



**GENERAL NOTES:**

1. MANHOLE DESIGN SPECIFICATIONS CONFORM TO LATEST ASTM C478 SPECIFICATIONS FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS" AND NCDOT.
2. CONCRETE COMPRESSIVE STRENGTH 4,000 PSI MIN.
3. STEEL REINFORCING DESIGNED TO CONFORM TO THE REQUIREMENTS OF ASTM C478 AND SHALL UTILIZE GRADE 60 RE-BARS CONFORMING TO THE REQUIREMENTS OF ASTM A615 OR WWF CONFORMING TO THE REQUIREMENTS OF ASTM A185 OR DRAWN WIRE CONFORMING TO THE REQUIREMENTS OF A82 OR A COMBINATION THEREOF.
4. ADDITIONAL REINFORCING AT OPENINGS.
5. DESIGNED FOR H-20 LOADING.
6. STEPS SHALL BE STEEL REINFORCED COPOLYMER POLYPROPYLENE AND MEET THE REQUIREMENTS OF ASTM C478. SEE TYPICAL STEP DETAIL.
7. CONTRACTOR TO ADJUST TO GRADE AS REQUIRED. 4" GRADE RINGS TO BE SUPPLIED BY C.P.C. OR TO BE FIELD ADJUSTED, USING APPROVED METHODS, BY CONTRACTOR.
8. PIPE PENETRATION TO BE AS PER JOB REQUIREMENTS. PIPE TO BE INSTALLED BY CONTRACTOR. SEE TYPICAL MANHOLE PIPE CONNECTION DETAIL.
9. CAST IRON RING AND COVER TO BE AS PER SPECIFICATIONS, SUPPLIED BY EITHER C.P.C. OR CUSTOMER.
10. JOINTS TO BE SEALED WITH PREFORMED BUTYL RUBBER JOINT SEALANT MEETING REQUIREMENTS OF ASTM C990. SEE TYPICAL MANHOLE SECTION JOINT DETAIL.
11. REDUCER IS GROOVED TO ACCEPT 48" DIAMETER RISER SECTION.