

SURCHARGE TEMPORARY MSE WALL DETAIL
*SEE GEOSYNTHETIC PLACEMENT DETAILS.

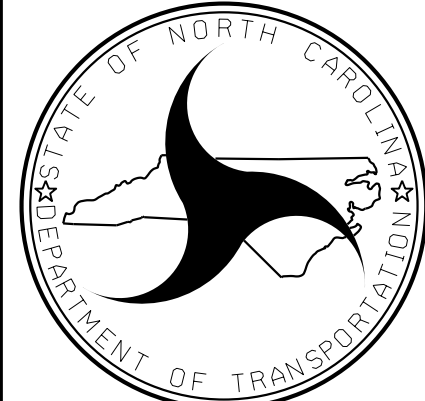
NOTES:

- FOR SURCHARGE TEMPORARY MECHANICALLY STABILIZED EARTH (MSE) WALLS, SEE TEMPORARY SHORING PROVISION. SURCHARGE TEMPORARY MSE WALLS TO BE PAID AS TEMPORARY SHORING.
- BEFORE BEGINNING SURCHARGE TEMPORARY MSE WALL DESIGNS SURVEY WALL LOCATIONS AND SUBMIT A REVISED WALL PROFILE VIEW (WALL ENVELOPE) FOR REVIEW. DO NOT START SURCHARGE TEMPORARY MSE WALL DESIGNS OR CONSTRUCTION UNTIL THE WALL ENVELOPE IS ACCEPTED.
- DESIGN SURCHARGE TEMPORARY MSE WALLS FOR THE FOLLOWING:
 - DESIGN HEIGHT = PROPOSED GRADE TO BOTTOM OF CULVERT FOOTING
 - BOTTOM OF SURCHARGE TEMPORARY MSE WALLS = BOTTOM OF CULVERT FOOTING
 - SURCHARGE TEMPORARY MSE WALLS ARE BASED ON THE FOLLOWING IN-SITU ASSUMED SOIL PARAMETERS:

COHESION, c	= 0 PSF
FRICTION ANGLE, ϕ	= 30 DEGREES
UNIT WEIGHT, γ	= 120 PCF
GROUNDWATER ELEV.	= N/A
- DO NOT USE A-2-4 SOIL FOR SURCHARGE TEMPORARY MSE WALLS AROUND CULVERTS OR IN THE REINFORCED ZONE OF TEMPORARY WALLS FOR SLOPE CASES. DO NOT USE CLASS VI SELECT MATERIAL IN THE REINFORCED ZONE OF SURCHARGE TEMPORARY MSE WALLS WITH GEOTEXTILE REINFORCEMENT.
- WHEN BACKFILL FOR SURCHARGE TEMPORARY MSE WALLS FILLS OVERLAPS WITH THE REINFORCED ZONE OF PERMANENT MSE WALLS, USE THE PERMANENT MSE WALLS BACKFILL MATERIAL REQUIRED FOR RETAINING WALLS IN THE REINFORCED ZONE OF SURCHARGE TEMPORARY MSE WALLS.
- DESIGN SURCHARGE TEMPORARY MSE WALLS FOR A LIVE LOAD (TRAFFIC) SURCHARGE.
- DO NOT USE MORE THAN 4 DIFFERENT REINFORCEMENT STRENGTHS FOR EACH SURCHARGE TEMPORARY MSE WALLS.
- GEOGRIDS FOR GEOGRID REINFORCEMENT ARE APPROVED FOR SHORT TERM DESIGN STRENGTHS (3-YEAR DESIGN LIFE) IN THE MD AND CD BASED ON MATERIAL TYPE. THE LIST OF APPROVED GEOGRIDS WITH DESIGN STRENGTHS IS AVAILABLE FROM: connect.ncdot.gov/resources/Geological/Pages/Products.aspx DEFINE MATERIAL TYPE FROM THE WEBSITE ABOVE FOR SHORING BACKFILL AS FOLLOWS:

MATERIAL TYPE	SHORING BACKFILL
BORROW	A-2-4 SOIL
FINE AGGREGATE	CLASS II, TYPE I OR CLASS III SELECT MATERIAL
COARSE AGGREGATE	CLASS V OR VI SELECT MATERIAL
- FOR GEOGRID REINFORCEMENT WITH LESS THAN 100% COVERAGE, STAGGER REINFORCEMENT SO GEOGRIDS ARE CENTERED OVER GAPS IN THE REINFORCEMENT LAYER BELOW.
- AT THE CONTRACTOR'S OPTION, REINFORCEMENT MAY BE INSTALLED WITH THE MD PARALLEL TO THE WALL FACE IF BOTH OF THE FOLLOWING CONDITIONS OCCUR:
 - W (REINFORCEMENT ROLL WIDTH) > (MINIMUM REQUIRED REINFORCEMENT LENGTH) + 4.5' AND
 - REINFORCEMENT STRENGTH IN CD > MINIMUM REQUIRED REINFORCEMENT STRENGTH IN MD.
- DO NOT PLACE SHORING BACKFILL OR REINFORCEMENT UNTIL EXCAVATION DIMENSIONS AND FOUNDATION MATERIAL ARE APPROVED.
- DO NOT SPLICE OR OVERLAP REINFORCEMENT SO SEAMS ARE PARALLEL TO THE WALL FACE.
- CONTACT THE ENGINEER WHEN EXISTING OR FUTURE OBSTRUCTIONS SUCH AS FOUNDATIONS, PAVEMENTS, PIPES, INLETS OR UTILITIES WILL INTERFERE WITH REINFORCEMENT.
- FOR SURCHARGE TEMPORARY MSE WALLS WITH INTERIOR ANGLES LESS THAN 90 DEGREES, WRAP GEOSYNTHETICS AT ACUTE CORNERS AS DIRECTED BY THE ENGINEER.
- FOR SURCHARGE TEMPORARY MSE WALLS WITH TOP OF WALL WITHIN 5' OF FINISHED GRADE, REMOVE TOP FACING AND INCORPORATE TOP REINFORCEMENT LAYER INTO FILL WHEN PLACING FILL IN FRONT OF WALL.

Revisions:
1) Revision 2 - Renamed walls to 'SURCHARGE TEMPORARY MSE WALLS'.



NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

GEOTECHNICAL
ENGINEERING UNIT

SURCHARGE
NOTES AND DETAILS
SURCHARGE TEMP. MSE WALL
NOS. 1, 2, 3, 4, 5, AND 6

REVISIONS				
NO.	BY	DATE	ING.	DATE
1	MHS	2/24	3	
2	MHS	2/24	4	

PREPARED BY: MHS	DATE: 12/23
REVIEWED BY: SCC	DATE: 12/23