

ROOF DRAINS (B1)			
TYPE OF CONTROL DEVICE	WATTS DRAINAGE RD-100-A-ADJ		
NUMBER OF ROOF DRAINS	3		
SCENARIO	5-YEAR	100-YR	
ROOFTOP STORAGE REQUIRED (m³)	8.02	15.37	
ROOFTOP STORAGE PROVIDED (m³)	9.10	16.69	
DEPTH OF FLOW (m)	0.030	0.055	
FLOW PER ROOF DRAIN (L/s)	0.38	0.69	
TOTAL RESTRICTED FLOW	1.14	2.07	

ROOF DRAINS (B2)			
TYPE OF CONTROL DEVICE	WATTS DRAINAGE RD-100-A-ADJ		
NUMBER OF ROOF DRAINS	3		
SCENARIO	5-YEAR	100-YR	
ROOFTOP STORAGE REQUIRED (m³)	8.09	15.51	
ROOFTOP STORAGE PROVIDED (m³)	9.16	16.80	
DEPTH OF FLOW (m)	0.030	0.055	
FLOW PER ROOF DRAIN (L/s)	0.38	0.69	
TOTAL RESTRICTED FLOW	1.14	2.07	

ROOF DRAINS (B5)			
TYPE OF CONTROL DEVICE	WATTS DRAINAGE RD-100-A-ADJ		
NUMBER OF ROOF DRAINS	7		
SCENARIO	5-YEAR	100-YR	
ROOFTOP STORAGE REQUIRED (m³)	28.87	56.18	
ROOFTOP STORAGE PROVIDED (m³)	35.35	60.60	
DEPTH OF FLOW (m)	0.035	0.060	
FLOW PER ROOF DRAIN (L/s)	0.44	0.76	
TOTAL RESTRICTED FLOW	3.08	5.32	

ROOF DRAINS (B7)			
TYPE OF CONTROL DEVICE	WATTS DRAINAGE RD-100-A-ADJ		
NUMBER OF ROOF DRAINS	3		
SCENARIO	5-YEAR	100-YR	
ROOFTOP STORAGE REQUIRED (m³)	6.45	12.39	
ROOFTOP STORAGE PROVIDED (m³)	6.49	12.98	
DEPTH OF FLOW (m)	0.025	0.050	
FLOW PER ROOF DRAIN (L/s)	0.32	0.63	
TOTAL RESTRICTED FLOW	1.14	2.07	

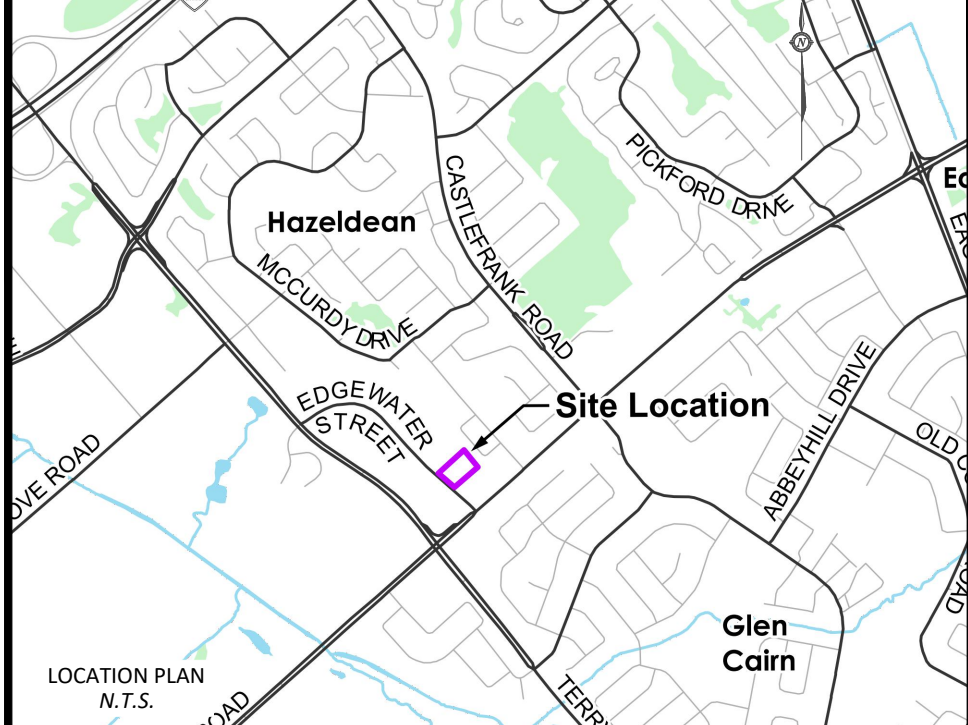
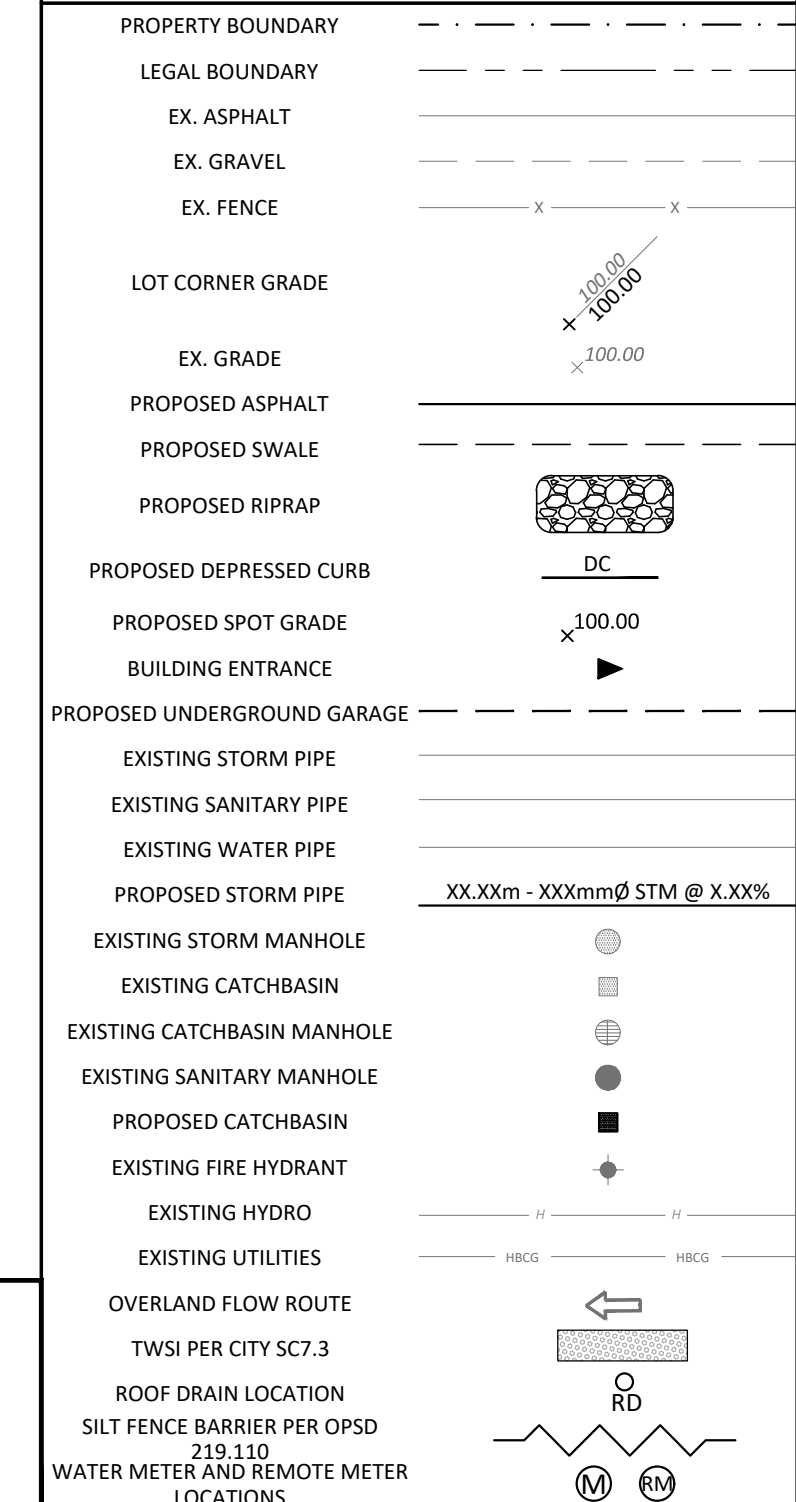
**EROSION & SEDIMENT CONTROL NOTES:**

- THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES, TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM AND THE RECEIVING WATERCOURSE, DURING CONSTRUCTION ACTIVITIES. THIS INCLUDES LIMITING THE AMOUNT OF EXPOSED SOIL, USING MUD MATS AT ALL CONSTRUCTION ENTRANCES, USING GEOSOCK WITH OVERFLOW UNDER THE GRATES OF CATCH BASINS AND MANHOLES AND INSTALLING SILT FENCES AND OTHER SEDIMENT TRAPS.
- AT THE DISCRETION OF THE PROJECT MANAGER OR MUNICIPAL STAFF, ADDITIONAL SILT CONTROL DEVICES SHALL BE INSTALLED AT DESIGNATED LOCATIONS.
- FOR SILT FENCE BARRIER, USE OPSD 219.110. GEOTEXTILE FOR SILT FENCE SHALL BE ACCORDING TO OPSD 1860, TABLE 3.
- EXCEPT AS PROVIDED IN PARAGRAPHS 4 (a), (b) AND (c) BELOW, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS FEASIBLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED.
  - WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASED IS PRECLUDED BY SNOW COVER, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS FEASIBLE.
  - WHERE CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN 21 DAYS FROM WHEN ACTIVITIES CEASED, (E.G. THE TOTAL TIME PERIOD THAT CONSTRUCTION ACTIVITY IS TEMPORARILY CEASED IS LESS THAN 21 DAYS) THEN STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF SITE BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY CEASED.
- SEDIMENT THAT IS ACCUMULATED BY THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED IN A MANNER THAT AVOIDS ESCAPE OF THE SEDIMENT TO THE DOWNSTREAM SIDE OF THE CONTROL MEASURE AND AVOIDS DAMAGE TO THE CONTROL MEASURE. SEDIMENT SHALL BE REMOVED TO THE LEVEL OF THE GRADE EXISTING AT THE TIME THE CONTROL MEASURE WAS CONSTRUCTED AND BE ACCORDING TO THE FOLLOWING:
  - FOR LIGHT-DUTY SEDIMENT BARRIERS, ACCUMULATED SEDIMENT SHALL BE REMOVED ONCE IT REACHES THE LESSER OF THE FOLLOWING:
    - A DEPTH OF ONE-HALF THE EFFECTIVE HEIGHT OF THE CONTROL MEASURE.
    - A DEPTH OF 300 mm IMMEDIATELY UPSTREAM OF THE CONTROL MEASURE.
  - FOR ALL CONTROL MEASURES, ACCUMULATED SEDIMENT SHALL BE REMOVED AS NECESSARY TO PERFORM MAINTENANCE REPAIRS.
  - ACCUMULATED SEDIMENT SHALL BE REMOVED IMMEDIATELY PRIOR TO THE REMOVAL OF THE CONTROL MEASURE.
  - ACCUMULATED SEDIMENT IS TO BE REMOVED AND DISPOSED OF AS PER OPSD 180.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MONITORED TO ENSURE THEY ARE IN EFFECTIVE WORKING ORDER. THE CONDITION OF THE CONTROL MEASURES SHALL BE MONITORED DAILY AND FOLLOWING A STORM EVENT.
- DUST CONTROL MEASURES SHOULD BE CONSIDERED PRIOR TO CLEARING AND GRADING. THE USE OF WATER, CALCIUM CHLORIDE FLAKES/SOLUTION OR MAGNESIUM CHLORIDE FLAKES/SOLUTION SHALL BE USED AS DUST SUPPRESSANTS AS PER OPSD 506. THIS IS TO LIMIT WIND EROSION OF SOILS WHICH MAY TRANSPORT SEDIMENTS OFFSITE, WHERE THEY MAY BE WASHED INTO THE RECEIVING WATER BY THE NEXT RAINSTORM.
- ALL 'GREEN AREAS' TO BE TREATED WITH 75mm TOPSOIL, SEEDS MULCHED AS SOON AS FEASIBLE, AS PER OPSD 570.
- TOPSOIL TO BE STRIPPED AND STOCKPILED FOR REHABILITATION. CLEAN FILL TO BE PLACED IN FILL AREAS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
- ALL DISTURBED AREAS TO BE RESTORED TO ORIGINAL CONDITION OR BETTER UNLESS OTHERWISE SPECIFIED.
- STOCKPILED MATERIAL IS TO BE STORED AWAY FROM POTENTIAL RECEIVERS (E.G. STORM CATCHBASINS, MANHOLES, WATERCOURSES), AND BE SURROUNDED BY EROSION CONTROL MEASURES WHICH ARE TO BE LEFT IN PLACE IN EXCESS OF 14 DAYS.
- IF REQUIRED, DEWATERING/SETTLING BASINS SHALL BE CONSTRUCTED AS PER OPSD 219.240 AND LOCATED ON FLAT GRADE UPSTREAM OF OTHER EXISTING MITIGATION MEASURES. WATERCOURSES SHALL NOT BE DIVERTED, OR BLOCKED, AND TEMPORARY WATERCOURSES CROSSINGS SHALL NOT BE CONSTRUCTED OR UTILIZED, UNLESS OTHERWISE SPECIFIED IN THE CONTRACT. IF CLOSURE OF ANY PERMANENT WATER PASSAGE IS NECESSARY, THE CONTRACTOR SHALL RELEASE ANY STRANDED FISH TO THE OPEN PORTION OF THE WATERCOURSE WITHOUT HARM.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL CONFORM TO OPSD 577
- WHERE DEWATERING IS REQUIRED, THE DISCHARGED WATER SHALL BE CONTROLLED IN ACCORDANCE WITH OPSD 518.
- FOR STRAW BALE FLOW CHECK, USE OPSD 219.180. AND FOR TURBIDITY CURTAIN, USE OPSD 219.260 AND OPSD 219.261.
- FOR POTENTIAL SPILLS, THE CONTRACTOR SHALL HAVE ON SITE AT ALL TIMES AN EMERGENCY SPILL KIT THAT WILL INCLUDE AS A MINIMUM THE FOLLOWING ITEMS:
  - 10 - 18 in. x 18 in. ABSORBENT PADS,
  - 5 LBS. ZORBA, ABSORBING MATERIAL,
  - 1 PAIR GOGGLES, 1 PAIR PVC GLOVES.
- STABILIZED WORKSITE ENTRANCE SHALL BE PER BMP10 OF MTO'S ENVIRONMENTAL GUIDE FOR EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION OF HIGHWAY PROJECTS, FEB. 2007 OR APPROVED EQUIVALENT.
- SILTSACKS TO BE UTILIZED FOR ALL PROPOSED CATCH BASINS UNTIL WORKS COMPLETE
- REFER TO DRAWING C103- GENERAL DETAILS PLAN PREPARED BY MCINTOSH PERRY

**GENERAL NOTES:**

- ALL DIMENSIONS AND INVERTS MUST BE VERIFIED PRIOR TO CONSTRUCTION, IF THERE IS ANY DISCREPANCY THE CONTRACTOR IS TO NOTIFY THE ENGINEER PROMPTLY.
- THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES DURING CONSTRUCTION. GAS, HYDRO, TELEPHONE OR ANY OTHER UTILITY THAT MAY EXIST ON SITE OR WITHIN THE ROAD ALLOWANCE MUST BE LOCATED BY ITS OWN UTILITIES AND VERIFIED.
- TOPSOIL TO BE STRIPPED AND STOCKPILED FOR REHABILITATION. CLEAN FILL TO BE PLACED IN FILL AREAS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
- ALL UNDERGROUND SERVICES, MATERIALS AND INSTALLATIONS TO BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND CODES OF THE TOWN AND PROVINCE.
- ALL DISTURBED AREAS TO BE RESTORED TO ORIGINAL CONDITION OR BETTER UNLESS OTHERWISE SPECIFIED.
- CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT FOR CONSTRUCTION PURPOSES. THESE DRAWINGS ARE BASED ON LEGAL DRAWINGS PROVIDED BY THE TOWN OF CARLETON PLACE. LEGAL BOUNDARIES SHOWN ARE THE PLANS ARE APPROXIMATE ONLY AND MUST BE CONFIRMED BY THE CONTRACTOR.
- THE ORIGINAL TOPOGRAPHY AND GROUND ELEVATIONS, SERVICING AND SURVEY DATA SHOWN ON THIS PLAN ARE SUPPLIED FOR INFORMATION PURPOSES ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACCURACY OF ALL INFORMATION OBTAINED FROM THESE PLANS.
- CONNECT TO EXISTING SERVICES AS DETAILED. INCLUDE ALL RESTORATION WORK IF NECESSARY TO REINSTATE SURFACES TO THE CONDITION THAT EXISTED PRIOR TO CONSTRUCTION OR BETTER.
- DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. PROTECT AND ASSUME ALL RESPONSIBILITY FOR EXISTING UTILITIES WHETHER OR NOT SHOWN ON THESE DRAWINGS. IF THERE IS ANY DISCREPANCY THE CONTRACTOR IS TO NOTIFY THE ENGINEER PROMPTLY.
- CONTRACTOR TO OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND APPROVALS FROM THE TOWN BEFORE COMMENCING CONSTRUCTION.
- RESTORE ALL TRENCHES AND SURFACES OF PUBLIC ROAD ALLOWANCES TO CONDITION EQUAL OR BETTER THAN ORIGINAL CONDITION AND TO THE SATISFACTION OF TOWN AUTHORITIES.
- ALL EXCESS MATERIAL GENERATED DURING EXCAVATION ACTIVITIES SHALL BE STOCKPILED ON SITE AT AN APPROVED LOCATION. NO OFF-SITE HAULING OF EXCESS MATERIAL IS REQUIRED.
- ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS UNLESS OTHERWISE NOTED.
- TEMPORARY SEDIMENT CONTROL (FILTER CLOTH UNDER GRATE OR COVER) TO BE IMPLEMENTED DURING CONSTRUCTION ON ALL PROPOSED ROAD CATCHBASINS, REARWARD CATCHBASINS AND CATCHBASIN MANHOLES. NO RECYCLED GEOTEXTILE MATERIAL SHALL BE PERMITTED FOR USE ON SITE.
- MONOLITHIC CONCRETE SIDEWALKS AS PER CITY OF OTTAWA SC2. CONCRETE BARRIER CURB AS PER CITY OF OTTAWA SC1.1.

**LEGEND**



**ELEVATIONS**

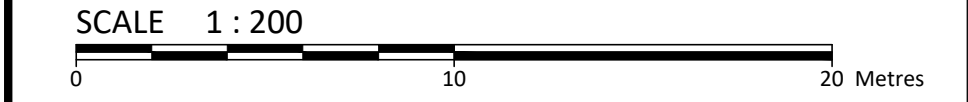
ALL ELEVATIONS SHOWN ON THE PLAN ARE RELATIVE TO THE FINISHED FLOOR ELEVATION (FFEL) OF THE EXISTING BUILDING ON SITE. CONTRACTOR SHALL CONFIRM ALL ELEVATIONS SHOWN PRIOR TO CONSTRUCTION

**DISCLAIMER**

LOCATIONS OF ANY UTILITIES AND UNDERGROUND SERVICES ON THE PLAN ARE PROVIDED FOR INFORMATION PURPOSES ONLY AND MAY DIFFER FROM WHAT IS EXISTING. CONTRACTOR IS RESPONSIBLE FOR ALL ON-SITE LOCATES AND WILL BE RESPONSIBLE SHOULD ANY INFRASTRUCTURE BE DAMAGED IN ANY WAY. MCINTOSH PERRY AND THE OWNER SHALL NOT BE RESPONSIBLE FOR DAMAGES ON ACCOUNT OF ANY DISCREPANCIES SHOWN ON THE PLAN.

**BENCHMARKS:**

No.	DESCRIPTION	ELEVATION
TBM#1	TOP SPINDLE OF FIRE HYDRANT	102.28m



No.	Revision/Issue	Date
03	ISSUED FOR MUNICIPAL REVIEW	2022/11/04
02	ISSUED FOR MUNICIPAL REVIEW	2022/07/29
01	ISSUED FOR MUNICIPAL REVIEW	2022/06/28
00	ISSUED FOR MUNICIPAL REVIEW	2021/10/22

Check and verify all dimensions before proceeding with the work. Do not scale drawings.

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Stamp: Stamp:

**FOR REVIEW ONLY**  
NOT FOR CONSTRUCTION

Client: **KEVIN MCMAHON**  
 PARK RIVER PROPERTIES  
 206-900 BOULEVARD DE LA CARRIERE, GATINEAU, QC, J8Y 6T5

Project: **16 EDGEWATER HOUSING**

KANATA ONTARIO

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

Scale: 1:200	Project Number: CCO-22-0244
Drawn by: M.M.	Checked by: A.G.
Designed by: S.G.	Drawing Number: C101

PROJECT: 16 Edgewater Housing - Professional Engineer Kevin McMahon, License No. 22022, Province of Ontario  
 DRAWING: 16 Edgewater Housing - 16 Edgewater12 - Drawing/CCD-22-0244 - Design.dwg  
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 LAST SAVER: M. M.

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