

DESCRIPTION EXISTING PROPOSED. SITE FEATURES: PROPERTY LINE, TOP OF SLOPE, TERRACING (3:1 TYPICAL), E DITCH/SWALE AND DIRECTION OF FLOW, EDGE OF SHOULDER, EDGE OF PAVEMENT, ROAD/ALIGNMENT, CHAINLINK FENCE, LANDSCAPE FENCE, SIDEWALK (TYPE AS NOTED ON DRAWINGS), BARRIER CURB (SC1.1), MOUNTABLE CURB (SC1.3), DEPRESSED CURB, TACTILE WALKING SURFACE INDICATOR 'TWSI' (SC7.3), 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: 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, JOINT USE TRENCH - HYDRO/CABLE TV, JOINT USE TRENCH - HYDRO/BELL/CABLE TV, JOINT USE TRENCH - HYDRO/BELL/CABLE TV/GAS, JOINT USE TRENCH - BELL/CABLE TV/GAS, DUCT CROSSING WITH NUMBER AND TYPE OF DUCTS, STREETLIGHT (c/w GROUND ROD WHERE REQUIRED), 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: BOREHOLE, MONITORING WELL.

DESCRIPTION EXISTING PROPOSED. SERVICES AND STRUCTURES: 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, WATER METER, SIAMSESE CONNECTION, REMOTE WATER METER, 45° BEND, 22.5° BEND, 11.25° BEND, TEE, REDUCER, CROSS, CURB STOP, WATER WELL, INSULATION FOR PIPE. GRADING: 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: STORM DRAINAGE AREA BOUNDARY, STORM DRAINAGE AREA NUMBER, STORM DRAINAGE AREA IN HECTARES, RUN-OFF COEFFICIENT. MISCELLANEOUS: 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), HEAVY DUTY PAVEMENT STRUCTURE (ROADWAY).

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. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION, BACKFILL AND REINSTATEMENT OF ALL AREAS DISTURBED DURING CONSTRUCTION TO THE SATISFACTION OF THE ENGINEER. 8. ANY AREAS BEYOND THE LIMIT OF THE SITE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION AT THE CONTRACTOR'S EXPENSE. 9. THE CONTRACTOR SHALL COMPLY WITH THE CITY OF OTTAWA REQUIREMENTS FOR TRAFFIC CONTROL WHEN WORKING ON CITY STREETS. 10. THE SUPPORT OF ALL UTILITIES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION. 11. THERE WILL BE NO SUBSTITUTION OF MATERIALS UNLESS WRITTEN APPROVAL BY THE ENGINEER HAS BEEN OBTAINED. 12. EXCESS EXCAVATED MATERIAL SHALL BE REMOVED FROM THE SITE. 13. THE SITE LAYOUT IS THE RESPONSIBILITY OF THE CONTRACTOR AS-BUILT SITE SERVICING & GRADING DRAWINGS SHALL BE MAINTAINED ON SITE BY THE CONTRACTOR. 14. THE CONTRACTOR WILL BE RESPONSIBLE FOR ADDITIONAL BEDDING OR ADDITIONAL STRENGTH PIPE IF THE MAXIMUM TRENCH WIDTH, AS SPECIFIED BY OPSD, IS EXCEEDED. 15. ALL NECESSARY CLEARING AND GRUBBING SHALL BE COMPLETED BY THE CONTRACTOR. 16. ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW PAVEMENT. 17. ALL BOREHOLES SHOWN ON THE DRAWINGS ARE FOR INFORMATION ONLY. 18. THE CONTRACTOR SHALL APPRAISE HIS/HERSELF OF ALL SURFACE AND SUBSURFACE CONDITIONS TO BE ENCOUNTERED AND SHALL CARRY OUT THEIR OWN TEST PITS AS REQUIRED TO MAKE THEIR OWN INDEPENDENT ASSESSMENT OF GROUND CONDITIONS. 19. DO NOT CONSTRUCT USING DRAWINGS THAT ARE NOT MARKED 'ISSUED FOR CONSTRUCTION'. 20. FOR TOPOGRAPHICAL INFORMATION REFER TO PLAN PREPARED BY FARLEY, SMITH & DENIS LTD. DATED APRIL 18, 2022. 21. CIVIL DRAWINGS TO BE READ IN CONJUNCTION WITH ARCHITECTURAL, LANDSCAPE AND LEGAL DRAWINGS. 22. 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, UNLESS OTHERWISE NOTED. 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), ANY COLOR EXCEPT WHITE AND MARKED WITH A 50mm X 100mm WOODEN MARKER, EXTENDING FROM THE INVERT TO 1.0m ABOVE GRADE PAINTED RED. 5. SEWER BEDDING AS PER CITY STANDARD S6 & S7. 6. SANITARY SEWER MANHOLES SHALL BE BENCHED AS PER OPSD 701.021. 7. THE CONTRACTOR SHALL CONDUCT INFILTRATION/FILTRATION (AS PER CURRENT OPSS) TESTING ON ALL NEWLY INSTALLED SANITARY SEWERS. 8. THE CONTRACTOR SHALL CONDUCT CCTV INSPECTION OF ALL NEWLY INSTALLED SANITARY SEWERS AND EXISTING SEWERS CONNECTED TO. 9. ALL SERVICE CONNECTIONS TO BE CONSTRUCTED AS PER CITY STANDARD S11 & S11.1. 10. THE CONTRACTOR SHALL CONSTRUCT FLEXIBLE SANITARY SEWERS IN ACCORDANCE WITH OPSD 802.010 AND 802.013. 11. ALL SANITARY BUILDING DRAINS TO BE EQUIPPED WITH SANITARY BACKWATER VALVES INSTALLED PER CITY OF OTTAWA STANDARD DRAWING S14.1. 12. WITHIN THE FROST ZONE, THE BACKFILL IN THE SERVICE TRENCHES SHOULD MATCH THE SOIL ON SIDES TO MINIMIZE DIFFERENTIAL FROST HEAVING IN THE SUBGRADE. 13. MINIMUM SOIL COVER TO BE 2.1m TO PROTECT SEWERS FROM FROST DAMAGE. 14. CCTV OF THE EXISTING SANITARY LATERAL FOR 288 CARUTHERS AVE IS REQUIRED TO ACCESS EXISTING CONDITION. 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, UNLESS OTHERWISE SPECIFIED. 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 EXTENDING FROM THE INVERT TO 1.0m ABOVE GRADE PAINTED GREEN. 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.

GENERAL NOTES (continued): 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 FOR STORM SEWERS 900mm AND OVER USE BENCHING IN ACCORDANCE WITH OPSD 701.021. 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 CATCHBASINS AND CATCHBASIN MANHOLES SHALL HAVE SUMPS WITH 300mm DEPTH, UNLESS OTHERWISE NOTED. 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. 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 TWJ OR RWJ TRACER WIRE IN ACCORDANCE WITH CITY OF OTTAWA STD. W36. 6. WATER SERVICES ARE TO BE TYPE K SOT COPPER AS PER CITY OF OTTAWA STD. W26 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 W25.2, RESPECTIVELY, WHERE WATERMAIN COVER IS LESS THAN 2.4m. 17. WHERE THE SEPARATION BETWEEN SEWERS 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. 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 'A' 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. PROJECT No. OTT-22014656-AG, SURVEY F/W/J/S/D, DATE JUNE 2022, DRAWING No. C001. DEVELOPER: McCORMICK PARK DEVELOPMENTS, 1600 LAPERRIERE AVENUE, SUITE 205, OTTAWA, ON, K1M 2H9, 613.421.1515. exp. SERVICES INC. BUILDINGS • EARTH & ENVIRONMENT • ENERGY • INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY.

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.

REVISION TABLE: REV, REVISION DESCRIPTION, DATE, BY, APPD. 1 ISSUED FOR SITE PLAN APPROVAL 09/11/22 SAB BMT

DESIGNED BY: J.L. FITZPATRICK, LICENSED PROFESSIONAL ENGINEER, PROVINCE OF ONTARIO, 2022-11-10. REVIEWED BY: B.M. THOMAS, LICENSED PROFESSIONAL ENGINEER, PROVINCE OF ONTARIO, 2022-11-10. PROJECT: 266-268 CARUTHERS, 177-179 ARMSTRONG STREET, OTTAWA, ONTARIO. DATE: JUNE 2022. DRAWING No. C001. exp. SERVICES INC.

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