

ITEM NUMBERS REFER TO THE 2019 STATE OF OHIO, DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS. ALL EQUIPMENT, MATERIAL AND WORKMANSHIP SHALL BE PERFORMED ACCORDING TO THESE SPECIFICATIONS AND THE REFERENCED OHIO DEPARTMENT OF TRANSPORTATION STANDARD DRAWINGS EXCEPT AS MODIFIED BY THE CITY OF CANTON ENGINEERING STANDARDS AND/OR BY THESE PLANS.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VISIT THE SITE AND VERIFY THE EXTENT OF THE WORK TO BE PERFORMED, TO IDENTIFY THE NECESSARY CONSTRUCTION MEANS AND METHODS TO ACCOMPLISH ALL WORK ITEMS, AND TO NOTIFY THE OWNER OF ANY IDENTIFIED CONFLICTS, ERRORS, OR OMISSION FROM THE CONSTRUCTION PLANS.

MATERIAL STORAGE/EQUIPMENT STORAGE

THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE APPROPRIATE EQUIPMENT AND MATERIAL STORAGE AREA TO SUIT HIS NEEDS. ENGINEER TO APPROVE LOCATION IF DIFFERENT THAN LOCATION SHOWN ON PLANS.

PERMITS

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR THIS PROJECT PRIOR TO CONSTRUCTION THAT HAVE NOT ALREADY BEEN OBTAINED BY THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF ALL MATERIAL TESTING AND INSPECTION FEES.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL PERMITS REQUIRED FOR THE PROJECT THAT HAVE NOT BEEN OBTAINED BY THE OWNER/ENGINEER. THE OWNER/ENGINEER WILL OBTAIN AND PROVIDE COPIES OF APPROVAL LETTER FOR: NOI AND SWP. CONTRACTOR IS RESPONSIBLE FOR REGISTERING AS CO-PERMITTEE FOR NOI.

OHIO EPA FACILITY PERMIT #3GC13845*AG

3. THE CONTRACTOR SHALL BE RESPONSIBLE TO FULFILL ANY MUNICIPAL PERMITTING REQUIREMENTS.

UNDERGROUND UTILITIES

1. THE CONTRACTOR SHALL GIVE NOTICE OF INTENT TO CONSTRUCT TO THE OHIO UTILITIES PROTECTION SERVICE, THE OHIO OIL & GAS PRODUCERS UNDERGROUND PROTECTION SERVICE, AND OWNERS OF UNDERGROUND FACILITIES THAT ARE NOT MEMBERS OF A REGISTERED PROTECTION SERVICE IN ACCORDANCE WITH 153.64 OF THE OHIO REVISED CODE. THE ABOVE MENTIONED NOTICE SHALL BE GIVEN AT LEAST TWO WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.

OHIO UTILITY PROTECTION SERVICE 1-800-362-2764
OHIO OIL & GAS PRODUCERS UNDERGROUND PROTECTION SERVICE 1-614-715-2984
NON MEMBERS MUST BE CALLED DIRECTLY.

UTILITY OWNERSHIP

THE FOLLOWING UTILITIES AND OWNERS ARE LOCATED WITHIN OR IN CLOSE PROXIMITY TO THE WORK LIMITS OF THE PROJECT. CONTRACTOR TO CONTACT OUPS FOR MORE INFORMATION.

SANITARY/STORM SEWER UTILITY ENERGY TRANSFER (AKA SUNOCO PIPELINE LOGISTICS)
CITY OF CANTON ATTN: NICHOLAS RAY
2436 30TH STREET NE 234-231-7462 (OFFICE)
BUILDING A 330-316-9037 (CELL)
CANTON, OH 44702 NICHOLAS.RAY@ENERGYTRANSFER.COM
(330) 489-3381

PROTECTION AND RESTORATION OF PROPERTY

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL PUBLIC AND PRIVATE PROPERTY. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING IN KIND ANY DAMAGE TO EXISTING FEATURES SCHEDULED TO REMAIN OR ARE DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE OR INJURY TO PROPERTY OF ANY CHARACTER, DURING THE EXECUTION OF THE WORK, RESULTING FROM ANY ACT, OMISSION, NEGLIGENCE, OR MISCONDUCT OF HIS MANNER OR METHOD OF EXECUTING THE WORK, OR AT ANY TIME DUE TO DEFECTIVE WORK OR MATERIALS, AND SAID RESPONSIBILITY WILL NOT BE RELEASED UNTIL THE PROJECT SHALL HAVE BEEN COMPLETED AND ACCEPTED.

3. WHEN OR WHERE ANY DIRECT OR INDIRECT DAMAGE OR INJURY OCCURS TO PUBLIC OR PRIVATE PROPERTY BY OR ON ACCOUNT OF ANY ACT, OMISSION, NEGLIGENCE, OR MISCONDUCT IN THE EXECUTION OF THE WORK, OR IN CONSEQUENCE OF THE NON-EXECUTION THEREOF BY THE CONTRACTOR, HE SHALL RESTORE, AT HIS OWN EXPENSE, SUCH PROPERTY TO A CONDITION SIMILAR OR EQUAL TO THAT EXISTING BEFORE SUCH DAMAGE OR INJURY WAS DONE, BY REPAIRING, REBUILDING OR OTHERWISE RESTORING AS MAY BE DIRECTED, OR SHALL MAKE GOOD SUCH DAMAGE OR INJURY IN AN ACCEPTABLE MANNER.

4. WHEN SIGNS AND SUPPORTS INTERFERE WITH CONSTRUCTION, THE CONTRACTOR SHALL REMOVE AND ERECT THEM IN A TEMPORARY LOCATION DURING CONSTRUCTION IN A MANNER SATISFACTORY TO AND AS DIRECTED BY ENGINEER. AFTER COMPLETION OF THE CONSTRUCTION AND BEFORE FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL ERECT THE SIGNS AND SUPPORTS IN THEIR ORIGINAL LOCATION UNLESS OTHERWISE DIRECTED BY ENGINEER OR THESE PLANS.

DUST NUISANCE ORIGINATION

DUST PRODUCED FROM ANY OPERATIONS INSIDE OR OUTSIDE THE RIGHT-OF-WAY SHALL BE CONTROLLED BY THE CONTRACTOR IN ACCORDANCE WITH ODOT ITEM 616. COST SHALL BE INCIDENTAL TO THE PROJECT.

CONSTRUCTION SEQUENCE

THE CONTRACTOR SHALL ENGAGE IN THE CONSTRUCTION OF THE PROJECT SUCH THAT ADEQUATE ACCESS TO ADJACENT RESIDENCES AND ALL BUSINESSES IS MAINTAINED AT ALL TIMES. ONCE THE CONTRACTOR IS ENGAGED IN THE PROJECT, WORK SHALL BE CONTINUOUS USING FULL CREWS.

EXISTING CONDITIONS

THE EXISTING CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. NECESSARY PRECAUTIONS SHALL BE TAKEN BY THE CONTRACTOR TO LOCATE AND PROTECT EXISTING UTILITY SERVICES AND MAINS. ANY DISCREPANCIES BETWEEN THE PLANS AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE ENGINEER PRIOR TO CONSTRUCTION.

SPECIAL ENVIRONMENTAL CONDITIONS

A LIMITED PHASE II ENVIRONMENTAL ASSESSMENT WAS PERFORMED BY ENVROSCIENCE UNDER A SEPARATE PROJECT ENTITLED "MIDDLE BRANCH REDEVELOPMENT AND GREENSPACE AREAS" THEIR REPORT, DATED JULY 30, 2021, HAS BEEN PROVIDED WITHIN THE BIDDING DOCUMENTS FOR CONTRACTOR'S REFERENCE. CONTRACTOR SHALL REVIEW THIS REPORT/INFORMATION AND TAKE INTO ACCOUNT THE DESCRIBED SITE AND SOIL CONDITIONS WHILE PROVIDING HIS/HER UNIT BID PRICES FOR THIS PROJECT. CONTRACTOR SHALL INCLUDE IN HIS/HER UNIT BID PRICES ANY SPECIAL NEEDS REQUIRED BY LAW IN ORDER TO PERFORM THE PROPOSED WORK.

CONSTRUCTION

FAILURE TO SPECIFICALLY MENTION ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THE PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM SUCH WORK. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND SAFETY PRECAUTIONS AND PROGRAMS. THE CONTRACTOR IS RESPONSIBLE FOR TRANSITIONS TO DRIVEWAYS, DRAINAGE STRUCTURES AND OTHER FEATURES.

DEMOLITION

CONTRACTOR SHALL REMOVE ITEMS AS SHOWN ON THE PLANS PER ODOT ITEM 202, 203 AND PER PLANS.

CONSTRUCTION VIDEO

THE CONTRACTOR SHALL PROVIDE VIDEO ADEQUATE TO ILLUSTRATE EXISTING CONDITIONS WITHIN AND SURROUNDING THE PROJECT LIMITS. THE VIDEO (TWO COPIES) SHALL ALSO BE PROVIDED TO THE ENGINEER PRIOR TO BEGINNING CONSTRUCTION. THE COST OF THE VIDEO IS INCIDENTAL TO ITEM 624 - MOBILIZATION.

REMOVAL OF DEBRIS AND SITE CLEANUP

THE PROJECT SITE MUST BE KEPT FREE OF CONSTRUCTION DEBRIS, TRASH, PAPER AND OTHER WASTE ITEMS. COLLECT AND REMOVE THESE ITEMS AT THE END OF EACH WORK DAY.

PAVEMENT SWEEPING

AS REQUIRED DURING THE COURSE OF EACH WORK DAY, THE CONTRACTOR SHALL SWEEP ALL PAVED AREAS AFFECTED BY THE DAY'S WORK. PAVEMENT SHALL BE CLEANED AND SWEEPED TO REMOVE ALL DIRT, MUD AND DEBRIS.

CLEARING AND GRUBBING

ALL TREES, STUMPS, ROOTS, SHRUBS AND DEBRIS REMOVED FROM THE WORK LIMITS THAT ARE NOT BEING USED TO CONSTRUCT THE PROPOSED WORK SHALL BE DISPOSED OF BY THE CONTRACTOR.

ALL CLEARING, GRUBBING, AND TREE REMOVAL IS TO BE PERFORMED BY OTHERS AND WILL BE COMPLETED PRIOR TO CONSTRUCTION OF THIS PROJECT.

BYPASS PUMPING

1. WORK SHOULD BE TIMED TO TAKE PLACE DURING LOW OR NO-FLOW CONDITIONS. THE FOLLOWING PEAK RUNOFF/FLOW INFORMATION WAS ESTIMATED BY THE ENGINEER AND IS PROVIDED FOR THE CONTRACTOR'S REFERENCE:

- 1.1. (WATER QUALITY FLOW)/0.9-INCH, 24-HR STORM EVENT PEAK RUNOFF - 21 CFS
- 1.2. (1-YEAR EVENT)/2.03-INCH, 24-HR STORM EVENT PEAK RUNOFF - 99 CFS
- 1.3. (2-YEAR EVENT)/2.43-INCH, 24-HR STORM EVENT PEAK RUNOFF - 129 CFS
- 1.4. (5-YEAR EVENT)/3.03-INCH, 24-HR STORM EVENT PEAK RUNOFF - 175 CFS
- 1.5. (10-YEAR EVENT)/3.53-INCH, 24-HR STORM EVENT PEAK RUNOFF - 215 CFS

2. CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGNING/SIZING PUMPS TO SUIT HIS/HER OWN NEEDS AND SHALL NOT SOLELY RELY UPON INFORMATION PROVIDED ABOVE IN HIS/HER DESIGN FOR BYPASS PUMPING. CONTRACTOR SHALL SUBMIT BYPASS PUMPING PLAN FOR OWNER REVIEW AND APPROVAL PRIOR TO IMPLEMENTING.

3. CONTRACTOR SHALL INCLUDE THE COST OF ANY BYPASS PUMPING NEEDED IN THEIR BID PRICE FOR ITEM SPECIAL - DIVERSION MANHOLE.

EXISTING MANHOLE MODIFICATION

TOPSOIL STRIPPING, STOCKPILING, AND RESPREADING

1. CONTRACTOR SHALL STRIP AND STOCKPILE TOPSOIL ON SITE FOR RESPREADING PER ODOT ITEM 651. CONTRACTOR SHALL STOCKPILE SUFFICIENT QUANTITY TO ALLOW RESPREADING OF 4" OF TOPSOIL IN FLOODPLAIN AREA AND SLOPES FROM FLOODPLAIN AREA TO EXISTING GRADE. STOCKPILE LOCATION SHALL BE APPROVED BY OWNER. STOCKPILE MAY BE NO TALLER THAN 8 FEET ABOVE ADJACENT GRADE. CONTRACTOR SHALL PLACE SILT FENCE AROUND STOCKPILE AND MAINTAIN SILT FENCE THROUGHOUT THE CONSTRUCTION PERIOD.

2. AFTER FINAL SUBGRADE IS REACHED, TOPSOIL SHALL BE SPREAD AT A DEPTH OF 4" OVER FLOODPLAIN BENCHES AND SIDE SLOPES ABOVE FLOODPLAIN ELEVATION.

3. REMOVE ROCKS AND OTHER FOREIGN MATERIAL 1-INCH OR GREATER IN ANY DIMENSION FROM SURFACE OF SOIL. FINE GRADE SURFACES PER ODOT 659. ANY TOPSOIL STOCKPILED BUT NOT USED SHALL BE LEFT ON SITE IN THE APPROVED STOCKPILE/DISPOSAL AREAS.

EXCAVATION

1. PRIOR TO CONSTRUCTION, PLACE EROSION CONTROL MEASURES AS SHOWN ON THE SITE STORMWATER POLLUTION PREVENTION PLAN. CONTRACTOR TO PERFORM/STAGE EXCAVATION WORK IN A MANNER THAT REDUCES POTENTIAL FOR EROSION AND SEDIMENT MIGRATION.

2. EXCESS SOIL MATERIALS REMAINING AFTER COMPLETION OF EARTH MOVING ACTIVITIES SHALL BE DISPOSED OF ON-SITE IN AREAS AS SHOWN ON THE PLANS OR HAULED OFF SITE, AS NEEDED. CONTRACTOR SHALL GRADE AND SEED EXCAVATED SPOILS AREA TO PROVIDE POSITIVE DRAINAGE AND STABILIZATION.

3. CONTRACTOR TO PERFORM ALL EXCAVATION AND EMBANKMENT ACTIVITIES IN CONFORMANCE WITH ODOT CMS ITEM 203 AND THE DRAWINGS.

4. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE BY ROUTING FLOWS THAT ARE INTERRUPTED BY CONSTRUCTION. CONTRACTOR SHALL MAKE MINOR GRADING ADJUSTMENT AS NECESSARY TO MAINTAIN POSITIVE DRAINAGE.

STORM SEWER

1. STORM SEWER PIPE SHALL BE CORRUGATED HIGH DENSITY POLYETHYLENE PIPE (SOLID WALL HDPE) WITH A SMOOTH INTERIOR LINER, ITEM 707.33, WITH GASKETED JOINTS.

2. ALL STORM SEWER LENGTHS SHOWN ON THE DRAWINGS ARE HORIZONTAL DISTANCES MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.

3. INSTALLATION SHALL BE PER CITY OF CANTON STANDARD DRAWING NO 19, ODOT 611, AND/OR PER MANUFACTURERS RECOMMENDATIONS BASED ON COVER REQUIREMENTS FOR PROPOSED SEWER, WHICHEVER IS MORE RESTRICTIVE.

4. BEDDING MATERIAL SHALL BE CLASS 1 PER CITY OF CANTON STANDARD DRAWING NO 19. BACKFILL MATERIAL AND COMPACTION SHALL MEET OR EXCEED MANUFACTURERS RECOMMENDATIONS FOR THE PROPOSED SEWER BASED ON COVER REQUIREMENTS.

5. CONTRACTOR SHALL NOTIFY OWNER/ENGINEER ABOUT ANY UNSUITABLE FOUNDATION MATERIALS PRIOR TO PLACING BEDDING AND BACKFILL. CONTRACTOR SHALL REVIEW THE SOIL BORINGS PROVIDED IN THE BID DOCUMENTS AND INCLUDE THIS IN HIS/HER UNIT BID PRICE.

6. MAINTAIN FLOWS AND DRAINAGE AT ALL TIMES UNTIL THE NEW FACILITIES ARE COMPLETED AND IN SERVICE. MAINTAINING FLOWS WITHIN THE EXISTING SEWER, INCLUDING ANY REQUIRED BYPASS PUMPING TO BE INCLUDED IN THE COST OF ITEM SPECIAL - DIVERSION MANHOLE. ANY ADDITIONAL TEMPORARY DIVERSION OF FLOWS AND DRAINAGE IS THE RESPONSIBILITY OF THE CONTRACTOR. MAINTAIN FLOWS AND DRAINAGE OR PROVIDE TEMPORARY DIVERSION AT NO ADDITIONAL COST TO THE OWNER.

7. VISUALLY INSPECT ALL CONDUIT IN THE PRESENCE OF THE ENGINEER BEFORE IT IS PLACED IN THE TRENCH. REPLACE ALL CONDUIT THAT IS DAMAGED AS DETERMINED BY THE ENGINEER. BEFORE INSTALLATION, MEASURE AND RECORD THE WIDEST INSIDE DIMENSION OF EACH LAY LENGTH OF CONDUIT. THIS MEASUREMENT IS TO BE TAKEN THREE TIMES ALONG EACH RUN OF CONDUIT.

8. LAY THE CONDUIT IN THE CENTER OF THE TRENCH AT THE INVERT ELEVATION SHOWN ON THE

PLANS. ANY DEVIATION MUST BE APPROVED BY THE ENGINEER. IF THE ENGINEER DOES NOT APPROVE THE DEVIATION, STOP ALL RELATED WORK UNTIL THE CONDUIT IS RE-LAID. ENSURE THAT THE CONDUIT IS IN CONTACT WITH THE BEDDING FOR ITS FULL LENGTH AND MAINTAIN THE LINE AND GRADE OF THE CONDUIT. THE CONTRACTOR'S REPRESENTATIVE, DOING THE INSPECTION WILL VISUALLY INSPECT ALL CONDUIT BEFORE PLACING ANY BACKFILL. REJOIN, RE-LAY, OR REPLACE CONDUITS THAT HAVE SETTLED, OR THAT ARE DAMAGED.

ROCK CHANNEL PROTECTION

ROCK CHANNEL PROTECTION SHALL INSTALLED PER ODOT 601 AND PLANS. MATERIAL SHALL CONFORM TO 703.19, TYPE C. INSTALL ON TOP OF A 6-INCH AGGREGATE FILTER PER ODOT 713.19.

EROSION CONTROL BLANKET

INSTALL EROSION CONTROL BLANKET PER ODOT 671 AND PER PLAN/MANUFACTURERS RECOMMENDATIONS. BLANKET SHALL BE BIONET S75BN OR APPROVED EQUAL. BLANKET SHALL BE INSTALLED IN LOCATIONS SHOWN ON PLAN OR AS DIRECTED BY OWNER/ENGINEER.

FINE GRADING AND PREPARATION FOR PLANTING AND SEEDING

1. AREAS TO RECEIVE RESPREAD TOPSOIL SHALL BE INSPECTED BY THE ENGINEER TO ASSURE THAT WORK HAS BEEN COMPLETED. DO NOT PROCEED TO PLANTING UNTIL THE AREA HAS BEEN APPROVED BY THE ENGINEER. TOPSOIL SHALL BE 4 INCHES DEEP.

2. ASCERTAIN LOCATIONS OF UTILITIES AND SUBSURFACE DRAINAGE SO THAT PROPER PRECAUTIONS MAY BE TAKEN NOT TO DISTURB OR DAMAGE ANY SUBSURFACE IMPROVEMENTS. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR MAKING, AT HIS OWN EXPENSE, ALL REPAIRS TO SUBSURFACE IMPROVEMENTS DAMAGED BY THE WORK OF THIS SECTION. CONTACT ALL UTILITIES AS REQUIRED BY SECTION 153.64 ORC BEFORE DIGGING. ALL KNOWN UTILITIES ARE LISTED ON THE DRAWINGS.

3. RESPREAD TOPSOIL PER ODOT ITEM 652. CONTRACTOR SHALL RECEIVE ENGINEER'S APPROVAL FOR TOPSOIL STOCKPILE LOCATION PRIOR TO CONSTRUCTION.

4. DO NOT WORK THE SOIL WHEN MUDDY OR FROZEN CONDITIONS EXIST. FINE GRADE TO THE LINES AND GRADES SHOWN ON THE DRAWINGS. FILL IN ALL LOW SPOTS NOT DRAINING TO OUTLET. REMOVE ALL ROCKS LARGER THAN 1" IN ANY DIMENSION FROM THE FINISH SURFACE. BREAK UP ALL CLODS AND REMOVE ANY REMAINING SOD SO THAT THE FINISH SURFACE IS UNIFORMLY SMOOTH AND LOOSENEED IN PREPARATION FOR SEEDING AND MATTING.

QUALITY ASSURANCE

1. LANDSCAPE INSTALLER QUALIFICATIONS: THE SUBMITTING BIDDER(S) SHALL BE, AND HAVE BEEN, ACTIVELY AND DIRECTLY ENGAGED IN NATIVE SEED AND PLANTING INSTALLATION FOR A PERIOD OF TWO (2) OR MORE YEARS. PROVIDE PROOF OF TWO (2) OR MORE SUCCESSFUL NATIVE SEED AND PLANTING INSTALLATIONS.

LIVE STAKES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTING AND PREPARING TOPSOIL, LAWN AND OTHER SEEDED AREAS. THIS INCLUDES REMOVAL OF ROCKS, ROOTS, DEBRIS, ETC. AND FINE GRADING.

2. LIVE STAKES SHALL BE LIVE, 1/2-INCH TO 1-INCH DIAMETER, 3-FOOT TO 4-FOOT LENGTHS OF CUTTINGS FROM RED-OSIER DOGWOOD TREES. PUSH LIVE STAKES INTO THE GROUND AS FAR AS THEY WILL GO WITHOUT BREAKING. LIVE STAKES SHALL BE INSTALLED UPRIGHT AND FIRM IN THE SOIL WITH MINIMUM EMBEENMENT DEPTH OF 1 FOOT.

LIVE STAKES ARE AVAILABLE FROM THE FOLLOWING OR APPROVED EQUIVALENT:
ERNST CONSERVATION SEEDS, INC.
8884 MERCER PIKE
MEADVILLE, PA 16335
(800) 873-3321

3. WARRANTY LIVE STAKES FOR A PERIOD OF ONE FULL GROWING SEASON AFTER DATE OF ACCEPTANCE BY THE OWNER. AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM A LACK OF ADEQUATE MAINTENANCE, NEGLIGENCE OR ABUSE BY OWNER, ABNORMAL WEATHER CONDITIONS UNUSUAL FOR WARRANTY PERIOD, OR INCIDENTS THAT ARE BEYOND THE CONTRACTOR'S CONTROL. ALL STAKES SHALL EXHIBIT VIGOROUS GROWTH AND BE THOROUGHLY ROOTED BY THE END OF THE FIRST FULL GROWING SEASON AND A MINIMUM OF 90% OF LIVE STAKES SHALL BE ALIVE AND GROWING AT THE END OF THE FIRST FULL GROWING SEASON. ~~PLANT LIVE STAKES IN EXCESS OF 10% OF ALL PLANTING PERIODS WITH MAINTENANCE PERIODS TO PROVIDE REQUIRED MAINTENANCE FROM DATE OF SEEDING.~~

DO NOT PERFORM LIVE STAKES AS PART OF THIS PROJECT. LIVE STAKES MAY BE PERFORMED BY OTHERS AT A LATER TIME.

4.1. LIVE STAKE PLANTING SHALL BE INSTALLED DURING THE WET SEASON WHEN SOIL IS SATURATED AND WHEN WATER DEPTHS CORRESPOND WITH THE APPROPRIATE PLANTING LEVELS. INSTALLATION OF LIVE STAKES MAY BE PERFORMED BETWEEN MAY 15 AND JUNE 15 AND BETWEEN SEPTEMBER 1 AND SEPTEMBER 30.

LIVE STAKE MAINTENANCE

5.1. DURING THE WARRANTY PERIOD, ERADICATE PLANTS OF THE FOLLOWING SPECIES DEEMED DETRIMENTAL TO LIVE STAKES:

- (1) TYPHA SPECIES (CATTAILS);
- (2) PHRAGMITES AUSTRALIS (COMMON REED);
- (3) LYTHRUM SALICARIA (PURPLE LOOSESTRIFE);
- (4) PHALARIS ARUNDINACEA (REED CANARY GRASS);
- (5) RHAMNUS CATHARTICA (COMMON BUCKTHORN);
- (6) RHAMNUS FRANGULA (GLOSSY BUCKTHORN);
- (7) POLYGONUM CUSPIDATUM (JAPANESE KNOTWEED);
- (8) BIPSACUS FULLONUM (COMMON TEASEL);
- (9) CIRSIUM ARVENSE (CANADIAN THISTLE); (10) RUMEX CRISPUS (CURLY DOCK).

SEEDING

1. PERMANENT SEED AND MULCH PER ODOT ITEM 659 AND THESE SPECIFICATIONS.

2. INSTALL SPECIFIED SEED MIXES IN LOCATIONS SHOWN ON PLANS.

3. PURE LIVE SEED (PLS): PURE LIVE SEED IS A MEASURE OF Viable SEED STATED AS A PERCENTAGE. IT IS THE PRODUCT OF TOTAL GERMINATION TIMES PURITY. (EXAMPLE: 96% GERMINATION X 93% PURITY = 89% PLS).

4. SEED PLANTING RESTRICTIONS - PLANT DURING ONE OF FOLLOWING PERIODS. COORDINATE PLANTING PERIODS WITH MAINTENANCE PERIODS TO PROVIDE REQUIRED MAINTENANCE FROM DATE OF SEEDING.

4.1. LAWN SEED MIX PLANTING RESTRICTIONS: (1) SPRING PLANTING: MAY 1 TO JUNE 15; (2) FALL PLANTING: OCTOBER 1 TO OCTOBER 31; (3) SUMMER PLANTING: JUNE 15 THROUGH SEPTEMBER 1, WHEN WATER IS AVAILABLE.

4.2. FLOODPLAIN AND RIPARIAN BUFFER PLANTING RESTRICTIONS: (1) SPRING PLANTING - APRIL 20 TO JUNE 1; (2) SUMMER PLANTING - JUNE 1 TO SEPTEMBER 1; CONTRACTOR SHALL BE REQUIRED TO PROVIDE IRRIGATION OF THE SEEDED AREAS AT THE MINIMUM RATE OF 1/2-INCH OF WATER PER WEEK; (4) DORMANT PLANTING (WINTER SEEDING): PLANT WHEN SOIL TEMPERATURES ARE EXPECTED TO STAY BELOW 50-DEGREE FAHRENHEIT TO NOT ALLOW SEED TO GERMINATE UNTIL THE SPRING OF THE FOLLOWING GROWING SEASON.

5. RIPARIAN BUFFER SEED MIX SHALL BE RIPARIAN BUFFER MIX (ERNMX-178) FROM ERNST CONSERVATION SEEDS, INC OR APPROVED EQUAL.

6. FLOODPLAIN SEED MIX SHALL BE FLOODPLAIN SEED MIX (ERNMX-154) FROM ERNST CONSERVATION SEEDS, INC OR APPROVED EQUAL.

7. FINAL MIX MAY VARY DEPENDING ON SEED AVAILABILITY. FINAL MIX, INCLUDING COVER CROP SEED AND INERT SEED CARRIER IS TO BE DETERMINED BY SEED SUPPLY SPECIALIST AND APPROVED BY ENGINEER. CONTRACTOR TO PROVIDE SUBMITTALS OF SEED MIXES FOR REVIEW AND APPROVAL PRIOR TO PROCURING.

8. DO NOT USE LIME OR FERTILIZER FOR FLOODPLAIN AND RIPARIAN SEED MIXES. FOLLOW SEED SUPPLIER'S RECOMMENDATIONS FOR SOIL PREPARATION AND SEEDING INSTALLATION.

9. CLASS 1 SEED MAINTENANCE

9.1. CONTRACTOR SHALL BEGIN MAINTENANCE OF SEEDED AREAS BY WATERING, MOWING AND RESEEDING AS NECESSARY UNTIL THE THIRD CUTTING, AT MINIMUM, OR AS NECESSARY TO ESTABLISH A UNIFORMLY DENSE STAND OF SPECIFIED GRASS AND UNTIL ACCEPTED. MAKE THE FIRST CUTTING WHEN GRASS HAS REACHED THE HEIGHT OF THREE (3") INCHES, CUT TO 2 1/2 INCHES. CONTRACTOR SHALL MAINTAIN LAWN AREAS FOR THE FOLLOWING PERIOD: EIGHTEEN MONTHS FOLLOWING ACCEPTANCE OF INITIAL INSTALLATION.

9.2. CONTRACTOR SHALL NOT MOW ONSITE SPOIL MOUNDS.

10. FLOODPLAIN AND RIPARIAN SEEDING MAINTENANCE

10.1. CONTRACTOR SHALL BEGIN MAINTENANCE OF SEEDED AREAS IMMEDIATELY FOLLOWING SEEDING AND CONTINUE FOR THE FOLLOWING PERIOD: 18 MONTHS FOLLOWING ACCEPTANCE OF INITIAL INSTALLATION.

10.2. MAINTAIN SEEDED AREAS BY WATERING, RE-MULCHING AND RESEEDING AS NECESSARY TO ESTABLISH A UNIFORMLY DENSE STAND OF THE SPECIFIED SEED MIX UNTIL 18 MONTHS FOLLOWING ACCEPTANCE OF INITIAL INSTALLATION. CONTRACTOR SHALL SUPPLY HIS/HER OWN SUPPLY AND MEANS FOR WATERING.

10.3. DURING THE FIRST GROWING SEASON, MAINTAIN RIPARIAN SEEDING AREAS BY MOWING AT A HEIGHT OF 6 INCHES, EVERY SIX WEEKS OR WHENEVER WEED GROWTH REACHES EIGHT INCHES IN HEIGHT AND CONTINUE MOWING AS DESCRIBED ABOVE THROUGHOUT THE FIRST GROWING SEASON UNTIL MID-SEPTEMBER OF THE FIRST GROWING SEASON. AT WHICH TIME, THE EXISTING STAND OF VEGETATION IS TO REMAIN IN PLACE AND NOT BE MOWED. LEAVE THE GROWTH IN PLACE TO PROTECT THE YOUNG PLANTS OVER THE WINTER. SPOT-APPLY HERBICIDE ON AGGRESSIVE WEEDS THROUGHOUT THE FIRST GROWING SEASON UNTIL THE END OF THE SEASON.

10.4. CONTINUE MAINTENANCE OF RIPARIAN SEEDED AREAS IN EARLY MAY, JUST PRIOR TO THE BEGINNING OF THE SECOND GROWING SEASON, BY MOWING THESE SEEDING AREAS DOWN TO ONE INCH ABOVE WITH MULCHING OR FLAIL TYPE MOWER TO MIMIC THE EFFECTS OF BURNING (ENSURE SOIL SURFACE IS NOT SCALPED OR OTHERWISE DISTURBED BY MOWING ACTIVITIES). CONTINUE MOWING THESE SEEDING AREAS THROUGHOUT THE SECOND GROWING SEASON, MAINTAIN VEGETATION BY MOWING AT A HEIGHT OF TWELVE INCHES, EVERY SIX WEEKS OR WHENEVER VEGETATION GROWTH REACHES FOURTEEN INCHES IN HEIGHT AND CONTINUE MOWING AS DESCRIBED ABOVE UNTIL MID-SEPTEMBER OF THE SECOND GROWING SEASON. AT WHICH TIME, THE EXISTING STAND OF VEGETATION IS TO REMAIN IN PLACE AND NOT BE MOWED. LEAVE THE GROWTH IN PLACE TO PROTECT THE YOUNG PLANTS OVER THE WINTER. CONTINUE SPOT-APPLICATION OF HERBICIDE ON AGGRESSIVE WEEDS THROUGHOUT THE SECOND GROWING SEASON UNTIL THE END OF THE SEASON.

10.5. ERADICATE PLANTS OF THE FOLLOWING SPECIES DEEMED DETRIMENTAL TO FLOODPLAIN AND RIPARIAN AREAS: (1) TYPHA SPECIES (CATTAILS); (2) PHRAGMITES AUSTRALIS (COMMON REED); (3) LYTHRUM SALICARIA (PURPLE LOOSESTRIFE); (4) PHALARIS ARUNDINACEA (REED CANARY GRASS); (5) RHAMNUS CATHARTICA (COMMON BUCKTHORN); (6) RHAMNUS FRANGULA (GLOSSY BUCKTHORN); (7) POLYGONUM CUSPIDATUM (JAPANESE KNOTWEED); (8) BIPSACUS FULLONUM (COMMON TEASEL); (9) CIRSIUM ARVENSE (CANADIAN THISTLE); (10) RUMEX CRISPUS (CURLY DOCK).

11. FOR ACCEPTANCE OF LAWN INSTALLATION PRIOR TO END OF THE FIRST FULL GROWING SEASON, SCATTERED BARE SPOTS, SMALLER THAN ONE SQUARE FOOT WILL BE ALLOWED UP TO FIVE (5%) PERCENT OF THE SEEDED AREAS.

11.1. ANY AREAS FAILING TO ESTABLISH A STAND SHALL BE RESEED, REFERTILIZED AND REMULCHED AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER. RESEEDING SHALL CONFORM TO ODOT ITEM 659.

11.2. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO THE WORK AREAS RESULTING FROM EROSION AND/OR EQUIPMENT. NO ADDITIONAL PAYMENT SHALL BE ALLOWED FOR EROSION AND/OR EQUIPMENT MAINTENANCE. THE CONTRACTOR SHALL REPAIR DAMAGE, INCLUDING REGRADING, RESEEDING, ETC. AS NECESSARY, BEFORE SIGNIFICANT DAMAGE OCCURS.

12. FOR ACCEPTANCE OF FLOODPLAIN AND RIPARIAN SEED INSTALLATION PRIOR TO THE END OF THE SECOND FULL GROWING SEASON, THE FOLLOWING CONDITIONS SHALL BE MET: (1) COVERAGE - 75% COVERAGE OF RIPARIAN SEEDING SHALL BE VISIBLE; (2) PRESENCE - 50% OF THE SPECIES PLANTED SHOULD BE ALIVE AND PRESENT;

12.1. THE CONTRACTOR SHALL REESTABLISH PRAIRIE AND WETLAND PLANTINGS AND CORRECT DEFICIENCIES IN AREAS THAT DO NOT COMPLY WITH REQUIREMENTS STATED ABOVE AND SHALL CONTINUE MAINTENANCE UNTIL PRAIRIES MEET THE COVERAGE AND PRESENCE REQUIREMENTS.

12.2. ENGINEER WILL MAKE OBSERVATION OF THE WORK OF SEEDED AREAS TO DETERMINE COMPLETION OF CONTRACT WORK AT CONCLUSION OF MAINTENANCE PERIOD, UPON SUBMITTAL OF WRITTEN NOTICE REQUESTING SUCH OBSERVATION.



Know what's below. Call before you dig.

MIDDLE BRANCH NIMISHILLEN CREEK STORMWATER CONSTRUCTED WETLAND, GP1349 CITY OF CANTON



100% DESIGN

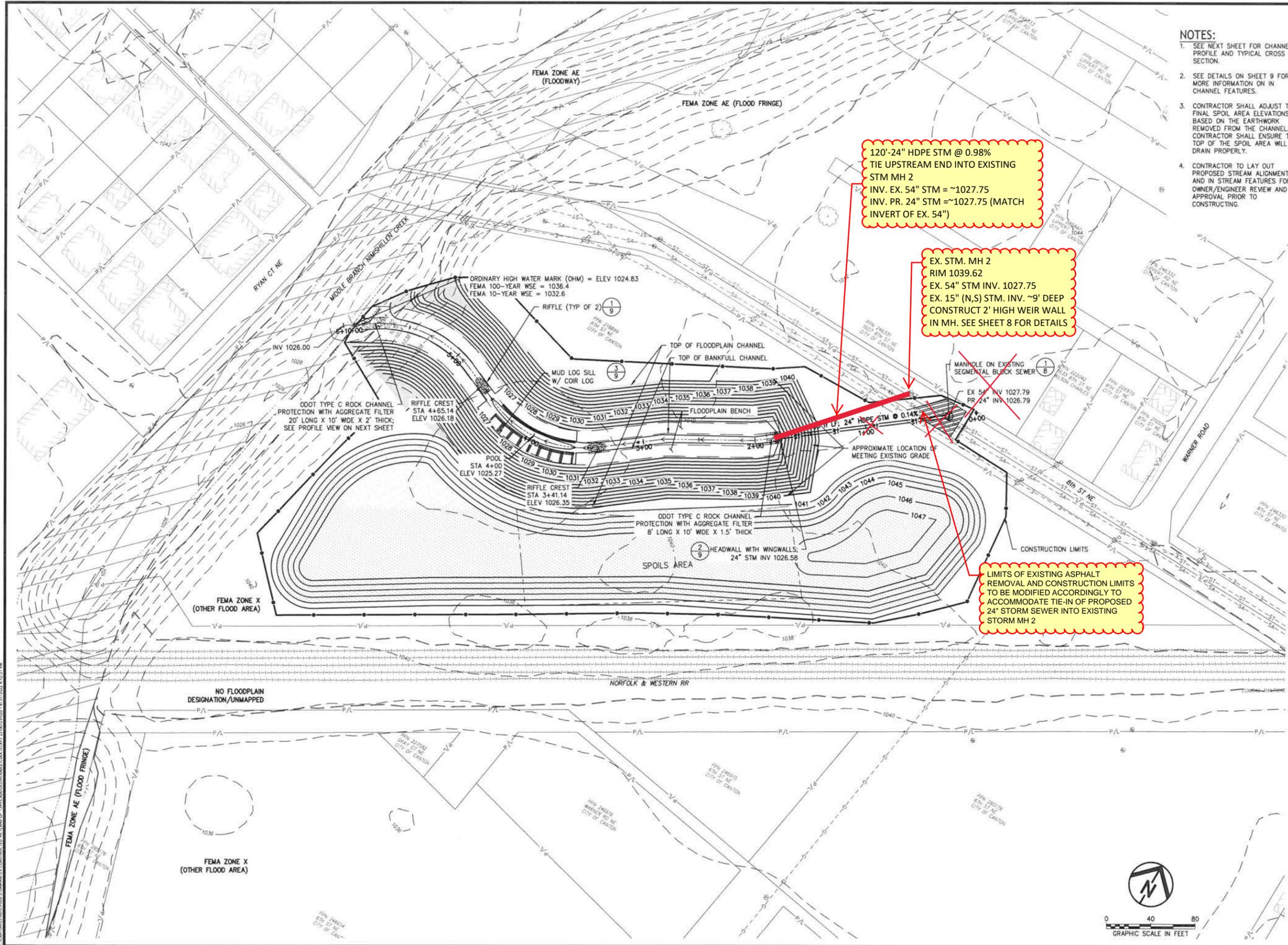


DATE: 8/26/2022

Table with 2 columns: REVISIONS, DATE, DESCRIPTION. Contains 5 rows of revision information.

PROJECT NO.: 22-00125-020
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DATE ISSUED: 8/31/2022

GENERAL NOTES

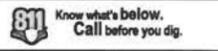


- NOTES:**
- SEE NEXT SHEET FOR CHANNEL PROFILE AND TYPICAL CROSS SECTION.
 - SEE DETAILS ON SHEET 9 FOR MORE INFORMATION ON IN CHANNEL FEATURES.
 - CONTRACTOR SHALL ADJUST THE FINAL SPOIL AREA ELEVATIONS BASED ON THE EARTHWORK REMOVED FROM THE CHANNEL. CONTRACTOR SHALL ENSURE THE TOP OF THE SPOIL AREA WILL DRAIN PROPERLY.
 - CONTRACTOR TO LAY OUT PROPOSED STREAM ALIGNMENT AND IN STREAM FEATURES FOR OWNER/ENGINEER REVIEW AND APPROVAL PRIOR TO CONSTRUCTING.

120'-24" HDPE STM @ 0.98%
TIE UPSTREAM END INTO EXISTING STM MH 2
INV. EX. 54" STM = ~1027.75
INV. PR. 24" STM = ~1027.75 (MATCH INVERT OF EX. 54")

EX. STM. MH 2
RIM 1039.62
EX. 54" STM INV. 1027.75
EX. 15" (N,S) STM. INV. ~9' DEEP
CONSTRUCT 2' HIGH WEIR WALL IN MH. SEE SHEET 8 FOR DETAILS

LIMITS OF EXISTING ASPHALT REMOVAL AND CONSTRUCTION LIMITS TO BE MODIFIED ACCORDINGLY TO ACCOMMODATE TIE-IN OF PROPOSED 24" STORM SEWER INTO EXISTING STORM MH 2



**MIDDLE BRANCH NIMISHILLEN
CREEK STORMWATER
CONSTRUCTED WETLAND, GP1349**
CITY OF CANTON



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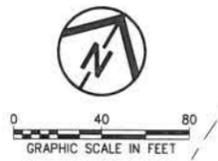


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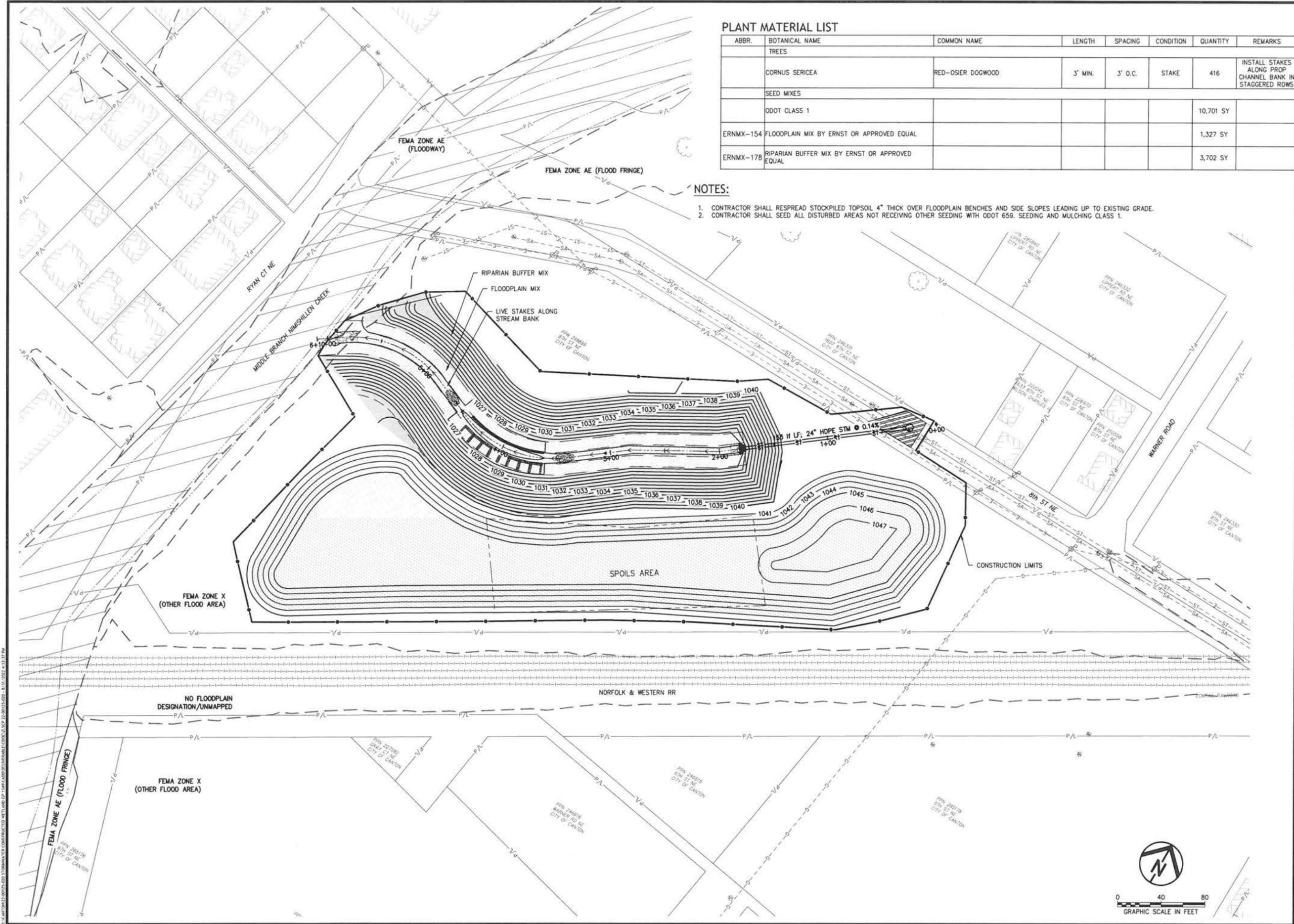
REVISIONS	
DATE	DESCRIPTION

PROJECT NO.: 22-00125-020
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LAYOUT, GRADING,
AND UTILITY PLAN



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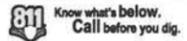


PLANT MATERIAL LIST

ABBR.	BOTANICAL NAME	COMMON NAME	LENGTH	SPACING	CONDITION	QUANTITY	REMARKS	
TREES								
	CORNUS SERICEA	RED-OSIER DOGWOOD	3' MIN.	3' O.C.	STAKE	416	INSTALL STAKES ALONG PROP CHANNEL BANK IN STAGGERED ROWS	
SEED MIXES								
	ODOT CLASS 1					10,701 SY		
ERNMX-154	FLOODPLAIN MIX BY ERNST OR APPROVED EQUAL						1,327 SY	
ERNMX-178	RIPARIAN BUFFER MIX BY ERNST OR APPROVED EQUAL						3,702 SY	

NOTES:

- CONTRACTOR SHALL RESPREAD STOCKPILED TOPSOIL 4" THICK OVER FLOODPLAIN BENCHES AND SIDE SLOPES LEADING UP TO EXISTING GRADE.
- CONTRACTOR SHALL SEED ALL DISTURBED AREAS NOT RECEIVING OTHER SEEDING WITH ODOT 659. SEEDING AND MULCHING CLASS 1.



**MIDDLE BRANCH NIMISHILLEN
 CREEK STORMWATER
 CONSTRUCTED WETLAND, GP1349**
 CITY OF CANTON



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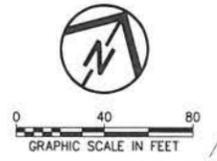


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LANDSCAPING PLAN



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**MIDDLE BRANCH NIMISHILLEN CREEK STORMWATER
 CONSTRUCTED WETLAND, GP1349
 CITY OF CANTON**



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**CONSTRUCTION
 DETAILS**

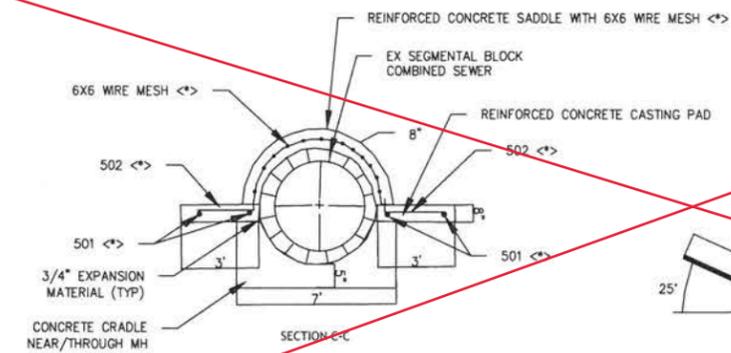
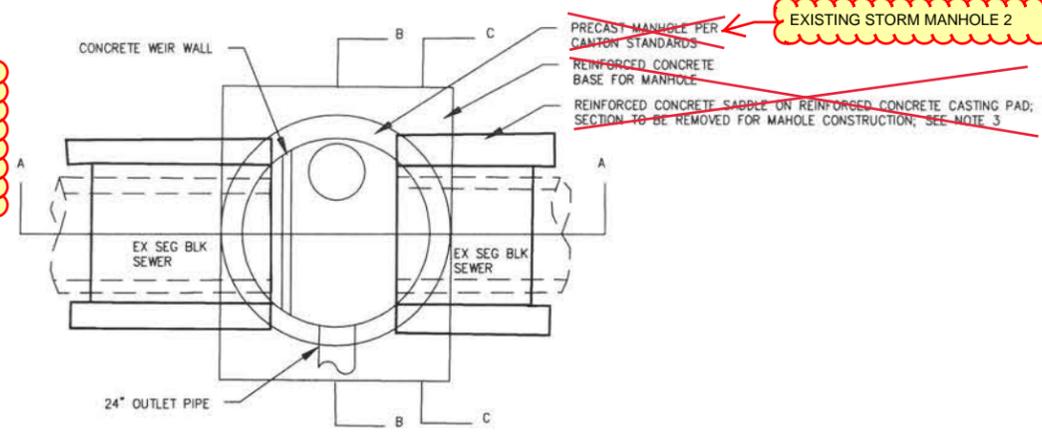
NOTES

- THE CITY OF CANTON HAS LIMITED SURVEY AND INFORMATION ABOUT THE EXISTING SEWERS OTHER THAN WHAT WAS FOUND FROM RECORD DRAWINGS AND SPECIFICATIONS. INFORMATION PROVIDED IN THIS DETAIL DESCRIBES THE INTENT OF THE DESIGN, WHICH IS TO DIVERT STORMWATER FROM THE EXISTING SEGMENTAL BLOCK STORM SEWER INTO THE PROPOSED 24" DIAMETER HDPE STORM SEWER SO THAT THE "FIRST FLUSH" CAN BE TREATED BY THE PROPOSED TWO-STAGE CHANNEL. CONTRACTOR SHALL FURTHER INVESTIGATE THE EXISTING SEWER AND PROVIDE FINAL DESIGN AND DETAILED SHOP DRAWINGS OF THE PROPOSED DIVERSION MANHOLE FOR REVIEW AND APPROVAL PRIOR TO FABRICATION. DIVERSION MANHOLE DESIGN AND SHOP DRAWINGS SHALL BE STAMPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER. DESIGN AND SHOP DRAWINGS SHALL INCLUDE ALL COMPONENTS INCLUDING, BUT NOT LIMITED TO, SADDLES/CRADLES/COLLARS, THE MANHOLE AND ALL ITS APPURTENANCES, AND ANY OTHER INFORMATION REQUIRED FOR CONNECTING SEWERS TO MEET THE INTENDED DESIGN. CONTRACTOR SHALL ALSO SUBMIT FOR REVIEW AND APPROVAL INFORMATION REGARDING ALL MATERIALS UTILIZED IN THE CONSTRUCTION OF THIS DIVERSION MANHOLE.
- CONTRACTOR SHALL INCLUDE IN HIS/HER UNIT BID PRICE FOR ITEM SPECIAL - DIVERSION MANHOLE, ALL WORKMANSHIP AND MATERIALS REQUIRED TO CONSTRUCT THIS DIVERSION MANHOLE. THIS INCLUDES ANY SHORING, CRIBBING, SHEETING, AND PUMPING/DEWATERING.
- THE CONTRACTOR IS TO CONSTRUCT ANY SADDLES/CRADLES/COLLARS TO SECURE THE EXISTING SEGMENTAL BLOCK SEWER BEFORE CUTTING THE OPENING IN THE SEGMENTAL BLOCK SEWER UNLESS OTHERWISE APPROVED OR DIRECTED BY ENGINEER. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR CONSTRUCTING THE PROPOSED STORM SEWER DIVERSION IN A MANNER THAT PROTECTS THE INTEGRITY OF THE EXISTING SEGMENTAL BLOCK STORM SEWER. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRS TO/REPLACEMENTS OF THE EXISTING SEWER, WITH NO ADDITIONAL COST TO THE OWNER, FOR DAMAGES THAT MAY RESULT FROM HIS/HER NEGLIGENCE IN CONSTRUCTING THE DIVERSION MANHOLE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING STORM SEWER FLOWS THROUGHOUT CONSTRUCTION AND SHALL INCLUDE IN HIS/HER BID THE COST OF MATERIALS AND WORKMANSHIP TO DO SO.
- THE SPECIFICATIONS FROM THE ORIGINAL CONSTRUCTION OF THIS SEWER HAVE BEEN PROVIDED ON SHEET 12 FOR THE CONTRACTOR'S REFERENCE.
- PIPE CONNECTIONS SHALL BE MADE WATER TIGHT USING PIPE BOOTS OR NON-SHRINK GROUT.

CONTRACTOR SHALL OBTAIN ENGINEER'S APPROVAL FOR CONTRACTOR'S PLANS AND SEQUENCING TO MODIFY EXISTING STORM MANHOLE, MAKE ALL CONNECTIONS & DISCONNECTIONS, CONSTRUCT 2' HIGH WEIR WALL, BYPASS PUMP, PROVIDE ANY TEMPORARY PLUGS, ETC. PRIOR TO WORK.

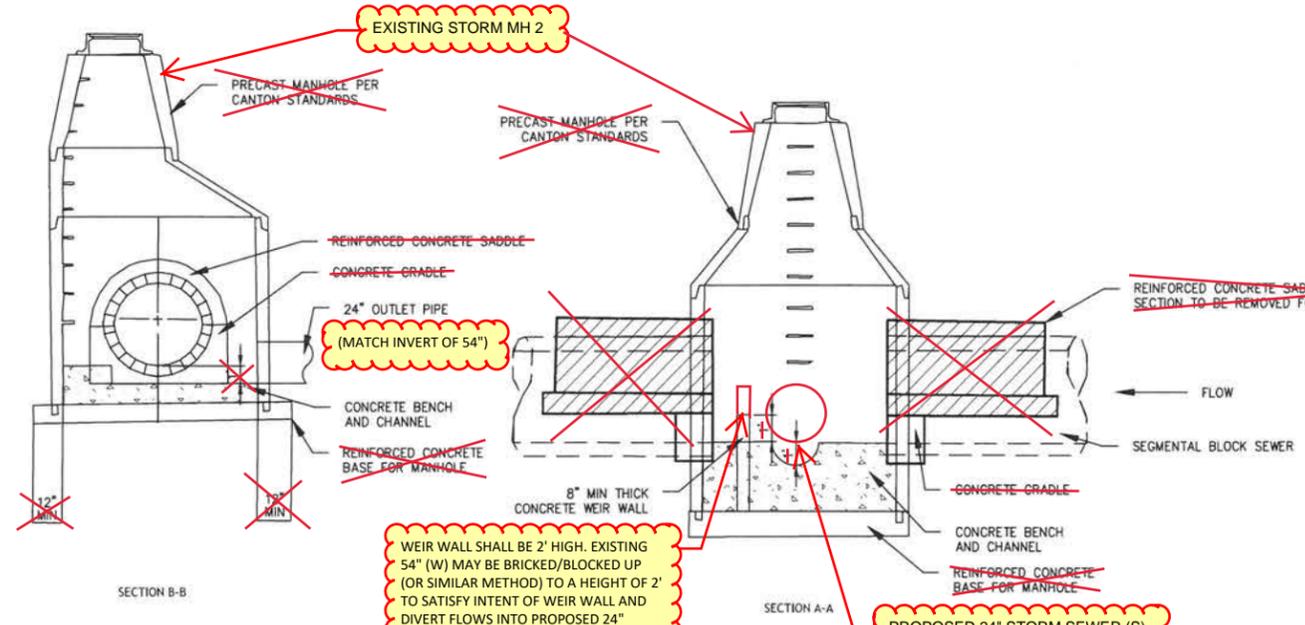
EXISTING MANHOLE MODIFICATION

CONTRACTOR SHALL TIE IN PROPOSED 24" HDPE STORM SEWER INTO EXISTING STORM MH 2 AND NOT INSTALL A NEW MH. INVERT ELEVATION OF PROPOSED 24" STORM SEWER SHALL MATCH INVERT ELEVATION OF EXISTING 54" STORM SEWER. EXISTING STORM MANHOLE HAS EXISTING 15" STORM LEADS DISCHARGING INTO IT FROM THE NORTH AND SOUTH. CONTRACTOR MAY, IF NECESSARY, DISCONNECT STORM LEAD FROM THE SOUTH IN ORDER TO INSTALL PROPOSED 24" STORM. IF SUCH DISCONNECTION OF EXISTING 15" STORM SEWER IS MADE, CONTRACTOR SHALL REMOVE EXISTING 15" STORM SEWER (~18") AND CATCH BASIN. COST OF REMOVAL SHALL BE INCLUDED IN COST OF ITEM SPECIAL - EXISTING MANHOLE MODIFICATION. CONTRACTOR SHALL CONSTRUCT 2' HIGH WEIR WALL WITHIN EXISTING MH TO FACILITATE DIVERSION OF LOW FLOWS INTO PROPOSED 24" STORM SEWER.



REINFORCING SCHEDULE*				
BAR MARK	SIZE	QUAN	LENGTH	POSITION
501	3/8"	4	19'-6"	LONGITUDINAL BARS IN FOOTER
502	3/8"	48		VERTICAL BARS IN FOOTER TO SADDLE
MESH	6X6 W2.9XW2.9	2	5'X13.6"± (2 PIECES)	MESH OVER CROWN
503	3/8"	6		CASTING PAD
504	3/8"	5		CASTING PAD

EXAMPLE SADDLE AND CRADLE (FOR REFERENCE ONLY)



WEIR WALL SHALL BE 2' HIGH. EXISTING 54" (W) MAY BE BRICKED/BLOCKED UP (OR SIMILAR METHOD) TO A HEIGHT OF 2' TO SATISFY INTENT OF WEIR WALL AND DIVERT FLOWS INTO PROPOSED 24" STORM SEWER. CONTRACTOR SHALL OBTAIN APPROVAL OF ENGINEER PRIOR TO CONSTRUCTION OF WEIR WALL.

PROPOSED 24" STORM SEWER (S). MATCH INVERT OF EXISTING 54" STORM SEWER

EXISTING STORM MANHOLE 2 NORTH IS DOWN IN THE PHOTO. MANHOLE IS BRICKED ON TOP OF EXISTING 54" SEGMENTED BLOCK STORM MAIN (SEE SHEET 12 FOR DETAILS OF STORM MAIN). EXISTING 15" CLAY STORM SEWERS FROM NORTH AND SOUTH ARE APPROXIMATELY 9' DEEP. INVERT ELEVATION OF 54" IS -1027.75 (~11.5' DEEP).



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MIDDLE BRANCH NIMISHILLEN CREEK STORMWATER CONSTRUCTED WETLAND, GP1349
 CITY OF CANTON



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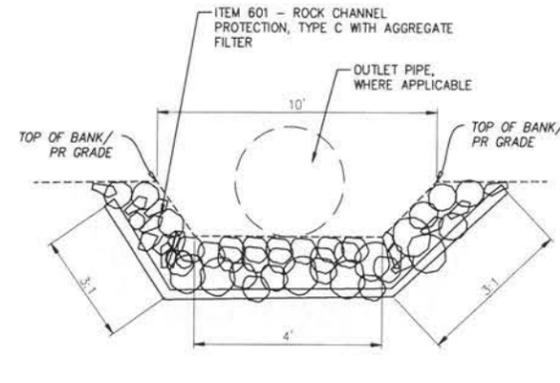
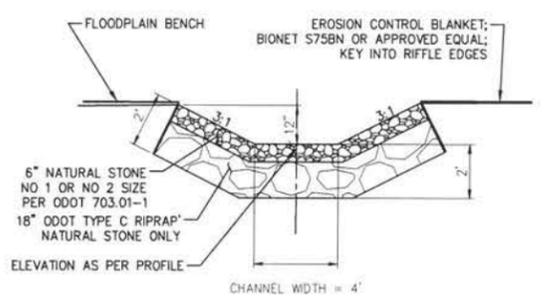
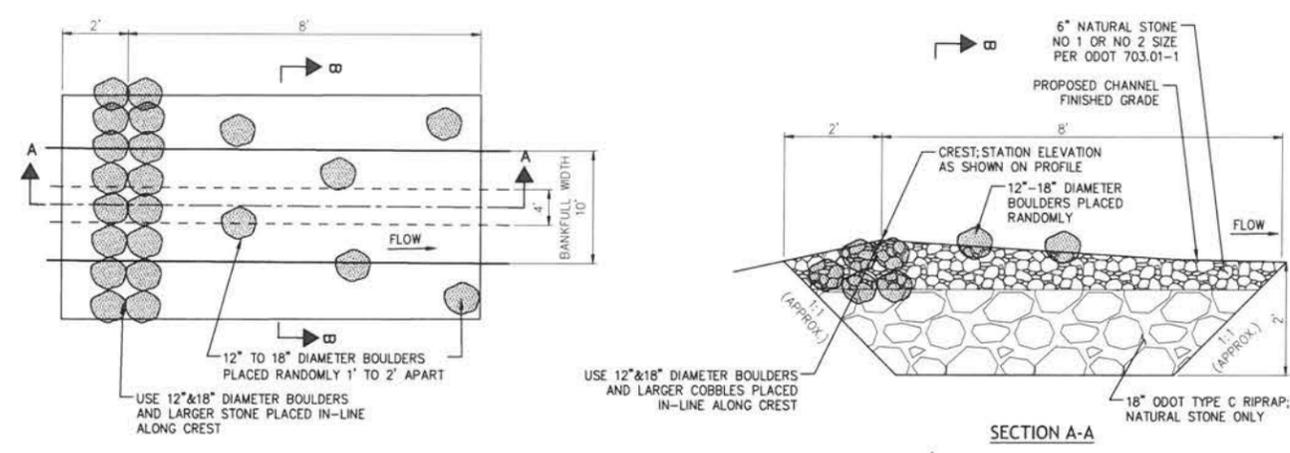


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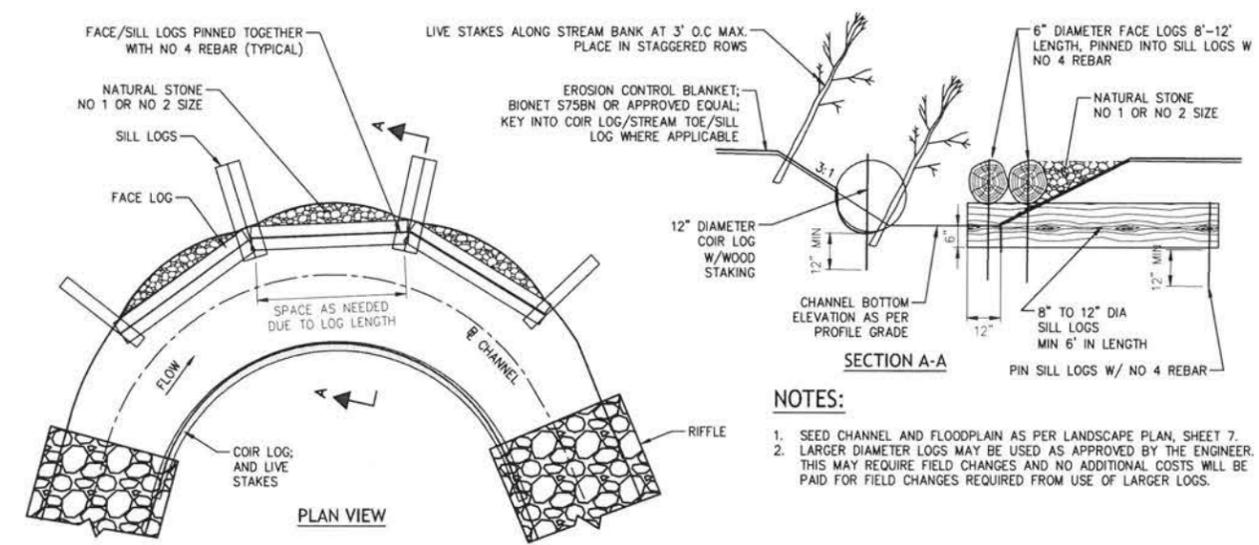
REVISIONS	DATE	DESCRIPTION

PROJECT NO.: 22-00125-020
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CONSTRUCTION DETAILS

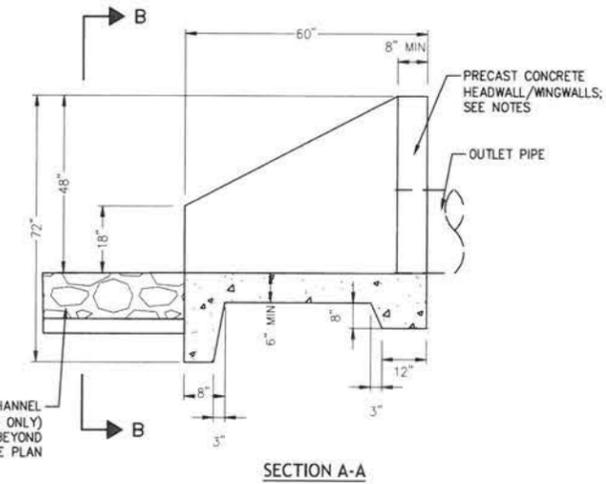
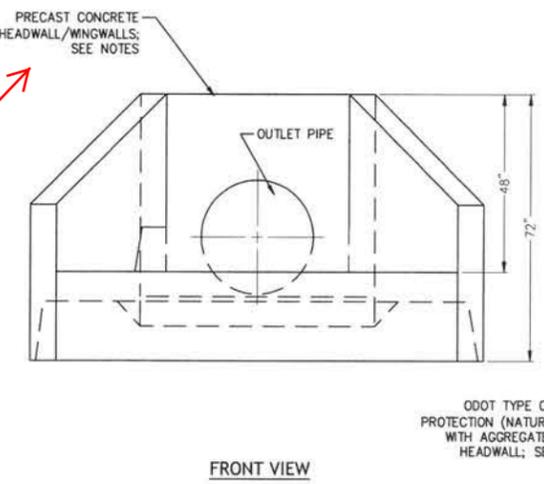
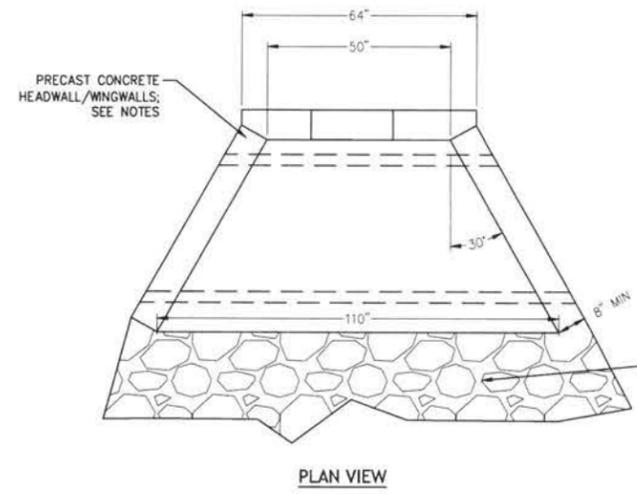


1 RIFFLE SECTION
 9 NOT TO SCALE



3 MUD LOG SILL WITH COIR LOG
 9 NOT TO SCALE

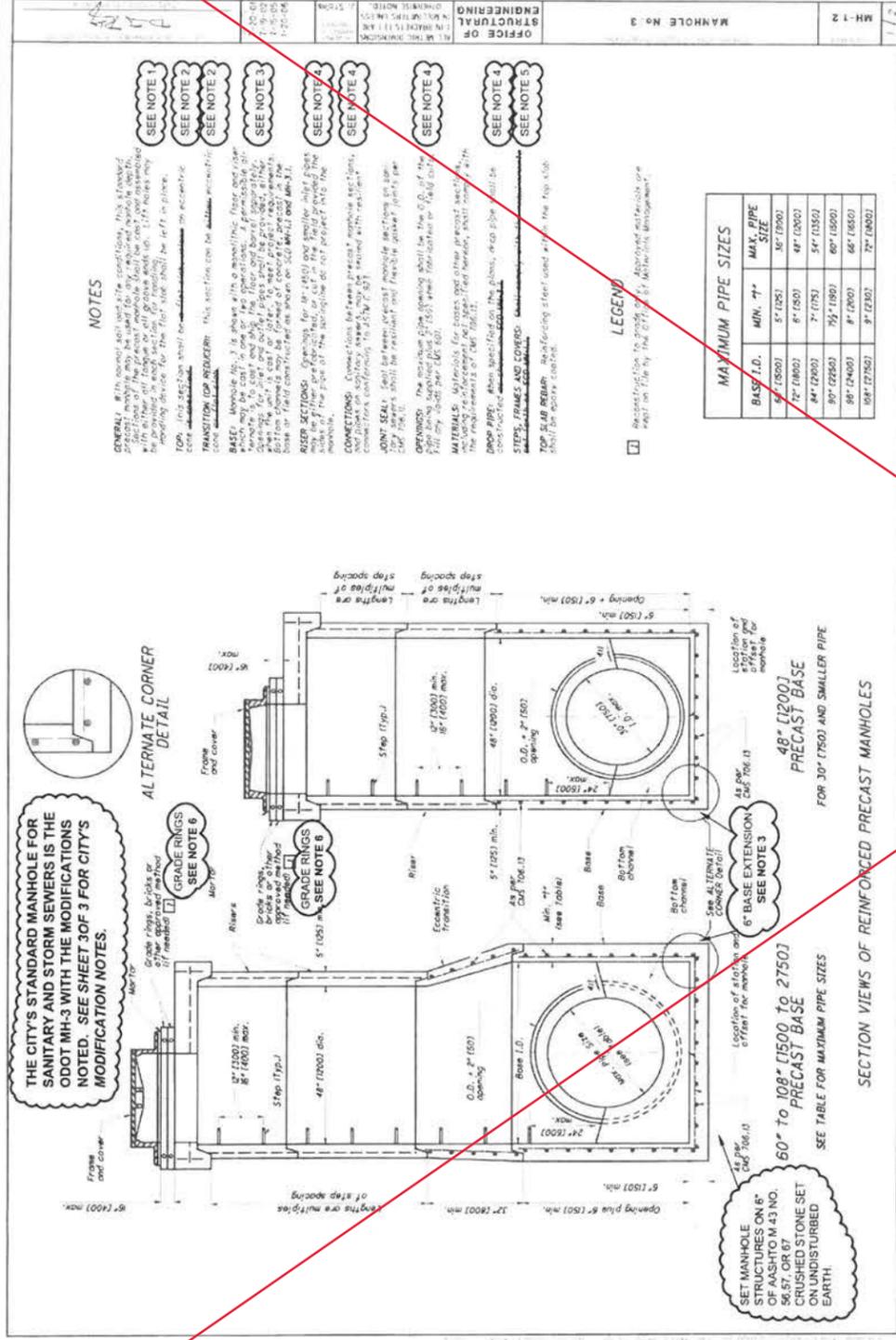
AN EQUIVALENT MANUFACTURED HDPE HEADWALL & WINGWALLS MAY BE USED IN LIEU OF A PRECAST CONCRETE HEADWALL & WINGWALLS AS APPROVED BY THE ENGINEER. IF SUCH IS THE CASE, ADDITIONAL ROCK CHANNEL PROTECTION SHALL BE INSTALLED ACCORDINGLY WITHIN THE APRON AREA OF THE HEADWALL AND WINGWALLS. CONTRACTOR SHALL INCLUDE COSTS ACCORDINGLY IN BID PRICES FOR RESPECTIVE ITEMS.



2 HEADWALL WITH WINGWALLS
 9 NOT TO SCALE

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NOTES

GENERAL: With normal soil conditions, this structure shall be constructed with a minimum of 4\"/>

TRANSITION TOP REDUCER: This section can be added, as needed, to the structure to allow for a transition from a larger diameter pipe to a smaller diameter pipe.

BASE: Provide a 2\"/>

JOINT SEALS: Seal all joints between precast manhole sections with a joint sealant meeting the requirements of the manufacturer's instructions.

CONNECTIONS: Connections between precast manhole sections shall be made with galvanized steel bolts and nuts, with washers and lock washers, and shall be tightened to 30 ft-lb (4.1 kN-m).

JOINT SEALS: Seal all joints between precast manhole sections with a joint sealant meeting the requirements of the manufacturer's instructions.

OPENINGS: The maximum pipe opening shall be the O.D. of the pipe being inserted plus 2\"/>

MANHOLE TOP: The manhole top shall be finished and level with the ground surface.

GROUP PIPES: When specified on the plans, group pipes shall be constructed and installed as shown.

STEPS, FRAMES AND COVERS: Manhole steps, frames and covers shall be constructed and installed as shown.

TOP SOIL REMOVAL: The top soil shall be removed to a depth of 6\"/>

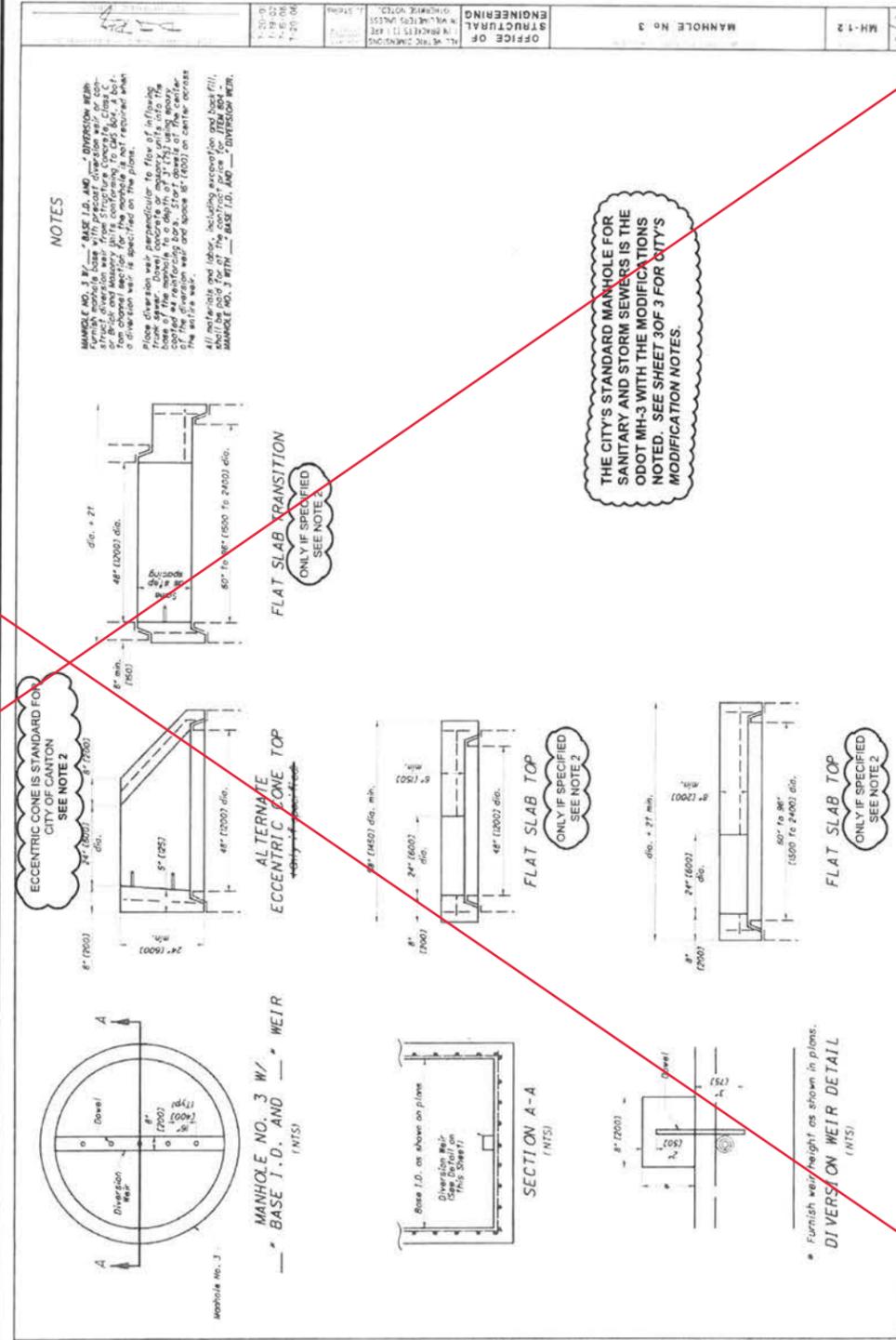
MAXIMUM PIPE SIZES

BASE I.D.	MIN. #"	MAX. PIPE SIZE
6' (1800)	5' (152)	54\" (1366)
7' (2100)	6' (152)	60\" (1524)
8' (2400)	7' (175)	66\" (1676)
9' (2700)	8' (200)	72\" (1828)
10' (3000)	9' (225)	78\" (1980)

STANDARD DRAWING NO. 10
PRECAST STORM OR
SANITARY MANHOLE
 CE_10_20210226.DWG

DESCRIPTION	DATE	BY
CAD DRAWING	JAN 2012	CDB
MODIFIED GRADE RING NOTE 6	09/23/2020	RMB
TITLE BLOCK REVISION	02/26/2021	GML

OFFICE OF THE CITY ENGINEER
 CANTON, OHIO
 DANIEL J. MOEGLIN, P.E., CITY ENGINEER
 1436 30th St. NE 41705 330-489-3381 www.cantonohio.gov/engineering



NOTES

MANHOLE NO. 3 W/ 4\"/>

THE CITY'S STANDARD MANHOLE FOR SANITARY AND STORM SEWERS IS THE ODOT MH-3 WITH THE MODIFICATIONS NOTED. SEE SHEET 30F 3 FOR CITY'S MODIFICATION NOTES.

STANDARD DRAWING NO. 10
PRECAST STORM OR
SANITARY MANHOLE
 CE_10_20210226.DWG

DESCRIPTION	DATE	BY
CAD DRAWING	JAN 2012	RMB
TITLE BLOCK REVISION	02/26/2021	GML

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MIDDLE BRANCH NIMISHILLEN
CREEK STORMWATER
CONSTRUCTED WETLAND, GP1349
 CITY OF CANTON



100% DESIGN



DATE: 8/26/2022

REVISIONS	DATE	DESCRIPTION
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CITY STANDARD
 CONSTRUCTION
 DRAWINGS

MIDDLE BRANCH NIMISHILLEN CREEK STORMWATER CONSTRUCTED WETLAND, GP1349
CITY OF CANTON



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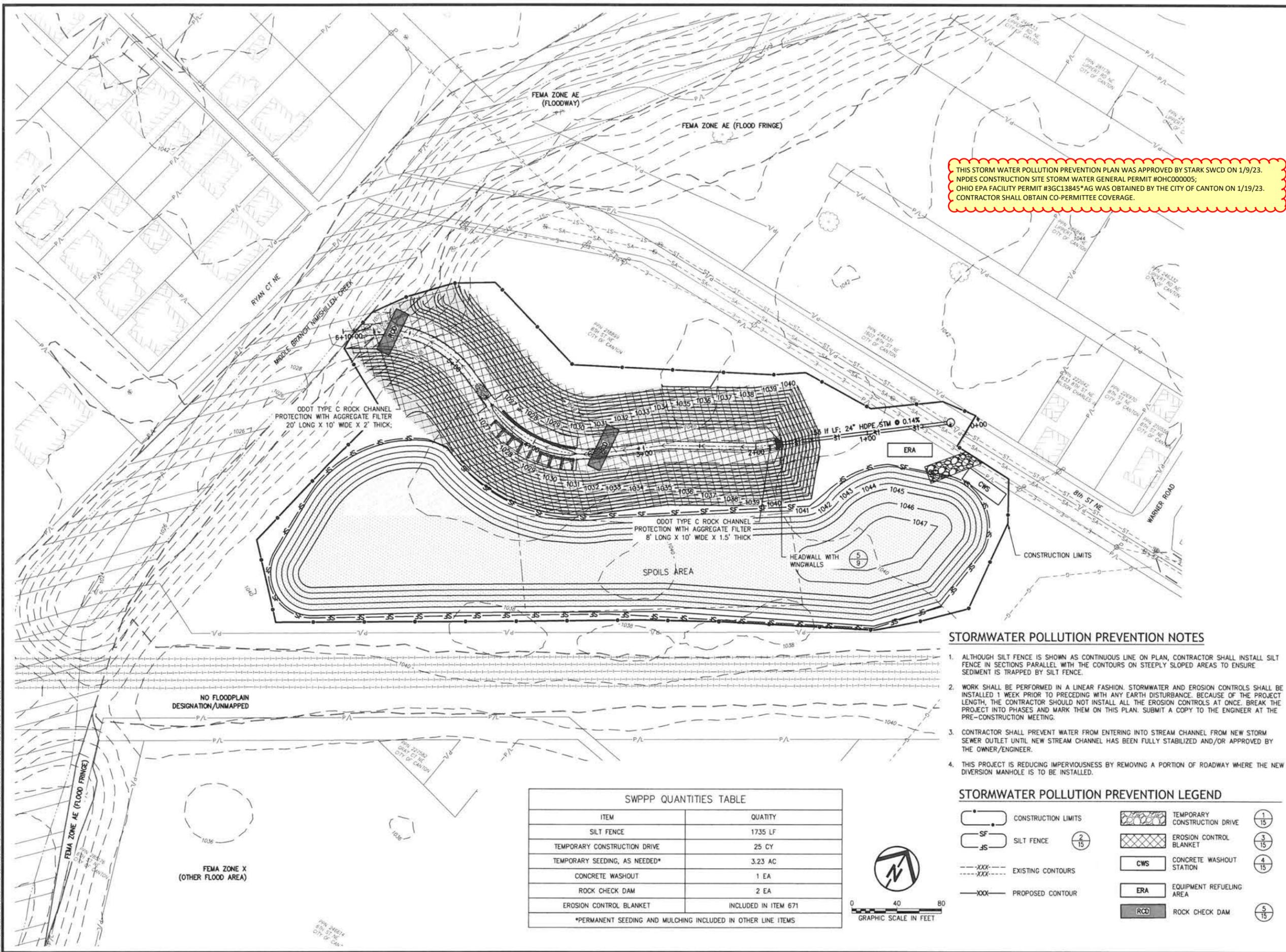


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STORMWATER POLLUTION PREVENTION PLAN



THIS STORM WATER POLLUTION PREVENTION PLAN WAS APPROVED BY STARK SWCD ON 1/9/23. NPDES CONSTRUCTION SITE STORM WATER GENERAL PERMIT #OHC000005; OHIO EPA FACILITY PERMIT #3GC13845*AG WAS OBTAINED BY THE CITY OF CANTON ON 1/19/23. CONTRACTOR SHALL OBTAIN CO-PERMITTEE COVERAGE.

STORMWATER POLLUTION PREVENTION NOTES

- ALTHOUGH SILT FENCE IS SHOWN AS CONTINUOUS LINE ON PLAN, CONTRACTOR SHALL INSTALL SILT FENCE IN SECTIONS PARALLEL WITH THE CONTOURS ON STEEPLY SLOPED AREAS TO ENSURE SEDIMENT IS TRAPPED BY SILT FENCE.
- WORK SHALL BE PERFORMED IN A LINEAR FASHION. STORMWATER AND EROSION CONTROLS SHALL BE INSTALLED 1 WEEK PRIOR TO PRECEDING WITH ANY EARTH DISTURBANCE. BECAUSE OF THE PROJECT LENGTH, THE CONTRACTOR SHOULD NOT INSTALL ALL THE EROSION CONTROLS AT ONCE. BREAK THE PROJECT INTO PHASES AND MARK THEM ON THIS PLAN. SUBMIT A COPY TO THE ENGINEER AT THE PRE-CONSTRUCTION MEETING.
- CONTRACTOR SHALL PREVENT WATER FROM ENTERING INTO STREAM CHANNEL FROM NEW STORM SEWER OUTLET UNTIL NEW STREAM CHANNEL HAS BEEN FULLY STABILIZED AND/OR APPROVED BY THE OWNER/ENGINEER.
- THIS PROJECT IS REDUCING IMPERVIOUSNESS BY REMOVING A PORTION OF ROADWAY WHERE THE NEW DIVERSION MANHOLE IS TO BE INSTALLED.

STORMWATER POLLUTION PREVENTION LEGEND

	CONSTRUCTION LIMITS		TEMPORARY CONSTRUCTION DRIVE	
	SILT FENCE		EROSION CONTROL BLANKET	
	EXISTING CONTOURS		CONCRETE WASHOUT STATION	
	PROPOSED CONTOUR		EQUIPMENT REFUELING AREA	
			ROCK CHECK DAM	

ITEM	QUANTITY
SILT FENCE	1735 LF
TEMPORARY CONSTRUCTION DRIVE	25 CY
TEMPORARY SEEDING, AS NEEDED*	3.23 AC
CONCRETE WASHOUT	1 EA
ROCK CHECK DAM	2 EA
EROSION CONTROL BLANKET	INCLUDED IN ITEM 671
*PERMANENT SEEDING AND MULCHING INCLUDED IN OTHER LINE ITEMS	

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STORMWATER POLLUTION PREVENTION PLAN NOTES

- CONSTRUCT IN ACCORDANCE WITH THESE PLANS AND THE OHIO RAINWATER AND LAND DEVELOPMENT HANDBOOK (MOST RECENT EDITION). THE IMPLEMENTATION OF SOIL EROSION AND SEDIMENT CONTROL SHALL ALSO CONFORM TO THE REQUIREMENTS OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) UNDER NPDES PERMIT #OH000005. IF CONFLICTS EXIST REGARDING THE SOIL AND SEDIMENT CONTROL PRACTICES, THE MORE RESTRICTIVE SHALL APPLY.
- STABILIZATION OF DISTURBED AREAS - DISTURBED AREAS SHALL HAVE SOIL STABILIZATION APPLIED WITHIN SEVEN (7) DAYS IF THEY ARE TO REMAIN DORMANT (UNDISTURBED) FOR MORE THAN FOURTEEN (14) DAYS. FOR AREAS WITHIN FIFTY (50) FEET OF ANY LIVE STREAM, SOIL STABILIZATION PRACTICES SHALL BE INITIATED WITHIN TWO (2) DAYS ON ALL INACTIVE, DISTURBED AREAS. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DISTURBED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. WHEN SEASONAL CONDITIONS PROHIBIT THE APPLICATION OF TEMPORARY OR PERMANENT SEEDING, NON-VEGETATIVE SOIL STABILIZATION PRACTICES SUCH AS MULCHING AND MATTING SHALL BE USED.
- INSTALL ALL TEMPORARY EROSION/SEDIMENT CONTROL ITEMS BEFORE ANY CLEARING/GRUBBING OR EARTHWORK HAS STARTED.
- PROTECT UNDISTURBED AREAS THROUGHOUT CONSTRUCTION. DO NOT STORE EQUIPMENT, VEHICLES OR MATERIALS IN THESE PROTECTED AREAS.
- TEMPORARY SEEDING SHALL BE PER ODNR RAINWATER AND LAND DEVELOPMENT MANUAL.
- SEEDING, MULCHING, AND FERTILIZER FOR PERMANENT COVER SHALL BE AS SPECIFIED ON THE LANDSCAPE PLAN.
- MULCHING SHALL BE AS SPECIFIED IN ODOT CMS ITEM 659.
- TOPSOILING SHALL BE STOCKPILED THEN RESPREAD IN AREAS AND AT THICKNESSES SHOWN ON PLAN PER ODOT CMS 651 AND 652, RESPECTIVELY.
- EROSION CONTROL BLANKETS SHALL BE PER THE CONSTRUCTION DETAILS.
- SILT FENCE BE AS DETAILED ON THE DRAWINGS.
- ROCK CHANNEL PROTECTION SHALL BE AS SPECIFIED ON THE DRAWINGS.
- NO SOLID OR LIQUID WASTE SHALL BE DISCHARGED INTO STORMWATER RUNOFF.
- OFF-SITE VEHICLE TRACKING OF SEDIMENTS WILL BE MINIMIZED. ALL OFF-SITE TRACKING OF SEDIMENT SHALL BE CLEANED UP AS IT OCCURS.
- OTHER EROSION CONTROL AND SEDIMENT CONTROL ITEMS MAY BE NECESSARY DUE TO ENVIRONMENTAL CONDITIONS.
- A PRE-CONSTRUCTION MEETING IS REQUIRED WITH STARK S.W.C.D. (330-451-7645) PRIOR TO BEGINNING WORK.
- TRUCK WASHOUT AND DISCHARGE OF SURPLUS WASH WATER ON SITE IS PERMITTED EXCLUSIVELY IN THE DESIGNATED AREA.
- WINTERIZATION - ANY DISTURBED AREA THAT IS NOT GOING TO BE WORKED FOR 14 DAYS OR MORE MUST BE SEEDED AND MULCHED BY NOVEMBER 1 OR MUST HAVE A DORMANT SEEDING OR MULCH COVER APPLIED BETWEEN NOVEMBER 1 AND MARCH 1.
- TRENCH WATER MUST BE PUMPED THROUGH A SEDIMENT SETTLING FACILITY OR EQUALLY EFFECTIVE DEVICE PRIOR TO DISCHARGE FROM THE SITE.
- STAGING, STORAGE, FUELING AND VEHICLE PARKING ARE SHOWN ON THE SWPP PLAN. IF THE CONTRACTOR WANTS TO UTILIZE A DIFFERENT LOCATION FOR THESE FUNCTIONS, HE SHALL REVISE THE SWPP PLAN AND SUBMIT IT TO STARK S.W.C.D. FOR APPROVAL.
- THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING, MAINTAINING, AND REMOVING (AS NECESSARY), ALL EROSION AND SEDIMENT CONTROL MEASURES.
- DISTURBED AREAS REMAINING DORMANT FOR OVER A YEAR AT THE FINAL GRADE WILL HAVE A PERMANENT COVER APPLIED WITHIN 7 DAYS OF LAST DISTURBANCE.

MAINTENANCE AND INSPECTION:

PERMANENT RECORDS OF MAINTENANCE AND INSPECTION MUST BE MAINTAINED THROUGHOUT CONSTRUCTION A MINIMUM OF ONCE EVERY 7 DAYS AND AFTER STORM EVENTS GREATER THAN 0.5 INCH IN A 24 HOUR PERIOD. PROVIDE NAME OF INSPECTOR, MAJOR OBSERVATIONS, DATE OF INSPECTION, CERTIFICATION OF COMPLIANCE AND CORRECTIVE MEASURES TAKEN.

REPAIRS:

ANY EROSION CONTROL MEASURES, STRUCTURES, DEVICES, OR RELATED ITEMS IN NEED OF REPAIR WILL BE MADE WITHIN 7 DAYS.

MATERIAL MANAGEMENT PRACTICES:

THE FOLLOWING PRACTICES SHALL BE EXECUTED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORMWATER RUN-OFF. THE JOB SITE SUPERINTENDENT IS RESPONSIBLE FOR ENSURING THESE PRACTICES ARE FOLLOWED:

- STORE THE MINIMUM AMOUNT OF PRODUCT REQUIRED TO COMPLETE THE JOB, IF POSSIBLE, UNDER ROOF OR IN A CONTAINMENT AREA. PRODUCTS SHALL REMAIN IN THEIR ORIGINAL CONTAINER. LABEL MUST BE LEGIBLE.
- MANUFACTURER'S RECOMMENDATION SHALL BE FOLLOWED FOR USE AND DISPOSAL.
- PRODUCT TO BE USED ENTIRELY (WHEN POSSIBLE) PRIOR TO DISPOSING.
- MATERIAL SAFETY DATA SHEETS (MSDS) FOR EACH SUBSTANCE WITH HAZARDOUS PROPERTIES USED ON THE SITE SHALL BE OBTAINED AND POSTED IN THE IMMEDIATE AREA OF PRODUCT STORAGE AND SHALL BE USED FOR PROPER MANAGEMENT OF POTENTIAL WASTE.
- ALL HAZARDOUS WASTE MATERIAL WILL BE DISPOSED BY THE CONTRACTOR IN A MANNER SPECIFIED BY LOCAL, STATE OR FEDERAL REGULATIONS AND PER MANUFACTURER'S RECOMMENDATIONS.
- ALL PERSONNEL SHALL BE TRAINED IN THE PROPER HANDLING AND CLEAN UP OF SPILLED MATERIALS. NO SPILLED HAZARDOUS MATERIALS OR WASTE SHALL BE ALLOWED TO COME IN CONTACT WITH STORMWATER DISCHARGES. IF NECESSARY, THE CONTAMINATED STORMWATER WILL BE HELD ON SITE UNTIL IT MEETS LOCAL, STATE AND FEDERAL REGULATIONS.
- IN THE EVENT OF A SPILL THE FOLLOWING PROCEDURES MUST BE FOLLOWED:
 - ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
 - THE PROJECT MANAGER AND ENGINEER OF RECORD IMMEDIATELY NOTIFIED.
 - ANY SPILLS OF TOXIC OR HAZARDOUS MATERIALS MUST BE REPORTED TO THE APPROPRIATE LOCAL, STATE AND FEDERAL AGENCY. THE EPA NATIONAL RESPONSE CENTER (1-800-424-8802) MUST BE NOTIFIED WHEN A SPILL EXCEEDS THE REPORTABLE QUANTITY OF A SUBSTANCE. THE SUBSTANCES AND AMOUNTS ARE LOCATED IN FEDERAL REGULATIONS (40 CFR 110, 114 AND 302).
 - IF A SPILL EXCEEDS A REPORTABLE QUANTITY, THE SWPP PLAN MUST BE MODIFIED WITHIN 7 DAYS PROVIDING A DESCRIPTION, DATE AND INCIDENT OF THE RELEASE.
- THE MIXING OR STORAGE OF COMPOUNDS SUCH AS FERTILIZERS, LIME ASPHALT, SOAPS AND SOLVENTS USED IN CLEANING VEHICLES, WASHOUT OF CONCRETE, PAINT OR STUCCO, FORM RELEASE OILS, OR CURING COMPOUNDS SHALL BE AWAY FROM STORM WATER DRAINAGE WAYS.
- FUEL TANKS MUST HAVE SECONDARY CONTAINMENT IN THE EVENT OF A LEAK OR SPILL.
- OPEN BURNING ON SITE IS A PROHIBITED ACTIVITY.
- ALL CONSTRUCTION AND DEMOLITION DEBRIS (C&D) WASTE SHALL BE DISPOSED OF AT AN OHIO EPA APPROVED C&D LANDFILL AS REQUIRED BY OHIO REVISED CODE 3714 AND LOCAL REGULATIONS.

PRODUCT SPECIFIC PRACTICES:

- PETROLEUM - PETROLEUM PRODUCTS WILL BE STORED IN CLEARLY LABELED TIGHTLY SEALED CONTAINERS. ANY ON SITE PETROLEUM STORAGE TANKS WILL HAVE A CONTAINMENT STRUCTURE AROUND IT FOR POTENTIAL SPILLS. DRIP PANS SHALL BE PROVIDED FOR ALL DISPENSERS. MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED WHEN ANY ASPHALT SUBSTANCES ARE USED ON SITE.
- FERTILIZERS - THE MANUFACTURER'S RECOMMENDED MINIMAL AMOUNTS SHALL BE APPLIED AND WORKED INTO THE SOIL TO LIMIT THE EXPOSURE TO STORMWATER. THE CONTENTS OF ANY PARTIALLY USED BAGS WILL BE TRANSFERRED TO SEALABLE PLASTIC BINS AND STORED UNDER COVER, AWAY FROM STORMWATER DRAINAGE WAYS.

EARTHWORK SEQUENCING NOTES:

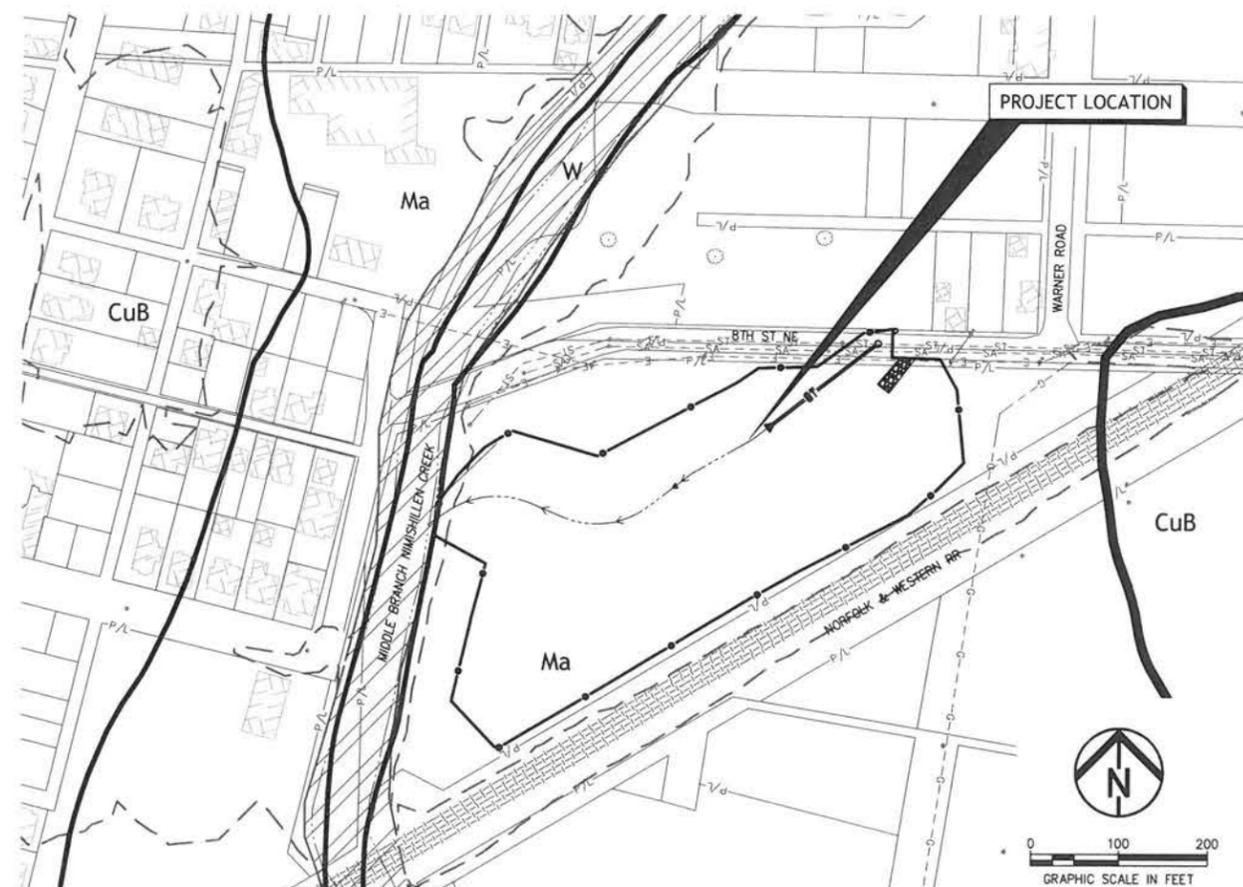
- INSTALL SILT FENCE AND OTHER REQUIRED SWPP MEASURES.
- STRIP AND STOCKPILE TOPSOIL.
- INSTALL UNDERGROUND UTILITIES.
- PERFORM ROUGH GRADING.
- PERFORM FINISH GRADING.
- UPON APPROVAL OF FINISH GRADE, INSTALL EROSION CONTROL BLANKET AND PERFORM SEEDING AND PLANTING.
- REMOVE ALL SILT FENCE AND TEMPORARY SWPP MEASURES UPON ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.

SITE LOCATION INFORMATION		LATITUDE:	40°48'04"N
		LONGITUDE:	81°21'21"W
CITY OF CANTON		STARK	OHIO
CITY, VILLAGE, TOWNSHIP		COUNTY	STATE
MIDDLE BRANCH NIMISHILLEN CREEK			
NAME OF WATERSHED/IMMEDIATE RECEIVING WATER(S)			
8TH ST NE, CANTON, OH, 44704			
SITE ADDRESS			
CITY OF CANTON	330-438-4307		
DEVELOPER	PHONE		
218 CLEVELAND AVE SW CANTON, OH, 44702			
DEVELOPER ADDRESS			
HYDROLOGIC SOIL GROUPS:			
CuB - CHILI-URBAN LAND COMPLEX, UNDULATING			
Ma - MADE LAND			
W - WATER			

SITE DESCRIPTION		MARK ONE	CONSTRUCTION LIMITS	
SUBDIVISION	-	-	AREA OF DISTURBANCE	- 3.25 AC
COMMERCIAL	-	-	AREA TO BE CLEARED	- 3.22 AC
RESIDENTIAL	-	-	AREA TO BE EXCAVATED	- 1.23 AC
PUD	-	-	PRE-DEV IMPERVIOUSNESS IN PROJECT LIMITS	- ~0.9%
OTHER	●	●	POST DEV IMPERVIOUSNESS IN PROJECT LIMITS	- ~0%
			STORMWATER TREATMENT	

SCHEDULE OF MAJOR CONSTRUCTION OPERATIONS		2023											
		M	A	M	J	J	A	S	O	N	D	J	F
CLEARING/DEMOLITION		●	●										
ROUGH GRADING		●	●										
STRUCTURE		●	●										
UTILITIES		●	●										
FINE GRADING					●								
TOPSOIL AND SEEDING					●								
LANDSCAPING								●	●				
TEMPORARY EROSION CONTROL		●	●	●	●	●	●	●	●	●	●	●	●

ACCEPTABLE EROSION CONTROL TIMETABLE		S	O	N	D	J	F	M	A	M	J	J	A
TEMPORARY SEEDING		●	●	●	●	●	●	●	●	●	●	●	●
PERMANENT SEEDING													
LANDSCAPING													
MULCHING		●	●	●	●	●	●	●	●	●	●	●	●
MAINTENANCE		●	●	●	●	●	●	●	●	●	●	●	●



SOILS MAP

LONG TERM INSPECTION AND MAINTENANCE ITEMS*		
ITEM	OPERATION, INSPECTION, AND MAINTENANCE ITEM(S)	FREQUENCY
CHANNEL AND FLOODPLAIN	INSPECT VEGETATION AS DISCUSSED IN GENERAL NOTES	MONTHLY
	INSPECT FOR TRASH/DEBRIS; REMOVE AS DISCOVERED	MONTHLY
	INSPECT FOR EROSION ALONG FULL LENGTH; REPAIR AS NEEDED	MONTHLY AND/OR AFTER STORMS THAT EXCEED 1-INCH IN TOTAL RAINFALL
	CHECK RIFFLES FOR EROSION OR DISPLACED ROCK; REPAIR AS NEEDED	MONTHLY AND/OR AFTER STORMS THAT EXCEED 1-INCH IN TOTAL RAINFALL
	CHECK FOR MUD LOG SILL W/COIR LOG FOR EROSION OR DISPLACED LOGS/ROCK; REPAIR AS NEEDED	MONTHLY AND/OR AFTER STORMS THAT EXCEED 1-INCH IN TOTAL RAINFALL
24" INLET SEWER AND HEADWALL	INSPECT FOR CLOGGING; UNCLOG AS NEEDED	MONTHLY AND/OR AFTER STORMS THAT EXCEED 1-INCH IN TOTAL RAINFALL
	CHECK HEADWALL FOR INSTABILITY AND/OR EROSION; REPAIR AS NEEDED	MONTHLY
DIVERSION MANHOLE	INSPECT CONDITION AND FOR LEAKS; REPAIR AS NEEDED	YEARLY

*ITEMS LISTED HEREIN WILL BE PERFORMED BY CITY OF CANTON AFTER WARRANTY/MAINTENANCE PERIOD REQUIRED BY CONTRACTOR.



MIDDLE BRANCH NIMISHILLEN CREEK STORMWATER CONSTRUCTED WETLAND, GP1349
 CITY OF CANTON



100% DESIGN

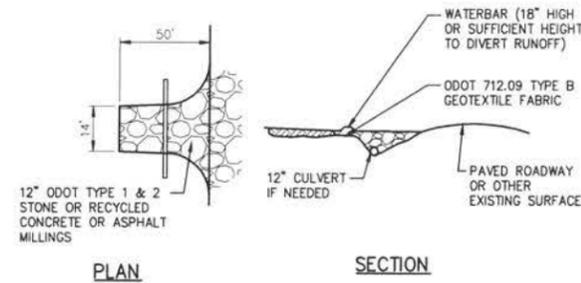


DATE: 8/26/2022

REVISIONS	
DATE	DESCRIPTION

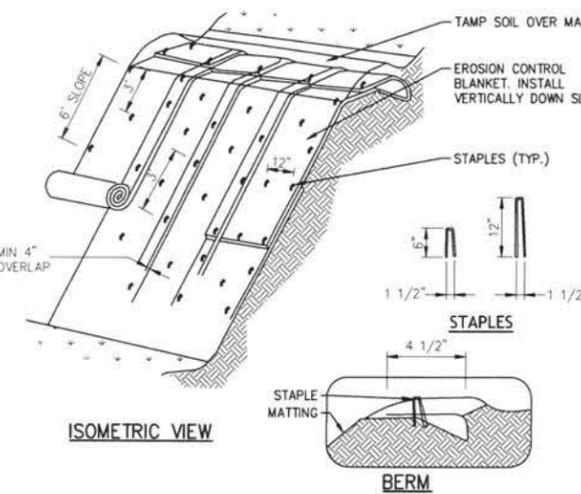
PROJECT NO.: 22-00125-020
 DRAWN BY: WRMT
 CHECKED BY: AML
 DATE ISSUED: 8/31/2022

STORMWATER POLLUTION PREVENTION PLAN NOTES

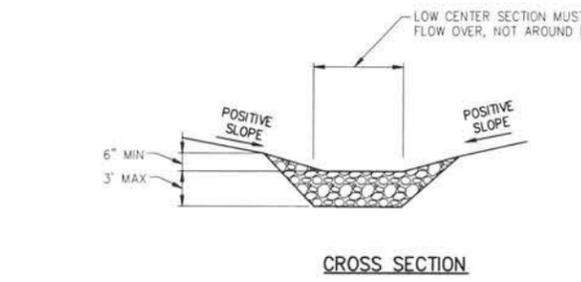


- NOTES:**
1. MAINTENANCE - TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED OR TRACKED AWAY ONTO PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING OR SWEEPING.
 2. CONSTRUCTION ENTRANCES SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES AND PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION SITE SHALL BE RESTRICTED FROM MUDDY AREAS.
 3. WHEN THE CONSTRUCTION HAUL ROAD IS NO LONGER NEEDED, THE CONTRACTOR SHALL REMOVE THE AGGREGATE AND RESTORE GRADE TO ITS ORIGINAL ELEVATION OR AS SHOWN ON THE PLANS.

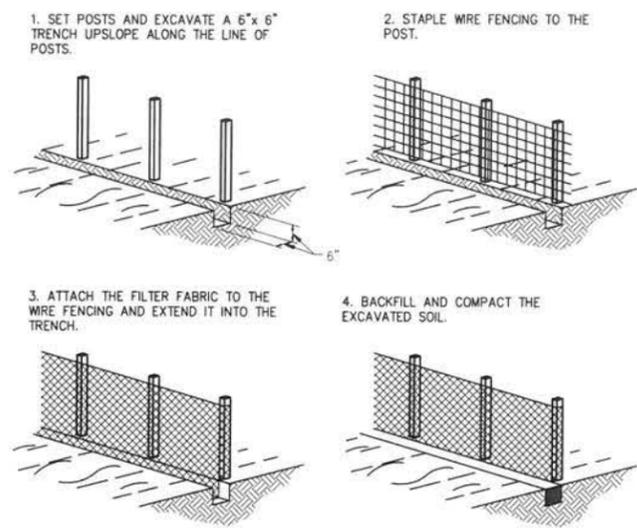
1 TEMPORARY CONSTRUCTION DRIVE DETAIL
15 NOT TO SCALE



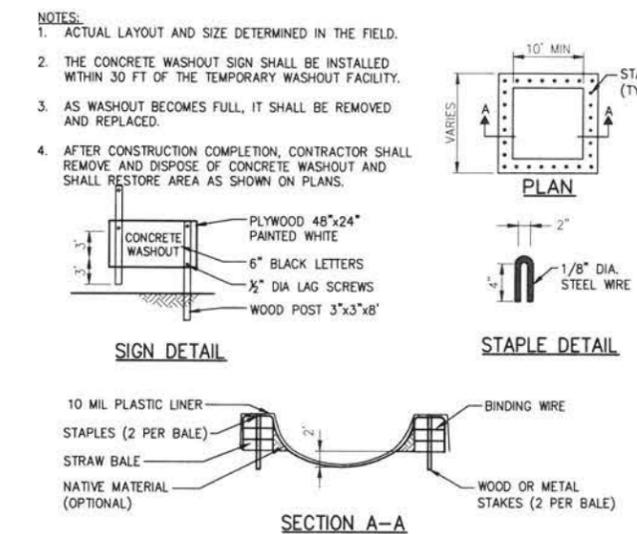
3 EROSION CONTROL BLANKET DETAIL
15 NOT TO SCALE



5 ROCK CHECK DAM
15 NOT TO SCALE



2 SILT FENCE INSTALLATION DETAIL
15 NOT TO SCALE



4 CONCRETE WASHOUT STATION DETAIL
15 NOT TO SCALE

- NOTES:**
1. ACTUAL LAYOUT AND SIZE DETERMINED IN THE FIELD.
 2. CONSTRUCT PER ODNR RAINWATER AND LAND DEVELOPMENT MANUAL.



MIDDLE BRANCH NIMISHILLEN
CREEK STORMWATER
CONSTRUCTED WETLAND, GP1349
CITY OF CANTON



100% DESIGN



DATE: 8/26/2022

REVISIONS	
DATE	DESCRIPTION

PROJECT NO.: 22-00125-020
DRAWN BY: WRMT
CHECKED BY: AML
DATE ISSUED: 8/31/2022

STORMWATER
POLLUTION PLAN
DETAILS

E:\CANTON\22-00125-020 STORMWATER CONSTRUCTED WETLAND GP 1349\CD\03\INTEGRAL\CD\03\SWP 22-00125-020 - 8/31/2022 4:13:27 PM