# STARK COUNTY METROPOLITAN SEWER DISTRICT PROJECT NO. 557

SANITARY SEWER IMPROVEMENTS PERRY TOWNSHIP 2009

INDEX OF SHEETS

Storm Water Pollution Prevention **Erosion Control** 

**UNDERGROUND UTILITIES** 

CONTACT BOTH SERVICES

CALL TWO WORKING DAYS **BEFORE YOU DIG** 

CALL

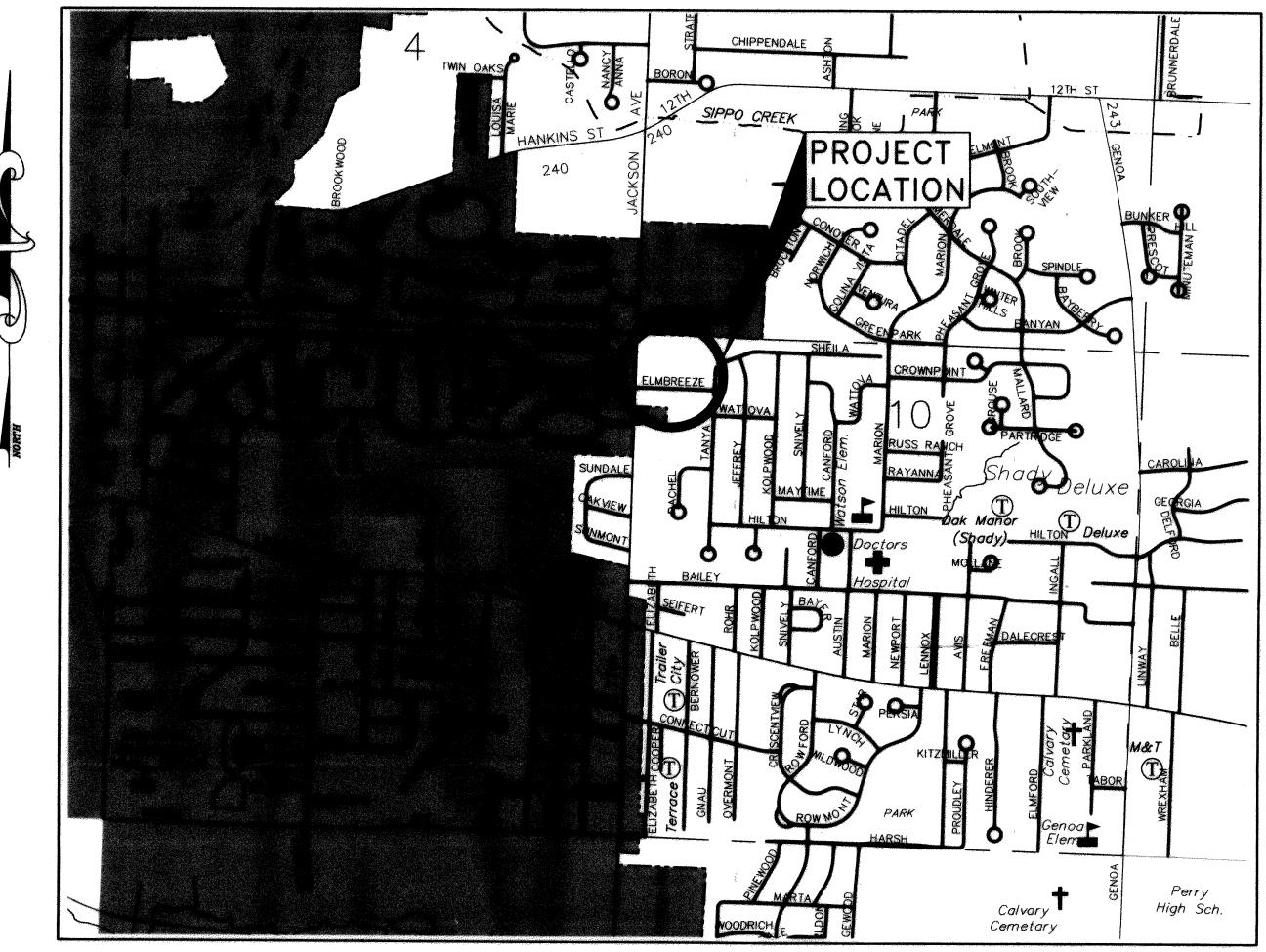
1-800-362-2764

(TOLL FREE)

OHIO UTILITIES PROTECTION SERVICE

NON-MEMBERS MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS PROTECTIVE SERVICE CALL: 1-800-929-0988



# STARK COUNTY, OHIO

NOT TO SCALE



## STARK COUNTY METROPOLITAN SEWER DISTRICT

SANITARY ENGINEERING DEPARTMENT

P.O. BOX 7906 - 1701 MAHONING RD. N.E., CANTON, OHIO 44705-7906 PHONE (330) 451-2303 - FAX (330) 453-9044





**LOCATION MAP** 

# STARK COUNTY COMMISSIONERS: 8/31/09 CITY OF MASSILLON FLOW = 0.004 MGD

APPROVALS

DATE:

## BOARD OF STARK COUNTY COMMISSIONERS

TODD D. BOSLEY

SEWERAGE DR. PETER D. FERGUSON TOM HARMON AS EVIDENCED BY COPY OF LETTER OF APPROVAL HERETO ATTACHED

## STARK COUNTY OFFICIALS.

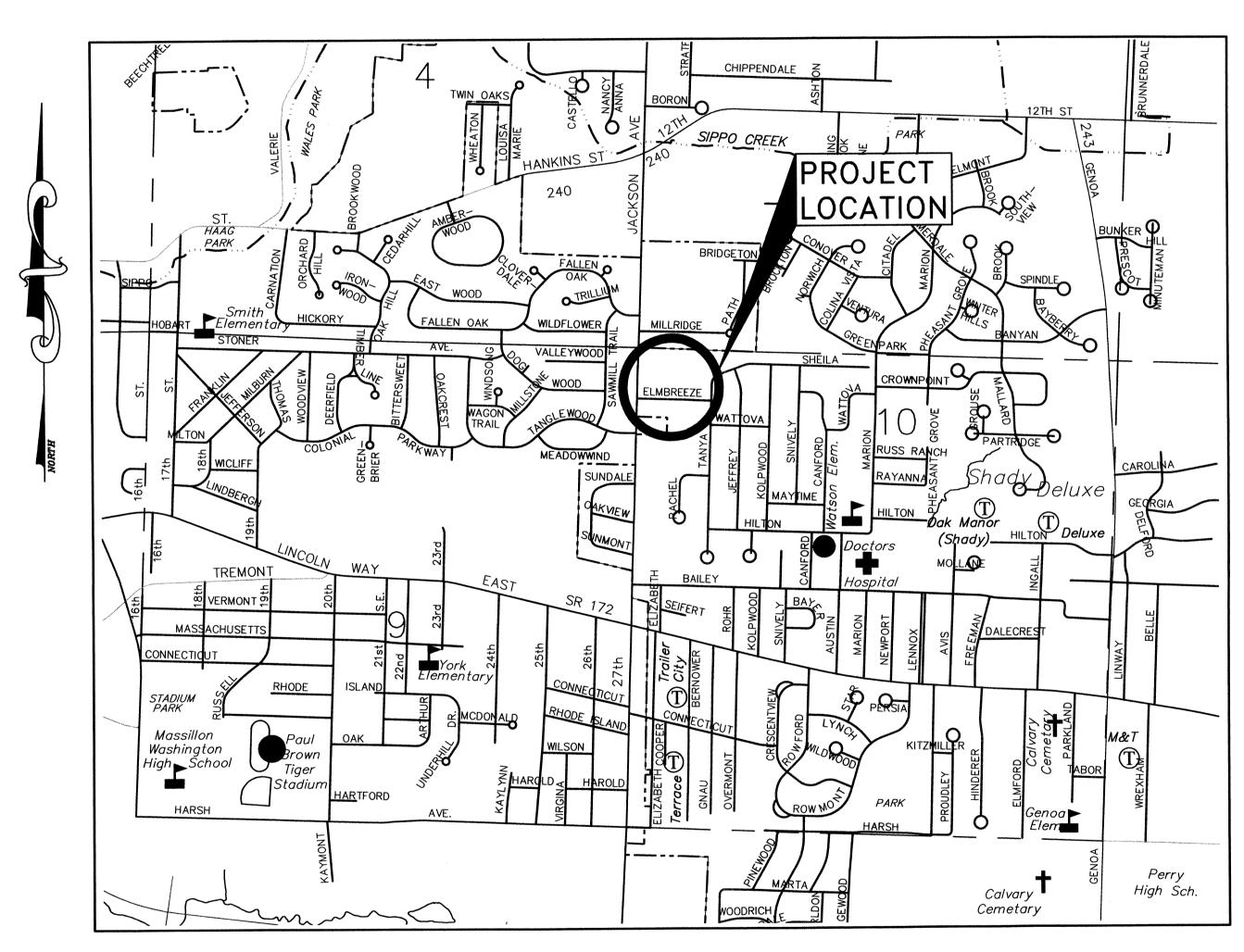
MICHAEL S. ARMOGIDA SANITARY ENGINEER MICHAEL E. HANKE COUNTY ADMINISTRATOR PROSECUTING ATTORNEY

# STARK COUNTY METROPOLITAN SEWER DISTRICT PROJECT NO. 557

# SANITARY SEWER IMPROVEMENTS PERRY TOWNSHIP 2009

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STARK COUNTY METROPOLITAN SEWER DISTRICT

SANITARY ENGINEERING DEPARTMENT

P.O. BOX 7906 - 1701 MAHONING RD. N.E., CANTON, OHIO 44705-7906

PHONE (330) 451-2303 - FAX (330) 453-9044

### APPROVALS

APPROVED BY:	DATE:
STARK COUNTY SANITARY ENGINEER	
STARK COUNTY COMMISSIONERS:	
PRESIDENT	
VICE PRESIDENT	-
MEMBER	
CITY OF MASSILLON	

#### BOARD OF STARK COUNTY COMMISSIONERS

TODD D. BOSLEY

DR. PETER D. FERGUSON

TOM HARMON

AS EVIDENCED BY COPY OF
LETTER OF APPROVAL
HERETO ATTACHED

#### STARK COUNTY OFFICIALS

MICHAEL S. ARMOGIDA
MICHAEL E. HANKE · · · · · · · · · · · · · · · · · · ·
KIM PEREZ · · · · · · · · · · · · · · · · · · ·
JOHN D. FERRERO

MAY 0 5 2009



CALL TWO WORKING DAYS

BEFORE YOU DIG



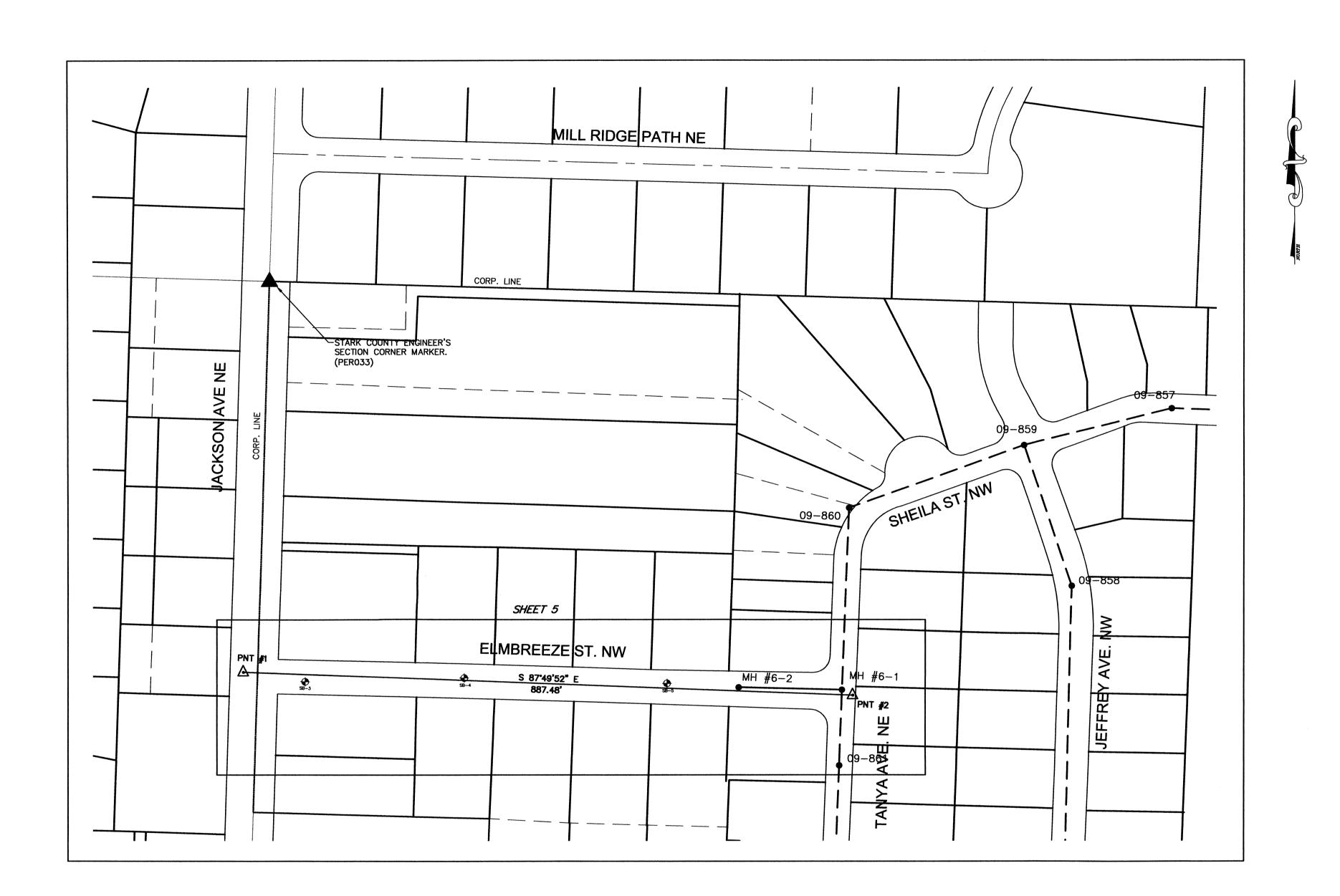
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	BASELIN	IE POINT TABL	E
PNT	NORTHING	EASTING	STATION
1	415978.59	2249735.19	10+00
2	415945.00	2250583.62	18+87.48

	MANHOLE	TABLE
ΛH #	NORTHING	EASTING
5-1	415953.02	2250567.61
5-2	415956.58	2250417.66

# STARK COUNTY ENGINEER'S OFFICE SECTION CORNER MARKER

VERT DATUM: NAVD88 VERT ORDER: Second ELEV (z) US feet: 1,095.814

#### REFERENCE TIES

PK FND. 0.5 UP NE SIDE P. POLE # F2379-10A; S 20 E; 33.31
 PK SET 1 UP N. SIDE 22" WALNUT; S 80 E; 18.02
 PK SET 2.5 UP S. SIDE P. P[OLE # F9148-40A; N 55 W; 43.54

ARK COUNTY SAME

XXXXXXXXXX

DESCRIPTION BY DATE

DWN.BY: ARM.\_\_ CHK'D.BY:\_\_\_\_

PROJECT NUMBER

557

SHEET

#### ITEMS WITH NO PAYMENT METHOD

ALL ITEMS OF WORK CALLED FOR ON THESE 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 BID FOR RELATED ITEMS.

#### EXISTING DATA

EACH CONTRACTOR SHALL VISIT THE SITE PERSONALLY TO ASCERTAIN THE NATURE OF THE WORK AND THOROUGHLY FAMILIARIZE HIMSELF WITH THE SITE PRIOR TO BID SUBMISSION. EXISTING STRUCTURES, GRADES, PIPING ETC. ARE INDICATED IN APPROXIMATE LOCATION ON THE PLAN. INFORMATION SHOWN IS NOT GUARANTEED TO BE CORRECT AND COMPLETE. THE DATA SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. THE EXISTENCE OF FACILITIES ABOVE OR BELOW GROUND, WHICH MAY NOT BE SHOWN, WILL NOT BE A BASIS FOR A CLAIM FOR EXTRA WORK. EXISTING UNDERGROUND UTILITIES SHOWN ARE FROM RECORDS PROVIDED BY UTILITY COMPANIES AND ARE APPROXIMATE ONLY. SERVICE LATERALS ARE NOT SHOWN.

#### SAFETY PROCEDURES

THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REQUIREMENTS DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFFTY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE SAFETY OF, AND SHALL PROVIDE THE NECESSARY PROTECTION TO PREVENT DAMAGE, INJURY OR LOSS TO: 1. ALL PERSONS ON THE WORK SITE OR WHO MAY BE AFFECTED BY THE WORK. 2. ALL THE WORK AND MATERIALS AND EQUIPMENT TO BE INCORPORATED THEREIN, WHETHER IN STORAGE ON OR OFF THE SITE. 3. OTHER PROPERTY AT THE SITE OR ADJACENT THERETO, INCLUDING TREES, SHRUBS, LAWNS, WALKS, PAVEMENTS, ROADWAYS, STRUCTURES, UTILITIES AND UNDERGROUND FACILITIES NOT DESIGNATED FOR REMOVAL, RELOCATION OR REPLACEMENT IN THE COURSE OF CONSTRUCTION.

#### SEQUENCE OF CONSTRUCTION

ONCE CONSTRUCTION IS INITIATED THE CONTRACTOR SHALL CONTINUE CONSTRUCTION THROUGH COMPLETION.

#### SUBSURFACE CONDITIONS

IT IS THE OBLIGATION AND RESPONSIBILITY OF THE BIDDER TO MAKE HIS OWN INVESTIGATIONS OF SUBSURFACE CONDITIONS PRIOR TO SUBMITTING HIS PROPOSAL. THE BIDDER MAY EXAMINE THE RECORDS OF ALL BORINGS, TEST EXCAVATIONS AND OTHER SUBSURFACE INVESTIGATIONS, IF ANY, MADE SOLELY FOR DESIGN PURPOSES FOR THE OWNER. SAID BORINGS, TEST EXCAVATIONS AND OTHER SUBSURFACE INVESTIGATIONS, ARE NOT A PART OF THE CONTRACT DOCUMENTS, EXCEPT TO THE EXTENT THAT THE RESULTS THEREOF ARE SPECIFICALLY SHOWN ON THE PLANS OR INCLUDED IN THE SPECIFICATIONS AND ARE NOT WARRANTED TO SHOW THE ACTUAL SUBSURFACE CONDITIONS. THE CONTRACTOR AGREES THAT HE WILL MAKE NO CLAIM AGAINST THE OWNER OR THE ENGINEER IF, IN CARRYING OUT THE WORK, HE FINDS THAT THE ACTUAL SUBSURFACE CONDITIONS ENCOUNTERED DO NOT CONFORM TO THOSE INDICATED BY SAID BORINGS, TEST EXCAVATIONS AND OTHER SUBSURFACE INVESTIGATIONS.

#### PIPE SPECIFICATIONS

DESCRIPTION	MATERIAL	MATERIAL SPEC.	JOINT SPEC.	BEDDING CLASS
8" MAINLINE 1 1/2" FORCE MAIN	PVC (SDR 35) PVC (SDR 21)	ASTM D $-3034$ ASTM D $-2241$	ASTM D $-3212$ ASTM D $-3139$	ASTM D-2321 ASTM D-2321

AIR TESTING OF MAINLINE SEWER BETWEEN MANHOLES, FUTURE MAINLINE STUBS AND

LATERALS OUT OF MANHOLES SHALL BE IN ACCORDANCE WITH ASTM F-1417.

THE MAXIMUM ALLOWABLE PIPE DEFLECTION IS 5%.

#### ACCESSIBILITY TO PRIVATE PROPERTY

ACCESS TO ALL DRIVEWAYS AND PARKING AREAS WITHIN THE PROJECT LIMITS SHALL BE MAINTAINED AT ALL TIMES. IF POSSIBLE. ANY TRENCHES AFFECTING ACCESS SHALL BE BACK FILLED AT THE END OF EACH WORKING DAY TO PROVIDE ACCESS TO ALL BUSINESSES & RESIDENTS. ANY BUSINESSES OR RESIDENTS MUST BE GIVEN 24 HOURS NOTICE BY THE CONTRACTOR THAT CONSTRUCTION WILL TEMPORARILY BLOCK ACCESS TO THEIR DRIVEWAYS/ PARKING LOTS.

#### PRESERVATION OF PRIVATE PROPERTY

THE CONTRACTOR SHALL PERFORM WORK AS NOT TO DISTURB, DAMAGE OR DESTROY ANY MAILBOX, PAPER BOX, TELEPHONE OR POWER POLES, SIGNS, LANDSCAPING ITEMS, ETC. ANY ITEM DAMAGED OR DESTROYED SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. ANY ITEM DISTURBED OR IN CONFLICT WITH THE WORK TO BE PERFORMED SHALL BE REMOVED AND RESET AT THE CONTRACTOR'S EXPENSE. ENGINEER APPROVAL IS REQUIRED BEFORE ANY OF THESE ITEMS ARE PERFORMED. ANY REQUIRED TREE PLANTING AND/OR MAINTENANCE SHALL BE IN ACCORDANCE WITH THE ANSI STANDARDS Z60.1. AMERICAN STANDARD FOR NURSERY STOCK AND ODOT SECTION 650. NO EXTRA PAYMENT WILL BE MADE FOR SAID WORK OR MATERIALS. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS.

#### ENTRY TO PRIVATE PROPERTY

THE CONTRACTOR SHALL NOT, EXCEPT AFTER WRITTEN CONSENT FROM THE PROPERTY OWNER. ENTER OR OCCUPY WITH MEN, TOOLS, MATERIALS OR EQUIPMENT, PRIVATELY—OWNED LAND OR THE OWNER'S PROPERTY OR FACILITIES EXCEPT AS PROVIDED HEREIN. BEFORE ENTRY THE CONTRACTOR MUST PROVIDE A COPY OF THE WRITTEN CONSENT TO THE ENGINEER.

#### SURVEY CONTROL

THE HORIZONTAL CONTROL IS BASED UPON THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE (NAD83). THE VERTICAL CONTROL IS BASED ON SEA LEVEL DATUM (NAVD 88). ALL COORDINATES SHOWN ON THE PLANS ARE GROUND LEVEL COORDINATES.

# GENERAL NOTES

#### **UTILITIES**

THE UTILITIES SHOWN ON THE PLANS CAN NOT BE CERTIFIED AS COMPLETE NOR CORRECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE EACH UTILITY WITHIN THE CONSTRUCTION AREA LOCATED AND VERIFIED PRIOR TO CONSTRUCTION. THE CONTRACTOR MUST ALSO VERIFY THAT ANY DISCREPANCIES IN THE UTILITIES, AS MENTIONED ABOVE, WILL NOT AFFECT THE PLANNED CONSTRUCTION. ANY DISCREPANCIES MUST IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER, IN WRITING.

#### **UTILITIES NOTIFICATION**

AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN AN AREA WHICH MAY INVOLVE UNDERGROUND UTILITY FACILITIES, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, THE OHIO UTILITY PROTECTION SERVICE (1-800-362-2764) AND THE OWNERS OF EACH UNDERGROUND UTILITY FACILITY SHOWN IN THE PLANS. THE OWNER OF THE UNDERGROUND UTILITY FACILITY SHALL, WITHIN FORTY—EIGHT HOURS, EXCLUDING SATURDAYS, SUNDAYS, AND LEGAL HOLIDAYS, AFTER NOTICE IS RECEIVED, STAKE, MARK OR OTHERWISE DESIGNATE THE LOCATION OF THE UNDERGROUND UTILITY FACILITIES IN THE CONSTRUCTION AREA IN SUCH A MANNER AS TO INDICATE THEIR COURSE TOGETHER WITH THE APPROXIMATE DEPTH AT WHICH THEY WERE INSTALLED. THE MARKING OR LOCATING SHALL BE COORDINATED TO STAY APPROXIMATELY TWO DAYS AHEAD OF THE PLANNED CONSTRUCTION.

#### WATER SERVICE LINES

THERE ARE WATER SERVICE LINES TO ALMOST ALL HOUSES ON THE PROJECT. THEY ARE 3/4" OR 1" COPPER TUBING. THEY ARE NOT SHOWN ON THE PLANS. SEND FAXES TO AQUA OHIO, 330-832-5770 FOR MAIN AND SERVICE LINE MARKINGS TWO WORKING DAYS PRIOR TO CONSTRUCTION IN ANY PARTICULAR AREA.

#### UTILITIES AND PUBLIC SERVICE CORPORATIONS

THE CONTRACTOR SHALL NOTIFY AT LEAST 48 HOURS BEFORE BREAKING GROUND ALL PUBLIC SERVICE CORPORATIONS HAVING WIRE POLES, PIPES, CONDUITS OR OTHER STRUCTURES THAT MAY BE AFFECTED BY THIS OPERATION.

A. KNOWN UTILITIES WITHIN THE VICINITY OF THIS PROJECT ARE AS FOLLOWS:

PERRY TOWNSHIP ROAD SUPERINTENDENT AQUA OHIO 1500 JACKSON AVE S.W. 870 3RD ST. NW MASSILLON, OH 44647 MASSILLON, OHIO 44646 330-832-7750 (330) 832-5764ATTN: JOHN MASALKO ATTN: DON SNYDER

MASSILLON CABLE OHIO EDISON P.O. BOX 814 2600 SOUTH ERIE ST. MASSILLON, OH. 44648 MASSILLON, OH. 44646 (330) 833-0202 (330) 830-7085 ATTN: KEVIN McCLUSKY ATTN: JEFFREY CAMPBELL

DOMINION EAST OHIO GAS COMPANY 50 WEST BOWERY GAS SUPPLY OPERATIONS DIV. 7015 FREEDOM STREET N.W. 4TH FLOOR AKRON, OH. 44308 NORTH CANTON, OH 44720 (330) 384-8057 (330) 266-2051ATTN: JIM BUETEL ATTN: MIIKE SCHREFFLER

#### NOTIFICATION OF SAFETY FORCES

THE CONTRACTOR SHALL NOTIFY THE TOWNSHIP POLICE AND FIRE DEPARTMENTS, AND LOCAL SCHOOL DISTRICT TRANSPORTATION SUPERVISOR, AT LEAST 48 HOURS IN ADVANCE OF ANY STREET CLOSING OR TRAFFIC CHANGE.

#### CONTRACTOR AVAILABILITY

THE CONTRACTOR SHALL SUPPLY THE ENGINEER WITH A 24 HOUR PHONE NUMBER WHERE HE, THE CONTRACTOR, SHALL BE AVAILABLE FOR EMERGENCIES.

#### PRESERVATION OF PROPERTY CORNERS AND SURVEY MARKERS

THE CONTRACTOR SHALL PERFORM WORK AS NOT TO DISTURB, DAMAGE, OR DESTROY ANY AND ALL CORNERSTONES. IRON PINS. CONCRETE MONUMENTS, OR ANY TYPE OF LAND MONUMENT IN THE PROJECT AREA. ANY OF THESE ITEMS DISTURBED, DAMAGED, OR DESTROYED SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL HIRE AN OHIO REGISTERED PROFESSIONAL SURVEYOR TO REPLACE OR RESTORE THESE ITEMS. THE SURVEYOR PERFORMING THE WORK SHALL FURNISH A CERTIFICATION THAT THE MONUMENTS HAVE BEEN RESTORED. ENGINEER APPROVAL IS REQUIRED BEFORE ANY OF THESE ITEMS ARE PERFORMED.

#### EXCAVATED MATERIAL

ALL EXCAVATED MATERIAL AND ALL MATERIAL USED IN CONSTRUCTION OF THE WORK SHALL BE STOCK PILED IN A MANNER THAT WILL NOT ENDANGER THE WORK AND THAT WILL LEAVE DRIVEWAYS, FIRE AND POLICE CALL BOXES OR OTHER CONTROLS UNOBSTRUCTED AND ACCESSIBLE WHILE THE WORK IS BEING COMPLETED. SATISFACTORY PROVISIONS SHALL BE MADE FOR STREET DRAINAGE, AND NATURAL WATERCOURSES SHALL NOT BE OBSTRUCTED. DURING THE PROGRESS OF THE WORK, ALL MATERIAL STOCK PILES SHALL BE KEPT TRIMMED UP AND MAINTAINED IN A NEAT MANNER. ALL EXCAVATED WASTE MATERIAL SHALL BE REMOVED FROM THE PROJECT SITE. AS PER THE ENGINEER. AND IN ACCORDANCE WITH ANY FEDERAL, STATE, AND LOCAL STANDARDS, AT NO ADDITIONAL COST TO THE OWNER.

#### PROHIBITED CONNECTIONS

ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED.

#### **WATERLINE SEPARATION**

THE REQUIRED SEPARATION BETWEEN SANITARY SEWER AND WATER LINES (PARALLEL AND CROSSING) INSTALLATIONS ARE AS FOLLOWS:

MINIMUM HORIZONTAL SEPARATION 10'-0" (PARALLEL) MINIMUM VERTICAL SEPARATION 1'-6" (CROSSINGS)

IF THESE CLEARANCES CAN NOT BE MAINTAINED THE CONTRACTOR SHALL CONTACT THE STARK COUNTY SANITARY ENGINEERS OFFICE.

#### **BUILDING ELEVATIONS**

ALL BUILDING ELEVATIONS SHOWN ON THIS PLAN INDICATE THE BASEMENT FLOOR ELEVATION UNLESS NOTED. ELEVATIONS FOLLOWED BY A "\*" WERE ESTIMATED BY SUBTRACTING 6.5 FEET FROM AN EXTERIOR BASEMENT WINDOW SILL SURVEY SHOT.



THIS SYMBOL INDICATES A CRITICAL FLOOR ELEVATION THAT HAS INFLUENCED THE ELEVATION OF THE MAIN LINE SEWER. SPECIAL ATTENTION MUST BE EXERCISED REGARDING LATERAL LOCATION AND GRADE AT THE TIME OF CONSTRUCTION TO INSURE PROPER CONNECTION OF THE HOUSE LATERAL.

#### SEPTIC/AERATION SYSTEMS

CONTRACTOR SHALL RELOCATE AND REINSTALL ANY SEPTIC/AERATION SYSTEM TANKS. PIPING, AND LEACH LINES DISTURBED DURING CONSTRUCTION. NO SEPARATE PAYMENT SHALL BE MADE. COSTS TO PERFORM THESE ITEMS SHALL BE INCLUDED IN OTHER PAY ITEMS.

#### **MANHOLES**

PRECAST MANHOLES SHALL MEET ASTM C-478. ALL JOINTS SHALL BE MADE WITH RUBBER GASKETS CONFORMING TO ASTM C-443. AIR TESTING SHALL MEET THE REQUIREMENTS OF ASTM C-1244. FLEXIBLE CONNECTIONS BETWEEN MANHOLES AND PIPES SHALL MEET THE REQUIREMENTS OF ASTM C-923.

ANY MANHOLE DROP ATTACHMENTS SHALL BE THE 'OUTSIDE' TYPE.

MANHOLE TOP OF CASTING ELEVATIONS MAY REQUIRE ADJUSTMENT DURING SITE GRADING. MANHOLE COVERS SHALL NOT BE BURIED. UPON COMPLETION OF CONSTRUCTION AND RESTORATION, ALL MANHOLES PROPOSED AND EXISTING, SHALL BE IN CONFORMANCE IN ALL RESPECTS WITH STARK COUNTY SANITARY ENGINEERING DEPARTMENT SPECIFICATIONS AND DETAILS.

#### **CONNECTIONS TO EXISTING MANHOLES:**

FOR CONNECTIONS TO EXISTING MANHOLES WHERE OPENINGS DO NOT EXIST. THE CONTRACTOR SHALL CORE DRILL THE MANHOLES FOR OPENINGS THAT ARE REQUIRED. APPROVED GASKETING METHOD AND ANY GROUTING FOR NEW PIPE CONNECTION TO MANHOLE SHALL ALSO BE SUPPLIED. ANY REWORK OF THE MANHOLE BENCH REQUIRED TO PROVIDE A NEW CHANNEL FOR THE PROPOSED CONNECTION SHALL ALSO BE SUPPLIED. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE COST BID FOR OTHER ITEMS. NO SEPARATE PAYMENT WILL BE MADE.

#### MAINTAINING FLOW

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY MAINTAINING EXISTING SANITARY FLOW DURING THE CONSTRUCTION AND TESTING OF THE PROPOSED ON ENVIRONMENTAL PROTECTION AND TESTING OF THE PROPOSED ON ENVIRONMENTAL PROTECTION AND TESTING OF THE PROPOSED ON THE PROPO IMPROVEMENTS. THE CONTRACTOR'S METHODS FOR MAINTAINING FLOW MUST BE APPROVED BY THE STARK COUNTY ENGINEERING DEPARTMENT AT THE PRE-CONSTRUCTION MEETING.

BULKHEADS SHALL BE ERECTED IN EXISTING MANHOLES WHERE TAPS FOR NEW MAINLINE SEWERS ARE MADE AND SHALL REMAIN IN PLACE UNTIL THE NEW SEWERS ARE COMPLETE, TESTED AND APPROVED. IN CASES WHERE BULKHEADS WOULD INTERRUPT THE FLOW FROM EXISTING SERVICE CONNECTIONS. THE BULKHEAD SHALL BE PLACED IN THE FIRST NEW MANHOLE UPSTREAM OF THE EXISTING MANHOLE.

#### SANITARY SERVICE LATERALS

NO CHANGES TO SANITARY SEWER SERVICE LATERAL LOCATIONS SHALL BE MADE WITHOUT THE APPROVAL OF THE ENGINEER.

VERTICAL SERVICE STACKS AS SHOWN ON THE DRAWINGS SHALL BE DUCTILE IRON PIPE REGARDLESS OF THE MAINLINE SEWER MATERIAL. A CAST IRON TEE SHALL BE INSTALLED IN THE MAINLINE SEWER. CONCRETE ENCASEMENT WILL NOT BE REQUIRED.

#### PIPE COUPLINGS/ADAPTERS

PIPE OF THE SAME TYPE OF MATERIAL SHALL BE CONNECTED WITH SOLID-WALL COUPLINGS OF THAT MATERIAL. (I.E. PVC PIPE SHALL BE CONNECTED WITH SOLID-WALL PVC COUPLINGS)

PIPE OF DISSIMILAR MATERIALS SHALL BE CONNECTED WITH STAINLESS STEEL SHIELDED SEWER COUPLINGS. GASKETS SHALL MEET ASTM C1173-91, 300 SERIES STAINLESS STEEL SHEAR RING WITH A MINIMUM THICKNESS OF 0.012". 316 GRADE STAINLESS STEEL NUT AND BOLT TIGHTENING CLAMPS, SHEAR RING AND CLAMPS TO MEET ALL REQUIREMENTS OF ASTM A167-70. TRANSITIONAL SIZES SHALL UTILIZE A ONE PIECE GASKET. STAINLESS STEEL SEWER COUPLING SHALL BE MANUFACTURED BY MISSION RUBBER COMPANY MR SERIES, FERNCO INC. RC SERIES, OR APPROVED EQUAL.

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AS EVIDENCED BY COPY OF LETTER OF APPROVAL 

SEWERA

HERETO ATTACHED

PROJECT NUMBER

# GENERAL NOTES (CONT.)

#### ROAD CLOSINGS, DETOURS AND TRAFFIC CONTROL

THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING TRAFFIC CONTROL PLANS AND COORDINATION ON ALL ROADWAYS DURING CONSTRUCTION. ROAD OR STREET CLOSURES WILL NOT BE PERMITTED ON ANY PORTION OF THIS PROJECT UNLESS OTHERWISE SHOWN OR APPROVED BY THE OWNER OF THE ROAD OR STREET. AN APPROVED COPY OF THE CONTRACTOR'S TRAFFIC CONTROL PLAN MUST BE SUBMITTED TO THE SANITARY ENGINEER AND THE COUNTY ENGINEER, PRIOR TO THE START OF CONSTRUCTION.

THE CONTRACTOR SHALL NOTIFY ANY POLICE, FIRE DEPARTMENTS, AND LOCAL SCHOOL DISTRICT AT LEAST 48 HOURS IN ADVANCE OF ANY APPROVED STREET CLOSING OR TRAFFIC CHANGE.

THE CONTRACTOR SHALL MAINTAIN TRAFFIC AT ALL TIMES ON THE PROJECT IN ACCORDANCE WITH ODOT ITEM 614. AND AS DESCRIBED BELOW.

ALL TRAFFIC CONTROL DEVICES NECESSARY TO MAINTAIN AND PROTECT TRAFFIC AND THE WORK SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR IN CONFORMANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION. IN ADDITION TO THE GENERAL REQUIREMENTS OF ODOT ITEM 614, THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN, AND SUBSEQUENTLY REMOVE THE REQUIRED CONSTRUCTION TRAFFIC CONTROL DEVICES.

ALL SIGNS REQUIRED TO BE INSTALLED BY THE CONTRACTOR SHALL BE ERECTED ON THEIR OWN POSTS. THE CONTRACTOR SHALL NOT USE ANY EXISTING SIGN POST TO MOUNT A TRAFFIC CONTROL SIGN.

THE CONTRACTOR SHALL TAKE NOTICE OF THE REQUIREMENTS OF THE FOURTH PARAGRAPH OF ODOT 614.03. DEVICES USING OTHER THAN TYPE G SHEETING ARE NOT ACCEPTABLE.

THE CONTRACTOR SHALL PROVIDE AT LEAST TWO WEEKS NOTICE TO THE STARK COUNTY SANITARY ENGINEER AND THE PERRY TWP. ROAD SUPERINTENDENT PRIOR TO ANY ROAD CLOSURE. CONTACT PAUL HOOT AT 330-451-2310 AND JOHN MASALKO AT 330-832-7750, RESPECTIVELY. THE CONTRACTOR SHALL ALSO SUPPLY THE SANITARY ENGINEER AND THE PERRY TWP. ROAD SUPERINTENDENT WITH A 24 HOUR TELEPHONE NUMBER, OR AT LEAST TWO TELEPHONE NUMBERS FOR TWO DIFFERENT INDIVIDUALS AUTHORIZED BY THE CONTRACTOR TO RESTORE DAMAGE, REPLACE MISSING, REPAIR INOPERABLE, OR MAKE ANY OTHER NEEDED MAINTENANCE OF THE REQUIRED TRAFFIC CONTROL DEVICES DURING NONSCHEDULED WORK HOURS. THESE TELEPHONE NUMBERS SHALL BE PROVIDED PRIOR TO ANY WORK BEING STARTED.

PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE COSTS BID FOR OTHER ITEMS.

#### CONTRACT COMPLETION AS RELATED TO CONSTRUCTION SEASON

FINAL RESTORATION, INCLUDING ALL ASPHALT PAVING, TOPSOIL, AND SEEDING, SHALL BE PERFORMED BEFORE THE CONTRACT COMPLETION DATE AND GENERALLY IN ACCORDANCE WITH THE FOLLOWING SCHEDULE AND AS DIRECTED BY THE ENGINEER.

FOR SANITARY SEWER INSTALLED BETWEEN SEPTEMBER 30TH AND MAY 15TH, FINAL RESTORATION, INCLUDING ALL ASPHALT PAVING, TOPSOIL, AND SEEDING, SHALL BE COMPLETED BY JUNE 30TH.

FOR INSTALLATION OF SANITARY SEWER FROM MAY 15TH TO SEPTEMBER 30TH OF ANY CALENDAR YEAR, FINAL RESTORATION, INCLUDING ALL ASPHALT PAVING, TOPSOIL, AND SEEDING, SHALL BE COMPLETED BY NOVEMBER 15TH OF THAT CALENDAR YEAR.

IF THE CONTRACTOR EXPECTS THAT PORTIONS OF THE RESTORATION CANNOT BE COMPLETED UNTIL AFTER THE COMPLETION DATE DUE TO ADVERSE WEATHER CONDITIONS, HE MUST SUBMIT A DETAILED LIST WITH EXPLANATION FOR APPROVAL BY THE ENGINEER. THIS WORK MUST BE PERFORMED IN A TIMELY MANNER AS DIRECTED BY THE ENGINEER. THIS STATEMENT DOES NOT CHANGE THE CONTRACT COMPLETION DATE. PAYMENT FOR THE WORK DESCRIBED ABOVE SHALL BE INCLUDED IN THE COSTS BID FOR THOSE ITEMS. NO EXTRA OR SEPARATE PAYMENTS SHALL BE MADE.

#### INTERNAL TELEVISION INSPECTION & PVC TESTING

ALL SANITARY SEWER, 8" DIAMETER AND LARGER, MUST PASS INTERNAL TELEVISION INSPECTION. THE CONTRACTOR SHALL PROVIDE A COMPLETE INTERNAL INSPECTION VIDEOTAPE TO THE SANITARY ENGINEERING DEPARTMENT. THE VIDEOTAPING PROCEDURE MUST BE IN ACCORDANCE WITH STARK COUNTY SANITARY ENGINEERING DEPARTMENT SPECIFICATIONS ITEM 40. ALL PVC GRAVITY PIPE INSTALLED SHALL BE AIR-TESTED AND DEFLECTION TESTED PER STARK COUNTY SANITARY ENGINEERING DEPARTMENT SPECIFICATIONS. ALL FORCE MAIN PIPE INSTALLED SHALL BE LEAKAGE TESTED PER STARK COUNTY SANITARY ENGINEERING DEPARTMENT SPECIFICATIONS. ALL MANHOLES INSTALLED SHALL BE VACUUM TESTED PER STARK COUNTY SANITARY ENGINEERING DEPARTMENT SPECIFICATIONS. ALL VIDEOTAPING AND TESTING MUST BE COMPLETED AND APPROVED BEFORE THE CONTRACT COMPLETION DATE.

#### **EXISTING CONDUITS, SEWERS, PIPES AND DRAINS:**

THE CONTRACTOR WILL BE REQUIRED, AT HIS OWN EXPENSE, TO DO EVERYTHING NECESSARY TO PROTECT, SUPPORT AND SUSTAIN ALL SEWERS, WATER, OR GAS PIPES, SERVICE PIPES, ELECTRIC LIGHTS, POWER, TELEPHONE OR TELEGRAPH POLES, CONDUITS AND OTHER FIXTURES LAID UNDER, ACROSS OR ALONG THE SITE OF THE WORK. THE ENGINEER, AS WELL AS THE COMPANY OR CORPORATION OWNING SAID PIPES, POLES, CONDUITS, OR OTHER STRUCTURES, MUST BE NOTIFIED OF THE SAME BY THE CONTRACTOR, BEFORE ANY SUCH FIXTURES ARE REMOVED OR MOLESTED. THE WATERWORKS SHALL OPERATE ALL EXISTING VALVES WHEN CONNECTIONS ARE MADE TO EXISTING LINES. IN CASE ANY OF THE GAS OR SERVICE PIPES, ELECTRIC LIGHT, POWER, OR TELEPHONE POLES, CONDUITS, OR OTHER FIXTURES BE DAMAGED, THEY SHALL BE REPAIRED BY AUTHORITIES HAVING CONTROL OF THE SAME, AND THE EXPENSE OF SAID REPAIRS SHALL BE DEDUCTED FROM THE MONEYS WHICH ARE DUE OR TO BECOME DUE SAID CONTRACTOR UNDER THIS CONTRACT.

SHOULD IT BECOME NECESSARY TO CHANGE THE POSITION OR TEMPORARILY REMOVE ANY ELECTRIC CONDUITS, GAS PIPES, OR OTHER PIPES, OR WIRES, IN ORDER TO PERMIT THE CONTRACTOR TO USE A PARTICULAR METHOD OF CONSTRUCTION OR IN ORDER TO CLEAR THE STRUCTURE BEING BUILT, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF THE LOCATION AND CIRCUMSTANCES, AND SHALL CEASE WORK IF NECESSARY, UNTIL SATISFACTORY ARRANGEMENTS HAVE BEEN MADE BY THE OWNERS OF THE SAID PIPES OR WIRES TO PROPERLY CARE FOR THE SAME. NO CLAIMS FOR DAMAGES WILL BE ALLOWED ON ACCOUNT OF ANY DELAY OCCASIONED THEREBY.

#### EROSION/SEDIMENT CONTROL NOTES:

THE CONTRACTOR SHALL NOT, UNDER ANY CIRCUMSTANCES, DISPOSE OF EXCESS EXCAVATION MATERIALS, RUBBLE, ETC. ON ANY LAND, PUBLIC OR PRIVATE, UNTIL THE NECESSARY PERMITS FROM THE APPROPRIATE GOVERNMENTAL AGENCIES INVOLVED ARE SECURED BY THE DISPOSAL SITE PROPERTY OWNER AND/OR CONTRACTOR AS REQUIRED. THIS REQUIREMENT SPECIFICALLY ADDRESSES ANY AREA FILLED OR DISTURBED OVER ONE (1) ACRE IN WHICH AN NPDES PERMIT AND STORM WATER POLLUTION PREVENTION PLAN (SWP3) MUST BE SUBMITTED AND APPROVED. THE CONTRACTOR MUST OBTAIN AND SUBMIT AN APPROVED COPY OF THE DISPOSAL SITE PERMIT TO THE COUNTY SANITARY ENGINEER BEFORE WORK IS STARTED. ALSO, ALL SEDIMENT AND EROSION CONTROL BEST MANAGEMENT PRACTICES ARE TO BE IN PLACE BEFORE THE DISPOSAL SITE IS USED.

- 1. ANY SITE PREPARATION THAT WILL INVOLVE EARTH MOVING (SUCH AS CLEARING AND GRUBBING) WILL NOT BEGIN MORE THAN TWO WEEKS IN ADVANCE OF THE START OF EXCAVATION. THE PURPOSE OF THIS RESTRICTION IS TO PREVENT THE EXISTENCE OF LARGE AREAS OF EXPOSED SOILS FOR EXTENDED PERIODS OF TIME WHEN CONSTRUCTION IS NOT PROCEEDING.
- SEDIMENT AND EROSION CONTROLS SHALL BE INSPECTED ONCE EVERY SEVEN (7) DAYS AND WITHIN 24 HOURS OF A 0.5" OR GREATER RAINFALL EVENT. A WRITTEN LOG OF THESE INSPECTIONS AND IMPROVEMENTS TO CONTROLS SHALL BE KEPT ON SITE. THE INSPECTIONS SHALL INCLUDE THE DATE OF THE INSPECTION, NAME OF THE INSPECTOR, WEATHER CONDITIONS, ACTIONS TAKEN TO CORRECT ANY PROBLEMS AND THE DATE CORRECTIVE ACTIONS WERE TAKEN.
- 3. ALL DISTURBED VEGETATION IS TO BE RESEEDED AS PART OF RESTORATION, UNLESS THE AREA WILL BE PAVED OR OCCUPIED BY ABOVE GROUND FACILITIES. TOP SOILING FOR THE RESTORATION OF VEGETATED AREAS DISTURBED BY CONSTRUCTION SHALL AVERAGE (4) INCHES IN THICKNESS AS REFERENCED IN ITEM 25.
- STABILIZATION OF CRITICAL AREAS WITHIN 50 FEET OF ANY STREAM OR WETLAND SHALL BE TEMPORARILY STABILIZED WITHIN TWO (2) DAYS OF DISTURBANCE IF AREA WILL REMAIN INACTIVE FOR FOURTEEN (14) DAYS OR LONGER. CONSTRUCTION VEHICLES SHALL AVOID STREAMS AND THE 50 FOOT BUFFER AREAS. IF AN ACTIVE DRAINAGE WAY MUST BE CROSSED BY CONSTRUCTION VEHICLES REPEATEDLY DURING CONSTRUCTION, A TEMPORARY STREAM CROSSING SHALL BE CONSTRUCTED ACCORDING TO THE SPECIFICATIONS IN THE RAINWATER & LAND DEVELOPMENT BOOK. CONSTRUCTION OF BRIDGES, CULVERTS OR SEDIMENT CONTROL STRUCTURES SHALL NOT PLACE SOIL, DEBRIS AND OTHER FINE PARTICULATE MATERIAL INTO OR CLOSE TO THE WATER RESOURCE IN SUCH A MANNER THAT IT MAY SLOUGH, SLIP OR ERODE.
- ALL DEWATERING FLOWS SHALL BE SILT-FREE PRIOR TO DISCHARGE, AND DISCHARGE SHALL BE DIRECT TO STABILE SITES SUCH AS STREAMS, STORM SEWERS OR EXISTING GRASSED DRAINAGE, NOT ONTO EXPOSED SOILS OR ANY OTHER SITE WHERE FLOWS COULD CAUSE EROSION.
- BALE FILTER DIKES SHALL BE PLACED AROUND ALL STORM SEWER CATCH BASINS LOCATED IN PROXIMITY TO CONSTRUCTION.
- RE-VEGETATE SOIL. TEMPORARY SOIL STABILIZATION SHALL OCCUR WITHIN SEVEN (7) DAYS AFTER ROUGH GRADING IF THE AREA WILL REMAIN IDLE LONGER THAN THIRTY (30) DAYS. PERMANENT SOIL STABILIZATION SHALL BE INSTALLED WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. PERMANENT VEGETATION IS A GROUND COVER DENSE ENOUGH TO COVER 80% OF THE SOIL SURFACE AND MATURE ENOUGH TO SURVIVE WINTER WEATHER.
- 8. IF, DUE TO WEATHER, FINAL GRADING CANNOT BE ACCOMPLISHED IMMEDIATELY, MULCHING AND TEMPORARY SEEDING. IF FEASIBLE. OR OTHER TYPE OF TEMPORARY EROSION CONTROL MEASURES. MUST BE USED WITHIN 30 DAYS UNTIL LONG-TERM RESTORATION CAN OCCUR.
- PRESERVATION SHALL TAKE PRECEDENCE OVER REMOVAL WITHIN THE TEMPORARY EASEMENT WIDTHS. REMOVE ONLY THOSE TREES, SHRUBS AND STRUCTURES NECESSARY TO COMPLETE CONSTRUCTION AND MAINTAIN THE NEW FACILITIES.
- 10. STOCK PILED TOPSOIL AND FILL MATERIALS SHALL BE PROTECTED WITH EROSION CONTROL BARRIERS OR TEMPORARY SEEDING.
- 11. IN AREAS WHERE EARTH MOVING WILL BE EXTENSIVE, A COMBINATION OF DIVERSION CHANNELS (WITH EROSION CONTROL BARRIERS) AND SEDIMENTATION BASINS SHALL BE USED TO CONTROL RUNOFF AND EROSION.
- 12. EXCESS SOIL THAT IS STOCK PILED MUST BE EITHER REMOVED OR REGRADED WITHIN 15 DAYS OF THE COMPLETION OF THE CONSTRUCTION.
- 13. IF TREE REMOVAL IS NECESSARY, TREES SHALL BE FELLED IN A MANNER THAT AVOIDS DAMAGE TO ADJACENT TREES TO REMAIN STANDING. WHERE ROOT DAMAGE CANNOT BE AVOIDED, PRUNING AND PAINTING AS APPROPRIATE TO COMPENSATE FOR THE DAMAGE SHALL BE DONE BY AN AUTHORIZED
- 14. IF, DURING THE COURSE OF CONSTRUCTION, EVIDENCE OF ANY DEPOSIT OF HISTORICAL AND ARCHAEOLOGICAL INTEREST IS FOUND, CEASE OPERATIONS AFFECTING THE FIND AND NOTIFY THE OHIO HISTORIC PRESERVATION OFFICE (OHPO), (614)297-3470. NO FURTHER DISTURBANCE OF THE DEPOSITS SHALL OCCUR UNTIL THE CONTRACTOR HAS BEEN NOTIFIED BY THE OWNER THAT HE MAY PROCEED. THE OWNER WILL ISSUE THE NOTICE TO PROCEED ONLY AFTER THE STATE OHPO OFFICIALS HAVE SURVEYED THE FIND AND MADE A DETERMINATION TO THE OWNER.
- 15. REGARDLESS OF LANDOWNER PERMISSION, NO EXCESS FILL OR ANY OTHER MATERIALS FROM CONSTRUCTION ACTIVITIES ARE TO BE PLACED IN LOW LYING AREAS THAT ARE SEASONALLY OR HABITUALLY DAMP OR WET, PARTICULARLY IN THE FLOOD PLAIN, UNLESS A SITE SURVEY HAS BEEN CONDUCTED WHICH DETERMINES THAT THE SITE IS NOT A WETLAND.
- 16. BLASTING SHALL BE USED ONLY AS A LAST RESORT, WHEN IT IS IMPOSSIBLE TO UTILIZE OTHER METHODS OF ROCK REMOVAL. THE CONTRACTOR IS REQUIRED TO SUBSTANTIATE THE NEED FOR BLASTING THROUGH THE USE OF TEST BORINGS, TEST PITS, ETC. TECHNIQUES SUCH AS TRENCHING MACHINES. RIPPER BUCKETS ON EXCAVATORS, AND HAMMERING SHALL BE USED TO REMOVE ROCK INSTEAD.

IF BLASTING DOES BECOME NECESSARY, TWENTY-FOUR (24) HOURS OF ADVANCE NOTICE SHALL BE GIVEN TO LOCAL RESIDENTS IN THE AREAS TO BE AFFECTED. BACKFILL AND BLASTING MATS MUST BE USED TO MINIMIZE BLASTING IMPACTS.

17. NO FILL, TOPSOIL OR HEAVY EQUIPMENT SHALL BE STORED WITHIN 200 FEET OF A STREAM BANK OR WITHIN THE DRIP LINE OF TREED AREAS.

#### EROSION/SEDIMENT CONTROL NOTES (CONT.):

- 18. CONSTRUCTION AND RESTORATION ACTIVITIES SHALL NOT SIGNIFICANTLY ALTER EXISTING DRAINAGE PATTERNS AND OR THE VELOCITY OF STORM WATER FLOW.
- 19. THE CONTRACTOR SHALL PERFORM ALL EROSION/SEDIMENTATION CONTROL DURING ALL CONSTRUCTION (EARTHMOVING, TRENCH EXCAVATION, ETC.). THE CONSTRUCTION SHALL BE GOVERNED BY SUPPLEMENTAL SPECIFICATION 832 OF THE ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS AND SHALL COMPLY WITH THESE REQUIREMENTS. TEMPORARY EROSION CONTROL MEASURES SHALL BE IMPLEMENTED BY THE CONTRACTOR AS OUTLINED IN SECTION 832 AND AS SHOWN ON ODOT STANDARD CONSTRUCTION DRAWINGS DM-4.3 AND DM-4.4. NO EXTRA OR SEPARATE PAYMENT SHALL BE MADE FOR THIS WORK, AND ALL COSTS SHALL BE INCLUDED IN THE COSTS BID FOR THIS PROJECT.

#### **GROUND WATER LEVELS:**

ANY WELL, WELL POINT, PIT, OR OTHER DEVICE INSTALLED FOR THE PURPOSE OF LOWERING THE GROUND WATER LEVEL TO FACILITATE CONSTRUCTION OF THIS PROJECT SHALL BE PROPERLY ABANDONED IN ACCORDANCE WITH THE PROVISIONS OF RULE 3745-9-10 OF THE OHIO ADMINISTRATIVE CODE OR IN ACCORDANCE WITH THE PROVISIONS OF THIS PLAN OR AS DIRECTED BY THE DIRECTOR OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY OR HIS REPRESENTATIVE. IN ADDITION, A WELL SEALING REPORT SHALL BE FILED WITH THE OHIO DEPARTMENT OF NATURAL RESOURCES, DIVISION OF WATER, WITHIN 30 DAYS OF COMPLETION, IN ACCORDANCE WITH SECTION 1521.01 OF THE OHIO REVISED CODE.

ANY PERSON INSTALLING ANY WELL, WELL POINT, PIT OR OTHER DEVICE USED FOR THE PURPOSE OF REMOVING GROUND WATER FROM AN AQUIFER SHALL COMPLETE AND FILE A WELL LOG AND DRILLING REPORT FORM WITH THE OHIO DEPARTMENT OF NATURAL RESOURCES, DIVISION OF WATER, WITHIN 30 DAYS OF THE WELL COMPLETION IN ACCORDANCE WITH THE OHIO REVISED CODE SECTION 1521.01 AND 1521.05. IN ADDITION, ANY SUCH FACILITY THAT HAS A CAPACITY TO WITHDRAW WATERS OF THE STATE IN AN AMOUNT GREATER THAN 100,000 GALLONS PER DAY FROM ALL SOURCES SHALL BE REGISTERED WITH THE CHIEF OF THE DIVISION OF WATER, OHIO DEPARTMENT OF NATURAL RESOURCES, WITHIN THREE MONTHS AFTER THE FACILITY IS COMPLETED IN ACCORDANCE WITH SECTION 1521.16 OF THE OHIO REVISED CODE. FOR COPIES OF THE NECESSARY WELL LOG, DRILLING REPORT, OR REGISTRATION FORMS, PLEASE CONTACT:

> OHIO DEPARTMENT OF NATURAL RESOURCES FOUNTAIN SQUARE COLUMBUS, OH 43224-1387 (614) 265 - 6717

#### SYMBOLS LEGEND

	— — DRIVE — — FENCE LINE
——————————————————————————————————————	SANITARY SEWER (PROPOSED)  RIGHT-OF-WAY  SEWERAGE  SEWERAGE  APPROVE  OHIO ENVIRONMENTAL PROTECTION AG  AS EVIDENCED BY COPY OF AS EVIDENCED BY COPY O
— — — — — — — — — — — — — — — — — — —	— EASEMENT — SANITARY SEWER (EXISTING) HYDRANT GAS VALVE SANITARY MANHOLE (PROPOSED)
22-01856 ○ □ <sub>CB</sub> •	PARCEL NUMBER SANITARY MANHOLE (EXISTING) CATCH BASIN LIGHT POLE
	POST TREE/SHRUB GAS LINE VENT POWER POLE ROAD SIGN GAS LINE MARKER STORM MANHOLE

COUNTY

NOTES

PROJECT NUMBER

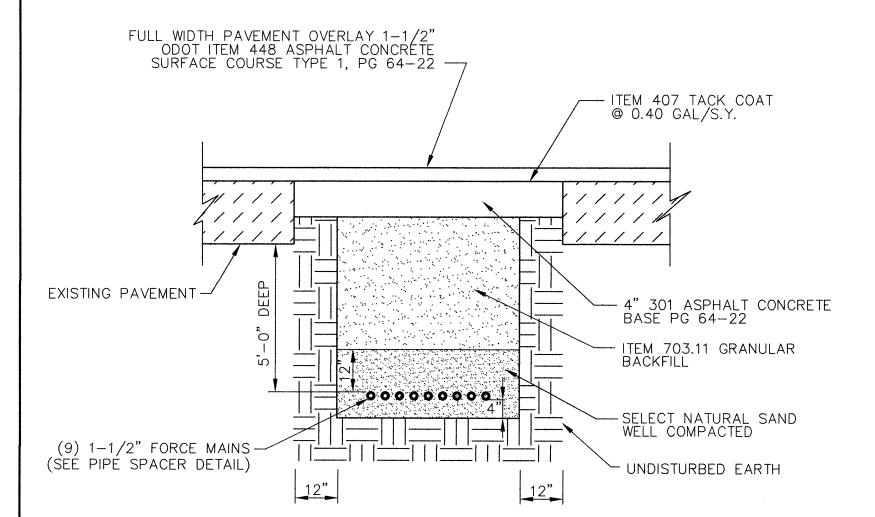


- 1. ALL FORCE MAINS ARE TO BE SDR 21.
- ALL FORCE MAINS (PVC PIPE) ARE TO BE COLOR CODED. PIPING SHALL BE PAINTED
- WITH SHERWIN WILLIAMS SYSTEM 4000, B54 SERIES PAINT IN THE APPROPRIATE COLOR.

  3. A MINIMUM OF 5'-0" OF COVER IS TO BE MAINTAINED OVER THE PROPOSED FORCE
- 4. THE ENDS OF ALL FORCE MAINS SHALL BE CAPPED AND MARKED.

#### GENERAL PAVEMENT NOTE:

WHERE EDGES OF REPLACED SECTIONS EXTENDS WITHIN 2'-0" OF ROADWAY EDGE, 4" 301 ASPHALT AND 1-1/2" 448 ASPHALT IS TO BE REPLACED TO ROADWAY EDGE AT NO ADDITIONAL COST.

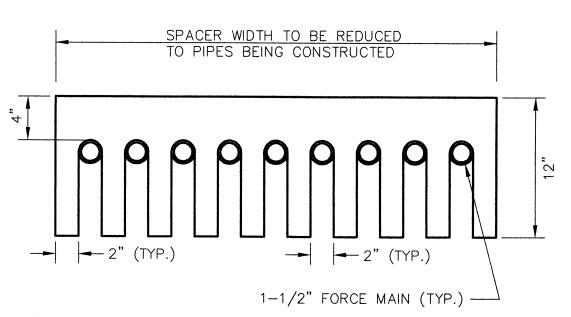


#### NOTES:

1. THE ENTIRE STREET PAVEMENT SHALL BE GROUND DOWN 1-1/2" FOR THE 1-1/2" 448 OVERLAY PAVEMENT TO MAINTAIN EXISTING ROADWAY ELEVATIONS. THE 1-1/2" LAYER OF 448 ASPHALT CONCRETE SHALL BE APPLIED AS ONE UNIFORM SEAMLESS LAYER ACROSS THE PAVEMENT

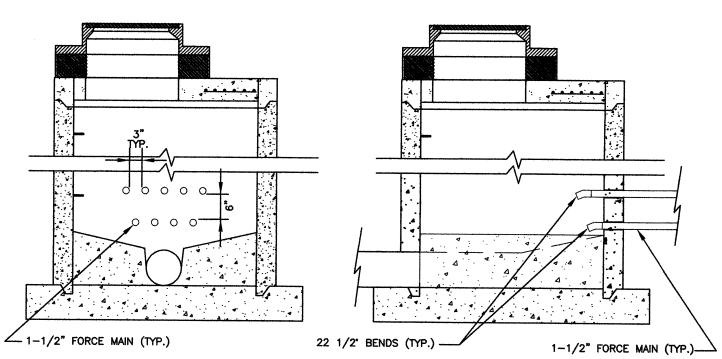
2. TAR AND SAND SEAL JOINT BETWEEN 1-1/2" 448 ASPHALT CONCRETE OVERLAY AND EXISTING ASPHALT AND CONCRETE SURFACES.

# **CROSS SECTION DETAIL**



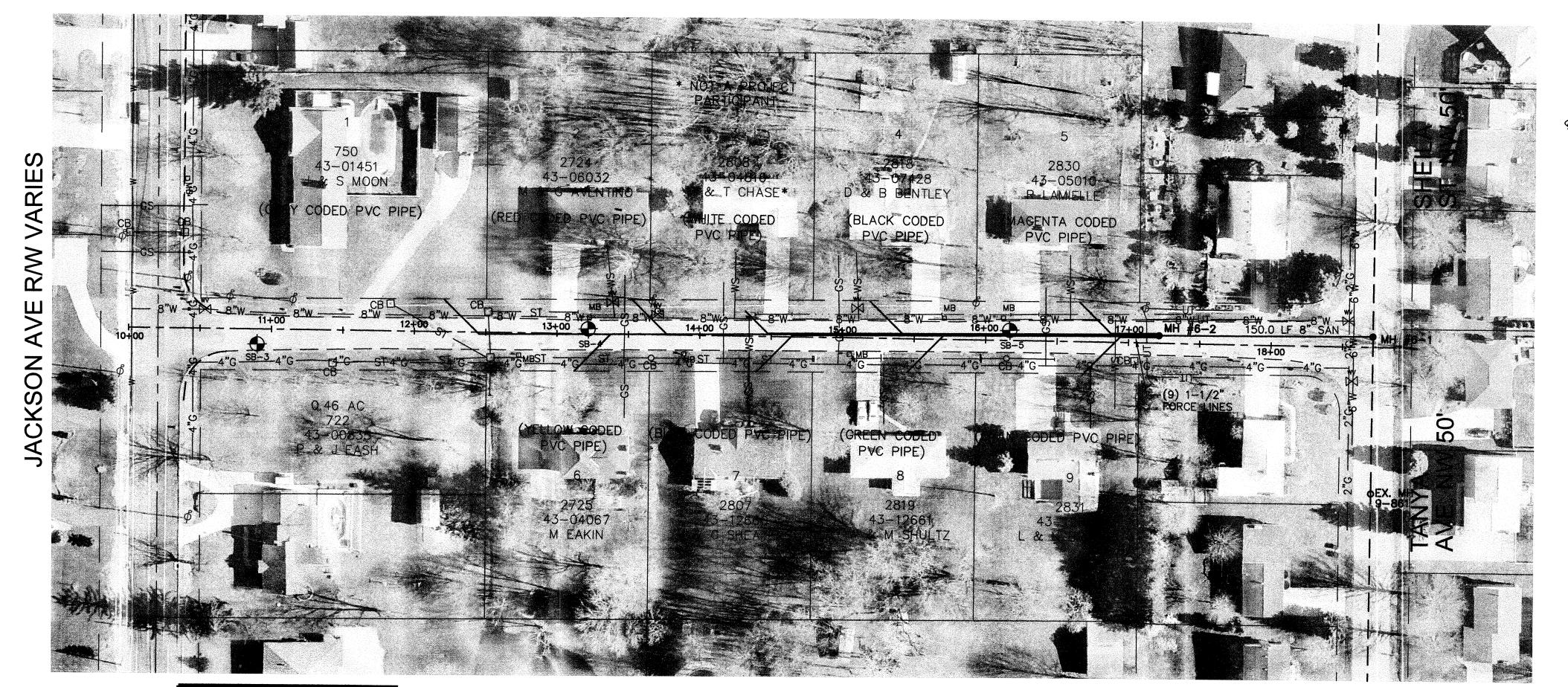
NOTE:
SPACERS TO BE SET EVERY 10 FEET. SPACER MATERIAL TO BE 3/4" CDX
PLYWOOD OR APPROVED EQUAL.
CONCRETE THRUST BLOCK ALL FORCE MAINS AT ALL PIPE FITTINGS TO THE
APPROVAL OF THE ENGINEER.

# FORCE MAIN PIPE SPACER



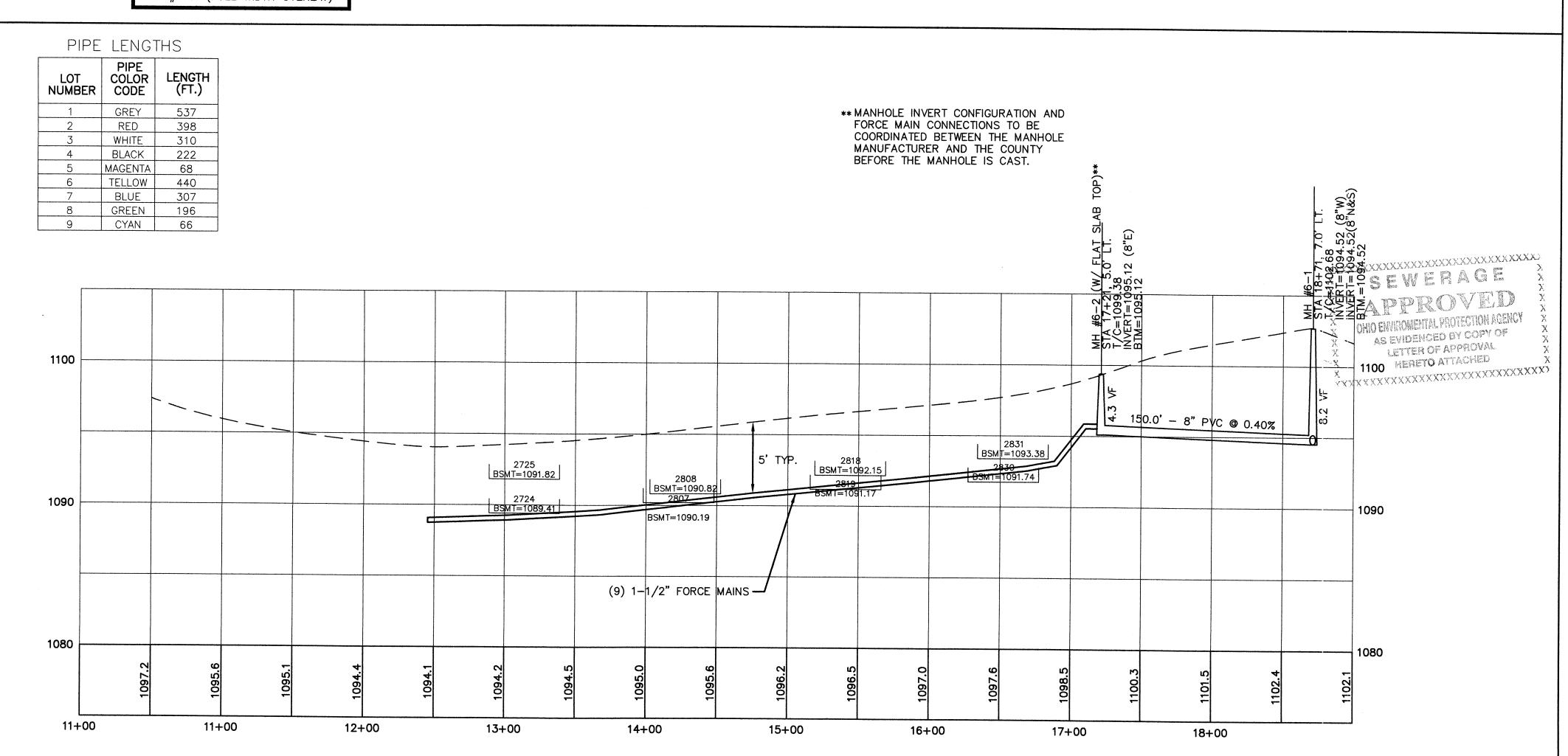
FORCE MAIN CONNECTION DETAIL

NOT TO SCALE

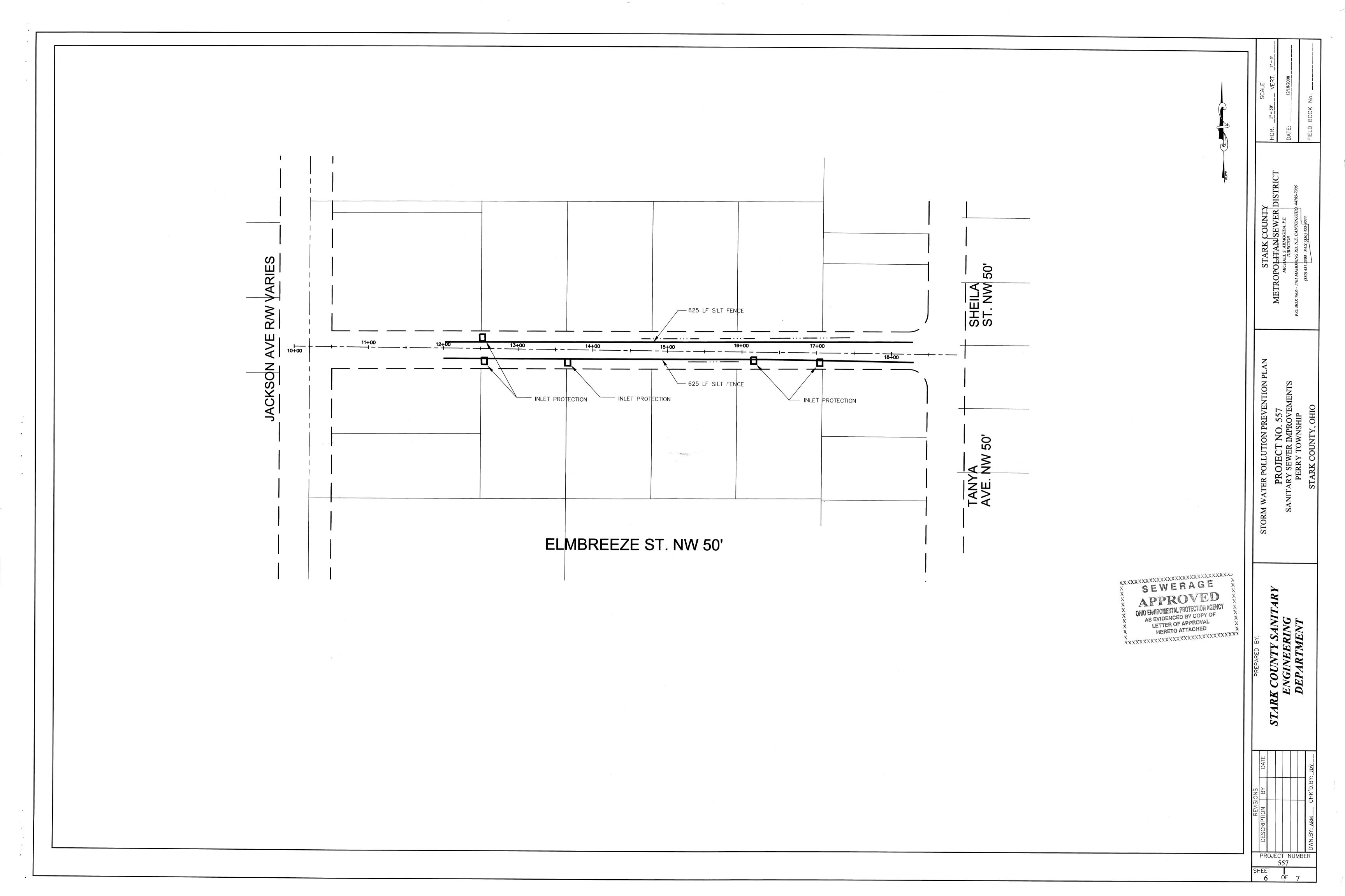


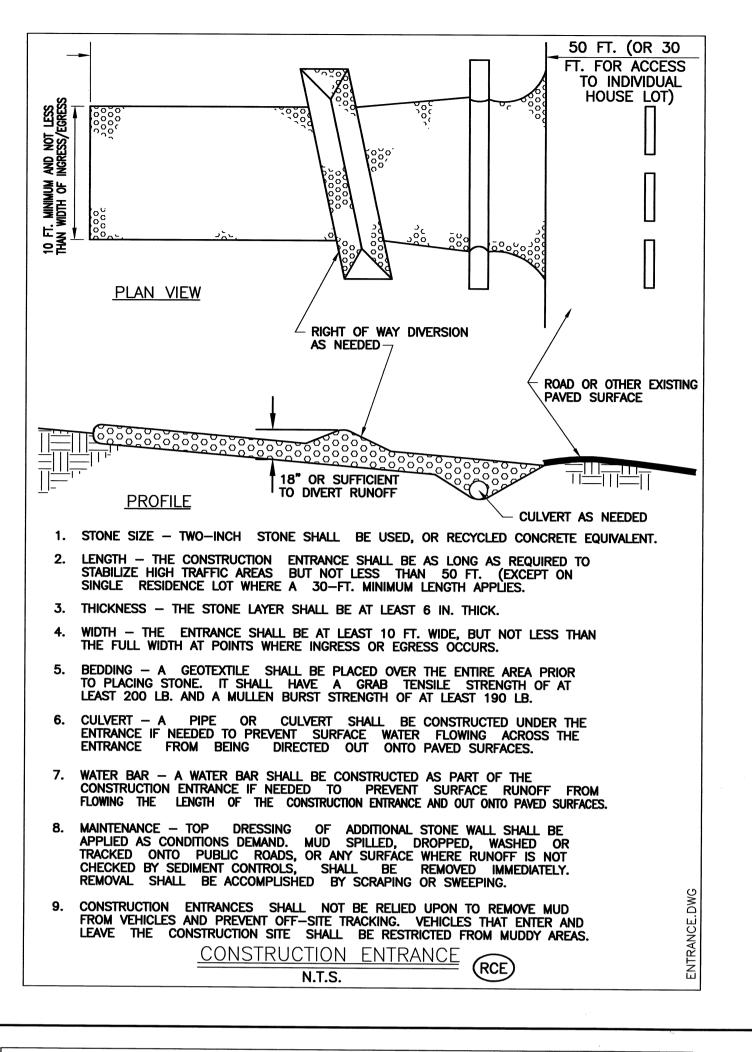
EXISTING PAVEMENT REPLACEMENT WITHIN SEWER LIMITS ITEM #21M (FULL WIDTH OVERLAY)

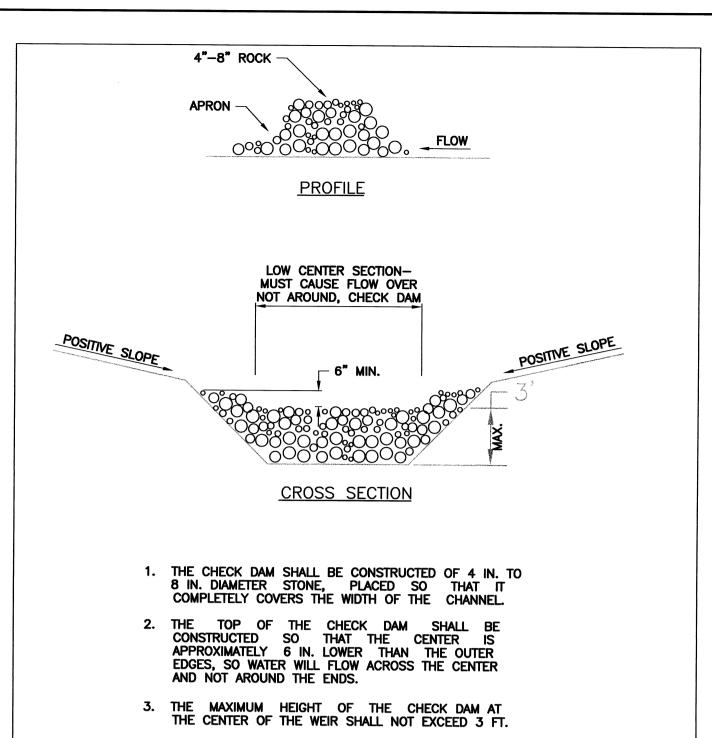
ELMBREEZE ST. NW 50'



PROJECT NUMBER 557



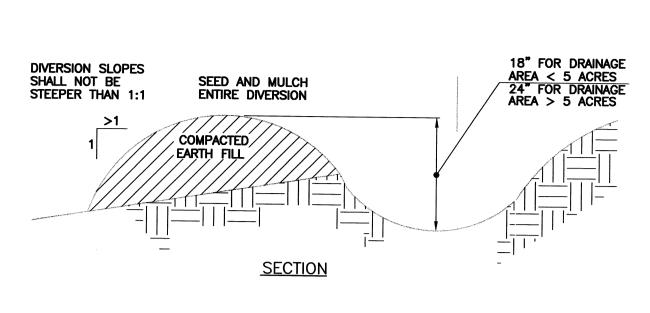




4. SPACING BETWEEN DAMS SHALL BE AS SHOWN IN THE PLANS OR BY THE FOLLOWING TABLE:

DAM HEIGHT		CHANNE	L SLOPE	
(FT.)	< 5%	5-10%	10-15%	15-20%
1	65 FT.	30 FT.	20 FT.	15 FT.
2	130 FT.	65 FT.	40 FT.	30 FT.
3	200 FT.	100 FT.	65 FT.	50 FT.

CHECK DAM



DISTRICT

- 1. DIVERSION SHALL BE COMPACTED BY TRAVERSING WITH TRACKED EARTH-MOVING EQUIPMENT.
- 2. DIVERSIONS SHALL NOT BE BREACHED OR LOWERED TO ALLOW CONSTRUCTION TRAFFIC TO CROSS; INSTEAD THE TOP WIDTH MAY BE MADE WIDER AND SIDE SLOPES MADE FLATTER THAN SPECIFIED
- 3. DIVERSIONS SHALL BE STABILIZED WITH VEGETATION AND CHECK DAMS OR THE FOLLOWING TREATMENTS.

0-3%	SEED AND STRAW	SEED AND STRAW	SEED AND STRAW
3–5%	SEED AND STRAW	SEED AND STRAW	MATTING
5-8%	SEED AND STRAW	MATTING	MATTING
8-20%	SEED AND STRAW	MATTING	ENGINEERED

FRONT OF BARRIER GEOTEXTILE **DETAILS:**  SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTRUBANCE BEGINS.
 B. THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWNSLOPE SIDE OF THE 2. ALL SILT FENCE SHALL BE PLACED AS CLOSE BELOW THE GROUND SURFACE. EXCESS

- TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS WHICH MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT 9. SEAMS BETWEEN SECTION OF SILT FENCE SHALL FENCE ARE DISSIPATED ALONG ITS LENGTH.
- 3. TO PREVENT WATER PONDED BY THE SILT FENCE FROM FLOWING AROUND THE ENDS, EACH END SHALL BE CONSTRUCTED UPSLOPE SO THAT THE ENDS ARE AT A HIGHER
- 4. WHERE POSSIBLE, SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE. 5. WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5 ft. (OR AS MUCH AS POSSIBLE) UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE RE-ESTABLISHED WITHIN 7 DAYS FROM THE INSTALLATION OF THE FENCE.
- 6. SOIL STOCKPILES OR OTHER SOURCES OF 7. THE SILT FENCE SHALL BE PLACED IN A TRENCH CUT A MINIMUM OF 6" DEEP.

UNIFORM TRENCH DEPTH.

- MATERIAL SHALL LAY ON THE BOTTOM OF THE 6" DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED.
- BE OVERLAPPED WITH THE END STAKES OF EACH SECTION WRAPPED TOGETHER BEFORE DRIVING INTO THE GROUND. MAINTENANCE-- SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE, IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, ONE OF THE FOLLOWING SHALL BE PERFORMED,
- AS APPROPRIATE: 1) THE LAYOUT OF THE SILT FENCE SHALL BE 2) ACCUMULATED SEDIMENT SHALL BE REMOVED, 3) OTHER PRACTICES SHALL BE INSTALLED. CRITERIA FOR SILT FENCE MATERIALS
- SEDIMENT SHALL HAVE SILT FENCE PROTECTION.

  THE SILT FENCE SHALL BE PLACED IN A

  SEDIMENT SHALL BE A

  MINIMUM OF 32" LONG, WOOD POST WILL BE
  2" X 2" HARDWOOD OF SOUND QUALITY. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE THE TRENCH SHALL BE CUT WITH A TRENCHER, CABLE LAYING MACHINE, OR OTHER SUITABLE DEVICE WHICH WILL ENSURE AN ADEQUATELY 2. SILT FENCE FABRIC (SEE CHART BELOW):

VALUES	TEST METHOD
90 LB. MINIMUM	ASTM D 1682
190 P.S.I. MINIMUM	ASTM D 3786
0.3 GAL./MIN./FT. <sup>2</sup> MAXIMUM	
40-80	US STD. SIEVE CW-02215
90% MINIMUM	ASTM-G-26
-	90 LB. MINIMUM  190 P.S.I. MINIMUM  0.3 GAL./MIN./FT. <sup>2</sup> MAXIMUM  40-80

N.T.S.

