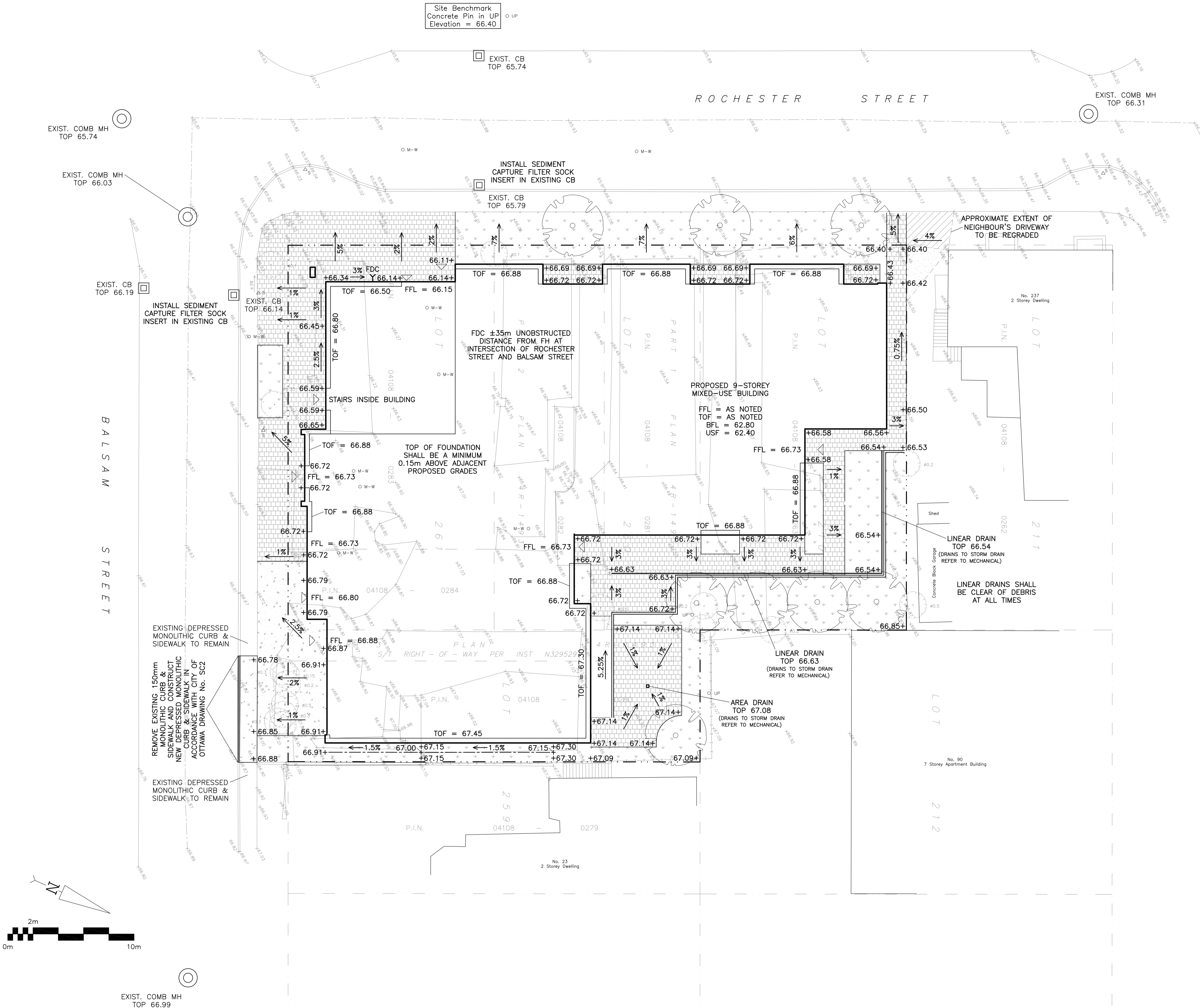


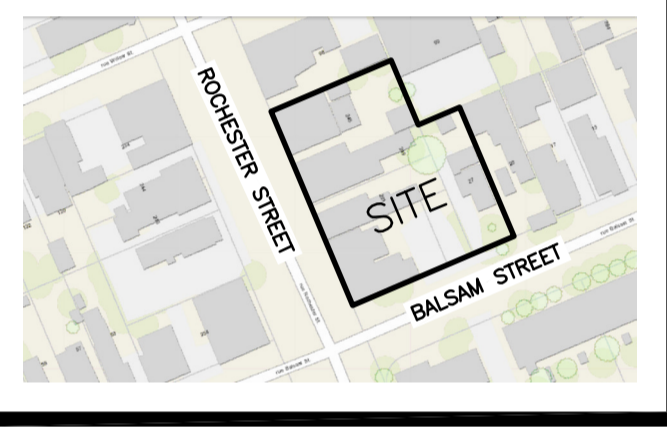
Site Benchmark  
Concrete Pin in UP  
Elevation = 66.40



**LEGEND**

- FFL FINISHED FLOOR ELEVATION
- TOF TOP OF FOUNDATION
- BFL BASEMENT FLOOR ELEVATION
- USF UNDERSIDE OF FOOTING
- PROPERTY LINE
- CB [ ] CATCH-BASIN
- MH ( ) COMBINED MANHOLE
- FDC Y FIRE DEPARTMENT CONNECTION
- +99.99 EXISTING GRADE ELEVATION
- +99.99 PROPOSED GRADE ELEVATION
- 2% EXISTING SLOPE OF GRADE
- 2% PROPOSED SLOPE OF GRADE
- CENTERLINE OF SWALE
- 150mm BARRIER CURB
- D.C. DEPRESSED CURB
- GRAVEL
- CONCRETE
- INTERLOCK
- LANDSCAPE

**KEY PLAN**

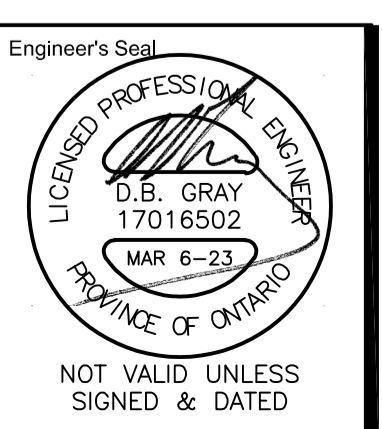


No.	DATE	REVISION
3	MAR 6-23	RE-ISSUED FOR APPROVAL
2	OCT 24-22	ISSUED FOR APPROVAL
1	SEP 1-22	PRELIMINARY

**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 9-STORY MIXED-USE BUILDING**  
245-263 ROCHESTER STREET & 27 BALSAM STREET  
OTTAWA, ONTARIO

Drawing Title  
**GRADING PLAN AND EROSION & SEDIMENT CONTROL PLAN**



Drawn D.B.G.  
H. Scale 1:150  
V. Scale  
Date SEP 1-22  
Job No. 22076

Drawing No.  
**C-2**  
of 4

REFER TO NOTES ON DRAWING C-3

D02-02-22-0102 & D07-12-22-0156

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.
- 1.2 "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 TOPOGRAPHIC SKETCH PREPARED BY FARLEY, SMITH & DENIS SURVEYING LTD. FILE No. 132-22.
- 1.4 REFER TO ARCHITECTURAL SITE PLAN AND LANDSCAPE PLAN FOR EXACT LOCATION OF PROPOSED BUILDING, DRIVEWAY, WALKWAYS, ETC. LAYOUT SHALL BE COMPLETED BY THE CONTRACTOR AND REVIEWED BY THE OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
- 1.5 DRAWINGS SHALL BE READ IN CONJUNCTION WITH SITE SERVICING STUDY & STORMWATER MANAGEMENT REPORT No. 22076-REV.01 PREPARED BY D.B. GRAY ENGINEERING INC.
- 1.6 REFERENCE THE LATEST REVISION OF THE GEOTECHNICAL INVESTIGATION PREPARED BY RUBICON ENVIRONMENTAL (2008) INC. JOB NUMBER R63048.11. CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.
- 1.7 CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT AND CURRENT CITY OF OTTAWA STANDARD SPECIFICATIONS AND DRAWINGS.
- 1.8 ONTARIO PROVINCIAL STANDARD SPECIFICATIONS AND DRAWINGS SHALL APPLY WHERE NO CITY OF OTTAWA STANDARD SPECIFICATIONS OR DRAWINGS ARE AVAILABLE.
- 1.9 REINSTATE AREAS DISTURBED BY CONSTRUCTION TO PRE-CONSTRUCTION CONDITIONS.

2.0 SITE SERVICING PLAN

- 2.1 WATER 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.
- 2.2 DECOMMISSIONING OF EXISTING WATER SERVICES SHALL BE PERFORMED BY CITY OF OTTAWA FORCES. CONTRACTOR SHALL PERFORM EXCAVATION, BACKFILL AND REINSTATEMENT.
- 2.3 WATER SERVICE MATERIAL SHALL BE PVC SDR-18 IN ACCORDANCE WITH CURRENT CITY OF OTTAWA STANDARD SPECIFICATIONS.
- 2.4 CONNECTIONS TO MUNICIPAL WATERMAIN SHALL BE PERFORMED BY CITY OF OTTAWA FORCES. CONTRACTOR SHALL PERFORM EXCAVATION, BACKFILL AND REINSTATEMENT.
- 2.5 PROVIDE A MINIMUM 2.4m COVER OVER WATER SERVICES. WHERE THE MINIMUM COVER IS NOT POSSIBLE NOTIFY THE ENGINEER AND INSULATE IN ACCORDANCE WITH CITY OF OTTAWA DRAWING No. W22.
- 2.6 WHERE LESS THAN 2.4m CLEARANCE FROM AN OPEN STRUCTURE (e.g. CATCH-BASIN, MANHOLE, WINDOW WELL, ETC.) INSULATE IN ACCORDANCE WITH CITY OF OTTAWA DRAWING No. W23.
- 2.7 WATER SERVICES SHALL CROSS ABOVE THE COMBINED SEWER WITH A MINIMUM 250mm BARREL TO BARREL VERTICAL SEPARATION IN ACCORDANCE WITH MOE PROCEDURE F-6-1 AND CITY OF OTTAWA DRAWING No. W25.2. WHERE IT IS NOT POSSIBLE FOR THE WATER SERVICE TO CROSS ABOVE THE SEWER WITH A MINIMUM 250mm BARREL TO BARREL VERTICAL SEPARATION THE WATER SERVICE SHALL CROSS BELOW THE SEWER 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 SEGMENT SHALL BE CENTERED AT POINT OF CROSSING SO JOINTS ARE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE SEWER.
- 2.8 WATER METER SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF OTTAWA DRAWING No. W32.
- 2.9 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 DECOMMISSIONING OF EXISTING SEWER SERVICES SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA DRAWING No. S11.4.
- 2.11 SEWER SERVICE MATERIALS SHALL BE PVC SDR-35 FOR DIAMETERS >150mm AND SDR-28 FOR DIAMETERS ≤150mm.
- 2.12 CONNECT PROPOSED SANITARY AND STORM SEWER SERVICES TO EXISTING MUNICIPAL COMBINED SEWER IN ACCORDANCE WITH CITY OF OTTAWA DRAWING No. S11.1.
- 2.13 PROVIDE A MINIMUM 2m COVER OVER SEWER SERVICES. WHERE THE MINIMUM COVER IS NOT POSSIBLE NOTIFY THE ENGINEER AND INSULATE IN ACCORDANCE WITH CITY OF OTTAWA DRAWING No. W22.
- 2.14 SANITARY BUILDING DRAIN SHALL BE INSTALLED WITH NORMALLY OPEN BACKWATER VALVE IN ACCORDANCE WITH CITY OF OTTAWA DRAWING No. S14.1 OR S14.2.
- 2.15 STORM BUILDING DRAIN SHALL BE INSTALLED WITH NORMALLY CLOSED BACKWATER VALVE IN ACCORDANCE WITH CITY OF OTTAWA DRAWING No. S14.
- 2.16 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 AND AREA DRAINS. GRADING SHALL BE GRADUAL BETWEEN PROPOSED GRADE ELEVATIONS SHOWN ON THE DRAWINGS.
- 3.3 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 LANDSCAPE PLAN. RETAINING WALLS GREATER THAN 1,000mm IN HEIGHT SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO.
- 3.4 WHETHER A RESULT OF POOR WORKMANSHIP OR DAMAGE DEFECTIVE GRADING SHALL BE CORRECTED.

4.0 EROSION & SEDIMENT CONTROL PLAN

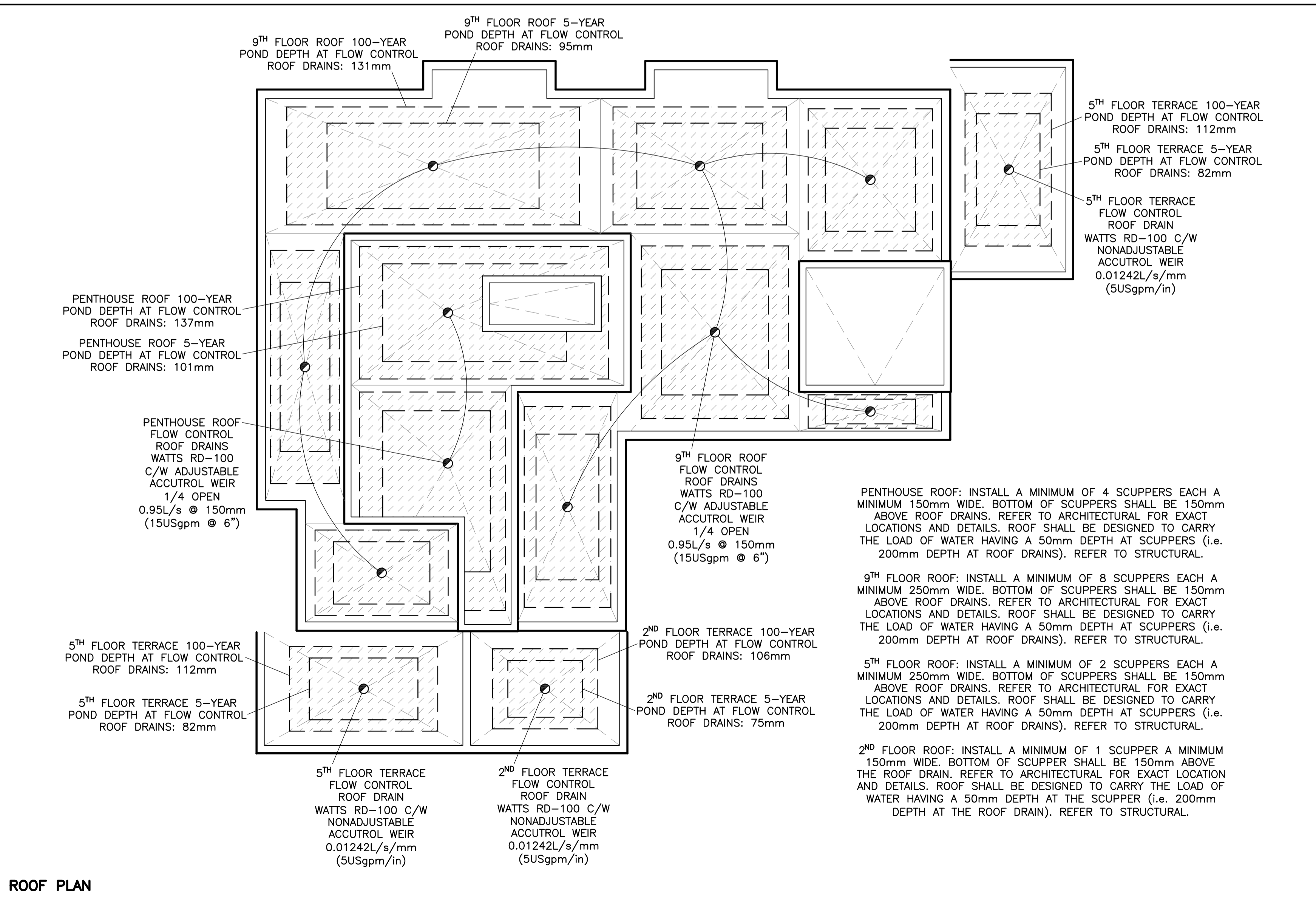
- 4.1 THE EROSION & SEDIMENT CONTROL PLAN IS A "LIVING DOCUMENT" AND SHALL BE REVISED IN THE EVENT THE SPECIFIED CONTROL MEASURES ARE NOT SUFFICIENT. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES TO PROVIDE PROTECTION OF THE AREA DRAINAGE SYSTEM DURING CONSTRUCTION INCLUDING BUT NOT LIMITED 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 4.7. 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.
- 4.2 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.
- 4.3 INSTALL A SILT FENCE BARRIER AROUND STOCKPILED SEDIMENT OR SOIL.
- 4.4 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.
- 4.5 REMOVE EROSION AND SEDIMENT CONTROL MEASURES WHEN CONSTRUCTION IS COMPLETE.
- 4.6 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 15<sup>TH</sup> TO SEPTEMBER 15<sup>TH</sup>).
  - D. THERE ARE NO AREAS OF EXPOSED EARTH.

5.0 ROOF PLAN

- 5.1 FLOW CONTROL ROOF DRAINS:
  - A. FLOW CONTROL ROOF DRAINS SHALL BE WATTS RD-100 C/W A FLOW CONTROL WEIR AS INDICATED ON THE DRAWINGS.
  - B. OPENING AT THE TOP OF THE FLOW CONTROL WEIR SHALL BE A MINIMUM 50mm IN DIAMETER.
  - C. PRIOR TO INSTALLATION SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL.
  - D. ALL OTHER ROOF DRAINS SHALL BE CONVENTIONAL ROOF DRAINS WITHOUT FLOW CONTROL. REFER TO MECHANICAL.
- 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 AND DETAILS.
  - B. ROOF SHALL BE DESIGNED TO CARRY THE LOAD OF WATER HAVING A 50mm DEPTH AT SCUPPERS (i.e. 200mm DEPTH AT ROOF DRAINS). REFER TO STRUCTURAL.

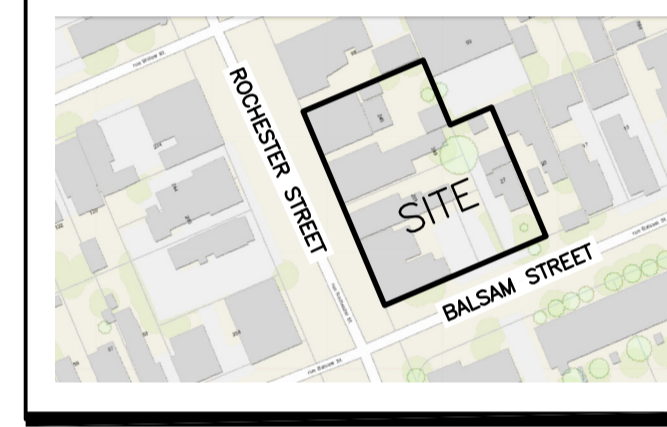
6.0 CONSTRUCTION

- 6.1 PRIOR TO COMMENCING CONSTRUCTION:
  - A. OBTAIN AND PAY FOR 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.
  - E. COORDINATE AND SCHEDULE CONSTRUCTION TO PROVIDE MINIMUM DISRUPTION TO SERVICES.
- 6.2 PROVIDE TRAFFIC CONTROL AS REQUIRED BY THE AUTHORITIES HAVING JURISDICTION.
- 6.3 EXCAVATION AND BACKFILL:
  - A. PROTECT EXISTING BUILDINGS, INFRASTRUCTURE, ETC. FROM DAMAGE.
  - B. SAWCUT PAVEMENT, CURBS AND SIDEWALKS NEATLY ALONG LIMITS OF PROPOSED EXCAVATIONS.
  - C. 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.
- 6.5 PAVEMENT:
  - A. 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.
  - B. WHETHER A RESULT OF POOR WORKMANSHIP OR DAMAGE DEFECTIVE PAVEMENT SHALL BE REPAIRED OR REPLACED.
- 6.6 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 TO THE ENGINEER WHEN CONSTRUCTION IS COMPLETE.



ROOF PLAN

KEY PLAN



No.	DATE	REVISION
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2	OCT 24-22	ISSUED FOR APPROVAL
1	SEP 22-22	PRELIMINARY

**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 9-STORY MIXED-USE BUILDING**  
 245-263 ROCHESTER STREET & 27 BALSAM STREET  
 OTTAWA, ONTARIO

NOTES AND ROOF PLAN

Engineer's Seal  
  
 NOT VALID UNLESS SIGNED & DATED

Drawn D.B.G.  
 H. Scale 1:150  
 V. Scale  
 Date SEP 1-22  
 Job No. 22076

Drawing No.  
**C-3**  
 of 4

D02-02-22-0102 & D07-12-22-0156

Site Benchmark  
Concrete Pin in UP  
Elevation = 66.40

EXIST. CB  
TOP 65.74

EXIST. COMB MH  
TOP 65.74

EXIST. COMB MH  
TOP 66.03

EXIST. CB  
TOP 66.14

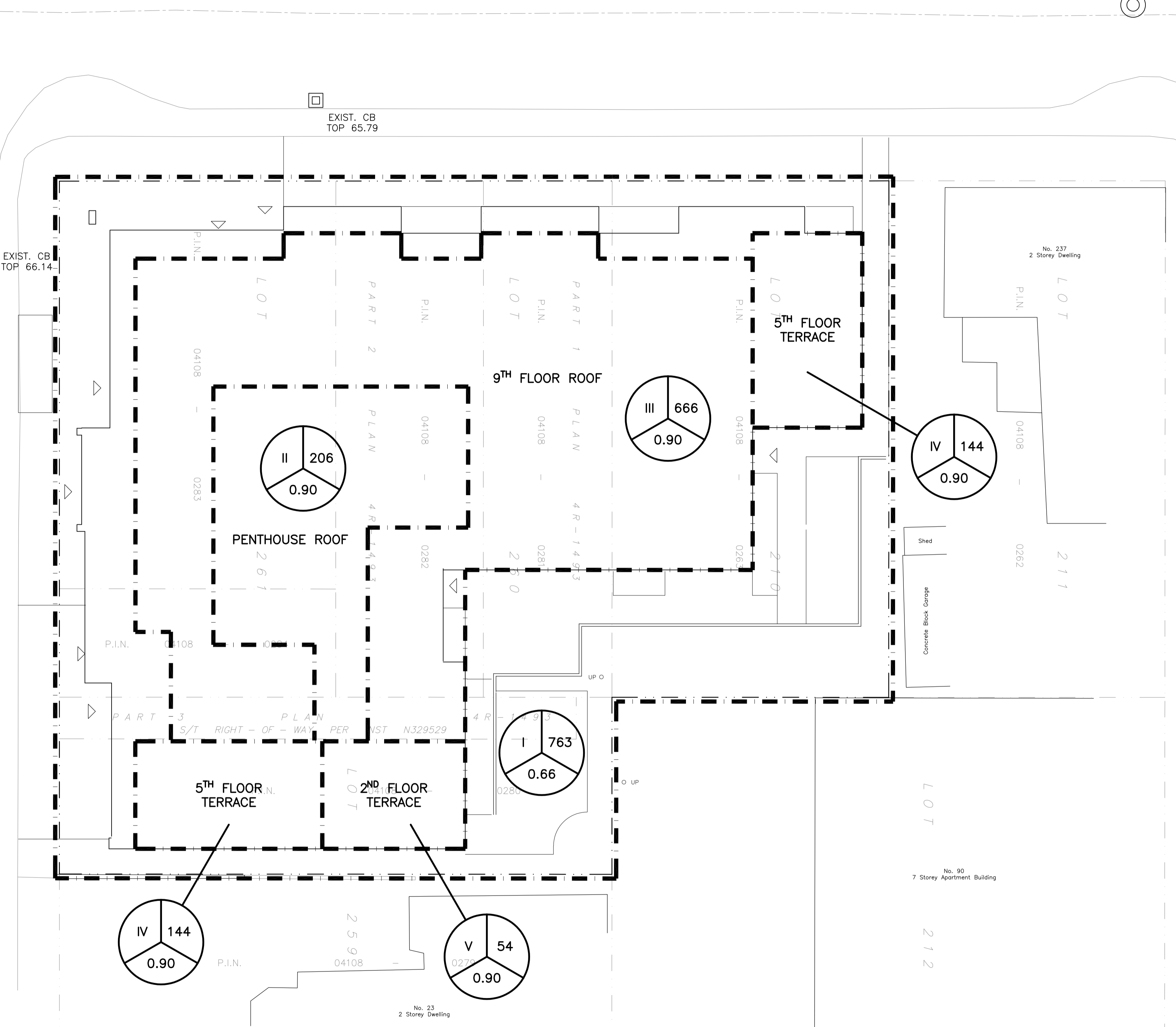
EXIST. CB  
TOP 66.14

EXIST. CB  
TOP 65.79

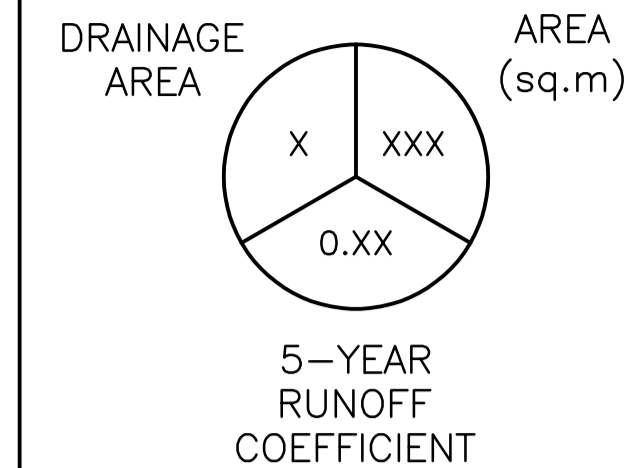
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TOP 66.31

ROCHESTER STREET

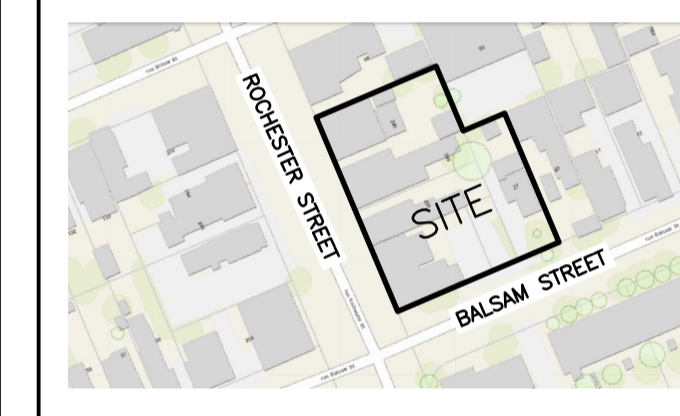
BALSAM STREET



LEGEND



KEY PLAN

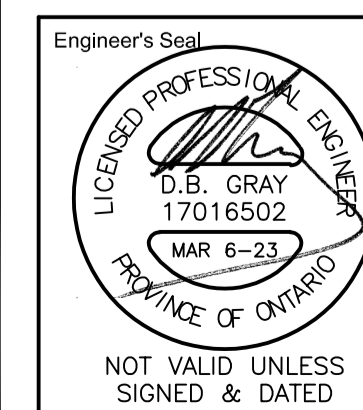


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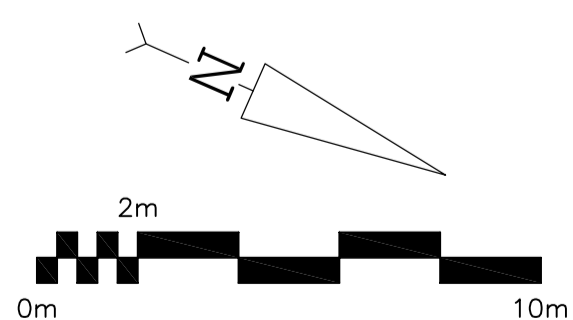
Project  
**PROPOSED 9-STORY MIXED-USE BUILDING**  
245-263 ROCHESTER STREET & 27 BALSAM STREET  
OTTAWA, ONTARIO

Drawing Title  
**DRAINAGE PLAN**



Drawn D.B.G.  
H. Scale 1:150  
V. Scale  
Date SEP 1-22  
Job No. 22076

Drawing No.  
**C-4**  
of 4



EXIST. COMB MH  
TOP 66.99

#18869 D02-02-22-0102 & D07-12-22-0156