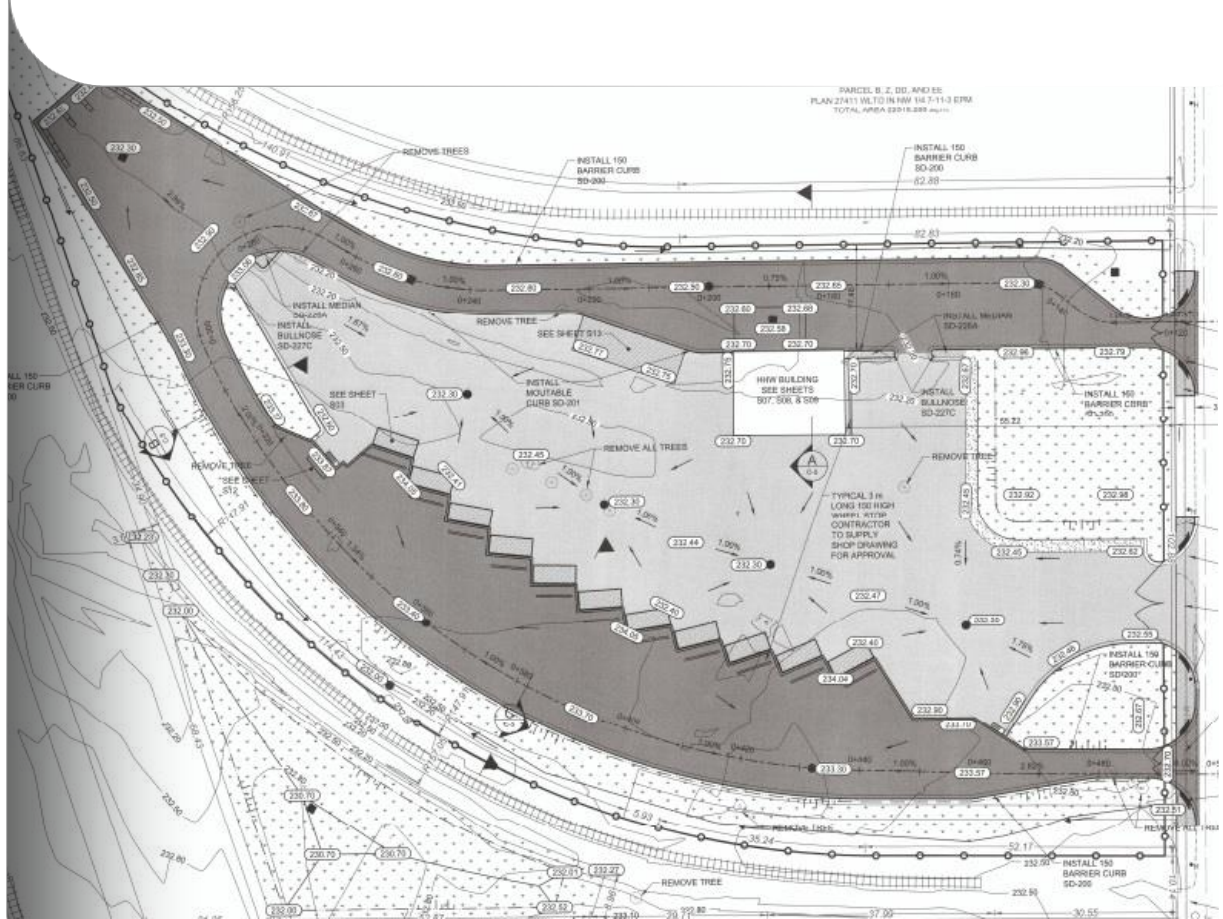




CITY OF WINNIPEG

## Environment Act Proposal (EAP) Report

4R Winnipeg Depot – Pacific Avenue Resource Management  
Facility





# Table of Contents

## Executive Summary

<b>1.0</b>	<b>Introduction and Background</b>	<b>1</b>
1.1	Site Use Description .....	1
1.2	HHW and e-Waste Quantities .....	3
<b>2.0</b>	<b>Site Features and Operations</b>	<b>4</b>
2.1	Commodity Collection and Storage .....	4
2.1.1	HHW/e-Waste Building .....	6
2.1.2	Cages .....	7
2.1.3	Pallets .....	7
2.1.4	Non-Regulated Items .....	7
2.2	Material Loading for Transport off-Site .....	8
2.2.1	Used Oil .....	8
<b>3.0</b>	<b>Description of the Proposed Development</b>	<b>9</b>
3.1	Land Uses and Designations .....	9
<b>4.0</b>	<b>Funding</b>	<b>10</b>
<b>5.0</b>	<b>Approval Status</b>	<b>11</b>
<b>6.0</b>	<b>Public Consultation</b>	<b>12</b>
<b>7.0</b>	<b>Description of Existing Environment in the Project Area</b>	<b>13</b>
<b>8.0</b>	<b>Description of Environmental Effects of the Proposed Development</b>	<b>14</b>
<b>9.0</b>	<b>Mitigation Measures and Residual Environmental Effects</b>	<b>15</b>
9.1	Fire Safety Equipment .....	15
<b>10.0</b>	<b>Follow-up Plans, including Monitoring and Reporting</b>	<b>16</b>
<b>11.0</b>	<b>Conclusions</b>	<b>17</b>



**Figures**

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Figure 1: Site Layout..... 2

Figure 2: Floor Plan ..... 5

**Tables**

---

Table 1: Estimated Annual HHW and e-Waste Quantities ..... 3

Table 2: HHW and e-Waste Storage/Containment..... 4

**Appendices**

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A Drawings

B Record of Title



## Executive Summary

The main purpose of the 4R Winnipeg Depot (4R Depot) at the Pacific Avenue Resource Management Facility (Pacific) is to receive, collect, and temporarily store unwanted residential materials (e.g., divertible, recyclable, and HHW wastes) prior to transfer of the commodities to one of the product specific management facilities in Winnipeg. The 4R Depot will include an HHW/e-Waste building to receive and prepare residential HHW and e-Waste for transport to an authorized receiver. Materials planned for receipt at the HHW/e-Waste building include:

- Paint
- Flammable liquids
- Toxic materials
- Corrosive materials
- Light bulbs and ballasts
- Automotive and household batteries
- Propane tanks
- Used oil

All HHW and e-Waste will be collected and temporarily stored in accordance with the Product Care Association's Manitoba Collection Site Guidelines, HHW Collection Sites (October 2012). Used oil and filters will be managed in accordance with the Used Oil, Oil Filters and Containers Stewardship Regulation (MR 86/97).

Site security will include the perimeter chain link fence that surrounds the Pacific facility and a new CCTV system covering the 4R Depot. The entrance gate will be closed and locked outside operating hours. The HHW/e-Waste building will also be locked when the facility is closed.

Design features of the HHW/e-Waste building and staging/unloading area will mitigate potential impacts to the environment. The building and staging area will be located on a relatively impervious (concrete/asphalt) surface. Surface water within the staging area will flow to a dedicated catch basin, which will include a "drain guard" to filter out hydrocarbons, sediment, and other contaminants. The outlet for the catch basin will also have an isolation valve to control flows from the area when containment is required. Portable spill and containment kits will also be strategically placed at the HHW/e-Waste building, and site staff will be trained on how to use them.

It is the opinion of Dillon Consulting Limited (Dillon) that the risk of environmental impacts as a result of the HHW building at the 4R Depot is insignificant, given the mitigative design features of the site.



## 1.0 Introduction and Background

In 2011 the City of Winnipeg (City) received the final report for the Comprehensive Integrated Waste Management Plan (CIWMP). The CIWMP recommends the creation of up to four Community Resource Recovery Centres (herein called 4R Depots) across the City. The CIWMP report is publicly available here: <http://garbage.speakupwinnipeg.com/files/2011/09/CIWMP-FINAL-REPORT.pdf>

The primary purpose of 4R Depots is to recover and divert unwanted residential materials from disposal at a landfill. Waste materials from commercial or industrial sources will not be accepted. Although there are some facilities within the City that collect specific recoverable resources (e.g., used batteries, the City's curb-side recycling collection program, electronic waste (e-Waste) days), the City has elected to develop 4R Depots to provide a "one-stop-shop" for residents to dispose of unwanted materials, including household hazardous waste (HHW) and e-Waste. The 4R Depots will also provide an opportunity for the City to improve its waste diversion rate.

### 1.1 Site Use Description

The 4R Depot will be available to residents of the City for the disposal of residential waste materials. The Pacific 4R Depot is a new depot with no existing data describing the volume of customers using the services offered. Based on load count data provided by the City, the "hourly traffic design volume" used to conduct a traffic analysis for the BRRMF 4R Winnipeg Depot is 112 residential vehicles. It is estimated that the Pacific 4R Depot will attract 40 percent of customers that are currently using the BRRMF 4R Winnipeg Depot, or 45 vehicles per hour. The site is divided into two distinct areas based on the type of material:

- Free Cycle – materials with product stewardship programs, e.g., recyclables, yard waste, HHW, and e-Waste; and,
- Garbage – residual materials.

**Figure 1** shows the site layout and location of the HHW/e-Waste building within the 4R Depot site. This application is related solely to the acceptance of HHW and e-Waste in the Free Cycle area. A brief description of the 4R Depot site as it relates to the HHW/e-Waste building follows.

Residential traffic will enter the 4R Depot from Pacific Avenue. The single lane entrance will expand into two lanes; one by-pass lanes and one "unloading" lane for cardboard, leaf and yard waste, and recyclables. A second "unloading" lane will also be provided at the HHW/e-Waste building.

The HHW/e-Waste building will be located within the 4R Depot. The building will be the first "stop" for residents to dispose of materials within the 4R Depot. All users will exit the site onto Pacific Avenue.





Figure 1: Site Layout



## 1.2 HHW and e-Waste Quantities

The City's Solid Waste Department provided load count data, material audit data, and other information (e.g., Speak-Up Winnipeg) to estimate the anticipated quantities of the HHW and e-Waste that will be received at the HHW/e-Waste building within the 4R Depot.

A summary of the estimated annual HHW and e-Waste quantities and collection/removal frequency is presented on **Table 1** below. In general, as the facility is only open to residential users, individual deliveries/drop-off of materials is anticipated to be in relatively small quantities (e.g., liquid wastes <5 litres/container). The Pacific 4R Depot is estimated to receive 25 percent of the total annual HHW and e-Waste quantities.

**Table 1: Estimated Annual HHW and e-Waste Quantities**

Commodity	Estimated Annual Quantity	Units	Estimated Removal Frequency
<b>Flammables</b>			
Paint	170,000	Litres	Weekly
Flammable liquids	15	Tub skids	Weekly
Used oil	75,000	Litres	Semimonthly
Used oil filters	2,000	Units	Semimonthly
<b>Flammable gas</b>			
Non-Program Cylinders (propane, Freon, medical oxygen, etc.)	1,000	Cylinders	Monthly
<b>Toxics and non-regulated</b>			
Toxic materials	20	Drums	Weekly
Compact fluorescent bulbs	40,000	Bulbs	Weekly
Fluorescent tubes	20,000	Tubes	Monthly
Light ballasts (PCB)	20	Drums	Weekly
Sharps (syringes, lancets)	1	kg	Bi-weekly
e-Waste	400	Tonnes	Bi-weekly
<b>Corrosives</b>			
Corrosive materials	14	Drums	Weekly
Household batteries	3	Drums	Weekly
Automotive batteries	25	Tonnes	Monthly
Lead Acid Batteries	20	Tonnes	Monthly

**NOTES:**

1. Tub-skid capacity is 432 liters.
2. Drum capacity is 200 litres.
3. Cylinder capacity may range from 3 to 50 litres.



## 2.0 Site Features and Operations

The HHW/e-Waste building will have at least one full-time attendant on duty whenever the facility is open. Mobile equipment within the building may include a manual pallet jack or dolly. A high standard of equipment maintenance and good housekeeping and operational practices will be implemented at all times.

In the summer months, the facility will operate seven day a week, from 8:00 am to 8:00 pm (subject to change with notice). In the winter months, the facility will operate seven days a week, from 8:00 am to 6:00 pm (subject to change with notice). No staff will be present at the depot outside of these operating hours. Site security will include the existing perimeter chain link fence that surrounds the Pacific Depot and a new closed circuit television (CCTV) system covering the 4R Depot. The entrance gate will be closed and locked outside operating hours. The HHW/e-Waste building will also be locked when the facility is closed.

### 2.1 Commodity Collection and Storage

HHW and e-Waste will be received at the site under a sheltered staging area. The commodities will be transferred to designated areas within an HHW/e-Waste building. **Figure 2** shows the proposed layout of the HHW/e-Waste building and staging area.

All HHW and e-Waste will be collected and temporarily stored in accordance with the Product Care Association's Manitoba Collection Site Guidelines, HHW Collection Sites (October 2012). Used oil and filters will be managed in accordance with the Used Oil, Oil Filters and Containers Stewardship Regulation (MR 86/97). Liquid PCB will not be accepted. PCB free light ballasts will be considered e-waste.

A summary of HHW and e-Waste storage and containment is presented on **Table 2** below. Within the building, space will be maintained around the storage and containment units to permit inspections for leaks, and to allow labelling to be visible. A brief description of the storage systems follows.

**Table 2: HHW and e-Waste Storage/Containment**

Commodity	Storage
Flammables	
Paint	Tub skid
Flammable liquids	Tub skid
Used oil	Double-walled 2,400L tank
Used oil filters	Lined drum
Flammable Gas	
Propane tanks	Fenced in area on exterior HHW building



Commodity	Storage
<b>Toxics and non- regulated</b>	
Toxic Materials	Drum
Compacted Fluorescent bulbs	Drum
Fluorescent tubes	Drum
e-Waste	Pallet
Sharps	Sharps Container*
<b>Corrosives</b>	
Corrosive materials	Drum
Household batteries	Drum
Automotive batteries	Pallet

\* The sharps container will be in accordance with industry standards, including features to prevent retrieval after disposal and locking lids to provide permanent containment for final disposal.

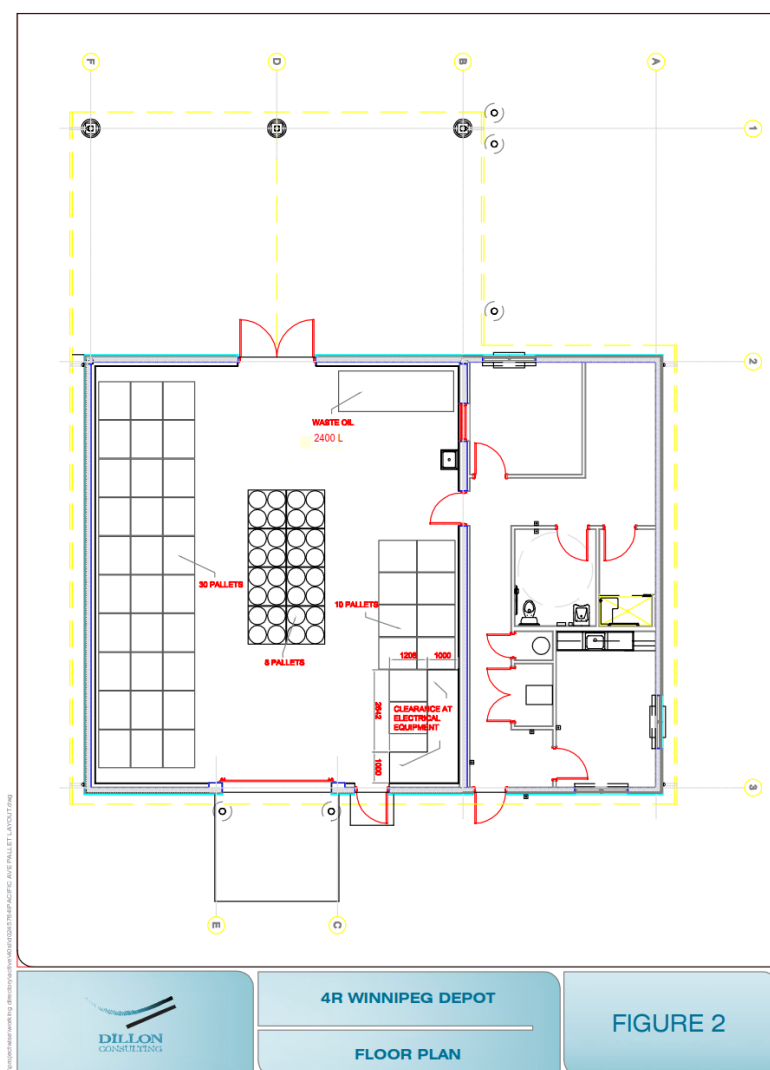


Figure 2: Floor Plan



### 2.1.1 HHW/e-Waste Building

The HHW/e-Waste building will provide a safe and secure temporary storage of hazardous materials. The HHW/e-Waste Building will be a single storey building with the storage area of 160 m<sup>2</sup> for collecting, sorting, and temporary storage of the materials listed on **Table 1**. Building construction will be wood framed walls clad in pre-finished metal supporting pre-engineered wood trusses with an approximate wall height of 4.2 metres (14 feet). The building will have a drive through area with canopy above, open sides, and a double door access into the interior storage area. The interior of building will be an open space.

Of primary importance for the collection and temporary storage of these commodities is protection from the elements and adequate ventilation. The HHW/e-Waste building and staging area will be situated over a relatively impervious surface (asphalt) to mitigate infiltration of potential impacts below the surface. The interior floor will be concrete slab on grade with concrete curbs (1 metre high starter wall) to form containment areas. Surface water in the sheltered staging area of the HHW/e-Waste building will be directed to a dedicated catch basin to provide the opportunity to contain and isolate potential spills that may occur within the sheltered HHW/e-Waste staging area of the site. The catch basin will include a “sump” with a capacity of approximately 230 litres.

Spill containment requirements are achieved through site design (described above) and the strategic placement of appropriately equipped portable spill response kits (provided by Product Care Association Manitoba, PCA). The sheltered staging area outside the building will have a dedicated catch basin and drainage outlet such that spills may be contained and isolated.

The HVAC system include manual control of “occupied mode” (1.5 air changes per hour of tempered air) and “flush mode” (six air changes per hour of non-tempered air) ventilation. Building ventilation may also be achieved via passive means by opening doors (person and roll-up).

Unit heaters will be included throughout the HHW building to maintain a minimum 10°C indoor temperature for typical Winnipeg outdoor design winter temperatures dictated by the Manitoba Building Code. The unit heaters will be controlled by their individual thermostats. The ventilation system will provide “free cooling” in the summer months.

Doorways (person doors and roll-up doors) will be kept unobstructed at all times. The building will also include an ambient air monitor to alert the attendant when potentially harmful gases (e.g., carbon monoxide, solvents, hydrocarbons, lead, nitrogen oxides, ozone, particulate matter, sulfur dioxide, sulfur) have accumulated in the building and (additional) doors should be opened to ventilate the building.



To further reduce spill and ventilation concerns, operational procedures will include a strict policy stating that containers received will not be opened and (liquid) materials will not be mixed or consolidated except for used oil, which will be “bulked” in an aboveground steel horizontal double wall storage tank with a capacity of 2,400 litres.

Hazardous materials to be moved on carts and stored on racks, or deposited into tub skids or drums (supplied by others). Flammable liquids will be stored in tub skids (supplied by others), in their original containers. Open containers will not be permitted within the building.

The building will be equipped with a portable, heated eyewash station, as well as compressed eyewash bottles supplied by PCA.

### 2.1.2 Cages

Propane cylinders will be caged against one of the exterior building walls. This cage will be lockable beneath the building eaves/overhang and will remain locked when not in use.

### 2.1.3 Pallets

Automotive batteries will be placed on wooden pallets in a dedicated area within the HHW/e-Waste building. Cardboard will be placed between each level of batteries. Pallets will be loaded to a maximum of three levels high. When each pallet is full, it will be wrapped in plastic. At any given time, five to a maximum of seven pallets will be stored in the building. The batteries may alternatively be stored in tub skids. A registered/licensed hauler will pick up the pallets from the 4R Depot where required by Transportation of Dangerous Goods (TDG) Regulations. Batteries will not be transported by the City. Materials will be hauled directly to the appropriate processing facility.

e-Waste will be placed on wooden pallets in a dedicated area within the HHW/e-Waste building. Pallets will be loaded to a maximum of one metre high. When each pallet is full, it will be wrapped in plastic for transport to an authorized facility by a registered hauler.

### 2.1.4 Non-Regulated Items

“Non-program” or “non-regulated” materials are materials that do not fall under the categories of the Waste Reduction and Prevention Act, but are nonetheless hazardous and may be delivered to the site by residents for disposal/management.

While the City does not intend to accept “non-program” or “non-regulated” items, it is anticipated that residents will deliver some of these items to the site for disposal. To accommodate these items, a dedicated storage barrel will be utilized to temporarily store these materials, which will typically be transported to a registered receiver (e.g., Miller Environmental or Clean Harbour) for management and disposal on a weekly basis. However, the frequency may be adjusted depending on the quantity and types of materials received.



## 2.2 Material Loading for Transport off-Site

Materials will be stored within a sheltered area of the HHW/e-Waste building until a registered hauler picks them up. All materials will be transported by a licensed carrier who has a valid license to transport hazardous waste pursuant to Manitoba Regulation 175/87.

Loading involves moving the containers (pallets, drums, and tub skids) through one of the roll-up doors to the exterior of the building using a pallet mover or dolly. Containerized materials will be immediately placed onto the transport vehicle. The carrier is responsible for the loading of containerized materials. In case of any spillage, both the HHW/e-Waste building and the carrier will have spill kits on hand for containment and clean up. Attendants will be trained on the appropriate use of the spill kit.

### 2.2.1 Used Oil

Used oil will be managed at the site in accordance with the CCME's Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products, as well as the National Fire Code of Canada (NFCC).

Used oil will only be collected for disposal by a registered used oil hauler; site staff will not handle or manage the transfer of used oil from the storage tank to the oil hauling vehicle. The used oil hauler will be responsible to take all reasonable steps to prevent spills.

When the storage tank is being unloaded, the used oil hauler will be required to remain in constant view of the fill pipe, and in constant attendance at the delivery control valve. Used oil haulers will be instructed that suction hoses are not to be dropped or inserted into the used oil storage tank during the product removal process.

A spill kit designed specifically for the planned 2,400 litre above ground used oil storage tank will be located inside of the building. Frequent checks on the tank will be performed to determine if there are leaks in the tank, as described in **Section 8.0**. The location of the used oil storage tank is shown in **Figure 2**.



## 3.0 Description of the Proposed Development

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The City has selected 1120 Pacific Avenue, the area bound by Pacific Avenue (north), and rail spurs (south, east and west), for the development of a community resource recovery centre (i.e., 4R Depot). The HHW/e-Waste building will be constructed within the 4R Depot site.

### 3.1 Land Uses and Designations

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Adjoining land uses to the Pacific Depot include commercial and industrial in all surrounding directions.

In summary, the 4R Depot is planned for development on land currently owned by the City. Considering the purpose of this site, development of the 4R Depot should be permitted to include the receipt and temporary storage of HHW and e-Waste. Construction of the site is planned for the spring/summer of 2016, with the 4R Depot scheduled for opening late 2016 or early 2017.



## 4.0 Funding

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No grant or loan of capital funds has been requested by the City of either the provincial or federal government for this development.



## 5.0 Approval Status

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The City will not need an Environment Act License for the Pacific 4R Depot site.

A submission for a DGHTA License application is being filed to the Province for the receipt of lead acid batteries and this report is submitted to permit the receipt of other regulated materials (e.g., HHW).

A Development Permit and Building Permit are being applied to the City's Planning, Property and Development Department (PP&D).

As site attributes and operations do not impinge upon any known federal interest or fiduciary duty, there are no known requirements for federal permits, approvals, or authorizations.



## 6.0 Public Consultation

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In 2011, the City hosted public consultations in respect of the developments at the BRRMF. An Open House was convened in St. Norbert on January 23, 2014, for specific consultations on community views about the proposed 4R Depots. In general, members of the public were pleased with the planned development of the 4R Depots, which provide them with improved opportunities to recycle and divert waste from the landfill.



## 7.0 Description of Existing Environment in the Project Area

The segment of land at Pacific Avenue that has been selected for the development of the 4R Depot is currently vacant. The site has been used as a storage site since 1948. The City took over the ownership of the property in 1991 and it has been vacant since.

An Environmental Site Assessment (ESA) was conducted for the Pacific 4R Depot (Enhanced Phase I/II Environmental Assessment, 1120 Pacific Avenue, Lot B-Winnipeg, Manitoba, Dillon Consulting Limited, dated April 2016) to determine whether the site is subjected to actual or potential contamination. It has been concluded that there are no significant adverse effects from that can be discerned from analysis of publicly available data describing community health, air quality, and groundwater quality.



## 8.0 Description of Environmental Effects of the Proposed Development

Although the majority of materials planned for receipt at the 4R Depot are relatively inert, some of the materials planned for receipt at the HHW/e-Waste building within the 4R Depot (i.e., dangerous goods) have the potential to impact the environment. The dangerous goods planned for receipt are:

- HHW (paint, flammable liquids, toxic materials, corrosive materials, light bulbs);
- e-Waste;
- Automotive Batteries;
- Propane Tanks; and,
- Used Oil and Filters.

Design features of the HHW/e-Waste building and staging/unloading area will mitigate potential impacts to the environment. The building and staging area will be located on a relatively impervious (concrete/asphalt) surface. A dedicated containment system, i.e., a double-walled tank, will be utilized for used oil. The grade surrounding the building will be designed such that only surface water within the building and staging areas (i.e., beneath the building canopy) will flow to a dedicated catch basin (see **Figure 1**). The catch basin will include a “drain guard”, which filters out hydrocarbons, sediment, and other contaminants. The base of the catch basin includes a small sump in which spills may be temporarily contained. The outlet for the catch basin will also have an isolation valve to control flows from the area when containment is required.

The depot will be operated by staff trained in Transportation of Dangerous Goods Regulations, facility operating procedures and spill clean-up procedures. Effective neutralizing materials shall be conveniently located for clean-up of spills and an eyewash station shall be located in close proximity to the facility.

An emergency response contingency plan will be in effect for the site, and will be submitted to Manitoba Conservation and Water Stewardship and the City emergency response departments for review prior to opening the facility to the public.



## 9.0 Mitigation Measures and Residual Environmental Effects

Storage of HHW/e-Waste materials received is indoors and contained within the HHW/e-Waste building, which is fully covered by a metal roof and has a concrete floor throughout. The staging area is also sheltered and includes a dedicated surface water collection system so that spills may be contained and isolated from the rest of the site.

Upon receipt of HHW/e-Waste materials at the staging area, the site attendant will move the materials into the building and place them in their dedicated containment unit. When a containment unit is nearing maximum capacity, the associated product steward will be contacted to pick-up the materials.

Transportation of Dangerous Goods Regulations, first aid, fire, and spill containment training will be provided to all employees on-site who work at the HHW/e-Waste building. The following requirements, will apply to all employees who handle materials brought to the HHW/e-Waste building by residents:

- Personal protective equipment requirements – eye protection, hand protection, metatarsal hard-toed boots, long sleeve shirts, and pants;
- No smoking in proximity to the HHW/e-Waste building;
- Sparks and open flames kept away from HHW/e-Waste building;
- Metal objects not to be placed on top of the containment units;
- Cardboard or other type of acceptable insulation placed between levels of containment units (e.g., batteries on pallet);
- Containment units to be kept right side up at all times; and,
- When full, containment units will be immediately sealed (e.g., pallets wrapped in plastic stretch wrap) and labelled according to WHIMIS symbols indicating the hazard.

Lastly, good housekeeping practices will be maintained at the HHW/e-Waste building and staging area at all times. The staging area will be left uncluttered.

The proposed development is expected to result in insignificant environmental effects to the site or its surroundings.

### 9.1 Fire Safety Equipment

Staff working at the HHW building will receive fire extinguisher use training.

Appropriate fire extinguishers will be mounted on the building walls, adjacent to their respective material types (e.g., Class B fire extinguisher will be located beside flammable liquids; Class C fire extinguisher will be located beside e-Waste).



## 10.0 Follow-up Plans, including Monitoring and Reporting

Regularly scheduled inspections of specialized collection systems and general housekeeping tasks (e.g., picking up litter, reviewing surface water management system) will be included in site operations. The regularly scheduled inspections will promptly identify potential leaks or spills, thereby mitigating off-site migration of potential environmental impacts.

Following development of a third, and fourth 4R Depot in the City a reduction in residential traffic and use is anticipated. The opening of the additional 4R Depots is expected to result in a decrease in the quantity of commodities received at each site, which could permit an expansion of the types of commodities received at the 4R Depot.

Expanding the types of commodities received at each site would be coordinated with the product stewards of the specific commodities to ensure the availability of a viable market for the new commodities. One option for the management of the additional commodities is a Re-Use Centre.



## 11.0 Conclusions

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Potential environmental impacts as a result of the development will be mitigated by design features and site operational practices. Impacts to the soil will be mitigated by the use of relatively impervious surfaces throughout the majority of the site. Impacts to surface water from materials received will be mitigated by the HHW/e-Waste building's independent surface water management system, which will be isolated from the surface water management system for the remainder of the 4R Depot.

All materials received will be stored in approved containment units. The HHW/e-Waste building will include curbing to contain spills inside the building. Used oil will be collected in an approved double-walled tank to mitigate potential spills.

It is the opinion of Dillon that the risk of environmental impacts at the 4R Depot site as a result of HHW/e-Waste building operations is low and adequate measures are included in the site design to mitigate potential migration of environmental impacts off-site. In addition, site operational practices will mitigate potential migration of environmental impacts off-site.



## Appendix A

### *Drawings*





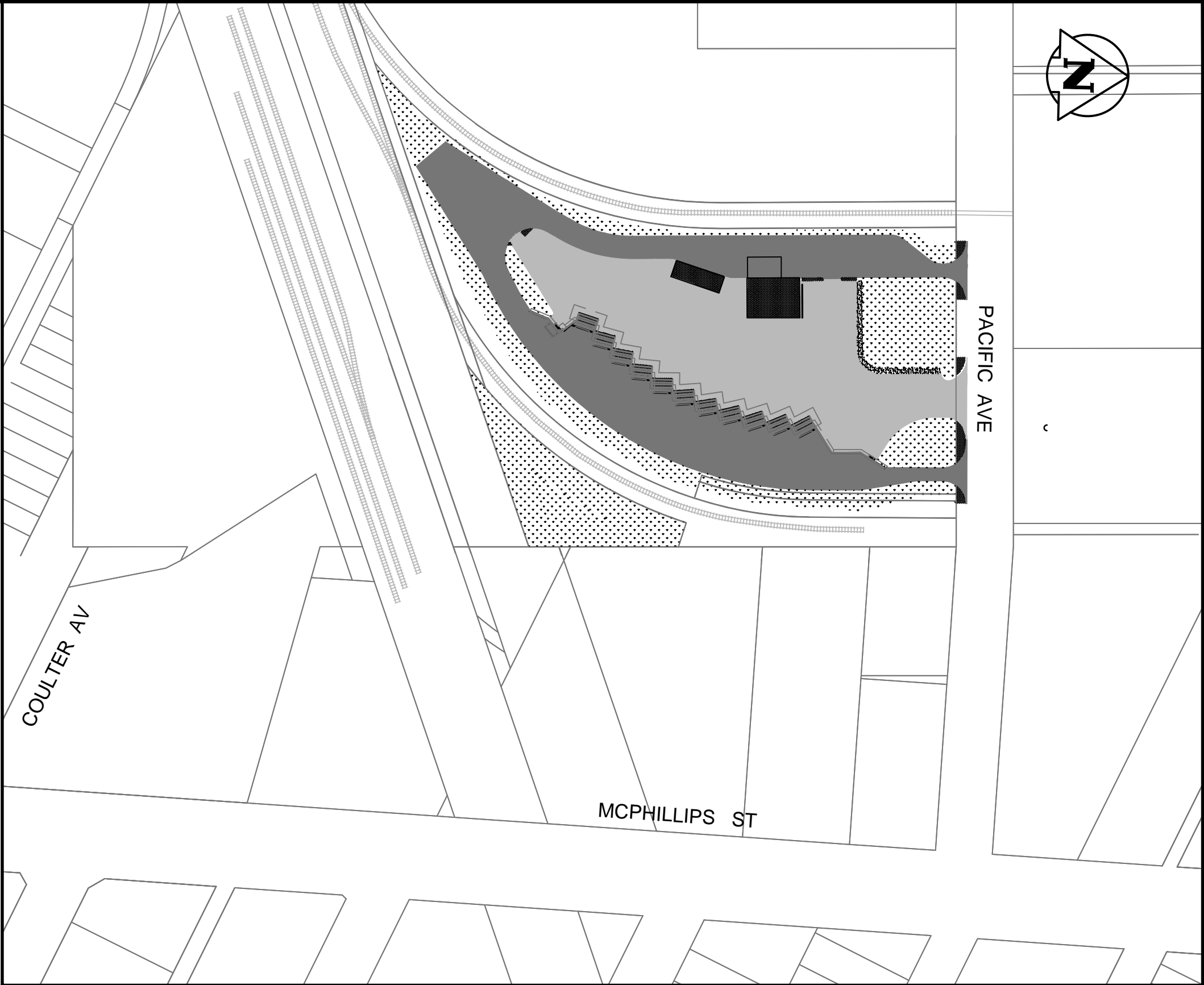
# THE CITY OF WINNIPEG

## WATER AND WASTE DEPARTMENT

# 4R WINNIPEG DEPOT

## PACIFIC AVENUE

BID OPPORTUNITY 1113-2015



LOCATION PLAN

DRAWING LIST

SHT. NO.	DRAWING NO.	DRAWING TITLE	CITY DRAWING NO.
1 of 43	00	COVER	1-0851A-D0001-001
2 of 43	C-1	SITE GEOMETRY	1-0851A-C0001-001
3 of 43	C-2	GRADING PLAN	1-0851A-C0002-001
4 of 43	C-3	PROFILES	1-0851A-C0003-001
5 of 43	C-4	UNDERGROUND UTILITIES AND STORM SEWER	1-0851A-C0004-001
6 of 43	C-5	TYPICAL SECTIONS	1-0851A-C0005-001
7 of 43	C-6	STANDARD POND AND FENCING DETAIL	1-0851A-C0006-001
8 of 43	C-7	SITE FENCING AND PAINTING	1-0851A-C0007-001
9 of 43	S-1	GENERAL NOTES FOR STRUCTURES	1-0851A-S0001-001
10 of 43	S-2	GENERAL ARRANGEMENT OF STRUCTURES	1-0851A-S0002-001
11 of 43	S-3	RETAINING WALL PARTIAL PLAN AND DETAILS	1-0851A-S0003-001
12 of 43	S-4	RETAINING WALL PLAN DETAILS, RAILING ELEVATIONS AND DETAILS	1-0851A-S0004-001
13 of 43	S-5	RETAINING WALL SECTIONS AND DETAILS	1-0851A-S0005-001
14 of 43	S-6	YARD WASTE BUNKER AND LIGHT STANDARD BASE DETAILS	1-0851A-S0006-001
15 of 43	S-7	HHW EWASTE BUILDING PLAN @ EL. 231.90, GENERAL NOTES	1-0851A-S0007-001
16 of 43	S-8	HHW EWASTE BUILDING @ EL. 232.75, DETAILS	1-0851A-S0008-001
17 of 43	S-9	HHW EWASTE BUILDING SECTIONS	1-0851A-S0009-001
18 of 43	S-10	HHW EWASTE BUILDING, DETAILS	1-0851A-S0010-001
19 of 43	S-11	HHW EWASTE BUILDING ROOF FRAMING PLAN SECTIONS AND DETAILS	1-0851A-S0011-001
20 of 43	S-12	KIOSK FOUNDATION PLAN, SECTION	1-0851A-S0012-001
21 of 43	S-13	CARDBOARD DISPOSAL SLAB PLAN AND DETAILS	1-0851A-S0013-001
22 of 43	S-14	MISCELLANEOUS METALS DETAILS	1-0851A-S0014-001
23 of 43	A-1	SCHEDULES AND ABBREVIATIONS	1-0851A-A0001-001
24 of 43	A-2	HHW EWASTE BUILDING FLOOR PLAN	1-0851A-A0002-001
25 of 43	A-3	HHW EWASTE BUILDING PLAN DETAILS INTERIOR ELEVATIONS	1-0851A-A0003-001
26 of 43	A-4	HHW EWASTE BUILDING ELEVATIONS	1-0851A-A0004-001
27 of 43	A-5	HHW EWASTE BUILDING CROSS SECTIONS, ROOF FRAMING PLAN	1-0851A-A0005-001
28 of 43	A-6	HHW EWASTE BUILDING WALL SECTIONS	1-0851A-A0006-001
29 of 43	A-7	HHW EWASTE BUILDING WALL SECTIONS, DETAILS	1-0851A-A0007-001
30 of 43	A-8	KIOSK - FLOOR PLAN, ELEVATIONS, SECTION, GUARD DETAILS	1-0851A-A0008-001
31 of 43	M-1	HHWE WASTE BUILDING MECHANICAL PLAN AND SECTIONS	1-0851A-M0001-001
32 of 43	M-2	HHWE WASTE BUILDING MECHANICAL SCHEDULES	1-0851A-M0002-001
33 of 43	E-1	ONE LINE DIAGRAM	1-0851A-E0001-001
34 of 43	E-2	HHW EWASTE BUILDING POWER PLAN	1-0851A-E0002-001
35 of 43	E-3	HHW EWASTE BUILDING LIGHTING PLAN	1-0851A-E0003-001
36 of 43	E-4	HHW EWASTE BUILDING CAMERA PLAN	1-0851A-E0004-001
37 of 43	E-5	HHW EWASTE BUILDING SECURITY PLAN	1-0851A-E0005-001
38 of 43	E-6	KIOSK BUILDING ELECTRICAL	1-0851A-E0006-001
39 of 43	E-7	SECURITY CAMERA SYSTEM	1-0851A-E0007-001
40 of 43	E-8	SECURITY SYSTEM CAMERA DETAILS	1-0851A-E0008-001
41 of 43	E-9	SITE PLAN LIGHTING LAYOUT	1-0851A-E0009-001
42 of 43	E-10	SITE PLAN SECURITY CAMERAS LAYOUT	1-0851A-E0010-001
43 of 43	E-11	SITE - ELECTRICAL DETAILS	1-0851A-E0011-001

RELEASED FOR CONSTRUCTION BY:

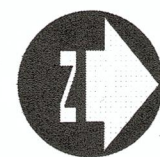
DATE:



Dillon Consulting Limited

WINNIPEGMANITOBA





CURVE TABLE: ALIGNMENT NAME					
CURVE	RADIUS (m)	DELTA (dd°mm'ss")	EXTERNAL TANGENT	LENGTH (m)	CHORD LENGTH (m)
C1	9	38°39'19"	3.016	5.802	5.693
C2	9	38°37'28"	3.014	5.797	5.688
C3	46	30°21'43"	12.509	24.429	24.144
C4	14	144°44'09"	44.362	35.618	26.875
C5	123	14°39'40"	15.862	31.551	31.465
C6	123	50°14'30"	57.813	108.120	104.689

ALIGNMENT A				
LINE	CONTROL POINT	START STATION	START NORTHING (m)	START EASTING (m)
L1	P.I.	0+100	5530453.410	631110.417
C1	T.C.	0+130.353	5530423.071	631111.345
L2	T.C.	0+136.155	5530417.644	631109.625
C2	C.T.	0+141.215	5530413.598	631106.587
L3	T.C.	0+147.013	5530408.176	631104.868
C3	C.T.	0+236.611	5530318.617	631107.558
L4	T.C.	0+261.040	5530295.136	631101.938
C4	P.O.C.	0+266.421	5530290.414	631099.359
C5	P.O.C.	0+302.039	5530270.993	631117.936
C6	P.O.C.	0+333.590	5530288.326	631144.197
L5	C.T.	0+441.709	5530383.872	631186.983
L6	P.I.	0+467.135	5530409.298	631187.131

POINT TABLE			
Point Number	NORTHING (m)	EASTING (m)	DESCRIPTION
1	5530399.4188	631162.4005	MH
2	5530366.4711	631152.7941	MH
3	5530338.4730	631143.1180	MH
4	5530315.1520	631124.8922	MH
5	5530305.3988	631105.9621	CB
6	5530256.7126	631086.4090	CB
7	5530309.1730	631163.4504	MH
8	5530303.2683	631174.0212	MH
9	5530355.2121	631106.4589	MH
10	5530410.3240	631105.0340	CB
11	5530423.0689	631102.8443	CB
12	5530365.9920	631111.9476	CB
13	5530290.6124	631194.7784	CB
14	5530374.0713	631186.7982	CB
20	5530432.9269	631097.4519	PL
101	5530251.6557	631071.7128	BOC
102	5530241.5003	631080.6893	BOC
103	5530280.5689	631104.0315	RAD
104	5530283.6559	631111.7341	RAD
105	5530290.2967	631131.4511	RAD
106	5530407.5293	631141.3735	RAD
107	5530431.4531	631149.2226	RAD
108	5530431.8827	631164.8097	PC
109	5530430.0535	631172.4843	RAD
110	5530427.5677	631184.8879	RAD
111	5530407.4324	631179.5881	BOC
112	5530333.2036	631204.7506	TOP
113	5530331.6640	631210.5535	TOP
114	5530286.3693	631211.7605	TOP
115	5530268.0119	631161.9600	TOP
116	5530263.6589	631154.4880	GR
118	5530289.0152	631192.6420	TOE
119	5530304.4433	631202.1533	TOE
120	5530292.6446	631202.4733	TOE
121	5530429.4489	631149.4614	PC
122	5530407.7653	631150.0054	PC
123	5530398.9660	631141.6135	PC

POINT TABLE			
Point Number	NORTHING (m)	EASTING (m)	DESCRIPTION
20	5530432.9269	631097.4519	PL
21	5530435.7853	631210.4393	PL
22	5530284.7109	631214.1888	PL
23	5530454.1557	631139.8377	PL

COORDINATES ARE IN UTM NAD 83 ZONE 14N



METRIC

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

#### Conditions of Use

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150 WM	WATERMAIN	150 WM	MTS	MTS	150 mm W.M.	WATERMAIN	150 mm W.M.
	HYDRANT		MTS		CONCRETE		150 mm W.M.
	VALVE		MTS		ASPHALT		150 mm W.M.
	LAND DRAINAGE SEWER		MTS		PLANING		150 mm W.M.
	WASTE WATER SEWER		MTS		SIDEWALK		150 mm W.M.
	MANHOLE		MTS		PAVING STONES		150 mm W.M.
	CATCH BASIN		MTS		PROPERTY LINE		150 mm W.M.
	TEST HOLES		MTS		SURVEY BAR		150 mm W.M.
	JUNCTIONS		MTS		CURB RAMP		150 mm W.M.
	CULVERT		MTS		DITCH		150 mm W.M.
	GAS		MTS		SWALE		150 mm W.M.
	EXISTING		PROPOSED		LEGEND-PLAN		PROPOSED

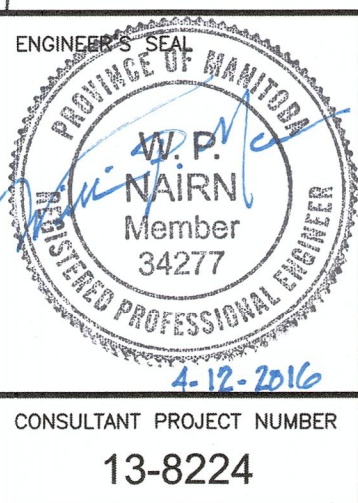
#### UNDERGROUND STRUCTURES

N/A  
SUPV. U/G STRUCTURES COMMITTEE

NOTE:  
LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE. BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

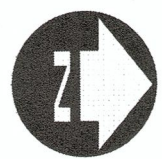
B.M. ELEV.	NO.	REVISIONS	DATE	BY
	3	ISSUED FOR CONSTRUCTION	16/04/12	ARR
	2	ISSUED FOR ADDENDUM #1	16/03/14	ARR
	1	ISSUED FOR TENDER	16/03/04	ARR

DESIGNED BY	WPN
DRAWN BY	GLG
CHECKED BY	ARR
APPROVED BY	ARR
HOR. SCALE	1:400
VERTICAL	
RELEASED FOR CONSTRUCTION	
DATE	



THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT		CITY DRAWING NUMBER 1-0851A-C0001-001
4R WINNIPEG DEPOT PACIFIC AVENUE		SHEET 2 OF 43
SITE GEOMETRY		CONSULTANT DRAWING NUMBER C1





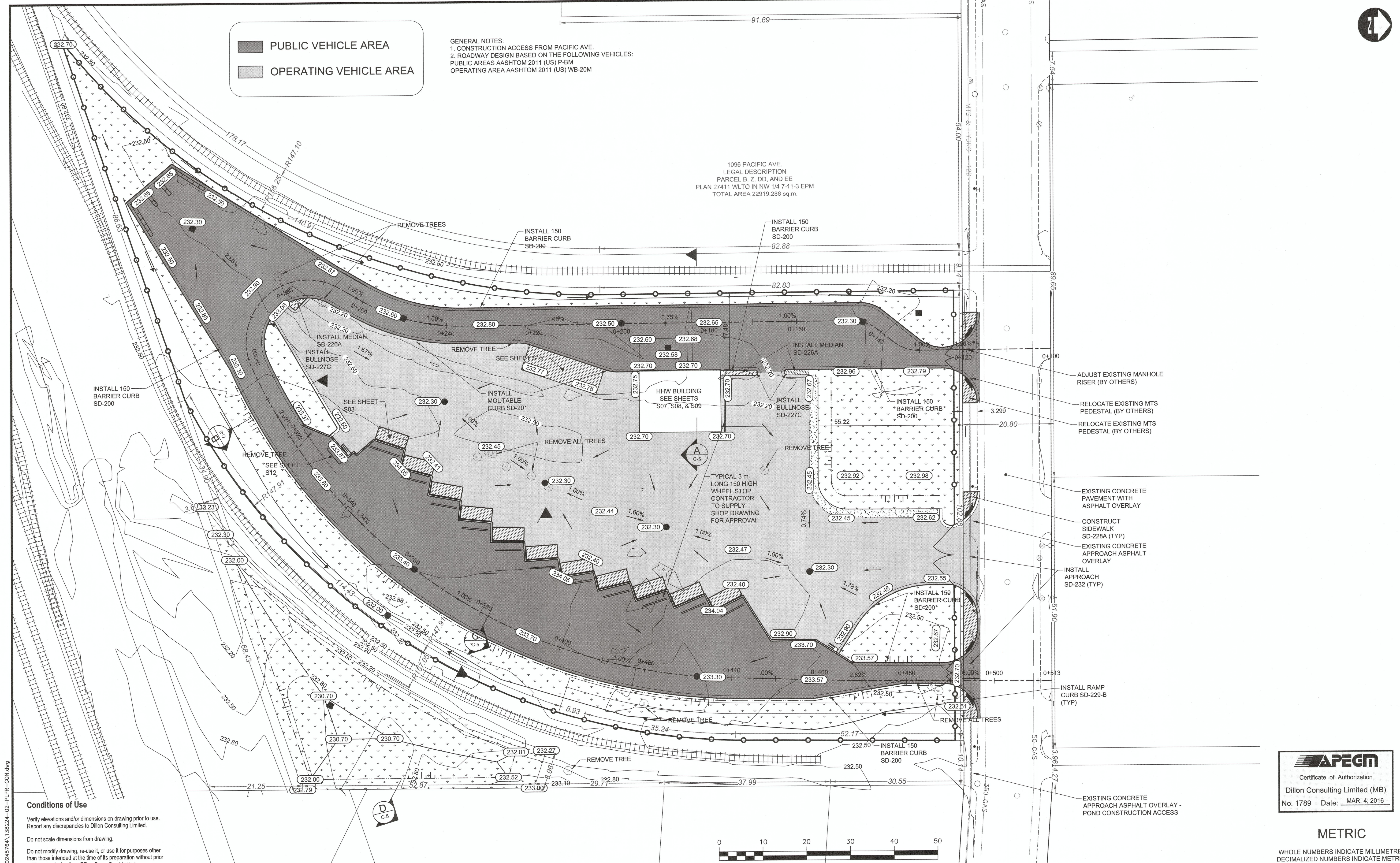
**LEGEND**

PUBLIC VEHICLE AREA

OPERATING VEHICLE AREA

GENERAL NOTES:  
1. CONSTRUCTION ACCESS FROM PACIFIC AVE.  
2. ROADWAY DESIGN BASED ON THE FOLLOWING VEHICLES:  
PUBLIC AREAS AASHTOM 2011 (US) P-BM  
OPERATING AREA AASHTOM 2011 (US) WB-20M

1096 PACIFIC AVE.  
LEGAL DESCRIPTION  
PARCEL B, Z, DD, AND EE  
PLAN 27411 WLTO IN NW 1/4 7-11-3 EPM  
TOTAL AREA 22919.288 sq.m.



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**APEGM**  
Certificate of Authorization  
Dillon Consulting Limited (MB)  
No. 1789 Date: MAR. 4, 2016

**METRIC**  
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

<b>LEGEND - PLAN</b>				<b>LEGEND - PROFILE</b>			
150 WM	WATERMAIN	150 WM	MTS	MTS	150 mm W.M.	WATERMAIN	150 mm W.M.
300 LBS	LAND DRAINAGE SEWER	300 LBS	CONCRETE	CONCRETE	300 mm L.D.S.	HYDRANT	300 mm L.D.S.
250 WWS	WASTE WATER SEWER	250 WWS	ASPHALT	ASPHALT	250 mm W.W.S.	VALVE	250 mm W.W.S.
MANHOLE	MANHOLE	MANHOLE	PLANING	PLANING	300 mm L.D.S.	LAND DRAINAGE SEWER	300 mm L.D.S.
CATCH BASIN	CATCH BASIN	CATCH BASIN	SIDEWALK	SIDEWALK	250 mm W.W.S.	WASTE WATER SEWER	250 mm W.W.S.
TEST HOLES	TEST HOLES	TEST HOLES	PAVING STONES	PAVING STONES	300 mm L.D.S.	C PROFILE	300 mm L.D.S.
JUNCTIONS	JUNCTIONS	JUNCTIONS	PROPERTY LINE	PROPERTY LINE	250 mm W.W.S.	PVMT FLOW DIRECTION	250 mm W.W.S.
CULVERT	CULVERT	CULVERT	SURVEY BAR	SURVEY BAR	300 mm L.D.S.		
100 GAS	GAS	100 GAS	CURB RAMP	CURB RAMP	250 mm W.W.S.		
EXISTING	LEGEND - PLAN	PROPOSED	DITCH	DITCH	300 mm L.D.S.		
			SWALE	SWALE	250 mm W.W.S.		
			EXISTING	EXISTING	300 mm L.D.S.		
			PROPOSED	PROPOSED	250 mm W.W.S.		

**UNDERGROUND STRUCTURES**

N/A

SUPV. U/G STRUCTURES COMMITTEE

DATE

**NOTE:**

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**DESIGNED BY** WPN

**DRAWN BY** GLG

**CHECKED BY**

**APPROVED BY** ARR

**HOR. SCALE** 1:400

**VERTICAL**

**RELEASED FOR CONSTRUCTION**

**DATE**

**DILLON CONSULTING**

**ENGINEER'S SEAL**

PROVINCE OF MANITOBA

W. P. NAIRN

Member 34277

CONSULTANT PROJECT NUMBER 13-8224

**THE CITY OF WINNIPEG**

WATER AND WASTE DEPARTMENT

4R WINNIPEG DEPOT

PACIFIC AVENUE

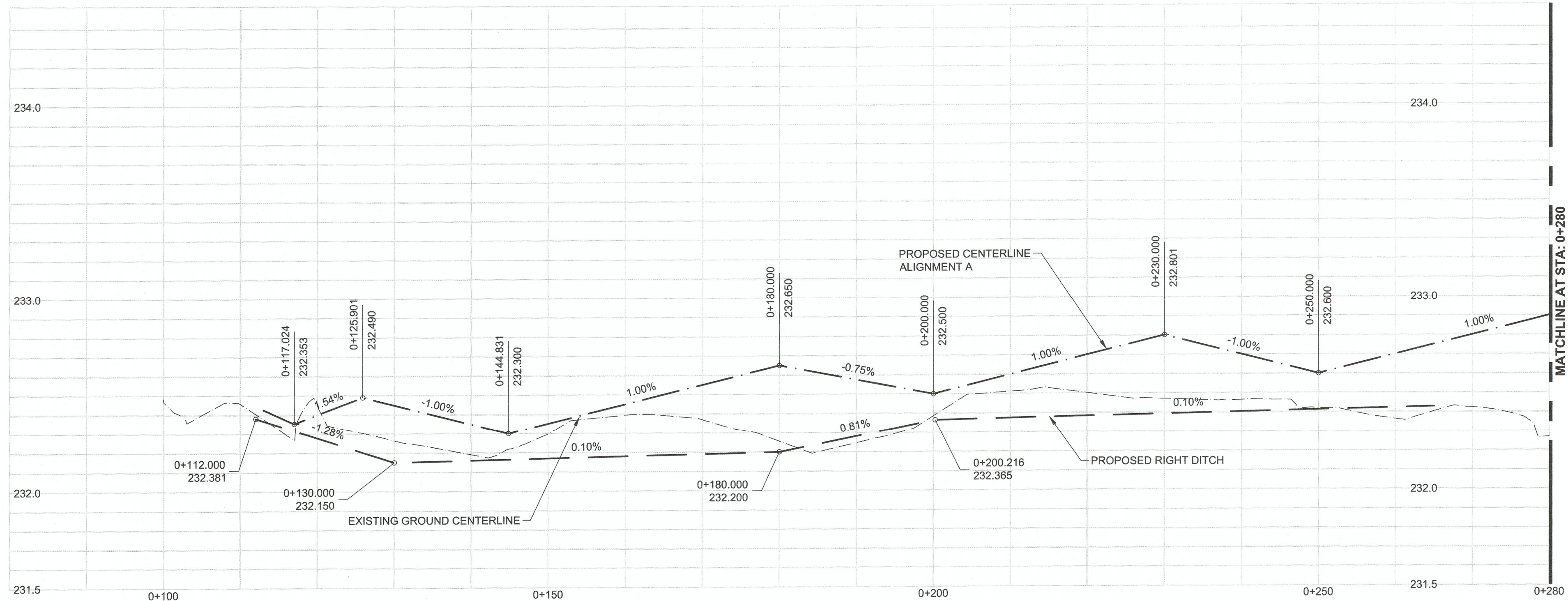
**GRADING PLAN**

CITY DRAWING NUMBER 1-0851A-C0002-001

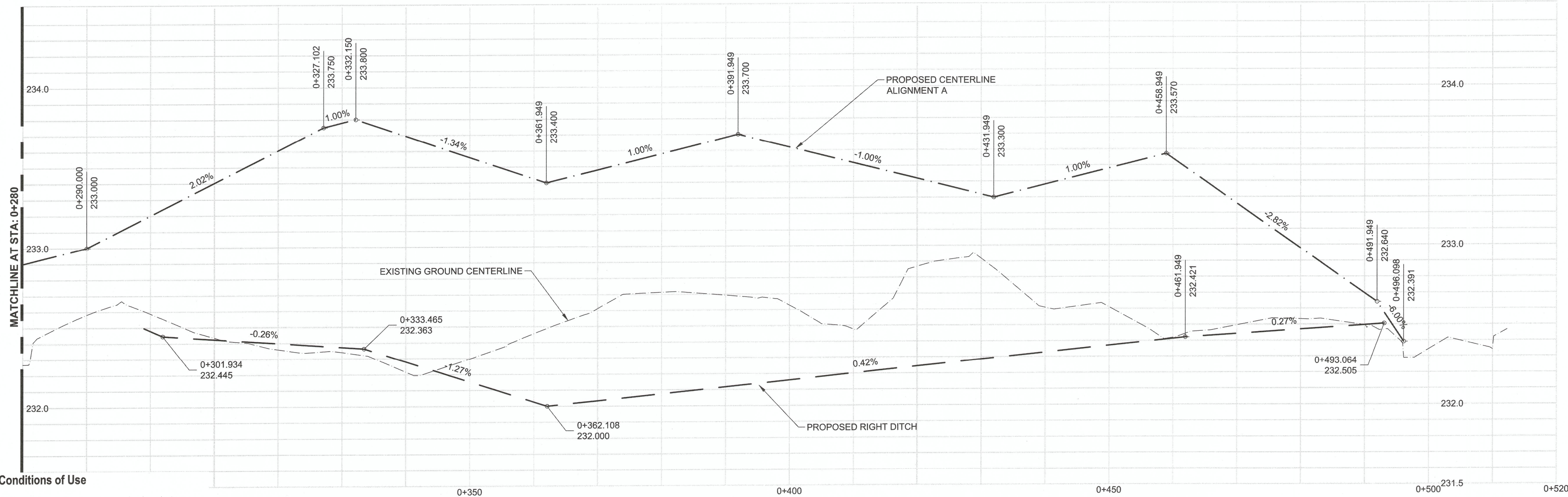
SHEET 3 OF 43

CONSULTANT DRAWING NUMBER C2





ALIGNMENT A - PERIMETER ROAD PROFILE - WEST LEG



ALIGNMENT A - PERIMETER ROAD PROFILE - EAST LEG

**Conditions of Use**

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METRIC

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

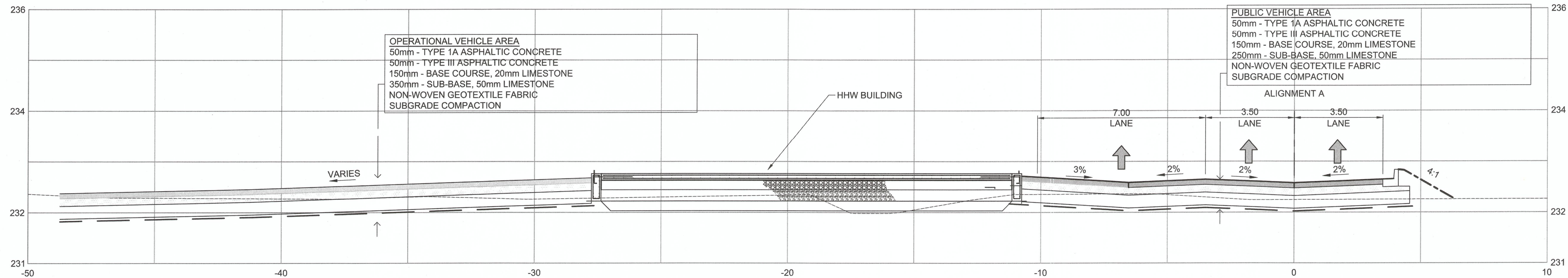
150 WM	WATERMAIN	150 WM	MTS	M.T.S.	MTS	150 mm W.M.	WATERMAIN	150 mm W.M.	UNDERGROUND STRUCTURES  N/A DATE  SUPV. U/G STRUCTURES COMMITTEE	B.M. ELEV.	DESIGNED BY WPN	DRAWN BY GLG	CHECKED BY	APPROVED BY ARR	HOR. SCALE 1:400	VERTICAL	RELEASED FOR CONSTRUCTION	DATE			CONSULTANT PROJECT NUMBER 13-8224	 <b>THE CITY OF WINNIPEG</b> WATER AND WASTE DEPARTMENT		4R WINNIPEG DEPOT PACIFIC AVENUE	CITY DRAWING NUMBER 1-0851A-C0003-001															
300 LDS	LAND DRAINAGE SEWER	300 LDS		PLANING		300 mm L.D.S.	LAND DRAINAGE SEWER	300 mm L.D.S.																															SHEET 4 OF 43	
250 WWS	WASTE WATER SEWER	250 WWS		SIDEWALK		250 mm W.W.S.	WASTE WATER SEWER	250 mm W.W.S.																																
○	MANHOLE			PAVING STONES			CV PROFILE																																	
□	CATCH BASIN	■		PROPERTY LINE		□	PVMT FLOW DIRECTION	→																																
⊕	TEST HOLES	⊕	⊕	SURVEY BAR	○	○			NOTE:																															
┌─┐	JUNCTIONS	┌─┐	┌─┐	CURB RAMP	┌─┐	┌─┐			LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE. BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.																															
┌─┐	CULVERT	┌─┐	┌─┐	DITCH	┌─┐	┌─┐																																		
100 GAS	GAS	100 GAS		SWALE	┌─┐	┌─┐																																		
EXISTING	LEGEND—PLAN	PROPOSED	EXISTING	LEGEND—PLAN	PROPOSED	EXISTING	LEGEND—PROFILE	PROPOSED																																



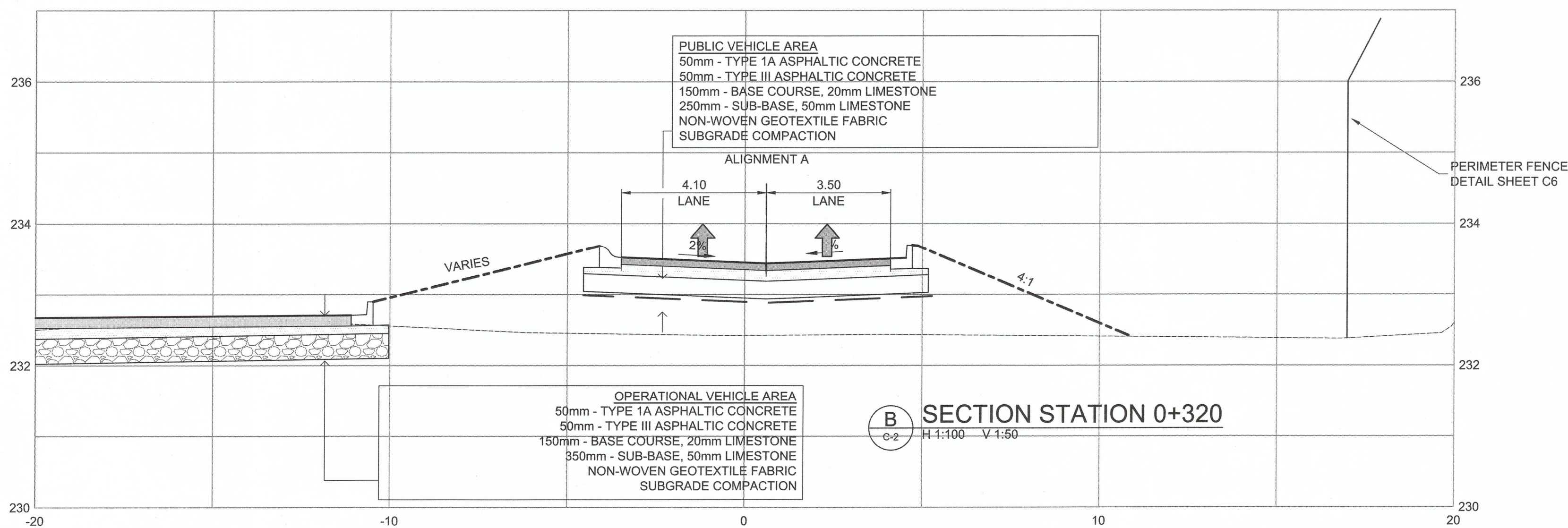




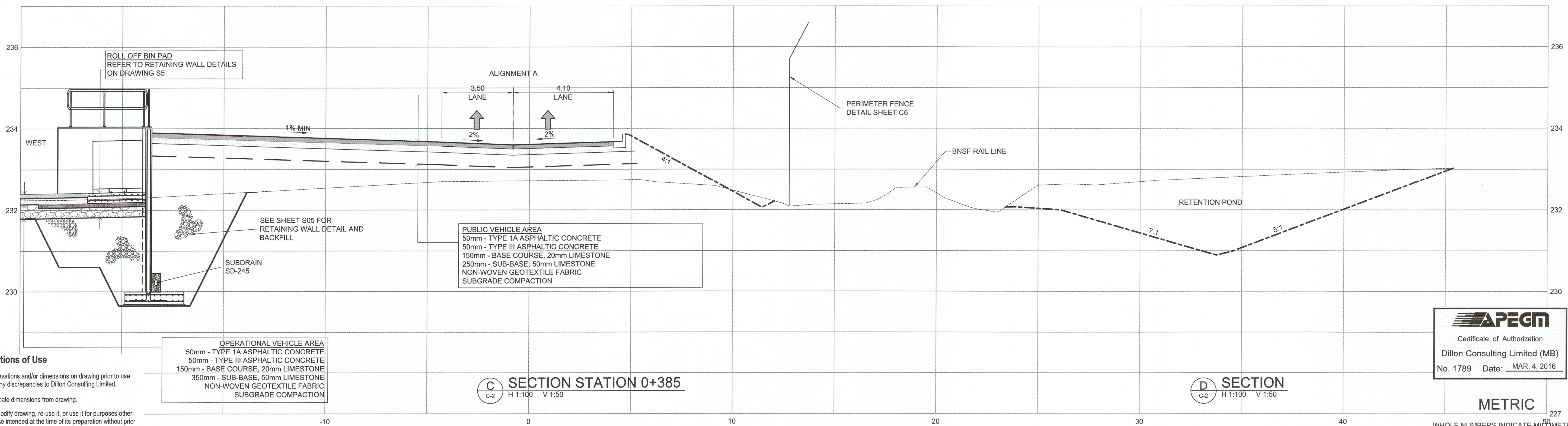
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**A** SECTION STATION 0+190  
C-2 H 1:100 V 1:50



**B** SECTION STATION 0+320  
C-2 H 1:100 V 1:50



**C** SECTION STATION 0+385  
C-2 H 1:100 V 1:50

**D** SECTION  
C-2 H 1:100 V 1:50

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**APEGM**

Certificate of Authorization

Dillon Consulting Limited (MB)

No. 1789 Date: MAR. 4, 2016

**METRIC**

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

150 WM	WATERMAIN	150 WM	MTS	MTS	150 mm W.M.	WATERMAIN	150 mm W.M.
+	HYDRANT	+	MTS	MTS	+	HYDRANT	+
+	VALVE	+	CONCRETE	CONCRETE	+	VALVE	+
300 LDS	LAND DRAINAGE SEWER	300 LDS	ASPHALT	ASPHALT	300 mm L.D.S.	LAND DRAINAGE SEWER	300 mm L.D.S.
250 WWS	WASTE WATER SEWER	250 WWS	PLANING	PLANING	250 mm W.W.S.	WASTE WATER SEWER	250 mm W.W.S.
○	MANHOLE	○	PAVING STONES	PAVING STONES	○	MANHOLE	○
□	CATCH BASIN	□	PROPERTY LINE	PROPERTY LINE	□	CATCH BASIN	□
+	TEST HOLES	+	SURVEY BAR	SURVEY BAR	+	TEST HOLES	+
+	JUNCTIONS	+	CURB RAMP	CURB RAMP	+	JUNCTIONS	+
+	CULVERT	+	DITCH	DITCH	+	CULVERT	+
100 GAS	GAS	100 GAS	SWALE	SWALE	100 GAS	GAS	100 GAS
EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PROFILE
EXISTING	LEGEND-PROFILE	PROPOSED	EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PROFILE

**UNDERGROUND STRUCTURES**

N/A N/A  
DATE

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NO.	REVISIONS	DATE	BY
3	ISSUED FOR CONSTRUCTION	16/04/12	ARR
2	ISSUED FOR ADDENDUM #1	16/03/14	ARR
1	ISSUED FOR TENDER	16/03/04	ARR

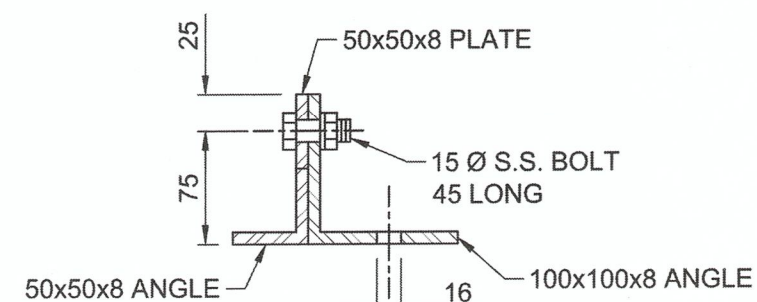
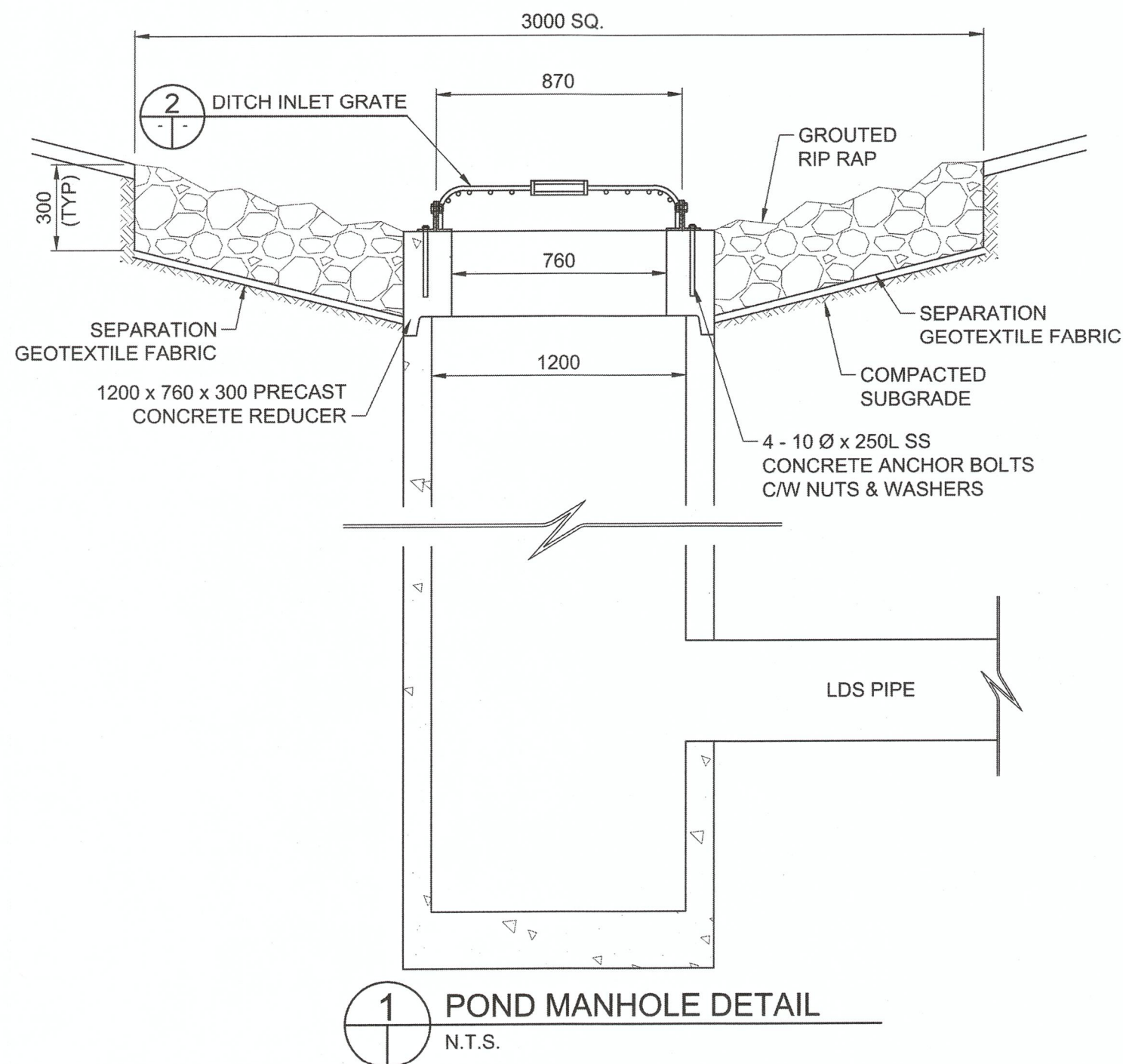
DESIGNED BY	WPN
DRAWN BY	GLG
CHECKED BY	
APPROVED BY	ARR
HOR. SCALE	AS NOTED
VERTICAL	AS NOTED

RELEASED FOR CONSTRUCTION	DATE
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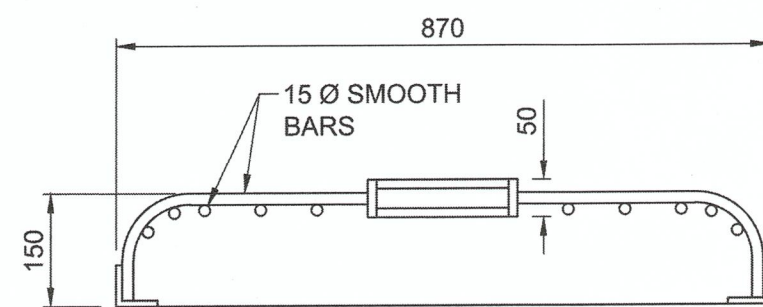
ENGINEER'S SEAL
PROVINCE OF MANITOBA
W. P. NAIRN
Member 34277
REGISTERED PROFESSIONAL ENGINEER
CONSULTANT PROJECT NUMBER
13-8224

<b>THE CITY OF WINNIPEG</b> WATER AND WASTE DEPARTMENT	CITY DRAWING NUMBER 1-0851A-C0005-001
4R WINNIPEG DEPOT PACIFIC AVENUE	SHEET 6 OF 43
<b>TYPICAL SECTIONS</b>	CONSULTANT DRAWING NUMBER C-5

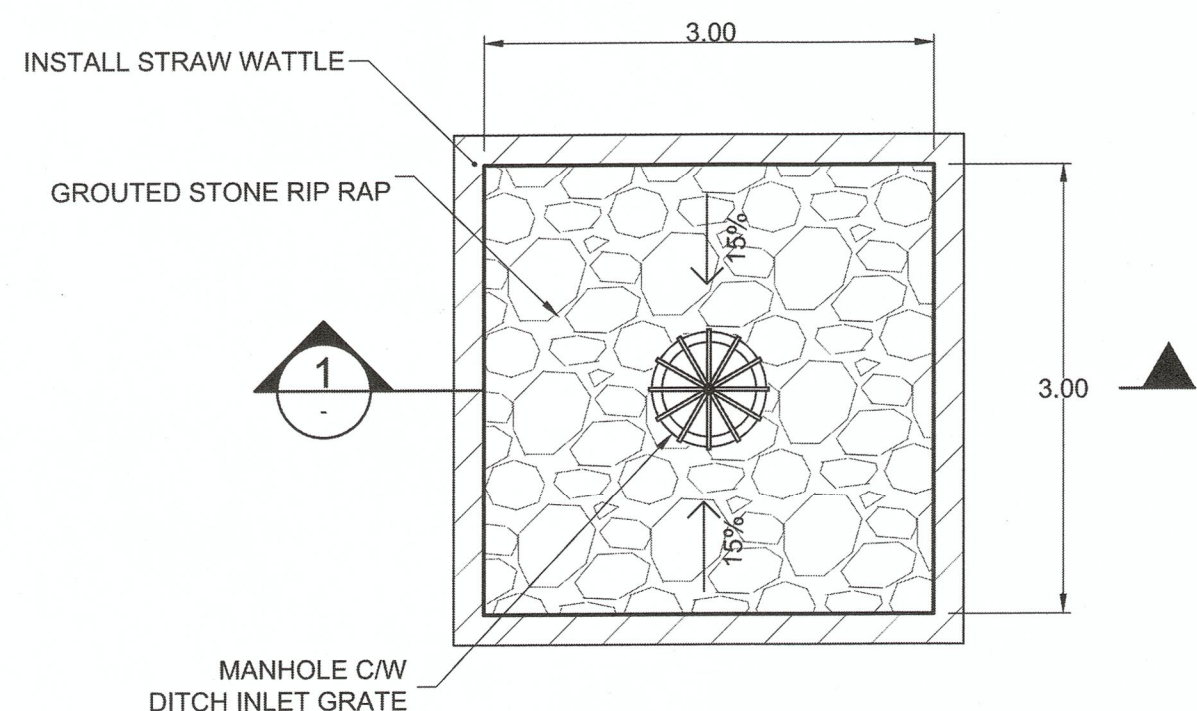




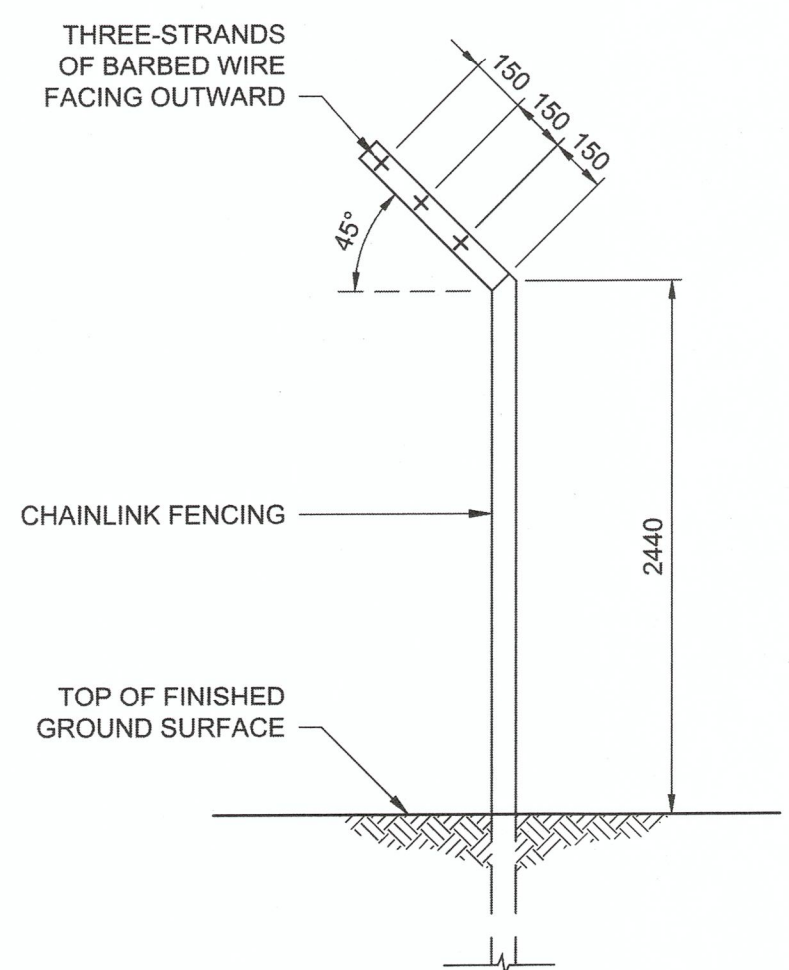
3 GRATE ATTACHMENT  
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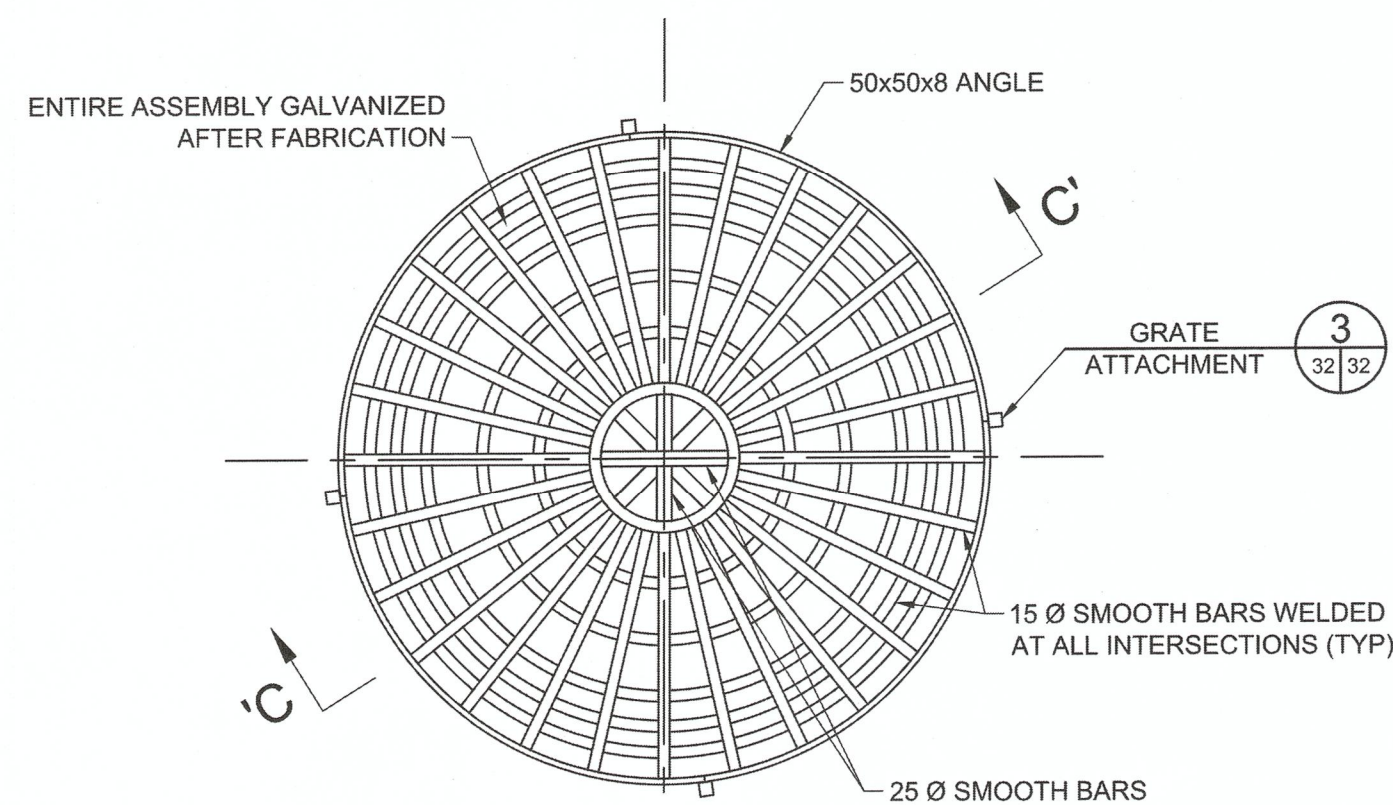
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SCALE 1:10



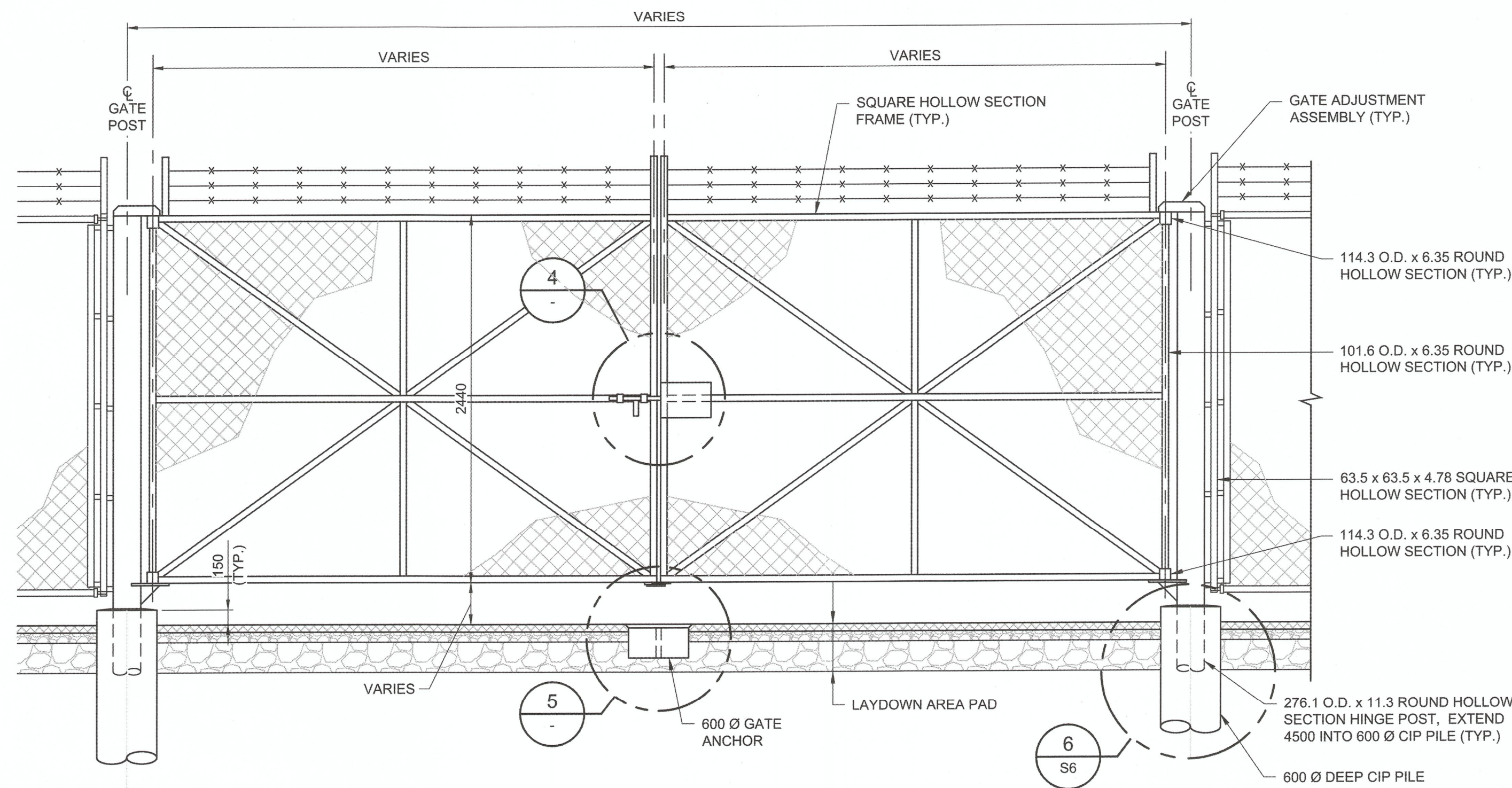
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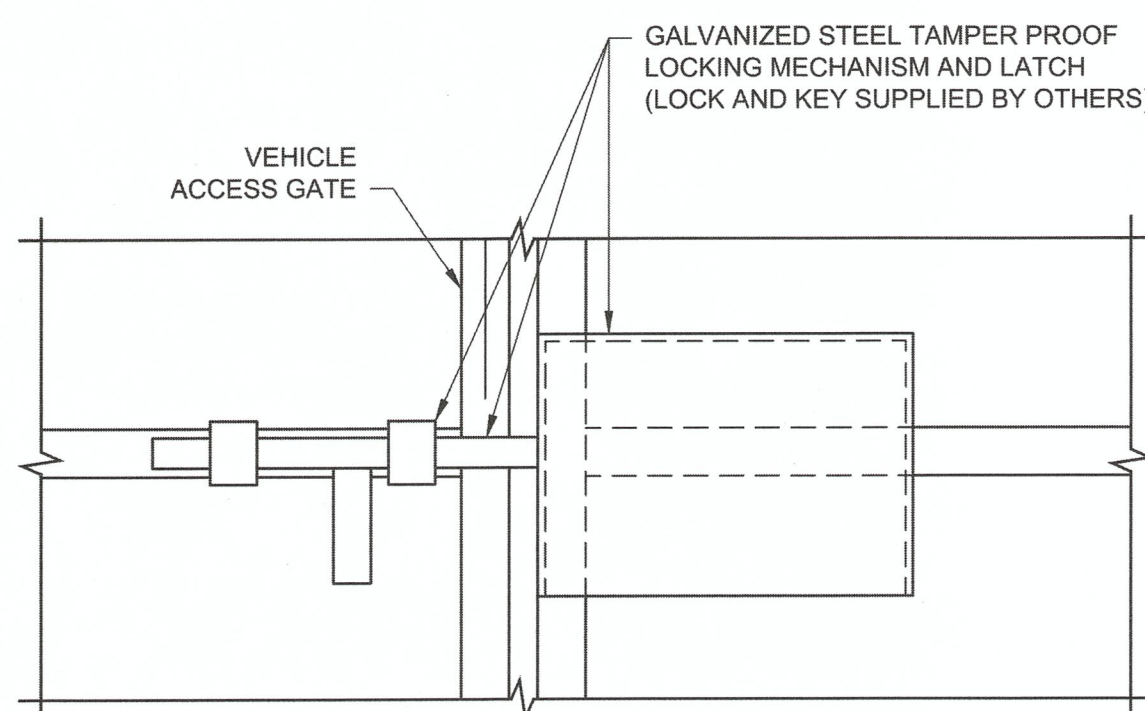
TYPICAL FENCING PROFILE  
NTS



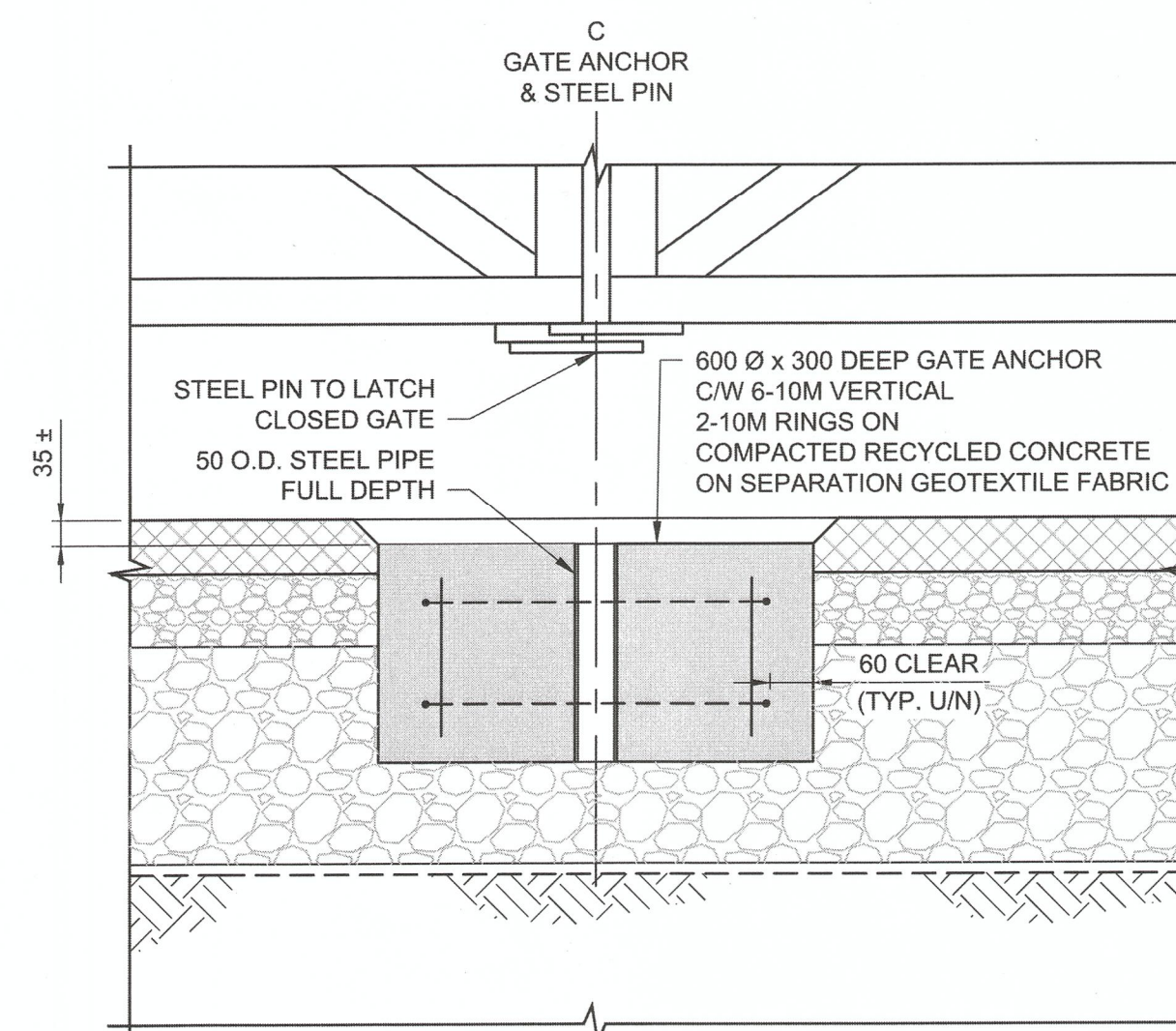
2 DITCH INLET GRATE  
SCALE 1:10



VEHICLE ACCESS GATE ELEVATION  
1:40



4 DETAIL  
1:10



5 DETAIL  
1:10

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HYDRANT	CONCRETE	HYDRANT	CONCRETE	CONCRETE	HYDRANT	HYDRANT	CONCRETE	HYDRANT
VALVE	ASPHALT	VALVE	ASPHALT	ASPHALT	VALVE	VALVE	ASPHALT	VALVE
300 LDS	LAND DRAINAGE SEWER	300 LDS	LAND DRAINAGE SEWER	LAND DRAINAGE SEWER	300 LDS	LAND DRAINAGE SEWER	LAND DRAINAGE SEWER	LAND DRAINAGE SEWER
250 WWS	WASTE WATER SEWER	250 WWS	WASTE WATER SEWER	WASTE WATER SEWER	250 WWS	WASTE WATER SEWER	WASTE WATER SEWER	WASTE WATER SEWER
MANHOLE	MANHOLE	MANHOLE	MANHOLE	MANHOLE	MANHOLE	MANHOLE	MANHOLE	MANHOLE
CATCH BASIN	CATCH BASIN	CATCH BASIN	CATCH BASIN	CATCH BASIN	CATCH BASIN	CATCH BASIN	CATCH BASIN	CATCH BASIN
TEST HOLES	TEST HOLES	TEST HOLES	TEST HOLES	TEST HOLES	TEST HOLES	TEST HOLES	TEST HOLES	TEST HOLES
JUNCTIONS	JUNCTIONS	JUNCTIONS	JUNCTIONS	JUNCTIONS	JUNCTIONS	JUNCTIONS	JUNCTIONS	JUNCTIONS
CULVERT	CULVERT	CULVERT	CULVERT	CULVERT	CULVERT	CULVERT	CULVERT	CULVERT
100 GAS	GAS	100 GAS	GAS	GAS	100 GAS	GAS	GAS	GAS
EXISTING	LEGEND-PLAN	PROPOSED	LEGEND-PLAN	PROPOSED	LEGEND-PLAN	PROPOSED	LEGEND-PROFILE	PROPOSED

#### UNDERGROUND STRUCTURES

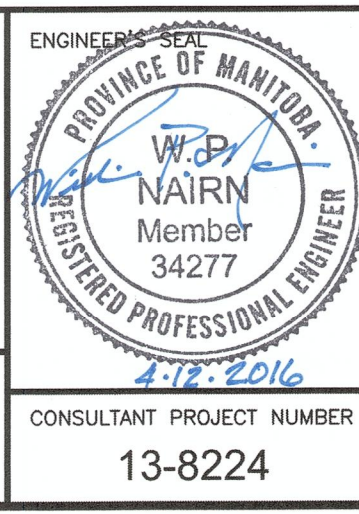
N/A  
SUPV. U/G STRUCTURES COMMITTEE

#### NOTE:

LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE. BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

B.M. ELEV.	NO.	REVISIONS	DATE	BY
	3	ISSUED FOR CONSTRUCTION	16/04/12	ARR
	2	ISSUED FOR ADDENDUM #1	16/03/14	ARR
	1	ISSUED FOR TENDER	16/03/04	ARR

DESIGNED BY	WPN
DRAWN BY	GG
CHECKED BY	WPN
APPROVED BY	ARR
HOR. SCALE	AS NOTED
VERTICAL	
DATE	



**THE CITY OF WINNIPEG**  
WATER AND WASTE DEPARTMENT

4R WINNIPEG DEPOT  
PACIFIC AVENUE

**STANDARD POND AND FENCING DETAIL**

CITY DRAWING NUMBER  
1-0851A-C0006-001

SHEET 7 OF 43

CONSULTANT PROJECT NUMBER  
13-8224

CONSULTANT DRAWING NUMBER  
C-6

**APEGM**  
Certificate of Authorization  
Dillon Consulting Limited (MB)  
No. 1789 Date: MAR. 4, 2016

#### METRIC

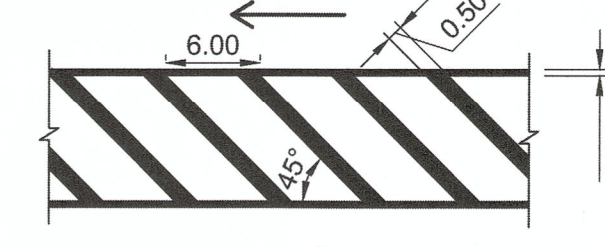
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES



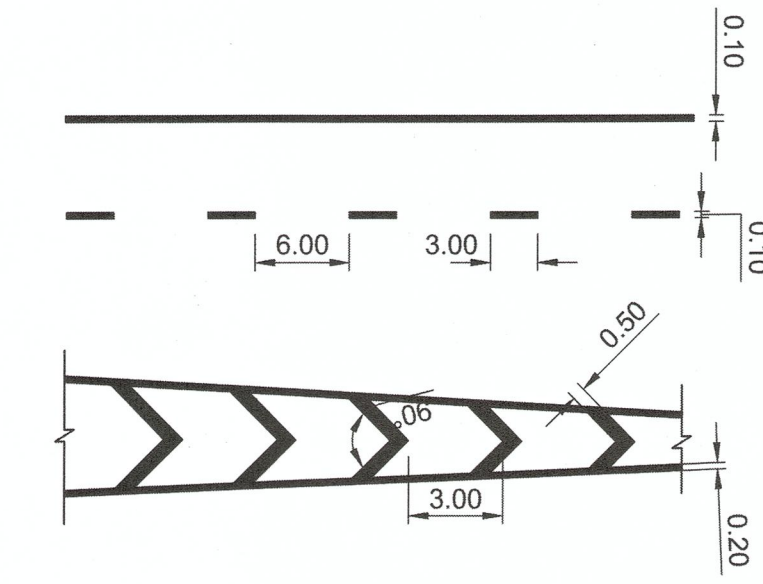
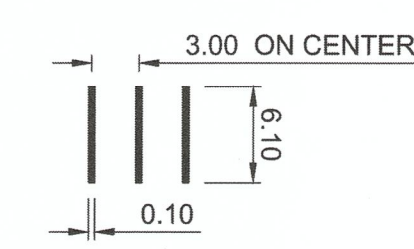


LINE PAINTING LEGEND:

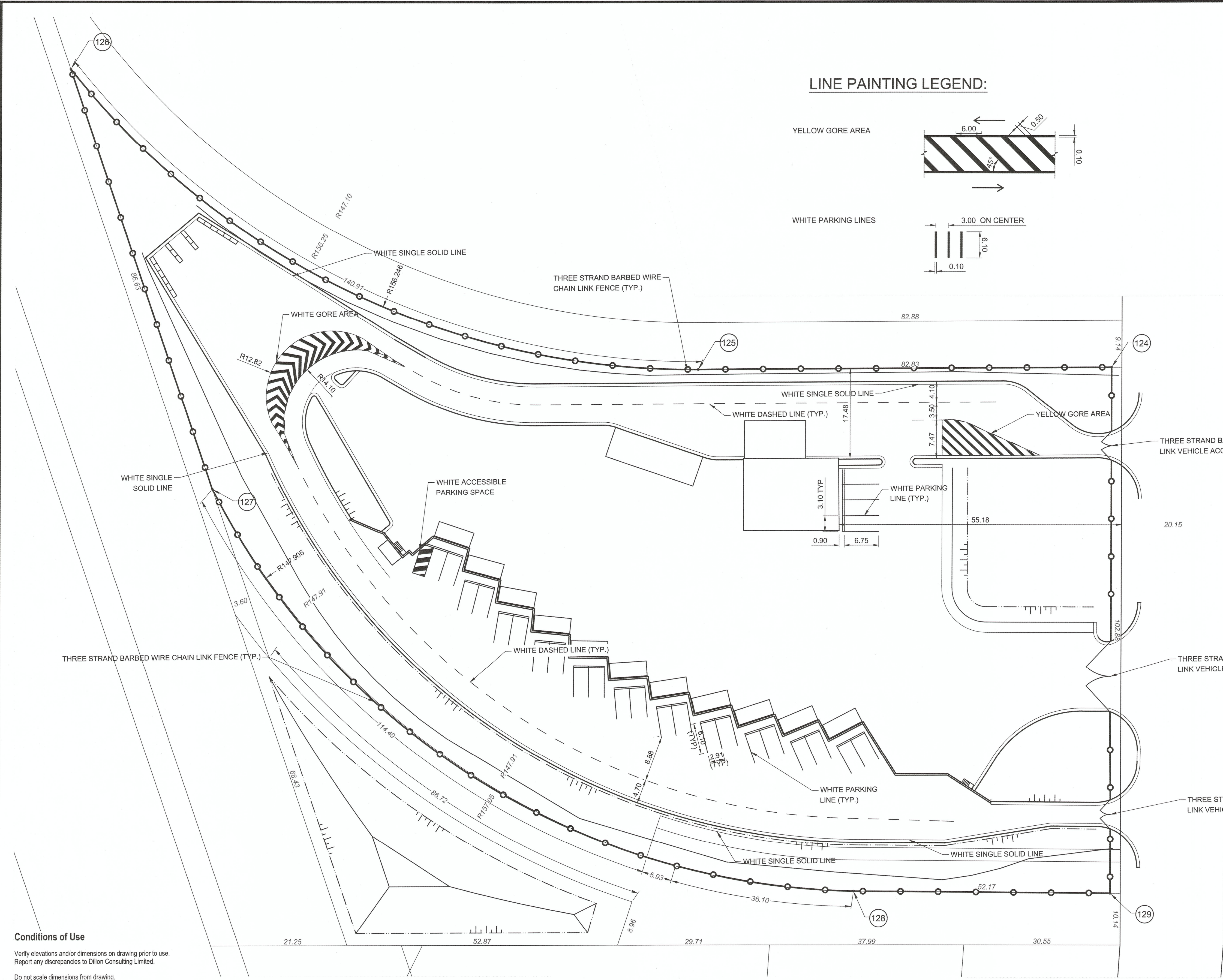
YELLOW GORE AREA



WHITE PARKING LINES



POINT TABLE			
No.	NORTHING (m)	EASTING (m)	DESCRIPTION
124	5530430.9278	631097.5120	FENCE
125	5530350.1309	631099.9392	FENCE
126	5530225.8332	631044.2984	FENCE
127	5530255.8315	631125.5666	FENCE
128	5530383.3707	631201.2265	FENCE
129	5530433.5290	631200.3350	FENCE




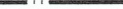














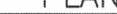




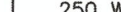







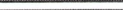


















**Conditions of Use**  
Verify elevations and/or dimensions on drawing prior to use.  
Report any discrepancies to Dillon Consulting Limited.  
  
Do not scale dimensions from drawing.  
  
Do not modify drawing, re-use it, or use it for purposes other than those intended at the time of its preparation without prior written permission from Dillon Consulting Limited.

**APEGM**  
Certificate of Authorization  
Dillon Consulting Limited (MB)  
No. 1789 Date: MAR. 4, 2016

**METRIC**

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

<div>150 WM</div> <div></div> <div>HYDRANT</div>		<div>150 WM</div> <div></div> <div>VALVE</div>	<div>MTS</div> <div></div> <div></div>	<div>M.T.S.</div> <div>CONCRETE</div>	<div>MTS</div> <div></div> <div>ASPHALT</div>	<div>150 mm W.M.</div> <div></div> <div>HYDRANT</div>	<div>150 mm W.M.</div> <div></div> <div>VALVE</div>	UNDERGROUND STRUCTURES		<div>B.M. ELEV.</div> <div></div>	<div>DESIGNED BY</div> <div>TS</div>	<div></div> <div><b>DILLON</b> CONSULTING</div> <div></div> <div>CONSULTANT PROJECT NUMBER 13-8224</div>	<div></div> <div><b>THE CITY OF WINNIPEG</b> WATER AND WASTE DEPARTMENT</div>		<div>CITY DRAWING NUMBER 1-0851AG0007-001</div>	
<div>300 LDS</div> <div>LAND DRAINAGE SEWER</div>	<div>300 LDS</div> <div>LAND DRAINAGE SEWER</div>		<div>PLANING</div>	<div>300 mm L.D.S.</div> <div>LAND DRAINAGE SEWER</div>	<div>300 mm L.D.S.</div> <div>LAND DRAINAGE SEWER</div>	<div>N/A</div>	<div>N/A</div>	<div>DRAWN BY</div> <div>TS</div>	<div>CHECKED BY</div> <div>WPN</div>	<div>HOR. SCALE</div> <div>VERTICAL</div>	<div>RELEASED FOR CONSTRUCTION</div> <div></div>		<div>4R WINNIPEG DEPOT PACIFIC AVENUE</div>		<div>SHEET</div> <div>8</div> <div>OF</div> <div>43</div>	
<div>250 WWS</div> <div>WASTE WATER SEWER</div>	<div>250 WWS</div> <div>WASTE WATER SEWER</div>		<div>SIDEWALK</div>	<div>250 mm W.W.S.</div> <div>WASTE WATER SEWER</div>	<div>250 mm W.W.S.</div> <div>WASTE WATER SEWER</div>	<div>DATE</div> <div></div>	<div>DATE</div> <div></div>	<div>APPROVED BY</div> <div>ARR</div>			<div>DATE</div> <div></div>		<div><b>SITE FENCING AND PAINTING</b></div>		<div>CONSULTANT DRAWING NUMBER</div> <div>C-7</div>	
<div></div> <div>MANHOLE</div>	<div></div> <div>MANHOLE</div>	<div></div> <div>SURVEY BAR</div>	<div></div> <div>PAVING STONES</div>	<div></div> <div>SURVEY BAR</div>	<div></div> <div>PAVING STONES</div>	<div></div> <div>PVMT FLOW DIRECTION</div>	NOTE: LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE, BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.		<div>3</div> <div>ISSUED FOR CONSTRUCTION</div> <div>1604/12</div> <div>ARR</div>				<div>1-0851AG0007-001</div>			
<div></div> <div>CATCH BASIN</div>	<div></div> <div>CATCH BASIN</div>	<div></div> <div>CURB RAMP</div>	<div></div> <div>PROPERTY LINE</div>	<div></div> <div>CURB RAMP</div>	<div></div> <div>PROPERTY LINE</div>	<div></div> <div>DITCH</div>			<div>2</div> <div>ISSUED FOR ADDENDUM #1</div> <div>1603/14</div> <div>ARR</div>				<div>1-0851AG0007-001</div>			
<div></div> <div>TEST HOLES</div>	<div></div> <div>TEST HOLES</div>	<div></div> <div>DITCH</div>	<div></div> <div>SWALE</div>	<div></div> <div>DITCH</div>	<div></div> <div>SWALE</div>	<div></div> <div>DITCH</div>			<div>1</div> <div>ISSUED FOR TENDER</div> <div>1603/04</div> <div>ARR</div>				<div>1-0851AG0007-001</div>			
<div></div> <div>JUNCTIONS</div>	<div></div> <div>JUNCTIONS</div>	<div></div> <div>DITCH</div>	<div></div> <div>SWALE</div>	<div></div> <div>DITCH</div>	<div></div> <div>SWALE</div>	<div></div> <div>DITCH</div>			<div>NO.</div> <div>REVISIONS</div> <div>DATE</div> <div>BY</div> <div>DATE</div>	<div>DATE</div> <div></div>			<div>1-0851AG0007-001</div>			
<div></div> <div>CULVERT</div>	<div></div> <div>CULVERT</div>	<div></div> <div>DITCH</div>	<div></div> <div>SWALE</div>	<div></div> <div>DITCH</div>	<div></div> <div>SWALE</div>	<div></div> <div>DITCH</div>			<div>DATE</div> <div></div>	<div>DATE</div> <div></div>			<div>1-0851AG0007-001</div>			
<div>100 GAS</div> <div>GAS</div>	<div>100 GAS</div> <div>GAS</div>	<div></div> <div>DITCH</div>	<div></div> <div>SWALE</div>	<div></div> <div>DITCH</div>	<div></div> <div>SWALE</div>	<div></div> <div>DITCH</div>			<div>DATE</div> <div></div>	<div>DATE</div> <div></div>			<div>1-0851AG0007-001</div>			
<div>EXISTING</div> <div>LEGEND-PLAN</div>	<div>PROPOSED</div> <div>LEGEND-PLAN</div>	<div>EXISTING</div> <div>LEGEND-PLAN</div>	<div>PROPOSED</div> <div>LEGEND-PLAN</div>	<div>EXISTING</div> <div>LEGEND-PROFILE</div>	<div>PROPOSED</div> <div>LEGEND-PROFILE</div>	<div>EXISTING</div> <div>LEGEND-PROFILE</div>			<div>DATE</div> <div></div>	<div>DATE</div> <div></div>			<div>1-0851AG0007-001</div>			



GENERAL NOTES FOR STRUCTURES:

GENERAL

- THE METRIC SYSTEM OF MEASUREMENT IS USED ON ALL DRAWINGS, ELEVATIONS AND STATIONS ARE SHOWN IN METRES AND ALL OTHER DIMENSIONS ARE SHOWN IN MILLIMETRES.
- CONTRACTOR MUST VERIFY ALL EXISTING AND PROPOSED GEOMETRY, DIMENSIONS, ELEVATIONS AND LAYOUT IN THE FIELD PRIOR TO FABRICATION AND CONSTRUCTION AND NOTIFY THE CONTRACT ADMINISTRATOR OF ANY CHANGES. EXISTING DIMENSIONS ARE APPROXIMATE ONLY.
- CONTRACTOR MUST VERIFY, SAFEGUARD AND PROTECT ALL EXISTING UTILITIES PRIOR TO EXCAVATION OR CONSTRUCTION. ANY DAMAGE TO EXISTING STRUCTURES AND UTILITIES BY THE CONTRACTORS OPERATIONS MUST BE REPAIRED BY THE CONTRACTOR AT HIS OWN COST.
- ALL REFERENCES TO CODES, STANDARDS, SPECIFICATIONS, GUIDELINES, ETC, SHALL MEAN THE LATEST EDITION.
- THESE DRAWINGS TO BE READ IN CONJUNCTION WITH THE CONTRACT SPECIFICATIONS.
- ALL WORK SHALL CONFORM TO THE 2010 MANITOBA BUILDING CODE.
- ALL WORK TO BE PERFORMED IN ACCORDANCE WITH APPLICABLE LEGISLATION AND REGULATIONS INCLUDING, BUT NOT LIMITED TO, OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS.
- DO NOT SCALE FROM THE DRAWINGS.

EXCAVATION AND BACKFILL

- ALL EXCAVATIONS SHALL BE COMPLETELY DEWATERED DURING CONSTRUCTION TO PREVENT UPLIFT OF THE STRUCTURE. KEEP EXCAVATION DEWATERED TO, AT LEAST, 300 mm BELOW LOWEST ELEVATION OF EXCAVATION.
- PLACE ALL CONCRETE IN THE DRY.
- THE FOUNDATION SLABS SHALL BEAR ON LAYER OF WELL GRADED GRANULAR/CRUSHED ROCK COMPACTED TO 100% STANDARD PROCTOR DRY DENSITY (SPDD) UNLESS OTHERWISE INDICATED.

CAST IN PLACE CONCRETE

- CONCRETE MATERIAL, QUALITY, MIXING, PLACING, FORM WORK AND OTHER CONSTRUCTION PRACTICES TO CONFORM TO CSA A23.1 / A23.2 - 2014
- ALL EXPOSED CORNERS SHALL HAVE A 20 mm CHAMFER OR FILLET UNLESS OTHERWISE NOTED.

TYPE	SUPPLY AND PLACE STRUCTURAL CONCRETE	STRENGTH (MPa)	EXP. CLASS
1	PILES, GRADE BEAMS, SUSPENDED SLABS	35 @ 56 DAYS	S-2
2	RETAINING WALLS, STRUCTURAL SLABS	35 @ 28 DAYS	S-2

ANCHOR BOLTS FOR LIGHT STANDARDS

- ANCHOR BOLTS SHALL BE IN ACCORDANCE WITH ASTM F1554 GRADE 105, HOT DIPPED GALVANIZED.
- ANCHOR BOLTS SHALL BE 25Ø x 915 LONG C/W 150 HOOK, UNLESS SHOWN OTHERWISE.
- CONFIRM ANCHOR BOLT SIZE, B.C.D. AND PROJECTION WITH LIGHT STANDARD SUPPLIER PRIOR TO INSTALLATION.
- PROTECT THREADS FROM FOULING DURING CONCRETE POUR.
- ANCHOR BOLTS TO BE SET USING STEEL SETTING TEMPLATE (MIN. 10 THICK) TO BE REMOVED AFTER MIN. 24hr CURING PERIOD.
- REFER TO SHEET S6 FOR ALIGNMENT OF ANCHOR BOLTS.
- B.C.D. = BOLT CIRCLE DIAMETER.

POST-INSTALLED ANCHOR BOLTS

- UNLESS OTHERWISE NOTED, POST-INSTALLED ANCHOR BOLTS SHALL BE HILTI KWIK BOLT TZ - SS TO THE DIAMETER AND LENGTH AS INDICATED ON THE DRAWINGS OR EQUAL AS APPROVED BY THE CONTRACT ADMINISTRATOR.
- CONTRACTOR SHALL FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS.

HANDRAILS AND GUARDRAILS

- STEEL PIPE SHALL BE IN ACCORDANCE WITH ASTM A53 TYPE S GRADE A OR B.
- GALVANIZE IN ACCORDANCE WITH ASTM A123-09 TO A NET RETENTION OF 610 g/m2
- GALVANIZING HANDRAIL AND GUARDRAILS SHALL RESULT IN A SMOOTH SURFACE FREE OF SHARP EDGES AND PROJECTIONS.
- VENT HOLE SIZE AND LOCATIONS AS PER GALVANIZING PROCESS REQUIREMENTS.
- EXPANSION JOINTS SHALL BE LOCATED TO ACCOMMODATE GALVANIZING PROCESS.

MISCELLANEOUS METAL FABRICATIONS

- STEEL SHALL BE IN ACCORDANCE WITH CSA G40.21 GRADE 300W UNLESS OTHERWISE NOTED.
- ALL FABRICATIONS SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123-09 TO A NET RETENTION OF 610 g/m2
- CONTRACTOR SHALL PREPARE AND SUBMIT DETAILED SHOP DRAWINGS PRIOR TO COMMENCING FABRICATION.

REINFORCING STEEL FOR CAST-IN-PLACE CONCRETE

- ALL REINFORCING SHALL BE BLACK STEEL CONFORMING TO CSA G30.18-09, GRADE 400W.
- ALL REBAR SHALL BE STORED ON WOOD BLOCKING AT THE SITE.
- CONCRETE CLEAR COVER TO REINFORCEMENT UNLESS NOTED OTHERWISE:

PILES, FOUNDATIONS CAST AGAINST GRADE: 75 mm

RETAINING WALLS, GRADE BEAMS FOUNDATIONS NOT CAST AGAINST AGAINST GROUND: 60 mm

STRUCTURAL SLABS: TOP LAYER 60 mm BOTTOM LAYER 50 mm

- SEE TABLE BELOW FOR REINFORCING LAP SPLICES/PROJECTION LENGTH TYPICAL UNLESS NOTED OTHERWISE.
- NORMAL WEIGHT CONCRETE.
- CLEAR COVER GREATER THAN 1.5 x BAR DIAMETER.
- CLEAR SPACING NOT LESS THAN 2 x BAR DIAMETER.
- Fy=400 MPa.
- MULTIPLY ABOVE BY 1.3 FOR HORIZONTAL REBAR SO PLACED THAT MORE THAN 300 mm OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE DEVELOPMENT LENGTH OR SPLICE.
- INCREASE ABOVE BY 1.5 FOR EPOXY COATED REBAR.
- COMBINATION OF ABOVE TWO FACTORS NEED NOT EXCEED 1.7
- CONTRACTOR SHALL PREPARE AND SUBMIT DETAILED REINFORCING STEEL SHOP DRAWINGS AND BAR LISTS PRIOR TO COMMENCING FABRICATION.
- WELDED STEEL WIRE FABRIC SHALL CONFORM TO ASTM A1064/A1064M-13. PROVIDE IN FLAT SHEETS ONLY.

MINIMUM LAP LENGTHS		
BAR SIZE	30 MPa CONCRETE	35 MPa CONCRETE
10M	550	500
15M	750	700
20M	900	850
25M	1450	1350
30M	1700	1550
35M	2000	1850

CAST-IN-PLACE PILES

- CAST-IN-PLACE PILES ARE FRICTION PILES WITH THE FOLLOWING PROPERTIES:

SOIL	DEPTH (m)		ULS RESISTANCE		SLS SKIN FRICTION	LATERAL SUBGRADE REACTION MODULUS
	FROM	TO	END BEARING	SKIN FRICTION		
CLAY FILL / FROST ZONE	0.0	2.4	0	0	0	0
SILTY CLAY	2.4	11	60 KPa	14 KPa	12 KPa	2400/d KN/m <sup>3</sup>

ULS RESISTANCE = A RESISTANCE FACTOR OF 0.4 IS APPLIED  
d = DIAMETER OF PILE.

EPOXY ADHESIVE ANCHORAGE FOR REINFORCING

- EPOXY ADHESIVE ANCHORAGE SYSTEM FOR POST INSTALLED REINFORCING BARS SHALL BE HILTI HIT-HY 200 OR EQUAL APPROVED BY THE CONTRACT ADMINISTRATOR.
- CONTRACTOR SHALL FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS.

METRIC

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES



B.M. ELEV.			DESIGNED BY WCH			 <b>THE CITY OF WINNIPEG</b> WATER AND WASTE DEPARTMENT		CITY DRAWING NUMBER 1-0851A-S0001-001
			DRAWN BY PDR					SHEET 9 OF 43
			CHECKED BY NR					
			APPROVED BY ARR					
			HOR. SCALE AS NOTED	RELEASED FOR CONSTRUCTION	CONSULTANT PROJECT NUMBER 13-8224	<b>GENERAL NOTES FOR STRUCTURES</b>		CONSULTANT DRAWING NUMBER <b>S-1</b>
			VERTICAL					
NO.	REVISIONS	DATE	BY	DATE	DATE			

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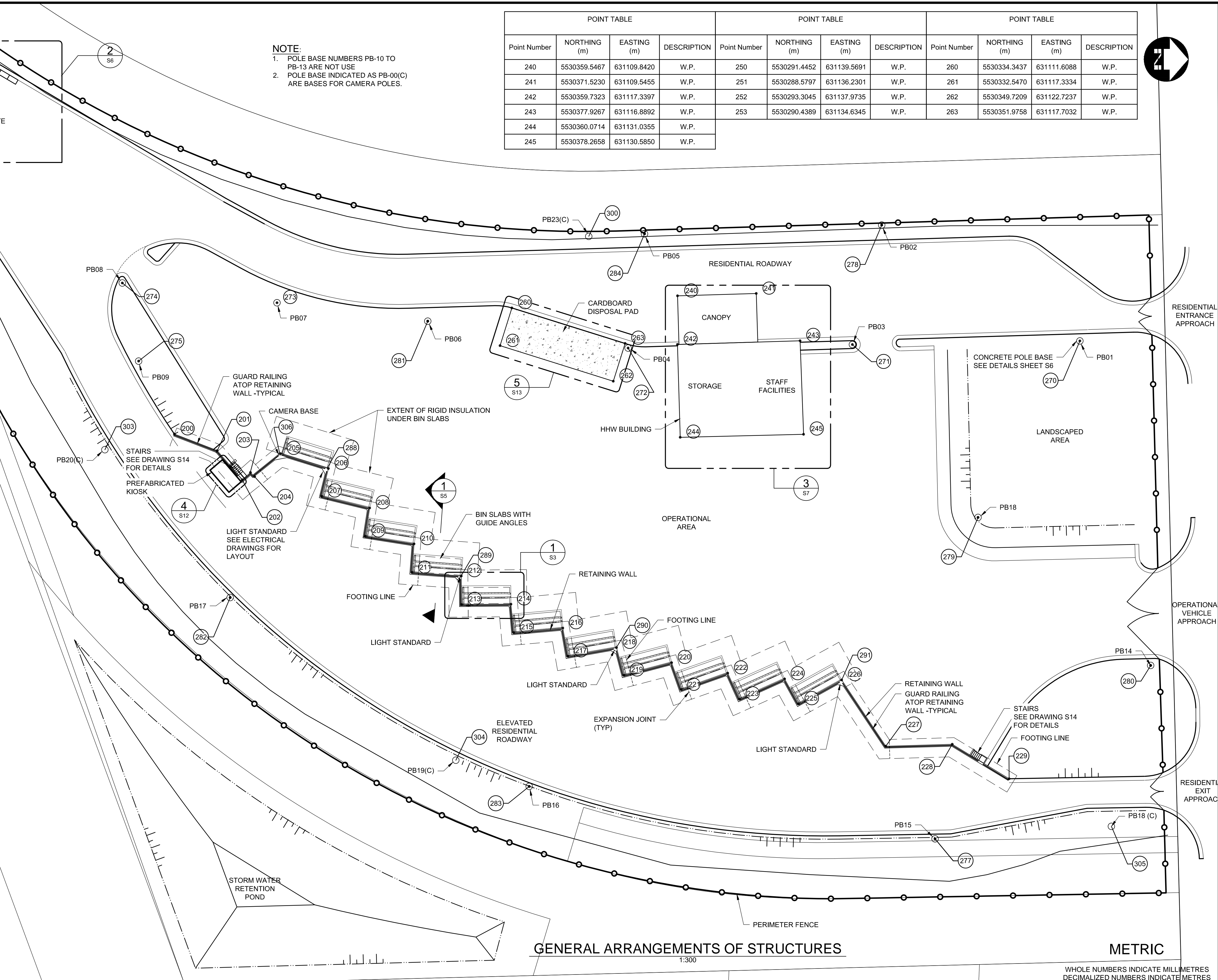
POINT TABLE			
Point Number	NORTHING (m)	EASTING (m)	DESCRIPTION
270	5530420.4689	631116.6203	SL01/PB01
271	5530385.9798	631117.1643	SL03/PB03
272	5530351.9758	631117.7032	SL06/PB04
273	5530298.7360	631110.8234	SL08/PB07
274	5530275.2826	631107.8240	SL09/PB08
275	5530277.7560	631119.6744	SL11/PB09
277	5530398.5164	631192.1488	SL18/PB15
278	5530390.4314	631099.0374	SL04/PB02
279	5530405.0265	631143.3884	SL02/PB18
280	5530431.2104	631165.8403	SL19/PB14
281	5530321.5890	631113.6228	SL07/PB06
282	5530291.6326	631155.5434	SL12/PB17
283	5530336.9698	631184.1919	SL16/PB16
284	5530354.4552	631100.3707	SL05/PB05
288	5530306.2584	631136.0875	SL13
289	5530326.5110	631152.4854	SL14
290	5530350.0966	631163.2804	SL15
291	5530384.2618	631168.2544	SL17
292	5530247.0220	631096.1771	SL10

POINT TABLE			
Point Number	NORTHING (m)	EASTING (m)	DESCRIPTION
300	5530346.0000	631100.7500	JB-1/2 / PB23(C)
301	5530249.9002	631071.9983	JB-4 / PB22(C)
303	5530272.6310	631133.1144	JB-5 / PB20(C)
304	5530325.8505	631180.2168	JB-6 / PB19(C)
305	5530425.2500	631190.2500	JB-8 / PB18(C)
306	5530299.2179	631133.8676	JB-9/10

POINT TABLE				
Point Number	ELEVATION (m)	NORTHING (m)	EASTING (m)	DESCRIPTION
200	233.370	5530283.1715	631130.7529	W.P.
201	233.870	5530289.6701	631133.2604	W.P.
202	233.870	5530293.4586	631137.6747	W.P.
203	233.870	5530294.7050	631136.5740	W.P.
204	233.870	5530295.3466	631137.2150	W.P.
205	234.050	5530299.2606	631133.7151	W.P.
206	234.050	5530306.5205	631135.9708	W.P.
207	234.050	5530305.4933	631140.1772	W.P.
208	234.050	5530312.7792	631141.9564	W.P.
209	234.050	5530312.1031	631146.2332	W.P.
210	234.050	5530319.5110	631147.4044	W.P.
211	234.050	5530319.1905	631151.7225	W.P.
212	234.050	5530326.6700	631152.2777	W.P.
213	234.050	5530326.7073	631156.6076	W.P.
214	234.050	5530334.2070	631156.5429	W.P.
215	234.050	5530334.6019	631160.8549	W.P.
216	234.050	5530342.0706	631160.1709	W.P.
217	234.050	5530342.8204	631164.4355	W.P.
218	234.050	5530350.2071	631163.1368	W.P.
219	234.050	5530351.3067	631167.3248	W.P.
220	234.050	5530358.5608	631165.4203	W.P.
221	234.050	5530360.0026	631169.5032	W.P.
222	234.050	5530367.0746	631167.0059	W.P.
223	234.050	5530368.8488	631170.9558	W.P.
224	234.050	5530375.6903	631167.8828	W.P.
225	234.050	5530377.7847	631171.6725	W.P.
226	234.050	5530384.3490	631168.0448	W.P.
227	233.900	5530391.0357	631178.0841	W.P.
228	233.850	5530401.1246	631177.7962	W.P.
229	233.570	5530409.7413	631183.0227	W.P.

NOTE:  
1. POLE BASE NUMBERS PB-10 TO PB-13 ARE NOT USE  
2. POLE BASE INDICATED AS PB-00(C) ARE BASES FOR CAMERA POLES.

POINT TABLE				POINT TABLE				POINT TABLE			
Point Number	NORTHING (m)	EASTING (m)	DESCRIPTION	Point Number	NORTHING (m)	EASTING (m)	DESCRIPTION	Point Number	NORTHING (m)	EASTING (m)	DESCRIPTION
240	5530359.5467	631109.8420	W.P.	250	5530291.4452	631139.5691	W.P.	260	5530334.3437	631111.6088	W.P.
241	5530371.5230	631109.5455	W.P.	251	5530288.5797	631136.2301	W.P.	261	5530332.5470	631117.3334	W.P.
242	5530359.7323	631117.3397	W.P.	252	5530293.3045	631137.9735	W.P.	262	5530349.7209	631122.7237	W.P.
243	5530377.9267	631116.8892	W.P.	253	5530290.4389	631134.6345	W.P.	263	5530351.9758	631117.7032	W.P.
244	5530360.0714	631131.0355	W.P.								
245	5530378.2658	631130.5850	W.P.								



## GENERAL ARRANGEMENTS OF STRUCTURES

1:300

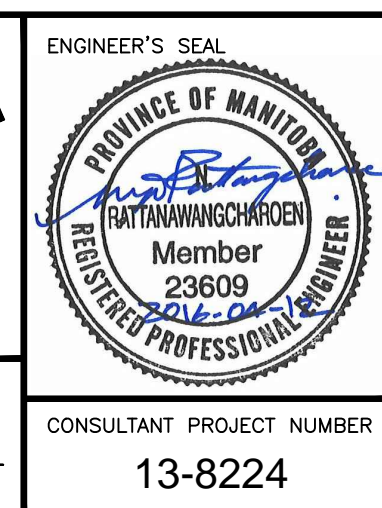
## METRIC

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES



B.M. ELEV.	DESIGNED BY	WH
	DRAWN BY	PDR
	CHECKED BY	NR
	APPROVED BY	ARR
	HOR. SCALE	AS NOTED
	VERTICAL	
3 ISSUED FOR CONSTRUCTION	16/04/12	NR
2 ISSUED FOR ADDENDUM # 1	16/03/14	ARR
1 ISSUED FOR TENDER	16/03/04	ARR
NO. REVISIONS	DATE	BY

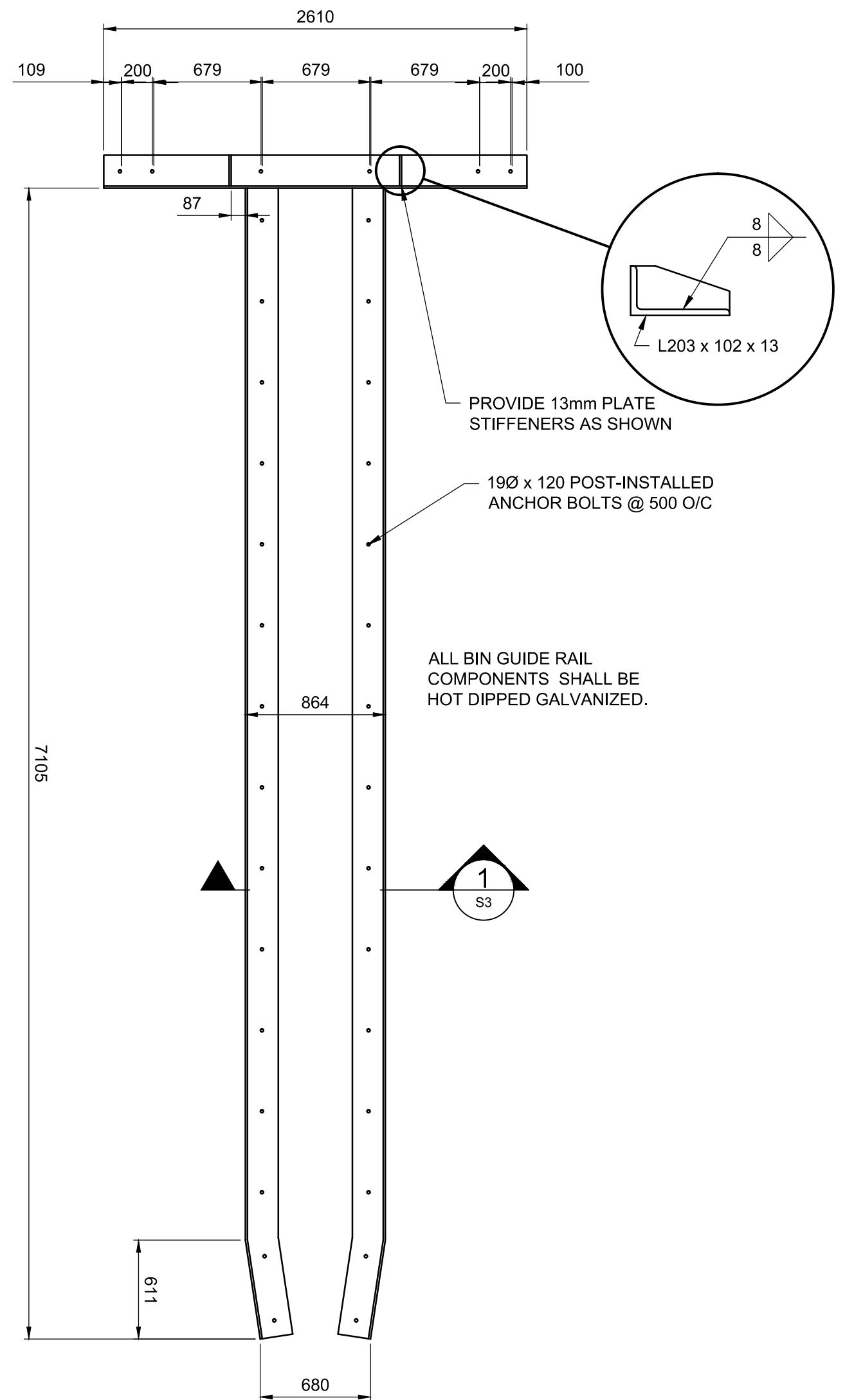
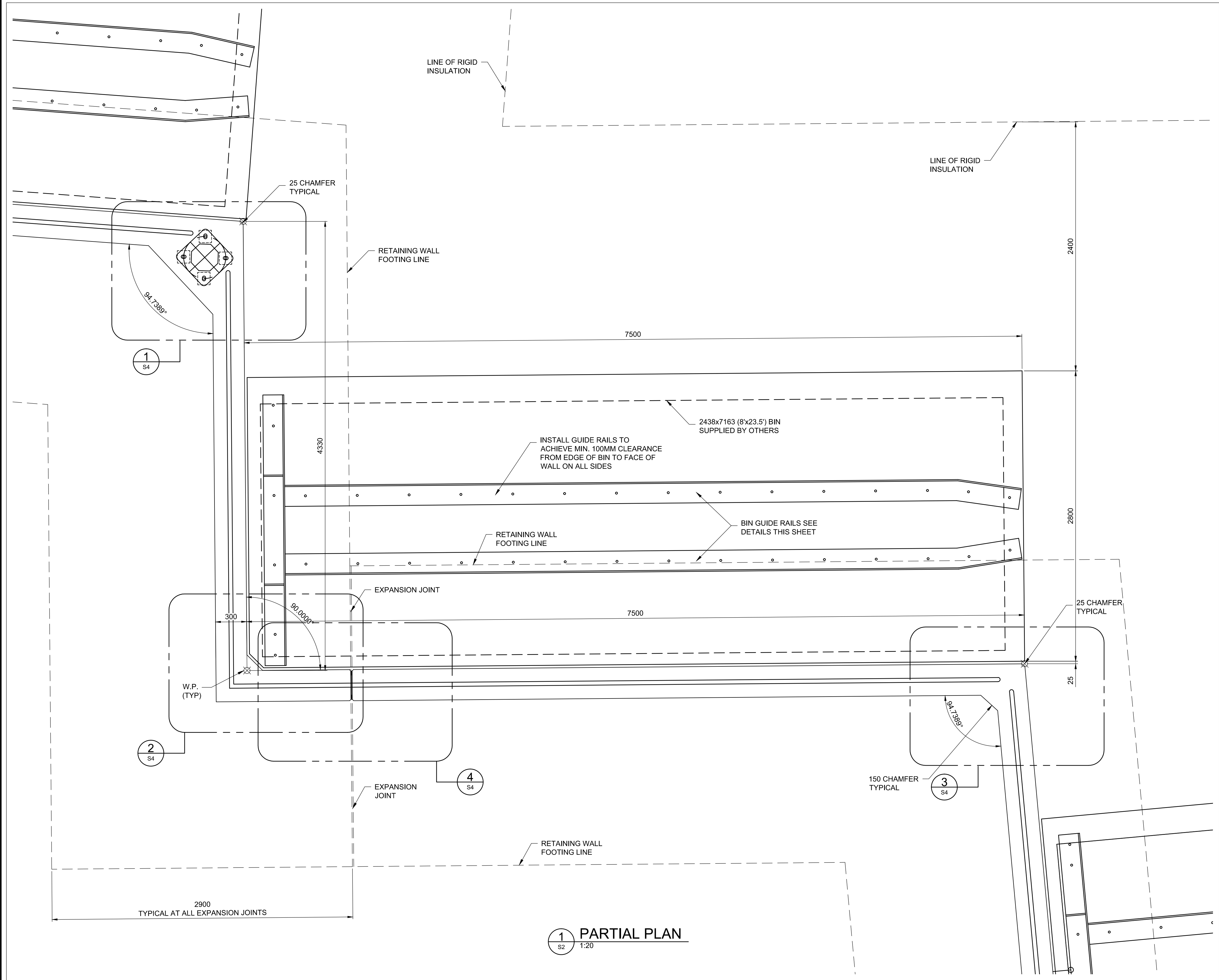
DESIGNED BY	WH
DRAWN BY	PDR
CHECKED BY	NR
APPROVED BY	ARR
HOR. SCALE	AS NOTED
VERTICAL	
DATE	



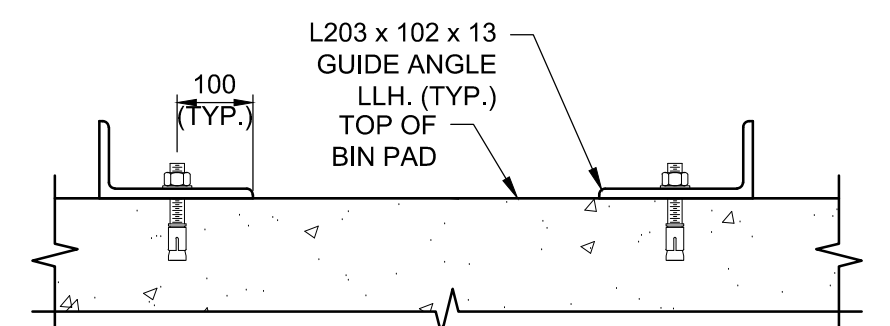
THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT		
4R WINNIPEG DEPOT PACIFIC AVENUE		CITY DRAWING NUMBER 1-0851A-S0002-001
GENERAL ARRANGEMENT OF STRUCTURES		SHEET 10 OF 43
		CONSULTANT DRAWING NUMBER S-2



C:\project\wise\working directory\active\40skt\0024576A\138224-09-STRUCT-CON-PACIFIC.dwg



BIN GUIDE RAILS - PLAN



SECTION

NOTE:  
CONTRACTOR TO COORDINATE ALL BIN  
GUIDE RAIL DIMENSIONS WITH BIN SUPPLIER

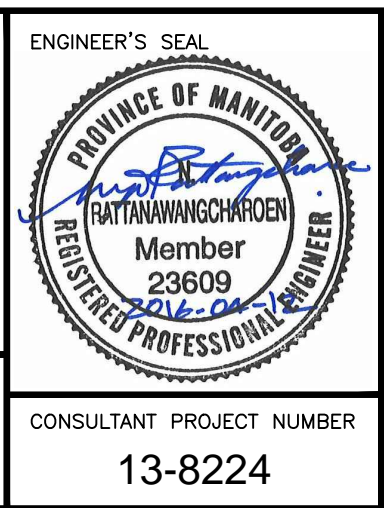
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WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES



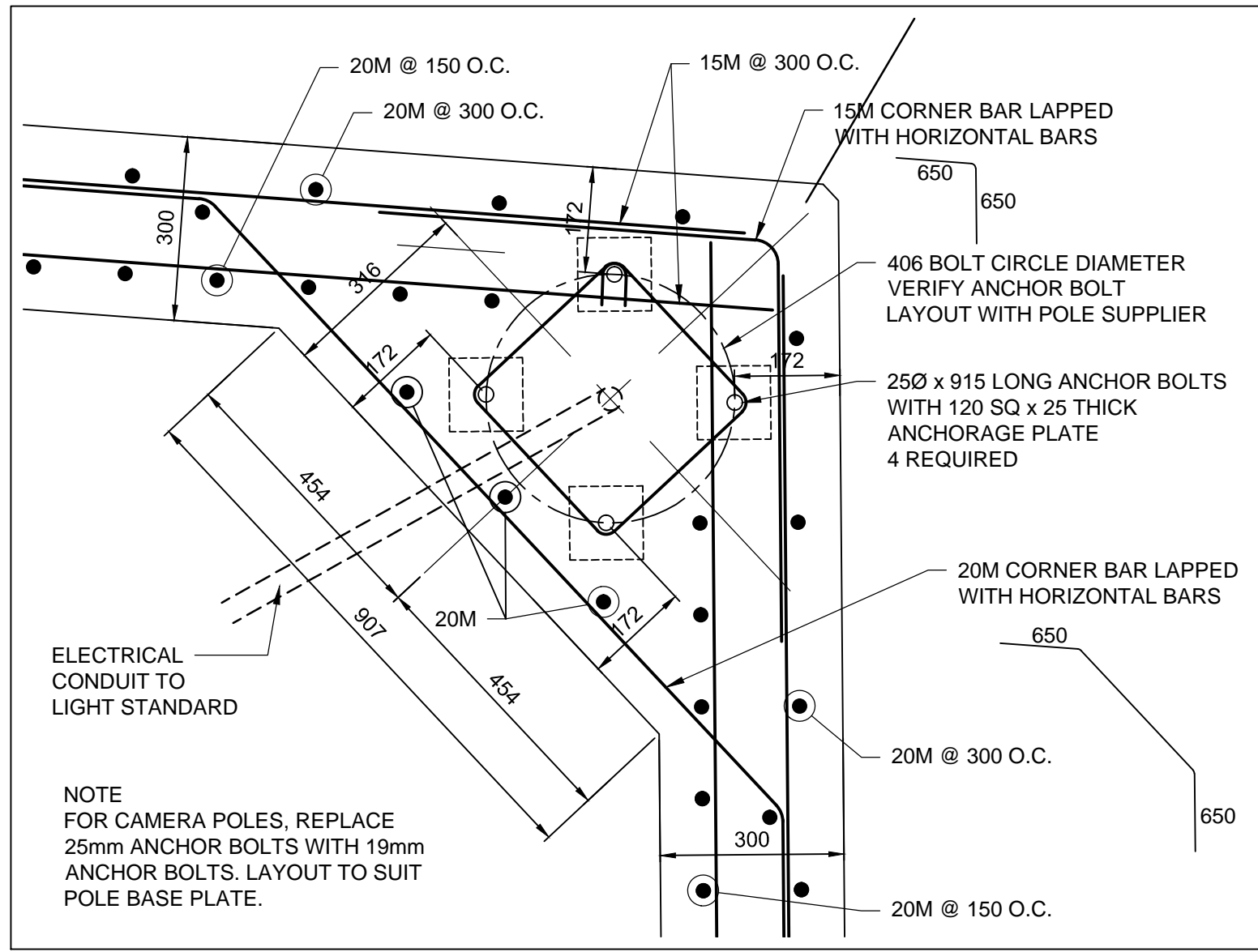
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NO.	REVISIONS	DATE	BY

DESIGNED BY	WH
DRAWN BY	PDR
CHECKED BY	NR
APPROVED BY	ARR
HOR. SCALE	AS NOTED
VERTICAL	
DATE	

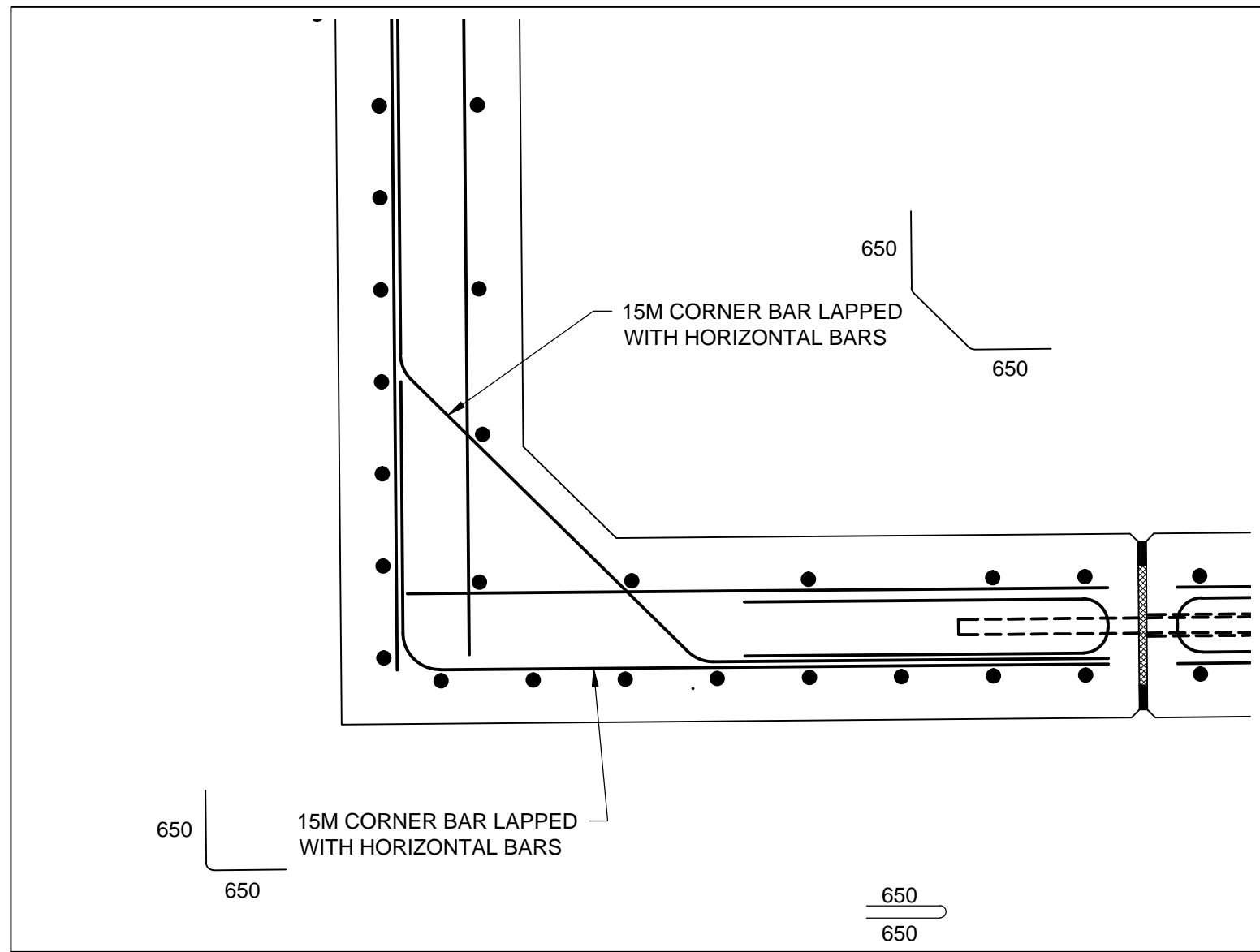


<b>THE CITY OF WINNIPEG</b> WATER AND WASTE DEPARTMENT	
4R WINNIPEG DEPOT PACIFIC AVENUE	CITY DRAWING NUMBER 1-0851A-S0003-001
RETAINING WALL PARTIAL PLAN AND DETAILS	SHEET 11 OF 43
	CONSULTANT DRAWING NUMBER S-3

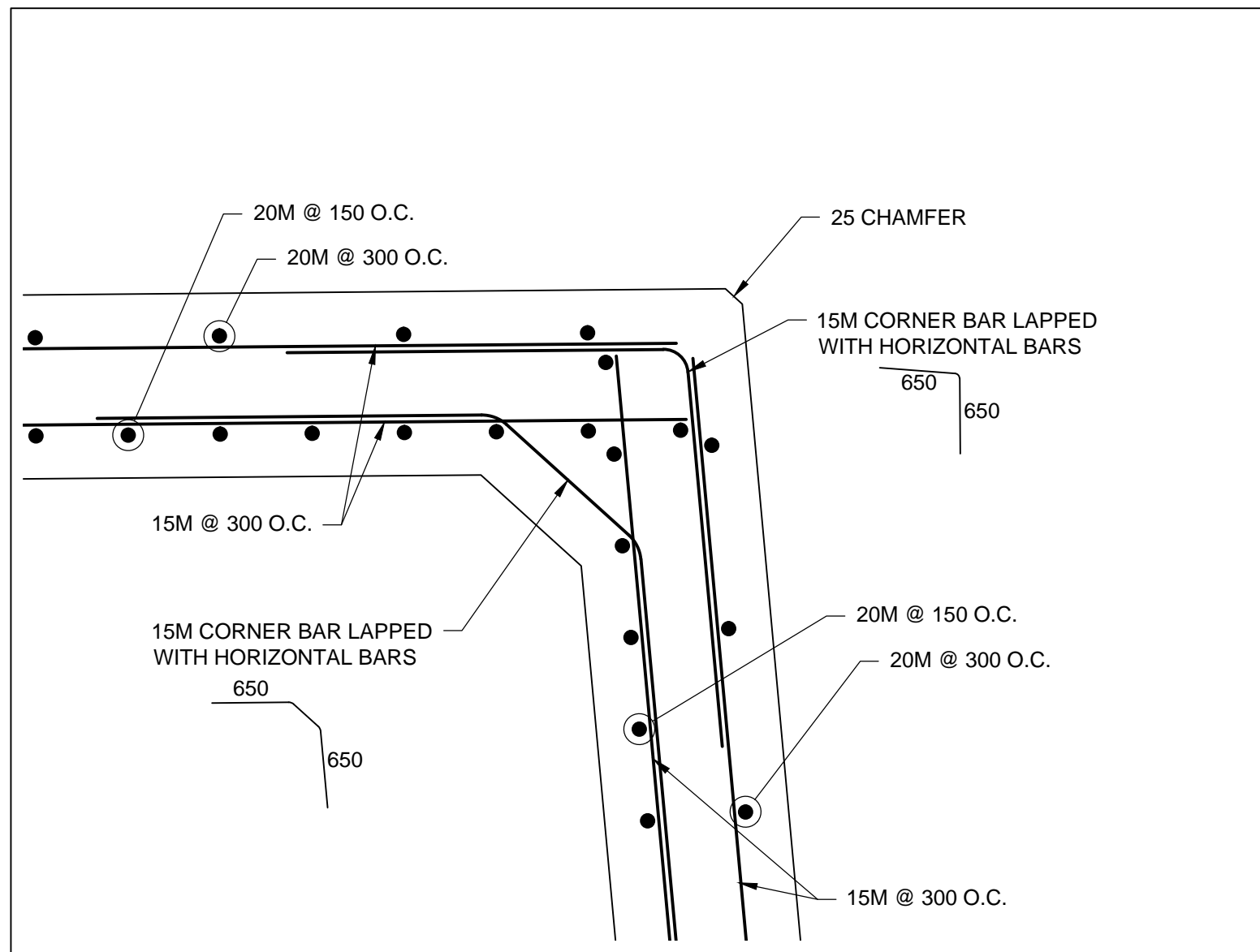




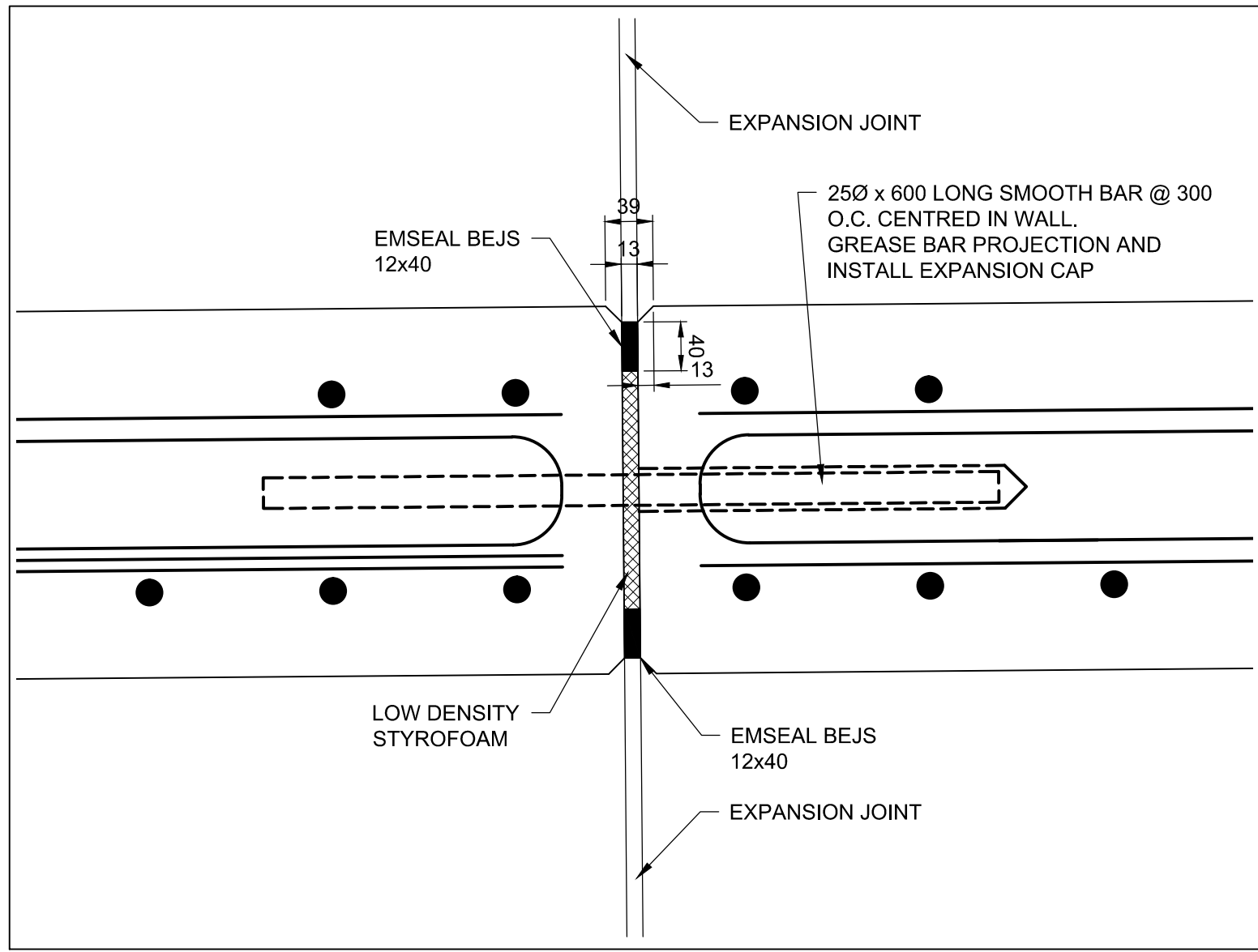
1 PLAN DETAIL  
S3 1:10



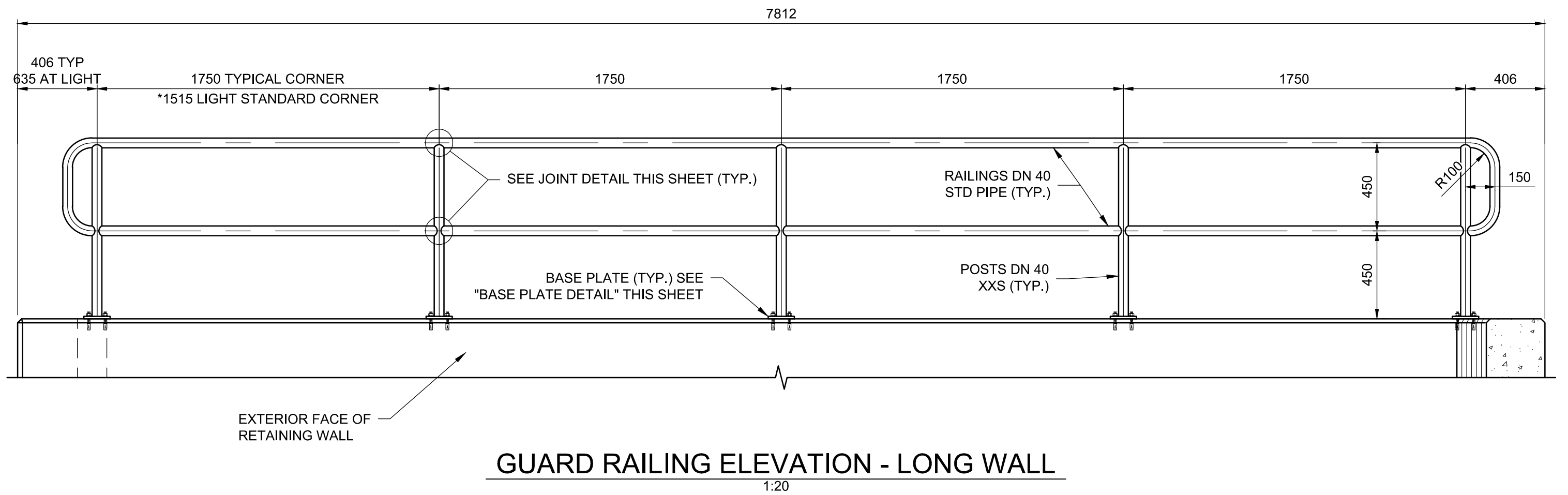
2 PLAN DETAIL  
S3 1:10



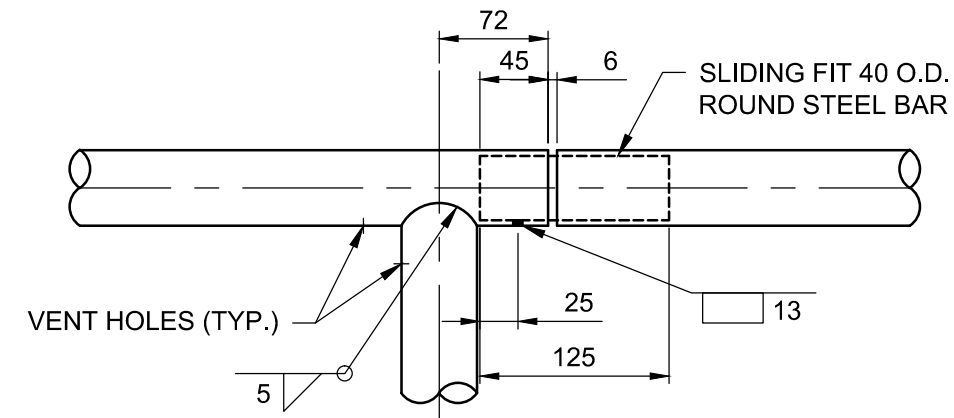
3 PLAN DETAIL  
S3 1:10



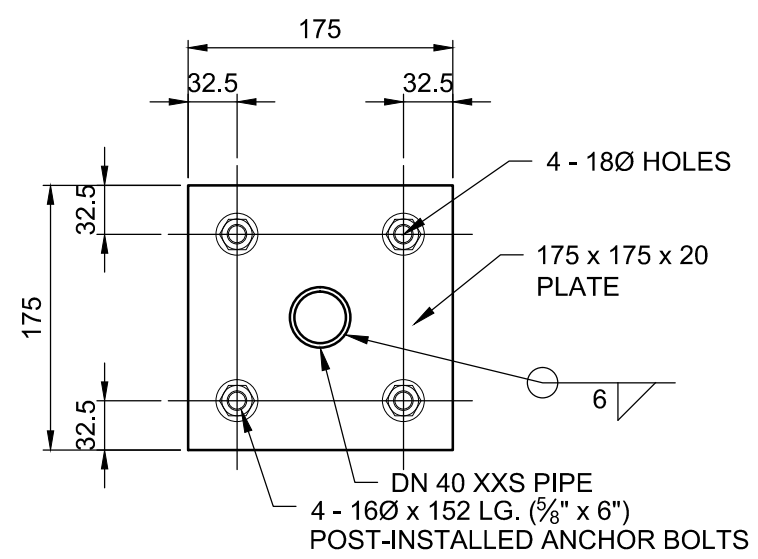
4 EXPANSION JOINT DETAIL  
S5 1:5



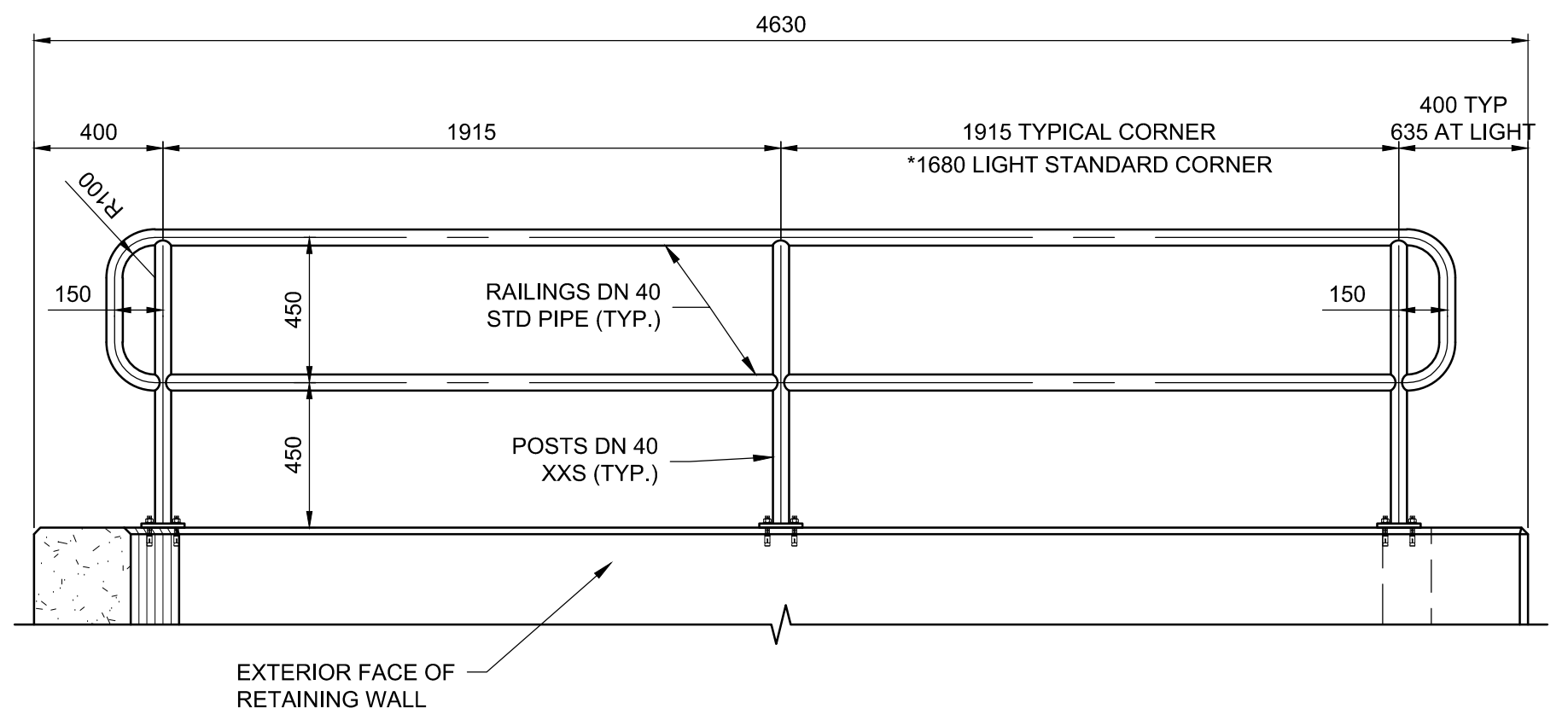
GUARD RAILING ELEVATION - LONG WALL  
1:20



JOINT DETAIL  
1:5



BASE PLATE DETAIL  
1:5







GUARD RAILING ELEVATION - SHORT WALL  
1:20

METRIC

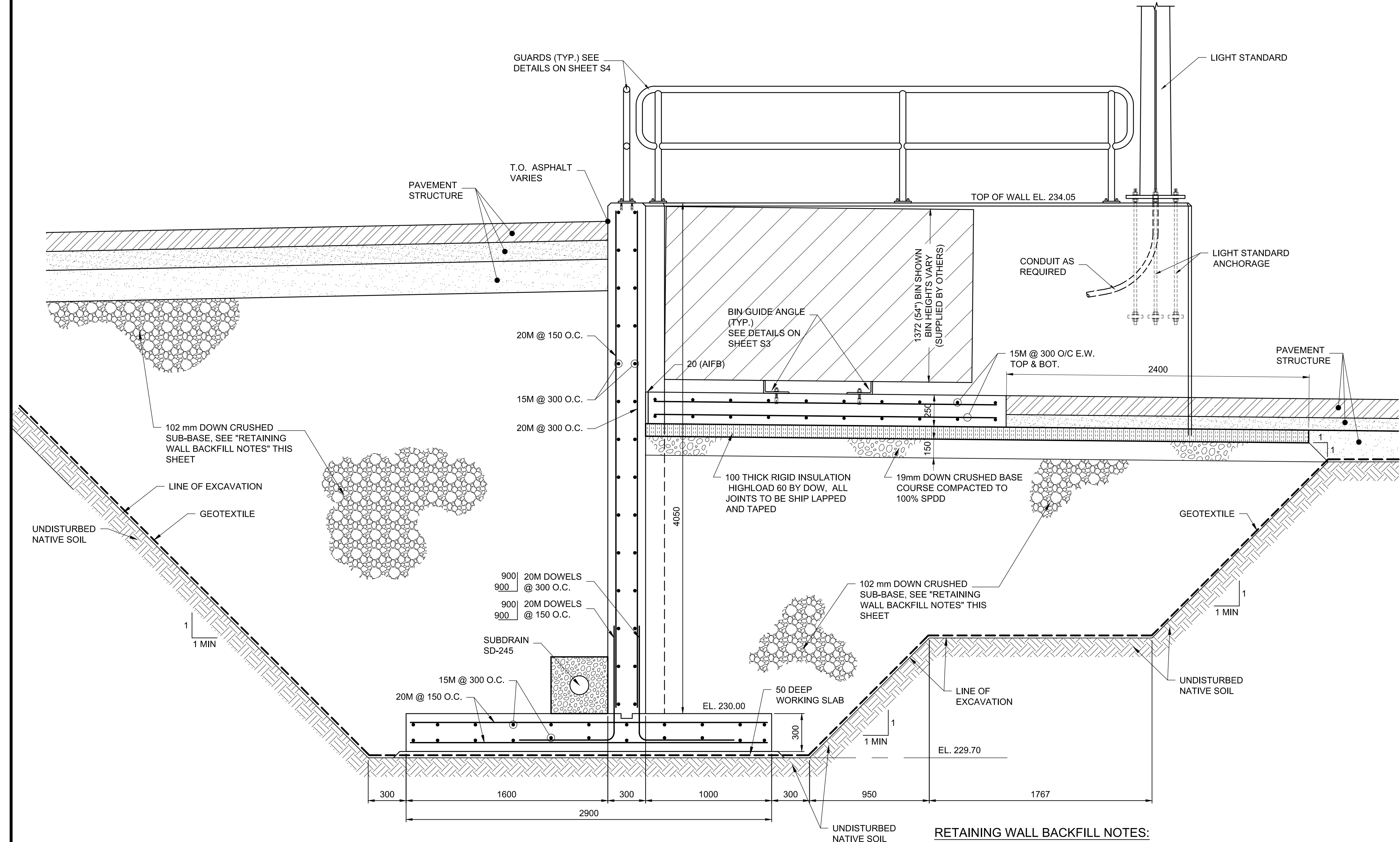
\*NOTE:  
FOR DIMENSIONS INDICATED, VERIFY GAP BETWEEN  
LIGHT STANDARDS AND RAILING MAX 100mm.

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES



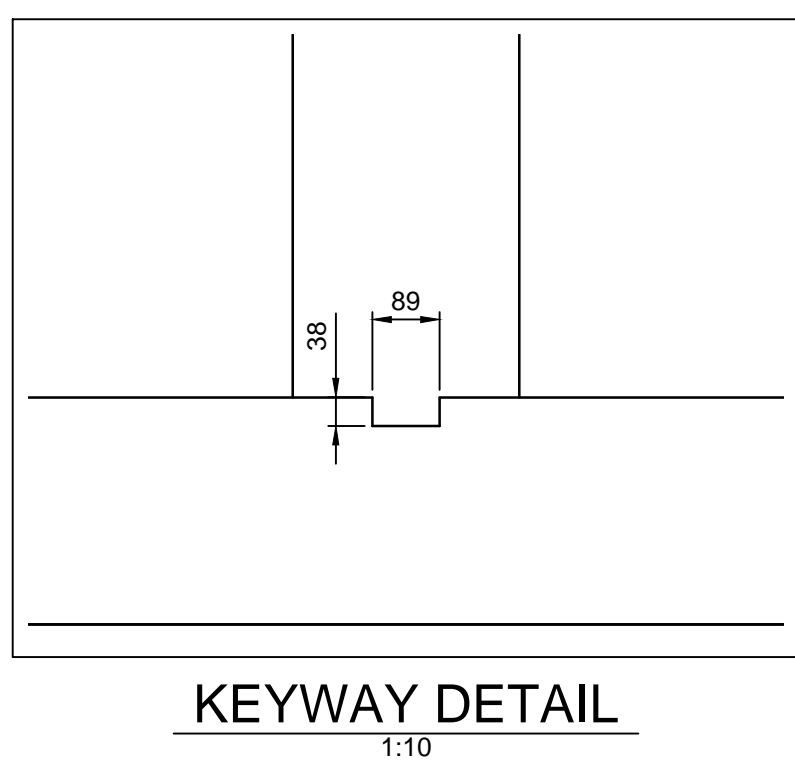
B.M. ELEV.				DESIGNED BY		WH				 <b>THE CITY OF WINNIPEG</b> WATER AND WASTE DEPARTMENT							
				DRAWN BY		PDR				4R WINNIPEG DEPOT PACIFIC AVENUE							
				CHECKED BY		NR											
				APPROVED BY		ARR				CITY DRAWING NUMBER 1-0851A-S0004-001							
3	ISSUED FOR CONSTRUCTION	16/04/12	NR	HOR. SCALE		AS NOTED		RELEASSED FOR CONSTRUCTION		CONSULTANT PROJECT NUMBER 13-8224							
2	ISSUED FOR ADDENDUM #1	16/03/14	ARR	VERTICAL										CONSULTANT DRAWING NUMBER <b>S-4</b>			
1	ISSUED FOR TENDER	16/03/04	ARR	DATE		DATE											
NO.	REVISIONS																





1 SECTION  
S2 1:20

**RETAINING WALL BACKFILL NOTES:**  
FOR STRUCTURAL BACKFILL WITHIN 1m OF  
RETAINING WALLS, COMPACT IN LIFTS NOT  
EXCEEDING 150 THICK USING LIGHT EQUIPMENT.

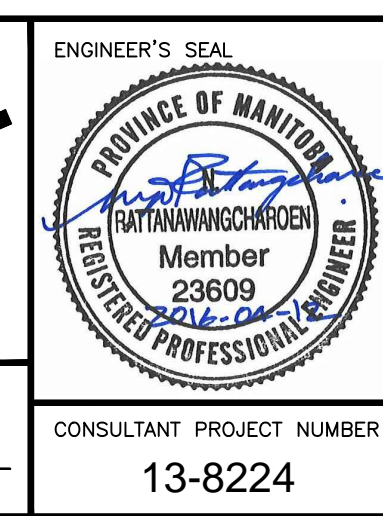


KEYWAY DETAIL  
1:10



B.M. ELEV.				
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2	ISSUED FOR ADDENDUM # 1	16/03/14	ARR	
1	ISSUED FOR TENDER	16/03/04	ARR	
NO.	REVISIONS	DATE	BY	

NO.	REVISIONS	DATE	BY	DATE
3	ISSUED FOR CONSTRUCTION	16/04/12	NR	
2	ISSUED FOR ADDENDUM # 1	16/03/14	ARR	
1	ISSUED FOR TENDER	16/03/04	ARR	



**THE CITY OF WINNIPEG**  
WATER AND WASTE DEPARTMENT

4R WINNIPEG DEPOT  
PACIFIC AVENUE

**RETAINING WALL SECTIONS  
AND DETAILS**

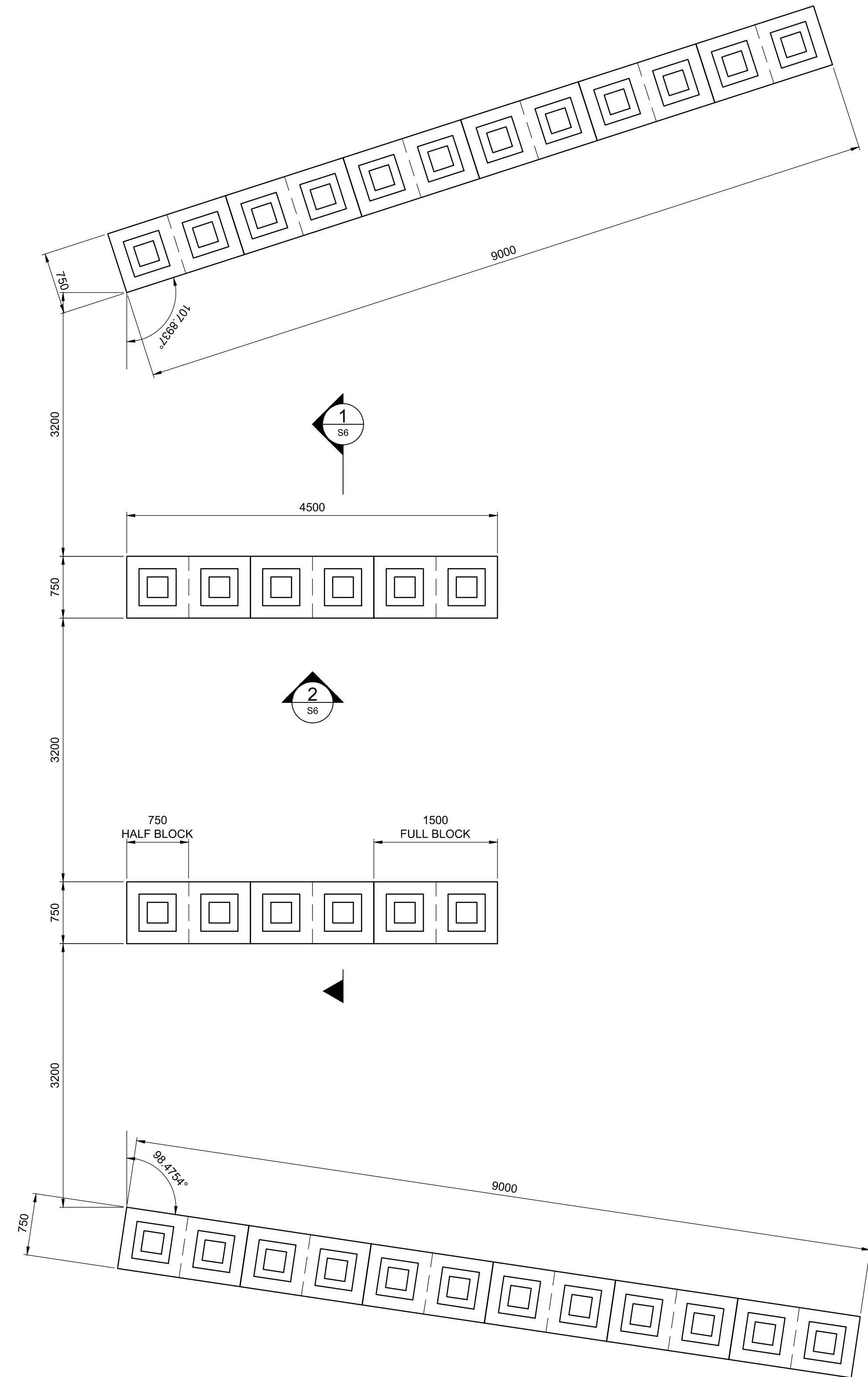
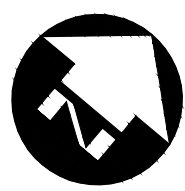
CITY DRAWING NUMBER  
1-0851A-S0005-001

SHEET 13 OF 43

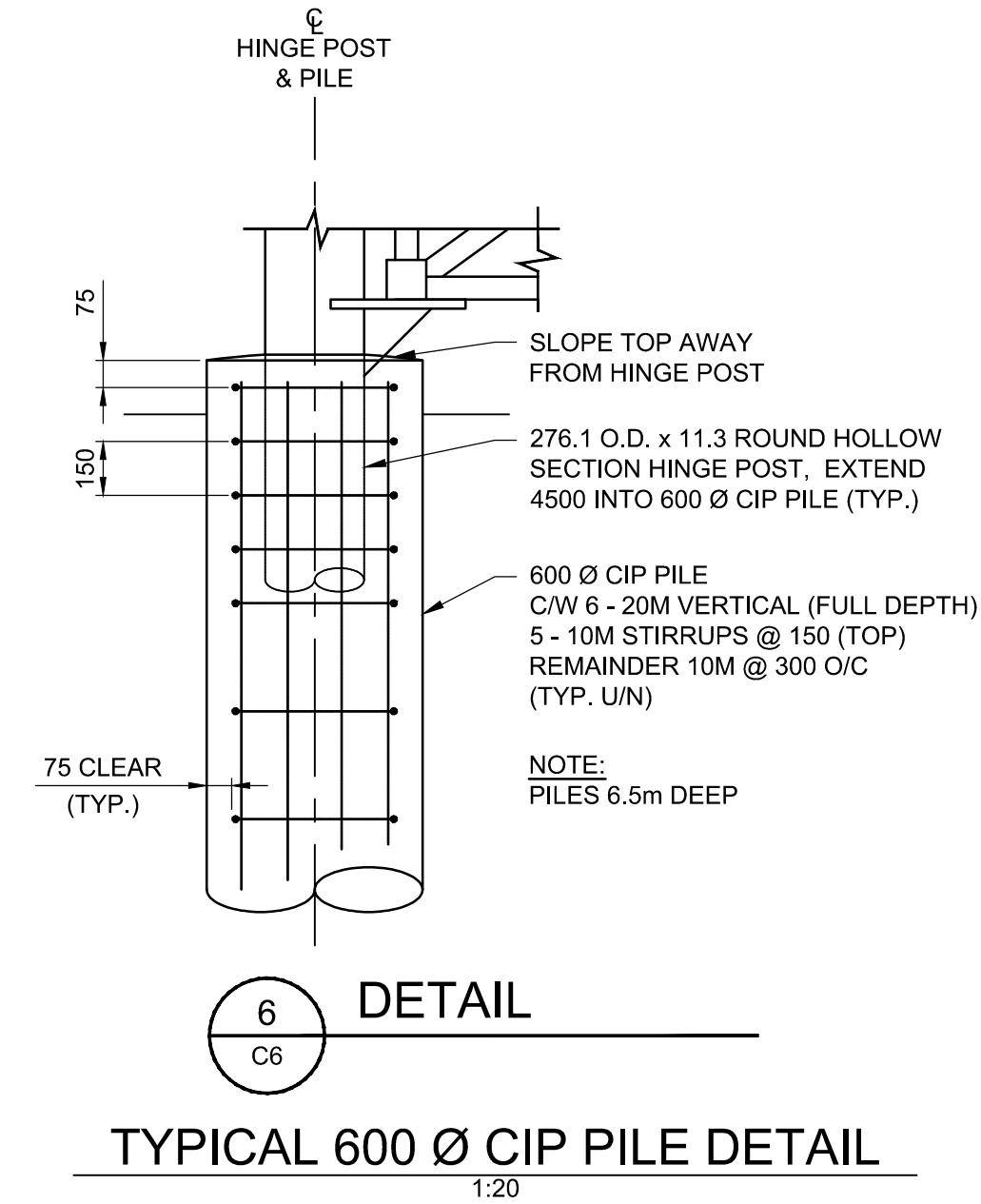
CONSULTANT DRAWING NUMBER  
**S-5**

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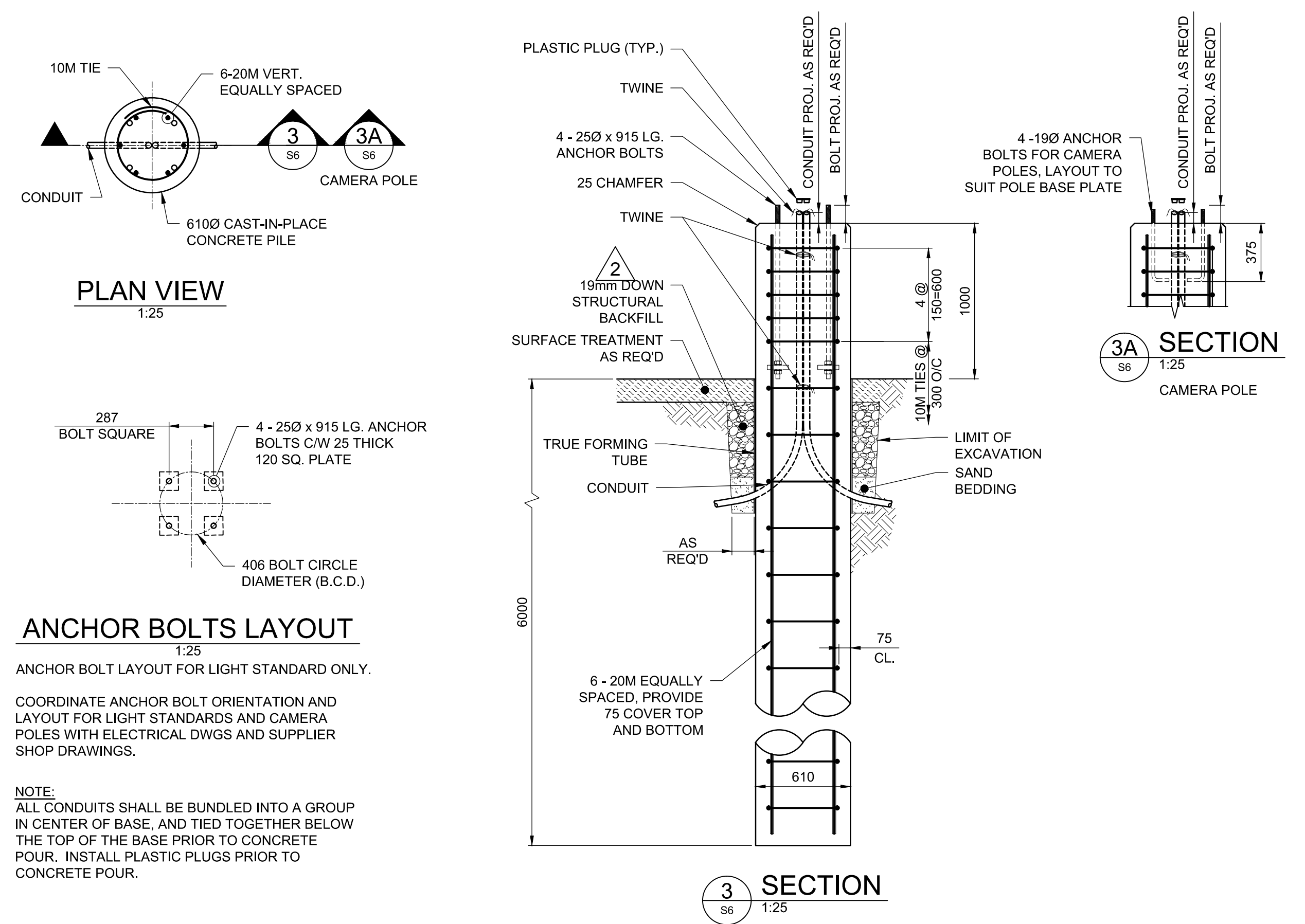




2 PLAN - YARD WASTE BUNKERS  
S2 1:40



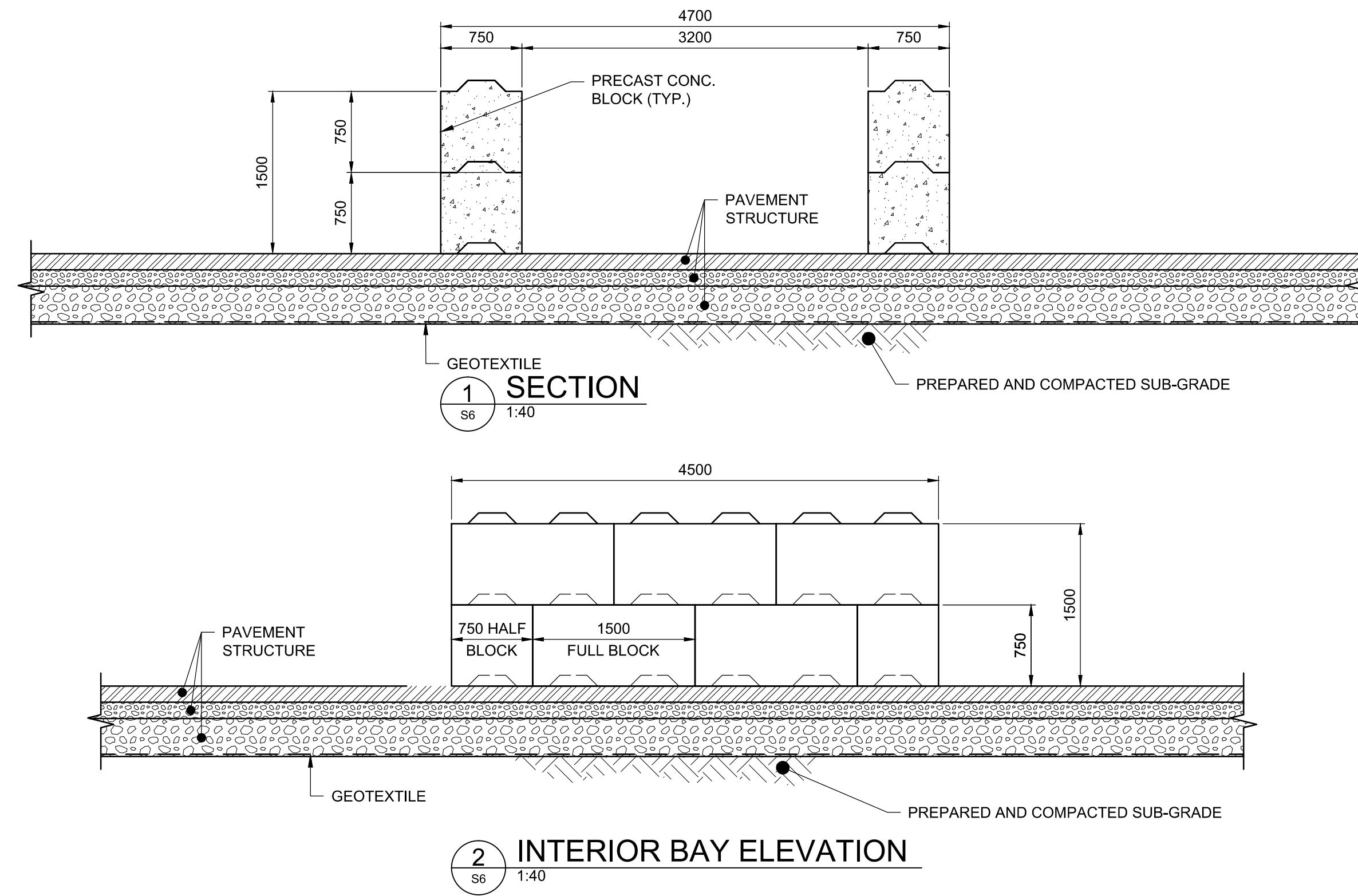
6 DETAIL  
TYPICAL 600 Ø CIP PILE DETAIL  
1:20



ANCHOR BOLTS LAYOUT  
1:25  
ANCHOR BOLT LAYOUT FOR LIGHT STANDARD ONLY.  
COORDINATE ANCHOR BOLT ORIENTATION AND LAYOUT FOR LIGHT STANDARDS AND CAMERA POLES WITH ELECTRICAL DWGS AND SUPPLIER SHOP DRAWINGS.

NOTE:  
ALL CONDUITS SHALL BE BUNDLED INTO A GROUP IN CENTER OF BASE, AND TIED TOGETHER BELOW THE TOP OF THE BASE PRIOR TO CONCRETE POUR. INSTALL PLASTIC PLUGS PRIOR TO CONCRETE POUR.

CONCRETE POLE BASE FOR LIGHT STANDARDS / CAMERA POLES  
AS NOTED



1 SECTION  
S6 1:40

2 INTERIOR BAY ELEVATION  
S6 1:40

METRIC

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES



B.M. ELEV.	DESIGNED BY	WH
	DRAWN BY	PDR
	CHECKED BY	NR
	APPROVED BY	ARR
	HOR. SCALE	AS NOTED
	VERTICAL	
NO.	REVISIONS	DATE

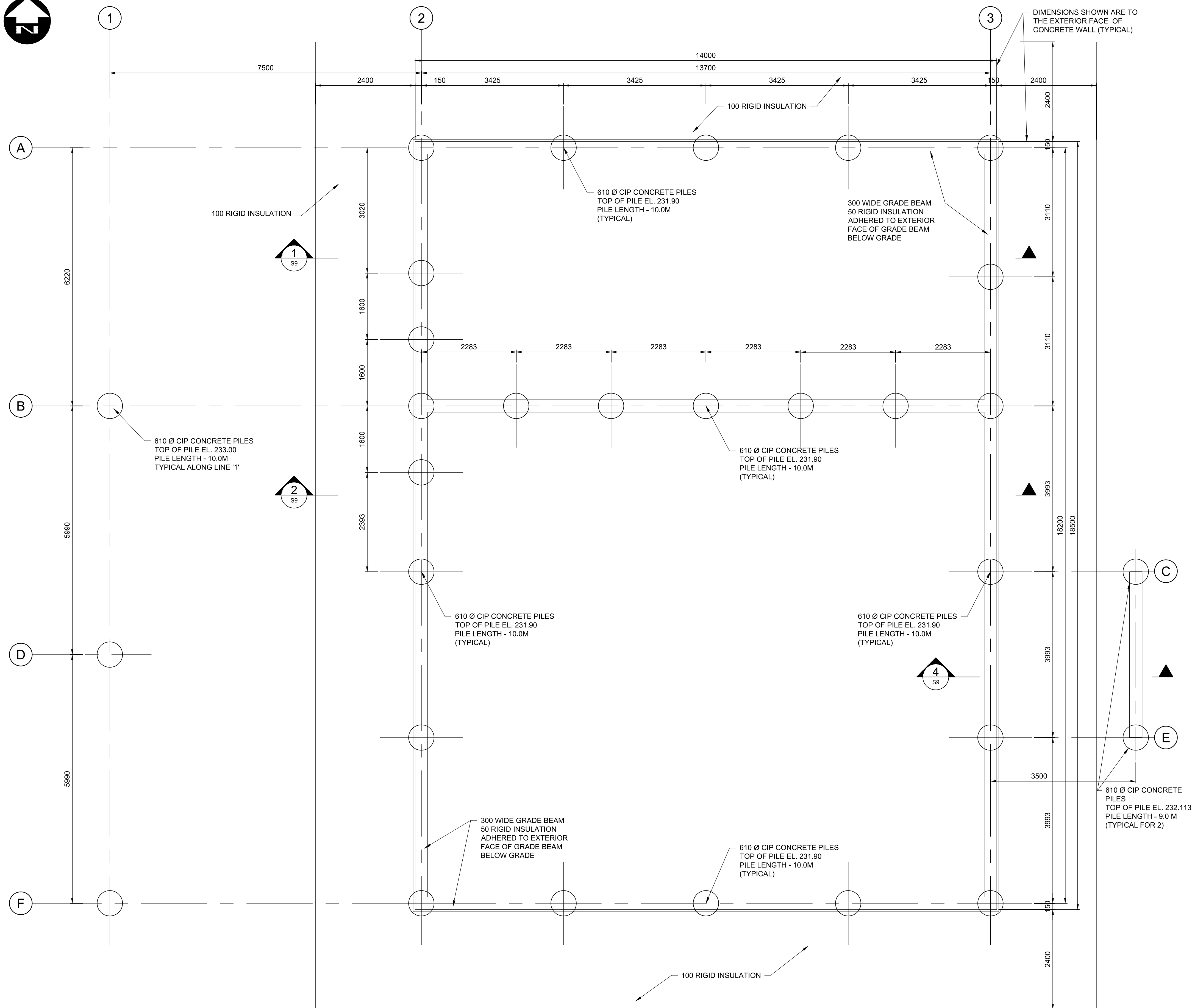
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2	ISSUED FOR ADDENDUM # 1	16/03/14	ARR
1	ISSUED FOR TENDER	16/03/04	ARR

RELEASED FOR CONSTRUCTION	DATE
---------------------------	------

ENGINEER'S SEAL	CONSULTANT PROJECT NUMBER
13-8224	

THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT	
4R WINNIPEG DEPOT PACIFIC AVENUE	CITY DRAWING NUMBER 1-0851A-S0006-001
YARD WASTE BUNKER AND LIGHT STANDARD BASE DETAILS	SHEET 14 OF 43
	CONSULTANT DRAWING NUMBER S-6





## GENERAL NOTES HHW BUILDING

### GENERAL NOTES

- REFER TO DRAWING S1 FOR STANDARD DETAILS AND ADDITIONAL GENERAL NOTES.
- GEOTECHNICAL ENGINEER TO INSPECT THE GRADE PRIOR TO PLACING GRANULAR.
- USE A BACKHOE WITH A SMOOTH BUCKET FROM THE EDGE OF THE EXCAVATION TO MINIMIZE DISTURBANCE OF THE SUBGRADE.
- PROTECT SUBGRADE FROM FREEZING, DRYING OR INSULATE WITH MATS.
- SCARIFY EXPOSED SUBGRADE TO A DEPTH OF 300mm, ADJUST MOISTURE CONDITIONS AND RECOMPACT TO 95% SPMDD.
- PROOF ROLL SUBGRADE WITH FULLY LOADED TANDEM AXLE TRUCK TO DETECT WEAK OR SOFT AREAS IN THE PRESENCE OF THE GEOTECHNICAL ENGINEER.
- REPAIR WEAK OR SOFT AREAS BY EXCAVATING A MINIMUM OF 300mm, PLACING A GEOTEXTILE LAYER AND BACKFILL WITH 19mm DOWN CRUSHED LESTONE (WELL GRADED) COMPACTED TO 100% SPMDD (LIFT THICKNESS NOT TO EXCEEDING 150mm)
- ALL SLAB ON GRADE FLOORS WILL EXPERIENCE MOVEMENT AND CRACKING DUE TO HEAVING AND SOIL EXPANSION RESULTING FROM THE NATURE OF THE CLAY SOIL, PREVIOUS AND PRESENT LEVEL OF VEGETATION AT THE SITE, SOIL MOISTURE LEVEL AND CONSTRUCTION PRACTICES. DILLON CONSULTING LIMITED ACCEPTS NO LIABILITY FOR THIS CRACKING AND / OR MOVEMENT.
- DO NOT SCALE FROM THE DRAWINGS.

### DESIGN DATA

- CLIMATIC DATA: WINNIPEG, MANITOBA
- LOADING CRITERIA (NORMAL IMPORTANCE):
  - SNOW:  $S_s = 1.9$  kPa,  $S_r = 0.2$  kPa  
 $I_s = 1.0$  (ULS),  $0.9$  (SLS)
  - WIND:  $Q_{50} = 0.45$  kPa  
 $I_w = 1.0$  (ULS),  $0.75$  (SLS)
  - SEISMIC: NOT APPLICABLE

### DESIGN LOAD

- LIVE LOAD ON FLOOR SLAB= 14.4 kPa + 1.0 kPa PARTITION ALLOWANCE.
- ATTIC LOAD = 0.5 kPa

### CONCRETE REINFORCING

- PERFORM REINFORCING WORK IN ACCORDANCE WITH CSA 23.1-14.
- REINFORCING STEEL SHALL CONFORM TO CAN/CSA G30.18-09, GRADE 400R OR 400W.

### STRUCTURAL STEEL

- PERFORM STRUCTURAL STEEL WORK IN ACCORDANCE WITH CAN/CSA-S16-14.
- ALL FABRICATION AND WELDING SHALL CONFORM TO CSA W59-03 AND BE PERFORMED BY A COMPANY CERTIFIED BY AND WELDERS QUALIFIED IN ACCORDANCE WITH CSA W47.1-03 (R2008) FOR DIVISION 1 OR DIVISION 2.1.
- FILLET WELDS SHALL NOT BE LESS THAN 5 mm.
- WELDING ELECTRODES TO BE "BASIC" LOW HYDROGEN TYPE, TO CSA W48 SERIES, COMPATIBLE WITH STEEL TO BE WELDED.
- STRUCTURAL SHAPES TO CSA G40.21-04, GRADE 350W.
- STRUCTURAL PLATES TO CSA G40.21-04, GRADE 300W (MINIMUM).
- HOLLOW STRUCTURAL SECTIONS TO CAN/CSA G40.21-04 (R2009), GRADE 350W, CLASS C.
- HIGH TENSILE BOLTS, NUTS AND WASHERS TO ASTM A325-09.
- ANCHOR BOLTS AND NUTS TO ASTM A36/A36M-12.
- ALL STRUCTURAL STEEL TO BE GALVANIZED.
- IF FIELD WELDING OF GALVANIZED MEMBERS IS REQUIRED, GRIND OFF GALVANIZING IN WELD AREA. TOUCH UP AREA AFTER WELDING WITH 2 COATS OF ZINC CLAD IV BY SHERWIN-WILLIAMS OR CONSULTANT APPROVED EQUAL.

## METRIC

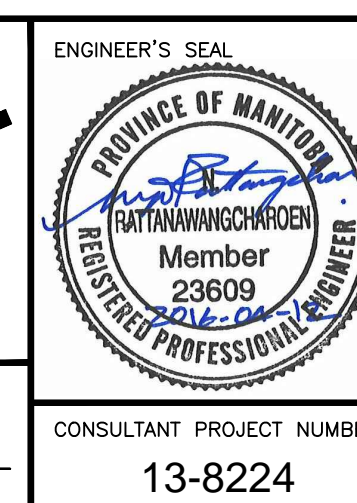
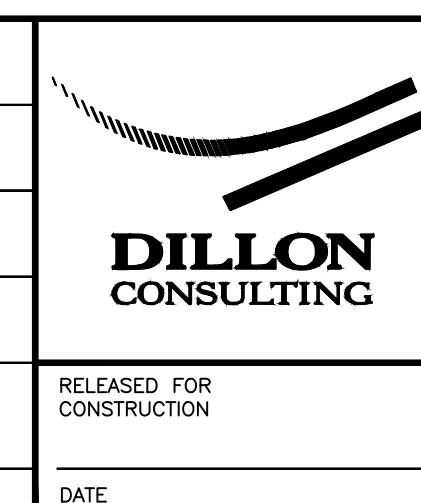
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

PLAN - ELEVATION 231.90  
1:50



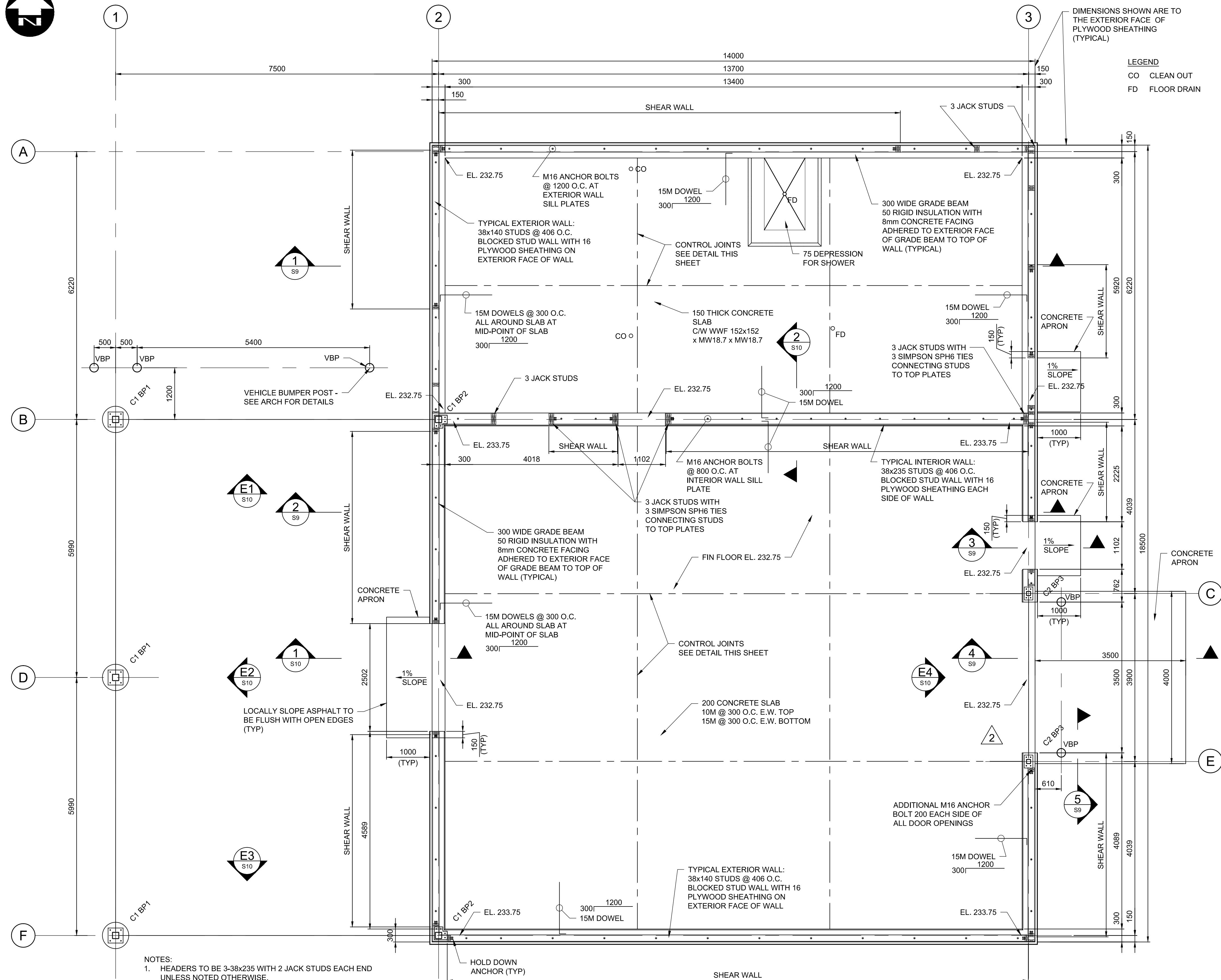
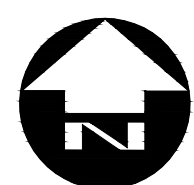
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2	ISSUED FOR ADDENDUM # 1	16/03/14	ARR
1	ISSUED FOR TENDER	16/03/04	ARR
NO.	REVISIONS	DATE	BY

DESIGNED BY	WH
DRAWN BY	PDR
CHECKED BY	NR
APPROVED BY	ARR
HOR. SCALE	AS NOTED
VERTICAL	
DATE	



<b>THE CITY OF WINNIPEG</b> WATER AND WASTE DEPARTMENT	
4R WINNIPEG DEPOT PACIFIC AVENUE	CITY DRAWING NUMBER 1-0851A-S0007-001
HHW EWASTE BUILDING PLAN @ EL. 231.90, GENERAL NOTES	SHEET 15 OF 43 CONSULTANT DRAWING NUMBER S-7





- NOTES:
1. HEADERS TO BE 3-38x235 WITH 2 JACK STUDS EACH END UNLESS NOTED OTHERWISE.
  2. JACK STUDS REFER TO STUDS ON WHICH HEADERS BEARS DIRECTLY.
  3. UNLESS NOTED OTHERWISE EACH END OF SHEAR WALL SEGMENT SHALL HAVE A 2-38x140 COLUMN FASTENED TO FOUNDATION WITH A HOLD DOWN ANCHOR AS PER DETAIL THIS SHEET. FASTEN 2-38x140 COLUMN TO TOP PLATE WITH 2 SPH6 SIMPSON TIES.
  4. ALL PLYWOOD SHEATHING TO BE FASTENED TO STUDS WITH 3" COMMON NAILS @ 150 O.C. TYPICAL.

PLAN - ELEVATION 232.75

1:50



Certificate of Authorization  
Dillon Consulting Limited (MB)  
No. 1789 Date: MAR. 4, 2016

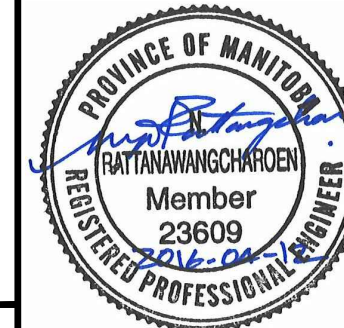
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2	ISSUED FOR ADDENDUM # 1	16/03/14	ARR	VERTICAL			
1	ISSUED FOR TENDER	16/03/04	ARR				
NO.	REVISIONS	DATE	BY				



RELEASED FOR  
CONSTRUCTION

DATE	DESCRIPTION	AMOUNT	CHECK NO.	BANK	INITIALS
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ENGINEER'S SEAL



CONSULTANT PROJECT NUMBER  
13-8224



**THE CITY OF WINNIPEG**  
WATER AND WASTE DEPARTMENT

4R WINNIPEG DEPOT  
PACIFIC AVENUE

## HHW EWASTE BUILDING @ EL. 232.75, DETAILS

CITY DRAWING NUMBER

1-0851A-S0008-001

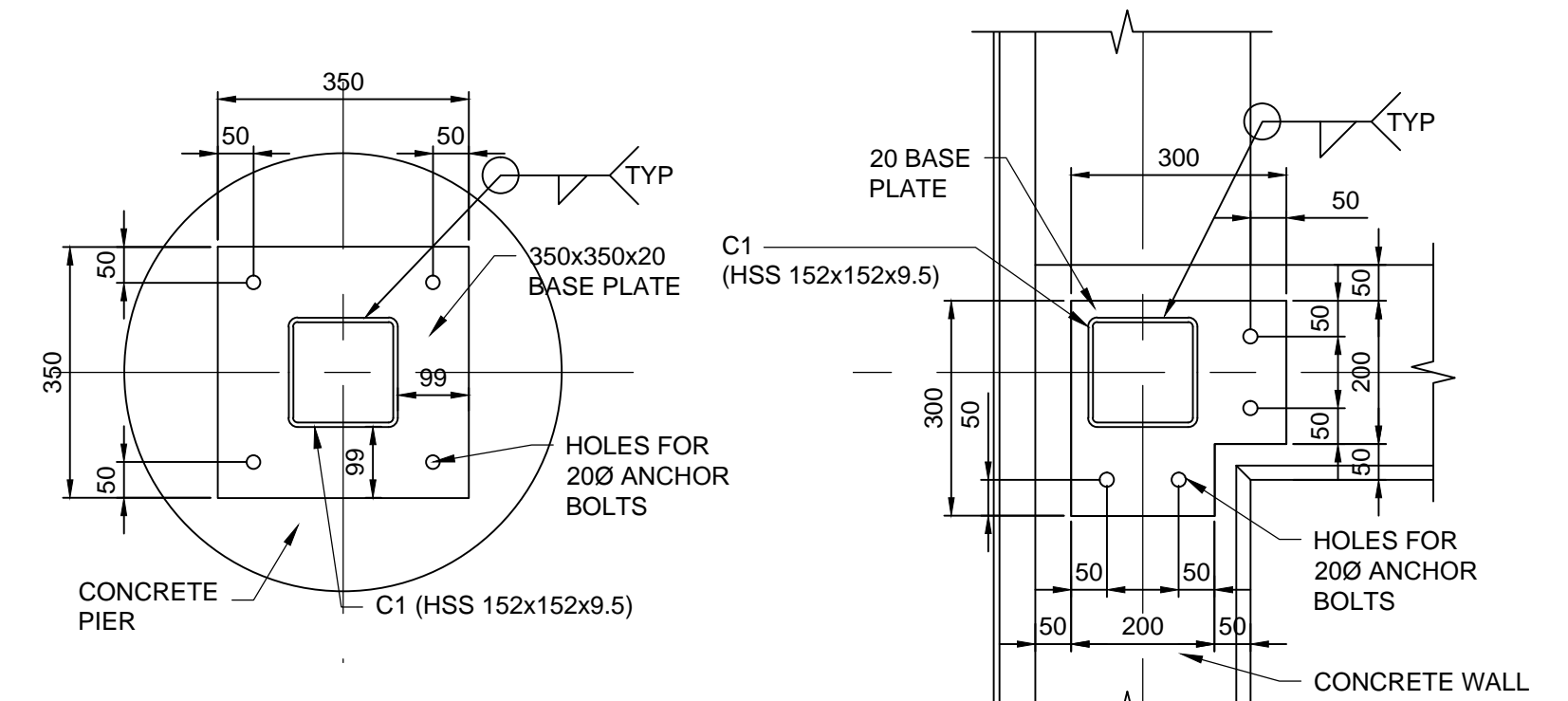
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16	43
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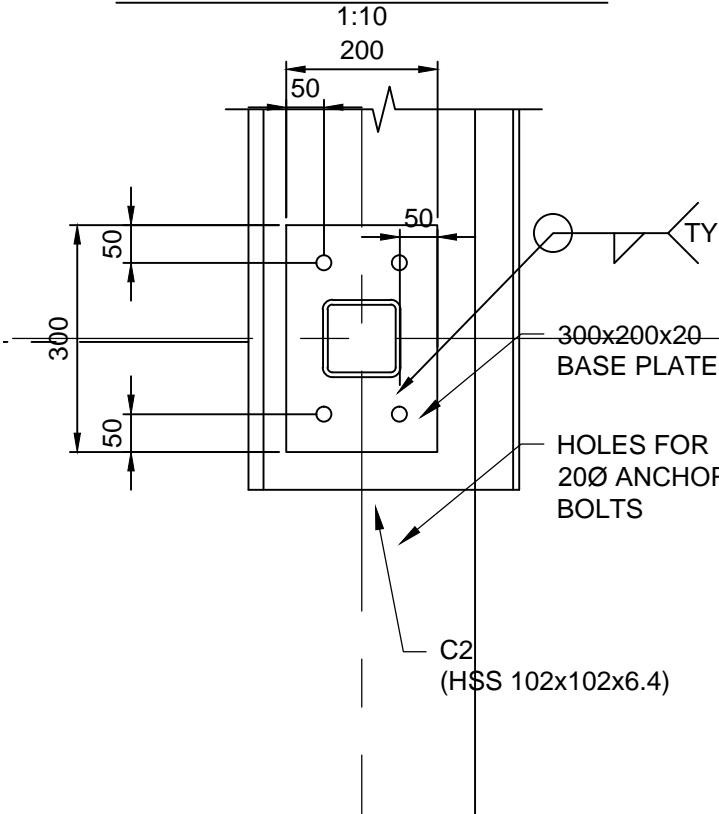
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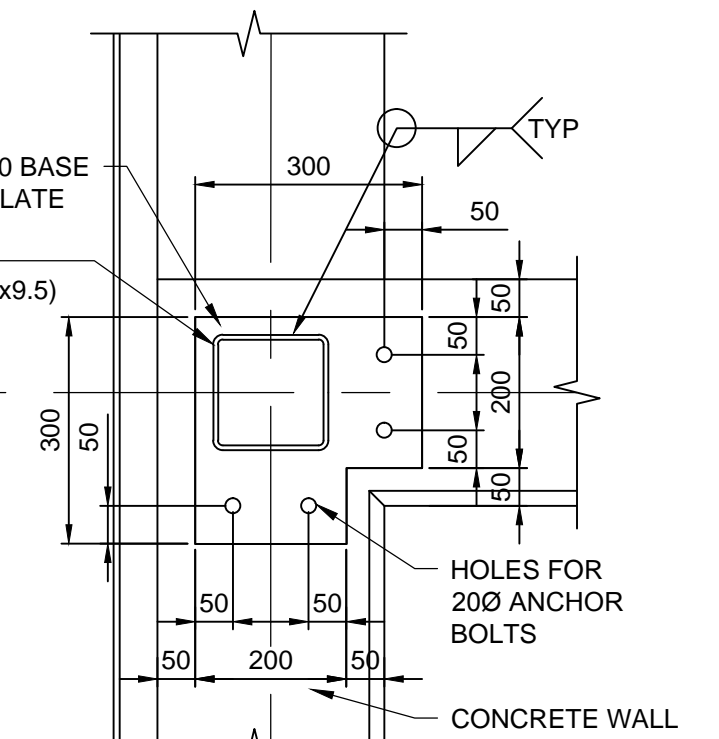
S-8



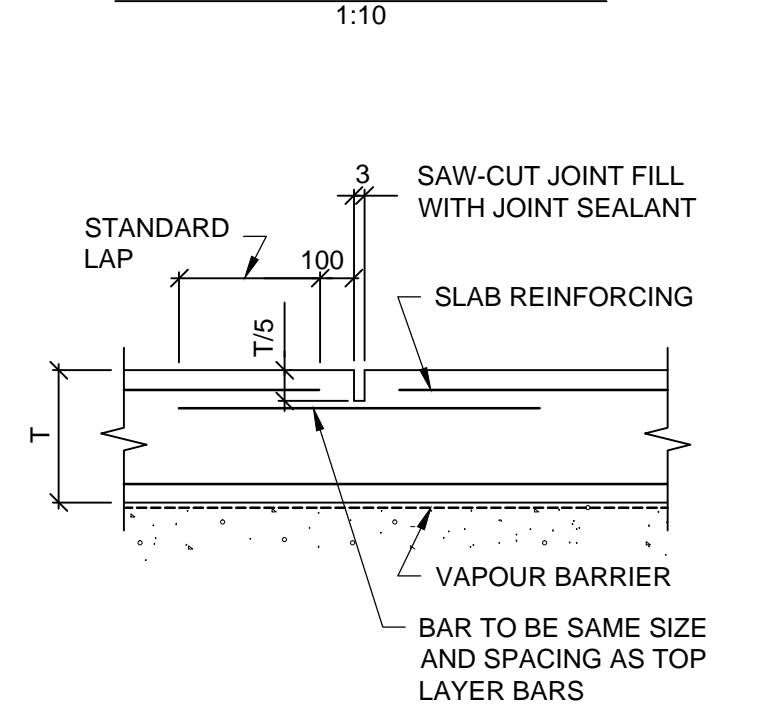
BASE PLATE - BP1



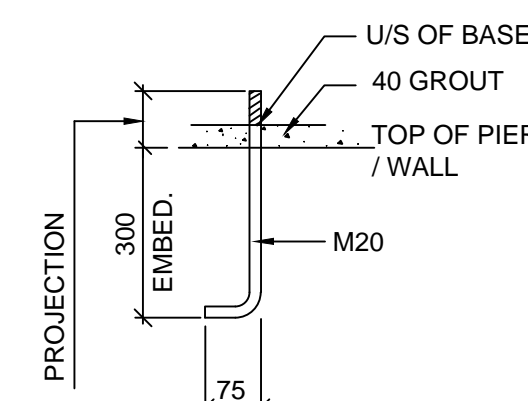
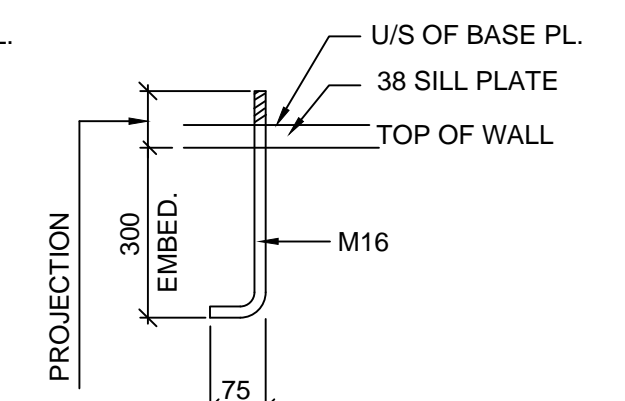
BASE PLATE - BP3



BASE PLATE - BP2

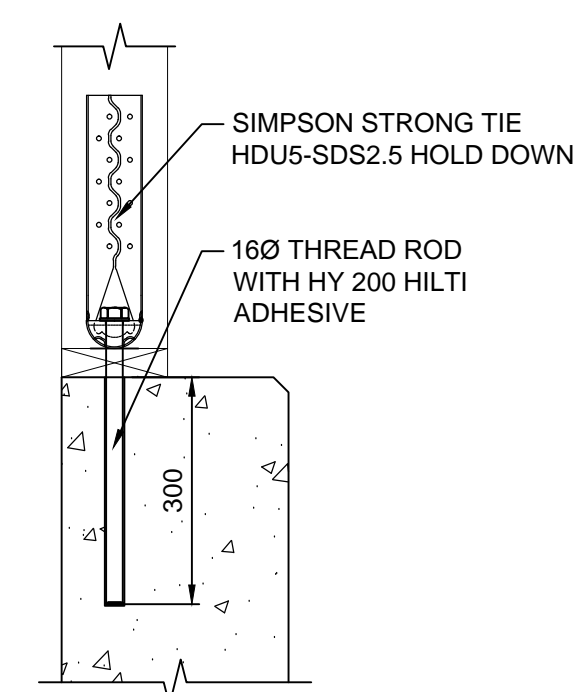


CONTROL JOINT

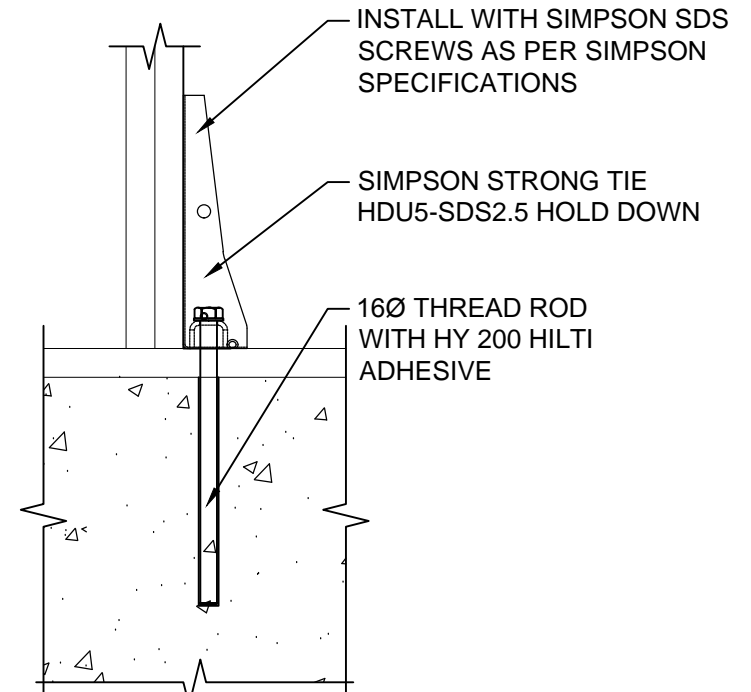
AT BASE PLATES

AT SILL PLATES

ANCHOR BOLTS  
NOT TO SCALE



SHEAR WALL - HOLD DOWN ANCHOR

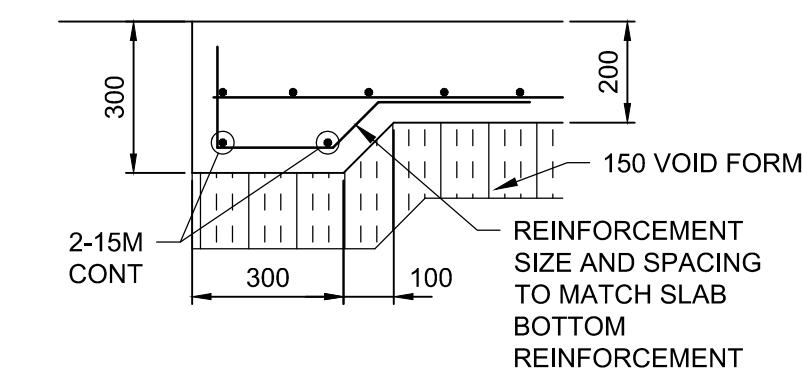
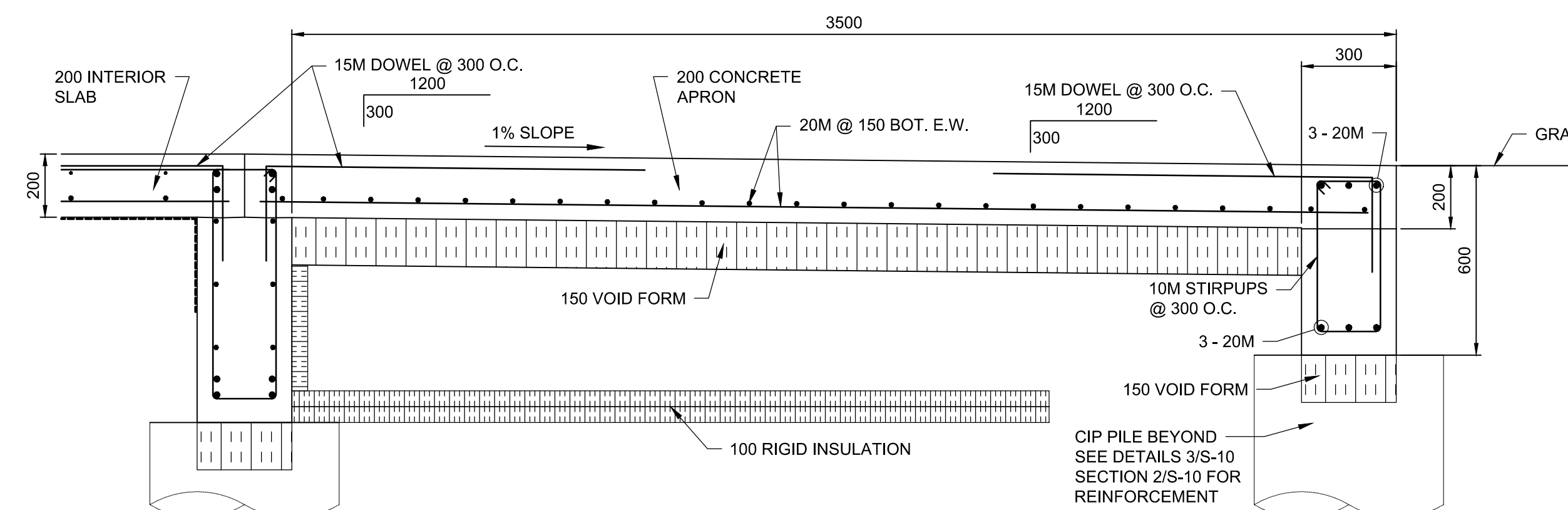
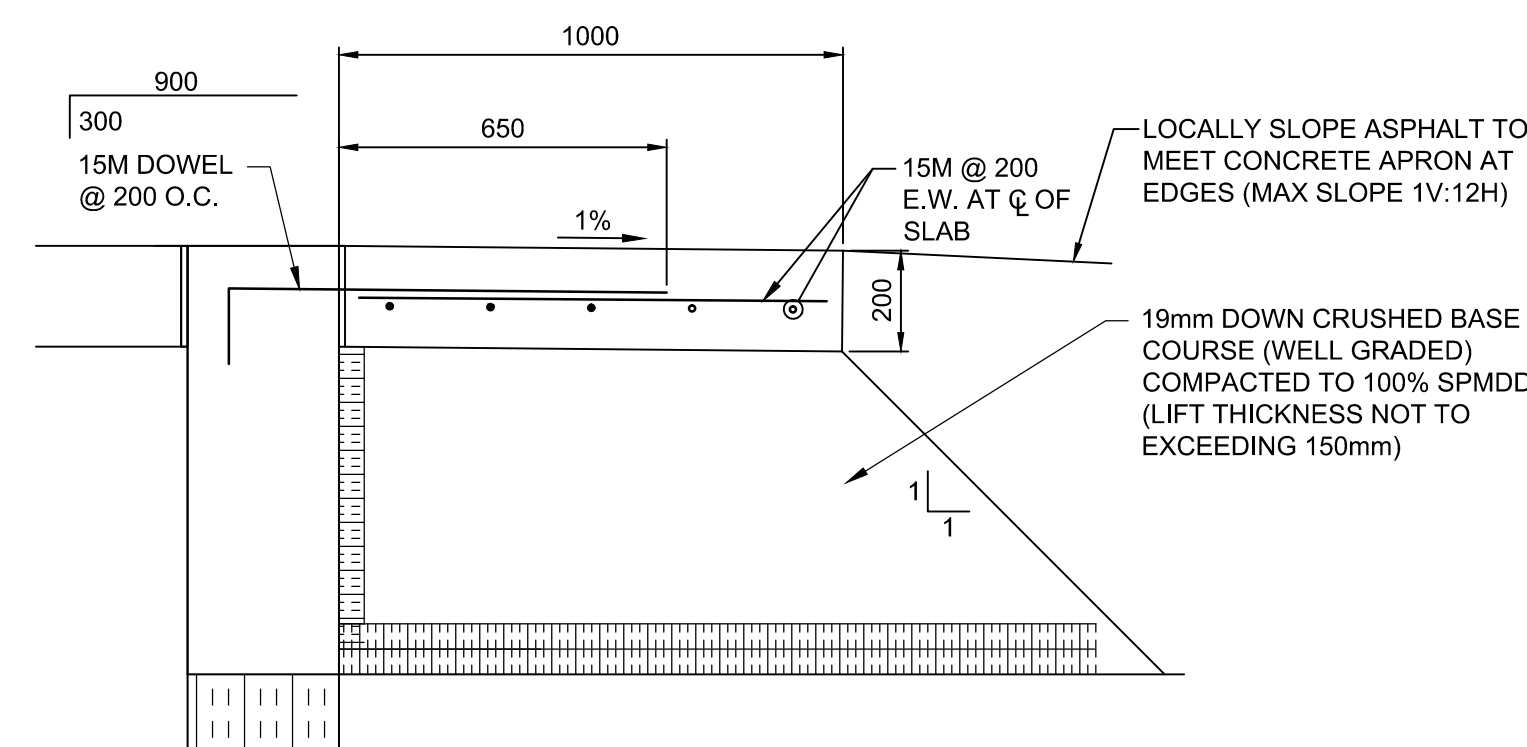
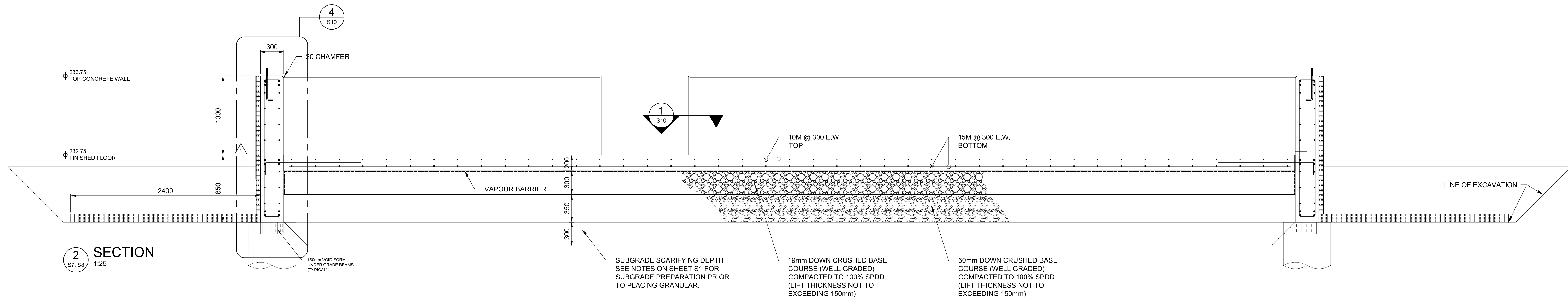
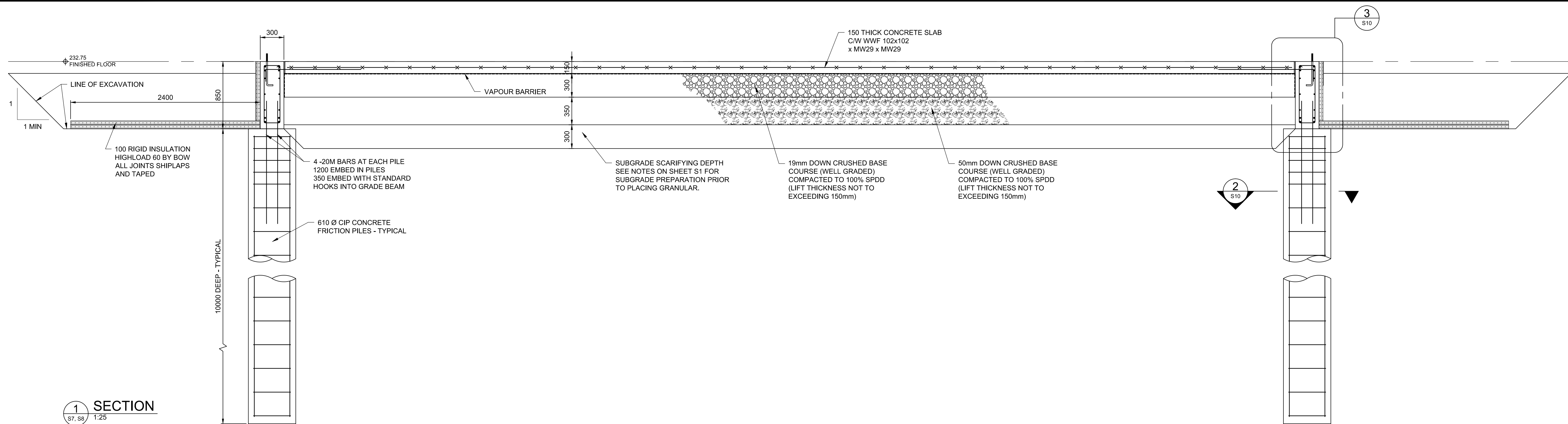


METRIC

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES



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METRIC

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES



B.M. ELEV.	DESIGNED BY	WH
	DRAWN BY	PDR
	CHECKED BY	NR
	APPROVED BY	ARR
	HOR. SCALE	AS NOTED
	VERTICAL	
NO. REVISIONS	DATE	BY
3	ISSUED FOR CONSTRUCTION	16/04/12 NR
2	ISSUED FOR ADDEDUM # 1	16/03/14 ARR
1	ISSUED FOR TENDER	16/03/04 ARR

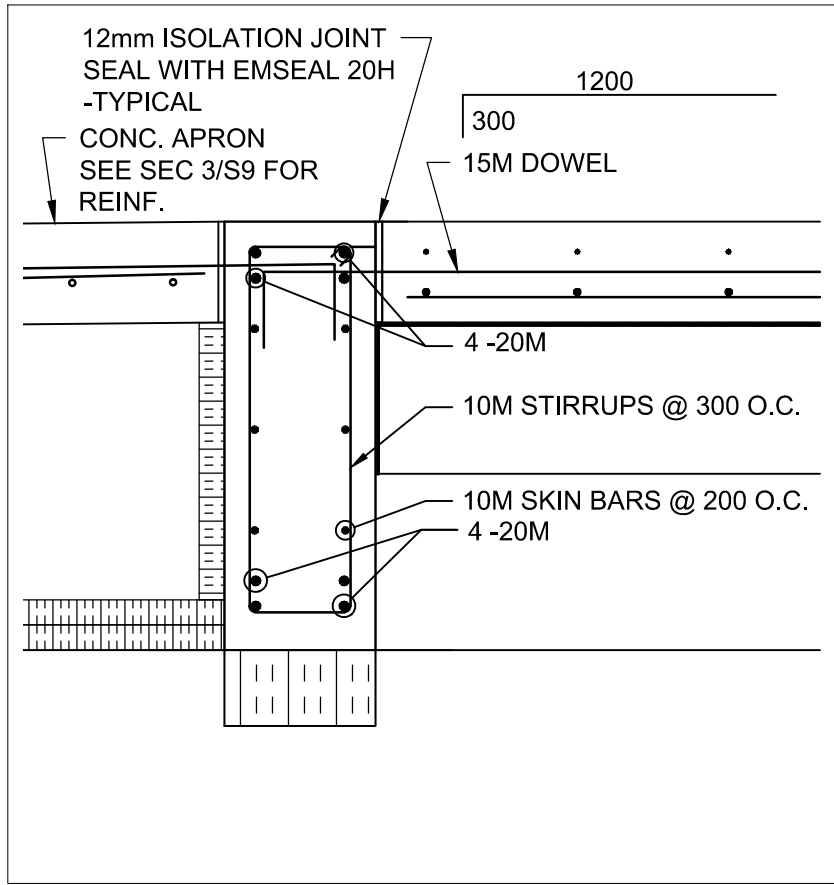
DATE	DATE
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RELEASED FOR CONSTRUCTION	DATE
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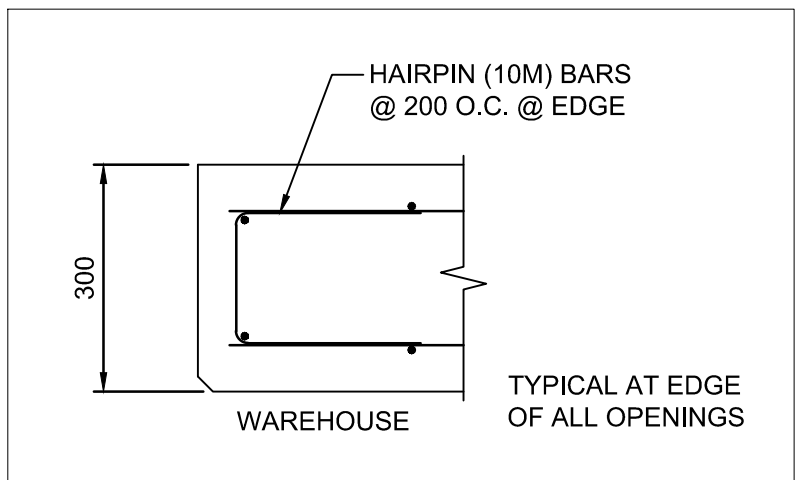
ENGINEER'S SEAL	CONSULTANT PROJECT NUMBER
13-8224	

THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT	
4R WINNIPEG DEPOT PACIFIC AVENUE	CITY DRAWING NUMBER 1-0851A-S0009-001
HHW EWASTE BUILDING SECTIONS	SHEET 17 OF 43
	CONSULTANT DRAWING NUMBER S-9

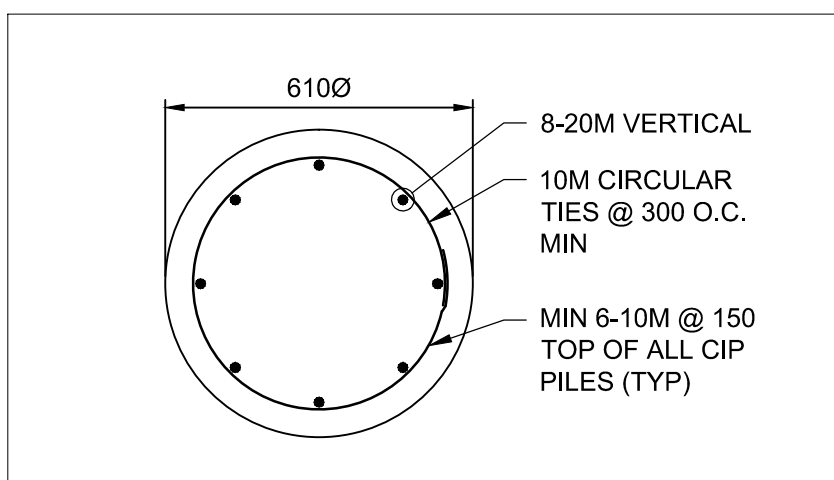




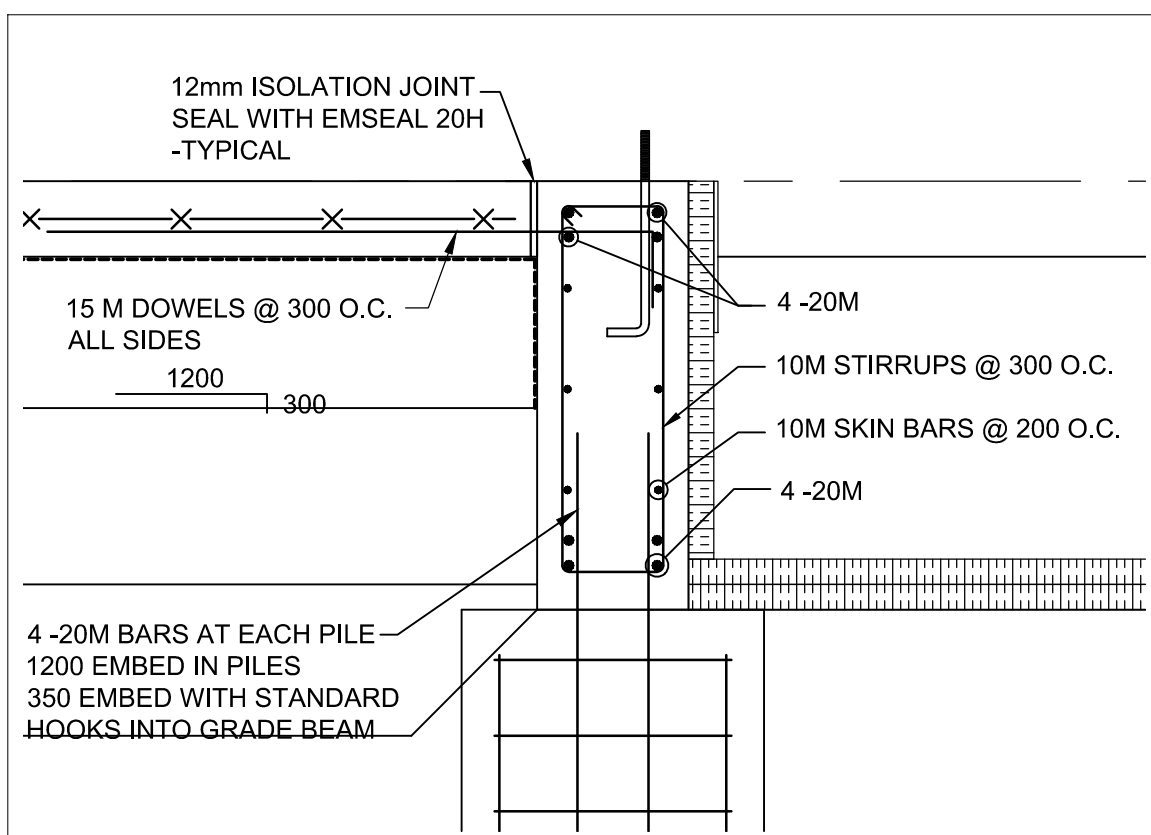
1 DETAIL  
S8 1:15  
TYPICAL AT WAREHOUSE DOOR LOCATIONS



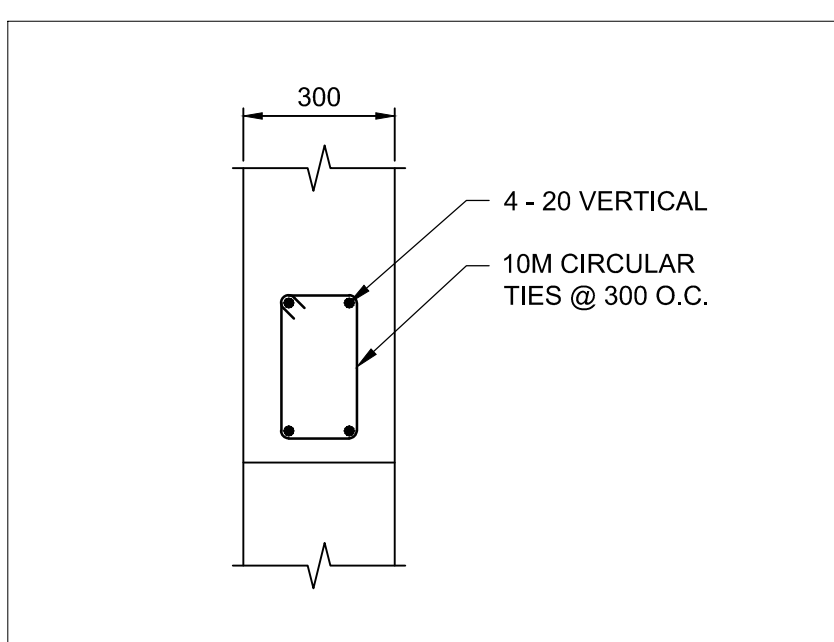
1 SECTION  
S8 1:10



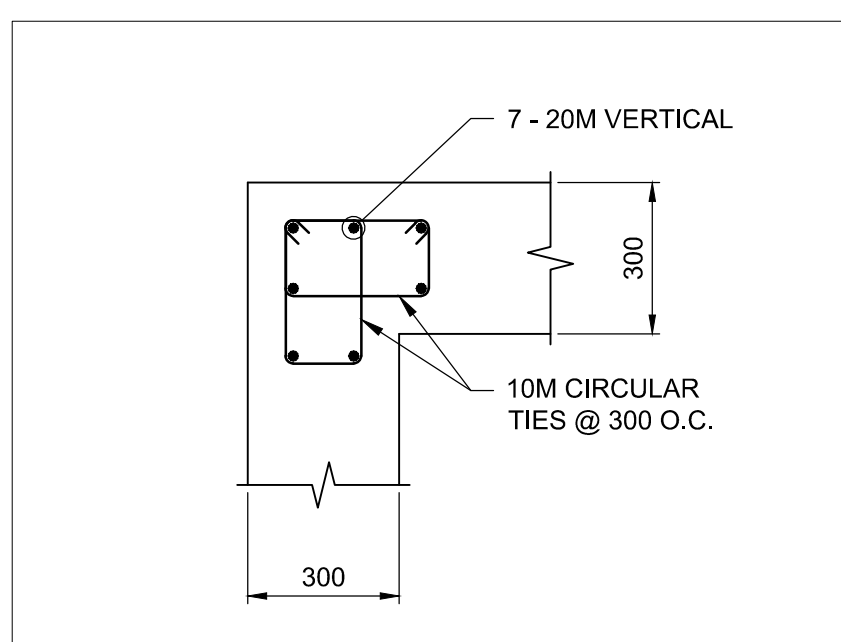
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S8 1:10



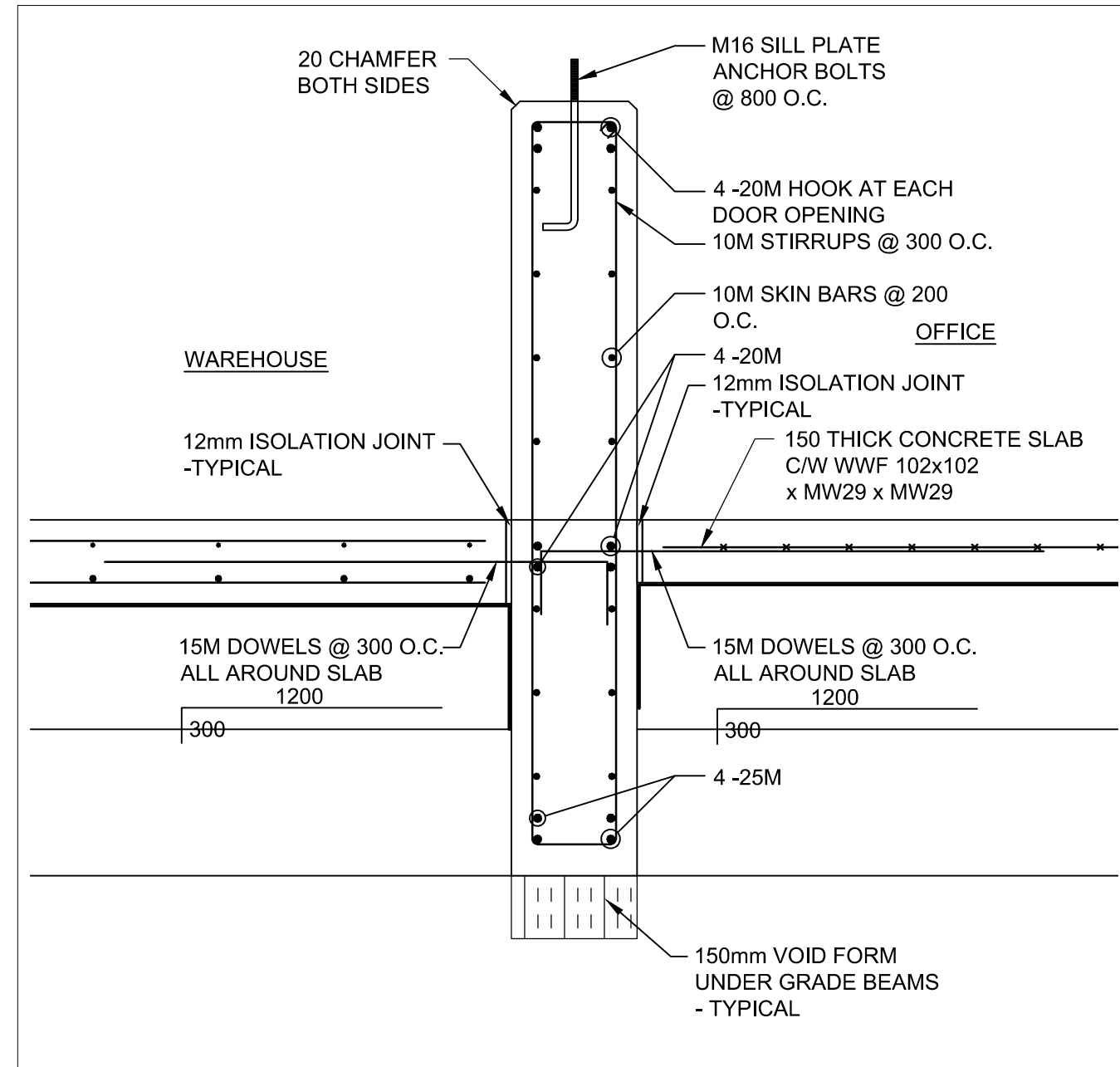
3 DETAIL  
S8 1:15



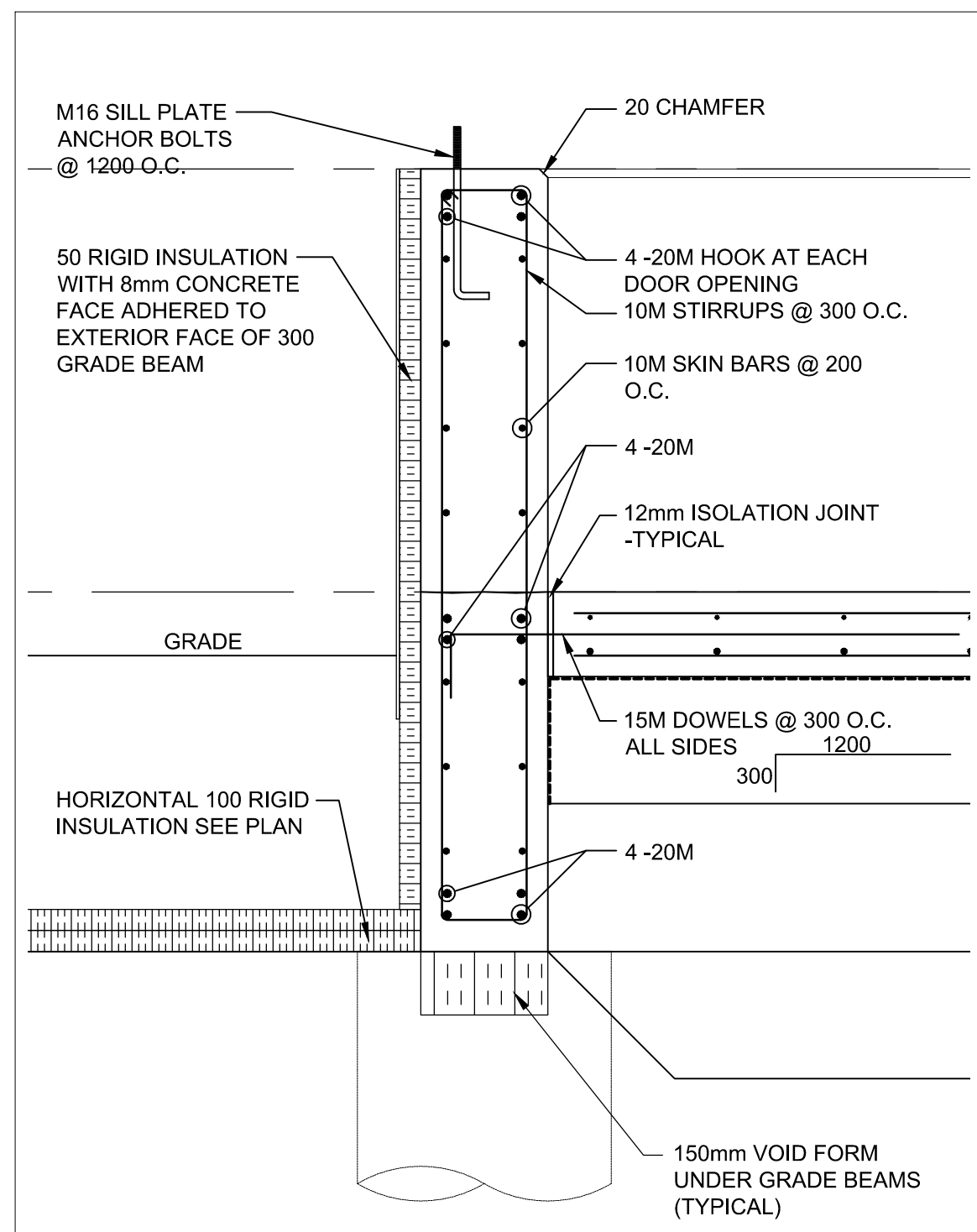
CAGE DETAIL  
1:15  
TYPICAL DETAIL AT COLUMNS C3, E3



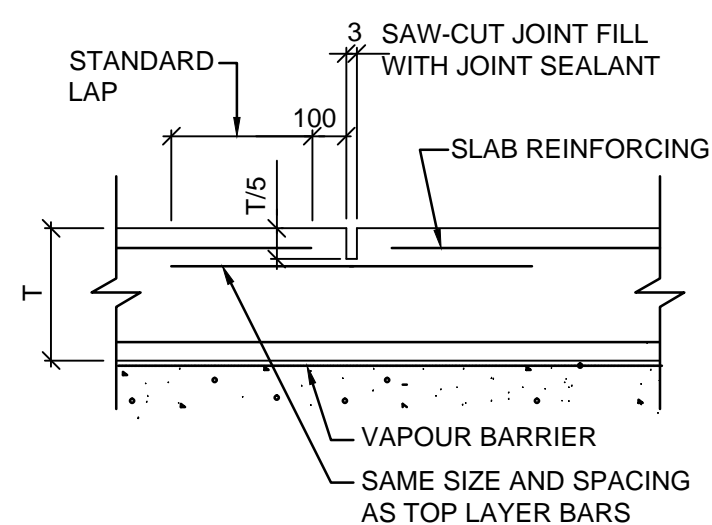
CAGE DETAIL  
1:15  
TYPICAL DETAIL AT COLUMNS B2, F2



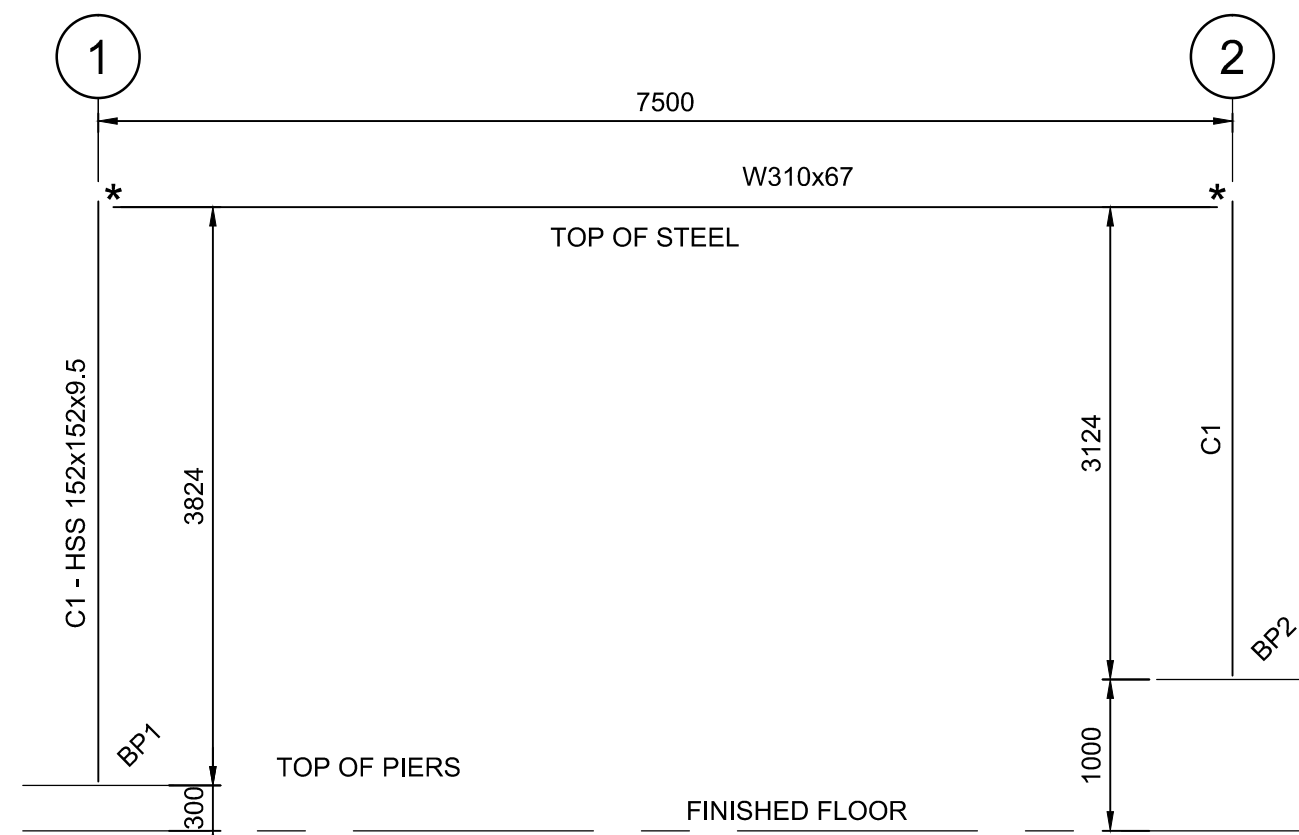
2 DETAIL  
S8 1:15



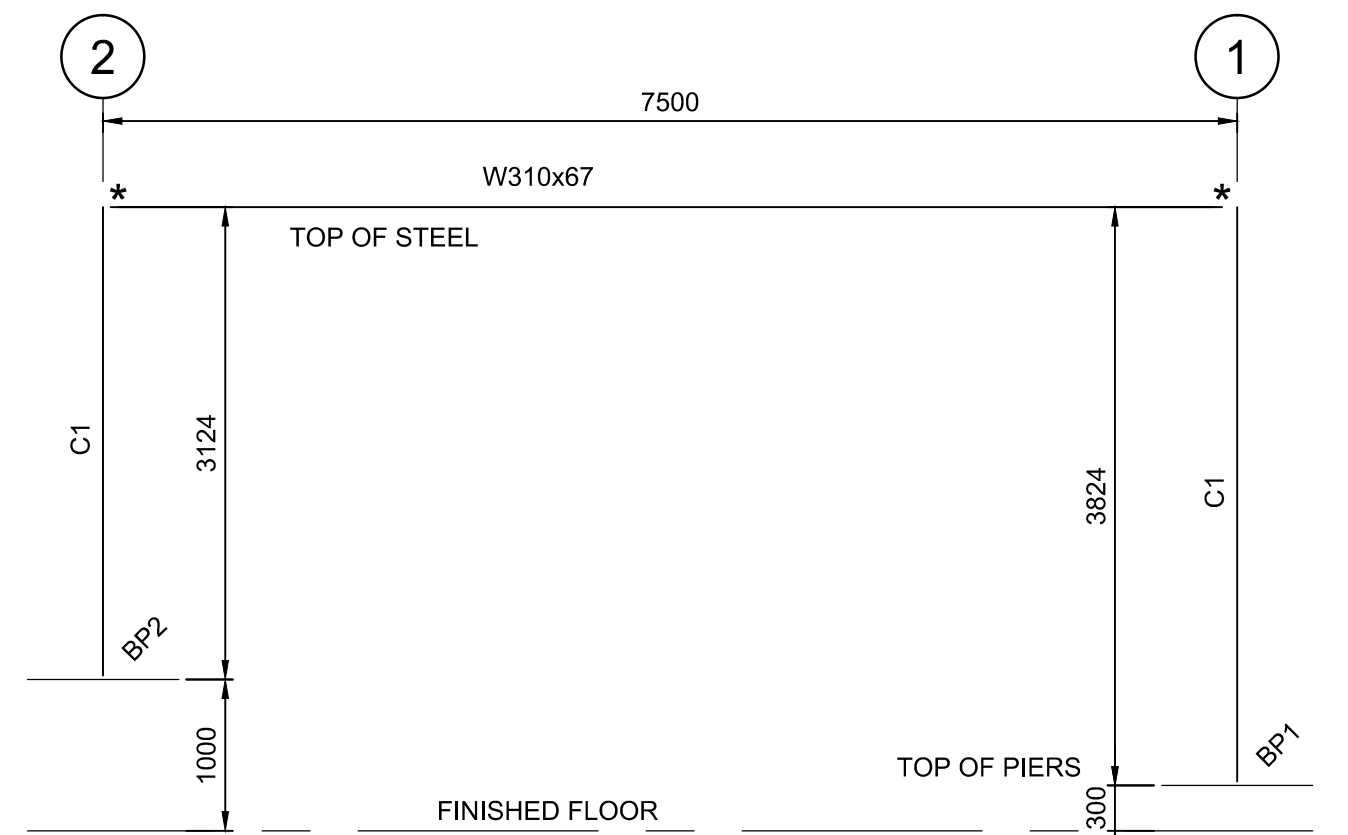
4 DETAIL  
S8 1:15



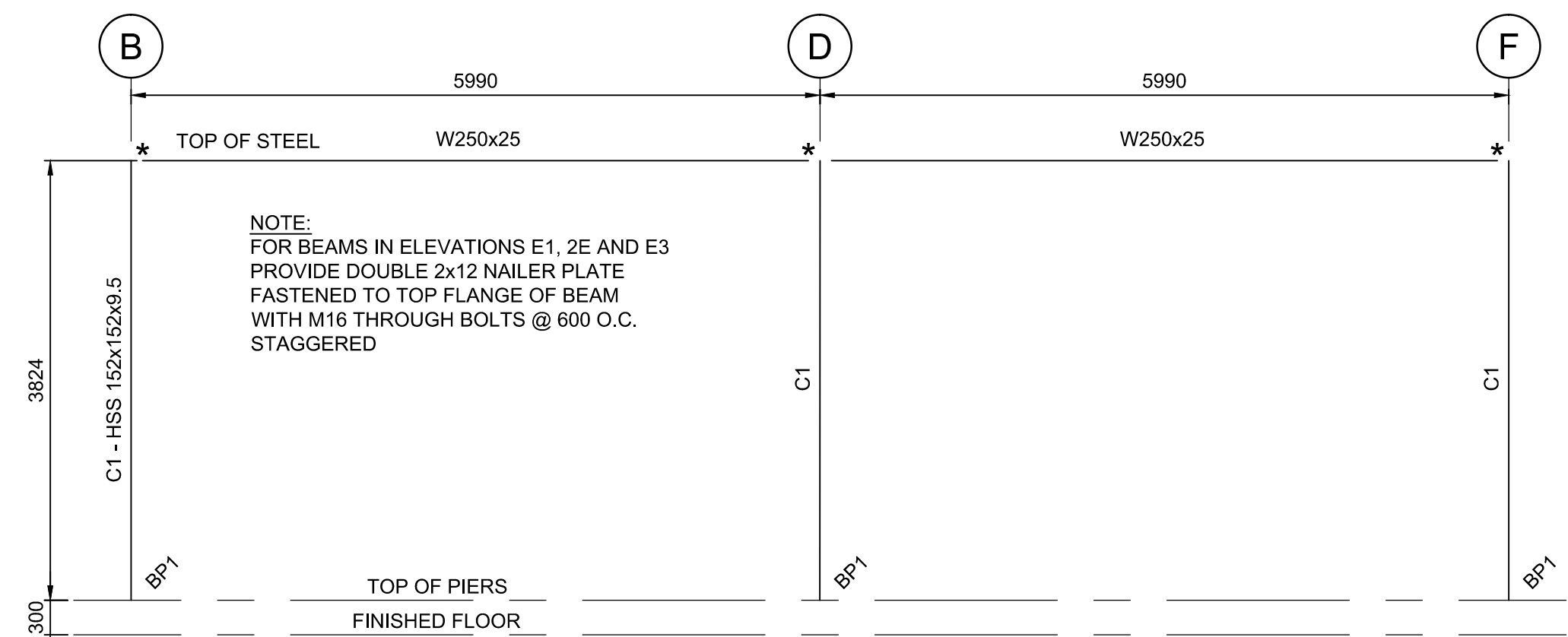
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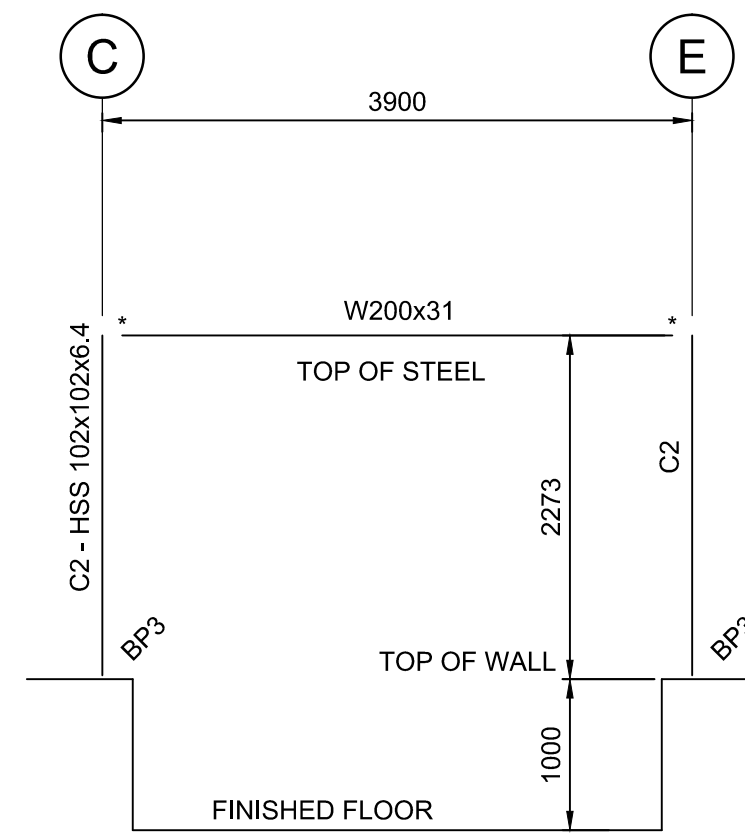
E1 ELEVATION  
S8 1:X



E3 ELEVATION  
S8 1:X



E2 ELEVATION  
S8 1:X



E4 ELEVATION  
S8 1:X

NOTE:  
\* - ALL RIGID FRAME  
MOMENT CONNECTIONS  
ARE TO BE CONNECTED  
FOR A FACTORED  
MOMENT OF 25kNm.

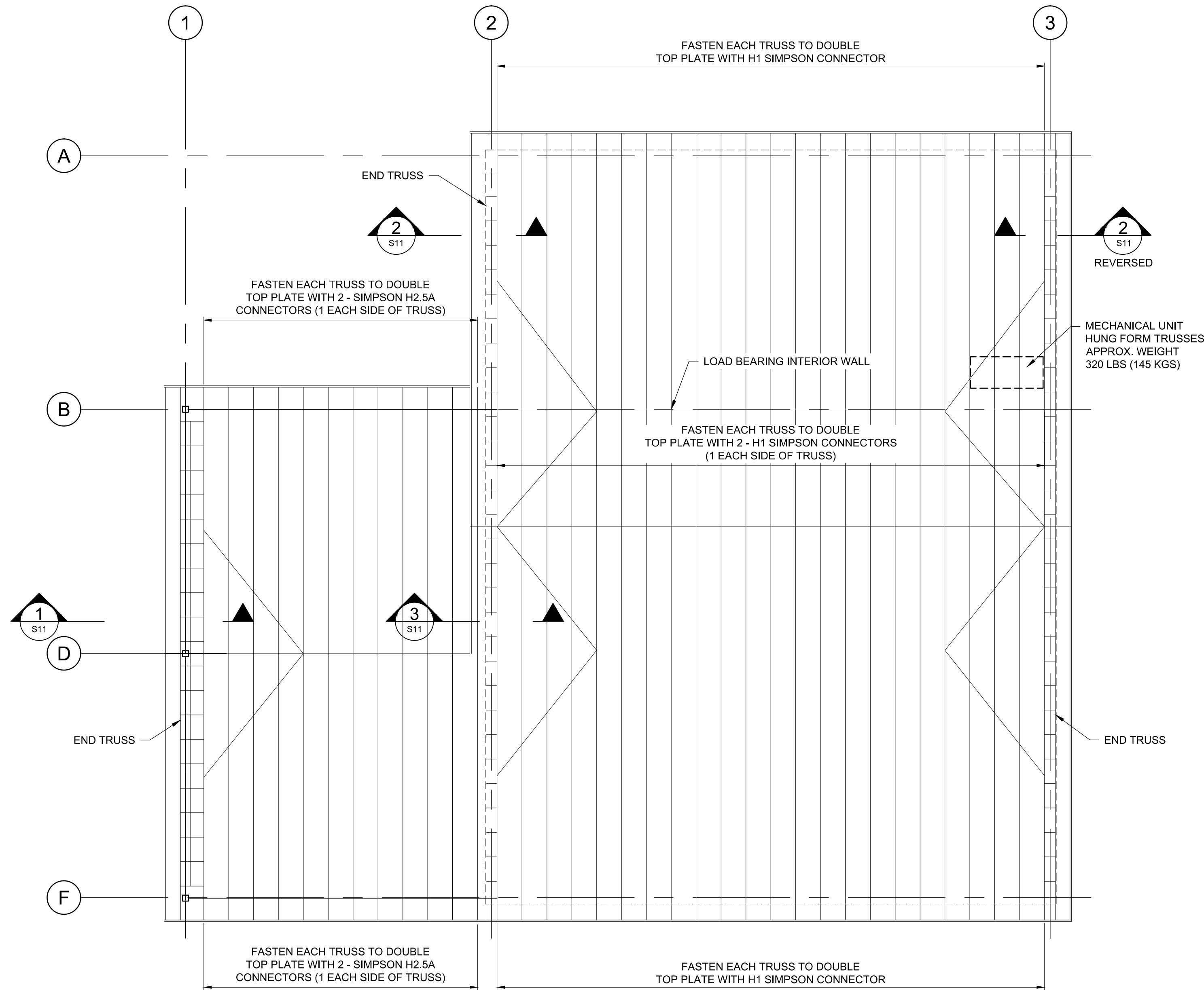
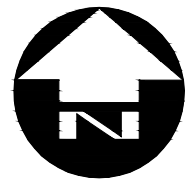
STEEL FRAMING ELEVATIONS  
1:50

METRIC

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

B.M. ELEV.	DESIGNED BY WH	DRAWN BY PDR	CHECKED BY NR	APPROVED BY ARR	HOR. SCALE AS NOTED	VERTICAL	RELEASSED FOR CONSTRUCTION	DATE	ENGINEER'S SEAL PROVINCE OF MANITOBA Member 23609 2012-04 REGISTERED PROFESSIONAL ENGINEER	CONSULTANT PROJECT NUMBER 13-8224	THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT 4R WINNIPEG DEPOT PACIFIC AVENUE HHW EWASTE BUILDING, DETAILS	CITY DRAWING NUMBER 1-0851A-S0010-001 SHEET 18 OF 43 CONSULTANT DRAWING NUMBER S-10
3	ISSUED FOR CONSTRUCTION	16/04/12	NR									
2	ISSUED FOR ADDENDUM # 1	16/03/14	ARR									
1	ISSUED FOR TENDER	16/03/04	ARR									
NO.	REVISIONS	DATE	BY	DATE								

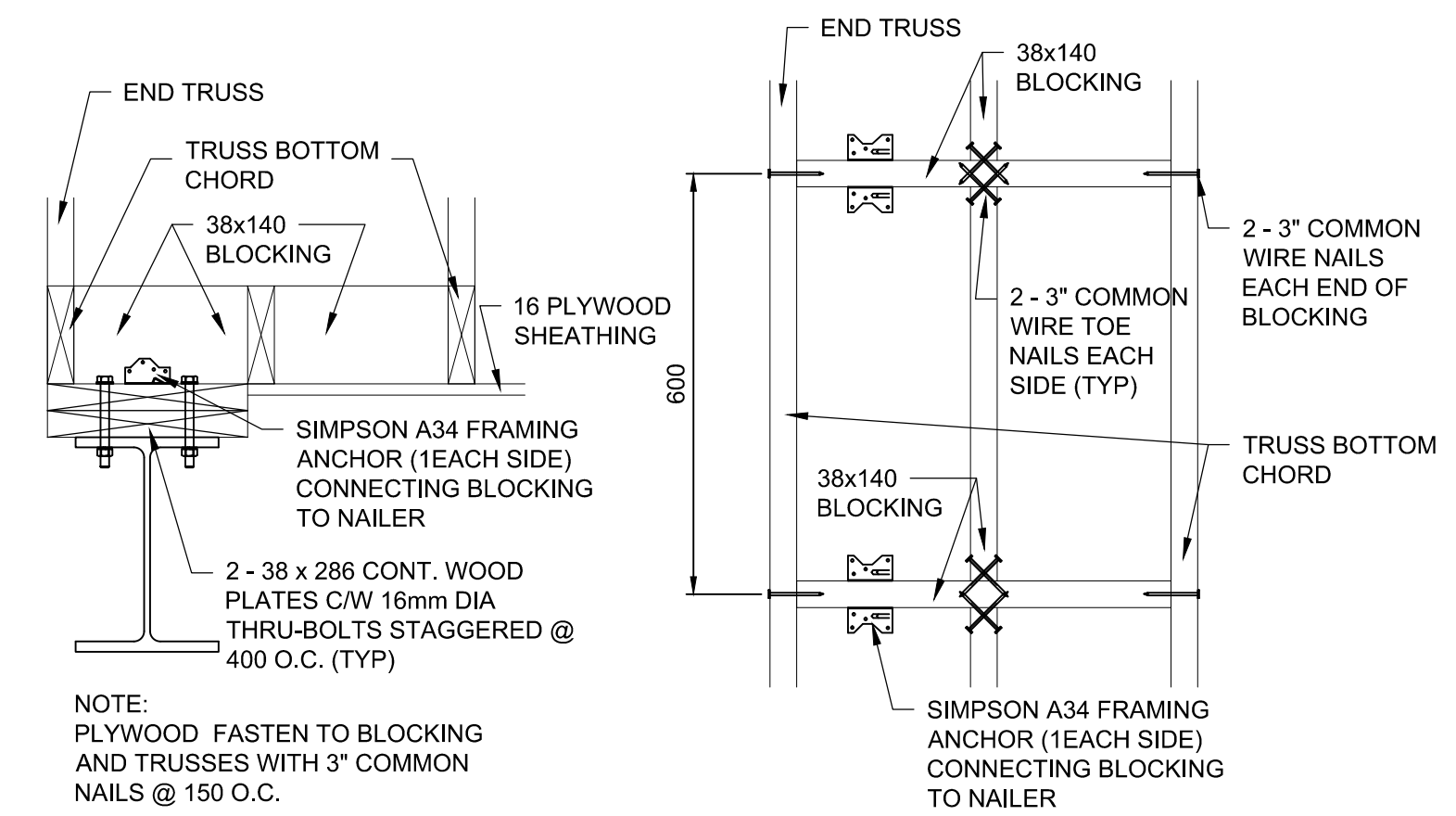




ROOF FRAMING PLAN  
1:75

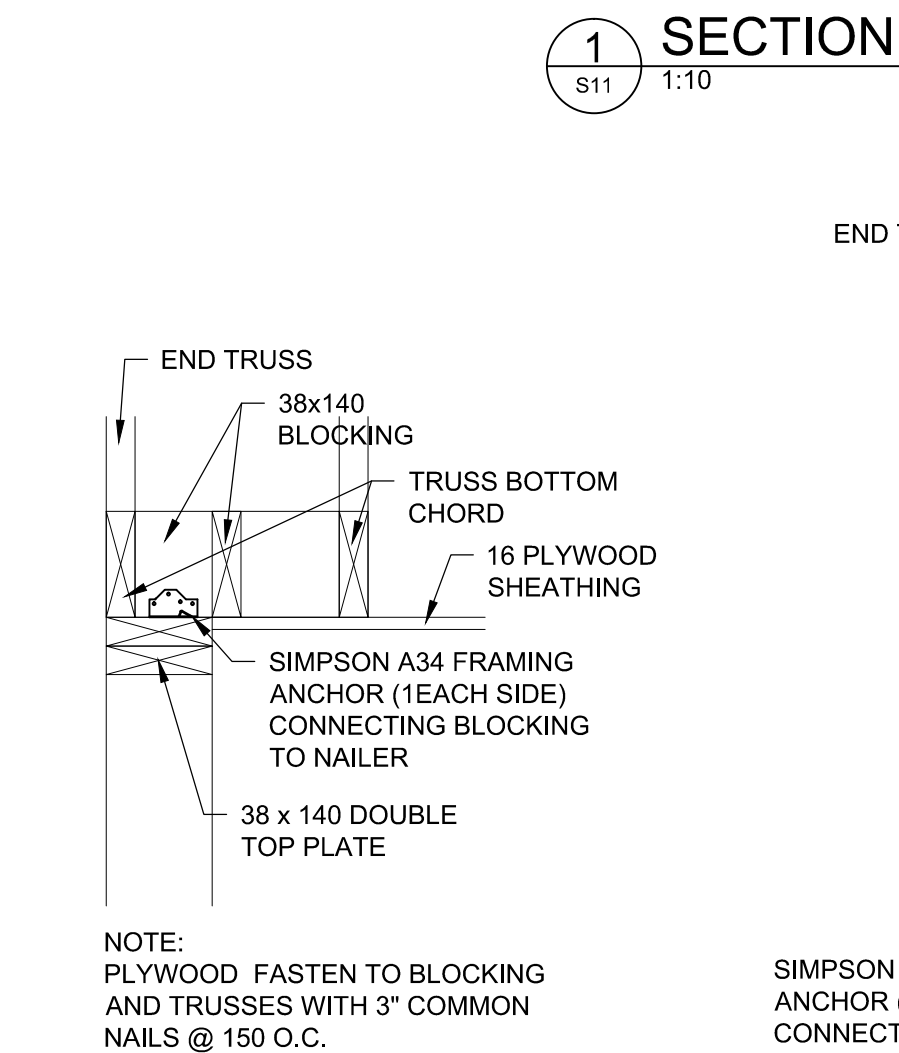
NOTE:  
PROVIDE 16 PLYWOOD ROOF DIAPHRAGM  
FASTENED TO UNDERSIDE OF TRUSSES  
WITH 3" COMMON NAILS @ 150 O.C. TYP.

NOTE:  
ALL SIMPSON STRONG TIE CONNECTORS  
SHALL USE SIMPSON STRONG TIE  
STRONG-DRIVE SD CONNECTOR SCREWS.



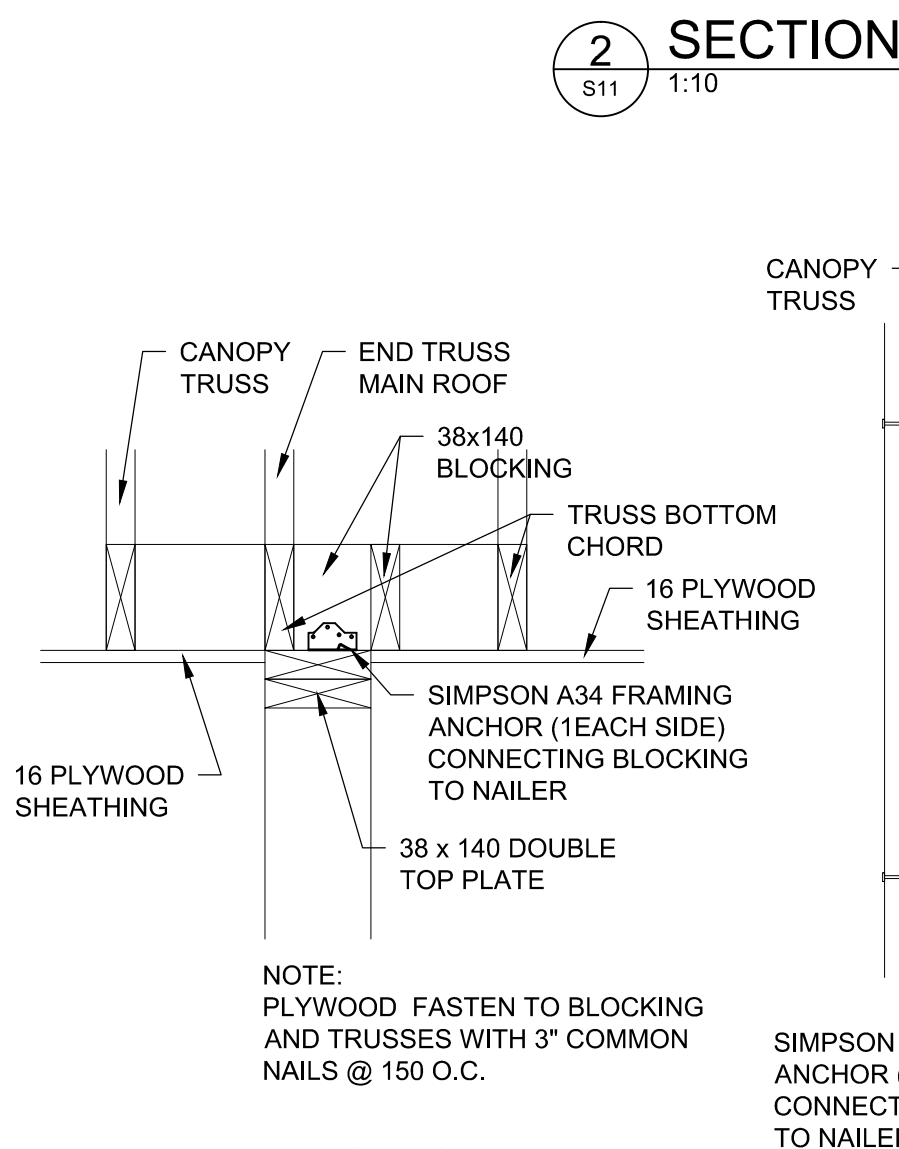
SECTION

PLAN



SECTION

PLAN



SECTION

PLAN



SECTION

3 SECTION  
S11 1:10

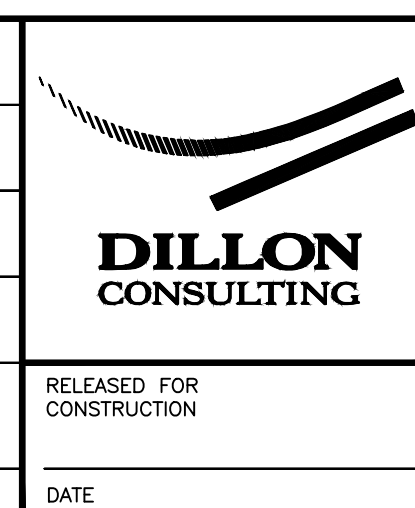
METRIC

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES



B.M. ELEV.	DESIGNED BY	WH
	DRAWN BY	PDR
	CHECKED BY	NR
	APPROVED BY	ARR
	HOR. SCALE	AS NOTED
	VERTICAL	
	NO. REVISIONS	DATE BY DATE

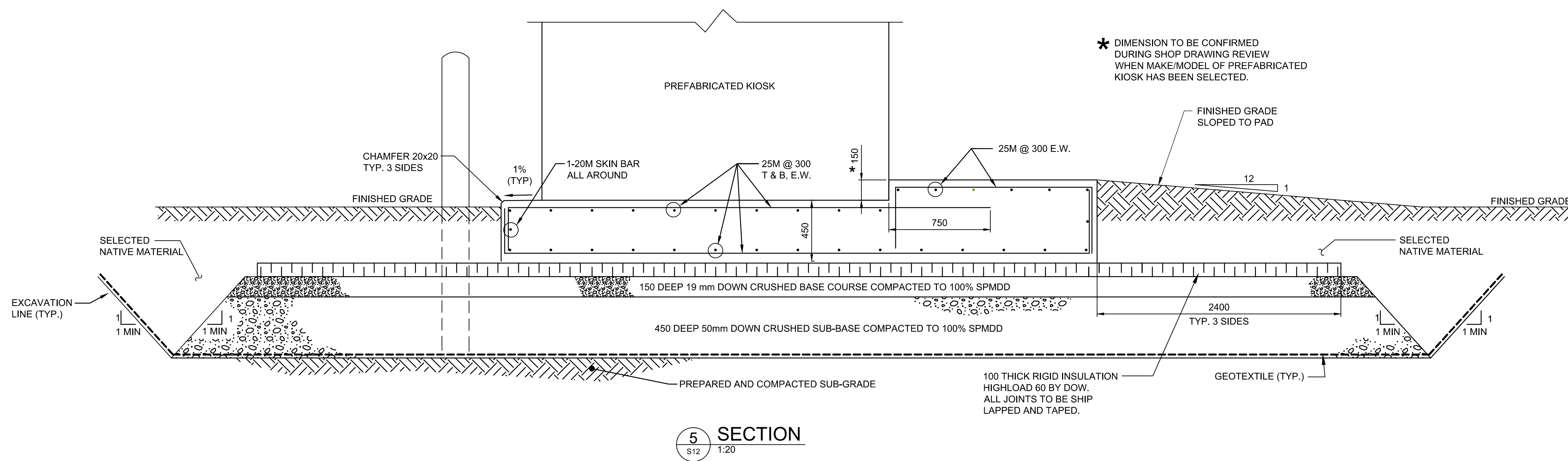
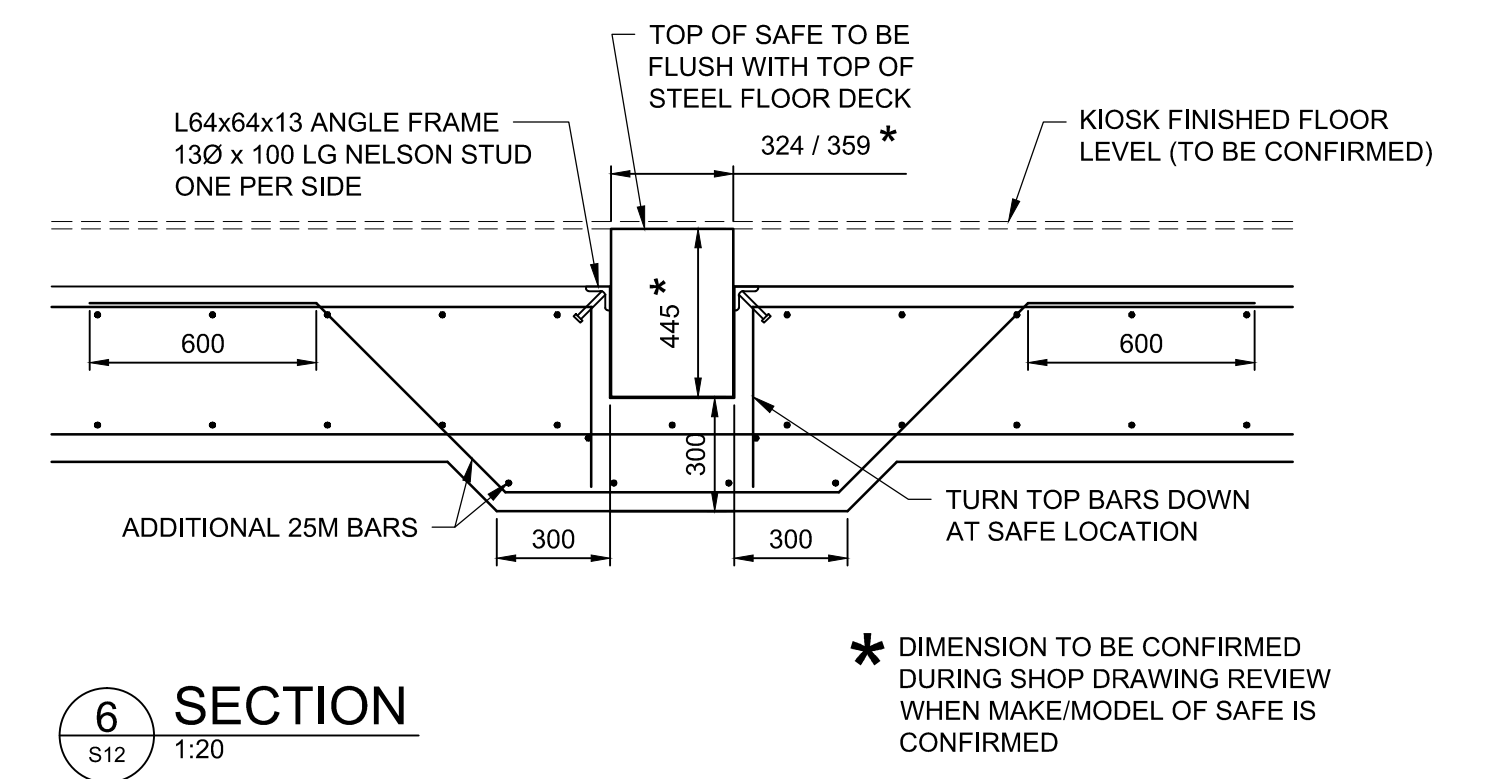
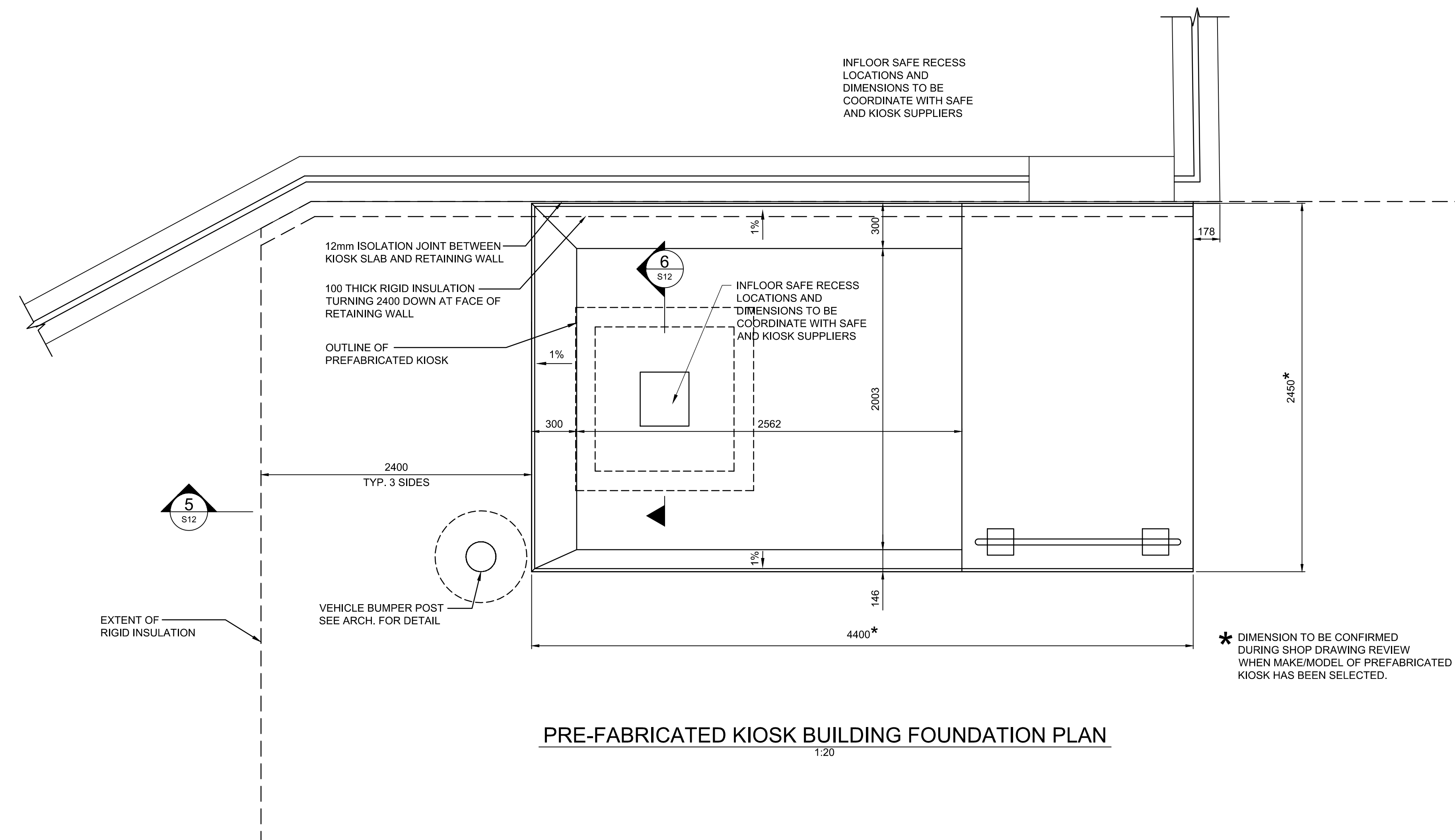
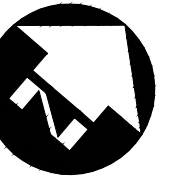
RELEASED FOR CONSTRUCTION	DATE
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ENGINEER'S SEAL PROVINCE OF MANITOBA Member 23609 2016-09-09 REGISTERED PROFESSIONAL ENGINEER	CONSULTANT PROJECT NUMBER 13-8224
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THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT	
4R WINNIPEG DEPOT PACIFIC AVENUE	CITY DRAWING NUMBER 1-0851A-S0011-001
HHW EWASTE BUILDING ROOF FRAMING PLAN SECTIONS AND DETAILS	SHEET 19 OF 43 CONSULTANT DRAWING NUMBER S-11





METRIC

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES



B.M.	ELEV.	DESIGNED BY	WH
		DRAWN BY	PDR
		CHECKED BY	NR
		APPROVED BY	ARR
		HOR. SCALE	AS NOTED
		VERTICAL	
NO.	REVISIONS	DATE	BY

		DATE	
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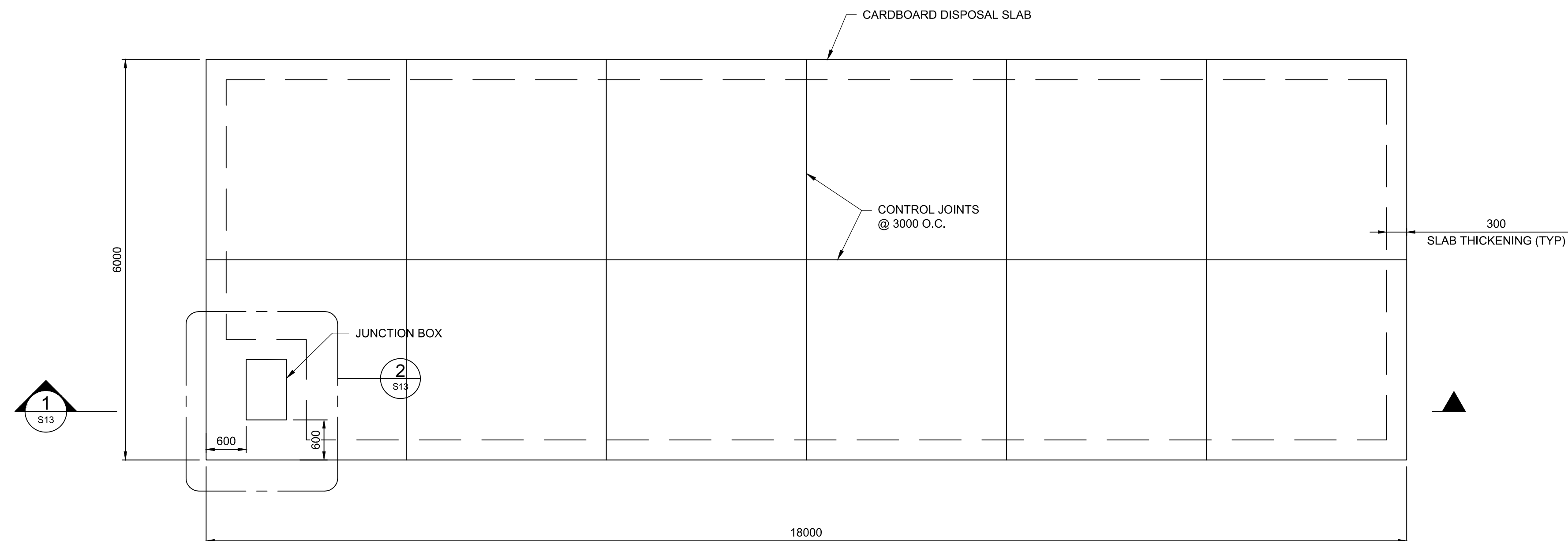
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		DATE	
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		DATE	
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PAVEMENT STRUCTURE

603 x 903 x 305 JUNCTION BOX

15M @ 300 O/C E.W. E.F.

1800

665

200

300 MIN.

1

1 MIN.

NATIVE BACKFILL COMPACTED TO 95% SPMD

GEOTEXTILE (TYP.)

150 DEEP 19 mm DOWN CRUSHED BASE COURSE COMPACTED TO 100% SPMD

400 DEEP 50mm DOWN CRUSHED SUB-BASE COMPACTED TO 100% SPMD




300 (TYP)

300 SUB-GRADE SCARIFYING DEPTH. SEE NOTES ON S1 FOR SUB-GRADE PREP PRIOR TO PLACING GRANULAR

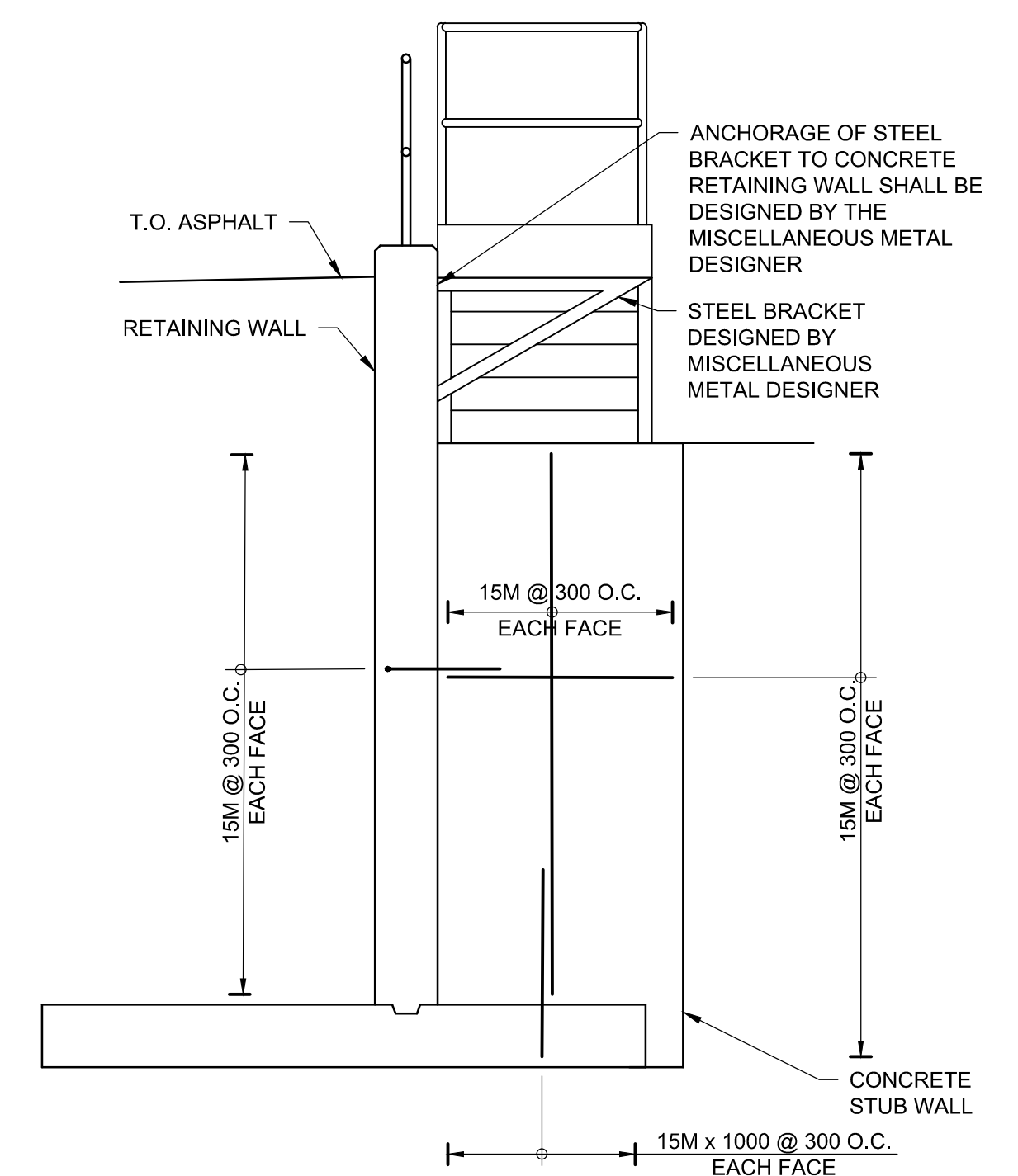
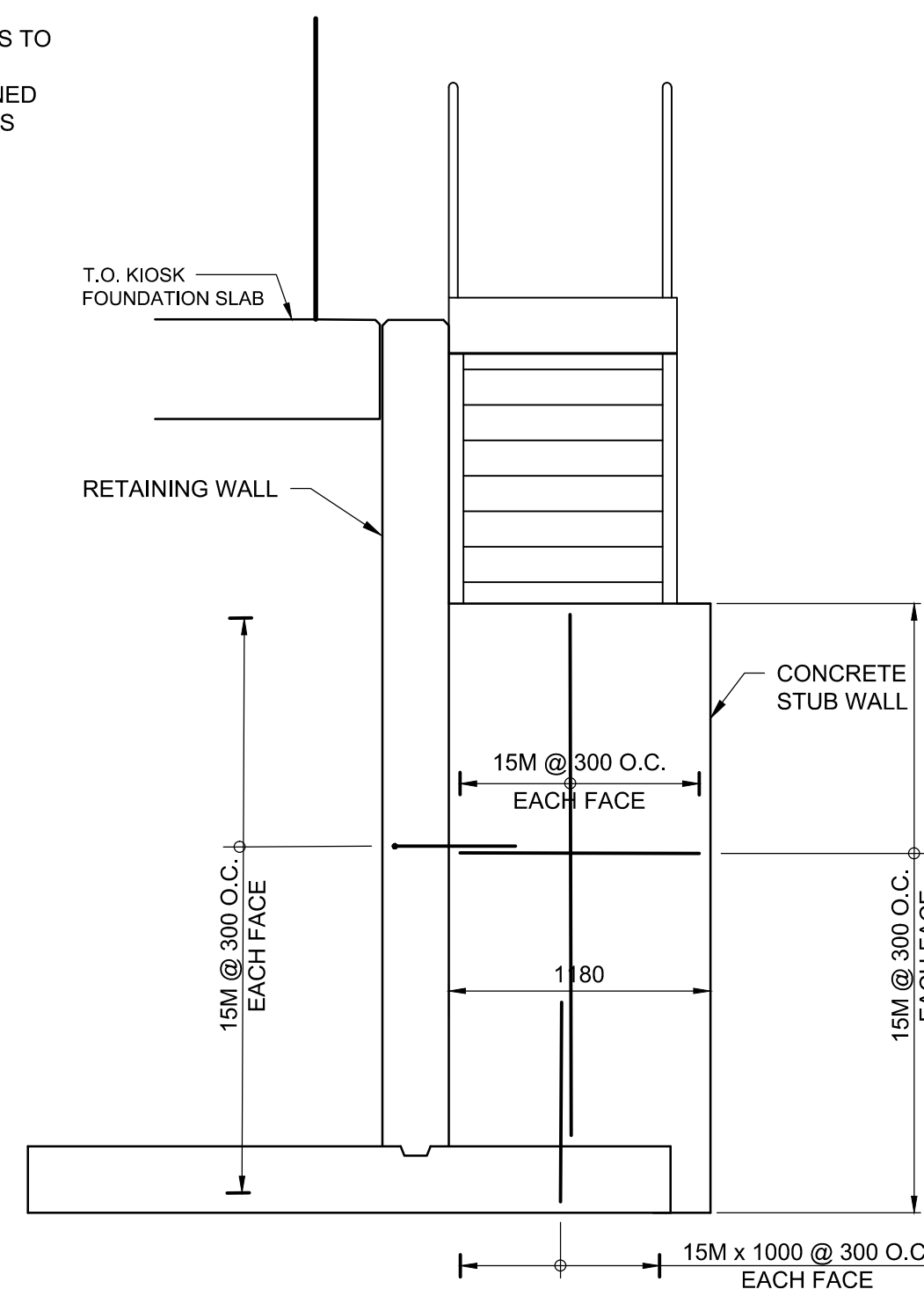
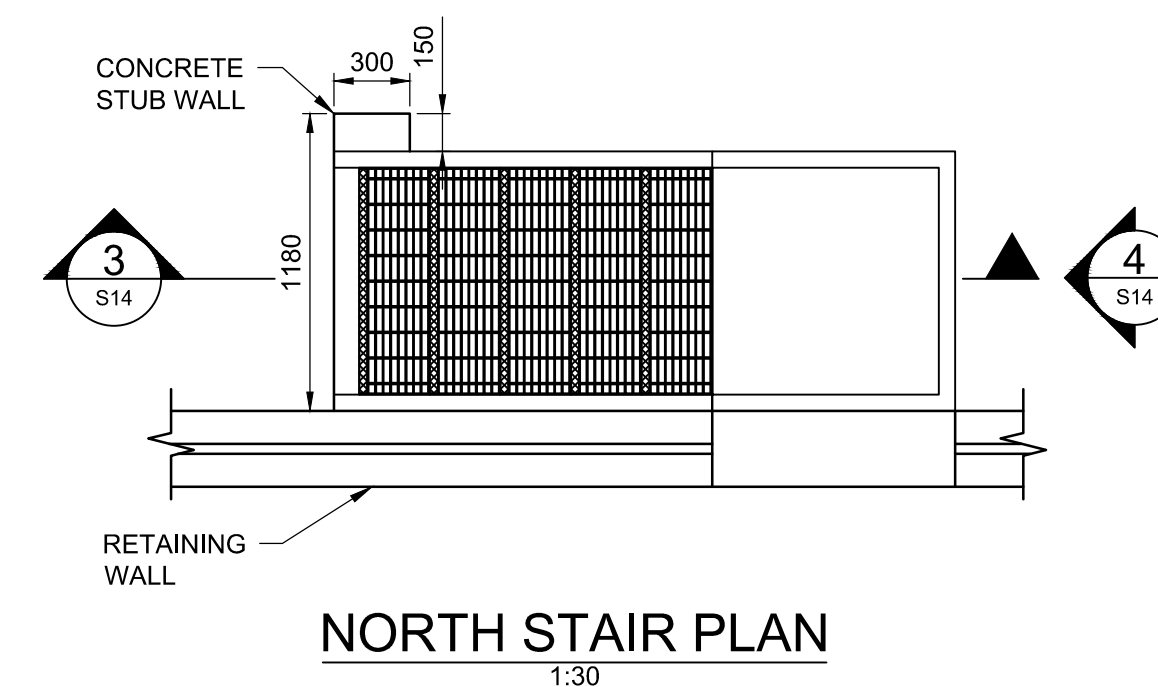
1




1 MIN.

ADDITIONAL 15M  
DIAGONAL TOP AND  
BOTTOM 1600 LONG  
(HOOK AS REQUIRED)

B.M. ELEV.			DESIGNED BY WH			ENGINEER'S SEAL		 <b>THE CITY OF WINNIPEG</b> WATER AND WASTE DEPARTMENT				
			DRAWN BY PDR					4R WINNIPEG DEPOT PACIFIC AVENUE			CITY DRAWING NUMBER 1-0851A-S0013-001	
			CHECKED BY NR								SHEET 21 OF 43	
			APPROVED BY ARR								CONSULTANT PROJECT NUMBER 13-8224	
3	ISSUED FOR CONSTRUCTION	16/04/12	NR	HOR. SCALE AS NOTED							RELEASED FOR CONSTRUCTION	<b>CARDBOARD DISPOSAL SLAB          PLAN AND DETAILS</b>
2	ISSUED FOR ADDENDUM #1	16/03/14	ARR	VERTICAL	DATE							
1	ISSUED FOR TENDER	16/03/04	ARR	DATE	DATE							
NO.	REVISIONS	DATE	BY	DATE	DATE							





B.M. ELEV.				DESIGNED BY WH					THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT					
				DRAWN BY PDR					4R WINNIPEG DEPOT PACIFIC AVENUE				CITY DRAWING NUMBER 1-0851A-S0014-001	
				CHECKED BY NR									SHEET 22 OF 43	
				APPROVED BY ARR									CONSULTANT DRAWING NUMBER S-14	
2	ISSUED FOR CONSTRUCTION	15/04/12	NR	HOR. SCALE AS NOTED		RELEASED FOR CONSTRUCTION	CONSULTANT PROJECT NUMBER 13-8224	MISCELLANEOUS METALS DETAILS						
1	ISSUED FOR TENDER	15/03/04	ARR	VERTICAL		DATE								
NO.	REVISIONS	DATE	BY											

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES



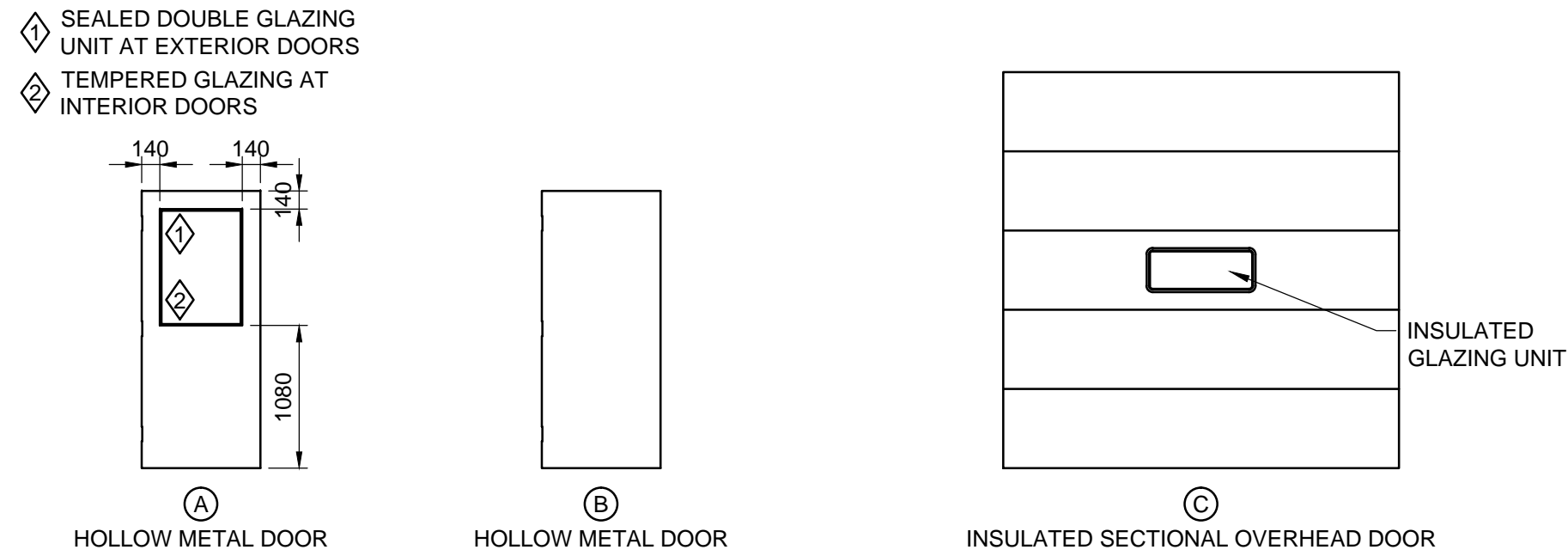
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DOOR AND HARDWARE SCHEDULE																
DOOR									FRAME				REMARKS			
NO.	TYPE	THICK	WIDTH	HEIGHT	MAT	FIN	GRILLE	GLASS	DEPTH	MAT	FIN	RATING		HDW		
101.1	A	45	1000	2134	HM	PNT	-	SU	172	HM	PNT	-	INSULATED FRAME, INSULATED DOOR	1		
101.2	A	45	1000	2134	HM	PNT	-	TEMP	172	HM	PNT	-		2		
102	A	45	1000	2134	HM	PNT	-	TEMP	146	HM	PNT	-	UNDERCUT DOOR - 25mm	9		
103	B	45	PR 914	2134	HM	PNT	-	-	146	HM	PNT	-		8		
104	B	45	762	2134	HM	PNT	-	-	146	HM	PNT	-		3		
105	B	45	1000	2134	HM	PNT	-	-	146	HM	PNT	-	UNDERCUT DOOR - 19mm	4		
106	B	45	1000	2134	HM	PNT	-	-	146	HM	PNT	-	UNDERCUT DOOR - 19mm	5		
108	B	45	1000	2134	HM	PNT	-	-	146	HM	PNT	-	UNDERCUT DOOR - 19mm	3		
109.1	A	45	PR 1200	2134	HM	PNT	-	-	172	HM	PNT	-	INSULATED FRAME, INSULATED DOORS	6		
109.2	A	45	1000	2134	HM	PNT	-	SU	172	HM	PNT	-	INSULATED FRAME, INSULATED DOOR	7		
109.3	D	45	3050	3000									INSULATED SECTIONAL OVERHEAD DOOR WITH POWER OPERATOR, WEATHERSTRIPPING			
HARDWARE	GROUP 1				GROUP 2				GROUP 6				GROUP 7		GROUP 9	
	• DOOR OPERATOR / CLOSER				• WEATHERSTRIP				• CLOSER WITH HOLD OPEN DEVICE ON ACTIVE LEAF				• DOOR OPERATOR / CLOSER		• DOOR OPERATOR / CLOSER	
	• 150 DIA PUSH PLATE ACTIVATORS ON EXTERIOR AND INTERIOR WALLS CENTERED AT 920 AND AT 225 ABOVE THE FINISHED FLOOR OR GRADE				• THRESHOLD				• WEATHERSTRIP				• PANIC BAR / EXIT DEVICE WITH LEVER HANDLE AND LOCKSET		• KICKPLATES	
	• ELECTRIC DOOR STRIKE				• CLOSER				• THRESHOLD				• LOCKSET ON ACTIVE LEAF		• KICKPLATES	
	INTERCONNECTED WITH OPERATOR, PUSH PLATES AND KEY PAD				• FULL HEIGHT ASTRAGAL ON ACTIVE LEAF				• EXIT DEVICE WITH EXTERIOR LEVER HANDLE AND LOCKSET TO ACTIVE LEAF				• ASTRAGAL ON ACTIVE LEAF AT LOCKSET / STRIKE TO INACTIVE LEAF		• KICKPLATES	
	• PANIC BAR / EXIT DEVICE WITH EXTERIOR LEVER HANDLE AND LOCKSET				GROUP 3				• TOP / BOTTOM BOLTS TO INACTIVE LEAF				• TOP / BOTTOM BOLTS ON INACTIVE LEAF		NOTE	
					• LOCK SET				• FULL HEIGHT ASTRAGAL ON ACTIVE LEAF				• LOCKSET ON ACTIVE LEAF		ALL DOORS TO HAVE 3 BUTT HINGES WITH NON-REMOVABLE PINS UNLESS NOTED OTHERWISE	
					• KICKPLATES				• EXIT DEVICE WITH EXTERIOR LEVER HANDLE AND LOCKSET TO ACTIVE LEAF				• ASTRAGAL ON ACTIVE LEAF AT LOCKSET / STRIKE TO INACTIVE LEAF			
					GROUP 4				• TOP / BOTTOM BOLTS TO INACTIVE LEAF				• TOP / BOTTOM BOLTS ON INACTIVE LEAF			
					• DOOR OPERATOR / CLOSER				• EXIT DEVICE WITH EXTERIOR LEVER HANDLE AND LOCKSET TO ACTIVE LEAF				• ASTRAGAL ON ACTIVE LEAF AT LOCKSET / STRIKE TO INACTIVE LEAF			
					• PRIVACY SET				• FULL HEIGHT ASTRAGAL ON ACTIVE LEAF				• LOCKSET ON ACTIVE LEAF			
				• KICK PLATES				• TOP / BOTTOM BOLTS TO INACTIVE LEAF				• TOP / BOTTOM BOLTS ON INACTIVE LEAF				
				GROUP 5				• FULL HEIGHT ASTRAGAL ON ACTIVE LEAF				• LOCKSET ON ACTIVE LEAF				
				• PRIVACY SET				• EXIT DEVICE WITH EXTERIOR LEVER HANDLE AND LOCKSET TO ACTIVE LEAF				• ASTRAGAL ON ACTIVE LEAF AT LOCKSET / STRIKE TO INACTIVE LEAF				
				• KICK PLATES				• TOP / BOTTOM BOLTS TO INACTIVE LEAF				• TOP / BOTTOM BOLTS ON INACTIVE LEAF				

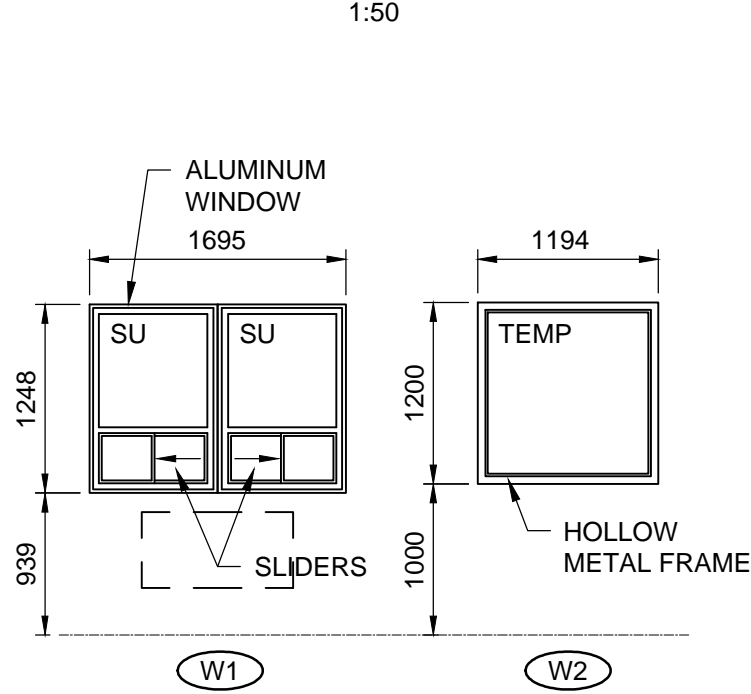
ROOM FINISH SCHEDULE															
No.	NAME	FLOOR		NORTH WALL		SOUTH WALL		EAST WALL		WEST WALL		CEILING			REMARKS
		FINISH	BASE	MAT	FINISH	MAT	FINISH	MAT	FINISH	MAT	FINISH	MAT	FINISH	HT.	
101	CORRIDOR	SV	RB	CMU	PNT	CMU	PNT	CMU	PNT	CMU	PNT	ACT	PNT	2700	
102	LUNCH ROOM	SV	RB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	ACT	PREFIN	2700	
103	IT CLOSET	SV	RB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	ACT	PNT	2700	
104	HWT CLOSET	SV	RB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	ACT	PNT	2700	
105	WASHROOM	CT	CT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	2400	
106	SHOWER	CT	CT	GWB / CT	PNT	GWB / CT	PNT	CT	PNT	GWB	PNT	GWB	PNT	2400	CERAMIC WALL TILE IN SHOWER ONLY
107	LOCKERS	SV	RB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	ACT	PNT	2700	
108	OFFICE	SV	RB	GWB	PNT	GWB	PNT	GWB	PNT	GWB	PNT	ACT	PNT	2700	
109	HHW	HNDR	-	CONC PLYWD	PNT	CONC PLYWD	PNT	CONC PLYWD	PNT	CONC PLYWD	PNT	STEEL	PREFIN	4200	PAINT PLYWOOD SHEATHING

ABBREVIATIONS	
ACT	ACOUSTIC TILE
CONC	CONCRETE
CONT	CONTINUOUS
CT	CERAMIC TILE
GWB	GYPSUM WALL BOARD
HM	HOLLOW METAL
HR	HOUR
HDNR	HARDENER
NIC	NOT IN CONTRACT
PNT	PAINT
PREFIN	PREFINISHED
PLYWD	PLYWOOD
RB	RUBBER BASE
SLR	SEALER
SU	SEALED GLAZING UNIT
SV	SHEET VINYL
TEMP	TEMPERED
U/S	UNDERSIDE

CONSTRUCTION ASSEMBLIES	
(F1) FOUNDATION WALL	CONCRETE FACED INSULATED WALL PANEL (8mm CONCRETE ON 50 RIGID INSULATION MANUFACTURER; TECH-CRETE INSULATED PANEL PRODUCTS OR EQUIVALENT WITH METAL FLASHING AT CORNERS) 300 THICK CONCRETE WALL
(W1) EXTERIOR WALL	38 PRE-FINISHED METAL SIDING 38x89 HORIZONTAL STRAPPING @ 800 O.C. AIR BARRIER 16 PLYWOOD SHEATHING 140 WOOD STUDS @ 400 O.C. R20 BATT INSULATION VAPOUR BARRIER - 6 MIL POLYETHYLENE 16 PLYWOOD SHEATHING
(W2) EXTERIOR WALL	38 PRE-FINISHED METAL SIDING 38x89 HORIZONTAL STRAPPING @ 800 O.C. RIGID INSULATION (R7.5) AIR BARRIER 16 PLYWOOD SHEATHING 140 WOOD STUDS @ 400 O.C. R20 BATT INSULATION VAPOUR BARRIER - 6 MIL POLYETHYLENE 16 GYPSUM BOARD
(R1) ROOF	38 PRE-FINISHED METAL ROOFING 38 x 89 WOOD STRAPPING AT 610 O.C. ICE AND WATER SHIELD 16 PLYWOOD SHEATHING PRE-FINIS WOOD TRUSSES @ 600 O.C. R40 BATT INSULATION VAPOUR BARRIER 16 PLYWOOD SHEATHING TO U/S TRUSSES PRE-FINISHED METAL LINER PANEL (LINER LOCATED IN WAREHOUSE AREA ONLY)
(P1) INTERIOR PARTITION	16 GYPSUM BOARD EACH SIDE 92 METAL STUDS @ 400 O.C. (3000 HIGH) PROVIDE 19 PLYWOOD BLOCKING TO WALL AT SURFACE MOUNTED ACCESSORIES AND EQUIPMENT
(P2) INTERIOR PARTITION	16 GYPSUM BOARD EACH SIDE 152 METAL STUDS @ 400 O.C. (3000 HIGH) PROVIDE 19 PLYWOOD BLOCKING TO WALL AT SURFACE MOUNTED ACCESSORIES AND EQUIPMENT
(P3) INTERIOR PARTITION	16 GYPSUM BOARD 64 METAL STUDS @ 400 O.C. (3000 HIGH) 16 PLYWOOD SHEATHING VAPOUR BARRIER 38 x 235 WOOD STUDS @ 400 O.C. R20 BATT INSULATION 16 PLYWOOD SHEATHING






## DOOR ELEVATIONS



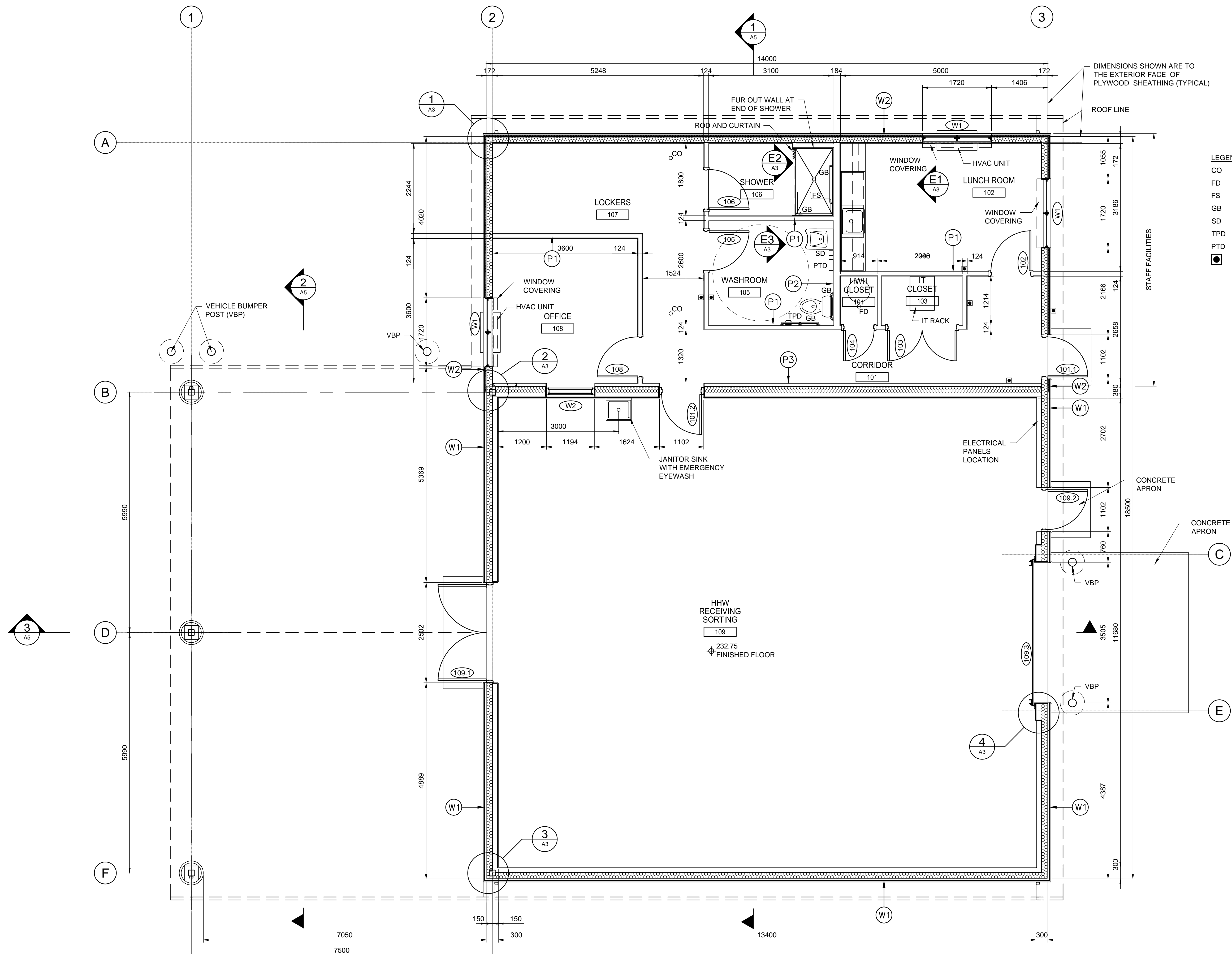
## WINDOW ELEVATIONS

	Name of Consultants: Dillon Consulting Limited											
	Name of Project: Household Hazardous Waste Building, at Winnipeg CCCRC											
	Location: Pacific Avenue											
Item	Manitoba /National Building Code (2010) Data Matrix Part 9								Building Code Reference			
									References are to Division B unless noted As [A] or [C]			
1	Project Description:			<input checked="" type="checkbox"/> New <input type="checkbox"/> Addition <input type="checkbox"/> Change of Use		<input type="checkbox"/> Part 11 11.1 to 11.4		<input checked="" type="checkbox"/> Part 9 Div. B 9.10.2.1				
2				Major Occupancy(s) Household hazardous waste storage and office ( Industrial F-2)			9.10.2.1(1)					
3	Building Area (m²)		Existing _____ New <input checked="" type="checkbox"/> X_____		Total 252.0		1.4.1.2. [A]					
4	Gross Area		Existing _____ New <input checked="" type="checkbox"/> X_____		Total 252.0		1.4.1.2. [A]					
5	Number of Storeys		Above grade <input checked="" type="checkbox"/> 1 _____		Below grade _____		1.4.1.2. [A]					
6	Number of Streets/Fire Fighter Access		<input checked="" type="checkbox"/> 1 _____				9.10.20.3.					
7	Building Classification		<input checked="" type="checkbox"/> Medium hazard industrial F-2 _____				9.10.2.1					
8	Sprinkler System Proposed			<input type="checkbox"/> entire building <input checked="" type="checkbox"/> not required				9.10.8.2				
9	Standpipe required			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				N/A				
10	Fire Alarm required			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				9.10.18				
11	Water Service/Supply is Adequate			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				N/A				
12	High Building			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				N/A				
13	Construction Restrictions		<input checked="" type="checkbox"/> Combustible permitted <input checked="" type="checkbox"/> Combustible		<input type="checkbox"/> Non-combustible required <input type="checkbox"/> Non-combustible		<input type="checkbox"/> Both		9.10.8.11 / 3.2.2.76.			
14	Actual Construction		<input checked="" type="checkbox"/> Combustible		<input type="checkbox"/> Non-combustible		<input type="checkbox"/> Both					
15	Mezzanine(s) Area m²		None _____						9.10.4.1.			
16	Occupant load based on		<input type="checkbox"/> m²/person		<input checked="" type="checkbox"/> design of building				9.10.1.3			
17	1 <sup>st</sup> Floor		Occupancy: F2 / D		Load: 6 persons							
18	Barrier-free Design		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Explain) _____						9.5.2			
19	Hazardous Substances		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						9.10.1.3.(4)			
20	Required Fire Resistance Rating (FRR)		Horizontal Assemblies			Listed Design No.			9.10.8.1.			
FRR (Hours)			or Description (SG-2)									
Floors <input checked="" type="checkbox"/> 0 _____ Hours												
Roof <input checked="" type="checkbox"/> 0 _____ Hours												
21			Mezzanine <input checked="" type="checkbox"/> N/A _____ Hours									
22			FRR of Supporting Members			Listed Design No. Or Description (SG-2)						
23			Floors <input checked="" type="checkbox"/> 0 _____ Hours									
24			Roof <input checked="" type="checkbox"/> 0 _____ Hours									
25	Spatial Separation – Construction of Exterior Walls											
26	Wall	Area of EBF (m²)	L.D. (m)	L/H or H/L	Permitted Max. % of Openings	Proposed % of Openings	FRR (Hours)	Listed Design or Description	Comb Const	Comb. Constr. Non comb. Cladding	Non-comb. Constr.	
27	North	58.8	52.8	3.3	100%	100%	0		X			
28	South	58.8	98.7	3.3	100%	100%	0		X			
29	East	77.8	65.8	4.4	100%	100%	0		X			
30	West	77.8	17.7	4.4	100%	100%	0		X			
31	Plumbing Fixture Requirements:											
32	Based on Occupant Load: < 9 = 1 WC ( Barrier Free Accessible )								3.7.2.2 (4)			




B.M. ELEV.				DESIGNED BY LDP				 <b>THE CITY OF WINNIPEG</b> WATER AND WASTE DEPARTMENT		
				DRAWN BY PDR						
				CHECKED BY LDP						
				APPROVED BY ARR						
3	ISSUED FOR CONSTRUCTION	16/04/12	NR	HOR. SCALE AS NOTED		RELEASED FOR CONSTRUCTION	CONSULTANT PROJECT NUMBER 13-8224	4R WINNIPEG DEPOT PACIFIC AVENUE		CITY DRAWING NUMBER 1-0851A-A0001-001
2	ISSUED FOR ADDENDUM # 1	16/03/14	ARR	VERTICAL					SHEET 23 OF 43	
1	ISSUED FOR TENDER	16/03/04	ARR					SCHEDULES AND ABBREVIATIONS		CONSULTANT DRAWING NUMBER A-1
NO. REVISIONS		DATE		DATE						





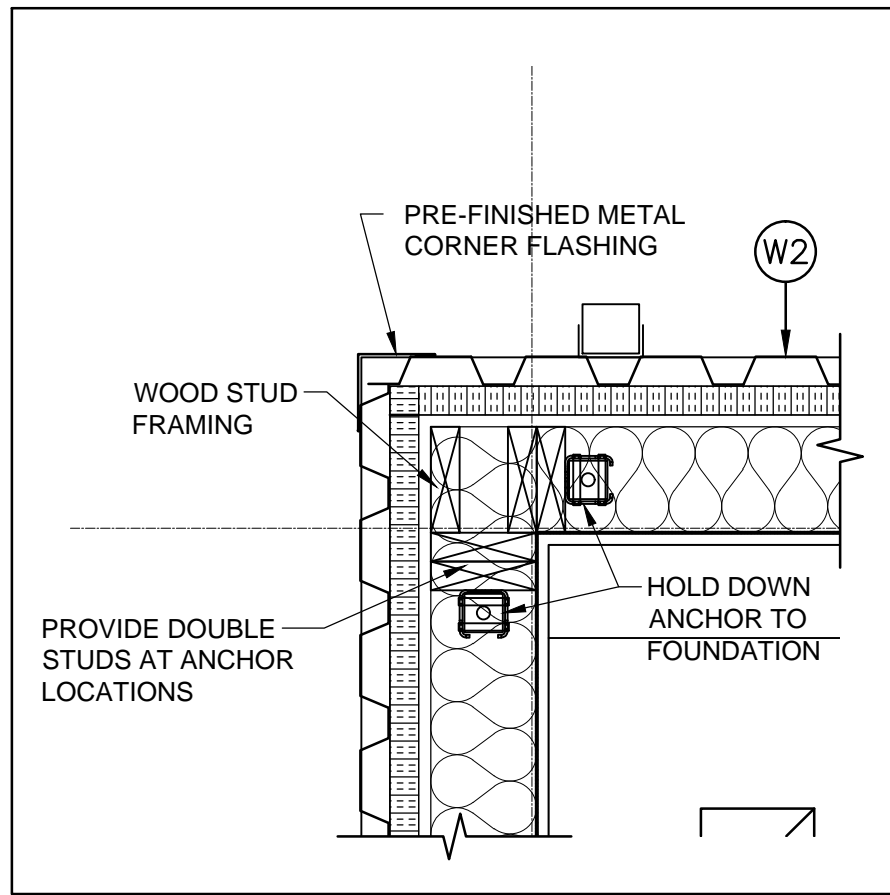
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

## 1.50

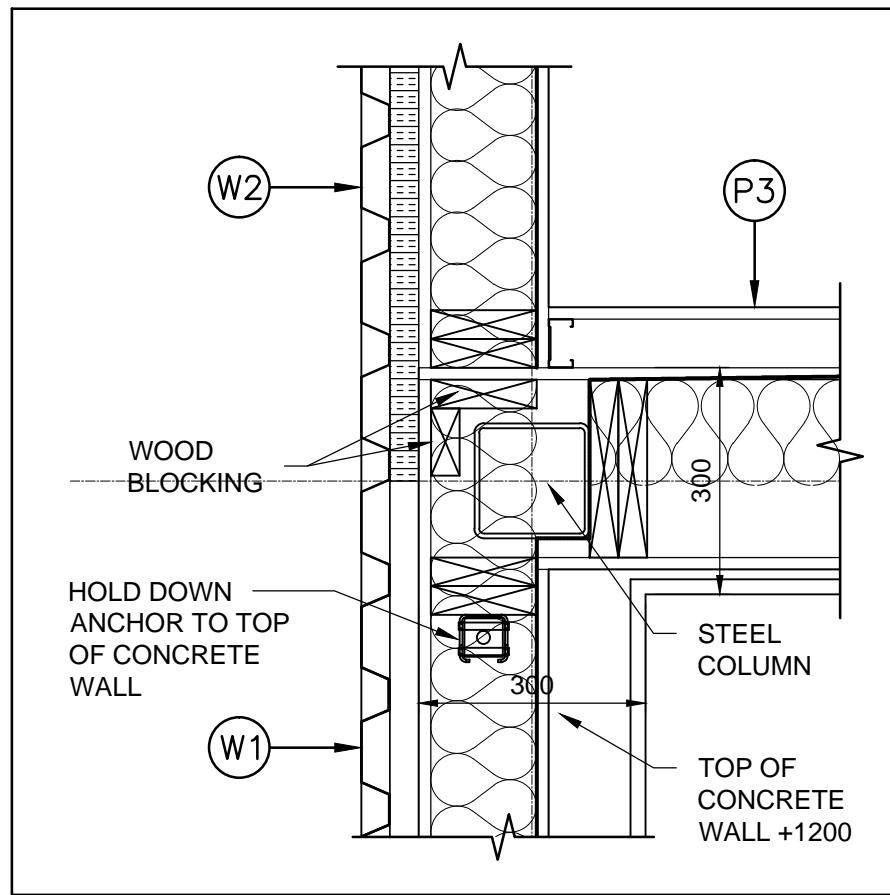
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	4R WINNIPEG DEPOT PACIFIC AVENUE	CITY DRAWING NUMBER <b>1-0851A-A0002-001</b>  SHEET      24      OF      43
4R	<b>HHW EWASTE BUILDING FLOOR PLAN</b>	CONSULTANT DRAWING NUMBER  <b>A-2</b>



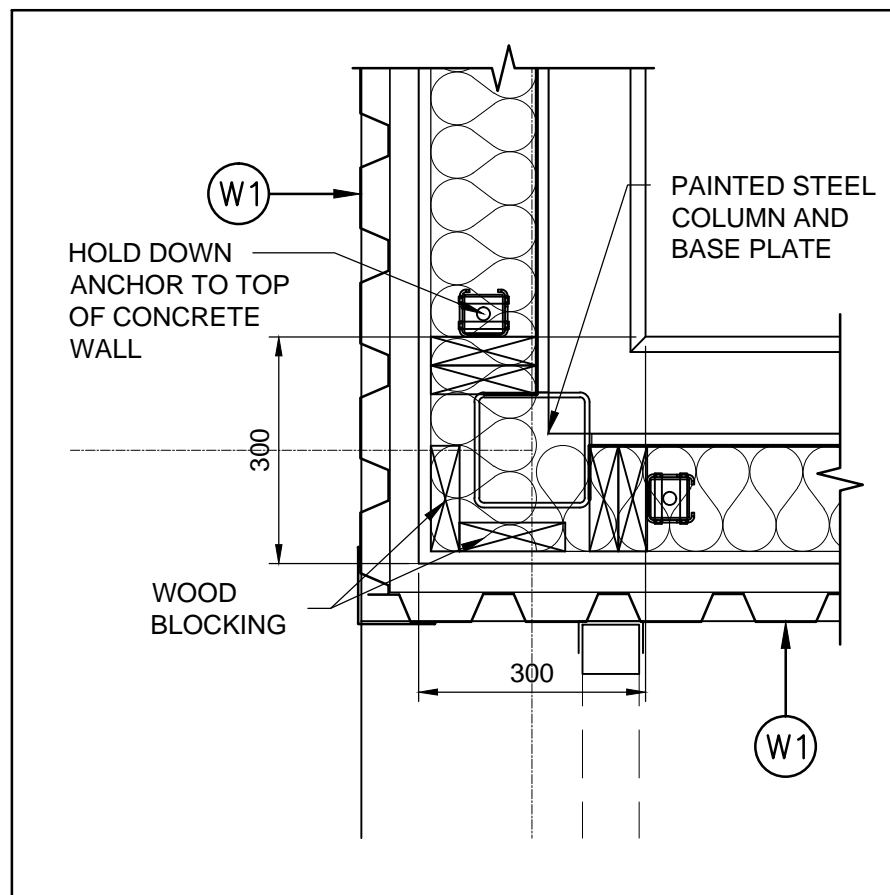
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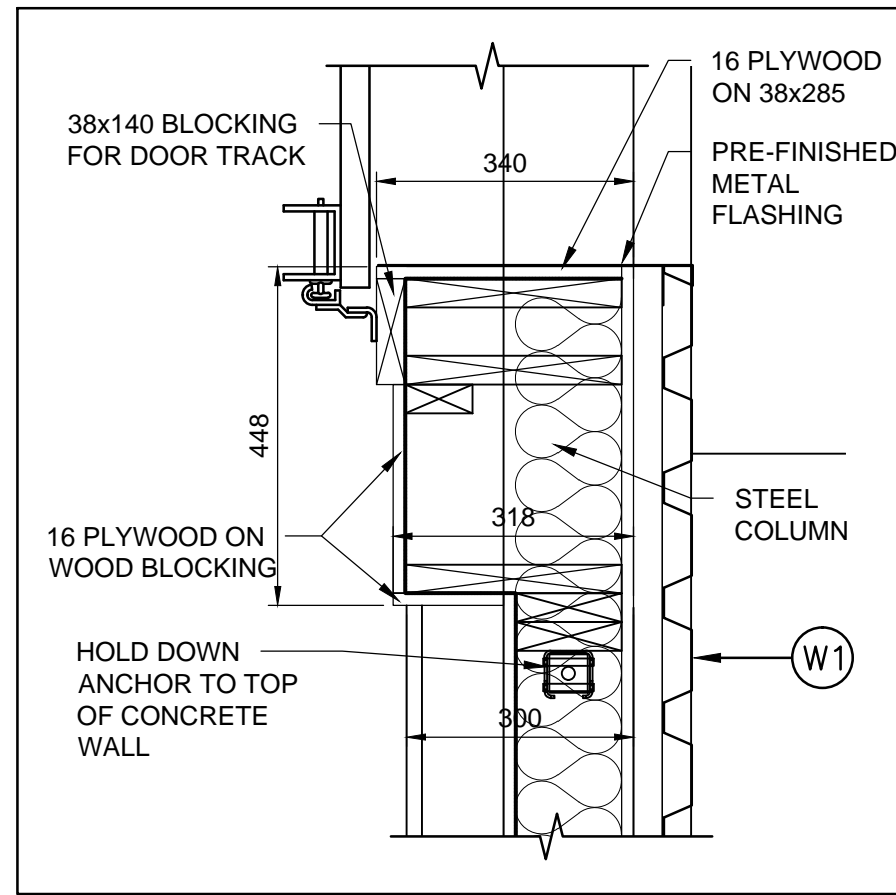
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A2 1:10



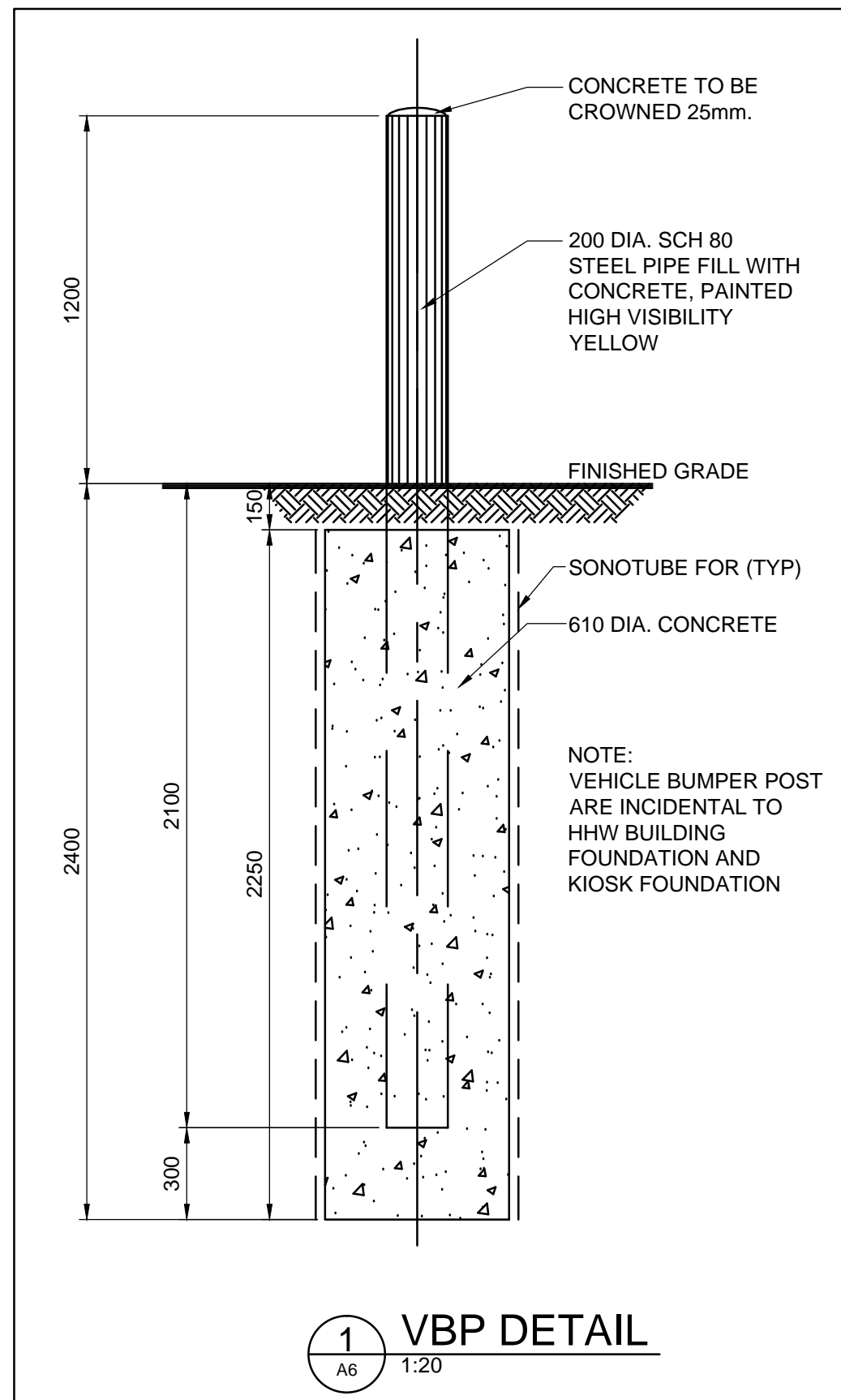
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A2 1:10



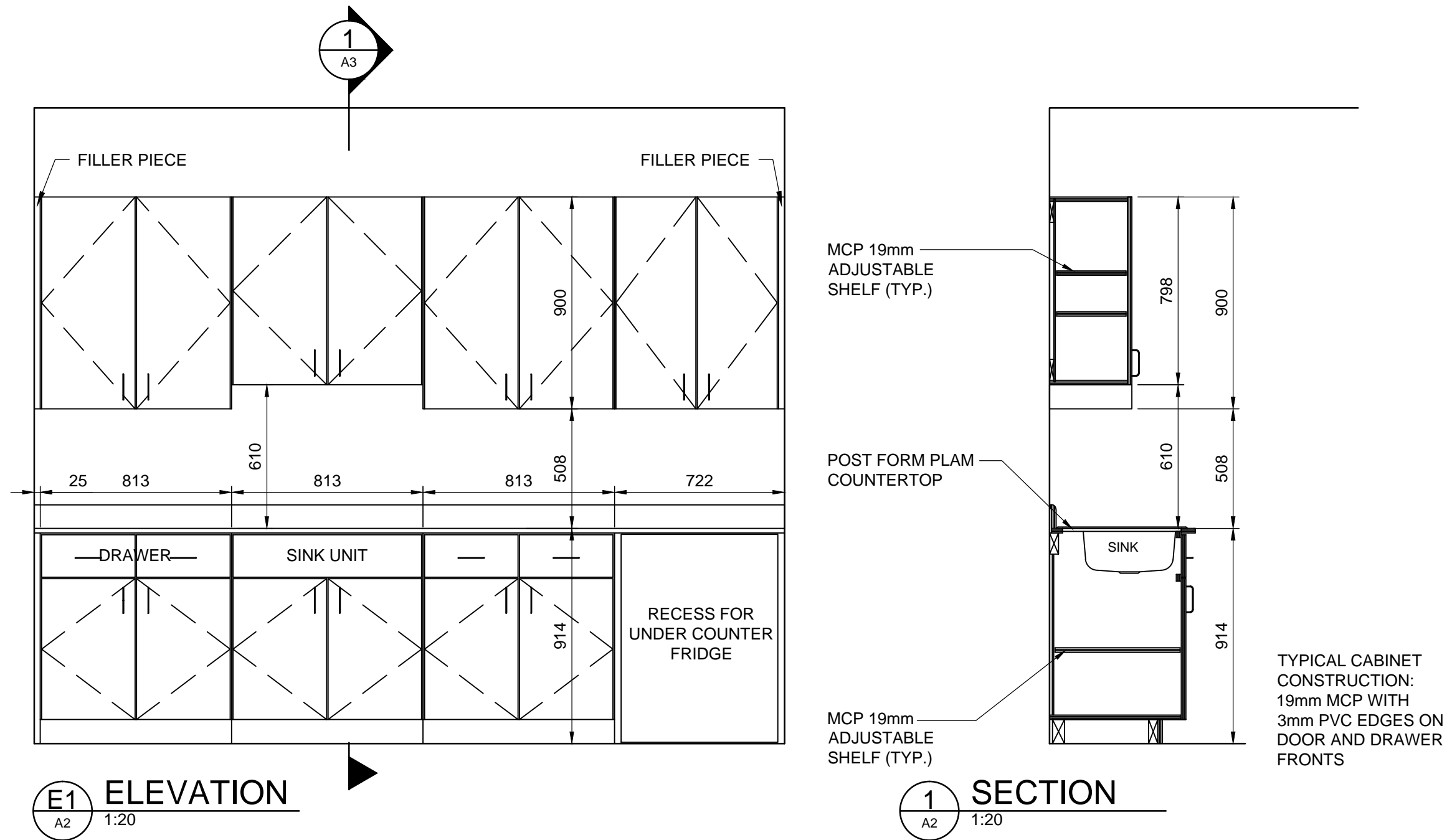
3 DETAIL  
A2 1:10



4 DETAIL  
A2 1:10

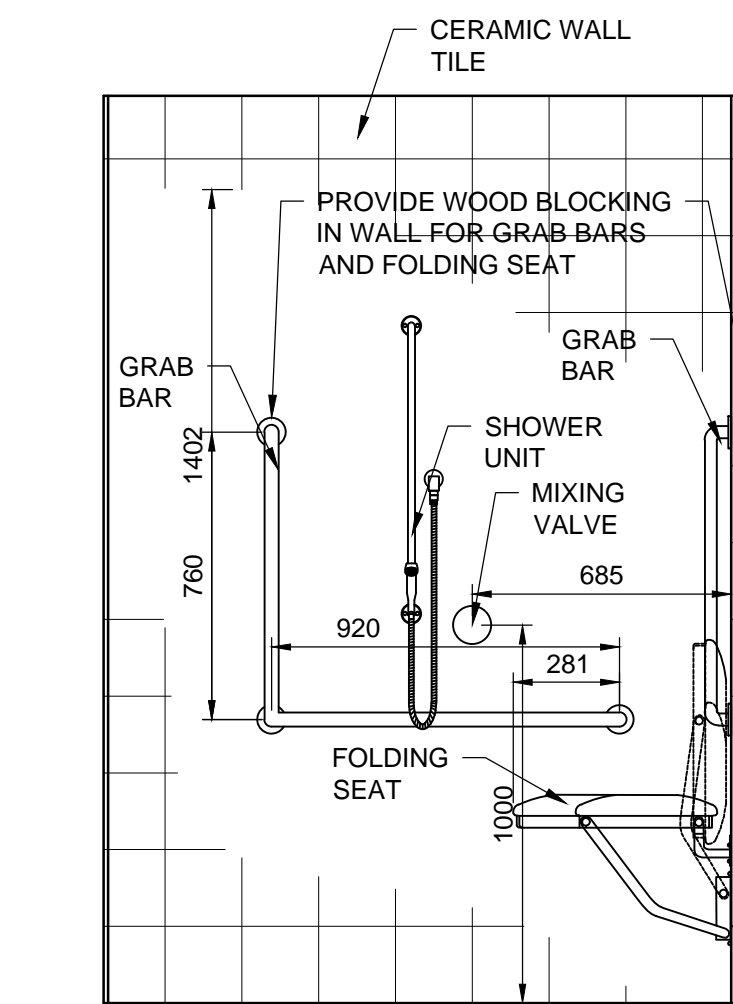


1 VBP DETAIL  
A6 1:20

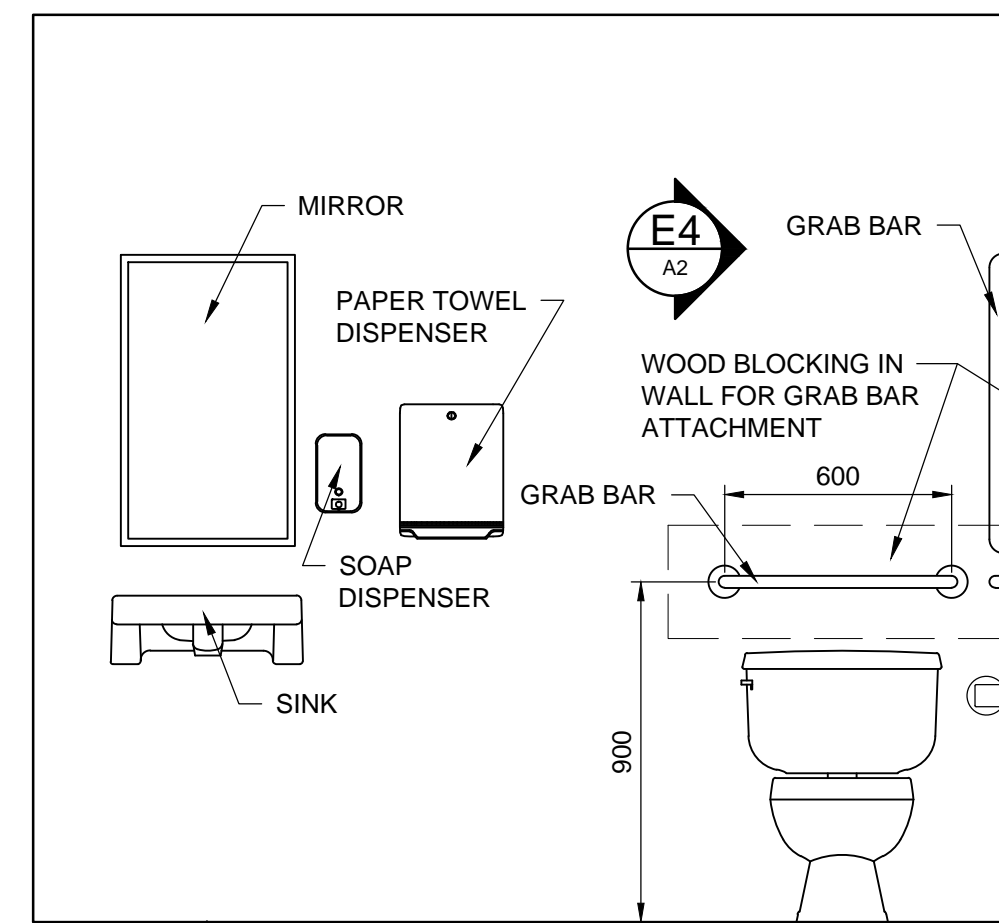


E1 ELEVATION  
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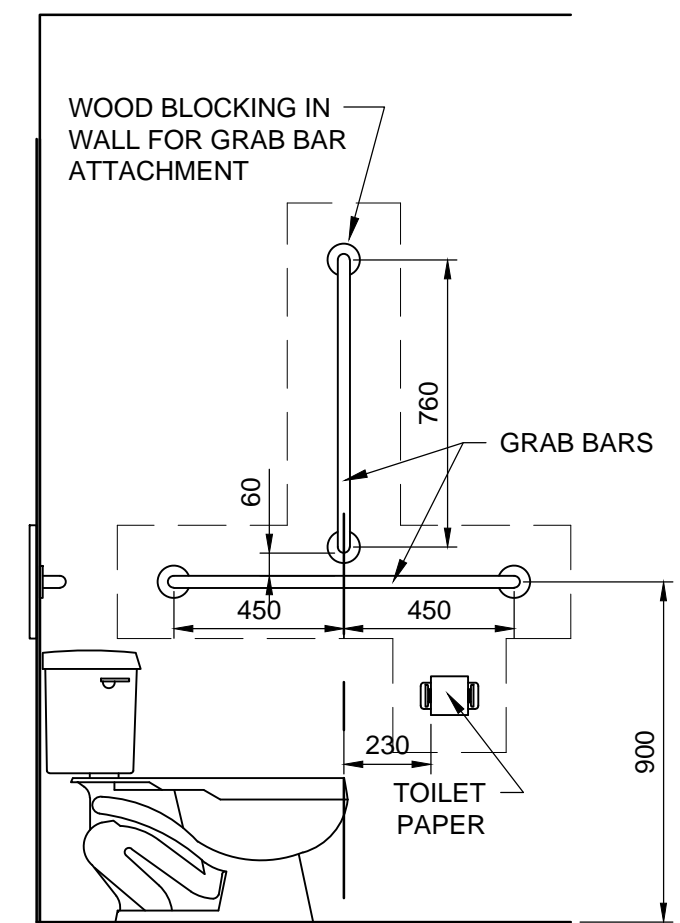
1 SECTION  
A2 1:20



E2 ELEVATION  
A2 1:20



E3 ELEVATION  
A2 1:20



E4 ELEVATION  
A2 1:20

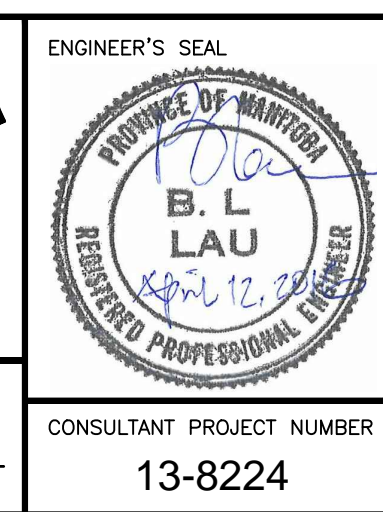
METRIC

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES



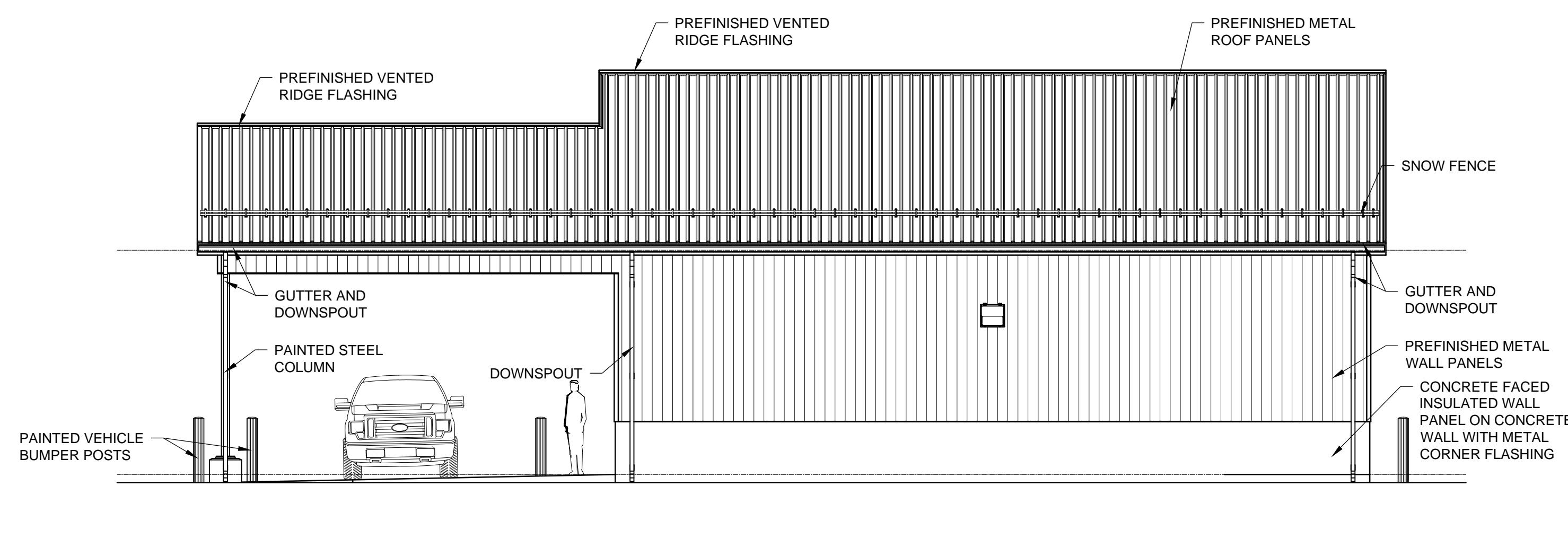
B.M. ELEV.	DESIGNED BY LDP
	DRAWN BY PDR
	CHECKED BY LDP
	APPROVED BY ARR
	HOR. SCALE AS NOTED
	VERTICAL
NO. REVISIONS	DATE BY DATE
2	ISSUED FOR CONSTRUCTION 16/04/12 NR
1	ISSUED FOR TENDER 16/03/04 ARR

RELEASED FOR CONSTRUCTION	DATE
---------------------------	------

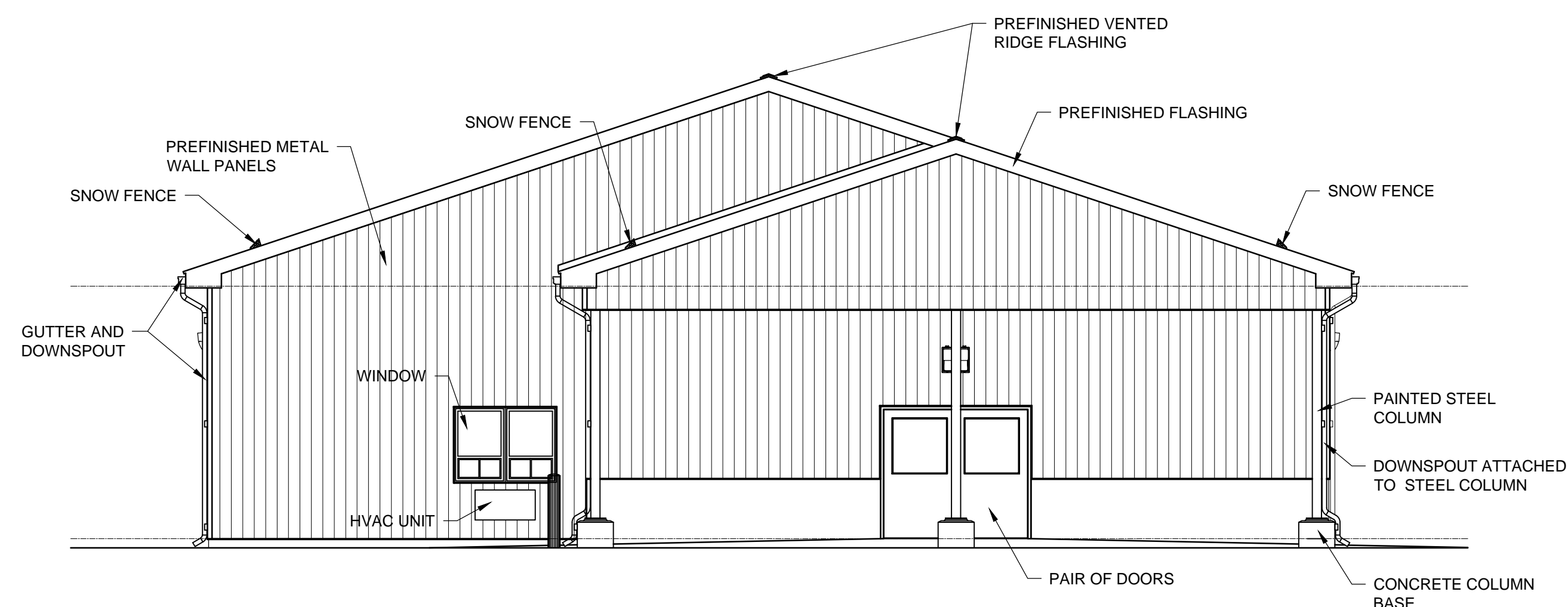


THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT	
4R WINNIPEG DEPOT PACIFIC AVENUE	CITY DRAWING NUMBER 1-0851A-A0003-001
HHW EWASTE BUILDING PLAN DETAILS INTERIOR ELEVATIONS	SHEET 25 OF 43 CONSULTANT DRAWING NUMBER A-3



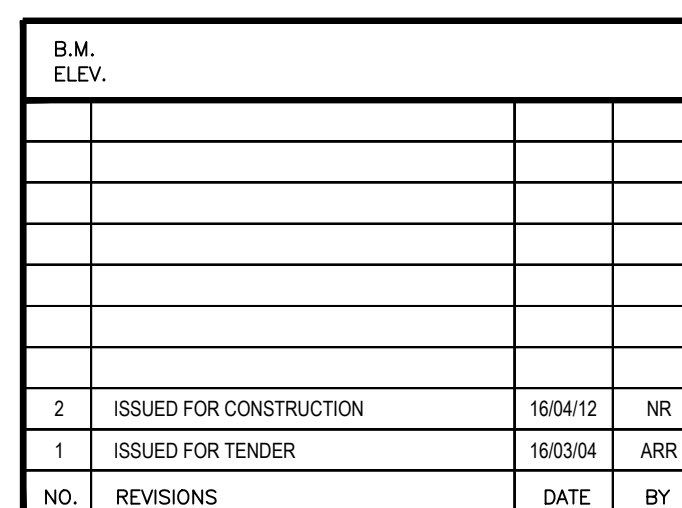


SOUTH ELEVATION  
1:75

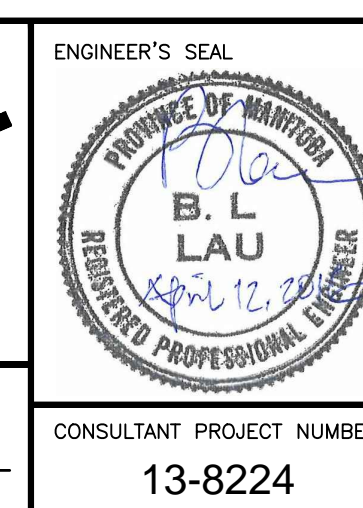
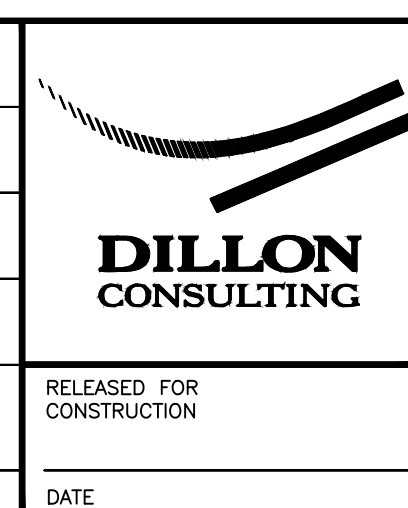


WEST ELEVATION

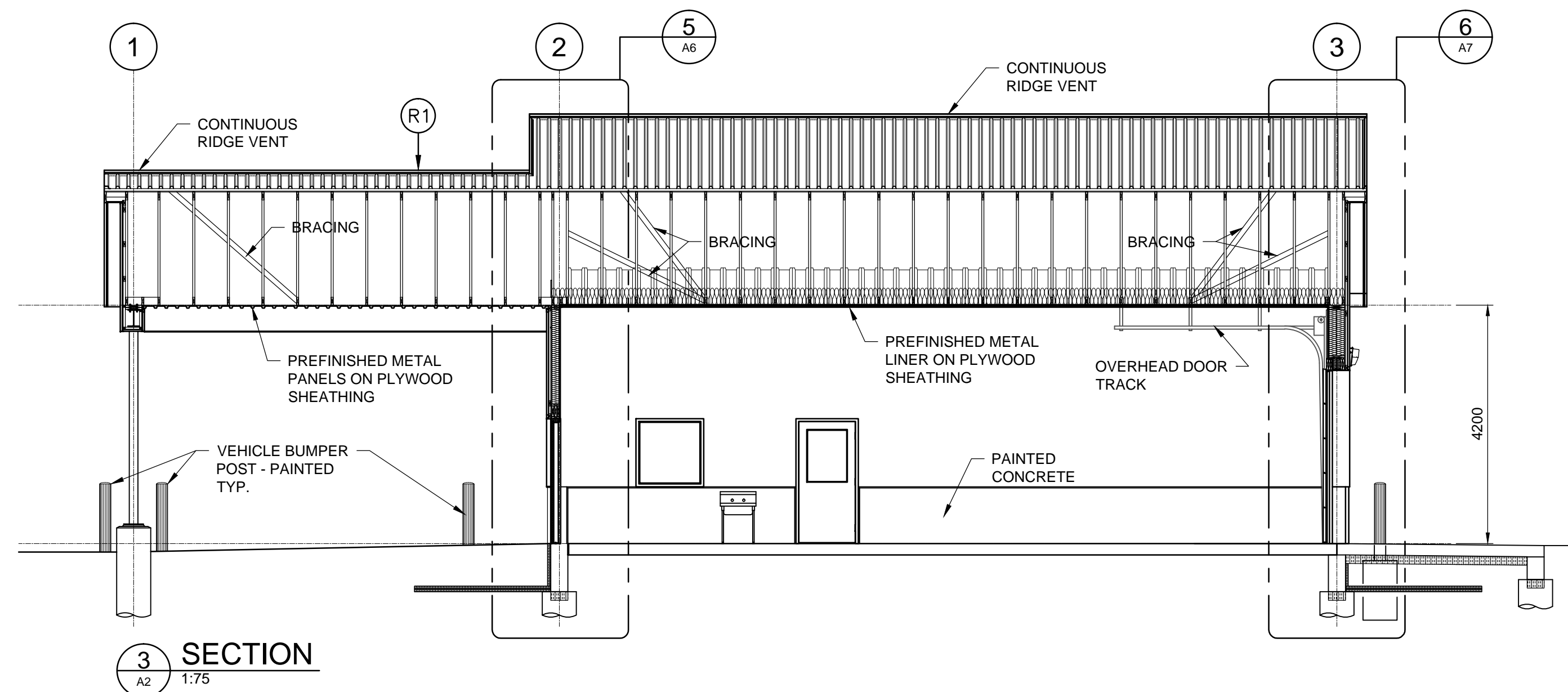
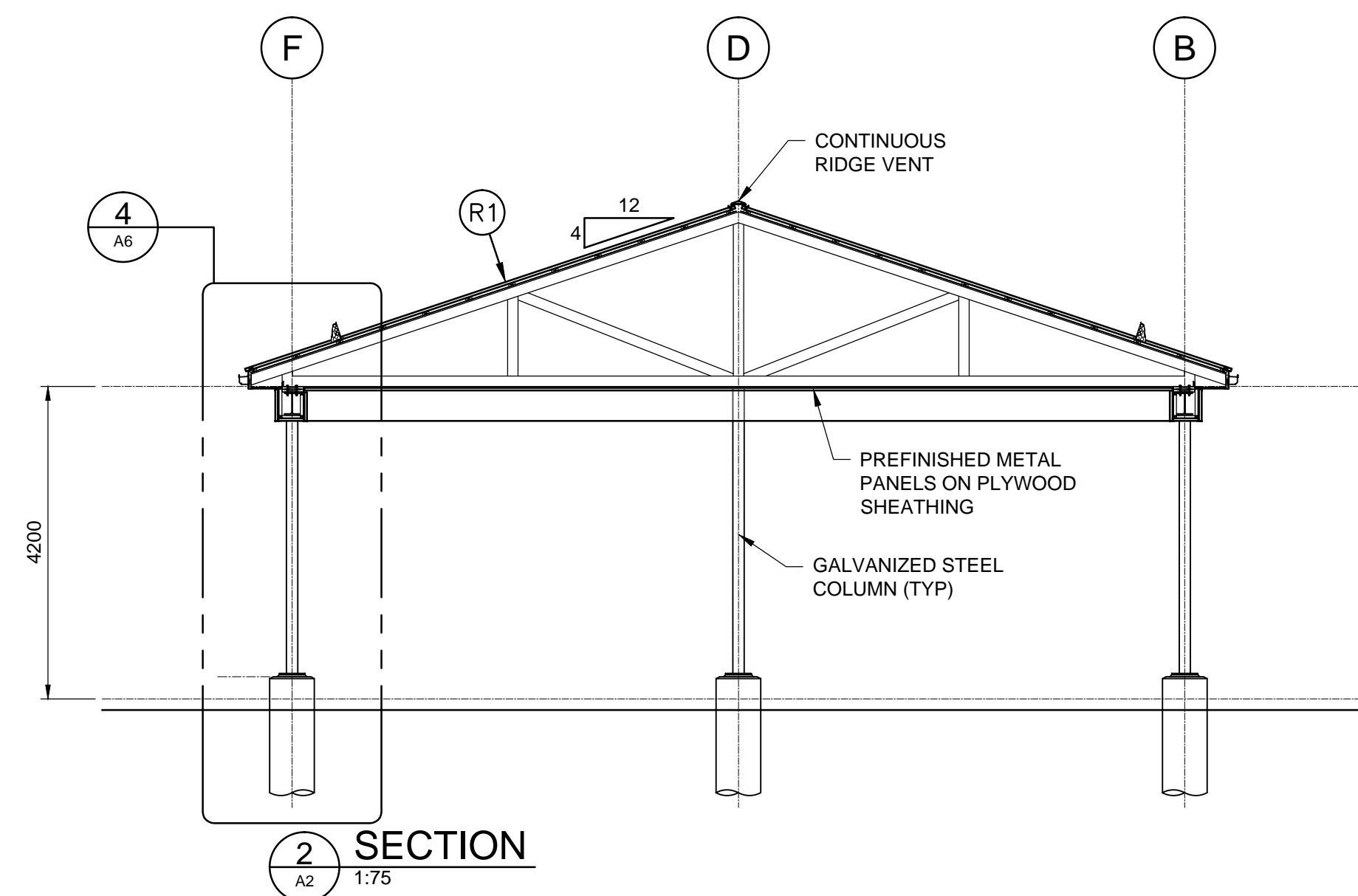
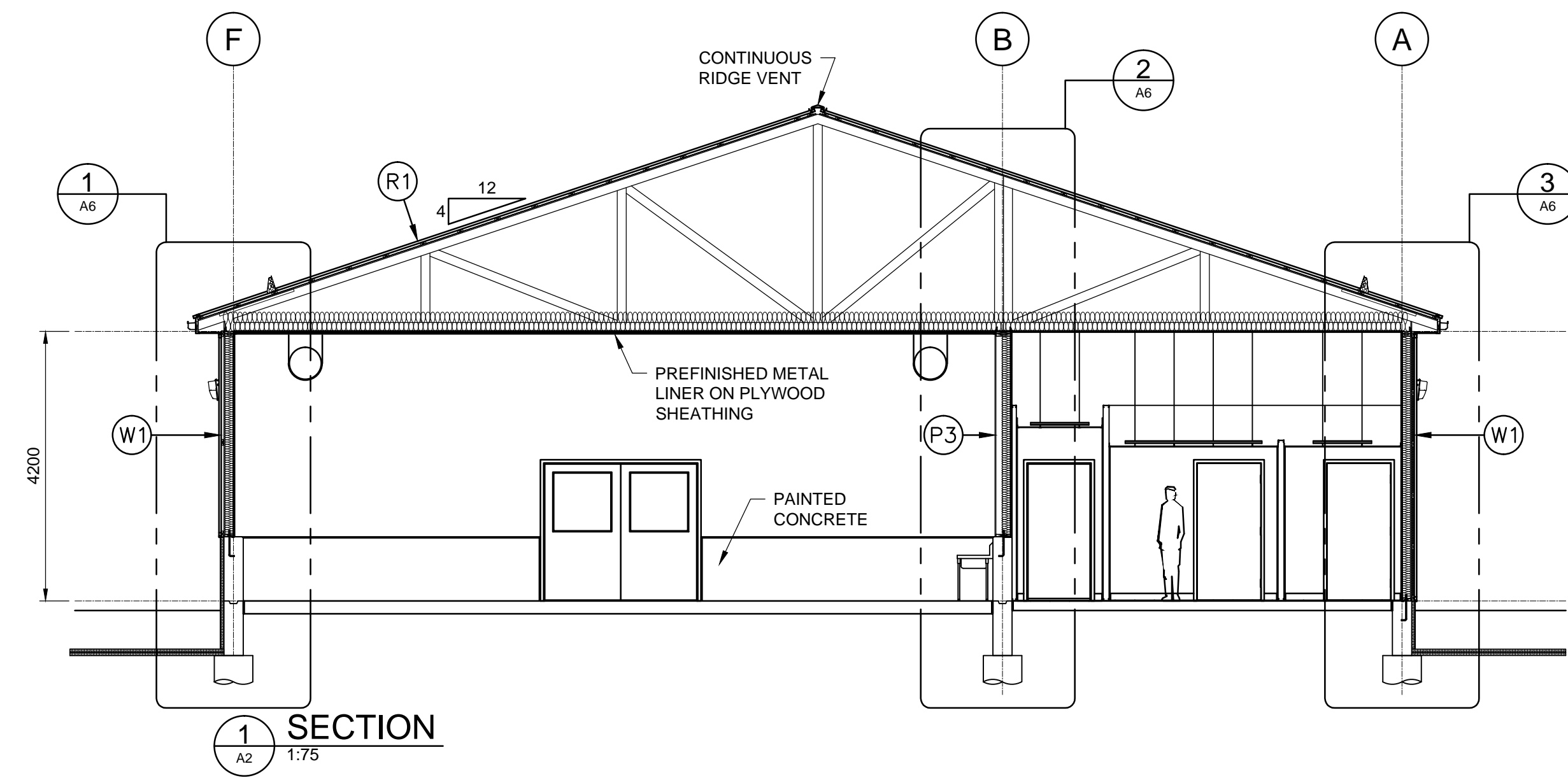
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DECIMALIZED NUMBERS INDICATE METRES



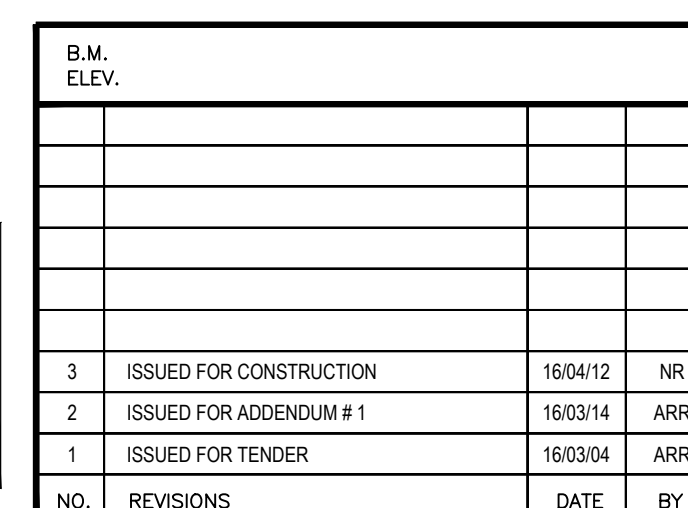
DESIGNED BY	LDP
DRAWN BY	PDR
CHECKED BY	LDP
APPROVED BY	ARR
HOR. SCALE	AS NOTED
VERTICAL	
DATE	



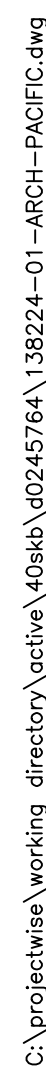
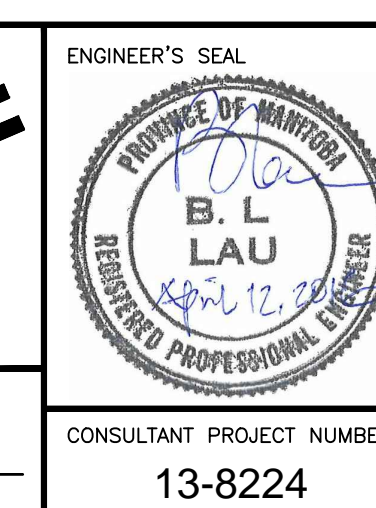
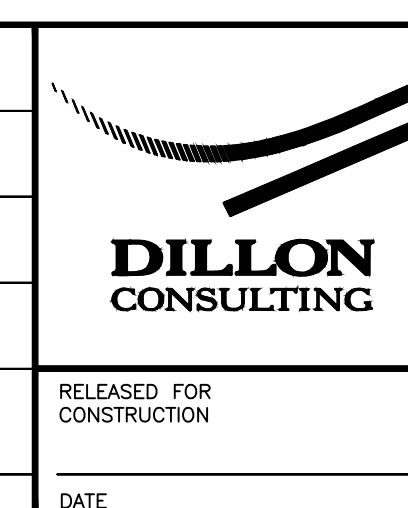




WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

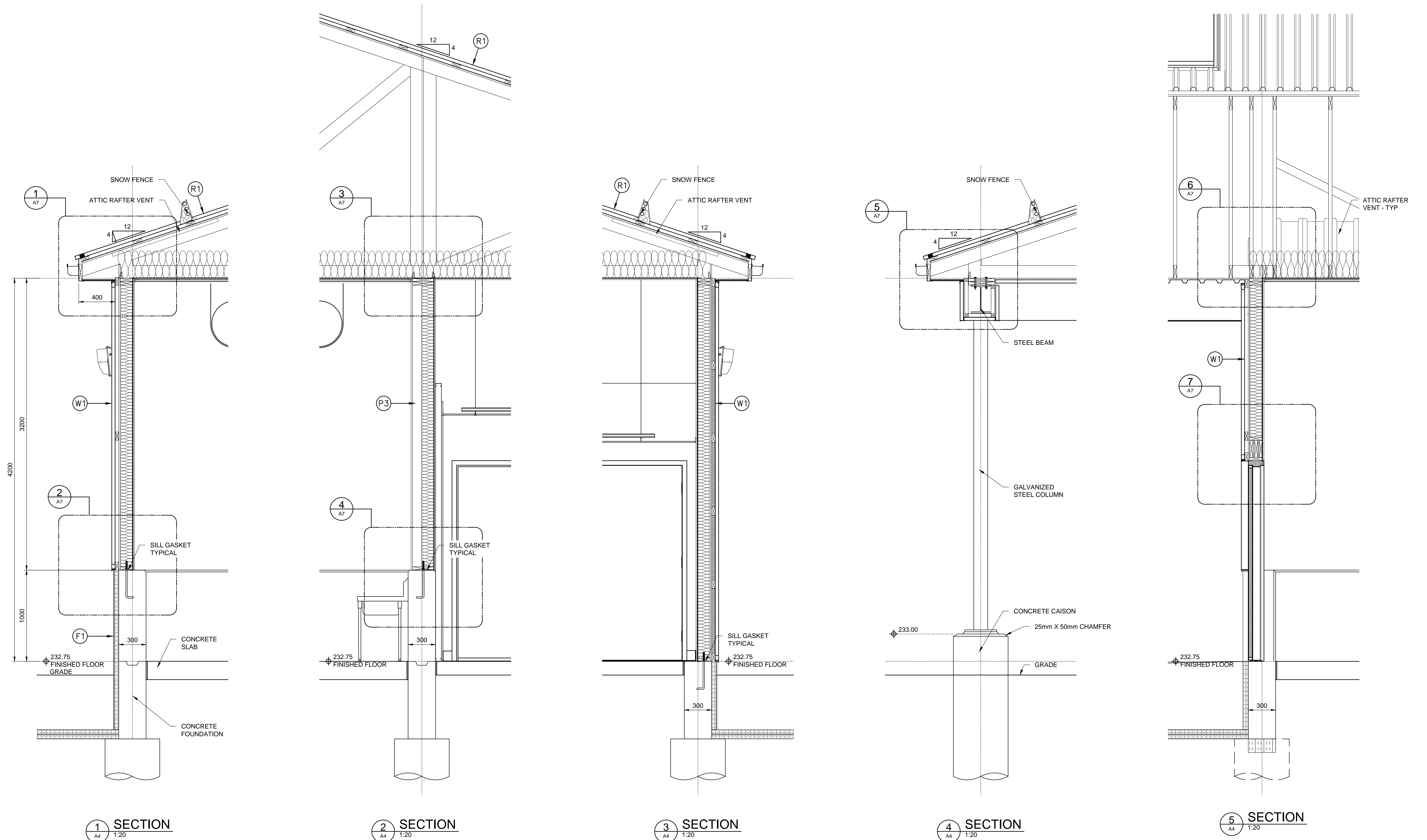


DESIGNED BY	LDP
DRAWN BY	PDR
CHECKED BY	LDP
APPROVED BY	ARR
HOR. SCALE	AS NOTED
VERTICAL	
DATE	





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METRIC

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

**APEGM**  
Certificate of Authorization  
Dillon Consulting Limited (MB)  
No. 1789 Date: MAR. 4, 2016

B.M. ELEV.			
3	ISSUED FOR CONSTRUCTION	16/04/12	NR
2	ISSUED FOR ADDENDUM # 1	16/03/14	ARR
1	ISSUED FOR TENDER	16/03/04	ARR
NO.	REVISIONS	DATE	BY

DESIGNED BY	LDP
DRAWN BY	PDR
CHECKED BY	LDP
APPROVED BY	ARR
HOR. SCALE	AS NOTED
VERTICAL	
DATE	

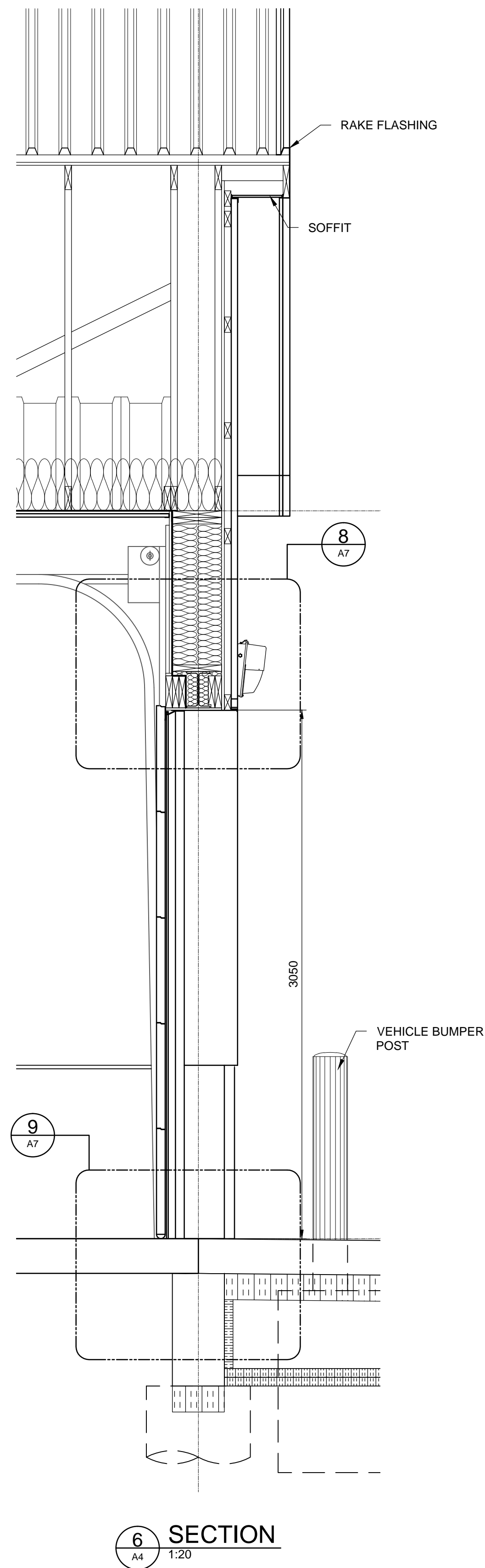
	RELEASED FOR CONSTRUCTION
	DATE

ENGINEER'S SEAL	
CONSULTANT PROJECT NUMBER	13-8224

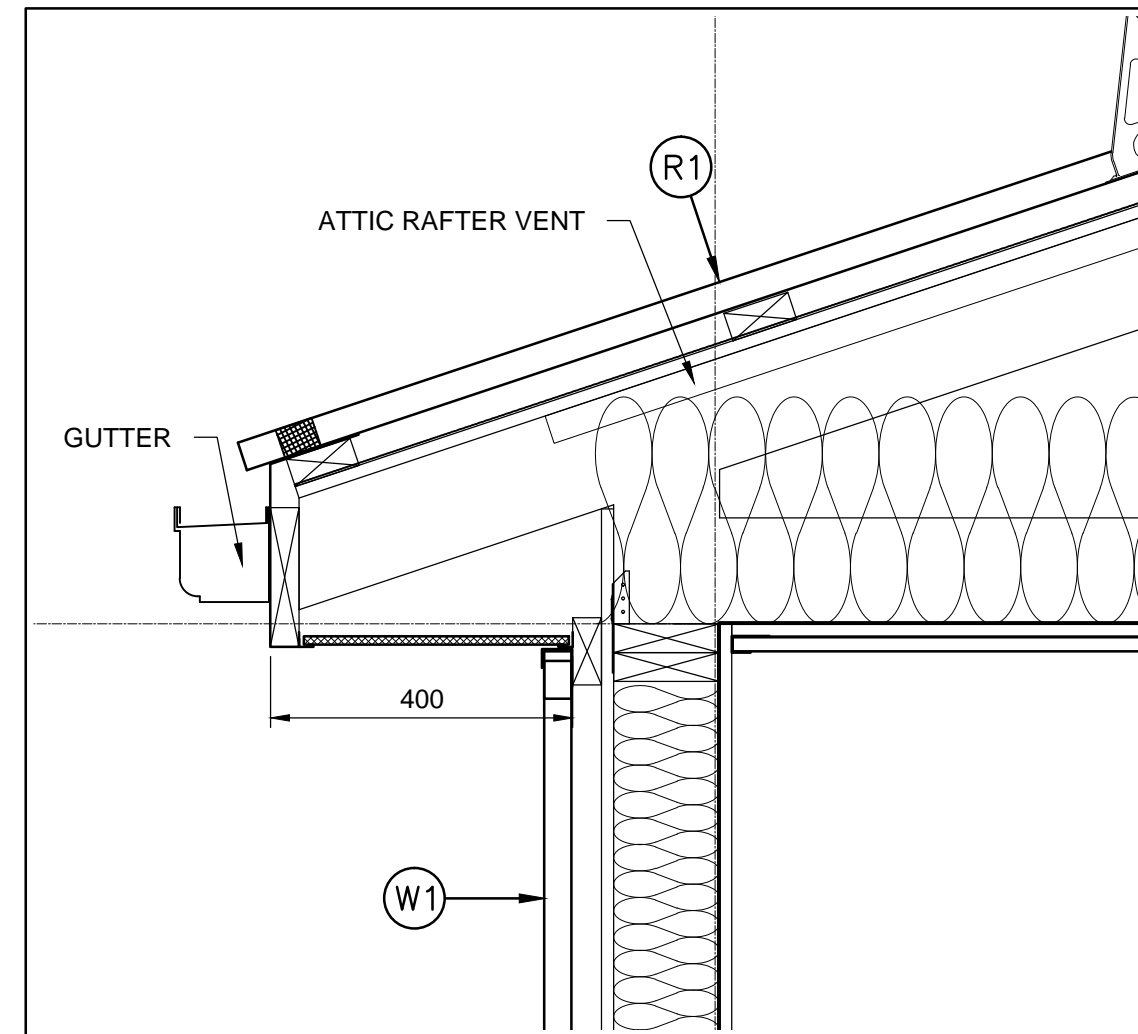
<b>THE CITY OF WINNIPEG</b> WATER AND WASTE DEPARTMENT	
4R WINNIPEG DEPOT PACIFIC AVENUE	CITY DRAWING NUMBER 1-0851A-A0006-001
HHW EWASTE BUILDING WALL SECTIONS	SHEET 28 OF 43 CONSULTANT DRAWING NUMBER A-6



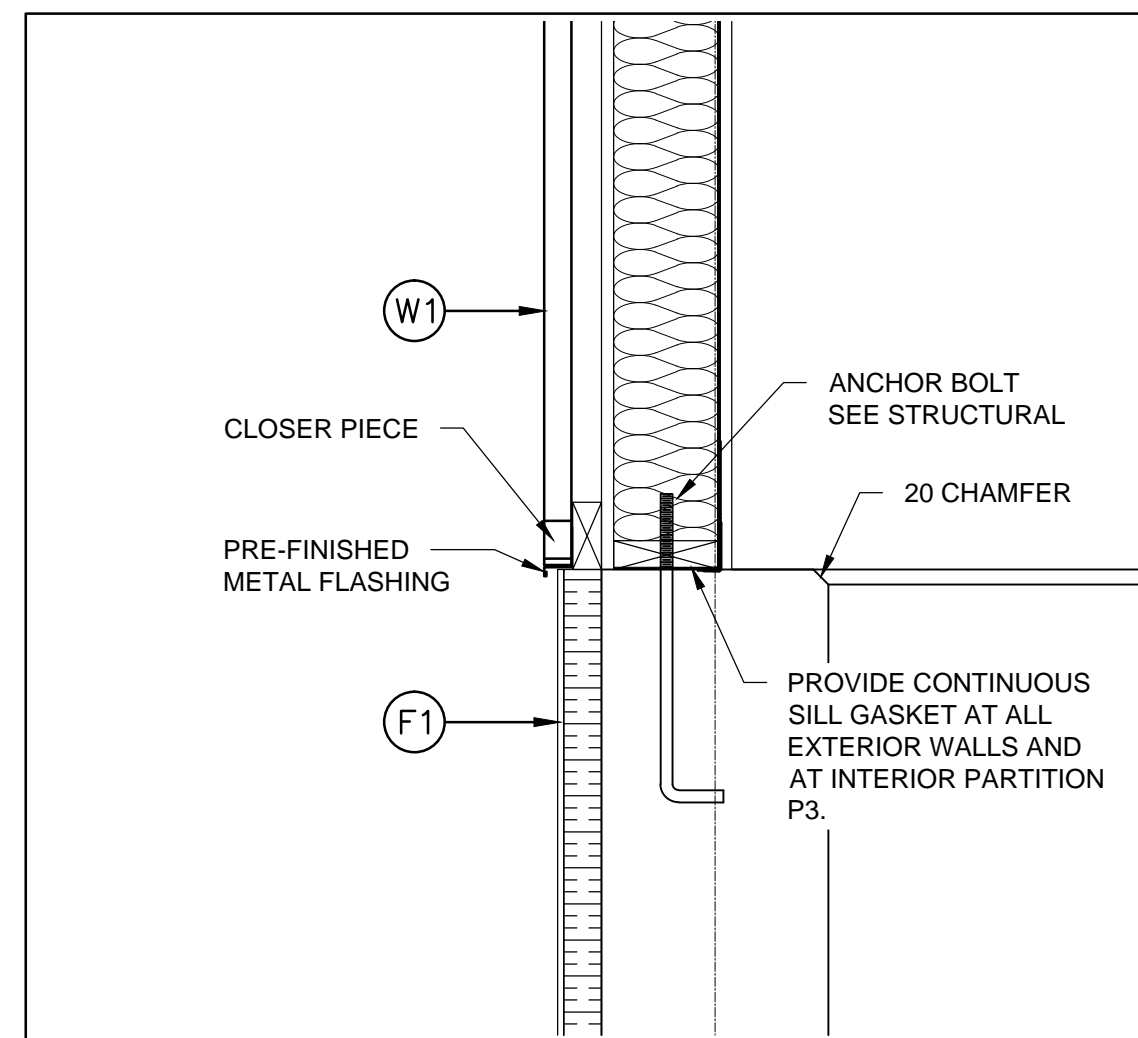
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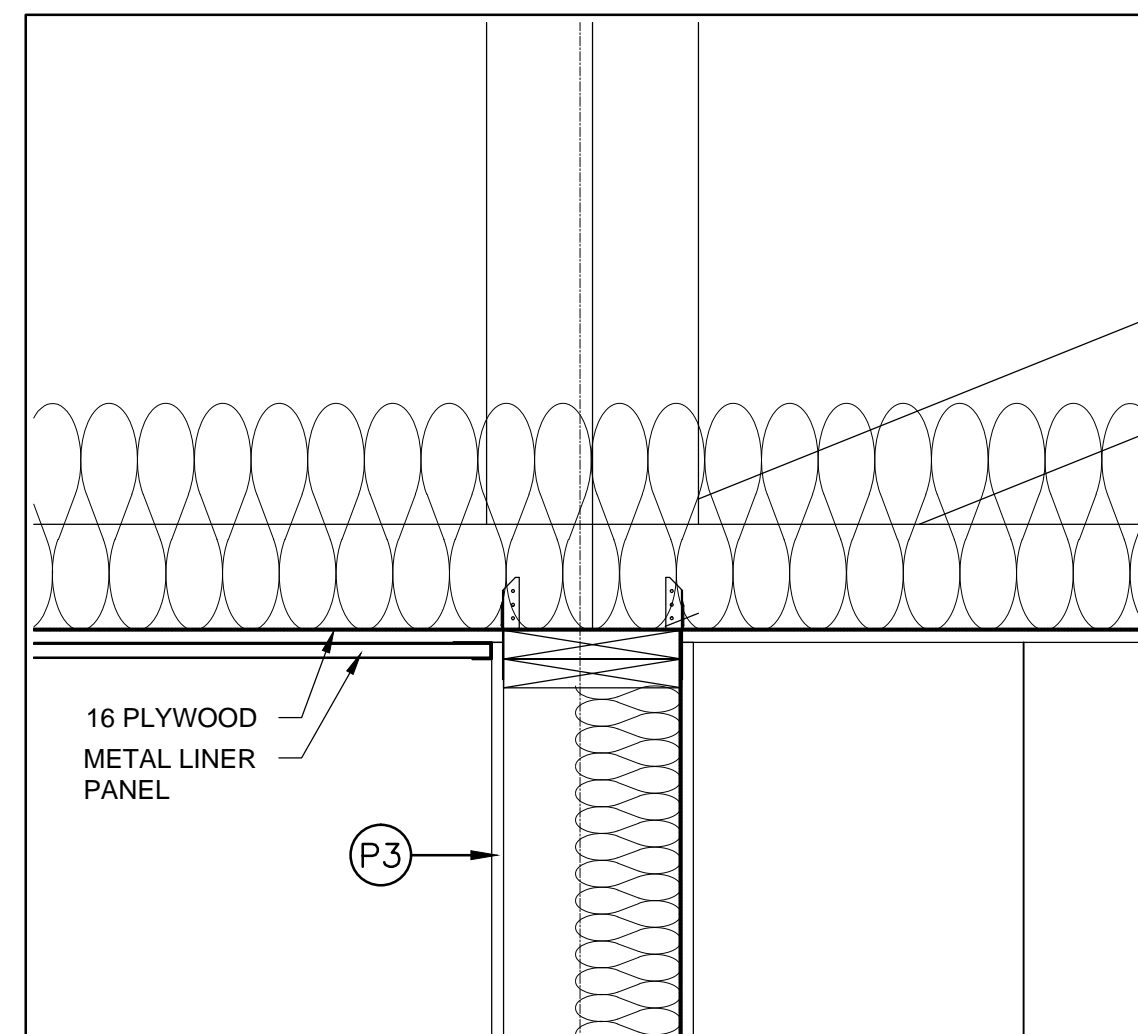
6 SECTION  
A4 A6 1:20



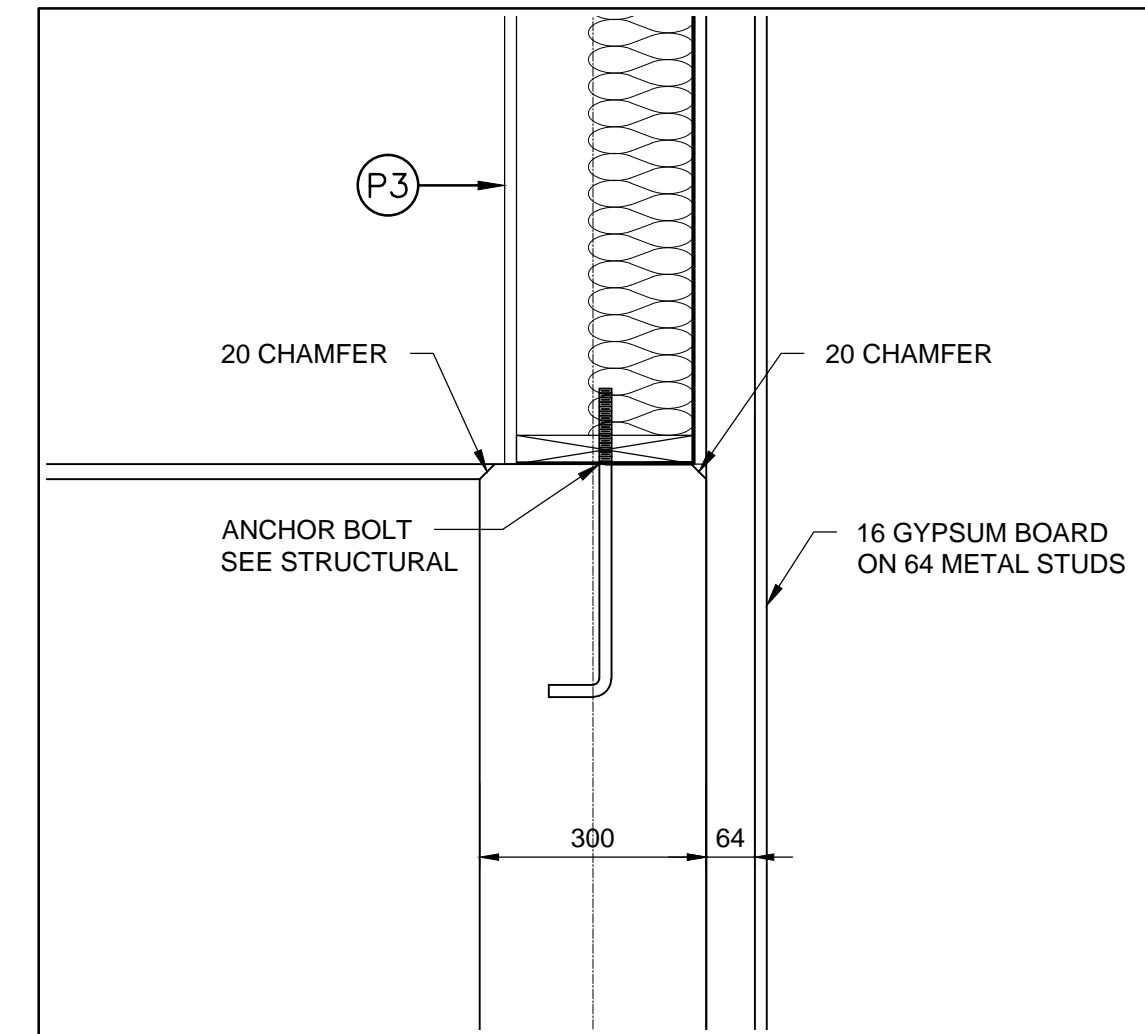
1 DETAIL  
A6 1:10



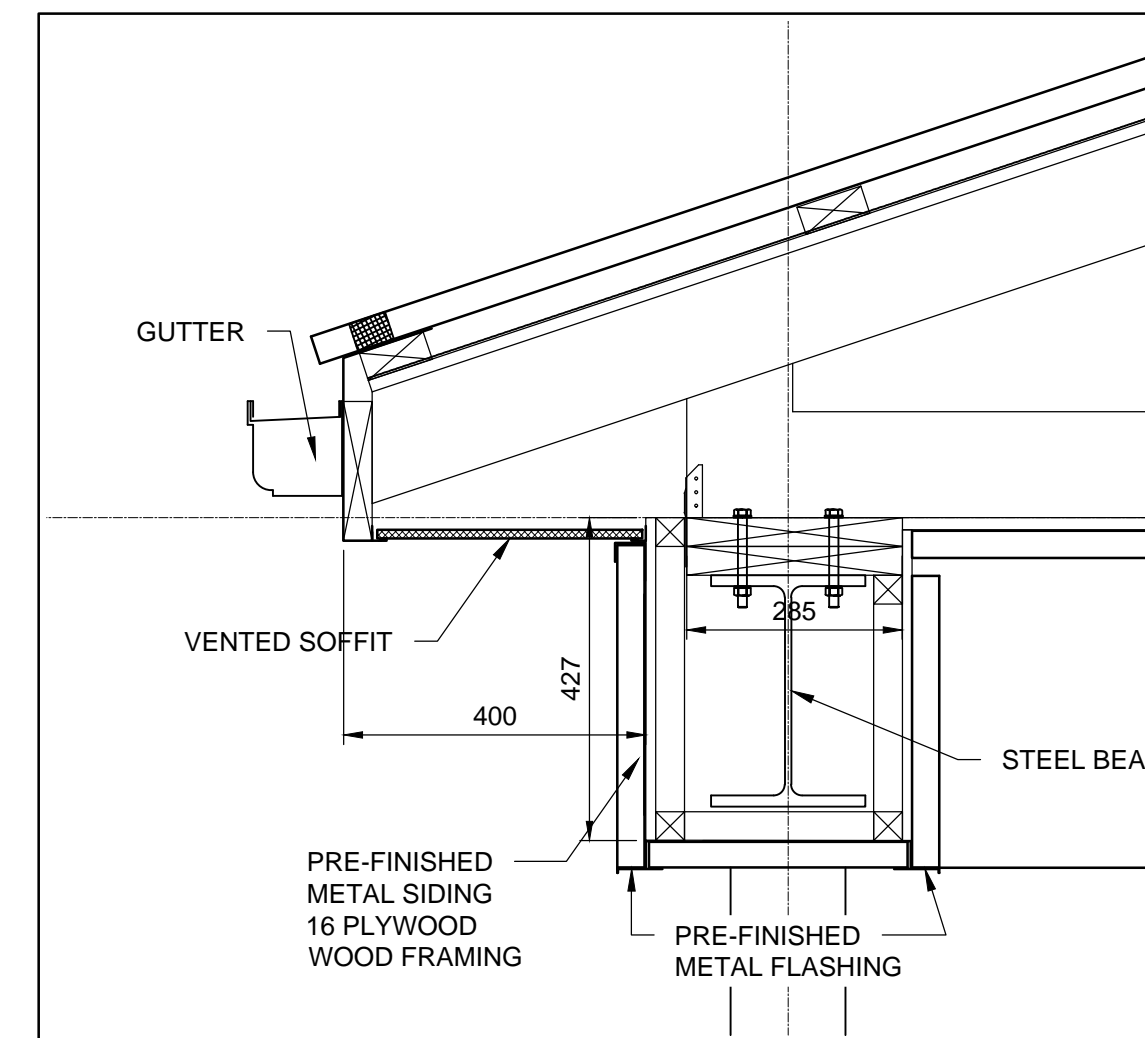
2 DETAIL  
A6 1:10



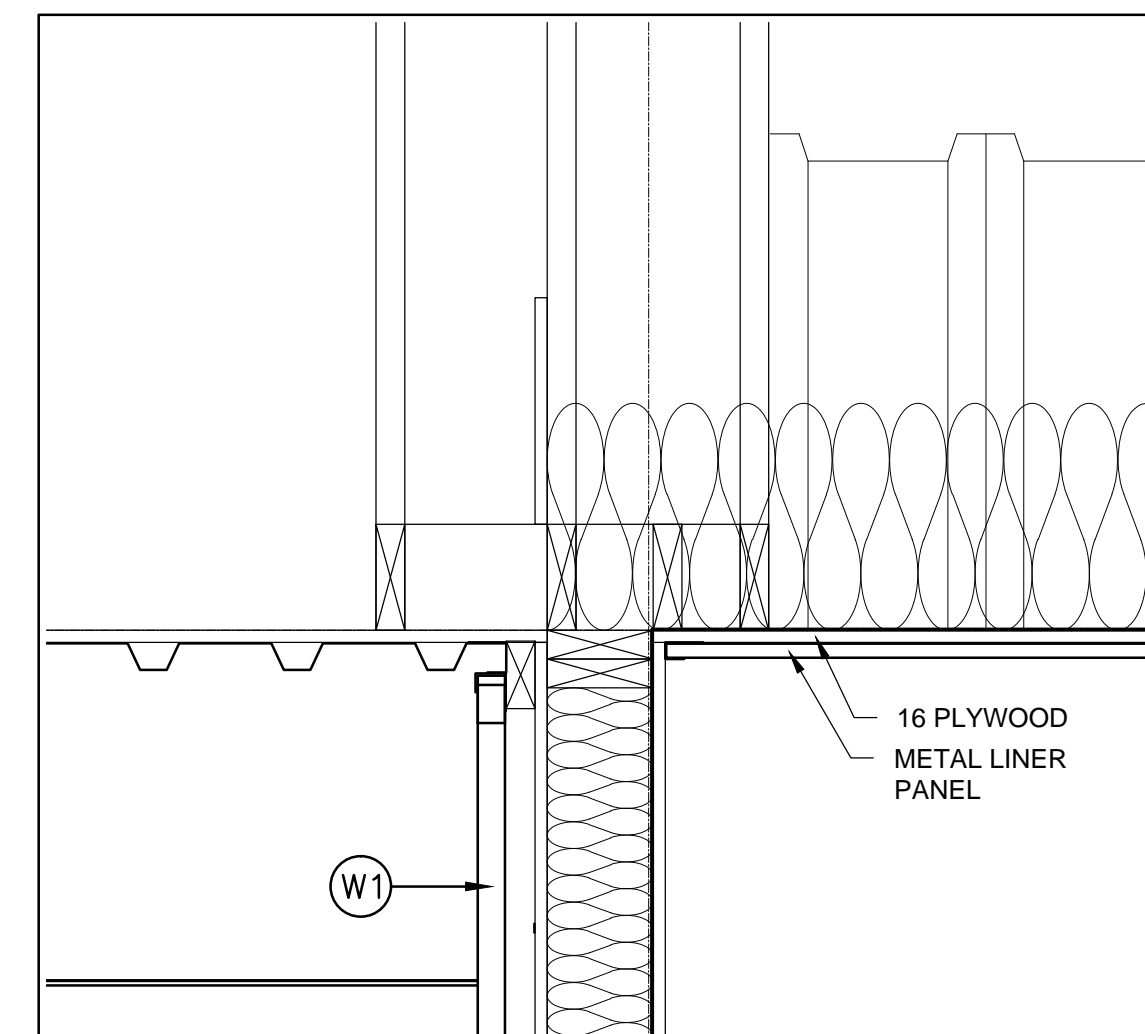
3 DETAIL  
A6 1:10



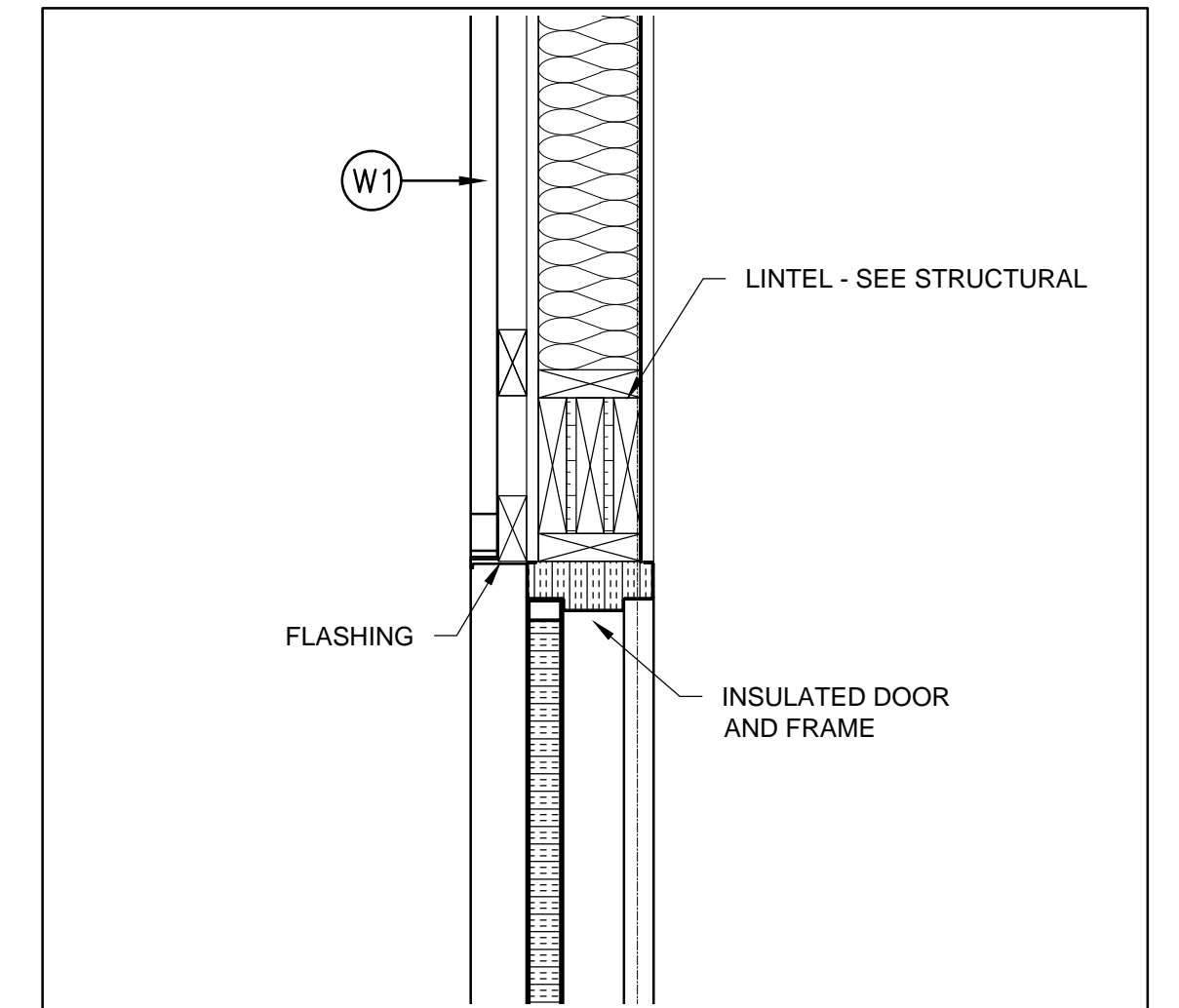
4 DETAIL  
A6 1:10



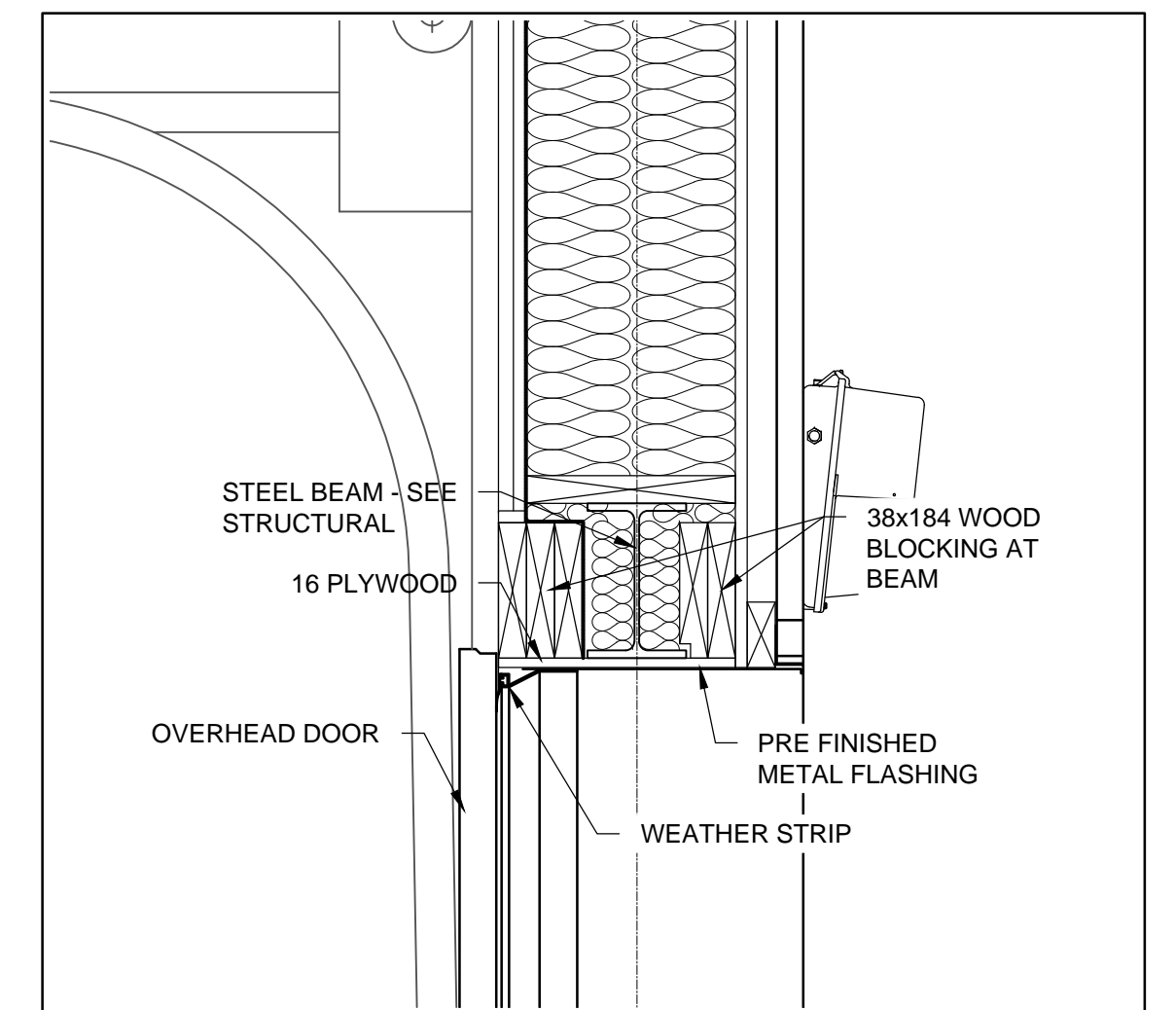
5 DETAIL  
A6 1:10



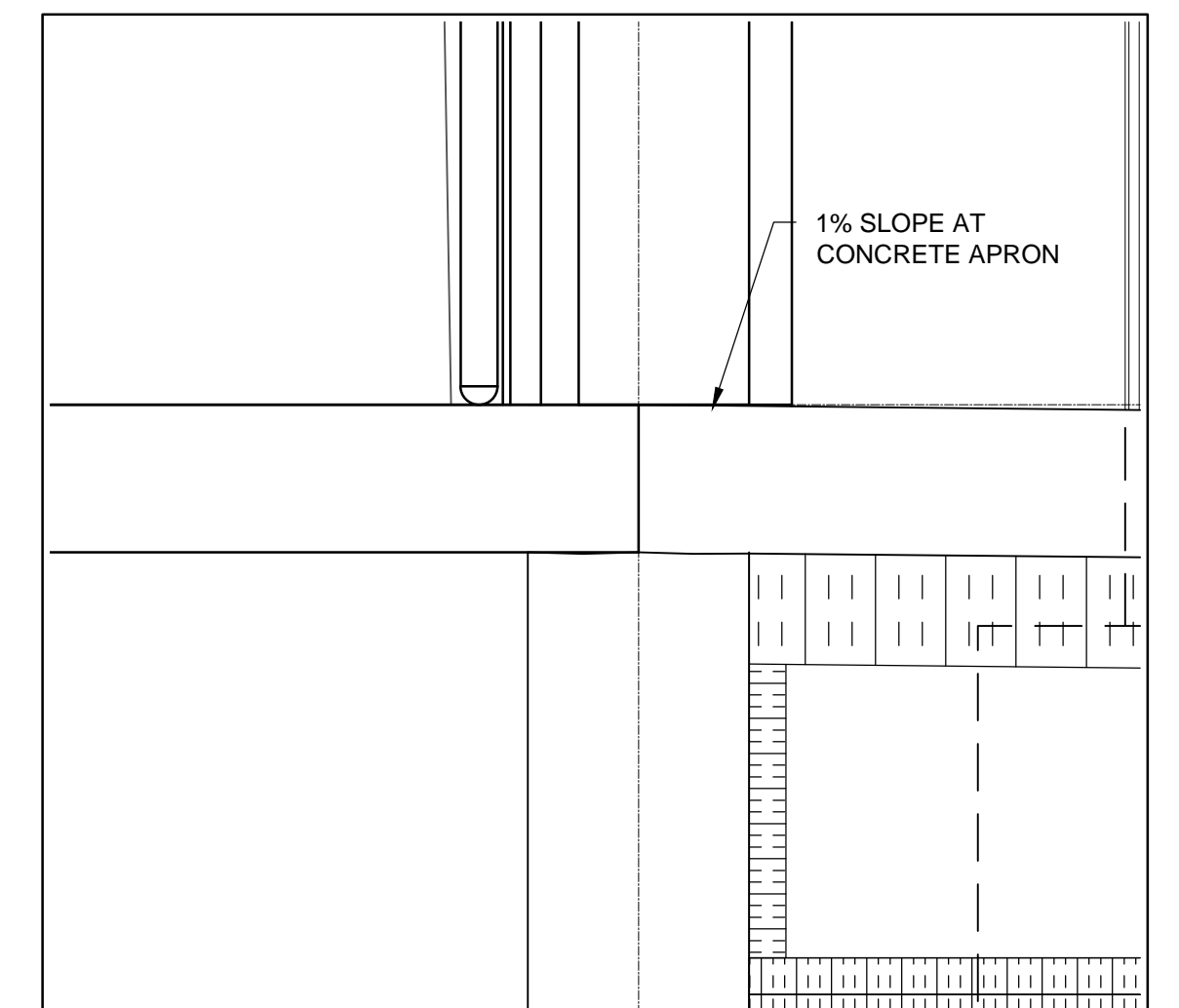
6 DETAIL  
A6 1:10



7 DETAIL  
A6 1:10



8 DETAIL  
A6 1:10



9 DETAIL  
A6 1:10

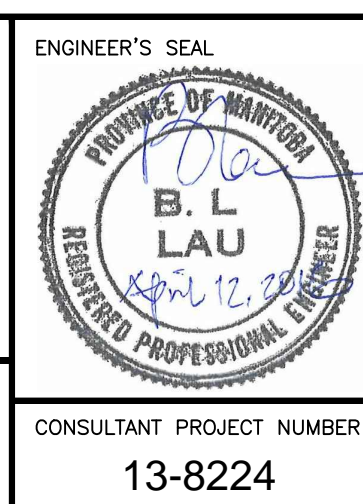
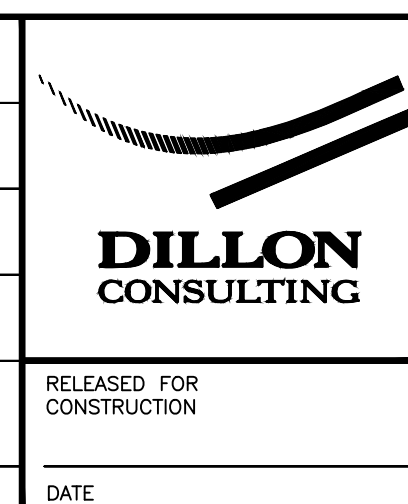
METRIC

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES



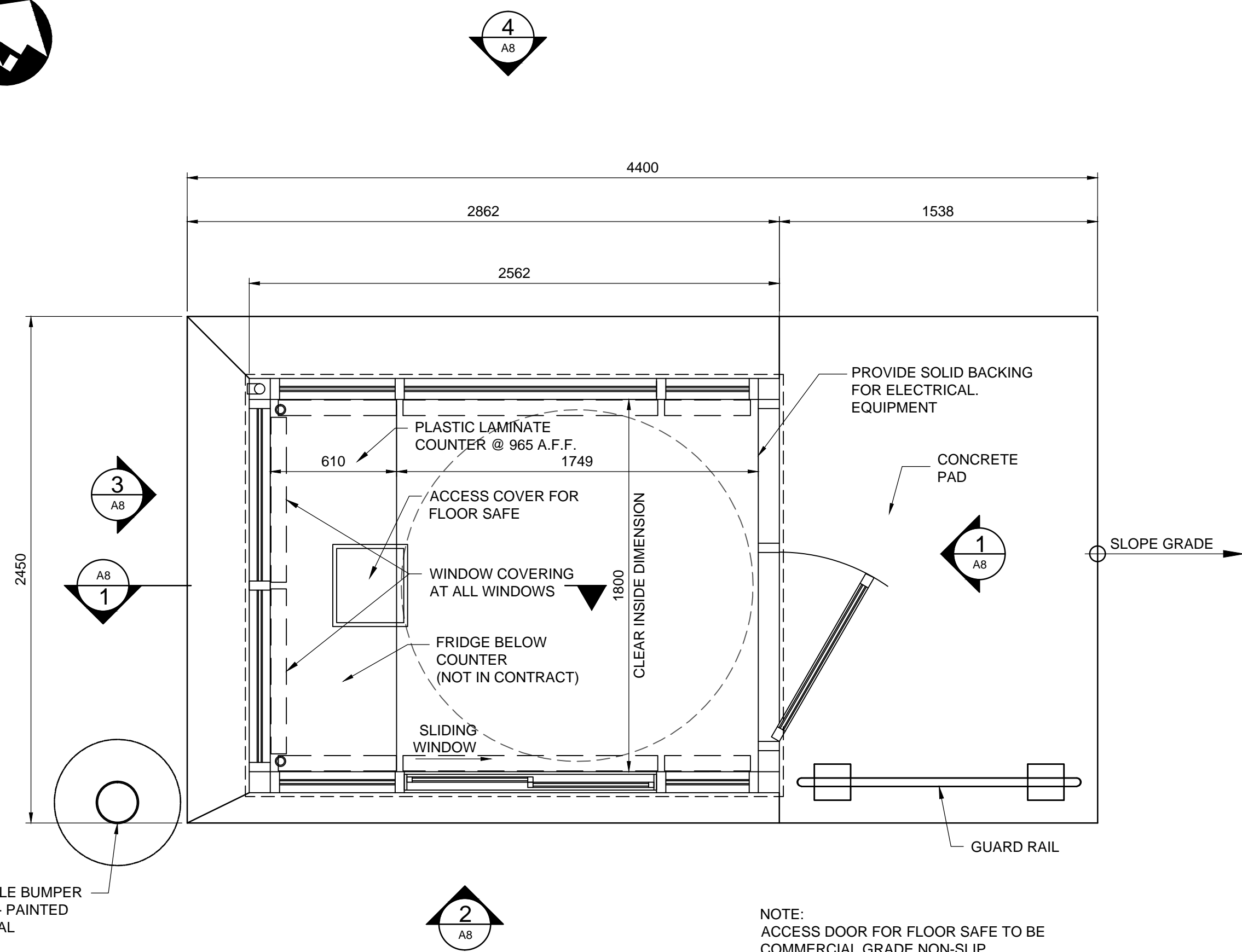
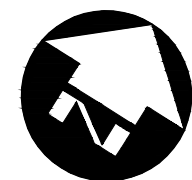
B.M. ELEV.			
3	ISSUED FOR CONSTRUCTION	16/04/12	NR
2	ISSUED FOR ADDENDUM # 1	16/03/14	ARR
1	ISSUED FOR TENDER	16/03/04	ARR
NO.	REVISIONS	DATE	BY

DESIGNED BY	LDP
DRAWN BY	PDR
CHECKED BY	LDP
APPROVED BY	ARR
HOR. SCALE	AS NOTED
VERTICAL	
DATE	



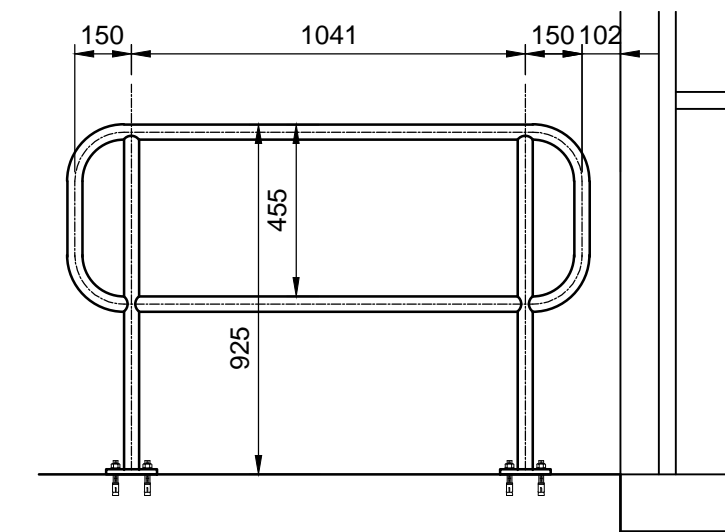
<b>THE CITY OF WINNIPEG</b> WATER AND WASTE DEPARTMENT	
4R WINNIPEG DEPOT PACIFIC AVENUE	CITY DRAWING NUMBER 1-0851A-A0007-001
HHW EWASTE BUILDING WALL SECTIONS, DETAILS	SHEET 29 OF 43 CONSULTANT DRAWING NUMBER A-7



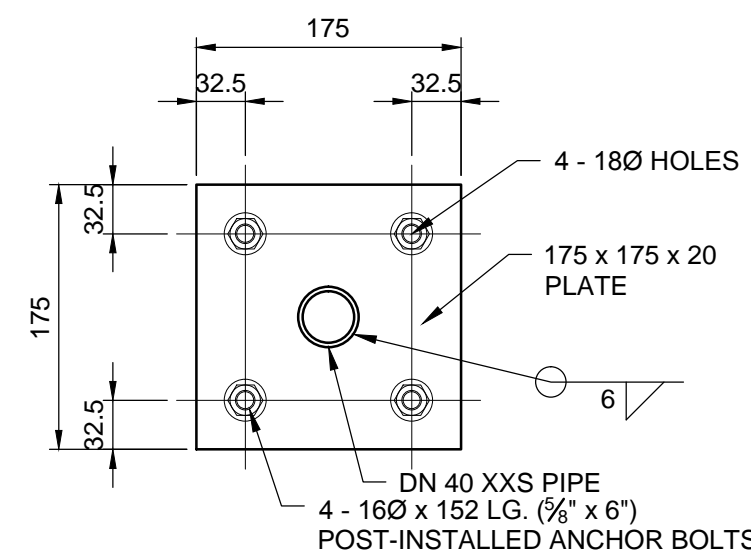


**FLOOR PLAN**  
1:20

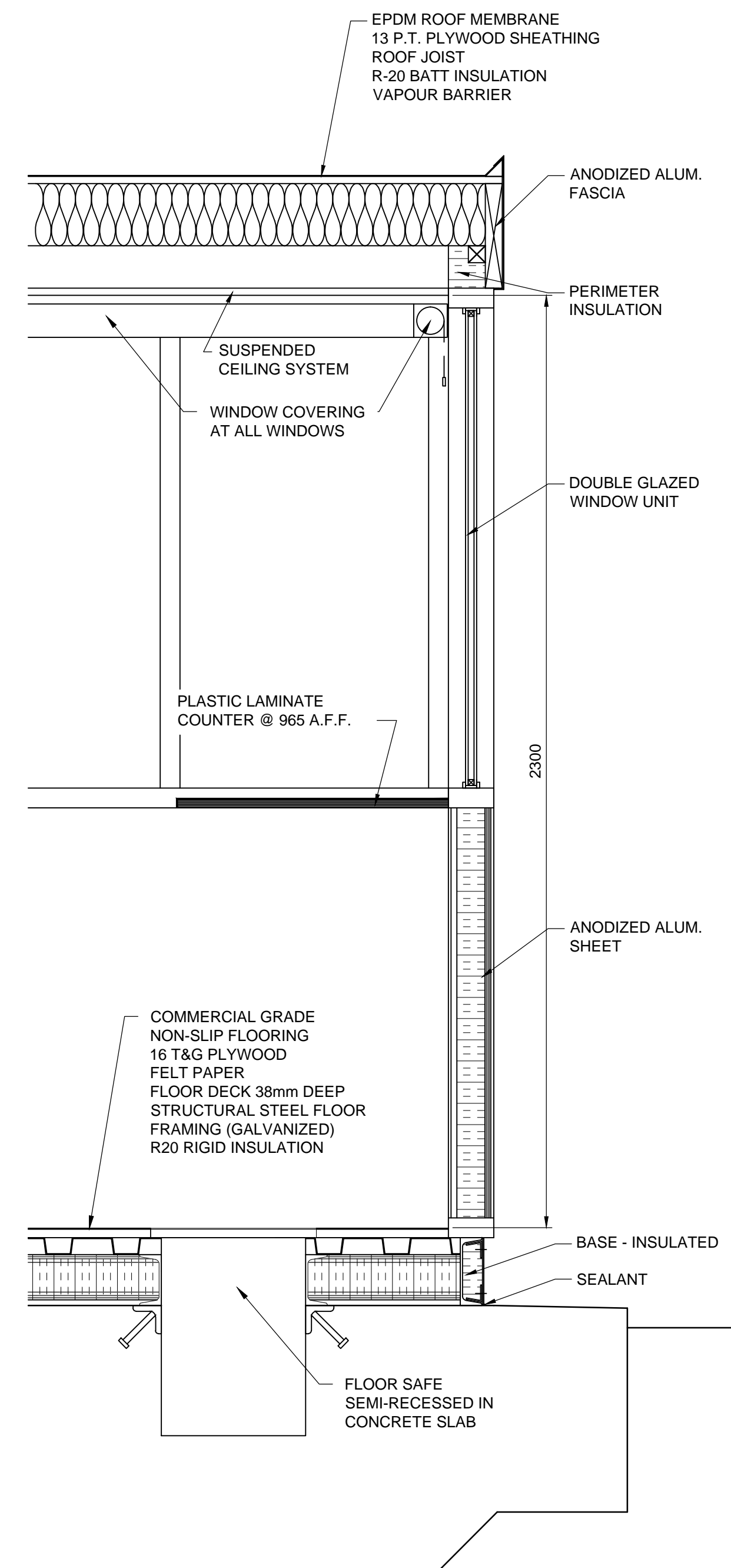
NOTE:  
ACCESS DOOR FOR FLOOR SAFE TO BE  
COMMERCIAL GRADE NON-SLIP  
FLOORING, 16 T&G PLYWOOD WITH  
FINGER HOLE FOR LIFTING. PROVIDE  
OPENING IN FLOOR DECK FOR ACCESS  
TO SAFE AND PROVIDE STRUCTURAL  
STEEL FLOOR FRAMING AROUND  
OPENING.  
TOP OF SAFE TO BE FLUSH WITH TOP OF  
STEEL FLOOR DECK.



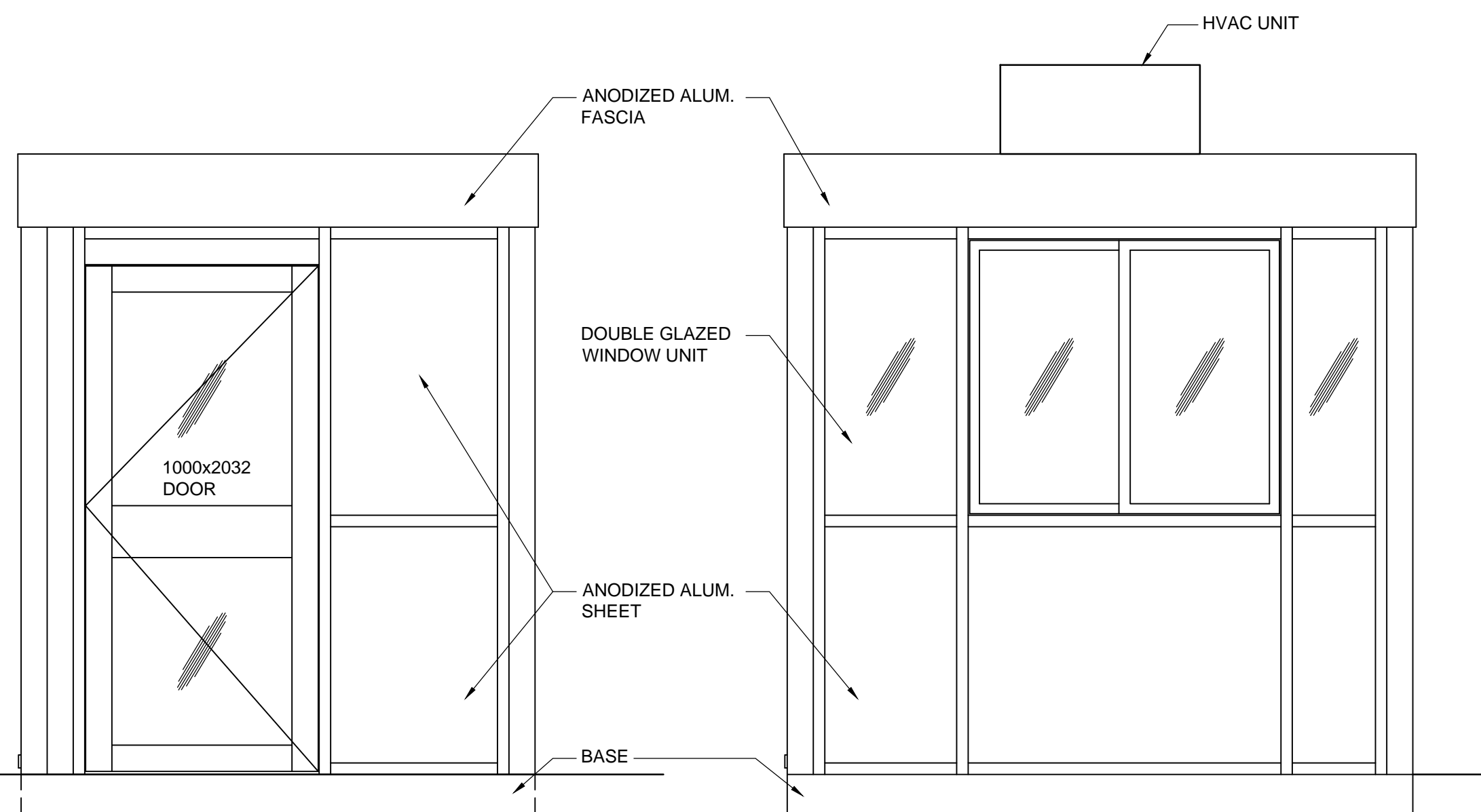
**GUARDRAIL ELEVATION**  
1:20



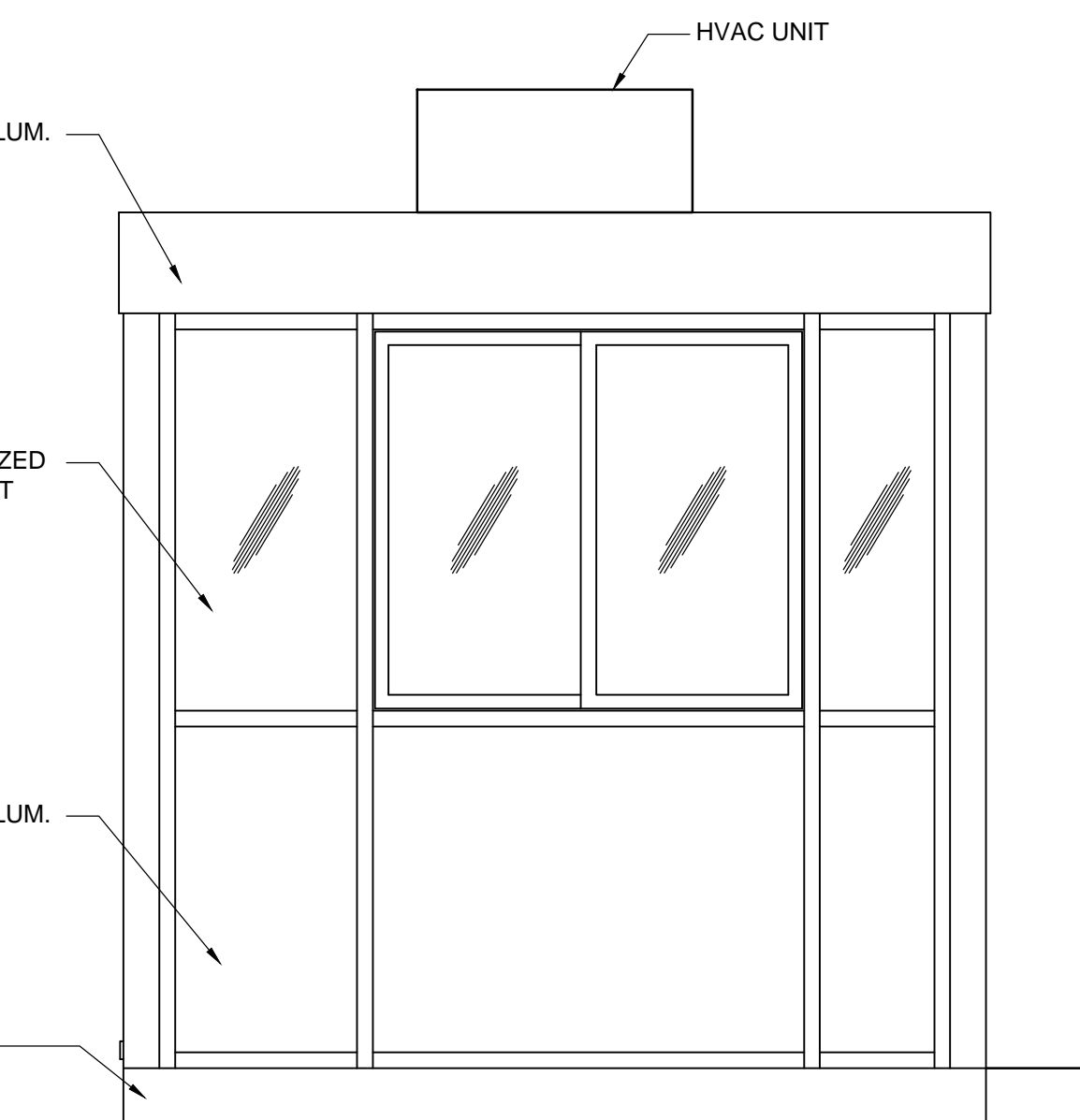
**BASE PLATE DETAIL**  
1:5



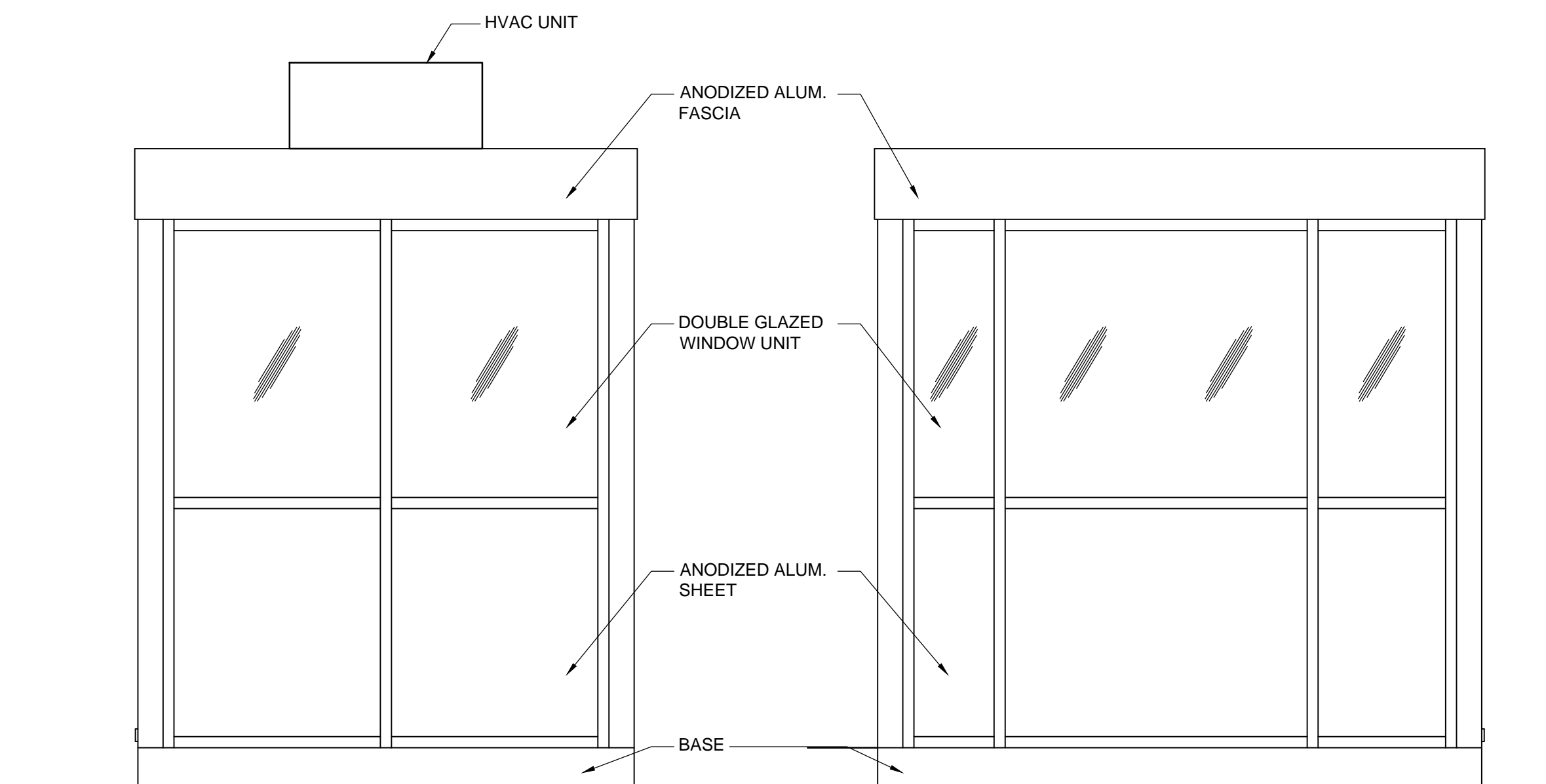
**SECTION 1**  
A8 1:10



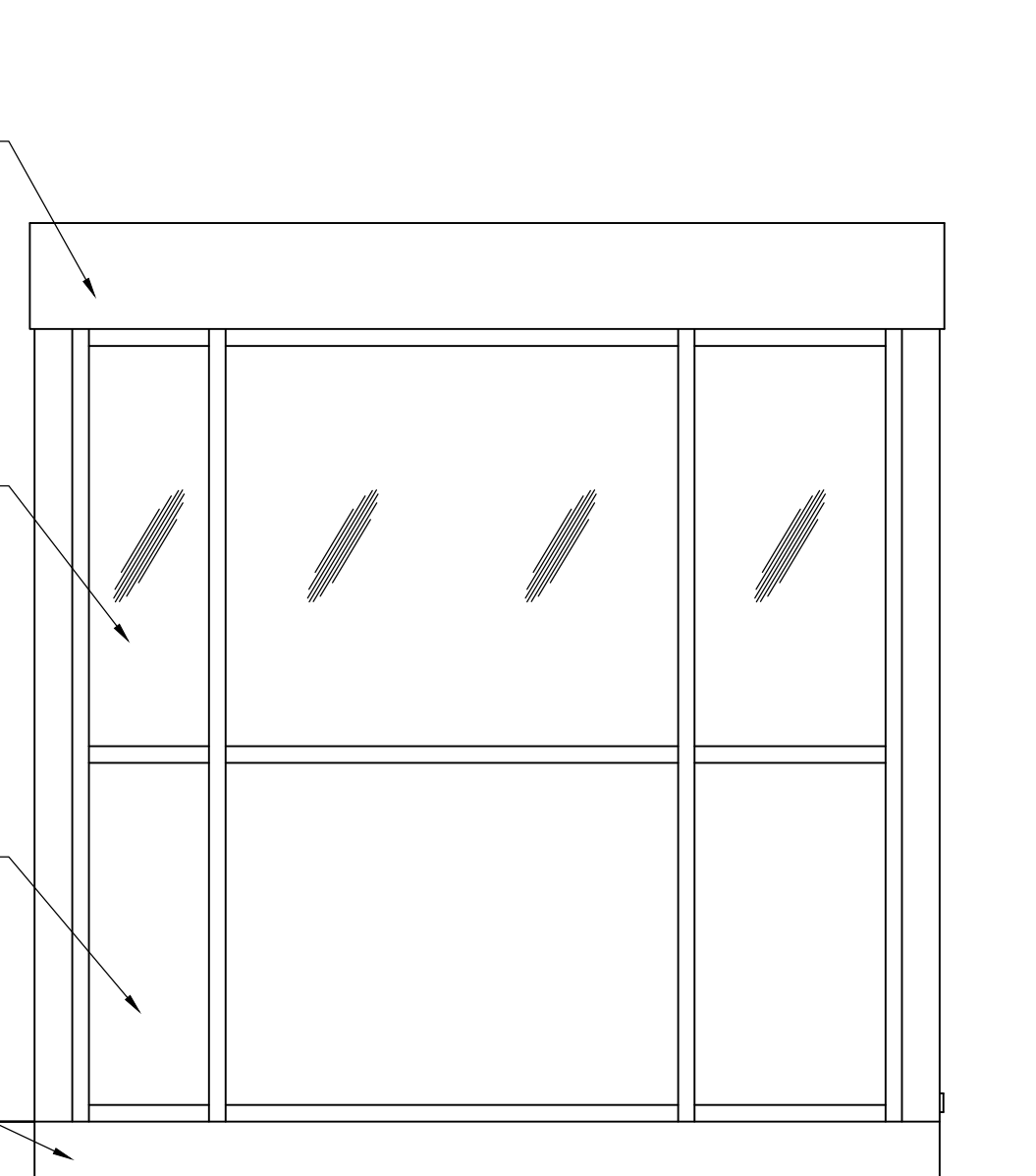
**ELEVATION 1**  
A8 1:20



**ELEVATION 2**  
A8 1:20



**ELEVATION 3**  
A8 1:20



**ELEVATION 4**  
A8 1:20

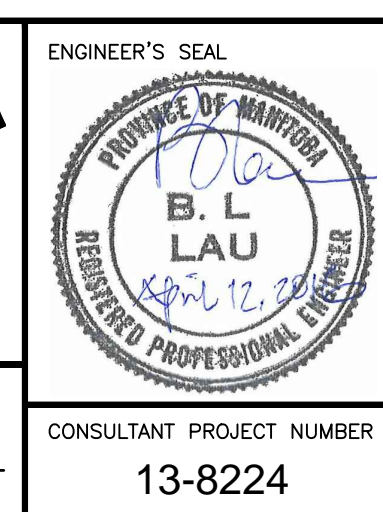
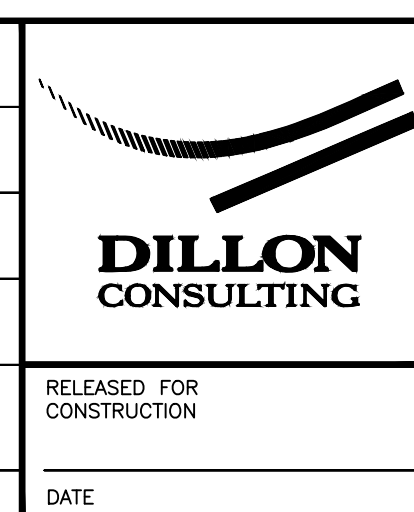
**METRIC**

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

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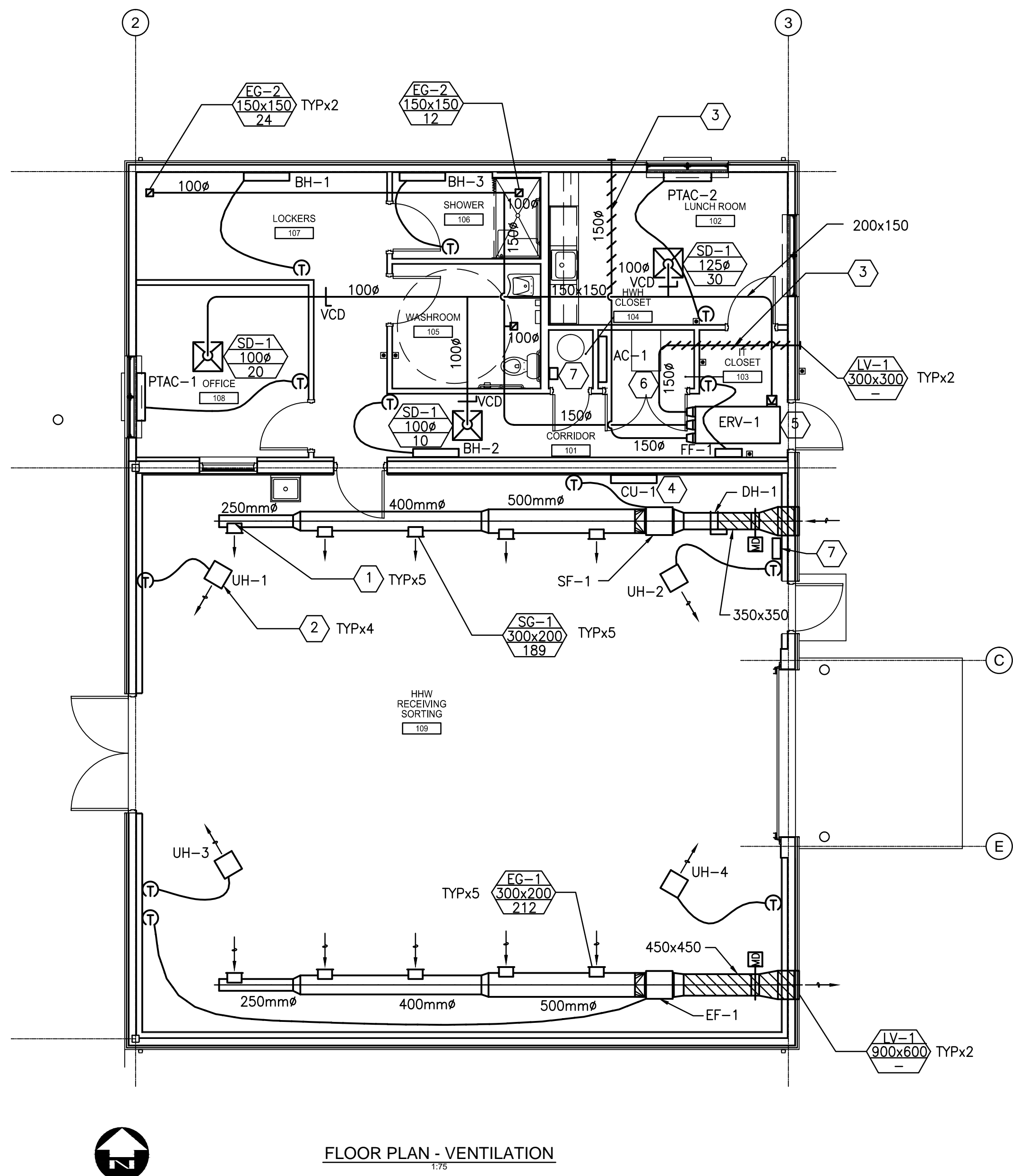
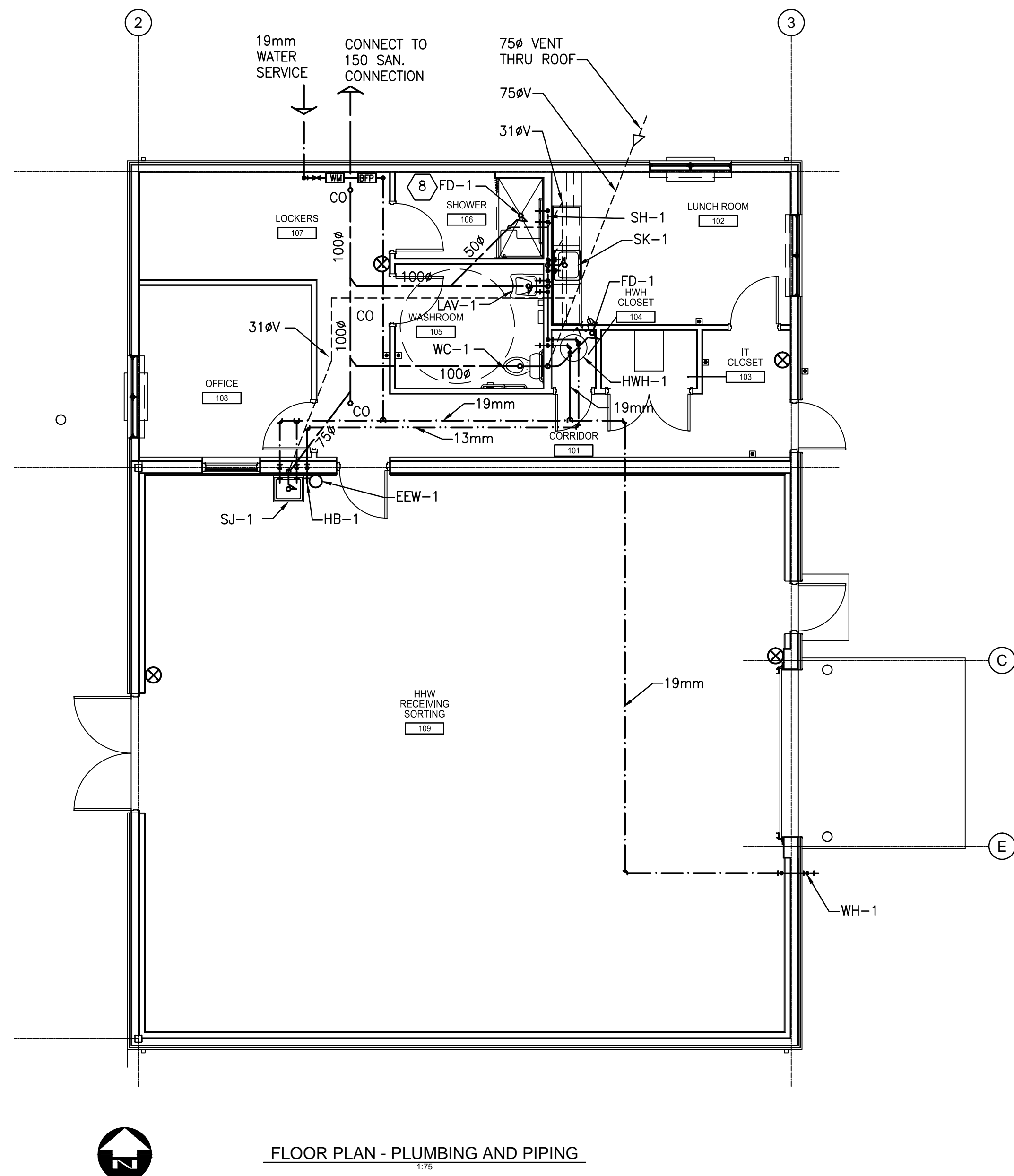


B.M. ELEV.				DESIGNED BY	LDP
				DRAWN BY	PDR
				CHECKED BY	LDP
				APPROVED BY	ARR
				HOR. SCALE	AS NOTED
				VERTICAL	
NO.	REVISIONS	DATE	BY	DATE	
3	ISSUED FOR CONSTRUCTION	16/04/12	NR		
2	ISSUED FOR ADDENDUM #1	16/03/14	ARR		
1	ISSUED FOR TENDER	16/03/04	ARR		



<b>THE CITY OF WINNIPEG</b> WATER AND WASTE DEPARTMENT	
4R WINNIPEG DEPOT PACIFIC AVENUE	CITY DRAWING NUMBER 1-0851A-A0008-001
<b>KIOSK - FLOOR PLAN, ELEVATIONS, SECTION, GUARD DETAILS</b>	SHEET 30 OF 43
	CONSULTANT DRAWING NUMBER <b>A-8</b>





# GENERAL NOTES:

1. MOUNT HHW AREA SUPPLY AND EXHAUST SYSTEM TIGHT TO UNDERSIDE OF CEILING.

## GENERAL NOTES:

1. DIRECT SUPPLY DUCT 30° DOWN FROM HORIZONTAL.
2. MOUNT UNDERSIDE OF UNIT HEATERS 1000 FROM UNDERSIDE OF CEILING.
3. RUN TIGHT TO UNDERSIDE OF STRUCTURAL. EXTERNALLY INSULATE TO ERV-1.
4. MOUNT UNDERSIDE OF CU-1 1000 FROM UNDERSIDE OF CEILING.
5. MOUNT UNDERSIDE OF ERV-1 1400 FROM UNDERSIDE OF STRUCTURE. RUN CONDENSATE DRAIN TO FLOOR DRAIN IN HHW CLOSET.
6. RUN CONDENSATE DRAIN FOR AC-1 TO FLOOR DRAIN IN ADJACENT CLOSET.
7. VENTILATION CONTROL PANEL
8. SHOWER FLOOR DRAIN TO COME COMPLETE WITH MEMBRANE CLAMP

## LEGEND:

- UH UNIT HEATER
- VCD VOLUME CONTROL DAMPER (MANUAL)
- RETURN / EXHAUST GRILLE
- SUPPLY DIFFUSER
- FLEXIBLE DUCT
- ACOUSTICALLY LINED DUCT
- FIRE DAMPER
- MOTORIZED DAMPER
- WALL MOUNTED THERMOSTAT
- GRILLE / DIFFUSER LABEL
- EQUIPMENT LABEL
- VOLUME CONTROL DAMPER
- AIRFLOW DIRECTION
- EXTERNALLY INSULATED DUCT
- DOMESTIC COLD WATER
- DOMESTIC HOT WATER
- FIRE EXTINGUISHER
- WATER METER
- BACKFLOW PREVENTER

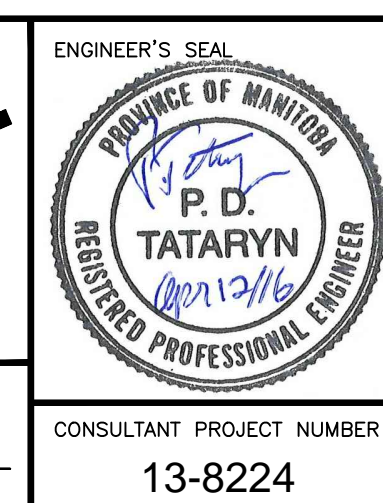
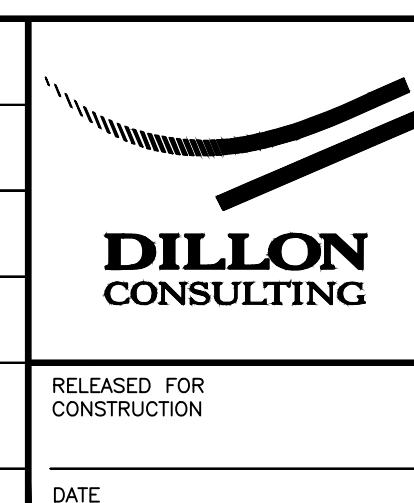
## METRIC

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES



B.M. ELEV.			
3	ISSUED FOR CONSTRUCTION	16/04/12	NR
2	ISSUED FOR ADDENDUM #1	16/03/14	ARR
1	ISSUED FOR TENDER	16/03/04	ARR
NO.	REVISIONS	DATE	BY

RELEASED FOR CONSTRUCTION	DATE
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<b>THE CITY OF WINNIPEG</b> WATER AND WASTE DEPARTMENT	
4R WINNIPEG DEPOT PACIFIC AVENUE	CITY DRAWING NUMBER 1-0851A-M0001-001
<b>HHWE WASTE BUILDING MECHANICAL</b> <b>PLAN AND SECTIONS</b>	SHEET 31 OF 43 CONSULTANT DRAWING NUMBER M-1



ELECTRIC BASEBOARD HEATER SCHEDULE						
MARK	LOCATION	MANUFACTURER	MODEL	ELECTRICAL	CAPACITY (kW)	REMARKS
BH-1 & 2	LOCKERS & CORRIDOR	OUELLET	OFM1502	120 V/1 Ph	1.5	HEAVY DUTY ELECTRIC 275 W/ft DENSITY c/w WALL MOUNTED THERMOSTAT CONTROL
BH-3	SHOWER	OUELLET	OFM1002	120 V/1 Ph	1.0	

ELECTRIC WATER HEATER SCHEDULE						
MARK	MANUFACTURER	MODEL	ELECTRICAL	INPUT (KW)	CAPACITY (L)	REMARKS
HWH-1	A O SMITH	DRE-80	208V/3Ph	9	302	

PACKAGED TERMINAL AIR CONDITIONER UNIT SCHEDULE									
MARK	MFR	MODEL NO.	COOLING L/s (CFM)	HEATING L/s (CFM)	COIL LOAD - kW (BTU/h)		ELEC. HEATING COIL - kW	VOLTAGE /PH	NOTES
					TOTAL COOLING	HEATING @ 8°C AMB.			
PTAC-1	ISLANDAIRE	EZ4207B	160 (340)	113 (240)	2.11 (7185)	2.05 (7000)	2.05	208V/1PH	1
PTAC-2	ISLANDAIRE	EZ4207B	160 (340)	113 (240)	2.11 (7185)	2.05 (7000)	2.95	208V/1PH	1
NOTES:									
1. UNIT C/W WALL-MOUNTED PROGRAMMABLE THERMOSTAT WITH TWO STAGES OF HEATING, TWO STAGES OF COOLING									

DUCT HEATER SCHEDULE									
MARK	MFR	MODEL	AIRFLOW		ZONES	ELECTRICAL RATINGS			NOTES
			L/s	CFM		VOLTS	PHASE	KW	
DH-1	THERMOLEC	FC	266	563	HHW BLDG	600	3	15	1
NOTES:									
1. SCR CONTROLLED C/W AIR FLOW SWITCH AND DS600 SENSOR. SET SUPPLY AIR TEMPERATURE TO 10°C.									

ELECTRIC UNIT HEATER SCHEDULE													
MARK	MFR	MODEL	AIR FLOW		HEATING OUTPUT		TEMP. RISE		ELECTRICAL				NOTES
			L/s	CFM	kW	MBH	°C	°F	MOTOR kW	MOTOR HP	VOLTS	PHASE	
UH-1 TO UH-4	OUELLET	OAS05036	330	700	5	17	13	23	0.02	0.03	600	3	1
FF-1	OUELLET	OAWH01502	-	-	1.5	5	-	-	-	-	120	1	1
NOTES:													
1. C/W OTL101C WALL-MOUNTED THERMOSTAT													

MINI SPLIT SYSTEM SCHEDULE												
MARK	LOCATIONS	SERVE	COOLING CAPACITY		HEATING CAPACITY		POWER			ACCEPTABLE PRODUCT		NOTES
			kW	MBH	kW	MBH	VOLT	PHASE	MCA	MFR	MODEL	
AC-1/CU-1	AS INDICATED	IT CLOSET	2.6	9.0	N/A	N/A	208	1	10.0	TOSHIBA/CARRIER	RAS-09EACV/EKCV-UL	1, 2
NOTES:												
1. R-410A REFRIGERANT												
2. LOW-AMBIENT OPERATION												

FAN SCHEDULE									
MARK	MFR	MODEL	AIR FLOW (CFM)	ESP (IN. WG)	MOTOR (HP)	MOTOR RPM	POWER		NOTES
							VOLT	PHASE	
SF-1	GREENHECK	SQ-140-VG	2000	0.5	3/4	1388	120	1	1
EF-1	GREENHECK	SQ-140-VG	2250	0.5	3/4	1388	120	1	1
NOTES:									
1. C/W HANGING RODS AND VIBRATION ISOLATORS.									

PLUMBING FIXTURES AND TRIM SCHEDULE					
MARK	DESCRIPTION	CONNECTION SIZE			REMARKS
		DCW (mm)	DHW (mm)	DRAIN (mm)	
WC-1	WATER CLOSET: EQUAL TO AMERICAN STANDARD GLENWALL MODEL 2093.100 COMMERCIAL TOILET BOWL W/1.6 GPF MANUAL FLUSH TANK. SEAT: EQUAL TO AMERICAN STANDARD MODEL 5322.011.	13	N/A	76	
LAV-1	BASIN: EQUAL TO AMERICAN STANDARD LUCERNE MODEL 0356.421. FAUCET: EQUAL TO DELTA MODEL 22C501 W/OFFSET OPEN GRID STRAINER.	13	13	32	
SH-1	EQUAL TO ACORN 500ADA SERIES C/W DIVERTER VALVE, T/P BALANCING MIXING VALVE, 2.0 UPGPM HAND SHOWER	13	13	N/A	
SK-1	BASIN: EQUAL TO KINDRED MODEL QSL1719/8/3. FAUCET: EQUAL TO DELTA MODEL 2172LF-LHP H212.	13	13	32	
SJ-1	BASIN: EQUAL TO AMERICAN STANDARD 9061.193 C/W WALL HANGER. FAUCET: EQUAL TO AMERICAN STANDARD MODEL 8354.112	13	13	38	
EEW-1	EMERGENCY EYE/FACE WASH: EQUAL TO HAWS MODEL 7360BT-7460BT. THERMOSTATIC MIXING VALVE: HAWS MODEL TWBS.EWE.	13	13	38	
HB-1	HOSE BIBB: EQUAL TO ZURN MODEL 195-BFP-9 SERIES 13MM. FASTENERS: ZURN MODEL 300 SERIES.	19	N/A	N/A	
WH-1	WALL HYDRANT: EQUAL TO ZURN MODEL Z1320. WALL THICKNESS 270MM.	19	N/A	N/A	
FD-1	FLOOR DRAIN : EQUAL TO ZURN MODEL Z-221-VP 50MM.	N/A	N/A	AS INDICATED	




GRILLE, REGISTER, DIFFUSER & LOUVRE SCHEDULE			
MARK	MFR	MODEL NO.	REMARKS
SG-1	PRICE	520D/SDF/S/B12	
SD-1	PRICE	300x300/SCD/31/B12	
EG-1	PRICE	510ZD/SDF/S/B12	
EG-2	PRICE	80D/F/A/B12	
LV-1	PRICE	ZF439	C/W BIRD SCREEN

ENERGY RECOVERY VENTILATOR (Based on TEMPEFF)			
TAG:		ERV-1	
MODEL:		RGSP 300	
SUPPLY FAN			
AIR FLOW RATE (L/s / CFM):	60	127	
E.S.P. (Pa / in.WC):	125	0.50	
MOTOR SIZE (hp):	0.25		
EXHAUST FAN			
AIR FLOW RATE (L/s / CFM):	60	127	
E.S.P. (Pa / in.WC):	125	0.50	
MOTOR SIZE (hp):	0.25		
HEAT EXCHANGER (WINTER)			
TEMPERATURE EFFICIENCY (ACROSS UNIT) (%):	90.0		
O/A TEMP (°C / °F):	-35.0	-31	
E/A TEMP (°C / °F):	21.1	70	
S/A TEMP (°C / °F):	15.5	59.9	
HEAT EXCHANGER (SUMMER)			
TEMPERATURE EFFICIENCY (%):	73.3		
O/A TEMP DB (°C / °F):	30.0	86	
O/A TEMP WB (°C / °F):	22.8	73	
E/A TEMP DB (°C / °F):	23.9	75	
E/A TEMP WB (°C / °F):	16.9	62.5	
S/A TEMP DB (°C / °F):	25.5	77.9	
S/A TEMP WB (°C / °F):	21.5	70.7	
SUPPLY FILTER:		MERV 8	
PHYSICAL DATA			
LENGTH (mm / in.):	1,781	70.13	
WIDTH (mm / in.):	758.8	29.88	
HEIGHT (mm / in.):	257.2	10.13	
EST. OPERATING WT. (kg / lbs)	180	400	
ELECTRICAL DATA			
VOLTAGE/PHASE:		120 / 1	
NOTES:			
1. C/W STAINLESS STEEL DRAIN PANS UNDER HEAT EXCHANGERS W/19mm NPT CONNECTIONS.			

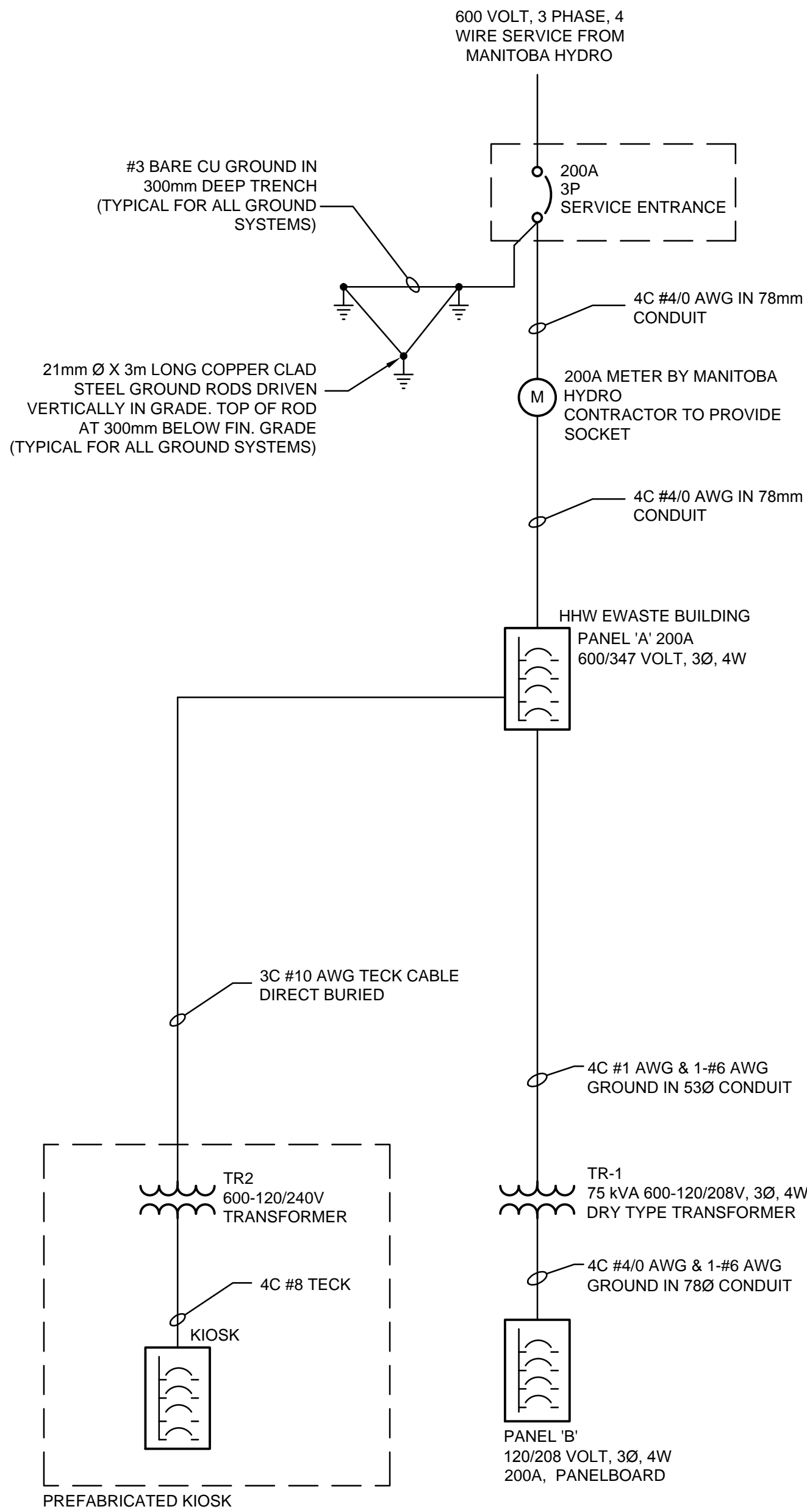
METRIC

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES



B.M. ELEV.				DESIGNED BY PT								
				DRAWN BY JVH				4R WINNIPEG DEPOT PACIFIC AVENUE			CITY DRAWING NUMBER 1-0851A-M0002-001	
				CHECKED BY NDC							SHEET 32 OF 43	
				APPROVED BY ARR				HHWE WASTE BUILDING MECHANICAL SCHEDULES			CONSULTANT DRAWING NUMBER M-2	
3	ISSUED FOR CONSTRUCTION	16/04/12	NR	HOR. SCALE AS NOTED								
2	ISSUED FOR ADDENDUM #1	16/03/14	ARR	VERTICAL		DATE		CONSULTANT PROJECT NUMBER 13-8224				
1	ISSUED FOR TENDER	16/03/04	ARR	DATE								
NO. REVISIONS				DATE		BY						





SINGLE LINE DIAGRAM

PANEL 'A' HHW RECEIVING/SORTING RM. 225A, 347/600V, 3PH, 4W, 42 CCTS.									
LOAD	DESCRIPTION					DESCRIPTION	LOAD		
5.0KW	UNIT HEATER UH-1	1			2	TVSS			
		3	15A		4				
		5			6				
5.0KW	UNIT HEATER UH-2	7			8	DUCT HEATER DH-1			
		9	15A		10				
		11			12				
5.0KW	UNIT HEATER UH-3	13			14	TRANSFORMER TR-1			
		15	15A		16				
		17			18				
5.0KW	UNIT HEATER UH-4	19			20	OUTDOOR AREA LIGHTING			
		21	15A		22	OUTDOOR AREA LIGHTING			
		23			24	OUTDOOR AREA LTG. CONTACTOR, PHOTOCCELL, TIMER			
	SPACE	25			26	OUTDOOR AREA LIGHTING			
	SPACE	27			28	KIOSK			
	SPACE	29			30				
	SPACE	31			32	S P A C E			
	SPACE	33			34	S P A C E			
	SPACE	35			36	S P A C E			
	SPACE	37			38	S P A C E			
	SPACE	39			40	S P A C E			
	SPACE	41			42	S P A C E			

PANEL 'B' 200A MAIN CIRCUIT BREAKER, 225A MAINS, 120/208V, 3PH, 4W, 84 CCTS.									
LOAD	DESCRIPTION					DESCRIPTION	LOAD		
	TVSS	1			2	HHW RECEIVING SORTING RM. NORTH RECEPTACLES			
		3	30A		4	HHW RECEIVING SORTING RM. SOUTH RECEPTACLES			
		5			6	SOUTH WALL EXTERIOR RECEPTACLE			
	HAZARDOUS HOUSEHOLD WASTE RM. LIGHTING	7	15A		8	WEST WALL EXTERIOR PARKING RECEPTACLE			
	HAZARDOUS HOUSEHOLD WASTE RM. LIGHTING	9	15A		10				
	EXIT LIGHTS	11	15A		12	WEST WALL EXTERIOR PARKING RECEPTACLE			
	CORRIDOR LIGHTING	13	15A		14				
	LUNCH ROOM LIGHTING	15	15A		16	LUNCHROOM COUNTER RECEPTACLE			
	WASHROOM AND SHOWER ROOM LIGHTING	17	15A		18	LUNCHROOM COUNTER RECEPTACLE			
	OFFICE AND LOCKER ROOM LIGHTING	19	15A		20	AUTOMATIC DOOR OPENERS			
	HOT WATER TANK CLOSET & IT CLOSET LIGHTING	21	20A		22	RECEIVING AREA RECEPTACLES			
	CANOPY OUTDOOR LIGHTING	23	15A		24	OUTDOOR RECEPTACLES			
	BUILDING OUTDOOR WALL PACK LIGHTING	25	15A		26	CORRIDOR RECEPTACLES			
	LUNCHROOM RECEPTACLES	27	15A		28	HRV			
	LUNCHROOM RECEPTACLE	29	15A		30	SHOWER ROOM, WASHROOM RECEPTACLE			
	IT CLOSET 120/208V 3PH 20AMP RATED UPS RECEPTACLE	31	15A		32	FIRE ALARM ANNUNCIATOR / CONTROL PANEL			
		33	20A		34	O/H DOOR OPERATOR			
		35			36	VENTILATION CONTROL PANEL			
	IT CLOSET RECEPTACLE	37	15A		38				
	IT CLOSET RECEPTACLE	39	15A		40	HOT WATER TANK			
	IT CLOSET 208V 20AMP RATED RECEPTACLE	41	20A		42				
		43			44	OFFICE PTAC-1			
	LOCKER ROOM BASEBOARD HEATER BH-1	45	20A		46				
	SHOWER ROOM BASEBOARD HEATER BH-3	47	15A		48	LUNCHROOM PTAC-2			
	CORRIDOR BASEBOARD HEATER BH-2	49	20A		50				
	FORCE FLOW FF-1	51	20A		52	SPLIT SYSTEM AC1/CU1			
	LOCKER ROOM RECEPTACLES	53	15A		54				
	OFFICE RECEPTACLES	55	15A		56	S P A C E			
	OFFICE RECEPTACLES	57	15A		58	S P A C E			
	SUPPLY FAN	59	15A		60	S P A C E			
	EXHAUST FAN	61	15A		62	S P A C E			
	ERV CONTROL PANEL	63	15A		64	S P A C E			
	S P A R E	65			66	S P A C E			
	S P A R E	67			68	S P A C E			
	S P A R E	69			70	S P A C E			
	SPACE	71			72	SPACE			
	SPACE	73			74	SPACE			
	SPACE	75			76	SPACE			
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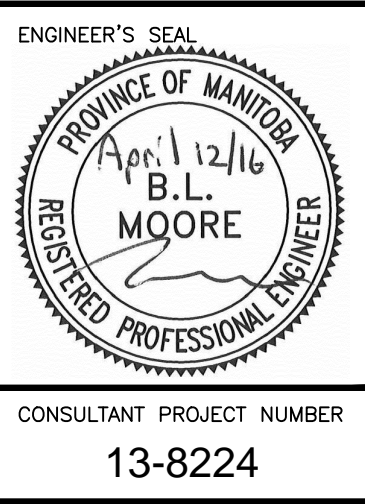
METRIC

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

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DESIGNED BY BLM			
DRAWN BY SCK			
CHECKED BY BLM			
APPROVED BY ARR			
HOR. SCALE AS NOTED			
VERTICAL			
NO.	REVISIONS	DATE	BY
2	ISSUED FOR CONSTRUCTION	16/04/12	NR
1	ISSUED FOR TENDER	16/03/04	ARR



**THE CITY OF WINNIPEG**  
WATER AND WASTE DEPARTMENT

4R WINNIPEG DEPOT  
PACIFIC AVENUE

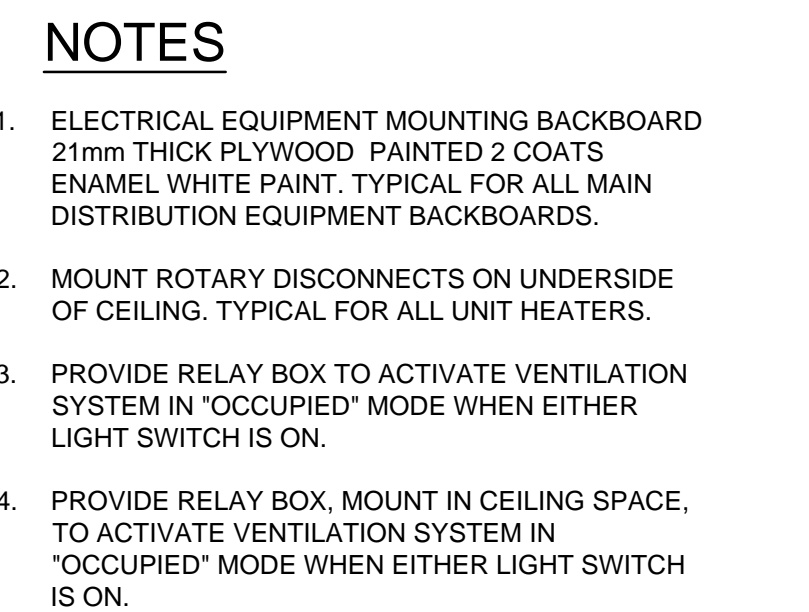
ONE LINE DIAGRAM

CITY DRAWING NUMBER  
1-0851A-E0001-001

SHEET 33 OF 43


CONSULTANT DRAWING NUMBER  
E-1



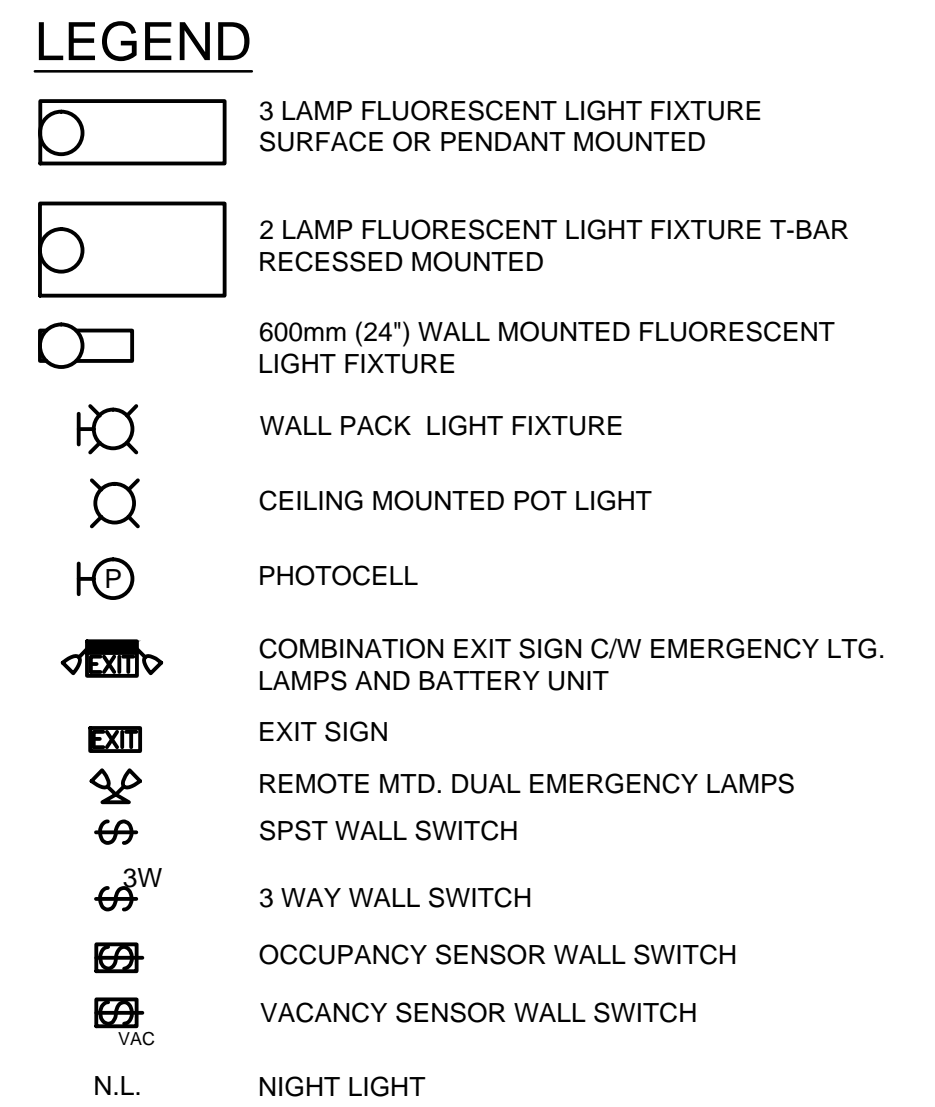


**METRIC**

NUMBERS INDICATE MILLIMETRES  
ED NUMBERS INDICATE METRES


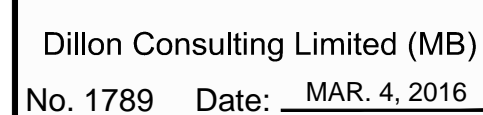
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<div>4R WINNIPEG DEPOT</div> <div>PACIFIC AVENUE</div>	<div>CITY DRAWING NUMBER</div> <div>1-0851A-E0002-001</div>
	<div>SHEET</div> <div>34 OF 43</div>
<div>HHW EWASTE BUILDING</div> <div>POWER PLAN</div>	<div>CONSULTANT DRAWING NUMBER</div> <div>E-2</div>



METRIC

WHOLE NUMBERS INDICATE MILLIMETRES  
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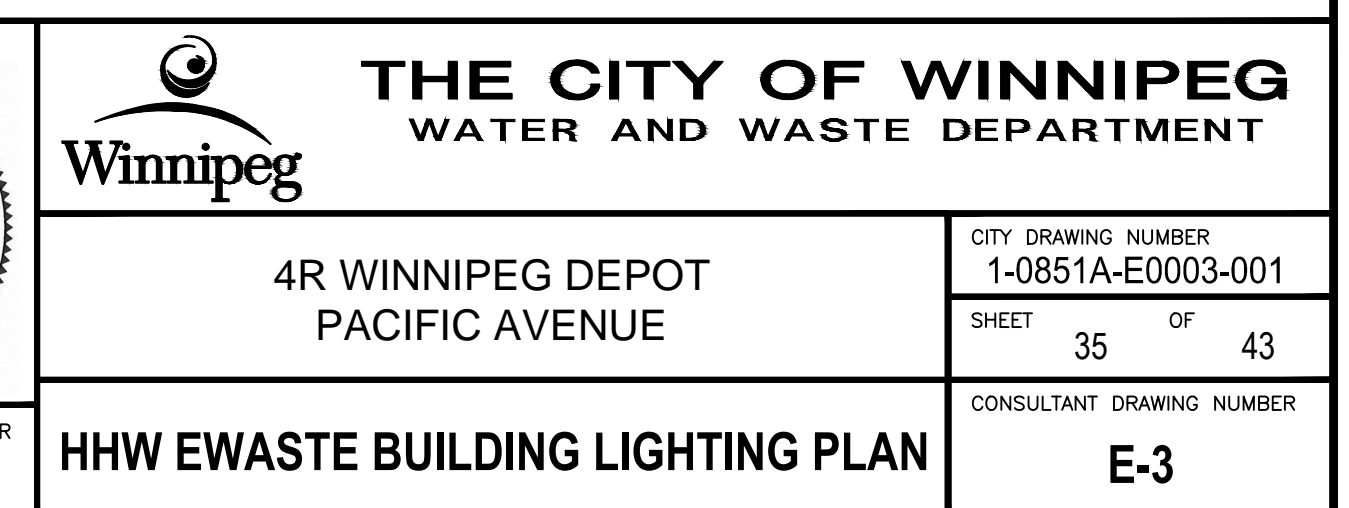
## HHW EWASTE BUILDING - LIGHTING



**DILLON  
CONSULTING**

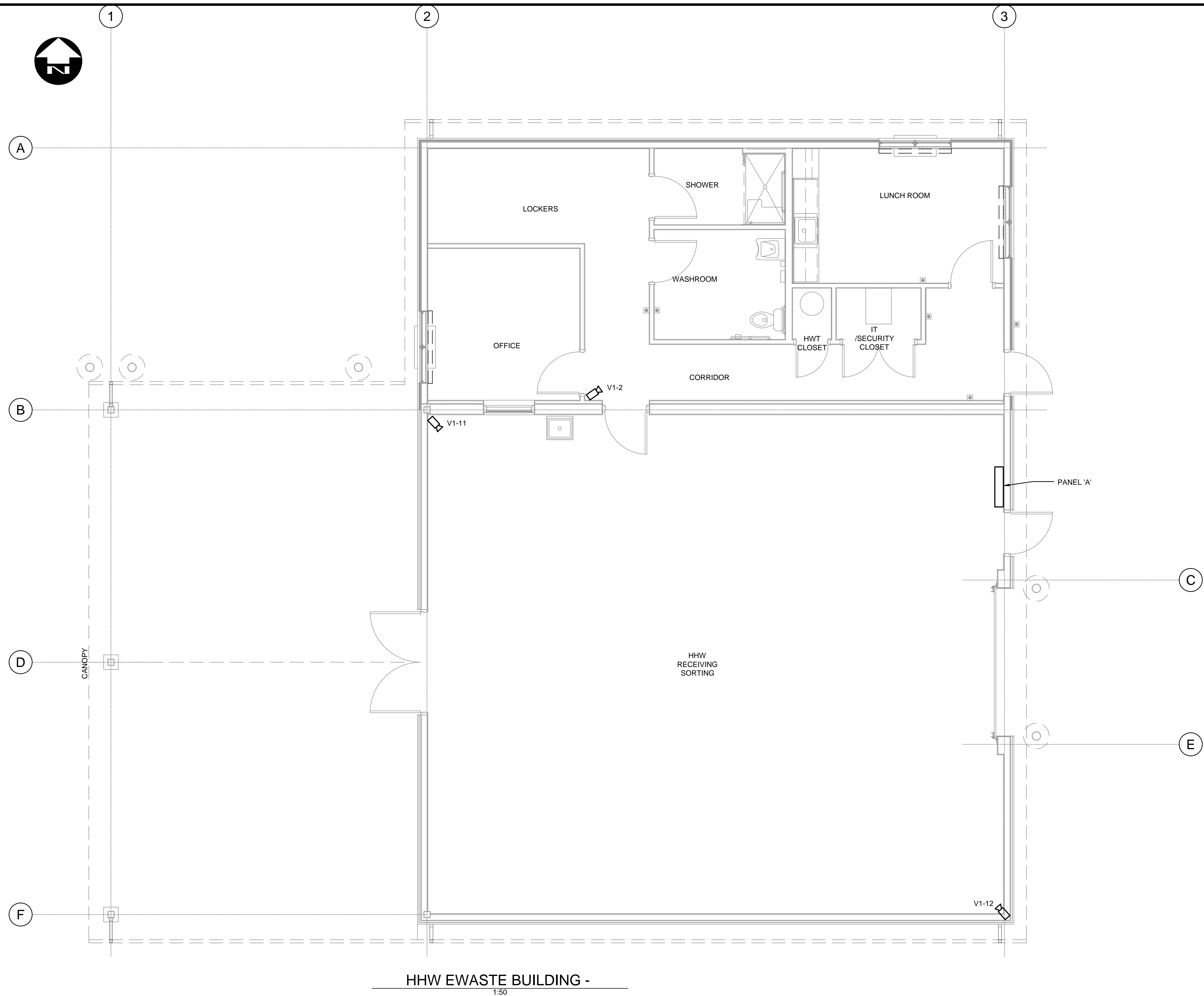
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CONSTRUCTION

DATE \_\_\_\_\_





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HHW EWASTE BUILDING -

1:50

METRIC

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES



B.M. ELEV.			
2	ISSUED FOR CONSTRUCTION	16/04/12	NR
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NO.	REVISIONS	DATE	BY

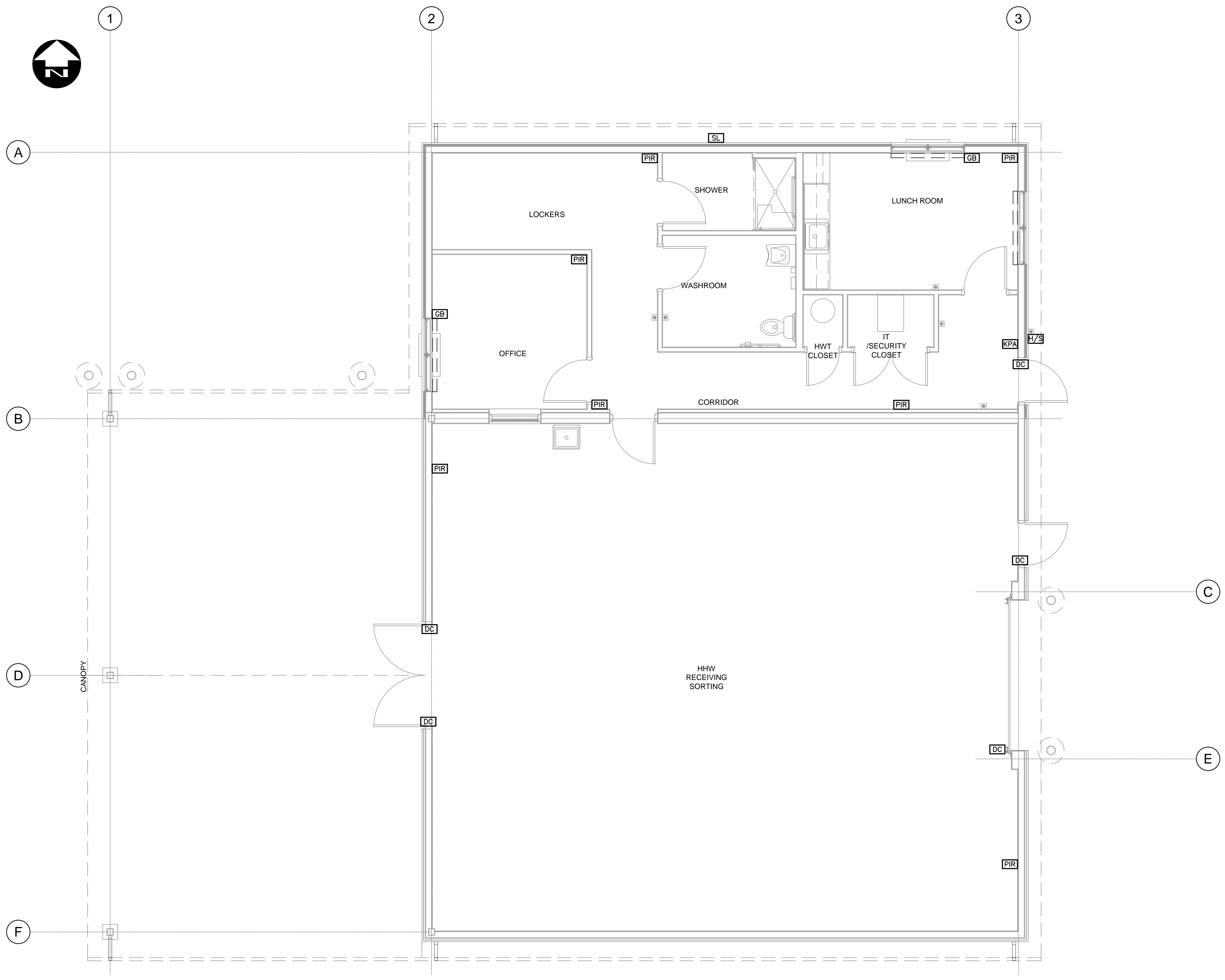
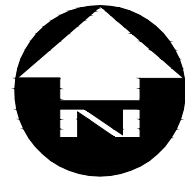
DESIGNED BY	BLM
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CHECKED BY	BLM
APPROVED BY	ARR
HOR. SCALE	AS NOTED
VERTICAL	
DATE	

	RELEASED FOR CONSTRUCTION
	DATE

	CONSULTANT PROJECT NUMBER
	13-8224

 <b>THE CITY OF WINNIPEG</b> WATER AND WASTE DEPARTMENT	
4R WINNIPEG DEPOT PACIFIC AVENUE	CITY DRAWING NUMBER 1-0851A-E0004-001
HHW EWASTE BUILDING CAMERA PLAN	SHEET 36 OF 43 CONSULTANT DRAWING NUMBER E-4





LEGEND

- DC DOOR CONTACT
- GB GLASS BREAKAGE
- PIR PASSIVE IR DETECTOR
- KPA KEY PAD ALARM
- SL STROBE LIGHT
- H/S HORN / STROBE

NOTES

- 1. MOUNT STROB LIGHT 150mm ABOVE ROOF LINE.

METRIC

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES



Dillon Consulting Limited (MB)  
No. 1789 Date: MAR. 4, 2016

B.M. ELEV.			
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DATE	

RELEASED FOR CONSTRUCTION  
DATE

CONSULTANT PROJECT NUMBER  
13-8224

**THE CITY OF WINNIPEG**  
WATER AND WASTE DEPARTMENT

4R WINNIPEG DEPOT  
PACIFIC AVENUE

HHW EWASTE BUILDING  
SECURITY PLAN

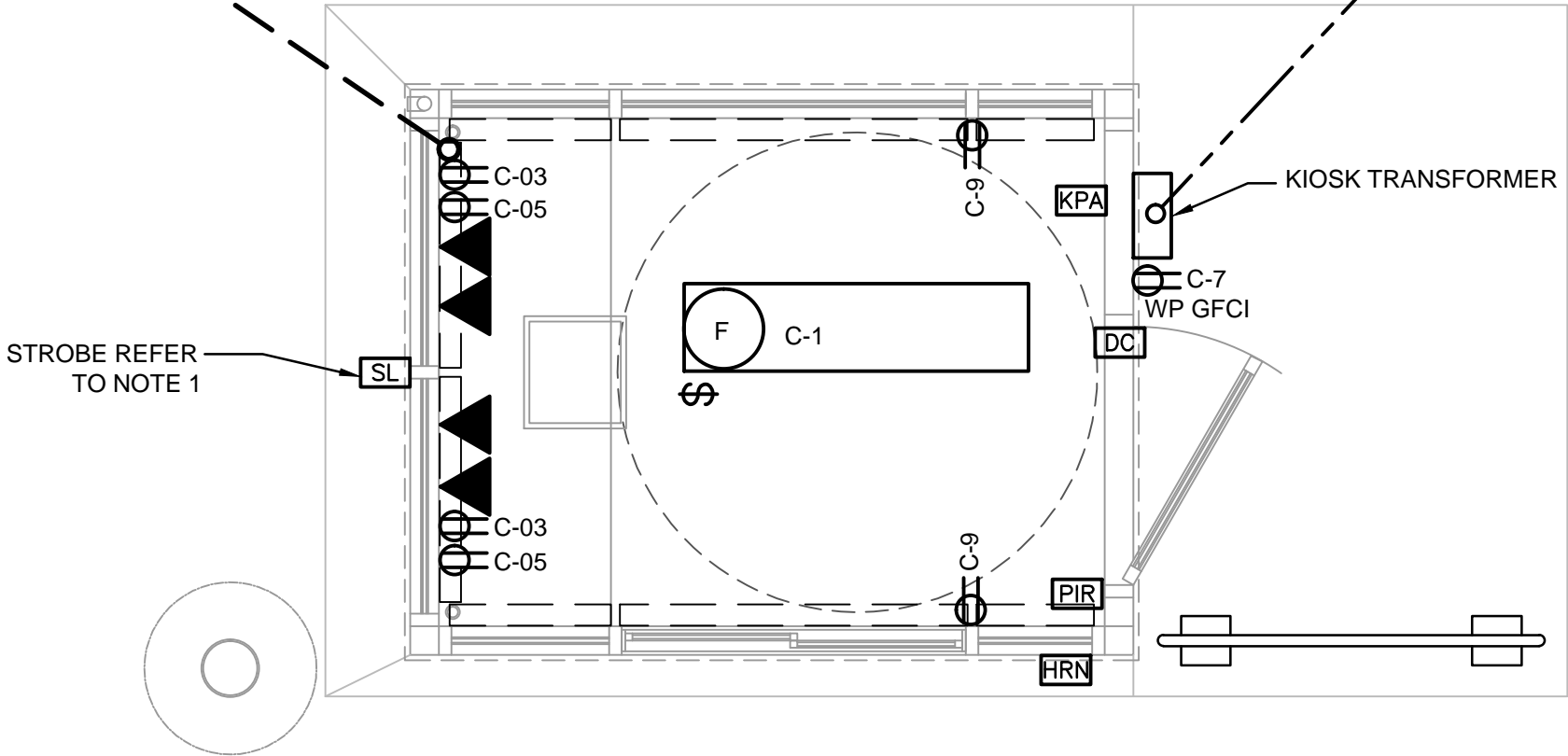
CITY DRAWING NUMBER  
1-0851A-E0005-001  
SHEET 37 OF 43  
CONSULTANT DRAWING NUMBER  
E-5



INCOMING 52mm Ø DUCT FOR DATA/COMMUNICATION CABLING FROM HHW EWASTE BUILDING

STROBE REFER TO NOTE 1

INCOMING 600 VOLT



LEGEND

- 2 LAMP SURFACE MOUNTED GASKETTED FLUORESCENT LIGHT FIXTURE
- SPST WALL SWITCH
- DUPLEX RECEPTACLE
- DATA SIGNAL OUTLET
- STROBE
- DOOR CONTACT
- HORN
- PASSIVE IR DETECTOR
- KEY PAD ALARM

NOTES

1. MOUNT STROBE LIGHT 150mm ABOVE ROOF LINE.






KIOSK FLOOR PLAN  
1:25

METRIC

WHOLE NUMBERS INDICATE MILLIMETRES  
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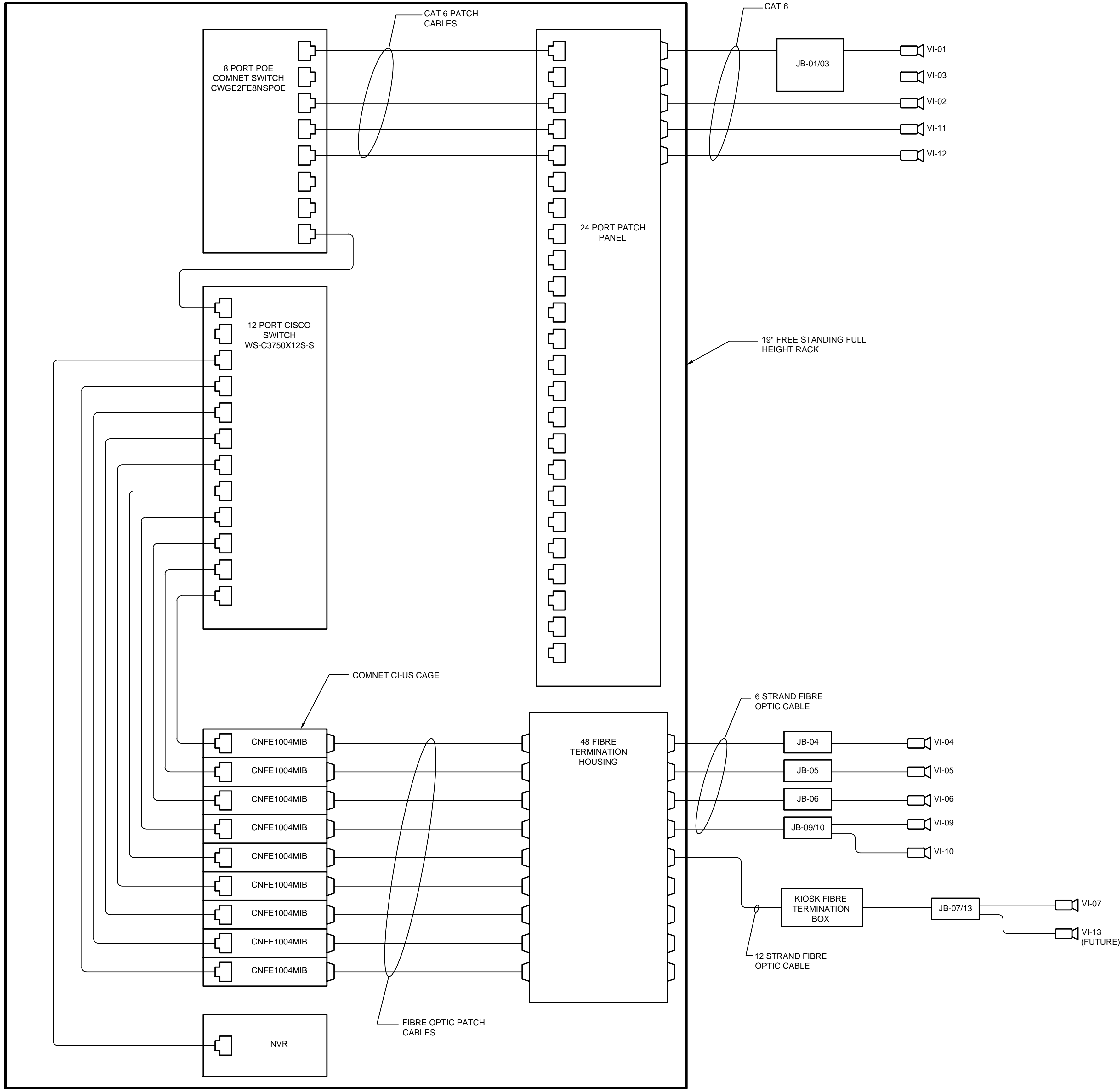


Certificate of Authorization  
Dillon Consulting Limited (MB)  
No. 1789    Date: MAR. 4, 2016

B.M. ELEV.				DESIGNED BY BLM				 <b>THE CITY OF WINNIPEG</b> WATER AND WASTE DEPARTMENT			
				DRAWN BY SCK				4R WINNIPEG DEPOT PACIFIC AVENUE			
				CHECKED BY BLM							
				APPROVED BY ARR				CITY DRAWING NUMBER 1-0851A-E0006-001			
								SHEET 38 OF 43			
				HOR. SCALE AS NOTED				CONSULTANT PROJECT NUMBER 13-8224			
				RELEASED FOR CONSTRUCTION				CONSULTANT DRAWING NUMBER E-6			
				VERTICAL							
2	ISSUED FOR CONSTRUCTION			16/04/12	NR						
1	ISSUED FOR TENDER			16/03/04	ARR						
NO.	REVISIONS			DATE	BY	DATE					



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ONE LINE DIAGRAM FOR VIDEO CAMERAS  
SCALE: N.T.S.

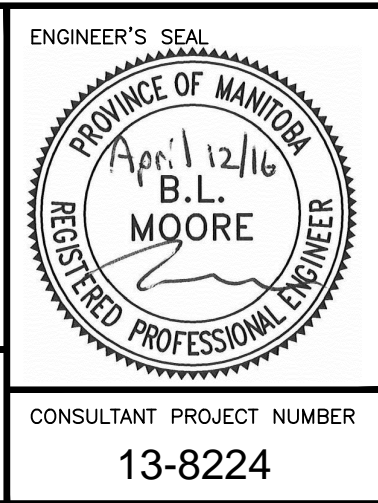
METRIC

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DESIGNED BY	BLM
DRAWN BY	SCK
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APPROVED BY	ARR
HOR. SCALE	AS NOTED
VERTICAL	
DATE	



**THE CITY OF WINNIPEG**  
WATER AND WASTE DEPARTMENT

4R WINNIPEG DEPOT  
PACIFIC AVENUE

**SECURITY CAMERA SYSTEM**

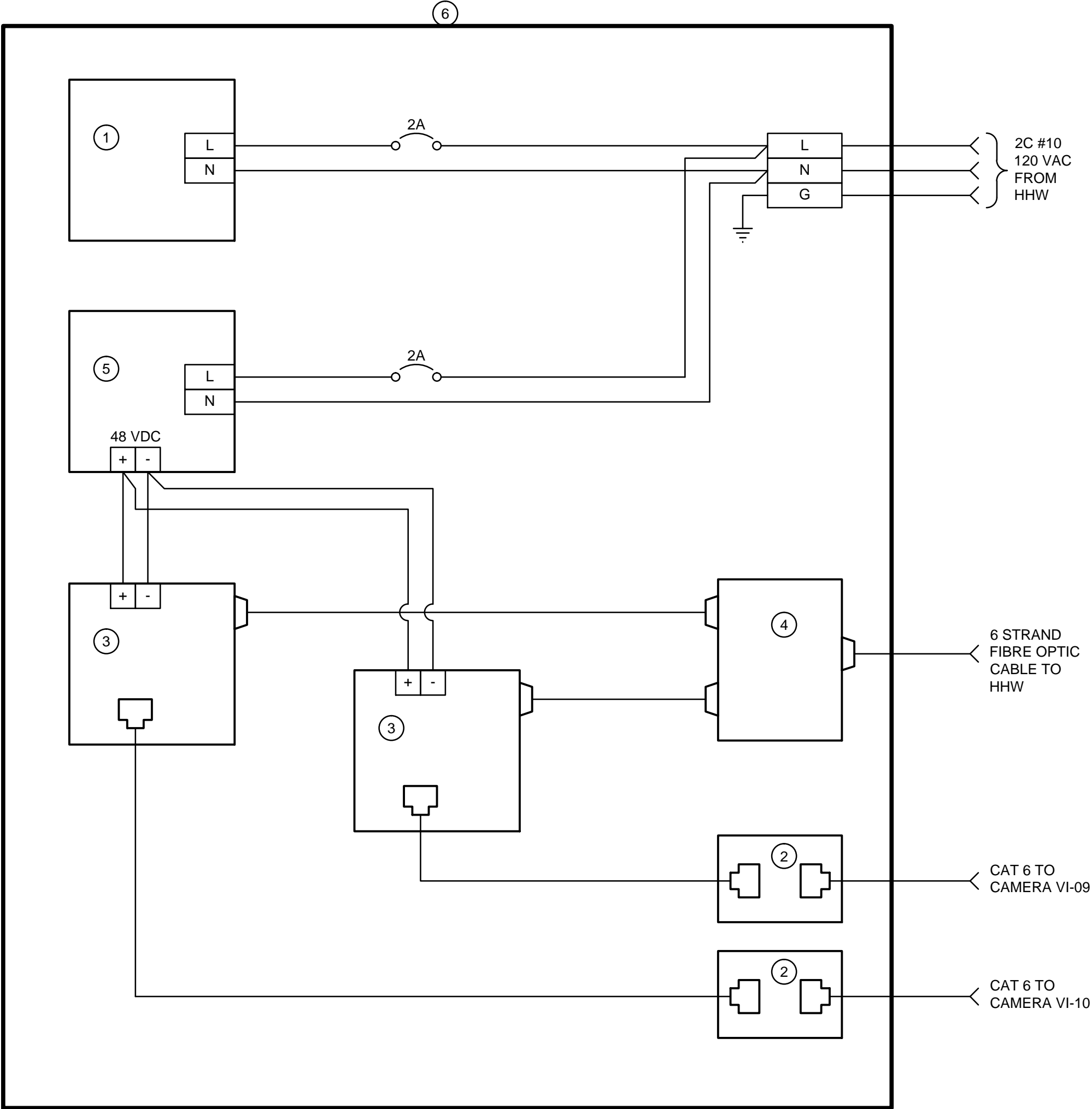
CITY DRAWING NUMBER  
1-0851A-E0007-001

SHEET 39 OF 43

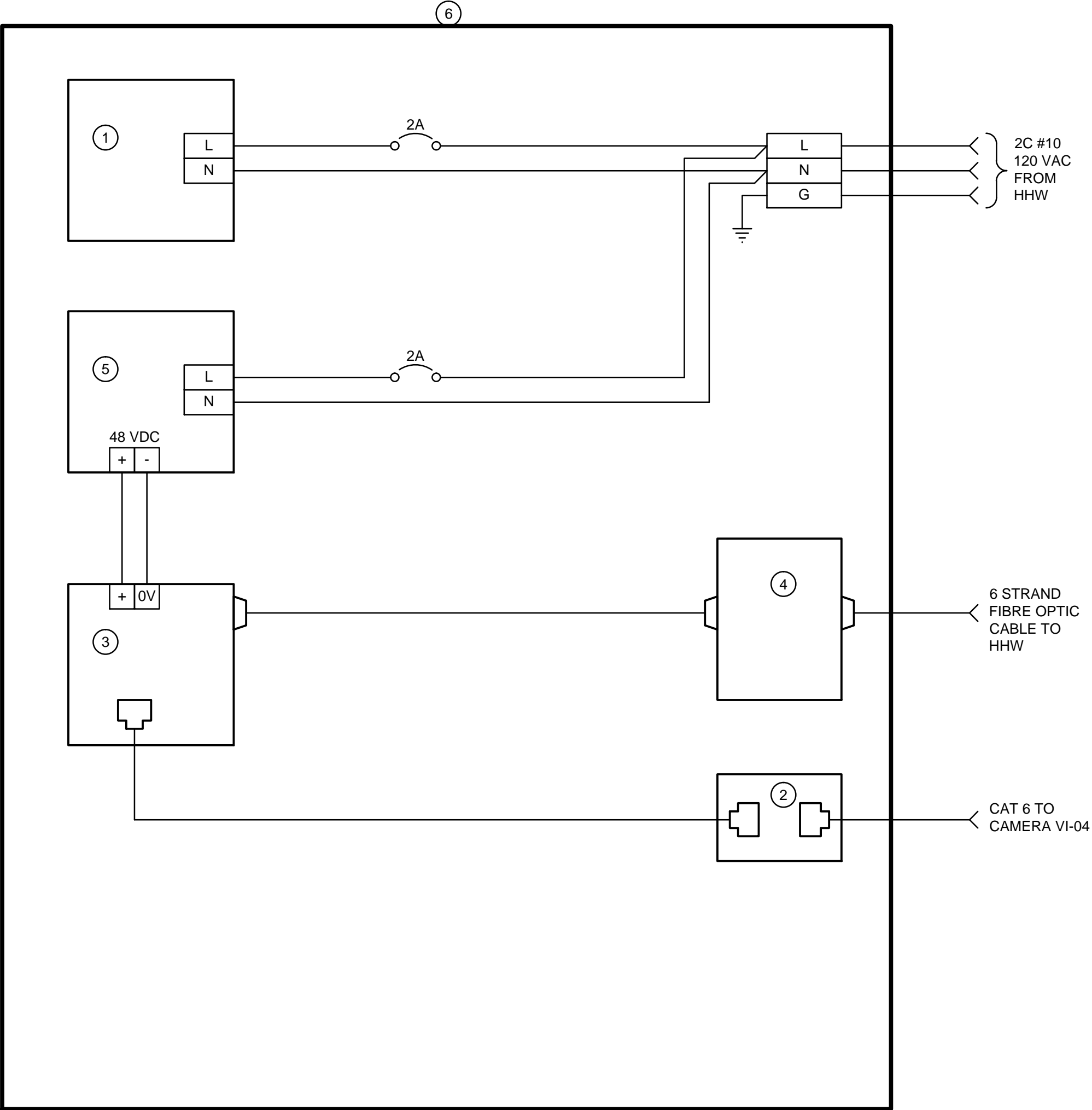
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**E-7**

CONSULTANT PROJECT NUMBER  
13-8224

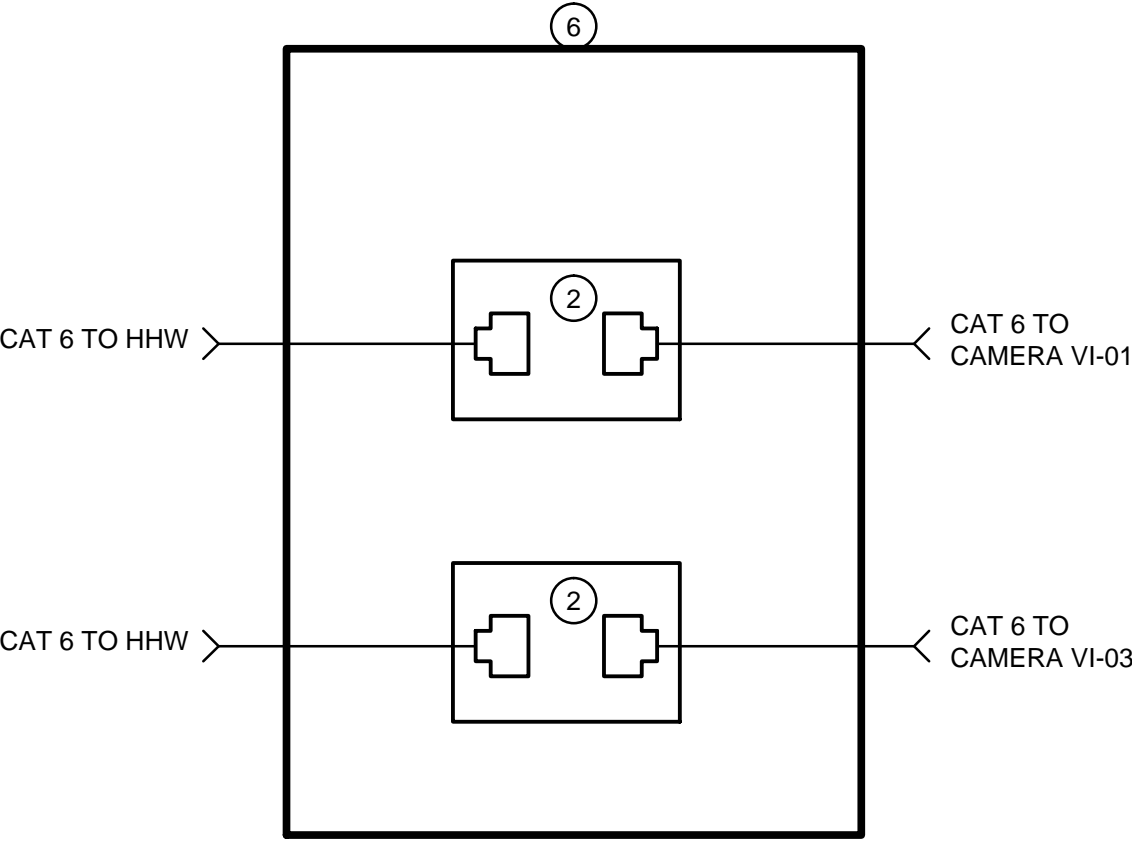




JB-09/10 LAYOUT (TYPICAL FOR JB-07/13)



JB-04 LAYOUT (TYPICAL FOR JB-05, JB-06, JB-08)






JB-01 / 03 LAYOUT

1	TUBULAR ENCLOSURE HEATER 120V, 100W	TEMPCO EHT00030
2	CAT 6 DATA LINE SURGE PROTECTOR	DITEK POE DTK-MRJOP
3	POE MEDIA CONVERTER CAT 6 / 1 FIBRE SC, MULTIMODE	COMNET CNFE1004APOEM
4	FIBRE OPTIL TERMINATION BOX WALL MOUNT	FIBERTRONICS INC FOTB-6-12
5	UPS POWER SUPPLY, 48 VDC	FLEXNET MPS 48-7
6	NEMA 4 ENCLOSURE	HAMMOND MANUFACTURING EJ12126

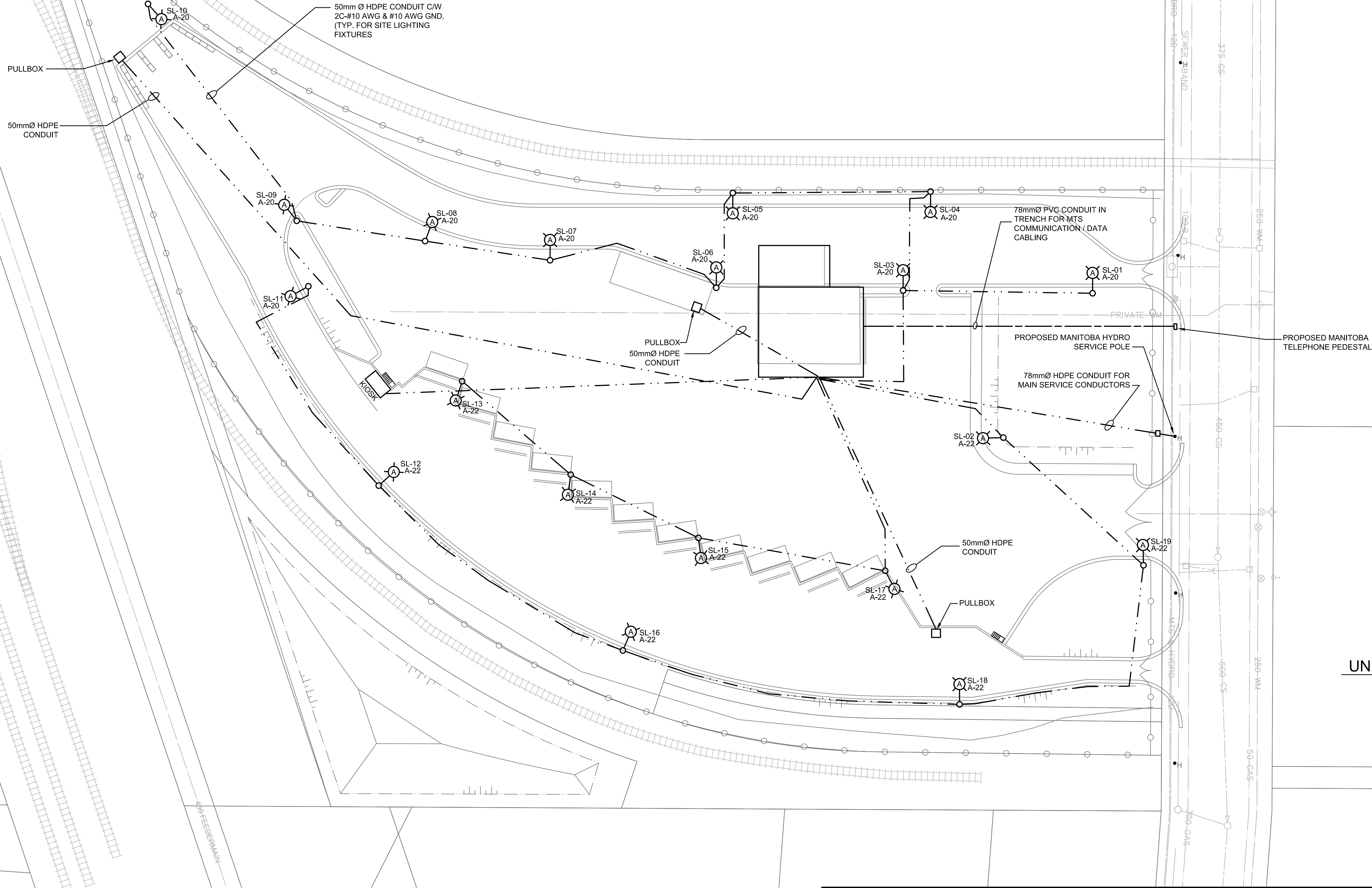
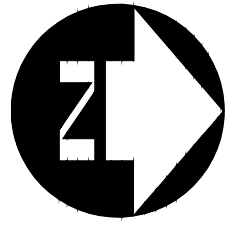
METRIC

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES



B.M. ELEV.				DESIGNED BY BLM				 <b>THE CITY OF WINNIPEG</b> WATER AND WASTE DEPARTMENT				
				DRAWN BY SCK				4R WINNIPEG DEPOT PACIFIC AVENUE			CITY DRAWING NUMBER 1-0851A-E0008-001	
				CHECKED BY BLM							SHEET 40 OF 43	
				APPROVED BY ARR				SECURITY SYSTEM CAMERA DETAILS			CONSULTANT DRAWING NUMBER E-8	
2	ISSUED FOR CONSTRUCTION	16/04/12	NR	HOR. SCALE AS NOTED							RELEASED FOR CONSTRUCTION	
1	ISSUED FOR TENDER	16/03/04	ARR	VERTICAL				CONSULTANT PROJECT NUMBER 13-8224				
NO.	REVISIONS	DATE	BY	DATE								



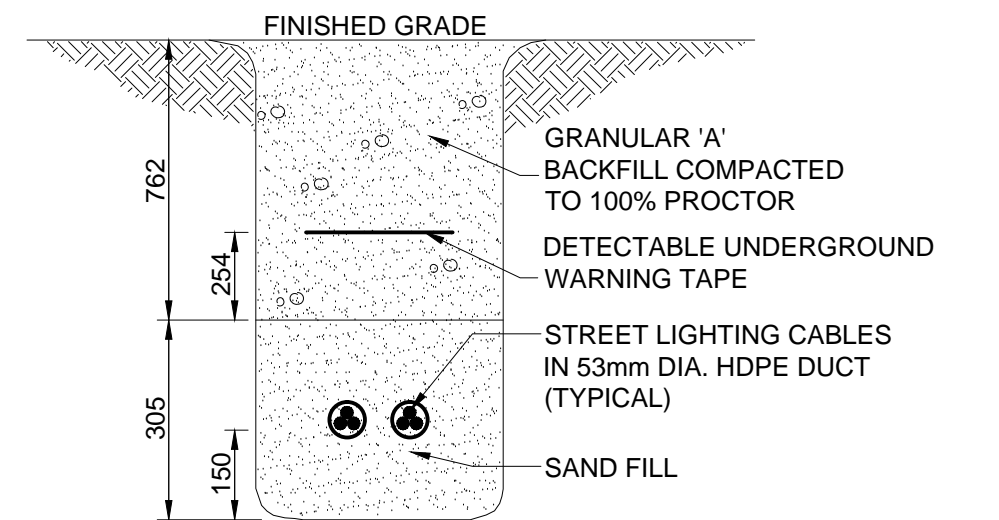


LEGEND

- AREA LIGHTING LAMP AND POLE
- AREA LIGHTING POWER CABLE(S)
- 600/347 VOLT POWER CABLE
- DATA/COMMUNICATION CONDUIT

NOTE:

- ALL BURIED CABLING SHALL BE INSTALLED IN HDPE CONDUIT BURIED 1000 mm BELOW FINISHED GRADE.
- INSTALL COPPER CLAD GROUND ROD AT END OF LIGHTING CIRCUITS.
- UNDERGROUND STREET LIGHT WIRING NOT SHOWN. WIRING SHALL BE #6AWG RWU-90 INSTALLED IN 53MM HDPE CONDUIT.
- REFER TO HHW EWASTE LIGHTING PLAN E03 FOR AREA LIGHTING FIXTURE TYPE.
- PULLBOX: CHRISTY B1730 H/20 LOADING.



UNDERGROUND CABLE INSTALLATION DETAIL  
N.T.S.

METRIC

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES



Certificate of Authorization  
Dillon Consulting Limited (MB)  
No. 1789 Date: MAR. 4, 2016

B.M. ELEV.			
2	ISSUED FOR CONSTRUCTION	16/04/12	NR
1	ISSUED FOR TENDER	16/03/04	ARR
NO.	REVISIONS	DATE	BY

DESIGNED BY	BLM
DRAWN BY	SCK
CHECKED BY	BLM
APPROVED BY	ARR
HOR. SCALE	AS NOTED
VERTICAL	
DATE	

RELEASED FOR CONSTRUCTION  
DATE

CONSULTANT PROJECT NUMBER  
13-8224

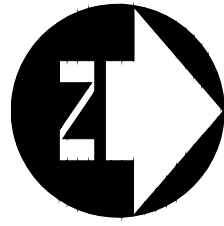
4R WINNIPEG DEPOT  
PACIFIC AVENUE

CITY DRAWING NUMBER  
1-0851A-E0009-001



SHEET 41 OF 43

CONSULTANT DRAWING NUMBER  
E-9





LEGEND

-  SURVEILLANCE CAMERA  
 WP JUNCTION BOX

METRIC

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES



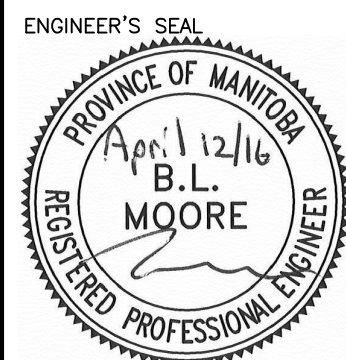
Certificate of Authorization  
Dillon Consulting Limited (MB)  
No. 1789 Date: MAR. 4, 2016

B.M. ELEV.			
2	ISSUED FOR CONSTRUCTION	16/04/12	NR
1	ISSUED FOR TENDER	16/03/04	ARR
NO.	REVISIONS	DATE	BY

DESIGNED BY	BLM
DRAWN BY	SCK
CHECKED BY	BLM
APPROVED BY	
HOR. SCALE	AS NOTED
VERTICAL	
DATE	



RELEASED FOR  
CONSTRUCTION  
DATE



CONSULTANT PROJECT NUMBER  
13-8224



THE CITY OF WINNIPEG  
WATER AND WASTE DEPARTMENT

4R WINNIPEG DEPOT  
PACIFIC AVENUE

SITE PLAN SECURITY CAMERAS LAYOUT

CITY DRAWING NUMBER  
1-0851A-E0010-001

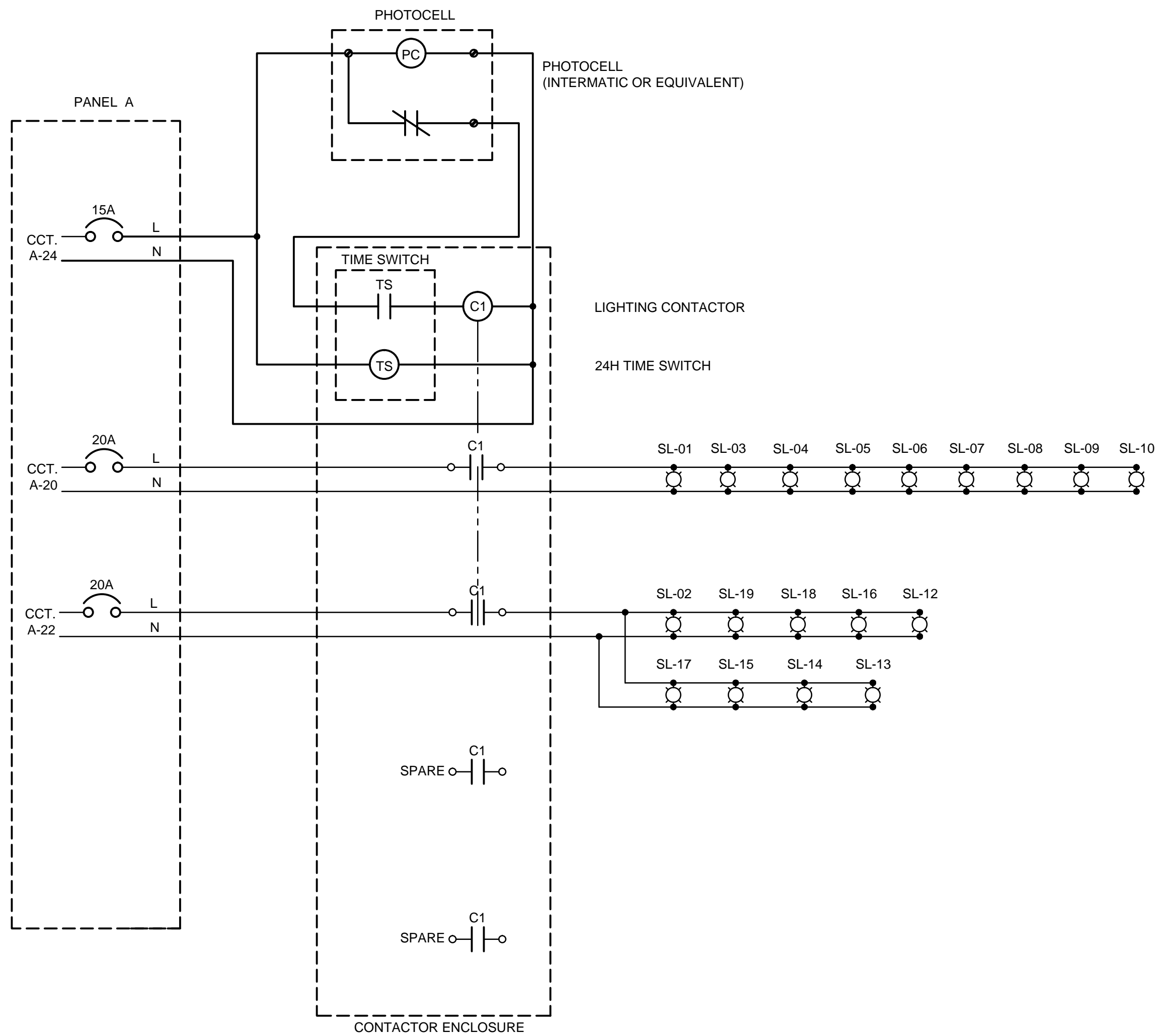
SHEET 42 OF 43

CONSULTANT DRAWING NUMBER

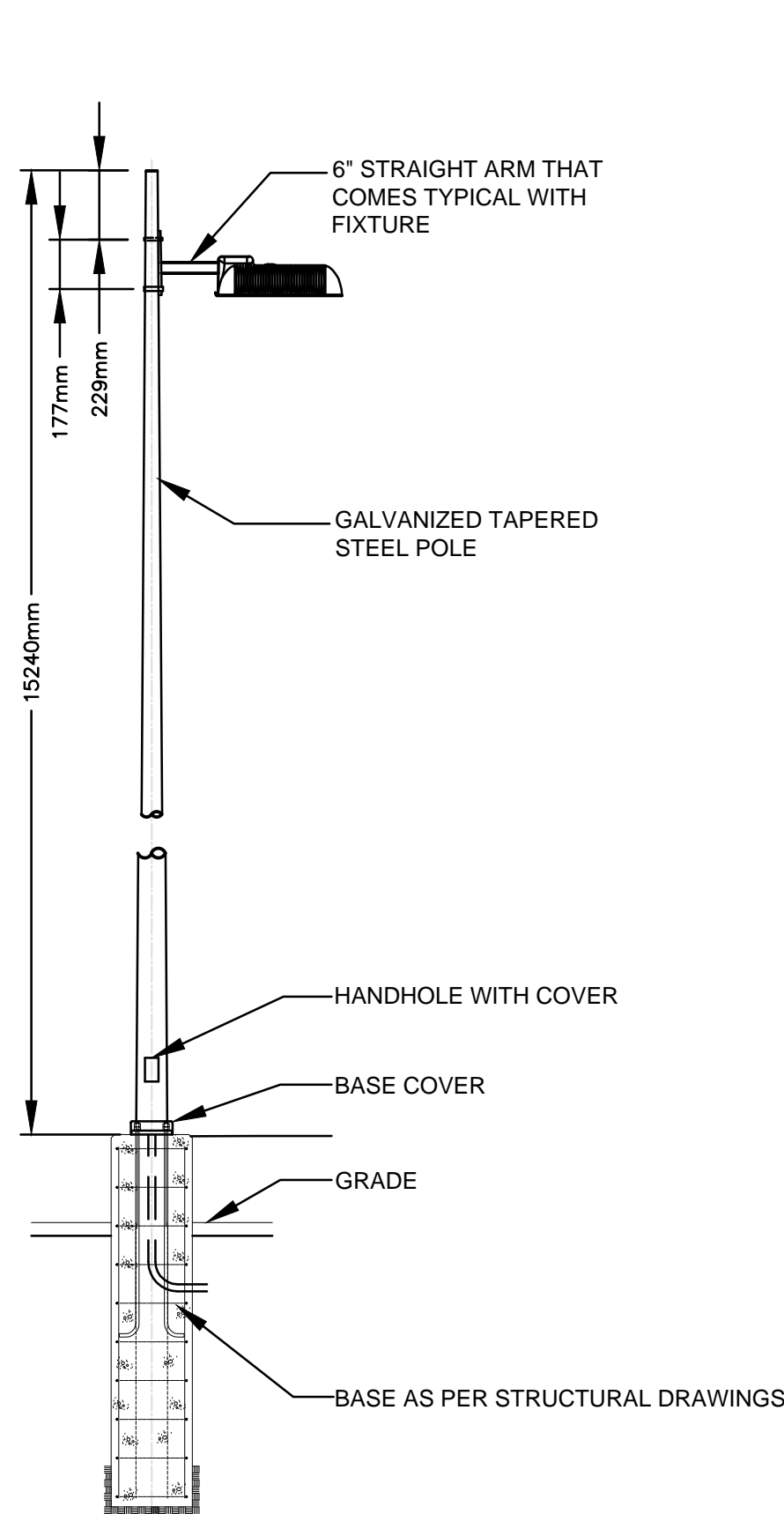
E-10



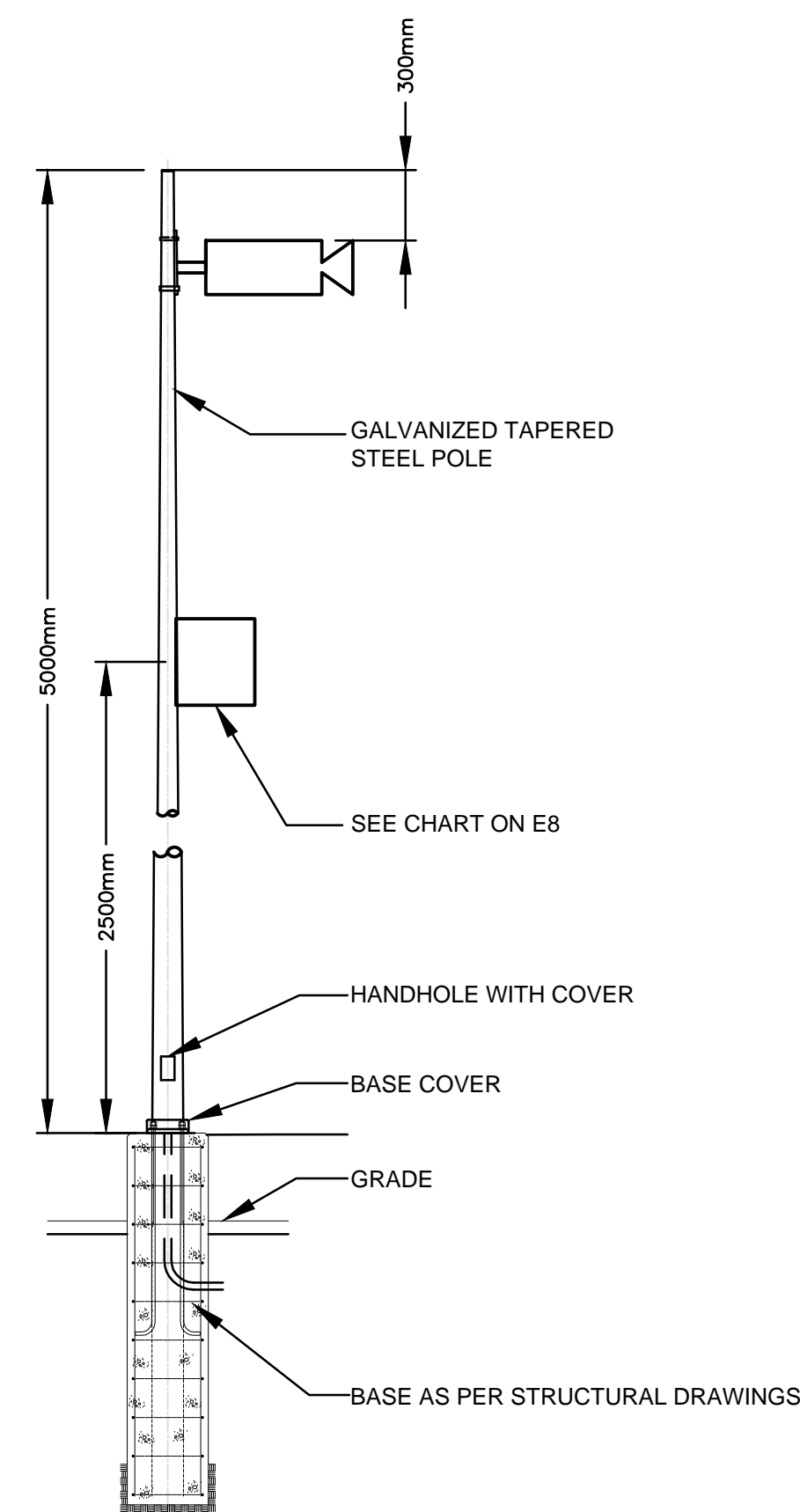
C:\project\wise\working directory\active\40skt\0024576A\138224-02-ELEC-CON11.dwg



LIGHTING DISTRIBUTION SCHEMATIC  
SCALE: N.T.S.



TYPICAL SITE LIGHTING POLE MOUNTING DETAIL  
SCALE: N.T.S.






TYPICAL SECURITY CAMERA POLE MOUNTING DETAIL  
SCALE: N.T.S.

METRIC

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES



B.M. ELEV.				DESIGNED BY BLM				 THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT			
				DRAWN BY SCK							
				CHECKED BY BLM				4R WINNIPEG DEPOT PACIFIC AVENUE		CITY DRAWING NUMBER 1-0851A-E0011-001	
				APPROVED BY ARR						SHEET 43 OF 43	
2 ISSUED FOR CONSTRUCTION				16/04/12	NR	HOR. SCALE AS NOTED		RELEASED FOR CONSTRUCTION		CONSULTANT PROJECT NUMBER 13-8224	
1 ISSUED FOR TENDER				16/03/04	ARR	VERTICAL					
NO.	REVISIONS			DATE	BY	DATE	DATE				
SITE - ELECTRICAL DETAILS										CONSULTANT DRAWING NUMBER E-11	



## Appendix B

### *Record of Title*



DATE: 2013/12/16  
TIME: 09:24

MANITOBA  
STATUS OF TITLE

TITLE NO: 1420176/1  
PAGE: 1

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	CITY OF WINNIPEG (LAND & DEV.)
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	2ND FLOOR
REGISTERING OFFICE...	WINNIPEG		65 GARRY ST.
REGISTRATION DATE....	1996/01/29		WINNIPEG MB R3C 4K4
COMPLETION DATE.....	1996/02/09	LTO BOX NO....	97
		CLIENT FILE...	WW:STACY COUITIOYER
		PRODUCED BY...	M.DERKSEN

LEGAL DESCRIPTION:

THE CITY OF WINNIPEG  
  
IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED HEREON, IN THE FOLLOWING DESCRIBED LAND:  
  
PARCELS A, B, C, D, E, L, M, N, Q, R, S, T, U, V, W, X, Y, Z, AA, BB, CC, DD AND EE PLAN 27411 WLTO  
IN NW 1/4 7-11-3 EPM AND OTM LOTS 5 AND 6 PARISH OF ST JOHN

ACTIVE TITLE CHARGE(S):

1471686/1	ACCEPTED	CAVEAT	REG'D: 1991/10/11
DESCRIPTION:	EASEMENT		
FROM/BY:	BURLINGTON NORTHERN (MANITOBA) LIMITED		
TO:	AGENT; BARRE HALL	NOTES:	AFF: PCLS C & X SERVIENT
CONSIDERATION:			
1471687/1	ACCEPTED	CAVEAT	REG'D: 1991/10/11
DESCRIPTION:	EASEMENT		
FROM/BY:	BURLINGTON NORTHERN (MANITOBA) LIMITED		
TO:	AGENT;BARRE W. HALL	NOTES:	AFF: PCLS N & L SERVIENT
CONSIDERATION:			
1471688/1	ACCEPTED	CAVEAT	REG'D: 1991/10/11
DESCRIPTION:	EASEMENT		
FROM/BY:	BURLINGTON NORTHERN (MANITOBA) LIMITED		
TO:	AGENT;BARRE W. HALL	NOTES:	AFF: PCLS Q & U SERVIENT
CONSIDERATION:			
1471689/1	ACCEPTED	CAVEAT	REG'D: 1991/10/11
DESCRIPTION:	EASEMENT		
FROM/BY:	BURLINGTON NORTHERN (MANITOBA) LIMITED		
TO:	AGENT;BARRE W. HALL	NOTES:	AFF: PCL S SERVIENT
CONSIDERATION:			
1471690/1	ACCEPTED	CAVEAT	REG'D: 1991/10/11
DESCRIPTION:	EASEMENT		
FROM/BY:	BURLINGTON NORTHERN (MANITOBA) LIMITED		
TO:	AGENT;BARRE W. HALL	NOTES:	AFF: PCL V SERVIENT
CONSIDERATION:			

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA  
STORAGE SYSTEM ON 2013/12/16 OF TITLE NUMBER 1420176/1



DATE: 2013/12/16  
TIME: 09:24

MANITOBA  
STATUS OF TITLE

TITLE NO: 1420176/1  
PAGE: 2

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	CITY OF WINNIPEG (LAND & DEV.)
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	2ND FLOOR
REGISTERING OFFICE...	WINNIPEG		65 GARRY ST.
REGISTRATION DATE....	1996/01/29		WINNIPEG MB R3C 4K4
COMPLETION DATE.....	1996/02/09	LTO BOX NO....	97
		CLIENT FILE...	WW:STACY COUITIOYER
		PRODUCED BY...	M.DERKSEN

ACTIVE TITLE CHARGE(S):

1471691/1	ACCEPTED DESCRIPTION: FROM/BY: TO: CONSIDERATION:	CAVEAT EASEMENT BURLINGTON NORTHERN (MANITOBA) LIMITED AGENT;BARRE W. HALL	REG'D: 1991/10/11    NOTES: AFF: PCLS DD &EE SERVIENT
1471693/1	ACCEPTED DESCRIPTION: FROM/BY: TO: CONSIDERATION:	CAVEAT EASEMENT BURLINGTON NORTHERN (MANITOBA) LIMITED AGENT;BARRE W. HALL	REG'D: 1991/10/11    NOTES: AFF:PCL W WTHN LMTS 27412
1491391/1	ACCEPTED DESCRIPTION: FROM/BY: TO: CONSIDERATION:	CAVEAT EASEMENT AGREEMENT BURLINGTON NORTHERN (MANITOBA) LIMITED BARRE W. HALL AS AGENT	REG'D: 1991/12/05    NOTES: SER-PCLS E,M,T,W,Z,AA
1544696/1	ACCEPTED DESCRIPTION: FROM/BY: TO: CONSIDERATION:	MISCELLANEOUS EASEMENT DECLARATION THE CITY OF WINNIPEG	REG'D: 1992/05/25    NOTES: AFF:PCL A&B WTN LTS 23164

ADDRESS(ES) FOR SERVICE:		
EFFECT	NAME AND ADDRESS	POSTAL CODE
ACTIVE	CITY OF WPG. (LAW 510 MAIN ST. 510 MAIN STREET WINNIPEG MB	R3B 1B9

ORIGINATING INSTRUMENT(S):				
REGISTRATION NUMBER	TYPE	REG. DATE	CONSIDERATION	SWORN VALUE
1988793/1	TREQ	1996/01/29	\$0.00	\$0.00
PRESENTED BY:	CITY OF WINNIPEG (LAW)			
FROM:	THE CITY OF WINNIPEG			
TO:				

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA  
STORAGE SYSTEM ON 2013/12/16 OF TITLE NUMBER 1420176/1



DATE: 2013/12/16  
TIME: 09:24

MANITOBA  
STATUS OF TITLE

TITLE NO: 1420176/1  
PAGE: 3

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	CITY OF WINNIPEG (LAND & DEV.)
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	2ND FLOOR
REGISTERING OFFICE...	WINNIPEG		65 GARRY ST.
REGISTRATION DATE....	1996/01/29		WINNIPEG MB R3C 4K4
COMPLETION DATE.....	1996/02/09	LTO BOX NO....	97
		CLIENT FILE...	WW:STACY COUITIOYER
		PRODUCED BY...	M.DERKSEN

FROM TITLE NUMBER(S):

1222977/1 BAL

LAND INDEX:

LOT	BLOCK	SURVEY PLAN
A		27411
NOTE:		
B		27411
NOTE:		
C		27411
NOTE:		
D		27411
NOTE:		
E		27411
NOTE:		
L		27411
NOTE:		
M		27411
NOTE:		
N		27411
NOTE:		
Q		27411
NOTE:		
R		27411
NOTE:		
S		27411
NOTE:		
T		27411
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U		27411
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V		27411
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W		27411
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X		27411
NOTE:		
Y		27411
NOTE:		
Z		27411
NOTE:		
AA		27411
NOTE:		
BB		27411
NOTE:		
CC		27411
NOTE:		

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA  
STORAGE SYSTEM ON 2013/12/16 OF TITLE NUMBER 1420176/1



DATE: 2013/12/16  
TIME: 09:24

MANITOBA  
STATUS OF TITLE

TITLE NO: 1420176/1  
PAGE: 4

STATUS OF TITLE.....	ACCEPTED	PRODUCED FOR..	CITY OF WINNIPEG (LAND & DEV.)
ORIGINATING OFFICE...	WINNIPEG	ADDRESS.....	2ND FLOOR
REGISTERING OFFICE...	WINNIPEG		65 GARRY ST.
REGISTRATION DATE....	1996/01/29		WINNIPEG MB R3C 4K4
COMPLETION DATE.....	1996/02/09	LTO BOX NO....	97
		CLIENT FILE...	WW:STACY COUITIOYER
		PRODUCED BY...	M.DERKSEN


LAND INDEX:		
LOT	BLOCK	SURVEY PLAN
DD		27411
NOTE:		
EE		27411
NOTE:		

ACCEPTED THIS 29TH DAY OF JANUARY, 1996  
BY J.SCOTT FOR THE DISTRICT REGISTRAR OF  
THE LAND TITLES DISTRICT OF WINNIPEG.

CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA  
STORAGE SYSTEM ON 2013/12/16 OF TITLE NUMBER 1420176/1.

\*\*\*\*\* END OF STATUS OF TITLE 1420176/1 \*\*\*\*\*





Planning, Property and Development  
Municipal Accommodations Div.



## STATUS OF TITLE

Title Number **1420176/1**  
Title Status **Accepted**  
Client File **LDIAZ**

## The Property Registry

A Service Provider for the Province of Manitoba



### 1. REGISTERED OWNERS, TENANCY AND LAND DESCRIPTION

THE CITY OF WINNIPEG

IS REGISTERED OWNER SUBJECT TO SUCH ENTRIES RECORDED HEREON, IN THE FOLLOWING DESCRIBED LAND:

PARCELS A, B, C, D, E, L, M, N, Q, R, S, T, U, V, W, X, Y, Z, AA, BB,  
CC, DD AND EE PLAN 27411 WLTO  
IN NW 1/4 7-11-3 EPM AND OTM LOTS 5 AND 6 PARISH OF ST JOHN

The land in this title is, unless the contrary is expressly declared, deemed to be subject to the reservations and restrictions set out in section 58 of *The Real Property Act*.

### 2. ACTIVE INSTRUMENTS

Instrument Type: **Caveat**  
Registration Number: **1471686/1**  
Instrument Status: **Accepted**  
  
Registration Date: 1991-10-11  
From/By: BURLINGTON NORTHERN (MANITOBA) LIMITED  
To: AGENT; BARRE HALL  
  
Amount:  
Notes: AFF: PCLS C & X SERVIENT  
Description: EASEMENT

Instrument Type: **Caveat**  
Registration Number: **1471687/1**  
Instrument Status: **Accepted**  
  
Registration Date: 1991-10-11  
From/By: BURLINGTON NORTHERN (MANITOBA) LIMITED  
To: AGENT; BARRE W. HALL  
  
Amount:  
Notes: AFF: PCLS N & L SERVIENT  
Description: EASEMENT



Instrument Type: **Caveat**  
Registration Number: **1471688/1**  
Instrument Status: **Accepted**

Registration Date: 1991-10-11  
From/By: BURLINGTON NORTHERN (MANITOBA) LIMITED  
To: AGENT;BARRE W. HALL

Amount:  
Notes: AFF: PCLS Q & U SERVIENT  
Description: EASEMENT

---

Instrument Type: **Caveat**  
Registration Number: **1471689/1**  
Instrument Status: **Accepted**

Registration Date: 1991-10-11  
From/By: BURLINGTON NORTHERN (MANITOBA) LIMITED  
To: AGENT;BARRE W. HALL

Amount:  
Notes: AFF: PCL S SERVIENT  
Description: EASEMENT

---

Instrument Type: **Caveat**  
Registration Number: **1471690/1**  
Instrument Status: **Accepted**

Registration Date: 1991-10-11  
From/By: BURLINGTON NORTHERN (MANITOBA) LIMITED  
To: AGENT;BARRE W. HALL

Amount:  
Notes: AFF: PCL V SERVIENT  
Description: EASEMENT



Instrument Type: **Caveat**  
Registration Number: **1471691/1**  
Instrument Status: **Accepted**

Registration Date: 1991-10-11  
From/By: BURLINGTON NORTHERN (MANITOBA) LIMITED  
To: AGENT;BARRE W. HALL

Amount:  
Notes: AFF: PCLS DD &EE SERVIENT  
Description: EASEMENT

---

Instrument Type: **Caveat**  
Registration Number: **1471693/1**  
Instrument Status: **Accepted**

Registration Date: 1991-10-11  
From/By: BURLINGTON NORTHERN (MANITOBA) LIMITED  
To: AGENT;BARRE W. HALL

Amount:  
Notes: AFF:PCL W WTHN LMTS 27412  
Description: EASEMENT

---

Instrument Type: **Caveat**  
Registration Number: **1491391/1**  
Instrument Status: **Accepted**

Registration Date: 1991-12-05  
From/By: BURLINGTON NORTHERN (MANITOBA) LIMITED  
To: BARRE W. HALL AS AGENT

Amount:  
Notes: SER-PCLS E,M,T,W,Z,AA  
Description: EASEMENT AGREEMENT



Instrument Type:	Miscellaneous
Registration Number:	1544696/1
Instrument Status:	Accepted
Registration Date:	1992-05-25
From/By:	THE CITY OF WINNIPEG
To:	
Amount:	
Notes:	AFF:PCL A&B WTN LTS 23164
Description:	EASEMENT DECLARATION

---

**3. ADDRESSES FOR SERVICE**

CITY OF WPG. (LAW 510 MAIN ST.  
510 MAIN STREET  
WINNIPEG MB  
R3B 1B9

---

**4. TITLE NOTES**

No title notes

---

**5. LAND TITLES DISTRICT**

Winnipeg

---

**6. DUPLICATE TITLE INFORMATION**

Duplicate not produced

---

**7. FROM TITLE NUMBERS**

1222977/1          Balance

---

**8. REAL PROPERTY APPLICATION / CROWN GRANT NUMBERS**

No real property application or grant information

---

**9. ORIGINATING INSTRUMENTS**

Instrument Type:	Request To Issue Title
Registration Number:	1988793/1
Registration Date:	1996-01-29
From/By:	THE CITY OF WINNIPEG
To:	
Amount:	



**10. LAND INDEX**

Lot A Plan 27411

Lot B Plan 27411

Lot C Plan 27411

Lot D Plan 27411

Lot E Plan 27411

Lot L Plan 27411

Lot M Plan 27411

Lot N Plan 27411

Lot Q Plan 27411

Lot R Plan 27411

Lot S Plan 27411

Lot T Plan 27411

Lot U Plan 27411

Lot V Plan 27411

Lot W Plan 27411

Lot X Plan 27411

Lot Y Plan 27411

Lot Z Plan 27411

Lot AA Plan 27411

Lot BB Plan 27411

Lot CC Plan 27411

Lot DD Plan 27411

Lot EE Plan 27411



CERTIFIED TRUE EXTRACT PRODUCED FROM THE LAND TITLES DATA STORAGE  
SYSTEM OF TITLE NUMBER 1420176/1