GRADING NOTES 1. ALL DIMENSIONS AND ELEVATIONS ARE METRIC, UNLESS NOTED OTHERWISE.

- 2. ALL DIMENSIONS AND DESIGN ELEVATIONS MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DISCREPANCIES MUST BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER OR ARCHITECT WHERE APPLICABLE.
- 3. THE CONTRACTOR SHALL RESTORE TO ORIGINAL OR BETTER CONDITION FOR ANY EXISTING CONDITION DISTURBED DURING THE CONSTRUCTION AT CONTRACTOR'S EXPENSE.
- 4. CONTROL MANHOLES ARE TO BE BENCHED TO THE OBVERTS.
- 5. LANDSCAPING SHALL NOT ENCROACH ON BOULEVARD NOR SHALL BOULEVARD GRADES BE ALTERED.
- 6. STANDARD DRAWINGS OF THE CITY CONSTITUTE PART OF THE PLANS OF THE CONTRACT.
- 7. ANY CONFLICT WITH EXISTING SERVICES SHALL BE RECTIFIED AS PER CITY'S REQUIREMENTS.
- 8. MINIMUM VERTICAL AND HORIZONTAL SEPARATION BETWEEN THE INVERTS OF THE SEWER AND A CROWN OF A WATER MAIN SHALL COMPLY WITH THE MUNICIPAL AND LOCAL BY-LAWS AT ALL CROSSINGS.
- 9. CONSTRUCT PAVEMENT AS SPECIFIED. SEE PAVEMENT STRUCTURE DETAILS ON THIS DRAWING.
- 10. ALL CONCRETE CURBS FROM EXISTING ROAD CURB TO STREET LINE SHALL BE BARRIER CURB TO CITY STANDARDS. ALL CONCRETE CURB HEIGHTS SHALL BE 150mm ABOVE FINISHED GRADE (A.F.G.) UNLESS OTHERWISE NOTED. DRIVEWAY CURBS ARE TO BE DISCONTINUOUS AT SIDEWALKS AND TAPERED BACK MINIMUM OF 300mm OR TO THE APPROVAL OF DESIGN ENGINEER
- 11. ALL REQUIRED CURB CUTTING AT ENTRANCES AND CURB DEPRESSIONS AT SIDEWALK CROSSINGS SHALL BE INSTALLED TO THE APPROVAL OF THE DESIGN ENGINEER.
- 12. A MINIMUM CLEARANCE OF 1000mm FROM ALL ABOVE GROUND SERVICES AND UTILITIES IS REQUIRED.
- 13. INSTALLATION OF WATER MAIN IN PRIVATE PROPERTY SHALL COMPLY WITH THE MUNICIPAL AND LOCAL BY-LAWS.
- 14. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES DURING CONSTRUCTION. BELL, HYDRO, GAS, OR ANY OTHER UTILITIES THAT MAY EXIST ON THE SITE OR WITHIN THE STREET LINE MUST BE LOCATED AND VERIFIED BY THE RESPECTIVE UTILITY COMPANY PRIOR TO CONSTRUCTION.
- 15. ALL SANITARY SEWER. STORM SEWER. AND WATER MAIN ON PRIVATE PROPERTY ARE TO BE INSTALLED IN ACCORDANCE WITH THE PROVINCIAL BUILDING CODE.
- 16. ALL WATER MAIN AND HYDRANT INSTALLATIONS ARE TO BE CARRIED OUT IN ACCORDANCE WITH THE LATEST PLANS, STANDARDS, AND SPECIFICATIONS OF THE LOCAL UTILITIES COMMISSION.
- 17. NO BLASTING IS PERMITTED ON THE CITY RIGHT-OF-WAY AND NEAR ANY ADJACENT BUILDING.
- 18. THE PROPERTY IS TO BE GRADED AND SELF-CONTAINED SO THAT SURFACE DRAINAGE IS DIRECTED AWAY FROM THE BUILDINGS.
- 19. THE OWNER AND/OR CONTRACTOR IS REQUIRED TO OBTAIN A "ROAD CUT PERMIT" FROM THE CITY BEFORE COMMENCING ANY WORK ON THE CITY'S ROAD

EROSION AND SEDIMENT CONTROL NOTES:

- 1. ALL EXPOSED SOIL SHALL BE STABILIZED AS SOON AS POSSIBLE WITH A SEED AND MULCH APPLICATION AS DIRECTED BY THE ENGINEER.
- 2. NO CONSTRUCTION ACTIVITY OR MACHINERY SHALL INTRUDE BEYOND THE SILT/SNOW FENCE OR LIMIT OF CONSTRUCTION AREA.
- 3. ALL CONSTRUCTION VEHICLES SHALL LEAVE THE SITE AT DESIGNATED LOCATIONS AS SHOWN ON THE PLANS.
- 4. STOCKPILES OF SOIL SHALL BE SET BACK FROM ANY WATERCOURSE AND STABILIZED AGAINST EROSION AS SOON AS POSSIBLE. A SET BACK OF AT LEAST 15M FROM ANY TOP-OF-BANK, WATERCOURSE OR POND IS REQUIRED.
- 5. CLEANING AND REPAIRS OF MUD-MATS AND ANY OTHER TEMPORARY SEDIMENT CONTROL MEASURES SHALL BE COMPLETED AS DEEMED NECESSARY THROUGH REGULAR INSPECTION.
- 6. SEDIMENT/SILT SHALL BE REMOVED FROM THE SEDIMENT CONTROL DEVICES AFTER STORM EVENTS AND DEPOSITED IN AREAS AS APPROVED BY THE ENGINEER.
- 7. ALL RE-GRADED AREAS WITHIN THE DEVELOPMENT WHICH ARE NOT OCCUPIED BY BUILDINGS, ROADWAYS, SIDEWALKS, OR DRIVEWAYS SHALL BE TOP-SOILED AND SODDED/SEEDED IMMEDIATELY AFTER COMPLETION OF FINAL GRADING OPERATIONS AS DIRECTED BY THE ENGINEER.
- 8. PROTECT ALL EXPOSED SURFACES AND CONTROL ALL RUNOFF DURING CONSTRUCTION.
- 9. ALL EROSION CONTROL MEASURES ARE TO BE IN PLACE BEFORE STARTING CONSTRUCTION AND REMAIN IN PLACE UNTIL RESTORATION IS COMPLETE.
- 10. MAINTAIN EROSION CONTROL MEASURES DURING CONSTRUCTION.
- 11. ALL COLLECTED SEDIMENT MUST BE DISPOSED OFF AT AN APPROVED LOCATION.
- 12. MINIMIZE AREA DISTURBED DURING CONSTRUCTION. ALL DEWATERING MUST BE DISPOSED OF IN AN APPROVED SEDIMENTATION BASIN.
- 13. PROTECT ALL CATCH BASINS, MAINTENANCE HOLES AND PIPE ENDS FROM SEDIMENT INTRUSION WITH GEOTEXTILE (TERRAFIX 270R).
- 14. KEEP ALL SUMPS CLEAN DURING CONSTRUCTION.
- 15. PREVENT WIND-BLOWN DUST.

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CATCH BASIN SEDIMENT CONTROL DETAIL

-FINISHED GRADE

BACKFILL MATERIAL SEE GEOTECH REPORT

FILTER FABRIC ALL

WELL GRADED

MATERIALS

SAND

NON-WOVEN GEOTEXTILE

AROUND BETWEEN NATIVE

SOIL AND BEDDING/FILL

DOUBLE WRAP

WOVEN GEOTEXTILE

- 16. ALL SILT FENCING AND DETAILS ARE AT THE MINIMUM TO BE CONSTRUCTED IN ACCORDANCE WITH THE MINISTRY OF NATURAL RESOURCES GUIDELINES ON EROSION AND SEDIMENT CONTROL FOR URBAN CONSTRUCTION SITES.
- 17. ALL OF THE ABOVE NOTES AND ANY SEDIMENT & EROSION CONTROL MEASURES ARE AT THE MINIMUM TO BE IN ACCORDANCE WITH THE MINISTRY OF NATURAL RESOURCES GUIDELINES ON EROSION AND SEDIMENT CONTROL FOR URBAN CONSTRUCTION SITES.

CATCH BASIN

FRAME & GRATE

SERVICES NOTES

- 1. CONTACT LOCAL UTILITY AGENCIES (GAS, HYDRO & TELEPHONE) TO LOCATE THE EXISTING INCOMING SERVICES, AND USE THE SAME TO SERVE NEW INSTALLATIONS (IF APPLICABLE).
- 2. ALL STORM/SANITARY, AND WATERMAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS AND SPECIFICATIONS AND THE LATEST EDITION OF THE ONTARIO BUILDING CODE.
- 3. WATER SERVICE TO BE PEX AND TO BE INSTALLED WITH 12 AWG TRACERWIRE INSTALLED AT DEPTH OF 1.7-1.9m COVER FROM FINISHED GROUND. PEX REQUIRES BRASS FITTINGS.
- 4. THE MINIMUM UNINSULATED DEPTH FOR SEWER TO BE 1.2m AND THE MINIMUM UNINSULATED DEPTH FOR WATERMAINS TO BE 1.7m. SHOULD THE LATTER BECOME SHALLOWER THAN THE STANDARD DEPTHS, INSULATION WILL BE REQUIRED AS PER DETAIL SHOWN ON THIS DRAWING. ALL SEWER AND WATERMAIN MATERIAL CONFORM TO THE CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.
- WATERMAIN CROSSINGS TO BE IN ACCORDANCE WITH MOE PROCEDURE F-6-1LOCAL GAS COMPANY TO DETERMINE THE SIZE OF NEW INCOMING GAS SERVICE.
- 6. WATER LINE MUST HAVE NITRILE GASKETS INSTALLED (NEOPRENE GASKETS ARE NOT ACCEPTABLE).
- 7. CONTRACTOR IS TO SUPPLY AND INSTALL THE COMPLETE SITE IRRIGATION SYSTEM INCLUDING ELECTRICAL AND WATER SUPPLY CONNECTIONS.
- 8. CONTROL MANHOLES TO BE BENCHED TO OBVERT.

COVER PIPE CONNECTION TO END CAP WITH ADS GEOSYNTHETICS 6017

STORMTECH HIGHLY RECOMMENDS

STRUCTURES WITH OPEN GRATES

SUMP DEPTH TBD BY

SITE DESIGN ENGINEER

(24" [600 mm] MIN RECOMMENDED)

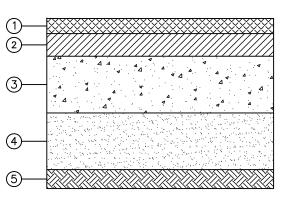
FLEXSTORM PURE INSERTS IN ANY UPSTREAM

NON-WOVEN GEOTEXTILE

CATCH BASIN

MANHOLE

END CAP



SECTION THROUGH PAVEMENT

MATERIAL	PAVEMENT THICKNESS	COMPACTION REQUIREMENT
ASPHALT HL-3 (WEARING COARSE)	40 mm	> 97 % (MBD)
ASPHALT HL-8 (BINDING COARSE)	50 mm	> 97 % (MBD)
BASE-GRANULAR A	150 mm	> 100 % (SPMDD)
SUB-BASE-GRANULAR B	200 mm	> 100 % (SPMDD)
SUBGRADE (TO BE RESHAPED)	VARIES	> 95 % (SPMDD)
	ASPHALT HL-3 (WEARING COARSE) ASPHALT HL-8 (BINDING COARSE) BASE-GRANULAR A SUB-BASE-GRANULAR B	ASPHALT HL-3 (WEARING COARSE) 40 mm ASPHALT HL-8 (BINDING COARSE) 50 mm BASE-GRANULAR A 150 mm SUB-BASE-GRANULAR B 200 mm

MARSHALL BULK DENSITY STANDARD PROCTOR MAXIMUM DRY DENSITY FOR EXACT ASPHALT MIX AND SUBGRADE DESINE, THICKNESS AND COMPACTION REFER TO GEO REPORT PREPARED FOR THIS SITE

- 1. DROP STRUCTURE IF REQUIRED AS PER OPSD 1003.010.
- 2. 600x600 PRECAST CB AS PER OPSD 705.010 c/w RELATED GRATING AS PER OPSD 400.020. GOSS TRAP AND SUBDRAINS AS PER CITY OF OTTAWA STANDARD
- 3. 12000 PRECAST MH AS PER OPSD 701.010 c/w RELATED GRATING AS PER OPSD 401.020 U.N.O.
- 3. 1500¢ PRECAST MH AS PER OPSD 701.011 c/w RELATED GRATING AS PER OPSD 401.020 U.N.O.
- 4. BENCHING AS PER OPSD 701.021.

SPECIFICATIONS FOR C.B'S AND M.H.'S

- 5. ADJUSTMENT UNITS AND CAPS AS PER OPSD SEWER COVER-GRANULAR 'A' CONFORMING TO OPSD 802.03.
- PIPE-PVC SDR35 UNLESS NOTED OTHERWISE.
- 8. CB CONNECTIONS AS PER OPSD 708.030
- 9. ALL EX. STORM AND SANITARY ABANDONED SHOWN ON THE PLAN OR ENCOUNTERED DURING CONSTRUCTION ARE TO BE EXCAVATED AT THE STREET LINE AND SEALED TO CITY STD.
- 10. WHEN THE DEPTH OF THE COVER OVER THE PROP. SANITARY OR STORM SEWERS IS LESS THAN THE FROST DEPTH ARE TO BE INSULATED AS PER CITY STANDARDS. THE INSULATION TO BE STYROFOAM BRAND H.I. TYPE IV OR EQUAL.

SANITARY:

- 1. 1200¢ PRECAST M.H'S AS PER OPSD 701.01 c/w RELATED GRATING AS PER OPSD 401.030.
- 2. DROP STRUCTURE IF REQUIRED AS PER OPSD 1003.010.
- BENCHING AS PER OPSD 701.021.
- 4. SANITARY PIPES TO BE PVC SDR35.

WATERMAINS:

- 1. ALL NEW WATERMAIN CONNECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST CITY OF STRATFORD STDARDS.
- 2. WATERMAIN AND/OR WATER SERVICES TO HAVE A MINIMUM OF 2.5m HORIZONTAL SEPARATION FROM OTHER UTILITIES
- 3. WHERE WATERMAIN AND/OR WATER SERVICES CROSSES UNDER SANITARY OR STORM SEWER A CLEARANCE OF 0.5m SHOULD BE
- PROVIDED, AS PER MOE PROCEDURE F-6-1. 4. BEDDING AND COVER MATERIAL TO BE INSTALLED AS PER CITY
- STANDARD WITH GRANULAR "A" FOR BOTH BEDDING AND COVER.
- 5. WATER SERVICE TO HAVE MIN. 1.7m-1.9m COVER AS PER CITY REQUIREMENT.

OPTIONAL INSPECTION PORT

MC-3500 END CAP

TWO LAYERS OF ADS GEOSYNTHETICS 315WTM WOVEN

GEOTEXTILE BETWEEN FOUNDATION STONE AND CHAMBERS 3.25' (2.51 m) MIN WIDE CONTINUOUS FABRIC WITHOUT SEAMS

WATER SERVICE TO BE PEX AND TO BE INSTALLED WITH 12 AWG TRACERWIRE INSTALLED AT DEPTH OF 1.7-1.9M COVER FROM FINISHED GROUND. PEX REQUIRES BRASS FITTINGS



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File No. 1804-176-00

C03

ADS GEOSYNTHETICS 601T NON-WOVEN GEOTEXTILE ALL PAVEMENT LAYER (DESIGNED AROUND CLEAN, CRUSHED, ANGULAR STONE IN A & B LAYERS BY SITE DESIGN ENGINEER) "TO BOTTOM OF FLEXIBLE PAVEMENT. FOR UNPAVED INSTALLATIONS WHERE RUTTING FROM VEHICLES MAY OCCUR. PERIMETER STONE INCREASE COVER TO 30" (750 mm). (SEE NOTE 6) (600 mm) MIN* 12" (300 mm) MIN EXCAVATION WALL (CAN BE SLOPED OR VERTICAL) (1140 mm) DEPTH OF STONE TO BE DETERMINED BY DESIGN ENGINEER 9" (230 mm) MIN 6" (150 mm) MIN MC-3500 ---- 77" (1950 mm) --SUBGRADE SOILS

MC-3500 CHAMBER

Carrier Lander

24" (600 mm) HDPE ACCESS PIPE REQUIRED

USE FACTORY PRE-CORED END CAP

(SEE NOTE 5)

THICKNESS -BACKFILL-DROPPED CURB -OF SIDEWALK AT ENTRANCES FINISHED -SURFACE UNDISTURBED PIPE DIA. + 610mm -ADDITIONAL WIDTH REFER TO GEOTECH REPORT FOR WHERE SIDEWALK IS BACKFILL REQUIREMENTS ADJACENT TO CURB

STANDARD CONCRETE BARRIER CURB. OPSD 600.110

PIPE BEDDING DETAIL

CROSS SECTION DETAIL THROUGH STORM CHAMBER Scale: NTS