

# CITY OF VICTORIA

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CITY OF VICTORIA

STANDARD  
DETAILS

# CITY OF VICTORIA

## STANDARD DETAIL INDEX

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# CITY OF VICTORIA

## STANDARD DETAIL INDEX

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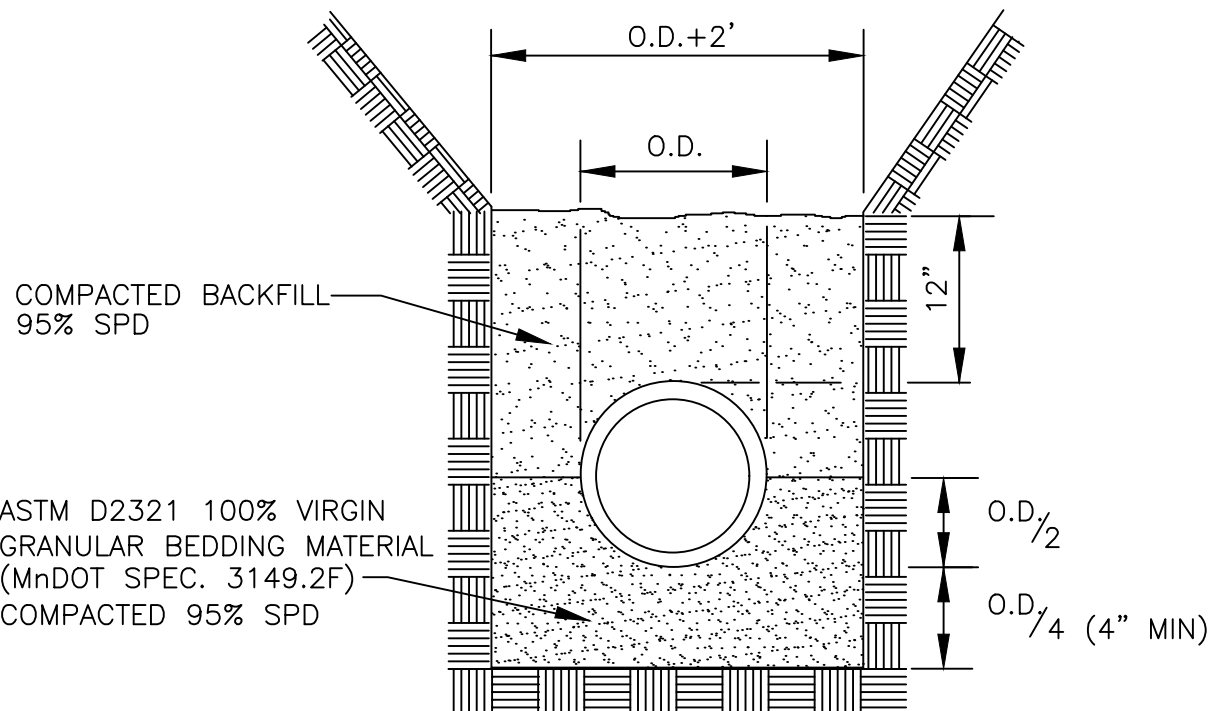
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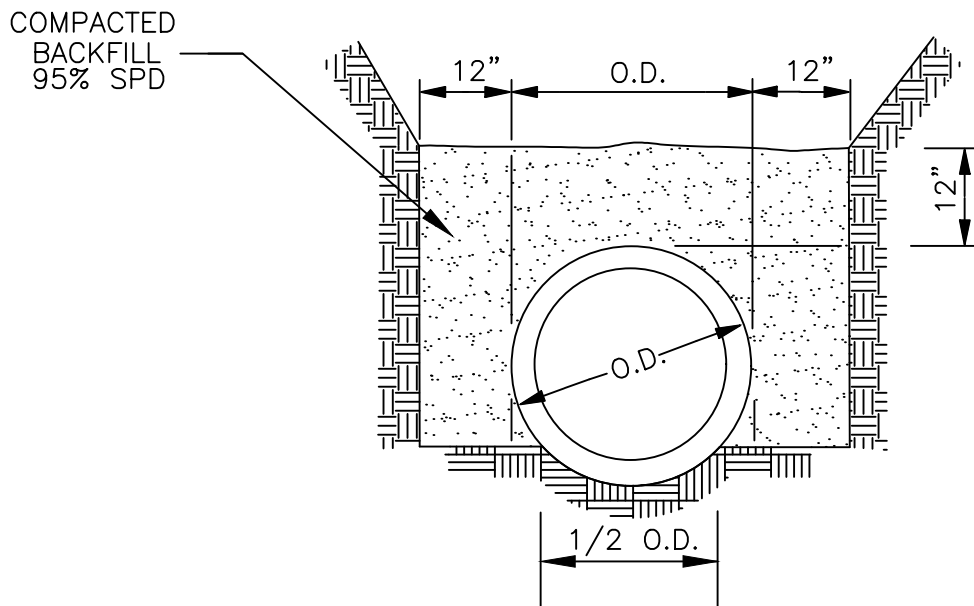


CITY OF VICTORIA

STANDARD  
DETAILS



GRANULAR MATERIAL BEDDING  
(TO BE USED WHERE, IN THE OPINION OF THE ENGINEER, UNSTABLE  
MATERIAL PREVENTS USE OF THE "EARTH FOUNDATION" DETAIL)



EARTH FOUNDATION  
(EXCEPT PLASTIC PIPE)  
PIPE FOUNDATION DETAILS

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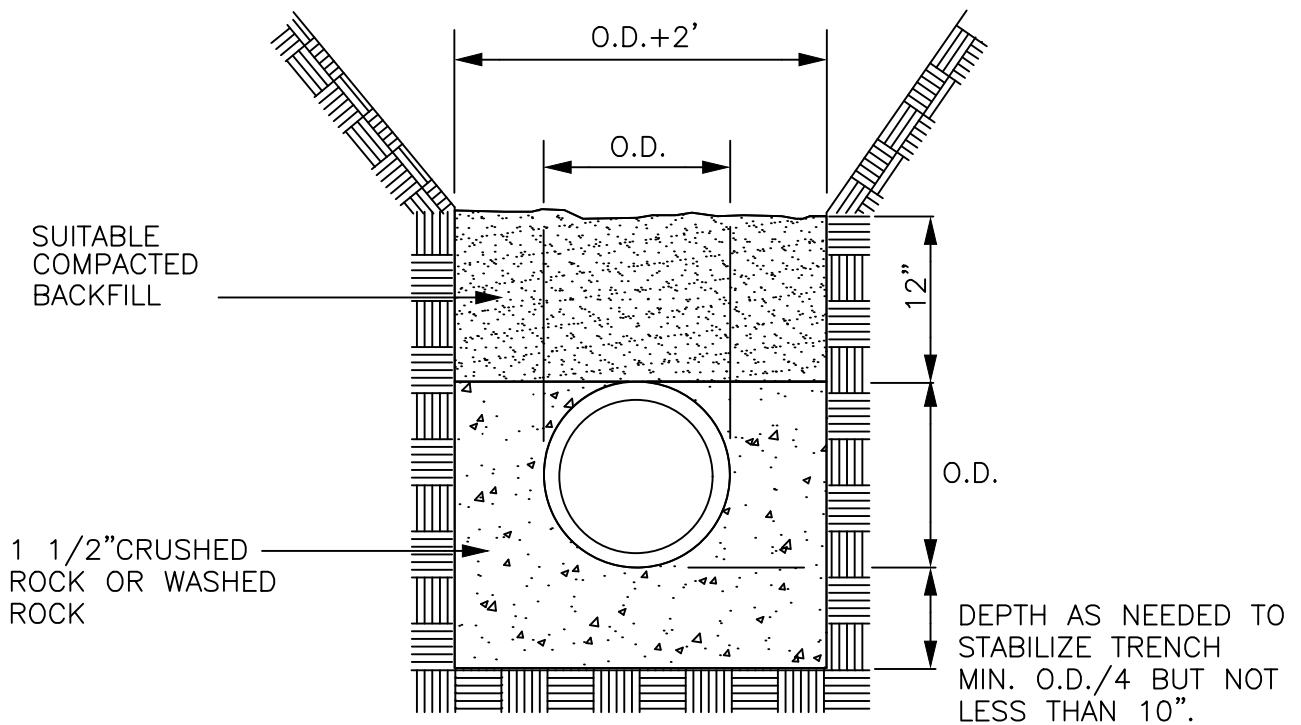


CITY OF VICTORIA

STANDARD DRAWING  
NO.  
**101**  
Victoria







SPECIAL FOUNDATION FOR  
STABILIZING OF TRENCH  
(AS DIRECTED BY ENGINEER)

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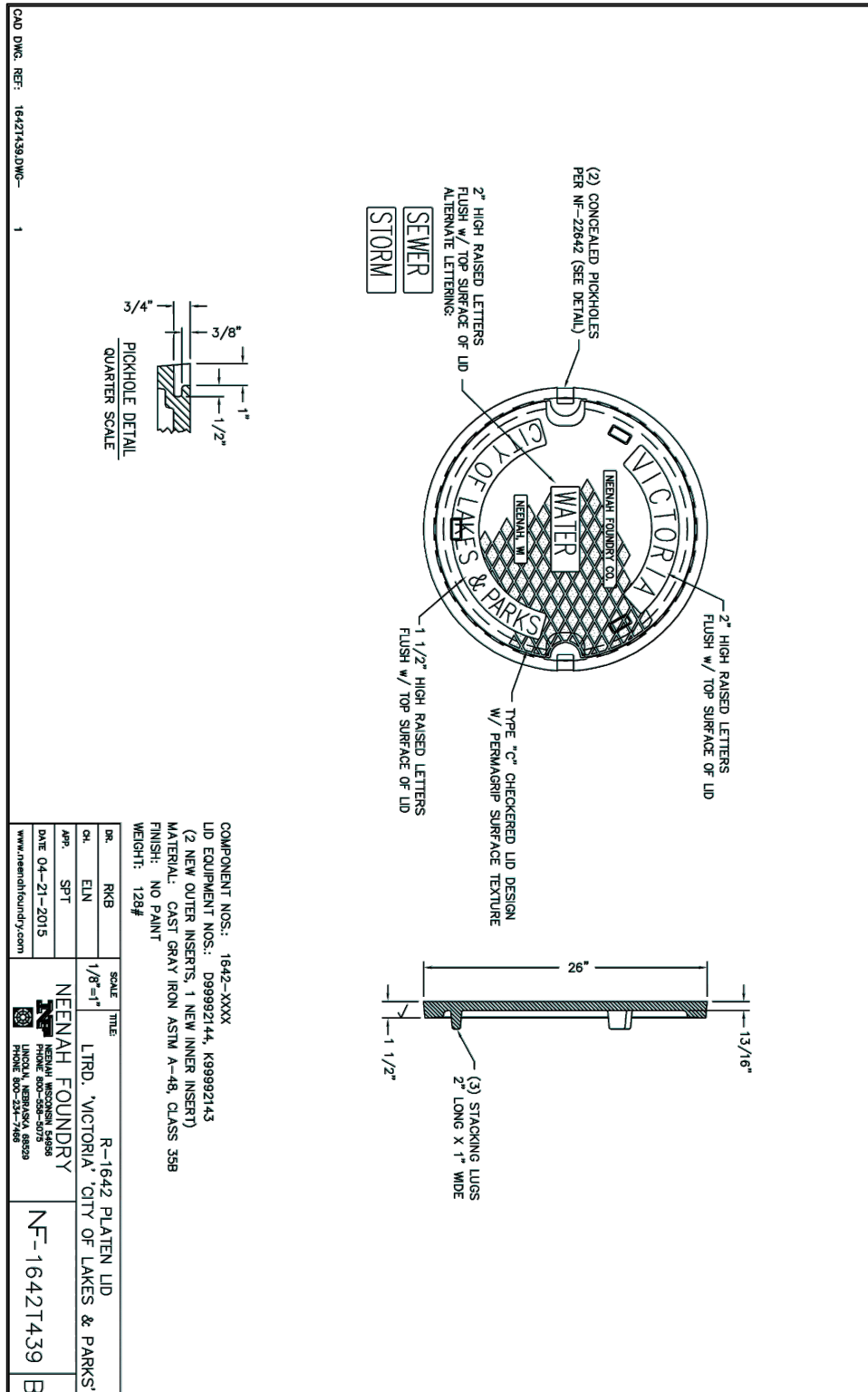


CITY OF VICTORIA

STANDARD DRAWING  
NO.

105

Victoria



## R-1642 SPECIALIZED MANHOLE COVER

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CITY OF VICTORIA

STANDARD DRAWING  
NO.

107

Victoria

1. ALL WATERMAIN AND ACCESSORIES MUST BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF VICTORIA STANDARD SPECIFICATIONS AND DETAILS.
2. MANIPULATION OF EXISTING VALVES SHALL BE PERFORMED ONLY BY CITY PERSONNEL.
3. WATERMAIN SHALL BE PVC C-900 DR18 WITH #12 AWG COPPER CLAD STEEL HIGH STRENGTH TRACER WIRE, COPPERHEAD PART #1230B-HS, FURNISHED AND INSTALLED THROUGHOUT THE PIPE LENGTH. METALLIC TRACER SHALL BE ATTACHED TO ALL HYDRANTS WITH COPPERHEAD PART #T2R-FLPKG-5/8 OR APPROVED EQUAL.
4. ALL FITTINGS SHALL COMPLY WITH CEAM SPEC. 2611.2.A.1. ALL FITTINGS SHALL BE DUCTILE IRON PIPE WITH POLYETHYLENE ENCASEMENT. ALL CONNECTIONS SHALL BE INSTALLED UTILIZING COR-BLUE NUTS & BOLTS.
5. NO BENDING OF PVC WATER MAIN SHALL BE ALLOWED, FITTINGS MUST BE USED TO FACILITATE ANY CHANGES IN DEPTH OR HORIZONTAL ALIGNMENT.
6. USE GATE VALVES FOR ALL APPLICATIONS UP THROUGH 12 INCHES.
7. GATE VALVES SHALL BE RESILIENT WEDGE, AMERICAN FLOW CONTROL SERIES 2500 OR APPROVED EQUAL. GATE VALVES MUST COMPLY WITH CEAM SPEC 2611.2, C.2.
8. USE BUTTERFLY VALVES FOR ALL APPLICATIONS GREATER THAN 12 INCHES.
9. BUTTERFLY VALVES SHALL BE MUELLER LINESEAL III, OR APPROVED EQUAL. BUTTERFLY VALVES SHALL COMPLY WITH CEAM SPEC. 2611.2, C.3.
10. BOLTS AND NUTS ON ALL VALVES AND HYDRANTS SHALL BE STAINLESS STEEL.
11. USE GATE VALVE NUT ROD EXTENDER TO BRING OPERATING NUT TO WITHIN 12 INCHES OF SURFACE.
12. ALL HYDRANTS SHALL BE INSTALLED 5.0 FEET BACK OF CURB.
13. HYDRANTS SHALL BE WATEROUS "PACER," MODEL WB-67 OR APPROVED EQUAL, FITTED WITH E-Z GUIDE HYDRANT SAFETY MARKER & LOCATOR WITH PREMIUM FIBERGLASS ROD AND PAINTED RED.
14. HYDRANTS SHALL HAVE A 5-1/4-IN VALVE OPENING, TWO OUTLET NOZZLES FOR 2-1/2-IN D. HOSE CONNECTIONS AND ONE 4-1/2-IN D. PUMPER CONNECTION.
15. THE CURB STOP SERVICE ASSEMBLY SHALL HAVE A MINIMUM 1-FT ADJUSTMENT RANGE AND SHALL EXTEND 6 INCHES ABOVE FINISHED GRADE FULLY EXTENDED AND SHALL INCLUDE EXTENSION ROD.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING WATER TO HOMES AND BUSINESSES WHOSE WATER SUPPLY IS DISRUPTED DURING THE COURSE OF THE PROJECT.
17. PER ENGINEERING SPECIFICATIONS SECTION 3310 - WATER DISTRIBUTION, PRODUCTS, ARTICLE 19, EXTRA WATERMAIN ITEMS SHALL BE SUPPLIED AND DELIVERED TO PUBLIC WORKS, AS DIRECTED BY THE ENGINEER.

## STANDARD PLAN NOTES

### WATERMAIN PLANS

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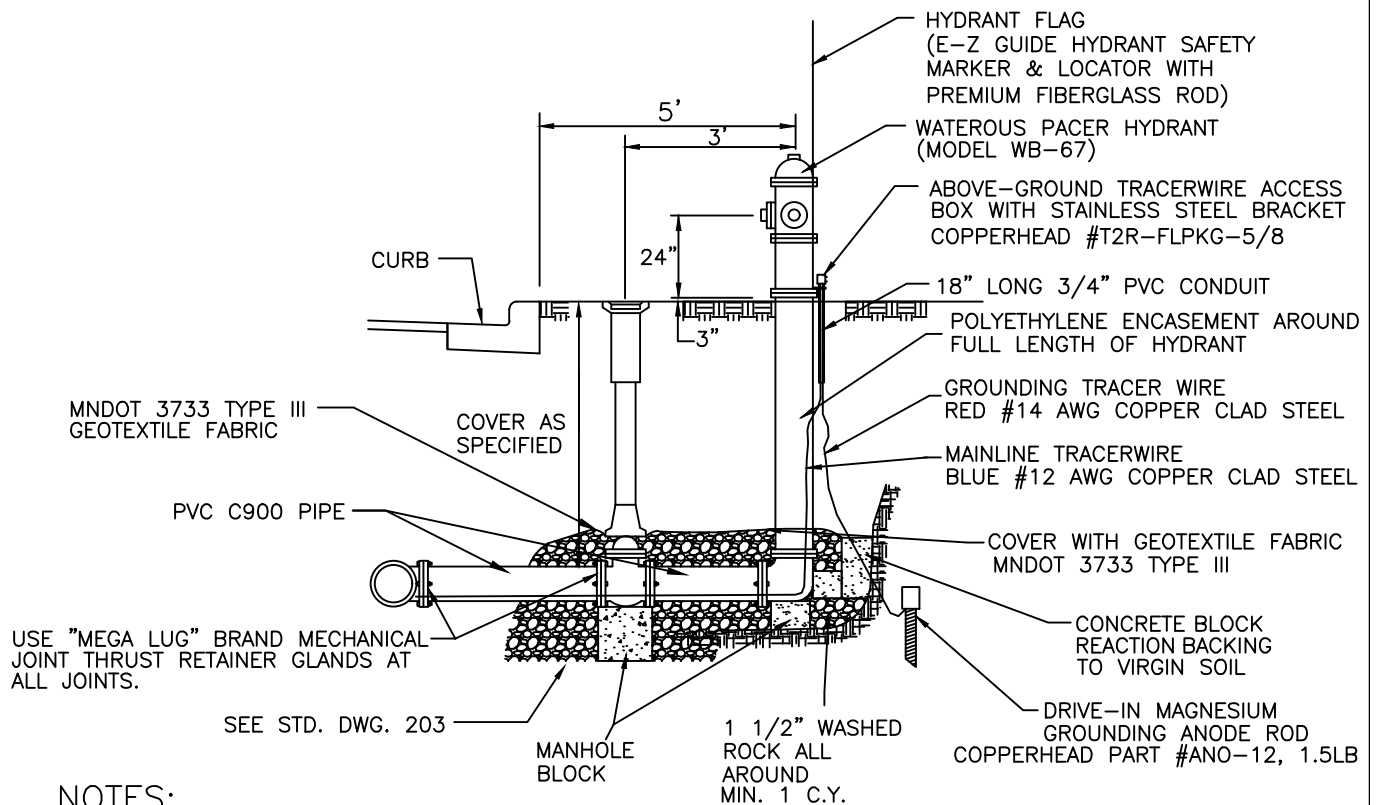
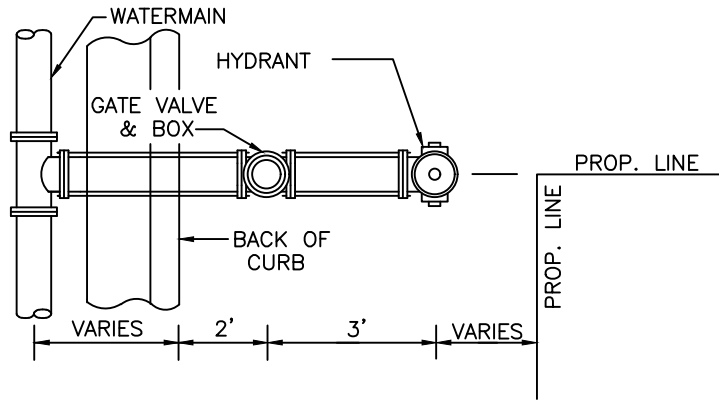


**CITY OF VICTORIA**

STANDARD DRAWING  
NO.

**200A**

Victoria



## NOTES:

1. USE MEGA LUGS ON ALL JOINTS. PROVIDE CONCRETE BLOCKING BEHIND HYDRANT AND TEE. USE COR-BLUE T BOLTS ON ALL FITTINGS.
2. PLUG WEEP HOLES IF GROUNDWATER IS PRESENT.
3. IF WEEP HOLES ARE PLUGGED, PUMPER NOZZLE CAP MUST BE PAINTED BLUE AND A TAG SHALL BE ATTACHED TO THE HYDRANT STATING "DRAIN HOLES PLUGGED".
4. SUPPLY 1 EXTRA FLAG FOR EVERY 5 HYDRANTS INSTALLED. MINIMUM ONE PER PROJECT.
5. SUPPLY 1 HYDRANT WRENCH OR HYDRANT REPAIR KIT PER PROJECT, AS DIRECTED BY THE ENGINEER.
6. SUPPLY 1 6" HYDRANT EXTENSION OR 1 EXTRA GATE VALVE NUT ROD EXTENDER PER PROJECT, AS DIRECTED BY THE ENGINEER.
7. ALL HYDRANTS NOT IN SERVICE SHALL BE COVERED WITH BLACK POLY PLASTIC.

\*\*EXTRA FLAGS AND REPAIR KITS ARE TO BE DELIVERED TO THE PUBLIC WORKS BUILDING.

## TYPICAL HYDRANT LAYOUT (VALVE IN BOULEVARD)

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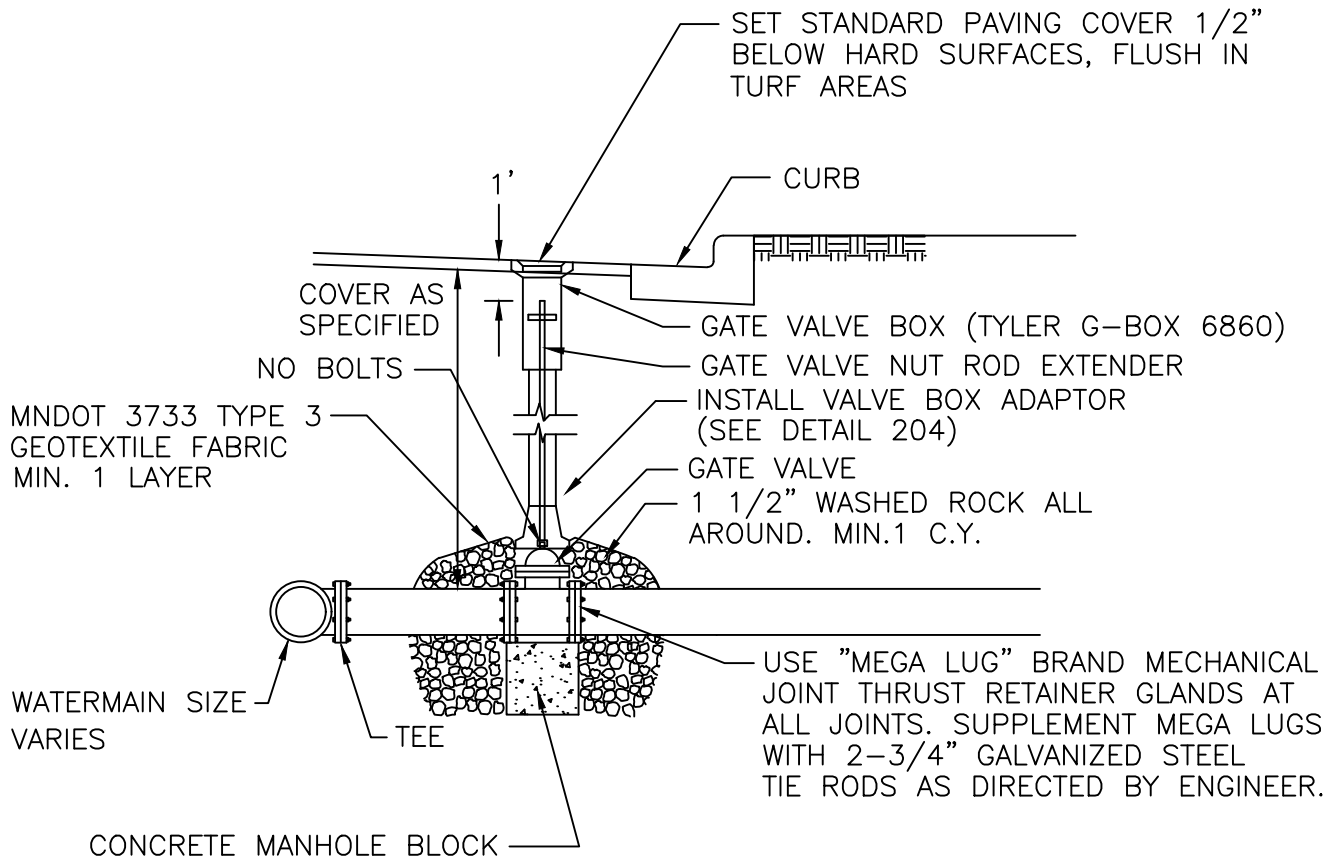


CITY OF VICTORIA

STANDARD DRAWING  
NO.

201

Victoria



#### NOTES:

SUPPLY ONE EXTRA 4' GATE VALVE KEY OR ONE EXTRA CURB STOP STAND PIPE PER PROJECT, AS DIRECTED BY THE ENGINEER.

EXTRA KEYS AND EXTENSIONS SHALL BE DELIVERED TO THE PUBLIC WORKS BUILDING.

## GATE VALVE INSTALLATION

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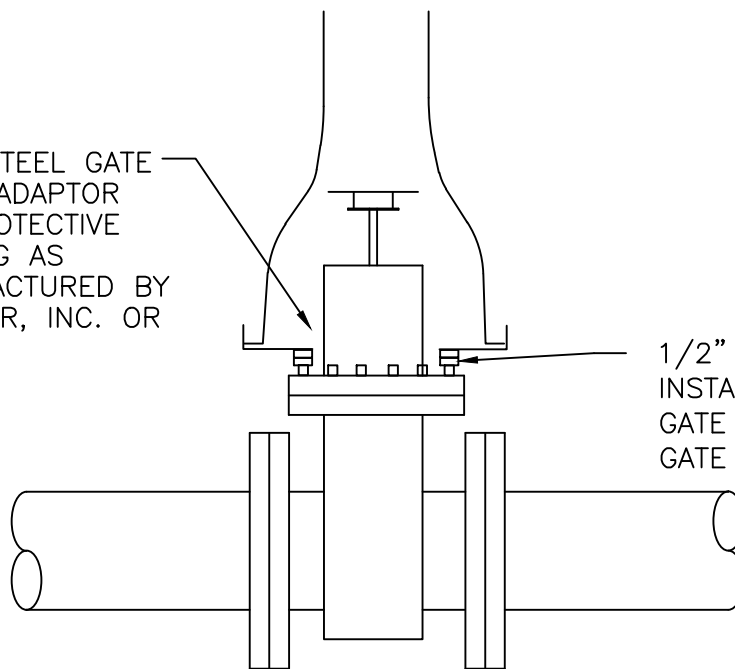
CITY OF VICTORIA

STANDARD DRAWING  
NO.

203

Victoria

1/4" STEEL GATE  
VALVE ADAPTOR  
W/ PROTECTIVE  
COATING AS  
MANUFACTURED BY  
ADAPTOR, INC. OR  
EQUAL



1/2" RUBBER GASKET  
INSTALLED BETWEEN THE  
GATE VALVE AND  
GATE VALVE ADAPTOR.

## GATE VALVE ADAPTOR

FEBRUARY 2022



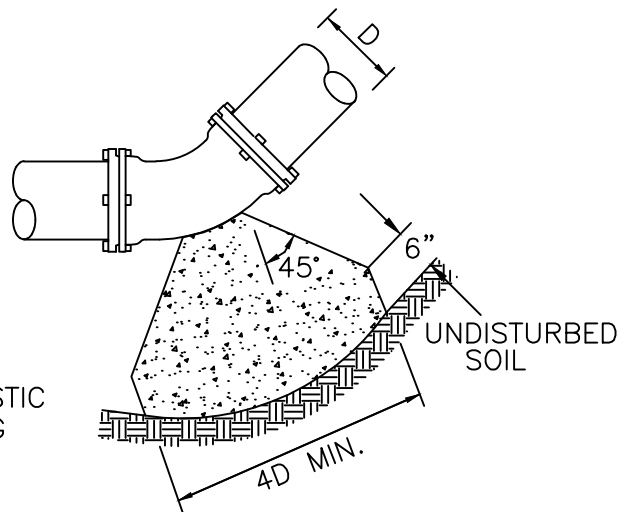
CITY OF VICTORIA

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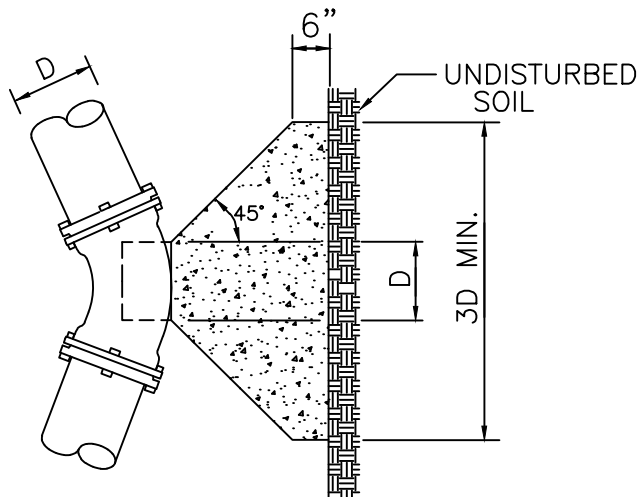
204

Victoria

NOTE:  
COVER FITTINGS WITH PLASTIC  
(8MIL.) PRIOR TO POURING  
CONCRETE

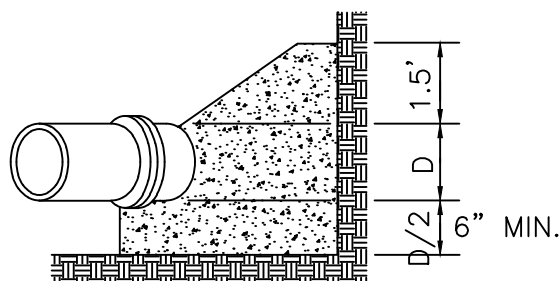


ELEVATION



PLAN

2500 PSI CONCRETE  
28 DAY STRENGTH



SECTION

## CONCRETE REACTION BACKING (FOR BENDS)

FEBRUARY 2022



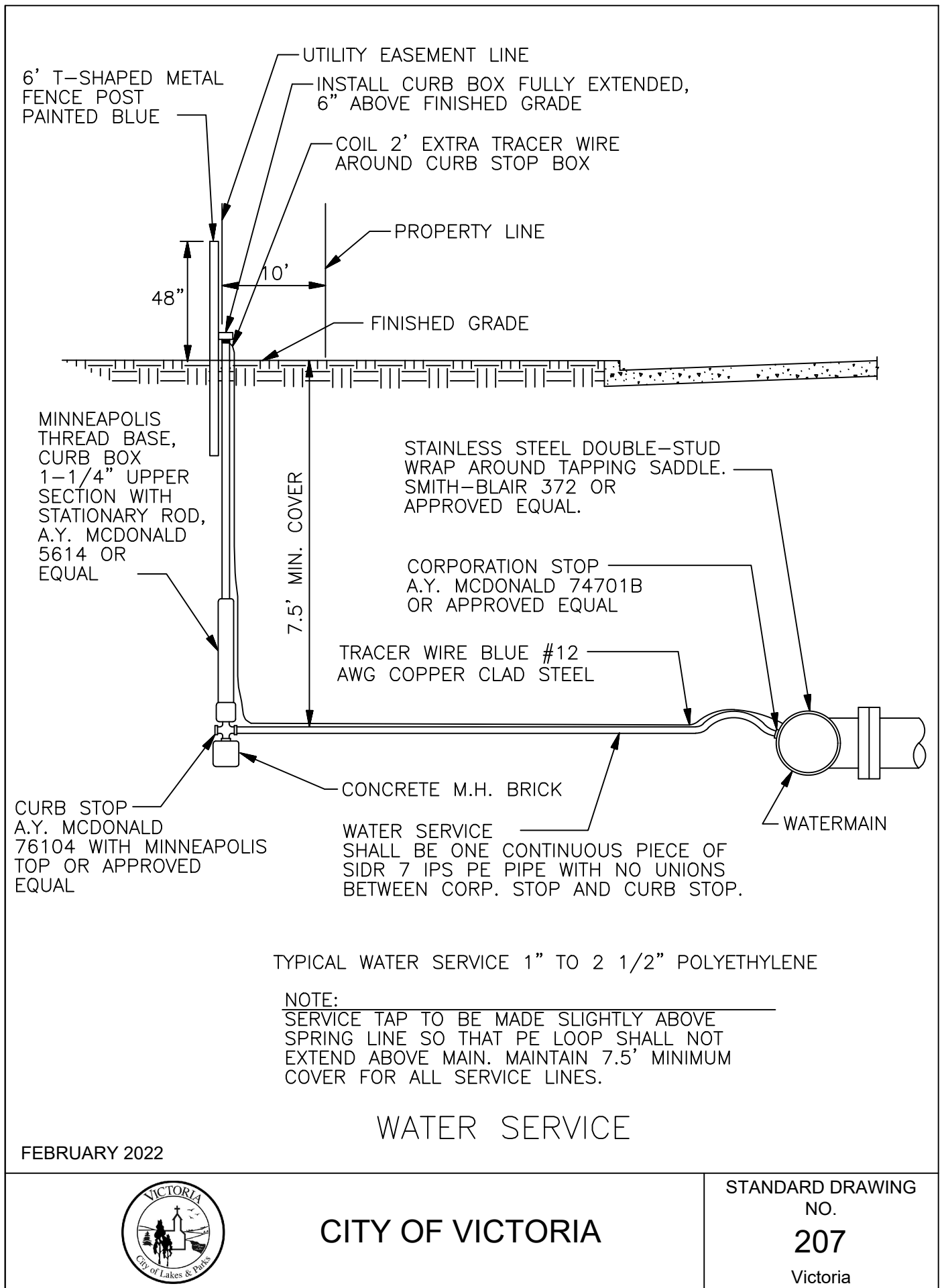
CITY OF VICTORIA

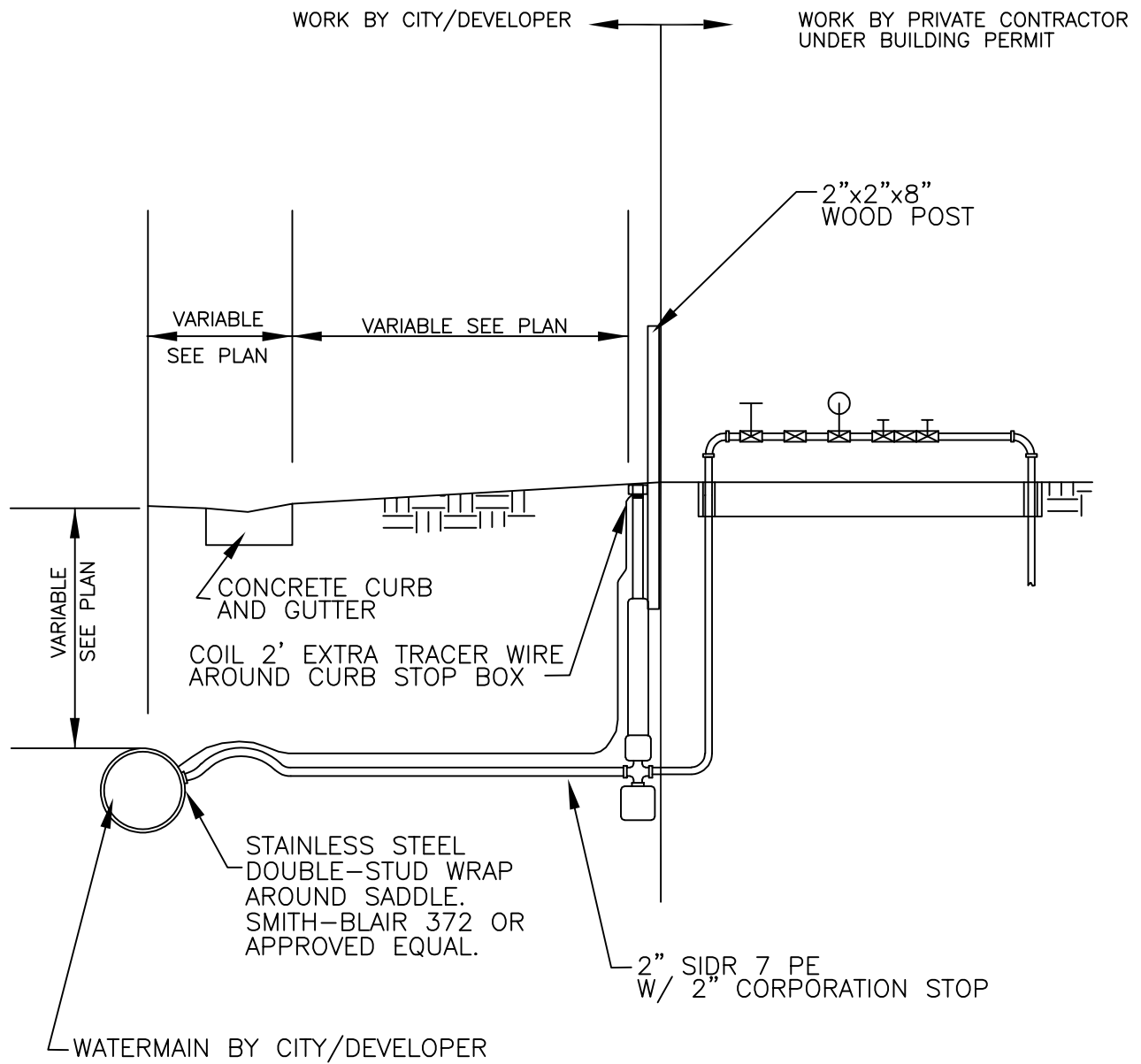
STANDARD DRAWING  
NO.

206

Victoria







NOTE:

INSTALL 2" CURB STOP WITH COMPRESSION FITTING  
AT THE END.

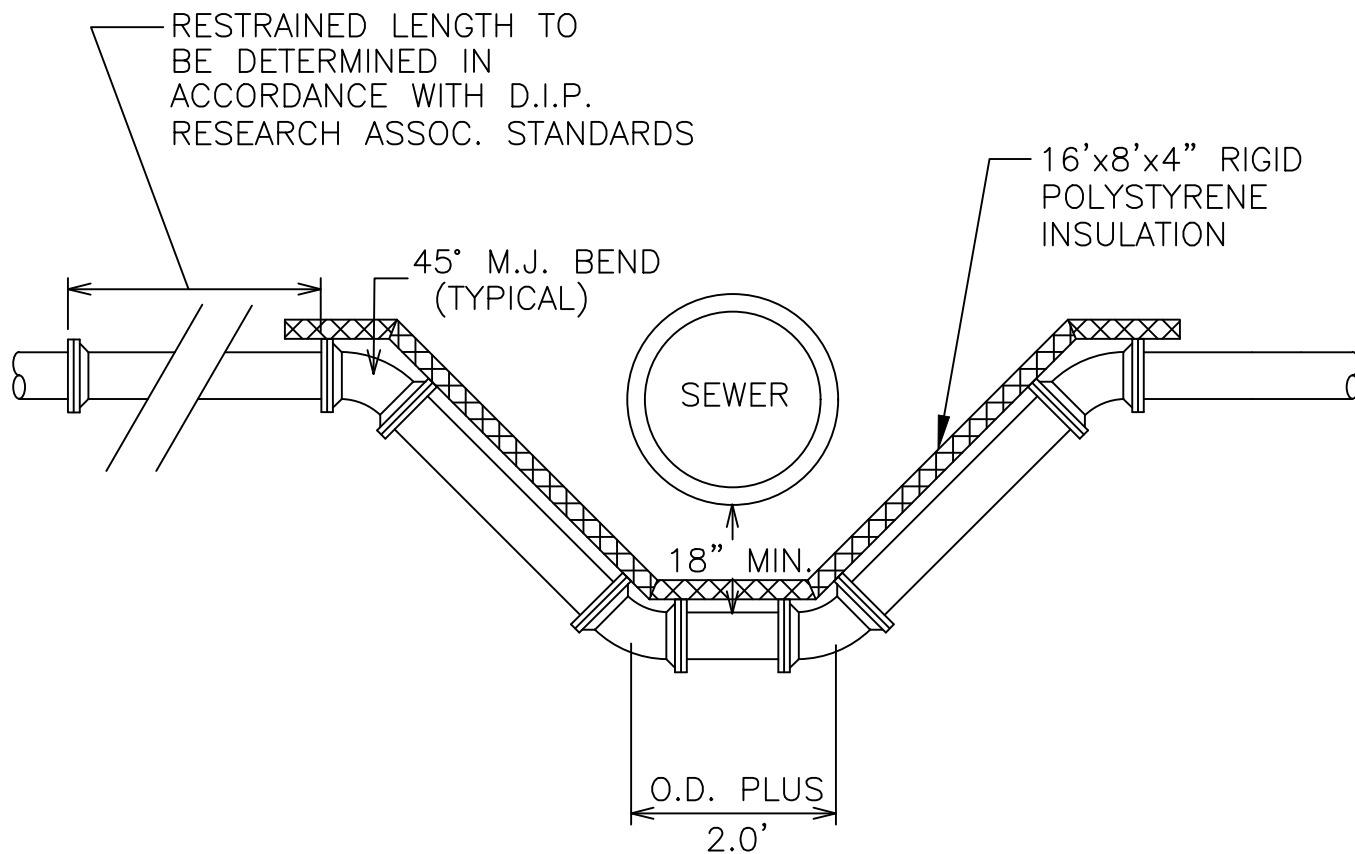
## IRRIGATION SERVICE

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**CITY OF VICTORIA**

STANDARD DRAWING  
NO.  
**208**  
Victoria



NOTE: FITTINGS SHALL BE RESTRAINED WITH THE USE OF APPROVED MECHANICAL JOINT RESTRAINING GLANDS.

## WATERMAIN OFFSET

FEBRUARY 2022

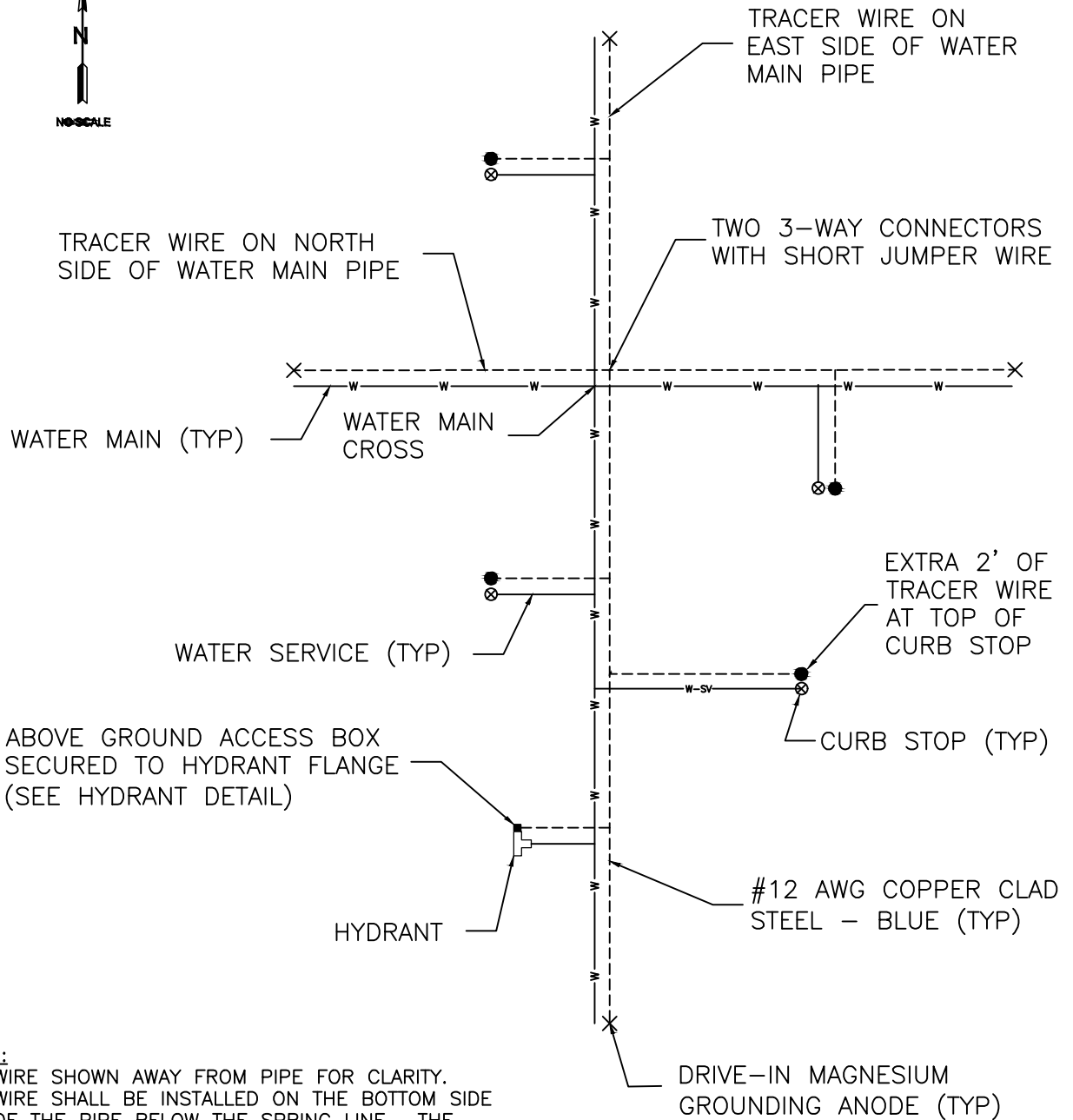
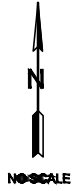


CITY OF VICTORIA

STANDARD DRAWING  
NO.

210

Victoria



**NOTES:**

1. WIRE SHOWN AWAY FROM PIPE FOR CLARITY. WIRE SHALL BE INSTALLED ON THE BOTTOM SIDE OF THE PIPE BELOW THE SPRING LINE. THE WIRE SHALL BE FASTENED TO THE PIPE WITH TAPE OR PLASTIC TIES AT 5' INTERVALS.

## TRACER WIRE PLAN (WATER)

FEBRUARY 2022



**CITY OF VICTORIA**

STANDARD DRAWING  
NO.

**211**

Victoria

1. ALL SANITARY SEWER AND ACCESSORIES MUST BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF VICTORIA STANDARD SPECIFICATIONS AND DETAILS.
2. ALL SANITARY SEWER PVC PIPE SHALL BE INSTALLED ACCORDING TO CITY STANDARD DRAWING 103 "GRANULAR MATERIAL BEDDING METHOD" (FOR PVC SANITARY SEWER PIPE).
3. UNLESS NOTED OTHERWISE, ALL SMOOTH WALLED SANITARY SEWER PVC PIPE AND FITTINGS SHALL BE SDR 35 UP TO 20 FT IN DEPTH; SDR 26 FOR DEPTH BETWEEN 20 FT AND 25 FT; AND WILL BE PROJECT SPECIFIC FOR DEPTHS OVER 25 FT, WITH ELASTOMERIC GASKETED JOINTS.
4. ALL SANITARY SEWER SERVICES SHALL BE 4-INCH PVC, SCH. 40.
5. SMOOTH WALLED PVC PIPE AND FITTINGS SHALL CONFORM WITH THE REQUIREMENTS OF ASTM D-3034 FOR THE SIZE, STANDARD DIMENSION RATIO (SDR), AND STRENGTH REQUIREMENTS INDICATED ON THE PLANS, SPECIFICATIONS, AND SPECIAL PROVISIONS.
6. REINFORCED CONCRETE PIPE AND FITTINGS SHALL CONFORM WITH THE REQUIREMENTS OF MnDOT SPEC 3236 (REINFORCED CONCRETE PIPE) FOR THE TYPE, SIZE, AND STRENGTH CLASS SPECIFIED HEREIN.
7. JOINTS OF MANHOLE RISER SECTIONS SHALL BE TONGUE AND GROOVE WITH RUBBER "O" RING JOINTS PROVIDED ON ALL SANITARY SEWER MANHOLES, AND SHALL BE SEALED WITH MASTIC AND "INFI-SHIELD" 12" WIDE EXTERNAL SEAL WRAP OR APPROVED EQUAL.
8. SANITARY SEWER INLET AND OUTLET PIPES SHALL BE JOINED TO THE MANHOLE WITH A GASKETED, FLEXIBLE, WATERTIGHT CONNECTION TO ALLOW DIFFERENTIAL SETTLEMENT OF THE PIPE AND MANHOLE TO TAKE PLACE.
9. A 1'-0" TO 1'-6" MANHOLE SECTION SHALL BE INSTALLED UNDER THE CONE SECTION TO ALLOW FOR HEIGHT ADJUSTMENT WHENEVER POSSIBLE.
10. ALL SERVICE LINE STUBS MUST HAVE A 2"x2" HARDWOOD MARKER WITH METAL SPIKE RUNNING FROM THE END OF PIPE TO FINISHED GRADE ELEVATION.
11. UPON MAKING A CONNECTION TO AN EXISTING SANITARY SEWER STUB OR MANHOLE, DIRT AND DEBRIS SHALL BE PREVENTED FROM ENTERING THE EXISTING SEWER BY IMMEDIATELY INSTALLING WATERTIGHT PLUGS AS NEEDED IN THE EXISTING MANHOLE.
12. ALL NEW SANITARY SEWER PIPE SHALL BE FLUSHED AND TELEVISED PRIOR TO SUBSTANTIAL COMPLETION – SEE SPECIFICATION SECTION 1700 – CLOSEOUT REQUIREMENTS.
13. ANY UTILITY MORTAR SHALL MEET ASTM C270 AND C1714. SPEC MIX UNDERGROUND UTILITY MORTAR OR APPROVED EQUAL

## STANDARD PLAN NOTES

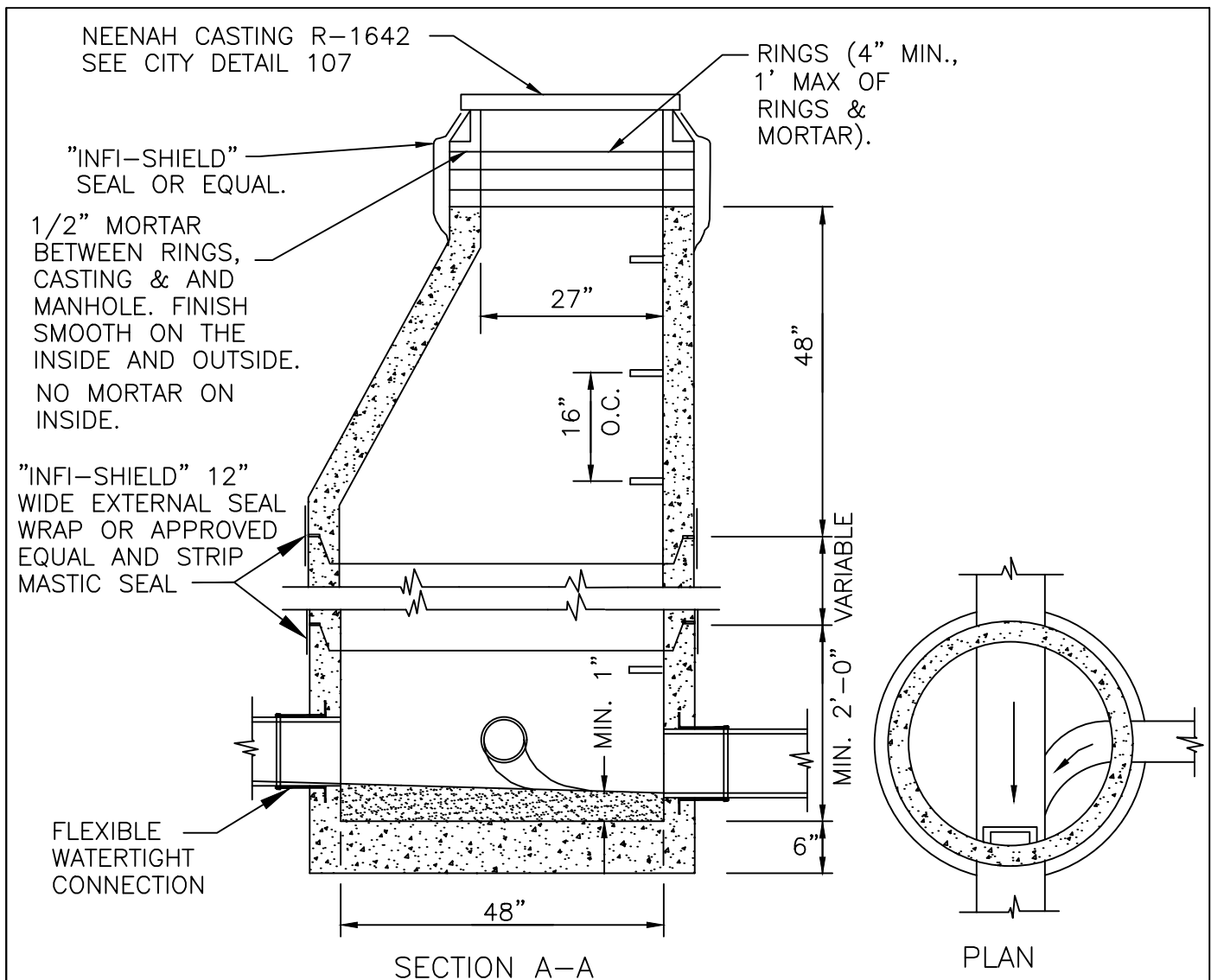
### SANITARY SEWER PLANS

FEBRUARY 2022



CITY OF VICTORIA

STANDARD DRAWING  
NO.  
**300A**  
Victoria



NO WOOD SHALL BE USED FOR ADJUSTING CASTING; CEMENT MORTAR ONLY.

CAST IRON MANHOLE FRAME & COVER AS PER SPECIFICATIONS.

MANHOLE STEPS SHALL BE CAST IRON, ALUMINUM OR STEEL REINFORCED PLASTIC, PER ASTM C478. STEP LOCATION SHALL BE AS NOTED IN THE SPECIFICATIONS.

PRECAST REINFORCED CONCRETE MANHOLE SECTIONS PER ASTM C478, FURNISHED WITH O-RING GASKETS AND LUBRICANT EXCEPT AS OTHERWISE SPECIFIED.

A 12" OR 18" BARREL SECTION SHALL BE INSTALLED UNDER THE CONE WHENEVER POSSIBLE.

PIPE CONNECTIONS TO MANHOLE SHALL BE MADE WITH A FLEXIBLE WATER TIGHT CONNECTION AND CEMENT MORTAR. INSIDE SURFACE SHALL BE FINISHED SMOOTH.

COPPERHEAD LD14GTP-ADJ SNAKE PIT SHALL BE USED FOR OFF ROAD STRUCTURES.

ANY UTILITY MORTAR SHALL MEET ASTM C270 AND C1714. SPEC MIX UNDERGROUND UTILITY MORTAR OR APPROVED EQUAL

## SANITARY SEWER MANHOLE, TYPE 301 (PIPES 27" OR LESS)

FEBRUARY 2022

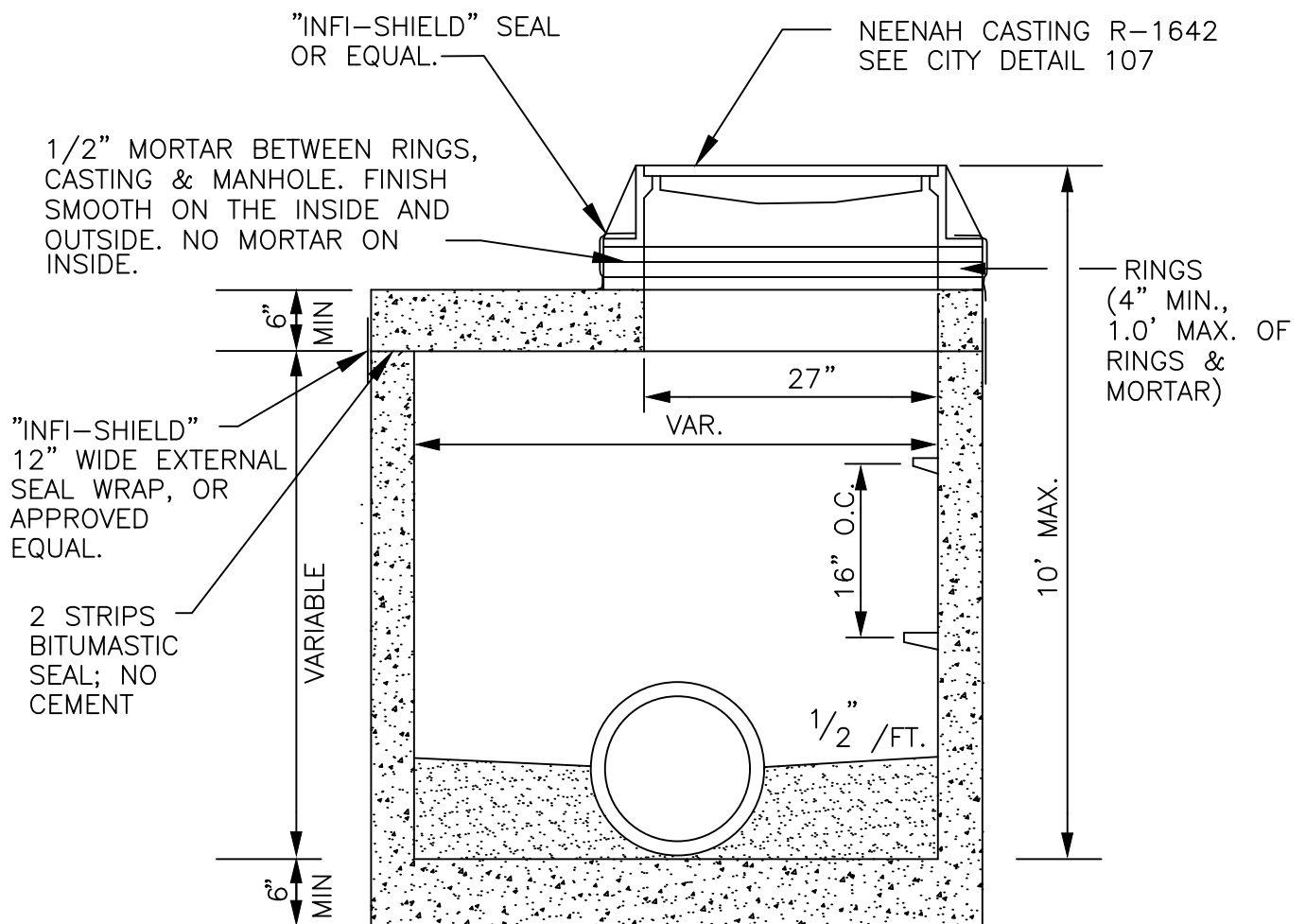


CITY OF VICTORIA

STANDARD DRAWING  
NO.

301

Victoria



NO WOOD SHALL BE USED FOR ADJUSTING CASTING; CEMENT MORTAR ONLY.

CAST IRON MANHOLE FRAME & COVER AS PER SPECIFICATIONS.

MANHOLE STEPS SHALL BE CAST IRON, ALUMINUM OR STEEL REINFORCED PLASTIC, PER ASTM C478. STEP LOCATION SHALL BE AS NOTED IN THE SPECIFICATIONS.

PRECAST REINFORCED CONCRETE MANHOLE SECTIONS & PRECAST BASE PER ASTM C478, FURNISHED WITH O-RING GASKETS AND LUBRICANT EXCEPT AS OTHERWISE SPECIFIED.

PRECAST REINFORCED CONCRETE COVER SLAB (TYPE 2), PER ASTM C478.

PIPE CONNECTIONS TO MANHOLE SHALL BE MADE WITH A FLEXIBLE WATER TIGHT CONNECTION AND CEMENT MORTAR. INSIDE SURFACE SHALL BE FINISHED SMOOTH.

ANY UTILITY MORTAR SHALL MEET ASTM C270 AND C1714. SPEC MIX UNDERGROUND UTILITY MORTAR OR APPROVED EQUAL

## SANITARY SEWER MANHOLE, TYPE 302 (PIPES 30" & LARGER)

FEBRUARY 2022



CITY OF VICTORIA

STANDARD DRAWING  
NO.  
**302**  
Victoria

NEENAH CASTING R-1642  
SEE CITY DETAIL 107

"INFI-SHIELD" SEAL  
OR EQUAL.

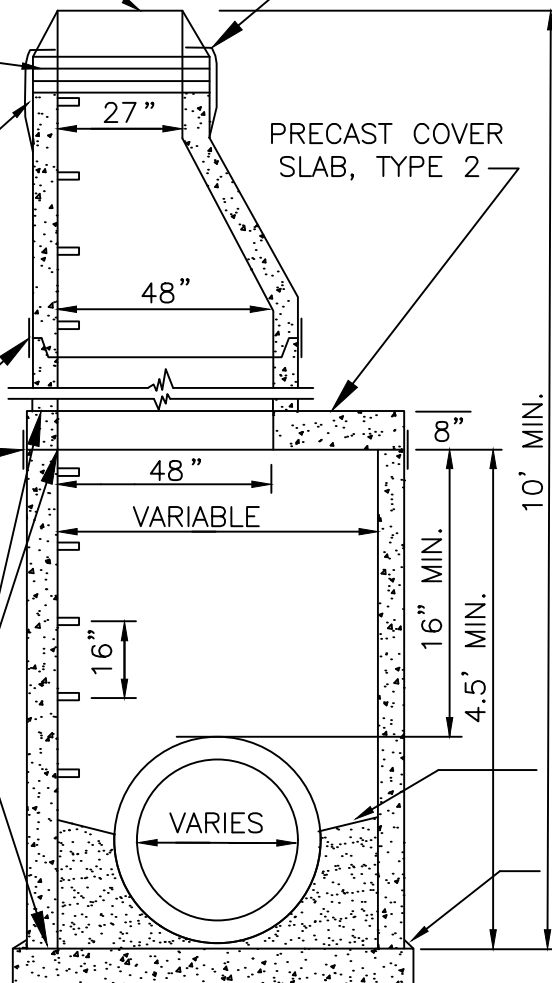
RINGS (4" MIN.,  
1.0' MAX. OF  
RINGS & MORTAR).

1/2" MORTAR BETWEEN  
RINGS, CASTING &  
MANHOLE. FINISH SMOOTH  
ON INSIDE AND OUTSIDE.  
NO MORTAR ON INSIDE.

"INFI-SHIELD" 12"  
WIDE EXTERNAL SEAL  
WRAP OR APPROVED  
EQUAL AND STRIP  
MASTIC SEAL

2 STRIPS BITUMASTIC  
SEAL; NO CEMENT

PRECAST BASE	
MH DIA.	SLAB THICKNESS
48"	6"
54"-102"	8"
108"	10"
120"	12"



SLOPE BENCHES  
1/2" PER FOOT  
CEMENT MORTAR

NO WOOD SHALL BE USED FOR ADJUSTING CASTING; CEMENT MORTAR ONLY.

CAST IRON MANHOLE FRAME & COVER AS PER SPECIFICATIONS.

MANHOLE STEPS SHALL BE CAST IRON, ALUMINUM OR STEEL REINFORCED PLASTIC PER ASTM C478. STEP LOCATION SHALL BE AS NOTED IN THE SPECIFICATIONS.

PRECAST REINFORCED CONCRETE MANHOLE SECTIONS PER ASTM C478, FURNISHED WITH O-RING GASKETS AND LUBRICANT EXCEPT AS OTHERWISE SPECIFIED. A 12" OR 18" BARREL SECTION SHALL BE INSTALLED UNDER THE CONE WHENEVER POSSIBLE.

PIPE CONNECTIONS TO MANHOLE SHALL BE MADE WITH A FLEXIBLE WATER TIGHT CONNECTION AND CEMENT MORTAR. INSIDE SURFACE SHALL BE FINISHED SMOOTH.

ANY UTILITY MORTAR SHALL MEET ASTM C270 AND C1714. SPEC MIX UNDERGROUND UTILITY MORTAR OR APPROVED EQUAL

## SANITARY SEWER MANHOLE, TYPE 303 (PIPES 30" & LARGER)

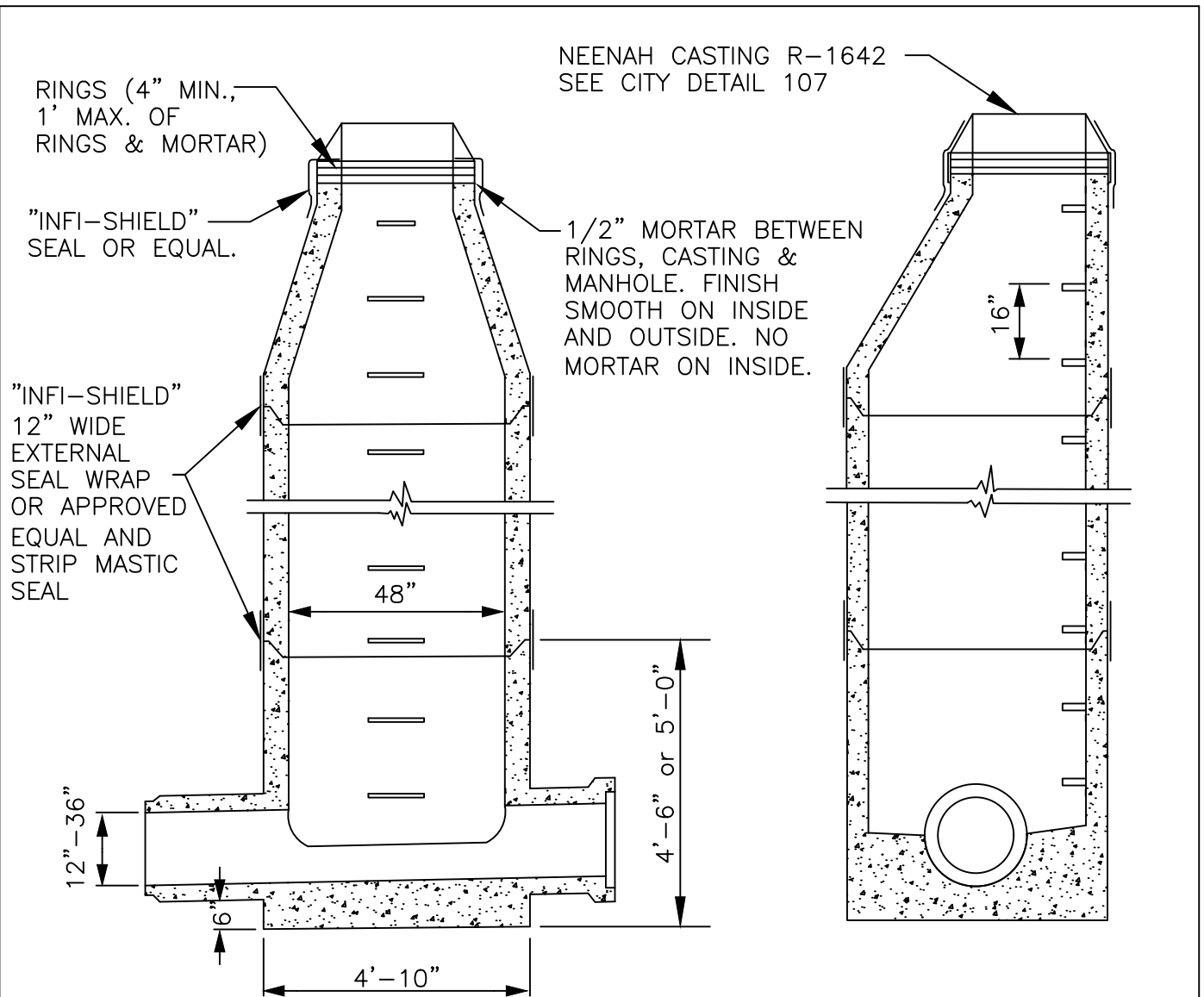
FEBRUARY 2022



CITY OF VICTORIA

STANDARD DRAWING  
NO.  
**303**  
Victoria





NO WOOD SHALL BE USED FOR ADJUSTING CASTING; CEMENT MORTAR ONLY.  
CAST IRON MANHOLE FRAME & COVER AS PER SPECIFICATIONS.

MANHOLE STEPS SHALL BE CAST IRON, ALUMINUM OR STEEL REINFORCED PLASTIC PER ASTM C478. STEP LOCATION SHALL BE AS NOTED IN THE SPECIFICATIONS.

PRECAST REINFORCED CONCRETE MANHOLE SECTIONS PER ASTM C478, FURNISHED WITH O-RING GASKETS AND LUBRICANT EXCEPT AS OTHERWISE SPECIFIED.  
A 12" OR 18" BARREL SECTION SHALL BE INSTALLED UNDER THE CONE WHENEVER POSSIBLE.

PIPE CONNECTIONS TO MANHOLE SHALL BE MADE WITH A FLEXIBLE WATER TIGHT CONNECTION AND CEMENT MORTAR. INSIDE SURFACE SHALL BE FINISHED SMOOTH.

ANY UTILITY MORTAR SHALL MEET ASTM C270 AND C1714. SPEC MIX UNDERGROUND UTILITY MORTAR OR APPROVED EQUAL

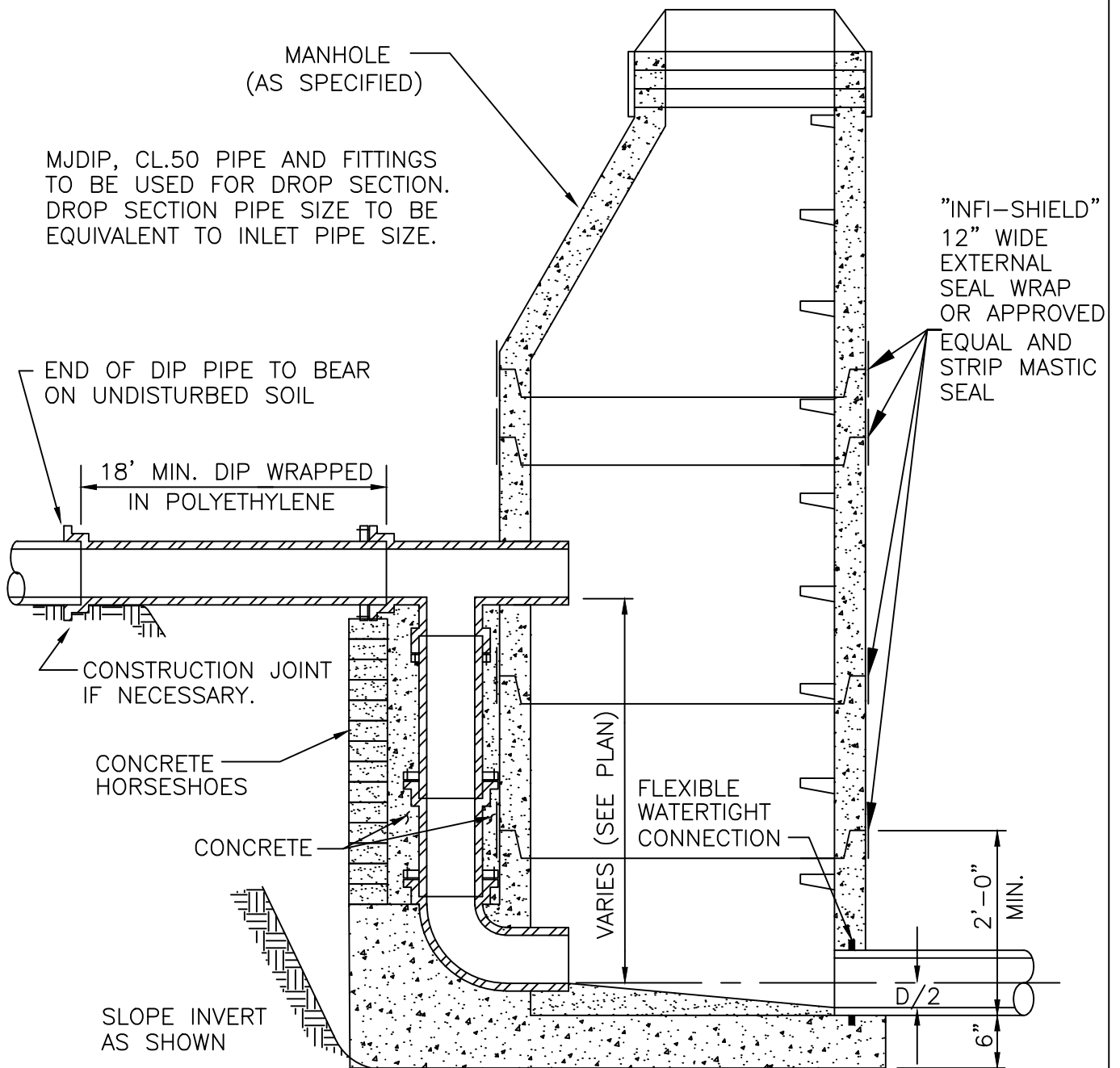
## SANITARY SEWER MANHOLE, TYPE 305

FEBRUARY 2022



CITY OF VICTORIA

STANDARD DRAWING  
NO.  
**305**  
Victoria



## SANITARY SEWER OUTSIDE DROP

FEBRUARY 2022

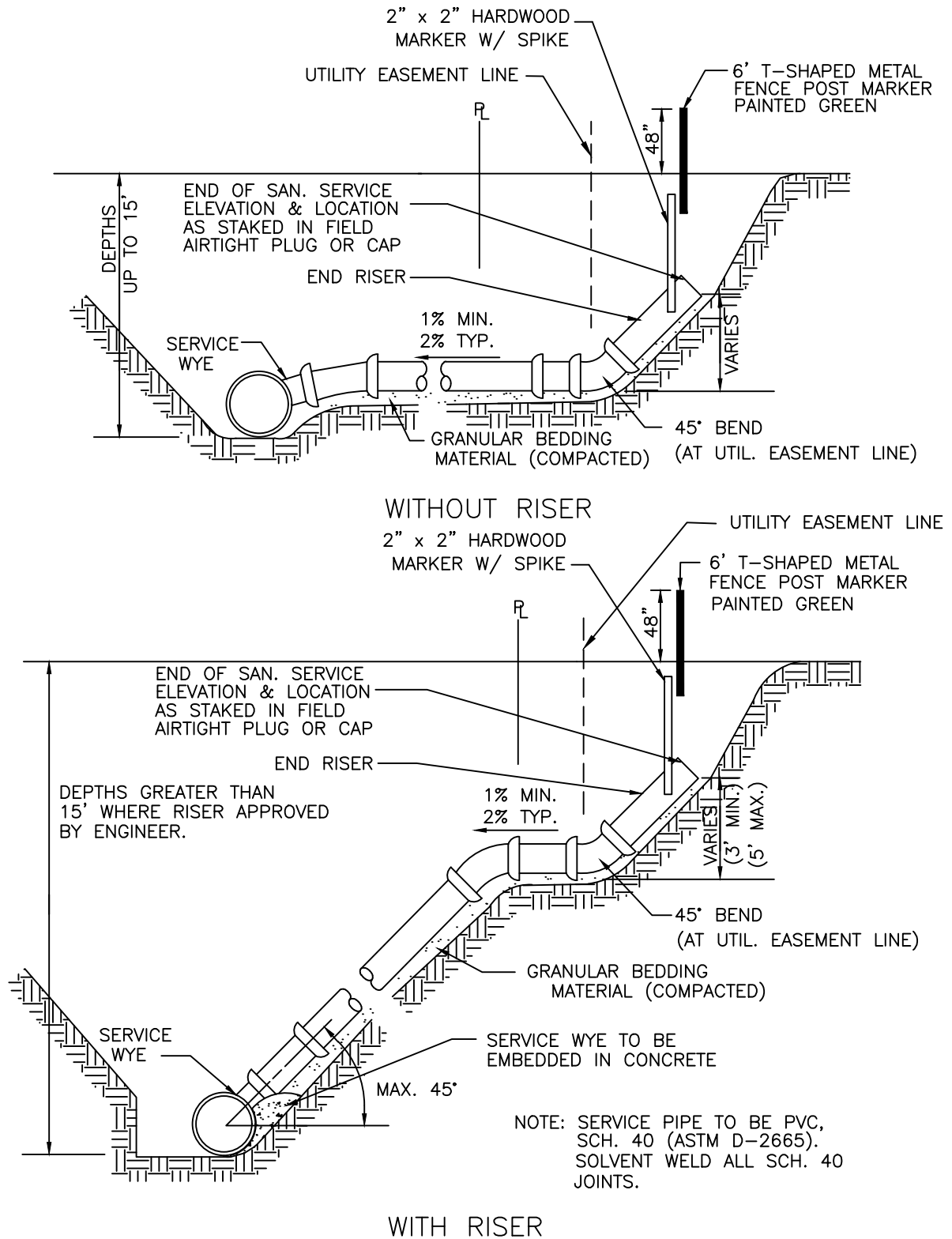


CITY OF VICTORIA

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NO.

306

Victoria



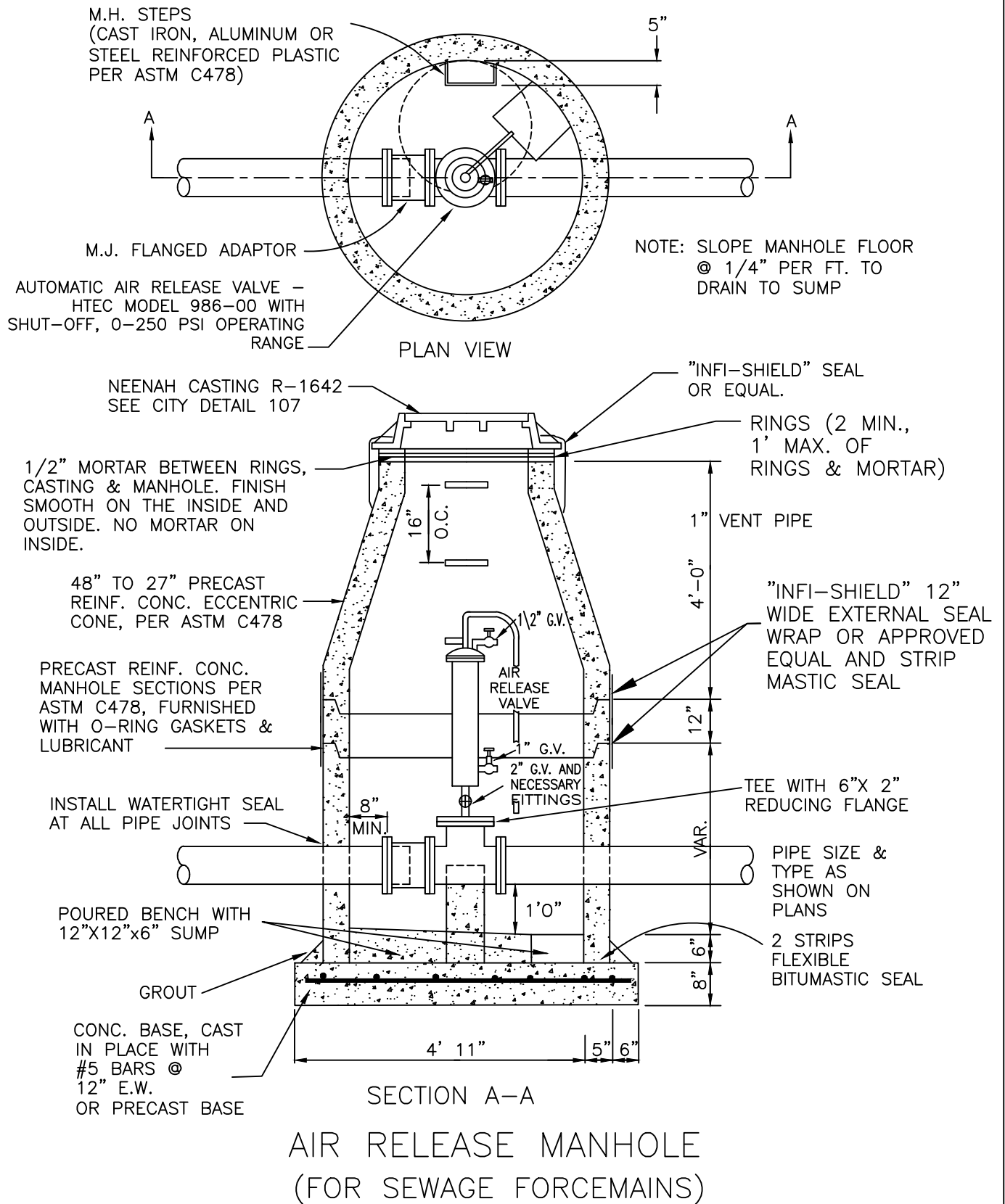
## SANITARY SEWER SERVICE

FEBRUARY 2022



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**313**  
Victoria

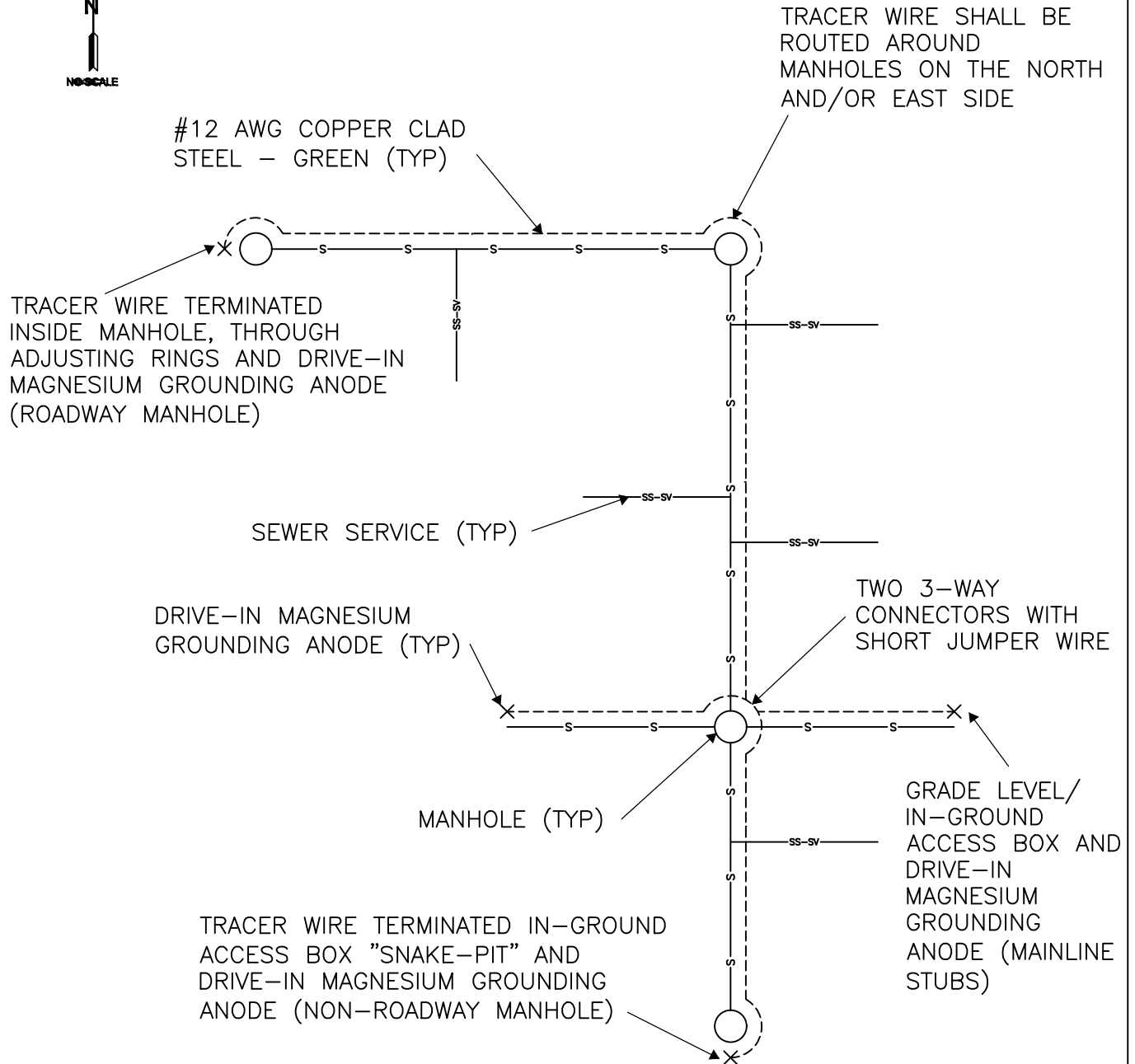
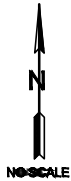


FEBRUARY 2022



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NO.  
**314**  
Victoria



**NOTES:**

1. WIRE SHOWN AWAY FROM PIPE FOR CLARITY. WIRE SHALL BE INSTALLED ON THE BOTTOM SIDE OF THE PIPE BELOW THE SPRING LINE. THE WIRE SHALL BE FASTENED TO THE PIPE WITH TAPE OR PLASTIC TIES AT 5' INTERVALS.

## TRACER WIRE PLAN (SEWER)

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**315**  
Victoria

1. ALL STORM SEWER AND ACCESSORIES MUST BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF VICTORIA STANDARD SPECIFICATIONS AND DETAILS.
2. REINFORCED CONCRETE PIPE AND FITTINGS SHALL CONFORM WITH THE REQUIREMENTS OF MnDOT SPEC 3236 (REINFORCED CONCRETE PIPE) FOR THE TYPE, SIZE, AND STRENGTH CLASS SPECIFIED HEREIN.
3. PRECAST CONCRETE MANHOLE AND CATCH BASIN SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-477.
4. A 1'-0" TO 1'-6" MANHOLE SECTION SHALL BE INSTALLED UNDER THE CONE SECTION TO ALLOW FOR HEIGHT ADJUSTMENT WHENEVER POSSIBLE.
5. JOINTS OF MANHOLE RISER SECTIONS SHALL BE TONGUE AND GROOVE WITH RUBBER "O" RING JOINTS PROVIDED ON ALL STORM SEWER MANHOLES, AND SHALL BE WRAPPED WITH "INFI-SHIELD" 12" WIDE EXTERNAL SEAL WRAP OR APPROVED EQUAL.
6. RIP-RAP SHALL BE HAND-PLACED OVER GEOTEXTILE FABRIC AND CONFORM TO MnDOT SPEC. 3601, CLASS III, OR AS SPECIFIED HEREIN.
7. THE GEOTEXTILE FABRIC USED UNDER RIP-RAP SHALL EXTEND 3 FT UNDER THE APRON.
8. FURNISH & INSTALL TRASH GUARDS ON ALL FLARED END SECTIONS.
9. ALL SILT SHALL BE CLEANED OUT FROM THE STORM SEWER SYSTEM, INCLUDING THE RIP-RAP AT THE END OF THE PROJECT.
10. CB/MH WITH SUMP, TYPE 405, REQUIRED AS FIRST STRUCTURE UPSTREAM FROM ANY STORMWATER BMP.
11. ALL NEW STORM SEWER PIPE SHALL BE FLUSHED AND TELEVISED PRIOR TO SUBSTANTIAL COMPLETION – SEE SPECIFICATION SECTION 1700 – CLOSEOUT REQUIREMENTS.
13. ANY UTILITY MORTAR SHALL MEET ASTM C270 AND C1714. SPEC MIX UNDERGROUND UTILITY MORTAR OR APPROVED EQUAL

## STANDARD PLAN NOTES

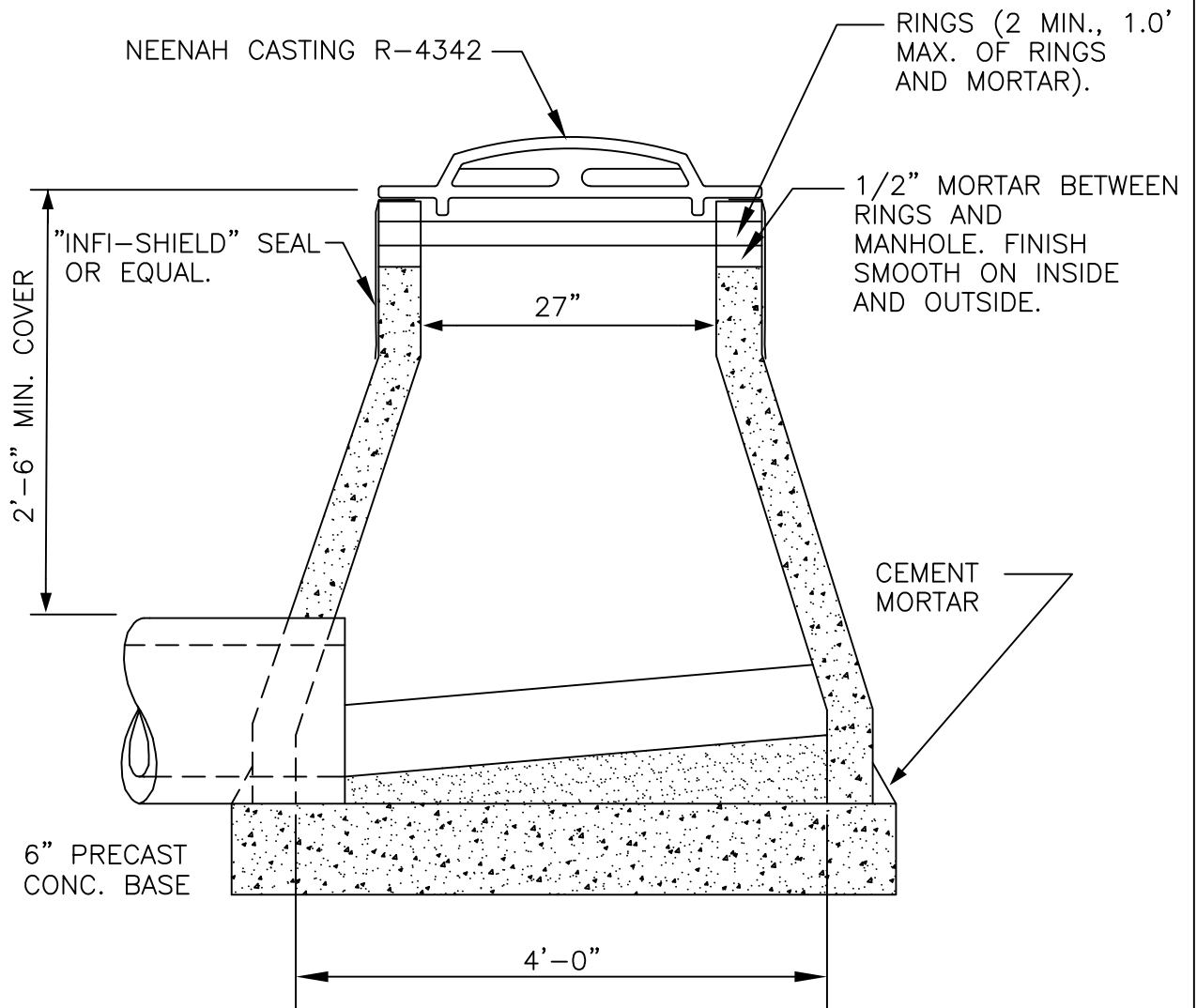
### STORM SEWER PLANS

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**CITY OF VICTORIA**

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NO.  
**400A**  
Victoria



NO WOOD SHALL BE USED FOR ADJUSTING CASTING; CEMENT MORTAR ONLY.

CAST IRON CATCH BASIN FRAME & COVER CASTINGS PER SPECIFICATIONS.

PRECAST REINFORCED CONCRETE CONE SECTION & PRECAST BASE PER ASTM C478.

FILL OPENING BETWEEN PIPE AND MANHOLE WALL WITH CEMENT MORTAR  
INSIDE SURFACE SHALL BE FINISHED SMOOTH.

ANY UTILITY MORTAR SHALL MEET ASTM C270 AND C1714. SPEC MIX UNDERGROUND  
UTILITY MORTAR OR APPROVED EQUAL

## CATCH BASIN, TYPE 402

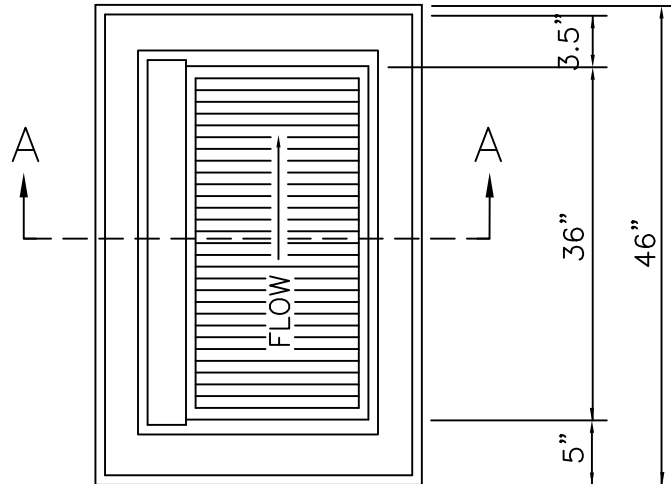
FEBRUARY 2022



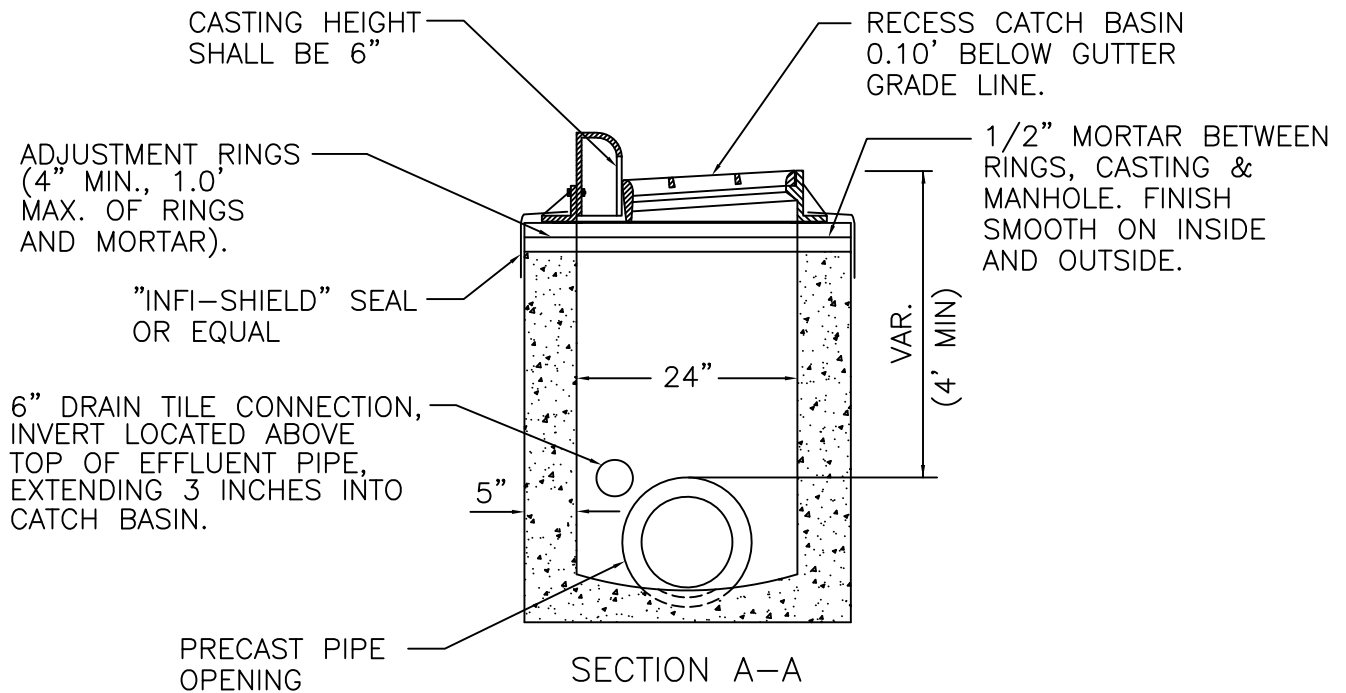
CITY OF VICTORIA

STANDARD DRAWING  
NO.  
**402**  
Victoria

CURB INLET FRAME AND  
CURB BOX NEENAH  
NO. R-3067 V



PLAN



SECTION A-A

PRECAST REINFORCED CONCRETE CATCH BASIN & BASE SLAB  
PER ASTM C478

ANY UTILITY MORTAR SHALL MEET ASTM C270 AND C1714. SPEC  
MIX UNDERGROUND UTILITY MORTAR OR APPROVED EQUAL

## CATCH BASIN, TYPE 404

FEBRUARY 2022



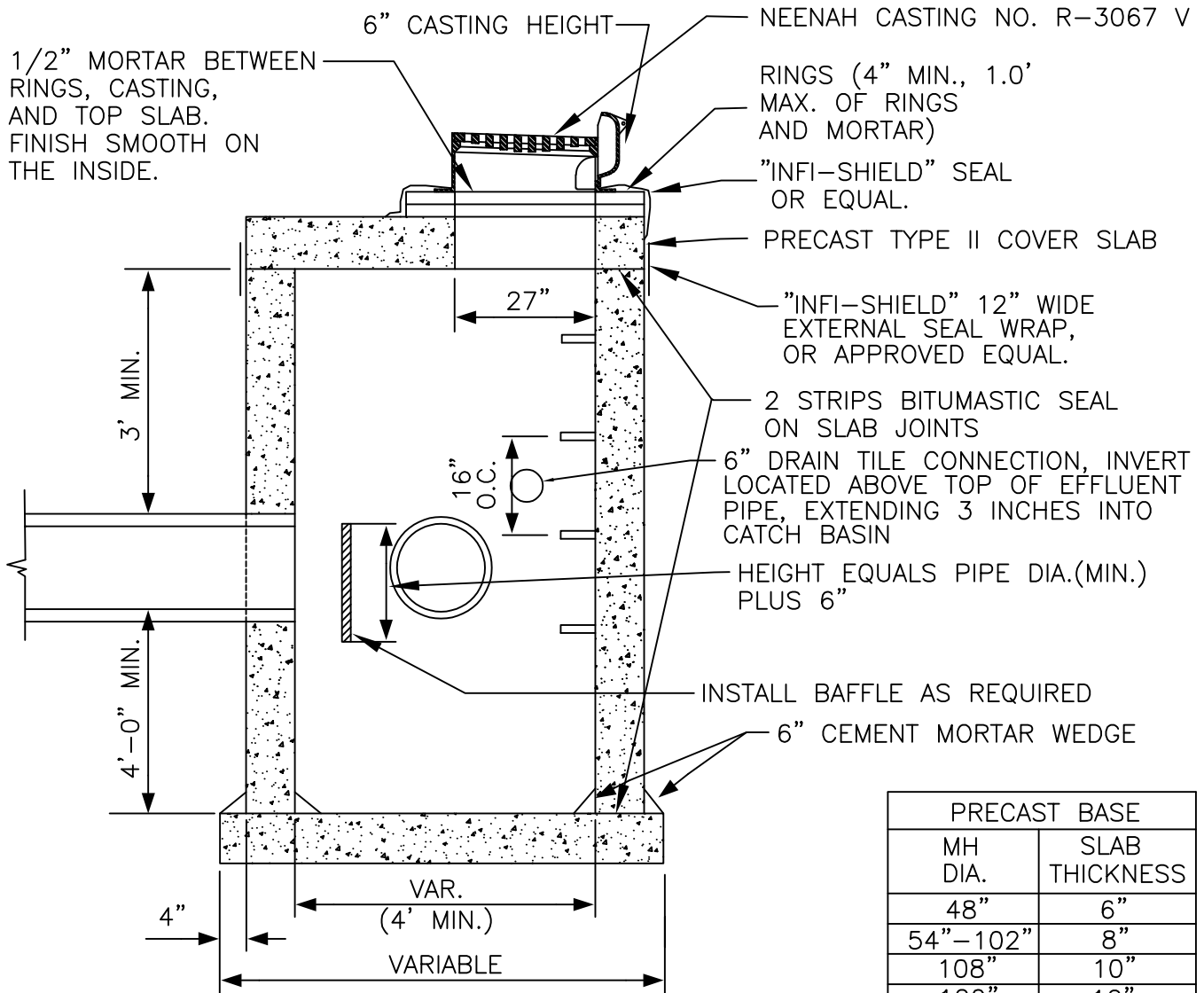
CITY OF VICTORIA

STANDARD DRAWING  
NO.

404

Victoria





NOTES: NO WOOD SHALL BE USED FOR ADJUSTING CASTING; CEMENT MORTAR ONLY.

CAST IRON FRAME & GRATE CASTINGS PER SPECIFICATIONS.

MANHOLE STEPS SHALL BE CAST IRON, ALUMINUM, OR STEEL REINFORCED PLASTIC PER ASTM C478. LOCATION SHALL BE AS NOTED IN THE SPECIFICATIONS.

PRECAST REINFORCED CONCRETE BASE SLAB & COVER SLAB PER ASTM C478.

PRECAST REINFORCED CONCRETE MANHOLE SECTIONS PER ASTM C478, FURNISHED WITH O-RING GASKETS & LUBRICANT, OR 8" CONCRETE MANHOLE BLOCK MANHOLE SECTION WITH 1/2" MORTARED EXTERIOR

FILL OPENING BETWEEN PIPE AND MANHOLE WALL WITH CEMENT MORTAR. INSIDE SURFACE SHALL BE FINISHED SMOOTH.

A 12" OR 18" BARREL SECTION SHALL BE INSTALLED UNDER TOP SLAB WHENEVER POSSIBLE

ANY UTILITY MORTAR SHALL MEET ASTM C270 AND C1714. SPEC MIX UNDERGROUND UTILITY MORTAR OR APPROVED EQUAL

## CATCH BASIN/MANHOLE WITH SUMP, TYPE 405

FEBRUARY 2022

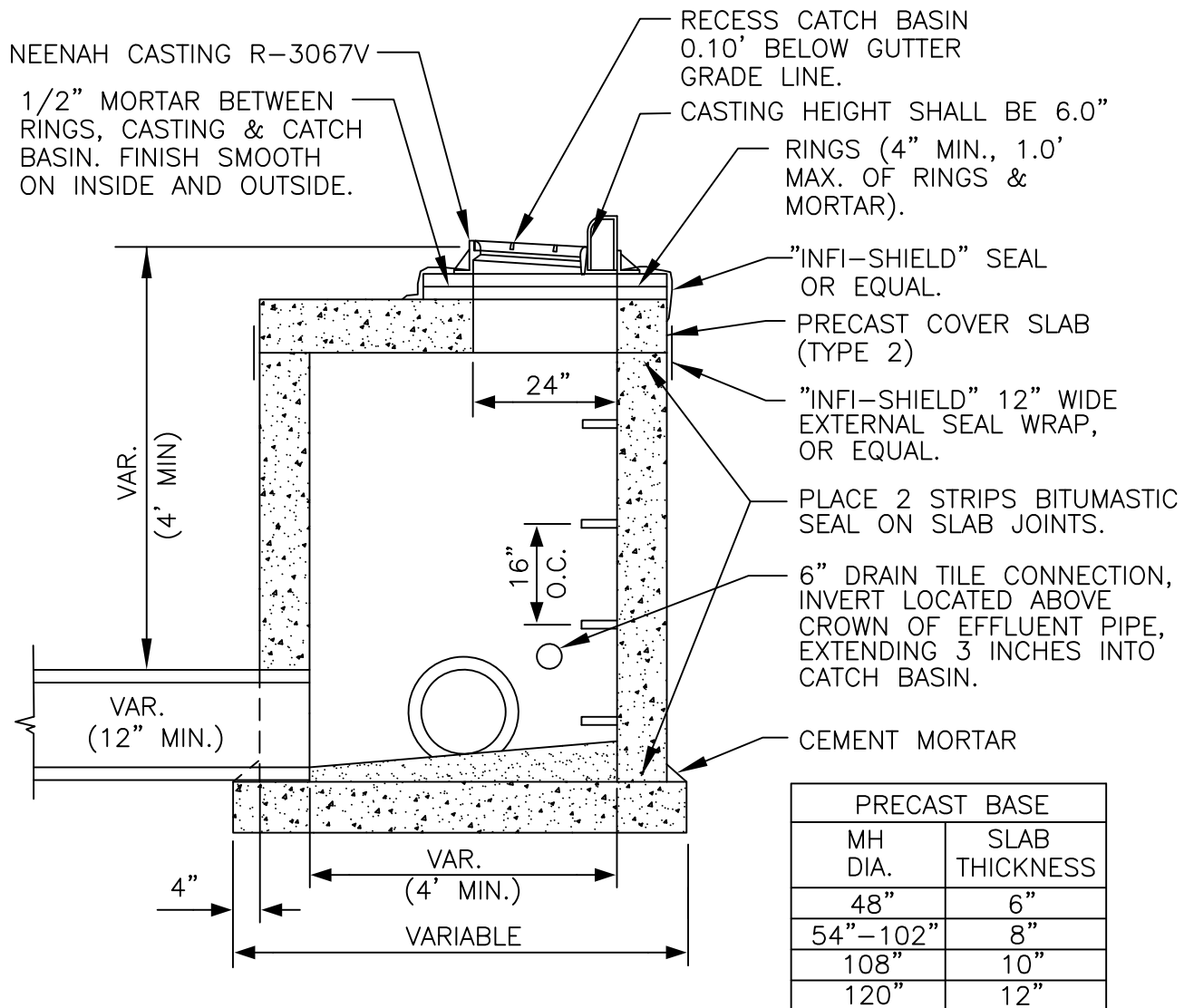


CITY OF VICTORIA

STANDARD DRAWING  
NO.

405

Victoria



NO WOOD SHALL BE USED FOR ADJUSTING CASTING; CEMENT MORTAR ONLY.  
CAST IRON FRAME & GRATE CASTINGS PER SPECIFICATIONS.

MANHOLE STEPS SHALL BE CAST IRON, ALUMINUM OR STEEL REINFORCED PLASTIC PER ASTM C478. LOCATION SHALL BE AS NOTED IN THE SPECIFICATIONS.

PRECAST REINFORCED CONCRETE BASE SLAB & COVER SLAB PER ASTM C478,

PRECAST REINFORCED CONCRETE MANHOLE SECTIONS PER ASTM C478,  
OR 8" CONCRETE MANHOLE BLOCK WITH 1/2" MORTARED EXTERIOR.

FURNISH PRECAST CONCRETE MANHOLE SECTIONS WITH O-RING GASKETS &  
LUBRICANT EXCEPT AS OTHERWISE SPECIFIED.

FILL OPENING BETWEEN PIPE AND MANHOLE WALL WITH CEMENT MORTAR.  
INSIDE SURFACE SHALL BE FINISHED SMOOTH.

A 12" OR 18" BARREL SECTION SHALL BE INSTALLED UNDER TOP SLAB  
WHENEVER POSSIBLE

ANY UTILITY MORTAR SHALL MEET ASTM C270 AND C1714. SPEC MIX UNDERGROUND  
UTILITY MORTAR OR APPROVED EQUAL

## CATCH BASIN/MANHOLE, TYPE 406

FEBRUARY 2022

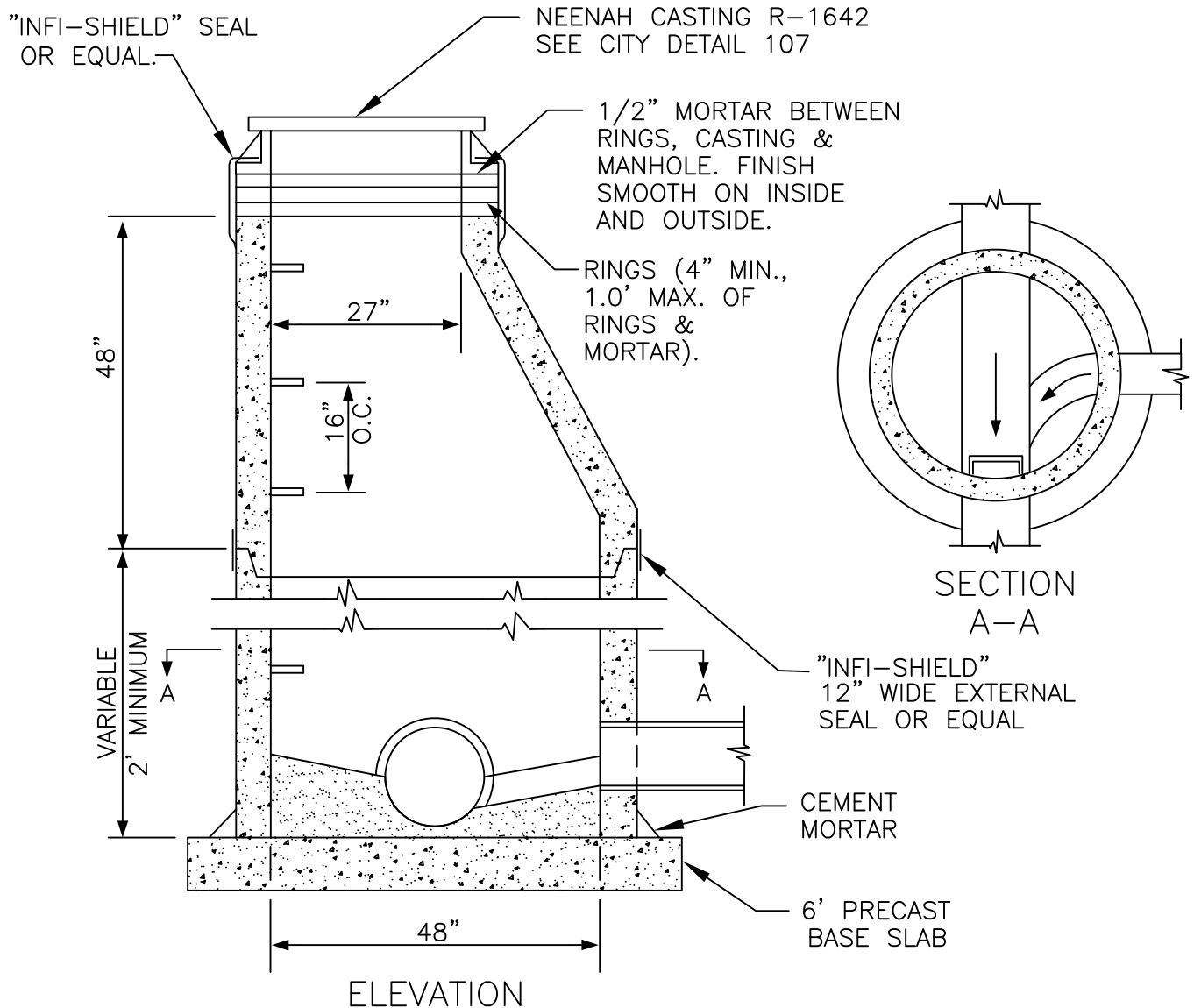


CITY OF VICTORIA

STANDARD DRAWING  
NO.

406

Victoria



NO WOOD SHALL BE USED FOR ADJUSTING CASTING; CEMENT MORTAR ONLY.

CAST IRON MANHOLE FRAME & COVER AS PER SPECIFICATIONS.

MANHOLE STEPS SHALL BE CAST IRON, ALUMINUM OR STEEL REINFORCED PLASTIC PER ASTM C478. LOCATION SHALL BE AS NOTED IN THE SPECIFICATIONS.

PRECAST REINFORCED CONCRETE MANHOLE SECTIONS & BASE SLAB PER ASTM C478.

FURNISH PRECAST MANHOLE SECTIONS WITH O-RING GASKETS & LUBRICANT EXCEPT AS OTHERWISE SPECIFIED.

A 12" OR 18" BARREL SECTION SHALL BE INSTALLED UNDER THE CONE WHENEVER POSSIBLE.

FILL OPENING BETWEEN PIPE & MH WALL WITH CEMENT MORTAR.  
INSIDE SURFACE SHALL BE FINISHED SMOOTH.

ANY UTILITY MORTAR SHALL MEET ASTM C270 AND C1714. SPEC MIX UNDERGROUND UTILITY MORTAR OR APPROVED EQUAL

## STORM SEWER MANHOLE, TYPE 407 (PIPES 27" OR LESS)

FEBRUARY 2022

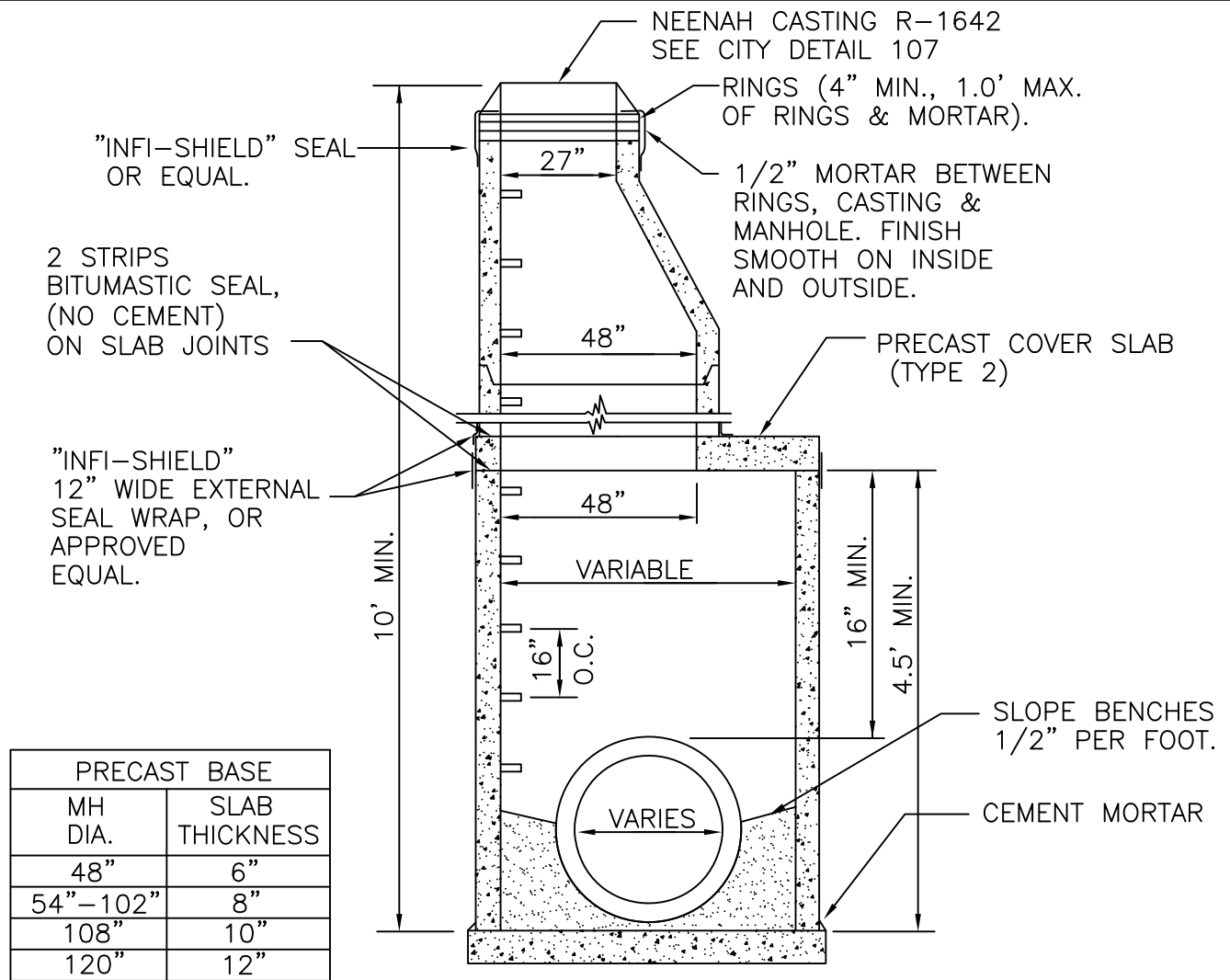


CITY OF VICTORIA

STANDARD DRAWING  
NO.

407

Victoria



NO WOOD SHALL BE USED FOR ADJUSTING CASTING; CEMENT MORTAR ONLY.

CAST IRON MANHOLE FRAME & COVER AS PER SPECIFICATIONS.

MANHOLE STEPS SHALL BE CAST IRON, ALUMINUM OR STEEL REINFORCED PLASTIC PER ASTM C478. LOCATION SHALL BE AS NOTED IN THE SPECIFICATIONS.

PRECAST REINFORCED CONCRETE MANHOLE SECTIONS & BASE SLAB PER ASTM C478.

FURNISH PRECAST MANHOLE SECTIONS WITH O-RING GASKETS & LUBRICANT EXCEPT AS OTHERWISE SPECIFIED.

A 12" OR 18" BARREL SECTION SHALL BE INSTALLED UNDER THE CONE WHENEVER POSSIBLE.

FILL OPENING BETWEEN PIPE & MH WALL WITH CEMENT MORTAR.  
INSIDE SURFACE SHALL BE FINISHED SMOOTH.

ANY UTILITY MORTAR SHALL MEET ASTM C270 AND C1714. SPEC MIX UNDERGROUND UTILITY MORTAR OR APPROVED EQUAL

## STORM SEWER MANHOLE, TYPE 408 (PIPES 30" & LARGER)

FEBRUARY 2022

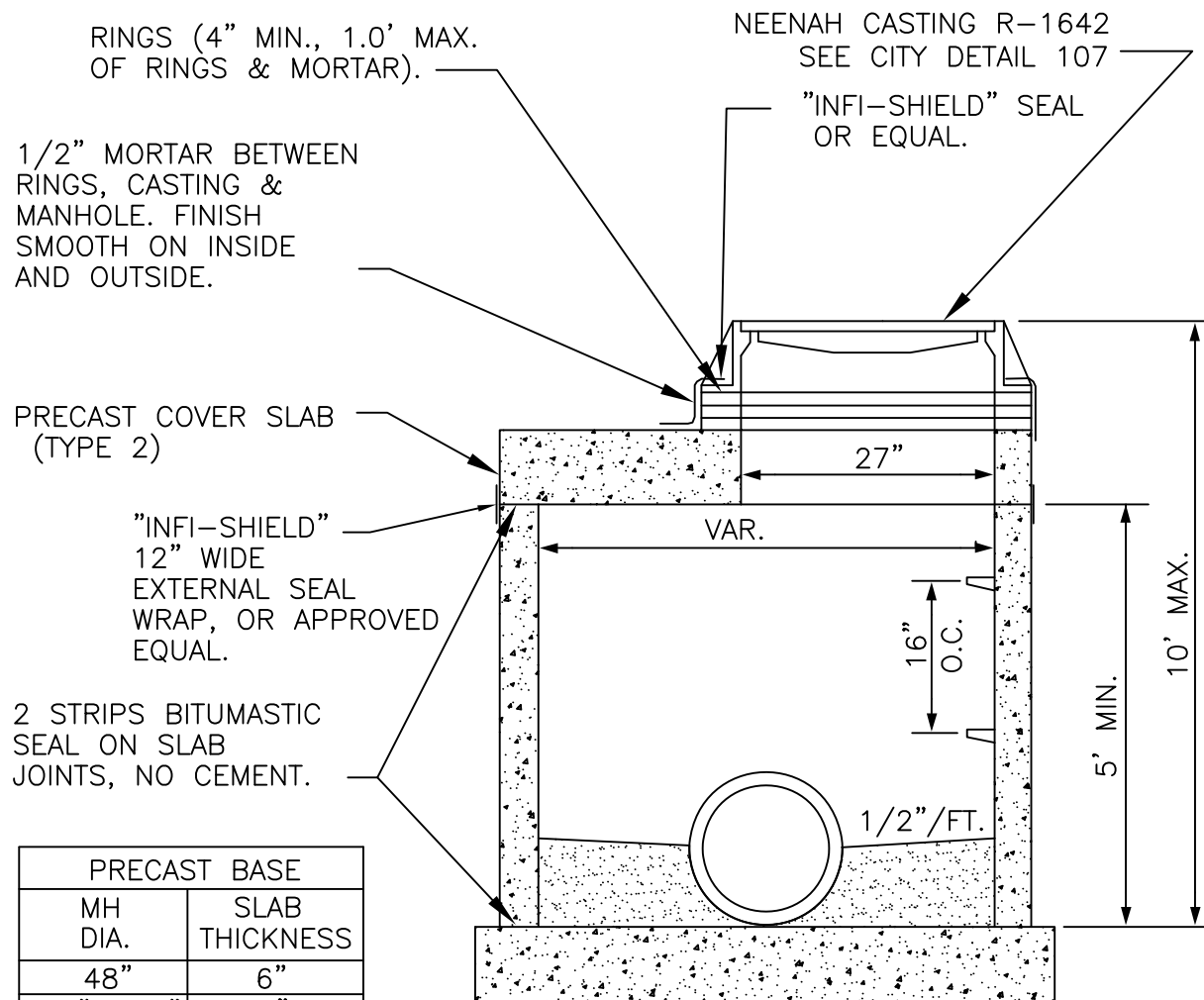


CITY OF VICTORIA

STANDARD DRAWING  
NO.

408

Victoria



NO WOOD SHALL BE USED FOR ADJUSTING CASTING; CEMENT MORTAR ONLY.

CAST IRON MANHOLE FRAME & COVER AS PER SPECIFICATIONS.

MANHOLE STEPS SHALL BE CAST IRON, ALUMINUM OR STEEL REINFORCED PLASTIC PER ASTM C478. LOCATION SHALL BE AS NOTED IN THE SPECIFICATIONS.

PRECAST REINFORCED CONCRETE MANHOLE SECTIONS & BASE SLAB PER ASTM C478.

FURNISH PRECAST MANHOLE SECTIONS WITH O-RING GASKETS & LUBRICANT EXCEPT AS OTHERWISE SPECIFIED.

FILL OPENING BETWEEN PIPE & MH WALL WITH CEMENT MORTAR. INSIDE SURFACE SHALL BE FINISHED SMOOTH.

A 12" OR 18" BARREL SECTION SHALL BE INSTALLED UNDER TOP SLAB WHENEVER POSSIBLE ANY UTILITY MORTAR SHALL MEET ASTM C270 AND C1714. SPEC MIX UNDERGROUND UTILITY MORTAR OR APPROVED EQUAL

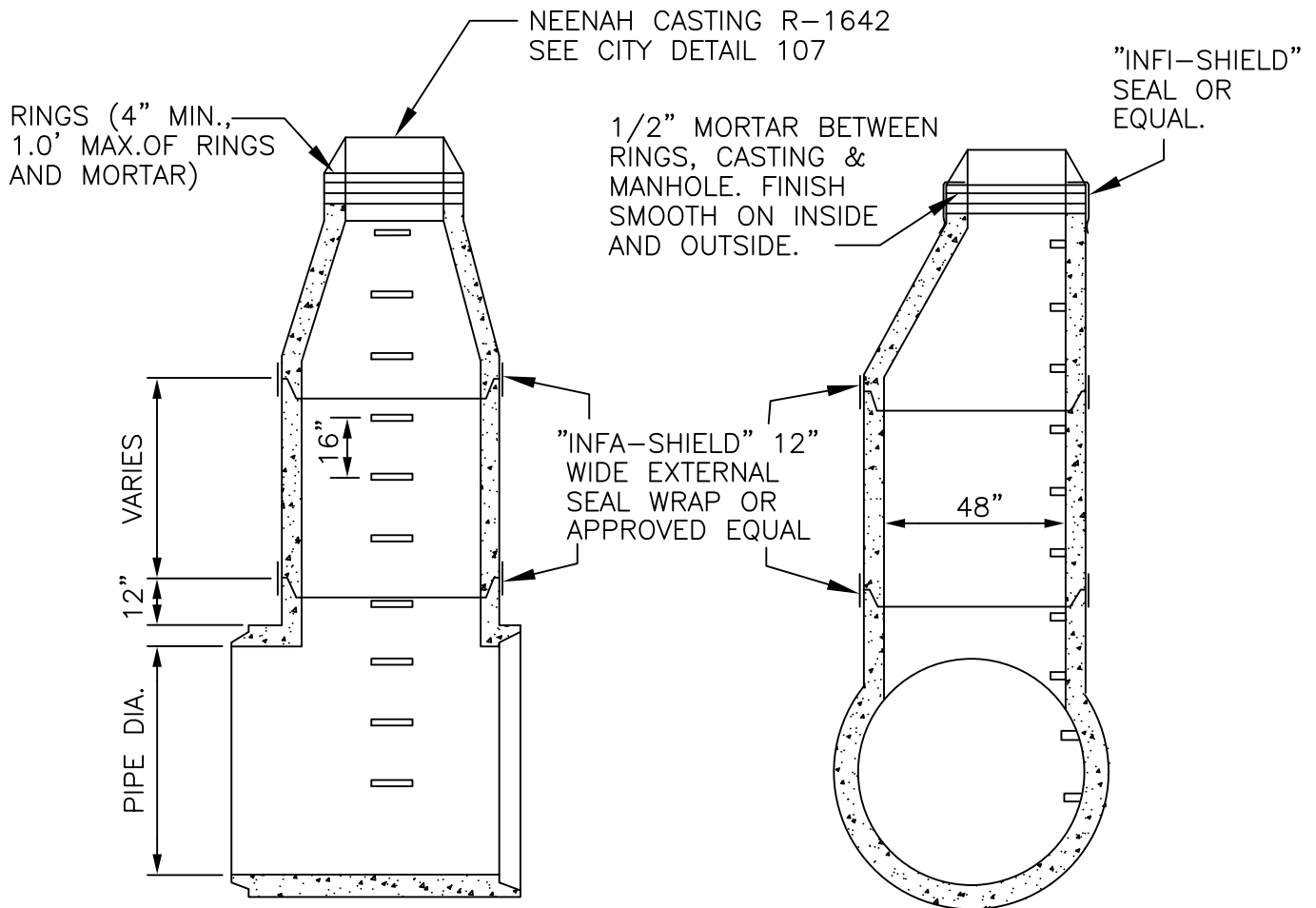
## STORM SEWER MANHOLE, TYPE 409

FEBRUARY 2022



CITY OF VICTORIA

STANDARD DRAWING  
NO.  
**409**  
Victoria



NO WOOD SHALL BE USED FOR ADJUSTING CASTING; CEMENT MORTAR ONLY.

CAST IRON MANHOLE FRAME & COVER AS PER SPECIFICATIONS.

MANHOLE STEPS SHALL BE CAST IRON, ALUMINUM OR STEEL REINFORCED PLASTIC PER ASTM C478. LOCATION SHALL BE AS NOTED IN THE SPECIFICATIONS.

PRECAST REINFORCED CONCRETE MANHOLE SECTIONS & BASE SLAB PER ASTM C478.

FURNISH PRECAST MANHOLE SECTIONS WITH O-RING GASKETS & LUBRICANT EXCEPT AS OTHERWISE SPECIFIED.

A 12" OR 18" BARREL SECTION SHALL BE INSTALLED UNDER THE CONE WHENEVER POSSIBLE.

FILL OPENING BETWEEN PIPE & MH WALL WITH CEMENT MORTAR. INSIDE SURFACE SHALL BE FINISHED SMOOTH.

ANY UTILITY MORTAR SHALL MEET ASTM C270 AND C1714. SPEC MIX UNDERGROUND UTILITY MORTAR OR APPROVED EQUAL

## "T" SECTION STORM SEWER MANHOLE, TYPE 410

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CITY OF VICTORIA

STANDARD DRAWING  
NO.

410

Victoria

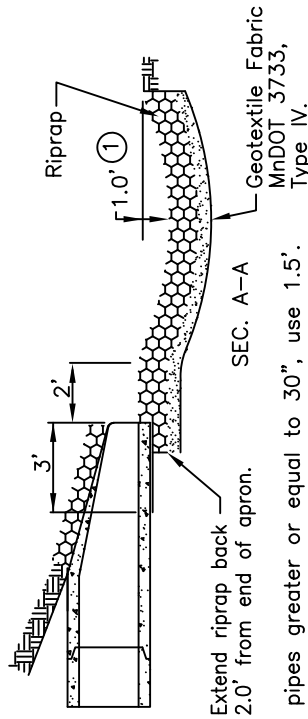
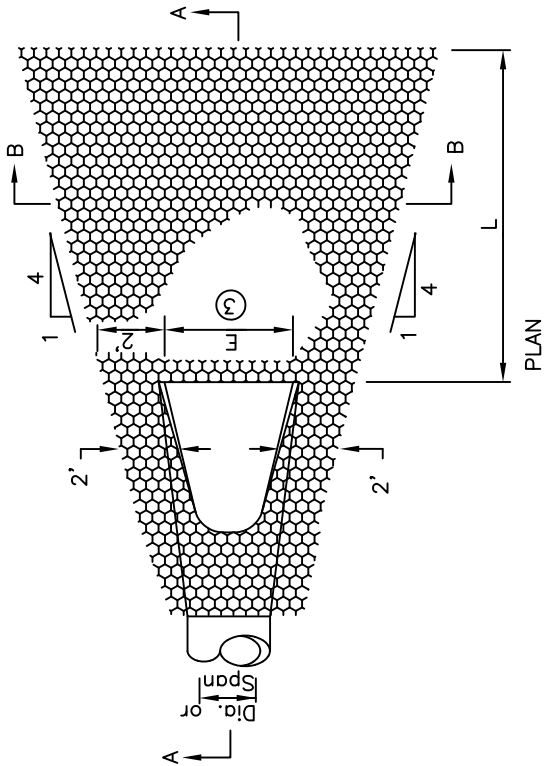
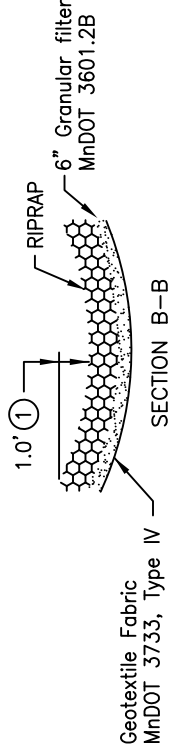
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# CITY OF VICTORIA

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NO.  
**411**  
Victoria

## RIPRAP AT RCP OUTLETS



- ① For pipes greater or equal to 30", use 1.5'.
- ② The contractor shall place rip rap, pulverized topsoil, seed and wood fiber blanket immediately after pipe is installed, extend area to match undisturbed soil.
- ③ Dimension "E" equals inside width of apron.
- ④ Rip Rap shall be class 3 size unless otherwise noted on plans.

TABLE OF QUANTITIES  
RIPRAP AT RCP OUTLETS

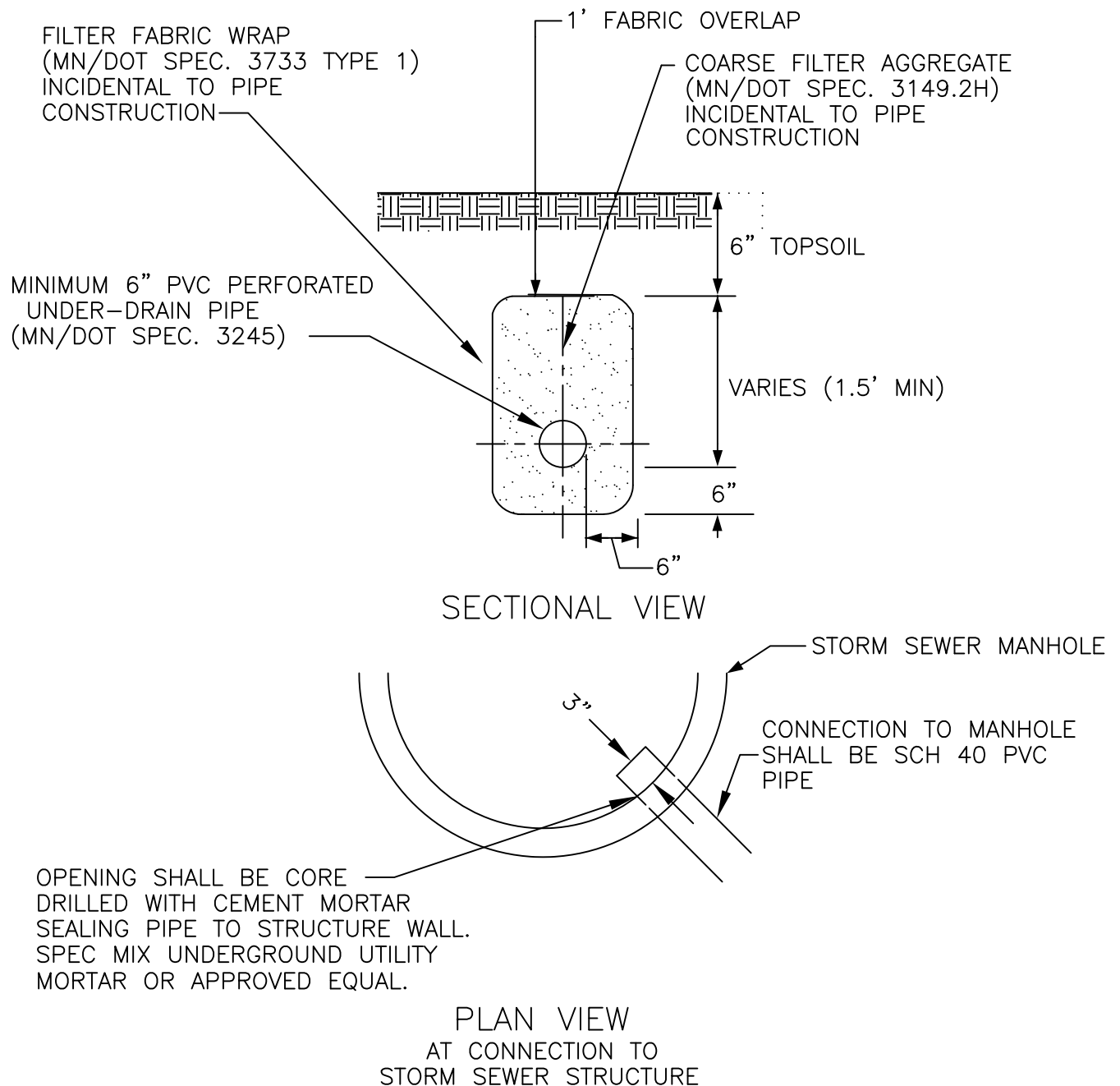
Dia. Round Pipe (in.)	L (Ft.)	CLASS II d 50=6"			CLASS III d 50=9"			CLASS IV d 50=12"		
		12" Depth Riprap (Cu. Yd.)	6" Depth Granular Filter (Cu. Yd.)	(Cu. Yd.)	18" Depth Riprap (Cu. Yd.)	9" Depth Granular Filter (Cu. Yd.)	(Cu. Yd.)	24" Depth Riprap (Cu. Yd.)	12" Depth Granular Filter (Cu. Yd.)	(Cu. Yd.)
12	8	2.8	1.4	4.1	2.1	2.1	5.5	2.8	2.8	2.9
15	8	2.9	1.5	4.4	2.2	2.2	5.8	2.9	2.9	3.9
18	10	3.9	2.0	5.9	3.0	3.0	7.8	3.9	3.9	4.2
21	10	4.2	2.1	6.3	3.2	3.2	8.4	4.2	4.2	5.5
24	12	5.5	2.8	8.3	4.2	4.2	11.0	5.5	5.5	5.8
27	12	5.8	2.9	8.7	4.4	4.4	11.6	5.8	5.8	7.3
30	14	7.3	3.7	10.9	5.5	5.5	14.5	7.3	7.3	9.2
36	16	9.2	4.6	13.8	6.9	6.9	18.3	9.2	9.2	10.9
42	18	10.9	5.5	16.3	8.2	8.2	21.7	10.9	10.9	12.9
48	20	12.9	6.5	19.4	9.7	9.7	25.8	12.9	12.9	12.9

TABLE OF QUANTITIES  
RIPRAP AT RCP-A OUTLETS or BOXES OF EQUIVALENT SPAN WIDTH

Span Pipe Arch (in.)	L (Ft.)	Class II d 50=6"			Class III d 50=9"			Class IV d 50=12"		
		9" Depth Riprap (Cu. Yd.)	4.5" Depth GRANULAR Filter (Cu. Yd.)	(Cu. Yd.)	15" Depth Riprap (Cu. Yd.)	7.5" Depth GRANULAR Filter (Cu. Yd.)	(Cu. Yd.)	18" Depth Riprap (Cu. Yd.)	9" Depth GRANULAR Filter (Cu. Yd.)	(Cu. Yd.)
22	10	3.9	2.0	5.9	3.0	3.0	7.8	3.9	3.9	5.5
28	12	5.5	2.8	8.2	4.1	4.1	10.9	5.5	5.5	7.2
36	14	7.2	3.6	10.8	5.4	5.4	14.3	7.2	7.2	9.2
43	16	9.2	4.6	13.7	6.9	6.9	18.3	9.2	9.2	10.9
51	18	10.9	5.5	16.3	8.2	8.2	21.7	10.9	10.9	12.7
58	20	12.7	6.4	19.0	9.5	9.5	25.4	12.7	12.7	12.7

Note: Requirements for riprap size and thickness and filter blanket will be designated in the plans.

IN UNSTABLE SOILS, TYPE OF  
FILTER FABRIC WRAP SHALL BE  
DETERMINED BY ENGINEER.



## REAR YARD DRAIN TILE

USED BY DIRECTION OF CITY ENGINEER ONLY

FEBRUARY 2022



**CITY OF VICTORIA**

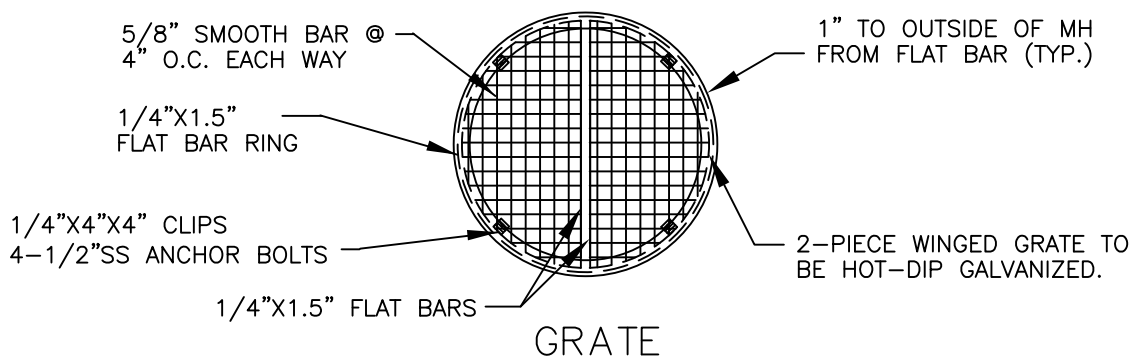
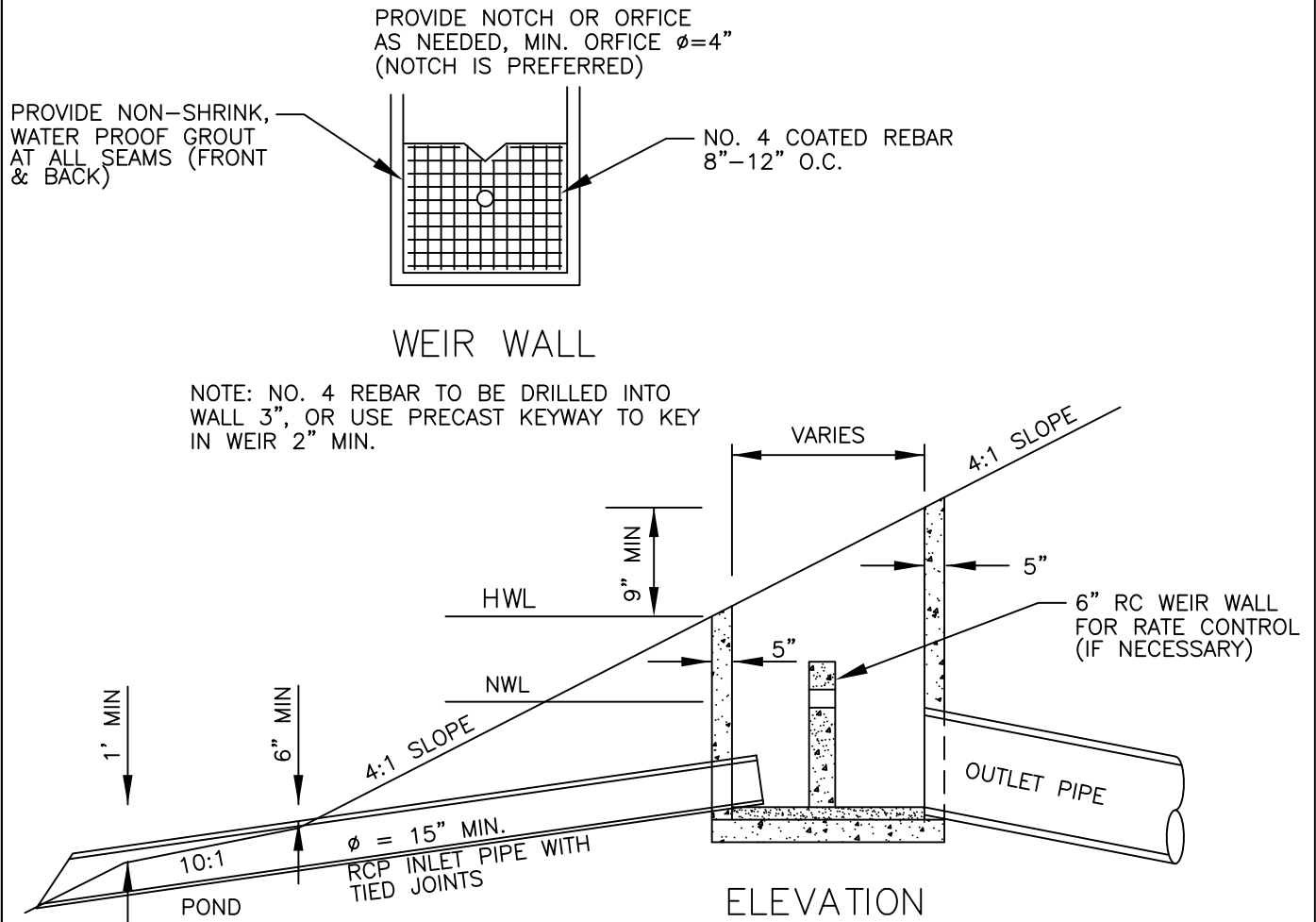
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FEBRUARY 2022

## OUTLET CONTROL STRUCTURE

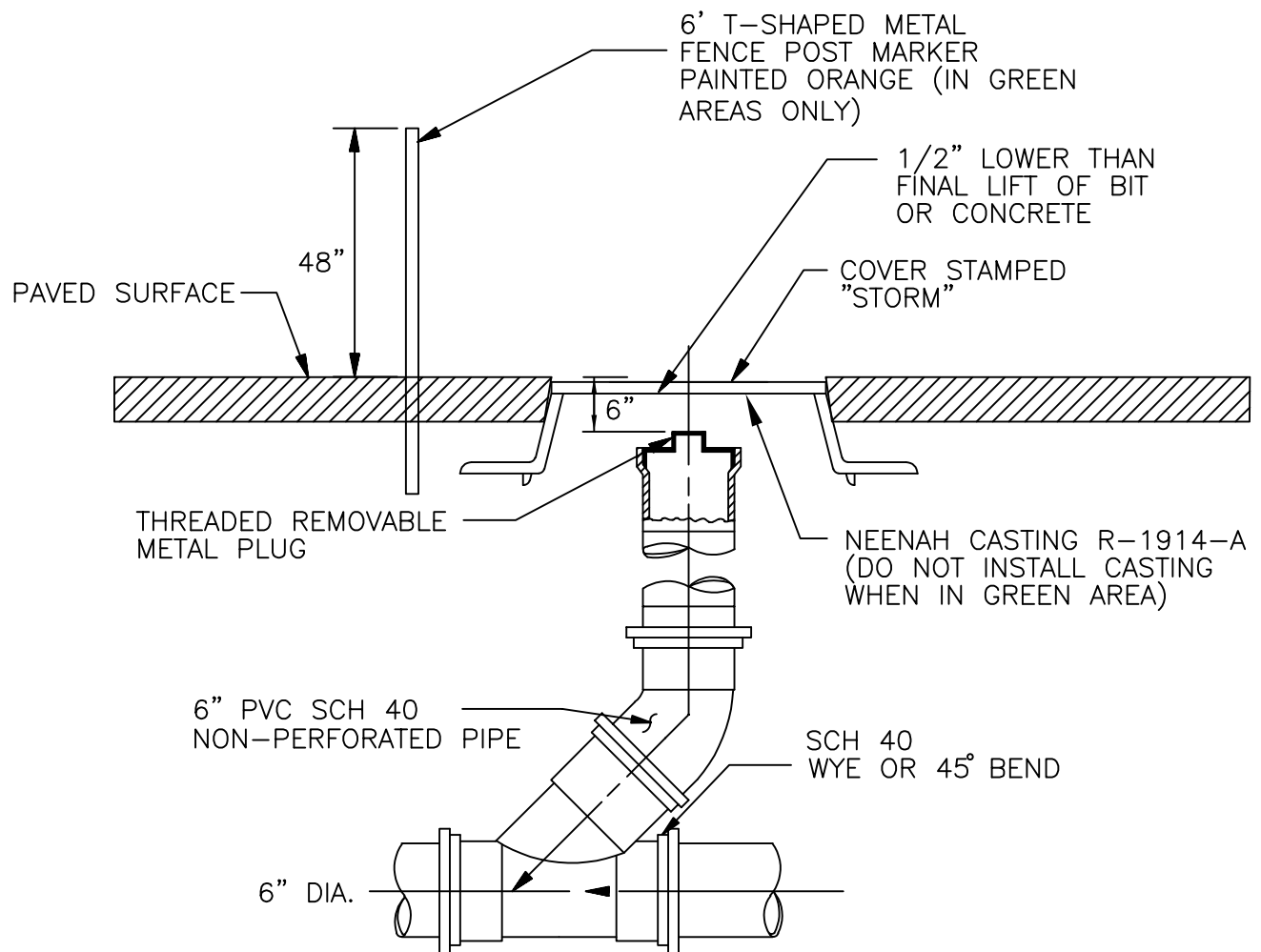


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417

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**NOTE:**

INSTALL CLEANOUTS AT A PROPERTY LINE WHENEVER POSSIBLE.

## DRAINTILE CLEANOUT (WITHIN HARD SURFACES)

FEBRUARY 2022



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**419**

Victoria

GEOTEXTILE SOCK

CONNECTION

FILL OPENING BETWEEN  
PIPE AND STRUCTURE WALL  
WITH CEMENT MORTAR,  
FINISHED SMOOTH.

DRAINTILE CONNECTIONS TO SIDE  
OF MANHOLE SHALL BE MADE  
STRAIGHT, NO BENDS USED  
WHENEVER POSSIBLE

STORM SEWER MANHOLE

PLAN VIEW  
AT CONNECTION TO  
STORM SEWER STRUCTURE

OPENING SHALL BE PRECAST OR  
CORE DRILLED WITH CEMENT MORTAR  
SEALING PIPE TO STRUCTURE WALL.  
SPEC MIX UNDERGROUND UTILITY  
MORTAR OR APPROVED EQUAL.

## DRAIN TILE CONNECTIONS

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420

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48" ORANGE CONSTRUCTION FENCE  
AROUND WATER SHUT-OFF AND  
SERVICE MARKERS, HELD IN POSITION  
BY 3 T-SHAPED METAL FENCE POSTS

UTILITY  
ROW ESMT.

6' T-SHAPED METAL  
FENCE POST MARKER  
PAINTED PINK

GENERAL FILL

4.0%

2" x 2" HARDWOOD  
MARKER.

1.0%

SERVICE  
WYE

8"

CUT OFF BELL  
END OF DIP.

ONE FULL PIPE LENGTH 4"  
DIP CL. 52 PIPE WITH  
FERNCO RUBBER CAP.

CONNECT TO MAINLINE USING  
DIP OR PVC SCH 40.

6"x4" REDUCER

NOTE:

JOINTS BETWEEN DIP PIPES MUST BE GASKETED.  
IF PVC PIPE IS USED TO CONNECT TO THE MAINLINE  
DRAINTILE, CONNECT TO DIP PIPE WITH A "FERNCO"  
FLEXIBLE COUPLING.

EDGE DRAIN/SUMP PUMP SERVICE  
(AS DIRECTED BY ENGINEER)

FEBRUARY 2022

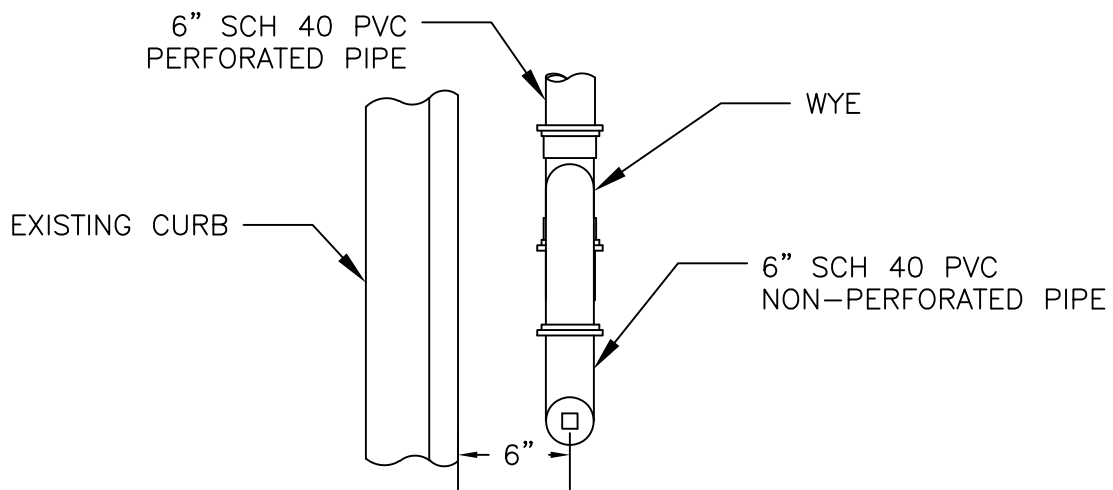


CITY OF VICTORIA

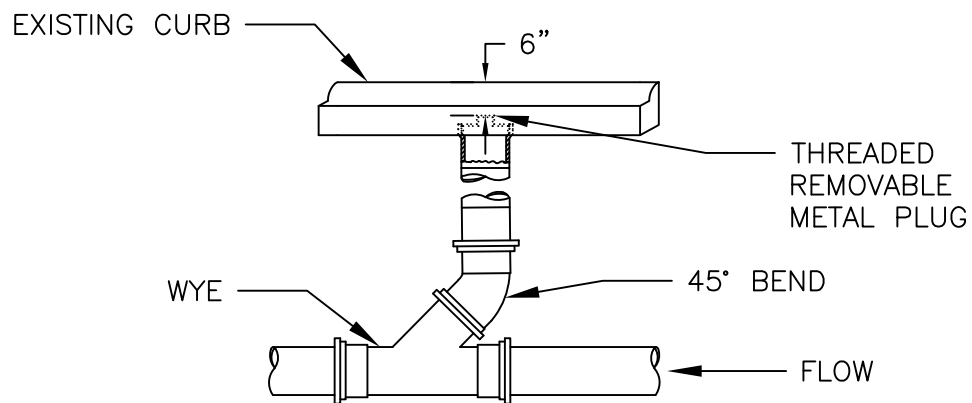
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NO.

421

Victoria



PLAN VIEW



PROFILE VIEW

# DRAINTILE CLEANOUT (FOR DRAINTILE AND CLEANOUT BEHIND CURB)

FEBRUARY 2022

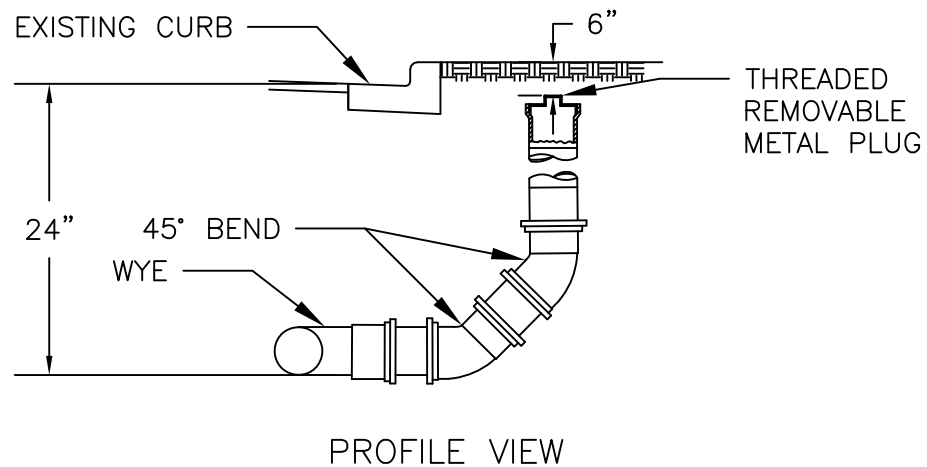
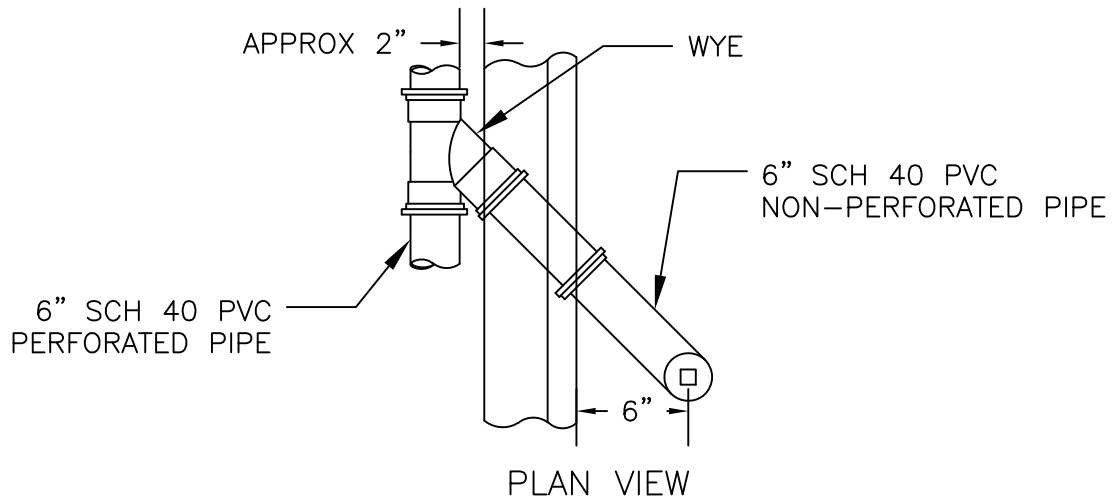


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423A

Victoria



## DRAINTILE CLEANOUT

(FOR DRAINTILE IN FRONT OF CURB AND CLEANOUT BEHIND)

FEBRUARY 2022

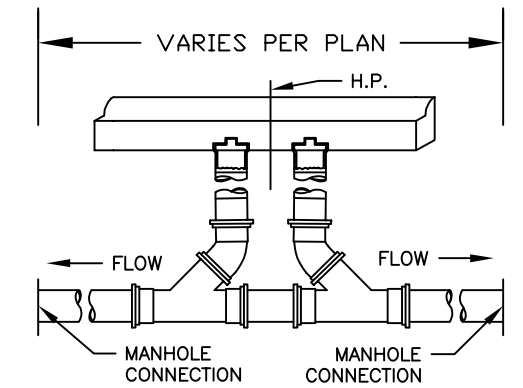


**CITY OF VICTORIA**

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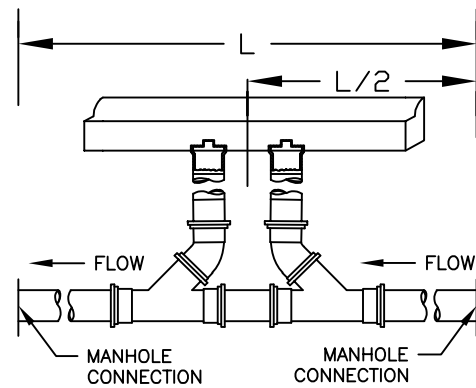
**423B**

Victoria



HIGH POINT LOCATION

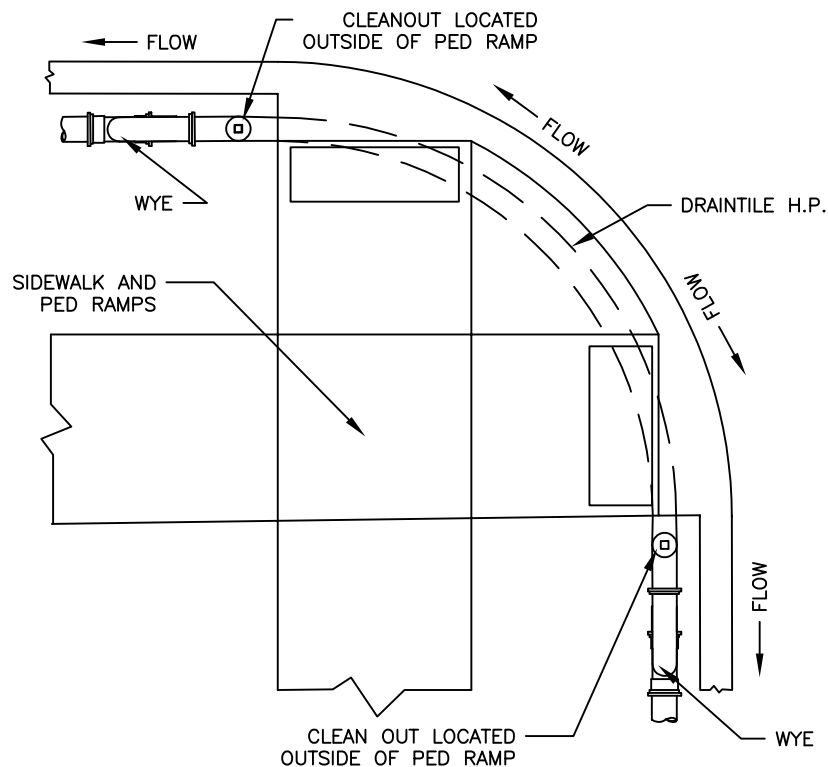
PROFILE VIEW



MIDPOINT LOCATION

PROFILE VIEW

NOTE: USE MIDPOINT LOCATION DETAIL WHEN EXCEEDING THE 200' MAXIMUM DISTANCE BETWEEN CLEANOUTS OR MANHOLE CONNECTIONS.



HIGH POINT AT RADIUS

PLAN VIEW

## DRAINTILE CLEANOUT APPLICATIONS (FOR HIGH POINT AND MID POINT LOCATIONS)

FEBRUARY 2022



CITY OF VICTORIA

STANDARD DRAWING  
NO.

424

Victoria



1. BITUMINOUS TRAILS AND SIDEWALKS MUST BE CONSTRUCTED TO MAINTAIN POSITIVE DRAINAGE AWAY FROM THE PATHWAYS THROUGHOUT THE ENTIRE LENGTH.
2. TOPSOIL AND BACKFILLING OPERATIONS MUST BE COMPLETED TO AVOID DAMAGE TO THE BITUMINOUS TRAILS AND SIDEWALKS. FINAL GRADE OF BACKFILL AND TOPSOIL MUST BE FLUSH WITH THE PATH EDGE TO AVOID TRAPPING WATER.
3. DIVIDE SIDEWALK INTO SECTIONS WITH CONTRACTION JOINTS. SPACING SHALL NOT BE LESS THAN 3 FT NOR GREATER THAN 12 FT IN ANY DIMENSION.
4. CONCRETE PEDESTRIAN RAMPS MUST BE CONSTRUCTED AT ALL INTERSECTIONS UNDER THE SUPERVISION OF A CERTIFIED ADA SUPERVISOR.

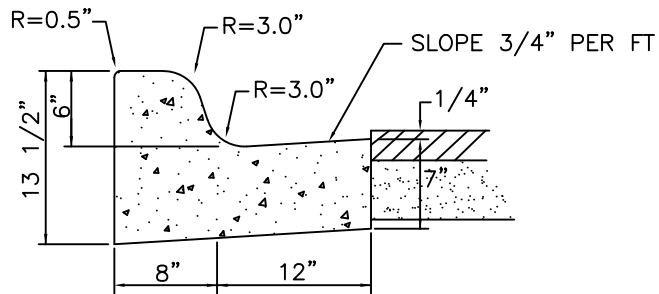
STANDARD PLAN NOTES  
SIDEWALKS AND TRAILS

FEBRUARY 2022

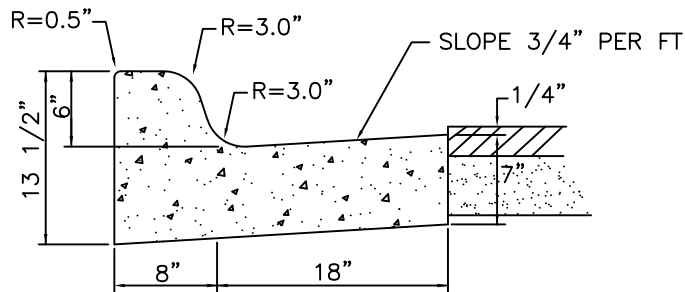


CITY OF VICTORIA

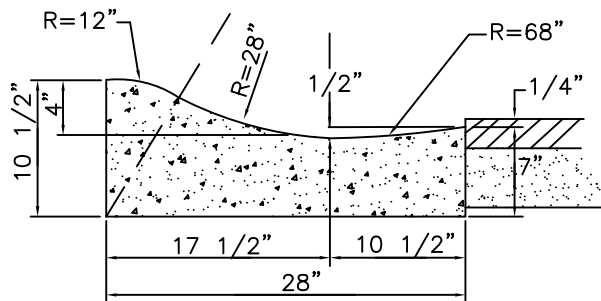
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MnDOT B612  
CONCRETE CURB AND GUTTER

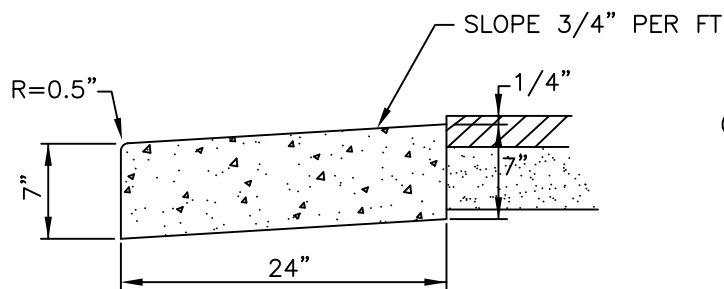


MnDOT B618  
CONCRETE CURB AND GUTTER



SURMOUNTABLE  
CONCRETE CURB AND GUTTER

NOTE:  
CONSTRUCT B618 CURB & GUTTER AT  
INTERSECTION RADII FROM P.C. TO P.T. PROVIDE  
10-FOOT TRANSITION FROM SURMOUNTABLE  
CURB & GUTTER TO B618 CURB & GUTTER AT  
INTERSECTIONS AND CATCH BASINS.



RIBBON CURB  
CONCRETE CURB AND GUTTER

## CONCRETE CURB & GUTTER

FEBRUARY 2022

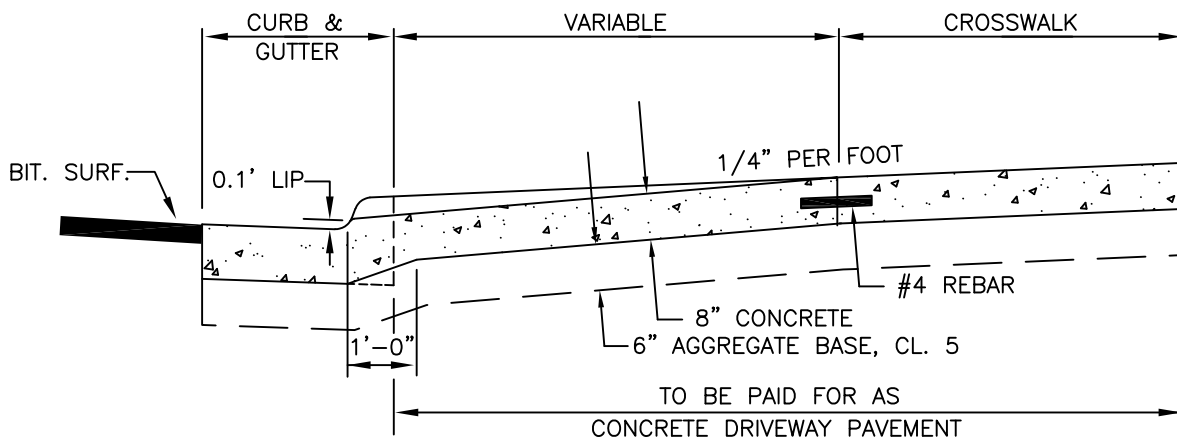
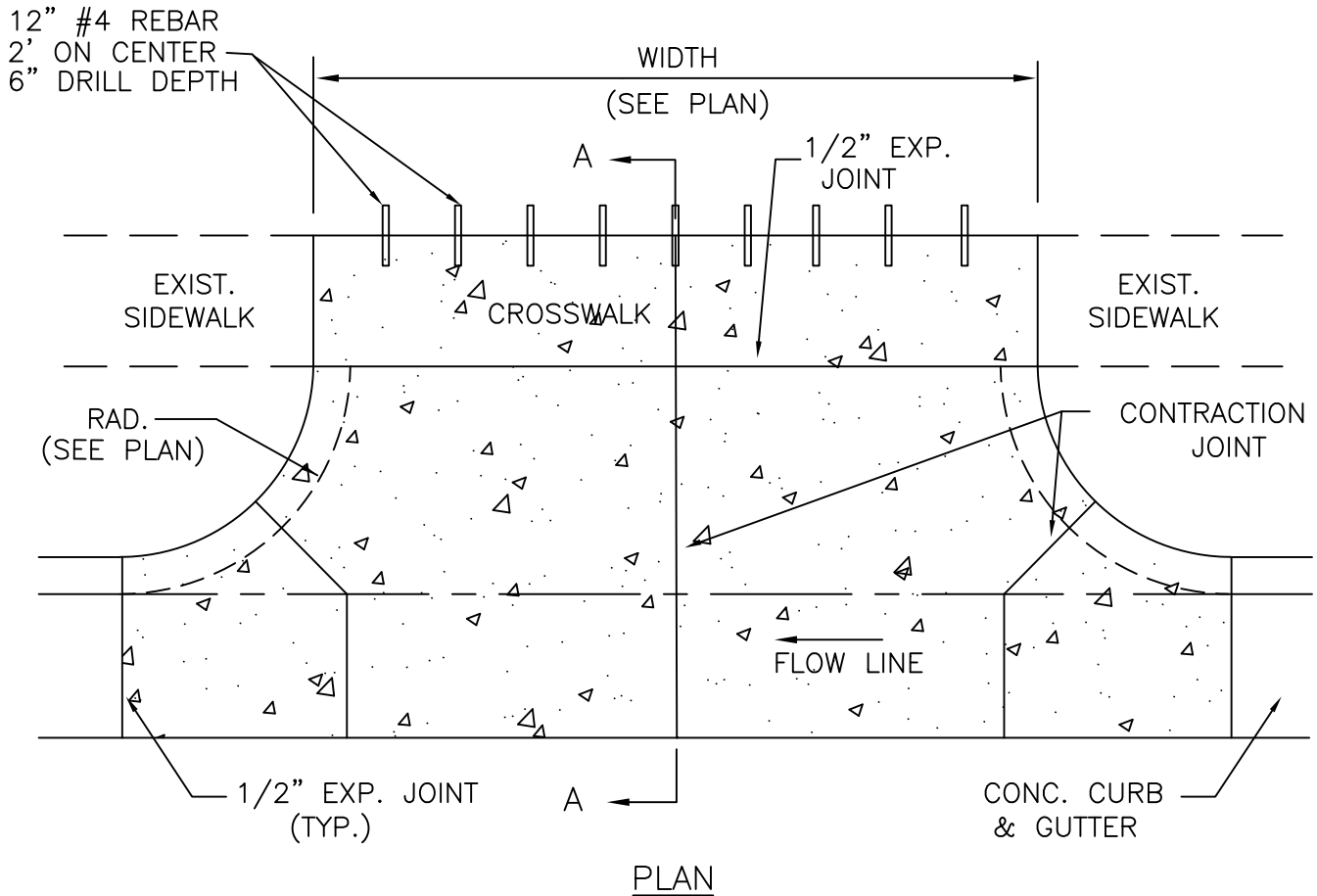


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SECTION A-A

NOTES :

1. PANEL WIDTH SHALL NOT EXCEED 10' WITHOUT € CONTR. JOINT.
2. WHERE SIDEWALK EXISTS OR IS PROPOSED, CROSSWALK SHALL BE SAME THICKNESS AS DRIVEWAY.
3. 12" #4 REBAR REQUIRED WITH CONNECTING TO EXISTING CONCRETE, 2' ON CENTER, 6" DRILL DEPTH

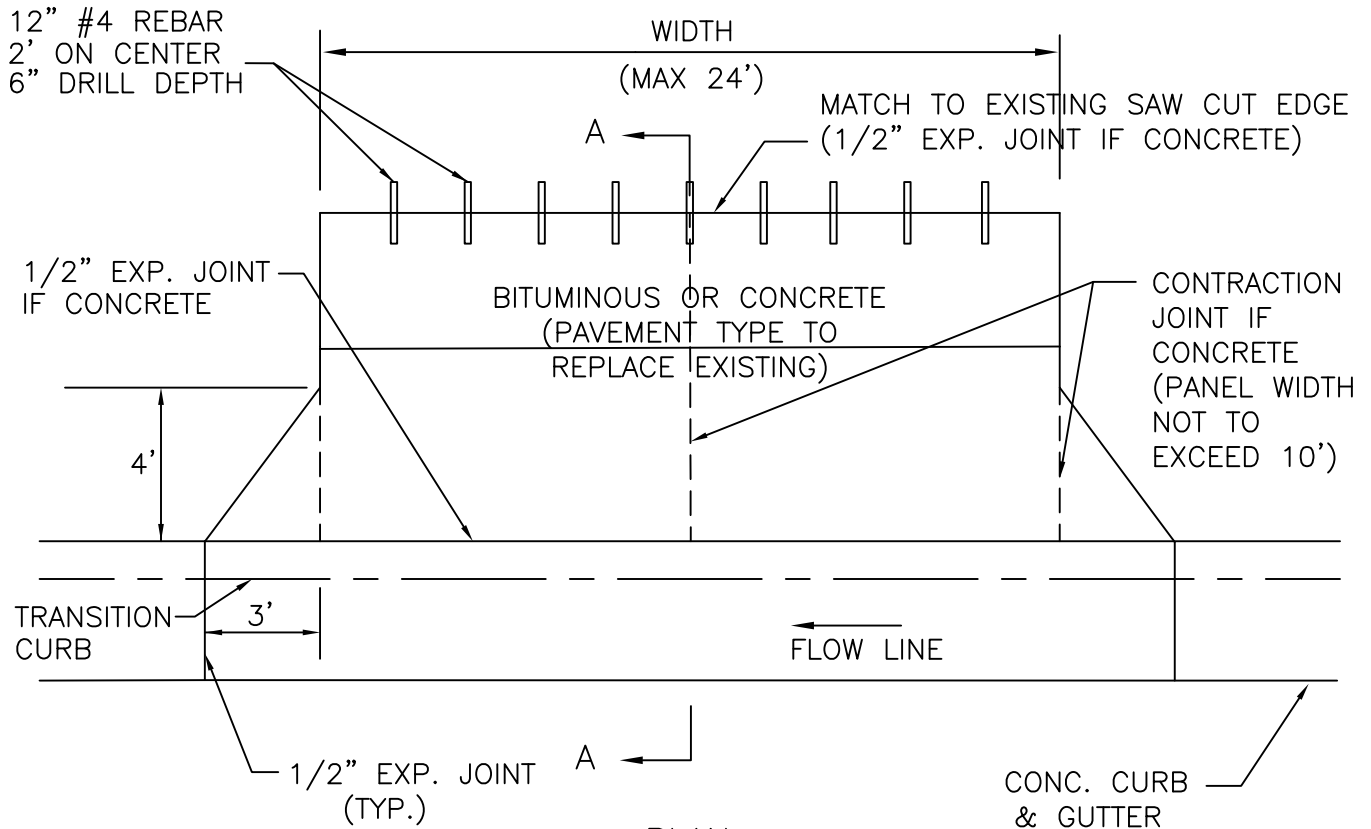
# COMMERCIAL CONCRETE DRIVEWAY

FEBRUARY 2022

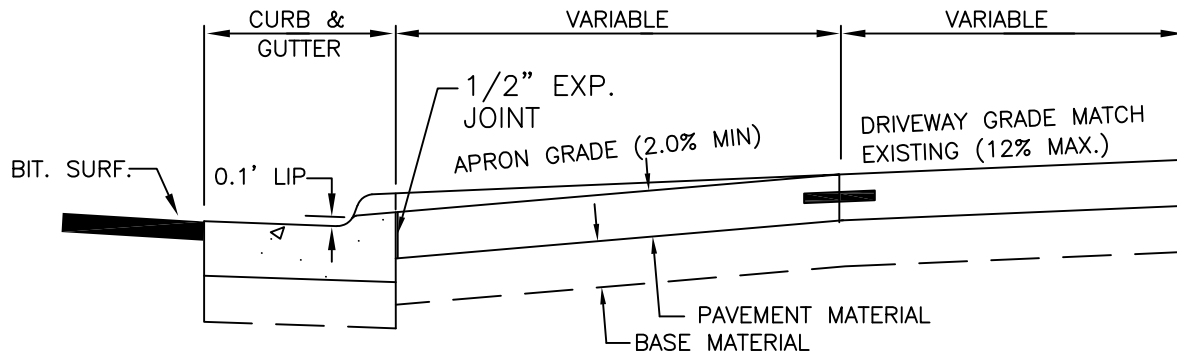


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**502**  
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PLAN



SECTION A-A

DRIVEWAY TYPE	SURFACE THICKNESS	BASE THICKNESS
BITUMINOUS	3 INCHES	6 INCHES
CONCRETE	6 INCHES	4 INCHES

NOTES :

1. BITUMINOUS AND AGGREGATE BASE MATERIALS MUST BE ACCORDING TO STREET TYPICAL SECTIONS.
2. BITUMINOUS SHALL BE MnDOT 2360 TYPE SP, GRADATION MIXTURE NO. A WEARING COURSE.
3. AGGREGATE BASE SHALL BE MnDOT 3138 CL. 5, 100% CRUSHED STONE.
4. 12" #4 REBAR REQUIRED WITH CONNECTING TO EXISTING CONCRETE, 2' ON CENTER, 6" DRILL DEPTH

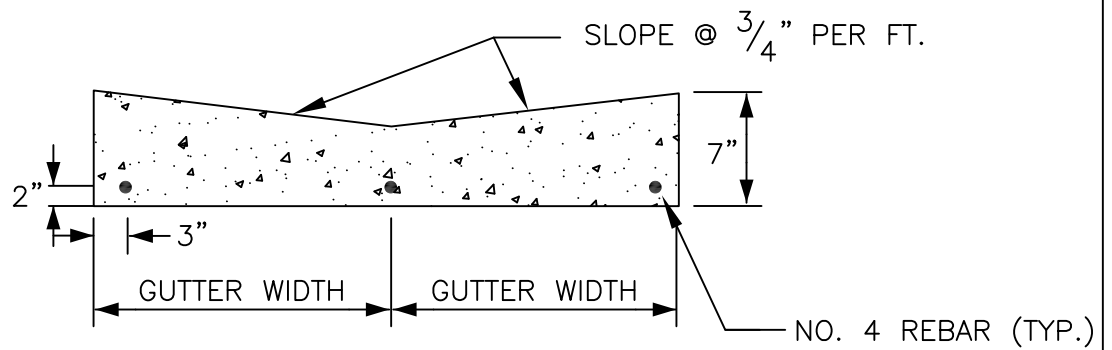
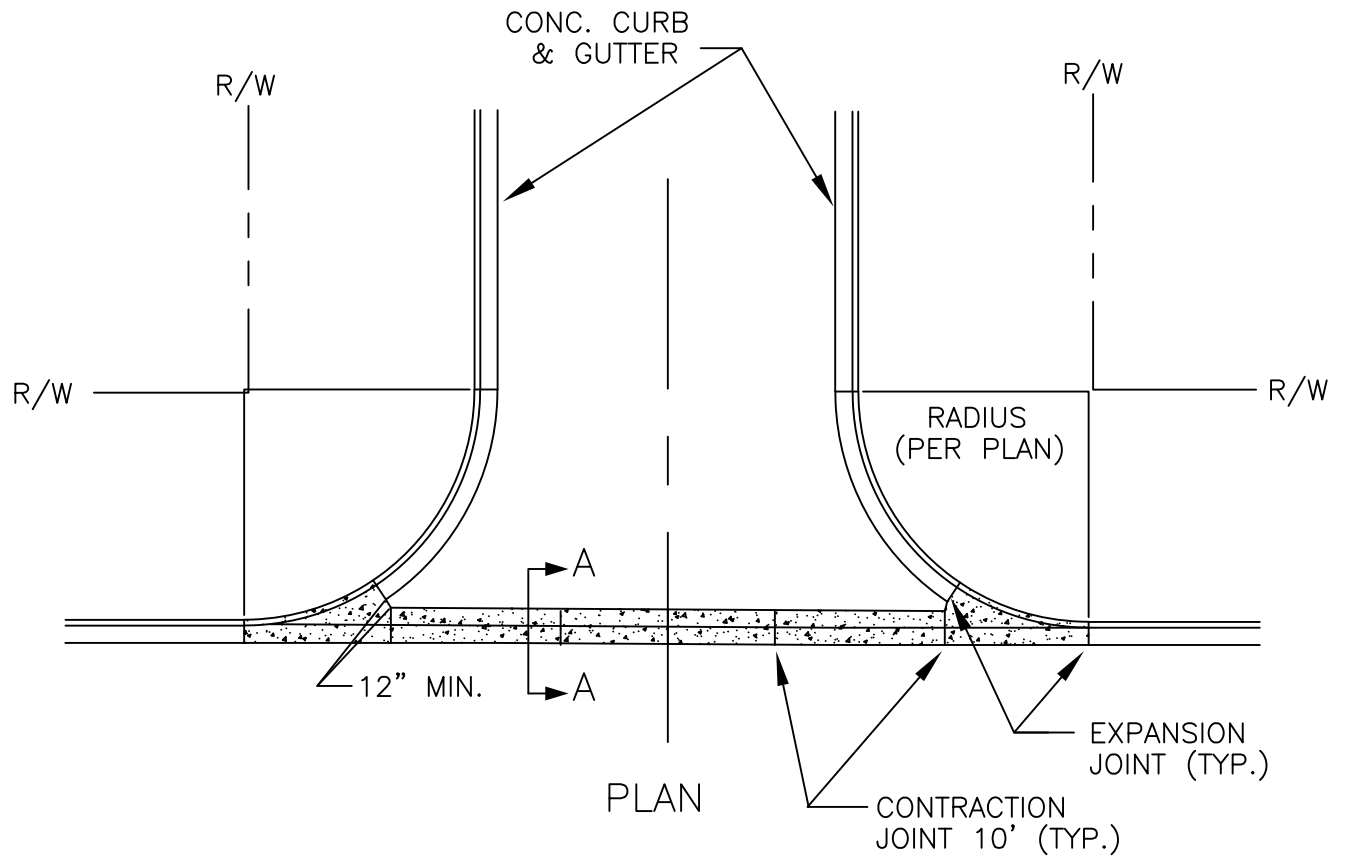
## RESIDENTIAL DRIVEWAY

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**503**  
Victoria



SECTION A-A

# CONCRETE VALLEY GUTTER

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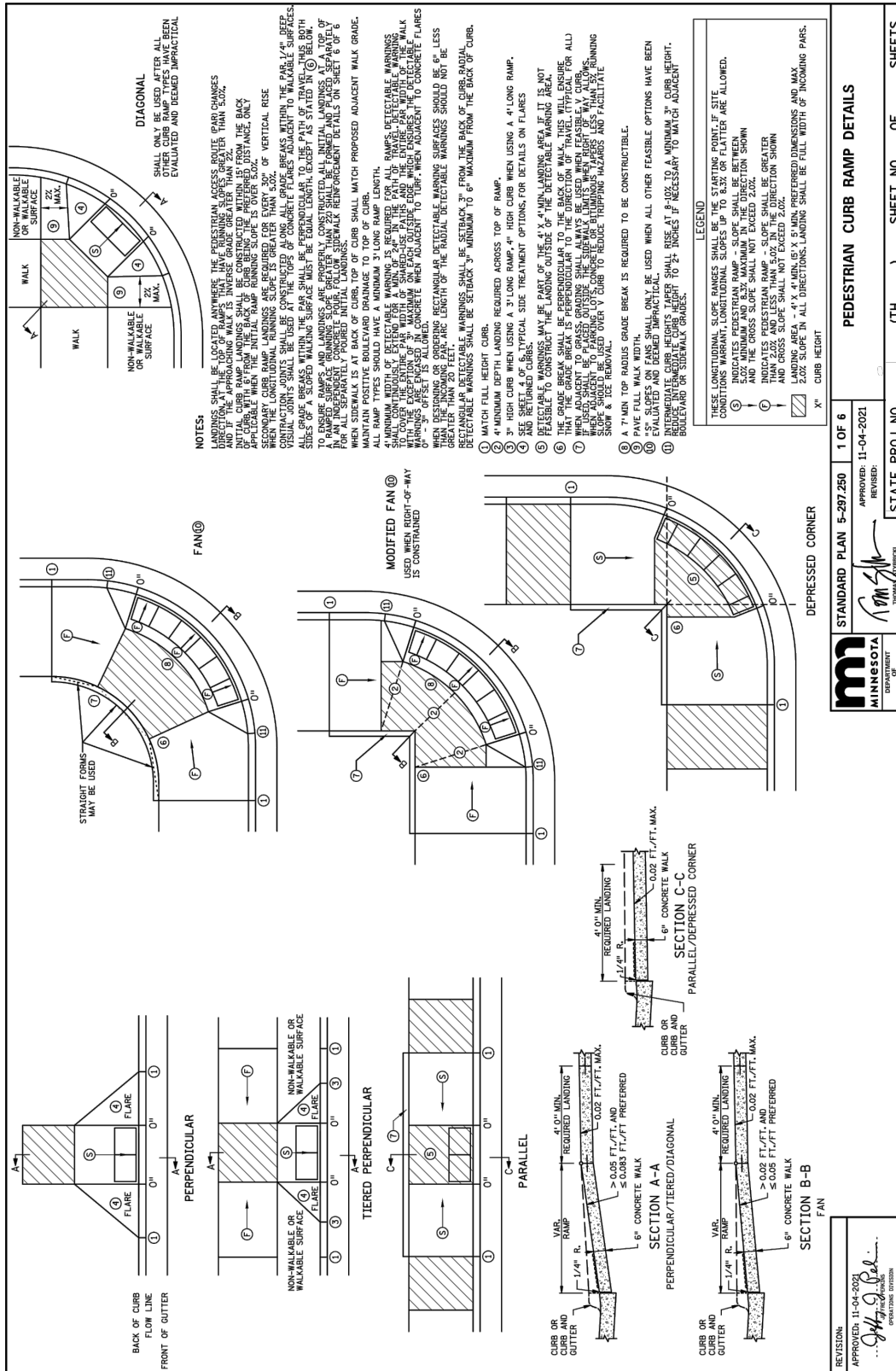


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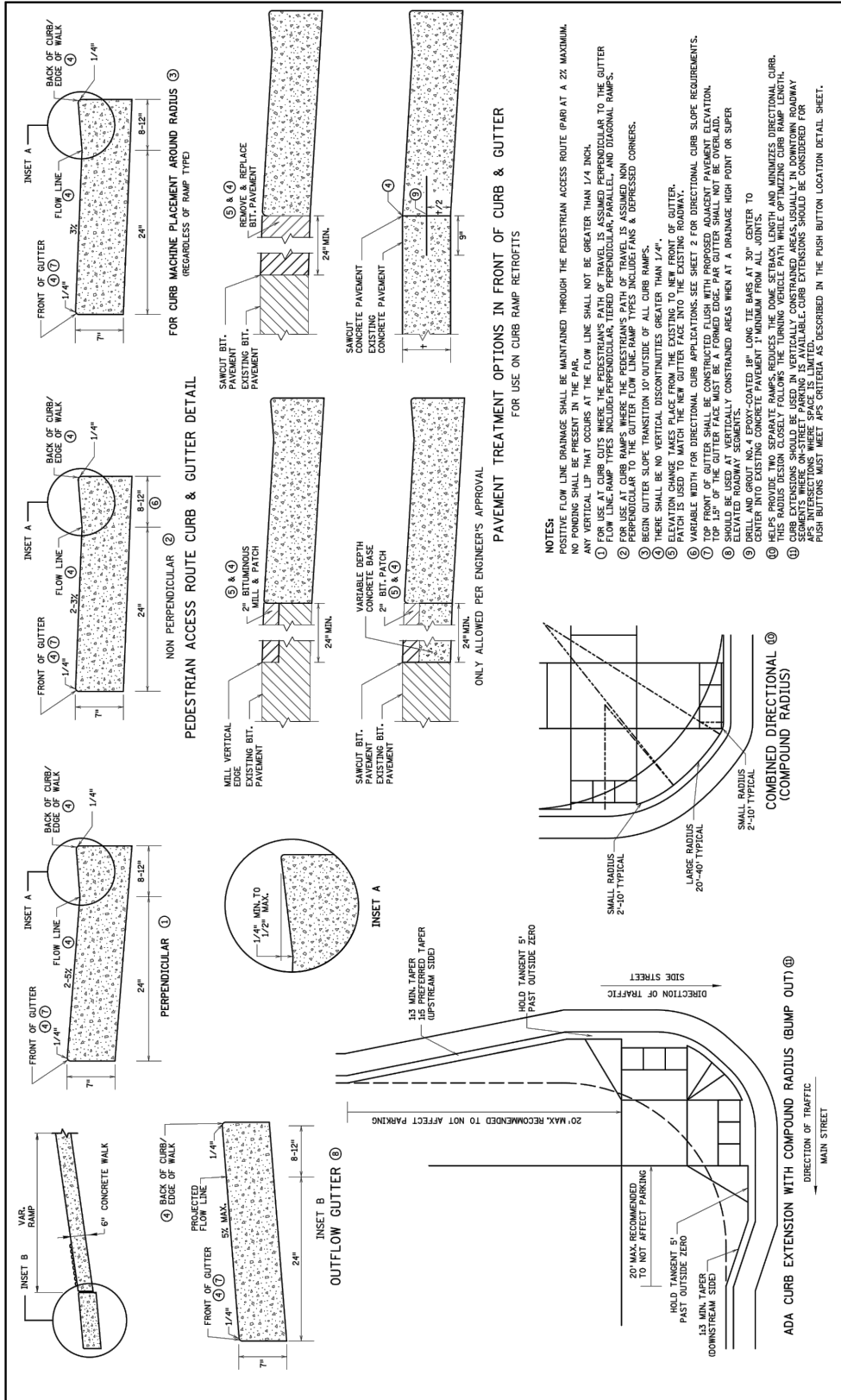
MnDOT STANDARD PLAN 5-297.250 SHEET 1 OF 6



CITY OF VICTORIA

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**505A**  
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REVISION:	STANDARD PLAN 5-297.250	3 OF 6	PEDESTRIAN CURB RAMP DETAILS
APPROVED: 11-04-2021	APPROVED: 11-04-2021	REVIEWED:	
...	STATE PROJ. NO.	(TH )	SHEET NO. OF SHEETS

FEBRUARY 2022

MnDOT STANDARD PLAN 5-297.250 SHEET 3 OF 6

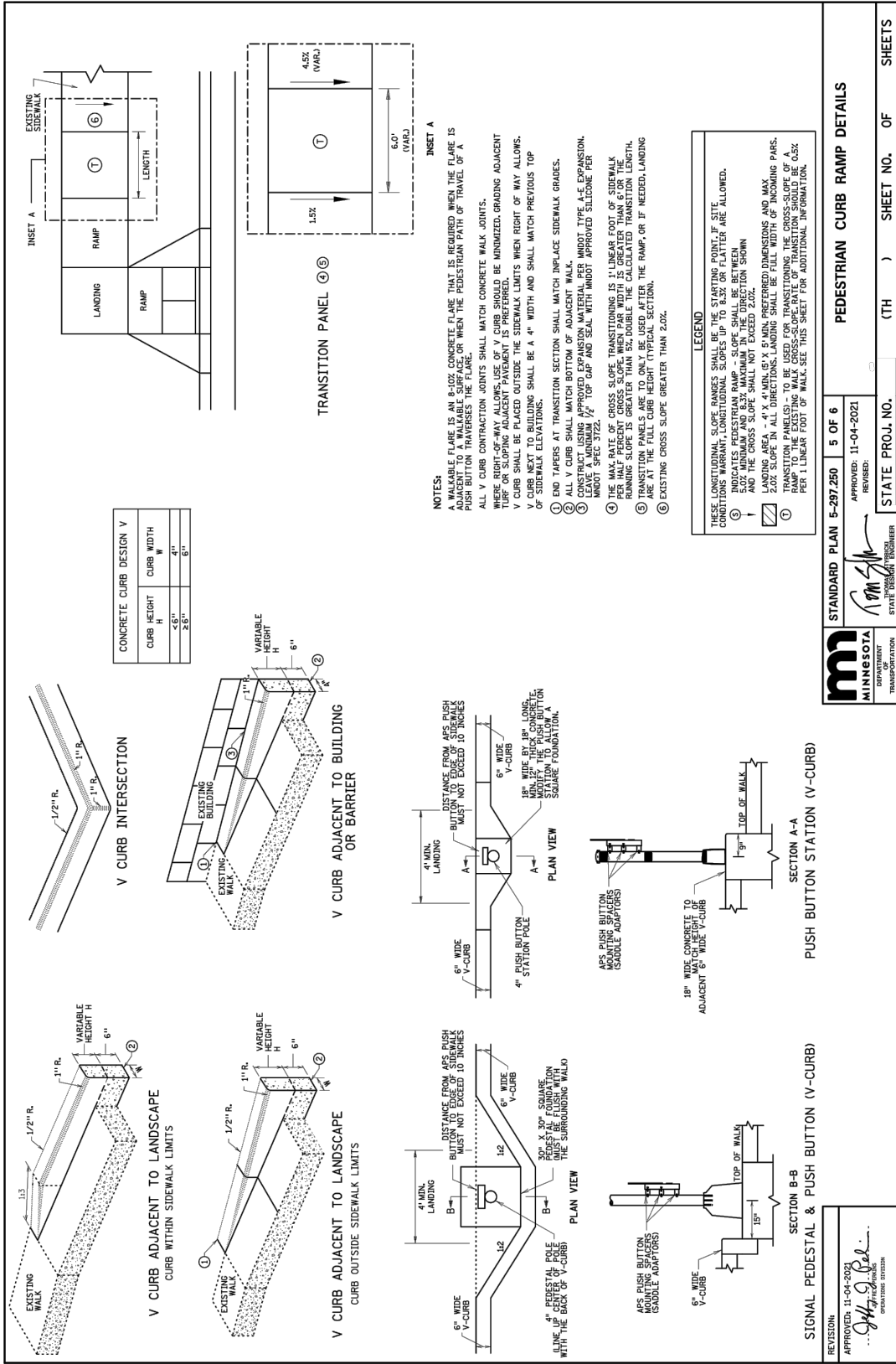


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Victoria







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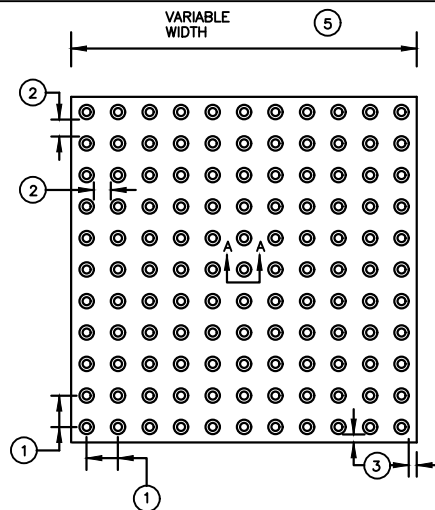
MnDOT STANDARD PLAN 5-297.250 SHEET 5 OF 6



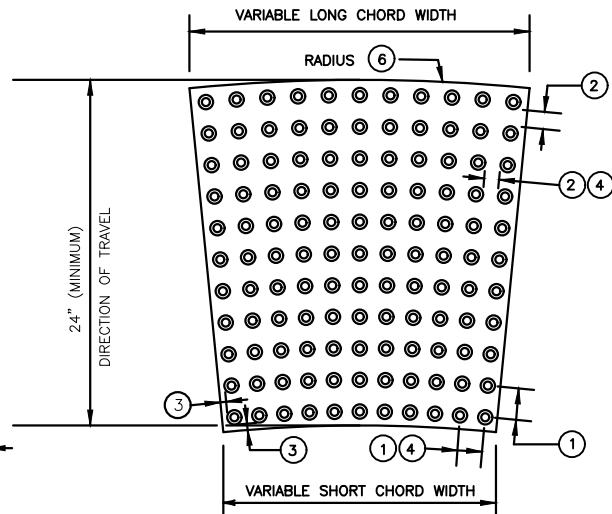
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**505E**  
Victoria

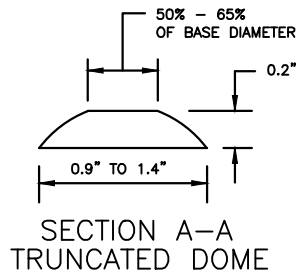




RECTANGULAR PLATES



RADIAL PLATES



TYPICAL RADIAL TRUNCATED DOME PLATES			
RADIUS (FEET) 7	LONG CHORD WIDTH (INCHES)	SQ. FT. PER PLATE	PLATES REQUIRED FOR 90 DEGREE TURN
10	23-1/2	3.53	8
15	18-13/16	2.93	15
15	23-1/2	3.67	12
20	18-13/16	3.00	20
20	18-7/8	2.98	20
25	20-1/2	3.28	23
25	23-9/16	3.77	20
30	22-5/8	3.65	25
35	22	3.56	30

## NOTES:

DETECTABLE WARNING SURFACES SHALL FOLLOW THE PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG).  
DETECTABLE WARNINGS CONSIST OF TRUNCATED DOMES ALIGNED IN A SQUARE OR RADIAL GRID PATTERN.

### DETECTABLE WARNINGS ARE REQUIRED:

- WHERE RAMPS, LANDINGS, OR BLENDED TRANSITIONS PROVIDE A FLUSH PEDESTRIAN CONNECTION TO THE ROADWAY.
- WHERE PEDESTRIAN ACCESS ROUTES CROSS COMMERCIAL DRIVEWAYS THAT ARE PROVIDED WITH TRAFFIC CONTROL DEVICES OR OTHERWISE PERMITTED TO OPERATE LIKE A PUBLIC ROADWAY.
- AT PEDESTRIAN RAILWAY CROSSINGS.
- ON RAIL PLATFORMS WHERE BOARDING EDGES ARE NOT PROTECTED.

### DETECTABLE WARNINGS SHALL EXTEND:

- A MINIMUM OF 24" IN THE DIRECTION OF TRAVEL.
- THE FULL WIDTH OF THE RAMP, LANDING, OR BLENDED TRANSITION, WITHIN 3" OF FULL WIDTH ON EITHER END.
- THE FULL LENGTH OF THE PUBLIC USE AREA OF A RAIL PLATFORM.

DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH ADJACENT GUTTER, ROADWAY, OR WALKWAY, EITHER A LIGHT-ON-DARK OR DARK-ON-LIGHT. CONTRAST MAY BE PROVIDED ON THE FULL RAMP SURFACE, EXCLUDING THE FLARED SIDES.

TRUNCATED DOME PANELS SHALL BE FROM MNDOT'S APPROVED/ QUALIFIED PRODUCT LISTS. PANELS SHALL BE CAST IRON AND NATURAL / RUSTY / UNFINISHED IN COLOR.

DETECTABLE WARNING SURFACE SHALL BE PAID FOR AS TRUNCATED DOMES BY THE SQUARE FOOT.

ALL TRUNCATED DOME SYSTEMS SHALL BE PLACED IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER.

- 1 CENTER TO CENTER DOME SPACING: 1.6" MINIMUM, 2.4" MAXIMUM.
- 2 BASE TO BASE DOME SPACING: 0.65" MINIMUM.
- 3 DOME BASE TO PLATE EDGE SPACING: 0.35" MINIMUM, 0.75" MAXIMUM.
- 4 SPACING VARIES ON RADIAL PLATES.
- 5 TYPICAL WIDTHS AVAILABLE: 12", 18", 24", 30", 36". CHECK WITH MANUFACTURERS FOR AVAILABLE WIDTHS.
- 6 ON RADIAL PLATE, RADIUS DEFINED AT BACK OF CURB.
- 7 TYPICAL RADII. CHECK WITH MANUFACTURERS FOR AVAILABLE RADII.

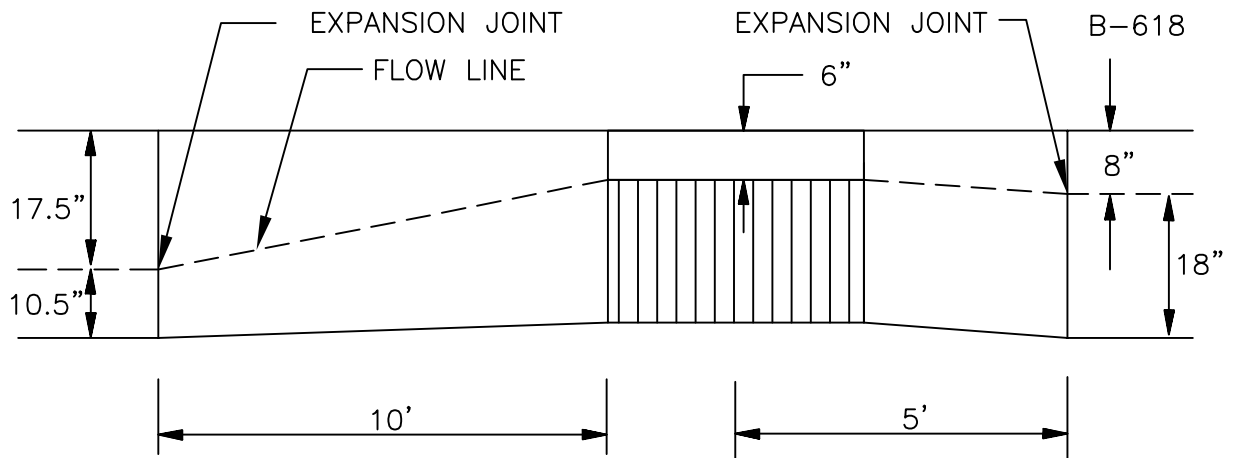
# DETECTABLE WARNING SURFACE— TRUNCATED DOMES

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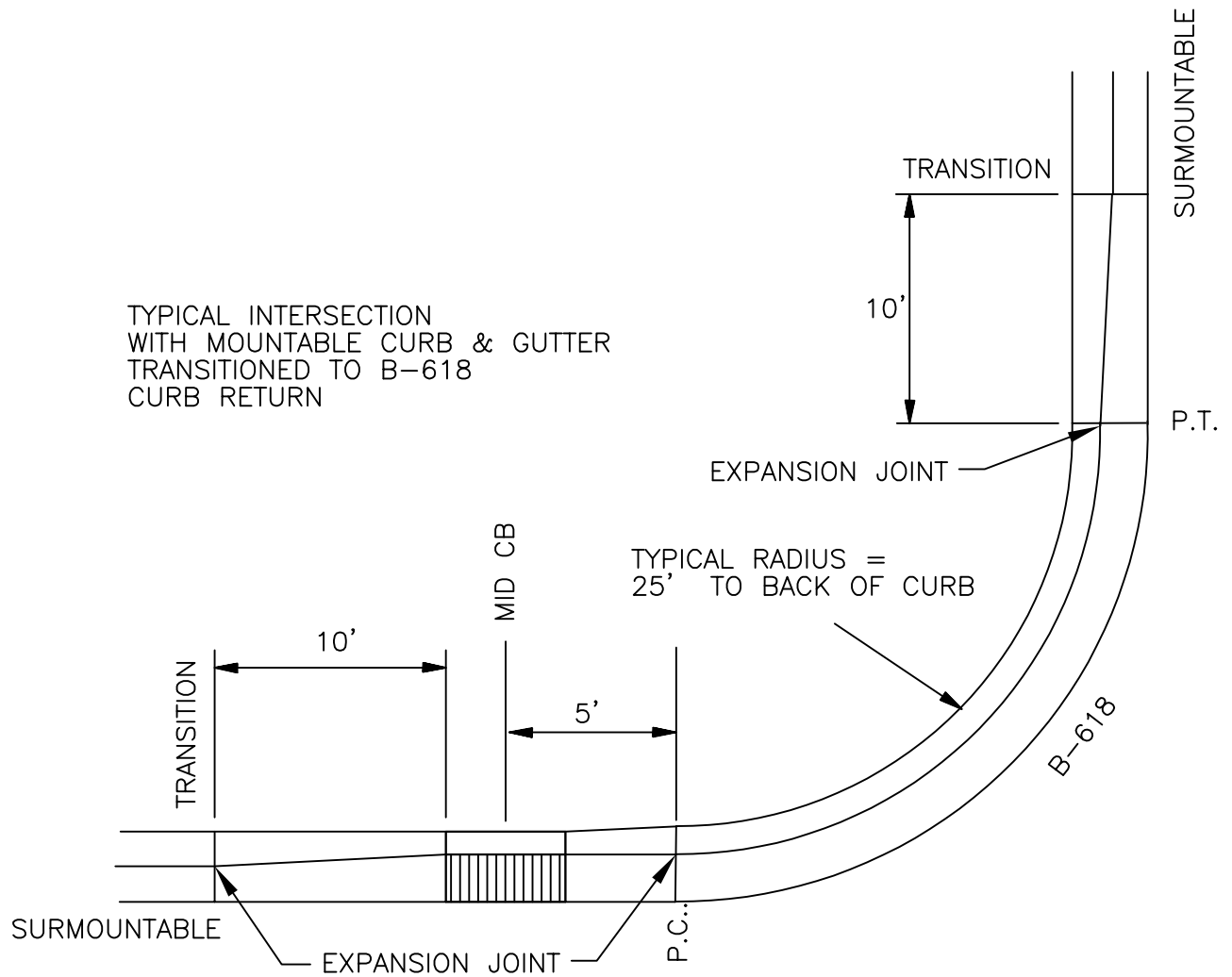


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Victoria



TYPICAL INTERSECTION  
WITH MOUNTABLE CURB & GUTTER  
TRANSITIONED TO B-618  
CURB RETURN



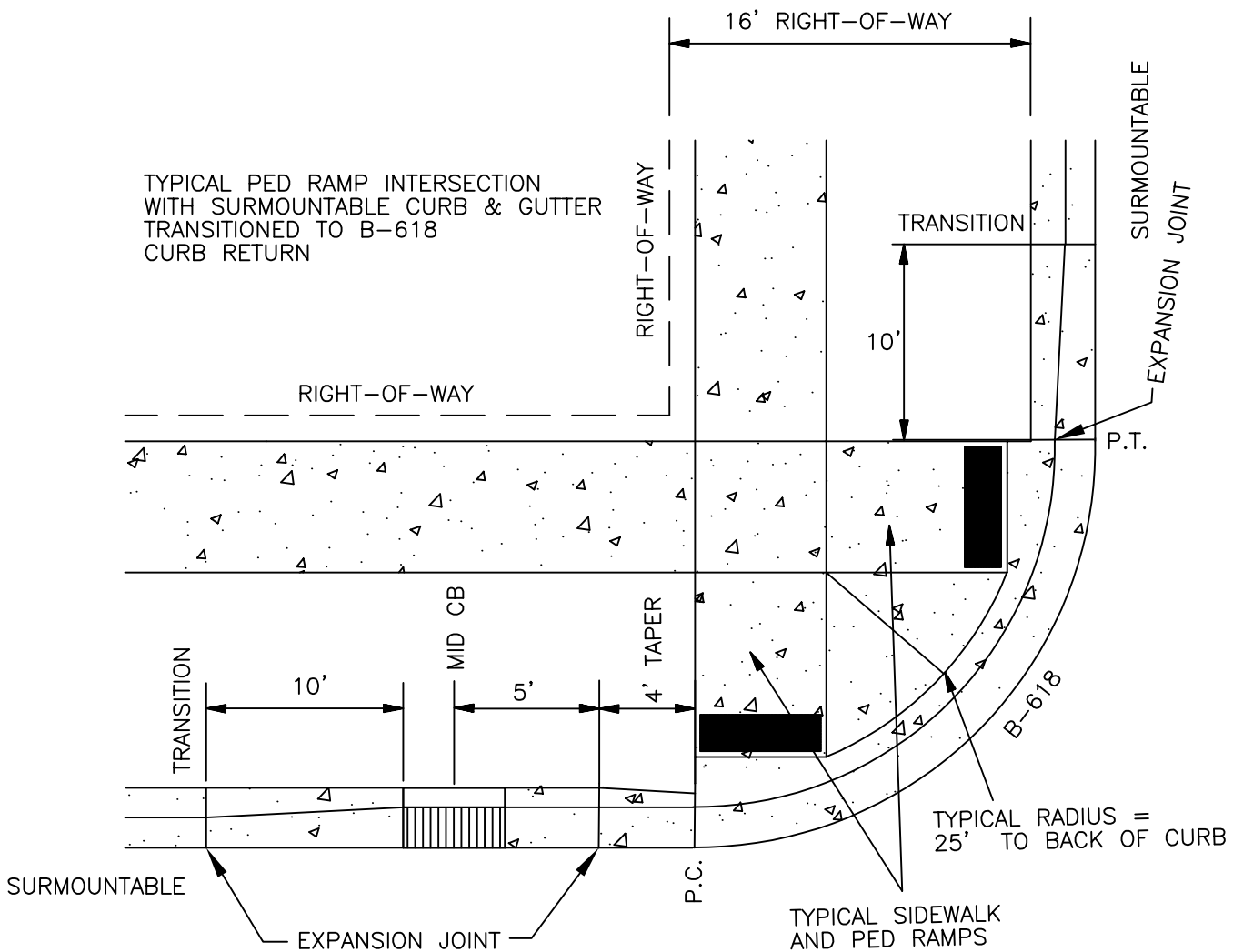
## CATCH BASIN PLACEMENT AND CURB & GUTTER TRANSITION AT INTERSECTIONS

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**507**  
Victoria



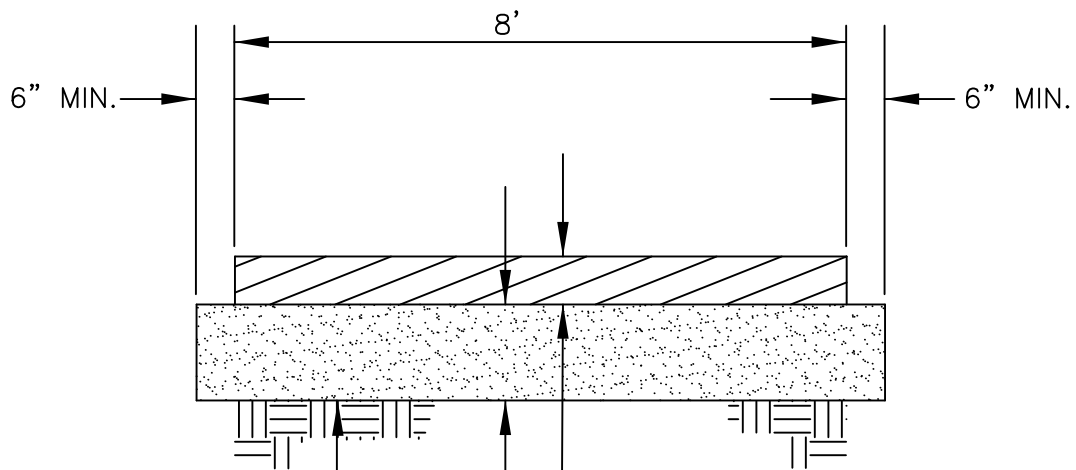
# CATCH BASIN PLACEMENT AND CURB & GUTTER TRANSITION AT INTERSECTIONS WITH PEDESTRIAN RAMPS

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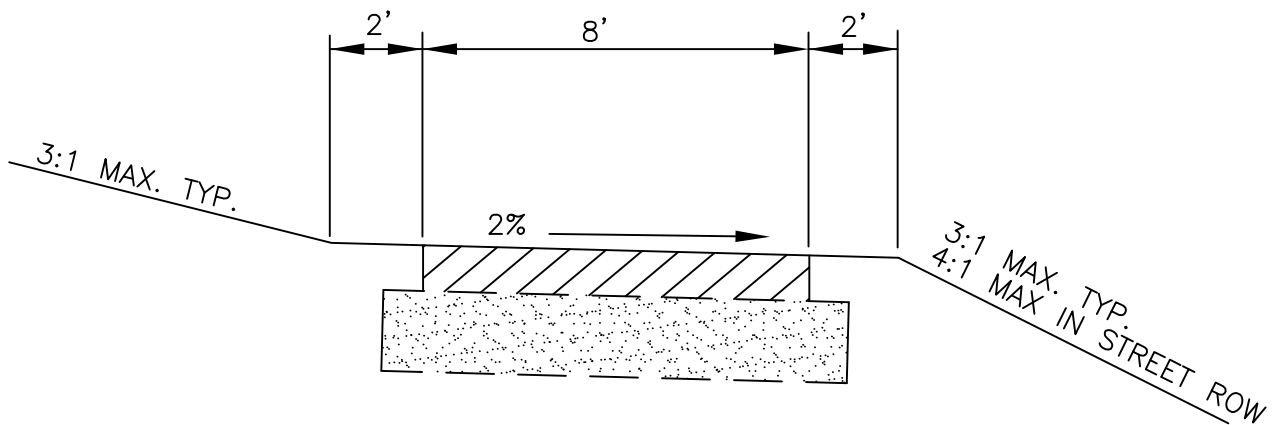
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**508**  
Victoria



2"-2 1/4" MINIMUM COMPACTED  
THICKNESS BITUMINOUS WEAR  
COURSE, MnDOT 2360 SPWEA240C

8" MNDOT 3138 CLASS 5  
AGGREGATE BASE

SUBGRADE TESTED AND APPROVED IN ACCORDANCE  
WITH CITY STANDARD SPECIFICATIONS



#### NOTE

1. BITUMINOUS TRAILS SHALL HAVE CONCRETE PED RAMPS AT ALL STREET INTERSECTIONS.
2. PROVIDE 2% CROSS-SLOPE TO MAINTAIN POSITIVE DRAINAGE AWAY FROM TRAIL SURFACE THROUGHOUT LENGTH OF TRAIL.

## BICYCLE-PEDESTRIAN PATH

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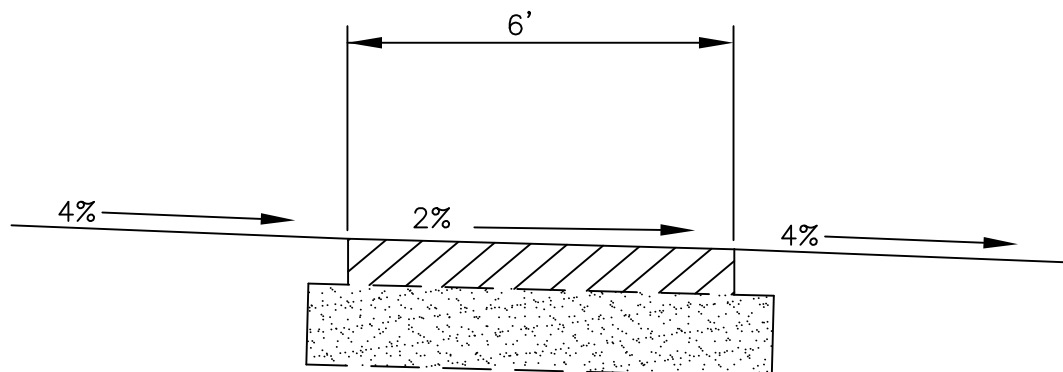
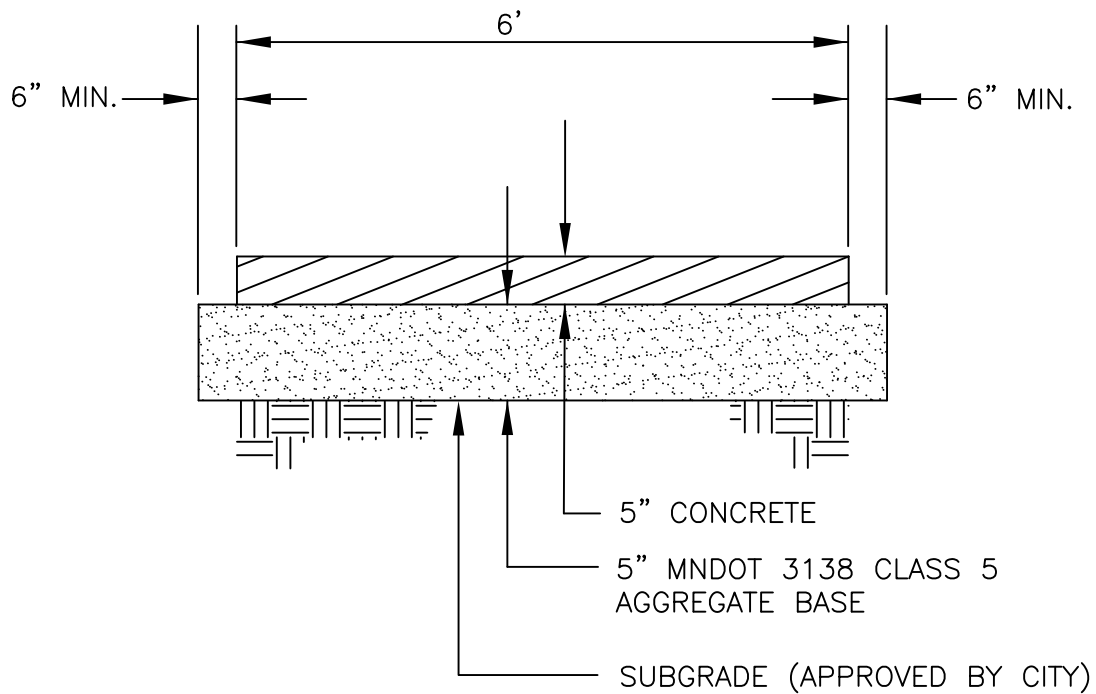


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NO.

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Victoria



#### NOTE

1. SIDEWALKS SHALL HAVE CONCRETE PED RAMPS AT ALL STREET INTERSECTIONS.
2. PROVIDE 2% CROSS-SLOPE TO MAINTAIN POSITIVE DRAINAGE AWAY FROM SIDEWALK THROUGHOUT LENGTH OF WALK.
3. NO RECYCLED MATERIALS ALLOWED.

## CONCRETE SIDEWALK

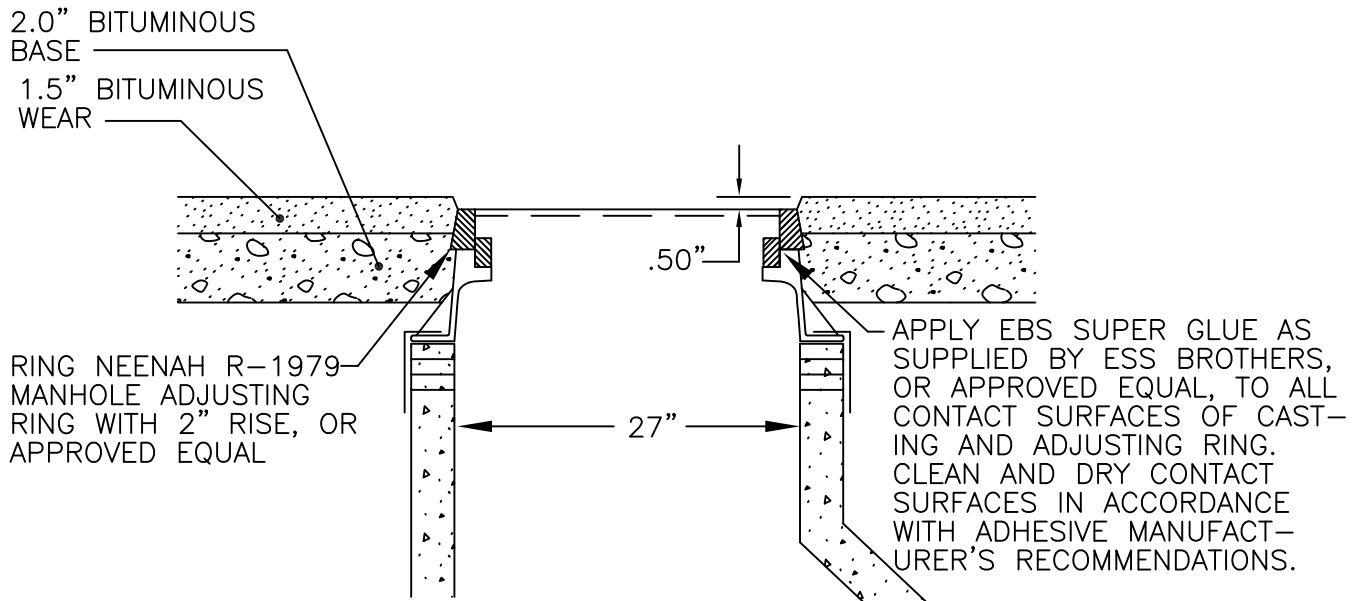
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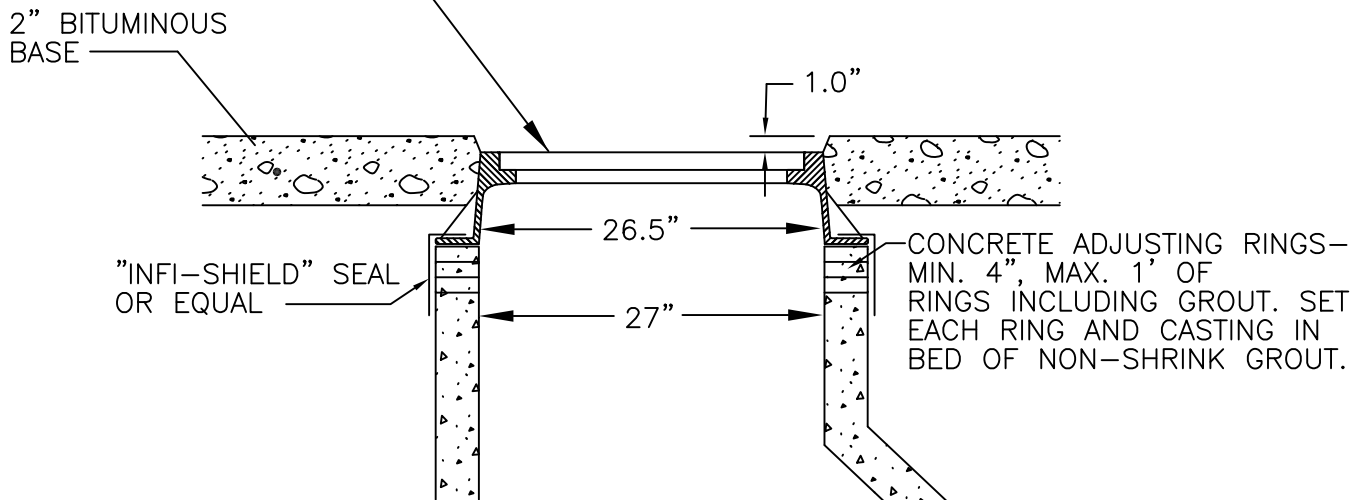
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**510**  
Victoria





BITUMINOUS WEAR COURSE ADJACENT DETAIL  
NOT TO SCALE

CASTING SHALL BE NEENAH R1642.  
SEE CITY DETAIL 107



BITUMINOUS BASE COURSE ADJACENT DETAIL  
NOT TO SCALE

ANY UTILITY MORTAR SHALL MEET ASTM C270 AND C1714. SPEC MIX UNDERGROUND UTILITY MORTAR OR APPROVED EQUAL

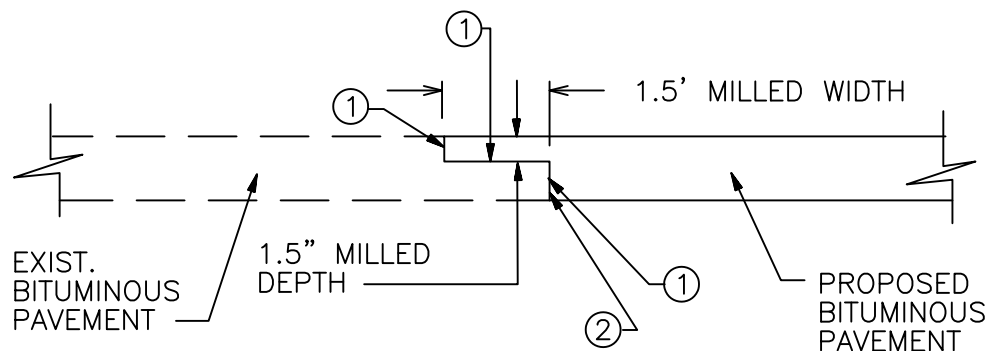
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## MANHOLE CASTING ADJUSTMENT



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**511**  
Victoria



MILLED LAP JOINT SHALL BE CONSTRUCTED WHERE MATCHING INTO EXISTING BITUMINOUS PAVEMENT. MILL IMMEDIATELY PRIOR TO CONSTRUCTING BITUMINOUS WEARING COURSE.

#### NOTES:

- ① APPLY BITUMINOUS TACK COAT, MnDOT SPEC. 2357.
- ② SAW BITUMINOUS PAVEMENT FULL DEPTH TO ESTABLISH A NEAT LINE FROM WHICH TO EXTEND THE NEW WORK.

## MILLED LAP JOINT

FEBRUARY 2022

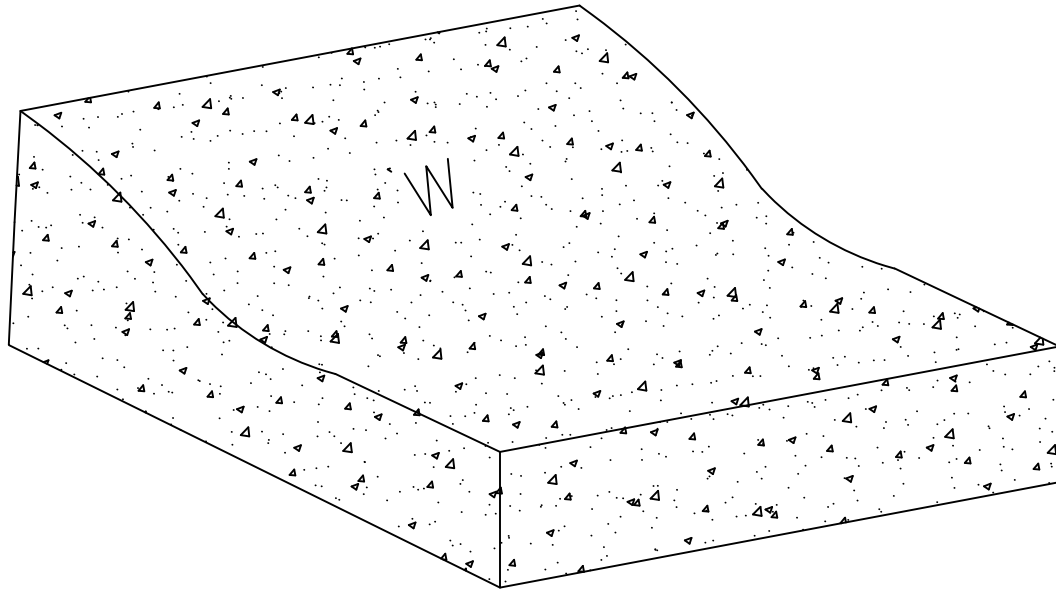


**CITY OF VICTORIA**

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NO.

**512**

Victoria



- W — RELATIVE CURB STOP LOCATION  
 C — RELATIVE DRAINTILE CLEANOUT LOCATION  
 S — RELATIVE SUMP PUMP STUB LOCATION  
 S — RELATIVE SANITARY SEWER SERVICE STUB LOCATION

NOTES:

1. CURB MARKERS ARE AVAILABLE FROM CITY HALL.
2. CURB MARKINGS SHALL BE POSITIONED IN THE FACE OF THE CURB, WHILE THE CONCRETE IS IN A PLASTIC STATE, PERPENDICULAR TO THE LOCATION OF CURB STOPS AND DRAINTILE CLEAN OUTS.
3. WHERE B6 CURB IS USED, PLACE CURB MARKING ON FACE OF CURB.

## CONCRETE CURB MARKING

FEBRUARY 2022



**CITY OF VICTORIA**

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**513**

Victoria

1. THE CONTRACTOR SHALL CONDUCT OPERATIONS AND IMPLEMENT MINNESOTA POLLUTION CONTROL AGENCY (MPCA) BEST MANAGEMENT PRACTICES (BMP) TO CONTROL SITE SILTATION AND EROSION INTO DRAINAGE WAYS. THE CONTRACTOR SHALL COMPLY WITH ALL CONDITIONS AND COMPLETION DATES RELATIVE TO ALL PERMITS ISSUED FOR THE WORK TO BE COMPLETED. THE ENGINEER MAY ISSUE A STOP WORK ORDER FOR ALL DEVELOPMENT WORK AND BUILDING CONSTRUCTION FOR NONCOMPLIANCE WITH THESE MEASURES.
2. SEQUENCING. ALL SILT FENCE AND OTHER EROSION CONTROL MEASURES SHALL BE IN PLACE AND APPROVED BY ENGINEER PRIOR TO ANY REMOVALS, EXCAVATION OR CONSTRUCTION AND SHALL BE MAINTAINED UNTIL VIABLE TURF OR GROUND COVER HAS BEEN ESTABLISHED AND APPROVED BY THE ENGINEER.
3. SILT FENCE. THE CONTRACTOR SHALL INSTALL SILT FENCE AT THE LOCATIONS SHOWN ON THE PLANS AND IN ACCORDANCE WITH THE CITY STANDARD DETAILS. SILT FENCE DAMS AND INTERIM SUMPS SHALL BE PLACED TO INTERCEPT SILT FROM CONCENTRATED RUNOFF FROM OPEN GRADED AREAS. ADDITIONAL SILT FENCE SHALL BE REQUIRED AS DIRECTED BY THE ENGINEER.
4. STOCKPILES. ALL STOCKPILE AREAS SHALL HAVE SILT FENCE OR SEDIMENT TRAPPING SYSTEMS PLACED AROUND THE ENTIRE PERIMETER.
5. INLET PROTECTION. THE CONTRACTOR SHALL INSTALL INLET PROTECTION ON ALL EXISTING STORM SEWER INLETS IN ACCORDANCE WITH THE CITY STANDARD DETAILS. INLET PROTECTION SHALL ALSO BE PROVIDED ON ALL PROPOSED STORM SEWER INLETS IMMEDIATELY FOLLOWING CONSTRUCTION OF THE INLET. INLET PROTECTION MUST BE INSTALLED IN A MANNER THAT WILL NOT IMPOUND WATER FOR EXTENDED PERIODS OF TIME OR IN A MANNER THAT PRESENTS A HAZARD TO VEHICULAR OR PEDESTRIAN TRAFFIC.
6. TEMPORARY SEDIMENT BASINS. THE CONTRACTOR SHALL INCORPORATE TEMPORARY SEDIMENT BASINS THROUGHOUT THE CONSTRUCTION SITE TO CAPTURE RUNOFF AND SLOW THE FLOW OF WATER AND ALLOW SEDIMENT TO SETTLE OUT. TEMPORARY SEDIMENT BASINS SHALL BE INSTALLED AS DIRECTED BY THE CITY ENGINEER.
7. ROCK CONSTRUCTION ENTRANCE. A ROCK ENTRANCE SHALL BE CONSTRUCTED AND MAINTAINED AS SHOWN ON THE PLAN TO REDUCE TRACKING OF SILT AND DIRT ONTO THE PUBLIC STREETS. A GEOTEXTILE FABRIC SHALL BE PLACED UNDERNEATH THE ROCK. THE ROCK SHALL BE PERIODICALLY REPLENISHED TO MAINTAIN THE INTENDED PERFORMANCE. MUD AND DEBRIS SHALL BE REMOVED OR SCRAPPED FROM TIRES AND VEHICLE UNDERCARRIAGE PRIOR TO LEAVING THE SITE.
8. STREET SWEEPING. ALL STREETS USED FOR ACCESS TO THE SITE AND HAUL ROUTES USED FOR CONSTRUCTION EQUIPMENT AND MATERIAL SUPPLIES SHALL BE CLEANED AT THE END OF EACH WORKING DAY. THE CITY OR ENGINEER MAY ORDER ADDITIONAL SWEEPING OF THE STREETS AS DEEMED REQUIRED AT DEVELOPER/CONTRACTOR EXPENSE.

## STANDARD PLAN NOTES

### GRADING AND EROSION CONTROL PLANS

FEBRUARY 2022



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Victoria

9. DEWATERING. EACH EXCAVATION SHALL BE KEPT DRY DURING THE COURSE OF ALL WORK HEREIN, INCLUDING SUBGRADE CORRECTION, PIPE INSTALLATION, STRUCTURE CONSTRUCTION AND BACKFILLING, TO THE EXTENT THAT NO DAMAGE FROM HYDROSTATIC PRESSURE, FLOTATION OR OTHER DAMAGE RESULTS. ALL EXCAVATIONS SHALL BE DEWATERED TO A DEPTH OF AT LEAST 3 INCHES BELOW THE BOTTOM OF THE CONCRETE SLAB OR PIPE TO BE INSTALLED THEREIN. THE CONTRACTOR MAY USE ANY METHOD OR COMBINATION OF METHODS FOR DEWATERING HE CHOOSES; HOWEVER, ALL DEWATERING METHODS AND EQUIPMENT WHICH, IN THE OPINION OF THE ENGINEER, ARE INEFFECTIVE SHALL BE ABANDONED, IMPROVED, REPLACED OR OTHERWISE ALTERED TO OBTAIN EFFECTIVE DEWATERING. THE CONTRACTOR SHALL PROVIDE ALL POWER, PUMPS, MATERIALS AND APPARATUS NECESSARY, AND SHALL BE RESPONSIBLE FOR DISPOSING OF THE WATER PUMPED FROM THE EXCAVATION IN A MANNER WHICH WILL NOT INTERFERE WITH OTHER WORK WITHIN THE AREA AND NOT TO DAMAGE PUBLIC OR PRIVATE PROPERTY. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE CONDITION OF ANY PIPE, CONDUIT, DITCH, CHANNEL OR NATURAL WATERCOURSE UTILIZED FOR DRAINAGE PURPOSES, AND ALL EROSION, SEDIMENT OR OTHER ADVERSE RESULTS OF THEIR USE SHALL BE REPAIRED.
10. POSITIVE DRAINAGE AND PROTECTION. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE THROUGHOUT THE SITE AT ALL TIMES. LOW POINTS WITHIN AND ALONG ROADWAYS ARE EXPRESSLY PROHIBITED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY DITCHES, PIPING OR OTHER MEANS TO FACILITATE PROPER DRAINAGE DURING CONSTRUCTION. TO PROTECT PREVIOUSLY GRADED AREAS FROM EROSION, WOOD FIBER BLANKET SHALL BE PLACED IMMEDIATELY ON STEEP SLOPES (1:3 OR GREATER) AND EMBANKMENTS, PERMANENT AND TEMPORARY PONDS, AND OUTLETS AND OVERFLOWS TO PROTECT THE COMPLETED GRADE AND MINIMIZE SILT IN THE RUNOFF.
11. DRAINAGE DITCHES. THE NORMAL WETTED PERIMETER OF ANY TEMPORARY OR PERMANENT DRAINAGE DITCH OR SWALE THAT DRAINS WATER FROM ANY PORTION OF THE CONSTRUCTION SITE, OR DIVERTS WATER AROUND THE SITE, MUST BE STABILIZED WITHIN 200 LINEAL FEET FROM THE PROPERTY EDGE, OR FROM THE POINT OF DISCHARGE INTO ANY SURFACE WATER. STABILIZATION OF THE LAST 200 LINEAL FEET MUST BE COMPLETED WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER. STABILIZATION OF THE REMAINING PORTIONS OF ANY TEMPORARY OR PERMANENT DITCHES OR SWALES MUST BE COMPLETE WITHIN 14 DAYS AFTER CONNECTING TO A SURFACE WATER AND CONSTRUCTION IN THAT PORTION OF THE DITCH HAS TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY OR PERMANENT DITCHES OR SWALES THAT ARE BEING USED AS A SEDIMENT CONTAINMENT SYSTEM (WITH PROPERLY DESIGNED ROCK DITCH CHECKS, BIO ROLLS, SILT DIKES, ETC.) DO NOT NEED TO BE STABILIZED. THESE AREAS MUST BE STABILIZED WITHIN 24 HOURS AFTER NO LONGER BEING USED AS A SEDIMENT CONTAINMENT SYSTEM.
12. TURF ESTABLISHMENT. ALL EXPOSED SOIL AREAS MUST BE STABILIZED AS SOON AS POSSIBLE TO LIMIT SOIL EROSION BUT IN NO CASE LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.

## STANDARD PLAN NOTES

FEBRUARY 2022

### GRADING AND EROSION CONTROL PLANS



**CITY OF VICTORIA**

STANDARD DRAWING  
NO.  
**600B**  
Victoria

13. MAINTENANCE AND INSPECTION. EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION AND UNTIL SATISFACTORY ESTABLISHMENT OF PERMANENT GROUND COVER IS OBTAINED. ALL EROSION AND SEDIMENTATION CONTROL MEASURES, AND STORMWATER OUTFALLS MUST BE INSPECTED WEEKLY, AND WITHIN 24 HOURS OF THE SITE RECEIVING 0.5 INCHES OF RAIN. REPAIRS MUST BE MADE ON THE SAME DAY OR FOLLOWING DAY OF THE INSPECTION. UNSATISFACTORY CONDITIONS NOT REPAIRED OR CLEANED UP WITHIN 48-HOURS OF NOTIFICATION SHALL RESULT IN A STOP WORK ORDER, AND/OR SAID WORK SHALL BE COMPLETED AT CONTRACTOR'S EXPENSE.
14. REMOVAL. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL TEMPORARY EROSION CONTROL MEASURES, STRUCTURES AND DEVICES ONLY AFTER RECEIVING ENGINEER APPROVAL. ALL DEBRIS, STAKES, AND SILTS ALONG SILT FENCES SHALL BE REMOVED AND DISPOSED OFF SITE. THE CONTRACTOR SHALL HAND RAKE SILTED AREAS ALONG THE FENCE LOCATIONS TO PROVIDE A SMOOTH FINAL GRADE AND SHALL RESTORE THE GROUND SURFACE WITH SEED OR SOD, AS REQUIRED, TO MATCH THE FINISHED GRADE TO THE ADJACENT AREA.
15. FINAL STORM SEWER SYSTEM. AT THE COMPLETION OF THE WORK AND BEFORE THE FINAL WALK THROUGH, THE CONTRACTOR SHALL REMOVE STORM SEWER INLET PROTECTION MEASURES AND THOROUGHLY FLUSH THE STORM SEWER SYSTEM. SEDIMENT AND DEBRIS SHALL BE COMPLETELY REMOVED AND CLEANED AT THE INLETS, OUTLETS, AND DOWNSTREAM OF EACH OUTLET. RIPRAP AND GEOTEXTILE FABRIC MAY REQUIRE REPLACEMENT AS DIRECTED BY THE ENGINEER TO OBTAIN A LIKE NEW INSTALLATION ACCEPTABLE TO THE CITY.
16. DITCH CHECK (BIOROLL BLANKET SYSTEM). BIOROLL AND BLANKET SYSTEMS SHALL BE INSTALLED AS DITCH CHECKS ONLY IN SPECIFIED LOCATIONS AS APPROVED BY THE CITY ENGINEER. BIOROLLS ARE NOT TO BE UTILIZED IN AREAS WHERE VEHICLE AND CONSTRUCTION TRAFFIC OCCUR.
17. FLOTATION SILT CURTAIN. FLOTATION SILT CURTAIN SHALL BE UTILIZED WHEN CONSTRUCTION ACTIVITIES OCCUR DIRECTLY ADJACENT TO LAKES, STREAMS OR WETLANDS IN ORDER TO CONTAIN SEDIMENTS NEAR THE BANKS OF WORKING AREAS. THE INSTALLATION OF FLOTATION SILT CURTAINS WILL BE REQUIRED AS DIRECTED BY THE CITY ENGINEER.
18. CONCRETE WASHOUT ONSITE. ALL LIQUID AND SOLID WASTES GENERATED BY CONCRETE WASHOUT OPERATIONS MUST BE CONTAINED IN A LEAK-PROOF CONTAINMENT FACILITY OR IMPERMEABLE LINER. A COMPACTED CLAY LINER THAT DOES NOT ALLOW WASHOUT LIQUIDS TO ENTER GROUND WATER IS CONSIDERED AN IMPERMEABLE LINER. THE LIQUID AND SOLID WASTES MUST NOT CONTACT THE GROUND, AND THERE MUST NOT BE RUNOFF FROM THE CONCRETE WASHOUT OPERATIONS OR AREAS. LIQUID AND SOLID WASTES MUST BE DISPOSED OF PROPERLY AND IN COMPLIANCE WITH MPCA REGULATIONS. A SIGN MUST BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES.

## STANDARD PLAN NOTES

FEBRUARY 2022

### GRADING AND EROSION CONTROL PLANS



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NO.  
**600C**  
Victoria

1. RESTORE ALL DISTURBED AREAS WITH 6 INCHES OF TOPSOIL CONFORMING TO MNDOT 3877.
2. PROTECT ALL STORM SEWER INLETS AS SPECIFIED HEREIN AND MAINTAIN UNTIL STREET CONSTRUCTION IS COMPLETED.
3. MAINTAIN ALL SILT FENCE AND REPAIR OR REPLACE AS NEEDED OR REQUIRED UNTIL TURF HAS BEEN ESTABLISHED.
4. RESTORATION WORK SHALL BEGIN WITHIN 7 DAYS OF FINAL GRADING.
5. PLACE 1 ROW OF MNDOT 3885 CATEGORY 3, TYPE 2S (NATURAL NETTING ON BOTH SIDES) EROSION CONTROL BLANKET (8' MIN) BEHIND BACK OF CURB WITH SEED IN ACCORDANCE WITH THE CITY STANDARD SPECIFICATIONS. PLACE HEAVY DUTY SILT FENCE (SPEC. 2573.3, TYPE MS/HI) DIRECTLY BEHIND BLANKET. IN AREAS WITH SIDEWALK/TRAIL, INSTALL SILT FENCE ON BACKSIDE OF WALKWAY.
6. BOULEVARD AND DITCH RESTORATION INCLUDES FINE GRADING, WHICH INCLUDES THE REMOVAL OF ROCKS, DEBRIS AND SOIL CHUNKS, WHILE MAINTAINING POSITIVE DRAINAGE.
7. UPON COMPLETION OF MASS GRADING, ALL DRAINAGE EASEMENTS SHALL BE PROTECTED BY SILT FENCE (OR SIMILAR BARRIER) UNTIL ADJACENT AREAS ARE PERMANENTLY AND FULLY ESTABLISHED.
8. CITY OWNED AND MAINTAINED PROPERTY/OUTLOTS PERMANENT RESTORATION:
  - A. BOULEVARDS ADJACENT TO CITY OWNED PROPERTY SHALL BE PERMANENTLY ESTABLISHED WITH 6" TOPSOIL AND SOD. THIS INCLUDES THE ENTIRE AREA BETWEEN BACK OF CURB AND RIGHT OF WAY LINE.
  - B. ALL OTHER AREAS WHERE SOD IS NOT REQUIRED SHALL BE ESTABLISHED WITH 6" TOPSOIL, GRADED TO A SMOOTH MOWABLE CONDITION AND SEEDED WITH MnDOT 3876, CAT 25, MIX 151, HIGH MAINTENANCE TURF MIX, WITH PLS (PURE LIVE SEED) RATE OF 200 LB/ACRE
  - C. EROSION CONTROL BLANKET SHALL BE MnDOT 3885-1, CAT 3N (NATURAL NETTING AND STITCHING)

## STANDARD PLAN NOTES

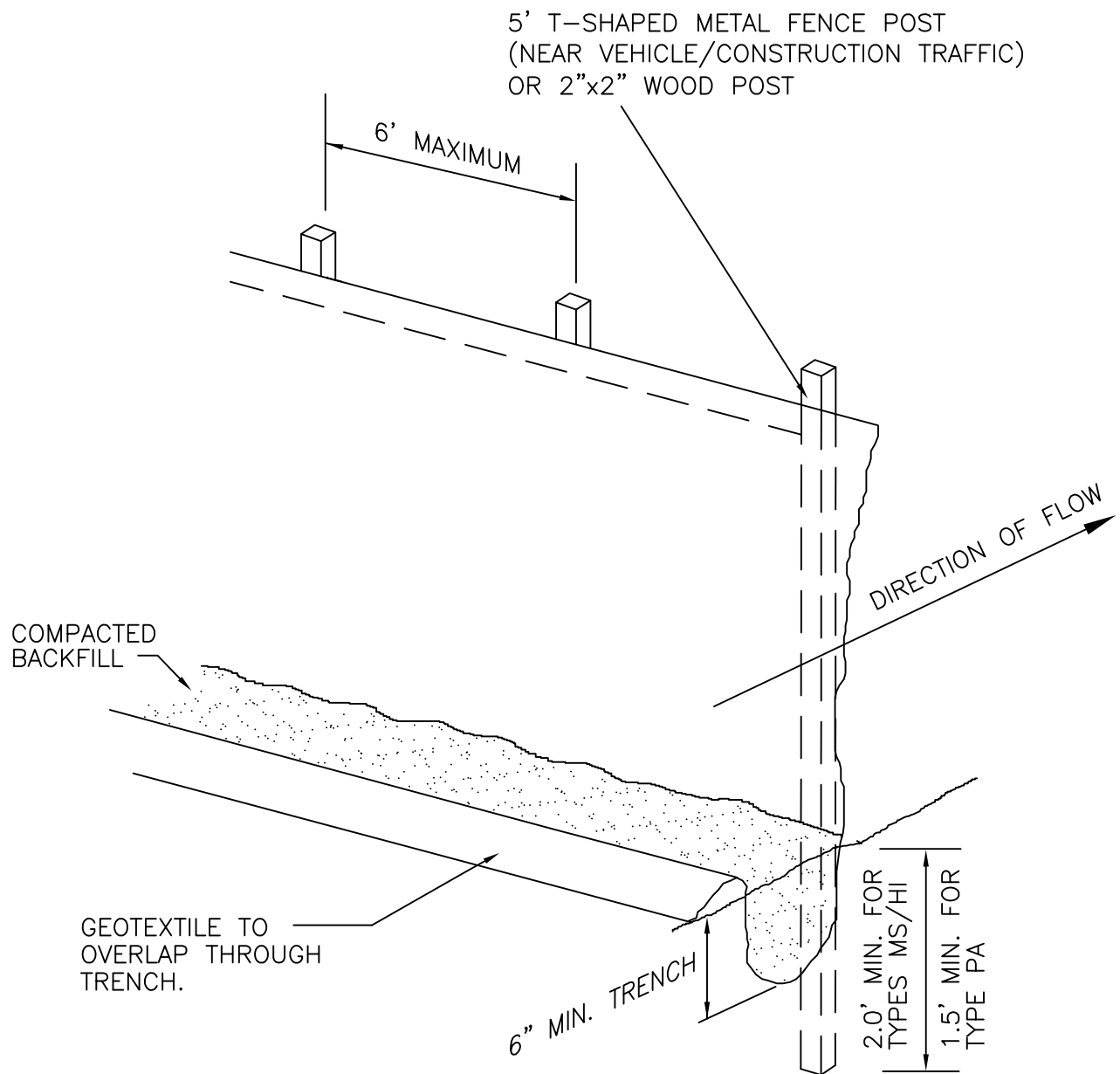
### SITE RESTORATION PLANS

FEBRUARY 2022



**CITY OF VICTORIA**

STANDARD DRAWING  
NO.  
**600D**  
Victoria



NOTE : -SILT FENCE INSTALLATION SHALL CONFORM TO MNDOT2573.3, TYPE MS/HI NEAR VEHICLE/CONSTRUCTION TRAFFIC, TYPE PA AT ALL OTHER LOCATIONS.  
-MATERIALS SHALL CONFORM TO MNDOT 3886.

## SILT FENCE

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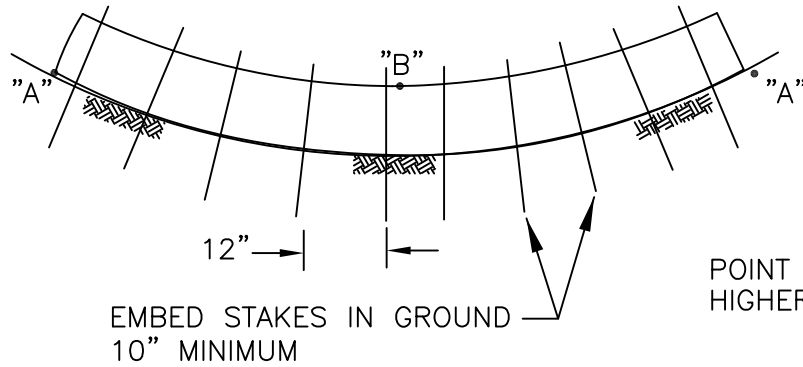
CITY OF VICTORIA

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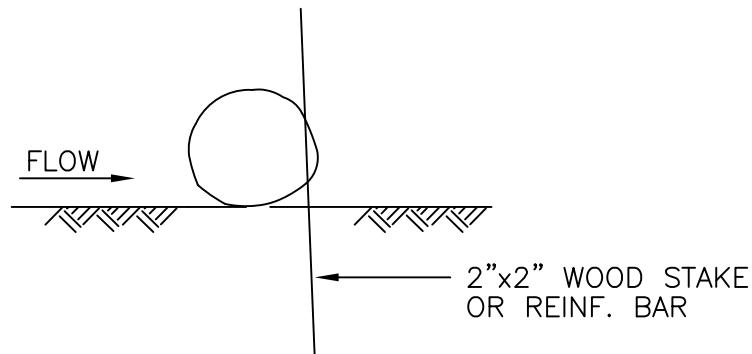
601

Victoria





DITCH SECTION



FIBER ROLL SECTION

NOTE:  
 STAKE TO BE INSTALLED AT AN ANGLE OF APPROXIMATELY  
 45° ON THE DOWNSTREAM SIDE OF THE FIBER ROLL.  
 ENSURE THAT STAKE DOES NOT PUSH DOWN  
 THE FIBER ROLL FROM ITS FULL HEIGHT.

DITCH CHECK (FIBER ROLL)

FEBRUARY 2022



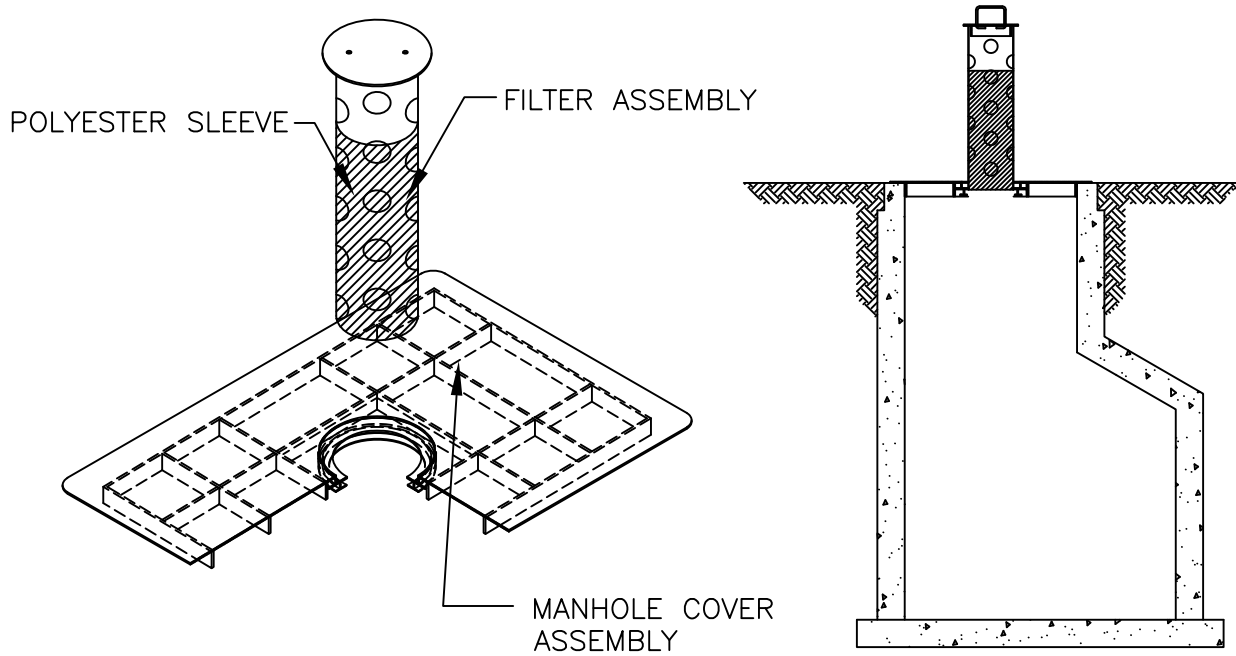
CITY OF VICTORIA

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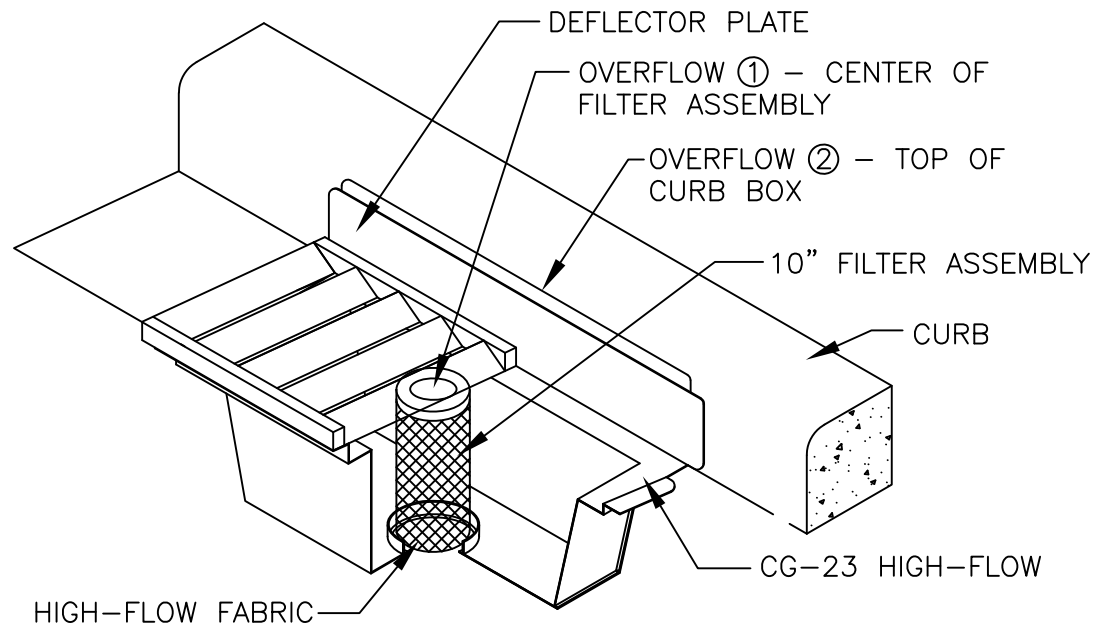
603

Victoria

NOTE: MAINTAIN AND CLEAN OUT DEVICES AS NECESSARY TO ACHIEVE PROPER FLOW OF STORM WATER INTO STORM SYSTEM.



WIMCO RD-23 OR APPROVED EQUAL



WIMCO CG-23 HIGH-FLOW OR APPROVED EQUAL

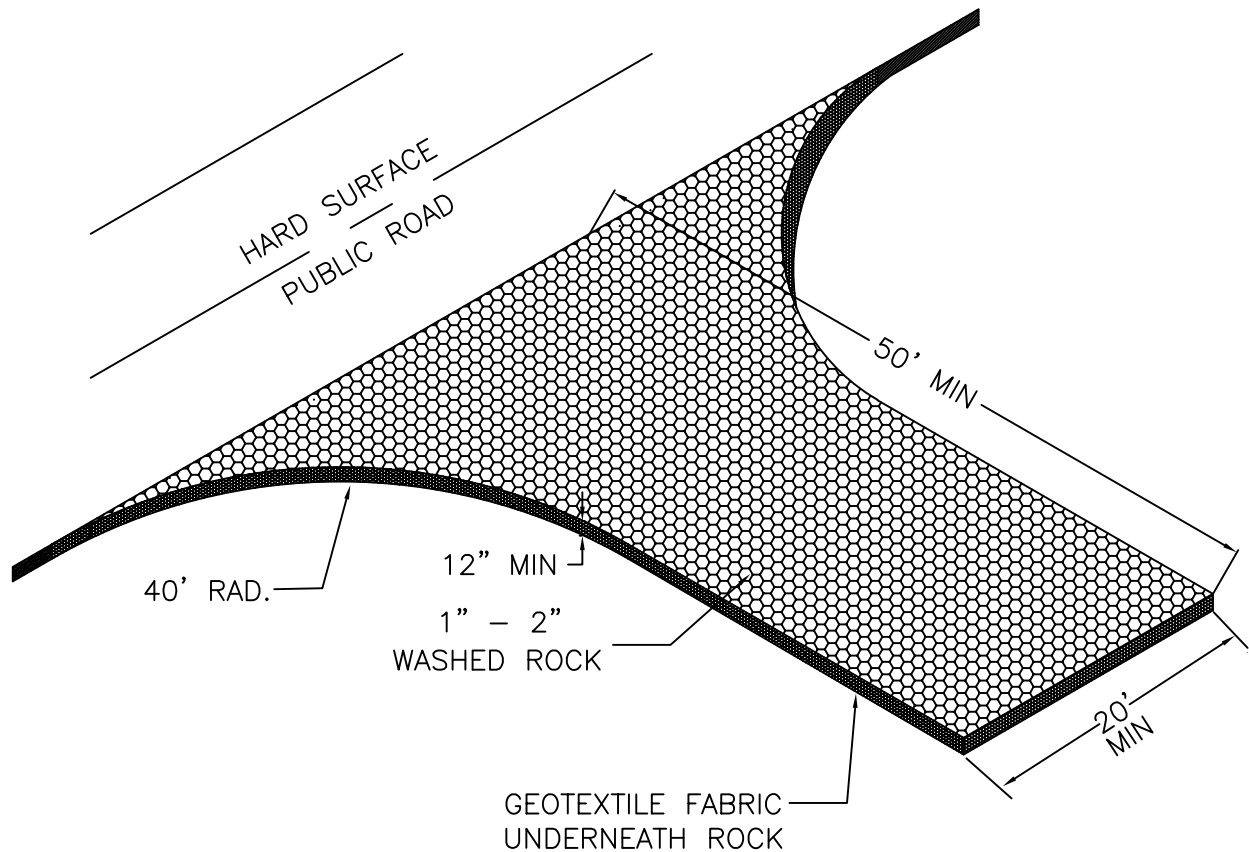
SEDIMENT CONTROL AROUND STORM SEWER INLET

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CITY OF VICTORIA

STANDARD DRAWING  
NO.  
**604**  
Victoria



NOTES:

1. MAXIMUM WIDTH OF CONSTRUCTION ENTRANCE IS 24 FEET.
2. A MNDOT 3733 TYPE V GEOTEXTILE FABRIC SHALL BE USED UNDER THE ROCK TO PREVENT MIGRATION OF THE UNDERLYING SOIL INTO THE STONE.
3. CONSTRUCTION ENTRANCE IS REQUIRED FOR ALL NEW HOME CONSTRUCTION AND NEW STREET CONSTRUCTION.
4. CONSTRUCTION ENTRANCE SHALL BE MAINTAINED TO PREVENT TRACKING OF MUD ONTO ROADWAYS THAT ADJOIN THE PROJECT. THIS WILL REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL ROCK OR REMOVAL AND REINSTALLATION OF THE ROCK ENTRANCE.
5. REMOVE MUD AND DEBRIS FROM TIRES AND VEHICLE UNDERCARRIAGE PRIOR TO LEAVING THE SITE.

## ROCK CONSTRUCTION ENTRANCE

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STANDARD DRAWING  
NO.  
**605**  
Victoria

1. STREET LIGHTING SHALL BE INSTALLED PER CITY STANDARDS 5 FEET BACK OF CURB IN LOCATIONS SHOWN ON PLAN.
2. ALL SIGNS MUST MEET MMUTCD.
3. ALL SIGN SHEATHING TO BE HIGH INTENSITY DIAMOND GRADE DG3.
4. SIGN POSTS TO BE UNPAINTED GALVANIZED METAL, 3.0 LBS/FT.
5. CITY TO FURNISH AND INSTALL STREET SIGNS.
6. POLY PREFORMED PAVEMENT MATERIAL SHALL BE USED FOR ALL PAVEMENT SYMBOLS.
7. EPOXY RESIN AND DROP-ON GLASS BEADS FOR PAVEMENT MARKINGS SHALL MEET THE REQUIREMENTS OF MnDOT "SPECIFICATIONS FOR CONSTRUCTION, 2018 EDITION".
8. ACRYLIC LATEX WATERBORNE TRAFFIC MARKING PAINT FOR PAVEMENT MARKINGS SHALL CONFORM TO MnDOT 3591 WATER-BASED TRAFFIC PAINT OR APPROVED EQUAL.

## STANDARD PLAN NOTES

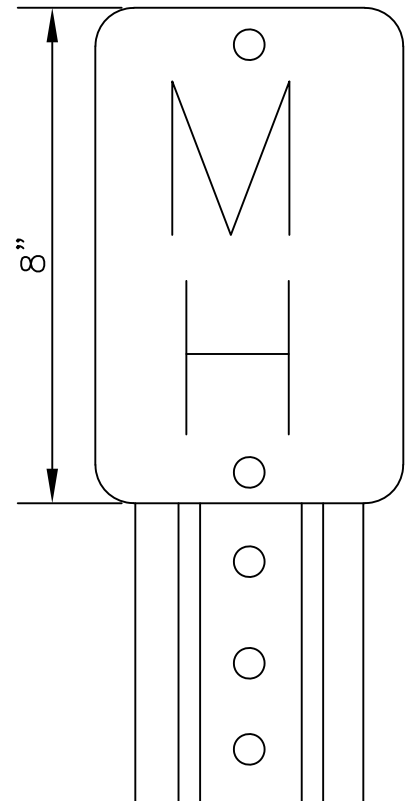
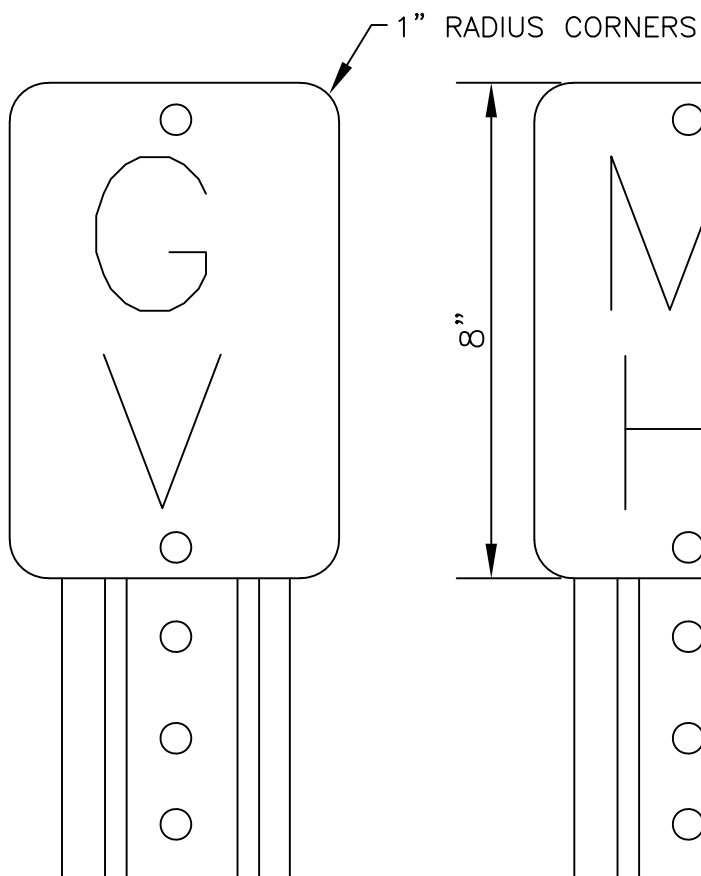
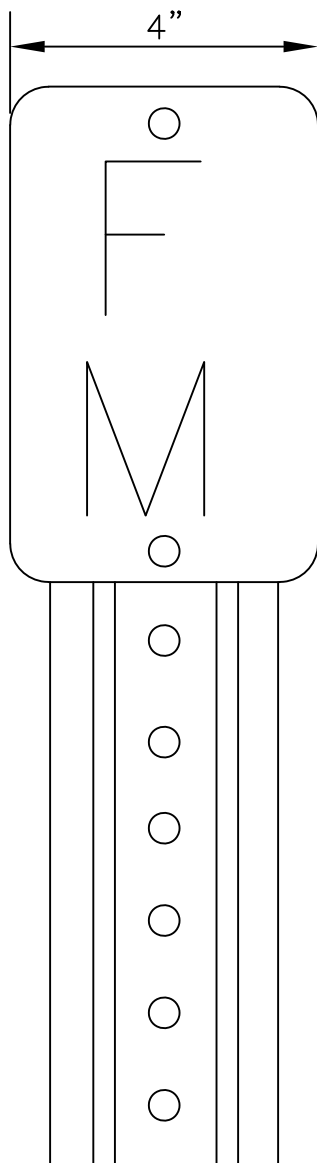
### SIGNING/PAVEMENT MARKINGS/LIGHTING PLANS

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**CITY OF VICTORIA**

STANDARD DRAWING  
NO.  
**700A**  
Victoria



NOTE:

- 0.063" THICK ALUMINUM HIGH INTENSITY RETRO-REFLECTORIZED FOR ALL SIGNS.
- BLACK LETTERS ON WHITE BACKGROUND FOR MANHOLE.
- WHITE LETTERS ON BLUE BACKGROUND FOR GATE VALVE.
- WHITE LETTERS ON GREEN BACKGROUND FOR FORCEMAIN – "FM".
- U-CHANNEL POST, MINIMUM 3.0 LB./FT., 7.5' LONG, GALVANIZED & BURIED 2.5'.
- PLACE MARKERS AT ALL OFF ROAD MANHOLES AND GATE VALVES.

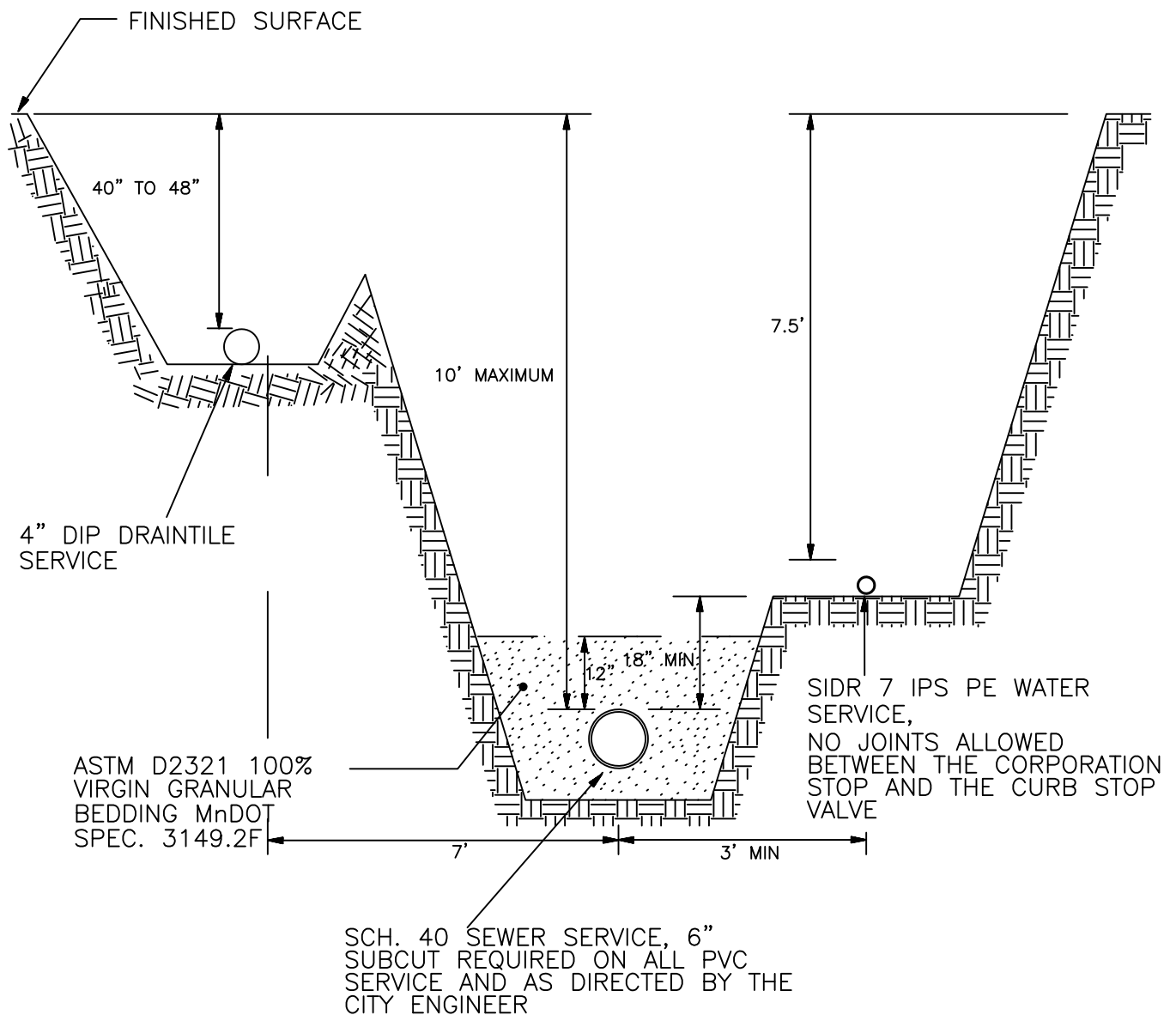
## OFF ROAD STRUCTURE MARKERS

FEBRUARY 2022



**CITY OF VICTORIA**

STANDARD DRAWING  
NO.  
**705**  
Victoria



NOTE: IF 18" OF VERTICAL SEPARATION BETWEEN THE SANITARY SERVICE AND WATER SERVICE CAN NOT BE MAINTAINED 10' OF HORIZONTAL SEPARATION IS REQUIRED.

## SANITARY, WATER & DRAINTILE SERVICE INSTALLATION

FEBRUARY 2022

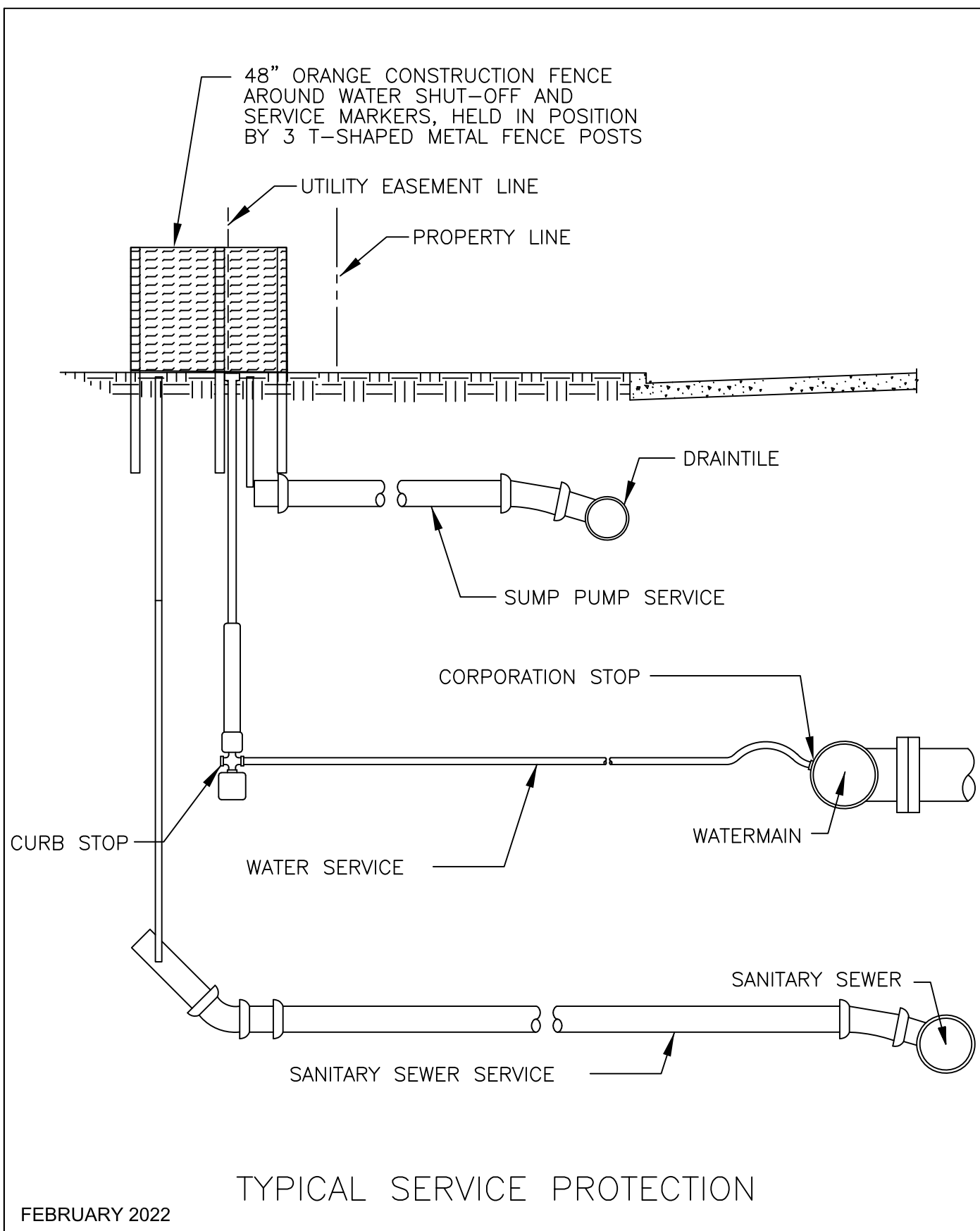


CITY OF VICTORIA

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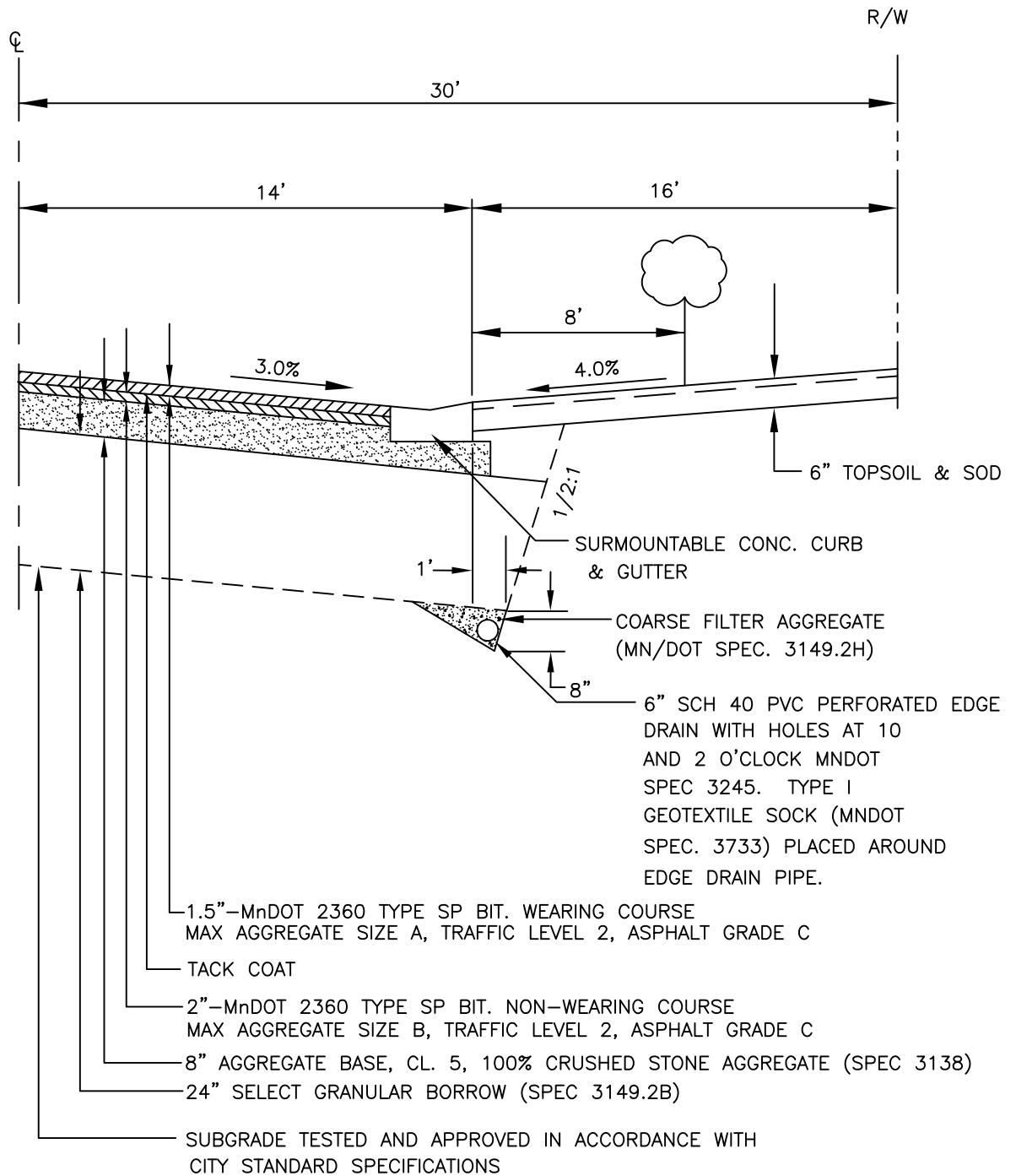
712

Victoria



CITY OF VICTORIA

STANDARD DRAWING  
NO.  
**713**  
Victoria



NOTE:  
TACK FACE OF GUTTER PRIOR TO  
BOTH LIFTS OF BITUMINOUS

## TYPICAL RESIDENTIAL STREET SECTION

FEBRUARY 2022

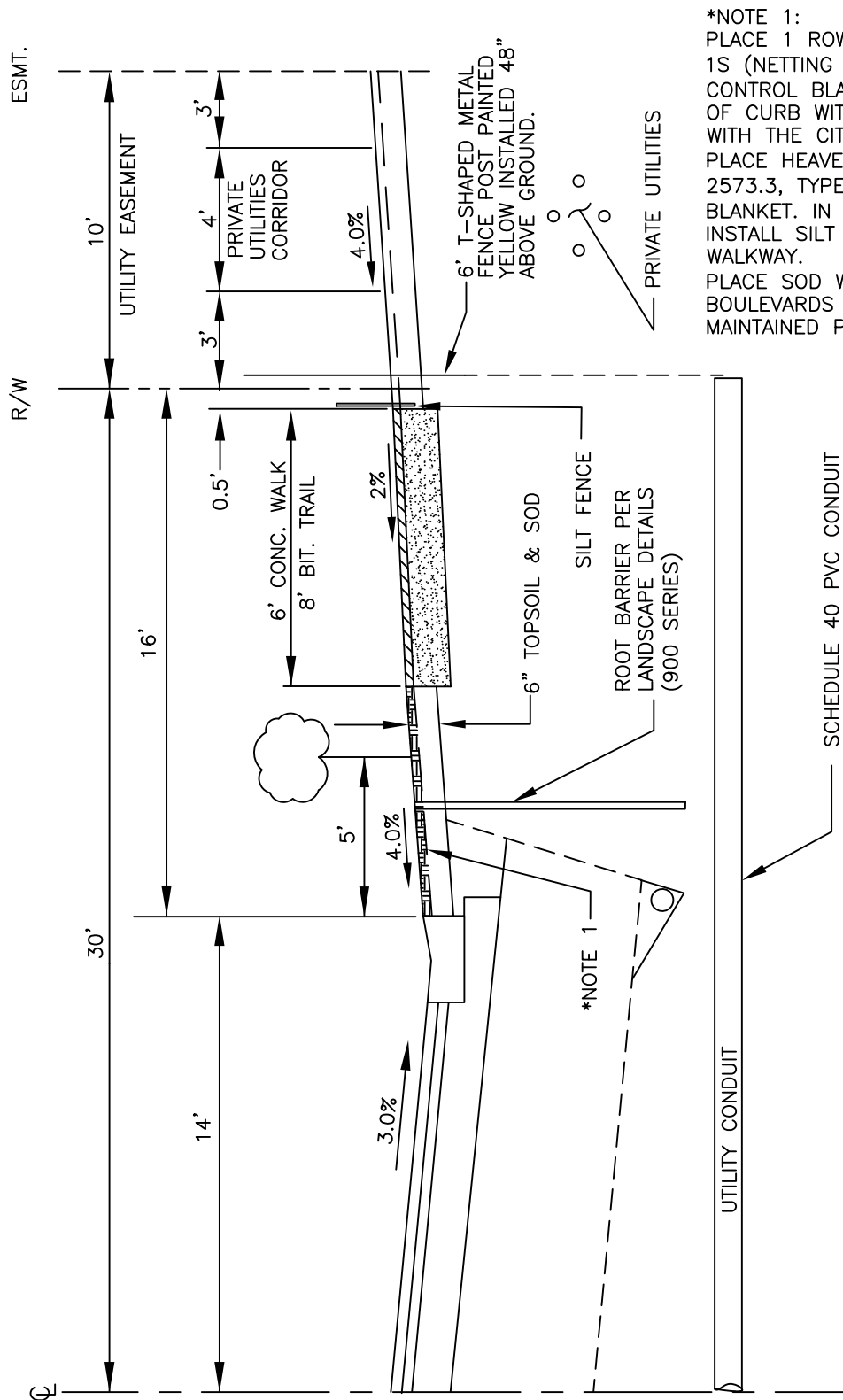


CITY OF VICTORIA

STANDARD DRAWING  
NO.  
**801**  
Victoria







\*NOTE 1:  
 PLACE 1 ROW OF MnDOT 3885-1 CATO, 1S (NETTING ONE SIDE) EROSION CONTROL BLANKET (8' MIN) BEHIND BACK OF CURB WITH SEED IN ACCORDANCE WITH THE CITY STANDARD SPECIFICATIONS. PLACE HEAVE DUTY SILT FENCE (SPEC. 2573.3, TYPE MS/HI) DIRECTLY BEHIND BLANKET. IN AREAS WITH SIDEWALK/TRAIL, INSTALL SILT FENCE ON BACKSIDE OF WALKWAY. PLACE SOD WITH 6" TOPSOIL ON ALL BOULEVARDS ADJACENT TO CITY OWNED, MAINTAINED PROPERTY

NOTE:  
 1. STREET LIGHTS SHALL BE LOCATED 5 FEET BACK OF CURB.

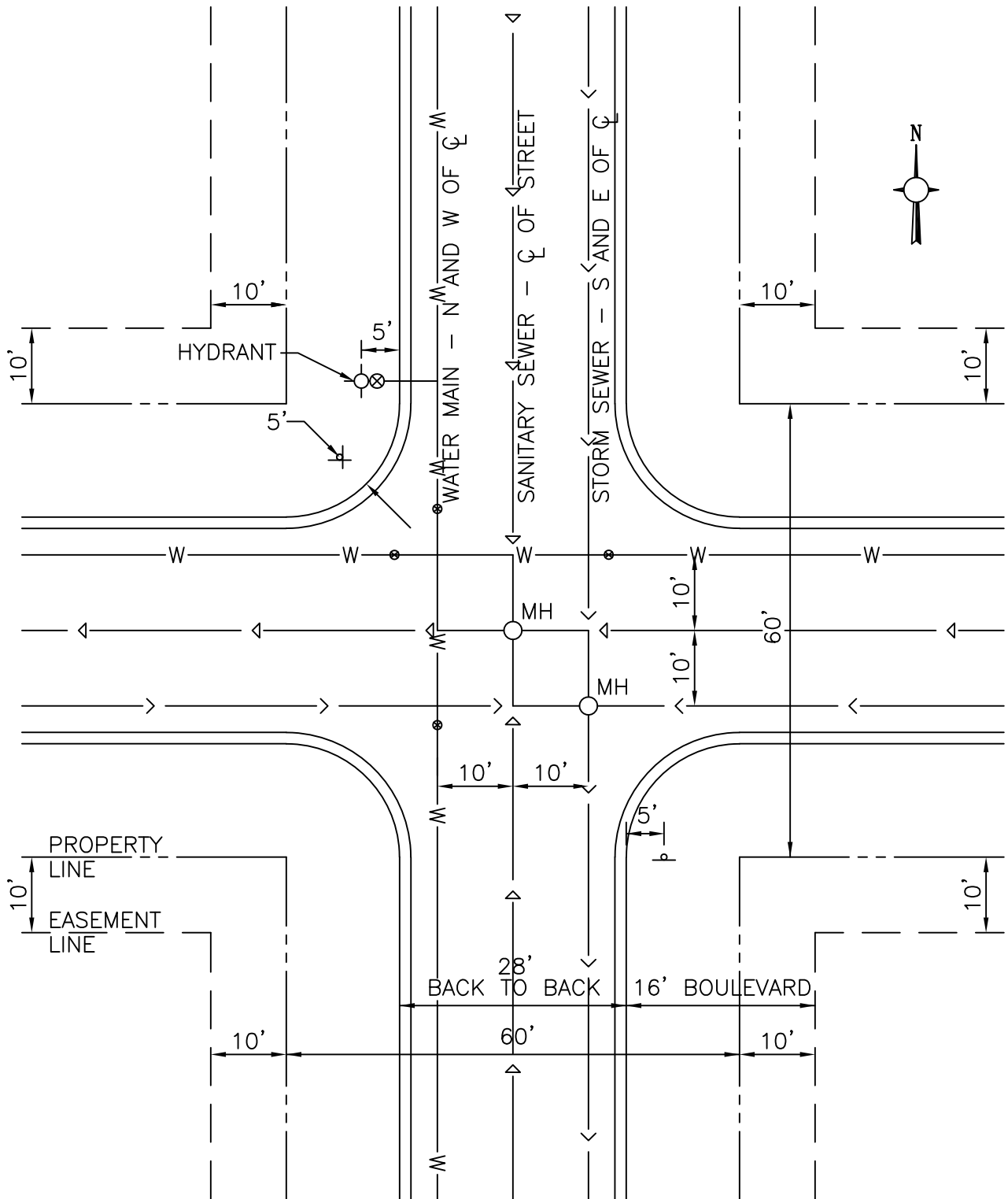
## TYPICAL RIGHT OF WAY LAYOUT

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CITY OF VICTORIA

STANDARD DRAWING  
 NO.  
**805**  
 Victoria



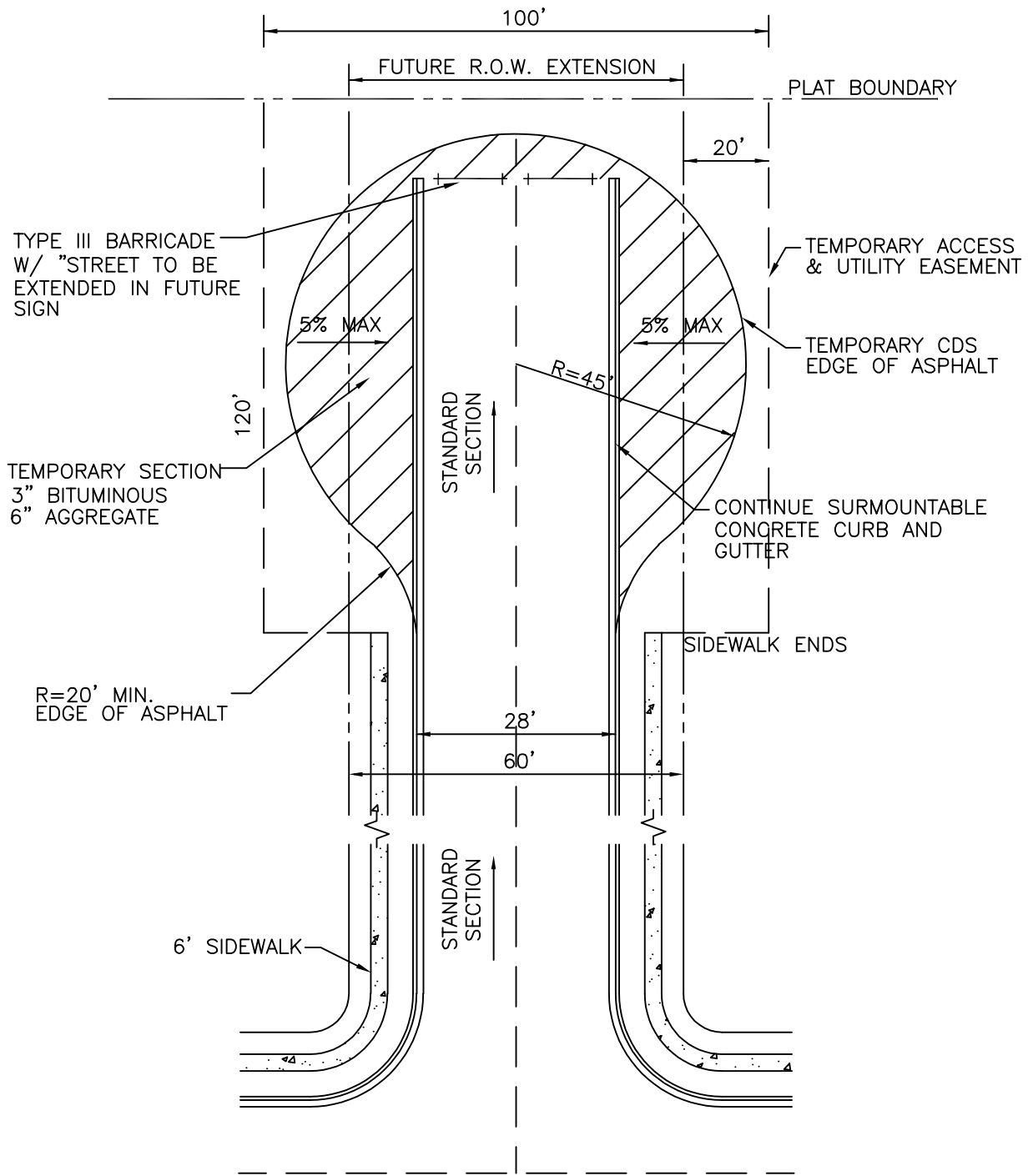
# URBAN STREET UTILITY LOCATION

FEBRUARY 2022



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 NO.  
**806**  
 Victoria



TEMPORARY CUL-DE-SAC TYPE A

FEBRUARY 2022



CITY OF VICTORIA

STANDARD DRAWING  
NO.

807A

Victoria

NOTE: POSITIVE  
DRAINAGE MUST BE  
MAINTAINED, BITUMINOUS  
CURB MAY BE USED  
AS NECESSARY.

TYPE III BARRICADE  
W/ "STREET TO BE  
EXTENDED IN FUTURE  
SIGN

TEMPORARY  
SECTION  
↑  
3" BITUMINOUS  
6" AGGREGATE BASE

R=20' MIN.  
EDGE OF BITUMINOUS

6' SIDEWALK

100'

R=45'

TEMPORARY ACCESS  
& UTILITY EASEMENT

TEMPORARY CDS  
EDGE OF BITUMINOUS

PLAT BOUNDARY  
CURB & SIDEWALK END

28'

60'

STANDARD  
SECTION  
↓

## TEMPORARY CUL-DE-SAC TYPE B

FEBRUARY 2022



CITY OF VICTORIA

STANDARD DRAWING  
NO.

807B

Victoria

1. PRIOR TO TREE STAKING AND PLANTING OPERATIONS CONTRACTOR MUST CONTACT GOPHER STATE ONE CALL ([www.gopherstateonecall.org](http://www.gopherstateonecall.org) or 811) TO VERIFY UNDERGROUND UTILITIES. WHERE PRIVATE UTILITIES EXIST ON-SITE THE CONTRACTOR IS REQUIRED TO HAVE THOSE LOCATED AS WELL.
2. PLANT MATERIALS SHALL MEET AMERICAN STANDARD FOR NURSERY STOCK: ANSI Z60.1 LATEST EDITION.  
[http://americanhort.org/documents/ANSI Nursery Stock Standards AmericanHort 2014.pdf](http://americanhort.org/documents/ANSI_Nursery_Stock_Standards_AmericanHort_2014.pdf)
3. NO PLANT SUBSTITUTIONS SHALL BE MADE WITHOUT THE PRIOR WRITTEN AUTHORIZATION FROM THE CITY.
4. ALL TREE PROTECTION MEASURES TO BE FIELD STAKED PRIOR TO INSTALLATION. CONTRACTOR TO COORDINATE FIELD REVIEW OF PROPOSED TREE PROTECTION LOCATIONS WITH THE CITY AND PROJECT LANDSCAPE ARCHITECT PRIOR TO ANY TREE PROTECTION INSTALLATION.
5. ALL TREE LOCATIONS TO BE FIELD STAKED PRIOR TO INSTALLATION. CONTRACTOR TO COORDINATE FIELD REVIEW OF PROPOSED TREE LOCATIONS WITH THE CITY AND PROJECT LANDSCAPE ARCHITECT PRIOR TO ANY TREE INSTALLATION.
6. ALL PLANTS SHALL BE PLANTED IMMEDIATELY UPON ARRIVAL TO PROJECT SITE. NO PLANT MATERIAL IS TO BE LEFT OVERNIGHT ON THE PROJECT SITE WITHOUT BEING INSTALLED UNLESS WRITTEN APPROVAL BY CITY.
7. ALL TREES, SHRUBS, PERENNIALS AND TURF LAWN TO HAVE A ONE YEAR WARRANTY BEGINNING UPON WRITTEN ACCEPTANCE BY THE CITY. DEFECTIVE PLANTS AS DETERMINED BY THE CITY SHALL BE REPLACED WITHIN 30 DAYS OF NOTICE DURING THE GROWING SEASON, AND REPLACEMENT MATERIALS SHALL RECEIVE THE SAME ONE YEAR WARRANTY UNTIL PLANTS ARE SUCCESSFULLY ESTABLISHED.
8. CONTRACTOR TO PROTECT AND MAINTAIN ALL PLANTINGS AND PLANT BEDS, INCLUDING PROTECTION FROM WILDLIFE, WEEDING, RE-MULCHING, FERTILIZATION, IRRIGATION AND ALL OTHER TYPICAL FORMS OF HORTICULTURAL CARE UNTIL THE END OF THE WARRANTY PERIOD AS DETERMINED AND APPROVED BY CITY.
9. ALL AREAS DISTURBED ADJACENT TO THE PROJECT SITE INCLUDING BOULEVARDS SHALL BE REPAIRED AND MAINTAINED PER CITY DIRECTION.
10. PROVIDE A THREE YEAR MAINTENANCE PLAN FOR ALL SEEDING OF PLANT MATERIALS/AREAS WITHIN ALL COMMERCIAL PROPERTIES, COMMONLY HELD HOA AREAS, CITY OUTLOTS AND R.O.W. AREAS.
11. ALL TREE PLANTING HOLES WITHIN THE RIGHT-OF-WAY, AND AS DIRECTED BY CITY STAFF, SHALL BE LINED WITH A LINEAR ROOT BARRIER 4- FEET DEEP WHEN ADJACENT TO BACK OF CURB AND/OR WALKWAY. TREES AND ROOT BARRIERS SHALL BE INSTALLED IN LOCATIONS TO AVOID SUMP PUMP SERVICE STUBS.

## STANDARD PLAN NOTES

### LANDSCAPE PLANS

FEBRUARY 2022

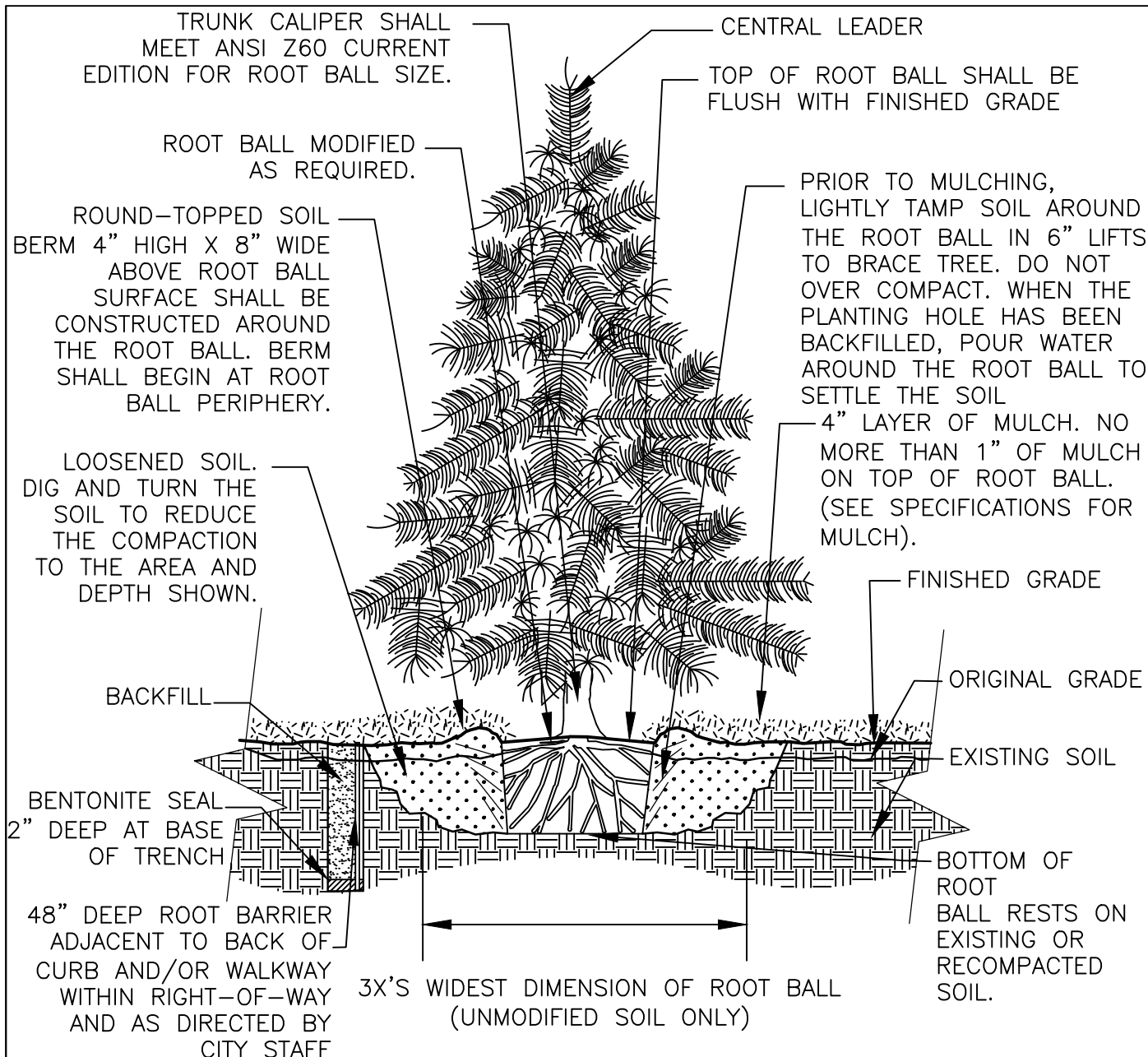


**CITY OF VICTORIA**

STANDARD DRAWING  
NO.

**900A**

Victoria



NOTES:

1. MODIFIED SOIL – DEPTH OF SOIL VARIES (SEE SPECIFICATIONS FOR SOIL MODIFICATION).
2. TREES SHALL BE OF QUALITY PRESCRIBED IN CROWN OBSERVATIONS AND ROOT OBSERVATIONS DETAILS AND SPECIFICATIONS.
3. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.

POORLY DRAINED SOIL NOTES:

1. ROOT BALL SURFACE SHALL BE POSITIONED TO BE ONE – QUARTER ABOVE FINISHED GRADE.
2. EXISTING SITE SOIL SHALL BE ADDED TO CREATE A SMOOTH TRANSITION FROM THE TOP OF THE RAISED ROOT BALL TO THE FINISHED GRADE AT A 15% MAX. SLOPE.

## CONIFEROUS TREE – MODIFIED/UNMODIFIED SOIL & POORLY DRAINED SOIL

FEBRUARY 2022

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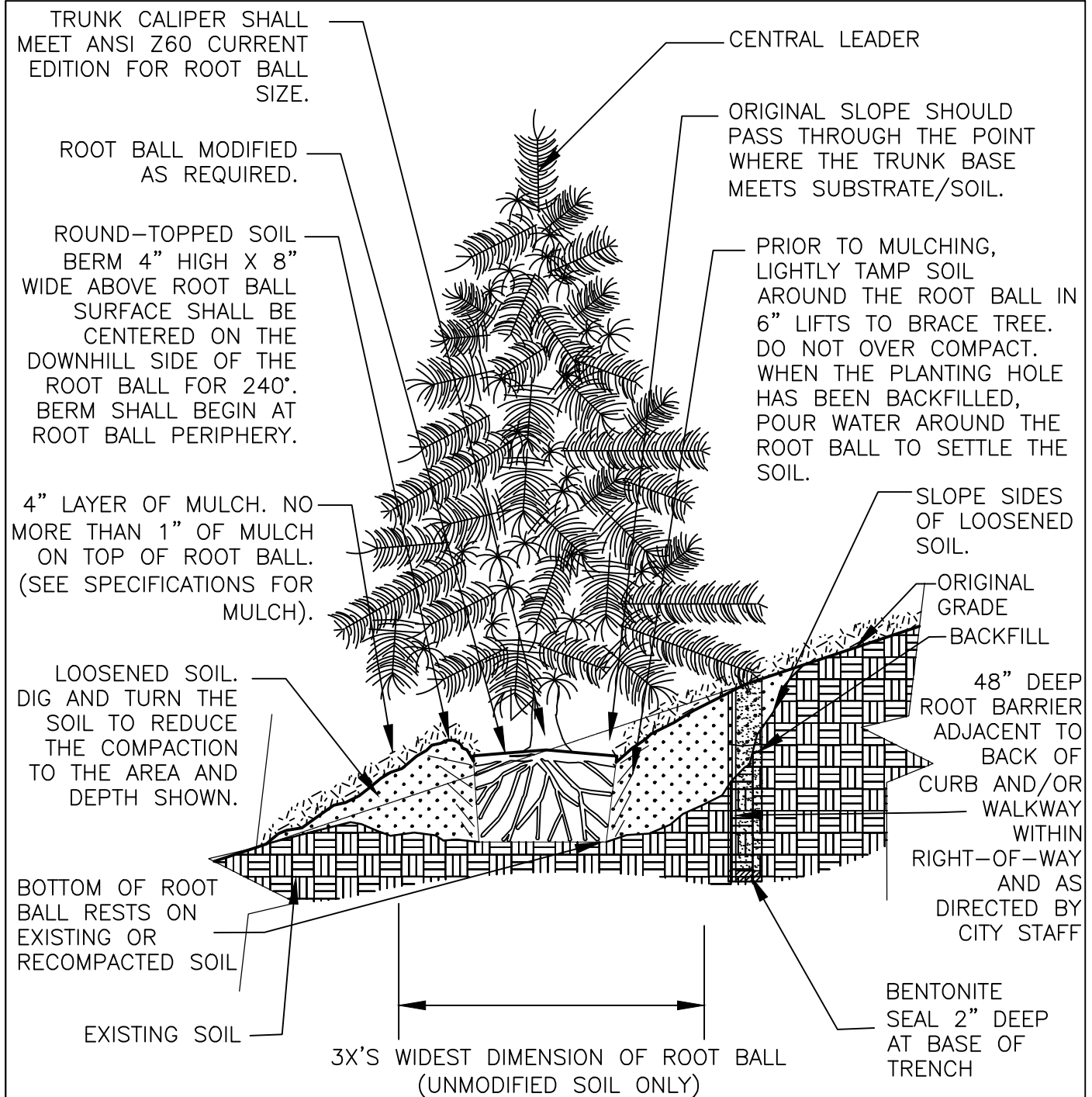


CITY OF VICTORIA

STANDARD DRAWING  
NO.

901A

Victoria



NOTES:

1. MODIFIED SOIL – DEPTH OF SOIL VARIES (SEE SPECIFICATIONS FOR SOIL MODIFICATION).
2. TREES SHALL BE OF QUALITY PRESCRIBED IN CROWN OBSERVATIONS AND ROOT OBSERVATIONS DETAILS AND SPECIFICATIONS.
3. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.

## CONIFEROUS TREE ON SLOPE 5% TO 50%: MODIFIED AND UNMODIFIED SOIL

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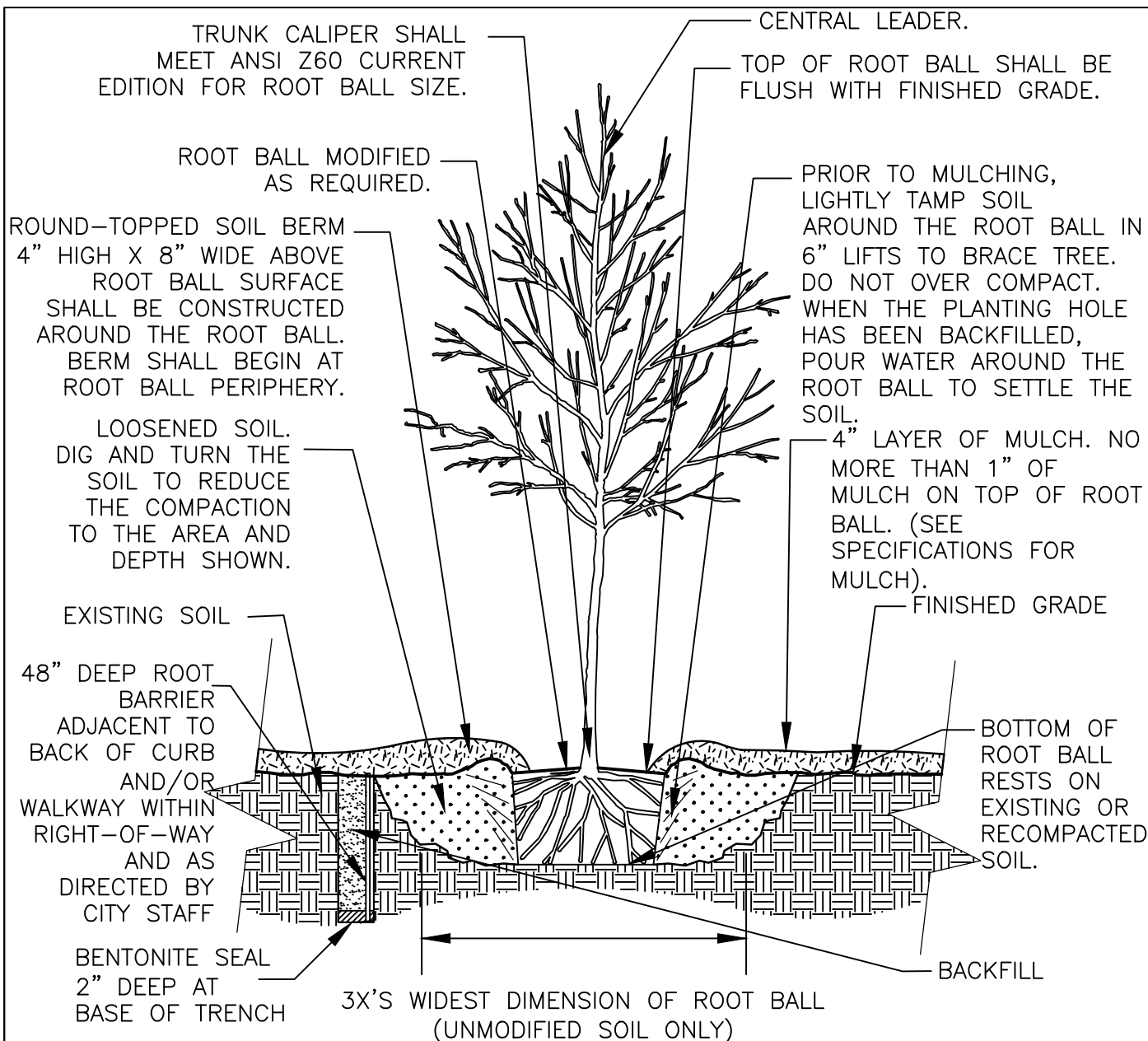
CITY OF VICTORIA

STANDARD DRAWING  
NO.

901B

Victoria





NOTES:

1. MODIFIED SOIL – DEPTH OF SOIL VARIES (SEE SPECIFICATIONS FOR SOIL MODIFICATION).
2. TREES SHALL BE OF QUALITY PRESCRIBED IN CROWN OBSERVATIONS AND ROOT OBSERVATIONS DETAILS AND SPECIFICATIONS.
3. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.

POORLY DRAINED SOIL NOTES:

1. ROOT BALL SURFACE SHALL BE POSITIONED TO BE ONE – QUARTER ABOVE FINISHED GRADE.
2. EXISTING SITE SOIL SHALL BE ADDED TO CREATE A SMOOTH TRANSITION FROM THE TOP OF THE RAISED ROOT BALL TO THE FINISHED GRADE AT A 15% MAX. SLOPE.

## DECIDUOUS TREE – MODIFIED/UNMODIFIED SOIL & POORLY DRAINED SOIL

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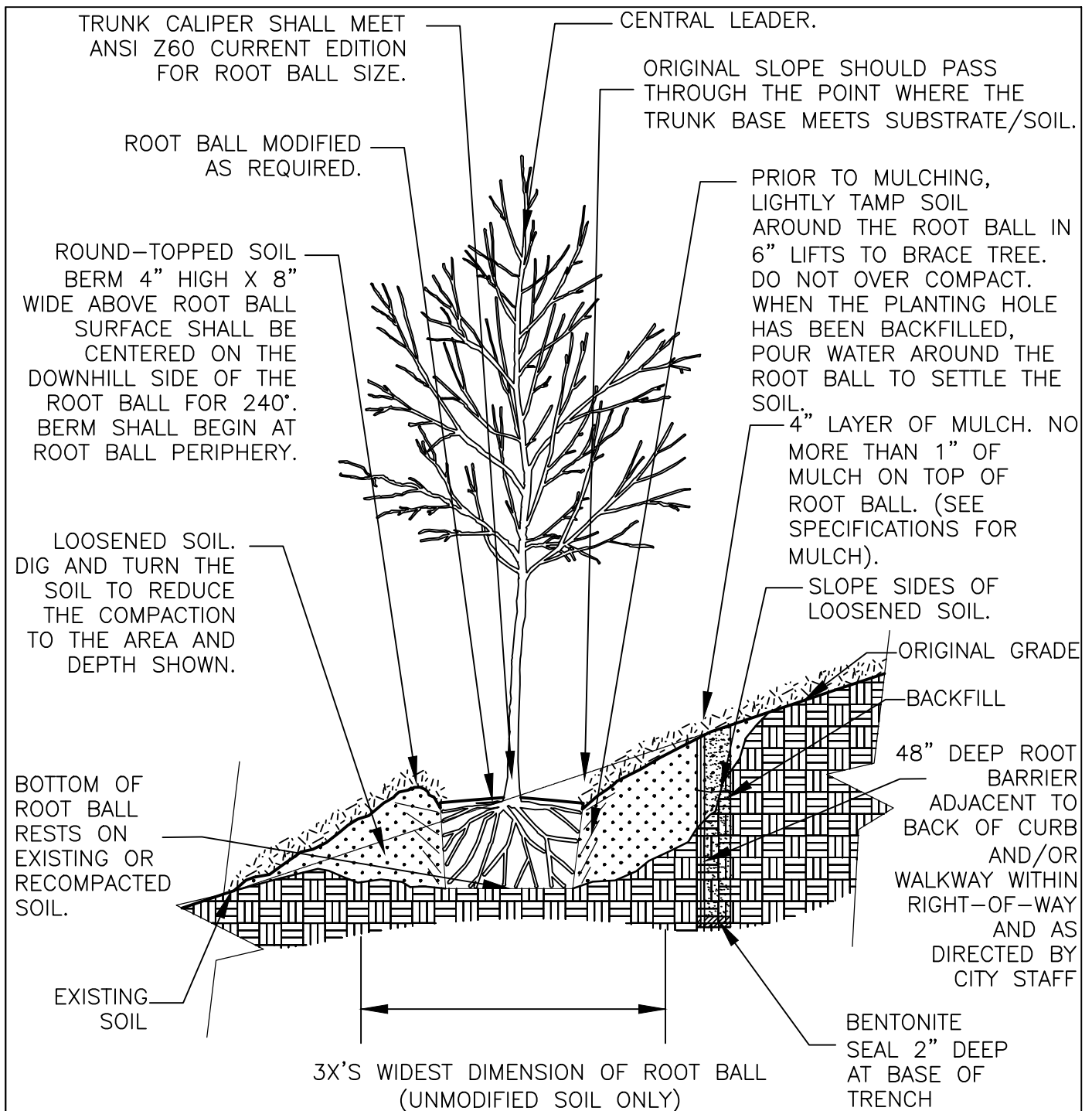


CITY OF VICTORIA

STANDARD DRAWING  
NO.

902A

Victoria



NOTES:

1. MODIFIED SOIL – DEPTH OF SOIL VARIES (SEE SPECIFICATIONS FOR SOIL MODIFICATION).
2. TREES SHALL BE OF QUALITY PRESCRIBED IN CROWN OBSERVATIONS AND ROOT OBSERVATIONS DETAILS AND SPECIFICATIONS.
3. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.

# DECIDUOUS TREE ON SLOPE 5% TO 50% MODIFIED AND UNMODIFIED SOIL

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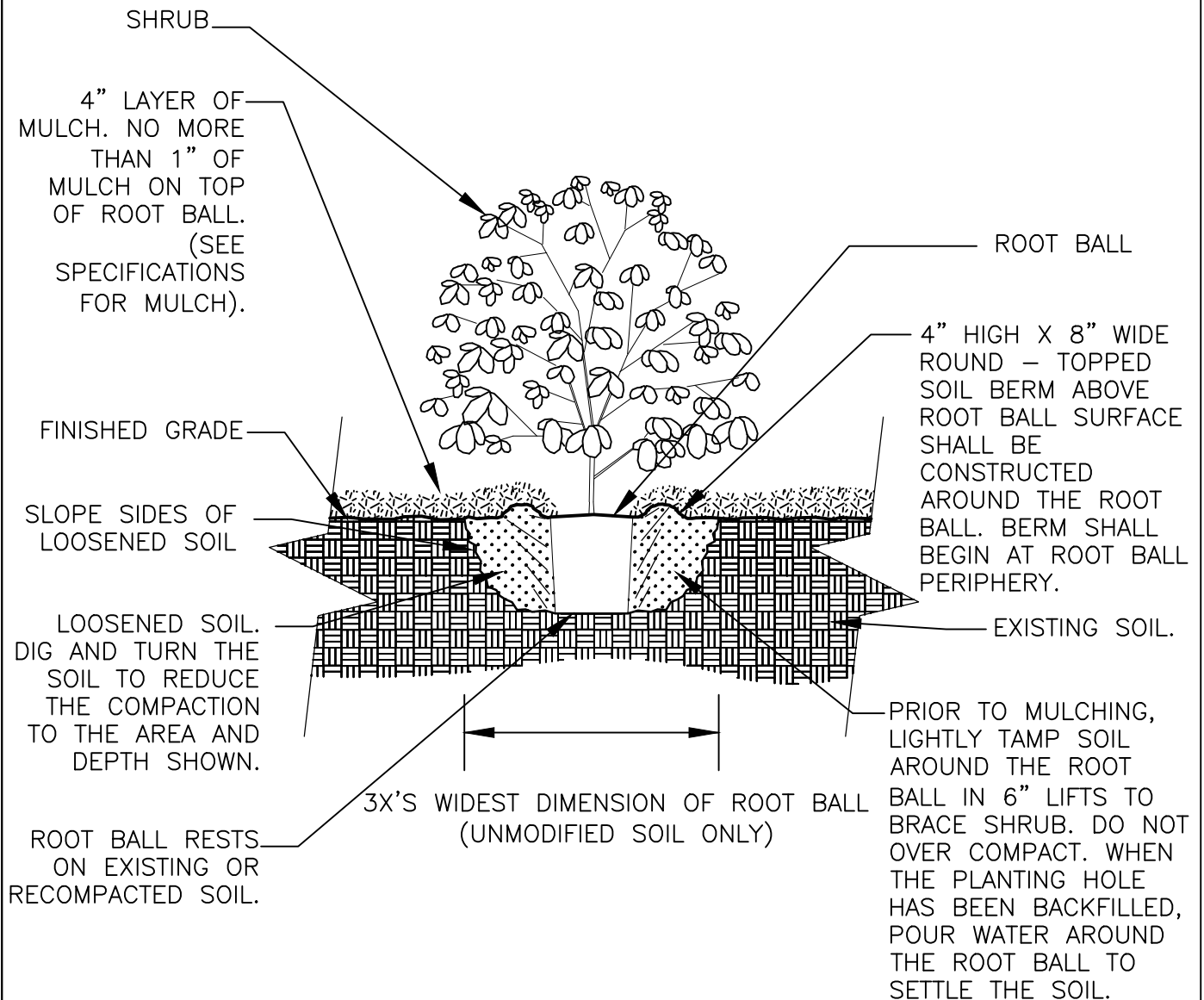


CITY OF VICTORIA

STANDARD DRAWING  
NO.

902B

Victoria



NOTES:

1. MODIFIED SOIL – DEPTH OF SOIL VARIES (SEE SPECIFICATIONS FOR SOIL MODIFICATION).
2. SHRUBS SHALL BE OF QUALITY PRESCRIBED IN THE ROOT OBSERVATIONS DETAIL AND SPECIFICATIONS.
3. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.

## SHRUB – MODIFIED AND UNMODIFIED SOIL

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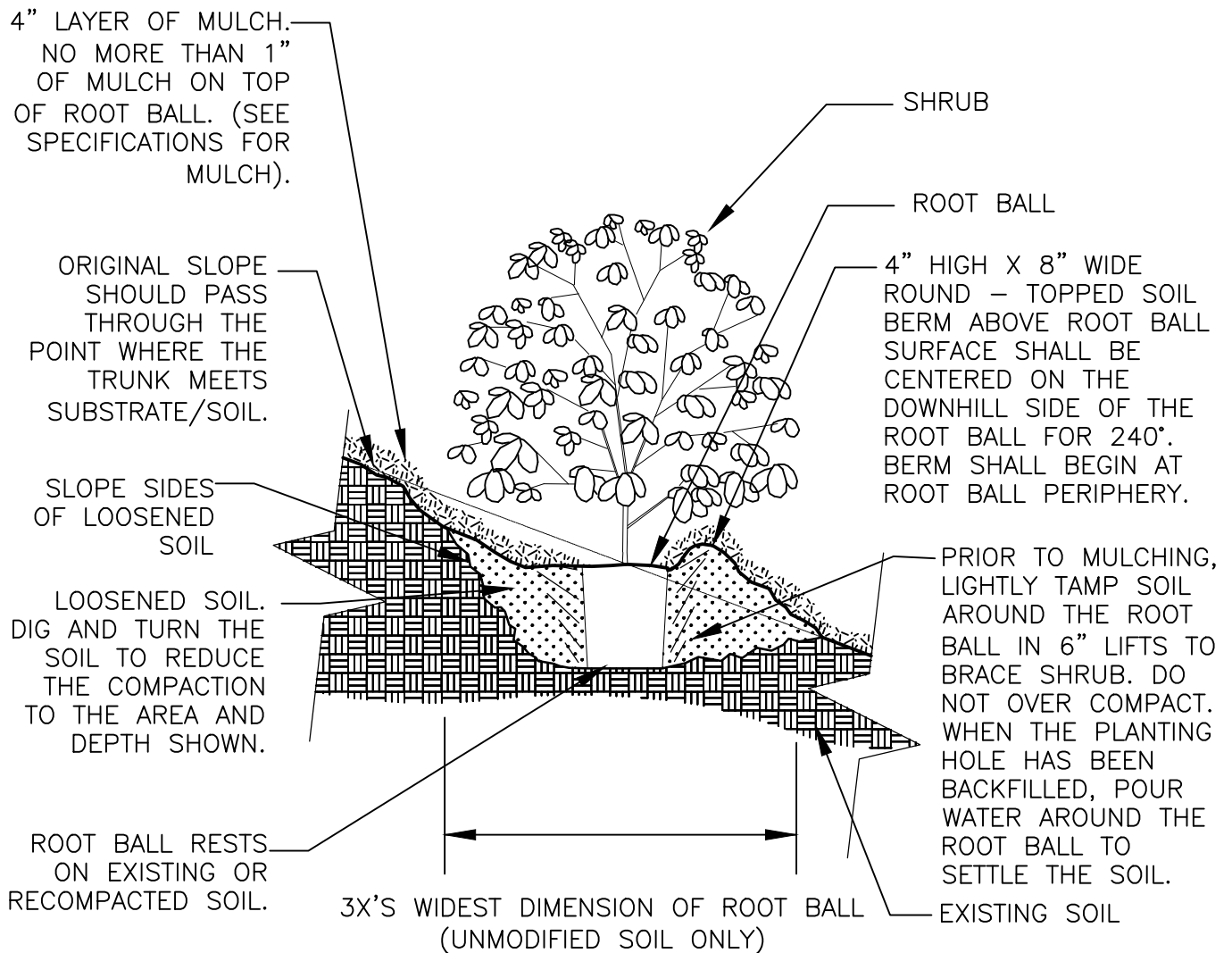


CITY OF VICTORIA

STANDARD DRAWING  
NO.

**903A**

Victoria



NOTES:

1. MODIFIED SOIL – DEPTH OF SOIL VARIES (SEE SPECIFICATIONS FOR SOIL MODIFICATION).
2. SHRUBS SHALL BE OF QUALITY PRESCRIBED IN THE ROOT OBSERVATIONS DETAIL AND SPECIFICATIONS.
3. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.

SHRUB ON SLOPE 5% TO 50%:  
MODIFIED AND UNMODIFIED SOIL

FEBRUARY 2022

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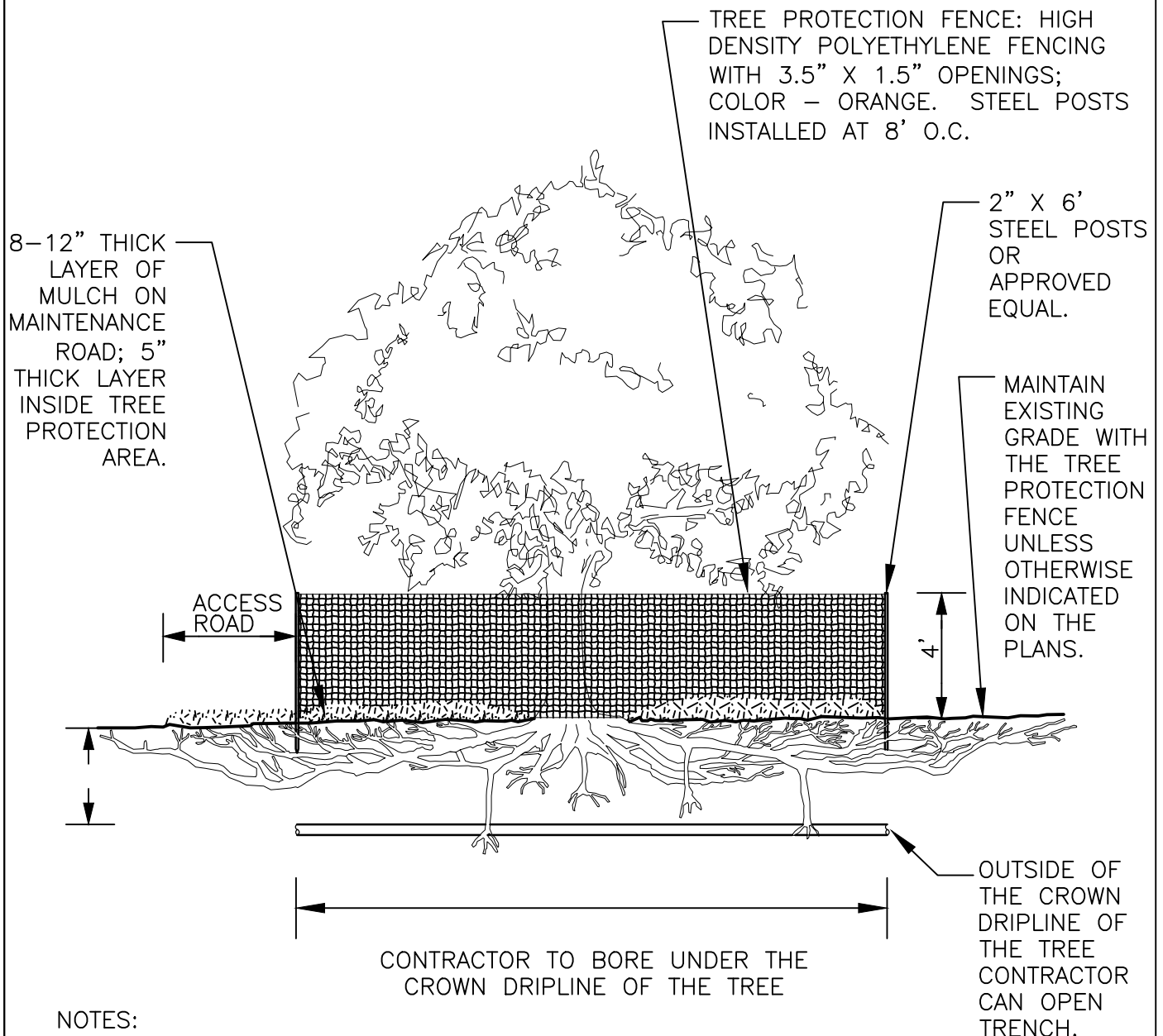


CITY OF VICTORIA

STANDARD DRAWING  
NO.

903B

Victoria



NOTES:

1. SEE SPECIFICATIONS FOR ADDITIONAL TREE PROTECTION REQUIREMENTS.
2. IF THERE IS NO EXISTING IRRIGATION, SEE SPECIFICATIONS FOR WATERING REQUIREMENTS.
3. NO PRUNING SHALL BE PERFORMED EXCEPT BY APPROVED ARBORIST.
4. NO EQUIPMENT SHALL OPERATE INSIDE THE PROTECTIVE FENCING INCLUDING DURING FENCE INSTALLATION AND REMOVAL.
5. SEE SITE PREPARATION PLAN FOR ANY MODIFICATIONS WITH THE TREE PROTECTION AREA.
6. SEE TREE PRESERVATION PLAN FOR FENCE ALIGNMENT. AT A MINIMUM FENCE SHALL EXTEND TO THE CROWN DRIP LINE.

## TREE PROTECTION – MAINTENANCE ROAD & BORING UNDER CROWN/DRIPLINE

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