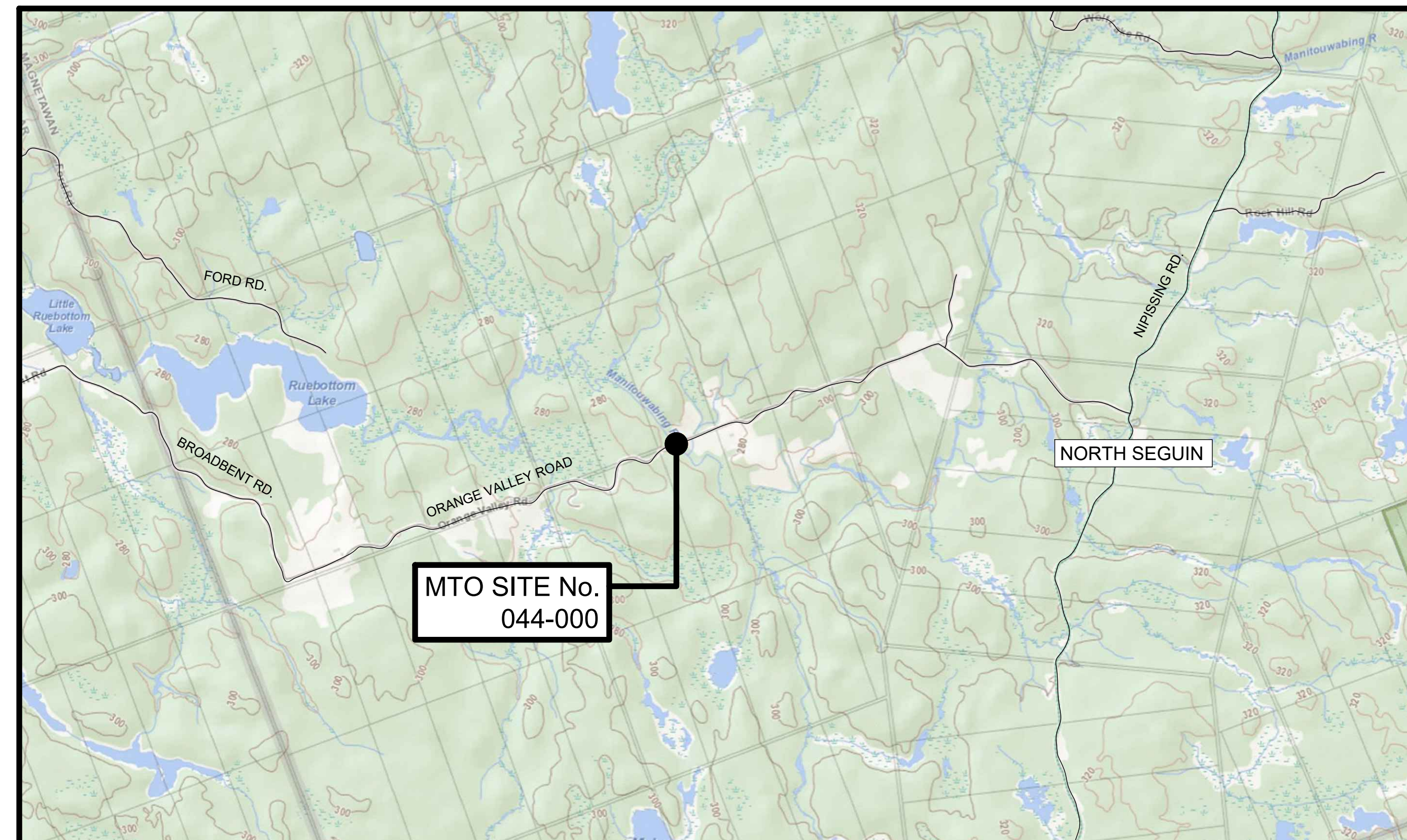


# ORANGE VALLEY ROAD BRIDGE REPLACEMENT

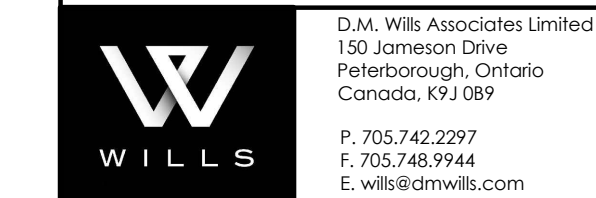
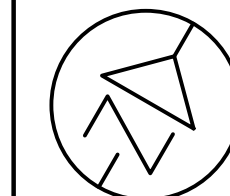
THE MUNICIPALITY OF MAGNETAWAN  
TENDER No. 2023-02



DRAWING INDEX	
Sheet Title	Sheet Number
TITLE PAGE	00
GENERAL ARRANGEMENT	01
DETOUR PLAN	02
REMOVALS	03
ABUTMENT DETAILS	04
STANDARD DRAWINGS	05

—— PROJECT ——

ORANGE VALLEY ROAD BRIDGE REPLACEMENT OVER THE MANITOUWABING RIVER, AND ASSOCIATED APPROACH IMPROVEMENTS.



**METRIC**  
DIMENSIONS ARE IN METRES AND/OR  
MILLIMETRES UNLESS OTHERWISE SHOWN  
DRAWING NOT TO BE SCALED  
100mm ON ORIGINAL DRAWING

**CONSTRUCTION NOTES**

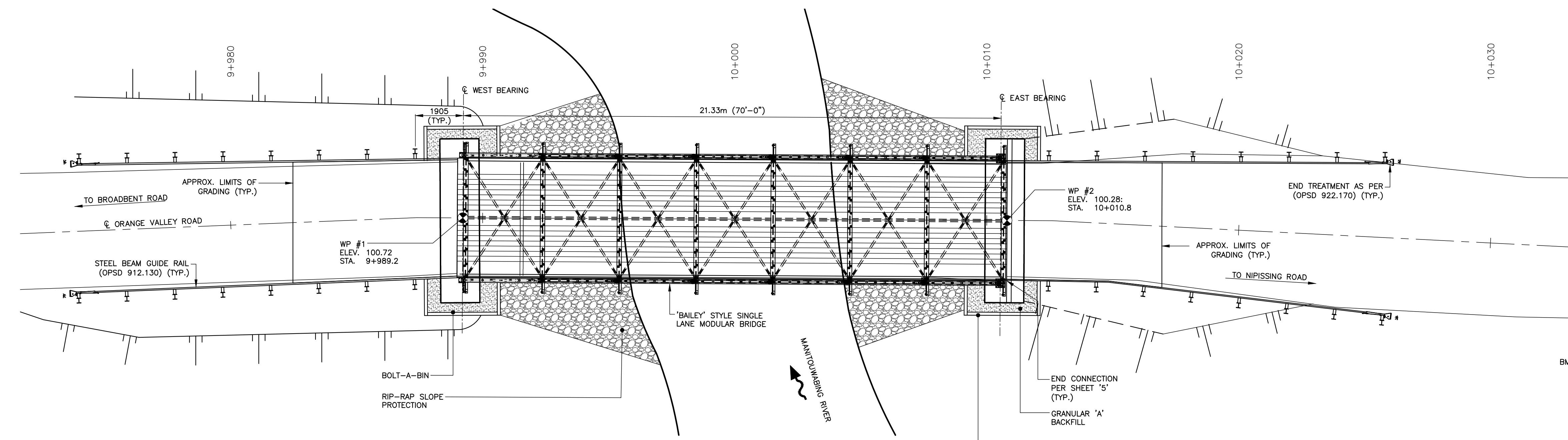
- BRIDGE DESIGN LIVE LOAD: CL-625-ONT
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, DETAILS AND ELEVATIONS OF THE EXISTING STRUCTURE THAT ARE RELEVANT TO THE WORK SHOWN ON THE DRAWING PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE CONTRACT ADMINISTRATOR AND THE PROPOSED ADJUSTMENT OF THE WORK REQUIRED TO MATCH THE EXISTING STRUCTURE SHALL BE SUBMITTED FOR APPROVAL.
- THE CONTRACTOR SHALL CONFIRM ALL BEARING SEAT ELEVATIONS PRIOR TO CONSTRUCTION, AND SHALL ADJUST THE ELEVATIONS AS REQUIRED.
- ALL PINS, BOLTS, AND THREADED PARTS MUST BE FREE OF DIRT AND LUBRICATED AT THE TIME OF INSTALLATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ERECTION AND LAUNCHING OF THE STRUCTURE AND SHALL SUBMIT TO THE CONTRACT ADMINISTRATOR WORKING DRAWINGS AS PER THE SPECIAL PROVISION SHOWING ALL THE NECESSARY DETAILS AND REQUIREMENTS TO CARRY OUT THESE OPERATIONS. THIS WILL INCLUDE THE CONSTRUCTION SEQUENCE OF THE ABUTMENTS AND GRADING TO FACILITATE THE ERECTION AND LAUNCHING OF THE BRIDGE.
- THE CONTRACTOR SHALL REMOVE, SALVAGE, AND REINSTALL ALL EXISTING SIGNAGE UNLESS DIRECTED OTHERWISE BY THE CONTRACT ADMINISTRATOR.
- ALL WORKS TO BE CONSTRUCTED TO CURRENT OPSS STANDARDS AND TO THE SATISFACTION OF THE ENGINEER AND OWNER. ALL WORK TO BE IN STRICT ACCORDANCE WITH THE LATEST MINISTRY OF LABOUR RULES AND REGULATIONS.
- CONTRACTOR TO ASSUME RESPONSIBILITY FOR AND MEET CONDITIONS AND REQUIREMENTS OF ALL AGENCY APPROVALS FOR THE WORK.
- CONCRETE MATERIALS AND CONSTRUCTION TO CONFORM TO CAN/CSA - A23.1/A23.2 (LATEST EDITIONS).
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES IN THE FIELD PRIOR TO COMMENCING WORK. THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR DAMAGE FOR UTILITIES.

**PRESERVATIVE TREATMENT OF WOOD**

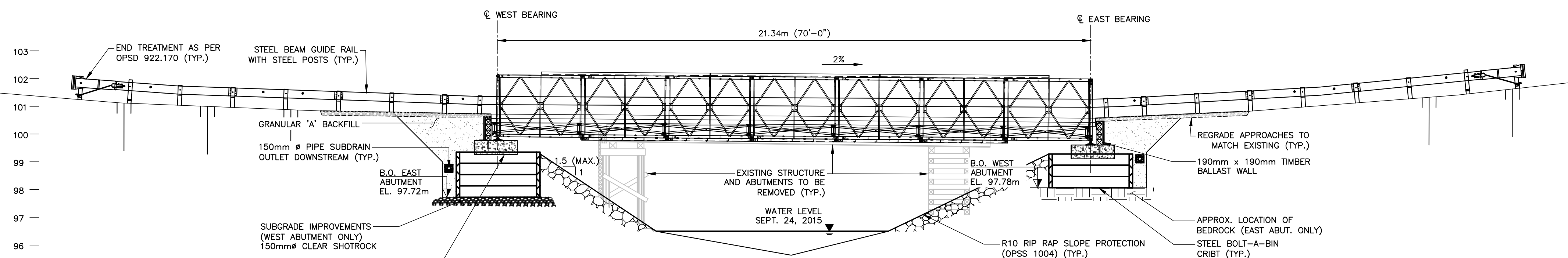
- TREATMENT SHALL BE IN ACCORDANCE WITH CSA STANDARD 080 SERIES-08 AND AWWA STANDARDS MT, M2, AND M4. THE TYPE OF WOOD PRESERVATIVES SHALL BE SELECTED FROM THE FOLLOWING:
  - PENTACHLOROPHENOL IN TYPE A HYDROCARBON SOLVENT
  - CHROMATED COPPER ARSENATE (CCA)
  - AMMONIACAL COPPER ARSENATE (ACA)
- THE NET RETENTION OF PRESERVATIVES SHALL BE THE MINIMUM SPECIFIED IN CSA 080 SERIES-08 FOR THE APPLICABLE CONDITIONS AND WOOD SPECIES.
- HANDLING AND STORAGE OF TREATED WOOD AND TREATING OF FIELD EXPOSED SURFACES SHALL BE ACCORDING TO CSA 080 SERIES-08.

**APPLICABLE STANDARD DRAWINGS:**

OPSD 912.125	GUIDE RAIL SYSTEM, STEEL BEAM TYPE M RAIL COMPONENT
OPSD 912.185	GUIDE RAIL SYSTEM, STEEL BEAM TYPE M20 INSTALLATION
OPSD 922.170	ENERGY ATTENUATOR, END TREATMENT, STEEL BEAM ENERGY ATTENUATING TERMINAL, X-LITE TANGENT TERMINAL SYSTEM WITH STEEL POSTS, INSTALLATION
OPSD 990.110	SMALL SIGN SUPPORT SYSTEM
SS16-41	NON-BREAKAWAY U-FLANGE POST SYSTEM INSTALLATION-SINGLE POST ASSEMBLY
SS112-1	GUIDE RAIL INSTALLATION ON TRUSS (REFER TO SHEET 05)
	HOOK DIMENSIONS FOR REINFORCING STEEL BARS (REFER TO SHEET 05)



**PLAN**  
SCALE 1:100



**ELEVATION**  
SCALE 1:100

**LEGEND:**

- NEW CONCRETE
- RIP RAP

**BENCH MARK:**

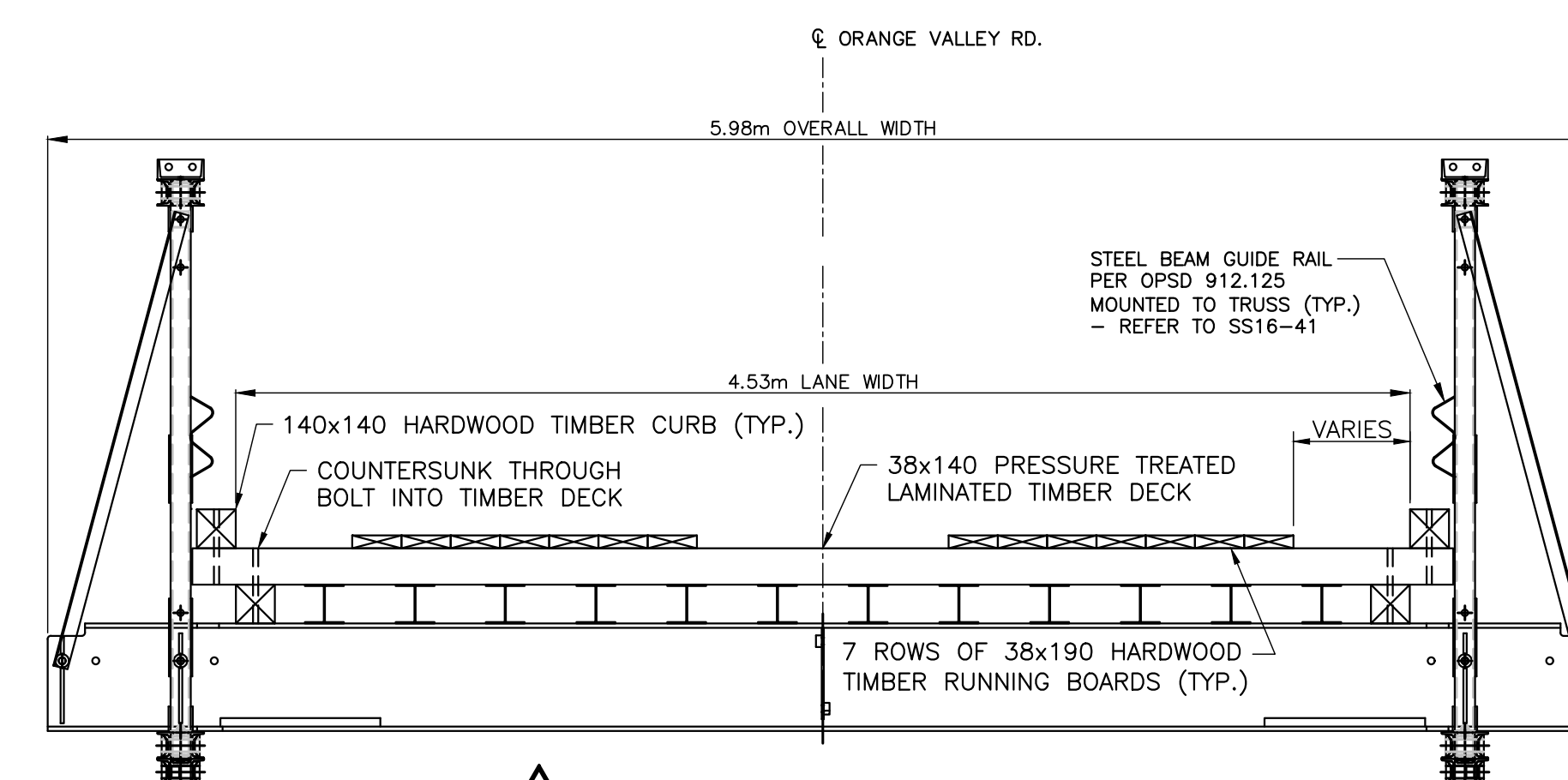
HYDRO POLE SE OF STRUCTURE  
ELEV. = 101.17m  
STA. = 10+033.4

**WP #1:**

WEST ABUTMENT (TOP OF DECK EDGE)  
ELEV. = 100.72m  
STA. = 9+989.2

**WP #2:**

EAST ABUTMENT (TOP OF DECK EDGE)  
ELEV. = 100.28m  
STA. = 10+010.8

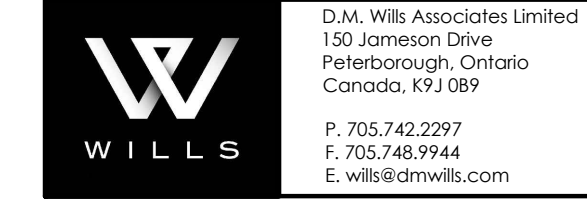
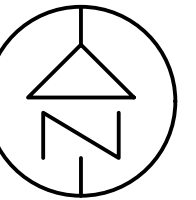


**1 PROPOSED DECK**  
SCALE 1:25

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 MODIFIED: 2023-05-30 09:35  
 D.M. WILLS ASSOCIATES LIMITED  
 ANS-B  
 2019-11

REVISIONS	DATE	BY	DESCRIPTION
06/01/23	AD		ISSUED FOR TENDER

DESIGN	AP/CHK	RS/CODE	CHBDC-19	LOAD CL-625-ONT	DATE	MAY 2023
DRAWN	RV/CHK	AP/SITE			DWG	S01



**GENERAL NOTES:**

1. THE CONTRACTOR IS RESPONSIBLE FOR THE DETOUR SETUP AND SIGNAGE ACCORDING TO THE ONTARIO TRAFFIC MANUAL.
2. ROAD CLOSURE SIGNAGE AND BARRICADES AT THE BRIDGE. SITE SHALL BE COMPLETED AND MAINTAINED BY CONTRACTOR.

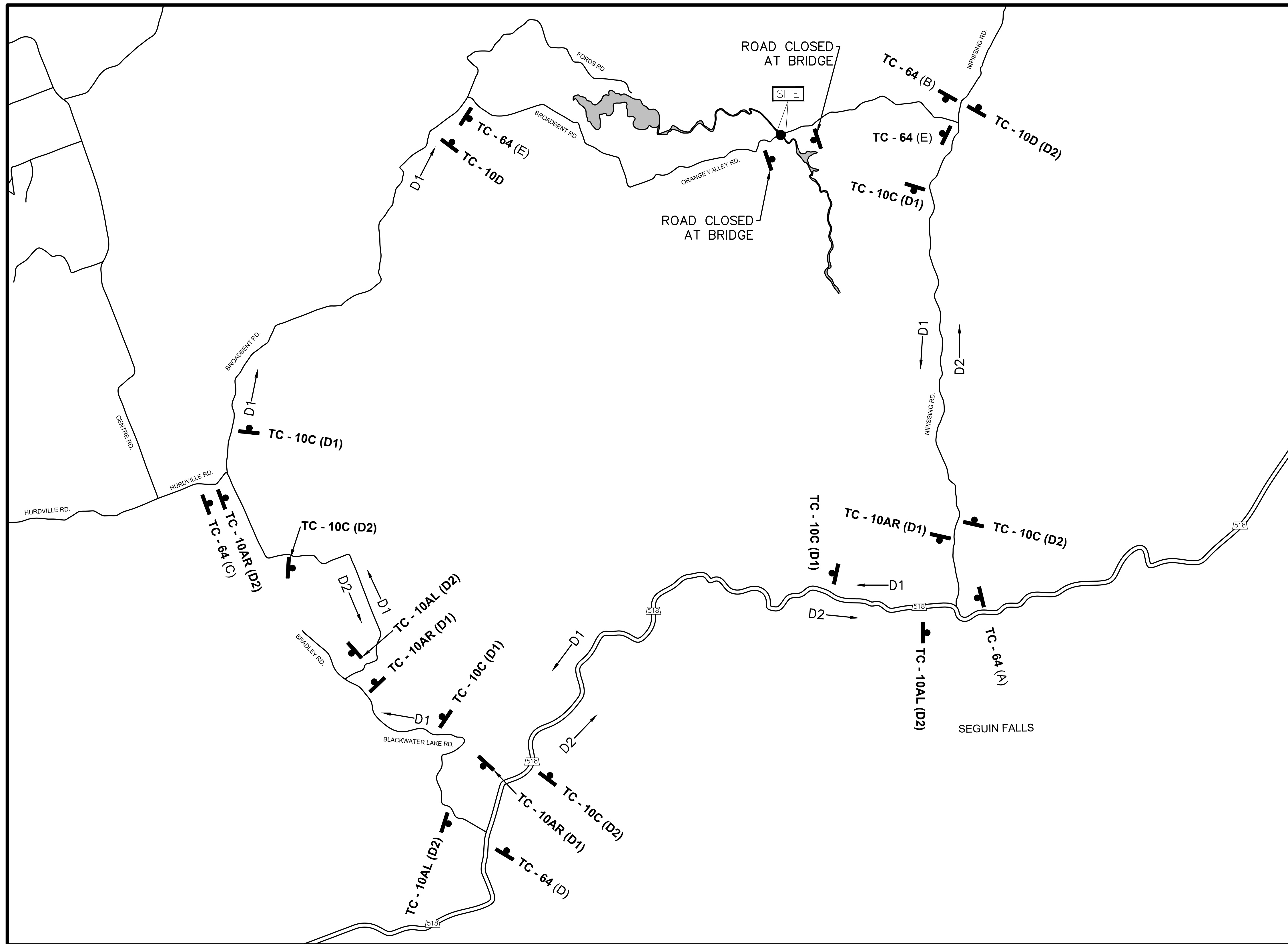
ORANGE VALLEY ROAD  
CLOSED  
AT MANITOUWABING RIVER BRIDGE  
FOLLOW **D1**  
TC-64 (A) / TC - 64 (B)

ORANGE VALLEY ROAD  
CLOSED  
AT MANITOUWABING RIVER BRIDGE  
FOLLOW **D2**  
TC-64 (C)

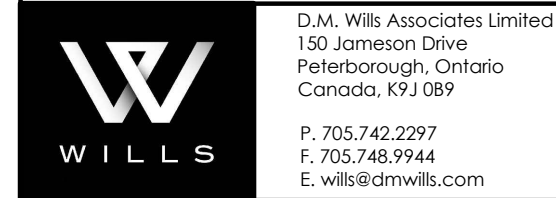
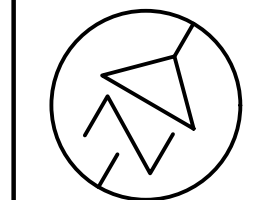
ORANGE VALLEY ROAD  
CLOSED  
AT MANITOUWABING RIVER BRIDGE  
TC-64 (D)

ORANGE VALLEY ROAD  
CLOSED  
AT MANITOUWABING RIVER BRIDGE  
LOCAL TRAFFIC ONLY  
TC-64 (E)

REVISIONS	DATE	BY	DESCRIPTION					
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-	-	-	-					
06/01/23	AD		ISSUED FOR TENDER					
DESIGN	AP	CHK	RS	CODE	CHBDC-19	LOAD CL-625-ONT	DATE	MAY 2023
DRAWN	RV	CHK	AP	SITE	--		DWG	S02



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 MODIFIED: 2023-05-23 16:23  
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 D.M. WILLS ASSOCIATES LIMITED  
 2019-11



D.M. Wills Associates Limited  
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Pelleborough, Ontario  
Canada, K9J 0B9  
P. 705.742.2297  
F. 705.748.9944  
E. wills@dmwills.com

**METRIC**  
DIMENSIONS ARE IN METRES AND/OR  
MILLIMETRES UNLESS OTHERWISE SHOWN  
DRAWING NOT TO BE SCALED  
100mm ON ORIGINAL DRAWING

**EROSION CONTROL**

1. NO IN-WATER EQUIPMENT IS PERMITTED.
2. ALL DISTURBED AREAS INCLUDING BANKS ABOVE WATER LEVEL SHALL BE REGRADED, TOPSOILED, AND SEEDED TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR AS SOON AS POSSIBLE.
3. MACHINERY, VEHICLES, EQUIPMENT, PUMPS, ETC. SHALL NOT BE REFUELED OR CLEANED WITHIN 30 METRES OF THE WATERCOURSE.
4. ALL WASTE MATERIAL FROM CONSTRUCTION SHALL BE STORED AWAY AND ABOVE THE HIGH WATER MARK AND AT NO TIME SHALL SUCH MATERIALS ENTER THE WATERCOURSE.

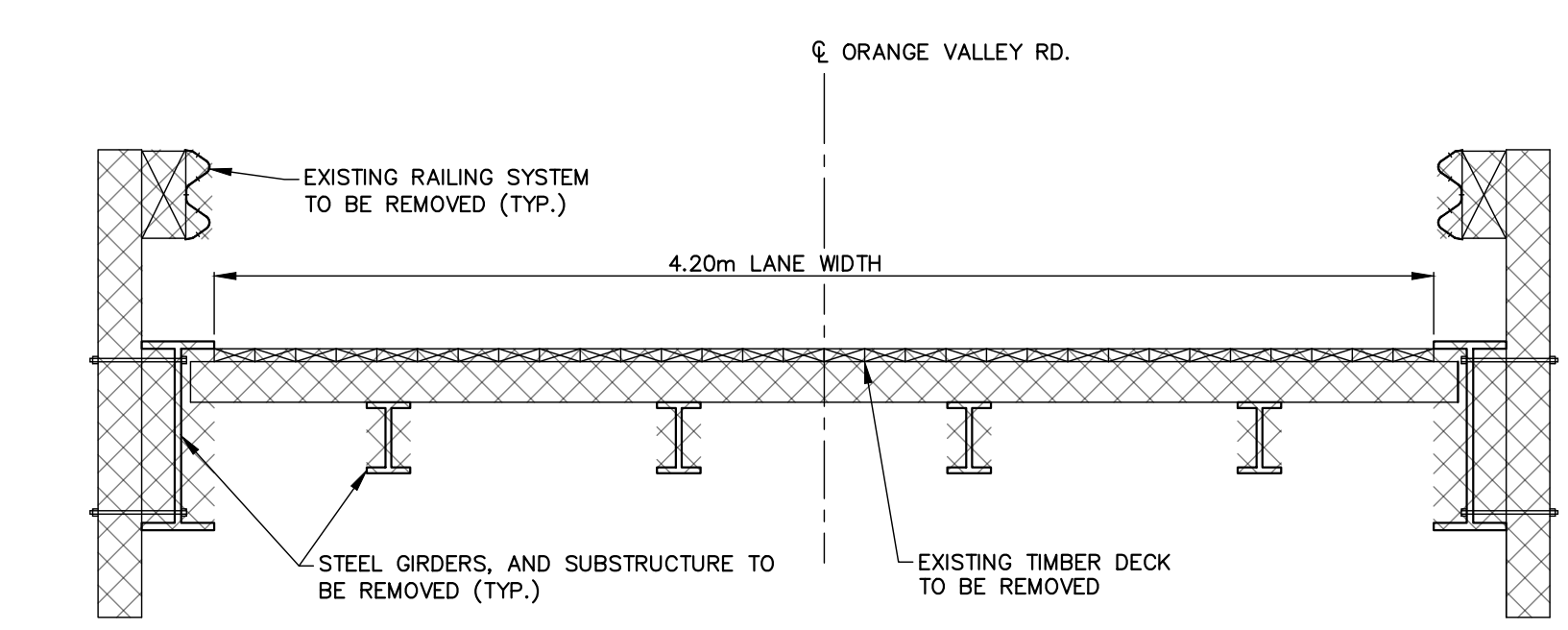
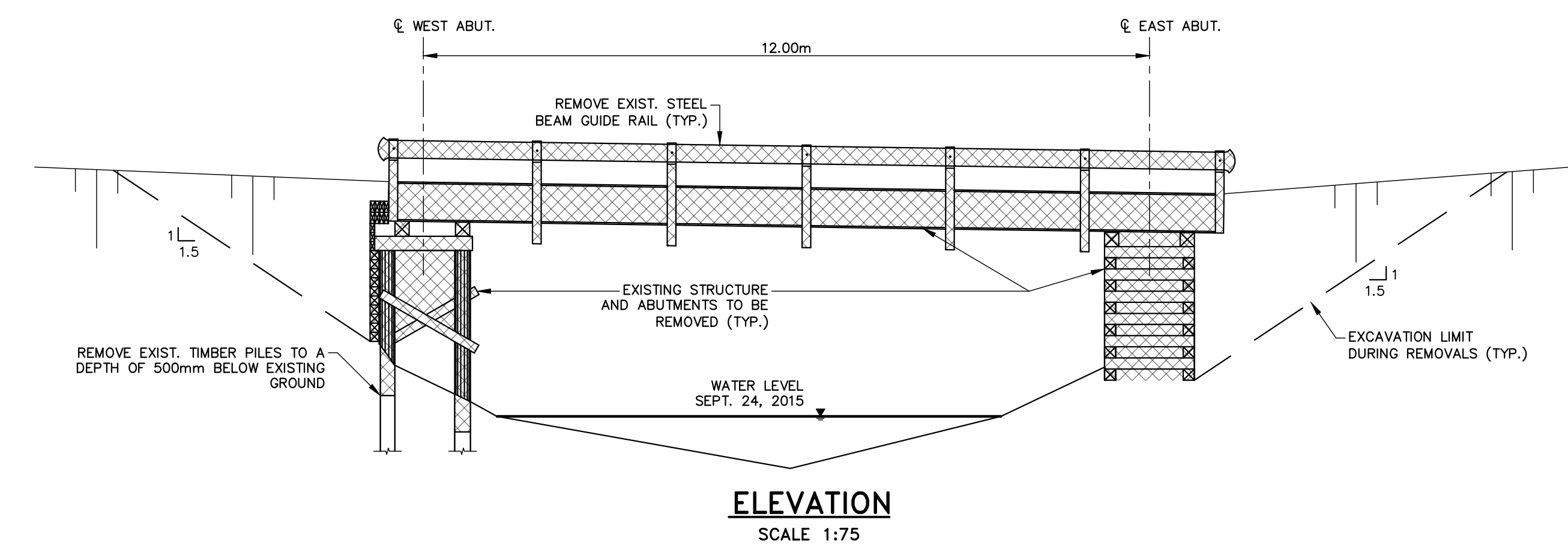
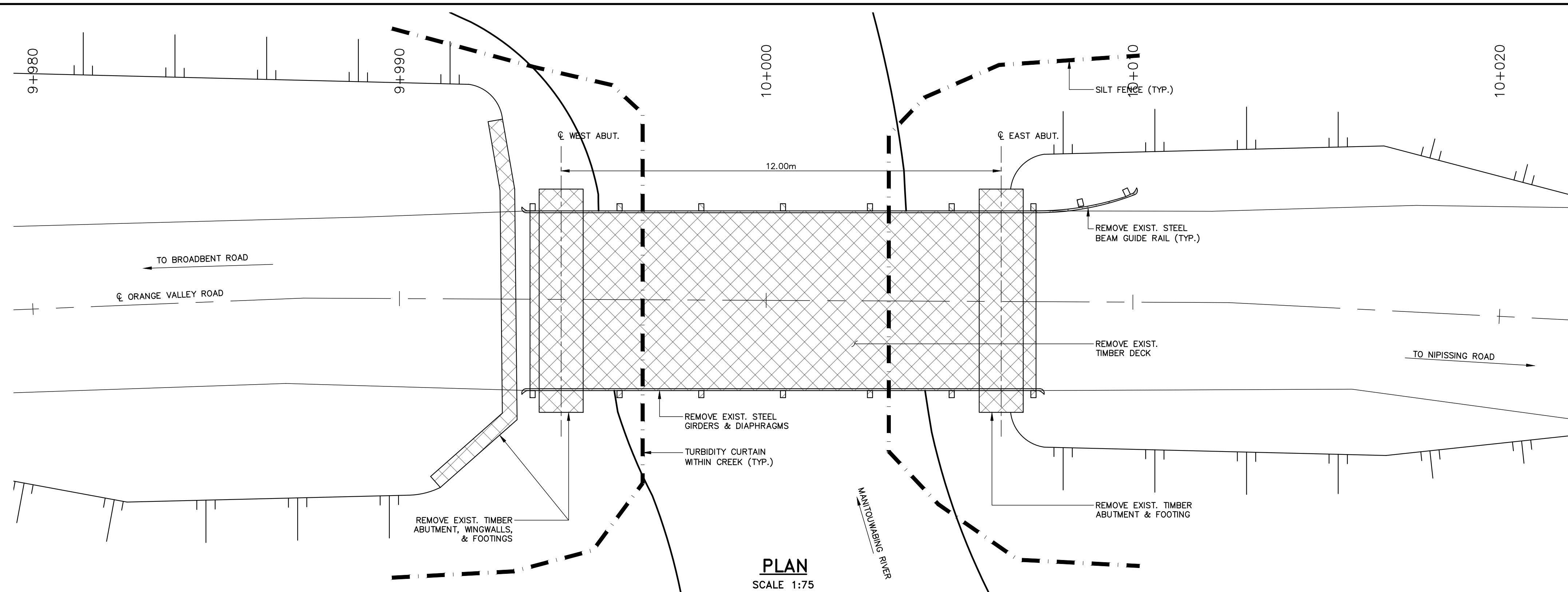
**ADDITIONAL ENVIRONMENTAL MEASURES:**

1. SEDIMENT AND EROSION CONTROL MEASURES TO BE IMPLEMENTED PRIOR TO WORK, AND MAINTAINED DURING THE WORK, TO PREVENT ENTRY OF SEDIMENT INTO THE WATERCOURSE OR THE MOVEMENT OF RE-SUSPENDED SEDIMENT.
2. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE LEFT IN PLACE UNTIL SUCH TIME THAT ALL DISTURBED AREAS HAVE BEEN STABILIZED.
3. OPERATION OF MACHINERY OFF OF THE ROADWAY SHALL BE MINIMIZED WHERE POSSIBLE TO REDUCE DISTURBANCE TO EMBANKMENTS.
4. MACHINERY, GENERATORS, ETC. TO BE MAINTAINED FREE OF LEAKS AND KEPT IN A CLEAN, WASHED CONDITION.
5. CONCRETE LEACHATE IS ALKALINE AND HIGHLY TOXIC TO FISH AND AQUATIC LIFE, AND MEASURES MUST BE TAKEN TO PREVENT ANY INCIDENCE OF CONCRETE OR CONCRETE LEACHATE FROM ENTERING THE WATERCOURSE. CONTAINMENT FACILITIES SHALL BE PROVIDED AT THE SITE FOR WASHING OUT OF CONCRETE DELIVERY TRUCKS, CONCRETE PUMPS, AND OTHER RELATED TOOLS / EQUIPMENT.

**APPLICABLE STANDARD DRAWINGS:**

- OPSD 219.130 - HEAVY-DUTY SILT FENCE BARRIER
- OPSD 219.210 - TEMPORARY ROCK FLOW CHECK DAM
- OPSD 219.180 - STRAW BALE FLOW CHECK DAM

**LEGEND:**



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 MODIFIED: 2023-05-30 11:16  
 ANS-B  
 D.M. WILLS ASSOCIATES LIMITED  
 2019-11

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06/01/23	AD		ISSUED FOR TENDER					
DESIGN	AP	CHK	RS	CODE	CHBDC-19	LOAD CL-625-ONT	DATE	MAY 2023
DRAWN	RV	CHK	AP	SITE	--		DWG	S03

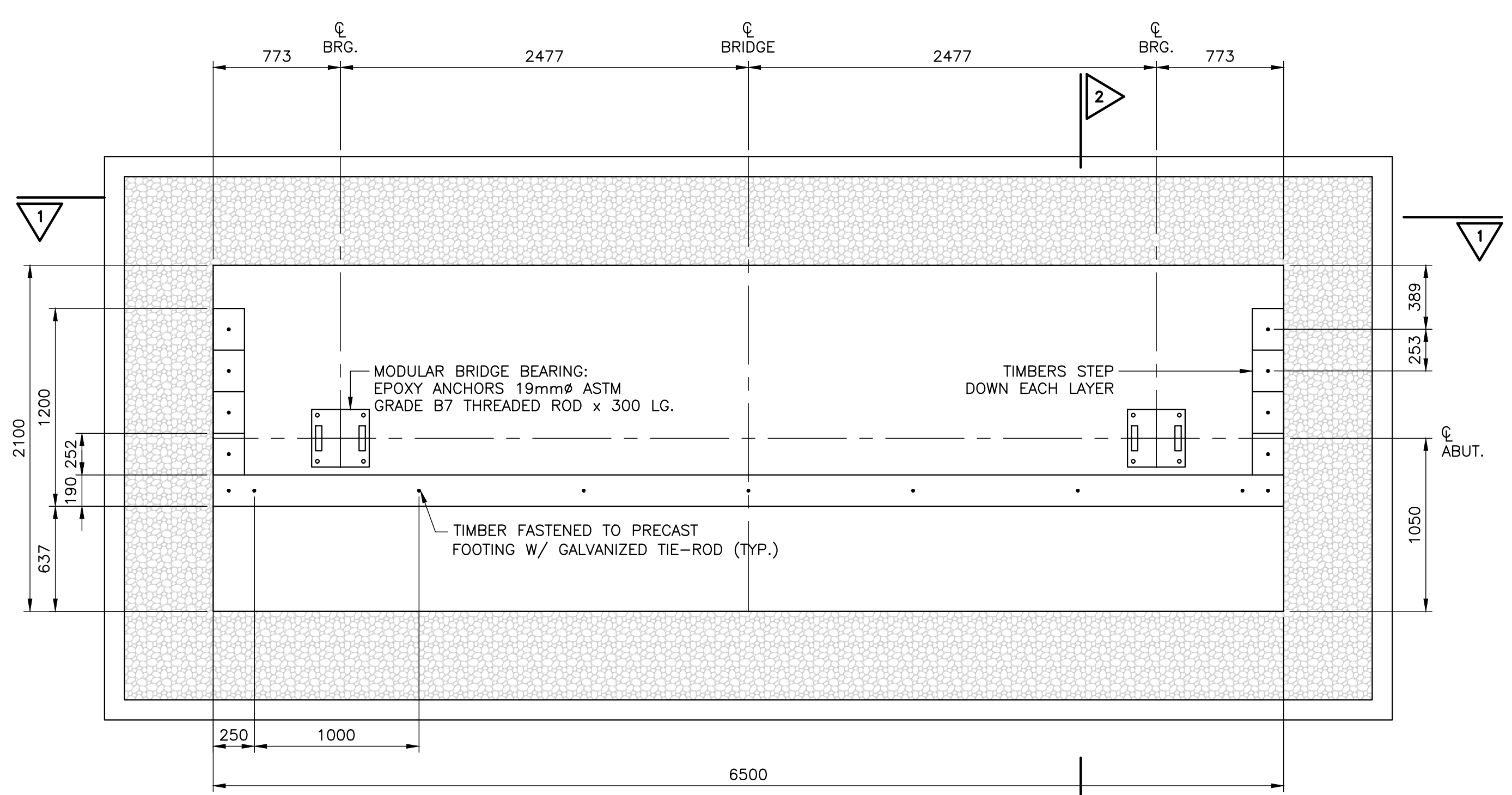
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**WILLS**

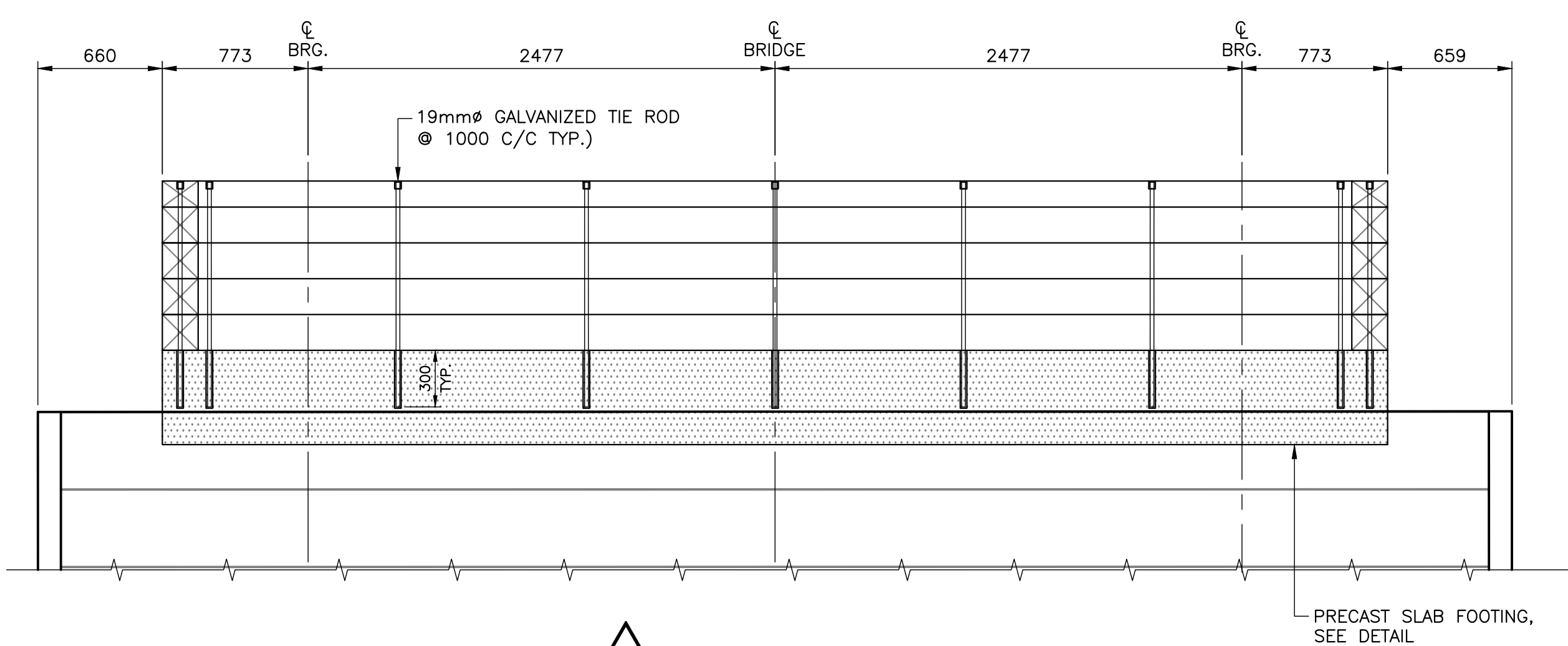
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 150 Jameson Drive  
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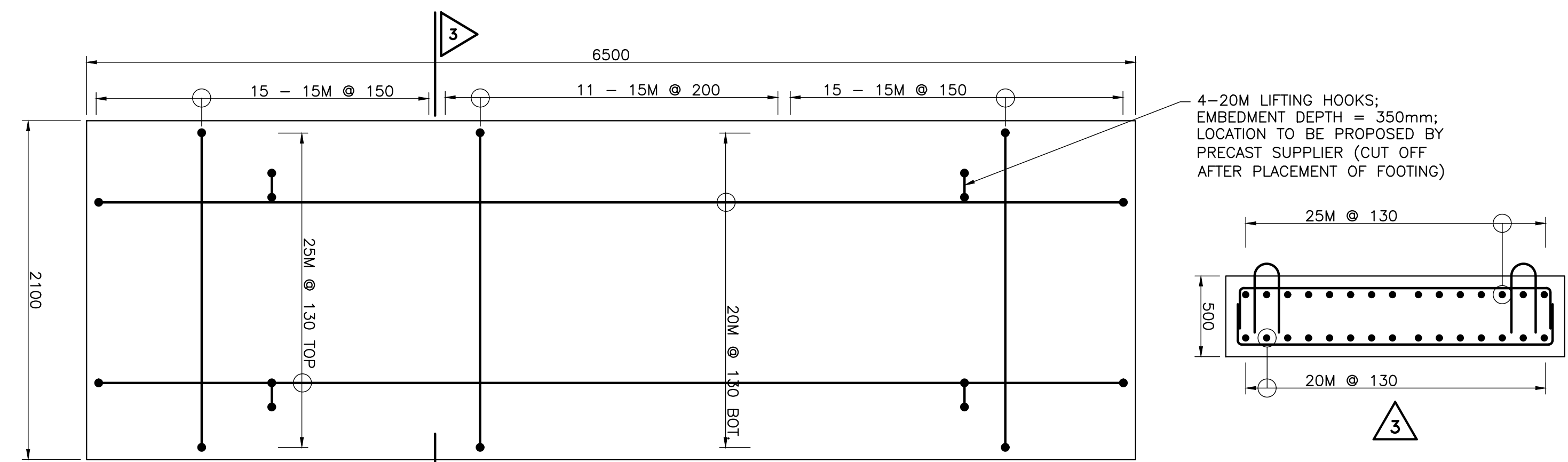
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 D.M. WILLS ASSOCIATES LIMITED  
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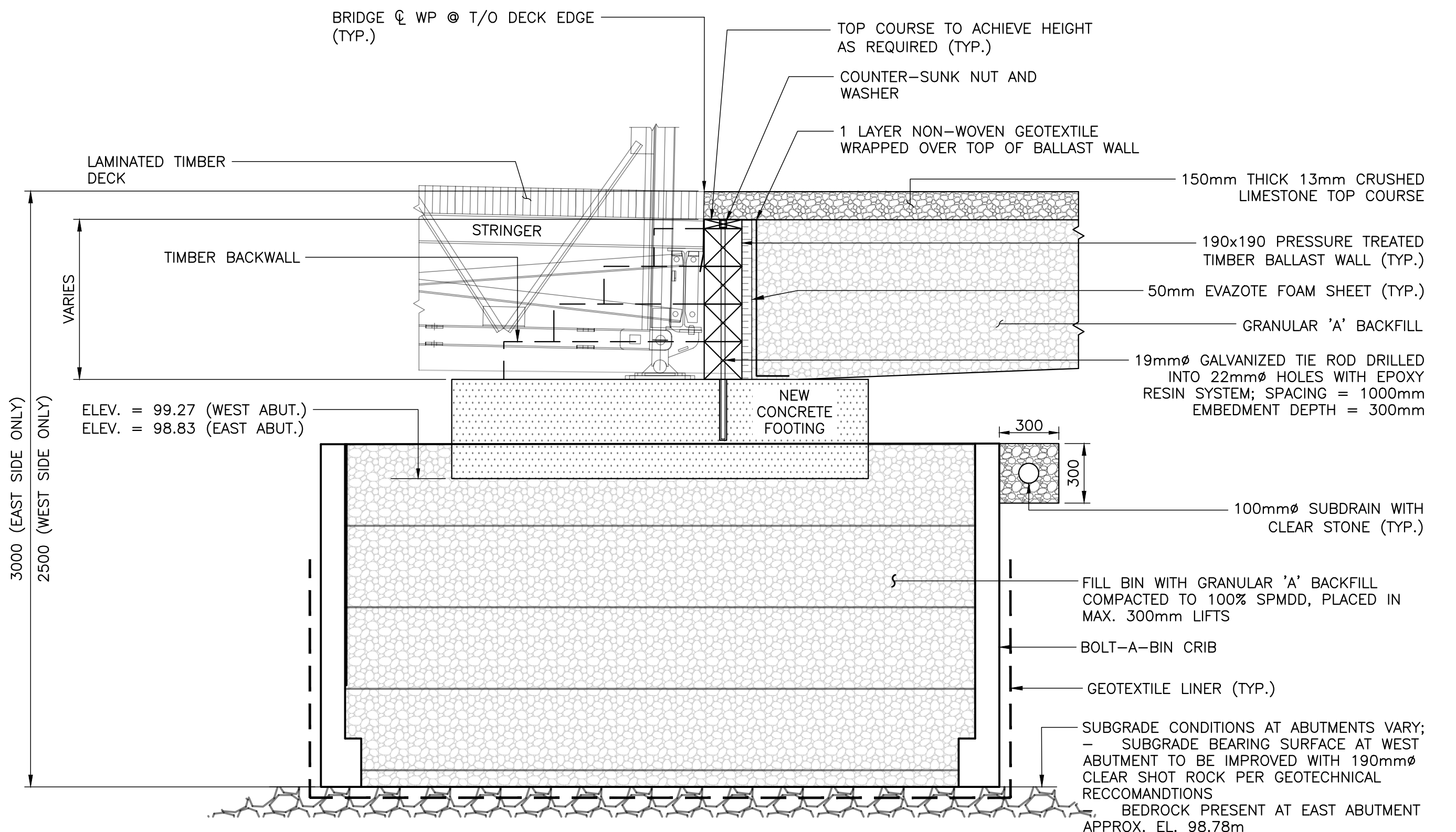
**TYPICAL ABUTMENT PLAN**  
 SCALE 1:25



**1 BALLAST WALL ELEVATION**  
 SCALE 1:25



**3 PRECAST SLAB DETAILS**  
 SCALE 1:25



**2 ABUTMENT SECTION**  
 SCALE 1:20

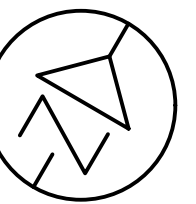
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DRAWN	RV/CHK	AP/SITE	

DATE: MAY 2023  
 DWG: S04

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 ANS-B  
 2019-11

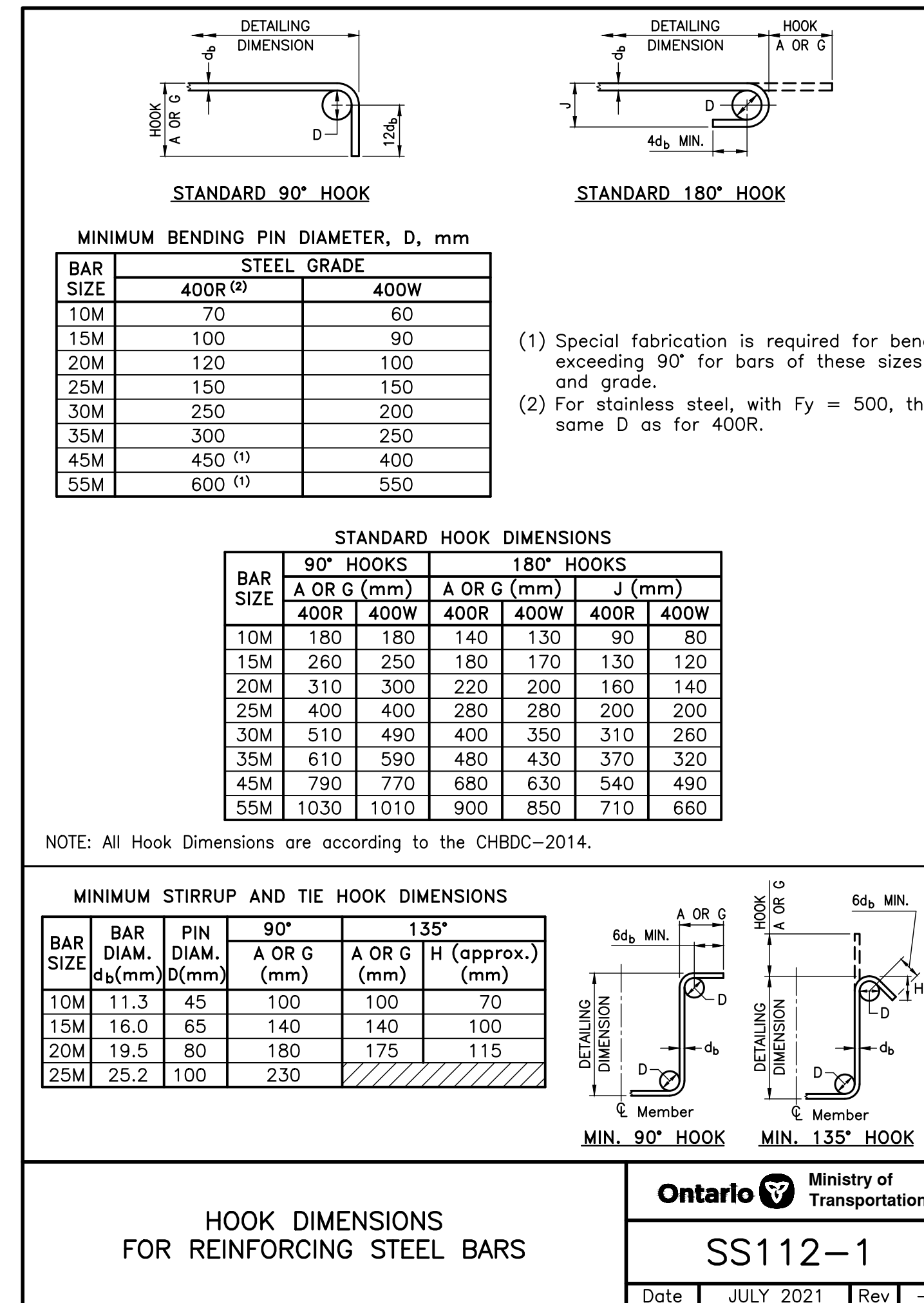
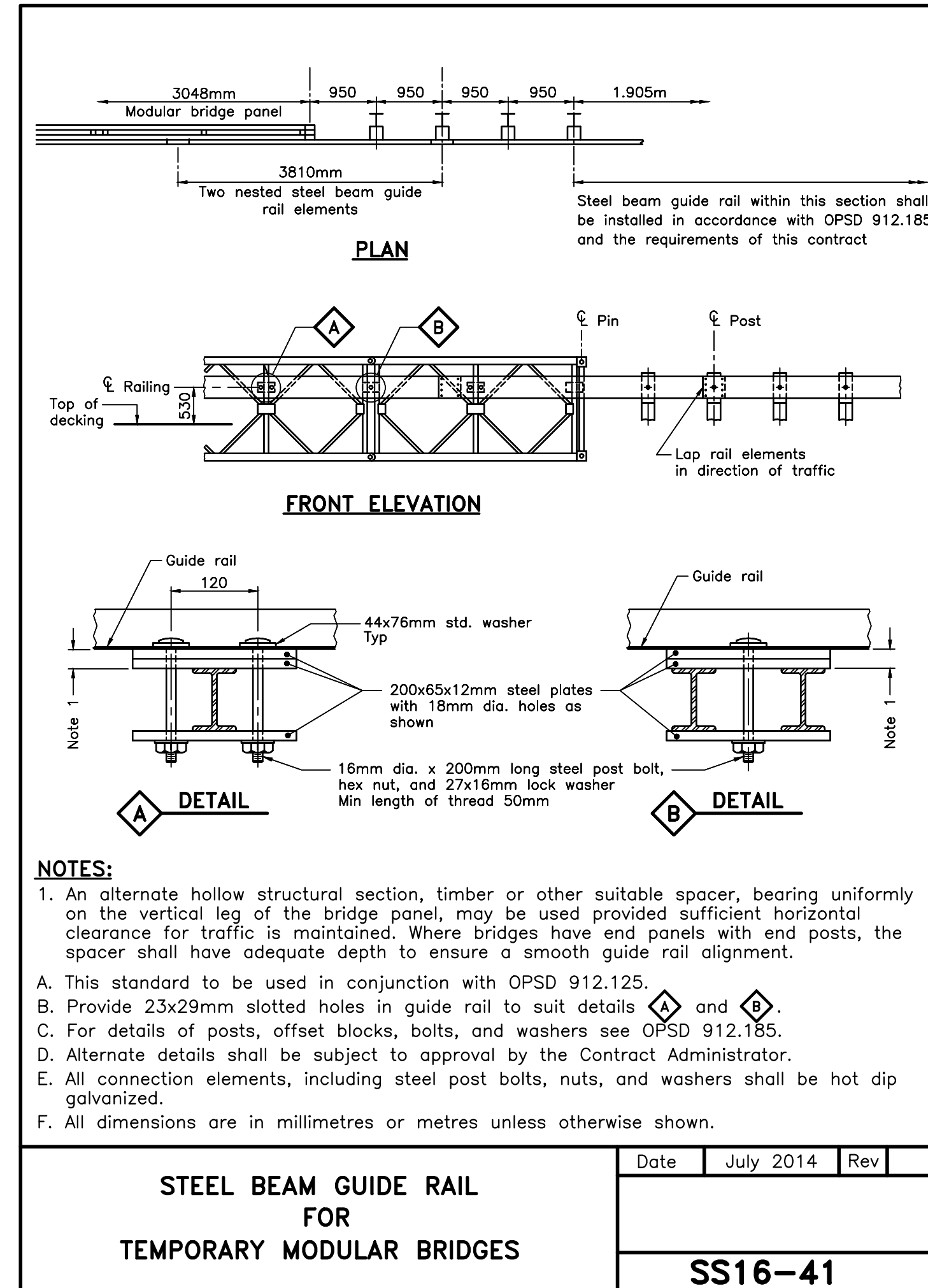
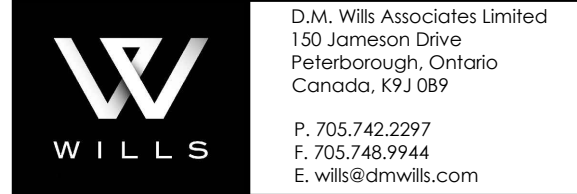
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 100mm ON ORIGINAL DRAWING

**MUNICIPALITY OF  
 MAGNETAWAN**



**ORANGE VALLEY ROAD BRIDGE  
 REPLACEMENT  
 STANDARD DRAWINGS**

**SHEET  
 05**



**GENERAL NOTES:**

- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER APPLICABLE CONTRACT DRAWINGS.

REVISIONS	DATE	BY	DESCRIPTION
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-	-	-	-
-	-	-	-
06/01/23	AD		ISSUED FOR TENDER
DESIGN	AP	CHK	RS
DRAWN	RV	CHK	AP

CHBDC-19 LOAD CL-625-ONT DATE MAY 2023 DWG S05