



INSPECTION REPORT

PROJECT Shoal Lake Aqueduct
Program 2.7 Aqueduct Overflow Inspections
Mile 83 Overflow Structure

REPORT NO.

DATE October 15, 2000

OWNER The City of Winnipeg,
Water and Waste Department

DEPARTMENT 02

WEATHER

JOB NO. D265 142 07

Present: Marv McDonald, UMA
Rene Croteau, UMA
Civil Maintenance

Overflow Structure

- Excellent condition. No visible cracks or honeycomb. Concrete appears to be sound.
- Flap gate on Aqueduct drain has surface corrosion, but operates freely and appears to seat well.

Dissipation Chamber

- Lower portion in excellent condition.
- Some honeycomb visible to approximately 20 mm depth on north and west face of chamber at approximately the level of the outlet weir.

Outlet Structure

- General good condition. Typically 2 to 3 millimetres of surface erosion
- Outlet contained approximately 0.75 m of water at time of inspection. Floor not visible. Floor clean except for occasional debris to 100 mm thick.
- Defect mapping – see attached sketch for details. Offsets noted as downstream offsets.
 - 0.0 m - Construction Joint at edge of Dissipation Chamber. Open 6 mm all around. Patches of honeycomb to 20 mm deep on roof of transition section.
 - 4.15 m – end of slope/transition section.
 - 10.25 m – Construction Joint. Open 10 mm, offset 6 mm east.
 - 17.0 m – Construction Joint. Open 10 mm, offset 6 mm down
 - 22.9 m – Construction Joint. Open 25 mm, offset 15 mm up.
 - 26.2 m – Construction Joint. Open 140 mm top, 50 mm bottom. Offset 100 mm up. Appears to be an original concrete repair (wedged in shape) in joint, approximately 75 mm at the top, tapering to near 0 at the floor (see photo). Outfall section slopes significantly toward river.
 - 27.45 – Face of headwall.

Photos

Description	Electronic File Name
Mile 83 Boathouse - Overflow east outer overflow cell	M83 E outer Overflow.JPG
Mile 83 Boathouse - Overflow east inner overflow cell	M83 E Inner Overflow.JPG
Mile 83 Boathouse - Overflow west inner overflow cell	M83 W Inner Overflow.JPG
Mile 83 Boathouse - Overflow west outer overflow cell	M83 W outer Overflow.JPG
Mile 83 Boathouse - Typical weir overflow gate	M83 Overflow gate.JPG
Mile 83 Boathouse - Aqueduct drain connection to overflow	M83 Aqueduct Drain.JPG

Description	Electronic File Name
structure	
Mile 83 Boathouse - Overflow air vent exiting into dissipation chamber	M83 Dissipation Chamber Overflow Air Vent.JPG
Mile 83 Boathouse - Honeycomb in dissipation chamber near level of outlet weir	M83 Dissipation Chamber Water Line HC.JPG
Mile 83 Boathouse - General Condition, east wall	M83 Outfall Gen Cond look East.JPG
Mile 83 Boathouse - West wall at edge of dissipation chamber outlet	M83 W Wall 0m.JPG
Mile 83 Boathouse - Outfall transition section roof looking south	M83 Outfall Look S.JPG
Mile 83 Boathouse - Outfall transition section roof typical honeycomb	M83 Outfall Roof .JPG
Mile 83 Boathouse - East wall near river outlet. Note old repair.	M83 E Wall at Outlet.JPG
Mile 83 Boathouse - West wall /roof 1.2 m from river outlet. Note concrete repair.	M83 West Wall at outlet.JPG

Marv McDonald, C.E.T.
Municipal Designer

/gms

L:\Projects\ID265 City of Wpg - Water and Waste\ID265 Shoal Lake Aqueduct\ID265 142 Work Area 2 - Condition Assessments\ID265-142-07 Repairs Assessment Mile 26.9 to Intake - 2.7\Reports\InspectionReport M83 00 11 07.mgm.doc

cc: R. Sorokowski, WWD
D. Grandy, C. Kopcalic, CG&S
C. Macey, UMA



Mile 74 East Outer Overflow Cell



Mile 74 East Inner Overflow Cell

10/26/2000



Mile 74 West Outer Overflow Cell

10/26/2000



Mile 74 West Inner Overflow Cell

10/26/2000



Mile 74 Aqueduct Drain

10/26/2000

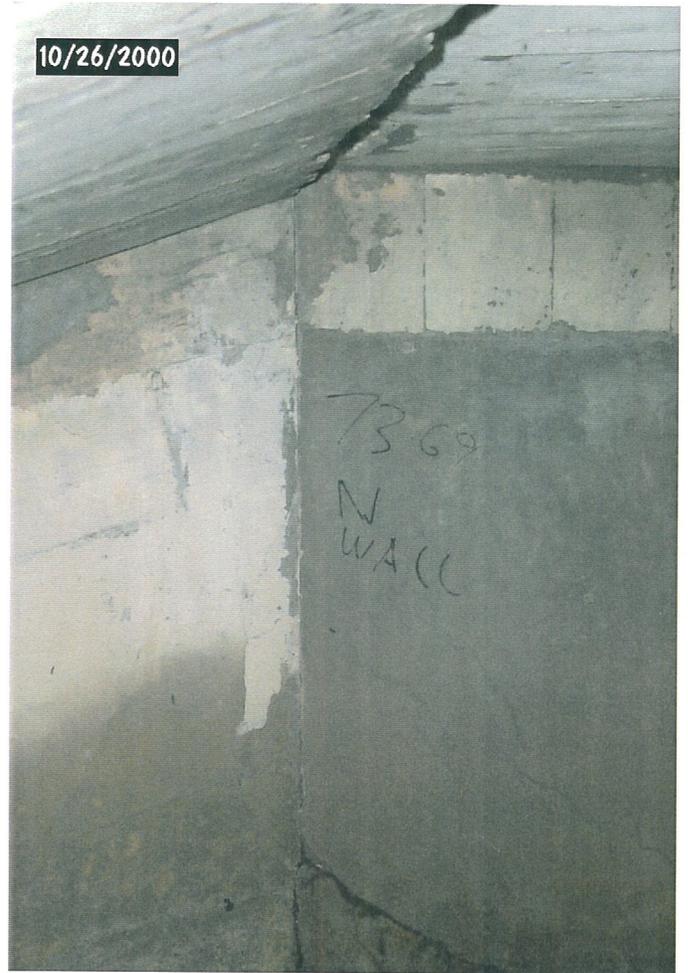


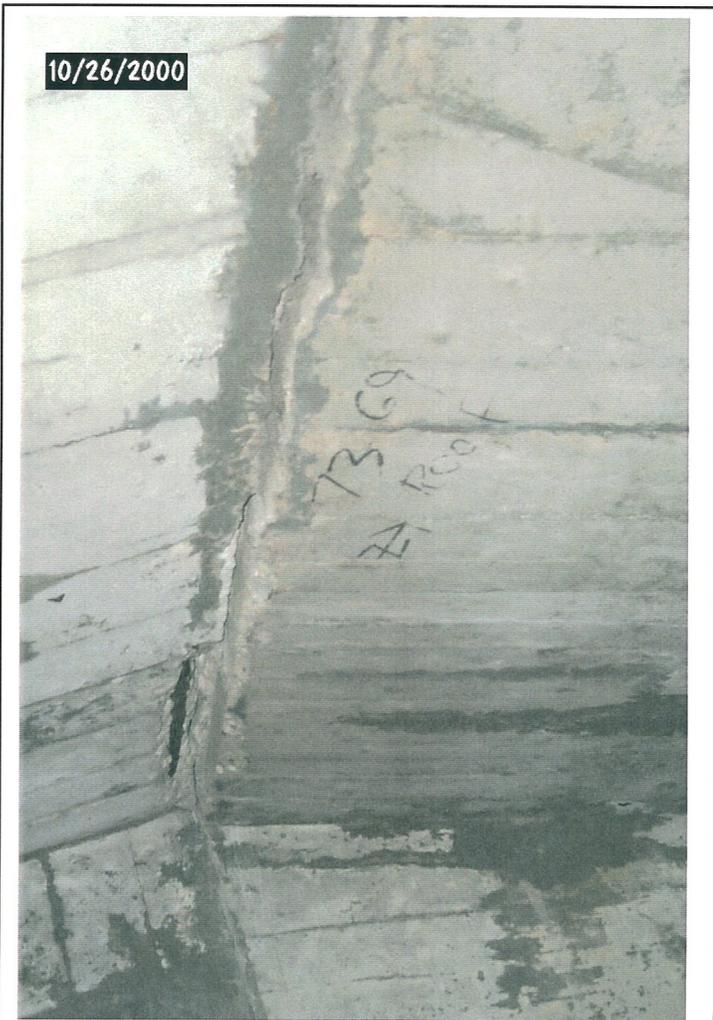
Mile 74 Dissipation Chamber Outlet Floor



Mile 74 Dissipation Chamber Outlet Floor

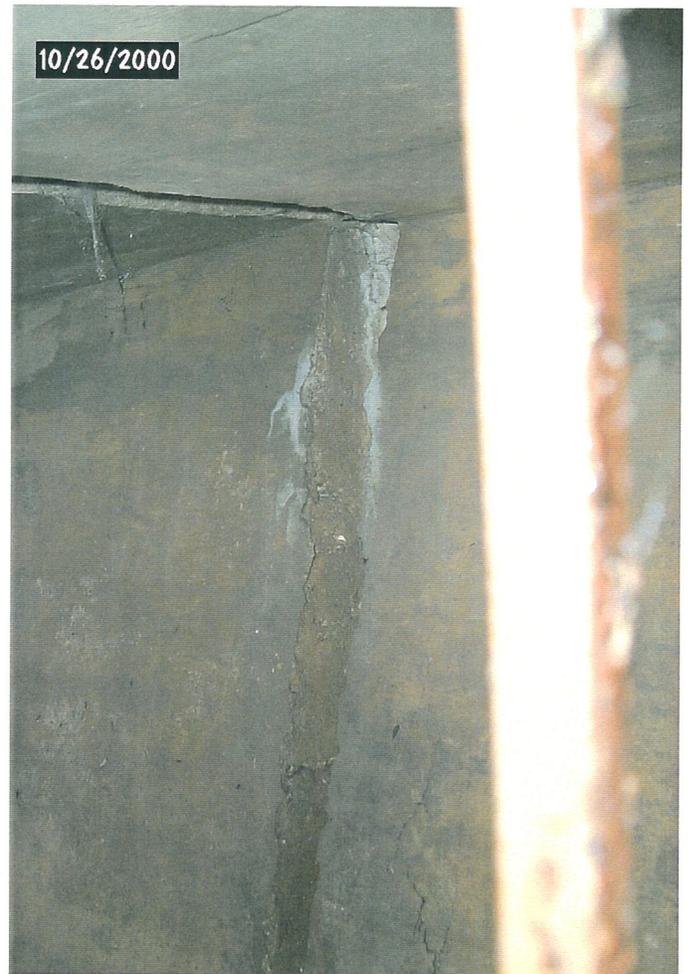
Mile 74 North Wall Above Dissipation Chamber Outlet





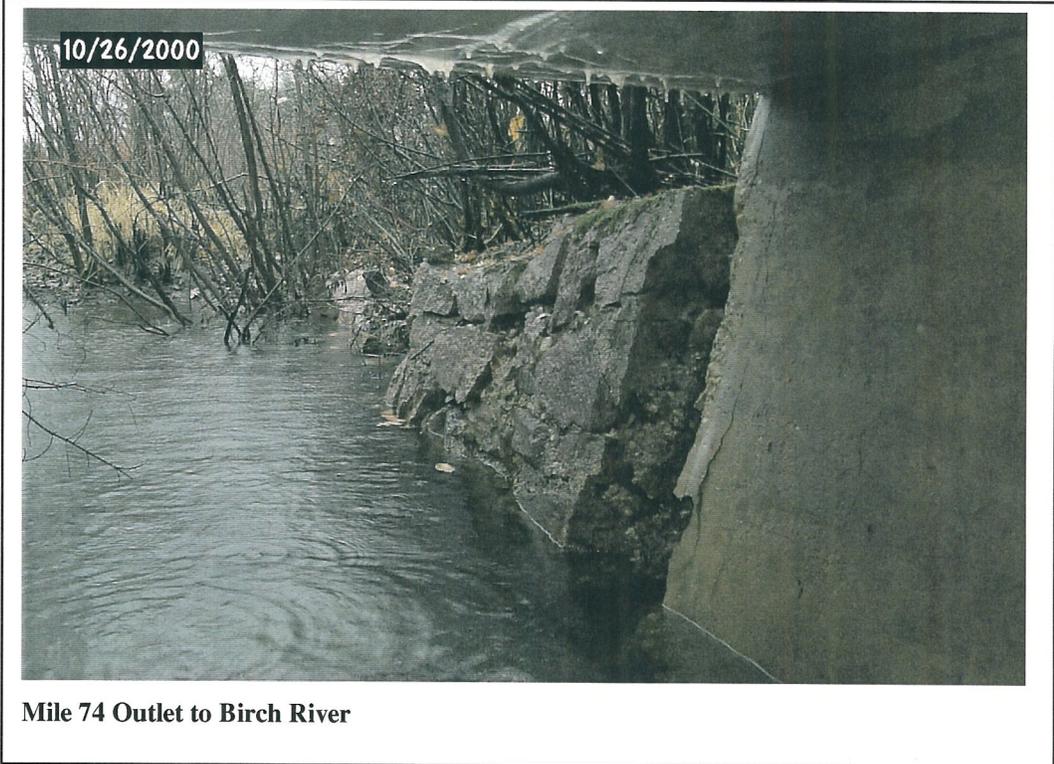
Mile 74 Roof Above Dissipation Chamber Outlet

Mile 74 North Wall and Roof Near Outfall Headwall





Mile 74 North Wall Near Outfall Headwall



Mile 74 Outlet to Birch River

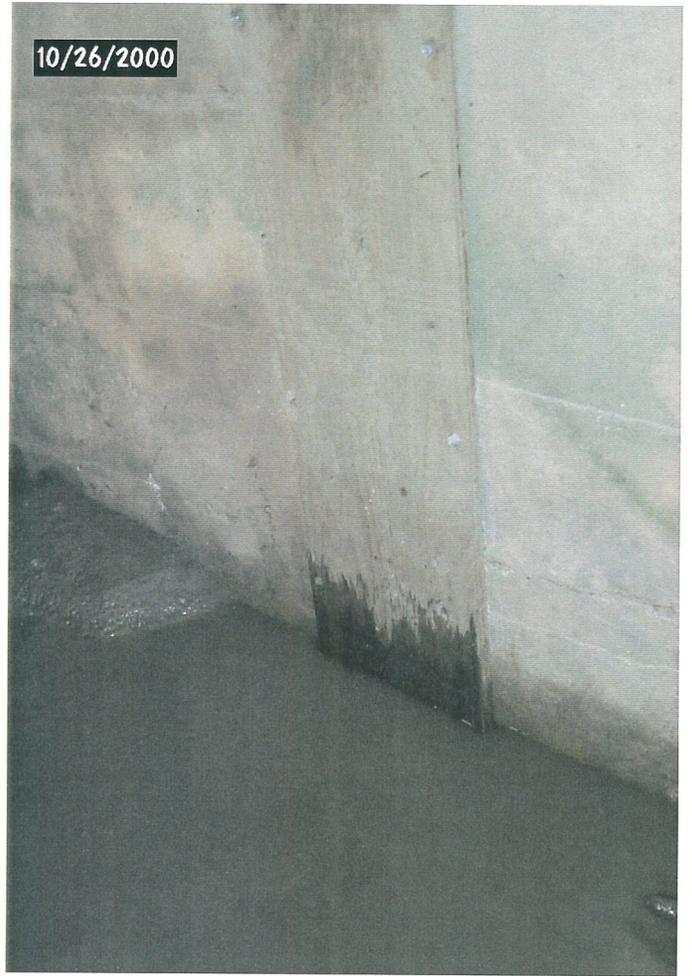
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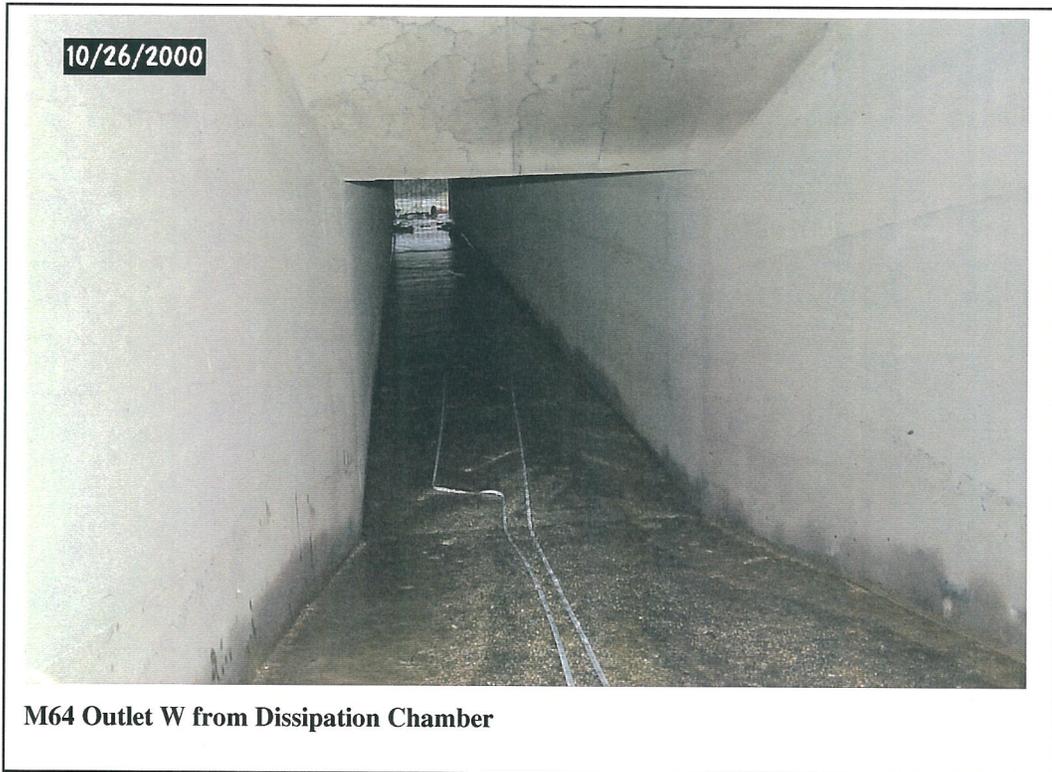
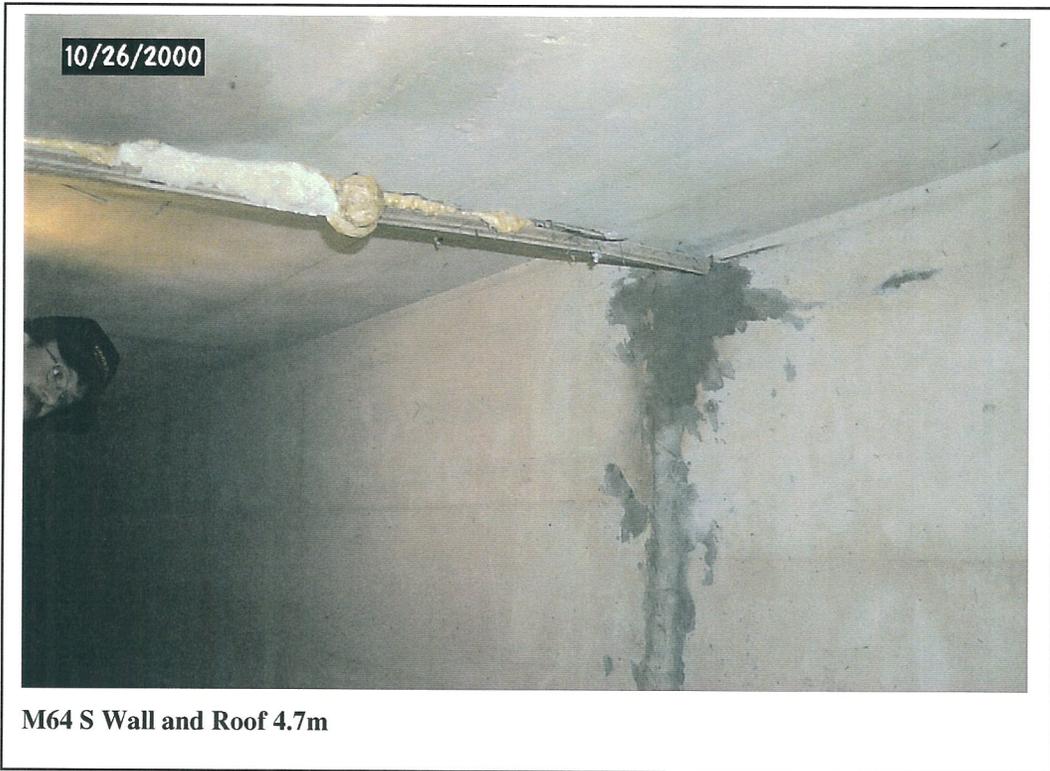


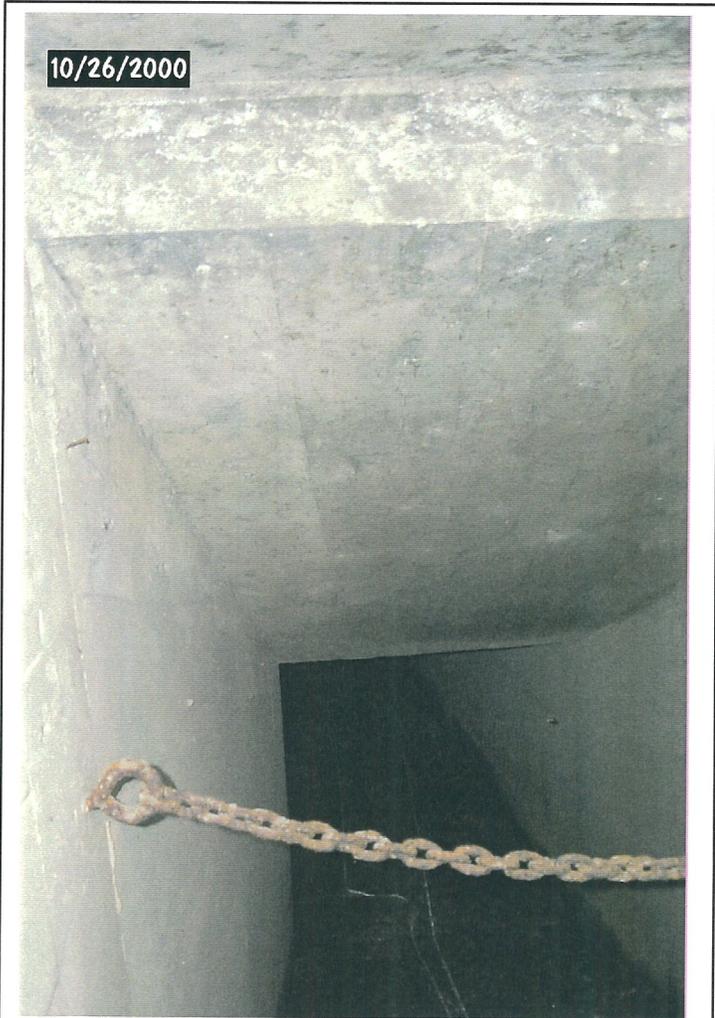
M64 S Wall at Roof 1m

M64 S Wall at floor 1m

10/26/2000







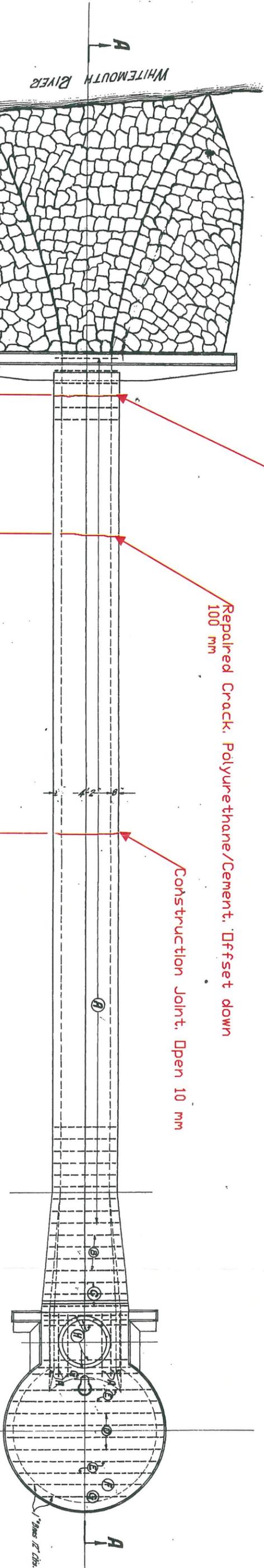
M64 S Wall W from Dissination Chamber

WHITEMOUTH RIVER

Repaired crack, Polyurethane/cement. 2- 'U' channels bolted on ceiling

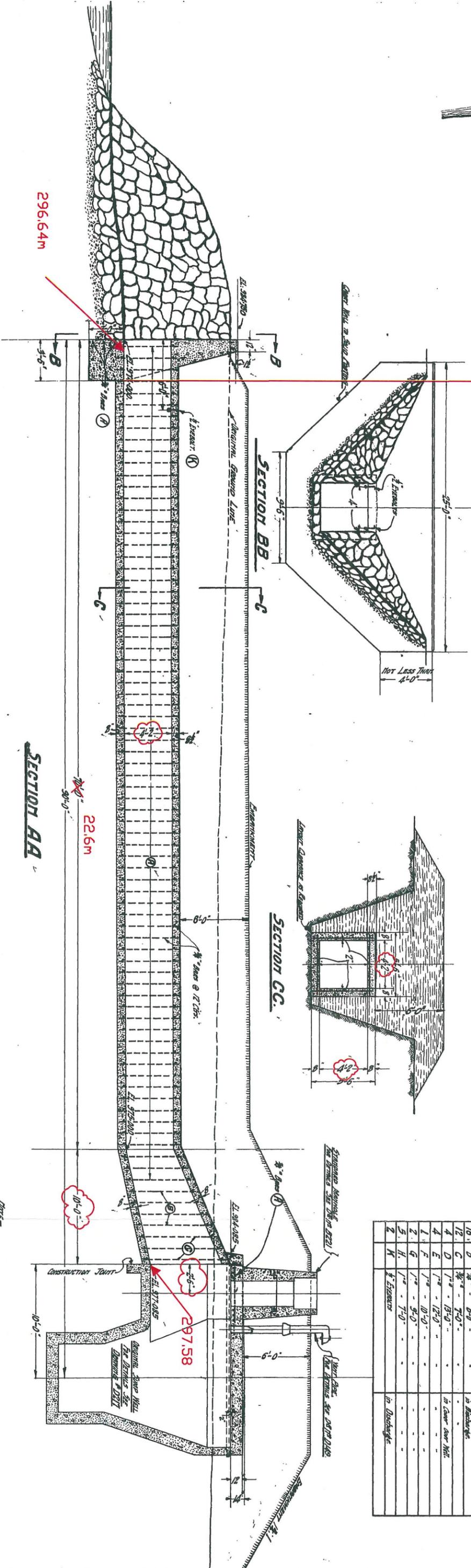
Repaired Crack, Polyurethane/Cement. Offset down 100 mm

Construction Joint. Open 10 mm



BILL OF REINFORCING STEEL

NO.	LETTER	SIZE	MARKET BRAND
301	A	3/8" Bars 5'-0" Long	5/8" Bars 4' 0" in Clear over Wall
16	B	3/8" - 8'-0"	1/2" Bars 4' 0" in Clear over Wall
12	C	1/2" - 7'-0"	in Clear over Wall
4	D	1/2" - 13'-0"	in Clear over Wall
4	E	1/2" - 12'-0"	in Clear over Wall
1	F	1/2" - 10'-0"	in Clear over Wall
2	G	1/2" - 9'-0"	in Clear over Wall
5	H	1/2" - 7'-0"	in Discharge
2	K	3/8" Bars	in Discharge



NOTE: This Drawing Supersedes All Previous Drawings at this location.

CONTRACT #32

Drawn By: [Signature]
 Checked By: [Signature]
 Approved: [Signature]

Dimensions Marked Thus confirmed 00 10 26
 Dimensions and Notes Taken 00 10 26
 5.9m

James H. Eckles
 Consulting Engineer
 City of Winnipeg

GREATER WINNIPEG WATER DISTRICT
 COVERED DISCHARGE FOR WHITEMOUTH RIVER
 OVERFLOW STRUCTURE

D261