

## **GENERAL NOTES:**

1. DESIGN IS IN ACCORDANCE WITH THE NATIONAL BUILDING CODE OF CANADA, 2005 EDITION PLUS 1998 MANITOBA AMENDMENTS. CONCRETE WALLS ARE DESIGNED IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN

## CAST IN PLACE CONCRETE:

1. TO BE READ IN CONJUNCTION WITH CW 2160 AND AS AMENDED IN ACCORDANCE WITH THESE NOTES.

2. CONCRETE MIX WAS IN ACCORDANCE WITH ALTERNATIVE 1, AND POSSESSED THE FOLLOWING PROPERTIES:

0.40

a. CLASS OF EXPOSURE:

b. MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS: 80mm ± 20mm c. MAXIMUM SLUMP: d. AIR CONTENT: 5 - 8%

e. MAXIMUM WATER/CEMENT RATIO:

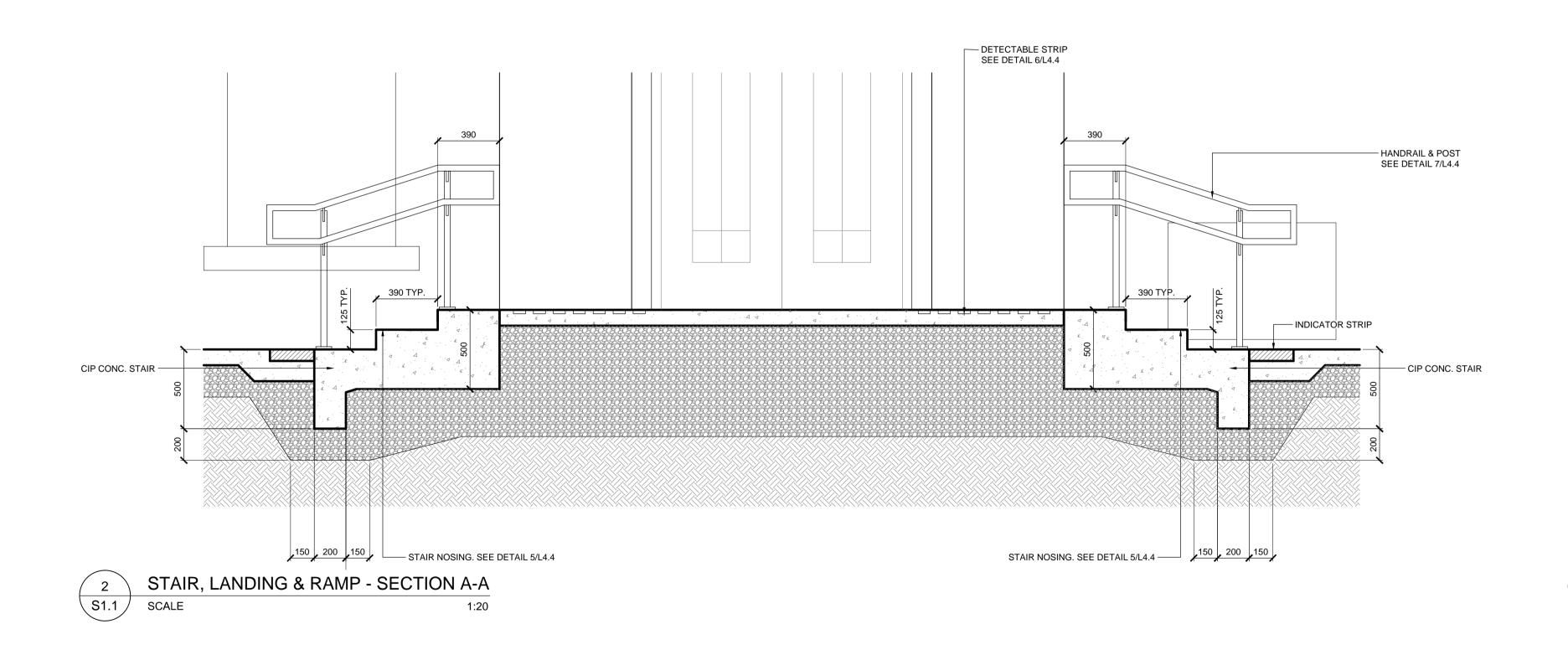
4. CONCRETE COVER = 50mm.

5. ALL EXTERIOR CORNERS CHAMFERED 20mm.

## REINFORCING STEEL:

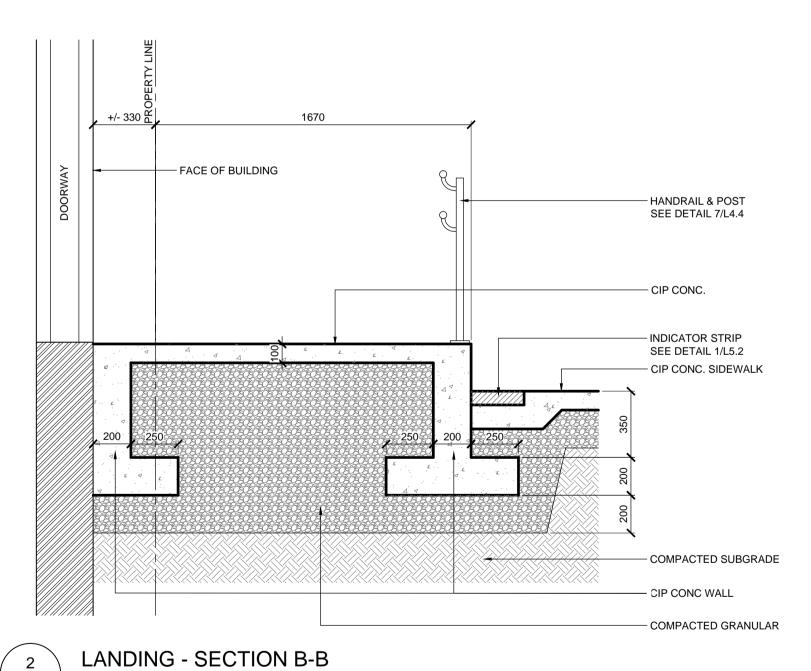
1. TO BE READ IN CONJUNCTION WITH CW 2160 AND AS AMENDED IN ACCORDANCE WITH THESE NOTES.

- 2. ALL REINFORCING STEEL CONFORMS TO CSA G30.18M, GRADE 400W.
- 3. ALL CONCRETE REINFORCING WORK PERFORMED IN ACCORDANCE WITH CSA A23.1.
- 4. LAPS AT LEAST 40 BAR DIAMETERS, REINFORCING SPLICES NOT INDICATED IN THE DRAWINGS LOCATED AT POINTS OF MINIMUM STRESS.
- 5. BEFORE PLACING CONCRETE, REINFORCING WAS CLEAN, FREE OF LOOSE SCALE, DIRT OR OTHER FOREIGN MATTER THAT WOULD REDUCE OR PREVENT BOND TO THE CONCRETE.



These design documents are prepared solely for the use by the party with whom the design professional has entered into a contract and there

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DECIMALIZED NUMBERS INDICATE METRES **Certificate of Authorization** MMM Group Limited No. 4531

**METRIC** 

WHOLE NUMBERS INDICATE MILLIMETRES

LOCATIONS APPROVED MMM Group Limited. Suite 111 - 93 Lombard Ave. UNDERGROUND STRUCTURES Winnipeg, MB R3B 3B1 t. 204.943.3178 f. 204.943.4948 **MMM GROUP** www.mmm.ca SUPV U/G STRUCTURES CHECKED MM LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL MM JH/MS EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT CONFIRMATION OF AS NOTED RELEASED FOR EXISTANCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES CONSTRUCTION CONSULTANT ACAD DWG. NO. A ISSUED FOR TENDER 07/08/14 MS BEFORE PROCEEDING NO. REVISIONS DATE BY DATE JUL 29/14 DATE



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THE CITY OF WINNIPEG PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES DIVISION

CITY OF WINNIPEG

NORTH EAST EXCHANGE DISTRICT ENGINEERING STUDY

MARKET STAIRS & RAMP

BID NO. 742-2014