

PRELIMINARY INFORMATION SHEET

INDEX OF SHEETS

1. TITLE SHEET
2. PRELIMINARY INFORMATION SHEET
- 3-4. QUANTITY SHEETS
5. TYPICAL SECTIONS SHEET
6. EXCAVATION & TRANSITION DETAILS
7. ALIGNMENT & TRAVERSE TIE SHEET
8. LAYOUT SHEET
9. PROFILE SHEET & BANKING DIAGRAM
10. DETOUR MAP
11. TRAFFIC CONTROL SHEET
12. TRAFFIC SIGN SUMMARY SHEET
13. PLAN & ELEVATION
14. NOTES
15. CULVERT PROFILE & DETAILS
16. WINGWALL DETAILS
17. CHANNEL / STONE FILL DETAILS
- 18-19. CAST IN PLACE CURB DETAILS
20. REINFORCING STEEL SCHEDULE
21. RIGHT-OF-WAY LAYOUT
22. RIGHT-OF-WAY DETAILS
- 23-26. MAINLINE CROSS SECTIONS
- 27-29. CHANNEL CROSS SECTIONS
30. EROSION CONTROL NARRATIVE
31. EXISTING CONDITIONS
32. EROSION PREVENTION & SEDIMENT CONTROL PLAN
33. FINAL CONDITIONS
34. EROSION CONTROL NOTES
35. SILT FENCE DETAILS
36. CHECK DAM DETAILS
37. CONSTRUCTION ENTRANCE DETAILS
38. DITCH & SIDESLOPE PROTECTION DETAILS
39. TURBIDITY CURTAIN DETAILS

LIST OF STANDARDS

E-100	CONSTRUCTION APPROACH SIGNS	1/2/2004
E-102	CONSTRUCTION SIGN DETAILS	6/30/2003
E-102A	CONSTRUCTION SIGN DETAILS	5/1/2004
E-107	DELINEATION, BARRICADES AND DETOURS FOR CONSTRUCTION AREAS	6/30/2003
E-107A	BREAKAWAY BARRICADE DETAILS	8/8/1995
E-121	STANDARD SIGN PLACEMENT - CONVENTIONAL ROAD	8/8/1995
E-127	ROUTE MARKINGS AT RURAL INTERSECTIONS	8/8/1995
E-134	BRIDGE NUMBER PLAQUE	8/8/1995
E-136B	STATE ROUTE MARKER SIGN DETAILS	8/8/1995
E-160	FLANGED CHANNEL STEEL SIGN POST	5/20/1999
G-1	STEEL BEAM GUARDRAIL (50MPH & OVER) HEAVY DUTY STEEL BEAM GUARDRAIL TWISTED END TERMINAL ANCHOR FOR STEEL BEAM RAIL	1/3/2000
G-1D	STEEL BEAM GUARDRAIL (40MPH & LESS) HEAVY DUTY STEEL BEAM GUARDRAIL STEEL BEAM MEDIAN BARRIER ANCHOR FOR STEEL BEAM RAIL	1/3/2000
SB-R6-82	BRIDGE RAILING HEAVY DUTY STEEL BEAM	1/9/1995

FINAL HYDRAULIC REPORT

PROJECT #: ST CULV (4) STREAM: Unnamed
HIGHWAY #: VT8 STRUCTURE #: 2

HYDROLOGIC DATA

DRAINAGE AREA: 1.66 SM
CHARACTER OF TERRAIN: Rolling
STREAM CHARACTERISTICS:
NATURE OF STREAMBED:

PEAK FLOW DATA

Q 2.33 = 120 cfs Q 50 = 520 cfs
Q 10 = 300 cfs Q 100 = 650 cfs
Q 25 = 420 cfs Q 500 =

DATE OF FLOOD OF RECORD: unknown
ESTIMATED DISCHARGE: unknown
WATER SURFACE ELEV.: unknown
NATURAL STREAM VELOCITY:
ICE CONDITIONS:
DEBRIS:
DOES THE STREAM REACH MAXIMUM HIGHWATER ELEV. RAPIDLY?
IS ORDINARY RISE RAPID?
IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS?
IF YES, DESCRIBE:

WATERSHED STORAGE: HEADWATERS:
UNIFORM:
IMMEDIATELY ABOVE SITE:

EXISTING STRUCTURE INFORMATION

STRUCTURE TYPE: 107" x 73" CGMP
YEAR BUILT:
CLEAR SPAN(NORMAL TO STREAM):
VERTICAL CLEARANCE:
WATERWAY OF FULL OPENING:
DISPOSITION OF STRUCTURE: Removal of old structure
TYPE OF MATERIAL UNDER SUBSTRUCTURE: n/a

WATER SURFACE ELEVATIONS AT:

Q2.33 = VELOCITY =
Q10 = "
Q25 = "
Q50 = "
Q100 = "

LONG TERM STREAMBED CHANGES:

IS THE ROADWAY OVERTOPPED BELOW Q100:
FREQUENCY:
RELIEF ELEVATION:
DISCHARGE OVER ROAD @Q100:

UPSTREAM STRUCTURE

TOWN: DISTANCE:
HIGHWAY #: STRUCTURE #:
CLEAR SPAN: CLEAR HEIGHT:
YEAR BUILT: FULL WATERWAY:
STRUCTURE TYPE:

DOWNSTREAM STRUCTURE

TOWN: DISTANCE:
HIGHWAY #: STRUCTURE #:
CLEAR SPAN: CLEAR HEIGHT:

LOAD FACTOR - LOAD RATING (TONS)

LOADING LEVELS	TRUCK						
	H	HS	3S2	6 AXLE	3A. STR.	4A. STR.	5A. SEMI
INVENTORY							
POSTED							
OPERATING							
COMMENTS:							

TRAFFIC DATA

YEAR	ADT	DHV	% D	% T	ADTT
2006	720	140	54	11	50
2026	940	160	54	17	100

20 year ESAL for flexible pavement from 2006 to 2026 : 299,000
40 year ESAL for flexible pavement from 2006 to 2046 : 737,000
Design Speed : 50 mph

YEAR BUILT: FULL WATERWAY:
STRUCTURE TYPE:

PROPOSED STRUCTURE

STRUCTURE TYPE: 12' x 8' Precast Concrete Box Culvert
CLEAR SPAN(NORMAL TO STREAM): 12'
VERTICAL CLEARANCE ABOVE STREAMBED: 6'
WATERWAY OF FULL OPENING: 72 sf
WATER SURFACE ELEVATIONS AT:
Q2.33 = 1971.9' VELOCITY =
Q10 = 1972.8' "
Q25 = 1973.2' "
Q50 = 1974.7' " 11.2 fps
Q100 = 1975.7' "

IS THE ROADWAY OVERTOPPED BELOW Q100: No
FREQUENCY:
RELIEF ELEVATION:
DISCHARGE OVER ROAD @Q100: 0 cfs

AVERAGE LOW ELEVATION OF SUPERSTRUCTURE:
VERTICAL CLEARANCE:

SCOUR:

REQUIRED CHANNEL PROTECTION: Type II Stone Fill

PERMIT INFORMATION

AVERAGE DAILY FLOW: 3.3 cfs DEPTH OR ELEVATION:
ORDINARY LOW WATER: 1.7 cfs < 0.5'
ORDINARY HIGH WATER: 52 cfs 0.7'

TEMPORARY BRIDGE REQUIREMENTS

STRUCTURE TYPE: 54" CMP or Equal
CLEAR SPAN (NORMAL TO STREAM): n/a
VERTICAL CLEARANCE ABOVE STREAMBED: n/a
WATERWAY AREA OF FULL OPENING: 15.9 sq. ft.

ADDITIONAL INFORMATION

DESIGN CRITERIA

1. DESIGN LIVE LOAD AASHTO HS - 25
2. DESIGN SPAN
3. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL ON LEDGE
4. ALLOWABLE LOAD FOR PILING TYPE ESTIMATED LENGTH
5. STRUCTURAL STEEL AASHTO M270M/M270 GRADE
6. REINFORCING STEEL GRADE 60
7. CONCRETE, HIGH PERFORMANCE CLASS A fc: 4000 psi (excluding precast concrete)
CONCRETE, HIGH PERFORMANCE CLASS B fc: N/A
8. DESIGN SOIL UNIT WEIGHT 140 pcf
9. DESIGN LOAD FOR SPREAD FOOTINGS ON SOIL

TRAFFIC MAINTENANCE

1. IS TRAFFIC TO BE MAINTAINED? no
IF YES, ON EXISTING STRUCTURE?
OR ON TEMPORARY BRIDGE?
ONE OR TWO-WAY TRAVEL?
2. TRAFFIC CONTROL SIGNALS REQUIRED? no
3. ARE SIDEWALKS REQUIRED? no
IF SO, ON WHAT SIDE?

PROJECT NAME: READSBORO

PROJECT NUMBER: ST CULV (4)

FILE NAME: 04c176/Str/s04c176excel.dgn PLOT DATE: 4/5/2006
PROJECT MANAGER: C.P.WILLIAMS DRAWN BY: M.FESSEL
DESIGNED BY: E.L.RUSTAY CHECKED BY: M.GAGULIC
PRELIMINARY INFORMATION SHEET #1 SHEET 2 OF 39