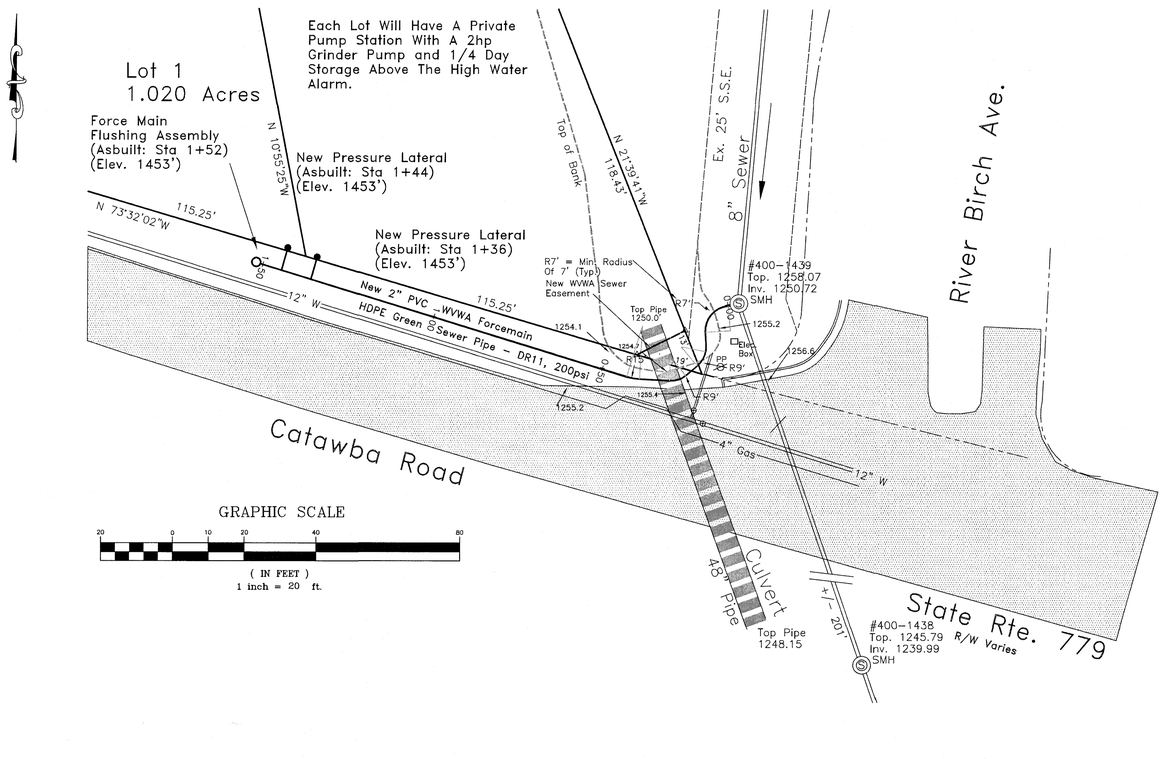
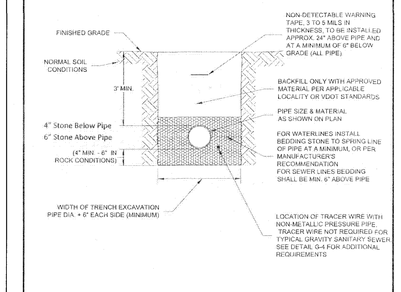


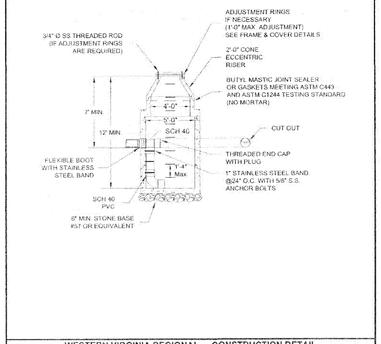
1. BEDDING, HAUNCHING AND INITIAL BACKFILL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THIS DETAIL AND MANUFACTURER'S RECOMMENDATION.
2. ALL PVC PIPE SHALL BE BEDDED IN COMPACTED VDOT #57 OR #68 STONE, OR CRUSHER RUN.
3. IN AREAS SUBJECTED TO VEHICULAR TRAFFIC, BEDDING STONE AND FILL SHALL BE PLACED IN 6" LIFTS FROM BOTTOM OF TRENCH TO 1' ABOVE THE PIPE AND THE REMAINING SHALL BE PLACED IN 12" LIFTS AND SHALL BE COMPACTED TO AT LEAST 90% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D 698.
4. BEDDING REQUIREMENTS FOR DUCTILE IRON WATER LINE ARE DEPENDENT ON MANUFACTURER'S BEDDING CRITERIA.
5. ALL EXCAVATIONS SHALL COMPLY WITH OSHA TECHNICAL MANUAL, CHAPTER 2, TITLED "EXCAVATIONS: HAZARD RECOGNITION IN TRENCHING AND SHORING."
6. THE TRACER WIRE SHALL BE PLACED ALONG THE LOWER QUADRANT OF THE PIPE. THE WIRE SHALL NOT TOUCH THE PIPE, BUT SHALL BE A MAXIMUM OF 6" FROM THE PIPE. NON-METALLIC SPACERS MAY BE USED TO MAINTAIN A SET DISTANCE FROM THE UTILITY.



WESTERN VIRGINIA REGIONAL - CONSTRUCTION DETAIL

BEDDING AND BACKFILL OUTSIDE OF PAVED AREAS — G-11 — 08/01/13

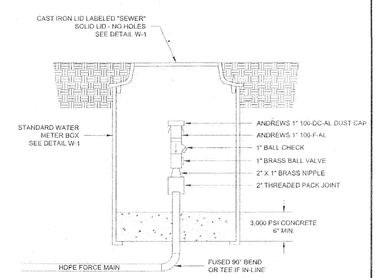
1. MATERIALS AND FABRICATION IN ACCORDANCE WITH ASTM C478-09.
2. STEPS SHALL BE VERTICALLY ALIGNED. FIRST STEP SHALL BE WITHIN 12" OF COVER, BOTTOM STEP SHALL BE WITHIN 24" OF BOTTOM OF MANHOLE.
3. THE FRAME AND COVER SHALL BE PROPERLY ALIGNED WITH THE 2 FOOT OPENING OF THE MANHOLE STRUCTURE AND BOLTED IN PLACE.
4. RELINER BY DURAN INSIDE DROP BOWLS AND PIPE BRACKETS WILL BE ALLOWED.
5. GROUT ANNULAR SPACE BETWEEN PIPE AND PRECAST MANHOLE ON INSIDE OF MANHOLE.
6. STEPS SHALL BE A MINIMUM OF 90 DEGREES FROM DROP & ALIGNED VERTICALLY.
7. INSIDE DROP ONLY ALLOWED WHEN DEPTH EXCEEDS 12' AND APPROVED BY PARTICIPATING UTILITY.
8. 6' MINIMUM DIAMETER MANHOLE REQUIRED FOR TWO OR MORE INSIDE DROP CONNECTIONS (MAIN LINE OR LATERAL).
9. SEE FRAME AND COVER DETAIL.
10. SEE DETAIL S-01 FOR EXTERIOR COATING AND JOINT SEAL REQUIREMENTS



WESTERN VIRGINIA REGIONAL - CONSTRUCTION DETAIL

INSIDE DROP MANHOLE — S-3 — 01/01/14

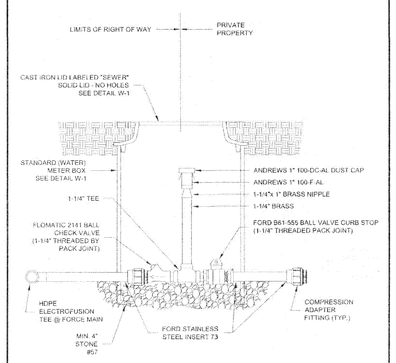
1. INSTALL AT END OF LINES AND AT 1,000 FOOT INTERVALS.



WESTERN VIRGINIA REGIONAL - CONSTRUCTION DETAIL

FORCE MAIN FLUSHING ASSEMBLY — S-9 — 01/01/14

1. ALL CONNECTIONS BETWEEN FORCE MAIN AND BALL VALVE SHALL BE FUSED HDPE.
2. USE ELECTRO FUSION TEE TO CONNECT TO HDPE FORCE MAIN.
3. USE 1 1/4" TAPPING SADDLE TO CONNECT TO PVC OR DUCTILE IRON FORCE MAIN.



WESTERN VIRGINIA REGIONAL - CONSTRUCTION DETAIL

PRESSURE LATERAL ASSEMBLY — S-10 — 01/01/14

NOTE: PROJECT ALSO REFERENCED AS BRINKMAN SEWER EXTENTION

PIERSON ENGINEERING & SURVEYING

P.O. BOX 311
44 CATAWBA ROAD
DALEVILLE, VA 24083

(540) 966-3027 TEL
(540) 966-5906 FAX

SEWER SYSTEM DESIGN FOR CFF PROPERTIES, LLC BOTETOURT COUNTY, VIRGINIA

PLAN SHEET ASBUILT

COMMONWEALTH OF VIRGINIA
06/08/2021
RODERICK F. PIERSON
NO. 023842
PROFESSIONAL ENGINEER

COMMISSION R2019171

SHEET 1

NO. 1 OF 2

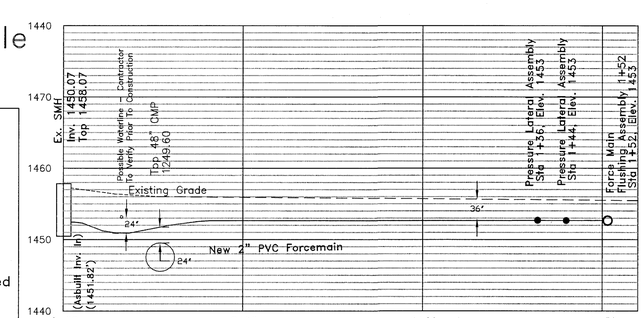
Asbuilt: 06/09/2021

I Hereby Certify That The Work Was Done In Accordance With These Documents, With Reasonable Accuracy, And That Any Deviations Have Been Red-Line Annotated Or Otherwise Captured In Change Order Documentation.

Contractor's Signature, CFF Properties, LLC — Date: 6-17-21

2" PVC Forcemain Profile

1" = 20' Horizontal
1" = 10' Vertical



Utility Backfill Notes:

1. Backfill Material shall include a minimum of (4") inches bedding materials, sand, or stone. The balance of the backfill shall be approved soil compacted to the bottom of the subbase layer (type 1, size 21A or 21B). The entire backfill shall be free from wood, decaying material, asphalt, concrete, ice, frost, large clods, stone, and debris.

2. Backfill material shall be compacted to a minimum of 95% of the theoretical maximum density at optimum moisture content, as determined the Virginia Department of Transportation testing procedures (VTM1) use mechanical tamping throughout the depth of the trench in six (6") inch layers to ensure that adequate support is provided for the subbase layer (type 1, size 21A or 21B).