# ITEM DETAIL AND DRAINAGE SHEET

**STATE OF VERMONT**
**AGENCY OF TRANSPORTATION**

## DRAINAGE STRUCTURES

| STA. | STA. | POSITION | ASKEW | TYPE | DITCH | | PIPE ARCH | | | PIPE | | ALLOWABLE OPTIONS | | | | | PIPE ELBOW | ES | CB | PRCD | DEPTH DI | CONC CL B | REIN STEEL | DI GRATE | CHAN ELEV | CRM | TR EXCAV | | COMM EXC | UNC CHAN EXC | STRUC EXCAV | GRAN BKF STRUC | GRAN BORR | EROS MATT | STONE FILL | | MRKR POSTS | | RIGID PLASTIC PIPE | | REMOV OF STRUC | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | IN | IN | OUT | S IN | R IN | L FT | D IN | L FT | PCCSP TH | CAAP TH | RCP CL | CSP TH | PCCSP PI TH | NO-DIA | EA | | | | CY | LBS | TYPE | EA | CY | EARTH CY | ROCK CY | CY | CY | CY | CY | CY | SY | CY | TYPE | LT | RT | D IN | LF | EA | |
| 289+00 | 293+35 | LT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 293+30 | 293+45 | RT/LT | | CHW | | | | | | 30 | 78 | .079 | .075 | | | | | | | | | | | | | 1.2 | 176 | | | | | | 193 | | | | | | | | |
| 293+43 | | | 89°-47′ | | | | | | | | | | | | | | | | | | | | | | | | 30 | | | | | | | 17 | II | | | | | | |
| 293+47 | 294+99 | LT | | RCDI | | | | | | 18 | 152 | | | III | | | | | | | 4.0 | 2.1 | 193 | A | | | 73 | | | | | | | | | 1 | | | | | REMOVE EXISTING 24′′ CGMP |
| 294+99 | 296+68 | LT | | RCDI | | | | | | 18 | 168 | | | III | | | | | | | 4.0 | 2.1 | 193 | A | | | 69 | | | | | | | | | 1 | | | | | |
| 296+68 | | LT | | | | | | | | 12 | 14 | | .060 | | .064 | | 1-12′′ | | | | | | | | | | 6 | | | | | | | | | | | | | | RCDI W/CONCRETE COVER |
| 297+50 | 300+50 | LT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | CONNECT TO EXISTING 12′′ CMP |
| 300+50 | | CL | | RCDI | | | | | | 18 | 72 | .064 | .060 | | | | | | | | | | | | | | | | | | | | 133 | | | | | | | |
| 300+50 | 304+15 | LT | | | | | | | | | | | | | | | | | | | 4.0 | 2.1 | 193 | B | | | 71 | | | | | 9 | | | 2 | II | 1 | 1 | | | CONSTRUCT OUTLET DITCH |
| 304+31 | | LT | | ES | | | | | | 18 | 38 | | | | .064 | | | 1 | | | | | | | | | | 100 | | | | | | 108 | I | | | | | SPECIAL DITCH |
| 304+55 | 305+30 | LT | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | REMOVE EXIST 18′′ CGMP, DRIVE CULVERT |
| 305+30 | 305+40 | LT/RT | | SHW | | | | | | 36 | 94 | | .075 | | | .079 | | | | | | | | | | | 25 | | | | | | | | 22 | I | | | | | SPECIAL DITCH |
| 305+38 | | CL | 87°-33′ | | | | | | | | | | | | | | | | | | | | | | | 4.9 | 94 | | | | | 17 | | | 21 | II | | | | |
| 306+50 | | LT | | | | | | | | 15 | 38 | | | | .064 | | | | | | | | | | | | 29 | | | | | | | | | | | | | REMOVE EXIST 30′′ CGMP |
| 307+50 | 309+40 | LT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | DRIVE CULVERT |
| 309+50 | 310+10 | LT/RT | | ES | | | | | | 18 | 92 | .064 | .060 | | | | | 1 | | | | | | | | | 56 | | | | | | | | 56 | I | | | | | SPECIAL DITCH |
| 310+00 | 311+75 | LT | | | | | | | | | | | | | | | | | | | | | | | | | 45 | | | | | | | | 4 | I | 1 | 1 | | | |
| 313+92 | | CL | 88°-57′ | | | | | | | | | | | | | | | | | | | | | | | | 52 | | | | | | | | 52 | I | | | | | SPECIAL DITCH |
| 314+00 | | CL | | RCDI | | | | | | 24 | 84 | .064 | .060 | | | | | | | | 4.0 | 2.1 | 193 | B | | | 14 | | | | | | | | | | | | | | REMOVE EXIST 18′′ CGMP |
| 314+00 | 317+95 | LT | | | | | | | | | | | | | | | | | | | | | | | | | 106 | | | | | 12 | | | 8 | II | 1 | 1 | | | |
| 318+00 | 318+37 | LT/RT | | SHW | | | | | | 30 | 84 | .079 | .075 | | | | | | | | | | | | | 3.5 | 194 | | | | | 14 | 176 | | 16 | II | 1 | 1 | | | |
| 318+37 | | CL | | | | | | | | | | | | | | | | | | | | | | | | | 19 | | | | | | | | | | | | | | |
| 318+65 | 319+25 | LT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 27 | | | | | | | | REMOVE EXIST 24′′ CGMP |
| 319+25 | 319+75 | LT | | | | | | | | | | | | | | | | | | | | | | | | | 83 | | | | | | 22 | | | | | | | | |
| 319+48 | 319+62 | LT/RT | | | | | | | | | | | | | | | | | | | | | | | | | 38 | | | | | | | | | | 6 | 84 | | | SPECIAL DITCH |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | USE 6′′ RIGID PLASTIC PIPE FOR WATER LINE SLEEVE |
| 319+80 | 320+10 | LT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 319+94 | | LT | | ES | | | | | | 18 | 58 | | | | .064 | | | 1 | | | | | | | | | 2 | | | | | | | | | | | | | | REMOVE EXIST CGMP |
| 320+25 | 321+75 | LT | | | | | | | | | | | | | | | | | | | | | | | | | 15 | | | | | | | | | | | | | | |
| 321+79 | | CL | 85°-42′ | SHW | | | | | | 42 | 86 | .109 | .105 | | | | | | | | | | | | | | 120 | | | | | | 67 | | | | | | | | SPECIAL DITCH |
| 324+70 | | LT | | | | | | | | 18 | 68 | | | | .064 | | | | | | | | | | | 12.8 | 122 | | | | | | | 30 | II | | | | | REMOVE EXIST 36′′ ACCGMP |
| ---MILL STREET--- | | | | | | | | | | | | | | | | | | | | | | | | | | | 11 | | | | | | | | | | | | | | DRIVE PIPE, REMOVE EXIST 18′′CGMP |
| 10+56 | | CL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ---PLEASANT STREET--- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | RETAIN EXIST 10′′ CMP |
| 20+23 | | CL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20+70 ML112+50 | | LT/LT | | RCDI | | | | | | 18 | 64 | | | III | | | | | | | 5.5 | 2.8 | 239 | A | | | 5 | 4 | | | | | | | | | | | | | REMOVE EXIST 12′′ CMP & C.B. |
| ---TOWN HIGHWAY NO 24--- | | | | | | | | | | | | | | | | | | | | | | | | | | | 43 | | | | | | | | | | | | | | |
| 40+50 | 41+00 | RT/LT | | ES | | | | | | 18 | 90 | | | | .064 | | | 1 | | | | | | | | | 14 | | | | | | | | 1 | I | | | | | |
| --TOWN HIGHWAY NO. 44-- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OFF ML | STA 134+20 | | | | | | | | | 15 | 160 | | | | .064 | | | | | | | | | | | | 8 | | | | | | | | | | | | | | EST. (4) 40′ DRIVE CULVERTS |
| ---ROUTE 242--- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 51+50 ML275+00 | | RT/LT | | | | | | | | | | | | | | | | | | | | | | | | | 31 | | | | | | | | 31 | I | | | | | SPECIAL DITCH |
| TOTAL THIS SHEET | | | | | | | | | | 12 | 14 | | .060 | | .064 | | 1-12′′ | | | | 11.2 | 1011 | 3A | | 22.4 | 1553 | 4 | 100 | | | 52 | | 618 | 274 | I | 6 | 3 | 6 | 84 | | |
| | | | | | | | | | | 15 | 198 | | | | .064 | | | | | | | | 2B | | | | | | | | | | | | 94 | II | 9 | | | | |
| | | | | | | | | | | 18 | 384 | | | III | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | 18 | 254 | | | | .064 | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | 18 | 164 | .064 | .060 | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | 24 | 84 | .064 | .060 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | 30 | 162 | .079 | .075 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | 36 | 94 | | .075 | | | .079 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | 42 | 86 | .109 | .105 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GRAND TOTALS | | | | | | | | | | 12 | 168 | | .060 | | .064 | | 11-12′′ | | 6 | | 117.7 | 8955 | 18A | | 66.1 | 7498 | 43 | 1080 | 442 | 593 | 356 | 357 | 2361 | 1999 | I | 36 | 35 | 4 | 150 | | |
| | | | | | | | | | | | | | | | | | | | | | | | 22B | | | | | | | | | | | | 523 | II | 71 | 6 | 84 | | |
| | | | | | | | | | | 15 | 1086 | - | - | - | .064 | | | 1 | | | | | | | | | | | | | | | | | 250 | III | | | | | |
| | | | | | | | | | | 15 | 176 | - | - | III | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | 18 | 2600 | - | - | III | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | 18 | 80 | .064 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | 18 | 78 | - | .060 | - | .064 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | 18 | 1962 | .064 | .060 | | | | | 13 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | 18 | 468 | - | - | - | .064 | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | 24 | 684 | .064 | .060 | | | | | 6 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | 30 | 348 | .079 | .075 | | | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | 36 | 186 | .079 | .075 | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | 36 | 94 | | .075 | | | .079 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | 42 | 86 | .109 | .105 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | 48 | 374 | - | .105 | - | - | .109 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | 54 | 100 | | .105 | | | .109 | | | | | | | | | | | | | | | | | | | | | | | | | | |

TOTALS

## UNDERDRAIN

| STA. | STA. | TYPE | POS. | D | L | TRENCH E | TRENCH R | FB | MKR PST |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

SPECIAL DITCH

78E142DR5

PROJECT NAME TROY
PROJECT NUMBER RS031I(1)

DATE PLOTTED 25-APR-1990