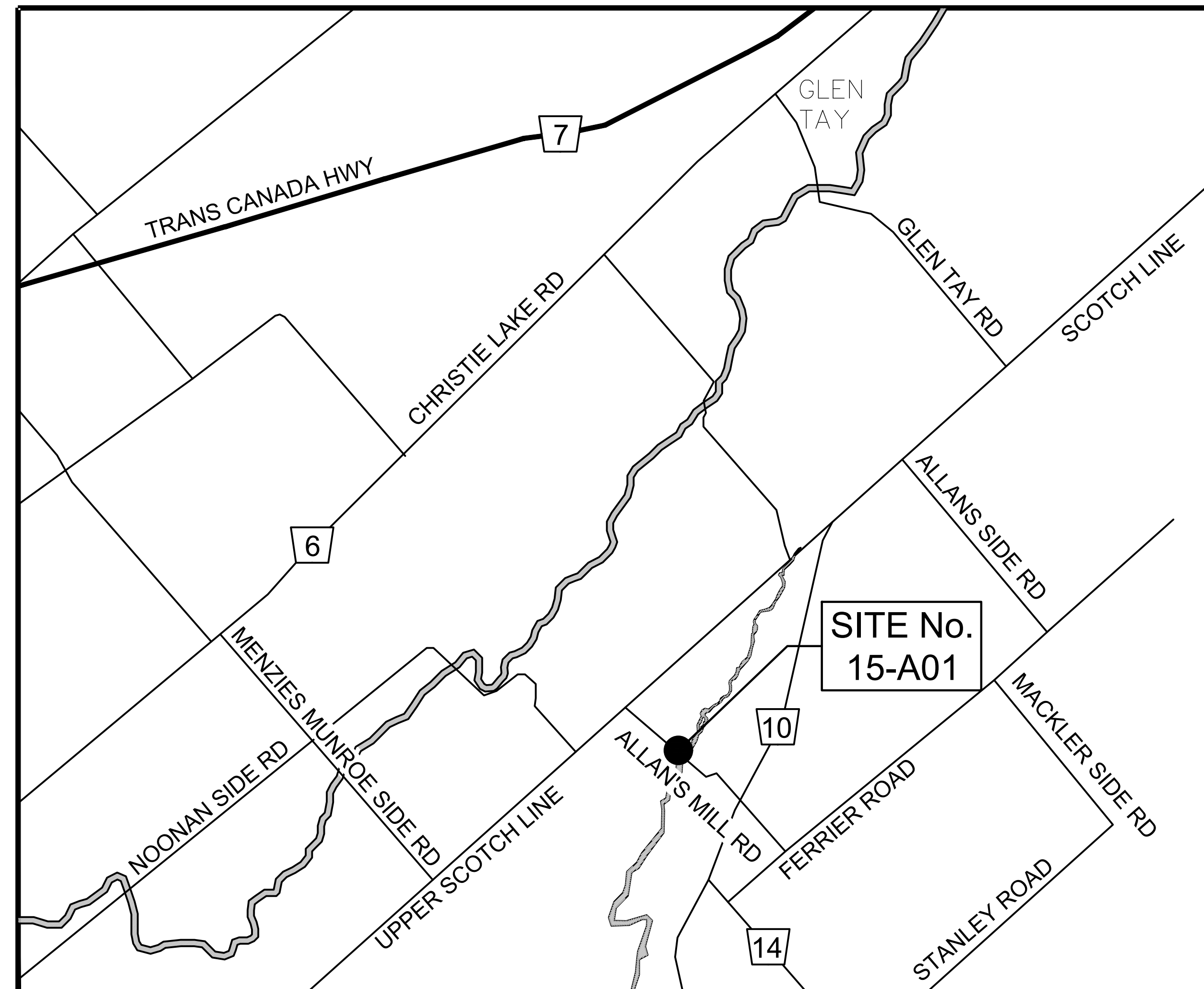


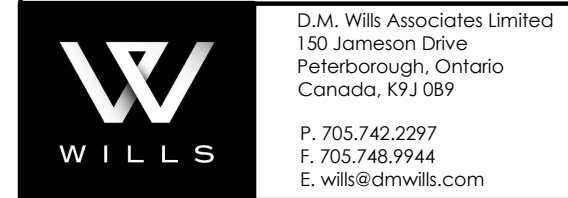
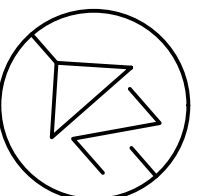
# ALLAN'S MILL ROAD BRIDGE REHABILITATION SITE No. 15-A01

CONTRACT No. 2021-PW-003



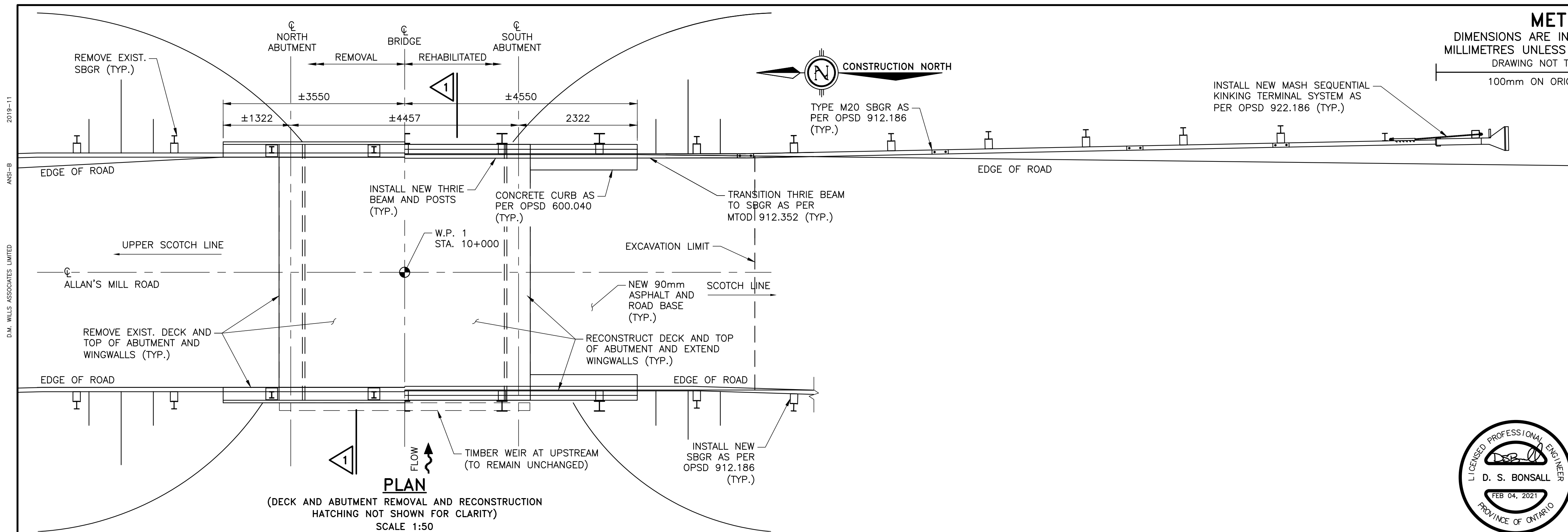
DRAWING INDEX	
DRAWING	NO.
GENERAL ARRANGEMENT	S 01
SITE PLAN	S 02
REMOVALS	S 03
NEW CONSTRUCTION I	S 04
NEW CONSTRUCTION II	S 05

ISSUED FOR TENDER FEB. 04, 2021



D.M. Wills Associates Limited  
150 Jameson Drive  
Peterborough, 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



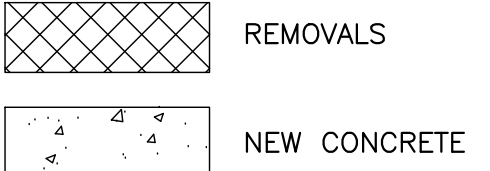
**PLAN**  
(DECK AND ABUTMENT REMOVAL AND RECONSTRUCTION  
HATCHING NOT SHOWN FOR CLARITY)  
SCALE 1:50



**GENERAL NOTES:**

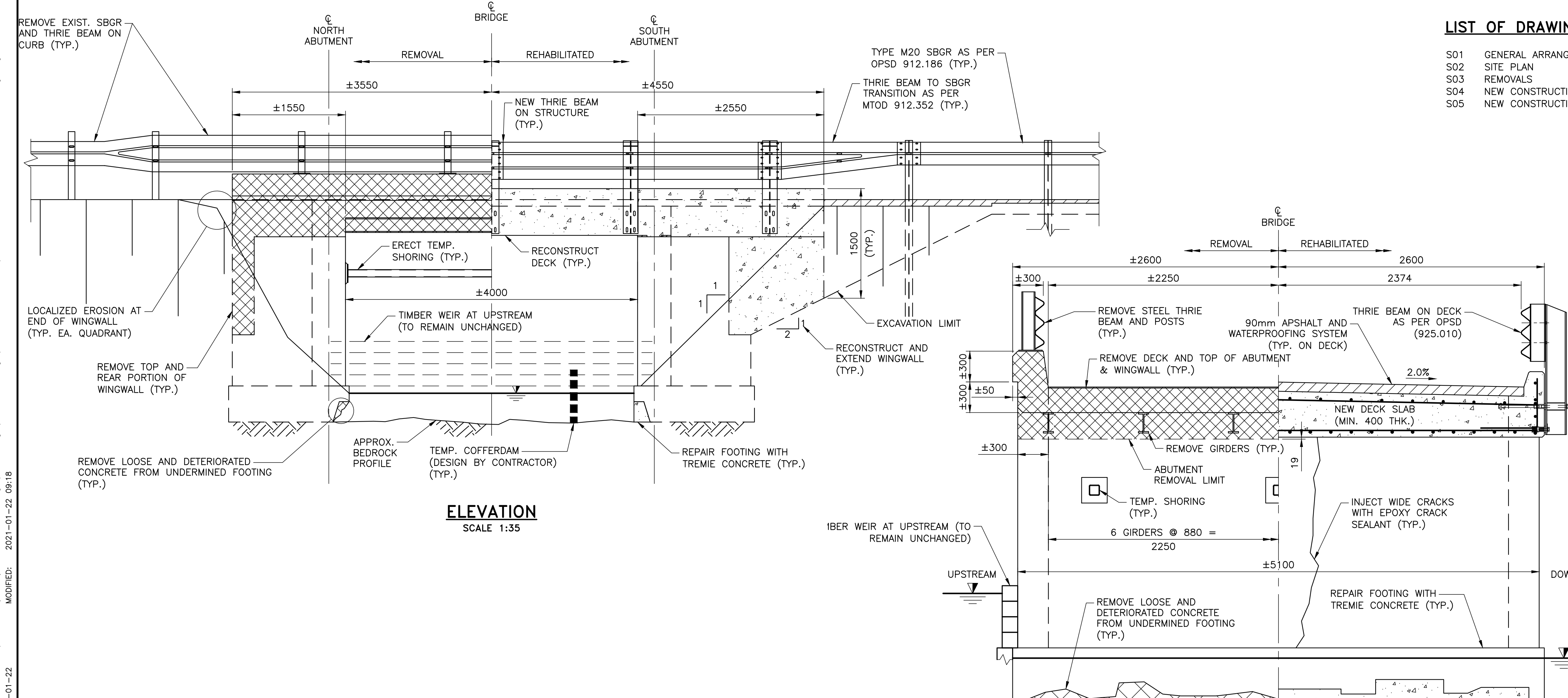
- CLASS OF CONCRETE  
30 MPa - EXPOSURE CLASS; C-1  
FOOTINGS 100±25  
DECK TOP 70±20  
BOTTOM 50±10  
REMAINDER 70±20 UNLESS OTHERWISE NOTED
- REINFORCING STEEL  
REINFORCING STEEL SHALL BE GRADE 400W UNLESS OTHERWISE SPECIFIED.  
UNLESS SHOWN OTHERWISE, TENSION LAP SPLICES FOR REINFORCING STEEL BARS SHALL BE CLASS B.

**LEGEND:**



**LIST OF DRAWINGS:**

- S01 GENERAL ARRANGEMENT
- S02 SITE PLAN
- S03 REMOVALS
- S04 NEW CONSTRUCTION I
- S05 NEW CONSTRUCTION II



**ELEVATION**  
SCALE 1:35

- CONSTRUCTION NOTES  
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.  
BACKFILL SHALL NOT BE PLACED BEHIND THE ABUTMENTS UNTIL THE DECK SLAB IS IN PLACE AND HAS REACHED 70% OF ITS DESIGN STRENGTH.  
BACKFILL SHALL BE PLACED SIMULTANEOUSLY BEHIND BOTH ABUTMENTS KEEPING THE HEIGHT OF THE BACKFILL APPROXIMATELY THE SAME. AT NO TIME SHALL THE DIFFERENCE IN ELEVATION BE GREATER THAN 500 mm.  
THE CONTRACTOR SHALL SUPPLY TEMPORARY LATERAL BRACING FOR THE ABUTMENTS. FORMWORK AND LATERAL BRACING SHALL NOT BE REMOVED UNTIL DECK CONCRETE HAS REACHED 70% OF ITS SPECIFIED 28-DAY STRENGTH.  
ALL WORK TO BE PERFORMED IN ACCORDANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS.  
ANY DAMAGE DONE TO THE EXISTING STRUCTURE DURING REMOVALS OR RECONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR AND AT NO COST TO THE OWNER.

**APPLICABLE STANDARD DRAWINGS:**

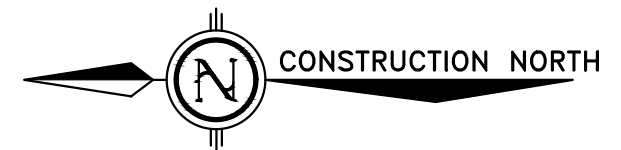
- OPSD 600.040 CONCRETE BARRIER CURB WITH STANDARD GUTTER
- OPSD 912.124 GUIDE RAIL SYSTEM, STEEL BEAM TYPE M TRANSITION RAIL COMPONENT
- OPSD 912.186 GUIDE RAIL SYSTEM, STEEL BEAM TYPE M20 - ADJACENT TO 2H:1V SLOPE INSTALLATION - RAIL AT SHOULDER
- OPSD 912.255 GUIDE RAIL SYSTEM, STEEL BEAM TYPE M20 AND M30 LEAVING END TREATMENT INSTALLATION
- MTOD 912.352 GUIDE RAIL SYSTEM, STEEL BEAM TRANSITION FROM THRIE BEAM TO W BEAM GUIDE RAIL - INSTALLATION
- OPSD 922.186 ENERGY ATTENUATOR, END TREATMENT STEEL BEAM ENERGY ATTENUATING TERMINAL MASH SEQUENTIAL KINKING TERMINAL SYSTEM - INSTALLATION
- OPSD 925.010 GUIDE RAIL SYSTEM, THRIE BEAM COMPONENT - RAIL

FILE NAME: Y:\9200 - 9299\9255 - Tay Valley 2020 GDM & Bridge\02 Drawings\Current Drawings\Allan's Mill Side Road\9255 - 01\602 - GA&SP - Allan's Rd Bridge.dwg  
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MODIFIED: 2021-01-22 09:18



SCALE 1:25

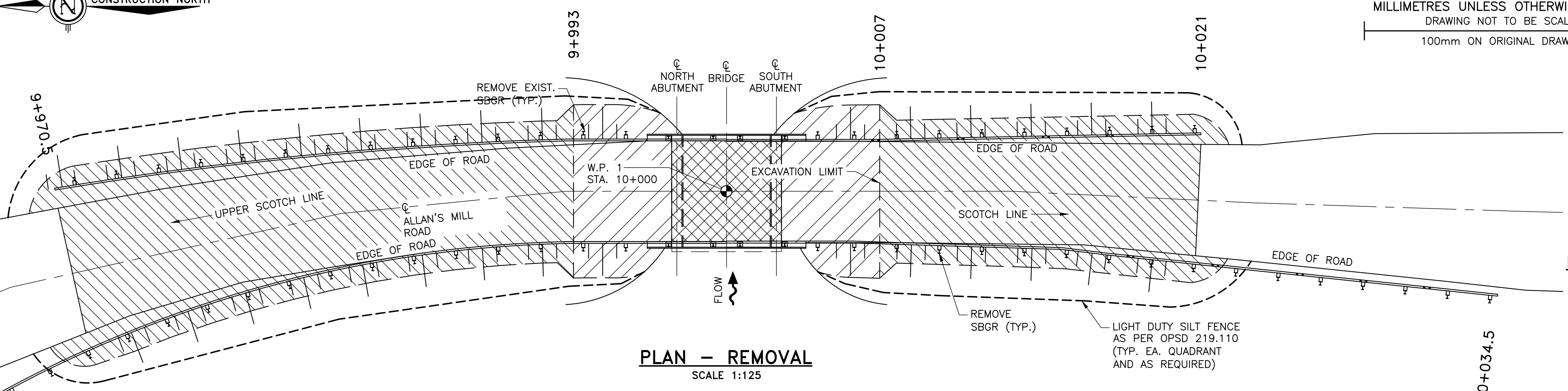
NO.	DATE	BY	DESCRIPTION
1	2/04/21	T.R.	REV.0, ISSUED FOR TENDER
DESIGN	TS/CHK	DB/CHK	CHBDC-19/LOAD CL-625-ONT
DRAWN	TR/CHK	DB/SITE	15-A01



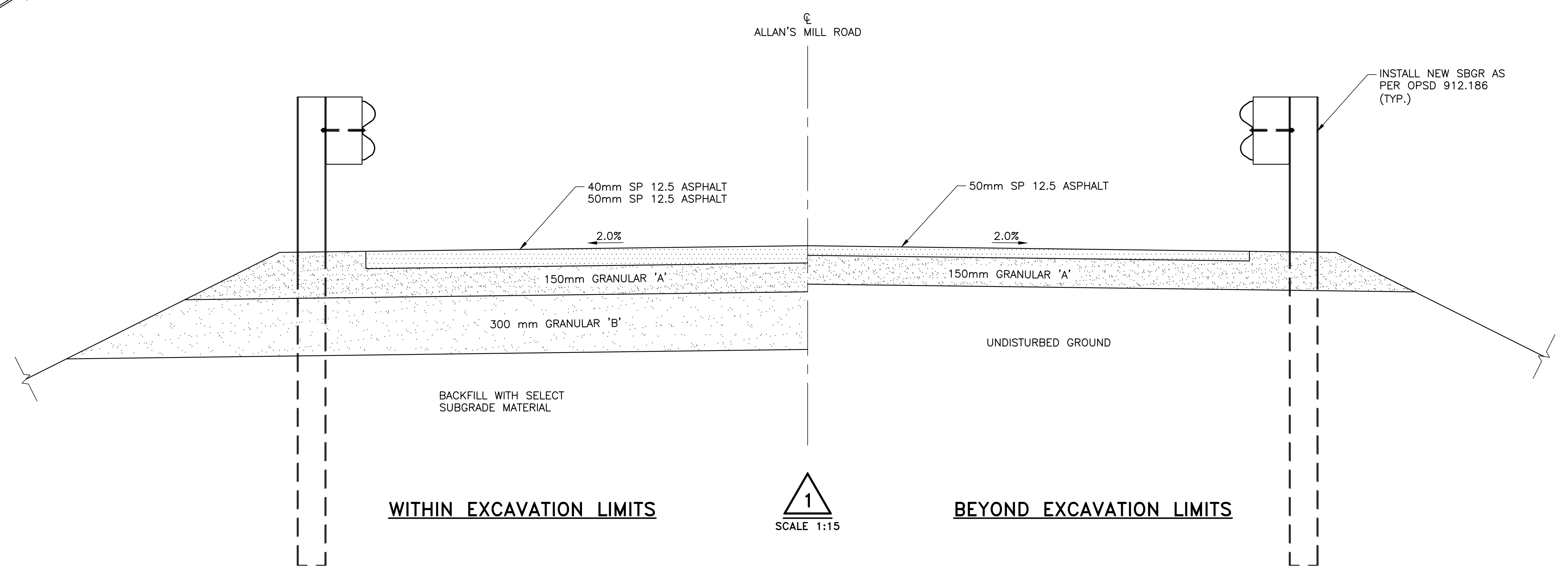
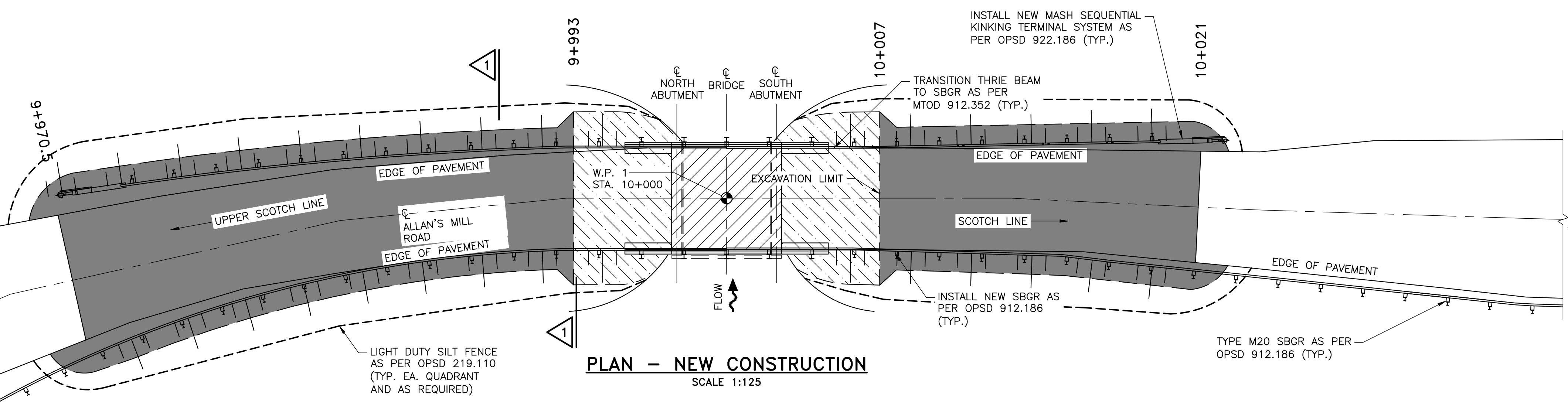
**METRIC**  
 DIMENSIONS ARE IN METRES AND/OR  
 MILLIMETRES UNLESS OTHERWISE SHOWN  
 DRAWING NOT TO BE SCALED  
 100mm ON ORIGINAL DRAWING



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 CREATED: 2021-01-22  
 MODIFIED: 2021-01-22 09:18  
 ANS-B  
 D.M. WILLS ASSOCIATES LIMITED  
 2019-11



- NOTES:**
- ROAD REMOVALS INCLUDE THE REMOVAL AND DISPOSAL OF THE EXISTING TAR AND CHIP WEARING SURFACE.
  - THE CONTRACTOR SHALL SURVEY THE EXISTING ROAD AT 10m INTERVALS BETWEEN CONSTRUCTION LIMITS AND AT TIE-IN LOCATIONS TO MATCH EXISTING ELEVATIONS. IN THE CASE WHERE EXISTING ELEVATIONS DO NOT PROVIDE DRAINAGE OFF THE ROAD, THE CONTRACTOR SHALL GRADE THE NEW ASPHALT TO ACHIEVE PROPER DRAINAGE.

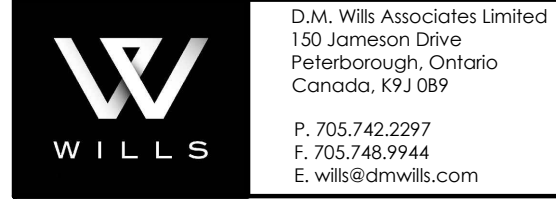
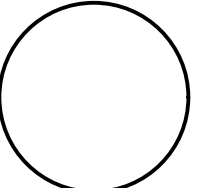


- LEGEND:**
- REMOVALS ON DECK
  - EXCAVATION FOR STRUCTURE
  - 200mm DEPTH ROAD REMOVAL (PROVISIONAL)
  - 90mm SP 12.5 ASPHALT AND WATERPROOFING ON DECK
  - 40mm SP 12.5  
50mm SP 12.5  
150mm GRANULAR 'A'  
300mm GRANULAR 'B'  
BACKFILL WITH SELECT SUBGRADE MATERIAL
  - 50mm SP 12.5  
150mm GRANULAR 'A'  
(PROVISIONAL)

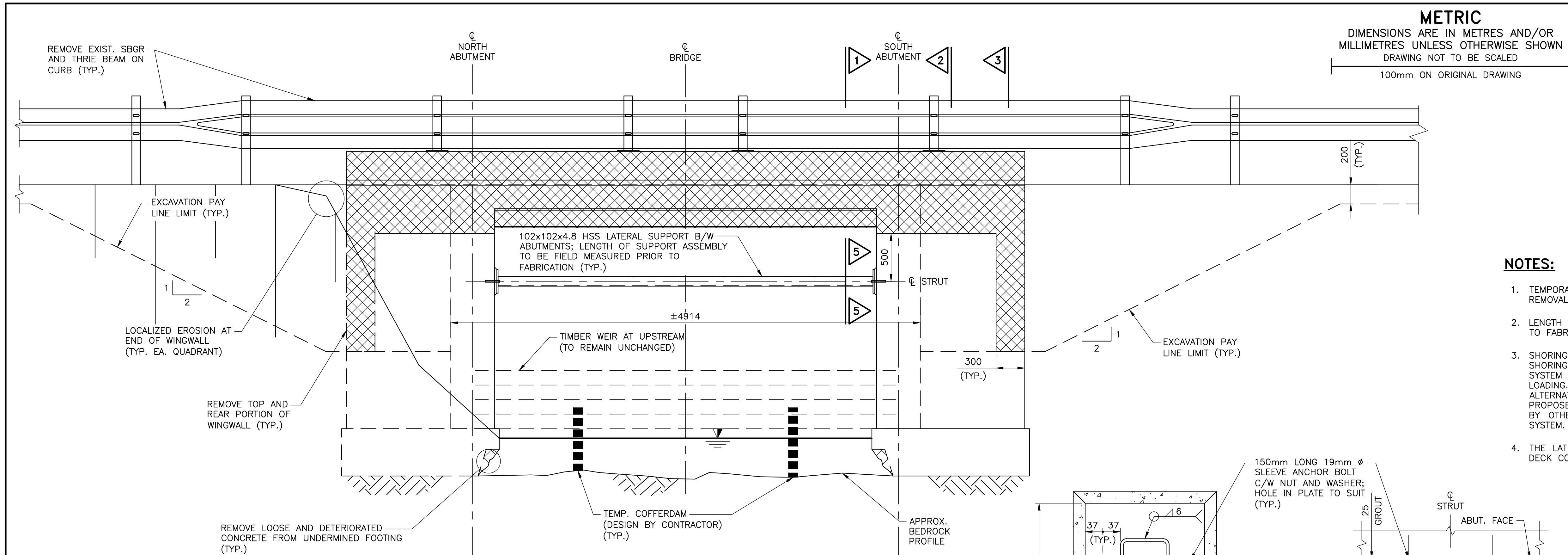


REVISIONS		REV.0, ISSUED FOR TENDER
2/04/21	T.R.	
DATE	BY	DESCRIPTION
DESIGN	TS/CHK	DB/CL-625-ONT
DRAWN	TR/CHK	DB/SITE

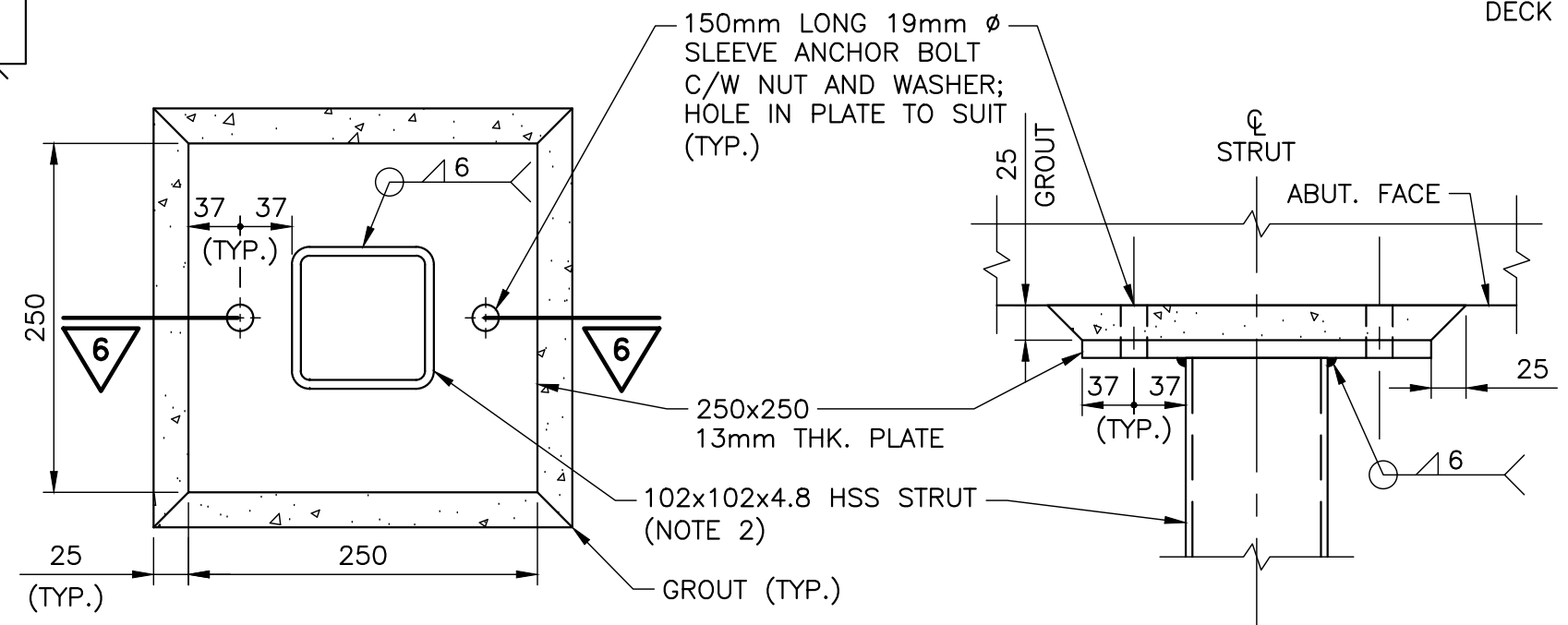
DATE: FEB. 2021  
 DWG: S02



**METRIC**  
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MILLIMETRES UNLESS OTHERWISE SHOWN  
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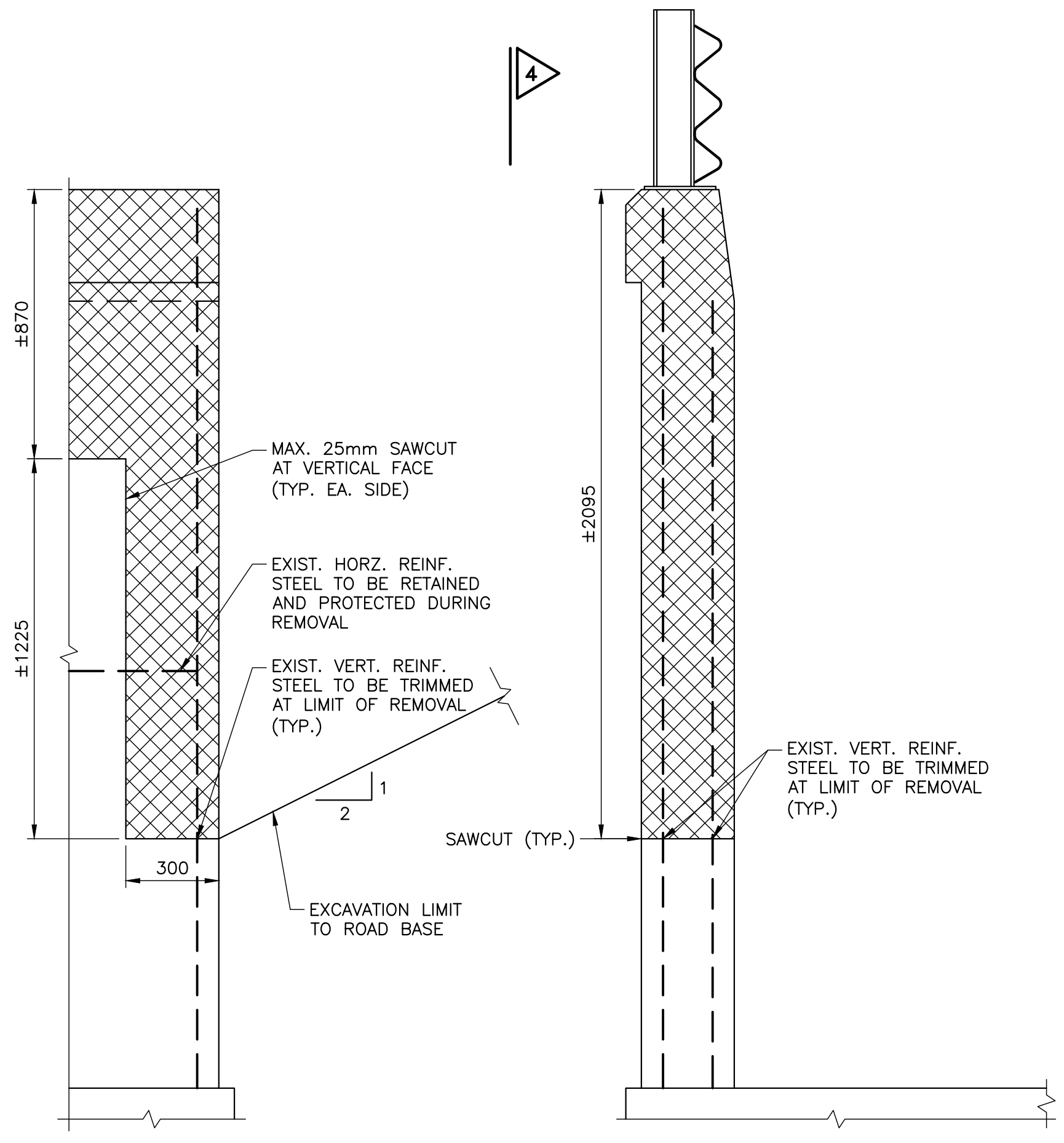


**ELEVATION**  
SCALE 1:25



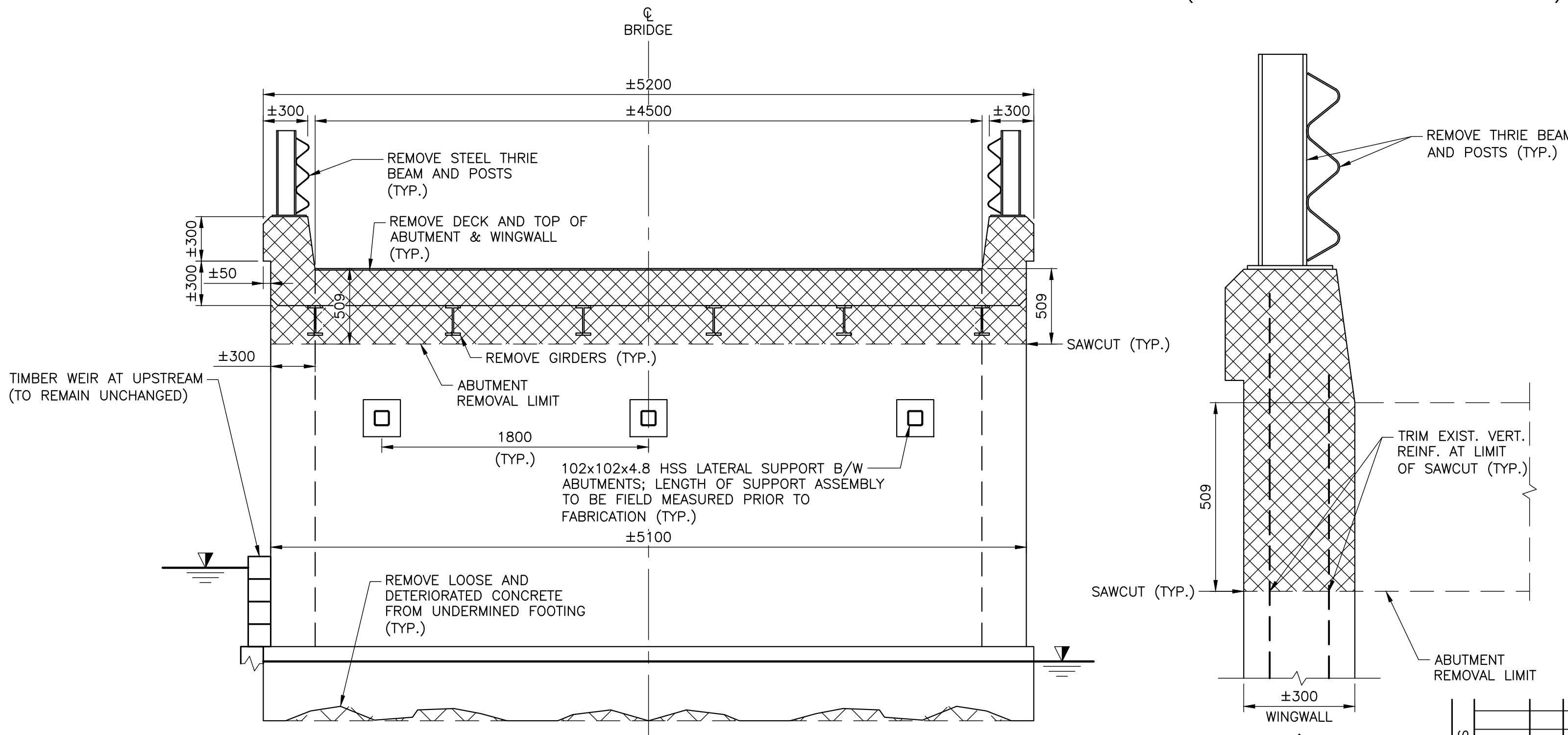
**5**  
SCALE 1:5

**6**  
SCALE 1:5 (SLEEVE ANCHOR BOLTS NOT SHOWN FOR CLARITY)



**4**  
SCALE 1:15

**3**  
SCALE 1:15



**1**  
SCALE 1:25

**2**  
SCALE 1:10

**NOTES:**

- TEMPORARY SHORING BETWEEN ABUTMENTS SHALL BE ERECTED PRIOR TO REMOVAL OF THE DECK.
- LENGTH OF TEMPORARY SHORING STRUTS SHALL BE FIELD MEASURED PRIOR TO FABRICATION.
- SHORING SYSTEM SHOWN ON THIS DRAWING REPRESENTS THE MINIMUM SHORING THAT MUST BE PROVIDED BY THE CONTRACTOR. THE SHORING SYSTEM SHOWN ON THIS DRAWING IS NOT INTENDED TO RESIST VERTICAL LOADING. HOWEVER, THE CONTRACTOR MAY SUBMIT FOR APPROVAL AN ALTERNATE SHORING DESIGN THAT INCORPORATES THE FORMWORK OF THE PROPOSED DECK, OTHERWISE, THE DECK FORMWORK SHALL BE SUPPORTED BY OTHER MEANS WHICH DO NOT INCORPORATE THE LATERAL SUPPORT SYSTEM.
- THE LATERAL SUPPORT SHORING SHALL NOT BE REMOVED UNTIL THE NEW DECK CONCRETE HAS REACHED 70% OF ITS DESIGN STRENGTH.

**LEGEND:**

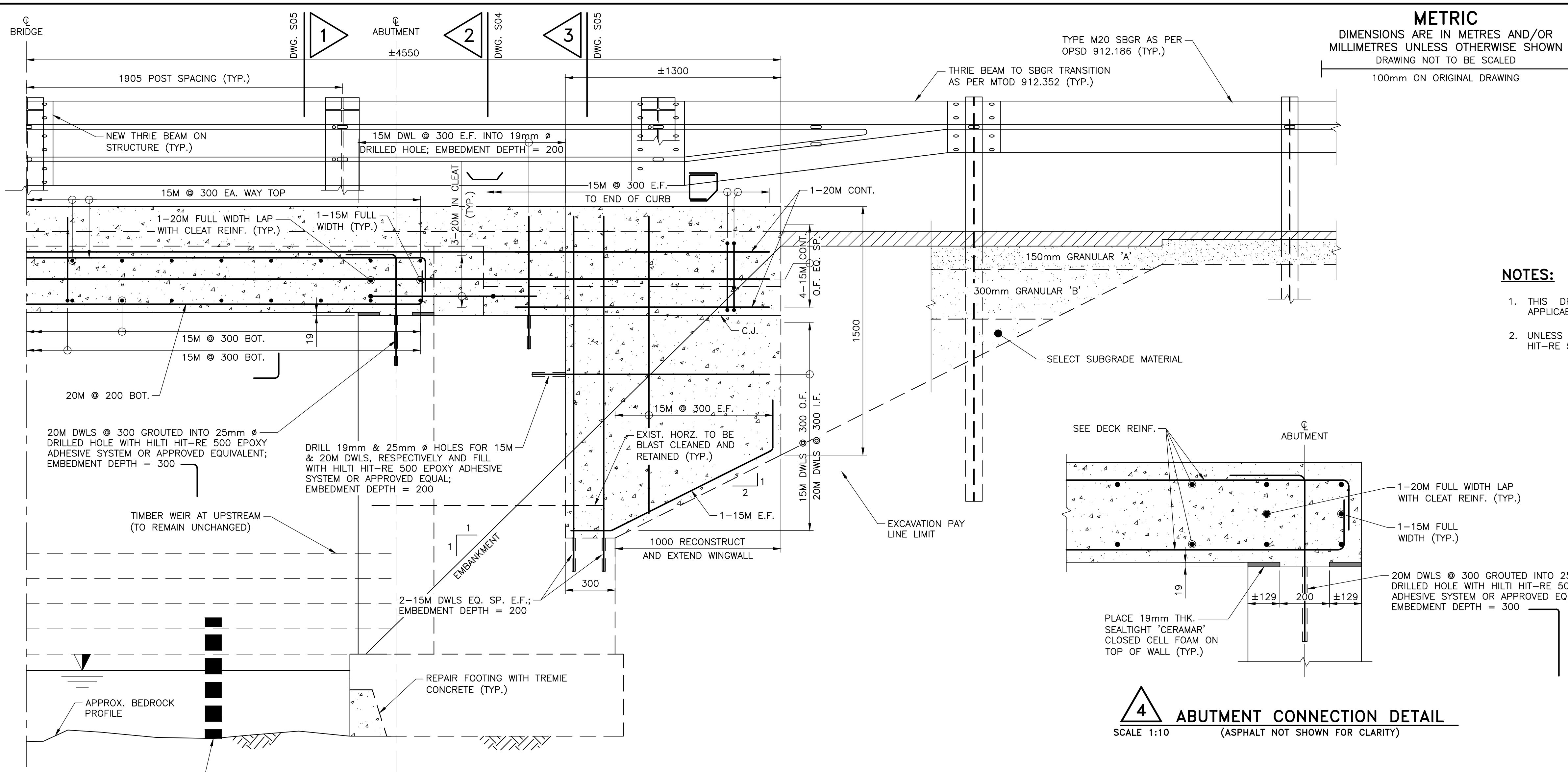
- REMOVALS
- NEW CONCRETE
- EXIST. REINFORCEMENT



REVISIONS	DATE	BY	T.R.	DESCRIPTION
2/04/21				REV.0, ISSUED FOR TENDER
				DESIGN
				DATE FEB. 2021
				DWG

FILE NAME: Y:\9200 - 9299\9255 - Toy Valley 2020 OSM & Bridge\02 Drawings\Current Drawings\Allan's Mill Side Road\9255 - 03\04\05 - Removals&New Construction\181 - Allan Rd Bridge.dwg  
 CREATED: 2021-01-22  
 MODIFIED: 2021-01-22 09:34  
 ANS-B  
 D.M. WILLS ASSOCIATES LIMITED

FILE NAME: Y:\9200 - 9259\9255 - Tay Valley 2020 OSM & Bridge\02 Drawings\Current Drawings\Allan's Mill Side Road\9255 - 03,04&05 - Removal&New Construction I&I - Allans Rd Bridge.dwg  
 CREATED: 2021-01-22  
 MODIFIED: 2021-01-22 09:34



**METRIC**  
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 DRAWING NOT TO BE SCALED  
 100mm ON ORIGINAL DRAWING

**TAY VALLEY TOWNSHIP**  
**TENDER 2021-PW-003**

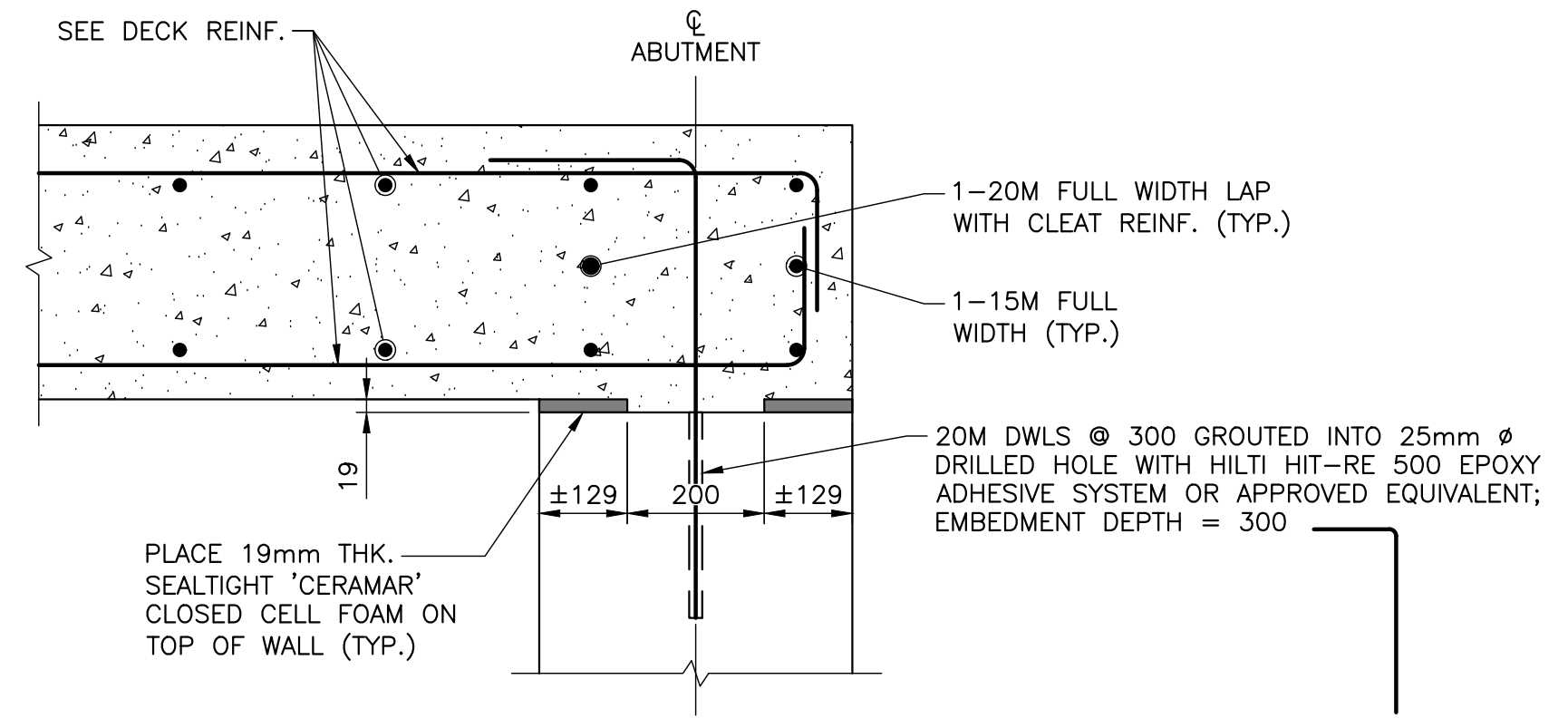
REHABILITATION OF ALLAN'S MILL ROAD BRIDGE  
 NEW CONSTRUCTION I

SHEET 04

**WILLS**

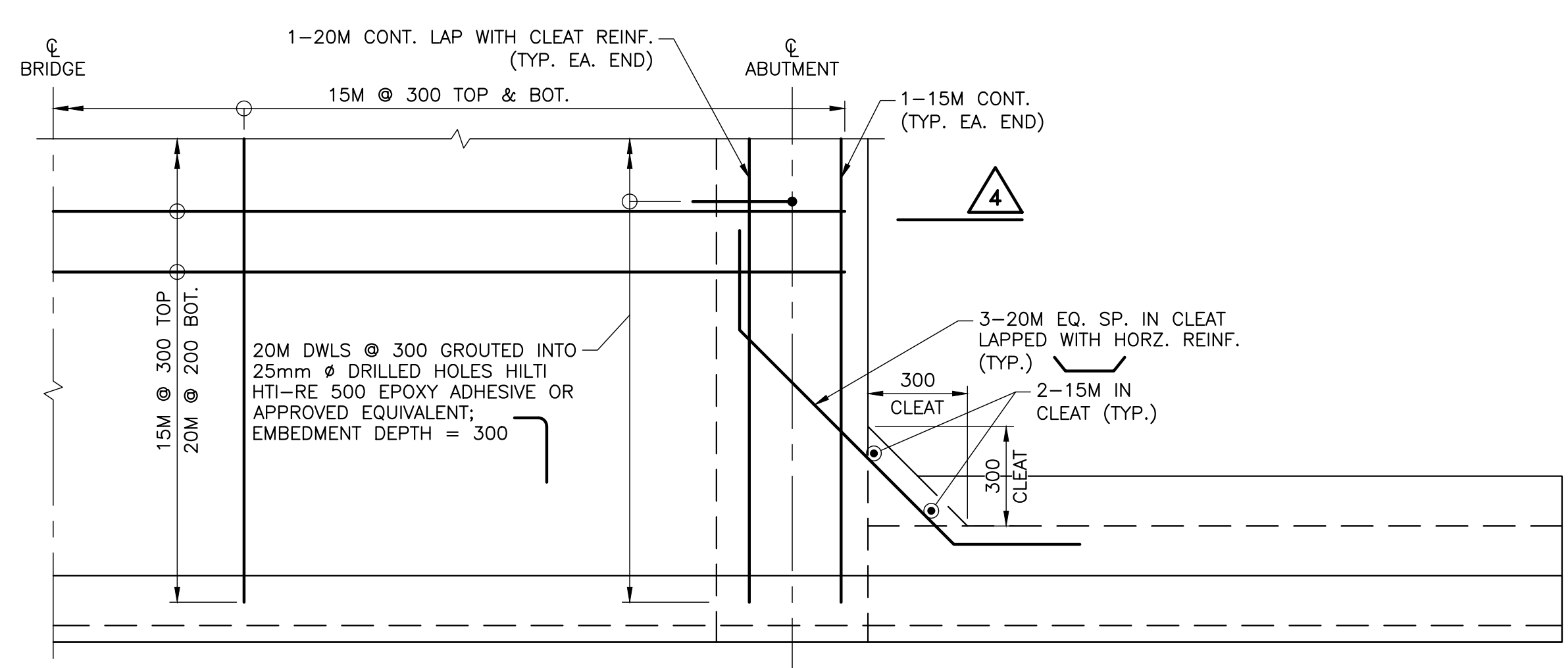
D.M. Wills Associates Limited  
 150 Jameson Drive  
 Peterborough, Ontario  
 Canada, K9J 0B9  
 P. 705.742.2297  
 F. 705.748.9944  
 E. wils@dmwills.com

- NOTES:**
- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER APPLICABLE CONTRACT DRAWINGS.
  - UNLESS NOTED OTHERWISE, ALL DOWELS SHALL BE EPOXIED WITH HILTI HIT-RE 500 EPOXY ADHESIVE SYSTEM OR APPROVED EQUIVALENT.

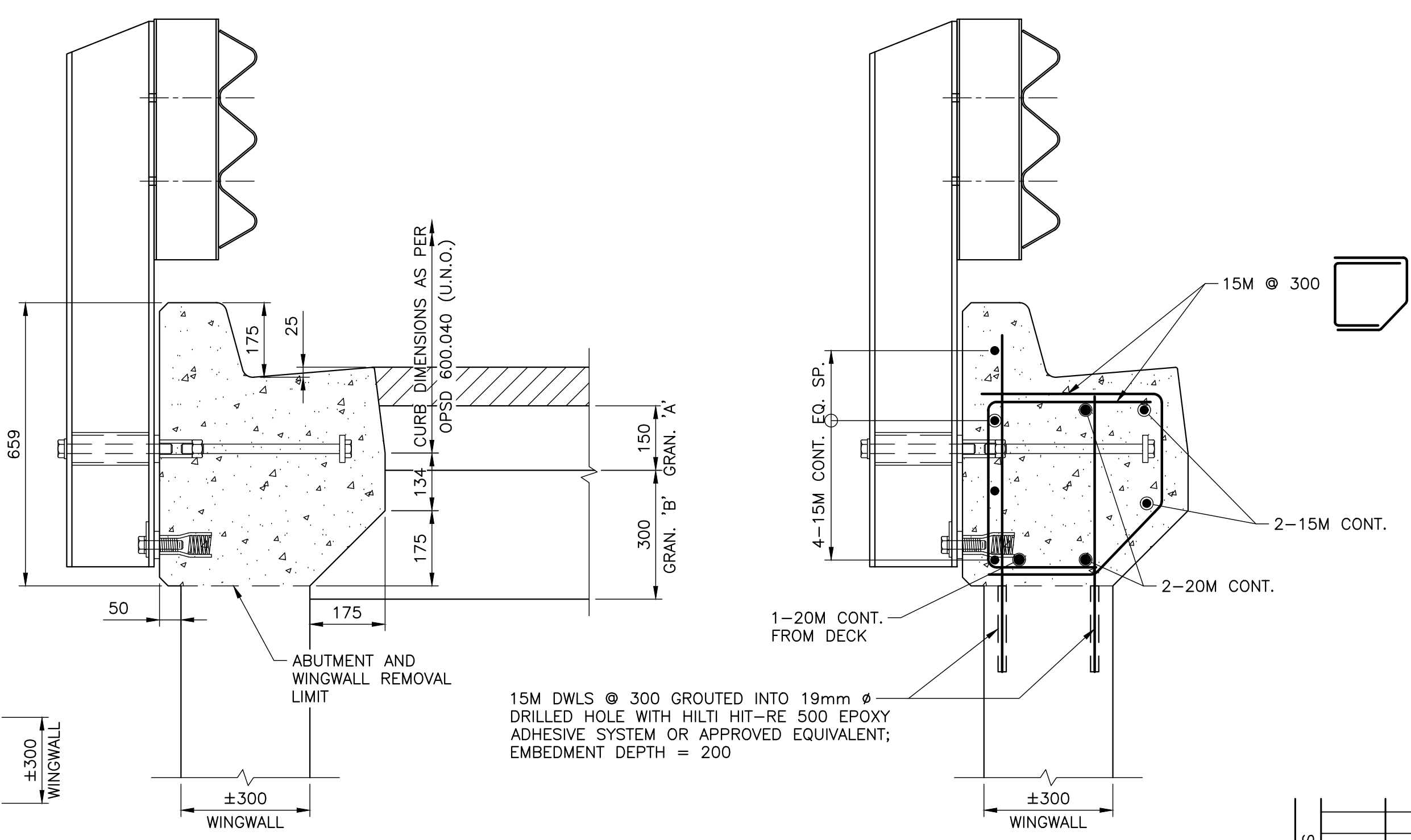


**4 ABUTMENT CONNECTION DETAIL**  
 SCALE 1:10 (ASPHALT NOT SHOWN FOR CLARITY)

**HALF ELEVATION**  
 (TYPICAL)  
 SCALE 1:15



**QUARTER PLAN**  
 (TYPICAL. HATCHING, GUIDE RAIL, AND WINGWALL REINF. NOT SHOWN FOR CLARITY)  
 SCALE 1:15



**2 DIMENSIONS**  
 SCALE 1:10 (TYP.)

**2 REINFORCEMENT**  
 SCALE 1:10 (TYP., CLEAT REINF. NOT SHOWN FOR CLARITY)

**LEGEND:**

- REMOVALS
- NEW CONCRETE
- EXIST. REINFORCEMENT

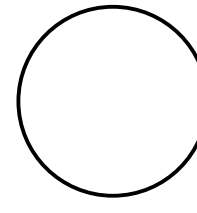



REVISIONS	DATE	T.R.	DESCRIPTION
2/04/21	T.R.		REV.0, ISSUED FOR TENDER
	BY		DESCRIPTION

DESIGN TS/CHK DB/CODE CHBDC-19/LOAD CL-625-ONT DATE FEB. 2021  
 DRAWN TR/CHK DB/SITE 15-A01 DWG 504

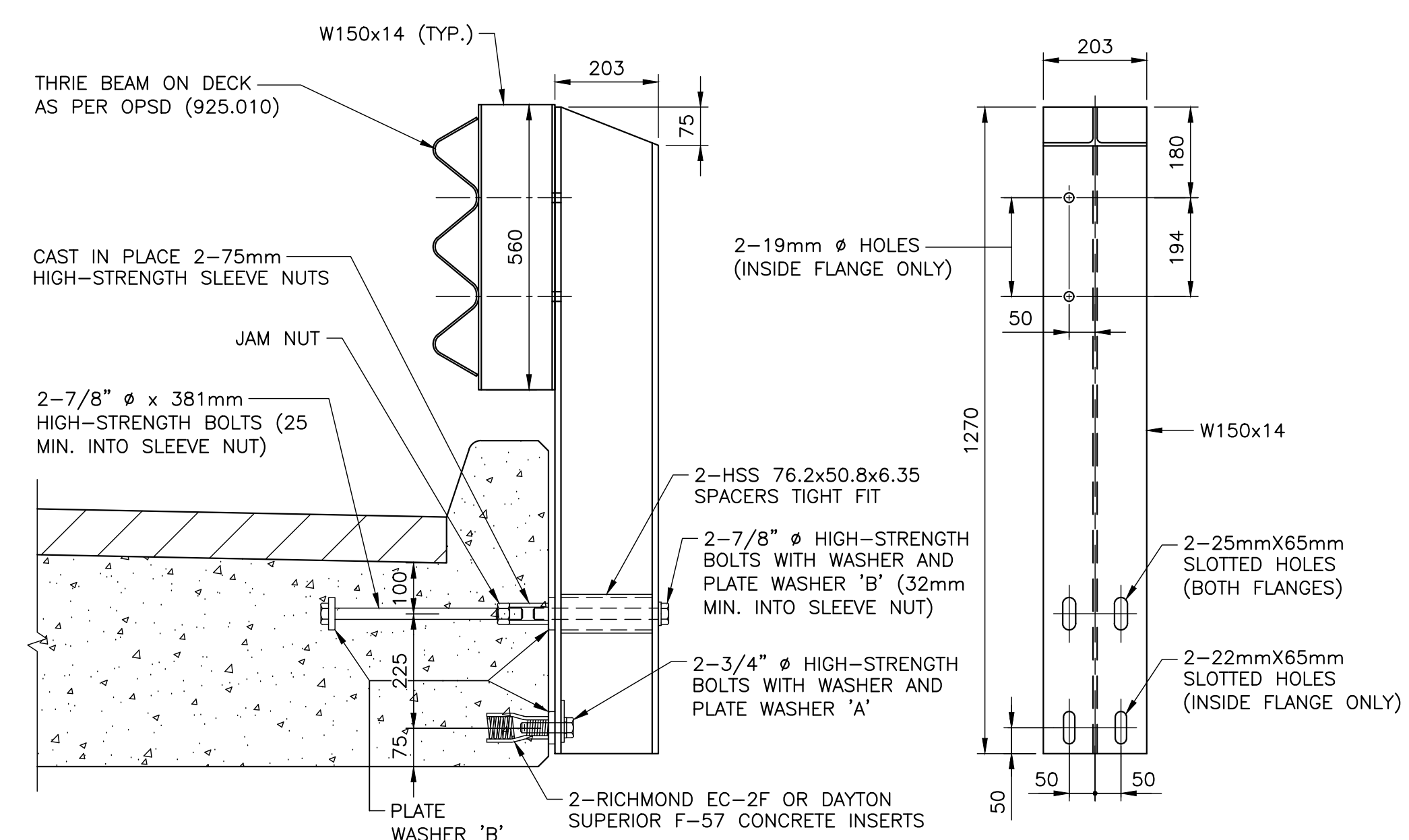
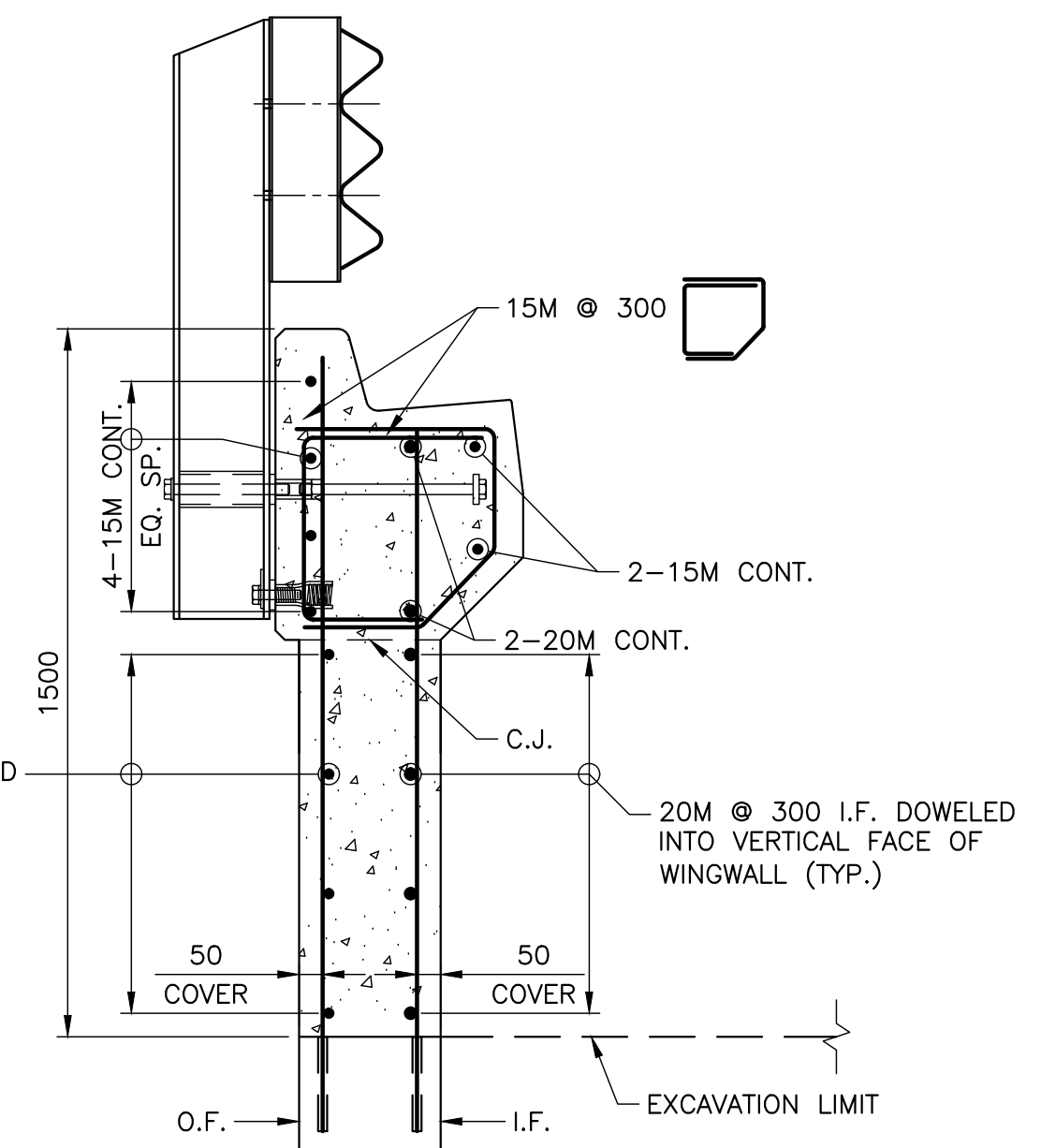
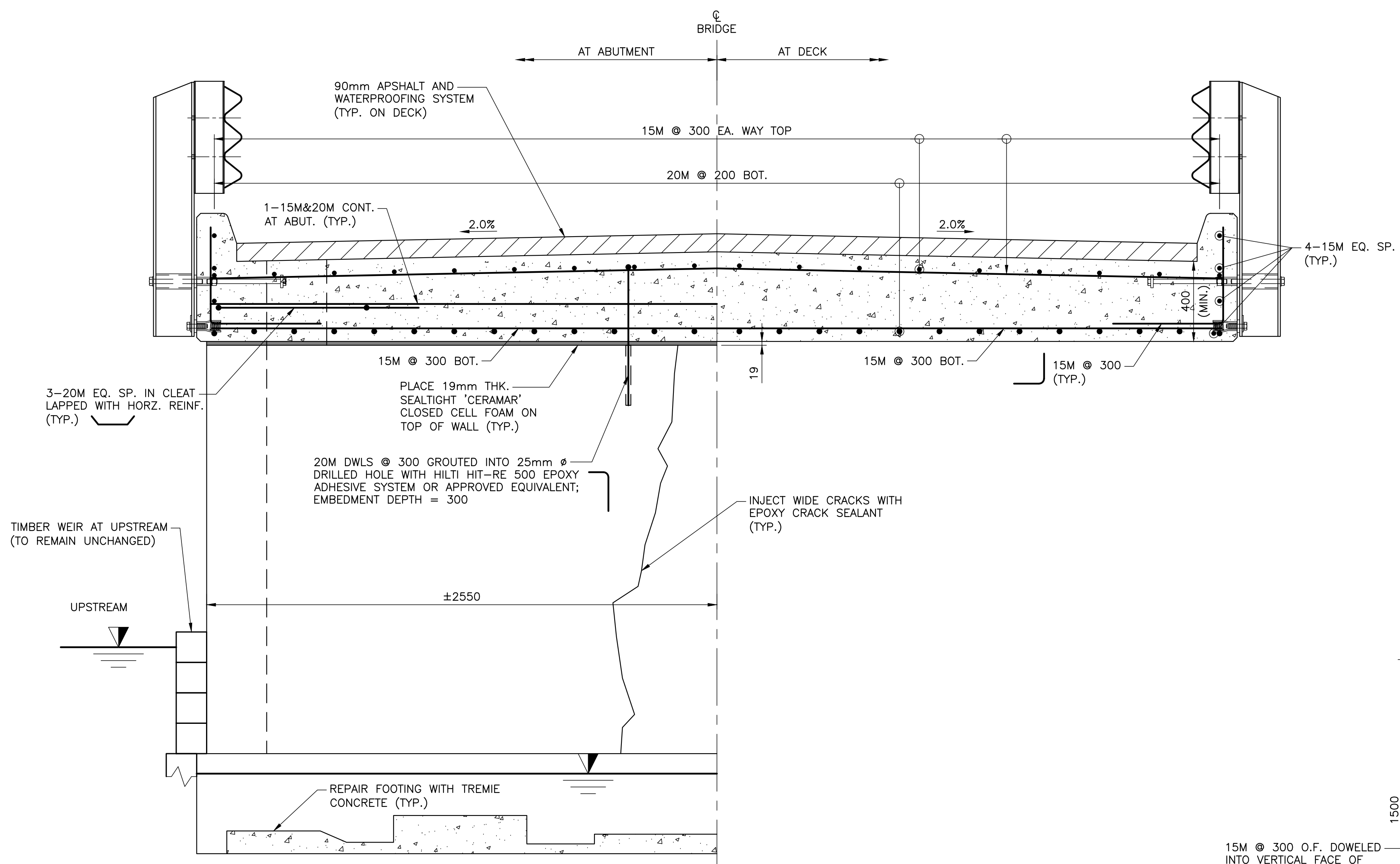
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 CREATED: 2021-01-22  
 MODIFIED: 2021-01-22 09:34  
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 2019-11

**METRIC**  
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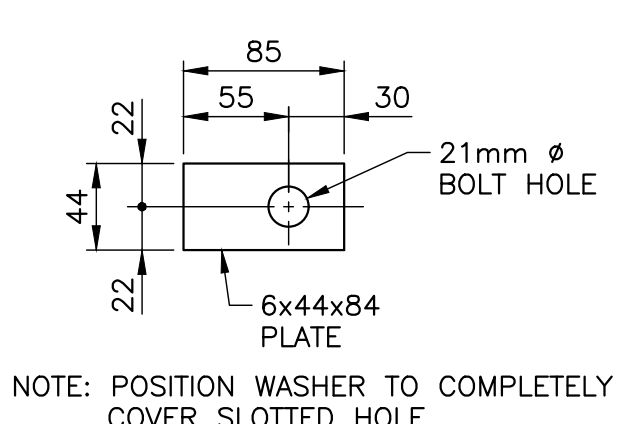
<b>TAY VALLEY TOWNSHIP</b> <b>TENDER 2021-PW-003</b>		 <b>SHEET</b> <b>05</b>
<b>REHABILITATION OF ALLAN'S</b> <b>MILL ROAD BRIDGE</b> <b>NEW CONSTRUCTION II</b>		
		<small>           D.M. Wills Associates Limited            150 Jameson Drive            Peterborough, Ontario            Canada, K9J 0B9            P. 705.742.2297            F. 705.748.9944            E. wills@dmwills.com         </small>

**NOTES:**

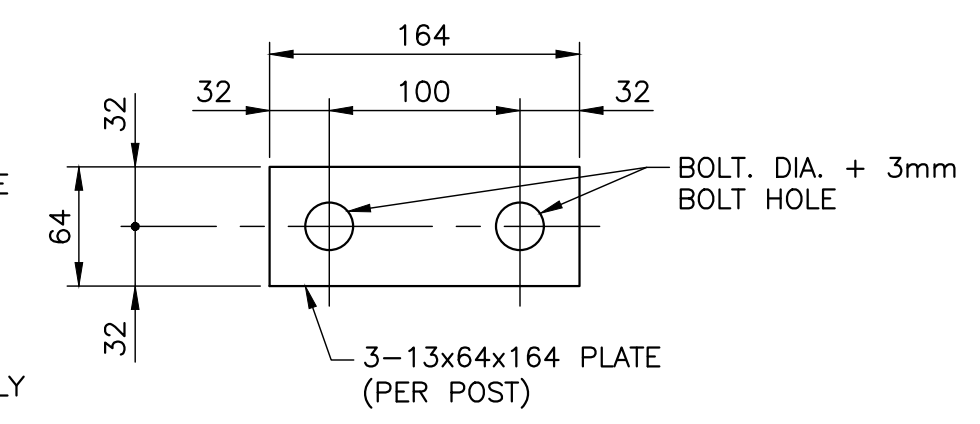
- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER APPLICABLE CONTRACT DRAWINGS.
- W200x46 SHALL BE GRADE 350W, STEEL PLATE SHALL BE GRADE 300W.
- ANCHOR BOLTS SHALL CONFORM TO ASTM SPECIFICATION A325 AND BE FITTED WITH MATCHING SLEEVE NUTS, HEAVY HEX NUTS, AND WASHERS.
- TURN UPPER HIGH-STRENGTH POST BOLTS 2/3-TURN PAST SNUG-TIGHT CONDITION.
- TIGHTEN LOWER HIGH-STRENGTH POST BOLTS 1/3-TURN PAST SNUG CONDITION.
- THREE BEAM ANCHORAGE ASSEMBLY, INCLUDING BOLTS, NUTS, SLEEVE NUT, INSERTS, AND WASHERS, AND POSTS, SHALL BE HOT-DIP GALVANIZED.



**A THREE BEAM GUIDE RAIL DETAIL**  
 (REINF. NOT SHOWN FOR CLARITY)  
 SCALE 1:10

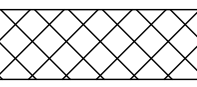
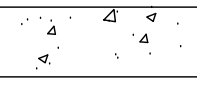



**PLATE WASHER 'A'**  
 SCALE 1:4



**PLATE WASHER 'B'**  
 SCALE 1:4

**LEGEND:**

	REMOVALS
	NEW CONCRETE
	EXIST. REINFORCEMENT



REVISIONS	DATE	BY	DESCRIPTION
2/04/21	T.R.		REV.0, ISSUED FOR TENDER

DESIGN TS/CHK DB/CODE CHBDC-19/LOAD CL-625-ONT DATE FEB. 2021  
 DRAWN TR/CHK DB/SITE 15-A01 DWG S05