



Bill and Helen Norrie Library

Project No.: 2017-082
Tender No.: 542-2019
Address: 15 Poseidon Bay, Winnipeg, MB.



Conceptual Artist Rendering - Subject to Change - Approach from Grant Avenue and Cambridge Street



SITE CONTEXT PLAN

PROJECT DESCRIPTION:

THE PROJECT CONSISTS OF A NEW STAND ALONE 14,000 SF (1,300 SQ M) ONE STOREY LIBRARY BUILDING ON UNDEVELOPED LAND ON THE NORTHWEST CORNER OF THE GRANT PARK RECREATION CAMPUS. THE NEW LIBRARY BUILDING PROGRAM INCLUDES STAFF LOUNGE AND WORK AREAS, SERVICES COUNTER, PUBLIC WASHROOM FACILITIES, AND AN OPEN LIBRARY WITH TUTORIAL SPACES AND MULTI-PURPOSE ROOM. THE SITE WILL BE DEVELOPED TO INCORPORATE A NEW PRIVATE APPROACH AND 40 NEW DEDICATED LIBRARY PARKING STALLS NORTHWEST OF THE EXISTING PAN-AM POOL.

PROJECT TEAM:

CITY OF WINNIPEG

CLIENT

LM ARCHITECTURAL GROUP

ARCHITECT / PRIME CONSULTANT

TOWER ENGINEERING GROUP

STRUCTURAL / MECHANICAL / AND ELECTRICAL ENGINEERING

HTFC PLANNING & DESIGN

LANDSCAPE ARCHITECT

SISON BLACKBURN CONSULTING INC.

CIVIL ENGINEER

MORR TRANSPORTATION CONSULTING LTD.

TRANSPORTATION ENGINEERING

FOOTPRINT S + A SUSTAINABILITY

SUSTAINABLE DESIGN

GWH CMS LTD.

QUANTITY SURVEYOR

DRAWING LIST:

COVER SHEET
TOPOGRAPHICAL SURVEY
PROPOSED SUBDIVISION PLAN

CIVIL

C1.1 SITE SERVICING PLAN

LANDSCAPE

L-100 SITE DEMOLITION PLAN
L-200 SITE MATERIALS PLAN
L-300 SITE LAYOUT PLAN
L-400 SITE GRADING PLAN
L-500 SITE PLANTING & SIGNAGE PLAN
L-600 WOOD DECK DETAILS
L-601 CONCRETE & TIMBER BENCH DETAILS
L-602 GARBAGE ENCLOSURE & SITE FURNITURE DETAILS
L-603 HARDSCAPE DETAILS

ARCHITECTURAL

A0.1 BUILDING KEY PLAN
A2.0 CRAWLSPACE PLAN
A2.1 MAIN FLOOR PLAN
A2.2 ROOF PLAN
A3.1 MAIN FLOOR REFLECTED CEILING PLAN
A4.1 EXTERIOR ELEVATIONS
A4.2 ALUMINUM WINDOW TYPES
A4.3 BUILDING SECTIONS
A5.1 WALL SECTIONS
A5.2 WALL SECTIONS
A5.3 MISCELLANEOUS SECTIONS
A5.4 PLAN DETAILS
A5.5 PLAN DETAILS
A7.1 ENLARGED FLOOR PLAN & INTERIOR ELEVATIONS
A8.1 INTERIOR ELEVATIONS
A8.2 INTERIOR ELEVATIONS
A9.1 FURNITURE, EQUIPMENT & FLOOR FINISHES PLAN

STRUCTURAL

S1.1 GENERAL NOTES
S1.2 TYPICAL DETAILS & SECTIONS
S2.1 FOUNDATION PLAN
S2.2 MAIN FLOOR FRAMING PLAN
S2.3 ROOF FRAMING PLAN
S3.1 PLAN DETAILS & SECTIONS
S3.2 SECTIONS & DETAILS
A3.3 SECTIONS & DETAILS
A4.1 FRAMING ELEVATIONS

MECHANICAL

M0.1 LEGENDS, CALCULATIONS & DRAWING LISTS
M0.2 ASHRAE 62.1 CALCULATIONS
M0.3 SITE PLAN
M1.0 CRAWLSPACE - PLUMBING LAYOUT
M1.1 MAIN FLOOR - PLUMBING LAYOUT
M1.2 PLUMBING DETAILS
M1.3 PLUMBING DETAILS
M2.0 CRAWLSPACE - HVAC LAYOUT
M2.1 MAIN FLOOR - HVAC LAYOUT
M2.2 HVAC DETAILS
M2.3 HVAC SECTIONS
M3.1 MAIN FLOOR - HYDRONIC LAYOUT
M3.2 HYDRONIC DETAILS & SCHEMATIC
M3.3 HYDRONIC DETAILS & SCHEMATIC
M4.1 MAIN FLOOR - FIRE PROTECTION LAYOUT
M5.1 MECHANICAL EQUIPMENT SCHEDULES
M5.2 MECHANICAL EQUIPMENT SCHEDULES

ELECTRICAL

E1.1 SITE PLAN
E2.0 LIGHTING LAYOUT - CRAWLSPACE
E2.1 LIGHTING LAYOUT - MAIN FLOOR
E3.0 POWER & SYSTEM LAYOUT - CRAWLSPACE
E3.1 POWER & SYSTEM LAYOUT - MAIN FLOOR
E4.0 LIFE SAFETY LAYOUT - CRAWLSPACE
E4.1 LIFE SAFETY LAYOUT - MAIN FLOOR
E5.1 ELECTRICAL SCHEDULES
E5.2 ELECTRICAL SCHEDULES
E6.1 SINGLE LINE DIAGRAM, RISER DIAGRAM & DETAILS

BUILDING CODE ANALYSIS:

BUILDING CODE ASSESSMENT
THIS ASSESSMENT, REVIEWED UNDER THE NATIONAL BUILDING CODE OF CANADA 2010, INCLUDING MANITOBA AMENDMENTS CONSIDERS ONLY THE PRELIMINARY DESIGN PROVIDED FOR THE PROPOSED NEW STANDALONE BILL AND HELEN NORRIE LIBRARY AND IS LIMITED TO THE DETAIL AND MATERIAL AS APPLICABLE AND APPROPRIATE TO THE DESIGN CURRENTLY IN DEVELOPMENT.

MAJOR OCCUPANCIES:
BUILDING AREA: 1,300 sm (14,000 sf).

3.2.2.25, Group A, Division 2 Up to 2 Storeys

- Not more than two storeys
- Building area is not more than 1,600 sm if one storey facing 1 street
- The building can be combustible or non-combustible construction
- Floor assemblies if of combustible construction shall be 45 min. fire rated separations.
- Mezzanines if of combustible construction shall be 45 min. fire rated separations
- Roof assemblies if of combustible construction shall be 45 min. fire rated separations
- Loadbearing walls, columns and arches supporting an assembly required to have a fire-resistance rating shall have a 45 min. fire-resistance rating or be of non-combustible construction.

OCCUPANT LOAD:

Per Table 3.1.17, the Occupant Load is calculated as a function of its area:

TOTAL OCCUPANT LOAD: **215 persons total** (to be confirmed with library design development.)

- STAFF: = **15 persons**
- TUTORIAL ROOMS: 6 each * (2) total = **12 persons**
- NIP: = **50 persons**
- OPEN LIBRARY: = **129 persons**

LIFE SAFETY:

Separation of Suites
Section 3.3.1.5 mandates that 2 egress doorways be provided from a room or suite that is intended for an occupant load more than 60, and in a floor area that is sprinklered with a travel distance to an egress doorway is more than 25m or an area of the room or suite that is more than the value below from table 3.3.1.5.B.
Section 3.3.1.5.2) Where 2 egress doorways are provided they shall be placed at a distance from one another equal to or greater than one third of the maximum overall diagonal dimension.
Section 3.3.1.21 requires that a non-rated fire separation be provided for a janitor room (in a sprinklered building)

Exit

Exits shall be located, per Section 3.4.2.5, such that the travel distance to at least one exit be no more than 30 meters in a non-sprinklered A2 Occupancy

Exit Width

Refer to Section 3.4.3.2. The aggregate exit width required is 5.1mm per person (for doorways) for Assembly Occupancies (215 persons at 6.1mm each) = 1,312 meters required

HEALTH REQUIREMENTS:

Plumbing Facilities

Table 3.7.2.2.A. Water Closets for an Assembly Occupancy:
The following Occupant Loads and corresponding min. number of water closets for each sex were calculated.
Occupant Load: **215 persons total** (subtract by 10 as per 3.7.2.2.2)

- Staff served by (1) UNIVERSAL TOILET ROOM
 - 98 Male = 2 Water Closets (4 PROVIDED)
 - 98 Female = 4 Water Closets (4 PROVIDED)
- As per 3.7.2.3.1) the following amount of Lavatories shall be provided:
- Male = 2 Lavatories (2 PROVIDED)
 - Female = 2 Lavatories (2 PROVIDED)

BARRIER-FREE ACCESSIBILITY:

Section 3.8.1.2 mandates that all pedestrian entrances shall be barrier-free accessible.
Section 3.8.2.1.1) requires that a barrier-free path of travel shall be provided throughout the whole building and to every exit from the barrier-free entrances.
As per 3.8.1.3.1) the barrier-free path of travel shall not be less than 1100mm unobstructed width.

