

APPENDIX D – ELEVATOR INSTALLATION DRAWINGS

The following items must be performed or provided at no cost to Otis Elevator Company ("Otis") by the Owner or General Contractor or their agents in accordance with governing codes. The price and installation schedule of Otis is based on these job-site conditions existing at the beginning and during the installation of the elevator equipment. Failure to provide the items specified in this list will result in additional work performed by Otis Elevator beyond the scope of our contract causing installation delays. A change order will be submitted by Otis for materials and/or labor expended.

All work must be performed per the applicable national and or local codes.

General Prep/Work

1. Provide on-site storage area for elevator equipment as follows: dry and enclosed, provides roll-able access to the elevator hoistway at the ground level, located within 100 feet (30480mm) of the hoistway and is larger than 25 x 20 feet (7620mm x 6096mm) per elevator. Any warranties provided by Otis for elevator equipment are null and void if equipment is stored in a manner other than a dry enclosed building structure.
2. Provide sufficient on-site refuse containers for the proper disposal of elevator packaging material. Should sufficient refuse containers not be provided, disposal of packaging material shall become the responsibility of the owner.
3. Provide any cutouts to accommodate elevator equipment (troughing, venting, and hall fixtures), along with the patching/painting of walls, floors, or partitions together with finish painting of entrance doors and frames, if required.

Hoistway & Pit Prep/Work

4. Provide and install a steel, I-beam shaped safety beam with a maximum flange width of 8 11/16" (220mm), from side wall to side wall at the top of the hoistway, capable of withstanding a minimum net live load of 7500 lb (3402 kg) per elevator. Reference Otis Layout for location. A 4" minimum clearance is required from top of beam to top of hoistway.

If your jobsite voltage = 600VAC three phase or 240VAC single phase, and your controller is to be located in the hoistway entrance, one of the two option below must be done.

Option 1: An additional steel I-beam needs to be provided and installed. It is to be located per the Otis layout & sized the same as the safety beam for the purpose of mounting the transformer provide by Otis (See overhead requirements).

Option 2: No second beam needed. Place a transformer in an electrical room. The transformer must be mounted and wired as per the National Electrical Code (ANSI/NFPA 70). See Otis layout and fact sheets for details.

5. Provide a clear plumb hoistway with variations from the size shown on the Otis layout not to exceed -0"/+1" (25mm) and not less than the clear dimensions shown on the Otis layout

6. Provide adequate rail bracket supports, bracket spacing as required by governing code, from pit floor to top of hoistway comply with the rail reaction forces detailed on the Otis Contract Layout. Provide adequate support for the top rail brackets at locations above the top landing as specified on the Otis Layout. Provide separator beams where required. Unless approved by Otis, rail-bracket attachment supports must be exposed and flush with the clear hoistway line.

If the floor-to-floor height exceeds the maximum bracket spacing allowed by the elevator code, Otis requires some form of steel support to properly attach our guide rail brackets. The maximum allowed bracket spacing is indicated in the rail force and bracket detail table on the Otis layout. Any rail bracket mounting surfaces that are not in line with the finished hoistway dimension (i.e. the clear hoistway line) may need to be extended to meet the required distance. Otis agrees to provide guidance on this matter at the appropriate time.

If rail bracket embedded plates or inserts are provided by Otis they shall be installed by others in accordance with Otis documentation and instructions.

If vertical tube steel is utilized as rail support on car rail side, opposite cwt., (2) vertical tubes spaced at 20.4" (518mm) on center are required for car rail brackets with "A" dimension >= 5.76" (146mm).

7. Provide adequate support at all fastening points of each entrance. Provide plumb vertical surfaces for entrances and sill supports, one above the other, and square with the hoistway. Finish floor and grout, if required, between entrances and building sill line. For MRL installations, a horizontal support member is to be provided 20" (508mm) above the clear opening at the controller landing to support the entrance and controller components. If any other floor height exceeds 12'-0" (3657mm), a horizontal support member is to be provided 12" (305mm) above the clear opening.

8. Prior to the start of installation, provide a dry, properly framed, enclosed and vented hoistway in accordance with all applicable codes.

9.A.) Protection from Falls:

As required by the Occupational Safety and Health Administration (OSHA) 1926.502 B) (1-3) a freestanding removable barricade at each hoistway opening at each floor. Barricades shall be 42" (1067mm) high, with mid-rail and kick board, and withstand 200 lbs. (90.7kg) of vertical and horizontal pressure.

B.) Protection from Falling Objects:

As required by the Occupational Safety and Health Administration (OSHA) 1926.502(j) hoistway protection from falling debris and other trades materials by either:

- 1.) Full entrance screening/mesh in front of all elevator entrances
- 2.) Secured/controlled access to all elevator lobbies (lock and key) with posted Notice "only elevator personnel beyond this protection."

Notes:

Items A.) and B.) can be integrated systems.

Hoistway barricades and screening shall be constructed, maintained and removed by others.

10. Provide a pit floor designed to sustain vertical forces (based on safety impact) on car and counterweight rails and impact loads on car and counterweight buffers as shown on the Otis layout. The pit must be dry and clean. The elevator pit must have a floor drain or sump pump to prevent the accumulation of water. Location to be coordinated with Otis to avoid all elevator components and access areas. In areas requiring fire fighters emergency operation (FEO) a sump pump/drain shall be provided that shall have the capacity to remove a minimum of 11.4 m3/h (3,000 gal/h) per elevator (2.2.2.5, ASME A17.1-2007/CSA B44-07). Otis recommends that the owner verify the drain or sump pump system is in compliance with all applicable codes and laws.

11. The front entrance wall at the main landing and top landing, is not to be constructed until after all elevator installation is installed in the hoistway (the entire front wall - CLEAR HOISTWAY WIDTH - must be open for installation). Remaining front entrance walls are not to be constructed until after door frames and sills are in place.

The rough openings, per sizes shown on the Otis layout, are required. Prior to the completion and turnover of the elevator(s), all entrance walls must be installed and rough openings filled in complete to maintain fire rated hoistway requirements.

12. Provide and install a fixed vertical iron ladder in each pit as required by governing code and located per Otis layout or as coordinated with Otis personnel. Ladder width and pit wall pocket requirements are shown in the pit plan view on the Otis layout.

13. Install permanent light fixture in each elevator pit with illumination of not less than 100 lx (10 fc) as measured at the pit floor. The light bulb(s) shall be externally guarded to prevent contact and accidental breakage. The light switch shall be so located as to be accessible from the pit ladder.

14. Glass used in hoistway construction must block 98% or more of incident full-spectrum ultraviolet radiation for the full height of the hoistway.

15. If an emergency door in a blind hoistway is required, provide an outward swinging single section type door with door closer and a self closing barrier per ASME A17.1-2007, section 2.11.1.2. Contact your local Otis personnel for a detailed drawing (AAA26900D_FMI) showing Otis specific requirements.

MRL Machine Space Prep/Work

16. Maintain the temperature at the top of the hoistway (machine space) between 32° F (0° C) and 104° F (40° C). This space also includes the car controller which is mounted at the top landing. Relative humidity shall not to exceed 95% non-condensing. Provide ventilation to suit Otis heat release amounts as shown in Otis Confirmation of Power Supply form. Local codes may require tighter temperature ranges and higher ventilation levels. Please check with your local code authority for the exact requirements in your area. If your machinery space temperature exceeds this requirement, contact your local Otis sales representative for assistance.

17. Install a permanent light fixture at the top of the hoistway (machine space) of not less than 200-lux (19 fc) as measured at the level of the standing surface on the car when the elevator is at the top landing. Light switch is to be located in the hoistway per the Otis layout.

18. Install a permanent light fixture at the top landing entrance (control space), in the hall, of not less than 200-lux (19 fc) as measured at the floor level. Light switch is to be located close to the elevator entrance.

Control Room/Space and Machine Space Prep/Work

19. Provide a suitable control room/space(s) with access and ventilation in accordance with all applicable codes and regulations. The control room/space(s) shall be maintained at a temperature between 32F (0C) and 104F (40C) to be measured 6 feet (1830 mm) above the floor and 1 foot (305 mm) out from the front center of the car controller(s). Relative humidity is not to exceed 95% non-condensing. Provide ventilation to suit Otis heat release amounts as shown on the Otis Confirmation of Power Supply form. Local codes may require tighter temperature ranges and higher ventilation levels, please check with your local code authority for the exact requirements in your area. If your control room/space(s) temperatures exceed these requirements, contact your local Otis sales representative for assistance.

20. Provide illumination of control room/space(s) of not less than 200 LUX (19 FC) as measured at floor level. Light switch is to be located within 18" (157 mm) to the lock-jamb side of the access door to the control room/space(s).

21. Provide control room/space(s) with self-closing and self-locking doors with a group 2 locking device. In addition, ensure that all air gaps around the doors are sealed (i.e. threshold, weather stripping, etc.).

22. Maintain the temperature at the top of the hoistway (machine space) between 32° F (0° C) and 104° F (45° C). Relative humidity shall not to exceed 95% non-condensing. Provide ventilation to suit Otis heat release amounts as shown in Otis Confirmation of Power Supply form. If your machinery space temperature exceeds this requirement, contact your local Otis sales representative for assistance.

23. Install a permanent light fixture at the top of the hoistway (machine space) of not less than 200-lux (19 fc) as measured at the level of the standing surface on the car when the elevator is at the top landing. Light switch is to be located in the hoistway per the Otis layout.

Fire Prevention Prep/Work

24. Provide hoistway walls designed and constructed in accordance with the required fire rating (including those places where elevator fixture boxes, rail bracket fastenings, and any other penetration into the hoistway walls).

25. In the United States provide smoke detectors, located as required, with wiring from the sensing devices to the controller(s) designated by Otis.

A. For each group of elevators, provide a normally closed contact representing the smoke detector at the designated return landing.

B. For each group of elevators, provide a normally closed contact representing all smoke detectors located in lobbies, hoistways, or control rooms/spaces but not the smoke detector at the designated return landing (see above) or the smoke detectors as described below:

1) If a smoke detector is located in the hoistway at or below the lower of the two recall landings, it shall be wired to activate the same normally closed contact as the smoke detector located in the lobby at the lower of the two recall landings.

2) If the control room/space(s) are located at the designated return landing, the smoke detectors located therein shall be wired to activate the same normally closed contact as the smoke detector at the designated landing.

C. Requirements for intermittently illuminating the fire hat visual signal in the car operating panel, either 1) or 2) must be selected.

1) For a single unit, or group of elevators having control room/space(s) and one common hoistway, provide one additional normally closed contact representing the control room/space(s) and hoistway smoke detectors.

2) If the group contains more than one hoistway, and hoistway smoke detectors are installed, provide one normally closed contact for each elevator. The contact is to represent the smoke detectors in the control room/space(s) or hoistway containing that particular elevator.

26. In Canada provide smoke detectors, located as required, with wiring from the sensing devices to the controller(s) designated by Otis.

A. For each group of elevators, provide a normally closed contact representing the smoke detector at the designated return landing and if provided, from the sensing device in the pit.

B. For each group of elevators, provide a normally closed contact representing all smoke detectors located in elevator lobbies, but not the smoke detector at the designated return landing (see above), and if provided, from the sensing device in the top of the hoistway.

C. For each group of elevators, provide a normally closed contact representing the smoke detector in the elevator machine space.

D. If the control space is located at the designated return landing, the smoke detectors located therein shall be wired to activate the same normally closed contact as the smoke detector at the designated landing. For each group of elevators, provide in addition to the above, a normally closed contact representing the sensing devices in the pit or at the top of the hoistway (For the Fire Hat in the Elevator).

27. In the United States, if sprinklers are installed in the hoistway(s), or machine space(s), a means to automatically disconnect the main line power supply of the affected elevator and any other power supply used to move the elevator upon or prior to the application of water is required (unless prohibited by local code). Smoke detectors shall not be used to activate sprinklers in hoistway(s), or machinery spaces or to disconnect the mainline power supply.

In addition, when the Automatic Recovery Operation (ARO) is specified, the means provided to automatically disconnect power to the elevator shall be equipped with an additional auxiliary contact that is positively opened when power is removed from the elevator system. This automatically controlled mainline disconnect must be provided with all associated wiring and conduit to the controller.

28. Provide an "ABC" fire extinguisher, minimum 10 lbs for machine space, and located convenient to the top landing elevator entrance.

29. Provide control room/space(s) and door to code compliant fire-resistive construction.

Electrical Requirements

30. 3 Phase Power MRL - Provide a permanent three (3) phase electrical-feeder system with a separate equipment-grounding conductor terminating in the elevator controller located at the top landing or transformer located at the top of the hoistway. Permanent three (3) phase electrical-feeder to be terminated at the elevator controller or transformer at the start of installation of the top landing elevator entrance and the timing of connection to Otis controller shall be coordinated with the elevator installer. shall be coordinated with the elevator installer. Feeder conductors and grounding conductor sized according to elevator current characteristics as shown on the Otis Confirmation of Power Supply form. Feeder conductors and grounding conductor must be copper. Provide a fused disconnect switch or circuit breaker capable of being locked in the open position, for each elevator per the National Electrical Code (ANSI/NFPA 70) or Canadian Electrical Code (C22.1) with feeder or branch wiring to elevator controller [NEC 620-51, 620-61(D), and 620-62] or [CEC Rule 38-013 (2) (a)] located at the point of power distribution in the building. The disconnecting means required by the National Electrical Code or Canadian Electrical Code CEC [Rule 38-051] shall be provided with all associated wiring and conduit to the elevator controller. Size of main contacts to suit elevator power characteristics. Fuses, if provided, are to be current limiting class J or equivalent. Circuit breakers, if provided, are to have current limiting characteristics equivalent to class J fuses. Fuses or circuit breakers are to be time delay to cover the full load up accelerating current. Accelerating current typically is the peak as indicated on the Otis Confirmation of Power Supply Form, and lasts for duration not to exceed 7 seconds. Feeder conductors and associated wiring to the controller to be sized to limit wiring voltage drop to 5% maximum when delivering elevator full load up accelerating current. The building power system used to operate the elevator(s) shall be capable of supplying non linear loads and be capable of absorbing the regenerated power listed on the Otis Confirmation of Power Supply form.

Single Phase Power MRL - Provide a permanent single phase electrical-feeder system with a separate equipment-grounding conductor terminating to the transformer located at the top of the hoistway. Permanent single phase electrical-feeder to be terminated at the transformer at the start of installation of the top landing elevator entrance and the timing of connection to Otis controller shall be coordinated with the elevator installer. Feeder conductors and grounding conductor sized according to elevator current characteristics shown on the Otis Confirmation of Power Supply form. Feeder conductors and grounding conductor must be copper. Provide a fused disconnect switch or circuit breaker capable of being locked in the open position, for each elevator per the National Electrical Code (ANSI/NFPA 70) or Canadian Electrical Code (C22.1) with feeder or branch wiring to elevator controller [NEC 620-51, 620-61(D), and 620-62] or [CEC Rule 38-013 (2) (a)] located at the point of power distribution in the building. The disconnecting means required by the National Electrical Code or Canadian Electrical Code CEC [Rule 38-051] shall be provided with all associated wiring and conduit to the elevator controller. Size of main contacts to suit elevator power characteristics. Fuses, if provided, are to be current limiting class J or equivalent. Circuit breakers, if provided, are to have current limiting characteristics equivalent to class J fuses. Fuses or circuit breakers are to be time delay to cover the full load up accelerating current. Accelerating current typically is the peak as indicated on the Otis Confirmation of Power Supply Form, and lasts for duration not to exceed 7 seconds. Feeder conductors and associated wiring to the controller to be sized to limit wiring voltage drop to 5% maximum when delivering elevator full load up accelerating current. The building power system used to operate the elevator(s) shall be capable of supplying non linear loads and be capable of absorbing the regenerated power listed on the Otis Confirmation of Power Supply form.

31. 3 Phase Power Control Room/Space - Provide a permanent three (3) phase electrical-feeder system with a separate equipment-grounding conductor terminating in the control room/space(s), located per Otis layout. Feeder conductors and grounding conductor sized according to elevator current characteristics as shown on the Otis Confirmation of Power Supply form. Feeder conductors and grounding conductor must be copper. A fused disconnect switch or circuit breaker capable of being locked in the open position, for each elevator per the National Electrical Code (ANSI/NFPA 70) or Canadian Electrical Code (C22.1) with feeder or branch wiring to controller [NEC 620-51, 620-61(D), and 620-62] or [CEC Rule 38-013(2)(a)]. The disconnecting means required by the National Electrical Code or Canadian Electrical Code CEC [Rule 38-051] shall be provided with all associated wiring and conduit to the controller. Size of main contacts to suit elevator power characteristics. Fuses are to be current limiting class RK1 or equivalent. Circuit breakers are to have current limiting characteristics equivalent to class RK1 fuses. Fuses or circuit breakers are to be time delay to cover the full load up accelerating current. Accelerating current typically is the peak as indicated on the Otis Confirmation of Power Supply Form, and lasts for duration not to exceed 7 seconds. Feeder conductors and associated wiring to the controller to be sized to limit wiring voltage drop to 5% maximum when delivering elevator full load up accelerating current. The building power system used to operate the elevator(s) shall be capable of supplying non linear loads and be capable of absorbing the regenerated power listed on the Otis Confirmation of Power Supply form.

Single Phase Power Control Room/Space - Provide a permanent single phase electrical-feeder system with a separate equipment-grounding conductor terminating in the control room/space(s), located per Otis layout. Feeder conductors and grounding conductor sized according to elevator current characteristics as shown on the Otis Confirmation of Power Supply form. Feeder conductors and grounding conductor must be copper. A fused disconnect switch or circuit breaker capable of being locked in the open position, for each elevator per the National Electrical Code (ANSI/NFPA 70) or Canadian Electrical Code (C22.1) with feeder or branch wiring to controller [NEC 620-51, 620-61(D), and 620-62] or [CEC Rule 38-013(2)(a)]. The disconnecting means required by the National Electrical Code or Canadian Electrical Code CEC [Rule 38-051] shall be provided with all associated wiring and conduit to the controller. Size of main contacts to suit elevator power characteristics. Fuses are to be current limiting class RK1 or equivalent. Circuit breakers are to have current limiting characteristics equivalent to class RK1 fuses. Fuses or circuit breakers are to be time delay to cover the full load up accelerating current. Accelerating current typically is the peak as indicated on the Otis Confirmation of Power Supply Form, and lasts for duration not to exceed 7 seconds. Feeder conductors and associated wiring to the controller to be sized to limit wiring voltage drop to 5% maximum when delivering elevator full load up accelerating current. The building power system used to operate the elevator(s) shall be capable of supplying non linear loads and be capable of absorbing the regenerated power listed on the Otis Confirmation of Power Supply form.

32. Provide a dedicated 125 volt, 15 ampere single-phase branch circuit with a fused disconnect switch or circuit breaker located at the point of power distribution in the building. The fused disconnect or circuit breaker shall be capable of being locked in the open position. This branch circuit supplies the car lights, car top receptacle, auxiliary lighting power source and ventilation on each car in compliance with the National Electrical Code [NEC620-53] or Canadian Electrical Code [CEC Rule 38-053]. Termination of this branch circuit shall be in the elevator controller located at the top landing and shall be connected at the same time as the permanent three (3) phase power referenced in the previous paragraph.

33. All 125 volt, 15 or 20 ampere single-phase receptacles installed in pits, machine spaces, control rooms/space(s) shall be of the ground-fault circuit-interrupter type (GFCI). A dedicated single-phase receptacle supplying a permanently installed pit sump pump shall not require GFCI protection.

34. Provide electric power for lights, tools, welding, hoisting, etc. during installation with sufficient power for starting, testing and adjusting the elevator. Provide a 220 volt, 30 ampere single-phase 4 wire electrical supply for platform operation during construction, available at the start of elevator installation.

35. Provide one (1) dedicated outside telephone line, per elevator, and terminated at the controller designated by the Otis construction superintendent. Reference the A17.1 code and the Otis power of confirmation letter for specific requirements.

36. In areas under the jurisdiction of AMSE A17.1-2004/CSA B44 or later where the elevator travel is greater than or equal to 60 feet /18 meters, provide two-way voice communications means that shall enable emergency personnel within the building to establish communications to each car individually without intervention by a person within the car. The communication means shall override communications to the outside of the building and once established shall only be terminated by emergency personnel outside the car. Refer to ASME A17.1-2004 CSA B44 or later, section 2.27.1.1.4 for exact requirements.

37. [Optional] For elevators having an intra building intercom, provide a separate 120 volt, 15 ampere, single phase power supply with fused SPST disconnect switch or circuit breaker, located as required for inter-communicating system power supply. Circuit to be arranged for feeding from the building emergency lighting supply if provided. Conduit and wiring for remotely located inter-communicating stations.

38. [Optional] For installations having emergency (standby) power, provide the standby power unit and means for starting it. The emergency (standby) power unit shall deliver to the elevator via disconnect switches in the building power distribution location or disconnect switches in the control room/space(s), sufficient power to operate one or more elevators at a time at full rated speed, and rated load.

An automatic power transfer switch for each power feeder to monitor both normal and emergency (standby) power conditions and to perform the transfer from one to the other. Switch to have two sets of normally closed dry contacts, one to be open when the switch is in the emergency (standby) power position; the other to open upon initiation of power transfer and to close when transfer is complete. Switch to have an inhibit function which will delay transfer to normal and/or emergency (standby) power by an adjustable period of 0 - 300 seconds. Switch shall have a phase monitor feature, which prohibits the transfer of power between "live" sources unless the sources are in phase with each other. If a shunt trip device is provided, an additional normally closed contact, with all associated wiring and conduit to the controller, is required from the emergency (standby) power source. The emergency (standby) power system provided shall comply with ANSI/NFPA 70 requirements 620.91. The table in section "ELEVATOR REGENERATIVE POWER REQUIREMENTS", on the Otis Confirmation of Power Supply form, contains the elevator system power regenerated under an overhauling load. The information contained in the form is to be used to determine regenerative power absorption capability for the emergency (standby) power distribution system.

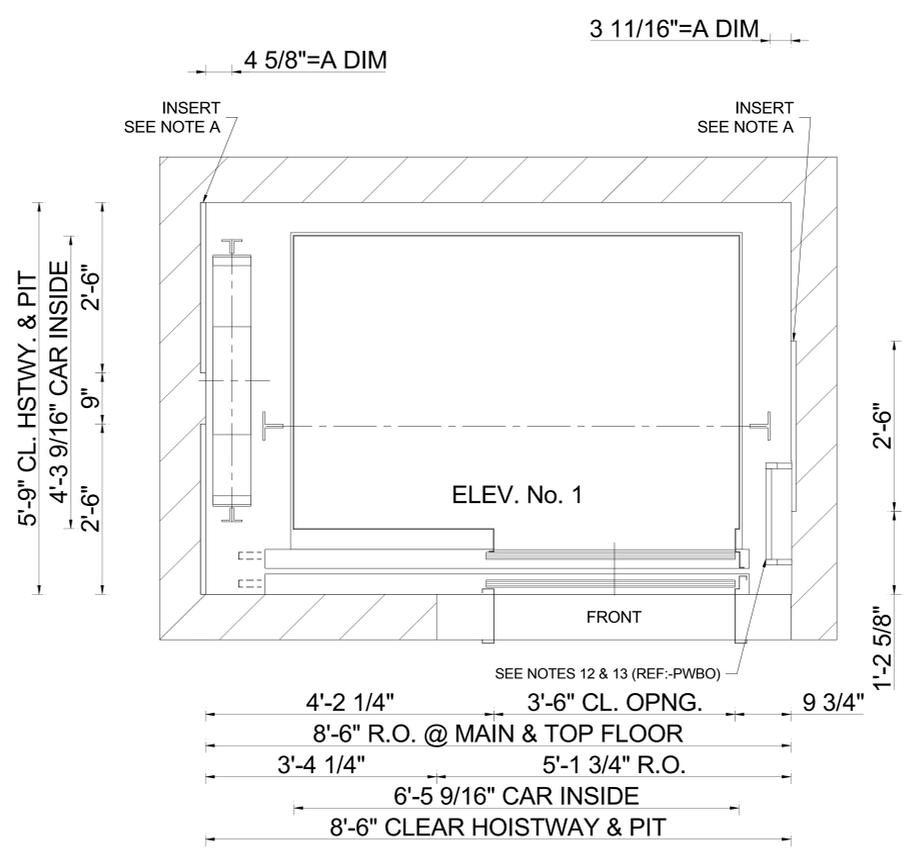
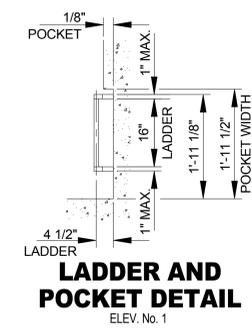
Note: The building Emergency (Standby Power) Generator system used to operate the elevator(s) shall be capable of supplying non-linear loads.

You agree to indemnify and save Otis harmless against any and all liability and costs arising out of your failure to carry out any of the foregoing requirements.

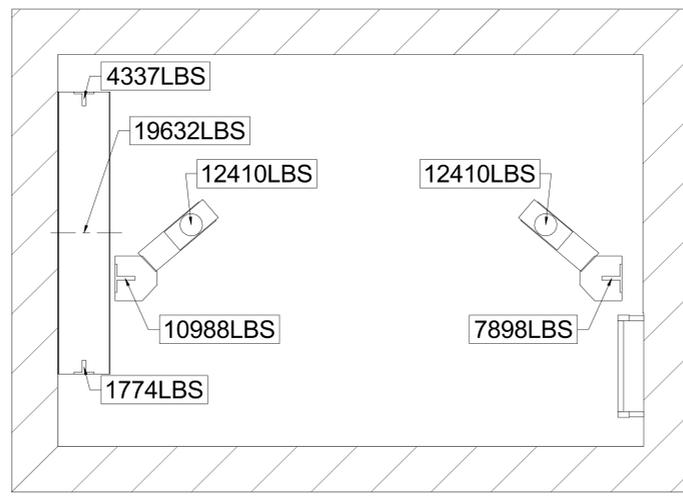
<h1>Gen2[®]</h1>	
<p>2500# @ 150 F.P.M. SEISMIC 0/1</p>	
	<h2>Otis</h2> <p>A United Technologies Company</p>
DWG. NO.:	G2S 2500-PWBO
BUILDING	St. Vital Library
LOCATION	Winnipeg Manitoba
CONT. WITH	City of Winnipeg
OWNER	
ARCHT.	City of Winnipeg
CONTRACT NO.	

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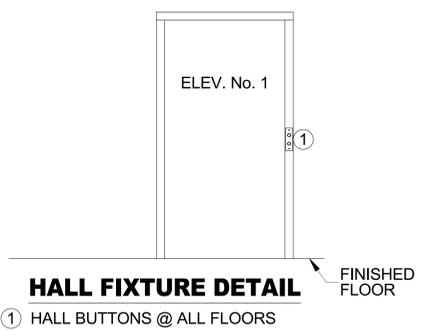
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PLAN VIEW



PIT PLAN VIEW



NOTE A
THESE DIMENSIONS ARE BASED ON HOISTWAY SIZES SHOWN & 30" INSERTS. IF EITHER OF THESE VARY, CONSULT THE SALES REPRESENTATIVE.

APPROVAL
THIS ARRANGEMENT AND SUPPLEMENTARY NOTES APPROVED
SIGNED: _____ DATE: _____

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Gen2[®]
2500# @ 150 F.P.M.
SEISMIC 0/1



DWG. NO.: **G2S 2500-PN**

BUILDING St. Vital Library

LOCATION Winnipeg Manitoba

CONT. WITH City of Winnipeg

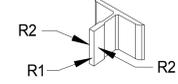
OWNER

ARCHT. City of Winnipeg

CONTRACT NO.



RAIL FORCE & BRACKET SPACING DETAIL



SEE NOTES 6 & 7

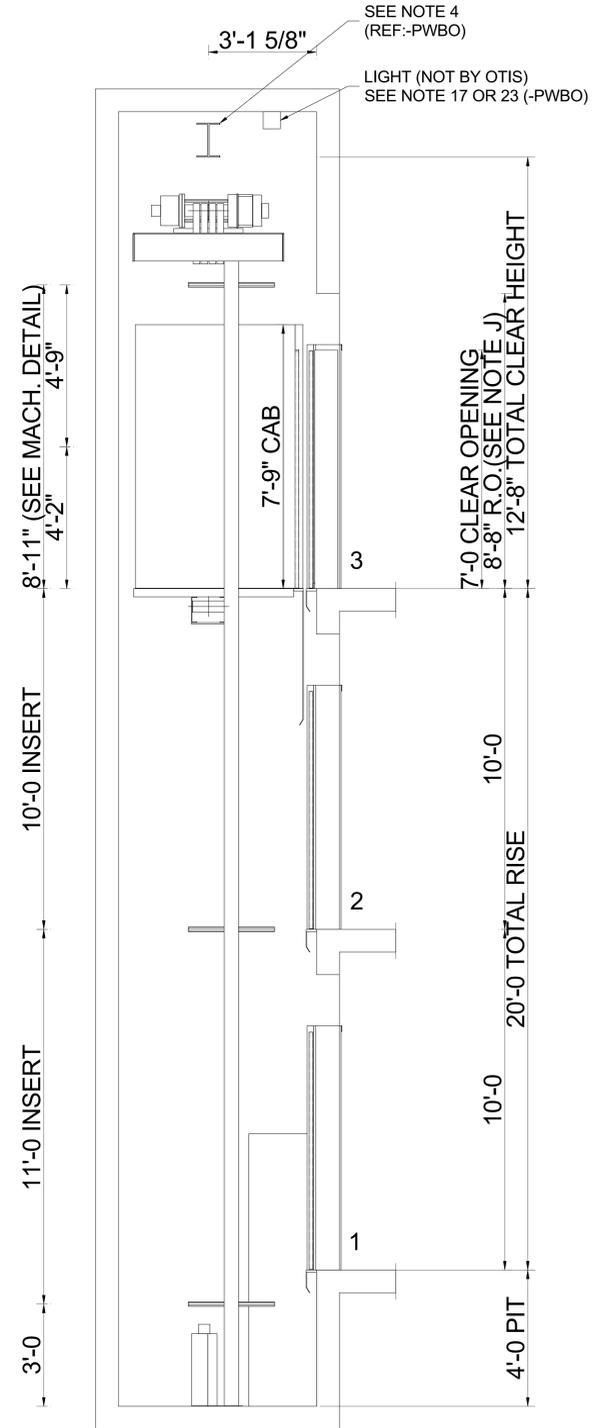
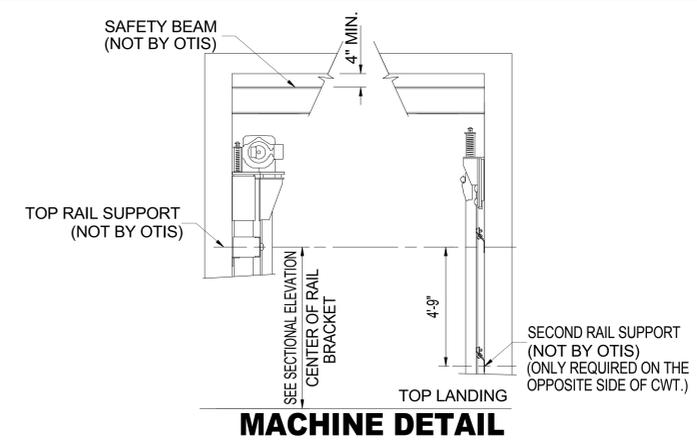
CAR	R1	414 lbs
	R2	64 lbs
	MAXIMUM BRACKET SPACING	12' 0"
CWT	R1	215 lbs
	R2	16 lbs
	MAXIMUM BRACKET SPACING	12' 0"
	RAIL SIZE	2

FIRST INTERMEDIATE RAIL SUPPORT LOCATION TO BE LOCATED 14' 0" FROM PIT FLOOR. ALL OTHER INTERMEDIATE SUPPORTS CANNOT EXCEED THE MAXIMUM BRACKET SPACING IN THE RAIL FORCE & BRACKET SPACING DETAIL

CAR R1 = SAFETY APPLICATION
CWT R1 = LOADING OR RUNNING
R2 = LOADING OR RUNNING

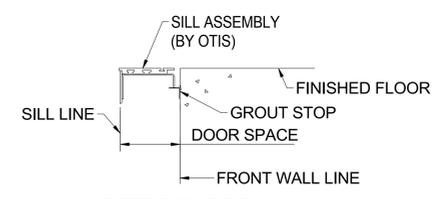
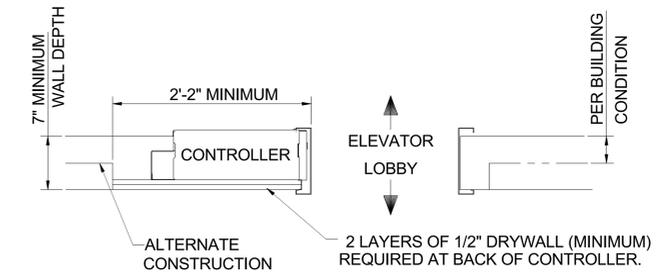
REQUIREMENTS FOR RAIL BRACKET SUPPORT (NOT BY OTIS):
DEFLECTION NOT TO EXCEED 1/8"
BASED ON HORIZONTAL RAIL FORCES.

NOTE J
ROUGH OPENING AT ALL FLOORS, EXCEPT TOP LANDING, EQUALS 7'-10"
TOP LANDING EQUALS 8'-8".



SECTIONAL ELEVATION

FOR MAX. SPACING BETWEEN INSERTS SEE RAIL FORCE DETAIL



ADEQUATE SUPPORT AT ALL FASTENING POINTS OF ENTRANCE ASSEMBLY REQUIRED. MUST WITHSTAND A HORIZONTAL PULL-OUT FORCE OF 140 LBS. @ EA. FASTENING POINT (8 @ EA. ENTRANCE) INCLUDING SUPPORT FOR CENTER SILL SUPPORT BRACKET (NOT BY OTIS).

APPROVAL
THIS ARRANGEMENT AND SUPPLEMENTARY NOTES APPROVED
SIGNED: _____ DATE: _____

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Gen2[®]

**2500# @ 150 F.P.M.
SEISMIC 0/1**



DWG. NO.: **G2S 2500-EL**

BUILDING St. Vital Library

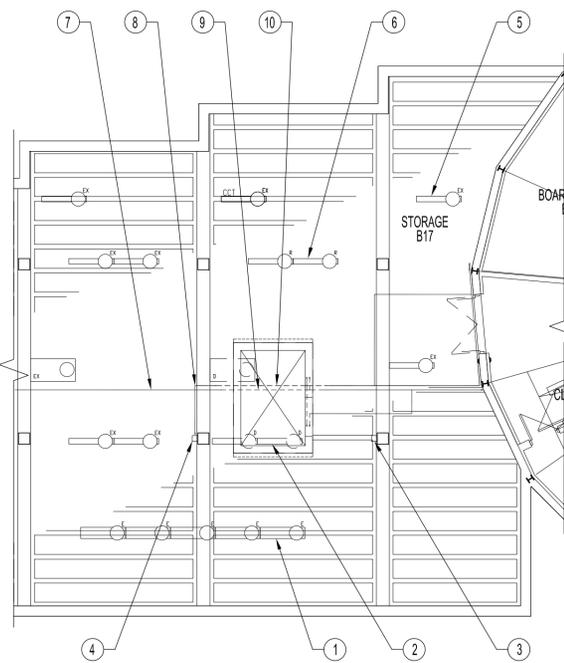
LOCATION Winnipeg Manitoba

CONT. WITH City of Winnipeg

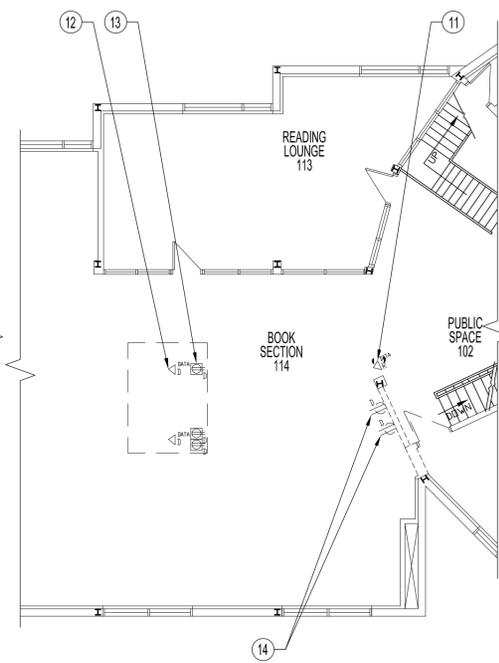
OWNER

ARCHT. City of Winnipeg

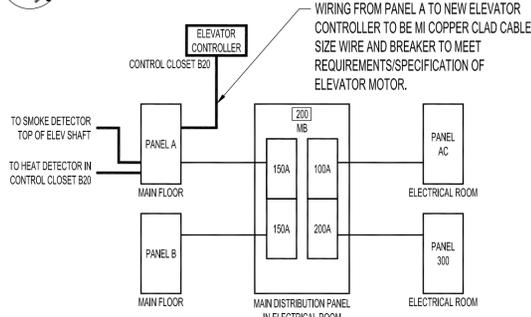
CONTRACT NO.



1 BASEMENT PLAN - ELECTRICAL DEMOLITION
E1 | E1 | SCALE 1/8" = 1'-0"

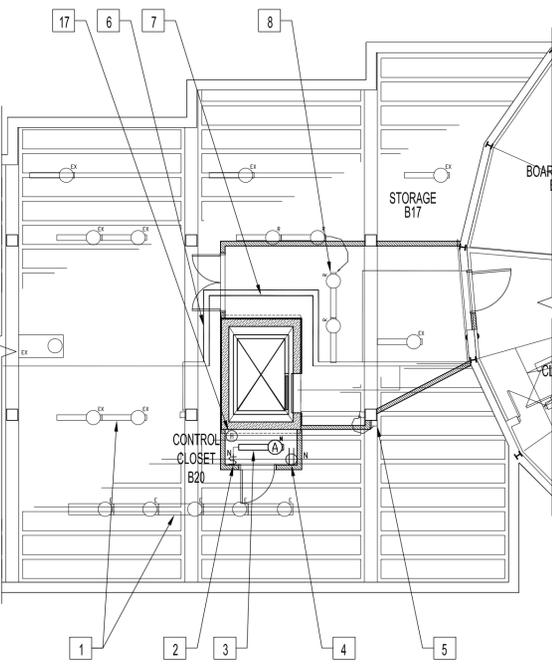


2 MAIN FLOOR PLAN - ELECTRICAL DEMOLITION
E1 | E1 | SCALE 1/8" = 1'-0"

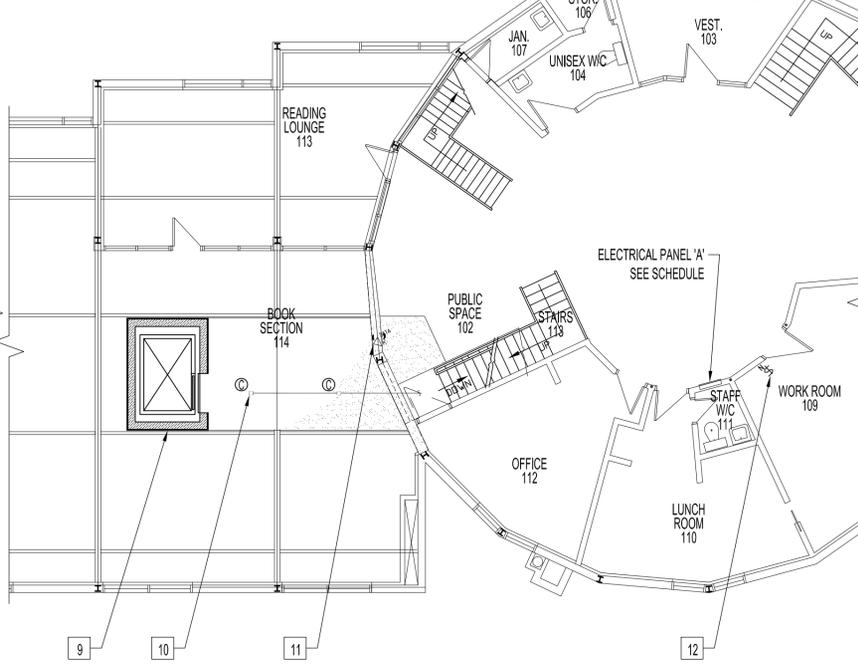


3 ELECTRICAL PANEL LAYOUT
E1 | E1 | NOT TO SCALE

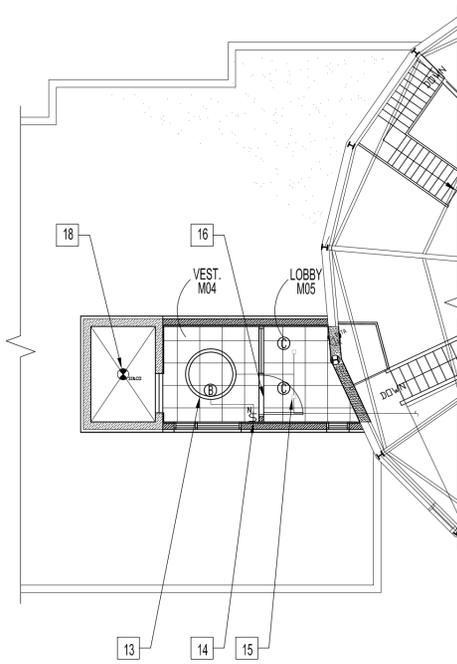
DEMAND LOAD	CIRCUIT DESCRIPTION	CIRCUIT NO. 15A 1P (10" TANKER BREAKERS) UNLESS OTHERWISE NOTED	BUS RATING 200A	CIRCUIT DESCRIPTION	DEMAND LOAD
	ADULT BOOK SECTION	1	2	ADULT BOOK SECTION	
	ADULT BOOK SECTION	3	4	ADULT BOOK SECTION	
	PUBLIC SPACE	5	6	MEZZANINE FLOOR PLUG	
	PUBLIC SPACE	7	8	ADULT BOOK SECTION	
	PUBLIC SPACE	9	10	JUNIOR BOOK SECTION	
	PUBLIC SPACE END	11	12	JUNIOR BOOK SECTION	
	MEZ. JUNIOR BOOK SECT.-CTRE.	13	14	PUBLIC SPACE END	
	MEZ. JUNIOR BOOK SECT.-CTRE.	15	16	SPARE	
	CHILD BOOK SECTION	17	18	OPAC PLUG	
	COUNTER PLUG	19	20	RED - MODERN 2 GANG	
	COUNTER PLUG	21	22	ELEVATOR	
	KITCHEN	23	24	ELEVATOR	
	OUTSIDE WALL	25	26	SPARE	
	SMOKE DETECTOR TOP OF ELEV	27	28	SPARE	
	HEAT DETECTOR CONTROL CLOSET B20	29	30	SPARE	



4 BASEMENT PLAN - ELECTRICAL RENOVATION
E1 | E1 | SCALE 1/8" = 1'-0"



5 MAIN FLOOR PLAN - ELECTRICAL RENOVATION
E1 | E1 | SCALE 1/8" = 1'-0"



6 MEZZANINE FLOOR PLAN - ELECTRICAL RENOVATION
E1 | E1 | SCALE 1/8" = 1'-0"

ELECTRICAL DEMOLITION NOTES:

- EXISTING TO REMAIN TO BE DEMOLISHED
- ① EXISTING CHAIN HUNG FLUORESCENT LIGHTING TO REMAIN. RAISE LIGHTING TO SUIT RELOCATED HVAC DUCTWORK AS REQUIRED.
- ② REMOVE AND DISCARD EXISTING CHAIN HUNG FLUORESCENT LIGHTING. AS REQUIRED TO ACCOMMODATE NEW ELEVATOR SHAFT. POWER FOR LIGHTING TO BE REMOVED BACK TO SOURCE.
- ③ EXISTING THERMOSTAT TO BE REMOVED AND RELOCATED - SEE ELECTRICAL RENOVATION PLAN - NOTE 5.
- ④ EXISTING EMERGENCY BUTTON TO REMAIN.
- ⑤ EXISTING CHAIN HUNG FLUORESCENT LIGHTING TO REMAIN.
- ⑥ EXISTING CHAIN HUNG FLUORESCENT LIGHTING TO BE RELOCATED AS PER ELECTRICAL RENOVATION PLAN - NOTE 8.
- ⑦ EXISTING ELECTRICAL CONDUIT TO REMAIN.
- ⑧ EXISTING DATA/COMMUNICATION WIRE TO REMAIN.
- ⑨ EXISTING ELECTRICAL CONDUIT TO BE REMOVED AND REINSTALLED TO ACCOMMODATE NEW ELEVATOR SHAFT.
- ⑩ EXISTING DATA/COMMUNICATION WIRE TO BE REMOVED AND REINSTALLED TO ACCOMMODATE NEW ELEVATOR SHAFT.
- ⑪ REMOVE AND RETAIN EXISTING WIFI ROUTER - REINSTALL IN NEW BULKHEAD.
- ⑫ REMOVE AND DISCARD EXISTING FLOOR MOUNTED DATA CONNECTION TO ACCOMMODATE NEW ELEVATOR SHAFT. REMOVE DATA CONNECTION BACK TO SOURCE.
- ⑬ REMOVE AND DISCARD EXISTING FLOOR MOUNTED DUPLEX RECEPTACLES TO ACCOMMODATE NEW ELEVATOR SHAFT. REMOVE POWER WIRING BACK TO SOURCE.
- ⑭ REMOVE AND DISCARD EXISTING WALL MOUNTED DUPLEX RECEPTACLES ON EXISTING WALL TO BE DEMOLISHED. REMOVE WIRING BACK TO SOURCE.

LIGHT FIXTURE SCHEDULE

TYPE	QTY.	MANUFACTURER	CATALOGUE No.	LAMP	DESCRIPTION
A	1	LIGHTOLIER	QHE2GPFOP228	2X32W, T8	1'X4' CHAIN HUNG, FLUORESCENT FIXTURE, 120V, 1 PH
B	1	ANATOMY	4800-54	224xNICHIA 757 ± 64W	54" Ø SUSPENDED LED LIGHT FIXTURE 120V, 1 PH
C	4	GOIHAM	EVO SQ 35/10 4AR 120	LED	4" EVO SQUARE RECESSED LED DOWNLIGHT 120V, 1 PH
D	120	TOKISTAR	FLBK-410-IW-HB	LED	LED LIGHTSTRIP, 0.2W, 8V, 1 PH

ALL NEW LIGHTING FIXTURES AND BALLASTS TO BE POWERSMART APPROVED. LIGHTING FIXTURE QUANTITIES SHOWN ABOVE ARE FOR REFERENCE ONLY. CONTRACTOR IS RESPONSIBLE FOR QUANTITY TAKE-OFF FROM DRAWINGS.

ELECTRICAL SYMBOLS

SYMBOL	DESCRIPTION
D	DUPLEX RECEPTACLE (REMOVE & DISCARD)
D	FLOOR MOUNT DUPLEX RECEPTACLE (REMOVE & DISCARD)
DATA	DATA CONNECTION (REMOVE & DISCARD)
N	DUPLEX RECEPTACLE (SUPPLY & INSTALL)
N	SWITCH (SUPPLY & INSTALL)
EX	EXISTING CHAIN HUNG FLUORESCENT LIGHT FIXTURES TO REMAIN.
D	EXISTING CHAIN HUNG FLUORESCENT LIGHT FIXTURES (REMOVE & DISCARD)
R	NEW CHAIN HUNG FLUORESCENT LIGHT FIXTURES (SUPPLY & INSTALL)
N/A	NEW CHAIN HUNG FLUORESCENT LIGHT FIXTURES (SUPPLY & INSTALL)
⊕	NEW VARIABLE RANGE HEAT DETECTOR
SMOKE	NEW SMOKE DETECTOR

ELECTRICAL RENOVATION NOTES:

- 1 EXISTING CHAIN HUNG FLUORESCENT LIGHTING TO REMAIN. RAISE LIGHTING TO SUIT RELOCATED HVAC DUCTWORK AS REQUIRED.
- 2 NEW WALL MOUNTED SINGLE POLE LIGHT SWITCH IN CONTROL CLOSET B20.
- 3 NEW CHAIN HUNG FLUORESCENT LIGHT FIXTURE IN CONTROL CLOSET B20 - SEE LIGHT FIXTURE SCHEDULE TYPE 'A' FOR DETAILS.
- 4 NEW WALL MOUNTED DUPLEX RECEPTACLE FOR NEW SUMP PUMP.
- 5 EXISTING THERMOSTAT TO BE RELOCATED TO OPPOSITE SIDE OF NEW WALL AS SHOWN.
- 6 NEW DATA/COMMUNICATION WIRE TO BE INSTALLED AS SHOWN TO ACCOMMODATE NEW ELEVATOR SHAFT.
- 7 NEW ELECTRICAL CONDUIT TO BE INSTALLED AS SHOWN TO ACCOMMODATE NEW ELEVATOR SHAFT.
- 8 EXISTING CHAIN HUNG FLUORESCENT LIGHTING TO BE RELOCATED AS SHOWN.
- 9 NEW LIGHTING ON WALLS OF ELEVATOR SHAFT. SEE LIGHT FIXTURE SCHEDULE TYPE 'D' FOR DETAILS. LIGHTING TO BE WIRED BACK TO NEW SWITCH IN WORK ROOM 109. SEE ARCH. DRAWINGS FOR LOCATION OF LIGHTS.
- 10 NEW RECESSED LIGHT FIXTURES IN NEW DRYWALL BULKHEAD AS SHOWN. SEE LIGHT FIXTURE SCHEDULE TYPE 'C' FOR DETAILS. LIGHTING TO BE WIRED BACK TO MASTER LIGHT SWITCH IN WORK ROOM 109.
- 11 EXISTING WIFI ROUTER REINSTALLED IN NEW DRYWALL BULKHEAD AS REQUIRED.
- 12 NEW LIGHT SWITCH FOR ELEVATOR WALL LIGHTING TYPE 'D'. CONFIRM LOCATION ON SITE.
- 13 NEW SUSPENDED LIGHT FIXTURE IN VESTIBULE M04. SEE LIGHT FIXTURE SCHEDULE TYPE 'B' FOR DETAILS. LIGHTING TO BE WIRED BACK TO MASTER LIGHT SWITCH IN WORK ROOM 109.
- 14 NEW WALL MOUNTED LIGHT SWITCH IN VESTIBULE M04.
- 15 NEW RECESSED FLUORESCENT LIGHT FIXTURE IN LOBBY M05. SEE LIGHT FIXTURE SCHEDULE TYPE 'C' FOR DETAILS. LIGHTING TO BE WIRED BACK TO MASTER LIGHT SWITCH IN WORK ROOM 109.
- 16 SUPPLY & INSTALL NEW AUTOMATIC DOOR OPENER (NORTON OPERATOR & ACUVISION SENSOR-SEE ARCH. DWG. A8, DOOR SCHEDULE) FOR BOTH SIDES OF SWING DOOR. SUPPLY & INSTALL ALL CONCEALED WIRING TO OPERATOR ON A SEPARATE CIRCUIT BREAKER ROUTED INTO HEADER, INCLUDING INSTALLING ALL NECESSARY POWER & LOW VOLTAGE WIRING FOR PROPER OPERATION OF ASSOCIATED SECURITY SYSTEMS. PROVIDE 120VAC, 60 CYCLE, SINGLE-PHASE, 15 AMP SERVICE (ALL WIRING SHALL BE CONCEALED) ON DEDICATED 20 AMP CIRCUIT BREAKER ROUTED TO HEADER.
- 17 NEW VARIABLE RANGE HEAT DETECTOR IN CONTROL CLOSET B20. CONNECT TO EXISTING FIRE ALARM SYSTEM.
- 18 NEW SMOKE DETECTOR AT TOP OF ELEVATOR SHAFT. CONNECT TO EXISTING FIRE ALARM SYSTEM ON SEPARATE ZONE AS PER MANITOBA BUILDING CODE.

NOTES:

ALSO SEE ARCHITECTURAL, ROOF & ELECTRICAL DWGS.

THESE DRAWINGS SHALL NOT BE SCALED.

THE CONTRACTOR SHALL VISIT THE SITE AND SATISFY ONESELF ALL DIMENSIONS, DATUM, AND DETAILED INFORMATION SHOWN ARE CORRECT.

THE CONTRACTOR IS TO REVIEW AND COORDINATE ALL ARCHITECTURAL, STRUCTURAL, MECHANICAL, & ELECTRICAL DRAWINGS FOR ADDITIONAL OPENINGS THROUGH ROOFS, FLOORS, WALLS, AND CEILINGS FOR DUCTWORK, PIPE & ELECTRICAL RISERS AND ALL OPENINGS NOT SHOWN ON DRAWINGS.

ALL NEW & EXISTING OPENINGS THROUGH FIRE ASSEMBLIES ARE TO BE FIRE STOPPED AND SEALED WITH U.L.C. APPROVED FIRE STOPPING TO MAINTAIN THE INTEGRITY OF THE FIRE SEPARATION, AND PROVIDE A SMOKE-TIGHT BARRIER.

ALL PRODUCTS AND MATERIALS TO BE USED AND INSTALLED SHALL CONFORM WITH MANUFACTURER'S SPECIFICATIONS & APPLICABLE CODES.

THE CONTRACTOR SHALL BE RESPONSIBLE TO PATCH AND MAKE GOOD ALL EXISTING CONSTRUCTION AFFECTED BY THE REMOVAL OF ALL ITEMS FORMING THE PART OF THE RENOVATION WORK.

SUPPLY & INSTALL ELECTRICAL WORK AS SHOWN ON PLAN & THE FOLLOWING:

REMOVE & REROUTE ALL ELECTRICAL ITEMS TO ACCOMMODATE THE RENOVATION WORK & ELEVATOR INSTALLATION.

COVER PLATES FOR SWITCHES, RECEPTACLES, AND OTHERS SHALL BE STAINLESS STEEL.

PROVIDE TYPED DIRECTORY AT PANELS INDICATING ACCURATELY THE LOADS CORRESPONDING TO CIRCUIT NUMBERS.

ALL NEW POWER OUTLET RECEPTACLES SHALL HAVE PRINTED LABELS AT THE COVER PLATE INDICATING PANEL AND CIRCUIT NUMBER.

ALL WIRING SHALL BE COPPER, MIN. #12 AWG IF RUN EXPOSED, WIRING SHALL BE IN EMT, IF RUN CONCEALED, WIRING SHALL BE AC90 X-LINK BX CABLE.

SURFACE WIRING IN FINISHED AREA SHALL RUN NEATLY IN WIREMOLD NON-METALLIC RACEWAY SYSTEM 800 BASE & COVER, IVORY FINISH WITH #2347 BOX FOR SWITCHES & RECEPT. AND #2348 BOX FOR MTS OUTLETS.

PROVIDE ALL NECESSARY POWER HOOKUPS DISCONNECTS, BREAKERS ETC. AS REQUIRED TO NEW ELEVATOR. VERIFY ALL DETAILS WITH ELEVATOR SUPPLIER.

INSTALLATION OF EQUIPMENT MUST CONFORM TO THE IEC STANDARDS OF THE INTERNATIONAL MECHANICAL CODE, THE NATIONAL BUILDING CODE, INSTALLATION OF AIR CONDITIONING AND VENTILATING SYSTEMS STANDARD, NFPA 96A, ASHRAE, CSA & LOCAL BUILDING, PLUMBING & WASTE WATER CODES. ALL APPLIANCES MUST BE ELECTRICALLY GROUNDED IN ACCORDANCE WITH LOCAL CODES & THE LATEST CANADIAN ELECTRICAL CODE.

AT THE COMPLETION OF THE PROJECT THE CONTRACTOR SHALL PROVIDE AN ELECTRICAL INSPECTION CERTIFICATE AND ENSURE ALL SYSTEMS ARE FUNCTIONING PROPERLY.

ORIGINAL SEALED BY:
D.A. Paley P. Eng.
Date: JULY 16, 2014

No.	REVISION/DESCRIPTION	BY	DATE
SEAL			

DRAWN	CHECKED	DESIGNED	APPROVED
DATE 2014.07.16	USER APPROVAL		

THE CITY OF WINNIPEG
PLANNING, PROPERTY AND
DEVELOPMENT DEPARTMENT
MUNICIPAL ACCOMMODATIONS DIVISION
3-65 GARRY STREET, R3C 4K4

PROJECT
ST. VITAL LIBRARY
NEW ELEVATOR INSTALLATION

6 FERMOR AVENUE
SHEET TITLE

PARTIAL BASEMENT, MAIN &
MEZZANINE FLOOR PLANS
ELECTRICAL DEMOLITION & RENOVATION

SCALE	PROJECT No:	SHEET No:
AS SHOWN	2013-154	E1

Exterior Insulation and Finish System (EIFS)

Part 1: GENERAL

Materials and installation of Class PB EIF System with air barrier membrane (air barrier and secondary weather-resistive barrier)

Exterior - Select Finish CAOT off white with light reflectance of 20 or greater. Submit sample as required.

Manufacturer's Instructions: Compliance. Comply with manufacturer's written data, including product technical bulletins, product catalogue installation instructions, product carton installation instructions and technical data sheets.

1.1 SUBMITTALS

- Manufacturer's specifications, details, installation instructions and product data.
- Applicator's certificate of instruction.
- Samples for approval as directed by architect or owner.
- Manufacturer's standard warranty.
- Manufacturer's certificate of compliance with EIMA standards.
- EPS board manufacturer's certificate of compliance with the current edition of EIMA Guideline Specifications for Expanded Polystyrene (EPS) Insulation Board
- Sealant Manufacturer's certificate of compliance with EIMA Standard 300.01.
- Prepare and submit project-specific details (when required by contract documents) and mock up for Architect's approval.

1.2 QUALITY ASSURANCE

- Manufacturer requirements
 - Member in good standing of the EIFS Industry Members Association (EIMA).
 - System manufacturer for a minimum of fifteen (15) years.
- Contractor requirements
 - Engaged in application of Class PB EIFS for a minimum of three (3) years.
 - Knowledgeable in the proper use and handling of Sto materials.
 - Employ skilled mechanics who are experienced and knowledgeable in Class PB EIFS application, and familiar with the requirements of the specified work.
 - Successful completion of minimum of three (3) projects of similar size and complexity to the specified project.
- Provide the proper equipment, manpower and supervision on the job site to install the system in compliance with Sto's published specifications and details and the project plans and specifications.
- Insulation board manufacturer requirements
 - Recognized by Sto as capable of producing insulation board to meet system requirements, and hold a valid licensing agreement with Sto.
 - Listed by an approved agency.
 - Label insulation board with information required by Sto, the approved listing agency and the applicable building code.

1.3 DELIVERY, STORAGE AND HANDLING

- Deliver all EIFS materials in their original sealed containers bearing manufacturer's name and identification of product.
- Protect coatings (pail products) from freezing and temperatures in excess of 90 degrees F (32 degrees C). Store away from direct sunlight.
- Protect Portland cement based materials (bag products) from moisture and humidity. Store under cover off the ground in a dry location

1.4 PROJECT/SITE CONDITIONS

- Maintain ambient and surface temperatures above 40 degrees F (4 degrees C) during application and drying period, minimum 24 hours after application of EIFS.
- Provide supplementary heat for installation in temperatures less than 40 degrees F (4 degrees C).
- Provide protection of surrounding areas and adjacent surfaces from application of materials

1.5 COORDINATION/SCHEDULING

- Coordinate installation of windows, doors and other penetrations through the system so air barrier membrane is connected with them to form a continuous air barrier membrane (air barrier and secondary weather-resistive barrier).
- Coordinate installation of foundation waterproofing and roofing membrane to provide a continuous air seal and waterproof membrane where wall system adjoins them.
- Install sill flashings, copings and sealant immediately after installation of the system and when EIFS coatings are dry

1.6 WARRANTY

- Provide manufacturer's standard labor and material warranty.

Part 2: PRODUCTS

2.1 MANUFACTURERS

- Sto Corp.
- Provide EIFS components, air barrier membrane and accessories from single source EIFS manufacturer or approved supplier.

2.2 AIR BARRIER MEMBRANE

- Sto Flexyl-trowel applied acrylic based fiber reinforced air barrier and waterproof membrane (for use over Exterior gypsum sheathing, Dens-Glass Gold sheathing, Exterior cementitious sheathing, concrete, masonry or plaster surfaces).

2.3 ADHESIVE

- Sto BTS Plus-One component, polymer modified, cement based high build adhesive (for use over Exterior gypsum sheathing, Dens Glass Gold sheathing, Exterior cementitious sheathing, concrete, masonry or plaster surfaces. Not recommended over wood surfaces).

2.4 INSULATION BOARD

- Nominal 1.0 lb/cu.ft. (16 kg/m³) Expanded Polystyrene (EPS) Insulation Board in compliance with ASTM C 578 Type I requirements and EIMA Guideline Specification for Expanded Polystyrene (EPS) Insulation Board. (Note: minimum required thickness is 1-1/2 inches [38 mm]).
- Nominal 2.0 lb/cu.ft. (32 kg/m³) Expanded Polystyrene (EPS) Insulation Board, or nominal 2.0 lb/cu.ft. (32.0 kg/m³) Rigid, Extruded Polystyrene (XEPS) Insulation Board, in compliance with ASTM C 578 87a, Type IV requirements.

(Note: EPS and XEPS insulation board noted in item "B" are used in below grade system applications [see specification Addendum]).

2.5 BASE COAT

- Sto BTS Plus-One component polymer modified cement-based high build base coat with less than 33 percent Portland cement content by weight.

2.6 REINFORCING MESHES

- Standard Mesh
 - Sto Mesh nominal 4.8 oz./sq.yd. (163 g/m²), symmetrical, interlaced open weave glass fiber fabric made with minimum 25 percent by weight alkaline resistant coating for compatibility with Sto materials (achieves Standard Impact Classification).
- High Impact Mesh
 - Sto Intermediate Mesh nominal 11.2 oz./sq.yd. (380 g/m²), high impact, interwoven, open weave glass fiber fabric with alkaline resistant coating for compatibility with Sto materials (achieves High Impact Classification).
- Ultra High Impact Mesh
 - Sto Armor Mat nominal 15 oz./sq.yd. (509 g/m²), ultra high impact, double strand, interwoven, open weave glass fiber fabric with alkaline resistant coating for compatibility with Sto materials (for use in all ground floor applications and facades exposed to abnormal stress or impact. Achieves Ultra High Impact Classification when applied beneath Sto Mesh).
- Specialty Meshes
 - Sto Detail Mesh nominal 4.5 oz/sq yd (153 g/m²), flexible, symmetrical, interlaced glass fiber fabric, with alkaline resistant coating for compatibility with Sto materials (used for standard EIFS backwrapping, aesthetic detailing, and reinforcement of sheathing joints with air barrier membrane).
 - Sto Corner Mat nominal 6.25 oz./sq. yd. (212 g/m²), pre creased, heavy duty open weave woven glass fiber fabric with alkaline resistant coating for compatibility with Sto materials (used for maximum impact protection at inside and outside corners).

2.7 PRIMER

- StoSilco Prime-Silicone enhanced primer (for use with Sto silicone enhanced finishes).

2.8 FINISH COAT

- StoSilco Lit-Silicone enhanced textured wall coating.

2.9 JOB MIXED INGREDIENTS

- Water: Clean and potable.
- Portland cement: Type I.

2.10 ACCESSORIES

- Starter Track-Rigid PVC (polyvinyl chloride) plastic track as furnished by PlasticComponents, Inc., 9051 NW 97th Terrace, Miami, Florida 33178 (800 327-7077)

2.11 MIXING

- Sto Plex W: add water as directed on labeling.
- Sto Leveler: mix ratio with water: 6.7 quarts (5.7 6.6 L) of clean water per 60 pound (27.3 kg) bag of Sto Leveler. Pour water into a clean mixing pail. Add Sto Leveler, mix to a uniform consistency and allow to set for approximately 5 minutes. Adjust mix if necessary with additional Sto Leveler or water and remix to a uniform trowel consistency. Avoid retempering. Keep mix ratio consistent.
- Sto Flexyl: mix ratio by volume is one part Sto Flexyl to one part Portland Cement. Pour Sto Flexyl into a clean mixing pail. Add cement, mix to a uniform consistency and allow to set for approximately five minutes. Adjust mix if necessary with additional liquid or cement and remix to a uniform trowel consistency. Avoid retempering. Keep mix ratio consistent.
- Sto BTS Plus: mix ratio with water: 7.9 quarts (6.6 8.5 L) of water per 60 pound (27.3 kg) bag of Sto BTS Plus. Pour water into a clean mixing pail. Add Sto BTS Plus, mix to a uniform consistency and allow to set for approximately 5 minutes. Adjust mix if necessary with additional Sto BTS Plus or water and remix to a uniform trowel consistency. Avoid retempering. Keep mix ratio consistent.
- StoSilco Prime: mix to a uniform consistency.
- StoSilco Lit: mix to a uniform consistency. A small amount of water may be added to adjust workability. Limit addition of water to amount needed to achieve the finish texture.
- Mix materials with a clean, rust-free high speed mixer in a clean mixing pail.
- Mix only as much material as can readily be used.
- Do not use anti-freeze compounds or other additives.

Part 3: EXECUTION

3.1 ACCEPTABLE INSTALLERS

- Prequalify under Quality Assurance requirements of this specification (section 1.07.B).

3.2 EXAMINATION

- Inspect surfaces for:
 - Contamination __algae, chalkiness, dirt, dust, efflorescence, form oil, fungus, grease, laitance, mildew or other foreign substances.
 - Surface absorption and chalkiness.
 - Cracks __measure crack width and record location of cracks.
 - Damage and deterioration.
 - Moisture content and moisture damage __ use a moisture meter to determine if the surface is dry enough to receive the Air Barrier Membrane and EIFS materials and record any areas of moisture damage.
 - Compliance with specification tolerances __record areas that are out of tolerance (greater than 1/4 inch in 8_0 feet [6mm in 2438 mm] deviation in plane).
- Inspect sheathing application for compliance with applicable requirement:
 - Exterior gypsum sheathing __ GA_253
 - Exterior Grade and Exposure I wood based sheathing __ APA J20G
 - Glass mat faced gypsum sheathing __ Georgia Pacific Publication A468
 - Cementitious sheathing __ Consult manufacturer's published recommendations
- Report deviations from the requirements of project specifications or other conditions that might adversely affect the Air Barrier Membrane or EIFS installation to the General Contractor.

3.3 SURFACE PREPARATION

- Remove surface contaminants (refer to ASTM D 4258 and D 4261).
- Apply conditioner by sprayer or roller to chalking or excessively absorptive surfaces.
- Replace weather damaged sheathing and repair damaged or cracked surfaces.
- Level surfaces to comply with required tolerances.

3.4 INSTALLATION

- Install Air Barrier Membrane and Class PB EIFS in compliance with manufacturer's published written instructions (see addendum).

3.5 PROTECTION

- Provide protection of installed materials from water infiltration into or behind the system
- Provide protection of installed materials from dust, dirt, precipitation, freezing and continuous high humidity until they are fully dry.

ADDENDUM

Instructions for Installation of the StoTherm Signature Exterior Insulation and Finish System (EIFS) with Air Barrier Membrane

- Starter Track
 - Strike a level line at the base of the wall that will coincide with the top of the attachment flange of the track.
 - Attach the starter track into the structure a minimum of 12 inches (300 mm) on center with the proper fastener: Tapcon screws for concrete and masonry with minimum 3/4 inch (19 mm) penetration, Type S-12 corrosion resistant screws for steel framing with minimum 3/8 inch (9 mm) penetration, and galvanized or zinc coated nails for wood framing with minimum 3/4 inch (19 mm) penetration.
 - Butt sections of starter track together. Miter out outside corners and abut.
- Air Barrier Membrane
 - Reinforce seam between back flange of starter track and substrate, joints in sheathing, and cracks up to 1/16 inch (1.6 mm) wide in concrete, masonry or plaster surfaces with minimum 4 inch (100 mm) wide detail mesh. Embed mesh in trowel applied air barrier membrane on the prepared surfaces.
 - Apply air barrier membrane by trowel to the entire prepared substrate. Apply to a thickness of 1/16 inch (1.6 mm) and smooth to a uniform thickness. A minimum uniform dry coating thickness of 1/20 inch (1.3 mm) must be achieved.
 - Terminate air barrier membrane application where substrate changes, at expansion and control joints in construction, and at penetrations through the wall.
- Backwrapping
 - Apply a strip of detail mesh to the dry air barrier membrane at all system terminations (windows, doors, expansion joints, etc.) with adhesive. The mesh must be wide enough to adhere approximately 4 inches (100 mm) of mesh onto the wall, be able to wrap around the insulation board edge and cover a minimum of 2 1/2 inches (64 mm) on the outside surface of the insulation board. After adhering mesh strips to the air barrier membrane, they will dangle until the backwrap procedure is completed (section G.1).

D. Adhesive Application and Installation of Insulation Board

- Begin application only after air barrier membrane has dried.
- Apply adhesive to the back of the insulation board with the proper size stainless steel notched trowel. Apply uniform vertical ribbons of adhesive (parallel with the SHORT dimension of the board). Note: Apply Sto BTS Plus with a 1/2 x 1/2 inch (13x13 mm) U notched trowel for smooth surfaces (sheathing) and with a 5/8 x 5/8 inch (16x16 mm) square notched trowel for irregular surfaces (concrete or masonry).
- Immediately place insulation boards in a running bond pattern on the walls with the long dimension horizontal. Start by inserting the lower edge of the boards inside the starter track at the base of the wall until they contact the bottom of the track. Apply firm pressure over the entire surface of the boards to insure uniform contact of adhesive. Bridge sheathing joints by a minimum of 8 inches (200 mm).
- Butt all board joints tightly together to eliminate any thermal breaks in the EIFS. Care must be taken to prevent any adhesive from getting between the joints of the boards.
- Cut insulation board in an L shaped pattern to fit around openings. Do not align board joints with corners of openings.
- Remove individual boards periodically while the adhesive is still wet to check for satisfactory contact with the substrate and the back of the insulation board. An equal amount of adhesive must be on the substrate and the board when they are removed, as an indication of adequate adhesion. Note: Do not use nails, screws, or any other type of nonthermal mechanical fastener.

E. Slivering and Rasing of Insulation Board Surface

- Fill any open joints in the insulation board layer with slivers of insulation or approved spray foam.
- After insulation boards are firmly adhered to the substrate, rasp the surface to achieve a smooth, even surface and to remove any ultraviolet ray damage.

(Note: EPS insulation board exposed to sunlight will develop a powdery residue on the surface. This film must be entirely removed by rasping the surface).

F. Reveals/Aesthetic Grooves

- Cut reveals/aesthetic grooves with a hot knife, router or groove tool in locations indicated on project plans.
- Offset reveals minimum 3 inches (75 mm) from insulation board joints.
- Do not locate reveals at high stress areas such as corners of windows, doors, etc.
- A minimum of 3/4 inch (19 mm) thickness of insulation board must remain at the bottom of the groove after cutting.

G. Completion of Backwrapping

- Complete the backwrapping procedure by applying base coat to exposed edges of insulation board and approximately 4 inches (100 mm) onto the face of the insulation board. Pull mesh tight around the board and embed it in the base coat with a stainless steel trowel. Use a corner trowel for clean, straight lines. Smooth any wrinkles or gaps in the mesh.

H. Base Coat and Reinforcing Mesh Application

- Apply minimum 9x12 inch (225x300 mm) diagonal strips (using Sto detail mesh) at corners of windows, doors, and all penetrations through the system. Embed the strips in wet base coat and trowel from the center to the edges of the mesh to avoid wrinkles.
- Apply detail mesh at reveals. Embed the mesh in the wet base coat and trowel from the base of the reveal to the edges of the mesh.
- High Impact mesh application (recommended to a minimum height of 6'-0" [1.8 m] above grade at all areas accessible to pedestrian traffic [such as ground floors] as indicated in contract drawings): apply base coat over the insulation board with spray equipment or a stainless steel trowel to a uniform thickness of approximately 1/8 inch (3 mm). Work horizontally or vertically in strips of 40 inches (1016 mm), and immediately embed the mesh into the wet base coat by troweling from the center to the edge of the mesh. Butt the mesh at seams. Allow the base coat to dry.
- Standard mesh application: Apply base coat over the insulation board, including areas with high impact mesh, with spray equipment or a stainless steel trowel to a uniform thickness of approximately 1/8 inch (3 mm). Work horizontally or vertically in strips of 40 inches (1016mm), and immediately embed the mesh into the wet base coat by troweling from the center to the edge of the mesh. Overlap mesh not less than 2 inches (64 mm) at mesh seams and at overlaps of detail mesh. Feather seams and edges. Double wrap all inside and outside corners with minimum 2 1/2 inches (64 mm) overlap in each direction. (Alternate corner treatment: Embed corner mat in base coat, allow to dry, then overlap up to corner with standard reinforcing mesh embedded in base coat.) Avoid wrinkles in the mesh. The mesh must be fully embedded so that no mesh color shows through the base coat when it is dry. Re-skim with additional base coat if mesh color is visible.
- The minimum required reinforced base coat thickness is 1/16 inch (1.6 mm) when it is dry. Allow base coat to thoroughly dry before applying primer.
- Primer application
 - Apply primer evenly with brush, roller or proper spray equipment over the clean, dry base coat and allow to dry thoroughly before applying finish.
- Finish Coat Application
 - Apply finish directly over the primed base coat ONLY AFTER THE PRIMER HAS THOROUGHLY DRIED. Apply finish by spraying or troweling with a stainless steel trowel, depending on the finish specified. Follow these general rules for application of finish:
 - Avoid application in direct sunlight.
 - Apply finish in a continuous application, and work to a wet edge.
 - Weather conditions affect application and drying time. Hot or dry conditions limit working time and accelerate drying. Adjustments in the scheduling of work may be required to achieve desired results; cool or damp conditions extend working time and retard drying and may require added measures of protection against wind, dust, dirt, rain and freezing. Adjust work schedule and provide protection.
 - Float "R" (rilled texture) finishes with a plastic trowel to achieve their rilled texture.
 - Do not install separate batches of finish side by side.
 - Do not apply finish into or over sealant joints. Apply finish to outside face of wall only.
 - Do not apply finish over irregular or unprepared surfaces, or surfaces not in compliance with the requirements of the project specifications.

For below grade application, sloped sills and parapets, use the following procedure:

Sloped Sill and Parapet Application:

- Apply air barrier membrane and standard mesh over the dry reinforced base coat with spray equipment or a stainless steel trowel in accordance with section H.4 of these instructions on the sloped surface and immediately above and below it (minimum 6 inches [152mm]).
- Allow to dry and prime with the appropriate primer.
- Apply finish coat in accordance with section J.1 a-g of these instructions.

(Note: Sloped sills and parapets must maintain a minimum 1:2 [27 degrees] slope and a maximum width of 12" [300 mm]. Sto Mesh embedded in Sto Flexyl in addition to the mesh embedded in the standard base coat is required beneath finish coating. Increase slope for northern climates to prevent accumulation of ice/snow and water on surface. Periodic inspections and increased maintenance of coating are required. Refer to Sto details 1.04 and 1.61).

NOTES:

No.	REVISION/DESCRIPTION	BY	DATE
SEAL			



DRAWN	DATE	DATE	2014.07.11	CHECKED	DESIGNED	APPROVED

THE CITY OF WINNIPEG
PLANNING, PROPERTY AND
DEVELOPMENT DEPARTMENT
MUNICIPAL ACCOMMODATIONS DIVISION
3-65 GARRY STREET, R3C 4K4

PROJECT
ST. VITAL LIBRARY
NEW ELEVATOR INSTALLATION

6 FERMOR AVENUE

SHEET TITLE

EIFS WALL SYSTEM SPECIFICATIONS

SCALE	PROJECT No.	SHEET No.
AS SHOWN		A11

DRAWING SHEET SIZE: A1 (841mm x 594mm) PLOT 1:1

2.02 EQUIPMENT: CONTROLLER COMPONENTS

- A. Controller: A microcomputer based control system shall be provided to perform all of the functions of safe elevator operation. The system shall also perform car and group operational control.
1. All high voltage (110V or above) contact points inside the controller shall be protected from accidental contact when the controller doors are open.
2. Controller shall be separated into two distinct halves; Motor Drive side and Control side. High voltage motor power conductors shall be routed so as to be physically segregated from the rest of the controller.
3. Field conductor terminations points shall be segregated; high voltage (>30 volts DC and 110 VAC,) and low voltage (< 30 volts DC.
4. Controllers shall be designed and tested for Electromagnetic Interference (EMI) immunity according to the EN 12016 (May 1998); "EMC Product Family Standards for lifts, escalators, and passenger conveyors Part 2 - Immunity"
5. Controller shall be located inside the wall next to the top landing entrance frame. Emergency access shall be provided through an access panel in the entrance frame secured by a key lock.
6. A separate control room or cabinet should not be required.
B. Drive: A Variable Voltage Variable Frequency AC drive system shall be provided. The drive shall be set up for regeneration of AC power back to the building grid.

2.03 EQUIPMENT: MACHINE AND GOVERNOR

- A. Machine: AC gearless machine, with a synchronous permanent-magnet motor, dual solenoid service and emergency disc brakes, mounted at the top of the hoistway.
B. Governor: The governor shall be a tension type car-mounted governor.
C. Buffers, Car and Counterweight: Polyurethane type buffers shall be used.
D. Hoistway Operating Devices:
1. Emergency stop switch in the pit
2. Terminal stopping switches.
E. Positioning System: Consists of an encoder, reader box, and door zone vanes.
F. Guide Rails and Attachments: Guide rails shall be Tee-section steel rails with brackets and fasteners. Side counterweight arrangements shall have a dual-purpose bracket that combines both counterweight guide rails, and one of the car guide rails to building fastening.
G. Coated-Steel Belts: Polyurethane coated belts with high-tensile-grade, zinc-plated steel cords and a flat profile on the running surface and the backside of the belt. All driving sheaves and deflector sheaves should have a crowned profile to ensure center tracking of the belts. A continuous 24/7 monitoring system using resistance based technology has to be installed to continuously monitor the integrity of the coated steel belts and provide advanced notice of belt wear.
H. Governor Rope: Governor rope shall be steel and shall consist of at least eight strands wound about a sisal core center.
I. Hoistway Entrances:
1. Frames: Entrance frames shall be of bolted construction for complete one-piece unit assembly. All frames shall be securely fastened to fixing angles mounted in the hoistway and shall be of UL fire rated steel.
2. Sills shall be extruded aluminum.
3. Doors: Entrance doors shall be of metal construction with vertical channel reinforcements.
4. Fire Rating: Entrance and doors shall be UL fire rated.
5. Entrance Finish
Baked Enamel from manufacturers standard selection.
6. Entrance marking plates: Entrance jams shall be marked with 4" x 4" (102 mm x 102 mm) plates having raised floor markings with Braille located adjacent to the floor marking. Marking plates shall be provided on both sides of the entrance.
7. Sight Guards: Black sight guards will be furnished with all doors.

2.04 EQUIPMENT: CAR COMPONENTS

- A. Carframe and Safety: A carframe fabricated from formed or structural steel members shall be provided with adequate bracing to support the platform and car enclosures. The car safety shall be integral to the carframe and shall be Type "B", flexible guide clamp type.
B. Cab:
1. Steel cab shell with rigidized stainless steel, vertical, removable panels.
2. Brushed Stainless Steel finished base plate located at top and bottom.
C. Car Front Finish: Charcoal EW-4.
D. Car Door Finish: Charcoal EW-4.
E. Ceiling Type: Paint Black Flush Metal Ceiling with 4 LED lights
F. Emergency Car Lighting: An emergency power unit employing a 6-volt sealed rechargeable battery and totally static circuits shall be provided to illuminate the elevator car in the event of building power failure.
G. Fan: A one-speed 120 VAC fan will be mounted to the structural ceiling to facilitate in-car air circulation, meeting A17.1 code requirements. The fan shall be rubber mounted to prevent the transmission of structural vibration and will include a baffle to diffuse audible noise. A switch shall be provided in the car-operating panel to control the fan.
H. Handrails: Handrails shall be provided on the Side walls of the car enclosure. Handrails shall be Round Handrail (DH-156) with a Brushed Steel Finish
I. Threshold: Extruded Aluminum
J. Emergency Exit Contact: An electrical contact shall be provided on the car-top exit.
K. Guides: The car shall have 3" diameter roller guides at top and bottom and the counterweight shall have slide type guides at the top and the bottom.
L. Platform: The car platform shall be constructed of metal. Load weighing device shall be mounted on the belts at the top of the hoistway.
M. Zoned Certificate frame- Provide a Certificate frame with a satin stainless steel finish.

2.05 EQUIPMENT: SIGNAL DEVICES AND FIXTURES

- A. Car Operating Panel: A car operating panel shall be provided which contains all push buttons, key switches, and message indicators for elevator operation. The car operating panel shall have a satin stainless steel finish.
1. A car operating panel shall be furnished. It shall contain a bank of round stainless steel, mechanical LED illuminated buttons. Projected mounting to the panel and marked to correspond to the landings served. All buttons to have raised numerals and Braille markings with these options:
a. Vandal-Resistant, Projecting satin stainless steel button with blue LED illuminating center jewel
2. The car operating panel shall be equipped with the following features:
a. Raised markings and Braille to the left hand side of each push-button.
b. Car Position Indicator at the top of and integral to the car operating panel.
c. Door open and door close buttons.
d. Inspection key-switch.
e. Elevator Data Plate marked with elevator capacity and car number.
f. Help Button: The help button shall initiate two-way communication between the car and a location inside the building, switching over to another location if the call is unanswered, where personnel are available who can take the appropriate action. Visual indicators are provided for call initiation and call acknowledgement.
g. Landing Passing Signal: A chime bell shall sound in the car to signal that the car is either stopping at or passing a floor served by the elevator.
h. In car stop switch (toggle or key unless local code prohibits use)
i. Firefighter's hat
j. Firefighter's Phase II Key-switch
k. Call Cancel Button
B. Car Position Indicator: A digital, LED car position indicator shall be integral to the car operating panel.
1. Hall Fixtures: Hall fixtures shall be provided with necessary push buttons and key switches for elevator operation. Hall fixtures shall feature:
a. Stainless Steel Hall Position Indicators at all floors
2. Integral Hall fixtures shall feature:
a. Round stainless steel, mechanical buttons marked to correspond to the landings.
b. Hall fixtures to be located in the entrance frame face. Therefore, separate wiring and installation of electrical boxes inside the wall for the hall buttons are not required.
c. Buttons shall be in vertically mounted fixture. Fixture shall be satin stainless steel finish.
3. Button Options:
a. Projecting button with blue illuminating halo.
b. Vandal-Resistant, Projecting satin stainless steel button with blue LED illuminating center jewel
C. Car Lantern and Chime: A directional lantern visible from the corridor shall be provided in the car entrance. When the car stops and the doors are opening, the lantern shall indicate the direction in which the car is to travel and a chime will sound.
D. Access key-switch at top floor in entrance jamb.
E. Access key-switch at bottom floor in entrance jamb.

Part 3 - EXECUTION

3.01 PREPARATION

- A. Take field dimensions and examine conditions of substrates, supports, and other conditions under which this work is to be performed. Do not proceed with work until unsatisfactory conditions are corrected.

3.02 INSTALLATION

- A. Installation of all elevator components except as specifically provided for elsewhere by others.

3.03 DEMONSTRATION

- A. The elevator contractor shall make a final check of each elevator operation with the Owner or Owner's representative present prior to turning each elevator over for use. The elevator contractor shall determine that control systems and operating devices are functioning properly.

Painting

Quality Assurance

- 1. Conform to latest MPI requirements for interior painting Work including preparation and priming.
2. Materials (primers, paints, coating, varnishes, stains, lacquers, fillers, thinners, solvents, etc.) shall be in accordance with MPI Painting Specification Manual
3. Only paint materials listed in the MPI Approved Products List (APL) are acceptable for us on this Project.
4. Clean and prepare surfaces in accordance with MPI Painting Specification Manual requirements. Refer to MPI Manual in regard to specific requirements.

Colours

- 1. Contract Administrator will provide Color Schedule after Contract Award.
2. Color schedule will be based upon the selection of four base colours and two accent colours.
3. Selection of colours will be from manufacturers full range of colours.
4. Where specific products are available in a restricted range of colours, selection will be based on the limited range.
5. Paint gloss shall be defined as the sheen rating of applied paint, G3 Egg Shell finish.

Execution

- 1. Perform preparation and operations for interior painting in accordance with MPI Painting Specifications Manual except where specified otherwise.
2. Apply paint materials in accordance with paint manufacturer's written application instructions
3. Investigate existing substrates for problems related to proper and complete preparation of surfaces to be painted. Report to Contract Administrator damages, defects, unsatisfactory or unfavorable conditions before proceeding with Work.
4. Projection:
a. Protect existing building surfaces and adjacent structures from paint splatters, markings and other damage by suitable non-staining covers or masking. If damaged, clean and restore such surfaces as directed by Contract Administrator.
b. Protect items that are permanently attached such as Fire Labels on doors and frames.
c. Project factory finished products and equipment.
d. Protect passing pedestrians and general public about the building.
e. Removal of electrical cover plates, light fixtures, surface hardware on doors, bath accessories and other surface mounted equipment, fittings and fastenings shall be done prior to undertaking any painting operations by Contractor. Items shall be securely stored and re-installed after painting is completed by Contractor.
f. Move and cover furniture and portable equipment as necessary to carry out painting operations. Replace as painting operations progress.

Roofing Materials

- 1. Dimensional Lumber
This shall be construction grade spruce of the dimensions as outlined under the Description of Work
2. Plywood Sheathing
This shall be 1/2" Standard Grade spruce plywood
3. Drywall Sheathing
This shall be 1/2" roof grade drywall
4. Drywall & Insulation Fasteners
These shall be #12 Dekfast screws with Senti XP coating and 2.7/8" Hexagonal Galvalume Steel Stress Plate for all Deck Types as manufactured by SFS Stadler or approved equal. Fasteners shall penetrate STEEL DECKING a minimum of 3/4" and wood a minimum of 1".
5. Vapour Barrier
This shall be 1 ply Soprema Elastophene Flam 2.2 or IKO Modiflex MF-95-FF base.
6. Roofing Insulation
Expanded Polystyrene Type II with a minimum slope of 3/16" per foot and a minimum thickness of 1.5". This shall be as manufactured by Plastifab Ltd. or AMC Insulation Corp. Slopes are to be as per the attached Drawings.
2" Soprema Colgrip A polyisocyanurate insulation with acrylic facer, IKO Isotherm 3. Paper facers will not be accepted.
Note: Minimum average thermal value is to be no less than R-25. Adjust sloped foam insulation or polyisocyanurate thickness as required to ensure minimum average R-25.
7. Insulation Adhesive
This shall be Weather-Tite One Step Foamable adhesive as manufactured by Millennium Products incorporated. This is distributed by Roofmart and Soprema. Adhesive shall be applied to obtain a minimum 90 m.p.h. wind uplift rating or as otherwise indicated within the Description of Work.
Adhesive can be used only in areas with excessive conduit. Any such areas must first be confirmed by the Contract Administrator.
8. Pourable Sealer
This is to be a two component pourable EPDM sealer. This is to be used to fill all pitch boxes or as otherwise specified.
9. Recovery Board
This shall be Soprema 1/8" Sopraboard or IKO Protecto Board.
10. Modified Bitumen Membrane
This shall be the following:
Soprema Sopralene Flam 180 base sheet with a Sopralene Flam 250 Gr. Cap sheet; IKO Torchfix 180 FF with an IKO Torchflex 250 cap.
Stripping:
Soprema Sopraflash Flam Stick self-adhering base sheet with a Sopralene Flam 180 Gr, cao sheet; IKO Armourbond Flash with IKO Torchflex 180 cap.
11. Modified Primer
This is to be the primer recommended by the membrane manufacturer being used.
12. Rubberized Mastic
This shall be Polyroof as manufactured by Tremco Ltd., or approved equal. All exposed rubberized asphalt shall be coated with aluminum paint.
13. Caulking
This shall be Tremco Dymonic FC
14. Aluminum Paint
This shall be Tremco Double Duty
15. Metal Flashing
The base and cap flashing shall be a minimum of 24 gauge in thickness. Metal is to be prefinished and is to be chosen from the standard in stock range of Stelco 8000 series of colors.
16. Accessories
All nails, bolts, screws and other fasteners etc. shall be as recommended by the manufacturer of the materials for which they are to be used.
17. Splash Pads
Splash Pads shall be 51" natural #45-41001 as manufactured by Barkman Concrete Ltd.

Windows

Windows shall be SILEX Fibreglass Windows 2100 Series Picture with the following product specifications:

- 1. Frame
These shall be Series 2100 factory-assembled fiberglass windows with outward-opening sash installed in frame. 3 1/2" Pultruded Fiberglass Closed Back Frame completely filled with laser die cut Polystyrene, PBT corner key reinforced Mechanical joint Corners, sealed with silicone sealant and are independently tested to AAMA 101/1.S.2, CSA 101/1.S.2/A400-05 standards.
2. Weather-Stripping
The three seal design conforms to the rain screen principle.
Single foam filled weather stripping on sash.
Dual foam filled weather stripping on frame.
3. Glazing
a. Float Glass
b. Type: Dual or Triple insulated Low-E coated with Argon
4. Glazing Method
The glass is held in place by a removable Interior glass stop. Double-sided closed cell foam tape on the frame. The glazing cavity is edge drained to the exterior with concealed drainage holes. The glazing cavity is also edge vented to the exterior through concealed vent holes. The glass stop provides rain screen principal to keep water out.
5. Installation
Installation shall be performed by experienced installers in accordance with manufacturer instructions and CSA A-440.4 Standards. Window shall be plumb and square after installation is complete and sealed to both interior and exterior wall with a high quality sealant around the perimeter of the frame. If perimeter cavity is to be foamed, additional anchorage may be required to prevent bowing. It shall be the responsibility of the installers to make all necessary final adjustments to ensure normal and smooth operation.
Align window frame plumb and level, free of warp or twist. Maintain dimensional tolerances, aligning with adjacent Work.
Coordinate attachment and seal or air and vapour barrier materials
Install perimeter type sealant, backing materials, and installation requirements to maintain continuity of thermal barrier. Apply sealants to ends of sill for watertight seal.

NOTES:

Table with columns: No., REVISION/DESCRIPTION, BY, DATE

Professional seal and signature of R. K. FOK, Registered Architect, Province of Manitoba.

Table with columns: DRAWN, DATE, CHECKED, USER, DESIGNED, APPROVAL

THE CITY OF WINNIPEG PLANNING, PROPERTY AND DEVELOPMENT DEPARTMENT MUNICIPAL ACCOMMODATIONS DIVISION 3-65 GARRY STREET, R3C 4K4

PROJECT ST. VITAL LIBRARY NEW ELEVATOR INSTALLATION

6 FERMOR AVENUE SHEET TITLE

ELEVATOR SPECIFICATIONS, (CONT) PAINTING SPECIFICATIONS, ROOF & WINDOW SPECIFICATIONS

Table with columns: SCALE, PROJECT No., SHEET No., AS SHOWN, A10

FILE NAME: 2013154V00.dwg | DATE: 2014.02.26 | SHEET TITLE: | PROJECT No: | ADDRESS: 6 FERMOR AVENUE

SECTION 14210 - Electric Traction Elevators

Part 1 - GENERAL

1.01 SUMMARY

- A. This Section specifies electric traction elevators.
B. Related work not specified herein: The following sections contain requirements that relate to this section and are performed by trades other than the elevator manufacturer/installer.
1. Section 01500 - Construction Facilities and Temporary Controls: protection of floor openings and personnel barriers; temporary power and lighting.
2. Section 02200 - Earthwork: excavation for elevator pit.
3. Section 03300 - Cast-In-Place Concrete: elevator pit, and elevator machine foundation.
4. Section 04200 - Unit Masonry: masonry hoistway enclosure, building-in and grouting hoistway doorframes, and grouting of sills.
5. Section 05600 - Metal Fabrications: pit ladder, divider beams, and supports for entrances, rails and hoisting beam at top of elevator hoistway.
6. Section 07145 - Cementitious Waterproofing: waterproofing of elevator pit.
7. Section 15600 - Heating, Ventilating, and Air Conditioning: ventilation and temperature control of elevator equipment areas.
8. Section 16100 - Electrical:
a. Main disconnects for each elevator.
b. Electrical power for elevator installation and testing.
c. Disconnecting device to elevator equipment prior to activation of sprinkler system.
d. The installation of dedicated GFCI receptacles in the pit and overhead.
e. Lighting in controller area, machine area and pit.
f. Wiring for telephone service to controller.
9. Section 16610 - Emergency (Standby) Power Supply Systems: emergency generator for elevator operation.
10. Section 16720 - Fire Alarm Systems: The installation of fire and smoke detectors at required locations and interconnecting devices; fire alarm signal lines to contacts in the machine area.
11. Section 16740 - Telephone Systems: ADAAG-required emergency communications equipment.
C. Applicable Codes: Comply with applicable building and elevator codes at the project site, including but not limited to the following
1. ANSI A117.1, Buildings and Facilities, Providing Accessibility and Usability for Physically Handicapped People.
2. ADAAG, Americans with Disabilities Act Accessibility Guidelines.
3. ANSINFP A 70, National Electrical Code.
4. ANSINFP A 80, Fire Doors and Windows.
5. ASME/ANSI A17.7, Safety Code for Elevators and Escalators.
6. ANSIIUL 10B, Fire Tests of Door Assemblies.
7. CAN/CSA C22.1, Canadian Electrical Code.
8. CAN/CSA-B44, Safety Code for Elevators and Escalators.
9. EN 12016 (May 1998): "EMC Product Family Standards for lifts, escalators, and passenger conveyors Part 2 - immunity"
10. Local Building Codes
11. All other local applicable codes.

1.02 SYSTEM DESCRIPTION

- A. Equipment Description: Gen2® gearless traction elevator with Machine-Roomless application
B. Equipment Control: Elevonic® Control System.
C. Drive: Regenerative
D. Quantity of Elevators: 1
E. Elevator Stop Designations: Front Only At B,M,2
F. Stops : 3
G. Openings: Front Only
H. Travel: 20 ft 0 in 0
I. Rated Capacity: 2500 lbs Passenger
J. Rated Speed: 150 fpm
K. Platform Size: 6' 9-1/2" wide x 4' 3-3/4" deep
L. Clear Inside Dimensions: 6' 5-9/16" wide x 4' 3-9/16" deep
M. Cab Height: 93"
N. Clear Cab Height 8' 0 1/16"
O. Entrance Type and Width: One Speed Side Slide 42" doors
P. Entrance Height: 84"
Q. Main Power Supply: 240 Volts + or - 5% of normal, single-Phase, with a separate equipment grounding conductor.
R. Car Lighting Power Supply: 120 Volts, Single-phase, 15 Amp, 60 Hz.
S. Signal Fixtures: Manufacturer's standard with metal button targets.
T. Controller Location: Machine-Roomless Controller(s) shall be located at the front opening of the top terminal landing in the entrance frame
U. Performance:
1. Car Speed: ± 3 % of contract speed under any loading condition or direction of travel.
2. Car Capacity: Safely lower, stop and hold up to 120% of rated load. (code required).
V. Ride Quality:
1. Vertical Vibration (maximum): 20 milli-g
2. Horizontal Vibration (maximum): 12 milli-g
3. Vertical Jerk (maximum): 4.59 1.0 ft./sec3 (1.4 0.3 m/ sec3)
4. Acceleration/Deceleration (maximum): 2.62 ft./sec2 (0.8 m/ sec2)
5. In Car Noise: 55 - 60 dB(A)
6. Stopping Accuracy: ± 0.375 in. (± 10 mm) max, ± 0.25 in. (± 6 mm) Typical
7. Re-leveling Distance: 0.5 in. (12 mm)
W. Simplex Collective Operation:
1. Using a microprocessor-based controller, operation shall be automatic by means of the car and hall buttons. If all calls in the system have been answered, the car shall park at the last landing served.
X. Operating Features - Standard
1. Full Collective Operation
2. Anti- nuisance.
3. Fan and Light Protection.
4. Load Weighing Bypass.
5. Full Collective Operation.
6. Firefighters' Service Phase I and Phase II:
7. Top of Car Inspection.
8. Zoned Access at Bottom Landing.
9. Zoned Access at Upper Landing.
Y. Door Control Features:
1. Door control to open doors automatically when car arrives at a landing in response to a normal hall or car call.
2. Elevator doors shall be provided with a reopening device that will stop and reopen the car door(s) and hoistway door(s) automatically should the door(s) become obstructed by an object or person.
Door protection shall consist of a two dimensional, multi-beam array projecting across the car door opening.
3. Door nudging operation to occur if doors are prevented from closing for an adjustable period of time.
Z. Provide equipment according to: Seismic Zone 0

1.03 SUBMITTALS

- A. Product Data: Submit manufacturer's product data for each system proposed for use. Include the following:
1. Signal and operating fixtures, operating panels and indicators.
2. Cab design, dimensions and layout.
3. Hoistway-door and frame details.
4. Electrical characteristics and connection requirements.
5. Expected heat dissipation of elevator equipment in control room space and machine space (BTU).
6. Color selection chart for Cab and Entrances.
B. Shop Drawings: Submit approval layout drawings. Include the following:
1. Car, guide rails, buffers and other components in hoistway.
2. Maximum rail bracket spacing.
3. Maximum loads imposed on guide rails requiring load transfer to building structure.
4. Clearances and travel of car.
5. Clear inside hoistway and pit dimensions.
6. Location and sizes of access doors, hoistway entrances and frames.
C. Operations and Maintenance Manuals: Provide manufacturer's standard operations and maintenance manual.

1.04 QUALITY ASSURANCE

- A. Manufacturer: Elevator manufacturer shall be ISO 9001 certified.
B. Installer: Elevators shall be installed by the manufacturer.
C. Permits, Inspections and Certificates: The Elevator Contractor shall obtain and pay for necessary Municipal or State Inspection and permit as required by the elevator inspection authority, and make such tests as are called for by the regulations or such authorities. These tests shall be made in the presence of such authorities or their authorized representatives.

1.05 DELIVERY, STORAGE AND HANDLING

- A. Should the building or the site not be prepared to receive the elevator equipment at the agreed upon date, the General Contractor will be responsible to provide a proper and suitable storage area on or off the premises.
1. Should the storage area be off-site and the equipment not yet delivered, then the elevator contractor, upon notification from the General Contractor, will divert the elevator equipment to the storage area. If the equipment has already been delivered to the site, then the General Contractor shall transport the elevator equipment to the storage area. The cost of elevator equipment taken to storage by either party, storage, and redeliver to the job site shall not be at the expense of the elevator contractor.

1.06 WARRANTY

- A. The elevator contractor's acceptance is conditional on the understanding that their warranty covers defective material and workmanship. The guarantee period shall not extend longer than one (1) year from the date of completion or acceptance thereof by beneficial use, whichever is earlier, of each elevator. The guarantee excludes: ordinary wear and tear, improper use, vandalism, abuse, misuse, or neglect or any other causes beyond the control of the elevator contractor and this express warranty is in lieu of all other warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose.

1.07 MAINTENANCE and SERVICE

- A. Maintenance service consisting of regular examinations and adjustments of the elevator equipment shall be provided by the elevator contractor for a period of 12 months after the elevator has been turned over for the customer's use. This service shall not be subcontracted but shall be performed by the elevator contractor. All work shall be performed by competent employees during regular working hours of regular working days and shall include emergency 24-hour callback service. This service shall not cover adjustments, repairs or replacement of parts due to negligence, misuse, abuse or accidents caused by persons other than the elevator contractor. Only genuine parts and supplies as used in the manufacture and installation of the original equipment shall be provided.
B. The periodic lubrication of elevator components shall not be required, including: Sheaves, Rails, Belts, Ropes, Car and CWT guides, etc.
C. The elevator control system must:
1. Provide in the controller the necessary devices to run the elevator in inspection operation.
2. Provide on top of the car the necessary devices to run the elevator in inspection operation.
3. Provide in the controller an emergency stop switch. This emergency stop switch when opened disconnects power from the brake and prevents the motor from running.
4. Provide in the event of a power outage, means from the controller to electrically lift and control the elevator brake to safely bring the elevator to the nearest available landing.
5. Provide the means from the controller to reset the governor over speed switch and also trip the governor.
6. Provide the means from the controller to reset the emergency brake when set because of an unintended car movement or ascending car over speed.
D. Provide system capabilities to enable a remote expert to create a live, interactive connection with the elevator system to enable the following functions:
1. Remotely diagnose elevator issues with a remote team of experts
2. Remotely return an elevator to service
3. Provide real-time status updates via email
4. Remotely make changes to selected elevator functions including:
a. Control building traffic: Restrict floor access, remove car from group operation, shut down elevator, select up peak/down peak mode, activate independent service
b. Conserve energy: Activate cab light energy save mode, activate fan energy save mode, shut down car(s)
c. Improve passenger experience: Extend door open times, change parking floor, activate auto car full, activate anti- nuisance, advance door opening, door nudging, extend specific floor extended opening time, release trapped passengers

Part 2 - PRODUCTS

2.01 DESIGN AND SPECIFICATIONS

- A. Provide Provide machine-roomless Gen2™ traction passenger elevators from Otis Elevator Company. The control system and car design based on materials and systems manufactured by Otis Elevator Company. Specifically, the system shall consist of the following components:
1. Controller located entirely inside the hoistway. No extra machine room or control closet space required.
2. An AC gearless machine using embedded permanent magnets mounted at the top of the hoistway.
3. Polyurethane Coated-Steel Belts for elevator hoisting purposes.
4. Regenerative drive that captures normally wasted energy and feeds clean power back into the building's power grid.
5. LED lighting standard in ceiling lights and elevator fixtures.
6. Sleep mode operation for LED ceiling lights and car fan.
B. Approved Installer: Otis Elevator Company

2.02 EQUIPMENT: CONTROLLER COMPONENTS

- A. Controller: A microcomputer based control system shall be provided to perform all of the functions of safe elevator operation. The system shall also perform car and group operational control.
1. All high voltage (110V or above) contact points inside the controller shall be protected from accidental contact when the controller doors are open.
2. Controller shall be separated into two distinct halves, Motor Drive side and Control side. High voltage motor power conductors shall be routed so as to be physically segregated from the rest of the controller.
3. Field conductor terminations points shall be segregated; high voltage (>30 volts DC and 110 VAC,) and low voltage (< 30 volts DC.
4. Controllers shall be designed and tested for Electromagnetic Interference (EMI) immunity according to the EN 12016 (May 1998): "EMC Product Family Standards for lifts, escalators, and passenger conveyors Part 2 - immunity"
5. Controller shall be located inside the wall next to the top landing entrance frame. Emergency access shall be provided through an access panel in the entrance frame secured by a key lock.
6. A separate control room or cabinet should not be required.
B. Drive: A Variable Voltage Variable Frequency AC drive system shall be provided. The drive shall be set up for regeneration of AC power back to the building grid.

NOTES:

Table with columns: No., REVISION/DESCRIPTION, BY, DATE



Table with columns: DRAWN, CHECKED, DESIGNED, APPROVED, DATE, USER, APPROVAL

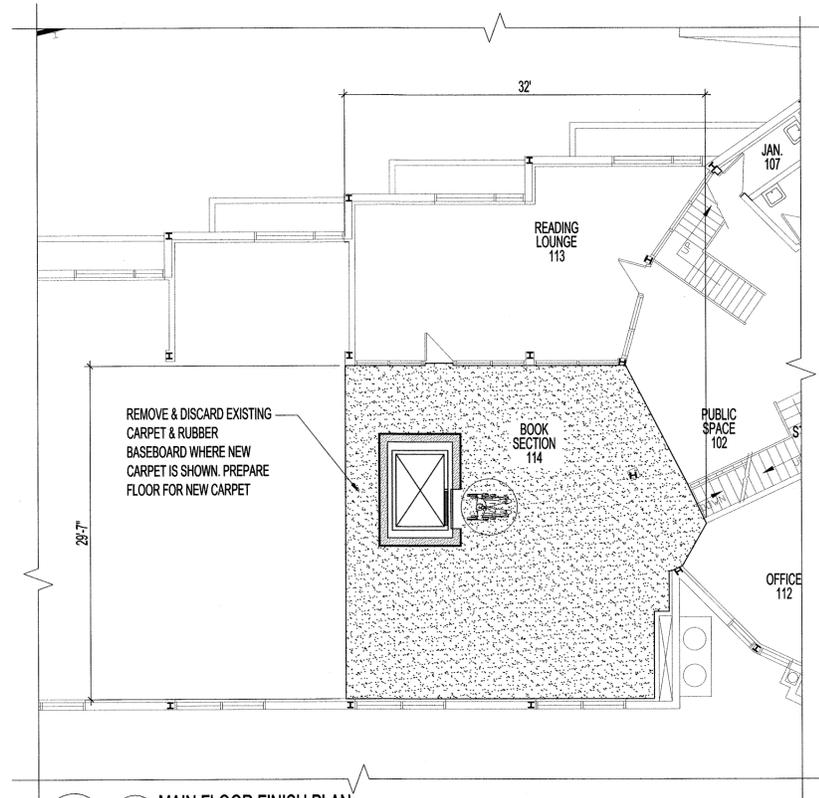
THE CITY OF WINNIPEG PLANNING, PROPERTY AND DEVELOPMENT DEPARTMENT MUNICIPAL ACCOMMODATIONS DIVISION 3-65 GARRY STREET, R3C 4K4

PROJECT ST. VITAL LIBRARY NEW ELEVATOR INSTALLATION

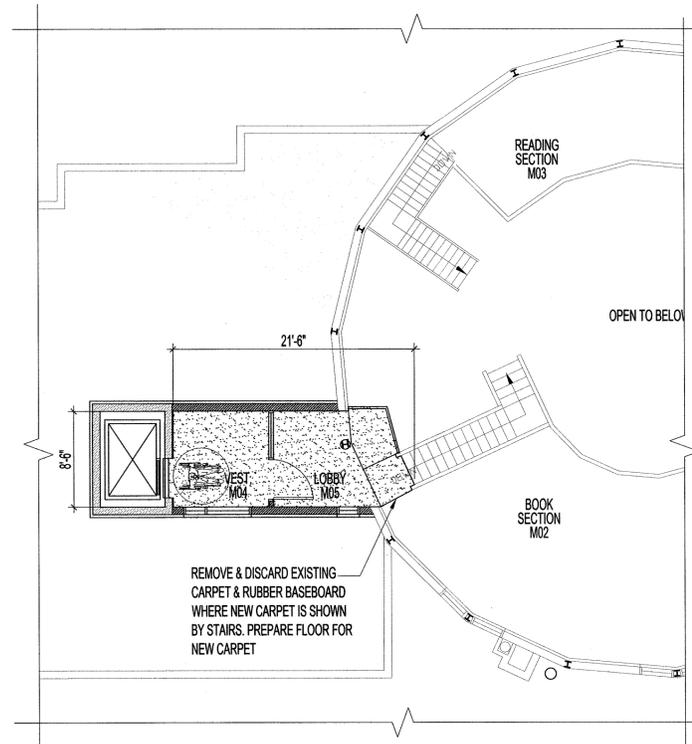
6 FERMOR AVENUE SHEET TITLE

ELEVATOR SPECIFICATIONS

Table with columns: SCALE, PROJECT No., SHEET No.



1 MAIN FLOOR FINISH PLAN
SCALE 1/4" = 1'-0"



2 MEZZANINE FLOOR FINISH PLAN
SCALE 1/4" = 1'-0"

FLOOR FINISH

NOTE: SUPPLY & INSTALL NEW TRANSITION STRIPS BETWEEN NEW & EXISTING CARPETING

NEW 24" x 24" CARPET TILES BY J + J FLOORING GROUP, KINETIX TEXTILE COMPOSITE FLOORING W/ QUARTER TURN INSTALLATION, FREE LAY, NO GLUE. COLOUR & SELECTION TO BE DETERMINED BY CONTRACT ADMINISTRATOR

APPROX. 1,000 SQ. FT.

RUBBER BASEBOARD:
JOHNSONITE 4" HEIGHT COLOUR BLACK CB40

ROOM NO.	ROOM NAME	FLOOR	BASEBOARD	NORTH WALL	SOUTH WALL	EAST WALL	WEST WALL	CEILING	CEILING HEIGHT	NOTES
B-02	EXHIBIT SPACE	EXIST	4" R.B.B. (SOUTH WALL ONLY)	---	PT.	---	---	---	---	---
B-17	STORAGE	---	---	---	---	---	---	EXIST	---	---
B-19	MISC.	---	4" R.B.B. (WEST WALLS ONLY)	---	---	---	PT.	---	---	---
B-20	CONTROL CLOSET	---	4" R.B.B.	PT.	PT.	PT.	PT.	---	---	---
B-21	ELEVATOR ENTRANCE	---	4" R.B.B.	PT.	PT.	PT.	PT.	---	---	---
B-22	MISC. STORAGE	---	4" R.B.B.	PT.	---	---	---	---	---	---
102	PUBLIC SPACE	CP. T.	4" R.B.B. (SOUTH WALL ONLY)	---	PT.	---	---	---	---	PAINT NEW BULKHEADS & US OF NEW BALCONY
114	BOOK SECTION	CP. T.	4" R.B.B. - SEE NOTES	PT.	---	---	---	EXIST WOOD NEW GYP. BD.	EXIST 11'-11" NEW 8'-7"	ELEVATOR EXTERIOR HAS SPECIAL PANEL FINISHES - SEE A7, 4" R.B.B. @ NEW CARPET AREAS & AROUND ELEVATOR ENCLOSURE.
M04	VESTIBULE	CP. T.	4" R.B.B.	PT.	PT.	PT.	PT.	AC. T.	9'-5"	---
M05	LOBBY	CP. T.	---	---	---	---	---	AC. T.	9'-5"	PAINT NEW BULKHEADS OUTSIDE OF LOBBY @ STAIRS

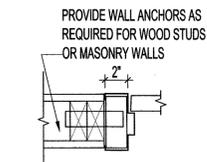
ABBREVIATIONS
AC.T. ACOUSTIC TILE CP.T. -2 CARPET TILE PT. PAINT GYP. BD. GYPSUM BOARD R.B.B. -4" RUBBER BASEBOARD

DOOR NO.	DOOR						FRAME			RATING	HARDWARE GROUP	NOTES
	TYPE	WIDTH	HEIGHT	THICK.	MAT'L.	FINISH	TYPE	MAT'L.	FINISH			
DB20	D1	3'-0"	7'-0"	1 3/4"	HM	PT	F1	PS	PT	---	1	---
DB21A	EXISTING DOOR PAIR RELOCATED											
DB21B	D2	3'-6"	7'-0"	1 3/4"	HM	PT	F1	PS	PT	---	2	SALVAGED DOORS, FRAME & HARDWARE
DM05	D3	3'-6"	7'-0"	1 3/4"	HM	PT	F2	PS	PT	3/4HR	3	---

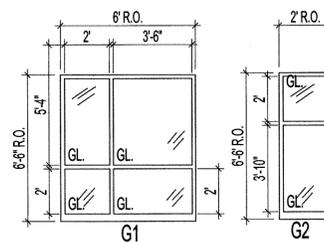
ABBREVIATIONS
H.M. - HOLLOW METAL PS - PRESSED STEEL PT. - PAINT

HARDWARE GROUPS

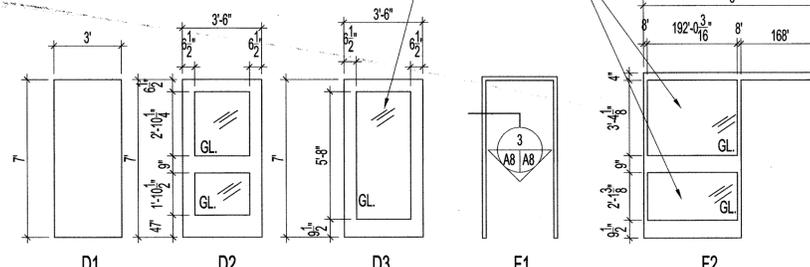
- GROUP #1**
-1 1/2 PR. MCKINNEY TA 714 STEEL HINGES 4 1/2" x 4"
-SCHLAGE JUNIPER LEVER HANDLES 626 FINISH
-SCHLAGE STORAGE LOCK S80PD F86
- GROUP #2**
-2 PR. MCKINNEY TA 714 STEEL HINGES 4 1/2" x 4"
-PASSAGE SET LEVER HANDLES 626 FINISH
-AUTOMATIC POWER DOOR OPERATOR (LOW-ENERGY DOOR OPERATOR) LCN 4631 & 4642, 695.
-KICKPLATES STANDARD METAL MFG. B/S K12A 12" x 40" 40D
-FLOOR STOP RICHELIEU 471-175 626 FINISH (CONCRETE FLOORS)
- GROUP #3**
-PASSAGE SET LEVER HANDLES 626 FINISH
-LOW ENERGY POWER DOOR OPERATOR, NORTON ASSA-ABLOY MODEL 6910, HES 3000 SERIES
ELECTRIC STRIKE FIELD SET TO FAIL-SAFE, 630 SATIN STAINLESS STEEL FINISH, & WHEELCHAIR SYMBOL, ACUVISION SENSOR SYSTEM
-KICKPLATES STANDARD METAL MFG. B/S K12A 12" x 40" 40D
-FLOOR STOP RICHELIEU 471-175 626 FINISH (CONCRETE FLOORS)
-SMOKE SEAL K.N. CROWDER INC. W21 BLACK
-DOOR SWEEP K.N. CROWDER INC. W13S 42"



3 DOOR JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



FIXED GLAZING UNITS
WINDOW TYPES SCALE: 1/4" = 1'-0"



DOOR TYPES
SCALE: 1/4" = 1'-0"

FRAME TYPES

No.	REVISION/DESCRIPTION	BY	DATE
SEAL			



DRAWN	CHK	CHECKED	DESIGNED	APPROVED
DATE: 2014.07.11				

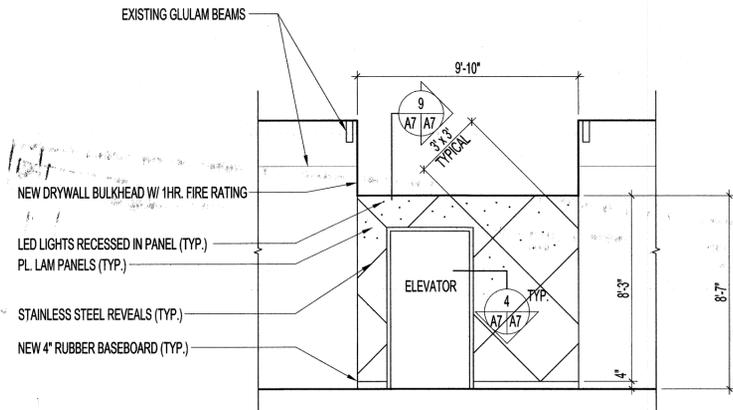
THE CITY OF WINNIPEG
PLANNING, PROPERTY AND DEVELOPMENT DEPARTMENT
MUNICIPAL ACCOMMODATIONS DIVISION
3-65 GARRY STREET, R3C 4K4

PROJECT
ST. VITAL LIBRARY
NEW ELEVATOR INSTALLATION

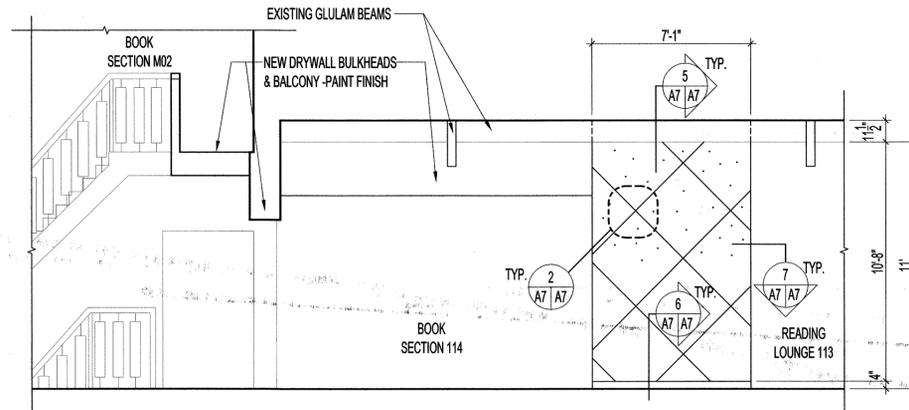
6 FERMORE AVENUE
SHEET TITLE
PARTIAL MAIN & MEZZANINE FLOOR PLANS
FLOOR FINISHES - DEMO. & RENO.
DOOR & ROOM SCHEDULES

SCALE	PROJECT No:	SHEET No:
AS SHOWN		A8

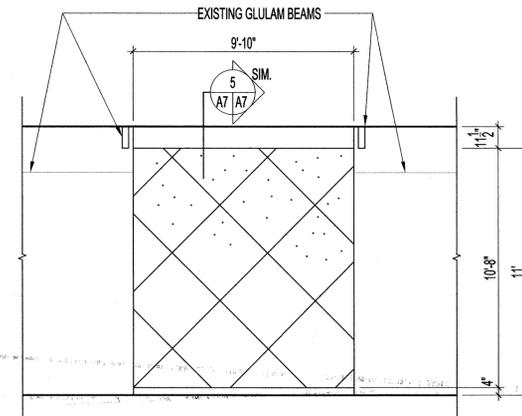
NOTE: NOTES, MATERIALS & SECTIONS ARE TYPICAL FOR ALL ELEVATIONS UNLESS NOTED OTHERWISE



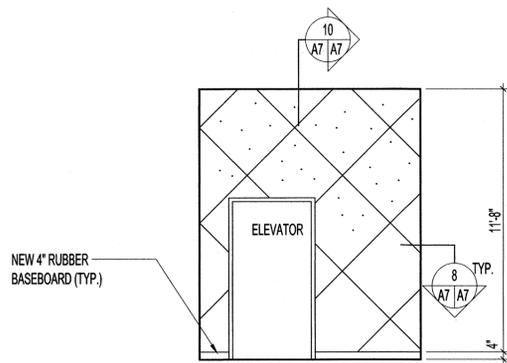
A ELEVATION - MAIN FLOOR ELEVATOR ENTRANCE
A2 | A7 SCALE: 1/4" = 1'-0"



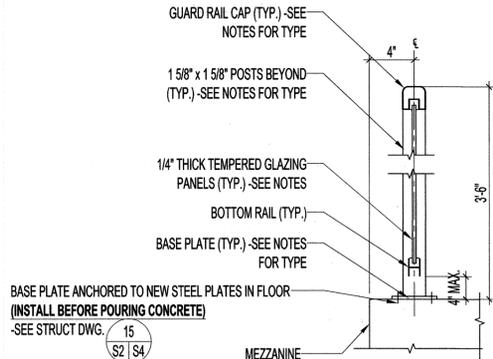
B ELEVATION - MAIN FLOOR ELEVATOR WEST & EAST SIDES
A2 | A7 SCALE: 1/4" = 1'-0"



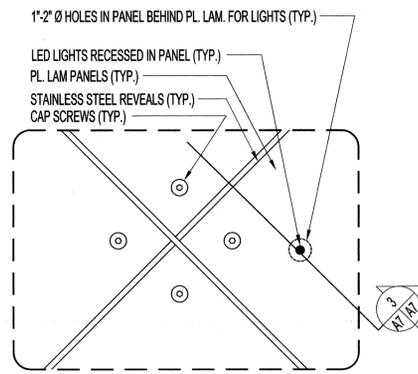
C ELEVATION - MAIN FLOOR ELEVATOR SOUTH SIDES
A2 | A7 SCALE: 1/4" = 1'-0"



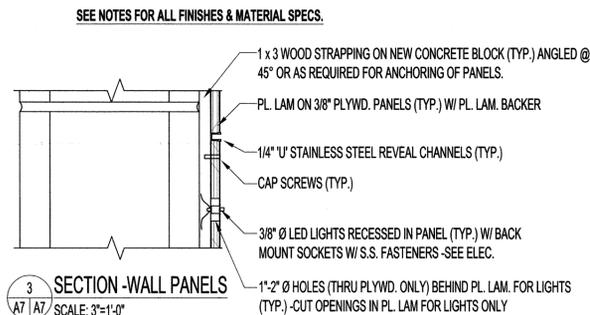
D ELEVATION - MEZZANINE FLOOR ELEVATOR ENTRANCE
A2 | A7 SCALE: 1/4" = 1'-0"



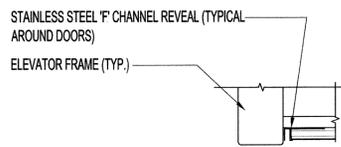
1 SECTION - GUARD RAIL
A5 | A7 SCALE: 1 1/2" = 1'-0"



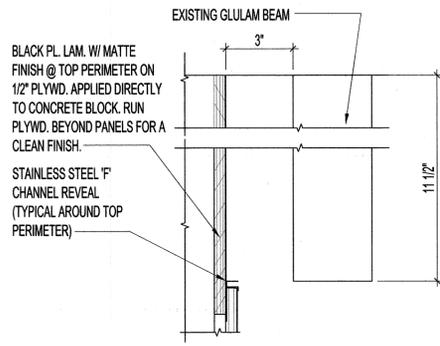
2 SECTION - WALL PANELS
A7 | A7 SCALE: 3" = 1'-0"



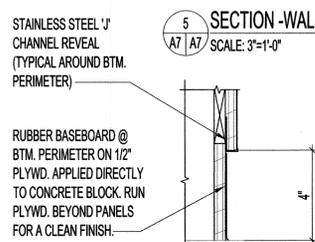
3 SECTION - WALL PANELS
A7 | A7 SCALE: 3" = 1'-0"



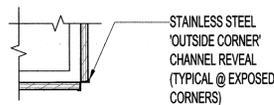
4 SECTION - WALL PANELS @ ELEVATOR
A7 | A7 SCALE: 3" = 1'-0"



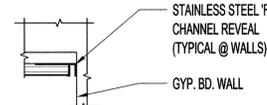
5 SECTION - WALL PANEL HEADER
A7 | A7 SCALE: 3" = 1'-0"



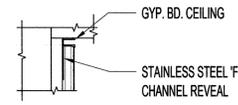
6 SECTION - WALL PANEL BASE
A7 | A7 SCALE: 3" = 1'-0"



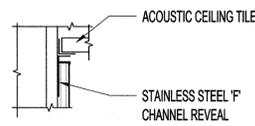
7 SECTION - WALL PANEL OUTSIDE CORNER
A7 | A7 SCALE: 3" = 1'-0"



8 SECTION - WALL PANEL INSIDE CORNER @ MEZZ. ELEVATOR
A7 | A7 SCALE: 3" = 1'-0"



9 SECTION - WALL PANEL HEADER @ MAIN FL. ELEVATOR
A7 | A7 SCALE: 3" = 1'-0"



10 SECTION - WALL PANEL HEADER @ MEZZ. ELEVATOR
A7 | A7 SCALE: 3" = 1'-0"

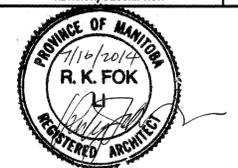
NOTES:

- GUARD RAIL NOTES:**
- CODES FOR RAILINGS, GUARDS ARE TO FOLLOW THE GUIDELINES OF THE MANITOBA BUILDING CODE 2010 & CURRENT AMENDMENTS & THE 2010 CITY OF WINNIPEG ACCESSIBILITY DESIGN STANDARDS.
 - PROVIDE SHOP DRAWINGS FOR ALL RAIL & GLAZING ASSEMBLIES.
 - GUARD & HAND RAIL COMPONENTS BY OR APPROVED EQUAL IN ACCORDANCE WITH B6:
 - NORTHWEST RAILING DISTRIBUTORS INC.
1493 ERIN STREET
WINNIPEG, MB. R3E 2S9
(204)-632-1147
INFO@NORTHWESTRAILING.CA
CONTACT- BARRY SCHMIDT
 - GUARD RAIL COMPONENTS TO BE POWDER ALUMINIUM COATED CW 1 5/8" SQUARE POSTS, 4" x 4" x 3/8" BASE PLATES & WELDED TOP & BOTTOM SLEEVES, 1/4" (6mm) TEMPERED GLAZING, #14 x 3" STAINLESS STEEL FASTENERS, GUARD RAIL PROFILE - SERIES #1255
 - GUARD RAIL & HAND RAIL COMPONENTS TO BE COLOUR GUN METAL GREY

ELEVATOR PANELS MATERIALS & FINISHES

- PANEL GRID LOCATION TO BE POSITIONED TO AVOID SMALL PORTIONS OF PANELS LOCATED AT WALLS. PROVIDE SHOP DRAWINGS FOR LAYOUT OF PANELS & GENERAL LIGHTING LOCATIONS.
- STAINLESS STEEL REVEALS TO BE FROM FRY REGLET OR APPROVED EQUAL.
- RECESSED CAP SCREWS (BLACK FINISH) TO BE FASTENED TO 1 x 3 W.D. STRAPPING @ CORNERS OF PANELS - SUBMIT SAMPLES FOR APPROVAL.
- LED LIGHTS TO BE LOCATED IN TOP PORTION OF ELEVATIONS APPROX AS SHOWN. LED LIGHTS TO BE TOKILEDS, TLED FLBK-410-W-HB APPROX. 30 LIGHTS PER ELEVATION LOCATIONS AS SHOWN SPACED RANDOMLY IN PANELS.
- PLASTIC LAMINATE FOR ALL PANELS TO BE FORMICA 2297 MC-TERRIL MICRO DOT FINISH & BLACK PLASTIC LAMINATE MATTE FINISH @ TOP PERIMETER ON MAIN FLOOR.

No.	REVISION/DESCRIPTION	BY	DATE
SEAL			



DRAWN	MMK	CHECKED	DESIGNED	APPROVED
DATE	2014.07.11	USER	APPROVAL	

THE CITY OF WINNIPEG
PLANNING, PROPERTY AND
DEVELOPMENT DEPARTMENT
MUNICIPAL ACCOMMODATIONS DIVISION
3-65 GARRY STREET, R3C 4K4

PROJECT
**ST. VITAL LIBRARY
NEW ELEVATOR INSTALLATION**

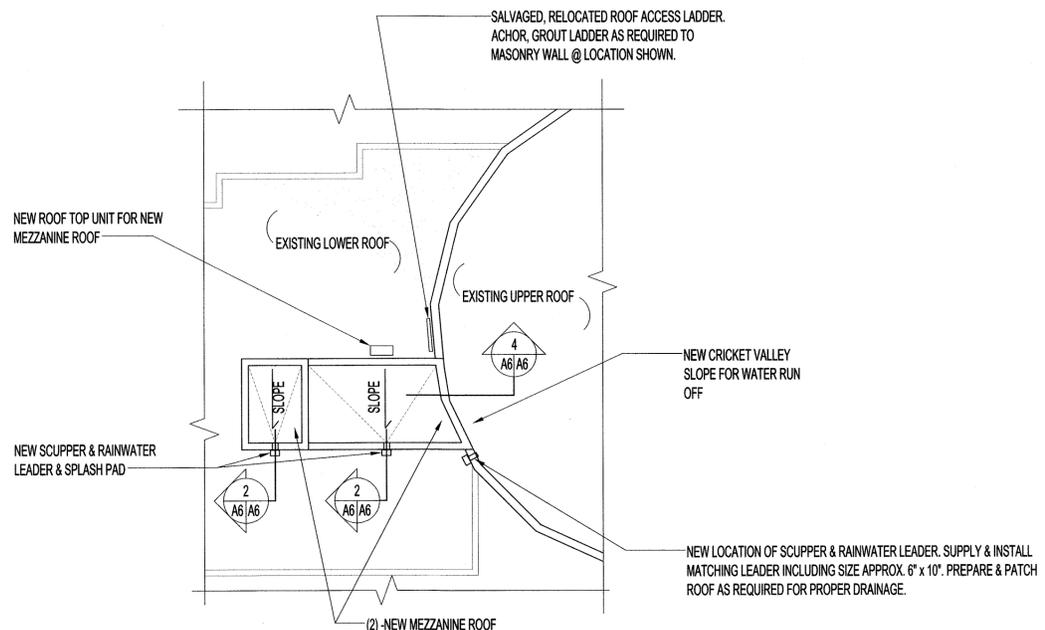
6 FERMOR AVENUE

SHEET TITLE
**ELEVATOR ELEVATIONS & DETAILS,
GUARD RAIL SECTION**

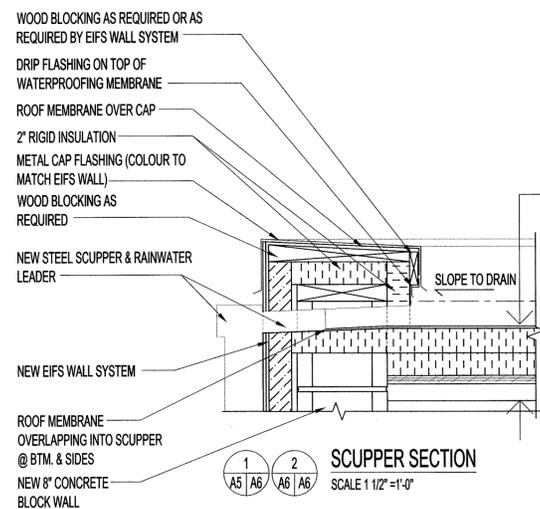
SCALE	PROJECT No:	SHEET No:
AS SHOWN		A7

NOTES:

SEE SPECS FOR EIFS WALL SYSTEMS. WALL SYSTEM TO BE INSTALLED ACCORDING TO SPECIFICATIONS OUTLINED AND MANUFACTURERS RECOMMENDATIONS.

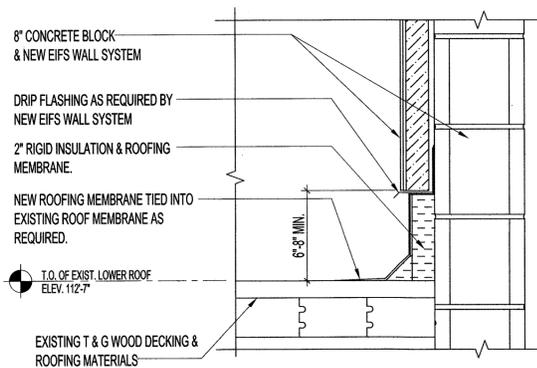


1 ROOF PLAN
SCALE 1/4" = 1'-0"

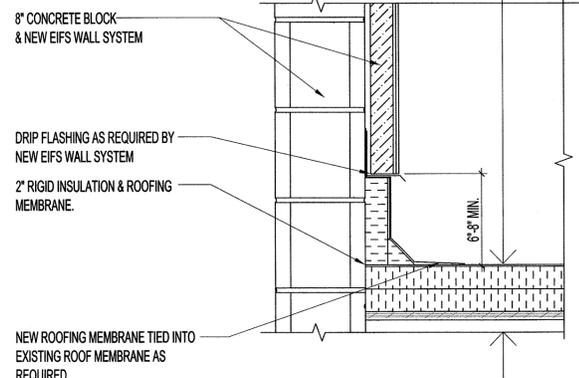


1 SCUPPER SECTION
SCALE 1 1/2" = 1'-0"

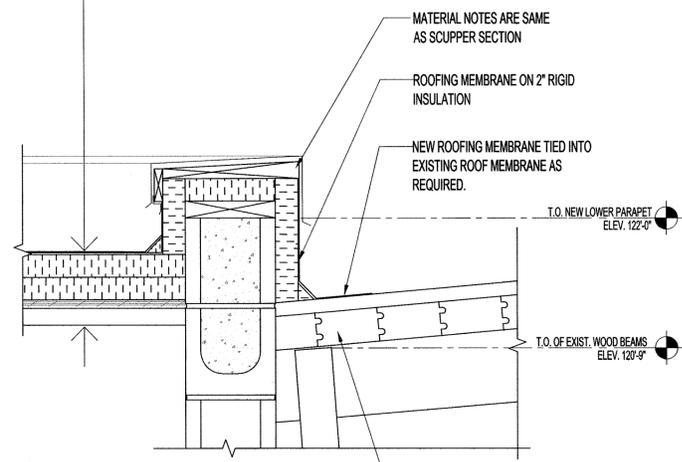
- MODIFIED BITUMEN ROOF MEMBRANE
- 2 LAYERS 2" RIGID INSULATION (SLOPE TO DRAIN)
- AIR VAPOUR BARRIER
- T & G 1/2" WOOD SHEATHING
- 1 1/2" STEEL ROOF DECKING



2 EXISTING ROOF & NEW WALL SECTION
SCALE 1 1/2" = 1'-0"



3 LOWER ROOF SECTION @ ELEVATOR SHAFT
SCALE 1 1/2" = 1'-0"



4 PARAPET @ EXISTING ROOF SECTION
SCALE 1 1/2" = 1'-0"

No.	REVISION/DESCRIPTION	BY	DATE
SEAL			



DRAWN	CHKD	DESIGNED	APPROVED
DATE: 2014.07.11			

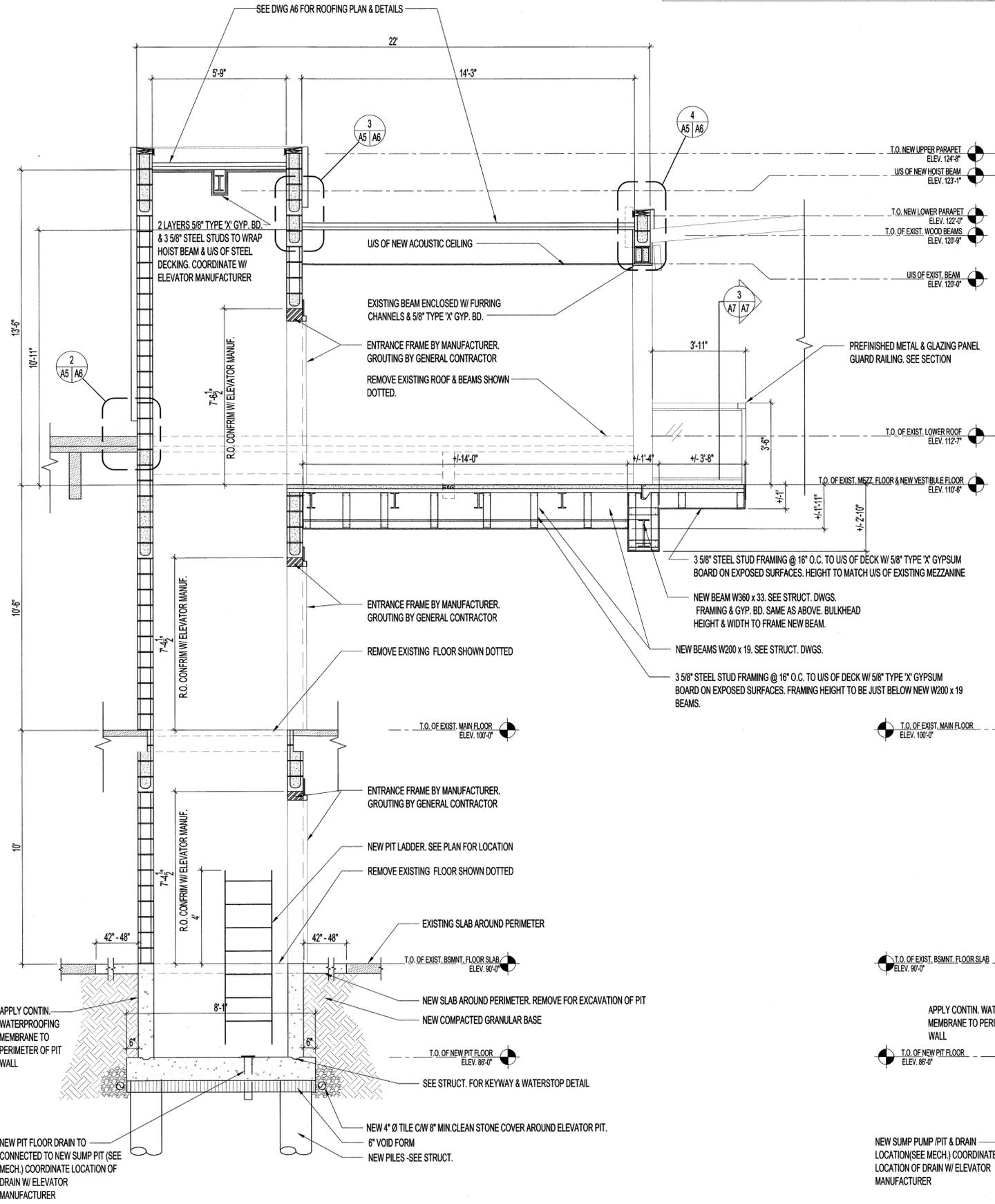
THE CITY OF WINNIPEG
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MUNICIPAL ACCOMMODATIONS DIVISION
3-65 GARRY STREET, R3C 4K4

PROJECT
ST. VITAL LIBRARY
NEW ELEVATOR INSTALLATION

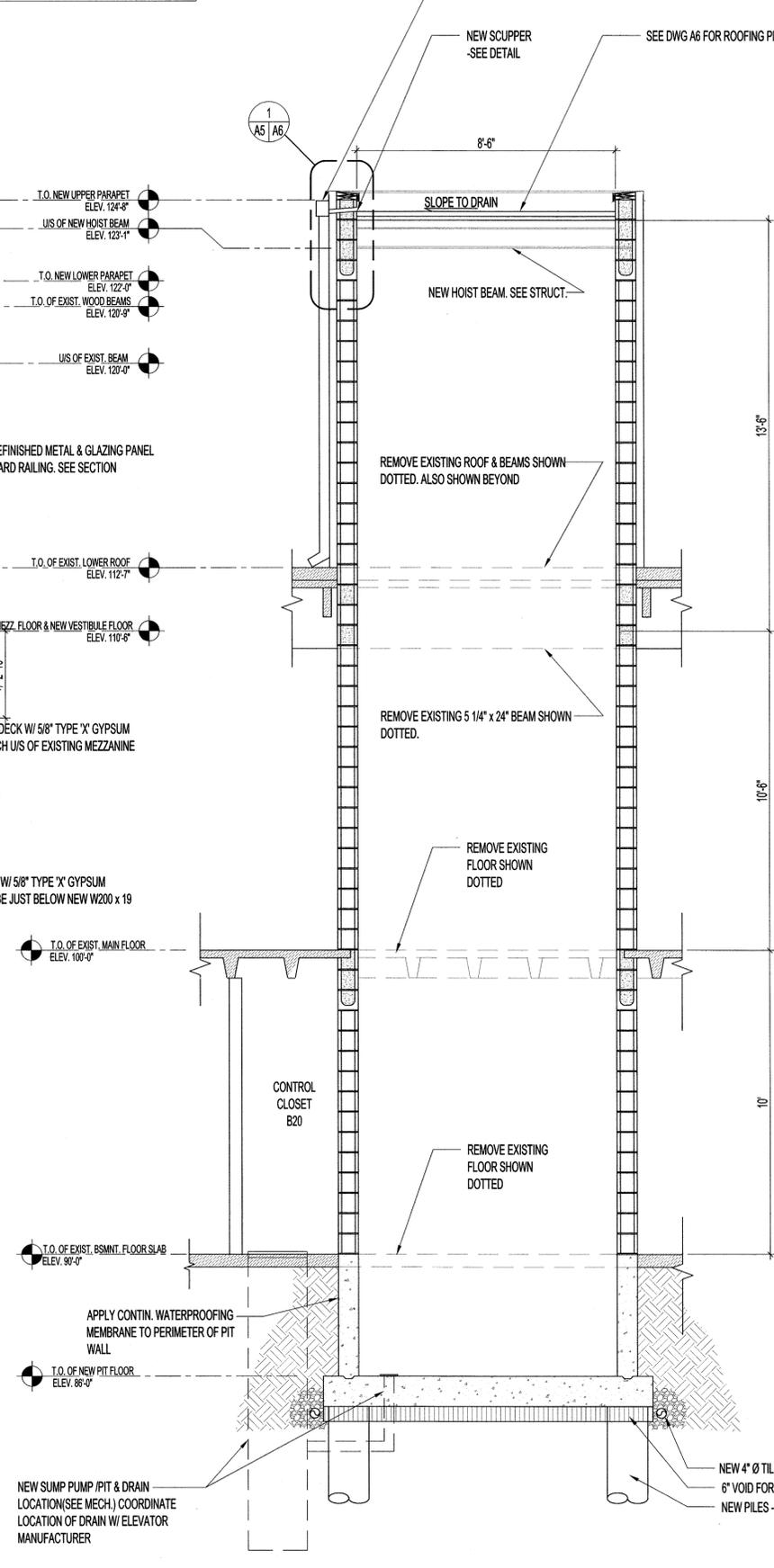
6 FERMOR AVENUE
SHEET TITLE
ROOF PLAN
ROOF & PARAPET DETAILS

SCALE	PROJECT No:	SHEET No:
AS SHOWN		A6

NOTE: ALL ELEVATOR SHAFT PENETRATIONS TO BE FIRE STOPPED FOR A 3/4 HR. FIRE RATING



1 ELEVATOR SHAFT SECTION
A2 | A5 / SCALE 3/8" = 1'-0"



2 ELEVATOR SHAFT SECTION
A2 | A5 / SCALE 3/8" = 1'-0"

No.	REVISION/DESCRIPTION	BY	DATE

SEAL

DATE	USER	APPROVAL
2014.02.26		

THE CITY OF WINNIPEG
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MUNICIPAL ACCOMMODATIONS DIVISION
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PROJECT
ST. VITAL LIBRARY
NEW ELEVATOR INSTALLATION

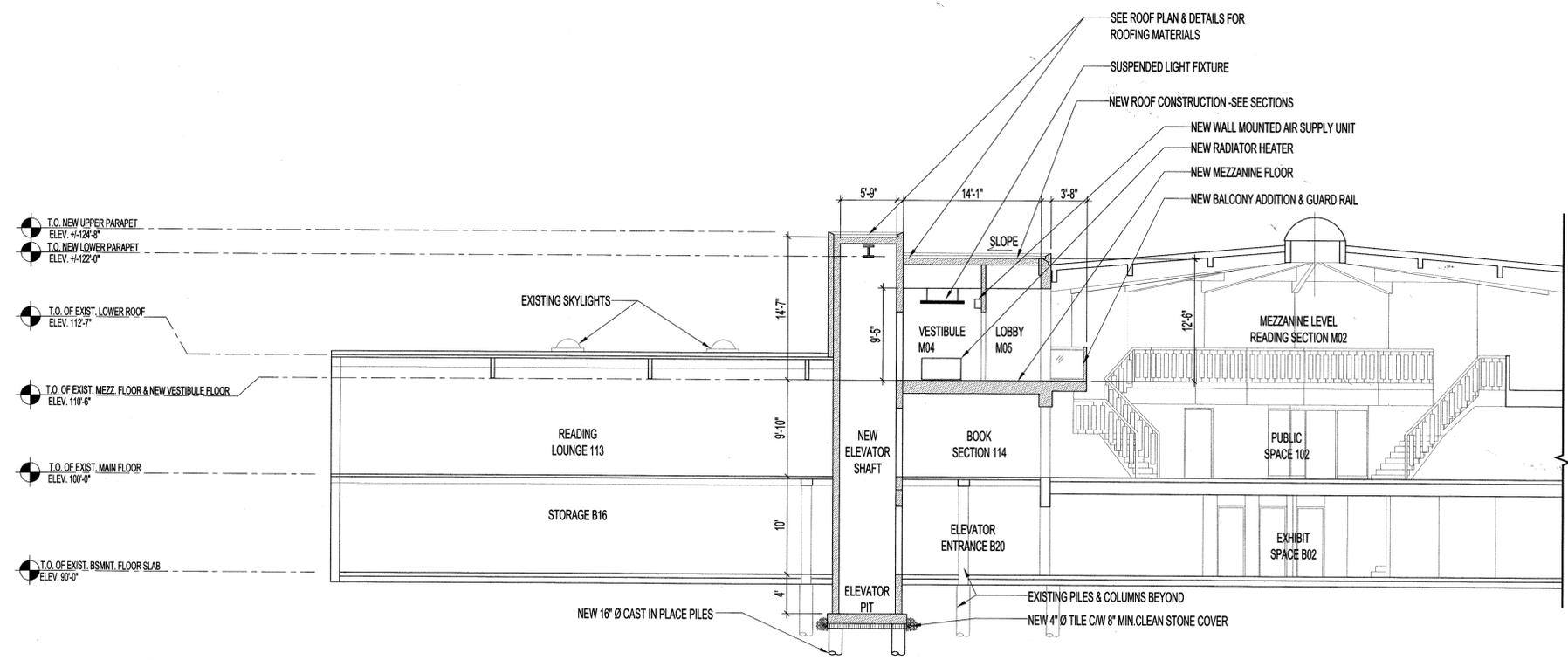
6 FERMOR AVENUE

SHEET TITLE
ELEVATOR SECTIONS

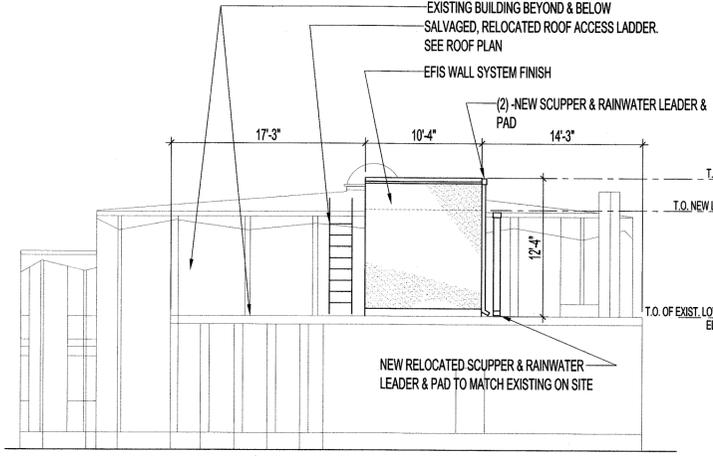
SCALE	PROJECT No.	SHEET No.
AS SHOWN		A5

DRAWING SHEET SIZE: A1 (841mm x 594mm) PLOT 1:1

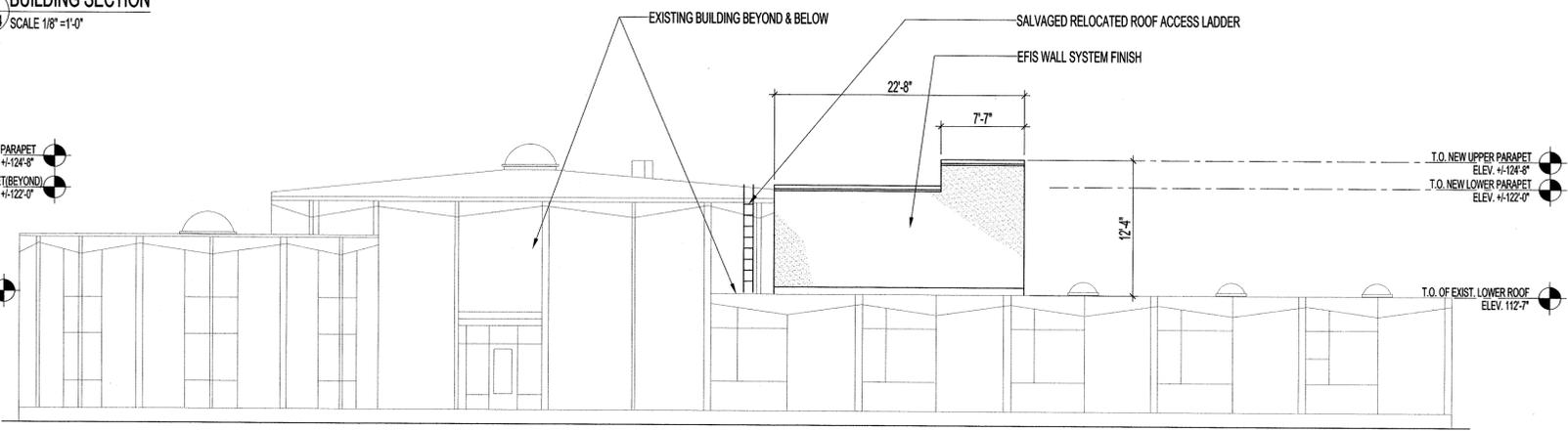
NOTES:



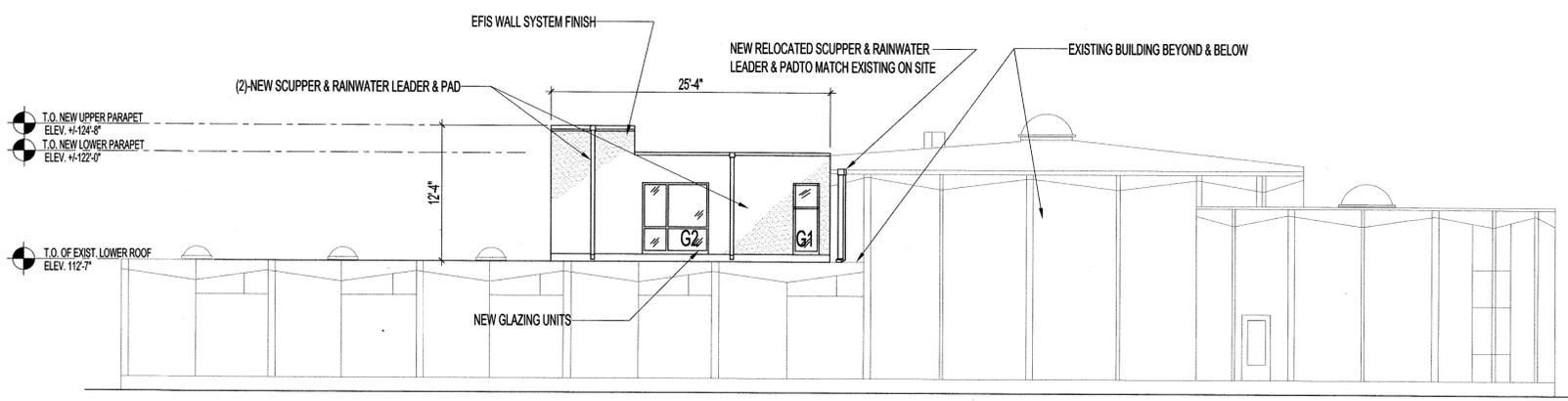
1 BUILDING SECTION
A2/A4 SCALE 1/8" = 1'-0"



2 BUILDING ELEVATION SOUTH
A4/A4 SCALE 1/8" = 1'-0"



3 BUILDING ELEVATION WEST
A4/A4 SCALE 1/8" = 1'-0"



4 BUILDING ELEVATION EAST
A4/A4 SCALE 1/8" = 1'-0"

No.	REVISION/DESCRIPTION	BY	DATE



DRAWN	CHECKED	DESIGNED	APPROVED
MMK			
DATE: 2014.07.11	USER APPROVAL		

THE CITY OF WINNIPEG
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PROJECT
ST. VITAL LIBRARY
NEW ELEVATOR INSTALLATION

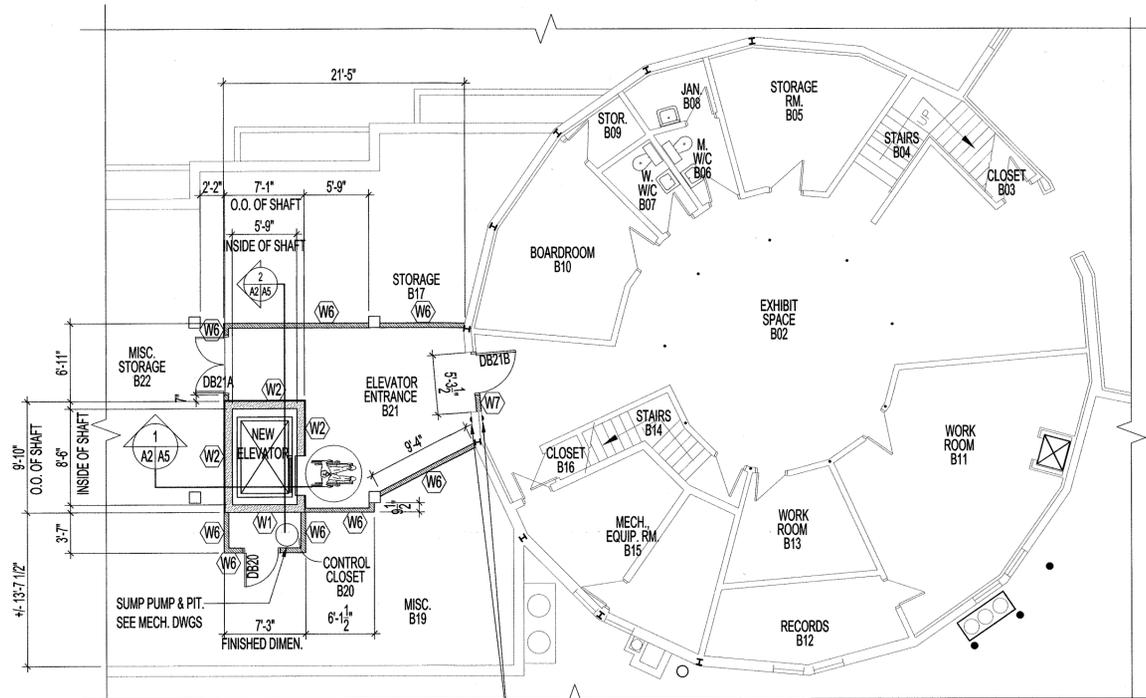
6 FERMOR AVENUE

SHEET TITLE
BUILDING SECTION
& BUILDING ELEVATIONS

SCALE	PROJECT No:	SHEET No:
AS SHOWN		A4

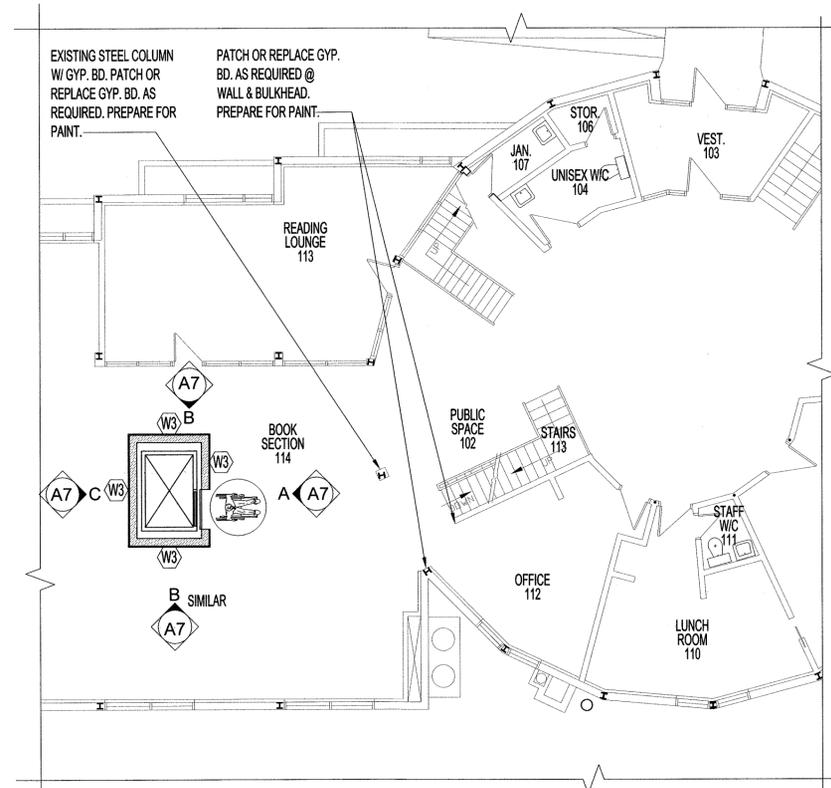
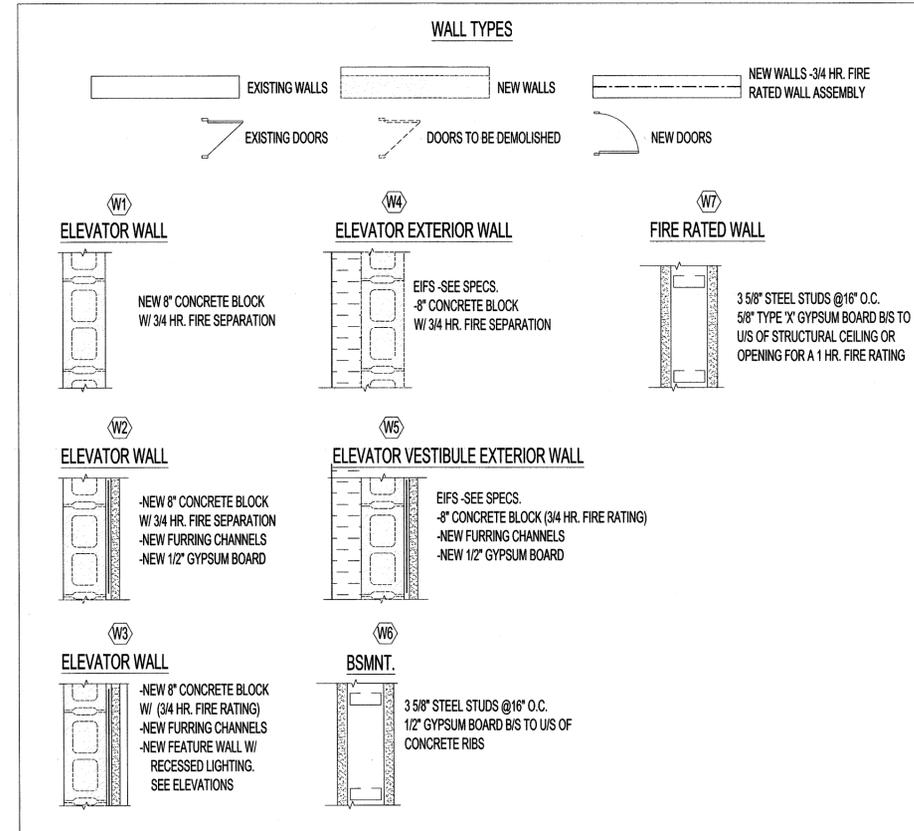
NOTES:

SEE SPECS FOR EIFS WALL SYSTEMS. WALL SYSTEM TO BE INSTALLED ACCORDING TO SPECIFICATIONS OUTLINED AND MANUFACTURERS RECOMMENDATIONS.

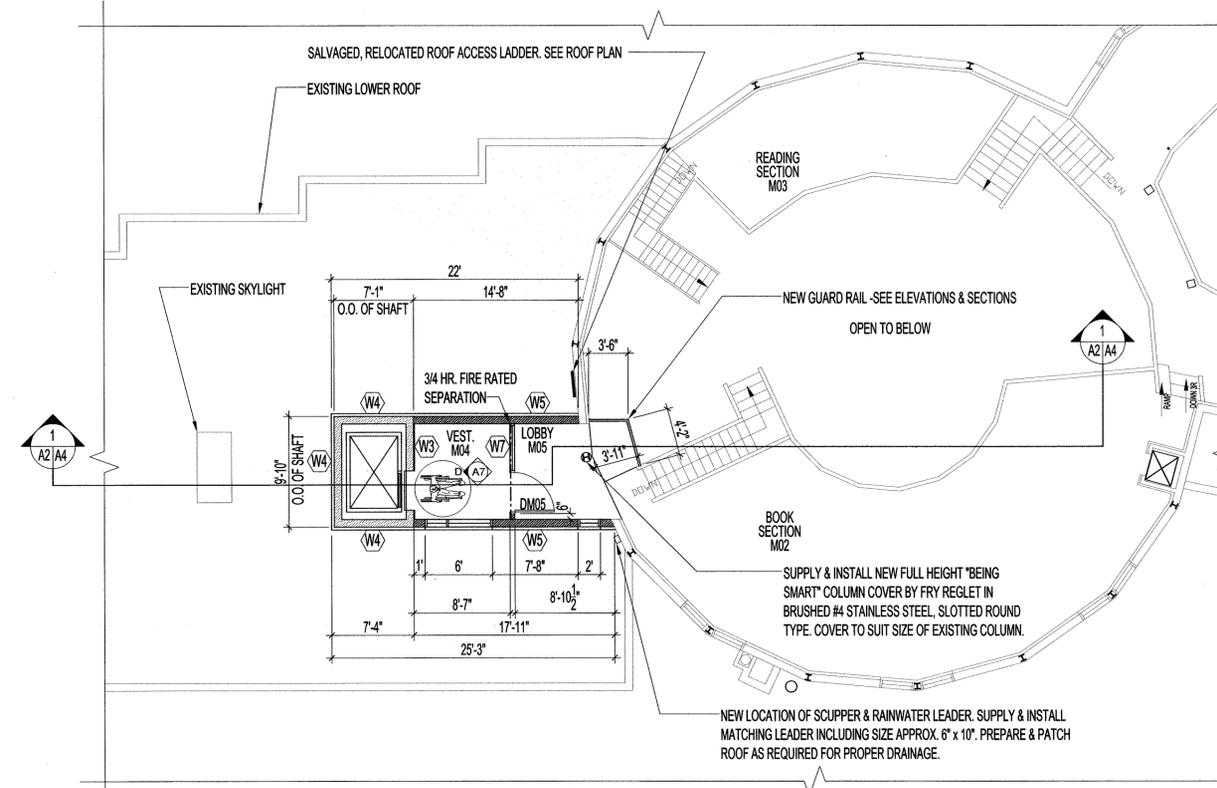


1 BASEMENT PLAN -RENOVATION
SCALE 1/4" = 1'-0"

(2) AUTOMATIC DOOR ACTUATION SWITCH, 36" VERTICAL ALUMINIUM COLUMN OF TOUCH ACTIVATION 'THE INGRESS'. INSTALLED 4" FROM FINISHED FLOOR.



1 MAIN FLOOR PLAN -RENOVATION
SCALE 1/4" = 1'-0"



1 MEZZANINE FLOOR PLAN -RENOVATION
SCALE 1/4" = 1'-0"

No.	REVISION/DESCRIPTION	BY	DATE
SEAL			



DRAWN	CHKD	DESIGNED	APPROVED
DATE 2014.07.11	USER APPROVAL		

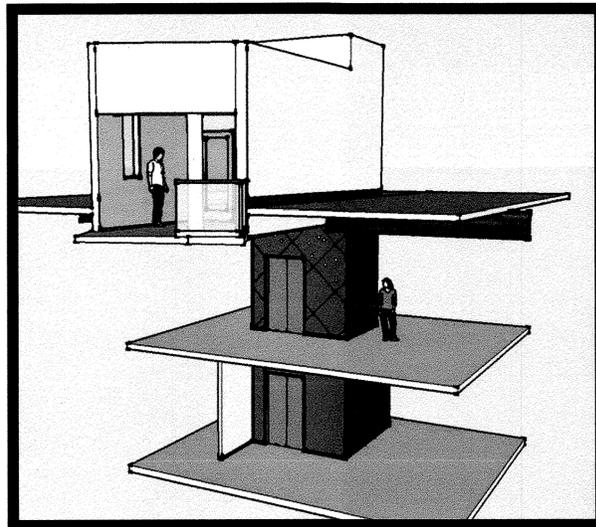
THE CITY OF WINNIPEG
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3-65 GARRY STREET, R3C 4K4

PROJECT
ST. VITAL LIBRARY
NEW ELEVATOR INSTALLATION

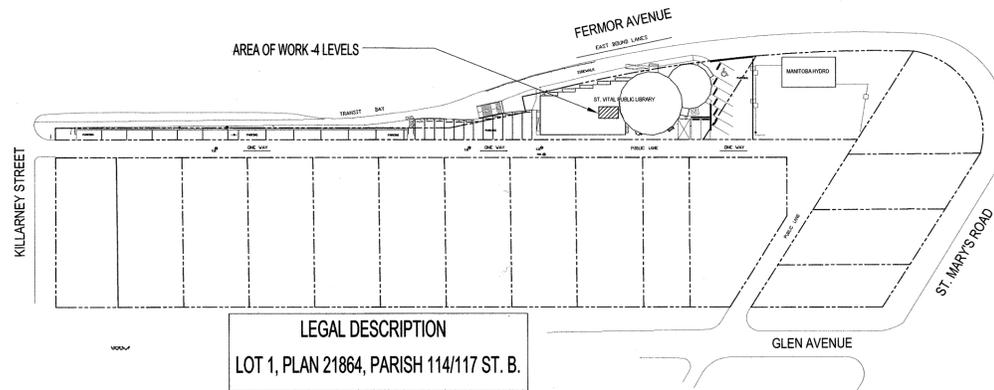
6 FERMOR AVENUE

SHEET TITLE
PARTIAL BASEMENT, MAIN
& MEZZANINE FLOOR PLANS
-RENOVATION

SCALE	PROJECT No:	SHEET No:
AS SHOWN		A2



DRAWING LIST	
SHEET No:	SHEET TITLE
A1	PARTIAL BASEMENT, MAIN, MEZZANINE & ROOF PLANS -DEMOLITION
A2	PARTIAL BASEMENT, MAIN & MEZZANINE FLOOR PLANS -RENOVATION
A3	PARTIAL BASEMENT, MAIN & MEZZANINE FLOOR PLANS REFLECTED CEILING PLANS -DEMOLITION & RENOVATION
A4	BUILDING SECTION & BUILDING ELEVATIONS
A5	ELEVATOR SECTIONS
A6	ROOF PLAN; ROOF & PARAPET DETAILS
A7	ELEVATOR ELEVATIONS & DETAILS; GUARD RAILS SECTION
A8	PARTIAL MAIN & MEZZANINE FLOOR PLANS -FLOOR FINISHES -DEMOLITION & RENOVATION; ROOM & DOOR SCHEDULES
A9	ELEVATOR SPECIFICATIONS
A10	ELEVATOR SPECIFICATIONS (CONT.); PAINTING SPECIFICATIONS, ROOF & WINDOW SPECIFICATIONS
A11	EIFS WALL SYSTEM SPECIFICATIONS



LEGAL DESCRIPTION
LOT 1, PLAN 21864, PARISH 114/117 ST. B.

DESIGN SUMMARY

DESIGN SCOPE OF WORK: INSTALLATION OF NEW ELEVATOR IN EXISTING LIBRARY BUILDING

BUILDING CODE DESIGN SUMMARY:

SINGLE OCCUPANCY LIBRARY BUILDING -3.2.2.25 /GROUP A, DIVISION 2, UP TO 2 STOREYS NOT SPRINKLERED OVER ALL BUILDING AREA - 6826 SQ. FT. (634 SQ. M.)

BUILDING DESIGN:

FLOOR ASSEMBLIES AND MEZZANINES SHALL BE FIRE SEPARATED AND IF OF COMBUSTIBLE CONSTRUCTION, A FIRE RESISTANCE RATING NOT LESS THAN 45 MIN.

ROOF ASSEMBLY OF ELEVATOR HOIST WAY NON-COMBUSTIBLE CONSTRUCTION.

3.5.3.1 FIRE SEPARATIONS FOR ELEVATOR HOIST WAY - TABLE 3.5.3.1 FIRE SEPARATION FOR VERTICAL TRANSPORTATION SPACE - FIRE RESISTANCE RATING OF FIRE SEPARATION REQUIRED FOR FLOOR ASSEMBLY 45 MIN. - MIN. FIRE RESISTANCE RATING OF VERTICAL SERVICE SPACE FOR ELEVATOR HOIST WAY IS 45 MIN.

3.3.3.3 FIRE SEPARATIONS FOR ELEVATOR MACHINE ROOMS - ELEVATOR DOES NOT REQUIRE A MACHINE ROOM.

3.5.4.1. 1) ELEVATOR CAR DIMENSIONS - 1134 KG ELEVATOR CAR INTERIOR WIDTH - 6' 5" (1970 MM) DEPTH 4' 3" (1309 MM)

PROTECTION ON FLOOR AREAS WITH A BARRIER FREE PATH OF TRAVEL

3.31.7. 1) a) ii) AND b) i) AND ii)

EVERY FLOOR AREA ABOVE OR BELOW THE FIRST STORY THAT IS NOT SPRINKLERED THROUGHOUT AND THAT HAS A BARRIER FREE PATH OF TRAVEL SHALL a) BE SERVED BY AN ELEVATOR ii) PROTECTED AGAINST FIRE IN CONFORMANCE WITH CLAUSES 3.2.6.5 3) b) BE PROTECTED WITH A VESTIBULE CONTAINING NO OCCUPANCY AND SEPARATED FROM THE REMAINDER OF THE FLOOR AREA BY A FIRE SEPARATION HAVING A FIRE RESISTANCE RATING NOT LESS THAN 45 MIN.

3.31.7. 1) b) i) AND ii) BE DIVIDED INTO AT LEAST 2 ZONES BY FIRE SEPARATION NOT LESS THAN 1 H. AND TRAVEL DISTANCE FROM ANY POINT IN ONE ZONE TO A DOORWAY LEADING TO ANOTHER ZONE IS 30 M.

NOTES:

THESE DRAWINGS SHALL NOT BE SCALED.

THE CONTRACTOR SHALL VISIT THE SITE AND SATISFY ONESELF ALL DIMENSIONS, DATUM, AND DETAILED INFORMATION SHOWN ARE CORRECT.

THE CONTRACTOR IS TO REVIEW AND COORDINATE ALL ARCHITECTURAL, MECHANICAL, ELECTRICAL AND STRUCTURAL DRAWINGS FOR ADDITIONAL OPENINGS THROUGH FLOORS, WALLS, AND CEILINGS FOR DUCT, PIPE & ELECTRICAL RISERS AND ALL OPENINGS NOT SHOWN ON DRAWINGS.

ALL OPENINGS THROUGH FIRE ASSEMBLIES ARE TO BE FIRE STOPPED & SEALED WITH ULC APPROVED FIRE STOPPING TO MAINTAIN THE INTEGRITY OF THE FIRE SEPARATION, AND PROVIDE A SMOKE-TIGHT BARRIER.

ALL PRODUCTS AND MATERIALS TO BE USED AND INSTALLED SHALL CONFORM WITH MANUFACTURER'S SPECIFICATIONS & APPLICABLE CODES.

THE CONTRACTOR SHALL BE RESPONSIBLE TO PATCH AND MAKE GOOD ALL EXISTING CONSTRUCTION AFFECTED BY THE REMOVAL OF ALL ITEMS FORMING THE PART OF THE RENOVATION WORK.

WHERE NEW FLOORING AND BASE IS TO BE INSTALLED IN EXISTING AREAS (REFER TO FLOOR PLAN AND ROOM SCHEDULE) THE EXISTING FLOORING SURFACE AND BASE MUST BE REMOVED, UNLESS OTHERWISE NOTED. ALL FLOOR SURFACES SHALL BE PREPARED IN ACCORDANCE TO MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION OF NEW FLOORING.

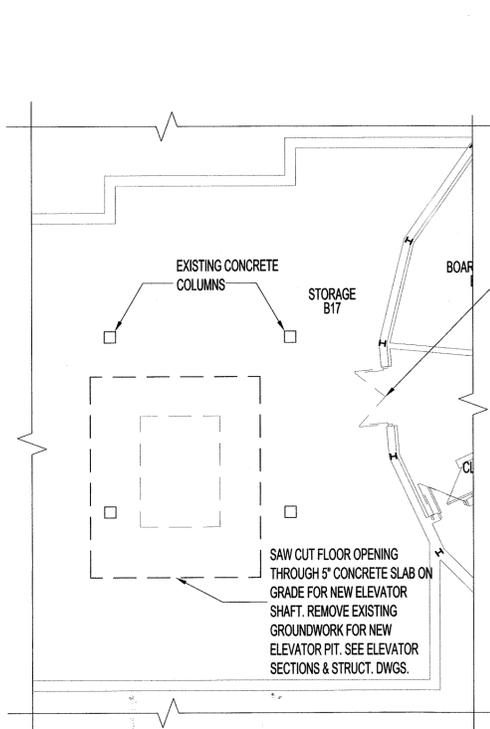
WHERE PAINTING OF EXISTING WALLS IS INDICATED ON THE ROOM SCHEDULE, THESE WALLS MUST BE CLEANED OF ANY EXISTING WALL COVERING, PATCHED & PREPARED TO ACCEPT NEW MATERIAL, UNLESS OTHERWISE NOTED.

ST. VITAL LIBRARY -NEW ELEVATOR INSTALLATION
6 FERMOR AVENUE

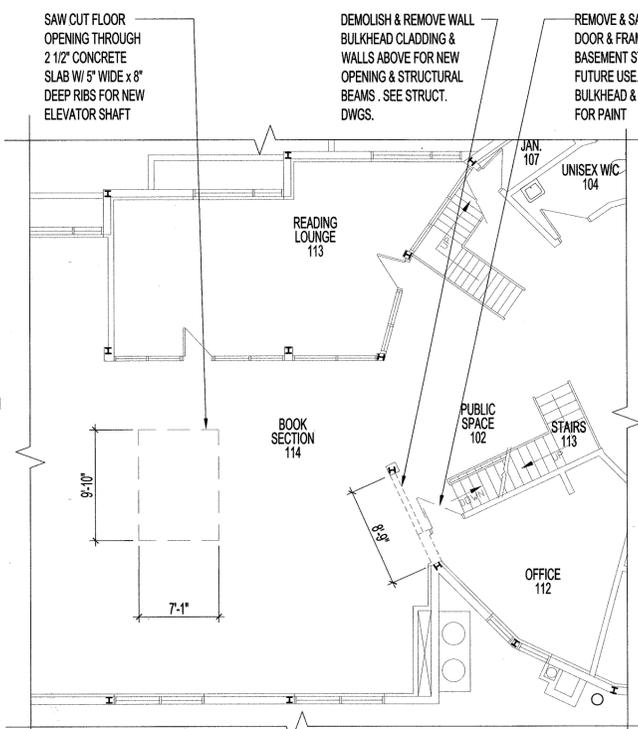
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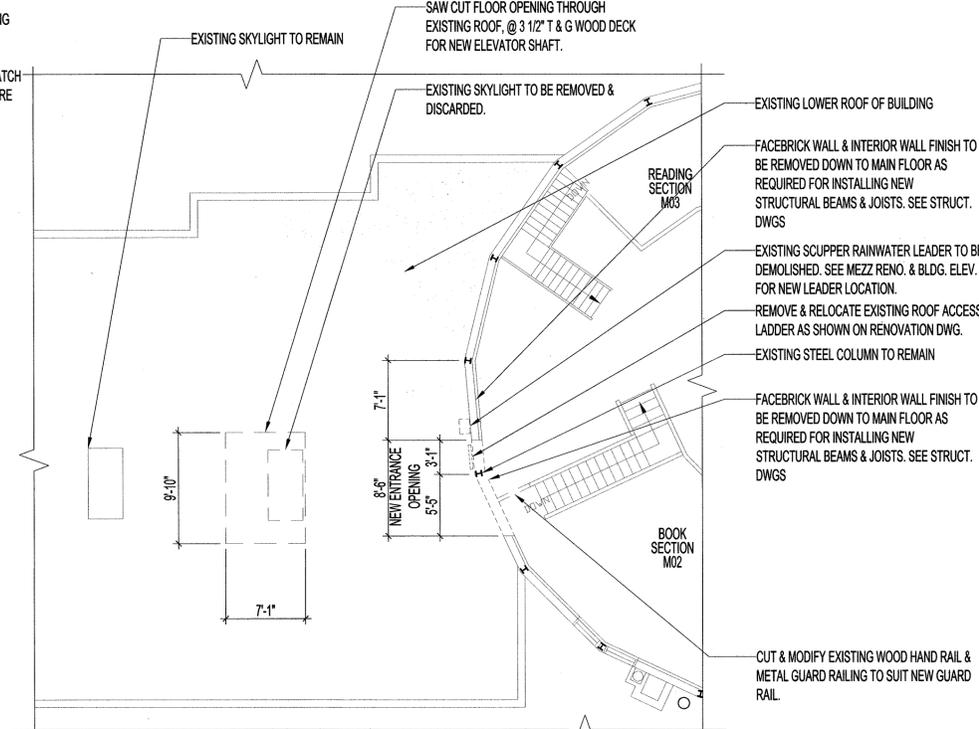
CITY OF WINNIPEG
PLANNING, PROPERTY AND DEVELOPMENT DEPARTMENT
MUNICIPAL ACCOMMODATIONS DIVISION
300-65 GARRY STREET
WINNIPEG, MANITOBA
R3C 4K4



1 BASEMENT PLAN -DEMOLITION
A1/A1 SCALE 1/8" = 1'-0"



2 MAIN FLOOR PLAN -DEMOLITION
A1/A1 SCALE 1/8" = 1'-0"



3 MEZZANINE FLOOR PLAN -DEMOLITION
A1/A1 SCALE 1/8" = 1'-0"

No.	REVISION/DESCRIPTION	BY	DATE
SEAL			

PROVINCE OF MANITOBA
R. K. FOK
REGISTERED ARCHITECT

DRAWN	CHECKED	DESIGNED	APPROVED
DATE 2014.07.11	USER APPROVAL		

THE CITY OF WINNIPEG
PLANNING, PROPERTY AND DEVELOPMENT DEPARTMENT
MUNICIPAL ACCOMMODATIONS DIVISION
3-65 GARRY STREET, R3C 4K4

PROJECT
**ST. VITAL LIBRARY
NEW ELEVATOR INSTALLATION**

6 FERMOR AVENUE
SHEET TITLE
**PARTIAL BASEMENT, MAIN,
MEZZANINE FLOOR & ROOF PLANS
-DEMOLITION**

SCALE	PROJECT No:	SHEET No:
AS SHOWN		A1

DRAWING SHEET SIZE: A1 (841mm x 594mm) PLOT 1:1