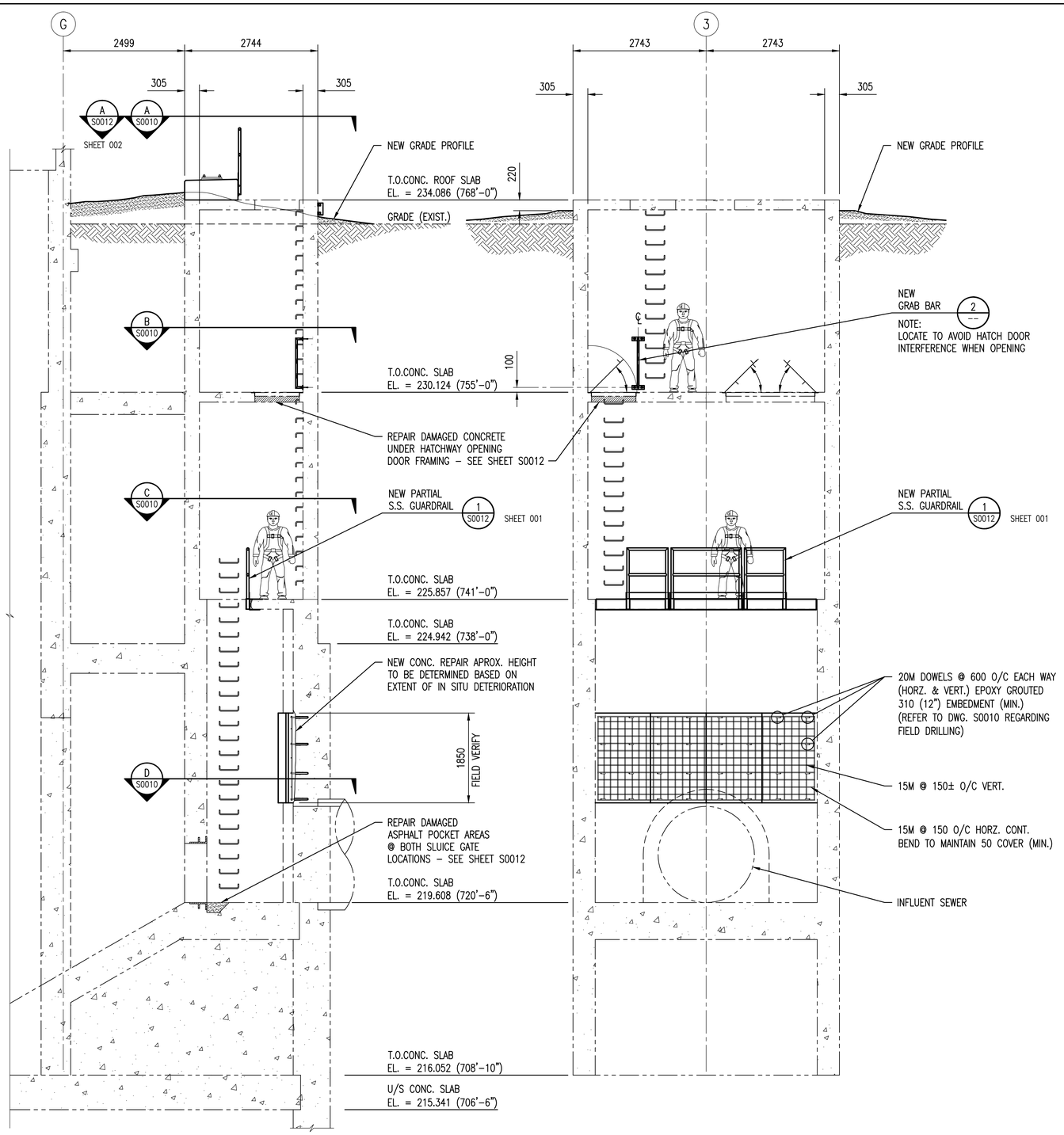
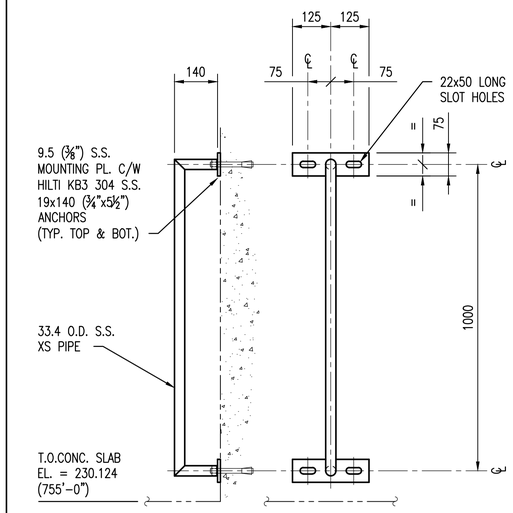


E S0010 SECTION – INLET STRUCTURE
SCALE: 1 : 50
LOOKING WEST

F S0010 SECTION – INLET STRUCTURE
SCALE: 1 : 50
LOOKING NORTH



2 -- DETAIL – GRAB BAR
SCALE: 1 : 10

0.25 0 0.25 0.5m
1 : 10

NOTES:

1. SEE DRAWING 1–0102G–S0010 FOR GENERAL NOTES.

CONNECTION DESIGN:

1. ALL CONNECTIONS SHALL BE EITHER SHOP WELDED OR FIELD BOLTED USING HIGH STRENGTH ASTM A325 BOLTS, UNLESS OTHERWISE NOTED ON DRAWINGS. MINIMUM BOLT DIAMETER SHALL BE 19MM WITH A MINIMUM TWO BOLTS REQUIRED PER CONNECTION.

DESIGN OF BOLTED CONNECTIONS:

1. DESIGN ALL BOLTED CONNECTIONS IN ACCORDANCE WITH CAN/CSA–S16–01 AND THE CISC CODE OF STANDARD PRACTICE FOR STRUCTURAL STEEL.
2. ALL CONNECTIONS SHALL BE DESIGNED AND DETAILED BY THE STEEL FABRICATOR. CONNECTION CONFIGURATIONS SHALL (IN GENERAL) CONFORM WITH THE DETAILS PROVIDED. THE STEEL FABRICATOR SHALL ADVISE THE ENGINEER IN WRITING WHEN DEVIATION FROM THE APPROVED CONNECTION CONFIGURATION DETAILS IS REQUIRED.
3. OVERSIZED HEAVY DUTY 60mm DIA. x 5mm THICK HARDENED PLATE WASHERS REQUIRED AT ALL SLOTTED/BOLTED CONNECTION LOCATIONS (TYP.)

SHOP WELDED CONNECTIONS:

1. ALL SHOP WELDING SHALL CONFORM TO CSA W59.1. CONTRACTOR TO BE CERTIFIED IN ACCORDANCE WITH CSA W47.1, DIVISION 1 OR 2. ALL WELDERS TO BE CWB CERTIFIED FOR THE REQUIRED WELDS.
2. ALL WELDS TO BE CONTINUOUS FILLET OR GROOVE SEAL WELDS. GROOVE WELDS TO BE DETAILED AS FULL PENETRATION WELDS WITH BACKER PLATE.

FIELD WELDED CONNECTIONS:

1. ALL FIELD WELDING SHALL CONFORM TO CSA W59.1. CONTRACTOR TO BE CERTIFIED IN ACCORDANCE WITH CSA W47.1, DIVISION 1 OR 2. ALL WELDERS TO BE CWB CERTIFIED FOR THE REQUIRED WELDS.
2. ALL FIELD WELDED CONNECTIONS SHALL BE 6mm FILLET WELDS OR BUTT WELDS, CONTINUOUS AND ALL AROUND, UNLESS SHOWN OTHERWISE.

CAST–IN–PLACE CONCRETE:

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO CSA STANDARD CAN/CSA–A23.1–M.
2. CONCRETE MIXES SHALL BE PROPORTIONED IN ACCORDANCE WITH CSA A23.1, ALTERNATIVE 1, TO GIVE THE FOLLOWING PROPERTIES:

MINIMUM 28 DAY COMPRESSIVE STRENGTH	– 35 MPA
CEMENT TYPE:	
BEAMS AT TOP OF INLET STRUCURE ROOF AND DRYWELL ISOLATION WALLS	– TYPE GU
INSIDE THE INLET STRUCTURE	– TYPE HSb
NOMINAL SIZE OF AGGREGATE:	
BEAMS AT TOP OF INLET STRUCURE ROOF AND DRYWELL ISOLATION WALLS	– 20mm
ALL OTHER LOCATIONS	– 10mm
SLUMP	– 100mm
ENTRAINED AIR CONTENT	– 5 TO 8%
MAXIMUM FLYASH SUBSTITUTION TO BE 20% BY WEIGHT.	

3. REINFORCING STEEL SHALL CONFORM TO CAN/CSA G30;18–M, GRADE 400W. 10M TIES AND BEAM STIRRUPS MAY BE GRADE 300W.
4. CLEAR COVER TO REINFORCING STEEL SHALL BE 50mm UNLESS NOTED OTHERWISE.
5. NON–SHRINK, NON–METALLIC CEMENTITIOUS GROUT TO BE SIKA 212R OR MASTERFLOW 928.
6. ALL ANCHOR BOLTS SHALL CONFORM TO ASTM A307, UNLESS OTHERWISE NOTED.
7. USE FORM LINERS TO AVOID HONEYCOMBING OF CONCRETE.
8. USE SUITABLE VIBRATION METHOD TO ENSURE PROPER COMPACTION OF CONCRETE.
9. SUBMIT 3 PRINTS OF EACH REINF. STEEL SHOP DRAWING FOR REVIEW PRIOR TO FABRICATION AND CASTING OF CONCRETE.

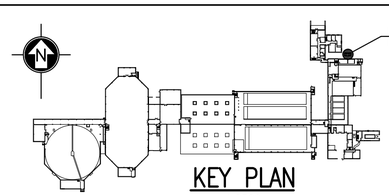
CONCRETE REPAIRS:

1. SCRAPE THE SURFACE TO REMOVE ALL DEPOSITS.
2. HYDRO–DEMOLISH THE UNSOUND CONCRETE IN THE SCRAPED AREA.
3. CLEAN THE EXPOSED STEEL REINFORCEMENT AND APPLY A CORROSION INHIBITING PRIMER.
4. APPLY A BONDING AGENT ON THE CONCRETE AREA TO BE REPAIRED.
5. APPLY STRUCTURAL REPAIRS AS PER THE DRAWINGS.

DRAWING NUMBER	REFERENCE DRAWINGS
SEP–35	PUMP & SCREEN BLDG. STRUCTURAL CAST–IN–SITU ALT. SECTION
SEP–34	PUMP & SCREEN BLDG. STRUCTURAL CAST–IN–SITU ALTERNATIVE PLANS
SEP–29	PUMP & SCREEN BLDG. STRUCTURAL INTAKE STRUCTURAL DETAILS
SEP–21	PUMP & SCREEN BLDG. ARCH. FLOOR PLANS ELEV. 774',782',796'
SEP–20	PUMP & SCREEN BLDG. ARCH. FLOOR PLAN ELEV. 764' BLDG. ELEV'S.
SEP–19	PUMP & SCREEN BLDG. ARCH. FLOOR PLANS ELEV. 709',715',733',755'
SEP–03	STRUCT. TYP. PILE CAPS, CONCRETE DETAILS & GENERAL NOTES

1 0 1 2 3m
1 : 50

APEGM Certificate of Authorization
SNC-Lavalin Inc.
No. 4489



KEY PLAN
1:2500

NO.	REVISIONS	DATE	DESIGN	CHECK
00	ISSUED FOR TENDER	2010/10/01	DSS	RCB

SNC·LAVALIN
SNC–LAVALIN INC.
148 Nature Park Way
Winnipeg, MB, Canada R3P 0X7
204–786–8080

DESIGNED BY: D. S. SIDHU	CHECKED BY: R. C. BEAN
DRAWN BY: B. F. DICKSON	APPROVED BY: C. J. REIMER
SCALE: 1:10 , 1:50	RELEASED FOR CONSTRUCTION BY: J. VEILLEUX
DATE: 2009/12/21	DATE: 2010/10/01
CONSULTANT NO.: 112577–0112–42DD–0031	

ENGINEER'S SEAL

ORIGINAL DRAWING
SEALED BY:
D. S. SIDHU
SNC–LAVALIN INC.
MEMBER # 24837
2010/10/01
REV. 00

Winnipeg
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

SOUTH END WATER POLLUTION CONTROL CENTRE
HEADWORKS UPGRADES
SECTIONS & DETAILS
INLET STRUCTURE

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1–0102G–S0011	001	00	A1

1–0102G–S0011–001–00.DWG