10/28/2025

BLOSSOM DRIVE STORM SEWER REPLACEMENT

CITY OF MENTOR LAKE COUNTY, OHIO



October, 2025

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UNDERGROUND UTILITIES CONTACT BOTH SERVICES CALL TWO WORKING DAYS BEFORE YOU DIG OHIO UTILITIES PROTECTION SERVICE NON-MEMBERS

MUST BE CALLED DIRECTLY OIL & GAS PRODUCERS PROTECTIVE SERVICE CALL: 1-800-925-0988

BE SUITABLE FOR PROPERTY LINE SURVEYS OR ANY OTHER PURPOSE.

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

THE CONTRACTOR IS RESPONSIBLE TO CALL OHIO UTILITIES PROTECTION SERVICE @ 1-800-362-2764, THREE WORKING

COUNTY

THE SURVEY SHOWN ON THESE PLANS WAS OBSERVED IN THE FIELD FOR CONSTRUCTION PURPOSES ONLY AND MAY NOT

PROJECT LOCATION EVERGREEN DRIVE EDGEHILL ROAD FOOTHILL ROAD BERNARD DRIVE **PERKINS DRIVE** FORESTVIEW MURRAY AVENUE AVENUE **LOCATION MAP**

verdantas

1" = 500'

CITY OFFICIALS:

KENNETH J. FILIPIAK. CITY MANAGER

COUNCIL-AT-LARGE

SCOTT J. MARN

JANET A. DOWLING

RAY KIRCHNER

WARD COUNCIL

SEAN P. BLAKE, PRESIDENT, WARD I

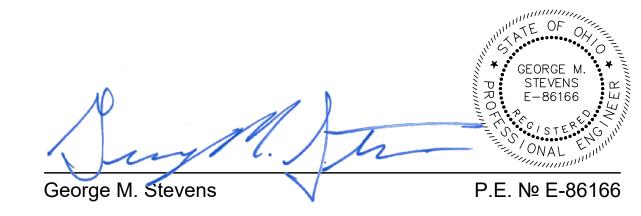
JOHN A. KRUEGER, VICE PRESIDENT, WARD IV

MATTHEW E. DONOVAN, WARD II

CHARLES E. PINKERMAN, WARD III

CITY ADMINISTRATORS:

KENNETH GUNSCH...... POLICE CHIEF RONALD A. ZAK..... FIRE CHIEF



ENGINEER'S PROJECT No. 232146

GENERAL

A PRECONSTRUCTION CONFERENCE SCHEDULED BY THE CITY OF MENTOR ENGINEER SHALL BE HELD PRIOR TO ANY WORK STARTING. IN ADDITION, THE CONTRACTOR SHALL PROVIDE 48 HOURS NOTICE TO THE DESIGNATED MENTOR REPRESENTATIVE PRIOR TO BEGINNING WORK TO ARRANGE FOR INSPECTION.

THE IMPROVEMENT PLANS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE APPLICABLE RULES AND REGULATIONS OF THE THE CITY OF MENTOR, AS WELL AS THE CONSTRUCTION AND MATERIAL SPECIFICATIONS OF THE OHIO DEPARTMENT OF TRANSPORTATION, 2023 EDITION, INCLUDING ALL SUPPLEMENTAL SPECIFICATIONS AND DRAWINGS, SHALL GOVERN THIS PROJECT. FOR PURPOSES OF THIS PLAN, REFERENCES TO DIRECTOR OR ENGINEER SHALL BE CONSTRUED TO MEAN THE MENTOR CITY ENGINEER AND/OR HIS REPRESENTATIVE.

ALL WORK CONTEMPLATED SHALL BE GOVERNED BY THE RULES, REGULATIONS AND SPECIFICATIONS OF THE CITY OF MENTOR ENGINEER AND AT ALL TIMES BE SUBJECT TO DIRECT SUPERVISION AND INSPECTION.

ALL WORK CONTEMPLATED UNDER THIS CONTRACT SHALL COMPLY WITH THE U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT.

MATERIAL TESTING AND PERMITS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF ALL MATERIAL AND EQUIPMENT TESTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR THIS PROJECT. THE EXECUTED PROJECT CONTRACT SHALL SERVE TO FULFILL THE CITY OF MENTOR'S PERMITTING REQUIREMENTS.

CLEARING AND GRUBBING

ALL TREES, STUMPS, ROOTS AND DEBRIS REMOVED FROM THE WORK LIMITS SHALL BE DISPOSED OF BY THE CONTRACTOR OFF-SITE AT A LOCATION ACCEPTABLE TO THE ENGINEER.

UTILITIES

THE LOCATION OF ALL EXISTING UTILITY FACILITIES ARE SHOWN ON THE PLANS FROM DATA AVAILABLE AT THE TIME OF THE FIELD SURVEY IN ACCORDANCE WITH SECTION 153.64 OF THE OHIO REVISED CODE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF THE EXISTING UTILITY OWNERS AND UTILITY PROTECTION SERVICE LISTED BELOW IN ACCORDANCE WITH SECTION 154.64 OF THE ORC AND AS OUTLINED IN THE PROJECT SPECIFICATIONS.

THE UTILITY OWNERSHIPS ARE AS FOLLOWS:

OHIO UTILITY PROTECTION SERVICE 160 WEST RYEN, ROOM 427 YOUNGSTOWN, OHIO 44051 PHONE: (800) 362-2746

CITY OF MENTOR

THE ILLUMINATING CO. 6896 MILLER ROAD, SUITE 110 BRECKSVILLE, OHIO 44141

8500 CIVIC CENTER BLVD.

MENTOR, OHIO 44060

PHONE: (440) 255-1100

PHONE: (440) 717-6845

ENBRIDGE GAS OHIO 320 SPRINGSIDE DRIVE, SUITE 320 AKRON, OHIO 44333 PHONE: (330) 664-2409

8644 STATION STREET MENTOR, OHIO 44060 PHONE: (440) 255-3984 SPECTRUM (TIME WARNER CABLE)

AQUA OHIO INC.

ATTN: DAVE DETORE 7820 DIVISION DRIVE MENTOR, OHIO 44060 PHONE: (440) 974-3401 LAKE COUNTY DEPT. OF UTILITIES ATTN: RANDY ROTHLISBERGER 105 MAIN STREET PAINESVILLE, OHIO 44077 PHONE: (440) 350-2652

AT&T

ATTN: JAMES JANIS 13630 LORAIN AVE., 2nd FLOOR CLEVELAND, OHIO 44111 PHONE: (216) 476-6142 NORTHEAST OHIO NATURAL GAS CORP. ATTN: TIM REILY, EIS COORDINATOR 8470 STATION STREET MENTOR, OHIO 44060 PHONE: (440) 205-4600

THE OWNER OF THE UNDERGROUND UTILITY FACILITY SHALL, WITHIN 48 HOURS, EXCLUDING SATURDAYS, SUNDAYS AND LEGAL HOLIDAYS, AFTER NOTICE IS RECEIVED, STAKE, MARK OR OTHERWISE DESIGNATE THE LOCATION OF THE UNDERGROUND UTILITY FACILITIES IN THE CONSTRUCTION AREA IN SUCH A MANNER AS TO INDICATE THEIR COURSE TOGETHER WITH THE APPROXIMATE DEPTH AT WHICH THEY WERE INSTALLED. THE MARKING OR LOCATING SHALL BE COORDINATED TO STAY APPROXIMATELY TWO (2) DAYS AHEAD OF THE PLANNED CONSTRUCTION.

EXISTING WATER MAIN FACILITIES

THE AQUA OHIO, INC. WATER COMPANY SHALL BE RESPONSIBLE FOR ALL RELOCATIONS OF THEIR WATER MAIN FACILITIES AS REQUIRED, INCLUDING HYDRANT AND VALVE AND VALVE BOX RELOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VALVE BOX AND ALL OTHER WATER MAIN APPURTENANCE ADJUSTMENTS TO GRADE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS WORK WITH AQUA OHIO, INC. SO THAT COMPLETION OF HIS WORK IS NOT DELAYED BY THE AQUA OHIO, INC. WORK. THE CONTRACTOR SHALL NOTIFY AQUA OHIO, INC. AT LEAST 48 HOURS IN ADVANCE OF ANY WORK WHICH MAY AFFECT THEIR SYSTEM. ANY LONG SIDE WATER SERVICE CONNECTIONS THE CONTRACTOR COMES ACROSS SHALL BE HANDLED IN A WAY NOT TO DAMAGE THE EXISTING SERVICE. ANY DAMAGE TO THE SERVICE SHALL BE REPAIRED BY THE CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER.

EXISTING AND PROPOSED SANITARY SEWER FACILITIES

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATING, ADJUSTMENTS OR ADDITIONS TO THE EXISTING SANITARY SEWER FACILITIES AS CALLED FOR ON THE PLANS OR REQUIRED BY THE WORK, INCLUDING ALL COSTS ASSOCIATED WITH INSPECTION OF SANITARY SEWER FACILITIES BY MEANS OF POT-HOLING OR OTHER EXCAVATION METHODS. THE COST FOR WORK PERFORMED TO POTHOLE OR EXCAVATE IN ORDER TO INSPECT LATERAL LOCATION AND ELEVATION SHALL BE INCIDENTAL TO THE UNIT BID PRICE FOR STORM SEWER WORK.

THE CONTRACTOR SHALL NOTIFY THE LAKE COUNTY DEPARTMENT OF UTILITIES AT LEAST 48 HOURS IN ADVANCE OF ANY WORK IN THEIR SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING INSPECTION DIRECTLY WITH THE LAKE COUNTY DEPARTMENT OF UTILITIES.

ALL SANITARY SEWER AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE RULES, STANDARDS AND SPECIFICATIONS OF THE LAKE COUNTY DEPARTMENT OF UTILITIES AND SHALL BE REVIEWED, TESTED AND APPROVED BY THE LAKE COUNTY DEPARTMENT OF UTILITIES.

ANY WORK DONE TO THE SANITARY SEWER SYSTEM MUST BE DONE BY A CONTRACTOR LICENSED BY THE LAKE COUNTY DEPARTMENT OF UTILITIES.

THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN INCLUDED IN THE PROPOSAL TO BE USED AS DIRECTED BY THE ENGINEER. THESE ITEMS SHALL INCLUDE THE COST OF ALL PAVEMENT REMOVAL.

ITEM 611 - 6" SANITARY SEWER LATERAL, AS PER PLAN (PVC, VCP OR DIP) 80 L.F.

NONE OF THE ABOVE MATERIALS SHALL BE ORDERED BY THE CONTRACTOR UNTIL AUTHORIZED BY THE ENGINEER.

CONTRACTORS RESPONSIBILITY FOR UTILITY PROPERTY AND SERVICES

AT POINTS WHERE THE CONTRACTOR'S OPERATIONS ARE ADJACENT TO PROPERTIES OF TELEPHONE, CABLE, AND POWER COMPANIES, OR ARE ADJACENT TO OTHER PROPERTY, DAMAGE TO WHICH MIGHT RESULT IN CONSIDERABLE EXPENSE, LOSS, OR INCONVENIENCE, WORK SHALL NOT BE COMMENCED UNTIL ALL ARRANGEMENTS NECESSARY FOR THE PROTECTION THEREOF HAVE BEEN MADE.

THE CONTRACTOR SHALL COOPERATE WITH THE OWNERS OF ANY UNDERGROUND OR OVERHEAD UTILITY LINES IN THEIR REMOVAL AND REARRANGEMENT IN ORDER THAT THESE OPERATIONS MAY PROGRESS IN A REASONABLE MANNER, THAT DUPLICATION OF REARRANGEMENT WORK MAY BE REDUCED TO A MINIMUM, AND THAT SERVICES RENDERED BY THOSE PARTIES WILL NOT BE UNNECESSARILY INTERRUPTED.

IN THE EVENT OF INTERRUPTION TO UNDERGROUND OR OVERHEAD UTILITY SERVICES AS A RESULT OF ACCIDENTAL BREAKAGE OR AS A RESULT OF BEING EXPOSED OR UNSUPPORTED, THE CONTRACTOR SHALL IMMEDIATELY ALERT THE OCCUPANTS OF NEARBY PREMISES AS TO ANY EMERGENCY AND/OR INTERRUPTION OF SERVICE THAT THE CONTRACTOR MAY CREATE OR DISCOVER AT OR NEAR SUCH PREMISES. THE CONTRACTOR SHALL THEN NOTIFY THE ENGINEER AND THE OWNER OR OPERATOR OF THE UTILITY FACILITY OF THE DISRUPTION AND SHALL COOPERATE WITH SAID UTILITY OWNER OR OPERATOR IN THE RESTORATION OF SERVICE. IF WATER SERVICE IS INTERRUPTED. REPAIR WORK SHALL BE CONTINUOUS UNTIL THE SERVICE IS RESTORED. NO WORK SHALL BE UNDERTAKEN AROUND FIRE HYDRANTS UNTIL PROVISIONS FOR CONTINUED SERVICE HAVE BEEN APPROVED BY THE LOCAL FIRE AUTHORITY.

PROTECTION AND RESTORATION OF PROPERTY

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL PUBLIC AND PRIVATE PROPERTY

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE OR INJURY TO PROPERTY AND/OR PERSONS DURING THE PROSECUTION OF THE WORK, RESULTING FROM ANY ACT, OMISSION, NEGLECT OR MISCONDUCT IN 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 HAS BEEN COMPLETED AND ACCEPTED.

DUST NUISANCE ORIGINATING FROM ANY OF THE CONTRACTOR'S OPERATIONS EITHER INSIDE OR OUTSIDE THE RIGHT-OF-WAY SHALL BE CONTROLLED BY THE CONTRACTOR IN ACCORDANCE WITH LOCAL ORDINANCES AND REGULATIONS AT THE SOLE EXPENSE OF THE CONTRACTOR.

WHEN OR WHERE ANY DIRECT OR INDIRECT DAMAGE OR INJURY IS DONE TO PUBLIC OR PRIVATE PROPERTY BY OR ON ACCOUNT OF ANY ACT, OMISSION, NEGLECT OR MISCONDUCT IN THE EXECUTION OF THE WORK, OR IN CONSEQUENCE OF THE NONEXECUTION 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.

WHEN MAIL BOXES, ROAD OR STREET NAME SIGNS AND SUPPORTS INTERFERE WITH CONSTRUCTION, THE CONTRACTOR SHALL REMOVE AND REERECT THEM IN A TEMPORARY LOCATION DURING CONSTRUCTION IN A MANNER SATISFACTORY TO AND AS DIRECTED BY THE ENGINEER. AFTER COMPLETION OF THE CONSTRUCTION AND BEFORE FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL ERECT THE MAIL BOXES, ROAD OR STREET NAME SIGNS AND SUPPORTS IN THEIR ORIGINAL LOCATION UNLESS OTHERWISE DIRECTED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR CLEARING AND GRUBBING.

LANDSCAPING AND DRIVEWAY ITEMS

WHEN THE CONSTRUCTION OPERATIONS ARE IN CLOSE PROXIMITY TO LANDSCAPING FEATURES (TIMBERS, ROCKS, BOULDERS, ETC.), DRIVEWAY TIMBERS, DRIVEWAY CURBING, ETC. THE CONTRACTOR SHALL SAVE, REMOVE AND PLACE THESE ITEMS OUTSIDE THE WORK LIMITS AT A LOCATION ACCEPTABLE TO THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE STORM SEWER.

USE OF PRIVATE PROPERTY

THE CONTRACTOR CAN USE PRIVATE PROPERTY FOR THE STORAGE OF EQUIPMENT AND MATERIALS ONLY WITH A WRITTEN AGREEMENT WITH THE PROPERTY OWNER. THE CONTRACTOR SHALL PROVIDE THIS AGREEMENT TO THE ENGINEER PRIOR TO ANY USE OF PRIVATE PROPERTY.

REMOVAL ITEMS

ALL ITEMS NOTED ON THE PLANS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF IN AN APPROPRIATE MANNER BY THE CONTRACTOR UNLESS OTHERWISE NOTED.

SUBSURFACE INVESTIGATIONS

IT IS THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO MAKE HIS OWN INVESTIGATION OF SUBSURFACE CONDITIONS PRIOR TO SUBMITTING HIS PROPOSAL.

CONNECTION TO EXISTING PIPE

WHERE THE PLANS PROVIDE FOR PROPOSED CONDUIT TO BE CONNECTED TO OR TO CROSS EITHER OVER OR UNDER AN EXISTING PIPE, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING PIPE, BOTH AS TO LINE AND GRADE, AND ADJUST LINE AND/OR GRADE AS NECESSARY BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT CONDUIT ITEM UNLESS SPECIFIED ELSEWHERE IN THE PLANS OR BID DOCUMENTS.

EXISTING NATURAL GAS FACILITIES

THE DOMINION EAST OHIO NATURAL GAS COMPANY OR NORTHEAST OHIO NATURAL GAS COMPANY SHALL BE RESPONSIBLE FOR ALL RELOCATIONS OF THEIR GAS MAIN FACILITIES AS REQUIRED, INCLUDING HOUSE CONNECTIONS AND VALVE BOX RELOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VALVE BOX AND ALL OTHER GAS MAIN APPURTENANCE ADJUSTMENTS TO GRADE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS WORK WITH DOMINION EAST OHIO OR NORTHEAST OHIO NATURAL GAS SO THAT COMPLETION OF HIS WORK IS NOT DELAYED BY THE DOMINION EAST OHIO OR ORWELL WORK. THE CONTRACTOR SHALL NOTIFY DOMINION EAST OHIO OR NORTHEAST OHIO NATURAL GAS AT LEAST 48 HOURS IN ADVANCE OF ANY WORK WHICH MAY AFFECT THEIR SYSTEM.

SERVICE CONNECTIONS

- 1. ALL EXISTING UTILITY SERVICE CONNECTIONS (SANITARY, STORM, WATER, GAS, ELECTRIC, TELEPHONE, ETC.) WHICH ARE DAMAGED DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED WITH LIKE MATERIALS OR REPLACED, AS REQUIRED. THE COST OF UTILITY SERVICE CONNECTION REPAIR/REPLACEMENT SHALL BE INCLUDED IN THE UNIT PRICES FOR ALL ITEMS IN THE PROPOSAL.
- 2. ALL UTILITY LINES CROSSING THE NEW TRENCH SHALL BE PROTECTED AND SUPPORTED WITH HARDWOOD PLANKS; OR REMOVED, REPLACED, RECONNECTED AND SUPPORTED ACROSS THE ENTIRE WIDTH OF THE TRENCH. IF ANY OF THESE LINES ARE DAMAGED DURING CONSTRUCTION, THEY SHALL BE REPLACED IN-KIND.
- 3. THE CONTRACTOR SHALL BE REQUIRED TO BYPASS AND MAINTAIN THE FLOW TO/FROM ALL HOUSE UTILITY CONNECTIONS DURING CONSTRUCTION.
- 4. THE CONTRACTOR SHALL EXPECT ONE UNDERGROUND STORM SEWER, SANITARY SEWER, GAS AND WATER CONNECTION FOR EACH LOT (INCLUDING CORNER AND VACANT LOTS) ON BOTH SIDES OF THE STREET FOR THE ENTIRE PROJECT LENGTH, EXCEPT AS NOTED ON THE PLANS.
- 5. THE COST OF UTILITY RELOCATION, REPLACEMENT, AND/OR SUPPORT SHALL BE INCLUDED IN THE COST PER LINEAL FOOT OF PROPOSED STORM SEWER.

DRIVEWAY AND ROADWAY PAVEMENT INSTALLATION

ALL PAVEMENT INSTALLATION SHOULD BE CONDUCTED UNDER SUITABLE WEATHER CONDITIONS. THE ENGINEER SHALL BE NOTIFIED IN ADVANCE OF ANY PROPOSED PAVEMENT INSTALLATION TO DETERMINE THE SUITABILITY OF WEATHER CONDITIONS FOR PAVEMENT INSTALLATION.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL ROADWAYS AND DRIVES PRIOR TO FINAL INSTALLATION. THE COST OF ANY TEMPORARY SURFACE MATERIAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE RESPECTIVE ITEM OF WORK.

GARBAGE COLLECTION

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE TRANSFER OF ALL GARBAGE, GARBAGE CANS, AND RECYCLE BINS FROM DRIVEWAYS WITHIN THE CONSTRUCTION ZONE TO THE OPPOSITE SIDE OF THE ROADWAY. ONCE THE GARBAGE AND RECYCLABLE MATERIALS HAVE BEEN COLLECTED, ALL GARBAGE CANS AND RECYCLE BINS SHALL BE RETURNED TO THE APPROPRIATE DRIVEWAYS AND OUTSIDE OF THE CONSTRUCTION LIMITS, OR AS DIRECTED BY THE ENGINEER. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614. MAINTAINING TRAFFIC.

CONTINGENCY ITEMS

A LUMP SUM CONTINGENCY/DISCRETIONARY ALLOWANCE HAS BEEN INCLUDED IN THE LINE ITEMS FOR THIS JOB. THIS ALLOWANCE IS NOT TO BE USED WITHOUT AUTHORIZATION BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED AT THE ENGINEER'S DISCRETION SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT. IN ADDITION, THE FOLLOWING AMOUNTS HAVE BEEN ADDED TO THEIR RESPECTIVE LINE ITEMS TO BE USED AS DIRECTED BY THE ENGINEER:

ITEM 253 TYPE "C" PAVEMENT REPLACEMENT (ASPHALT), DRIVEWAY, APRON, OR PARKING LOT, AS PER PLAN

<u>58 SY</u>

MATERIAL SPECIFICATIONS

MATERIAL SPECIFICATIONS CALLED FOR ON THE PLANS REPRESENT THE MINIMUM REQUIRED FOR EACH APPLICATION. THE OWNER MAY REQUEST OR THE CONTRACTOR MAY DESIRE TO SUBSTITUTE ALTERNATE MATERIALS. ANY SUCH SUBSTITUTIONS MUST BE EQUIVALENT IN QUALITY TO THE MATERIAL CALLED FOR AND MUST BE APPROVED IN WRITING BY THE APPROVING AGENCIES AND THE ENGINEER.

THE CONTRACTOR SHALL INCLUDE THE COST OF GRANULAR BACKFILL MATERIAL UNDER ALL EXISTING AND PROPOSED PAVEMENTS IN THE PRICE BID PER LINEAR FOOT OF PIPE.

SLAG SHALL NOT BE USED FOR BEDDING OR BACKFILL

STORM SEWER PIPING LESS THAN 12" IN DIAMETER SHALL BE PVC SDR 35 PER ODOT 707.45. STORM SEWER PIPING 12" TO 36" IN DIAMETER SHALL BE HDPE SMOOTH INTERIOR WITH FITTINGS CONFORMING TO O.D.O.T. SPECIFICATION 707.33

SANITARY SEWER LATERALS SHALL BE PVC SDR 26 ASTM D3034, VCP ASTM C700 ES OR DIP CL52

THE CONTRACTOR SHALL INSPECT EACH LOCATION WHERE CONNECTIONS TO EXISTING STORM SEWERS ARE TO BE MADE. THE INSPECTION SHALL INCLUDE PIPE TYPE, SIZE AND INVERTS. THIS WORK SHALL BE DONE BEFORE ORDERING STRUCTURES, PIPE AND FERNCO COUPLING. NO EXTRA PAYMENT WILL BE MADE FOR EXPLORING STRUCTURES AND CONNECTION TO PIPE IN ORDER TO MAKE CONNECTION TO VARIOUS PIPE TYPES. THE UNIT PRICE FOR THE STORM SEWER WILL INCLUDE THE COST ASSOCIATED WITH THIS WORK.

PRE- AND POST-CONSTRUCTION VIDEOTAPING

PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL PROVIDE AN ABOVE-GROUND VIDEO OF THE ENTIRE PROJECT AREA. THE CONTRACTOR SHALL NOT START WORK UNTIL THE ENGINEER HAS BEEN PROVIDED WITH SAID VIDEO. ANY DAMAGE DEEMED TO HAVE BEEN CAUSED BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

ONCE WORK HAS CONCLUDED. THE CONTRACTOR SHALL TELEVISE THE FULL EXTENT OF THE NEWLY INSTALLED SEWER. ANY DEFECT IN MATERIAL OR WORKMANSHIP REVEALED BY THE TELEVISING SHALL BE CORRECTED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. NO ACCEPTANCE OF WORK OR RELEASE OF PAYMENT WILL BE MADE UNTIL TELEVISING IS COMPLETED AND REVIEWED BY THE ENGINEER. THE COST OF CLEANING SEWERS PRIOR TO TELEVISING IS INCLUDED IN THIS ITEM.

ENBRIDGE NATURAL GAS NOTES

ENBRIDGE GAS (FORMERLY DOMINION EAST OHIO) WILL BE RELOCATING GAS SERVICE LINES AS WELL AS THE 4" MAIN ON LITTLE MOUNTAIN ROAD (SEE PLANS). THEIR TARGET COMPLETION DATE IS 12/30/2025. THE CONTRACTOR SHALL NOT BEGIN CONSTRUCTION UNTIL ENBRIDGE HAS COMPLETED THEIR WORK ON BOTH THE SERVICE LINES AND THE MAIN.

ATE OF GEORGE M STEVENS E-86166

verdantas

REVISION DATE

BLOSSOM DRIVE STORM SEWER REPLACEMENT

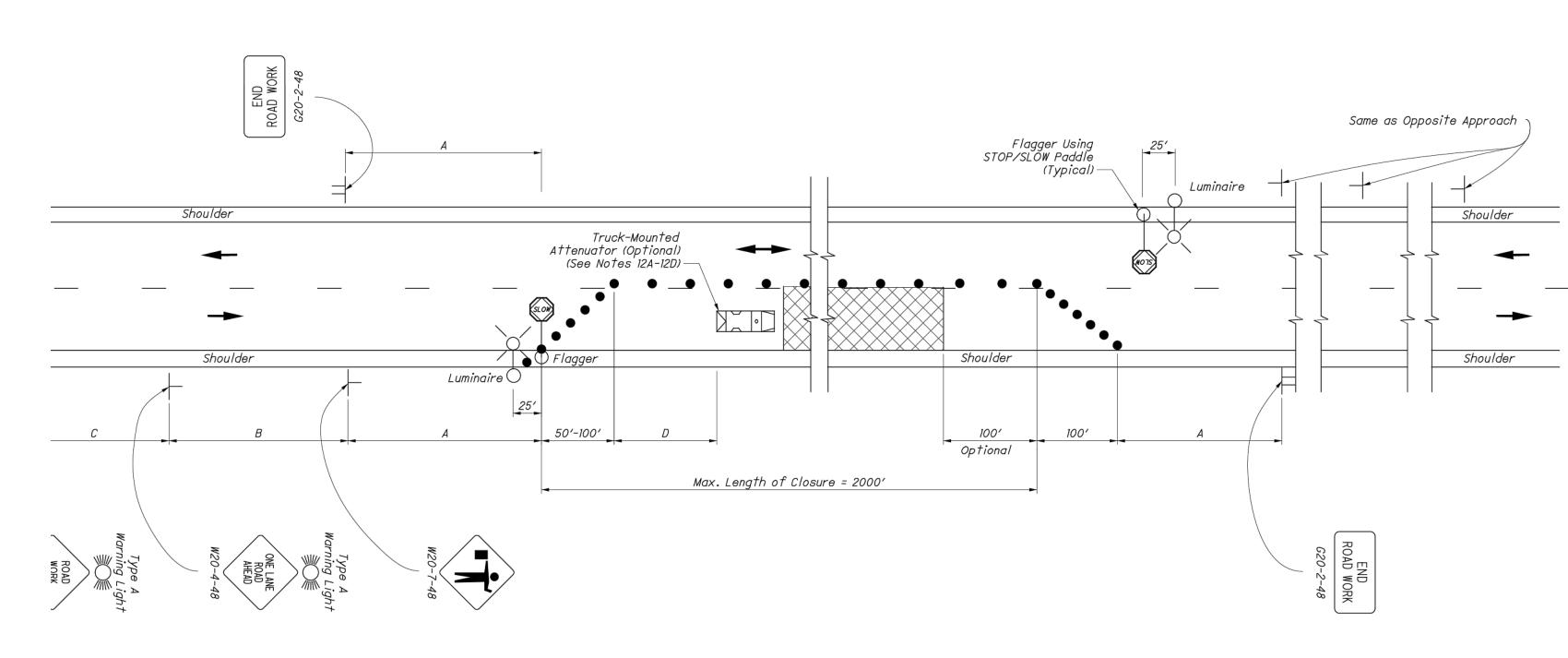
CITY OF MENTOR

LAKE COUNTY, OHIO

ISSUED FOR: ISSUE DATE: 10/28/2025 SCALE: AS SHOWN **DESIGNED BY** DRAWN BY: TJM CHECKED BY:

GENERAL NOTES

PROJECT NO. 232146 DISCIPLINE CIVIL SHEET NAME GN1 13



NOTES:

1. Flaggers, one for each direction, shall be used to control traffic continuously for as long as a one lane operation is in effect. The flaggers shall be able to communicate with each other at all times.

LENGTH OF CLOSURE

2. Several small work areas close together should be combined into one work zone. However, the closure shall not be more than 2000' long unless approved by the Engineer. The minimum length between closures shall be 2000'. Only one side of the road shall be closed in any one work zone.

SIGN LOCATION AND SPACING

- 3A. The minimum spacing between work zone signs is shown in Table I. Maximum spacing should not be greater than 1.5 times the distances shown in Table I.
- 3B. Sign spacing should be adjusted to avoid conflict with existing signs. Minimum spacing to existing signs shall be 200' for speeds of 45 mph or less and a minimum of 400' for speeds of 50 mph or greater.
- 3C. The location of the advance warning signs should be adjusted to provide for adequate sight distance for the existing vertical and horizontal roadway

ADJUSTMENTS FOR SIGHT DISTANCE

4. The location of the flagger station and the advance warning signs should be adjusted to provide for adequate sight distance for the existing vertical and horizontal roadway alignment.

BASIC SIGNING

- 5A. ROAD WORK AHEAD (W20-1) signs shall be provided on entrance ramps or roadways entering the work limits.
- 5B. END ROAD WORK (G20-2) signs are only required for lane closures of more than 1 day. If is intended that these signs be placed on the mainline, on all exit ramps, and on roadways exiting the work limits.
- 5C. Overlapping of signing for adjacent projects should be avoided where the messages could be confusing. Any ROAD WORK AHEAD (WZO-1) or END ROAD WORK (GŽO-2) sign which falls within the limits of another traffic control zone shall be omitted or covered during the period when both projects are

SIGNING DETAILS

- 6A. The Advisory Speed (W13-IP) plaque shall be used when specified in the plan.
- 6B. 36" warning signs may be used when the approach speed limit is 40 mph or less.

FLASHING WARNING LIGHTS

7. Type A flashing warning lights shown on the ROAD WORK AHEAD (W20-1) signs and on the LANE CLOSED AHEAD (W20-5) signs are required whenever a night lane closure iš necessary.

- 8A. Drum spacing shall be as follows:
- n) Spacing along the closure shall be 40' center-to-center. b) Spacing along the approach taper shall be 10' center-
- 8B. Cones may be substituted for drums as follows:
- a) Cones used for daytime traffic control shall have a minimum height of 28". b) Cones used for nighttime traffic control shall have a minimum height of 42".
- 8C. Provisions shall be made to stabilize the cones and drums to prevent them from blowing over.

c) Use of cones at night shall be prohibited along

8D. A minimum of two drums shall be used to close the

(RESERVED FOR FUTURE USE)

paved shoulder.

9A. (intentionally blank)

AREA ILLUMINATION

- 10A. Adequate area illumination of each flagger station shall be provided at night. Use of portable flood lighting is acceptable. Luminaires shall be located adiacent to each flagger station.
- 10B. To ensure the adequacy of floodlight placement and the elimination of glare, the Contractor and the Engineer shall drive through the worksite each night when the lighting is in place. Light placement and shielding shall be adjusted to the satisfaction of the

INTERSECTION / DRIVEWAY ACCESS

- 11. Within the length of closure, provision shall be made to control traffic entering from intersecting streets and major drives as necessary to prevent wrong-way movements and to keep vehicles off of new pavement not ready for traffic. The Contractor shall:
- a) Place across the closed lane, either three drums (cones) or barricades, and/or b) Provide an additional flagger at every public street intersection and major driveway.
- Drums (cones) placed across the closed lane shall be located 25' beyond the projected pavement edges of the driveway or cross highway, as shown in Standard Construction Drawings (SCDs MT-97.11 or MT-97.12. For barricades, see SCD MT-101.60.
- Existing STOP signs shall be relocated as necessary to assure proper location for the traffic conditions.

The method of control shall be subject to the approval of the Engineer.

SHADOW VEHICLE

- 12A. The shadow vehicle shall be in place and unoccupied whenever workers are in the work area. This vehicle shall be removed from the pavement whenver workers are not in the work area.
- 12B. The shadow vehicle shall be equipped with a high-intensity yellow rotating, flashing, oscillating, or
- 12C. The vehicle shall be equipped with a truck-mounted attenuator when called for in the plans.
- 12D. Other protective devices may be used in lieu of the shadow vehicle shown when approved by the Engineer.

CHIP SEAL OPERATIONS

- 13. For chip seal operations, additional signing shall be incorporated in the advanced warning area.
- a) The LOOSE GRAVEL (W8-7) and FRESH TAR (W21-2) signs shall
- both be used in advance of the chip seal operation b) Repeat the LOOSE GRAVEL sign with a 35 mph Advisory Speed (W13-1) plaque every half mile per CMS 422.09.
- c) The FRESH TAR and the LOOSE GRAVEL signs shall both be used for signing of side roads intersecting the work

TABLE I (SIGN SPACING)

5045 7455	DISTANCE		SPEED			
ROAD TYPE	Α	В	С		LIMIT (MPH)	
Two-Lane (≤ 40 MPH)	100	100	100		25	
Two-Lane (45-50 MPH)	350	350	350		30	
Two-Lane (55-60 MPH)	500	500	500		35	
				I	40	
					45	

LEGEND WORK AREA DRUMS/CONES DIRECTION OF TRAVEL SHADOW VEHICLE

BUFFER (D) (FT)

TABLE II

MIN.155 200 250 305 360 50 425 55 495 60 570

ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOs) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOs SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

- DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED
- DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G. DIRECTING MOTORISTS THROUGH A RED LIGHT).

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

- FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).
- FOR OPERATIONS WITHOUT POSITIVE PROTECTION OCCURRING WITHIN 10 FEET OF AN OPEN TRAVELED LANE THAT MEET ALL OF THE FOLLOWING CRITERIA:
- ON A MULTI-LANE DIVIDED INTERSTATE, OTHER FREEWAY OR EXPRESSWAY; AND AN AUTHORIZED SPEED LIMIT OF 45 MPH OR GREATER THAT IS IN EFFECT AT THE TIME OF THE OPERATION; AND, AADT OF 50,000 (OR AADT OF 30,000 WITH 25% OR HIGHER PERCENT TRUCKS)

"WITHOUT POSITIVE PROTECTION" MEANS USE OF DRUMS, CONES, SHADOW VEHICLE, ETC, WITHOUT PROTECTION FROM PORTABLE BARRIER OR OTHER RIGID BARRIER ALONG THE WORK AREA. THIS PHRASE DOES NOT APPLY TO CASES WHERE POSITIVE PROTECTION IS REQUIRED. MOBILE OPERATIONS ARE REGARDED AS "WITHOUT POSITIVE PROTECTION". FOR WORK ZONES USING A COMBINATION OF BARRIER AND TEMPORARY TRAFFIC CONTROL DEVICES (CONES, DRUMS, ETC), THE DESIGNATION SHALL BE BASED UPON THE TYPE OF DEVICES USED IN THE AREA THAT WORKERS ARE LOCATED

IF MULTIPLE ACTIVE LOCALIZED QUALIFYING WORK AREAS OCCUR WITHOUT POSITIVE PROTECTION, PER MAINLINE TRAFFIC DIRECTION, PROVIDE A UNIFORMED LEO AND OFFICIAL PATROL CAR IN ADVANCE OF:

 THE FIRST ACTIVE WORK AREA THAT DRIVERS WILL ENCOUNTER; OR THE ACTIVE WORK AREA LATERALLY CLOSEST TO THE OPEN TRAVELED LANE; OR OTHER LOCATION AS APPROVED BY THE ENGINEER.

THE UNIFORMED LEO AND OFFICIAL PATROL CAR MAY RELOCATE AMONG THE LISTED LOCATIONS AS APPROPRIATE AS THE OPERATIONS PROCEED IN THE LOCALIZED QUALIFYING WORK AREAS.

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION (OR AT THE POINT OF ROAD CLOSURE), AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

LEOs SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS. THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOs WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOs. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

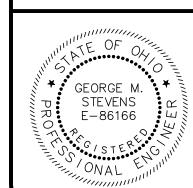
ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE THAT SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOs (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY

ADDITIONAL TRAFFIC MAINTENANCE NOTES

- ONE-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES FOR LOCAL TRAFFIC AND EMERGENCY VEHICLES. LOCAL ACCESS TO ABUTTING PROPERTIES SHALL BE MAINTAINED AT ALL TIMES. ACCESS TO ALL DRIVEWAYS SHALL ALSO BE MAINTAINED AT ALL TIMES.
- 2. PART WIDTH CONSTRUCTION. ONE LANE WIDTH. SHALL BE USED DURING THE PERFORMANCE OF PAVING OPERATIONS.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN SAFE AND SATISFACTORY LOCAL ACCESS, VEHICULAR AND PEDESTRIAN, TO ALL ABUTTING PROPERTIES WITHIN THE PROJECT. THE CONTRACTOR SHALL FURNISH, MAINTAIN, AND SUBSEQUENTLY REMOVE ALL NECESSARY SAFEGUARDS SUCH AS BARRICADES, BARRIERS, TEMPORARY PAVEMENT, LIGHTING, FLAGMEN, TEMPORARY GUARDRAIL, DETOUR AND CONSTRUCTION SIGNING AND OTHER TRAFFIC CONTROLS SO AS TO AVOID DAMAGE AND/OR INJURY TO AND ENSURE THE SAFETY OF VEHICLES AND PERSONS USING THE ROADWAY DURING CONSTRUCTION BOTH WITHIN AND OUTSIDE OF THE PROJECT LIMITS.
- MAINTAINING TRAFFIC SHALL BE IN ACCORDANCE WITH ODOT ITEM 614 AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. DETOUR ROUTES & SIGNAGE SHALL MEET THE APPROVAL OF THE CITY ENGINEER.
- IN ORDER TO MAINTAIN LOCAL AND DRIVEWAY ACCESS, THE CONTRACTOR SHALL FURNISH AND INSTALL TRAFFIC COMPACTED SURFACE, TYPE A OR B IN ACCORDANCE WITH ODOT ITEM 410 LIMESTONE OR GRAVEL ONLY INCLUDING NECESSARY WATER AND CALCIUM CHLORIDE IN ACCORDANCE WITH ODOT ITEM 616 AS DIRECTED BY THE ENGINEER. NO SEPARATE PAYMENT WILL BE MADE FOR MAINTAINING TRAFFIC INCLUDING PROVIDING TRAFFIC COMPACTED SURFACES OTHER TEMPORARY ROADWAYS, TRAFFIC CONTROL, AND ALL OTHER SAFEGUARDS. COST FOR MAINTAINING TRAFFIC INCLUDING ALL MATERIALS, LABOR AND EQUIPMENT FOR CONSTRUCTION, MAINTENANCE AND SUBSEQUENT REMOVAL SHALL BE INCLUDED IN THE UNIT PRICES STIPULATED FOR THE VARIOUS ITEMS OF THE PROPOSAL.
- LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS
- A PORTABLE CHANGEABLE MESSAGE SIGN CONFORMING TO ODOT 614 SHALL BE FURNISHED TO THE CITY FOR PLACEMENT AT A LOCATION OF THEIR CHOOSING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE SIGN THROUGHOUT CONSTRUCTION AND REMOVING IT AFTER COMPLETION OF CONSTRUCTION.
 - THE CONTRACTOR SHALL PROVIDE, ERECT, AND MAINTAIN FOUR W20-1-36 SIGNS MOUNTED UNDERNEATH D3-1-36 SIGNS WITH THE TEXT "BLOSSOM DR", AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. EACH SIGN SHALL BE PLACED AN AVERAGE OF 350 FEET FROM THE INTERSECTION OF BLOSSOM DRIVE WITH LITTLE MOUNTAIN ROAD AND PARKER DRIVE ON THE RIGHT-HAND SIDE OF THE ROAD FACING TRAFFIC, AND PLACED SO AS TO NOT INTERFERE WITH ANY OTHER TRAFFIC CONTROL SIGNS.
- ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.
- 10. IF THE CONTRACTOR SO ELECTS, HE MAY SUBMIT ALTERNATE METHODS FOR THE MAINTENANCE OF TRAFFIC, PROVIDED THE INTENT OF THE ABOVE PROVISIONS IS FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THEREFROM. NO ALTERNATIVE PLAN SHALL BE PLACED INTO EFFECT UNTIL APPROVAL HAS BEEN GRANTED IN WRITING BY THE ENGINEER.
- PAYMENT FOR THE MAINTENANCE OF TRAFFIC ITEMS, UNLESS SPECIFIED SEPARATELY, SHALL BE AT THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC, WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS DETAILED IN THE PLANS



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NO	REVISION	DATE

BLOSSOM DRIVE STORM

CITY OF MENTOR

LAKE COUNTY, OHIO

SEWER REPLACEMENT

ISSUED FOR:	BID
ISSUE DATE:	10/28/2025
SCALE:	AS SHOWN
DESIGNED BY:	GMS
DRAWN BY:	TJM
CHECKED BY:	GMS

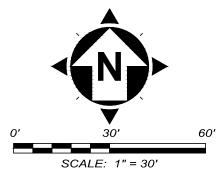
MAINTENANCE OF TRAFFIC

232146 DISCIPLINE CIVIL SHEET NAME **MOT-NOTES** 13

PROJECT NO.

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NOTES:

- 1. THIS PLAN HAS BEEN PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY BE SUBJECT TO EASEMENTS AND OTHER RESTRICTIONS, EITHER RECORDED OR UNRECORDED. THE SURVEYOR HAS MADE NO INVESTIGATION OR INDEPENDENT SEARCH FOR EASEMENTS, RECORD ENCUMBRANCES, RESTRICTIVE COVENANTS OR ANY OTHER FACTS THAT AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.
- 2. THESE PLANS MAY HAVE BEEN ALTERED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.
- 3. THE PROJECT CONTROL COORDINATE SYSTEM IS BASED UPON THE FOLLOWING: · HORIZONTAL DATUM PROJECT CONTROL COORDINATES FOR THIS PROJECT HAVE BEEN ESTABLISHED BY GPS/RTK OBSERVATIONS UTILIZING THE OHIO COORDINATE SYSTEM OF 1983 (ZONE 3401-OHIO NORTH). OHIO STATE PLANE GRID COORDINATE VALUES ARE EXPRESSED IN UNITS OF U.S. SURVEY FEET. · VERTICAL DATUM NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- 4. THE SURVEY AND STREET ALIGNMENTS SHOWN HEREON WERE OBSERVED IN THE FIELD FOR CONSTRUCTION PURPOSES ONLY AND MAY NOT BE SUITABLE FOR PROPERTY LINE SURVEYS OR OTHER PURPOSES. THE PROPERTY LINES SHOWN HEREON OUR SUBJECT TO AN ACCURATE BOUNDARY SURVEY AND ARE BASED ON FOUND MONUMENTS LOCATED IN THE FIELD BEST FIT TO THE RECORDS.
- 5. AN ALTA/ NSPS LAND TITLE SURVEY WAS NOT PERFORMED.6. EASEMENTS, RECORD RESTRICTIONS AND SETBACKS WERE NOT
- ADDRESSED DURING THIS SURVEY.
- 7. ALL DIMENSIONS GIVEN ARE EXPRESSED IN US SURVEY FEET.8. THE BENCHMARK ELEVATIONS SHOWN IN THE PROJECT CONTROL
- TABLE ARE AT THE TOP OF THE RED CAP OF THE IRON PIN SET.
- 9. IRON PINS SET ARE 5/8" IRON PINS SET WITH A RED CAP INSCRIBED WITH "CT REF"

LEGEND:

M CENTERLINE MONUMENT

I.PIN SET

I.PIN FOUND

I.PIPE FOUND

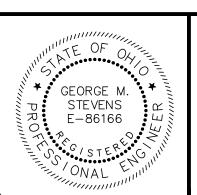
EX.RW — LIMITS OF PUBLIC R/W

— CENTERLINE PUBLIC R/W

— PARCEL LINES

— SUBDIVISION LINES

POINT TABLE					
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION	
1	731334.4658	2288413.6110	700.84	Iron Pin (Set)	
2	731353.2822	2288833.9820	701.51	Iron Pin (Set)	
7298	731390.4988	2288450.8924	700.65	Iron Pin (Fnd)	
7299	731391.9584	2288547.5742	700.57	Iron Pin (Fnd)	
7300	731392.7901	2288596.1915	700.81	Iron Pin (Fnd)	
7301	731332.8048	2288593.8865	700.84	Iron Pin (Fnd)	
7302	731334.3957	2288696.6023	700.78	Iron Pin (Fnd)	
7303	731282.1967	2288847.9834	702.09	Iron Pin (Fnd)	



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REVISION DATE

CITY OF MENTOR

BLOSSOM DRIVE STORM SEWER REPLACEMENT

LAKE COUNTY, OHIO

ISSUED FOR: BID

ISSUE DATE: 10/28/2025

SCALE: AS SHOWN

DESIGNED BY: GMS

DRAWN BY: TJM

CHECKED BY:

SURVEY CONTROL

PROJECT NO.			
232146			
DISCIPLINE			
CIVIL			
SHEET NAME			
CTRL			
SHEET OF			

SURVEY ARIAL TARGET BENCH MARK CHISLED "X" DRILL HOLE **GPS TARGET** MONUMENT BOX MONUMENT - CONCRETE MONUMENT - RIGHT-OF-WAY NAIL - MAG PIN - IRON PIN - IRON, 1" DIAMETER PIPE - IRON STAKE STONE - CORNER LAND HOOK GROUND

VEGETATION

GEOTECH - SOIL BORING

GEOTECH - TEST WELL

WATER, SWAMP

ROCK, LARGE

BUSH / SHRUB

GEOTECH - MONITORING WELL

TREE - DECIDUOUS

TREE - CONIFEROUS

STUMP

£33

UTILITIES - MISCELLANEOUS

EX:

PB MISCELLANEOUS PULL BOX

MISCELLANEOUS CLEAN OUT

MISCELLANEOUS MANHOLE

MISCELLANEOUS MANHOLE - LID ONLY

MISCELLANEOUS PAINT MARK

MISCELLANEOUS VALVE

UTILITIES - TRAFFIC

TRAFFIC CONTROL BOX

TRAFFIC PULL BOX

TRAFFIC MANHOLE

TRAFFIC MANHOLE - ADJUST

TRAFFIC MANHOLE - LID ONLY

TRAFFIC PAINT MARK

TRAFFIC SIGNAL - PEDESTRIAN

UTILITIES - POLE

POLE - BRACE

POLE - CABLE TV

POLE - CABLE TV / LIGHT

POLE - POWER / CABLE TV

POLE - POWER / LIGHT

POLE - POWER / TELEPHONE

POLE - POWER / TELEPHONE / CABLE TV

POLE - POWER / TELEPHONE / LIGHT

POLE - POWER / TELEPHONE / LIGHT

POLE - TELEPHONE / CABLE TV / LIGHT

POLE - TELEPHONE / CABLE TV / LIGHT

POLE - TELEPHONE / LIGHT

POLE - TELEPHONE / LIGHT

POLE - GENERAL

POLE - GENERAL

UTILITIES - SANITARY

SANITARY CAP / PLUG
SANITARY CLEAN-OUT
SANITARY MANHOLE
SANITARY MANHOLE - ADJUST / RECON
SANITARY MANHOLE - LID ONLY
SAN
SANITARY PAINT MARK
SANITARY SERVICE MARKER (END)

SANITARY STRUCTURE NUMBER

EX:

GAS LUMINAIRE - POST
GM GAS METER
GO GAS MANHOLE
GAS MANHOLE - ADJUST
GO GAS MANHOLE - LID ONLY
GO GAS MARKER POST
CO GAS PAINT MARK
GR GAS REGULATOR
O GAS SERVICE (END)
GO GAS VALVE
OF GAS VALVE
OF GAS VALVE - BOX
O GAS VENT

UTILITIES - STORM BULKHEAD, STORM PIPE CATCH BASIN - SQUARE CATCH BASIN - SQUARE - ADJUST CATCH BASIN - SQUARE - SIDE INLET CATCH BASIN - SQUARE - SIDE INLET - ADJ. CATCH BASIN - SQUARE - SOLID LID CATCH BASIN - SQUARE - SOLID LID - ADJ. CATCH BASIN - DOME **CATCH BASIN - ROUND** CURB INLET **CURB INLET - ADJUST** CURB INLET - DOUBLE **CURB INLET - DOUBLE - ADJUST** STORM CLEAN-OUT STORM DRAIN STORM MANHOLE STORM MANHOLE - ADJUST STORM MANHOLE - GRATE STORM MANHOLE - GRATE - ADJUST STORM MANHOLE -SIDE INLET STORM MANHOLE - LID ONLY STORM PAINT MARK STORM STRUCTURE NUMBER

EXISTING:

BOUNDARY LINE SUBDIVISION LINE RIGHT-OF-WAY - CENTERLINE RIGHT-OF-WAY RIGHT-OF-WAY - LA PROPERTY LINE PROPERTY LINE PROPERTY LEASE ANNEXATION LINE CORPORATION LINE COUNTY LINE FARM LOT LINE FLOOD ZONE LINE SECTION LINE STATE LINE TOWNSHIP LINE SETBACK LINE ----- SETBACK - STREAM PHASE LINE WETLAND LINE

VEGETATION

WALL - STONE

GUARDRAIL

HANDRAIL

GUARDRAIL - CABLE

0 0 0 0 0 0 0 0

...

BOUNDARIES

SAN — SANITARY LINE SANITARY LINE - ABANDONED SANITARY FORCE MAIN **UTILITES - GAS FEATURES** ----- GS ----- GS ----- GS ----- GS ----- GAS SERVICE FEATURES - GENERAL **UTILITES - TRAFFIC** X X X X X X X X X X FENCE - BARB WIRE FENCE - CHAIN LINK TRAFFIC LINE _____X____E___X___E___X___E_____ *FENCE - ELECTRIC* ------ --- TRAF-ABAN ---- TRAF-ABAN -----TRAFFIC LINE - OVERHEAD FENCE - WOOD TRAFFIC LINE - UNDERGROUND X X X X X X FENCE - WOVEN WIRE

EXISTING:

EXISTING:

UTILITES - CABLE TV: EXISTING: CATV CATV LINE — — CATV-ABAN — CATV-ABAN — CATV LINE - ABANDONED CATV LINE - OVERHEAD — CATV-UG — CATV-UG — CATV LINE - UNDERGROUND CATV LINE - UNDERGROUND

UTILITES - ELECTRIC

— ELEC-UG — ELEC-UG — ELEC-UG — ELECTRIC SERVICE - UNDERGROUND

UTILITES - WATER

UTILITES - SANITARY

— — ELEC-ABAN — — ELEC-ABAN — — ELEC-ABAN —

------ ELEC-OH ------- ELEC-OH -----

— — ELEC-OH — — ELEC-OH — — ELEC-OH —

— — WAT-ABAN — WAT-ABAN — WAT-ABAN —

— ELEC-UG ———— ELEC-UG ———

---- WAT ---- WAT --- WAT --- WATER LINE

ELECTRIC LINE - ABANDONED

ELECTRIC LINE - OVERHEAD

WATER DOUBLE LINE

WATER SERVICE

TRAFFIC LOOP

WATER LINE - ABANDONED

ELECTRIC LINE - UNDERGROUND

ELECTRIC SERVICE - OVERHEAD

UTILITES - FIBER OPTIC: EXISTING: FOC - FOC - FIBER OPTIC LINE - FOC-ABAN - FOC-ABAN - FOC-ABAN - FIBER OPTIC LINE - ABANDONED - FOC-OH - FOC-OH - FIBER OPTIC LINE - OVERHEAD - FOC-UG - FOC-UG - FIBER OPTIC LINE - UNDERGROUND

UTILITES - TELECOM					
EXISTING:					
TEL	— TEL ———	UTILITY LINE			
TEL-ABAN TEL-ABAN	TEL-ABAN	UTILITY LINE - ABANDONED			
TEL-OH	TEL-OH	UTILITY LINE - OVERHEAD			
TEL-UG	TEL-UG	UTILITY LINE - UNDERGROUND			

<u>UTILITES - MISCELLANEOUS</u>				
EXISTING:				
UTIL UTIL	UTILITY LINE			
—— UTIL-ABAN —— UTIL-ABAN —— UTIL-ABAN ——	UTILITY LINE - ABANDONED			
UTIL-OH UTIL-OH	UTILITY LINE - OVERHEAD			
UTIL-UG UTIL-UG	UTILITY LINE - UNDERGROUND			

UTILITIES - WATER

POLE - GUY ANCHOR

POLE - LIGHT - OVERHEAD

POLE - TELEPHONE

POLE - TRAFFIC

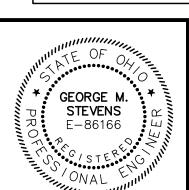
POLE - MISCELLANEOUS

POLE - LIGHT - DECORATIVE

POLE - LIGHT

EX: WATER CAP WATER PLUG FIRE DEPARTMENT CONNECTION FIRE DEPARTMENT CONNECTION - BLDG. FIRE HYDRANT BACTERIA SAMPLING POINT IRRIGATION CONTROL BOX IRRIGATION SPRINKLER WATER METER WATER METER PIT WATER MANHOLE WATER MANHOLE - ADJUST WATER MANHOLE - LID ONLY WATER PAINT MARK WATER REDUCER WATER SERVICE MARKER (END) WATER VALVE

WATER VALVE W/ TEXT



verdantas No REVISION DATE

CITY OF MENTOR

BLOSSOM DRIVE STORM SEWER REPLACEMENT

LAKE COUNTY, OHIO

ISSUED FOR:	BID	
ISSUE DATE:	10/28/2025	
SCALE:	AS SHOWN	
DESIGNED BY:	GMS	
DRAWN BY:	TJM	
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CHECKED BY:

LEGEND

PROJECT NO.

232146

DISCIPLINE

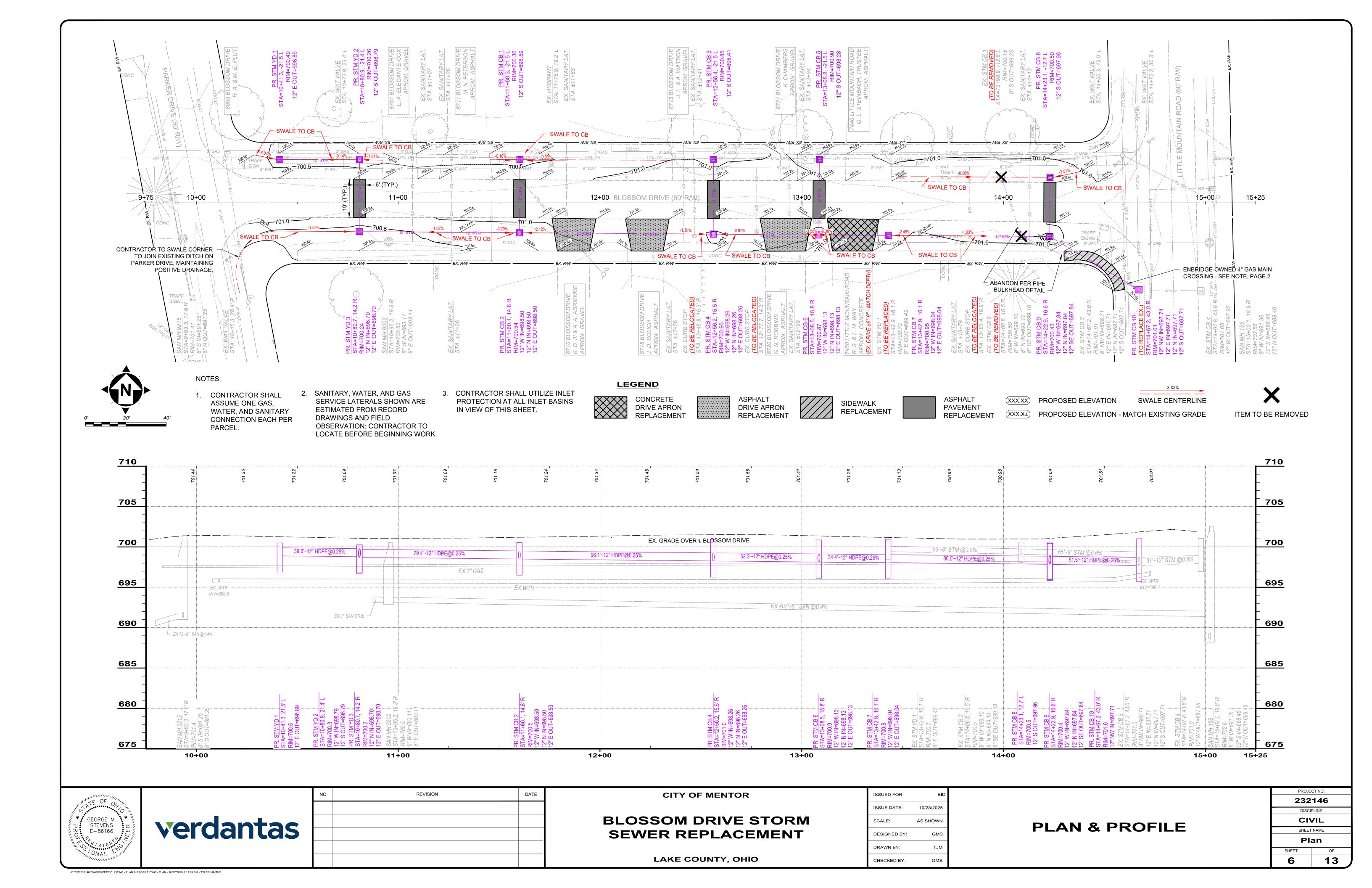
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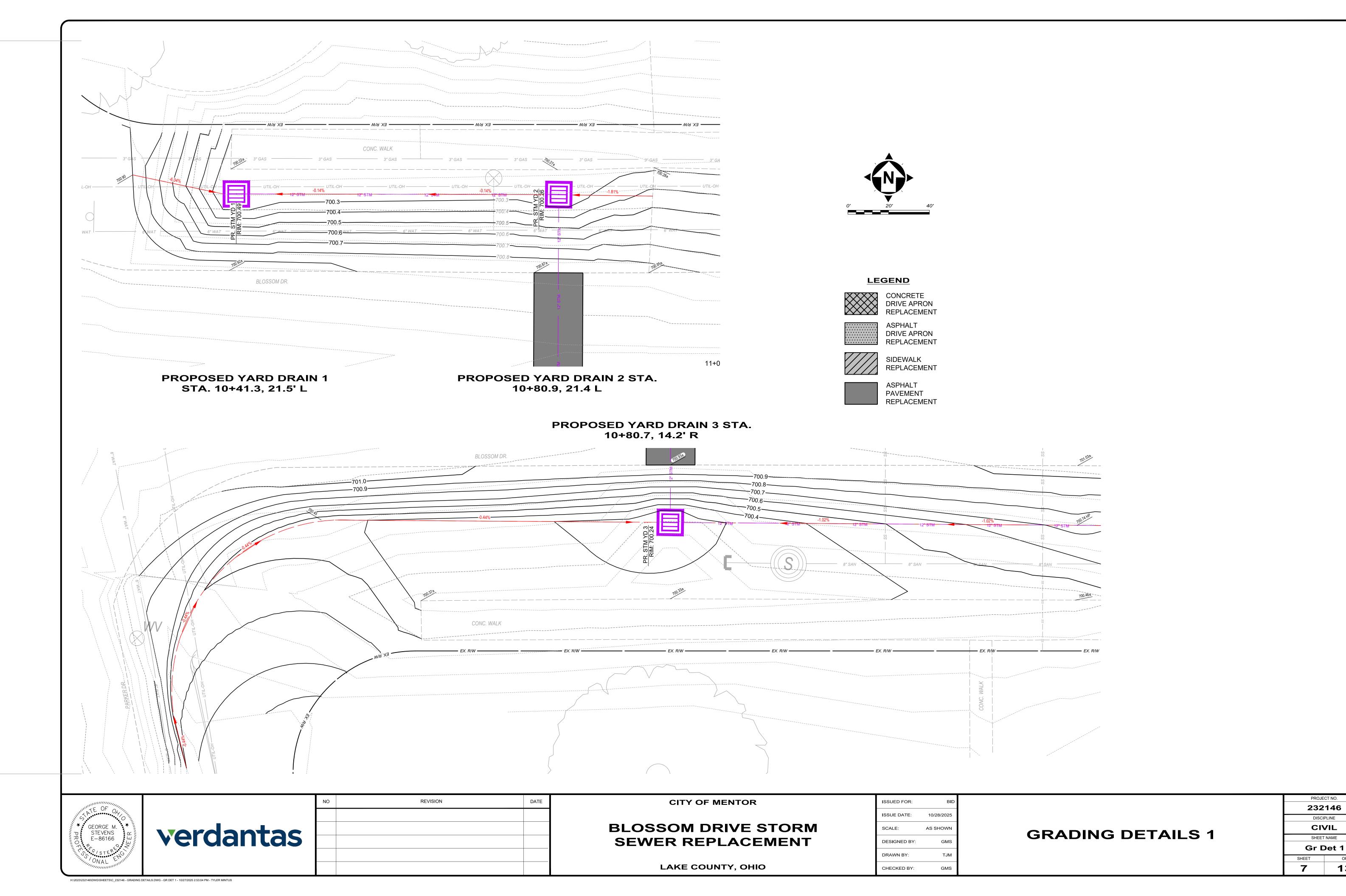
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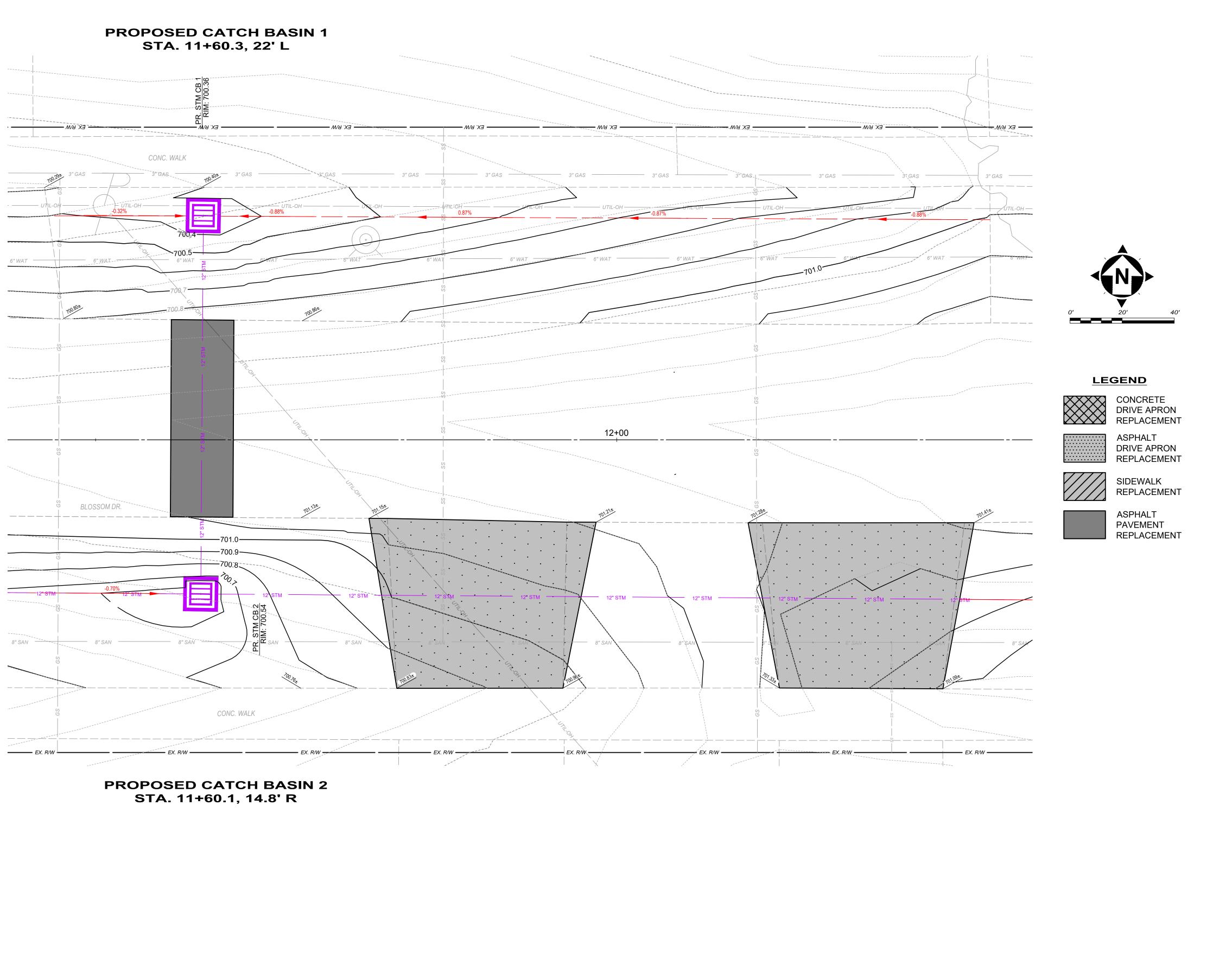
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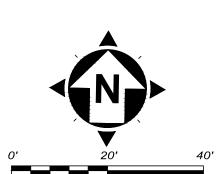






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WILLIAM OF OF					ISSUE DATE: 10/28/2025		232146 DISCIPLINE
GEORGE M. **				BLOSSOM DRIVE STORM	SCALE: AS SHOWN		CIVIL
*** STEVENS & **** **** **** **** **** **** ****	Verdantas			SEWER REPLACEMENT	DESIGNED BY: GMS	│ GRADING DETAILS 2	SHEET NAME
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PROPOSED CATCH BASIN 3 STA. 12+56.4, 21.5' L CONC. WALK 30' R/W) BLOSSOM DR. CONC. WALK **PROPOSED CATCH BASIN 4**



LEGEND



CONCRETE DRIVE APRON REPLACEMENT



ASPHALT DRIVE APRON REPLACEMENT

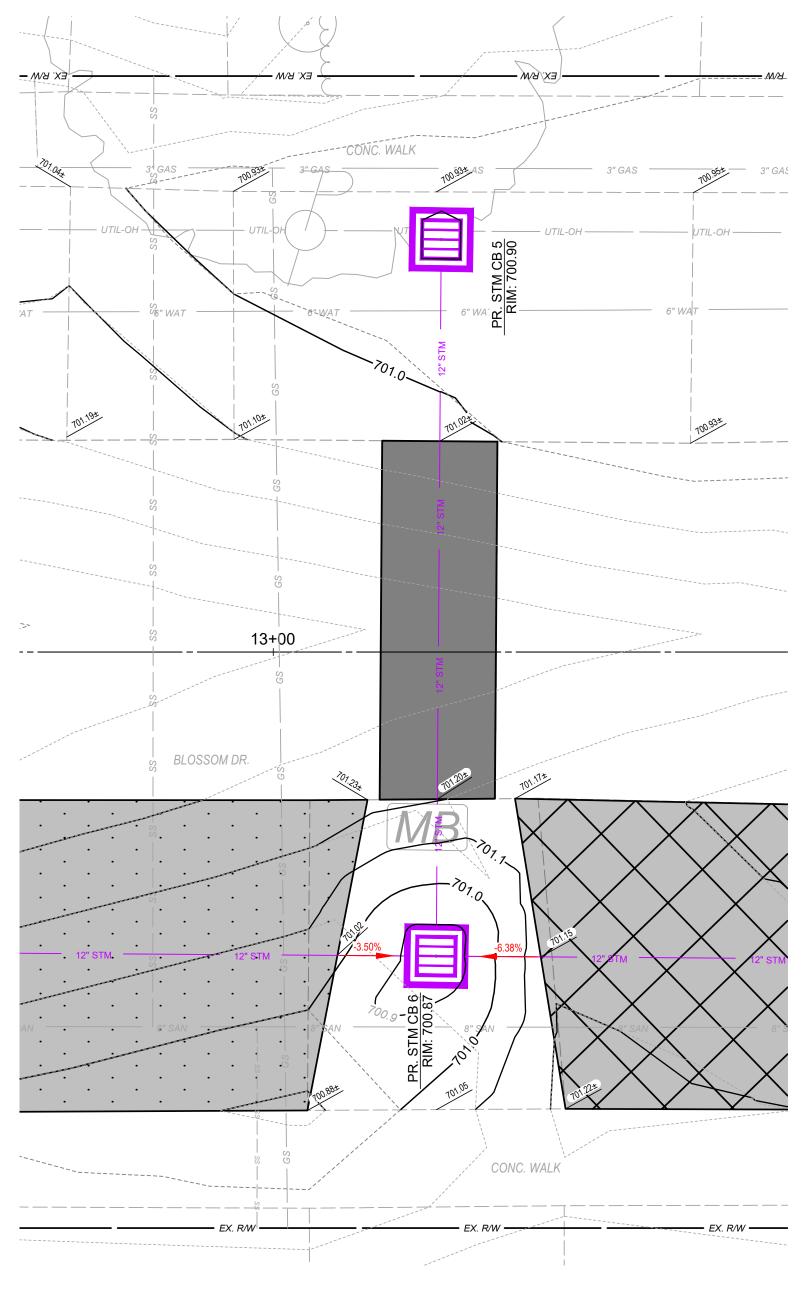


SIDEWALK REPLACEMENT

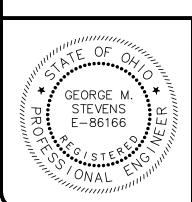


ASPHALT PAVEMENT REPLACEMENT

PROPOSED CATCH BASIN 5 STA. 13+08.8, 21.5' L



PROPOSED CATCH BASIN 6 STA. 13+08.5, 15.8' R



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STA. 12+56.2, 15.5' R

DATE

REVISION

DATE

CITY OF MENTOR

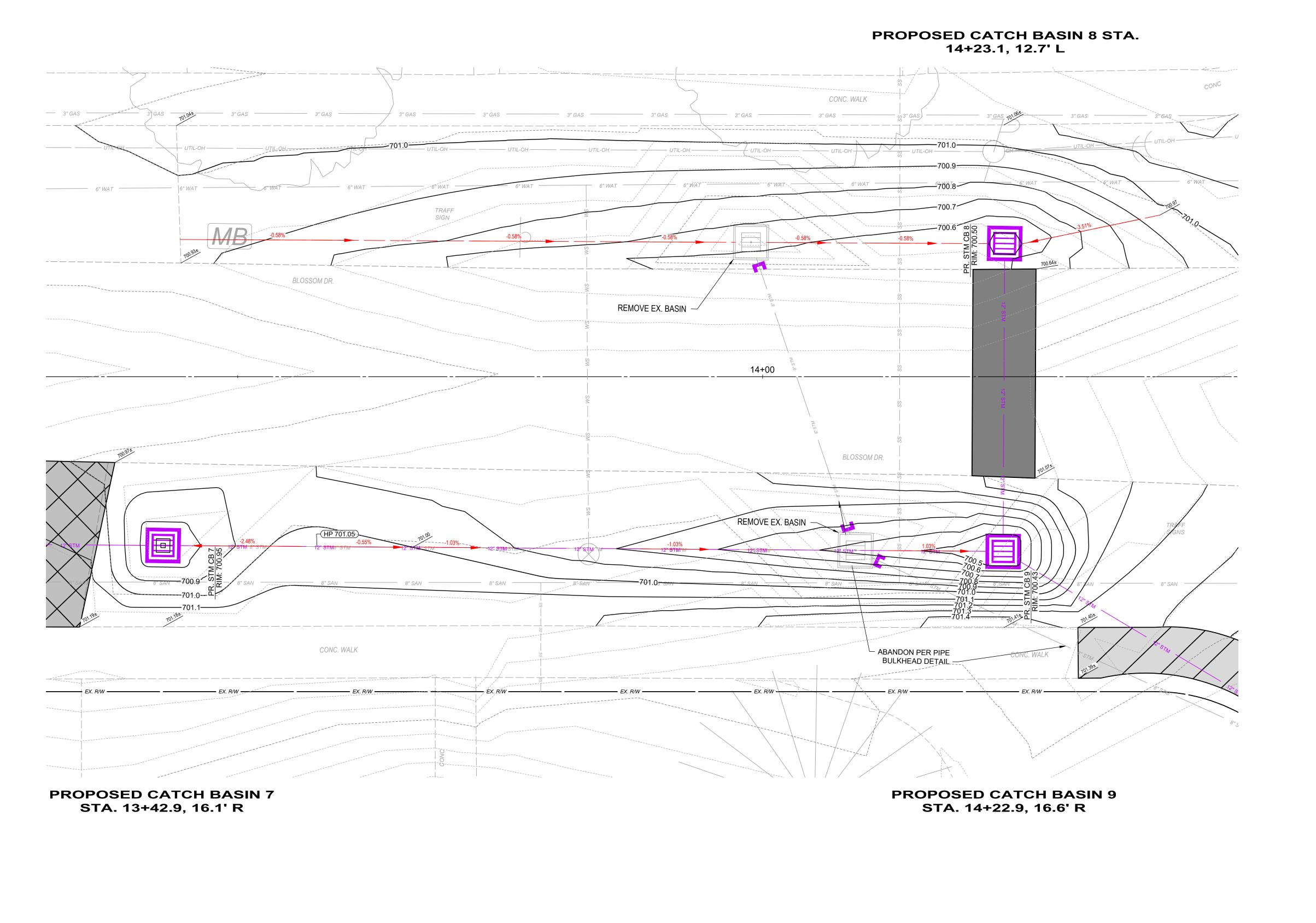
BLOSSOM DRIVE STORM SEWER REPLACEMENT

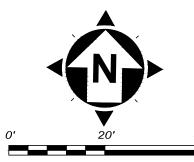
LAKE COUNTY, OHIO

ISSUED FOR:	BID
ISSUE DATE:	10/28/2025
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DESIGNED BY:	GMS
DRAWN BY:	ТЈМ
CHECKED BY:	GMS

GRADING DETAILS 3

PROJECT NO.			
232146			
DISCIPLINE			
CIVIL			
SHEET NAME			
Gr Det 3			
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LEGEND





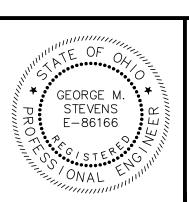
DRIVE APRON REPLACEMENT



REPLACEMENT



PAVEMENT REPLACEMENT



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verdantas

REVISION

CITY OF MENTOR

BLOSSOM DRIVE STORM SEWER REPLACEMENT

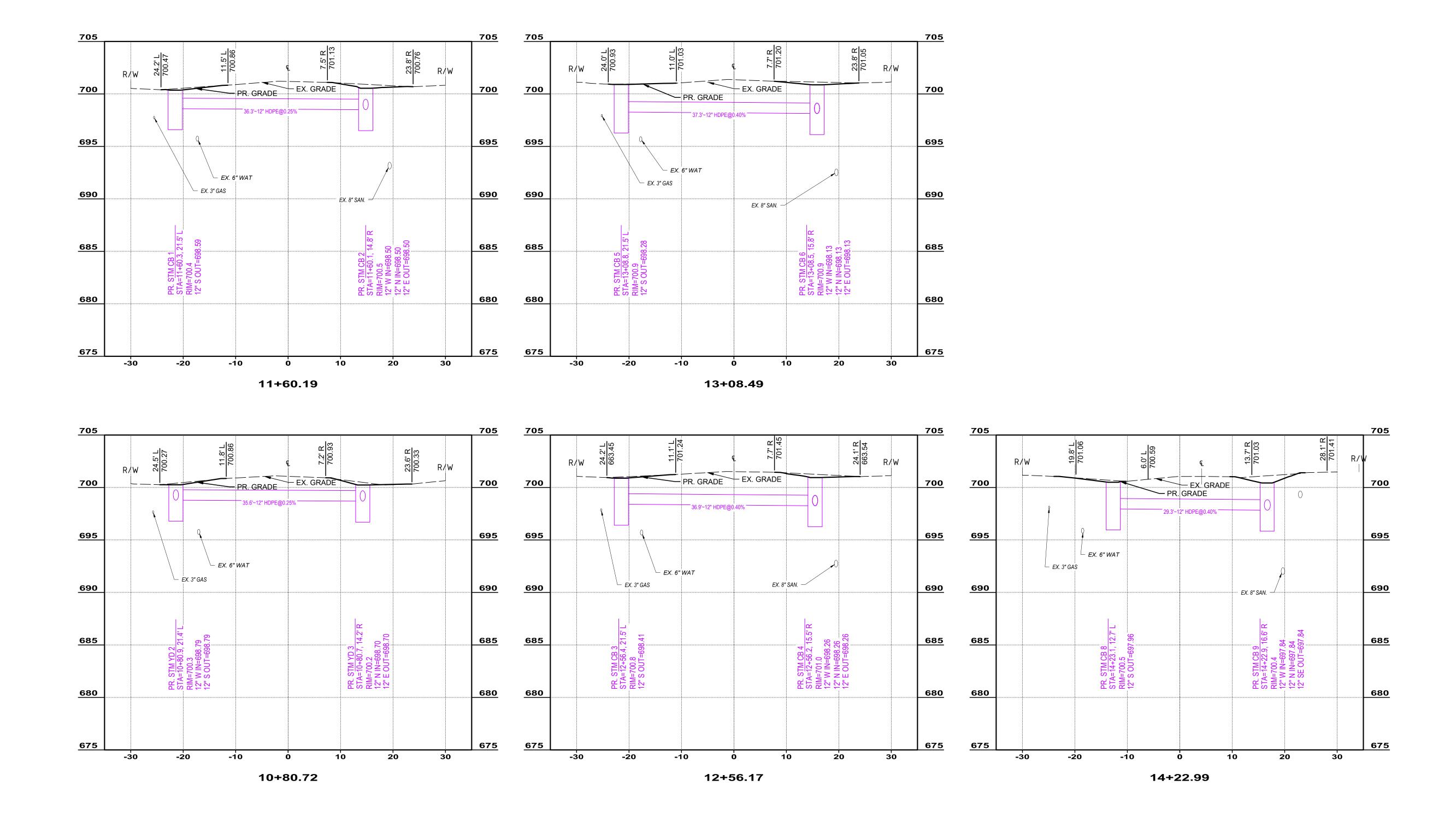
SCALE: DESIGNED BY: DRAWN BY: LAKE COUNTY, OHIO CHECKED BY:

ISSUED FOR:

ISSUE DATE:

GRADING DETAILS 4

PROJECT NO. 232146		
CIVIL		
SHEET NAME Gr Det 4		
SHEET OF		
10	13	





	NO	REVISION	DATE
lantac			
lantas			

CITY OF MENTOR

BLOSSOM SEWER F

SOM DRIVE STORM	SCALE:	AS SHOWN
ER REPLACEMENT	DESIGNED BY:	GMS
	DRAWN BY:	TJM
LAKE COUNTY, OHIO	CHECKED BY:	GMS

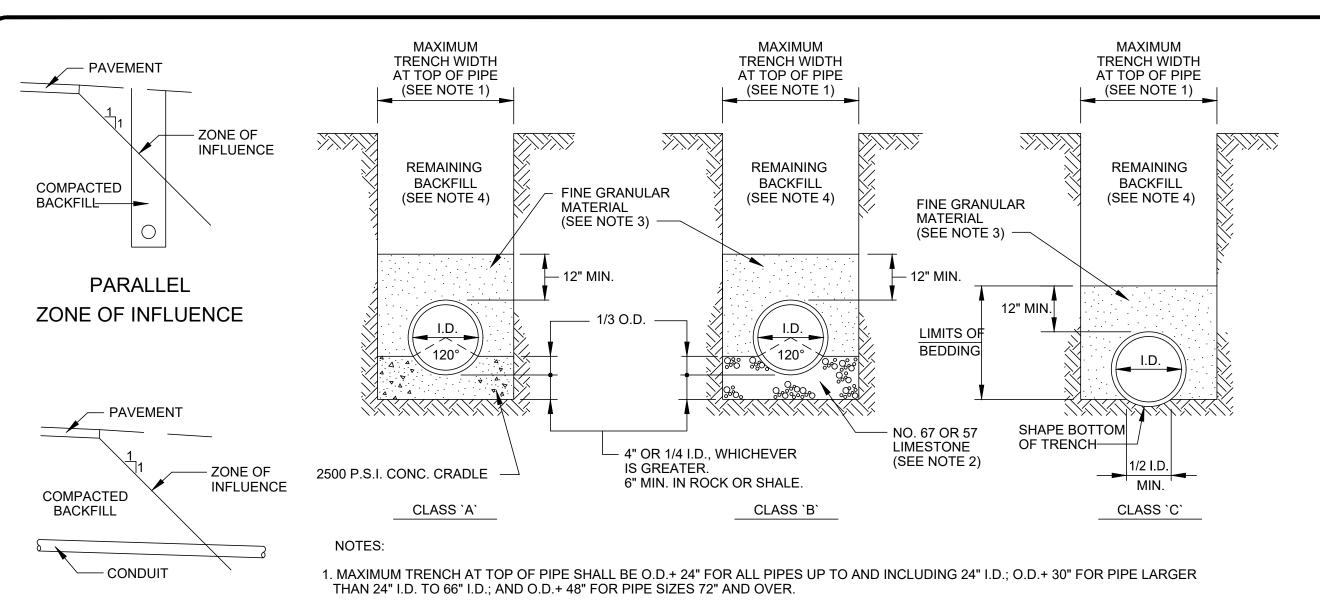
ISSUED FOR:

ISSUE DATE:

10/28/2025

PROPOSED SECTIONS

	PROJECT NO.		
	232146 DISCIPLINE		
	CIVIL		
	PRSEC		
SHEET	SHEET OF		
11	13		



TYPE W PAVEMENT REPLACEMENT

MAX. PAY LIMIT

PIPE O.D. + 6' FOR PIPE ≤ 24" I.D. OR

PIPE O.D. + 6'-6" FOR PIPE > 24" I.D.

EXIST. PAV'T.

*1 1/2" FS CONCRETE OVER VISQUEEN

*REMOVE AND REPLACE WITH ODOT 407

TACK COAT AND 448 TYPE 1 SURFACE

1) EXISTING SUBBASE MATERIAL (IF ANY) SHALL

BE REPLACED, AS DIRECTED BY ENGINEER.

3) 5/8"Ø HOOKBOLT @ 30" O.C. MAY BE REQUIRED

2) REPLACEMENT SHALL BE REINFORCED AS

PER O.D.O.T. ITEM 709.10 OR 709.12 IF

EXISTING PAVEMENT IS REINFORCED.

AS DIRECTED BY THE ENGINEER.

2'-0" SQ.

0

2'X2" CATCH BASIN

PROFILE

- FLEXIBLE

INVERT

CONNECTION

COURSE WHEN AVAILABLE

O.D.O.T. 407 TACK COAT APPLIED @

O.D.O.T. ITEM 305

0.15 GAL. /SQ. Y.D.

BITUMINOUS SEALER O.D.O.T.

ITEM 702.01, 702.02 OR 702.04

"T" = 7 1/2" MIN. FOR ROADWAY

"T" BE LESS THAN EXISTING.

IN NO CASE SHALL THE THICKNESS

OF THE ASPHALT OVERLAY AND/OR

SEE TRENCH AND BEDDING DETAILS

(TYP. EACH SIDE)

//////////

11111111

4. REMAINING BACKFILL UNDER PAVEMENT AND STRUCTURES OR WITHIN A 1:1 ZONE OF INFLUENCE PARALLEL OR TRANSVERSE TO PAVEMENT AND STRUCTURES SHALL BE O.D.O.T. ITEM 304 LIMESTONE TO TOP OF TRENCH. IN AREAS OUTSIDE THE ZONE OFINFLUENCE, SELECT ON SITE MATERIAL APPROVED BY THE ENGINEER MAY BE USED. ALL TRENCH BACKFILL SHALL BE TAMPED IN 4" LIFTS COMPACTED TO 98% OF STANDARD PROCTOR DENSITY.

SHALL BE NO. 67 OR NO. 57 LIMESTONE TO 12" ABOVE TOP OF PIPE. IN AREAS OUTSIDE THE ZONE OF INFLUENCE, SELECT FRIABLE ON

3. BACKFILL UNDER PAVEMENT AND STRUCTURES OR WITHIN A 1:1 ZONE OF INFLUENCE PARALLEL OR TRANSVERSE TO PAVEMENT OR STRUCTURES

5. ALL BEDDING SHALL BE CLASS 'B' UNLESS OTHERWISE NOTED ON THE PLANS OR AUTHORIZED BY THE ENGINEER. CLASS 'A' BEDDING SHALL BE USED FOR ALL RCP, POLYETHYLENE PLASTIC AND VCP PIPE UNDER PAVED AREAS WITH LESS THAN 18" COVER TO PAVEMENT SUBGRADE.

SITE MATERIAL APPROVED BY THE ENGINNER MAY BE USED FOR REINFORCED CONCRETE PIPE AND DUCTILE IRON PIPE.

NO. 57 STONE SHALL BE USED FOR VITRIFIED CLAY PIPE AND POLYETHYLENE PLASTIC PIPE. ALL PIPE BACKFILL SHALL BE

6. WATERLINE BEDDING SHALL BE CLASS 'C'.

<u>—</u> 4" МІN.

\\|\|\| **LAWN** \\\|\|\\\\\\\\\\\

2. PIPE BEDDING SHALL BE NO. 67 OR NO. 57 LIMESTONE.

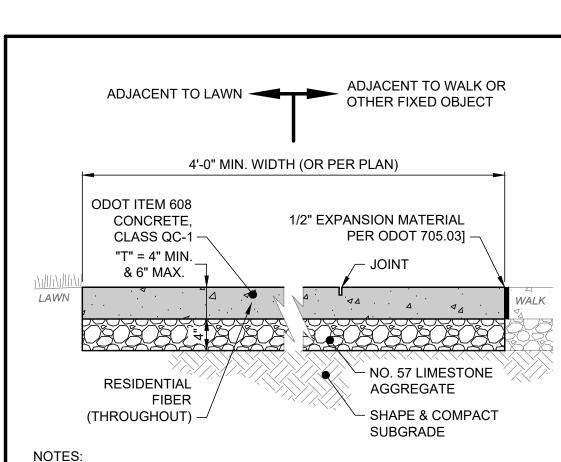
TAMPED IN 4" LIFTS COMPACTED TO 98% OF STANDARD PROCTOR DENSITY.

7. SLAG SHALL NOT BE USED.

8. CLAY DAMS SHALL BE REQUIRED WHEN AND WHERE NECESSARY PER PLAN OR AS DIRECTED BY THE ENGINEER.

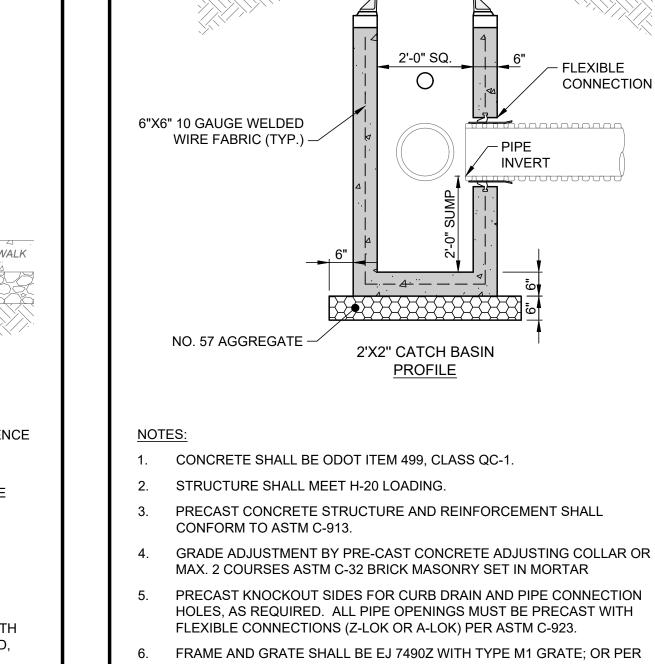
TRENCH & BEDDING DETAILS (CITY OF MENTOR)

FRAME AND GRATE



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

CONCRETE WALK DETAIL SCALE: NONE



CONCRETE SHALL BE ODOT ITEM 499, CLASS QC-1.

- STRUCTURE SHALL MEET H-20 LOADING.
- PRECAST CONCRETE STRUCTURE AND REINFORCEMENT SHALL CONFORM TO ASTM C-913.
- MAX. 2 COURSES ASTM C-32 BRICK MASONRY SET IN MORTAR PRECAST KNOCKOUT SIDES FOR CURB DRAIN AND PIPE CONNECTION HOLES, AS REQUIRED. ALL PIPE OPENINGS MUST BE PRECAST WITH
- FRAME AND GRATE SHALL BE EJ 7490Z WITH TYPE M1 GRATE; OR PER
- GRATE MUST INCLUDE LETTERING "DUMP NO WASTE" AND FISH IMAGE
- THIS DETAIL IS FOR REFERENCE AND DIMENSION CONTROL ONLY; SEE UTILITY PLAN FOR ACTUAL PIPE SIZES AND ELEVATIONS.

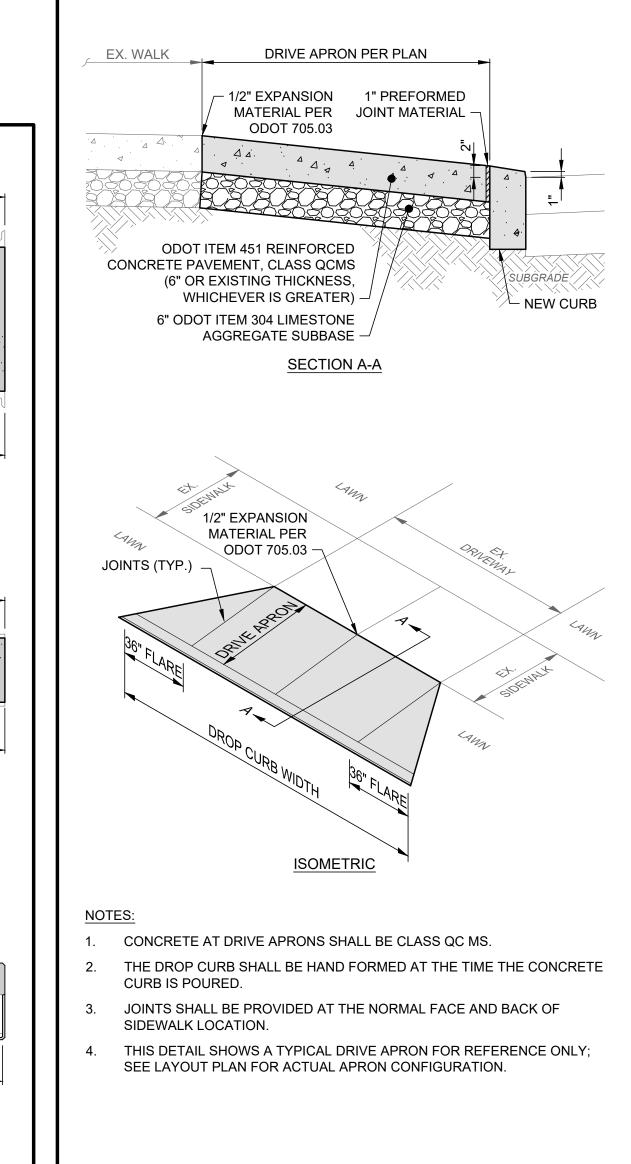
PRECAST CONCRETE 2'X2' **CATCH INLET BASIN DETAIL** SCALE: NONE

EX. PIPE TO BRICK W/ GROUT MORTAR ABANDON IN-PLACE -GROUT Januar and a second sec FILL ENTIRE PIPE W/ FLOWABLE GROUT PLUG 18" DIA. PIPE & LARGER EX. PIPE TO 18" MIN. MORTAR ABANDON IN-PLACE FILL ENTIRE PIPE W/ FLOWABLE GROUT PLUG 15" DIA. PIPE & SMALLER (OPTION #2) WATERTIGHT CAP (FERNCO QWIK EX. PIPE TO CAP SERIES) -ABANDON IN-PLACE FILL ENTIRE PIPE W/ FLOWABLE GROUT 15" DIA. PIPE & SMALLER (OPTION #1) PIPE BULKHEAD DETAIL SCALE: NONE

O.D. -2000 P.S.I. CONCRETE - CONCRETE PADS SHALL BE USED WHERE EVER THERE IS LESS THAN 18" OF CLEARANCE BETWEEN OUTSIDE OF PIPE. 2000 P.S.I. CONCRETE MIN.

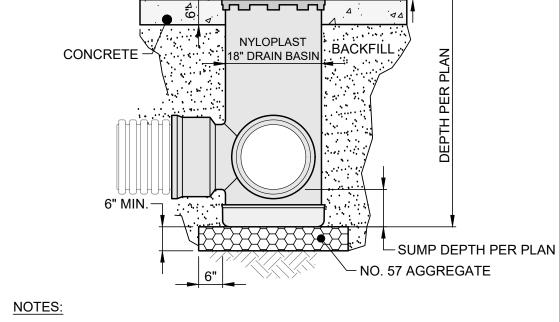
UNLESS OTHERWISE DIRECTED BY THE ENGINEER, WHERE TWO PIPES (SEWER & WATER CROSS EACH OTHER, A CONCRETE PAD AND CRADLE SEPERATOR SHALL BE PLACED BETWEEN THEM AS INDICATED ABOVE. WHERE PERMISSION IS GRANTED TO OMIT THE CONCRETE PADS, GRANULAR BACKFILL SHALL BE TAMPED IN 6" LAYERS AROUND BOTH PIPES. SUCH TAMPED BACKFILL SHALL BE CONTINUOUS FROM THE CRADLE OF THE LOWER PIPE TO THE TOP OF THE UPPER PIPE AND AT THE BOTTOM SHALL EXTEND IN BOTH DIRECTIONS, FOR THE FULL WIDTH OF THE TRENCH.

PIPE CROSSING DETAIL



CONCRETE DRIVE APRON DETAIL

SCALE: NONE



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GEORGE M

STEVENS

E-86166

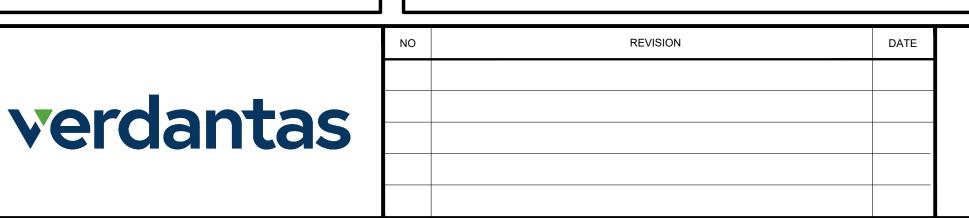
- CONCRETE SHALL BE ODOT ITEM 499, CLASS QC-1.
- GRATE SHALL BE NYLOPLAST 1899CGD DOME

TRANSVERSE

ZONE OF INFLUENCE

USE APPROPRIATE PIPE ADAPTER FOR TYPE OF PIPE MATERIAL USED FOR WATER TIGHT CONNECTION.

> YARD DRAIN DETAIL SCALE: NONE



CITY OF MENTOR

BLOSSOM DRIVE STORM SEWER REPLACEMENT

LAKE COUNTY, OHIO

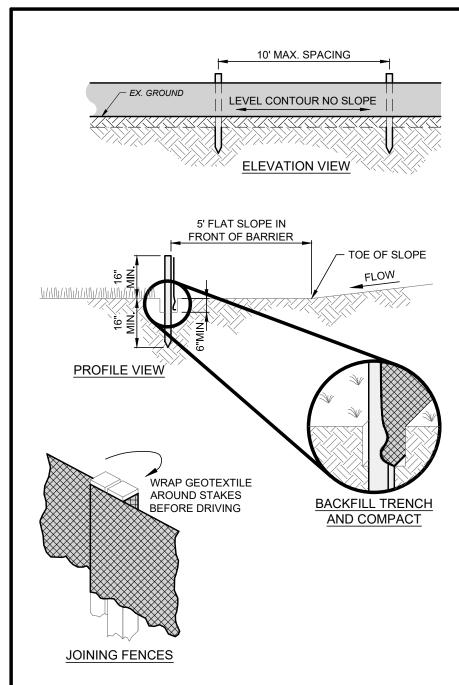
ISSUED FOR:	BID
ISSUE DATE:	10/28/2025
SCALE:	AS SHOWN
DESIGNED BY:	GMS
DRAWN BY:	TJM

CHECKED BY:

DETAILS

PROJECT NO. 232146 DISCIPLINE CIVIL SHEET NAME DET-1 13 **12**

H:\2023\232146\DWG\SHEETS\C_232146 - DETAILS.DWG - DET-1 - 10/27/2025 3:02:44 PM - TYLER MINTUS



NOTES:

- PRESERVE VEGETATION FOR 5 FEET OR AS MUCH AS POSSIBLE UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE RE-ESTABLISHED WITHIN 7 DAYS FROM SILT FENCE INSTALLATION.
- 2. SILT FENCE MAY ONLY PASS RUNOFF AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, THEN CHANGE THE LAYOUT OF THE SILT FENCE, REMOVE ACCUMULATED SEDIMENT OR INSTALL OTHER PRACTICES.
- 3. SILT FENCE SHALL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, VERIFICATION FABRIC IS SECURELY ATTACHED TO FENCE POSTS, AND VERIFICATION FENCE POSTS ARE FIRMLY IN THE GROUND. BUILT UP SEDIMENT SHALL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED 1/3 THE FENCE HEIGHT.
- 4. THE MAXIMUM DRAINAGE AREA PER 100 FEET OF SILT FENCE IS 1/2 ACRE AND IS DEPENDENT ON THE SLOPE PER THE CHART BELOW:

	MAX. DRAINAGE AREA (AC.) PER 100-FT OF SILT FENCE (*)	RANGE OF SLOPE PER INDIVIDUAL DRAINAGE AREA			
0.50 AC.		<2% (50H:1V)			
	0.25 AC.	≥2% (50H:1V) BUT <20% (5H:1V)			
	0.125 AC.	≥20% (5H:1V) BUT <50% (2H:1V)			
	(*) SILT FENCE CANNOT BE USED FOR SLOPES >50% (2H:1V).				

SILT FENCE DETAIL

SCALE: NONE

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

TEMPORARY SEEDING SPECIES SELECTION				
DATES	SPECIES	LB/1,000 SF	LB/AC.	
MARCH 1 - AUGUST 15	OATS TALL FESCUE PERENNIAL RYEGRASS	3 1 1	128 40 40	
	PERENNIAL RYEGRASS TALL FESCUE	2 1	40 40	
AUGUST 16 - OCTOBER 31	RYE TALL FESCUE PERENNIAL RYEGRASS	3 1 1	112 40 40	
	WHEAT TALL FESCUE PERENNIAL RYEGRASS	3 1 1	120 40 40	
	PERENNIAL RYEGRASS TALL FESCUE	2 1	40 40	
NOVEMBER 1 - FEBRUARY 28	ONLY MULCH OR DORMANT SEEDING.			

TEMPORARY SEEDING NOTES

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

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

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

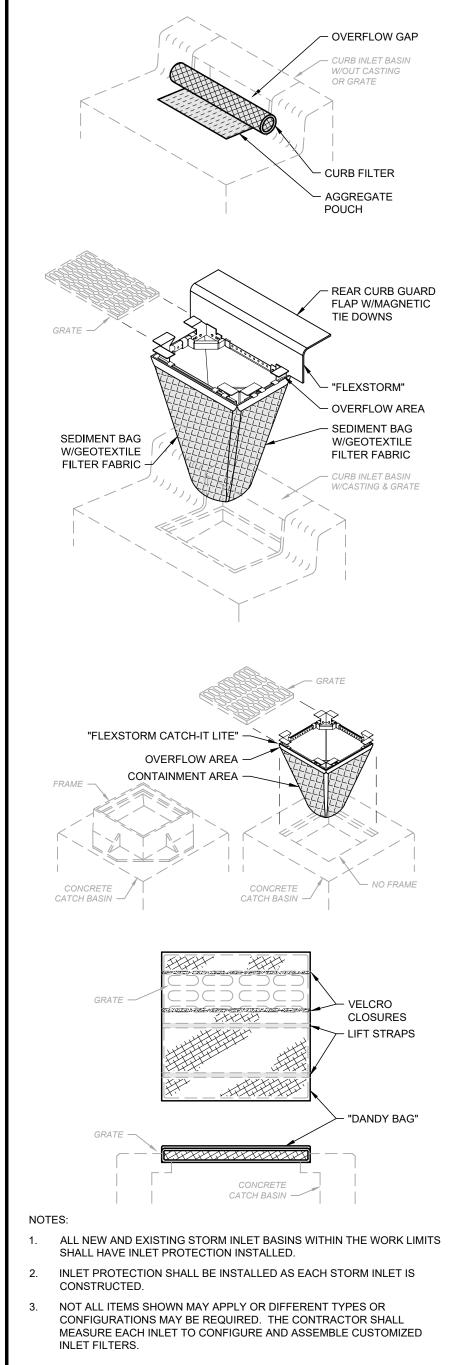
PERMANENT SEEDING NOTES

- MULCH SHALL CONSIST OF ONE OF THE FOLLOWING:
- A. UNROTTED SMALL GRAIN STRAW SPREAD UNIFORMLY AT 2 TONS/AC. (2 TO 3 BALES).
 B. WOOD-CELLULOSE FIBER (I.E. HYDROSEEDING) APPLIED AT 1
- C. ROLLED EROSION CONTROL PRODUCT OR MULCH MATTING
- APPLIED PER MANUFACTURER RECOMMENDATION.

 D. WOOD MULCH OR CHIPS APPLIED AT 6 TONS/AC.
- 2. MULCH SHALL BE ANCHORED IMMEDIATELY BY ONE OF THE
- A. PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL USING
- A DISK, CRIMPER OR SIMILAR TOOL.

 B. NETTING PER MANUFACTURER RECOMMENDATION IN
- CONCENTRATED RUNOFF AREAS OR CRITICAL SLOPES.
- SYNTHETIC BINDERS AT MANUFACTURER RATE.
- D. WOOD-CELLULOSE FIBER BINDER AT A NET DRY WEIGHT OF 750 LB/AC., MIXED WITH WATER, AND CONTAIN 50 LB/100 GAL. MAX. OF WOOD CELLULOSE FIBER.

MULCHING NOTES



INLET PROTECTION DETAIL

SUSPENSION -

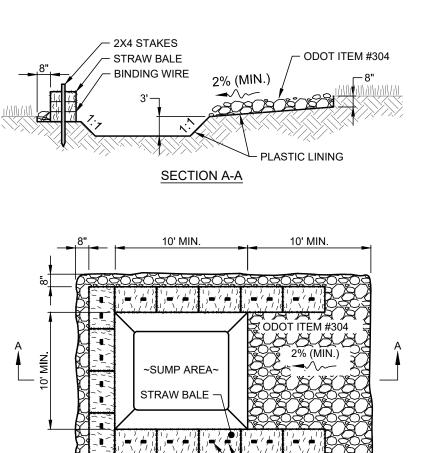
SYSTEM

- SEDIMENT BAG -

W/FILTER FABRIC

"NYLOPLAST" BASIN

ROUND CONCRETE BASIN

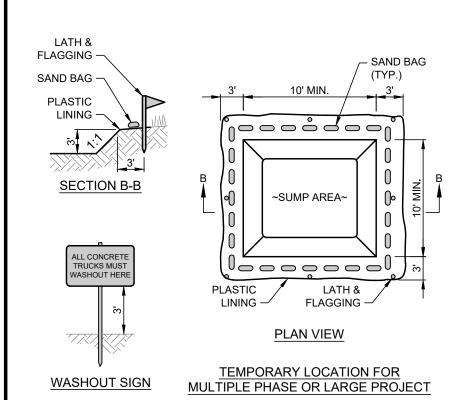


SINGLE LOCATION FOR SMALL PROJECT

PLAN VIEW

2X4 STAKES (2 PER BALE)

PLASTIC LINING -



NOTES:

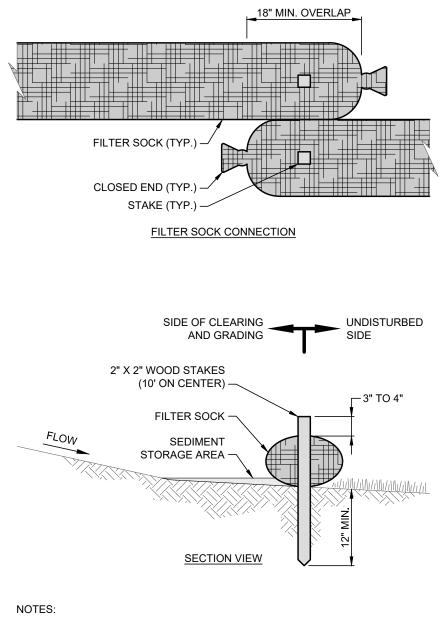
- CONCRETE WASHOUT AREA SHALL BE LOCATED A MINIMUM OF 100' FROM STORM SEWER INLETS, STREAMS, WETLANDS OR ANY OTHER SURFACE WATERS OF THE STATE.
- 2. IF CONCRETE WASHOUT AREA IS LOCATED AWAY FROM A PAVED SURFACE, CONSTRUCT A GRAVEL ACCESS ROUTE EQUAL IN COMPOSITION TO A CONSTRUCTION ENTRANCE.
- 3. CONCRETE WASHOUT AREA SHALL BE SUFFICIENT SIZE TO CONTAIN CONCRETE WASTE GENERATED. LARGE SITES MAY REQUIRE MULTIPLE CONCRETE WASHOUT AREAS.
- 4. PLASTIC LINING SHALL BE DOUBLE-LINED, CONTINUOUS 10-ML POLYETHYLENE SHEETING FREE OF HOLES, TEARS OR OTHER DEFECTS INSTALLED ON A SMOOTH, LEVEL SURFACE, FREE OF LARGE ROCKS AND DEBRIS.
- 5. CONCRETE WASHOUT SIGNAGE SHALL BE CLEARLY VISIBLE AND LOCATED WITHIN 30 FEET OF EACH WASHOUT AREA.
- 6. CONCRETE WASHOUT AREA SHALL BE COVERED DURING INCLEMENT
- 7. PREFABRICATED, PORTABLE AND RE-USABLE CONCRETE WASHOUT

CONTAINERS ARE ACCEPTABLE

8. CONCRETE WASHOUT AREA SHALL BE INSPECTED DAILY TO CHECK FOR DAMAGE AND DETERMINE IF IT NEEDS CLEANED OR REPLACED. ANY DAMAGE TO THE SIDEWALLS OR PLASTIC LINING SHALL BE REPAIRED IMMEDIATELY. REPLACE THE ENTIRE CONCRETE WASHOUT AREA WHEN IT IS 75% FULL.

CONCRETE WASHOUT DETAIL

SCALE: NONE



- 1. FILTER SOCKS SHALL BE CONTINUOUS, TUBULAR, HDPE KNITTED MESH NETTING MATERIAL, FILLED WITH COMPOST.
- 2. COMPOST SHALL BE WEED, PATHOGEN AND INSECT FREE, FREE OF REFUSE, CONTAMINANTS OR MATERIALS TOXIC TO PLANT GROWTH, BE DERIVED FROM A WELL-DECOMPOSED SOURCE OF ORGANIC MATTER, AND CONSIST OF PARTICLES RANGING FROM 3/8" TO 2".
- FILTER SOCKS SHALL BE PLACED ON A LEVEL LINE ACROSS SLOPES
 PARALLEL TO THE BASE OF THE SLOPE. ON SLOPES APPROACHING 2:1,
 ADDITIONAL SOCKS SHALL BE PROVIDED AT THE TOP AND MID-SLOPE.
 THE FLAT DIMENSION OF THE SOCK SHALL BE AT LEAST 1.5 TIMES THE
- NOMINAL DIAMETER.

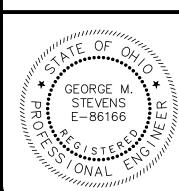
 FILTER SOCKS SHALL BE PLACED AT LEAST 5' FROM THE TOE OF SLOPE FOR SEDIMENT DEPOSIT.
- 6. TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
- 7. BUILT UP SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED 1/3 THE FILTER SOCK HEIGHT.
- 8. BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6
 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE
 SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S
 RECOMMENDATIONS.
- WHEN A FILTER SOCK IS NO LONGER REQUIRED, IT SHALL BE DISPERSED ON-SITE.
- 10. THE MAXIMUM DRAINAGE AREA PER 100 FEET OF FILTER SOCK IS 1/2 ACRE AND IS DEPENDENT ON THE SLOPE PER THE CHARTS BELOW:

MAX. DRAINAGE AREA (AC.) PER 100-FT OF FILTER SOCK (*)	RANGE OF SLOPE PER INDIVIDUAL DRAINAGE AREA	
0.50 AC.	<2% (50H:1V)	
0.25 AC.	≥2% (50H:1V) BUT <20% (5H:1V)	
0.125 AC.	≥20% (5H:1V) BUT <50% (2H:1V)	

(*) FILTER SOCK CANNOT BE USED FOR SLOPES >50% (2H:1V).

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

FILTER SOCK DETAIL
SCALE: NONE



verdantas

O REVISION DATE

CITY OF MENTOR

BLOSSOM DRIVE STORM SEWER REPLACEMENT

LAKE COUNTY, OHIO

ISSUED FOR:	B I D
ISSUE DATE:	10/28/2025
SCALE:	AS SHOWN
DESIGNED BY:	GMS
DRAWN BY:	TJM
CHECKED BY:	GMS

EROSION & SEDIMENT CONTROL DETAILS

PROJECT NO.

232146

DISCIPLINE

CIVIL

SHEET NAME

SWP3

SHEET OF

13 13