REV DATE: MAY 2021

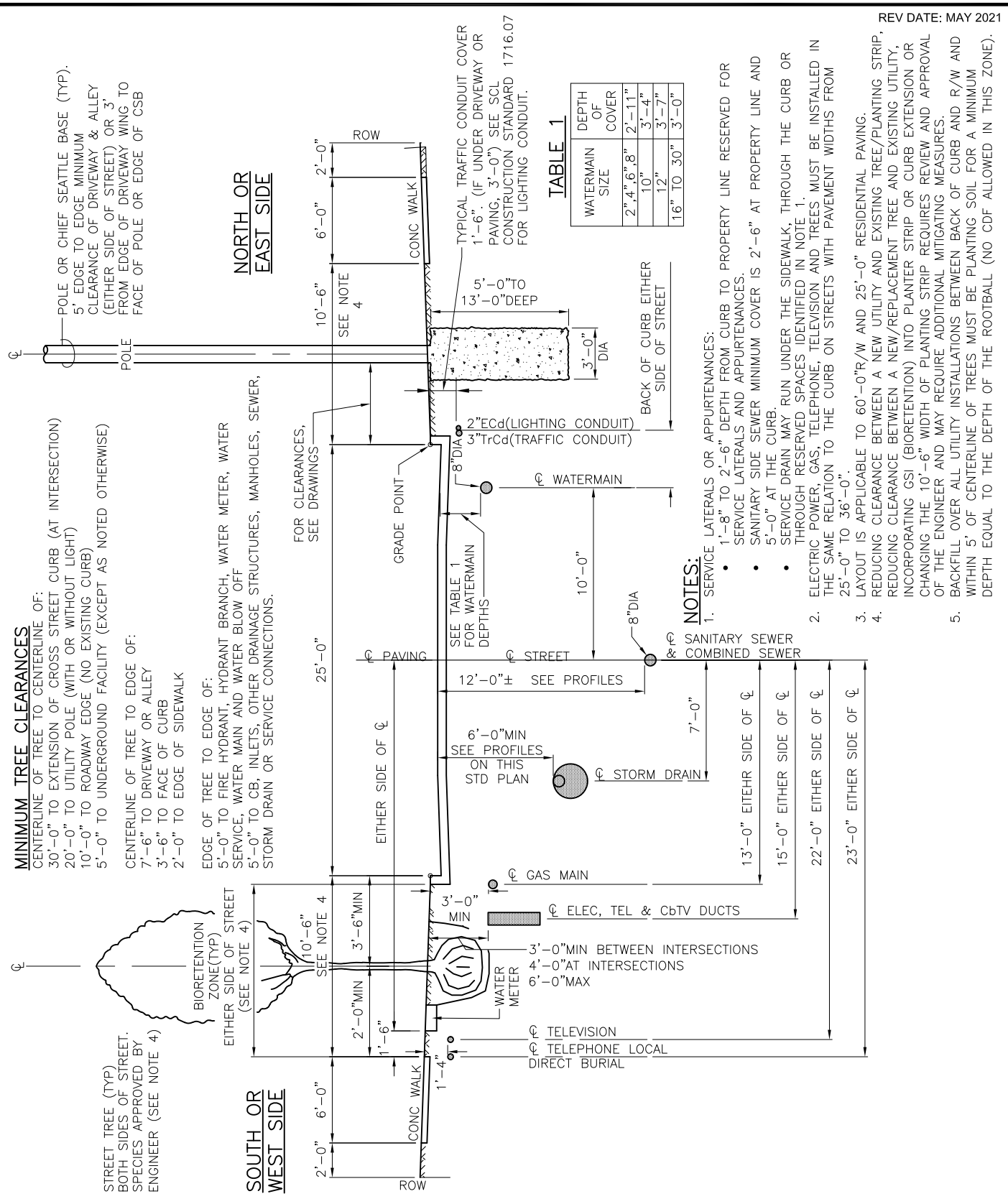


TABLE 1

WATERMAIN SIZE	DEPTH OF COVER
2",4",6",8"	2'-11"
10"	3'-4"
12"	3'-7"
16" TO 30"	3'-0"

NOTES:

1. SERVICE LATERALS OR APPURTENANCES:
   - 1'-8" TO 2'-6" DEPTH FROM CURB TO PROPERTY LINE RESERVED FOR SERVICE LATERALS AND APPURTENANCES.
   - SANITARY SIDE SEWER MINIMUM COVER IS 2'-6" AT PROPERTY LINE AND 5'-0" AT THE CURB.
   - SERVICE DRAIN MAY RUN UNDER THE SIDEWALK, THROUGH THE CURB OR THROUGH RESERVED SPACES IDENTIFIED IN NOTE 1.
2. ELECTRIC POWER, GAS, TELEPHONE, TELEVISION AND TREES MUST BE INSTALLED IN THE SAME RELATION TO THE CURB ON STREETS WITH PAVEMENT WIDTHS FROM 25'-0" TO 36'-0".
3. LAYOUT IS APPLICABLE TO 60'-0"R/W AND 25'-0" RESIDENTIAL PAVING.
4. REDUCING CLEARANCE BETWEEN A NEW UTILITY AND EXISTING TREE/PLANTING STRIP, REDUCING CLEARANCE BETWEEN A NEW/REPLACEMENT TREE AND EXISTING UTILITY, INCORPORATING GSI (BIORETENTION) INTO PLANTER STRIP OR CURB EXTENSION OR CHANGING THE 10'-6" WIDTH OF PLANTING STRIP REQUIRES REVIEW AND APPROVAL OF THE ENGINEER AND MAY REQUIRE ADDITIONAL MITIGATING MEASURES.
5. BACKFILL OVER ALL UTILITY INSTALLATIONS BETWEEN BACK OF CURB AND R/W AND WITHIN 5' OF CENTERLINE OF TREES MUST BE PLANTING SOIL FOR A MINIMUM DEPTH EQUAL TO THE DEPTH OF THE ROOTBALL (NO CDF ALLOWED IN THIS ZONE).

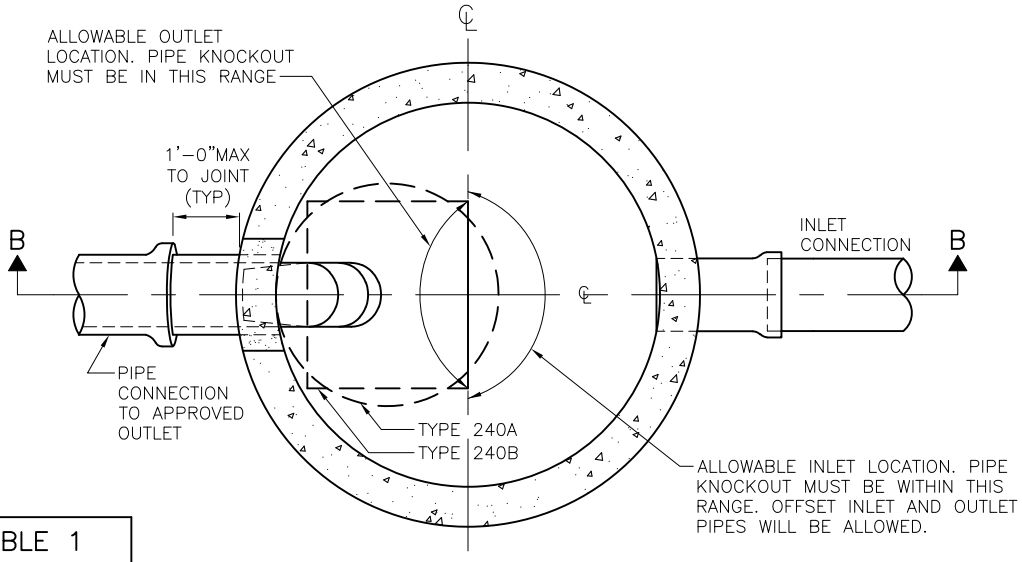
REF STD SPEC SEC 1-07.16, 1-07.17, 1-07.28

City of Seattle

NOT TO SCALE

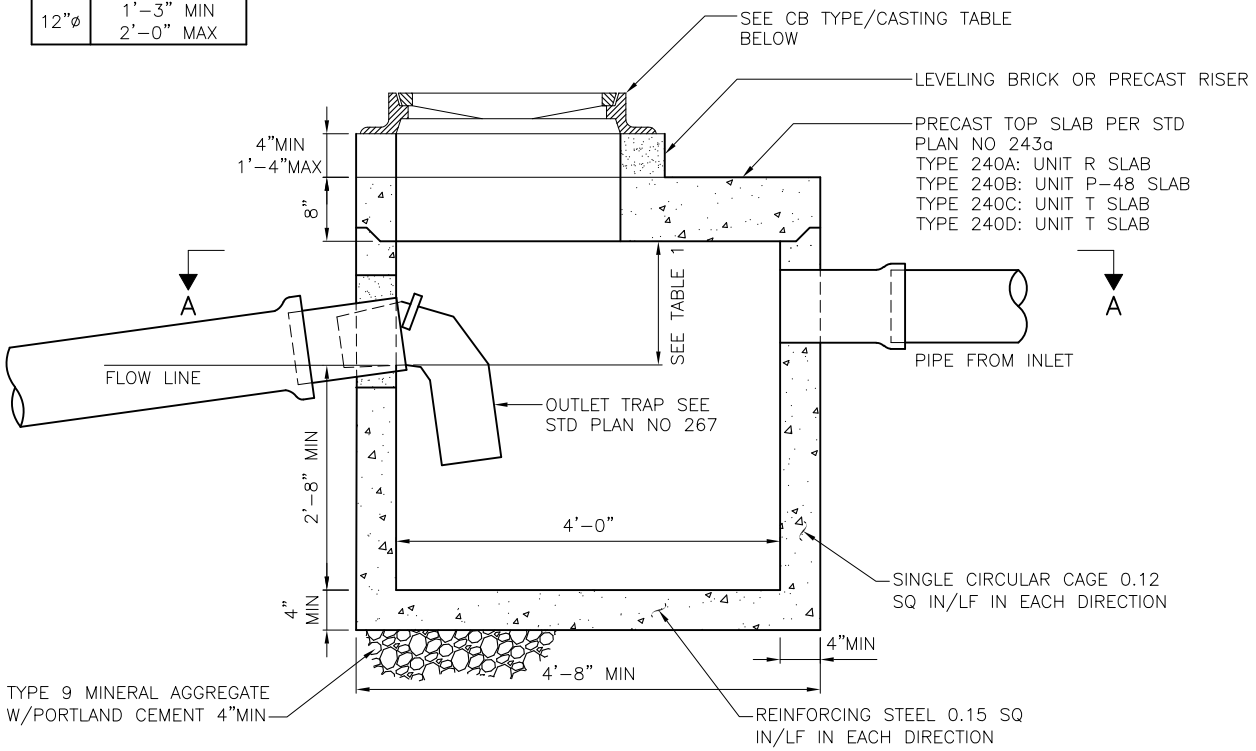
DESIRABLE LOCATIONS FOR UTILITIES (RESIDENTIAL STREET)

REV DATE: SEP 2021



SECTION A–A

TABLE 1	
6"ø	8" MIN 1'-4" MAX
8"ø	10" MIN 1'-4" MAX
12"ø	1'-3" MIN 2'-0" MAX



SECTION B–B

NOTES:

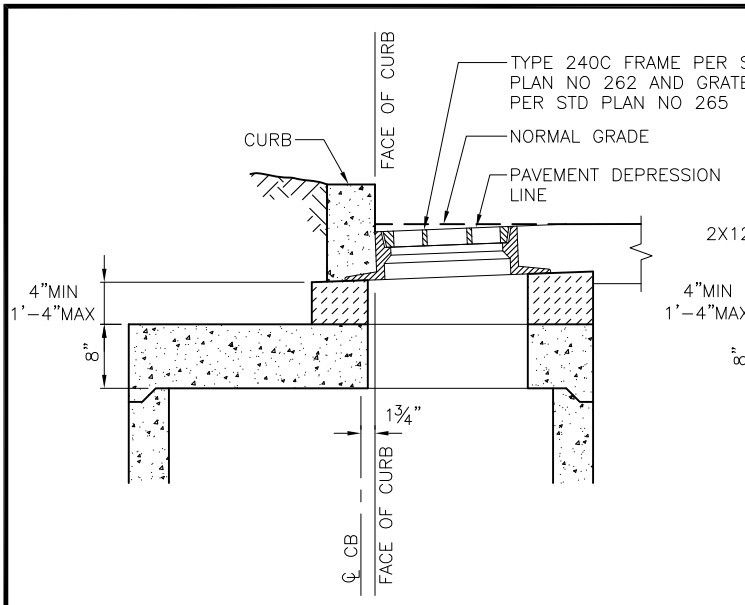
1. FRAME & GRATE OR FRAME & COVER MUST BE LOCATED OVER TRAP.
2. INVERT OF INLET PIPE MUST BE 2"MIN ABOVE INVERT OF OUTLET PIPE.
3. SEE STD PLAN 261 FOR ALLOWABLE OUTLET LOCATIONS.

CB TYPE	CASTING	
	FRAME	COVER
240A	PER STD PLAN 230	PER STD PLAN 230
240B	PER STD PLAN 264	PER STD PLAN 264
240C	PER STD PLAN 262	PER STD PLAN 265
240D	PER STD PLAN 263A	PER STD PLAN 265

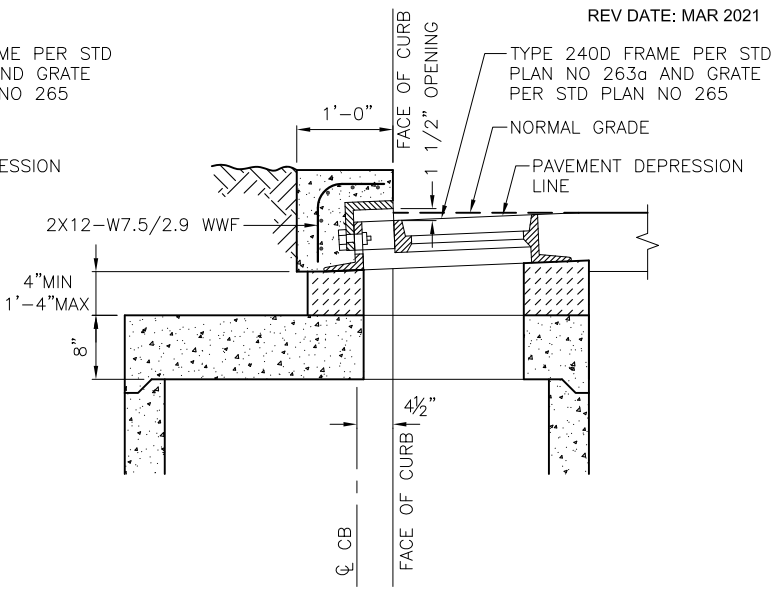
REF STD SPEC SEC 7-05

City of Seattle | NOT TO SCALE | TYPE 240 CATCH BASIN

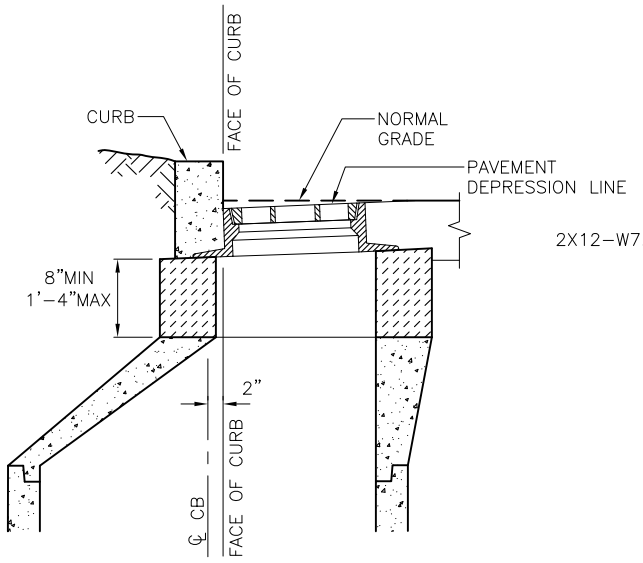
REV DATE: MAR 2021



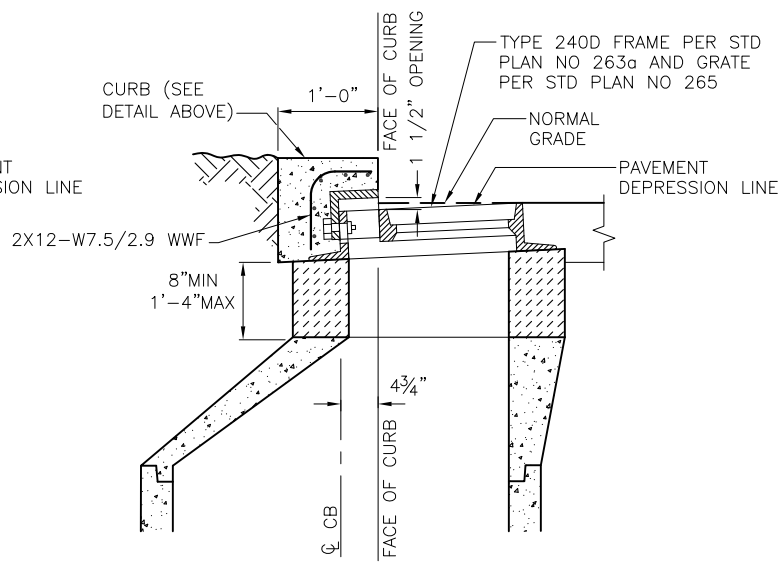
TYPE 240C CB



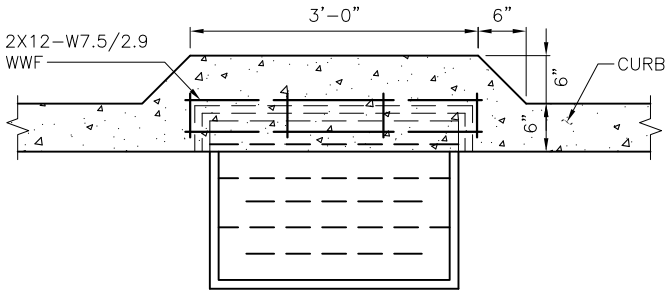
TYPE 240D CB



TYPE 242A CB
(TYPE 250A INLET SIMILAR)



TYPE 242B CB
(TYPE 250B INLET SIMILAR)

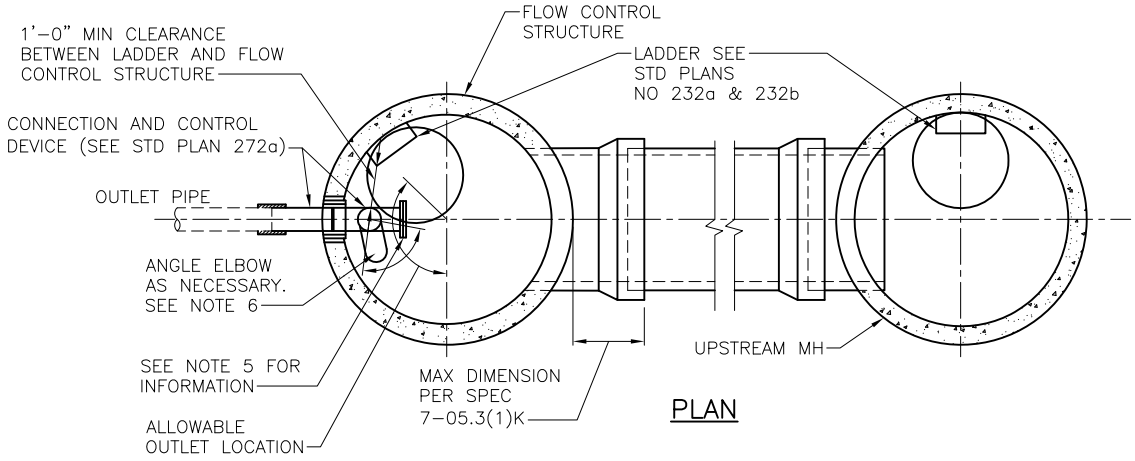


CURB DETAIL (PLAN VIEW) FOR
TYPE 240D & 242B CB & TYPE 250B INLET

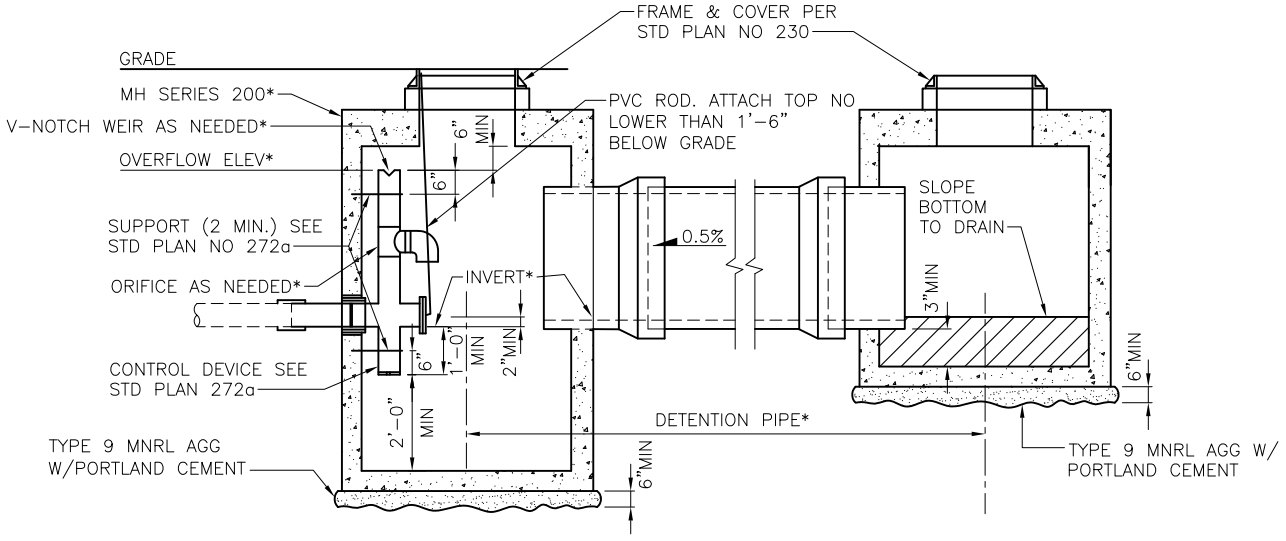
REF STD SPEC SEC 7-05

City of Seattle	NOT TO SCALE	CATCH BASIN & INLET INSTALLATION

REV DATE: OCT 2021



PLAN



ELEVATION

*SPECIFIC DESIGN INFORMATION AS INDICATED ON CONSTRUCTION DRAWINGS

NOTES:

1. DETENTION PIPE MATERIAL MUST BE AS SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS. MATERIALS THAT MAY BE APPROVED FOR USE IN THE ROW INCLUDE:
   - DUCTILE IRON PIPE (DIP)
   - REINFORCED CONCRETE PIPE (RCP)
   - POLYPROPYLENE PIPE (PP DETENTION)
   - STEEL REINFORCED POLYETHYLENE PIPE (STL REINF PE DETENTION). ONLY MANUFACTURER SUPPLIED TEES MUST BE USED FOR CONNECTIONS.
2. BEDDING FOR DETENTION PIPE MUST BE CLASS B. DIP AND RCP MUST BE BEDDED IN MINERAL AGGREGATE TYPE 9. FLEXIBLE PIPE MUST BE BEDDED IN MINERAL AGGREGATE TYPE 22.
3. INTERMEDIATE MHS WILL BE REQUIRED FOR DETENTION PIPE LENGTHS GREATER THAN 350LF.
4. OUTLET PIPE MUST CONNECT TO MH ON MAINLINE.
5. STRUCTURE DESIGN MUST BE MODIFIED FOR PRIVATE SYSTEM WITH EXCLUSION OF SHEAR GATE
6. ROTATE ELBOW RESTRICTOR CLEAR OF ACCESS OPENING.
7. FRAME LADDER AND STEPS OFFSET:
   - 7.1. CLEAN OUT IS VISIBLE FROM TOP
   - 7.2. CLIMB DOWN SPACE IS CLEAR OF RISER AND CLEAN OUT GATE
   - 7.3. MH OPENING MUST NOT BE PLACED DIRECTLY OVER THE TOP OF INLET PIPE
8. THE MAINTENANCE HOLES MUST BE SIZED FOR THE OUTSIDE DIAMETER OF THE DETENTION PIPE, WHICH WILL VARY DEPENDING ON THE DETENTION PIPE MATERIAL.

REF STD SPEC SEC 7-16

City of Seattle	NOT TO SCALE	FLOW CONTROL STRUCTURE WITH DETENTION PIPE

REV DATE: SEP 2021

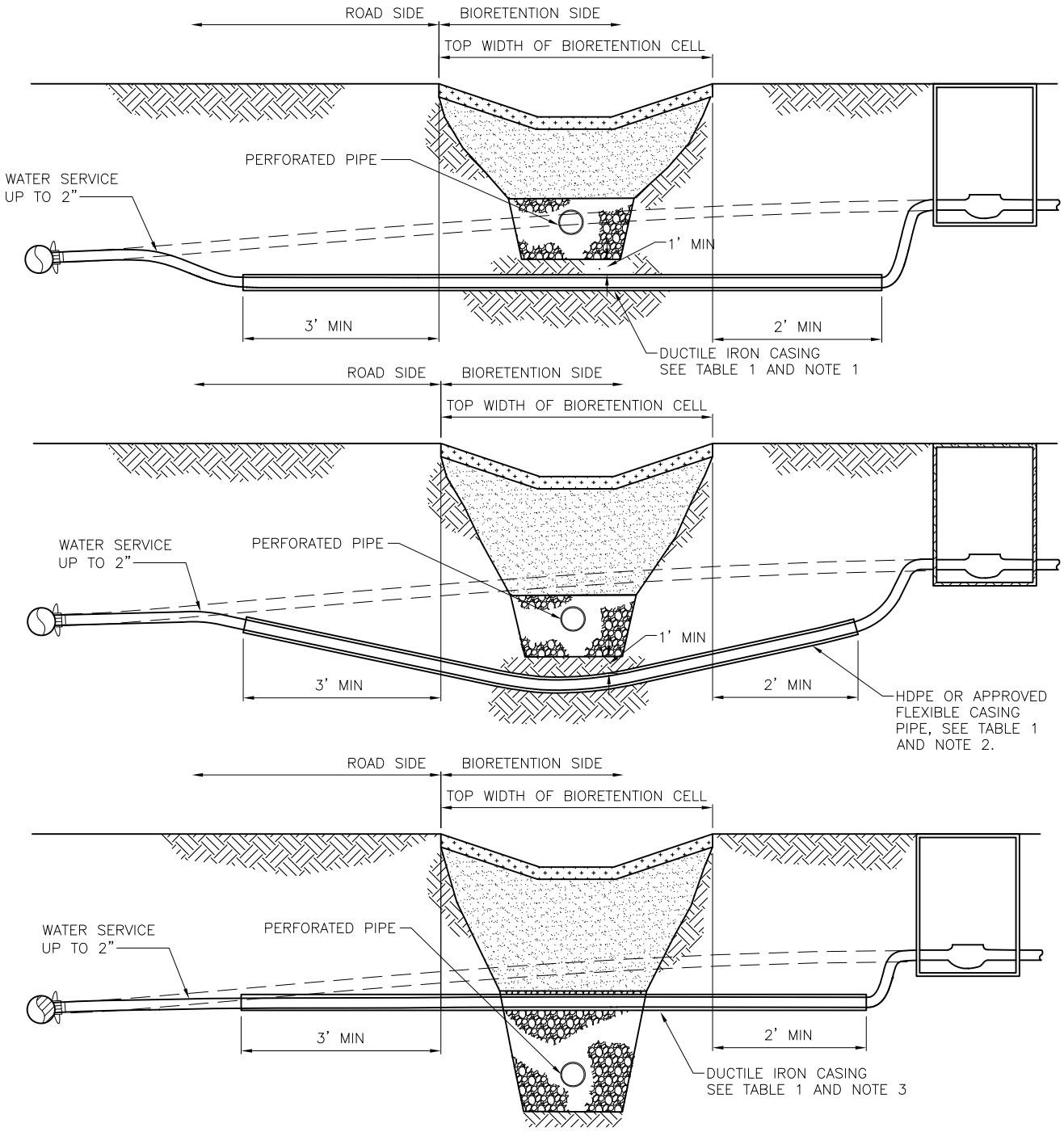


TABLE 1
CASING SIZE

WATER SERVICE ø	CASING ø
3/4"	2"
1.5"	2"
2"	3"

NOTES:

1. THIS CONFIGURATION APPLIES TO WATER SERVICE RELOCATION DEPTH 5' OR LESS.
2. THIS CONFIGURATION APPLIES TO WATER SERVICE RELOCATION DEPTH BETWEEN 5' AND 6'
3. THIS CONFIGURATION APPLIES TO WATER SERVICE RELOCATION DEPTH GREATER THAN 6'
4. FOR BIORETENTION CELLS WITH LINERS, ANY PENETRATION OF THE LINER MUST BE SEALED
5. THIS CONFIGURATION ALSO APPLIES TO OTHER UTILITIES UNLESS THE OTHER UTILITY HAS MORE STRINGENT CLEARANCE REQUIREMENTS.

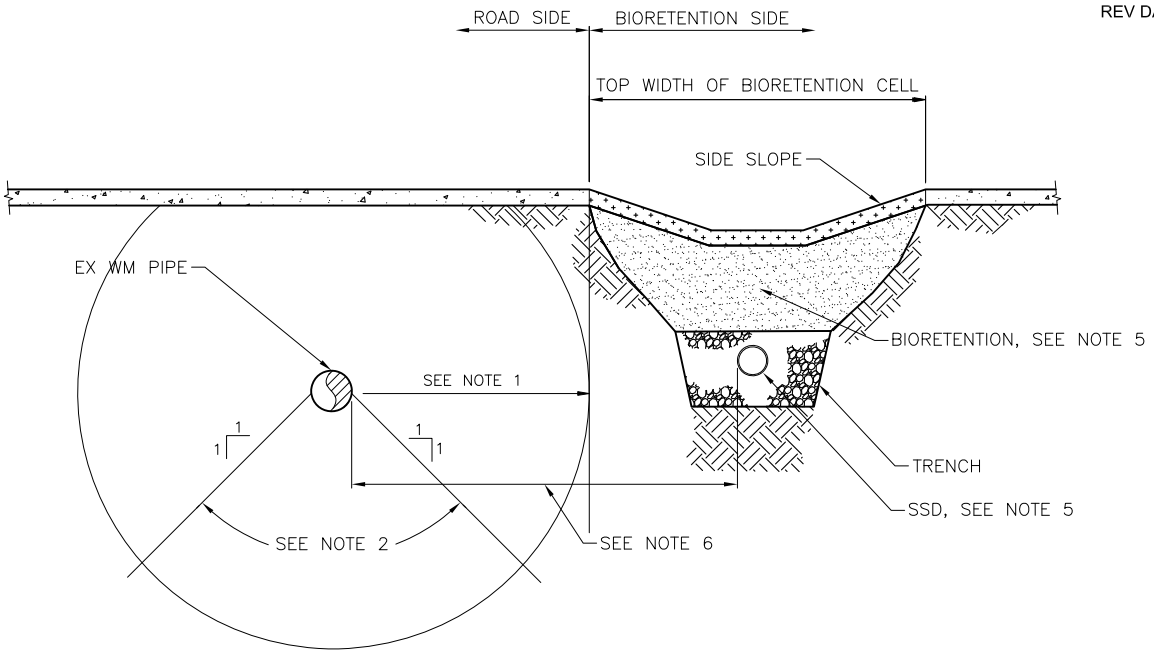
REF STD SPEC SEC 1-07.17

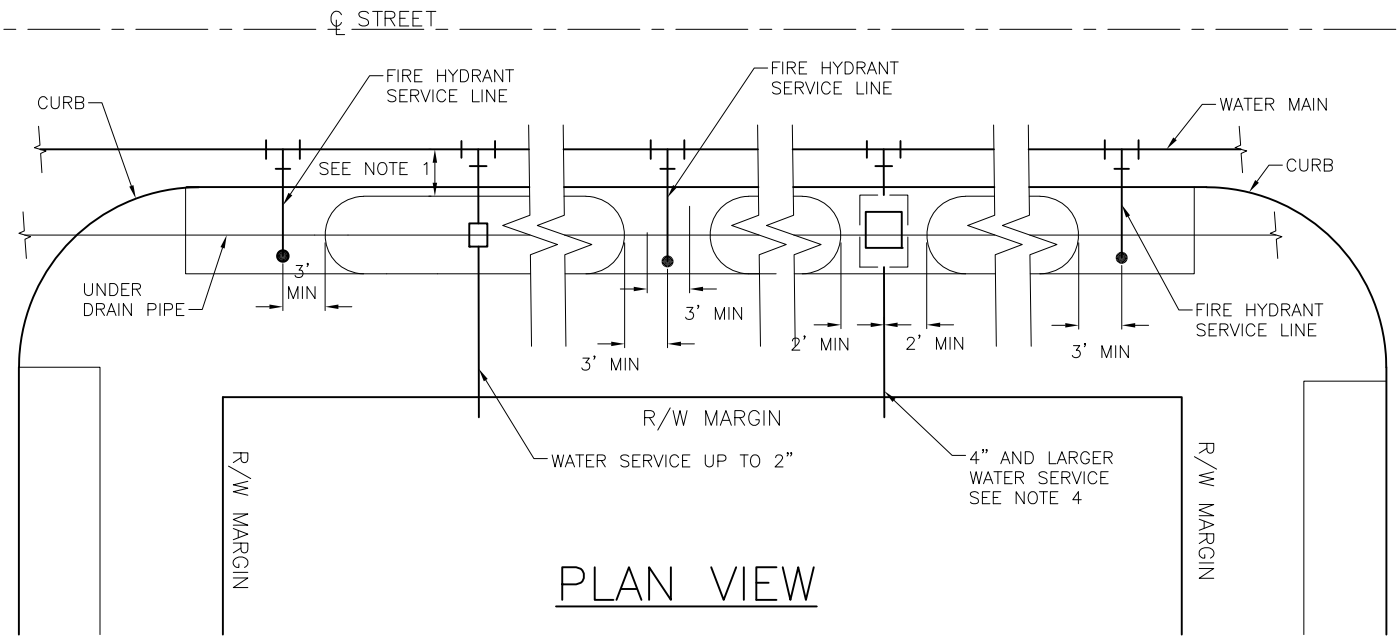
City of Seattle

NOT TO SCALE

WATER SERVICE RELOCATION FOR UP TO 2" SERVICE PIPE THROUGH BIORETENTION

REV DATE: SEP 2021





PLAN VIEW

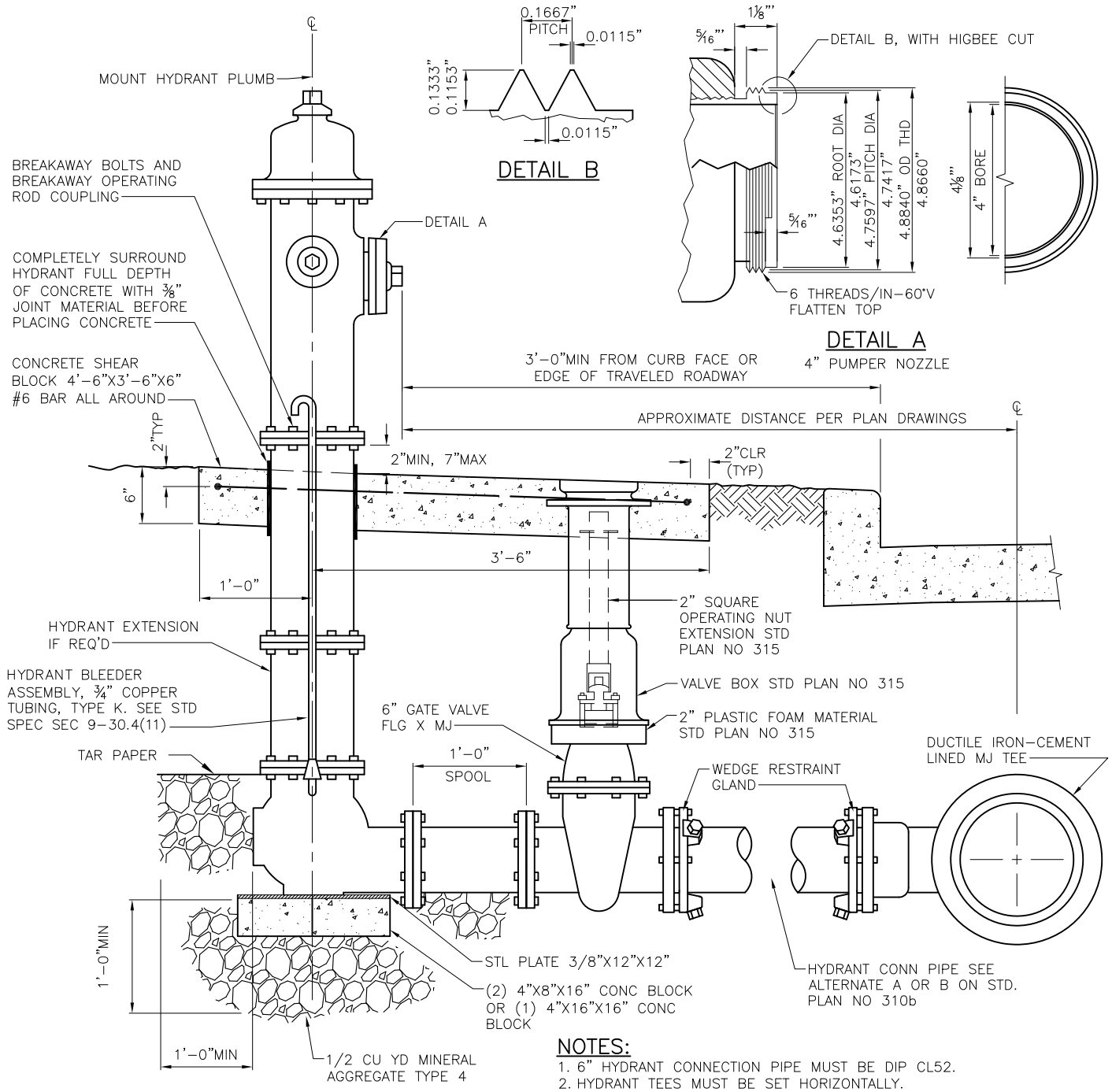
NOTES:

1. HORIZONTAL SETBACK DISTANCE FROM THE WATER MAIN (MEASURED FROM THE EDGE OF THE PIPE TO THE EDGE OF ANY BIORETENTION CELL) MUST BE MINIMUM 3.5 FEET FOR WATER MAIN UP TO AND INCLUDING 12"ø WATER MAIN. WATER MAIN LARGER THAN 12"ø MUST BE EVALUATED AND APPROVED ON A CASE BY CASE BASIS BY SEATTLE PUBLIC UTILITIES. IF SOIL WITHIN SETBACK IS DISTURBED A SUPPORT PLAN AND SOIL RE-COMPACTION TO 95% MIN COMPACTION WILL BE REQUIRED. EXCEPTIONS TO THE MINIMUM 3.5' HORIZONTAL SETBACK MUST BE APPROVED BY SEATTLE PUBLIC UTILITIES PLAN REVIEW SECTION AND WATER QUALITY DIVISION.
2. SOIL WITHIN THE ZONE OF INFLUENCE MUST NOT BE DISTURBED IN ORDER TO MAINTAIN STRUCTURAL SUPPORT TO THE WATER MAIN.
3. BIORETENTION CELL MUST MAINTAIN 3' MIN CLEARANCE FROM THE EDGE OF ANY EXISTING FIRE HYDRANT SERVICE LINE TO THE EDGE OF THE BIORETENTION. FOR THE FIRE HYDRANT OPERATION THERE MUST BE A 4' MIN CLEARANCE AROUND THE FIRE HYDRANT WHERE NOTHING CAN BE AS TALL AS THE FIRE HYDRANT OPENING NUT.
4. BIORETENTION CELL MUST MAINTAIN 2' MIN CLEARANCE FROM THE EDGE OF THE BIORETENTION TO THE EDGE OF THE EXISTING 4" OR LARGER WATER SERVICE LINE OR SERVICE VAULT.
5. SEE STANDARD PLAN NO 292, 293A AND 293B FOR BIORETENTION REQUIREMENTS.
6. HORIZONTAL SETBACK DISTANCE BETWEEN EXISTING WATER MAIN AND THE BIORETENTION SSD PIPE MUST COMPLY WITH STD PLAN NO 286A. EXCEPTION TO STD PLAN NO 286A PARALLEL INSTALLATION APPLIES IF THE UNDER DRAIN PIPE ONLY RECEIVES TREATED RUNOFF PER STORMWATER CODE REQUIREMENTS FOR WATER QUALITY TREATMENT.

REF STD SPEC SEC 1-07.17

City of Seattle	NOT TO SCALE	WATERMAIN SETBACK REQUIREMENT FOR C.I. LEAD JOINT AND D.I. SLIP JOINT PIPE

REV DATE: MAY 2021



HYDRANT DETAIL

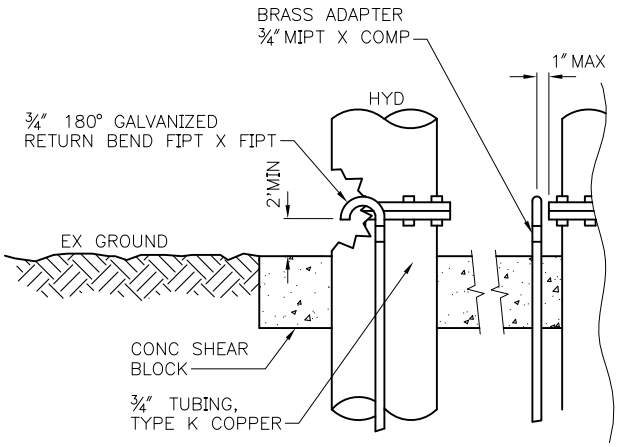
NOTES:

1. 6" HYDRANT CONNECTION PIPE MUST BE DIP CL52.
2. HYDRANT TEES MUST BE SET HORIZONTALLY.
3. THE THREADED NIPPLE ON THE 4"PUMPER NOZZLE MUST BE EQUIPPED WITH THE BLUNT START OR HIGBEE CUT.
4. THE 2½" NIPPLES MUST BE IN ACCORDANCE WITH THE NATIONAL FIRE PROTECTION ASSOCIATION BULLETIN NO 194 DATED 1974.
5. AFTER INSTALLATION, ALL SHACKLE BOLTS, NUTS, MECHANICAL JOINT GLANDS AND SHACKLE RODS MUST BE CLEANED AND COATED WITH TWO COATS OF ROYSTON R28 MASTIC.
6. AFTER BACKFILLING, THE OUTSIDE OF THE HYDRANT (ABOVE THE GROUND LINE) MUST BE THOROUGHLY CLEANED AND PAINTED WITH TWO COATS OF KELLY–MOORE LUXLITE 43–616 CAT YELLOW.
7. PUMPER PORT MUST FACE CURB.
8. RESTRAINT MUST BE BY WEDGE RESTRAINT SYSTEM SUCH AS MEGALUG OR UNIFLANGE. SEE STD SPEC 9–30.4(5).

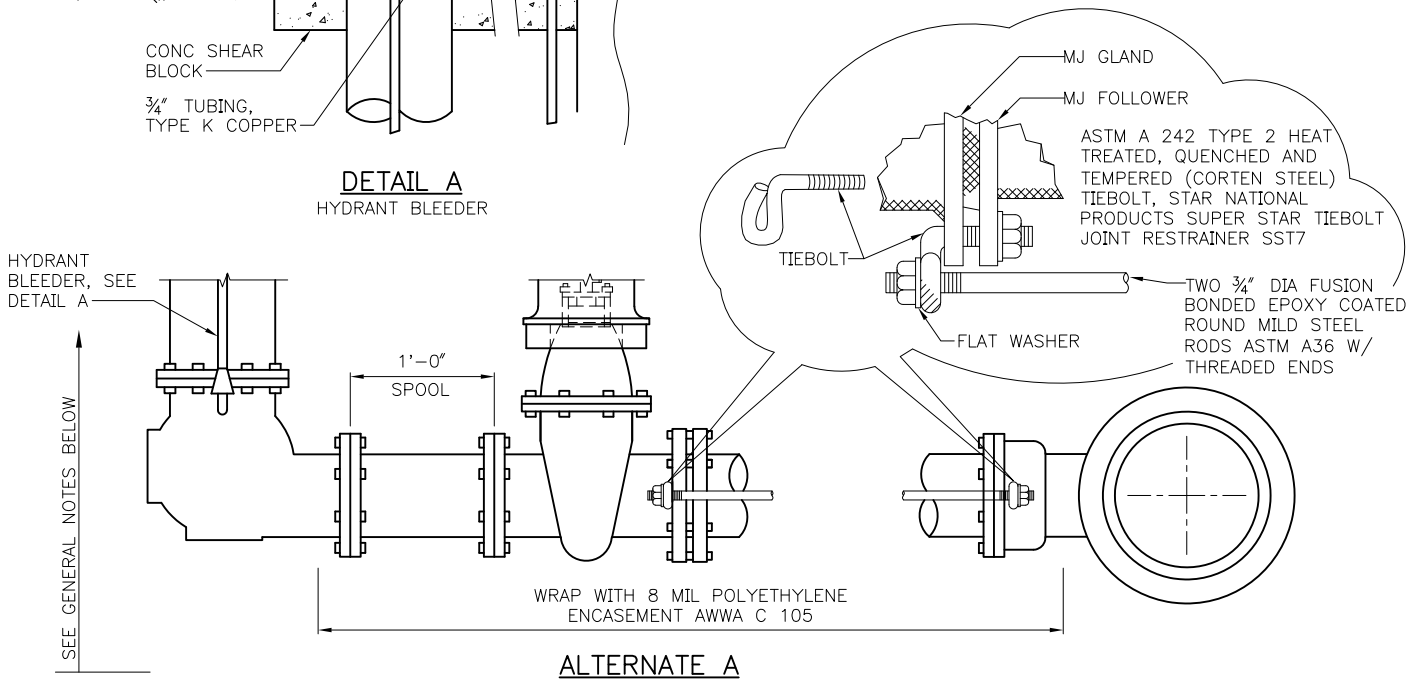
REF STD SPEC SEC 7-14

City of Seattle	NOT TO SCALE	TYPE 310 HYDRANT SETTING DETAIL

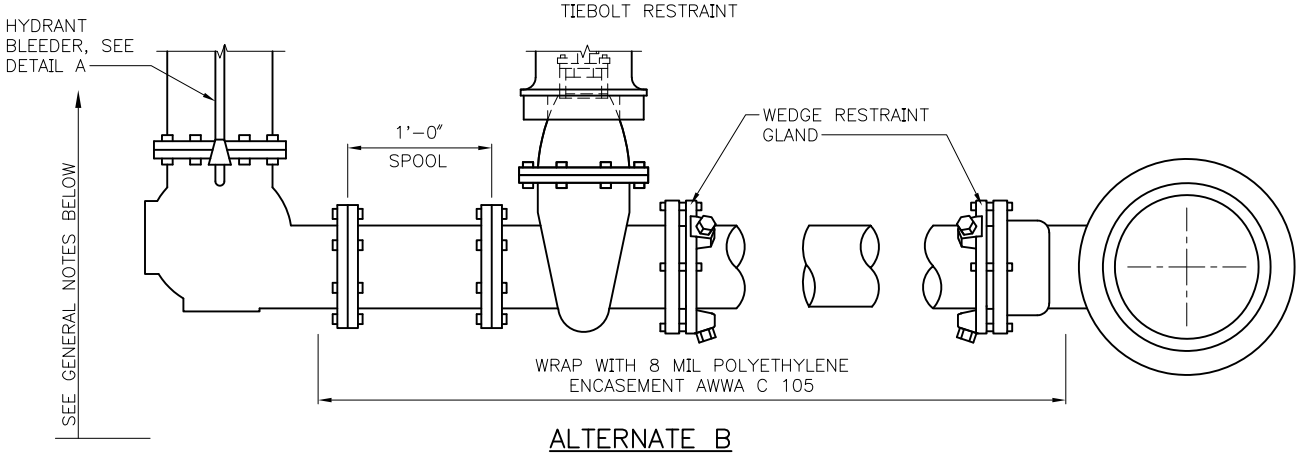
REV DATE: MAR 2021



DETAIL A
HYDRANT BLEEDER



ALTERNATE A
TIEBOLT RESTRAINT



ALTERNATE B
MECHANICAL JOINT W/ WEDGE RESTRAINT GLANDS

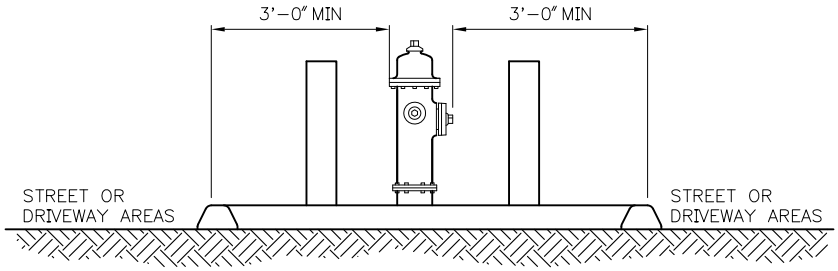
NOTES:

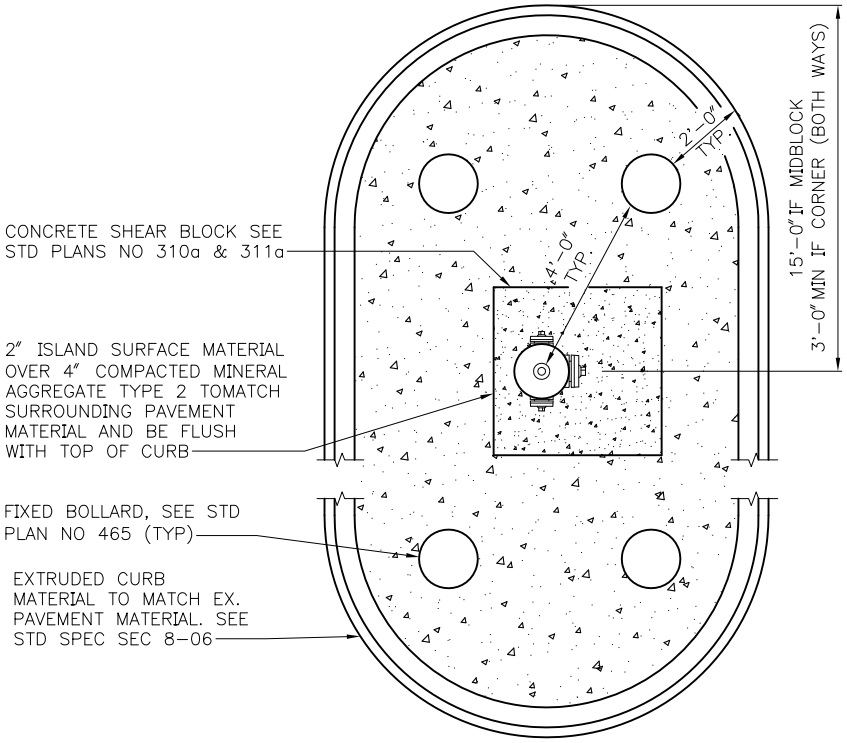
1. WHERE WATERMAINS ARE INSTALLED WITH POLYETHYLENE ENCASEMENT OR TAPE COATINGS, THE HYDRANT BARREL AND VALVE MUST BE SIMILARLY ENCASED, COATED AND/OR JOINTS BONDED. WHERE WATERMAIN IS THERMOPLASTIC COATED, THE HYDRANT BARREL MUST BE TAPE COATED
2. WHERE 6" GATE VALVE IS TO BE LOCATED WITHIN A PARKING-PERMITTED AREA, A SECOND 6" GATE VALVE MUST BE INSTALLED AT THE HYDRANT ASSEMBLY PER STD PLAN NO 310a

REF STD SPEC SEC 7-14

City of Seattle	NOT TO SCALE	TYPE 310 HYDRANT SETTING DETAIL

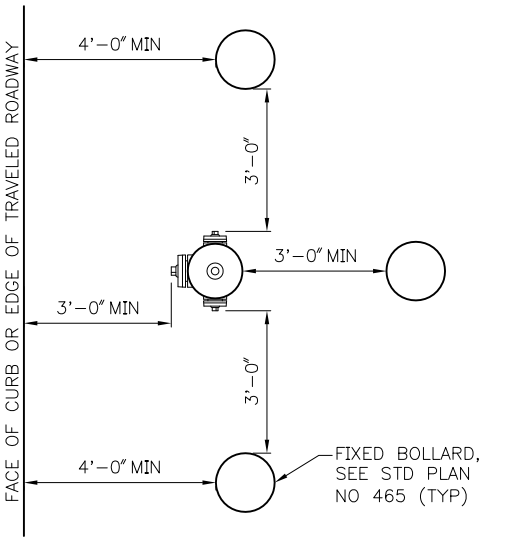
REV DATE: OCT 2021





TRAFFIC ISLAND MARKER POST LAYOUT FOR
FIRE HYDRANTS IN PARKING AREAS

NOTE:
LAYOUT OF MARKER POST MUST BE VERIFIED FIRST WITH SPU AND SDOT



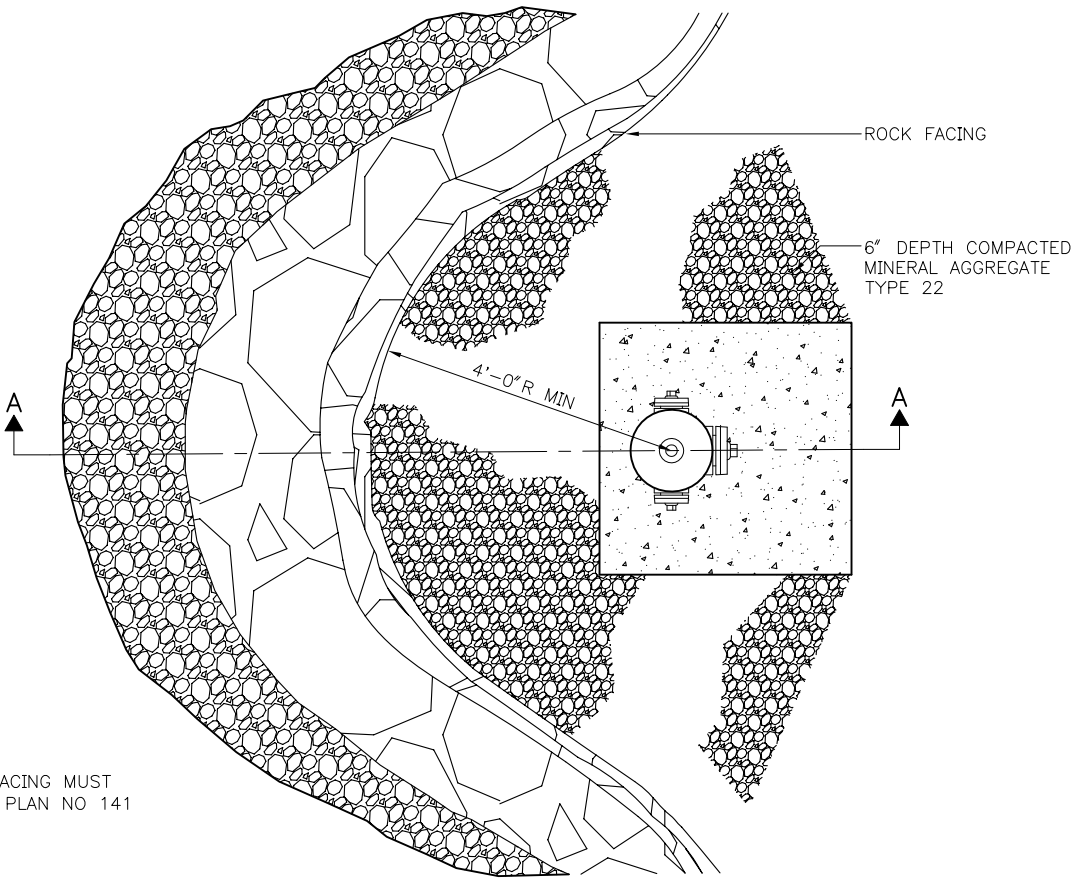
MARKER POST LAYOUT FOR
FIRE HYDRANTS IN PARKING AREAS

REF STD SPEC SEC 7-14

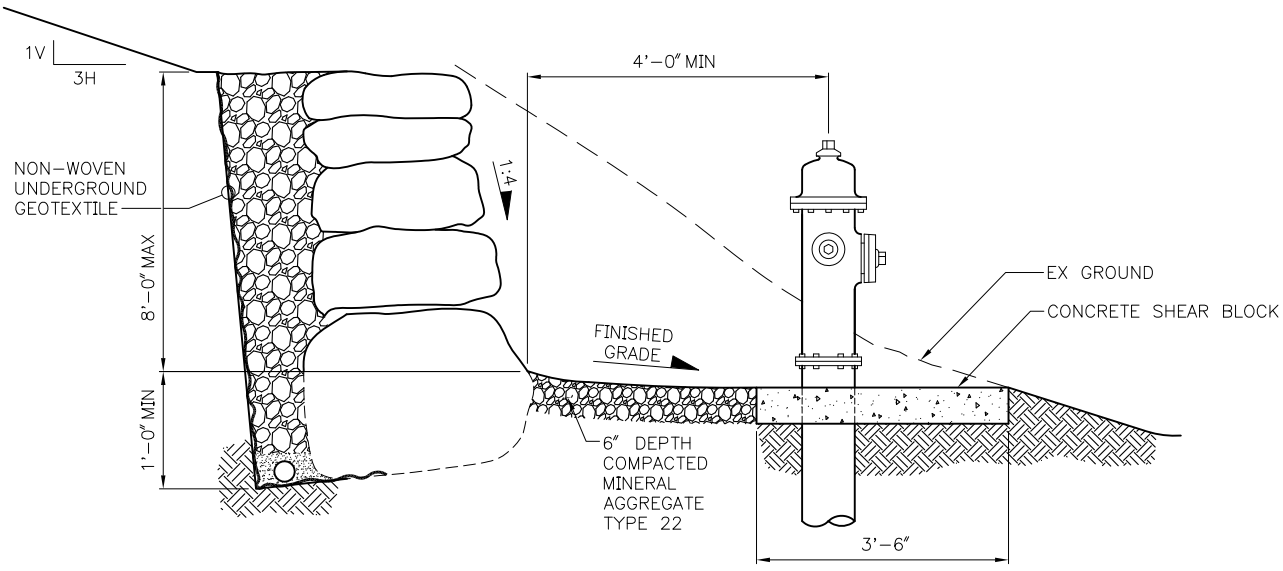
City of Seattle	NOT TO SCALE	FIRE HYDRANT MARKER LAYOUT

REV DATE: OCT 2021

PLAN



NOTE:
ROCK FOR ROCK FACING MUST COMPLY WITH STD PLAN NO 141



SECTION A–A

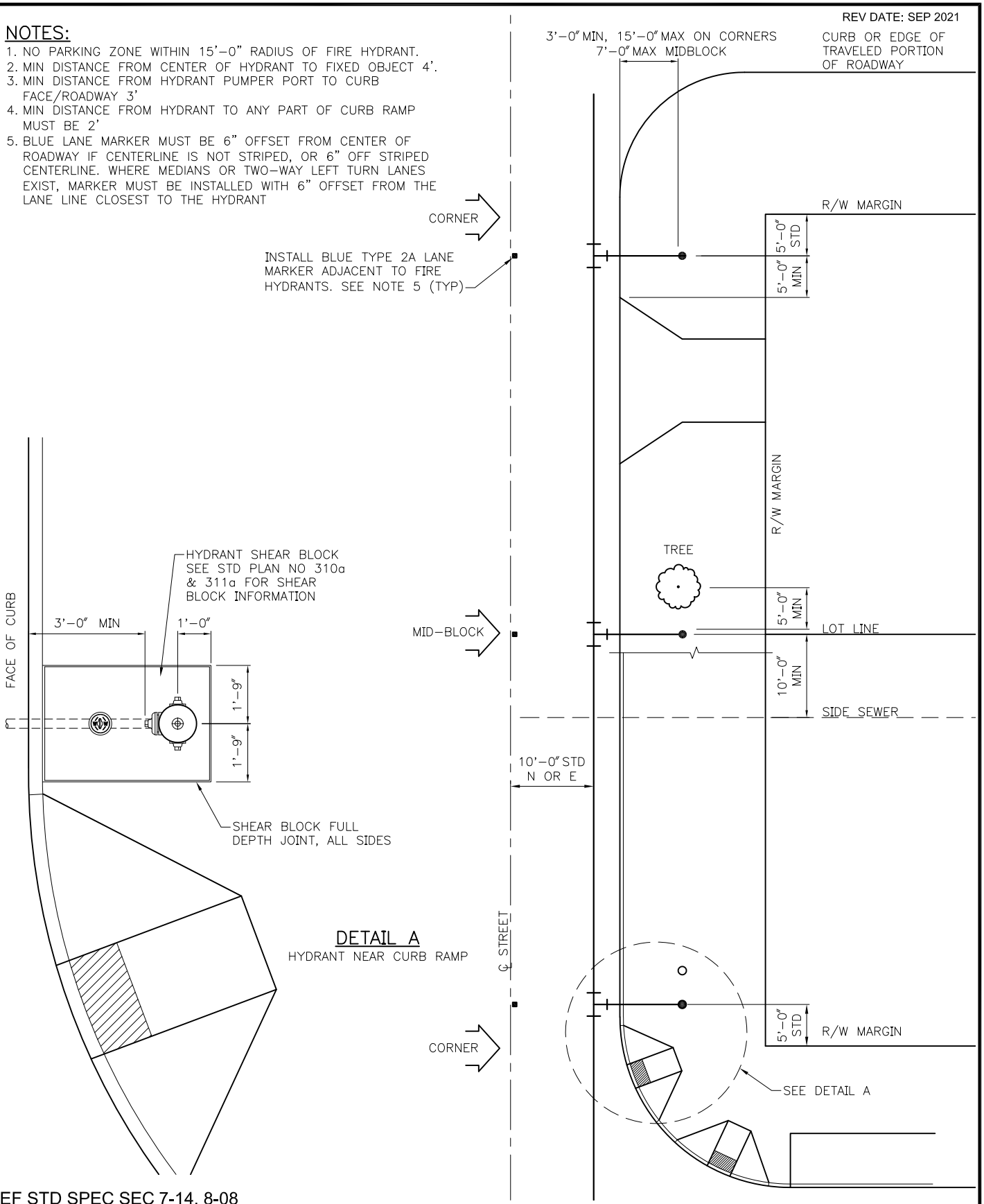
REF STD SPEC SEC 2-13

City of Seattle	NOT TO SCALE	WALL REQUIREMENTS FOR HYDRANTS

REV DATE: SEP 2021

NOTES:

1. NO PARKING ZONE WITHIN 15'–0" RADIUS OF FIRE HYDRANT.
2. MIN DISTANCE FROM CENTER OF HYDRANT TO FIXED OBJECT 4'.
3. MIN DISTANCE FROM HYDRANT PUMPER PORT TO CURB FACE/ROADWAY 3'
4. MIN DISTANCE FROM HYDRANT TO ANY PART OF CURB RAMP MUST BE 2'
5. BLUE LANE MARKER MUST BE 6" OFFSET FROM CENTER OF ROADWAY IF CENTERLINE IS NOT STRIPED, OR 6" OFF STRIPED CENTERLINE. WHERE MEDIANS OR TWO–WAY LEFT TURN LANES EXIST, MARKER MUST BE INSTALLED WITH 6" OFFSET FROM THE LANE LINE CLOSEST TO THE HYDRANT



DETAIL A
HYDRANT NEAR CURB RAMP

REF STD SPEC SEC 7-14, 8-08

City of Seattle	NOT TO SCALE	FIRE HYDRANT LOCATIONS & CLEARANCES

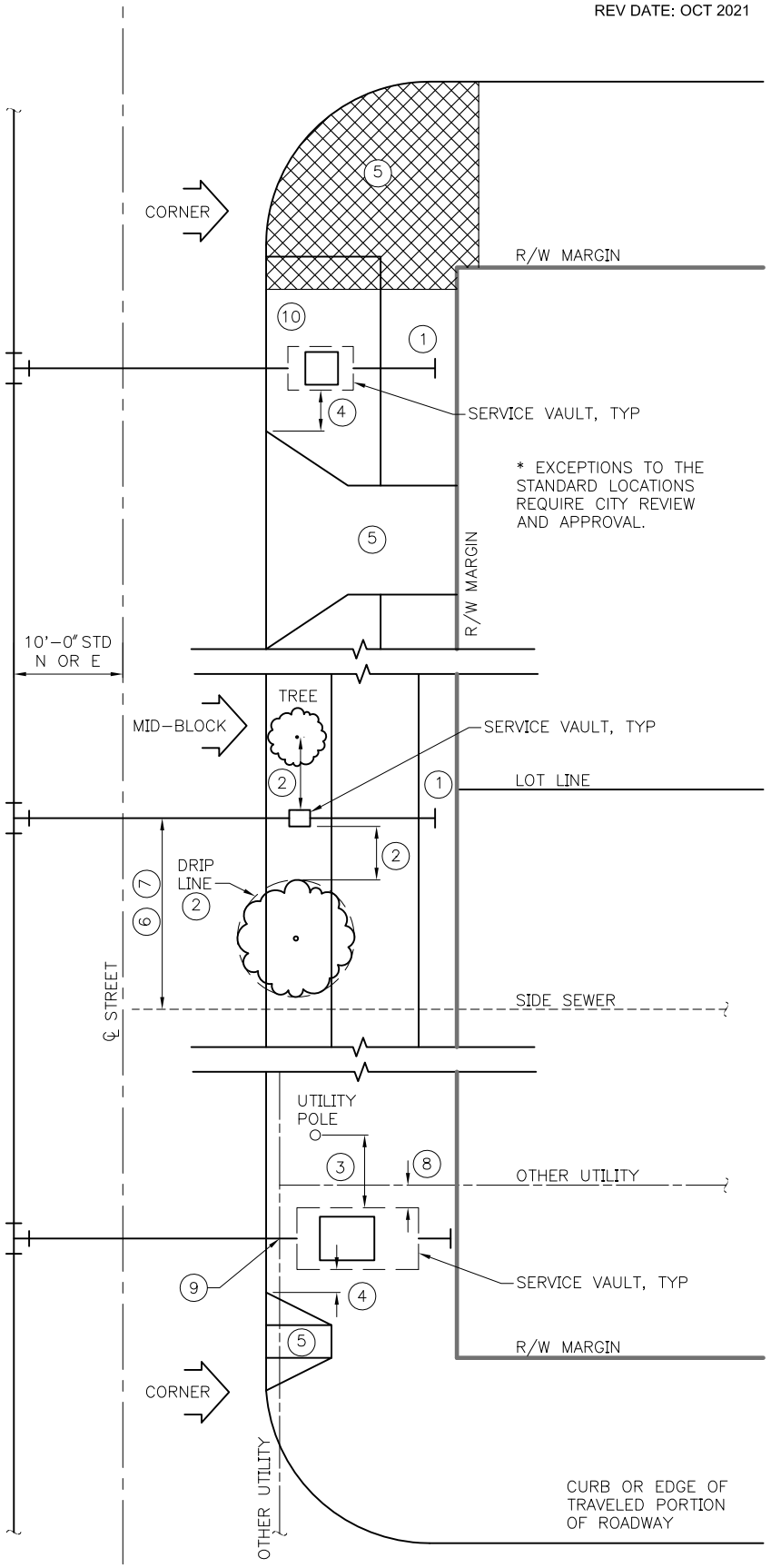
REV DATE: OCT 2021

NOTES:

1. UNION POINT 2' OUTSIDE VAULT AND 2' FROM PROPERTY LINE.
2. 5' CLEARANCE FROM NEW TREES OR CLEAR OF DRIP LINE FOR EXISTING TREES
3. 5' CLEAR FROM POLES.
4. 2' CLEAR FROM EDGE OF DRIVEWAY OR ADA RAMP.
5. WATER SERVICE NOT TO BE INSTALLED IN DRIVEWAY, BEHIND ADA RAMP, OR STREET CORNER.
6. SIDE SEWER HORIZONTAL CLEARANCE 10' FOR CAST IRON WATER PIPE OR 5' FOR DUCTILE IRON WATER PIPE.
7. SIDE SEWER VERTICAL CLEARANCE 1.5' MIN.
8. VAULT HORIZONTAL CLEARANCE 12" MIN FROM OTHER UTILITIES. UNLESS OTHERWISE NOTED IN STD SPECS.
9. VERTICAL CLEARANCE 12" MIN FOR ALL OTHER UTILITY CROSSINGS UNLESS OTHERWISE NOTED IN STD SPECS.
10. ALLOWABLE LOCATION OF WATER SERVICE VAULT, 2' MINIMUM CLEAR OF CURB.

SEE STD PLAN NO 003q FOR TYPICAL WATER SERVICE VAULTS

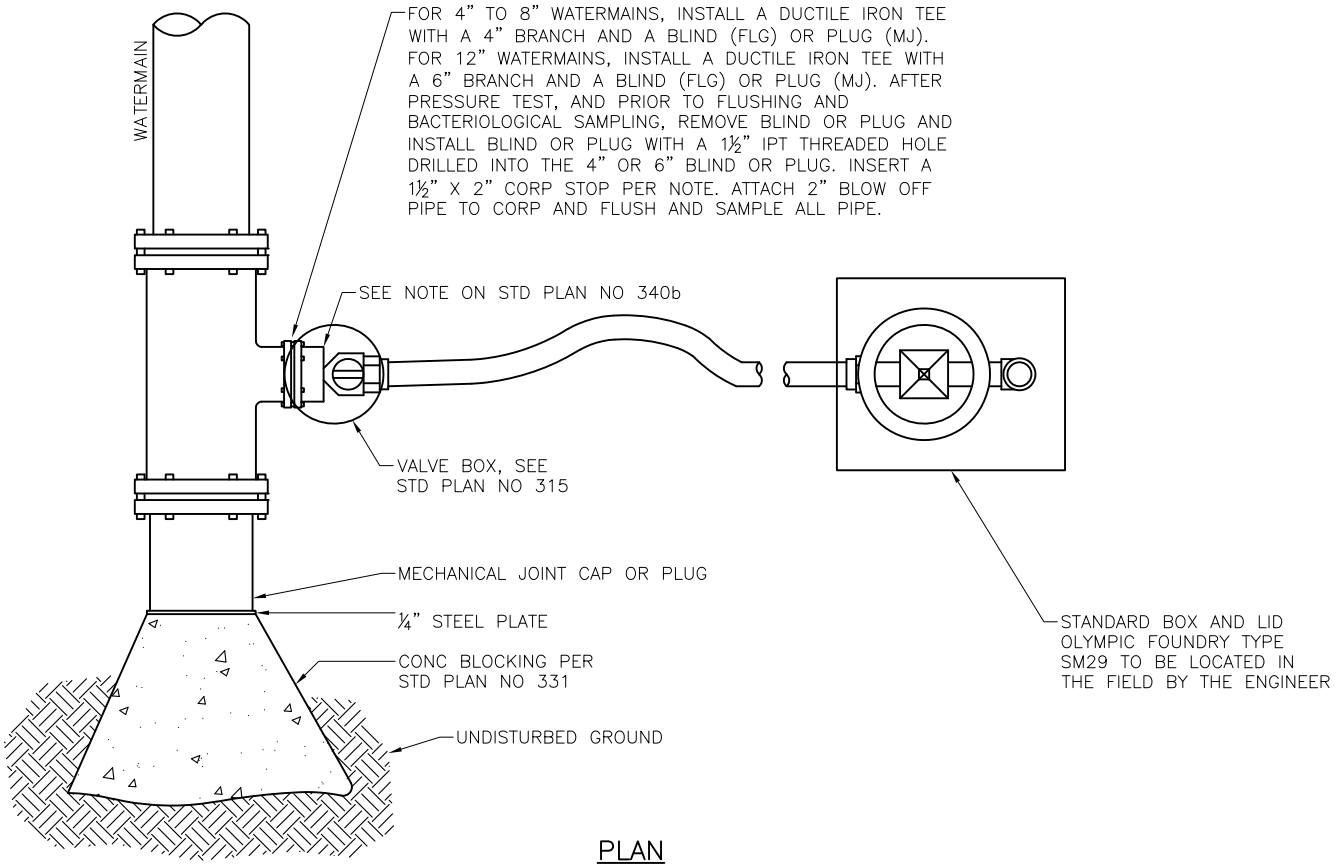
PERMIT REQUIREMENTS WILL DETERMINE LOCATION AND ORIENTATION OF ALL SERVICE VAULTS IN THE RIGHT OF WAY. VAULTS SHOWN ON THIS STD PLAN ARE FOR GRAPHICAL PURPOSES ONLY.



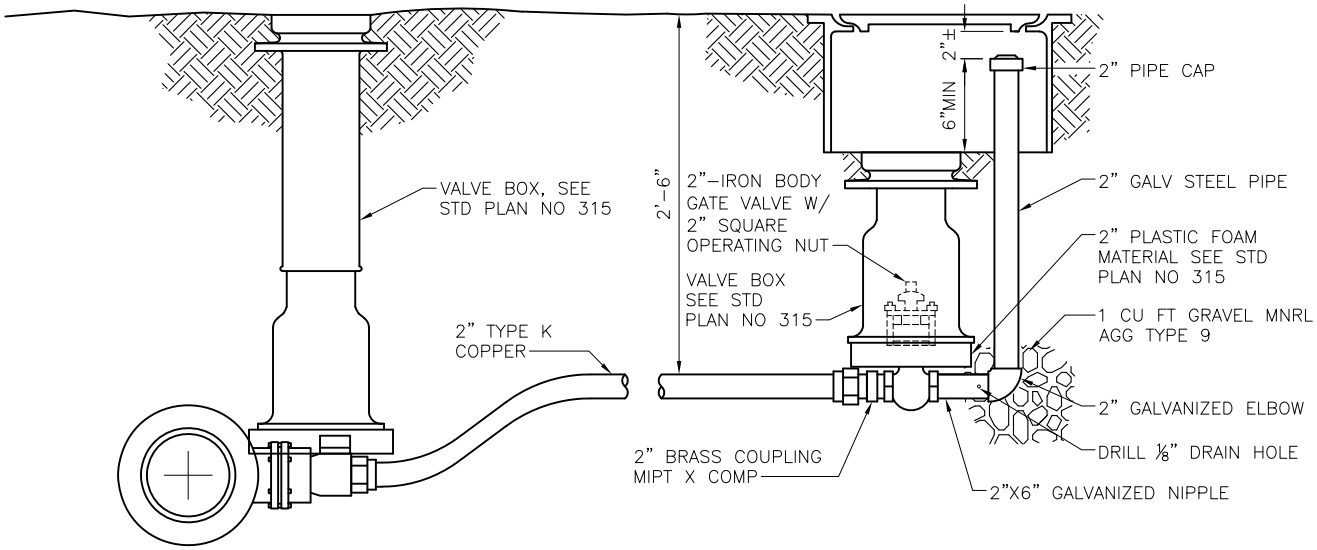
REF STD SPEC SEC 1-07.17(2)

City of Seattle | NOT TO SCALE | CLEARANCES FOR TYPICAL WATER SERVICE VAULTS

REV DATE: MAY 2021



PLAN

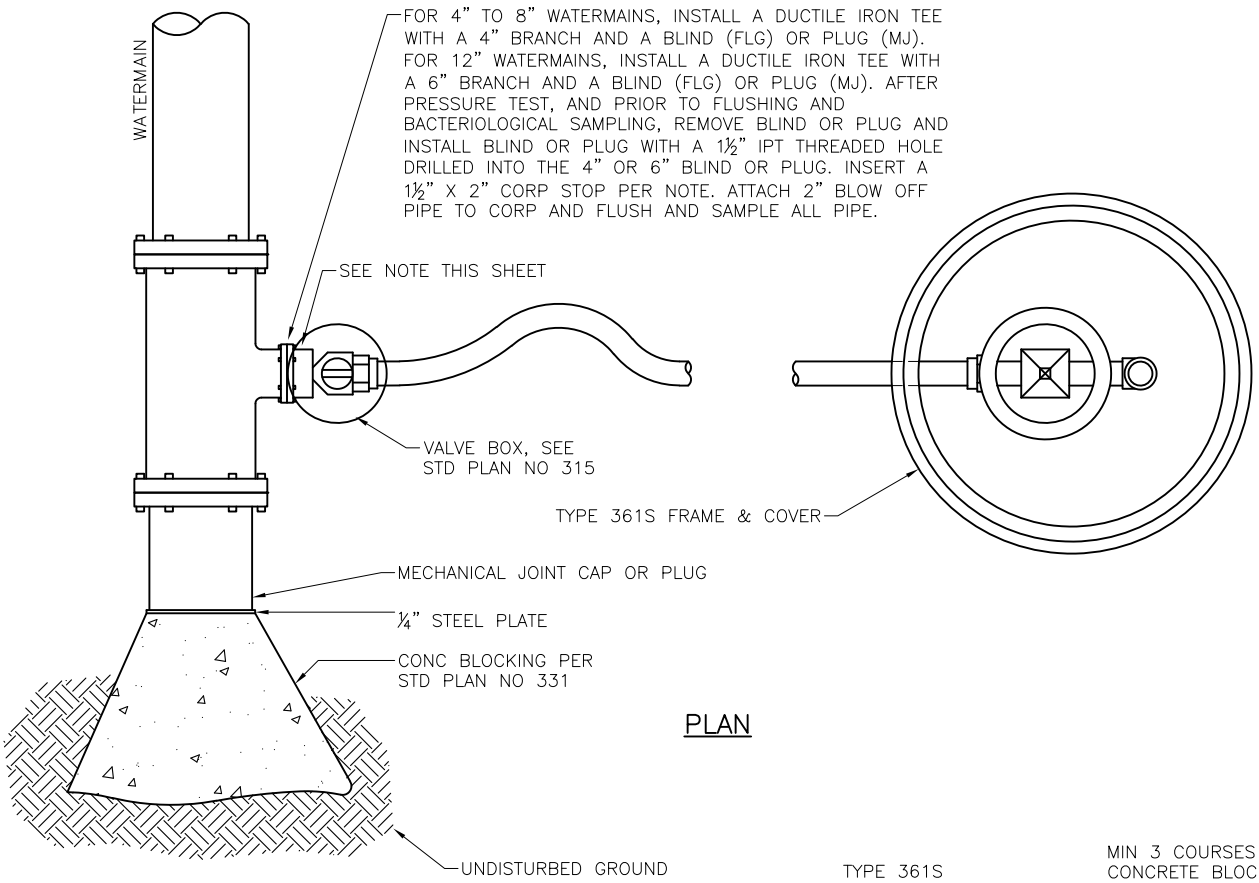


ELEVATION

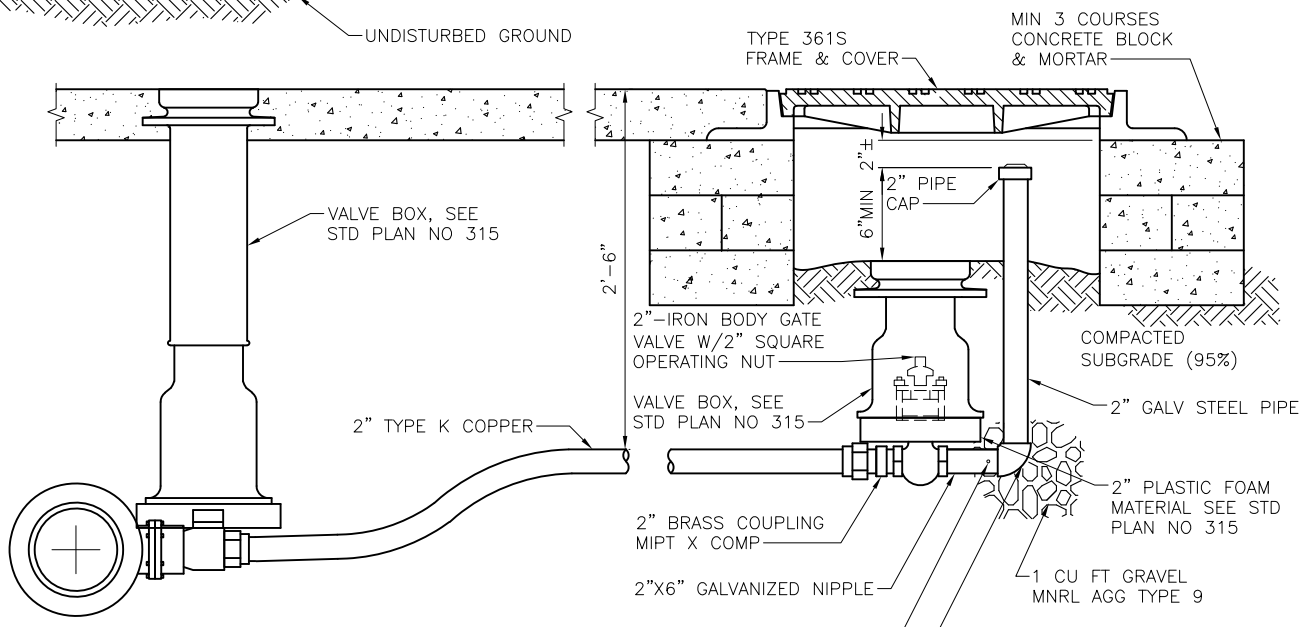
REF STD SPEC SEC 7-11

City of Seattle	NOT TO SCALE	2" BLOW OFF TYPE A NON TRAFFIC INSTALLATION

REV DATE: MAR 2021



PLAN



ELEVATION

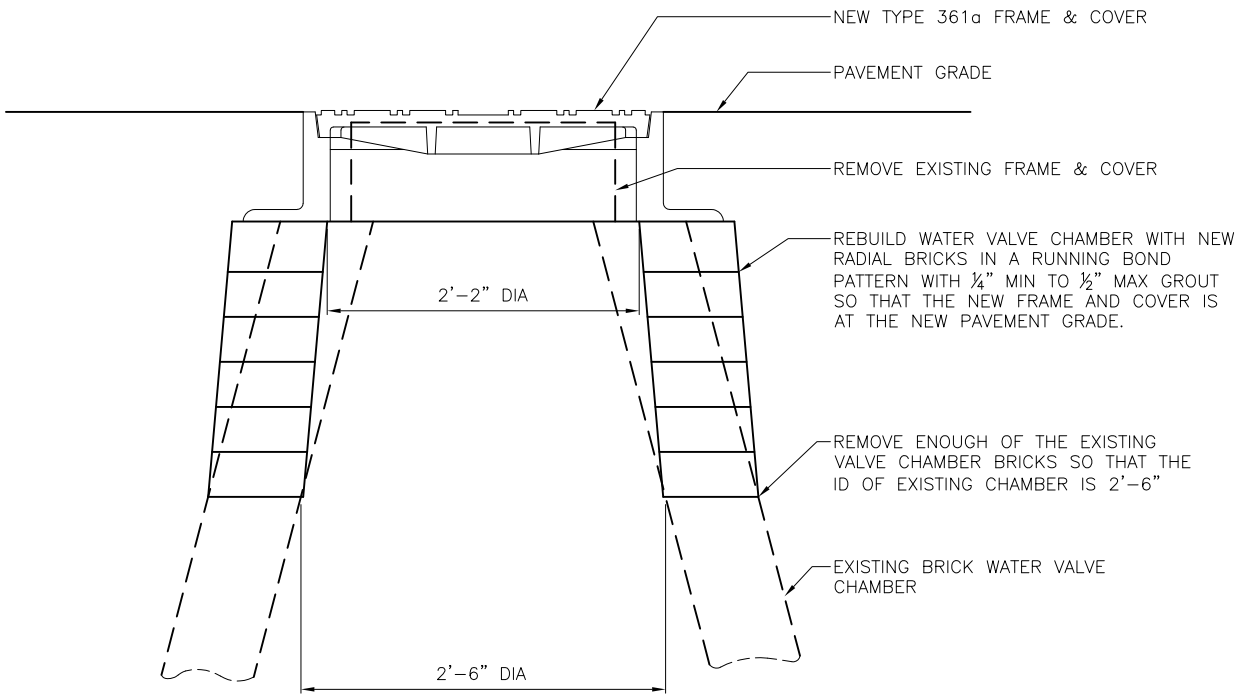
NOTE:

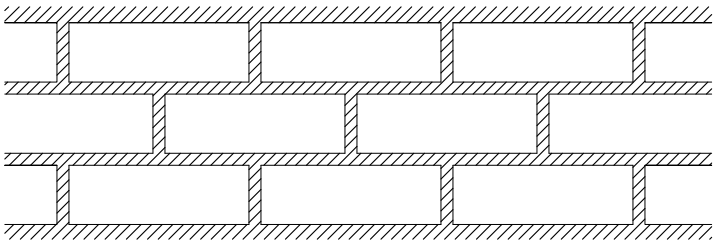
1½"X2" CORP STOP, BALL TYPE BRASS BODY AWWA X CORP. WHERE COATED DUCTILE IRON PIPE IS USED, THE MECHANICAL JOINT CAP AND CORP MUST BE WAX TAPED PER 7-11.3(8)A AND 9-30.1(4)F.

REF STD SPEC SEC 7-11

City of Seattle	NOT TO SCALE	2" BLOW OFF DETAIL TYPE B TRAFFIC INSTALLATION

REV DATE: SEP 2021





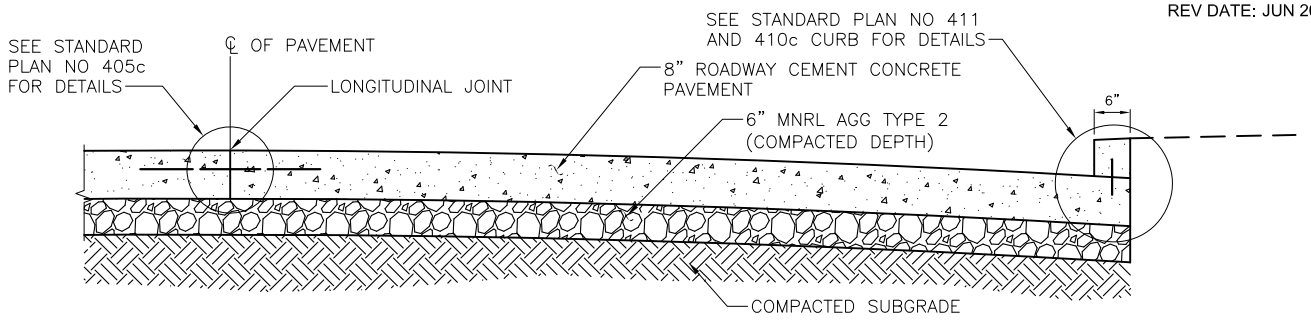
RUNNING BOND PATTERN

GROUT BETWEEN ALL BRICKS

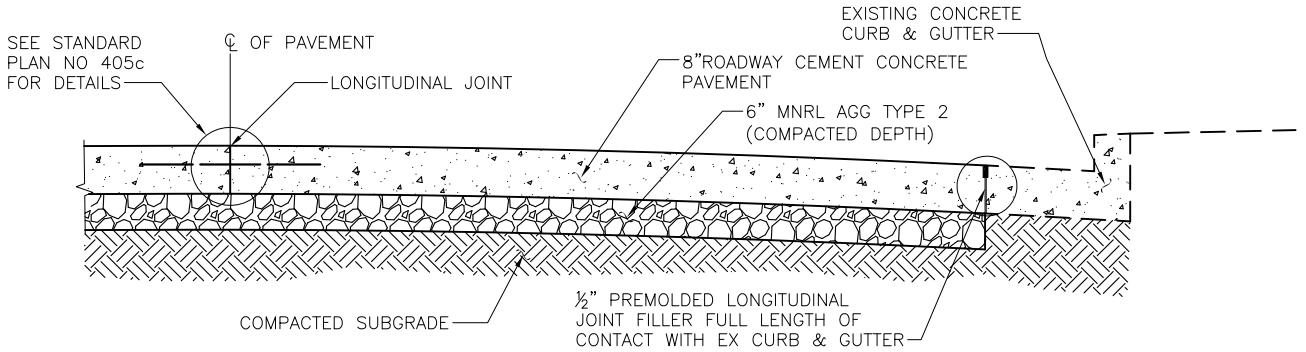
REF STD SPEC SEC 7-20

City of Seattle	NOT TO SCALE	REBUILD EXISTING BRICK WATER VALVE CHAMBER

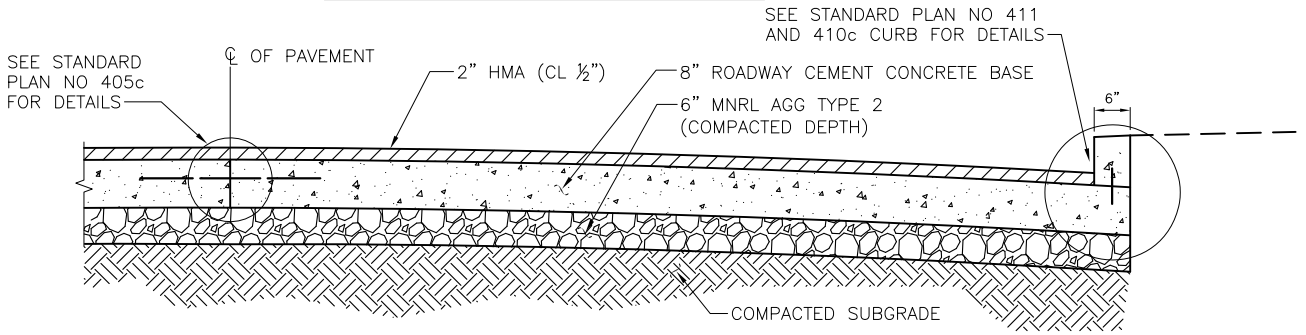
REV DATE: JUN 2021



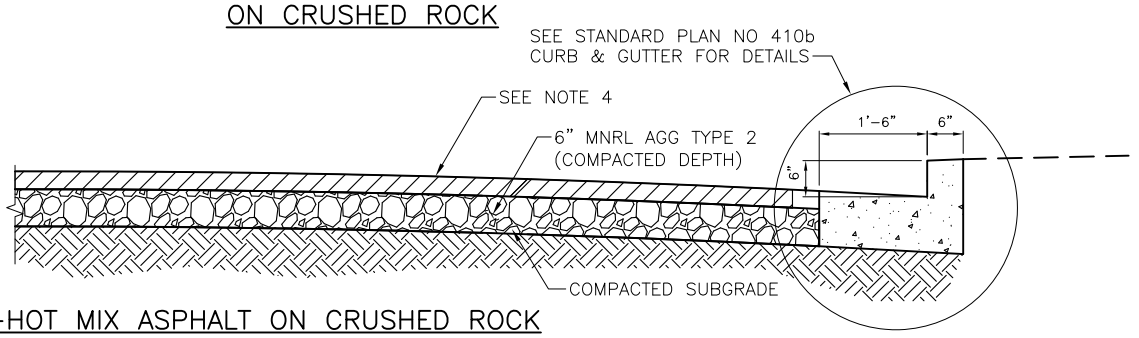
401A–ROADWAY CEMENT CONCRETE PAVEMENT ON CRUSHED ROCK



401B–ROADWAY CEMENT CONCRETE PAVEMENT ON CRUSHED ROCK WITH EXISTING CURB & GUTTER



401C–HOT MIX ASPHALT ON ROADWAY CEMENT CONCRETE BASE ON CRUSHED ROCK



401D–HOT MIX ASPHALT ON CRUSHED ROCK

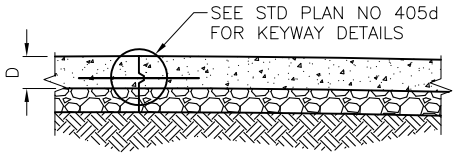
HMA DESIGN CRITERIA:

1. 3 MILLION ESAL'S UNLESS OTHERWISE SPECIFIED IN CONTRACT DOCUMENTS
2. ASPHALT PG 58H–22 UNLESS OTHERWISE SPECIFIED IN CONTRACT DOCUMENTS
3. WARM MIX ASPHALT MAY BE USED IN PLACE OF HMA WHERE SHOWN ON THE DRAWINGS
4. PAVEMENT DEPTH MUST BE 3" HMA (CL ½") WHEN REPLACING BITUMINOUS SURFACE TREATED RESIDENTIAL STREETS OR 2" HMA (CL ½") OVER 6" HMA (CL 1") FOR ALL OTHER RESIDENTIAL STREETS.
5. PROTECT ADJACENT PANELS FROM DAMAGE DUE TO UNDERMINING DURING EXCAVATION & PLACEMENT OF SUBGRADE. SEE SPEC SECTION 1–07.13.

REF STD SPEC SEC 4-04, 5-04, 5-05, 8-04

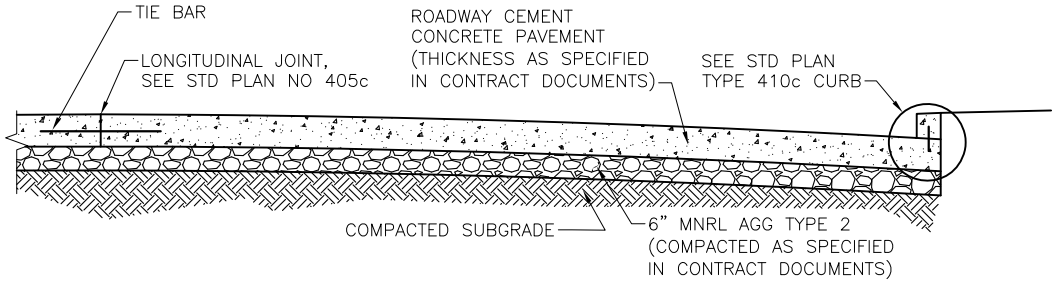
City of Seattle	NOT TO SCALE	RESIDENTIAL PAVEMENT SECTIONS

REV DATE: JUN 2021

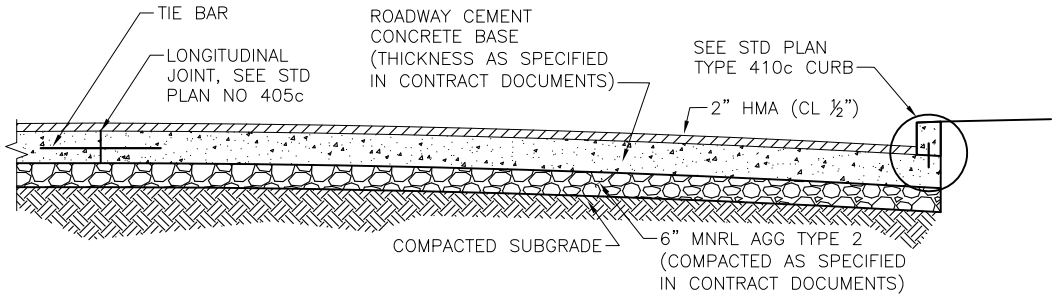


OPTIONAL KEYWAY
FOR LONGITUDINAL JOINT

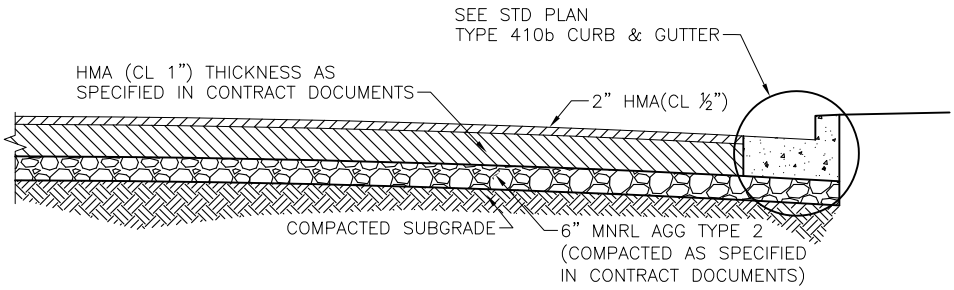
NOTES:
IF CONC THICKNESS IS 9 INCH OR GREATER
OPTIONAL KEYWAY MAY BE USED SEE STD PLANS
NO 405c & 405d FOR DETAILS



402A–ROADWAY CEMENT CONCRETE PAVEMENT ON CRUSHED ROCK



402B–HOT MIX ASPHALT ON ROADWAY CEMENT CONCRETE BASE ON CRUSHED ROCK



402C–HOT MIX ASPHALT ON CRUSHED ROCK

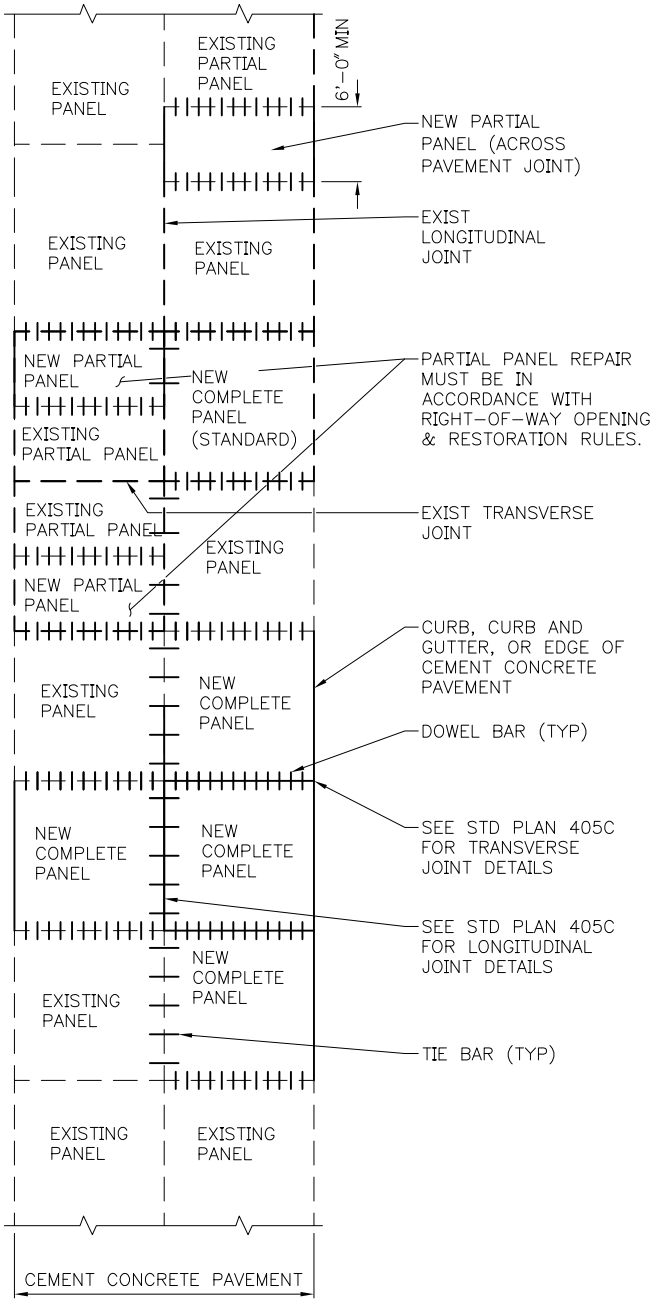
HMA DESIGN CRITERIA:

1. 10 MILLION ESAL'S UNLESS OTHERWISE SPECIFIED IN CONTRACT DOCUMENTS.
2. ASPHALT PG 58H–22 UNLESS OTHERWISE SPECIFIED IN CONTRACT DOCUMENTS.
3. WARM MIX ASPHALT MAY BE USED IN PLACE OF HMA WHERE SHOWN ON THE DRAWINGS.
4. PROTECT ADJACENT PANELS FROM DAMAGE DUE TO UNDERMINING DURING EXCAVATION & PLACEMENT OF SUBGRADE. SEE SPEC SECTION 1–07.13.

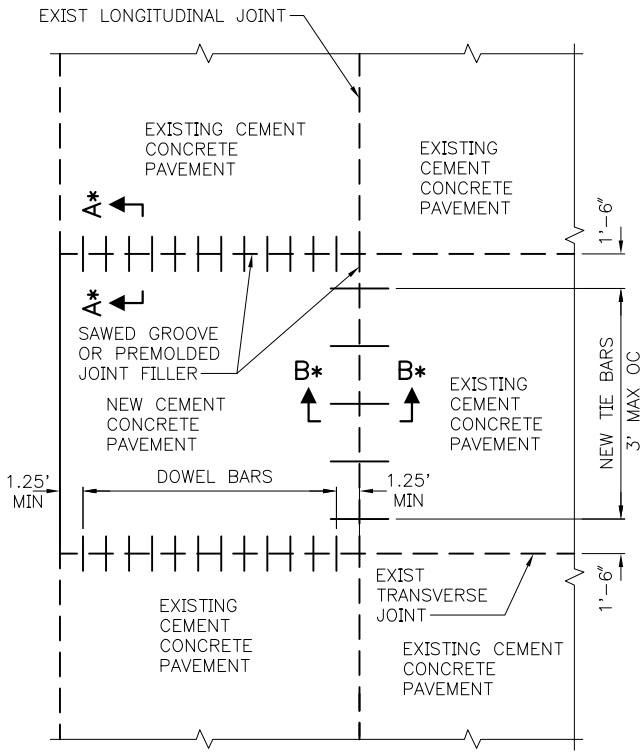
REF STD SPEC SEC 4-04, 5-04, 5-05, 8-04

City of Seattle	NOT TO SCALE	COMMERCIAL AND ARTERIAL PAVEMENT SECTIONS

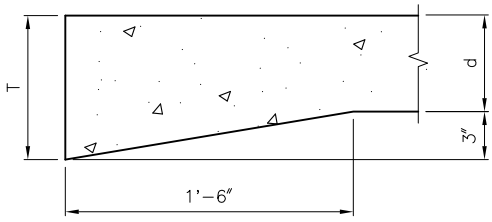
REV DATE: MAY 2021



PLAN VIEW
PANEL REPLACEMENT



PLAN VIEW
COMPLETE PANEL REPLACEMENT



THICKENED EDGE DETAIL
(REQUIRED ONLY WHERE SHOWN ON THE DRAWINGS)

NOTES

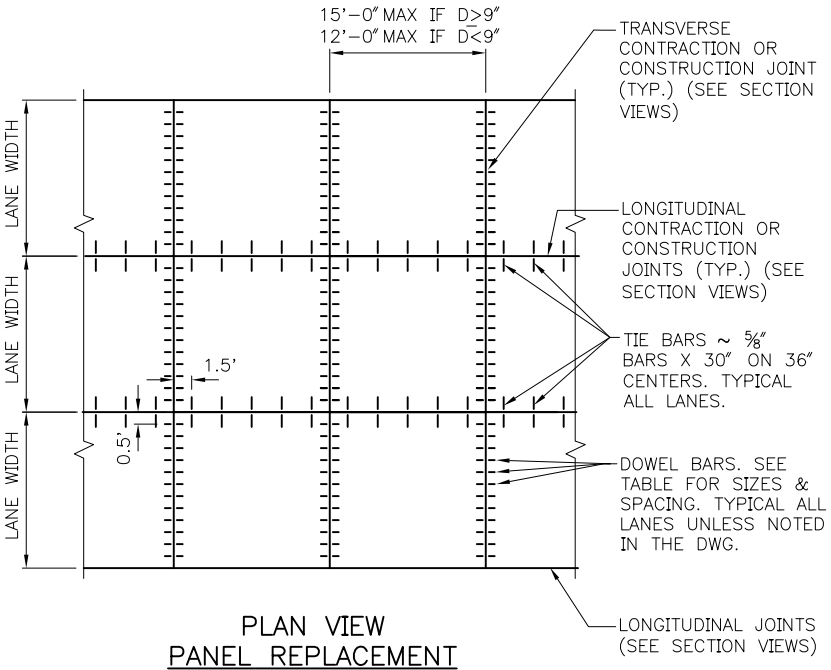
1. INSTALL TIE BARS ALONG LONGITUDINAL JOINT BETWEEN FULL PANEL REPLACEMENT AND EXIST CEMENT CONC PAVEMENT. TIE BARS ARE NOT INSTALLED BETWEEN CEMENT CONC PAVEMENT AND HOT MIX ASPHALT SHOULDERS.
2. TIE BARS AND DOWELS ARE NOT REQUIRED:
   - 2.1. WHEN INDICATED ON THE DRAWINGS BY "NO TIE BARS" OR "NO DOWEL BARS".
   - 2.2. WHEN EXISTING PAVEMENT IS 8" OR LESS OR WHEN THE ENGINEER DETERMINES THE EXISTING CONC NOT TO BE COMPETENT.
3. DO NOT PLACE LONGITUDINAL JOINTS OR SKEWED JOINTS WITHIN BIKE LANES.
4. WHEN PAVING ADJACENT TO EXISTING PANELS, THE NEW TRANSVERSE JOINTS MUST BE PLACED TO MATCH JOINT LOCATIONS OF THE EXISTING ADJACENT PAVEMENT UNLESS OTHERWISE DIRECTED BY THE ENGINEER. SEE STD PLAN NO 405C FOR MAXIMUM TRANSVERSE JOINT SPACING.

A* SEE SECTION A-A STANDARD PLAN 405b
B* SEE SECTION B-B STANDARD PLAN 405b

REF STD SPEC SEC 5-05

City of Seattle	NOT TO SCALE	ROADWAY CONCRETE PAVEMENT REPAIR

REV DATE: MAY 2021

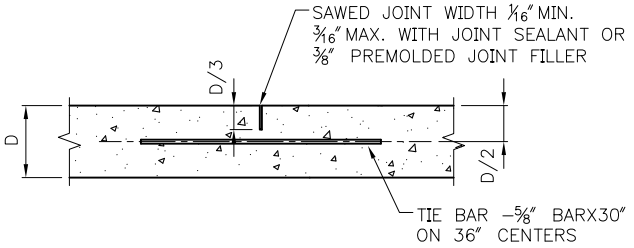


PLAN VIEW
PANEL REPLACEMENT

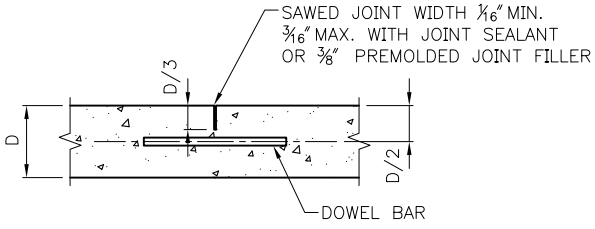
NOTES:

1. DO NOT PLACE LONGITUDINAL JOINTS OR SKEWED JOINTS WITHIN BIKE LANES.
2. WHEN A JOINT IS WITHIN 18 INCHES OF A CASTING JOINTS SHOULD BE SKEWED TO MEET THE CASTING AT 90 DEGREES UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR SHOWN ON THE DRAWINGS.
3. SEE STD PLAN NO 406 OR DRAWINGS FOR REBAR DETAIL AROUND CASTING 18 INCHES OR GREATER FROM JOINTS.
4. DOWEL BARS MUST NOT BE PLACED WITHIN 15 INCHES OF THE EDGE OF PAVEMENT OR A PARALLEL JOINT.
5. DOWEL BARS NOT REQUIRED FOR RESIDENTIAL PAVEMENT SECTIONS. SEE STD PLAN NO 401.

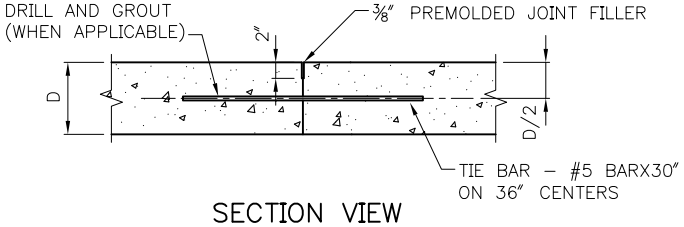
DEPTH (D) OF RDWY CEM. CONC	SOLID STEEL DOWEL BAR SIZE OUTSIDE DIAMETER (OD) X LENGTH (L) @ ON CENTER (OC)	TUBULAR DOWEL BAR SIZE OUTSIDE DIAMETER (OD), WALL THICKNESS X LENGTH (L) @ ON CENTER (OC)
6" ≤ D <9"	1.00" OD X 18" L @ 12" OC	1.375" OD, 0.120: MIN X 18" L @ 12" OC
9" ≤ D <11"	1.25" OD X 18" L @ 12" OC	1.375" OD, 0.120: MIN X 18" L @ 12" OC
11" ≤ D	1.50" OD X 18" L @ 12" OC	1.625" OD, 0.120: MIN X 18" L @ 12" OC



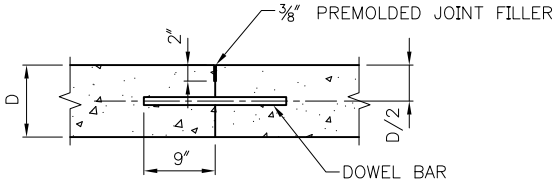
SECTION VIEW
LONGITUDINAL CONTRACTION JOINT



SECTION VIEW
TRANSVERSE CONTRACTION JOINT



SECTION VIEW
LONGITUDINAL CONSTRUCTION JOINT



SECTION VIEW
TRANSVERSE CONSTRUCTION JOINT

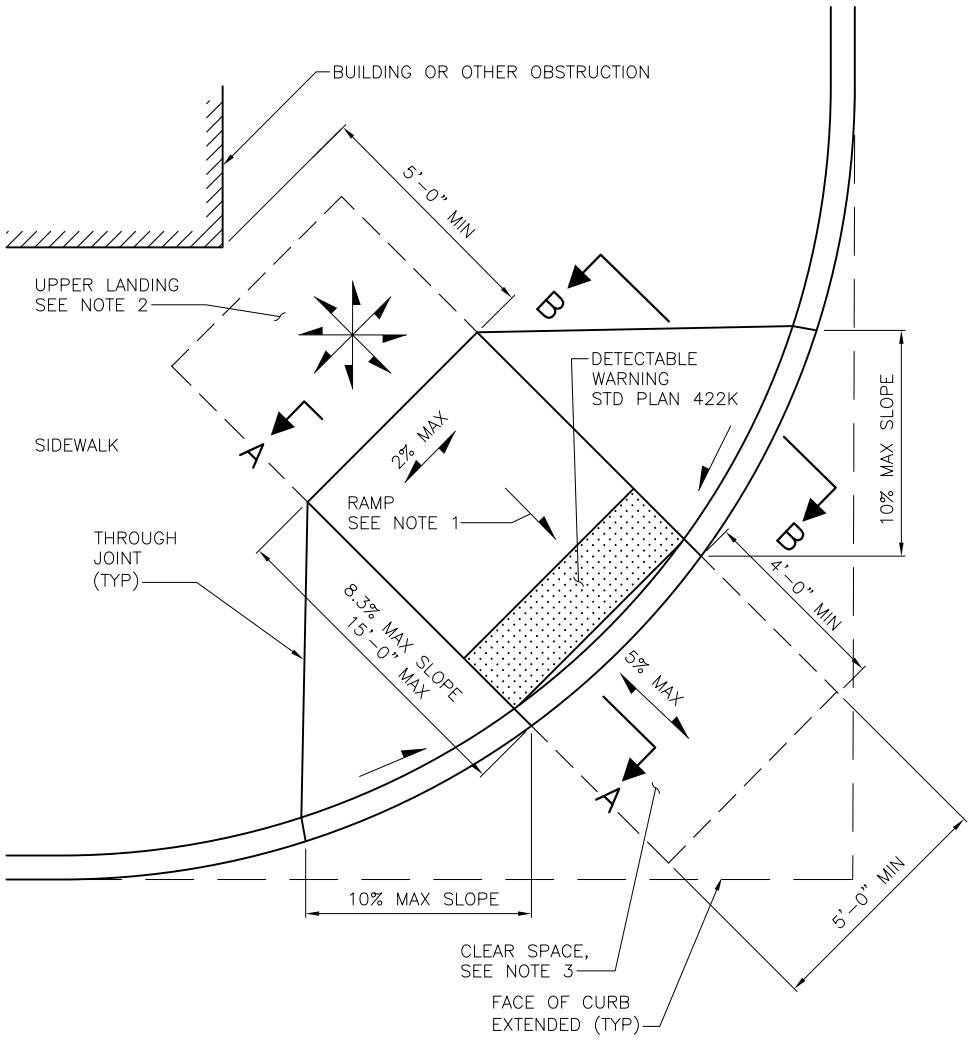
REF STD SPEC SEC 5-05

City of Seattle | NOT TO SCALE | ROADWAY CONCRETE PAVEMENT JOINTS

NOTES:

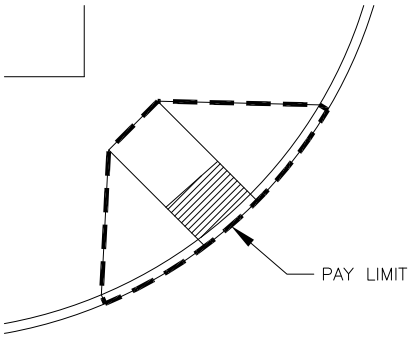
1. RAMP CENTERLINE MUST BE RADIAL/PERPENDICULAR TO THE ALIGNMENT OF THE FACE OF CURB.
2. THE SLOPE ON THE LANDING MUST BE A MINIMUM OF 0.5% IN ANY ONE DIRECTION AND MUST NOT EXCEED 2% IN ANY DIRECTION. UPPER LANDING AT THE TOP OF THE CURB RAMP MUST MATCH THE FULL WIDTH OF THE RAMP AND MUST HAVE A MINIMUM DEPTH OF 4'–0". IF THE LANDING IS LIMITED AT THE BACK–OF–SIDEWALK BY A PERMANENT VERTICAL BARRIER, THE DEPTH OF THE TURNING SPACE MUST BE 5'–0" MINIMUM, MEASURED PARALLEL TO THE RUN OF THE CURB RAMP.
3. CLEAR SPACE AT THE BOTTOM OF THE RAMP MUST BE 5–0" MINIMUM IN WIDTH AND MUST EXTEND A MINIMUM OF 4'–0' BEYOND THE RAMP LOWER GRADE BREAK. THE CLEAR SPACE MUST FALL WHOLLY WITHIN THE LEGAL CROSSWALK, MARKED OR UNMARKED. THE CLEAR SPACE MUST FIT BEHIND LINES EXTENDING FROM THE FACE OF CURB RUNNING PARALLEL TO EACH ROADWAY. THERE IS NO ALLOWABLE EXEMPTION FOR MINIMUM CLEAR SPACE REQUIREMENTS AT SHARED DIAGONAL PERPENDICULAR CURB RAMPS.
4. WINGS MUST HAVE A MAXIMUM SLOPE OF 10%. WINGS MUST HAVE A BRUSHED FINISH PARALLEL TO THE CURB. THE CONCRETE WALK THICKENED EDGE ALONG THE CURB MUST CONTINUE THROUGH EACH WING.
5. RAMP SURFACE MUST HAVE A HEAVY BROOM BRUSHED SURFACE PARALLEL TO THE CURB.
6. REFER TO DETAILS 422K AND 422L FOR GENERAL NOTES AND TYPICAL SECTIONS.

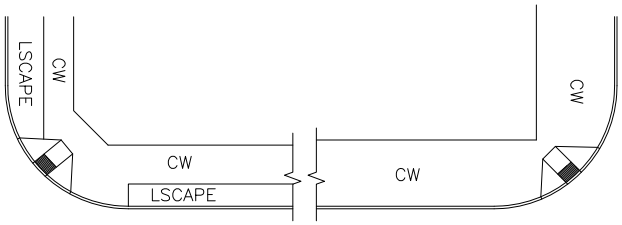
2% MAX ← → = MAX SLOPE IN EITHER DIRECTION



SHARED DIAGONAL PERPENDICULAR CURB RAMP

(TYPE 422F)

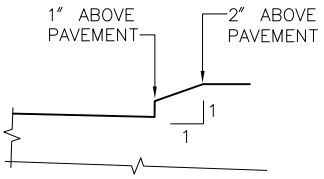




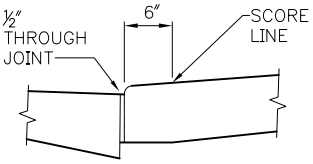
REF STD SPEC SEC 8-14

City of Seattle	NOT TO SCALE	CURB RAMP DETAILS

REV DATE: SEP 2021

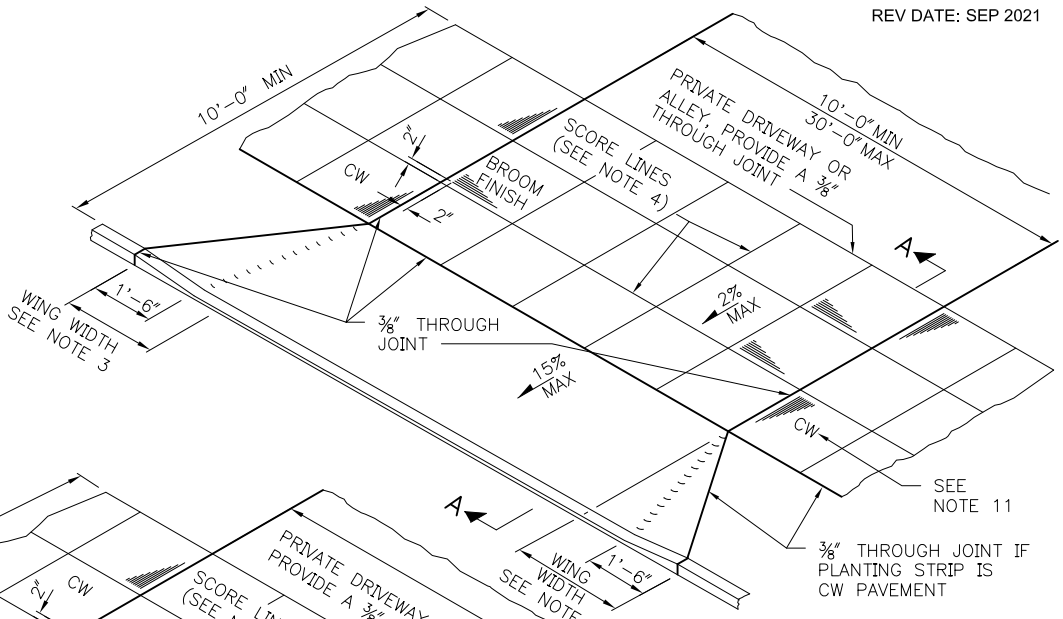


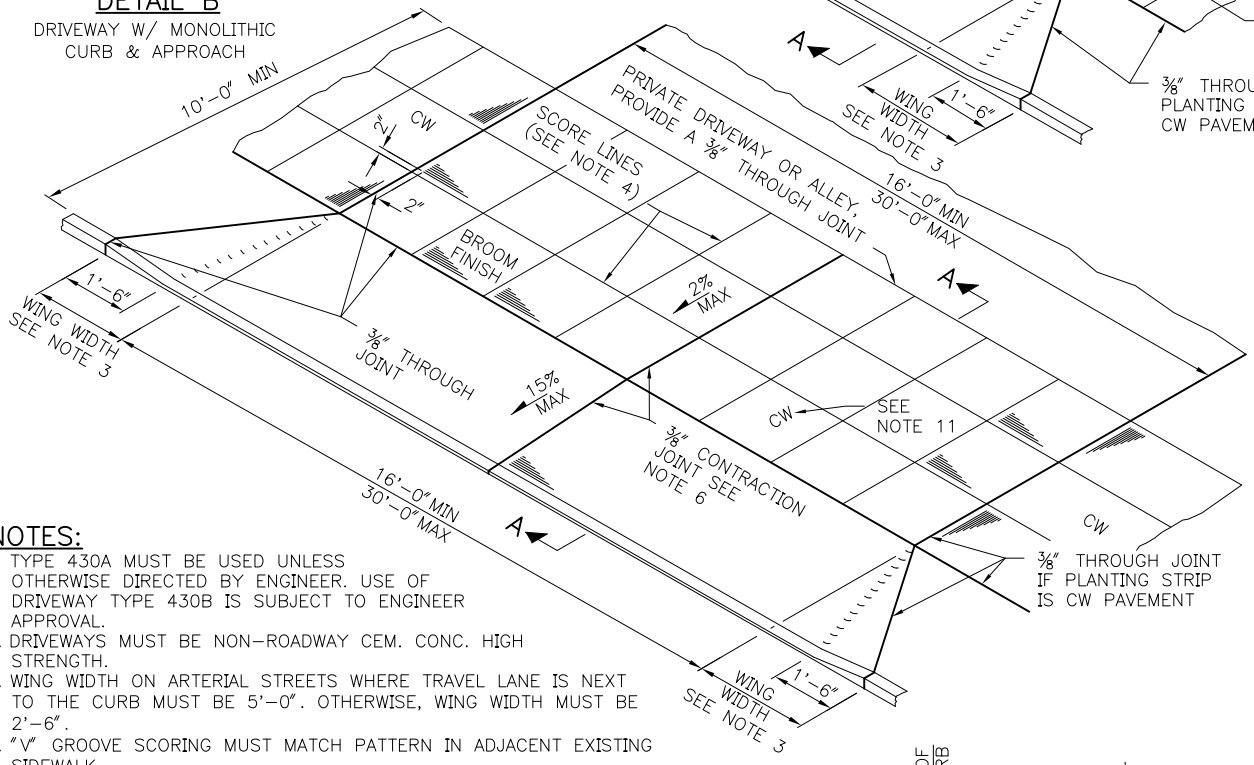
DETAIL A



DETAIL B

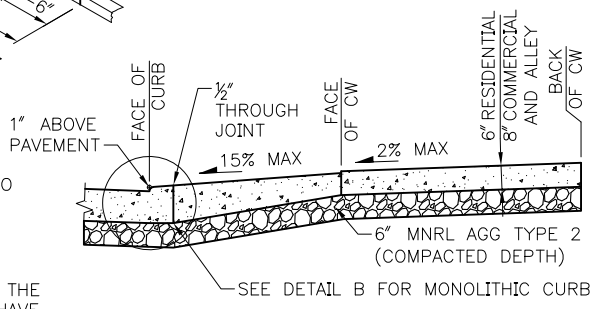
DRIVEWAY W/ MONOLITHIC CURB & APPROACH





NOTES:

1. TYPE 430A MUST BE USED UNLESS OTHERWISE DIRECTED BY ENGINEER. USE OF DRIVEWAY TYPE 430B IS SUBJECT TO ENGINEER APPROVAL.
2. DRIVEWAYS MUST BE NON-ROADWAY CEM. CONC. HIGH STRENGTH.
3. WING WIDTH ON ARTERIAL STREETS WHERE TRAVEL LANE IS NEXT TO THE CURB MUST BE 5'-0". OTHERWISE, WING WIDTH MUST BE 2'-6".
4. "V" GROOVE SCORING MUST MATCH PATTERN IN ADJACENT EXISTING SIDEWALK.
5. FOR CONCRETE DRIVEWAY CONSTRUCTED WITH CONCRETE SIDEWALK, SEE STANDARD PLAN NO 431.
6. CONCRETE DRIVEWAYS WITH A WIDTH GREATER THAN 15'-0" MUST HAVE A ⅜" TRANSVERSE CONTRACTION JOINT NEAR THE CENTERLINE OF DRIVEWAY.
7. FOR TYPE 430A CROSS-SLOPE IN THE 6'-0" MINIMUM WIDE AREA CONNECTING TO CW ON EACH SIDE OF THE DRIVEWAY MUST BE MAXIMUM 2% AND MINIMUM 0.5% (1.5% DESIRABLE) AND MUST SLOPE TOWARDS THE STREET. FOR TYPE 430B, CROSS-SLOPE OF THE DRIVEWAY BETWEEN THE TWO RAMP SECTIONS MUST BE MAXIMUM 2% AND MINIMUM 0.5%.
8. RAMP MUST HAVE A MAXIMUM SLOPE OF 8.3% AND A MINIMUM WIDTH OF 6'-0". THE CROSS SLOPE OF THE RAMP MUST BE MAXIMUM OF 2.0%. RAMP SURFACE MUST HAVE A HEAVY BROOM BRUSHED SURFACE PERPENDICULAR TO THE CURB.
9. ALL CHANGES IN LEVEL ACROSS JOINTS MUST BE FLUSH WITH A MAXIMUM DIFFERENCE IN ELEVATION OF 3/16 INCH.
10. ALL SLOPE GRADES MUST BE MEASURED OFF THE HORIZON-LINE. IF EXISTING SITE CONDITIONS CONFLICT WITH OBTAINING GRADES SHOWN, THE CONTRACTOR MUST MAKE MINIMUM ADJUSTMENTS TO THE GRADES TO ACCOMMODATE EXISTING SITE CONDITIONS, ADJUSTMENTS ARE SUBJECT TO ENGINEER APPROVAL.
11. CONCRETE WALKWAY OUTSIDE OF THE DRIVEWAY CROSSING MAY BE PERVIOUS.
12. PROTECT ADJACENT PANELS FROM DAMAGE DUE TO UNDERMINING DURING EXCAVATION & PLACEMENT OF SUBGRADE. SEE SPEC SECTION 1-07.13.

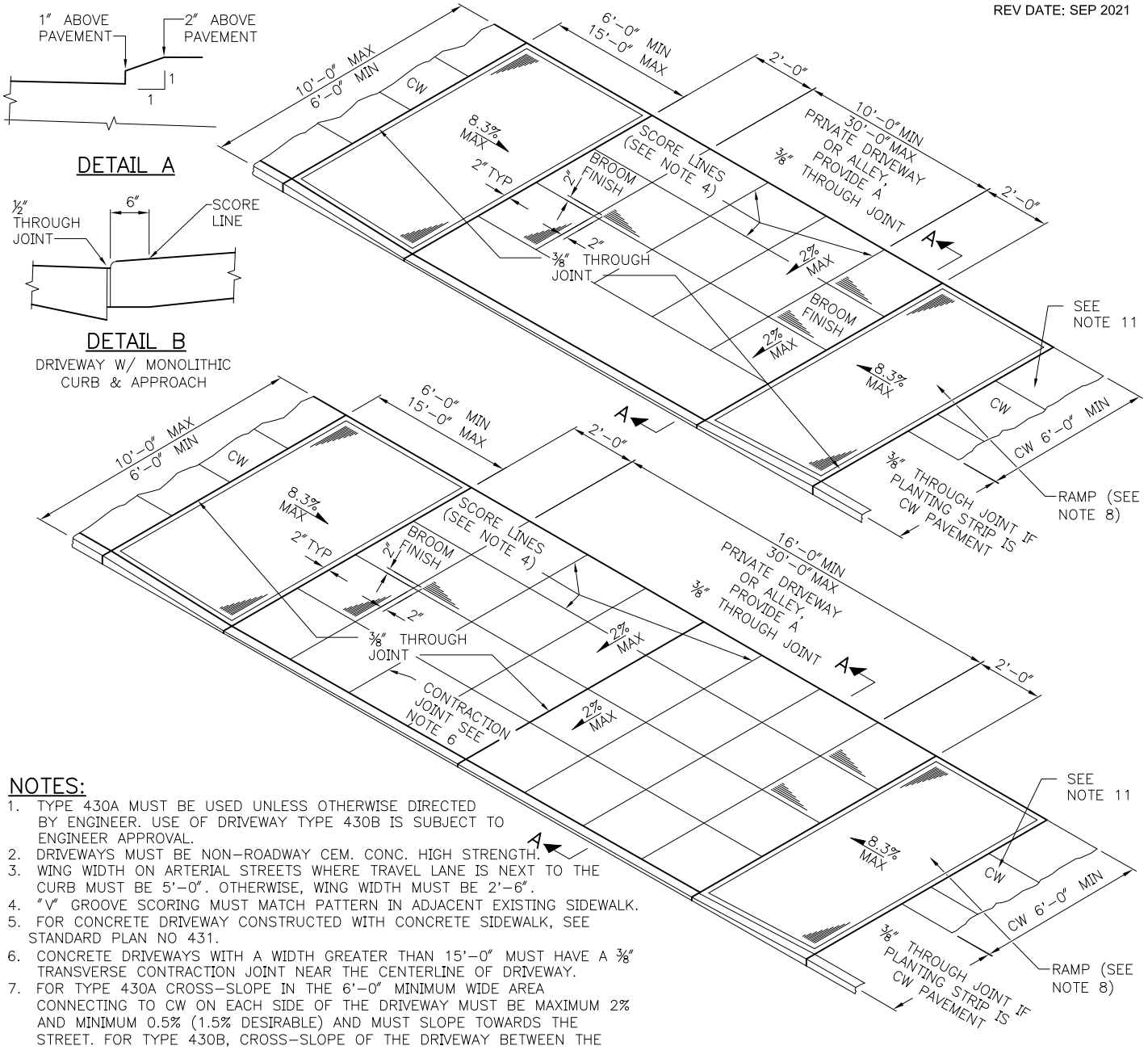


SECTION A-A

REF STD SPEC SEC 8-19

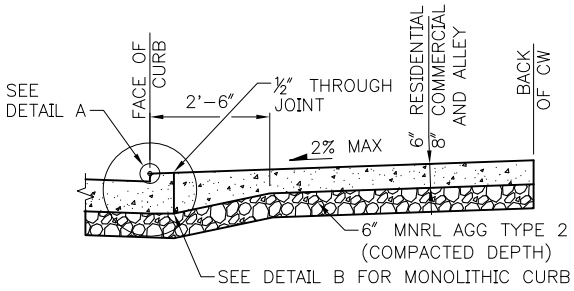
City of Seattle	NOT TO SCALE	TYPE 430A DRIVEWAY

REV DATE: SEP 2021



NOTES:

1. TYPE 430A MUST BE USED UNLESS OTHERWISE DIRECTED BY ENGINEER. USE OF DRIVEWAY TYPE 430B IS SUBJECT TO ENGINEER APPROVAL.
2. DRIVEWAYS MUST BE NON-ROADWAY CEM. CONC. HIGH STRENGTH.
3. WING WIDTH ON ARTERIAL STREETS WHERE TRAVEL LANE IS NEXT TO THE CURB MUST BE 5'-0". OTHERWISE, WING WIDTH MUST BE 2'-6".
4. "V" GROOVE SCORING MUST MATCH PATTERN IN ADJACENT EXISTING SIDEWALK.
5. FOR CONCRETE DRIVEWAY CONSTRUCTED WITH CONCRETE SIDEWALK, SEE STANDARD PLAN NO 431.
6. CONCRETE DRIVEWAYS WITH A WIDTH GREATER THAN 15'-0" MUST HAVE A ⅜" TRANSVERSE CONTRACTION JOINT NEAR THE CENTERLINE OF DRIVEWAY.
7. FOR TYPE 430A CROSS-SLOPE IN THE 6'-0" MINIMUM WIDE AREA CONNECTING TO CW ON EACH SIDE OF THE DRIVEWAY MUST BE MAXIMUM 2% AND MINIMUM 0.5% (1.5% DESIRABLE) AND MUST SLOPE TOWARDS THE STREET. FOR TYPE 430B, CROSS-SLOPE OF THE DRIVEWAY BETWEEN THE TWO RAMP SECTIONS MUST BE MAXIMUM 2% AND MINIMUM 0.5%.
8. RAMP MUST HAVE A MAXIMUM SLOPE OF 8.3% AND A MINIMUM WIDTH OF 6'-0". THE CROSS SLOPE OF THE RAMP MUST BE MAXIMUM OF 2.0%. RAMP SURFACE MUST HAVE A HEAVY BROOM BRUSHED SURFACE PERPENDICULAR TO THE CURB.
9. ALL CHANGES IN LEVEL ACROSS JOINTS MUST BE FLUSH WITH A MAXIMUM DIFFERENCE IN ELEVATION OF 3/16 INCH.
10. ALL SLOPE GRADES MUST BE MEASURED OFF THE HORIZON-LINE. IF EXISTING SITE CONDITIONS CONFLICT WITH OBTAINING GRADES SHOWN, THE CONTRACTOR MUST MAKE MINIMUM ADJUSTMENTS TO THE GRADES TO ACCOMMODATE EXISTING SITE CONDITIONS, ADJUSTMENTS ARE SUBJECT TO ENGINEER APPROVAL.
11. NO PORTION OF DRIVEWAY MAY BE PERVIOUS. CONCRETE WALKWAY OUTSIDE OF DRIVEWAY MAY BE PERVIOUS.
12. PROTECT ADJACENT PANELS FROM DAMAGE DUE TO UNDERMINING DURING EXCAVATION & PLACEMENT OF SUBGRADE. SEE SPEC SECTION 1-07.13.

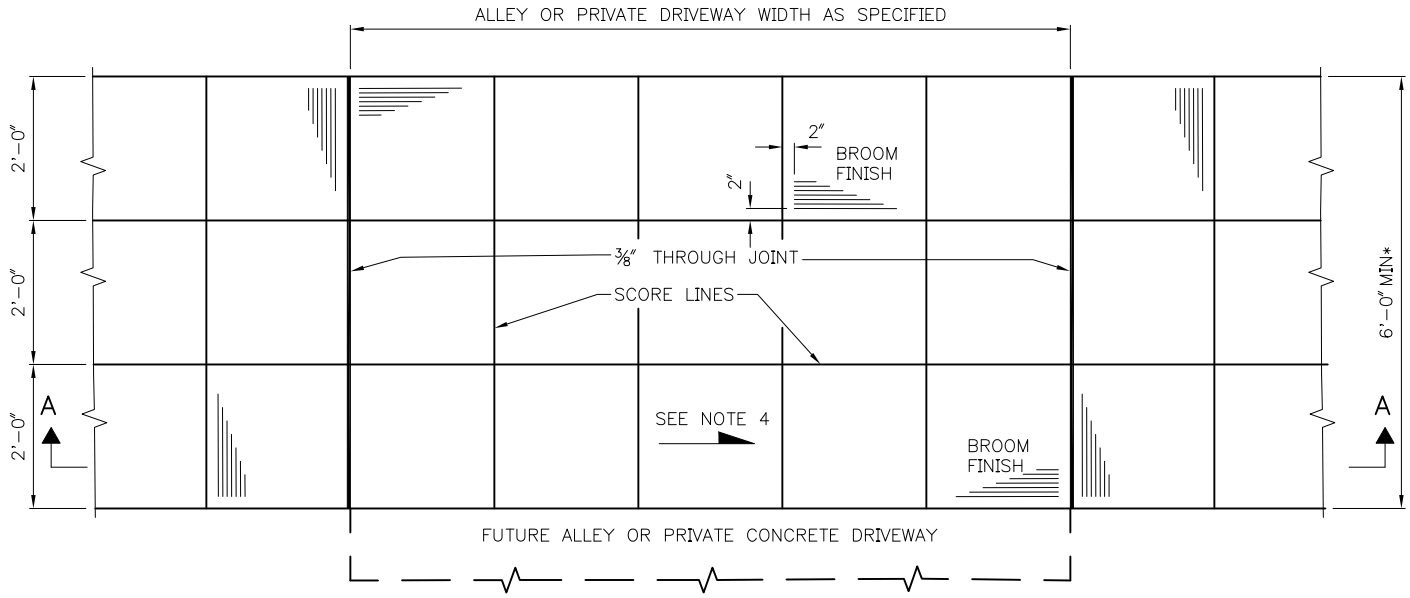


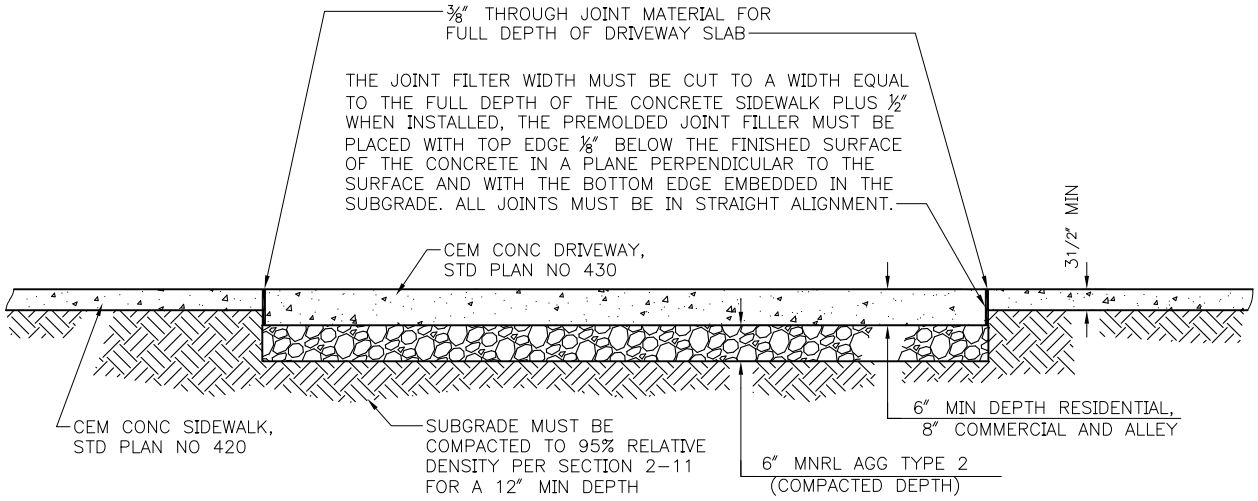
SECTION A-A

REF STD SPEC SEC 8-19

City of Seattle	NOT TO SCALE	TYPE 430B DRIVEWAY

REV DATE: SEP 2021





SECTION A–A

* UNLESS OTHERWISE APPROVED

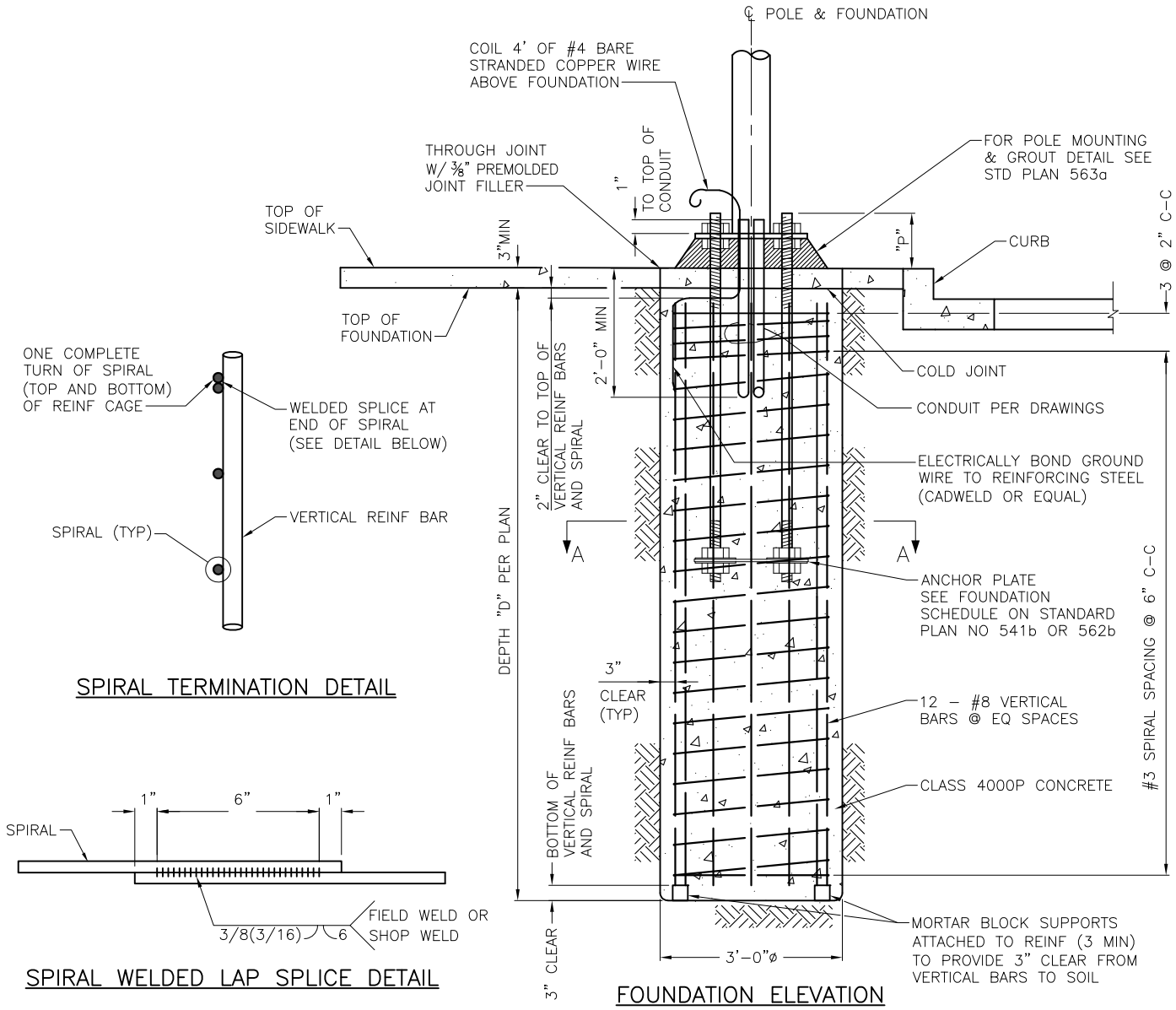
NOTES:

1. DRIVEWAY WIDTH GREATER THAN 15'–0" MUST HAVE ⅜" TRANSVERSE CONTRACTION JOINT AT OR NEAR ITS CENTER.
2. DRIVEWAY GREATER THAN 30'–0" REQUIRES APPROVAL. SET ⅜" TRANSVERSE CONTRACTION JOINTS AT INTERVALS OF 8' TO 15', UNLESS OTHERWISE SPECIFIED.
3. PROVIDE SCORE LINES PER STD PLAN NO 420 AND THE DRAWINGS.
4. THE SURFACE MUST BE BRUSHED IN THE TRANSVERSE DIRECTION IN RELATION TO THE CENTERLINE OF THE DRIVEWAY OR ALLEY WITH A FIBER HAIR BRUSH OR OTHER APPROVED BRUSH TYPE.
5. PROTECT ADJACENT PANELS FROM DAMAGE DUE TO UNDERMINING DURING EXCAVATION & PLACEMENT OF SUBGRADE. SEE SPEC SECTION 1–07.13.

REF STD SPEC SEC 8-19

City of Seattle	NOT TO SCALE	CEMENT CONCRETE DRIVEWAY PLACED WITH CEMENT CONCRETE SIDEWALK

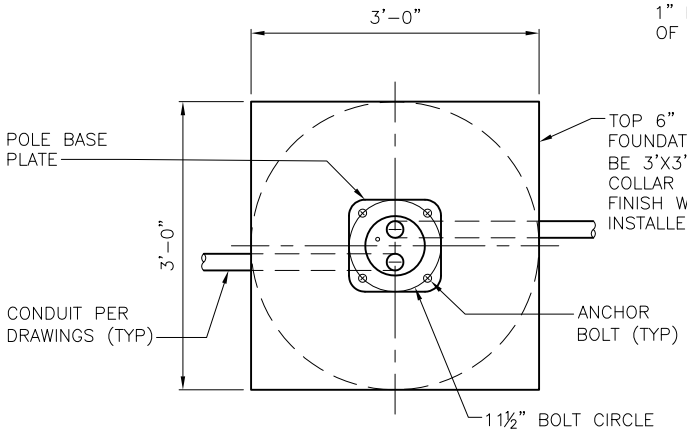
REV DATE: MAY 2021



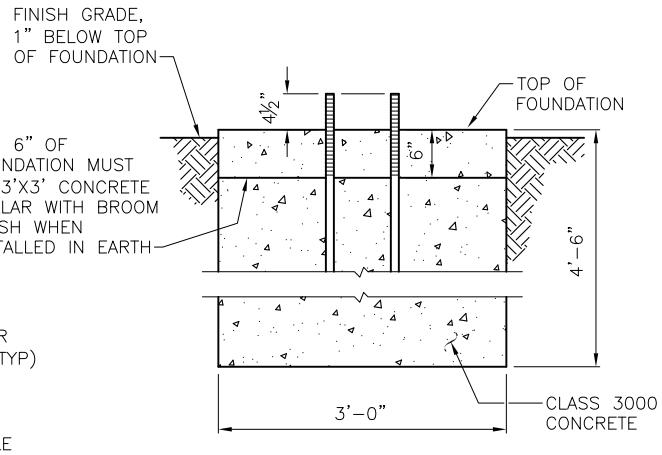
REF STD SPEC SEC 8-32, 6-02

City of Seattle	NOT TO SCALE	TRAFFIC SIGNAL POLE FOUNDATION DETAIL

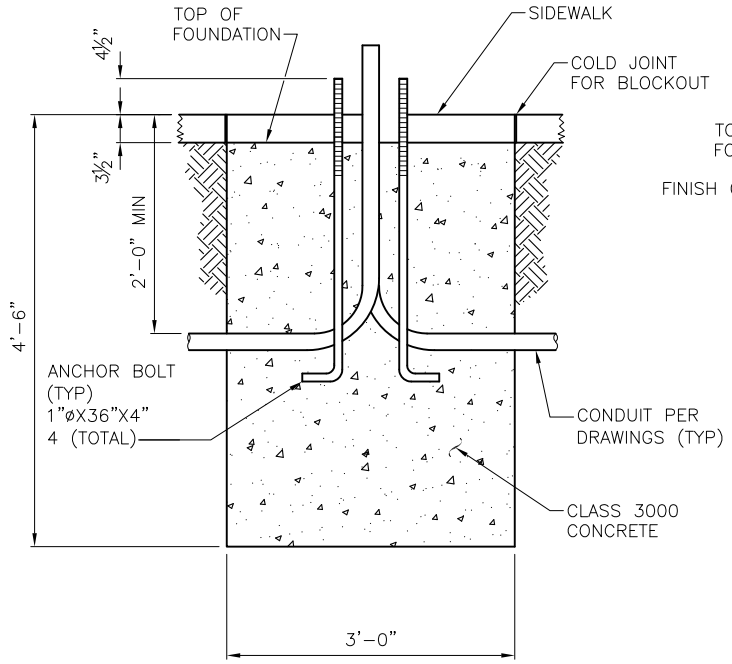
REV DATE: MAR 2021



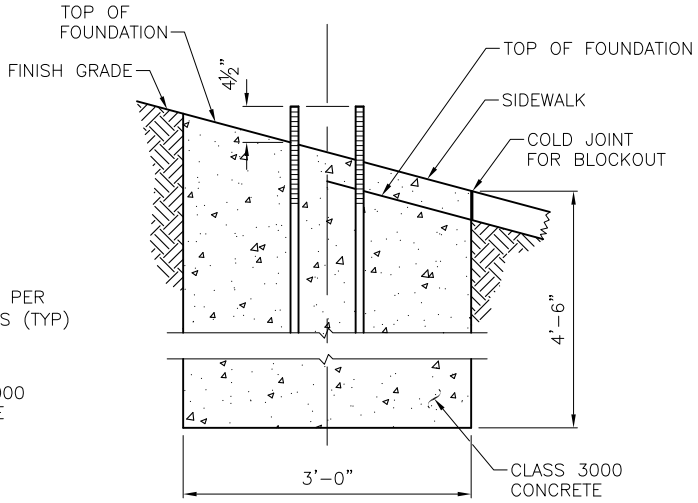
PLAN



IN EARTH



IN SIDEWALK



ON AN INCLINE

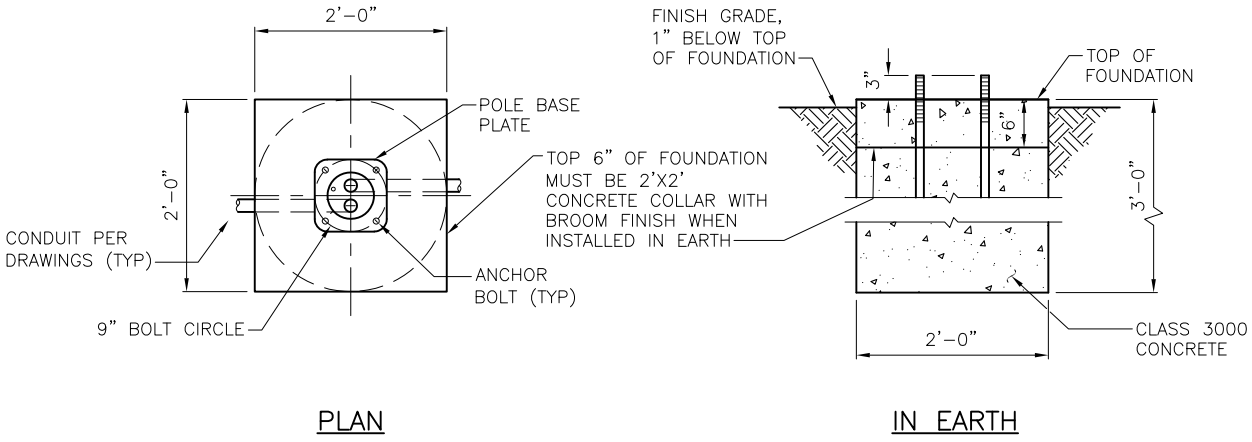
NOTES:

1. SEE SCL CONSTRUCTION STANDARD 1716.34 FOR POLE MOUNTING AND GROUT DETAIL
2. ANCHOR BOLTS MUST BE HOT DIP GALVANIZED ASTM A153 OR F2329, FULL LENGTH AND FABRICATED FROM ASTM F1554 OR A576 WITH 12" THREADS ON TOP
3. ALL SHRUBBERY AND FOLIAGE MUST BE PLANTED A MINIMUM OF 2' FROM SCL STRUCTURE PER SCL CONSTRUCTION STANDARD 0214.00

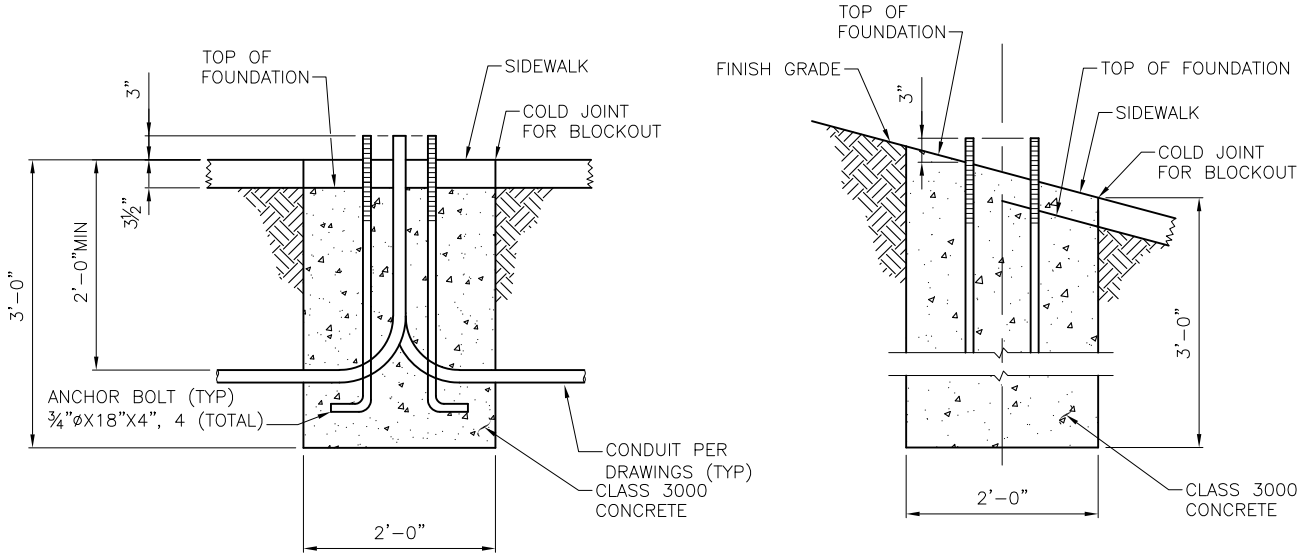
REF STD SPEC SEC 8-32

City of Seattle	NOT TO SCALE	STREET LIGHT POLE FOUNDATIONS

REV DATE: MAR 2021



PLAN IN EARTH



IN SIDEWALK ON AN INCLINE

NOTES:

1. SEE SCL CONSTRUCTION STANDARD 1716.34 FOR POLE MOUNTING AND GROUT DETAIL
2. ANCHOR BOLTS MUST BE HOT DIP GALVANIZED TO ASTM A153 OR F2329, FULL LENGTH AND FABRICATED FROM ASTM F1554 OR A576 WITH 8" OF THREADS ON TOP
3. SEE SCL MATERIAL STANDARD 5756.09 FOR POLES
4. SEE SCL CONSTRUCTION STANDARD 1716.07 FOR STREETLIGHT HANDHOLE AND CONDUIT REQUIREMENTS.
5. ALL SHRUBBERY AND FOLIAGE MUST BE PLANTED A MINIMUM OF 2' FROM SCL STRUCTURE PER SCL CONSTRUCTION STANDARD 0214.00

REF STD SPEC SEC 8-32

City of Seattle	NOT TO SCALE	PEDESTRIAN STREET LIGHT POLE FOUNDATIONS

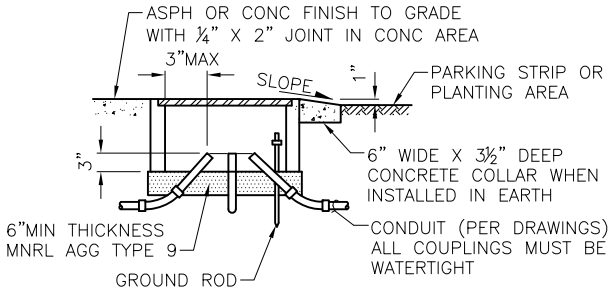
REV DATE: FEB 2021

NOTES:

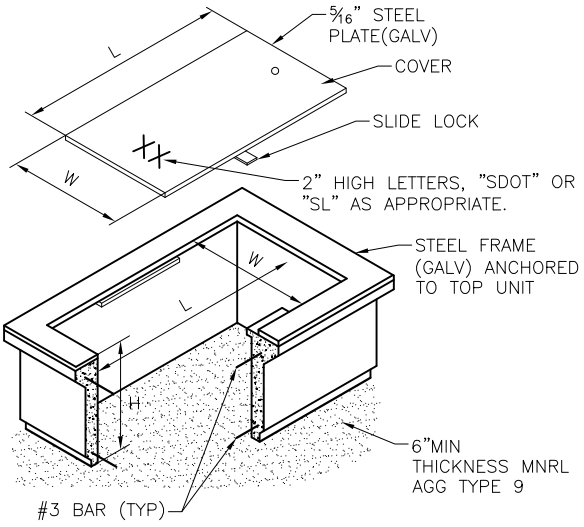
1. THE COVER MUST HAVE 1/16" TO 1/8" CLEARANCE ON EACH EDGE WITHIN THE FRAME AFTER GALVANIZING.
2. THE GROUND ROD MUST EXTEND 4" ABOVE THE BOTTOM OF THE HANDHOLE OR MINERAL AGGREGATE.
3. TYPE 1, 2, 3, 5 & 6 HANDHOLE COVERS MUST HAVE "SDOT" OR "SL" ON THEM, AS APPROPRIATE.
4. TYPE 4 HANDHOLE MUST BE INSTALLED IN ROADWAYS, PARKING LOTS, ETC.
5. FOR PAVEMENT DEPTH GREATHER THAN 7" USE FRAME EXTENSIONS (SEE STD PLAN NO 231) TO BRING THE COVER UP THE THE LEVEL OF THE FINISHED PAVEMENT WITHOUT EMBEDDING THE BOTTOM FLANGE OF THE CASTING IN THE PAVEMENT.
6. A 4' LENGTH OF #6 THWN OR THHN COPPER WIRE MUST BE SECURED FROM THE HANDHOLE COVER TO THE FRAME. BOND FROM FRAME LID, AND LID TO GROUND ROD.
7. ALL HANDHOLE COVERS AND FRAMES MUST HAVE A NON-SKID SURFACE (SEE STD SPEC SEC 9-34.6)
8. ALL HANDHOLES MUST HAVE A LOAD RATING OF H20.
9. GROUND ROD REQUIRED IN ALL STREETLIGHT HANDHOLES PER SCL CONSTR STD 1714.50
10. SEE SCL CONSTRUCTION STANDARD 1716.07 & SCL MATERIAL STD 7203.10 FOR STREETLIGHT HANDHOLE AND CONDUIT REQUIREMENTS.
11. ALL SHRUBBERY AND FOLIAGE MUST BE PLANTED A MINIMUM OF 2' FROM SCL STRUCTURE PER SCL CONSTRUCTION STANDARD 0214.00

HANDHOLE SCHEDULE

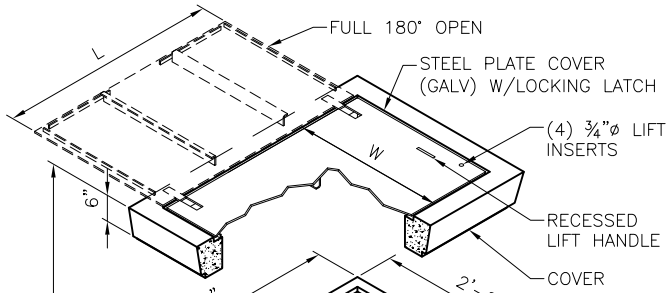
HANDHOLE TYPE	TOP UNIT INSIDE DIMENSION			EXTENSION UNIT(E)	COVER DIMENSIONS	
	L	W	H	H	L	W
1	10"	13"	12"	12"	17⅞"	12⅞"
2	28"	17"	12"	12"	27⅞"	16⅞"
3	36"	24"	12"	12"	35"	24"
4	24"ø		VAR	NA	NA	NA
5	36"	24"	32"	NA	35"	24"
6	42"	42"	38½"	NA	33½"	33¾"
GRHH	8"ø			NA		

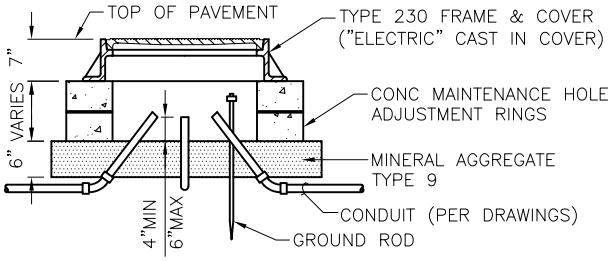


HANDHOLE INSTALLATION DETAIL

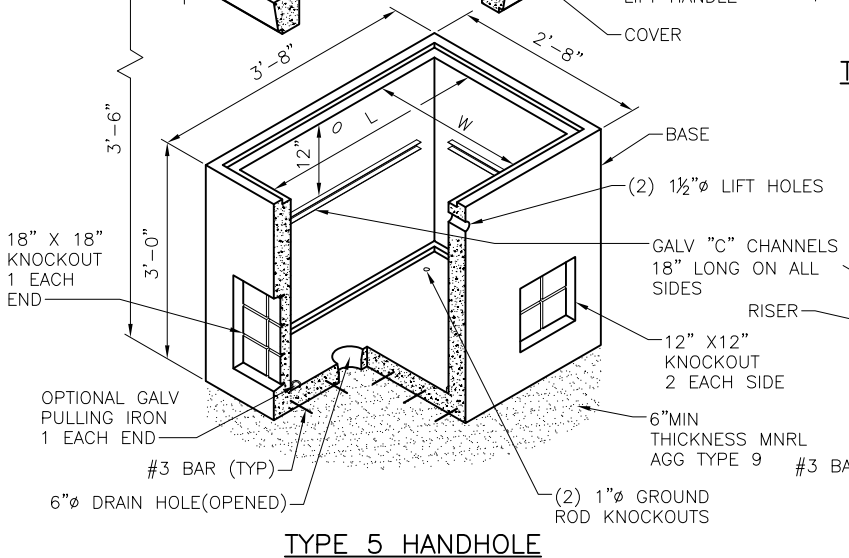


TYPE 1 & 2 HANDHOLE

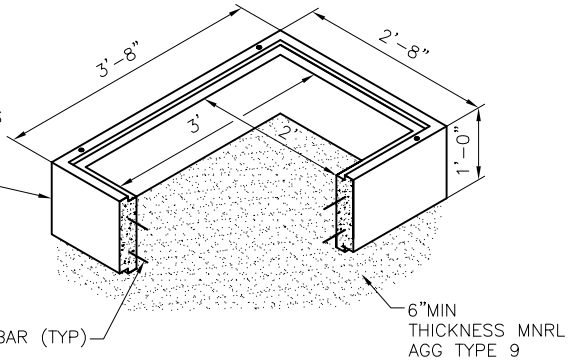




TYPE 4 HANDHOLE
TRAFFIC BEARING



TYPE 5 HANDHOLE

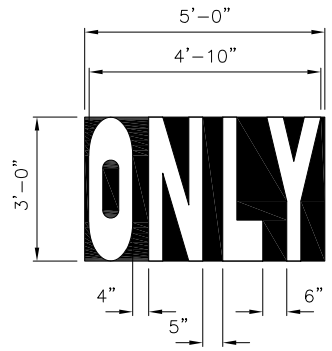


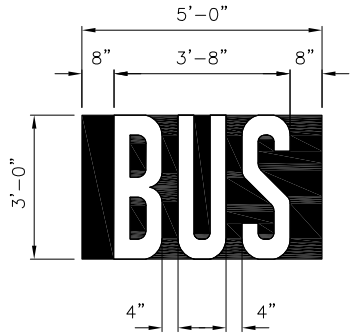
TYPE 3 HANDHOLE
(COVER SAME AS TYPE 5)

REF STD SPEC SEC 8-33

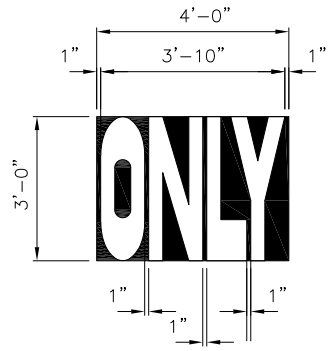
City of Seattle	NOT TO SCALE	HANDHOLES

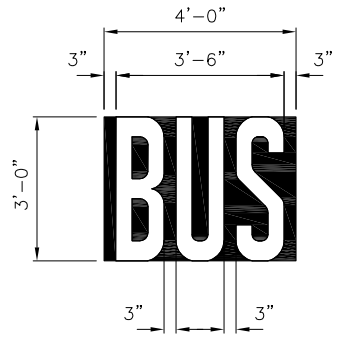
REV DATE: SEP 2021



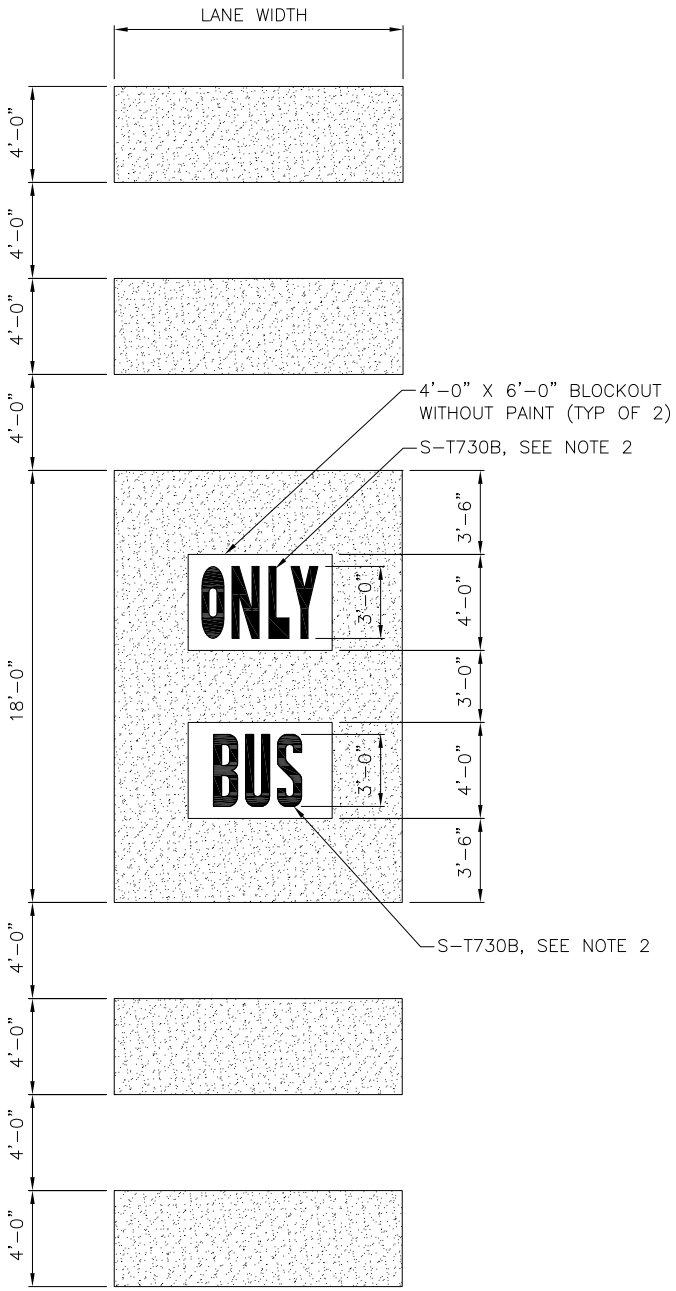


DETAIL A





DETAIL B



NOTES:

1. FHWA APPROVED RED COLOR FOR BUS LANES MUST BE USED WITH MMA.
2. FOR APPLICATION ON CEM CONC PVMT, LEGENDS PER STANDARD PLAN 730 MUST HAVE A 5'–0" X 3'–0" COLOR BLACK THERMOPLASTIC BACKGROUND PER DETAIL A. FOR APPLICATION ON CEM CONC PVMT IN A STREET CAR TRACK, LEGENDS PER STANDARD PLAN 730 MUST HAVE A 4'–0" X 3'–0" COLOR BLACK THERMOPLASTIC BACKGROUND PER DETAIL B. PROVIDE 6" MINIMUM GAP BETWEEN THERMO LEGENDS AND RED MMA.

750
RED BUS LANE MARKINGS

REF STD SPEC SEC 8-22

City of Seattle	NOT TO SCALE	RED BUS LANE MARKINGS