

| NAME | RIM ELEV. | INVERT IN | INVERT OUT | DESCRIPTION |
|-----------|--------------|----------------------|------------|---------------------------------------------------------------------------------------------|
| MH1A | 65.35 | | W63.238 | STRUC: OPSD 701.010 FRAME: CITY S25 COVER: CITY S24 |
| MH2A | 66.17 | NE63.360 NW63.861 | SW63.360 | STRUC: OPSD 701.010 FRAME: CITY S25 COVER: CITY S24 |
| MHSA25380 | 63.76 | S61.050 E61.804 | N61.050 | STRUC: OPSD 701.010 FRAME: CITY S25 COVER: CITY S24 C/W EXTERNAL DROP STRUCTURE |

| | STM STRUCTURE TABLE | | | | | |
|-------|---------------------|-----------|------------|-----------------------------------------------------------|--|--|
| NAME | RIM ELEV. | INVERT IN | INVERT OUT | DESCRIPTION | | |
| AD2 | 66.19 | | E63.469 | AREA DRAIN - REFE TO MECHANICAL SPECIFICATION | | |
| CBMH1 | 65.04 | | W61.001 | STRUC: OPSD 701.0 FRAME: CITY S25 COVER: CITY S28.1 | | |

| CROSSING CONFLICT TABLE | | | | |
|-------------------------|-------------------------------------------------------------------------------------------------------|------------|--|--|
| LOCATION | DESCRIPTION | SEPARATION | | |
| 1 | 300mmØ WATERMAIN OBV ± 62.57 150mmØ SANITARY SERVICE INV ± 63.07 | 0.50 | | |
| 2 | 300mmØ WATERMAIN INV ± 62.10 300mmØ STORM SERVICE OBV ± 61.13 | 0.97 | | |
| 3 | 300mmØ SANITARY SEWER INV ± 61.98 300mmØ STORM SERVICE OBV ± 61.07 | 0.91 | | |
| 4 | ±200mmØ WATERMAIN OBV ± 61.36 300mmØ SANITARY SERVICE INV ± 61.86 | 0.50 | | |
| 5 | ±200mmØ WATERMAIN INV ± 61.14 250mmØ STORM SERVICE OBV ± 60.75 | 0.39 | | |
| 6 | 300mmØ SANITARY SEWER INV ± 61.00 250mmØ STORM SERVICE OBV ± 60.69 300mmØ WATERMAIN INV ± 63.12 | 0.31 | | |
| 7 | 250mmØ STORM SERVICE OBV ± 62.86 | 0.26 | | |
| 8 | 250mmØ SANITARY SEWER INV ± 63.35 250mmØ STORM SERVICE OBV ± 62.83 | 0.52 | | |
| 9 | 300mmØ WATERMAIN TOP ± 63.43 300mmØ SANITARY SERVICE INV ± 63.93 | 0.50 | | |

- 1. THE ORIGINAL TOPOGRAPHY, GROUND ELEVATION AND SURVEY DATA SHOWN ARE SUPPLIED FOR INFORMATION PURPOSES ONLY, AND IMPLY NO GUARANTEE OF ACCURACY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL INFORMATION SHOWN.
- 2. THIS PLAN IS NOT A CADASTRAL SURVEY SHOWING LEGAL PROPERTY BOUNDARIES AND EASEMENTS. THE PROPERTY BOUNDARIES SHOWN HEREON HAVE BEEN DERIVED INFORMATION SUPPLIED BY ANNIS, O'SULLIVAN, VOLLEBEKK LTD. DRAWING 21985-21 AND CANNOT BE RELIED UPON TO BE ACCURATE OR COMPLETE. THE PRECISE LOCATION OF THE CURRENT PROPERTY BOUNDARIES AND EASEMENTS CAN ONLY BE DETERMINED RY AN LIP-TO-DATE LAND TITLES SEARCH AND A SUBSEQUENT CADASTRAL SURVEY PERFORMED AND CERTIFIED BY AN ONTARIO LAND SURVEYOR.
- 3. THE CONTRACTOR IS TO OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY BEFORE COMMENCING CONSTRUCTION.
- 4. THE CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT.
- 5. THE CONTRACTOR IS TO 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.
- 6. RESTORE ALL TRENCHES AND SURFACES OF PUBLIC ROAD ALLOWANCES TO CONDITION EQUAL OR BETTER THAN ORIGINAL CONDITION AND TO THE SATISFACTION OF THE CITY 16. INSTALLATION TO BE IN ACCORDANCE WITH CURRENT CODES AND STANDARDS OF AUTHORITIES.
- 7. EXCAVATE AND DISPOSE OF ALL EXCESS EXCAVATED MATERIAL, SUCH AS ASPHALT, CURBING AND DEBRIS, OFF SITE AS DIRECTED BY THE ENGINEER AND THE CITY.
- 8. TOPSOIL TO BE STRIPPED AND STOCKPILED FOR REHABILITATION. CLEAN FILL TO BE PLACED IN FILL AREAS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY. 9. CONTRACTOR TO MINIMIZE THE ACTUAL LIMITS OF REMOVALS AND REINSTATEMENT WHEREVER POSSIBLE, AND SHALL MAKE THEIR OWN JUDGEMENT AND ACCOUNT FOR ALL MATERIAL AND LABOUR REQUIRED FOR ADEQUATELY REINSTATING THE AREA TO PRE-CONSTRUCTION CONDITIONS OR BETTER, AND BEAR THE COST OF THE SAME, NO ADDITIONAL PAYMENT WILL BE MADE FOR REINSTATEMENT WORK NOT SHOWN ON THE

CONTRACT DRAWING AS A DIRECT RESULT FROM CONSTRUCTION.

10. ALL DISTURBED AREAS TO BE RESTORED TO ORIGINAL CONDITION OR BETTER UNLESS

- MEASURES DURING THE CONSTRUCTION PERIOD, INCLUDING THE SUPPLY, INSTALLATION, AND REMOVAL OF ALL NECESSARY SIGNAGE, DELINEATORS, MARKERS
- 12. DO NOT ALTER GRADING OF THE SITE WITHOUT PRIOR APPROVAL OF THE ENGINEER/CITY.
- 13. ALL ROADWAY, PARKING LOT, AND GRADING WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH CITY STANDARDS AND SPECIFICATIONS. THE CONTRACTOR IS TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE BUILDING.
- 14. CONTACT THE CITY FOR INSPECTION OF ROUGH GRADING OF PARKING LOTS. ROADWAYS AND LANDSCAPED AREAS PRIOR TO PLACEMENT OF ASPHALT AND TOPSOIL. ALL DEFICIENCIES NOTED SHALL BE RECTIFIED TO THE CITY'S SATISFACTION PRIOR TO PLACEMENT OF ANY ASPHALT, TOPSOIL, SEED & MULCH AND/OR SOD.
- 15. ALL DIMENSIONS AND INVERTS MUST BE VERIFIED PRIOR TO CONSTRUCTION, IF THERE IS ANY DISCREPANCY THE CONTRACTOR IS TO NOTIFY THE ENGINEER PROMPTLY. 16. ELECTRICAL, GAS, TELEPHONE AND TELEVISION SERVICE LOCATIONS ARE SUBJECT TO THE INDIVIDUAL AGENCY: • ELECTRICAL SERVICE - HYDRO ONE,
- GAS SERVICE ENBRIDGE. • TELEPHONE SERVICE - BELL CANADA, TELEVISION SERVICE - ROGERS.
- PPROVAL AGENCIES HYDRO ONE, BELL AND THE CITY.
- CONSTRUCTION
- 18. ALL PROPOSED CURB TO BE CONCRETE BARRIER CURB UNLESS OTHERWISE SPECIFIED. 19. THIS PLAN MUST BE READ IN CONJUNCTION WITH THE GEOTECHNICAL ASSESSMENT COMPLETED BY TERRAPEX ENVIRONMENTAL LTD., DATED DECEMBER 5, 2024.

- 17. CONTRACTOR TO ENSURE ALL APPLICABLE OPS SPECIFICATIONS ARE FOLLOWED DURING 7. SEWER CONNECTIONS ARE TO BE MADE ABOVE THE SPRINGLINE OF THE SEWERMAIN AS PER CITY OF

- 1. CONSTRUCT ALL SEWERS, CATCH BASINS, MANHOLES AND APPURTENANCES IN ACCORDANCE WITH OPSD STANDARDS AND SPECIFICATIONS, AS WELL AS CITY.
- 2. SEWER TRENCHING AND BEDDING SHALL CONFORM TO OPSD 802.010 AND 802.013 UNLESS NOTED OTHERWISE.
- 2.1. BEDDING SHALL BE A MINIMUM 150mm OF GRANULAR "A", COMPACTED TO MINIMUM 95% STANDARD PROCTOR DRY DENSITY. CLEAR STONE BEDDING SHALL NOT BE PERMITTED. SUB-BEDDING, IF REQUIRED SHALL CONSIST OF 450mm OF COMPACTED GRANULAR "B" TYPE 1. BACKFILL TO AT LEAST 300mm ABOVE TOP OF PIPE WITH GRANULAR "A" OR GRANULAR "B" TYPE 1 2.4. TO MINIMIZE DIFFERENTIAL FROST HEAVING, TRENCH BACKFILL (FROM PAVEMENT SUBGRADE TO
- SANITARY SEWERS AND CONNECTIONS 150mmØ AND SMALLER TO BE PVC SDR-28.

2.0 METRES BELOW FINISHED GRADE) SHALL MATCH EXISTING SOIL CONDITIONS.

EXCEPT AT RISERS, UNLESS NOTED OTHERWISE. SEWERS AND WATERMAINS LOCATED PARALLEL TO EACH OTHER SHOULD BE CONSTRUCTED IN SEPARATE TRENCHES. WHEN IT IS IMPOSSIBLE OR NOT PRACTICAL TO MAINTAIN VERTICAL AND/OR HORIZONTAL SEPARATION PER MECP STANDARDS, ALL SEWERS SHOULD BE CONSTRUCTED OF

4. SEWERS AND CONNECTIONS 200mmØ AND LARGER TO BE PVC SDR-35. BEDDING TO BE TYPE "B"

WATERMAIN QUALITY PIPE, PRESSURE TESTED IN PLACE AT A PRESSURE OF 350 kPa (50 psi) WITHOUT LEAKAGE USING THE TESTING METHODOLOGY IN ONTARIO PROVINCIAL STANDARD SPECIFICATION 701 (OPSS 701) OF THE OPS.

6. INSULATE ALL STORM AND SANITARY SEWERS/SERVICES THAT HAVE LESS THAN 2.0m OF COVER WITH

- THERMAL INSULATION AS PER CITY DETAIL \$35, OPTION A.
- OTTAWA STANDARD DRAWING S11, S11.1 & S11.2.
- 8. SUPPLY AND INSTALL ALL PIPING AND APPURTENANCES AS SHOWN AND DETAILED TO WITHIN 1.0m OF BUILDING. ALL ENDS OF SERVICES TO BE PROPERLY CAPPED AND LOCATED WITH 2"x4"X8' LONG

SANITARY SEWER MAIN.

AND PIPES 150mmØ OR GREATER PRIOR TO BASE COURSE ASPHALT. UPON COMPLETION OF CONTRACT, THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL SEWERS & APPURTENANCES. 10. DYE TESTING IS TO BE COMPLETED ON SANITARY SERVICE TO CONFIRM PROPER CONNECTION TO

9. CONTRACTOR TO TELEVISE (CCTV) ALL PROPOSED SEWERS ON SITE, OUTLET CONNECTION TO THE MAIN

- 1. CONSTRUCT ALL WATERMAINS AND APPURTENANCES IN ACCORDANCE WITH CITY STANDARDS
- AND SPECIFICATIONS. 2. WATERMAINS AND/OR WATER SERVICES ARE TO HAVE A MINIMUM COVER OF 2.4m. INSULATE ALL WATERMAINS AND SERVICES THAT HAVE LESS THAN 2.4m COVER WITH THERMAL INSULATION AS PER CITY DETAIL W22.
- 3. IF THE WATERMAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS EQUAL TO OR LESS THAN THAT WHICH IS RECOMMENDED BY THE
- MANUFACTURER AND CITY OF OTTAWA STANDARDS W25 AND W25.2.
- 4. THERMAL INSULATION OF WATERMAINS AT OPEN STRUCTURES AS PER CITY DETAIL W23. 5. VALVES TO BE OPERATED BY CITY STAFF ONLY. 6. NO WORK SHALL COMMENCE UNLESS A CITY WATER WORKS INSPECTOR IS ON SITE. NO

CONNECTION TO EXISTING WATER NETWORK SHALL BE COMPLETED UNTIL A WATER PERMIT

IS OBTAINED FROM THE CITY. CONNECTIONS TO BE COMPLETED BY CITY FORCES. EXCAVATION,

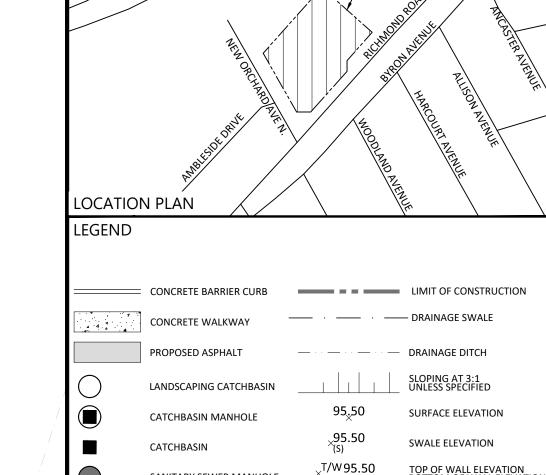
- BACKFILLING AND REINSTATEMENT TO BE COMPLETED BY SITE SERVICING CONTRACTOR. 7. CONCRETE THRUST BLOCKS TO CONFORM TO CITY STANDARD W25.3.
- 8. WATERMAIN 100-300mmØ TO BE CLASS 150 DR-18 PVC OR APPROVED EQUIVALENT.
- 9. ALL PVC WATERMAIN SHALL BE INSTALLED WITH A 10 GAUGE STRANDED COPPER TWU OR RWU TRACER WIRE IN ACCORDANCE WITH CITY STANDARD W36.
- 10. FIRE HYDRANTS SHALL CONFORM TO CITY STANDARDS W18, W19, AND W20.

EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE SEWER.

- 11. VALVE BOXES SHALL CONFORM TO CITY STANDARD W24. 12. 300mmØ VALVES AND SMALLER TO BE INSTALLED WITH VALVE BOXES AS PER CITY STANDARD
- CHAMBERS AS PER CITY STANDARD W2. 13. AS PER CITY GUIDELINE, THE MINIMUM VERTICAL CLEARANCE BETWEEN WATERMAIN AND SEWER/UTILITY IS 0.25m FOR CROSSING OVER THE SEWER. AS PER CITY DETAIL W25.2 FOR CROSSING UNDER SEWER, THE MINIMUM VERTICAL CLEARANCE IS 0.5m AS PER CITY DETAIL W25. FOR CROSSING UNDER SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE SEWERS IS REQUIRED TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING. THE LENGTH OF

WATER PIPE SHALL BE CENTERED AT THE POINT OF CROSSING SO THAT THE JOINTS WILL BE

W24. 400mmØ VALVES AND LARGER TO BE INSTALLED WITH BUTTERFLY VALVES AND VALVE



SANITARY SEWER MANHOLE OVERLAND FLOW ROUTE FIRE HYDRANT SILT FENCE BARRIER WATER VALVE STRAW BALE CHECK DAM WATER METER

MUD MAT

AREA DRAIN (TO BE SPECI AND ACCOMMODATED BY MECHANICAL)

CLAY SEAL PER S8

REMOTE WATER METER

RETAINING WALL

| 9 | REISSUED FOR SITE PLAN CONTROL | SEP. 03, 2025 |
|-----|-----------------------------------|---------------|
| 8 | REISSUED FOR SITE PLAN CONTROL | JULY 21, 2025 |
| 7 | REISSUED FOR PERMIT | JULY 21, 2025 |
| 6 | REISSUED FOR SITE PLAN CONTROL | JUNE 25, 2025 |
| 5 | REISSUED FOR SITE PLAN CONTROL | APR. 14, 2025 |
| 4 | ISSUED FOR PERMIT | MAR. 21, 2025 |
| 3 | REISSUED FOR SITE PLAN CONTROL | DEC. 17, 2024 |
| 2 | ISSUED FOR SITE PLAN CONTROL | AUG. 30, 2024 |
| 1 | ISSUED FOR PRELIMINARY DISCUSSION | JULY 17, 2024 |
| No. | Revisions | Date |

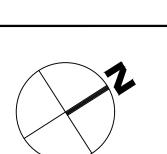
SUBJECT TO REVIEW

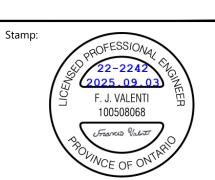
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Check and verify all dimensions Do not scale drawing before proceeding with the work SCALE 1:250



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FENGATE ASSET MANAGEMENT 2275 UPPER MIDDLE RD. E. SUITE 700

OAKVILLE, ON L6H 0C3

MIXED-USE RESIDENTIAL DEVELOPMENT 1047 RICHMOND ROAD

Drawing Title:

SITE SERVICING PLAN

1:250 CCO-22-2242 Drawing Number Designed By: