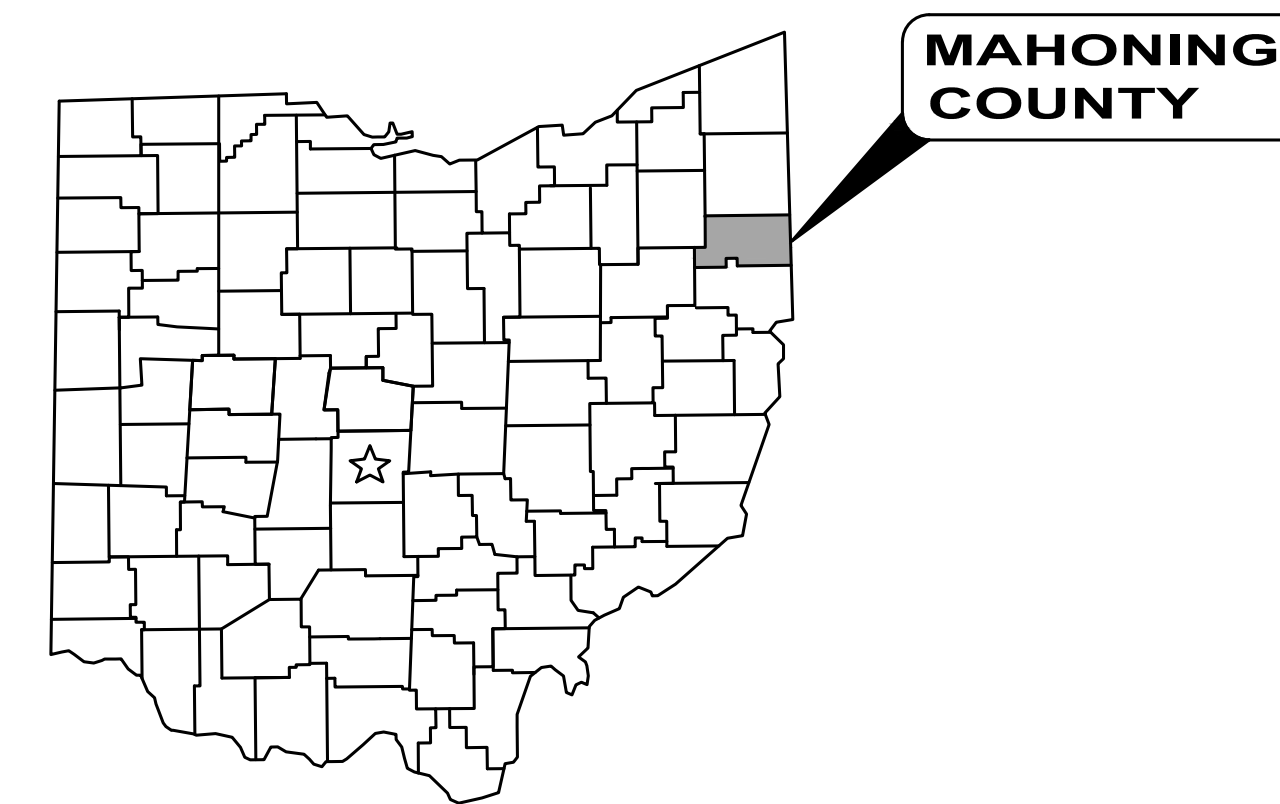


# BOARDMAN TOWNSHIP

## ERSKINE AVENUE CROSSING IMPROVEMENTS



MAHONING COUNTY, OHIO



MAY 2026

**BOARDMAN TOWNSHIP TRUSTEES:**

LARRY MOLITERNO	TRUSTEE
STEVE YACOVONE	TRUSTEE
MATT GAMBREL	TRUSTEE



**OHIO 811 DESIGN SERIAL NUMBER & UTILITY LIST:**

TICKET A602101315

ROADWAY  
KIM BLASCO  
BOARDMAN TOWNSHIP  
ROAD DEPARTMENT  
8299 MARKET STREET  
BOARDMAN, OHIO 44512  
330-726-4190

ENBRIDGE (GAS)  
ADAM KEARNS  
320 SPRINGSIDE DR. SUITE 320  
AKRON, OHIO 44333  
ADAM.KEARNS@ENBRIDGE.COM

ARMSTRONG CABLE  
(COMMUNICATIONS)  
GENE SHONCE  
9328 WOODWORTH RD  
NORTH LIMA, OH, 44452  
330-726-0115 EXT. 224  
GSHONCE@AGOC.COM

THE CITY OF YOUNGSTOWN  
WATER DEPARTMENT  
LOU ZORELLA  
26 SOUTH PHELPS ST.  
YOUNGSTOWN, OH 44503  
330-743-5338

MAHONING COUNTY  
SANITARY ENGINEERS  
ALEX ROTZ  
761 INDUSTRIAL ROAD  
YOUNGSTOWN, OHIO 44509  
330-793-5514

FIRST ENERGY (ELECTRIC)  
MICHAEL BECK  
730 SOUTH AVENUE  
YOUNGSTOWN, OHIO 44502  
330-740-7704  
BECKM@FIRSTENERGYCORP.COM

AT&T (COMMUNICATIONS)  
TORRICE ROBINSON  
50 WEST BOWERY STREET  
AKRON, OHIO 44308  
330-734-5117  
TR3463@ATT.COM



**LOCATION MAP**

NOT TO SCALE

**OWNER:**

MARK RAGOZINE TOWNSHIP ADMINISTRATOR

**OFFICE:**

BOARDMAN TOWNSHIP ADMINISTRATION BUILDING  
8299 MARKET ST.  
BOARDMAN, OH 44512

(330) 726-4177 PHONE  
(330) 729-2054 FAX

**PROJECT CONTACT:**

BOARDMAN TOWNSHIP ROAD SUPERINTENDENT  
KIM BLASCO

**ENGINEER:**

VERDANTAS  
904 SAHARA TRAIL, SUITE 2  
YOUNGSTOWN, OHIO 44514  
(330) 746-1200

**PROJECT OVERVIEW:**

THIS PROJECT INCLUDES THE REMOVAL AND REPLACEMENT OF THE EXISTING CULVERT AT A CROSSING ON ERSKINE AVE. THE SCOPE IS TO REPLACE THE CULVERT WITH A NEW CONCRETE BOX CULVERT, REPLACE THE JUNCTION CHAMBERS NORTH AND SOUTH OF THE EXISTING CULVERT, AND REPLACE EXISTING STORM CATCH BASINS.

*Mark R. Delisio* P.E.

MARK R. DELISIO, P.E.



05/28/2026

PE NO. E-81623

DATE

1. UNDERGROUND BUILDING SERVICE UTILITY LINES ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, MAINTAINING AND REPLACING AS NECESSARY TO ENSURE CONTINUAL SERVICE TO BUILDINGS.
2. THE CONTRACTOR IS RESPONSIBLE TO CALL OHIO UTILITIES PROTECTION SERVICE AT 1-800-362-2764, THREE WORKING DAYS PRIOR TO CONSTRUCTION.

**ENGINEER'S PROJECT No. 39498**



verdantas

NO	REVISION	DATE

SCALE: AS SHOWN	DATE: 03/18/26	DESIGNED BY: MMB	DRAWN BY: MMB	CHECKED BY: MRD
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ERSKINE CROSSING IMPROVEMENTS  
BOARDMAN, OHIO  
MAHONING COUNTY  
COVER SHEET

PROJECT NO:	
39498	
DRAWING NAME	
00G-01	
SHEET	OF
1	12

**DISCIPLINE INFORMATION:**

IDENTIFIER:	DISCIPLINE:
G	GENERAL
C	CIVIL
S	STRUCTURAL

**INDEX EXPLANATION:**

INDEX OF SHEETS		
Sheet Number	Sheet Title	Sheet ID
1	TITLE	G-01
2	SHEET INDEX	G-02
3	GENERAL NOTES	G-03



**GENERAL SYMBOLOGY NOTES:**

- THIS IS A STANDARD SHEET SHOWING COMMONLY USED SYMBOLOGY.
- ALL SYMBOLS ARE NOT NECESSARILY USED ON THIS PROJECT.
- SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE NEW IMPROVEMENTS SO AS TO HIGHLIGHT SPECIFIC TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE.
- SYMBOLOGY OR DIAGRAMMATICAL LEGENDS MAY BE SHOWN ON INDIVIDUAL SHEETS FOR SCHEDULES, DIAGRAMS, DETAILS, SCHEMATICS OR EQUIPMENT.

**DRAWING CODED NOTE TYPES:**

- VERDANTAS NOTES ARE DEPICTED WITH A HEXAGON, SQUARE, CIRCLE OR TRIANGLE. ALL OTHER EXISTING WRITTEN CALLOUTS SHOWN ON THE REUSED SCANNED PLANS, SECTIONS & DETAILS ARE FOR EXISTING CONDITIONS AND REFERENCE ONLY, MANY OF THOSE NOTES FROM THE SCANNED DRAWINGS PERTAIN TO PREVIOUS WORK DONE.

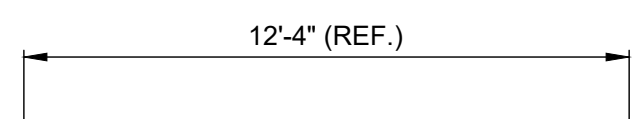
**PLAN REVISIONS:**

REVISION DESCRIPTION	DEMOLITION DESCRIPTION
A	1
B	2

**DEMOLITION CODED NOTES:**

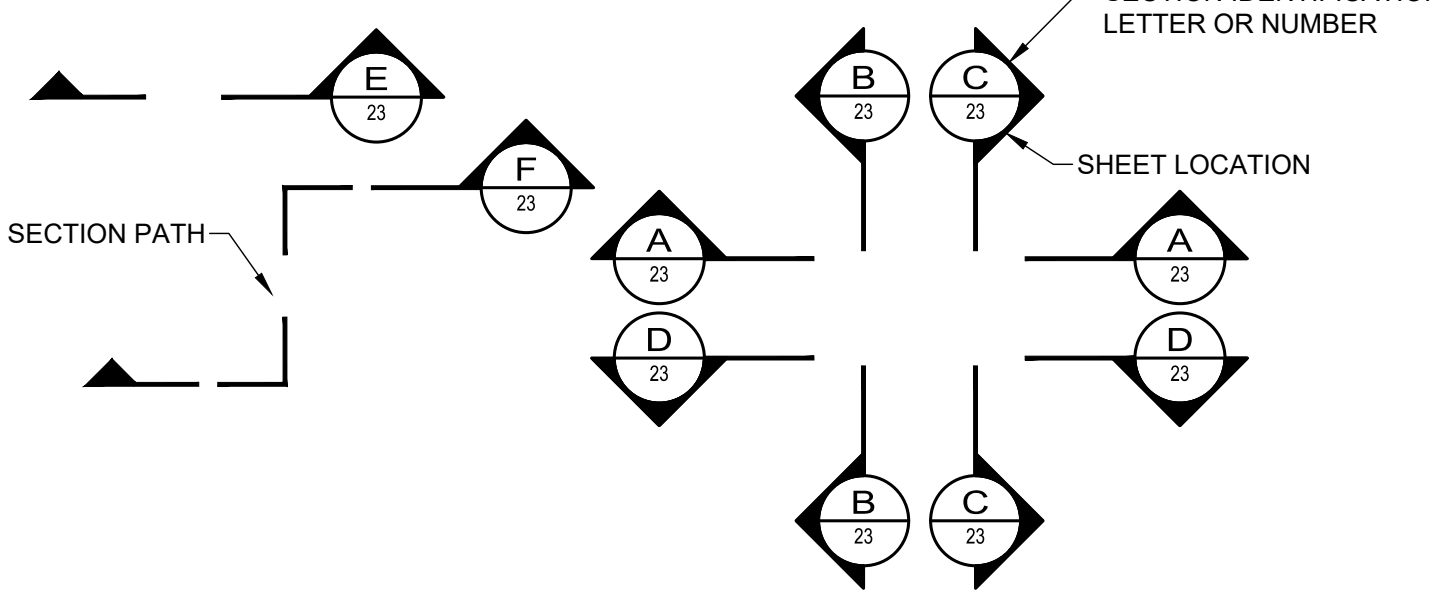
REVISION DESCRIPTION	DEMOLITION DESCRIPTION
1	DEMOLITION DESCRIPTION
2	DEMOLITION DESCRIPTION

**REFERENCE DIMENSION:**



REFERENCE DIMENSIONS ARE GIVEN FOR INFORMATION ONLY. THEY ARE CALCULATED DIMENSIONS NOT INTENDED TO BE USED WITHOUT FIELD VERIFICATION AND ARE USEFUL IN SHOWING INTENDED DESIGN.

**MAJOR SECTION CUT CONVENTIONS:**



**GENERAL ABBREVIATIONS:**

AR	AIR RELEASE VALVE	FRP	FIBERGLASS REINFORCED PLASTIC	PT	PRESSURE TEMPERATURE RELIEF
AV	AIR & VACUUM VALVE	FTG	FITTING	PV	PLUG VALVE
BA	BALL VALVE	GL	GLOBE VALVE	PVC	POLYVINYL CHLORIDE PIPE
BFV	BUTTERFLY VALVE	GS	GALVANIZED STEEL	R/W	RIGHT OF WAY
BK	BACKPRESSURE VALVE	GV	GATE VALVE	RJ	RESTRAINED JOINT
BM	BENCH MARK	HDPE	HIGH-DENSITY POLYETHYLENE PIPE	SAN	SANITARY
BP	BACKFLOW PREVENTER	KG	KNIFE GATE VALVE	SCH	SCHEDULE
CB	CATCH BASIN	KN	KNIFE VALVE	SB	SOIL BORING
CL	CENTER LINE	MH	MANHOLE	SDR	STANDARD DIAMETER RATIO
CO	CONE VALVE	MIN	MINIMUM	SS	STAINLESS STEEL
CPP	CORRUGATED PLASTIC PIPE	MJ	MECHANICAL JOINT	STA	STATION
CV	CHECK VALVE	MV	MUD VALVE	STL	STEEL PIPE
DIP	DUCTILE IRON PIPE	N	NORTHING	STM	STORM
E	EASTING	OH	OVERHEAD	SU	SURGE VALVE
EG	EXISTING GRADE	PD	PLUG DRAIN VALVE	SV	SOLENOID VALVE
EL	ELEVATION	PR	PRESSURE RELIEF	TYP	TYPICAL
EX	EXISTING	PG	PRESSURE REGULATOR	UG	UNDERGROUND
FG	FINISHED GRADE	PJ	PINCH VALVE	VB	VALVE BOX
FH	FIRE HYDRANT	PR	PROPOSED	WAT	WATER
FL	FLANGED	PRV	PRESSURE REDUCING VALVE	WV	WATER VALVE

**SITE SYMBOL LEGEND:**

EX:	PR:	
		POST, MAILBOX
		POST, SIGN
		POST, SIGN - DOUBLE
		POST, SIGN - DUAL
		BUSH
		TREE, DECIDUOUS
		TREE, EVERGREEN
		TREE, STUMP
		NAIL - MAG
		PIN - IRON
		PIPE - IRON
		SPIKE
		GAS METER
		GAS VALVE
		GAS VENT
		POLE - ELECTRIC (POWER)
		POLE - GENERAL
		POLE - GUY
		POLE - GUY ANCHOR
		POLE - LIGHT
		SANITARY MANHOLE - 48"
		CATCH BASIN - 2X2
		CURB INLET - 2X3
		STORM DRAIN
		STORM MANHOLE - 48"
		WATER HYDRANT, FDC
		WATER HYDRANT, FIRE
		WATER VALVE W/TEXT
		WATER METER
		WATER METER PIT

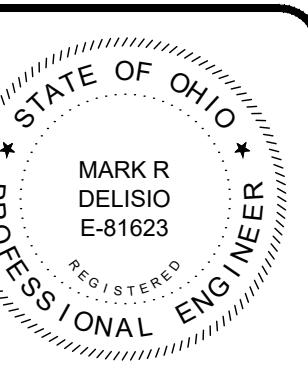
**SITE LINE LEGEND:**

EX:	
	RIGHT-OF-WAY (APPROXIMATE NOT SURVEYED)
	PROPERTY LINE (APPROXIMATE NOT SURVEYED)
	BUILDING OUTLINES
	CONTOURS - MAJOR
	CONTOURS - MINOR
	DITCH CENTERLINE
	SLOPE LINE
	SLOPE - BREAKLINE
	SLOPE - TOP
	SLOPE - TOE
	WATER EDGE
	EDGE OF ROAD
	FENCE - GENERAL
	FENCE - CHAIN LINK
	TREE LINE
	ELECTRIC LINE
	ELECTRIC LINE - OH
	ELECTRIC LINE - UG
	GAS LINE
	GAS SERVICE
	SANITARY LINE
	STORM LINE
	WATER LINE
	WATER SERVICE
	CENTERLINE
	PAVEMENT SAWCUT
	EDGE OF PAVEMENT
	CENTERLINE
	PERMANENT CONSTRUCTION EASEMENT LINE (PCE)
	TEMPORARY CONSTRUCTION EASEMENT LINE (TCE)
	WORK LIMITS
	DEMO - HASH

**PR:**

	PAVEMENT SAWCUT
	EDGE OF PAVEMENT
	CENTERLINE
	PERMANENT CONSTRUCTION EASEMENT LINE (PCE)
	TEMPORARY CONSTRUCTION EASEMENT LINE (TCE)
	WORK LIMITS
	DEMO - HASH

Sheet List Table		
Sheet Number	Sheet Title	Sheet Name
1	COVER SHEET	00G-01
2	LEGENDS SYMBOLS & SHEET INDEX	00G-02
3	GENERAL NOTES	00G-03
4	EXISTING CONDITIONS & DEMO PLAN	C-01
5	PLAN & PROFILE	C-02
6	CULVERT DETAILS	C-03
7	CONSTRUCTION DETAILS	10G-01
8	CONSTRUCTION DETAILS 2	10G-02
9	CONSTRUCTION DETAILS 3	10G-03
10	SWPPP NOTES	SWP3-1
11	SWPPP DETAILS 1	SWP3-2
12	SWPPP DETAILS 2	SWP3-3



NO	REVISION	DATE

SCALE: AS SHOWN	DATE: 03/18/26	DESIGNED BY: MMB	DRAWN BY: MMB	CHECKED BY: MRD
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ERSKINE CROSSING IMPROVEMENTS		BOARDMAN, OHIO
MAHONING COUNTY	LEGENDS SYMBOLS & SHEET INDEX	

PROJECT NO:	
39498	
DRAWING NAME	
00G-02	
SHEET	OF
2	12

**GENERAL:**

- THE STANDARD SPECIFICATIONS OF THE OHIO DEPARTMENT OF TRANSPORTATION, LATEST EDITION, INCLUDING ALL SUPPLEMENTAL SPECIFICATIONS AND STANDARD DRAWINGS SHALL GOVERN ALL WORK NOT COVERED BY THESE DRAWINGS. ANY CONFLICTS SHALL DEFER TO THE PROJECT SPECIFIC CONTRACT DOCUMENTS.
- A PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED BY THE OWNER PRIOR TO THE COMMENCEMENT OF ANY WORK. IN ADDITION, THE CONTRACTOR SHALL PROVIDE 48 HOUR NOTICE TO THE OWNER PRIOR TO THE COMMENCEMENT OF WORK.
- THE CONTRACTOR SHALL PROVIDE FOR UNINTERRUPTED OPERATION OF ALL PUBLIC UTILITY SERVICE TO PRIVATE PROPERTIES. THE CONTRACTOR SHALL NOTIFY ALL PROPERTY OWNERS OF ANY SCHEDULED SHUT-OFF AT LEAST 24 HOURS IN ADVANCE IN WRITING.
- IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN SAFE LOCAL ACCESS, VEHICULAR AND PEDESTRIAN, TO ALL PROPERTIES WITHIN THE PROJECT LIMITS. THE CONTRACTOR WILL FURNISH, MAINTAIN AND SUBSEQUENTLY REMOVE ALL NECESSARY SAFEGUARDS SUCH AS BARRICADES, BARRIERS, TEMPORARY PAVEMENT, NO PARKING SIGNS, LIGHTING, FLAGGERS, SIGNING AND OTHER TRAFFIC CONTROLS TO INSURE THE SAFETY OF PERSONS AND VEHICLES DURING CONSTRUCTION WITHIN THE PROJECT LIMITS.
- MAINTAINING TRAFFIC SHALL BE IN ACCORDANCE WITH ODOT ITEM 614 AND THE CURRENT OHIO MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE OPERATIONS.
- ALL SHOP DRAWINGS WILL BE SUBMITTED TO THE ENGINEER FOR PRELIMINARY CHECKING. THE ENGINEER SHALL FORWARD THE CHECKED SHOP DRAWINGS TO THE OWNER FOR FINAL CHECKING AND APPROVAL. SHOP DRAWINGS MUST BE APPROVED PRIOR TO ORDERING ANY MATERIALS.
- BEFORE THE OWNER WILL APPROVE AND ACCEPT THE WORK AND RELEASE THE GUARANTEE RETAINER, THE CONTRACTOR WILL FURNISH THE OWNER A WRITTEN REPORT INDICATING THE RESOLUTION OF ANY AND ALL PROPERTY DAMAGE CLAIMS FILED WITH THE CONTRACTOR BY ANY PARTY DURING THE CONSTRUCTION PERIOD. THE INFORMATION TO BE SUPPLIED SHALL INCLUDE, BUT NOT BE LIMITED TO, NAME OF CLAIMANT, DATE FILED WITH CONTRACTOR, NAME OF INSURANCE COMPANY AND/OR ADJUSTER HANDLING CLAIM, HOW CLAIM WAS RESOLVED AND IF CLAIM WAS NOT RESOLVED FOR THE FULL AMOUNT, A STATEMENT INDICATING THE REASON FOR SUCH ACTION.
- ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT WILL BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, PAVEMENT STRIPING GRINDING, AND ANY POWER-OPERATED CONSTRUCTION-TYPE DEVICE SHALL NOT BE OPERATED BETWEEN THE HOURS OF 7:00 PM AND 8:00 AM MONDAY THROUGH SATURDAY. NO WORK ON SUNDAY OR LEGAL HOLIDAYS, UNLESS OTHERWISE APPROVED BY THE OWNER. IN ADDITION, ANY SUCH DEVICE SHALL NOT BE OPERATED AT ANY TIME OR SUCH MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEED THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT. THE OWNER HAS THE AUTHORITY TO PROHIBIT THE USE OF ANY EQUIPMENT THAT VIOLATES THESE REQUIREMENTS.
- SAFE PEDESTRIAN INGRESS AND EGRESS FOR ALL PROPERTIES ADJACENT TO THE IMPROVEMENT MUST BE PROVIDED AT ALL TIMES.
- ANY REVISIONS TO THE ACCEPTED CONSTRUCTION PLANS SHALL BE REVIEWED AND APPROVED BY THE OWNER PRIOR TO IMPLEMENTATION IN THE FIELD.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH OSHA SAFETY REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF ALL VISITORS, EMPLOYEES AND WORKERS ON THE CONSTRUCTION SITE.
- ALL EXCAVATIONS ARE TO BE SECURED AND PROTECTED AT ALL TIMES.
- ANY DISTURBED AREA WHICH ARE NOT SCHEDULED FOR CONSTRUCTION ACTIVITIES WITHIN FOURTEEN (14) DAYS OF DISTURBANCE SHALL BE TEMPORARILY STABILIZED.
- ALL POLLUTANTS OTHER THAN SEDIMENT THAT OCCUR ON-SITE DURING CONSTRUCTION SHALL BE HANDLED AND LEGALLY DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORM OR SURFACE WATERS. POLLUTANTS OF CONCERN INCLUDE, BUT ARE NOT LIMITED TO, FUELS, LUBRICANTS, SOLVENTS, CONCRETE BI-PRODUCTS AND CONSTRUCTION MATERIALS.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE SECURITY OF ALL STORED MATERIALS.
- AS BUILT RECORDS - THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A SET OF PROJECT RECORD DOCUMENTS. THESE DOCUMENTS SHALL INCLUDE REVIEWED SHOP DRAWINGS, CHANGE ORDERS, EQUIPMENT OPERATING INSTRUCTIONS, FIELD TEST RECORDS, AND AS BUILT DRAWINGS. THE AS BUILT DRAWINGS SHALL BE MARKED LEGIBLY IN RED WITH THE ACTUAL LOCATION OF EQUIPMENT AND CONDUITS AS CONSTRUCTED. ALL EQUIPMENT AND UNDERGROUND CONDUITS INSTALLED SHALL HAVE LOCATIONS MARKED IN DISTANCE OFF A LANDMARK AT LEAST EVERY 25 FEET AND AS NECESSARY AT BENDS FOR LOCATING AT A LATER DATE. FINAL DOCUMENTS AND PLANS SHALL BE DELIVERED TO THE OWNER.
- MAHONING COUNTY SANITARY ENGINEERS (MCSE) REQUIRES ON SITE INSPECTION DURING THE DURATION OF THE PROJECT. CONTRACTOR TO COORDINATE SANITARY SEWER WORK WITH MCSE THROUGH CONTACTING THEIR OFFICE AT 330.798.5514.

**DRAINAGE, SOIL EROSION, SEDIMENT, AND DUST CONTROL:**

- POSITIVE DRAINAGE OF ALL CONSTRUCTION AREAS SHALL BE MAINTAINED AT ALL TIMES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY SOIL EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH ODOT ITEM 670, OHIO RAINWATER AND LAND DEVELOPMENT MANUAL AND AS REQUIRED BY THE MAHONING COUNTY SOIL AND WATER CONSERVATION DISTRICT.
- THE CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY, SUCH AS CALCIUM CHLORIDE, WATER OR A MOTORIZED DUST-FREE STREET SWEEPING DEVICE PERFORMED DAILY OR AS DIRECTED BY THE OWNER, TO MAINTAIN ALL PAVED AREAS AFFECTED BY THE CONSTRUCTION.

**MATERIAL DISPOSAL AND TEMPORARY SURFACES:**

- THE REMOVAL AND DISPOSAL OF ALL SURPLUS EXCAVATED MATERIAL AND CONSTRUCTION DEBRIS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR FOR ULTIMATE DISPOSAL. THE DISPOSAL OF ALL CONSTRUCTION DEBRIS SHALL BE AT A LOCATION APPROVED BY THE OWNER. THE DISPOSAL OF ALL "CLEAN" WASTE MATERIAL SHALL BE AT APPROVED LANDFILLS, AND/OR OTHER SITES APPROVED BY THE OWNER. THE DISPOSAL OF EXISTING PIPELINE AND TANK SEDIMENTS AND WASTEWATER SLUDGE SHALL BE AT AN APPROVED LOCATION. THE CONTRACTOR SHALL OBTAIN ALL APPROVALS, PERMITS, LICENSES, ETC. FROM LOCAL, STATE AND FEDERAL AGENCIES AND/OR PRIVATE LANDOWNERS. THE CONTRACTOR SHALL FURNISH THE OWNER A COPY OF ALL APPROVALS OR WRITTEN PERMISSION PRIOR TO DISPOSING OF ANY WASTE AT SAID SITE.
- TEMPORARY SURFACES WHERE EXCAVATION ARE LOCATED IN STREETS, DRIVES AND PARKING AREAS SHALL BE FURNISHED AND PLACED BY THE CONTRACTOR AND SHALL BE FULLY MAINTAINED TO MINIMIZE INCONVENIENCE TO THE PUBLIC AT NO ADDITIONAL COST TO THE OWNER. ALL CONCRETE SURFACES IMPROVED OR RESTORED VIA THIS PROJECT SHALL MATCH EXISTING SURFACE ELEVATIONS AND MAKE SMOOTH SURFACE TRANSITION TO EXISTING SURFACE.
- THE ABOVE DESCRIBED WORK SHALL BE CONSIDERED INCIDENTAL TO THE COMPLETION OF ALL WORK AND INCLUDED IN THE RESPECTIVE PAY ITEMS AND SHALL NOT BE A SEPARATE PAY ITEM.

**UTILITIES:**

- THE LOCATIONS OF THE UNDERGROUND UTILITIES ARE PLOTTED ACCORDING TO THE INFORMATION FURNISHED BY THE UTILITIES CONCERNED AND THE OWNER DOES NOT GUARANTEE THE ACCURACY THEREOF. CONTRACTOR TO CALL OHIO811 (1-800-362-2764) "48 HOURS BEFORE YOU DIG" AND CALL OIL & GAS PRODUCERS PROTECTIVE (1-800-925-0988). CONTRACTOR ALSO TO COORDINATE HIS WORK WITH THE UTILITIES LISTED IN THE CONTRACT DOCUMENTS.
- THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS CFR 1926 SUBPART P - EXCAVATIONS. NO EXTRA PAYMENTS WILL BE CONSIDERED FOR ANY AND ALL COSTS INCURRED WHILE MEETING THIS REQUIREMENT. THE CONTRACTOR SHALL SUPPLY AND DESIGNATE THE "COMPETENT PERSON" PER CFR 1926.650(B). THE NAME OF THIS PERSON SHALL BE SUBMITTED TO THE OWNER PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL PUBLIC AND PRIVATE UTILITIES WHICH MAY BE AFFECTED BY THE CONSTRUCTION. THE LOCATION OF UTILITIES AND STRUCTURES, BOTH SURFACE AND SUBSURFACE, ARE SHOWN ON THE DRAWINGS FROM DATA AVAILABLE AT THE TIMES OF SURVEY AND ARE NOT NECESSARILY COMPLETE OR CORRECT. THE EXACT LOCATION AND PROTECTION OF UTILITIES AND STRUCTURES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES AT LEAST THREE (3) WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS AND LEGAL HOLIDAYS, PRIOR TO CONSTRUCTION TO HAVE UTILITIES STAKED, MARKED OR OTHERWISE DESIGNATED IN THE CONSTRUCTION AREA IN SUCH A MANNER OR LOCATING SHALL BE COORDINATED TO STAY 48 HOURS AHEAD OF THE PLANNED CONSTRUCTION.
- THE CONTRACTOR SHALL EXPOSE ALL UTILITIES OR STRUCTURES PRIOR TO CONSTRUCTION TO VERIFY THE VERTICAL AND HORIZONTAL LOCATION OF THE UTILITY OR STRUCTURE AND ITS EFFECT ON THE PROPOSED CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES PRIOR TO COMMENCING WORK. UTILITY COMPANY REPRESENTATIVES SHALL BE ON SITE DURING EXCAVATION NEAR THEIR INFRASTRUCTURE.
- OSHA STANDARDS PROHIBIT CRANE OR BACKHOE OPERATIONS WITHIN TEN (10) FEET OF ENERGIZED PRIMARY CONDUCTORS. TEMPORARY RELOCATION OF ELECTRICAL UTILITIES, INCLUDING RESTRAINT POLES, RELOCATION OF POLES AND RUBBER COVERING OF ENERGIZED CONDUCTORS MAY BE REQUIRED. THE COORDINATION AND COST OF THESE SERVICES IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR MAY RESTRAIN POLES IF THE METHOD OF SUPPORT HAS BEEN SUBMITTED TO AND APPROVED BY THE UTILITY OWNER.
- IN THE EVENT OF DAMAGE TO EXISTING PUBLIC AND/OR PRIVATE UTILITIES, THE AGENCY CONCERNED SHALL BE NOTIFIED IMMEDIATELY AND ALL REPAIR WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE RESPECTIVE AGENCY AND NO ADDITIONAL EXPENSE TO THE OWNER INCLUDING ANY INSPECTION FEES OR MAINTENANCE CREWS. CABLE RELOCATION AND SUPPORT COST SHALL BE INCLUDED IN OTHER BID ITEMS.
- WHERE EXISTING POWER OR TELEPHONE POLES ARE IN CLOSE PROXIMITY TO WORK, THE CONTRACTOR SHALL COORDINATE HIS WORK EFFORTS WITH THOSE OF THE UTILITY COMPANIES SUCH THAT THEIR EXISTING FACILITIES CAN BE MAINTAINED AND PROTECTED DURING THE TIME WORK IS GOING ON ADJACENT TO THE POLE. THE COST FOR ANY REQUIRED PROTECTION OR RELOCATION OF EXISTING POWER OR TELEPHONE POLES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NOT BE THE RESPONSIBILITY OF THE OWNER.
- SHOULD IT BECOME NECESSARY TO CHANGE THE POSITION OR TEMPORARILY REMOVE ANY STORM DRAIN, SANITARY SEWER, ELECTRIC CONDUITS, WATER PIPES, GAS PIPES, PROCESS OR OTHER PIPES OR WIRES IN ORDER TO PERMIT THE CONTRACTOR TO USE A PARTICULAR METHOD OF CONSTRUCTION OR IN ORDER TO CLEAR THE STRUCTURES BEING BUILT, THE CONTRACTOR SHALL NOTIFY THE OWNER OF THE LOCATION AND CIRCUMSTANCES AND SHALL CEASE WORK, IF NECESSARY, UNTIL SATISFACTORY ARRANGEMENTS HAVE BEEN MADE BY THE OWNERS OF SAID PIPES OR WIRES TO PROPERLY CARE FOR THE SAME. NO CLAIMS FOR DAMAGES WILL BE ALLOWED ON ACCOUNT OF ANY DELAY OCCASIONED THEREBY. THE ENTIRE COST OF THE CHANGES OR TEMPORARY REMOVAL MUST BE INCLUDED IN THE PRICES STIPULATED FOR THE VARIOUS ITEMS OF WORK TO BE DONE UNDER THIS CONTRACT.

**EXCAVATION, BACKFILL AND COMPACTION:**

- ALL EXCAVATION AND EXCAVATION MATERIAL WILL BE CONSIDERED UNCLASSIFIED, NO ADDITIONAL COMPENSATION WILL BE ALLOWED THE CONTRACTOR FOR ROCK OR SHALE EXCAVATION.
- ALL AGGREGATE FILL WILL BE AS DESCRIBED IN THE SPECIFICATIONS FOR SPECIFIC SITE WORK. ALL EXCAVATION FROM THIS SITE WILL BE REMOVED FROM SITE AND WILL NOT BE CONSIDERED ACCEPTABLE AS BACKFILL, UNLESS APPROVED BY OWNER. UPON REQUEST, THE OWNER WILL PROVIDE ACCESS TO THE SITE FOR THE CONTRACTOR TO CONDUCT SUCH INVESTIGATION AND TESTS DEEMED NECESSARY TO MAKE HIS DETERMINATION. NO EXTRA PAYMENT WILL BE MADE TO DISPOSE OF UNSUITABLE MATERIAL OR FURNISH AND PLACE SUITABLE MATERIAL MEETING THE ODOT REQUIREMENTS FOR "COMPACTED BACKFILL".
- SLAG PRODUCTS OR CRUSHED CONCRETE WILL NOT BE PERMITTED FOR BEDDING, BACKFILL, OR TRAFFIC COMPACTED SURFACE.
- ALL UTILITY LINES CROSSING THE NEW EXCAVATION, (I.E. STORM SEWERS, STORM LATERALS, WATERLINES, WATERLINE CONNECTIONS, SANITARY SEWERS, SANITARY LATERALS, GAS MAINS, GAS SERVICE CONNECTIONS, UNDERGROUND OCT CONDUITS, CABLE TV LINES) SHALL BE PROTECTED AND SUPPORTED WITH HARDWOOD PLANKS OR REMOVED AND REPLACED, RECONNECTED AND SUPPORTED ACROSS THE ENTIRE WIDTH OF THE EXCAVATION. NO ADDITIONAL COMPENSATION WILL BE PAID FOR THE ABOVE WORK.
- ANY COMPACTION TESTING REQUIRED AT THE SOLE DISCRETION OF THE ENGINEER SHALL BE AT THE EXPENSE OF THE CONTRACTOR.
- THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND MANAGEMENT OF ALL GROUNDWATER AND SURFACE WATER AS NECESSARY TO CONSTRUCT THE PROPOSED IMPROVEMENTS.

**PROHIBITED CONSTRUCTION ACTIVITIES:**

- THE USE OF EXPLOSIVES WITHIN MUNICIPAL LIMITS.
- PUMPING OF SEDIMENT-LADEN WATER FROM TRENCHES OR OTHER EXCAVATIONS DIRECTLY INTO ANY SURFACE WATERS, STREAM CORRIDORS, OR STORM SEWERS; ALL SUCH WATER WILL BE PROPERLY FILTERED OR SETTLED TO REMOVE SILT PRIOR TO RELEASE.
- DISCHARGING POLLUTANTS SUCH AS CHEMICALS, FUELS, LUBRICANTS, BITUMINOUS MATERIALS, RAW SEWAGE, OR ANY OTHER HARMFUL WASTE INTO OR ALONGSIDE OF RIVERS, STREAMS, IMPOUNDMENTS OR INTO NATURAL OR MAN-MADE CHANNELS LEADING THERETO.
- NO SURFACE, GROUND OR TRENCH WATER SHALL BE ALLOWED TO FLOW INTO EXISTING SANITARY SEWERS.
- OPEN BURNING OF PROJECT DEBRIS WITHOUT A PERMIT.
- STORING CONSTRUCTION EQUIPMENT AND VEHICLES AND/OR STOCKPILING CONSTRUCTION MATERIALS ON PROPERTY, PUBLIC OR PRIVATE, NOT PREVIOUSLY SPECIFIED ON THE PLANS BY THE ENGINEER FOR SUCH PURPOSES.
- RUNNING WELL POINT OR PUMP DISCHARGE LINES THROUGH PRIVATE OR PUBLIC PROPERTY AND RIGHTS-OF-WAY WITHOUT PERMISSION OF THE PROPERTY OWNER AND THE CONSENT OF OWNER.
- CLOSING OFF CLEAR ACCESS TO ANY PUBLIC ALLEY, STREET, ROAD, AVENUE OR BOULEVARD WITHOUT THE PRIOR CONSENT OF MUNICIPAL OFFICIALS AND THE OWNER AND CLOSING CLEAR ACCESS:
  - BY FIRE PROTECTION EQUIPMENT AND EMERGENCY VEHICLES;
  - BY THE PUBLIC TO ANY COMMERCIAL OR PROFESSIONAL PLACE OF BUSINESS, QUASI-PUBLIC OR PUBLIC ESTABLISHMENT, OR PLACE OF RESIDENCE; OR
  - BY VEHICLES TO DRIVEWAYS WITHOUT THE PROVISION OF ALTERNATIVE MEANS OF BUILDING INGRESS AND EGRESS.

**STORM SEWER SYSTEM NOTES:**

- CONTRACTOR SHALL FILL ALL VOIDS AT PIPE CONNECTIONS TO EXISTING & NEW CATCH BASINS INSIDE & OUTSIDE WITH NON-SHRINK GROUT. GROUT WATER-TIGHT AND FLUSH TO ALL INTERIOR WALLS.
- CONTRACTOR SHALL RE-CONNECT ALL ENCOUNTERED DOWNSPOUT DRAINS AND OTHER STORM SEWER DRAIN LINES UNLESS DIRECTED OTHERWISE WITHIN.
- ALL EXISTING UTILITY LINE ELEVATIONS SHOWN ARE ESTIMATED AND MUST BE FIELD DETERMINED BY THE CONTRACTOR. CONFLICTS MUST BE RESOLVED BY THE CONTRACTOR AND THE UTILITY OWNER.
- WHEN CONNECTING EXISTING STORM SEWER OR STORM UNDERDRAIN LINES TO A NEW STORM SEWER OR STRUCTURE, CONTRACTOR SHALL MAKE CONNECTION BY INSTALLING A MIN 5'-0" NEW STORM SEWER DRAIN LINE (MATCH EXISTING DIA.) & A SILT TIGHT COUPLING OR CONCRETE ENCASED JOINT AS APPROVED BY THE OWNER. SEE "DRAIN PIPE CONNECTION DETAIL".
- PROPOSED STORM SEWER PIPE JOINTS AND FITTINGS SHALL BE WATERTIGHT.
- INSTALL SILT SACK IN ALL CATCH BASINS, REMOVE WHEN DISTURBED AREAS ARE STABILIZED.
- ALL GRATES SHALL BE BICYCLE SAFE, UNLESS OTHERWISE NOTED.
- NO PIPES SHALL ENTER ANY INLET BOXES OR CATCH BASINS AT THE CORNERS.
- PRIOR TO ORDERING CATCH BASIN AND MANHOLE STRUCTURES FOR REPLACEMENT/INSTALLATION, THE CONTRACTOR SHALL INSPECT EACH LOCATION TO FIELD VERIFY EXISTING STORM CATCH BASIN AND MANHOLE SIZES AND INVERTS, AS WELL AS ALL PIPE MATERIALS, SIZES, ALIGNMENT AND INVERTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECONNECTION OF ALL EXISTING, ACTIVE SEWERS AT EACH STRUCTURE LOCATION, UNLESS OTHERWISE NOTED IN THE PLANS. THE COSTS FOR INSPECTIONS SHALL BE INCLUDED IN THE UNIT PRICE STIPULATED FOR STRUCTURES TO BE REMOVED AND REPLACED OR INSTALLED. THE RESULTS OF THE CONTRACTOR SURVEY SHALL ALSO BE SHARED WITH THE ENGINEER'S REPRESENTATIVE PRIOR TO ORDERING MATERIALS.
- ALL SAW CUTS, SHALL BE FULL DEPTH ACCOMPLISHED USING A DIAMOND BLADE SAW. SAW CUTS ARE INCIDENTAL TO THE PROJECT.

**GENERAL SITE RESTORATION:**

- CONTRACTOR SHALL RESTORE ANY DISTURBED AREAS CAUSED FROM CONSTRUCTION TO PRE-CONSTRUCTION CONDITIONS OR BETTER, INCLUDING PAVEMENT, LAWN, LANDSCAPING, STRUCTURES, YARD APPURTENANCES, OR ANY OTHER AREAS DISTURBED BY CONSTRUCTION.
- ALL GRASS AREAS ARE TO BE RESTORED UNLESS OTHERWISE SHOWN ON THE CONTRACT DRAWINGS.
- ALL EXISTING STORM SEWER FACILITIES, INCLUDING TILE, DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED, REPLACED, OR RECONNECTED TO THE EXISTING OR PROPOSED SYSTEM. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK. THE CONTRACTOR SHALL INCLUDE THE COST OF SUCH WORK IN THE UNIT PRICE FOR OTHER RELATED ITEMS OF WORK.
- CONTRACTOR SHALL HIRE A LICENSED OHIO SURVEYOR TO RESTORE ANY AFFECTED PROPERTY CORNER PINS ON THIS PROJECT.

**MAINTAINING TRAFFIC:**

- COORDINATE WITH BOARDMAN TOWNSHIP (KIM BLASCO, 330-726-4190) FOR REMOVAL OF THE EXISTING MAINTENANCE OF TRAFFIC ZONE CURRENTLY IN PLACE. THE EXISTING ZONE WILL BE REMOVED BY TOWNSHIP IMMEDIATELY AFTER THE CONTRACT MAINTENANCE OF TRAFFIC PLAN HAS BEEN IMPLEMENTED.
- DEVELOP A DETOUR PLAN USING MARKET STREET, MELROSE AVENUE AND SOUTHERN BOULEVARD FOR APPROVAL BY THE ENGINEER. IMPLEMENT THE DETOUR PLAN.
- CLOSE ERSKINE AVE AT THE CULVERT LOCATION FOR THE DURATION OF CONSTRUCTION, IN ACCORDANCE WITH ODOT SCD MT-101.60.
- MAINTAIN SAFE AND SATISFACTORY ACCESS TO ALL ABUTTING PROPERTIES WITHIN THE CLOSURE AT ALL TIMES.
- FURNISH, ERECT, MAINTAIN AND SUBSEQUENTLY REMOVE ALL SIGNS, SUPPORTS, BARRICADES AND OTHER TRAFFIC CONTROL DEVICES.
- ALL WORK AND TRAFFIC CONTROL DEVICES, INCLUDING DETOUR SIGNAGE, SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND THE OHIO SUPPLEMENT.
- PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

**ASBESTOS CEMENT (AC) PIPE:**

- ALL WORK INVOLVING ASBESTOS CEMENT (AC) PIPE SHALL COMPLY WITH THE ASBESTOS NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP), 40 CFR PART 61, SUBPART M.
- PIPE REPLACEMENT ACTIVITIES INVOLVING AC PIPE SHALL BE CONSIDERED A RENOVATION AND SHALL MEET ALL APPLICABLE REGULATORY REQUIREMENTS.
- CONTRACTOR SHALL TREAT ALL AC PIPE AS POTENTIALLY REGULATED ASBESTOS-CONTAINING MATERIAL (RACM) WHERE CONSTRUCTION ACTIVITIES MAY RENDER THE MATERIAL FRIABLE.
- AC PIPE REMOVAL BY OPEN CUT SHALL UTILIZE WET CUTTING METHODS (SAW CUTTING OR APPROVED EQUIVALENT) TO MINIMIZE THE RELEASE OF AIRBORNE ASBESTOS FIBERS.
- ALL REMOVED AC PIPE SHALL BE PROMPTLY WRAPPED OR CONTAINED IN NESHAP-APPROVED MATERIALS AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE REGULATIONS.
- PIPE BURSTING, PIPE BREAKING, OR OTHER METHODS THAT FRACTURE OR RENDER AC PIPE FRIABLE SHALL NOT BE PERMITTED.
- CONTRACTOR SHALL USE METHODS AND CONTROLS NECESSARY TO PREVENT THE RELEASE OF ASBESTOS FIBERS DURING CUTTING, HANDLING, AND REMOVAL OPERATIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED NOTIFICATIONS, HANDLING PROCEDURES, AND DISPOSAL REQUIREMENTS ASSOCIATED WITH ASBESTOS REGULATORY COMPLIANCE.
- CONTRACTOR SHALL UTILIZE PERSONNEL AND FIRMS LICENSED/CERTIFIED FOR ASBESTOS ABATEMENT IN ACCORDANCE WITH APPLICABLE STATE AND FEDERAL REGULATIONS

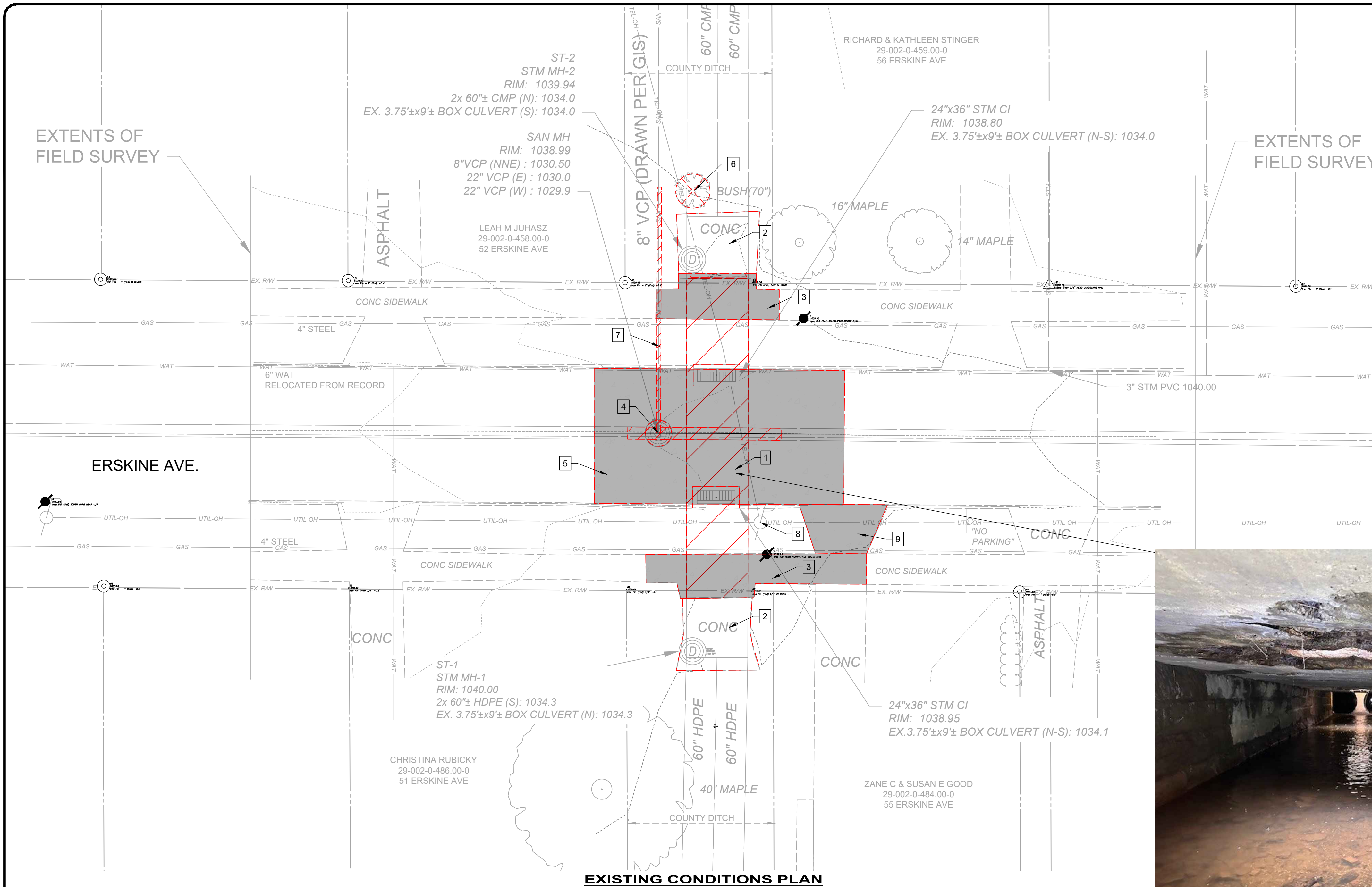


NO	REVISION	DATE					

SCALE: AS SHOWN	DATE: 03/19/26	DESIGNED BY: MMB	DRAWN BY: MMB	CHECKED BY: MRD
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**ERSKINE CROSSING IMPROVEMENTS**  
 BOARDMAN, OHIO  
 MAHONING COUNTY  
**GENERAL NOTES**

PROJECT NO:	
39498	
DRAWING NAME	
00G-03	
SHEET	OF
3	12







**EXISTING CONDITIONS PLAN**



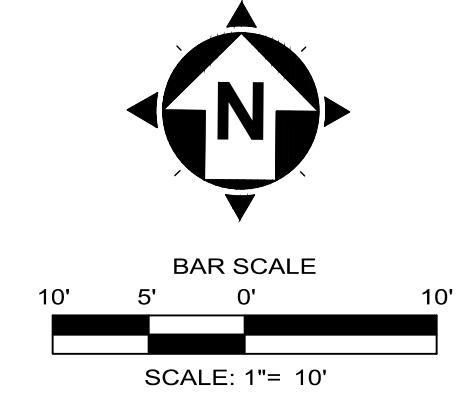
**EXISTING CULVERT**  
(VIEW LOOKING SOUTH FROM NORTH CHAMBER)

**LEGEND:**

-  EXISTING STRUCTURE TO BE REMOVED
-  EXISTING SEWER TO BE REMOVED
-  EXISTING PAVEMENT REMOVAL
-  BUSH TO BE REMOVED

**GENERAL NOTES:**

1. EXISTING CONDITIONS SHOWN HEREIN ARE PER TOPOGRAPHIC SURVEY PREPARED BY VERDANTAS LLC DATED 03/26/2026.
2. EXISTING UNDERGROUND UTILITY ROUTING IS PER TOPOGRAPHIC SURVEY AND BEST AVAILABLE RECORD PLAN INFORMATION. CONTRACTOR IS RESPONSIBLE TO CONFIRM EXISTING UTILITY LOCATIONS AND DEPTHS IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. IN THE EVENT UTILITY LOCATION OR DEPTHS DIFFER FROM IN FIELD FROM PLAN, CONTRACTOR SHALL CONTACT THE ENGINEER.



**DEMOLITION GENERAL NOTES:**

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL LABOR, EQUIPMENT & SERVICES TO PROPERLY EXECUTE THE DEMOLITION & REMOVAL WORK INDICATED ON THESE CONSTRUCTION DOCUMENTS.
2. THE CONTRACTOR SHALL VISIT THE SITE & INSPECT THE EXISTING STRUCTURES & VERIFY THAT ALL ITEMS INDICATED TO BE EXISTING & SO MARKED ON THE DRAWINGS ARE IN PLACE & CORRECT.
3. PROVISIONS SHALL BE MADE TO ALLEVIATE THE SPREAD OF DEBRIS, DIRT DUST TO THE ROADWAY & ADJACENT PROPERTIES. THE PROPERTY SHALL BE KEPT CLEAN AS POSSIBLE AT ALL TIMES.
4. ALL DEBRIS & MATERIALS FROM THE DEMOLITION WORK SHALL BE DISPOSED OF OFF THE SITE IN A LEGAL MANNER. NO RECLAIMED MATERIALS SHALL BE RE-USED EXCEPT AS SPECIFICALLY APPROVED BY ENGINEER OR OWNER.
5. WHERE DEMOLITION & CUTTING WORK HAS OCCURRED OR WHERE EXISTING SURFACES, MATERIALS OR OTHER ITEMS HAVE BEEN DAMAGED OR DISTURBED AS A RESULT OF THIS CONTRACT, THE SAID SURFACES & AREAS SHALL BE CAREFULLY RESTORED AS REQUIRED TO BE CONTIGUOUS TO EXISTING SURROUNDING SURFACES.
6. COORDINATE ALL DEMOLITION WITH PROPOSED WORK SO AS NOT TO CREATE CONFLICTS OF NEW INSTALLATION.
7. THE EXISTING SANITARY SEWER PIPE MATERIAL IS ASSUMED TO BE VITRIFIED CLAY PIPE (VCP). IF AC PIPE IS ENCOUNTERED, CONTRACTOR TO TAKE PRECAUTION AND FOLLOW ASBESTOS CEMENT (AC) PIPE GENERAL NOTES. PAYMENT FOR REMOVAL SHALL BE COVERED BY APPROVED CHANGE ORDER. IF EXISTING SANITARY SEWER IS VCP OR AC, CONTRACTOR TO USE FLEX-SEAL ARC SERIES COUPLING OR AN EQUIVALENT TO BE APPROVED BY THE ENGINEER TO CONNECT EXISTING VCP AND/OR AC PIPE TO PROPOSED PVC.

**DEMOLITION CODED NOTES:**

- 1 REMOVE & DISPOSE OF EXISTING SANDSTONE CULVERT, FOUNDATIONS, AND CATCH BASINS. CONTRACTOR TO CAREFULLY REMOVE AND RELOCATE EXISTING SANDSTONE TO FORESTLAWN STORMWATER PARK STOCK PILE.
- 2 REMOVE & DISPOSE OF EXISTING STORM STRUCTURE, INCLUDING STORM MANHOLE.
- 3 REMOVE EXISTING CONCRETE WALK.
- 4 REMOVE EXISTING 22-INCH SANITARY SEWER AND MANHOLE. SANITARY SEWER IS TO BE REMOVED 25 LF EAST OF SANITARY MANHOLE AND 5 LF WEST OF SANITARY MANHOLE. PIPE MATERIAL IS UNKNOWN. IF AC PIPE IS ENCOUNTERED CONTRACTOR TO COMPLY WITH SPECIFICATIONS FOR PROPER REMOVAL AND DISPOSAL.
- 5 EXISTING CONCRETE PAVEMENT AND ADJACENT CURB IN ERSKINE AVENUE TO BE REMOVED TO THE EXTENTS SHOWN. CONTRACTOR SHALL SAW CUT AND NEATLY REMOVE PAVEMENT AT EXISTING JOINT.
- 6 REMOVE EXISTING LANDSCAPING.
- 7 REMOVE 40 LF OF EXISTING 8-INCH SANITARY SEWER.
- 8 EXISTING UTILITY POLE TO BE RELOCATED BY UTILITY OWNER PRIOR TO CONSTRUCTION. WORK ORDER HAS BEEN INITIATED. CONTRACTOR TO COORDINATE SCHEDULE WITH UTILITY OWNER.
- 9 REMOVE EXISTING CONCRETE APRON.

NO	REVISION	DATE

SCALE: AS SHOWN	DATE: 03/19/26	DESIGNED BY: MMB	DRAWN BY: MMB	CHECKED BY: MRD
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**ERSKINE CROSSING IMPROVEMENTS**  
 BOARDMAN, OHIO  
 MAHONING COUNTY  
**EXISTING CONDITIONS & DEMO PLAN**

PROJECT NO:	
39498	
DRAWING NAME	
C-01	
SHEET	OF
4	12



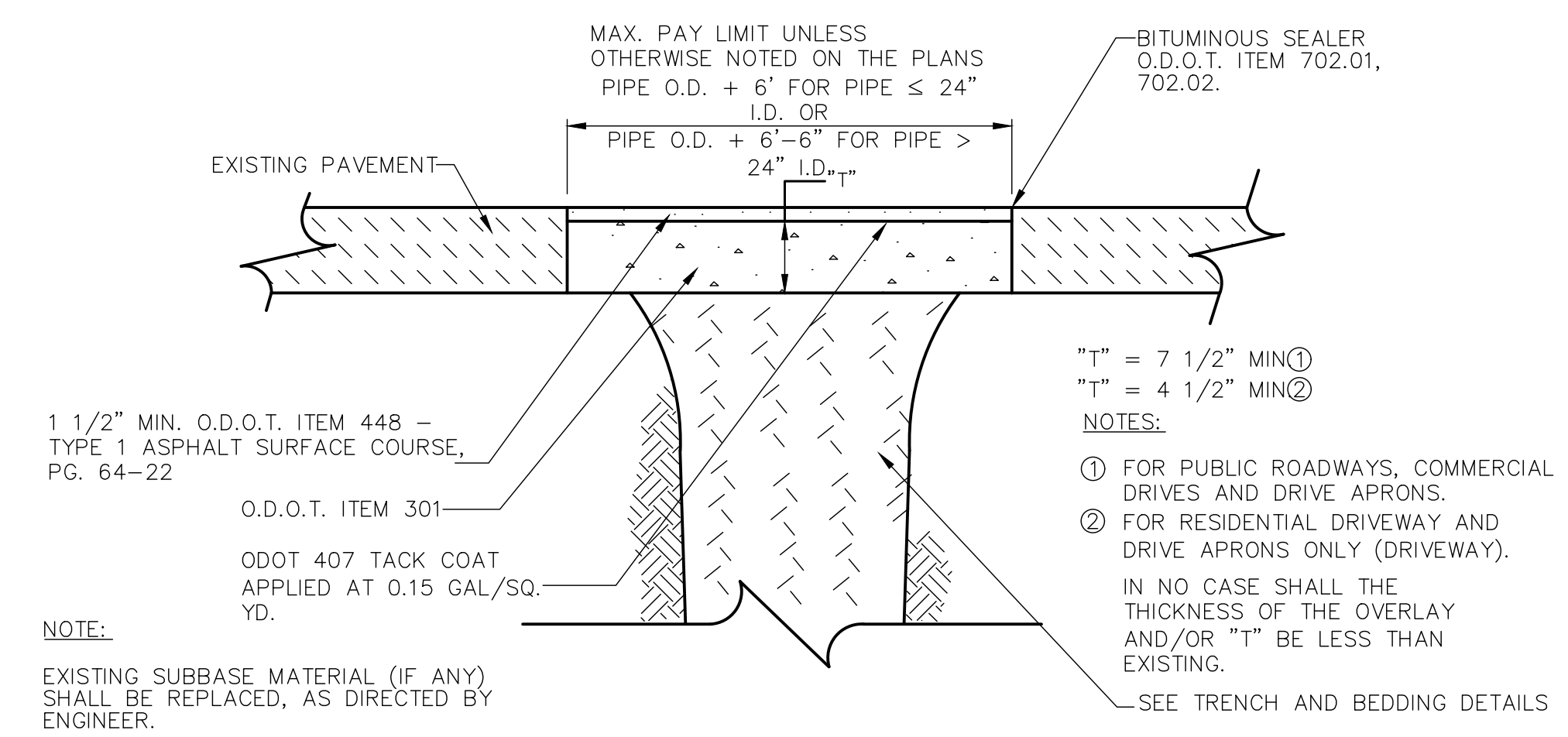




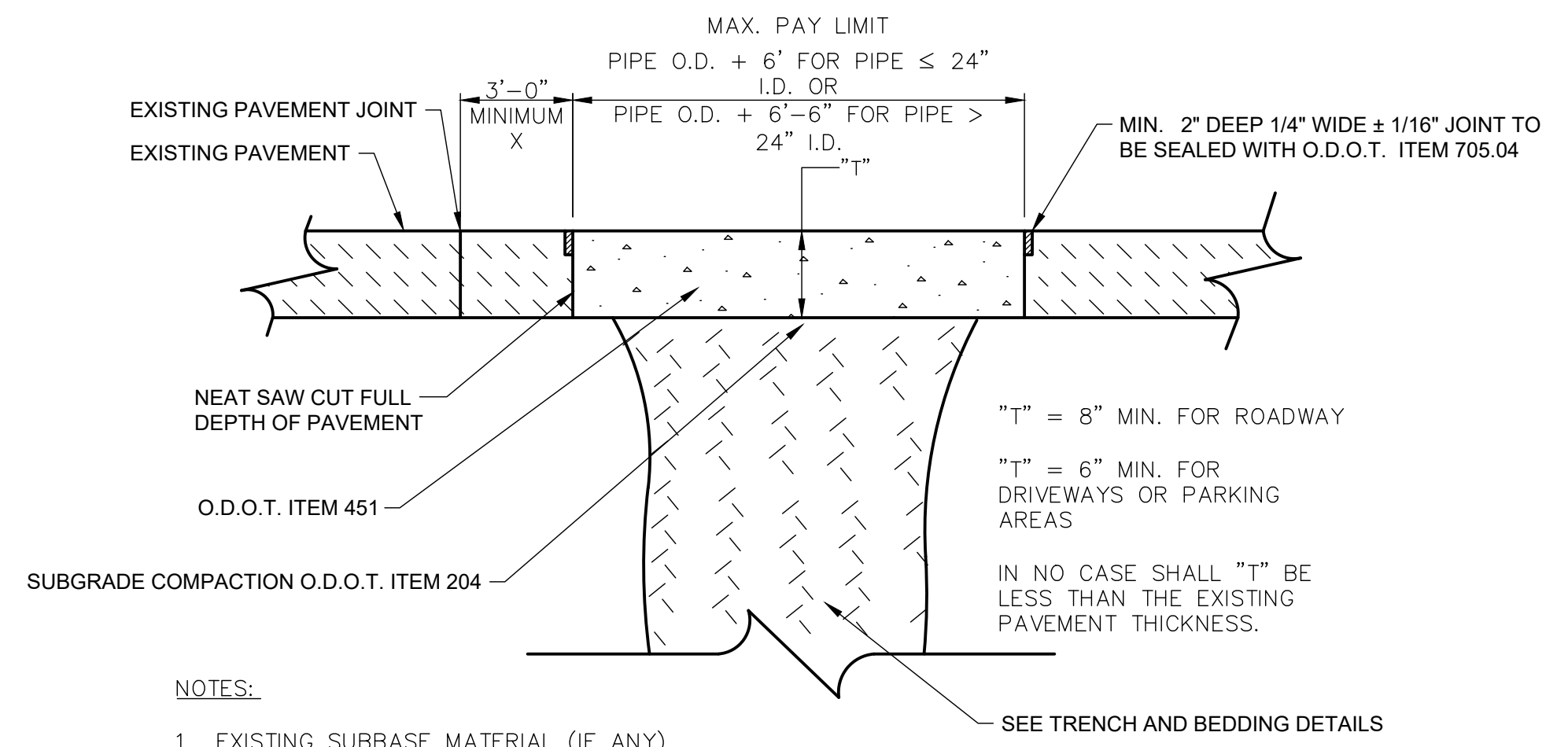
NO	REVISION	DATE

SCALE: AS SHOWN  
 DATE: 03/19/26  
 DESIGNED BY: MMB  
 DRAWN BY: MMB  
 CHECKED BY: MRD

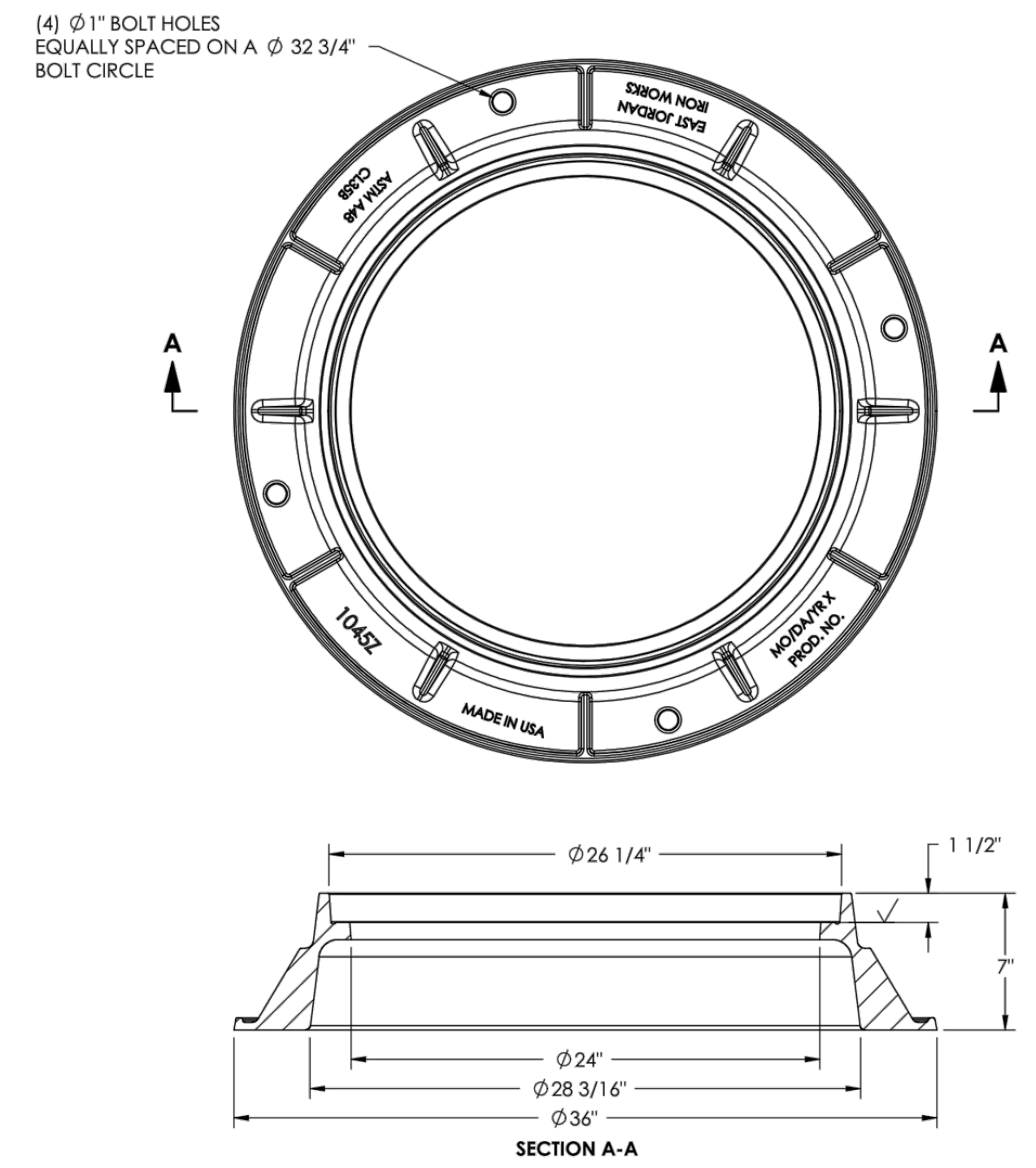
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**10G-01**  
 SHEET **7** OF **12**



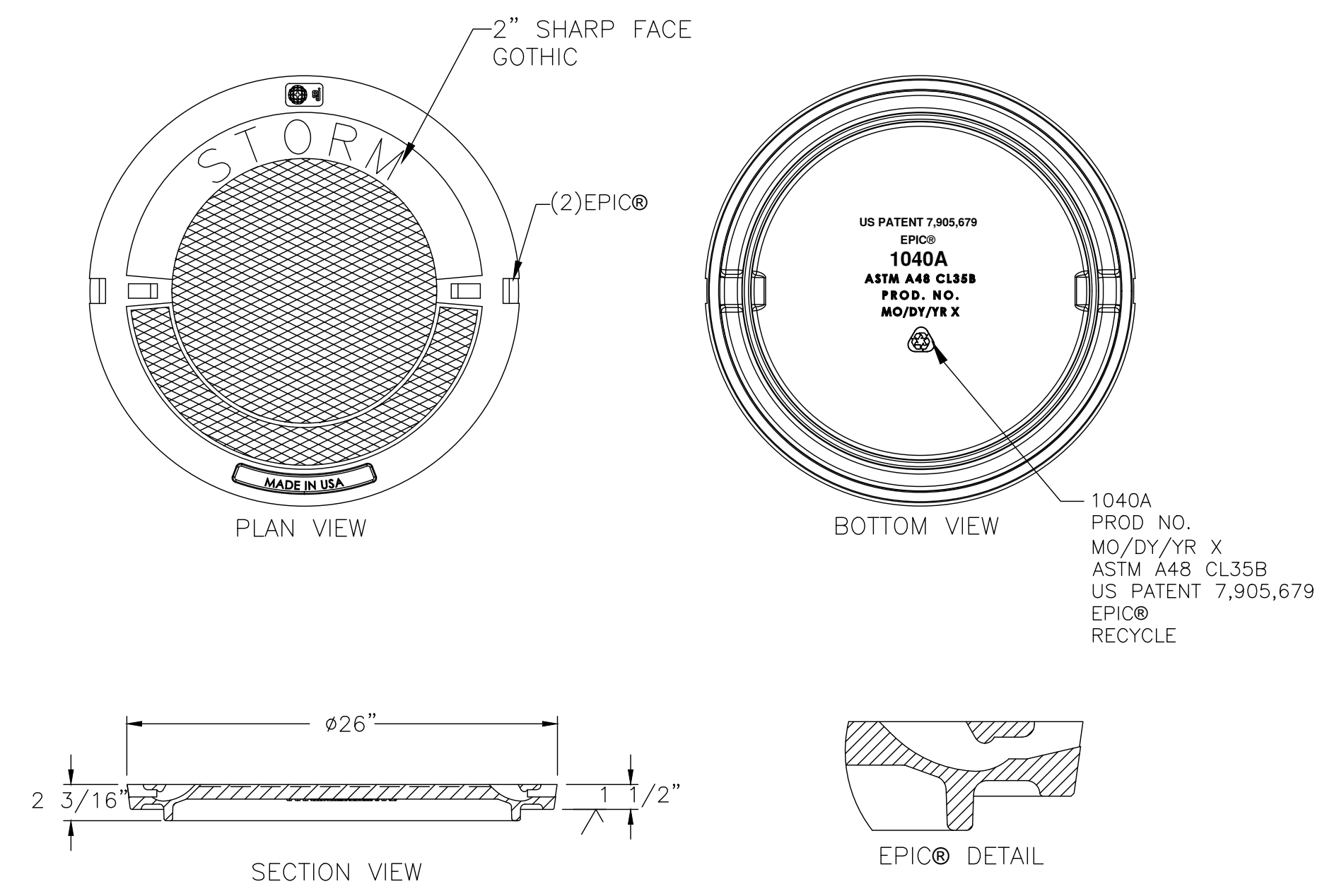
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 (ASPHALT)



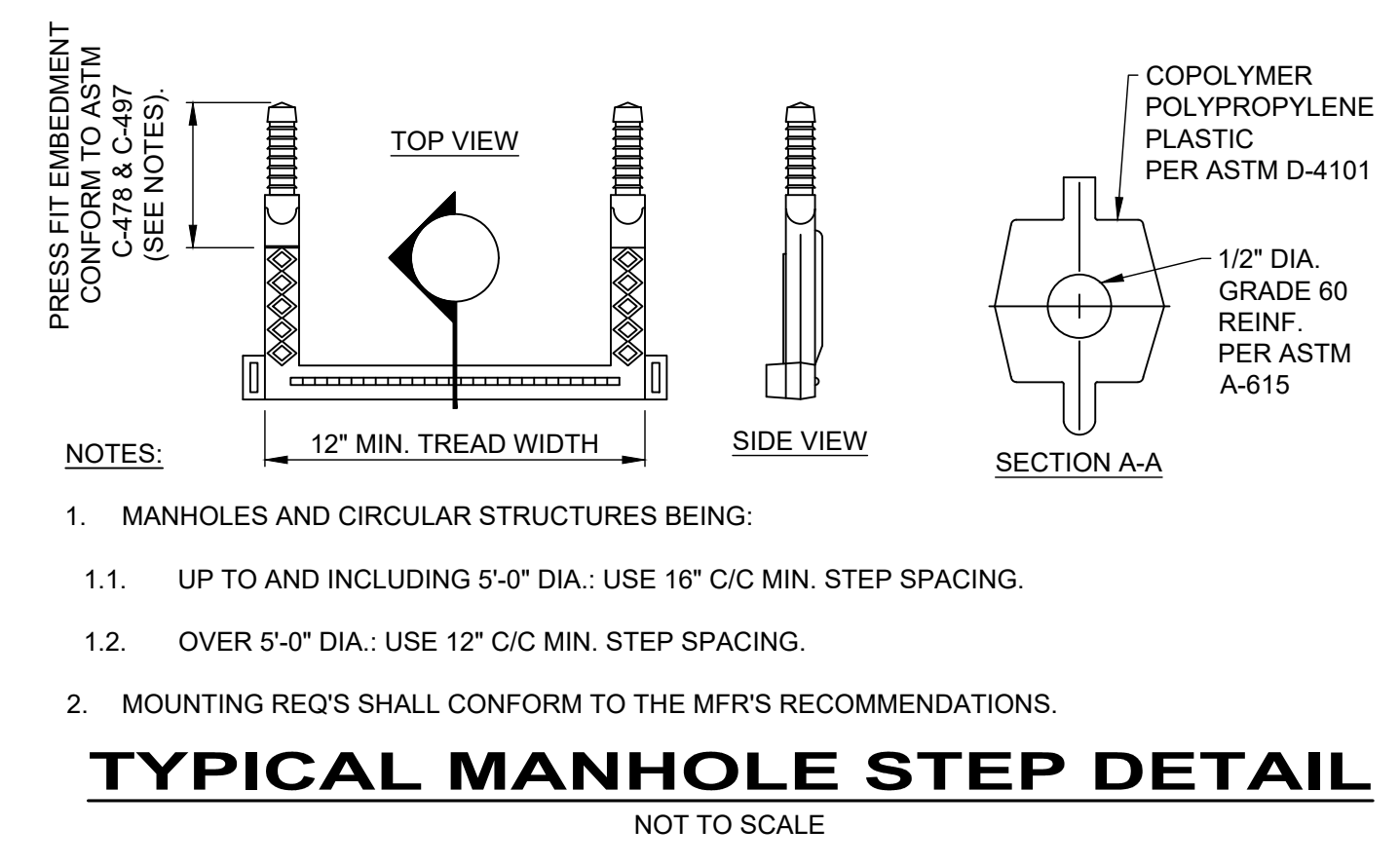
**TYPE A PAVEMENT REPLACEMENT**  
 (CONCRETE)

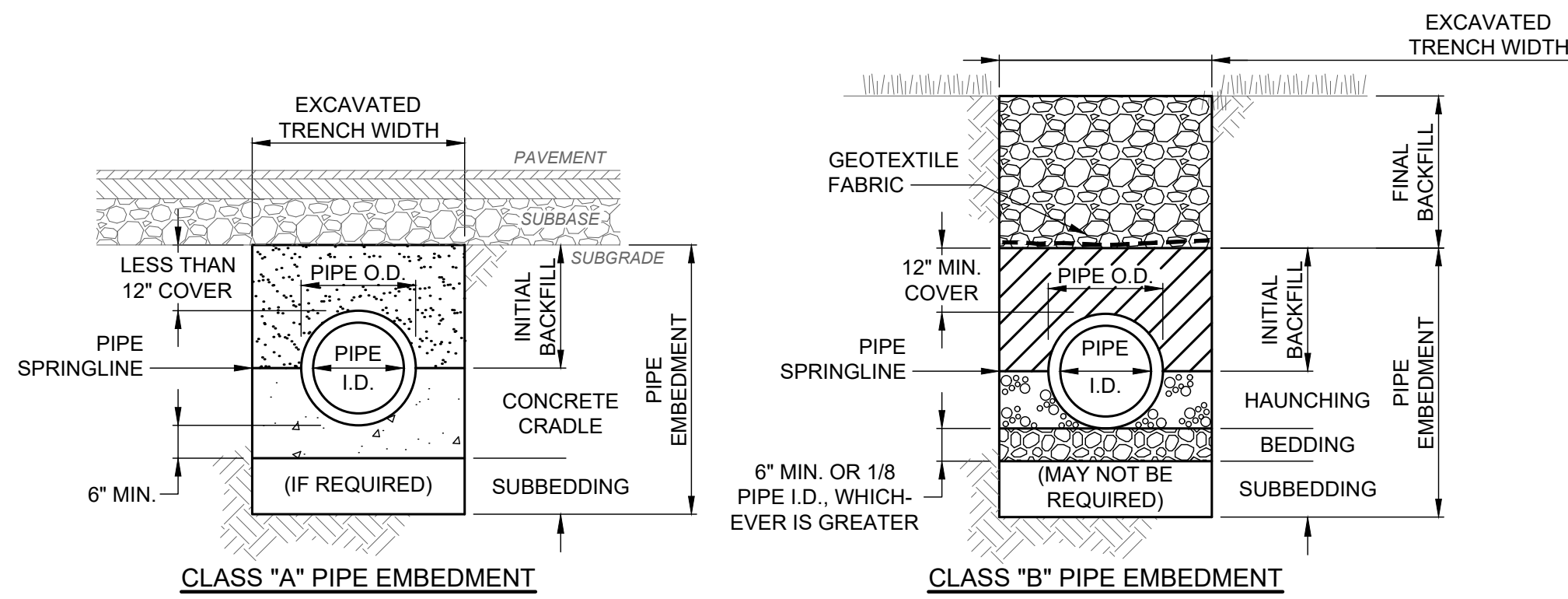


**STORM MANHOLE FRAME**  
 NOT TO SCALE



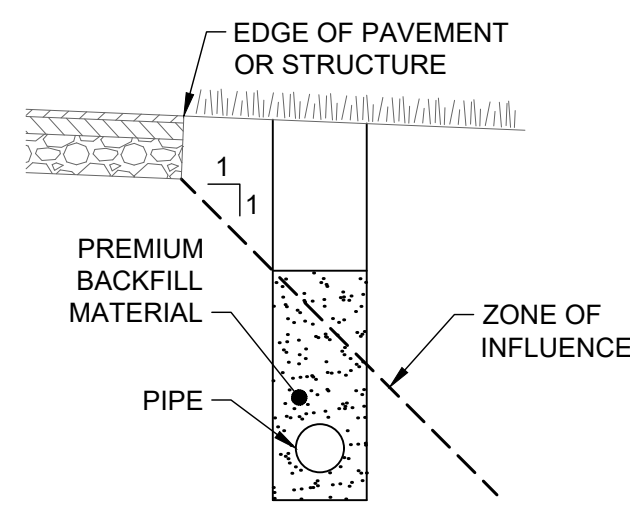
**STORM MANHOLE COVER**  
 NOT TO SCALE



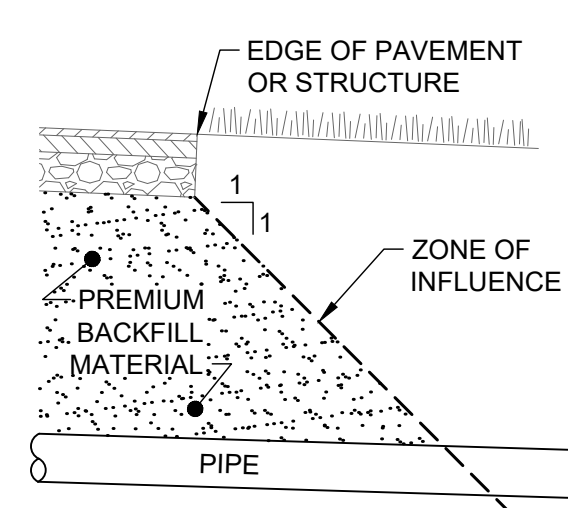


**CLASS "A" PIPE EMBEDMENT**

**CLASS "B" PIPE EMBEDMENT**



**PARALLEL ZONE OF INFLUENCE**

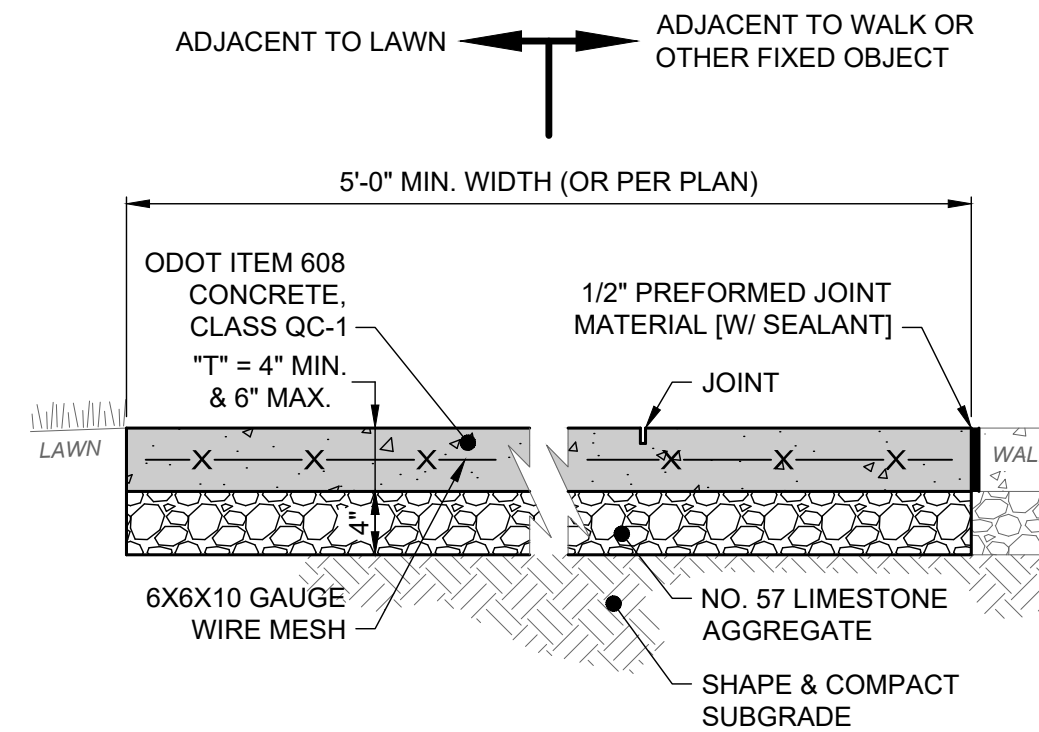


**TRANSVERSE ZONE OF INFLUENCE**

- EXCAVATED TRENCH WIDTH: MEASURED FROM BOTTOM OF TRENCH TO 12" OVER TOP OF PIPE (WITHIN THE PIPE EMBEDMENT), THE MIN. TRENCH WIDTH SHALL BE 9" AND THE MAX. SHALL BE:
  - O.D.+24" FOR 24" AND SMALLER I.D. PIPE
  - O.D.+30" FOR 27" THRU 72" I.D. PIPE
- FINAL BACKFILL: ALL AREAS UNDER AND WITHIN 5-FT OF PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE SHALL BE PREMIUM BACKFILL (ODOT ITEM 304 LESTONE). PAVEMENT INCLUDES ROADWAY, SHOULDER AND DRIVEWAY, BUT NOT SIDEWALK. NO SLAG OR SLACKER AGGREGATES ALLOWED. IN ALL OTHER AREAS, THE FINAL BACKFILL SHALL BE SUITABLE ON-SITE MATERIAL.
- PIPE EMBEDMENT:
  - CLASS "A": SHALL BE USED FOR ALL PIPES UNDER PAVEMENT OR STRUCTURES WITH LESS THAN 12" OF PIPE COVER TO THE SUBGRADE. THE CONCRETE CRADLE SHALL BE IN ACCORDANCE WITH ODOT ITEM 499, CLASS QC-1. THE INITIAL BACKFILL SHALL BE NO. 57 COURSE INTERLOCKING LESTONE AGGREGATE.
  - CLASS "B": SHALL BE USED FOR ALL PIPES UNLESS OTHERWISE NOTED ON THE PLANS. BEDDING AND HAUNCHING SHALL BE NO. 8 OR 57 COURSE INTERLOCKING LESTONE AGGREGATE. IN AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE, THE INITIAL BACKFILL SHALL BE NO. 8 OR 57 COURSE INTERLOCKING LESTONE AGGREGATE. IN ALL OTHER AREAS, THE INITIAL BACKFILL MAY BE SUITABLE ON-SITE MATERIAL FOR RIGID PIPE, AND SHALL BE NO. 8 OR 57 COURSE INTERLOCKING LESTONE AGGREGATE FOR FLEXIBLE PIPE.
- NOTES FOR BETWEEN RESIDENCES:
  - WHERE BACKFILL OPERATIONS ARE LOCATED IN CLOSE PROXIMITY TO EXISTING STRUCTURES, COMPACTION SHOULD BE PERFORMED USING A WALK BEHIND TRENCH ROLLER (WACKER NEUSON RT, OR APPROVED EQUIVALENT) TO AVOID DISTURBANCE TO THE EXISTING STRUCTURE WALLS AND FOUNDATIONS. LARGE COMPACTION EQUIPMENT SHALL NOT BE ALLOWED IN THE SECTION OF THE TRENCH LOCATED WITHIN 25 FEET OF EXISTING STRUCTURES.
  - WHERE PIPE AND TRENCHING IS TO BE PLACED BETWEEN THE EXISTING RESIDENCES, THE INITIAL BACKFILL SHALL BE FINE AGGREGATE OF NATURAL SAND MEETING GRADATION REQUIREMENTS OF ODOT ITEM 703.02.A.2 OR SHOWN IN THE CONTRACT DOCUMENTS. THE MATERIAL SHALL NOT BE LUMPY OR FROZEN, AND SHALL BE FREE FROM SLAG, CINDERS, ASHES AND OTHER DELETERIOUS MATERIALS. SAND SHALL NOT CONTAIN A TOTAL OF MORE THAN 10% BY WEIGHT OF LOAM AND CLAY. VIBRATORY OR OTHER MECHANICALLY OPERATED COMPACTION EQUIPMENT SHALL NOT BE USED IN THESE AREAS DUE TO THE PROXIMITY OF THE TRENCH EXTENTS TO THE EXISTING STRUCTURES.
  - DESIGN OF THE TEMPORARY SUPPORT OF EXCAVATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, SINCE THEIR INSTALLATION AND PERFORMANCE IS INTEGRALLY TIED TO THE CONTRACTOR'S MEANS AND METHODS OF CONSTRUCTION. ALL APPLICABLE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS MUST BE FOLLOWED. IT IS THE RESPONSIBILITY OF THE INSTALLATION CONTRACTOR TO DEVELOP APPROPRIATE INSTALLATION METHODS AND EQUIPMENT SPECIFICATIONS PRIOR TO COMMENCEMENT OF WORK, AND TO OBTAIN THE SERVICES OF A QUALIFIED PROFESSIONAL ENGINEER TO DESIGN OR APPROVE SLOPED OR BENCHED EXCAVATIONS AND/OR LATERAL BRACING SYSTEMS AS REQUIRED BY OSHA CRITERIA.
  - SUBBEDDING: WHERE AN UNSTABLE TRENCH BOTTOM CONDITION IS ENCOUNTERED, EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH MATERIAL AS DIRECTED BY THE ENGINEER. THIS SHALL NOT BE CONSIDERED FOR ADDITIONAL PAYMENT.
  - GEOTEXTILE FABRIC SHALL BE PER ODOT 712.09, TYPE A, AND INSTALLED AFTER ALL INITIAL BACKFILL.

**TRENCHING, EMBEDMENT AND BACKFILL DETAIL**

NOT TO SCALE

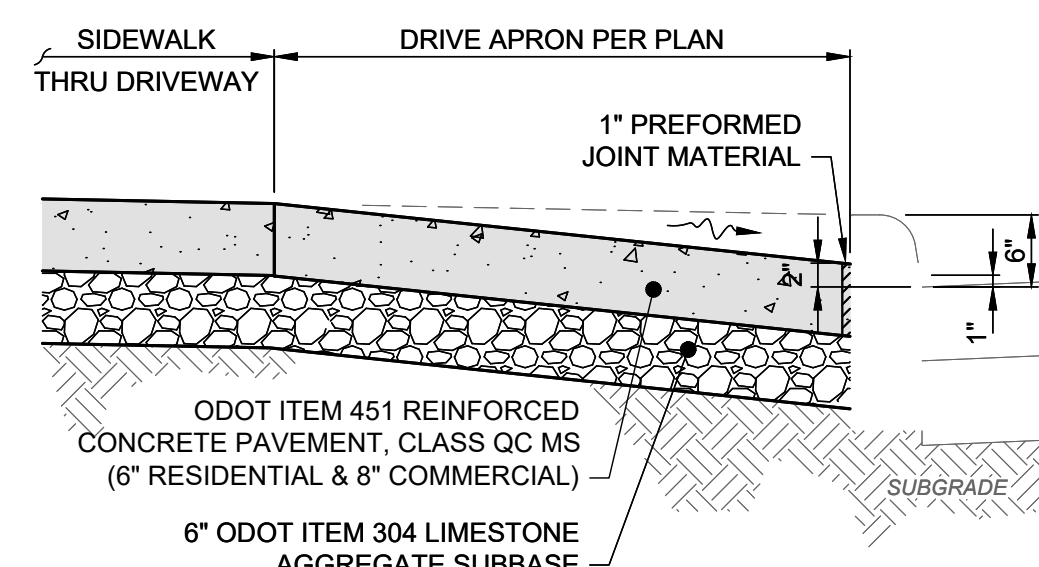


**NOTES:**

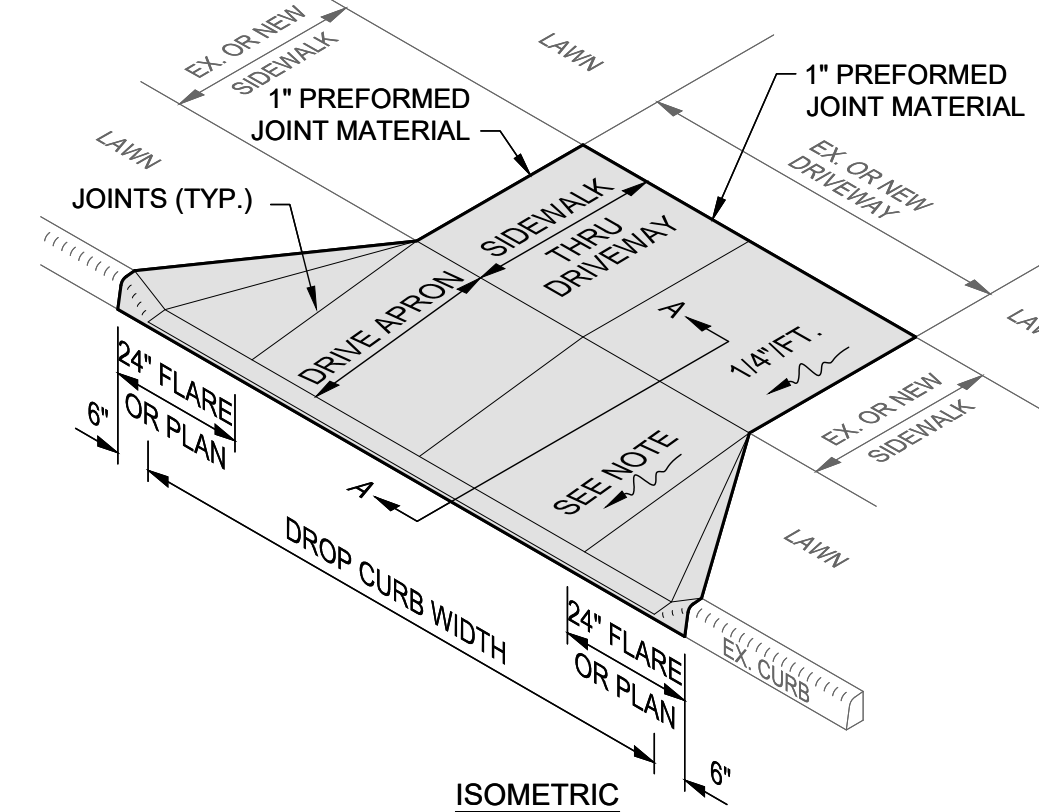
- THIS DETAIL SHOWS A 5' SIDEWALK AND AGGREGATE FOR REFERENCE ONLY, SEE LAYOUT PLAN FOR ACTUAL THICKNESSES.
- SEE LAYOUT PLAN FOR JOINT LOCATIONS. IF JOINTS NOT SHOWN, CONTRACTOR SHALL DETERMINE LOCATION OF ALL JOINTS. DIVIDE JOINTS INTO EQUALLY SPACED RECTANGULAR BLOCKS (4" MIN.).
- SAW CUT OR HAND TOOL JOINT 1/8" WIDE BY 1/4 OF "T" DEEP.
- ROUND ALL EDGES AND JOINTS WITH A 1/4" RADIUS.
- INSTALL PREFORMED JOINT MATERIAL EVERY 30', OR BETWEEN SIDEWALK AND FIXED OBJECT (I.E. MANHOLE, WALK, BUILDING).
- [SEE SEPARATE "EXPANSION JOINT W/ SEALANT" DETAIL.]
- LIGHTLY BROOM THE FINISH PERPENDICULAR TO THE WALKING PATH OR PER PLAN. IF HAND TOOLED JOINTS AND EDGES ARE SPECIFIED, FINISH AFTER PANEL INTERIOR TEXTURE HAS BEEN APPLIED (I.E WINDOW PANE EFFECT).
- APPLY LIQUID-MEMBRANE CURING COMPOUND (200 S.F./GAL.).

**CONCRETE WALK DETAIL**

SCALE: NONE



**SECTION A-A**



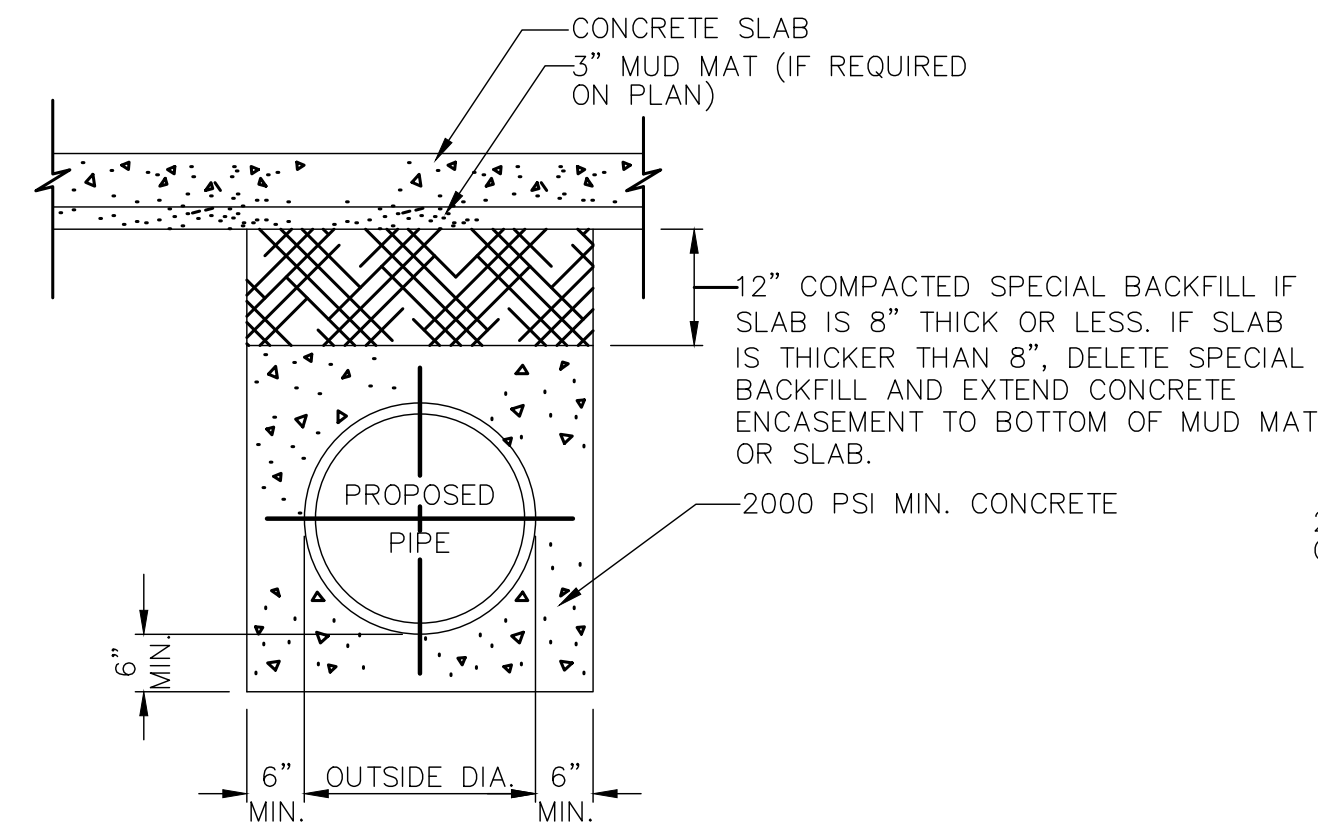
**ISOMETRIC**

**NOTES:**

- CONCRETE AT ACTIVE DRIVE APRONS SHALL BE CLASS QC MS.
- THE DROP CURB SHALL BE HAND FORMED AT THE TIME THE CONCRETE CURB IS POURED.
- JOINTS SHALL BE PROVIDED AT THE NORMAL FACE AND BACK OF SIDEWALK LOCATION.
- MINIMUM DRIVE APRON SLOPE PERMITTED IS 1/8"/FT. (1.00%) AND MAXIMUM IS 1"/FT. (8.33%). SEE GRADING PLAN FOR ACTUAL SLOPES AND ELEVATIONS.
- THIS DETAIL SHOWS A DRIVE APRON WITH VARIOUS APRON FLARES FOR REFERENCE ONLY; SEE LAYOUT PLAN FOR ACTUAL APRON CONFIGURATION AND FLARE WIDTHS.

**CONCRETE DRIVE APRON DETAIL**

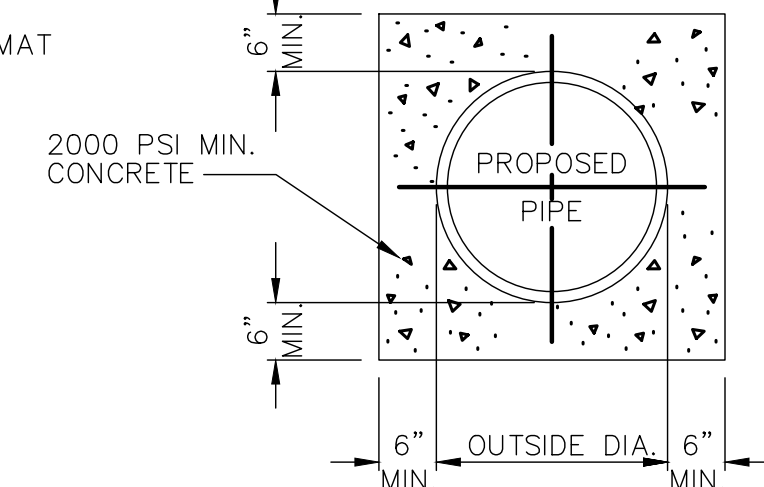
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**TYPICAL PIPE ENCASEMENT UNDER STRUCTURES**

11/88

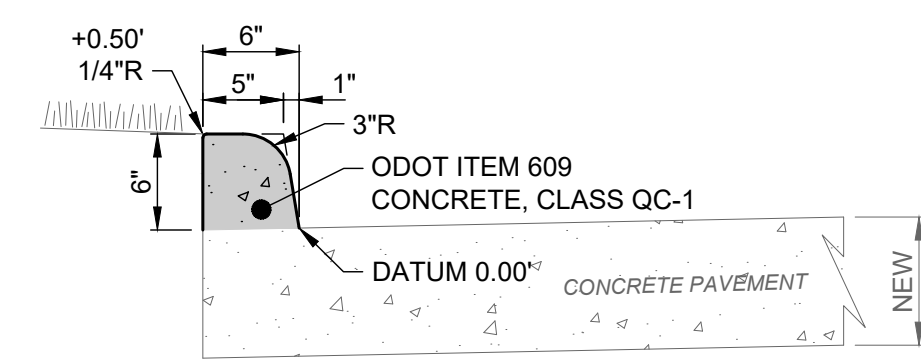
SD-1-5



**TYPICAL PIPE ENCASEMENT**

11/88

SD-1-5



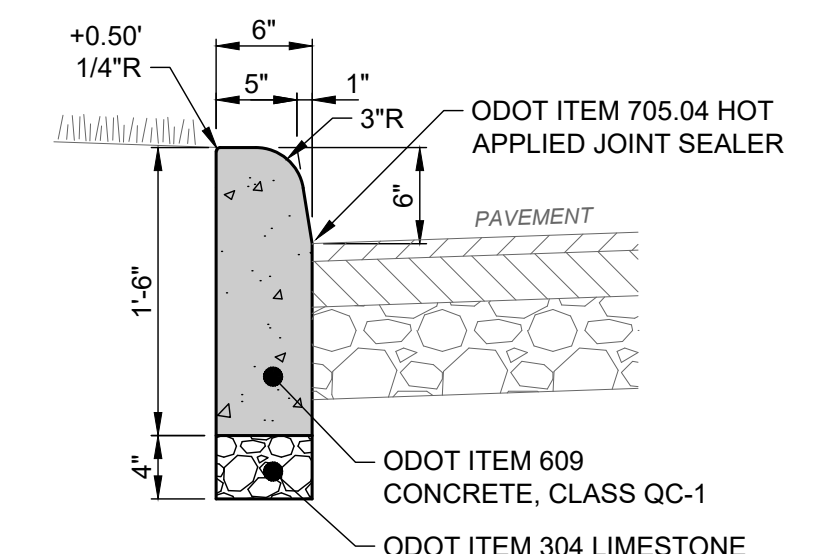
**NOTES:**

- SEE THE SEPARATE PAVEMENT DETAIL.

**(ODOT TYPE 2A)**

**6" INTEGRAL VERTICAL CURB DETAIL**

SCALE: NONE



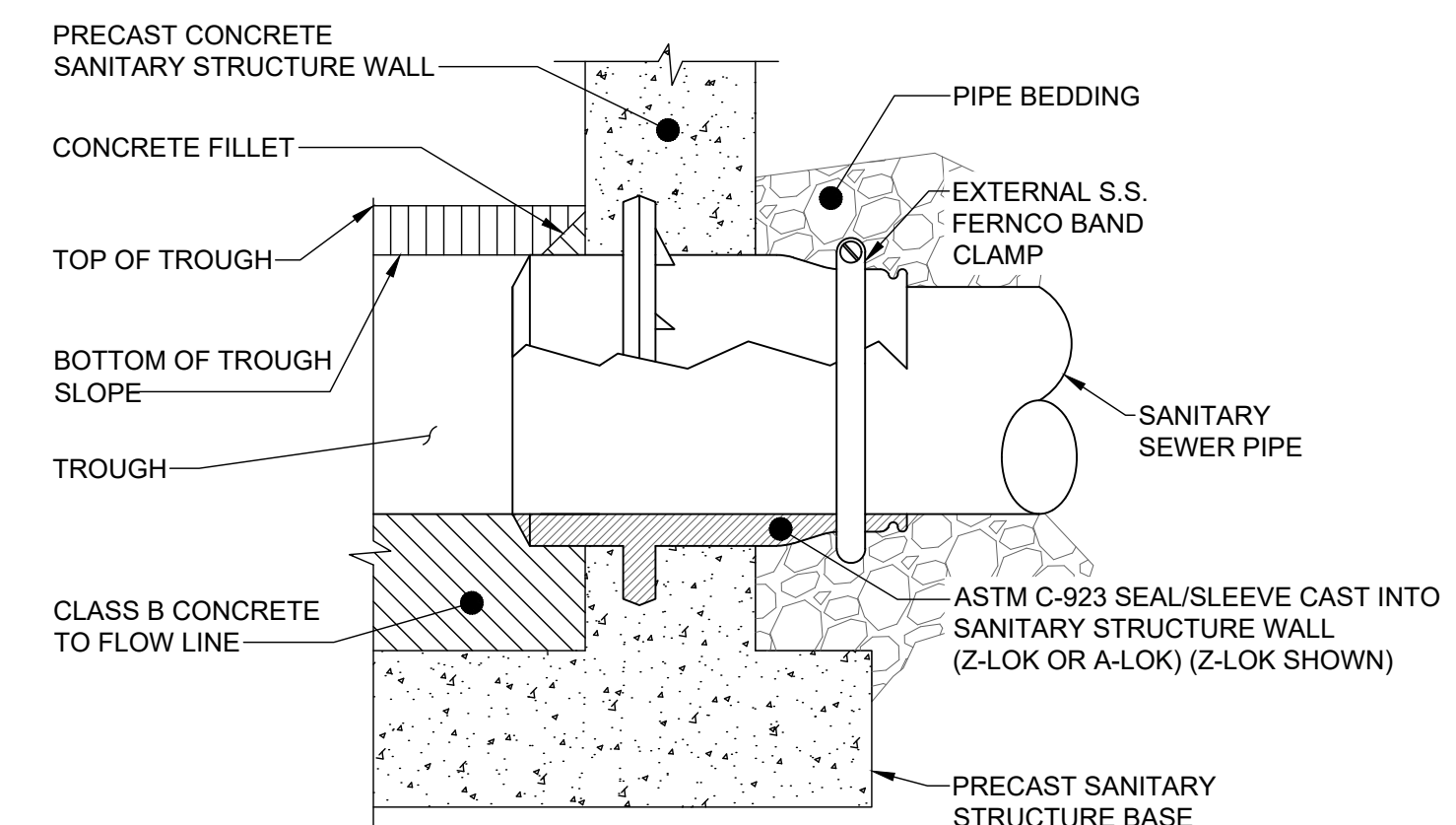
**NOTES:**

- INSTALL 1/2" PREFORMED JOINT MATERIAL AND USE 5/8" X 18" LONG DOWELS INTO GILD JOINTS TOP AND BOTTOM WHERE NEW CURB MEETS EXISTING CURB.
- PROVIDE CONTRACTION JOINTS AT 10' O.C.
- APPLY LIQUID-MEMBRANE CURING COMPOUND.
- THIS DETAIL SHOWS ASPHALT PAVEMENT FOR REFERENCE ONLY. SEE SITE PLAN FOR ACTUAL TYPE OF PAVEMENT.

**(ODOT TYPE 6)**

**6" VERTICAL CURB DETAIL**

SCALE: NONE



**PIPE CONNECTION TO NEW STRUCTURE DETAIL**

NOT TO SCALE

CONTRACTOR SHALL REFER TO MANUFACTURER DETAILS AND SPECIFICATIONS FOR SPECIFIC REQUIREMENTS NOT EXPLICITLY NOTED ON THESE DETAILS FOR INSTALLING NEW PIPE INTO AN EXISTING OR NEW PRE-CAST CONCRETE STRUCTURE.



**verdantas**

NO	REVISION	DATE

SCALE: AS SHOWN  
 DATE: 03/18/26  
 DESIGNED BY: MMB  
 DRAWN BY: MMB  
 CHECKED BY: MRD

**ERSKINE CROSSING IMPROVEMENTS**  
 MAHONING COUNTY BOARDMAN, OHIO

**CONSTRUCTION DETAILS 2**

PROJECT NO:	
39498	
DRAWING NAME	
10G-02	
SHEET	OF
8	12



ADMINISTRATIVE NOTES	
1.	AN OHIO EPA NPDES PERMIT IS REQUIRED WHERE CONSTRUCTION ACTIVITIES DISTURB 1 OR MORE ACRES OF LAND, OR SMALLER SITES LESS THAN 1 ACRE THAT ARE PART OF A LARGER COMMON DEVELOPMENT. DISTURBED LAND IS LAND IN WHICH VEGETATION HAS BEEN CLEARED AND SOILS ARE EXPOSED TO STORM WATER. AN NOI IS NOT REQUIRED FOR THIS PROJECT BECAUSE THE TOTAL LAND DISTURBANCE IS LESS THAN 1 ACRE AND IS NOT PART OF A LARGER COMMON DEVELOPMENT.
2.	THE CONTRACTOR SHALL FOLLOW THE PRACTICES AND REQUIREMENTS PROVIDED IN THE OHIO EPA NPDES CONSTRUCTION SITE STORM WATER GENERAL PERMIT OHC000004 AND THE ODNR RAINWATER AND LAND DEVELOPMENT MANUAL, AND BE RESPONSIBLE FOR ALL NPDES TERMS AND CONDITIONS UNTIL A NOT IS FILED.
3.	NO CONSTRUCTION ACTIVITIES MAY BEGIN UNTIL ALL OF THE FOLLOWING OCCUR: <ul style="list-style-type: none"> <li>OHIO EPA NPDES AUTHORIZATION LETTER RECEIVED</li> <li>THE CONTRACTOR FILES A CO-PERMITTEE APPLICATION TO THE OHIO EPA</li> <li>THE CONTRACTOR ATTENDS A PRE-CONSTRUCTION MEETING WITH THE SWCD TO DISCUSS OHIO EPA NPDES PERMIT REQUIREMENTS</li> </ul>
4.	ELECTRONIC VERSIONS OF OHIO EPA FORMS INCLUDING NOI, NOT, CO-PERMITTEE NOI/NOT, INDIVIDUAL LOT NOI/NOT AND TRANSFER ARE AVAILABLE THROUGH THE OHIO EPA AND CAN BE SUBMITTED ELECTRONICALLY. VISIT THE OHIO EPA ELECTRONIC BUSINESS SERVICES WEBSITE AT WWW.EPA.OHIO.GOV/DSW/STORM/INDEX FOR MORE INFORMATION AND GUIDANCE.
5.	THE CONTRACTOR SHALL SELECT INDIVIDUALS TO BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND COMPLETING INSPECTION AND MAINTENANCE REPORTS. THE CONTRACTOR SHALL COMPLETE A "DELEGATION OF AUTHORITY FOR STORM WATER POLLUTION PREVENTION PLAN" AND PROVIDE A COPY TO THE OWNER AND SWCD.
6.	ALL PROCEDURES AND REQUIREMENTS CONTAINED IN THIS SWP3 APPLY TO ALL GENERAL AND SUBCONTRACTORS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO IMPLEMENT, INFORM, REQUIRE AND ENFORCE ALL ASPECTS AND PROCEDURES OF THE SWP3. THE CONTRACTOR SHALL HAVE ALL SUBCONTRACTORS THAT ARE OR MAY BE ENGAGED IN ACTIVITIES THAT COULD IMPACT STORM WATER COMPLETE A "SUBCONTRACTOR AGREEMENT FOR EROSION AND SEDIMENT CONTROL", AND PROVIDE A COPY TO THE OWNER AND SWCD.
7.	THE CONTRACTOR SHALL KEEP ON-SITE COPIES OF THE NOI, NPDES, SWP3 AND INSPECTION LOGS/REPORTS.
8.	ALL EROSION AND SEDIMENT CONTROL WORK SHALL BE SUBJECT TO INSPECTION BY THE SWCD AND OHIO EPA.

GENERAL NOTES	
1.	THIS SWP3 HAS BEEN PREPARED SHOWING THE ITEMS LISTED BELOW, BUT THE CONTRACTOR MAY NEED TO MOVE OR ADD ITEMS AS CONSTRUCTION PROGRESSES OR DURING THE VARIOUS STAGES OF CONSTRUCTION. OR THE CONTRACTOR IS REQUIRED TO DEVELOP THE SWP3 FOR THIS PROJECT AND SUBMIT FOR APPROVAL TO THE SWCD SHOWING THE ITEMS LISTED BELOW. SOME ITEMS MAY ALREADY BE SHOWN ON THE SWP3, BUT MOVED TO BETTER SUIT THE CONTRACTOR'S MEANS AND METHODS. <ul style="list-style-type: none"> <li>LIMITS OF EARTH DISTURBING ACTIVITY</li> <li>CONSTRUCTION ENTRANCE</li> <li>EROSION AND SEDIMENT CONTROL MEASURES</li> <li>CONCRETE WASHOUT PIT</li> <li>EQUIPMENT STAGING</li> <li>FUEL STORAGE AND VEHICLE FUELING AREA</li> <li>CONSTRUCTION TRAILER(S)</li> <li>SANITATION FACILITY</li> <li>MATERIAL STOCKPILE LOCATION(S)</li> <li>ANY OTHER EROSION CONTROL REQUIRED</li> </ul>
2.	ALL WORK REQUIRED TO IMPLEMENT THE SWP3 INCLUDING INSPECTION FEES, MAINTENANCE AND REPAIRS SHALL BE DONE BY AND AT THE EXPENSE OF THE CONTRACTOR.
3.	THE CONTRACTOR SHALL AMEND THE SWP3 WHEN THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION OR MAINTENANCE THAT REQUIRES INSTALLATION OF BMPS OR MODIFICATION TO EXISTING BMPS.
4.	ADDITIONAL OR DIFFERENT BMPS MAY BE NEEDED AS CONSTRUCTION PROGRESSES OR AS REQUIRED BY THE OWNER, SWCD OR OHIO EPA.
5.	PHASE CONSTRUCTION ACTIVITIES TO MINIMIZE LAND DISTURBED AT ANY ONE TIME AND LEAVE EXISTING VEGETATION IN PLACE AS LONG AS POSSIBLE.

OTHER WASTE CONTROL NOTES	
1.	SOIL STOCKPILES SHALL BE RINGED WITH SILT FENCE ALONG THE BOTTOM FOOTPRINT. IF THE STOCKPILE WILL BE INACTIVE FOR 14 DAYS OR MORE, THE SURFACE SHALL BE SEEDED OR STABILIZED WITHIN 7 DAYS OF LAST DISTURBANCE.
2.	CONCRETE TRUCKS ARE NOT PERMITTED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ONTO THE GROUND OR INTO STORM INLETS, DITCHES, STREAMS, WETLANDS OR ANY OTHER SURFACE WATERS. ALL EXCESS CONCRETE AND CONCRETE WASHOUT, INCLUDING FROM HAND MIXERS AND LIGHT EQUIPMENT, MUST BE DISPOSED OF IN A CONCRETE WASHOUT AREA TO COLLECT AND HARDEN.
3.	OFF-SITE TRACKING OF SEDIMENT BY CONSTRUCTION VEHICLES MUST BE MINIMIZED. THE CONTRACTOR SHALL SWEEP ALL ADJACENT ROADS TO REMOVE MUD, DIRT OR ROCK TRACKED FROM THE SITE AT THE END OF EACH WORK DAY OR AS REQUIRED DURING THE DAY. DUMP TRUCKS HAULING MATERIAL FROM THE SITE SHALL BE COVERED WITH A TARPULIN.
4.	IT IS PROHIBITED TO BURN, BURY OR POUR ONTO THE GROUND OR INTO STORM INLETS, DITCHES, STREAMS, WETLANDS OR ANY OTHER SURFACE WATERS SOLID OR LIQUID WASTE INCLUDING TRASH, CONSTRUCTION DEBRIS, SOLVENTS, PAINT, DIESEL FUEL, GASOLINE, MOTOR OIL, HYDRAULIC FLUID, CEMENT CURING COMPOUND, ANTIFREEZE OR OTHER TOXIC OR HAZARDOUS WASTE. WASTE MATERIALS SHALL BE COLLECTED IN A SECURELY LIDDED DUMPSTER, DISPOSED OF IN AN APPROVED LANDFILL AND EMPTIED AS NECESSARY.
5.	FUEL TANKS, DRUMS AND OTHER CONTAINERS HOLDING CHEMICALS MUST BE STORED WITHIN A DIKED AREA WITH A VOLUME OF AT LEAST 110% OF THE LARGEST TANK. A DIKED AREA IS NOT NECESSARY IF A SELF-CONTAINED SPILL PROOF TANK IS USED.
6.	THE CONTRACTOR SHALL PROVIDE TEMPORARY SANITARY FACILITIES AT THE SITE. SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS 1 TIME PER WEEK, OR MORE OFTEN IF NECESSARY.
7.	ANY TOXIC OR HAZARDOUS MATERIAL SPILL, REGARDLESS OF SIZE, MUST BE REPORTED WITHIN 30 MINUTES TO THE LOCAL FIRE DEPARTMENT AND OHIO EPA.
8.	CONTAMINATED SOIL, SOIL WHERE CONSTRUCTION CHEMICALS HAVE BEEN SPILLED OR HAZARDOUS WASTE MATERIALS MUST BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.
9.	STORM WATER THAT COMES IN CONTACT WITH CONTAMINATED SOIL OR HAS A VISIBLE SHEEN MUST BE COLLECTED BY A VACUUM TRUCK AND DISPOSED OF AS A WASTE WATER.

EROSION CONTROL NOTES	
1.	SPECIAL MEASURES SHALL BE TAKEN TO STABILIZE DRAINAGE CHANNELS AND STORM WATER OUTFALLS.
2.	DIVERT SURFACE RUNOFF AWAY FROM DISTURBED AREAS AND STEEP SLOPES WHEREVER PRACTICABLE.
3.	STABILIZATION OF DISTURBED AREAS SHALL BE INITIATED WITHIN THE TIME FRAMES IN THE FOLLOWING TABLES:
AREA REQUIRING TEMPORARY STABILIZATION	TIME FRAME TO APPLY CONTROLS
AREA WITHIN 50 FEET OF A SURFACE WATER, NOT AT FINAL GRADE AND TO REMAIN IDLE MORE THAN 14 DAYS	WITHIN 2 DAYS OF MOST RECENT DISTURBANCE
ANY OTHER AREA TO BE DORMANT MORE THAN 14 DAYS, BUT LESS THAN 1 YEAR	WITHIN 7 DAYS OF MOST RECENT DISTURBANCE
AREA TO REMAIN IDLE OVER WINTER	PRIOR TO ONSET OF WINTER WEATHER
AREA TO BE PAVED	STABILIZE WITH STONE SUBBASE UNTIL PAVED
AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY CONTROLS
AREA TO BE DORMANT FOR 1 YEAR OR MORE	WITHIN 7 DAYS OF MOST RECENT DISTURBANCE
AREA WITHIN 50 FEET OF A SURFACE WATER AND AT FINAL GRADE	WITHIN 2 DAYS OF REACHING FINAL GRADE
ANY OTHER AREA AT FINAL GRADE	WITHIN 7 DAYS OF REACHING FINAL GRADE

SEDIMENT CONTROL NOTES	
1.	INLET PROTECTION AND SEDIMENT BARRIERS MUST BE INSTALLED PRIOR TO CLEARING AND GRUBBING.
2.	PERIMETER SEDIMENT BARRIERS SHALL BE INSTALLED AS THE FIRST STEP OF GRADING AND WITHIN 7 DAYS FROM THE START OF CLEARING AND GRUBBING.
3.	SEDIMENT PONDS, TEMPORARILY MODIFIED PERMANENT PONDS AND PERIMETER SEDIMENT BARRIERS MUST BE INSTALLED AS THE FIRST STEP OF GRADING AND WITHIN 7 DAYS FROM THE START OF CLEARING AND GRUBBING, AND CONTINUE TO FUNCTION UNTIL ALL DISTURBED UPLAND AREAS ARE STABILIZED.
4.	SEDIMENT CONTROLS MUST POND RUNOFF TO BE CONSIDERED FUNCTIONAL.
5.	SEDIMENT-LADEN TRENCH OR GROUND WATER MUST PASS THROUGH A SEDIMENT-SETTLING POND OR BE DEWATERED IN-PLACE USING A SUMP PIT, FILTER BAG OR OTHER COMPARABLE METHOD, PRIOR TO DISCHARGE FROM THE SITE.
6.	TRENCH AND GROUND WATER FREE FROM SEDIMENT OR OTHER POLLUTANTS MAY BE DISCHARGED WITHOUT TREATMENT, PROVIDED THIS WATER DOES NOT BECOME POLLUTANT-LADEN BY TRAVERSING OVER DISTURBED SOILS OR OTHER POLLUTANT SOURCES.
7.	SETTLED MATERIAL SHALL BE DISPOSED OF IN A STABILIZED LOCATION WHERE IT WILL NOT BE CARRIED OFF-SITE OR INTO A STORM SEWER BY RAINFALL.

EROSION CONTROL TIMETABLE																	
	2018	2019															
	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
STABILIZATION																	
TEMP. SEEDING	⊗	⊗	⊗					⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	
PERM. SEEDING	⊗	⊗	⊗					⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	
SODDING	⊗	⊗	⊗					⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	
MULCHING	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
PAVING	⊗	⊗	⊗	⊗	⊗								⊗	⊗	⊗	⊗	⊗


⊗ IRRIGATION NEEDED

BMPS SELECTED	
CONSTRUCTION SITE:	
<input type="checkbox"/> DEMARCATE PROTECTED AREA BEFORE CONSTRUCTION <input type="checkbox"/> MAINTAIN PORTABLE TOILET AND EMPTY W/OUT SPILL <input type="checkbox"/> PROPER STORAGE OF LANDSCAPE FERTILIZER <input type="checkbox"/> MS4 MONTHLY INSPECTIONS DURING CONSTRUCTION <input type="checkbox"/> RESOLVE NON-COMPLIANCE SWP3 INSPECTION ITEMS <input type="checkbox"/> FINAL INSPECTION TO ENSURE BMP IMPLEMENTATION	
TEMPORARY EROSION CONTROL:	
<input type="checkbox"/> CHECK DAMS <input type="checkbox"/> TEMPORARY DIVERSION <input type="checkbox"/> SLOPE DRAIN <input type="checkbox"/> TEMPORARY UTILITY CROSSING <input type="checkbox"/> DEWATERING <input type="checkbox"/> STREAM CROSSING	
TEMPORARY SEDIMENT CONTROL:	
<input type="checkbox"/> SEDIMENT BASIN <input type="checkbox"/> SEDIMENT TRAP <input type="checkbox"/> SILT FENCE <input type="checkbox"/> INLET PROTECTION <input type="checkbox"/> FILTER SOCK <input type="checkbox"/> FILTER BERM	
SOIL STABILIZATION:	
<input type="checkbox"/> DUST CONTROL <input type="checkbox"/> PHASED DISTURBANCE <input type="checkbox"/> MULCHING <input type="checkbox"/> CLEARING AND GRUBBING <input type="checkbox"/> SODDING <input type="checkbox"/> TEMPORARY SEEDING <input type="checkbox"/> TOPSOILING <input type="checkbox"/> PERMANENT SEEDING <input type="checkbox"/> GRADE TREATMENT <input type="checkbox"/> CONSTRUCTION ENTRANCE <input type="checkbox"/> TEMPORARY ROLLED EROSION CONTROL PRODUCTS <input type="checkbox"/> TURF REINFORCEMENT MATTING <input type="checkbox"/> TREE AND NATURAL AREA PRESERVATION	
PERMANENT EROSION CONTROL:	
<input type="checkbox"/> GRASSSED SWALE <input type="checkbox"/> ROCK LINED CHANNEL <input type="checkbox"/> LEVEL SPREADER <input type="checkbox"/> ROCK OUTLET PROTECTION <input type="checkbox"/> DIVERSION <input type="checkbox"/> SUBSURFACE DRAIN	
POLLUTION PREVENTION AND GOOD HOUSEKEEPING:	
<input type="checkbox"/> ROUTINE FACILITY INSPECTIONS <input type="checkbox"/> VISUAL ASSESSMENT OF STORM WATER DISCHARGE <input type="checkbox"/> ANNUAL COMPREHENSIVE SITE INSPECTION <input type="checkbox"/> SWEEP PARKING LOT AND DRIVE LANES <input type="checkbox"/> CLEAN CATCH BASINS <input type="checkbox"/> STORE WASTE IN LIDDED CONTAINERS <input type="checkbox"/> LOCATE SNOW DISPOSAL AREAS AWAY FROM BMPS <input type="checkbox"/> ESTABLISH "PICK-UP PET WASTE" STATION	
POST-CONSTRUCTION:	
<input type="checkbox"/> WETLAND SETBACK <input type="checkbox"/> STREAM SETBACK <input type="checkbox"/> WATER QUALITY POND <input type="checkbox"/> PERMEABLE PAVEMENT <input type="checkbox"/> GRASS FILTER STRIP <input type="checkbox"/> INFILTRATION TRENCH <input type="checkbox"/> TREE BOX FILTER <input type="checkbox"/> SAND FILTER <input type="checkbox"/> GREEN ROOF <input type="checkbox"/> LTMA <input type="checkbox"/> BIORETENTION AREA <input type="checkbox"/> CISTERN <input type="checkbox"/> BIORETENTION WITH INTERNAL WATER STORAGE <input type="checkbox"/> OPEN CHANNEL SWALES <input type="checkbox"/> WET EXTENDED DETENTION BASIN <input type="checkbox"/> DRY EXTENDED DETENTION BASIN WITH FOREBAY <input type="checkbox"/> RETROFIT SWMF TO TREAT WQV <input type="checkbox"/> RETROFIT SWMF TO INCREASE INFILTRATION <input type="checkbox"/> RETROFIT SWMF POND TO FUNCTION AS WETLAND <input type="checkbox"/> AS-BUILT POST-BMPS <input type="checkbox"/> SUBMIT LTMA ANNUAL MAINTENANCE REPORT TO MS4 <input type="checkbox"/> REDUCE IMPERVIOUS SURFACES <input type="checkbox"/> DECREASE QUANTITY OF PARKING SPACES <input type="checkbox"/> LOW IMPACT DEVELOPMENT <input type="checkbox"/> CONSERVATION DEVELOPMENT <input type="checkbox"/> DISCONNECT DOWNSPOUT AND REDIRECT TO BMP <input type="checkbox"/> VEGETATE MAINTENANCE/STORAGE YARD OPEN AREAS <input type="checkbox"/> IMPLEMENT LOW-MOW OR NO-MOW PRACTICES <input type="checkbox"/> PEST MANAGEMENT PROGRAM	

PERMIT CLOSURE REQUIREMENTS	
1.	FINAL STABILIZATION REQUIRES THE CONTRACTOR TO REMOVE ALL TEMPORARY SEDIMENT AND EROSION CONTROLS FROM THE SITE AND ALL SEDIMENT TRAPPED BY THOSE CONTROLS BE PERMANENTLY STABILIZED.
2.	THE CONTRACTOR SHALL COMPLETE A "FINAL CERTIFICATION AND NOTIFICATION FOR EROSION AND SEDIMENT CONTROL" UPON PROJECT COMPLETION AND PROVIDE A COPY TO THE OWNER AND SWCD.
3.	ONCE CONSTRUCTION ACTIVITIES HAVE CEASED AND THE SITE REACHES FINAL STABILIZATION, THE CONTRACTOR MUST TERMINATE THE NPDES PERMIT COVERAGE BY FILING A NOT WITH THE OHIO EPA WITHIN 45 DAYS OF FINAL STABILIZATION. FINAL STABILIZATION IS DEFINED AS AN ESTABLISHED VEGETATIVE GROUND COVER OF AT LEAST 70% GROWTH DENSITY, OR OTHER MEANS OF PERMANENT STABILIZATION, OVER ALL AREAS DISTURBED DURING CONSTRUCTION.
4.	THE CONTRACTOR MUST MAINTAIN ALL REPORTS FOR 3 YEARS AFTER THE NOT IS FILED, AND PROVIDE DIGITAL COPIES TO THE OWNER AND SWCD.

MAINTENANCE REQUIREMENTS	
1.	BMPS SHALL BE MAINTAINED IN GOOD WORKING ORDER UNTIL UPSLOPE AREAS THEY CONTROL ARE STABILIZED.
2.	THE CONTRACTOR SHALL PROVIDE A QUALIFIED PERSON KNOWLEDGEABLE IN THE PRINCIPLES AND PRACTICES OF EROSION AND SEDIMENT CONTROLS, POSSESS THE TECHNICAL SKILLS TO ASSESS SITE CONDITIONS THAT COULD IMPACT STORM WATER QUALITY, AND CAN ASSESS THE EFFECTIVENESS OF ANY BMP SELECTED.
3.	A QUALIFIED PERSON MUST INSPECT BMPS AT LEAST ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF A 0.5" OR GREATER RAINFALL IN A 24-HOUR PERIOD TO DETERMINE IF THE SWP3 WAS PROPERLY IMPLEMENTED.
4.	THE QUALIFIED PERSON MUST PREPARE A WRITTEN REPORT AFTER EACH INSPECTION SUMMARIZING INSPECTION RESULTS INCLUDING THE FOLLOWING: <ul style="list-style-type: none"> <li>DATE OF INSPECTION</li> <li>NAME AND QUALIFICATION OF THE INSPECTOR</li> <li>WEATHER CONDITIONS</li> <li>LOCATIONS WHERE IN-STREAM OR OFF-SITE SEDIMENTATION OR OTHER POLLUTANTS WERE OBSERVED.</li> <li>LOCATIONS OF BMPS NEEDING MAINTENANCE.</li> <li>LOCATIONS OF BMPS FAILING TO OPERATE CORRECTLY OR PROVIDE ADEQUATE PROTECTION.</li> <li>LOCATION OF AREAS IN NEED OF ADDITIONAL BMPS NOT IN PLACE AT THE TIME OF INSPECTION.</li> <li>CORRECTIVE ACTIONS REQUIRED, CHANGES TO THE SWP3 AND IMPLEMENTATION DATES.</li> <li>GRADING AND STABILIZATION ACTIVITY LOG</li> <li>EROSION AND SEDIMENT CONTROL AMENDMENT LOG</li> </ul>
5.	ALL INCIDENCES OF NON-COMPLIANCE MUST BE IDENTIFIED IN THE REPORT. IF A REPORT DOES NOT IDENTIFY INCIDENCES OF NON-COMPLIANCE, IT MUST CONTAIN A CERTIFICATION THE SITE IS IN COMPLIANCE AT THE TIME OF INSPECTION.
6.	BMP MAINTENANCE OR REPAIR MUST BE COMPLETED WITHIN 3 DAYS, AND SEDIMENT POND MAINTENANCE OR REPAIR WITHIN 10 DAYS, OF THE INSPECTION THAT REVEALED A DEFICIENCY.
7.	WHEN AN INSPECTION REVEALS A BMP IS NOT EFFECTIVE AND A MORE APPROPRIATE BMP IS REQUIRED, THE SWP3 SHALL BE AMENDED, THE NEW BMP INSTALLED WITHIN 10 DAYS OF THE INSPECTION THAT REVEALED THE DEFICIENCY, AND THE "STORM WATER POLLUTION PREVENTION PLAN AMENDMENT LOG" FORM COMPLETED.
8.	WHEN AN INSPECTION REVEALS A BMP HAS NOT BEEN INSTALLED, BUT IS REQUIRED TO PROVIDE ADEQUATE CONTROL, IT MUST BE INSTALLED PRIOR TO THE NEXT STORM EVENT WHICH PRODUCES RUNOFF, BUT IN NO CASE LATER THAN 10 DAYS FROM THE INSPECTION THAT REVEALED THE DEFICIENCY.
9.	THE INSPECTION FREQUENCY MAY BE REDUCED TO 1 TIME PER MONTH IF THE ENTIRE SITE IS TEMPORARILY STABILIZED OR RUNOFF IS UNLIKELY DUE TO WINTER WEATHER (I.E. SUSTAINED SNOW COVER OR FROZEN GROUND CONDITIONS). A WAIVER OF INSPECTION REQUIREMENTS IS AVAILABLE UNTIL 1 MONTH BEFORE THAWING CONDITIONS ARE EXPECTED IF ALL THE FOLLOWING CONDITIONS ARE MET:
10.	FROZEN CONDITIONS ARE ANTICIPATED TO CONTINUE FOR EXTENDED PERIODS OF TIME (I.E. MORE THAN 1 MONTH).
11.	SOIL DISTURBANCE ACTIVITIES HAVE BEEN SCHEDULED.
12.	THE BEGINNING AND ENDING DATES OF THE WAIVER PERIOD ARE DOCUMENTED IN THE SWP3.
13.	ONCE A DEFINABLE AREA HAS BEEN FULLY STABILIZED, IT MAY BE MARKED ON THE SWP3 AND NO FURTHER INSPECTION REQUIREMENTS ARE REQUIRED FOR THAT AREA OF THE SITE.
14.	INSPECTIONS SHALL BE PERFORMED UNTIL A NOT IS FILED WITH THE OHIO EPA.

SEQUENCE OF MAJOR CONSTRUCTION ACTIVITIES	
1.	HOLD A PRE-CONSTRUCTION MEETING TO DISCUSS OHIO EPA NPDES PERMIT REQUIREMENTS.
2.	CONTRACTOR SUBMITS CONSTRUCTION SCHEDULE FOR CONSTRUCTION ACTIVITIES.
3.	BEGIN INSPECTION, MAINTENANCE, RECORD KEEPING AND SITE POSTING OF BMPS.
4.	ESTABLISH STAGING AREA AND NON-SEDIMENT BMPS.
5.	INSTALL SILT FENCE, INLET PROTECTION AND CONSTRUCTION ENTRANCE.
6.	INSTALL OTHER TEMPORARY EROSION AND SEDIMENT CONTROL ITEMS AS SOON AS POSSIBLE, BUT NO LATER THAN 7 DAYS AFTER FIRST SOIL DISTURBANCE. INSPECT AND MAINTAIN BMPS FOR THE PROJECT DURATION UNTIL UPSLOPE AREAS ARE PERMANENTLY STABILIZED.
7.	INSTALL DEWATERING & BYPASS PUMPING MEASURES.
8.	BEGIN SITE DEMOLITION AND CONSTRUCTION.
9.	BEGIN EARTHWORK OPERATIONS.
10.	INSTALL CULVERT & HEAD WALLS
11.	INSTALL CULVERT INLET & OUTLET TREATMENTS
12.	INSTALL NEW ROADWAY & GUIDE RAIL
13.	INSTALL NEW SIGNAGE
14.	APPLY TEMPORARY SEED.
15.	RESTORE EXISTING ROADWAY SURFACE REMOVED FOR CULVERT INSTALLATION.
16.	APPLY PERMANENT SEED.
17.	INSTALL LAWN RESTORATION.
18.	CONTINUE INSPECTIONS, MAINTENANCE, RECORD KEEPING, AND SITE POSTING UNTIL FINAL STABILIZATION ACHIEVED.
19.	REMOVE TEMPORARY BMPS AND OPEN DITCHES TO OBTAIN FREE DRAINAGE.
20.	DISPOSE OF ALL DEBRIS AND WASTE MATERIAL.



**verdantas**

DATE	REVISION	NO	SCALE: AS SHOWN	DATE: 03/19/26	DESIGNED BY: MMB	DRAWN BY: MMB	CHECKED BY: MRD

**ERSKINE CROSSING IMPROVEMENTS**

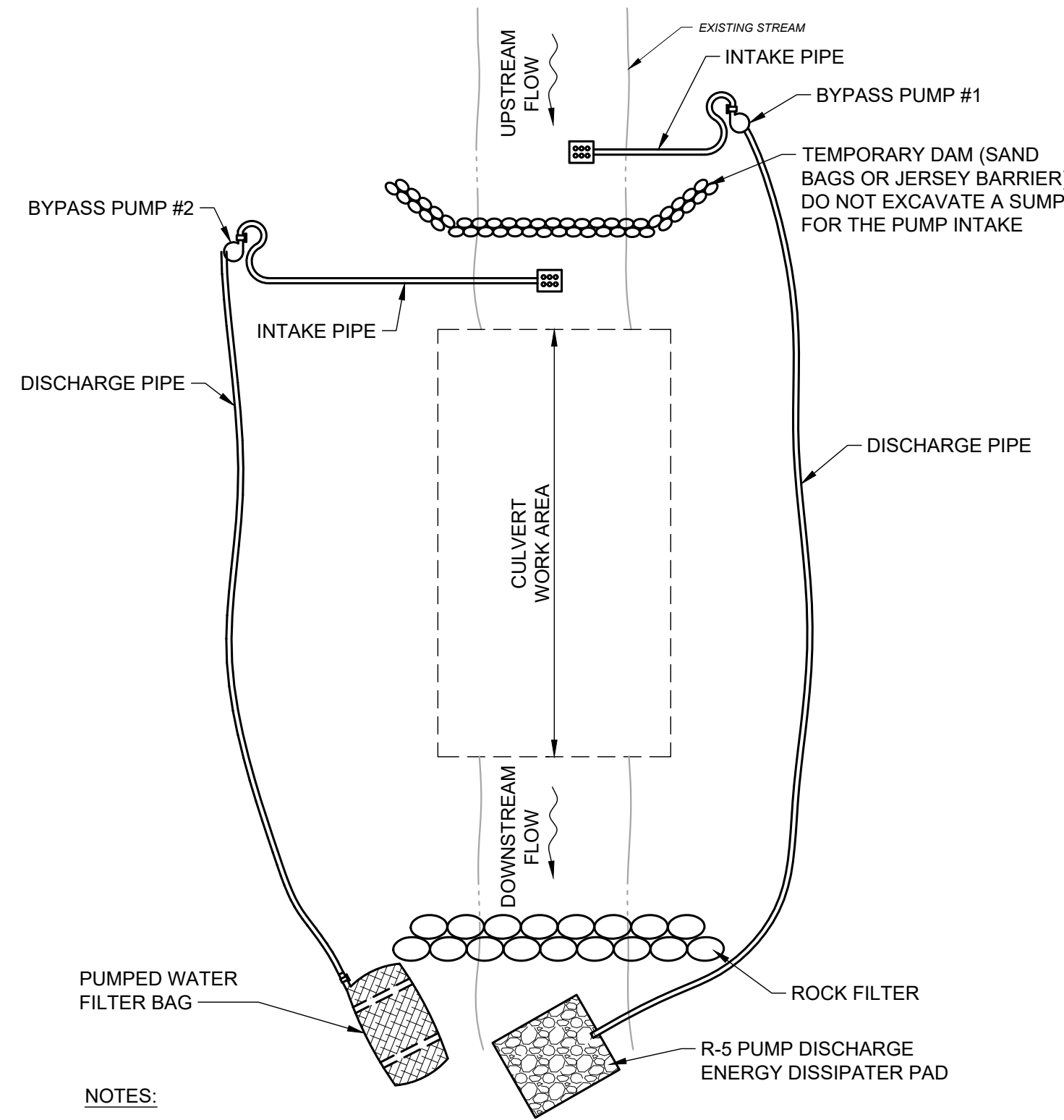
MAHONING COUNTY

BOARDMAN, OHIO

**SWPPP NOTES**

PROJECT NO:	
39498	
DRAWING NAME	
SWP3-1	
SHEET	OF
10	12





**NOTES:**

GRUBBING SHALL NOT TAKE PLACE WITHIN 50 FEET OF TOP-OF-BANK UNTIL ALL MATERIALS REQUIRED TO COMPLETE CROSSING ARE ON SITE AND PIPE IS READY FOR INSTALLATION.

BYPASS PUMP INTAKE SHALL BE MAINTAINED A SUFFICIENT DISTANCE FROM THE BOTTOM TO PREVENT PUMPING OF CHANNEL BOTTOM MATERIALS.

TRENCH PLUGS SHALL BE INSTALLED WITHIN THE TRENCH ON BOTH SIDES OF THE STREAM CHANNEL.

WATER ACCUMULATING WITHIN THE WORK AREA SHALL BE PUMPED TO A PUMPED WATER FILTER BAG OR SEDIMENT TRAP PRIOR TO DISCHARGING INTO ANY SURFACE WATER.

HAZARDOUS OR POLLUTANT MATERIAL STORAGE AREAS SHALL BE LOCATED AT LEAST 100 FEET BACK FROM THE TOP OF STREAMBANK.

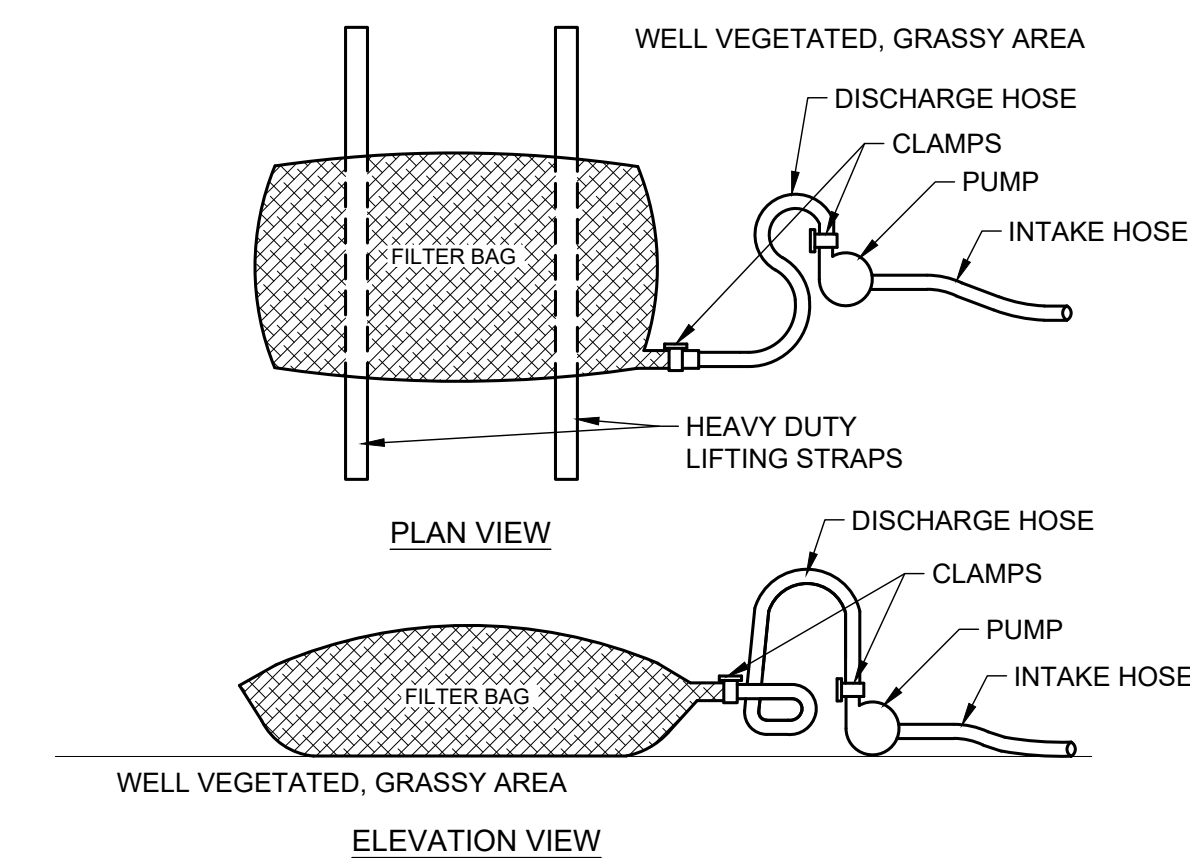
ALL EXCESS EXCAVATED MATERIAL SHALL BE IMMEDIATELY REMOVED FROM THE STREAM CROSSING AREA.

ALL DISTURBED AREAS WITHIN 50 FEET OF TOP-OF-BANK SHALL BE BLANKETED OR MATTED WITHIN 24 HOURS OF INITIAL DISTURBANCE FOR MINOR STREAMS OR 48 HOURS OF INITIAL DISTURBANCE FOR MAJOR STREAMS UNLESS OTHERWISE AUTHORIZED.

APPROPRIATE STREAMBANK PROTECTION SHALL BE PROVIDED WITHIN THE CHANNEL.

**TEMPORARY CULVERT BYPASS DETAIL**

SCALE: NONE



**NOTES:**

LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

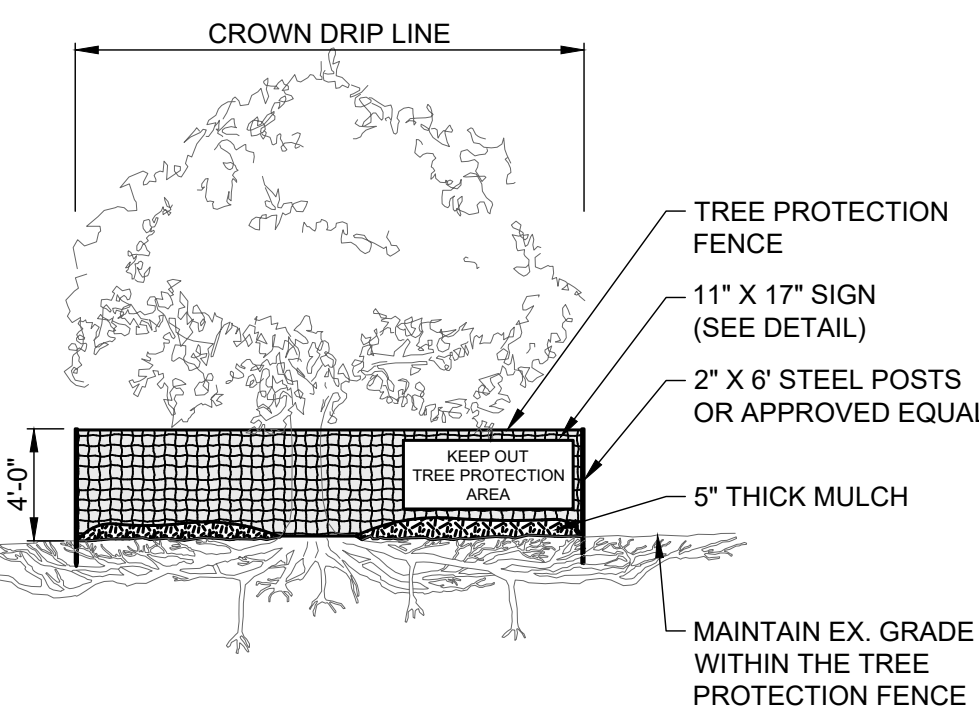
**PUMPED WATER FILTER BAG DETAIL**

SCALE: NONE

**NOTES:**

- MULCH SHALL CONSIST OF ONE OF THE FOLLOWING:
  - UNROTTED SMALL GRAIN STRAW SPREAD UNIFORMLY AT 2 TONS/AC. (2 TO 3 BALES).
  - WOOD-CELLULOSE FIBER (I.E. HYDROSEEDING) APPLIED AT 1 TON/AC.
  - ROLLED EROSION CONTROL PRODUCT OR MULCH MATTING APPLIED PER MANUFACTURER RECOMMENDATION.
  - WOOD MULCH OR CHIPS APPLIED AT 6 TONS/AC.
- MULCH SHALL BE ANCHORED IMMEDIATELY BY ONE OF THE FOLLOWING METHODS:
  - PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL USING A DISK, CRIMPER OR SIMILAR TOOL. DO NOT FINELY CHOP STRAW TO BE MECHANICALLY ANCHORED, BUT LEAVE LONGER THAN 6".
  - NETTING PER MANUFACTURER RECOMMENDATION IN AREAS OF CONCENTRATED RUNOFF OR ON CRITICAL SLOPES.
  - SYNTHETIC BINDERS AT MANUFACTURER RATE.
  - WOOD-CELLULOSE FIBER BINDER AT A NET DRY WEIGHT OF 750 LB/AC. MIXED WITH WATER, AND CONTAIN 50 LB/100 GAL. MAX. OF WOOD CELLULOSE FIBER.

**MULCHING DETAIL**



**NOTES:**

- TREE PROTECTION FENCE MUST BE INSTALLED PRIOR TO BEGINNING CLEARING OPERATIONS AND REMAIN UNTIL FINAL GRADING HAS BEEN COMPLETED.
- FENCE MUST BE PLACED BEYOND THE DRIP LINE OR CANOPY OF TREES (SEE PLANS FOR GENERAL FENCE ALIGNMENT).
- FENCE SHALL BE ORANGE COLOR, HIGH DENSITY POLYETHYLENE FENCING WITH 3.5" X 1.5" OPENINGS.
- STEEL POSTS SHALL BE INSTALLED AT 8' O.C. MIN.
- SIGN SHALL BE LAMINATED IN PLASTIC AND SPACED EVERY 50' ALONG THE FENCE.
- NO EQUIPMENT SHALL OPERATE INSIDE THE PROTECTIVE FENCING, INCLUDING FENCE INSTALLATION AND REMOVAL.

**TREE PROTECTION DETAIL**

SCALE: NONE

**NOTES:**

- SOD SHALL BE HARVESTED, DELIVERED AND INSTALLED WITHIN 48 HOURS. SOD NOT TRANSPORTED WITHIN THIS PERIOD SHALL BE INSPECTED AND APPROVED PRIOR TO INSTALLATION.
- SOD SHALL BE KEPT MOIST AND COVERED DURING HAULING AND PREPARATION FOR PLACEMENT.
- SOD SHALL BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4" ± 1/4", EXCLUDING TOP GROWTH AND THATCH.
- AREAS SHALL BE GRADED AND TOPSOIL SPREAD AS NEEDED.
- THE SEEDBED SHALL BE PREPARED BY APPLYING AGRICULTURAL GROUND LIMESTONE OR FERTILIZER AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, APPLY LIME AT 100 LB/1,000 S.F. OR FERTILIZER AT 12 LB/1,000 S.F. OF 10-10-10 OR 12-12-12 ANALYSIS. LIME AND FERTILIZER SHALL BE WORKED INTO THE SOIL TO A DEPTH OF 3".
- BEFORE LAYING SOD, THE SURFACE SHALL BE FINE GRADED AND CLEARED OF DEBRIS, STONES AND CLODS LARGER THAN 3" DIAMETER. KNOCK DOWN HIGH SPOTS AND FILL IN LOW SPOTS SO SOIL IS LEVEL AND 1" BELOW THE GRADE OF ANY PAVED SURFACE, SUCH AS CURBS, WALKS AND PAVEMENT.
- DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURES, THE SOIL SHALL BE LIGHTLY IRRIGATED PRIOR TO LAYING SOD.
- DO NOT PLACE SOD ON FROZEN SOIL.
- THE FIRST ROW OF SOD SHALL BE LAID IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO AND TIGHTLY WEDGED AGAINST EACH OTHER. LATERAL JOINTS SHALL BE STAGGERED IN A BRICK-LIKE PATTERN. ENSURE SOD IS NOT STRETCHED OR OVERLAPPED, AND JOINTS ARE BUTTED TIGHT.
- ON SLOPING AREAS WHERE EROSION MAY BE A PROBLEM, SOD SHALL BE LAID WITH THE LONG EDGE PARALLEL TO THE CONTOUR, WITH STAGGERED JOINTS AND BE SECURED WITH PEGS OR STAPLES.
- AS SODDING IS COMPLETED IN ANY ONE SECTION, ROLL OR TAMP THE SOD TO ENSURE SOLID CONTACT OF ROOTS WITH THE SOIL. WATER IMMEDIATELY AFTER ROLLING OR TAMPING UNTIL THE SOD AND SURFACE BELOW ARE THOROUGHLY WET. THE OPERATIONS OF LAYING, TAMPING AND IRRIGATING FOR ANY PIECE OF SOD SHALL BE COMPLETED WITHIN 8 HOURS.
- IN THE ABSENCE OF ADEQUATE RAINFALL DURING THE FIRST WEEK, WATER DAILY OR AS NECESSARY TO MAINTAIN MOIST SOIL. AFTER THE FIRST WEEK, WATER SOD AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE AND ENSURE ESTABLISHMENT.
- DO NOT MOW UNTIL SOD IS FIRMLY ROOTED.

**SODDING DETAIL**

**NOTES:**

- THE SEED BED SHALL BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION.
- SOIL AMENDMENTS MAY BE REQUIRED TO ESTABLISH VEGETATION. PERFORM SOIL TESTS TO PREDICT THE NEED FOR LIME OR FERTILIZER. IN LIEU OF A SOIL TEST, APPLY LIME AT 2 TONS/AC. OR FERTILIZER AT 500 LB/AC. OF 10-10-10 OR 12-12-12 ANALYSIS
- APPLY SEED UNIFORMLY. COVER BROADCASTED SEED BY RAKING OR DRAGGING, AND LIGHTLY TAMPING INTO PLACE.
- MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING.
- INSPECT FOR SOIL EROSION OR VEGETATION LOSS AND REPAIR BARE OR SPARSE AREAS, FILL GULLIES, RE-FERTILIZE, RE-SEED AND RE-MULCH AS NEEDED.

TEMPORARY SEEDING SPECIES SELECTION			
DATES	SPECIES	LB/1,000 SF	LB/AC.
MARCH 1 - AUGUST 15	OATS	3	128
	TALL FESCUE	1	40
	PERENNIAL RYEGRASS	1	40
AUGUST 16 - OCTOBER 31	PERENNIAL RYEGRASS	2	40
	TALL FESCUE	1	40
	RYE	3	112
NOVEMBER 1 - FEBRUARY 28	TALL FESCUE	1	40
	PERENNIAL RYEGRASS	1	40
	TALL FESCUE	1	40
ONLY MULCH OR DORMANT SEEDING.			

**TEMPORARY SEEDING DETAIL**

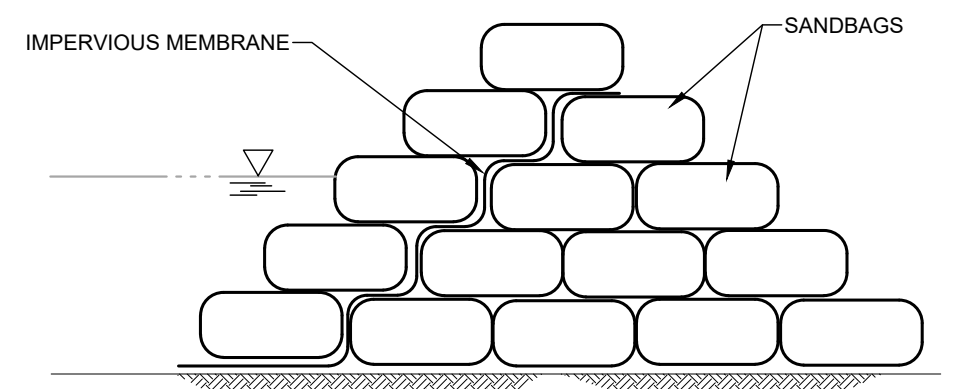
**NOTES:**

- SUBSOILING SHALL OCCUR WHEN SOIL MOISTURE IS LOW ENOUGH TO ALLOW THE SOIL TO CRACK OR FRACTURE. SUBSOILING IS NOT PERMITTED ON SLIP-PRONE AREAS.
- DISTURBED AREAS SHALL BE GRADED AND TOPSOIL SPREAD.
- THE SEED BED SHALL BE PREPARED BY APPLYING AGRICULTURAL GROUND LIMESTONE OR FERTILIZER AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, APPLY LIME AT 2 TONS/AC. OR FERTILIZER AT 500 LB/AC. OF 10-10-10 OR 12-12-12 ANALYSIS. LIME AND FERTILIZER SHALL BE WORKED INTO THE SOIL TO A DEPTH OF 3".
- APPLY SEED UNIFORMLY ON FIRM, MOIST SEED BED BETWEEN MARCH 1 AND MAY 31 OR AUGUST 1 AND SEPTEMBER 30. TILLAGE FOR SEEDBED PREPARATION SHALL OCCUR WHEN THE SOIL IS DRY ENOUGH TO CRUMBLE AND NOT FORM RIBBONS WHEN COMPRESSED BY HAND. SEEDING SHOULD NOT BE APPLIED BETWEEN OCTOBER 1 AND NOVEMBER 20 BECAUSE SEEDS MAY GERMINATE, BUT WILL NOT SURVIVE THE WINTER. IF SEEDING MUST OCCUR, INCREASE THE SEEDING RATE BY 50% AND ANCHOR. APPLY ADDITIONAL MULCH AND IRRIGATION AS REQUIRED TO ENSURE GERMINATION.
- MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING.
- SEEDING SHALL INCLUDE IRRIGATION TO ESTABLISH VEGETATION DURING DRY OR HOT WEATHER OR ON ADVERSE SITE CONDITIONS. AVOID EXCESSIVE IRRIGATION TO PREVENT EROSION AND DAMAGE FROM RUNOFF.
- SEEDING SHALL NOT BE CONSIDERED ESTABLISHED FOR AT LEAST 1 FULL YEAR FROM THE TIME OF SEEDING. DURING THIS PERIOD INSPECT FOR SOIL EROSION OR VEGETATION LOSS AND REPAIR BARE OR SPARSE AREAS, FILL GULLIES, RE-FERTILIZE, RE-SEED AND RE-MULCH AS NEEDED.
- ADEQUATE PERMANENT VEGETATION SHALL BE GROUND COVER DENSE ENOUGH TO COVER 80% OF THE SOIL SURFACE BASED ON VISUAL INSPECTION.

PERMANENT SEEDING FERTILIZATION AND MOWING CHART				
MIXTURE	FORMULA	LB/AC.	TIME	MOW
CREeping RED FESCUE DOMESTIC RYEGRASS KENTUCKY BLUEGRASS	10-10-10	500	FALL, YEARLY, OR AS NEEDED	≥3"
TALL FESCUE	10-10-10	500		≥4"
TURF-TYPE FESCUE	10-10-10	500		
CROWN VETCH FESCUE	0-20-20	400	SPRING, AND YEARLY AFTER ESTABLISHED	DO NOT MOW
FLAT PEA FESCUE	0-20-20	400		

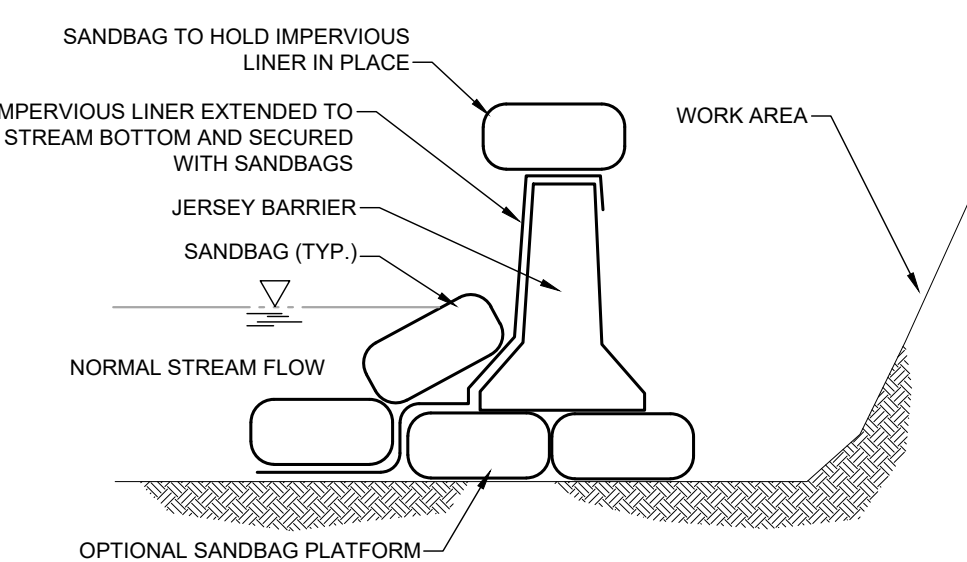
PERMANENT SEEDING SPECIES SELECTION		
SEED MIX	SEED RATE LB/AC.	NOTES:
GENERAL USE		
CREeping RED FESCUE DOMESTIC RYEGRASS KENTUCKY BLUEGRASS	20 - 40 10 - 20 20 - 40	FOR CLOSE MOWING AND WATERWAYS WITH <2.0 FT./SEC. VELOCITY
TALL FESCUE	40 - 50	
TURF-TYPE FESCUE	90	
STEEP BANKS OR CUT SLOPES		
TALL FESCUE	40 - 50	
CROWN VETCH TALL FESCUE	10 - 20 20 - 30	DO NOT SEED LATER THAN AUGUST
FLAT PEA TALL FESCUE	20 - 25 20 - 30	DO NOT SEED LATER THAN AUGUST
ROAD DITCHES AND SWALES		
TALL FESCUE	40 - 50	
TURF-TYPE FESCUE KENTUCKY BLUEGRASS	90 5	
LAWN		
KENTUCKY BLUEGRASS PERENNIAL RYEGRASS	100 - 120 100 - 120	
KENTUCKY BLUEGRASS CREeping RED FESCUE	100 - 120 100 - 120	FOR SHADED AREAS

**PERMANENT SEEDING DETAIL**



2 BAG MIN. HEIGHT ABOVE NORMAL BASE FLOW

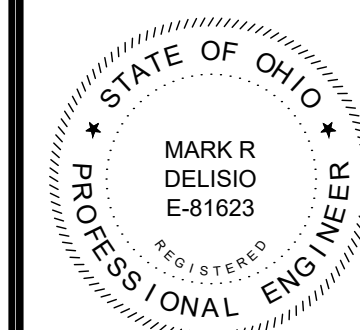
**STACKED SANDBAGS OPTION**



**JERSEY BARRIER OPTION**

**SANDBAG DIVERSION DAM OR COFFERDAM DETAIL**

SCALE: NONE



**verdantas**

DATE	REVISION	NO	AS SHOWN	DATE	DESIGNED BY	DRAWN BY	CHECKED BY
				03/18/26	M/MB	M/MB	M/RD

**ERSKINE CROSSING IMPROVEMENTS**  
**MAHONING COUNTY BOARDMAN, OHIO**  
**SWPPP DETAILS 2**

PROJECT NO:	
39498	
DRAWING NAME	
SWP3-3	
SHEET	OF
12	12