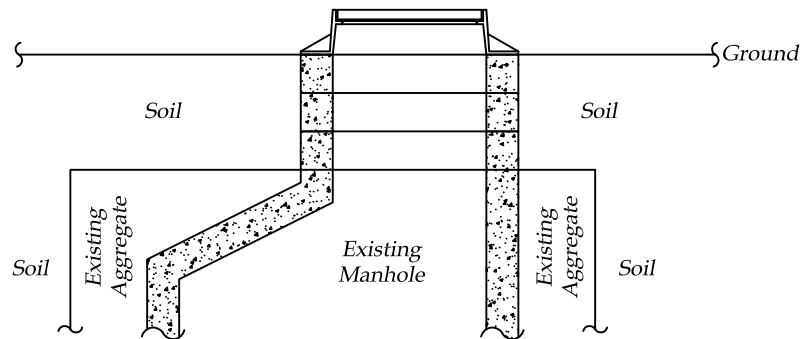


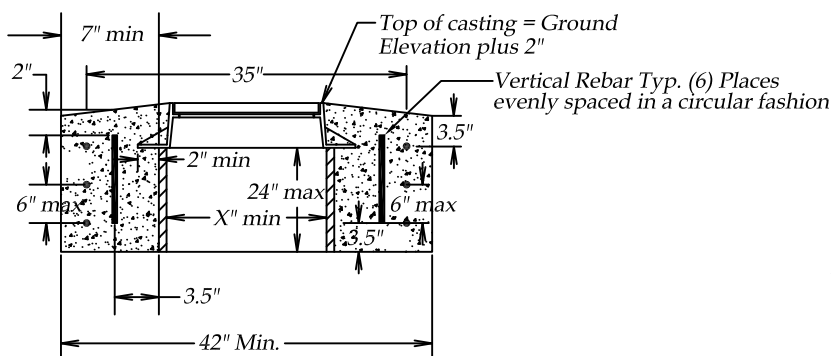
Sample Specification

Sanitary Manhole Chimney Reconstruction in a Yard/Grassed Area

Step #1 - Replacement Chimney Construction



- Measure the distance from the top of the existing cone section to the ground level so that the replacement chimney section can be constructed in a controlled environment (remote location).
- Anchor a cylindrical tube form to a clean, dry, non-stick surface to prevent movement during assembly of the replacement chimney section.
- A Vylon® pipe shall be used as a chimney liner and must be cut such that when the manhole rim and cover are resting on top of the liner, the top of the casting shall be exactly 2" above flush with the adjacent grassed surface.
- Center the Vylon® pipe in the form.
- Apply a liberal amount of white Mr. Manhole Sealant, MM 3006 to the top of the liner. Set the manhole rim casting on the liner while making sure it is properly aligned. This will create a water tight seal between the liner and the manhole rim casting.
- Place the manhole lid on the rim casting to lessen the possibility of loss of concrete.
- Place Epoxy Coated #3 rebars as shown below. The circular shaped rebars shall have a 6" minimum overlap.
- Utilize ODOT-Class C concrete to cast a concrete collar around the rim casting and liner. The surface of the concrete shall be finished from flush with the rim casting to 2" below the rim at the outside edge of the concrete collar. The edge of the concrete shall be rounded (1/4" radius) where it meets the form.




This Specification was prepared
by Materials Testing, Inc.

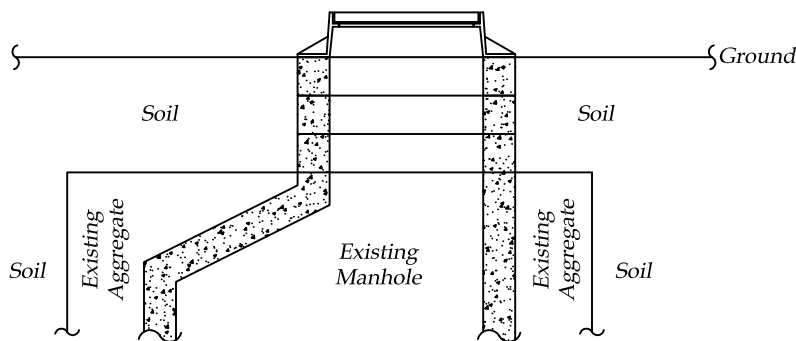
Sample Specification

Sanitary Manhole Chimney Reconstruction in a Yard/Grassed Area

Step #2 - Chimney Removal/Preparation

Existing Manhole with Adjusting Rings and Poor Vertical Alignment (Sectional View)

Legend
 = Concrete



-Precautions must be taken to prevent debris from entering the manhole during the entire removal and reconstruction process. This will prevent the possibility of plugged sewers, interruptions in sewage flow and time required to remove the debris after construction.

-Remove the sod around the existing manhole casting, a minimum diameter of 48" and centered about the casting. Dispose of the sod.

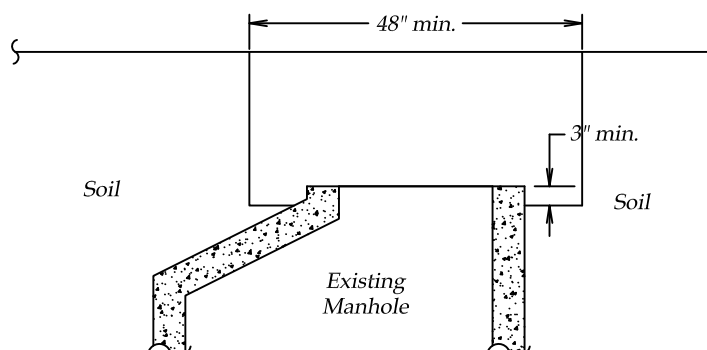
-Remove all soil and/or aggregate around the manhole that has been exposed by the sod removal and dispose of this material. The soil and aggregate must be removed to a minimum of 3" below the level of the top of the concrete cone.

-Remove the casting (manhole rim and cover) from the top of the manhole or manhole adjusting ring(s). Dispose of or recycle the casting as instructed by the owner.

-Remove all adjusting rings to the top of the concrete cone. Dispose of this material.

-Clean and inspect the top surface of the concrete cone. The surface should be smooth and free of bumps and pits that may prevent a good water tight seal. Grind the surface as needed to remove protrusions. Utilize compressed air to blow dust and debris from the surface after grinding. Clean the surface with acetone. Utilize a hydraulic cement, according to manufactures recommendations, to fill in depressions.

Chimney Removed (Sectional View)



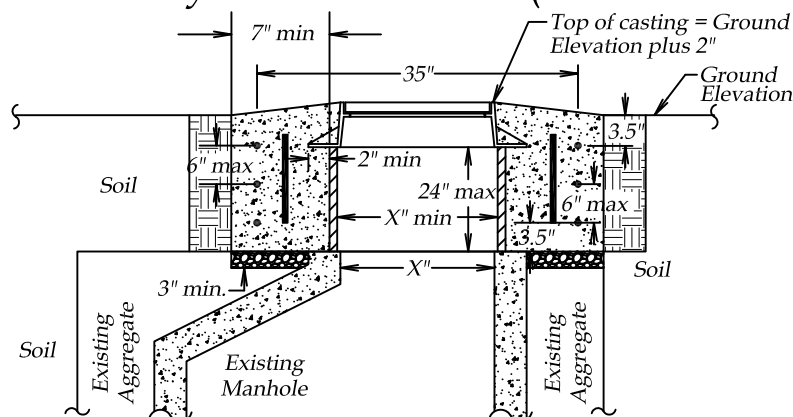
Step #3 - Chimney Reconstruction

Legend



- Apply Butyl Rubber Sealant for watertight seal to the top surface of the cone. This sealant shall be placed in the middle of the outside half of the cone surface as shown on sheet 3 of these specifications.
- Apply Mr. Manhole Sealant, MM3006, for additional watertight seal to the top surface of the cone. This sealant shall be placed in the middle of the inside half of the cone surface as shown on sheet 4 of these specifications.
- Backfill the area around the precast manhole chimney with soil. The soil shall be placed in lifts, which are a maximum of 6" deep. The lifts shall be compacted to 95 percent of standard procter maximum dry density, ASTM D 698.
- The disturbed area shall be seeded and mulched. The seeding mixture shall be pre-approved by the owner.
- The Contractor shall warrant the reconstructed manhole chimney to be leak free and structurally sound for a minimum of 5 years from the date of reconstruction.

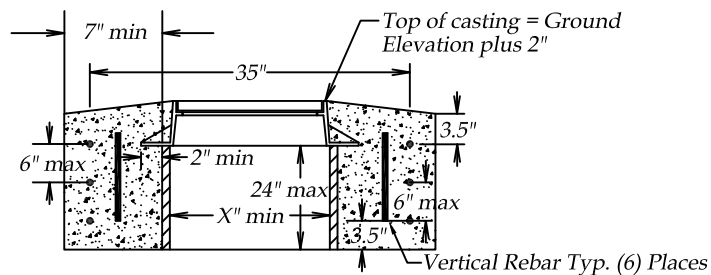
Chimney Reconstruction (Sectional View)



Sample Specification

Sanitary Manhole Chimney Reconstruction in a Yard/Grassed Area


Precast Steel Reinforced Concrete Chimney Detail



LEGEND

A = ConSeal CS-102 or equivalent, 3/8" x 3/4" Butyl Rubber Sealant that meets the requirements of Federal Specification SS-S-210 (210-A), AASHTO M-198B, and ASTM C-990-91

B = 3/8" minimum bead of Mr. Manhole Sealant, MM3006

 = Concrete 4000 PSI (28 Day Cure)

Top of Cone Sealant Detail

