GENERAL NOTES:

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2001, AND ITS LATEST REVISIONS, AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DATED 2002, AND ITS LATEST REVISIONS.

2. DESIGN IS FOR HS-25-44 LIVE LOADING.

3. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 68°F OR AS NOTED OTHERWISE.

4. ITEM 529.15 "REMOVAL OF STRUCTURE" SHALL BE USED FOR REMOVAL OF THE PIPE AND ANY PORTIONS OF HEADWALLS AND WINGWALLS NOT REMOVED UNDER THE ITEMS "STRUCTURE EXCAVATION" OR "UNCLASSIFIED CHANNEL EXCAVATION".

5. A MINIMUM OF 1'-9" COVER OVER THE BOX MUST BE PROVIDED BEFORE ALLOWING ANY VEHICLE OVER THE NEW STRUCTURE.

6. TACK COAT: EMULSIFIED ASPHALT IS TO BE APPLIED AT A RATE OF 0.015 GAL/SY BETWEEN SUCCESSIVE COURSES OF PAVEMENT OR AS DIRECTED BY THE ENGINEER.

7. REINFORCING STEEL PLACEMENT TOLERANCES SHALL BE AS FOLLOWS:

   SPACING +/- 1"
   CLEARANCE +/-¼"

8. WATER REPELLENT SHALL BE APPLIED TO ALL EXPOSED SURFACES OF THE WINGWALLS AND HEADWALLS AND SHALL BE PAID FOR USING ITEM 514.10 "WATER REPELLENT (MOD. - SILANE)". WATER REPELLENT SHALL BE APPLIED TO THE EXPOSED INSIDE SURFACE OF THE BOX STARTING AT THE OPENING AT EACH END AND EXTENDING 3 FEET INTO THE BOX, INCLUDING THE BOTTOM SURFACE OF THE TOP SLAB AND THE TOP SURFACE OF THE BOTTOM SLAB.

9. THE KEY IN CONCRETE CONSTRUCTION JOINTS SHALL BE MONOLITHIC AND CONTINUOUS FOR THE FULL LENGTH OF THE JOINT.

10. JOINTS AND SCORE MARKS IN THE CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

11. NO SUB-SURFACE INVESTIGATION HAS BEEN CONDUCTED ON THIS PROJECT. LEDGE OR BOULDERS MAY OR MAY NOT BE ENCOUNTERED DURING THE CONSTRUCTION PROCESS.

12. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1" X 1".

13. THIS CULVERT WILL BE BUILT USING ACCELERATED CONSTRUCTION TECHNIQUES. SEE SPECIAL PROVISIONS FOR DETAILS.

14. NATURAL APPEARING MATERIALS (ROCK OR GRAVEL) SHOULD BE USED TO ENSURE THAT THIS PROJECT BLENDS WITH THE SURROUNDING ENVIRONMENT.

15. MATERIALS BROUGHT TO THE SITE SHOULD NOT BE VISIBLE FROM ROUTE 8 AND ALONG THE STREAM WHERE THE PUBLIC FISHES.

16. BECAUSE NON-NATIVE INVASIVE PLANT SPECIES CAN BE SPREAD TO THE NATIONAL FOREST BY EQUIPMENT BEARING SEEDS FROM OFF SITE, AND SPREAD FROM THE NATIONAL FOREST BY THAT SAME EQUIPMENT MOVING TO THE NEXT SITE, ALL GROUND DISTURBING EQUIPMENT SHALL BE CLEANED BOTH BEFORE IT IS MOVED ONTO AND AFTER IT IS MOVED OFF OF THE SITE.

17. A NATIVE PLANT SEED MIX WITH LOCALLY SUITABLE GENOTYPES SHOULD BE USED FOR ANY RESEEDING.

18. IN ADDITION, BIOLOGICALLY INERT MULCH SHOULD BE USED. MULCH MATERIAL THAT DOES NOT CONTAIN SEEDS INCLUDES ON SITE BRUSH TRIMMINGS AND A VARIETY OF TEXTILES INCLUDING COCONUT FIBER.

PRECAST CONCRETE BOX NOTES:

1. DESIGN CRITERIA:
   A. SOIL UNIT WEIGHT = 140 PCF
   B. DESIGN LIVE LOAD = AASHTO HS-25-44
   C. WINGWALL FOOTING PRESSURE <= 4 KSF
   D. FACTOR OF SAFETY FOR OVERTURNING >= 2.0
   E. FACTOR OF SAFETY FOR SLIDING >= 1.5

2. THE PRECAST SECTIONS ARE SHOWN FOR REFERENCES ONLY. THE ACTUAL DIMENSIONS AND SHAPE WILL BE DEPENDENT ON THE FABRICATOR. ALL UNITS EXCEPT FIRST AND LAST WILL BE SAME SHAPE AND SAME LENGTH. THE MINIMUM INSIDE DIMENSIONS SHALL BE 8'-0" HEIGHT AND 12'-0" WIDE. THE ENDS OF THE FIRST AND LAST UNITS SHALL BE VERTICAL.

3. BOTH HEADWALLS, WINGWALLS #1,#2,#3,#4, AND CUT OFF WALLS SHALL BE PRECAST, ALL CONNECTIONS SHALL BE DESIGNED AND SUBMITTED TO THE PROJECT MANAGER FOR APPROVAL.

4. THE BED RETENTION SILLS WILL BE 1'-0" FRONT TO BACK, 12'-0" LONG AND HAVE A 1:10 LATERAL SLOPE AS SHOWN IN PLANS. THEY WILL BE PRECAST CONCRETE PLACED AT THE FACTORY AS SHOWN ON THE PLANS AT ROUGHLY 16'-0" ON CENTER AND AT BOTH THE INLET AND THE OUTLET.

5. THE STRUCTURE WILL BE AT A 2.84% GRADE SIMULATING THAT OF THE STREAM.

6. A CAST IN PLACE CONCRETE PEDESTAL SHALL BE PLACED AS SHOWN ON THE PLANS IN ORDER TO ATTACH THE GUARDRAIL OVER THE STRUCTURE.

7. THE MECHANICAL CONNECTORS AND #5 THREADED DOWELS SHOWN ON SHEET 17 SHALL BE PAID FOR UNDER ITEM 540.10 "PRECAST CONCRETE STRUCTURE". DESIGN AND PLACEMENT OF THESE MECHANICAL CONNECTORS SHALL MAINTAIN COVER REQUIREMENTS IN THE TAPERED SECTION OF THE CAST IN PLACE CONCRETE PEDESTAL.

8. THE EXTERIOR (TOP AND SIDES) OF ALL CONCRETE BOX JOINTS ALONG WITH ALL LIFTING HOLES SHALL BE FILLED WITH MORTAR TYPE IV AFTER BEING SET IN THEIR FINAL POSITION. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 540.10 "PRECAST CONCRETE STRUCTURE".

9. A TWO (2) FOOT WIDE STRIP OF MEMBRANE WATERPROOFING (MEETING THE REQUIREMENTS OF SECTION 519.20) SHALL BE APPLIED AT EACH BOX JOINT. THE MEMBRANE SHALL BE CENTERED ON THE JOINT AND COVER THE FULL HEIGHT OF THE SIDE JOINTS. THE TOP OF THE JOINTS SHALL THEN BE COVERED WITH THE TWO (2) FOOT STRIP OF MEMBRANE. THE SHEETS SHALL OVERLAP THE EDGES BY ONE (1) FOOT ON EACH SIDE. THE PAYMENT FOR MEMBRANE SHALL BE UNDER THE ITEM 519.20 "SHEET MEMBRANE WATERPROOFING (PREFORMED)".

PROJECT: READSBORO	PROJECT NO.: ST CULV (4)
DESIGN FILE NAME: 04c176/structures/s04c176typ.dgn	
IPARM FILE NAME: s04c176notes.i	PLOT DATE: 18-JUL-2006
DESIGNED BY: E.L.RUSTAY	DRAWN BY: E.L.RUSTAY
SQUAD LEADER: C.P.WILLIAMS	CHECKED BY: M.GAGULIC
GENERAL NOTES	SHEET: 14 OF 39