

*JOINT TRENCH DETAIL (OPTIONAL)

NOTES:

1. LOCATIONS SHOWN ARE TYPICAL. ON STREETS WITH CENTER TURN LANES OR MEDIANS, THE LOCATION OF THE SEWER OR STORM LINES MAY BE ADJUSTED TO KEEP MANHOLES OUT OF MEDIANS AND MANHOLES CONES ARE TO BE ROTATED TO KEEP MANHOLE COVER LOCATED OUTSIDE OF WHEEL PATH.
2. ANY VARIATION FROM THIS DESIGN MUST BE APPROVED BY THE CITY ENGINEER.
3. FRANCHISE UTILITIES – IF SIX FOOT UTILITY EASEMENT IS PRESENT ALONG PROPERTY FRONTAGE, PLACEMENT SHALL BE AT BACK OF SIDEWALK WITHIN UTILITY EASEMENT. ALTERNATE LOCATIONS CONSIDERED ONLY TO SALVAGE CORE ROADWAY, OR TO AVOID SUBSTANTIAL CONFLICT WITH EXISTING UTILITIES. GAS VALVES ARE TO BE LOCATED 2' MIN. FROM FACE OF CURB.
 MINIMUM COVER:
 GAS – 30"
 CABLE TV – 24" IN STREET
 18" IN SIDEWALK–EXISTING SUBDIVISION
 ALL OTHERS – 36"

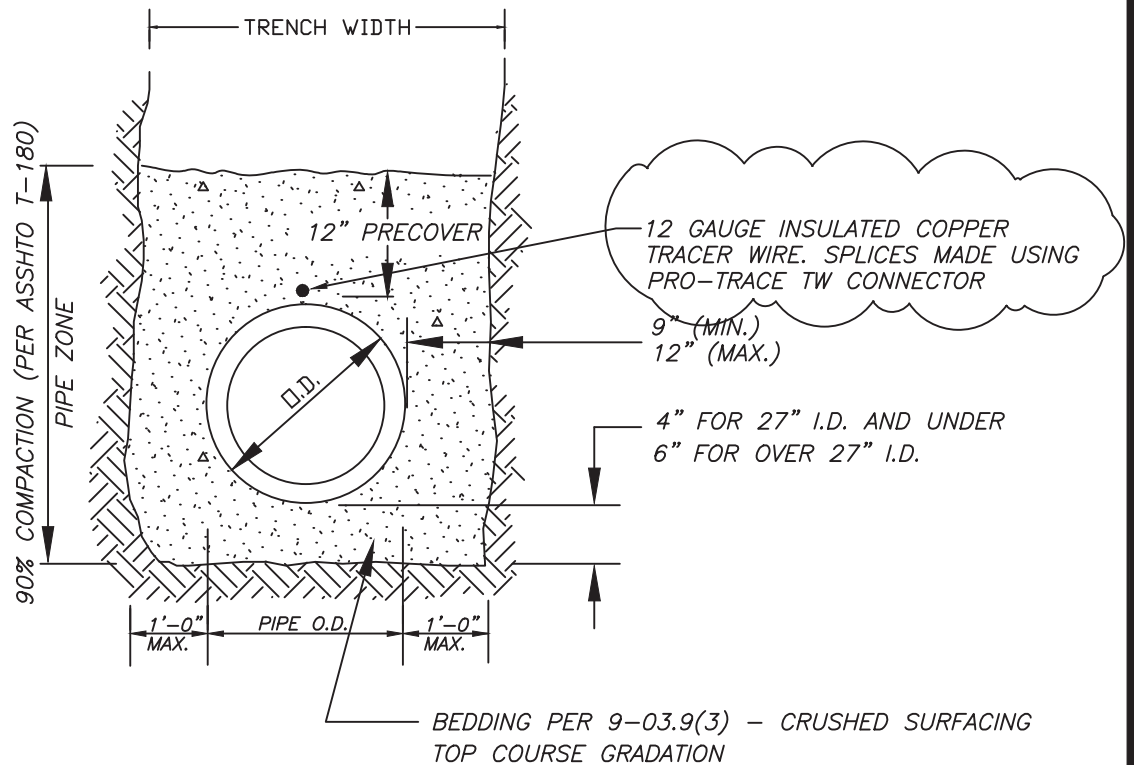
REV. 2/26/08 SCH

UNDERGROUND UTILITY LOCATIONS

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
G – 1.1



NOTES:

1. WHERE DIRECTED BY THE ENGINEER, GRANULAR TRENCH FOUNDATION STABILIZATION SHALL BE PLACED PRIOR TO PLACEMENT OF THE BEDDING. SIZE AND DEPTH ARE DEPENDENT ON SOIL CONDITIONS.
2. BEDDING AND BACKFILL MATERIALS IN THE PIPE ZONE SHALL BE COMPACTED AS SPECIFIED PRIOR TO BACK-FILLING THE REMAINDER OF THE TRENCH.
3. FOR ROCK AND OTHER INCOMPRESSIBLE MATERIALS, THE TRENCH SHALL BE OVEREXCAVATED A MINIMUM OF 6" AND REFILLED WITH GRANULAR MATERIALS AS DIRECTED BY THE ENGINEER.
4. BACKFILL AND COMPACTION ABOVE THE PIPE ZONE SHALL BE AS SHOWN IN STANDARD PLAN NO. G-1.3.
5. CITY WATER LINE SHALL HAVE 36" MINIMUM COVER FROM TOP OF PIPE TO FINISHED GRADE.

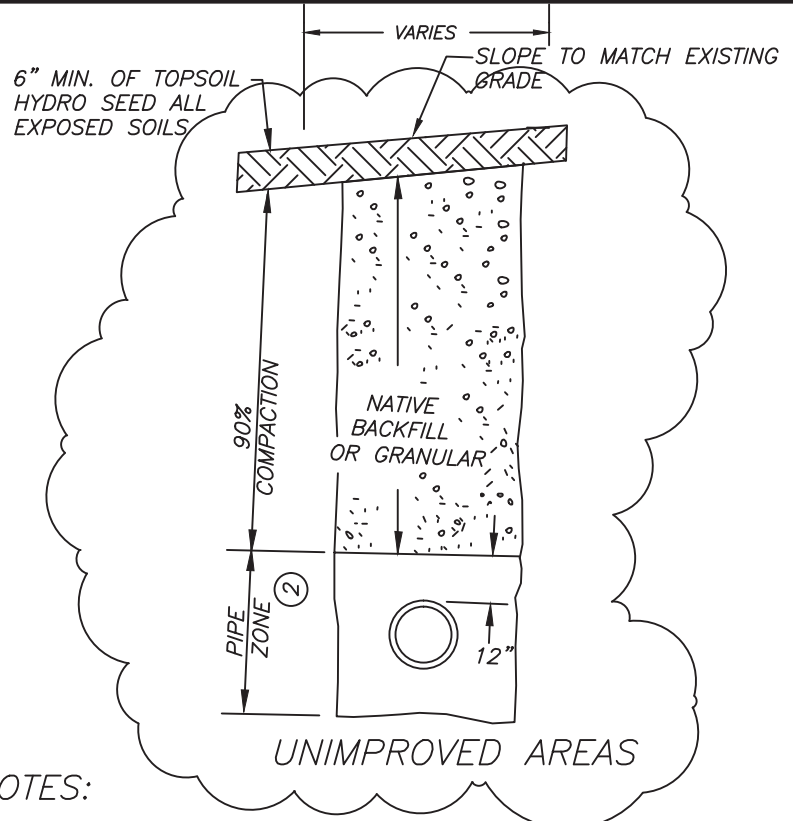
REV. 4/7/17 BGK

STANDARD PIPE BEDDING

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
G-1.2



1. SEE WSDOT SPECIFICATION FOR COMPACTION REQUIREMENTS. COMPACTION PERCENTAGES REFER TO MAXIMUM DRY DENSITY AS DETERMINED BY MODIFIED PROCTOR (AASHTO T-180)
2. FOR PIPE ZONE BEDDING AND COMPACTION REQUIREMENTS, SEE STD. PLAN NO. G-1.2
3. CONTRACTOR MAY USE UP TO 2-1/2" DEPTH OF 5/8"-0 OR 3/4" - 0 CRUSHED AGGREGATE IN LIEU OF 1-1/4" - 0 BASE ROCK UNDER SURFACING FOR LEVELING COURSE.
4. ALL EXISTING PAVED SURFACES SHALL BE SAW CUT A MINIMUM OF 12" OUTSIDE OF EDGE OF TRENCH TO PROVIDE A NEAT STRAIGHT EDGE.
5. THE EDGES OF ALL EXISTING ASPHALT SURFACES SHALL BE CLEANED AND A TACK COAT SHALL BE APPLIED PER STD. SPEC. SECTION 5-04.3(5)A. ALL JOINTS SHALL BE SEALED WITH AR-4000 AND SANDED.
6. ALL BACKFILL SHALL BE MECHANICALLY COMPACTED IN LIFTS WHICH DO NOT EXCEED RATED CAPABILITY OF EQUIPMENT USED, BUT IN NO CASE EXCEED 12" LOOSE.
7. GRANULAR BACKFILL SHALL BE CRUSHED SURFACING IN ACCORDANCE WITH WSDOT SECTION 9-03.9(3) BASE COURSE GRADATION.
8. CLASS 1/2", PG 58-22 SUPERPAVE, ASPHALT SHALL BE PLACED IN 2 LIFTS, 5" DEPTH FOR ARTERIALS, 4" DEPTH FOR COLLECTOR & RESIDENTIAL STREETS.
9. FOR UTILITIES INSTALLED WITHIN THE TRAVEL LANE AND PARALLEL WITH THE CENTERLINE OF THE ROAD, A HALF STREET GRIND AND OVERLAY SHALL BE REQUIRED

Diagram illustrating a trench excavation cross-section. The diagram shows a trench filled with granular backfill, which is compacted to 95% compaction. The trench is labeled "TRENCH EXCAVATION". The backfill is labeled "GRANULAR BACKFILL". The trench is shown with a "PAVED SURFACED" at the top. The diagram includes dimensions: "12\" MIN." for the trench depth, "12\" MIN." for the trench width, and "12\" for the pipe zone diameter. A note "SEE NOTE 8" points to the top of the trench. A label "PIPE ZONE (2)" is shown near the bottom of the trench.

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TYPICAL TRENCH SECTIONS

GENERAL WATER NOTES:

1. ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF THE "CITY OF RIDGEFIELD ENGINEERING STANDARDS FOR PUBLIC WORKS CONSTRUCTION" AND THE LATEST EDITION OF THE "STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND MUNICIPAL CONSTRUCTION" HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS" PREPARED BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION, EXCEPT AS NOTED HEREIN OR ON THE STANDARD PLANS. ALL REFERENCES TO AWWA AND/OR APWA SPECIFICATIONS SHALL MEAN THEIR LATEST REVISION.

2. ALL WATER LINE CONSTRUCTION IS SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF RIDGEFIELD, PRIOR TO COVER. ALL TESTING SHALL BE APPROVED PRIOR TO PAVING. THE CONTRACTOR SHALL NOTIFY THE CITY DEVELOPMENT INSPECTOR AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION. A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO THE BEGINNING OF CONSTRUCTION.

3. ALL PIPES FURNISHED SHALL BE NEW, AND CONFORM TO THE REQUIREMENTS OF AWWA DI CL52.

4. A TRAFFIC CONTROL PLAN IS REQUIRED PRIOR TO CONSTRUCTION WITHIN A CITY RIGHT-OF-WAY.

5. WHERE EXISTING SERVICE MUST BE INTERRUPTED, THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE CITY AND NOTIFY ALL CUSTOMERS AFFECTED AS TO THE DATE AND DURATION OF THE INTERRUPTION. NOTIFICATION MUST BE DONE TWO (2) WORKING DAYS IN ADVANCE OF INTERRUPTION. THE CONTRACTOR SHALL SCHEDULE CONSTRUCTION TO PROVIDE MINIMUM INTERRUPTION OF SERVICES AS DETERMINED BY THE INSPECTOR. UNDER NO CIRCUMSTANCES SHALL A CONTRACTOR SCHEDULE A WATER MAIN SHUT-DOWN WITHOUT THE REQUIRED 48 HOUR NOTICE. THE CONTRACTOR SHALL NOT OPERATE THE CITY'S WATER FACILITIES WITHOUT APPROVAL FROM THE CONSTRUCTION INSPECTOR.

6. WHEN EXTENDING AN EXISTING LINE THE CONTRACTOR IS REQUIRED MAINTAIN PHYSICAL SEPARATION BETWEEN THE EXISTING AND NEW SYSTEM UNTIL THE NEW SYSTEM HAS BEEN TESTED AND DISINFECTED.. AFTER PASSING TESTS THE FITTINGS AND PIPE USED FOR THE CONNECTION TO THE EXISTING SYSTEM MUST BE WETTED WITH A CHLORINE SOLUTION UNDER INSPECTION OF CITY STAFF.

WATER METERS:

7. ALL WATER METERS WILL BE FURNISHED AND INSTALLED BY THE CITY.

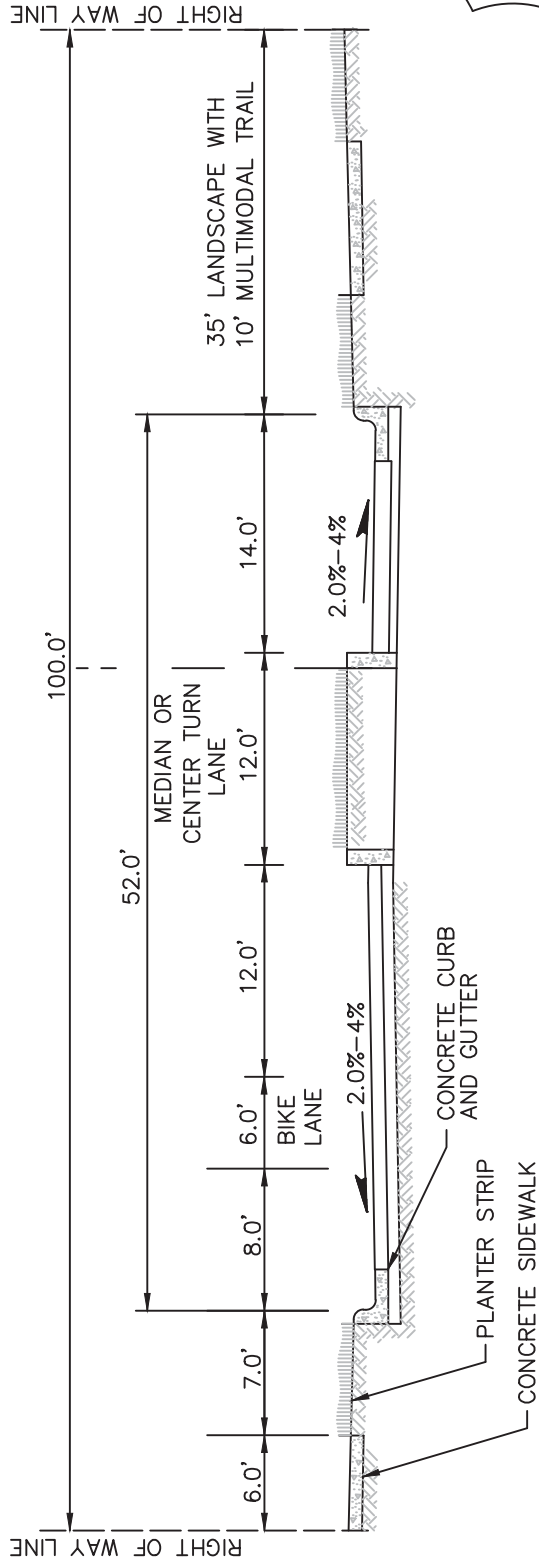
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GENERAL WATER NOTES

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
G-4.1



- NOTES:
1. PIONEER STREET (SR-501) CROSS SECTION VARIES. SEE T-2.16 THROUGH T-2.17
 2. WIDEN SIDEWALK TO 10' ADJACENT TO COMMERCIAL ZONED AREAS

MAJOR ARTERIAL SECTION
NOT TO SCALE

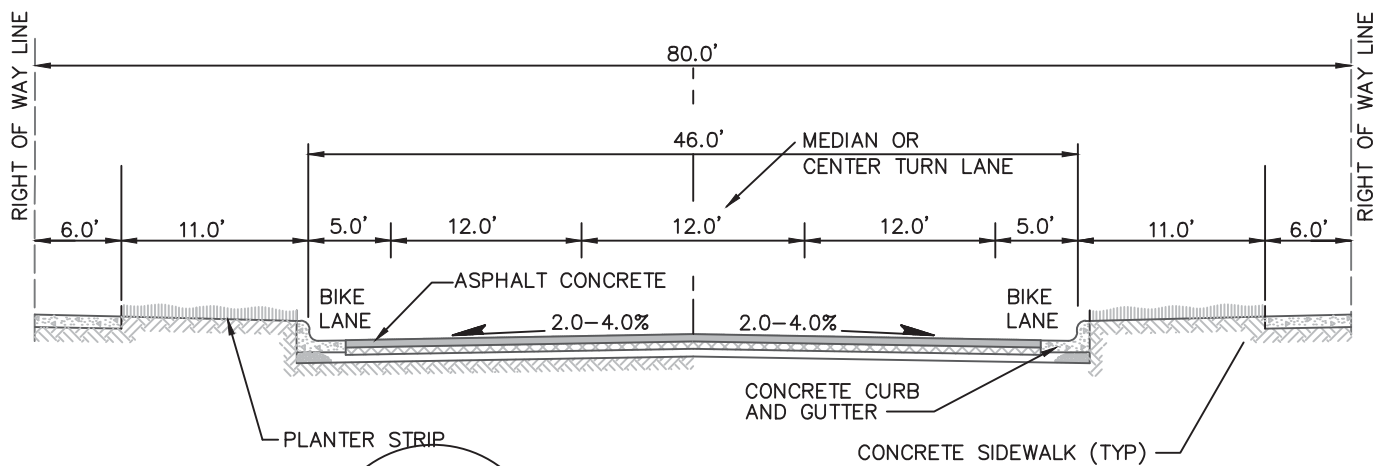
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MAJOR ARTERIAL SECTION

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
T - 2.1



NOTE: WIDEN SIDEWALK TO 10'
ADJACENT TO COMMERCIAL
ZONED AREAS

MINOR ARTERIAL SECTION
NOT TO SCALE

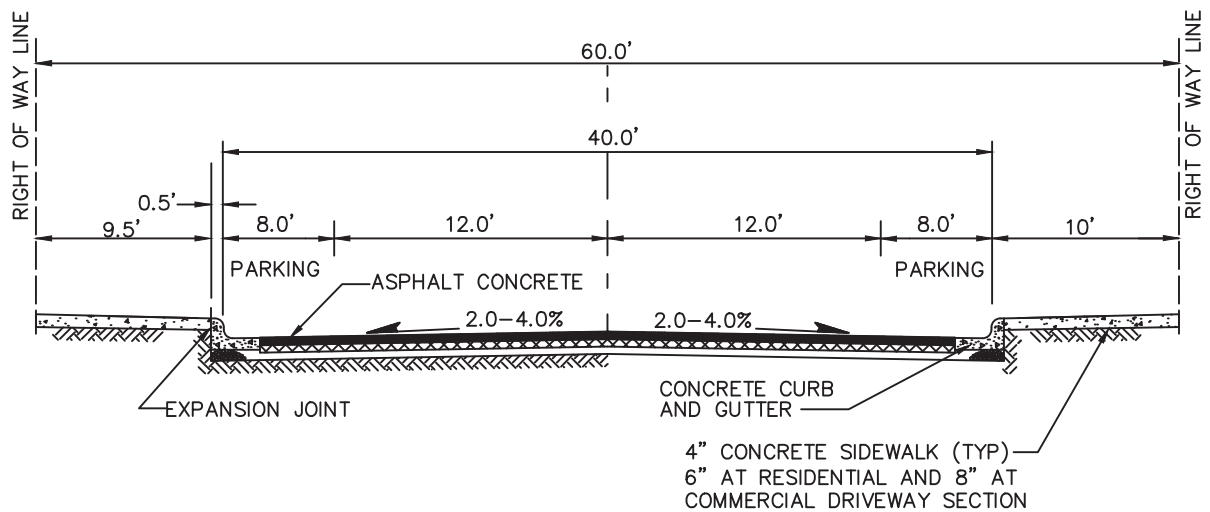
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MINOR ARTERIAL SECTION

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
T - 2.2



NOTES: TREE WELLS SHALL BE INSTALLED IN SIDEWALK
AT 25' O.C OR AS DIRECTED BY PUBLIC WORKS
DIRECTOR OR COMMUNITY DEVELOPMENT
DIRECTOR

DOWNTOWN MINOR ARTERIAL SECTION
NOT TO SCALE

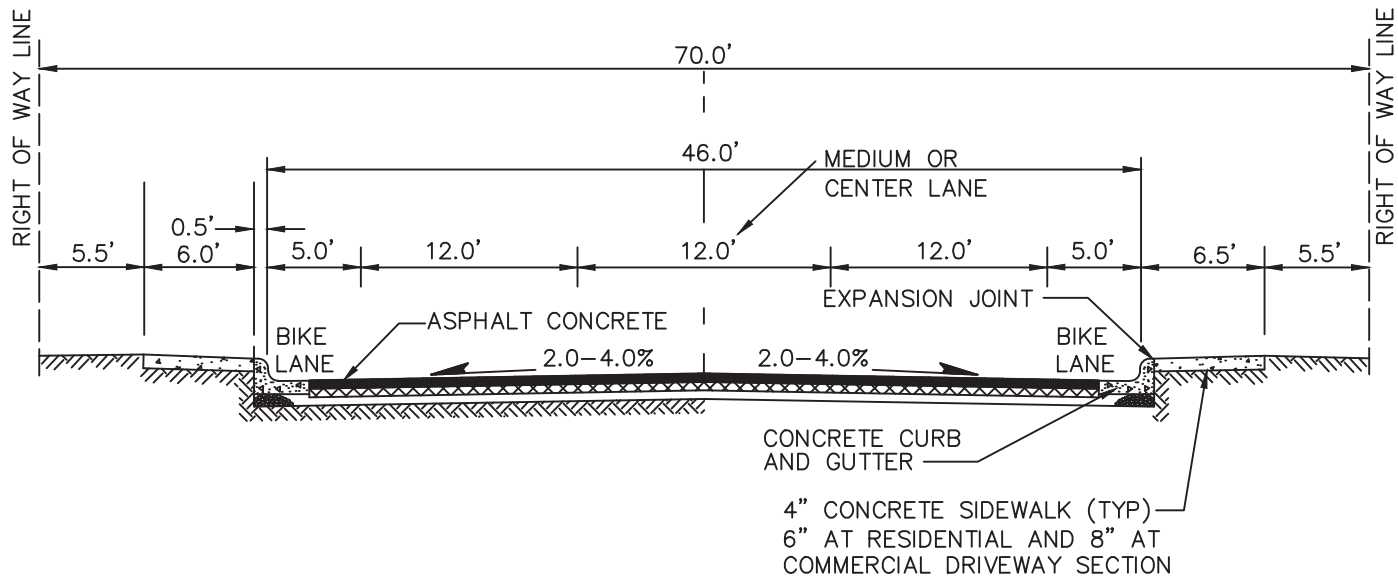
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DOWNTOWN MINOR ARTERIAL SECTION

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
T - 2.3



INDUSTRIAL/COMMERCIAL COLLECTOR SECTION

NOT TO SCALE

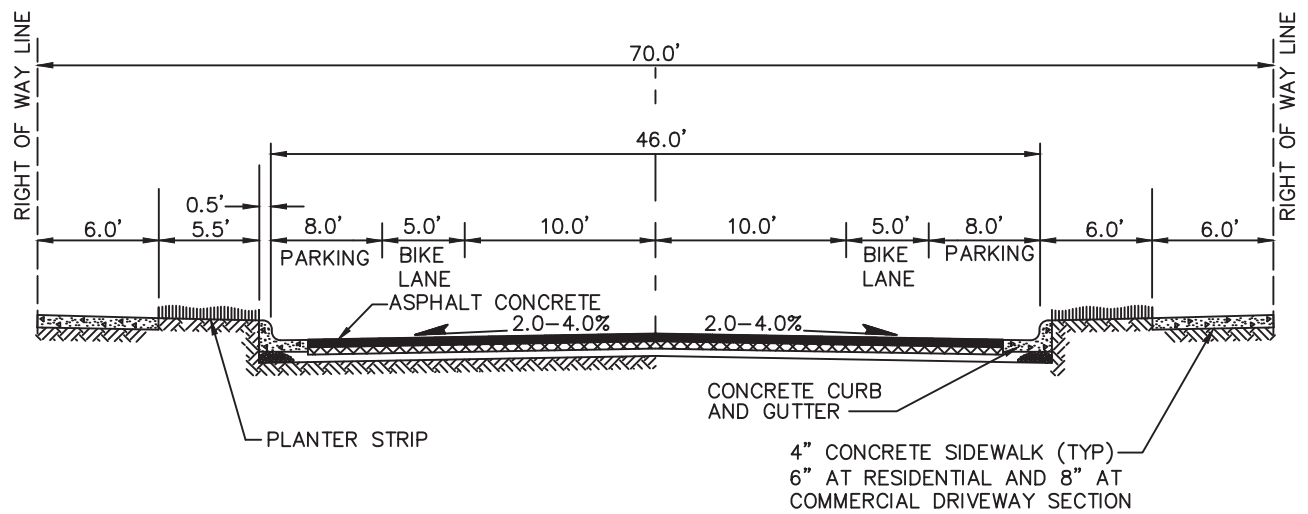
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INDUSTRIAL/COMMERCIAL COLLECTOR SECTION

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
T - 2.4



STANDARD COLLECTOR SECTION
NOT TO SCALE

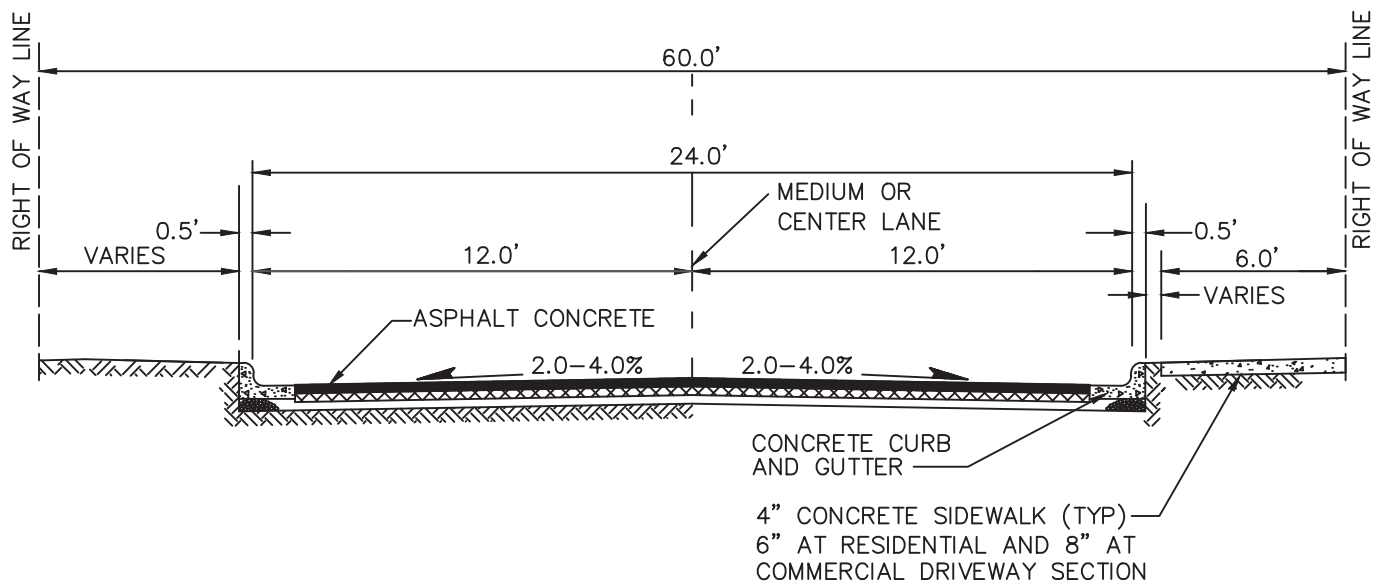
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STANDARD COLLECTOR SECTION

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
T - 2.5



SCENIC COLLECTOR SECTION

NOT TO SCALE

NOTE: SIDEWALK MAY BE A DETACHED PATH

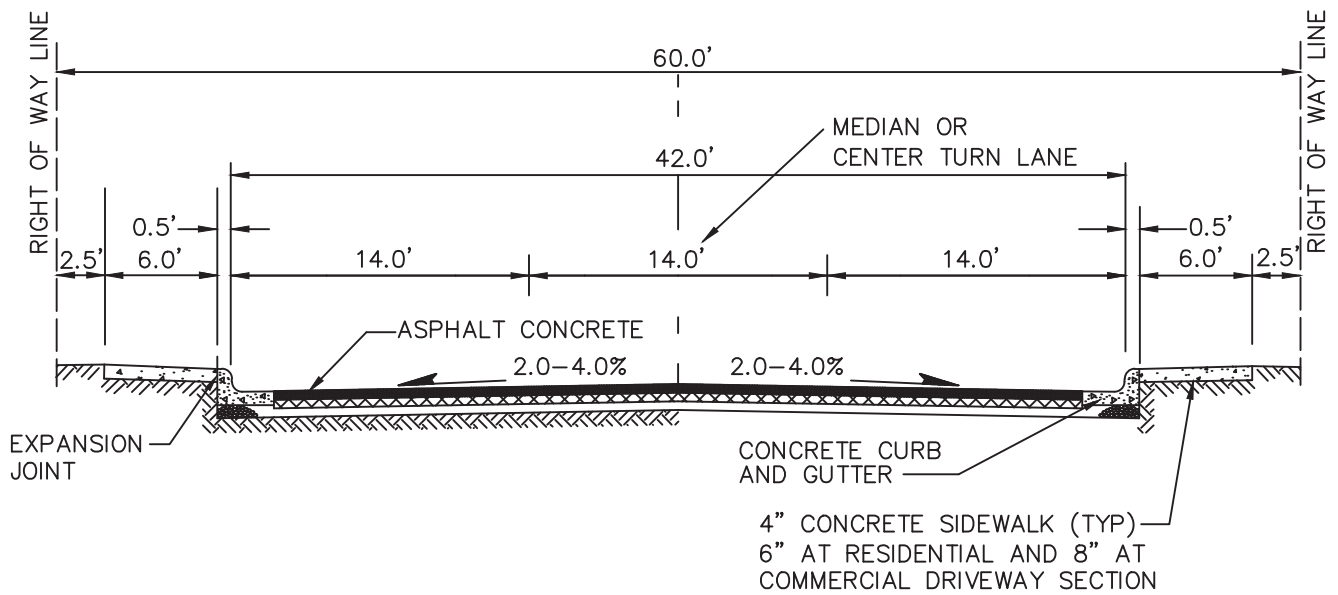
REV. 3/03/08 SCH

SCENIC COLLECTOR SECTION

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
T - 2.6



INDUSTRIAL LOCAL SECTION

NOT TO SCALE

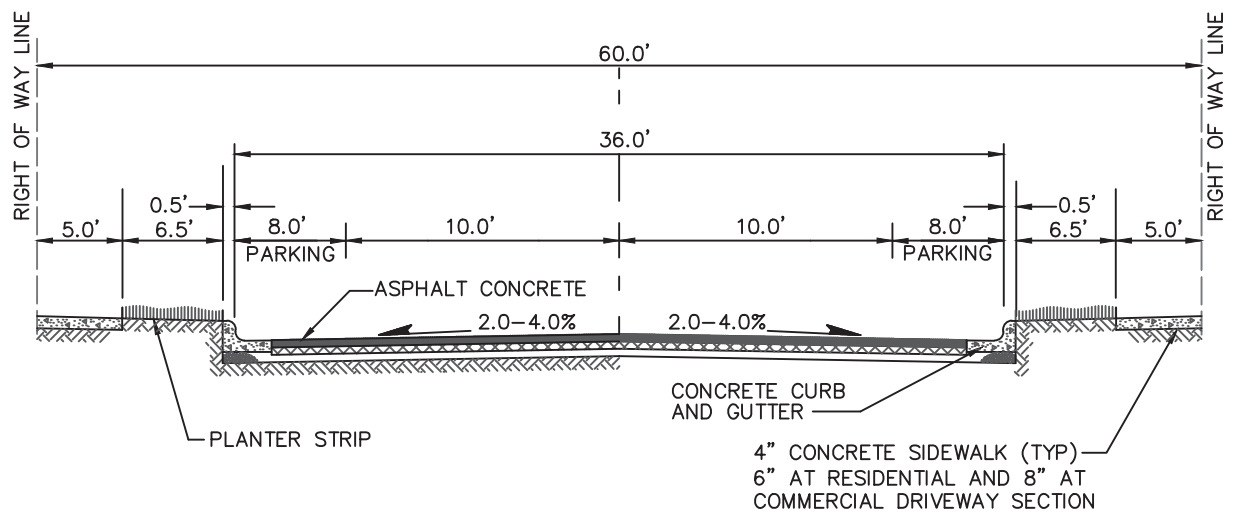
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INDUSTRIAL LOCAL SECTION

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
T - 2.7



RESIDENTIAL ACCESS SECTION
NOT TO SCALE

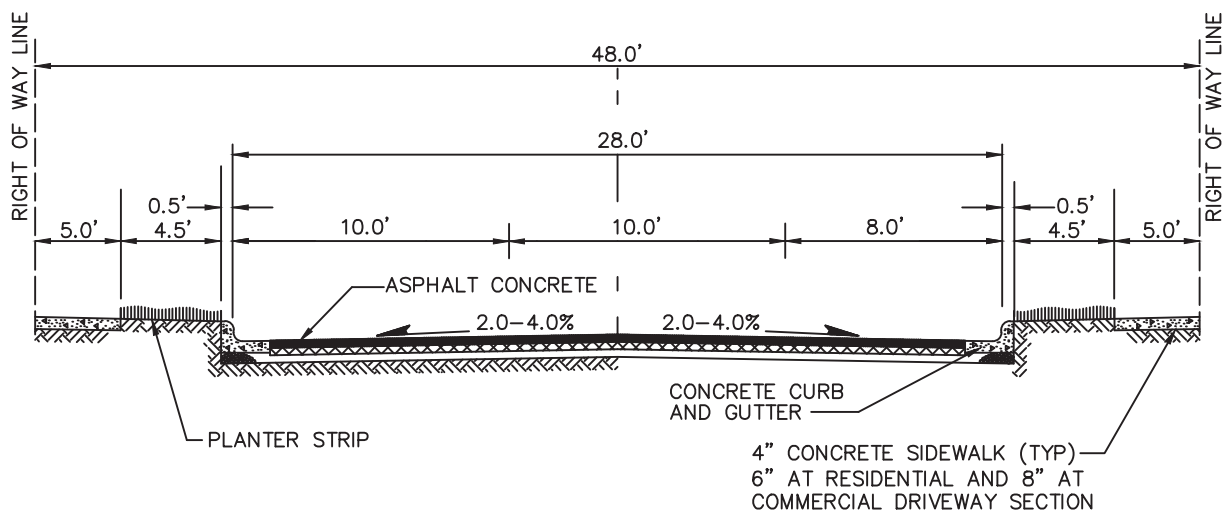
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RESIDENTIAL ACCESS SECTION

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
T - 2.8



RESIDENTIAL LOCAL A SECTION

NOT TO SCALE

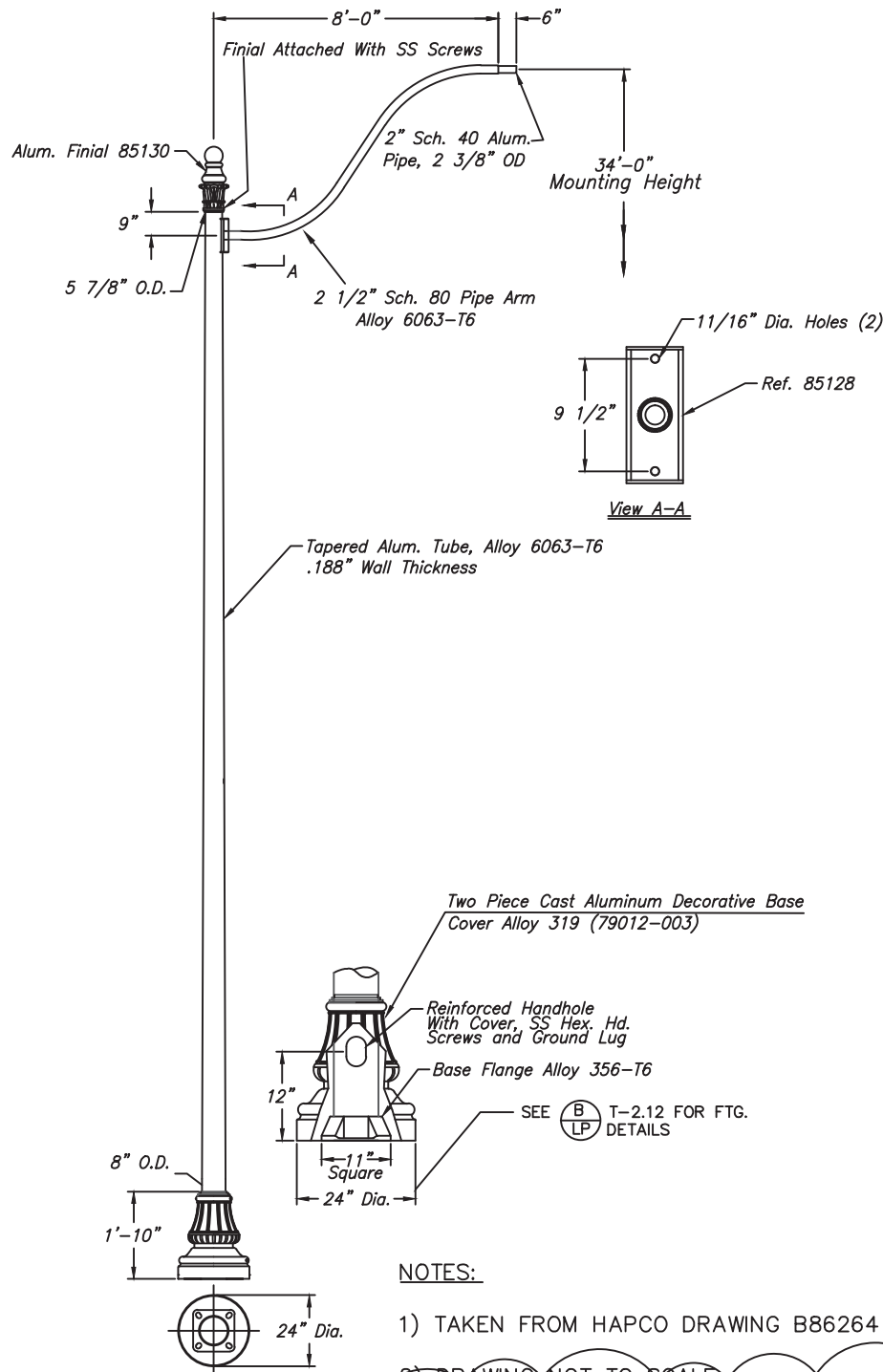
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RESIDENTIAL LOCAL A SECTION

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
T - 2.9



NOTES:

- 1) TAKEN FROM HAPCO DRAWING B86264
- 2) DRAWING NOT TO SCALE
- 3) LUMINAIRE (FIXTURE) TO BE AMERICAN ELECTRIC ATB2 40BLEDE70 MVOLT R3, BLACK POWDER COAT FINISH
- 4) REFER TO SHEET T-2.12 FOR LIGHT POLE FOUNDATION DETAIL

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TYPICAL ARTERIAL COLLECTOR LIGHT STANDARD


STANDARD
DETAILS

CITY OF RIDGEFIELD

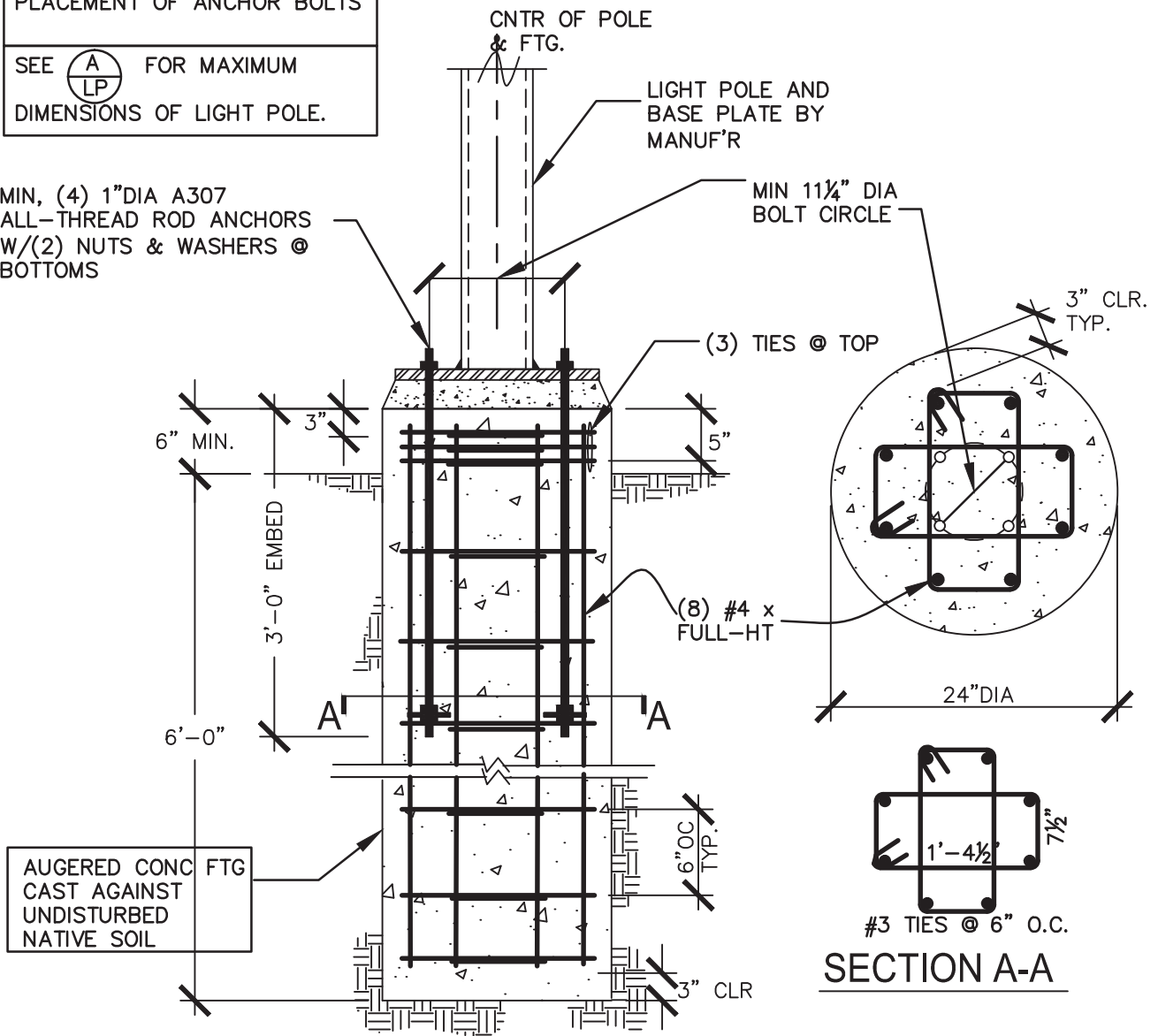
SHEET
T-2.11

REBAR: ASTM A615 GRADE 60 MIN($F_y=60\text{ksi}$)
 CONCRETE: 3000psi MIN COMPRESSIVE STRENGTH
 @ 28-DAYS

SPECIAL INSPECTION REQ'D FOR
 PLACEMENT OF ANCHOR BOLTS

SEE  FOR MAXIMUM
 DIMENSIONS OF LIGHT POLE.

MIN, (4) 1" DIA A307
 ALL-THREAD ROD ANCHORS
 W/(2) NUTS & WASHERS @
 BOTTOMS



B
LP

LIGHT POLE FOUNDATION DETAIL

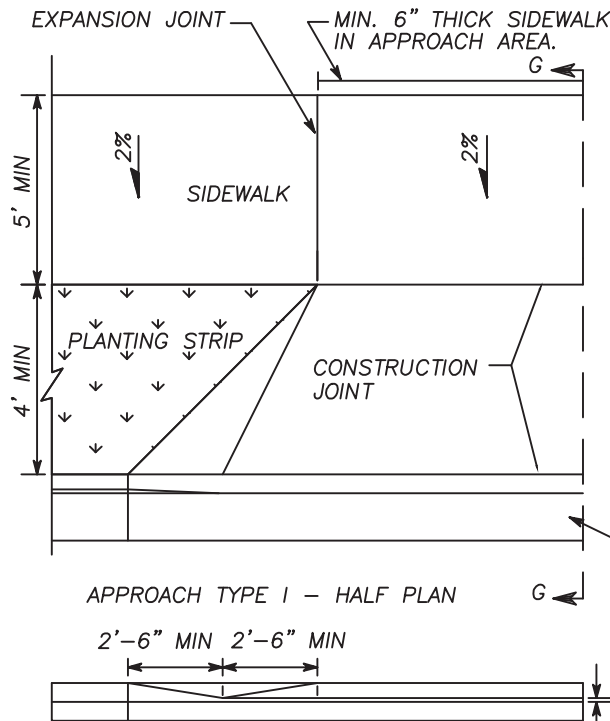
REVISED 10-16-07

TYPICAL ARTERIAL / COLLECTOR LIGHT FOUNDATION STANDARD

**STANDARD
 DETAILS**

CITY OF RIDGEFIELD

**SHEET
 T-2.12**



APPROACH TYPE I - HALF PLAN

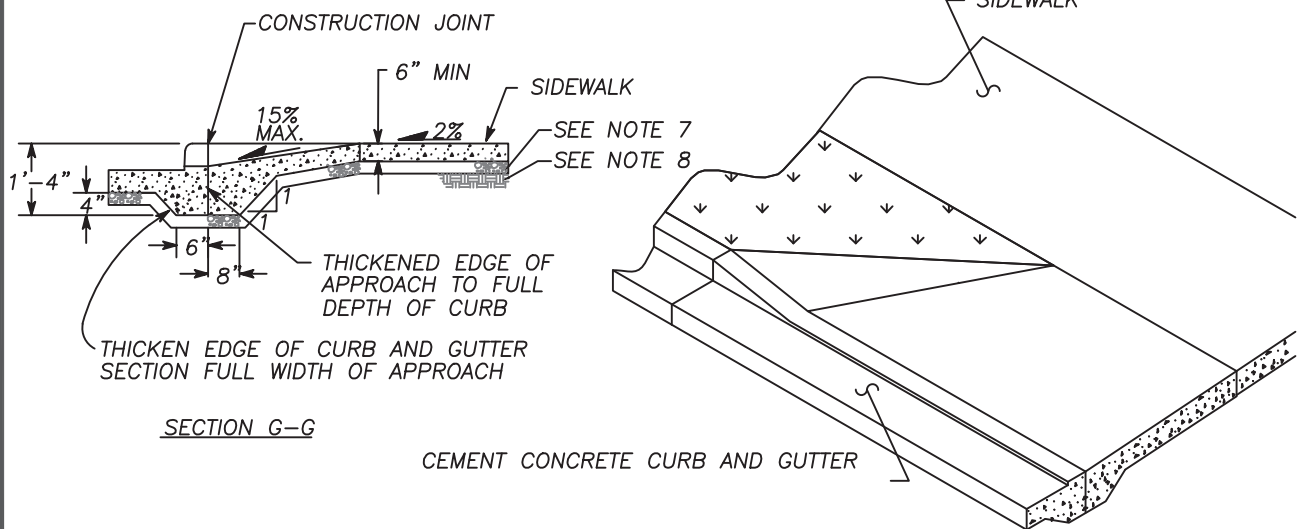
OPTIONAL APPROACH - HALF ELEVATION

NOTE: USE TYPE 1 APPROACH ONLY WHEN A SIDEWALK IS USED AT THE BACK OF THE APPROACH.

NOTES:

1. A MINIMUM 4' WIDE ACCESSIBLE ROUTE SHALL BE MAINTAINED IN ALL PEDESTRIAN ACCESSIBLE AREAS.
2. CONTRACTION POINTS SHALL BE PLACED ALONG SIDEWALKS IN ACCORD WITH SIDEWALK DETAIL. ALL JOINTS SHALL BE CLEANED AND EDGED.
3. CHANGES IN LEVEL UP TO 1/4" MAY BE VERTICAL AND WITHOUT EDGE TREATMENT. CHANGES IN LEVEL BETWEEN 1/4" AND 1/2" SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 2:1.
4. CEMENT CONCRETE APPROACHES SHALL BE CONSTRUCTED OF AIR-ENTRAINED CLASS 3000 AND MAY BE POURED INTEGRAL WITH CURB.
5. EXISTING CURB, GUTTER, AND SIDEWALK TO BE SAWCUT AND REMOVED FOR INSTALLATION OF APPROACH.
6. COMMERCIAL DRIVEWAY REQUIRES REINFORCING STEEL (#4 REBAR @ 12" O.C IN EACH DIRECTIONS) MAINTAIN MIN. 3" COVER.
7. 3" DEPTH 3/4"-0 CRUSHED AGGREGATE BASE COMPACTED TO 95% OF MAX. DRY DENSITY.
8. SUBGRADE PREPARATION PER WSDOT STD. SPEC. 2-06.3(1).

CEMENT CONCRETE CURB AND GUTTER SECTION SHOWN (SEE STANDARD PLANS FOR OTHER CURB DESIGNS).



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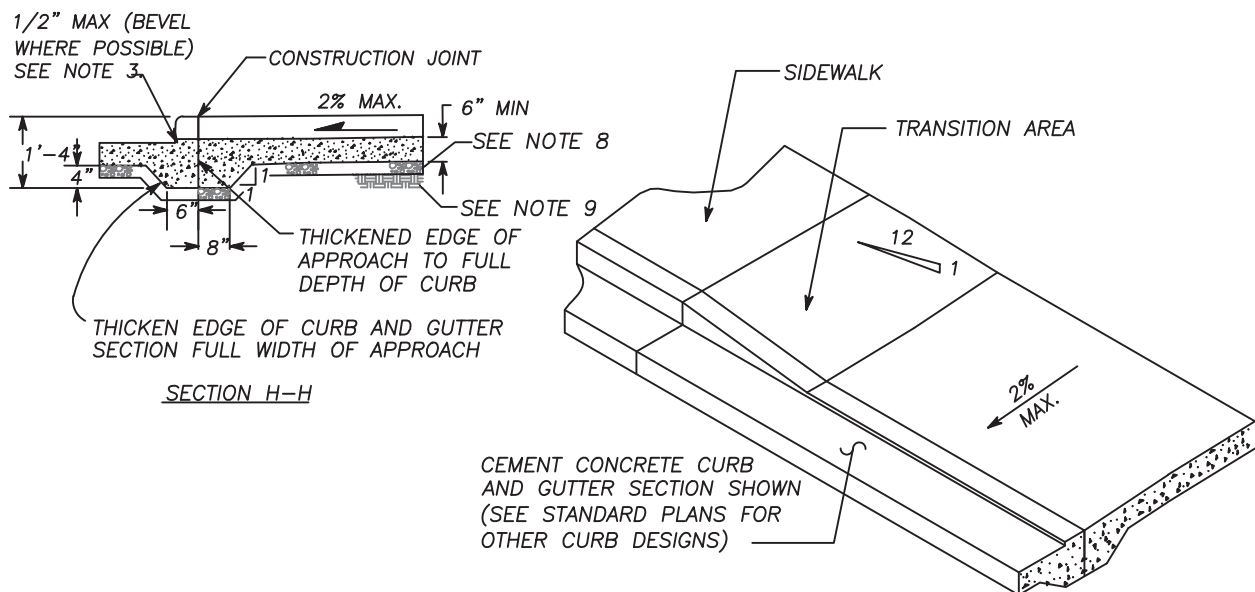
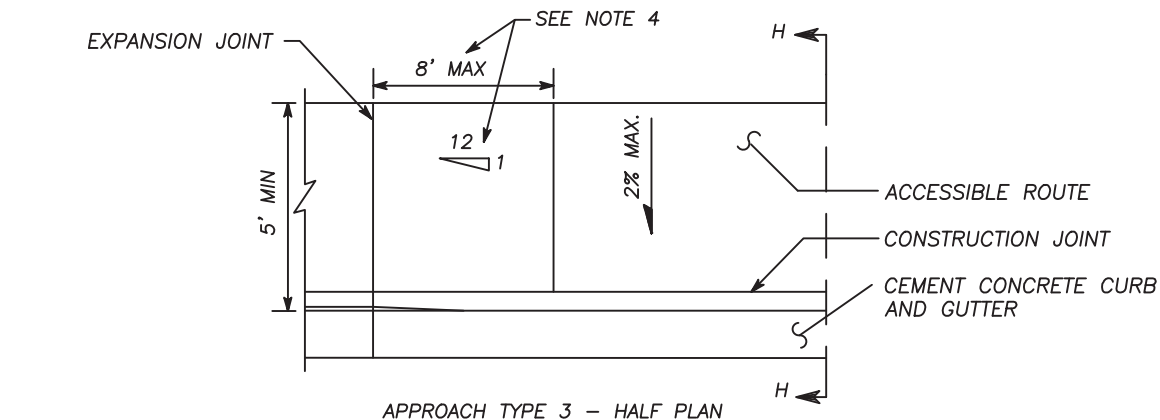
APPROACH TYPE I - HALF ISOMETRIC

CONCRETE DRIVEWAY APPROACH STANDARD

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
T - 2.13



NOTES:

1. A MINIMUM 4' WIDE ACCESSIBLE ROUTE SHALL BE MAINTAINED IN ALL PEDESTRIAN ACCESSIBLE AREAS.
2. CONTRACTION JOINTS SHALL BE PLACED ALONG SIDEWALKS IN ACCORD WITH SIDEWALK DETAIL. ALL JOINTS SHALL BE CLEANED AND EDGED.
3. CHANGES IN LEVEL UP TO 1/4" MAY BE VERTICAL AND WITHOUT EDGE TREATMENT. CHANGES IN LEVEL BETWEEN 1/4" AND 1/2" SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 2:1.
4. TRANSITION AREA TO BE SLOPED AT 1v TO 12h, UNLESS STREET GRADE WOULD CREATE A TRANSITION LENGTH GREATER THAN 8', THEN THE MAXIMUM LENGTH OF 8' GOVERNS SLOPE.

APPROACH TYPE 3 - HALF ISOMETRIC

5. CEMENT CONCRETE APPROACHES SHALL BE CONSTRUCTED OF AIR-ENTRAINED CONCRETE CLASS 3000 AND MAY BE POURED INTEGRAL WITH CURB.
6. EXISTING CURB, GUTTER AND SIDEWALK TO BE SAWCUT AND REMOVED FOR INSTALLATION OF APPROACH.
7. COMMERCIAL DRIVEWAY REQUIRES REINFORCING STEEL (#4 REBAR @ 12" O.C. IN EACH DIRECTION), MAINTAIN MIN. 3" COVER.
8. 3" DEPTH 3/4"-0 CRUSHED AGGREGATE BASE COMPACTED TO 95% OF MAX. DRY DENSITY.
9. SUBGRADE PREPARED PER WSDOT STD. SPEC. 2-06.3(1)

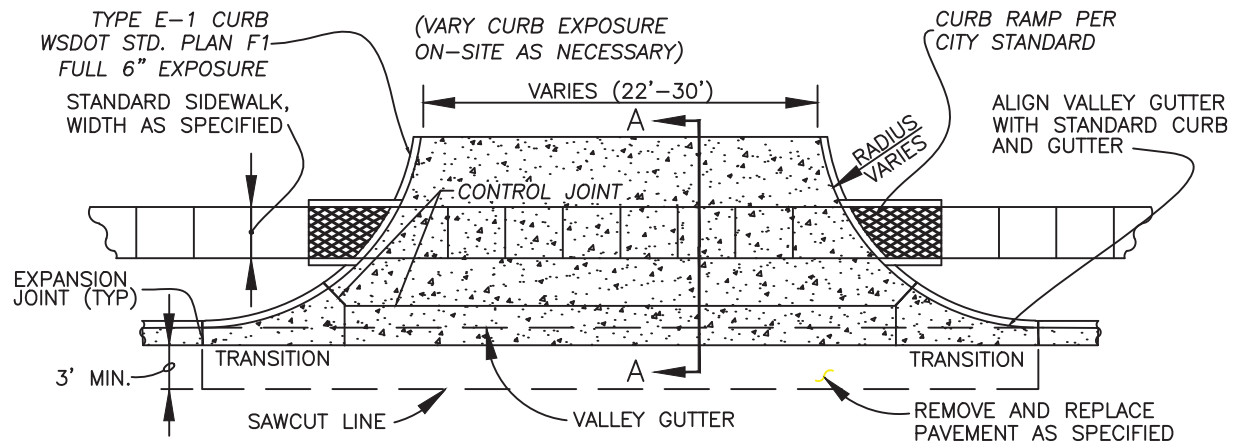
REV. 3/04/08 SCH

CONCRETE DRIVEWAY APPROACH TYPE 3

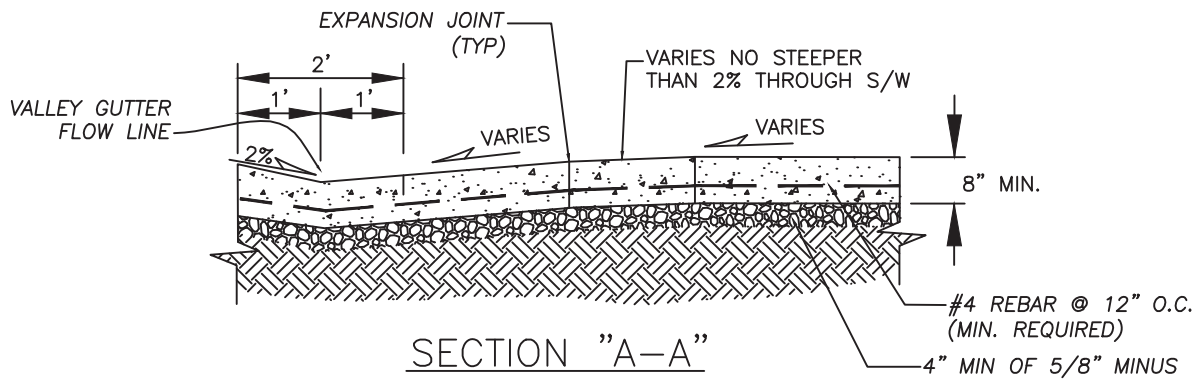
STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
T - 2.14



PLAN VIEW COMMERCIAL DRIVEWAY ENTRANCE



NOTES:

1. CONCRETE SHALL BE 3300 PSI (MIN. BREAKING STRENGTH @ 28 DAYS) WITH 3" SLUMP (± 1 "). TOTAL AIR CONTENT (% BY VOLUME OF CONCRETE) SHALL NOT BE LESS THAN 4% OR MORE THAN 7%. MEDIUM BROOM FINISH PARALLEL TO DRIVEWAY CENTERLINE.
2. ALL JOINTS SHALL BE FINISHED WITH 1/4" RADIUS EDGE UNLESS OTHERWISE NOTED.
3. DRIVEWAYS EXCEEDING 15' IN TOTAL WIDTH SHALL HAVE ADDITIONAL LONGITUDINAL JOINTS AS DIRECTED. CONTROL JOINT SPACING SHALL NOT EXCEED 15'.
4. DRIVEWAY SHALL BE CONSTRUCTED WITH REINFORCING STEEL, MINIMUM REQUIRED SHALL BE #4 REBAR @ 12" O.C WITH MIN. 3" COVER.
5. ALL EXISTING EDGES SHALL BE SAW CUT.
6. 4" DEPTH 5/8"-0 CRUSHED AGGREGATE BASE COMPACTED TO 95% OF MAX. DRY DENSITY.
7. SUBGRADE PREPARATION PER WSDOT STD. SPEC. 2-06.3(1).
8. EXISTING CURB SHALL BE REMOVED TO EXISTING JOINT OR SAWCUT SUCH THAT 3' MIN. OF NEW STREET SECTION IS CONSTRUCTED ADJACENT TO NEW DRIVEWAY.
9. MAXIMUM 2% CROSS SLOPE ACROSS PEDESTRIAN CROSSING.
10. CURB RADIUS TO BE 20-FOOT MINIMUM AND 35-FOOT MAXIMUM, AS APPROVED BY CITY ENGINEER.

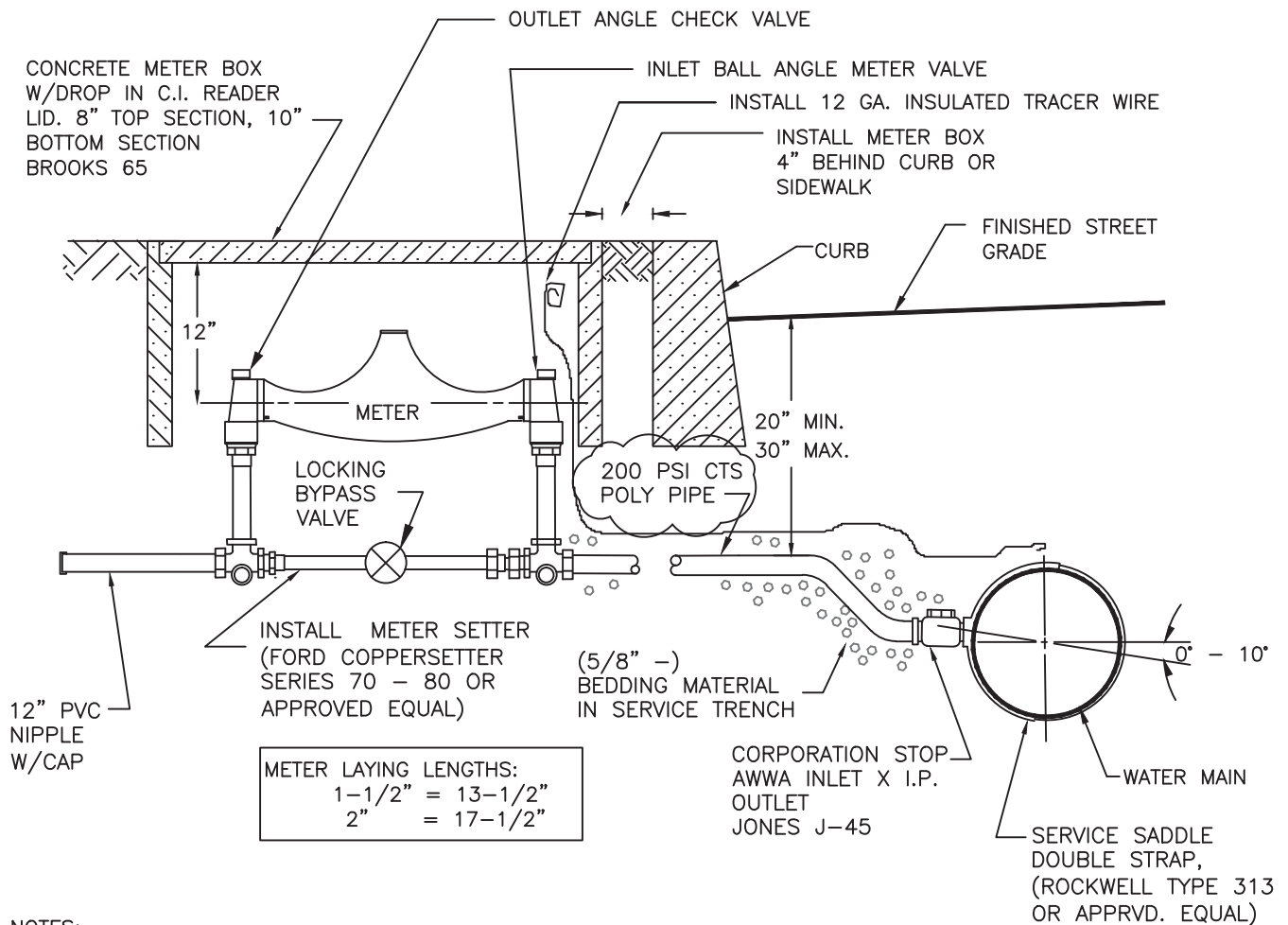
REV. 2/08/08 SCH

MAJOR COMMERCIAL CONCRETE APPROACH STANDARD

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
T - 2.15



NOTES:

1. ALL METERS SHALL BE INSTALLED BY THE CITY OF RIDGEFIELD.
2. PRIOR TO CITY INSTALLATION OF METERS, ALL SERVICE APPLICATIONS MUST BE COMPLETED AND APPROVED. SERVICE FEES PAID IN FULL AND AS-BUILTS SUBMITTED AND APPROVED.
3. CONTRACTOR SHALL CONTACT CITY PUBLIC WORKS OFFICE (360)887-8251 48 HOURS PRIOR TO INSTALLING ANY WATER SERVICE CONNECTIONS.
4. METERS WILL NOT BE SET BY THE CITY PRIOR TO DISINFECTION OF THE MAIN AND SERVICE, AND PRIOR TO A SUCCESSFUL BACTERIOLOGICAL TEST.
5. WATER SERVICES SHALL BE PRESSURE TESTED ALONG WITH THE MAIN.
6. DURING THE PRESSURE TEST, THE MAIN SHALL BE OPEN FOR INSPECTION OF ALL CORPORATION STOPS.
7. USE 1-7/8" BIT FOR ALL 2" SADDLE TAPS AND 1-3/8" BIT FOR 1-1/2" SADDLE TAPS.
8. METER BOX IS NOT ALLOWED IN HARD SURFACED AREAS WITHOUT PRIOR APPROVAL.

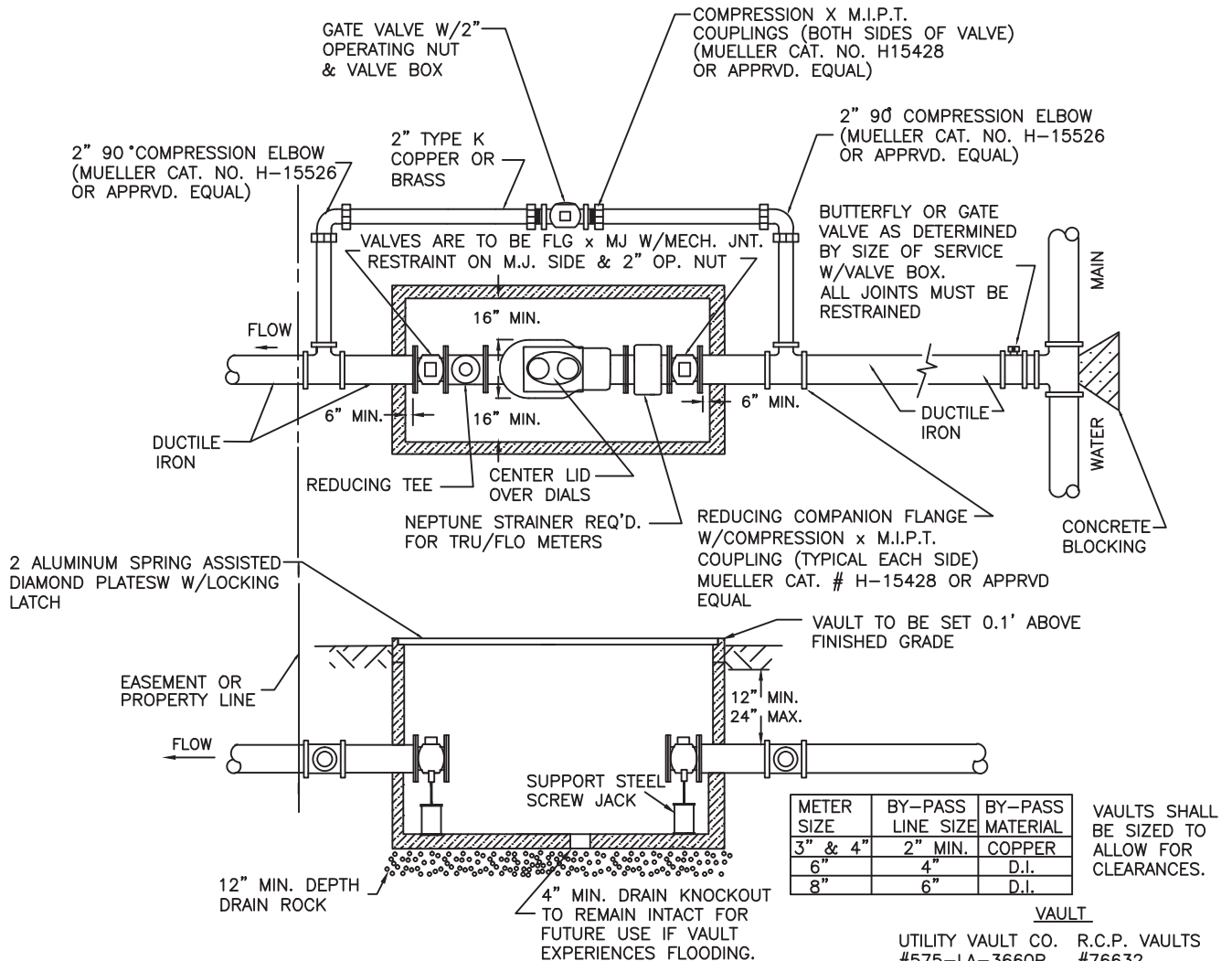
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STANDARD WATER SERVICE - 1 1/2" & 2"

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
W-1.3



NOTE:

- TEN PIPE DIAMETERS OF STRAIGHT PIPE REQ'D. IN & OUT OF METER. (IF USING 6" PIPE, NO BENDS ALLOWED WITHIN 5' OF THE METER IN EITHER DIRECTION. IE: 6" x 10 = 60")
- CONTRACTOR SHALL USE APPROPRIATE METHODS TO ENSURE COPPER PIPE, FITTINGS AND JOINTS WILL REMAIN LEAK-TIGHT.
- ALL METERS 3" AND LARGER SHALL BE INSTALLED BY THE CONTRACTOR.
- METER BOX IS NOT ALLOWED WITHOUT PRIOR APPROVAL.
- VAULT LID DRAINS TO BE PIPED TO CURB OR STORM SEWER.
- VAULT TO BE SEALED AND WATER TIGHT
- METER TYPE TO BE APPROVED BY PUBLIC WORKS PRIOR TO INSTALLATION

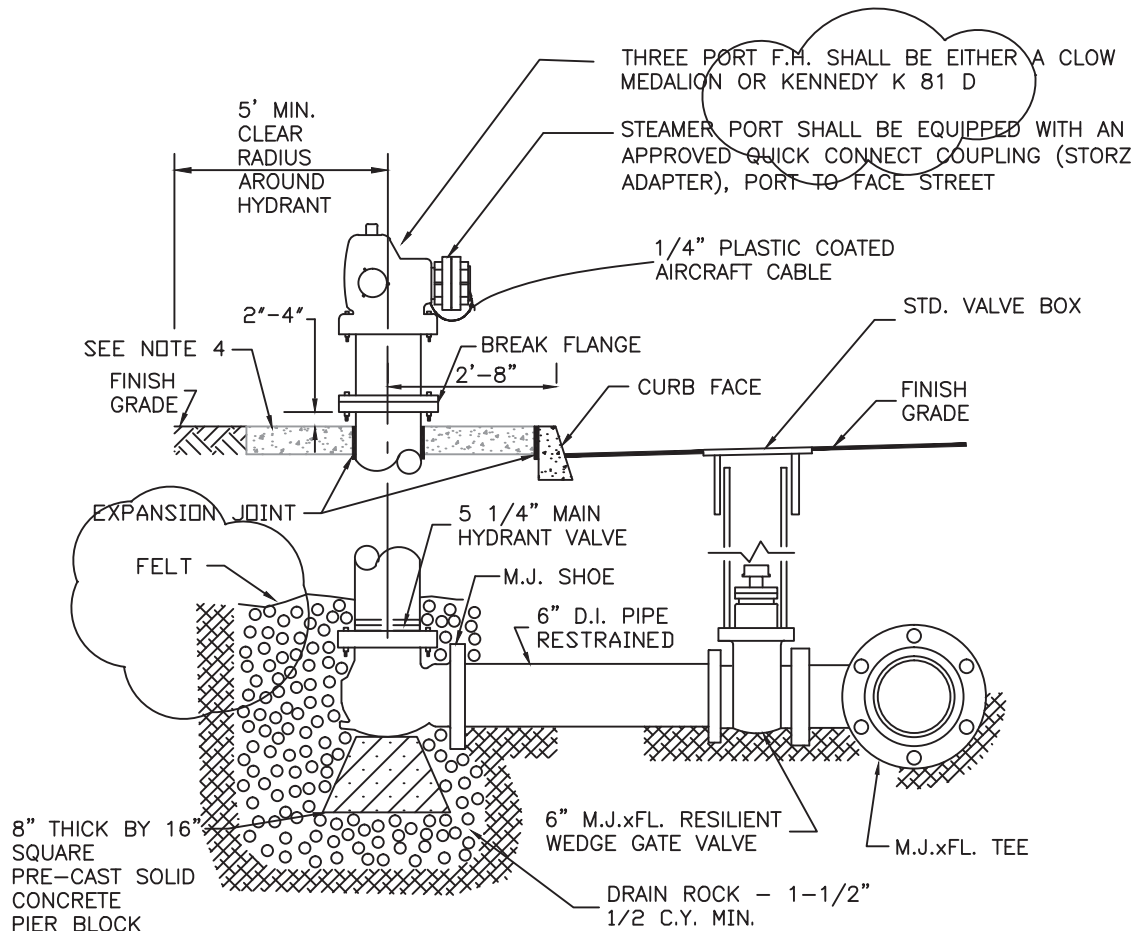
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STANDARD WATER SERVICE - 3" AND LARGER

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
W - 1.4



NOTES:

1. FIRE HYDRANT INSTALLATIONS SHALL BE APPROVED BY THE CITY INSPECTOR PRIOR TO BACKFILLING.
2. FIRE HYDRANT LOCATIONS SHALL BE AS SHOWN ON THE PLANS. FIRE HYDRANTS SHALL NOT BE SET UNTIL LOCATION AND DEPTH ARE APPROVED BY THE CITY.
3. FIRE HYDRANT STANDARD BURY IS 4' UNLESS OTHERWISE NOTED ON THE PLANS.
4. A 4'x4'x4" CONCRETE PAD SHALL BE CENTERED AROUND THE FIRE HYDRANT.
5. CONCRETE PAD SHALL BE PLACED FLUSH W/BACK OF CURB OR SIDEWALK. EXPANSION JOINT MATERIAL SHALL BE PLACED BETWEEN THE CONCRETE PAD AND CURB/SIDEWALK.
6. ALL PIPING MUST BE RESTRAINED, WITHOUT EXCEPTION.
7. FIRE HYDRANTS SHALL BE FACTORY PAINTED WITH SAFETY YELLOW HIGH GLOSS EQUIPMENT ENAMEL. HYDRANT SHALL BE FRESHLY PAINTED PRIOR TO CITY ACCEPTANCE.
8. FIRE HYDRANT MAINS SHALL BE 8" MIN., A 6" MAIN CAN BE USED FOR A DEAD-END RUN OF LESS THAN 50' TO A HYDRANT SUBJECT TO ADEQUATE FIRE FLOW.
9. NO BENDS SHALL BE ALLOWED ON FIRE HYDRANT RUNS.

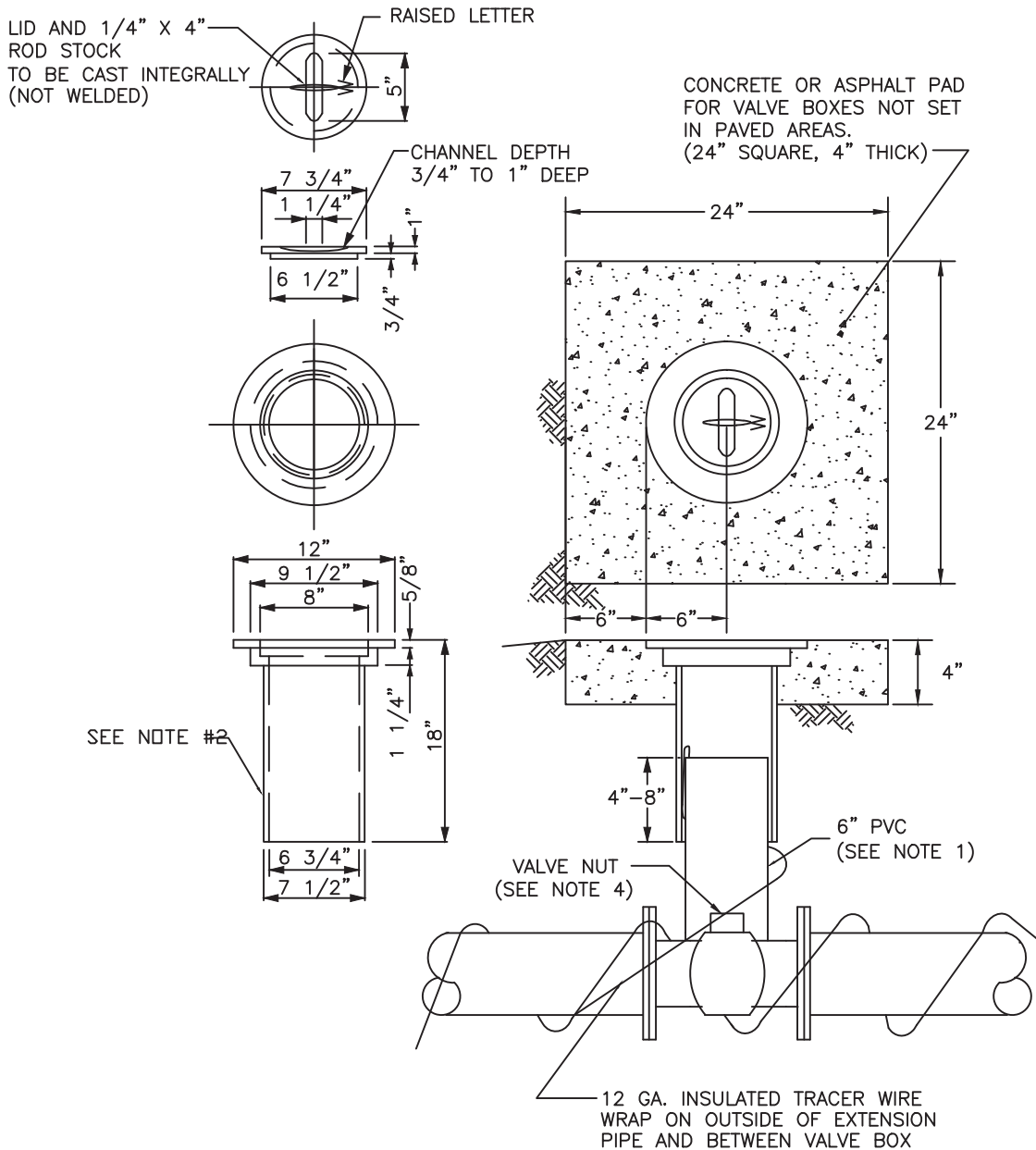
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STANDARD FIRE HYDRANT ASSEMBLY

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
W - 2.1



NOTES:

1. EXTENSION SHALL BE 6" ASTM D 3034 SDR 35 PVC PIPE (ONE PIECE).
2. U.S FILTER/PACIFIC WATER WORKS NO. 910 OR EQUAL.
3. THERE SHALL BE 1/2" CLEARANCE UNDER THE PIN CAST INTO THE LID.
4. VALVE OPERATOR EXTENSION TERMINATING AT 24" BELOW FINISHED GRADE AND ROCK GUARD REQUIRED WHEN VALVE NUT IS DEEPER THAN 3 FEET.

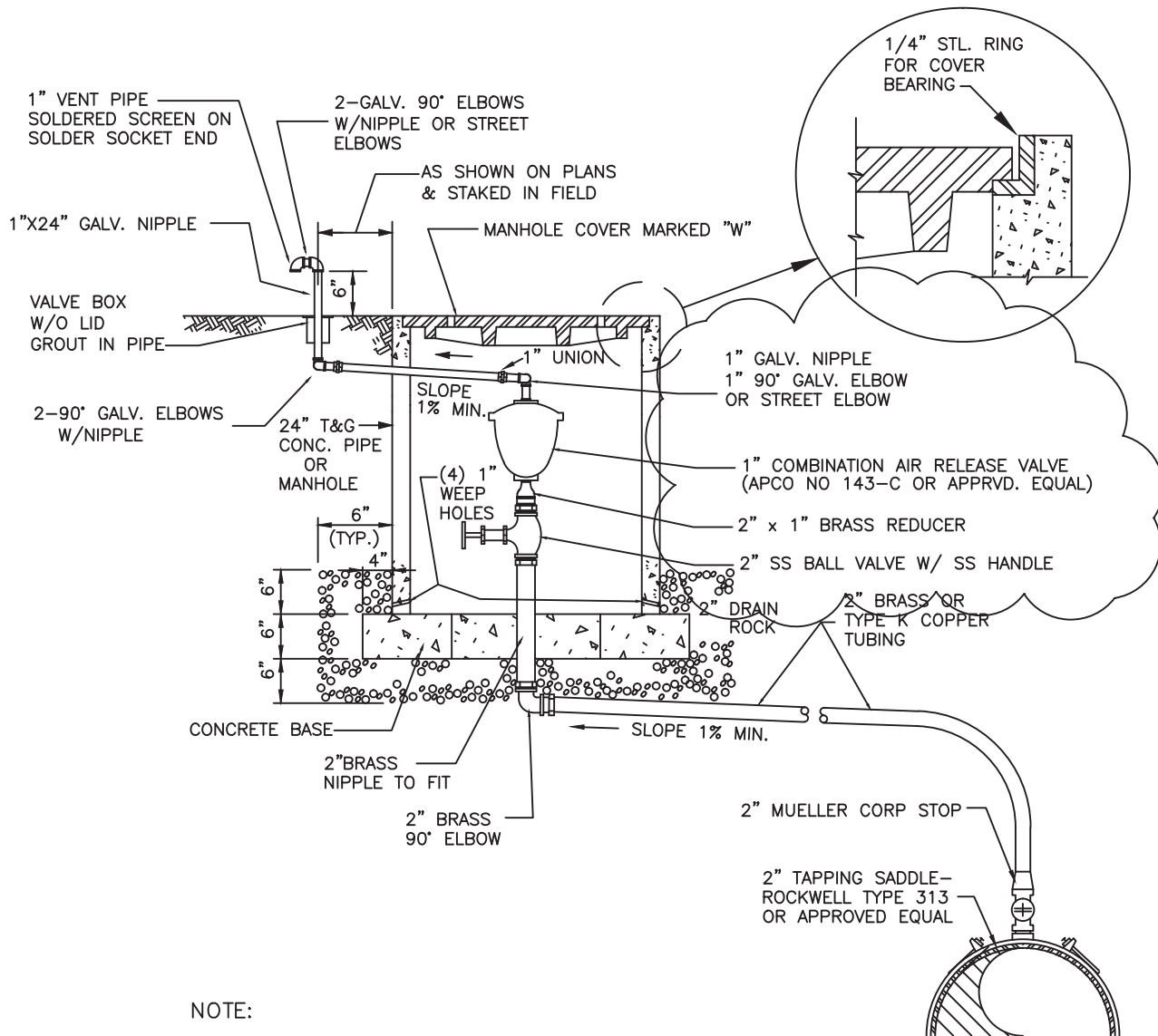
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STANDARD VALVE BOX AND COVER

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
W-2.2



NOTE:

1) PLACE VENT AND AIR RELEASE UNIT ASSEMBLY OUTSIDE OF HARD SURFACE AREA IN R.O.W. OR 15' EASEMENT DEDICATED TO THE CITY OF RIDGEFIELD.

2) MUST BE USED FOR ALL AIR RELEASE LOCATIONS UNLESS OTHERWISE APPROVED BY CITY ENGINEER.

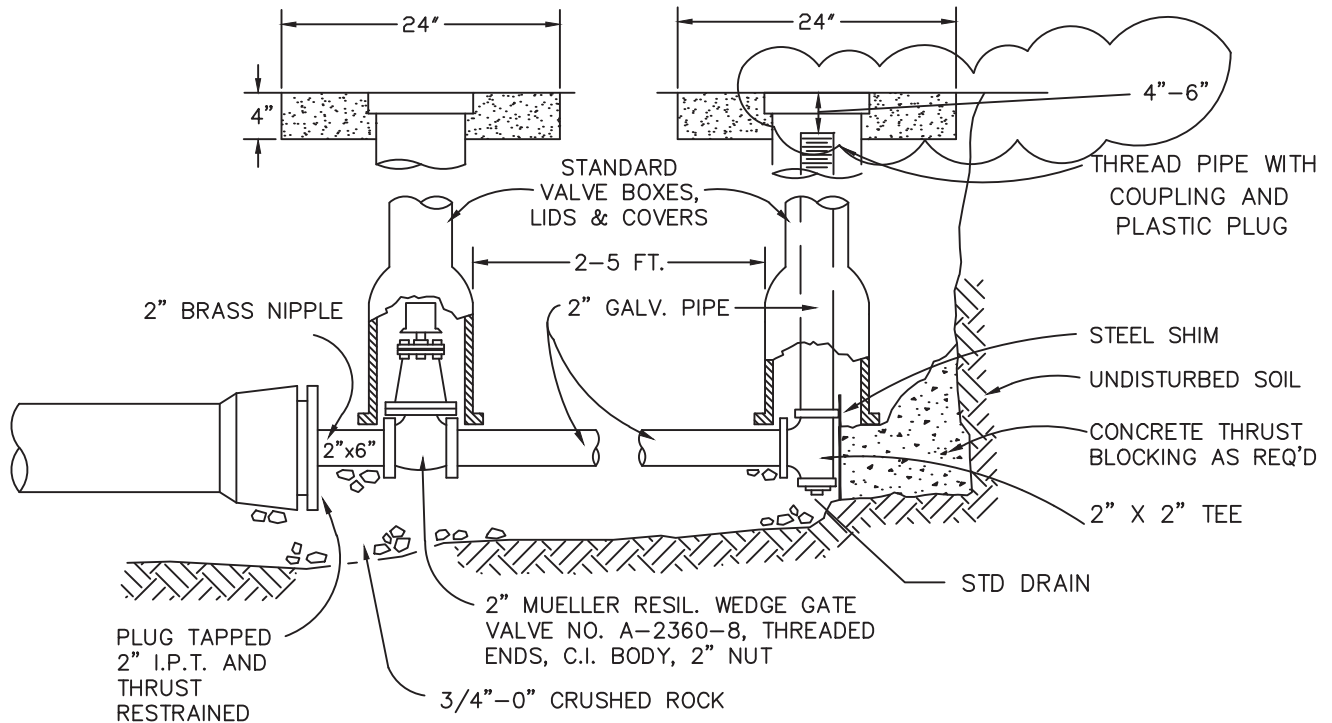
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COMBINATION AIR RELEASE VALVE

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
W - 2.4



NOTES:

1. VALVE BOX TO BE CONCRETE ENCASED AS SHOWN, IF NOT IN PAVED AREA.
2. BLOW-OFF UNIT SHALL BE BACKFILLED WITH 3/4"-0" CRUSHED ROCK AND COMPACTED TO 95% OF MAX. DENSITY DETERMINED BY AASHTO T-180.
3. PLACE BLOW-OFF STANDPIPE 3 FT. INSIDE R.O.W. LINE AT END OF STREET (2 FT. FROM BARRICADE).

BLOW-OFF SIZES REQUIRED

MAIN SIZE	BLOW-OFF SIZE
<12"	2"
≥12"	4"

REV 4/7/17 BGK

STANDARD BLOWOFF ASSEMBLY

STANDARD
DETAILS

CITY OF RIDGEFIELD

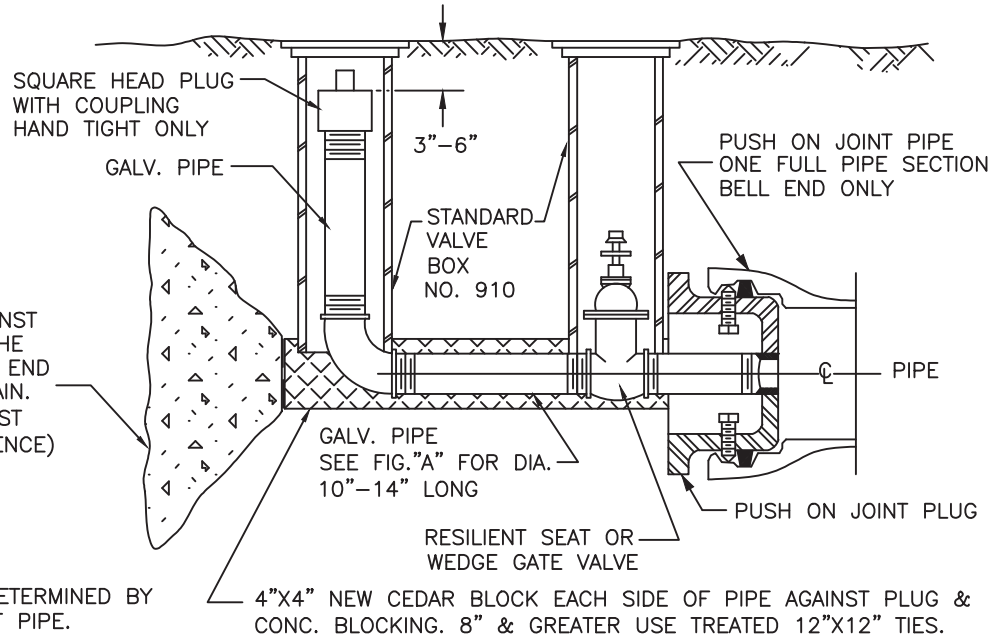
SHEET
W-2.5

FIGURE "A"

MAIN DIAMETER	BLOW-OFF DIAMETER
<12"	2" MINIMUM
≥12"	4" MINIMUM

POUR THRUST BLOCK AGAINST
UNDISTURBED SOIL. USE THE
BEARING AREA OF A DEAD END
MATCHING THE SIZE OF MAIN.
(USE THE STANDARD THRUST
BLOCK DETAIL FOR REFERENCE)

NOTE:
SIZE OF BLOWOFF DETERMINED BY
SIZE AND LENGTH OF PIPE.



STANDARD TEMPORARY BLOWOFF ASSEMBLY

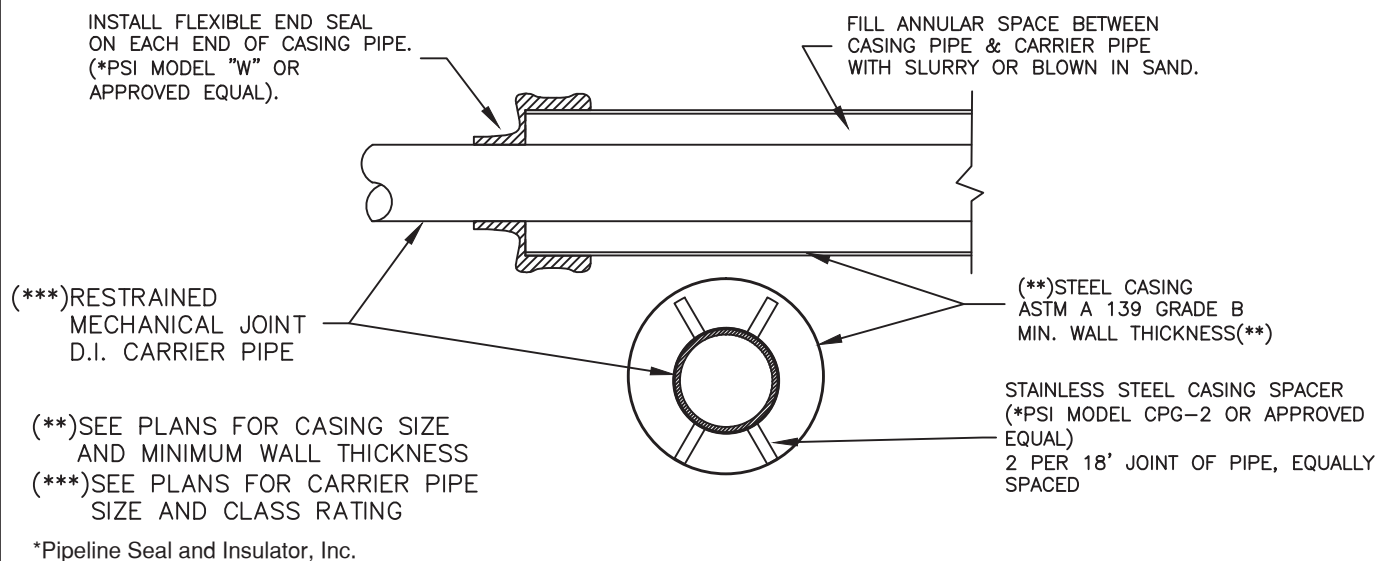
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STANDARD TEMPORARY BLOWOFF ASSEMBLY

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
W-2.6



CASING SIZING REQUIREMENTS

CARRIER PIPE	MINIMUM CASING REQUIREMENTS	WALL THICKNESS
4"	16" A36 STEEL	3/8"
6"	16" A36 STEEL	3/8"
8"	24" A36 STEEL	3/8"
10"	24" A36 STEEL	3/8"
12"	24" A36 STEEL	3/8"
16"	36" A36 STEEL	5/8"
24"	48" A36 STEEL	5/8"

NOTES

1. CASING TO BE EXTENDED 5' BEYOND ANY CURB, WALLS, STRUCTURES OR FOOTINGS
2. PUBLIC AND PRIVATE MAINS SHALL BE PLACED IN SEPARATE CASINGS.
3. WRITTEN PERMISSION FROM THE OWNER OF THE RAILROAD TRACKS IS REQUIRED PRIOR TO OBTAINING CITY OF RIDGEFIELD PERMITS TO PROCEED.
4. NO PRIVATE UTILITIES SHALL BE ALLOWED IN CITY OF RIDGEFIELD CASINGS.

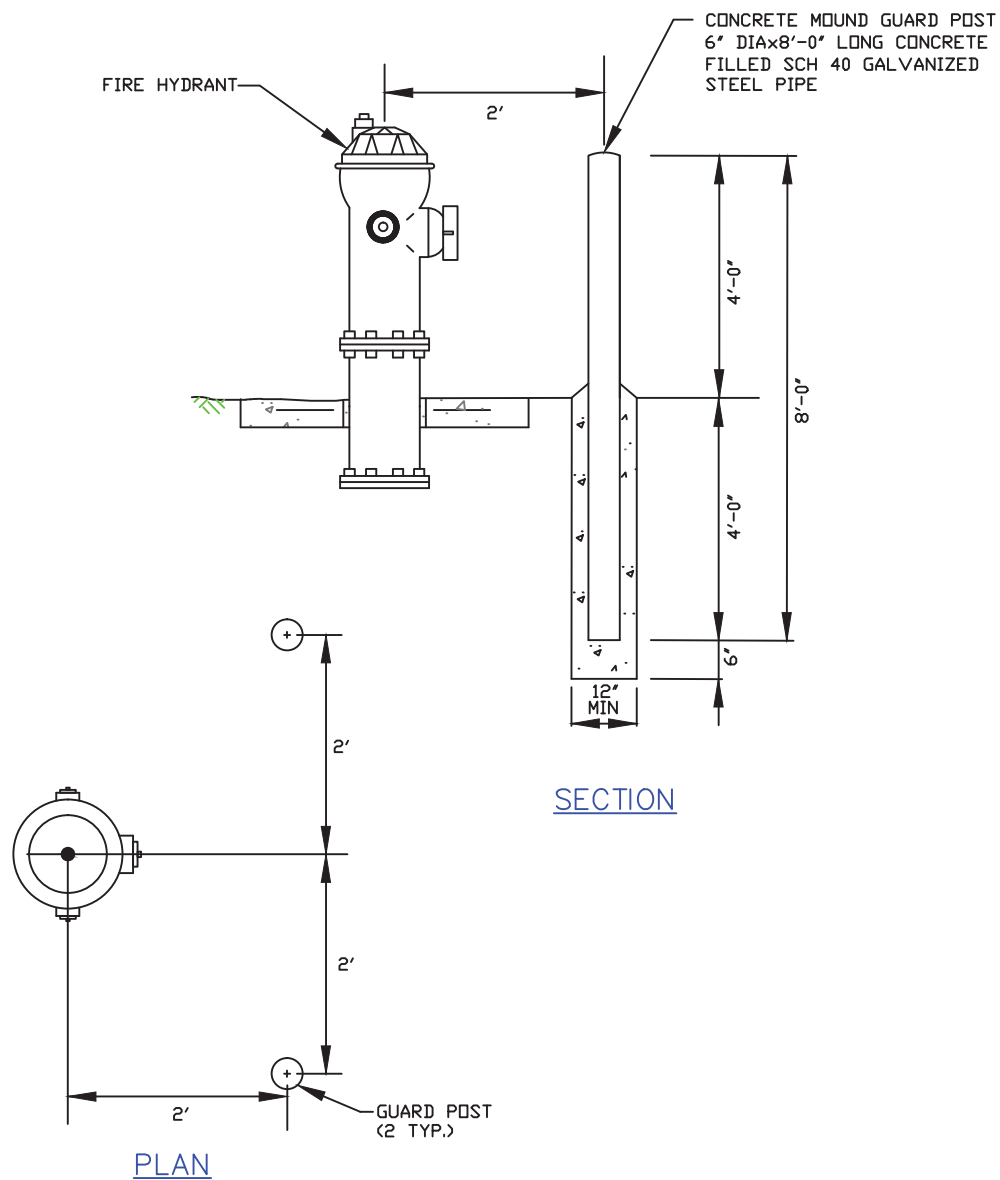
REV. 2/06/08 SCH

PIPE AND CASING DETAIL

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
W-2.8



*PAINT GUARD POST RUSTOLEUM SAFETY YELLOW
BASE No. 288-14, COLOR CODE
AX-6732, T-4432, OR EQUAL.

NOTE:

CONCRETE GUARD POATS SHALL BE INSTALLED
WHEN REQUIRED BY CITY ENGINEER

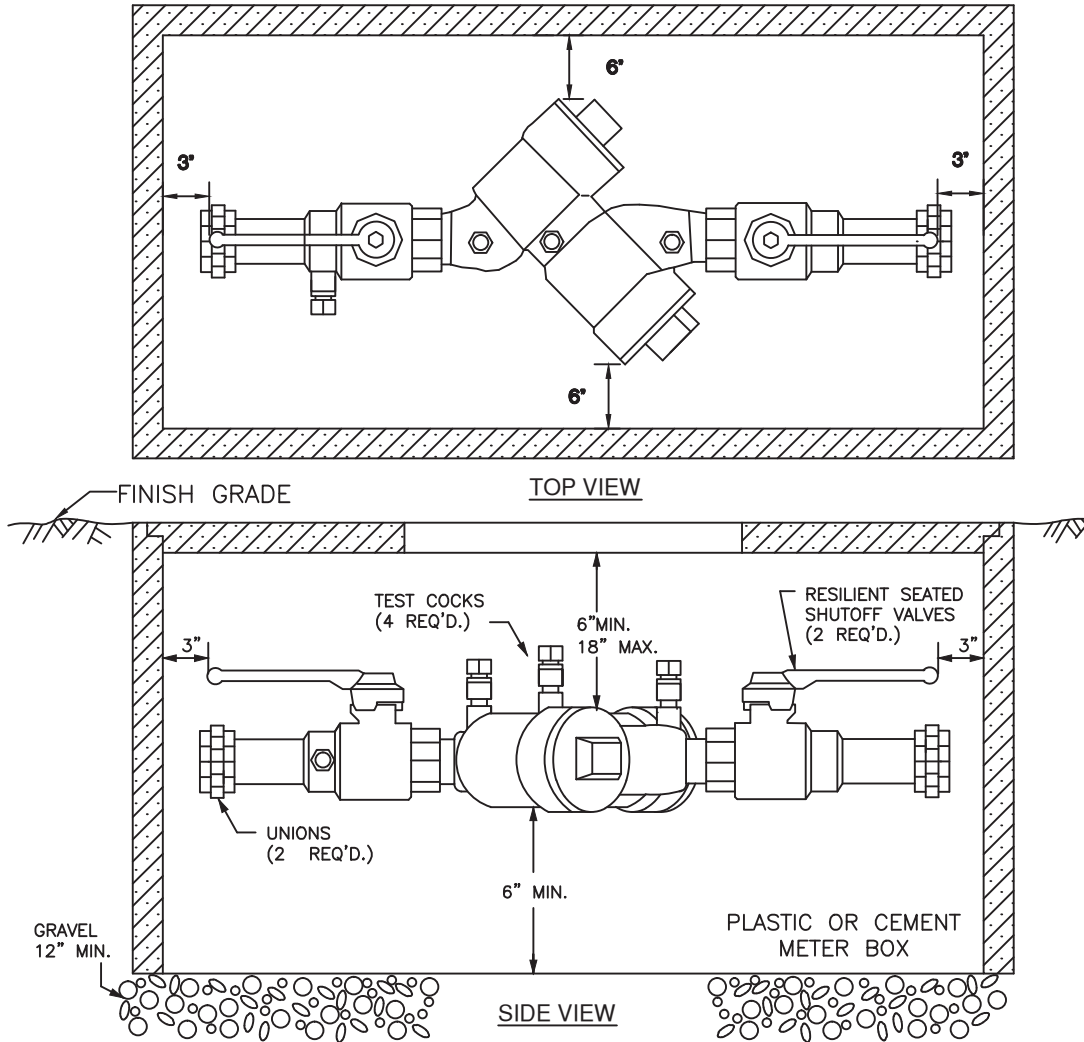
FIRE HYDRANT GUARD POST

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
W - 2.9





NOTES:

1. APPROVED DOUBLE CHECK VALVE ASSEMBLY (DCVA) TO LAY HORIZONTAL WITH GROUND. (VERTICAL ALLOWED IF APPROVED BY WA. DEPT. OF HEALTH)
2. DCVA MAY BE INSTALLED ABOVE OR BELOW GROUND PROVIDED ALL CLEARANCES ARE MET.
3. DESIGN FOR BACK SIPHONAGE AND BACK PRESSURE.
4. TEST COCKS TO EITHER FACE OUTWARDS OR UPWARDS FROM ASSEMBLY.
5. THOROUGHLY FLUSH LINES PRIOR TO INSTALLATION OF BACKFLOW PREVENTER.
6. DO NOT INSTALL IN AN AREA SUBJECT TO FLOODING.
7. DCVA MUST BE ACCESSIBLE.
8. PROTECT DCVA FROM FREEZING.
9. DCVA SHALL BE APPROVED BY THE STATE OF WASHINGTON DEPARTMENT OF HEALTH.
10. A PLUMBING PERMIT IS REQUIRED-CONTACT THE CITY PERMITS COUNTER
11. DCVA MUST BE TESTED AFTER INSTALLATION, THEN ANNUALLY BY A WA. STATE CERTIFIED BACKFLOW TESTER. RESULTS SHALL BE SENT TO THE CITY PUBLIC WORKS OFFICE.

DOUBLE CHECK VALVE ASSEMBLY - 2" & SMALLER

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
W - 3.1

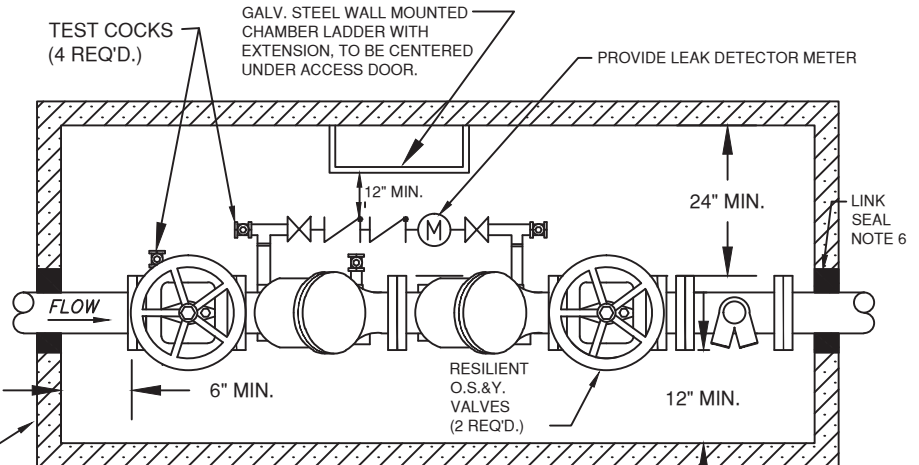
**UTILITY VAULT SIZING CHART
(OR APPROVED EQUAL)**

DEPTH OF PIPE UP TO	DCVA SIZE	FDC TEE INSIDE VAULT	FDC TEE OUTSIDE VAULT
4'	4"	675-WA W/2-332P	575-WA W/2
6'	4"	676-WA	577-WA
4'	6"	687-WA	675-WA W/2
6'	6"		676-WA
6'	8"	5106-WA	687-WA
6'	10"	5106-WA	5106-WA

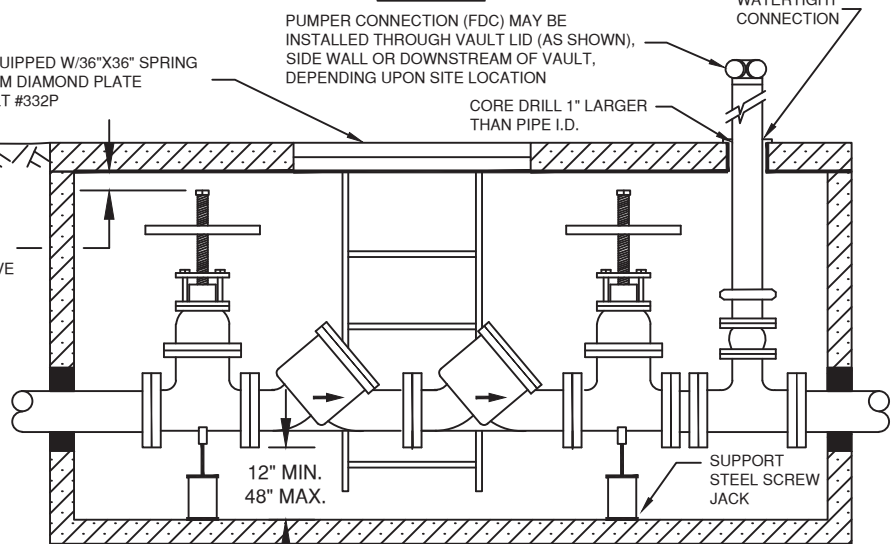
PRE-CAST CONC. VAULT
H-20 LOADING
W/LADDER

VAULT SHALL BE EQUIPPED W/36"X36" SPRING ASSISTED, ALUMINUM DIAMOND PLATE DOOR. UTILITY VAULT #332P

A CITY APPROVED ISOLATION VALVE IS REQ'D. BETWEEN THE SUPPLY MAIN AND THE VAULT



TOP VIEW



SIDE VIEW

NOTES:

1. THE DCVA MAY BE INSTALLED ABOVE OR BELOW GROUND PROVIDED ALL CLEARANCES ARE MET.
2. APPROVED DCVA TO LAY HORIZONTAL WITH THE GROUND. (VERTICAL IF APPROVED BY DEPT. OF HEALTH)
3. DESIGNED FOR BACK SIPHONAGE AND BACK PRESSURE.
4. THE WATER LINE SHALL BE DISINFECTED, FLUSHED AND PRESSURE TESTED PRIOR TO INSTALLING THE BACKFLOW ASSEMBLY. THE DCVA SHALL BE PROTECTED FROM FREEZING AND FLOODING.
5. ALL PIPE, VALVE AND FITTING JOINTS, FROM SUPPLY MAIN, SHALL BE FLANGED OR RESTRAINED.
6. PIPE ENTRANCE AND EXIT TO BE PROVIDED WITH LINK SEAL APPROVED EQUAL MECHANICAL SEAL.
7. ALL VAULTS SHALL BE PRE-APPROVED PRIOR TO INSTALLATION.
8. DCVA SHALL BE INSTALLED AT THE PROPERTY LINE OR EASEMENT LINE AND ON OWNER'S PROPERTY.
9. DCVA SHALL HAVE A MINIMUM OF 3' CLEARANCE FROM ALL STRUCTURES.
10. DCVA SHALL BE TESTED AFTER INSTALLATION AND PRIOR TO ACCEPTANCE AND ALSO YEARLY THEREAFTER BY A WASHINGTON STATE CERTIFIED BACKFLOW ASSEMBLY TESTER. TEST RESULTS SHALL BE SENT TO THE CITY PUBLIC WORKS OFFICE.

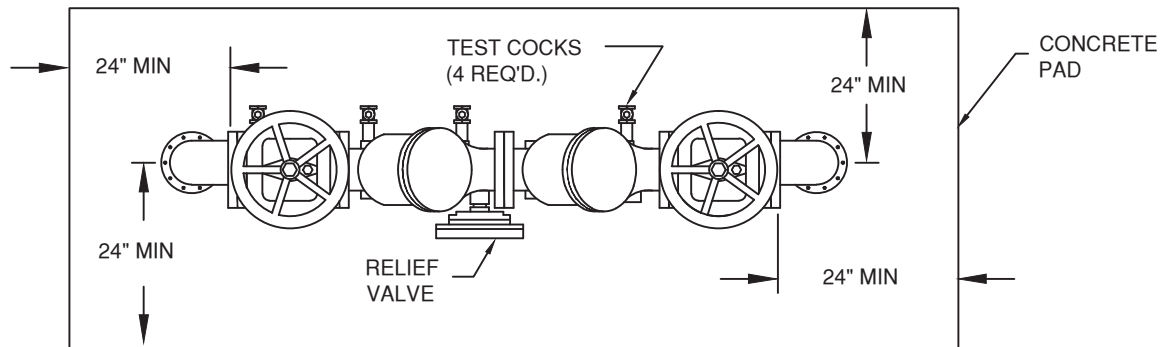
REV. 3/07/08 SCH

DOUBLE CHECK VALVE ASSEMBLY - 2 1/2" & LARGER

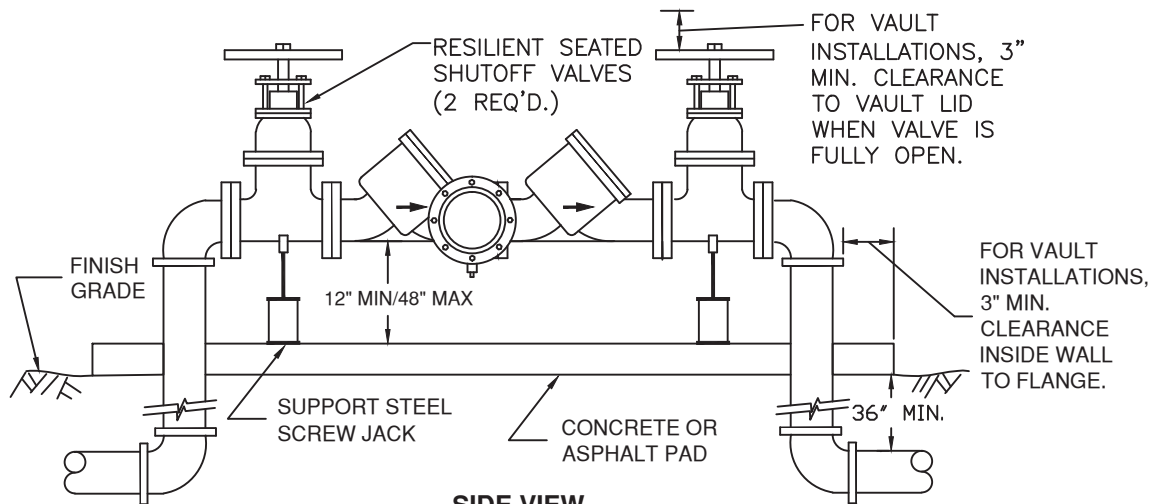
STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
W - 3.3



TOP VIEW



SIDE VIEW

NOTE:

1. APPROVED REDUCED PRESSURE BACKFLOW ASSEMBLY (RPBA) TO LAY HORIZONTAL. (VERTICAL IF APPROVED BY DEPT. OF HEALTH)
2. DESIGNED FOR BACK SIPHONAGE AND BACK PRESSURE.
3. THE WATER LINE SHALL BE DISINFECTED, FLUSHED AND PRESSURE TESTED PRIOR TO INSTALLING THE RPBA. THE RPBA SHALL BE PROTECTED FROM FREEZING AND FLOODING.
4. ALL PIPE, VALVES AND FITTING JOINTS FROM SUPPLY MAIN, SHALL BE FLANGED AND RESTRAINED.
5. PIPE ENTRANCE AND EXIT PROVIDED WITH LINK SEAL, OR APPROVED EQUAL MECHANICAL SEAL.
6. ALL ENCLOSURES SHALL BE PRE-APPROVED PRIOR TO INSTALLATION.
7. RPBA SHALL BE INSTALLED AT PROPERTY LINE OR EASEMENT LINE AND ON OWNER'S PROPERTY.
8. ADEQUATE GRAVITY DRAINAGE SYSTEM REQUIRED WITH APPROVED AIR GAP.
9. MINIMUM 24" CLEARANCE ON ALL SIDES AROUND RPBA.
10. THE RPBA SHALL BE TESTED AFTER INSTALLATION AND PRIOR TO ACCEPTANCE, ALSO YEARLY THEREAFTER BY A CERTIFIED BACKFLOW ASSEMBLY TESTER. TEST RESULTS SHALL BE SENT TO THE CITY PUBLIC WORKS OFFICE.
11. A CITY APPROVED VALVE IS REQUIRED BETWEEN THE SUPPLY MAIN AND THE R.P.B.A.
12. PROVIDE HEAT AND/OR INSULATION TO PREVENT FREEZING.
13. SUPPORT PIPE AND FITTINGS TO BE SCHEDULE 80 OR AS APPROVED BY CITY ENGINEER.

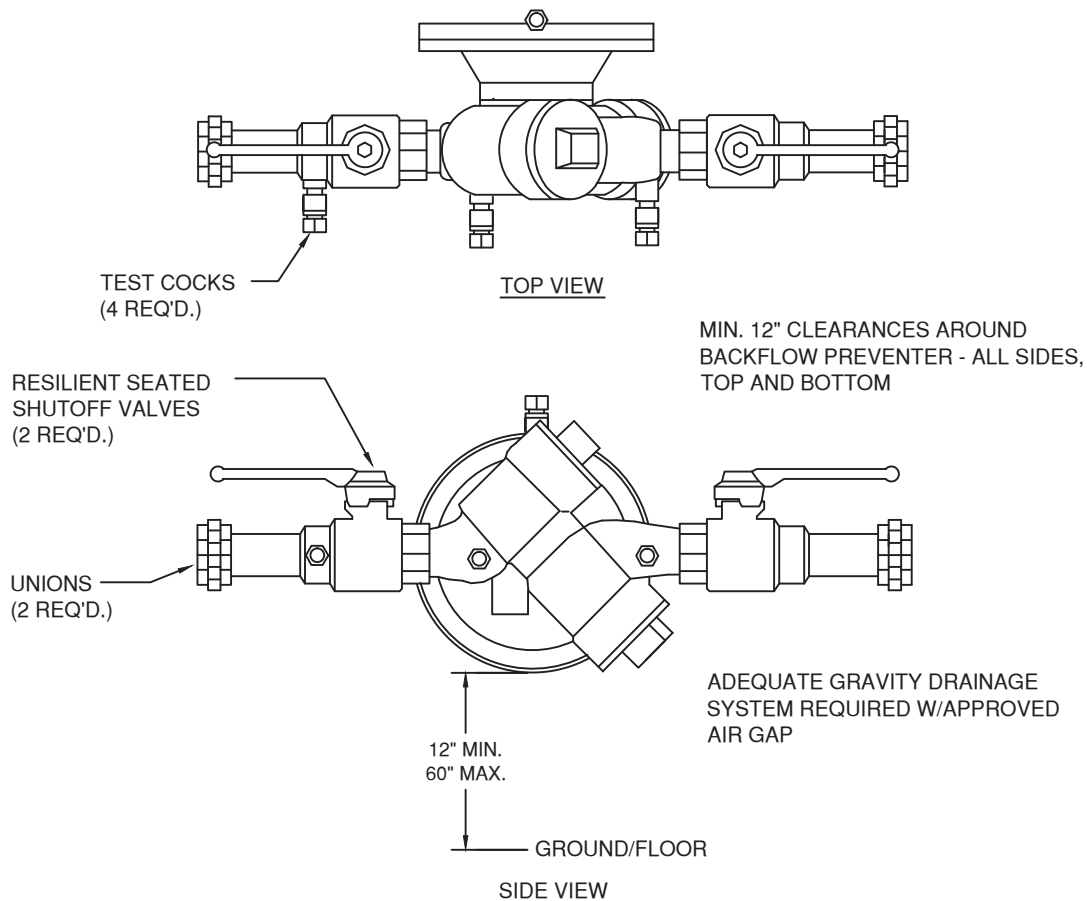
(ABOVE GROUND INSTALLATION ONLY)

REDUCED PRESSURE PRINCIPLE BACKFLOW ASSEMBLY 2-1/2" & LARGER

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
W - 3.4



NOTES:

1. APPROVED REDUCED PRESSURE BACKFLOW ASSEMBLY (RPBA) TO LAY HORIZONTAL WITH GROUND. (VERTICAL ALLOWED IF APPROVED BY WA. DEPT. OF HEALTH)
2. DESIGN RPBA FOR BACK SIPHONAGE AND BACK PRESSURE.
3. THOROUGHLY FLUSH LINES PRIOR TO INSTALLATION OF BACKFLOW PREVENTER.
4. DO NOT INSTALL IN AN AREA SUBJECT TO FLOODING.
5. RPBA MUST BE ACCESSIBLE.
6. PROTECT RPBA FROM FREEZING.
7. A PLUMBING PERMIT IS REQUIRED-CONTACT THE APPROPRIATE JURISDICTION'S PERMITS COUNTER
8. RPBA MUST BE TESTED AFTER INSTALLATION, THEN ANNUALLY BY A WA. STATE CERTIFIED BACKFLOW TESTER. RESULTS SHALL BE SENT TO THE CITY PUBLIC WORKS OFFICE.
9. RPBA SHALL BE APPROVED BY THE STATE OF WASHINGTON. A LIST OF THE APPROVED DEVICES IS AVAILABLE FROM THE DEPARTMENT OF HEALTH.
10. A CITY APPROVED VAULT AND LID REQUIRED. PROVIDE HEAT AND/OR INSULATION TO PREVENT FREEZING,
11. SUPPORT PIPES AND FITTINGS TO BE SCHEDULE 80 PVC OR, AS APPROVED BY THE CITY ENGINEER.

(ABOVE GROUND INSTALLATION ONLY)

REV. 4/15/08 SCH

REDUCE PRESSURE PRINCIPLE BACKFLOW ASSEMBLY - 2" & SMALLER

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
W - 3.5