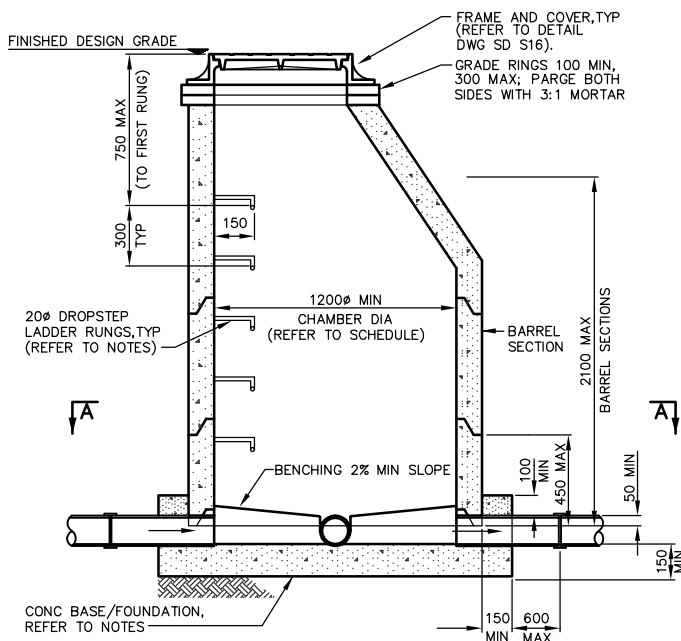


3. The following MMCD Standard Detail Drawings are to be used or replaced as indicated below:

3.6 SANITARY SEWER AND STORM DRAIN DETAILS			
MMCD STANDARD DETAIL DRAWING		CITY OF VICTORIA SUPPLEMENTARY STANDARD DETAIL DRAWINGS	
S1	Standard and Sump Manholes	SD S1	Standard Manhole & Connection Detail
S2	Standard Manhole Connection Details	SD S1	Standard Manhole & Connection Detail
S3	Manhole Connection Details - Drop and Ramp Type		Adopt MMCD
S4	Inside Drop Manhole		Do Not Use.
S5	Precast Riser Manhole		Do Not Use.
S6	Sewer Cleanout	SD S6	Sanitary Sewer or Storm Drain Vent
S7	Sanitary Sewer Service Connection		Use MMCD S7, remove plug before installation. Use red lid and paint post, stub and plug purple.
S8	Storm Sewer Service Connection		Use MMCD S7, remove plug before installation. Use green lid and paint post, stub and plug green.
S9	Inspection Chamber for 100 to 200 Sanitary Sewer Connection		Adopt MMCD, also use for Storm Drain Connections.
S10	Inspection Chamber for 250 to 375 Storm Sewer Connection		Do Not Use.
S11	Top Inlet Catch basin	SD S11a SD S11b SD S11c SD S11d	Catch Basin Detail Side-Inlet Catch Basin Detail Offset Catch Basin Detail Offset Side-Inlet Catch Basin Detail
S12	Lawn Drains		Do Not Use.
S13	Storm Sewer Inlet with Safety Grillage		Do Not Use.
S14	Concrete Block End wall		Do Not Use.
S15	Driveway Culvert with Concrete Block End walls		Do Not Use.
		SD S16	Manhole/Catch Basin Frame & cover
		SD S17	Clean Out Frame & Cover
		SD S18	Vent Frame & Cover
		SD S19	Gutter Catch Basin Frame & Cover
		SD S20	Side Inlet Detail
		SD S21	Typical Sump Catch basin Frame and Cover



Victoria Subdivision and Development Servicing Bylaw
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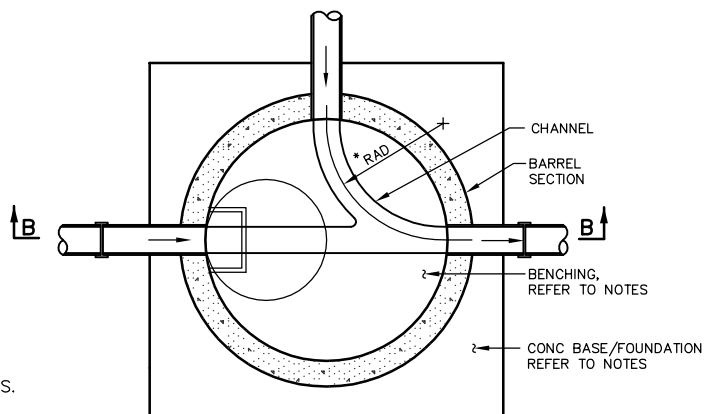


SECTION B - B

PRECAST MANHOLE SCHEDULE			
MAIN SIZE (INSIDE DIA)	CHAMBER SIZE (INSIDE DIA)	CHAMBER SIZE (OUTSIDE DIA)	* LADDER RUNG LOCATION
200 TO 300	1200 MIN	1460 MIN	CENTERED OVER UPSTREAM CHANNEL
375 TO 450	1350 MIN	1630 MIN	
525 TO 600	1500 MIN	1800 MIN	CENTRED OVER LARGEST BENCHING AREA

* FRAMES AND COVERS TO BE CENTERED OVER LADDER RUNG LOCATIONS.

* WHERE A DROP STRUCTURE FOR MAIN SIZES 200 - 300 ID IS TO BE LOCATED ON THE UPSTREAM CHANNEL, PLACE LADDER RUNGS OVER DOWNSTREAM CHANNEL.

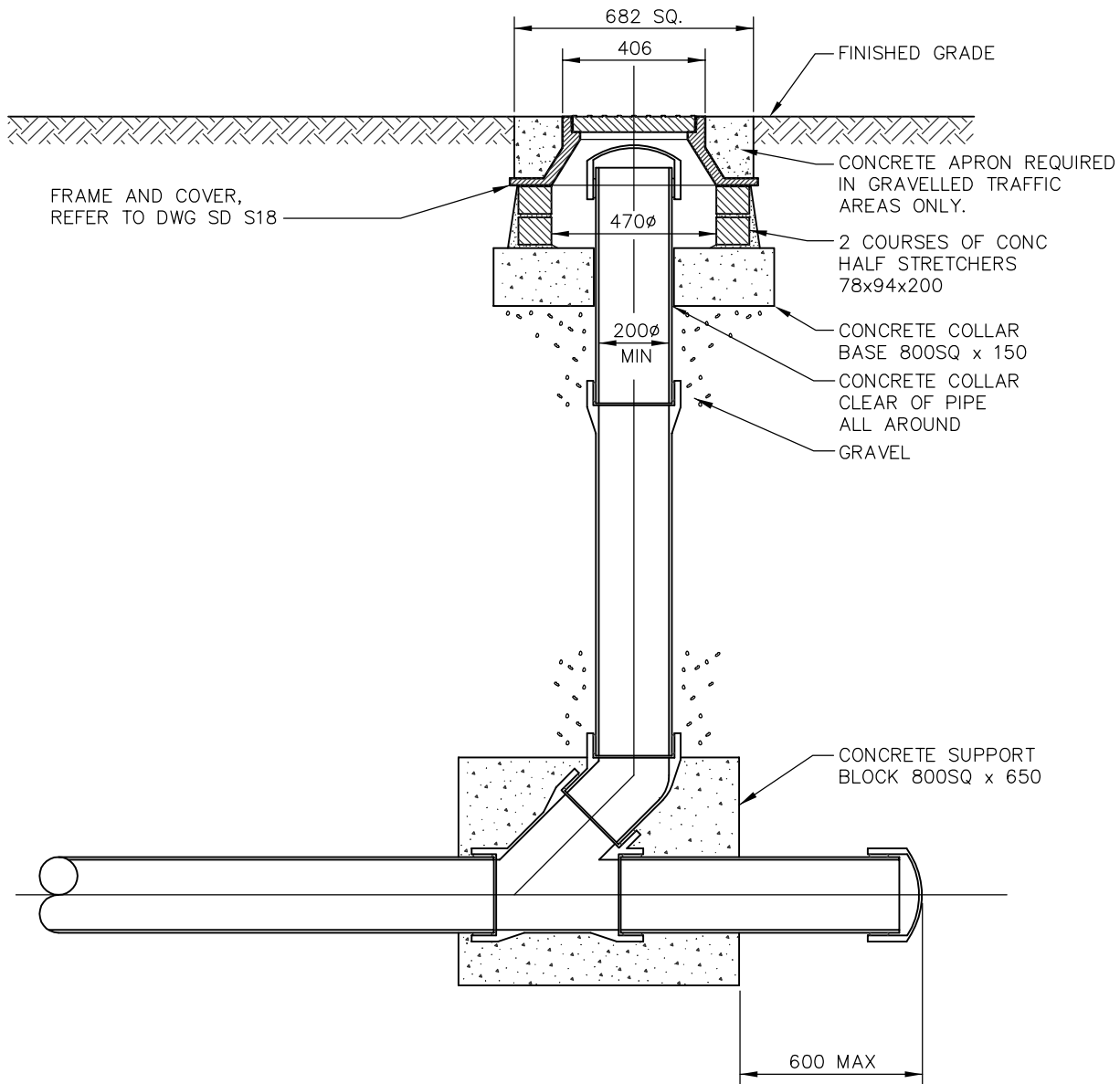


SECTION A - A

NOTES

- 1 MANHOLES WITH PIPE DIAMETERS UP TO 600mm SHALL BE PRECAST REINFORCED CONCRETE IN ACCORDANCE TO ASTM C478 LATEST EDITION UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
- 2 MANHOLES WITH PIPE DIAMETERS GREATER THAN 600mm REQUIRE DESIGN TO BE APPROVED BY A PROFESSIONAL ENGINEER.
- 3 MANHOLE BASES SHALL BE MONOLITHICALLY POURED IN PLACE CONCRETE AND BASES SHALL REST ON UNDISTURBED SOIL OR OTHER COMPACTED STABLE BASE MATERIAL. FIRST BARREL SECTION SHALL BE SET INTO CONCRETE BASE/BENCHING (AS SHOWN IN SECTION B-B). CONCRETE SHALL BE 'READY MIX' CONFORMING TO MMCD STANDARDS AND SPECIFICATIONS.
- 4 *RADIUS (RAD) FROM THE CENTRE LINE OF THE CHANNEL SHALL BE A MINIMUM OF 2.5 TIMES THE DIAMETER OF THE UPSTREAM PIPE.
- 5 CHANNELING AND BENCHING SHALL HAVE A SMOOTH STEEL TROWELLED FINISH.
- 6 LARGEST BENCHING AREA SHALL HAVE A MINIMUM WIDTH OF 450mm.
- 7 PRECAST SECTION JOINTS SHALL BE TONGUE AND GROOVE AND 'o' RING SEALED IN ACCORDANCE TO ASTM C443.
- 8 LADDER RUNGS SHALL BE DROP STEP GALVANIZED STEEL AND SHALL BE AN INTEGRAL PART OF THE MANHOLE SECTION. ALTERNATE LADDER RUNG DESIGNS MAY BE SUBSTITUTED AS APPROVED BY THE CITY ENGINEER.

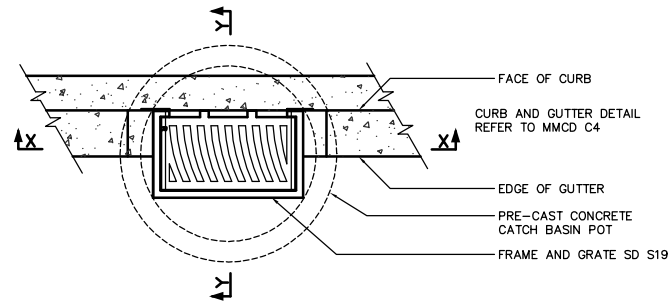
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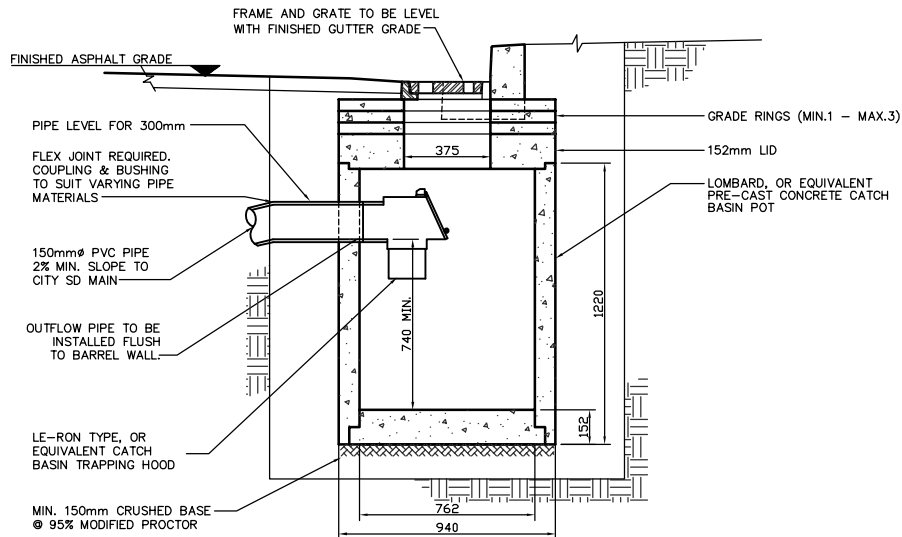
TERMINAL CLEANOUT

NOTE: ALL PIPE FITTINGS PVC DR28 c/w GASKETS

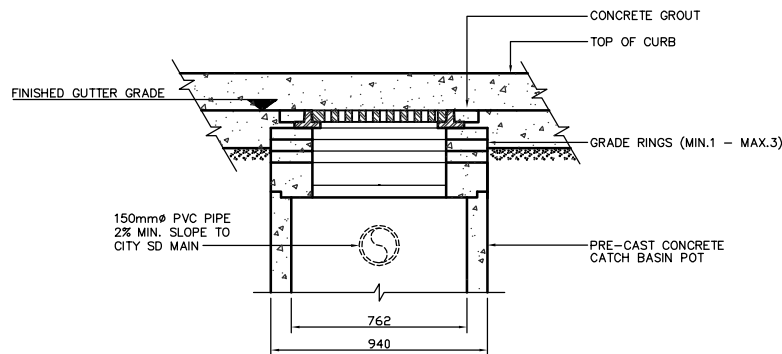
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PLAN



SECTION Y-Y



SECTION X-X

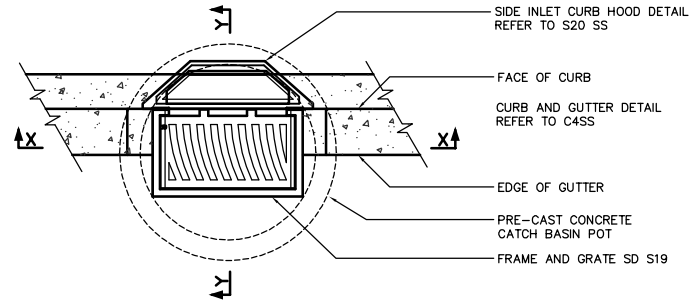
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CATCH BASIN DETAIL

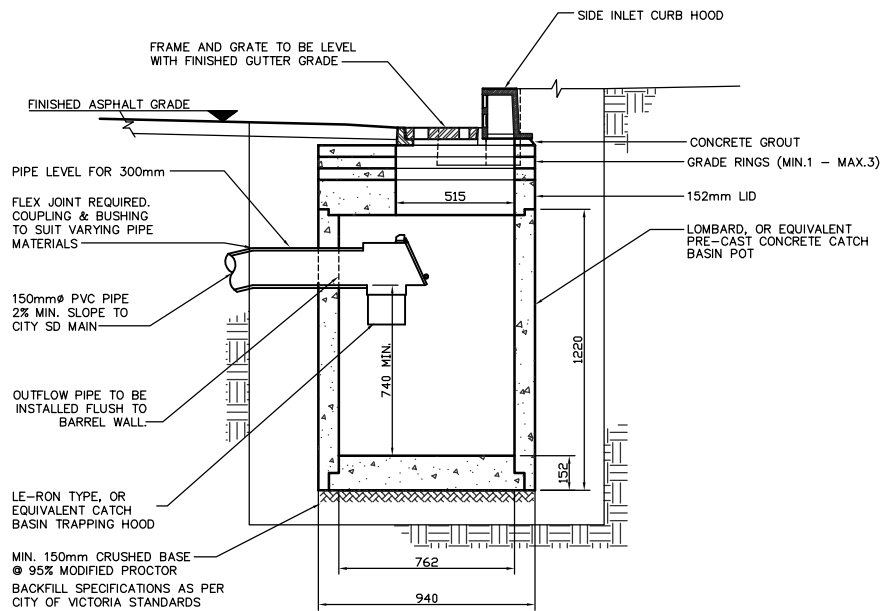
REVISIONS

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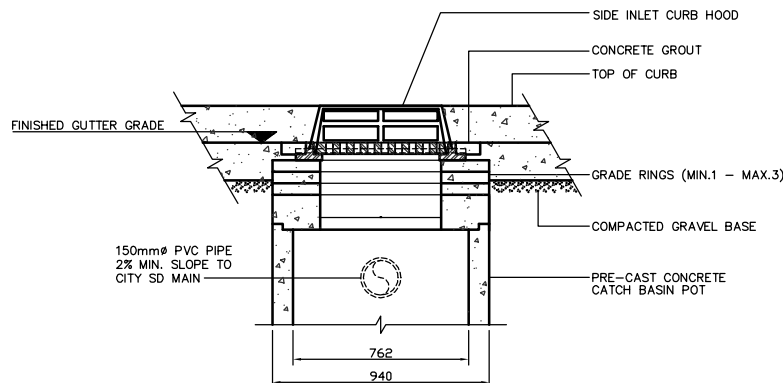
SD S11a



PLAN



SECTION Y-Y



SECTION X-X

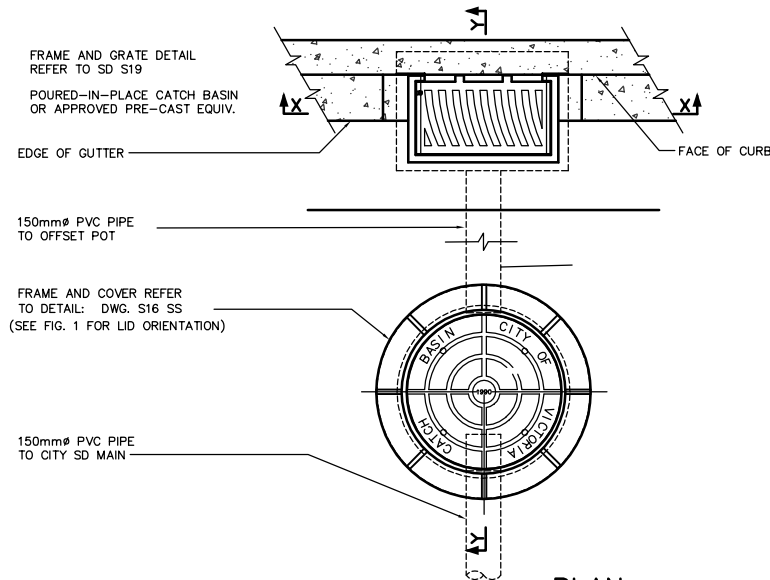
NOT TO SCALE

SIDE-INLET CATCH BASIN DETAIL

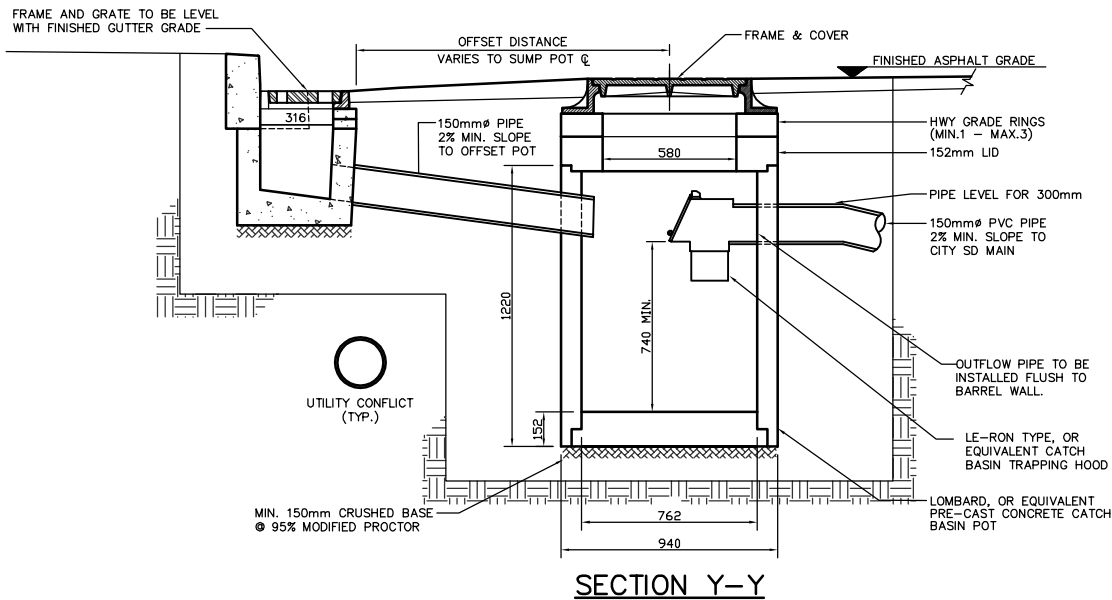
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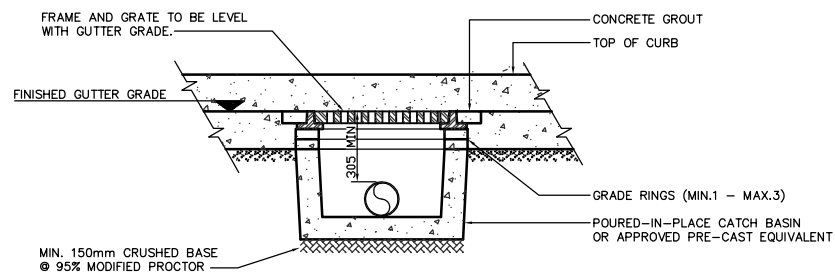
SD S11b



(SHOWN WITH POT OFFSET IN ROADWAY)



HIGHWAY GRADE RINGS ARE AVAILABLE IN 50mm & 100mm THICKNESSES.



SECTION X-X

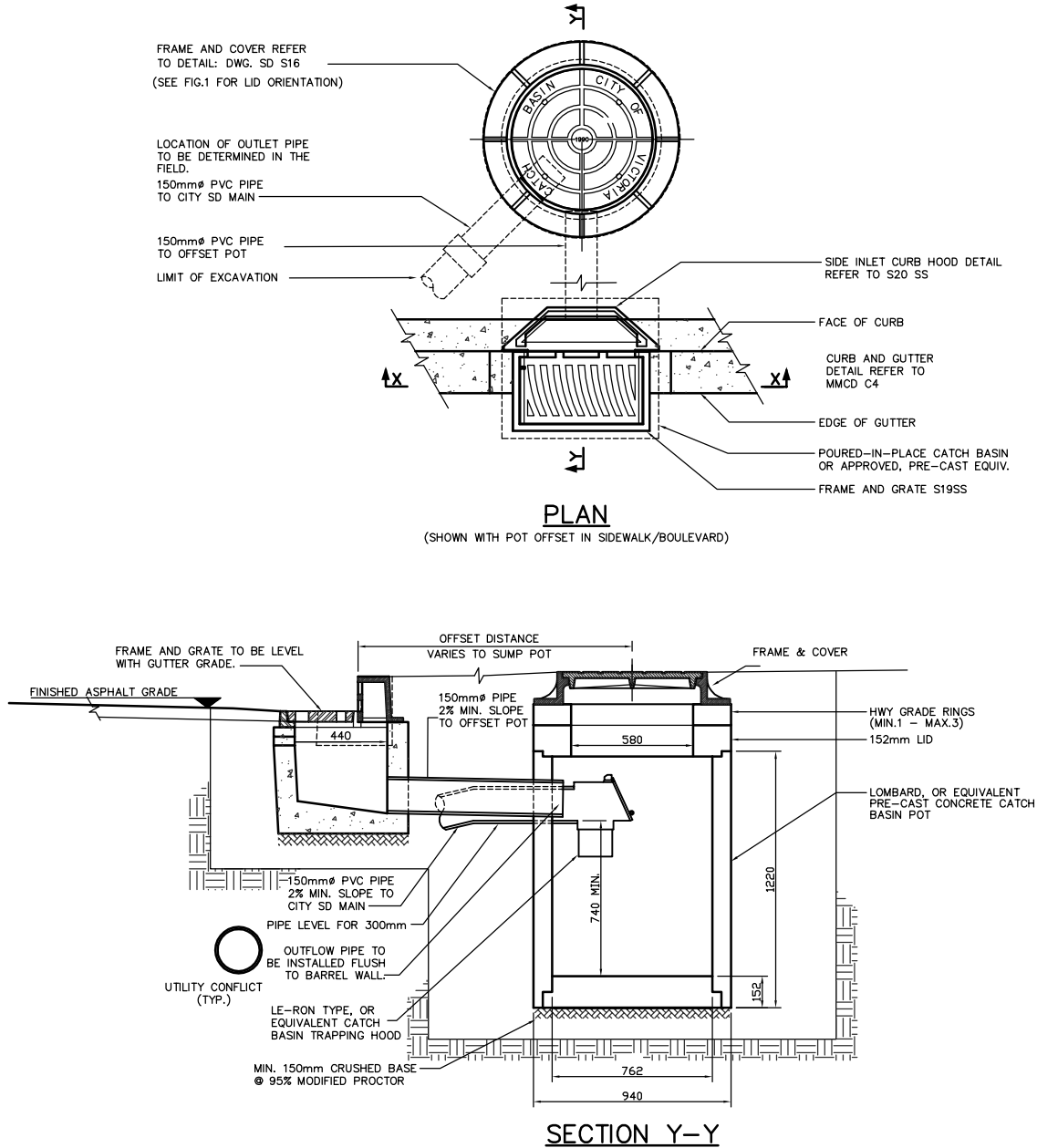
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OFFSET CATCH BASIN DETAIL

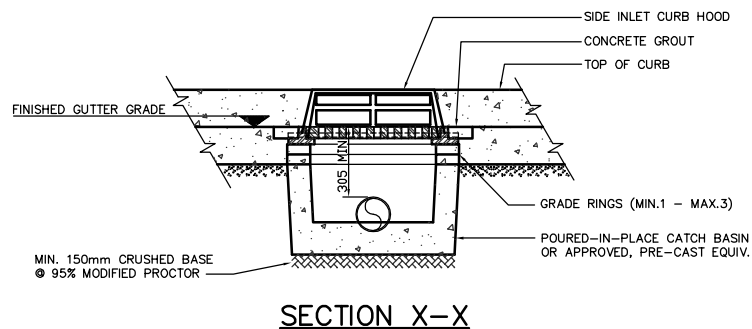
REVISIONS

DRAWING NUMBER:

SD S11c



HIGHWAY GRADE RINGS ARE AVAILABLE IN 50mm & 100mm THICKNESSES.



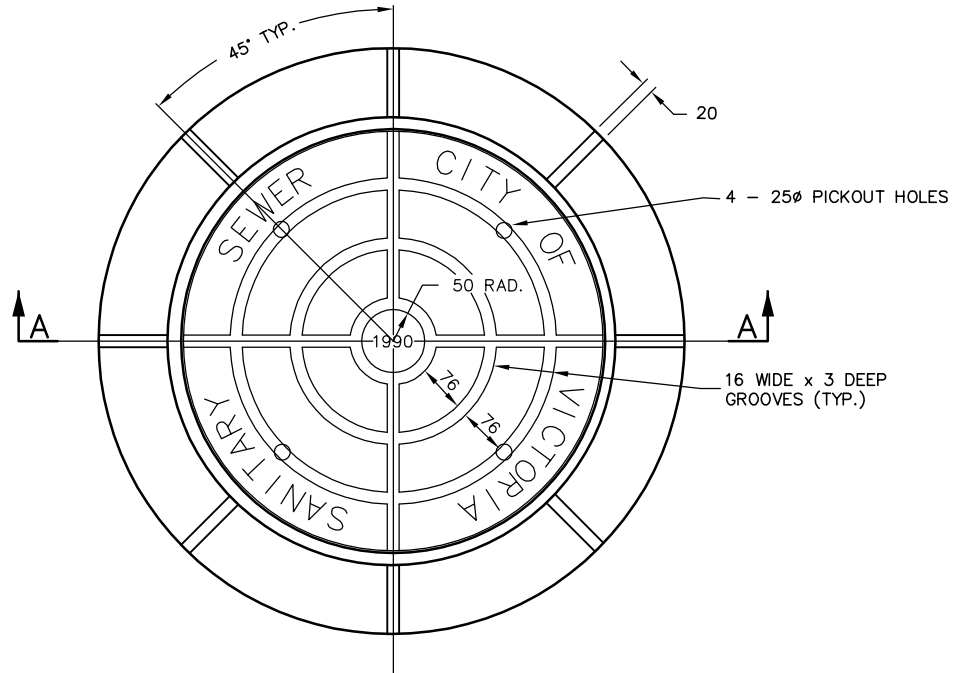
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OFFSET SIDE-INLET CATCH BASIN DETAIL

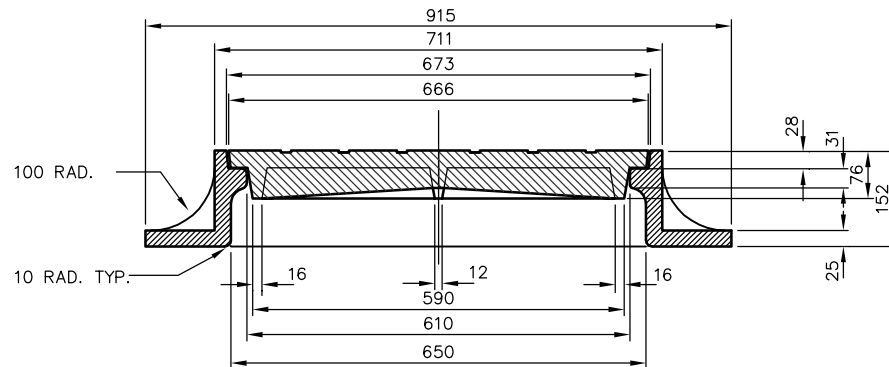
REVISIONS

DRAWING NUMBER:

SD S11d



PLAN — FRAME & COVER



SECTION A-A

NOTES:

1. CASTING SHALL HAVE A DESIGN LOAD STRENGTH IN ACCORDANCE WITH ASHTO H20 LOADING.
2. ALL METAL BEARING SURFACES BETWEEN FRAME AND COVER MACHINED TO INSURE GOOD SEATING
3. YEAR OF DATE MANUFACTURED ON COVER
4. FURNISH WHEN SPECIFIED: COVER TO BE IDENTIFIED EITHER 'STORM DRAIN' 'SANITARY SEWER', 'WATER' OR 'CATCH BASIN' AS SHOWN IN DRAWING.
5. INSIDE EDGES OF RING TO BE ROUNDED TO 10mm RADIUS.
6. DIMENSIONS ARE BASED ON GRAY IRON CASTINGS.

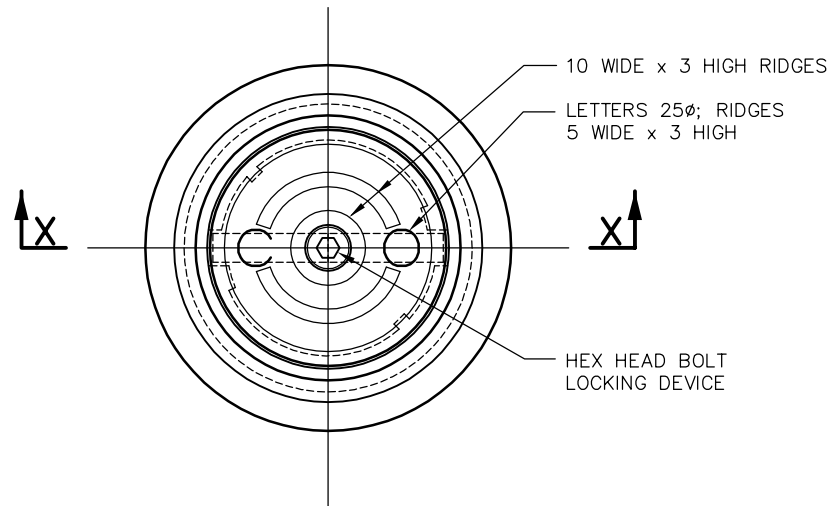
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**MANHOLE/CATCH BASIN
FRAME & COVER**

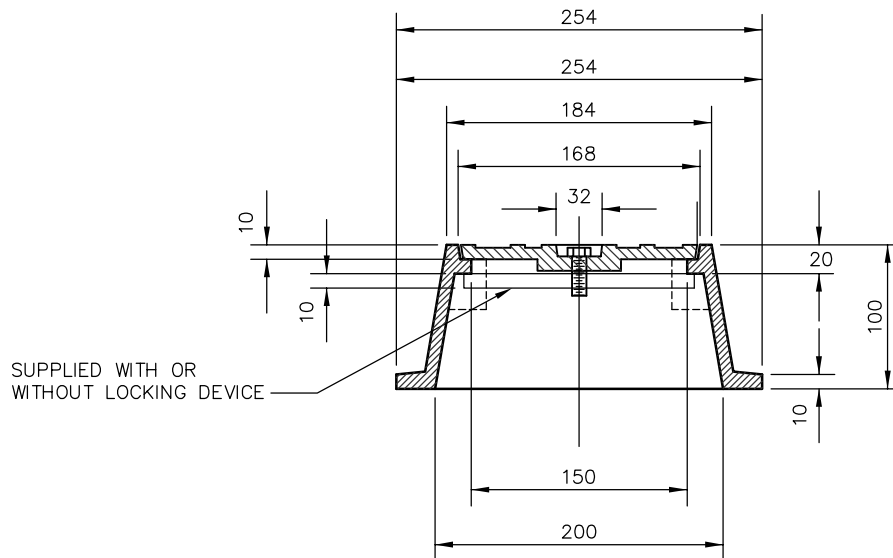
REVISIONS

DRAWING NUMBER:

SD S16



PLAN — FRAME & COVER

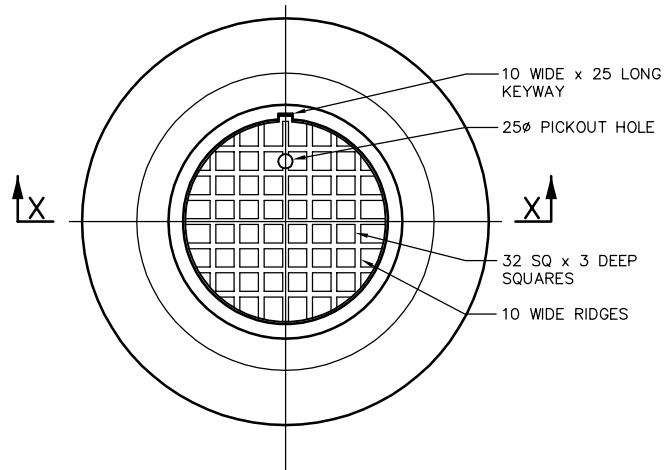


SECTION X—X

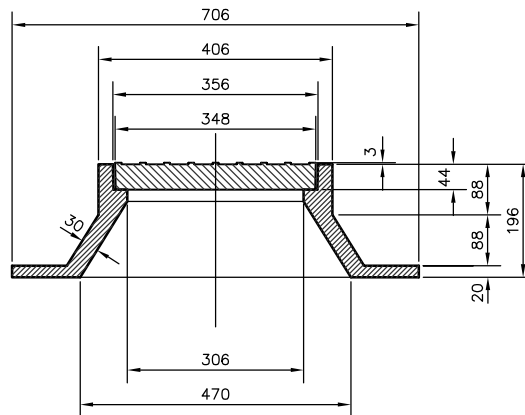
NOTES

1. ALL METAL BEARING SURFACES BETWEEN FRAME AND COVER MACHINED TO ENSURE GOOD SEATING.
2. FURNISH WHEN SPECIFIED: COVER LOCKING DEVICE AS SHOWN IN DRAWING.

NOT TO SCALE



PLAN – FRAME & COVER



SECTION X-X

NOTES

1. ALL METAL BEARING SURFACES BETWEEN FRAME AND COVER MACHINED TO ENSURE GOOD SEATING.

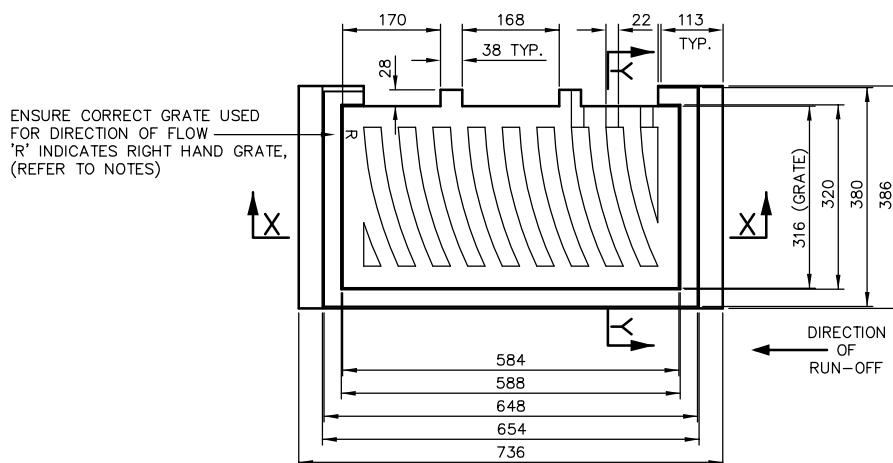
NOT TO SCALE

VENT FRAME & COVER

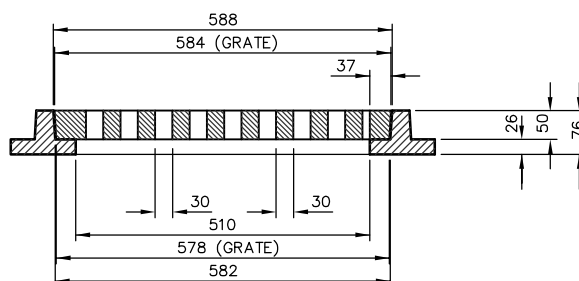
REVISIONS

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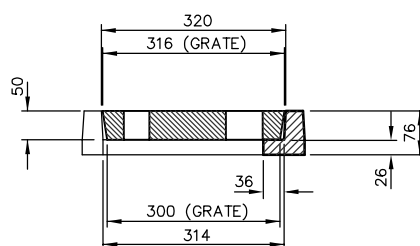
SD S18



PLAN - FRAME & GRATE



SECTION X-X



SECTION Y-Y

NOTES

1. ALL METAL BEARING SURFACES BETWEEN FRAME AND GRATE MACHINED TO ENSURE GOOD SEATING.
2. FURNISHED WHEN SPECIFIED: GRATES IN RIGHT AND LEFT HAND CASTINGS (UNIT SHOWN IN DWG IS RIGHT HAND).

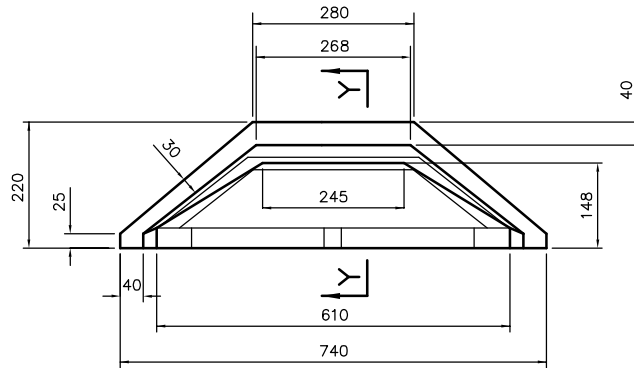
NOT TO SCALE

GUTTER CATCH BASIN FRAME & COVER

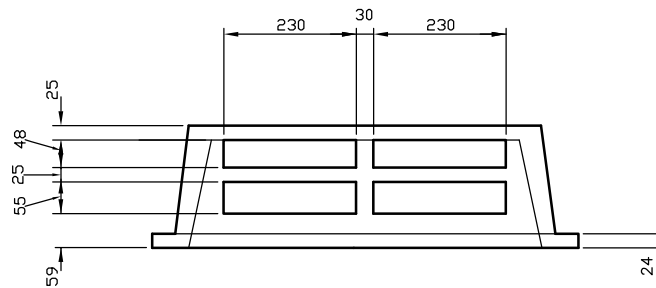
REVISIONS

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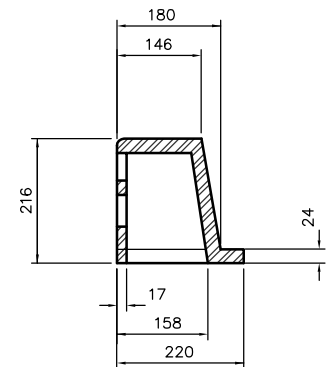
SD S19



PLAN



ELEVATION



SECTION Y-Y

NOTES

- 1) DIMENSIONS ARE BASED ON GRAY IRON CASTINGS.
- 2) STANDARD TOLERANCES ± 1 mm.

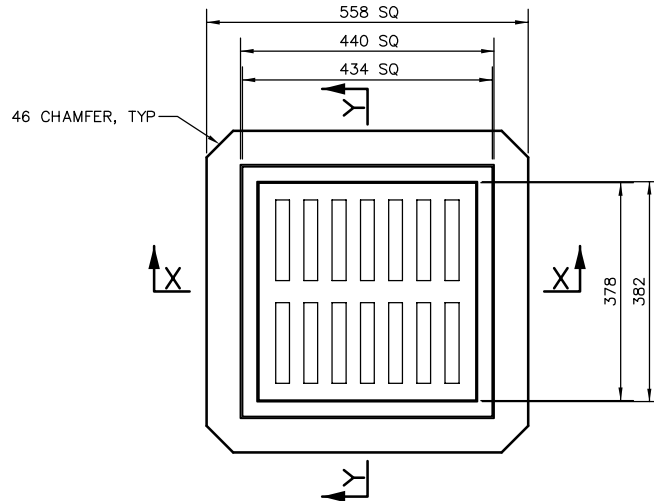
NOT TO SCALE

SIDE INLET DETAIL

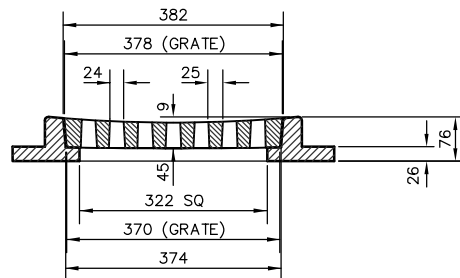
REVISIONS

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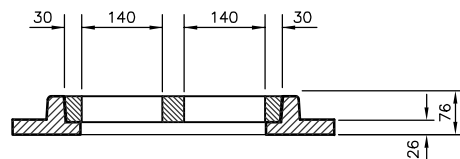
SD S20



PLAN – FRAME & COVER



SECTION X-X



SECTION Y-Y

NOTES

1. ALL METAL BEARING SURFACES BETWEEN FRAME AND GRATING MACHINED TO ENSURE GOOD SEATING.

NOT TO SCALE

SUMP CATCH BASIN
FRAME & COVER

REVISIONS

DRAWING NUMBER:

SD S21