



 INDEX MAP

GENERAL NOTES

EXISTING GRADE ELEVATIONS SHOWN IN PROFILE AND CONTOURS SHOWN IN PLAN VIEW WERE COMPILED BY COMPUTER METHODS FROM AERIAL PHOTOGRAPHY.

CONTRACTOR IS TO PERFORM LAY-OUT AND PRODUCE CUT-SHEETS FOR VERIFICATION OF LINE DEPTHS AND MANHOLE QUANTITIES. CONTRACTOR SHALL UTILIZE CUT-SHEETS IN THE PREPARATION OF HIS AS-BUILT DRAWING TO ACCURATELY PORTRAY THE PROFILE. CUT-SHEETS WILL BE FIELD VERIFIED BY ENGINEER. CONTRACTOR SHALL DETERMINE THE BOUNDS OF CONSTRUCTION EASEMENTS AND RIGHT-OF-WAYS AND CONFINE ALL CONSTRUCTION ACTIVITY TO THESE AREAS, PROVIDE CONSTRUCTION WARNING SIGNS, BARRICADES AND FLAGMEN AS NECESSARY. CONTRACTOR SHALL PREVENT SOIL EROSION, CONTROL SILT RUN-OFF, PROVIDE MULCH, SILT FENCES, STRAW BALES OR OTHER MEASURES AS NECESSARY. CONTRACTOR SHALL LOCATE ANY EXISTING UTILITIES.

WHERE EXISTING UTILITIES ARE SHOWN, LOCATIONS ARE APPROXIMATE. CONSULT WITH APPLICABLE UTILITY COMPANIES TO DETERMINE EXACT LOCATIONS OF MAINS AND SERVICE LINES PRIOR TO ANY EXCAVATION. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING PRIVATE PROPERTY. BORE ALL ASPHALT AND CONCRETE PAVEMENT UNLESS THE OWNER APPROVES OPEN CUTTING AND REPAIR. DO NOT CUT FENCES UNLESS THE OWNER APPROVES CUTTING AND REPAIR. PRESERVE TREES AND SHRUBS.

THE CONTRACTOR SHALL HAVE ON HAND AT THE JOB SITE 11 1/4, 22 1/2, 45, AND 90 DEGREE BENDS TO ALLOW FOR THEIR USE WHERE THE ENGINEER REQUIRES INSTALLATION AS NECESSARY.

PIPE JOINT DEFLECTION IS NOT TO EXCEED MANUFACTURER'S ALLOWABLE LIMITS.

AT SOME LOCATIONS, THE CONTRACTOR MAY BE REQUIRED TO PROVIDE EXTRA COVER OVER LINE. COST OF EXTRA COVER IS TO BE INCLUDED IN UNIT PRICE BID FOR LINE INSTALLATION AND NO SEPARATE PAYMENT WILL BE MADE FOR SUCH EXTRA COVER. ALL SUCH LOCATIONS ARE SHOWN ON THE PLANS.

AIR RELEASE VALVE AND AIR VACUUM VALVE LOCATIONS SHOWN ON THE PLANS ARE GENERAL. THE EXACT LOCATIONS SHOULD BE AT THE LOCAL HIGH ELEVATION IN THE VICINITY OF THE ARV OR AVV SHOWN ON THE PLANS.

WATER AND SEWER SEPARATION REQUIREMENT

WATER AND SEWER PARALLEL CONSTRUCTION
ALL WATER AND SEWER FACILITIES SHALL BE SEPARATED BY A MINIMUM OF 10 FEET MEASURED AS THE SHORTEST DISTANCE BETWEEN CLOSEST POINTS. NO WATER MAIN MAY BE CONSTRUCTED WITHIN 10 FT OF A SEWER MAIN, FORCE MAIN, MANHOLE OR ANY OTHER APPURTENANCE EXCEPT FOR CROSSINGS SHOWN ON THE PLANS. CROSSING SHALL MEET THE FOLLOWING REQUIREMENT.

WATER AND SEWER CROSSING
SEWERS CROSSING WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER. THIS SHALL BE THE CASE WHERE THE WATER MAIN IS EITHER ABOVE OR BELOW THE SEWER. THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO MAINTAIN LINE AND GRADE.

WHEN IT IS IMPOSSIBLE TO OBTAIN PROPER HORIZONTAL AND VERTICAL SEPARATION AS STIPULATED ABOVE, ONE OF THE FOLLOWING METHODS SHALL BE REQUIRED:

- A. THE SEWER SHALL BE DESIGNED AND CONSTRUCTED EQUAL TO WATER PIPE,
- B. EITHER THE WATER MAIN OR THE SEWER LINE MAY BE ENCASED IN A WATERTIGHT CARRIER PIPE THAT EXTENDS 10 FEET ON BOTH SIDES OF THE CROSSING, MEASURED PERPENDICULAR TO THE WATER MAIN. THE CARRIER PIPE SHALL BE MADE OF MATERIALS APPROVED BY THE REGULATORY AGENCY FOR USE IN WATER MAIN CONSTRUCTION.

STREAM CROSSING REQUIREMENTS

THE CONTRACTOR SHALL CONSTRUCT STREAM CROSSINGS IN ACCORDANCE WITH THE PLANS, SPECIFICATION AND THE FOLLOWING CONSTRAINTS:

- (1) DURING THE CONSTRUCTION OF THE CROSSING, NO MATERIAL MAY BE PLACED IN THE STREAM OR IN THE FLOOD PLAIN OF THE STREAM TO FORM CONSTRUCTION PADS, COFFER DAMS, ACCESS ROADS, ETC.,
- (2) THE TRENCH SHALL BE BACKFILLED AS CLOSELY AS POSSIBLE TO THE ORIGINAL CONTOUR. ALL EXCESS MATERIAL FROM CONSTRUCTION OF THE TRENCH SHALL BE DISPOSED OF OUTSIDE OF THE FLOOD PLAIN.
- (3) FOR SUBFLUVIAL CROSSINGS OF ERODIBLE CHANNELS, THERE SHALL BE AT LEAST THIRTY (30) INCHES CLEAR TO THE TOP OF THE PIPE OR CONDUIT AT ALL POINTS.
- (4) FOR SUBFLUVIAL CROSSINGS OF NONERODIBLE CHANNELS, THERE SHALL BE AT LEAST SIX (6) INCHES OF CLEAR COVER ABOVE THE TOP OF THE PIPE OR CONDUIT AT ALL POINTS, AND THE PIPE OR CONDUIT SHALL BE ENCASED ON ALL SIDES BY AT LEAST SIX (6) INCHES OF CONCRETE.



WATER, SEWER AND ACCESS ROAD EXTENSIONS
GRACE CLINIC PROJECT
SOUTHEAST KENTUCKY
INDUSTRIAL DEVELOPMENT
AUTHORITY
KNOX COUNTY, KENTUCKY

DATE	BY	REVISION

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