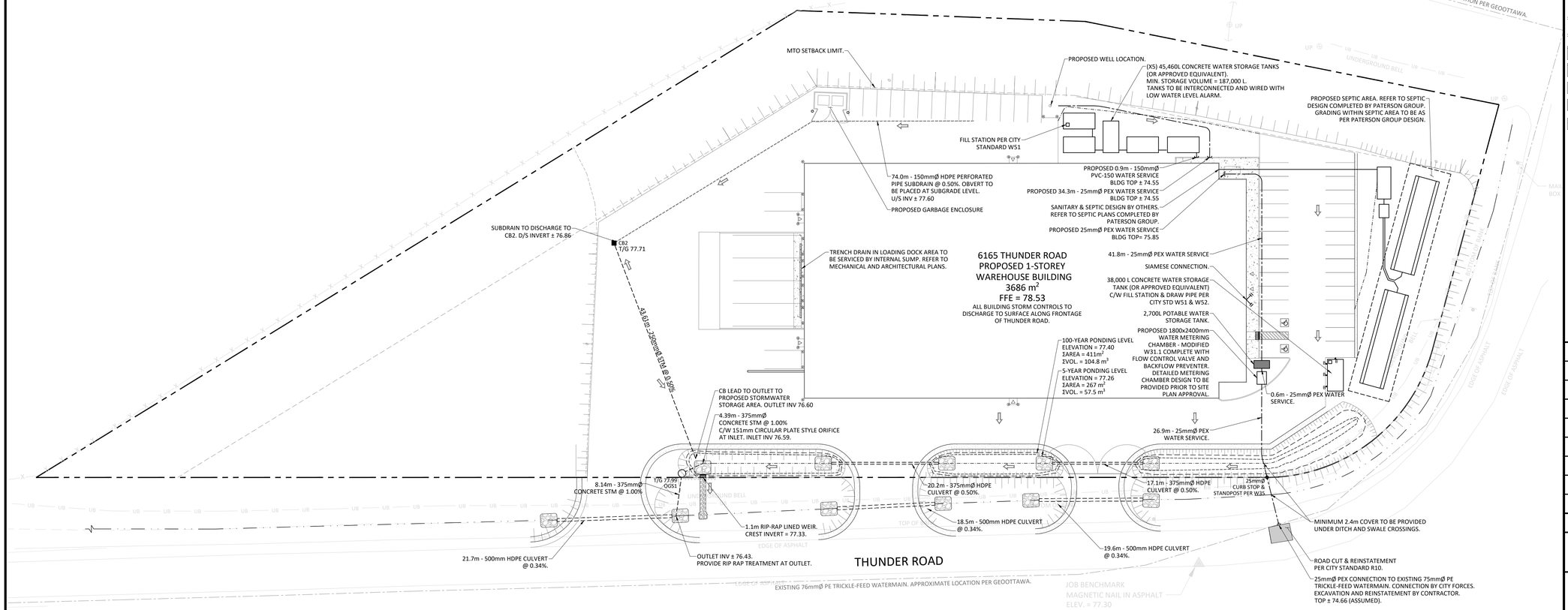


STM STRUCTURE TABLE				
NAME	RIM ELEV.	INVERT IN	INVERT OUT	DESCRIPTION
CB2	77.71	SE76.860	SW76.818	STRUC: OPSD 705.010 FRAME: CITY S19 COVER: CITY S19
OGS1	77.99	SE76.546	SW76.511	OGS UNIT 80% TSS REMOVAL

GENERAL NOTES

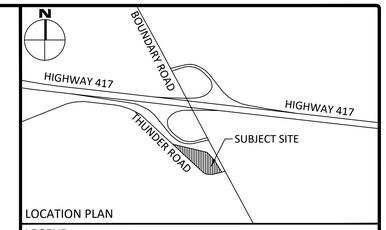
1. THE ORIGINAL TOPOGRAPHY, GROUND ELEVATION AND SURVEY DATA SHOWN ARE SUPPLIED FOR INFORMATION PURPOSES ONLY, AND IMPLY NO GUARANTEE OF ACCURACY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL INFORMATION SHOWN.
2. THIS PLAN IS NOT A CADASTRAL SURVEY SHOWING LEGAL PROPERTY BOUNDARIES AND EASEMENTS. THE PROPERTY BOUNDARIES SHOWN HEREON HAVE BEEN DERIVED INFORMATION SUPPLIED BY (OR SHOWN ON) FAIRHALL, MOFFAT & WOODLAND DRAWING # 14 - 9 (OF) gr AND CANNOT BE RELIED UPON TO BE ACCURATE OR COMPLETE. THE PRECISE LOCATION OF THE CURRENT PROPERTY BOUNDARIES AND EASEMENTS CAN ONLY BE DETERMINED BY AN UP-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 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. ALL DISTURBED AREAS TO BE RESTORED TO ORIGINAL CONDITION OR BETTER UNLESS OTHERWISE SPECIFIED.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL AND SAFETY MEASURES DURING THE CONSTRUCTION PERIOD, INCLUDING THE SUPPLY, INSTALLATION, AND REMOVAL OF ALL NECESSARY SIGNAGE, DELINEATORS, MARKERS AND BARRIERS.
11. DO NOT ALTER GRADING OF THE SITE WITHOUT PRIOR APPROVAL OF THE ENGINEER/CITY.
12. 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.
13. 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.
14. ALL DIMENSIONS AND INVERTS MUST BE VERIFIED PRIOR TO CONSTRUCTION, IF THERE IS ANY DISCREPANCY THE CONTRACTOR IS TO NOTIFY THE ENGINEER PROMPTLY.
15. 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.
16. INSTALLATION TO BE IN ACCORDANCE WITH CURRENT CODES AND STANDARDS OF APPROVAL AGENCIES HYDRO ONE, BELL AND THE CITY.
17. CONTRACTOR TO ENSURE ALL APPLICABLE OPS SPECIFICATIONS ARE FOLLOWED DURING CONSTRUCTION
18. ALL PROPOSED CURB TO BE CONCRETE BARRIER CURB UNLESS OTHERWISE SPECIFIED.
19. THIS PLAN MUST BE READ IN CONJUNCTION WITH THE GEOTECHNICAL INVESTIGATION COMPLETED BY PATERSON GROUP, DATED APRIL 29, 2024.

SEWER NOTES:

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.
   - 2.2. SUB-BEDDING, IF REQUIRED SHALL CONSIST OF 450mm OF COMPACTED GRANULAR "B" TYPE 1.
   - 2.3. 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 2.0 METRES BELOW FINISHED GRADE) SHALL MATCH EXISTING SOIL CONDITIONS.
3. SANITARY SEWERS AND CONNECTIONS 150mmØ AND SMALLER TO BE PVC SDR-28.
4. SEWERS AND CONNECTIONS 200mmØ AND LARGER TO BE PVC SDR-35. BEDDING TO BE TYPE "B" EXCEPT AT RISERS, UNLESS NOTED OTHERWISE.
5. 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 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 S35, OPTION A.
7. SEWER CONNECTIONS ARE TO BE MADE ABOVE THE SPRINGLINE OF THE SEWERMAIN AS PER CITY OF 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 MARKER.
9. CONTRACTOR TO TELEVISE (CCTV) ALL PROPOSED SEWERS ON SITE, OUTLET CONNECTION TO THE 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 SANITARY SEWER MAIN.

WATERMAIN NOTES

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.
11. VALVE BOXES SHALL CONFORM TO CITY STANDARD W24.
12. 300mmØ VALVES AND SMALLER TO BE INSTALLED WITH VALVE BOXES AS PER CITY STANDARD W24. 400mmØ VALVES AND LARGER TO BE INSTALLED WITH BUTTERFLY VALVES AND VALVE 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 EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE SEWER.



LOCATION PLAN

LEGEND

- FULL HEIGHT CONCRETE BARRIER CURB (SC1)
- DEPRESSED CONCRETE BARRIER CURB
- MONOLITHIC CURB & SIDEWALK (SC2)
- DEPRESSED MONOLITHIC CURB & SIDEWALK
- CONCRETE SIDEWALK (SC4)
- PROPOSED ASPHALT
- PROPOSED GRAVEL
- LSCB# LANDSCAPING CATCHBASIN
- CBMH# T/G CATCHBASIN MANHOLE
- CB# T/G CATCHBASIN
- MH#A T/G SANITARY SEWER MANHOLE
- HYD B/F FIRE HYDRANT
- WATER VALVE
- WATER METER
- RM REMOTE WATER METER
- B BOLLARD PER CITY STD F-4
- LIMIT OF CONSTRUCTION
- PERFORATED PIPE SUBDRAIN
- DRAINAGE SWALE
- DRAINAGE DITCH
- SLOPING AT 3:1 UNLESS SPECIFIED
- 95.50 SURFACE ELEVATION
- 95.50 (S) SWALE ELEVATION
- T/W 95.50 B/W 94.25 TOP OF WALL ELEVATION BOTTOM OF WALL ELEVATION
- OVERLAND FLOW ROUTE
- SILT FENCE BARRIER
- STRAW BALE CHECK DAM
- MUD MAT
- TRENCH DRAIN

FOR REVIEW ONLY
NOT FOR CONSTRUCTION

No.	Revisions	Date
4	REISSUED FOR SITE PLAN CONTROL	JUN. 10, 2025
3	REISSUED FOR SITE PLAN CONTROL	MAR. 18, 2025
2	REISSUED FOR SITE PLAN CONTROL	OCT. 31, 2024
1	ISSUED FOR SITE PLAN CONTROL	MAY 14, 2024

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

SCALE 1 : 400
0 10 20 30 40 Metres

egis

Stamp: LICENSED PROFESSIONAL ENGINEER R. D. FREEL 100163197 2025-06-13 PROVINCE OF ONTARIO

Client:
BROFORT INC.
2161 THURSTON DRIVE
OTTAWA, ON K1G 6C9

Project:
PROPOSED WAREHOUSE
6165 THUNDER ROAD

Drawing Title:
SITE SERVICING PLAN

Scale: 1:400	Project Number: CCO-23-1882
Drawn By: FV	
Checked By: RF	Drawing Number: C102
Designed By: JH	

#XXXXX

D07-12-24-0152

FILENAME: U:\Ottawa\01 Project - Proposals\2023 Jobs\CCO\CCO-23-1882 Brofort - 6165 Thunder Rd\12 - Drawings\CCO-23-1882_Presentation.dwg
LAST SAVED: Tuesday, June 10, 2025, LAST SAVED BY: F.Valenti
LAST PLOTTED: Tuesday, June 10, 2025 | TB FILE USED: APF-CV-STANDARD.ctb