aercoustics

Aercoustics Engineering Ltd.
1004 Middlegate Road, Suite 1100
Mississauga, ON L4Y 0G1

Tel: 416-249-3361
Fax 416-249-3613
aercoustics.com

NOISE IMPACT STUDY – **Project: 22475.00**

1981 Century Road

Ottawa, ON

Prepared for:

Brunstad Christian Church Ottawa
PO Box 64 Manotick Main
Manotick, ON
K4M 1A2

Prepared by:

Noman Ali, M. Eng.

A. Munro

Allan Munro, P. Eng.

November 14, 2024

Revision History

Version	Description	Author	Reviewed	Date
- -	Initial Report	NA	AM	November 14, 2024

Important Notice and Disclaimer

This report was prepared by Aercoustics Engineering Limited (Aercoustics) solely for the client identified above and is to be used exclusively for the purposes set out in the report. The material in this report reflects the judgment of Aercoustics based on information available to them at the time of preparation. Unless manifestly incorrect, Aercoustics assumes information provided by others is accurate. Changed conditions or information occurring or becoming known after the date of this report could affect the results and conclusions presented. Unless otherwise required by law or regulation, this report shall not be shared with any Third Party without the express written consent of Aercoustics. Aercoustics accepts no responsibility for damages, if any, suffered by any Third Party which makes use of the results and conclusions presented in this report.

Table of Contents

1 Introduction

Aercoustics Engineering Limited (Aercoustics) has been retained by Brunstad Christian Church Ottawa to prepare a Noise Impact Study (NIS) to support the environmental permitting for a proposed extension to an existing church development at 1981 Century Road, in Ottawa, Ontario.

The purpose of this study was to examine the existing and future noise environment in the surrounding area and evaluate its impact potential on the expected noise sensitive receptors in the proposed development. This study also investigates the noise controls required for the development in order to abide by the noise guidelines of the Ontario Ministry of the Environment, Conservation and Parks (MECP) and to satisfy the requirements of the City of Ottawa. This report considered the MECP guideline NPC-300 "Stationary and Transportation Sources – Approval and Planning" (August 2013), as well as the City of Ottawa Environmental Noise Control Guidelines (ENCG).

The proposed development consists of an existing 1-storey church, along with proposed two-storey additions. Sensitive receptor locations on the site include a place or worship, as well as a nursery/daycare located towards the northeastern end. The proposed site is located east of the Century Road and Third Line Road intersection. Adjacent land uses include agricultural to the north, east, west, and south.

This report is based on the following information:

- Site Plan prepared by S. J. Lawrence Architect Incorporated, dated August 29, 2024;

The dominant road traffic sources in the subject study area include Century Road. Figure 1 shows a key plan showing the proposed development location. Figure 2 shows the site plan of the proposed development, including noise sensitive receptors and calculation locations.

This site is not affected by stationary, industrial, aircraft or rail traffic noise.

2 Guidelines and Criteria

2.1 Transportation Noise – Outdoor Living Area (OLA)

MECP guidelines recommend that the combined equivalent noise level (L_{eq}-16hr) due to road traffic should not exceed 55 dBA in outdoor living areas. If the 16-hr equivalent sound level in the OLA is greater than 55 dBA and less than or equal to 60 dBA, noise control measures may be applied to reduce the sound level to 55 dBA. If measures are not provided, prospective purchasers or tenants should be informed of potential noise problems by a warning clause Type A. Noise levels above 60 dBA are generally not acceptable and will warrant noise control measures.

All unenclosed balconies that are less than 4 m in depth and outside the exterior of the building façade are exempt from meeting the MECP outdoor noise criteria with regards to transportation noise sources. Should the depth of the future balconies and terraces be greater than 4 m, they will be subject to the MECP noise level limit of 55 dBA.

2.2 Transportation Noise – Indoor Living Spaces

Indoor noise levels due to road traffic were also examined with respect to the MECP guidelines. Bedrooms are required to meet an indoor noise level (L_{eq}-8hr) of 40 dBA from road traffic during nighttime hours. The indoor daytime noise level (L_{eq}-16hr) due to road traffic must not exceed 45 dBA for living or dining rooms. Lounges, lobbies, retail or general office spaces should meet a daytime indoor noise level of 50 dBA from road traffic. In order to achieve these levels, the MECP guidelines provide a basis for the types of windows, exterior walls, and doors that will be required based on projected outdoor noise levels.

The MECP also requires that a central air conditioning system be installed for dwellings when the daytime or nighttime outdoor transportation noise levels at the plane of window of bedrooms or living/dining rooms are above 65 dBA or 60 dBA, respectively. The provision for the future installation of central air conditioning must be made if:

- the nighttime sound level is greater than 50 dBA and less than or equal to 60 dBA on the outside face of a bedroom window; or
- the daytime sound level is greater than 55 dBA and less than or equal to 65 dBA on the outside face of a bedroom or living/dining room window.

The above provision involves a ducted heating system sized to accommodate the addition of central air conditioning by the occupant.

The required limits as per NPC-300 are summarized in Table 1.

Table 1: Indoor Sound Level Limits Due to Road Traffic

Type of Space	Time Period	Minimum L_{eq} (dBA) Road Traffic
Living/dining, den areas of residences, hospitals, nursing homes, schools, day-care centres (Indoor)	07:00 – 23:00	45 dBA
Living/dining, den areas of residences, hospitals, nursing homes (Indoor)	23:00 – 07:00	45 dBA
Sleeping quarters (Indoor)	07:00 – 23:00	45 dBA
	23:00 – 07:00	40 dBA
Outdoor Living Areas (OLA)	07:00 – 23:00	55 dBA

3 Noise Level Predictions

3.1 Transportation Noise Calculations Procedure – Road and Rail Traffic

The dominant road traffic noise source in the subject study area is Century Road.

Road traffic noise level calculations were performed in accordance with the Ministry of the Environment, Conservation and Parks guidelines and the Ontario Road Noise Analysis Method for Environment and Transportation (ORNAMENT), as well as with the City of Ottawa's ENCG. Sample copies of the road traffic noise predictions from MECP's Road and Rail Traffic Noise Prediction Model STAMSON (Version 5.04) are included in Appendix B.

The equivalent sound levels (L_{eq}) due to road traffic were calculated at the worst-case noise sensitive receptors in the proposed development. Noise levels were also calculated for a exterior terrace OLA location on the north side of the development. These worst-case receptors are shown in Figure 2.

3.2 Road Traffic Data

Road traffic data for Century Road was predicted using the City of Ottawa Environmental Noise Control Guidelines and is outlined in Table 2.

Table 2: Road Traffic Volumes

	Century Road
Implied Roadway Class	2-Lane Major Collector (2-UMCU)
AADT Vehicles/Day	12,000
Day/Night Split (%)	92/8
Percentage of Trucks (%)	12
Medium/Heavy Split (%)	7/5
Posted Speed (km/hr)	60
Grade (%)	0
Road Pavement	1 (Typical asphalt)

4 Noise Level Predictions

4.1 Impact of the proposed development (stationary noise sources)

Based on Aercoustics experience of similar projects and the dominant road traffic ambient noise in the area, the proposed development is expected to have minimal impact on the receptors from surrounding land use and from the proposed development itself. However, this should be verified when detailed plans for the proposed project become available.

4.2 Transportation Noise Predictions

Table 3 lists the daytime L_{eq}'s due to road traffic as predicted at noise sensitive locations within the development.

Table 3: Predicted Noise Levels Due to Road Traffic

Calculation Location (Figure 2)	Receptor Height (m)	Description	L_{eq} (dBA)
C01	1.5	Place of Worship South Façade	61
C02	1.5	Place of Worship West Façade	58
C03	1.5	Nursery East Façade	46
OLA1	4.5	Exterior Terrace	47

5 Noise Control Recommendations

5.1 Transportation Noise – Outdoor Living Areas

The predicted unmitigated road traffic noise at OLA1 is below the Ministry sound level limit of 55 dBA, and no additional noise controls are required.

5.2 Transportation Noise – Indoor Living Spaces

Transportation noise impact from road traffic is expected to be below 65 dBA for all receptors within the development. As per NPC-300, building components adhering to the standards of the Ontario Building Code (OBC) will be sufficient to meet the indoor sound levels given in Table 1.

6 Conclusions

Aercoustics Engineering Limited was retained by Brunstad Christian Church Ottawa to conduct a Noise Impact Study for a proposed extension to an existing church development in Ottawa, Ontario.

The results of this study indicate that standard exterior window and wall components that meet the requirements of the Ontario Building Code (OBC) should be sufficient for compliance with the MECP and ENCG criteria for indoor sound levels.

Further analysis should be conducted to confirm the noise impact of the development on itself and on the surrounding environment when more detailed information is available for the proposed mechanical equipment and building construction.

aercoustics

Project ID: 22475.00

Scale: As Indicated
Drawn by: NA
Reviewed by: AM
Date: Nov 10, 2024
Revision: 1

Project Name

1981 Century Road Noise Impact Study

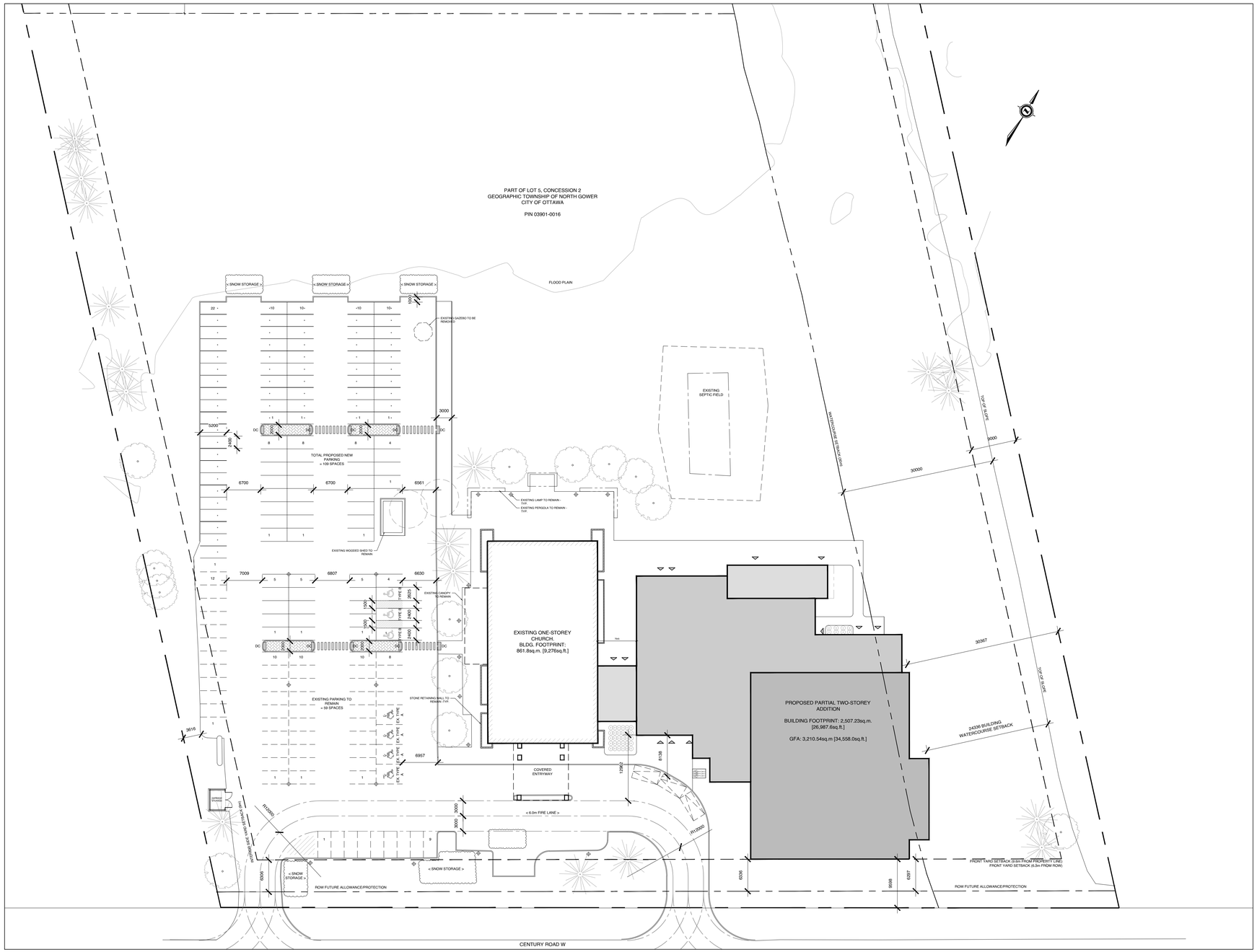
Figure Title

Site Location and Surrounding Area

Figure 1

aercoustics	Project ID: 22475.00 Scale: As Indicated Drawn by: NA Reviewed by: AM Date: Nov 12, 2024 Revision: 1	**Project Name** 1981 Century Road Noise Impact Study	
		Figure Title Site Plan & Road Traffic Noise Calc Locations	**Figure 2**

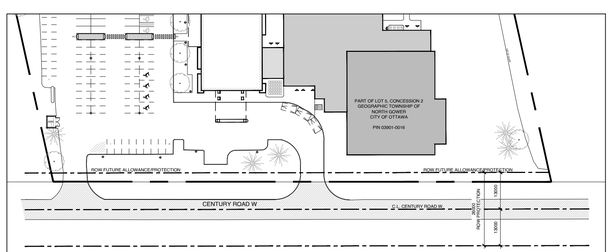
Appendix A
Site Plan & Drawings



01 A1.0 CONCEPT SITE PLAN
SCALE: 1:400

LEGEND

O/H	NEW OVERHEAD DOOR	S#	NEW SIGN, REFER TO SIGN LEGEND	TWO WAY TRAFFIC	MINIMUM SETBACKS (ZONING)
	NEW DOOR / ENTRANCE	S1	FIRE ROUTE SIGN	DEPRESSED CURB (DC)	NEW CONSTRUCTION
	BICYCLE PARKING SPACE (1.8Mx0.6M)	SL	STREET LIGHT	TACTILE WALKING SURFACE INDICATORS (TWSIs)	EXISTING BUILDINGS
	NO PARKING LINES		DESIGNATED ACCESSIBLE PARKING SPACE AS PER AODA STANDARDS	PROPERTY LINE	BUILDING MOUNTED LIGHTS REFER TO ELECTRICAL DWGs
#	PARKING STALL COUNT PER ROW	V	VISITOR PARKING	PROPOSED FENCE	* COMPACT PARKING SPACES



KEY PLAN — 26.0m REQUIRED ROW PROTECTION

CITY OF OTTAWA ZONING BY-LAW

ZONING MECHANISM (RIS)	REQUIRED	PROVIDED
MINIMUM LOT WIDTH	75m	176.79m
MINIMUM LOT AREA	10,000m²	36,422.13m²
MAXIMUM BUILDING HEIGHT	12m	7.5m
MINIMUM FRONT YARD SETBACK	9.0m	9.6m FROM PROPERTY LINE 6.3m FROM ROW
MINIMUM REAR YARD SETBACK	10m	130m
MINIMUM INTERIOR YARD SETBACK	9.0m	30.4m/80m
MAXIMUM LOT COVERAGE	30%	6.9%
MINIMUM LANDSCAPED AREA	20%	70.5%
PROVIDED TOTAL LANDSCAPE AREA		25,670m²
WATERCOURSE SETBACK	30m	24.34m
PARKING PROVISIONS		
MINIMUM REQUIRED VEHICLE PARKING SPACES (AREA D ON SCHEDULE 1A) (COMMUNITY CENTRE / PLACE OF WORSHIP)	**EXISTING CHURCH** • PLACE OF WORSHIP: 861.8 m² • 10 SPACES PER 100m² GFA = 861.8/100 = 8.618 x 10 = 87 SPACES **PROPOSED ADDITION** • COMMUNITY CENTER (ANCILLARY AREA): 1387.5 m² • 4 SPACES PER 100m² GFA = 1387.5/100 = 13.875 x 4 = 56 SPACES • PLACE OF WORSHIP: 587.7 m² • 10 SPACES PER 100m² GFA = 587.7/100 = 5.877 x 10 = 59 SPACES • TOTAL: 115 SPACES NEW BUILD + EXISTING : 87 + 115 = 202 SPACES REQUIRED	168 SPACES PROVIDED
PROVIDED PARKING	REGULAR SPACES (EXISTING)	55
	REGULAR SPACES (NEW)	45
	ACCESSIBLE SPACE (TYPE A)	4 (EXISTING)
	ACCESSIBLE SPACE (TYPE B)	3
	COMPACT SPACES (50% OF PARKING SPACES: BY-LAW 2021-218, PART 4 - SECTION 106)	61
	TOTAL	168
BICYCLE PARKING REQUIRED	1 PER 1500 m² OF GFA = 3 SPACES	3
MINIMUM DRIVEWAY WIDTH	PARKING LOT: 6.0m	6.0m
MINIMUM AISLE WIDTH	PARKING LOT: 6.0m	6.0m
MINIMUM PARKING SPACE DIMENSIONS	LENGTH: 5.2m WIDTH: 2.6m	LENGTH: 5.2m WIDTH: 2.6m
	UP TO 50% OF REQUIRED PARKING SPACES MAY BE 4.6m x 2.4m	50% (81 SPACES PERMITTED) = 61 SPACES

AREA SCHEDULE

ROOM NAME	ROOM AREA	LOCATION
PRIMARY USE (WORSHIP)		
EXISTING ONE-STOREY CHURCH	861.8 SQ.M	GROUND FLOOR
NURSERY ROOM	134.7 SQ.M	GROUND FLOOR
NURSERY W/C	4.9 SQ.M	GROUND FLOOR
FEEDING ROOM	21.2 SQ.M	GROUND FLOOR
STROLLER STORAGE	5.9 SQ.M	GROUND FLOOR
SUNDAY SCHOOL ROOM 01	59.4 SQ.M	SECOND FLOOR
YOUTH LOUNGE	192.7 SQ.M	SECOND FLOOR
MEZZANINE	27.9 SQ.M	SECOND FLOOR
SENIORS LOUNGE	70.8 SQ.M	SECOND FLOOR
SUNDAY SCHOOL ROOM 02	47.8 SQ.M	SECOND FLOOR
OFFICE	11.2 SQ.M	SECOND FLOOR
OFFICE	11.2 SQ.M	SECOND FLOOR
SECONDARY USE (ANCILLARY)		
MULTI PURPOSE SPACE	1102.4 SQ.M	GROUND FLOOR
FEAST HALL/CAFE	245.6 SQ.M	GROUND FLOOR
COFFEE BAR	10.6 SQ.M	GROUND FLOOR
MEETING ROOM	28.9 SQ.M	SECOND FLOOR
SERVICE SPACE		
COAT CHECK	16.3 SQ.M	GROUND FLOOR
RECEPTION	7.7 SQ.M	GROUND FLOOR
MALE CHANGE ROOM	85.9 SQ.M	GROUND FLOOR
FEMALE CHANGE ROOM	86.8 SQ.M	GROUND FLOOR
UNIVERSAL W/C	9.3 SQ.M	GROUND FLOOR
STORAGE/JAN. CL.	15.0 SQ.M	GROUND FLOOR
COMMERCIAL KITCHEN	134.5 SQ.M	GROUND FLOOR
STAFF W/C	4.8 SQ.M	GROUND FLOOR
STAFF W/C	3.6 SQ.M	GROUND FLOOR
STORAGE/MECH	44.5 SQ.M	GROUND FLOOR
STORAGE	56.5 SQ.M	GROUND FLOOR
JAN. CL.	6.3 SQ.M	SECOND FLOOR
W/C	3.8 SQ.M	SECOND FLOOR
B.F W/C	6.5 SQ.M	SECOND FLOOR
CIRCULATION		
BUILDING LINK	55.5 SQ.M	GROUND FLOOR
LOBBY	117.6 SQ.M	GROUND FLOOR
VESTIBULE	15.4 SQ.M	GROUND FLOOR
EXIT CORRIDOR	3.8 SQ.M	GROUND FLOOR
STAIR A	22.7 SQ.M	GROUND FLOOR
CORRIDOR 01	48.3 SQ.M	GROUND FLOOR
STAIR B	24.2 SQ.M	GROUND FLOOR
CORRIDOR 02	62.4 SQ.M	GROUND FLOOR
CORRIDOR 03	120.2 SQ.M	SECOND FLOOR
STAIR A	22.7 SQ.M	SECOND FLOOR
STAIR B	20.5 SQ.M	SECOND FLOOR
AREA TOTALS		
PRIMARY USE (WORSHIP):	**1449.5 SQ.M**	[587.7 SQ.M NEW BUILD ONLY]
SECONDARY USE (ANCILLARY):	**1387.5 SQ.M**	
SERVICE SPACE:	**481.5 SQ.M**	
CIRCULATION:	**513.3 SQ.M**	

BUILDING AREAS	SQ.M.	SQ.FT.
BUILDING FOOTPRINT	2,507.23m²	26,987.6ft²
GROUND FLR. GROSS AREA	2,507.23m²	26,987.6ft²
SECOND FLR. GROSS AREA	703.31m²	7,570.4ft²
TOTAL GROSS FLR. AREA	3,210.54m²	34,558.0ft²

CLIENT NAME:

BCCO BRUNSTAD CHRISTIAN CHURCH

NOTES:

1) ALL WORK TO BE IN COMPLIANCE WITH LOCAL BUILDING CODES, REGULATIONS AND BY-LAWS.

2) ADDITIONAL DRAWINGS MAY BE ISSUED FOR CLARIFICATION TO ASSIST PROPER EXECUTION OF WORK. SUCH DRAWINGS WILL HAVE THE SAME MEANING AND INTENT AS IF THEY WERE INCLUDED WITH PLANS IN CONTRACT DOCUMENTS.

3) DO NOT SCALE DRAWINGS.

4) ALL SUB-CONTRACTORS TO TAKE THEIR OWN ON-SITE MEASUREMENTS AND BE RESPONSIBLE FOR THEIR ACCURACY

5) NOTIFY SHAWN J. LAWRENCE ARCHITECT FOR ANY ERRORS AND/OR OMISSIONS PRIOR TO START OF WORK.

SEAL:

NORTH ARROW:

NO.	DATE	REVISION
16	2024.06.24	ISSUED FOR COORDINATION
15	2024.06.10	ISSUED FOR REVIEW
14	2024.02.12	ISSUED FOR REVIEW
13	2024.02.05	ISSUED FOR COORDINATION
12	2024.01.23	ISSUED FOR REVIEW
11	2023.12.04	ISSUED FOR PRE-CONSULT
10	2023.11.30	ISSUED FOR REVIEW
09	2023.10.24	ISSUED FOR REVIEW
08	2023.10.20	ISSUED FOR REVIEW
07	2023.10.17	ISSUED FOR REVIEW
06	2023.10.02	ISSUED FOR REVIEW
05	2023.04.13	ISSUED FOR REVIEW
04	2023.03.22	ISSUED FOR REVIEW
03	2023.01.27	ISSUED FOR REVIEW
02	2023.01.12	ISSUED FOR REVIEW
01	2023.05.25	ISSUED FOR REVIEW

S.J.LAWRENCE ARCHITECT INCORPORATED
10 DEAKIN STREET
SUITE 205
OTTAWA, ONTARIO
K2E 8B7
T. (613) 734.7770
F. (613) 734.7303
sjlesjlarchitect.com

LAWRENCE ARCHITECT INCORPORATED

PROJECT:

BCCO CHURCH ADDITION

1451 CENTURY RD W, NORTH GOWER, ON

SHEET TITLE:

PROPOSED SITE PLAN

DRAWN BY: D.T. B.L.

CHECKED BY: S.J.L.

PLOT DATE: 2024.06.24

PROJECT DATE: 2023.03.15

JOB NUMBER: SL-1090-23

SCALE: 1:400

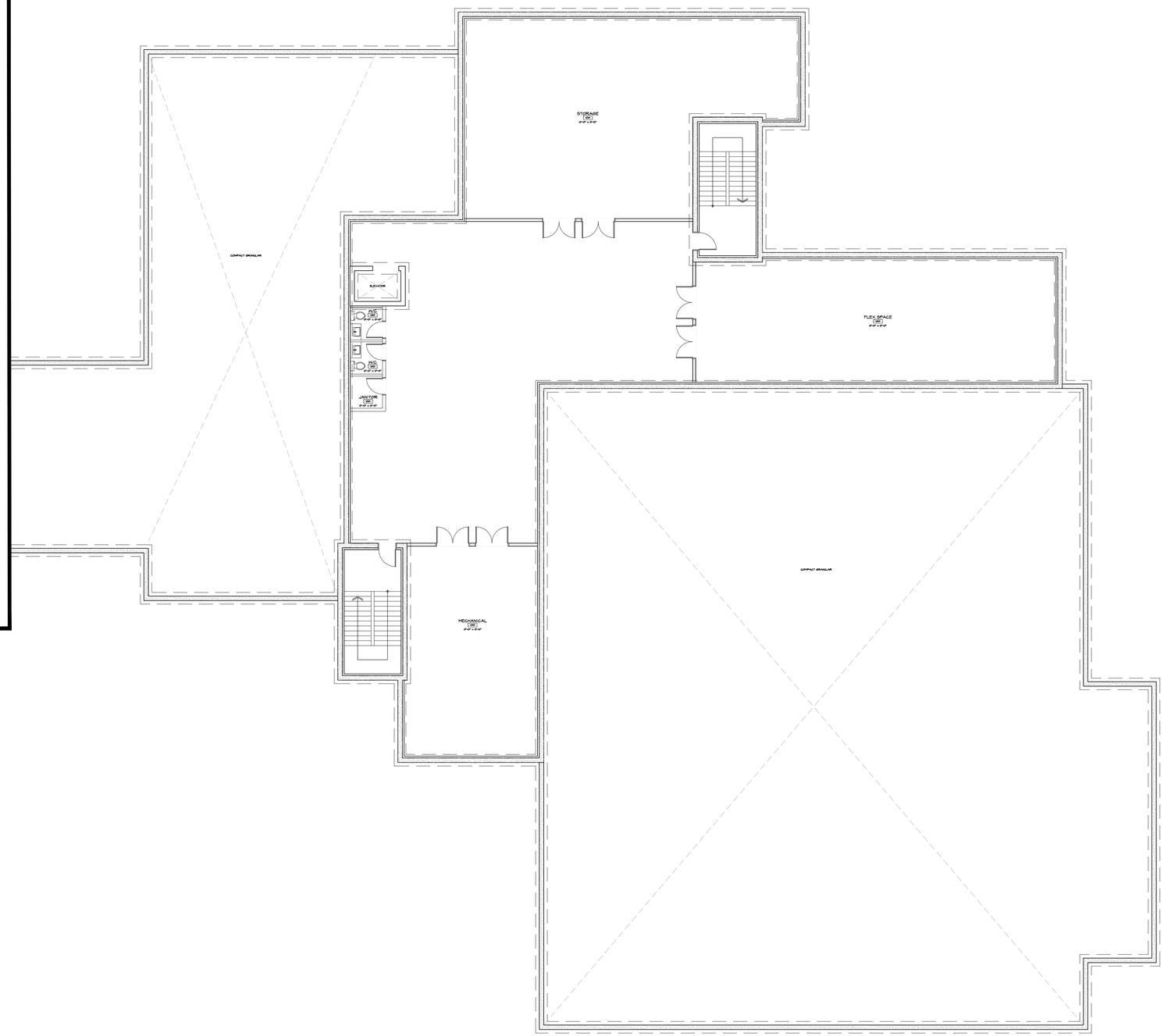
SHEET NUMBER:

A1.0

PLAN #

APPLICATION #

EXISTING
ONE-STOREY
COMMERCIAL BLDG.
BLDG. FOOTPRINT:
861.8sq.m.
[9,276sq.ft.]



01 PROPOSED BASEMENT PLAN
A2.0 SCALE:1:125

CLIENT NAME:
BCCO BRUNSTAD CHRISTIAN CHURCH

NOTES:

1) ALL WORK TO BE IN COMPLIANCE WITH LOCAL BUILDING CODES, REGULATIONS AND BY-LAWS.

2) ADDITIONAL DRAWINGS MAY BE ISSUED FOR CLARIFICATION TO ASSIST PROPER EXECUTION OF WORK. SUCH DRAWINGS WILL HAVE THE SAME MEANING AND INTENT AS IF THEY WERE INCLUDED WITH PLANS IN CONTRACT DOCUMENTS.

3) DO NOT SCALE DRAWINGS.

4) ALL SUB-CONTRACTORS TO TAKE THEIR OWN ON-SITE MEASUREMENTS AND BE RESPONSIBLE FOR THEIR ACCURACY

5) NOTIFY SHAWN J. LAWRENCE ARCHITECT FOR ANY ERRORS AND/OR OMISSIONS PRIOR TO START OF WORK.

SEAL:

NORTH ARROW:

No.	DATE	REVISION
10	2023.10.24	ISSUED FOR REVIEW
09	2023.10.20	ISSUED FOR REVIEW
08	2023.10.17	ISSUED FOR REVIEW
07	2023.10.02	ISSUED FOR REVIEW
06	2023.09.13	ISSUED FOR REVIEW
05	2023.08.22	ISSUED FOR REVIEW
04	2023.07.27	ISSUED FOR REVIEW
03	2023.07.12	ISSUED FOR REVIEW
02	2023.05.25	ISSUED FOR REVIEW
01	2023.04.28	ISSUED FOR REVIEW

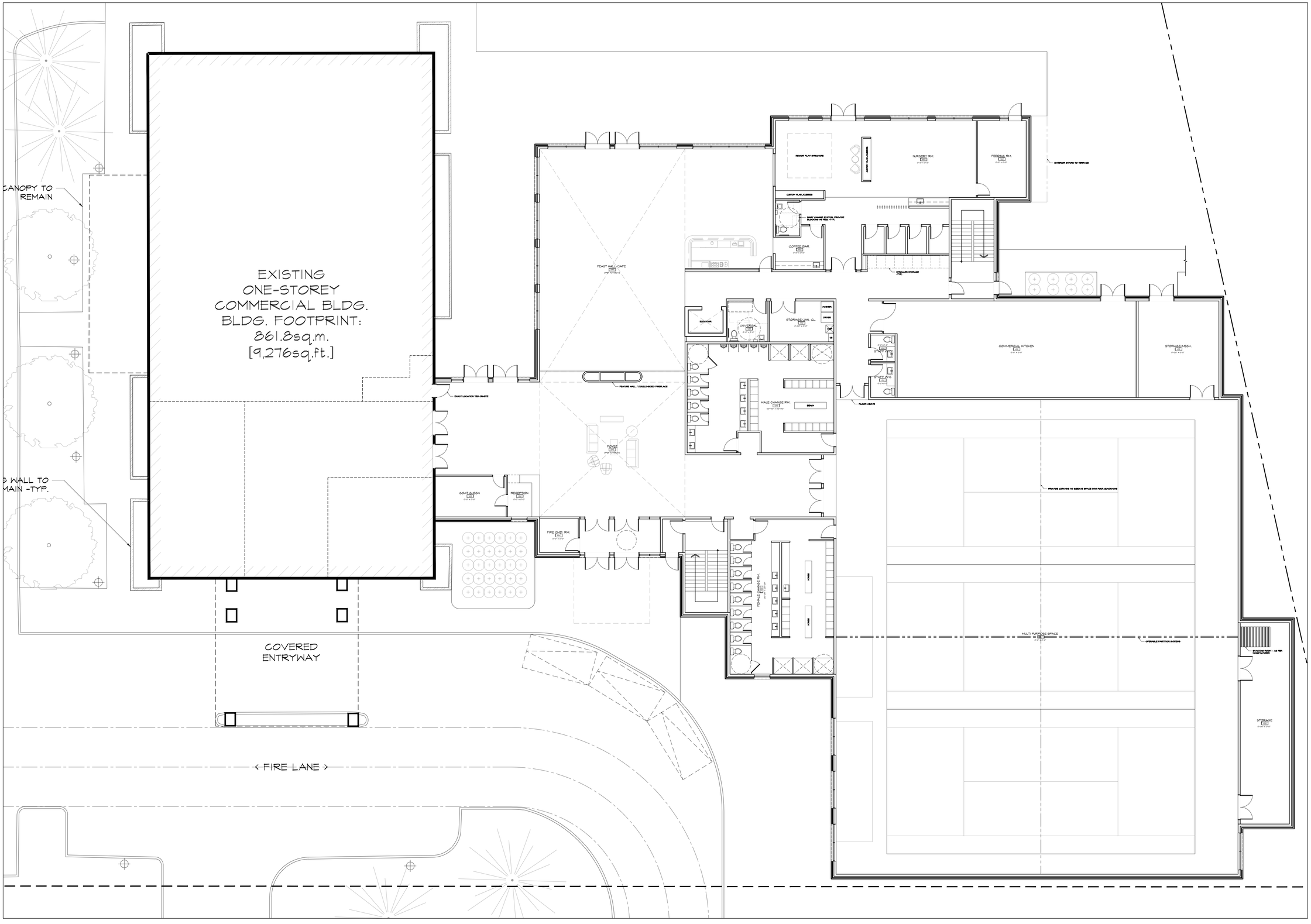
S.J.LAWRENCE ARCHITECT INCORPORATED
18 DEAKIN STREET
SUITE 209
OTTAWA, ONTARIO
K2E 8B1
T: (613) 739.7770
F: (613) 739.7703
sj@sjlarchitect.com

PROJECT:
BRUNSTAD CHRISTIAN CHURCH ADDITION
1981 CENTURY RD W, NORTH GOWER, ON

SHEET TITLE:
PROPOSED BASEMENT PLAN

DRAWN BY: B.L.
CHECKED BY: S.J.L.
PLOT DATE: 2023.10.24
PROJECT DATE: 2023.03.15
JOB NUMBER: SL-1090-23
SCALE: 1:125
SHEET NUMBER: A2.0

PLAN #
APPLICATION #



01 / A2.1 PROPOSED GROUND FLOOR PLAN - OPTION 06

SCALE: 1:125

CLIENT NAME:

BCCO BRUNSTAD CHRISTIAN CHURCH

NOTES:

1) ALL WORK TO BE IN COMPLIANCE WITH LOCAL BUILDING CODES, REGULATIONS AND BY-LAWS.

2) ADDITIONAL DRAWINGS MAY BE ISSUED FOR CLARIFICATION TO ASSIST PROPER EXECUTION OF WORK. SUCH DRAWINGS WILL HAVE THE SAME MEANING AND INTENT AS IF THEY WERE INCLUDED WITH PLANS IN CONTRACT DOCUMENTS.

3) DO NOT SCALE DRAWINGS.

4) ALL SUB-CONTRACTORS TO TAKE THEIR OWN ON-SITE MEASUREMENTS AND BE RESPONSIBLE FOR THEIR ACCURACY

5) NOTIFY SHAWN J. LAWRENCE ARCHITECT FOR ANY ERRORS AND/OR OMISSIONS PRIOR TO START OF WORK.

SEAL:

NORTH ARROW:

No.	DATE	REVISION
10	2023.10.24	ISSUED FOR REVIEW
09	2023.10.20	ISSUED FOR REVIEW
08	2023.10.17	ISSUED FOR REVIEW
07	2023.10.02	ISSUED FOR REVIEW
06	2023.09.19	ISSUED FOR REVIEW
05	2023.08.22	ISSUED FOR REVIEW
04	2023.07.21	ISSUED FOR REVIEW
03	2023.07.12	ISSUED FOR REVIEW
02	2023.05.29	ISSUED FOR REVIEW
01	2023.04.20	ISSUED FOR REVIEW

S.J.LAWRENCE ARCHITECT INCORPORATED

15 DEAKIN STREET
SUITE 209
OTTAWA, ONTARIO
K2E 8B7

T: (613) 734.7770
F: (613) 734.7103
sjl@sjlarchitect.com

LAWRENCE ARCHITECT INCORPORATED

PROJECT:

BRUNSTAD CHRISTIAN CHURCH ADDITION

1901 CENTURY RD W, NORTH GOWER, ON

SHEET TITLE:

PROPOSED GROUND FLOOR PLAN

DRAWN BY: B.L.

CHECKED BY: S.J.L.

PLOT DATE: 2023.10.25

PROJECT DATE: 2023.03.15

JOB NUMBER: SL-1090-23

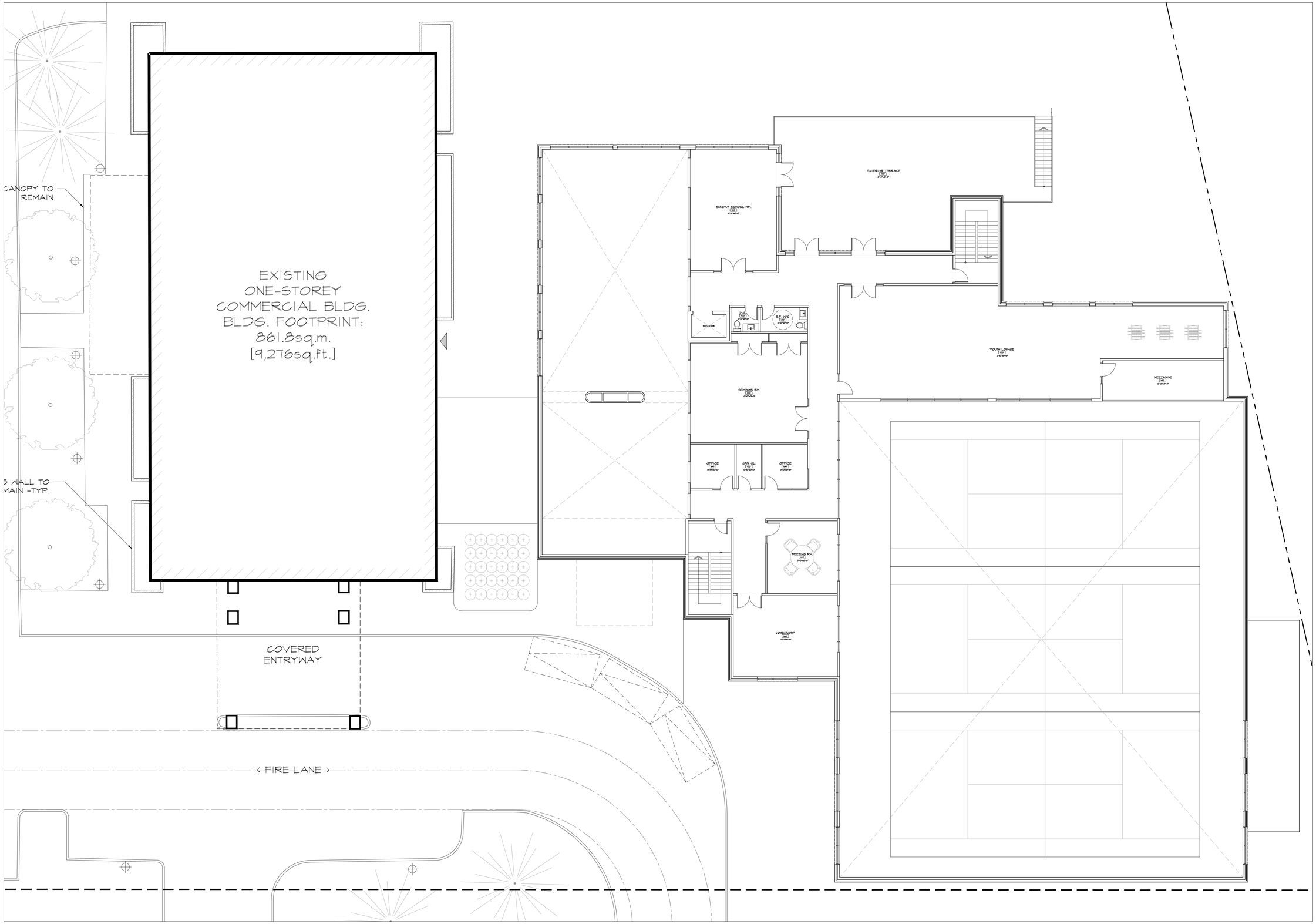
SCALE: 1:125

SHEET NUMBER:

A2.1

PLAN #

APPLICATION #



01 PROPOSED SECOND FLOOR PLAN
A2.2 SCALE:1:125

CLIENT NAME:
BCCO BRUNSTAD CHRISTIAN CHURCH

NOTES:

1) ALL WORK TO BE IN COMPLIANCE WITH LOCAL BUILDING CODES, REGULATIONS AND BY-LAWS.

2) ADDITIONAL DRAWINGS MAY BE ISSUED FOR CLARIFICATION TO ASSIST PROPER EXECUTION OF WORK. SUCH DRAWINGS WILL HAVE THE SAME MEANING AND INTENT AS IF THEY WERE INCLUDED WITH PLANS IN CONTRACT DOCUMENTS.

3) DO NOT SCALE DRAWINGS.

4) ALL SUB-CONTRACTORS TO TAKE THEIR OWN ON-SITE MEASUREMENTS AND BE RESPONSIBLE FOR THEIR ACCURACY

5) NOTIFY SHAWN J. LAWRENCE ARCHITECT FOR ANY ERRORS AND/OR OMISSIONS PRIOR TO START OF WORK.

SEAL:

NORTH ARROW:

No.	DATE	REVISION
10	2025.10.24	ISSUED FOR REVIEW
09	2025.10.20	ISSUED FOR REVIEW
08	2025.10.17	ISSUED FOR REVIEW
07	2025.10.02	ISSUED FOR REVIEW
06	2025.09.15	ISSUED FOR REVIEW
05	2025.08.22	ISSUED FOR REVIEW
04	2025.07.27	ISSUED FOR REVIEW
03	2025.07.12	ISSUED FOR REVIEW
02	2025.05.25	ISSUED FOR REVIEW
01	2025.04.28	ISSUED FOR REVIEW

S.J.LAWRENCE ARCHITECT INCORPORATED
18 DEAKIN STREET
SUITE 205
OTTAWA, ONTARIO
K2E 8B7
T: (613) 739.7770
F: (613) 739.7705
sj@sjlarchitect.com

PROJECT:
BRUNSTAD CHRISTIAN CHURCH ADDITION
1681 CENTURY RD W, NORTH GOWER, ON

SHEET TITLE:
PROPOSED SECOND FLOOR PLAN

DRAWN BY: B.L.
CHECKED BY: S.J.L.
PLOT DATE: 2025.10.24
PROJECT DATE: 2025.03.15
JOB NUMBER: SL-1090-23
SCALE: 1:125

SHEET NUMBER:
A2.2

PLAN #
APPLICATION #

Appendix B
Road Traffic Data and Sample Calculation

```
STAMSON 5.0        NORMAL REPORT        Date: 10-11-2024 16:23:03
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: C01                       Time Period: Day/Night 16/8 hours
Description: Road Traffic Impact for Receptor C01


Road data, segment # 1: Century Road (day/night)
-----------------------------------------------
Car traffic volume  :  9715/845   veh/TimePeriod  *
Medium truck volume :   773/67    veh/TimePeriod  *
Heavy truck volume  :   552/48    veh/TimePeriod  *
Posted speed limit  :    60 km/h
Road gradient       :     0 %
Road pavement       :     1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

    24 hr Traffic Volume (AADT or SADT):  12000
    Percentage of Annual Growth        :   0.00
    Number of Years of Growth          :   0.00
    Medium Truck % of Total Volume     :   7.00
    Heavy Truck  % of Total Volume     :   5.00
    Day (16 hrs) % of Total Volume     :  92.00

Data for Segment # 1: Century Road (day/night)
-----------------------------------------------
Angle1   Angle2           : -90.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  :  40.00 / 40.00  m
Receiver height           :   1.50 / 1.50   m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Results segment # 1: Century Road (day)
---------------------------------------
Source height = 1.50 m

ROAD (0.00 + 60.50 + 0.00) = 60.50 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90     90   0.66  69.03   0.00  -7.07  -1.46   0.00   0.00   0.00  60.50
-------------------------------------------------------------------------------

Segment Leq : 60.50 dBA
Total Leq All Segments: 60.50 dBA
```

End of Report