



CULVERT ANALYSIS

PID : 122339 **Date :** 11/25/2024 **Project :** ATB/TRU-CULVERTS-FY26 **Location :** ATB-45-17.196

Description : Prop. 42" Smooth Analysis

Designer : MEP

HEADWATER CONTROL CODES: INLET - Inlet Control.
OUTLET - Outlet Control.
OUTLET* - Outlet Control with backwater curve used to compute headwater. See Figure III - 7E in HDS 5 for type flow.
OUTLET** - Outlet Control - See Figure III - 7D in HDS 5 for type flow.
N/A - Flow is supercritical with low headwater and low tailwater. Control Section is at the inlet.

Pipe Number : 1 **Use HW :** 0 **Inlet Invert Elevation (ft.) :** 783.89 **Outlet Invert Elevation (ft.) :** 780.00
Pipe Quantity : 1
Culvert Type : Circular Smooth **Pipe Length (ft.) :** 143.00 **Culvert Slope (ft./ft.) :** 0.0272
Corrugation Type :
Pipe Size : 42 in.
Design Manning 'n' : (default)
Entrance Type : Half Headwall **Loss Coef. Ke :** 0.2000

FLOW (cfs.)	HEAD LOSS (ft.)	HWI (ft.)	HWO (ft.)	FLOW TYPE	VELOCITY (fps.)	DN (ft.)	DC (ft.)	MANNING N	HEADWATER CONTROL	BURIED DEPTH (ft.)	TAILWATER ELEVATION (ft.)
42.00	4.06	786.82	N/A	1 - C	15.24	1.15	2.02	0.0120	INLET	0.00	781.10
44.00	4.11	786.90	N/A	1 - C	15.43	1.18	2.07	0.0120	INLET	0.00	781.10
46.00	4.17	786.98	N/A	1 - C	15.63	1.21	2.12	0.0120	INLET	0.00	781.10
48.00	4.22	787.05	N/A	1 - C	15.82	1.23	2.16	0.0120	INLET	0.00	781.10
50.00	4.28	787.13	N/A	1 - C	16.00	1.26	2.21	0.0120	INLET	0.00	781.10
52.00	4.34	787.21	N/A	1 - C	16.16	1.29	2.26	0.0120	INLET	0.00	781.10
54.00	4.39	787.29	N/A	1 - C	16.34	1.32	2.30	0.0120	INLET	0.00	781.10
56.00	4.45	787.38	N/A	1 - C	16.51	1.34	2.34	0.0120	INLET	0.00	781.10



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FLOW (cfs.)	HEAD LOSS (ft.)	HWI (ft.)	HWO (ft.)	FLOW TYPE	VELOCITY (fps.)	DN (ft.)	DC (ft.)	MANNING N	HEADWATER CONTROL	BURIED DEPTH (ft.)	TAILWATER ELEVATION (ft.)
58.00	4.52	787.46	N/A	1 - C	16.65	1.37	2.38	0.0120	INLET	0.00	781.10
60.00	4.58	787.54	N/A	1 - C	16.82	1.39	2.43	0.0120	INLET	0.00	781.10