

'ARTMENT OF TRANSPORTATION GENERAL NOTES

1. QUALITY CONTROL

Streets to be graded, paved and all structural components erected in accordance with the Virginia Department of Transportation Road and Bridge Specifications and Road Design Standards dated January 1987. All materials used shall be tested in accordance with standard policies. The Developer must contact the Office of the Resident Engineer prior to beginning any construction at which time an Inspection and Testing Procedure Policy will be drawn. The Developer will produce test reports from approved independent laboratories at the Developer's expense.

The pavement designs shown are based on a subgrade rating of CBR10 or greater. The subgrade soil is to be tested by an independent laboratory and the results submitted to the Virginia Department of Transportation prior to pavement construction. Should the CBR values be less than CBR10, then additional base material will be required in accordance with departmental specifications.

The subgrade must be approved by the Virginia Department of Transportation prior to placement of base material. Base must be approved by the Virginia Department of Transportation for depth, template and compaction before surface is applied.

2. UTILITIES

All necessary utility laterals will be placed prior to pavement base and conduit provisions made for the same (i.e. water, sewer, gas and telephone). Gas or petroleum transmission lines will not be permitted within the pavement or shoulder element (back of curb to back of curb) of this development. Service laterals crossing and pipe lines located outside the pavement but inside the right-of-way will be constructed in conformity with AASA B 31.8 Specification and Safety Regulations. Distribution lines with pressure less than 120 psi are unaffected by the above.

Permits will be required for all utilities within the street right-of-way prior to acceptance into the secondary highway system.

Any easements granted to a utility company for placement of power, telephone, etc..., must be released prior to acceptance.

3. PRIVATE ENTRANCES

Standard CG-8 gutter will be provided at all entrances to private lots where standard CG-6 curb and gutter is approved for use.

Permits will be required for all private entrances constructed on street rights—of—way prior to acceptance into the secondary highway system.

4. EROSION CONTROL AND LANDSCAPING

Care must be taken during construction to prevent erosion, dust and mud from damaging adjacent property, clogging ditches, tracking public streets and otherwise creating a public nuisance to surrounding areas.

The entire construction area back of the curbs and or pavement shall be backfilled and seeded together with ditches and channels, at the earliest possible time after final grading.

Drainage easements must be defined by excavated ditches or channels for their full length to well defined existing natural watercourses.

The road will be reviewed during construction for the need of paved gutters. If erosion is encountered in any drainage easement, it will be the responsibility of the Developer to sod, rip—rap, grout, pave, or do whatever is necessary to correct the problem.

All vegetation and overburden to be removed from shoulder to shoulder prior to conditioning (cutting and/or preparation) of the subgrade.

Minimum pavement rodius of 25 feet required at all street intersections.

While these plans have been approved, such approval does not exempt connections with existing State maintained roads from critical review at the time permit applications are made. This is necessary in order that the prevailing conditions be taken into consideration regarding safety accompaniments such as turning lanes.

Standard quardrail with safety end sections may be required on fills as deemed necessary by the VDOT Engineer. After completion of rough grading operations, the VDOT Engineer shall be notified so that a field review may be made of the proposed locations.

Field review will be made during construction to determine the need and limits of paved gutter and/or ditch stabilization treatments, to determine the need and limits of additional drainage easements. All drainage easements must be cut and made to function to a natural watercourse. Any erosion problems encountered in an easement must be corrected by whatever means necessary prior to subdivision acceptance.

Contractor shall obtain entrance permit to the existing Virginia Department of Transportation right-of-way from the Resident Engineer prior to road construction.

An Inspector will not be furnished except for periodic progress inspection, the above mentioned field reviews and checking the required stone depths. The Developer will be required to post a surety to guarantee the road free of defects for one year after acceptance by the Virginia Department of Transportation.

The streets must be properly maintained until acceptance. At such time as all requirements have been met for acceptance, another inspection will be made to determine that the street has been properly maintained.

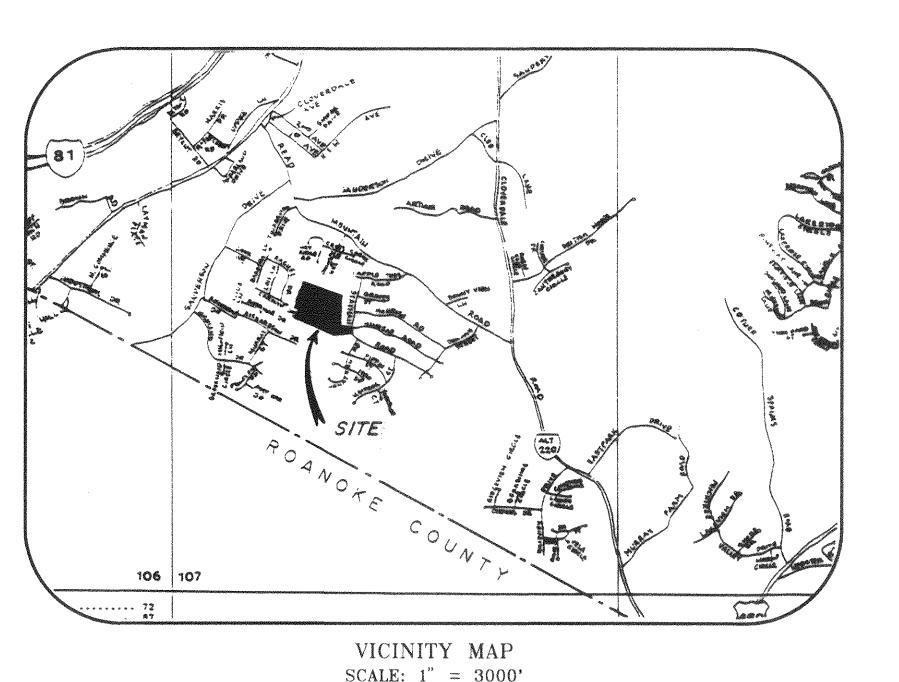
In order to meet public service requirements, all streets must serve a minimum of three occupied dwellings prior to acceptance.

The Contractor shall verify the location and elevation of all underground utilities shown on the plans in areas of construction prior to starting work. Contact the Engineer immediately if the location or elevation is different from that shown on the plan. If there appears to be a conflict, and upon discovery of any utility not shown on this plan. call "Miss Utility" of Central Virginia at 1—800—552—7001.

Approval of these plans will be based on specification and standards in effect at the time of approval and will be subject, until completion of the roadway and accepatance by the Virginia Department of Transportation, to future revisions of the Specifications and Standards.

APPLIBURIE WIEST SHCHION III

DEVELOPMENT PLANS BLUE RIDGE MAGISTERIAL DISTRICT BOTETOURT COUNTY, VIRGINIA



TAX NO: 107(4)63 PRESENT ZONING: PRESENT USE:

SEWER:

PROPOSED USE:

TRACT SIZE: 11.9005 ACRES

VACANT SINGLE FAMILY HOMES

BOTETOURT COUNTY DEPARTMENT OF PUBLIC WORKS

MOUNTAINVIEW WATER COMPANY

PHONE:

DEVELOPER: STRAUSS CONSTRUCTION ADDRESS: 5100 BERNARD DR. S.W. P.O. BOX 20287

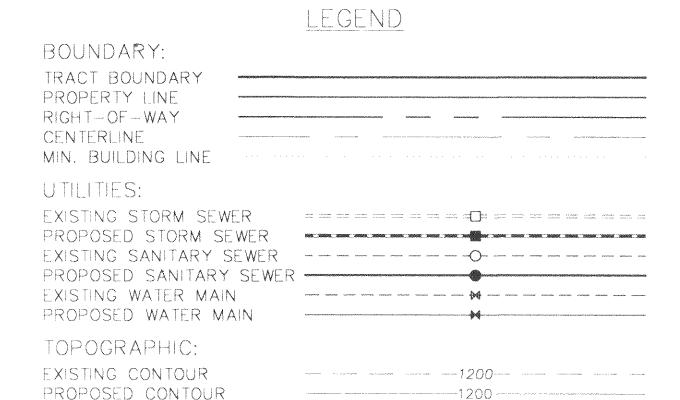
ROANOKE, VA. 24018 (703)989 - 7060(703)989 - 7062

HORIZONTAL AND VERTICAL CONTROL SURVEY PERFORMED IN 1992 BY ROBERT G. CANTLEY, INC.

ALL ELEVATIONS ARE REFERENCED TO THE U.S.G.S. DATUM

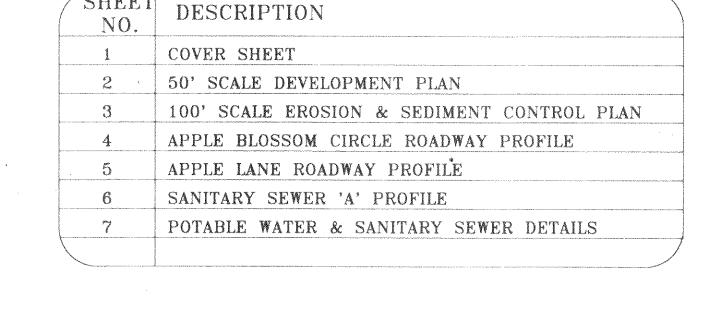
SOURCE OF TOPOGRAPHIC MAPPING IS ROBERT G. CANTLEY, INC. UNLESS OTHERWISE NOTED

BOUNDARY SURVEY PERFORMED BY ROBERT G. CANTLEY, INC.



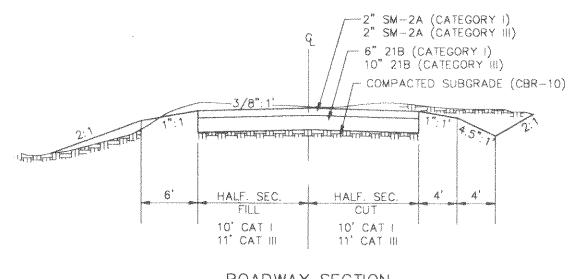
EROSION CONTROL DETAIL SYMBOLS:

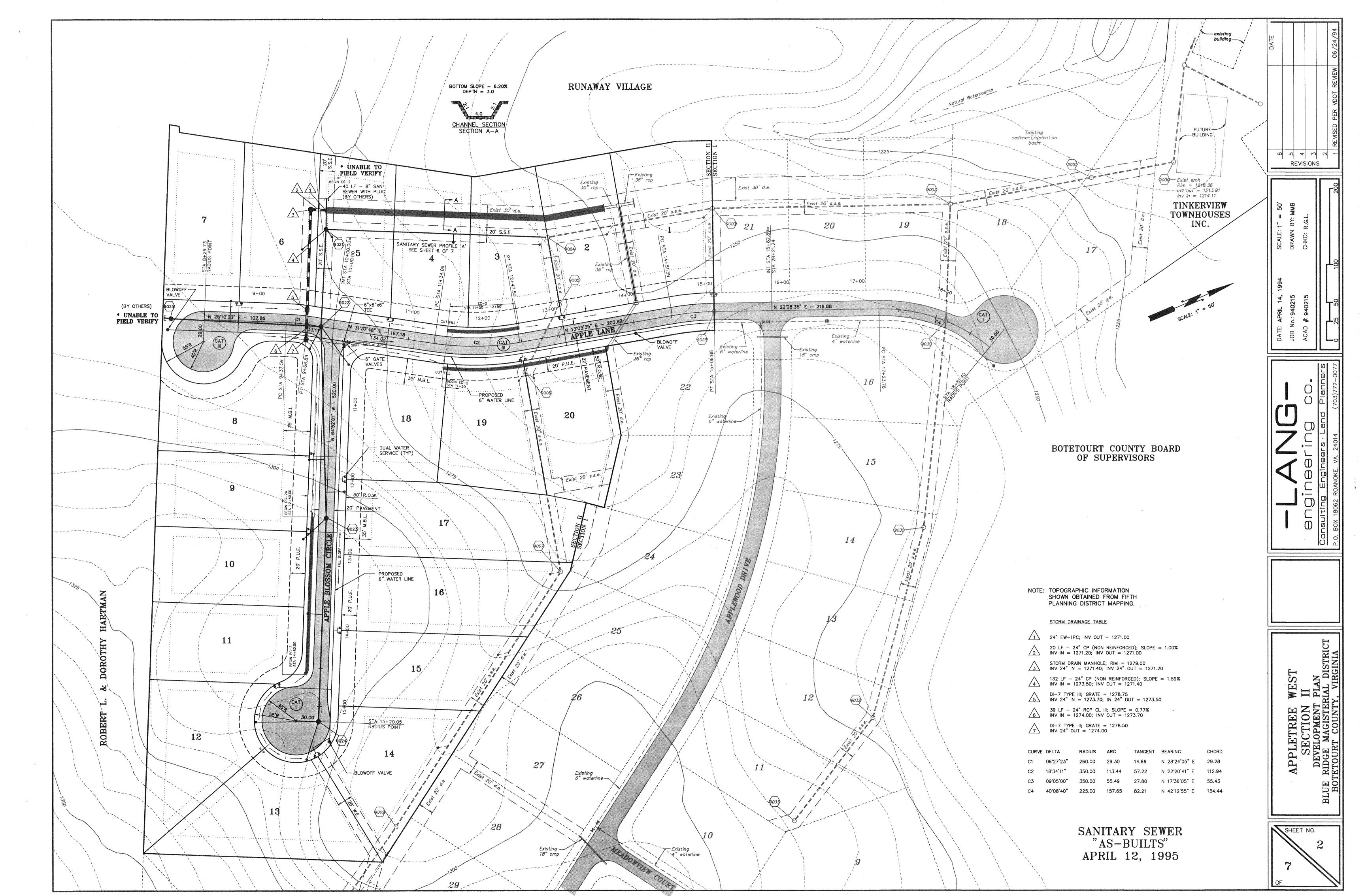
- Std. & Spec. 3.02; Temporary Gravel Construction Entrance
- Std. & Spec. 3.03; Construction Road Stabilization
- Std. & Spec 3.05; Silt Fence
- Std. & Spec. 3.07; Storm Drain Inlet Protection
- Std. & Spec. 3.18: Outlet Protection
- Std. & Spec. 3.20; Check Dams
- (PS) Std. & Spec. 3.32; Permanent Seeding

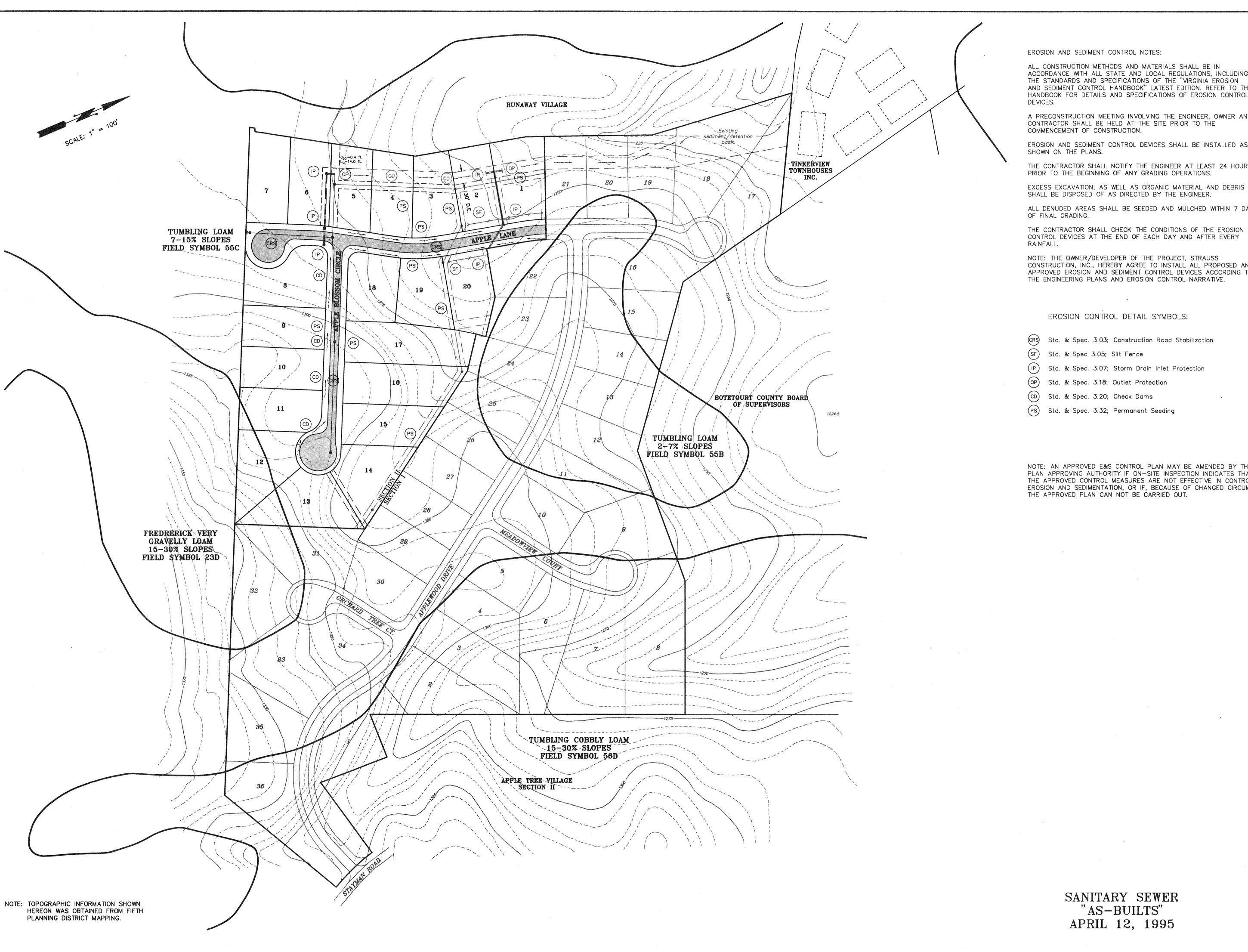




SANITARY SEWER "AS-BUILTS" APRIL 12, 1995







ALL CONSTRUCTION METHODS AND MATERIALS SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS, INCLUDING THE STANDARDS AND SPECIFICATIONS OF THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK" LATEST EDITION. REFER TO THIS HANDBOOK FOR DETAILS AND SPECIFICATIONS OF EROSION CONTROL

A PRECONSTRUCTION MEETING INVOLVING THE ENGINEER, OWNER AND CONTRACTOR SHALL BE HELD AT THE SITE PRIOR TO THE

EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED AS

THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 24 HOURS

ALL DENUDED AREAS SHALL BE SEEDED AND MULCHED WITHIN 7 DAYS

THE CONTRACTOR SHALL CHECK THE CONDITIONS OF THE EROSION CONTROL DEVICES AT THE END OF EACH DAY AND AFTER EVERY

CONSTRUCTION, INC., HEREBY AGREE TO INSTALL ALL PROPOSED AND APPROVED EROSION AND SEDIMENT CONTROL DEVICES ACCORDING TO THE ENGINEERING PLANS AND EROSION CONTROL NARRATIVE.

NOTE: AN APPROVED E&S CONTROL PLAN MAY BE AMENDED BY THE PLAN APPROVING AUTHORITY IF ON-SITE INSPECTION INDICATES THAT THE APPROVED CONTROL MEASURES ARE NOT EFFECTIVE IN CONTROLLING EROSION AND SEDIMENTATION, OR IF, BECAUSE OF CHANGED CIRCUMSTANCES.

SHEET NO.

SCALES: 1" = 50' HOR 1" = 10' VER 1340 1340 RADIUS POINT STA 15+20.05 (30'RT) ELEV = 1308.32 6022 SMH - STA 9+98.30 1330 1330 15.00 RT 15.00 RT RIM = 1279.85 **1279.20** INV 4" LAT IN = 1270.33 (2 PLACES) **1269.63** INV IN = 1270.00 **1269.65** INV OUT = 1269.80 **1269.40** O24-SMH + STA 15+20.05 RIM = 1308.32 **1307.43** INV 4" LAT IN = 1300.33 (2 PLACES) **1299.29** INV OUT = 1300.00 **1299.18** 1320 1320 SMH - STA 12+50.00 (INSIDE DROP MANHOLE) RIM = 1299.69 1300.18 INV 4" LAT IN = 1292.93 1292.38 INV IN = 1293.60 1292.38 INV OUT = 1292.60 1292.18 INT STA 10+00.00 APPLE BLOSSOM CIRCLE = STA 10+00.00 APPLE LANE ELEV = 1279.09 BLOWOFF VALVE 1310 1310 INT STA 8+69.60 15.00 RT
APPLE BLOSSOM CIRCLE =
STA 10+00.00 SEWER PROFILE 'A' STA 10+15.00 ELEV 1278.62 Original — ground ELEV = 1278.501300 PROPOSED — CENTERLINE PROFILE 1300 (9021) SMH - STA 8+69.60
15.00 RT
RIM = 1278.50- 1278.09
INV 6" LAT IN = 1268.33 (2 PLACES) 1267.64
INV IN = 1268.00- 1267.44
INV OUT = 1267.80- 1267.24 VPI STA 10+65.00 VPI ELEV 1281.12 CURVE LEN = 100.00 - PROPOSED 6" WATER LINE ACTUAL— GROUND 1290 1290 1280 1280 VPI STA 12+60.00 VPI ELEV 1302.57 CURVE LEN = 225.00 SIGHT DISTANCE = 174.81 VPT STA 13+72.50 VPT ELEV 1305.06 1270 1270 — PROPOSED 6" GATE VALVE -6"x6"x6" TEE

251
252 LF - 8" SS ● \$.97%

MATERIAL: PVC SDR-35 265 2.57% 270 LF - 8" SS 9 2.37% MATERIAL: PVC SDR-35 124 1.58% 129 LF - 8" SS @ 1.40% MATERIAL: PVC SDR-35 1260 1260 UNABLE TO FIELD VERIFY 1250 1250 APPLE BLOSSOM CIRCLE 1240 1240 1230 1230 1220 1220 14+00 15+00 16+00 12+00 13+00 11+00 9+00 10+00 8+00

 DATE: APRIL 25, 1994
 SCALE: 1" = 50'
 6
 DATE

 JOB No.:940215
 DRAWN BY: MMB
 ACAD #: RCP01070
 CHKD: R.G.L.
 ACAD #: RCP01070
 CHKD: R.G.L.
 ACAD #: RCMSED PER VDOT REVIEW O6/27/94

BONSULTING ENGINEBERS - Land Planners
P.O. BOX 18062 ROANOKE, VA. 24014 (703)772-0077

APPLETREE WEST
SECTION II
CAROLYN DRIVE ROADWAY PROFILE
BLUE RIDGE MAGISTERIAL DISTRICT
BOTETOURT COUNTY, VIRGINIA

SHEET NO.

SANITARY SEWER "AS-BUILTS" APRIL 12, 1995

SCALES: 1'' = 50' HOR1'' = 10' VERSECTION : SMH - STA 7+84.76 RIM = 1288.50 **1288.50** INV IN = 1278.20 **1277.48** INV OUT = 1278.00 **1277.28** SMH - STA 9+84.90 RIM = 1279.85 1279.20 1320 INV 4" LAT IN = 1270.33 (2 PLACES) **1269.63**INV IN = 1270.00 **1269.65**INV OUT = 1269.80 **1269.40** 1320 VPT STA 15+15.00 VPT ELEV 1258.72 1310 1310 INT STA 10+00.00 APPLE LANE =
STA 10+00.00 APPLE BLOSSOM CIRCLE
ELEV = 1279.09 RADIUS POINT STA 8+29.73 | ELEV = 1285.65 1300 1300 RADIUS POINT STA 18+81.40 ELEV = 1253.70 VPI STA 13+65.00 VPI ELEV 1251.45 CURVE LEN = 300.00 VPI STA 16+50.00 VPI ELEV 1265.27 CURVE LEN = 200.00 SIGHT DISTANCE = 164.28 PROPOSED BLOWOFF VALVE 1290 1290 6" GATE VALVE-7 — ACTUAL GROUND STUB AND PLUG 8" PIPE 1280 1280 PROPOSED CENTERLINE PROFILE 030 SMH - STA 18+13.93 RIM = 1257.31 INV 4 LAT IN = 1247.94 INV IN = 1247.81 INV OUT = 1247.61 SMH - STA 15+06.88 - 0025 RIM = 1258.73 : INV 4" LAT IN = 1249.06 INV OUT = 1248.73 * UNABLE TO FIELD VERIFY 1270 AIR RELEASE VALVE 194 3.93% 200 LF - 8" SS @ 4.00% MATERIAL: PVC SDR-35 (BY BOTETOURT CO.) └-6"x6"x6" TEE Original — ground | Original ground 1260 1260 BLOWOFF VALVE— -BLOWOFF VALVE VALVE 6"x6"x6"— TEE " WATER LINE-1250 1250 4" REDUCER VPI STA 10+40.00 VPI ELEV 1279.08 CURVE LEN = 325.00 SIGHT DISTANCE = 283.44 +8" SANITARY - 36" RCP 1240 1240 1230 APPLE LANE 1220 1220 1210 1210 1284.03 1283.41 1262.94 1262.23 1262.15 1262.31 1257.77 1200 1200 8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00

JOB No.:940215 DRAWN BY: MMB

ACAD #: RCP01071 CHKD: R.G.L.

0 25 50 100 20

engineers Land Planners

APPLETREE WEST
SECTION II
APPLE LANE ROADWAY PROFILE
BLUE RIDGE MAGISTERIAL DISTRICT
BOTETOURT COUNTY, VIRGINIA

SHEET NO.

5

OF

SANITARY SEWER
"AS-BUILTS"
APRIL 12, 1995

SCALES: 1" = 50' HOR 1" = 10' VER INSTALLED AS PART OF SECTION I CONSTRUCTION SECTION II INT STA 9+85.00 SEWER PROFILE 'A' = STA 8+69.60 15.00 RT CAROLYN DRIVE ELEV = 1278.50 1300 1300 SMH - STA 9+85.00 RIM = 1278.50 **1278.09** INV 6" LAT IN = 1268.17 **1267.48** INV 4" LAT IN = 1268.33 (2 PLACES) **1267.84** INV IN = 1268.00 **1267.44** INV OUT = 1267.80 **1267.24** 1290 1290 INT STA 12+77.38 SEWER PROFILE 'A' = STA 21+29.52 SEWER PROFILE D NT STA 14+98.03 SEWER PROFILE 'A' = STA 11+36.10 SEWER PROFILE 'C' INT STA 18+11.10 SEWER PROFILE 'A' = STA 18+59.10 SEWER PROFILE 'B' 1280 1280 PROPOSED 24" RCP — 6004 — SMH — STA 12+77.38 (DROP)

RIM = 1257.07

INV 4" LAT IN = 1246.35

INV IN = 1252.17 (FROM SMH 9021)

INV IN = 1246.22 (FROM SMH 9005)

INV OUT = 1246.02 GOO3 SMH - STA 14+98.03 (DROP)

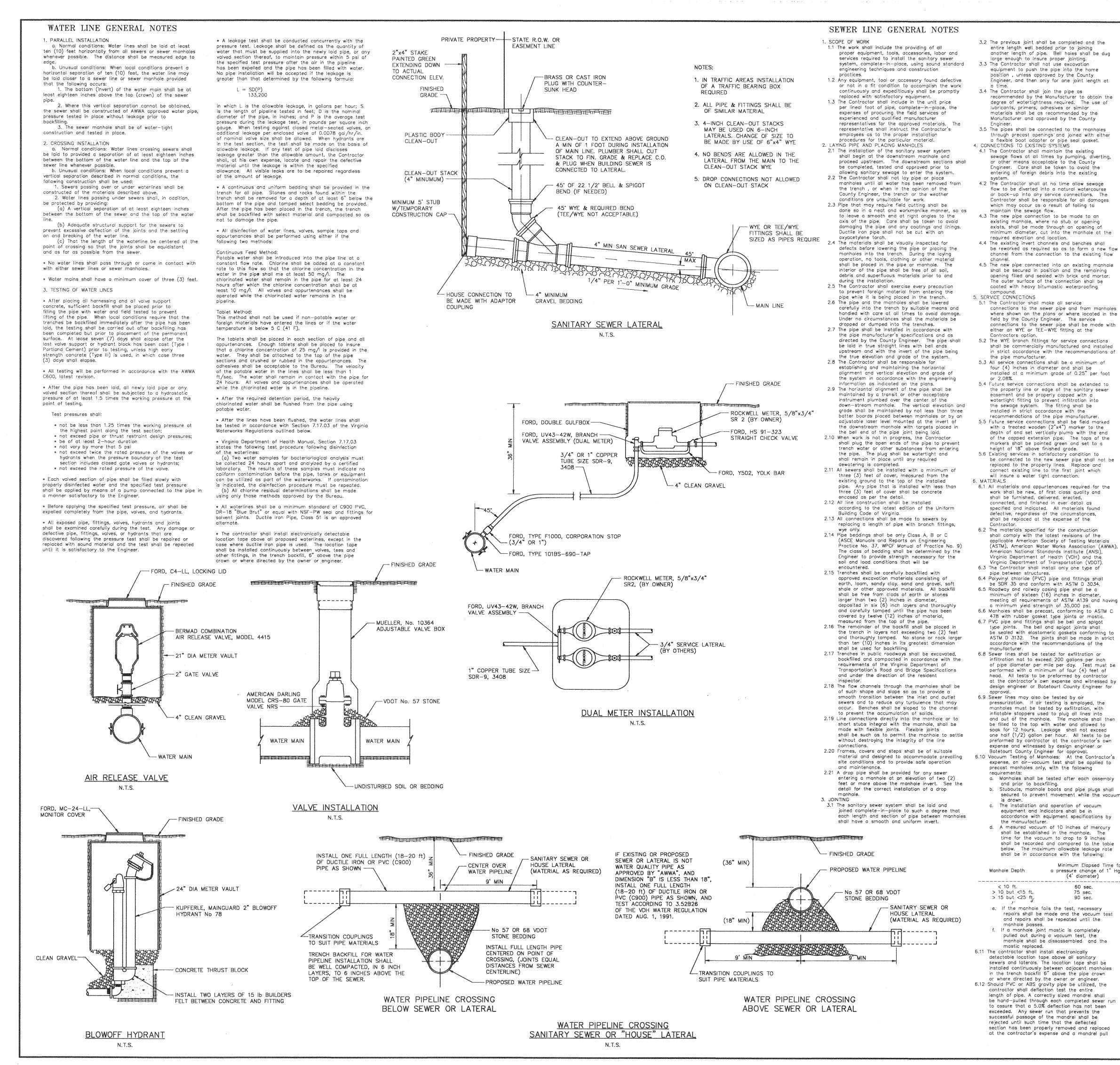
RIM = 1244.82
INV 4" LAT IN = 1236.80
INV IN = 1236.67 (FROM SMH 9004)
INV IN = 1236.67 (FROM SMH 9035)
INV OUT = 1236.47 GO2 - SMH - STA 18+11.10 RIM = 1243.07 INV 4" LAT IN = 1233.55 INV IN = 1233.42 INV OUT = 1233.22 1270 1270 1260 1260 SMH - STA 20+00.43 RIM = 1223.82 INV IN = 1213.22 INV OUT = 1213.02 Original ground 1250 1250 36" RCP -1240 1240 Exist smh - sta 21+10.43 - 6000 rim = 1215.74 inv = 1211.29 INV IN = 1211.54 1230 1230 287 5.25% 292 LF - 8" SS @ 5.06% MATERIAL: PVC SDR-35 217 LF - 8" SS & 4.31% MATERIAL: PVC SDR-35 313 LF - 8" SS @ 0.97% MATERIAL: PVC SDR-35 1220 1220 1210 1210 SEWER PROFILE 'A' 190 LF - 8" SS @ 10.53% MATERIAL: PVC SDR-35 114 LF - 8" SS @ 1.30% MATERIAL: PVC SDR-35 1200 1200 1190 1190 SANITARY SEWER "AS-BUILTS" 1180 APRIL 12, 1995 1180 9+00 10+00 11 + 0012+00 13+00 14+00 15+00 21+00 16 + 0017+00 18+00 19+00 20+00

REVISIONS

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SECTION II
SANITARY SEWER PROFILE "A"
BLUE RIDGE MAGISTERIAL DISTRICT
BOTETOURT COUNTY, VIRGINIA

SHEET NO.



(HEIGHT VARIES) 16" MAX. COPOLYMER POLYPROPYLENE ENCAPSULATED STEEL RISER SECTION (HEIGHT IN 16" MULTIPLES) -GASKET JOINTS, ASTM C443 48" I.D. - FI FXIBI F NEOPRENE -0.2 FT. MINIMUM FALL-BOOT CONTRACTING STANDARD MANHOLE N.T.S. - EXISTING GROUND VARIES (3' MAX.) VARIES 2500 psi CONCRETE SANITARY-SEWER REQUIRED WHEN COVER IS 3' OF LESS CONCRETE ENCASEMENT N.T.S. MANHOLE FRAME AND COVER-DEWEY BROS. MODEL RCR-3000 3" GRADE RING AS NEEDED 12" MAX. 4" GRADE RING CONE SECTION (HEIGHT VARIES) --- CONTRACTING CLAMP 16" MAX. STEPS, MA INDUSTRIES PC-I-PF -VARIES COPOLYMER POLYPROPYLENE (6" MIN) ENCAPSULATED STEEL FLEXIBLE NEOPRENE BOOT RISER SECTION (HEIGHT IN 16" MULTIPLES) REMOVABLE END CAP (REMOVE PORTION OF END CAP FOR EMERGENCY OVERFLOW) 1" GALVANIZED ANCHOR STRAP @ 3' O.C. VERTICAL (TYP) Minimum Elapsed Time for GASKET JOINTS, ASTM C443-DIAMETER TO MATCH INFLOW PIPE (6" MIN) 48" I.D. 90' ELBOW (45° ELBOW OPTIONAL) BASE SECTION (HEIGHT VARIES, 4' MAX.) * * * * * * * * * INSIDE DROP MANHOLE SANITARY SEWER "AS-BUILTS" APRIL 12, 1995

a pressure change of 1" Hg

75 sec.

(4' diameter)

is successfully completed. The testing shall be preformed completely at the expense of the contractor and shall be performed in the presence of the engineer. Mandrel and province ring details shall be approved by the engineer - MANHOLE FRAME AND COVER and shall be sized at 5% less than ASTM dimensions for the sewer pipe. The mandrel test DEWEY BROS. MODEL RCR-3000 shall be preformed no sooner than three (3) months after backfill of the pipe is completed. 3" GRADE RING | AS NEEDED 6.13 The "rerounder" technique shall not be allowed. 4" GRADE RING 12" MAX. A preconstruction meeting shall be held at the site between contractor, developer, engineer, and Botetourt County prior to construction CONE SECTION - STEPS, MA INDUSTRIES PC-I-PF BASE SECTION (HEIGHT VARIES)

REVISIONS

TREI VIIIO SEWI COUN

SHEET NO.