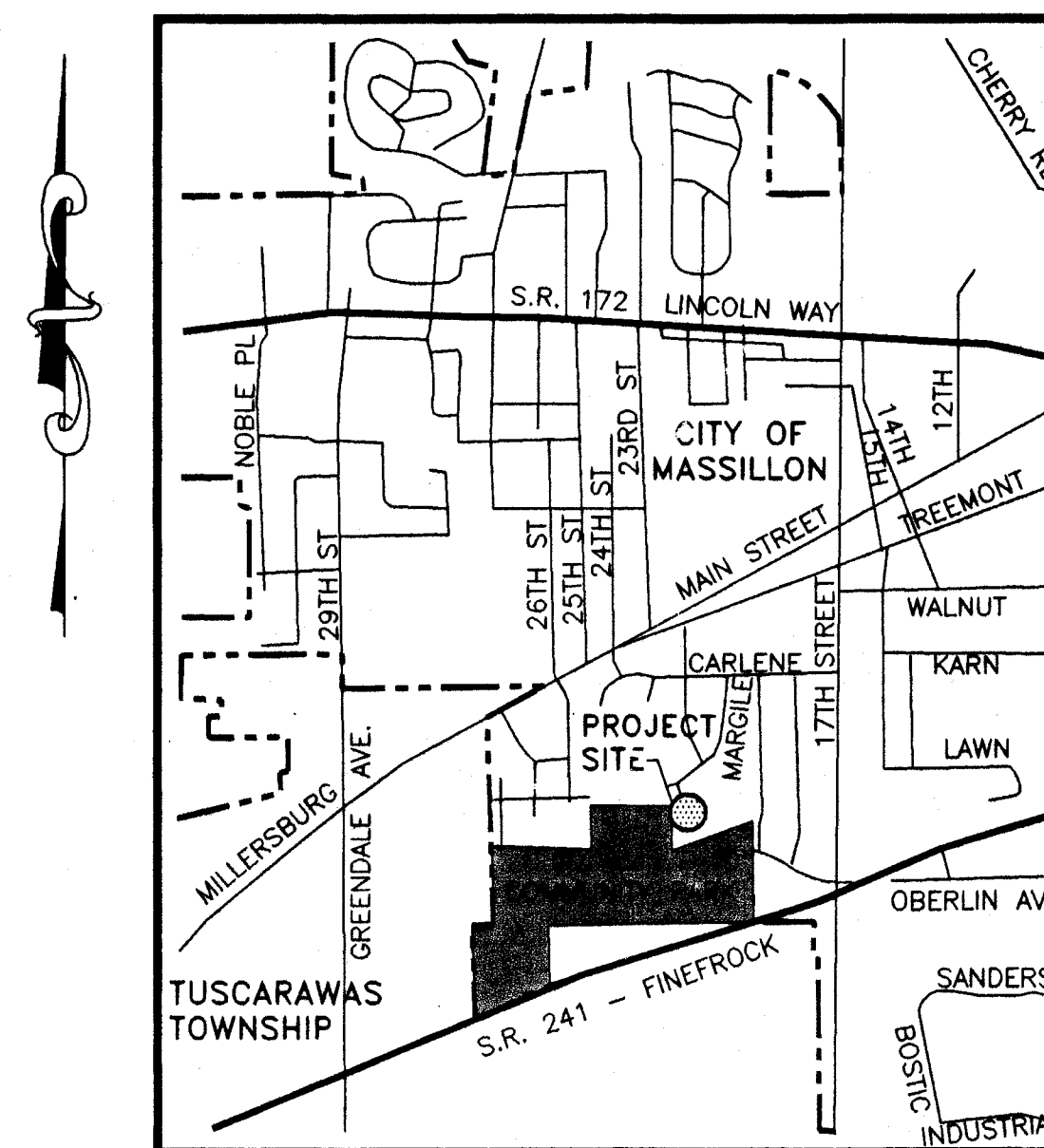


IMPROVEMENT PLANS FOR
PARK VIEW ESTATES
(BETHANN AVENUE EXTENSION)
CITY OF MASSILLON, STARK COUNTY, OHIO

OWNER/DEVELOPER:

PBR DEVELOPMENT
2456 KENYON AVENUE NW
MASSILLON, OHIO 44647
330-837-2364



LOCATION MAP
NOT TO SCALE

INDEX OF SHEETS

TITLE SHEET
BETHANN AVENUE - STA. 0+00 TO STA. 8+50
NOTES, QUANTITIES, AND TYPICAL SECTION
DETAILS
STORM WATER POLLUTION PREVENTION PLAN

1
2
3
4
5

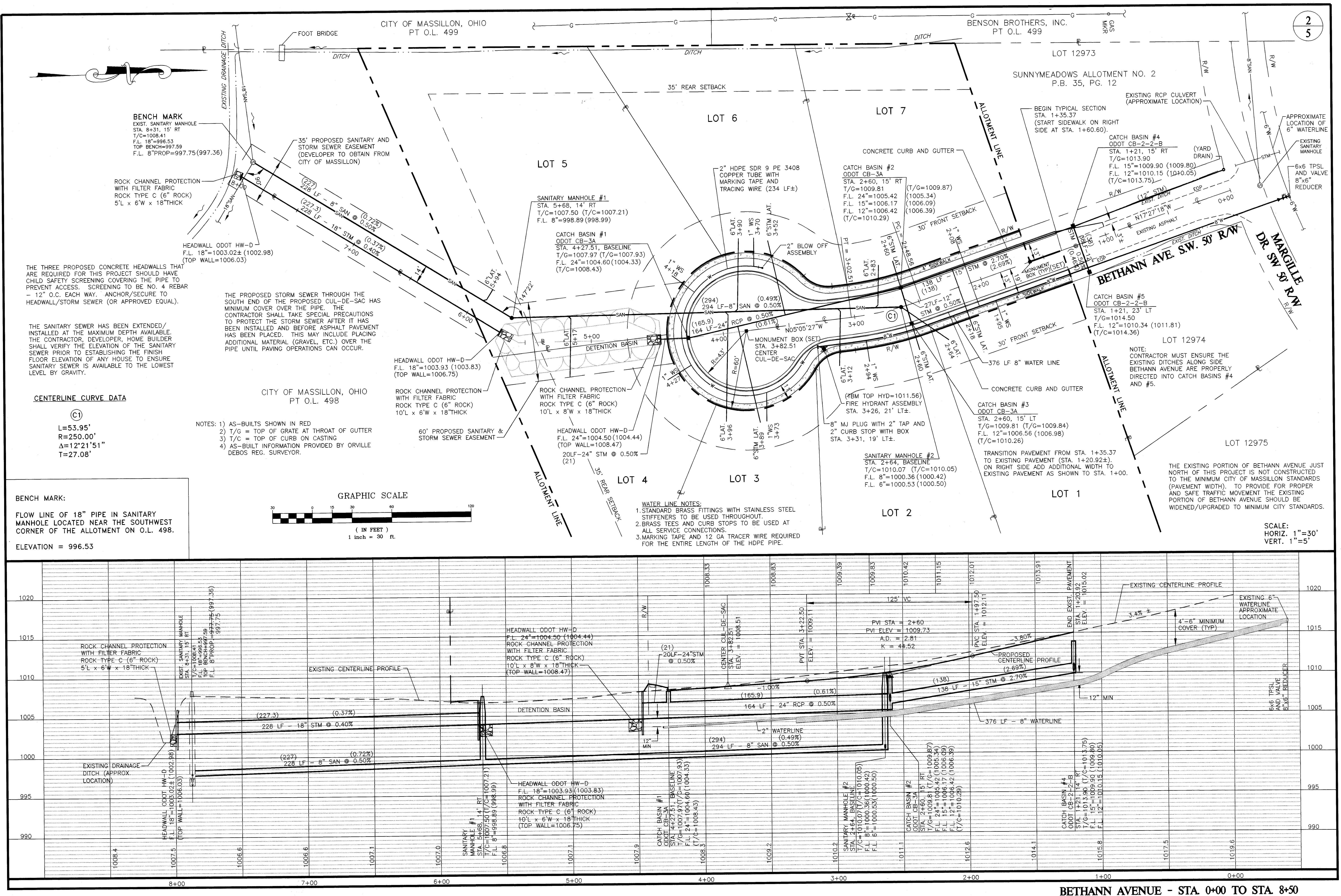
ENGINEERING SERVICES BY:

HETTLER ENGINEERING SERVICES
Civil and Construction Consultants
1225 N. MAIN STREET
NORTH CANTON, OHIO 44720
330-966-1776



CALL 2 WORKING DAYS
BEFORE YOU DIG
1-800-362-2764
OHIO UTILITIES PROTECTION SERVICE
(CONTACT NON-MEMBERS DIRECTLY)

CITY OF MASSILLON		MASSILLON, OHIO	
	DATE	7/16/02	DATE
CITY ENGINEER			
	DATE	7/16/02	DATE
CONSUMERS OHIO WATER COMPANY			
OHIO ENVIRONMENTAL PROTECTION AGENCY APPROVAL			
August 9, 2002		DATE	
WATER APPROVED BY LETTER DATED		DATE	
August 23, 2002		DATE	
SEWER APPROVED BY LETTER DATED		DATE	



PROJECT SPECIFICATIONS

ALL WORK REQUIRED TO COMPLETE THIS IMPROVEMENT SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE DETAILED CONSTRUCTION DRAWINGS, THE LATEST EDITION OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, EXCEPT AS HEREIN AMENDED, AND PER THE CITY OF MASSILLON SPECIFICATIONS/REQUIREMENTS/STANDARDS. THE CONSTRUCTION DRAWINGS WILL TAKE PRECEDENCE OVER THE OTHER REQUIREMENTS. IN THE CASE OF A CONFLICT BETWEEN THE CITY OF MASSILLON AND THE OHIO DEPARTMENT OF TRANSPORTATION SPECIFICATIONS/REQUIREMENTS, THE MORE STRICT OF THE TWO SPECIFICATIONS WILL GOVERN, AS DETERMINED BY THE CITY ENGINEER. STATE OF OHIO, DEPARTMENT OF TRANSPORTATION STANDARD CONSTRUCTION DRAWINGS SHALL APPLY TO THIS IMPROVEMENT.

PROJECT SAFETY

THE CONTRACTOR SHALL MAINTAIN A SAFE WORKING ENVIRONMENT AT THE PROJECT SITE AT ALL TIMES. THE CONTRACTOR SHALL PROPERLY SUPPORT AND/OR MAINTAIN ALL EXCAVATIONS PER APPLICABLE SAFETY REQUIREMENTS AND COMPLY WITH ALL O.S.H.A. REGULATIONS. THIS SHALL INCLUDE STRICT COMPLIANCE WITH ALL O.S.H.A. REGULATIONS/REQUIREMENTS REGARDING TRENCH SAFETY, ADEQUATE BARRICADES, WARNING LIGHTS, SIGNS, FENCING, ETC. SHALL BE ERECTED AROUND THE CONSTRUCTION AREA DURING ALL NON-WORKING HOURS TO ALERT PERSONS OF THE POTENTIAL DANGER ASSOCIATED WITH THE AREA UNDER CONSTRUCTION AS WELL AS TO PREVENT ACCESS BY UNAUTHORIZED PERSONNEL TO THE CONSTRUCTION SITE/AREA. TRENCHES SHALL BE BACKFILLED AT THE END OF EACH WORK DAY OR PROPERLY SECURED AS APPROVED BY THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THE SAFETY OF THE GENERAL PUBLIC AS WELL AS ALL CONSTRUCTION PERSONNEL. PUBLIC STREETS SHALL BE KEPT CLEAN AND FREE OF DEBRIS (MUD, STONE, ETC.) AT ALL TIMES. THE CONTRACTOR SHALL ALERT ALL LOCAL EMERGENCY AGENCIES/SERVICES (FIRE, POLICE, AMBULANCE, ETC.) OF THE NATURE OF THE PROPOSED PROJECT PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY. ACCESS FOR EMERGENCY VEHICLES SHALL BE MAINTAINED AT ALL TIMES.

AT NO TIME SHALL ANY PERSONNEL ENTER EXISTING STRUCTURES/CHAMBERS WITHOUT PROPER SAFETY EQUIPMENT, INCLUDING BUT NOT LIMITED TO AIR PACKS, AIR MONITORS AND/OR AIR SENSORS, PROTECTIVE CLOTHING, BODY HARNESS WITH POSITIVE MEANS OF REMOVING A PERSON FROM THE STRUCTURE/CHAMBER ETC.. ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH APPLICABLE O.S.H.A. REQUIREMENTS INCLUDING THOSE SPECIFIED FOR ENTERING CONFINED SPACES.

UNDERGROUND UTILITIES

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLANS WERE OBTAINED BY FIELD OBSERVATIONS, FROM EXISTING RECORDS, AND/OR FROM THE OWNERS OF THE RESPECTIVE UTILITIES. THE INFORMATION AS SHOWN IS BELIEVED TO BE CORRECT, HOWEVER, THE COMPLETENESS AND ACCURACY OF THIS INFORMATION CANNOT BE GUARANTEED. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT ALL THE VARIOUS UTILITY COMPANIES (PUBLIC AND PRIVATE) TO VERIFY THE EXISTENCE, LIMITS AND/OR LOCATION OF ANY UTILITIES WHICH MAY BE ALONG THE ROUTE OR WITHIN THE VICINITY OF THIS IMPROVEMENT.

UTILITY NOTIFICATION

AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING OPERATIONS ON THIS PROJECT THE CONTRACTOR(S) SHALL NOTIFY THE ENGINEER, THE REGISTERED UTILITY PROTECTION AGENCY/SERVICE, AND THE OWNERS OF ANY OTHER UTILITIES (PUBLIC AND/OR PRIVATE) THAT MAY HAVE UTILITY LINES OR FACILITIES WITHIN THE VICINITY OF THIS PROJECT BUT WHO ARE NOT MEMBERS OF THE REGISTERED UTILITY PROTECTION SERVICE OF HIS/HER PROJECT. THE CONTRACTOR SHALL GIVE A 48 HOUR NOTICE BEFORE STARTING ANY WORK ON THIS PROJECT AND SHALL KEEP THE CITY INFORMED OF HIS/HER CONSTRUCTION SCHEDULE. NO WORK AS SPECIFIED ABOVE SHALL BE PERFORMED UNLESS AN AUTHORIZED INSPECTOR IS PRESENT.

SUBSURFACE INVESTIGATIONS

SUBSURFACE INVESTIGATIONS HAVE NOT BEEN PERFORMED FOR THIS PROJECT. THE CONTRACTOR MAY PERFORM SUCH SUBSURFACE INVESTIGATIONS AT HIS OWN RISK, EXPENSE, AND RESPONSIBILITY. THE CONTRACTOR MUST CONTACT THE OWNER, ENGINEER AND ALL UTILITY COMPANIES, PUBLIC AND PRIVATE, WHICH MAY HAVE FACILITIES WITHIN THE PROJECT LIMITS, 48 HOURS PRIOR TO PERFORMING ANY SUBSURFACE INVESTIGATIONS. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE RESTORATION OF AREAS DISTURBED BY TEST HOLES OR BORINGS, TO THE SATISFACTION OF THE ENGINEER.

SUITABILITY OF SITE

THE DESIGN ENGINEER/OWNER WILL NOT BE RESPONSIBLE FOR THE TYPE AND/OR SUITABILITY OF THE MATERIAL UNDERLYING THE PROJECT SITE. THE CONTRACTOR MUST APPRAISE HIMSELF OF ANY EXISTING SITE CONDITIONS WHICH MAY EFFECT HIS/HER BID OR PERFORMANCE OF THE REQUIRED WORK. THE CONTRACTOR SHALL PERFORM WHATEVER INVESTIGATIONS AND/OR TESTING WHICH MAY BE NECESSARY TO ADEQUATELY DETERMINE/ESTIMATE TO THE SATISFACTION OF THE CONTRACTOR HIMSELF ANY AND ALL SITE CONDITIONS WHICH COULD EFFECT THE PERFORMANCE OF THE PROPOSED IMPROVEMENTS. THIS COULD INCLUDE BUT NOT BE LIMITED TO UNSUITABLE AND/OR UNSTABLE SOIL/SUBSURFACE CONDITIONS, ROCK, WATER (PERCHED OR FREE), SPRINGS, ETC. IF THE CONTRACTOR IS UNABLE TO DETERMINE THE NATURE OF THE SUBSURFACE CONDITIONS, HE SHALL ASSUME THE WORST CASE. NO ADDITIONAL COMPENSATION WILL BE GIVEN FOR UNANTICIPATED AND/OR UNFORESEEN CONDITIONS.

VERIFICATION OF UNDERGROUND UTILITIES

THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE EXISTENCE AS WELL AS THE ACTUAL LOCATION, ALIGNMENT, AND ELEVATIONS OF ALL EXISTING UTILITIES/FACILITIES WITHIN AND/OR ADJACENT TO THE GENERAL LIMITS OF THESE IMPROVEMENTS INCLUDING WATERLINES, SANITARY AND STORM SEWERS, GAS LINES, COMMUNICATION LINES/BANKS, ELECTRIC LINES, ETC. PRIOR TO ORDERING MATERIALS OR BEGINNING WORK. THE CONTRACTOR SHALL NOT PROCEED WITH ANY WORK UNTIL THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES WHICH COULD EFFECT COMPLETION OF THIS IMPROVEMENT HAVE BEEN FIELD CHECKED AND VERIFIED. THIS WILL LIKELY REQUIRE EXPLORATORY EXCAVATIONS TO BE PERFORMED BY THE CONTRACTOR FOR WHICH HE WILL NOT BE DIRECTLY REIMBURSED. THE CONTRACTOR SHALL NOT ASSUME THAT EXISTING UTILITIES/CONDUITS WERE INSTALLED AT TYPICAL/STANDARD DEPTHS AND AT UNIFORM SLOPES/GRADES/DEPTHS BETWEEN ACCESS POINTS (CATCH BASINS, MANHOLES, JUNCTION CHAMBERS, ETC.), WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER, UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO INSTALL THE PROPOSED CONDUIT. ANY CONFLICTS AND/OR DISCREPANCIES FROM THE PLAN INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER SO THAT THE APPROPRIATE ADJUSTMENTS IN ALIGNMENT AND/OR GRADE MAY BE MADE PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO VERIFY AND/OR DETERMINE EXISTING INFORMATION AS INDICATED/REQUIRED WILL RESULT IN THE CONTRACTOR BEING RESPONSIBLE FOR ANY CHARGES NECESSARY TO COMPLETE THE WORK SPECIFIED WITHOUT ADDITIONAL COMPENSATION.

PROTECTION OF UTILITIES

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS/MEASURES NECESSARY TO PROTECT AND SUPPORT ANY EXISTING UTILITIES/FACILITIES LOCATED ALONG THE ROUTE OF THE PROPOSED IMPROVEMENTS, WITHIN THE GENERAL PROJECT LIMITS AND/OR ENTERED INTO THE COMPLETION OF THE PROPOSED IMPROVEMENTS AS DIRECTED/APPROVED BY THE OWNERS OF THE RESPECTIVE UTILITIES AND THE ENGINEER. UTILITIES MUST BE KEPT IN SERVICE AT ALL TIMES.

THE CONTRACTOR SHALL BE RESPONSIBLE TO CLOSELY COORDINATE THEIR WORK WITH ALL UTILITY COMPANIES TO MINIMIZE/AVOID POSSIBLE DELAYS IN THE COMPLETION OF THE REQUIRED IMPROVEMENTS. DELAYS WILL NOT BE THE RESPONSIBILITY OF THE CITY NOR THE ENGINEER.

DISPOSAL OF EXCESS OR UNSUITABLE MATERIALS

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DISPOSE OF ANY EXCESS, UNSUITABLE AND/OR UNUSABLE MATERIALS RESULTING FROM THE COMPLETION OF THE PROPOSED IMPROVEMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN WRITTEN PERMISSION FROM ANY PROPERTY OWNER PRIOR TO PLACEMENT OF ANY MATERIALS FROM THIS PROJECT ONTO OTHER PROPERTIES AND SHALL FURNISH THE OWNER/ENGINEER WITH COPIES OF THESE WRITTEN AGREEMENTS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY AND ALL CLAIMS RESULTING FROM THE PLACEMENT/DISPOSAL OF EXCESS, UNSUITABLE, AND/OR UNUSABLE MATERIALS ONTO OTHER PROPERTIES, INCLUDING BUT NOT LIMITED TO ENVIRONMENTAL ISSUES.

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL

THE CONTRACTOR SHALL PREVENT AND/OR REDUCE AND CONTROL SOIL EROSION RESULTING FROM THE PROPOSED IMPROVEMENTS. METHODS OF SOIL EROSION PREVENTATION, TEMPORARY SEEDING, SOD, SILT CHECKS, INLET PROTECTION AROUND ALL CATCH BASINS, STABILIZED CONSTRUCTION ENTRANCES, ETC. WILL BE REQUIRED. SEDIMENT CONTROL STRUCTURES/DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUAL RAINWATER AND LAND DEVELOPMENT - OHIO'S STANDARDS FOR STORMWATER MANAGEMENT AND DEVELOPMENT AND URBAN SITEPLAN PROTECTION, SECOND EDITION DATED 1998. SEDIMENT CONTROL DEVICES MUST BE INSTALLED PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTINUED INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL DEVICES THROUGHOUT THE PROJECT. FOLLOW THE REQUIREMENTS SET FORTH ON THE APPROVED STORM WATER POLLUTION PREVENTION PLAN IF APPLICABLE, OR ON THE DETAILED CONSTRUCTION PLANS.

MAINTAINING TRAFFIC

THE CONTRACTOR SHALL SAFELY AND PROPERLY MAINTAIN TRAFFIC ADJACENT TO, THROUGH, AND/OR ALONG THE PROJECT ROUTE/SITE AS DESCRIBED BELOW AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE OHIO DEPARTMENT OF TRANSPORTATION MANUAL OF CONSTRUCTION AND MATERIALS SPECIFICATIONS ITEM 614 MAINTAINING TRAFFIC. THE CONTRACTOR SHALL FURNISH, MAINTAIN, AND REMOVE ALL SIGNS, FLAGS, FLAGMEN, WATCHMEN, BARRICADES, SIGN SUPPORTS, CONES, BARRIERS, AND INCIDENTALS IN CONFORMANCE WITH THE MOST RECENT REVISIONS OF THE CURRENT EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS. INTERFERENCE WITH VEHICULAR TRAFFIC SHALL BE KEPT TO A MINIMUM AT ALL TIMES. ALL OPEN TRENCHES AND EXCAVATIONS SHALL BE PROTECTED WITH DRUMS, BARRICADES, BARRIERS, ETC. ACCESS SHALL BE MAINTAINED AT ALL TIMES FOR EMERGENCY AND FIRE DEPARTMENT VEHICLES. ANY TEMPORARY ROADWAY CLOSING MUST BE APPROVED BY THE ENGINEER AND THE PUBLIC AGENCY HAVING JURISDICTION OF THE ROADWAY IN WRITING WITH PRIOR NOTIFICATION GIVEN TO FIRE, POLICE AND OTHER EMERGENCY AGENCIES. EMERGENCY AND LOCAL TRAFFIC MUST BE MAINTAINED AT ALL TIMES IN A SAFE MANNER.

MAINTENANCE OF UTILITY SERVICES

THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN UTILITY SERVICES AT ALL TIMES. WATER SERVICE MAY BE INTERRUPTED FOR LIMITED PERIODS OF TIME (4 HOURS MAXIMUM) DURING CONNECTION BETWEEN EXISTING WATER LINES AND RELOCATED/NEW WATER MAINS WHICH CANNOT BE COMPLETED OTHERWISE. SHUTDOWN/DISRUPTION OF WATER SERVICE TO BUSINESSES, SCHOOLS, CHURCHES, OR OTHER COMMERCIAL USERS SHALL BE SCHEDULED TO MINIMIZE THE OTHER REQUIREMENTS. IN THE CASE OF A CONFLICT BETWEEN NO SHUT DOWN SHALL OCCUR WITHOUT PRIOR WRITTEN PERMISSION OF THE CITY OF MASSILLON AND CONSUMERS OHIO WATER COMPANY. PROPERTY OWNERS/BUSINESSES AFFECTED BY THE APPROVED INTERRUPTION OF SERVICE SHALL BE NOTIFIED 48 HOURS IN ADVANCE BY THE CONTRACTOR. STORM AND SANITARY SERVICES SHALL BE MAINTAINED/PROVIDED WITHOUT INTERRUPTION.

RESTORATION OF DISTURBED AREAS

EXISTING CURBS, BERMS, LAWNS, TELEPHONE/POWER POLES, PAVEMENTS, RETAINING WALLS, DRIVES, SIDEWALKS, SIGNS, MAILBOXES, FENCING, PAPER BOXES, LANDSCAPING ITEMS/AREAS OR OTHER APPURTENANCES DISTURBED/DAMAGED DURING CONSTRUCTION SHALL NOT SPECIFICALLY DESIGNATED FOR REMOVAL AND/OR REPLACEMENT SHALL BE RESTORED TO A CONDITION EQUAL TO THAT WHICH EXISTED PRIOR TO CONSTRUCTION AND TO THE COMPLETE SATISFACTION OF THE ENGINEER/OWNER. COST FOR THE RESTORATION OF THESE ITEMS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE IN THE PLANS/SPECIFICATIONS.

WORK IN THE RIGHT-OF-WAY

A PERMIT MAY BE REQUIRED FROM THE CITY PRIOR TO ANY WORK BEING PERFORMED INSIDE THE CITY'S RIGHT-OF-WAY. THE CONTRACTOR MUST NOTIFY THE CITY ENGINEER'S OFFICE 48 HOURS PRIOR TO ANY CONSTRUCTION INSIDE THE CITY'S RIGHT-OF-WAY OR WITHIN THE CITY UTILITY EASEMENTS IN ORDER TO COORDINATE INSPECTION.

EASEMENTS AND RIGHTS-OF-WAY

THE CONTRACTOR SHALL STAY WITHIN THE PROPERTIES, EASEMENTS, AND RIGHTS-OF-WAY PROVIDED AT ALL TIMES. NO MATERIAL SHALL BE STORED NOR ANY WORK PERFORMED ON PRIVATE PROPERTY. DISTURBANCE OF EXISTING FEATURES AND/OR IMPROVEMENTS SHALL BE KEPT TO AN ABSOLUTE MINIMUM AND AS APPROVED BY THE ENGINEER/OWNER.

INSPECTION

ALL WORK REQUIRED/ASSOCIATED WITH THE CONNECTION OF PROPOSED UTILITIES TO EXISTING PUBLIC UTILITIES OR OTHER WORK REQUIRED WITHIN THE RIGHTS OF WAY OF BETHANN AVENUE, MARGOLLE STREET, OR WITHIN PUBLIC UTILITY EASEMENTS SHALL BE INSPECTED BY THE CITY OF MASSILLON OR THEIR DESIGNATED REPRESENTATIVE. THE CONTRACTOR SHALL GIVE A 48 HOUR NOTICE BEFORE STARTING ANY WORK ON THIS PROJECT AND SHALL KEEP THE CITY INFORMED OF HIS/HER CONSTRUCTION SCHEDULE. NO WORK AS SPECIFIED ABOVE SHALL BE PERFORMED UNLESS AN AUTHORIZED INSPECTOR IS PRESENT.

SUBSURFACE INVESTIGATIONS

SUBSURFACE INVESTIGATIONS HAVE NOT BEEN PERFORMED FOR THIS PROJECT. THE CONTRACTOR MAY PERFORM SUCH SUBSURFACE INVESTIGATIONS AT HIS OWN RISK, EXPENSE, AND RESPONSIBILITY. THE CONTRACTOR MUST CONTACT THE OWNER, ENGINEER AND ALL UTILITY COMPANIES, PUBLIC AND PRIVATE, WHICH MAY HAVE FACILITIES WITHIN THE PROJECT LIMITS, 48 HOURS PRIOR TO PERFORMING ANY SUBSURFACE INVESTIGATIONS. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE RESTORATION OF AREAS DISTURBED BY TEST HOLES OR BORINGS, TO THE SATISFACTION OF THE ENGINEER.

SUITABILITY OF SITE

THE DESIGN ENGINEER/OWNER WILL NOT BE RESPONSIBLE FOR THE TYPE AND/OR SUITABILITY OF THE MATERIAL UNDERLYING THE PROJECT SITE. THE CONTRACTOR MUST APPRAISE HIMSELF OF ANY EXISTING SITE CONDITIONS WHICH MAY EFFECT HIS/HER BID OR PERFORMANCE OF THE REQUIRED WORK. THE CONTRACTOR SHALL PERFORM WHATEVER INVESTIGATIONS AND/OR TESTING WHICH MAY BE NECESSARY TO ADEQUATELY DETERMINE/ESTIMATE TO THE SATISFACTION OF THE CONTRACTOR HIMSELF ANY AND ALL SITE CONDITIONS WHICH COULD EFFECT THE PERFORMANCE OF THE PROPOSED IMPROVEMENTS. THIS COULD INCLUDE BUT NOT BE LIMITED TO UNSUITABLE AND/OR UNSTABLE SOIL/SUBSURFACE CONDITIONS, ROCK, WATER (PERCHED OR FREE), SPRINGS, ETC. IF THE CONTRACTOR IS UNABLE TO DETERMINE THE NATURE OF THE SUBSURFACE CONDITIONS, HE SHALL ASSUME THE WORST CASE. NO ADDITIONAL COMPENSATION WILL BE GIVEN FOR UNANTICIPATED AND/OR UNFORESEEN CONDITIONS.

PRECONSTRUCTION MEETING

A PRECONSTRUCTION MEETING WITH THE DEVELOPER/CONTRACTOR AND THE MASSILLON CITY ENGINEER IS REQUIRED FOR THIS PROJECT PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL CONTACT THE CITY ENGINEER AT (330) 830-1722 SEVENTY-TWO (72) HOURS PRIOR TO THE ANTICIPATED MEETING DATE.

TRAFFIC SIGNS

ALL WORK ASSOCIATED WITH THE FURNISHING AND INSTALLATION OF THE REQUIRED PERMANENT TRAFFIC/STREET SIGNS WILL BE PERFORMED BY THE CITY OF MASSILLON AND PAID FOR BY THE DEVELOPER.

DUST CONTROL

THE CONTRACTOR SHALL BE RESPONSIBLE TO PROPERLY CONTROL DUST FROM THE PROJECT SITE AS NECESSARY/REQUIRED TO MAINTAIN SAFE VISIBILITY WITHIN AND/OR ADJACENT TO THE SITE AND TO AVOID IMPACT ON ADJACENT PROPERTIES. METHODS FOR DUST CONTROL MUST BE APPROVED BY THE ENGINEER.

CLEAN UP AT END OF PROJECT

PRIOR TO FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE TO COMPLETE THE PROJECT, INCLUDING BUT NOT LIMITED TO, THE FOLLOWING: STORM MANHOLES, SANITARY SEWERS, SANITARY MANHOLES, GUTTERS, AND OTHER IMPROVEMENTS ARE CLEAN AND FREE OF ANY AND ALL DEBRIS.

PUBLIC UTILITY LOCATION

THE DEVELOPER AND REPRESENTATIVES OF THE CITY OF MASSILLON SHALL MEET WITH REPRESENTATIVES OF THE VARIOUS PUBLIC UTILITY COMPANIES (COLUMBIA/EAST OHIO GAS, OHIO Edison/AEP, AMERITHEC, WARNER CABLE, ETC.) TO DETERMINE THE APPROPRIATE LOCATION FOR THESE UTILITIES WITHIN THE PROPOSED DEVELOPMENT. ONCE AN AGREEMENT HAS BEEN REACHED, IT SHALL BE THE RESPONSIBILITY OF THE CITY OF MASSILLON TO NOTIFY THE INSTALLATION OF THE VARIOUS PUBLIC UTILITY LINES TO ENSURE THAT CONFLICTS ARE AVOIDED AND ADEQUATE CLEARANCE AND OFFSETS WITH OTHER UTILITIES ARE MAINTAINED.

PROHIBITED CONNECTIONS TO SANITARY SEWERS

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

STORM SEWERS

ALL PROPOSED STORM SEWERS SHALL MEET THE REQUIREMENTS OF O.D.O.T. ITEM 603 FOR TYPE B OR TYPE C CONDUITS. STORM SEWERS LOCATED WITHIN THE LIMITS OF OR WITHIN A 1/2 TO 1 SLOPE OF EXISTING AND/OR PROPOSED ROADWAYS, PARKING AREAS, BUILDINGS, SIDEWALKS, AND/OR DRIVES SHALL BE INSTALLED AS TYPE B CONDUITS. ALL OTHER STORM SEWERS MAY BE INSTALLED AS TYPE C CONDUITS. STORM SEWER PIPE MATERIALS (EXCEPT AS SPECIFICALLY NOTED OTHERWISE) SHALL MEET THE REQUIREMENTS OF O.D.O.T. 706.02 (REINFORCED CONCRETE CIRCULAR PIPE), OR 707.33 (SMOOTH LINED CORRUGATED POLYETHYLENE). PIPE MEETING 707.33 SHALL BE HI-Q, SUR-L-OK OR APPROVED EQUAL.

ALL DOWNSPOUT LINES AND/OR EXTENSIONS OF INTERIOR ROOF DRAINS/DOWNSPOUT LINES TO THE HEADER LINE OR DRAINAGE STRUCTURES (CATCH BASIN OR MANHOLE) SHALL BE POLYVINYL CHLORIDE PIPE, (PVC) SDR-35 MEETING THE REQUIREMENTS OF O.D.O.T. 707.45. STANDARD BENDS AND FITTINGS SHALL BE USED FOR CHANGES IN DIRECTION AND/OR ELEVATION OF THE DOWNSPOUT/INTERIOR ROOF DRAIN LINES AND FOR THE CONNECTION OF DOWNSPOUT LINES TO THE HEADER LINE.

BEDDING MATERIAL SHALL MEET THE REQUIREMENTS/SPECIFICATIONS OF THE PIPE MANUFACTURER AND SHALL BE AS SPECIFIED.

CATCH BASINS & STORM MANHOLES

ALL STORM SEWER CATCH BASINS AND MANHOLES SHALL MEET THE REQUIREMENTS OF O.D.O.T. ITEM 604. PIPE OPENINGS SHALL BE PRECAST INTO ALL CATCH BASINS AND MANHOLES. KNOCKOUT PANELS/SIDES ARE UNACCEPTABLE. CATCH BASINS SHALL BE TYPE CB-3A & CB-2-2-B. STORM MANHOLES SHALL BE TYPE MH-3.

MAINTAINING TYPICAL SECTION

THE ENTIRE RIGHT-OF-WAY SHALL BE GRADED AS SHOWN ON THE TYPICAL SECTION, DURING THE LOT DEVELOPMENT PHASE. THE DEVELOPER SHALL BE RESPONSIBLE FOR MAINTAINING THE TYPICAL SECTION BETWEEN THE BACK OF CONCRETE CURB AND THE RIGHT-OF-WAY LINE.

ESTIMATED QUANTITIES

ESTIMATED QUANTITIES ARE SHOWN TO INDICATE APPROXIMATE QUANTITIES FOR THE VARIOUS WORK/PAYMENT ITEMS REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONFIRM ALL QUANTITIES PRIOR TO SUBMITTING A BID AND ALERT THE OWNER/ENGINEER OF ANY DISCREPANCIES. WORK/PAYMENT ITEMS NOT SPECIFICALLY LISTED AND/OR REFERENCED BUT REQUIRED TO COMPLETE THE IMPROVEMENTS SHALL BE PERFORMED AND THE COST INCLUDED IN THE VARIOUS OTHER ASSOCIATED PAY ITEMS.

SANITARY SEWERS

ALL SANITARY SEWERS AND LATERALS SHALL BE PVC SDR-35 MEETING REQUIREMENTS OF ASTM D-3034 WITH JOINTS MEETING ASTM D-3212. MINIMUM COVER OVER SANITARY SEWERS SHALL BE 4 FEET.

SANITARY SEWERS AND LATERALS SHALL BE INSTALLED PER O.D.O.T. ITEM 603 AS TYPE B OR TYPE C CONDUITS. SANITARY SEWERS AND LATERALS LOCATED WITHIN THE LIMITS OF OR WITHIN A 1 TO 1 SLOPE OF EXISTING AND/OR PROPOSED ROADWAYS, PARKING AREAS, BUILDINGS, FOOTERS/FOUNDATIONS, SIDEWALKS, AND/OR DRIVES SHALL BE INSTALLED AS TYPE B CONDUITS. ALL OTHER SANITARY SEWERS MAY BE INSTALLED AS TYPE C CONDUITS. BEDDING SHALL BE AS SPECIFIED.

DEFLECTION TESTING SHALL BE CONDUCTED 30 DAYS AFTER INSTALLATION AND BACKFILLING OF THE PIPE OR AS OTHERWISE DIRECTED BY THE ENGINEER. THE ALLOWABLE DEFLECTION RATE SHALL NOT EXCEED FIVE (5%) PERCENT.

EXFILTRATION TESTING (OR INFILTRATION IF APPLICABLE) SHALL NOT EXCEED A MAXIMUM ALLOWABLE LEAKAGE OF 100 GALLON/INCH OF PIPE DIAMETER/MILE/DAY. IN LIEU OF SAID WATER TESTS, A LOW PRESSURE AIR TEST MAY BE CONDUCTED PER RECOMMENDED STANDARDS FOR SEWAGE WORKS (TEN STATE STANDARDS). THE PROPOSED SANITARY SEWER SYSTEMS SHALL BE TESTED, APPROVED, AND ACCEPTED PRIOR TO BEING PUT INTO SERVICE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY MAINTAINING ANY EXISTING SANITARY FLOW DURING THE COMPLETION AND/OR TESTING OF THE PROPOSED IMPROVEMENTS.

THE ACTUAL LOCATION OF EACH SANITARY SEWER LATERAL SHALL BE DETERMINED IN THE FIELD AND APPROVED BY A REPRESENTATIVE OF THE CITY OF MASSILLON.

A BULKHEAD SHALL BE PLACED IN THE UPSTREAM (NEW) SEWER LINE WITHIN THE EXISTING SANITARY MANHOLE (STA. 8+31, 15' RT). THIS BULKHEAD MUST REMAIN IN PLACE UNTIL THE NEW SANITARY SEWER AND LATERALS HAVE BEEN COMPLETED, TESTED AND APPROVED.

THE CONTRACTOR SHALL CAREFULLY AND ACCURATELY CORE DRILL ANY REQUIRED OPENING INTO EXISTING MANHOLES AND PROVIDE A TIGHT TIGHT CONNECTION.

MANHOLES SHALL BE LEAKAGE TESTED IN ACCORDANCE WITH ASTM C-1244.

ALL GRAVITY SEWER, EIGHT (8) INCHES AND LARGER IN DIAMETER, SHALL BE INTERNALLY INSPECTED AFTER CONSTRUCTION AND DEFLECTION TESTING IS COMPLETE. IT IS REQUIRED THAT THE SEWER LINES TO BE TESTED BE CLEANED AND FLUSHED NO MORE THAN FORTY-EIGHT (48) HOURS BEFORE TAPING OCCURS. ALL VIDEO RECORDINGS SHALL BE DONE IN COLOR ON VHS 1/2 INCH TAPE CASSETTES SHOWING CONTINUOUS COVERAGE OF THE SANITARY SEWER FROM MANHOLE TO MANHOLE. THE VIDEO RECORDING SHALL BE SUPPLIED ON T-120 TAPES RECORDED AT "SP" OR STANDARD PLAY SPEED. THE CAMERA TRAVEL AND VIEW SHALL BE UPSTREAM SO THAT THE BUTT-ENDS OF THE PIPE SPIGOT WILL SHOW CLEARLY. THE VIDEO INSPECTION SEQUENCE SHALL BE FROM THE LOWEST MANHOLE TO THE FARTHEST UPSTREAM "DEAD-END" MANHOLE. EACH SUBSEQUENT BRANCH SHALL BE RECORDED FROM A MANHOLE ALREADY TAPED TO THE MAIN LINE. THE BUTT-ENDS OF THE BRANCH. ALL INTERNAL INSPECTION SHALL BE DONE BY PERSONS AND/OR FIRMS QUALIFIED AND APPROVED BY THE CITY ENGINEER.

COST FOR ALL TESTING SHALL BE INCLUDED IN THE SANITARY SEWER PIPE PAY ITEMS.

DAMAGE TO EXISTING UTILITIES/SERVICES

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGE AND/OR DISRUPTION TO EXISTING UTILITY LINES/MAINS AND SERVICES. ALL COSTS ASSOCIATED WITH THE REPAIR, REPLACEMENT, AND/OR INTERRUPTION OF SERVICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. NO ADDITIONAL COMPENSATION WILL BE PROVIDED BY THE CITY OR THE ENGINEER. ALL LIABILITY SHALL BE BORNE BY THE CONTRACTOR.

CONSTRUCTION LAYOUT

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, PLACING, AND MAINTAINING CONSTRUCTION LAYOUT STAKES NECESSARY FOR THE PROPER COMPLETION OF THE WORK ASSOCIATED WITH THIS PROJECT. THE OWNER AND/OR ENGINEER WILL NOT BE RESPONSIBLE FOR STAKING HORIZONTAL OR VERTICAL CONTROL. BENCH MARKS WILL BE PROVIDED WITHIN AND/OR ADJACENT TO THE PROJECT SITE. THE CONTRACTOR SHALL BE RESPONSIBLE TO COMPLETE A BENCH CIRCUIT BETWEEN AT LEAST TWO (2) SEPARATE BENCH MARKS WHENEVER ELEVATIONS ARE BEING TRANSFERRED AND/OR SET. ANY DISCREPANCIES OUTSIDE NORMAL SURVEYING STANDARDS/LIMITS WITH THE BENCH MARK ELEVATIONS SHOWN SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER.

EXAMINATION OF SITE

THE CONTRACTOR SHALL BE RESPONSIBLE TO CLOSELY EXAMINE THE PROJECT SITE, AND ALL ADJACENT AREA(S) AND APPRAISE HIMSELF OF ANY ITEMS AND/OR CONDITIONS THAT COULD AFFECT HIS/HER BID AND/OR ABILITY TO COMPLETE THE PROPOSED IMPROVEMENTS. THIS SITE INSPECTION/EVALUATION SHALL BE COMPLETED PRIOR TO SUBMITTING A PROPOSAL OR BID.

WATER MAINS/SERVICES - CONSUMERS OHIO WATER COMPANY

WATER MAINS SHALL BE PRESSURE CLASS 350, DUCTILE IRON MEETING AWWA C-151 WITH PUSH ON JOINTS. THE MINIMUM COVER OVER WATER MAINS SHALL BE 4'-6" FROM THE GROUND SURFACE TO THE BARREL OF THE PIPE. THE OUTSIDE SURFACE OF ALL DUCTILE IRON PIPE, FITTINGS, AND APPURTENANCES SHALL BE PROTECTED WITH EITHER A 2" OIL TAR OR ASPHALT BASE BITUMINOUS MATERIAL. IF THIS COATING MATERIAL IS FOUND TO BE DAMAGED PRIOR TO THE PIPE TRENCH BEING BACKFILLED, THE CONTRACTOR SHALL PROVIDE AN ADDITIONAL APPROVED MATERIAL AS REQUIRED TO REPAIR THE DAMAGES. THE CONTRACTOR SHALL OBTAIN SUFFICIENT COATING MATERIAL AVAILABLE AT THE JOB SITE PRIOR TO LAYING THE PIPE. THE INTERIOR OF ALL PIPES AND FITTINGS SHALL BE LINED WITH CEMENT MORTAR AND SEAL COATED IN COMPLETE CONFORMANCE WITH AWWA C-104, OR THE LATEST REVISION. FITTINGS SHALL BE RATED FOR 350 PSI WORKING PRESSURE IN ACCORDANCE WITH AWWA C-110. PIPE LENGTHS MAY BE DEFLECTED AT THE JOINT IF REQUIRED, AT ONE-HALF THE DEGREE RECOMMENDED BY THE MANUFACTURER. WATER SERVICES SHALL BE 1" DIAMETER COPPER, TYPE K. ALL PIPES SHALL BE INSTALLED PER THE CONSUMERS OHIO WATER COMPANY STANDARDS. DISINTEGRATION OF WATER MAINS SHALL BE IN ACCORDANCE WITH AWWA C-651. ALL WATERLINE PRESSURE TESTING SHALL CONFORM TO AWWA C-600. POLYWRAP SHALL BE INSTALLED ON ALL PIPE AND FITTINGS.

WATER MAINS SHALL BE INSTALLED PER ODOT ITEM 603 AS TYPE B OR TYPE C CONDUITS. WATERLINES LOCATED WITHIN THE LIMITS OF OR WITHIN A 1 TO 1 SLOPE OF EXISTING AND/OR PROPOSED ROADWAYS, PARKING AREAS, BUILDINGS, FOOTERS/FOUNDATIONS, SIDEWALKS, AND/OR DRIVES SHALL BE INSTALLED AS TYPE B CONDUITS. ALL OTHER WATER MAINS MAY BE INSTALLED AS TYPE C CONDUITS. BEDDING SHALL BE AS SPECIFIED.

ALL PIPE JOINTS WITHIN 40 LF OF ANY DEAD END SHALL BE RESTRAINED USING MECHANICAL JOINTS, MEGALUG OR APPROVED EQUAL. ALL PIPE JOINTS WITHIN 40 LF OF ANY BEND, FITTING, VALVE AND/OR TEE SHALL ALSO BE RESTRAINED USING RESTRAINED A 1/2 TO 1 SLOPE OF EXISTING AND/OR APPROVED ROADWAYS, PARKING AREAS, BUILDINGS, SIDEWALKS, AND/OR DRIVES SHALL BE INSTALLED AS TYPE B CONDUITS. ALL OTHER STORM SEWERS MAY BE INSTALLED AS TYPE C CONDUITS. STORM SEWER PIPE MATERIALS (EXCEPT AS SPECIFICALLY NOTED OTHERWISE) SHALL MEET THE REQUIREMENTS OF O.D.O.T. 706.02 (REINFORCED CONCRETE CIRCULAR PIPE), OR 707.33 (SMOOTH LINED CORRUGATED POLYETHYLENE). PIPE MEETING 707.33 SHALL BE HI-Q, SUR-L-OK OR APPROVED EQUAL.

ALL DOWNSPOUT LINES AND/OR EXTENSIONS OF INTERIOR ROOF DRAINS/DOWNSPOUT LINES TO THE HEADER LINE OR DRAINAGE STRUCTURES (CATCH BASIN OR MANHOLE) SHALL BE POLYVINYL CHLORIDE PIPE, (PVC) SDR-35 MEETING THE REQUIREMENTS OF O.D.O.T. 707.45. STANDARD BENDS AND FITTINGS SHALL BE USED FOR CHANGES IN DIRECTION AND/OR ELEVATION OF THE DOWNSPOUT/INTERIOR ROOF DRAIN LINES AND FOR THE CONNECTION OF DOWNSPOUT LINES TO THE HEADER LINE.

BEDDING MATERIAL SHALL MEET THE REQUIREMENTS/SPECIFICATIONS OF THE PIPE MANUFACTURER AND SHALL BE AS SPECIFIED.

THE PROPOSED FACILITIES WILL MAINTAIN A MINIMUM PRESSURE OF 35 PSI DELIVERED TO THE CURB STOP DURING NORMAL OPERATING CONDITIONS.

BOOSTER PUMPS ARE NOT PERMITTED ON SERVICE CONNECTIONS. THE WATER SYSTEM MAY GRANT SPECIAL PERMISSION FOR BUILDINGS SIX STORIES AND HIGHER.

EXISTING WATERLINES

THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPORTING, BRACING AND RESTRAINING ALL EXISTING WATERLINES DURING THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.

TESTING OF UTILITIES

ALL WATERLINES AND SANITARY SEWERS (INCLUDING LATERALS) MUST BE INSTALLED AND TESTED IN ACCORDANCE WITH APPLICABLE STANDARDS (AWWA, ETC.), PER THE OHIO ENVIRONMENTAL PROTECTION AGENCY, AND PER THE REQUIREMENTS OF THE LOCAL AGENCY (TOWNSHIP, CITY, VILLAGE AND/OR COUNTY) HAVING AUTHORITY BEFORE THEY CAN BE ACCEPTED. THIS WILL INCLUDE DISINTEGRATION AND PRESSURE TESTING OF WATERLINES. SANITARY SEWERS SHALL BE SUBJECTED TO LEAKAGE TESTING WHICH WOULD INCLUDE APPROPRIATE WATER (EXFILTRATION/INFILTRATION) OR LOW PRESSURE AIR TESTING. DEFLECTION TESTING WILL BE REQUIRED OF ALL PRESSURE CONDUIT/PIPE (PVC) AND SHALL BE PERFORMED THIRTY (30) DAYS AFTER INSTALLATION OF THE PIPE. DEFLECTION TESTING AND LEAKAGE TESTING MUST BE PERFORMED PERIODICALLY AS WORK PROGRESSES AND AS SOON AS TIME RESTRAINTS ALLOW (DEFLECTION TESTING) AND AT THE DIRECTION OF THE ENGINEER.

DEFLECTION TESTING OF FLEXIBLE CONDUIT SHALL BE CONDUCTED THIRTY (30) DAYS AFTER INSTALLATION AND BACKFILLING OF THE PIPE OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ALL NECESSARY EQUIPMENT INCLUDING AN APPROVABLE MANDREL OR OTHER APPROVED DEVICE AND CONDUCT THE DEFLECTION TESTS AT THE DIRECTION OF THE ENGINEER. THE ALLOWABLE DEFLECTION RATE SHALL NOT EXCEED FIVE (5) PERCENT. THE ENGINEER HAS THE OPTION TO REQUIRE A SECOND TEST ANYTIME BETWEEN INITIAL TESTING AND RELEASE OF THE MAINTENANCE BOND. ANY SECTIONS FOUND TO HAVE A DEFLECTION IN EXCESS OF THE SPECIFIED RATE SHALL BE EXCAVATED AND CORRECTED EITHER BY RE-BEDDING, PIPE REPLACEMENT OR BOTH AS DIRECTED/APPROVED BY THE ENGINEER. THESE CORRECTIONS SHALL BE REQUIRED IF WARRANTED BY EITHER INITIAL OR SECONDARY TESTING.

ROCK CHANNEL PROTECTION

ROCK CHANNEL PROTECTION SHALL MEET THE REQUIREMENTS OF THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS ITEM 601. FILTER FABRIC CLOTH SHALL BE PLACED UNDER ALL ROCK CHANNEL PROTECTION IN ACCORDANCE WITH O.D.O.T. ITEM 712.09 GEOTEXTILE FABRICS, TYPE B (FILTER BLANKETS FOR ROCK CHANNEL PROTECTION).

STABILIZATION

ALL AREAS DISTURBED DURING CONSTRUCTION (INCLUDING EXPOSED SURFACES OF THE EMBANKMENT, EXCAVATION, SPOIL AND BORROW AREAS, BERMS, ETC.), SHALL BE STABILIZED BY SEEDING, LIMING, FERTILIZING, MULCHING, ETC. IN ACCORDANCE WITH O.D.O.T. ITEM 659, SEEDING AND MULCHING AND AS SPECIFIED ON THE STORM WATER POLLUTION PREVENTION PLAN. STABILIZATION SHALL OCCUR WITHIN SEVEN (7) DAYS FOLLOWING THE COMPLETION OF THE IMPROVEMENTS.

EARTHWORK

ALL SITE PREPARATION AND EARTHWORK ACTIVITIES INCLUDING THOSE REQUIRED TO COMPLETE THE PROPER CONSTRUCTION OF THE DETENTION BASIN(S) SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, INCLUDING DIVISION 200 EARTHWORK (WHICH INCLUDES ITEMS 201, 202, 203, 205, 206, AND 207) AND THE RECOMMENDATIONS AND REQUIREMENTS OF THE PROJECT GEOTECHNICAL ENGINEER AS OUTLINED IN THE SUBSURFACE INVESTIGATION REPORT. THIS SHALL INCLUDE ALL REMOVAL, CLEARING AND GRUBBING, TOPSOIL REMOVAL/STRIP, PROOF ROLLING, SUBGRADE PREPARATION, SUITABILITY OF MATERIALS, PERFORMANCE OF ALL EXCAVATIONS(S), PLACEMENT OF EMBANKMENT AND BACKFILL, COMPACTION, SLOPE STABILIZATION, CORE TRENCH CONSTRUCTION, AND ALL OTHER RELATED AND/OR CONSTRUCTION OPERATIONS. EXCAVATION SHALL BE CONSIDERED AS UNCLASSIFIED EXCAVATION. ALL EARTHWORK ACTIVITY SHALL BE PERFORMED IN THE PRESENCE OF A QUALIFIED GEOTECHNICAL REPRESENTATIVE FURNISHED BY THE OWNER WHO WILL BE RESPONSIBLE TO DETERMINE COMPLIANCE WITH O.D.O.T. SPECIFICATIONS AND/OR THE GEOTECHNICAL RECOMMENDATIONS/REQUIREMENTS. IN CASE OF A CONFLICT BETWEEN THE O.D.O.T. SPECIFICATIONS AND THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS/REQUIREMENTS, THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS/REQUIREMENTS SHALL GOVERN.

COMPACTION REQUIREMENTS MAY VARY THROUGHOUT THE PROJECT SITE DEPENDENT UPON THE INTENDED USE/AREA (BUILDING AREA, ROADWAY, LAWN, ETC.).

ITEM 203 - PROOF ROLLING

PROOF ROLLING SHALL BE PERFORMED IN ACCORDANCE WITH THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS INCLUDING ITEM 203.14 ON THE PREPARED COMPACTED SUBGRADE OF THE PROPOSED ROADWAY PRIOR TO PLACEMENT OF ANY PAVEMENT IN THE PRESENCE OF THE SITE GEOTECHNICAL ENGINEER AND THE CITY OF MASSILLON ENGINEER USING A FULLY LOADED TANDEM AXLE DUMP TRUCK. THE PROOF ROLLING OPERATION SHALL COVER THE ENTIRE WIDTH AND LENGTH OF THE PROPOSED ROADWAY. THE PROOF ROLLING SHALL EXTEND 1 FOOT BEYOND THE BACK OF CURB. THE PROPOSED PROCEDURE IS TO DETECT SOFT, YIELDING, AND/OR UNSTABLE ZONES WITHIN THE SUBGRADE. ANY SUCH ZONES THAT ARE FOUND SHALL BE REMOVED, CHANNEL BANKS AND SHARP BREAKS SHALL BE SLOPED TO NO STEEPER THAN 2:1.

APPROVED/DIRECTED BY THE GEOTECHNICAL ENGINEER AND THE CITY OF MASSILLON ENGINEER. NO ADDITIONAL PAYMENT WILL BE MADE TO THE CONTRACTOR FOR CORRECTING UNSUITABLE/UNACCEPTABLE AREAS LOCATED WITHIN CONSTRUCTED EMBANKMENTS.

AS-BUILTS

THE DEVELOPER WILL BE RESPONSIBLE TO PROVIDE ACCURATE AS-BUILT DRAWINGS TO THE CITY OF MASSILLON.

DETENTION BASIN SPECIFICATIONS/REQUIREMENTS

SITE PREPARATION

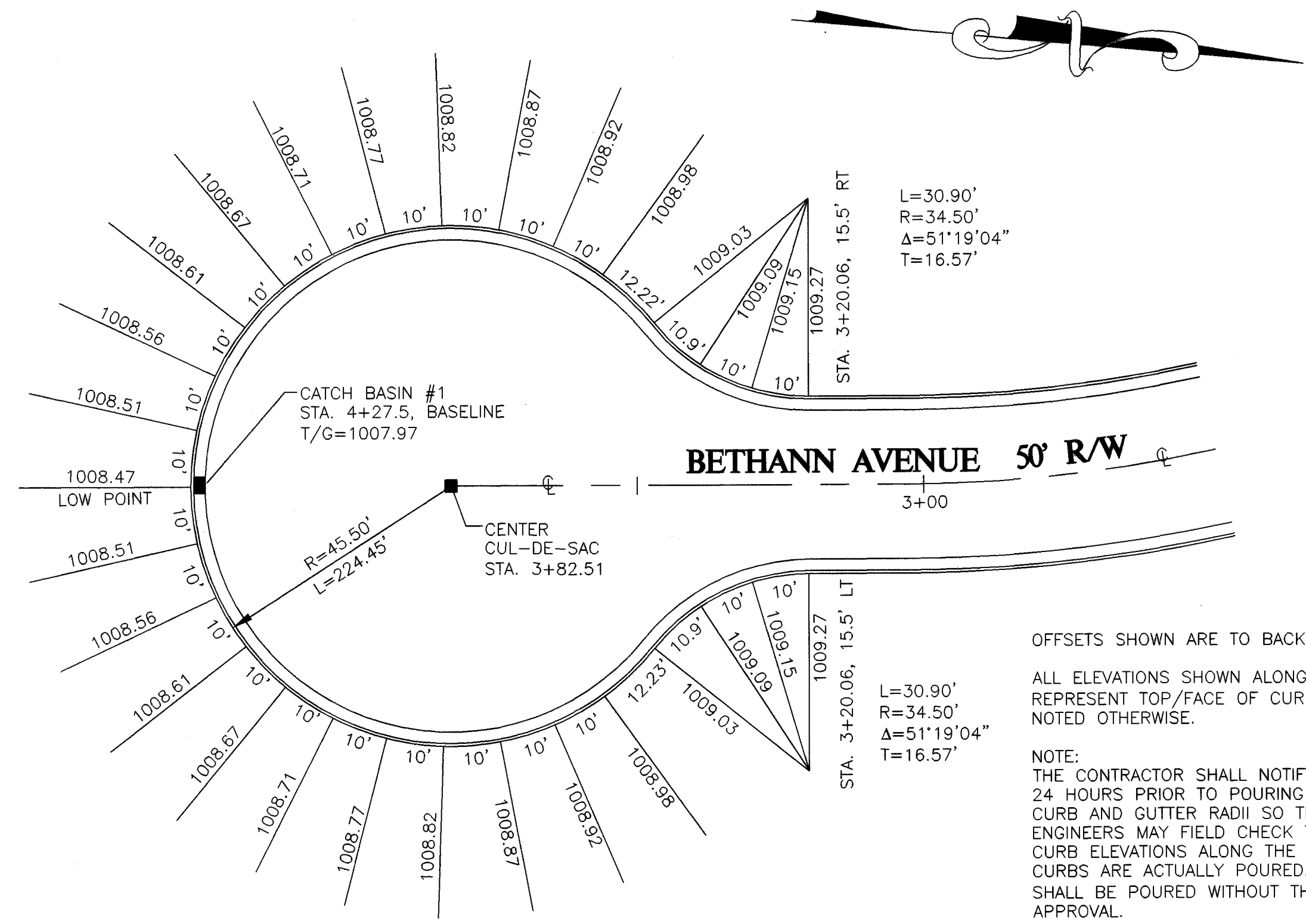
SITE PREPARATION AREAS DESIGNATED FOR BORROW AREAS, EMBANKMENT, AND STRUCTURAL WORKS SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL. ALL TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED. CHANNEL BANKS AND SHARP BREAKS SHALL BE SLOPED TO NO STEEPER THAN 2:1.

AREAS COVERED BY THE RESERVOIR WILL BE CLEARED OF ALL TREES, BRUSH, LOGS, FENCES, RUBBISH AND OTHER OBJECTIONABLE MATERIAL UNLESS OTHERWISE DESIGNATED ON THE PLANS. TREES, BRUSH, AND STUMPS SHALL BE CUT APPROXIMATELY LEVEL WITH THE GROUND SURFACE OR REMOVED AS DIRECTED BY THE ENGINEER.

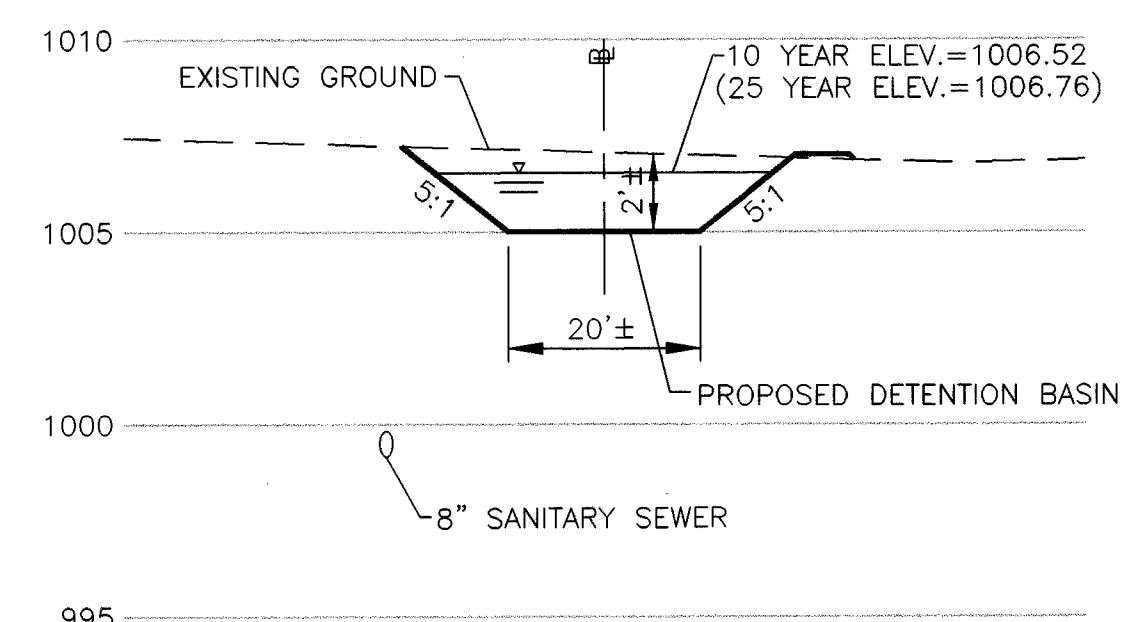
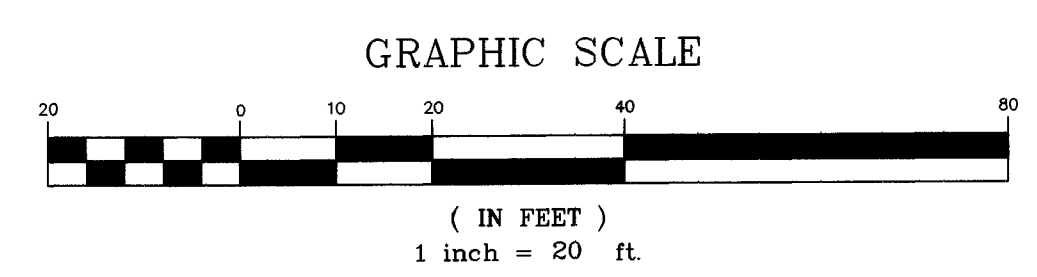
ALL CLEARED AND GRUBBED MATERIAL SHALL BE DISPOSED OF OUTSIDE AND BELOW THE LIMITS OF THE DAM AND RESERVOIR AS DIRECTED BY THE OWNER OR HIS REPRESENTATIVE. WHEN SPECIFIED A SUFFICIENT QUANTITY OF TOPSOIL WILL BE STOCKPILED IN A SUITABLE LOCATION FOR USE ON THE EMBANKMENT AND OTHER DESIGNATED AREAS.

EARTH FILL

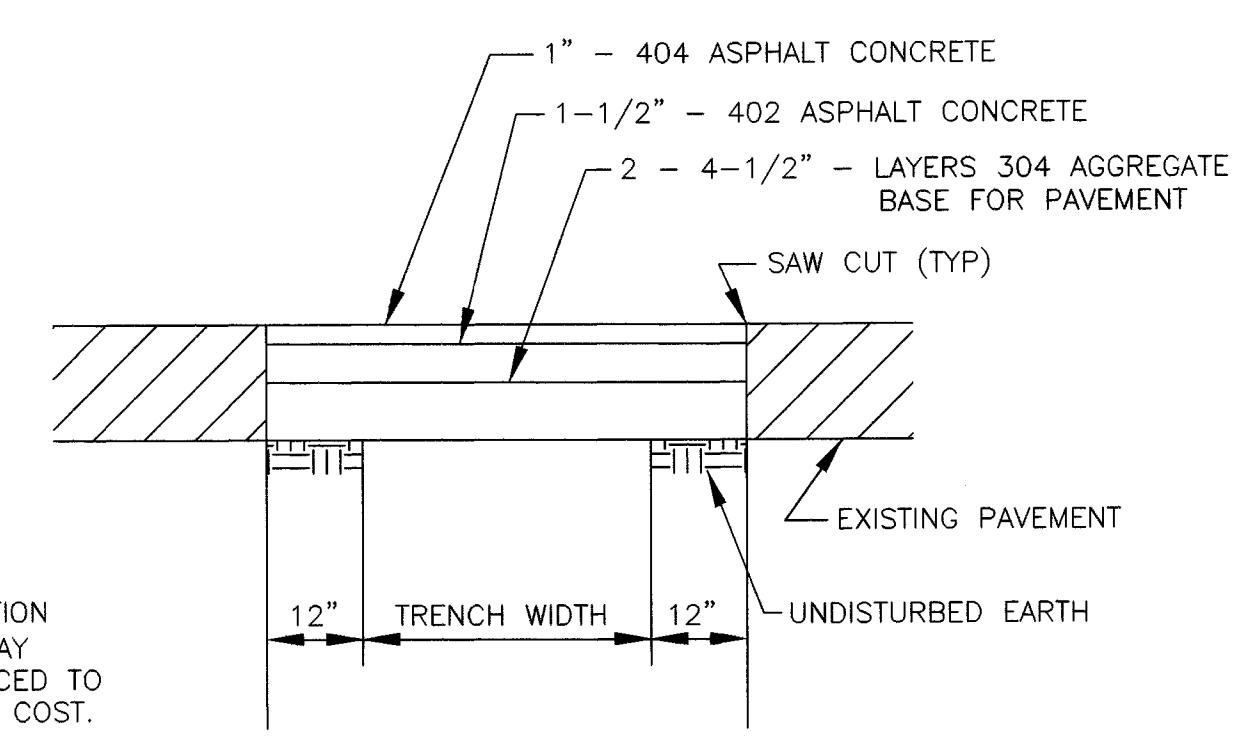
MATERIAL - THE FILL MATERIALS SHALL BE TAKEN FROM APPROVED DESIGNATED BORROW AREAS.



CUL-DE-SAC DETAIL
SCALE: 1"=20'

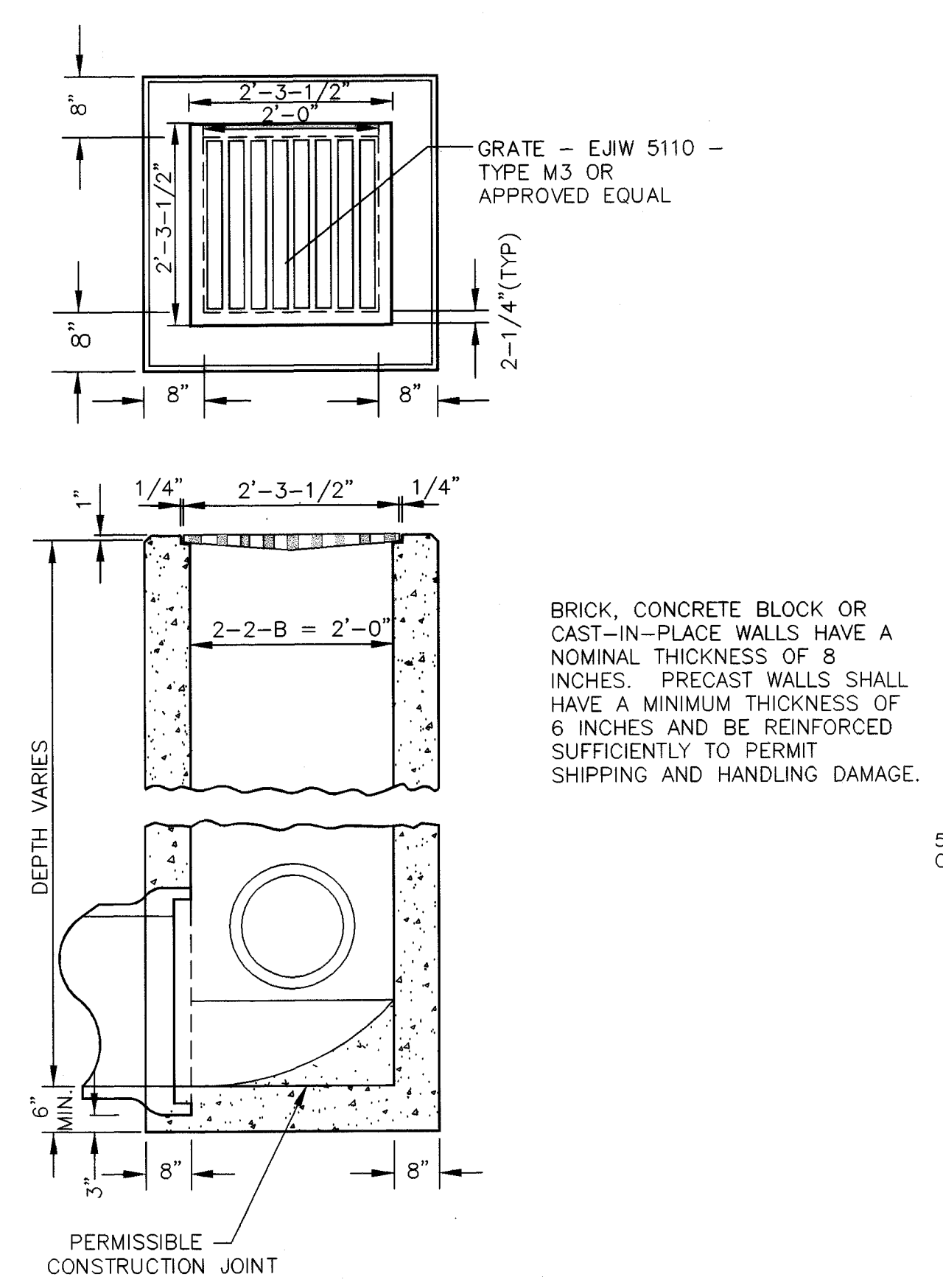


DETENTION BASIN SECTION A-A
SCALE: HORIZ. 1"=20', VERT. 1"=5'

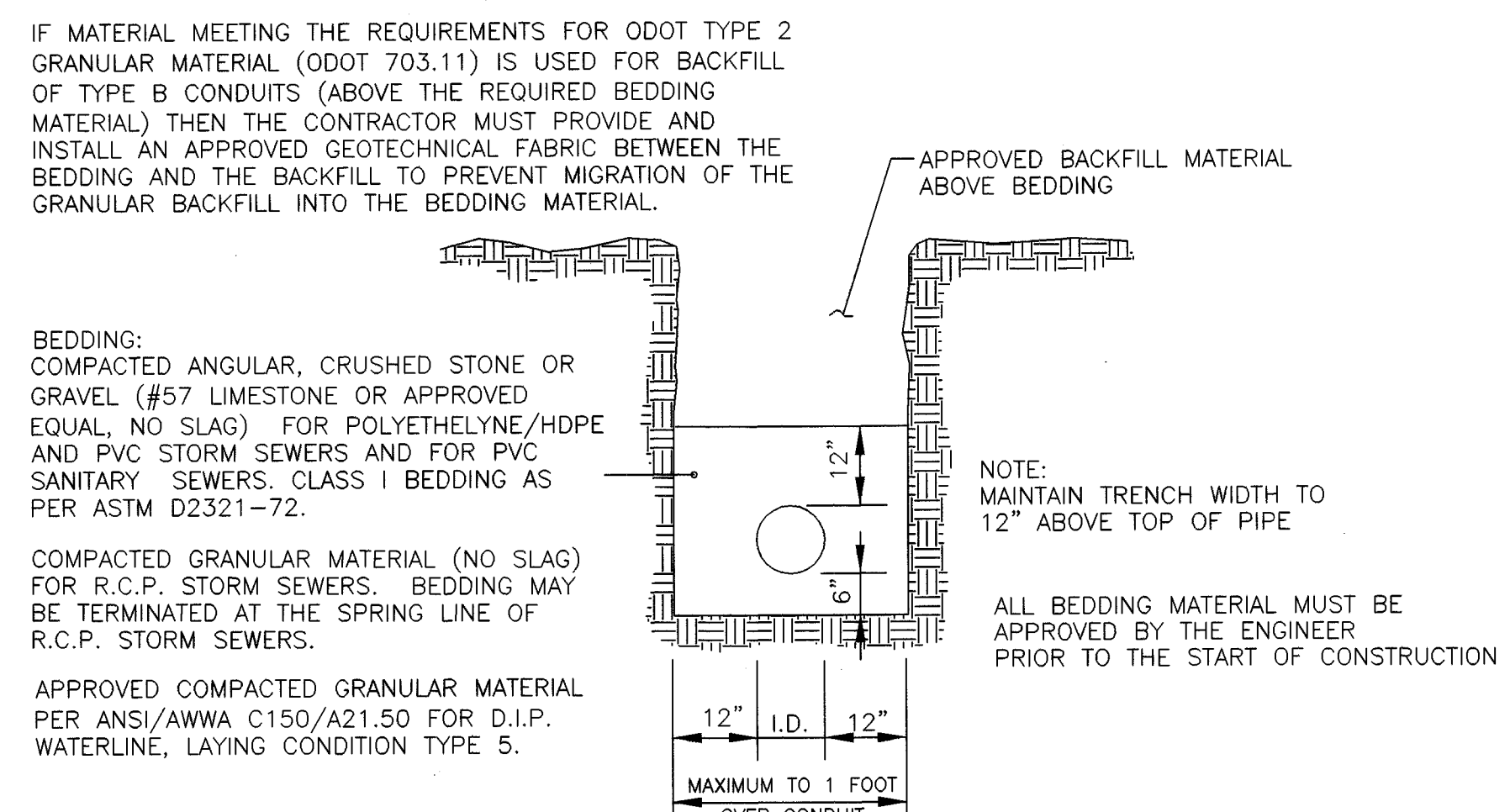


GENERAL PAVEMENT NOTE:
WHERE EDGES OF REPLACED SECTION
EXTENDS WITHIN 2'-0" OF ROADWAY
EDGE, PAVEMENT IS TO BE REPLACED TO
ROADWAY EDGE AT NO ADDITIONAL COST.

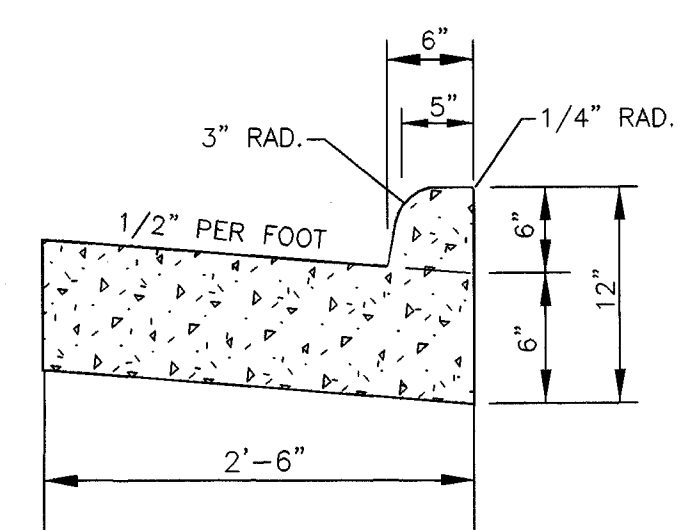
PAVEMENT REPLACEMENT DETAIL
NOT TO SCALE



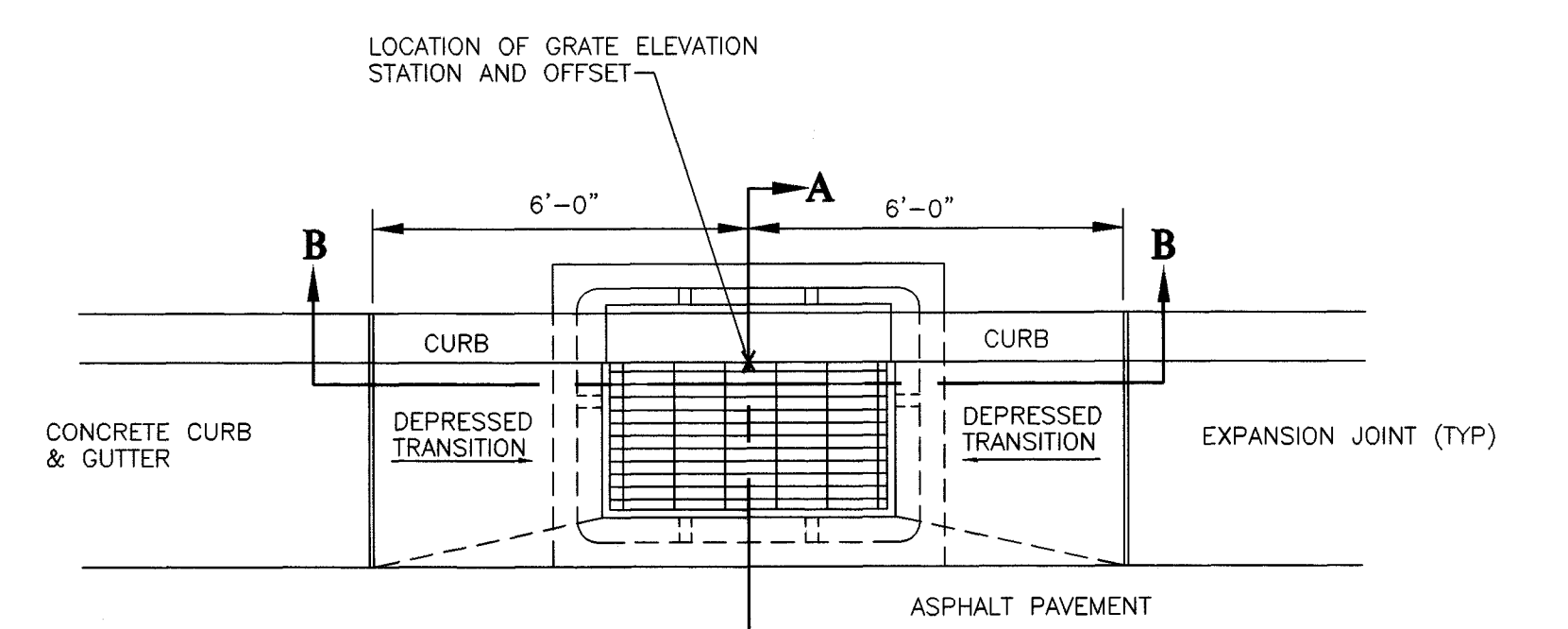
STANDARD NO. 2-2-B CATCH BASIN
NOT TO SCALE



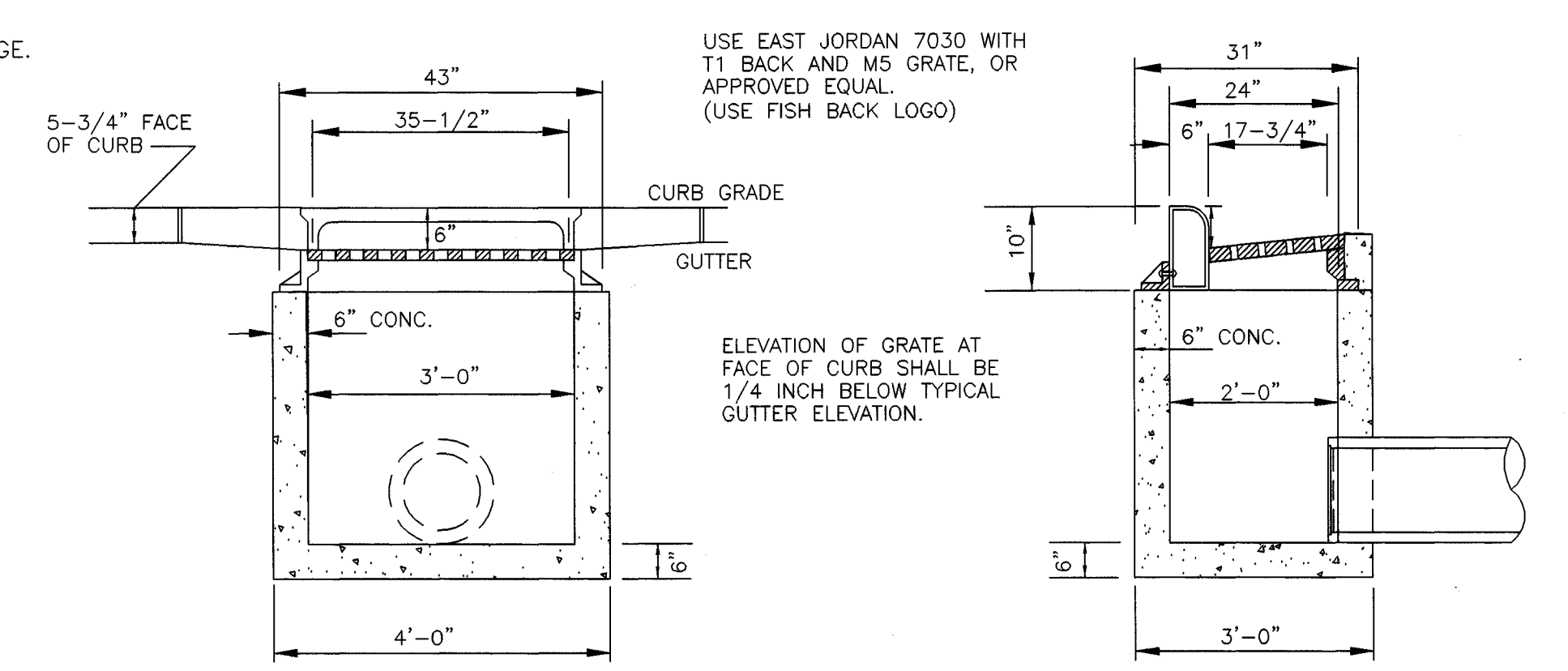
PIPE BEDDING DETAIL
NOT TO SCALE



**CITY OF MASSILLON - STANDARD
CONCRETE CURB & GUTTER**
NOT TO SCALE



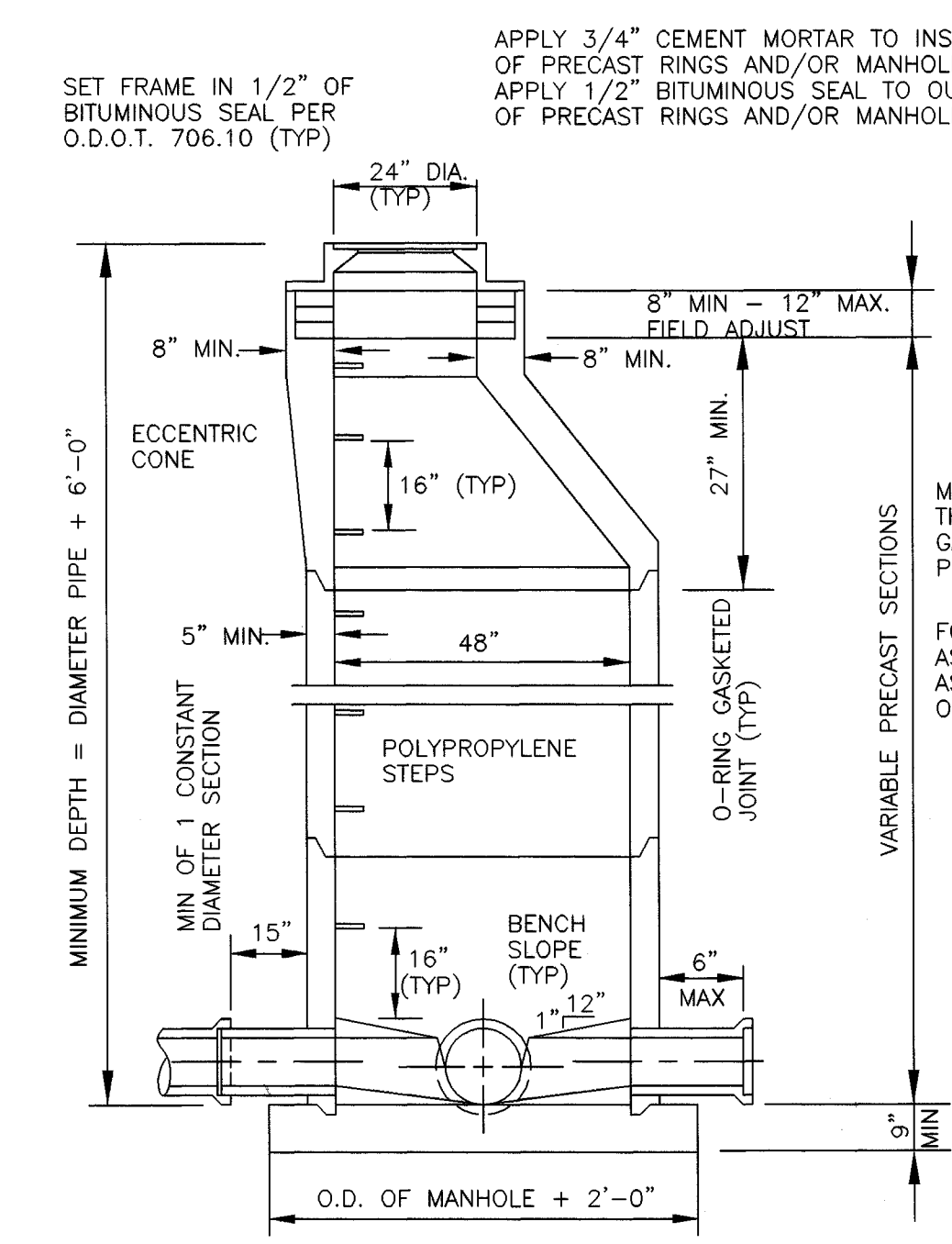
PLAN VIEW



SECTION B-B

SECTION A-A

MODIFIED TYPE 3A PRECAST CONCRETE CATCH BASIN
NOT TO SCALE



PRECAST SANITARY MANHOLE
NOT TO SCALE

BETHANN AVENUE EXTENSION
CITY OF MASSILLON, STARK COUNTY, OHIO

DETAILS

HETTLER ENGINEERING SERVICES
Civil and Construction Consultants
1225 NORTH MAIN STREET, SUITE A
NORTH CANTON, OHIO 44720
(330) 966-1776

