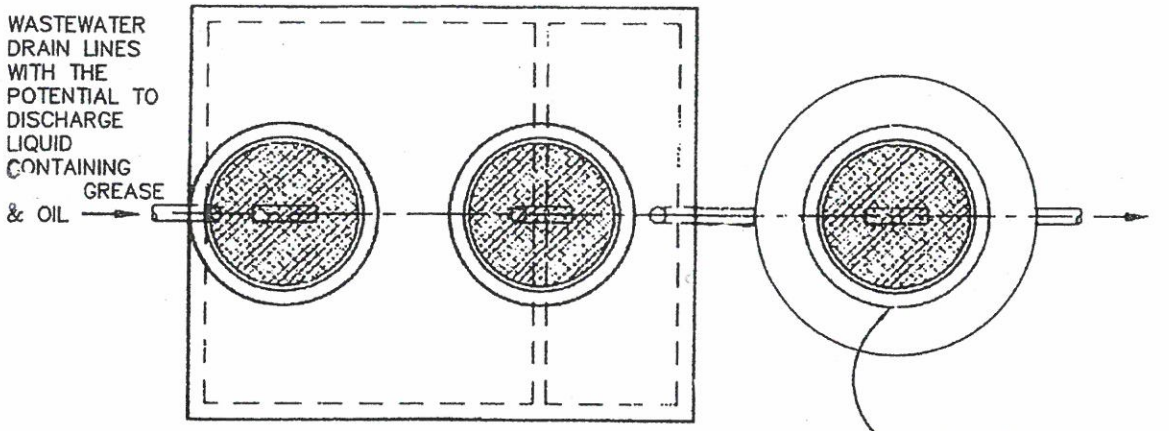
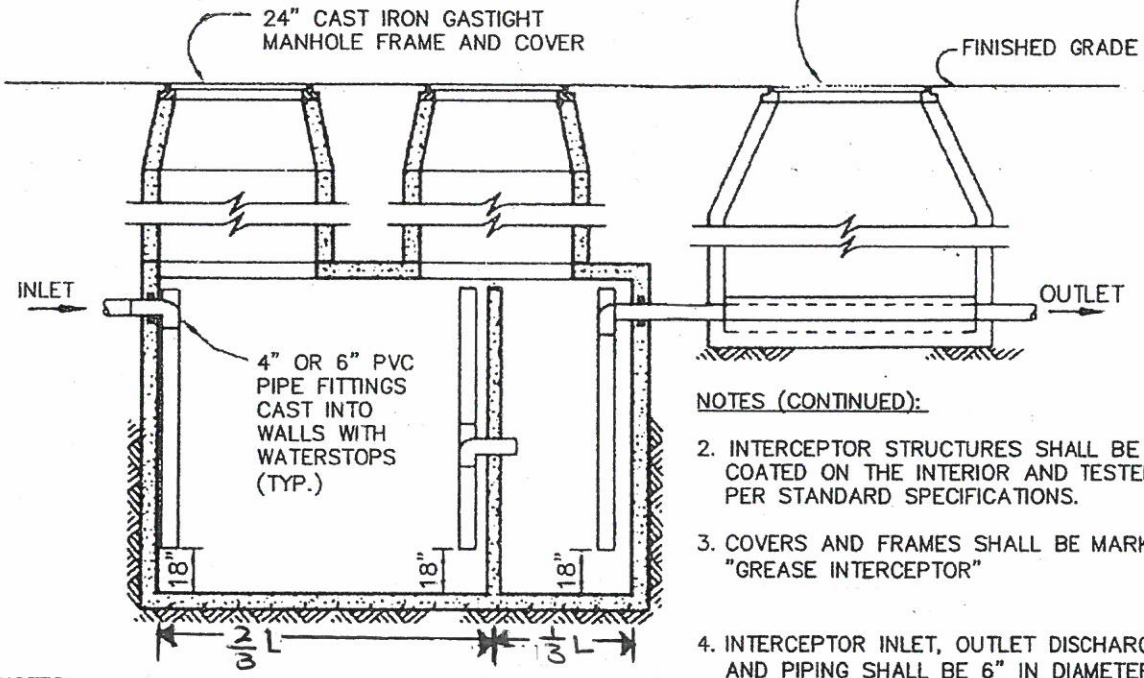




NOTES:

1. GREASE INTERCEPTORS SHALL BE SIZED IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE REQUIREMENTS.

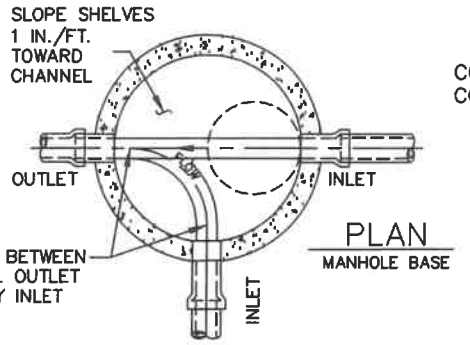
NOTES (CONTINUED):

2. INTERCEPTOR STRUCTURES SHALL BE COATED ON THE INTERIOR AND TESTED PER STANDARD SPECIFICATIONS.
3. COVERS AND FRAMES SHALL BE MARKED "GREASE INTERCEPTOR"
4. INTERCEPTOR INLET, OUTLET DISCHARGE AND PIPING SHALL BE 6" IN DIAMETER. WHEN APPROVED FOR 4" CONNECTIONS, ECCENTRIC 6"X4" REDUCERS SHALL BE USED.
6. ALL INTERCEPTORS SHALL BE VENTED PER PLUMBING CODE.
7. INTERCEPTORS SHALL BE H-20 LOAD COMPLIANT.

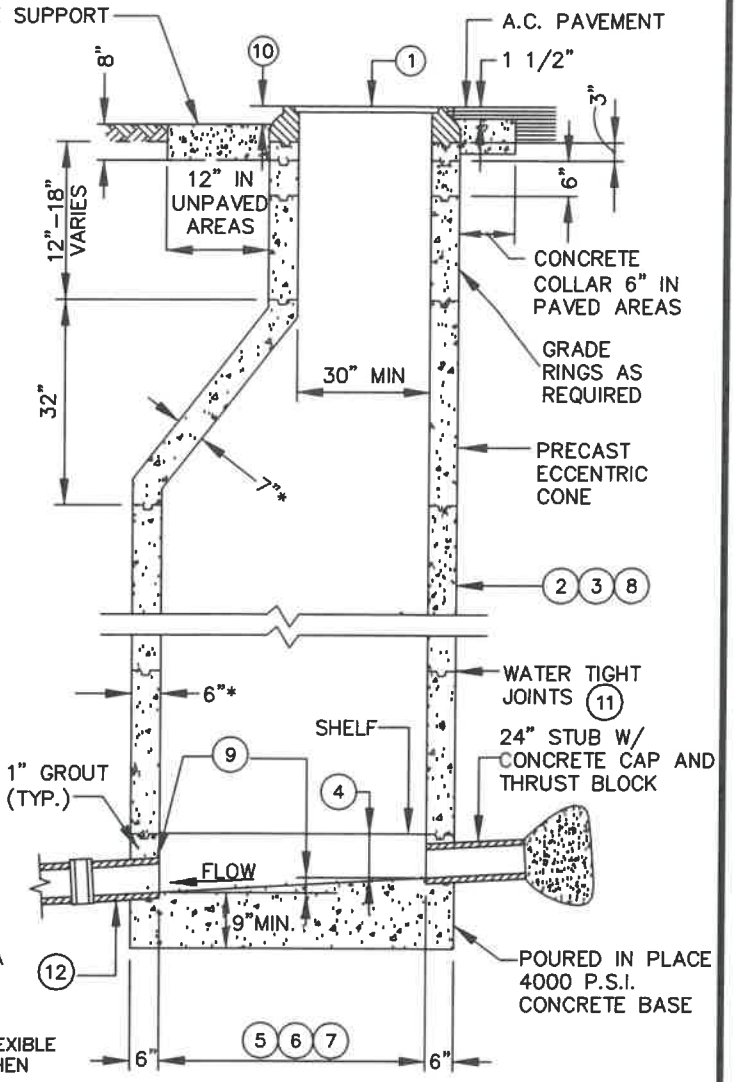
APPROVED DESIGN LAYOUT PER OMUC

07-20-16

GREASE INTERCEPTOR



PLAN
MANHOLE BASE



SECTION VIEW

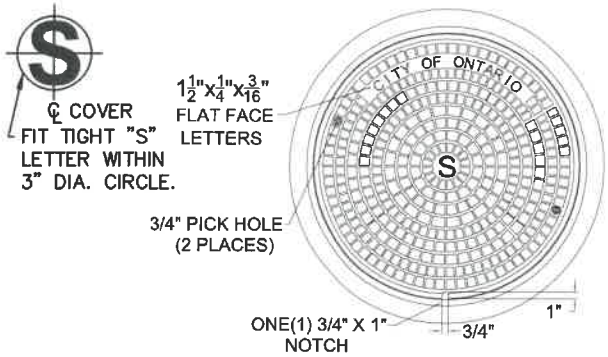
*NON-REINFORCED MANHOLE

CONSTRUCTION NOTES:

1. FRAME AND COVER:
   FOR 48 IN. I.D. MANHOLE, COVER SHALL BE 32 IN.
   FOR 60 IN. OR LARGER I.D. MANHOLE, COVER SHALL BE 38 IN.
2. NON-REINFORCED PRE-CAST MANHOLE RINGS SHALL BE CLASS 560-C-3250 PER SECTION 201-1 OF THE SSPWC.
3. REINFORCED PRE-CAST MANHOLE RINGS SHALL BE PER ASTM C-478 SPECIFICATIONS.
4. THE DEPTH OF THE CHANNEL SHALL BE EQUAL TO THE FULL DIAMETER OF THE PIPE.
5. 48 IN. I.D. MANHOLE TO BE USED ON SEWERS WITH A DIAMETER OF 18 IN. OR LESS OR A DEPTH OF 12 FT. OR LESS UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER.
6. 60 IN. I.D. MANHOLE TO BE USED ON SEWERS WITH A DIAMETER OF 20 IN. OR GREATER OR WITH A DEPTH EXCEEDING 12 FT UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER.
7. 72 IN. I.D. MANHOLE TO BE USED ON SEWERS WITH A DIAMETER OF 30 IN. AND GREATER OR IF THE DEPTH IS 25 FT. OR GREATER. WHEN DEPTH IS 25 FT. OR GREATER, STAMPED STRUCTURAL CALCULATIONS REQUIRED FOR MANHOLE BASE AND PIPE BEDDING.
8. SAFETY LEDGES AT MIDWAY POINT ARE REQUIRED FOR MANHOLES 30 FT. OR GREATER TO INV.
9. A MIN. 0.2 FT. DROP BETWEEN ALL INLET(S) AND OUTLET(S) IS REQUIRED. IF PIPE SIZES VARY, THE SOFFIT ELEVATIONS OF ALL PIPES SHALL BE THE SAME AS THE SOFFIT ELEVATION OF THE LARGEST PIPE, PROVIDED THE 0.2 FT. MIN. DROP IS MAINTAINED.
10. FOR MANHOLES LOCATED IN SHOULDER AREAS, UNPAVED ROADS OR LANDSCAPED AREAS, THE FRAME AND COVER SHALL BE SET A MIN. OF 0.1 FT. ABOVE FINISHED GRADE. FOR MANHOLES LOCATED IN UNDEVELOPED AREAS THE FRAME AND COVER SHALL BE SET A MIN. OF 18 IN. ABOVE UNFINISHED GRADE.
11. PLASTIC JOINTS – PREFORMED COLD-APPLIED READY-TO-USE FLEXIBLE PLASTIC JOINT SEALING GASKET OR COMPOUND MUST BE USED WHEN GROUND WATER IS ENCOUNTERED.
    MORTAR JOINTS – SUFFICIENT MORTAR SHALL BE APPLIED ACROSS ENTIRE FACE OF JOINT SO THAT WHEN PRECAST UNITS ARE PLACED ON TOP OF ONE ANOTHER, THE MORTAR WILL SQUEEZE OUT BOTH THE INSIDE AND OUTSIDE WALL FACES AROUND FULL CIRCUMFERENCE. JOINTS SHALL BE "POINTED UP" AFTER SETTING PRECAST UNITS EXCLUDING GRADE RINGS.
12. A 24" LONG PLAIN END STUB WITH SHIELDED TRANSITION COUPLING SHALL BE INSTALLED FROM THE MANHOLE INSIDE WALL AT ALL MANHOLE PENETRATIONS.

NOTES:

1. ALL MANHOLE COVER MARKINGS SHALL BE RAISED, FLAT FACE LETTERS MARKED BY MEANS OF CAST-IN MOLD LETTERING 1-1/2" X 1/4" X 3/16" (HEIGHT X LINE WIDTH X DEPTH).
2. MANHOLE COVER SHALL BE MANUFACTURED WITH THE LETTER "S" IN THE CENTER AND "CITY OF ONTARIO" ON THE COVERS FOR PUBLIC SEWERS ONLY. NO "CITY OF ONTARIO" INSCRIPTION ON PRIVATE SEWERS.
3. ANY INLET LOCATION MUST BE BETWEEN 90° AND 180° FROM THE OUTLET LOCATION.
4. MANHOLES ARE REQUIRED AT ALL JUNCTIONS OF 8 IN. PIPE OR GREATER; CHANGE IN HORIZONTAL DIRECTION; CHANGE IN SLOPE; CHANGE IN MATERIAL, AND MAIN STUBS GREATER THAN 2 FT.
5. MANHOLES SHALL BE SPACED AT A MAX. DISTANCE OF 350 FT. IF INVERT DEPTH IS 30 FT. OR GREATER. MANHOLES SHALL BE SPACED AT 300 FT MAX.
6. ALL FRAMES AND COVERS SHALL BE H-20 TRAFFIC RATED.



PLAN
TOP OF MANHOLE COVER
(TRAFFIC SIDE)

REGISTERED PROFESSIONAL ENGINEER
KHOI K. DO
No. 62809
CIVIL
STATE OF CALIFORNIA

APPROVED BY:		8-30-23
KHOI DO, CITY ENGINEER	62809 RCE	DATE
RECOMMENDED:		8/24/23
DENNIS MEJIA, UTILITIES ENG DIVISION MGR	62268 RCE	DATE

REV	DESCRIPTION	BY	APP'D	DATE

CITY OF ONTARIO

SEWER MANHOLE

STANDARD DRAWING NUMBER
2001

SEWER MONITORING MANHOLE

LOCATION

1. CONTACT THE PUBLIC WORKS AGENCY/UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION FOR APPROVAL OF MONITORING MANHOLE LOCATION. CONFIRM THAT STANDARD DRAWING CONTAINS LATEST REVISION.
2. MONITORING MANHOLES ARE TO BE LOCATED AWAY FROM TRAFFIC, IF POSSIBLE. HOWEVER, IF INSTALLED IN TRAFFIC, THE MONITORING MANHOLE MUST BE CAPABLE OF CARRYING H-20 LOADINGS.
3. MONITORING MANHOLES MUST BE LOCATED ON LINES WHICH REFLECT TOTAL NONDOMESTIC FLOWS.

GENERAL PROVISIONS

1. A UNIFORM PIPE SLOPE, NOT EXCEEDING 2.0% OR LESS THAN 0.40%, MUST BE MAINTAINED AT LEAST TWENTY (20) PIPE DIAMETERS UPSTREAM AND DOWNSTREAM OF THE MONITORING MANHOLE AS WELL AS THROUGH THE MANHOLE. DEVIATIONS FROM THE PIPE SLOPE LIMITS WILL REQUIRE SPECIAL PERMISSION FROM THE CITY ENGINEER.
2. THERE SHALL BE NO BENDS, DROP MANHOLES, FLOW JUNCTIONS, ETC. WITHIN 20 PIPE DIAMETERS (D) UPSTREAM OF THE MONITORING MANHOLE.
3. THE BASE OF THE MANHOLE MUST BE POURED AROUND THE EXISTING SEWER LINE WITHOUT ANY CHANGES IN THE SLOPE OF THE LINE.
4. WELD THE PERCENTAGE OF SLOPE AND PIPE DIAMETER OF THE SEWER LINE BEING MONITORED (%S,D") ON THE LID/COVER.
5. THE MAXIMUM UPSTREAM DEPTH SHALL NOT EXCEED 0.90D (D = PIPE DIAMETER IN INCHES).
6. WEIRS OR FLUMES ARE OPTIONAL AND MAY BE INSTALLED IF DESIRED. ALL INSTALLATION MUST BE ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS AND APPROVED BY THE CITY ENGINEERING DEPARTMENT.
7. ALL SURFACE WATER SHALL DRAIN AWAY FROM THE MONITORING MANHOLE.
8. ELECTRICAL CONDUIT IS OPTIONAL AT THIS TIME BUT MAY BE DESIRED IF PERMANENT MONITORING DEVICES ARE DESIRED OR REQUIRED IN THE FUTURE.
9. ANY MONITORING INSTRUMENTATION DEVICES MUST BE APPROVED BY THE PUBLIC WORKS AGENCY/UTILITIES DEPARTMENT PRIOR TO AND AFTER INSTALLATION. MANUFACTURER OF THESE DEVICES WILL HAVE TO BE RECALIBRATED EVERY SIX (6) MONTHS BY EITHER THE MANUFACTURER OR AN APPROVED TESTING LABORATORY. A COPY OF THE CALIBRATION CERTIFICATE SHALL BE FURNISHED TO THE CITY ENGINEER.
10. ALL MONITORING MANHOLE LOCATIONS MUST BE APPROVED BY THE PUBLIC WORKS AGENCY/UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION AND INSTALLATION MUST BE APPROVED BY THE CITY ENGINEERING DEPARTMENT INSPECTOR.

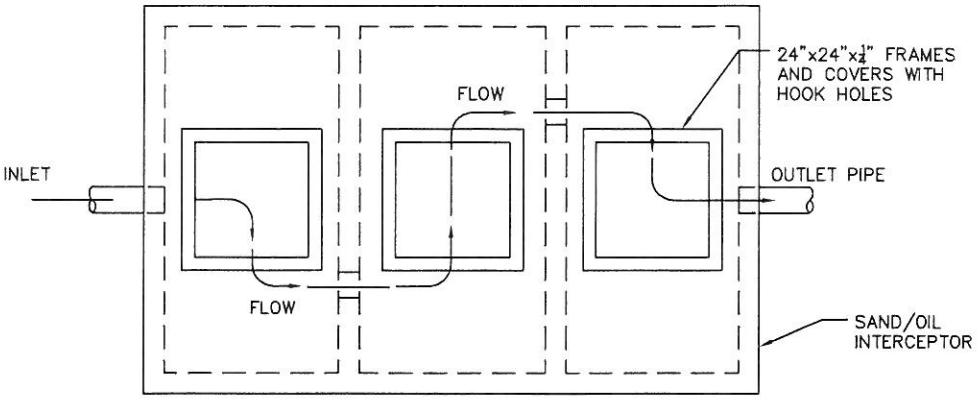
REGISTERED PROFESSIONAL ENGINEER
LOUIS ABI-YOUNES
No. 44485
EXP. 03/31/12
CIVIL
STATE OF CALIFORNIA

APPROVED BY: Louis Abi-Younes 11-22-10 44485				
LOUIS ABI-YOUNES, CITY ENGINEER			RCE	DATE
RECOMMENDED: Scott Burton 10/25/10 57875				
SCOTT BURTON, UTILITIES ENG/OPERATIONS DIRECTOR			RCE	DATE
REV	DESCRIPTION	BY	APP'D	DATE

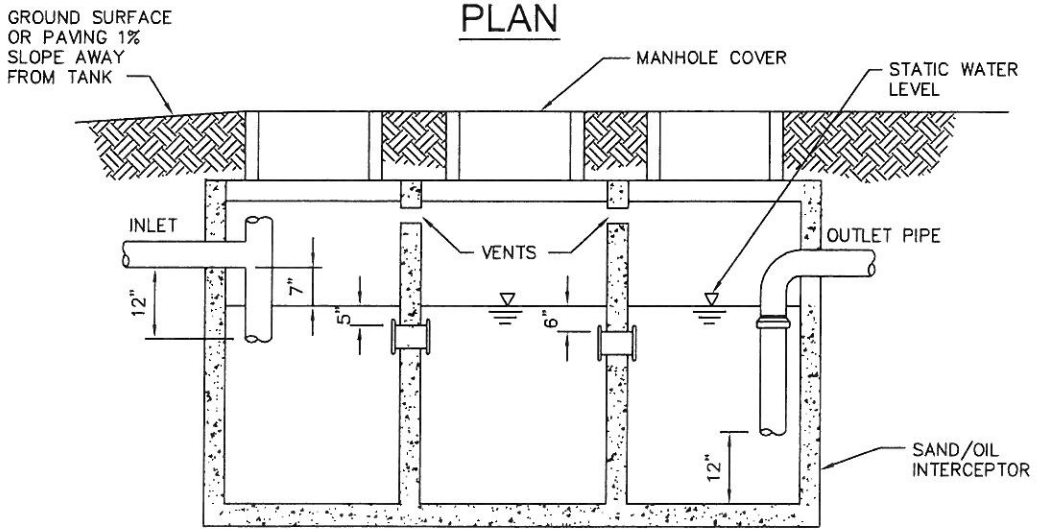
CITY OF ONTARIO

GENERAL REQUIREMENTS FOR MONITORING MANHOLE

STANDARD DRAWING NUMBER **2201**



PLAN



SECTION

NOTES

1. SIZING PER UNIFORM PLUMBING CODE, CHAPTER 7, "TRAPS AND INTERCEPTORS".
2. THE UNIT SHOWN SHALL BE MADE OF CONCRETE OR OTHER MATERIAL APPROVED BY THE CITY ENGINEER (SEE NOTE 3).
3. THE UNIT IS TO BE LOCATED AWAY FROM TRAFFIC, IF POSSIBLE. IF INSTALLED IN TRAFFIC, THE UNIT MUST BE CAPABLE OF CARRYING H-20 LOADINGS.
4. NO WASTE FROM RESTROOMS SHALL FLOW THROUGH INTERCEPTOR.
5. ALL WASTE SHALL ENTER THE INTERCEPTOR THROUGH THE INLET PIPE ONLY.
6. STRUCTURE SHALL BE INSTALLED TO ALLOW ACCESS FOR MAINTENANCE OR INSPECTION AT ALL TIMES.
7. ALL SURFACE WATER MUST DRAIN AWAY FROM THE SAMPLING BOX AND INTERCEPTOR TO EXCLUDE ANY SURFACE DRAINAGE.
8. INSPECTION COVERS SHALL BE BROUGHT TO GRADE TO PERMIT VISUAL INSPECTION OF INTERNAL FITTINGS, WITH RISERS AS REQUIRED.

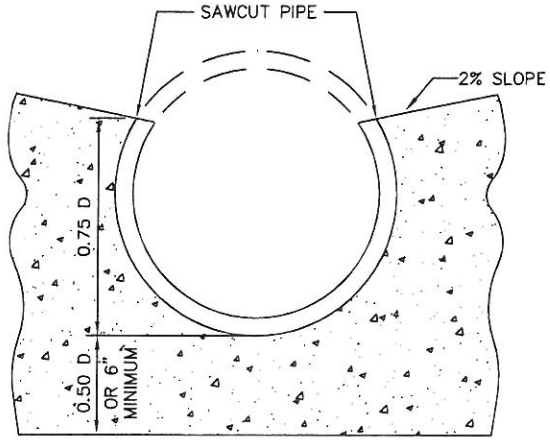
REGISTERED PROFESSIONAL ENGINEER
LOUIS ABI-YOUNES
No. 44485
EXP. 03/31/12
CIVIL
STATE OF CALIFORNIA

APPROVED BY:			11-22-10
LOUIS ABI-YOUNES, CITY ENGINEER		RCE 44485	DATE
RECOMMENDED:			10/25/10
SCOTT BURTON, UTILITIES ENG/OPERATIONS DIRECTOR		RCE 57875	DATE
REV	DESCRIPTION	BY	APP'D / DATE

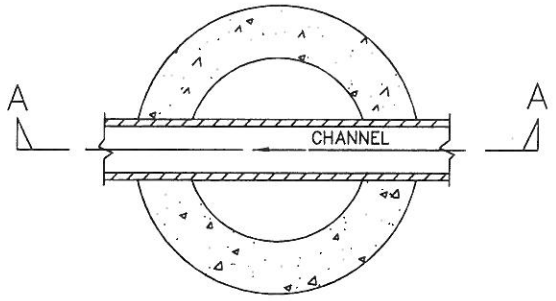
CITY OF ONTARIO

THREE CHAMBER SAND AND OIL INTERCEPTOR

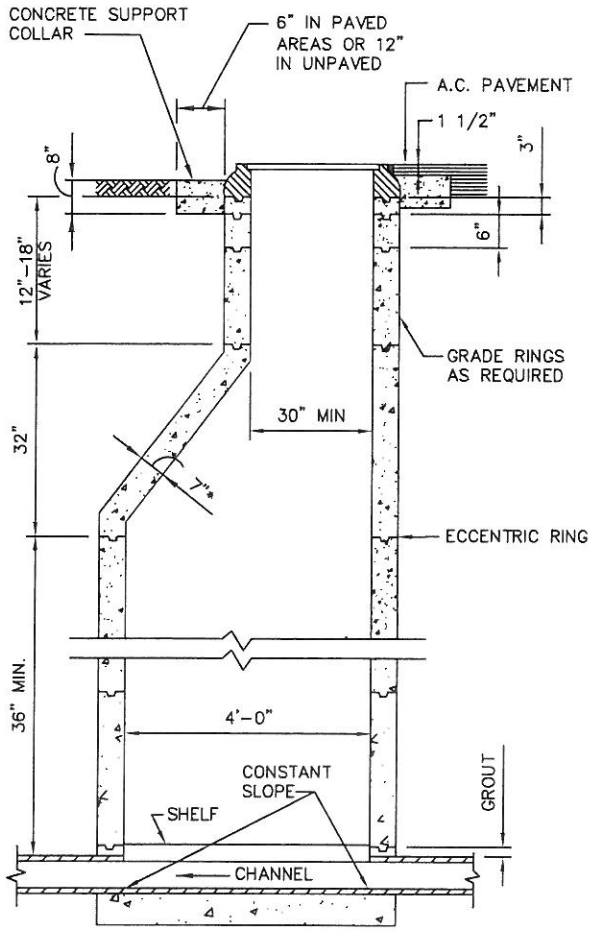
STANDARD DRAWING NUMBER **2202**



CROSS-SECTION OF BASE



PLAN OF BASE



* (NON REINFORCED MANHOLE)

SECTION A-A

THE REQUIREMENTS SPECIFIED PER CITY STANDARD DRAWINGS 2001 AND 2201 SHALL APPLY TO THIS MANHOLE.

REGISTERED PROFESSIONAL ENGINEER
LOUIS ABI-YOUNES
No. 44485
EXP. 03/31/12
CIVIL
STATE OF CALIFORNIA

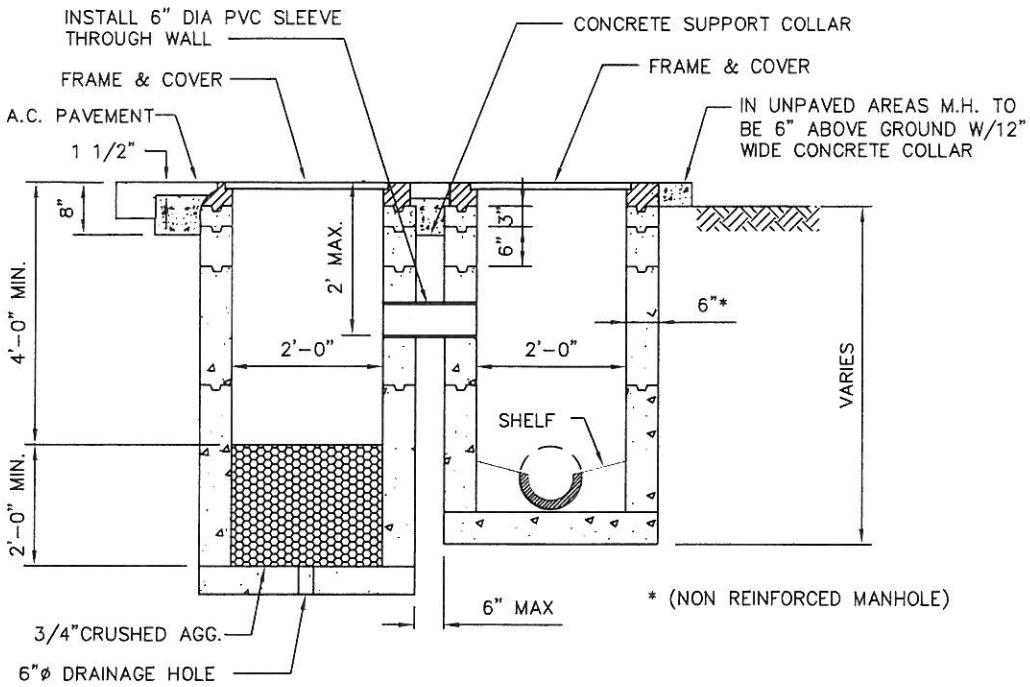
APPROVED BY:				
Louis Abi-Younes 11-22-10 44485				
LOUIS ABI-YOUNES, CITY ENGINEER			RCE	DATE
RECOMMENDED: Scott Burton 10/25/10 57875				
SCOTT BURTON, UTILITIES ENG/OPERATIONS DIRECTOR			RCE	DATE
REV	DESCRIPTION	BY	APP'D	DATE

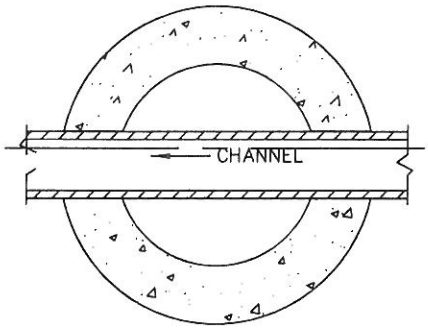
CITY OF ONTARIO

MONITORING MANHOLE - TRAFFIC AREA

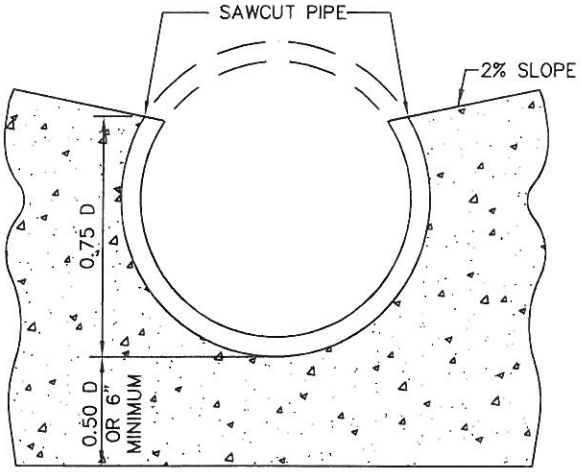
STANDARD DRAWING NUMBER

2203





PLAN OF BASE



CROSS-SECTION OF BASE

THE REQUIREMENTS SPECIFIED PER CITY STANDARD DRAWING 2201 SHALL APPLY TO THIS MANHOLE

REGISTERED PROFESSIONAL ENGINEER
LOUIS ABI-YOUNES
No. 44485
EXP. 03/31/12
CIVIL
STATE OF CALIFORNIA

APPROVED BY:				
Louis Abi-Younes	44485			11-22-10
LOUIS ABI-YOUNES, CITY ENGINEER	RCE			DATE
RECOMMENDED: Scott Burton	57875			10/25/10
SCOTT BURTON, UTILITIES ENG/OPERATIONS DIRECTOR	RCE			DATE
REV	DESCRIPTION	BY	APP'D	DATE

CITY OF ONTARIO

MODIFIED SURVEILLANCE / MONITORING MANHOLE - TRAFFIC AREA (SHALLOW DEPTH)

STANDARD DRAWING NUMBER

2204