 3/4" DRAIN ROCK. 4" DEEP BELOW VALVE (NO SOIL IN VALVE BOX)
- ⑩ BRASS BALL VALVE-1 PER VALVE. PROVIDE ENOUGH CLEARANCE FROM EDGE OF BOX FOR VALVE TO OPERATE
- ⑪ VALVE CONTROL WIRE. PROVIDE 3M-DBY SEAL PACKS AT ALL SPLICES AND 36" OF EXCESS UF WIRE IN A 1" DIA. COIL
- ⑫ VALVE I.D. TAG (CONTROLLER AND STATION NUMBER)
- ⑬ 3" MIN 6" MAX
- ⑭ SCH. 80 PVC THREADED UNION
- ⑮ REMOTE CONTROL VALVE WITH FLOW CONTROL AND MANUAL BLEED (PRESSURE REGULATOR WHERE SHOWN ON PLANS)
- ⑯ 14" X 19" RECTANGULAR PLASTIC VALVE BOX WITH BOLT DOWN LID. ONE VALVE PER BOX- NO EXCEPTIONS. INSTALL BOX AS SHOWN IN BOX INSTALLATION DETAIL
- ⑰ FINISH GRADE
- ⑱ REFER TO IRRIGATION LEGEND
- ⑲ PVC LATERAL LINE
- ⑳ SCH. 80 PVC MALE ADAPTER

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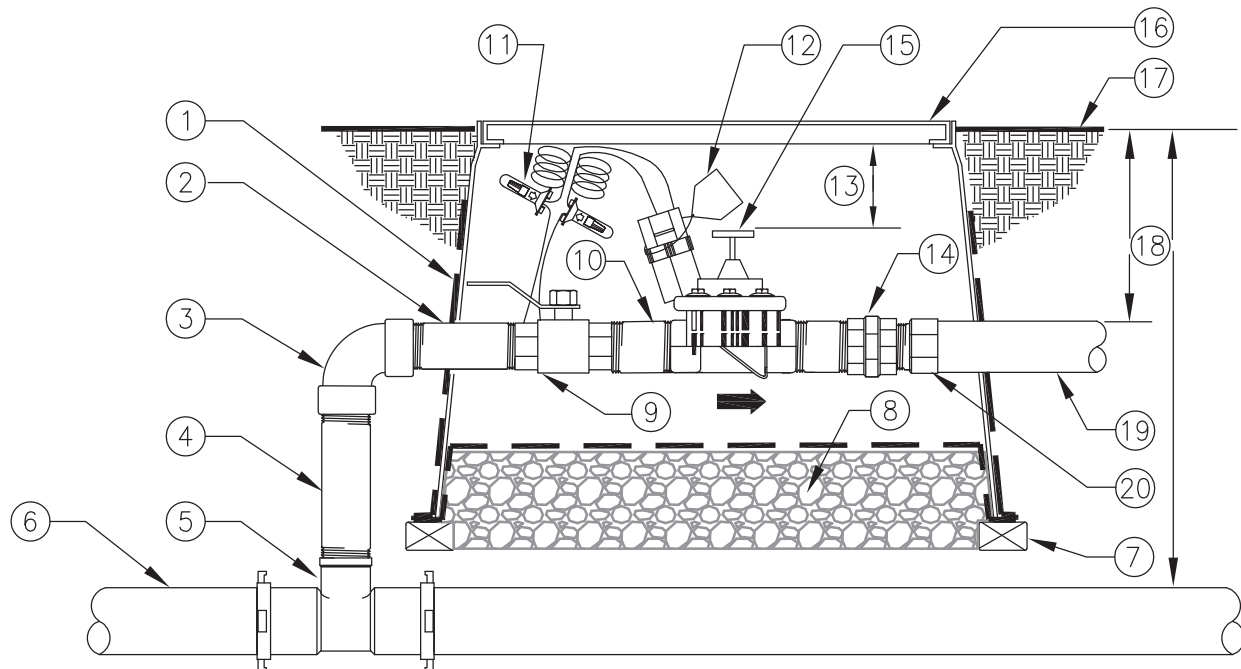
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STANDARD DETAIL

REMOTE CONTROL VALVE

SHEET 1 OF 3

I-11



- ① 19 GAUGE 1/2" SQUARE WIRE MESH. WRAP UP SIDES OF BOX
- ② SCH. 80 PVC NIPPLE (8"-12" IN LENGTH). LENGTH AS REQUIRED TO PROVIDE CLEARANCE FOR BALL VALVE HANDLE. MATCH VALVE SIZE
- ③ SCH. 80 PVC 90° ELBOW (T×T)
- ④ SCH. 80 PVC NIPPLE. LENGTH AS REQUIRED
- ⑤ GASKETED DUCTILE IRON SERVICE TEE
- ⑥ CLASS 200 RING TITE PVC MAIN LINE
- ⑦ BRICK—ONE ON EACH CORNER
- ⑧ PEA GRAVEL OR 3/4" DRAIN ROCK. 4" DEEP BELOW VALVE (NO SOIL IN VALVE BOX)
- ⑨ BRASS BALL VALVE—1 PER VALVE. PROVIDE ENOUGH CLEARANCE FROM EDGE OF BOX FOR VALVE TO OPERATE
- ⑩ 3" LONG SCH. 80 PVC NIPPLE. MATCH VALVE SIZE (2 TOTAL)
- ⑪ VALVE CONTROL WIRE. PROVIDE 3M—DBY SEAL PACKS AT ALL SPLICES AND 36" OF EXCESS UF WIRE IN A 1" DIA. COIL
- ⑫ VALVE I.D. TAG (CONTROLLER AND STATION NUMBER)
- ⑬ 3" MIN 6" MAX
- ⑭ SCH. 80 PVC THREADED UNION
- ⑮ REMOTE CONTROL VALVE WITH FLOW CONTROL AND MANUAL BLEED (PRESSURE REGULATOR WHERE SHOWN ON PLANS)
- ⑯ 14" X 19" RECTANGULAR PLASTIC VALVE BOX WITH BOLT DOWN LID. ONE VALVE PER BOX— NO EXCEPTIONS. INSTALL BOX AS SHOWN IN BOX INSTALLATION DETAIL.
- ⑰ FINISH GRADE
- ⑱ REFER TO IRRIGATION LEGEND
- ⑲ PVC LATERAL LINE
- ⑳ SCH. 80 PVC MALE ADAPTER

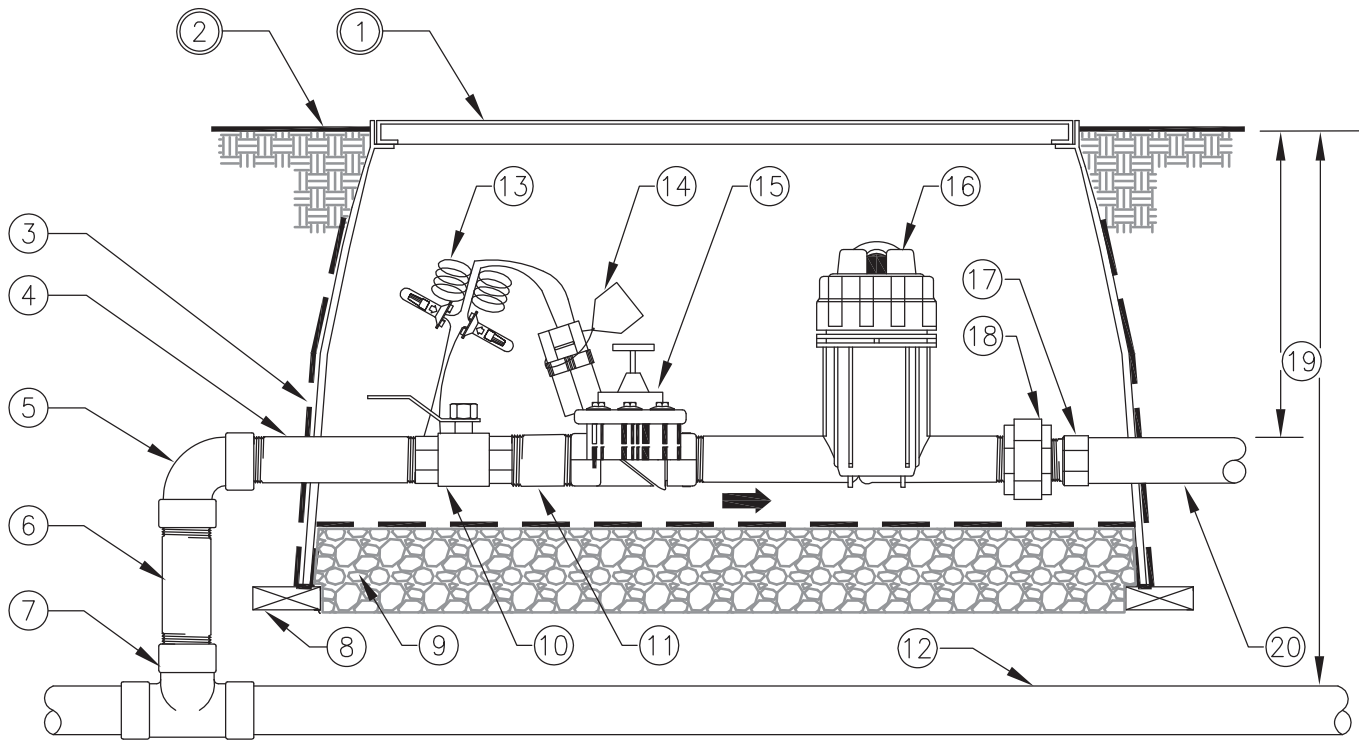
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				SCALE: NTS		



- ① RECTANGULAR PLASTIC VALVE BOX WITH BOLT DOWN LID. ONE VALVE PER BOX—NO EXCEPTIONS. INSTALL BOX AS SHOWN IN BOX INSTALLATION DETAIL
- ② FINISH GRADE
- ③ 19 GAUGE 1/2" SQUARE WIRE MESH. WRAP UP SIDES OF BOX
- ④ SCH. 80 PVC NIPPLE (8"—12" IN LENGTH). LENGTH AS REQUIRED TO PROVIDE CLEARANCE FOR BALL VALVE HANDLE. MATCH VALVE SIZE
- ⑤ SCH. 80 PVC 90° ELBOW (T×T)
- ⑥ SCH. 80 PVC NIPPLE. LENGTH AS REQUIRED
- ⑦ SCH. 40 OR 80 PVC TEE. REFER TO LEGEND FOR TYPE
- ⑧ BRICK—ONE ON EACH CORNER
- ⑨ PEA GRAVEL OR 3/4" DRAIN ROCK. 4" DEEP BELOW VALVE (NO SOIL IN VALVE BOX)
- ⑩ BRASS BALL VALVE—1 PER VALVE. PROVIDE ENOUGH CLEARANCE FROM EDGE OF BOX FOR VALVE TO OPERATE
- ⑪ 3" LONG SCH. 80 PVC NIPPLE. MATCH VALVE SIZE (2 TOTAL)
- ⑫ PVC MAIN LINE
- ⑬ VALVE CONTROL WIRE. PROVIDE 3M—DBY SEAL PACKS AT ALL SPLICES AND 36" OF EXCESS UF WIRE IN A 1" DIA. COIL
- ⑭ VALVE I.D. TAG (CONTROLLER AND STATION NUMBER)
- ⑮ REMOTE CONTROL VALVE
- ⑯ PRESSURE REDUCING FILTER (40 PSI)
- ⑰ SCH. 80 PVC MALE ADAPTER
- ⑱ SCH. 80 PVC THREADED UNION
- ⑲ REFER TO IRRIGATION LEGEND
- ⑳ PVC LATERAL LINE

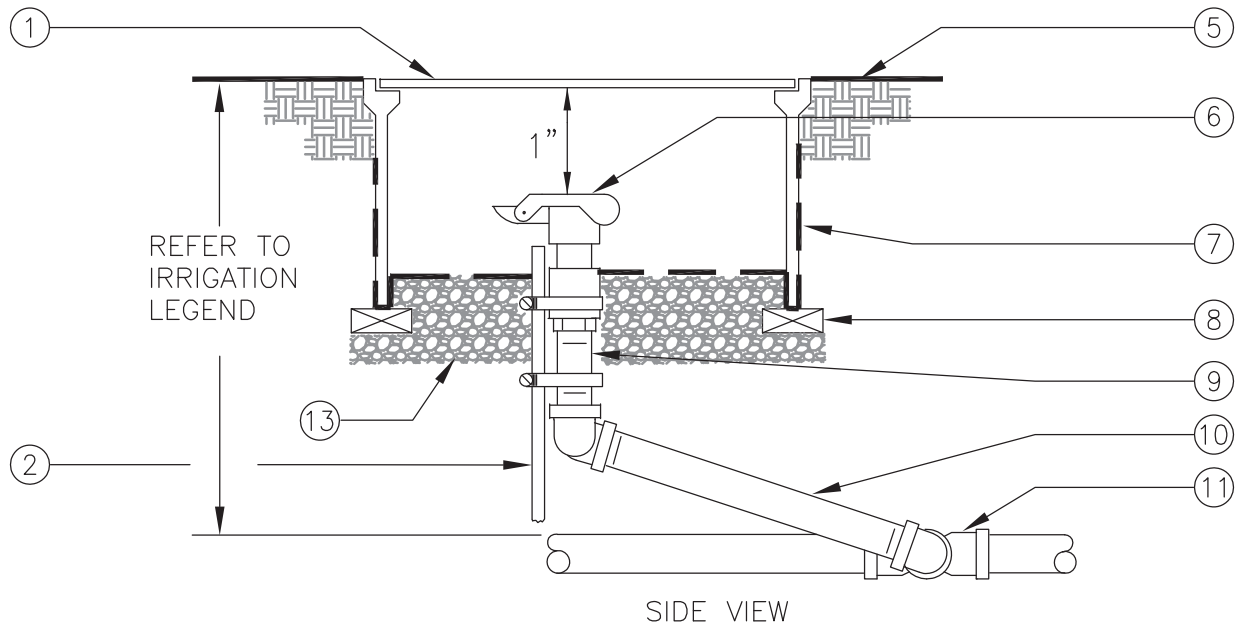
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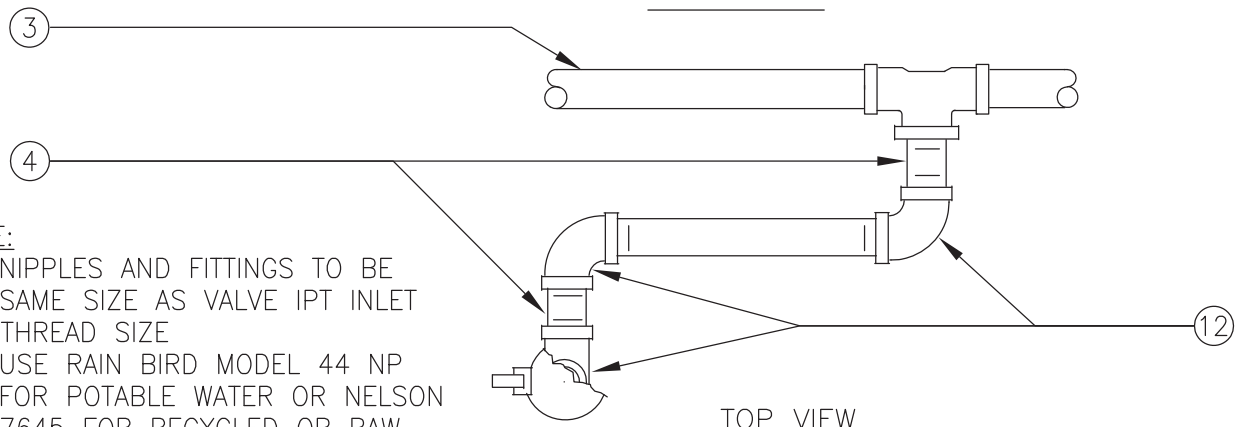
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DATE

	NO.	DATE	REVISION	DRAWN BY:	CM	<u>STANDARD DETAIL</u> REMOTE CONTROL VALVE — DRIP	SHEET 3 OF 3 I-11
				CHECKED BY:	MK		
				DATE:	2019-01-11		
				SCALE:	NTS		



SIDE VIEW



TOP VIEW

NOTE:

1. NIPPLES AND FITTINGS TO BE SAME SIZE AS VALVE IPT INLET THREAD SIZE
2. USE RAIN BIRD MODEL 44 NP FOR POTABLE WATER OR NELSON 7645 FOR RECYCLED OR RAW WATER

- | | |
|---|--|
| <ol style="list-style-type: none"> ① 10" ROUND PLASTIC VALVE BOX WITH BOLT DOWN LID ② 1 1/4" x 1 1/4" x 3/16" ANGLE IRON 30" LONG W/2 STAINLESS STEEL STRAPS (ONE AROUND QCV) ③ PVC MAIN LINE ④ 3" LONG SCHEDULE 80 PVC THREADED NIPPLE ⑤ FINISH GRADE ⑥ QUICK COUPLING VALVE ⑦ 19 GAUGE 1/2" SQUARE WIRE MESH. WRAP UP SIDES OF BOX | <ol style="list-style-type: none"> ⑧ BRICK - 2 TOTAL ⑨ SCHEDULE 80 PVC THREADED NIPPLE ⑩ 10" LONG SCHEDULE 80 PVC THREADED NIPPLE ⑪ UPC APPROVED SCHEDULE 40 PVC TEE OR ELBOW ⑫ SCHEDULE 80 PVC THREADED 90° ELL ⑬ PEA GRAVEL OR 3/4" DRAIN ROCK- 4" DEEP BELOW VALVE (NO SOIL IN VALVE BOX) |
|---|--|

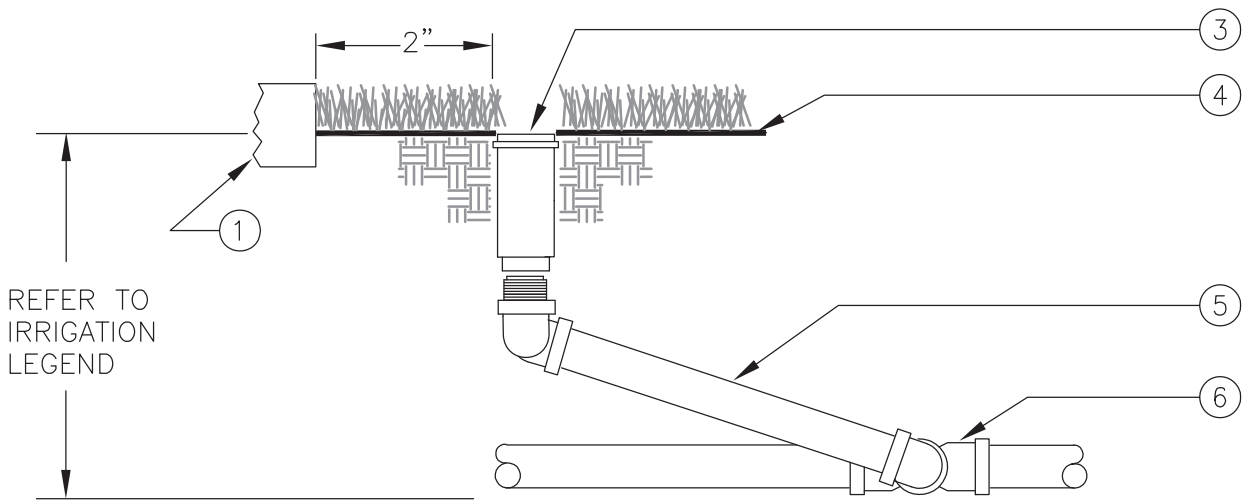
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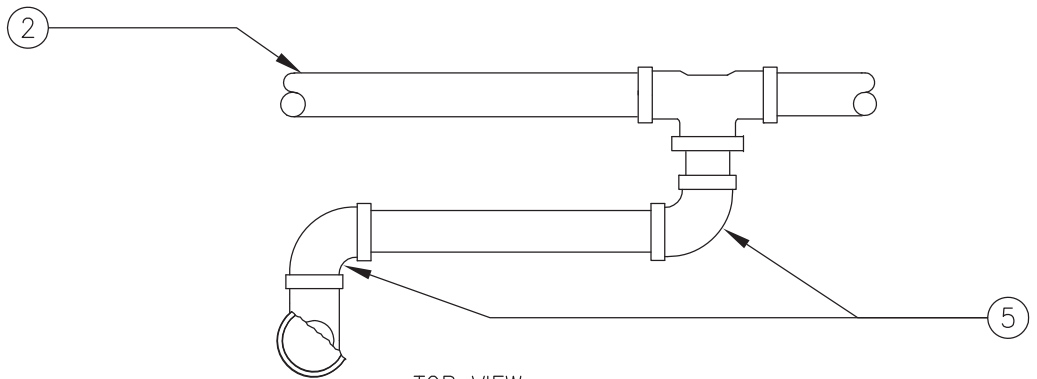
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	NO.	DATE	REVISION	DRAWN BY: CM	<u>STANDARD DETAIL</u> QUICK COUPLING VALVE	SHEET 1 OF 1 I-12
				CHECKED BY: MK		
				DATE: 2019-01-11		
				SCALE: NTS		



SIDE VIEW



TOP VIEW

NOTES:

1. SET SPRINKLER 1" ABOVE FINISH GRADE AT TIME OF INSTALLATION – LOWER TO FINISH GRADE WHEN TURF IS WELL ESTABLISHED

- ① WALL, WALK, CURB OR HEADER
- ② PVC LATERAL LINE
- ③ POP-UP ROTARY SPRINKLER
- ④ FINISH GRADE

- ⑤ UNITIZED SWING JOINT: 3/4"–LASCO MODEL T732–212
1"–LASCO MODEL T932–212
- ⑥ SCHEDULE 40 PVC TEE OR ELBOW WITH THREADED OUTLET

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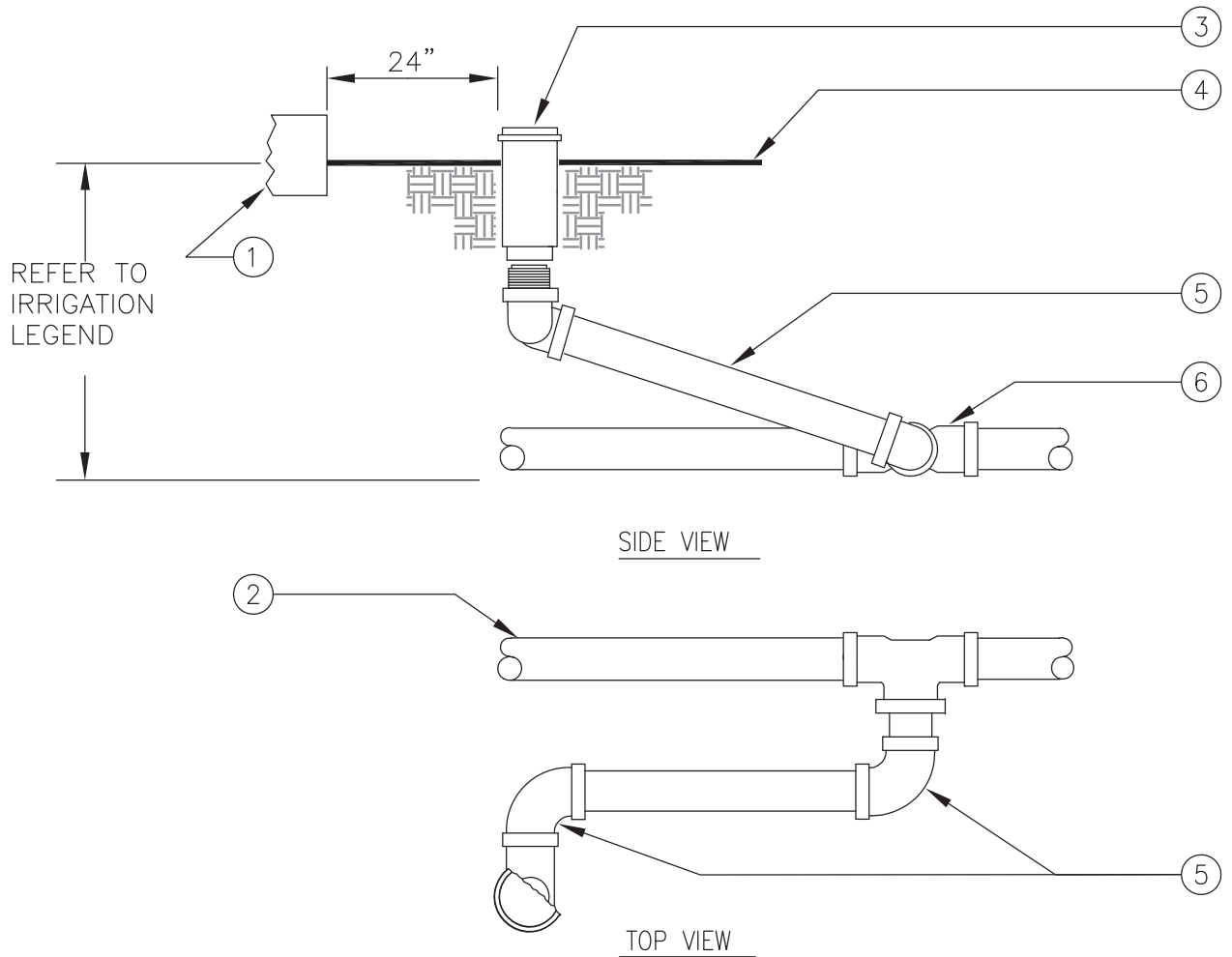
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			CHECKED BY:	MK
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			SCALE:	NTS

STANDARD DETAIL

POP-UP ROTOR – TURF AREAS

SHEET 1 OF 3


I-13




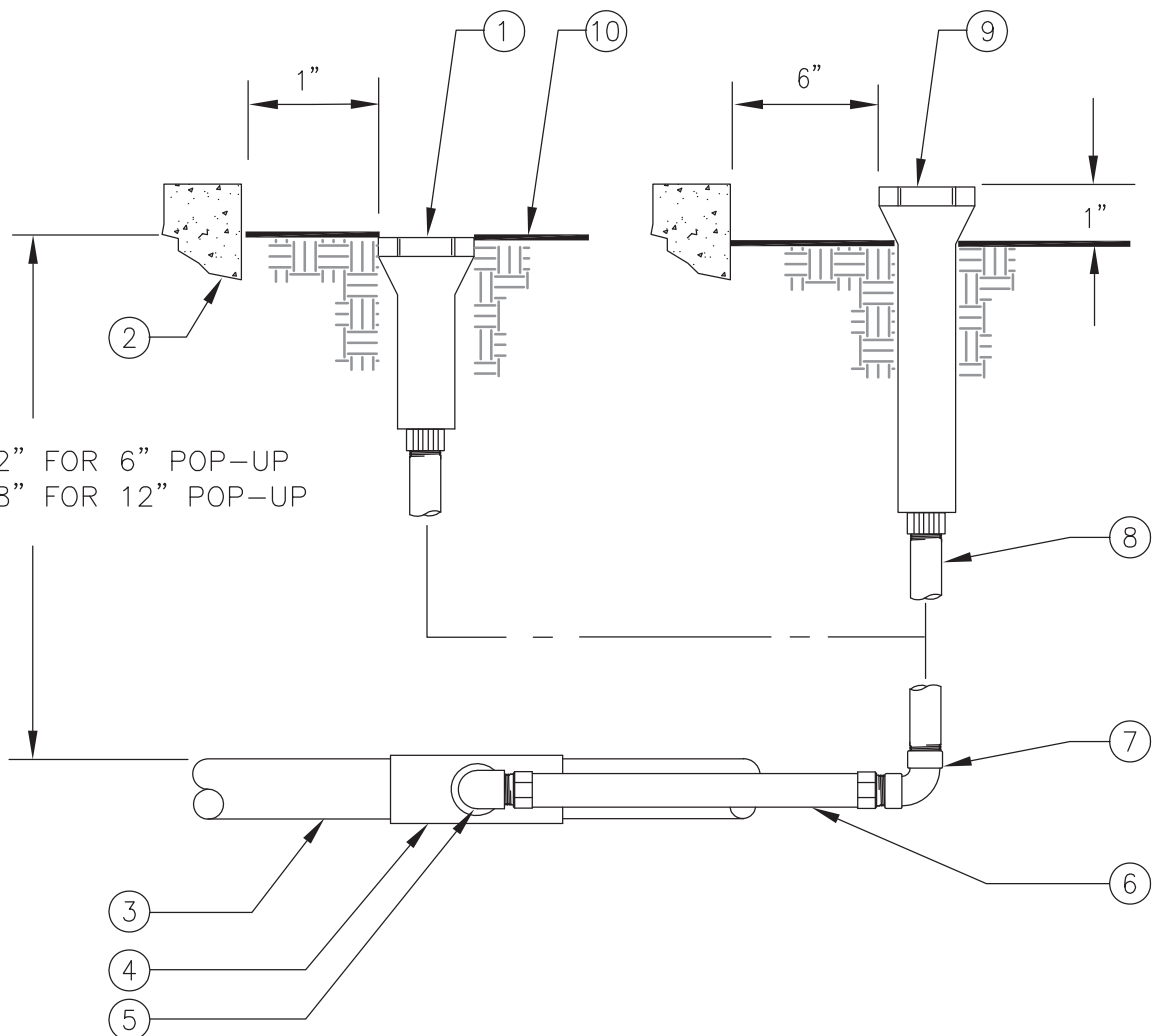
NOTES:

1. SET SPRINKLER 2" ABOVE FINISH GRADE

- ① WALL, WALK, CURB OR HEADER
- ② PVC LATERAL LINE
- ③ POP-UP ROTARY SPRINKLER
- ④ FINISH GRADE
- ⑤ UNITIZED SWING JOINT: 3/4"–LASCO MODEL T732–212
1"–LASCO MODEL T932–212
- ⑥ SCHEDULE 40 PVC TEE OR ELBOW WITH THREADED OUTLET

APPROVED  DATE 3/8/23

 CITY OF PITTSBURGH	NO.	DATE	REVISION	DRAWN BY: CM	STANDARD DETAIL POP-UP ROTOR – GROUND COVER/SHRUB AREAS	SHEET 2 OF 3 I-13
				CHECKED BY: MK		
				DATE: 2019-01-11		
				SCALE: NTS		



- 12" FOR 6" POP-UP
- 18" FOR 12" POP-UP

- ① POP-UP LAWN
- ② WALL, WALK, CURB OR BUILDING
- ③ PVC LATERAL LINE
- ④ SCH. 40 PVC TEE OR ELBOW
- ⑤ 1/2" SCH. 40 PVC STREET ELL
- ⑥ 1/2" FLEXIBLE IPS HOSE 6" LONG WITH MALE ADAPTERS
- ⑦ 1/2" SCH. 40 PVC THREADED 90° ELL
- ⑧ 1/2" SCH. 80 PVC THREADED NIPPLE (LENGTH AS REQUIRED)
- ⑨ POP-UP SHRUB SPRAY SPRINKLER OR BUBBLER
- ⑩ FINISH GRADE

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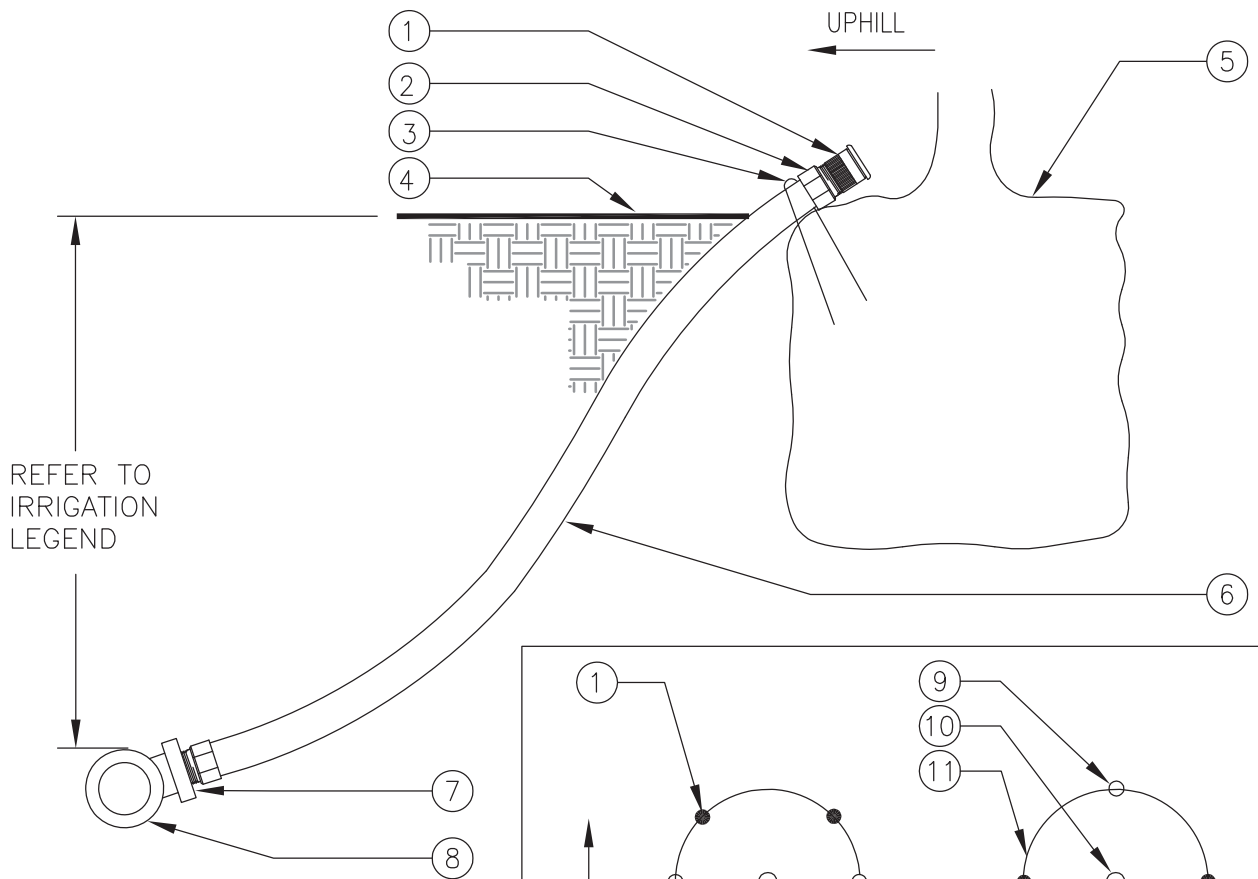
NO.	DATE	REVISION	DRAWN BY:	CM
			CHECKED BY:	MK
			DATE:	2019-01-11
			SCALE:	NTS

STANDARD DETAIL

POP-UP SPRAY SPRINKLER

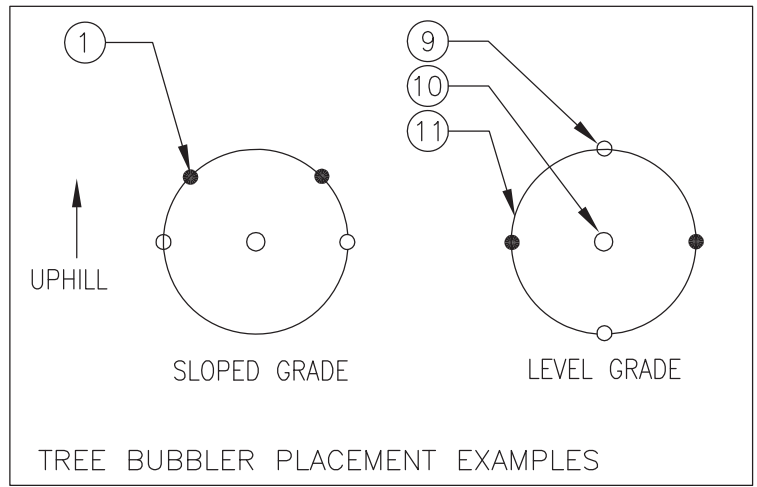
SHEET 3 OF 3

I-13





NOTE:
 SUGGESTED QUANTITY OF BUBBLERS
 PER TREES AND SHRUBS SIZE:

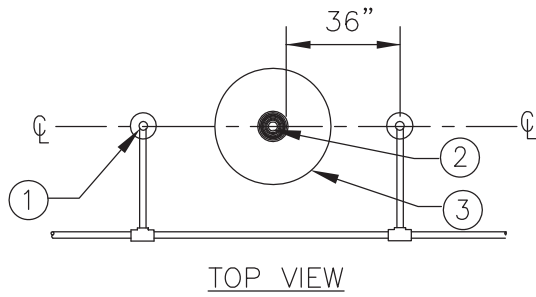
- SHRUBS = 1 BUBBLER
- 15 GAL OR 24" BOX = 2 BUBBLERS
- 36" OR 48" BOX = 4 BUBBLERS



- ① BUBBLER (TO BE INSTALLED ON TOP OF ROOTBALL)
- ② 1/2" SCH. 40 MALE ADAPTER
- ③ 6" STAPLE
- ④ FINISH GRADE
- ⑤ TREE OR SHRUB ROOTBALL
- ⑥ 1/2" IPS FLEXIBLE PVC
- ⑦ PVC TEE (SST), ELBOW (ST) OR FEMALE ADAPTER
- ⑧ PVC LATERAL LINE
- ⑨ TREE STAKES
- ⑩ TREE OR SHRUB
- ⑪ EDGE OF ROOTBALL (TYPICAL)

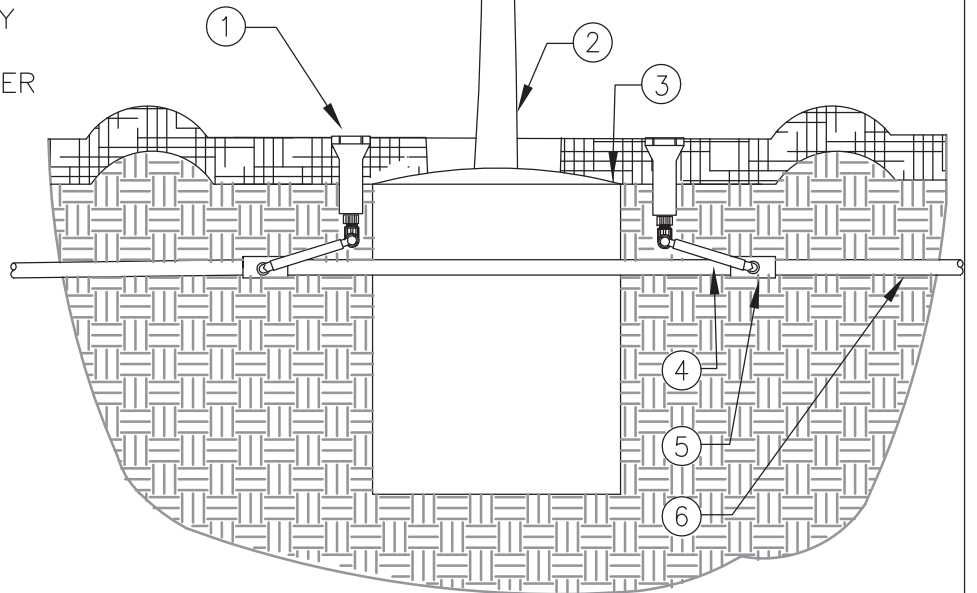
APPROVED  DATE 3/8/23

 CITY OF PITTSBURGH	NO.	DATE	REVISION	DRAWN BY: CM	STANDARD DETAIL TREE & SHRUB BUBBLER – NON-TURF AREAS	SHEET 1 OF 2 I-14
				CHECKED BY: MK		
				DATE: 2019-01-11		
				SCALE: NTS		



NOTE:
INSTALL 2 POP-UP
BUBBLERS PER TREE.

- ① 6" POP-UP SPRAY BUBBLER WITH 5 FT MPR NOZZLE. ADJUST NOZZLE RADIUS TO PREVENT DIRECT SPRAY ONTO TRUNK. INSTALL POP-UP SPRINKLER PER CITY STD DETAIL I-13
- ② BASE OF TREE
- ③ ROOT BALL
- ④ SPRINKLER RISER. INSTALL POP-UP SPRINKLER PER CITY STD DETAIL I-13
- ⑤ SCH. 40 PVC TEE OR ELBOW
- ⑥ LATERAL LINE



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NO.	DATE	REVISION

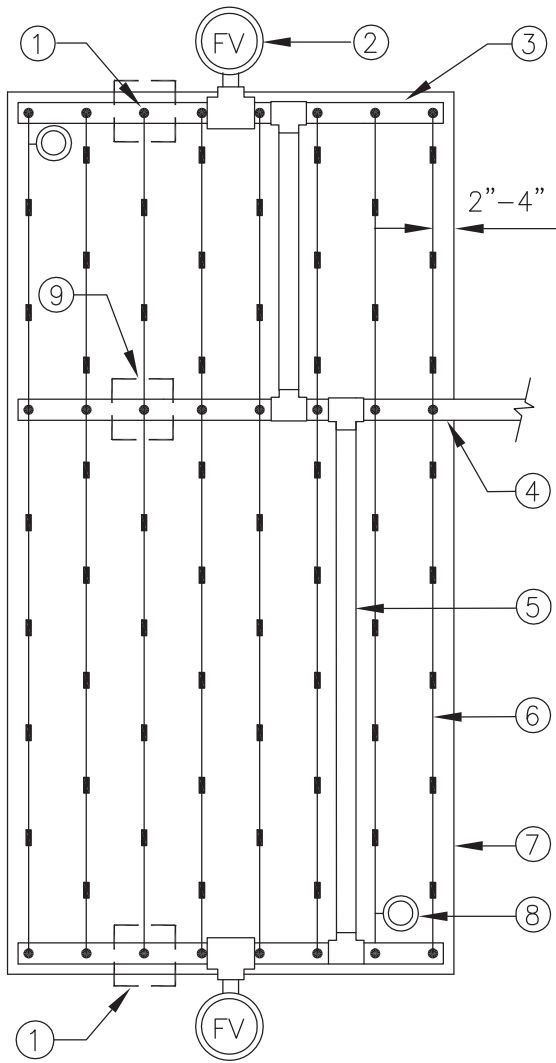
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SCALE:	NTS

STANDARD DETAIL

POP-UP TREE BUBBLER - TURF
AREAS

SHEET 2 OF 2

I-14

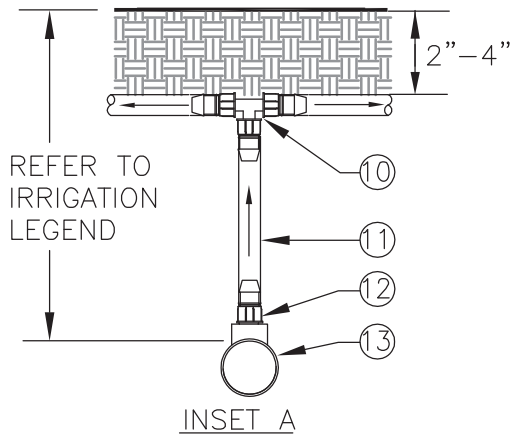


PLAN VIEW

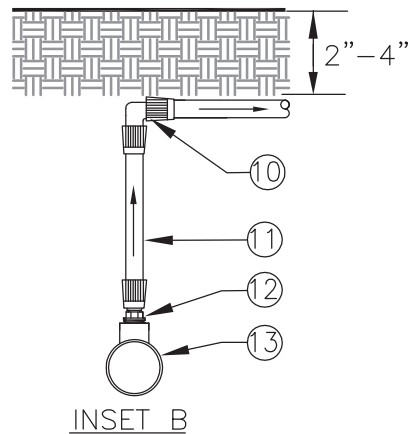
- ① PVC TO DRIPLINE ELBOW CONNECTION. REFER TO INSET B
- ② FLUSH VALVE PLUMBED TO FLUSH MANIFOLD AT LOW POINT
- ③ 1" SCH. 40 PVC FLUSH MANIFOLD
- ④ PVC LATERAL LINE FROM VALVE. MINIMUM SIZE TO BE 1". SIZE AS FOLLOWS:
1" = 0-12 GPM
1.25" = 13-20 GPM
- ⑤ 1" PVC SUPPLY. EXTEND TO ENDS OF ZONE/EXHAUST HEADER
- ⑥ RAIN BIRD XFCV DRIPLINE
- ⑦ AREA PERIMETER
- ⑧ DRIPLINE OPERATION INDICATOR LOCATED AT THE ENDS OF EACH DRIPLINE ZONE. MIN. 2 PER VALVE
- ⑨ PVC TO DRIPLINE TEE CONNECTION. REFER TO INSET A
- ⑩ TWIST LOCK FITTING. TLF-TEE-0600 OR TLF-ELBW-0600
- ⑪ 1/2" POLYETHYLENE TUBING: RAIN BIRD XFD SERIES BLANK TUBING
- ⑫ TWIST LOCK FITTING: TLF-MPT6-0600
- ⑬ SCH 40 PVC TEE (SxSxT) WITH 1/2" FPT OUTLET

NOTE:

1. THE TOTAL LENGTH OF ALL INTERCONNECTED DRIP LINE OFF A SINGLE PVC SUPPLY LINE CONNECTION OR A SINGLE RUN OF DRIPLINE SHALL NOT EXCEED 300 FT
2. INSTALL DRIPLINE 2"-4" BELOW GRADE AND STAKE DOWN EVERY 4' OR AS REQUIRED



INSET A



INSET B

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DATE



CITY OF PITTSBURGH

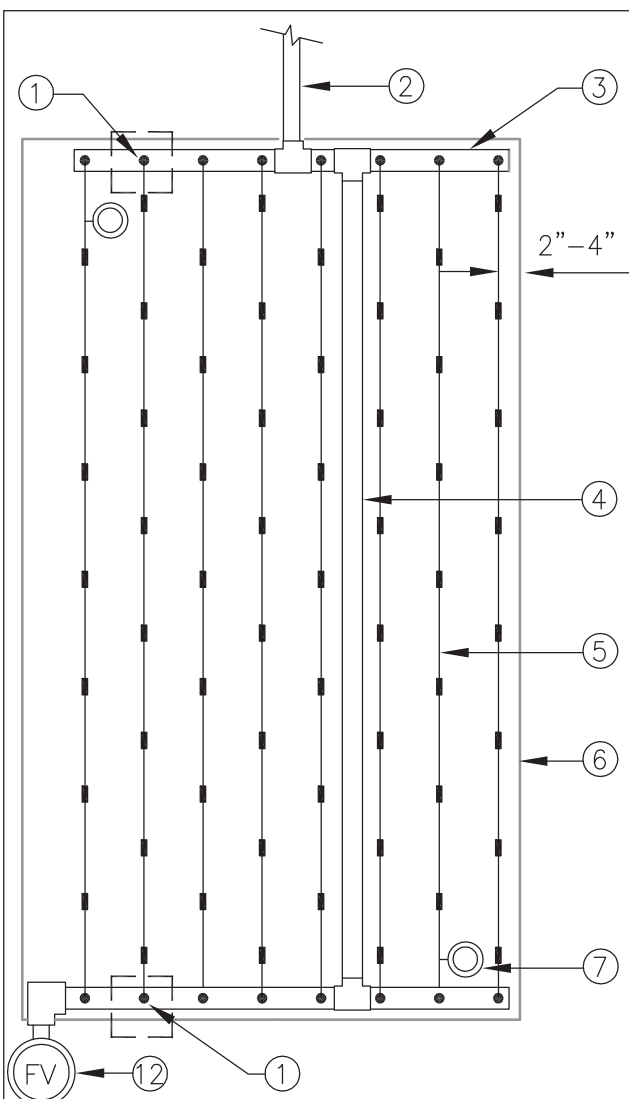
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			DATE:	2019-01-11
			SCALE:	NTS

STANDARD DETAIL

DRIPLINE - CENTER FEED

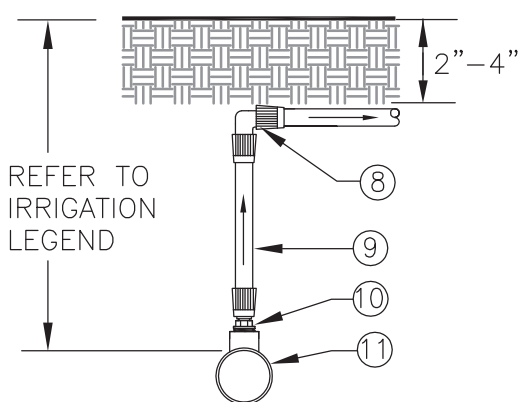
SHEET 1 OF 6

I-15



PLAN VIEW

- ① PVC TO DRIPLINE ELBOW CONNECTION. REFER TO INSET A
- ② PVC LATERAL LINE FROM VALVE. MINIMUM SIZE TO BE 1". SIZE AS FOLLOWS:
1" = 0-12 GPM
1.25" = 13-20 GPM
- ③ 1" SCH. 40 PVC FLUSH MANIFOLD
- ④ 1" PVC SUPPLY. EXTEND TO ENDS OF ZONE/EXHAUST HEADER
- ⑤ RAIN BIRD XFCV DRIPLINE
- ⑥ AREA PERIMETER
- ⑦ DRIPLINE OPERATION INDICATOR LOCATED AT THE ENDS OF EACH DRIPLINE ZONE. MIN. 2 PER VALVE
- ⑧ TWIST LOCK FITTING. TLF-ELBW-0600
- ⑨ 1/2" POLYETHYLENE TUBING: RAIN BIRD XFD SERIES BLANK TUBING
- ⑩ TWIST LOCK FITTING: TLF-MPT6-0600
- ⑪ SCH 40 PVC TEE (SxSxT) WITH 1/2" FPT OUTLET
- ⑫ FLUSH VALVE PLUMBED TO FLUSH MANIFOLD AT LOW POINT



INSET A

- NOTE:
- 1. THE TOTAL LENGTH OF ALL INTERCONNECTED DRIP LINE OFF A SINGLE PVC SUPPLY LINE CONNECTION OR A SINGLE RUN OF DRIPLINE SHALL NOT EXCEED 300 FT
 - 2. INSTALL DRIPLINE 2"-4" BELOW GRADE AND STAKE DOWN EVERY 4' OR AS REQUIRED

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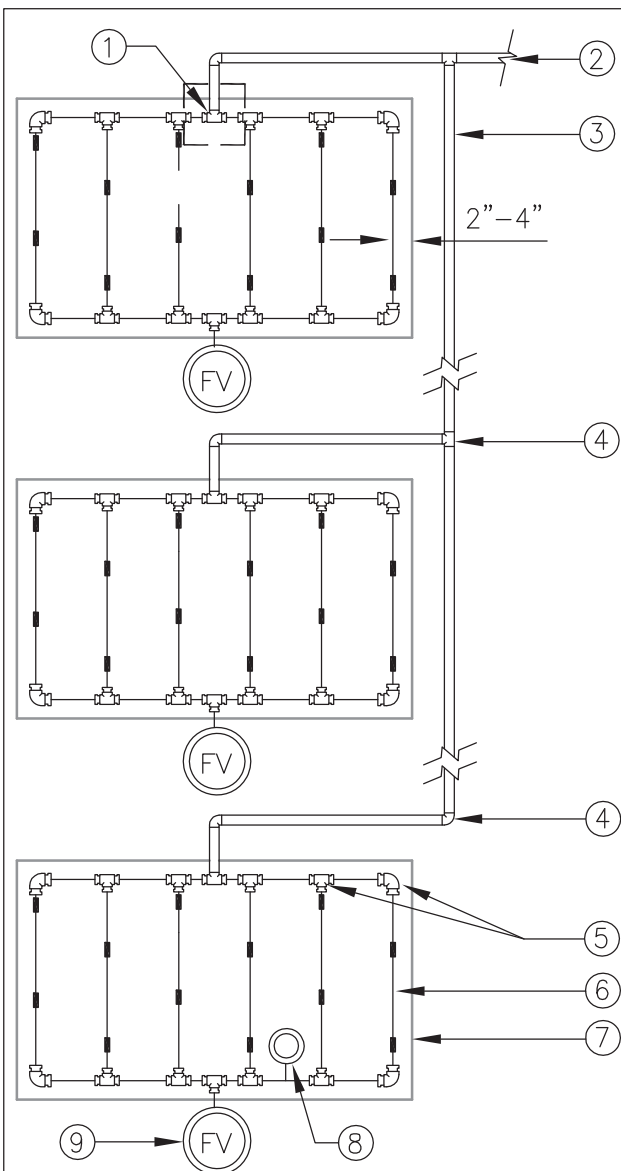
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STANDARD DETAIL

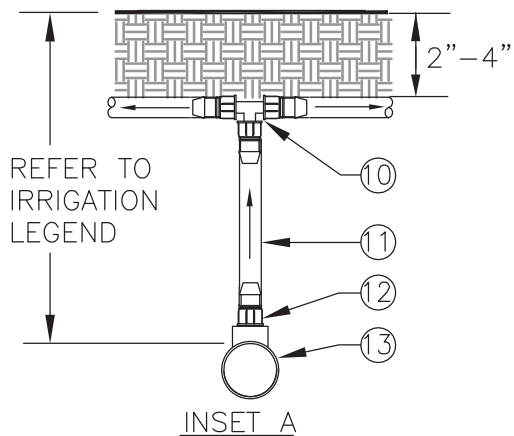
DRIPLINE - END FEED

SHEET 2 OF 6

I-15



PLAN VIEW



INSET A

- ① PVC TO DRIPLINE TEE CONNECTION. REFER TO INSET A
- ② PVC LATERAL LINE FROM VALVE. MINIMUM SIZE TO BE 1". SIZE AS FOLLOWS:
1" = 0-12 GPM
1.25" = 13-20 GPM
- ③ 1" PVC SUPPLY. EXTEND TO EACH ISLAND PLANTER
- ④ SCH. 40 PVC TEE OR ELBOW (SxSxS OR SxS)
- ④ 1" PVC SUPPLY. EXTEND TO ENDS OF ZONE/EXHAUST HEADER
- ⑤ TWIST LOCK FITTING. TLF-ELBW-0600 OR TLF-TEE-0600
- ⑥ RAIN BIRD XFCV DRIPLINE
- ⑦ AREA PERIMETER
- ⑧ DRIPLINE OPERATION INDICATOR LOCATED AT THE ENDS OF EACH DRIPLINE ZONE. MIN. 2 PER VALVE
- ⑨ FLUSH VALVE PLUMBED TO FLUSH MANIFOLD AT LOW POINT
- ⑩ TWIST LOCK FITTING. TLF-ELBW-0600 OR TLF-TEE0600
- ⑪ 1/2" POLYETHYLENE TUBING:
RAIN BIRD XFD SERIES BLANK TUBING
- ⑫ TWIST LOCK FITTING: TLF-MPT6-0600
- ⑬ SCH 40 PVC TEE (SxSxT) WITH 1/2" FPT OUTLET

NOTE:

- 1. THE TOTAL LENGTH OF ALL INTERCONNECTED DRIP LINE OFF A SINGLE PVC SUPPLY LINE CONNECTION OR A SINGLE RUN OF DRIPLINE SHALL NOT EXCEED 300 FT
- 2. INSTALL DRIPLINE 2"-4" BELOW GRADE AND STAKE DOWN EVERY 4' OR AS REQUIRED

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			CHECKED BY:	MK
			DATE:	2019-01-11
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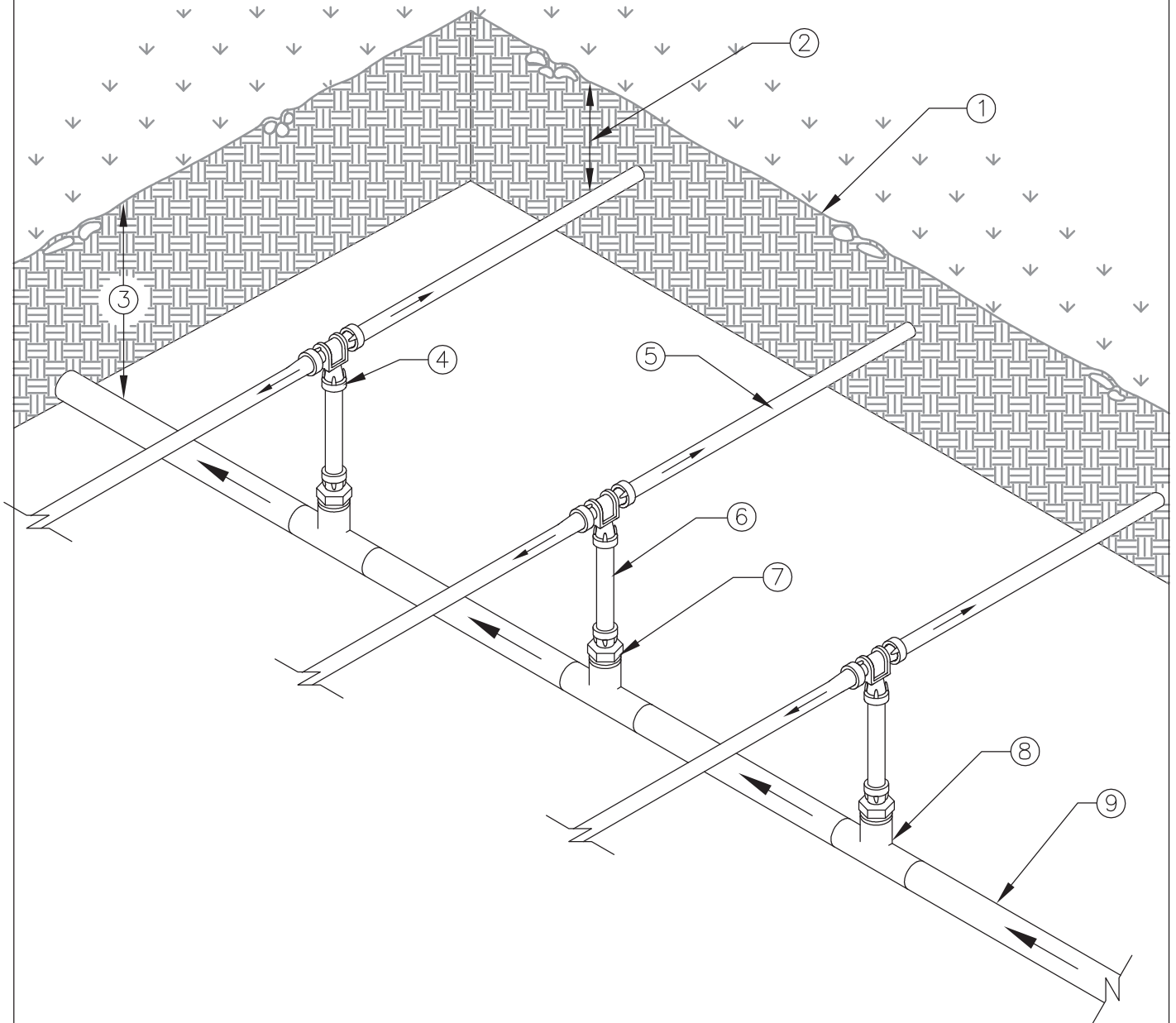
STANDARD DETAIL

DRIPLINE - ISLAND LAYOUT

SHEET 3 OF 6

I-15

ISOMETRIC



- ① FINISH GRADE
- ② DEPTH OF TUBING PER IRRIGATION LEGEND
- ③ DEPTH OF PVC LATERAL LINE PER IRRIGATION LEGEND
- ④ TWIST LOCK TEE FITTING. TLF-TEE-0600
- ⑤ RAIN BIRD XFCV DRIPLINE
- ⑥ 1/2" POLYETHYLENE TUBING: RAIN BIRD XFD SERIES BLANK TUBING
- ⑦ TWIST LOCK FITTING: TLF-MPT6-0600
- ⑧ SCH 40 PVC TEE WITH 1/2" FPT OUTLET
- ⑨ PVC LATERAL LINE FROM REMOTE CONTROL VALVE

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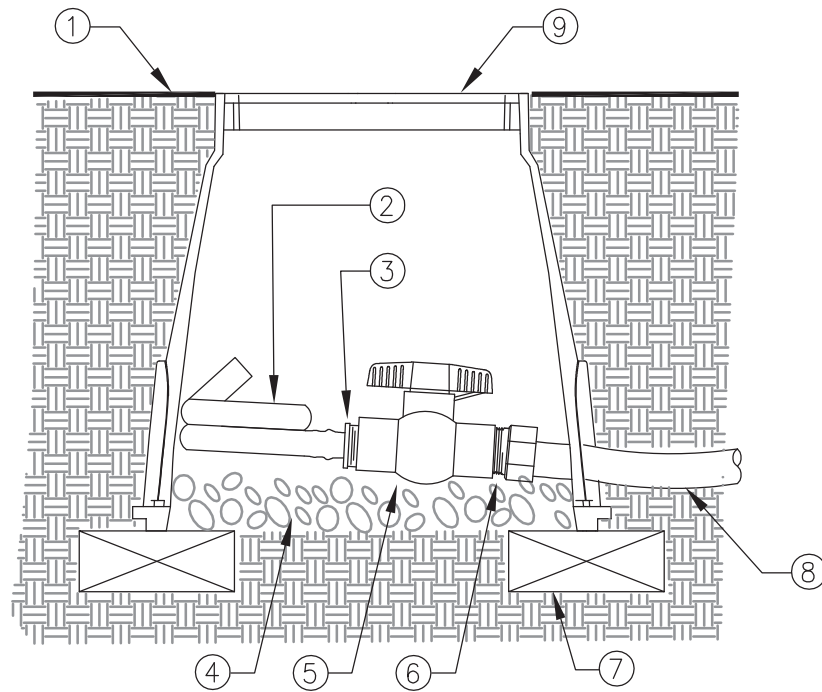
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SCALE:	NTS

STANDARD DETAIL

DRIPLINE - CENTER FEED MANIFOLD

SHEET 4 OF 6

I-15



NOTE:

ALLOW A MINIMUM 18" OF DRIPLINE HOSE IN VALVE BOX IN ORDER TO DIRECT FLUSHED WATER OUTSIDE VALVE BOX

- ① FINISH GRADE
- ② 1/2" POLYETHYLENE TUBING:
RAIN BIRD XFD SERIES BLANK TUBING. MIN. 18" IN LENGTH
- ③ TWIST LOCK MALE ADAPTER. TLF-MPT6-0600
- ④ PEA GRAVEL SUMP (4" DEEP)
- ⑤ 1/2" SCH. 40 THREADED BALL VALVE
- ⑥ 1/2" SCH. 40 MALE ADAPTER
- ⑦ BRICK-2 TOTAL
- ⑧ 1/2" IPS PVC HOSE FROM DRIPLINE OR EXHAUST HEADER
- ⑨ 6" ROUND PLASTIC VALVE BOX

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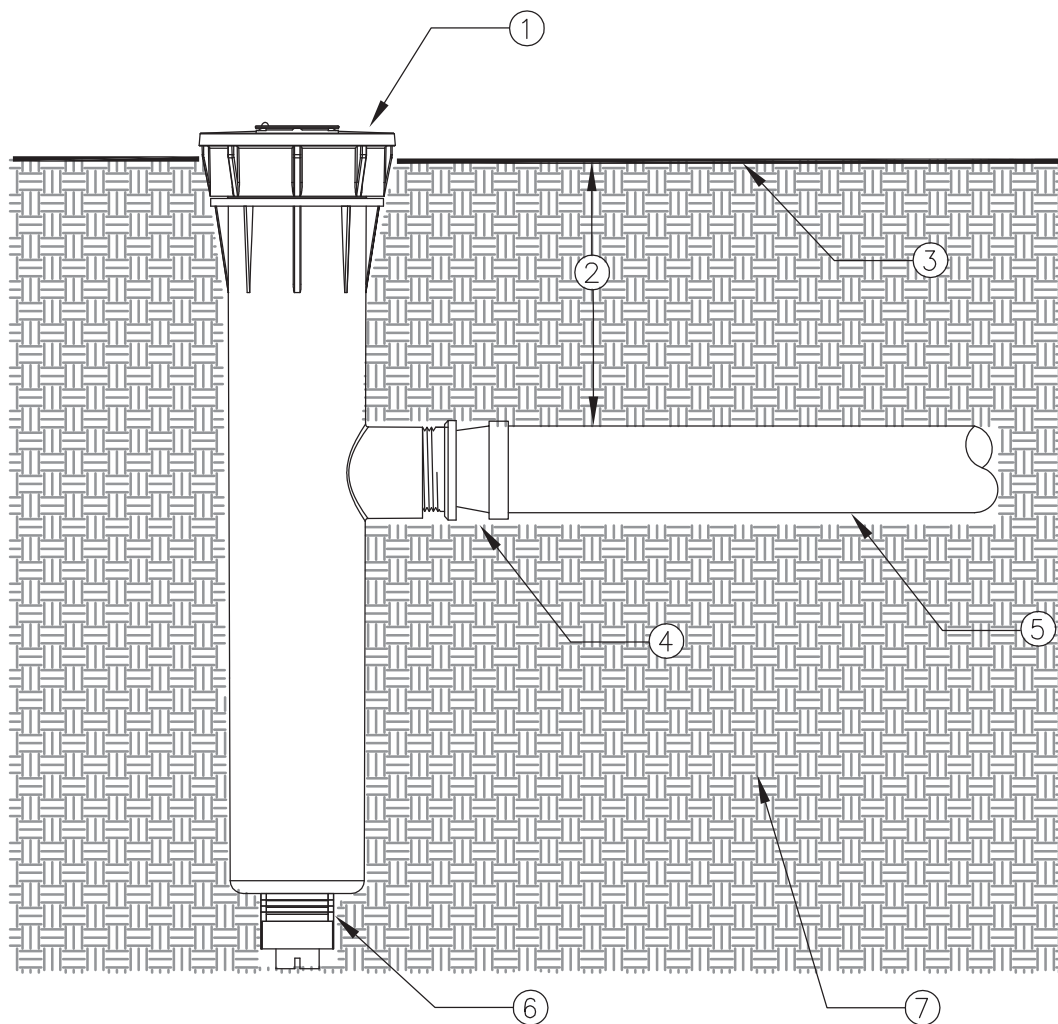
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			SCALE:	NTS

STANDARD DETAIL

DRIPLINE - FLUSH POINT

SHEET 5 OF 6

I-15



SECTION/ELEVATION


- ① RAIN BIRD 6" POP UP SPRINKLER WITH SIDE INLET (MODEL 1806-SI WITH 5' NOZZLE (MODEL 5Q) TURNED COMPLETELY OFF WITH ADJUSTMENT SCREW. SPRINKLER SHALL OPERATE AS THE DRIPLINE INDICATOR. USE A MINIMUM OF ONE PER ZONE AND LOCATED AT END OF ZONE
- ② DEPTH OF DRIPLINE. REFER TO IRRIGATION LEGEND
- ③ FINISH GRADE
- ④ RAIN BIRD TWIST LOCK MALE ADAPTER FITTING: TLF-MPT6-0600
- ⑤ DRIPLINE
- ⑥ KEEP PLUG IN SPRINKLER. ONLY USE SIDE INLET
- ⑦ SOIL BACKFILL

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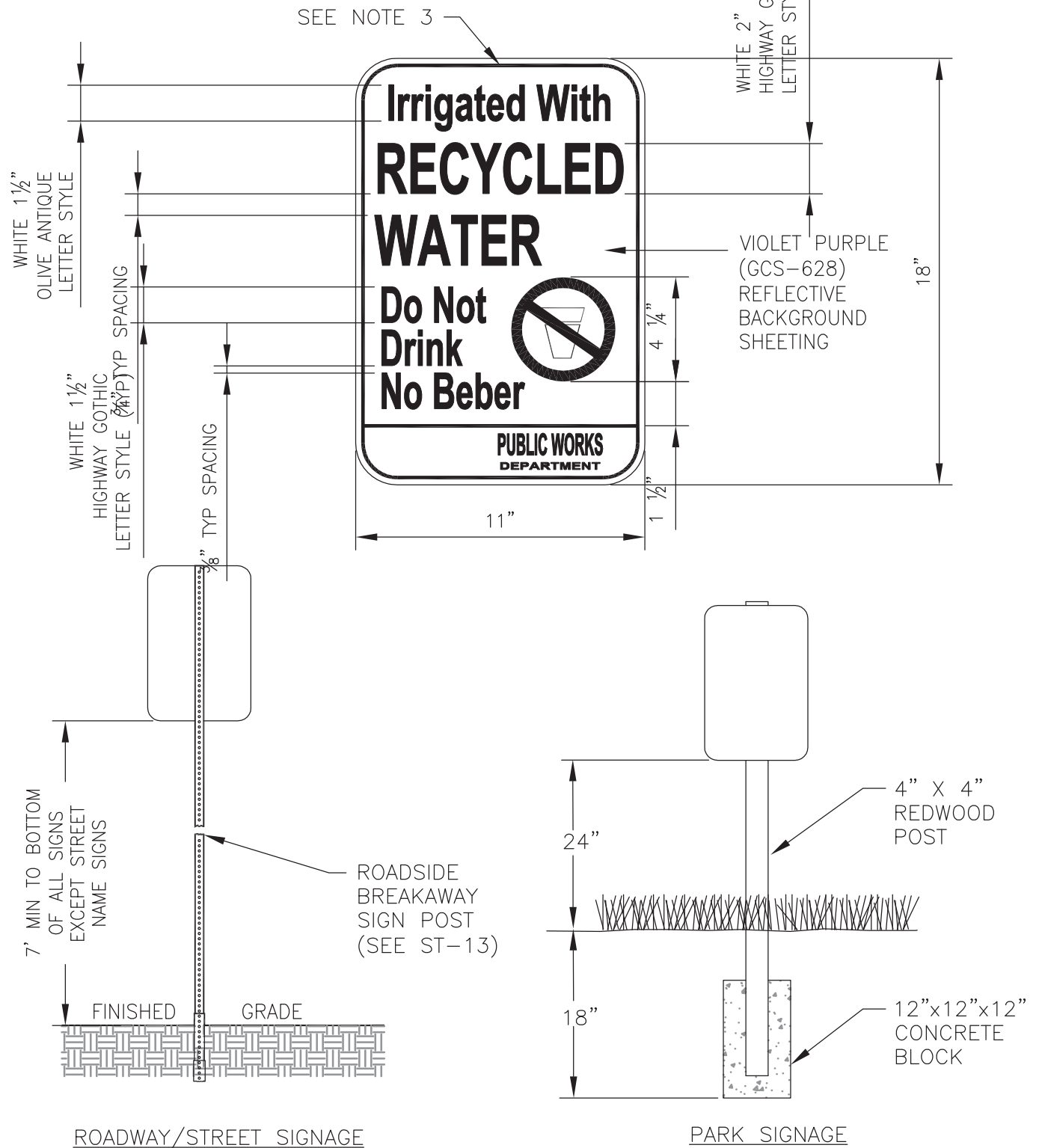
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DATE

 CITY OF PITTSBURGH	NO.	DATE	REVISION	DRAWN BY: CM	STANDARD DETAIL DRIPLINE - OPERATION INDICATOR	SHEET 6 OF 6 I-15
				CHECKED BY: MK		
				DATE: 2019-01-11		
				SCALE: NTS		

NOTES:

1. ALL SIGNS MUST BE STAMPED "PROPERTY OF THE CITY OF PITTSBURG," AND DATED
2. LETTER STYLE, CITY LOGO, AND BORDER COLOR ARE REFLECTIVE WHITE AGAINST PURPLE, REFLECTIVE SHEETING
3. 1/4" WHITE BORDER OFFSET 1/4" FROM EDGE OF SIGN



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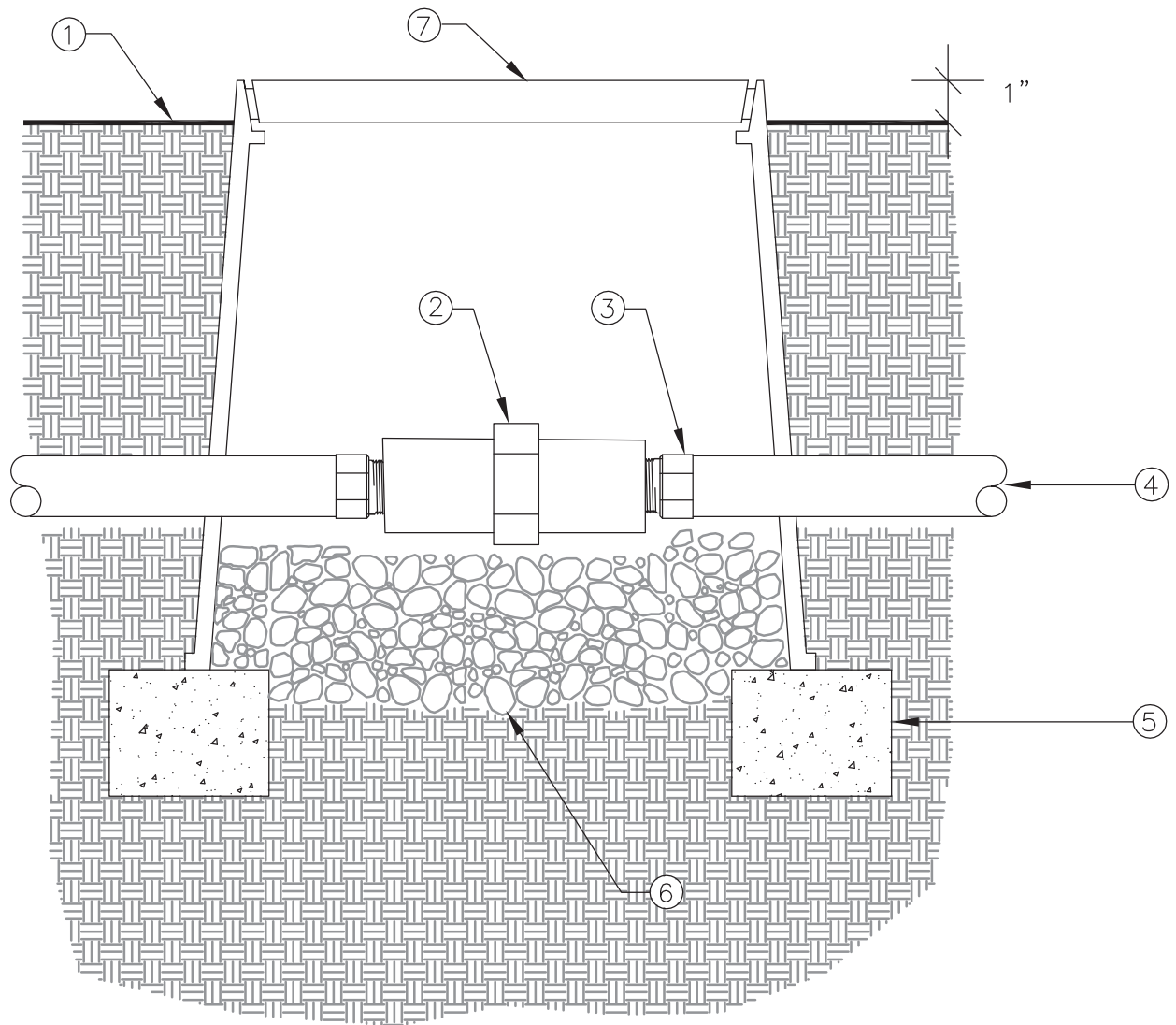
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			SCALE:	NTS

STANDARD DETAIL
RECYCLED WATER SIGN

SHEET 1 OF 1
I-16



SECTION/ELEVATION

- ① FINISH GRADE
- ② INLINE SPRING OR SWING LOADED CHECK VALVE. MATCH SIZE OF LATERAL LINE
- ③ SCHEDULE 40 PVC MALE ADAPTER. 2 TOTAL
- ④ PVC LATERAL LINE
- ⑤ BRICK-2 TOTAL
- ⑥ PEA GRAVEL OR 3/4" DRAIN ROCK - 4" DEEP (NO SOIL IN VALVE BOX)
- ⑦ 10" ROUND VALVE BOX

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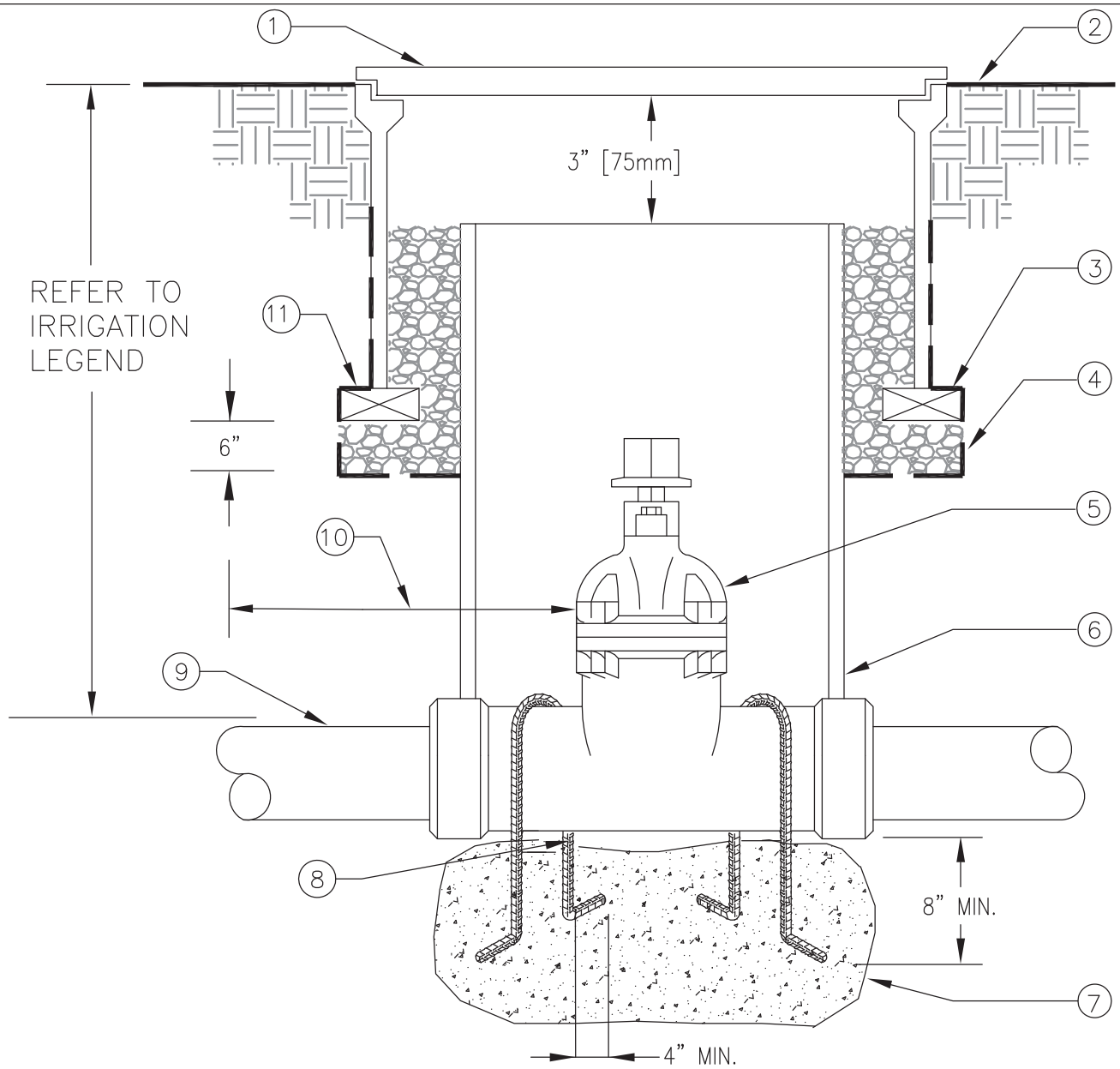
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STANDARD DETAIL

LATERAL LINE CHECK VALVE


SHEET 1 OF 1

I-17

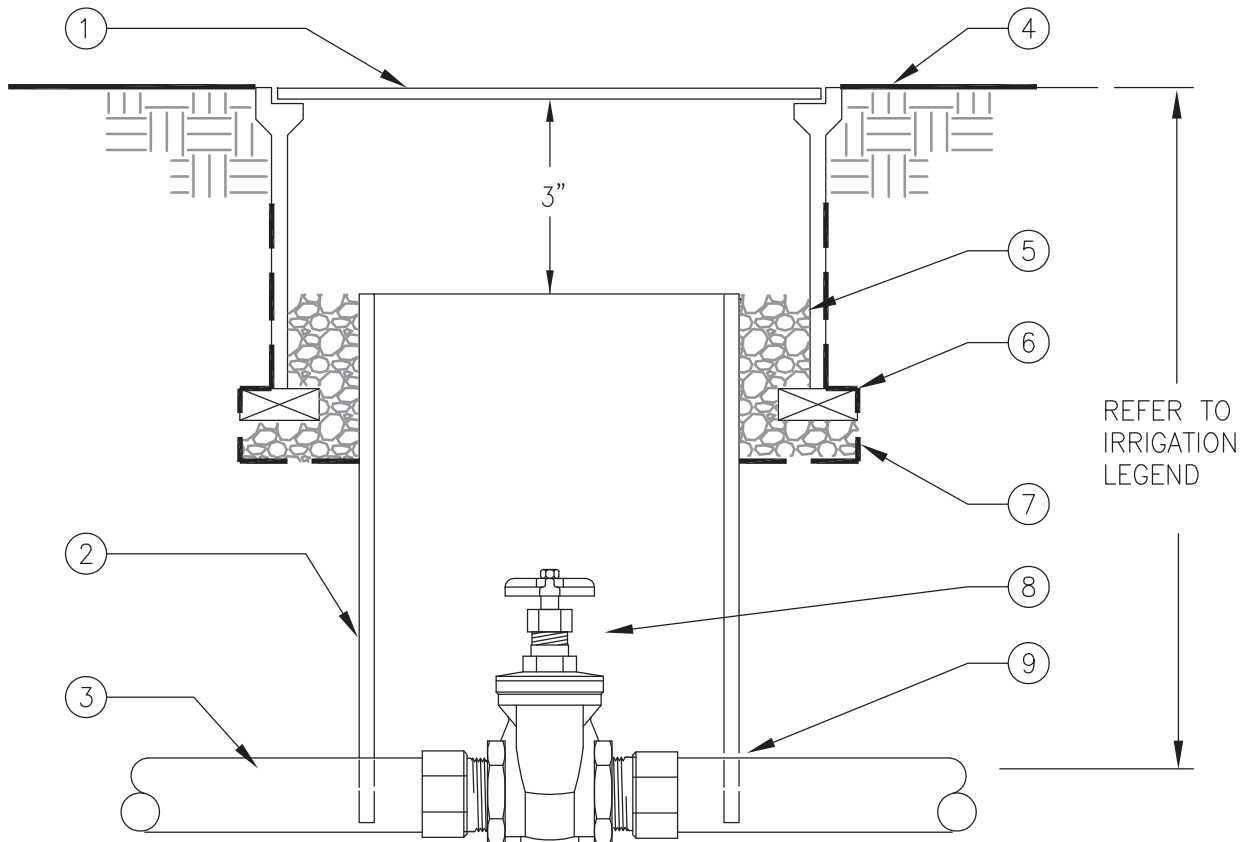


- ① 10" ROUND PLASTIC VALVE BOX WITH BOLT DOWN T-LID
- ② FINISH GRADE
- ③ BRICK-2 TOTAL
- ④ PEA GRAVEL OR 3/4" DRAIN ROCK - 4" DEEP BELOW VALVE (NO SOIL IN VALVE BOX)
- ⑤ GATE VALVE WITH 2" OPERATING NUT
- ⑥ 6" PVC PIPE. CUT OUT AROUND PIPE
- ⑦ CONCRETE THRUST BLOCK - 18" CUBE
- ⑧ #4 REBAR-BEND OVER VALVE BODY BEND EACH END
- ⑨ PVC MAIN LINE
- ⑩ PROVIDE A MINIMUM OF 10' BETWEEN GATE VALVE AND MAIN LINE TEE OR ELBOW
- ⑪ 19 GAUGE 1/2" SQUARE WIRE MESH. WRAP UP SIDE OF BOX

APPROVED  DATE 3/8/23

 CITY OF PITTSBURGH	NO.	DATE	REVISION	DRAWN BY: CM	STANDARD DETAIL GATE VALVE - 4" & LARGER	SHEET 1 OF 2 I-18
				CHECKED BY: MK		
				DATE: 2019-01-11		
				SCALE: NTS		

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- ① 10" ROUND PLASTIC VALVE BOX WITH BOLT DOWN LID
- ② 8" CLASS 160 OR SCHEDULE 40 PVC PIPE (NOTCH TO FIT OVER MAIN LINE PIPE)
- ③ PVC MAIN LINE
- ④ FINISH GRADE
- ⑤ PEA GRAVEL OR 3/4" DRAIN ROCK - 4" DEEP (NO SOIL IN VALVE BOX)
- ⑥ BRICK-2 TOTAL
- ⑦ 19 GAUGE 1/2" SQUARE WIRE MESH
- ⑧ GATE VALVE WITH X-TOP HANDLE
- ⑨ MALE ADAPTER. REFER TO LEGEND FOR FITTING TYPE

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STANDARD DETAIL

GATE VALVE - 3" & SMALLER

SHEET 2 OF 2

1-18