

NOTES:

- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL APPLICABLE STANDARD DRAWINGS REFERENCED/LISTED ON THIS DRAWING.
- BARRIER REINFORCING AND ANCHORING IN MOMENT SLAB TO BE TAKEN AS THE DETAIL FOR BARRIER SECTION ON DECK.
- THE MOMENT SLAB IS DESIGNED TO RESIST TL-4 MASH BARRIER LOADING.
- WHEN CHECKING MSE WALL FOR INTERNAL STABILITY, INCLUDE AN ADDITIONAL FACTORED HORIZONTAL IMPACT LOAD OF 15.3 kN/m, APPLIED TO THE TOP TWO LAYERS OF REINFORCING STRIPS FOR BARRIERS SHORTER THAN 6.0m, DISTRIBUTE THE TOTAL FACTORED LOAD OF 92 kN OVER THE ACTUAL SLAB LENGTH. THE MSE WALL REINFORCING STRIPS SHALL DEVELOP THAT RESISTANCE BEYOND THE INSIDE FACE OF THE COUNTERWEIGHT.
- CONCRETE COVER TO REINFORCING BAR SHALL BE 60±20mm, EXCEPT AS NOTED.
- REINFORCING SHALL BE GLASS FIBRE REINFORCED POLYMER (GFRP) GRADE III BAR.
- BAR LAP SPLICE FOR HORIZONTAL REINFORCEMENT MUST NOT LAP THROUGH CONTROL JOINT.
- MINIMUM BAR LAP SPLICE SHALL BE 750mm, UNLESS OTHERWISE SHOWN.
- LENGTH OF HORIZONTAL BAR TO SUIT CONTRACTOR'S OPERATIONS. BAR LENGTHS DO NOT NEED TO MATCH DISTANCE BETWEEN CONTROL JOINTS.
- CONTROL JOINT TO BE FORMED.
- SAWCUTS NOT PERMITTED.
- CONTROL JOINT FORM HARDWARE SHALL NOT TO BE LEFT IN PLACE.
- MOMENT SLAB SHALL HAVE CONSTRUCTION JOINTS AT MAXIMUM SPACING OF 12.0m.

LEGEND:

EF - DENOTES EACH FACE
OF - DENOTES OUTSIDE FACE
IF - DENOTES INSIDE FACE
CJ - CONSTRUCTION JOINT
T&B - TOP AND BOTTOM
GFRP - GLASS FIBRE REINFORCED POLYMER

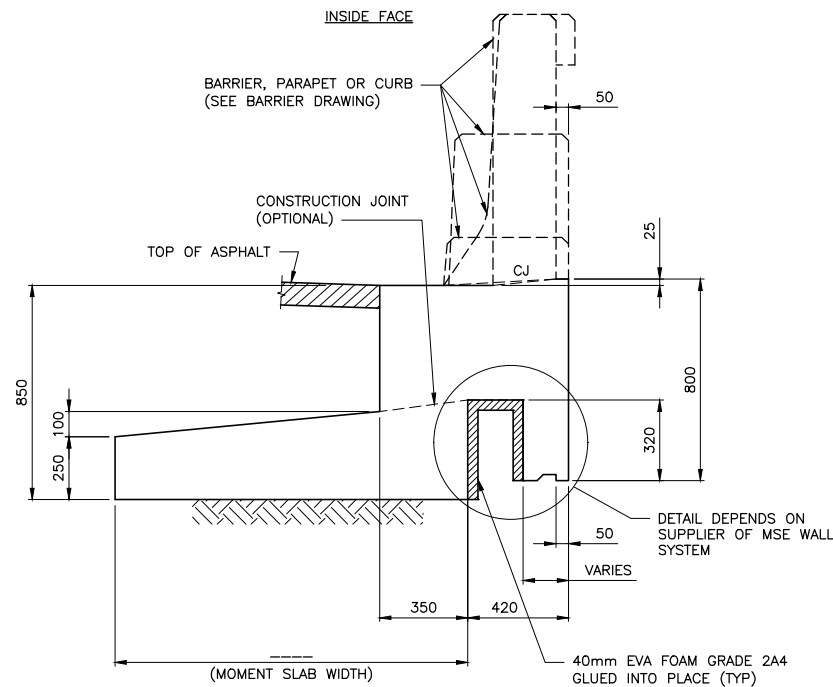
REFER TO THE STRUCTURAL MANUAL FOR PROFESSIONAL ENGINEER STAMPING REQUIREMENTS.

APPLICABLE STANDARD DRAWINGS:

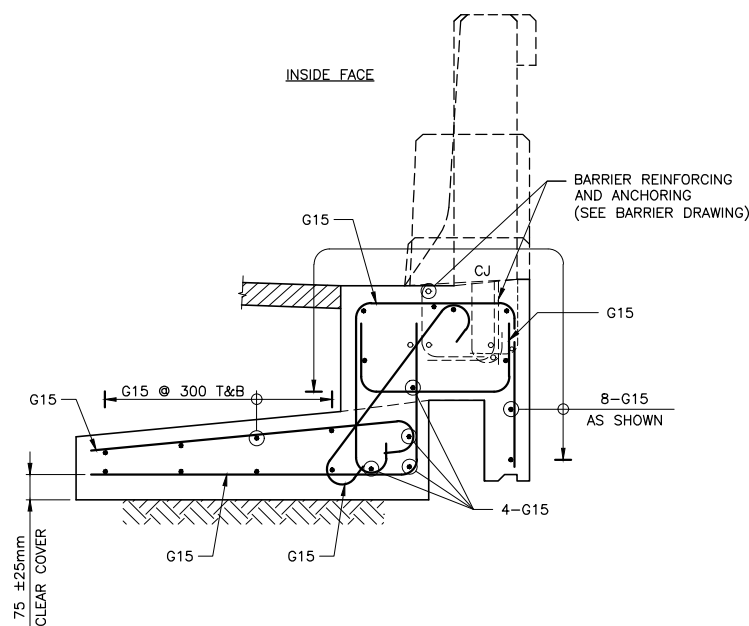
MTOD 3960.200 BARRIER AND PARAPET WALL, JOINTS AND CHASE.

STANDARD DRAWING JUNE 24, 2026	SS110-4710
MOMENT SLAB ON MSE WALL, TL-4 (GFRP)	

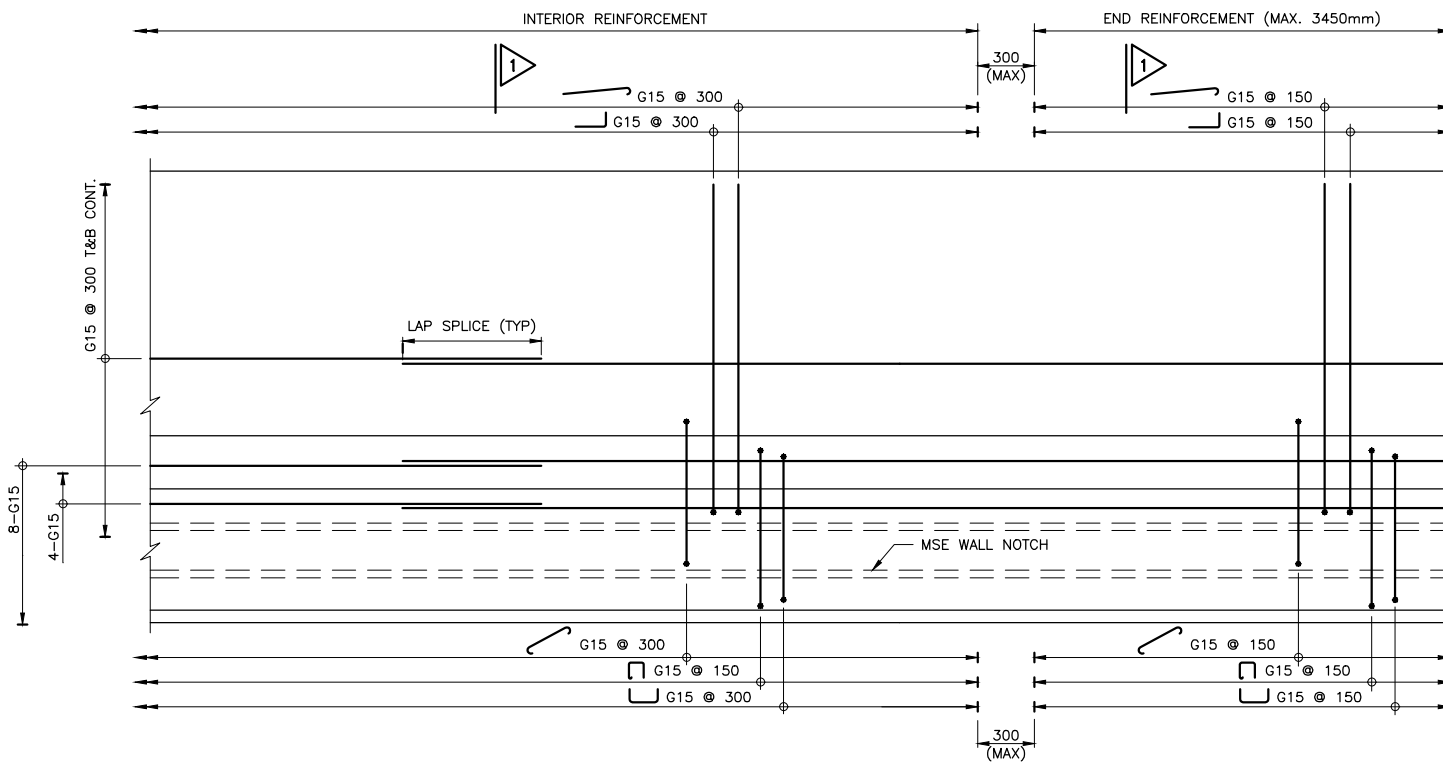
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DRAWN	CHK	SITE



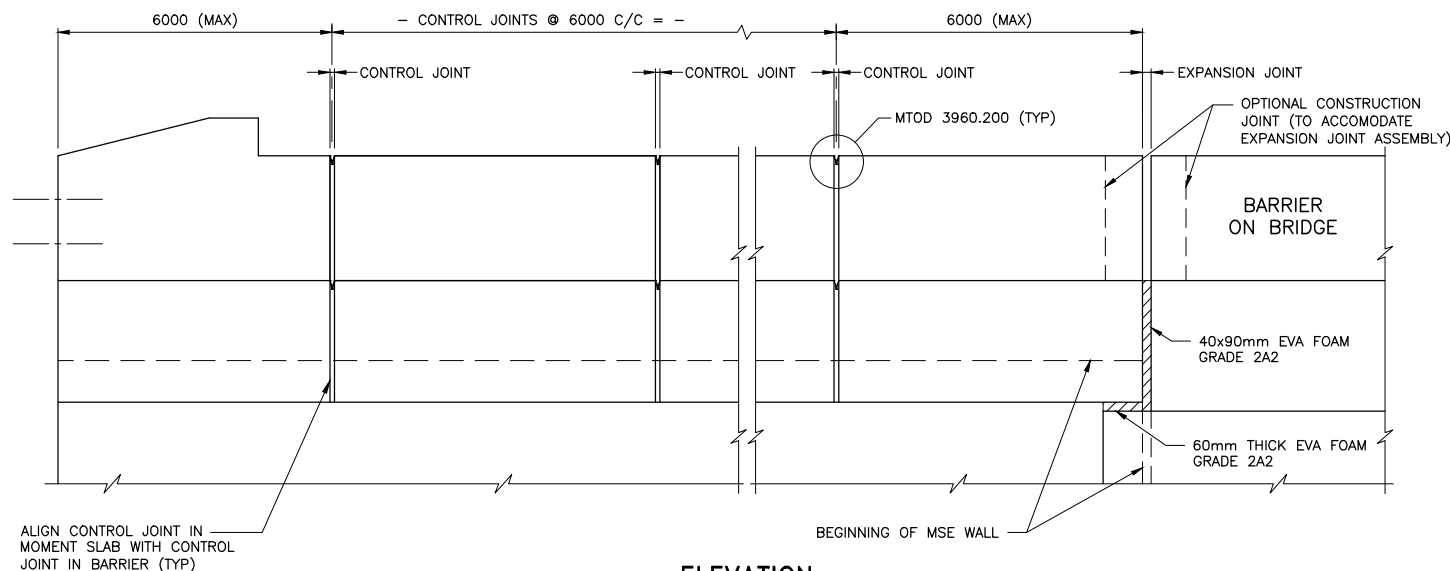
1 MOMENT SLAB ON MSE WALL
(TYPICAL DIMENSIONS)



1 MOMENT SLAB ON MSE WALL
(TYPICAL REINFORCING)



PLAN
TYPICAL REINFORCING ARRANGEMENT
(BARRIER NOT SHOWN)



ELEVATION

NOTES TO DESIGNER:

- FOR MOMENT SLAB LENGTHS LESS THAN 8.5m, DELETE INTERIOR REINFORCEMENT IN PLAN VIEW AND APPLY END REINFORCING STEEL ACROSS FULL LENGTH.
- MOMENT SLAB WIDTH TO BE DRAWN TO SCALE IN PLAN AND SECTION 1 ACCORDING TO THE MOMENT SLAB WIDTH SPECIFIED IN TABLE 1. UPDATE THE ELEVATION WITH THE ADJACENT SUBSTRUCTURE WHERE IT JOINS THE MSE WALL.
- WHEN ABUTTING THIS MSE WALL TO A STRUCTURE, THE DESIGNER SHALL SHOW DETAIL A. STUB WALL, AS IS COMMONLY REQUIRED, AT THE BEGINNING OF THE MSE WALL.

TABLE 1 - DESIGN REQUIREMENTS

	TEST LEVEL/BAR	MOMENT SLAB LENGTH (m)				
		3-4*	4-5	6-7	8-11	>12
MOMENT SLAB WIDTH REQUIRED	TL-4	3400	2400	1900	1700	1400
*MINIMUM MOMENT SLAB LENGTH IS 3m FOR TL-4.						

- THIS DRAWING IS NOT SUITABLE FOR ANTICIPATED SETTLEMENT OF UNDERLYING SOIL LARGER THAN 25mm. FOR SUCH CASES, FOLLOW MTOD 3960.200 DESIGN GUIDELINES.
- SECTION 1 TO BE UPDATED WITH THE SPECIFIC BARRIER APPLICABLE TO THE PROJECT, AND THE SSD NUMBER SHALL BE ADDED TO THE LIST OF STANDARD DRAWINGS.
- THE 'NOTES TO DESIGNERS' SHALL BE DELETED FROM THIS DRAWING PRIOR TO ISSUING.

NOTES:

- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL APPLICABLE STANDARD DRAWINGS REFERENCED/LISTED ON THIS DRAWING.
- BARRIER REINFORCING AND ANCHORING STEEL IN MOMENT SLAB TO BE TAKEN AS THE DETAIL FOR BARRIER SECTION ON DECK.
- THE MOMENT SLAB IS DESIGNED TO MEET TL-4 MASH BARRIER LOADING.
- WHEN CHECKING MSE WALL FOR INTERNAL STABILITY, INCLUDE AN ADDITIONAL FACTORED HORIZONTAL IMPACT LOAD OF 15.3 kN/m, APPLIED TO EACH REINFORCEMENT STRIP FOR BARRIERS SHORTER THAN 6.0m, DISTRIBUTE THE TOTAL FACTORED LOAD OF 92 kN OVER THE ACTUAL SLAB LENGTH. THE MSE WALL REINFORCING STRIPS SHALL DEVELOP THAT RESISTANCE BY THE INSIDE FACE OF THE COUNTERWEIGHT.
- CONCRETE COVER TO REINFORCING STEEL 70±20mm, EXCEPT AS NOTED.
- REINFORCING STEEL SHALL BE GRADE 500W UNLESS OTHERWISE SPECIFIED. STAINLESS STEEL BARS SHALL BE TYPE 316LN OR DUPLEX 2205 OR DUPLEX 2304 WITH A MINIMUM YIELD STRENGTH OF 520 MPa.
- BAR MARS WITH PREFIX 'S' DENOTE STAINLESS STEEL BARS.
- BAR LAP SPLICE FOR HORIZONTAL REINFORCEMENT MUST NOT LAP THROUGH CONTROL JOINT.
- MINIMUM BAR LAP SPLICE TO BE 700mm, UNLESS OTHERWISE SHOWN.
- LENGTH OF HORIZONTAL BAR TO SUIT CONTRACTOR'S OPERATIONS. BAR LENGTHS NEED NOT MATCH DISTANCE BETWEEN CONTROL JOINTS.
- CONTROL JOINT TO BE FORMED.
- SAWCUTS NOT PERMITTED.
- CONTROL JOINT FORM HARDWARE NOT TO BE LEFT IN PLACE.
- MOMENT SLAB SHALL HAVE CONSTRUCTION JOINTS AT MAXIMUM SPACING OF 12.0m.

LEGEND:

EF — DENOTES EACH FACE
OF — DENOTES OUTSIDE FACE
IF — DENOTES INSIDE FACE
CJ — CONSTRUCTION JOINT
T&B — TOP AND BOTTOM

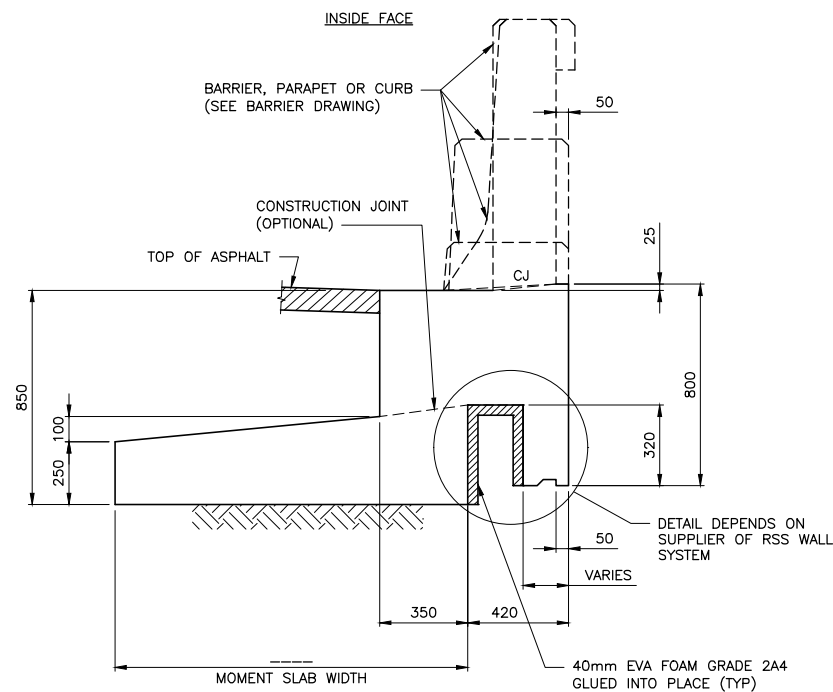
REFER TO THE STRUCTURAL MANUAL FOR PROFESSIONAL ENGINEER STAMPING REQUIREMENTS.

STANDARD DRAWING JUNE 24, 2026	SS110-4720
MOMENT SLAB ON MSE WALL, TL-4 (STAINLESS STEEL)	

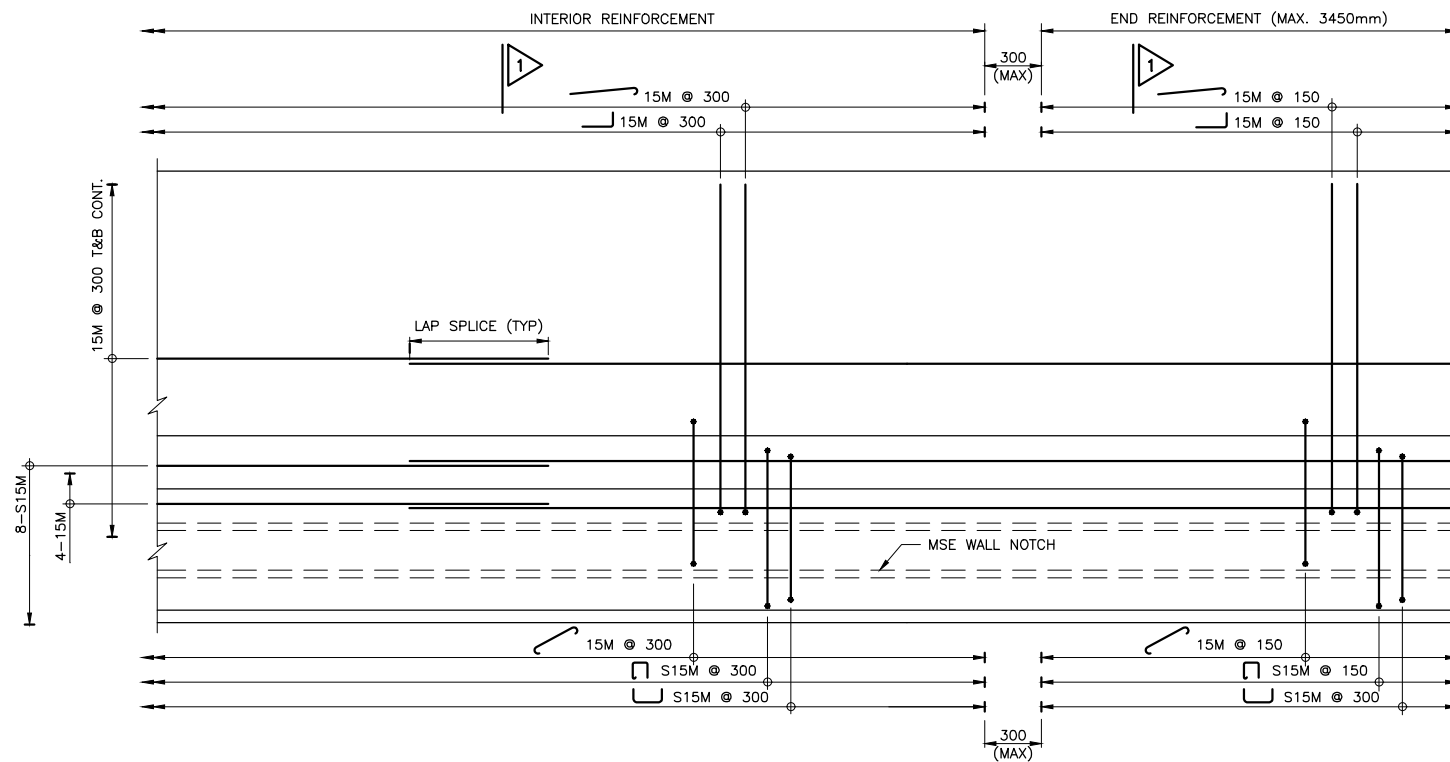
APPLICABLE STANDARD DRAWINGS:

MTOD 3960.200 BARRIER AND PARAPET WALL, JOINTS AND CHASE.

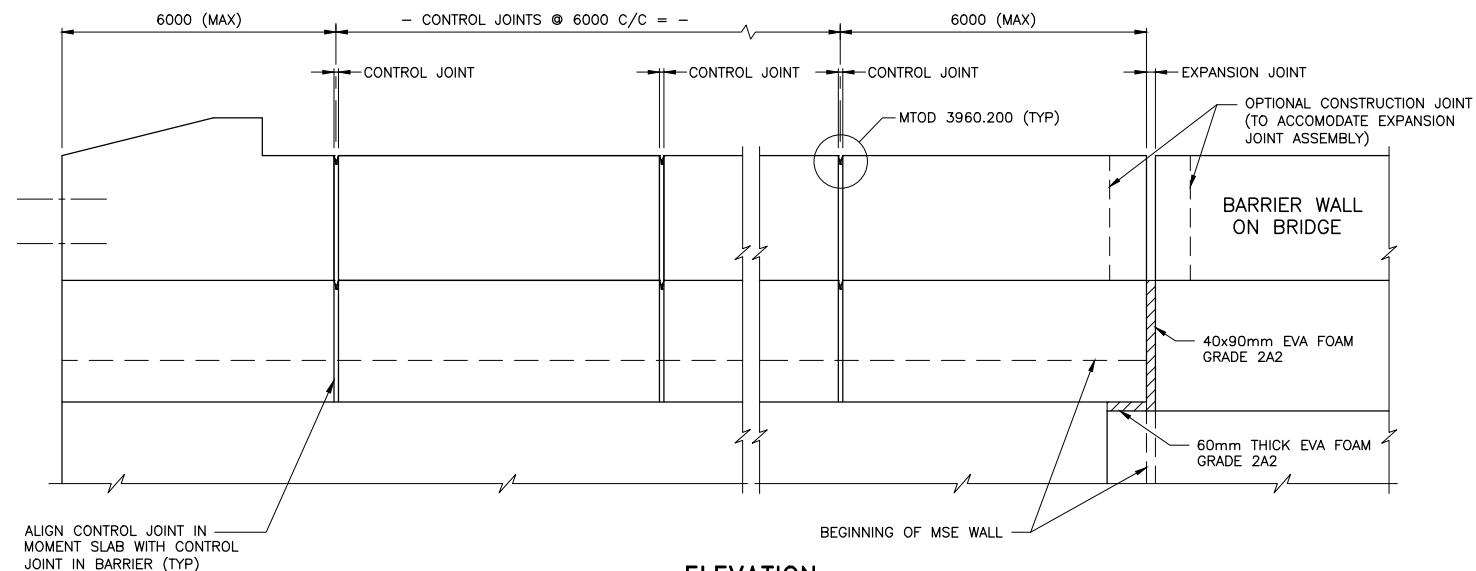
DATE	BY	DESCRIPTION
DESIGN	—CHK	—CODE CSA S6:25/LOAD
DRAWN	—CHK	—SITE —DWG



1 MOMENT SLAB ON MSE WALL
(TYPICAL DIMENSIONS)



PLAN
TYPICAL REINFORCING ARRANGEMENT
(BARRIER WALL NOT SHOWN)



ELEVATION

NOTES TO DESIGNER:

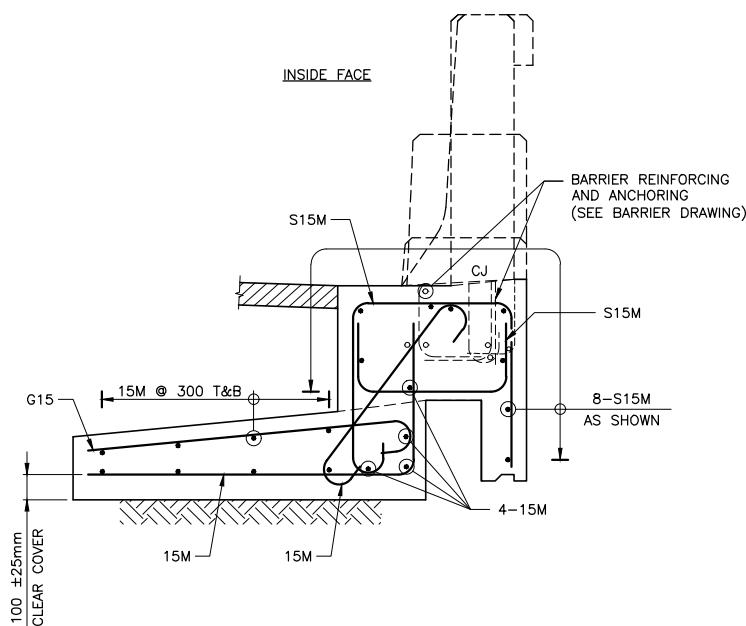
- FOR MOMENT SLAB LENGTHS LESS THAN 8.5m, DELETE INTERIOR REINFORCEMENT IN PLAN VIEW AND APPLY END REINFORCING STEEL ACROSS FULL LENGTH.
- MOMENT SLAB WIDTH TO BE DRAWN TO SCALE IN PLAN AND SECTION 1 ACCORDING TO THE MOMENT SLAB WIDTH SPECIFIED IN TABLE 1. UPDATE THE ELEVATION WITH THE ADJACENT SUBSTRUCTURE WHERE IT JOINS THE MSE WALL.
- WHEN ABUTTING THIS MSE WALL TO A STRUCTURE, THE DESIGNER SHALL SHOW DETAIL A. STUB WALL, AS IS COMMONLY REQUIRED, AT THE BEGINNING OF THE MSE WALL.

TABLE 1 — DESIGN REQUIREMENTS

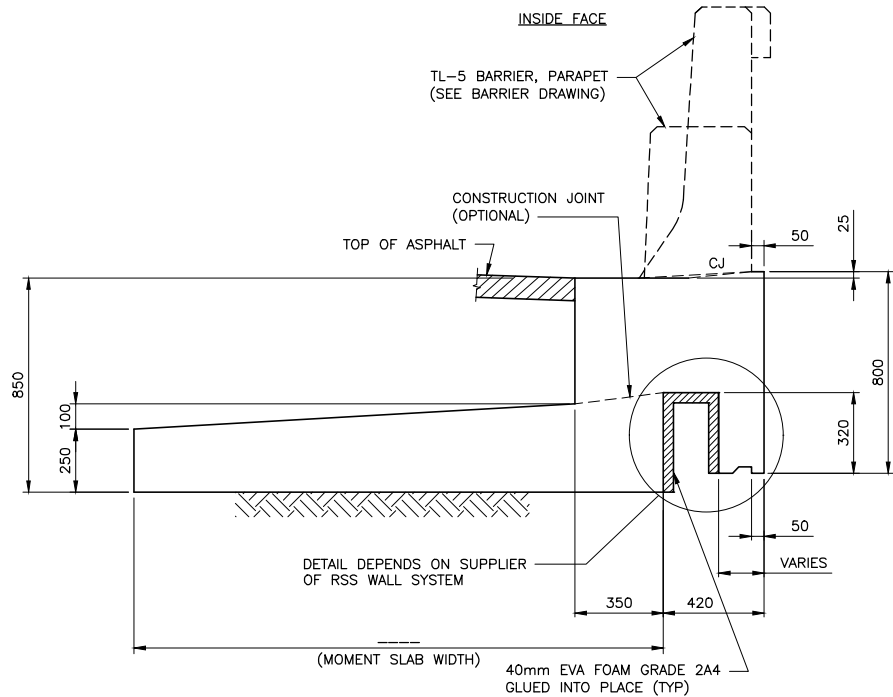
	TEST LEVEL/BAR	MOMENT SLAB LENGTH (m)				
		3-4*	4-5	6-7	8-11	>12
MOMENT SLAB WIDTH REQUIRED	TL-4	3400	2400	1900	1700	1400

*MINIMUM MOMENT SLAB LENGTH IS 3m FOR TL-4.

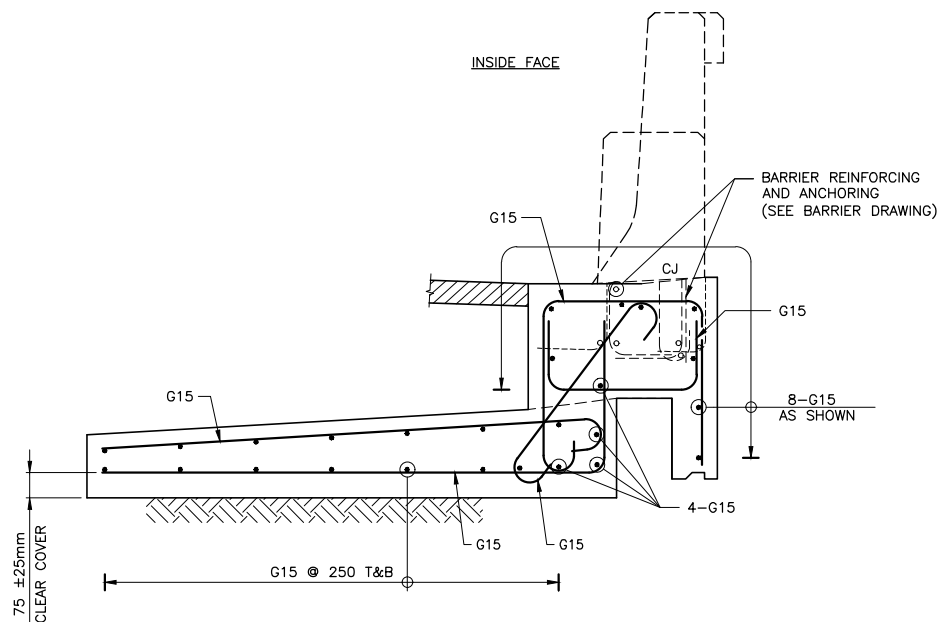
- THIS DRAWING IS NOT SUITABLE FOR ANTICIPATED SETTLEMENT OF UNDERLYING SOIL LARGER THAN 25mm. FOR SUCH CASES, FOLLOW MTO RSS DESIGN GUIDELINES.
- SECTION 1 TO BE UPDATED WITH THE SPECIFIC BARRIER APPLICABLE TO THE PROJECT, AND THE SSD NUMBER SHALL BE ADDED TO THE LIST OF STANDARD DRAWINGS.
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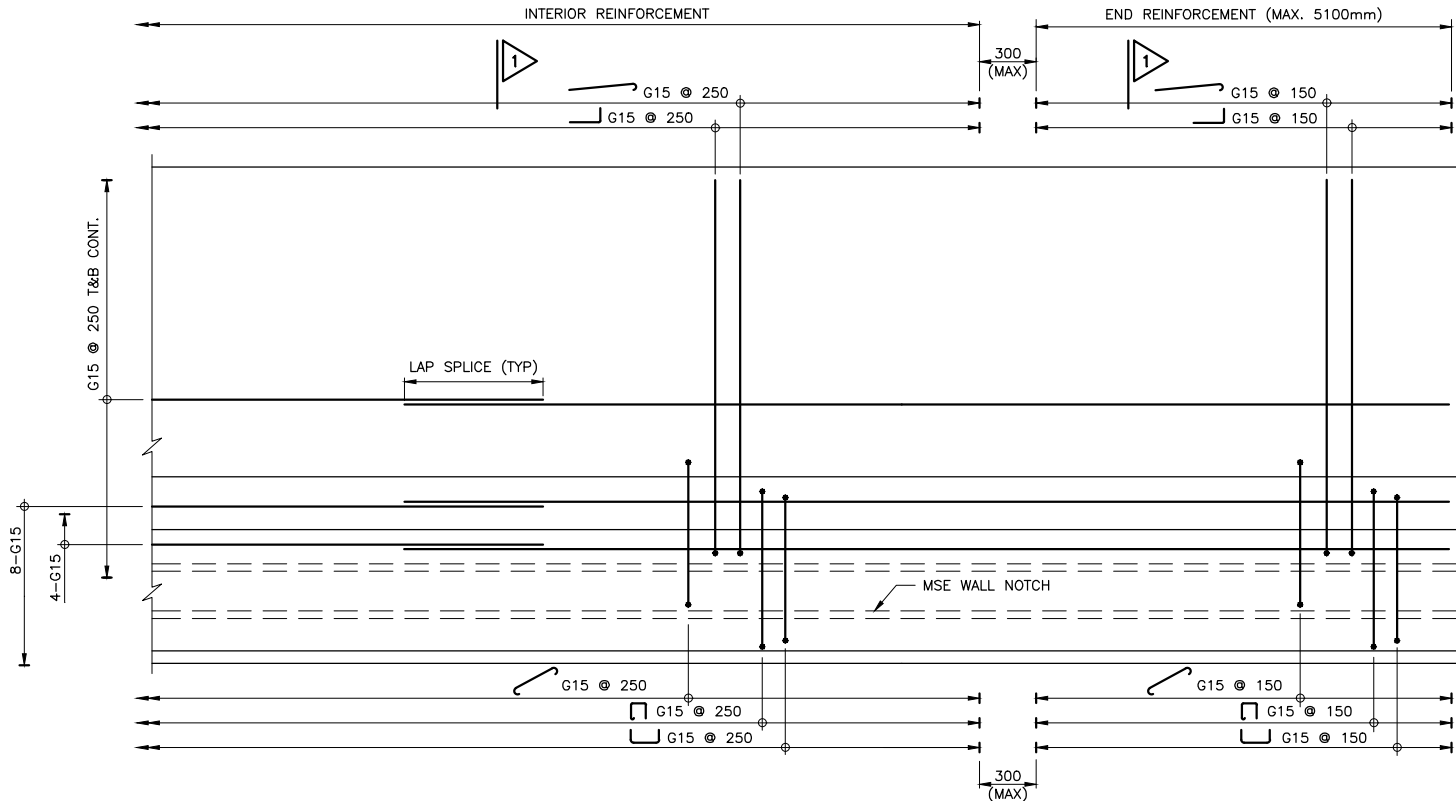
1 MOMENT SLAB ON MSE WALL
(TYPICAL REINFORCING)



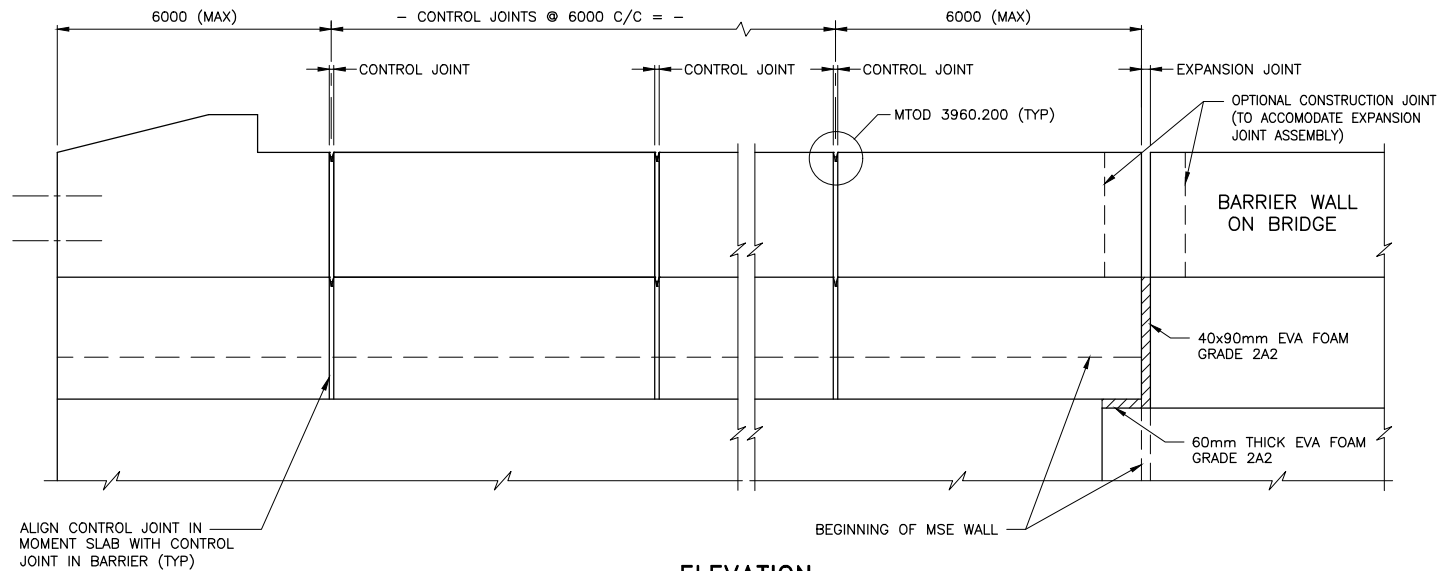
1 TL-5 MOMENT SLAB ON MSE WALL
(TYPICAL DIMENSIONS)



1 TL-5 MOMENT SLAB ON MSE WALL
(TYPICAL REINFORCING)



PLAN
TYPICAL REINFORCING ARRANGEMENT
(BARRIER WALL NOT SHOWN)



ELEVATION

NOTES TO DESIGNER:

- FOR MOMENT SLAB LENGTHS LESS THAN 9.5m, DELETE INTERIOR REINFORCEMENT IN PLAN VIEW AND APPLY END REINFORCING ACROSS FULL LENGTH.
- MOMENT SLAB WIDTH TO BE DRAWN TO SCALE IN SECTION 1 AND PLAN WITH THE MOMENT SLAB WIDTH SPECIFIED IN TABLE 1.
- THE DESIGNER SHALL SHOW DETAIL OF STUB WALL, AS IS COMMONLY REQUIRED, AT THE BEGINNING OF THE MSE WALL.

TABLE 1 - DESIGN REQUIREMENTS

	TEST LEVEL/BAR	MOMENT SLAB LENGTH (m)		
		8-11*	12-13	>14
MOMENT SLAB WIDTH REQUIRED	TL-5	3600	2500	2200

*MINIMUM MOMENT SLAB LENGTH IS 8m FOR TL-5.

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- THE NOTES TO DESIGNER'S SHALL BE DELETED FROM THIS DRAWING PRIOR TO ISSUING.

CONT WP **DRAFT**

PROJECT NAME,
MOMENT SLAB ON MSE WALL, TL-5 (GFRP)

SHEET
-

METRIC
MILLIMETRES OR
METRES
(UNLESS NOTED)

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- THE MOMENT SLAB IS DESIGNED TO RESIST TL-5 MASH BARRIER LOADING.
- WHEN CHECKING MSE WALL FOR INTERNAL STABILITY, INCLUDE AN ADDITIONAL FACTORED HORIZONTAL IMPACT LOAD OF 15.3 kN/m, APPLIED TO THE TOP TWO LAYERS OF REINFORCING STRIPS FOR BARRIERS SHORTER THAN 6.0m, DISTRIBUTE THE TOTAL FACTORED LOAD OF 92 kN OVER THE ACTUAL SLAB LENGTH. THE MSE WALL REINFORCING STRIPS SHALL DEVELOP THAT RESISTANCE BEYOND THE INSIDE FACE OF THE COUNTERWEIGHT.
- CONCRETE COVER TO REINFORCING BAR SHALL BE 60±20mm, EXCEPT AS NOTED.
- REINFORCING SHALL BE GLASS FIBRE REINFORCED POLYMER (GFRP) GRADE III.
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- FOOTING SHALL HAVE CONSTRUCTION JOINTS AT MAXIMUM SPACING OF 12.0m

LEGEND:

EF - DENOTES EACH FACE
OF - DENOTES OUTSIDE FACE
IF - DENOTES INSIDE FACE
CJ - CONSTRUCTION JOINT
T&B - TOP AND BOTTOM

REFER TO THE STRUCTURAL MANUAL FOR PROFESSIONAL ENGINEER STAMPING REQUIREMENTS.

APPLICABLE STANDARD DRAWINGS:

MTOD 3960.200 BARRIER AND PARAPET WALL, JOINTS AND CHASE.

STANDARD DRAWING JUNE 24, 2026	SS110-5710
MOMENT SLAB ON MSE WALL, TL-5 (GFRP)	

DATE	BY	DESCRIPTION
DESIGN	-CHK	-CODE CSA S6:25/LOAD
DRAWN	-CHK	-SITE

SHEET
—

METRIC
MILLIMETRES OR
METRES
(UNLESS NOTED)

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5. CONCRETE COVER TO REINFORCING BAR SHALL BE 70 ± 20 mm, EXCEPT AS NOTED.
6. REINFORCING STEEL SHALL BE GRADE 500W UNLESS OTHERWISE SPECIFIED. STAINLESS STEEL BARS SHALL BE TYPE 316LN OR DUPLEX 2205 OR DUPLEX 2304 WITH A MINIMUM YIELD STRENGTH OF 520 MPa.
7. BAR MARKS WITH PREFIX 'S' DENOTE STAINLESS STEEL BARS.
8. BAR LAP SPLICE FOR HORIZONTAL REINFORCEMENT MUST NOT LAP THROUGH CONTROL JOINT.
9. MINIMUM BAR LAP SPLICE TO BE 700mm, UNLESS OTHERWISE SHOWN.
10. LENGTH OF HORIZONTAL BAR TO SUIT CONTRACTOR'S OPERATIONS. BAR LENGTHS NEED NOT MATCH DISTANCE BETWEEN CONTROL JOINTS.
11. CONTROL JOINT TO BE FORMED.
12. SAWCUTS NOT PERMITTED.
13. CONTROL JOINT FORM HARDWARE NOT TO BE LEFT IN PLACE.
14. FOOTING SHALL HAVE CONSTRUCTION JOINTS AT MAXIMUM SPACING OF 12.0m.

EF - DENOTES EACH FACE
OF - DENOTES OUTSIDE FACE
IF - DENOTES INSIDE FACE
CJ - CONSTRUCTION JOINT
T&B - TOP AND BOTTOM

APPLICABLE STANDARD DRAWINGS:

STANDARD DRAWING JUNE 24, 206	SS110-5720
MOMENT SLAB ON MSE WALL, TL-5 (STAINLESS STEEL)	

REVISIONS							
	DATE	BY	DESCRIPTION				
DESIGN	— CHK	—	CODE	CSA S6:25	LOAD	— DATE	—
DRAWN	— CHK	—	SITE			DWG	



1. FOR MOMENT SLAB LENGTHS LESS THAN 9.5m, DELETE INTERIOR REINFORCEMENT IN PLAN VIEW AND APPLY END REINFORCING STEEL ACROSS FULL LENGTH.
2. MOMENT SLAB WIDTH TO BE DRAWN TO SCALE IN SECTION 1 AND PLAN WITH THE MOMENT SLAB SPECIFIED IN TABLE 1.
3. THE DESIGNER SHALL SHOW DETAIL OF STUB WALL, AS IS COMMONLY REQUIRED, AT THE BEGINNING OF THE MSE WALL.

TABLE 1 – DESIGN REQUIREMENTS

	TEST LEVEL/BAR	MOMENT SLAB LENGTH (m)		
		8-11*	12-13	>14
MOMENT SLAB WIDTH REQUIRED	TL-5	3600	2500	2200
*MINIMUM MOMENT SLAB LENGTH IS 8m FOR TL-5.				

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