

CONCRETE CURBS AND SLABS

1. THE CONCRETE MIX SHALL BE PROPORTIONED TO YIELD THE FOLLOWING STRENGTH AND WORKABILITY REQUIREMENTS:
 - CLASS OF EXPOSURE: C-2
 - MINIMUM SPECIFIED COMPRESSIVE STRENGTH @ 28 DAYS = 32 MPa
 - MINIMUM CEMENTITIOUS CONTENT = 340 kg/m³
 - MAXIMUM WATER/CEMENTITIOUS RATIO = 0.45
 - SLUMP = 70 ± 20mm
 - AGGREGATE SIZE = 20mm NOMINAL
 - AIR CONTENT = 5.0% TO 8.0%
2. CONCRETE CURBS AND SLABS SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH CW3240 AND CW3310.

WORK ITEMS:

- 1 SAWCUT 315x575 OPENING IN 200 THK. CONCRETE FLOOR FOR NEW DUCT AND PLUG ABANDONED CIRCULAR DUCT OPENING.
- 2 INSTALL BRICK SUPPORT ANGLE L100x100x8 (GALV.) C/W 19 DIA. S.S. HILTI HY-150 ADHESIVE ANCHORS @ 500 O/C (170 EMBED.).
- 3 INSTALL L100x100x8 (GALV.) BRICK SUPPORT LINTEL ABOVE LOUVRE AND DOOR OPENINGS. EXTEND LINTEL MINIMUM 200 EACH SIDE OF OPENING.
- 4 FRAME NEW LOUVRE OPENINGS WITH 2-38x184 TIMBER LINTEL AND DOUBLE STUDS ON EACH SIDE.
- 5 INSTALL BRICK LATERAL SUPPORT TIES AT 400 VERTICAL SPACING AND 600 HORIZONTAL SPACING. LENGTH OF TIES TO SUIT WALL CAVITIES SHOWN ON ARCHITECTURAL DRAWINGS.
- 6 REMOVE AND RE-WORK EXISTING BRICK INFILL AT EXISTING DISCHARGE BLOCK WALL OPENINGS AS REQUIRED TO ACCOMMODATE NEW LOUVRE OPENINGS.
- 7 REMOVE EXISTING CONCRETE SLAB-ON-GRADE AT MAIN ENTRANCE AND ON SOUTH SIDE OF BUILDING AND BACKFILL WITH COMPACTED GRANULAR.
- 8 INFILL ABANDONED LOUVRE OPENINGS WITH TIMBER STUDS AND SHEATHING TO MATCH EXISTING.
- 9 REMOVE EXISTING DISCHARGE BLOCK STEEL HATCH COVERS AND REPAIR CONCRETE AROUND RIM OF OPENINGS.
- 10 REMOVE EXISTING DISCHARGE BLOCK STUCCO AND REPAIR EXTERIOR CONCRETE WALL SURFACE.
- 11 REPAIR EXPOSED EXTERIOR SURFACE OF EXISTING MANHOLE CHAMBER.
- 12 INSTALL NEW CONCRETE CURB TO SUPPORT BRICK ABOVE DISCHARGE BLOCKS.
- 13 INSTALL NEW CONCRETE CURB/CORBEL ALONG DISCHARGE BLOCK AT MAIN ENTRANCE TO SUPPORT NEW WALL.

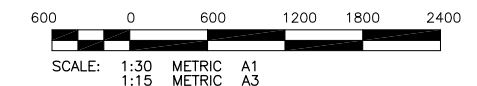
REFER TO ARCHITECTURAL SITE PLAN FOR NEW LANDING SLAB FOOTPRINT AND NEW APPROACH DETAILS. NEW SLAB TO BE 125 THICK C/W 10M BARS AT 300 O/C EACH WAY ON COMPACTED GRANULAR BASE.

CONCRETE REPAIR PROCEDURE

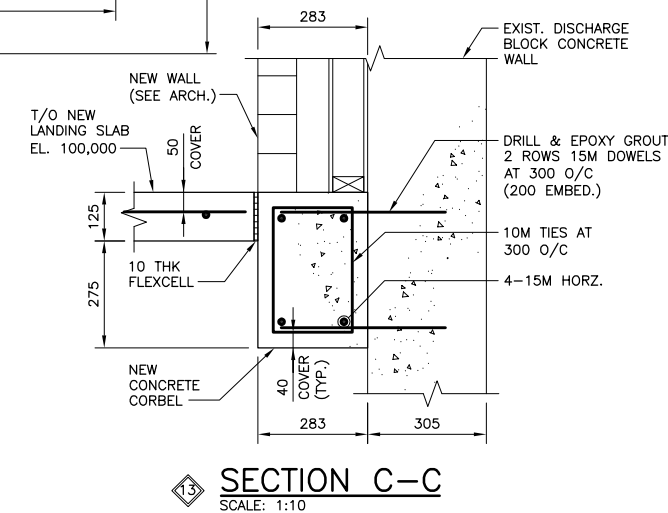
1. REMOVE EXISTING STUCCO FINISH AS REQUIRED BY SCRAPING, HIGH PRESSURE WASH OR APPROVED ALTERNATE METHOD IN ACCORDANCE WITH B6.
2. SQUARE CUT PERIMETER OF LARGE REPAIR AREAS TO A MINIMUM 25mm DEPTH TO AVOID FEATHER EDGES.
3. CHIP UNSOUND DETERIORATED CONCRETE TO A MINIMUM 25mm DEPTH.
4. COMPLETELY EXPOSE ANY REINFORCING STEEL IF ENCOUNTERED DURING CONCRETE DEMOLITION TO ENSURE TO ENSURE COMPLETE ENCAPSULATION WITH REPAIR MORTAR.
5. REMOVE CORROSION FROM REINFORCING STEEL USING MECHANICAL ABRASION TECHNIQUES (WIRE BRUSH, BLASTING)
6. LAP OR REPLACE EXISTING REINFORCING THAT HAS EXPERIENCED SIGNIFICANT SECTION LOSS.
7. CLEAN THE ROUGHENED CONCRETE SURFACE OF DIRT, LOOSE CHIPS, DUST, OIL, ETC BY PRESSURE WASH AND COMPRESSED AIR (CONTAIN ALL DEBRIS).
8. FORM VERTICAL SURFACES AS REQUIRED AND CHAMFER TO MATCH EXISTING.
9. DAMPEN SUBSTRATE WITH WATER AND THEN PRIME WITH BRUSH COAT OF STRUCTURAL REPAIR MORTAR.
10. CAST REPAIR AREA WITH STRUCTURAL REPAIR MORTAR AS PER MANUFACTURER'S SPECIFICATIONS (SMALL AREAS MAY BE APPLIED BY HAND TROWEL).
11. MOIST CURE REPAIR AREAS EXPOSED TO THE AIR FOR 3 DAYS AT A MINIMUM TEMPERATURE OF 10 DEGREES CELSIUS OR UNTIL MINIMUM OF 40% OF THE COMPRESSIVE STRENGTH OF THE CONCRETE IS ATTAINED.
12. DO NOT APPLY CURING COMPOUNDS AS THEY MAY INTERFERE WITH ADHESION OF AIR/VAPOUR BARRIER MEMBRANE.
13. APPLY AIR/VAPOUR BARRIER MEMBRANE AFTER REPAIR MORTAR HAS SUFFICIENTLY CURED TO ENSURE ADHESION (REFER TO MANUFACTURER'S SPECIFICATIONS REGARDING MOISTURE CONTENT AND TESTING METHODS IF REQUIRED).

NOTE:

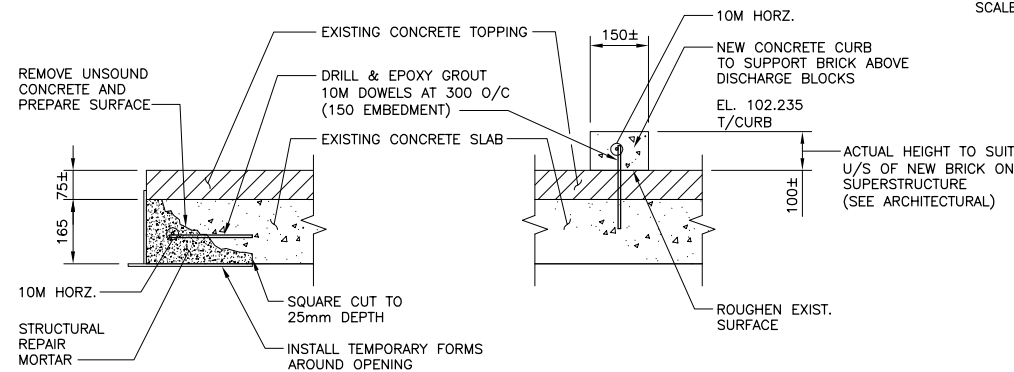
FOR LARGE REPAIR AREAS GREATER THAN 100mm THE MANUFACTURER SHOULD BE CONTACTED AS IT MAY BE RECOMMENDED TO "EXTEND" THE REPAIR MORTAR WITH AGGREGATE.



FLOOR PLAN
SCALE: 1:30



SECTION C-C
SCALE: 1:10



SECTION A-A
SCALE: 1:10

SECTION B-B
SCALE: 1:10

B.M.	XX-XXX	ELEV.	XXX.XXX
DESIGNED BY	CMS	CHECKED BY	CMS
DRAWN BY	FV	APPROVED BY	
SCALE:	AS NOTED		
RELEASED FOR CONSTRUCTION:	DATE		
0	ISSUED FOR CONSTRUCTION	19/06/08	CMS
NO.	REVISIONS	DATE	BY
		17/01/08	

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ENGINEER'S SEAL
ORIGINAL DRAWING SIGNED BY C.M. SIEPMAN 19/06/08
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APEGM
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KGS Group
No. 245 Date: 2008-06-19

THE CITY OF WINNIPEG
Winnipeg WATER & WASTE DEPARTMENT

BANNATYNE FLOOD PUMPING STATION BUILDING UPGRADE

STRUCTURAL PLAN AND SECTION

SHEET **01** OF **01**
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