CITY OF WILLOWICK

MANRY PARK EXERCISE TRAIL IMPROVEMENTS PROJECT

LAKE COUNTY, OHIO

DECEMBER 2019

CITY COUNCIL:

BOB PATTON COUNCIL PRESIDENT WARD 1 MICHAEL VANNI MONICA KOUDELA WARD 1 WARD 2 **ANN TURK** WARD 2 **KEN PINTAR** WARD 3 CHARLIE MALTA WARD 3 **BOB REHO**



OHIO 811 DESIGN SERIAL NUMBER & UTILITY LIST:

#B922800551-00B # B922800551-01B #B924600595-00B - ARNOLD ROAD

LAKE COUNTY DEPARTMENT OF UTILITIES (SEWER) RANDY ROTHLISBERGER 105 MAIN STREET PAINESVILLE. OHIO 44077 (440) 350-2645 PHONE (440) 350-2666 FAX

THE ILLUMINATING COMPANY (ELECTRIC) JOHN ZASSICK **PUBLIC WORKS COORDINATOR** 6896 MILLER ROAD BRECKSVILLE, OH 44141 (440) 546-8706 PHONE jmzassick@firstenergycorp.com

DOMINION EAST OHIO (GAS) **KEVIN BIRT** ATTN: 2ND FLOOR RELOCATION DESIGN 320 SPRINGSIDE DRIVE, STE. 320 **AKRON, OH 44333** (330) 664-2409 PHONE (888) 504-0126 FAX relocation@dominionenergy.com

CONTINUAL SERVICE TO BUILDINGS.

AT&T/OHIO (COMMUNICATIONS) **JAMES JANIS** 13630 LORAIN AVENUE, 2ND FLOOR CLEVELAND, OH 44111 (216) 476-6142 PHONE (216) 476-6013 FAX

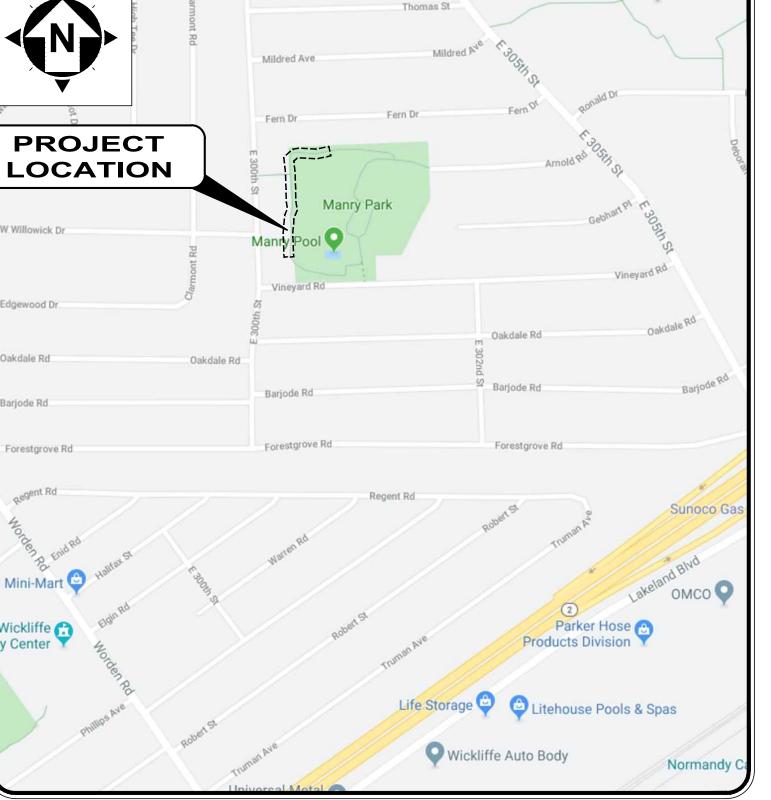
Pj8191@att.com

CHARTER COMMUNICATIONS (CABLE) MATHEW HANNAH CONSTRUCTION COORDINATOR 7820 DIVISION DRIVE MENTOR, OH 44060 (216) 575-8016 EXT. 1-216-555-1105 PHONE (440) 655-5590 CELL Mathew.hannah@charter.com

1. UNDERGROUND BUILDING SERVICE UTILITY LINES ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR

2. THE CONTRACTOR IS RESPONSIBLE TO CALL OHIO UTILITIES PROTECTION SERVICE @ 1-800-362-2764, THREE WORKING DAYS PRIOR TO CONSTRUCTION.

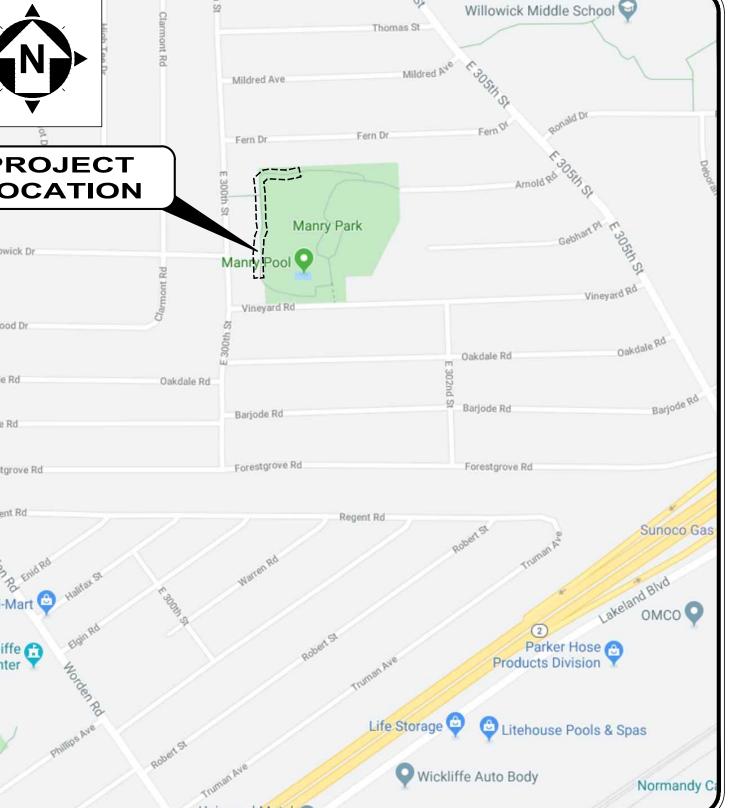
SHALL BE RESPONSIBLE FOR LOCATING, MAINTAINING AND REPLACING AS NECESSARY TO ENSURE



LOCATION MAP NOT TO SCALE



ENGINEER'S PROJECT No. 19023301



DEPARTMENTS:

CITY HALL 30435 LAKE SHORE BLVD. WILLOWICK, OH 44095 (440) 585-3700 PHONE

RICHARD J. REGOVICH

MAYOR:

OFFICE:

RECREATION DEPARTMENT 30100 ARNOLD DRIVE WILLOWICK, OH 44095

JULIE KLESS, RECREATION DIRECTOR (440) 516-3011 PHONE

ENGINEER:

CT CONSULTANTS, INC. 8150 STERLING COURT MENTOR, OH 44060

(440) 951-9000 PHONE (440) 951-7487 FAX

TIMOTHY R. LANNON P.E.

PROJECT SITE:

THE PROJECT IS LOCATED IN MANRY PARK AT 30100 ARNOLD DRIVE AND IS BEHIND THE BALL FIELDS AT THE NORTHWEST CORNER OF THE PARK



LAKE

COUNTY

MAYOR / SAFETY DIRECTOR

P.E. 58885

DATE

	ISSUED FOR:	BID SET	ON	REVISION	DATE	
	ISSUE DATE:	12/19/2019				
	SCALE:	AS NOTED				
оміск, оніо	DESIGNED BY:	RDS				
	DRAWN BY:	RDS				
	CHECKED BY.	Ü				

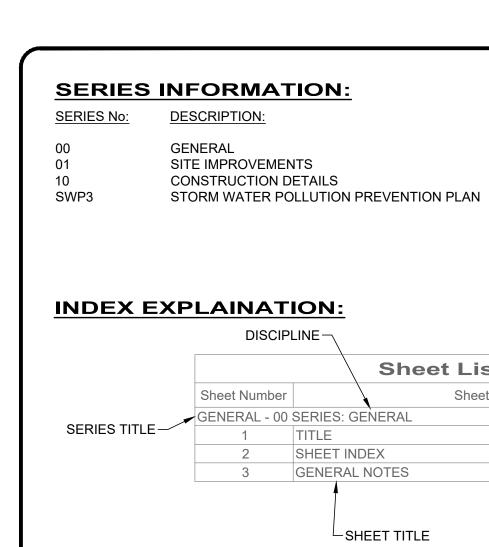
PROJECT NO. 19023301 DISCIPLINE

GENERAL

SHEET NAME

00G-01

12



DISCIPLINE INFORMATION:

IDENTIFIER:	DISCIPLINE:
G	GENERAL
С	CIVIL
S	STRUCTURAL
Α	ARCHITECTURAL
D	PROCESS
M	MECHANICAL (PLUMBING & HV
E	ELECTRICAL `
V	INICTOLIMENTATION

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1			

INSTRUMENTATION

Sheet List Table SheetName Sheet Title GENERAL - 00 SERIES: GENERAL 1 TITLE 00G-01 SHEET INDEX 00G-02 **GENERAL NOTES** SERIES IDENTIFIER No. SHEET TITLE DISCIPLINE IDENTIFIER LETTER $^{\perp}$ SHEET NUMBER ORDER -

DRAWING CODED NOTE TYPES:

1. THIS IS A STANDARD SHEET SHOWING COMMONLY USED SYMBOLOGY. 1. CT CONTRACTUAL 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.

GENERAL ABBREVIATIONS:

MINIMUM

MECHANICAL JOINT

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

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4. SYMBOLOGY OR DIAGRAMMATICAL LEGENDS MAY BE SHOWN ON INDIVIDUAL SHEETS FOR SCHEDULES, DIAGRAMS, DETAILS,

PLAN REVISIONS: DEMOLITION CODED NOTES: 1 DEMOLITION DESCRIPTION A REVISION DESCRIPTION

GENERAL SYMBOLOGY NOTES:

2. ALL SYMBOLS ARE NOT NECESSARILY USED ON THIS PROJECT.

3. 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

12'-4" (REF.) 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.

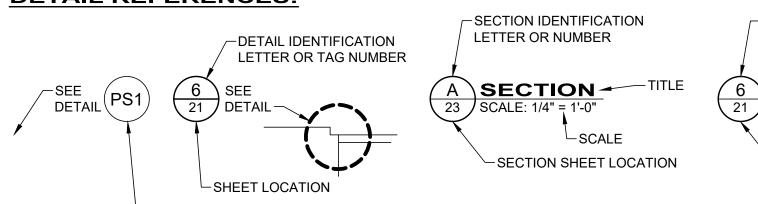
REFERENCE DIMENSION:

DETAIL REFERENCES:

SHEET FOR USAGE.

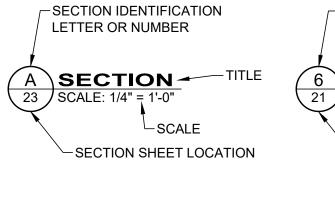
B REVISION DESCRIPTION

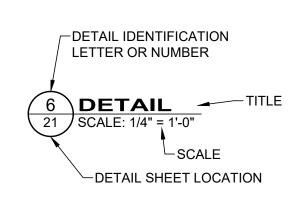
SCHEMATICS OR EQUIPMENT.

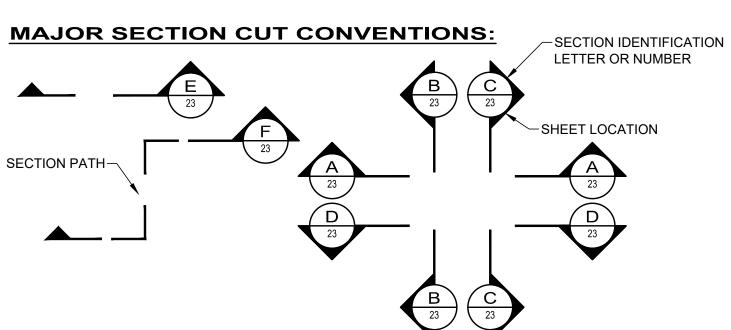


2 DEMOLITION DESCRIPTION

DETAIL IDENTIFICATION LETTER OR NUMBER FOR GENERAL DETAILS







GENERAL MATERIAL HATCHES:

GENER	RAL MATERIAL HATCHES:
	EXISTING ROADWAY (PLAN)
	PROPOSED ROADWAY (PLAN) - GENERAL
	PROPOSED ROADWAY (PLAN) - CONCRETE
	PROPOSED ROADWAY (PLAN) - PAVEMENT
	EXISTING BUILDING (PLAN)
	PROPOSED RIP RAP AREA (PLAN / SECTION)
	PROPOSED GRAVEL DRIVE AREA (PLAN / SECTION)
	PROPOSED CONCRETE DRIVE AREA (PLAN)
	EXISTING EARTHEN MATERIAL (SECTION / ELEVATION)
	PROPOSED EARTHEN MATERIAL (SECTION / ELEVATION)
4	CONCRETE (PLAN / SECTION / ELEVATION)
4	PRECAST CONCRETE (PLAN / SECTION / ELEVATION)
	GROUT (PLAN / SECTION / ELEVATION)
	GRATING (PLAN)
	GRATING (SECTION)
	METAL OR STEEL (SECTION)

DENOTES ITEM OR AREA FOR DEMOLITION

SITE	SYMI	BOL LEGEND:
EX:	PR:	
[MB]	MB	POST, MAILBOX
-0	•	POST, SIGN
	=	POST, SIGN - DOUBLE
0 0	• •	POST, SIGN - DUAL
•	\(\rightarrow	GEOTECH - SOIL BORING
	£3	BUSH
	\odot	TREE, DECIDUOUS
	**	TREE, EVERGREEN
		TREE, STUMP
Ø	ø	NAIL - MAG
0	•	PIN - IRON
©	0	PIPE - IRON
\triangle	A	SPIKE
GM.	GM	GAS METER
\otimes	⊗	GAS VALVE
(Ø	GAS VENT
F	Þ	POLE - ELECTRIC (POWER)
ϕ		POLE - GENERAL
G	ϕ	POLE - GUY
((POLE - GUY ANCHOR
þ	ϕ	POLE - LIGHT
0	0	SANITARY CLEAN-OUT
		SANITARY MANHOLE - 48"
\bigcirc	Ø	SANITARY VENT
		CATCULDACINI OVO

CATCH BASIN - 2X2

CURB INLET - 2X3

STORM CLEAN-OUT

STORM MANHOLE

WATER HYDRANT, FDC

WATER HYDRANT, FIRE

WATER VALVE W/TEXT

STORM DRAIN

SITE LINE LEGEND:

	EX. R/W —		- RIGHT-OF-WAY
			— BUILDING OUTLINES
	650		CONTOURS - MAJOR
	648		CONTOURS - MINOR
			SLOPE LINE
			- · SLOPE - BREAKLINE
			SLOPE - TOP
			SLOPE - TOE
			- WATER CENTERLINE
			— WATER EDGE
			— EDGE OF ROAD
×	X X X	× — × — × –	- FENCE - GENERAL
0 _	o o o -	o o _	- FENCE - CHAIN LINK
.0 0	0 0 0 0	0 0 0	− · GUIDE RAIL
	XXXXXX	XXXXX	· TREE LINE
	ELEC	ELEC	— ELECTRIC LINE
	ELEC-OH	ELEC-OH	— ELECTRIC LINE - OH
	ELEC-UG	——— ELEC-UG ——	— ELECTRIC LINE - UG
	GAS	———— GAS ———	— GAS LINE
	—— GS —— — GS —	—— —— GS ——	— GAS SERVICE
	SAN	SAN	— SANITARY LINE
	STM	STM	— STORM LINE
		WAT	— WATER LINE
	— ws — — — — —	ws — — ws —	- WATER SERVICE
<u> PR:</u>			
	STM —	STM -	STORM SEWER LI
			EDGE OF PAVEME
			CENTERLINE

---- EASEMENT LINE - PERMANENT ----- EASEMENT - TEMPORARY ---- WORK LIMITS



NYLOPLAST TYPE CB WITH BEEHIVE TYPE GRATE

trusted advisor

CI Y OF WILLOWICK			
MANRY PARK EXFRCISE TRAIL	ISSUE DATE:	12/19/2019	
IMPROVEMENTS PROJECT	SCALE:	AS NOTED	
LAKE COUNTY WILLOWICK, OHIO	DESIGNED BY:	RDS	
GENERAL - 00 SERIES	DRAWN BY:	RDS	
SYMBOLOGY & SHEET INDEX	CHECKED BY:	CEC	

PROJECT NO.

19023301

DISCIPLINE **GENERAL**

SHEET NAME

00G-02

GENERAL:

- 1. ANY REVISIONS TO THE ACCEPTED CONSTRUCTION PLANS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO IMPLEMENTATION IN THE FIELD.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT AND SHALL NOTIFY THE ENGINEER, IN WRITING, OF ANY DISCREPANCIES.
- 3. NO WORK SHALL COMMENCE WITHOUT AN EXECUTED NOTICE TO PROCEED.
- 4. 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.
- 5. THE CONTRACTOR SHALL CONSTRUCT THIS PROJECT IN COMPLIANCE WITH FEDERAL, STATE AND LOCAL BUILDING CODES.
- 5. ALL EXCAVATIONS ARE TO BE SECURED AND PROTECTED AT ALL TIMES.
- . ALL SEDIMENT AND EROSION CONTROL PRACTICES SHALL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
- 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.
- 8. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE SECURITY OF ALL STORED MATERIALS.
- 9. 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 LOCATION OF A LATER DATE. FINAL DOCUMENTS AND PLANS SHALL BE DELIVERED TO THE OWNER.

UNDERGROUND UTILITIES:

- 1. THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS HAVE BEEN OBTAINED BY FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. THE OWNER NOR THE ENGINEER ENSURES THEIR ACCURACY OR COMPLETENESS.
- 2. 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.
- 3. THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES AT LEAST THREE 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.
- 4. 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. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE UTILITY OWNER.
- 5. 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.

EXISTING UTILITIES:

- 1. 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 OUPS (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 ON THIS SHEET.
- 2. 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 AT NO ADDITIONAL EXPENSE TO THE OWNER INCLUDING ANY INSPECTION FEES OR MAINTENANCE CREWS. CABLE (CEI, AT&T & TV) RELOCATION AND SUPPORT COST SHALL BE INCLUDED IN OTHER BID ITEMS.
- 3. 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.

PROTECTION OF EXISTING UTILITIES AND PIPES:

- 1. 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 ENGINEER 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.
- 2. NO SURFACE, GROUND OR TRENCH WATER SHALL BE ALLOWED TO FLOW INTO EXISTING SANITARY SEWERS.
- 3. CONTRACTOR IS RESPONSIBLE FOR THE PRESERVATION OF ALL FENCES, RETAINING WALLS, STEPS, UTILITY POLES, MONUMENTS, UTILITY APPURTENANCES, SIGNAGE AND LANDSCAPE BEDS. IF DAMAGED, THE CONTRACTOR IS RESPONSIBLE FOR THE REPLACEMENT OF THESE ITEMS AT NO ADDITIONAL COST TO THE OWNER.

MONUMENTS, PROPERTY CORNERS AND BENCHMARKS:

1. MONUMENTS, PROPERTY CORNER MARKERS AND BENCHMARKS SHALL NOT BE DISTURBED BY THE CONTRACTOR. IN THE EVENT THAT IT IS NECESSARY TO REMOVE MONUMENTS, PROPERTY CORNER MARKERS OR BENCHMARKS FOR THE CONSTRUCTION OF THE WORK, THE CONTRACTOR SHALL HAVE A REGISTERED LAND SURVEYOR PROPERLY REFERENCE THE POINTS AND SHALL HAVE SAME RESET AFTER THE CONSTRUCTION HAS PASSED THE AREA.

CLEARING AND GRUBBING:

1. THE CONTRACTOR SHALL INCLUDE ALL NECESSARY PRECAUTIONS TO PROTECT AND SAVE ALL TREES WHICH ARE ADJACENT TO THE LINE OF WORK AND SHALL REMOVE ONLY THOSE TREES WHICH ARE DESIGNATED FOR REMOVAL ON THE PLANS OR DIRECTED BY THE ENGINEER. TREE ROOTS AND OVERHANGING BRANCHES SHALL BE CUT AND REMOVED FROM THE SITE, EXCEPT WITH SPECIAL PERMISSION OF THE ENGINEER. WHEN REQUIRED, THE CUTTING OF ROOTS AND BRANCHES SHALL BE DONE IN A MANNER TO LEAVE A SMOOTH END WITHOUT SPLITTING OR CRUSHING. THE CUT END SHALL BE NEATLY TRIMMED. ALL DAMAGE SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE TO THE SATISFACTION OF THE ENGINEER. WHERE MISCELLANEOUS SMALL TREES AND SHRUBS ARE NOTED TO BE REMOVED AND RESET, THE COST OF SUCH WORK SHALL BE CONSIDERED INCIDENTAL TO THE COMPLETION OF THE PROJECT.

RESTORATION:

REFER TO PROJECT SPECIFICATIONS FOR RESTORATION.

MATERIAL DISPOSAL AND TEMPORARY SURFACES:

- 1. 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 AN APPROVED LOCATION BY THE OWNER AND THE ENGINEER. THE DISPOSAL OF ALL "CLEAN" WASTE MATERIAL SHALL BE AT APPROVED LANDFILLS, AND/OR OTHER SITES APPROVED BY THE OWNER AND ENGINEER. 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 ENGINEER A COPY OF ALL APPROVALS OR WRITTEN PERMISSION PRIOR TO DISPOSING OF ANY WASTE AT SAID SITE.
- 2. 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 COS TO THE OWNER.
- 3. 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.
- 4. DUMP SITES MUST BE APPROVED BY THE OWNER.

PROHIBITED CONSTRUCTION ACTIVITIES:

- 1. THE USE OF EXPLOSIVES WITHIN MUNICIPAL LIMITS, UNLESS A PERMIT IS ISSUED BY THE OWNER.
- 2. 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.
- 3. 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.
- 4. OPEN BURNING OF PROJECT DEBRIS WITHOUT A PERMIT.
- 5. 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 THE ENGINEER.
- 7. OPERATION ENTAILING THE USE OF VIBRATORY HAMMERS OR COMPACTORS OUTSIDE THE HOURS ALLOWED BY LOCAL ORDINANCES OR REGULATIONS.
- 8. CLOSING OFF CLEAR ACCESS TO ANY PUBLIC ALLEY, STREET, ROAD, AVENUE OR BOULEVARD WITHOUT THE PRIOR CONSENT OF MUNICIPAL OFFICIALS AND THE ENGINEER 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.

STRUCTURAL BACKFILL AND FILL:

- NO BACKFILL SHALL BE PLACED AGAINST ANY STRUCTURAL ELEMENT UNTIL THE STRENGTH LEVEL OF THE IN-PLACE CONCRETE
 HAS ATTAINED THE SPECIFIED DESIGN STRENGTH.
- 2. THE CONTRACTOR MAY TEST IN-PLACE BACKFILL STRENGTH USING NON-DESTRUCTIVE PROCEDURES OF ASTM C803, PENETRATION RESISTANCE.
- 8. EXISTING ON-SITE SOILS WHICH ARE FREE OF ORGANIC CONTAMINATION AND OTHER OBJECTIONABLE MATERIALS MAY BE UTILIZED AS SITE FILL MATERIAL. COMPACT MAXIMUM EIGHT (8") INCH LOOSE LAYERS UNIFORMLY TO NOT LESS THAN 90% STANDARD PROCTOR UNLESS OTHERWISE SPECIFIED. REFER TO THE PROJECT SPECIFICATIONS FOR BACKFILLING. SHALE AND/OR SLAG MAY NOT BE USED AS A BACKFILL OR FILL MATERIAL.
- 4. ALL SHALE EXCAVATIONS SHALL BE REMOVED FROM THE SITE AND NOT USED AS BACKFILL

PROTECTION OF THE PUBLIC NOTES:

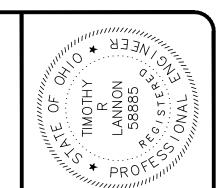
1. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF THE PUBLIC FROM ANY HAZARDS CAUSED BY THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL PROVIDE SIGNS, BARRICADES, FENCING, PLATES, COVERS, ETC. NEEDED TO PROVIDE THIS PROTECTION. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS WITH RESPECT TO PROTECTING THE PUBLIC.

NOISE CONTROL PRACTICES:

- 1. CONSTRUCTION ACTIVITIES WILL BE LIMITED TO WEEKDAY DAYTIME HOURS, UNLESS APPROVED IN ADVANCE BY THE OWNER.
- 2. CONSTRUCTION EQUIPMENT WILL BE PROVIDED WITH INTAKE SILENCERS AND MUFFLERS, AS REQUIRED BY SAFETY STANDARDS.
- 3. ALL CONSTRUCTION VEHICLES SHOULD BE EQUIPPED WITH PROPER EMISSIONS CONTROL EQUIPMENT
- 4. PERIODICALLY CHECK EQUIPMENT AND MACHINERY FOR PROPER TUNING TO MINIMIZE EXHAUST EMISSIONS AND NOISE.

STORM SEWER SYSTEM NOTES:

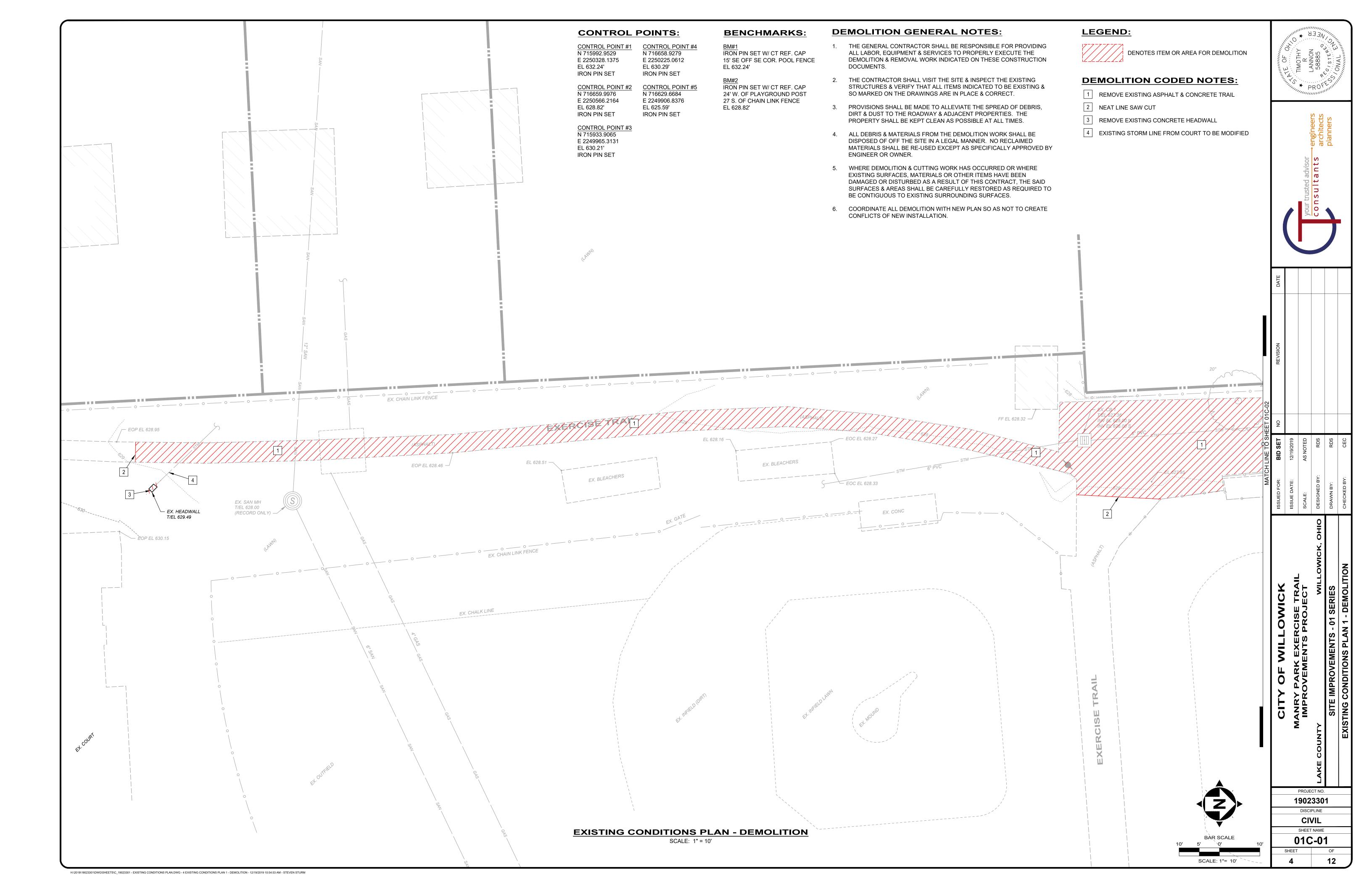
- 1. CONTRACTOR SHALL FILL ALL VOIDS AT PIPE CONNECTIONS TO EXISTING & NEW CATCH BASINS INSIDE & OUTSIDE WITH NON-SHRINK GROUT. GROUT WATER-TIGHT AND FLUSH TO ALL INTERIOR WALLS.
- 2. CONTRACTOR SHALL RE-CONNECT ALL ENCOUNTERED STORM SEWER DRAIN LINES TO THE NEW STORM SEWER.
- ALL EXISTING UTILITY LINE ELEVATIONS SHOWN ARE ESTIMATED AND MUST BE FIELD DETERMINED BY THE CONTRACTOR.
 CONFLICTS MUST BE RESOLVED BY THE CONTRACTOR AND THE UTILITY OWNER.
- 4. FINAL RIM TO BE FLUSH WITH FINAL GRADE IN PAVED AREAS & 3" BELOW FINAL LAWN GRADE IN UNPAVED AREAS.
- 5. WHEN CONNECTING EXISTING STORM SEWER OR STORM DRAIN LINES TO A NEW STORM SEWER STRUCTURE, CONTRACTOR SHALL MAKE CONNECTION BY INSTALLING A MIN 5'-0" NEW STORM SEWER DRAIN LINE (MATCH EXISTING DIA. & TYPE) & A SILT TIGHT COUPLING OR CONCRETE ENCASED JOINT AS APPROVED BY THE ENGINEER. SEE "DRAIN PIPE CONNECTION DETAIL".
- 6. INSTALL SILT SACK IN ALL CATCH BASINS, REMOVE WHEN DISTURBED AREAS ARE STABILIZED.
- 7. WHEN CONNECTING EXISTING STORM SEWER DRAIN LINES TO A NEW STORM SEWER STRUCTURE, CONTRACTOR SHALL MAKE CONNECTION BY INSTALLING A MINIMUM OF 5'-0" NEW STORM SEWER DRAIN LINE (MATCHING EXISTING DIAMETER & TYPE) & COUPLING.
- 8. NO PIPES SHALL ENTER ANY INLET BOX AT THE CORNERS.

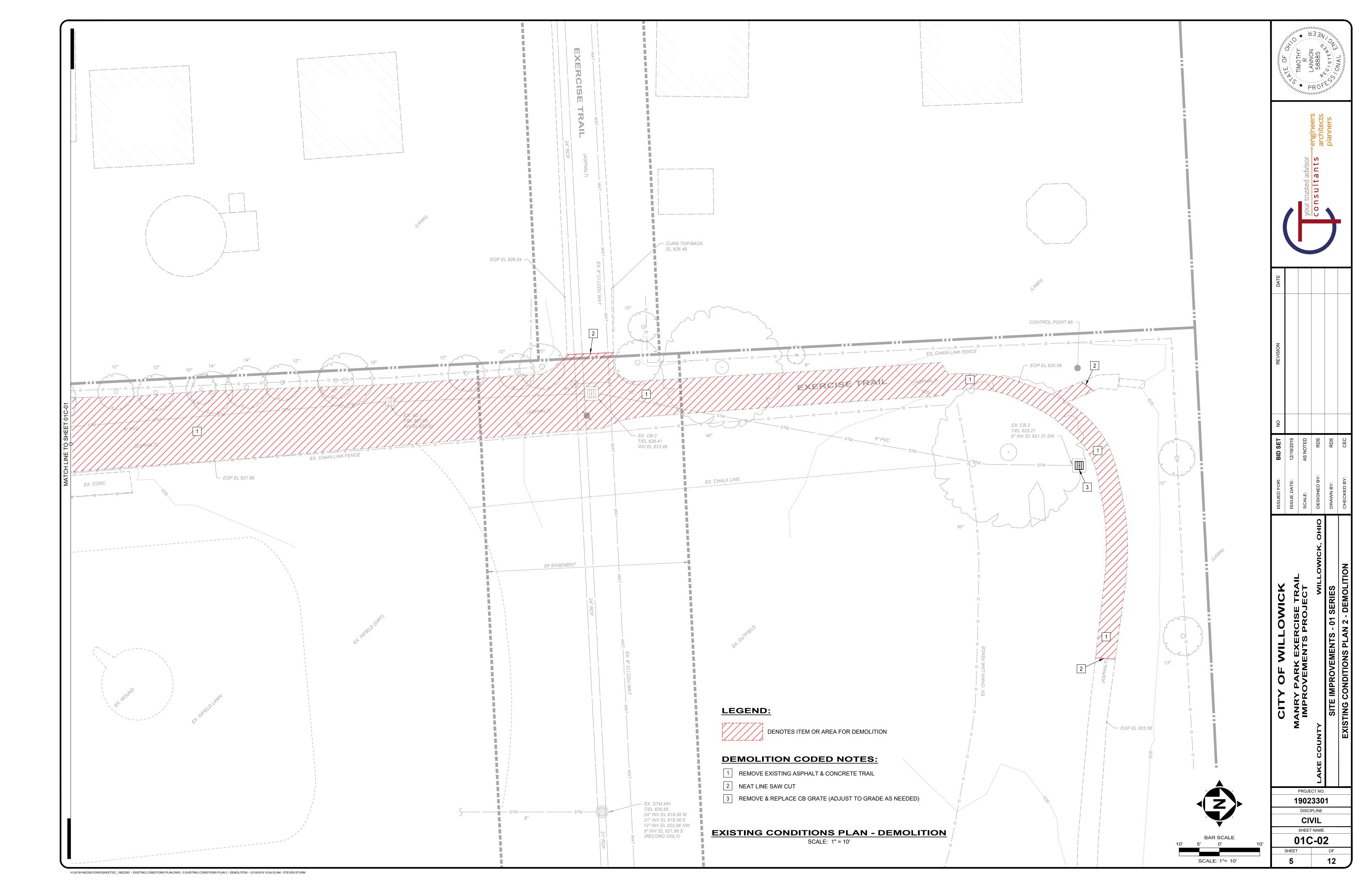


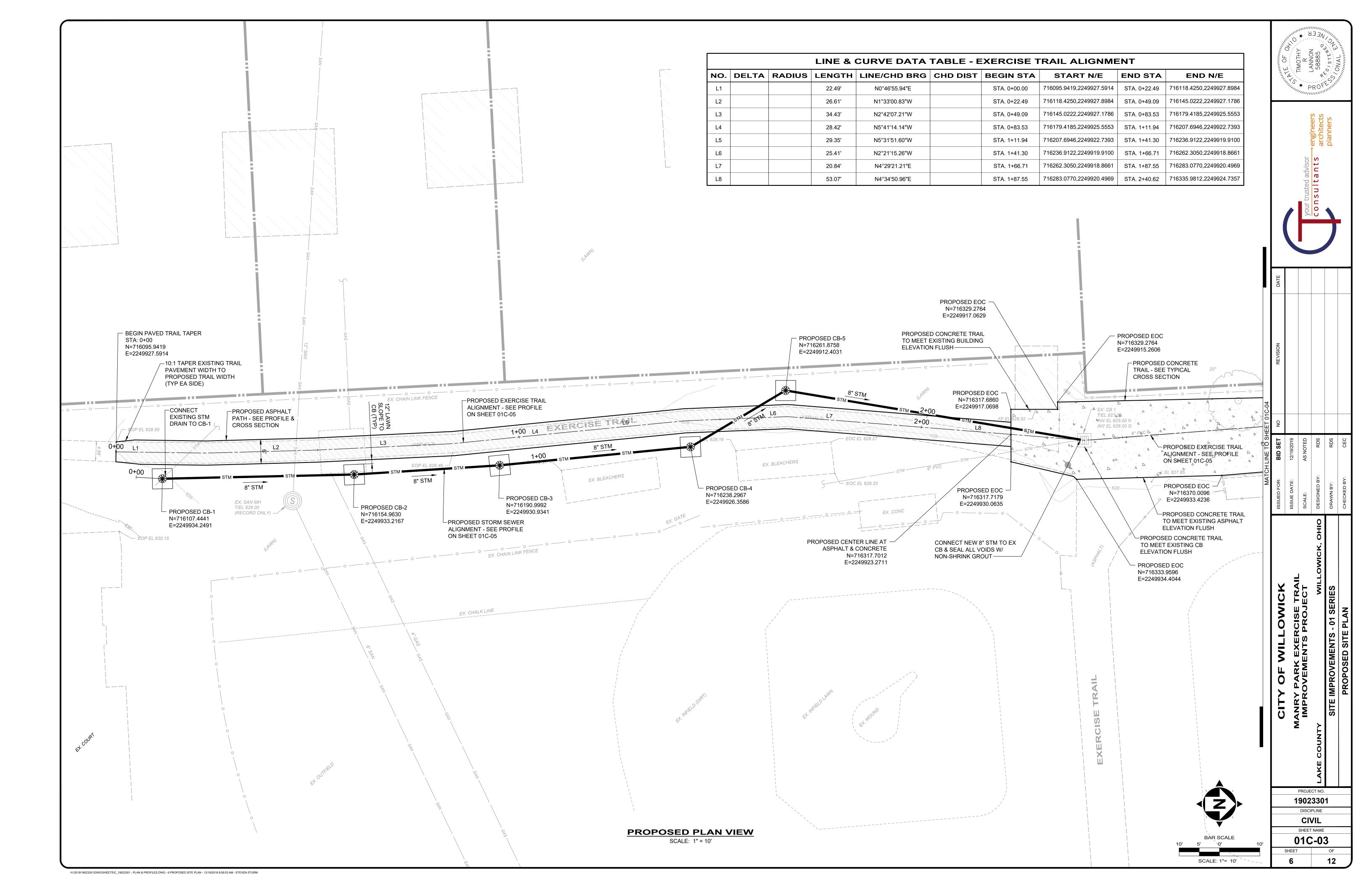


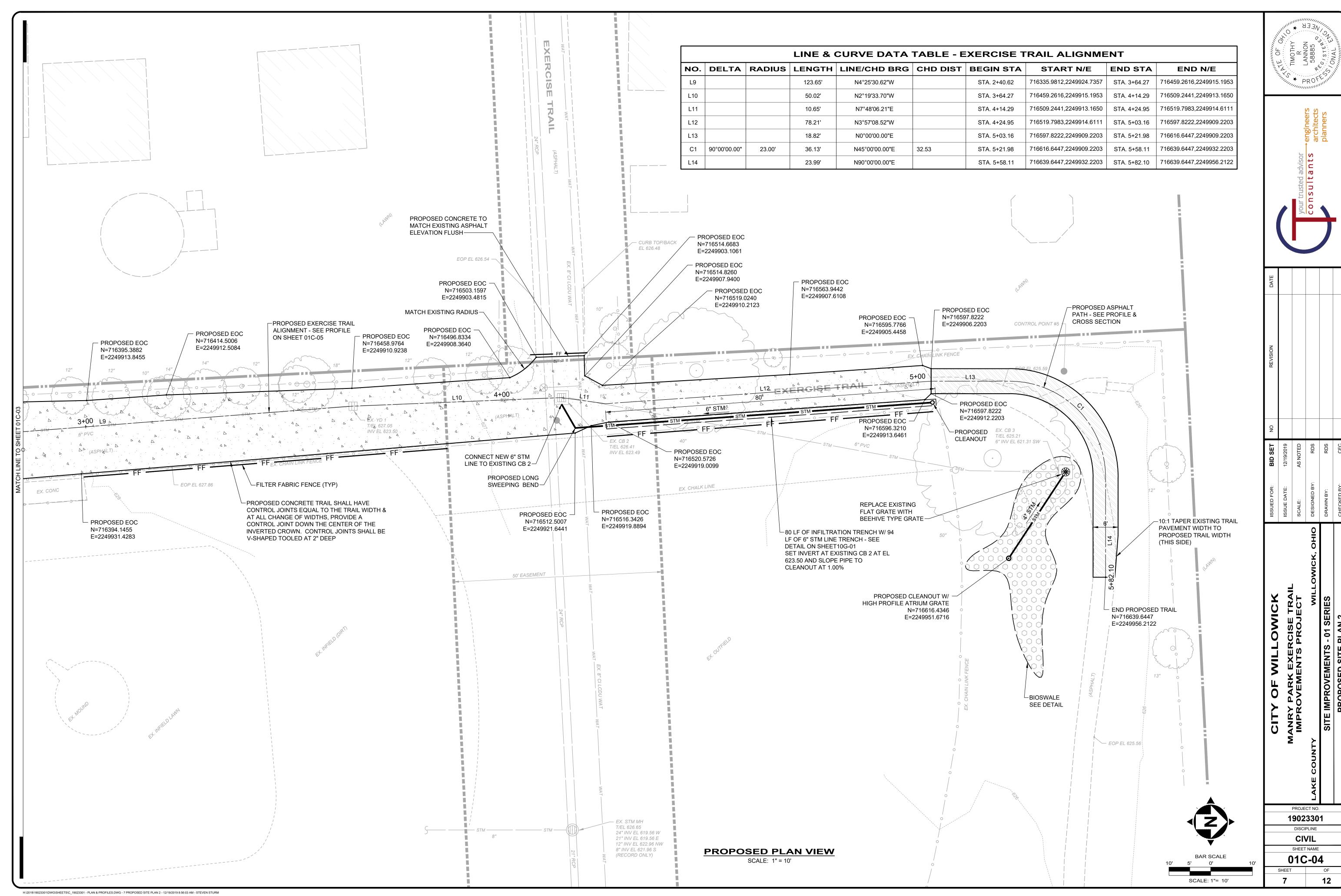
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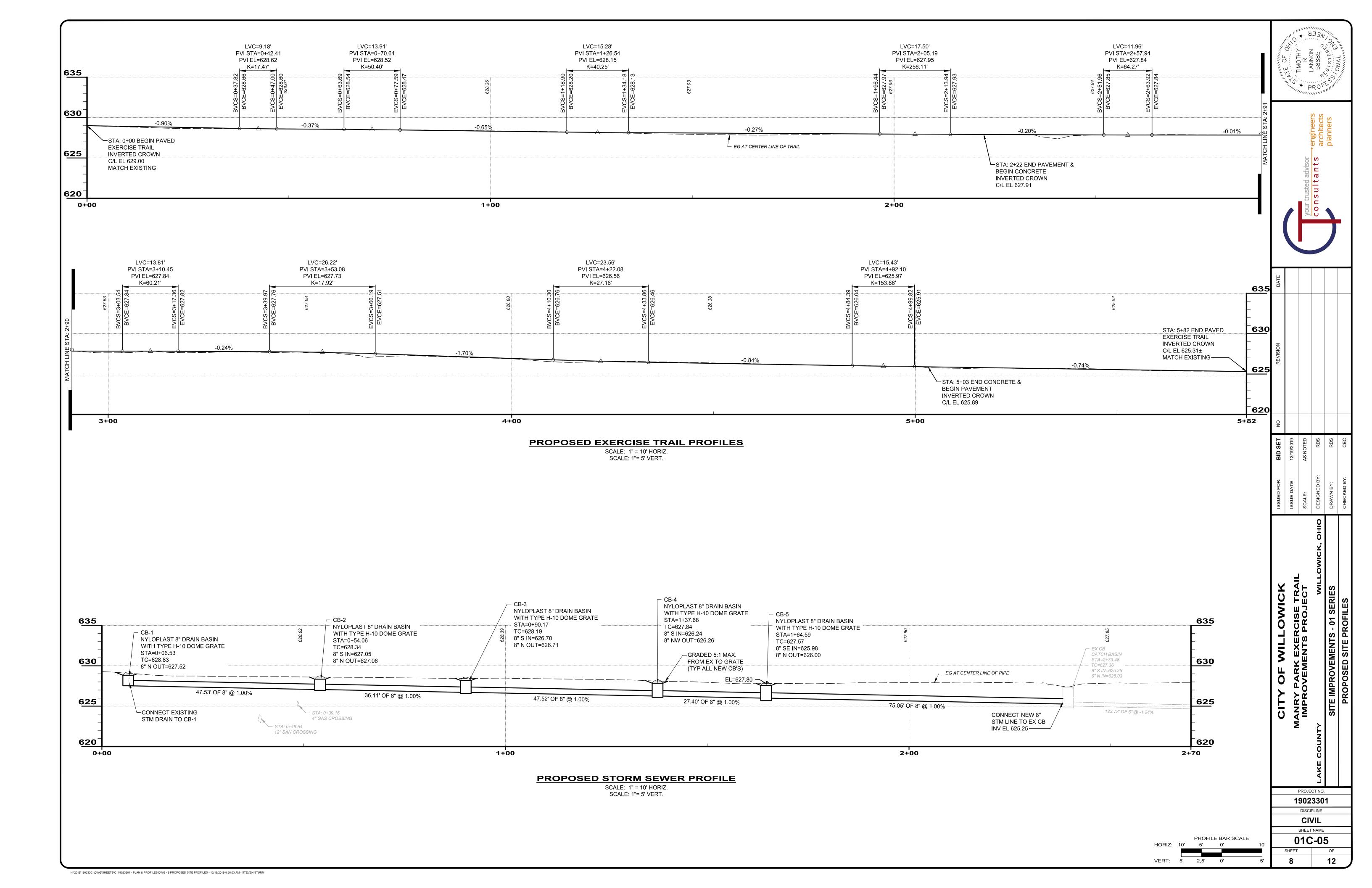
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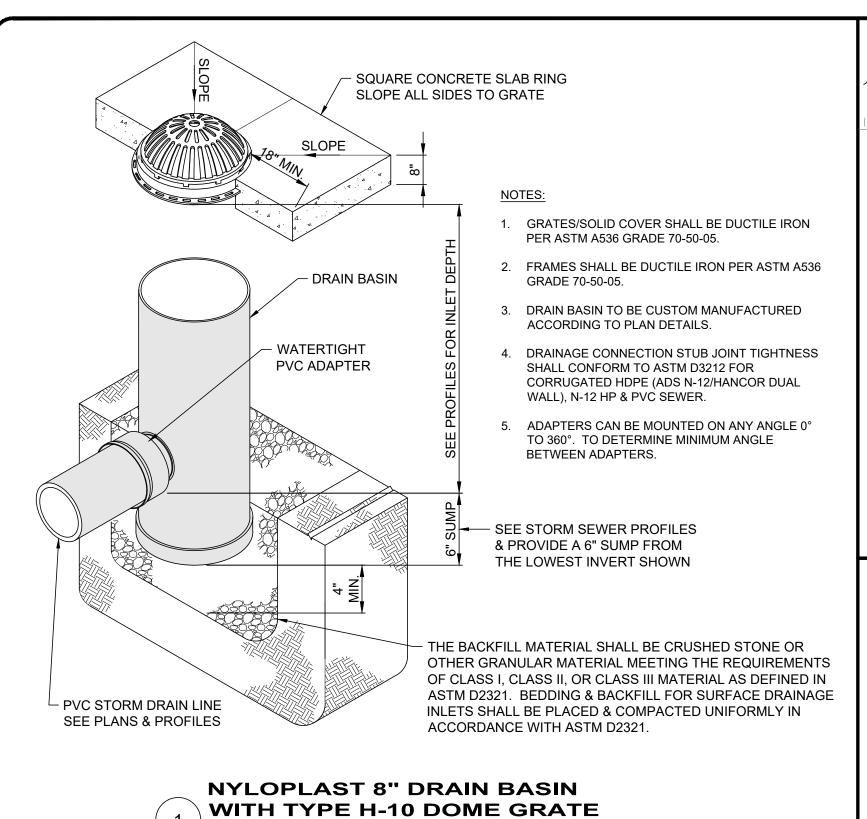


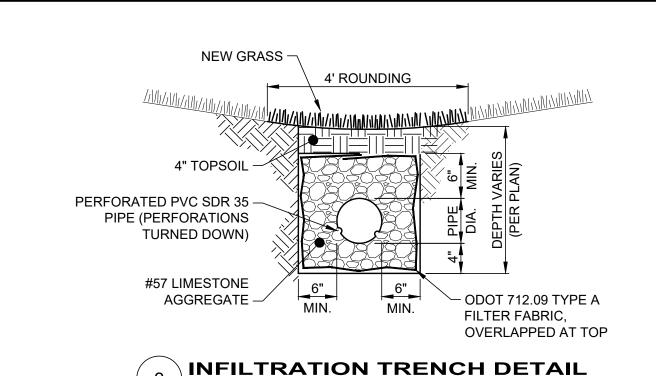








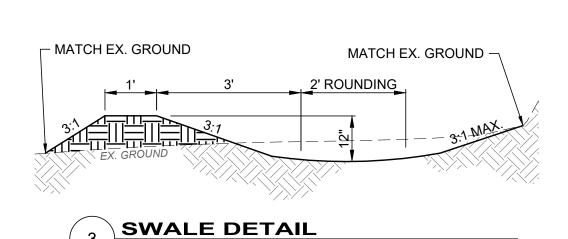


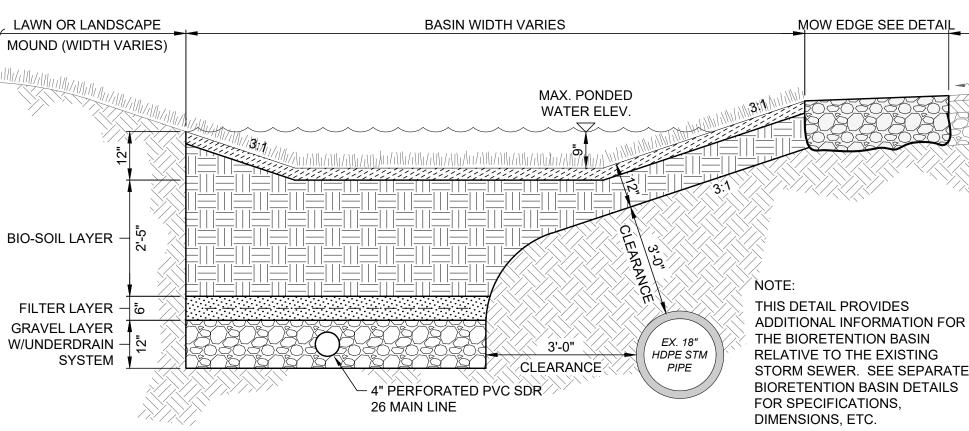


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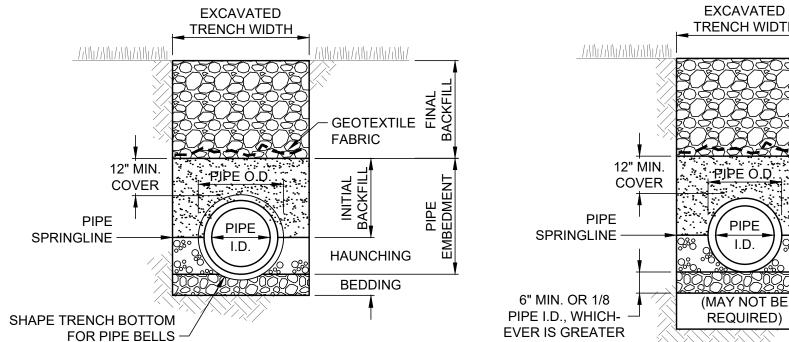
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NOT TO SCALE





BIOSWALE NEAR STORM SEWER DETAIL NOT TO SCALE



CLASS "C" PIPE EMBEDMENT

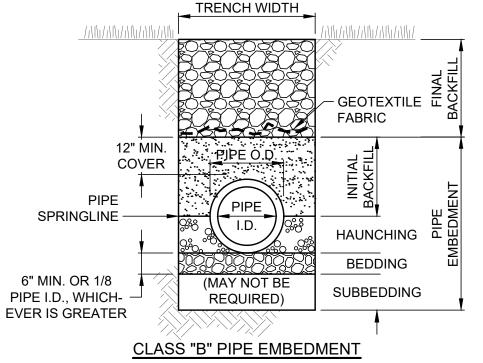
- EXCAVATED TRENCH WIDTH: MEASURED FROM BOTTOM OF TRENCH TO 12" OVER TOP OF PIPE (WITHIN THE PIPE EMBEDMENT), THE MIN. TRENCH WIDTH SHALL BE 9" AND THE MAX. SHALL BE:
 - O.D.+24" FOR 24" AND SMALLER I.D. PIPE
 - O.D.+30" FOR 27" THRU 72" I.D. PIPE
 - O.D.+48" FOR 84" AND LARGER I.D. PIPE
- FINAL BACKFILL: ALL AREAS UNDER PAVEMENT. STRUCTURES OR WITHIN THE ZONE OF INFLUENCE SHALL BE PREMIUM BACKFILL (ODOT ITEM 304 LIMESTONE). 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:

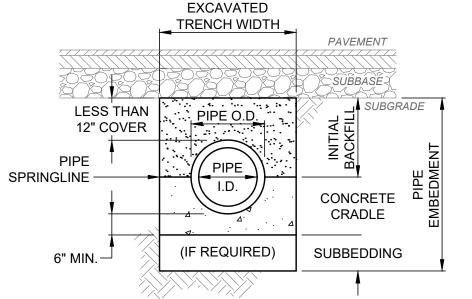
CLASS "A": SHALL BE USED FOR ALL PIPES UNDER PAVEMENT OR STRUCTURES WITH LESS THAN 12" OF PIPE COVER TO THE SUBGRADE. THE CONCRETE CRADLE SHALL BE IN ACCORDANCE WITH ODOT ITEM 499, CLASS QC-1. THE INITIAL BACKFILL SHALL BE NO. 57 COURSE INTERLOCKING LIMESTONE AGGREGATE.

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 LIMESTONE AGGREGATE. IN AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE, THE INITIAL BACKFILL SHALL BE NO. 8 OR 57 COURSE INTERLOCKING LIMESTONE 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 LIMESTONE AGGREGATE FOR FLEXIBLE PIPE.

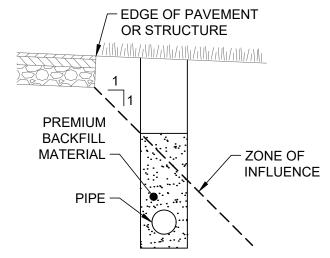
CLASS "C": SHALL BE USED ONLY FOR DUCTILE IRON WATER MAIN OR FORCE MAIN. THE PIPE EMBEDMENT SHALL BE NO. 8 OR 57 COURSE INTERLOCKING LIMESTONE AGGREGATE IN ALL AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE. IN ALL OTHER AREAS, THE PIPE EMBEDMENT SHALL BE SUITABLE ON-SITE MATERIAL. BEDDING IS NOT REQUIRED. WHERE ROCK OR SHALE IS ENCOUNTERED, BEDDING SHALL BE 6" MIN. OF NO. 8 OR 57 COURSE INTERLOCKING LIMESTONE AGGREGATE OR SAND.

- 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.
- GEOTEXTILE FABRIC SHALL BE PER ODOT 712.09, TYPE A, AND INSTALLED AFTER ALL INITIAL BACKFILL.
- CLAY TRENCH DAMS SHALL BE REQUIRED AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER.

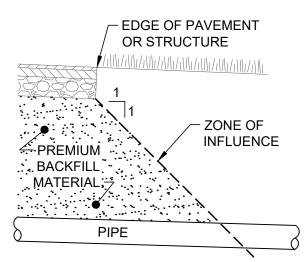




CLASS "A" PIPE EMBEDMENT

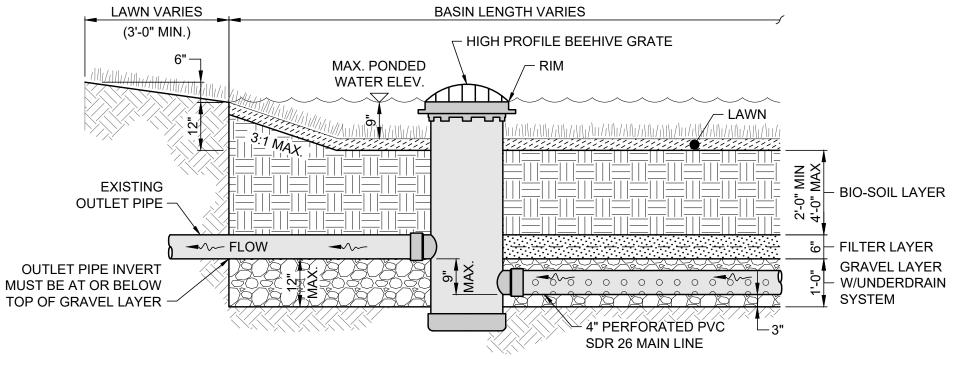


PARALLEL ZONE OF INFLUENCE



TRANSVERSE ZONE OF INFLUENCE

TRENCHING, EMBEDMENT AND BACKFILL DETAIL NOT TO SCALE



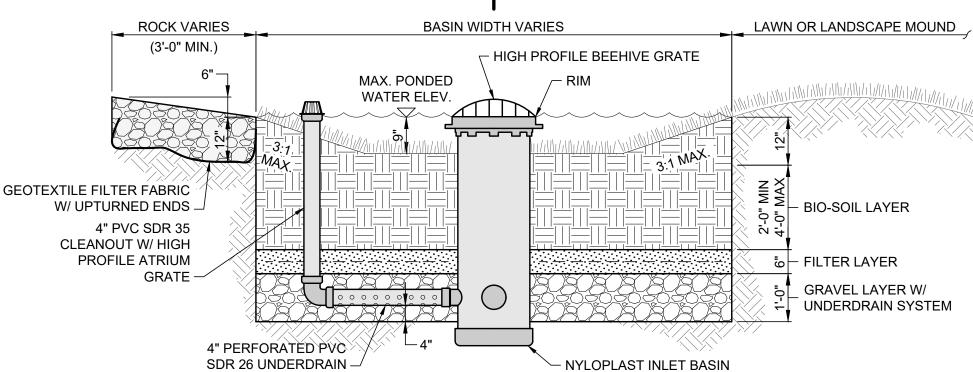
SHOWING BIORETENTION BASIN W/INLET

BASIN AND ADJACENT LAWN

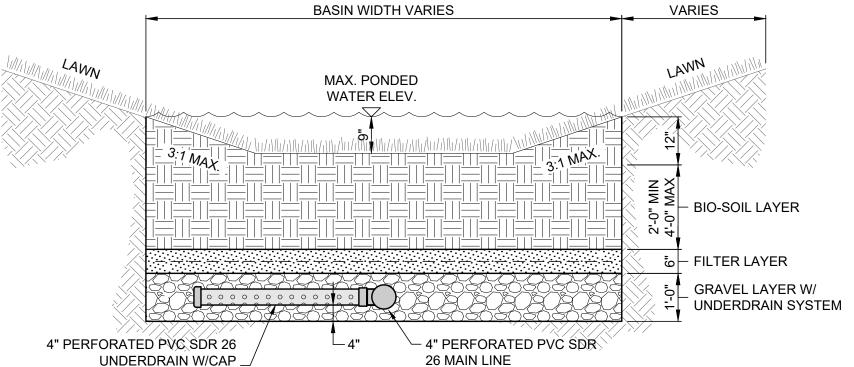
PROFILE VIEW - EXISTING OUTLET AREA

SHOWING BIORETENTION BASIN W/FLUSH

PAVEMENT, ROCK, UNDERDRAIN AND CLEANOUT



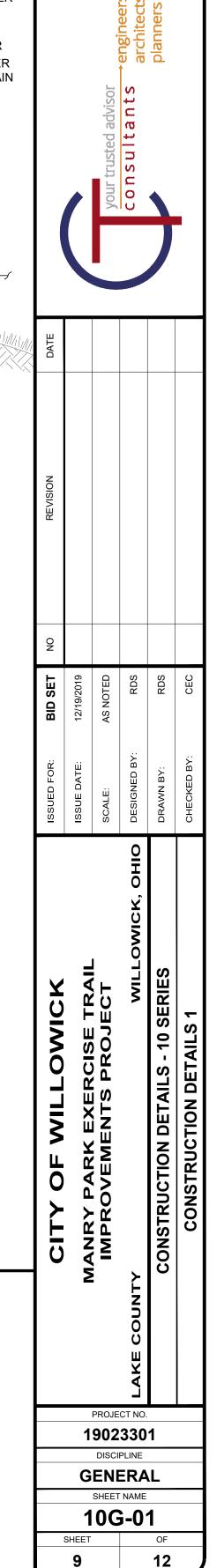
SECTION VIEW #2

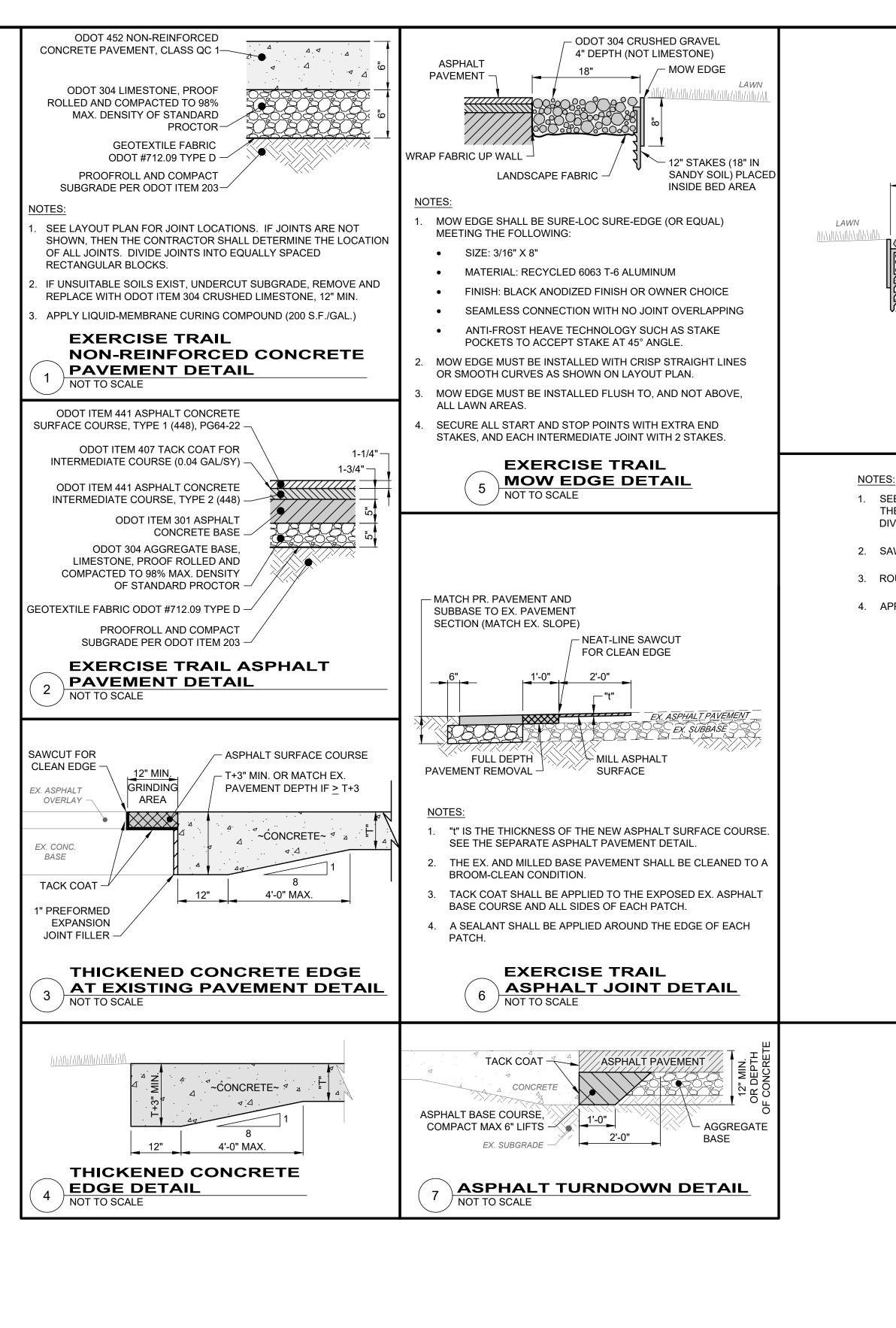


- THIS DETAIL IS FOR REFERENCE AND DIMENSION CONTROL ONLY; NOT ALL ITEMS SHOWN MAY APPLY. SEE VARIOUS PLAN SHEETS FOR ACTUAL CONFIGURATION, CONTOURS, INLET BASIN AND PIPE SIZES, QUANTITIES, ELEVATIONS, PIPE SLOPES AND LANDSCAPING PLACEMENT.
- 2. PAINT ALL PVC APPURTENANCES EXTRUDING FROM THE GROUND SURFACE BLACK (E.G. NYLOPLAST INLET BASIN, RISER PIPE, CLEANOUT CAP, ETC.).
- ROCK SHALL BE 4" TO 6" DIA. RIVERSTONE COBBLES (50%) WITH 1" TO 3" DIA. RIVERSTONE COBBLES (50%).

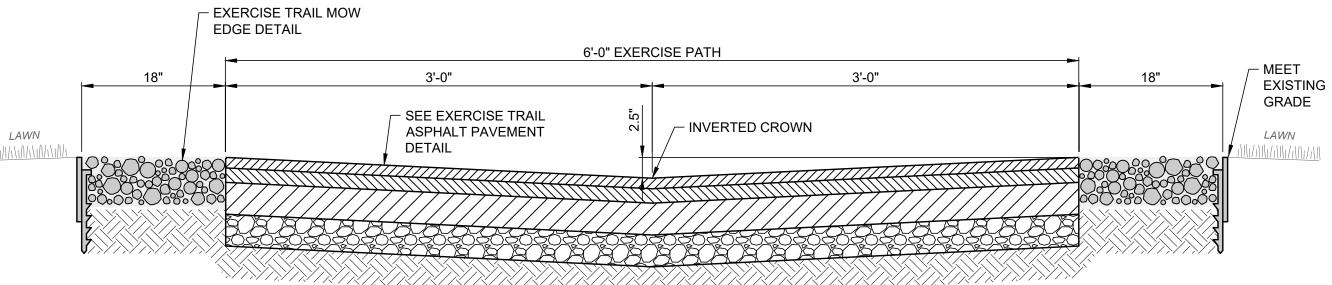


SECTION VIEW #1





1. SEE PLANS & PROFILES FOR ELEVATION INFORMATION.



EXERCISE TRAIL TYPICAL ASPHALT CROSS SECTION

- 1. SEE LAYOUT PLAN FOR JOINT LOCATIONS. IF JOINTS ARE NOT PROVIDED, THEN THE CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL JOINTS. DIVIDE JOINTS INTO EQUALLY SPACED RECTANGULAR BLOCKS.
- 2. SAW CUT OR HAND TOOL JOINT 1/8" WIDE BY 1/4 OF "T" DEEP.
- 3. ROUND ALL EDGES AND JOINTS WITH A 1/4" RADIUS.
- 4. APPLY LIQUID-MEMBRANE CURING COMPOUND (200 S.F./GAL.)

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).

CONCRETE, ASPHALT,

STRUCTURES

BUILDING EDGES OR UTILITY

- LIGHTLY BROOM THE FINISH PERPENDICULAR TO

VARIES - MEET EXISTING CONCRETE OR **VARIES VARIES** ASPHALT SURFACE ELEVATION FLUSH SEAL JOINT MEET EXISTING - INVERTED CROWN TO MAINTAIN A - SEE EXERCISE TRAIL GRADE AT LAWN CONSISTENT SLOPE SO ALL - EXISTING CONCRETE OR NON-REINFORCED AREAS CONCRETE SURFACES DRAIN TO ASPHALT SURFACE LAWN CONCRETE PAVEMENT THE NEAREST CATCH BASIN - INSTALL 1/4" PREFORMED JOINT MATERIAL WHERE NEW CONCRETE MEETS EXISTING

> **EXERCISE TRAIL** TYPICAL CONCRETE CROSS SECTION

PROJECT NO. 19023301 DISCIPLINE **GENERAL**

SHEET NAME 10G-02 12

ADMINISTRATIVE NOTES 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 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. NO CONSTRUCTION ACTIVITIES MAY BEGIN UNTIL ALL OF THE FOLLOWING OCCUR: OHIO EPA NPDES AUTHORIZATION LETTER RECEIVED THE CONTRACTOR FILES A CO-PERMITTEE APPLICATION TO THE OHIO EPA THE CONTRACTOR ATTENDS A PRE-CONSTRUCTION MEETING WITH THE SWCD TO DISCUSS OHIO EPA NPDES PERMIT REQUIREMENTS 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. THE CONTRACTOR SHALL SELECT INDIVIDUALS TO BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR

ACTIVITIES, AND COMPLETING INSPECTION AND MAINTENANCE

"DELEGATION OF AUTHORITY FOR STORM WATER POLLUTION

ALL PROCEDURES AND REQUIREMENTS CONTAINED IN THIS

SWP3 APPLY TO ALL GENERAL AND SUBCONTRACTORS. IT IS

THE RESPONSIBILITY OF THE CONTRACTOR TO IMPLEMENT.

ALL SUBCONTRACTORS THAT ARE OR MAY BE ENGAGED IN

PROCEDURES OF THE SWP3. THE CONTRACTOR SHALL HAVE

ACTIVITIES THAT COULD IMPACT STORM WATER COMPLETE A

CONTROL", AND PROVIDE A COPY TO THE OWNER AND SWCD.

THE CONTRACTOR SHALL KEEP ON-SITE COPIES OF THE NOI,

ALL EROSION AND SEDIMENT CONTROL WORK SHALL BE

SUBJECT TO INSPECTION BY THE SWCD AND OHIO EPA.

"SUBCONTRACTOR AGREEMENT FOR EROSION AND SEDIMENT

INFORM, REQUIRE AND ENFORCE ALL ASPECTS AND

NPDES, SWP3 AND INSPECTION LOGS/REPORTS.

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PREVENTION PLAN" AND PROVIDE A COPY TO THE OWNER AND

REPORTS. THE CONTRACTOR SHALL COMPLETE A

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 _ _ 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. LIMITS OF EARTH DISTURBING ACTIVITY CONSTRUCTION ENTRANCE

GENERAL NOTES

- EROSION AND SEDIMENT CONTROL MEASURES
- CONCRETE WASHOUT PIT **EQUIPMENT STAGING**
- FUEL STORAGE AND VEHICLE FUELING AREA CONSTRUCTION TRAILER(S)
- SANITATION FACILITY
- MATERIAL STOCKPILE LOCATION(S)
- ANY OTHER EROSION CONTROL REQUIRED
- ALL WORK REQUIRED TO IMPLEMENT THE SWP3 INCLUDING INSPECTION FEES, MAINTENANCE AND REPAIRS SHALL BE DONE BY AND AT THE EXPENSE OF THE CONTRACTOR.
- 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.
- ADDITIONAL OR DIFFERENT BMPS MAY BE NEEDED AS CONSTRUCTION PROGRESSES OR AS REQUIRED BY THE OWNER, SWCD OR OHIO EPA.
- PHASE CONSTRUCTION ACTIVITIES TO MINIMIZE LAND DISTURBED AT ANY ONE TIME AND LEAVE EXISTING VEGETATION IN PLACE AS LONG AS POSSIBLE

SPECIAL MEASURES SHALL BE TAKEN TO STABILIZE DRAINAGE CHANNELS AND STORM WATER OUTFALLS.

DIVERT SURFACE RUNOFF AWAY FROM DISTURBED AREAS AND STEEP SLOPES WHEREVER PRACTICABLE.

EROSION CONTROL NOTES

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

OTHER WASTE CONTROL NOTES SEDIMENT 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.

- 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.
- 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 TARPAULIN.
- 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.
- 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.
- 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.
- ANY TOXIC OR HAZARDOUS MATERIAL SPILL, REGARDLESS OF SIZE. MUST BE REPORTED WITHIN 30 MINUTES TO THE LOCAL FIRE DEPARTMENT AND OHIO EPA.
- 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. 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.

- INLET PROTECTION AND SEDIMENT BARRIERS MUST BE INSTALLED PRIOR TO CLEARING AND GRUBBING.
- PERIMETER SEDIMENT BARRIERS SHALL BE INSTALLED AS THE FIRST STEP OF GRADING AND WITHIN 7 DAYS FROM THE START OF CLEARING AND GRUBBING. 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.
- SEDIMENT CONTROLS MUST POND RUNOFF TO BE CONSIDERED FUNCTIONAL.
- 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.
- 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.
- 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												
	STABILIZATION	Α	s	0	N	D	J	F	М	Α	М	J	J	Α	s	0	N	D
	TEMP. SEEDING	8	0	0					0	0	8	8	8	8	0	0		
Ī	PERM. SEEDING	8	0	0						0	8	8	8	8	0	0		
	SODDING	8	8	8					8	8	8	8	8	8	8	8		
	MULCHING	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PAVING	0	0	0	0						0	0	0	0	0	0	0	

⊗ IRRIGATION NEEDED

CONSTRUCTION SITE:

() DEMARCATE PROTECTED AREA BEFORE CONSTRUCTION (X) MAINTAIN PORTABLE TOILET AND EMPTY W/OUT SPILL (X) PROPER STORAGE OF LANDSCAPE FERTILIZER (X) MS4 MONTHLY INSPECTIONS DURING CONSTRUCTION (X) RESOLVE NON-COMPLIANCE SWP3 INSPECTION ITEMS () FINAL INSPECTION TO ENSURE BMP IMPLEMENTATION

BMPS SELECTED

TEMPORARY EROSION CONTROL:

() CHECK DAMS () TEMPORARY DIVERSION () STREAM UTILITY CROSSING () SLOPE DRAIN () DEWATERING () STREAM CROSSING

TEMPORARY SEDIMENT CONTROL:

() SEDIMENT BASIN () SEDIMENT TRAP (X) SILT FENCE (X) INLET PROTECTION (X) FILTER SOCK () FILTER BERM

SOIL STABILIZATION:

(X) DUST CONTROL (X) PHASED DISTURBANCE (X) MULCHING (X) CLEARING AND GRUBBING () SODDING (X) TEMPORARY SEEDING (X) PERMANENT SEEDING (X) TOPSOILING () GRADE TREATMENT (X) CONSTRUCTION ENTRANCE () TEMPORARY ROLLED EROSION CONTROL PRODUCTS () TURF REINFORCEMENT MATTING (X) TREE AND NATURAL AREA PRESERVATION

PERMANENT EROSION CONTROL () GRASSED SWALE () ROCK LINED CHANNEL () LEVEL SPREADER () ROCK OUTLET PROTECTION () DIVERSION () SUBSURFACE DRAIN

POLLUTION PREVENTION AND GOOD HOUSEKEEPING: (X) ROUTINE FACILITY INSPECTIONS

(X) VISUAL ASSESSMENT OF STORM WATER DISCHARGE () ANNUAL COMPREHENSIVE SITE INSPECTION () SWEEP PARKING LOT AND DRIVE LANES

(X) CLEAN CATCH BASINS (X) STORE WASTE IN LIDDED CONTAINERS (X) LOCATE SNOW DISPOSAL AREAS AWAY FROM BMPS () ESTABLISH "PICK-UP PET WASTE" STATION

POST-CONSTRUCTION:

() WETLAND SETBACK () STREAM SETBACK () WATER QUALITY POND () PERMEABLE PAVEMENT () GRASS FILTER STRIP () INFILTRATION TRENCH () TREE BOX FILTER () SAND FILTER

() GREEN ROOF () LTMA () BIORETENTION AREA () CISTERN

() BIORETENTION WITH INTERNAL WATER STORAGE () OPEN CHANNEL SWALES

() WET EXTENDED DETENTION BASIN

() DRY EXTENDED DETENTION BASIN WITH FOREBAY () RETROFIT SWMF TO TREAT WQV

() RETROFIT SWMF TO INCREASE INFILTRATION

() RETROFIT SWMF POND TO FUNCTION AS WETLAND () AS-BUILT POST-BMPS

() SUBMIT LTMA ANNUAL MAINTENANCE REPORT TO MS4 (X) REDUCE IMPERVIOUS SURFACES

() DECREASE QUANTITY OF PARKING SPACES

() LOW IMPACT DEVELOPMENT

() CONSERVATION DEVELOPMENT

() DISCONNECT DOWNSPOUT AND REDIRECT TO BMP () VEGETATE MAINTENANCE/STORAGE YARD OPEN AREAS

(X) IMPLEMENT LOW-MOW OR NO-MOW PRACTICES

() PEST MANAGEMENT PROGRAM

BMPS SHALL BE MAINTAINED IN GOOD WORKING ORDER UNTIL UPSLOPE AREAS THEY CONTROL ARE STABILIZED.

- 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. A QUALIFIED PERSON MUST INSPECT BMPS AT LEAST ONCE

MAINTENANCE REQUIREMENTS

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

EVERY 7 DAYS AND WITHIN 24 HOURS OF A 0.5" OR GREATER

INCLUDING THE FOLLOWING: DATE OF INSPECTION

OBSERVED.

- NAME AND QUALIFICATION OF THE INSPECTOR
- WEATHER CONDITIONS LOCATIONS WHERE IN-STREAM OR OFF-SITE SEDIMENTATION OR OTHER POLLUTANTS WERE
- LOCATIONS OF BMPS NEEDING MAINTENANCE.
- LOCATIONS OF BMPS FAILING TO OPERATE CORRECTLY OR PROVIDE ADEQUATE PROTECTION.
- LOCATION OF AREAS IN NEED OF ADDITIONAL BMPS NOT IN PLACE AT THE TIME OF INSPECTION.
- CORRECTIVE ACTIONS REQUIRED, CHANGES TO THE SWP3 AND IMPLEMENTATION DATES.

EROSION AND SEDIMENT CONTROL AMENDMENT LOG

OF NON-COMPLIANCE, IT MUST CONTAIN A CERTIFICATION THE

- GRADING AND STABILIZATION ACTIVITY LOG
- ALL INCIDENCES OF NON-COMPLIANCE MUST BE IDENTIFIED IN THE REPORT. IF A REPORT DOES NOT IDENTIFY INCIDENCES

SITE IS IN COMPLIANCE AT THE TIME OF INSPECTION

- 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.
- 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. 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.
- 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 SUSPENDED.
- 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.
- INSPECTIONS SHALL BE PERFORMED UNTIL A NOT IS FILED WITH THE OHIO EPA.

SEQUENCE OF MAJOR CONSTRUCTION ACTIVITIES

- HOLD A PRE-CONSTRUCTION MEETING TO DISCUSS OHIO EPA NPDES PERMIT REQUIREMENTS. CONTRACTOR SUBMITS CONSTRUCTION SCHEDULE FOR
- CONSTRUCTION ACTIVITIES. BEGIN INSPECTION, MAINTENANCE, RECORD KEEPING AND SITE POSTING OF BMPS.
- ESTABLISH STAGING AREA AND NON-SEDIMENT BMPS.
- INSTALL SILT FENCE, INLET PROTECTION AND CONSTRUCTION ENTRANCE.
- 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.
- INSTALL DEWATERING MEASURES. BEGIN SITE DEMOLITION AND CONSTRUCTION.
- BEGIN EARTHWORK OPERATIONS.
- 10. INSTALL STORM SEWER SYSTEM & BIOSWALE
- 11. INSTALL NEW EXERCISE TRAIL. 12. APPLY TEMPORARY SEED.
- 13. RESTORE EXISTING ROADWAY SURFACE REMOVED FOR CULVERT INSTALLATION.
- 14. APPLY PERMANENT SEED.
- 15. INSTALL LANDSCAPING.
- 16. CONTINUE INSPECTIONS, MAINTENANCE, RECORD KEEPING, AND SITE POSTING UNTIL FINAL STABILIZATION ACHIEVED.
- 17. REMOVE TEMPORARY BMPS AND OPEN DITCHES TO OBTAIN FREE DRAINAGE.
- 18. DISPOSE OF ALL DEBRIS AND WASTE MATERIAL.





PROJECT NO.

19023301

DISCIPLINE

GENERAL

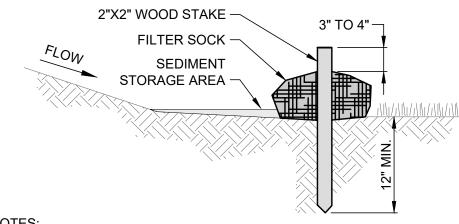
SHEET NAME

SWP3-1

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- FINAL STABILIZATION REQUIRES THE CONTRACTOR TO REMOVE ALL TEMPORARY SEDIMENT AND EROSION CONTROLS FROM THE SITE AND ALL SEDIMENT TRAPPED BY THOSE CONTROLS
 - 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.
- 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.
- THE CONTRACTOR MUST MAINTAIN ALL REPORTS FOR 3 YEARS OWNER AND SWCD.

- BE PERMANENTLY STABILIZED
- ONCE CONSTRUCTION ACTIVITIES HAVE CEASED AND THE SITE



NOTES

- FILTER SOCKS SHALL BE 3 OR 5 MIL CONTINUOUS, TUBULAR, HDPE 3/8" KNITTED MESH NETTING MATERIAL, FILLED WITH COMPOST.
- 2. COMPOST SHALL BE WEED, PATHOGEN AND INSECT FREE, FREE OF ANY REFUSE, CONTAMINANTS OR OTHER MATERIALS TOXIC TO PLANT GROWTH, BE DERIVED FROM A WELL-DECOMPOSED SOURCE OF ORGANIC MATTER, AND CONSIST OF PARTICLES RANGING FROM 3/8" TO 2".
- 3. FILTER SOCKS SHALL BE PLACED ON A LEVEL LINE ACROSS SLOPES PARALLEL TO THE BASE OF THE SLOPE. ON SLOPES APPROACHING 2:1, ADDITIONAL SOCKS SHALL BE PROVIDED AT THE TOP AND MID-SLOPE.
- 4. FILTER SOCKS SHALL BE PLACED AT LEAST 5' FROM THE TOE OF SLOPE FOR SEDIMENT DEPOSIT.
- 5. BUILT UP SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED 1/3 THE FILTER SOCK HEIGHT.
- 6. WHEN A FILTER SOCK IS NO LONGER REQUIRED, IT SHALL BE DISPERSED ON-SITE.
- 7. THE MAXIMUM DRAINAGE AREA PER 100 FEET OF FILTER SOCK IS 1/2 ACRE AND IS DEPENDENT ON THE SLOPE FOLLOWING THE GUIDANCE CHART BELOW:

MAX. SLOPE LENGTH ABOVE FILTER SOCK							
SLOPE	RATIO (H:V)	8"	12"	18"	24"		
0% - 2%	0 - 50:1	125'	250'	300'	350'		
2% - 10%	50:1 - 10:1	100'	125'	200'	250'		
10% - 20%	10:1 - 5:1	75'	100'	150'	200'		
20% - 50%	5:1 - 2:1	N/A	50'	75'	100'		
<u>></u> 50%	<u>></u> 2:1	N/A	25'	50'	75'		

FILTER SOCK DETAIL

SCALE: NONE

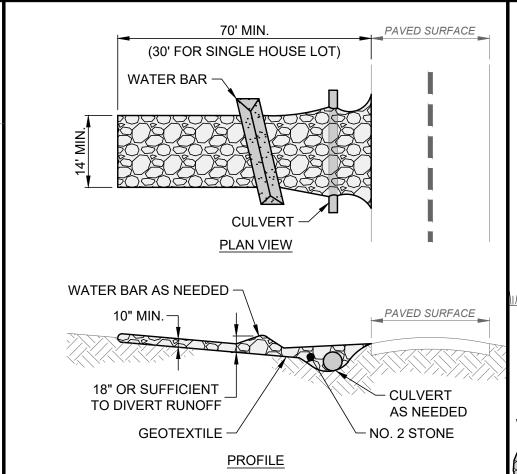
NOTES:

- 1. THE SEED BED SHALL BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION.
- 2. 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
- 3. 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 TALL FESCUE PERENNIAL RYEGRASS	3 1 1	128 40 40				
	PERENNIAL RYEGRASS TALL FESCUE	2 1	40 40				
AUGUST 16 - OCTOBER 31	RYE TALL FESCUE PERENNIAL RYEGRASS	3 1 1	112 40 40				
	WHEAT TALL FESCUE PERENNIAL RYEGRASS	3 1 1	120 40 40				
	PERENNIAL RYEGRASS TALL FESCUE	2 1	40 40				
NOVEMBER 1 - FEBRUARY 28							

TEMPORARY SEEDING DETAIL



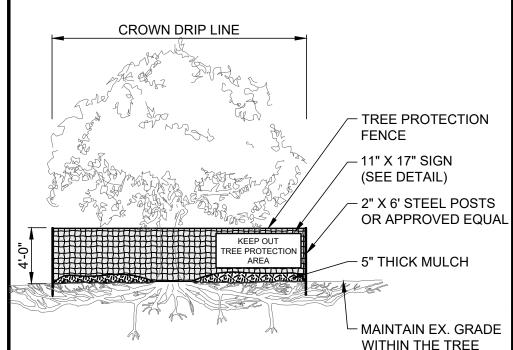
NOTES:

. GEOTEXTILE SHALL BE COMPOSED OF STRONG ROT-PROOF POLYMERIC FIBERS MEETING THE FOLLOWING:

TENSILE STRENGTH	200 LB
PUNCTURE STRENGTH	80 PSI
TEAR STRENGTH	50 LB
BURST STRENGTH	320 PSI
ELONGATION	20%
EQUIVALENT OPENING SIZE	< 0.6 MM
PERMITTIVITY	0.001 CM/SEC.

- 2. INSTALL WATER BAR, AS NEEDED, TO PREVENT SURFACE RUNOFF FROM FLOWING OUT ONTO PAVEMENT.
- 3. APPLY ADDITIONAL STONE AS CONDITIONS DEMAND, REPLENISH STONE WHEN THE DEPTH IS LESS THAN 6", AND REPLACE IF STONES BECOMES MUD-LADEN.
- 4. IMMEDIATELY REMOVE MUD DROPPED, WASHED OR TRACKED ONTO ROADS OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS BY SCRAPING OR SWEEPING.
- 5. CONSTRUCTION ENTRANCE SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES OR PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE SITE SHALL BE RESTRICTED FROM MUDDY AREAS.
- 6. CONSTRUCTION ENTRANCE SHALL REMAIN UNTIL THE DISTURBED AREA IS STABILIZED OR REPLACED WITH A PERMANENT ROADWAY.

CONSTRUCTION ENTRANCE SCALE: NONE

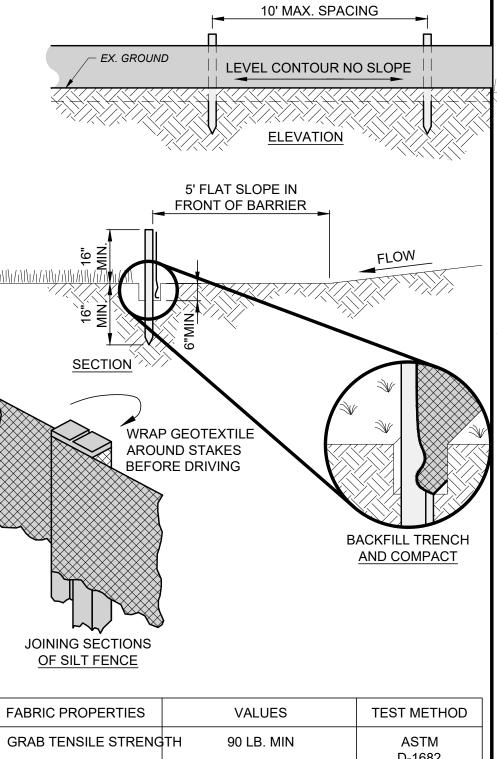


NOTES:

- TREE PROTECTION FENCE MUST BE INSTALLED PRIOR TO BEGINNING CLEARING OPERATIONS AND REMAIN UNTIL FINAL GRADING HAS BEEN COMPLETED.
- 2. 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.
- 4. STEEL POSTS SHALL BE INSTALLED AT 8' O.C. MIN.
- 5. 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



FABRIC PROPERTIES	VALUES	TEST METHOD
GRAB TENSILE STRENG	TH 90 LB. MIN	ASTM D-1682
MULLEN BURST STRENGTH	190 PSI MIN	ASTM D-3786
SLURRY FLOW RATE	0.3 GAL./MIN./S.F. MAX.	
EQUIVALENT OPENING SIZE	40-80	US STD. SIEVE CW-02215
ULTRAVIOLET RADIATION STABILITY	90% MIN	ASTM-G-26

IOTES:

- 1. PRESERVE VEGETATION FOR 5 FEET OR AS MUCH AS POSSIBLE UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE RE-ESTABLISHED WITHIN 7 DAYS FROM SILT FENCE INSTALLATION.
- 2. THE MAXIMUM DRAINAGE AREA PER 100 FEET OF SILT FENCE IS DEPENDENT ON THE SLOPE, BUT NO MORE THAN 1/2 ACRE. SILT FENCE CANNOT BE USED FOR DRAINAGE AREAS WITH SLOPES GREATER THAN 50%.
- 3. SILT FENCE MAY ONLY PASS RUNOFF AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, THEN CHANGE THE LAYOUT OF THE SILT FENCE, REMOVE ACCUMULATED SEDIMENT OR INSTALL OTHER PRACTICES.
- 4. SILT FENCE SHALL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, VERIFICATION FABRIC IS SECURELY ATTACHED TO FENCE POSTS, AND VERIFICATION FENCE POSTS ARE FIRMLY IN THE GROUND. BUILT UP SEDIMENT SHALL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED 1/3 THE FENCE HEIGHT.

SILT FENCE

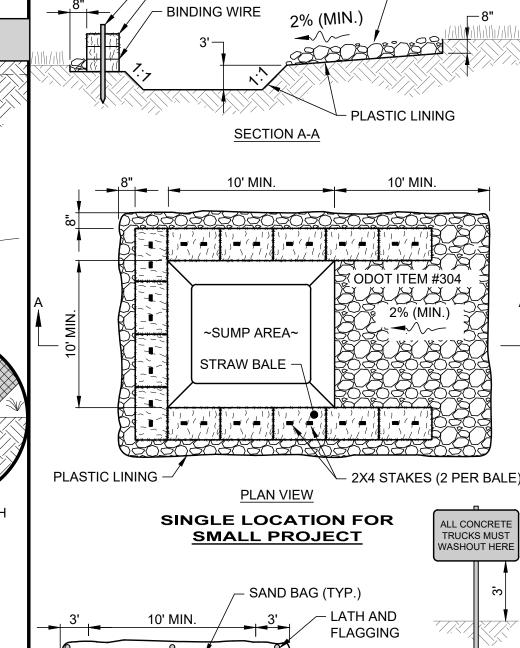
SCALE: NONE

NOTES:

PROTECTION FENCE

- 1. 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.

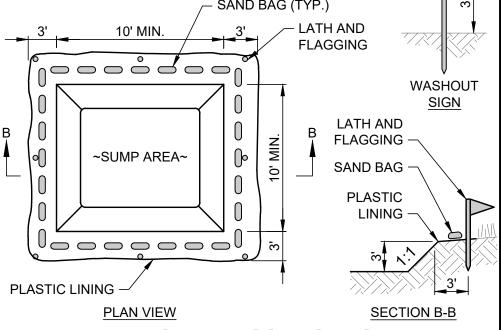
MULCHING DETAIL



- 2X4 STAKES

STRAW BALE

ODOT ITEM #304

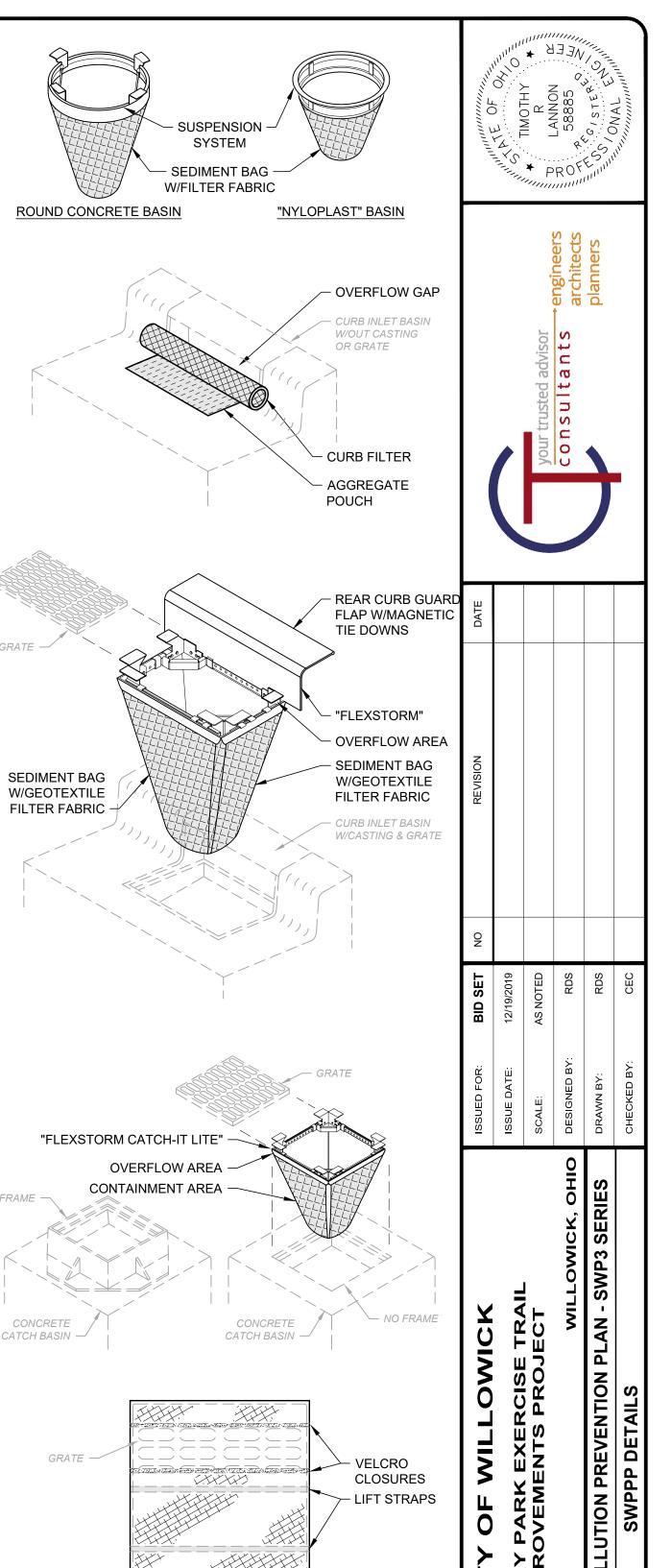


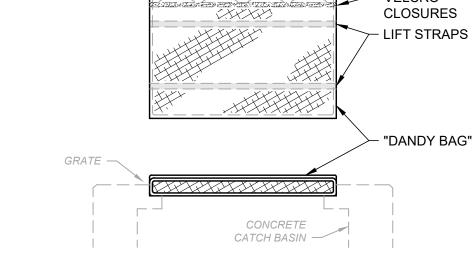
TEMPORARY LOCATION FOR MULTIPLE PHASE OR LARGE PROJECT

NOTES:

- CONCRETE WASHOUT AREA SHALL BE LOCATED A MINIMUM OF 100' FROM STORM SEWER INLETS, STREAMS, WETLANDS OR ANY OTHER SURFACE WATERS.
- IF CONCRETE WASHOUT AREA IS LOCATED AWAY FROM A PAVED SURFACE, CONSTRUCT A GRAVEL ACCESS ROUTE EQUAL IN COMPOSITION TO A CONSTRUCTION ENTRANCE.
- 3. CONCRETE WASHOUT AREA SHALL BE SUFFICIENT SIZE TO CONTAIN CONCRETE WASTE GENERATED. LARGE SITES MAY REQUIRE MULTIPLE CONCRETE WASHOUT AREAS.
- 4. PLASTIC LINING SHALL BE DOUBLE-LINED, CONTINUOUS 10-ML POLYETHYLENE SHEETING FREE OF HOLES, TEARS OR OTHER DEFECTS INSTALLED ON A SMOOTH, LEVEL SURFACE, FREE OF LARGE ROCKS AND DEBRIS.
- . CONCRETE WASHOUT SIGNAGE SHALL BE CLEARLY VISIBLE AND LOCATED WITHIN 30 FEET OF EACH WASHOUT AREA.
- 6. CONCRETE WASHOUT AREA SHALL BE COVERED DURING INCLEMENT WEATHER TO PREVENT OVERFLOW.
- PREFABRICATED, PORTABLE AND RE-USABLE CONCRETE
 WASHOUT CONTAINERS ARE ACCEPTABLE.
- 8. CONCRETE WASHOUT AREA SHALL BE INSPECTED DAILY TO CHECK FOR DAMAGE AND DETERMINE IF IT NEEDS CLEANED OR REPLACED. ANY DAMAGE TO THE SIDEWALLS OR PLASTIC LINING SHALL BE REPAIRED IMMEDIATELY. REPLACE THE ENTIRE CONCRETE WASHOUT AREA WHEN IT IS 75% FULL.

CONCRETE WASHOUT AREA DETAIL SCALE: NONE





NOTES:

- ALL NEW AND EXISTING STORM INLET BASINS WITHIN THE WORK LIMITS SHALL HAVE INLET PROTECTION INSTALLED.
 INLET PROTECTION SHALL BE INSTALLED AS EACH STORM INLET IS CONSTRUCTED.
- 3. NOT ALL ITEMS SHOWN MAY APPLY OR DIFFERENT TYPES OR CONFIGURATIONS MAY BE REQUIRED. THE CONTRACTOR SHALL MEASURE EACH INLET TO CONFIGURE AND ASSEMBLE CUSTOMIZED INLET FILTERS.

INLET PROTECTION DETAIL
SCALE: NONE

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