

LEGEND FINISHED FLOOR ELEVATION TOP OF FOUNDATION UNDERSIDE OF FOOTING - · · - PROPERTY LINE CB CATCH-BASIN STORM MANHOLE (SANITARY MANHOLE FH -O- FIRE HYDRANT FDC Y FIRE DEPARTMENT CONNECTION VALVE & VALVE BOX WATER METER REMOTE WATER METER SANITARY SEWER _ _ST_ _ STORM SEWER <u>WS/WM</u> WATER SERVICE/WATERMAIN OBVERT OF PIPE SPRINGLINE OF PIPE INVERT OF PIPE ROAD CUT REINSTATEMENT

> RE-ISSUED FOR APPROVAL ISSUED FOR APPROVAL

D. B. GRAY ENGINEERING INC 613-425-8044 700 Long Point Circle

ISSUED FOR COORDINATION

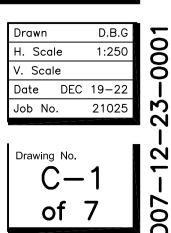
REVISION

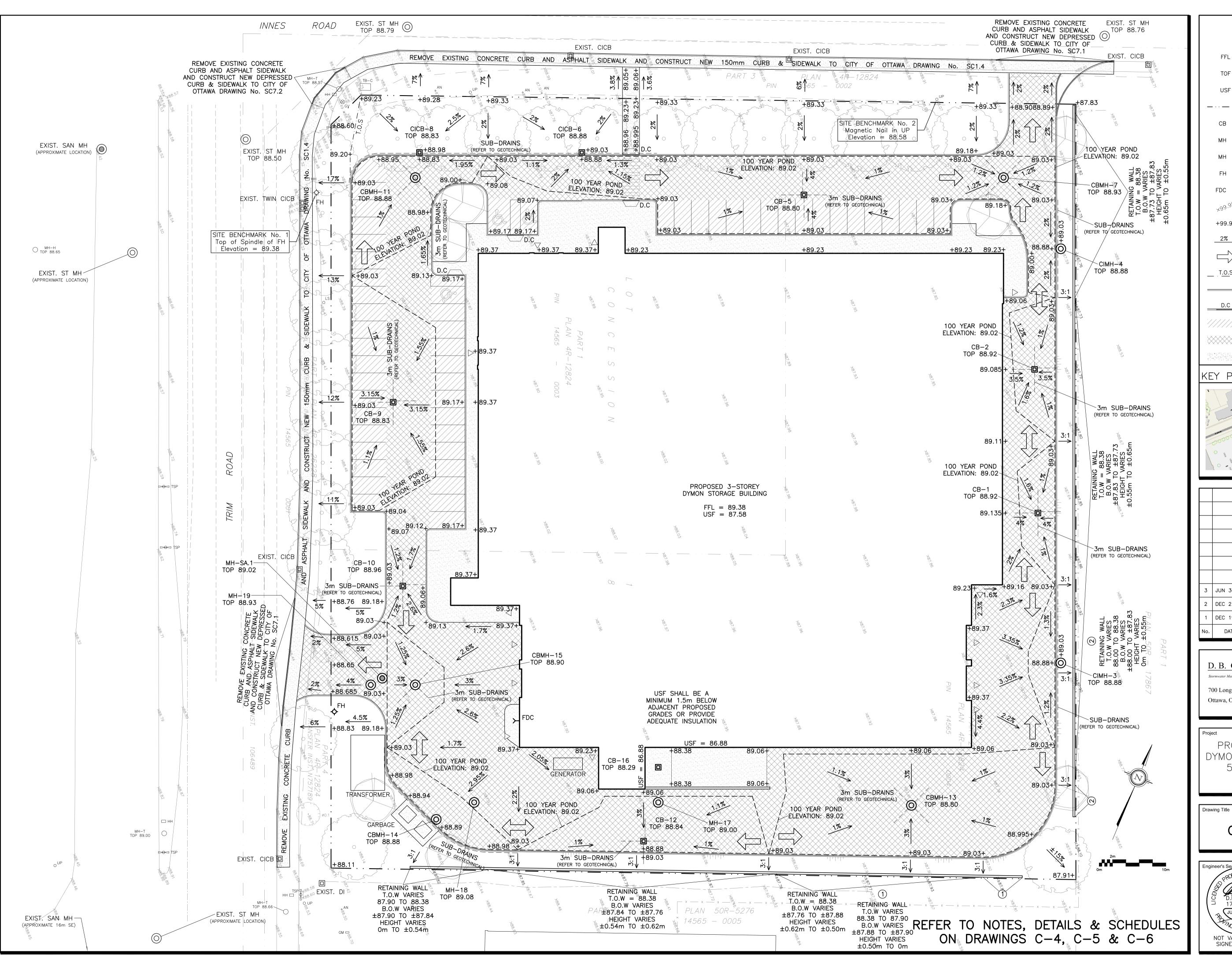
Ottawa, Ontario d.gray@dbgrayengineering.com

PROPOSED 3-STOREY DYMON STORAGE BUILDING 5210 INNES ROAD OTTAWA, ONTARIO

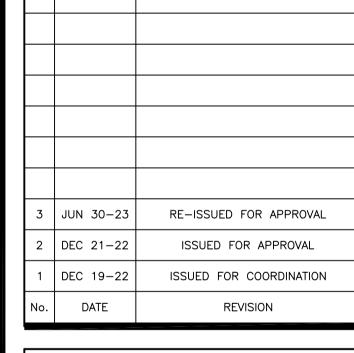
SITE SERVICING PLAN







LEGEND FINISHED FLOOR ELEVATION TOP OF FOUNDATION UNDERSIDE OF FOOTING - · · - PROPERTY LINE CATCH-BASIN STORM MANHOLE SANITARY MANHOLE FH -O- FIRE HYDRANT FDC Y FIRE DEPARTMENT CONNECTION EXISTING GRADE ELEVATION PROPOSED GRADE ELEVATION PROPOSED SLOPE OF GRADE EMERGENCY OVERLAND FLOW TOP OF SLOPE 150mm BARRIER CURB DEPRESSED CURB MEDIUM DUTY PAVEMENT HEAVY DUTY PAVEMENT CONCRETE KEY PLAN



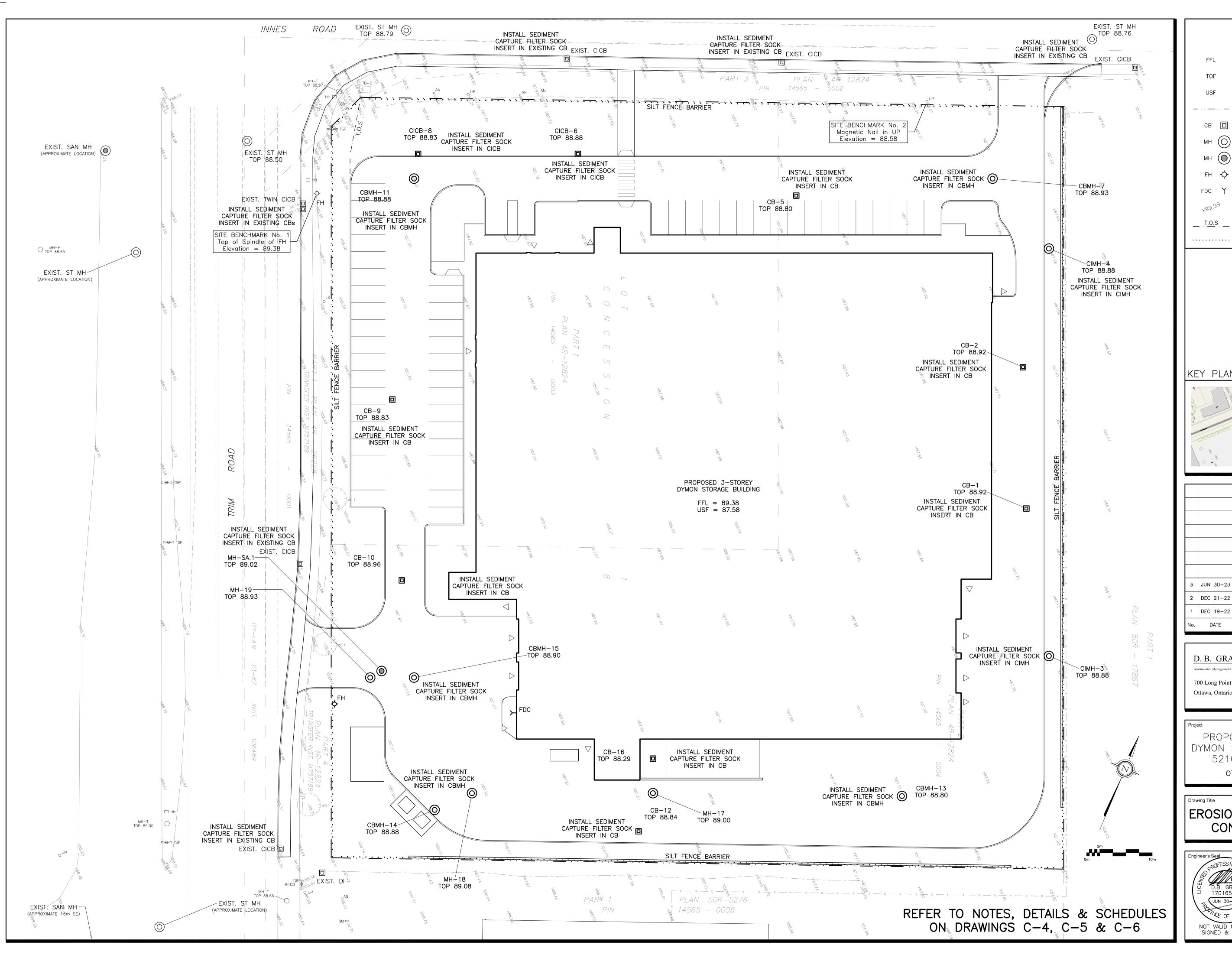
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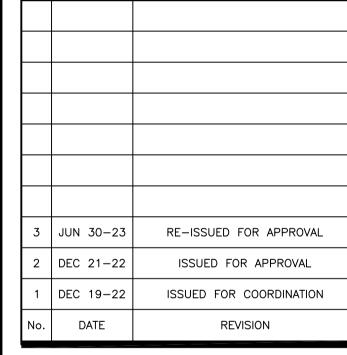
GRADING PLAN



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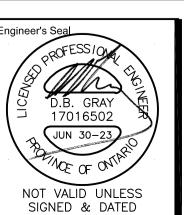
LEGEND FINISHED FLOOR ELEVATION TOP OF FOUNDATION UNDERSIDE OF FOOTING - · · - PROPERTY LINE CB CATCH-BASIN STORM MANHOLE () SANITARY MANHOLE FH -O- FIRE HYDRANT FIRE DEPARTMENT CONNECTION EXISTING GRADE ELEVATION TOP OF SLOPE ····· SILT FENCE BARRIER KEY PLAN

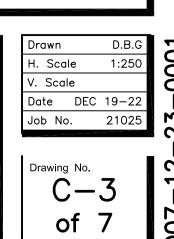


D. B. GRAY ENGINEERING INC 700 Long Point Circle Ottawa, Ontario d.gray@dbgrayengineering.com

PROPOSED 3-STOREY DYMON STORAGE BUILDING 5210 INNES ROAD OTTAWA, ONTARIO

EROSION & SEDIMENT CONTROL PLAN





#18961

1.0 GENERAL

- 1.1 USE BAR SCALE TO CONFIRM ACTUAL PLOT SCALE. EXISTING AND NEW ELEVATIONS ARE GEODETIC IN METERS. PIPE DIMENSIONS ARE NOMINAL IN MILLIMETERS UNLESS OTHERWISE NOTED.
- "ENGINEER" REFERS TO D.B. GRAY ENGINEERING INC. UNLESS OTHERWISE NOTED.
- 1.3 SITE BOUNDARIES, EXISTING GRADE ELEVATIONS AND OTHER EXISTING FEATURES ARE DERIVED FROM TOPOGRAPHICAL PLAN PREPARED BY ANNIS, O'SULLIVAN, VOLLEBEKK LTD. JOB No. E-1106-21. IT IS THE RESPONSIBILITY OF THE USER OF THIS INFORMATION TO VERIFY THAT THE JOB BENCHMARKS HAVE NOT BEEN ALTERED OR DISTURBED AND THAT THEIR RELATIVE ELEVATIONS AND DESCRIPTIONS AGREE WITH THE INFORMATION INDICATED ON THE DRAWINGS.
- 1.4 REFER TO ARCHITECTURAL SITE PLAN AND LANDSCAPE PLAN FOR EXACT LOCATION OF PROPOSED BUILDING, DRIVEWAYS, PARKING AREAS, CURBS, SIDEWALKS, WALKWAYS, ETC. LAYOUT SHALL BE COMPLETED BY THE CONTRACTOR AND REVIEWED BY THE OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
- 1.5 REFER TO TREE CONSERVATION REPORT FOR TREE PROTECTION REQUIREMENTS. 1.6 DRAWINGS SHALL BE READ IN CONJUNCTION WITH SITE SERVICING STUDY & STORMWATER MANAGEMENT
- REPORT No. 21025 PREPARED BY D.B. GRAY ENGINEERING INC.
- 1.7 REFERENCE THE LATEST REVISION OF THE GEOTECHNICAL INVESTIGATION PREPARED BY FISHER ENGINEERING PROJECT No. FE-P 22-12469. CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.
- 1.8 CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT AND CURRENT CITY OF OTTAWA STANDARD SPECIFICATIONS AND DRAWINGS.
- ONTARIO PROVINCIAL STANDARD SPECIFICATIONS AND DRAWINGS SHALL APPLY WHERE NO CITY OF OTTAWA
- STANDARD SPECIFICATIONS OR DRAWINGS ARE AVAILABLE. 1.10 REINSTATE AREAS DISTURBED BY CONSTRUCTION TO PRE—CONSTRUCTION CONDITIONS

2.0 SITE SERVICING PLAN

- 2.1 WATERMAIN, WATER SERVICE, APPURTENANCES AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CURRENT CITY OF OTTAWA STANDARD SPECIFICATIONS AND DRAWINGS. ONTARIO PROVINCIAL STANDARD SPECIFICATIONS AND DRAWINGS SHALL APPLY WHERE NO CITY OF OTTAWA STANDARD SPECIFICATIONS OR DRAWINGS ARE AVAILABLE.
- 2.2 WATERMAIN AND WATER SERVICE MATERIAL SHALL BE PVC SDR-18, IN ACCORDANCE WITH CURRENT CITY OF OTTAWA STANDARD SPECIFICATIONS.
- CONNECTION TO MUNICIPAL WATERMAIN SHALL BE PERFORMED BY CITY OF OTTAWA FORCES. CONTRACTOR SHALL PERFORM EXCAVATION, BACKFILL AND REINSTATEMENT.
- PROVIDE A MINIMUM 2.4m COVER OVER WATERMAIN AND WATER SERVICE. WHERE THE MINIMUM COVER IS NOT POSSIBLE NOTIFY THE ENGINEER AND INSULATE AS PER DETAIL.
- WATERMAIN AND WATER SERVICE INSTALLED PARALLEL TO A SEWER OR SEWER SERVICE SHALL BE INSTALLED IN A SEPARATE TRENCH WITH A MINIMUM 2.5m BARREL TO BARREL HORIZONTAL SEPARATION IN
- ACCORDANCE WITH MOE PROCEDURE F-6-1. 2.6 WATER SERVICE SHALL CROSS BELOW THE STORM SEWERS AND SANITARY SEWER SERVICE WITH A MINIMUM 500mm BARREL TO BARREL VERTICAL SEPARATION IN ACCORDANCE WITH MOE PROCEDURE F-6-1 AND CITY OF OTTAWA DRAWING No. W25. WATER SERVICE PIPE SEGMENTS SHALL BE CENTERED AT POINTS OF CROSSING SO JOINTS ARE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE STORM SEWERS AND
- SANITARY SEWER SERVICE. 2.7 WATER METER SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF OTTAWA DRAWING No. W32.
- 2.8 FIRE DEPARTMENT CONNECTION SHALL BE IN ACCORDANCE WITH OBC 3.2.5.16.
- 2.9 SEWERS, SEWER SERVICES, APPURTENANCES AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CURRENT CITY OF OTTAWA STANDARD SPECIFICATIONS AND DRAWINGS. ONTARIO PROVINCIAL STANDARD SPECIFICATIONS AND DRAWINGS SHALL APPLY WHERE NO CITY OF OTTAWA STANDARD SPECIFICATIONS OR DRAWINGS ARE AVAILABLE.
- 2.10 SEWER AND SEWER SERVICE MATERIALS SHALL BE PVC SDR-35 FOR DIAMETERS >150mm AND SDR-28 FOR DIAMETERS ≤150mm
- 2.11 CONNECT PROPOSED SANITARY SEWER TO EXISTING MUNICIPAL SANITARY SEWER IN ACCORDANCE WITH CITY OF OTTAWA DRAWING No. S11.
- 2.12 CONNECT PROPOSED STORM SEWER TO EXISTING MUNICIPAL STORM SEWER IN ACCORDANCE WITH CITY OF OTTAWA DRAWING No. S11.
- 2.13 PROVIDE A MINIMUM 2m COVER OVER SEWERS AND SEWER SERVICES. WHERE THE MINIMUM COVER IS NOT POSSIBLE NOTIFY THE ENGINEER AND INSULATE AS PER DETAIL.
- 2.14 SEWERS AND SEWER SERVICES INSTALLED PARALLEL TO A WATERMAIN OR WATER SERVICE SHALL BE INSTALLED IN A SEPARATE TRENCH WITH A MINIMUM 2.5m BARREL TO BARREL HORIZONTAL SEPARATION IN ACCORDANCE WITH MOE PROCEDURE F-6-1.
- 2.15 SEWERS AND SEWER SERVICES SHALL CROSS ABOVE THE WATERMAIN AND WATER SERVICE WITH A MINIMUM 500mm BARREL TO BARREL VERTICAL SEPARATION IN ACCORDANCE WITH MOE PROCEDURE F-6-1. SEWER AND SEWER SERVICE PIPE SEGMENTS SHALL BE CENTERED AT POINTS OF CROSSING SO JOINTS ARE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATERMAIN AND WATER SERVICE.
- 2.16 SANITARY BUILDING DRAIN SHALL BE INSTALLED WITH NORMALLY OPEN BACKWATER VALVE IN ACCORDANCE WITH CITY OF OTTAWA DRAWING No. S14.1 OR S14.2.
- STORM BUILDING DRAIN SHALL BE INSTALLED WITH NORMALLY CLOSED BACKWATER VALVE IN ACCORDANCE WITH CITY OF OTTAWA DRAWING No. S14.
- 2.18 CATCH BASINS AND MANHOLES:
 - PRECAST CONCRETE CATCH BASINS SHALL BE IN ACCORDANCE WITH OPSD 705.010.
 - PRECAST CONCRETE MANHOLES SHALL BE IN ACCORDANCE WITH OPSD 701.010.
 - MANHOLE STEPS SHALL BE IN ACCORDANCE WITH OPSD 405.010. PRECAST CONCRETE ADJUSTMENT UNITS SHALL BE IN ACCORDANCE WITH OPSD 704.010.
 - ALUMINUM SURFACES IN CONTACT WITH CONCRETE SHALL HAVE POLYETHYLENE ANCHOR INSULATING
- F. FRAMES AND COVERS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA DRAWINGS OR ONTARIO PROVINCIAL STANDARD DRAWINGS. REFER TO CATCH BASIN & MANHOLE SCHEDULE. FRAMES AND COVERS SHALL BE PAINTED WITH ONE SHOP COAT OF ASPHALT OR TAR BASE BLACK. ALL JOINTS AND CREVICES SHALL BE THOROUGHLY COATED.
- 2.19 THE INLET CONTROL DEVICE LOCATED IN THE OUTLET PIPE OF CATCH BASIN MANHOLE CBMH-15 SHALL BE A PLUG STYLE WITH A ROUND ORIFICE LOCATED AT THE BOTTOM OF THE PLUG MANUFACTURED BY PEDRO PLASTICS OR APPROVED EQUIVALENT SIZED BY THE MANUFACTURER FOR THE RELEASE RATE INDICATED ON THE DRAWINGS. PRIOR TO INSTALLATION SUBMIT SHOP DRAWING TO THE ENGINEER FOR
- 2.20 RAINWATER LEADERS INSIDE BUILDING SHALL BE CONSTRUCTED TO WITHSTAND THE PRESSURE FROM A WATER COLUMN THE HEIGHT OF THE RAINWATER LEADER. PERFORM PRESSURE TESTS ON THE SYSTEMS IN ACCORDANCE WITH THE MECHANICAL ENGINEER'S INSTRUCTIONS.

3.0 GRADING PLAN

- 3.1 NEW GRADES SHALL MATCH EXISTING GRADES ON PROPERTY LINES. NO EXCESS DRAINAGE SHALL BE DIRECTED TOWARDS ADJACENT PROPERTIES DURING OR AFTER CONSTRUCTION. THERE SHALL BE NO ALTERATION TO EXISTING GRADES OR DRAINAGE PATTERNS ON PROPERTY LINES.
- 3.2 ENSURE ADEQUATE DRAINAGE AWAY FROM BUILDING TO CATCH BASINS. GRADING SHALL BE GRADUAL BETWEEN PROPOSED GRADE ELEVATIONS INDICATED ON THE DRAWINGS.
- RETAINING WALLS SHALL BE SETBACK A MINIMUM 150mm FROM PROPERTY LINES. RETAINING WALLS GREATER THAN 600mm IN HEIGHT REQUIRE A GUARD. REFER TO ARCHITECTURAL SITE PLAN AND/OR
- 3.4 WHETHER A RESULT OF POOR WORKMANSHIP OR DAMAGE DEFECTIVE GRADING SHALL BE CORRECTED.

4.0 EROSION & SEDIMENT CONTROL PLAN

- 4.1 THE EROSION & SEDIMENT CONTROL PLAN IS A "LIVING DOCUMENT" AND SHALL BE REVISED IN THE EVENT THE SPECIFIED CONTROL MEASURES ARE NOT SUFFICIENT. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES TO PROVIDE PROTECTION OF THE AREA DRAINAGE SYSTEM DURING CONSTRUCTION INCLUDING BUT NOT LIMITED TO LIMITING THE AMOUNT OF EXPOSED SOIL, USING SEDIMENT CAPTURE FILTER SOCK INSERTS IN CATCH-BASINS AND CATCH-BASIN/MANHOLES AND INSTALLING SILT FENCES AND OTHER EFFECTIVE SEDIMENT TRAPS. THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY. AT MINIMUM THE CONTRACTOR SHALL INSTALL, MAINTAIN AND REMOVE THE FOLLOWING CONTROL MEASURES IN ACCORDANCE WITH NOTES 4.2 TO 4.10.
- 4.2 PRIOR TO COMMENCING CONSTRUCTION INSTALL TERRAFIX GEOSYNTHETICS INC. SILTSACK OR APPROVED EQUIVALENT SEDIMENT CAPTURE FILTER SOCK INSERTS IN ALL EXISTING MUNICIPAL CATCH BASINS AND CATCH BASIN MANHOLES ADJACENT TO THE SITE.
- 4.3 INSTALL TERRAFIX GEOSYNTHETICS INC. SILTSACK OR APPROVED EQUIVALENT SEDIMENT CAPTURE FILTER SOCK INSERTS IN ALL NEW CATCH BASINS AND CATCH BASIN MANHOLES AS THEY ARE INSTALLED.
- 4.4 INSPECT SEDIMENT CAPTURE FILTER SOCK INSERTS AT THE END OF EACH DAY AND AFTER EACH RAINFALL. REMOVE SEDIMENT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. REPAIR OR REPLACE DAMAGED SEDIMENT CAPTURE FILTER SOCK INSERTS.
- 4.5 PRIOR TO COMMENCING CONSTRUCTION INSTALL SILT FENCE BARRIERS AS INDICATED ON THE DRAWINGS. 4.6 INSTALL SILT FENCE BARRIERS AROUND STOCKPILED SEDIMENT OR SOIL
- 4.7 INSPECT SILT FENCE BARRIERS AT THE END OF EACH DAY AND AFTER EACH RAINFALL. REMOVE SEDIMENT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. REPAIR OR REPLACE DAMAGED SILT FENCE BARRIERS.
- 4.8 REMOVE ANY MATERIAL DEPOSITED ON THE PUBLIC ROAD BY SHOVELING AND SWEEPING OR VACUUMING AND DISPOSING IN A CONTROLLED AREA. DO NOT SHOVEL, SWEEP OR DISPOSE ANY MATERIAL INTO ANY STORMWATER CONVEYANCE SYSTEM.
- 4.9 REMOVE EROSION AND SEDIMENT CONTROL MEASURES WHEN CONSTRUCTION IS COMPLETE. 4.10 CONSTRUCTION IS CONSIDERED TO BE COMPLETE WHEN THE FOLLOWING CONDITIONS HAVE BEEN MET:
- A. ALL STRUCTURES AND HARD SURFACES HAVE BEEN CONSTRUCTED.
- B. ALL STOCKPILED MATERIALS HAVE BEEN REMOVED. C. ALL PROPOSED GRASSED AREAS ARE EITHER SODDED OR HAVE FULL COVERAGE OF WELL ESTABLISHED
- TURF AND HAVE HAD A MINIMUM OF ONE FULL GROWING SEASON (MAY 151H TO SEPTEMBER 15TH) D. THERE ARE NO AREAS OF EXPOSED EARTH.

5.0 ROOF DRAINAGE PLAN

- 5.1 FLOW CONTROL ROOF DRAINS:
- A. ROOF DRAINS SHALL BE INSTALLED WITH A SINGLE-PARABOLIC SLOTTED WEIR AND RELEASE

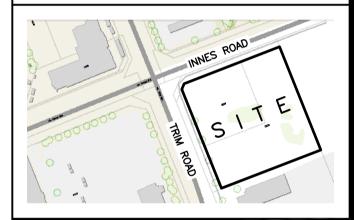
(i.e. 200mm DEPTH AT ROOF DRAINS). REFER TO STRUCTURAL.

- 0.01242L/s/min (5USgpm/in). B. ROOF DRAINS SHALL BE WATTS WITH AN ACCUTROL WEIR RD-100-A1 OR APPROVED EQUIVALENT. OPENING AT THE TOP OF THE FLOW CONTROL WEIR SHALL BE A MINIMUM 50mm IN DIAMETER.
- D. PRIOR TO INSTALLATION SUBMIT SHOP DRAWING TO THE ENGINEER FOR APPROVAL. 5.2 SCUPPERS: A. MINIMUM NUMBER AND WIDTH OF SCUPPERS SHALL BE AS INDICATED ON THE DRAWINGS. BOTTOM OF
 - SCUPPERS SHALL BE 150mm ABOVE ROOF DRAINS. REFER TO ARCHITECTURAL FOR EXACT LOCATIONS B. ROOF SHALL BE DESIGNED TO CARRY THE LOAD OF WATER HAVING A 50mm DEPTH AT SCUPPERS

6.0 CONSTRUCTION

- 6.1 PRIOR TO COMMENCING CONSTRUCTION:
- A. OBTAIN AND BEAR THE COST OF ALL NECESSARY PERMITS AND APPROVALS FROM THE AUTHORITIES HAVING JURISDICTION.
- B. LOCATIONS, DEPTHS AND SIZES OF EXISTING INFRASTRUCTURE INDICATED ON THE DRAWINGS ARE FOR GUIDANCE ONLY. COMPLETENESS AND ACCURACY ARE NOT GUARANTEED. ALL EXISTING INFRASTRUCTURE IS NOT NECESSARILY INDICATED ON THE DRAWINGS. THOSE SHOWN ARE DERIVED FROM AVAILABLE INFORMATION AND MUST BE CONFIRMED ON SITE. C. NOTIFY THE AUTHORITIES HAVING JURISDICTION.
- D. UNDERGROUND LOCATES INCLUDING BUT NOT LIMITED TO ONTARIO ONE CALL 1-800-400-2255 SHALL BE PERFORMED. CONFIRM LOCATIONS. DEPTHS AND SIZES OF EXISTING INFRASTRUCTURE BY CAREFUL TEST EXCAVATIONS AND REPORT ANY DIFFERENCES TO THE ENGINEER. FAILURE TO DO SO WILL BE AT
- THE CONTRACTOR'S EXPENSE.
- COORDINATE AND SCHEDULE CONSTRUCTION TO PROVIDE MINIMUM DISRUPTION TO SERVICES.
- PROVIDE TRAFFIC CONTROL AS REQUIRED BY THE AUTHORITIES HAVING JURISDICTION.
- **EXCAVATION AND BACKFILL:** A. PROTECT EXISTING BUILDINGS, INFRASTRUCTURE, ETC. FROM DAMAGE.
- SAWCUT PAVEMENT, CURBS AND SIDEWALKS NEATLY ALONG LIMITS OF PROPOSED EXCAVATIONS. . EXCAVATIONS SHALL NOT INTERFERE WITH BEARING CAPACITY OF ADJACENT FOUNDATIONS.
- D. SUBGRADE, BEDDING, SURROUND MATERIAL AND BACKFILL SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.
- E. COORDINATE AND PAY FOR GEOTECHNICAL INSPECTIONS AND COMPACTION TESTS OF SUBGRADE AND EACH LIFT OF BEDDING, SURROUND MATERIAL AND BACKFILL. SUBMIT GEOTECHNICAL INSPECTIONS AND COMPACTION REPORTS TO THE ENGINEER.
- 6.4 PIPES AND FITTINGS: A. HANDLE, CUT AND ASSEMBLE PIPES AND FITTINGS IN ACCORDANCE WITH THE MANUFACTURER'S
- INSTALLATION GUIDE. B. WHETHER A RESULT OF POOR WORKMANSHIP OR DAMAGE DEFECTIVE PIPES AND FITTINGS SHALL BE REPAIRED OR REPLACED.
- COORDINATE AND PERFORM LEAKAGE TESTS ON THE SANITARY MANHOLE, SEWER AND SEWER SERVICE IN ACCORDANCE WITH OPSS 407 AND OPSS 410 WITH THE PRESENCE OF THE ENGINEER.
- COORDINATE AND PERFORM A DYE TEST ON THE SANITARY SEWER SERVICE WITH THE PRESENCE OF THE ENGINEER.
- PERFORM TWO CCTV INSPECTIONS ON SEWERS AND SEWER SERVICES. FIRST INSPECTION SHALL BE WHEN CONSTRUCTION IS COMPLETE. SECOND INSPECTION SHALL BE IMMEDIATELY PRIOR TO THE END OF THE WARRANTY PERIOD. SUBMIT REPORTS AND VIDEOS TO THE ENGINEER FOR APPROVAL. REPAIR OR REPLACE DEFECTIVE SEWERS AND SEWER SERVICES.
- 6.8 CURBS AND SIDEWALKS: A. CONCRETE BARRIER CURBS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA DRAWING No. SC1.1. B. WHETHER A RESULT OF POOR WORKMANSHIP OR DAMAGE DEFECTIVE CURBS AND SIDEWALKS SHALL BE
- REPAIRED OR REPLACED. 6.9 PAVEMENT STRUCTURE:
- A. MEDIUM DUTY PAVEMENT STRUCTURE HL3 ASPHALTIC CONCRETE
- HL8 ASPHALTIC CONCRETE
- 150mm 19 mm CRUSHED LIMESTONE 200mm GRANULAR B SUBBASE
- B. HEAVY DUTY PAVEMENT STRUCTURE
- 40mm HL3 ASPHALTIC CONCRETI
- HL8 ASPHALTIC CONCRETE 65mm
- 150mm 19 mm CRUSHED LIMESTONE 350mm GRANULAR B SUBBASE
- C. COORDINATE AND PAY FOR GEOTECHNICAL INSPECTIONS AND COMPACTION TESTS OF EACH LIFT OF SUBBASE, BASE AND ASPHALTIC CONCRETE. SUBMIT GEOTECHNICAL INSPECTIONS AND COMPACTION
- REPORTS TO THE ENGINEER. D. WHETHER A RESULT OF POOR WORKMANSHIP OR DAMAGE DEFECTIVE PAVEMENT SHALL BE REPAIRED OR REPLACED.
- 6.10 MAINTAIN AS-BUILT DRAWINGS AND RECORD DEVIATIONS INCLUDING BUT NOT LIMITED TO CHANGES OF LOCATIONS, ELEVATIONS AND SIZES FROM THE ORIGINAL CONTRACT DOCUMENTS. UPDATE DAILY AND MAKE AVAILABLE THROUGHOUT CONSTRUCTION. SUBMIT AS-BUILT DRAWINGS <PREPARED BY AN ONTARIO LAND SURVEYOR> TO THE ENGINEER WHEN CONSTRUCTION IS COMPLETE.

KEY PLAN



3	JUN 30-23	RE-ISSUED FOR APPROVAL
2	DEC 21-22	ISSUED FOR APPROVAL
1	DEC 19-22	ISSUED FOR COORDINATION
No.	DATE	REVISION

D. B. GRAY ENGINEERING INC. Stormwater Management - Grading & Drainage - Storm & Sanitary Sewers - Watermains

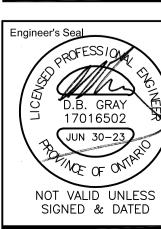
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OTTAWA, ONTARIO

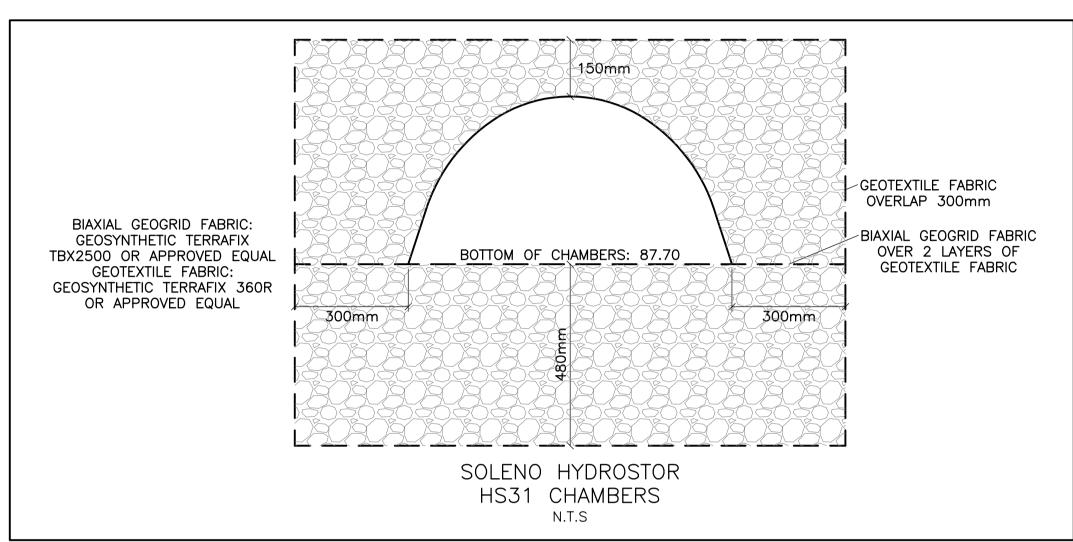
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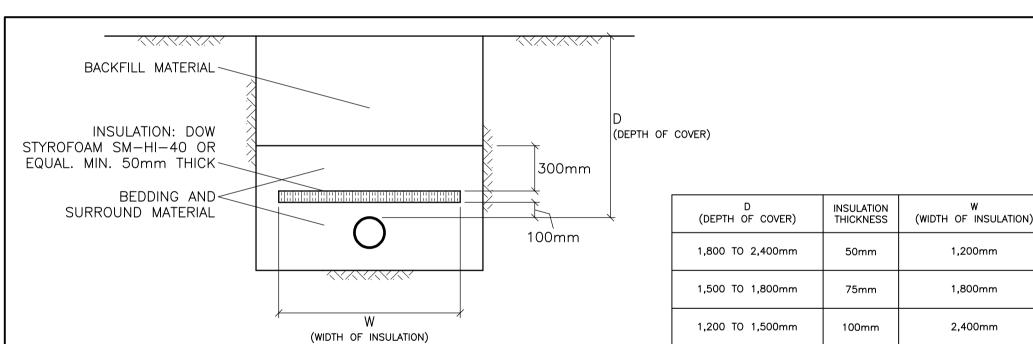
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INSULATE WATERMAINS AND WATER SERVICES AS INDICATED AND WHERE DEPTH OF COVER IS LESS THAN 2,400mm.

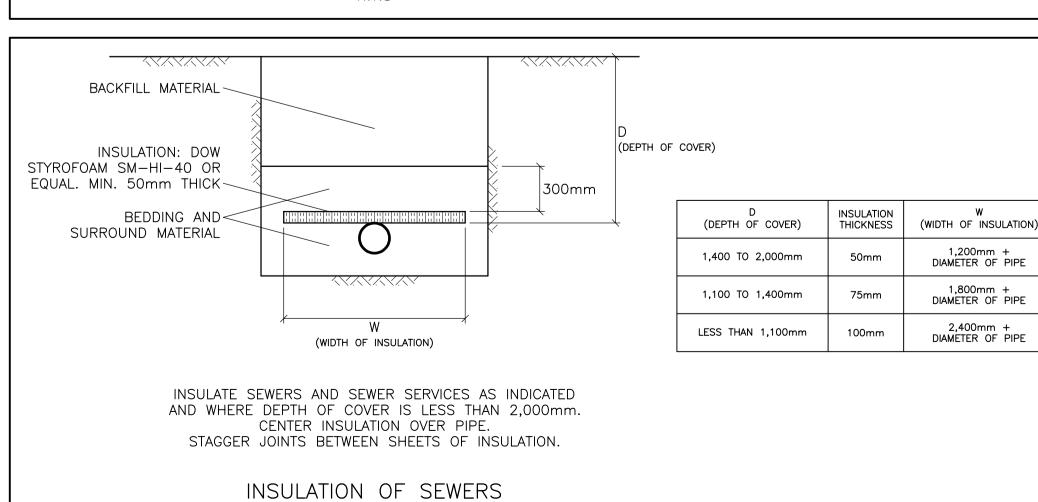
CENTER INSULATION OVER PIPE.

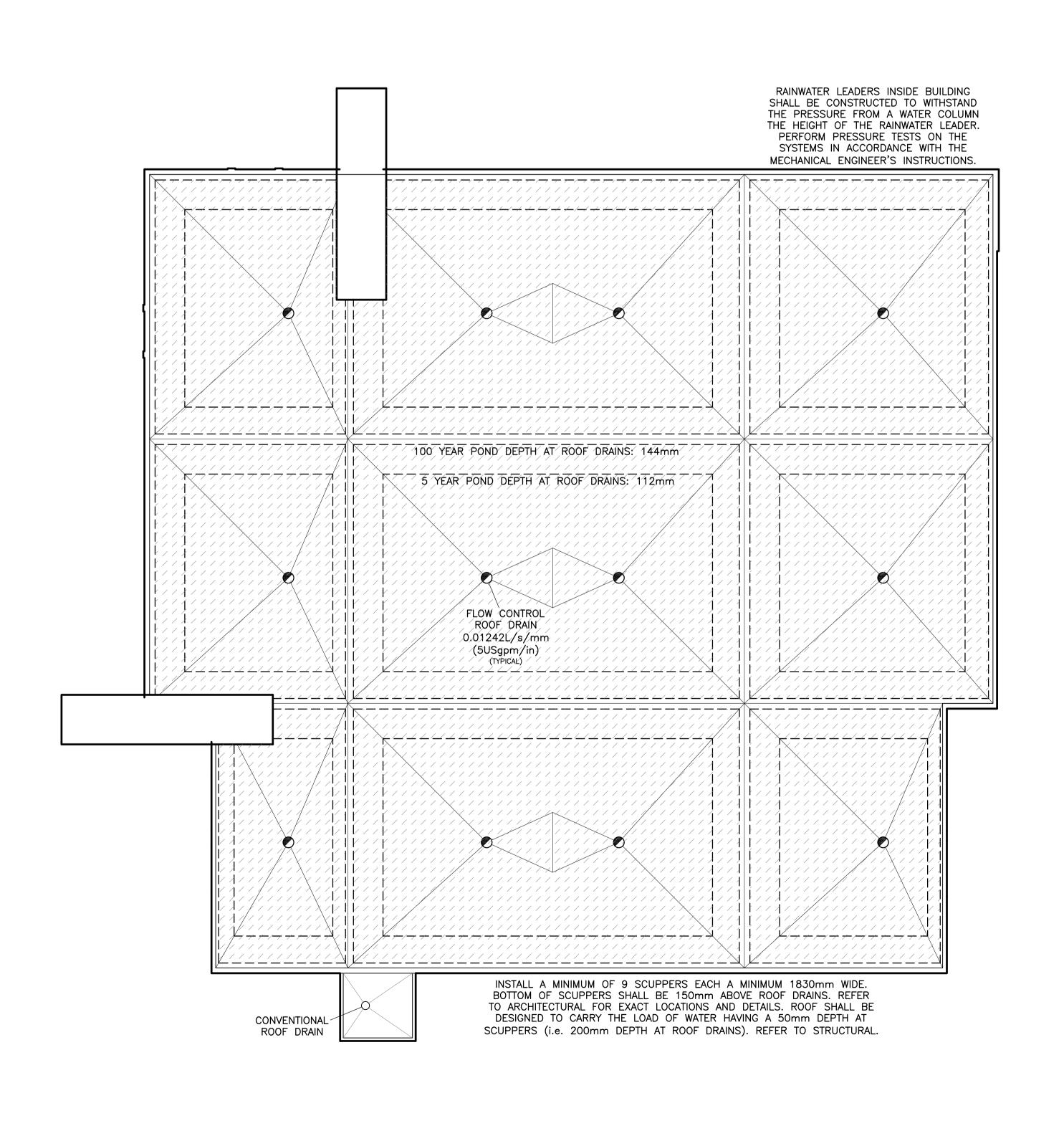
STAGGER JOINTS BETWEEN SHEETS OF INSULATION.

INSULATION OF WATERMAINS
& WATER SERVICES
IN SHALLOW TRENCHES
N.T.S

& SEWER SERVICES

IN SHALLOW TRENCHES





KEY PLAN



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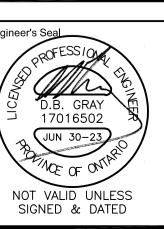
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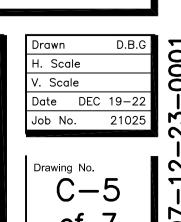
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PROPOSED 3—STOREY
DYMON STORAGE BUILDING
5210 INNES ROAD
OTTAWA, ONTARIO

Drawing Title

DETAILS





ROOF DRAINAGE PLAN

18061

CATCH BASIN & MANHOLE SCHEDULE INVERT AT INVERT AT TOP NOTES REF SIZE TYPE INLET OUTLET WATER SERVICE PROFILE TABLE STORM SEWER IN ACCORDANCE WITH OPSD 705.010 & CITY OF OTTAWA STANDARDS - FRAME & PRECAST CONCRETE 150mm PVC SDR18 CB-188.92 600mm x 600mm 87.93 CATCH BASIN COVER IN ACCORDANCE WITH CITY OF OTTAWA DRAWING No. S19 IN ACCORDANCE WITH OPSD 705.010 & GRADE TOP OF DEPTH OF PRECAST CONCRETE CITY OF OTTAWA STANDARDS - FRAME & STATION NOTES CB-2600mm x 600mm DESCRIPTION 88.92 87.86 ELEVATION PIPE COVER CATCH BASIN COVER IN ACCORDANCE WITH CITY OF OTTAWA DRAWING No. S19 CONNECTION BY CITY. IN ACCORDANCE WITH OPSD 701.010 & 150mm x 400mm TEE CONNECTION EXCAVATION. BACKFILL & PRECAST CONCRETE CITY OF OTTAWA STANDARDS - FRAME & A + 00.0±86.55 ±2.18 CIMH-388.88 1200mm 87.96 IN 400mm MUNICIPAL WATERMAIN REINSTATEMENT BY CONTRACTOR. CURB INLET MANHOLE COVER IN ACCORDANCE WITH CITY OF OTTAWA DRAWING No. S28 START OF INSULATION 50mm THICK. IN ACCORDANCE WITH OPSD 701.010 & PRECAST CONCRETE CITY OF OTTAWA STANDARDS - FRAME & 87.75(NW) 87.75(S) A+01.05° VERTICAL BEND DOWN ±88.71 86.55 ±2.16 88.88 1200mm INSULATION 50mm THICK CIMH-4 COVER IN ACCORDANCE WITH CITY OF CURB INLET MANHOLE OTTAWA DRAWING No. S28 IN ACCORDANCE WITH OPSD 705.010 & PRECAST CONCRETE CITY OF OTTAWA STANDARDS - FRAME & A + 06.45° VERTICAL BEND UP ±2.51 END OF INSULATION 50mm THICK CB-588.80 600mm x 600mm ±88.59 86.08 87.71 CATCH BASIN COVER IN ACCORDANCE WITH CITY OF OTTAWA DRAWING No. S19 IN ACCORDANCE WITH OPSD 705.010 & CITY OF OTTAWA STANDARDS - FRAME & PRECAST CONCRETE BOTTOM OF CURB ±88.48 86.08 CICB-6 88.88 600mm x 600mm 87.72 A + 11.5 ± 2.40 CURB INLET CATCH BASIN COVER IN ACCORDANCE WITH CITY OF OTTAWA DRAWING No. S22 & S23 IN ACCORDANCE WITH OPSD 701.010 & CITY OF OTTAWA STANDARDS - FRAME & PRECAST CONCRETE CBMH-787.70(SE) 87.70(W) A + 12.488.49 86.08 2.41 88.93 1200mm CATCH BASIN MANHOLE COVER IN ACCORDANCE WITH CITY OF OTTAWA DRAWING No. S25 & S28.1 IN ACCORDANCE WITH OPSD 705.010 & CITY OF OTTAWA STANDARDS - FRAME & PRECAST CONCRETE A + 18.488.79 86.18 2.61 CICB-8 88.83 600mm x 600mm 87.72 CURB INLET CATCH BASIN COVER IN ACCORDANCE WITH CITY OF OTTAWA DRAWING No. S22 & S23 IN ACCORDANCE WITH OPSD 705.010 & PRECAST CONCRETE CITY OF OTTAWA STANDARDS - FRAME & A + 19.0150mm VALVE BOX 88.83 2.65 ON PROPERTY LINE CB-988.83 600mm x 600mm 87.72 86.18 COVER IN ACCORDANCE WITH CITY OF CATCH BASIN OTTAWA DRAWING No. S19 IN ACCORDANCE WITH OPSD 705.010 & PRECAST CONCRETE CITY OF OTTAWA STANDARDS - FRAME & A + 19.5150mm x 150mm TEE CONNECTION 88.85 86.18 2.67 88.96 600mm x 600mm COVER IN ACCORDANCE WITH CITY OF B+00.0 CATCH BASIN OTTAWA DRAWING No. S19 IN ACCORDANCE WITH OPSD 701.010 & 87.70(N) PRECAST CONCRETE CITY OF OTTAWA STANDARDS - FRAME & 89.11 86.28 CBMH-11 88.88 A + 25.51200mm CATCH BASIN MANHOLE 87.70(E) COVER IN ACCORDANCE WITH CITY OF OTTAWA DRAWING No. S25 & S28.1 IN ACCORDANCE WITH OPSD 705.010 & PRECAST CONCRETE CITY OF OTTAWA STANDARDS - FRAME & A + 27.389.03 86.34 2.69 BOTTOM OF CURB CB-12 88.84 600mm x 600mm 87.77 CATCH BASIN COVER IN ACCORDANCE WITH CITY OF OTTAWA DRAWING No. S19 IN ACCORDANCE WITH OPSD 701.010 & PRECAST CONCRETE CITY OF OTTAWA STANDARDS - FRAME & A + 28.488.99 86.38 2.61 CBMH-13 88.80 1200mm 87.93 CATCH BASIN MANHOLE COVER IN ACCORDANCE WITH CITY OF OTTAWA DRAWING No. S25 & S28.1 IN ACCORDANCE WITH OPSD 701.010 & CROSSING 250 ST INV 87.23 CITY OF OTTAWA STANDARDS - FRAME & PRECAST CONCRETE WM TOP 86.48 - 750mm 87.70(E) 87.70(N) A + 30.389.01 86.48 2.53 CBMH-14 88.88 1200mm COVER IN ACCORDANCE WITH CITY OF CATCH BASIN MANHOLE CLEARANCE (MIN. 500mm REQ'D) OTTAWA DRAWING No. S25 & S28.1 CROSSING 250 ST INV 87.63 WM TOP 86.60 - 1030mm IN ACCORDANCE WITH OPSD 701.010 & A + 32.689.05 86.60 2.45 CITY OF OTTAWA STANDARDS - FRAME & CLEARANCE (MIN. 500mm REQ'D) PRECAST CONCRETE COVER IN ACCORDANCE WITH CITY OF 87.21(W) CBMH-15 | 88.90 1200mm OTTAWA DRAWING No. S25 & S28.1 CATCH BASIN MANHOLE 87.61(S) A + 34.489.08 86.68 2.40 ICD IN OUTLET PIPE IN ACCORDANCE WITH OPSD 705.010 & CITY OF OTTAWA STANDARDS - FRAME & PRECAST CONCRETE A + 39.189.16 86.76 2.40 CB-16 88.29 600mm x 600mm 87.54 CATCH BASIN COVER IN ACCORDANCE WITH CITY OF OTTAWA DRAWING No. S19 CROSSING 150 SAN INV 88.13 WM TOP 86.81 - 1320mm IN ACCORDANCE WITH OPSD 701.010 & A + 42.189.21 86.81 2.40 CLEARANCE (MIN. 500mm REQ'D) CITY OF OTTAWA STANDARDS - FRAME & PRECAST COVER IN ACCORDANCE WITH CITY OF 87.45(W) 89.00 1200mm 87.51 CONCRETE MANHOLE OTTAWA DRAWING No. S25 & S24.1 A + 45.189.30 2.40 86.90 WATERTIGHT COVER IN ACCORDANCE WITH OPSD 701.010 & CITY OF OTTAWA STANDARDS - FRAME & 89.37 87.33(E) 87.30(NW) A + 47.386.97 2.40 ENTRY INTO BUILDING MH-18 89.08 1200mm CONCRETE MANHOLE COVER IN ACCORDANCE WITH CITY OF OTTAWA DRAWING No. S25 & S24.1 IN ACCORDANCE WITH OPSD 701.010 & PRECAST CITY OF OTTAWA STANDARDS - FRAME & B+00.0 88.93 87.17(W) 150mm x 150mm TEE CONNECTION 88.85 86.18 2.67 MH-19 1200mm A + 19.587.20(SE) COVER IN ACCORDANCE WITH CITY OF CONCRETE MANHOLE OTTAWA DRAWING No. S25 & S24.1 SANITARY SEWER B+01.0 150mm VALVE BOX 86.18 2.67 88.85

MH-SA.1

89.02

1200mm

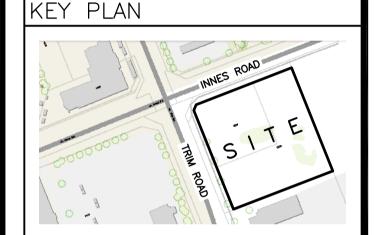
B+02.0

FIRE HYDRANT

88.85

86.18

2.67



3 JUN 30-23 RE-ISSUED FOR APPROVAL
2 DEC 21-22 ISSUED FOR APPROVAL
1 DEC 19-22 ISSUED FOR COORDINATION
No. DATE REVISION

D. B. GRAY ENGINEERING INC.

Stormwater Management - Grading & Drainage - Storm & Sanitary Sewers - Watermain.

700 Long Point Circle 613-425-8044
Ottawa, Ontario d.gray@dbgrayengineering.com

Project

PROPOSED 3-STOREY DYMON STORAGE BUILDING 5210 INNES ROAD

OTTAWA, ONTARIO

Drawing Title

IN ACCORDANCE WITH OPSD 701.010 &

CITY OF OTTAWA STANDARDS - FRAME &

COVER IN ACCORDANCE WITH CITY OF

OTTAWA DRAWING No. S25 & S24

87.96(SE)

CONCRETE MANHOLE

87.18(W)

SCHEDULES



Drawn D.B.

H. Scale

V. Scale

Date DEC 19-2

Job No. 2102

Drawing No.

C-6

#18961

