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Stormwater Management Report and Servicing Brief

Site Plan Control Design
Community Center & Site Development
312 Lisgar St. Ottawa, ON

Prepared for:

Islam Care Center
375 Somerset St. W., Ottawa, ON

Attention: Abdul Rahman Amoud

LRL File No.: 250134-02

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1 INTRODUCTION AND SITE DESCRIPTION

LRL Associates Ltd. was retained by Islam Care Center to complete a Stormwater Management Analysis and Servicing Brief for the development of a **3**-storey community building with a basement level underground located at 312 Lisgar Street, Ottawa, Ontario.

The site location is legally described as Part of Lots 36, Concession C, Part 3 Plan 4R-13966 and Registered Plan 12281 in the City of Ottawa.

Figure 1: Aerial View of Proposed Development

The subject property measures approximately **10.1**m in frontage along **Lisgar Street**. Based on locations of the existing property line, the total site area is approximately **0.0345 ha**.

The proposed development will be constructed in a single phase with a 3-storey building with the basement. Refer to ***Site Plan*** included in ***Appendix F*** for more details***.***

This report has been prepared in consideration of the terms and conditions noted above and with the civil drawings prepared for the new development. Should there be any changes in the design features, which may relate to the stormwater and servicing considerations, LRL Associates Ltd. should be advised to review the report recommendations.

2 Existing Site and Drainage Description

The subject site measures **0.0345** ***ha*** and currently vacant with some green space and gravel. The highest point onsite is located at the southwest side of the site and has an elevation of **72.63m**, the lowest point onsite is located in the middle of the northeast side of the site and has an elevation of **71.97m**. The site generally slopes towards the northwest of the site – Lisgar Street. The site is fronting Lisgar Street.

Sewer and watermain mapping, along with as-built information collected from the City of Ottawa indicate the following existing infrastructure located within the adjacent right-of-ways:

Lisgar Street:

- **675** mmØ conc. storm sewer
- **375** mmØ conc. sanitary sewer
- **305** mmØ DI watermain

3 Scope of Work

As per applicable guidelines, the scope of work includes the following:

Stormwater management

- Calculate the allowable stormwater release rate.
- Calculate the anticipated post-development stormwater release rates.
- Demonstrate how the target quantity control objectives will be achieved.

Water services

- Calculate the expected water supply demand at average and peak conditions.
- Calculate the required fire flow as per the Fire Underwriters Survey (FUS) method.
- Confirm the adequacy of water supply and pressure during peak flow and fire flow conditions.
- Describe the proposed water distribution network and connection to the existing system.

Sanitary services

- Describe the existing sanitary sewers available to receive wastewater from the building.
- Calculate peak flow rates from the development.
- Describe the proposed sanitary sewer system.

4 REGULATORY APPROVALS

An MECP Environmental Compliance Approval is not expected to be required for installation of the proposed storm and sanitary sewers within the site. A Permit to Take Water is not anticipated to be required for pumping requirements for sewer installation. The Rideau Valley Conservation Authority will need to be consulted to obtain municipal approval for site development. No other approval requirements from other regulatory agencies are anticipated.

5 WATER SUPPLY AND FIRE PROTECTION

5.1 Existing Water Supply Services and Fire Hydrant Coverage

The subject property lies within the City of Ottawa 1W water distribution network pressure zone. The subject property is located within proximity of an existing 305 mm dia. watermain along Lisgar Street. There are currently at least two (2) existing fire hydrants within proximity to the subject property. Refer to ***Appendix B*** for the location of fire hydrants.

5.2 Water Supply Servicing Design

According to the City of Ottawa Water Distribution Guidelines (Technical Bulletin ISDTB-2014-02) the subject property is proposed to be serviced via one (1) 150 mm diameter service lateral connected to the existing 305mm dia. DI watermain within Lisgar Street. Refer to *Site Servicing Plan* C.401 in ***Appendix E*** for servicing layout and connection points.

We have analyzed the water demand requirements for the proposed 3-storey community building. The institutional water demands, and anticipated population were determined using Appendix 4-A, Table 4.1 and Table 4.2 from the *City of Ottawa Water Distribution Design Guidelines* and Table 3-3 from the *MOE Design Guidelines for Drinking Water Systems*.

Through reviewing the architectural floor plans of the proposed building, it was determined that the building will have a total combined gross floor area of **1499 m²**.

The water supply requirements for the proposed development have been calculated using the following formula:

$$Q = (q \times P \times M), \text{ for the institutional demand}$$

Where:
q = average water consumption (L/capita/day) or (L/ha/day)
P = design population (capita)
M = Peak factor

<u>Institutional Demands</u>
The proposed building will be considered as a community centre with maximum attendance of 525. *Table 1* below summarizes the proposed Institutional Demand as interpreted using Table 4-2 from the *City of Ottawa Water Distribution Design Guideline.*

Table 1: Institutional Demand

Property type (school)	Unit rate (L/person/d)	Population (max attendance)	Demand (L/d)
Institutional	70	525	36750

With reference to *Table 4.2 of the City of Ottawa Water Distribution Design Guidelines*, an average water consumption rate of 70 L/person/d, Maximum Daily Demand Factor of 1.5 and Maximum Hour Demand Factor of 1.8 are used. The anticipated institutional demands were calculated as follows:

- Average day demand is **0.43** L/s,
- Maximum daily demand is **0.64** L/s, and
- Maximum hourly demand is **1.15** L/s.

Refer to ***Appendix B*** for water demand calculations.

The City of Ottawa was contacted to obtain boundary conditions associated with the estimated water demand, as indicated in the boundary request correspondence included in ***Appendix B***. *Table 3* below summarizes boundary conditions for the proposed development.

Table 2: Summary of Boundary Conditions

Design Parameter	Anticipated Demand (L/s)	Boundary Conditions @ Lisgar Ave
		Connection (m H2O / kPa)
Minimum HGL	1.15	107.7 / 374.06
Maximum HGL	0.43	114.8 / 443.71
Max Day + Fire Flow	150.64	108.0 / 377.00
**Ground Elevation assumed at 69.57 for Connection*		

As indicated in Table 2, pressures in all scenarios meet the required pressure range stated in the City of Ottawa Design Guidelines – Water Distribution (Section 4.2.2). Refer to ***Appendix B*** for Boundary Conditions.

The estimated fire flow for the proposed buildings was calculated in accordance with *ISTB-2018-02*. The following parameters were provided by the Architect:

- Type of construction – Non-combustible construction
- Occupancy type – Limited Combustible
- Sprinkler Protection –Fully Automatic Sprinkler System

The estimated fire flow demand was estimated to be **9,000 L/min**, see ***Appendix B*** for details.

There are three (3) existing fire hydrants in proximity to the proposed buildings that are available to provide the required fire flow demands of 9,000 L/min. Table 3 below summarizes the aggregate fire flow of the contributing hydrants in proximity to the proposed development based on Table 18.5.4.3 of *ISTB-2018-02*.

Table 3: Fire Protection Summary Table

	Max. Fire Flow Demand (L/min)	Fire Hydrants(s) within 75m	Fire Hydrant(s) within 150m	Available Combined Fire Flow (L/min)
Contemplated Development	9000	2	1	(2 x 5678) + (1 x 3785) = 15,141

The total available fire flow from contributing hydrants is equal to **15,141 L/min** which is sufficient to provide adequate fire flow for the proposed development. A certified fire protection system specialist will need to be employed to design the building's fire suppression system and confirm the actual fire flow demand.

The proposed water supply design conforms to all relevant City Guidelines and Policies.

6 SANITARY SERVICE

6.1 Existing Sanitary Sewer Services

There is an existing 375mm dia. CONC sanitary sewer located in Lisgar Street.

6.2 Sanitary Sewer Servicing Design

The proposed development will be serviced via a 150 mm dia. sanitary service connected to the existing 375mm concrete sanitary sewer located within Lisgar Street. Refer to Site Servicing Plan C401, included in **Appendix F,** for the proposed sanitary servicing.

The parameters used to calculate the anticipated commercial sanitary flows are a daily flow of 28,000L/ha/day and a commercial peaking factor of 1.5. Based on these parameters and a total site area of 0.034 ha and a total infiltration rate of 0.33 L/s/ha, the total anticipated wet wastewater flow was estimated to be **0.0134 L/s**. Refer to ***Appendix C*** for the site sanitary sewer design sheet.

7 STORMWATER MANAGEMENT

7.1 Existing Stormwater Infrastructure

Stormwater runoff from the subject property is tributary to the City of Ottawa sewer system. As such, approvals for the proposed development within this area are under the approval authority of the City of Ottawa.

There is an existing 675mm dia. CONC storm sewer available in Lisgar Street. In the pre-development conditions, drainage from the subject lot is depicted by existing watershed EWS-01 (0.0345ha), which drains to the northwest to Lisgar Street. Refer to plan C701 included in ***Appendix E*** for pre-development drainage characteristics. Refer to ***Appendix D*** for pre-development and post-development watershed information.

7.2 Design Criteria

The stormwater management criteria for this development are based on the pre-consultation with City of Ottawa officials, the City of Ottawa Sewer Design Guidelines, 2012 (City standards), as well as the Ministry of the Environment's Stormwater Management Planning and Design Manual, 2003 (SWMPD Manual).

7.2.1 Water Quality

It was determined that water quality controls would not be required on this site as treatment would be handled by municipal infrastructure. Correspondence with City of Ottawa is included in ***Appendix A***.

7.2.2 Water Quantity

Based on pre-consultation with the City, correspondence included in ***Appendix A***, the following stormwater management requirements were identified for the subject site:

- Meet an allowable release rate based on a Rational Method Coefficient of 0.50, employing the City of Ottawa IDF parameters for a 2-year storm with a calculated time of concentration equal to 10 minutes; and

- Attenuate all storms up to and including the City of Ottawa 100-year storm event on site.

- Water quality treatment will not be required on this site as the water being collected and conveyed to the storm system is mostly rooftop water, which will be mostly clean.

Based on these stormwater objectives for the subject site, it was determined that the allowable release rate for the site is **3.68 L/s** for all storms up to and including the 100-year storm. Refer to ***Appendix D*** for calculations.

7.3 Method of Analysis

The modified Rational Method has been used to calculate the runoff rate from the site to quantify the detention storage required for quantity control of the development. Refer to ***Appendix D*** for storage calculations.

7.4 Proposed Stormwater Quantity Controls

The proposed stormwater management quantity control for this development will be accomplished using the roof drains and roof ponding. The storm water will be stored on the roof, drains through roof drains, and ultimately a proposed 200 mm PVC diameter storm sewer pipe will outlet stormwater flows from the site to the existing 675mm CONC storm sewer located within Lisgar Street. The proposed servicing layout and connection points are shown on the Servicing Plan C401 in ***Appendix E,*** and detailed calculations can be found in ***Appendix D***.

The site has been analyzed and three (3) post-development watersheds have been allocated.

- CA-01 & CA-02 (0.0324 ha) are controlled areas which consist of sub catchments within the roof envelope. Each sub catchment will be equipped with a flow control roof drain and accommodate rooftop ponding.
- CA-03 (0.0021ha) consists of paved & landscaped areas, with uncontrolled flow ultimately conveyed towards the Lisgar Right-of-Way.

Refer to C601, Stormwater Management Plan and C702, Post-Development Watershed Plan in ***Appendix E*** for reference.

Table 4 below summarizes post-development drainage areas. Calculations can be seen in ***Appendix D.***

Table 4: Post-Development Estimated Areas & Runoff Coefficients

WATERSHED	Total Area (ha)	Weighted Runoff Coefficient (C)	*100-yr Runoff Coefficient (C)
CA-01 (CONTROLLED)	0.0280	0.90	1.00
CA-02 (CONTROLLED)	0.0044	0.90	1.00
CA-03 (UNCONTROLLED)	0.0021	0.63	0.79
TOTAL	**0.0345**	**0.88**	**1.00**

*25% increase

In post-development, runoff from CA-03 will flow off site uncontrolled to the Lisgar ROW. In the 100-year storm event, this results in an uncontrolled runoff of **0.83 L/s**.

Watersheds CA-01 and CA-02 will be controlled via flow control roof drains and rooftop ponding. Three sub catchment areas have been proposed on the rooftops.

- CA-01A (area = 161.8m^2) consisting of the North portion of the upper roof, will be controlled to a release rate of **1.26 L/s**, and accommodate up to **5.21m^3** of ponding.
- CA-01B (area = 117.7m^2) consisting of the South portion of the upper roof, will be controlled to a release rate of **0.95 L/s**, and accommodate up to **3.85m^3** of ponding.

- CA-02 (area = 44.1m^2) consisting of the 2nd story terrace, will be controlled to a release rate of **0.63 L/s**, and accommodate up to **1.76m^3** of ponding.

Collectively, the rooftop sub catchments have an area of **0.0324 ha**, and runoff from the rooftops will be controlled to a 100-year post development release rate of **2.84 L/s**.

To attenuate controlled flows to the proposed release rate of **2.84 L/s**, it is calculated that a total of **9.92 m^3** of storage will be required. The current rooftop configuration provides up to **10.82 m^3** of rooftop ponding prior to emergency overflow.

A summary of proposed stormwater release rates and storage volume required has been included below in Table 5.

Table 5: Stormwater Release Rate & Storage Volume Summary (100 Year)

CATCHMENT AREAS	DRAINAGE AREAS (ha)	100-YEAR RELEASE RATE (L/s)	100-YEAR REQUIRED STORAGE (m^3)	TOTAL AVAILABLE STORAGE (m^3)
CA-01, CA-02 (CONTROLLED)	0.0324	2.84	9.92	10.82
CA-03 (UNCONTROLLED)	0.0021	0.83	/	/

Exact roof storage size and details can be found in drawing C601 in ***Appendix E.***

8 EROSION AND SEDIMENT CONTROL

During construction, erosion and sediment controls will be provided primarily via a sediment control fence to be erected along the perimeter of the site where runoff has the potential of leaving the site. Inlet sediment control devices are also to be provided in any catch basin and/or manholes in and around the site that may be impacted by the site construction. Construction and maintenance requirements for erosion and sediment controls are to comply with Ontario Provincial Standard Specification OPSS 577. For more details refer to drawing C101 Erosion and Sediment Control Plan in ***Appendix E***.

9 CONCLUSION

This Stormwater Management and Servicing Report for the development proposed at 312 Lisgar Street presents the rationale and details for the servicing requirements for the subject property.

In accordance with the report objectives, the servicing requirements for the development are summarized below:

Water Service

- The maximum required fire flow was calculated to be **9,000 L/min** using the FUS method.

- There are at least three (3) existing fire hydrants available to service the proposed development. They will provide a combined fire flow of **15,141 L/min** to the site.
- The new development will be serviced via one (1) 150mm diameter service lateral, that will be connected to the existing 305 mm DI watermain within Lisgar Street.
- Boundary conditions received from the City of Ottawa indicate that sufficient pressure is available to service the proposed site.

Sanitary Service

- The total calculated wet wastewater flow from the proposed development is **0.0134 L/s.**
- The proposed development will discharge **0.0134 L/s** to the existing 375 mm CONC sanitary sewer within Lisgar Street via a proposed 150mm PVC sanitary service lateral.

Stormwater Management

- The stormwater release rates from the proposed development will meet the calculated allowable release rate of **3.68L/s.**
- As per the pre-application consultation meeting with the City of Ottawa, site will be controlled up to the 100-year storm event, to a 2-year pre-development level. Any uncontrolled runoff will be directed towards the Lisgar right-of-way.
- The site stormwater quantity control objectives will be met through storage on roof top. **9.92 m^3** of storage is required and there will be a minimum of **10.82 m^3** of storage capacity available within the roof top.

10 Report Conditions and Limitations

The report conclusions are applicable only to this specific project described in the preceding pages. Any changes, modifications or additions will require a subsequent review by LRL Associates Ltd. to ensure compatibility with the recommendations contained in this document.

If you have any questions or comments, please contact the undersigned.

Prepared by:
LRL Associates Ltd.

Kyle Herold
Civil Project Manager

Mohan Basnet, P.Eng
Senior Civil Engineer

APPENDIX A

Pre-consultation / Correspondance

File No.: PC2024-0523

January 14, 2025

Saide Sayah
Fotenn Planning + Design
Via email: Sayah@fotenn.com

Subject: Pre-Consultation: Meeting Feedback
Proposed Site Plan Control Application – 312 Lisgar St.

Please find below information regarding next steps as well as consolidated comments from the above-noted pre-consultation meeting held on January 7, 2025.

Pre-Consultation Preliminary Assessment

1 ☐	**2** ☐	**3** ☒	**4** ☐	**5** ☐

One (1) indicates that considerable major revisions are required while five (5) suggests that the proposal appears to meet the City's key land use policies and guidelines. This assessment is purely advisory and does not consider technical aspects of the proposal or in any way guarantee application approval.

Next Steps

1. A review of the proposal and materials submitted for the above-noted pre-consultation has been undertaken. Staff encourage you submit a Phase 3 Pre-consultation Application Form and submit it together with the necessary studies and/or plans to planningcirculations@ottawa.ca.

2. In your subsequent pre-consultation submission, please ensure that all comments or issues detailed herein are addressed. A detailed cover letter stating how each issue has been addressed must be included with the submission materials. Please coordinate the numbering of your responses within the cover letter with the comment number(s) herein.

3. Please note, if your development proposal changes significantly in scope, design, or density before the Phase 3 pre-consultation, you may be required to complete or repeat the Phase 2 pre-consultation process.

Supporting Information and Material Requirements

1. The attached **Study and Plan Identification List** outlines the information and material that has been identified, during this phase of pre-consultation, as either required (R) or advised (A) as part of a future complete application submission.

a. The required plans and studies must meet the City's Terms of Reference (ToR) and/or Guidelines, as available on Ottawa.ca. These ToR and Guidelines outline the specific requirements that must be met for each plan or study to be deemed adequate.

Consultation with Technical Agencies

1. You are encouraged to consult with technical agencies early in the development process and throughout the development of your project concept. A list of technical agencies and their contact information is enclosed.

Planning

Comments:

1. Staff appreciate the enhancements to the public realm along the frontage of the subject property to include pavers and planters.
    a. Please ensure the sidewalk meets the City's standards.
    b. An MLA will be required as part of the post-approval conditions for these elements within the ROW.
2. Staff appreciate the inclusion of street trees.
3. Please ensure that an adequate amount of bicycle parking spaces will be included within the development proposal. Given the subject lands location within the Downtown area, active transportation should be promoted and enhanced.
4. Vehicular parking is not required given the site's location within a PMTSA.
5. Staff have CPTED concerns with the lane leading to the access of the west side of the building, as future development may create a 1m wide alley that represents an area for entrapment and limited visibility. Please explore opportunities to address this concern, such as adequate lighting or bringing the entrance closer to the front lot line of the property.
6. A Zoning Confirmation Report will be required as part of a complete application to confirm that the proposed development is in-line with the zoning requirements.
7. Please include a breakdown of the uses within the building on the site plan for our review.
8. The depressed curb will need to be reinstated to a standard curb if there will be no private approach.

Feel free to contact Jack Smith – Planner II, or Jean-Charles Renaud – Planner III, for follow-up questions.

Urban Design

Comments:

9. A scoped Urban Design Brief is required – please refer to the attached Terms of Reference. Staff also require architectural drawings including a Site Plan and Building Elevations, as well as a Landscape Plan.
10. Design Priority Area – design excellence as well as the integration of high-quality materials is excepted. Staff will not require a visit to the UDRP.
11. Staff are generally supportive of the 5 storey built form but have questions regarding phasing and the overall aesthetic of the building if the top 2 storeys are constructed at a later date. Please provide detailed Building Elevations and a phasing strategy.
12. Staff have concerns around light access with the planned context of the area. Please consider stepbacks at the upper levels and lightwells where appropriate to ensure that there is sufficient light access.
13. With the minimal side yard setbacks proposed, please ensure that the blank wall conditions contain murals or some form of architectural treatment.
14. Public realm a priority, staff appreciate the current approach shown on the plan. Please note that paving and planting treatments that fall outside of the City standard, though supported, will be subject to a Maintenance and Liability Agreement.
15. Staff would encourage the Applicant pre-consult once again or at least share their plans with Urban Design for preliminary feedback in advance of their formal submission to the City.

Feel free to contact Nader Kadri, Urban Designer, for follow-up questions.

Engineering

Comments:

16. Please refer to the SPIL provided for a detailed list of required plans and studies.

17. The Stormwater Management Criteria, for the subject site, is to be based on the following:

    a. Application of the IDF information derived from the Meteorological Services of Canada rainfall data, taken from the MacDonald Cartier Airport, collected 1966 to 1997.

    b. In separated areas, the pre-development runoff shall be the lower of the existing coefficient or a maximum equivalent ‘C’ of 0.5, whichever is less (§ 8.3.7.3).

    c. A calculated time of concentration (cannot be less than 10 minutes).

d. The quantity control criteria **(100-year post-development to 2-year pre-development or c = 0.5)** such that flows to the storm sewer in excess of the 2-year storm release rate, up to and including the 100-year storm event, must be detained on site.

e. Storm sewer outlets should not be submerged.

f. Quality control is not expected to be a requirement based on the Pre-Consultation material submission. It should be noted however that a standard Erosion and Sediment Control plan is still a mandatory requirement for all construction activities.

18. Deep Services (Storm, Sanitary and/or Water Supply)

a. Provide information on the monitoring manhole requirements – should be located in an accessible location on private property near the property line (ie. Not in a parking area).

b. Review provision of a high-level sewer.

c. Connections to trunk sewers and easement sewers are typically not permitted.

d. Sewer connections to be made above the springline of the sewermain as per:

i. Std Dwg S11 (for rigid main sewers) – lateral must be less that 50% the diameter of the sewermain,

ii. Std Dwg S11.2 (for rigid main sewers using bell end insert method) – for larger diameter laterals where manufactured inserts are not available; lateral must be less that 50% the diameter of the sewermain,

iii. Connections to manholes permitted when the connection is to rigid main sewers where the lateral exceeds 50% the diameter of the sewermain. – Connect obvert to obvert with the outlet pipe unless pipes are a similar size.

iv. No submerged outlet connections permitted.

e. CCTV sewer inspection of City sewers is required to record pre and post construction conditions and ensure there is no damage to City infrastructure. Please note this will be a Condition of Approval, it is not required with the submission materials for the Site Plan Control applciation.

19. Water

A 305 mm dia. DI Watermain (c. 1974) is available within Lisgar Street ROW.

a. As per ISTB-2021-03, Industrial, commercial, institutional service areas with a basic day demand greater than 50 m^3/day and residential areas serving 50 or more dwellings shall be connected with a minimum of two watermains, separated by an isolation valve, to avoid the creation of a vulnerable service area. Individual residential facilities with a basic day demand greater than 50 m3/day shall be connected with a minimum of two water services, separated by an isolation valve, to avoid the creation of a vulnerable service area.

b. A Water Data Card will be required for any water service laterals greater than 19mm diameter to ensure appropriate sizing of the water meter.

c. Existing water services are to be blanked at the watermain (if applicable).

d. Please review Technical Bulletin ISTB-2018-02, maximum fire flow hydrant capacity is provided in Section 3 Table 1 of Appendix I. A hydrant coverage figure shall be provided which demonstrates adequate fire protection for the proposal. Two or more public hydrants are anticipated to be required to handle fire flow.

e. As per IWSTB-2024-05, Fire Demand calculations shall first by determined using the OBC method. Only if the OBC method approach yields a fire flow of 9,000 L/min or greater shall the FUS method as amended, be used to determine the water demand. If FUS method is required, please also provide OBC calculations as supporting documentation.

f. Water Boundary condition requests must include the location of the service (map or plan with connection location(s) indicated) and the expected loads required by the proposed development, including calculations. Please provide the following information:

- Location of service
- Type of development
- The amount of fire flow required (per OBC or FUS).
- Average daily demand: ___ l/s.
- Maximum daily demand: ___l/s.
- Maximum hourly daily demand: ___ l/s.

20. Storm Sewer Capacity

A 675mm dia. concrete Storm sewer (c. 1971) is available within Lisgar Street ROW.

Connection to the 675mm Dia Storm sewer trunk is typically not permitted without asset management permission (SDG 4.4.4.13, 4.4.4.14).

a. Underground Storage: Please note that the Modified Rational Method for storage computation in the Sewer Design Guidelines was originally intended to be used for above ground storage (i.e. parking lot) where the change in head over the orifice varied from 1.5 m to 1.2 m (assuming a 1.2 m deep CB and a max ponding depth of 0.3 m). This change in head was small and hence the release rate fluctuated little, therefore there was no need to use an average release rate.

   When underground storage is used, the release rate fluctuates from a maximum peak flow based on maximum head down to a release rate of zero. This difference is large and has a significant impact on storage requirements. **We therefore require that an average release rate equal to 50% of the peak allowable rate shall be applied to estimate the required volume. Alternatively, the consultant may choose to use a submersible pump in the design to ensure a constant release rate.**

   In the event that there is a disagreement from the designer regarding the required storage, The City will require that the designer demonstrate their rationale utilizing dynamic modelling, that will then be reviewed by City modellers in the Water Resources Group.

   Provide information on type of underground storage system including product name and model, number of chambers, chamber configuration, confirm invert of chamber system, top of chamber system, required cover over system and details, interior bottom slope (for self-cleansing), chart of storage values, length, width and height, capacity, entry ports (maintenance) etc. UG storage to provide actual 2- and 100-year event storage requirements.

   With regards to all proposed UG storage, ground water levels (and in particular HGW levels) will need to be reviewed to ensure that the proposed system does not become surcharged and thereby ineffective.

   Modeling can be provided to ensure capacity for both storm and sanitary sewers for the proposed development by City's Water

Distribution Dept. – Modeling Group, through PM and upon request.

b. If **rooftop control and storage** is proposed as part of the SWM solutions sufficient details (Cl. 8.3.8.4) shall be discussed and document in the report and on the plans. Roof drains are to be connected downstream of any incorporated ICDs within the SWM system and not to the foundation drain system. Provide a **Roof Drain Plan** as part of the submission.

c. Please note that the minimum orifice dia. for a plug style **ICD** is 83mm and the minimum flow rate from a vortex ICD is 6 L/s in order to reduce the likelihood of plugging.

d. Document how any foundation drainage system will be integrated into the servicing design and show the positive outlet on the plan. Foundation drainage is to be independently connected to sewer main unless being pumped with appropriate back up power, sufficient sized pump and back flow prevention. **It is recommended that the foundation drainage system be drained by a sump pump connection to the storm sewer to minimize risk of basement flooding as it will provide the best protection from the uncontrolled sewer system compared to relying on the backwater valve.**

e. A backwater valve is required on the Storm service for protection.

21. Sanitary Sewer Capacity

A 375mm dia. concrete Sanitary sewer (c. 1971) is available in the Lisgar Street ROW.

b. Provide estimated Sanitary sewer discharge for City confirmation that the sanitary sewer main has enough capacity.

c. Include correspondence from the Architect within the Appendix of the report confirming the number of units and a unit type breakdown to support the calculated building populations.

d. Please apply the wastewater design flow parameters in Technical Bulletin PIEDTB-2018-01.

e. A Sanitary sewer monitoring maintenance hole is required to be installed at the property line (on the private side of the property) as per City of Ottawa Sewer-Use By-Law 2003-514 (14) Monitoring Devices. If there is no space to accommodate a monitoring maintenance hole, a test port giving access to the city personnel shall be provided.

f. A backwater valve is required on the Sanitary service for protection.

22. Grading and Erosion

a. Given the scope of work proposed, this application will require a stamped grading plan prepared by a Professional Engineer (P.Eng.), Certified Engineering Technologist (CET), Ontario Land Surveyor (OLS), Professional Landscape Architect (OLA), or Professional Architect (OAA) to ensure drainage patterns are not affected. Please note that the grading plan is to be prepared according to the City's Grading and Servicing Plan Requirements and Specifications.

b. Please provide an updated survey plan or a Pre-Development Drainage Area Plan to define the pre-development drainage areas/patterns. Existing drainage patterns shall be maintained and discussed as part of the proposed SWM solution.

c. Post-development site grading shall match existing property line grades in order to minimize disruption to the adjacent residential properties. A topographical plan of survey shall be provided as part of the submission and a note provided on the plans.

d. Erosion and sediment control plan must be provided.

23. Geotechnical

a. A Geotechnical Study/Investigation shall be prepared in support of this development proposal.

b. Reducing the groundwater level in this area can lead to potential damages to surrounding structures due to excessive differential settlements of the ground. The impact of groundwater lowering on adjacent properties needs to be discussed and investigated to ensure there will be no short term and long-term damages associated with lowering the groundwater in this area.

c. Geotechnical Study shall be consistent with the Geotechnical Investigation and Reporting Guidelines for Development Applications. Geotechnical Investigation and Reporting (ottawa.ca). See the Studies Plans and Identification List for more information.

24. Road Reinstatement

Where servicing involves three or more service trenches, either a full road width or full lane width 40 mm asphalt overlay will be required, as per amended Road Activity By- Law 2003-445 and City Standard Detail Drawing R10. The amount of overlay will depend on condition of roadway and width of roadway(s).

25. Gas Pressure regulation station

    A gas pressure regulating station may be required depending on HVAC needs (typically for 12+ units). Be sure to include this on the Grading, Site Servicing, SWM and Landscape plans. This is to ensure that there are no barriers for overland flow routes (SWM) or conflicts with any proposed grading or landscape features with installed structures and has nothing to do with supply and demand of any product.

26. Environmental Site Assessment

    A Phase I ESA is required to be completed in accordance with Ontario Regulation 153/04 in support of this development proposal to determine the potential for site contamination. Depending on the Phase I recommendations a Phase II ESA may be required.

    The Phase I ESA shall provide all the required Environmental Source Information as required by O. Reg. 153/04. ERIS records are available to public at a reasonable cost and need to be included in the ESA report to comply with O.Reg. 153/04 and the Official Plan. The City will not be in a position to approve the Phase I ESA without the inclusion of the ERIS reports.

Please refer to the City of Ottawa Guide to Preparing Studies and Plans [Engineering]: Planning application submission information and materials. The guide outlines the requirement for a statement to be provided on the plan about where the property boundaries have been derived from

Feel free to contact Brett Hughes, Infrastructure Project Manager, and Farbod Azimi, Engineering Intern, for follow-up questions.

Noise

Comments:

27. A Transportation Noise Assessment is required as the subject development is located within 100m proximity of the Bank Street existing Arterial Road.

28. A Stationary Noise Assessment is required in order to assess the noise impact of the proposed sources of stationary noise (mechanical HVAC system/equipment) of the development onto the surrounding residential area to ensure the noise levels do not exceed allowable limits specified in the City Environmental Noise Control Guidelines.

Feel free to contact Brett Hughes, Infrastructure Project Manager, and Farbod Azimi, Engineering Intern for follow-up questions.

Transportation

Comments:

29. Right-of-way protection.

    a. See Schedule C16 of the Official Plan.

    b. Any requests for exceptions to ROW protection requirements must be discussed with Transportation Planning and concurrence provided by Transportation Planning management.

30. Lisgar Street is classified as a Local Road. There are no additional protected ROW limits identified in the OP.

31. Ensure that the development proposal complies with the Right-of-Way protection requirements of the Official Plan's Schedule C16.

32. The Screening Form has indicated that the TIA Location Trigger has been met. This development would not generate sufficient traffic to warrant a TIA report. The consultant is to address how they plan to enable and encourage travel by sustainable modes (i.e., to make walking, cycling, transit, carpooling and telework more convenient, accessible, safe, and comfortable). Please complete the City of Ottawa's *TDM Measures Checklist*.

33. "Show all details of the roads abutting the site; include such items as pavement markings, signage, accesses, on-street parking, and/or sidewalks."

34. The purchaser, tenant or sub-lessee acknowledges the unit being rented/sold is not provided with any on-site parking and should a tenant/purchaser have a vehicle for which they wish to have parking that alternative and lawful arrangements will need to be made to accommodate their parking need at an alternative location. The Purchaser/Tenant also acknowledges that the availability and regulations governing on-street parking vary; that access to on-street parking, including through residential on-street parking permits issued by the City cannot be guaranteed now or in the future; and that a purchaser, tenant, or sub-lessee intending to rely on on-street parking for their vehicle or vehicles does so at their own risk.

35. The closure of an existing private approach shall reinstate the sidewalk, shoulder, curb, and boulevard to City standards.

36. Permanent structures such as curbing, stairs, retaining walls, and underground parking foundation also bicycle parking racks are not to extend into the City's right-of-way limits.

37. The Owner shall be required to enter into maintenance and liability agreement for all pavers, plant and landscaping material placed in the City right-of-way and the

Owner shall assume all maintenance and replacement responsibilities in perpetuity.

38. Bicycle parking spaces are required as per Section 111 of the Ottawa Comprehensive Zoning By-law. Bicycle parking spaces should be in safe, secure places near main entrances and preferably protected from the weather.

Feel free to contact Wally Dubyk, Transportation Project Manager, for follow-up questions.

Environment

Comments:

39. There are no triggers for an Environmental Impact Study.

40. Bird-Safe Design Guidelines - Please review and incorporate bird safe design elements. Some of the risk factors include glass and related design traps such as corner glass and fly-through conditions, ventilation grates and open pipes, landscaping, light pollution. More guidance and solutions are available in the guidelines which can be found here: https://documents.ottawa.ca/sites/documents/files/birdsafedesign_guidelines_en.pdf

41. Please consider if there are features that can be added reduce the urban heat island effect (see OP 10.3.3). For example, this impact can be reduced by adding large canopy trees, green roofs or vegetation walls, or incorporating building with low heat absorbing materials.

Feel free to contact Matthew Hayley, Environmental Planner, for follow-up questions.

Forestry

Comments:

42. **Tree Conservation Report** (TCR) - required only if there are trees either on site, or close to the site and they have a diameter that exceeds 10cm at 1.3m off the ground. Please contact Mark.Richardson@Ottawa.ca if a TCR is required.

    a. The TCR may be combined with the Landscape Plan or it may be a stand-alone document.

    b. Any removal of privately-owned trees 10cm or larger in diameter, or city-owned trees of any diameter requires a tree permit issued under the Tree Protection Bylaw (Bylaw 2020 – 340); the permit will be based on an approved TCR and made available at or near plan approval.

    c. The TCR must contain 2 separate plans:

i. Plan/Map 1 - show existing conditions with tree cover information

ii. Plan/Map 2 - show proposed development with tree cover information.

d. The TCR must list all trees on site, as well as off-site trees if the CRZ (critical root zone) extends into the developed area, by species, diameter and health condition.

   i. For ease of review, the Planning Forester suggests that all trees be numbered and referenced in an inventory table.

e. Please identify trees by ownership – private onsite, private on adjoining site, city owned, co-owned (trees on a property line)

f. If trees are to be removed, the TCR must clearly show where they are, and document the reason they cannot be retained.

   i. Compensation may be required for the removal of city owned trees.

g. The removal of trees on a property line will require the permission of both property owners.

h. All retained trees must be shown, and all retained trees within the area impacted by the development process must be protected as per City guidelines available at Tree Protection Specification or by searching Ottawa.ca

   i. The location of tree protection fencing must be shown on the plan.

   ii. Show the critical root zone of the retained trees.

43. **Landscape Plan tree planting requirements -** The previous LP must be updated to current city requirements which include:

a. Tree planting on city property shall be in accordance with the City of Ottawa's Tree Planting Specification; if possible, include watering and warranty as described in the specification.

b. No root barriers, dead-man anchor systems, or planters are permitted.

c. No tree stakes unless necessary

d. Hard surface planting

   i. If there are hard surface plantings, a planting detail must be provided.

   ii. Curb style planter is highly recommended.

iii. No grates are to be used and if guards are required, City of Ottawa standard (which can be provided) shall be used.

iv. Trees are to be planted at grade.

i. Soil Volume - Please demonstrate as per the **Landscape Plan Terms of Reference** that the available soil volumes for new plantings will meet or exceed the following:

Tree Type/Size	Single Tree Soil Volume (m3)	Multiple Tree Soil Volume (m3/tree)
Ornamental	15	9
Columnar	15	9
Small	20	12
Medium	25	15
Large	30	18
Conifer	25	15

j. Efforts shall be made to provide as much future canopy cover as possible at a site level, through tree planting and tree retention. The Landscape Plan shall show/document that the proposed tree planting and retention will contribute to the City's overall canopy cover over time. Please provide a projection of the future canopy cover for the site to 40 years.

k. Page 7 of the Landscape Plan Terms of Reference requires applicants to submit a digital, georeferenced CAD or GIS file of the final approved LP. Please follow this link to review the submission requirements: https://documents.ottawa.ca/sites/documents/files/landscape_tor_en.pdf . The file can be sent to the Planning Forester or Planning File Lead.

Feel free to contact Mark Richardson, Planning Forester, for follow-up questions.

Parkland

Comments:

44. This application may be subject to the City's Parkland Dedication By-law No. 2022-280, depending on the land uses proposed. Where applicable, cash-in-lieu of parkland will be required based on the value of the land area resulting from the following:

    a. For commercial uses, the requirement is: 2% of the gross land area.

b. For other uses including office or privately operated community centre, the requirement is: 5% of the gross land area.

c. Residential uses developed by a not-for-profit are exempt under the *Ontario Planning Act,* Section 41(1.2).

d. Where land is developed for a mix of uses within a building, the conveyance requirement shall be as calculated using the applicable rates above, prorated according to the proportion of gross floor area allocated to each use.

45. Where a land use is exempted from the above requirements per Section 11 of the Parkland Dedication by-law, documentation to confirm the proposed land use may be required. Please ensure that your architectural plans identify the proposed land uses and total areas of each.

a. Further to the above, please note the following land use exemption under Section 11(2)(c) of the Parkland Dedication by-law:

1. "a place of worship, excluding any ancillary uses as defined by the Zoning By-law;"

b. The City's Zoning By-law definiton of Place of Worship is:

1. **Place of Worship means** a place or building that is used for the regular assembly of persons for the practice of religious worship, services or rites. A Place of Worship must not include a school, cemetery or scattering ground. (lieu de culte) (By-law 20

c. The City's Zoning By-law definition of Ancillary Uses is:

1. **Ancillary Use means** a listed, permitted land use that is additional, secondary and complementary to a permitted principal use, but not accessory to the permitted principal use. (utilisation complémentaire)

d. The City's Zoning By-law definition of Ancillary Uses is:

1. **Accessory means** aiding or contributing in a secondary way to a principal use to carry out its function, and having regard to this definition:

   (a) an accessory use is a land use that is accessory to a principal use;

   (b) an accessory building is a building that houses an accessory use;

(c) an accessory structure is a structure, that is not a land use, but is accessory to a principal use and this definition is broadened to include tower antennas and satellite dishes. (accessoire) (By-law 2013-244)

46. Please note that the above comments are preliminary and for informational purposes only.

Feel free to contact Marika Atfield, Parks Planner, for follow-up questions at marika.atfield@ottawa.ca.

Community issues

Centretown Citizens Community Association Comments:

47. Supportive of building a new not-for-profit community centre that will provide social services to community members. This site has a long history of being used as a community space.

48. Considering that the proposed new building will be 3 to 5 storeys and that it will be built between two tall buildings, please note that the roof top amenities may be in shadows for most of the day. Please ensure that the side yards/alleyways are well lighted for neighbourhood safety reasons.

49. Add green landscaping and preserve/add trees where possible. Consider a planter at the front of the building with low, wide walls that can also function as a bench for people to sit.

50. Please provide secured bike parking spots.

51. Supportive of building sooner rather than later since this property has been vacant for a while.

52. Accessibility for people with mobility issues i.e. ramps, elevators, and wide doorways.

53. Multi-purpose spaces for various community activities. Include multi-purpose rooms that can be adapted for various community activities.

54. Energy efficient design.

55. Community input - host a town hall to gather input from local residents.

56. Safety features - include security cameras and clear sight lines throughout the property.

57. Tech infrastructure: Having robust Wi-Fi for community members that support digital literacy programs.

58. Community garden or small playground, if space permits, outdoors.

59. Public art reflecting the community's culture/history and connection to the neighbourhood.

Other

60. The High Performance Development Standard (HPDS) is a collection of voluntary and required standards that raise the performance of new building projects to achieve sustainable and resilient design and will be applicable to Site Plan Control and Plan of Subdivision applications.

    a. The HPDS was passed by Council on April 13, 2022, but is not in effect at this time, as Council has referred the 2023 HPDS Update Report back to staff with the direction to bring forward an updated report to Committee at a later date. The timing of an updated report to Committee is unknown at this time, and updates will be shared when they are available.

    b. Please refer to the HPDS information at ottawa.ca/HPDS for more information.

61. Under the Affordable Housing Community Improvement Plan, a Tax Increment Equivalent Grant (TIEG) program was created to incentivize the development of affordable rental units. It provides a yearly fixed grant for 20 years. The grant helps offset the revenue loss housing providers experience when incorporating affordable units in their developments.

    a. To be eligible for the TIEG program you must meet the following criteria:

        i. the greater of five units OR 15 per cent of the total number of units within the development must be made affordable

        ii. provide a minimum of 15 per cent of each unit type in the development as affordable

        iii. enter into an agreement with the city to ensure the units maintain affordable for a minimum period of 20 years at or below the city-wide average market rent for the entire housing stock based on building form and unit type, as defined by the Canada Mortgage and Housing Corporation

        iv. must apply after a formal Site Plan Control submission, or Building Permit submission for projects not requiring Site Plan Control, and prior to Occupancy Permit issuance

    b. Please refer to the TIEG information *at Affordable housing community improvement plan / Plan d'améliorations communautaires pour le logement abordable for more details or contact the TIEG coordinator via email at affordablehousingcip@ottawa.ca.*

Submission Requirements and Fees

1. A Site Plan Control - Revision Application is required to facilitate the development.
    a. Additional information regarding fees related to planning applications can be found here.
2. The attached **Study and Plan Identification List** outlines the information and material that has been identified as either required (R) or advised (A) as part of a future complete application submission.
    a. The required plans and studies must meet the City's Terms of Reference (ToR) and/or Guidelines, as available on Ottawa.ca. These ToR and Guidelines outline the specific requirements that must be met for each plan or study to be deemed adequate.
3. All of the above comments or issues should be addressed to ensure the effectiveness of the application submission review.

Should there be any questions, please do not hesitate to contact myself or the contact identified for the above areas / disciplines.

Yours Truly,

Jack Smith, Planner II

c.c. Jean-Charles Renaud, Planner III
Brett Hughes, Infrastructure Project Manager
Farbod Azimi, Engineering Intern
Nader Kadri, Urban Designer
Wally Dubyk, Transportation Project Manager
Matthew Hayley, Environmental Planner
Mark Richardson, Forester
Marika Atfield, Parks Planner

APPENDIX B

Water Supply Calculations & Fire Hydrant Coverage

Water Supply Calculations

LRL File No. : 250134-02
Project: Islamic Care Center
Location: 312 Lisgar St.
Date: 2026-06-02
Designed: M.Siam
Checked: K.Herold
Dwg Reference: C401

Water Demand based on the City of Ottawa Design Guidelines-Water Distribution, 2010

Institutional Demand

Property Type	Unit Rate (L/person/d)	Population (max attendance)	Demand (L/d)
Institutional*	**70**	**525**	**36750**

*used schools demand type (70 L/student/day) for better estimate of expected demand during peak attendance times

Average Day Demand	**36,750**	**L/d**	**0.425**	**L/s**
Maximum Day Factor	1.5		(Design Guidelines-Water Distribution Table 4.2)	
Maximum Daily Demand	**55,125**	**L/d**	**0.638**	**L/s**
Peak Hour Factor	1.8		(Design Guidelines-Water Distribution Table 4.2)	
Maximum Hour Demand	**99,225**	**L/d**	**1.148**	**L/s**

TOTAL DEMAND				
Average Day Demand	**36,750**	**L/d**	**0.43**	**L/s**
Maximum Daily Demand	**55,125**	**L/d**	**0.64**	**L/s**
Maximum Hour Demand	**99,225**	**L/d**	**1.15**	**L/s**

Water Service Pipe Sizing

Q = VA

Where: V = velocity (m/s)
A = area of pipe (m^2)
Q = flow rate (L/s)

Assuming a maximum velocity of 1.8m/s, the diameter of pipe is calculated as:

Minimum pipe diameter (d) =	$(4Q/\pi V)^{1/2}$	
=	0.029	m
=	29	mm
Proposed pipe diameter (d) =	**150**	mm
=	**6**	Inches

*required sprinklered building, to be confirmed w/ mechanincal engineer

Fire Flow Calculations

LRL File No. 250134-02
Project: Islamic Care Center
Location: 312 Lisgar St.
Date: June 2, 2026
Method: Fire Underwriter's Survey (FUS)
Prepared by: K. Herold

Step	Task	Term	Options	Multiplier	Choose:	Value	Unit	Fire Flow
Structural Framing Material								
1	Choose frame used for building	Coefficient C related to the type of construction	Wood Frame	1.5	Non-combustible constructio	**0.8**		
			Ordinary Construction	1.0				
			Non-combustible construction	0.8				
			Fire resistive construction <2 hrs	0.7				
			Fire resistive construction >2 hrs	0.6				
Floor Space Area (A)								
2	Total area					**1,338**	m^2	
3	Obtain fire flow before reductions	Required fire flow (rounded to nearest 1000)	Fire Flow = 220 x C x $A^{0.5}$				L/min	**7,000**
Reductions or surcharge due to factors affecting burning								
4	Choose combustibility of contents	Occupancy hazard reduction or surcharge	Non-combustible	-25%	Limited combustible	**-15%**	L/min	**5,950**
			Limited combustible	-15%				
			Combustible	0%				
			Free burning	15%				
			Rapid burning	25%				
5	Choose reduction for sprinklers	Sprinkler reduction	Full automatic sprinklers	-30%	True	**-30%**	L/min	**4,165**
			Water supply is standard for both the system and fire department hose lines	-10%	False	**0%**		
			Fully supervised system	-10%	False	**0%**		
6	Choose separation	Exposure distance between units	North side	10.1 to 20m	15%		L/min	**8,628**
			East side	0 to 3m	25%			
			South side	0 to 3m	25%			
			West side	20.1 to 30m	10%	**75%**		
Net required fire flow								
7	Obtain fire flow, duration, and volume	Minimum required fire flow rate (rounded to nearest 1000)					L/min	**9,000**
		Minimum required fire flow rate					L/s	**150.0**
		Required duration of fire flow					hr	**2.0**

Pipe Pressure Losses Calculations

LRL File No. 250134-02
Project Islamic Care Center
Location: 312 Lisgar Ave
Date June 2, 2026
Designed: K. Herold

Piezometric Head Equation (Derived from Bernoulli's Equation)

$$h = \frac{p}{\gamma} + z$$

Where:

h = HGL (m)
p = Pressure (Pa)
γ = Specific weight (N/m3) = 9810
z = Elevation of centreline of pipe (m) = 69.57

Water Pressure on Carling			
HGL (m)		Pressure	
		kPa	psi
Minimum =	107.7	374.06	54.25
Maximum =	114.8	443.71	64.35

Hazen Williams Equation

$$h_f = \frac{10.67 \times Q^{1.85} \times L}{C^{1.85} \times d^{4.87}}$$

Where:

h_f = Head loss over the length of pipe (m)
Q = Volumetric flow rate (m^3/s)
L = Length of pipe (m)
C = Pipe roughness coefficient
d = Pipe diameter (m)

Scenario 1: maximum daily demand

Q (L/s)	0.64
C	150
L (m.)	7.2
I.D. (mm)	150
V (m/s)	0.04

h_f (m)	0.00	
Head Loss (psi)	0.00	
Min. Pressure (psi)	54.25	(must not be less than 50psi)
Max. Pressure (psi)	64.35	(must not be more than 80psi)

Scenario 2: maximum hourly demand

Q (L/s)	1.15	
C	150	
L (m.)	7.2	
I.D. (mm)	150	
V (m/s)	0.06	
h_f (m)	0.00	
Head Loss (psi)	0.00	
Min. Pressure (psi)	54.25	(must not be less than 40psi)
Max. Pressure (psi)	64.35	(must not be more than 80psi)

City of Ottawa Boundary Conditions (Multi Hydrant Analysis)

	Quantity	Max Capacity (L/min)*	Available Fire Flow** (L/min)
Fire Hydrant(s) Within 76m	2	5678	11356
Fire Hydrant(s) Within 76m to 152m	1	3785	3785
Fire Hydrant(s) Within 152m to 305m		2839	0
Available Combined Fire Flow (L/min)			15141
Max Day + Fire Flow Demand (L/min)			11321

*as per Table 18.5.4.3. of ISTB-2018-02
**assumed class AA hydrants

Kyle Herold

From: Wu, John <John.Wu@ottawa.ca>
Sent: April 10, 2026 2:06 PM
To: Kyle Herold
Subject: RE: 250134 - 312 Lisgar Street - Boundary Condition Request
Attachments: 312 Lisgar Street April 2026.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Here is the result:
******The following information may be passed on to the consultant, but do NOT forward this e-mail directly.******

The following are boundary conditions, HGL, for hydraulic analysis at 312 Lisgar Street (zone 1W) assumed to be connected via the 305 mm watermain on Lisgar Street (see attached PDF for location).

Minimum HGL = 107.7 m
Maximum HGL = 114.8 m
MaxDay + FireFlow (150 L/s) = 108.0 m

These are for current conditions and are based on computer model simulation.

Disclaimer: The boundary condition information is based on current operation of the city water distribution system. The computer model simulation is based on the best information available at the time. The operation of the water distribution system can change on a regular basis, resulting in a variation in boundary conditions. The physical properties of watermains deteriorate over time, as such must be assumed in the absence of actual field test data. The variation in physical watermain properties can therefore alter the results of the computer model simulation.

John

Classified as City of Ottawa - Internal / Ville d'Ottawa - classé interne

From: Kyle Herold <kherold@lrl.ca>
Sent: Wednesday, April 1, 2026 11:49 AM
To: Mottalib, Abdul <Abdul.Mottalib@ottawa.ca>; Wu, John <John.Wu@ottawa.ca>
Subject: 250134 - 312 Lisgar Street - Boundary Condition Request

CAUTION: This email originated from an External Sender. Please do not click links or open attachments unless you recognize the source.

ATTENTION : Ce courriel provient d'un expéditeur externe. Ne cliquez sur aucun lien et n'ouvrez pas de pièce jointe, excepté si vous connaissez l'expéditeur.

Good morning,

I am hoping you will be able to help us out, or at least point us in the right direction.

We are currently working on an institutional site / multiple storey community center development for the Islam Care Center, to be developed at 312 Lisgar Road, in Ottawa.
Based on the water and fire protection data provided, we would like to request boundary conditions from the City.

Please use the following data to provide the require boundary conditions:
Average Total Daily Demand = 0.43 L/s
Maximum Daily Demand = 0.64 L/s
Maximum Hourly Demand = 1.15 L/s
Required Fire Flow = 150.0 L/s

The water service connection will be to the 305mm DI watermain on Lisgar Street.

For your reference, I have included copies of the Water Supply Calculations, FUS Fire Flow Calculations and a clip of the site location along with this email.

Any questions, concerns or require additional information, please do not hesitate to reach out.

Thank you,

Kyle Herold, Civil Engineering Services

LRL ENGINEERING | INGÉNIERIE
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Ottawa | Pembroke | Moncton
www.lrl.ca

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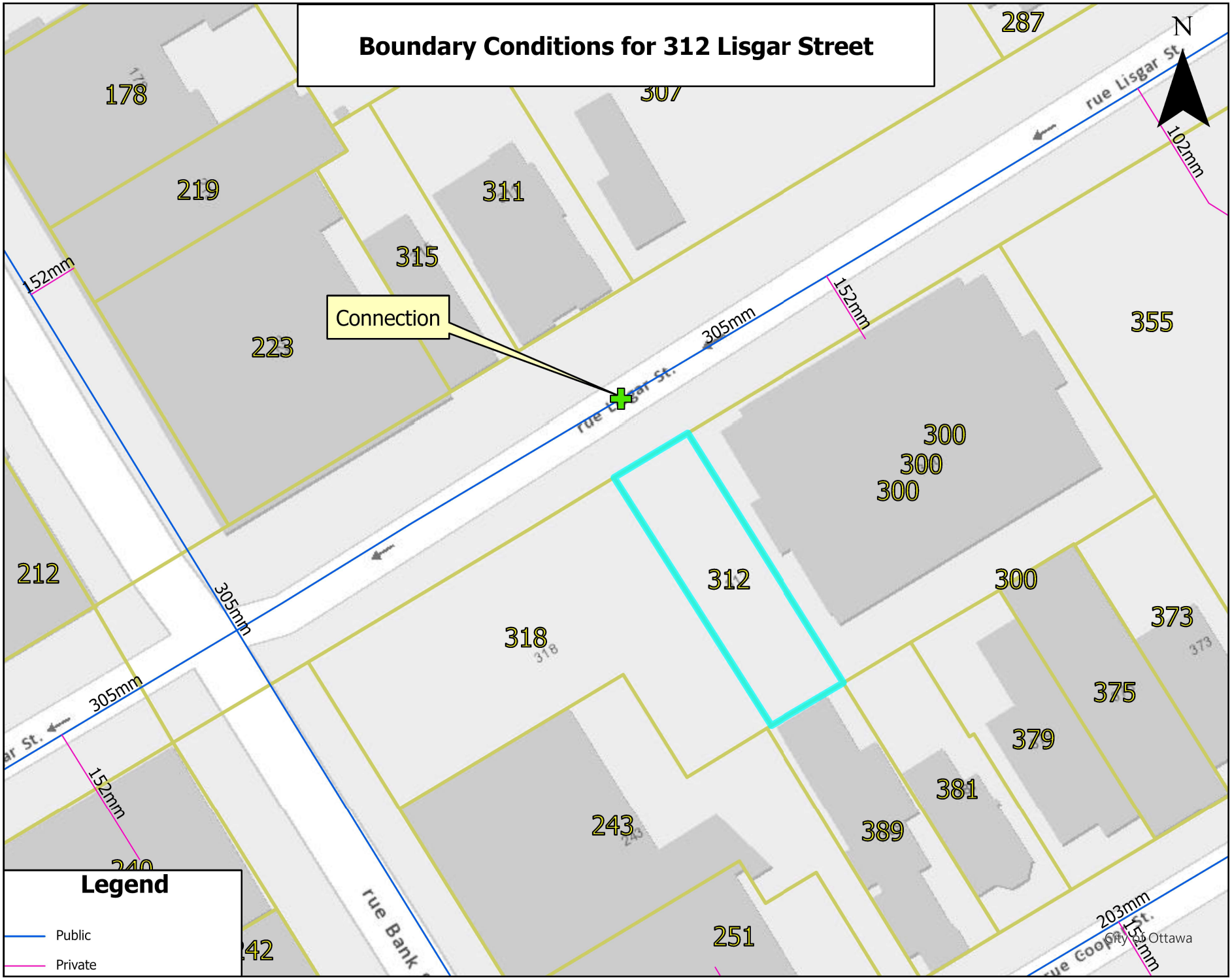
'

Boundary Conditions for 312 Lisgar Street



APPENDIX C

Wastewater Collection Calculations

LRL Associates Ltd.

Sanitary Sewer Design Sheet

LRL File No.: 250134
Project: Islamic Care Center
Location: 312 Lisgar St.
Designed: M.Siam
Checked: K.Herold
Date: June 2, 2026
DWG. Reference: C401

Sanitary Design Parameters

Commercial & Institutional Flow = 28000 L/ha/day
Light Industrial Flow = 35000 L/ha/day
Heavy Industrial Flow = 55000 L/ha/day
Maximum Residential Peak Factor = 4.0
Commercial & Institutional Peak Factor = 1.5
Average Daily Flow = 280 L/p/day
Industrial Peak Factor = as per Appendix 4-B
Extraneous Flow = 0.33 L/s/ha

Pipe Design Parameters

Maximum Velocity = 3.00 m/s
Minimum Velocity = 0.60 m/s
Manning's n = 0.013

LOCATION			RESIDENTIAL						COMMERCIAL		INDUSTRIAL			INSTITUTIONAL		C+I+I	INFILTRATION			TOTAL FLOW, Q	PIPE						
STREET	FROM	TO	AREA	POP.	ACCU. AREA	ACCU. POP.	PEAK FACT.	PEAK FLOW	AREA	ACCU. AREA	AREA	ACCU. AREA	PEAK FACT.	AREA	ACCU. AREA	PEAK FLOW	TOTAL AREA	ACCU. AREA	INFILT. FLOW		LENGTH	DIA.	SLOPE	MATERIAL	CAP. Q(FULL)	VEL. V(FULL)	RATIO Q /QFULL
			(Ha)		(Ha)			(L/s)	(Ha)	(Ha)		(Ha)		(Ha)	(Ha)	(L/s)	(Ha)	(Ha)	(L/s)	(L/s)	(m)	(mm)	(%)		(L/s)	(m/s)	
Lisgar Street	BLDG	Ex. SAN	0.035										1.5	0.035	0.035	0.002	0.035	0.035	0.01	0.0134	12.0	150	1.00%	PVC	15.23	0.86	0.00

Notes: Existing inverts and slopes are estimated. They are to be confirmed on-site.

APPENDIX D

Stormwater Management Calculations

LRL Associates Ltd.

Storm Watershed Summary

LRL File No. 250134
Project: Islamic Care Center
Location: 312 Lisgar St.
Date: June 2, 2026
Designed: K. Herold
Checked: M. Basnet
Dwg Reference: C701, C702

Pre-Development Catchments

Watershed	C = 0.20	C = 0.80	C = 0.90	Total Area (ha)	Combined C
ECA-01 (uncontrolled)	0.0000	0.0345	0.0000	0.0345	0.80
Total	**0.0000**	**0.0345**	**0.0000**	**0.0345**	**0.80**

Post-Development Catchments

Watershed	C = 0.20	C = 0.8	C = 0.90	Total Area (ha)	Combined C
CA-01 (controlled)	0.0000	0.0000	0.0280	0.0280	0.90
CA-02 (controlled)	0.0000	0.0000	0.0044	0.0044	0.90
CA-03 (uncontrolled)	0.0008	0.0000	0.0013	0.0021	0.63
Total	**0.0008**	**0.0000**	**0.0337**	**0.0345**	**0.88**

LRL File No. 250134-02
Project: Islamic Care Center
Location: 312 Lisgar St.
Date: June 3, 2026
Designed: M.Siam
Checked: K.Herold
Drawing Ref.: C601

Stormwater Management Design Sheet

STORM - 100 YEAR POST- TO 2 YEAR PRE-DRR

Runoff Equation

Q = 2.78CIA (L/s)
C = Runoff coefficient
I = Rainfall intensity (mm/hr) = $A / (T_d + C)^B$
A = Area (ha)
T_d = Time of duration (min)

Pre-Development Release Rate

IDF Curve Equations

$I_2 = 732.951 / (Td + 6.199)^{0.810}$ A = 732.951 B = 0.810 C = 6.199

C =	0.50	(max of 0.5 as per City Guidelines)
I_2 =	76.8	mm/hr
T_d =	10	min
A =	0.034	ha
2 Year Allow. Release Rate =	3.68	L/s

Post-development Stormwater Management

					$\sum R_{2\&5}$	$\sum R_{100}$
	Total Site Area =	**0.0345**	**ha**	**∑R =**	**0.88**	**1.00**
	CA-01 (controlled)	0.0280	ha	R =	0.90	1.00
	CA-02 (controlled)	0.0044	ha	R =	0.90	1.00
	Total (controlled)	**0.0324**	**ha**	**R =**	**0.90**	**1.00**
	CA-03 (uncontrolled)	0.0021	ha	R =	0.63	0.79
	Total (uncontrolled)	**0.0021**	**ha**	**R =**	**0.63**	**0.79**
	Total (Controlled+Uncontrolled)	**0.0345**	**ha**	**R =**	**0.88**	**1.00**

Summary of Roof Storage (Upper Roof: CA-01)

Select water depth (h) = 0.150 m
No. of drain = 2
Total flow from roof = 2.21 L/s
Total roof area (A) = 0.0280 ha

*An Emergency overflow scupper is provided above this height.
WATTS ADJ-100 Adjustable Roof Drains proposed

For the given controlled release rate, the required roof storage ≤ available roof storage

100 Year Post-development Stormwater Management (Upper Roof: CA-01)
Sample Calculation (Rooftop Subcatchment Area CA-01A)

Time (min)	Intensity (mm/hr)	Controlled Runoff (L/s)	Required Storage Volume (m^3)	Controlled Release Rate (L/s)	Uncontrolled Runoff (L/s)	Total Release Rate (L/s)
10	178.56	8.03	4.06	1.26	0.00	1.26
15	142.89	6.43	4.65	1.26	0.00	1.26
20	119.95	5.40	4.96	1.26	0.00	1.26
25	103.85	4.67	5.12	1.26	0.00	1.26
30	91.87	4.13	5.17	1.26	0.00	1.26
35	82.58	3.71	5.15	1.26	0.00	1.26
40	75.15	3.38	5.09	1.26	0.00	1.26
45	69.05	3.11	4.98	1.26	0.00	1.26
50	63.95	2.88	4.85	1.26	0.00	1.26
55	59.62	2.68	4.69	1.26	0.00	1.26
60	55.89	2.51	4.51	1.26	0.00	1.26
70	49.79	2.24	4.11	1.26	0.00	1.26
80	44.99	2.02	3.67	1.26	0.00	1.26
90	41.11	1.85	3.18	1.26	0.00	1.26
100	37.90	1.70	2.67	1.26	0.00	1.26
110	35.20	1.58	2.13	1.26	0.00	1.26
120	32.89	1.48	1.58	1.26	0.00	1.26

100yr Available Roof Storage Calculation (Upper Roof: CA-01)

Catchment	Roof Subcatchment Area (m2)	Depth (m)	# Roof Drains	Weir Opening Exposure*	Required Volume (m3)	Effective Available Volume** (m3)	Total Flow (L/s)
CA-01A	161.8	0.15	1	1/2exposed	5.17	5.21	1.26
CA-01B	117.7	0.15	1	1/4 exposed	3.70	3.85	0.95
CA-01	**279.5**		**2**		**8.87**	**9.06**	**2.21**

*WATTS ADJ-100 Adjustable Roof Drains proposed
**effective available volume as per Civil3D ponding volume modelling

Summary of Roof Storage (Mezzanine - CA-02)

Select water depth (h) = 0.150 m
No. of drain = 1
Total flow from roof = 0.63 L/s
Total roof area (A) = 0.0044 ha

*An Emergency overflow scupper is provided above this height.
WATTS ADJ-100 Adjustable Roof Drains proposed

For the given controlled release rate, the required roof storage ≤ available roof storage

LRL File No. 250134-02
Project: Islamic Care Center
Location: 312 Lisgar St.
Date: June 3, 2026
Designed: M.Siam
Checked: K.Herold
Drawing Ref.: C601

Stormwater Management Design Sheet

100 Year Post-development Stormwater Management (Mezzanine: CA-02)
Sample Calculation (Rooftop Subcatchment Area CA-02)

Time (min)	Intensity (mm/hr)	Controlled Runoff (L/s)	Required Storage Volume (m^3)	Controlled Release Rate (L/s)	Uncontrolled Runoff (L/s)	Total Release Rate (L/s)
10	178.56	2.19	0.94	0.63	0.00	0.63
15	142.89	1.75	1.01	0.63	0.00	0.63
20	119.95	1.47	1.01	0.63	0.00	0.63
25	103.85	1.27	0.96	0.63	0.00	0.63
30	91.87	1.13	0.89	0.63	0.00	0.63
35	82.58	1.01	0.80	0.63	0.00	0.63
40	75.15	0.92	0.70	0.63	0.00	0.63
45	69.05	0.85	0.58	0.63	0.00	0.63
50	63.95	0.78	0.46	0.63	0.00	0.63
55	59.62	0.73	0.33	0.63	0.00	0.63
60	55.89	0.69	0.20	0.63	0.00	0.63
70	49.79	0.61	0.00	0.63	0.00	0.63
80	44.99	0.55	0.00	0.63	0.00	0.63
90	41.11	0.50	0.00	0.63	0.00	0.63
100	37.90	0.46	0.00	0.63	0.00	0.63
110	35.20	0.43	0.00	0.63	0.00	0.63
120	32.89	0.40	0.00	0.63	0.00	0.63

100yr Available Roof Storage Calculation (Mezzanine - CA-02):

Catchment	Roof Subcatchment Area (m2)	Depth (m)	# Roof Drains	Weir Opening Exposure*	Required Volume (m3)	Effective Available Volume** (m3)	Total Flow (L/s)
CA-02	44.1	0.15	1	Closed	1.05	1.76	0.63
CA-02	**44.1**		**1**		**1.05**	**1.76**	**0.63**

*WATTS ADJ-100 Adjustable Roof Drains proposed
**effective available volume as per Civil3D ponding volume modelling

100 Year Post-development Stormwater Management (Surface - CA-03)

Time (min)	Intensity (mm/hr)	Controlled Runoff (L/s)	Storage Volume (m^3)	Controlled Release Rate (L/s)	Uncontrolled Runoff (L/s)	Total Release Rate (L/s)
10	178.56	0.00	0.00	0.00	0.83	0.83
15	142.89	0.00	0.00	0.00	0.66	0.66
20	119.95	0.00	0.00	0.00	0.55	0.55
25	103.85	0.00	0.00	0.00	0.48	0.48
30	91.87	0.00	0.00	0.00	0.42	0.42
35	82.58	0.00	0.00	0.00	0.38	0.38
40	75.15	0.00	0.00	0.00	0.35	0.35
45	69.05	0.00	0.00	0.00	0.32	0.32
50	63.95	0.00	0.00	0.00	0.30	0.30
55	59.62	0.00	0.00	0.00	0.28	0.28
60	55.89	0.00	0.00	0.00	0.26	0.26
70	49.79	0.00	0.00	0.00	0.23	0.23
80	44.99	0.00	0.00	0.00	0.21	0.21
90	41.11	0.00	0.00	0.00	0.19	0.19
100	37.90	0.00	0.00	0.00	0.18	0.18
110	35.20	0.00	0.00	0.00	0.16	0.16
120	32.89	0.00	0.00	0.00	0.15	0.15

Summary of On-site Runoff

Total Allowable Release Rate	**3.68**	**L/s**
CA-01	2.21	**L/s**
CA-02	0.63	**L/s**
CA-03	0.83	**L/s**
Total Proposed Release Rate	**3.67**	**L/s**

On-site stormwater detention

Storage required =	**9.92**	**m^3**	
Storage provided =	**10.82**	**m^3**	(Refer to DWG C601)

LRL Associates Ltd.

Storm Sewer Design Sheet

LRL File No. 250134-02
Project: Islamic Care Center
Location: 312 Lisgar St.
Date: June 3, 2026
Designed: M.Siam
Checked: K.Herold
Dwg. Ref.: C401,C702

Rational Method

Q = 2.78CIA
Q = Peak flow (L/s)
A = Drainage area (ha)
C = Runoff coefficient
I = Rainfall intensity (mm/hr)

Runoff coefficient (C)

Grass = 0.2
Gravel = 0.8
Asphalt / rooftop = 0.9

IDF curve

Ottawa Macdonald-Cartier International Airport
Storm event: 5 Years

Intensity equation:

$I_5 = 998.071 / (Td + 6.053)^{0.814}$ (mm/hr)

Pipe Design Parameters

Minimum velocity = 0.80 m/s
Manning's "n" = 0.013

LOCATION			AREA (ha)			FLOW						STORM SEWER							
WATERSHED / STREET	From MH	To MH	C = 0.20	C = 0.80	C = 0.90	Indiv. 2.78AC	Accum. 2.78AC	Time of Conc.	Rainfall Intensity	Peak Flow (Q)	Controlled Flow (Q)	Pipe Dia.	Type	Slope	Length	Capacity Full (Q_{FULL})	Velocity Full	Time of Flow	Ratio Q/Q_{FULL}
								(min)	(mm/hr)	(L/s)	(L/s)	(mm)		(%)	(m)	(L/s)	(m/s)	(min)	
Lisgar St.	BLDG/STUB	STM Connection	0.000	0.000	0.032	0.08	0.08	10.00	104.19	8.45	2.84	200	PVC	1.00%	11.0	32.80	1.04	0.18	0.09

WATTS®	Adjustable Accutrol Weir Tag: _____	Adjustable Flow Control for Roof Drains

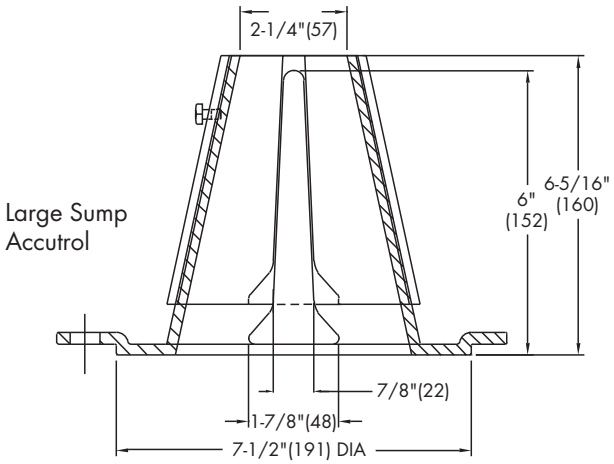
ADJUSTABLE ACCUTROL (for Large Sump Roof Drains only)

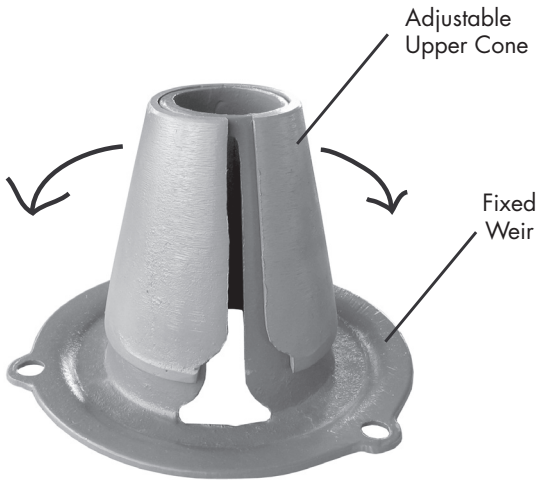
For more flexibility in controlling flow with heads deeper than 2", Watts Drainage offers the Adjustable Accutrol. The Adjustable Accutrol Weir is designed with a single parabolic opening that can be covered to restrict flow above 2" of head to less than 5 gpm per inch, up to 6" of head. To adjust the flow rate for depths over 2" of head, set the slot in the adjustable upper cone according to the flow rate required. Refer to Table 1 below.
Note: Flow rates are directly proportional to the amount of weir opening that is exposed.

EXAMPLE:

For example, if the adjustable upper cone is set to cover 1/2 of the weir opening, flow rates above 2"of head will be restricted to 2-1/2 gpm per inch of head.

Therefore, at 3"of head, the flow rate through the Accutrol Weir that has 1/2 the slot exposed will be:
[5 gpm (per inch of head) x 2 inches of head] + 2-1/2 gpm (for the third inch of head) = 12-1/2 gpm.





1/2 Weir Opening Exposed Shown Above

TABLE 1. Adjustable Accutrol Flow Rate Settings

Weir Opening Exposed	1"	2"	3"	4"	5"	6"
	Flow Rate (gallons per minute)					
Fully Exposed	5	10	15	20	25	30
3/4	5	10	13.75	17.5	21.25	25
1/2	5	10	12.5	15	17.5	20
1/4	5	10	11.25	12.5	13.75	15
Closed	5	5	5	5	5	5

Job Name _____ Contractor _____

Job Location _____ Contractor's P.O. No. _____

Engineer _____ Representative _____

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.

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APPENDIX E

Civil Engineering Drawings

ISLAMIC CARE CENTRE
312 LISGAR STREET, OTTAWA

REVISION 02

KEY PLAN (N.T.S.)

DRAWING INDEX	
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GRADING AND DRAINAGE PLAN	C301
SERVICING PLAN	C401
STORMWATER MANAGEMENT PLAN	C601
PRE-DEVELOPMENT WATERSHED PLAN	C701
POST-DEVELOPMENT WATERSHED PLAN	C702
CONSTRUCTION DETAIL PLAN	C901

LRL
ENGINEERING | INGÉNIERIE
5430 Canotek Road | Ottawa, ON, K1J 9G2
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ISLAMIC CARE CENTER
312 LISGAR ST., OTTAWA
REV.02 - ISSUED FOR SPC -02 JUN 2026
LRL PROJECT no: 250134

LICENSED PROFESSIONAL ENGINEER
M. BASNET
100501996
2026/06/02
PROVINCE OF ONTARIO

NOT AUTHENTIC UNLESS SIGNED AND DATED

GENERAL NOTES

1. ALL WORKS MATERIALS SHALL CONFIRM TO THE LAST REVISION OF THE STANDARDS AND SPECIFICATIONS FOR THE CITY OF OTTAWA, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS), WHERE APPLICABLE. LOCAL UTILITY STANDARDS AND MINISTRY OF TRANSPORTATION STANDARDS WILL APPLY WHERE REQUIRED.
2. THE CONTRACTORS SHALL CONFIRM THE LOCATION OF ALL EXISTING UTILITIES WITHIN THE SITE AND ADJACENT WORK AREAS. THE CONTRACTORS SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY SERVICES OR UTILITIES DISTURBED DURING CONSTRUCTION , TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION.
3. ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION, ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER. LOST TIME DUE TO FAILURE OF THE CONTRACTORS TO CONFIRM UTILITY LOCATIONS AND NOTIFY ENGINEER OF POSSIBLE CONFLICTS PRIOR TO CONSTRUCTION WILL BE AT CONTRACTORS EXPENSE.
4. ANY AREA 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. RELOCATING OF EXISTING SERVICES AND/OR UTILITIES SHALL BE AS SHOWN ON THE DRAWINGS OR DETECTED BY THE ENGINEER AT THE EXPENSE OF DEVELOPERS.
5. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE 'OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS'. THE GENERAL CONTRACTORS SHALL BE DEEMED TO BE THE 'CONTRACTOR' AS DEFINED IN THE ACT.
6. ALL THE CONSTRUCTION SIGNAGE MUST CONFIRM TO THE MINISTRY OF TRANSPORTATION OF ONTARIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES PER LATEST AMENDMENT.
7. THE CONTRACTOR IS ADVISED THAT WORKS BY OTHERS MAY BE ONGOING DURING THE PERIOD OF THE CONTRACT. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES TO PREVENT CONFLICTS.
8. ALL DIMENSIONS ARE IN METRES UNLESS SPECIFIED OTHERWISE.
9. THERE WILL BE NO SUBSTITUTION OF MATERIALS UNLESS PRIOR WRITTEN APPROVAL IS RECEIVED FROM THE ENGINEER.
10. ALL CONSTRUCTION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RECOMMENDATIONS MADE IN THE GEOTECHNICAL REPORT.
11. FOR DETAILS RELATING TO STORMWATER MANAGEMENT AND ROOF DRAINAGE REFER TO THE SITE SERVICING AND STORMWATER MANAGEMENT REPORT.
12. ALL SEWERS CONSTRUCTED WITH GRADES LESS THAN 1.0% SHALL BE INSTALLED USING LASER ALIGNMENT AND CHECKED WITH LEVEL INSTRUMENT PRIOR TO BACKFILLING.
13. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED AND TO BEAR THE COST OF THE SAME.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL BEDDING, OR ADDITIONAL STRENGTH PIPE IF THE MAXIMUM TRENCH WIDTH AS SPECIFIED BY OPSD IS EXCEEDED.
15. ALL PIPE/CULVERT SECTION SIZES REFER TO INSIDE DIMENSIONS.
16. SHOULD DEEPLY BURIED ARCHAEOLOGICAL REMAINS BE FOUND ON THE PROPERTY DURING CONSTRUCTION ACTIVITIES, THE HERITAGE OPERATIONS UNIT OF THE ONTARIO MINISTRY OF CULTURE MUST BE NOTIFIED IMMEDIATELY.
17. ALL NECESSARY CLEARING AND GRUBBING SHALL BE COMPLETED BY THE CONTRACTOR. REVIEW WITH CONTRACT ADMINISTRATOR AND THE CITY OF OTTAWA PRIOR TO ANY TREE CUTTING/REMOVAL.
18. DRAWINGS SHALL BE READ ON CONJUNCTION WITH ARCHITECTURAL SITE PLAN.
19. THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER ON SET OF AS CONSTRUCTED SITE SERVICING AND GRADING DRAWINGS.
20. BENCHMARKS: IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT THE SITE BENCHMARK(S) HAS NOT BEEN ALTERED OR DISTURBED AND THAT ITS RELATIVE ELEVATION AND DESCRIPTION AGREES WITH THE INFORMATION DEPICTED ON THIS PLAN.

EROSION AND SEDIMENT CONTROL NOTES

GENERAL

THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES, TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM AND THE RECEIVING WATERCOURSE, DURING CONSTRUCTION ACTIVITIES. THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.

THE CONTRACTOR ACKNOWLEDGES THAT SURFACE EROSION AND SEDIMENT RUNOFF RESULTING FROM THEIR CONSTRUCTION OPERATIONS HAS POTENTIAL TO CAUSE A DETRIMENTAL IMPACT TO ANY DOWNSTREAM WATERCOURSE OR SEWER, AND THAT ALL CONSTRUCTION OPERATIONS THAT MAY IMPACT UPON WATER QUALITY SHALL BE CARRIED OUT IN MANNER THAT STRICTLY MEETS THE REQUIREMENT OF ALL APPLICABLE LEGISLATION AND REGULATIONS.

AS SUCH, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CARRYING OUT THEIR OPERATIONS, AND SUPPLYING AND INSTALLING ANY APPROPRIATE CONTROL MEASURES, SO AS TO PREVENT SEDIMENT LADEN RUNOFF ENTERING ANY SEWER OR WATERCOURSE WITHIN OR DOWNSTREAM OF THE WORKING AREA.

THE CONTRACTOR ACKNOWLEDGES THAT NO ONE MEASURE IS LIKELY TO BE 100% EFFECTIVELY FOR EROSION PROTECTION AND CONTROLLING SEDIMENT RUNOFF AND DISCHARGES FROM THE SITE. THEREFORE, WHERE NECESSARY THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL MEASURES ARRANGED IN SUCH MANNER AS TO MITIGATE SEDIMENT RELEASE FROM THE CONSTRUCTION OPERATIONS AND ACHIEVE SPECIFIC MAXIMUM PERMITTED CRITERIA WHERE APPLICABLE. SUGGESTED ON-SITE MEASURES MAY INCLUDE, BUT SHALL NOT BE LIMITED TO, THE FOLLOWING METHODS: SEDIMENT PONDS, FILTER BAGS, PUMP FILTERS, SETTLING TANKS, SILT FENCE, STRAW BALES, FILTER CLOTHS, CATCH BASIN FILTERS, CHECK DAMS AND/OR OTHER RECOGNIZED TECHNOLOGIES AND METHOD AVAILABLE AT THE TIME OF CONSTRUCTION. SPECIFIC MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH REQUIREMENTS OF OPSS 577 WHERE APPROPRIATE, OR IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

WHERE, IN THE OPINION OF THE CONTRACT ADMINISTRATOR OR REGULATORY AGENCY, THE INSTALLED CONTROL MEASURES FAIL TO PERFORM ADEQUATELY, THE CONTRACTOR SHALL SUPPLY AND INSTALL ADDITIONAL OR ALTERNATIVE MEASURES AS DIRECTED BY THE CONTRACT ADMINISTRATOR OR REGULATORY AGENCY, AS SUCH, THE CONTRACTOR SHALL HAVE ADDITIONAL CONTROL MATERIALS ON SITE AT ALL TIME WHICH ARE EASILY ACCESSIBLE AND MAY BE IMPLEMENTED BY HIM AT THE MOMENT'S NOTICE.

PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL SUBMIT TO THE CONTRACT ADMINISTRATOR SIX COPIES OF A DETAILED EROSION AND SEDIMENT CONTROL PLAN (ESCP). THE ESCP WILL CONSIST OF WRITTEN DESCRIPTION AND DETAILED DRAWINGS INDICATING THE ON-SITE ACTIVITIES AND MEASURES TO BE USED TO CONTROL EROSION AND SEDIMENT MOVEMENT FOR EACH STEP OF THE WORK.

CONTRACTOR'S RESPONSIBILITIES

THE CONTRACTOR SHALL ENSURE THAT ALL WORKERS, INCLUDING SUB-CONTRACTOR, IN THE WORKING ARE ARE AWARE OF THE IMPORTANCE OF THE EROSION AND SEDIMENT CONTROL MEASURES AND INFORMED OF THE CONSEQUENCES OF THE FAILURE TO COMPLY WITH THE REQUIREMENTS OF ALL REGULATORY AGENCIES.

THE CONTRACTOR SHALL PERIODICALLY (WEEKLY), AND WHEN REQUESTED BY THE CONTRACT ADMINISTRATOR, CLEAN OUT ACCUMULATED SEDIMENT DEPOSITS AS REQUIRED AT THE SEDIMENT CONTROL DEVICES, INCLUDING THOSE DEPOSITS THAT MAY ORIGINATE FROM OUTSIDE THE CONSTRUCTION AREA. ACCUMULATED SEDIMENT SHALL BE REMOVED IN SUCH A MANNER THAT PREVENTS THE DEPOSITION OF THIS MATERIAL INTO THE WATERCOURSE AND AVOIDS DAMAGE TO EXISTING SITE FEATURES. THE SEDIMENT SHALL BE REMOVED FROM THE SITE AT THE CONTRACTOR'S EXPENSE AND MANAGED IN COMPLIANCE WITH REQUIREMENTS FRO EXCESS EARTH MATERIAL, AS SPECIFIED ELSEWHERE IN THE CONTRACT.

THE CONTRACTOR IS REQUIRED TO IMPLEMENT SEDIMENT AND EROSION CONTROL MEASURES AT LEAST ONE WEEK BEFORE THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. THESE MEASURES SHOULD BE THOROUGHLY INSTALLED TO EFFECTIVELY MANAGE SOIL EROSION AND SEDIMENT RUNOFF. FOLLOWING INSTALLATION, THE CONTRACTOR MUST CONDUCT INSPECTIONS OF THESE CONTROL MEASURES ON A WEEKLY BASIS TO ENSURE THEIR ONGOING EFFECTIVENESS AND FUNCTIONALITY.

IN ADDITION TO THE REGULAR WEEKLY INSPECTIONS, THE CONTRACTOR MUST ALSO CARRY OUT ADDITIONAL INSPECTIONS IN THE AFTERMATH OF ANY MAJOR RAINFALL EVENTS. THIS WILL HELP ASSESS THE PERFORMANCE OF THE EROSION CONTROL MEASURES UNDER INCREASED WATER FLOW CONDITIONS. ANY DEFICIENCIES OR DAMAGES IDENTIFIED DURING THESE INSPECTIONS MUST BE PROMPTLY REPAIRED TO MAINTAIN COMPLIANCE AND ENSURE THE INTEGRITY OF THE CONSTRUCTION SITE.

THE CONTRACTOR SHALL PERIODICALLY, AND WHEN REQUESTED BY THE CONTRACT ADMINISTRATOR, CLEAN OUT ACCUMULATED SEDIMENT DEPOSITS AS REQUIRED AT THE SEDIMENT CONTROL DEVICES, INCLUDING THOSE DEPOSITS THAT MAY ORIGINATE FROM OUTSIDE THE CONSTRUCTION AREA. ACCUMULATED SEDIMENT SHALL BE REMOVED IN SUCH A MANNER THAT PREVENTS THE DEPOSITION OF THIS MATERIAL INTO THE SEWER WATERCOURSE AND AVOIDS DAMAGE TO CONTROL MEASURES. THE SEDIMENT SHALL BE REMOVED FROM THE SITE AT THE CONTRACTOR'S EXPENSE AND MANAGED IN COMPLIANCE WITH REQUIREMENTS FRO EXCESS EARTH MATERIAL, AS SPECIFIED ELSEWHERE IN THE CONTRACT.

THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE CONTRACT ADMINISTRATOR ANY ACCIDENTAL DISCHARGES OF SEDIMENT MATERIAL INTO EITHER THE WATERCOURSE OR THE STORM SEWER SYSTEM. FAILURE TO REPORT WILL BE CONSTITUTE A BRACH OF THIS SPECIFICATION AND THE CONTRACTOR MAY ALSO BE SUBJECT TO THE PENALTIES IMPOSED BY THE APPLICABLE REGULATORY AGENCY. APPROPRIATE RESPONSE MEASURES, INCLUDING ANY REPAIRS TO EXISTING CONTROL MEASURES OR THE IMPLEMENTATION OF ADDITIONAL CONTROL MEASURES, SHALL BE CARRIED OUT BY THE CONTRACTOR WITHOUT DELAY.

THE SEDIMENT CONTROL MEASURES SHALL ONLY BE REMOVED WHEN, IN THE OPINION OF THE CONTRACT ADMINISTRATOR, THE MEASURE OR MEASURES, IS NO LONGER REQUIRED. NO CONTROL MEASURE MAY BE PERMANENTLY REMOVED WITHOUT PRIOR AUTHORIZATION FROM THE CONTRACT ADMINISTRATOR. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED IN A MANNER THAT AVOIDS THE ENTRY OF ANY EQUIPMENT, OTHER THAN HAND-HELD EQUIPMENT, INTO ANY WATERCOURSE, AND PREVENTS THE RELEASE OF ANY SEDIMENT OR DEBRIS INTO ANY SEWER OR WATERCOURSE WITHIN OR DOWNSTREAM OF THE WORKING AREA. ALL ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE WORKING AREA AT THE CONTRACTOR'S EXPENSE AND MANAGED IN COMPLIANCE WITH THE REQUIREMENTS FOR EXCESS EARTH MATERIAL

WHERE, IN THE OPINION OF EITHER THE CONTRACT ADMINISTRATOR OR A REGULATORY AGENCY, ANY OF THE TERMS SPECIFIED HEREIN HAVE NOT BEEN COMPLIED WITH OR PERFORMED IN A SUITABLE MANNER, OR TAT ALL, THE CONTRACTOR ADMINISTRATOR OR A REGULATORY AGENCY HAS THE RIGHT TO IMMEDIATELY WITHDRAW ITS PERMISSION TO CONTINUE THE WORK BUT MAY RENEW ITS PERMISSION UPON BEING SATISFIED THAT THE DEFAULTS OR DEFICIENCIES IN THE PERFORMANCE OF THIS SPECIFICATION BY THE CONTRACTOR HAVE BEEN REMEDIED.

SPILL CONTROL NOTES

1. ALL CONSTRUCTION EQUIPMENT SHALL BE RE-FUELED, MAINTAINED, AND STORED NO LESS THAN 30 METRES FROM WATERCOURSE, STEAMS, CREEKS, WOODLOTS, AND ANY ENVIRONMENTALLY SENSITIVE AREAS, OR AS OTHERWISE SPECIFIED.
2. THE CONTRACTOR MUST IMPLEMENT ALL NECESSARY MEASURES IN ORDER TO PREVENT LEAKS, DISCHARGES OR SPILLS OF POLLUTANTS, DELETERIOUS MATERIALS, OR OTHER SUCH MATERIALS OR SUBSTANCES WHICH WOULD OR COULD CAUSE AN ADVERSE IMPACT TO THE NATURAL ENVIRONMENT.
3. IN THE EVENT OF A LEAK, DISCHARGE OR SPILL OF POLLUTANT, DELETERIOUS MATERIAL OR OTHER SUCH MATERIAL OR SUBSTANCE WHICH WOULD OR COULD CAUSE AN ADVERSE IMPACT TO THE NATURAL ENVIRONMENT, THE CONTRACTOR SHALL:
   - 3.1. IMMEDIATELY NOTIFY APPROPRIATE FEDERAL, PROVINCIAL, AND LOCAL GOVERNMENT MINISTRIES, DEPARTMENTS, AGENCIES, AND AUTHORITIES OF THE INCIDENT IN ACCORDANCE WITH ALL CURRENT LAWS, LEGISLATION, ACTS, BY-LAWS, PERMITS, APPROVALS, ETC.
   - 3.2. TAKE IMMEDIATE MEASURES TO CONTAIN THE MATERIAL OR SUBSTANCE, AND TO TAKE SUCH MEASURES TO MITIGATE AGAINST ADVERSE IMPACTS TO THE NATURAL ENVIRONMENT.
   - 3.3. RESTORE THE AFFECTED AREA TO THE ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE AUTHORITIES HAVING JURISDICTION.

MUD MAT NOTES

1. THE GRANULAR MATERIAL WILL REQUIRE PERIODIC REPLACEMENT AS IT BECOMES CONTAMINATED BY VEHICLE TRAFFIC.
2. SEDIMENT SHALL BE CLEANED FROM PUBLIC ROADS AT THE END OF EACH DAY.
3. SEDIMENT SHALL BE REMOVED FROM PUBLIC ROADS BY SHOVELING OR SWEEPING AND DISPOSED OR PROPERLY IN A CONTROLLED SEDIMENT DISPOSAL AREA.

SITE GRADING NOTES

1. PRIOR TO THE COMMENCEMENT OF THE SITE GRADING WORKS, ALL SILTATION CONTROL DEVICES SHALL BE INSTALLED AND OPERATIONAL PER EROSION CONTROL PLAN.
2. ALL GRANULAR AND PAVEMENT FOR ROADS/PARKING AREAS SHALL BE CONSTRUCTED IN ACCORDANCE WITH GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
3. ALL TOPSOIL AND ORGANIC MATERIAL SHALL BE STRIPPED WITHIN THE ROAD AND PARKING AREAS ALLOWANCE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
4. CONCRETE CURB SHALL BE IN ACCORDANCE WITH THE CITY OF OTTAWA STD. SC1.1 PROVISION SHALL BE MADE OR CURB DEPRESSIONS AS INDICATED ON ARCHITECTURAL SITE PLAN. CONCRETE SIDEWALK SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD SC1.4. ALL CURBS, CONCRETE ISLANDS, AND SIDEWALKS SHOWN O THIS DRAWING ARE TO BR PRICED IN SITE WORKS PORTION OF THE CONTRACT.
5. PAVEMENT REINSTATEMENT FOR SERVICE AND UTILITY CUTS SHALL BE IN ACCORDANCE WITH THE CITY OF OTTAWA STD. R10 AND OPSD 509.010 AND OPSS 310.
6. GRANULAR 'A' SHALL BE PLACED TO A MINIMUM THICKNESS OF 30MM AROUND ALL STRUCTURES WITHIN THE PAVEMENT AREA.
7. SUB-EXCAVATE SOFT AREAS AND FILL WITH GRANULAR 'B' COMPACTED IN MAXIMUM 30MM LIFTS.
8. ALL WORK ON THE MUNICIPAL RIGHT OF WAY AND EASEMENTS TO BE INSPECTED BY THE MUNICIPALITY PRIOR BACKFILLING.
9. CONTRACTOR TO OBTAIN A ROAD OCCUPANCY PERMIT 48 HOURS PRIOR TO COMMENCING ANY WORK WITHIN THE MUNICIPAL ROAD ALLOWANCE, IF REQUIRED BY THE MUNICIPALITY.
10. ALL PAVEMENT MARKING FEATURES AND SITE SIGNAGE SHALL BE PLACED PER ARCHITECTURAL SITE PLAN. LINE PAINTING AND DIRECTIONAL SYMBOLS SHALL BE APPLIED WITH A MINIMUM OF TWO COATS OF ORGANIC SOLVENT PAINT.
11. REFER TO ARCHITECTURAL SITE PLAN FOR DIMENSIONS AND SITE DETAILS.
12. STEP JOINTS ARE TO BE USED WHERE PROPOSED ASPHALT MEETS EXISTING ASPHALT. ALL JOINTS MUST BE SEALED.
13. SIDEWALKS TO BE 13MM & BEVELED AT 2:1 OR 6MM WITH NO BEVEL REQUIRED BELOW THE FINISHED FLOOR SLAB ELEVATION AT ENTRANCES REQUIRED TO BE BARRIER-FREE, UNLESS OTHERWISE NOTED. ALL IN ACCORDANCE WITH OBC 3.8.1.3 & OTTAWA ACCESSIBILITY DESIGN STANDARDS.
14. WHERE APPLICABLE THE CONTRACTOR IS TO SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION. SHOP DRAWINGS MUST BE SITE SPECIFIC, SIGNED AND SEALED BY A LICENSED STRUCTURAL ENGINEER. THE CONTRACTOR WILL ALSO BE REQUIRED TO SUPPLY AND GEOTECHNICAL CERTIFICATION OF THE AS-CONSTRUCTED RETAINING WALL TO THE ENGINEER PRIOR TO FINAL ACCEPTANCE.

ROADWORK SPECIFICATIONS

15. ROADWORK TO BE COMPLETED IN ACCORDANCE WITH GEOTECHNICAL REPORT, PREPARED BY LRL ASSOCIATES. DATED NOVEMBER 2020.
16. AL TOPSOIL AND ORGANIC MATERIAL SHALL BE STRIPPED WITHIN THE ROAD ALLOWANCE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND STOCK PILLED ON SITE AS DIRECTED BY NATIONAL MUNICIPALITY.
17. THE SUBGRADE SHALL BE CROWNED AND SLOPED AT LEAST 2% AND PROOF ROLLED WITH HEAVY ROLLERS.
18. SUB-EXCAVATE SOFT AREAS AND FILL WITH GRANULAR 'A', TYPE II COMPACTED IN MAXIMUM 300MM LIFTS.
19. ALL GRANULAR FOR ROADS SHALL BE COMPACTED TO MINIMUM OF 100% STANDARD PROCTOR DENSITY MAXIMUM DRY DENSITY (SPMDD).
20. CONCRETE RAMP C/W TACTILE WALKING SURFACE INDICATORS COMPONENT AS PER OPSD 310.039. TACTILE WALKING SURFACE INDICATORS TO BE INSTALLED AT ALL RAMPS. MATERIAL TO BE POLYMER COMPOSITE, COLOR GREY.

SANITARY, FOUNDATION DRAIN, STORM SEWER AND WATERMAIN NOTES

GENERAL

1. LASER ALIGNMENT CONTROL TO BE UTILIZED ON ALL SEWER INSTALLATIONS.
2. CLAY SEALS TO BE INSTALLED AS PER CITY STANDARD DRAWING S8. THE SEALS SHOULD BE AT LEAST 1.5M LONG (IN THE TRENCH DIRECTION) AND SHOULD EXTEND FROM TRENCH WALL TO TRENCH WALL. THE SEALS SHOULD EXTEND FROM THE FROST LINE AND FULLY PENETRATE THE BEDDING, SUB-BEDDING, AND COVER MATERIAL. THE BARRIERS SHOULD CONSIST OF RELATIVELY DRY AND COMPATIBLE BROWN SILTY CLAY PLACED IN MAXIMUM 225MM LIFTS AND COMPACTED TO A MINIMUM OF 95% SPMDD. THE CLAY SEALS SHOULD BE PLACED AT THE SITE BOUNDARIES AND AT 60M INTERVALS IN THE SERVICE TRENCHES.
3. SERVICES TO BUILDING TO BE TERMINATED 1.0M FROM THE OUTSIDE FACE OF BUILDING UNLESS OTHERWISE NOTED.
4. ALL MAINTENANCE STRUCTURE AND CATCH BASIN EXCAVATIONS TO BE BACKFILLED WITH GRANULAR MATERIAL COMPACTED TO 98% STANDARD PROCTOR DENSITY. A MINIMUM OF 300MM AROUND STRUCTURES.
5. "MODULOC" OR APPROVED PRE-CAST MAINTENANCE STRUCTURE AND CATCH BASIN ADJUSTERS TO BE USED IN LIEU OF BRICKING. PARGE ADJUSTING UNITS ON THE OUTSIDE ONLY.
6. SAFETY PLATFORMS SHALL BE PER OPSD 404.02.
7. DROP STRUCTURES SHALL BE IN ACCORDANCE WITH OPSD 1003.01, IF APPLICABLE.
8. THE CONTRACTOR IS TO PROVIDE CCTV CAMERA INSPECTIONS OF ALL SEWERS, INCLUDING PICTORIAL REPORT, ONE (1) CD COPY AND TWO (2) VIDEO RECORDING IN A FORMAT ACCEPTABLE TO ENGINEER. ALL SEWER ARE TO BE FLUSHED PRIOR TO CAMERA INSPECTION. ASPHALT WEAR COURSE SHALL NOT BE PLACED UNTIL THE VIDEO INSPECTION OF SEWERS AND NECESSARY REPAIRS HAVE BEEN COMPLETED TO THE SATISFACTION OF THE ENGINEER.
9. CONTRACTOR SHALL PERFORM LEAKAGE TESTING, IN THE PRESENCE OF THE CONSULTANT, FOR SANITARY SEWERS IN ACCORDANCE WITH OPSS 407. CONTRACTOR SHALL PERFORM VIDEO INSPECTION OF ALL SEWERS. A COPY OF THE VIDEO AND INSPECTION REPORT SHALL BE SUBMITTED TO THE CONSULTANT FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF WEAR COURSE ASPHALT.

SANITARY

10. ALL SANITARY SEWER INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE CITY OF OTTAWA AND THE ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD), AND SPECIFICATIONS (OPSS).
11. ALL SANITARY GRAVITY SEWER SHALL BE PVC SDR 35, IPEX 'RING-TITE' (OR APPROVED EQUIVALENT) PER CSA STANDARD B182.2 OR LATEST AMENDMENT, UNLESS SPECIFIED OTHERWISE.
12. EXISTING MAINTENANCE STRUCTURES TO BE RE-BENCHED WHERE A NEW CONNECTION IS MADE.
13. SANITARY GRAVITY SEWER TRENCH AND BEDDING SHALL BE PER CITY OF OTTAWA STD. S6 AND S7 CLASS 'B' BEDDING, UNLESS SPECIFIED OTHERWISE.
14. SANITARY MAINTENANCE STRUCTURE FRAME AND COVERS SHALL BE PER CITY OF OTTAWA STD. S24 AND S25.
15. SANITARY MAINTENANCE STRUCTURES SHALL BE BENCHED PER OPSD 701.021.
16. 100MM THICK HIGH-DENSITY GRADE 'A' POLYSTYRENE INSULATION TO BE INSTALLED IN ACCORDANCE WITH CITY STD W22 WHERE INDICATED ON DRAWING SSP-1.

STORM

17. ALL REINFORCED CONCRETE STORM SEWER PIPE SHALL BE IN ACCORDANCE WITH CSA A257.2, OR LATEST AMENDMENT. ALL NON-REINFORCED CONCRETE STORM SEWER PIPE SHALL BE IN ACCORDANCE WITH CSA A257.1, OR LATEST AMENDMENT. PIPE SHALL BE JOINED WITH STD. RUBBER GASKETS AS PER CSA A257.3, OR LATEST AMENDMENT.
18. ALL STORM SEWER TRENCH AND BEDDING SHALL BE IN ACCORDANCE WITH THE CITY OF OTTAWA STD. S6 AND S7 CLASS 'B' UNLESS OTHERWISE SPECIFIED. BEDDING AND COVER MATERIAL SHALL BE SPECIFIED BY PROJECT GEOTECHNICAL ENGINEER.
19. ALL PVC STORM SEWERS ARE TO BE SDR 35 APPROVED PER C.S.A. B182.2 OR LATEST AMENDMENT, UNLESS OTHERWISE SPECIFIED.
20. CATCH BASIN SHALL BE IN ACCORDANCE WITH OPSD 705.010.
21. CATCH BASIN LEADS SHALL BE IN 200MM DIA. AT 1% SLOPE (MIN) UNLESS SPECIFIED OTHERWISE.
22. ALL CATCH BASINS SHALL HAVE 600MM SUMPS, UNLESS SPECIFIED OTHERWISE.
23. ALL CATCH BASIN LEAD INVERTS TO BE 1.5M BELOW FINISHED GRADE UNLESS SPECIFIED OTHERWISE.
24. THE STORM SEWER CLASSES HAVE BEEN DESIGNED BASED ON BEDDING CONDITIONS SPECIFIED ABOVE. WHERE THE SPECIFIED TRENCH WIDTH IS EXCEEDED , THE CONTRACTOR IS REQUIRED TO PROVIDE AND SHALL BE RESPONSIBLE FOR EXTRA TEMPORARY AND/OR PERMANENT REPAIRS MADE NECESSARY BY THE WIDENED TRENCH.
25. ALL ROAD AND PARKING LOT CATCH BASINS TO BE INSTALLED WITH ORTHOGONALLY PLACED SUBDRAINS IN ACCORDANCE WITH DETAIL. PERFORATED SUBDRAIN FOR ROAD AND PARKING LOT CATCH BASIN SHALL BE INSTALLED PER CITY STD R1 UNLESS OTHERWISE NOTED.
26. PERFORATED SUBDRAIN FOR REAR YARD AND LANDSCAPING APPLICATIONS SHALL BE INSTALLED PER CITY STD S29, S30 AND S31, WHERE APPLICABLE.
27. RIP-RAP TREATMENT SEWER AND CULVERT OUTLETS PER OPSD 810.010.
28. ALL STORM SEWER/ CULVERTS TO BE INSTALLED WITH FROST TREATMENT PER OPSD 803.031 WHERE APPLICABLE.
29. ALL STORM MANHOLES WITH PIPE LESS THAN 900MM IN DIAMETER SHALL BE CONSTRUCTED WITH A 300MM SUMP AS PER SDG, CLAUSE 6.2.6.

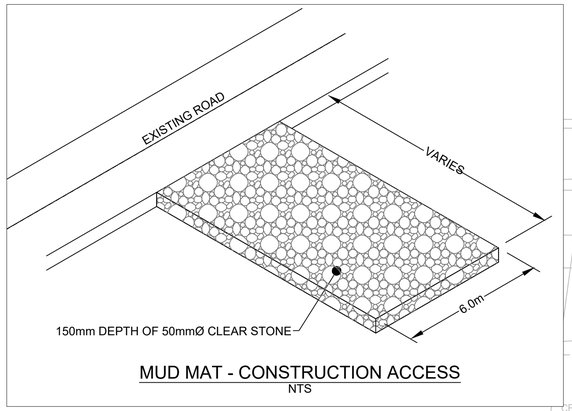
WATERMAIN

30. ALL WATERMAIN INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE CITY OF OTTAWA AND THE ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS).
31. ALL PVC WATERMAINS SHALL BE AWWA C-900 CLASS 150, SDR 18 OR APPROVED EQUIVALENT.
32. ALL WATER SERVICES LESS THAN OR EQUAL TO 50MM IN DIAMETER TO BE TYPE 'K' COPPER.
33. WATERMAIN TRENCH AND BEDDING SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD W17, UNLESS SPECIFIED OTHERWISE. BEDDING AND COVER MATERIAL SHALL BE SPECIFIED BY THE PROJECT GEOTECHNICAL ENGINEER.
34. ALL PVC WATERMAINS, SHALL BE INSTALLED WITH A 10 GAUGE STRANDED COPPER TWU OR RWU TRACER WIRE IN ACCORDANCE WITH CITY OF OTTAWA STD. W.36.
35. CATHODIC PROTECTION IS REQUIRED ON ALL METALLIC FITTINGS PER CITY OF OTTAWA STD.25.5 AND W25.6.
36. VALVE BOXES SHALL BE INSTALLED PER CITY OF OTTAWA STD W24.
37. WATERMAIN IN FILL AREAS TO BE INSTALLED WITH RESTRAINED JOINTS PER CITY OF OTTAWA STD.25.5 AND W25.6.
38. THRUST BLOCKING OF WATERMAINS TO BE INSTALLED PER CITY OF OTTAWA STD. W25.3 AND W25.4.
39. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY CAPS, PLUGS, BLOW-OFFS, AND NOZZLES REQUIRED FOR TESTING AND DISINFECTION OF THE WATERMAIN.
40. WATERMAIN CROSSING OVER AND BELOW SEWERS SHALL BE IN ACCORDANCE WITH THE CITY OF OTTAWA STD. W25.2 AND W25. RESPECTIVELY.
41. WATER SERVICES ARE TO BE INSULATED PER CITY STD. W23 WHERE SEPARATION BETWEEN SERVICES AND MAINTENANCE HOLES ARE LESS THAN 2.4M.
42. THE MINIMUM VERTICAL CLEARANCE BETWEEN WATERMAIN AND SEWER/UTILITY IS 0.5M PER MOE GUIDELINES. FOR CROSSING UNDER SEWERS, ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER IS REQUIRED TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING. THE LENGTH OF WATER PIPE SHALL BE CENTERED AT THE POINT OF CROSSING TO ENSURE THAT THE JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE SEWER.
43. ALL WATERMAINS SHALL HAVE A MINIMUM COVER OR 2.4M, OTHERWISE THERMAL INSULATION IS REQUIRED AS PER STD DWG W22.
44. GENERAL WATER PLANT TO UTILITY CLEARANCE AS PER STD DWG R20.
45. FIRE HYDRANT INSTALLATION AS PER STD DWG W19, ALL BOTTOM OF HYDRANT FLANGE ELEVATIONS TO BE INSTALLED 0.10M ABOVE PROPOSED FINISHED GRADE AT HYDRANT; FIRE HYDRANT LOCATION AS PER STD DWG W18.
46. BUILDING SERVICE TO BE CAPPED 1.0M OFF THE FACE OF THE BUILDING UNLESS OTHERWISE NOTED AND MUST BE RESTRAINED A MINIMUM OF 12M BACK FROM STUB.
47. ALL WATERMAINS SHALL BE HYDROSTATICALLY TESTED IN ACCORDANCE WITH THE CITY OF OTTAWA AND ONTARIO GUIDELINES UNLESS OTHERWISE DIRECTED. PROVISIONS FOR FLUSHING WATER LINE PRIOR TO TESTING, ETC. MUST BE PROVIDED.
48. ALL WATERMAINS SHALL BE BACTERIOLOGICALLY TESTED IN ACCORDANCE WITH THE CITY OF OTTAWA AND ONTARIO GUIDELINES. ALL CHLORINATED WATER TO BE DISCHARGED AND PRETREATED TO ACCEPTABLE LEVELS PRIOR TO DISCHARGE. ALL DISCHARGED WATER MUST BE CONTROLLED AND TREATED SO AS NOT TO ADVERSELY EFFECT ENVIRONMENT. IT IS RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL MUNICIPAL AND/OR PROVINCIAL REQUIREMENTS ARE FOLLOWED.
49. ALL WATERMAIN STUBS SHALL BE TERMINATED WITH A PLUG AND 50MM BLOW OFF UNLESS OTHERWISE NOTED.

USE AND INTERPRETATION OF DRAWINGS

GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION ARE PART OF THE CONTRACT DOCUMENTS AND DESCRIBE USE AND INTENT OF THE DRAWING. THE CONTRACT DOCUMENTS INCLUDE NOT ONLY THE DRAWINGS, BUT ALSO THE OWNER-CONTRACTOR AGREEMENTS, CONDITIONS OF THE CONTRACT, THE SPECIFICATIONS, ADDENDA, AND MODIFICATIONS ISSUED AFTER EXECUTION OF THE CONTRACT. THESE CONTRACT DOCUMENTS ARE COMPLEMENTARY, AND WHAT IS REQUIRED BY ANY ONE SHALL BE BINDING AS IF REQUIRED BY ALL. WORK NOT COMPLETELY DELINEATED HEREON SHALL BE CONSTRUCTED OF THE SAME MATERIALS AND DETAILED SIMILARLY AS WORK SHOWN MORE COMPLETELY ELSEWHERE IN THE CONTRACT DOCUMENTS.

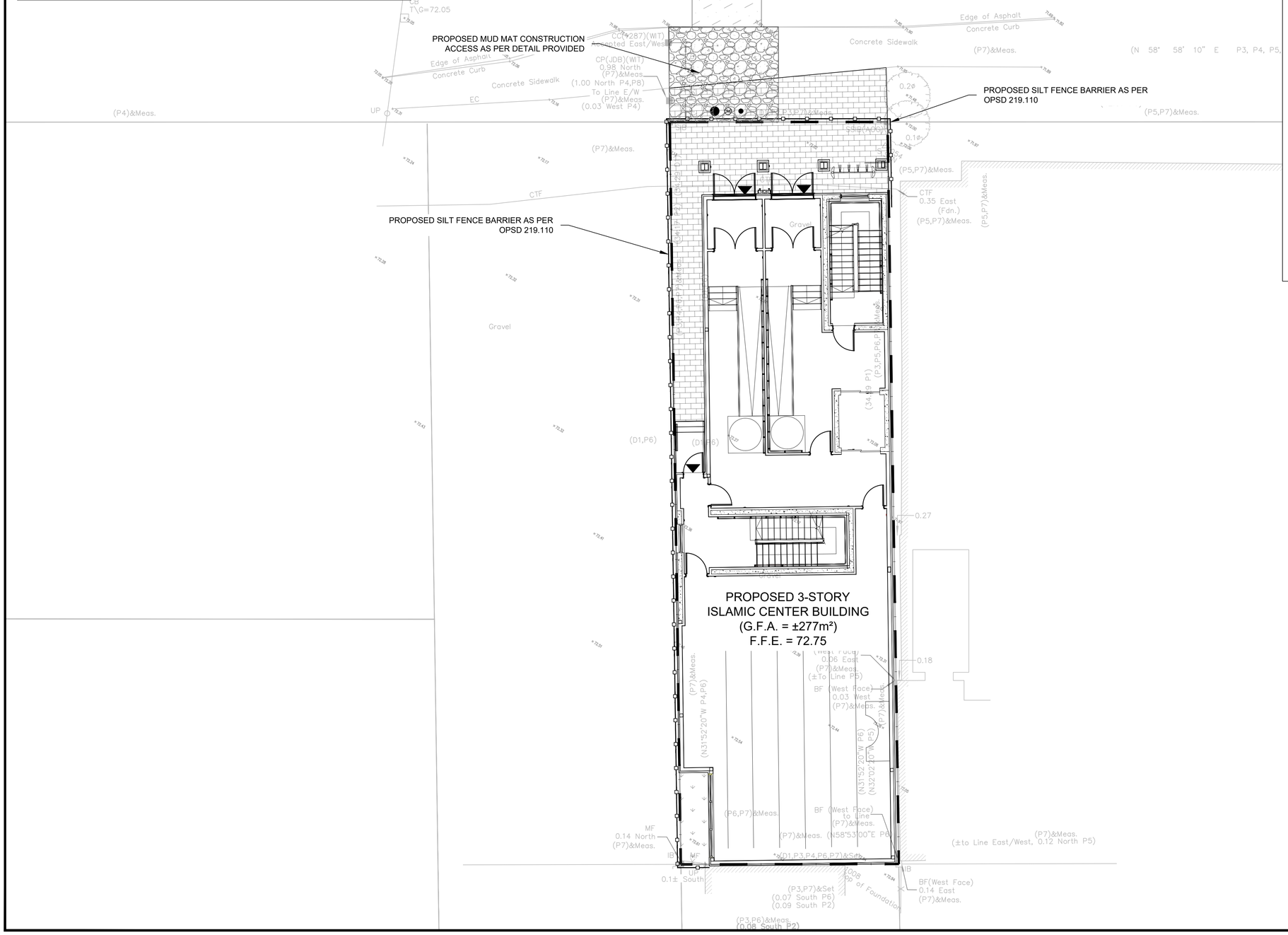
BY USE OF THE DRAWINGS FOR CONSTRUCTION OF THE PROJECT, THE OWN



MUD MAT - CONSTRUCTION ACCESS

NTS

DONWSTREAM MUNICIPAL CATCH BASINS & STORM MANHOLE TO BE EQUIPPED WITH FLEXSTORM CATCH-IT TEMPORARY INLET FILTERS, AS PER DETAIL PROVIDED IN CIVIL PLAN C901.



LEGEND:

- EXISTING PROPERTY LINE TO REMAIN
- PROPOSED SILT FENCE AS PER OPSD 219.110
- PROPOSED DOOR ENTRANCE/EXIT
- PROPOSED GRASS AREA (100mm TOP SOIL & SOD)
- PROPOSED CONCRETE FEATURES/SLAB
- PROPOSED HEAVY DUTY ASPHALT
- PROPOSED LIGHT DUTY ASPHALT
- PROPOSED PAVING STONES (AS PER ARCHITECTURAL PLANS)
- ×50.00 PROPOSED ELEVATION
- ×50.00EX MATCH INTO EXISTING ELEVATION
- ×70.19 EXISTING ELEVATION
- EXISTING OVERLAND MAJOR FLOW ROUTE
- PROPOSED OVERLAND MAJOR FLOW ROUTE
- STM / STM PROPOSED STORM SEWER
- SAN / SAN PROPOSED SANITARY SEWER
- WTR / WTR PROPOSED WATERMAIN
- STM / STM EXISTING STORM SEWER
- SAN / SAN EXISTING SANITARY SEWER
- WTR / WTR EXISTING WATERMAIN
- EXISTING MANHOLE
- EXISTING CATCHBASIN
- PROPOSED MANHOLE
- PROPOSED CURB STOP
- PROPOSED 100 YEAR HIGH WATER LEVEL
- STORM WATERSHED EXTENT
- WS-XX CONTROLLED AREA RUNOFF — WATERSHED NAME; RUNOFF COEFFICIENT; AREA IN HECTARES

USE AND INTERPRETATION OF DRAWINGS

GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION ARE PART OF THE CONTRACT DOCUMENTS AND DESCRIBE USE AND INTENT OF THE DRAWING. THE CONTRACT DOCUMENTS INCLUDE NOT ONLY THE DRAWINGS, BUT ALSO THE OWNER-CONTRACTOR AGREEMENTS, CONDITIONS OF THE CONTRACT, THE SPECIFICATIONS, ADDENDA, AND MODIFICATIONS ISSUED AFTER EXECUTION OF THE CONTRACT. THESE CONTRACT DOCUMENTS ARE COMPLEMENTARY, AND WHAT IS REQUIRED BY ANY ONE SHALL BE BINDING AS IF REQUIRED BY ALL. WORK NOT COMPLETELY DELINEATED HEREON SHALL BE CONSTRUCTED OF THE SAME MATERIALS AND DETAILED SIMILARLY AS WORK SHOWN MORE COMPLETELY ELSEWHERE IN THE CONTRACT DOCUMENTS.

BY USE OF THE DRAWINGS FOR CONSTRUCTION OF THE PROJECT, THE OWNER CONFIRMS THAT HE HAS REVIEWED AND APPROVED THE DRAWINGS. THE CONTRACTOR CONFIRMS THAT HE HAS VISITED THE SITE, FAMILIARIZED HIMSELF WITH THE LOCAL CONDITIONS, VERIFIED FIELD DIMENSIONS AND CORRELATED HIS OBSERVATIONS WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

AS INSTRUMENTS OF SERVICE, ALL DRAWINGS, SPECIFICATIONS, CADD FILES OR OTHER ELECTRONIC MEDIA AND COPIED THERE OF FURNISHED BY THE ENGINEER ARE HIS PROPERTY. THEY ARE TO BE USED ONLY FOR THIS PROJECT AND ARE NOT TO BE USED ON ANY OTHER PROJECT, INCLUDING REPEATS OF THE PROJECT. CHANGES TO THE DRAWINGS MAY ONLY BE MADE BY THE ENGINEER.

UNLESS THE REVISION TITLE IS "ISSUED FOR CONSTRUCTION", THESE DRAWINGS SHALL BE CONSIDERED PRELIMINARY AND SHALL NOT BE USED AS A CONSTRUCTION DOCUMENT.

THESE DRAWINGS ILLUSTRATES THE WORK TO BE DONE. THE ENGINEER IS NOT RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES USED TO DO THE WORK, OR THE SAFETY ASPECTS OF CONSTRUCTION, AND NOTHING ON THESE DRAWINGS EXPRESSED OR IMPLIED CHANGES THIS CONDITION. CONTRACTOR SHALL DETERMINE ALL CONDITIONS AT THE SITE AND SHALL BE RESPONSIBLE FOR KNOWING HOW THEY AFFECT THE WORK. SUBMITTAL OF A BID TO PERFORM THIS WORK IS ACKNOWLEDGEMENT OF THE RESPONSIBILITIES, AND THAT THEY HAVE BEEN FULLY CONSIDERED IN PLANNING OF THE WORK, AND THE BID PRICE. NO CLAIMS FOR EXTRA CHARGES DUE TO THESE CONDITIONS WILL BE FORTHCOMING.

UNAUTHORIZED CHANGES:

IN THE EVENT THE CLIENT, THE CLIENT'S CONTRACTORS OR SUBCONTRACTORS, OR ANYONE FOR WHOM THE CLIENT IS LEGALLY LIABLE MAKES OR PERMITS TO BE MADE ANY CHANGES TO ANY REPORTS, PLANS, SPECIFICATIONS OR OTHER CONSTRUCTION DOCUMENTS PREPARED BY LRL ASSOCIATES LTD. (LRL) WITHOUT OBTAINING LRL'S PRIOR WRITTEN CONSENT, THE CLIENT SHALL ASSUME FULL RESPONSIBILITY FOR THE RESULTS OF SUCH CHANGES. THEREFORE THE CLIENT AGREES TO WAIVE ANY CLAIM AGAINST LRL AND TO RELEASE LRL FROM ANY LIABILITY ARISING DIRECTLY OR INDIRECTLY FROM SUCH UNAUTHORIZED CHANGES.

IN ADDITION, THE CLIENT AGREES, TO THE FULLEST EXTENT PERMITTED BY LAW, TO INDEMNIFY AND HOLD HARMLESS LRL FROM ANY DAMAGES, LIABILITIES OR COST, INCLUDING REASONABLE ATTORNEY'S FEES AND COST OF DEFENSE, ARISING FROM SUCH CHANGES.

IN ADDITION, THE CLIENT AGREES TO INCLUDE IN ANY CONTRACTS FOR CONSTRUCTION APPROPRIATE LANGUAGE THAT PROHIBITS THE CONTRACTOR OR ANY SUBCONTRACTORS OF ANY TIER FROM MAKING ANY CHANGES OR MODIFICATIONS TO LRL'S CONSTRUCTION DOCUMENTS WITHOUT THE PRIOR WRITTEN APPROVAL OF LRL AND THAT FURTHER REQUIRES THE CONTRACTOR TO INDEMNIFY BOTH LRL AND THE CLIENT FROM ANY LIABILITY OR COST ARISING FROM SUCH CHANGES MADE WITHOUT SUCH PROPER AUTHORIZATION.

GENERAL NOTES:

EXISTING SERVICES AND UTILITIES SHOWN ON THESE DRAWINGS ARE TAKEN FROM THE BEST AVAILABLE RECORDS, BUT MAY NOT BE COMPLETE OR TO DATE. CONTRACTOR SHALL VERIFY IN FIELD FOR LOCATION AND ELEVATION OF PIPES AND CHECK WITH THE UTILITY COMPANIES BEFORE DIGGING OR PERFORMING WORK.

CONTRACTOR IS ADVISED TO COLLECT INFORMATION ON SOIL CONDITIONS BEFORE START OF CONSTRUCTION.

THE ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS AND THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW THE ENGINEER'S GUIDANCE WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES AMBIGUITIES OR CONFLICTS WHICH ARE ALLEGED.

CONTRACTOR TO VERIFY ALL DIMENSIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE WORK COMMENCES. DO NOT SCALE DRAWINGS.

2m 0.5 0 2 4m

SCALE: 1:100

NOT FOR CONSTRUCTION TENDER OR PERMIT

No.	REVISIONS	BY	DATE
02	ISSUED FOR SPC	K.H.	02 JUN 2026
01	ISSUED FOR CLIENT APPROVAL	M.S.	07 AUG 2025

LICENSED PROFESSIONAL ENGINEER
M. BASNET
100501996
2026/06/02
PROVINCE OF ONTARIO

NOT AUTHENTIC UNLESS SIGNED AND DATED

LRL
ENGINEERING | INGÉNIERIE
5430 Canotek Road I Ottawa, ON, K1J 9G2
www.lrl.ca I (613) 842-3434

CLIENT
ISLAM CARE CENTER

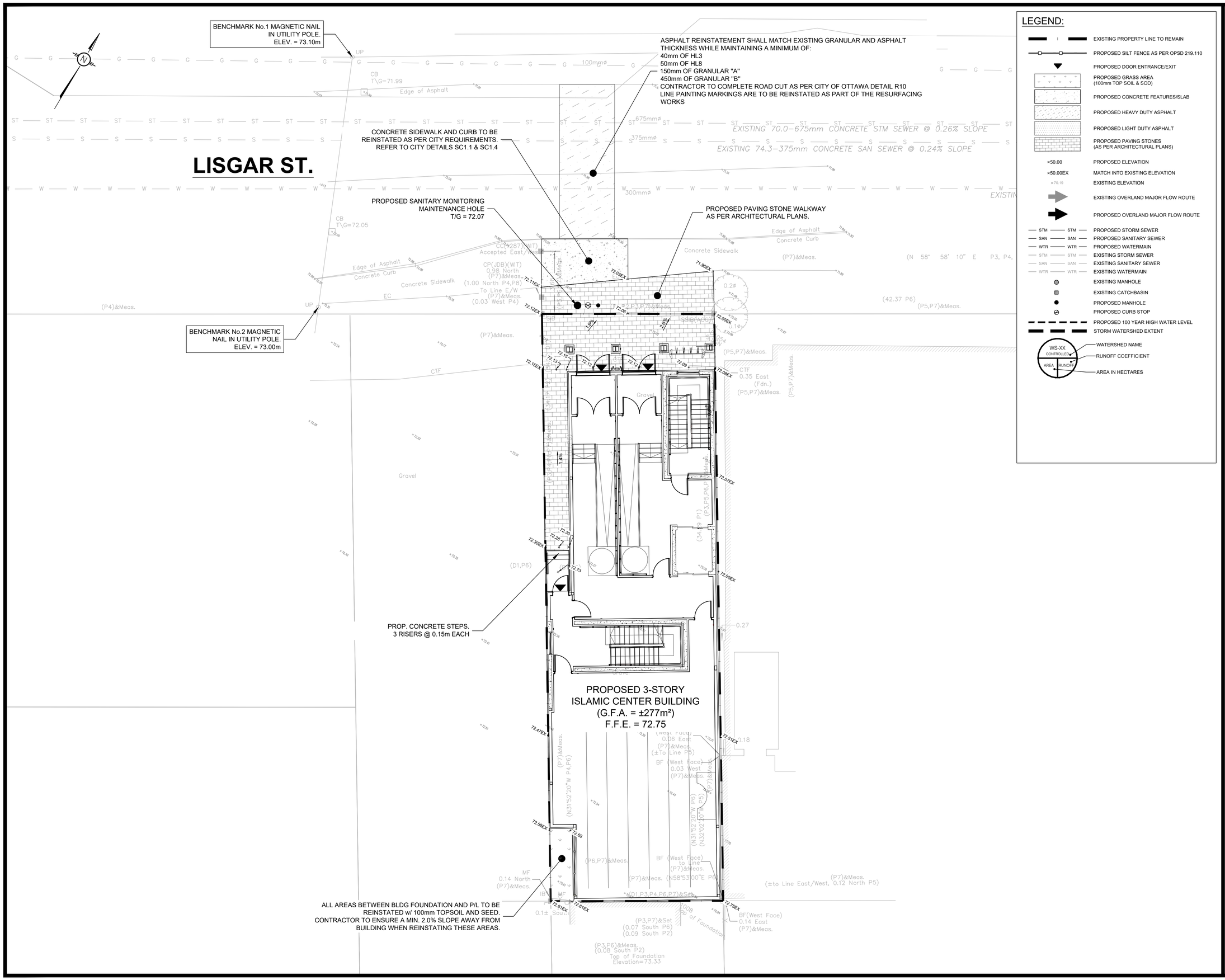
DESIGNED BY:	DRAWN BY:	APPROVED BY:
K.H.	M.S.	M.B.

PROJECT
COMMUNITY CENTER & SITE DEVELOPMENT
312 LISGAR St., ON

DRAWING TITLE
EROSION AND SEDIMENT CONTROL PLAN

PROJECT NO.
250134

C101



LEGEND:

- EXISTING PROPERTY LINE TO REMAIN
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LICENSED PROFESSIONAL ENGINEER
M. BASNET
100501996
2026/06/02
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NOT AUTHENTIC UNLESS SIGNED AND DATED

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DESIGNED BY:	DRAWN BY:	APPROVED BY:
K.H.	M.S.	M.B.

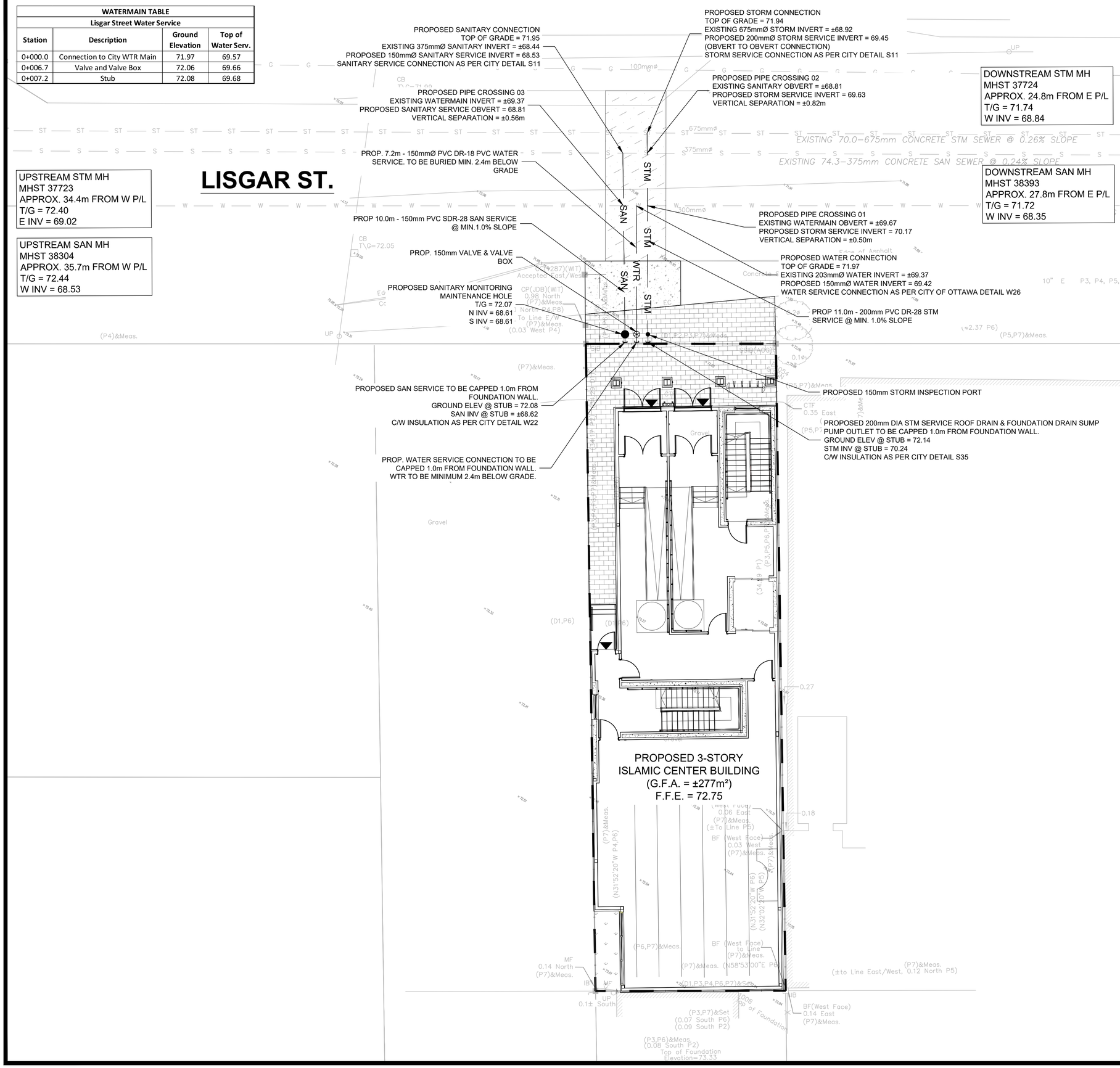
PROJECT
COMMUNITY CENTER & SITE DEVELOPMENT
312 LISGAR St., ON

DRAWING TITLE
GRADING AND DRAINAGE PLAN

PROJECT NO.
250134

C301

WATERMAIN TABLE			
Lisgar Street Water Service			
Station	Description	Ground Elevation	Top of Water Serv.
0+000.0	Connection to City WTR Main	71.97	69.57
0+006.7	Valve and Valve Box	72.06	69.66
0+007.2	Stub	72.08	69.68



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PROJECT
COMMUNITY CENTER & SITE DEVELOPMENT
312 LISGAR St., ON

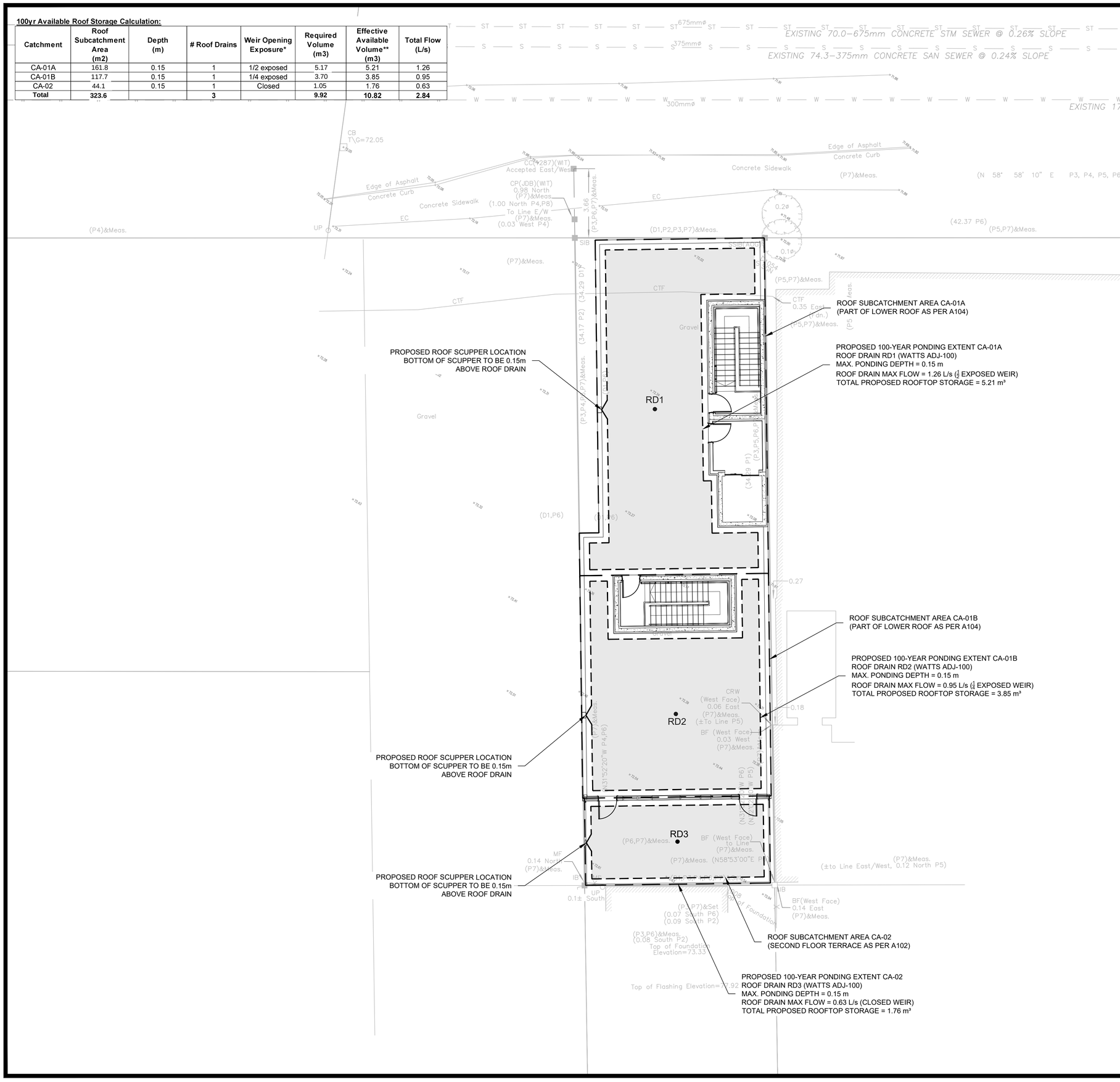
DRAWING TITLE
SERVICING PLAN

PROJECT NO.
250134

C401

100yr Available Roof Storage Calculation:

Catchment	Roof Subcatchment Area (m2)	Depth (m)	# Roof Drains	Weir Opening Exposure*	Required Volume (m3)	Effective Available Volume** (m3)	Total Flow (L/s)
CA-01A	161.8	0.15	1	1/2 exposed	5.17	5.21	1.26
CA-01B	117.7	0.15	1	1/4 exposed	3.70	3.85	0.95
CA-02	44.1	0.15	1	Closed	1.05	1.76	0.63
Total	**323.6**		**3**		**9.92**	**10.82**	**2.84**



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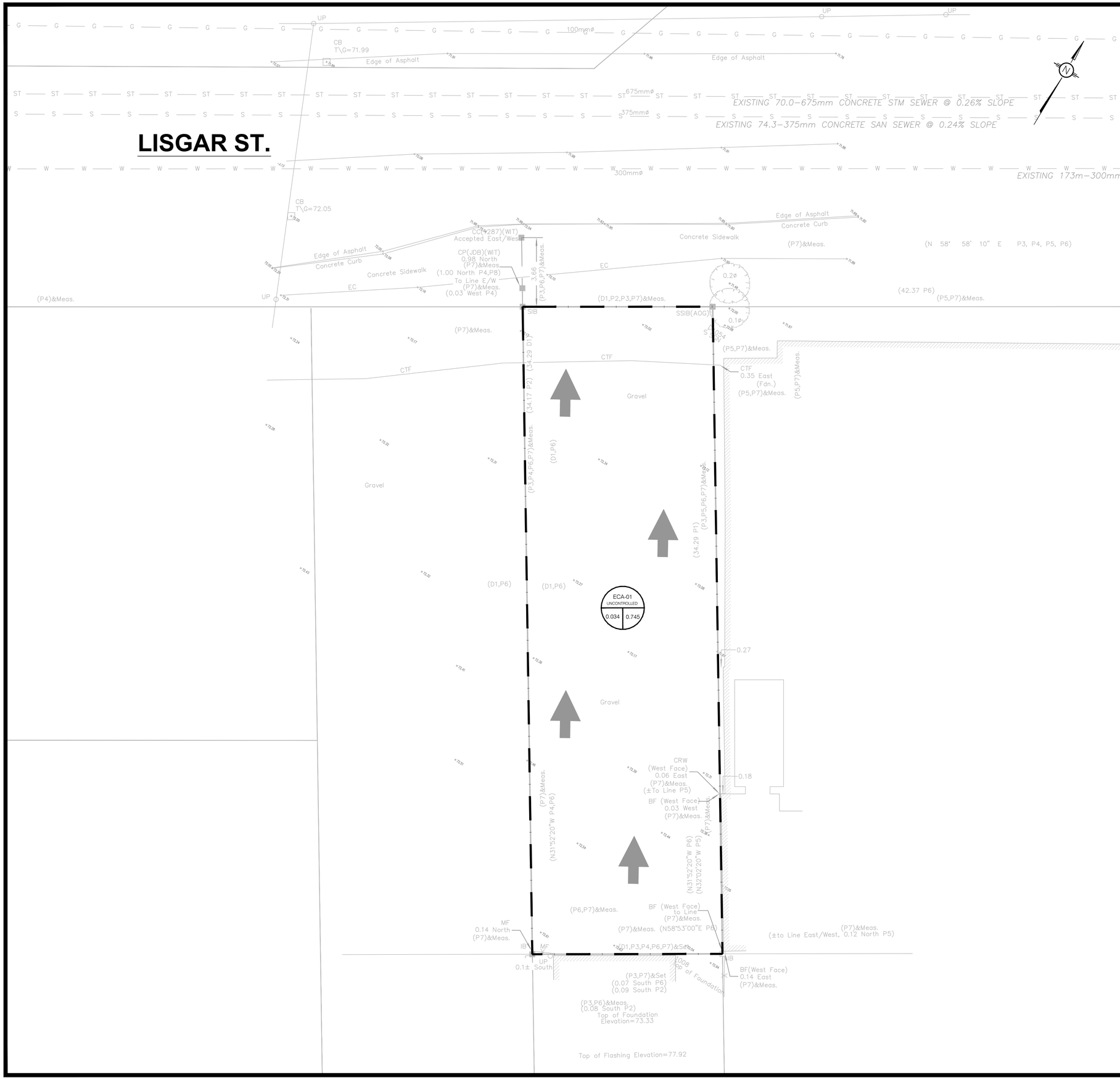
312 LISGAR St., ON

DRAWING TITLE
STORMWATER MANAGEMENT PLAN

PROJECT NO.
250134 C601



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CONTRACTOR IS ADVISED TO COLLECT INFORMATION ON SOIL CONDITIONS BEFORE START OF CONSTRUCTION.

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CONTRACTOR TO VERIFY ALL DIMENSIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE WORK COMMENCES. DO NOT SCALE DRAWINGS.

2m 0.5 0 2 4m
SCALE: 1:100

NOT FOR CONSTRUCTION TENDER OR PERMIT

No.	REVISIONS	BY	DATE
02	ISSUED FOR SPC	K.H.	02 JUN 2026
01	ISSUED FOR CLIENT APPROVAL	M.S.	07 AUG 2025

LICENSED PROFESSIONAL ENGINEER
M. BASNET
100501996
2026/06/02
PROVINCE OF ONTARIO

NOT AUTHENTIC UNLESS SIGNED AND DATED

LRL
ENGINEERING | INGÉNIERIE
5430 Canotek Road | Ottawa, ON, K1J 9G2
www.lrl.ca | (613) 842-3434

CLIENT
ISLAM CARE CENTER

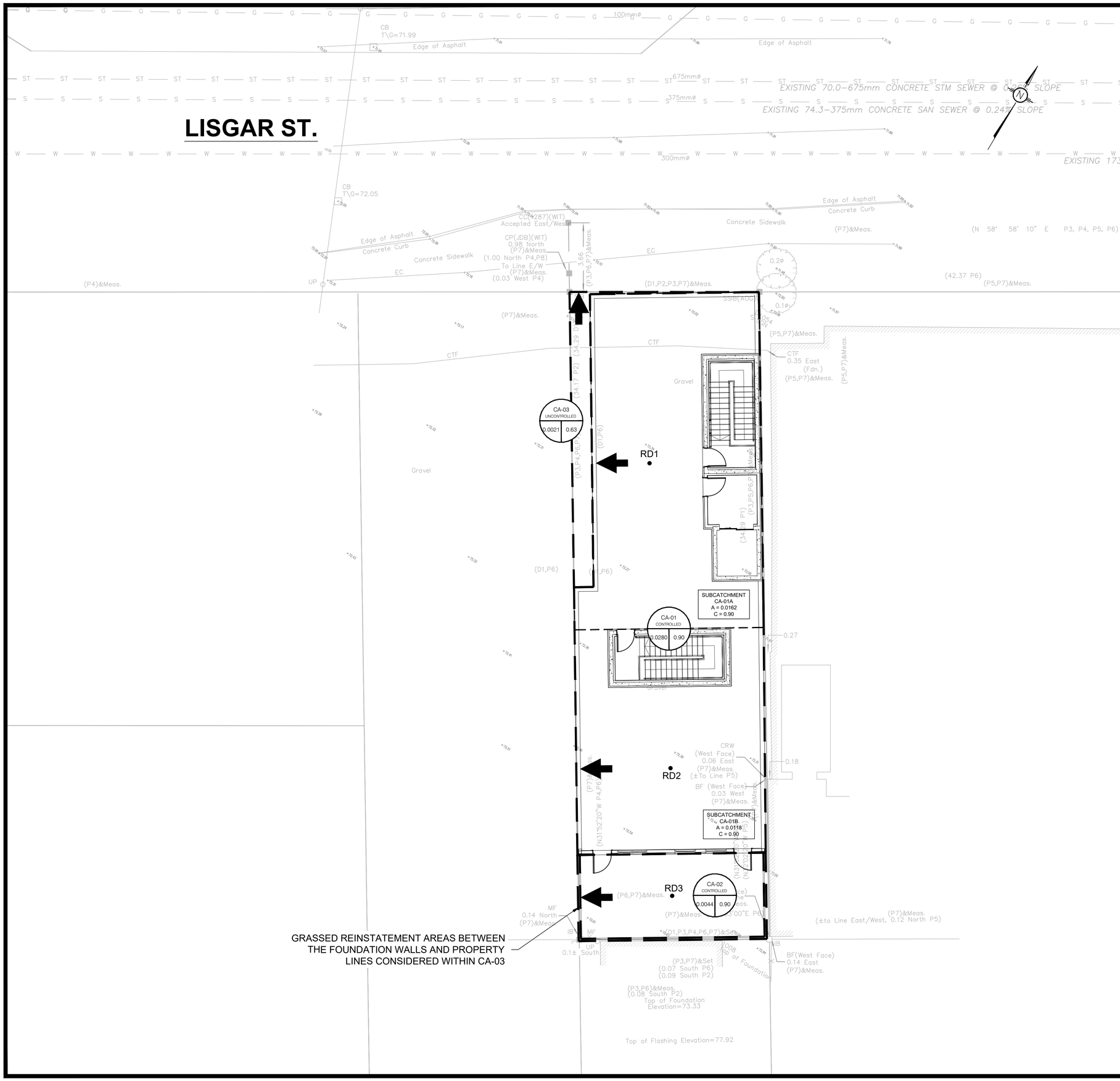
DESIGNED BY:	DRAWN BY:	APPROVED BY:
K.H.	M.S.	M.B.

PROJECT
COMMUNITY CENTER & SITE DEVELOPMENT
312 LISGAR St., ON

DRAWING TITLE
PRE-DEVELOPMENT
WATERSHED PLAN

PROJECT NO.
250134

C701



LEGEND:

- EXISTING PROPERTY LINE TO REMAIN
- PROPOSED SILT FENCE AS PER OPSD 219.110
- PROPOSED DOOR ENTRANCE/EXIT
- PROPOSED GRASS AREA (100mm TOP SOIL & SOD)
- PROPOSED CONCRETE FEATURES/SLAB
- PROPOSED HEAVY DUTY ASPHALT
- PROPOSED LIGHT DUTY ASPHALT
- PROPOSED PAVING STONES (AS PER ARCHITECTURAL PLANS)
- ×50.00 PROPOSED ELEVATION
- ×50.00EX MATCH INTO EXISTING ELEVATION
- ×70.19 EXISTING ELEVATION
- EXISTING OVERLAND MAJOR FLOW ROUTE
- PROPOSED OVERLAND MAJOR FLOW ROUTE
- STM — STM PROPOSED STORM SEWER
- SAN — SAN PROPOSED SANITARY SEWER
- WTR — WTR PROPOSED WATERMAIN
- STM — STM EXISTING STORM SEWER
- SAN — SAN EXISTING SANITARY SEWER
- WTR — WTR EXISTING WATERMAIN
- EXISTING MANHOLE
- EXISTING CATCHBASIN
- PROPOSED MANHOLE
- PROPOSED CURB STOP
- PROPOSED 100 YEAR HIGH WATER LEVEL
- STORM WATERSHED EXTENT
- WS-XX / CONTROLLED / AREA / RUNOFF — WATERSHED NAME; RUNOFF COEFFICIENT; AREA IN HECTARES

USE AND INTERPRETATION OF DRAWINGS

GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION ARE PART OF THE CONTRACT DOCUMENTS AND DESCRIBE USE AND INTENT OF THE DRAWING. THE CONTRACT DOCUMENTS INCLUDE NOT ONLY THE DRAWINGS, BUT ALSO THE OWNER-CONTRACTOR AGREEMENTS, CONDITIONS OF THE CONTRACT, THE SPECIFICATIONS, ADDENDA, AND MODIFICATIONS ISSUED AFTER EXECUTION OF THE CONTRACT. THESE CONTRACT DOCUMENTS ARE COMPLEMENTARY, AND WHAT IS REQUIRED BY ANY ONE SHALL BE BINDING AS IF REQUIRED BY ALL. WORK NOT COMPLETELY DELINEATED HEREON SHALL BE CONSTRUCTED OF THE SAME MATERIALS AND DETAILED SIMILARLY AS WORK SHOWN MORE COMPLETELY ELSEWHERE IN THE CONTRACT DOCUMENTS.

BY USE OF THE DRAWINGS FOR CONSTRUCTION OF THE PROJECT, THE OWNER CONFIRMS THAT HE HAS REVIEWED AND APPROVED THE DRAWINGS. THE CONTRACTOR CONFIRMS THAT HE HAS VISITED THE SITE, FAMILIARIZED HIMSELF WITH THE LOCAL CONDITIONS, VERIFIED FIELD DIMENSIONS AND CORRELATED HIS OBSERVATIONS WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

AS INSTRUMENTS OF SERVICE, ALL DRAWINGS, SPECIFICATIONS, CADD FILES OR OTHER ELECTRONIC MEDIA AND COPIED THERE OF FURNISHED BY THE ENGINEER ARE HIS PROPERTY. THEY ARE TO BE USED ONLY FOR THIS PROJECT AND ARE NOT TO BE USED ON ANY OTHER PROJECT, INCLUDING REPEATS OF THE PROJECT. CHANGES TO THE DRAWINGS MAY ONLY BE MADE BY THE ENGINEER.

UNLESS THE REVISION TITLE IS "ISSUED FOR CONSTRUCTION", THESE DRAWINGS SHALL BE CONSIDERED PRELIMINARY AND SHALL NOT BE USED AS A CONSTRUCTION DOCUMENT.

THESE DRAWINGS ILLUSTRATES THE WORK TO BE DONE. THE ENGINEER IS NOT RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES USED TO DO THE WORK, OR THE SAFETY ASPECTS OF CONSTRUCTION, AND NOTHING ON THESE DRAWINGS EXPRESSED OR IMPLIED CHANGES THIS CONDITION. CONTRACTOR SHALL DETERMINE ALL CONDITIONS AT THE SITE AND SHALL BE RESPONSIBLE FOR KNOWING HOW THEY AFFECT THE WORK. SUBMITTAL OF A BID TO PERFORM THIS WORK IS ACKNOWLEDGEMENT OF THE RESPONSIBILITIES, AND THAT THEY HAVE BEEN FULLY CONSIDERED IN PLANNING OF THE WORK, AND THE BID PRICE. NO CLAIMS FOR EXTRA CHARGES DUE TO THESE CONDITIONS WILL BE FORTHCOMING.

UNAUTHORIZED CHANGES:

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2m 0.5 0 2 4m
SCALE: 1:100

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LICENSED PROFESSIONAL ENGINEER
M. BASNET
100501996
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CLIENT
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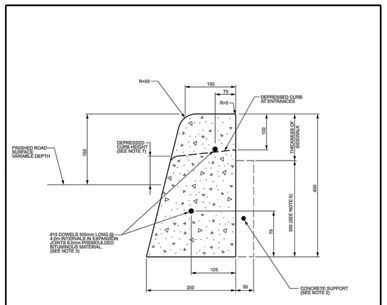
DESIGNED BY:	DRAWN BY:	APPROVED BY:
K.H.	M.S.	M.B.

PROJECT
COMMUNITY CENTER & SITE DEVELOPMENT
312 LISGAR St., ON

DRAWING TITLE
POST-DEVELOPMENT
WATERSHED PLAN

PROJECT NO.
250134

C702

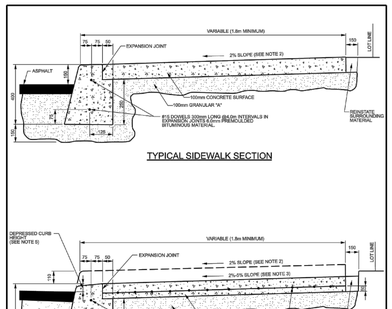


CONCRETE BARRIER CURB

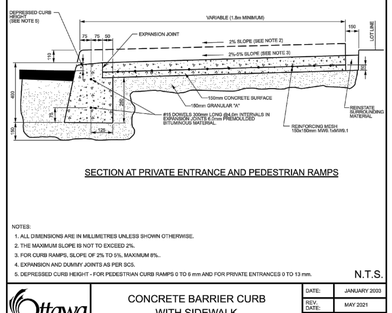
NOTES:
1. THE FULL CURB DEPTH SHALL BE CARRIED THROUGH THE DEPRESSED ACCESS CROSSING.
2. A CONCRETE SUPPORT IS REQUIRED WHEN BUILT ADJACENT TO THE SIDEWALK.
3. IF AN EXTRUSION CURBING MACHINE IS USED, THE EXPANSION BITUMINOUS MATERIAL AND THE #15 DOWELS ARE TO BE PLACED AT THE END OF THE EXTRUSION.
4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
5. DUMMY JOINTS SHALL BE 25mm DEEP, FRONT, BACK AND TOP OF SECTION AT 4m SPACING OR MATCH JOINTING WHERE SIDEWALK IS ADJACENT.
6. FOR DEPRESSED CURB AT ENTRANCES USE 250.
7. DEPRESSED CURB HEIGHT - FOR PEDESTRIAN CURB RAMPS 0 TO 6 mm AND FOR PRIVATE ENTRANCES 0 TO 13mm.

N.T.S.

Ottawa	CONCRETE BARRIER CURB FOR GRANULAR BASE PAVEMENT (MODIFIED OPSD-600.110)	DATE: JANUARY 2003 / REV. DATE: MARCH 2021	DWG. No.: SC1.1



TYPICAL SIDEWALK SECTION

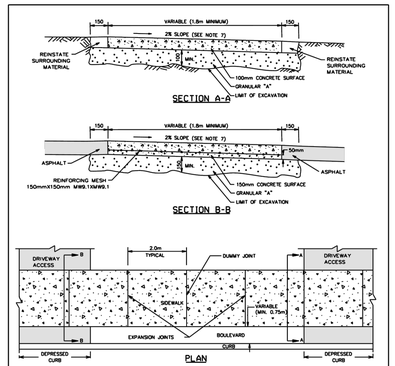


SECTION AT PRIVATE ENTRANCE AND PEDESTRIAN RAMPS

NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
2. THE MAXIMUM SLOPE IS NOT TO EXCEED 2%.
3. FOR CURB RAMPS, SLOPE OF 2% TO 5%, MAXIMUM 8%..
4. EXPANSION AND DUMMY JOINTS AS PER SC5.
5. DEPRESSED CURB HEIGHT - FOR PEDESTRIAN CURB RAMPS 0 TO 6 mm AND FOR PRIVATE ENTRANCES 0 TO 13 mm.

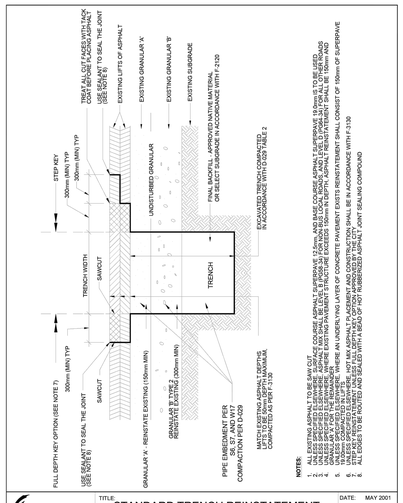
N.T.S.

Ottawa	CONCRETE BARRIER CURB WITH SIDEWALK	DATE: JANUARY 2003 / REV. DATE: MAY 2021	DWG. No.: SC1.4

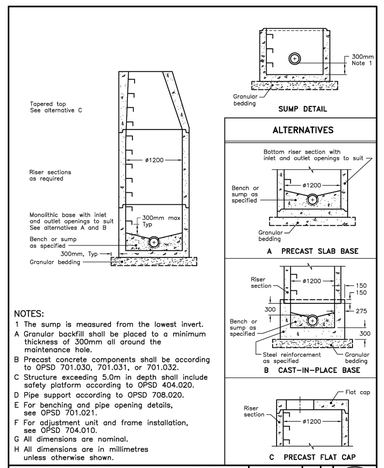


NOTES:
1. CONCRETE AND GRANULAR "A" IS TO BE INCREASED TO 150mm AT THE ENTRANCE AND 150x150mm W9/9.1 x W9/9.1 REINFORCING MESH IS TO BE PLACED MID DEPTH WITHIN DRIVEWAY ACCESS.
2. TRANSVERSE EXPANSION JOINTS ARE REQUIRED AT THE ENDS, THE MIDPOINT, AT INTERVALS OF 4m MAXIMUM, AND ALSO TO ISOLATE OBSTRUCTIONS FROM SIDEWALK, HYDRANTS, BILLBOARDS, ETC.
3. WHEN THE OVERALL SIDEWALK WIDTH EXCEEDS 2.5m, A LONGITUDINAL CONSTRUCTION JOINT SHALL BE CREATED AT ITS MIDPOINT.
4. EDGES AND JOINTS ARE TO BE FINISHED WITH A 75mm EDGING TOOL.
5. ALL CONCRETE SIDEWALKS ARE TO HAVE A BROOM FINISH UNLESS OTHERWISE SPECIFIED.
6. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
7. THE MAXIMUM SLOPE IS NOT TO EXCEED 2%.
8. INSTALL DUMMY TRANSVERSE JOINTS AS REQUIRED SO THERE IS A MAXIMUM SPACING OF 2m BETWEEN ALL JOINTS.
9. SIDEWALK NOT TO BE DEPRESSED ACROSS DRIVEWAY ACCESSES.
10. EXPANSION AND DUMMY JOINTS AS PER SC5

Ottawa	TYPICAL CONCRETE SIDEWALK IN BOULEVARD	DATE: MAY 2001 / REV. DATE: MARCH 2016	DWG. No.: SC4

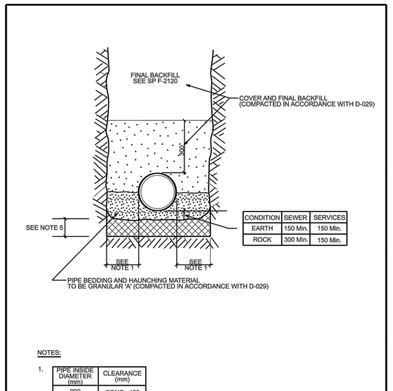


Ottawa	TITLE: STANDARD TRENCH REINSTATEMENT IN PAVED SURFACE	DATE: MAY 2001 / REV: MAR 2023	DWG No: R10



NOTES:
1 The sump is measured from the lowest invert.
A Granular backfill shall be placed to a minimum thickness of 300mm all around the maintenance hole.
B Precast concrete components shall be according to OPSD 701.030, 701.031, or 701.032.
C Structure exceeding 5.0m in depth shall include safety platform according to OPSD 404.020.
D Pipe support according to OPSD 708.020.
E For benching and pipe opening details, see OPSD 701.021.
F For adjustment unit and frame installation, see OPSD 704.010.
G All dimensions are nominal.
H All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2014	Rev 5
PRECAST CONCRETE MAINTENANCE HOLE 1200mm DIAMETER		OPSD 701.010



CONDITION	SEWER	SERVICES
EARTH	150 Min.	150 Min.
ROCK	300 Min.	150 Min.

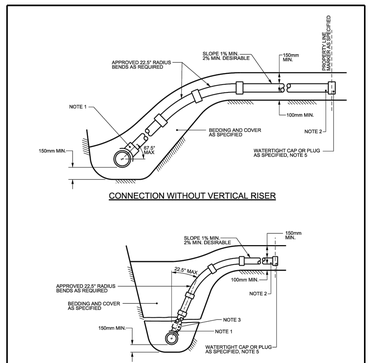
NOTES:
1.

PIPE INSIDE DIAMETER (mm)	CLEARANCE (mm)	
900 OR LESS	CONC	450
	PVC	450
OVER 900	500	

2. FINAL BACKFILL - APPROVED NATIVE MATERIAL OR SELECT SUBGRADE IN ACCORDANCE WITH F-2120.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
4. INITIAL BACKFILL MATERIAL
   - CONCRETE PIPE - GRANULAR 'A', GRANULAR 'B'. OR SELECT SUBGRADE MATERIAL WITH 100% PASSING THE 37.5 mm SIEVE
   - PVC PIPE - GRANULAR 'A'
5. WHEN APPROVED BY THE CONTRACT ADMINISTRATOR, POOR SOILS SHALL BE EXCAVATED TO CREATE A FOUNDATION THAT SHALL BE FILLED TO THE BOTTOM OF THE BEDDING WITH GRANULAR 'B'.

N.T.S.

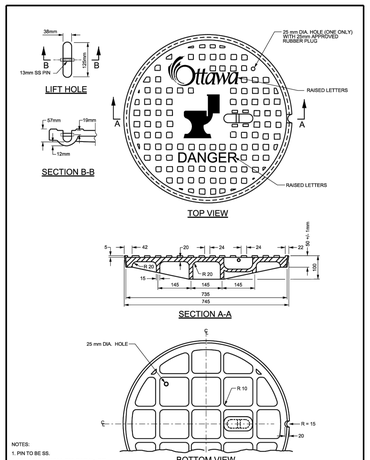
Ottawa	SINGLE TRENCH (SEWER & SEWER SERVICES)	DATE: MAY 2001 / REV. DATE: MARCH 2021	DWG. No.: S6



NOTES:
1. ALL DIAMETERES OF SERVICE CONNECTIONS THAT HAVE NOMINAL DIAMETERS NO GREATER THAN 50% OF THE NOMINAL DIAMETER OF THE RIGID SEWER PIPE SHALL BE MADE USING A BELL END INSERT AS PER S11.2 OR AN APPROVED RUBBER GASKETED INSERT, INSTALLED ABOVE THE SPRING LINE.
2. SANITARY SERVICES TO BE 125mm AND STORM SERVICES TO BE 100mm FOR NEW RESIDENCES UNLESS SPECIFIED OTHERWISE.
3. SERVICE PIPE MATERIALS SHALL BE PVC DR 28 UNLESS OTHERWISE SPECIFIED OR EQUAL TO THE MAIN PIPE WITH PRIOR APPROVAL OF THE CITY.
4. VERTICAL RISER SHALL BE SAME AS SERVICE PIPE UNLESS OTHERWISE SPECIFIED.
5. CAP OR PLUG AT THE PROPERTY LINE SHALL BE ADEQUATELY BRACED TO WITHSTAND TESTING PRESSURE.
6. FOR NEW CONSTRUCTION, INSERTS MUST BE INSTALLED ON THE MAIN PIPE BEFORE THAT PIPE IS LAID. FOR SERVICES/BRANCHES 375mm DIA. OR LESS, APPROVED "CORED TEES" MAY BE USED.
7. APPROVED CUT-IN TOOL MUST BE USED FOR FIELD MADE CONNECTIONS.
8. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

N.T.S.

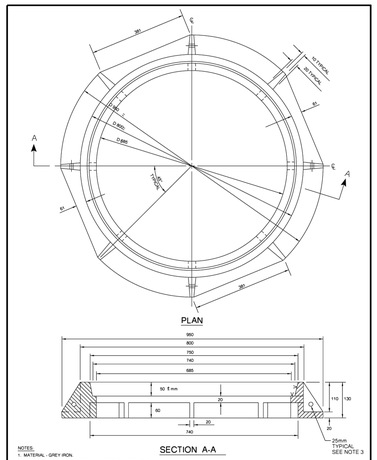
Ottawa	SEWER SERVICE CONNECTIONS FOR RIGID MAIN SEWER PIPE (MODIFIED OPSD-1006.010)	DATE: MARCH 2006 / REV. DATE: MARCH 2014	DWG. No.: S11



NOTES:
1. PIN TO BE SS.
2. FOR FRAME DETAIL SEE DWG No. S25.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

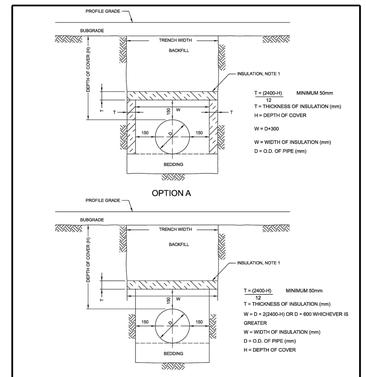
N.T.S.

Ottawa	STANDARD CIRCULAR SANITARY & COMBINED MAINTENANCE HOLE COVER	DATE: MARCH 2008 / REV. DATE: MARCH 2017	DWG. No.: S24



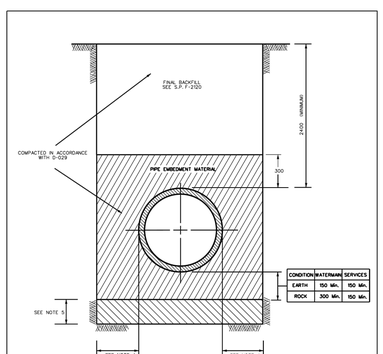
NOTES:
1. MATERIAL - GREY IRON.
2. FOR MAINTENANCE HOLE COVER SEE DWG S24, S24.1, S24.2
3. OPSD 400.01 HOOTING HOOKS ARE ALSO ACCEPTED.
4. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SHOWN.

Ottawa	STANDARD CIRCULAR FRAME FOR MAINTENANCE HOLES (MODIFIED OPSD-401.020)	DATE: MAY 2001 / REV. DATE: MARCH 2019	DWG No.: S25



NOTES:
1. THE INSULATION MATERIAL SHALL BE EXTRUDED POLYSTYRENE ACCORDING TO MNR-19.15 WITH A MINIMUM COMPRESSIVE STRENGTH OF 275 KPA.
2. MINIMUM INSULATION THICKNESS SHALL BE 50MM.
3. JOINTS SHALL BE STAGGERED FOR MULTIPLE INSULATION SHEETS.
4. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

Ottawa	INSULATION FOR SHALLOW SEWERS	DATE: MARCH 2003 / REV. DATE:	DWG. No.: S35



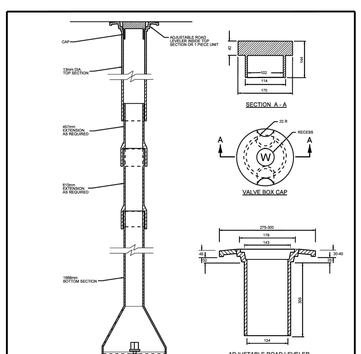
CONDITION	WATERMAIN	SERVICES
EARTH	150 Min.	150 Min.
ROCK	300 Min.	150 Min.

NOTES:
1. PIPE EMBEDMENT MATERIAL - GRANULAR 'A'.
2. FINAL BACKFILL - APPROVED NATIVE MATERIAL OR SELECT SUBGRADE IN ACCORDANCE WITH F-2120
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
4.

PIPE OUTSIDE DIA. (mm)	CLEARANCE (mm)
900 or LESS	450
OVER 900	500

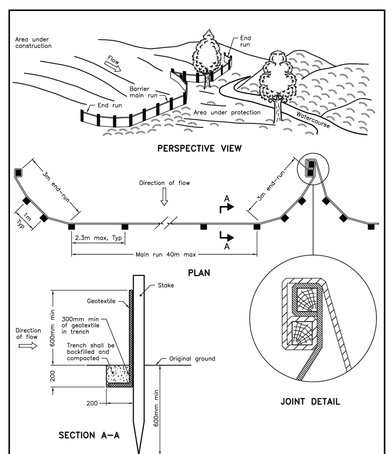
5. WHEN APPROVED BY THE CONTRACT ADMINISTRATOR, POOR SOILS SHALL BE EXCAVATED TO CREATE A FOUNDATION THAT SHALL BE FILLED TO THE BEDDING WITH GRANULAR 'B'.

Ottawa	STANDARD TRENCH DETAIL	DATE: MAY 2001 / REV. DATE: MARCH 2016	DWG. No.: W17



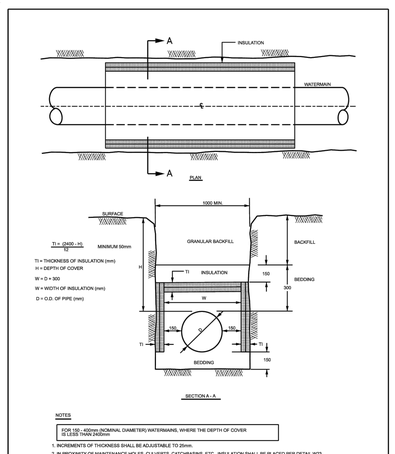
NOTES:
1. FOR AUXILIARY, SERVICES AND ISOLATION VALVES.
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
3. FOR 200 AND 250mm VALVES, ADD BEDDING BELOW THE CONCRETE BLOCKS AS REQUIRED TO RAISE BELL HIGH ENOUGH TO PREVENT CONTACT WITH THE VALVE BONNETS.

Ottawa	VALVE BOX ASSEMBLY	DATE: MAY 2001 / REV. DATE: MARCH 2021	DWG. No.: W21



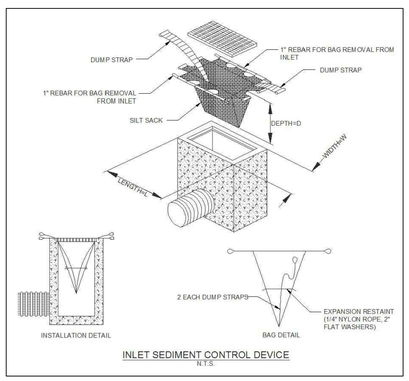
NOTE:
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2021	Rev 3
LIGHT–DUTY SILT FENCE BARRIER		OPSD 219.110

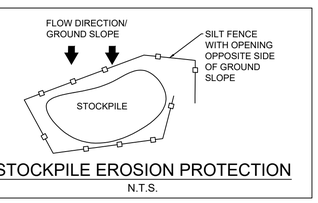


NOTES:
FOR 150 - 400mm (NOMINAL DIAMETER) WATERMAINS, WHERE THE DEPTH OF COVER IS LESS THAN 2400mm
1. INCREMENTS OF THICKNESS SHALL BE ADJUSTABLE TO 25mm.
2. IN PROXIMITY OF MAINTENANCE HOLES, CULVERTS, CATCHBASINS, ETC., INSULATION SHALL BE PLACED PER DETAIL W23
3. DEPTH OF COVER LESS THAN 1300mm REQUIRES SPECIAL DESIGN.
4. STAGGER JOINTS OF MULTIPLE SHEETS.
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
6. INSULATION NOT TO BE USED AS A MEANS TO AVOID EXCAVATION.

Ottawa	THERMAL INSULATION FOR WATERMAINS	DATE: MAY 2001 / REV. DATE: JANUARY 2026	DWG. No.: W22



INLET SEDIMENT CONTROL DEVICE
N.T.S.



STOCKPILE EROSION PROTECTION
N.T.S.

USE AND INTERPRETATION OF DRAWINGS

GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION ARE PART OF THE CONTRACT DOCUMENTS AND DESCRIBE USE AND INTENT OF THE DRAWING. THE CONTRACT DOCUMENTS INCLUDE NOT ONLY THE DRAWINGS, BUT ALSO THE OWNER-CONTRACTOR AGREEMENTS, CONDITIONS OF THE CONTRACT, THE SPECIFICATIONS, ADDENDA, AND MODIFICATIONS ISSUED AFTER EXECUTION OF THE CONTRACT. THESE CONTRACT DOCUMENTS ARE COMPLEMENTARY, AND WHAT IS REQUIRED BY ANY ONE SHALL BE BINDING AS IF REQUIRED BY ALL. WORK NOT COMPLETELY DELINEATED HEREON SHALL BE CONSTRUCTED OF THE SAME MATERIALS AND DETAILED SIMILARLY AS WORK SHOWN MORE COMPLETELY ELSEWHERE IN THE CONTRACT DOCUMENTS.

BY USE OF THE DRAWINGS FOR CONSTRUCTION OF THE PROJECT, THE OWNER CONFIRMS THAT HE HAS REVIEWED AND APPROVED THE DRAWINGS. THE CONTRACTOR CONFIRMS THAT HE HAS VISITED THE SITE, FAMILIARIZED HIMSELF WITH THE LOCAL CONDITIONS, VERIFIED FIELD DIMENSIONS AND CORRELATED HIS OBSERVATIONS WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

AS INSTRUMENTS OF SERVICE, ALL DRAWINGS, SPECIFICATIONS, CADD FILES OR OTHER ELECTRONIC MEDIA AND COPIED THERE OF FURNISHED BY THE ENGINEER ARE HIS PROPERTY. THEY ARE TO BE USED ONLY FOR THIS PROJECT AND ARE NOT TO BE USED ON ANY OTHER PROJECT, INCLUDING REPEATS OF THE PROJECT. CHANGES TO THE DRAWINGS MAY ONLY BE MADE BY THE ENGINEER.

UNLESS THE REVISION TITLE IS "ISSUED FOR CONSTRUCTION", THESE DRAWINGS SHALL BE CONSIDERED PRELIMINARY AND SHALL NOT BE USED AS A CONSTRUCTION DOCUMENT.

THESE DRAWINGS ILLUSTRATES THE WORK TO BE DONE. THE ENGINEER IS NOT RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES USED TO DO THE WORK, OR THE SAFETY ASPECTS OF CONSTRUCTION, AND NOTHING ON THESE DRAWINGS EXPRESSED OR IMPLIED CHANGES THIS CONDITION. CONTRACTOR SHALL DETERMINE ALL CONDITIONS AT THE SITE AND SHALL BE RESPONSIBLE FOR KNOWING HOW THEY AFFECT THE WORK. SUBMITTAL OF A BID TO PERFORM THIS WORK IS ACKNOWLEDGEMENT OF THE RESPONSIBILITIES, AND THAT THEY HAVE BEEN FULLY CONSIDERED IN PLANNING OF THE WORK, AND THE BID PRICE. NO CLAIMS FOR EXTRA CHARGES DUE TO THESE CONDITIONS WILL BE FORTHCOMING.

UNAUTHORIZED CHANGES:

IN THE EVENT THE CLIENT, THE CLIENT'S CONTRACTORS OR SUBCONTRACTORS, OR ANYONE FOR WHOM THE CLIENT IS LEGALLY LIABLE MAKES OR PERMITS TO BE MADE ANY CHANGES TO ANY REPORTS, PLANS, SPECIFICATIONS OR OTHER CONSTRUCTION DOCUMENTS PREPARED BY LRL ASSOCIATES LTD. (LRL) WITHOUT OBTAINING LRL'S PRIOR WRITTEN CONSENT, THE CLIENT SHALL ASSUME FULL RESPONSIBILITY FOR THE RESULTS OF SUCH CHANGES. THEREFORE THE CLIENT AGREES TO WAIVE ANY CLAIM AGAINST LRL AND TO RELEASE LRL FROM ANY LIABILITY ARISING DIRECTLY OR INDIRECTLY FROM SUCH UNAUTHORIZED CHANGES.

IN ADDITION, THE CLIENT AGREES, TO THE FULLEST EXTENT PERMITTED BY LAW, TO INDEMNIFY AND HOLD HARMLESS LRL FROM ANY DAMAGES, LIABILITIES OR COST, INCLUDING REASONABLE ATTORNEY'S FEES AND COST OF DEFENSE, ARISING FROM SUCH CHANGES.

IN ADDITION, THE CLIENT AGREES TO INCLUDE IN ANY CONTRACTS FOR CONSTRUCTION APPROPRIATE LANGUAGE THAT PROHIBITS THE CONTRACTOR OR ANY SUBCONTRACTORS OF ANY TIER FROM MAKING ANY CHANGES OR MODIFICATIONS TO LRL'S CONSTRUCTION DOCUMENTS WITHOUT THE PRIOR WRITTEN APPROVAL OF LRL AND THAT FURTHER REQUIRES THE CONTRACTOR TO INDEMNIFY BOTH LRL AND THE CLIENT FROM ANY LIABILITY OR COST ARISING FROM SUCH CHANGES MADE WITHOUT SUCH PROPER AUTHORIZATION.

GENERAL NOTES:

EXISTING SERVICES AND UTILITIES SHOWN ON THESE DRAWINGS ARE TAKEN FROM THE BEST AVAILABLE RECORDS, BUT MAY NOT BE CORRECT OR TO DATE. CONTRACTOR SHALL VERIFY IN FIELD FOR LOCATION AND ELEVATION OF PIPES AND CHECK WITH THE UTILITY COMPANIES BEFORE DIGGING OR PERFORMING WORK.

CONTRACTOR IS ADVISED TO COLLECT INFORMATION ON SOIL CONDITIONS BEFORE START OF CONSTRUCTION.

THE ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS AND THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW THE ENGINEER'S GUIDANCE WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES AMBIGUITIES OR CONFLICTS WHICH ARE ALLEGED.

CONTRACTOR TO VERIFY ALL DIMENSIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE WORK COMMENCES. DO NOT SCALE DRAWINGS.

NOT FOR CONSTRUCTION TENDER OR PERMIT

No.	REVISIONS	BY	DATE
02	ISSUED FOR SPC	K.H.	02 JUN 2026
01	ISSUED FOR CLIENT APPROVAL	M.S.	07 AUG 2025

LICENSED PROFESSIONAL ENGINEER M. BASNET 100501996 2026/06/02 PROVINCE OF ONTARIO

NOT AUTHENTIC UNLESS SIGNED AND DATED

LRL
ENGINEERING | INGÉNIERIE
5430 Canotek Road I Ottawa, ON, K1J 9G2
www.lrl.ca I (613) 842-3434

CLIENT
ISLAM CARE CENTER

DESIGNED BY:	DRAWN BY:	APPROVED BY:
K.H.	M.S.	M.B.

PROJECT
COMMUNITY CENTER & SITE DEVELOPMENT
312 LISGAR St., ON

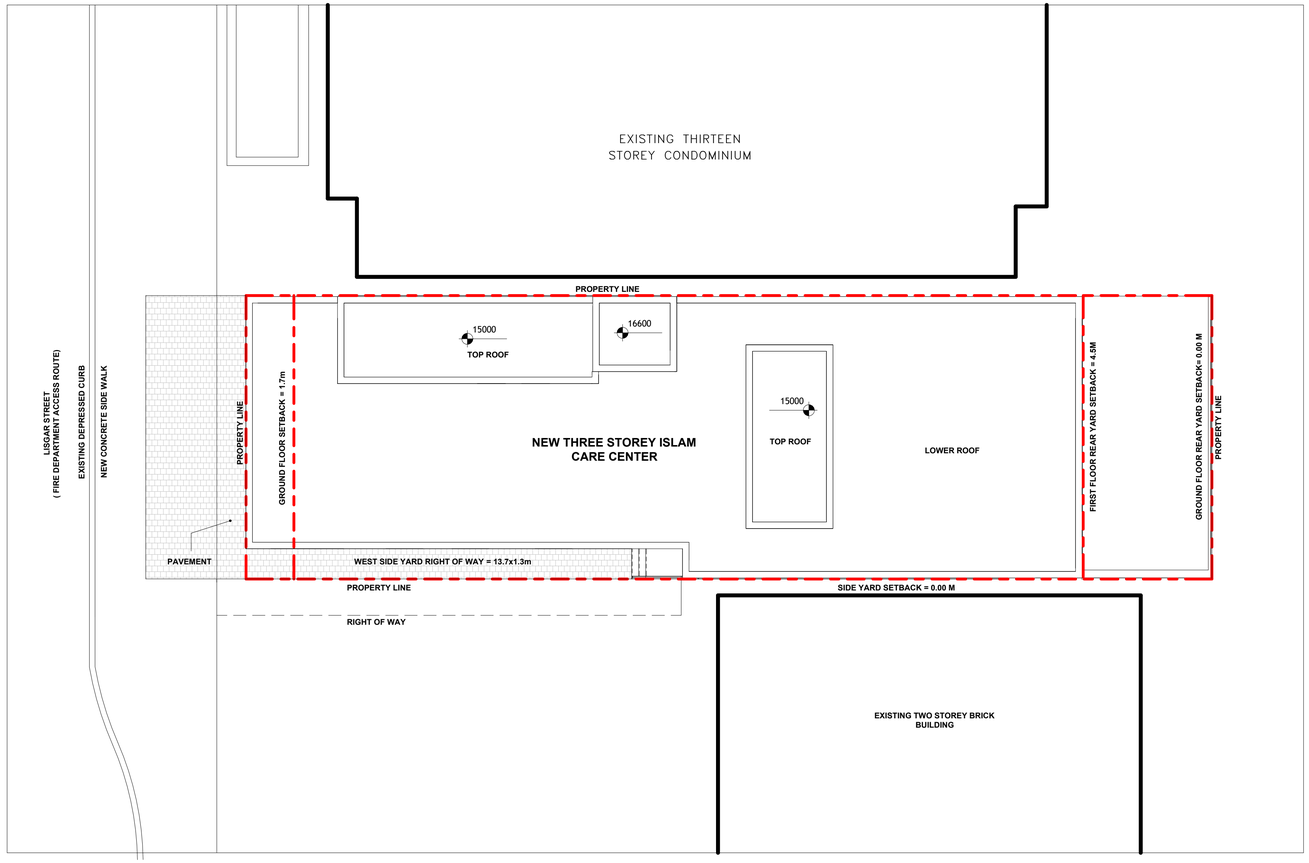
DRAWING TITLE
CONSTRUCTION DETAIL PLAN

PROJECT NO.
250134

C901

APPENDIX F

Proposed Site Plan
Legal Survey
As-builts



1 SITE PLAN
1 : 100

ZONING REQUIREMENTS:

ZONE: ZONING BY-LAY 2012-62 : I1A (1912)
MINIMUM LOT WIDTH : 10.06 m
MINIMUM LOT SIZE : 344.00 m2
MINIMUM FRONT YARD : 1.70 m
MINIMUM REAR YARD : 0.00 m
MINIMUM INTERIOR REAR YARD: 4.50 m (EXCEPT GROUND FLOOR)
MAXIMUM BUILDING HEIGHT : 15.00 m

PROJECT INFORMATION:

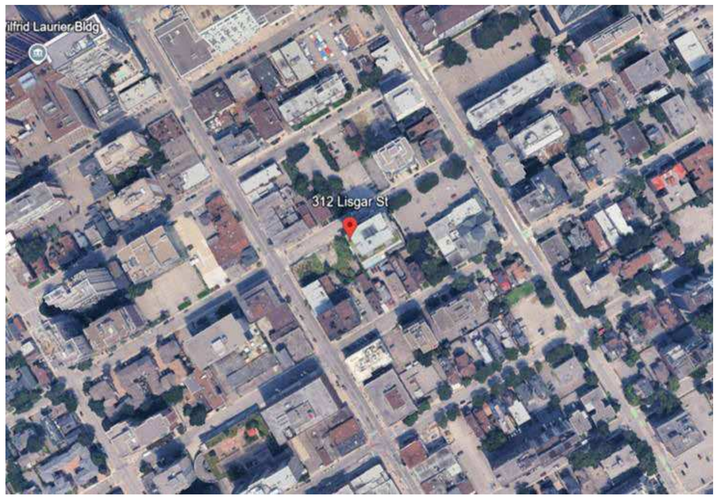
SITE AREA = 340.00 m2
BUILDING AREA =325.6 m2
BUILDING HEIGHT =12.3.00 m

GROSS FLOOR AREA:

BASEMENT = 333.2 m2
GROUND = 280.1 m2
SECOND = 325.6 m2
THIRD = 280.0 m2
ROOF = 280.1 m2
TOTAL =1499.1 m2

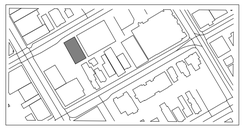
REQUIRED PARKING:
NO PARKING REQUIRED

LANDSCAPE AREA:
FRONT AND SIDE WALK= 34.00 m2



KEY PLAN

ISLAM CARE CENTRE



No.	Description	Date
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03	66% DESIGN DEVELOPMENT	2025-11-12
02	33% REVISED SCHEMATIC DESIGN	2025-07-01
01	33% SCHEMATIC DESIGN	2025-04-15

All measurement are to be checked and verified on site by contractor before proceeding with the work. Do not scale the drawings.

ARCHIcana

Consultant:

Project Name
ISLAM CARE CENTRE

Project number
2501-00

client
ISLAM CARE CENTRE

Drawn by	Date
SA/HQ	JULY 01/25
Checked by	Scale
HA	1 : 100

Sheet Name
SITE PLAN

Sheet Number
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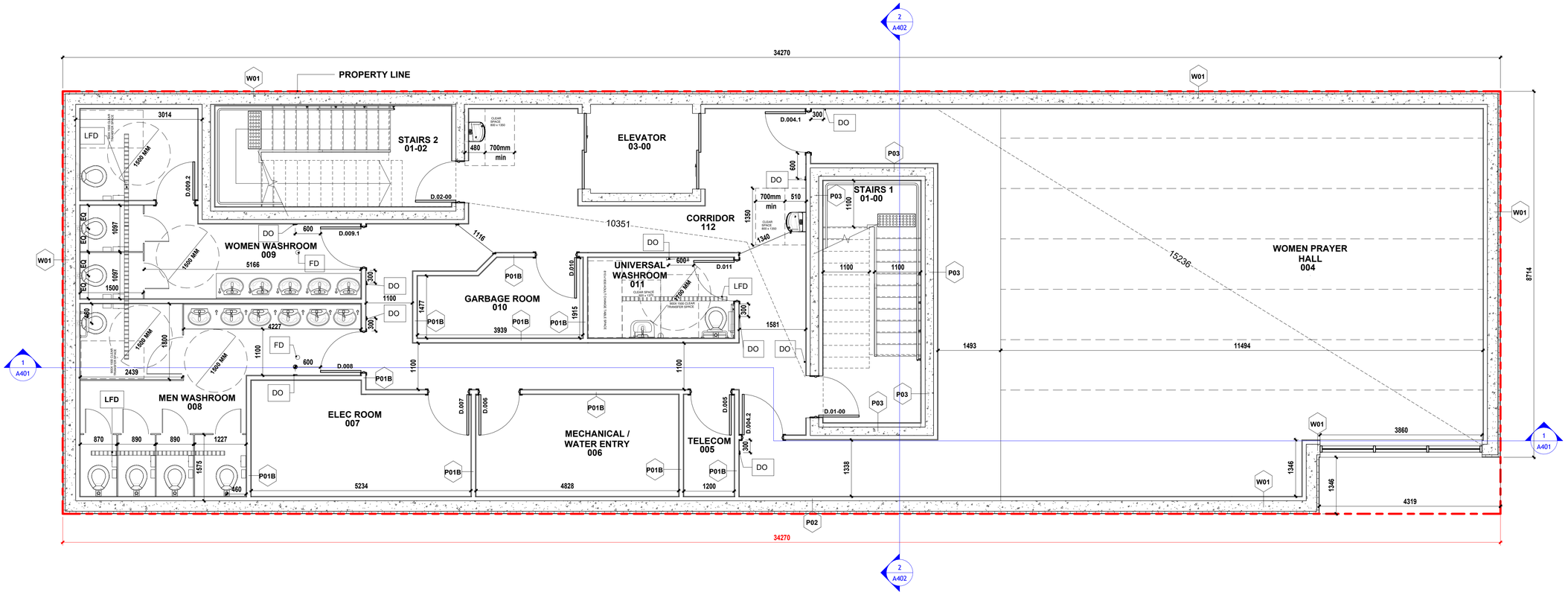


LEGEND:

FD 100 MM DIAMETER FLOOR DRAIN

LFD 100 MM LINEAR FLOOR DRAIN

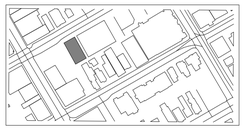
DO DOOR OPERATOR

* ALL INTERIOR PARTITIONS ARE P01A (NON RATED PARTITION) UNLESS OTHERWISE NOTED.

1 BASEMENT FLOOR PLAN

1 : 50

ISLAM CARE CENTRE



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Consultant:

Project Name
ISLAM CARE CENTRE

Project number
2501-00

Client
ISLAM CARE CENTRE

Drawn by
SA/HQ

Date
JULY 01/25

Checked by
HA

Scale
1 : 50

Sheet Name
LEVEL 0 - BASEMENT FLOOR PLAN

Sheet Number
A100

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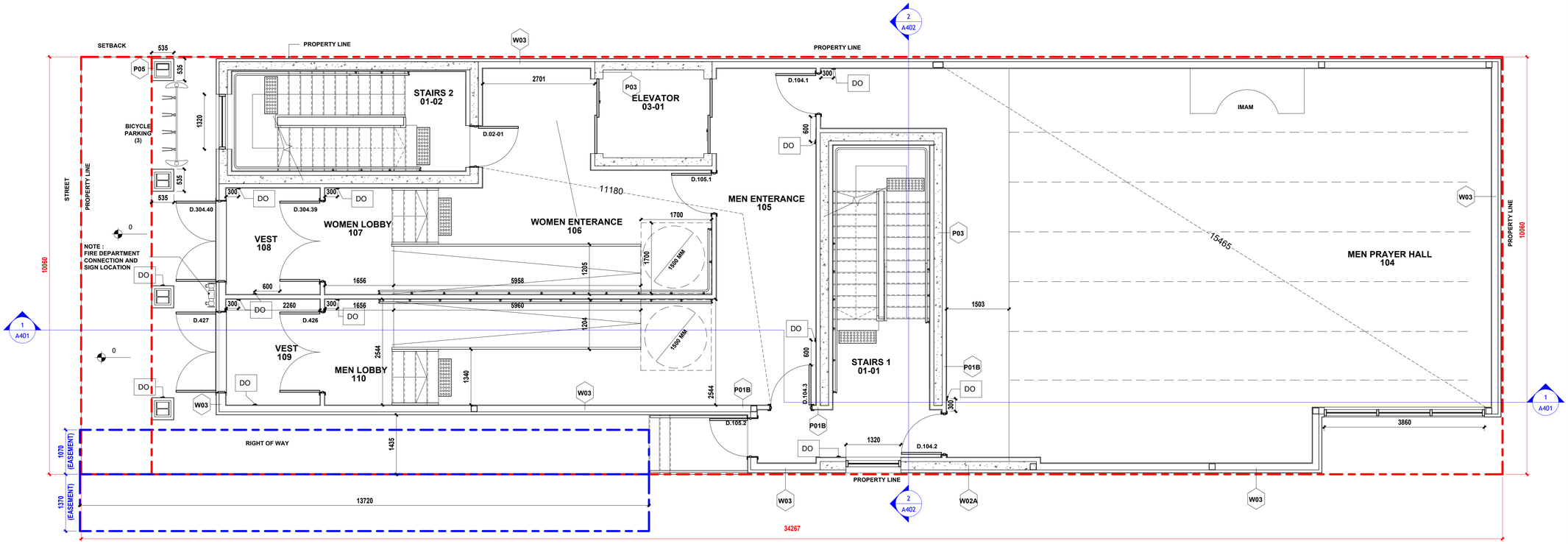

* ALL INTERIOR PARTITIONS ARE P01A (NON RATED PARTITION) UNLESS OTHERWISE NOTED.

1 LEVEL1 GROUND FLOOR
1 : 50

ISLAM CARE CENTRE

No.	Description	Date
04	66% REVISED DESIGN DEVELOPMENT	2026-03-16
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Consultant:

Project Name
ISLAM CARE CENTRE

Project number
2501-00

client:
ISLAM CARE CENTRE

Drawn by: SA/HQ
Date: JULY 01/25

Checked by: HA
Scale: 1 : 50

Sheet Name
LEVEL 1 - GROUND FLOOR PLAN

Sheet Number
A101

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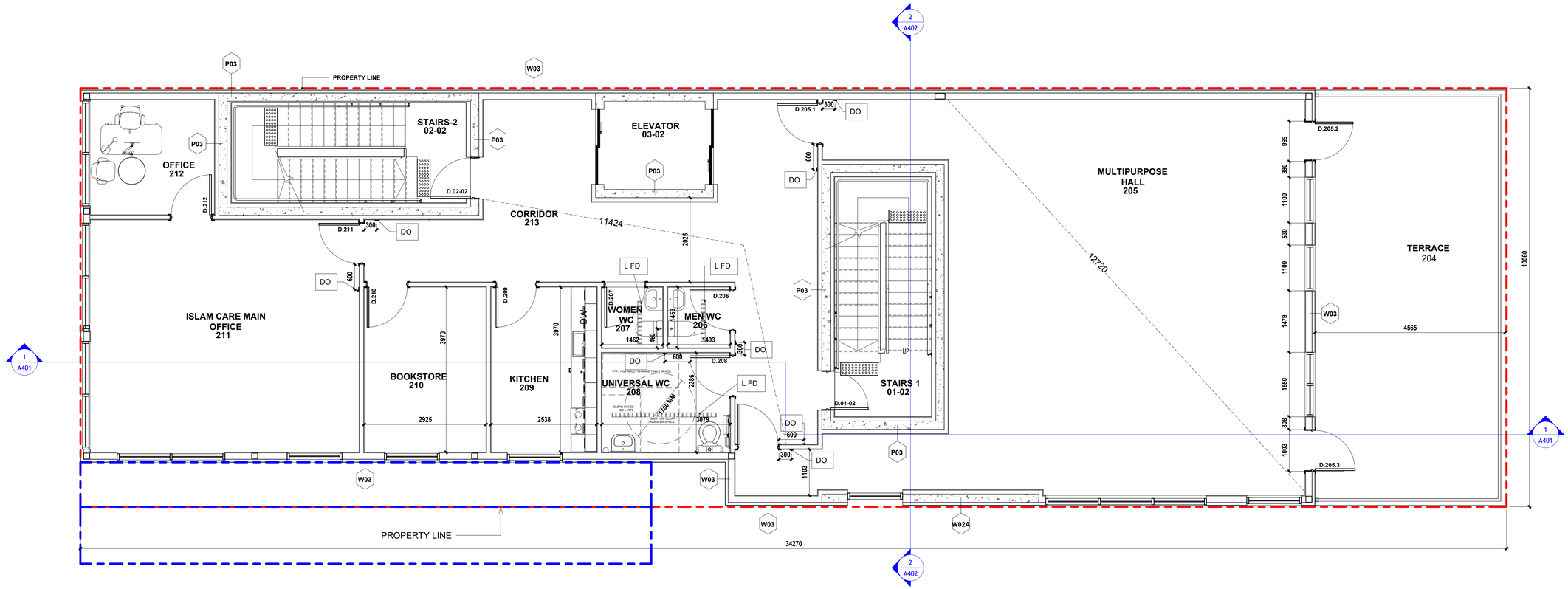
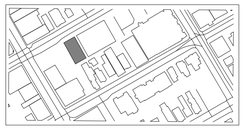


* ALL INTERIOR PARTITIONS ARE P01A (NON RATED PARTITION) UNLESS OTHERWISE NOTED.

1 LEVEL 2 SECOND FLOOR PLAN
1 : 50

ISLAM CARE CENTRE



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Consultant:

Project Name
ISLAM CARE CENTRE

Project number
2501-00

client:
ISLAM CARE CENTRE

Drawn by
SA/HQ

Date
JULY 01/25

Checked by
HA

Scale
1 : 50

Sheet Name
LEVEL 2 - SECOND FLOOR PLAN

Sheet Number
A102

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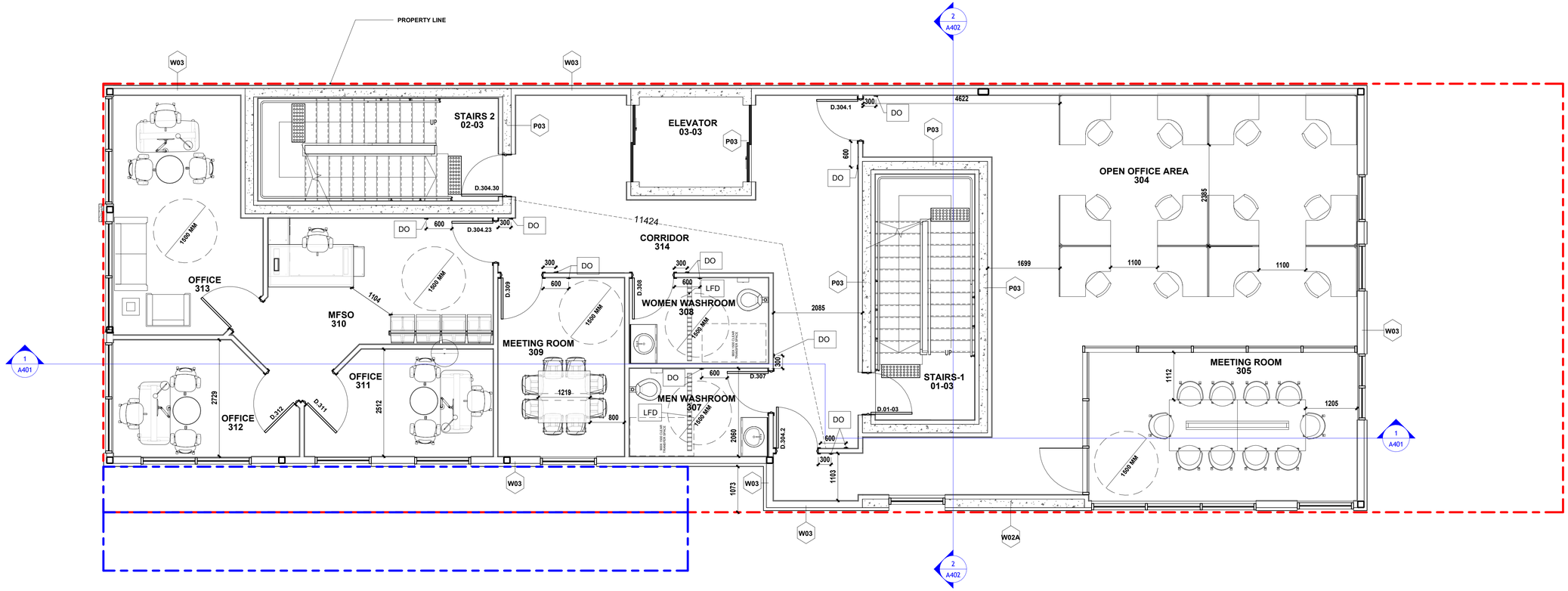
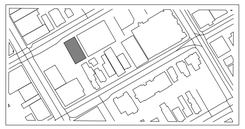


* ALL INTERIOR PARTITIONS ARE P01A (NON RATED PARTITION) UNLESS OTHERWISE NOTED.

1 LEVEL 3 THIRD FLOOR PLAN
1 : 50

ISLAM CARE CENTRE



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ARCHIcana

Consultant:

Project Name
ISLAM CARE CENTRE

Project number
2501-00

client
ISLAM CARE CENTRE

Drawn by	Date
SA/HQ	JULY 01/25
Checked by	Scale
HA	1 : 50

Sheet Name
LEVEL 3 - THIRD FLOOR PLAN

Sheet Number
A103

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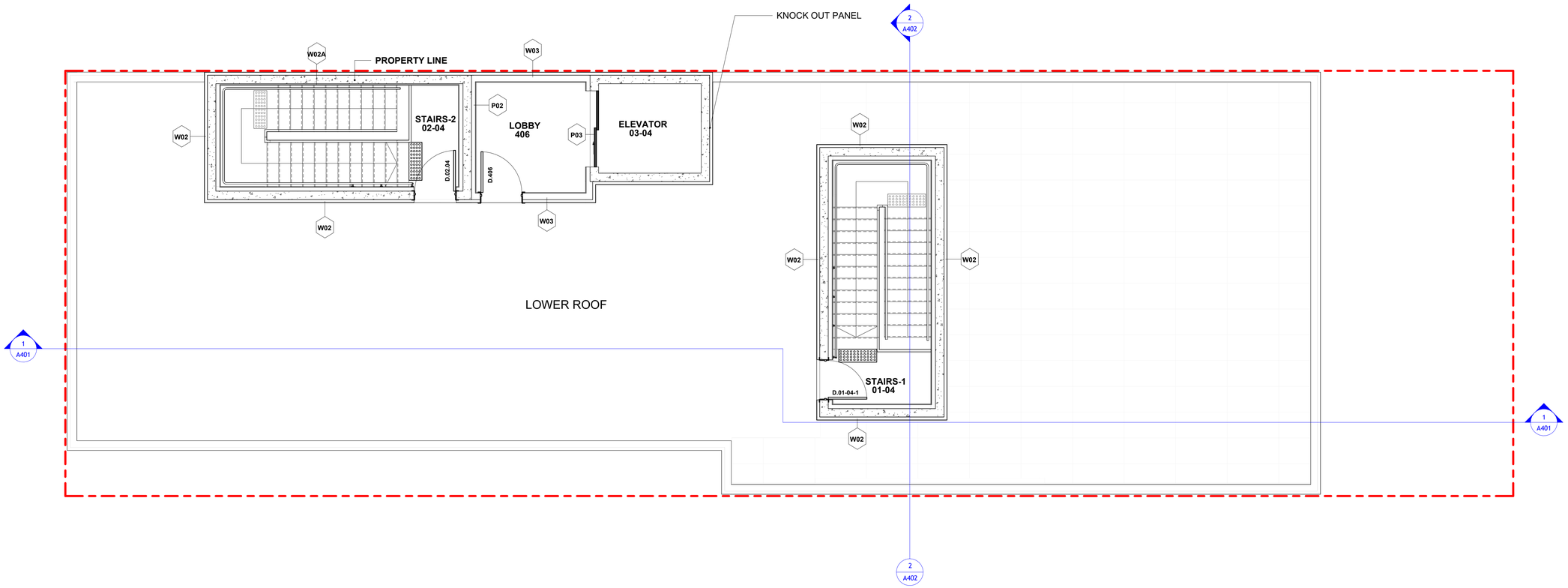
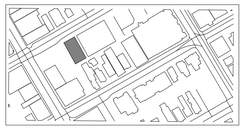


* ALL INTERIOR PARTITIONS ARE P01A (NON RATED PARTITION) UNLESS OTHERWISE NOTED.

1 PARTIAL ROOF PLAN
1 : 50

ISLAM CARE CENTRE



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ARCHICANA

Consultant:

Project Name
ISLAM CARE CENTRE

Project number
2501-00

client:
ISLAM CARE CENTRE

Drawn by
SA/HQ

Date
JULY 01/25

Checked by
HA

Scale
1 : 50

Sheet Name
PARTIAL ROOF PLAN

Sheet Number
A104

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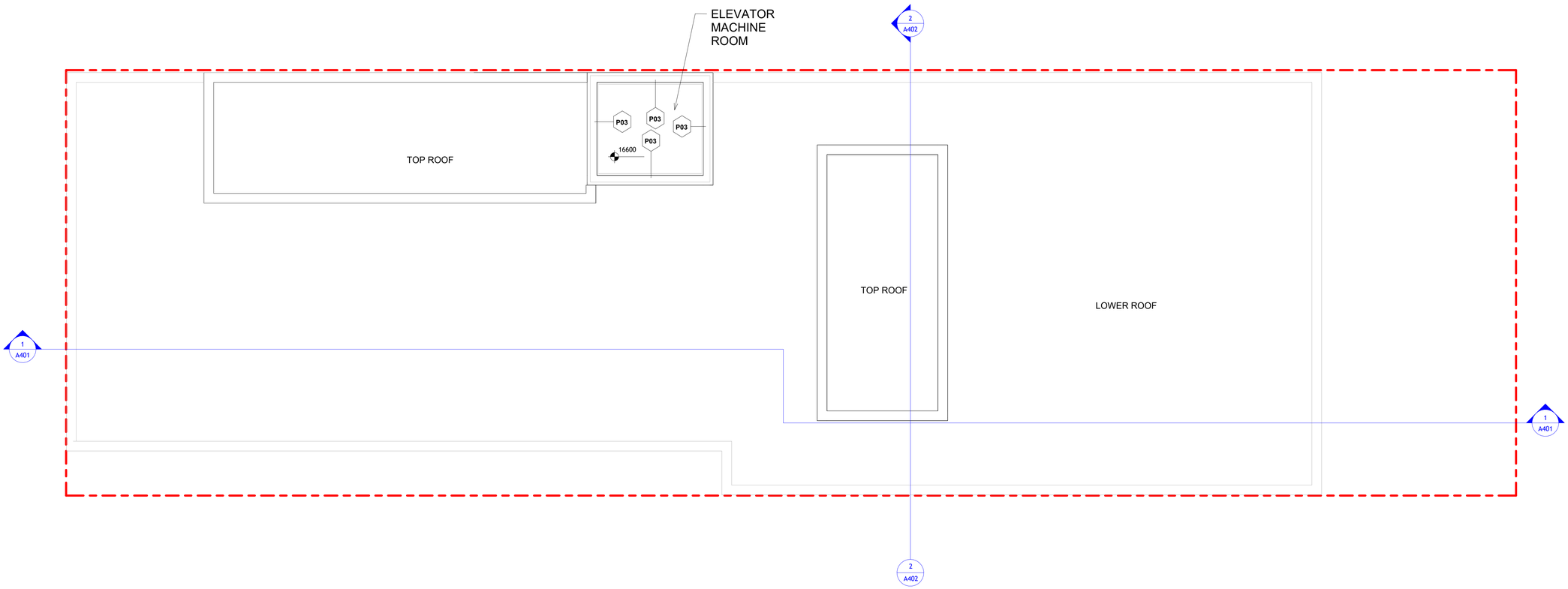
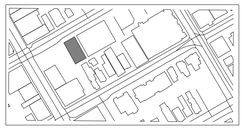


* ALL INTERIOR PARTITIONS ARE P01A (NON RATED PARTITION) UNLESS OTHERWISE NOTED.

1 TOP ROOF PLAN
1 : 50

ISLAM CARE CENTRE



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ARCHIcana

Consultant:

Project Name
ISLAM CARE CENTRE

Project number
2501-00

client:
ISLAM CARE CENTRE

Drawn by
SA/HQ

Date
JULY 01/25

Checked by
HA

Scale
1 : 50

Sheet Name
TOP ROOF PLAN

Sheet Number
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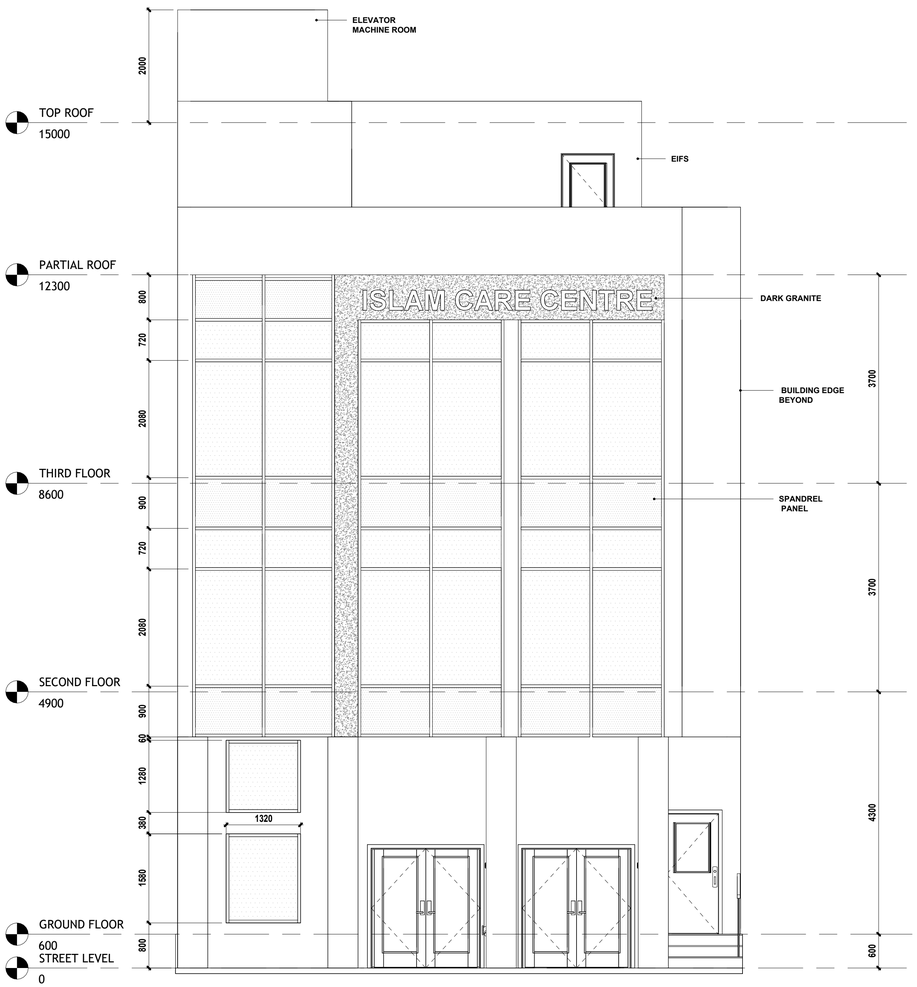
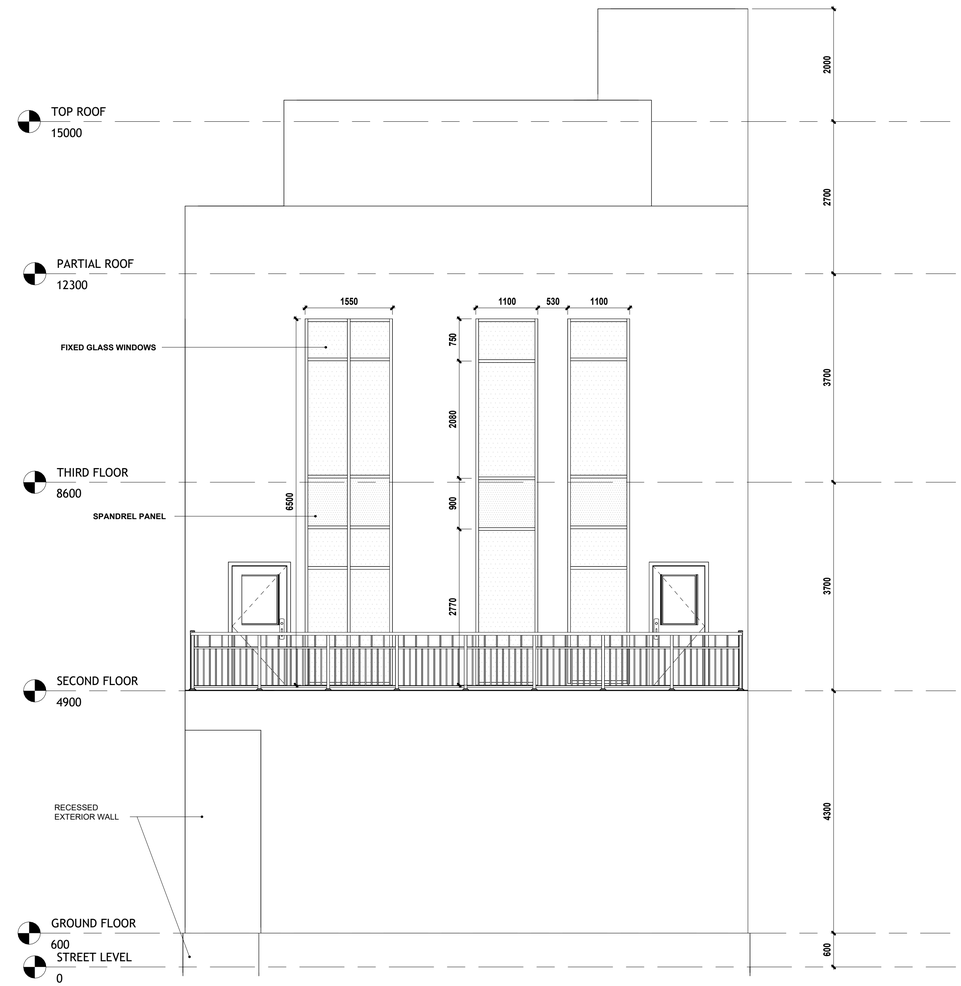


1 NORTH ELEVATION

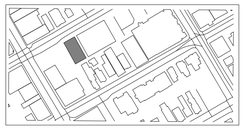
1 : 50



2 SOUTH ELEVATION

1 : 50

ISLAM CARE CENTRE



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ARCHIcana

Consultant:

Project Name

ISLAM CARE CENTRE

Project number

2501-00

client:

ISLAM CARE CENTRE

Drawn by: SA/HQ

Date: JULY 01/25

Checked by: HA

Scale: 1 : 50

Sheet Name

NORTH AND SOUTH ELEVATIONS

Sheet Number

A300

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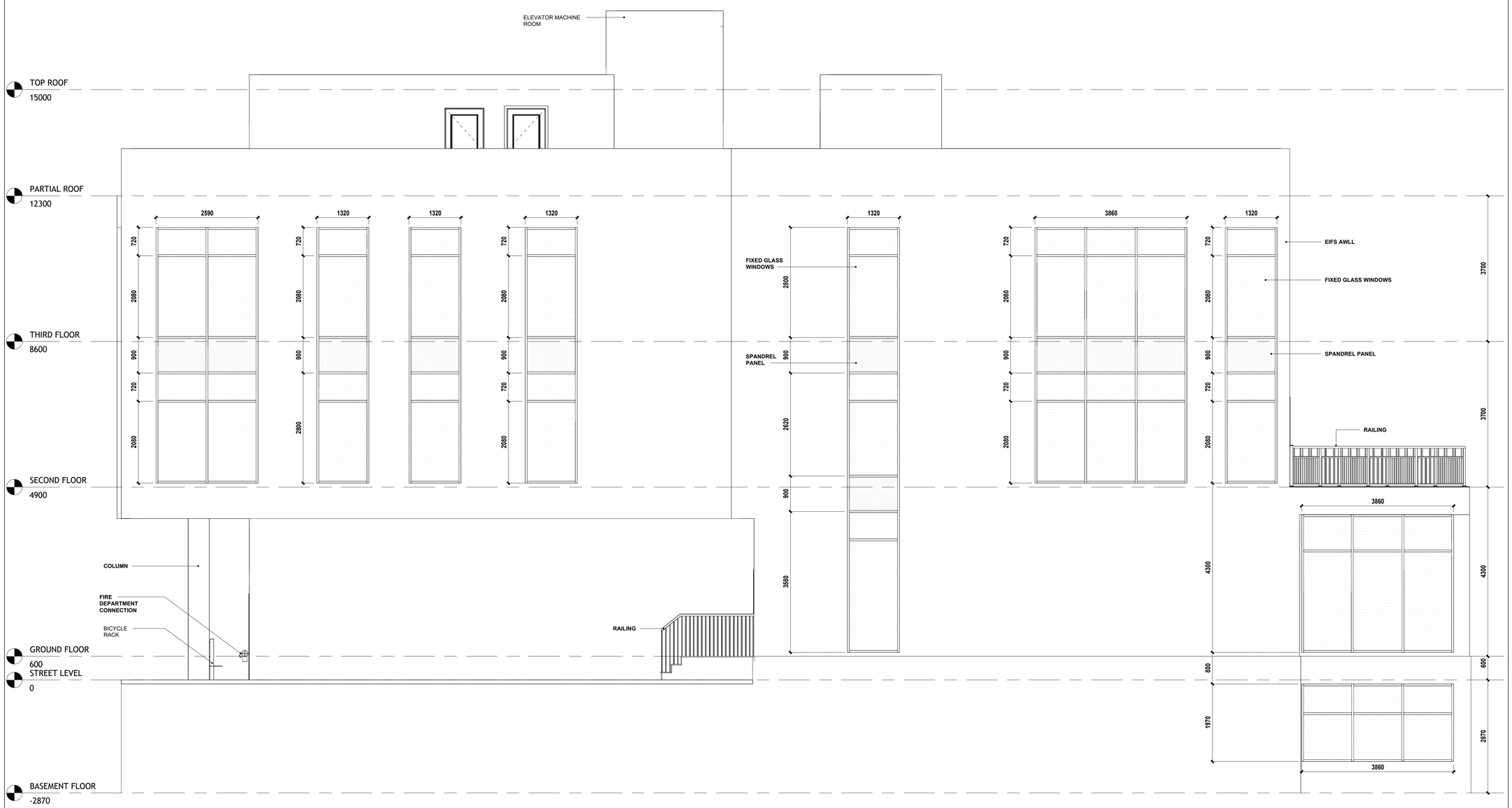
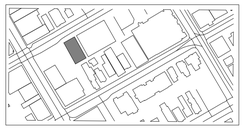


2 WEST ELEVATION

1 : 50

ISLAM CARE CENTRE



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ARCHIcana

Consultant:

Project Name

ISLAM CARE CENTRE

Project number

2501-00

client:

ISLAM CARE CENTRE

Drawn by: SA/HQ

Date: JULY 01/25

Checked by: HA

Scale: 1 : 50

Sheet Name

WEST ELEVATION

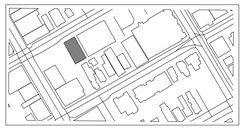
Sheet Number

A301

5/3/2026 11:12:23 PM

1 EAST ELEVATION
1 : 50

ISLAM CARE CENTRE



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ISLAM CARE CENTRE

Project number
2501-00

Client
ISLAM CARE CENTRE

Drawn by
SA/HQ

Date
JULY 01/25

Checked by
HA

Scale
1 : 50

Sheet Name
EAST ELEVATION

Sheet Number
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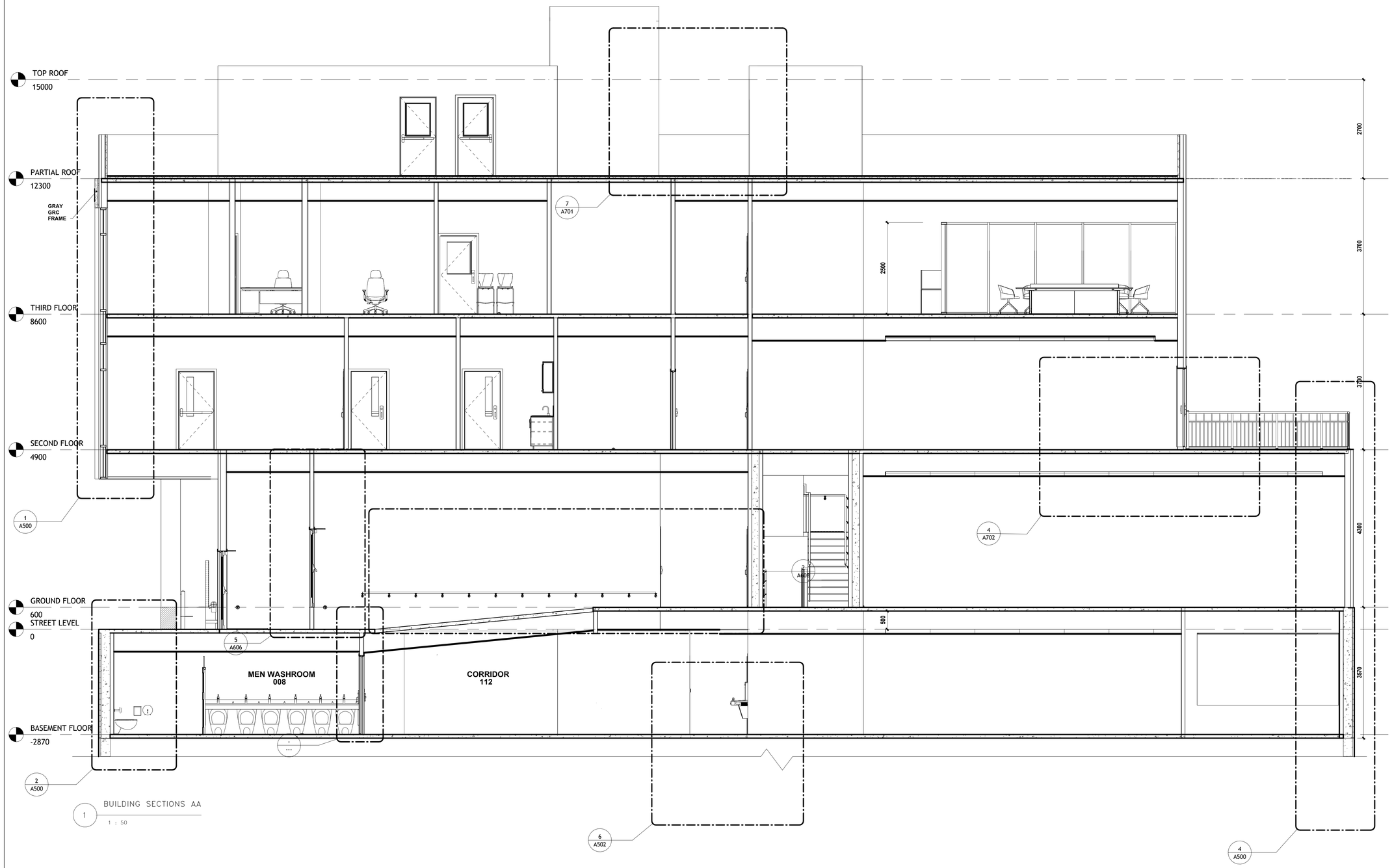

1 BUILDING SECTIONS AA
1 : 50

ISLAM CARE CENTRE

No.	Description	Date
04	66% REVISED DESIGN DEVELOPMENT	2026-03-16
03	66% DESIGN DEVELOPMENT	2025-11-12
02	33% REVISED SCHEMATIC DESIGN	2025-07-01
01	33% SCHEMATIC DESIGN	2025-04-15

All measurement are to be checked and verified on site by contractor before proceeding with the work. Do not scale the drawings.

ARCHIcana

Consultant:

Project Name
ISLAM CARE CENTRE

Project number
2501-00

client:
ISLAM CARE CENTRE

Drawn by
SA/HQ

Date
JULY 01/25

Checked by
HA

Scale
1 : 50

Sheet Name
BUILDING SECTION AA

Sheet Number
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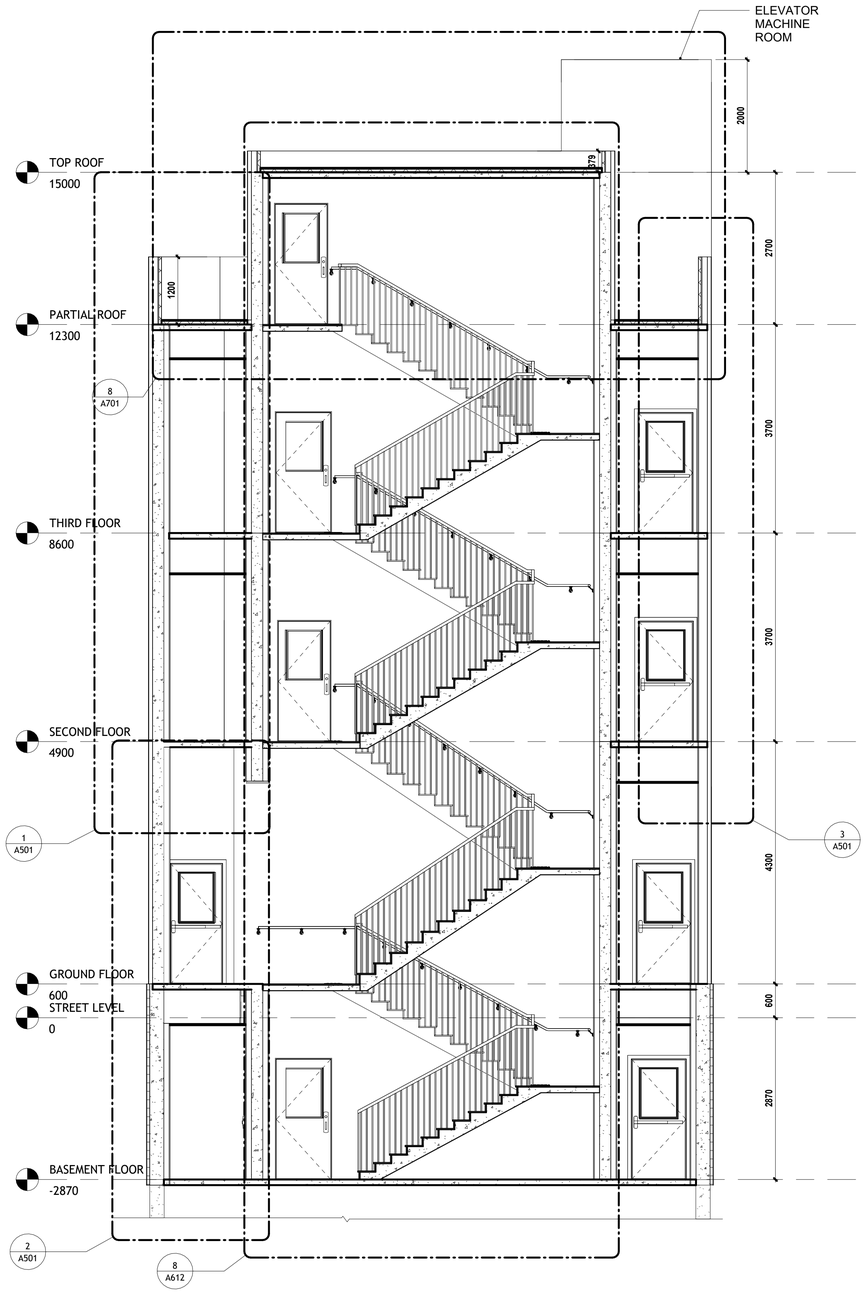
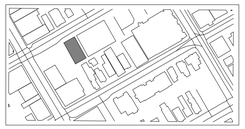


2 BUILDINGSECTIONS BB

1 : 50

ISLAM CARE CENTRE



No.	Description	Date
04	66% REVISED DESIGN DEVELOPMENT	2026-03-16
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All measurement are to be checked and verified on site by contractor before proceeding with the work. Do not scale the drawings.

ARCHIcana

Consultant:

Project Name
ISLAM CARE CENTRE

Project number
2501-00

Client
ISLAM CARE CENTRE

Drawn by
SA/HQ

Date
JULY 01/25

Checked by
HA

Scale
1 : 50

Sheet Name
BUILDING SECTION BB

Sheet Number
A402

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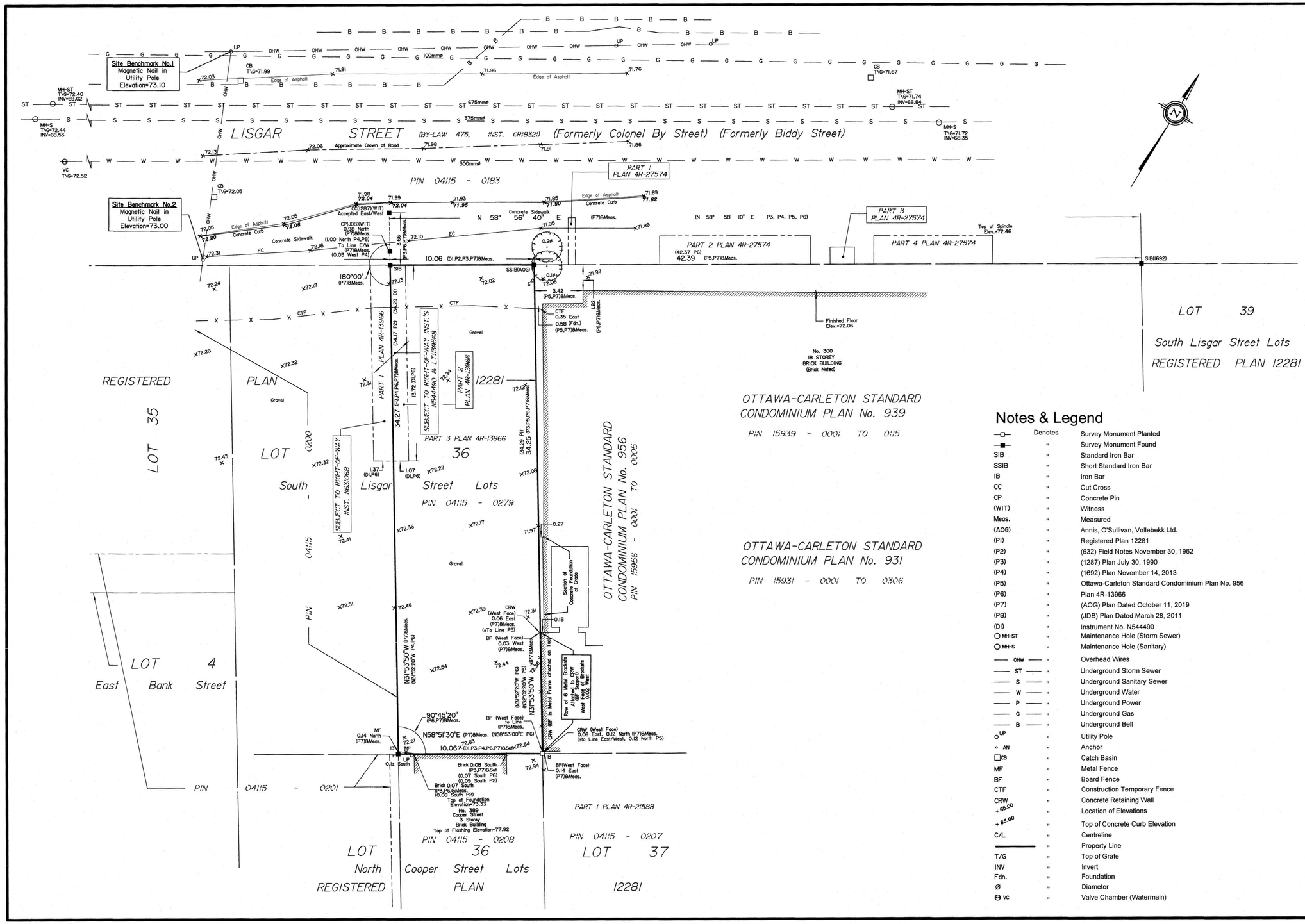

TOPOGRAPHIC PLAN OF SURVEY OF

PART OF LOT 36
South Lisgar Street
REGISTERED PLAN 12281
CITY OF OTTAWA

Surveyed by Annis, O'Sullivan, Vollebekk Ltd.

Scale 1 : 150

6 4.5 3.0 1.5 0 3 6 Metres

Metric

DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

Surveyor's Certificate

I CERTIFY THAT :

1. This survey and plan are correct and in accordance with the Surveys Act, the Surveyors Act and the Land Titles Act and the regulations made under them.
2. The survey was completed on the 14th day of March, 2025.

March 14, 2025
Date

Jamie Leslie
Ontario Land Surveyor

Notes & Legend

—□—	Denotes	Survey Monument Planted
—■—	"	Survey Monument Found
SIB	"	Standard Iron Bar
SSIB	"	Short Standard Iron Bar
IB	"	Iron Bar
CC	"	Cut Cross
CP	"	Concrete Pin
(WIT)	"	Witness
Meas.	"	Measured
(AOG)	"	Annis, O'Sullivan, Vollebekk Ltd.
(P1)	"	Registered Plan 12281
(P2)	"	(632) Field Notes November 30, 1962
(P3)	"	(1287) Plan July 30, 1990
(P4)	"	(1692) Plan November 14, 2013
(P5)	"	Ottawa-Carleton Standard Condominium Plan No. 956
(P6)	"	Plan 4R-13966
(P7)	"	(AOG) Plan Dated October 11, 2019
(P8)	"	(JDB) Plan Dated March 28, 2011
(D1)	"	Instrument No. N544490
○ MH-ST	"	Maintenance Hole (Storm Sewer)
○ MH-S	"	Maintenance Hole (Sanitary)
—— OHW ——	"	Overhead Wires
—— ST ——	"	Underground Storm Sewer
—— S ——	"	Underground Sanitary Sewer
—— W ——	"	Underground Water
—— P ——	"	Underground Power
—— G ——	"	Underground Gas
—— B ——	"	Underground Bell
○ UP	"	Utility Pole
∘ AN	"	Anchor
□ CB	"	Catch Basin
MF	"	Metal Fence
BF	"	Board Fence
CTF	"	Construction Temporary Fence
CRW	"	Concrete Retaining Wall
+ 65.00	"	Location of Elevations
+ 65.00	"	Top of Concrete Curb Elevation
C/L	"	Centreline
———	"	Property Line
T/G	"	Top of Grate
INV	"	Invert
Fdn.	"	Foundation
Ø	"	Diameter
⊖ VC	"	Valve Chamber (Watermain)

ASSOCIATION OF ONTARIO LAND SURVEYORS
PLAN SUBMISSION FORM
V-97750

THIS PLAN IS NOT VALID UNLESS IT IS AN EMBOSSED ORIGINAL COPY ISSUED BY THE SURVEYOR In accordance with Regulation 1026, Section 29 (3).

Bearings are grid, derived from Can-Net 2016 Real Time Network GPS observations and are referenced to Specified Control Points 01919680005 and 01919680105, MTM Zone 9 (76°30' West Longitude) NAD-83 (original).

ELEVATION NOTES

1. Elevations shown are geodetic and are derived from City of Ottawa vertical benchmark No. 3622 (Index No.198) having a published elevation of 73.873m and are referred to the CGVD28 geodetic datum.
2. It is the responsibility of the user of this information to verify that the job benchmark has not been altered or disturbed and that it's relative elevation and description agrees with the information shown on this drawing.

UTILITY NOTES

1. This drawing cannot be accepted as acknowledging all of the utilities and it will be the responsibility of the user to contact the respective utility authorities for confirmation.
2. Only visible surface utilities were located.
3. A field location of underground plant by the pertinent utility authority is mandatory before any work involving breaking ground, probing, excavating etc.
4. Underground services and Inverts are taken from City of Ottawa Engineering Plans E-12-08, 5187-14 and F-36-h (Sheet 2 of 4).

Topographic data was collected under Winter Conditions. Snow cover and ice preclude determining location and elevation of some topographical data that is otherwise visible.

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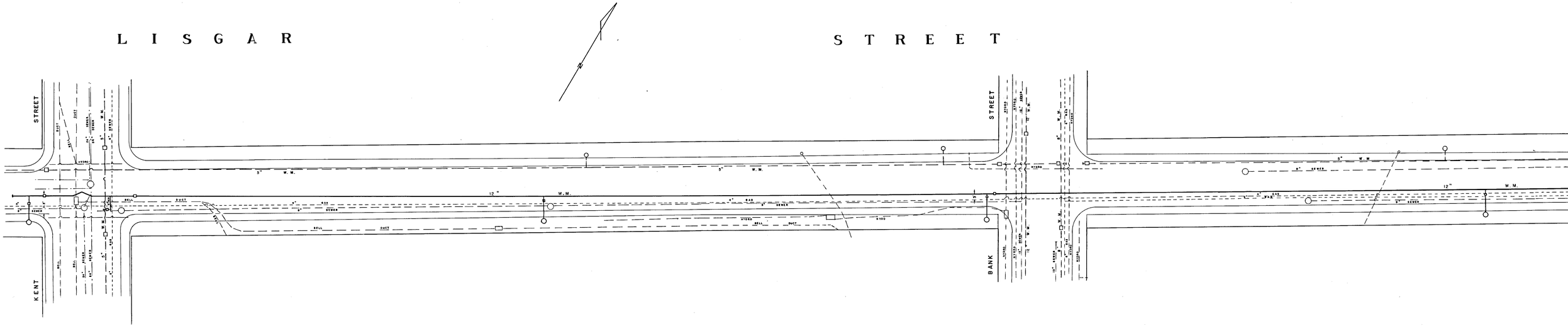
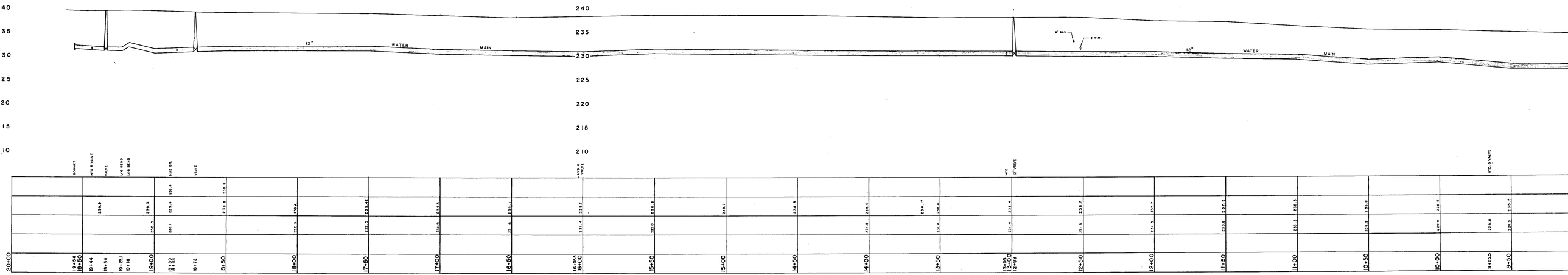
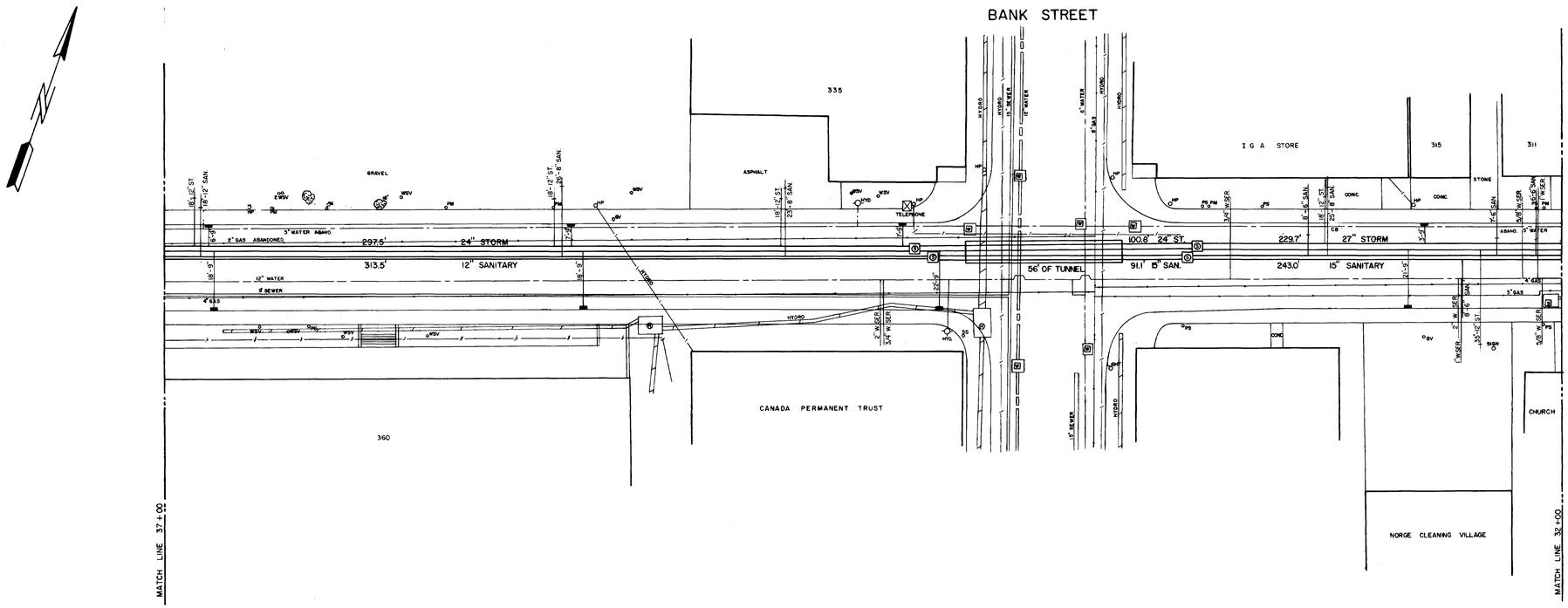
Nepean, Ont. K2E 7S6
Phone: (613) 727-0850 / Fax: (613) 727-1079
Email: Nepean@aovltd.com
Ontario Land Surveyors

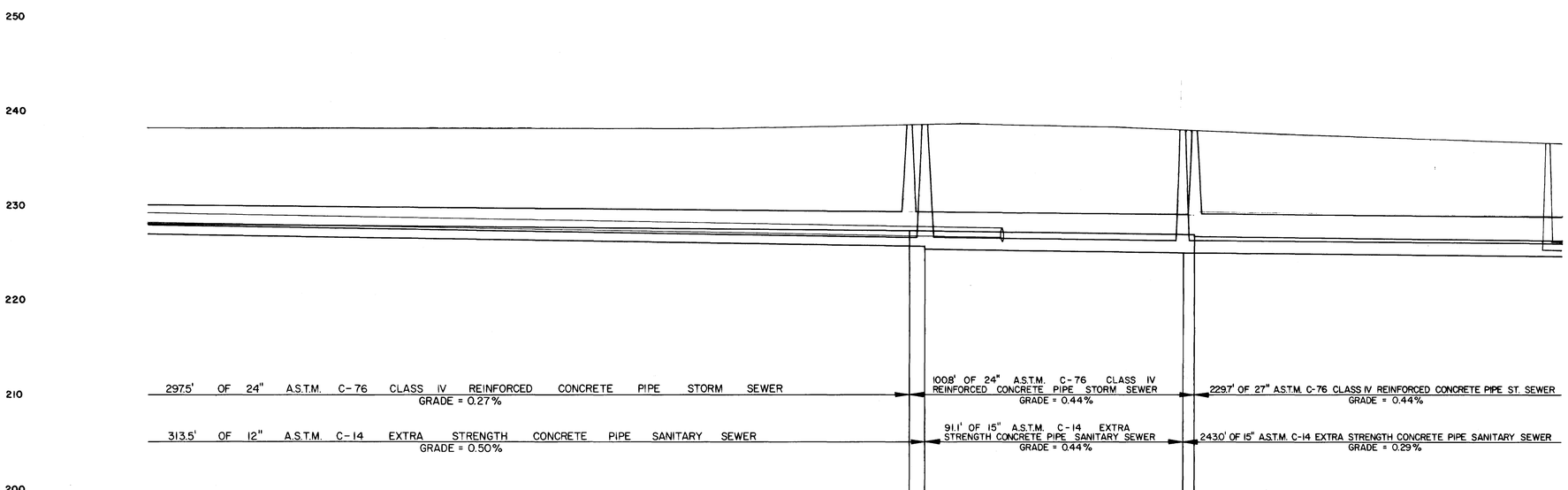
Job No. 25674-25 IslamCareCentre PlLt36 Pl12281 0 F FL

L I S G A R S T R E E T









STORM & SANITARY SEWER
LISGAR ST. (METCALFE TO KENT)
HUGH M. GRANT LTD.
WORK STARTED ... JULY 20, 1971
WORK COMP. ... OCT. 2, 1971
INSTRUMENTMAN ... MOORHOUSE
INSPECTOR ... CHARRON
FINAL MEAS. ... BK. 3575
OCT. 1971
C.A.
MAR. 1981

UTILITY CHECK

THE LOCATION OF UTILITIES SHOWN ARE FROM BEST AVAILABLE INFORMATION AND CANNOT BE GUARANTEED.

DATE	DESCRIPTIONS	DRAWN BY	APPROVED BY
REVISIONS			

CITY OF OTTAWA
ENGINEERING DEPARTMENT
SEWER BRANCH

LISGAR STREET

CHAINAGE 32+00 to CHAINAGE 37+00

DESIGN ENGINEER	DRAWN BY P A T H	SCALES HOR. 1"=20' VERT. 1"=6'
SENIOR DESIGN ENGINEER	CHECKED BY	
ENGINEER I/C SEWER BRANCH T. H. Dobbin P. Eng. CITY ENGINEER	DATE JAN 19/71	PLAN No.
	SURVEY BOOKS 3367, 3278	SHEET 3 of 4