

# TIGER TARPS BUILDING

## CIVPRO ENGINEERING, LLC

### CITY OF MASSILLON

#### Stark County, Ohio

#### PROJECT DESCRIPTION

CONSTRUCTION OF A NEW INDUSTRIAL FACILITY INCLUDING 530 LF OF 8" SANITARY SEWER

#### CONVENTIONAL SIGNS

RIGHT OF WAY . . . EXISTING: —Ex R/W—, PROPOSED: —PE-R/W—  
COUNTY LINE . . . —————  
TOWNSHIP LINE . . . —————  
CORPORATION LINE . . . —————  
FENCE LINE . . . EXISTING: —X—, PROPOSED: —X—  
GUARDRAIL . . . EXISTING: —O—O—O—O—O—, PROPOSED: —●—●—●—●—●—  
MANHOLES . . . EXISTING: —(S)—, PROPOSED: —(C)—, REHABILITATED: —(R)—  
CATCH BASINS . . . EXISTING: —[ ]—, PROPOSED: —[ ]—, REHABILITATED: —[ ]—  
SIGNS . . . 1-POST: —T—, 2-POST: —F—, 3-POST: —F—, STREET: —#—  
EXISTING POLES . . . POWER: —P—, TELEPHONE —T—, LIGHT —L—, SPAN —S—  
PROPOSED POLES . . . POWER: —P—, TELEPHONE —T—, LIGHT —L—, SPAN —S—  
EXIST. UTILITIES . . . VALVE: —V—, HYDRANT: —H—, METERS: —M—, GUY: —G—

#### PERMIT TO INSTALL

SANITARY SEWER PERMIT TO INSTALL (P.T.I.) HAS BEEN RECEIVED FROM THE OHIO ENVIRONMENTAL PROTECTION AGENCY PROTECTION AGENCY THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20 \_\_\_\_  
PTI No. \_\_\_\_\_



LOCATION MAP

PORTION TO BE IMPROVED . . . . .

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#### APPROVALS

APPROVED BY: Jason Popiel 6-3-19  
CITY ENGINEER - JASON POPIEL, P.E. DATE  
EROSION AND SEDIMENT CONTROL PLAN APPROVAL  
APPROVED BY STARK SOIL AND WATER DISTRICT BY LETTER DATE

#### UNDERGROUND UTILITIES

CONTACT BOTH SERVICES TWO WORKING DAYS BEFORE YOU DIG

Call Before You Dig  
1-800-362-2764

(Non-members must be called directly)

OIL & GAS PRODUCERS  
UNDERGROUND PROTECTION SERVICE  
1-800-925-0988



PLAN PREPARED BY:  
CIVPRO ENGINEERING  
4450 Belden Village St. NW, Suite 800  
Canton, Ohio 44718  
(234) 410-3913

OWNER:  
Massillon Energy Technology Park  
411 Oberlin Avenue SW  
Massillon, OH 44647  
ATTN: Garret Kloots  
(330) 495-5246

Keith A. Dylewski

KEITH A. DYLEWSKI, P.E., P.S.  
CIVPRO ENGINEERING, LLC



2/28/2019  
DATE

VERTICAL SCALE IN FEET  
HORIZONTAL SCALE IN FEET

CHECKED BY: KAD  
DATE: Feb, 2019  
DRAWN BY: BMH  
DATE: Feb, 2019

REVISIONS:	DATE	DESCRIPTION

TIGER TARPS BUILDING  
Title Sheet  
City of Massillon  
Stark County, Ohio

CIVPRO ENGINEERING  
ENGINEERS-ARCHITECTS-CONSTRUCTION MANAGERS  
4450 BELDEN VILLAGE STREET NW, SUITE 800 CANTON, OH 44718  
PHONE: (234) 410-3913 EMAIL: KAD@CIVPROENGINEERING.COM WWW.CIVPROENGINEERING.COM

DRAWING NAME: Sht1-TigerTarpTitle  
PROJECT NUMBER: 1 / 9



GENERAL NOTES

THE CONSTRUCTION OF THIS PROJECT SHALL BE GOVERNED BY THE CITY OF MASSILLON AND SUPPLEMENTED WHERE APPLICABLE BY THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION (O.D.O. T.) MATERIAL SPECIFICATIONS, 2016.

THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE PROJECT, SITE CONDITIONS, WEATHER LIMITATIONS, SCHEDULE LIMITATIONS, PLANS, SPECIFICATIONS, STANDARD DRAWINGS AND ANY OTHER DOCUMENTS ASSOCIATED WITH THE PROJECT PRIOR BIDDING ON THIS PROJECT

ANY CHANGE ORDERS TO THE ORIGINAL CONTRACT DOCUMENTS MUST BE SUBMITTED IN WRITING BY THE CONTRACTOR, TO THE ENGINEER, FOR REVIEW AND APPROVAL/DISAPPROVAL BY THE OWNER. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY UPON SUSPECTING A PENDING CHANGE ORDER. THE OWNER WILL REVIEW EACH REQUEST IN A TIMELY FASHION. ANY WORK COMPLETED BY THE CONTRACTOR WITHOUT PRIOR WRITTEN AUTHORIZATION WILL NOT BE PAID BY THE OWNER (COST WILL BE BORNE BY THE CONTRACTOR.

ANY MODIFICATION TO THE WORK SHOWN ON THESE PLANS MUST HAVE PRIOR WRITTEN APPROVAL BY THE ENGINEER.

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL REQUEST AND ATTEND A PRE-CONSTRUCTION MEETING.

AT THE PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL PROVIDE ALL SHOP DRAWINGS AND MATERIAL SHEETS FOR REVIEW, A LIST OF ALL SUBCONTRACTOR S, A WRITTEN SCHEDULE FOR THE PROJECT, EMERGENCY NUMBERS, AND OTHER ITEMS REQUESTED BY THE ENGINEER, PRIOR TO BEGINNING ANY WORK ON THE PROJECT.

THE CONTRACTOR SHALL CONFINE WORK ACTIVITIES TO THE PROJECT ARE A, UNLESS PRIVATE AGREEMENTS HAVE BEEN MADE BETWEEN THE CONTRACTOR AND PROPERTY OWNERS TO EXTEND ONTO PRIVATE PROPERTY ALL DAMAGE TO AREAS BEYOND THE WORK LIMITS SHALL BE REPAIRED TO A CONDITION EQUAL TO OR BETTER THAN THE CONDITION BEFORE CONSTRUCTION. ALL COSTS FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THIS PROJECT.

ALL ROAD SURFACES, EASEMENTS OR RIGHT OF WAYS DISTURBED BY CONSTRUCTION OF ANY PART OF THIS IMPROVEMENT ARE TO BE RESTORED COMPLETELY TO THE BEFORE CONSTRUCTION CONDITION OR BETTER.

PRICES BID PER FOOT FOR ALL PIPE IS COMPLETE IN PLACE REGARDLESS OF SOIL OR ROCK CONDITIONS.

NO WORK OR OTHER ACTIVITIES ARE TO TAKE PLACE OUTSIDE OF THE PROPERTY LINES OF THIS PROJECT AS DEFINED IN THE CONTRACT PLANS. CONTRACTOR SHALL LIMIT THE AREA OF DISTURBANCE TO THE PROPOSED LIMITS OF GRADING.

WHERE POSSIBLE, PRIOR TO SOIL STOCKPILING, CONTRACTOR TO REVIEW THE EXISTING SITE CONDITIONS/ELEVATION PRIOR TO BID. EXCAVATE TEST PITS AS NECESSARY. OWNER TO PAY FOR MONITORING BY GEOTECHNICAL ENGINEER.

FERTILIZING, SEEDING AND MULCHING FOR RESTORATION OF DISTURBED AREAS SHALL CONFORM TO CITY OF MASSILLON CONSTRUCTION STANDARDS AND SPECIFICATIONS.

THE EXISTING CONTOURS WERE FROM FIELD TOPOGRAPHIC SURVEY PRIOR TO SITE CLEARING, DEMOLITION AND TOPSOIL STOCKPILING. THE CONTOURS ARE IN ONE (1) FOOT INCREMENTS.

CONTRACTOR SHALL RESTORE ALL AREAS AND UTILITIES DISTURBED BY HIS WORK SHALL BE REPAIRED TO THE CONDITION EXISTING PRIOR TO CONSTRUCTION AND AS PER CONTRACT DRAWINGS AND SPECIFICATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES TO EXISTING UTILITIES, BUILDINGS, ROADWAYS, STRUCTURES AND SITE CONDITIONS RESULTING FROM HIS WORK.

CONTRACTOR SHALL STRICTLY ADHERE TO EROSION CONTROL PLAN. SEE STORM WATER POLLUTION CONTROL SHEETS AND DETAILED EROSION CONTROL NOTES. TEMPORARY WATER POLLUTION. SOIL EROSION AND SILTATION CONTROL MAY BE REQUIRED IN ACCORDANCE WITH ITEM 207 OF THE O. O. O.T. CONSTRUCTION AND MATERIAL SPECIFICATIONS.

ALL DISTURBED SIGNS, GUARD RAIL, MAIL AND/OR PAPER BOXES, DRIVES AND DRIVE CULVERTS SHALL BE REPAIRED AND/OR REPLACED AS DIRECTED BY THE CITY OF MASSILLON.

ALL DISTURBED AND/OR DAMAGED SEWER PIPES, SEWER APPURTENANCES, PAVEMENTS, BERMS AND DITCHES SHALL BE REPAIRED AND /OR REPLACED AS DIRECTED BY THE CITY OF MASSILLON.

ALL COSTS FOR THE WORK DESCRIBED ABOVE SHALL BE INCLUDED FOR PAYMENT WITH THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

CONTACT: THE CITY OF MASSILLON  
151 LINCOLN WAY E  
MASSILLON, OH 446461  
(330)830-1922  
(330)830-1786

SAFETY

THE CONTRACTOR AND SUBCONTRACTOR(S) SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTION AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS ALSO THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SUBCONTRACTOR(S) TO INITIATE, MAINTAIN, AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK.

THE ENGINEER RESERVES THE RIGHT TO SHUT-DOWN THE PROJECT WITH NO RESPONSIBILITY TO DELAY CLAIMS OR PROJECT SCHEDULE, SHOULD THE CONTRACTOR FAIL TO PROVIDE A SAFE ENVIRONMENT FOR WORKERS AND /OR THE PUBLIC.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

UTILITIES

THE FOLLOWING UTILITIES MAY BE LOCATED WITHIN THE WORK LIMITS: UTILITY & CONTACT (IF APPLICABLE) PHONE

CITY ENGINEER, JASON POPIEL, PE	(330) 830-1722
CITY OF MASSILLON (STORM, SANITARY)	(330) 830-1722
AQUA OHIO	(330) 832-5764
MCTV	(330) 833-4134
FIRST ENERGY	(330) 830-7056
DOMINION	(330) 478-1700
AMERITECH	(330) 834-8057

CONTRACTOR SHALL USE THE FOLLOWING PROCEDURE AT EACH LOCATION WHERE WORK IS PERFORMED, IN ACCORDANCE WITH SECTIONS 105.07 AND 107.16 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS.

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, THE OHIO UTILITIES PROTECTION SERVICE (OUPS), THE OHIO OIL AND GAS PRODUCERS UNDERGROUND PROTECTION SERVICE (OGPUPS), THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 4 HEADQUARTERS AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION IN ALL AREAS.

OUPS 1-800-362-2764 (CONTACT LIMITED BASIS PARTICIPANTS DIRECTLY)  
OGPUPS 1-800-925-0988  
ODOT 1-330-786-3145

EXISTING UTILITIES SHOWN ON THE PLANS ARE BASED UPON THE BEST AVAILABLE INFORMATION PROVIDED TO THE ENGINEER. THE CONTRACTOR SHALL EXPOSE ALL EXISTING UTILITIES OR STRUCTURES PRIOR TO CONSTRUCTION OF PROPOSED PIPES OR FACILITIES TO VERIFY THE REQUIRED VERTICAL AND HORIZONTAL CLEARANCE IS AVAILABLE, PRIOR TO CONSTRUCTION OF THE PROPOSED FACILITY. IN THE CASE OF CONFLICT BETWEEN UTILITIES, THE ENGINEER SHALL DETERMINE THE PROPOSED COURSE OF ACTION TO ELIMINATE THE CONFLICT. THE CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION, LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES, WHETHER SHOWN ON THESE PLANS OR NOT.

HE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES. ALL EXISTING UTILITIES, SERVICE LINES, ETC.. DAMAGED DURING CONSTRUCTION OF THE PROJECT SHALL BE REPAIRED TO THE SATISFACTION OF THE UTILITY OWNER

AT ALL UTILITY CROSSINGS, THE TRENCH BACKFILL SHALL CONSIST OF COMPACTED GRANULAR MATERIAL BETWEEN THE PIPES.

ALL EXISTING MANHOLES, CATCH BASINS, UTILITY BOXES, VALVES BOXES, ETC. SHALL BE ADJUSTED TO MATCH THE FINISHED GRADE OF THE PROJECT.

STORM SEWER SYSTEM  
ALL STORM STRUCTURES SHALL MEET THE REQUIREMENTS OF ODOT ITEM 611, CONSTRUCTED PER THE STANDARD DRAWING REFERENCED IN THE PLANS, OR AS MODIFIED BY SPECIFIC DETAILS INCLUDED IN THIS PLAN. ACCEPTABLE MATERIALS SHALL BE PRECAST CONCRETE ONLY.

ALL STORM GRATES SHALL BE "BICYCLE SAFE" AND "ADA COMPLIANT".

ALL STORM PIPES SHALL MEET THE REQUIREMENTS OF ODOT ITEM 611, OR AS MODIFIED BY SPECIFIC DETAILS INCLUDED IN THIS PLAN. ACCEPTABLE STORM SEWER MATERIALS SHALL BE RCP (706.02), HDPE (707.33), OR PVC (707.42,707.43).

ALL STORM SEWER S UNDER PAVEMENT SHALL BE ODOT TYPE B. ALL DRIVE PIPES SHALL BE ODOT TYPE D. ALL CULVERTS SHALL BE ODOT TYPE A.

ALL UNDERDRAINS SHALL MEET THE REQUIREMENTS OF ODOT ITEM 605, OR A S MODIFIED BY SPECIFIC DETAILS INCLUDED IN THIS PLAN. ACCEPTABLE MATERIALS SHALL BE HDPE (707.31) OR PVC (707.41).

ALL ROOF DRAIN COLLECTOR S SHALL MEET THE REQUIREMENTS OF ODOT ITEM 605, OR AS MODIFIED BY SPECIFIC DETAILS INCLUDED IN THIS PLAN. ACCEPTABLE MATERIALS SHALL BE HDPE (707.33) OR PVC (707.45).BACKFILL FOR ALL PIPES WITHIN THE INFLUENCE LINE OF THE PAVEMENT (STREET,DRIVEWAYS, SIDEWALKS, ETC.) SHALL BE FULL DEPTH COMPACTED GRANULAR EMBANKMENT MEETING THE REQUIREMENTS OF ODOT ITEM 611. THE INFLUENCE LINE OF THE PAVEMENT IS DEFINED AS A LINE EXTENDING DOWNWARD AT A 45 DEGREE ANGLE FROM A POINT 2 FEET BEYOND THE PAVEMENT. COMPACTION AND TESTING REQUIREMENTS SHALL MEET THE ODOT SPECIFICATION.

ALL EXISTING PIPES, ROOF DRAINS, DRAIN TILES, SUMP PUMP CONNECTIONS, SPRING DRAINS. OR FIELD TILES ENCOUNTERED DURING CONSTRUCTION SHALL BE CONNECTED TO THE STORM SEWER SYSTEM OR ROOF DRAIN COLLECTOR SYSTEM, AS DIRECTED BY THE ENGINEER.

ALL COSTS FOR THE WORK DESCRIBED ABOVE SHALL BE INCLUDED FOR PAYMENT WITH THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATION.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 ITEM.

CITY OF MASSILLON CONSTRUCTION STANDARDS AND SPECIFICATIONS;

CONSTRUCTION NOTES FOR SANITARY & STORM SEWER INSTALLATION [S-1 & S-2]  
\*SHEET REFERENCES LISTED BELOW REFER TO CITY OF MASSILLON STANDARD CONSTRUCTION DRAWINGS

1. A) SANITARY SEWER PIPE SHALL BE POLYVINYL CHLORIDE (PVC) SCHEDULE 35 ASTM D- 3034 WITH RING-TITE FACTORY INSTALLED RUBBER SEALING RING  
2.ASTM C-443) TO DEPTH OF 17 FT.

B) FOR DEPTHS OF 17 FT. TO 28 FT. SDR 26 ASTM D3034 SHALL BE USED.

C) THE SANITARY PIPE FOR DEPTHS GREATER THAN 28 FT. SHALL BE APPROVED BY THE CITY ENGINEER

2.RCP FOR 12" AND 15" SHALL BE A CLASS IV TYPE. CLASS III FOR 18" AND LARGER PIPE SHALL BE CLASS III WITH LOAD BEARING QUALIFICATION APPROVED BY THE CITY ENGINEER. CLASS IV PIPE SHALL BE USED IN CASES OF DEEP SEWERS OR HEAVY LOADS.

3.STORM SEWER PIPE SHALL BE POLYVINYL CHLORIDE (PVC) SCHEDULE 35 ASTM D-3034 WITH RING-TITE FACTORY INSTALLED RUBBER SEALING RING (ASTM C-443) OR RCP, WITH NEOPRENE RUBBER 'O' RING GASKETS.

4.THE CITY MAY CONSIDER THE ON SITE USE OF CORRUGATED SMOOTH INTERIOR HDPE PIPE FOR STORM SEWERS AS SPECIFIED ON SHEET S-18 & S-19.

5.MANHOLE TO MANHOLE DISTANCE SHALL NOT EXCEED 400 FEET.

6.WELL POINTS SHALL BE INSTALLED AT THE DOWN STREAM MANHOLE OF ALL SANITARY MAIN SYSTEMS FOR THE PURPOSE OF MEASURING GROUND WATER, SO AS TO CALCULATE REQUIRED AIR PRESSURE. SEE SHEET S- 2 SANITARY LINE AIR TESTING.

7.SANITARY MANHOLES SHALL MEET ASTM C -478 FOR MATERIAL AND ASTM C-443 FOR JOINTS  
8. FLEXIBLE GASKETS ON ALL SEWER LINE CONNECTIONS AND ALL PRECAST MANHOLE COLLARS SHALL BE ASTM C-923.

9. ALL SANITARY MAINLINE RUNS SHALL END WITH A MANHOLE.

10. ALL MANHOLE CASTINGS ARE TO BE E. J.I.W. 1040 SERIES HEAVY DUTY CASTING. SANITARY MANHOLE LIDS SHALL BE TYPE "A" GASKET SEAL, "WATERTITE" TYPE WITH 'O' RING GASKETING (ASTM C- 443) EXCEPTING THAT HEAVY DUTY BOLT DOWN CASTING AND COVER (E.J.I.W. 1040- WT) SHALL BE USED WHENEVER A SANITARY OR STORM MANHOLE IS IN AN OFF-SITE EASEMENT, NEAR A WATERWAY OR WITHIN A ROADWAY ARE AS.

11.ALL ADJUSTMENTS TO CASTING SHALL BE MADE WITH PRECAST CONCRETE GRADE RINGS.

12. ALL PAVEMENT BASINS (i.e., CATCH & INLET) SHALL BE BROUGHT TO GRADE WITH PRECAST OR HAYDITE BRICK & MORTAR. PRECAST IS PREFERRED. CITY WILL CONSIDER EQUAL TO PRECAST ONLY IN WRITING. RED CLAY BRICK WILL NOT BE ALLOWED.

13. FLOW LINES SHALL BE FORMED SO AS TO MATCH ALL PIPE PENETRATION INVERTS.

14. SANITARY SEWER MAINS AT MANHOLES PROPOSED WITHIN 2 FEET OF EXISTING INVERT ELEVATION SHALL BE REQUIRED TO MATCH THE EXISTING INVERT.

15. SANITARY SEWERS IN EXCESS OF 4 FEET SHALL REQUIRE A PRECAST EXTERIOR DROP MANHOLE. (REFERENCE SHEET S-13)

16. PVC SANITARY AND STORM MANHOLE CONNECTIONS SHALL BE THE KOR -N-BOOT TYPE.

17. FOR DROP MANHOLE INSTALLATIONS, SEE SHEET S-13 AND S-14 FOR DETAILS.

18. A MONITORING MANHOLE SHALL BE REQUIRED FOR ALL COMMERCIAL AND INDUSTRIAL APPLICATIONS DURING DEVELOPMENT. THE MONITORING MANHOLE SHALL BE PLACED AS CLOSE TO THE ESTABLISHED RIGHT OF WAY AS POSSIBLE.

19. SANITARY, STORM AND WATER LINE EASEMENTS SHALL BE PROVIDED WITH CITY ACCESS FOR THE PURPOSE OF MAINTENANCE OF UTILITIES. CITY ACCESS IS TO BE A HARDENED SURFACE SUCH AS AGGREGATE, ASPHALT, CONCRETE BLOCKS WITH GRASS GROWTH OR INFORM ACCEPTABLE TO THE CITY UTILITY DEPARTMENT TO BE DETERMINED AT THE TIME OF PLAN REVIEW. SAID EASEMENTS SHALL BE DESIGNATED AS BLOCK S.

20. WHERE A STORM SYSTEM IS PROPOSED ALONG AN EXISTING ROADWAY, AREA DRAINS SHALL BE PROVIDED FOR EACH PROPERTY. LOCATION, SIZE AND MANNER OF CONNECTION TO THE STORM SYSTEM SHALL BE DETERMINED AT THE PLAN REVIEW STAGE.

21. IN NO CASE SHALL SANITARY OR STORMS LATERALS BE DIRECTLY CONNECTED INTO A MANHOLE.

22. EACH SUBLOT IS TO BE PROVIDED WITH ITS OWN STORM CONNECTION TO BE USED BY THAT SUBLOT ONLY. STORM CONNECTIONS SHALL NOT BE PERMITTED TO BE SHARED BY ADJACENT PROPER TIES.

23. STORM SEWER PVC PIPE CONNECTIONS INTO RCP STORM SHALL BE WITH AN INSTALLED TEE OR SOLID CONCRETE BRICK AND MORTAR

24. RCP STORM SEWER CONNECTIONS INTO RCP STORM SHALL BE WITH AN INSTALLED TEE OR SOLID CONCRETE BRICK AND MORTAR

25. ALL LATERALS SHALL HAVE A DEPTH OF (9) NINE FEET AT ITS RIGHT OF-WAY TERMINUS POINT OR DEEP ENOUGH TO SERVICE THE LOWEST POINT OF THE BUILDING OR A DEPTH IN RELATION TO THE DEPTH OF SANITARY SYSTEM.

26. CLAY DAM IS TO BE PROVIDED 6 FT. FROM THE LATERAL TERMINUS FOR BOTH SANITARY & STORM.

27. CROSSING AS HEREIN DEFINED SHALL BE EITHER PERPENDICULAR TO ANY PART OF A SKEW OR ANGLE AT THE CROSSING.

28. MINIMUM OF 6" CLEARANCE SHALL BE MAINTAINED BETWEEN THE CASING OR ANY CROSSING PIPE.

29. PVC SAN. OR PVC STM. MAINS MAY BE INSTALLED IN A STEEL CASING, WITH GROUTING, TO A DISTANCE OF 10 FEET EACH SIDE OF THE CROSSING.

30. WHERE THE SAN. LAT., STM. LAT OR SAN., STM. MAIN IS WITHIN 18" OF THE WATER MAIN, D.I.P. CLASS 52 SHALL BE USED @ 10" EACH SIDE OF THE CROSSING, 150 PSI SHALL BE PROVIDED.

31. WHERE THE SANITARY OR STORM LATERAL IS LESS THAN 3 FT.IN DEPTH OR WITHIN 12" OF THE WATERMAIN, D.I.P. CLASS 52 SHALL BE USED.

32. TRANSITIONAL ADAPTERS ARE TO BE USED FROM PVC TO D.I.P. PREFERRED SINGLE UNIT ADAPTER IS SPECIFIED FITTINGS 581056 SWR. 6" GXGDRI8CDD XS WR OR EQUAL.FERNCO FITTINGS WILL NOT BE PERMITTED IN PLACED OF ADAPTERS.

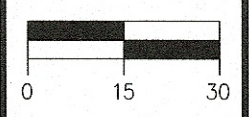
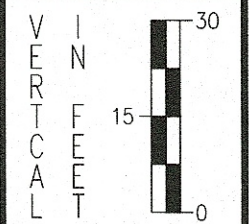
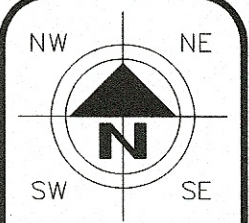
33. PVC SANITARY SEWER REPAIRS SHALL BE MADE USING SOLID SLEEVE COUPLINGS ONLY. FERNCO FITTINGS SHALL NOT BE PERMITTED FOR SANITARY REPAIR S

34. PVC STORM SEWER REPAIRS SHALL BE MADE USING SOLID SLEEVE COUPLINGS OR FERNCO FITTINGS.

35. SHOULD EXCAVATION ENCOUNTER EXISTING DRAIN LINES, REPAIR SHALL BE MADE VIA A MINIMUM (6") SIX INCH TEE OR K OR -N-SEAL BOOT INTO THE STORM SYSTEM. (6") SIX INCH PVC SO R 35 PIPE TO THE RIGHT-OF- WAY LINE, USING A REDUCER AND/OR VARIOUS BENDS TO MAKE THE CONNECTION. FENCES MAY BE USED IN THIS APPLICATION.

36. WHEN A WATER SERVICE AND /OR GAS SERVICE IS DISTURBED OR DISCONNECTED DURING TRENCH OR SHEETING EXCAVATION, SUCH SERVICES SHALL BE PLANKED USING 2"x8" HARDWOOD MINIMUM, 18" INTO VIRGIN SOIL., EACH END.

37. UPON REVIEW OF THE CITY ENGINEER, IF AN ATTRACTIVE NUISANCE OR ANY OTHER SAFETY HAZED IS DEEMED TO EXIST, THE USE OF A STEEL SAFETY RACK OR "CHILD PROOF BARS" WILL BE REQUIRED. REFER TO SHEET S-20 FOR REFERENCE DETAILS.



HORIZONTAL SCALE IN FEET

CHECKED BY: KAD

DATE: FEB, 2019

DRAWN BY: BMH

DATE: FEB, 2019

REVISONS:	DESCRIPTION	
	DATE	

TIGER TARPS BUILDING  
General Notes  
City of Massillon  
Stark County, Ohio

CIVIPRO  
ENGINEERING  
ENGINEERS-SURVEYORS-CONSTRUCTION MANAGERS  
4450 BELDON VILLAGE STREET NW, SUITE 800 CANTON, OH 44708  
PHONE (224) 410-3913 EMAIL: KAD@CIVIPROENGINEERING.COM  
WWW.CIVIPROENGINEERING.COM

DRAWING NAME:

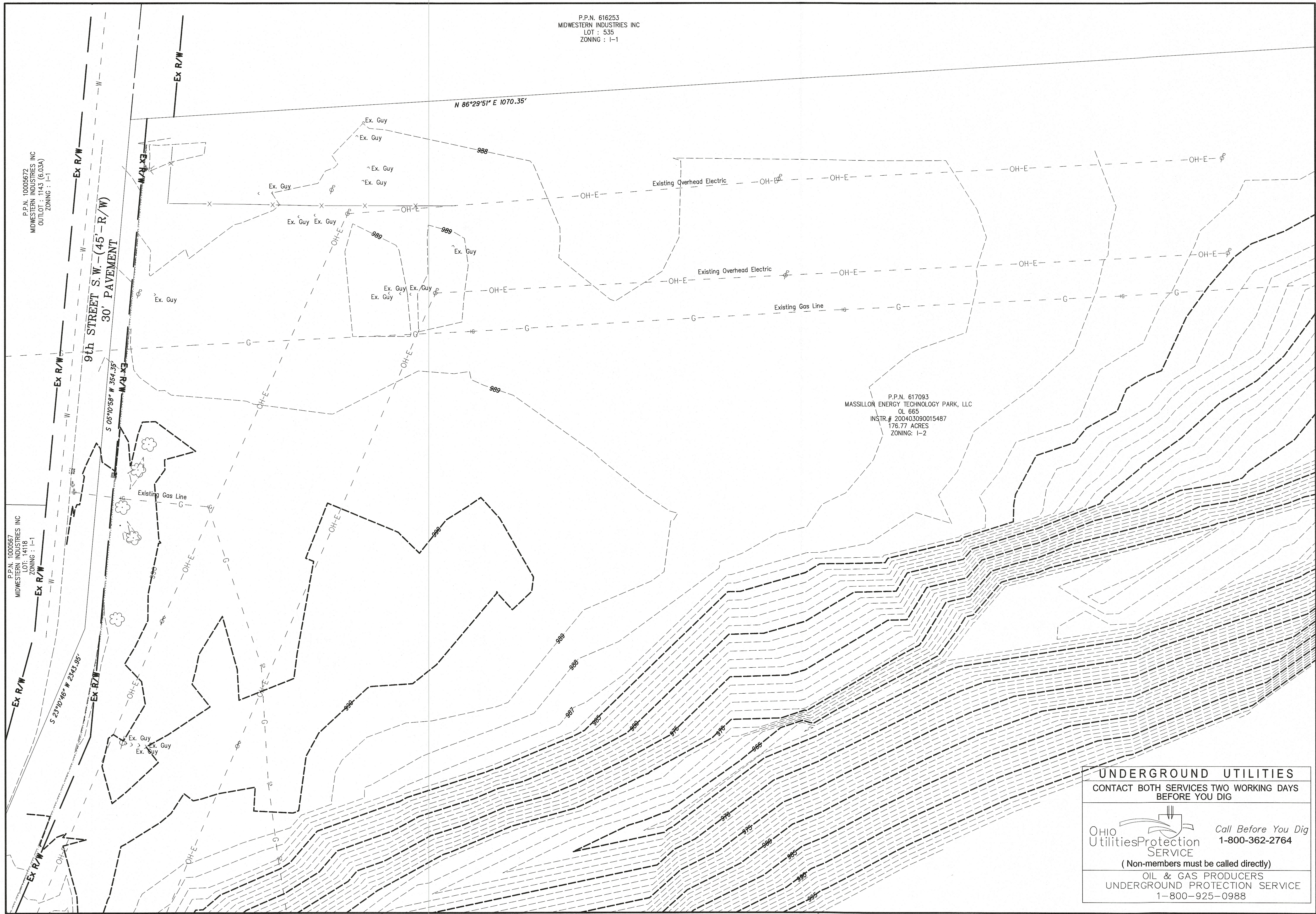
xxxx.DWG

PROJECT NUMBER:

xxxx.DWG

2 / 9





NW

NE

SW

SE

0

15

30

0

15

30

HORIZONTAL

SCALE IN FEET

CHECKED BY:

KAD

DATE:

FEB, 2019

DRAWN BY:

BMH

DATE:

FEB, 2019

REVISIONS:

DATE

DESCRIPTION

TIGER TARPS BUILDING

Existing Conditions Plan

City of Massillon

Stark County, Ohio

CIVPRO

ENGINEERING

ENGINEERS-SURVEYORS-CONSTRUCTION MANAGERS

4450 BOLDEN VILLAGE STREET NW, SUITE 800 CANTON, OH 44718

PHONE: (224) 410-3913 EMAIL: KAD@CIVPROENGINEERING.COM

WWW.CIVPROENGINEERING.COM

DRAWING NAME:

xxxx.DWG

PROJECT NUMBER:

xxxx.DWG

3

9

UNDERGROUND UTILITIES

CONTACT BOTH SERVICES TWO WORKING DAYS BEFORE YOU DIG

OHIO

UtilitiesProtection

SERVICE

Call Before You Dig

1-800-362-2764

(Non-members must be called directly)

OIL & GAS PRODUCERS

UNDERGROUND PROTECTION SERVICE

1-800-925-0988







FLOODPLAIN:

ZONE: X  
FLOOD MAP: 39151C0193E

CONTROL

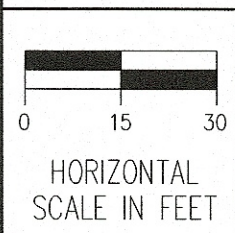
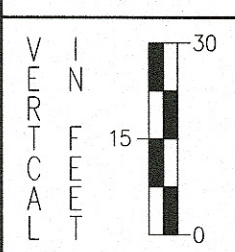
DESCRIPTION	NORTH	EAST
CP1 (IPS)	406112.0470	2236514.9440
CP2 (IPS)	406336.6169	2236356.6322

LEGEND

- (CE) CONSTRUCTION ENTRANCE
- (PS) PERMANENT SEEDING
- (TS) TEMPORARY SEEDING
- (TSS) TOPSOIL STOCKPILE
- (IP) INLET PROTECTION
- (ISP) EXCAVATED DROP INLET SEDIMENT PROTECTION
- (VF) VEHICLE FUELING AREA
- (SA) STORAGE AREA (SOLID, SAN. WASTE.....)
- (CW) CONCRETE WASHOUT PITS
- (CD) CHECK DAM
- (RCP) ROCK CHANNEL PROTECTION - 4'x5'x6" TYPE C
- (X) SILL FENCE
- (G) GRASSED SWALE
- (---) LIMITS OF CONSTRUCTION - 1.88 Acres

NOTES:

- ALL EMBANKMENT UNDER PAVEMENT AND STRUCTURES SHALL BE COMPACTED WITH SELECT SITE MATERIAL PER ODOT SPECIFICATION 203.
- CONTRACTOR SHALL STRIP ANY TOP SOIL AND STOCKPILE PRIOR TO SITE GRADING.
- MEET ALL EXISTING GRADES FLUSH
- ALL NEW GRADED AREAS SHALL BE GRADED TO ENSURE POSITIVE FLOW TO THE NEAREST DRAINAGE STRUCTURE OR OVERLAND SWALE.
- STORM WATER DETENTION FOR THIS SITE IS BEING ACCOMPLISHED BY THE PROPOSED DRY DETENTION BASIN.
- THE SITE DISTURBANCE IS LESS THAN 2 ACRES WITH THE POST CONSTRUCTION WATER QUALITY BMP BEING ACCOMPLISHED WITH THE USE OF GRASS FILTER STRIPS.
- WATER QUALITY VOLUME:  
 $WQV = R_v * P * A / 12$   
 $WQV = (0.05 + 0.9 * 0.36) * (0.9) * (1.874 / 12)$   
 $WQV = 0.052$  ACRE-Feet



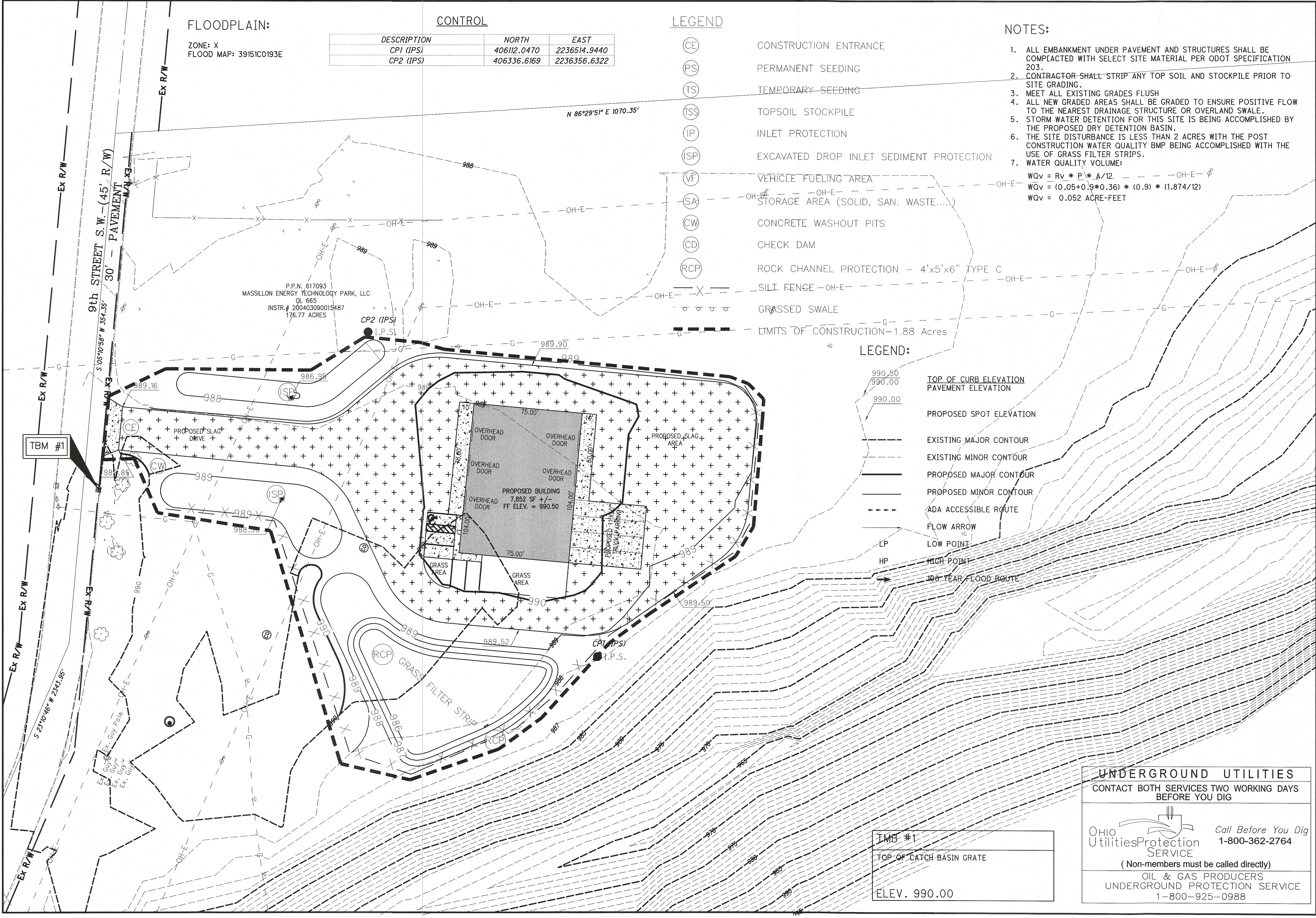
CHECKED BY: KAD  
DATE: FEB, 2019  
DRAWN BY: BMH  
DATE: FEB, 2019

REVISIONS:	DESCRIPTION
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TIGER TARPS BUILDING  
Grading/SWP3 Plan  
City of Massillon  
Stark County, Ohio



DRAWING NAME: xxx.dwg  
PROJECT NUMBER: xxx.dwg



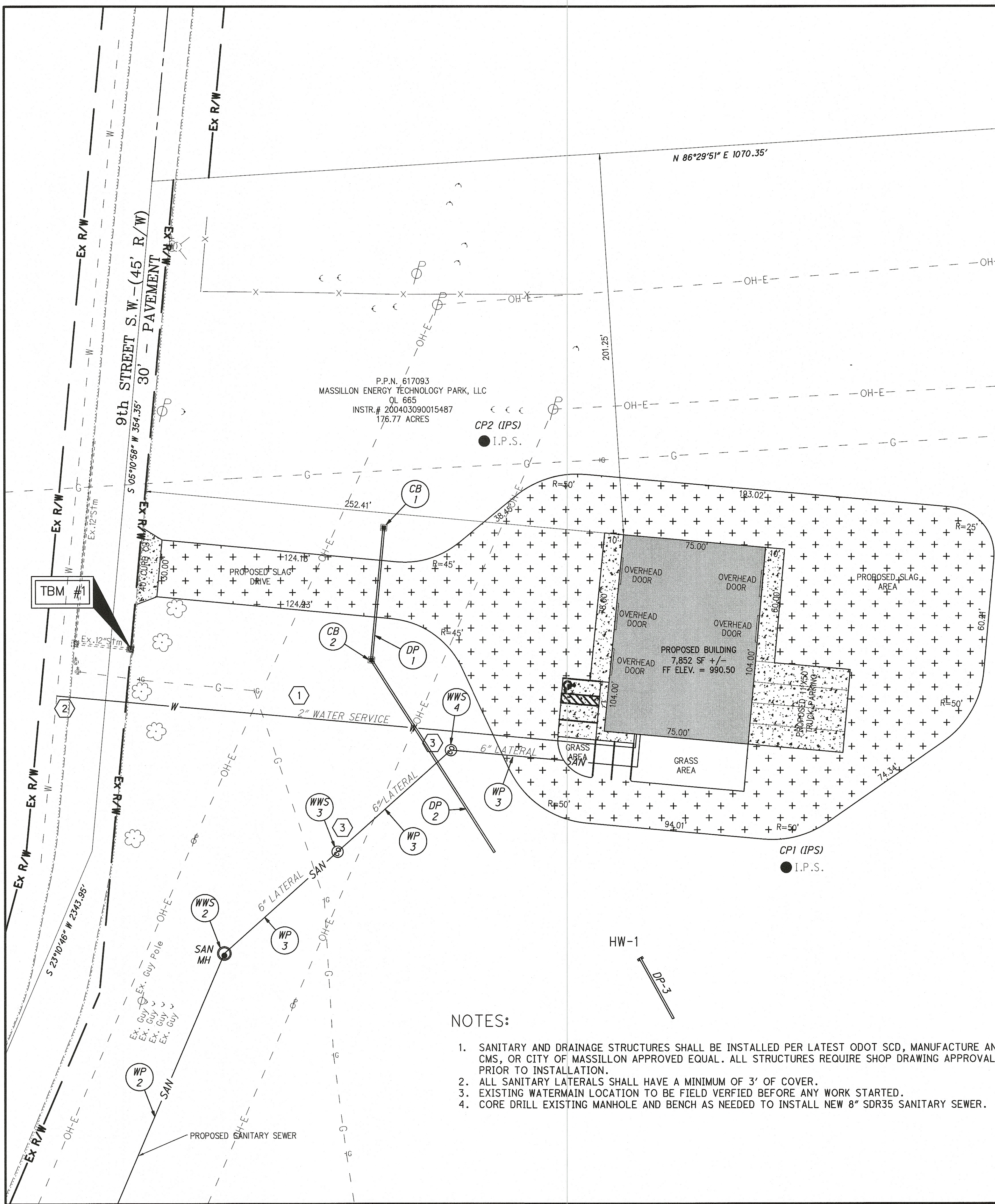
- LEGEND:
- 990.50 TOP OF CURB ELEVATION
  - 990.00 PAVEMENT ELEVATION
  - 990.00 PROPOSED SPOT ELEVATION
  - EXISTING MAJOR CONTOUR
  - EXISTING MINOR CONTOUR
  - PROPOSED MAJOR CONTOUR
  - PROPOSED MINOR CONTOUR
  - ADA ACCESSIBLE ROUTE
  - FLOW ARROW
  - LP LOW POINT
  - HP HIGH POINT
  - 100 YEAR FLOOD ROUTE

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(Non-members must be called directly)  
OIL & GAS PRODUCERS UNDERGROUND PROTECTION SERVICE  
1-800-925-0988

TMB #1  
TOP OF CATCH BASIN GRATE  
ELEV. 990.00





PROPOSED DRAINAGE STRUCTURES

IN-1 TYPE: INLET PIPE N= 406290.8876 E= 2236303.7346 12" FL = 986.95(S)	CB-2 TYPE: ODOT 2-2B N= 406221.2007 E= 2236297.1212 T/G = 988.50 12" INV = 986.60 (SW) 12" INV = 986.60 (NE)	OUT-1 TYPE: DISCHARGE PIPE N= 406119.9862 E= 2236361.5855 12" INV = 986.00 (NW)	HW-1 TYPE: ODOT 2.1 N= 444857.8843 E= 2220377.4330 12" INV. = 986.00(N)
---	--	---	---

PROPOSED DRAINAGE PIPE TABLE

NUMBER	LENGTH	SLOPE	SIZE	TYPE
DP-1	70'	0.5%	12"	TYPE B (CONDUIT)
DP-2	120'	0.5%	12"	TYPE B (CONDUIT)
DP-3	36'	0.5%	12"	TYPE B (CONDUIT)

EXISTING SANITARY STRUCTURES

SCSD 27-15  
TYPE: Brick  
N=405640.0889  
E=2235965.6091  
STA. 10+00  
Rim = 977.35  
Ex. 21" FL = 964.85(W)  
Ex. 18" FL = 964.85(SE)  
8" FL = 966.40(NE)

PROPOSED SANITARY STRUCTURES

WWS-1 TYPE: MASS1056-AGS N=405717.5683 E=2236069.9975 STA. 11+30 RIM = 974.50 8" FL = 969.00(SW) 8" FL = 969.00(NE)	WWS-2 TYPE: MASS1056-AGS N=406066.8933 E=2236219.5703 STA. 15+10 RIM = 990.10 8" FL = 969.00(SW) 6" FL = 983.00(NE)	WWS-3 TYPE: SANITARIY CLEAN-OUT N=406120.2373 E=2236279.1892 RIM = FIELD DETERMINED FL = 3' MIN. OF COVER	WWS-4 TYPE: SANITARIY CLEAN-OUT N=406173.5813 E=2236338.8082 T/C = FIELD DETERMINED FL = 3' MIN. OF COVER
--	--	--	--

PROPOSED SANITARY PIPE TABLE

NUMBER	LENGTH	SLOPE	SIZE	TYPE	WYES	45°
WP-1	130'	2.0%	8"	TYPE B (SDR35)		
WP-2	380'	3.68%	8"	TYPE B (SDR35)		
WP-3	268	1.00% MIN	6"	TYPE B (SDR35)	0	AS NEEDED

KEY:

- 1 PROP 2" WATER SERVICE
- 2 PROP 2" VALVE
- 3 SANITARY CLEANOUTS SHALL BE PER CITY OF MASSILLON STANDARDS.

CONTROL

DESCRIPTION	NORTH	EAST
CP1 (IPS)	406112.0470	2236514.9440
CP2 (IPS)	406336.6169	2236356.6322

TMB #1
TOP OF CATCH BASIN GRATE
ELEV. 990.00

NOTES:

- SANITARY AND DRAINAGE STRUCTURES SHALL BE INSTALLED PER LATEST ODOT SCD, MANUFACTURE AND CMS, OR CITY OF MASSILLON APPROVED EQUAL. ALL STRUCTURES REQUIRE SHOP DRAWING APPROVAL PRIOR TO INSTALLATION.
- ALL SANITARY LATERALS SHALL HAVE A MINIMUM OF 3' OF COVER.
- EXISTING WATERMAIN LOCATION TO BE FIELD VERIFIED BEFORE ANY WORK STARTED.
- CORE DRILL EXISTING MANHOLE AND BENCH AS NEEDED TO INSTALL NEW 8" SDR35 SANITARY SEWER.

North Arrow

Vertical Scale

Horizontal Scale in Feet

CHECKED BY: KAD

DATE: FEB, 2019

DRAWN BY: BMH

DATE: FEB, 2019

REVISIONS:

DATE	DESCRIPTION

TIGER TAPRS BUILDING

Utility Plan

City of Massillon

Stark County, Ohio

CIVPRO ENGINEERING

ENGINEERS-SURVEYORS-CONSTRUCTION MANAGERS

4400 BOLDEN VILLAGE STREET NW, SUITE 800 CANTON, OH 44705

PHONE: (224) 410-0000 FAX: (224) 410-0001

WWW.CIVPROENGINEERING.COM

DRAWING NAME: xxx.dwg

PROJECT NUMBER: xxx.dwg

6 / 9

UNDERGROUND UTILITIES

CONTACT BOTH SERVICES TWO WORKING DAYS BEFORE YOU DIG

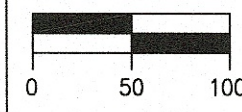
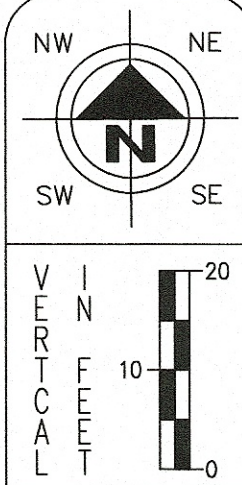
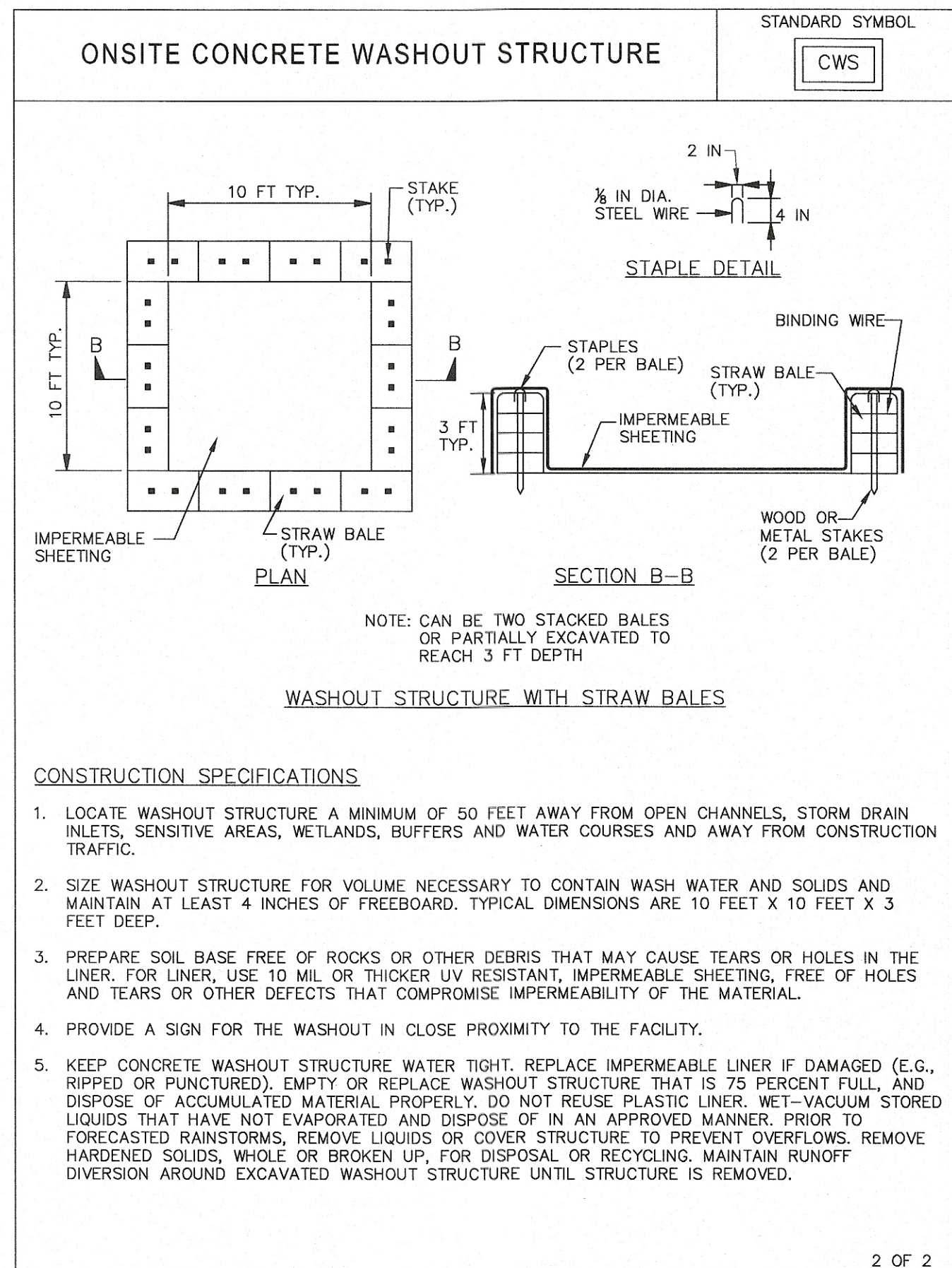
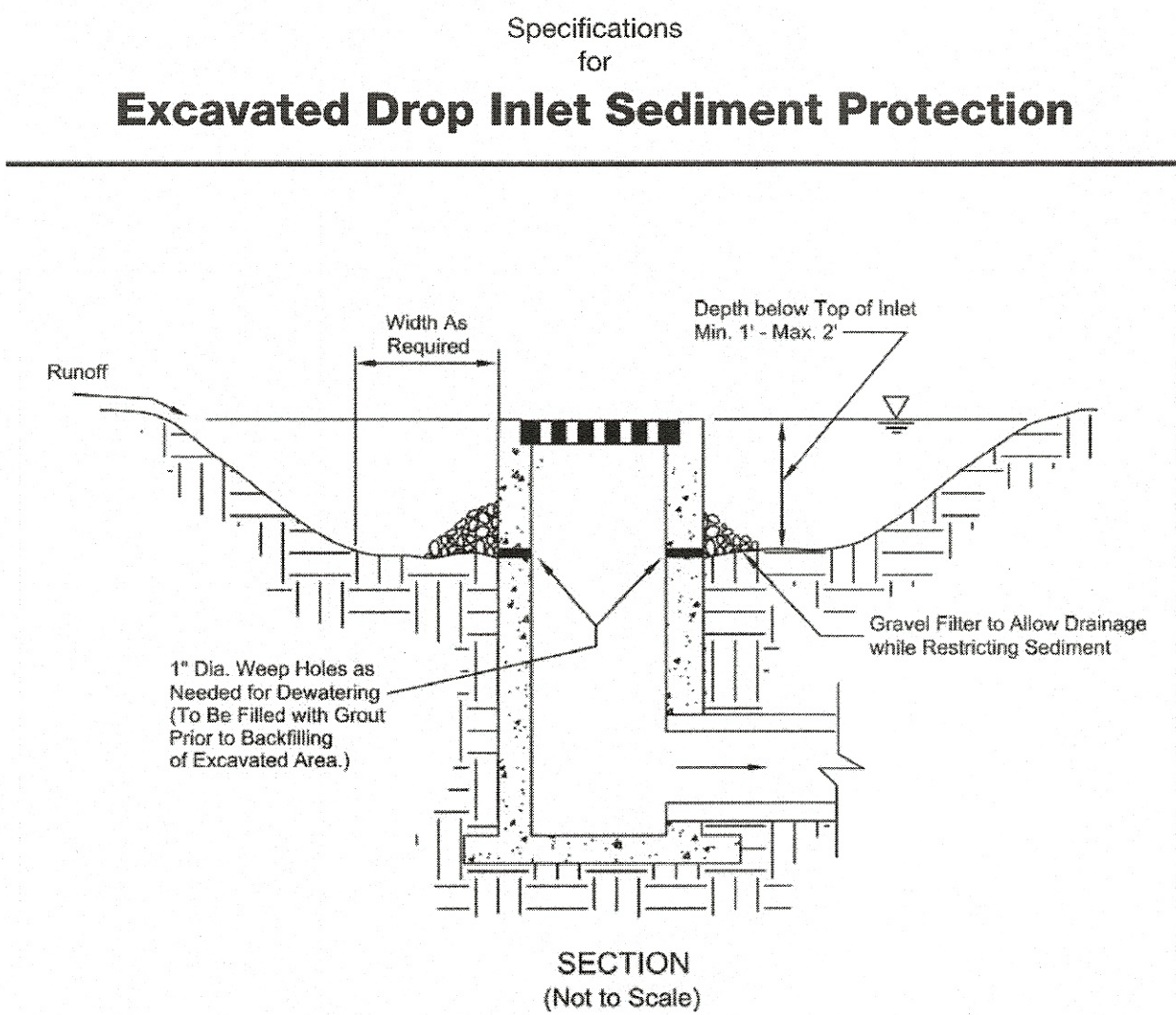
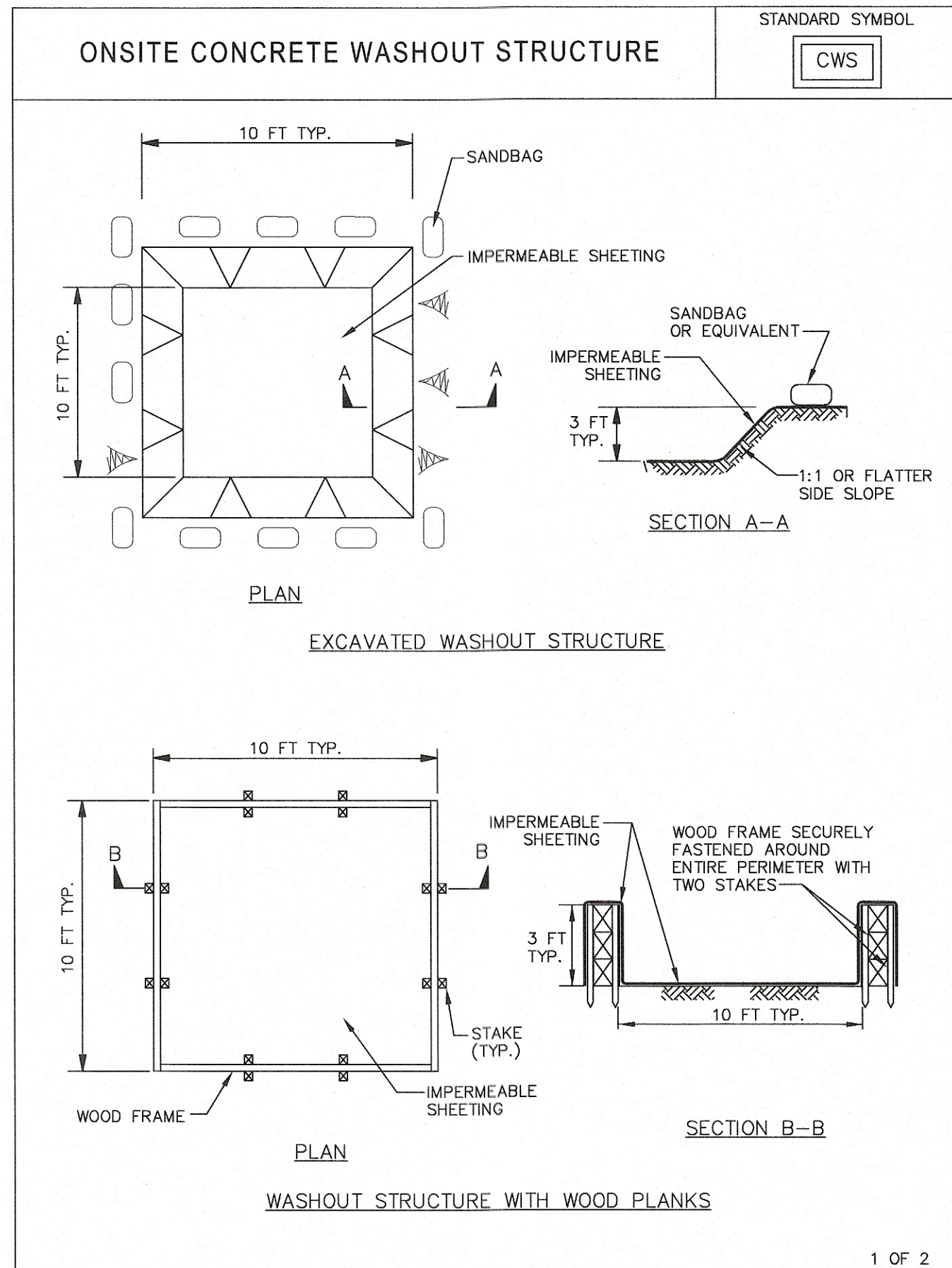
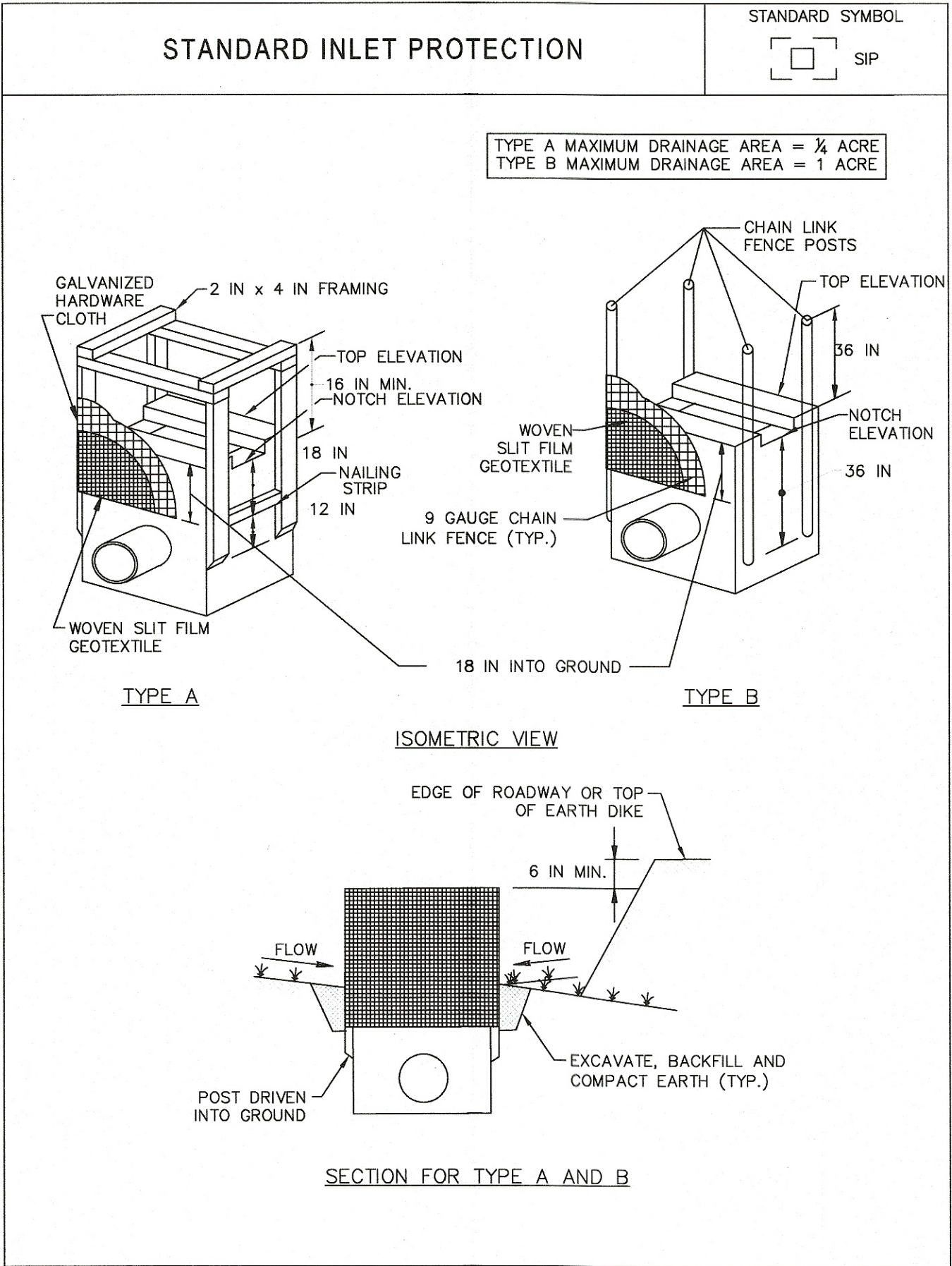
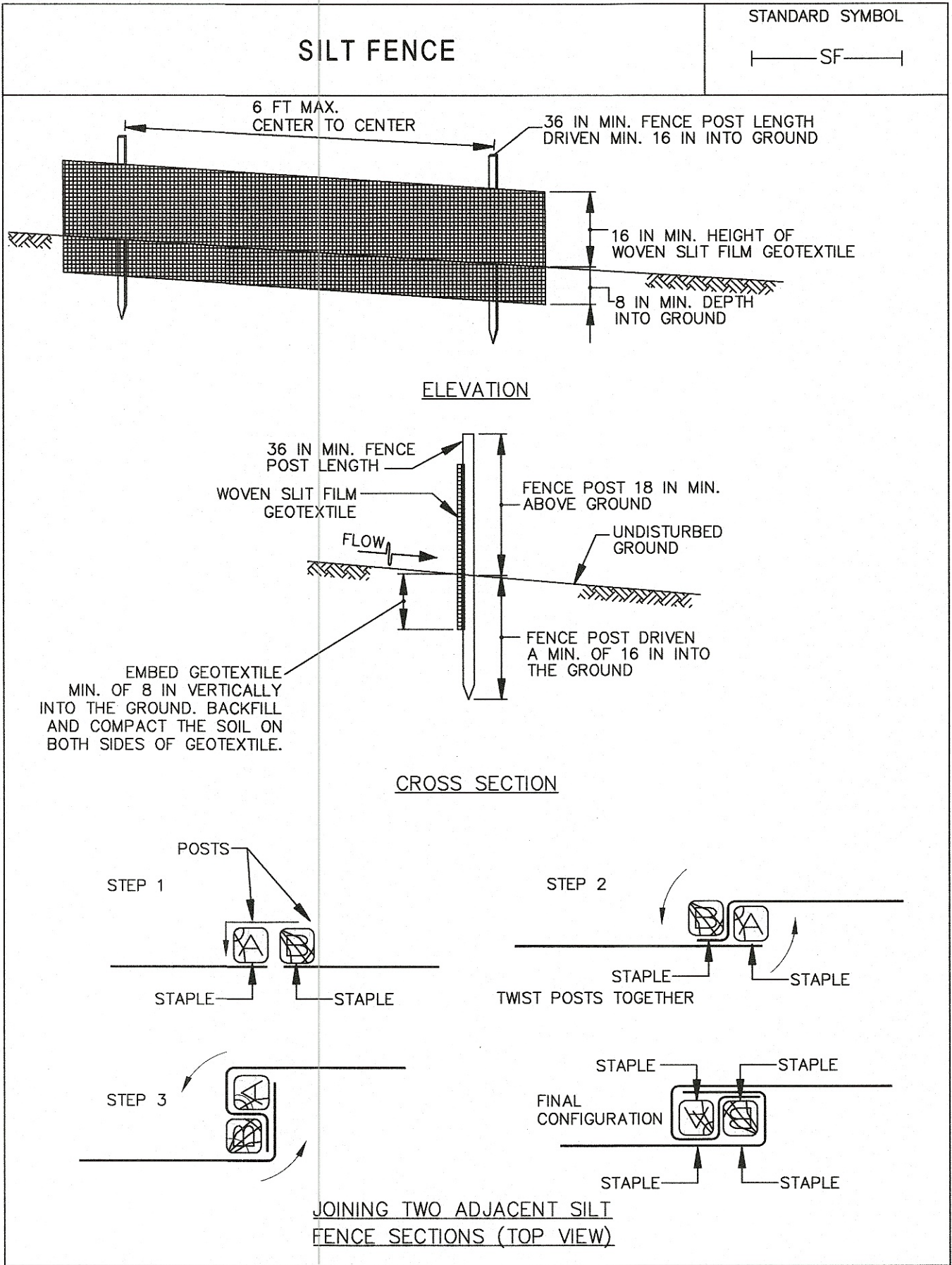
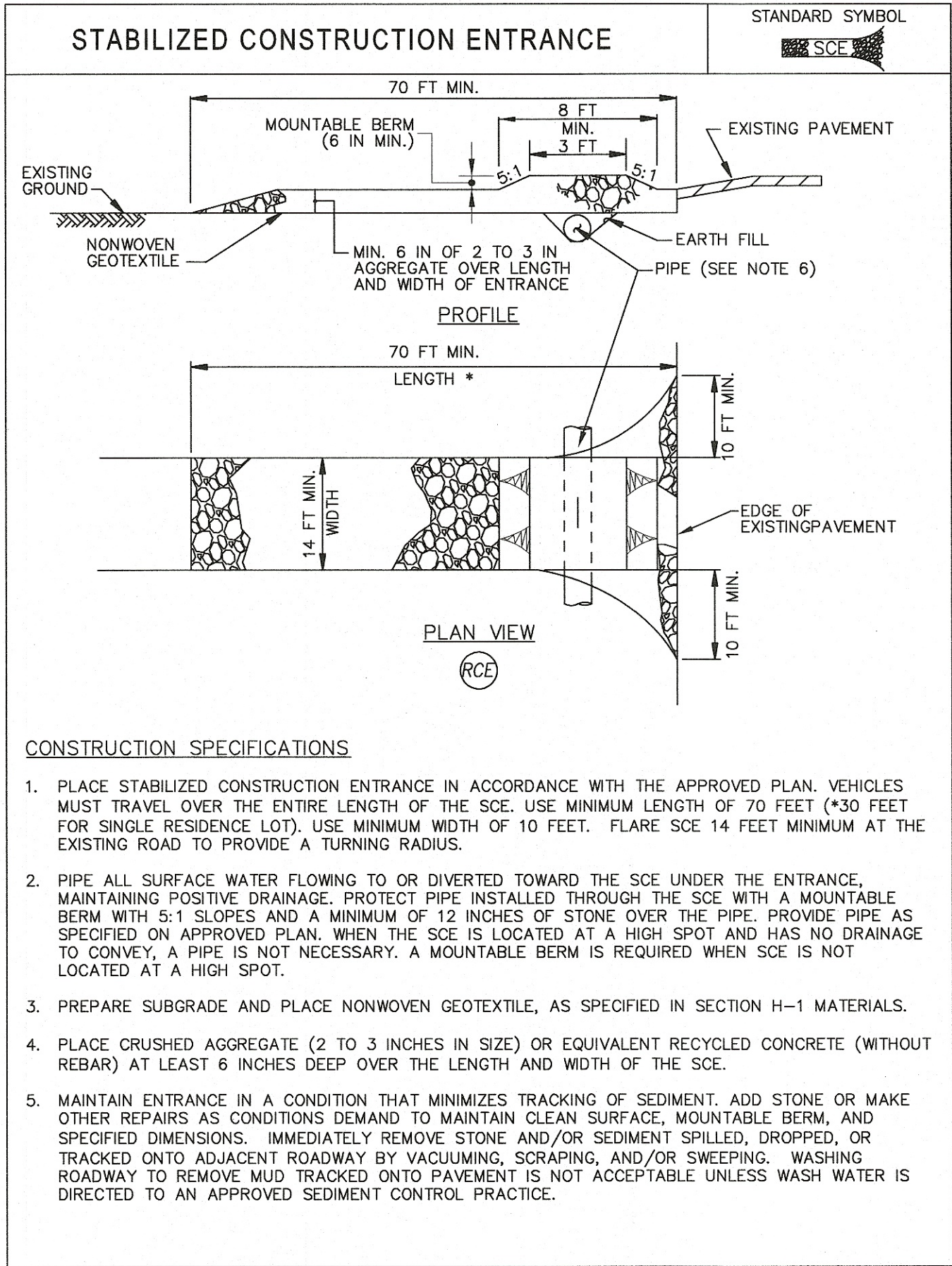
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HORIZONTAL SCALE IN FEET

CHECKED BY: KAD

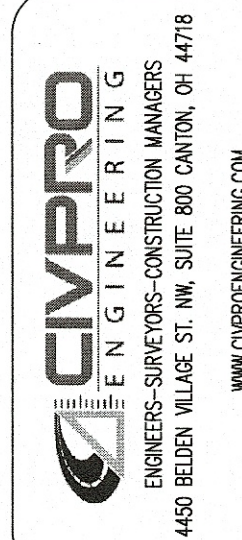
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REVISIONS:	DESCRIPTION:
DATE	

SWP3 Notes/Details  
City of Massillon  
Stark County, Ohio



DRAWING NAME:

PROJECT NUMBER:

7 / 9



GENERAL EROSION AND SEDIMENT CONTROL NOTES

EROSION CONTROL SHALL CONSIST OF TEMPORARY CONTROL MEASURES AS DETAILED ON THE PLANS OR ORDERED BY THE CITY OF MASSILLON DURING THE TERM OF CONSTRUCTION TO CONTROL SOIL EROSION AND SEDIMENTATION THROUGH THE USE OF EROSION CONTROL BEST MANAGEMENT PRACTICES (BMP'S).

TEMPORARY EROSION AND SEDIMENT CONTROL ITEMS, THE LOCATION AND SIZE OF WHICH ARE DETAILED ON THE PLANS, SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF ANY CLEARING OR EARTHVORK OPERATIONS. CONDITIONS THAT DEVELOP DURING CONSTRUCTION THAT WERE NOT FORSEEN DURING DESIGN STAGE, THAT REQUIRE ADDITIONAL OR MODIFIED TEMPORARY OR PERMANENT BMP'S SHALL BE APPROVED BY THE DESIGN ENGINEER AND REFLECTED ON THE REVISED SWP3.

SEDIMENT PONDS, SEDIMENT TRAPS, AND PERIMETER SEDIMENT CONTROLS, SHALL BE IMPLEMENTED PRIOR TO GRADING AND WITHIN 7 DAYS FROM THE START OF GRUBBING. THEY SHALL CONTINUE TO FUNCTION UNTIL THE UP SLOPE DEVELOPMENT AREAS ARE RE-ESTABLISHED WITH VEGETATION. SEDIMENT CONTROLS SHALL NOT BE PLACED IN A STREAM.

TRENCH DEWATERING OR GROUND WATER, WHICH CONTAINS SEDIMENT SHALL PASS THROUGH A SEDIMENT SETTLING POND OR EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE. ALTERNATIVES MAY INCLUDE DEWATERING INTO A SUMP PIT, FILTER BAG, OR EXISTING VEGETATED UPSLOPE AREA. SEDIMENT LADEN WATER SHALL NOT BE DISCHARGED TO STREAMS, WATER RESOURCES, OR THE STORM SEWER SYSTEM.

THE SWP3, NOTES AND DETAILED DRAWINGS ARE INTENDED TO SERVE AS BASIC GUIDELINES. ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR) RAINWATER AND LAND DEVELOPMENT MANUAL.

ADDITIONAL EROSION AND SEDIMENT CONTROL BMP'S MAY BE REQUIRED BY THE CITY OF MASSILLON AS UNFORSEEN SITUATIONS MAY ARISE THAT REQUIRE ADDITIONAL EROSION AND SEDIMENT CONTROL PRACTICES.

CLEARING AND GRUBBING

LIMITS OF CLEARING AND GRADING SHALL BE CLEARLY MARKED ON THE SITE WITH SIGNAGE, FLAGGING AND/OR ORANGE CONSTRUCTION FENCING.

THE CONTRACTOR SHALL LIMIT THE SURFACE AREA OF ERODIBLE EARTH MATERIAL EXPOSED BY EXCAVATION, BORROW AND FILL OPERATIONS AND PROVIDE IMMEDIATE PERMANENT OR TEMPORARY CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT STREAMS, WATER RESOURCES, WETLANDS, OR OTHER AREAS OF WATER IMPOUNDMENT.

CONSTRUCTION ENTRANCE

A STONED CONSTRUCTION ENTRANCE SHALL BE INSTALLED FOR ALL INGRESS AND EGRESS TO THE SITE. THE MINIMUM DIMENSIONS OF THE DRIVE SHALL BE 14 FEET WIDE BY 70 FEET LONG. THE STONE SHALL BE 6 INCHES DEEP WITH AN UNDERLAIN GEOTEXTILE FABRIC. THE DRIVE SHALL BE INSTALLED PRIOR TO ANY CLEARING AND GRUBBING. SEDIMENTS SHALL BE REMOVED FROM THE ROADWAY DAILY OR MORE FREQUENTLY IF REQUIRED BY LORAIN COUNTY.

STABILIZATION

PERMANENT AND TEMPORARY STABILIZATION SHALL OCCUR AS REQUIRED IN THE FOLLOWING TABLES:

TABLE 1 - PERMANENT STABILIZATION

PERMANENT STABILIZATION	
AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROL
ANY AREA THAT WILL LIE DORMANT FOR ONE YEAR OR MORE	WITHIN SEVEN DAYS OF TIIE MOST RECENT DISTURBANCE
ANY AREA WITHIN 50 FT. OF A SURFACE WATER OF THE STATE AND AT FINAL GRADE	WITHIN 2 DAYS OF REACHING FINAL GRADE
ANY OTHER AREAS AT FINAL GRADE	WITHIN 7 DAYS OF REACHING FINAL GRADE WITHIN THAT AREA

TEMPORARY SEEDING

SEEDED AREAS SHALL BE INSPECTED AND WHERE THE SEED HAS NOT PRODUCED 80% COVER SHALL BE RESEEDD BY THE CONTRACTOR. AREAS SHALL BE STABILIZED WITH STRAW MULCH WHEN CONDITIONS PROHIBIT SEEDING.

STRAW MULCH SHALL BE APPLIED AT A RATE OF 2-3 STANDARD 45 LB. BALES PER 1000 SQ. FT OF DISTURBED AREA OR 2 TONS PER ACRE ALL HYDROSEEDING MUST BE STRAW MULCHED ACCORDING TO THE ABOVE SPECIFICATIONS UNLESS IT IS WATERED WEEKLY

ALL DETENTION PONDS. RETENTION PONDS, WATER QUALITY STRUCTURES, SEDIMENT PONDS. SEDIMENT TRAPS. EARTHEN DIVERSIONS. OR EMBANKMENTS SHALL BE SEEDED AND STRAW MULCHED WITHIN 7 DAYS OF COMPLETED CONSTRUCTION.

TABLE 2: TEMPORARY STABILIZATION

TEMPORARY STABILIZATION	
AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROL
ANY DISTURBED AREAS WITHIN 50 FEET OF A SURFACE WATER OF THE STATE AND NOT AT FINAL GRADE	WITHIN 2 DAYS OF THE MOST RECENT DISTURBANCE IF THE AREA WILL REMAIN IDLE FOR MORE THAN 14 DAYS
FOR ALL CONSTRUCT/ON ACTIVITIES, ANY DISTURBED AREA, INCLUDING SOIL STOCKPILES THAT WILL BE DORMANT FOR MORE THAN 14 DAYS BUT LESS THAN 1 YEAR, AND NOT WITHIN 50 FEET OF A SURFACE WATER OF THE STATE.	WITHIN 7 DAYS OF THE MOST RECENT DISTURBANCE WITHIN THE AREA.
DISTURBED AREAS THAT WILL REMAIN IDLE OVER WINTER	PRIOR TO THE ONSET OF WINTER WEATHER (NOV 1) STRAW MULCH 2-3 BALES PER 1000 SQ FT OR 2 TONS PER ACRE.
NOTE WHERE VEGETATIVE STABILIZATION TECHNIQUES ARE UNOBTAINABLE DUE TO INSTABILITY, EROSION MATTING MAY BE USED.	

PERMANENT STABILIZATION OF CONVEYANCE CHANNELS

THE CONTRACTOR SHALL UNDERTAKE SPECIAL MEASURES TO STABILIZE CHANNELS AND OUTFALLS AND PREVENT EROSIIVE FLOWS. MEASURES MAY INCLUDE SEEDING, DORMANT SEEDING, MULCHING, EROSION CONTROL MATTING, SODDING, RIPRAP. NATURAL CHANNEL DESIGN WITH BIO-ENGINEERING TECHNIQUES. OR ROCK CHECK DAMS, ALL AS DEFINED IN THE MOST RECENT EDITION OF THE RAINWATER AND LAND DEVELOPMENT MANUAL PUBLISHED BY ODNR.

SOIL TRANSPORT ONTO PUBLIC ROADS

WHERE SOIL IS TRANSPORTED ONTO PUBLIC ROAD SURFACES, THE ROADS SHALL BE CLEANED THOROUGHLY BY EITHER SWEEPING OR SCRAPING AT THE END OF EACH WORK DAY OR MORE FREQUENTLY IF NEEDED IN ORDER TO ENSURE PUBLIC SAFETY. STREET WASHING IS NOT PERMITTED. IF APPLICABLE, THE CATCH BASINS NEAREST TO THE CONSTRUCTION ENTRANCE SHALL BE CLEANED WEEKLY.

ADDITIONAL REQUIREMENTS TO CONTROL SOIL TRANSPORT ONTO PUBLIC ROADS MAY INCLUDE

- SILT FENCE OR CONSTRUCTION FENCE INSTALLED AROUND THE PERIMETER OF THE DEVELOPMENT AREA TO ENSURE ALL VEHICLE TRAFFIC ADHERES TO DESIGNATED CONSTRUCTION ENTRANCES.
- DESIGNATED WHEEL WASHING AREAS. WASH WATER FROM THESE AREAS MUST BE DIRECTED TO A DESIGNATED SEDIMENT TRAP, SEDIMENT SETTLING POND, OR TO A DEWATERING SUMP PIT.

ERODIBLE MATERIAL RAMPS IN STREETS TO ENABLE EQUIPMENT TO CROSS CURBS SHALL BE PROPERLY REMOVED IMMEDIATELY AFTER USE.

SILT FENCE AND DIVERSIONS

SHEET FLOW RUNOFF FROM DENUDED AREAS SHALL BE INTERCEPTED BY SILT FENCE OR DIVERSIONS TO PROTECT ADJACENT PROPERTIES, WATER RESOURCES, AND WETLANDS FROM SEDIMENT TRANSPORTED VIA SHEET FLOW. WHERE INTENDED TO PROVIDE SEDIMENT CONTROL, SILT FENCE SHALL BE PLACED ON A LEVEL CONTOUR AND SHALL BE CAPABLE OF TEMPORARILY PONDING RUNOFF. THE EPA PERMIT No. DOES NOT PRECLUDE THE USE OF OTHER SEDIMENT BARRIERS DESIGNED TO CONTROL SHEET FLOW RUNOFF.

STORM WATER DIVERSION PRACTICES SHALL BE USED TO KEEP RUNOFF AWAY FROM DISTURBED AREAS AND STEEP SLOPES. SUCH DEVICES. WHICH INCLUDE SWALES, DIKES OR BERMS, MAY RECEIVE STORM WATER RUNOFF FROM AREAS UP TO 10 ACRES.

INLET PROTECTION

INLET PROTECTION IS MANDATORY. INLET PROTECTION SHALL CONFORM TO THE REQUIREMENTS OF THE MOST RECENT VERSION OF THE RAINWATER AND LAND DEVELOPMENT MANUAL BY ODNR. ALL INLETS RECEIVING RUNOFF FROM DRAINAGE AREAS OF ONE OR MORE ACRES WILL REQUIRE A SEDIMENT SETTLING POND. STRAW OR HAY BALES ARE NOT ACCEPTABLE FORMS OF INLET PROTECTION.

NON-SEDIMENT POLLUTANTS CONTROLS

NO SOLID OR LIQUID WASTE, INCLUDING BUILDING MATERIALS, SHALL BE DISCHARGED IN STORM WATER RUNOFF. ALL NECESSARY BMP'S MUST BE IMPLEMENTED TO PREVENT THE DISCHARGE OF NON-SEDIMENT POLLUTANTS TO THE DRAINAGE SYSTEM OF THE SITE, WATER RESOURCES, OR WETLANDS. UNDER NO CIRCUMSTANCE SHALL CONCRETE TRUCKS WASH OUT DIRECTLY INTO A DRAINAGE CHANNEL, STREET, STORM SEWER. OR OTHER PUBLIC FACILITY OR NATURAL RESOURCE. EXPOSURE OF WASTE MATERIALS TO STORM WATER IS NOT PERMITTED.

TRENCH AND GROUNDWATER CONTROL

THERE SHALL BE NO SEDIMENT LADEN OR TURBID DISCHARGES TO WATER RESOURCES OR WETLANDS RESULTING FROM DEWATERING ACTIVITIES. IF TRENCH OR GROUND WATER CONTAINS SEDIMENT, IT MUST PASS THROUGH A SEDIMENT SETTLING POND OR OTHER EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE PRIOR TO BEING DISCHARGED FROM THE CONSTRUCTION SITE. ALTERNATIVELY, SEDIMENT MAY BE REMOVED BE SETTLING IN PLACE OR BY DEWATERING INTO A SUMP PIT, FILTER BAG, OR COMPARABLE PRACTICE. GROUND WATER DEWATERING WHICH DOES NOT CONTAIN SEDIMENT OR OTHER POLLUTANTS IS NOT REQUIRED TO BE TREATED PRIOR TO DISCHARGE. HOWEVER, CARE MUST BE TAKEN WHEN DISCHARGING GROUND WATER TO ENSURE THAT IT DOES NOT BECOME POLLUTANT LADEN BY TRAVERSING OVER DISTURBED SOILS OR OTHER POLLUTANT SOURCES.

INSPECTION

ALL CONTROLS ON THE SITE SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN ONE-HALF INCH OF RAIN PER 24 HOUR PERIOD. THE CONTRACTOR SHALL ASSIGN QUALIFIED INSPECTION PERSONNEL TO CONDUCT THESE INSPECTIONS TO ENSURE THAT THE CONTROL PRACTICES ARE FUNCTIONAL AND TO EVALUATE WHETHER THE SWP3 IS ADEQUATE, OR WHETHER ADDITIONAL CONTROL MEASURES ARE REQUIRED. QUALIFIED INSPECTION PERSONNEL ARE INDIVIDUALS WITH KNOWLEDGE AND EXPERIENCE IN THE INSTALLATION AND MAINTENANCE OF SEDIMENT AND EROSION CONTROLS.

INSPECTIONS SHALL MEET THE FOLLOWING REQUIREMENTS:

- DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM.
- EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE SWP3 SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY THE CONTRACTOR SHALL UTILIZE AN INSPECTION FORM ACCEPTABLE TO THE CITY OF MASSILLON. THE INSPECTION FORM SHALL INCLUDE:
  - THE INSPECTION DATE.
  - NAMES, TITLES AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION.
  - WEATHER INFORMATION FOR THE PERIOD SINCE THE LAST INSPECTION, INCLUDING A BEST ESTIMATE OF THE BEGINNING OF EACH STORM EVENT, DURATION OF EACH STORM EVENT AND APPROXIMATE AMOUNT OF RAINFALL FOR EACH STORM EVENT IN INCHES, AND WHETHER ANY DISCHARGES OCCURRED.
  - LOCATIONS OF:
    - DISCHARGES FROM SEDIMENT OR OTHER POLLUTANTS FROM THE SITE.
    - BMP'S THAT NEED TO BE MAINTAINED.
    - BMP'S THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION.
    - WHERE ADDITIONAL BMP'S ARE NEEDED THAT DID NOT EXIST AT THE TIME OF THE INSPECTION.
    - CORRECTIVE ACTION REQUIRED INCLUDING ANY NECESSARY CHANGES TO THE SWP3 AND IMPLEMENTATION DATES.
- DISCHARGE LOCATIONS SHALL BE INSPECTED TO DETERMINE WHETHER EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO THE RECEIVING WATER RESOURCE OR WETLANDS.
- LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE VEHICLE TRACKING
- THE PERMIT APPLICANT SHALL MAINTAIN FOR 3 YEARS FOLLOWING FINAL STABILIZATION THE RESULTS OF THESE INSPECTIONS, THE NAMES AND QUALIFICATIONS OF THE PERSONNEL MAKING THE INSPECTIONS, THE DATES OF THE INSPECTIONS, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE SWP3, A CERTIFICATION AS TO WHETHER THE FACILITY IS IN COMPLIANCE WITH THE SWP3, AND INFORMATION ON ANY INCIDENTS OF NON-COMPLIANCE DETERMINED BY THESE INSPECTIONS. EMAIL WEEKLY REPORTS TO BORCHERDS@cvelimited.com

MAINTENANCE

ALL CONTROL PRACTICES SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ENSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION UNTIL FINAL STABILIZATION. ALL SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED IN A FUNCTIONAL CONDITION UNTIL ALL UP SLOPE AREAS THEY CONTROL REACH FINAL STABILIZATION THE CONTRACTOR SHALL COMPLY WITH THE MAINTENANCE SCHEDULE CONTAINED IN THE APPROVED PLANS FOR THE PROPOSED EROSION CONTROLS. A WRITTEN DOCUMENT CONTAINING THE SIGNATURES OF ALL CONTRACTORS AND SUB-CONTRACTORS INVOLVED IN THE IMPLEMENTATION OF THE BMP'S SHALL BE MAINTAINED AT THE JOB SITE AS PROOF ACKNOWLEDGING THAT THEY HAVE REVIEWED AND UNDERSTAND THE CONDITIONS AND RESPONSIBILITIES OF THE SWP3.

WHEN INSPECTIONS REVEAL THE NEED FOR REPAIR, REPLACEMENT, OR INSTALLATION OF EROSION AND SEDIMENT CONTROL BMP'S, THE FOLLOWING PROCEDURES SHALL BE FOLLOWED:

- WHEN PRACTICES REQUIRE REPAIR OR MAINTENANCE CONTROL PRACTICES IN NEED OF REPAIR OR MAINTENANCE, WITH THE EXCEPTION OF A SEDIMENT SETTLING POND, MUST BE REPAIRED OR MAINTAINED WITHIN 3 DAYS OF THE INSPECTION. SEDIMENT SETTLING PONDS MUST BE REPAIRED OR MAINTAINED WITHIN 10 DAYS OF THE INSPECTION.
- WHEN PRACTICES FAIL TO PROVIDE THEIR INTENDED FUNCTION: CONTROL PRACTICES THAT FAIL TO PERFORM THEIR INTENDED FUNCTION AS DETAILED IN THE SWP3 SHALL BE REPLACED WITH ANOTHER MORE APPROPRIATE CONTROL WITHIN 10 DAYS. THE SWP3 SHALL BE AMENDED TO SHOW THE NEW CONTROL PRACTICE.
- WHEN PRACTICES ON THE SWP3 ARE NOT INSTALLED: CONTROL PRACTICES REQUIRED BY THE SWP3 BUT NOT IMPLEMENTED AT THE TIME OF THE INSPECTION SHALL BE INSTALLED WITHIN 10 DAYS OF THE INSPECTION. IF THE PLANNED CONTROL IS NOT NEEDED, AN EXPLANATION AS TO WHY THE CONTROL IS NOT NEEDED SHALL BE ADDED TO THE SWP3.

WASTE DISPOSAL

A COVERED DUMPSTER SHALL BE MADE AVAILABLE FOR THE PROPER DISPOSAL OF GARBAGE, PLASTER, DRYWALL, GROUT, GYPSUM, AND OTHER WASTE MATERIALS. ALL CONTAINERS MUST BE LEAK PROOF. ALL WASTE MATERIAL INCLUDING TOXIC OR HAZARDOUS WASTE SHALL BE DISPOSED OF AT FACILITIES APPROVED FOR THE PERTINENT MATERIAL.

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HORIZONTAL

SCALE IN FEET

CHECKED BY:

KAD

DATE:

FEB, 2019

DRAWN BY:

BMH

DATE:

FEB, 2019

REVISIONS:

DATE	DESCRIPTION

Tiger Tarps Building

SWP3 Notes/Details

City of Massillon

Stark County, Ohio

CIVIPRO

ENGINEERING

ENGINEERS-SURVEYORS-CONSTRUCTION MANAGERS

4450 BELLER VILLAGE ST. NW, SUITE 180 CANTON, OH 44718

PHONE: (204) 410-5903 EMAIL: KAD@CIVIPROENGINEERING.COM

WWW.CIVIPROENGINEERING.COM

DRAWING NAME:

PROJECT NUMBER:

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CLEAN HARD FILL

BRICKS, HARDENING CONCRETE. AND SOIL WASTE SHALL BE FREE FROM CONTAMINATION WHICH MAY LEACH CONSTITUENTS TO WATER RESOURCES OR WETLANDS CLEAN CONSTRUCTION WASTES THAT WILL BE DISPOSED OF INTO THE PROPERTY SHALL BE SUBJECT TO ANY LOCAL PROHIBITIONS FROM THIS TYPE OF DISPOSAL.

CONSTRUCTION AND DEMOLITION DEBRIS (C&DD)

ALL C&DD SHALL BE DISPOSED OF IN AN OHIO EPA APPROVED C&DD LANDFILL AS REQUIRED BY OHIO REVISED CODE (ORC) 3714. MATERIALS WHICH CONTAIN ASBESTOS MUST COMPLY WITH AIR POLLUTION REGULATIONS (SEE OHIO ADMINISTRATIVE CODE (OAC) 3745-20).

CONSTRUCTION CHEMICAL COMPOUNDS

AREAS SHALL BE DESIGNATED FOR THE MIXING OR STORAGE OF COMPOUNDS SUCH AS FERTILIZERS, LIME, ASPHALT, OR CONCRETE. THESE DESIGNATED AREAS SHALL BE LOCATED AWAY FROM WATERCOURSES, DRAINAGE DITCHES, FIELD DRAINS, OR OTHER STORM WATER DRAINAGE AREAS.

EQUIPMENT FUELING AND MAINTENANCE

ALL FUEL/LIQUID TANKS AND DRUMS SHALL BE STORED IN A MARKED STORAGE AREA. SECONDARY CONTAINMENT SHALL BE PROVIDED FOR ALL FUEL OIL STORAGE TANKS. VEHICLE FUELING AND MAINTENANCE SHALL OCCUR IN DESIGNATED AREAS. THESE DESIGNATED AREAS SHALL BE LOCATED AWAY FROM WATERCOURSES, DRAINAGE DITCHES. FIELD DRAINS, OR OTHER STORM WATER DRAINAGE AREAS.

SPILL PREVENTION CONTROL AND COUNTERMEASURES

A SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) PLAN MUST BE DEVELOPED FOR SITES WITH ONE ABOVE GROUND STORAGE TANK OF 660 GALLONS OR MORE, TOTAL ABOVE GROUND TANK STORAGE OF 1330 GALLONS, OR BELOW GROUND STORAGE OF 42,000 GALLONS OF FUEL.

CONCRETE WASH WATERS

CONCRETE CHUTE OR OTHER CONCRETE WASH WATERS SHALL BE DISCHARGED INTO DESIGNATED AREAS ONLY. DESIGNATED AREAS SHALL BE IDENTIFIED WITH SIGNAGE AND LOCATED AWAY FROM WATERCOURSES, DRAINAGE DITCHES. FIELD DRAINS. OR OTHER STORM WATER DRAINAGE AREAS.

CONTAMINATED SOILS

ALL CONTAMINATED SOILS MUST BE TREATED AND/OR DISPOSED IN OHIO EPA APPROVED SOLID WASTE MANAGEMENT FACILITIES OR HAZARDOUS WASTE TREATMENT, STORAGE OR DISPOSAL FACILITIES (TSDFs). RUNOFF FROM CONTAMINATED SOILS SHALL NOT BE DISCHARGED FROM THE SITE. PROPER PERMITS SHALL BE OBTAINED FOR DEVELOPMENT PROJECTS ON SOLID WASTE LANDFILL SITES OR REDEVELOPMENT SITES.

SPILL REPORTING REQUIREMENTS

IN THE EVENT OF A SMALL RELEASE (LESS THAN 25 GALLONS) OF PETROLEUM WASTE. THE LOCAL FIRE DEPARTMENT SHALL BE CONTACTED. IN THE EVENT OF A LARGER RELEASE (25 OR MORE GALLONS) OF PETROLEUM WASTE, CONTACT OHIO EPA AT 1-800-282-9378, AND THE LOCAL FIRE DEPARTMENT.

OPEN BURNING

OPEN BURNING IS NOT PERMITTED.

DUST CONTROLS AND SUPPRESSANTS

USED OIL SHALL NOT BE USED AS A DUST SUPPRESSANT. DUST CONTROLS MAY INCLUDE THE USE OF WATER TRUCKS TO WET DISTURBED AREAS, TARPING STOCKPILES, TEMPORARY STABILIZATION OF DISTURBED AREAS, AND REGULATION OF THE SPEED OF VEHICLES ON THE SITE.

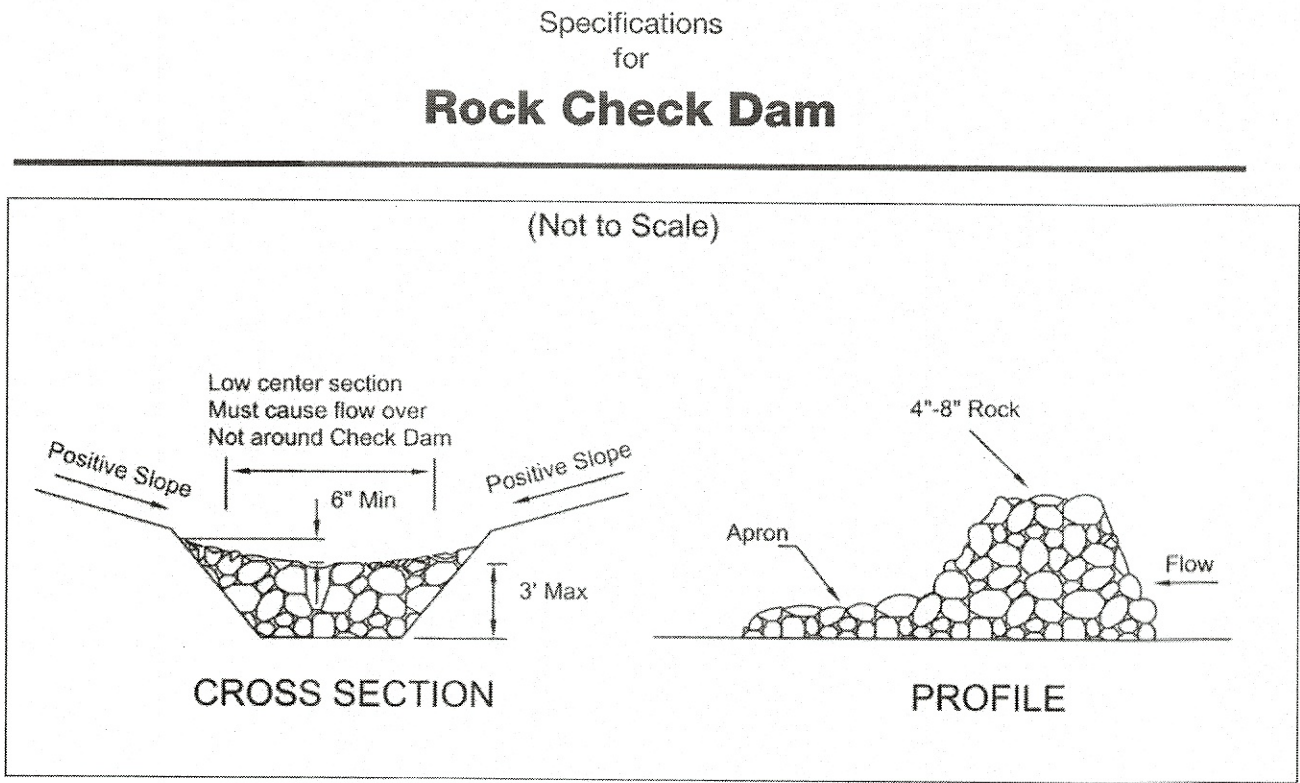
STREAM CROSSINGS

STREAM CROSSINGS SHALL BE CONSTRUCTED ENTIRELY OF STONE, ROCK, OR CLEAN RECYCLED CONCRETE. SOIL OR EARTHEN MATERIAL MAY NOT BE USED. A 20 FOOT STONE APRON ON EITHER SIDE OF THE STREAM SHALL BE CONSTRUCTED TO PREVENT LOCALIZED SEDIMENTATION. THE CHANNEL BED AND BANKS SHALL BE RESTORED, AND ALL DISTURBED AREAS OF THE BANK WITHIN 50 FEET OF THE STREAM SHALL BE STABILIZED WITH SEED AND STRAW MULCH WITHIN 2 DAYS OF THE DISTURBANCE.

SEEDING AND MULCHING

SEDIMENT CONTROL SHALL BE ACCOMPLISHED BY SEEDING AND MULCHING UPON COMPLETION OF EXCAVATION OR FILL AND FINISHED GRADING IN ACCORDANCE WITH THE REQUIREMENTS OF ODOT ITEM 659 OR AS DIRECTED BY THE ENGINEER. THE FOLLOWING MIXTURES SHALL BE USED FOR SEEDING:

GENERAL USE (ODOT 659.09, CLASS 1)			
SEED MIX	SEEDING RATE	FERTILIZER	MULCH
KENTUCKY BLUEGRASS	3 LBS./1000 SQ FT	10-20-10@20 LBS./1000 SQ FT	STRAW - 2 TONS/ACRE
CREEPING RED FESCUE	3 LBS./1000 SQ FT		
ANNUAL RYEGRASS	2 LBS./1000 SQ FT		
PERENNIAL RYEGRASS	2 LBS./1000 SQ FT		
ROADSIDE DITCHES AND SWALES (ODOT 659.09, CLASS 2)			
SEED MIX	SEEDING RATE	FERTILIZER	MULCH
PERENNIAL RYEGRASS	1.5 LBS./1000 SQ FT	10-20-10@20 LBS./1000 SQ FT	STRAW - 2 TONS/ACRE
KENTUCKY 31 FESCUE	2.0 LBS./1000 SQ FT		
KENTUCKY BLUEGRASS	1.5 LBS./1000 SQ FT		
STEEP BANKS, CUT SLOPES, DETENTION AREAS, WHERE SLOPES ARE STEEPER THAN 3 1 (ODOT 659.09, CLASS 3C)			
SEED MIX	SEEDING RATE	FERTILIZER	MULCH
PERENNIAL RYEGRASS	1.8 LBS./1000 SQ FT		
ANNUAL RYEGRASS	0.3 LBS./1000 SQ FT		
TEMPORARY EROSION CONTROL (ODOT 659.09, CLASS 7)			
SEED MIX	SEEDING RATE	FERTILIZER	MULCH
ANNUAL RYEGRASS	2.02 LBS./1000 SQ FT	10-20-10@20 LBS./1000 SQ FT	STRAW - 2 TONS/ACRE



1. The check dam shall be constructed of 4-8 inch diameter stone, placed so that it completely covers the width of the channel. ODOT Type B stone is acceptable, but should be underlain with a gravel filter consisting of ODOT No. 3 or 4 or suitable filter fabric.
2. Maximum height of check dam shall not exceed 3.0 feet.
3. The midpoint of the rock check dam shall be a minimum of 6 inches lower than the sides in order to direct across the center and away from the channel sides.
4. The base of the check dam shall be entrenched approximately 6 inches.
5. Spacing of check dams shall be in a manner such that the toe of the upstream dam is at the same elevation as the top of the downstream dam.
6. A Splash Apron shall be constructed where check dams are expected to be in use for an extended period of time, a stone apron shall be constructed immediately downstream of the check dam to prevent flows from undercutting the structure. The apron should be 6 in. thick and its length two times the height of the dam.
7. Stone placement shall be performed either by hand or mechanically as long as the center of check dam is lower than the sides and extends across entire channel.
8. Side slopes shall be a minimum of 2:1.

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HORIZONTAL  
SCALE IN FEET

CHECKED BY:  
KAD

DATE:  
FEB, 2019

DRAWN BY:  
BMH

DATE:  
FEB, 2019

REVISIONS:

DATE	DESCRIPTION

Tiger Tarps Building  
SWP3 Notes/Details  
City of Massillon  
Stark County, Ohio

CIVPRO

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