AT THE TIME OF THE BID OPENING EACH BIDDER WILL BE PRESUMED TO HAVE INSPECTED THE SITE AND TO HAVE READ AND TO BE THOROUGHLY FAMILIAR WITH THE PLANS AND CONTRACT DOCUMENTS.

ALL PROPERTY LINE MARKERS (IRON PINS, SPIKES, CONCRETE MONUMENTS, ETC.) THAT ARE DISTURBED BY THE CONSTRUCTION OPERATIONS SHALL BE REFERENCED AND PROPERLY RESET FOLLOWING CONSTRUCTION UNDER THE SUPERVISION OF A REGISTERED PROFESSIONAL SURVEYOR OF THE STATE OF OHIO AT THE CONTRACTOR'S EXPENSE.

SPECIFICATIONS:

THE REQUIREMENTS OF THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS DATED JANUARY 1997, INCLUDING ALL SUPPLEMENTS THERETO IN FORCE ON DATE OF CONTRACT SHALL GOVERN ALL MATERIALS AND WORKMANSHIP INVOLVED IN THE IMPROVEMENTS SHOWN ON THESE PLANS EXCEPT AS SUCH SPECIFICATIONS ARE MODIFIED BY THE FOLLOWING SPECIFICATIONS OR BY THE CONSTRUCTION DETAILS SET FORTH HEREIN.

PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND HAVE IN HIS POSSESSION AN APPROVED AND SIGNED SET OF CONSTRUCTION DRAWINGS. WITHOUT THE REQUIRED PERMITS AND AN APPROVED SET OF PLANS, CONSTRUCTION WILL NOT BE PERMITTED.

TREES ENCOUNTERED DURING CONSTRUCTION OUTSIDE THE RIGHT-OF-WAY LIMITS SHALL BE REMOVED ONLY WHEN NECESSARY AND COSTS OF SAME SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS SEWER ITEMS.

THE CONTRACTOR AND SUBCONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL. STATE, AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS ALSO THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SUBCONTRACTOR TO INITIATE, MAINTAIN, AND SUPERVISE ALL SAFETY REQUIREMENTS PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK.

MISCELLANEOUS WORK:

ALL ITEMS OF WORK CALLED FOR ON THE PLANS FOR WHICH NO SPECIFIC METHOD OF PAYMENT IS PROVIDED SHALL BE PERFORMED BY THE CONTRACTOR AND THE COST OF SAME SHALL BE INCLUDED IN THE PRICE FOR VARIOUS RELATED ITEMS.

ALL FIELD TILE BROKEN DURING EXCAVATION SHALL BE REPLACED TO ORIGINAL CONDITION OR CONNECTED TO EITHER THE DITCH OR THE STORM SEWER SYSTEM AS DIRECTED BY THE ENGINEER.

SURPLUS EXCAVATION:

THE CONTRACTOR SHALL DISPOSE OF ALL SURPLUS EXCAVATION ON THE PROJECT SITE AS DIRECTED BY THE OWNER.

TRAFFIC CONTROL:

ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE "OHIO MANUAL OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION AND MAINTENANCE OPERATIONS, " COPIES OF WHICH ARE AVAILABLE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, BUREAU OF TRAFFIC, 25 S. FRONT STREET, COLUMBUS, OHIO

TWO -WAY TRAFFIC MUST BE MAINTAINED AT ALL TIMES UNLESS APPROVED BY THE OHIO DEPARTMENT OF TRANSPORATION. DURING NON-WORKING HOURS. TWO WAY TRAFFIC MUST BE MAINTAINED ON ALL STREETS. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE INCLUDED IN THE BID PRICE FOR VARIOUS ITEMS.

EROSION CONTROL:

EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF OHIO'S STANDARDS FOR STORM WATER MANAGEMENT LAND DEVELOPMENT AND URBAN STREAM PROTECTION MANUAL "RAINWATER AND LAND DEVELOPMENT".

EXISTING UTILITIES:

THE IDENTITY AND LOCATION OF THE EXISTING UNDERGROUND UTILITY FACILITIES KNOWN TO BE LOCATED IN THE CONSTRUCTION AREA HAVE BEEN SHOWN ON THE PLANS AS ACCURATELY AS PROVIDED BY THE OWNER OF THE UTILITY. THE ENGINEER ASSUMES NO RESPONSIBILITY AS TO THE ACCURACY OR THE DEPTHS OF THE UNDERGROUND FACILITIES SHOWN ON THE PLANS.

SUPPORT, PROTECTION, AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS.

THE CONTRACTOR SHALL CAUSE NOTICE TO BE GIVEN TO THE OHIO UTILITIES PROTECTION SERVICES (800) 362-2764 AND TO THE OWNERS OF THE UTILITY FACILITIES SHOWN ON THE PLAN WHO ARE NOT MEMBERS OF A REGISTERED UNDERGROUND PROTECTION SERVICE IN ACCORDANCE WITH SECTION 153.64 OF THE REVISED CODE. THE ABOVE MENTIONED NOTICE SHALL BE GIVEN AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.

SHOP DRAWINGS:

ALL SHOP DRAWINGS MUST BE APPROVED BY MAYSVILLE REGIONAL WATER DISTRICT.

WATER WITHDRAWAL REGISTRATION:

THE OHIO DEPARTMENT OF NATURAL RESOURCES REQUIRES A WATER REGISTRATION WHERE SURFACE OR GROUNDWATER IS WITHDRAWN AT A RATE GREATER THAN 100,000 GALLONS PER DAY. THE CONTRACTOR WILL BE REQUIRED TO APPLY FOR AND SUBMIT THE REQUIRED FORM.

STREET, STORM AND WATER NOTES

PERMITS:

PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND HAVE IN HIS POSSESSION AN APPROVED AND SIGNED SET OF CONSTRUCTION DRAWINGS. WITHOUT THE REQUIRED PERMITS AND AN APPROVED SET OF PLANS, CONSTRUCTION WILL NOT BE PERMITTED.

ALL STREET CROSSINGS OF "OTHER CONDUITS", GAS, TELEPHONE, ELECTRIC, CABLE TV, SHALL BE INSTALLED PRIOR. TO THE CONSTRUCTION OF THE STREET.

UNAUTHORIZED STREET EXCAVATION:

IN THE EVENT EXCAVATION FOR THE STREET IS FROM O" TO 6" BELOW THAT CALLED FOR ON THE PLANS. THE CONTRACTOR SHALL REPLACE THIS EXCESS EXCAVATED MATERIAL WITH COMPACTED 304 CRUSHED LIMESTONE AGGREGATE AS DIRECTED AND AT NO EXTRA COST TO THE OWNER OR ENGINEER.

BACK FILL-STORM SEWERS AND WATER MAINS:

WHERE THE STORM SEWER AND/OR WATER MAINS AND WATER SERVICES CROSS PROPOSED PAVEMENT, THE TRENCH SHALL BE BACK FILLED WITH COMPACTED GRANULAR MATERIAL. ITEM 603.08, AND SHALL BE COMPACTED IN 8-INCH LIFTS, FROM THE BOTTOM OF THE TRENCH TO A PLANE SIX INCHES (6") BELOW THE SUBGRADE. THE LIMITS OF PLACEMENT SHALL BE 5 FEET FROM THE EDGE OF PAVEMENT. WHERE THE STORM SEWER AND/OR WATER MAINS RUN PARALLEL WITH THE CENTERLINE OF THE STREET OR UNDER SIDEWALKS OR WITHIN THE INFLUENCE LINE, MEASURED FROM BACK OF CURB, BACK FILL SHALL BE COMPACTED GRANULAR BACK FILL FROM THE BOTTOM OF THE TRENCH TO WITHIN 6" OF THE FINISHED OR EXISTING GRADE. (ALL OTHER TRENCH BACK FILL SHALL BE COMPACTED IN 12-INCH LAYERS. LOOSE MEASUREMENT. COMPACTION SHALL BE AT LEAST THE DENSITY OF THE SURROUNDING GROUND.) THE COST OF ALL BACK FILL IS TO BE INCLUDED IN THE PRICE BID FOR VARIOUS SEWER SYSTEMS.

WATER MAINS:

ALL WATER LINE MATERIALS AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE CURRENT RULES AND REGULATIONS. ALL WATER LINE MATERIAL 10 INCH DIAMETER OR LESS SHALL BE SDR 21 PVC, MEETING AWWA C900. IN CASE OF CONFLICT IN GRADE BETWEEN WATER LINES AND STORM SEWERS. THE WATER LINES SHALL BE LOWERED DURING CONSTRUCTION. THE MAIN LINE FOR CUL-DE-SACS WILL BE A MINIMUM OF 3" DIAMETER PIPE AND EXTEND TO THE BACK OF CURB, BACKFILL GROUND OVER THE TOP OF THE PIPE SHALL BE FREE OF ROCKS, ORGANIC REFUSE OR OTHER OBJECTIONABLE MATERIAL. SEE BACK FILL NOTE ABOVE. THE INSTALLING CONTRACTOR IS RESPONSIBLE FOR CONDUCTING PRESSURE AND LEAKAGE TESTS AT A PRESSURE OF 150 PSI IN ACCORDANCE WITH AWWA C-600. THE NORMAL WORKING PRESSURE FOR THE WATER MAIN SHALL BE NOT LESS THAN 35 PSI. INDIVIDUAL BOOSTER PUMPS SHALL NOT BE ALLOWED FOR ANY INDIVIDUAL SERVICE.

ALL WATER MAINS SHALL BE PRESSURE TESTED AND DISINFECTED IN ACCORDANCE WITH AWWA STANDARDS C600 AND C651 RESPECTIVELY PRIOR TO ACCEPTANCE OF WATER MAINS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL NECESSARY EQUIPMENT. TO PERFORM A PRESSURE TEST, AND TO DISINFECT WATER MAINS. ALL WATER MAIN CONSTRUCTION WILL BE INSPECTED BEFORE FINAL ACCEPTANCE.

ALTERNATE PIPE MATERIALS:

WHERE THE PLANS INDICATE PVC PIPE TO BE INSTALLED. PIPE SHALL CONFORM TO ASTM D2241 OF THE PRESSURE CLASSES SHOWN WITH THE FOLLOWING EXCEPTIONS:

THE CONTRACTOR MAY SUBSTITUTE DUCTILE IRON PIPE CONFORMING TO AWWA C151, CLASS 51, FOR ALL PVC PIPE INDICATED ON THE PLANS.

PAINTED RING:

THE PLAIN END OF ALL PVC PIPE SHALL HAVE A PAINTED RING. THE RING IS TO ALLOW FOR FIELD CHECKING OF THE SETTING DEPTH OF THE PIPE TO INDICATE PROPER POSITION OF THE PIPE IN THE COMPLETED JOINT ASSEMBLY.

FITTINGS:

FITTINGS SHALL BE DUCTILE IRON.

PIPE JOINTS: PUSH-ON:

PUSH-ON JOINTS SHALL BE DESIGNED FOR CONNECTING PIPE AND FITTINGS USING FLEXIBLE ELASTOMERIC GASKETS MEETING THE REQUIREMENTS OF ASTM F477. THE JOINTS SHALL CONFORM TO ASTM D3139 PUSH-ON TYPE.

RESTRAINED JOINT:

RESTRAINED JOINTS SHALL UTILIZE A SPLINE TYPE COUPLING SYSTEM. JOINTS SHALL MEET ASTM D3139. RUBBER RINGS SHALL MEET ASTM F477. PIPE UTILIZING THE SPLINE TYPE COUPLING SHALL BE FURNISHED BY THE SAME MANUFACTURER OF THE COUPLING. RESTRAINED JOINT PIPE SYSTEM SHALL BE CERTAINTEED YELOMINE PVC OR EQUAL. PIPE PRESSURE CLASS SHALL EQUAL OR EXCEED THE PRESSURE CLASSES AS SHOWN ON THE PLANS. PIPE COUPLINGS:

CONNECTIONS TO EXISTING MAINS PERFORMED BY CUTTING IN SHALL BE MADE USING DUCTILE IRON COUPLINGS WITH SYNTHETIC RUBBER GASKETS AND CORROSION RESISTANT, HIGH STRENGTH. LOW ALLOY STEEL BOLTS AND NUTS PER AWWA C111. VERIFY ALL PIPE OUTSIDE DIAMETERS PRIOR TO INSTALLATION. COUPLINGS SHALL BE DESIGNED FOR CONNECTING VARIOUS PIPING MATERIALS AND SHALL BE AS MANUFACTURED BY JCM INDUSTRIES, ROMAC INDUSTRIES, OR EQUAL.

TRACER WIRE:

THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE AND INSTALL A TRACER WIRE SECURED TO THE PIPE

TAPPING SLEEVE:

THE TAPPING SLEEVE INCLUDING THE BOLTS SHALL BE STAINLESS STEEL.

VALVES:

GATE VALVES SHALL COMPLY WITH AWWA C509, IRON BODY, RESILIENT WEDGE VALVES MANUFACTURED BY MUELLER OR CLOW. VALVES WILL BE LOCATED CLOSE TO TEE'S WHEN IN A BRANCH LINE. SUPPLY ONE VALVE WRENCH FOR EACH 10 VALVES INSTALLED. WRENCHES ARE TO BE TURNED OVER TO MAYSVILLE REGIONAL WATER DISTRICT

CHLORINATION OF WATER MAINS:

THE CONTRACTOR SHALL BE MADE RESPONSIBLE IN HAVING THE WATER MAINS CHLORINATED AND TESTED IN ACCORDANCE WITH AWWA SPECIFICATIONS SECTION C651. THE COST OF CHLORINATION SHALL BE INCLUDED IN THE PRICE BID OF THE VARIOUS WATER MAIN ITEMS. THE CONTRACTOR SHALL SUBMIT TWO (2) COPIES OF TEST RESULTS TO THE ENGINEER.

CURB BOXES:

CURB BOXES SHALL BE LOCATED WITHIN THE R/W AND 6" FROM THE PROPERTY LINE UNLESS OTHERWISE SHOWN ON THE PLANS OR ORDERED BY THE ENGINEER.

MANUFACTURER:

ALL MANUFACTURED MATERIALS FOR THIS PROJECT ARE TO BE "MADE IN THE U.S.A." OR AS APPROVED BY THE ENGINEER.

WATER SERVICE MATERIALS:

WATER SERVICE PIPE-THE WATER SERVICE PIPE SHALL BE 3/4(PE).

CORPORATION STOPS-PE TUBING - CORPORATION STOPS FOR USE WITH PE TUBING SHALL HAVE AWWA THREAD

INLET WITH MUELLER INSTA-TITE PE OUTLETS AND SHALL BE MUELLER H-15006. OR EQUAL.

SERVICE CLAMPS-

SERVICE CLAMPS SHALL BE DESIGNED FOR USE WITH THE SPECIFIC TYPE OF MAIN AND HAVE AWWA CORPORATION STOP THREADS. SERVICE CLAMPS FOR 3 INCH AND LARGER MAINS SHALL BE DOUBLE STRAP. THE CLAMPS SHALL BE EQUIPPED WITH AN "O" RING SEAL CEMENTED TO THE BODY OF THE CLAMP, MARKED WITH THE SIZE RANGE ON THE SADDLE OF THE CLAMP, AND SHALL BE AS MANUFACTURED BY MUELLER CO., FORD METER BOX CO., CLOW CORPORATION, OR EQUAL.

PE TUBING - PE TUBING SHALL BE SDR7, GRADE PE3406, CONFORMING TO ASTM D2737. AND RATED AT 160 PSI MINIMUM WORKING PRESSURE.

WATER SERVICE INSTALLATION:

CONNECTION TO MAIN-

POLYVINYL CHLORIDE(PVC). THE CONNECTION TO A PVC MAIN SHALL BE MADE BY INSTALLING A SERVICE CLAMP AND CORPORATION STOP.

INSTALLATION-

THE WATER SERVICE SHALL BE INSTALLED IN A FLAT BOTTOM TRENCH WITH A MINIMUM DEPTH OF 3 FEET.

AFTER A WATER SERVICE HAS BEEN CONNECTED TO THE MAIN AND BEFORE IT IS BACKFILLED. THE WATER SERVICE SHALL BE TESTED BY FILLING IT WITH WATER UNDER NORMAL OPERATING PRESSURE OF THE MAIN. THE WATER SERVICE SHALL BE OBSERVED AND ANY LEAKAGE SHALL BE ELIMINATED PRIOR TO BACKFILLING.

© OF CONSTRUCTION—

00000000

* ITEMS 4-8 ARE TO BE ADDED ONE YEAR LATER

TYPICAL PAVEMENT SECTION

(NOT TO SCALE)

THE WATER SERVICE TRENCH SHALL BE BACKFILLED BY AND WITH FINE LOOSE EARTH FREE FROM LARGE CLODS OR STONES. BACKFILL SHALL BE TAMPED ON BOTH SIDES OF THE PIPE UNTIL THE FILL COVERS THE PIPE TO A DEPTH OF 6 INCHES. THE REMAINDER OF THE FILL MAY BE COMPLETED USING MECHANICAL EQUIPMENT OR OTHER USUAL METHODS. EXCEPT THAT WITHIN THE LIMITS OF PAVEMENT, BACKFILL SHALL BE COMPACTED GRANULAR MATERIAL.

① ITEM 203 SUBGRADE COMPACTION

32" TOP #46 LIMESTONE OR CRUSHED GRAVEL

*@2" TOP #46 LIMESTONE OR CRUSHED GRAVEL

②ITEM 304-4" AGGREGATE BASE

* © ITEM 301-11/2 ASPHALT CONCRETE

* ® ITEM 404-11/2" ASPHALT CONCRETE

* 5 ITEM 408-PRIME COAT

* (7) ITEM 407-TACK COAT



EICHER ENGINEERING AND CONSULTING

MARK J. EICHER, P.E. 38 N. 4TH ST., SUITE 305 ZANESVILLE, OHIO 4370I (740) 450-9309

GEORGIA PINES ESTATES NEWTON TOWNSHIP MUSKINGUM COUNTY, OH

04/17/02

GENERAL NOTES

SHEET

REVISIONS