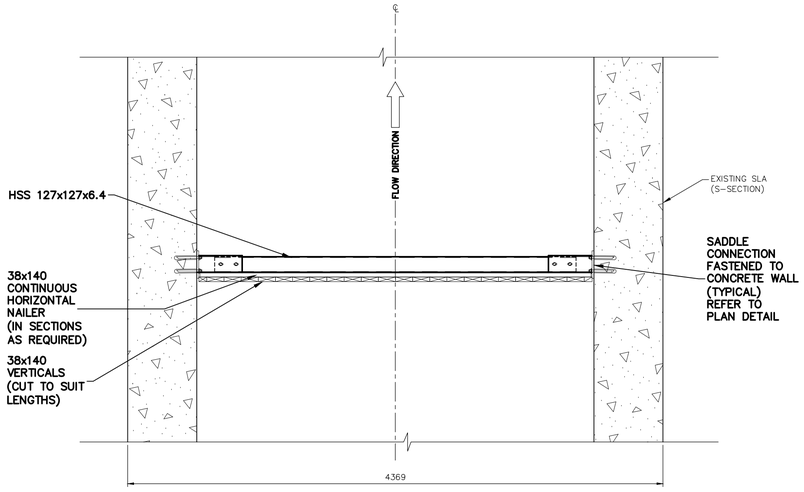
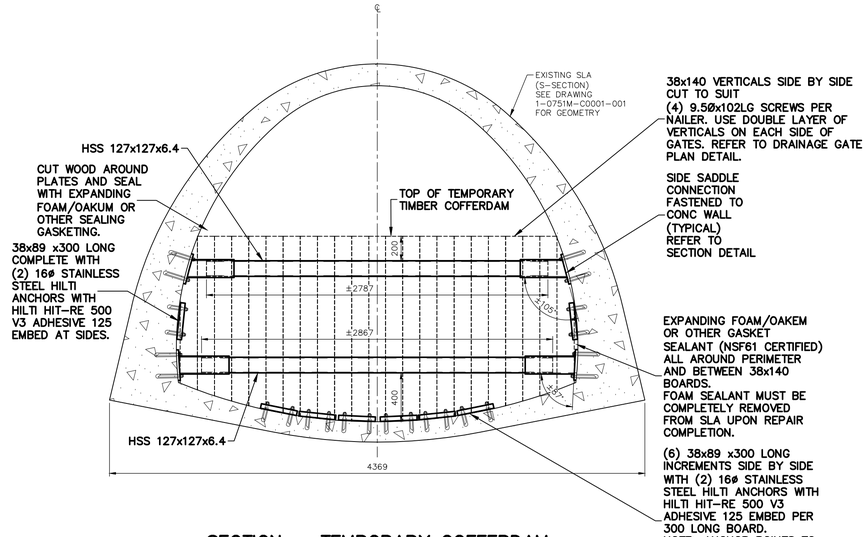


PLAN – TEMPORARY COFFERDAM

SCALE: 1:25

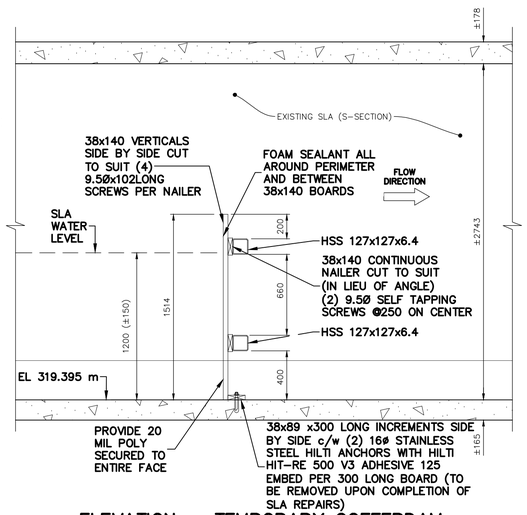
0 0.5 1.0 1.5m



SECTION – TEMPORARY COFFERDAM

SCALE: 1:25

0 0.5 1.0 1.5m



ELEVATION – TEMPORARY COFFERDAM

SCALE: 1:25

0 0.5 1.0 1.5m

DESIGN LOADS:
DEAD LOAD: SELF WEIGHT
HYDROSTATIC WATER PRESSURE. REFER TO ELEVATION FOR HEIGHT OF WATER

A GENERAL NOTES

1 THIS STRUCTURE IS DESIGNED IN ACCORDANCE WITH, AND SHALL BE CONSTRUCTED IN COMPLIANCE WITH, THE NATIONAL BUILDING CODE OF CANADA 2020 (NBCC 2020) AND THE MANITOBA BUILDING CODE 2024 (MBC 2024).
2 DESIGN LOADS ARE INDICATED ON THE DRAWINGS.
3 DESIGN LIVE LOADS SHALL NOT BE EXCEEDED AT ANY TIME DURING CONSTRUCTION.
4 DO NOT SCALE DRAWINGS.
5 VERIFY ALL DIMENSIONS, ELEVATIONS, SLOPES, DETAILS, CONDITIONS, ETC., SHOWN ON THE DRAWINGS AND VERIFIED WITH SITE CONDITIONS, PRIOR TO CONSTRUCTION OR PREFABRICATION OF ANY BUILDING COMPONENT.
6 MODIFICATIONS, ALTERNATIONS OR SUBSTITUTIONS MUST BE AUTHORIZED IN WRITING BY THE CONTRACT ADMINISTRATOR.
7 DESIGN AND INSTALL ALL NECESSARY SHORING, BRACING AND FORMWORK. FORMWORK FOR CONSTRUCTION SHALL BE BRIDGED OVER EXISTING SERVICES. PROCEDURE MUST BE APPROVED BY THE CONTRACT ADMINISTRATOR.
8 CONSTRUCTION SAFETY REQUIREMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
9 DEFECTIVE OR UNACCEPTABLE WORK SHALL BE REPAIRED TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR AT NO ADDITIONAL COST TO THE PROJECT.
10 WHERE THERE IS A DISCREPANCY BETWEEN DRAWINGS, SUBMIT A FORMAL RFI TO THE CONTRACT ADMINISTRATOR PRIOR TO MANUFACTURING OR INSTALLATION.
11 ALL SHOP DRAWINGS SHALL BE REVIEWED AND STAMPED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL TO THE CONTRACT ADMINISTRATOR.
12 ALL SHOP DRAWINGS REQUIRED TO BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF MANITOBA SHALL BE ACCOMPANIED BY A CERTIFICATE OF AUTHORIZATION FROM "EGM".

B STRUCTURAL STEEL

1 STRUCTURAL STEEL SHALL CONFORM TO CSA G40.20-13/G40.21-13 (R2018).
2 HOLLOW STRUCTURAL SECTIONS TO BE TO CSA G40.21-13 (R2018), 350MPa, CLASS C.
3 ALL OTHER ROLLED OR WELDED STRUCTURAL SECTIONS AND PLATES TO BE TO CSA G40.21-13 (R2018), 300MPa.
4 FABRICATION AND ERECTION SHALL CONFORM TO CSA S16-19.
5 ALL WELDING SHALL BE PERFORMED BY QUALIFIED WELDERS FULLY APPROVED FOR STRUCTURAL WELDING BY THE CANADIAN WELDING BUREAU IN ACCORDANCE WITH CSA W47.1-19, CSA 47.2-11 (R2015), AND CSA W59-18.
6 SPLICING OF MEMBERS NOT PERMITTED UNLESS OTHERWISE NOTED.
7 STRUCTURAL STEEL SUPPLIER SHALL SUBMIT SHOP DRAWINGS, SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF MANITOBA, SHOWING ALL DESIGN AND FABRICATION DETAILS OF CONNECTIONS, TO THE CONTRACT ADMINISTRATOR FOR REVIEW PRIOR FABRICATION.
8 SUPPLY ALL COMPONENTS WITH ONE (1) COAT OF SHOP PRIMER CONFORMING TO CISC/CPMA 1-73A OR EQUIVALENT UNLESS NOTED OTHERWISE AND (1) COAT OF EXTERIOR CORROSION PROTECTION COATING.
9 PROVIDE MINIMUM 6.4mm (1/4") WELD UNLESS NOTED OTHERWISE.
10 DESIGN FOR MINIMUM 50% OF SHEAR CAPACITY UNLESS NOTED OTHERWISE.

C WOOD

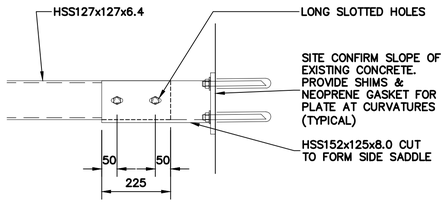
1 ALL SAWN LUMBER AND TIMBER SHALL CONFORM TO "NLGA – STANDARD GRADING RULES FOR CANADIAN LUMBER".
2 DESIGN, FABRICATION, ERECTION, AND OTHER CONSTRUCTION PRACTICES TO CONFORM TO CSA-086-19 AND CAN/CSA-O122-16, AND THE NATIONAL BUILDING CODE 2020, WHICHEVER IS MORE STRINGENT. EXCEPT AS NOTED ON THE DRAWINGS.
3 LUMBER FOR ALL FRAMING SHALL BE NO.2 SPF. UNLESS NOTED OTHERWISE. NO PRESSURE TREATED WOOD ALLOWED IN AQUADUCT.
4 MOISTURE CONTENT OF LUMBER SHALL NOT EXCEED 19% (BY WEIGHT) AT TIME OF INSTALLATION.
5 CUT ALL COMPONENTS NEAT AND SQUARE, PROVIDING FULL CONTACT WITH ADJACENT MEMBERS.
6 ALL CONNECTION HARDWARE TO BE GALVANIZED AND FASTENED PER THE MANUFACTURER'S RECOMMENDATIONS TO DEVELOP FULL CAPACITY OF THE CONNECTOR.

D HILTI ANCHORS

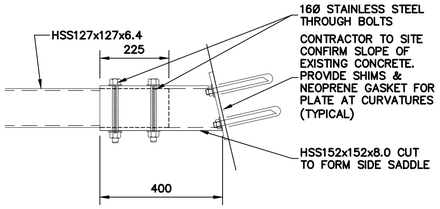
1. ANCHOR CAPACITY USED IN DESIGN SHALL BE BASED ON THE TECHNICAL DATA PUBLISHED BY HILTI OR SUCH OTHER METHOD AS APPROVED BY THE CONTRACT ADMINISTRATOR. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE CONTRACT ADMINISTRATOR PRIOR TO USE. CONTRACTOR SHALL PROVIDE CALCULATIONS DEMONSTRATING THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERFORMANCE VALUES OF THE SPECIFIED PRODUCT. SUBSTITUTIONS WILL BE EVALUATED BY THEIR HAVING AN ICC ESR SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE FOR SEISMIC USES, LOAD RESISTANCE, INSTALLATION CATEGORY, AND AVAILABILITY OF COMPREHENSIVE INSTALLATION INSTRUCTIONS. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE AND INSTALLATION TEMPERATURE.
2. INSTALL ANCHORS IN ACCORDANCE WITH THE MANUFACTURER INSTRUCTIONS, AS INCLUDED IN THE ANCHOR PACKAGING.
3. THE CONTRACTOR SHALL ARRANGE AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. THE ENGINEER MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS.
4. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.
5. CUTTING OF REINFORCING BARS FOR INSTALLATION OF ANCHORS IS NOT PERMITTED UNLESS APPROVED BY THE CONTRACT ADMINISTRATOR. FOR NEW CONSTRUCTION CONTRACTOR SHALL COORDINATE PLACEMENT OF REINFORCING BARS AND ANCHORS. FOR EXISTING CONSTRUCTION THE CONTRACTOR SHALL UNDERTAKE TO LOCATE THE POSITION OF REINFORCING BARS BY HILTI FERROSCAN, GPR, X-RAY, OR OTHER MEANS.

E TEMPORARY COFFERDAM NOTES

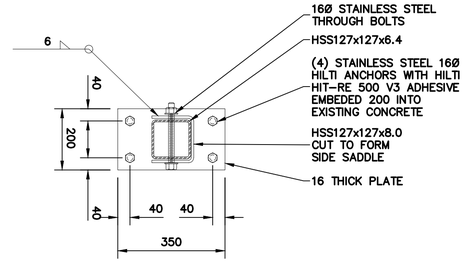
1. TEMPORARY COFFERDAM MUST BE CONSTRUCTED AND REMOVED WITHIN SPECIFIED 48 HOUR SHUTDOWN WINDOWS. COORDINATE WITH ASSOCIATED INFLATABLE DAM REPLACEMENT WORKS.
2. TEMPORARY COFFERDAM TO BE CONSTRUCTED IN ACCORDANCE WITH SPECIFICATIONS AND SUBMITTED CONSTRUCTION METHOD STATEMENT.
3. CONTRACTOR TO UTILIZE PUMPS TO MAINTAIN WATER LEVELS UPSTREAM OF COFFERDAM DUE TO INFILTRATION. INFILTRATION RATES UNKNOWN (ASSUME 20 L/s). ONLY ELECTRIC SUBMERSIBLE PUMPS PERMITTED.
4. UPPER REACH TO BE DRAINED WITHIN 24 HOURS TO FACILITATE COFFERDAM REMOVAL. OPENINGS FOR DRAINING (BY CONTRACTOR) TO BE INCORPORATED INTO WOOD COFFERDAM FACE. CONTRACTOR'S HYDRAULIC ENGINEER TO CONFIRM DRAINAGE GATE OPENING REQUIREMENTS AS PART OF THE DEWATERING PLAN
5. ALL MATERIAL ENTERING THE SLA TO BE NSF 61 CERTIFIED AND SAFE FOR POTABLE DRINKING WATER SYSTEMS.
6. ALL TEMPORARY COFFERDAM MATERIAL TO BE REMOVED AND HANDED OVER TO THE CITY AFTER COMPLETION.



PLAN DETAIL



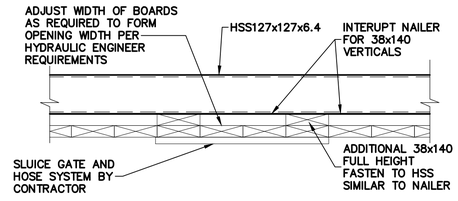
SECTION DETAIL



ELEVATION DETAIL

HSS BEAM CONNECTION DETAILS

SCALE: 1:10



QUANTITY OF GATES, SIZE & LOCATIONS BY CONTRACTOR'S HYDRAULIC ENGINEER.

38x140 BOARDS, STRUCTURAL STEEL, FOAM, GASKETS, SHIMS, AND ANCHORS TO BE REMOVED FOLLOWING INFLATABLE DAM REPLACEMENT. ANCHORS TO BE ABANDONED BY REMOVING NUTS & GRINDING DOWN FLUSH WITH SLA. ENSURE ANCHORS ARE SUITABLE FOR A CHLORINATED ENVIRONMENT.

DRAINAGE GATE PLAN DETAIL

SCALE: 1:10

FOR INDEX SEE DWG
1-0751A-D0009-001

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
Stantec Consulting Ltd.
No. 1301

METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES
UNLESS OTHERWISE NOTED

LOCATION APPROVED
UNDERGROUND STRUCTURES

SUPV. U/G STRUCTURES COMMITTEE _____ DATE _____

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.

VERTICAL DATUM: CGVD28 (HT2.0 Geoid)
HORIZONTAL DATUM: NAD83 (June 1990), Zone 14

NO.	REVISIONS	YYYY/MM/DD	BY
0	ISSUED FOR CONSTRUCTION	2025/04/28	ADB

Stantec

DESIGNED BY	LD	CHECKED BY	BF
DRAWN BY	IR	APPROVED BY	ADB
SCALE: HORIZONTAL		RELEASED FOR CONSTRUCTION	
VERTICAL		JESSICA McCOMBE, P.Eng.	
DATE	APRIL 28, 2025	DATE	APRIL 25, 2025

PLOT DATE: 2025 04 28

ENGINEER'S SEAL
PROVINCE OF MANITOBA
B. E. FRASER
Member 23402
REGISTERED PROFESSIONAL ENGINEER
2025-04-28

CONSULTANT DRAWING NUMBER

Winnipeg

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES DIVISION

SHOAL LAKE AQUEDUCT
MANHOLE REPAIRS

MILE 93.69
TEMPORARY COFFERDAM

SHEET 15 OF 15

CITY DRAWING NUMBER
1-0751M-S0004-001

TENDER NUMBER: 82-2025
CONTRACT NUMBER: N/A

FILE PATH: H:\133600064\09. CAD\07 Sheets\3 SLA DD\
FILE NAME: 15 BULKHEAD DETAILS.dwg