

DESCRIPTION

EXISTING

PROPOSED

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SITE FEATURES

Table listing site features such as PROPERTY LINE, TOP OF SLOPE, TERRACING, DITCH/SWALE AND DIRECTION OF FLOW, EDGE OF SHOULDER, EDGE OF PAVEMENT, ROAD/ALIGNMENT, CHAINLINK FENCE, LANDSCAPE FENCE, SIDEWALK, BARRIER CURB, MOUNTABLE CURB, DEPRESSED CURB, TACTILE WALKING SURFACE INDICATOR, GUARDRAIL, JERSEY BARRIERS, BUILDING ENTRY/EXIT WITH RISERS, BUILDING ENTRY/EXIT BARRIER FREE, BUILDING ENTRY/EXIT OVERHEAD DOOR, POST, SIGN, BOLLARD, VEGETATION.

UTILITY AND STRUCTURES

Table listing utility and structures including JOINT UTILITY OVERHEAD LINE, HYDRO (OVERHEAD), HYDRO, POWER, ELECTRICAL, BELL (OVERHEAD), BELL, CABLE (OVERHEAD), CABLE TV, FIBRE OPTIC, STREETLIGHT, GASMAIN, JOINT USE TRENCH (BELL/CABLE TV, HYDRO/CABLE TV, HYDRO/BELL/CABLE TV, HYDRO/BELL/CABLE TV/GAS), DUCT CROSSING, STREETLIGHT DISCONNECT, HYDRO TRANSFORMER, HYDRO SWITCHING KIOSK, HYDRO MANHOLE, HYDRO METER, UTILITY POLE AND GUY WIRE, CABLE PEDESTAL, BELL PEDESTAL, BELL MANHOLE, BELL GROUND LEVEL BOX, ENDWALL, COMMUNITY MAILBOX, GAS VALVE, GAS METER, TRAFFIC MANHOLE, TRAFFIC HAND HOLE, TRAFFIC JOINT USE POLE, TRAFFIC MAST ARM, TRAFFIC CONDUIT.

GEOTECHNICAL

Table listing geotechnical features like BOREHOLE and MONITORING WELL, with symbols and notes.

CAUTION THE POSITION OF ALL POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

SERVICES AND STRUCTURES

Table listing services and structures such as SANITARY SEWER, COMBINATION SEWER, STORM SEWER, STORM SUBDRAIN, STORM CULVERT, SANITARY MANHOLE, COMBINATION MANHOLE, STORM MANHOLE, CATCHBASIN MANHOLE, CATCHBASIN, DOUBLE CATCHBASIN, CATCHBASIN ELBOW (S30), CATCHBASIN TEE (S31), CURB INLET CATCHBASIN, DITCH INLET CATCHBASIN, WATERMAIN, IRRIGATION, VALVE AND VALVE BOX, VALVE AND VALVE CHAMBER, FIRE HYDRANT, SIAMESE CONNECTION, WATER METER, REMOTE WATER METER, 45' BEND, 22.5' BEND, 11.25' BEND, TEE, REDUCER, CROSS, CURB STOP, WATER WELL, INSULATION FOR PIPE.

GRADING

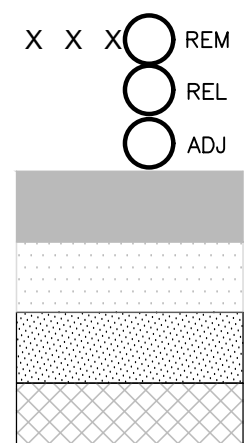
Table listing grading details: GROUND ELEVATION, SWALE ELEVATION, TOP OF GRATE ELEVATION, TOP OF WALL ELEVATION, BOTTOM OF WALL ELEVATION, FINISHED FLOOR ELEVATION, TOP OF FOUNDATION ELEVATION, BASEMENT FLOOR ELEVATION, PARKING LEVEL ELEVATION, UNDERSIDE OF FOOTING ELEVATION, ORIGINAL GROUND ELEVATION, TOP OF ROCK ELEVATION, CONTOUR LINES, SLOPE AND DIRECTION OF FLOW, OVERLAND FLOW ROUTE ONSITE, OVERLAND FLOW ROUTE EXTERNAL.

STORMWATER MANAGEMENT

Table listing stormwater management symbols: STORM DRAINAGE AREA BOUNDARY, STORM DRAINAGE AREA NUMBER, STORM DRAINAGE AREA IN HECTARES, RUN-OFF COEFFICIENT.

MISCELLANEOUS

Table listing miscellaneous items: REMOVED, RELOCATED, ADJUSTED, LIGHT DUTY PAVEMENT, HEAVY DUTY PAVEMENT, ROAD REINSTATEMENT AS PER CITY STANDARD R10, SIDEWALK REINSTATEMENT AS PER CITY STANDARD SC4.



PAVEMENT COMPOSITION NOTES

LIGHT DUTY PAVEMENT STRUCTURE (PARKING STALLS): 85mm HL3 (PC58-34), 150mm GRANULAR 'A', 300mm GRANULAR 'B' TYPE II (OVERBURDEN), OR 200mm GRANULAR 'B' TYPE II (BEDROCK). HEAVY DUTY PAVEMENT STRUCTURE (ROADWAY): 40mm SP12.5mm ASPHALT (PC58-34), 50mm SP19.0mm ASPHALT (PC58-34), 150mm GRANULAR 'A', 400mm GRANULAR 'B' TYPE II (OVERBURDEN), OR 300mm GRANULAR 'B' TYPE II (BEDROCK).

GENERAL NOTES

- 1. ALL WORKS AND MATERIALS SHALL CONFORM TO THE LATEST REVISIONS OF THE STANDARDS AND SPECIFICATIONS OF THE CITY OF OTTAWA, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS), WHERE APPLICABLE.
2. THE LOCATION OF UTILITIES IS APPROXIMATE ONLY, AND THE EXACT LOCATION SHOULD BE DETERMINED BY CONSULTING THE MUNICIPAL AUTHORITIES AND UTILITY COMPANIES CONCERNED.
3. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF EXISTING SERVICES PRIOR TO ANY CONSTRUCTION.
4. ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED AND BEAR COST OF THE SAME.
6. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE 'OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS'.
7. ANY AREAS BEYOND THE LIMIT OF THE SITE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER.
8. THE CONTRACTOR SHALL COMPLY WITH THE CITY OF OTTAWA REQUIREMENTS FOR TRAFFIC CONTROL WHEN WORKING ON CITY STREETS.
9. THE SUPPORT OF ALL UTILITIES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
10. THERE WILL BE NO SUBSTITUTION OF MATERIALS UNLESS WRITTEN APPROVAL BY THE ENGINEER HAS BEEN OBTAINED.
11. EXCESS EXCAVATED MATERIAL SHALL BE REMOVED FROM THE SITE.
12. THE SITE LAYOUT IS THE RESPONSIBILITY OF THE CONTRACTOR.
13. ALL NECESSARY CLEARING AND GRUBBING SHALL BE COMPLETED BY THE CONTRACTOR.
14. ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW CUT TO FORM A NEAT AND STRAIGHT LINE.
15. ALL BOREHOLES SHOWN ON THE DRAWINGS ARE FOR INFORMATION ONLY.
16. THE CONTRACTOR SHALL APPRAISE HISHER SELF OF ALL SURFACE AND SUBSURFACE CONDITIONS.
17. DO NOT CONSTRUCT USING DRAWINGS THAT ARE NOT MARKED 'ISSUED FOR CONSTRUCTION'.
18. FOR TOPOGRAPHICAL INFORMATION REFER TO PLAN PREPARED BY FARLEY, SMITH & DENIS LTD.
19. CIVIL DRAWINGS TO BE READ IN CONJUNCTION WITH ARCHITECTURAL, LANDSCAPE AND LEGAL DRAWINGS.
20. ALL NECESSARY CLEARING AND GRUBBING SHALL BE COMPLETED BY THE CONTRACTOR.

SANITARY SEWER NOTES

- 1. ALL SANITARY SEWER MATERIALS AND INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE STANDARDS AND SPECIFICATIONS OF THE CITY OF OTTAWA, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS).
2. ALL SANITARY SEWERS SHALL BE PVC SDR 35, IPEX 'RING-TITE' (OR EQUIVALENT), AS PER CSA STANDARD B182.2 OR LATEST AMENDMENT.
3. SANITARY SEWER TRENCH AND BEDDING SHALL BE AS PER CITY OF OTTAWA STD. S6 AND S7, CLASS 'B' BEDDING UNLESS OTHERWISE NOTED.
4. ALL SANITARY LATERALS ARE TO BE PVC SDR 28, IPEX 'RING-TITE' (OR EQUIVALENT).
5. SANITARY SEWER MANHOLES SHALL BE BENCH AS PER OPSD 701.021.
6. THE CONTRACTOR SHALL CONDUCT INFILTRATION/EXFILTRATION (AS PER CURRENT OPSS) TESTING ON ALL NEWLY INSTALLED SANITARY SEWERS.
7. THE CONTRACTOR SHALL CONDUCT CCTV INSPECTION OF ALL NEWLY INSTALLED SANITARY SEWERS AND EXISTING SEWERS CONNECTED TO THE TEST SHALL BE PERFORMED IMMEDIATELY AFTER SEWERS INSTALLED.
8. ALL SERVICE CONNECTIONS TO BE CONSTRUCTED AS PER CITY STANDARD S11 & S11.1.
9. ALL SANITARY BUILDING DRAINS TO BE EQUIPPED WITH SANITARY BACKWATER VALVES INSTALLED PER CITY OF OTTAWA STANDARD DRAWING S14.1.
10. WITHIN THE FROST ZONE, THE BACKFILL IN THE SERVICE TRENCHES SHOULD MATCH THE SOIL ON SIDES TO MINIMIZE DIFFERENTIAL FROST HEAVING IN THE SUBGRADE.
11. MINIMUM SOIL COVER TO BE 2.1m TO PROTECT SEWERS FROM FROST DAMAGE.
12. CCTV OF THE EXISTING SANITARY LATERAL FOR 268 CARRUTHERS AVE IS REQUIRED TO ACCESS EXISTING CONDITION.
13. MINIMUM SOIL COVER TO BE 2.1M TO PROTECT SEWERS FROM FROST DAMAGE.

STORM SEWER NOTES

- 1. ALL STORM SEWER MATERIALS AND INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE STANDARDS AND SPECIFICATIONS OF THE CITY OF OTTAWA, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS).
2. ALL REINFORCED CONCRETE STORM SEWER PIPE SHALL BE IN ACCORDANCE WITH CSA A257.2 (LATEST AMENDMENT).
3. ALL PVC STORM SEWERS ARE TO BE SDR 35 APPROVED PER C.S.A. B182.2 OR LATEST AMENDMENT.
4. THE CONTRACTOR SHALL CONSTRUCT FLEXIBLE STORM SEWERS IN ACCORDANCE WITH OPSD 802.010 AND 802.013.
5. SEWER BEDDING AS PER CITY STANDARD S6 & S7.
6. ALL STORM LATERALS SHALL BE PVC SDR 28, WHITE IN COLOR AND MARKED WITH A 50mm X 100mm WOODEN MARKER.
7. ALL SERVICE CONNECTIONS TO BE CONSTRUCTED AS PER CITY STANDARD S11 & S11.1.
8. WITHIN THE FROST ZONE, THE BACKFILL IN THE SERVICE TRENCHES SHOULD MATCH THE SOIL ON SIDES TO MINIMIZE DIFFERENTIAL FROST HEAVING IN THE SUBGRADE.
9. MINIMUM SOIL COVER TO BE 2.1M TO PROTECT SEWERS FROM FROST DAMAGE.

COVER CANNOT BE ACHIEVED, EQUIVALENT THERMAL INSULATION TO BE INSTALLED AS PER OPSD 514.010

- 10. ALL STORM SERVICES TO BE EQUIPPED WITH APPROVED BACKWATER VALVES.
11. STORM MANHOLE FRAME AND COVERS SHALL BE AS PER CITY OF OTTAWA STD. S24, S24.1 AND S25.
12. SAFETY PLATFORMS SHALL BE IN ACCORDANCE WITH OPSD 404.02.
13. DROP STRUCTURES SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA SPECIFICATIONS AND OPSD 1003.01.
14. STORM SEWER MANHOLES SERVING LOCAL SEWERS LESS THAN 900mm SHALL BE CONSTRUCTED WITH A 300mm SUMP.
15. SINGLE AND DOUBLE CATCHBASINS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. S1 AND OPSD 705.020.
16. CURB INLET TYPE CATCH BASIN (CIB) SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. S3.
17. SINGLE AND DOUBLE CATCHBASIN LEADS SHALL BE 200mm AND 250mm (MIN) RESPECTIVELY, 1.0% SLOPE (MIN.) UNLESS OTHERWISE NOTED.
18. ALL CATCHBASIN AND CATCHBASIN MANHOLES SHALL HAVE SUMPS WITH 300mm DEPTH.
19. CONTRACTOR SHALL ENSURE THAT CATCHBASINS ARE INSTALLED AT THE LOW POINT OF SAG CURB WORKS.
20. THE STORM SEWER CLASSES HAVE BEEN DESIGNED BASED ON BEDDING CONDITIONS SPECIFIED.
21. THE CONTRACTOR SHALL CONDUCT CCTV INSPECTION OF ALL NEWLY INSTALLED STORM SEWERS AND EXISTING SEWERS CONNECTED TO THE TEST SHALL BE PERFORMED IMMEDIATELY AFTER SEWERS INSTALLED.

WATERMAIN NOTES

- 1. ALL WATERMAIN MATERIALS AND INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE STANDARDS AND SPECIFICATIONS OF THE CITY OF OTTAWA, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS).
2. NO WORK SHALL COMMENCE UNLESS A CITY WATER WORKS INSPECTOR IS ON SITE.
3. ALL PVC WATERMANS SHALL BE EQUAL TO AWWA C-900 CLASS 150, SDR 18, OR APPROVED EQUAL.
4. WATERMANS TRENCH AND BEDDING SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD W17.
5. ALL PVC WATERMANS SHALL BE INSTALLED WITH A 10 GAUGE STRANDED COPPER TWU OR RIWU TRACER WIRE.
6. WATER SERVICES ARE TO BE TYPE K SOFT COPPER AS PER CITY OF OTTAWA STD. W38 UNLESS OTHERWISE SPECIFIED.
7. CATHODIC PROTECTION IS REQUIRED ON ALL METALLIC FITTINGS AS PER CITY OF OTTAWA STD. W40 AND W42.
8. VALVE BOXES SHALL BE INSTALLED AS PER CITY OF OTTAWA DETAIL W24.
9. ALL FIRE HYDRANTS TO BE INSTALLED AS PER CITY STANDARD W19 AND LOCATED AS PER CITY STANDARD W18 AND/OR CITY STANDARD CROSS SECTIONS.
10. ALL WATERMANS TO BE INSTALLED AT MINIMUM COVER OF 2.4m.
11. THRUST BLOCKS AND RESTRAINT AS PER CITY OF OTTAWA DWGS. W25.3 AND W25.4, W25.5 AND W25.6.
12. IF WATERMAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS LESS THAN HALF THAT RECOMMENDED BY THE MANUFACTURER.
13. DISINFECTION AND TESTING OF WATERMAIN TO BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS.
14. WATER METERS TO BE INSTALLED AS PER W30 FOR WATER SERVICES.
15. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY CAPS, PLUGS AND BLOW-OFFS AND NOZZLES REQUIRED FOR TESTING AND DISINFECTION OF THE WATERMAIN.
16. INSULATION FOR WATERMAIN CROSSING OVER AND BELOW SEWER SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. W25.2 AND W25, RESPECTIVELY, WHERE WATERMAIN COVER IS LESS THAN 2.4m.
17. WHERE THE SEPARATION BETWEEN SERVICES AND MANHOLES IS LESS THAN 1.2m, WATER SERVICES ARE TO BE INSULATED AS PER CITY OF OTTAWA STD. W23.
18. AS PER CITY GUIDELINE, THE MINIMUM VERTICAL CLEARANCE BETWEEN WATERMAIN AND SEWER / UTILITY IS 0.25m FOR CROSSING OVER THE SEWER, AS PER CITY STD W25.2. FOR CROSSING UNDER SEWER, THE MINIMUM VERTICAL CLEARANCE IS 0.50m AS PER CITY STD. W25. FOR CROSSING UNDER SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE SEWERS IS REQUIRED TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING.

ROADWAY SPECIFICATIONS

- 1. ALL TOPSOIL AND ORGANIC MATERIAL SHALL BE STRIPPED WITHIN THE ROAD ALLOWANCE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
2. CONCRETE CURB SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. SC1.1 (BARRIER CURB) AND SC1.3 (MOUNTABLE CURB).
3. DEPRESSED SIDEWALK REINSTATEMENT SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD DETAIL DRAWING SC.7.1.
4. ROAD SUBDRAINS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. R1.
5. PAVEMENT REINSTATEMENT FOR SERVICE AND UTILITY CUTS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. R10 AND OPSD 509.010, OPSS 310.
6. GRANULAR 'X' SHALL BE PLACED TO A MINIMUM THICKNESS OF 300mm AROUND ALL STRUCTURES WITHIN PAVEMENT AREA.
7. ALL GRANULAR FOR ROADS SHALL BE COMPACTED TO A MINIMUM OF 98% STANDARD PROCTOR DENSITY.
8. ASPHALT WEAR COURSE SHALL NOT BE PLACED UNTIL THE VIDEO INSPECTION OF SEWERS & NECESSARY REPAIRS HAVE BEEN CARRIED OUT TO THE SATISFACTION OF THE ENGINEER.
9. SUB- EXCAVATE SOFT AREAS AND FILL WITH GRANULAR 'B' COMPACTED IN MAXIMUM 300mm LIFTS.
10. PAVEMENT STRUCTURE: REFER TO LEGEND.

GENERAL NOTES FOR GRADING

- 1. IT SHALL BE THE BUILDER'S RESPONSIBILITY TO ENSURE THAT GRADING AROUND HYDRANTS, TRANSFORMERS, AND UTILITY PEDESTALS, ETC., MEET CURRENT CITY OF OTTAWA, HYDRO AND UTILITY COMPANY REQUIREMENTS.
2. ALL GROUND SURFACES SHALL BE EVENLY GRADED WITHOUT PONDING AREAS AND WITHOUT LOW POINTS EXCEPT WHERE APPROVED SWALE OR CATCH BASIN OUTLETS ARE PROVIDED.
3. CONTRACTOR TO ADJUST EXISTING CATCH BASINS, MANHOLES, FIRE HYDRANTS, VALVE CHAMBERS AND VALVE BOXES TO FINAL GRADE AS REQUIRED.
4. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING FOUNDATIONS OF ADJACENT BUILDINGS DURING EXCAVATION AND CONSTRUCTION PERIOD.
5. GRADING IN GRASSED AREAS WILL BE BETWEEN 2% TO 7%. GRADES IN EXCESS OF 7% WILL REQUIRE A MAXIMUM 3:1 TERRACING.
6. NO EXCESS DRAINAGE, DURING OR AFTER CONSTRUCTION, TO BE DIRECTED TOWARDS NEIGHBORING PROPERTIES.
7. EXISTING DRAINAGE PATTERNS TO BE MAINTAINED.
8. ENSURE POSITIVE DRAINAGE AWAY FROM FOUNDATION.
9. NO ALTERATION TO EXISTING GRADES ON THE PROPERTY LINES.
10. UNDERSIDE OF FOOTING TO BE MINIMUM 1.5m BELOW FINISHED GRADE OR INSULATION TO BE PROVIDED. TOP OF FOUNDATION TO BE MAINTAINED 0.15m ABOVE FINISHED GRADE.

Table with 2 columns: REVISION NUMBER, REVISION DESCRIPTION, DATE, BY, APPD. Includes revisions for 'REVISED AS PER CITY COMMENTS' and 'ISSUED FOR SITE PLAN APPROVAL'.

Table with 2 columns: SCALE, DESIGNED BY. Includes scale 'NORTH' and designer 'exp Services Inc.'.

Project information block including PROJECT No. OTT-22014656-AG, DESIGN BMT, CHECKED BMT, PROJECT MANAGER BMT, APPROVED BMT, PROJECT No. CARRUTHERS AVENUE DEVELOPMENT, 266-268 CARRUTHERS OTTAWA, ONTARIO, DATE JUNE 2022, DRAWING No. C001, and logos for exp and McCORMICK PARK DEVELOPMENTS.