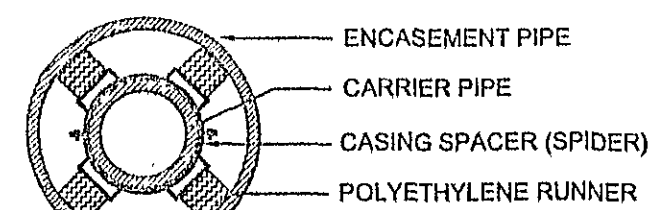
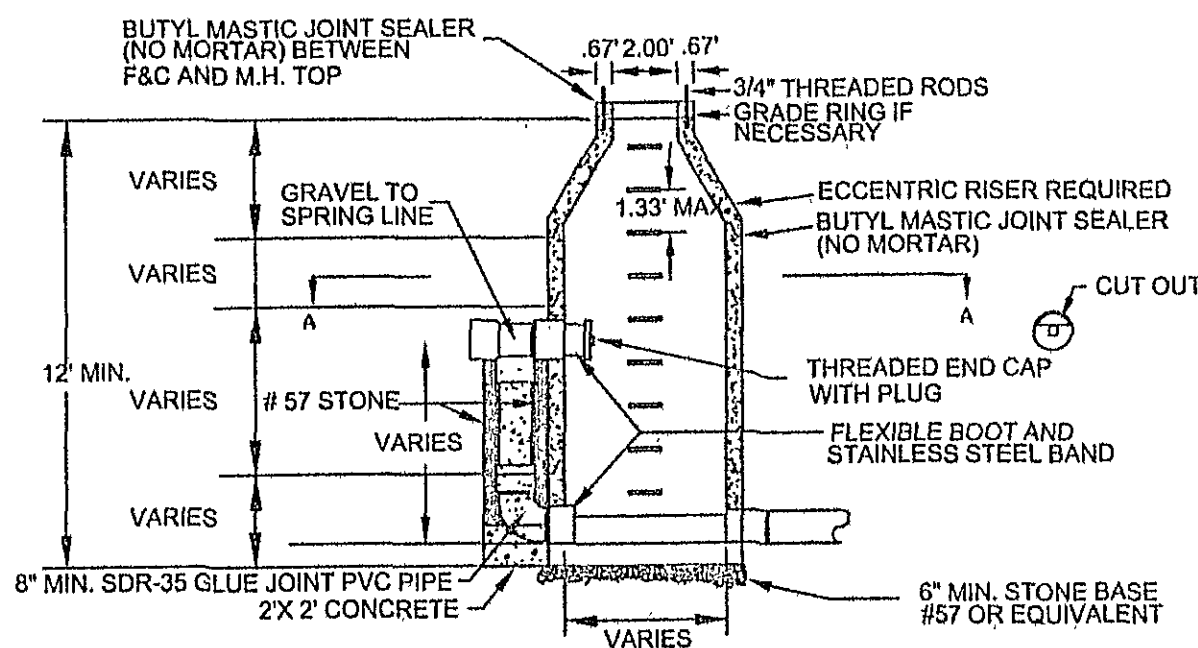


1. ALL MANHOLE FRAMES AND COVERS SHALL BE AS EST. JORDAN IRON WORKS, INC. WATER TIGHT MANHOLE FRAME MODEL #1045Z, WATER TIGHT COVER MODEL #1048AGS AND BOLT-DOWN MANHOLE COVER WHEEL MODEL #1048AGS. ALL MANHOLE BOLT-DOWN MODEL TO BE USED IN AREAS SUBJECTED TO FLOODING OR AS DIRECTED BY THE AUTHORITY.
2. STEPS TO BE VERTICALLY ALIGNED.
3. THE COVERS AND FRAMES SHALL BE PROPERLY ALIGNED WITH THE 2 FOOT OPENING OF THE MANHOLE STRUCTURE AND BOLTED IN PLACE.
4. TOP INVERT LINE SHALL NOT ENTER THROUGH RISE AND SET SECTION.
5. GROUT ANNULAR SPACE BETWEEN PIPE AND PRECAST MANHOLE ON INSIDE OF MANHOLE.

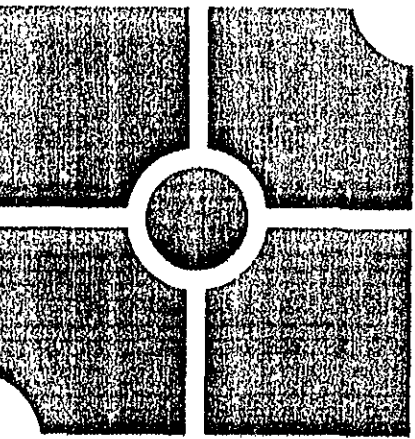
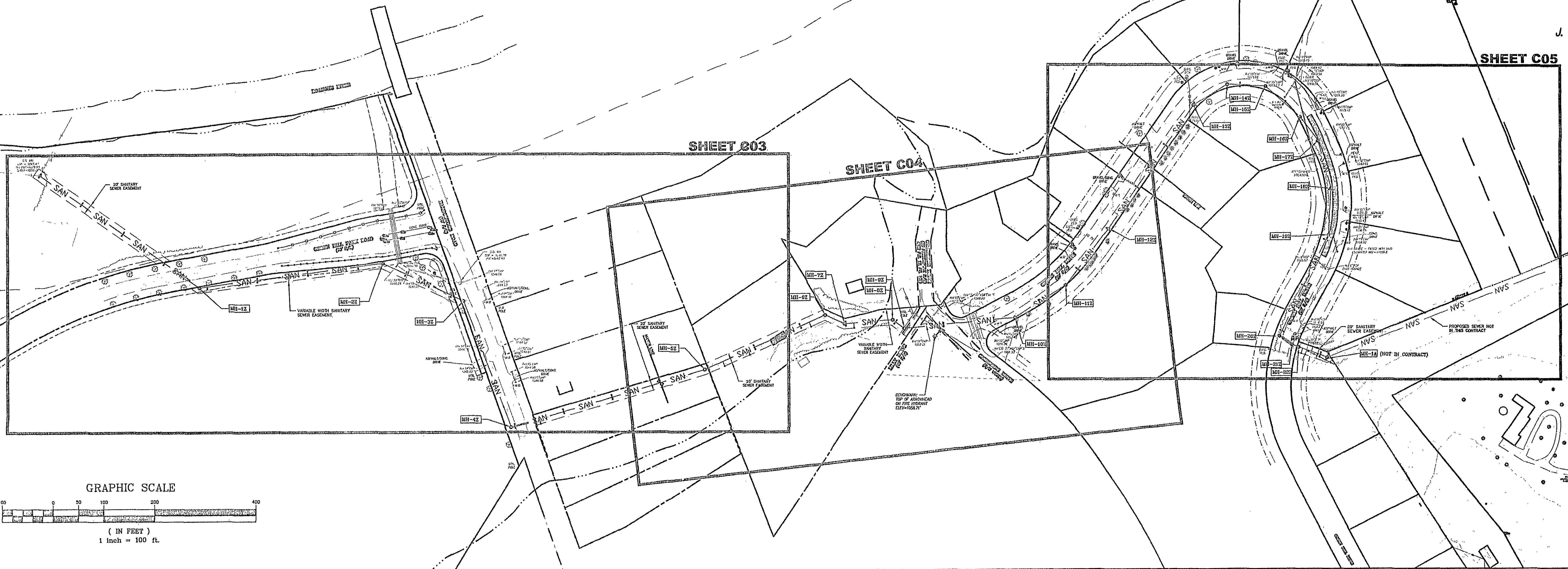


CASING SPACERS SHOULD BE SPACED A MAXIMUM OF 12' BETWEEN CASING SPACERS OR AS RECOMMENDED BY MANUFACTURER. MAXIMUM TOTAL FREE PLAY BETWEEN OUTSIDE OF SPACERS AND INSIDE OF CASING PIPE SHALL BE 1 INCH.

NOTE: A 1" DRAIN WILL BE REQUIRED ON THE LOWER END OF THE CASING IF THE CASING ENDS ARE SEALED WITH MORTAR AND BRICK.

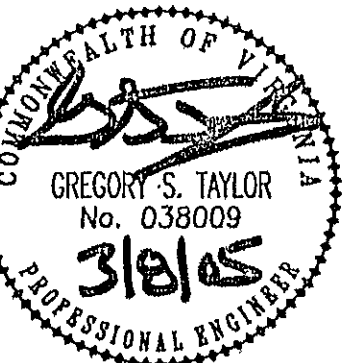
[illegible]

REVISION DATE		PIPE SUPPORT IN CASING PIPE	S-19
07/01/04			



**201 E. Main Street
Suite 100
Salem, Virginia 24153
Phone: 540.387.9100
Fax: 540.387-9101
www.bgbt-design.com**

These documents are the property of Barnes Grogan Bower & Co. for DESIGN GROUP (BGBT) and may not be reproduced or used without the express permission of BGBT. Any reuse of these documents without authorization of BGBT will be at the sole risk of the individual or entity utilizing said documents.



**GREEN HILL
SEWER EXTENSION**
CATAWBA MAGESTERAL DISTRICT
ROANOKE COUNTY, VIRGINIA

WVWA Comments
January 21, 2005
WVWA & VDOT Comments
March 8, 2005

.....

HECKED BY: GST

SCALE: 1"=100'

DATE: **October 13, 2004.**

Overall Plan

WWWA PROJECT ID# 6GXFL9

C02
02 OF 06
PROJECT NUMBER
S03046-03