Maine Department of Transportation

Highway Program

Design Guidance

Title: Reinforced Concrete Pipe	Issue Date: September, 1, 2013
Discipline: Highway Engineering	
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Background:

Several factors have been investigated relating to service life, compaction issues and site-specific reasons such as intersection geometry or traffic volumes for the use of reinforced concrete pipe (RCP). These factors relate to minimizing the risk to the Department should another alternative to RCP be chosen. This Design Guidance will clarify when RCP will be specified as the only option for a pipe replacement.

Guidance:

This Guidance will outline three areas to consider when installing culverts on capital improvement projects. These are Corridor Priority, fill height and site-specific considerations.

Corridor Priority: All culverts to be installed on Corridor Priority 1 shall be RCP. Corridor Priorities 2,3,4,5 and 6 shall use the site specific and fill height criteria to determine proper RCP use.

Fill Height: Culverts to be installed in deep fills or with shallow cover shall be RCP. A Deep fill will be considered any fill greater than 15 feet. Shallow cover will be considered 3.5 feet or less.

Site Specific Considerations: The following are areas where the use of RCP should be investigated as future pipe replacement would result in unacceptable

impacts during construction. These areas may be found on any Corridor Priority road and should be considered based on the impacts to the public, impacts to property, impacts to resources and/or future maintenance costs. Examples include:

1. High Volume Roads (>10,000 AADT)
2. Complicated intersections
3. Culvert placement near underground utilities
4. Guardrail section