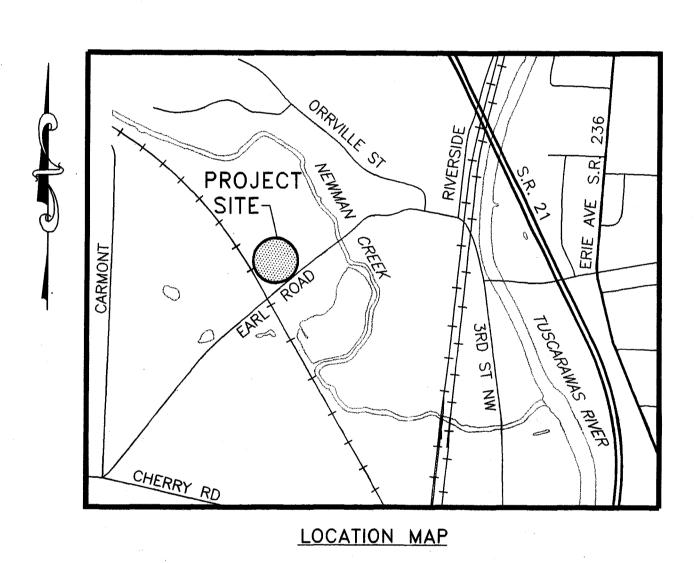
FULCRUM ENTERPRISES, LLC. STORAGE BUILDINGS

CITY OF MASSILLON, STARK COUNTY, OHIO
AUGUST 2006
OUTLOT 656

CITY OFFICIALS

MAYOR
SAFETY SERVICE DIRECTOR
CITY ENGINEER
WASTEWATER TREATMENT DEPARTMENT MANAGER

FRANCIS H. CICCHINELLI, JR. MICHAEL J. LOUDIANA KEITH DYLEWSKI, P.E. JOSEPH R. ULRICH



INDEX OF SHEETS

THILE SHEET	
SITE PLAN	
GRADING PLAN	
UTILITY PLAN	
DETENTION BASIN PLAN	
STORM WATER PREVENTION POLLUTION PLAN	
NOTES AND DETAILS	

APPROVED BY THE MASSILLON CITY ENGINEER THIS DAY OF OCTOSES, 20 06.

KEITH A. DYLEWSKI, P.E.

ONLY APPROVED PLANS SIGNED BY THE CITY ENGINEER ARE TO BE USED FOR CONSTRUCTION

SURVEY SERVICES BY:

BUCKEYE SURVEYING SERVICES, INC. 2223 FULTON DRIVE CANTON, OHIO 44708 (330) 453-8339

MICHAEL OF COLOR HETTLER LARGENT ENGINEERING, LLC

MICHAEL OF COLOR TOTAL

JOSEPH

HETTLER, JR. C. COLOR TOTAL

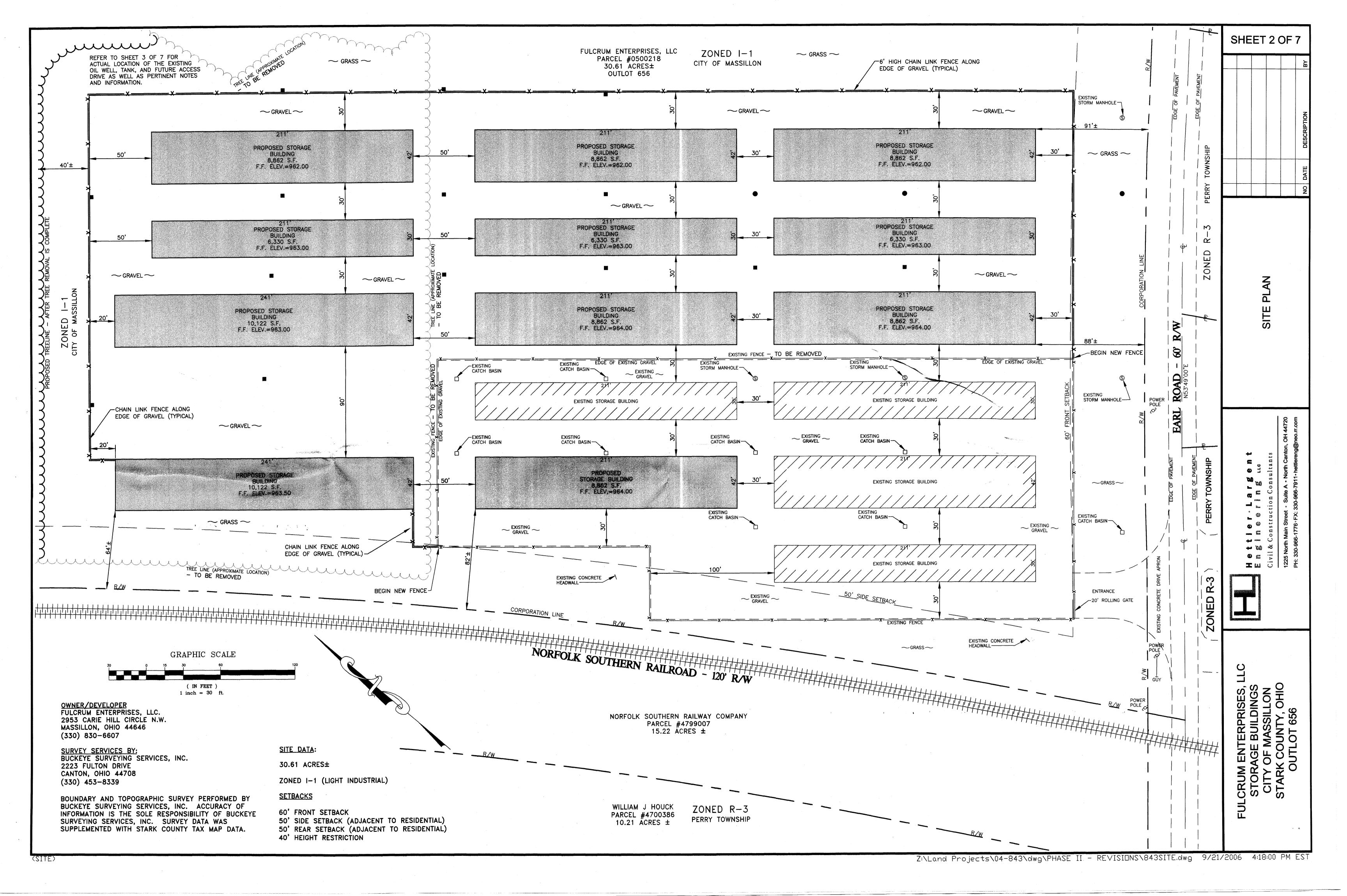
JOSEPH

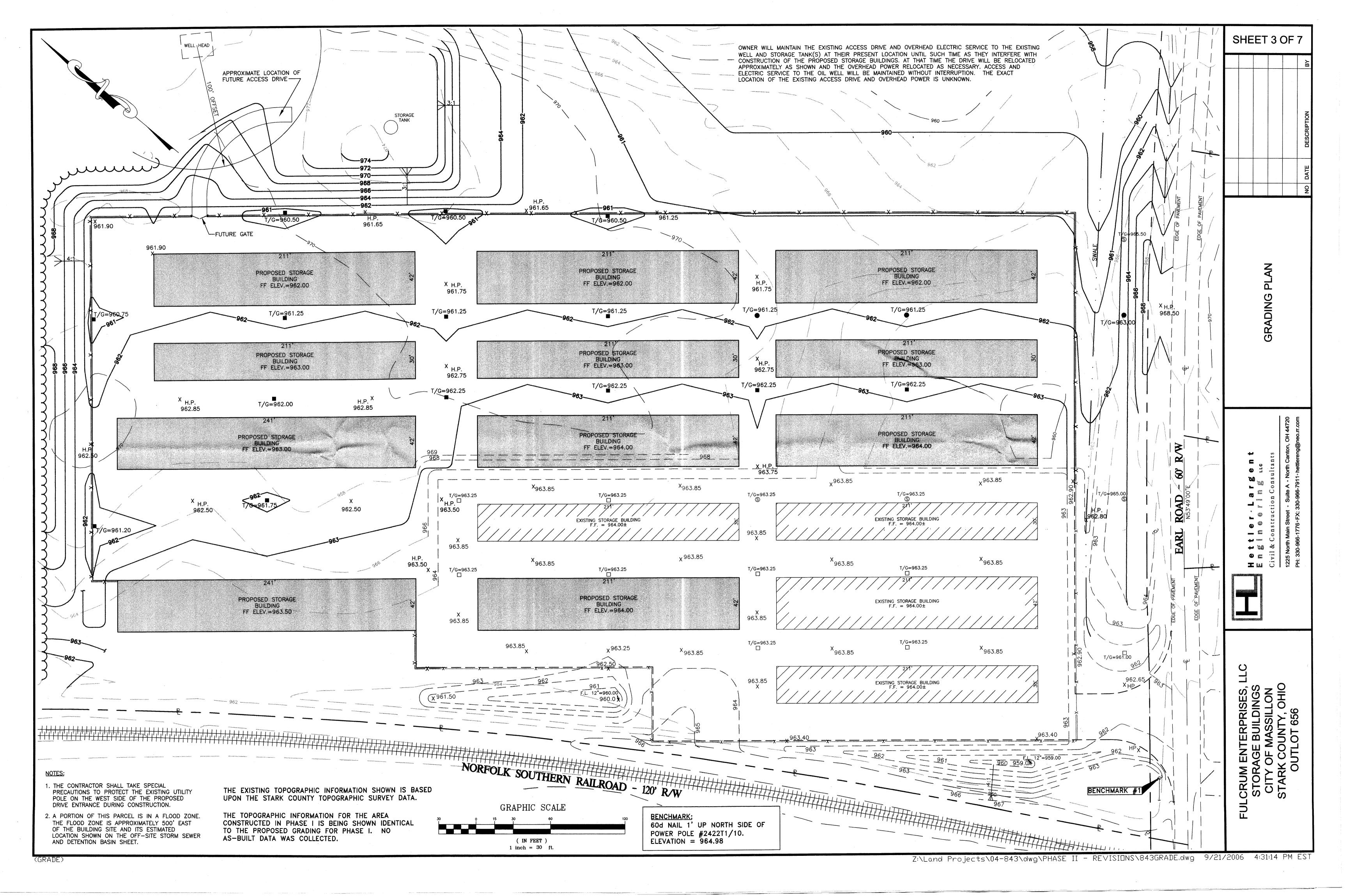


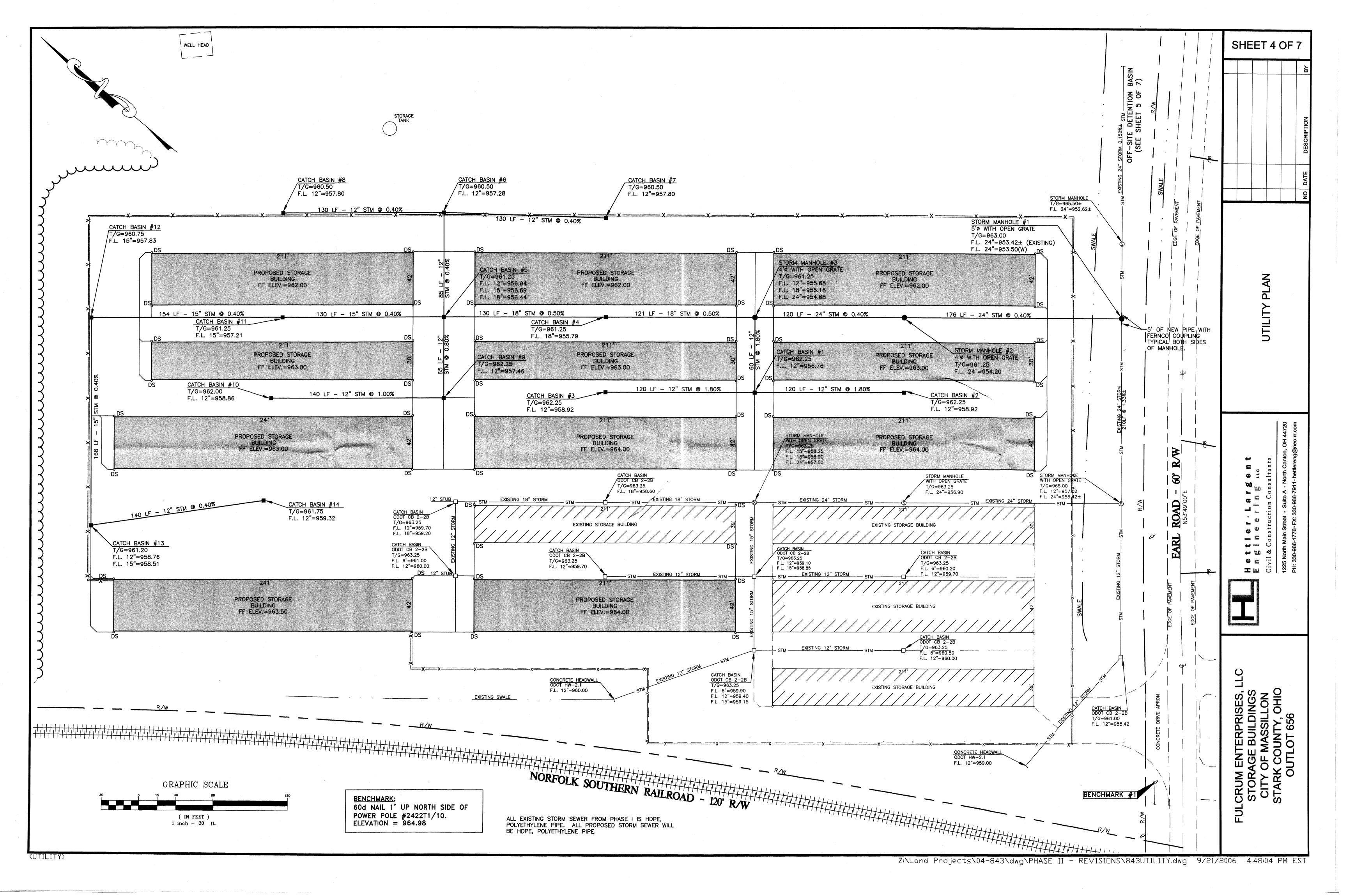
1225 North Main Street • Suite A • North Canton, OH 44720 PH: 330-966-1776 • www.hettler-largent-eng.com

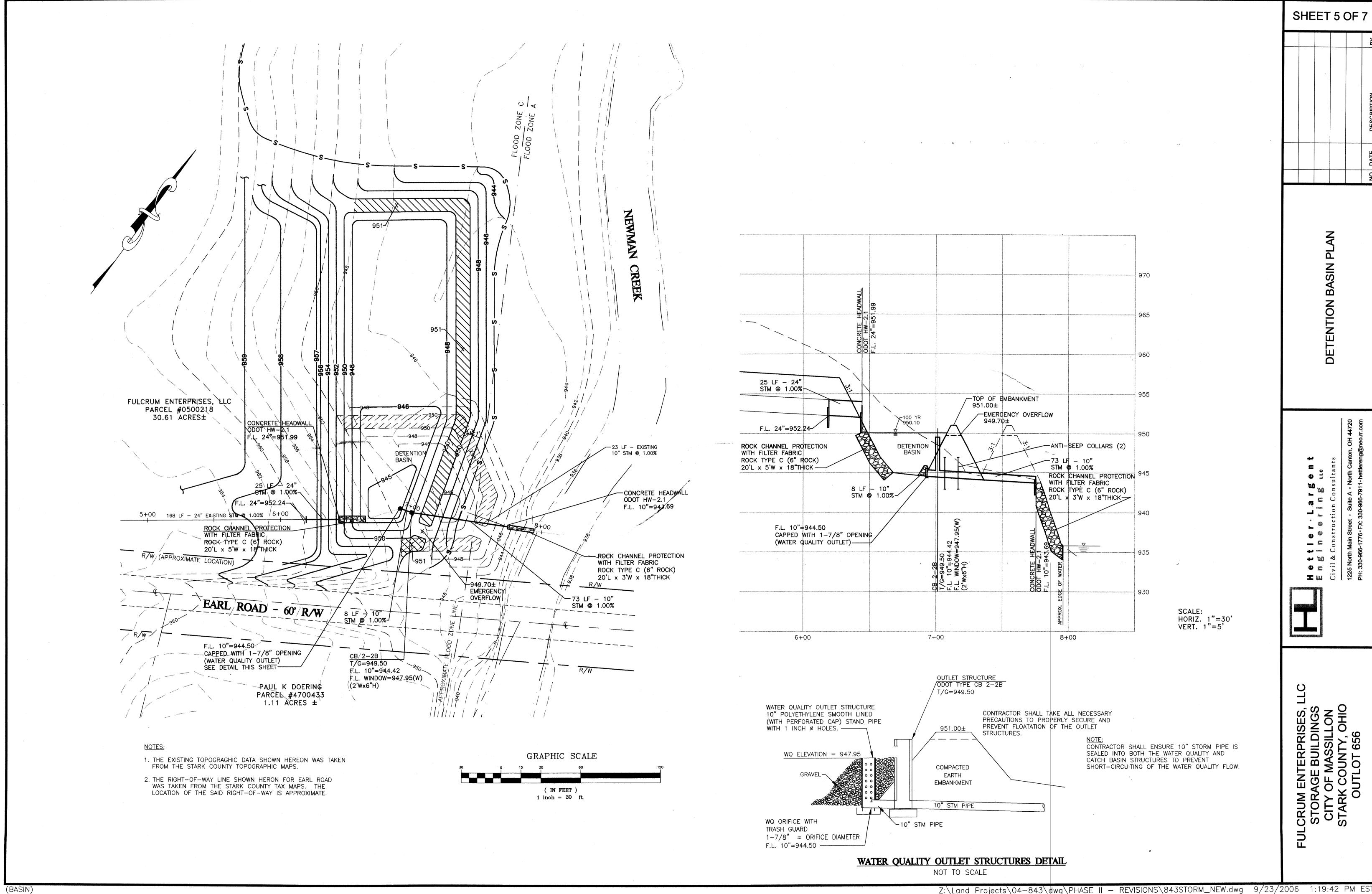
CALL 2 WORKING DAYS
BEFORE YOU DIG
1-800-362-2764
OHIO UTILITIES PROTECTION SERVICE

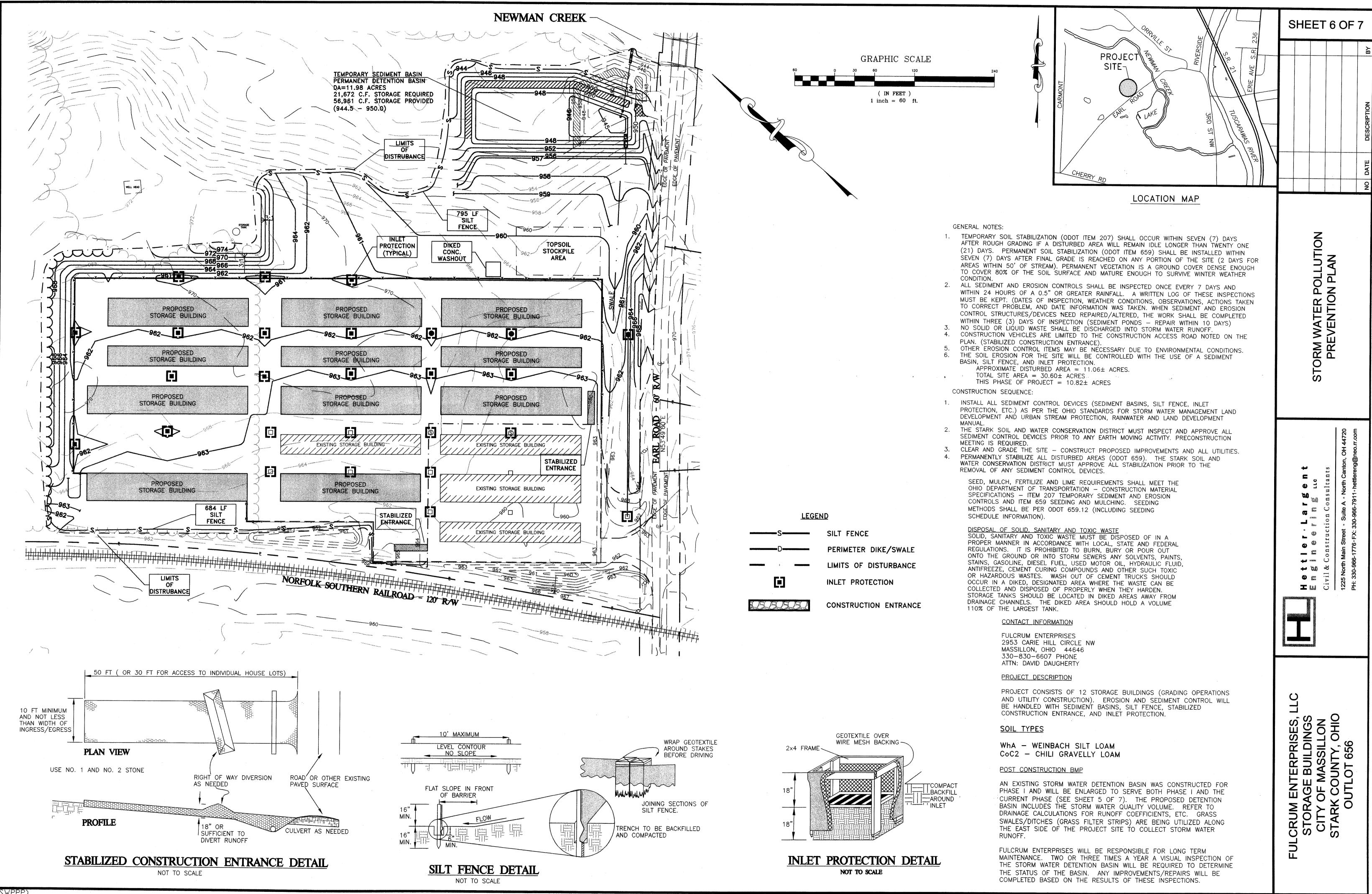
SEP 2 5 2006











PROJECT SPECIFICATIONS

ALL WORK REQUIRED TO COMPLETE THIS IMPROVEMENT SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE DETAILED CONSTRUCTION DRAWINGS. THE 1997 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 CITY OF MASSILLON AND THE OHIO DEPARTMENT OF TRANSPORTATION SPECIFICATIONS/REQUIREMENTS, THE MORE STRICT OF THE TWO SPECIFICATIONS WILL GOVERN, AS DÉTERMINED BY THE 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 APPLICABLE 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

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 INTENTION TO BEGIN CONSTRUCTION ACTIVITY ON THIS PROJECT. THE OWNERS OF ANY UNDERGROUND UTILITY FACILITY SHALL, WITHIN 48 HOURS AFTER NOTICE IS RECEIVED, EXCLUDING SATURDAYS, SUNDAYS, AND OTHER LEGAL HOLIDAYS; STAKE, MARK OR OTHERWISE DESIGNATE THE EXISTENCE AND/OR 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 AND/OR LOCATING SHALL BE COORDINATED TO STAY APPROXIMATELY TWO WORKING DAYS AHEAD OF THE PLANNED CONSTRUCTION. OHIO UTILITIES PROTECTION SERVICE: 1-800-362-2764 (CONTACT NON-MEMBERS DIRECTLY).

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 OR 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 OR JNDER AN EXISTING SEWER OR UNDERGROUND LITHITY TH 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 CHANGES NÉCESSARY 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 ENCOUNTERED DURING 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

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

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 THAT ARE NOT OTHERWISE NEEDED/REQUIRED WITHIN THE LIMITS OF THE PROJECT. 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. NO MATERIAL SHALL BE REMOVED FROM THE OVERALL PROJECT SITE WITHOUT PERMISSION OF THE PROJECT ENGINEER.

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL

THE CONTRACTOR SHALL PREVENT AND/OR REDUCE AND CONTROL SOIL EROSION RESULTING FROM THE PROPOSED IMPROVEMENTS. THE USE OF SILT FENCING, JUTE MATING, TEMPORARY SEEDING, SOD, SILT CHECKS, INLET PROTECTION AROUND ALL CATCH BASINS, STABILIZED CONSTRUCTION ENTRANCE(S), 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 LAND DEVELOPMENT AND URBAN STREAM PROTECTION, SECOND EDITION DATED 1996.
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. THE CONTRACTOR SHALL 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, BARRELS, 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.

RESTORATION OF DISTURBED AREAS

EXISTING DRIVES, BERMS, LAWNS, TELEPHONE/POWER POLES, PAVEMENTS, RETAINING WALLS, CURBS, SIDEWALKS, SIGNS, MAILBOXES, FENCING, PAPER BOXES, LANDSCAPING ITEMS/AREAS OR OTHER APPURTENANCES DISTURBED/DAMAGED DURING CONSTRUCTION BUT 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 PUBLIC RIGHT-OF-WAY. THE CONTRACTOR MUST NOTIFY THE CITY OFFICE 48 HOURS PRIOR TO ANY CONSTRUCTION INSIDE THE PUBLIC RIGHT-OF-WAY OR WITHIN ANY 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.

SUBSURFACE INVESTIGATIONS

SUITABILITY OF SITE

SUBSURFACE INVESTIGATIONS HAVE NOT BEEN PERFORMED FOR THIS PROJECT. THE CONTRACTOR MAY PERFORM SUCH SUBSURFACE INVESTIGATIONS AS HE/SHE MAY BELIEVE NECESSARY AT HIS OWN RISK. EXPENSE. AND RESPONSIBILITY. THE CONTRACTOR MUST CONTACT THE ENGINEER AND ALL UTILITY COMPANIES, PUBLIC AND PRIVATE, WHICH MAY HAVE FACILITIES WITHIN/ALONG THE PROJECT LIMITS, 72 HOURS PRIOR TO PERFORMING ANY SUBSURFACE INVESTIGATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER AND COMPLETE RESTORATION OF AREAS DISTURBED BY TEST HOLES OR BORINGS. TO THE SATISFACTION OF THE ENGINEER AND FOR PROPER TRAFFIC CONTROL DURING PERFORMANCE OF THE INVESTIGATIONS.

THE DESIGN ENGINEER/OWNER/CITY 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 UNSURE OR 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.

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 ENSURE THAT ALL SWALES, DITCHES, STORM SEWERS, CATCH BASINS, STORM MANHOLES, SANITARY SEWERS, SANITARY MANHOLES, GUTTERS, AND OTHER IMPROVEMENTS ARE CLEAN AND FREE OF ANY AND ALL DEBRIS.

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 TO 1 SLOPE OF EXISTING AND/OR PROPOSED ROADWAYS, PARKING AREAS. BUILDINGS. FOOTINGS/FOUNDATIONS, 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-LOK 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 CB 2-2B. STORM MANHOLES SHALL BE TYPE MH-3.

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.

PRECONSTRUCTION MEETING

A PRECONSTRUCTION MEETING WITH THE OWNER, CONTRACTOR, AND THE STARK COUNTY SOIL & WATER CONSERVATION DISTRICT IS REQUIRED FOR THIS PROJECT PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL CONTACT THE STARK COUNTY SOIL & WATER CONSERVATION DISTRICT SEVENTY-TWO (72) HOURS PRIOR TO THE ANTICIPATED MEETING DATE.

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 REMOVALS, CLEARING AND GRUBBING, TOPSOIL REMOVAL/STRIP, PROOF ROLLING, SUBGRADE PREPARATION, SUITABILITY OF MATERIALS, PERFORMANCE OF ALL EXCAVATION(S), PLACEMENT OF EMBANKMENT AND BACKFILL, COMPACTION, SLOPE STABILITY, CORE TRENCH CONSTRUCTION, AND ALL OTHER RELATED AND/OR NECESSARY OPERATIONS/PROCEDURES. ALL 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.).

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 GEOTEXILE FABRICS, TYPE B (FILTER BLANKETS FOR ROCK CHANNEL PROTECTION).

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.

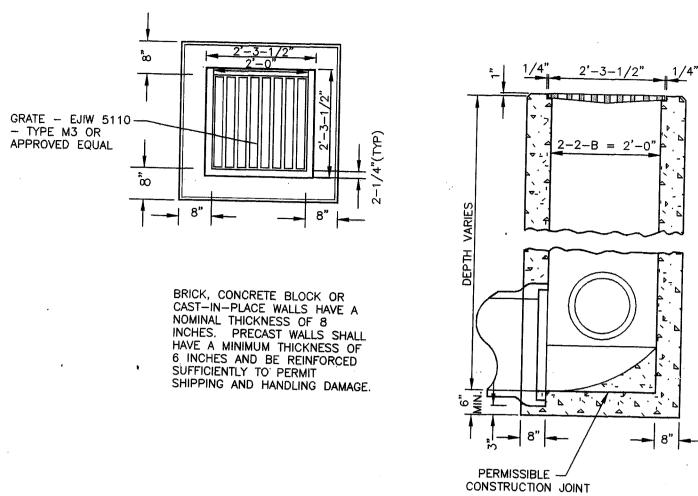
ALL CLEARED AND GRUBBED MATERIAL SHALL BE DISPOSED OF OUTSIDE AND BELOW THE LIMITS OF THE DAM AND RESERVOIR AS DIRECTED BY THE OWNER OR HIS REPRESENTATIVE. WHEN SPECIFIED A SUFFICIENT QUANTITY OF TOPSOIL WILL BE STOCKPILED IN A SUITABLE LOCATION FOR USE ON THE EMBANKMENT AND OTHER DESIGNATED AREAS.

MATERIAL - THE FILL MATERIALS SHALL BE TAKEN FROM APPROVED DESIGNATED BORROW AREAS. IT SHALL BE FREE OF ROOTS, STUMPS, WOOD, RUBBISH, STONES GREATER THAN 6", FROZEN, OR OTHER OBJECTIONABLE MATERIALS. FILL MATERIAL FOR THE CENTER OF THE EMBANKMENT AND SLOT CUT TRENCH SHALL CONFORM TO THE UNIFIED SOIL CLASSIFICATION GC, SC, CH, OR CL. CONSIDERATION MAY BE GIVEN TO THE USE OF OTHER MATERIALS IN THE EMBANKMENT IF DESIGN AND CONSTRUCTION ARE SUPERVISED BY A GEOTECHNICAL ENGINEER.

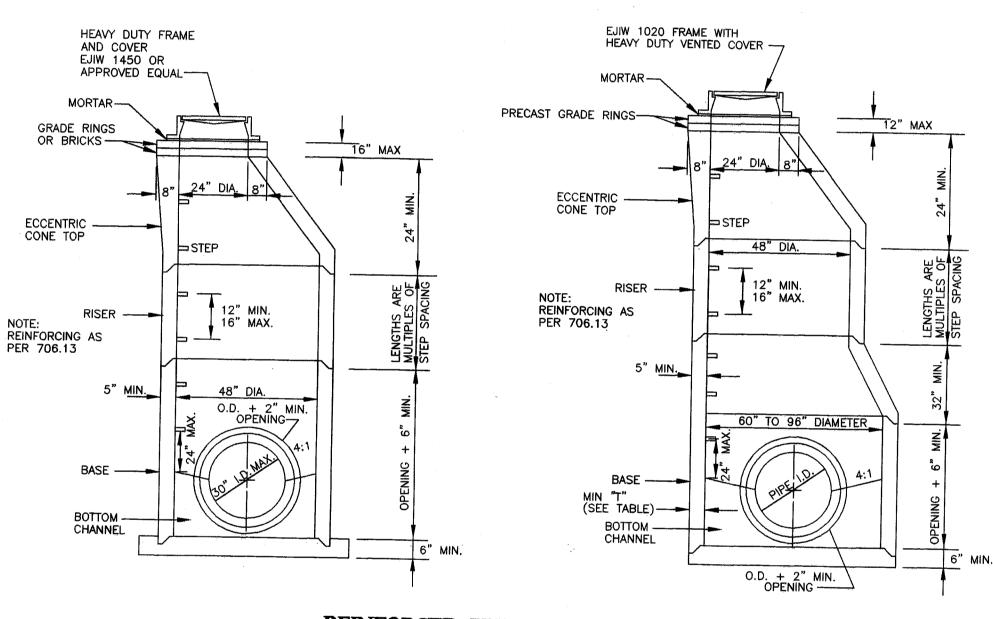
PLACEMENT - AREAS ON WHICH FILL IS TO BE PLACED SHALL BE SCARIFIED PRIOR TO PLACEMENT OF FILL. FILL MATERIALS SHALL BE PLACED IN A MAXIMUM 8 INCH THICK (BEFORE COMPACTION) LAYERS WHICH ARE TO BE CONTINUOUS OVER THE ENTIRE LENGTH OF THE FILL. THE MOST PERMEABLE BORROW MATERIAL SHALL BE PLACED IN THE DOWNSTREAM PORTIONS OF THE EMBANKMENT. THE EMERGENCY SPILLWAY MUST BE INSTALLED CONCURRENTLY WITH FILL PLACEMENT AND NOT EXCAVATED INTO THE

COMPACTION - THE MOVEMENT OF THE HAULING AND SPREADING EQUIPMENT OVER THE FILL SHALL BE CONTROLLED SO THAT THE ENTIRE SURFACE OF EACH LIFT SHALL BE TRAVERSED BY NOT LESS THAN ONE TREAD TRACK OF THE EQUIPMENT OR COMPACTION SHALL BE ACHIEVED BY A MINIMUM OF FOUR COMPLETE PASSES OF A SHEEPSFOO RUBBER TIRED OR VIBRATORY ROLLER. FILL MATERIAL SHALL CONTAIN SUFFICIENT MOISTURE SUCH THAT THE REQUIRED DEGREE OF COMPACTION WILL BE OBTAINED WITH

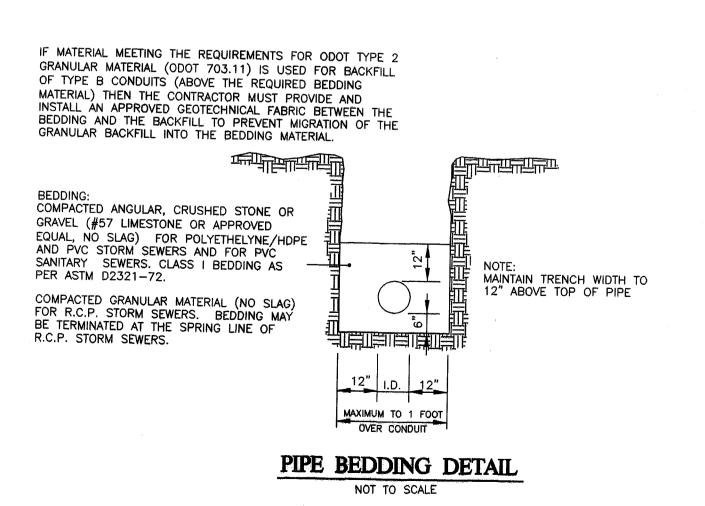
WHERE A MINIMUM REQUIRED DENSITY IS SPECIFIED, IT SHALL NOT BE LESS THAN 98% OF MAXIMUM DRY DENSITY WITH A MOISTURE CONTENT WITHIN +/- 2% OF THE OPTIMUM. EACH LAYER OF FILL SHALL BE COMPACTED AS NECESSARY TO OBTAIN THAT DENSITY, AND IS TO BE CERTIFIED BY THE GEOTECHNICAL ENGINEER AT THE TIME OF CONSTRUCTION. ALL COMPACTION IS TO BE DETERMINED BY AASHTO METHOD T- 99.



STANDARD NO. 2-2B CATCH BASIN



REINFORCED PRECAST STORM MANHOLES NOT TO SCALE



ENTERPRISES, AGE BUILDINGS OF MASSILLON COUNTY, OHIO UTLOT 656 50 CJ (N

Z:\Land Projects\04-843\dwg\PHASE | | - REVISIONS\843NOTES.dwg 9/21/2006 3:01:06 PM ES

~ 00 ~

SHEET 7 OF 7

2