

## **SCOUR COUNTERMEASURE OPTIONS**



		Articulated Concrete Block Mattress (ACBM)		Concrete Tetrapod		Riprap / Armorstone		Tensar® Triton® Marine Mattress	
Subgrade Preparation	Zh	Extensive preparation of subgrade required including compaction and leveling	PTS:	Moderate preparation of subgrade required including leveling	PTS:	Minimal to no preparation of subgrade required	PTS: 5	Minimal to no preparation of subgrade required	PTS: 5
Constructability		Installing a layer of geotextile and placing a material (usually an aggregate) on top of it	2	Difficult placement requires specialized equipment due to low headroom	3	Stone is the easiest to install but correctly installing a filtration layer or geotextile separation layer is difficult to impossible	1	Geotextiles may be attached prior to install; projects with low headroom may require specialized equipment	- - -
Durability	محمى	Constructed of resilient concrete elements; toe-in points and scour pockets require monitoring	4	Resilient concrete elements	5	Stones can become dislodged or can sink if filtration layer fails	1	Susceptible to anchoring damage	3
Future Maintenance	Ϊi	Maintenance will be required for inspecting and repairing toe-ins and possible scour pockets.	2	Moderate monitoring	3	Requires regular maintenance to inspect and replace stone that has become dislodged	1	Minimal monitoring	4
Environmental Impact		Will require some excavation for toe-ins and requires subgrade leveling and compaction for the extents of the project site	1	Excavation required over extents of project area usually 2 times the amount for ACBM	2	Most excavation required of all solutions; typically requires 3 to 4 times the depth of ACBM or marine mattresses	1	No excavation typically required; if conditions exist, SAV and oyster grown probable	5
Adaptability to Future Conditions		Vulnerable to subgrade condition changes	+	Somewhat vulnerable to subgrade changes	2	Good performance with changed subgrade conditions	4	Good performance with changed subgrade conditions	4
Cost* \$/SY	\$	\$160	+	\$350	+	\$120	+	<b>\$180</b>	3
TOTAL (35 possible points) *Cost calculations based on Ne	Ew Jersey DOT proj	ect.		19		18		27	

## WHATEVER YOUR PROJECT, WE CAN HELP

For more than 30 years, Tensar's innovative geosynthetic solutions have proven ideal for many kinds of construction projects. We have assisted coastal engineers in a variety of coastal and waterway applications. Our expertise has provided durable solutions that reduce costs, even the most difficult conditions.

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