CITY OF YOUNGSTOWN

FORMER WEAN UNITED SITE CAPPING PROJECT

STATE OF OHIO
MAHONING COUNTY

JUNE 2016

PREPARED BY:

ms consultants inc.
engineers * architects * planners
YOUNGSTOWN, OHIO

BY: John P. Pierko DATE: JUNE 27, 2016
JOHN P. PIERKO, P.E.
REGISTERED ENGINEER No. 47768
STATE OF OHIO

STATE OF OHIO JOHN PAUL PIERKO E-47768 REGISTERED PROFESSIONAL ENGINEER

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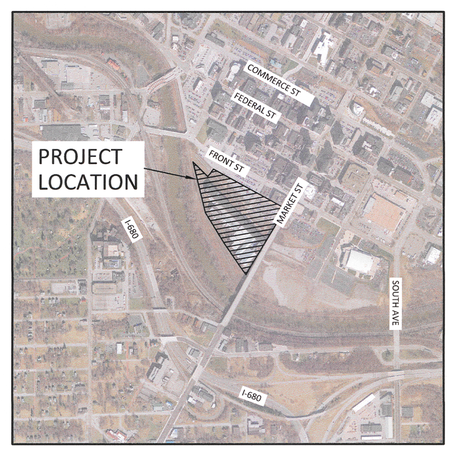

LOCATION PLAN
N.T.S.

ACCEPTED BY:

BY: _____ DATE: _____
CHARLES T. SHASHO
DEPUTY DIRECTOR OF PUBLIC WORKS

BY: _____ DATE: _____
T. SHARON WOODBERRY
DIRECTOR, COMMUNITY PLANNING/ECONOMIC DEVELOPMENT

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GENERAL NOTES:

TERMINOLOGY:

WHERE "OWNER" IS STATED IN THE PLANS, THIS IS TO REPRESENT THE CITY OF YOUNGSTOWN.
WHERE "ENGINEER" IS STATED IN THE PLANS, THIS IS TO REPRESENT ms consultants, inc.
WHERE "CERTIFIED PROFESSIONAL" IS STATED IN THE PLANS, THIS IS TO REPRESENT MR. JIM SMITH, BROWNFIELD RESTORATION GROUP LLC.

THE TERMS "ENGINEER" AND CERTIFIED PROFESSIONAL" ARE USED INTERCHANGEABLY HEREIN. THE CONTRACTOR SHALL DIRECT ALL COMMUNICATIONS DURING CONSTRUCTION TO ms consultants, inc., WHO WILL COORDINATE WITH THE OWNER AND CERTIFIED PROFESSIONAL AS NEEDED.

ODOT CONSTRUCTION & MATERIAL SPECIFICATIONS, 2013, SHALL GOVERN THIS PROJECT UNLESS OTHERWISE SPECIFIED. ODOT CMS SHALL ONLY BE USED AS A GUIDE FOR MATERIAL & INSTALLATION METHODS AND SHALL NOT BE UTILIZED FOR PAYMENT AND/OR PRICE ESCALATION PROCEDURES. ALL LABOR & MATERIALS WILL BE PAID AT CONTRACTOR'S BID PRICE. NO PRICE ESCALATION WILL BE CONSIDERED.

BUILDERS AND CONTRACTORS MUST HOLD TO ELEVATIONS ESTABLISHED BY THE ENGINEER, WITH A MINIMUM OF 2' COMPACTED FILL OVER EXISTING GRADE. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THE SITE DRAINS THROUGHOUT CONSTRUCTION AND THAT NO PONDING IS PRESENT.

ALL VEGETATION, TREES, ASPHALT, AND LARGE ROCKS WITH THE CONSTRUCTION LIMITS ARE TO BE REMOVED IN ACCORDANCE WITH ODOT 201.

CONTRACTOR SHALL NOT DISTURB OUTSIDE OF CLEARING LIMITS.

CONTRACTOR TO COORDINATE ANY LANE CLOSURE/CONSTRUCTION ZONE WITH THE CITY OF YOUNGSTOWN DEPARTMENT OF PUBLIC WORKS.

EXISTING UTILITIES WITHIN THE RIGHT OF WAY SHALL REMAIN, UNLESS OTHERWISE SHOWN. CONTRACTOR SHALL PROTECT FROM DAMAGE DURING ALL CONSTRUCTION.

AT START OF PROJECT AND PRIOR TO DEMOLITION OF EXISTING CONDITIONS, CONTRACTOR SHALL BE IN CONTACT WITH ADJACENT PROPERTY OWNERS, CITY REPRESENTATIVE AND SITE REPRESENTATIVE TO COORDINATE DEMOLITION TIMING.

CONTRACTOR TO REMOVE AND DISPOSE OF ALL DEBRIS AND OTHER MATERIALS RESULTING FROM DEMOLITION AND CONSTRUCTION OPERATIONS. DISPOSAL WILL BE IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS. REMOVAL AND DISPOSAL COSTS TO BE INCLUDED IN CONTRACTOR'S BID.

CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO ADJACENT PROPERTIES DURING CONSTRUCTION PHASES OF THIS PROJECT. CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR DAMAGE TO NEIGHBORING PROPERTIES OCCURRING AS A RESULT OF CONSTRUCTION ACTIVITIES.

ALL EXISTING UTILITIES ARE SHOWN HEREIN AS REFERENCE ONLY AND ARE BASED ON RECORD OF THE VARIOUS UTILITY COMPANIES AND A FIELD SURVEY. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATIONS OF ALL UTILITIES PRIOR TO DEMOLITION ACTIVITIES.

CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES PER THESE PLANS PRIOR TO SITE DEMOLITION.

VEHICLE TRACKING OF MUD AND DEBRIS OFF-SITE SHALL BE KEPT TO A MINIMUM. ALL STREETS SHALL BE CLEAN AT THE END OF EACH WORK DAY, OR AS DIRECTED BY OWNER/ENGINEER.

CONTRACTOR SHALL ACCESS THE SITE VIA ENTRANCES LOCATED ON SOUTH PHELPS STREET AND HAZEL AVENUE.

CONSTRUCTION LAYOUT STAKES:

CONTRACTOR SHALL FURNISH, PLACE AND MAINTAIN CONSTRUCTION LAYOUT STAKES NECESSARY FOR THE PROPER EXECUTION OF THE WORK UNDER THE CONTRACT ALL IN ACCORDANCE WITH THESE SPECIFICATIONS.

ESTIMATED QUANTITIES:

SPECIFIC LOCATIONS AND USAGE OF ESTIMATED QUANTITIES SET FOR IN THESE PLANS ARE TO BE USED "AS DIRECTED BY THE ENGINEER" SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

SEEDING AND MULCHING:

THIS ITEM SHALL CONSIST OF FURNISHING ALL SEED, AGRICULTURAL LIMING MATERIALS, COMMERCIAL FERTILIZER, MULCHING MATERIAL, AND WATER AND PLACING AND INCORPORATING AS SPECIFIED, AND MOWING THE RESULTING COVER AS DIRECTED. SEEDING AND MULCHING SHALL BE DONE IN STAGES.

THE AREAS TO BE SEEDED AND PAID FOR UNDER THIS ITEM SHALL INCLUDE ALL AREAS WITHIN THE WORK LIMITS AND AS DESCRIBED ON THE PLANS. ALL AREAS OUTSIDE OF THE SPECIFIED LIMITS WHERE THE VEGETATIVE GROWTH THAT HAVE BEEN INJURIOUSLY DISTURBED OR DESTROYED BY THE CONTRACTOR INCLUDING THOSE AREAS PREVIOUSLY DEFINED SHALL BE RESTORED AND SEEDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

RESTORATION OF EXISTING FACILITIES:

THE CONTRACTOR UNDER THIS ITEM SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, AND MACHINES NEEDED AND NECESSARY TO REPAIR AND RECONSTRUCT TO THEIR ORIGINAL CONDITION OR BETTER MEDIANS, RETAINING WALLS, BRIDGES IN PART, SIDEWALKS, CURBS, CATCH

RESTORATION OF EXISTING FACILITIES: (CONTINUED)

BASINS, FENCES, STORM SEWERS, WATER LINES, VALVES, HYDRANTS, GAS LINES, WATER SERVICE LINES, GAS SERVICE LINES, EXISTING MANHOLES, TREES, SHRUBS, AND ANY OTHER STRUCTURES WHICH HAVE BEEN REMOVED, RELOCATED, AND/OR DISTURBED IN PART OR WHOLE AS THE RESULT OF THE FACILITIES AND APPURTENANCE THERETO. THE WORK SHALL ALSO INCLUDE THE REMOVAL AND DISPOSAL OF EXCESS MATERIALS RESULTING FROM REPAIR, RECONSTRUCTION AND RESTORATION. LIGHTS, SIGNS, AND BARRICADES SHALL BE PROVIDED AND TRAFFIC MAINTAINED. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE VARIOUS UNIT PRICES. ANY ADDITIONAL WORK CAUSED BY THE FAULT OF THE CONTRACTOR SHALL BE PAID AT THE CONTRACTORS EXPENSE. NO ADDITIONAL PAYMENT SHALL BE MADE FOR THIS WORK UNLESS STIPULATED AS A BID ITEM IN THE PROPOSAL.

PERMITS, FEES, BONDS, INSURANCE:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL PERMITS NECESSARY TO PERFORM ALL WORK WITHIN AND/OR ADJACENT TO THE RIGHT-OF-WAY OF ALL ROADS AND HIGHWAYS. ALL FEES, BONDS, INSURANCES, AND ANY OTHER COSTS REQUIRED BY THE CONTRACTOR. COST OF SECURING PERMITS, FEES, BONDS, INSURANCES, ETC., SHALL BE INCLUDED IN THE PRICE FOR THE PERTINENT WORK.

THE OWNER MAKES NO REPRESENTATION, WARRANTY, NOR GUARANTEE, EITHER EXPRESSED OR BY IMPLICATION THAT THE CONDITIONS INDICATED ARE REPRESENTATIVE OF THOSE EXISTING THROUGHOUT SUCH AREAS, THAT UNFORESEEN DEVELOPMENTS MAY NOT OCCUR, OR THAT MATERIALS OTHER THAN, OR IN PROPORTIONS DIFFERENT FROM THOSE INDICATED MAY OCCUR.

INFORMATION DERIVED FROM SUCH INSPECTION OF RECORDS OF SUBSURFACE INVESTIGATIONS OR FROM THE MAPS, SPECIFICATIONS, PROFILES, OR OTHER DRAWINGS SHALL NOT RELIEVE THE BIDDER FROM THE RESPONSIBILITY OF MAKING HIS OWN EVALUATIONS, INSPECTIONS, AND DETERMINATIONS IN REGARD TO SITE CONDITIONS, OR FROM PROPERLY FULFILLING ALL TERMS OF THE CONTRACT.

UTILITIES:

THE LOCATIONS OF UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.64 ORC.

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 REGISTERED UTILITY PROTECTION SERVICE 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 ARE INSTALLED. THE MARKING OR LOCATION SHALL BE COORDINATED TO STAY APPROXIMATELY TWO DAYS AHEAD OF THE PLANNED CONSTRUCTION.

THE FOLLOWING UTILITIES AND OWNERS ARE LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT:

TIME WARNER CABLE
4352 YOUNGSTOWN ROAD SE
WARREN, OHIO 44484-3340
(330) 747-2555 X 7180
ATTN:

OHIO EDISON
730 SOUTH AVENUE
YOUNGSTOWN, OHIO 44502
(330) 740-7635
ATTN: RAY JENKINS

ACCESS FIBER SYSTEMS
16363 PEARL RD.
SUITE 100-C
STRONGSVILLE, OH 44136
(440) 846-0252
ATTN:

AT&T (SBC)
2933 SALT SPRINGS ROAD
YOUNGSTOWN, OH 44509
(330) 270-8833
ATTN: HAROLD MAYNARD

DOMINION EAST OHIO
320 SPRINGSIDE DR.
SUITE 320
AKRON, OH 44333
(330) 664-2409
ATTN: PAUL TALBOO

YOUNGSTOWN THERMAL, LLC.
205 NORTH AVENUE
YOUNGSTOWN, OHIO 44502
(330) 743-7712
ATTN: RICHARD BURNS, P.E.

KENTUCKY DATA LINK
(WINDSTREAM)
3701 COMMUNICATIONS WAY
EVANSVILLE, IN 47715
(877) 253-2168
ATTN: LADON HALEY

AT&T TRANSMISSION
C/O HLG CONSULTING
5980-G WILCOX PLACE
DUBLIN, OH 43016
(614) 760-8320
ATTN: ED HUGHES

MCI - WORLD
COMMUNICATION
120 RAVINE STREET
AKRON, OH 44303
(330) 253-8267
ATTN: AL GUEST

QWEST COMMUNICATIONS
4650 LAKEHURST COURT
DUBLIN, OH 43016
(800) 743-3793

YOUNGSTOWN WATER DEPT.
P.O. BOX 6219
20 PHELPS STREET
YOUNGSTOWN, OH 44501-6219
(330) 743-5338
ATTN: GENE LESON

YOUNGSTOWN WASTEWATER DEPT.
725 POLAND AVENUE
YOUNGSTOWN, OH 44502
(330) 742-8820
ATTN: TOM MIRANTE

COMPACTION AND PROOFROLLING:

ALL AREAS RECEIVING NEW FILL SHALL BE COMPACTED IN THE UPPER 12 INCHES OF EXPOSED SUBGRADE TO A MINIMUM 98 PERCENT OF THE MAXIMUM DENSITY OBTAINABLE IN ACCORDANCE WITH ASTM D-698 (STANDARD) WITHIN +/- 2 PERCENT OF OPTIMUM MOISTURE CONTENT, AND PROOFROLLED.

PROOFROLLING SHALL BE PERFORMED USING RUBBER-TIRED EQUIPMENT WEIGHING A MINIMUM OF 20 TONS, AND MUST BE OBSERVED BY THE ENGINEER.

BORROW MATERIALS:

BORROW MATERIAL SHALL BE CLEAN DRY SOIL OBTAINED FROM AN OFFSITE BORROW SOURCE AND MEET ODOT 203 AND OEPA VAP (VAP FILL REQUIREMENTS ARE PROVIDED BELOW). BACKFILL MATERIALS SHALL MEET THE STRINGENT COMPACTION REQUIREMENTS AS STIPULATED IN SECTION 203.06 AND 203.07 OF THE STATE OF OHIO, DEPARTMENT OF HIGHWAY, CONSTRUCTION, AND MATERIAL SPECIFICATIONS, 2013 EDITION. SHALE, SLAG, ROCK AND RANDOM MATERIALS AS

BORROW MATERIALS (CONTINUED):

SPECIFIED IN ODOT 203.03 WILL NOT BE ACCEPTED FOR BACKFILL MATERIAL. A TESTING LABORATORY SERVICE SHALL BE ON-SITE DURING ALL FILLING ACTIVITIES. TESTING FOR COMPACTION SHALL BE PROVIDED AND PAID FOR BY THE CONTRACTOR. THIS SHALL INCLUDE ALL SOIL TESTS, ON-SITE TESTING AND VERIFICATION. AS THIS IS AN OEPA VAP PROJECT THE BORROW SOURCE MUST COMPLY WITH THE OEPA VAP REGULATIONS FOR THE BORROW SOURCE. IN ADDITION, THE BORROW SOURCE IS SUBJECT TO OEPA VAP TESTING PROCTOR AND A HAZARDOUS WASTE SCREENING OF THE MATERIAL.

GRANULAR MATERIALS BROUGHT ONTO THE PROPERTY FOR PURPOSE OF DRAINAGE, HAUL ROADS, CONSTRUCTION ENTRANCES, ETC. MUST BE PRE-APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL SUBMIT DOCUMENTATION AS TO THE MATERIAL SOURCE LOCATION. NO RECYCLED AGGREGATES WILL BE PERMITTED.

VAP FILL REQUIREMENTS:

NO FILL MAY BE USED AS BACKFILL AT THE SITE WITHOUT THE KNOWLEDGE AND PRIOR APPROVAL OF THE PROJECT CERTIFIED PROFESSIONAL. A MINIMUM OF TWO WEEKS NOTICE REGARDING A POTENTIAL SOURCE OF CLEAN FILL WILL BE REQUIRED TO RECEIVE APPROVAL OF THE FILL. ALL BACKFILL MATERIAL WILL REQUIRE AN AFFIDAVIT FROM THE OWNER OF THE FILL SOURCE ATTESTING THAT THE MATERIAL IS "CLEAN" (I.E., NO ENVIRONMENTAL IMPACT). IN ADDITION, SUFFICIENT ANALYTICAL TEST RESULTS (AS DETERMINED BY THE PROJECT CERTIFIED PROFESSIONAL) MAY ALSO BE REQUIRED TO BE PROVIDED BY THE CONTRACTOR TO DEMONSTRATE THAT THE MATERIAL IS SUITABLE FOR USE AS CLEAN FILL IN ACCORDANCE WITH VOLUNTARY ACTION PROGRAM RULES AND GUIDELINES PER 3745-300.

REVIEW OF DRAINAGE FACILITIES:

BEFORE ANY WORK IS STARTED ON THE PROJECT, AND AGAIN BEFORE FINAL ACCEPTANCE BY THE OWNER, REPRESENTATIVES OF THE OWNER THE ENGINEER AND CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE EXISTING UTILITIES WITHIN THE WORK LIMITS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK, RECORDS OF INSPECTIONS SHALL BE KEPT IN WRITING BY THE ENGINEER.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE OWNER.

ALL EXISTING UTILITIES INSPECTED BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTORS OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

THE CONTRACTOR SHALL CONDUCT HIS OPERATION SO AS TO MAINTAIN AT ALL TIMES FLOWS THROUGH EXISTING FACILITIES TO REMAIN IN PLACE AND THROUGH EXISTING UTILITIES TO BE REPLACED UNTIL NEW FACILITIES ARE COMPLETED AND PLACED INTO USE.

THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER AS NOT TO DISRUPT SEWER OR WATER FLOWS THROUGH EXISTING FACILITIES. SHOULD ANY EXISTING FACILITY REQUIRE BEING MOVED REPLACED, RELOCATED OR BE ALTERED AS TO LINE OR GRADE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE FOR CONTINUOUS, UNINTERRUPTED USE OF SAID FACILITY.

THE UPSTREAM ENDS OF ALL PIPE INTERCEPTED BY EARTHWORK OPERATIONS (AND WHERE INDICATED, THE END OF THE PIPE LINES TO BE ABANDONED IN PLACE) SHALL BE EFFECTIVELY BLOCKED AND COVERED, BROKEN PIECES OF PIPE OR TILE SHALL BE REMOVED UNTIL A WHOLE UNDAMAGED LENGTH OF PIPE IS ENCOUNTERED. THIS PIPE END SHALL BE BLOCKED WITH A 6" WALL OF CONCRETE, OR 8" WALL OF BRICK LAID IN MORTAR, OR A PRECAST CLAY OR CONCRETE STOPPER CEMENTED IN PLACE.

REMOVAL OF TREES AND STUMPS/CLEARING AND GRUBBING:

ALL TREES AND STUMPS WITHIN THE PROJECT LIMITS SHALL BE REMOVED IN ACCORDANCE WITH ITEM 201. THE CONTRACTOR MUST VISIT THE SITE PRIOR TO BIDDING TO VERIFY SIZE/QUANITY OF TREES WITHIN THE CONSTRUCTION LIMITS. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL SAID TREES AT HIS LUMP SUM BID PRICE, WHETHER SHOWN ON PLANS OR NOT. ALL TREES/SHRUBS WITHIN THE PROPERTY SHALL BE REMOVED PRIOR TO PLACEMENT OF FILL. WOOD DEBRIS, ROOTS, AND BRANCHES SHALL BE REMOVED AND DISPOSED OF PRIOR TO PLACEMENT OF FILL.

TRAFFIC MAINTENANCE:

THE CONTRACTOR SHALL MAINTAIN TRAFFIC AT ALL TIMES, ON ALL ROADS, HIGHWAYS, AND STREETS. THE CONTRACTOR SHALL COMPLY FULLY WITH THE REGULATIONS SET FORTH IN THE OHIO DEPARTMENT OF TRANSPORTATION MANUAL OF UNIFORM TRAFFIC CONTROL AND SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR TRAFFIC MAINTENANCE. ACCESS TO THE PARKING LOT LOCATED AT PHELPS AND FRONT SHALL BE MAINTAINED AT ALL TIMES.

SURVEY VERIFICATION:

THE CONTRACTOR IS REQUIRED TO PROVIDE TOPOGRAPHIC FIELD SURVEY (PNEZD POINT FILE TO BE PROVIDED TO THE OWNER) AT 2 STAGES OF CONSTRUCTION FOR QUANTITY VERIFICATION:

1. FOLLOWING SITE CLEARING AND GRUBBING;
2. FOLLOWING PLACEMENT AND COMPACTION OF MATERIAL.

THE SURVEY SHOTS SHALL BE OF ADEQUATE QUANTITY TO ESTABLISH SURFACE ELEVATIONS ACROSS THE SITE AND SHALL BE USED FOR VERIFICATION OF THE MINIMUM FILL PLACEMENT REQUIREMENTS (2' PER VAP), AS WELL AS ADHERENCE TO GRADING PLANS. THE COST OF THE FIELD SURVEY SERVICES SHALL BE INCLUDED IN THE CONTRACTOR'S LUMP SUM BID FOR PRE-POST SURVEY.

THE SURVEY DATUM AND TOLERANCE REQUIREMENTS THAT SHALL BE UTILIZED WILL BE ESTABLISHED BY THE ENGINEER PRIOR TO CONSTRUCTION.

NO.	REVISIONS	DATE	NO.	REVISIONS	DATE
1	ISSUED FOR BIDDING	06/16	-	-	-

SEAL

PROJECT NUMBER: 64-12942-00
DRAWN: SDT | CHECKED: CJM | DATE: 6/28/16
SCALE: (22x34) N/A
SCALE: (11x17) N/A

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YOUNGSTOWN, OHIO 44503-1821
(330)-744-5321 Fax (330)-744-5256

CITY OF YOUNGSTOWN
MAHONING COUNTY, OHIO
FORMER WEAN UNITED
SITE CAPPING PROJECT

GENERAL NOTES

DWG. NO. G-1.0
SHEET 2 OF 12

N:\64\64-12942 Amphitheater\10-Drawings\Environmental\Sheet Sets\12942_SWPPP_NOTES & DETAILS.dwg, G-1.0 GENERAL NOTES, 6/28/2016 10:38:35 AM, spreston, 1:1

ESTABLISHMENT OF PROPERTY LIMITS

CONTRACTOR SHALL HAVE THE PROPERTY BOUNDARIES LOCATED BY A PROFESSIONAL SURVEYOR, REGISTERED IN THE STATE OF OHIO, AND CLEARLY MARKED. BOUNDARY MARKINGS SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.

REMOVAL/DISPOSAL OF DEBRIS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF MISCELLANEOUS, UNCLASSIFIED DEBRIS PILES THROUGHOUT THE SITE PRIOR TO PLACEMENT OF FILL. RUBBLE AND DEBRIS SHALL BE LEGALLY DISPOSED OF IN A PROPER MANNER, AND THE CONTRACTOR SHALL PRODUCE RECORD OF THE DISPOSAL UPON REQUEST OF THE OWNER OR ENGINEER.

STONE AND RUBBLE MAY BE UTILIZED AS FILL MATERIAL WITHIN THE FORMER WEAN PROPERTY PROVIDED THE FOLLOWING:

1. THE MATERIAL WAS CURRENTLY ON THE WEAN PROPERTY PRIOR TO THE START OF CONSTRUCTION.
2. THE MATERIAL CAN BE PLACED WITHOUT CAUSING VOIDS OR COMPACTION ISSUES.
3. THE MATERIAL IS FREE OF DEBRIS, TRASH, AND ORGANIC MATTER (LEAVES, TREE BRANCHES, STUMPS, ROOTS, ETC..)
4. A MINIMUM OF 2' OF CLEAN FILL IS TO BE PLACED ON TOP OF EXISTING GRADES.

UNLESS STAINING OR ODOR IS PRESENT UPON INVESTIGATION, ALL EXISTING DEBRIS PILES ARE ASSUMED TO BE CLEAN CONSTRUCTION AND DEMOLITION DEBRIS.

ALL EXISTING PERIMETER FENCING WITHIN THE PROPERTY SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

ELECTRICAL TOWER AND POWER POLES

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH THE UTILITY COMPANY TO ENSURE THAT POWER LINES ENTERING THE SITE ARE DE-ENERGIZED. CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY FOR REMOVAL OF OVERHEAD ELECTRIC LINES THROUGHOUT THE SITE AND THE EXISTING ELECTRICAL TOWER SHALL BE DEMOLISHED TO EXISTING GRADE AND DISPOSED OF BY THE CONTRACTOR. CONTRACTOR SHALL COORDINATE REMOVAL AND DISPOSAL OF POLES WITH UTILITY COMPANIES, AS NECESSARY.

PROTECTION OF 84" SEWER

THERE IS AN EXISTING 84" BRICK SEWER RUNNING THROUGH THE PROPERTY. THE LOCATION OF THE SEWER SHOWN ON THE DRAWINGS IS APPROXIMATE BASED UPON CITY RECORDS. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING THE SEWER THROUGHOUT THE DURATION OF CONSTRUCTION.

THE SEWER SHALL BE MARKED THROUGHOUT CONSTRUCTION, AND HEAVY EQUIPMENT SHALL AVOID TRAVELING OVER THIS AREA WITHOUT ADEQUATE BRIDGING/PLATING TO TRANSFER THE LOAD AWAY FROM THE SEWER. FILL OVERTOP AND WITHIN FIVE (5) FEET OF THE SEWER SHALL BE PLACED, BUT NOT COMPACTED.

CONCRETE AND ASPHALT SURFACES

ALL CONCRETE AND ASPHALT SURFACES, INCLUDING PARKING LOTS, ROADS, DRIVES AND THE EXISTING BUILDING FLOOR SLAB, WITHIN THE PROPERTY LIMITS SHALL BE BROKEN OR PERFORATED (TWO-INCH MIN. DIAMETER) ON A MAXIMUM FIVE (5) FOOT GRID TO ALLOW FOR DRAINAGE PRIOR TO THE PLACEMENT OF FILL. PENETRATION SHALL BE MADE THROUGH THE ENTIRE CONCRETE/ASPHALT SURFACE DOWN TO SUBGRADE. IF VOIDS, ABANDONED UTILITIES, OR PIPE CHASES ARE EXPOSED/LOCATED WHILE PENETRATING THE SURFACE, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY AND MOVE TO ANOTHER WORK AREA. NO DOWNTIME COMPENSATION WILL BE CONSIDERED. TIME AND MATERIAL EXPENSES FOR EXPLORATORY WORK TO DETERMINE THE EXTENTS OF THE VOID AND THE BULKHEADING OR FILLING OF SAID VOID WILL BE PAID UNDER THE CONTINGENCY ALLOWANCE ESTABLISHED IN THE BID.

EXCAVATION LIMITATIONS

THE CONTRACTOR IS NOT PERMITTED TO EXCAVATE DOWN BELOW THE CURRENT EXISTING GRADE WITHOUT THE PRIOR AUTHORIZATION OF THE ENGINEER. IN INSTANCES WHERE EXCAVATION/UNDERCUT IS REQUIRED DUE TO SOFT SUBGRADE, WITH THE APPROVAL OF THE ENGINEER, EXCAVATED MATERIAL SHALL BE MOVED TO A LOCATION ON-SITE AS DETERMINED BY THE ENGINEER, PLACED ON VISQUINE, AND COMPLETELY COVERED WITH VISQUINE. FILTER SOCK SHALL BE PLACED AROUND THE STOCKPILE TO PREVENT MIGRATION OF SEDIMENT, AND THE MATERIAL SHALL BE SAMPLED AND TESTED BY THE ENGINEER. IF/WHEN MATERIAL IS DETERMINED TO BE CLEAN, IT SHALL BE REMOVED FROM THE SITE AND DISPOSED OF BY THE CONTRACTOR.

UPON DISCOVERY OF UNSUITABLE MATERIAL OR SOFT SUBGRADE, THE CONTRACTOR SHALL MARK THE LOCATION AND MOVE TO ANOTHER AREA OF WORK UNTIL THE ENGINEER / ENVIRONMENTAL PROFESSIONAL CAN EXAMINE THE AREA (GENERALLY WITHIN 3 WORKING DAYS). CONTRACTOR SHALL ACCOUNT FOR THIS INTO HIS/HER WORK PLAN, AND NO DOWNTIME COMPENSATION WILL BE CONSIDERED.

SOIL STOCKPILE

THE CONTRACTOR SHALL CREATE A STOCKPILE OF APPROXIMATELY 15,000 CUBIC YARDS OF MATERIAL, FROM THE SAME BORROW SOURCE, IN THE AREAS AS SHOWN ON THE DRAWINGS AS A SEPARATE BID ITEM. THE STOCKPILE AREA SHALL BE ADEQUATELY COMPACTED WITHIN THE TOP 12" OF THE PILE TO PREVENT WATER FROM INFILTRATING THE STOCKPILE. THE TOP OF THE STOCKPILE SHALL BE GRADED IN SUCH A WAY AS TO ALLOW WATER TO SHED. THE STOCKPILE MUST BE SEALED AS NECESSARY TO KEEP RAIN FROM SATURATING PILE. THE STOCKPILE AREA SHALL BE PROTECTED AND PERMANENTLY STABILIZED FOR FUTURE USE.

EARTHWORK QUANTITIES

WHERE QUANTITIES OF BORROW MATERIAL ARE CALLED OUT IN THE PLANS AND SPECIFICAITONS FOR PAYMENT PURPOSES, THOSE QUANTITIES SHALL BE MEASURED AS "PLACED AND COMPACTED" VOLUME. CONTRACTOR WILL NOT BE PAID BASED UPON TRUCKING TICKETS OR ESTIMATED VOLUMES PER TRUCK LOAD.

UNSUITABLE MATERIAL

ANY BORROW MATERIAL BROUGHT ONTO THE SITE THAT DOES NOT MEET THE COMPACTION REQUIREMENTS STIPULATED HEREIN, OR CONTAINS TRASH, DEBRIS, LARGE ROCKS, ROOTS, STUMPS OR BRANCHES (IN QUANTITIES THAT CANNOT BE EASILY SEGREGATED FROM THE SOIL) WILL BE REMOVED FROM THE SITE AT NO ADDITIONAL COST TO THE OWNER. NO PAYMENT WILL BE MADE FOR UNSUITABLE MATERIAL HAULED TO OR AWAY FROM THE SITE.

ONLY MATERIAL FROM BORROW SOURCES APPROVED BY THE ENGINEER / CERTIFIED PROFESSIONAL WILL BE PERMITTED ON-SITE.

MONITORING WELL ABANDONMENT

THERE ARE CURRENTLY 18 GROUNDWATER MONITORING WELLS THROUGHOUT THE PROPERTY THAT ARE NO LONGER IN USE. PRIOR TO PLACEMENT OF FILL, THE CONTRACTOR IS REQUIRED TO SEAL/ABANDON ALL OF THE WELLS IN ACCORDANCE WITH THE OHIO ENVIRONMENTAL PROTECTION AGENCY'S "TECHNICAL GUIDANCE MANUAL FOR GROUND WATER INVESTIGATIONS CHAPTER 9: SEALING ABANDONED MONITORING WELLS AND BOREHOLES" AND OHIO DEPARTMENT OF NATURAL RESOURCES STANDARDS. ALL REPORTING REQUIREMENTS WILL APPLY AND BE THE RESPONSIBILITY OF THE CONTRACTOR.

MONITORING WELL	APPROXIMATE WELL DEPTH
B/MW-101	24'-0"
B/MW-102	22'-0"
B/MW-103	22'-0"
B/MW-104	22'-0"
B/MW-105	23'-0"
B/MW-108	25'-0"
B/MW-109	24'-0"
B/MW-112	21'-0"
B/MW-115	24'-0"
B/MW-116	24'-0"
B/MW-117	23'-0"
B/MW-118	78'-0"
B/MW-119	77'-0"
B/MW-120	73'-0"
B/MW-122	25'-0"
B/MW-123	25'-0"
B/MW-125	28'-0"
B/MW-127	26'-0"

COMPLETION DATE:

THE FINISHED SURFACE COURSE ON THE SITE SHALL BE IN PLACE BY OCTOBER 1, 2016.

INDEX OF SHEETS

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EROSION AND SEDIMENT CONTROL DETAILS. . . . . ES-2.0 to ES-5.0
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SITE PLAN CS-1.0
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DRAINAGE DETAILS. CG-2.0

NO.	REVISIONS	DATE	NO.	REVISIONS	DATE
1	ISSUED FOR BIDDING	06/16	-	-	-

SEAL

PROJECT NUMBER: 64-12942-00
DRAWN: SDT | CHECKED: CJM | DATE: 6/28/16
SCALE: (22x34) N/A
SCALE: (11x17) N/A

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CITY OF YOUNGSTOWN
MAHONING COUNTY, OHIO
FORMER WEAN UNITED
SITE CAPPING PROJECT

GENERAL NOTES

DWG. NO. G-2.0
SHEET 3 OF 12

N:\64\64-12942 Amphitheater\10-Drawings\Environmental\Sheet Sets\12942_SWPPP_NOTES & DETAILS.dwg, G-2.0 GENERAL NOTES, 6/28/2016 10:38:44 AM, spreston, 1:1

SITE EVALUATION, ASSESSMENT, AND PLANNING:

PROJECT/SITE INFORMATION
FORMER WEAN UNITED SITE CAPPING PROJECT
CITY OF YOUNGSTOWN,
MAHONING COUNTY, OHIO

CONTACT INFORMATION
CITY OF YOUNGSTOWN DEPARTMENT OF PUBLIC WORKS
26 S. PHELPS ST.
YOUNGSTOWN, OH 44503

SWPPP WAS PREPARED BY: MS CONSULTANTS, INC.

GENERAL SCOPE OF PROJECT:

THIS PROJECT WILL CONSIST OF SITE IMPROVEMENTS, INCLUDING PLACEMENT OF A 2' MINIMUM SOIL CAP AS A MEANS TO REMEDIATE THE FORMER WEAN UNITED PROPERTY FOR THIS PHASE OF THE PROJECT. THE LONG–TERM MASTER PLAN FOR THE SITE INCLUDES OPEN GREEN SPACE, AN AMPHITHEATER, PATHWAYS, PARKING LOTS, EXTENDED DRY DETEENTION AND MINOR LANDSCAPTING.

NATURE OF CONSTRUCTION ACTIVITY (CHECK ALL THAT APPLY):

SUBDIVISION	
COMMERCIAL	
INDUSTRIAL	
P.U.D.	
OTHER	X

SOIL TYPES:

CoB Chili–Urban land complex (5% OF SITE) Ua Udorthents (95% OF SITE)

CONSTRUCTION SITE ESTIMATES:

TOTAL PROJECT AREA:	14.60 AC
CONSTRUCTION SITE AREA TO BE DISTURBED:	100%
PERCENTAGE IMPERVIOUS AREA BEFORE CONSTRUCTION:	63%
RUNOFF CURVE NUMBER BEFORE CONSTRUCTION:	51
PERCENTAGE IMPERVIOUS AREA AFTER CONSTRUCTION:	20%
RUNOFF CURVE NUMBER AFTER CONSTRUCTION:	68

RECEIVING WATERS:

THE SITE WILL DRAIN VIA SWALES AND STORM SEWERS TO AN EXTENDED DRY SEDIMENT STORAGE BASIN. THE OVERFLOW FROM THE BASIN WILL DISCHARGE TO THE MAHONING RIVER.

SEQUENCE OF MAJOR ACTIVITIES:

1. INSTALL FILTER SOCKS AT THE LOCATIONS INDICATED ON THE EROSION AND SEDIMENT CONTROL (E&S) PLANS PRIOR TO ANY EARTH DISTURBANCE.
2. CONSTRUCT CONSTRUCTION ENTRANCE AS SHOWN ON E&S PLANS.
3. CLEAR AND GRUB THE ENTIRE SITE AND REMOVE DEBRIS PILES.
4. ABANDON ALL MONITORING WELLS THROUGHOUT THE SITE AND BEGIN DEMOLITION.
5. PERFORATE EXISTING CONCRETE/ASPHALT TO BE COVERED WITH FILL MATERIAL.
6. BEGIN GRADING REMAINDER OF SITE. CONSTRUCT THE SWALES, SEDIMENT STORAGE AREA AND ASSOCIATED DRAINAGE FACILITIES AS NEEDED. PLACE ROCK CHECK DAMS, TEMPORARY ROLLED EROSION CONTROL MATS AND FILTER SOCKS AS INDICATED ON E&S PLANS. SPREAD TEMPORARY SEEDING AND MULCH OVER ALL DISTURBED AREAS.
7. BEGIN FINAL GRADING OF SITE.
8. SPREAD PERMANENT SEEDING.
9. STOCKPILE REMAINING SOIL, SEED AND MULCH TO STOCKPILE AREA.
10. ONCE 75% VEGETATIVE COVERAGE IS ACHIEVED, REMOVE FILTER SOCKS.

POTENTIAL SOURCES OF POLLUTION:

CONCRETE
DETERGENTS
WOOD
FERTILIZERS
PAINTS (ENAMEL AND LATEX)
CLEANING SOLVENTS
PETROLEUM BASED PRODUCTS

EROSION AND SEDIMENT CONTROLS:

BMP DESCRIPTION:	CLEARING AND GRUBBING
MAINTENANCE AND INSPECTION:	AS NEEDED
REFERENCE:	G–1.0
BMP DESCRIPTION:	DUST CONTROL
MAINTENANCE AND INSPECTION:	AS NEEDED
REFERENCE:	SHEET: ES–1.0
BMP DESCRIPTION:	CONSTRUCTION ENTRANCE
MAINTENANCE AND INSPECTION:	AS NEEDED
REFERENCE:	SHEET: ES–2.0
BMP DESCRIPTION:	ROCK CHECK DAM
MAINTENANCE AND INSPECTION:	WEEKLY AND AFTER HEAVY RAIN
REFERENCE:	SHEET: ES–2.0

EROSION AND SEDIMENT CONTROLS: (CONTINUED)

BMP DESCRIPTION:	FILTER SOCK
MAINTENANCE AND INSPECTION:	WEEKLY AND AFTER HEAVY RAIN
REFERENCE:	SHEET: ES–2.0
BMP DESCRIPTION:	TEMPORARY SEEDING AND MULCHING
MAINTENANCE AND INSPECTION:	WEEKLY AND AFTER HEAVY RAIN
REFERENCE:	SHEET: ES–5.0
BMP DESCRIPTION:	PERMANENT SEEDING AND MULCHING
MAINTENANCE AND INSPECTION:	WEEKLY AND AFTER HEAVY RAIN
REFERENCE:	SHEET: ES–5.0
BMP DESCRIPTION:	INLET PROTECTION
MAINTENANCE AND INSPECTION:	WEEKLY AND AFTER HEAVY RAIN
REFERENCE:	SHEET: ES–3.0 & ES–4.0

ADDITIONAL EROSION AND SEDIMENT CONTROL NOTES:

* TEMPORARY EROSION CONTROLS WILL BE APPLIED PRIOR TO ONSET OF WINTER WEATHER FOR DISTURBED AREAS THAT WILL BE LEFT IDLE OVER WINTER.
* PERMANENT EROSION CONTROLS WILL BE APPLIED WITHIN 7 DAYS FOR DISTURBED AREAS REMAINING DORMANT FOR OVER 1 YEAR OR AT FINAL GRADE.
* SEDIMENT CONTROL DEVICES WILL BE IMPLEMENTED FOR ALL AREAS REMAINING DISTURBED OVER 14 DAYS.

ADDITIONAL BMP'S:

OPEN BURNING: NO MATERIALS MAY BE BURNED WHICH CONTAIN RUBBER, GREASE, ASPHALT, OR PETROLEUM PRODUCTS SUCH AS TIRES, CARS, AUTO PARTS, PLASTICS OR PLASTIC COATED WIRE. (SEE OAC 3745–9) OPEN BURNING IS NOT ALLOWED IN RESTRICTED AREAS. RESTRICTED AREAS ARE DEFINED AS:

1. WITHIN CORPORATION LIMITS
2. WITHIN 1,000 FEET OF A MUNICIPAL CORPORATION
3. WITHIN A ONE MILE ZONE OUTSIDE OF A CORPORATION OF 10,000 OR MORE

OUTSIDE THE RESTRICTED AREA, NO PEN BURNING CAN TAKE PLACE WITHIN 1,000 FEET OF AN INHABITED BUILDING LOCATED OFF THE PROPERTY WHERE THE FIRE IS SET. OPEN BURNING IS PERMISSIBLE IN A RESTRICTED AREA FOR THE FOLLOWING ACTIVITIES: HEATING TAR, WELDING AND ACETYLENE TORCHES, SMUDGE POTS AND SIMILAR OCCUPATIONAL NEEDS, AND HEATING OR WARMTH FOR OUTDOOR BARBEQUES. OUTSIDE OF RESTRICTED AREAS, OPEN BURNING IS PERMISSIBLE FOR LANDSCAPE WASTES (PLANT MATERIAL), LAND–CLEARING WASTES (PLANT MATERIAL, WITH PRIOR WRITTEN PERMISSION FROM OHIO EPA), AND AGRICULTURAL WASTES (MATERIAL GENERATED BY CROP, HORTICULTURAL, OR LIVESTOCK PRODUCTION PRACTICES.

DUST CONTROL/SUPPRESSANTS: DUST CONTROL IS REQUIRED TO PREVENT NUISANCE CONDITIONS. DUST CONTROLS MUST BE USED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION AND NOT BE APPLIED IN A MANNER, WHICH WOULD RESULT IN A DISCHARGE TO WATERS OF THE STATE. ISOLATION DISTANCES FROM BRIDGES, CATCH BASINS, AND OTHER DRAINAGE WAYS MUST BE OBSERVED. APPLICATION (EXCLUDING WATER) MAY NOT OCCUR WHEN PRECIPITATION IS IMMINENT AS NOTED IN THE SHORT TERM FORECAST. USED OIL MAY NOT BE APPLIED FOR DUST CONTROL.

OTHER AIR PERMITTING REQUIREMENTS: ALL CONTRACTORS AND SUB CONTRACTORS MUST BE MADE AWARE THAT CERTAIN ACTIVITIES ASSOCIATED WITH CONSTRUCTION MAY REQUIRE AIR PERMITS. ACTIVITIES INCLUDING BUT NOT LIMITED TO MOBILE CONCRETE BATCH PLANTS, MOBILE ASPHALT PLANTS, CONCRETE CRUSHERS, LARGE GENERATORS, ETC., WILL REQUIRE SPECIFIC OHIO EPA AIR PERMITS FOR INSTALLATION AND OPERATION. THESE ACTIVITIES MUST SEE AUTHORIZATION FROM THE CORRESPONDING OF OHIO EPA. NOTIFICATION FOR RESTORATION AND DEMOLITION MUST BE SUBMITTED TO OHIO EPA FOR ALL COMMERCIAL SITES TO DETERMINE IF ASBESTOS CORRECTIVE ACTIONS ARE REQUIRED.

WASTE DISPOSAL: THE CONTRACTOR SHALL PROVIDE LITTER CONTROL AND COLLECTION OF MATERIALS WITHIN THE PROJECT BOUNDARIES DURING CONSTRUCTION. ALL FERTILIZER, HYDROCARBON, OR OTHER CHEMICAL CONTAINERS SHALL BE DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH THE EPA'S STANDARD PRACTICES. NO SOLID MATERIAL INCLUDING BUILDING AND CONSTRUCTION MATERIAL SHALL BE DISPOSED OF, DISCHARGED, OR BURIED ONSITE.

OFFSITE VEHICLE TRACKING: LOADED HAUL TRUCKS SHALL BE COVERED WITH A TARPAULIN. EXCESS DIRT MATERIAL ON THE ROADS SHALL BE REMOVED IMMEDIATELY. HAULING ON UNPAVED SURFACES SHALL BE MONITORED TO MINIMIZE DUST AND CONTROL EROSION. HAUL ROADS SHALL BE WATERED OR OTHER CONTROLS PROVIDED AS NECESSARY TO MINIMIZE DUST AND CONTROL SEDIMENTS.

SANITARY WASTE: THE CONTRACTOR SHALL PROVIDE PORTABLE SANITARY WASTE FACILITIES. THESE FACILITIES SHALL BE COLLECTED OR EMPTIED BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR AS REQUIRED BY STATE REGULATIONS.

FERTILIZERS AND PESTICIDES: FERTILIZER SHALL BE APPLIED AT A RATE SPECIFIED BY THE SPECIFICATIONS OR THE MANUFACTURER. THE APPLICATION OF FERTILIZERS SHALL BE ACCOMPLISHED IN A MANNER AS DESCRIBED BY THE SPECIFICATION OR MANUFACTURER TO ENSURE THE PROPER INSTALLATION AND TO AVOID OVER FERTILIZING.

MAINTENANCE:

THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE AND REPAIRS OF EROSION AND SEDIMENT CONTROL DEVICES AND THE REMOVAL OF THE EROSION AND SEDIMENT CONTROL DEVICES AFTER THE NOTICE OF TERMINATION IS EXECUTED.

THE CONTRACTOR SHALL REVIEW THE PROJECT AND ALL EROSION AND SEDIMENTATION CONTROLS ON A DAILY BASIS AND DURING AND FOLLOWING RAINFALL EVENTS. THE CONTRACTOR SHALL BE REQUIRED TO KEEP A LOG OF ALL THE DAILY INSPECTION REPORTS, GRADING AND STABILIZATION ACTIVITIES AND SWPPP AMENDMENTS AT THE SITE. THE FOLLOWING PRACTICES WILL BE IMPLEMENTED TO MAINTAIN AND MONITOR EROSION AND SEDIMENTATION CONTROLS.

A. PROJECT REVIEW ON A DAILY BASIS.
B. PROVIDE AND MAINTAIN RAIN GAUGES ONSITE TO RECORD RAINFALL DATA DAILY.
C. REVIEW STABILIZATION PRACTICES AND CONTROLS ON A DAILY BASIS AND MAINTAIN AND REPAIR THESE MEASURES AND CONTROLS AS NECESSARY. TEMPORARY AND/OR PERMANENT SEEDING, MULCHING, AND SODDING SHALL BE REPAIRED IN BARE SPOTS AND WASHOUTS, AND HEALTHY GROWTH ESTABLISHED.
D. ONCE HEALTHY GROWTH OF TURF IS ESTABLISHED, THE CONTRACTOR SHALL MAINTAIN THESE AREAS TO INSURE THE HEIGHT OF THE GRASS DOES NOT REACH MORE THAN 6 INCHES ABOVE THE ESTABLISHED GRADE.
E. REVIEW STRUCTURAL PRACTICES ON A DAILY BASIS AND MAINTAIN AND REPAIR THESE MEASURES AND CONTROLS AS NECESSARY. BUILT UP SEDIMENTS SHALL BE REMOVED FROM FILTER SOCKS AND REPLACED AS NECESSARY OR WHEN THEY HAVE SERVED THEIR USEFULNESS.
F. AN INSPECTION AND MAINTENANCE REPORT SHALL BE COMPLETED WEEKLY AND WITHIN 24 HOURS OF A RAINFALL EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR SHALL CREATE AN INSPECTION AND MAINTENANCE REPORT LOG AND NOTE ANY AMENDMENTS TO THE SWPPP THAT OCCUR DURING CONSTRUCTION.
G. IF THE CONTRACTOR ELECTS TO APPLY FOR PERMITS FOR DISCHARGE OF STORMWATER FROM THE SITE DURING CONSTRUCTION, ALL POINTS OF DISCHARGE OF STORMWATER RUNOFF FROM THE SITE SHALL BE INSPECTED ON A DAILY BASIS AND CONTROLS AND MEASURES REPAIRED AS NECESSARY TO MAINTAIN ACCEPTABLE WATER QUALITY AND DISCHARGE VOLUMES IN ACCORDANCE WITH THE PERMIT.

INSPECTIONS:

QUALIFIED PERSONNEL SHALL INSPECT ALL POINTS OF DISCHARGE, AS APPLICABLE, FROM THE PROJECT SITE AND ALL DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN STABILIZED. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF, OR POTENTIAL FOR POLLUTANTS ENTERING THE STORMWATER MANAGEMENT SYSTEM. THE STORMWATER MANAGEMENT SYSTEM AND EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. INSPECTION AND MAINTENANCE REPORTS SHALL BE COMPLETED WEEKLY AND FOLLOWING RAINFALL EVENTS OF 0.5 INCHES OR MORE. THESE FORMS SHALL BE RETAINED FOR A PERIOD OF AT LEAST 3 YEARS FOLLOWING THE DATE THE SITE IS STABILIZED.

ALLOWABLE NON–STORMWATER DISCHARGE MANAGEMENT:

ALLOWABLE NON–STORMWATER DISCHARGES AND THE MEASURES USED TO ELIMINATE OR REDUCE THEM AND TO PREVENT THEM FROM BECOMING CONTAMINATED MAY INCLUDE DEPENDING ON THE PERMIT:

1. WATERS USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED
2. WATER USED TO CONTROL DUST
3. POTABLE WATER INCLUDING UNCONTAMINATED WATER LINE FLUSHINGS
4. ROUTINE EXTERNAL BUILDING WASH DOWN THAT DOES NOT USE DETERGENTS
5. PAVEMENT WASH WATER WHERE SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURED (UNLESS ALL SPILLED MATERIAL HAS BEEN REMOVED) AND WHERE DETERGENTS ARE NOT USED
6. UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE
7. UNCONTAMINATED GROUND WATER OR SPRING WATER
8. FOUNDATION OR FOOTING DRAINS WHERE FLOWS ARE NOT CONTAMINATED WITH PROCESS MATERIALS SUCH AS SOLVENTS
9. UNCONTAMINATED EXCAVATION DEWATERING
10. LANDSCAPE IRRIGATION

ESTABLISH PROPER EQUIPMENT/VEHICLE FUELING AND MAINTENANCE PRACTICES:

EQUIPMENT FUELING AND MAINTENANCE, OIL CHANGING, ETC., SHALL BE PERFORMED AWAY FROM WATERCOURSES, DITCHES, OR STORM DRAINS, IN THE CONTRACTOR STAGING AREA. THIS DESIGNATED AREA SHALL BE EQUIPPED FOR RECYCLING OIL AND CATCHING SPILLS. SECONDARY CONTAINMENT SHALL BE PROVIDED FOR ALL FUEL OIL STORAGE TANKS. ALSO, IT MUST BE INSPECTED EVERY SEVEN DAYS AND WITHIN 24 HOURS OF A 0.5 INCH OR GREATER RAIN EVENT TO ENSURE THERE ARE NO EXPOSED MATERIALS WHICH WOULD CONTAMINATE STORM WATER.

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SEAL

PROJECT NUMBER:			SCALE: (22x34)
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CITY OF YOUNGSTOWN
MAHONING COUNTY, OHIO
FORMER WEAN UNITED
SITE CAPPING PROJECT

EROSION AND SEDIMENT CONTROL PLAN NOTES

DWG. NO. ES-1.0

SPILL PREVENTION CONTROL PLAN:

SITE OPERATORS MUST BE AWARE THAT SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) REQUIREMENTS APPLY. AN SPCC PLAN IS REQUIRED FOR SITES WITH ONE SINGLE ABOVEGROUND STORAGE OF 1,330 GALLONS OR MORE, OR 42,000 GALLONS OF UNDERGROUND STORAGE. SOILS THAT HAVE BEEN CONTAMINATED MUST BE DISPOSED OF IN ACCORDANCE WITH SECTION "CONTAMINATED SOILS" FOUND BELOW.

SPILLS ON PAVEMENT SHALL BE ABSORBED WITH SAWDUST, CAT LITTER OR OTHER ABSORBENT MATERIAL AND DISPOSED OF WITH THE TRASH AT A LICENSED SANITARY LANDFILL. HAZARDOUS OR INDUSTRIAL WASTES SUCH AS MOST SOLVENTS, GASOLINE, OIL–BASED PAINTS, AND CEMENT CURING COMPOUNDS REQUIRE SPECIAL HANDLING. SPILLS SHALL BE REPORTED TO THE OHIO EPA (1–800–282–9378). SPILLS OF 25 GALLONS OR MORE OF PETROLEUM PRODUCTS SHALL BE REPORTED TO OHIO EPA (1–800–282–9378), THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE WITHIN 30 MINUTES OF THE DISCOVERY OF THE RELEASE. ALL SPILLS, WHICH RESULT IN CONTACT WITH WATER OF THE STATE, MUST BE REPORTED TO OHIO EPA'S HOTLINE.

CONTAMINATED SOILS:

TO COMPLY WITH THE REGULATIONS OF THE SOIL REMEDIATION, AT NO TIME CAN THE CONTRACTOR DISTURB THE EXISTING SOIL OR THE CLEAN FILL LAYER WITH A MINIMUM THICKNESS OF 2 FEET.

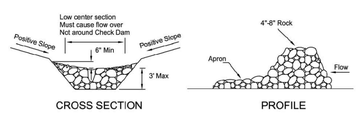
IF SUBSTANCES SUCH AS OIL, DIESEL FUEL, HYDRAULIC FLUID, ANTIFREEZE, ETC., ARE SPILLED, LEAKED, OR RELEASED ONTO THE SOIL, THE SOIL SHOULD BE DUG UP AND DISPOSED OF AT A LICENSED SANITARY LANDFILL OR OTHER APPROVED PETROLEUM CONTAMINATED SOIL REMEDIATION FACILITY (NOT A CONSTRUCTION/DEMOLITION DEBRIS LANDFILL) AT THE DIRECTION AND UNDER THE SUPERVISION OF THE ENGINEER. PLEASE BE AWARE THAT STORM WATER RUN OFF ASSOCIATED WITH CONTAMINATED SOILS ARE NOT BEING AUTHORIZED UNDER OHIO EPA'S GENERAL STORMWATER PERMIT ASSOCIATED WITH CONSTRUCTION ACTIVITIES. IN THE EVENT THERE ARE LARGE EXTENSIVE AREAS OF CONTAMINATED SOILS ADDITIONAL MEASURES ABOVE AND BEYOND THE CONDITIONS OF OHIO EPA'S GENERAL CONSTRUCTION STORMWATER PERMIT WILL BE REQUIRED. DEPENDING ON THE EXTENT OF CONTAMINATION, ADDITIONAL TREATMENT AND/OR COLLECTION AND DISPOSAL MAY BE REQUIRED. ALL STORMWATER DISCHARGES ASSOCIATED WITH CONTAMINATED SOILS MUST BE AUTHORIZED UNDER AN ALTERNATE NPDES PERMIT.

ROCK CHECK DAMS: (CD)

DESCRIPTION:

CHECK DAMS ARE SMALL ROCK DAMS CONSTRUCTED IN SWALES, GRASSED WATERWAYS OR DIVERSIONS. THEY REDUCE THE VELOCITY OF CONCENTRATED FLOWS, THEREBY REDUCING EROSION WITHIN THE SWALE OR WATERWAY. WHILE THIS PRACTICE OFTEN TRAPS SOME SEDIMENT, ITS TRAPPING EFFICIENCY IS EXTREMELY POOR, THUS, IT SHOULD NOT BE USED AS A PRIMARY SEDIMENT–TRAPPING PRACTICE.

(Not to Scale)



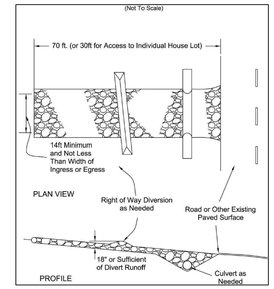
SPECIFICATIONS FOR ROCK CHECK DAMS:

1. THE CHECK DAM SHALL BE CONSTRUCTED OF 4–8 INCH DIAMETER STONE, PLACED SO THAT IT COMPLETELY COVERS THE WIDTH OF THE CHANNEL. ODOT TYPE D STONE IS ACCEPTABLE, BUT SHOULD BE UNDERLAIN WITH A GRAVEL FILTER CONSISTING OF ODOT NO. 3 OR 4 OR SUITABLE FILTER FABRIC.
2. MAXIMUM HEIGHT OF CHECK DAM SHALL NOT EXCEED 3.0 FEET.
3. THE MIDPOINT OF THE ROCK CHECK DAM SHALL BE A MINIMUM OF 6 INCHES LOWER THAN THE SIDES IN ORDER TO DIRECT ACROSS THE CENTER AND AWAY FROM THE CHANNEL SIDES.
4. THE BASE OF THE CHECK DAM SHALL BE ENTRENCHED APPROXIMATELY 6 INCHES.
5. SPACING OF CHECK DAMS SHALL BE IN A MANNER SUCH THAT THE TOE OF THE UPSTREAM DAM IS AT THE SAME ELEVATION AS THE TOP OF THE DOWNSTREAM DAM.
6. A SPLASH APRON SHALL BE CONSTRUCTED WHERE CHECK DAMS ARE EXPECTED TO BE IN USE FOR AN EXTENDED PERIOD OF TIME, A STONE APRON SHALL BE CONSTRUCTED IMMEDIATELY DOWNSTREAM OF THE CHECK DAM TO PREVENT FLOWS FROM UNDERCUTTING THE STRUCTURE. THE APRON SHOULD BE 6 IN. THICK AND ITS LENGTH TWO TIMES THE HEIGHT OF THE DAM.
7. STONE PLACEMENT SHALL BE PERFORMED EITHER BY HAND OR MECHANICALLY AS LONG AS THE CENTER OF CHECK DAM IS LOWER THAN THE SIDES AND EXTENDS ACROSS ENTIRE CHANNEL.
8. SIDE SLOPES SHALL BE A MINIMUM OF 2:1.

CONSTRUCTION ENTRANCE: (RCE)

A CONSTRUCTION ENTRANCE IS A STABILIZED PAD OF STONE UNDERLAIN WITH GEOTEXTILE AND IS USED TO REDUCE THE AMOUNT OF MUD TRACKED OFF–SITE WITH CONSTRUCTION TRAFFIC. LOCATED AT POINTS OF INGRESS/EGRESS, THE PRACTICE IS USED TO REDUCE THE AMOUNT OF MUD TRACKED OFF–SITE WITH CONSTRUCTION TRAFFIC.

SPECIFICATIONS FOR CONSTRUCTION ENTRANCE



1. STONE SIZE – ODOT #2 (1.5–2.5 INCH) STONE SHALL BE USED, OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – THE CONSTRUCTION ENTRANCE SHALL BE AS LONG AS REQUIRED TO STABILIZE HIGH TRAFFIC AREAS BUT NOT LESS THAN 70 FT. (EXCEPTION: APPLY 30 FT. MINIMUM TO SINGLE RESIDENCE LOTS).
3. THICKNESS – THE STONE LAYER SHALL BE AT LEAST 6 INCHES THICK FOR LIGHT DUTY ENTRANCES OR AT LEAST 10 INCHES FOR HEAVY DUTY USE.
4. WIDTH – THE ENTRANCE SHALL BE AT LEAST 14 FEET WIDE, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. GEOTEXTILE – A GEOTEXTILE SHALL BE LAID OVER THE ENTIRE AREA, PRIOR TO PLACING STONE. IT SHALL BE COMPOSED OF STRONG ROT–PROOF POLYMERIC FIBERS AND MEET THE FOLLOWING SPECIFICATIONS:

FIGURE 7.4.1

GEOTEXTILE SPECIFICATION FOR CONSTRUCTION ENTRANCE	
MINIMUM TENSILE STRENGTH	200 LBS.
MINIMUM PUNCTURE STRENGTH	80 PSI.
MINIMUM TEAR STRENGTH	50 LBS.
MINIMUM BURST STRENGTH	320 PSI.
MINIMUM ELONGATION	20%
EQUIVALENT OPENING SIZE	EOS < 0.6 MM.
PERMITTIVITY	1X10–3 CM/SEC.

6. TIMING – THE CONSTRUCTION ENTRANCE SHALL BE INSTALLED AS SOON AS IS PRACTICABLE BEFORE MAJOR GRADING ACTIVITIES.
7. CULVERT – A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE IF NEEDED TO PREVENT SURFACE WATER FROM FLOWING ACROSS THE ENTRANCE OR TO PREVENT RUNOFF FROM BEING DIRECTED OUT ONTO PAVED SURFACES.
8. WATER BAR – A WATER BAR SHALL BE CONSTRUCTED AS PART OF THE CONSTRUCTION ENTRANCE IF NEEDED TO PREVENT SURFACE RUNOFF FROM FLOWING THE LENGTH OF THE CONSTRUCTION ENTRANCE AND OUT ONTO PAVED SURFACES.
9. MAINTENANCE – TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING OR SWEEPING.
10. CONSTRUCTION ENTRANCES SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES AND PREVENT OFF–SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION–SITE SHALL BE RESTRICTED FROM MUDDY AREAS.
11. REMOVAL – THE ENTRANCE SHALL REMAIN IN PLACE UNTIL THE DISTURBED AREA IS STABILIZED OR REPLACED WITH A PERMANENT ROADWAY OR ENTRANCE.

12" FILTER SOCK: (FS)

DESCRIPTION:

FILTER SOCKS ARE SEDIMENT–TRAPPING DEVICES USING COMPOST INSERTED INTO A FLEXIBLE, PERMEABLE TUBE WITH A PNEUMATIC BLOWER DEVICE OR EQUIVALENT. FILTER SOCKS TRAP SEDIMENT BY FILTERING WATER PASSING THROUGH THE BERM AND ALLOWING WATER TO POND, CREATING A SETTLING OF SOLIDS.

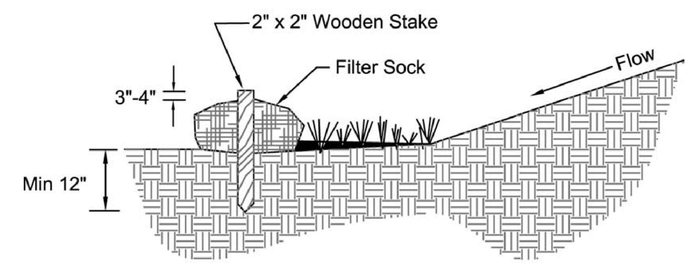
SPECIFICATIONS FOR FILTER SOCK:

1. MATERIALS COMPOST USED FOR FILTER SOCKS SHALL BE WEED, PATHOGEN AND INSECT FREE AND FREE OF ANY REFUSE, CONTAMINANTS OR OTHER MATERIALS TOXIC TO PLANT GROWTH. THEY SHALL BE DERIVED FROM A WELL–DECOMPOSED SOURCE OF ORGANIC MATTER AND CONSIST OF A PARTICLES RANGING FROM 3/8" TO 2".
2. FILTER SOCKS SHALL BE 3 OR 5 MIL CONTINUOUS, TUBULAR, HDPE 3/8" KNITTED MESH NETTING MATERIAL, FILLED WITH COMPOST PASSING THE ABOVE SPECIFICATIONS FOR COMPOST PRODUCTS.

INSTALLATION:

3. FILTER SOCKS WILL BE PLACED ON A LEVEL LINE ACROSS SLOPES, GENERALLY PARALLEL TO THE BASE OF THE SLOPE OR OTHER AFFECTED AREA. ON SLOPES APPROACHING 2:1, ADDITIONAL SOCKS SHALL BE PROVIDED AT THE TOP AND AS NEEDED MIDSLOPE.
4. FILTER SOCKS INTENDED TO BE LEFT AS A PERMANENT FILTER OR PART OF THE NATURAL LANDSCAPE, SHALL BE SEEDED AT THE TIME OF INSTALLATION FOR ESTABLISHMENT OF PERMANENT VEGETATION.
5. FILTER SOCKS ARE NOT TO BE USED IN CONCENTRATED FLOW SITUATIONS OR IN RUNOFF CHANNELS.

(Not to Scale)



SECTION

MAINTENANCE:

6. ROUTINELY INSPECT FILTER SOCKS AFTER EACH SIGNIFICANT RAIN, MAINTAINING FILTER SOCKS IN A FUNCTIONAL CONDITION AT ALL TIMES.
7. REMOVE SEDIMENTS COLLECTED AT THE BASE OF THE FILTER SOCKS WHEN THEY REACH 1/3 OF THE EXPOSED HEIGHT OF THE PRACTICE.
8. WHERE THE FILTER SOCK DETERIORATES OR FAILS, IT WILL BE REPAIRED OR REPLACED WITH A MORE EFFECTIVE ALTERNATIVE.
9. REMOVAL FILTER SOCKS WILL BE DISPERSED ON SITE WHEN NO LONGER REQUIRED IN SUCH AS WAY AS TO FACILITATE AND NOT OBSTRUCT SEEDINGS.

NO.	REVISIONS	DATE	NO.	REVISIONS	DATE
1	ISSUED FOR BIDDING	06/16	-	-	-

SEAL

PROJECT NUMBER: 64-12942-00 | SCALE: (22x34) N/A
DRAWN: SDT | CHECKED: CJM | DATE: 6/28/16 | SCALE: (11x17) N/A

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CITY OF YOUNGSTOWN
MAHONING COUNTY, OHIO
FORMER WEAN UNITED
SITE CAPPING PROJECT

EROSION AND SEDIMENT CONTROL PLAN
NOTES AND DETAILS

DWG. NO. ES-2.0
SHEET 5 OF 12

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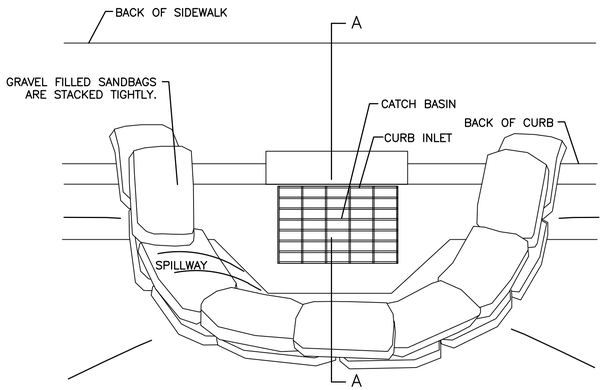
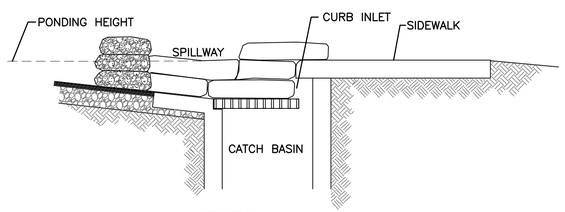
CURB INLET PROTECTION (CP)



PLAN VIEW



SECTION A – A

NOTES:

1. PLACE CURB TYPE SEDIMENT BARRIERS ON GENTLY SLOPING STREET SEGMENTS, WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
2. SANDBAGS, OF EITHER BURLAP OR WOVEN GEOTEXTILE FABRIC, ARE FILLED WITH GRAVEL, LAYERED AND PACKED TIGHTLY.
3. LEAVE ONE SANDBAG GAP IN THE TOP ROW TO PROVIDE A SPILLWAY FOR OVERFLOW.
4. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

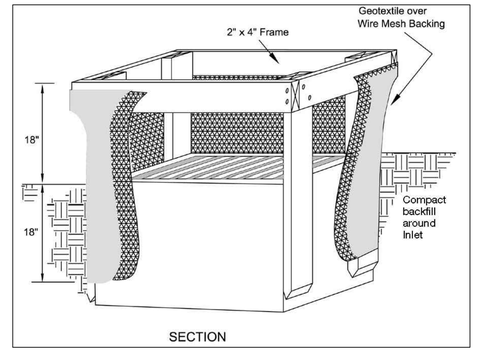
INLET PROTECTION: (IP)

DESCRIPTION

STORM DRAIN INLET PROTECTION DEVICES REMOVE SEDIMENT FROM STORM WATER BEFORE IT ENTERS STORM SEWERS AND DOWNSTREAM AREAS. INLET PROTECTION DEVICES ARE SEDIMENT BARRIERS THAT MAY BE CONSTRUCTED OF WASHED GRAVEL OR CRUSHED STONE, GEOTEXTILE FABRICS AND OTHER MATERIALS THAT ARE SUPPORTED AROUND OR ACROSS STORM DRAIN INLETS.

INLET PROTECTION IS INSTALLED TO CAPTURE SOME SEDIMENT AND REDUCE THE MAINTENANCE OF STORM SEWERS AND OTHER UNDERGROUND PIPING SYSTEMS PRIOR TO THE SITE BEING STABILIZED. DUE TO THEIR POORER EFFECTIVENESS, INLET PROTECTION IS CONSIDERED A SECONDARY SEDIMENT CONTROL TO BE USED IN CONJUNCTION WITH OTHER MORE EFFECTIVE CONTROLS.

SPECIFICATIONS FOR GEOTEXTILE INLET PROTECTION



SECTION

1. INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE INLET BECOMES FUNCTIONAL.

2. THE EARTH AROUND THE INLET SHALL BE EXCAVATED COMPLETELY TO A DEPTH AT LEAST 18 INCHES.

3. THE WOODEN FRAME SHALL BE CONSTRUCTED OF 2 INCHES BY 4 INCHES CONSTRUCTION GRADE LUMBER. THE 2 INCHES BY 4 INCHES POSTS SHALL BE DRIVEN ONE (1) FT. INTO THE GROUND AT FOUR CORNERS OF THE INLET AND THE TOP PORTION OF 2 INCHES BY 4 INCHES FRAME ASSEMBLED USING THE OVERLAP JOINT SHOWN. THE TOP OF THE FRAME SHALL BE AT LEAST 6 INCHES BELOW ADJACENT ROADS OF PONDED WATER WILL POSE A SAFETY HAZARD TO TRAFFIC.

4. WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC WITH WATER FULLY IMPOUNDED AGAINST IT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY TO THE FRAME.

5. GEOTEXTILE MATERIAL SHALL HAVE AN EQUIVALENT OPENING SIZE OF 20–40 SIEVE AND BE RESISTANT TO SUNLIGHT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY. IT SHALL EXTEND FROM THE TOP OF THE FRAME TO 18 INCHES BELOW THE INLET NOTCH ELEVATION. THE GEOTEXTILE SHALL OVERLAP ACROSS ONE SIDE OF THE INLET SO THE ENDS OF THE CLOTH ARE NOT FASTENED TO THE SAME POST.

6. BACKFILL SHALL BE PLACED AROUND THE INLET IN COMPACTED 6 INCHES LAYERS UNTIL THE EARTH IS EVEN WITH NOTCH ELEVATION ON ENDS AND TOP ELEVATION ON SIDES.

7. A COMPACTED EARTH DIKE OR CHECK DAM SHALL BE CONSTRUCTED IN THE DITCH LINE BELOW THE INLET IF THE INLET IS NOT IN A DEPRESSION. THE TOP OF THE DIKE SHALL BE AT LEAST 6 INCHES HIGHER THAN THE TOP OF THE FRAME.

NO.	REVISIONS	DATE	NO.	REVISIONS	DATE
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NOTES AND DETAILS

DWG. NO. ES-3.0
SHEET 6 OF 12

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TEMPORARY SEEDING: (TS)

DESCRIPTION:

TEMPORARY SEEDINGS ESTABLISH TEMPORARY COVER ON DISTURBED AREAS BY PLANTING APPROPRIATE RAPIDLY GROWING ANNUAL GRASSES OR SMALL GRAINS. TEMPORARY SEEDING PROVIDES EROSION CONTROL ON AREAS IN BETWEEN CONSTRUCTION OPERATIONS. GRASSES, WHICH ARE QUICK GROWING, ARE SEEDED AND USUALLY MULCHED TO PROVIDE PROMPT, TEMPORARY SOIL STABILIZATION. IT EFFECTIVELY MINIMIZES THE AREA OF A CONSTRUCTION SITE PRONE TO EROSION AND SHOULD BE USED EVERYWHERE THE SEQUENCE OF CONSTRUCTION OPERATIONS ALLOWS VEGETATION TO BE ESTABLISHED.

SPECIFICATIONS FOR TEMPORARY SEEDING:

TEMPORARY SEEDING SPECIES SELECTION

SEEDING DATES	SPECIES	LB/1000 SF	LB/ACREA
MAR 1 TO AUG 15	OATS	3	128–4 BUSHEL
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	PERENNIAL RYGRASS	1	40
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	ANNUAL RYEGRASS	1.25	55
	PERENNIAL RYEGRASS	3.25	142
	CREEPING RED FESCUE	0.40	17
	KENTUCKY BLUEGRASS	0.40	17
	OATS	3	128–3 BUSHEL
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
AUG 16 TO NOV	RYE	3	112–3 BUSHEL
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	WHEAT	3	120–2 BUSHEL
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	PERENNIAL RYE	1	40
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	ANNUAL RYEGRASS	1.25	40
	PERENNIAL RYEGRASS	3.25	40
	CREEPING RED FESCUE	0.40	40
	KENTUCKY BLUEGRASS	0.40	
NOV 1 TO FEB 29	USE MULCH ONLY OR DORMANT SEEDING		

1. STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS AND SEDIMENT TRAPS SHALL BE INSTALLED AND STABILIZED WITH TEMPORARY SEEDING PRIOR TO GRADING THE REST OF THE CONSTRUCTION SITE.

2. TEMPORARY SEED SHALL BE APPLIED BETWEEN CONSTRUCTION OPERATIONS ON SOIL THAT WILL NOT BE GRADED OR REWORKED FOR 21 DAYS OR GREATER. THESE IDLE AREAS SHALL BE SEEDED WITHIN 7 DAYS AFTER GRADING.

3. THE SEEDBED SHOULD BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION. TEMPORARY SEEDING SHOULD NOT BE POSTPONED IF IDEAL SEEDBED PREPARATION IS NOT POSSIBLE.

4. SOIL AMENDMENTS TEMPORARY VEGETATION SEEDING RATES SHALL ESTABLISH ADEQUATE STANDS OF VEGETATION, WHICH MAY REQUIRE THE USE OF SOIL AMENDMENTS. BASE RATES FOR LIME AND FERTILIZER SHALL BE USED.

5. SEEDING METHOD SEED SHALL BE APPLIED UNIFORMLY WITH A CYCLONE SPREADER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. WHEN FEASIBLE, SEED THAT HAS BEEN BROADCAST SHALL BE COVERED BY RAKING OR DRAGGING AND THEN LIGHTLY TAMPED INTO PLACE USING A ROLLER OR CULTIPACKER. IF HYDROSEEDING IS USED, THE SEED AND FERTILIZER WILL BE MIXED ON–SITE AND THE SEEDING SHALL BE DONE IMMEDIATELY AND WITHOUT INTERRUPTION.

MULCHING TEMPORARY SEEDING:

1. APPLICATIONS OF TEMPORARY SEEDING SHALL INCLUDE MULCH. WHICH SHALL BE APPLIED DURING OR IMMEDIATELY AFTER SEEDING. SEEDINGS MADE DURING OPTIMUM SEEDING DATES ON FAVORABLE, VERY FLAT SOIL CONDITIONS MAY NOT NEED MULCH TO ACHIEVE ADEQUATE STABILIZATION.

2. MATERIALS:
   - 2.1. STRAW IF STRAW IS USED, IT SHALL BE UNROTTED SMALL–GRAIN STRAW APPLIED AT A RATE OF 2 TONS PER ACRE OR 90 LBS./ 1,000 SQ. FT. (2–3 BALES)
   - 2.2. HYDROSEEDERS IF WOOD CELLULOSE FIBER IS USED, IT SHALL BE USED AT 2000 LBS./ AC. OR 46 LB./ 1,000–SQ.–FT.
   - 2.3. OTHER OTHER ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS APPLIED ACCORDING TO MANUFACTURER□FS RECOMMENDATIONS OR WOOD CHIPS APPLIED AT 6 TON/ AC.

3. STRAW MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR WATER. ANCHORING METHODS:
   - 3.1. MECHANICAL A DISK, CRIMPER, OR SIMILAR TYPE TOOL SHALL BE SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL. STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED BUT LEFT TO A LENGTH OF APPROXIMATELY 6 INCHES.
   - 3.2. MULCH NETTING NETTING SHALL BE USED ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS. NETTING MAY BE NECESSARY TO HOLD MULCH IN PLACE IN AREAS OF CONCENTRATED RUNOFF AND ON CRITICAL SLOPES.
   - 3.3. SYNTHETIC BINDERS SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI–TAC), DCA–70, PETROSET, TERRA TRACK OR EQUIVALENT MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER.
   - 3.4. WOOD–CELLULOSE FIBER WOOD–CELLULOSE FIBER BINDER SHALL BE APPLIED AT A NET DRY WT. OF 750 LB./AC. THE WOOD–CELLULOSE FIBER SHALL BE MIXED WITH WATER AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LB. / 100 GAL.

PERMANENT SEEDING: (PS)

DESCRIPTION:

PERENNIAL VEGETATION IS ESTABLISHED ON AREAS THAT WILL NOT BE RE–DISTURBED FOR PERIODS LONGER THAN 12 MONTHS. PERMANENT SEEDING INCLUDES SITE PREPARATION, SEEDBED PREPARATION, PLANTING SEED, MULCHING, IRRIGATION AND MAINTENANCE. FOR THIS PROJECT, THE ENTIRE SITE WILL BE PERMANENTLY SEEDED.

PERMANENT VEGETATION IS USED TO STABILIZE SOIL, REDUCE EROSION, PREVENT SEDIMENT POLLUTION, REDUCE RUNOFF BY PROMOTING INFILTRATION, AND PROVIDE STORMWATER QUALITY BENEFITS OFFERED BY DENSE GRASS COVER.

SPECIFICATION FOR PERMANENT SEEDING:

SITE PREPARATION:

1. SUBSOILER, PLOW, OR OTHER IMPLEMENT SHALL BE USED TO REDUCE SOIL COMPACTION AND ALLOW MAXIMUM INFILTRATION. (MAXIMIZING INFILTRATION WILL HELP CONTROL BOTH RUNOFF RATE AND WATER QUALITY.) SUBSOILING SHOULD BE DONE WHEN THE SOIL MOISTURE IS LOW ENOUGH TO ALLOW THE SOIL TO CRACK OR FRACTURE. SUBSOILING SHALL NOT BE DONE ON SLIP–PRONE AREAS WHERE SOIL PREPARATION SHOULD BE LIMITED TO WHAT IS NECESSARY FOR ESTABLISHING VEGETATION.

2. THE SITE SHALL BE GRADED AS NEEDED TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION AND SEEDING.

3. TOPSOIL SHALL BE APPLIED WHERE NEEDED TO ESTABLISH VEGETATION.

SEEDBED PREPARATION:

1. LIME AGRICULTURAL GROUND LIMESTONE SHALL BE APPLIED TO ACID SOIL AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, LIME SHALL BE APPLIED AT THE RATE OF 100 POUNDS PER 1,000–SQ. FT. OR 2 TONS PER ACRE.

2. FERTILIZER FERTILIZER SHALL BE APPLIED AS RECOMMENDED BY A SOIL TEST. IN PLACE OF A SOIL TEST, FERTILIZER SHALL BE APPLIED AT A RATE OF 25 POUNDS PER 1,000–SQ. FT. OR 1000 POUNDS PER ACRE OF A 10–10–10 OR 12–12–12 ANALYSES.

3. THE LIME AND FERTILIZER SHALL BE WORKED INTO THE SOIL WITH A DISK HARROW, SPRING–TOOTH HARROW, OR OTHER SUITABLE FIELD IMPLEMENT TO A DEPTH OF 3 INCHES. ON SLOPING LAND, THE SOIL SHALL BE WORKED ON THE CONTOUR.

SEEDING DATES AND SOIL CONDITIONS:

SEEDING SHOULD BE DONE MARCH 1 TO MAY 31 OR AUGUST 1 TO SEPTEMBER 30. IF SEEDING OCCURS OUTSIDE OF THE ABOVESPECIFIED DATES, ADDITIONAL MULCH AND IRRIGATION MAY BE REQUIRED TO ENSURE A MINIMUM OF 80% GERMINATION. TILLAGE FOR SEEDBED PREPARATION SHOULD BE DONE WHEN THE SOIL IS DRY ENOUGH TO CRUMBLE AND NOT FORM RIBBONS WHEN COMPRESSED BY HAND. FOR WINTER SEEDING, SEE THE FOLLOWING SECTION ON DORMANT SEEDING.

DORMANT SEEDINGS:

1. SEEDINGS SHOULD NOT BE MADE FROM OCTOBER 1 THROUGH NOVEMBER 20. DURING THIS PERIOD, THE SEEDS ARE LIKELY TO GERMINATE BUT PROBABLY WILL NOT BE ABLE TO SURVIVE THE WINTER.

2. THE FOLLOWING METHODS MAY BE USED FOR DORMANT SEEDING :
   - 2.1. FROM OCTOBER 1 THROUGH NOVEMBER 20, PREPARE THE SEEDBED, ADD THE REQUIRED AMOUNTS OF LIME AND FERTILIZER, THEN MULCH AND ANCHOR. AFTER NOVEMBER 20, AND BEFORE MARCH 15, BROADCAST THE SELECTED SEED MIXTURE. INCREASE THE SEEDING RATES BY 50% FOR THIS TYPE OF SEEDING.
   - 2.2. FROM NOVEMBER 20 THROUGH MARCH 15, WHEN SOIL CONDITIONS PERMIT, PREPARE THE SEEDBED, LIME AND FERTILIZE, APPLY THE SELECTED SEED MIXTURE, MULCH AND ANCHOR. INCREASE THE SEEDING RATES BY 50% FOR THIS TYPE OF SEEDING.
   - 2.3 APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDRO–SEEDER (SLURRY MAY INCLUDE SEED AND FERTILIZER) ON A FIRM, MOIST SEEDBED.
   - 2.4 WHERE FEASIBLE, EXCEPT WHEN A CULTIPACKER TYPE SEEDER IS USED, THE SEEDBED SHOULD BE FIRMED FOLLOWING SEEDING OPERATIONS WITH A CULTIPACKER, ROLLER, OR LIGHT DRAG. ON SLOPING LAND, SEEDING OPERATIONS SHOULD BE ON THE CONTOUR WHERE FEASIBLE.

MULCHING:

1. MULCH MATERIAL SHALL BE APPLIED IMMEDIATELY AFTER SEEDING. DORMANT SEEDING SHALL BE MULCHED. 100% OF THE GROUND SURFACE SHALL BE COVERED WITH AN APPROVED MATERIAL.

2. MATERIALS:
   - 2.1. STRAW IF STRAW IS USED IT SHALL BE UNROTTED SMALL–GRAIN STRAW APPLIED AT THE RATE OF 2 TONS PER ACRE OR 90 POUNDS (TWO TO THREE BALES) PER 1,000–SQ. FT. THE MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY APPLIED SO THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND–SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000–SQ.–FT. SECTIONS AND SPREAD TWO 45–LB. BALES OF STRAW IN EACH SECTION.
   - 2.2. HYDROSEEDERS IF WOOD CELLULOSE FIBER IS USED, IT SHALL BE APPLIED AT 2,000 LB./AC. OR 46 LB./1,000 SQ. FT.
   - 2.3. OTHER OTHER ACCEPTABLE MULCHES INCLUDE ROLLED EROSION CONTROL MATTINGS OR BLANKETS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD CHIPS APPLIED AT 6 TONS PER ACRE.

3. STRAW AND MULCH ANCHORING METHODS–STRAW MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR WATER:
   - 3.1. MECHANICAL A DISK, CRIMPER, OR SIMILAR TYPE TOOL SHALL BE SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL. STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED BUT, GENERALLY, BE LEFT LONGER THAN 6 INCHES.
   - 3.2. MULCH NETTING NETTING SHALL BE USED ACCORDING TO THE MANUFACTURER□FS RECOMMENDATIONS. NETTING MAY BE NECESSARY TO HOLD MULCH IN PLACE IN AREAS OF CONCENTRATED RUNOFF AND ON CRITICAL SLOPES.
   - 3.3. ASPHALT EMULSION ASPHALT SHALL BE APPLIED AS RECOMMENDED BY THE MANUFACTURE OR AT THE RATE OF 160 GALLONS PER ACRE.
   - 3.4. SYNTHETIC BINDERS SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI–TAC), DCA–70, PETROSET, TERRA TACK OR EQUIVALENT MAY BE USED AT RATES SPECIFIED BY THE MANUFACTURER.
   - 3.5. WOOD CELLULOSE FIBER WOOD CELLULOSE FIBER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER WITH THE MIXTURE CONTAINING A MAXIMUM OF 50 POUNDS CELLULOSE PER 100 GALLONS OF WATER.

IRRIGATION:

PERMANENT SEEDING SHALL INCLUDE IRRIGATION TO ESTABLISH VEGETATION DURING DRY WEATHER OR ON ADVERSE SITE CONDITIONS, WHICH REQUIRE ADEQUATE MOISTURE FOR SEED GERMINATION AND PLANT GROWTH. IRRIGATION RATES SHALL BE MONITORED TO PREVENT EROSION AND DAMAGE TO SEEDED AREAS FROM EXCESSIVE RUNOFF.

SEED MIX	MIX PERCENTAGE
GENERAL USE	
CSI CREEPING PERENNIAL RYEGRASS	20%
MANHATTAN VI PERENNIAL RYEGRASS	20%
PATRIOT IV PERENNIAL RYEGRASS	20%
REVENGE PERENNIAL RYEGRASS	20%
BROOKLAWN KENTUCKY BLUEGRASS	10%
WILD HORSE KENTUCKY BLUEGRASS	10%
MIX APPLICATION RATE: 8–10 LBS/1000 SQ. FT.	

NO.	REVISIONS	DATE	NO.	REVISIONS	DATE
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SHEET 7 OF 12

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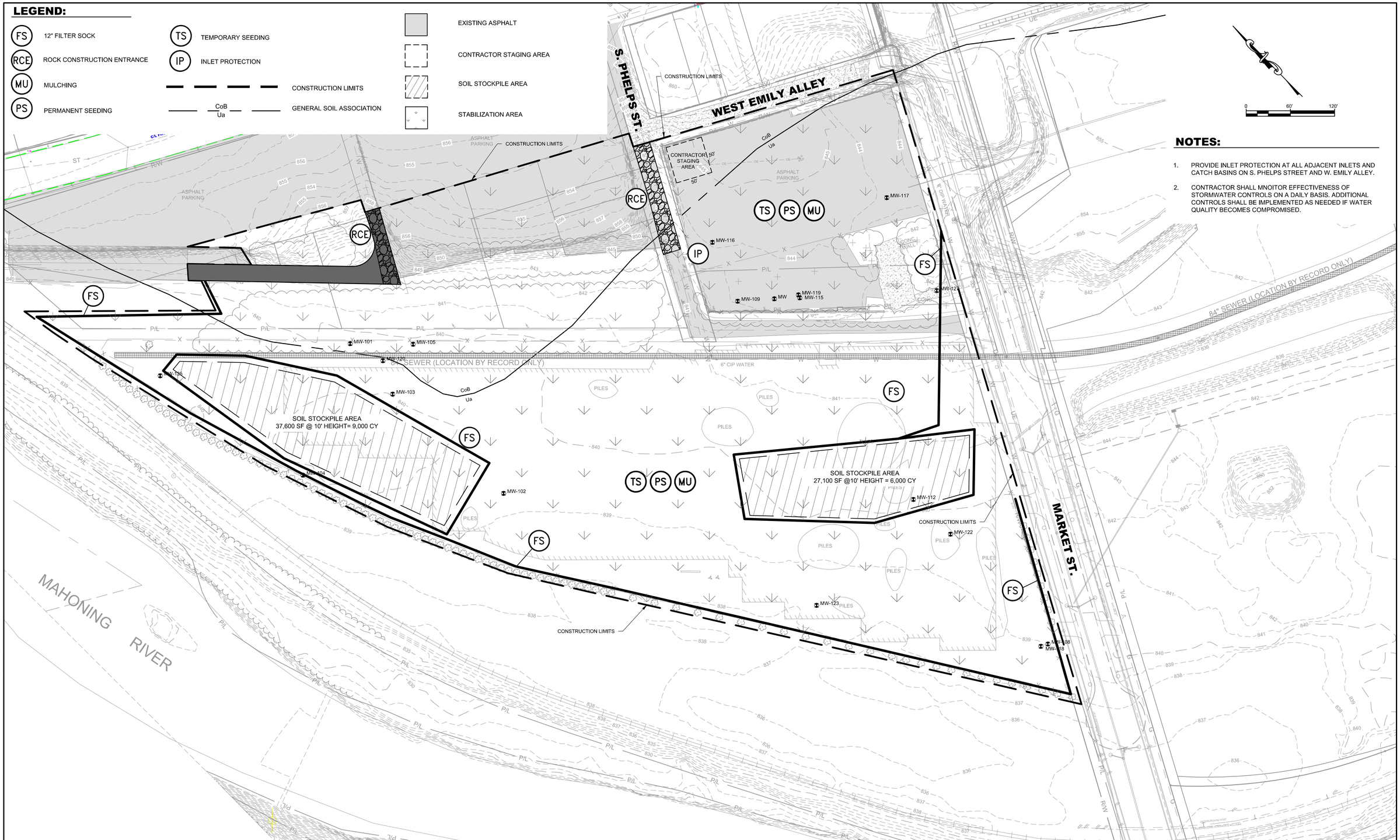
LEGEND:

- FS — 12" FILTER SOCK
- RCE — ROCK CONSTRUCTION ENTRANCE
- MU — MULCHING
- PS — PERMANENT SEEDING
- TS — TEMPORARY SEEDING
- IP — INLET PROTECTION
- CONSTRUCTION LIMITS
- CoB / Ua — GENERAL SOIL ASSOCIATION
- EXISTING ASPHALT
- CONTRACTOR STAGING AREA
- SOIL STOCKPILE AREA
- STABILIZATION AREA



NOTES:

1. PROVIDE INLET PROTECTION AT ALL ADJACENT INLETS AND CATCH BASINS ON S. PHELPS STREET AND W. EMILY ALLEY.
2. CONTRACTOR SHALL MNOITOR EFFECTIVENESS OF STORMWATER CONTROLS ON A DAILY BASIS. ADDITIONAL CONTROLS SHALL BE IMPLEMENTED AS NEEDED IF WATER QUALITY BECOMES COMPROMISED.

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SEAL

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DRAWN: SDT | CHECKED: CJM | DATE: 5/24/16

SCALE: (22x34) 1"=60'

SCALE: (11x17) 1"=120'

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SHEET 8 OF 12

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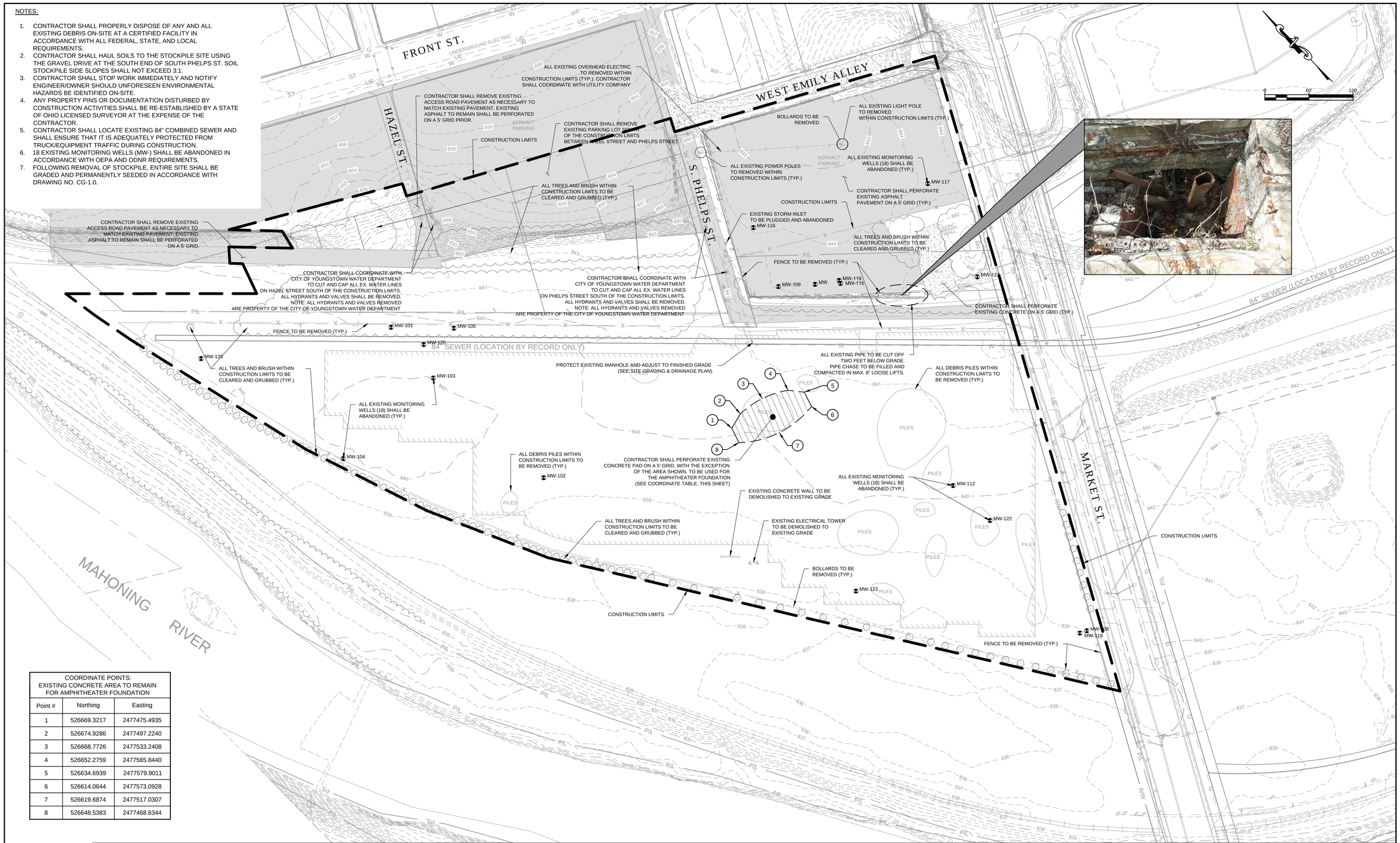
NOTES:

1. CONTRACTOR SHALL PROPERLY DISPOSE OF ANY AND ALL EXISTING DEBRIS ON-SITE AT A CERTIFIED FACILITY IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS.
2. CONTRACTOR SHALL HAUL SOILS TO THE STOCKPILE SITE USING THE GRAVEL DRIVE AT THE SOUTH END OF SOUTH PHELPS ST. SOIL STOCKPILE SIDE SLOPES SHALL NOT EXCEED 3:1.
3. CONTRACTOR SHALL STOP WORK IMMEDIATELY AND NOTIFY ENGINEER/OWNER SHOULD UNFORESEEN ENVIRONMENTAL HAZARDS BE IDENTIFIED ON-SITE.
4. ANY PROPERTY PINS OR DOCUMENTATION DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE RE-ESTABLISHED BY A STATE OF OHIO LICENSED SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.
5. CONTRACTOR SHALL LOCATE EXISTING 84" COMBINED SEWER AND SHALL ENSURE THAT IT IS ADEQUATELY PROTECTED FROM TRUCK/EQUIPMENT TRAFFIC DURING CONSTRUCTION.
6. 18 EXISTING MONITORING WELLS (MW-) SHALL BE ABANDONED IN ACCORDANCE WITH OEPA AND ODNR REQUIREMENTS.
7. FOLLOWING REMOVAL OF STOCKPILE, ENTIRE SITE SHALL BE GRADED AND PERMANENTLY SEEDED IN ACCORDANCE WITH DRAWING NO. CG-1.0.



COORDINATE POINTS: EXISTING CONCRETE AREA TO REMAIN FOR AMPHITHEATER FOUNDATION		
Point #	Northing	Easting
1	526669.3217	2477475.4935
2	526674.9286	2477497.2240
3	526668.7726	2477533.2408
4	526652.2759	2477565.8440
5	526634.6939	2477579.9011
6	526614.0644	2477573.0928
7	526619.6874	2477517.0307
8	526648.5383	2477468.6344

NO.	REVISIONS	DATE	NO.	REVISIONS	DATE
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SEAL

PROJECT NUMBER: 64-12942-00
DRAWN: SDT | CHECKED: CJM | DATE: 6/28/16
SCALE: (22x34) 1"=60'
SCALE: (11x17) 1"=120'

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CITY OF YOUNGSTOWN
MAHONING COUNTY, OHIO
FORMER WEAN UNITED
SITE CAPPING PROJECT

DEMOLITION PLAN

DWG. NO. CD-1.0
SHEET 9 OF 12

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LEGEND

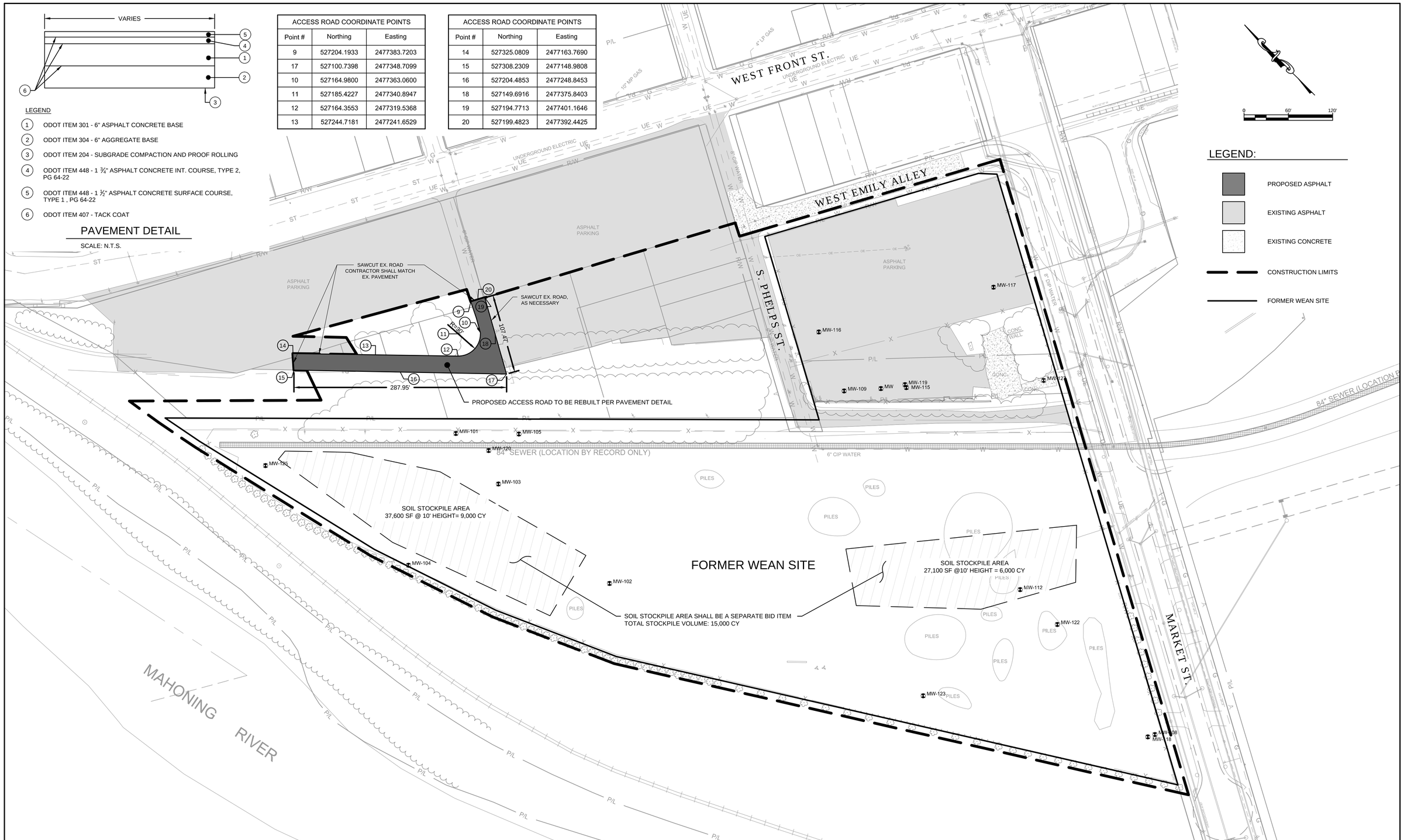
1. ODOT ITEM 301 - 6" ASPHALT CONCRETE BASE
2. ODOT ITEM 304 - 6" AGGREGATE BASE
3. ODOT ITEM 204 - SUBGRADE COMPACTION AND PROOF ROLLING
4. ODOT ITEM 448 - 1 ¾" ASPHALT CONCRETE INT. COURSE, TYPE 2, PG 64-22
5. ODOT ITEM 448 - 1 ½" ASPHALT CONCRETE SURFACE COURSE, TYPE 1 , PG 64-22
6. ODOT ITEM 407 - TACK COAT

PAVEMENT DETAIL

SCALE: N.T.S.

ACCESS ROAD COORDINATE POINTS		
Point #	Northing	Easting
9	527204.1933	2477383.7203
17	527100.7398	2477348.7099
10	527164.9800	2477363.0600
11	527185.4227	2477340.8947
12	527164.3553	2477319.5368
13	527244.7181	2477241.6529

ACCESS ROAD COORDINATE POINTS		
Point #	Northing	Easting
14	527325.0809	2477163.7690
15	527308.2309	2477148.9808
16	527204.4853	2477248.8453
18	527149.6916	2477375.8403
19	527194.7713	2477401.1646
20	527199.4823	2477392.4425



LEGEND:

- PROPOSED ASPHALT
- EXISTING ASPHALT
- EXISTING CONCRETE
- CONSTRUCTION LIMITS
- FORMER WEAN SITE

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CITY OF YOUNGSTOWN
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SITE CAPPING PROJECT

SITE PLAN

DWG. NO. CS-1.0

SHEET 10 OF 12

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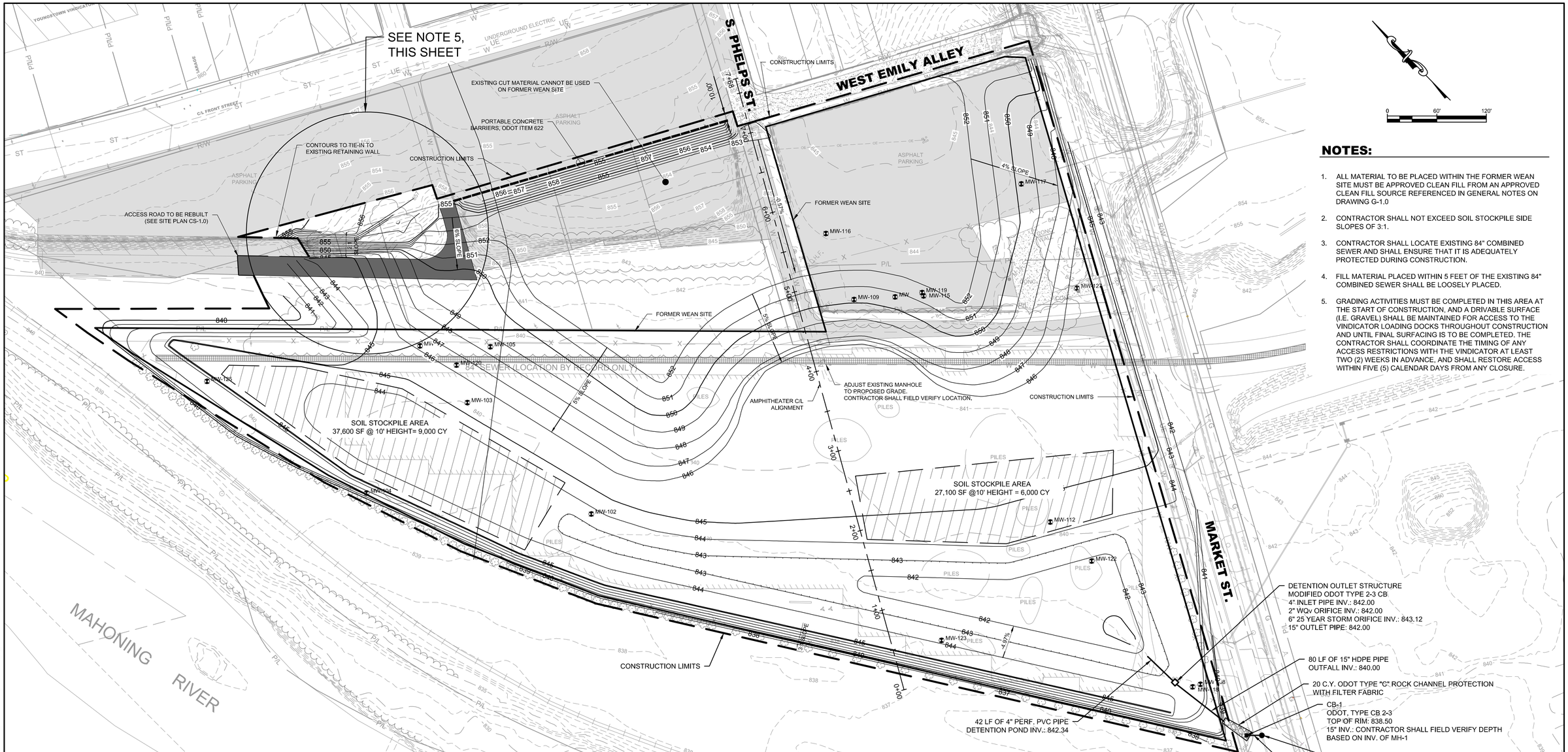
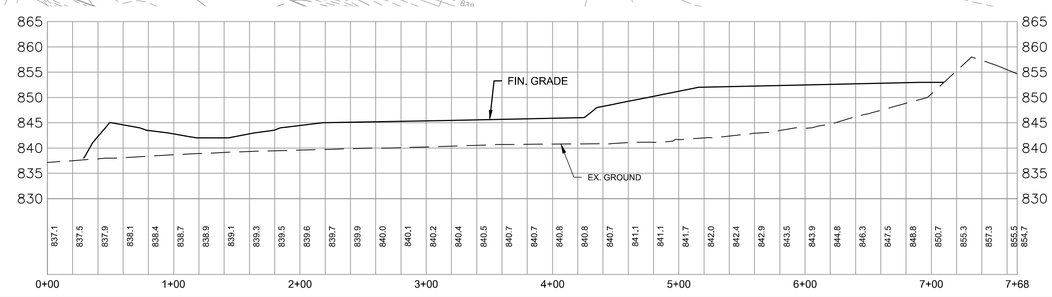


NOTES:

1. ALL MATERIAL TO BE PLACED WITHIN THE FORMER WEAN SITE MUST BE APPROVED CLEAN FILL FROM AN APPROVED CLEAN FILL SOURCE REFERENCED IN GENERAL NOTES ON DRAWING G-1.0
2. CONTRACTOR SHALL NOT EXCEED SOIL STOCKPILE SIDE SLOPES OF 3:1.
3. CONTRACTOR SHALL LOCATE EXISTING 84" COMBINED SEWER AND SHALL ENSURE THAT IT IS ADEQUATELY PROTECTED DURING CONSTRUCTION.
4. FILL MATERIAL PLACED WITHIN 5 FEET OF THE EXISTING 84" COMBINED SEWER SHALL BE LOOSELY PLACED.
5. GRADING ACTIVITIES MUST BE COMPLETED IN THIS AREA AT THE START OF CONSTRUCTION, AND A DRIVABLE SURFACE (I.E. GRAVEL) SHALL BE MAINTAINED FOR ACCESS TO THE VINDICATOR LOADING DOCKS THROUGHOUT CONSTRUCTION AND UNTIL FINAL SURFACING IS TO BE COMPLETED. THE CONTRACTOR SHALL COORDINATE THE TIMING OF ANY ACCESS RESTRICTIONS WITH THE VINDICATOR AT LEAST TWO (2) WEEKS IN ADVANCE, AND SHALL RESTORE ACCESS WITHIN FIVE (5) CALENDAR DAYS FROM ANY CLOSURE.



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CITY OF YOUNGSTOWN
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FORMER WEAN UNITED
SITE CAPPING PROJECT

SITE GRADING AND DRAINAGE

DWG. NO. CG-1.0
SHEET 11 OF 12

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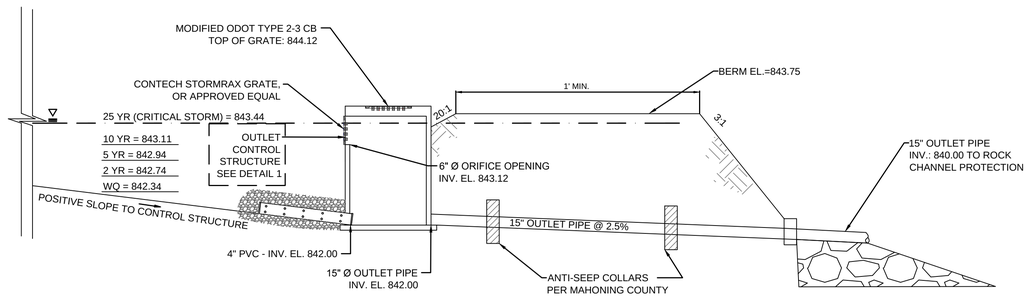
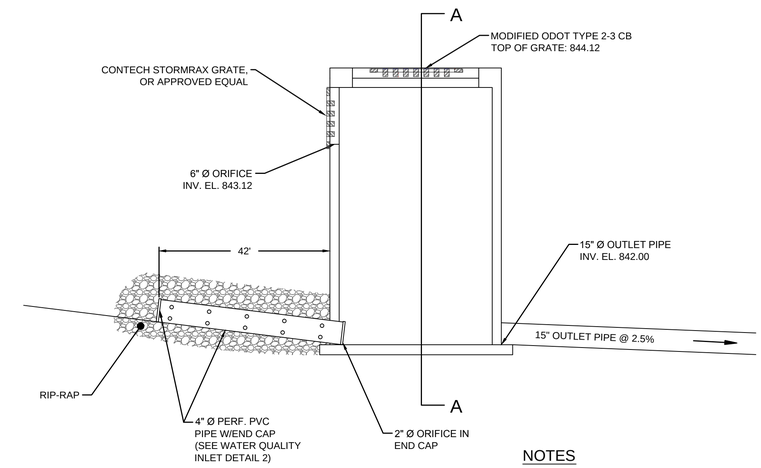


SECTION - DRY DETENTION AREA

SCALE: N.T.S.



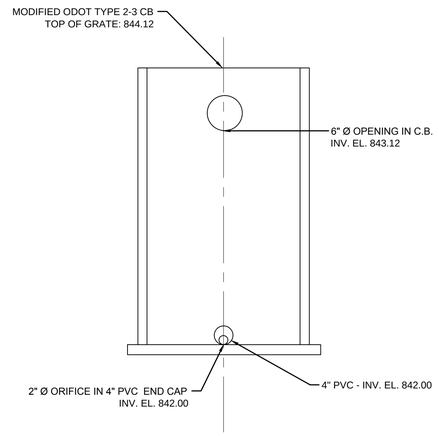
POST CONSTRUCTION OUTLET CONTROL STRUCTURE DETAIL

1 -

SCALE: N.T.S.

NOTES

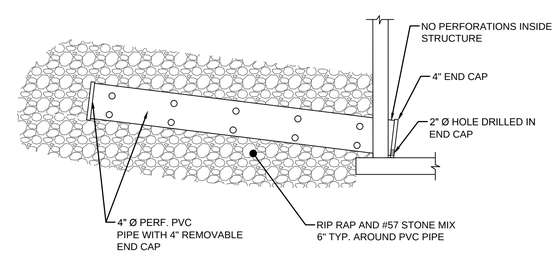
1. PVC PIPE SECTION TO BE SECURED TO CATCH BASIN.
2. 4" PVC END CAPS ARE TO BE REMOVABLE FOR CLEANING.



SECTION

A-A -

SCALE: N.T.S.



WATER QUALITY INLET DETAIL

2 -

SCALE: N.T.S.

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SEAL

PROJECT NUMBER: 64-12942-00

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SCALE: (22x34) N.T.S.

SCALE: (11x17) N.T.S.

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CITY OF YOUNGSTOWN
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SITE CAPPING PROJECT

DRAINAGE DETAILS

DWG. NO. CG-2.0

SHEET 12 OF 12

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