

GENERAL NOTES

1. **MAPPING.** MAPPING FOR THIS PROJECT WAS DEVELOPED FROM AERIAL PHOTOGRAPHS PRODUCED BY BARTON AERIAL TECHNOLOGIES, INC. AND PROVIDED BY THE MUSKINGUM COUNTY ENGINEER'S OFFICE. THE PLAN SHEETS WERE PRODUCED BY SCANNING AND ENLARGING AERIAL PHOTOGRAPHS TO A SCALE OF APPROXIMATELY 1"=50'; THEREFORE, SOME INHERENT INACCURACIES IN SCALE DO EXIST.

2. **UTILITIES AND STRUCTURES SHOWN ON THE PLANS.** THE LOCATION OF UTILITIES AND STRUCTURES, BOTH SURFACE AND SUBSURFACE, ARE SHOWN ON THE PLANS FROM DATA AVAILABLE AT THE TIME OF DESIGN AND ARE NOT NECESSARILY COMPLETE OR CORRECT. THE EXACT LOCATION AND PROTECTION OF UTILITIES AND STRUCTURES ARE THE RESPONSIBILITY OF THE CONTRACTOR. DURING CONSTRUCTION, THE CONTRACTOR SHALL USE DUE DILIGENCE IN PROTECTION FROM DAMAGE TO ALL EXISTING UTILITIES AND STRUCTURES WHETHER SHOWN ON THE PLANS OR NOT. IF DAMAGE IS CAUSED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR RESTORATION OF SAME TO THE SATISFACTION OF THE ENGINEER AND FOR ANY RESULTING CONTINGENT DAMAGE AT NO COST TO THE OWNER.

3. **NOTIFICATION - UTILITY COMPANIES.** THE CONTRACTOR SHALL NOTIFY THE OHIO UTILITIES PROTECTION SERVICE (800-362-2764) AT LEAST FIVE WORKING DAYS PRIOR TO BEGINNING ANY WORK.

THE CONTRACTOR SHALL NOTIFY THE PROPER OFFICIALS OF AFFECTED UTILITY COMPANIES AT LEAST FIVE WORKING DAYS PRIOR TO BEGINNING ANY WORK THAT MAY AFFECT THEIR UNDERGROUND FACILITIES. UTILITY COMPANIES MAY INCLUDE:

- A. COLUMBIA GAS DISTRIBUTION (OUPS) (800) 362-2764
- B. MUSKINGUM CO. SEWER DEPARTMENT (740) 452-4940
- C. MAYSVILLE REGIONAL WATER DISTRICT (740) 849-2428

4. **EXPOSE UTILITIES AND STRUCTURES.** THE CONTRACTOR SHALL EXPOSE EXISTING WATER MAINS, UTILITIES, AND STRUCTURES SUFFICIENTLY IN ADVANCE OF LAYING PROPOSED PIPE TO VERIFY THE LOCATIONS, SIZE, TYPE OF MATERIAL, AND THE PROPOSED GRADE. LOCATIONS NOT MARKED MAY HAVE TO BE EXPOSED. COST FOR ALL LOCATIONS EXPOSED IS TO BE INCLUDED IN THE UNIT BID PRICE PER LINEAL FOOT OF PIPE. FOR ALL POINTS WHERE THE PROPOSED WATER MAIN CONFLICTS WITH EXISTING UTILITIES, THE PROPOSED WATER MAIN SHALL BE LOWERED TO PROVIDE 15 INCH MINIMUM CLEARANCE BETWEEN LINES, EXCEPT WHEN A SANITARY SEWER IS ENCOUNTERED, THE PROPOSED WATER MAIN SHALL HAVE A MINIMUM CLEARANCE OF 18 INCHES. REFER TO NOTE 24 FOR REQUIREMENTS FOR DRAINAGE ITEMS.

5. **WATER MAIN LOCATIONS.** UNLESS OTHERWISE INDICATED, WATER MAINS LOCATED WITHIN COUNTY AND TOWNSHIP ROAD RIGHT-OF-WAY SHALL BE INSTALLED AT A MINIMUM OF (5) FEET FROM THE EDGE OF PAVEMENT WHEREVER POSSIBLE. WATER MAIN APPURTENANCES WHICH MAY PROTRUDE ABOVE GROUND LEVEL SUCH AS VALVE, AIR RELEASES, FLUSH HYDRANTS, ETC. SHALL BE INSTALLED BEHIND THE DITCH LINES OF ALL ROADS. WHERE WATER MAINS ARE INSTALLED WITHIN MUSKINGUM COUNTY RIGHTS-OF-WAY PARALLEL TO THE ROADWAY, THE CONTRACTOR SHALL, WHERE POSSIBLE, INSTALL THE WATER MAIN A MINIMUM OF 15 FEET FROM THE CENTERLINE OF PAVEMENT AND MAINTAIN THE REQUIRED WATER MAIN COVER BELOW THE FLOW LINE OF THE DITCH.

6. **SEWER AND WATER LINE SEPARATION.** SEWER AND WATER LINES SHALL HAVE A MINIMUM HORIZONTAL SEPARATION OF 10 FEET. A MINIMUM VERTICAL SEPARATION OF 18 INCHES SHALL BE MAINTAINED BETWEEN BOTTOM OF THE WATER LINE AND THE TOP OF THE SEWER WHERE SUCH LINES CROSS EACH OTHER. IF THESE CONDITIONS CANNOT BE MET, CONCRETE ENCASEMENT SHALL BE REQUIRED.

7. **WATER MAIN STATIONING.** BASELINE STATIONING HAS BEEN ESTABLISHED ALONG THE WATER MAIN. ALL WATER MAIN STATIONING SHOWN IS REFERENCED TO THIS ESTABLISHED BASELINE.

8. **SUBSURFACE INVESTIGATIONS.** IT IS THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO MAKE HIS OWN INVESTIGATIONS OF SUBSURFACE CONDITIONS ALONG PROPOSED WATER MAIN ROUTES PRIOR TO SUBMITTING HIS BID.

9. **NOTIFICATIONS - STATE HIGHWAYS AND COUNTY ROADS.** PRIOR TO THE START OF ANY WORK WITHIN STATE HIGHWAY OR COUNTY RIGHTS-OF-WAY, THE CONTRACTOR SHALL GIVE THE GOVERNING AGENCY FIVE (5) DAYS NOTICE.

- A. OHIO DEPT. OF TRANSPORTATION (ODOT) JACKSONTOWN (740) 323-4400
- B. MUSKINGUM COUNTY ENGINEER (740) 454-0155
MR. LOREN C. CAMP, PE

10. **PROPOSED WATER MAINS.** ALL WATER MAINS SHALL BE PROVIDED WITH A MINIMUM OF 4.0 FEET OF COVER.

THE MAXIMUM BREAK IN GRADE FOR ONE JOINT OF PIPE SHALL NOT EXCEED THE MANUFACTURER'S RECOMMENDATION. THE CONTRACTOR SHALL DEFLECT AS MANY JOINTS AS NECESSARY TO LAY THE PIPE AS CLOSE AS POSSIBLE TO THE EXISTING GRADE OR DEFLECT UNDER EXISTING UNDERGROUND UTILITIES OR DITCHES AND STILL MAINTAIN MINIMUM COVER OVER THE WATER MAIN.

THE MAXIMUM BREAK IN HORIZONTAL ALIGNMENT FOR ONE JOINT OF PIPE SHALL NOT EXCEED THE MANUFACTURER'S RECOMMENDATION. THE CONTRACTOR SHALL DEFLECT AS MANY JOINTS AS NECESSARY TO LAY THE PIPE IN ACCORDANCE TO THE PROPOSED HORIZONTAL ALIGNMENT AS SHOWN ON THE PLANS.

MINOR CHANGES IN ALIGNMENT AND GRADE OF THE PROPOSED WATER MAIN NECESSARY TO AVOID CONFLICT WITH EXISTING UTILITIES AND/OR STRUCTURES SHALL BE MADE ONLY AT THE DIRECTION OF THE ENGINEER.

ALL WATER MAINS SHALL MEET NATIONAL SANITATION FOUNDATION (NSF) SPECIFICATIONS FOR POTABLE WATER.

11. **FITTINGS.** ALL VERTICAL AND HORIZONTAL FITTINGS AND CONCRETE BACKING ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL PROVIDE THESE FITTINGS AND CONCRETE BACKING WHERE NECESSARY. PAYMENT FOR FITTINGS AND CONCRETE BACKING SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAL FOOT OF PIPE.

12. **CONCRETE ENCASEMENT.** THE CONTRACTOR SHALL PROVIDE CONCRETE ENCASEMENTS AS NOTED ON THE DRAWINGS AND SPECIFICATIONS AND AS REQUIRED BY THE ENGINEER. PAYMENT FOR CONCRETE ENCASEMENT SHALL BE AS INDICATED IN THE PRICES TO INCLUDE.

13. **PRESERVATION OF PROPERTY CORNERS AND SURVEY MARKERS.** THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION TO PRESERVE ALL CORNER STONES, IRON PINS, CONCRETE MONUMENTS, OR ANY OTHER TYPE OF LAND MONUMENT. HE SHALL HAVE ALL LAND MONUMENTS IN THE PROXIMITY OF THE WORK REFERENCED. IF ANY LAND MONUMENTS ARE DESTROYED OR DAMAGED, HE SHALL HAVE THEM REPLACED BY A SURVEYOR AND SHALL FURNISH A CERTIFICATION BY A REGISTERED SURVEYOR THAT THE MONUMENTS HAVE BEEN RESTORED. PAYMENT FOR THIS WORK IS TO BE INCLUDED IN THE UNIT PRICE BID PER LINEAL FOOT OF PIPE.

14. **PAVEMENT REPLACEMENT.** ALL DRIVEWAYS, SIDEWALKS, AND ROADS DAMAGED DURING CONSTRUCTION OF THIS PROJECT SHALL BE REPAIRED IN ACCORDANCE WITH THE SPECIFICATIONS. PAYMENT FOR PAVEMENT REPLACEMENT SHALL BE AS INDICATED IN THE PRICES TO INCLUDE. PAVEMENT DAMAGED OUTSIDE OF THE LIMITS INDICATED IN THE PRICES TO INCLUDE SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

15. **SPECIAL AND GRANULAR BACKFILL.** STATION LOCATIONS OF SPECIAL AND GRANULAR BACKFILL AS SHOWN ON THE PLANS ARE APPROXIMATE ONLY. EXACT LOCATIONS ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER. PAYMENT FOR SPECIAL AND GRANULAR BACKFILL SHALL BE AS INDICATED IN THE PRICES TO INCLUDE.

16. **TRAFFIC MAINTENANCE.** TEMPORARY ROUTES, TRAFFIC DIVERSION, AND STREETS OR ROADS TO BE CLOSED TO THROUGH TRAFFIC SHALL BE SUBMITTED BY THE CONTRACTOR IN SCHEDULE FORM FOR REVIEW AND APPROVAL OF THE AUTHORITY HAVING JURISDICTION OVER THE RIGHT-OF-WAY IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). PROVIDE MAINTENANCE OF TRAFFIC IN ACCORDANCE WITH MUTCD, PLATES C-11, C-12, AND C-13 AS REQUIRED. COST FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAL FOOT OF PIPE.

17. **DRIVEWAYS.** PRIOR TO DISTURBING EXISTING DRIVEWAYS, THE CONTRACTOR MUST NOTIFY THE OWNER OF THE DRIVEWAY OF HIS INTENT TO BEGIN WORK. IN NO CASE SHALL A DRIVEWAY BE CLOSED FOR MORE THAN 24 HOURS UNLESS WRITTEN PERMISSION OF THE OWNER OF THE DRIVEWAY TO DO SO HAS BEEN OBTAINED BY THE CONTRACTOR.

18. **HIGHWAY CROSSINGS.** HIGHWAY CROSSINGS ARE DESIGNATED ON THE PLANS. HIGHWAY CROSSING SIZES REFER TO THE SIZE OF THE CARRIER PIPE. ALL CROSSINGS SHALL BE MADE USING TUNNEL OPTION NUMBER 1, UNLESS OTHERWISE NOTED. THE MINIMUM WALL THICKNESS FOR THE WELDED STEEL ENCASEMENT PIPE SHALL BE 0.25 INCHES.

19. **BORING PITS.** BACKFILL FOR BORING PITS EXCAVATIONS SHALL BE SPECIAL BACKFILL. PAYMENT FOR SPECIAL BACKFILL AND SEEDING FOR BORING PIT EXCAVATIONS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR HIGHWAY CROSSING.

20. **SPOIL REPLACEMENT.** THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING AREAS, IN WHICH TRENCH SPOIL AND BACKFILL MATERIAL SHALL BE STOCKPILED. EXCESS TRENCH SPOIL SHALL BE DISPOSED OF AT THE CONTRACTOR'S EXPENSES IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.

21. **PROTECTION OF TREES.** SPECIAL CARE SHALL BE TAKEN TO AVOID DAMAGE TO TREES OR THEIR ROOT SYSTEM. MACHINE EXCAVATION SHALL NOT BE USED WHEN, IN THE OPINION OF THE ENGINEER, IT WOULD ENDANGER TREE ROOTS. IN GENERAL, WHERE THE LINE OF TRENCH FALLS WITHIN THE LIMITS OF THE LIMB SPREAD, THE LEAVING OF HEADERS ACROSS THE TRENCH TO PROTECT ROOTS WILL BE REQUIRED. THE OPERATION OF ALL EQUIPMENT PARTICULARLY WHEN EMPLOYING BOOMS, THE STORAGE OF MATERIALS, AND THE DISPOSITION OF EXCAVATION SHALL BE CONDUCTED IN THE MANNER WHICH WILL NOT INJURE TREES, TRUNKS, BRANCHES, OR THEIR ROOTS UNLESS SUCH TREES ARE DESIGNATED BY THE ENGINEER FOR REMOVAL.

22. **SHOULDERS, BERMS, AND UNDERDRAINS.** THE CONTRACTOR SHALL REPAIR ALL SHOULDERS, BERMS, OR UNDERDRAINS THAT ARE DAMAGED BY THE CONTRACTOR'S CONSTRUCTION OPERATION. REPAIRS SHALL BE MADE USING THE SAME TYPE OF MATERIAL AS WAS USED PRIOR TO BEING DISTURBED. ALL SHOULDERS, BERMS, AND UNDERDRAINS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER.

23. **GRADING AND SEEDING.** ALL DISTURBED GRASSSED AREAS WILL BE GRADED AND SEEDING IN ACCORDANCE WITH THE SPECIFICATIONS. PAYMENT FOR GRADING AND SEEDING SHALL BE AS INDICATED IN THE PRICES TO INCLUDE.

24. **DRAINAGE.** THE LOCATION OF CULVERTS, INLETS, AND OTHER DRAINAGE ITEMS HAS BEEN DETERMINED FROM DATA AVAILABLE AT THE TIME OF DESIGN AND ARE NOT NECESSARILY COMPLETE OR CORRECT. PROPER DRAINAGE MUST BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. DRIVEWAY CULVERTS AND OTHER STORM DRAINAGE PIPES REMOVED DURING CONSTRUCTION MUST BE REPLACED AT THE SAME LOCATION, GRADE AND ELEVATION UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ALL WATER MAINS INSTALLED ADJACENT TO AND/OR CROSSING CULVERTS SHALL HAVE A MINIMUM CLEARANCE OF 24 INCHES IN BOTH HORIZONTAL AND VERTICAL DIRECTIONS. THE CONTRACTOR SHALL USE DUE DILIGENCE IN PROTECTING FROM DAMAGE ALL EXISTING CULVERTS WHETHER SHOWN ON THE PLANS OR NOT. IF ANY DAMAGE IS CAUSED TO ANY DRAINAGE FEATURES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR RESTORATION OF SAME TO THE SATISFACTION OF THE ENGINEER, AND FOR ANY RESULTING CONTINGENT DAMAGE AT NO COST TO THE OWNER.

25. **ALTERNATE PIPE MATERIALS.** THE CONTRACTOR MAY SUBSTITUTE DUCTILE IRON PIPE CONFORMING TO AWWA C151, CLASS 51 AND THE SPECIFICATIONS FOR ALL PVC PIPE INDICATED ON THE PLANS.

26. **AIR RELEASE ASSEMBLIES.** ALL AIR RELEASE ASSEMBLIES SHALL BE MANUALLY OPERATED, UNLESS NOTED OTHERWISE.

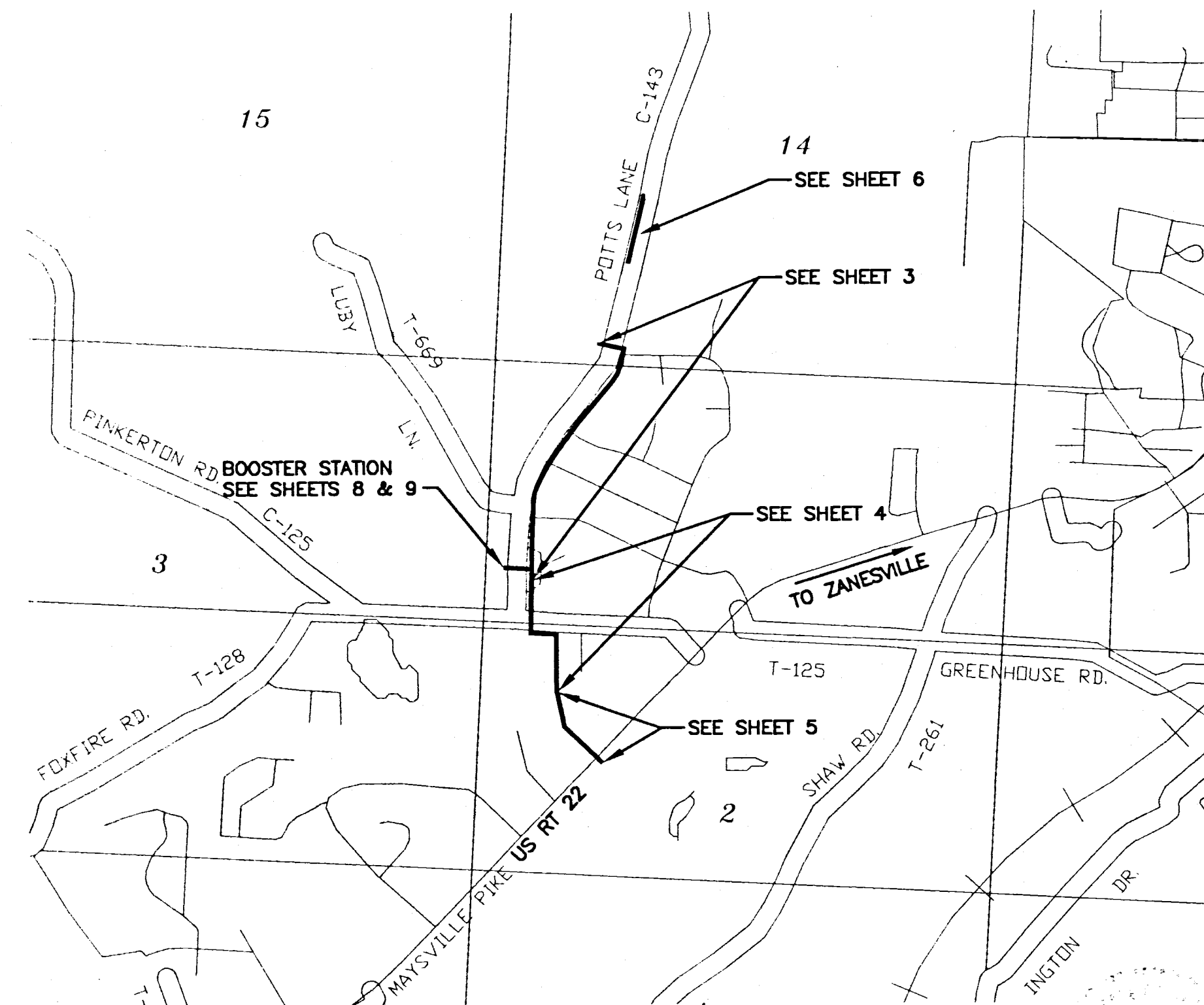
27. **PROPERTY LINES AND RIGHTS-OF-WAY.** ALL PROPERTY LINES AND RIGHT-OF-WAY LINES SHOWN ON THESE SHEETS WERE TAKEN FROM EXISTING TAX MAPS, AND HIGHWAY MAPS PROVIDED BY THE MUSKINGUM COUNTY ENGINEER AND OHIO DEPARTMENT OF TRANSPORTATION. PROPERTY LINES AND RIGHT-OF-WAY LINES HAVE NOT BEEN FIELD SURVEYED AND MAY NOT BE COMPLETE OR CORRECT.

28. **POLE GUY WIRES.** A MINIMUM DISTANCE OF FOUR FEET BETWEEN GUY WIRE ANCHOR (AT GROUND LEVEL) AND THE NEAREST EDGE OF WATER MAIN TRENCH SHALL BE MAINTAINED DURING WATER MAIN INSTALLATION.

29. **TESTING AND DISINFECTION.** THE CONTRACTOR SHALL BE REQUIRED TO TEST AND DISINFECT ALL WATER MAINS INSTALLED. WATER LINES SHALL BE PRESSURE TESTED AND DISINFECTED TO MEET AWWA C-600 AND AWWA C-651.

24. **BOIL ADVISORIES.** IF ANY SECTION OF THE EXISTING WATER SYSTEM IS DEPRESSURIZED DURING THE COURSE OF WORK, A BOIL ADVISORY SHALL BE ISSUED FOR THE AFFECTED AREA.

LEGEND	
EXISTING PROPERTY LINE	---
EXISTING RIGHT-OF-WAY	--- R/W ---
EXISTING UNDERGROUND FIBEROPTIC CABLE	--- FO ---
EXISTING TELEPHONE PEDESTAL	□
EXISTING SANITARY SEWER	--- SAN ---
EXISTING WATER MAIN & GATE VALVE	--- W ---
EXISTING HYDRANT	--- H ---
EXISTING SANITARY MANHOLE	--- M ---
EXISTING MANUAL AIR RELEASE ASSEMBLY	--- A ---
EXISTING CULVERTS/DRIVEWAY PIPES	---
PROPOSED WATER MAIN AND GATE VALVE	--- W ---
PROPOSED WATER MAIN IN STEEL CASING OR CONCRETE ENCASEMENT	--- W ---
PROPOSED HYDRANT	--- H ---
PROPOSED MANUAL AIR RELEASE ASSEMBLY	--- A ---
PROPOSED PERMANENT EASEMENT	--- PE ---
PROPOSED TEMPORARY EASEMENT	--- TE ---

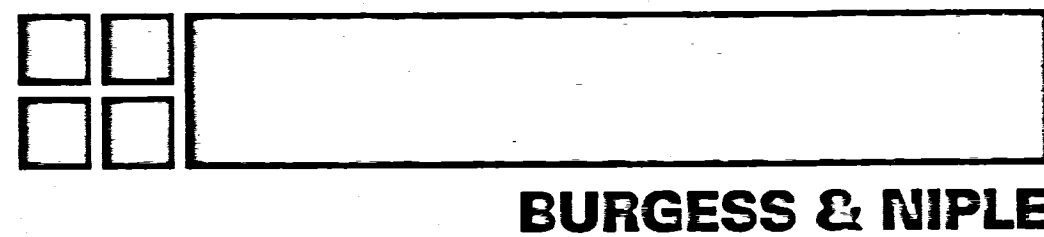


INDEX MAP

SCALE: 1" = 1/4 MILE

NO.	REVISIONS	DATE	BY	CHK.

Burgess & Niple, Limited Parkersburg, WV



BURGESS & NIPLE

MAYSVILLE REGIONAL WATER DISTRICT
WATER DISTRIBUTION SYSTEM IMPROVEMENTS
POTT'S LANE
CONTRACT 02-2

JOB NO.	31759
DESIGNED BY:	AMH
DRAWN BY:	DRD
CHECKED BY:	AMH
APPROVED BY:	AMH
DATE:	JUNE 2002

GENERAL NOTES, INDEX MAP & LEGEND

SCALE:	
NO SCALE	
SHEET NO.	OF
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