

DRAINAGE DESCRIPTIONS

SHEET 2L

- (2L-1) 24"-Dbl 24" Pipe Req'd. (2' COVER)
4 Std. ES-1 Req'd.
540 C.Y. Temporary Diversion Channel
Excavation
890 S.Y. Temporary Diversion Channel
Lining Class A
755 L.F. Temporary Silt Fence

SHEET 3

- (3-1) 5.5 L.F. Std. MH-2 Req'd.
1 Std. MH-1 Frame and Cover Req'd.
Inv. 1133.49
Std. IS-1 Req'd.

- (6-5) (3-1) 65'-54" Conc. Pipe Req'd. (2' Cover)
Inv. In=1134.69 Inv. Out=1133.59
207 C.Y. Minor Structure Excavation
29.5 Tons Bedding Material
Aggregate No. 25 or 26
19.0 C.Y. Class I Backfill
47.5 C.Y. Class II Backfill

- (3-2) 43.5 Tons Erosion Control Stone Class I
Std. EC-1 req'd.

- (3-3) 102'-18" Conc. Pipe Req'd. (2' Cover)
11' Skew
Inv. In=1136.69 Inv. Out=1134.69
2 Std. ES-1 Req'd.
5.0 Tons Erosion Control Stone, Class I
Std. EC-1 Req'd.
14.5 Tons Bedding Material
Aggregate No. 25 or 26
12 C.Y. Class I Backfill
37 C.Y. Class II Backfill

- (3-4) 1 Std. DI-2B Req'd.
L=8' H=3.9' Inv. 1135.09

- (3-5) 6'-4"x4' Conc. Box Culvert Req'd. (4' Cover)
Extend Existing 4"x4' Conc. Box Culvert
To Tie To Proposed Wall
34.0 Tons Erosion Control Stone, Class I
Std. EC-1 Req'd.

- (3-6) 28'-15" Corrugated metal Pipe Req'd. (4' Cover)
Inv. In=1135.59 Inv. Out=1133.49
1 54" Bend Req'd.
Connect to Existing 15" CMP
1 Std. ES-1 Req'd.
3.0 Tons Erosion Control Stone, Class I
Std. EC-1 Req'd.
3.0 Tons Bedding Material
Aggregate No. 25 or 26
1.5 C.Y. Class I Backfill
5.5 C.Y. Class II Backfill

- (3-7) 1 Std. DI-3A Req'd.
H=4.2' Inv. 1135.69

- (3-8) 1 Std. ES-1 Req'd.
Connect To Paved Ditch

- (3-7) (3-8) 27'-18" Conc. Pipe Req'd. (3' Cover)
Inv. In=1135.69 Inv. Out=1132.19
4.0 Tons Bedding Material
Aggregate No. 25 or 26
3.0 C.Y. Class I Backfill
10.0 C.Y. Class II Backfill

- (3-9) 120' - Triple 12"x6' Conc. Box Culvert Req'd
Std. BCT-DT, BCT-02
Std. BGR-01 Req'd. (Due to Shallow Cover
Over Box)
4 BCW-21, Special Design Req'd.
See Sheet 9 For Details
Inv. In = 1131.79 Inv. Out = 1130.59
221 Tons Erosion Control Stone
Class I Std. EC-1 Req'd
See Sheet 2J For Low Flow Diversion Dike

SHEET 4

- (4-1) 103'-48" Conc. Pipe Req'd. (4' Cover)
15' Skew
Inv. In=1138.59 Inv. Out=1137.29
2 Std. EW-2 Req'd.
27 Tons Erosion Control Stone, Class I
Std. EC-1 Req'd.
157.0 Tons Bedding Material
Aggregate No. 25 or 26
75.5 C.Y. Class I Backfill
154.0 C.Y. Class II Backfill
46.0 C.Y. Minor Structure Excavation

- (4-2) 41'-18" Conc. Pipe Req'd. (Min. Cover)
6.0 Tons Bedding Material
Aggregate No. 25 or 26
4.5 C.Y. Class I Backfill
15.0 C.Y. Class II Backfill

- (4-3) 69'-18" Conc. Pipe Req'd. (3' Cover)
Inv. In= 1133.99 Inv. Out= 1133.59
9.7 Tons Bedding Material
Aggregate No. 25 or 26
8.0 C.Y. Class I Backfill
25.1 C.Y. Class II Backfill
Note: Pipe Shall be Temporarily Plugged
on Each End For Stage II Construction.
The Price Bid for the Plugs Shall be
Included in the Price of the Pipe.

SHEET 5

- (5-1) 1 Std. DI-2B Req'd.
L=8' H=3.9' Inv. 1132.49

- (3-4) (5-1) 220' - 15" Conc. Pipe Req'd (2' Cover)
Inv. In 1135.09 Inv. Out 1132.59
27.5 Tons Bedding Material
Aggregate No. 25 or 26
11.5 C.Y. Class I Backfill
45 C.Y. Class II Backfill

- (5-2) 6' - 15' Conc. Pipe Req'd (2' Cover)
Inv. In = 1132.50 Inv. Out = 1132.09
Tie To Prop. Retaining Wall
3 Tons Erosion Control Stone
Class I Std. EC-1 Req'd
2.5 Tons Bedding Mat.
Aggregate No. 25 or 26
1.0 C.Y. Class I Backfill
4.0 C.Y. Class II Backfill

SHEET 6

- (6-1) 58'-36" Conc. Pipe Req'd. (Min Cover)
18.0 Tons Bedding Material
Aggregate No. 25 or 26
11.0 C.Y. Class I Backfill
29.0 C.Y. Class II Backfill

- (6-2) 50'-36" Conc. Pipe Req'd. (2' Cover)
Inv. In=1159.39 Inv. Out=1147.09
15.5 Tons Bedding Material
Aggregate No. 25 or 26
9.5 C.Y. Class I Backfill
25.0 C.Y. Class II Backfill

- (6-3) 55'-36" Conc. Pipe Req'd. (3' Cover)
Inv. In=1137.79 Inv. Out=1135.89
Connect to Structure 6-5
17.0 Tons Bedding Material
Aggregate No. 25 or 26
10.5 C.Y. Class I Backfill
28.0 C.Y. Class II Backfill

- (6-4) 6'-42" Conc. Pipe Req'd. (2' Cover)
Inv. In=1137.42 Inv. Out=1136.80
1 Std. EW-11 For 42" Conc.
Pipe Req'd. (4:1 Slope)
Connect to Structure 6-6
2.2 Tons Bedding Material
Aggregate No. 25 or 26
1.5 C.Y. Class I Backfill
3.5 C.Y. Class II Backfill

- (6-5) 6.1 LF Std. MH-2 Req'd.
1 Std. MH-1 Frame and Cover Req'd.
Inv.=1134.69
Std. IS-1 Req'd.

- (6-6) 4.8 LF Std. MH-2 Req'd.
1 Std. MH-1 Frame and Cover Req'd.
Inv.=1136.7
Std. IS-1 Req'd.

- (6-7) 40'-42" Conc. Pipe Req'd. (2' Cover)
Inv. In=1136.70 Inv. Out=1135.69
Connect to Structure 6-5
14.5 Tons Bedding Material
Aggregate No. 25 or 26
9.1 C.Y. Class I Backfill
23.6 C.Y. Class II Backfill

SANITARY SEWER DESCRIPTIONS

- SSMH-100 4.26'- Sanitary Sewer Manhole
Roanoke County Straddle Manhole
Rim Elev. = 1134.67
Inv. In = 1130.41

- SSMH-101 3.87'- Sanitary Sewer Manhole
4' Standard Manhole
Rim Elev. = 1134.54
Inv. In = 1130.77
Inv. Out = 1130.67
Inv. 6" In = 1131.55

- SSMH-102 9.32'- Sanitary Sewer Manhole
4' Standard Manhole
Rim Elev. = ~~1140.39~~ 1140.08
Inv. In = 1131.17
Inv. Out = 1131.07
Inv. 6" In = 1131.34

- SSMH-103 6'- Sanitary Sewer Manhole
4' Standard Manhole
Rim Elev. = ~~1134.59~~ 1134.39
Inv. In = 1134.49
Inv. Out = 1134.39
Inv. 6" In = 1134.66
Inv. 6" In = 1134.66

- SSMH-104 11.46'- Sanitary Sewer Manhole
Mainline Drop Manhole
4.46' - 8" Drop Connection
Rim Elev. = ~~1147.59~~ 1147.07
Inv. In = 1140.39
Inv. Out = 1135.93

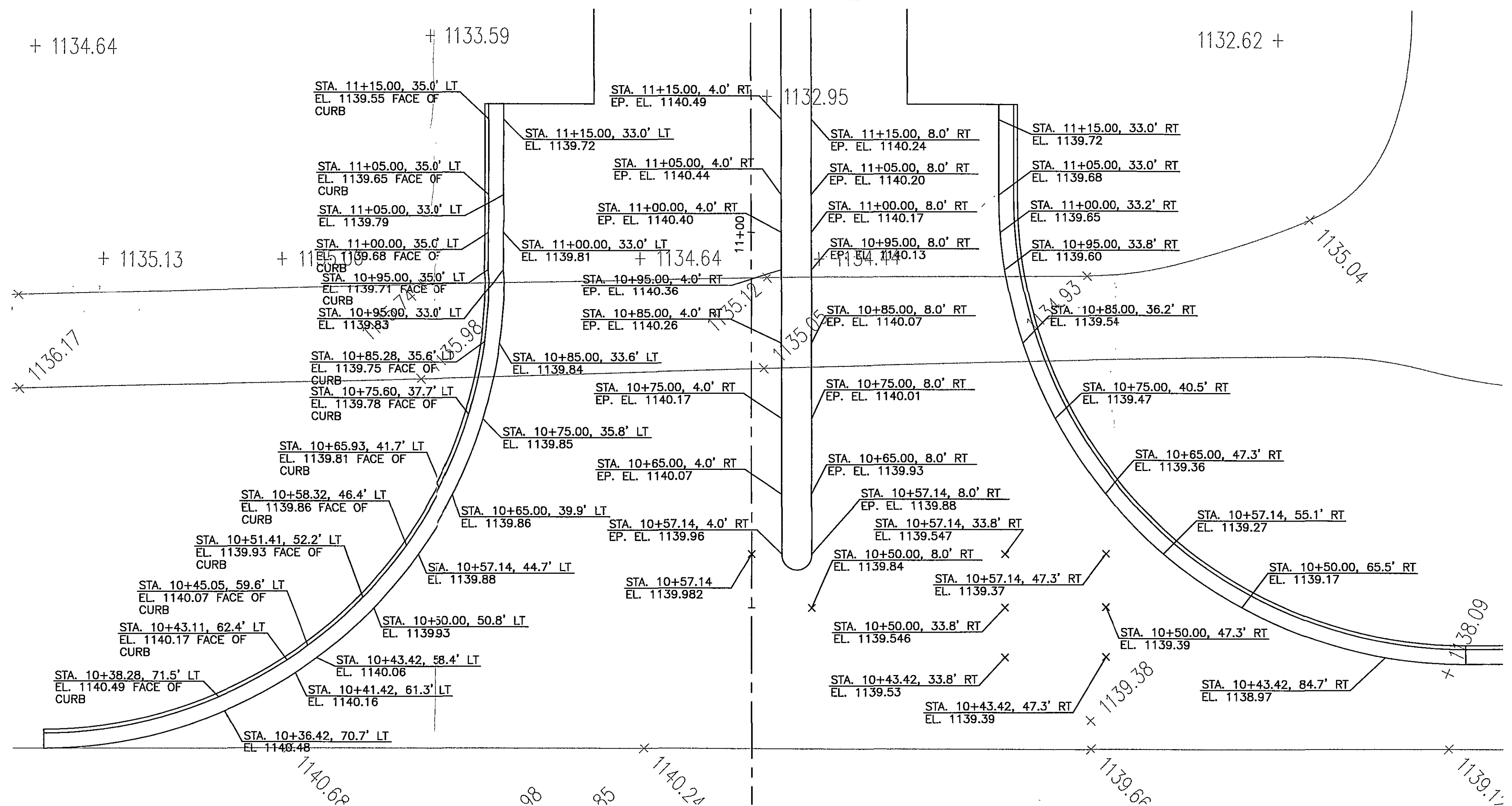
- SSMH-105 7.80'- Sanitary Sewer Manhole 4'
Rim Elev. = ~~1152.19~~ 1152.24
Inv. Out = 1144.39

- SSMH-106 3'- Sanitary Sewer Manhole
4' Standard Manhole
Sanitary Sampling Manhole
Rim Elev. = 1134.64
Inv. In = 1131.74 (Plug)
Inv. Out = 1131.64

- SSMH-107 3'- Sanitary Sewer Manhole
4' Standard Manhole
Sanitary Sampling Manhole
Rim Elev. = 1135.29
Inv. In = 1132.29 (Plug)
Inv. Out = 1132.25

- SSMH-108 3'- Sanitary Sewer Manhole
4' Standard Manhole
Sanitary Sampling Manhole
Rim Elev. = 1139.49
Inv. In = 1136.59 (Plug)
Inv. Out = 1136.49

- SSMH-109 3'- Sanitary Sewer Manhole
4' Standard Manhole
Sanitary Sampling Manhole
Rim Elev. = 1138.28
Inv. In = 1135.38 (Plug)
Inv. Out = 1135.28



INTERSECTION ELEVATION DETAIL

SCALE: 1"=10'

SEALS



**SIGNALIZATION OF INDIAN GRAVE ROAD
AND ROUTE 220**
0675-080-320, C-501, D-690
0674-080-319, M-501, B-689
DEPARTMENT OF COMMUNITY DEVELOPMENT
COUNTY OF ROANOKE
ROANOKE, VIRGINIA

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HIGHWAY

**DRAINAGE AND SANITARY SEWER
DESCRIPTIONS AND INTERSECTION
GRADING DETAIL SHEET**

2K