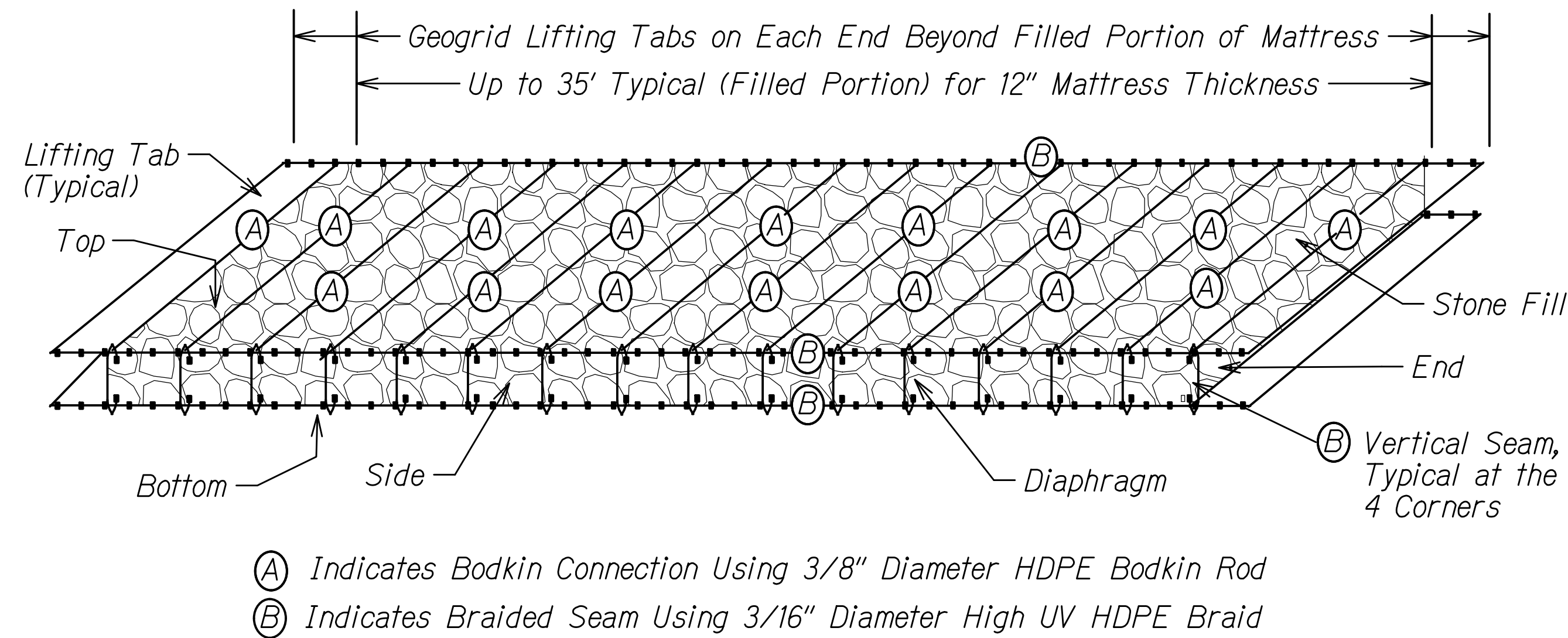
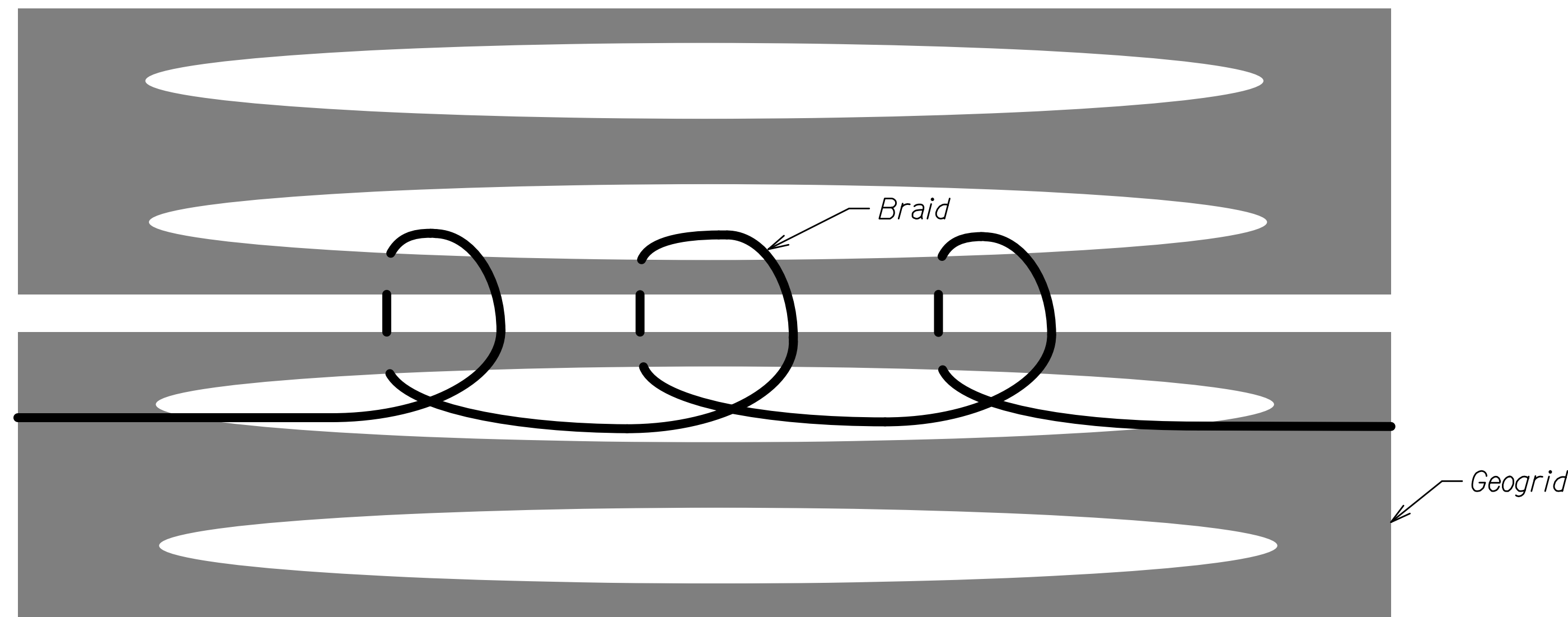


FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(004)	2024	29	49



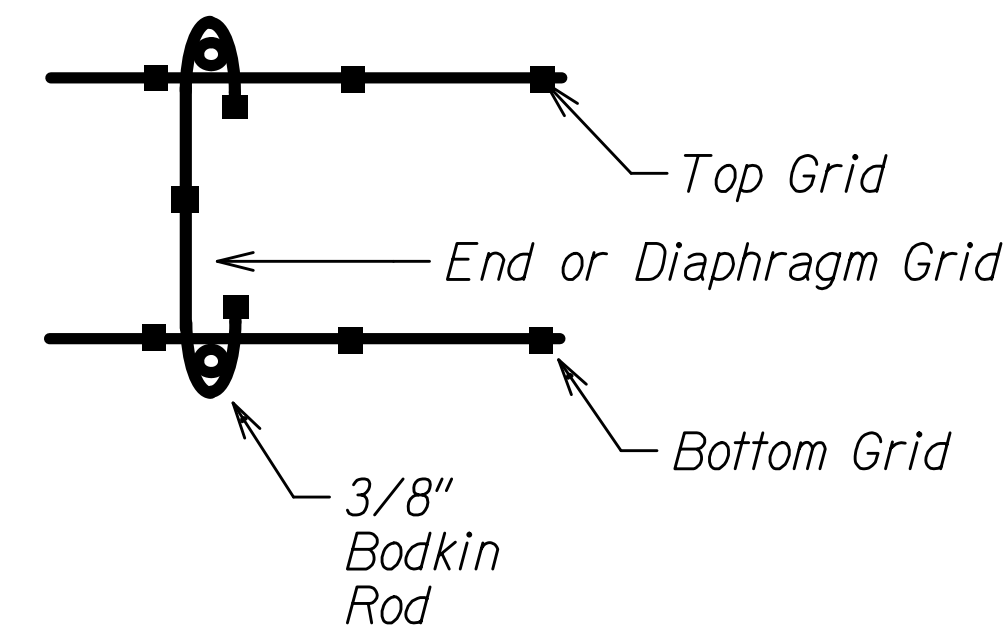
TYPICAL CONFIGURATION OF FILLED MATTRESS UNITS

- Notes:
- Ends, top, bottom, sides, and any extra length used for lifting or anchoring purposes shall be composed of Tensar UXTriton200 Geogrid.
 - Internal diaphragms shall be composed of Tensar UXTriton100 Geogrid.
 - Nominal width of units: 5' (filled), 4.4' (unfilled).
 - Nominal thickness (filled): 12".
 - Plastic cable ties may be used to secure bodkin connectors in position prior to tensioning or filling of mattress units.



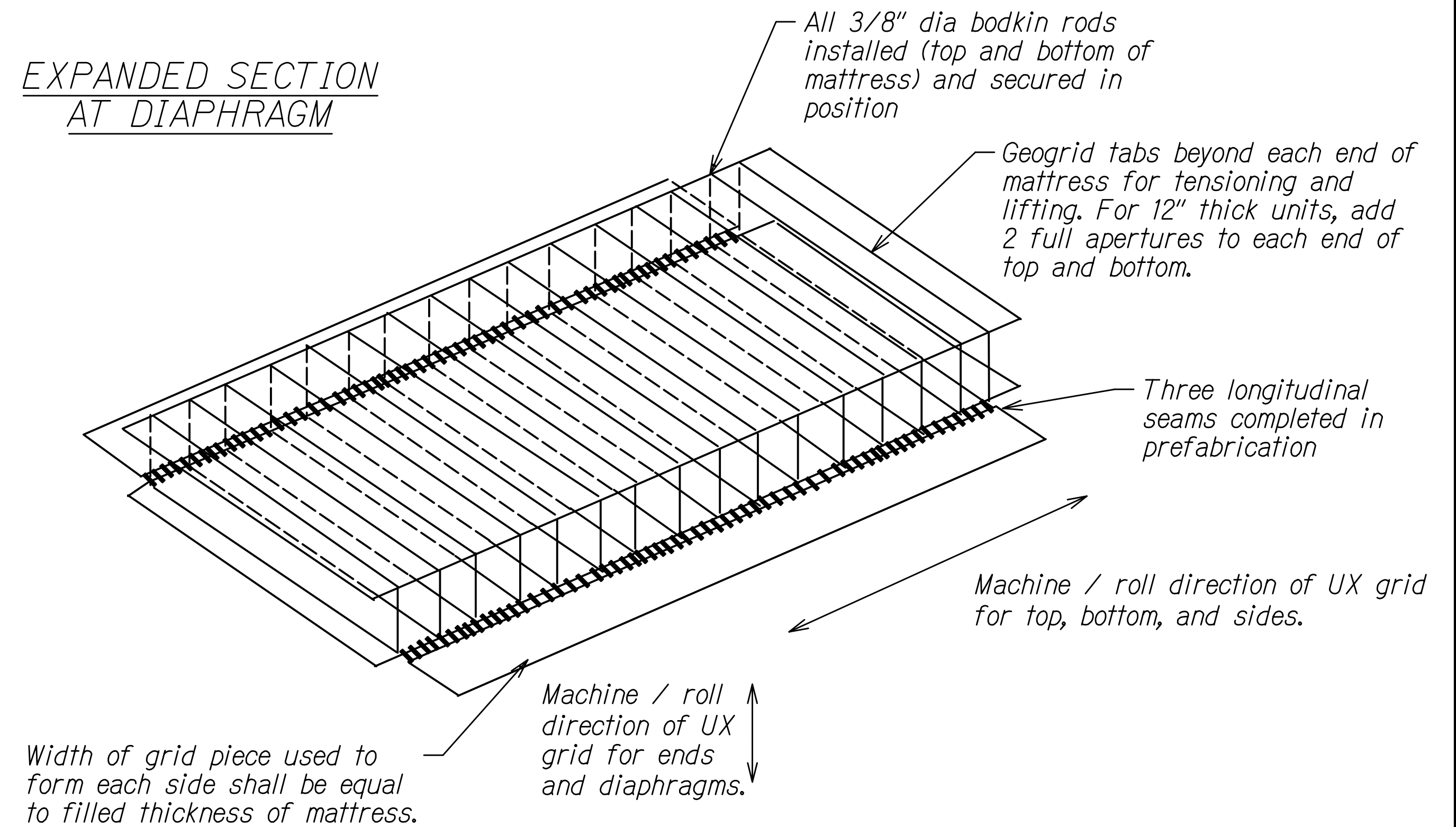
TYPICAL LOCK-STITCH BRAIDING CONFIGURATION FOR MATTRESS FABRICATION

- Notes:
- All cut ends of braid material shall be knotted within 1/2" to 2" of the end to prevent raveling of braid.
 - At all ends of all braided seams the braid shall be securely knotted to the geogrid.
 - At all ends of all pieces of braid material used, the braid shall be knotted to splice it to the next piece of braid, or to secure it to the geogrid. Each braided seam shall be continuous, with securely knotted splices allowed. The braid shall be securely knotted to the geogrid at a spacing not to exceed 3' along any seam.
 - The braid shall be stitched through each pair of apertures along the seam at least once, and the minimum number of stitches per foot along the seam shall be six (6). The spacing of stitches along each seam shall be reasonably uniform.
 - All knots shall be tied in a manner to prevent slipping and cinching.
 - The wraps along the seam shall be sufficiently tight to close the gap between the adjacent pieces of geogrid,



EXPANDED SECTION AT DIAPHRAGM

See typical configuration of filled mattresses for additional dimensions and material types.



TYPICAL CONFIGURATION OF PREFABRICATED MATTRESSES

Note: Typical spacing of diaphragms is every three aperture lengths ($\pm 19"$). A shorter spacing may be used in order to match the required mattress length. Length of end pieces and internal diaphragm pieces shall be 2 grid apertures long for 12" (filled) mattress thickness.

 THIS WORK WAS PREPARED BY ME, OR UNDER MY SUPERVISION. <i>James I. Kincaid</i> SIGNATURE EXPIRATION DATE OF THE LICENSE: 12/31/2025	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION TRITON MARINE MATTRESS TYPICAL DETAILS KUHIO HIGHWAY Emergency Shoreline Mitigation Fed. Aid Project No. ER-24(004) Scale: Not to Scale Date: Dec. 2023
	SHEET No. S-11 OF 20 SHEETS

