Table 19b TR-77 Culvert

Culvert ID	Watershed ID	Drainage Area (acres)	Curve Number	10-year, 24-hour peak flow (CFS)	Culvert Size (in)	Culvert Max Discharge (CFS)
RDA C1	PRO SB3	10.2	83	10.75	24	54.80

Notes:

1 Culvert sized based on minimum required size.
2 Culvert inverts will tie into upstream and downstream ditches.
3 Riprap of downstream ditch will act as energy dissipation for proposed culvert.

Assumptions:

- Curve Numbers for hydrologic analysis range from 83 to 88 depending on the soils present in the USGS online soil survey.
- Shape of existing culverts is assumed to be circular.
- Culverts are Corrugated Metal Pipe (CMP), with a Manning's n of 0.024.
- Culvert inlets are assumed to be projecting with kinetic energy (Ke) of 0.90.
- Head Water, invert elevations, and culvert lengths roughly estimated using topography provided by Allegiance in AutoCAD.
- Empirical observation indicates that the rail bed is not eroded, which would imply the existing culverts are adequate for typical and frequent storms.
- Culverts may be silted in analysis did not account for this factor.
- Structure information for existing structures obtained from previous SEDCAD calculations.