

# THE CITY OF EASTLAKE E. 347<sup>TH</sup> STREET PAVEMENT RECONSTRUCTION

## OWPC PROJECT LAKE COUNTY, OHIO

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MARCH, 2024



### OFFICIALS

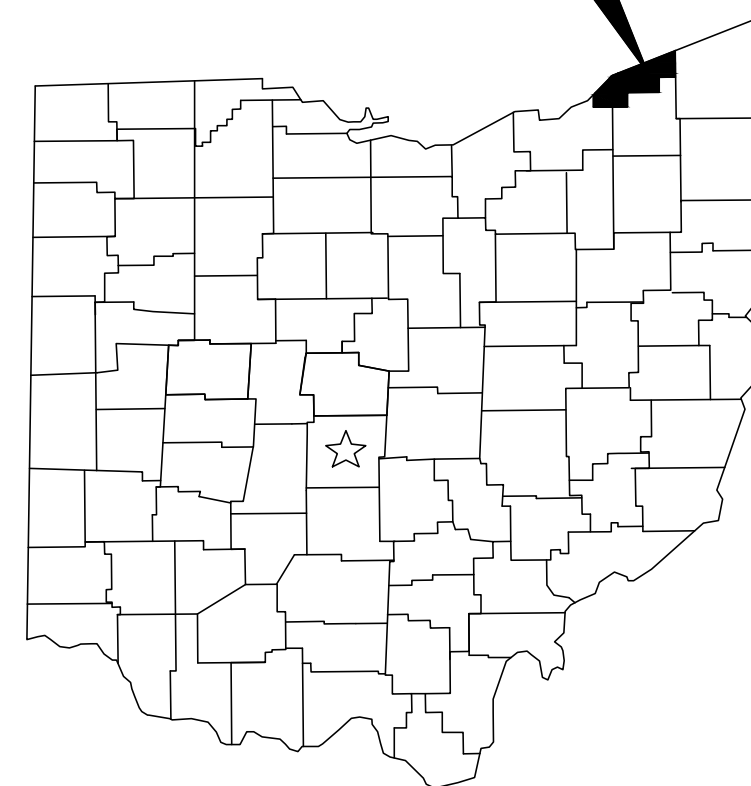
DAVID SPOTTON.....MAYOR  
 KEVIN KOSTELNIK.....SERVICE DIRECTOR  
 JOSEPH R. KLAMMER.....LAW DIRECTOR  
 CAROL-ANN SCHINDEL.....FINANCE DIRECTOR  
 THOMAS B. GWYDIR, P.E.....CITY ENGINEER

### MEMBERS OF COUNCIL

JIM OVERSTREET.....PRESIDENT, WARD 1  
 JOHN MEYERS.....WARD 2  
 JASON KASUNICK.....WARD 3  
 DANYIELLE KOSTELNIK.....WARD 4  
 MIKE SEMICK.....AT LARGE  
 ANGELA SCHMIDT.....AT LARGE  
 CHRIS KRAJNYAK.....AT LARGE  
 ALYSSA MORAN.....CLERK



LAKE COUNTY



**UNDERGROUND UTILITIES**  
 CONTACT BOTH SERVICES  
 CALL TWO WORKING DAYS  
**BEFORE YOU DIG**

CALL  
 1-800-362-2764  
 (TOLL FREE)

OHIO UTILITIES PROTECTION SERVICE  
 NON-MEMBERS  
 MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS PROTECTIVE  
 SERVICE CALL: 1-800-925-0988

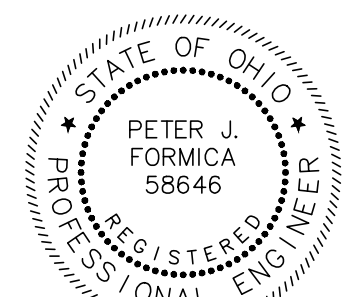
1. THE SURVEY SHOWN ON THESE PLANS WAS OBSERVED IN THE FIELD FOR CONSTRUCTION PURPOSES ONLY AND MAY NOT BE SUITABLE FOR PROPERTY LINE SURVEYS OR ANY OTHER PURPOSE.
2. UNDERGROUND BUILDING SERVICE UTILITY LINES ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, MAINTAINING AND REPLACING AS NECESSARY TO ENSURE CONTINUAL SERVICE TO BUILDINGS.
3. THE CONTRACTOR IS RESPONSIBLE TO CALL OHIO UTILITIES PROTECTION SERVICE @ 1-800-362-2764, THREE WORKING DAYS PRIOR TO CONSTRUCTION.



*Peter J. Formica*  
 PETER J. FORMICA

P.E. No. 58646

DATE





- GENERAL NOTES**
- MATERIALS OF WORK FOR "AS DIRECTED" ITEMS SHALL NOT BE ORDERED FOR THE DELIVERY TO THE PROJECT OR WORK PERFORMED UNTIL AUTHORIZED BY THE ENGINEER.
  - MANHOLES, CATCH BASINS, MONUMENT BOXES, WATER VALVE BOXES AND OTHER CASTINGS SHALL BE RAISED OR LOWERED FLUSH WITH THE FINISHED SURROUNDING SURFACE. ANY METER OR VALVE BOX ENCOUNTERED WITHIN THE WORK SITE SHALL BE EXPOSED AND ADJUSTED TO GRADE PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID.
  - BEFORE THE CITY WILL APPROVE AND ACCEPT THE WORK AND RELEASE THE GUARANTY RETAINER, THE CONTRACTOR SHALL FURNISH THE CITY A WRITTEN REPORT INDICATING THE RESOLUTION OF ANY AND ALL PROPERTY DAMAGE CLAIMS FILED WITH THE CONTRACTOR BY ANY PARTY DURING THE CONSTRUCTION PERIOD. THE INFORMATION TO BE SUPPLIED SHALL INCLUDE, BUT NOT BE LIMITED TO, NAME OF CLAIMANT, DATE FILED WITH CONTRACTOR, NAME OF INSURANCE COMPANY AND/OR ADJUSTOR HANDLING CLAIM, HOW CLAIM WAS RESOLVED AND IF CLAIM WAS NOT RESOLVED FOR THE FULL AMOUNT, A STATEMENT INDICATING THE REASON FOR SUCH ACTION.
  - IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO APPLY WHEN NEEDED OR ORDERED BY THE OWNER WATER PER ODOT 616 FOR THE ALLEVIATION OR PREVENTION OF DUST NUISANCE ORIGINATING FROM HIS CONSTRUCTION ACTIVITIES. THE COST OF DUST CONTROL SHALL BE INCLUDED IN THE UNIT BID PRICES FOR ALL ITEMS OF THE PROPOSAL.
  - THE CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION VIDEO SURVEY OF THE ENTIRE PROJECT AREA. ANY DAMAGE DEEMED TO HAVE BEEN CAUSED BY THE CONTRACTOR SHALL BE REPAIRED AT HIS OWN EXPENSE. ALL COSTS ASSOCIATED FOR THIS WORK, INCLUDING THE VIDEO SURVEY, SHALL BE INCLUDED IN THE UNIT PRICES STIPULATED FOR THE VARIOUS ITEMS IN THE BID PROPOSAL UNLESS THERE IS A PRECONSTRUCTION VIDEO DOCUMENTATION BID ITEM INCLUDED IN THE PROJECT.
  - ALL WORK SHALL, AT ALL TIMES, BE SUBJECT TO THE DIRECT SUPERVISION OF THE EASTLAKE CITY ENGINEER OR THEIR DULY AUTHORIZED REPRESENTATIVE. ALL WORK CONTEMPLATED UNDER THIS CONTRACT SHALL COMPLY WITH THE U.S. DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ACT.

- EXISTING UTILITIES**
- THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS HAVE BEEN OBTAINED BY DILIGENT FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT, BUT THE CITY OF EASTLAKE DOES NOT GUARANTEE THEIR ACCURACY OR COMPLETENESS.
  - BEFORE ANY WORK IS STARTED THAT WILL INTERFERE WITH THE EXISTING UTILITIES, THE CONTRACTOR SHALL CALL THE "OHIO UTILITIES PROTECTION SERVICE", AT 1-800-362-2764, FORTY-EIGHT (48) HOURS IN ADVANCE OF THE WORK. THE FOLLOWING REFERENCE NUMBERS HAVE BEEN ASSIGNED TO THIS PROJECT BY THE OHIO UTILITIES PROTECTION SERVICE. NON-MEMBER UTILITIES MUST BE CONTACTED DIRECTLY BY THE CONTRACTOR TO AVOID DAMAGE TO EXISTING UNDERGROUND AND OVERHEAD UTILITY LINES DURING THE ENTIRE PROJECT. IN THE EVENT OF DAMAGE TO EXISTING PUBLIC AND/OR PRIVATE UTILITIES, THE AGENCY CONCERNED SHALL BE NOTIFIED IMMEDIATELY AND ALL REPAIR WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE RESPECTIVE AGENCY AT NO ADDITIONAL EXPENSE TO THE CITY OF EASTLAKE, INCLUDING ANY INSPECTION FEES OR MAINTENANCE CREWS.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF THE EXISTING UTILITY OWNERS LISTED BELOW AND THE UTILITY PROTECTION SERVICE IN ACCORDANCE WITH SECTION 153.64 OF THE OHIO REVISED CODE AND OUTLINED IN PROJECT SPECIFICATIONS. THE UTILITY OWNERSHIPS ARE AS FOLLOWS:

OHIO UTILITY PROTECTION SERVICE 106 WEST RYAN, ROOM 427 YOUNGSTOWN, OHIO 44051 PHONE: (800) 362-2746	THE ILLUMINATING COMPANY P.O. BOX 5000 CLEVELAND, OHIO 44101 PHONE: (216) 622-9800	DOMINION EAST OHIO 320 SPRINGSIDE DRIVE, STE 320 AKRON, OHIO 44333 PHONE: (330) 664-2409
CITY OF EASTLAKE (SEWER) 35150 LAKESHORE BLVD. EASTLAKE, OHIO 44095 PHONE: (440) 974-3401	LAKE COUNTY UTILITIES DEPT. 105 MAIN STREET PAINESVILLE, OHIO 44077 PHONE: (440) 350-2645	CHARTER/SPECTRUM 7820 DIVISION DRIVE MENTOR, OHIO 44060 PHONE: (440) 974-3401
	AT&T 13630 LORAIN ROAD CLEVELAND, OHIO 44111 PHONE: (216) 476-6084	

**PROJECT PHASING**

IT IS THE DESIRE OF THE CITY OF EASTLAKE TO HAVE THE CONTRACT WORK PROCEED IN AN ORDERLY AND NEAT MATTER IN ORDER TO KEEP THE DISRUPTION TO THE BUSINESSES AND RESIDENTS TO A MINIMUM. THUSLY THE CONTRACTOR IS TO PREPARE AND IMPLEMENT A WORK PHASING PLAN, APPROVED BY THE DIRECTOR OF PUBLIC SERVICE AND THE ENGINEER, INCLUSIVE OF THE FOLLOWING REQUIREMENTS:

- ALL WORK SHALL BE 1/2 WIDTH, EXCEPT FOR ASPHALT MILLING AND RESURFACING OPERATIONS.
- NO WORK SHALL BE DONE ON THE OPPOSITE SIDE OF THE STREET UNTIL ALL NEW PAVEMENT : CONCRETE OR ASPHALT BASE REPAIRS, DRIVE APRONS, SIDEWALKS AND ROUGH GRADE LANDSCAPING ARE IN PLACE ON THE SIDE BEING CONSTRUCTED.
- THE CITY MAY, ACCEPT A PHASING PLAN CONSISTING OF PERFORMING 1/2 WIDTH IMPROVEMENTS ALONG THE SECTIONS/PHASES OF THE PROJECT LENGTH. THE CONTRACTORS PLAN SHALL SUBSTANTIALLY COMPLETE EACH PHASE ON BOTH SIDES OF THE RIGHT-OF-WAY BEFORE MOVING ON THE THE NEXT PHASE.
- DRIVE APRON ACCESS IS TO BE MAINTAINED AT ALL TIMES EXCEPTING DURING CONCRETE PLACEMENT AND CURING.

- ROADWAY EXCAVATION AND PAVEMENT**
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER FORTY-EIGHT (48) HOURS IN ADVANCE OF BEGINNING WORK WHICH REQUIRES PROOF ROLL TESTING AND/OR PRE-POUR INSPECTION PRIOR TO PLACEMENT OF PAVEMENT. WORK WILL NOT BEGIN UNTIL INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE ENGINEER.
  - PART WIDTH CONSTRUCTION AS DESCRIBED IN PROJECT PHASING GENERAL NOTE SHALL BE USED FOR CONCRETE PAVING OPERATIONS. CONCRETE PAVING OPERATIONS SHALL NOT BEGIN ON THE OPPOSITE LANE(S) UNTIL ROADWAY AND DRIVE APRONS ARE INSTALLED AND OPEN TO TRAFFIC ON THE STARTING SIDE.
  - IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE BARRICADE DEVICES TO PREVENT VEHICULAR TRAFFIC ON NEW CONCRETE PAVEMENT AND APRONS UNTIL THE END OF THE CURE PERIOD OR THE SPECIMEN TEST BEAMS HAVE ATTAINED A MODULUS OF RUPTURE OF 400 PSI FOR M.S. CONCRETE.
  - THE EXCAVATION, EMBANKMENT AND COMPACTION OF THE NEW ROADWAY SUBGRADES IS PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATION 203. A MINIMUM OF TWO (2) PROOF ROLLINGS WILL BE REQUIRED AS DIRECTED BY THE ENGINEER BEFORE PAVING. THE FIRST PROOF ROLLING SHALL BE PERFORMED AFTER THE INSTALLATION OF ALL UNDERGROUND IMPROVEMENTS AND AFTER FINE GRADING JUST PRIOR TO PAVING. THE PROOF ROLLINGS SHALL BE COMPLETED AS FOLLOWS: EXCAVATION OR EMBANKMENT TO FINISHED SUBGRADE. EMBANKMENTS ARE COMPACTED AND TESTED FOR COMPACTION IN 6" LIFTS PER ODOT 203. THE SUBGRADE IS COMPACTED AND TESTED. THE SUBGRADE FOR THE NEW ROAD IS THEN PROOF ROLLED. AREAS EXHIBITING UNACCEPTABLE MOVEMENT UNDER PROOF ROLLING ARE UNDERCUT TO A DEPTH DIRECTED BY THE ENGINEER AND BACKFILLED WITH MATERIALS SPECIFIED IN THE PLANS. THE SUBGRADE IS RE-PROOF ROLLED TO VERIFY THE UTILITY OF THE UNDERCUT. UPON PASSING THE PROOF ROLL THE AREA IS APPROVED FOR THE INSTALLATION OF THE BASE MATERIAL. THE AGGREGATE BASE MATERIAL IS PLACED PER ODOT SPECIFICATIONS, COMPACTED, TESTED AND PROOF ROLLED. UPON PASSING THE PROOF ROLL THE SPECIFIED TOP COURSES OF RIGID PAVEMENT MAY BE INSTALLED. MOISTURE CONTENT OF THE SUBGRADE AT THE TIME OF PROOF ROLLING SHALL CONFORM TO SECTION 203.11 OF THE ODOT SPECIFICATIONS. THE MINIMUM EQUIPMENT SHALL CONSIST OF A SINGLE UNIT, TANDEM AXLE DUMP TRUCK CAPABLE OF BEING LOADED TO 30,000 POUND AXLE LOAD, 60,000 POUND GVW. TIRE PRESSURE SHALL BE MAINTAINED AT 90 PSI OR AS SPECIFIED UNDER SECTION 203.14 OF ODOT SPECIFICATIONS. ANY AREA PERMITTING TIRES TO LEAVE A GROOVE OF ONE (1) INCH OR MORE SHALL BE UNACCEPTABLE FOR PAVING. ANY AREA PERMITTING THE TEST VEHICLE TIRES TO LEAVE A GROOVE OF ZERO (0) TO ONE-HALF (1/2) INCH DEEP SHALL BE ACCEPTABLE. ANY AREA PERMITTING THE TEST VEHICLE TIRES TO LEAVE A GROOVE OF ONE-HALF (1/2) INCH TO ONE (1) INCH DEEP SHALL BE AT THE ENGINEER'S DISCRETION.
  - JOINT AND CRACK SEALER FOR PAVEMENT SHALL MEET THE REQUIREMENTS OF ODOT ITEM 705.04 AND ASTM D 3405. A DOUBLE BOILER SHOULD BE USED FOR HEATING THE MATERIAL.
  - IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE SUFFICIENT SECURITY MEASURES AND/OR PERSONNEL TO PROTECT ALL NEW CONCRETE WORK FROM VANDALISM AT NO ADDITIONAL COST TO THE CITY. ANY VANDALIZED CONCRETE SHALL BE REPLACED IN FULL AT THE CONTRACTOR'S EXPENSE.

- EROSION AND DUST CONTROL**
- SEDIMENT CONTROL SHALL BE ACCOMPLISHED BY HYDRO SEEDING AND MULCHING IMMEDIATELY UPON COMPLETION OF EXCAVATION OR FILL AND FINISH GRADING IN ACCORDANCE WITH ODOT ITEM 659 OR AS DIRECTED BY THE ENGINEER.
  - THE CONTRACTOR SHALL BEGIN THE RESTORATION PROCESS AS SOON AS CONSTRUCTION IS COMPLETED, PERMANENTLY STABILIZING EACH DISTURBED AREA WITH PERENNIAL VEGETATION INSTALLED ACCORDING TO SOIL CONSERVATION SERVICE STANDARDS AND SPECIFICATIONS.
  - THE CONTRACTOR SHALL REMOVE DAILY ALL MUD, SOIL AND DEBRIS THAT MAY BE TRACKED ONTO EXISTING STREETS OR DRIVES BY HIS EQUIPMENT OR THAT OF SUBCONTRACTORS OR SUPPLIERS.
  - ALL MATERIALS TO BE DISPOSED OF OFF-SITE MUST BE DISPOSED OF IN AN ENVIRONMENTALLY SOUND MANNER IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. NO EXCESS MATERIALS ARE TO BE DISPOSED OF IN ANY WETLAND, FLOOD PLAIN OR OTHER ENVIRONMENTALLY SENSITIVE AREA.
  - EROSION CONTROL MEASURES AT THE DISPOSAL SITE MUST BE INSTALLED AND MAINTAINED UNTIL DISPOSAL IS COMPLETE AND THE DISPOSAL SITE IS PERMANENTLY STABILIZED.
  - IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO APPLY WHEN NEEDED OR ORDERED BY THE OWNER WATER PER ODOT 616 FOR THE ALLEVIATION OR PREVENTION OF DUST NUISANCE ORIGINATING FROM HIS CONSTRUCTION ACTIVITIES. THE COST OF DUST CONTROL SHALL BE INCLUDED IN THE UNIT BID PRICES FOR ALL ITEMS OF THE PROPOSAL.
  - OTHER EROSION AND SEDIMENT CONTROL PRACTICES SHALL MINIMIZE SEDIMENT LADEN WATER ENTERING ACTIVE STORM DRAIN SYSTEMS, UNLESS THE STORM DRAIN SYSTEM DRAINS TO A SEDIMENT POND. INLET PROTECTION IS MANDATORY WHERE SEDIMENT SETTLING PONDS WILL NOT BE IMPLEMENTED.

- EXCESS EXCAVATION**
- ALL EXCESS EXCAVATION SHALL BE DISPOSED OF IN A LOCATION TO BE SELECTED BY THE CONTRACTOR. THE CONTRACTOR MUST OBTAIN A PERMIT FROM THE CITY IF THE MATERIAL IS TO BE DISPOSED OF WITHIN THE CITY LIMITS.

- AIR/NOISE CONTROL**
- CONSTRUCTION ACTIVITIES WILL BE LIMITED TO WEEKDAY DAYTIME HOURS, UNLESS APPROVED IN ADVANCE BY THE CITY.

- GARBAGE COLLECTION**
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE TRANSFER OF ALL GARBAGE, GARBAGE CANS, AND RECYCLE BINS FROM THE DRIVEWAYS WITHIN THE CONSTRUCTION ZONE TO THE OPPOSITE SIDE OF THE ROADWAY. CONTRACTOR TO ALLOW ACCESS TO GARBAGE TRUCKS AND 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.

- CONSTRUCTION OBSERVATION**
- THE CONTRACTOR SHALL NOT COMMENCE WITH ANY FORM OF CONSTRUCTION WITHOUT CONTACTING MR. TOM GWYDIR (440) 487-6049 OR MR. BRIAN MELUCH (440)376-1507 A MINIMUM OF 48 HOURS IN ADVANCE OF CONSTRUCTION ACTIVITY TO ARRANGE FOR OBSERVATION. IF ANY CHANGE IN THE WORK SCHEDULE BECOMES NECESSARY, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT MR. GWYDIR TO AVOID UNNECESSARY OBSERVATION COSTS. IF NO NOTIFICATION IS MADE IN REGARDS TO CANCELLATION OF WORK, THE CONTRACTOR WILL BE CHARGED FOR THE TIME INCURRED.

- LIMITS OF WORK**
- THE CONTRACTOR'S CONSTRUCTION OPERATIONS ARE CONFINED TO THE AREA WITHIN THE ROAD RIGHT-OF-WAY AND TEMPORARY EASEMENT AREAS. THE APPROXIMATE LIMITS OF CONSTRUCTION ARE SHOWN ON THE PLANS, WHICH ARE BASED ON THE ROADWAY CROSS SECTIONS. THE CROSS SECTIONS INDICATE THE APPROXIMATE LIMITS OF THE EARTHWORK NECESSARY FOR THE PROPOSED IMPROVEMENTS. THESE LIMITS ARE APPROXIMATE AND MAY BE MODIFIED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL USE THE APPROPRIATE CONSTRUCTION METHODS TO PREVENT DISTURBING ANY AREA OUTSIDE OF THE THE CONSTRUCTION LIMITS.

- SUBSURFACE CONDITIONS**
- IT IS THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO MAKE THEIR OWN INVESTIGATION OF SUBSURFACE CONDITIONS PRIOR TO SUBMITTING THEIR BID. THE CONTRACTOR MAY EXAMINE RECORDS OF BORINGS AND ANY OTHER SUBSURFACE INVESTIGATIONS MADE FOR DESIGN PURPOSES.

- SUBSURFACE INFORMATION**
- BORINGS AND OTHER SUBSURFACE INVESTIGATIONS ARE INCOMPLETE AND ARE NOT A PART OF THE CONTRACT DOCUMENTS, EXCEPT TO THE EXTENT THAT THE RESULTS THEREOF ARE SPECIFICALLY SHOWN ON THE PLANS OR INCLUDED IN THE SPECIFICATIONS, AND ARE NOT WARRANTED TO SHOW THE ACTUAL SUBSURFACE CONDITIONS. THE CONTRACTOR AGREES THAT HE WILL MAKE NO CLAIM FOR ADDITIONAL COST AGAINST THE OWNER OR THE ENGINEER, IF IN PERFORMANCE OF THE WORK HE FINDS THAT THE ACTUAL SUBSURFACE CONDITIONS ENCOUNTERED DO NOT CONFORM TO THOSE INDICATED BY SAID BORINGS AND OTHER SUBSURFACE INVESTIGATIONS.

- STORM SEWER**
- ALL CIRCULAR STORM SEWER UNDER PROPOSED PAVEMENT SHALL BE REINFORCED CONCRETE PIPE C-76, CLASS IV, WITH JOINTS MEETING THE REQUIREMENTS OF ASTM C-443. STORM SEWER OUTSIDE OF PAVEMENT AREAS SHALL BE CORRUGATED POLYETHYLENE SMOOTH LINED PIPE PER ODOT 707.33.

- DRIVE APRONS**
- ALL EXISTING DRIVE APRONS WITHIN THE PROJECT WORK LIMITS SHALL BE REMOVED IN ACCORDANCE WITH ODOT ITEM 202. EXISTING DRIVE TYPES MAY BE INDICATED ON THE PLANS. ALL APRONS SHALL BE REPLACED WITH CONCRETE IN ACCORDANCE WITH THE PLANS.

- EXISTING CONCRETE WALK**
- THE EXISTING CONCRETE WALK WITHIN THE PROJECT WORK LIMITS SHALL BE PROTECTED. DAMAGED WALK SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

- MANHOLES ADJUSTED TO GRADE**
- ALL MANHOLES, WHERE NOTED ON PLANS OR REQUIRED BY THE PROPOSED IMPROVEMENTS, SHALL BE ADJUSTED TO THE PROPOSED GRADE WITH NEW CASTINGS IN ACCORDANCE WITH ODOT ITEM 611. THE NEW CASTING SHALL BE AN E.J.I.W. 1710 WITH SOLID COVER OR APPROVED EQUIVALENT.

- EXISTING ITEMS OUTSIDE THE RIGHT-OF-WAY**
- THERE ARE EXISTING FENCES, TREES, BUSHES, LANDSCAPE WALLS AND OTHER ITEMS ON PRIVATE PROPERTY JUST OUTSIDE THE RIGHT-OF-WAY. THE CONTRACTOR SHALL TAKE THE NECESSARY ACTIONS TO ENSURE THESE EXISTING ITEMS ARE NOT DISTURBED OR DAMAGED. IF ANY DAMAGE DOES OCCUR THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OR REPAIR OF THE ITEMS AT NO ADDITIONAL COST.

- TEMPORARY PAVEMENT**
- THE CONTRACTOR SHALL REMOVE ALL PAVEMENTS AND ROAD SURFACES WITHIN THE LINES OF EXCAVATION IN ACCORDANCE WITH THE PLANS, TYPICAL SECTIONS AND DETAILS. AFTER THE PAVEMENT HAS BEEN REMOVED AND PIPE HAS BEEN LAID, ALL THE APPURTENANT WORK CONSTRUCTED AND BACKFILL COMPLETED, THE CONTRACTOR SHALL FURNISH, PLACE AND MAINTAIN, WHEREVER THE PAVEMENT OF ROAD SURFACE HAS BEEN REMOVED OR DAMAGED, A TEMPORARY PAVEMENT IN THE PAVED PORTION OF STREETS AND DRIVEWAYS SO AS TO PROVIDE A SAFE AND PASSABLE ROADWAY UNTIL SUCH TIME AS THE FINAL PAVEMENT IS COMPLETED. ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES EXCEPT BRIEFLY DURING WORKING HOURS WHEN CONSTRUCTION ACTIVITIES PROHIBIT.

NO	REVISION	DATE

**CITY OF EASTLAKE**

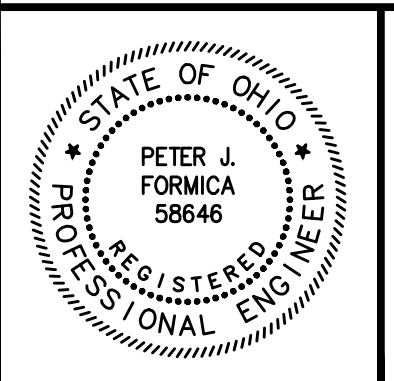
**EAST 347TH STREET  
PAVEMENT RECONSTRUCTION**

**LAKE COUNTY, OHIO**

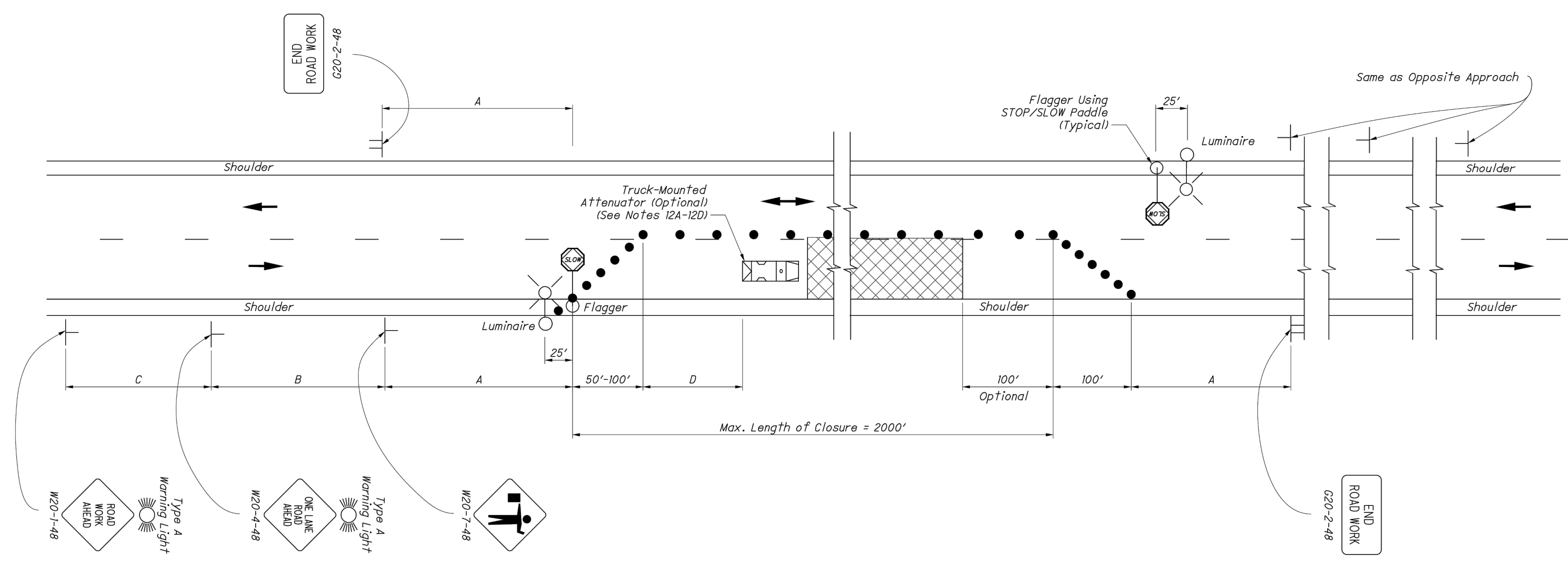
ISSUED FOR:	BID SET
ISSUE DATE:	3/6/2024
SCALE:	AS SHOWN
DESIGNED BY:	PJF
DRAWN BY:	TJM
CHECKED BY:	TBG

**GENERAL NOTES**

PROJECT NO.	
<b>232528</b>	
DISCIPLINE	
<b>CIVIL</b>	
SHEET NAME	
<b>GN-1</b>	
SHEET	OF
<b>2</b>	<b>12</b>





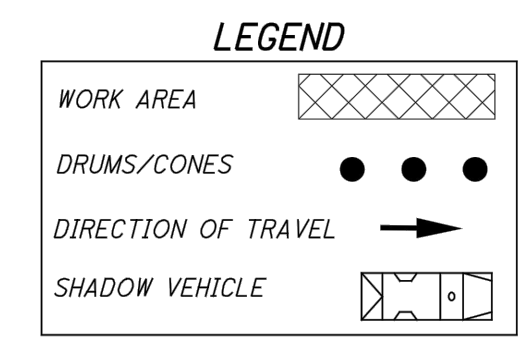


**TABLE I (SIGN SPACING)**

ROAD TYPE	DISTANCE BETWEEN SIGNS (FT)		
	A	B	C
Two-Lane (< 40 MPH)	100	100	100
Two-Lane (45-50 MPH)	350	350	350
Two-Lane (55-60 MPH)	500	500	500

**TABLE II**

SPEED LIMIT (MPH)	BUFFER (D) (FT) MIN.
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570



**NOTES:**

**FLAGGERS**

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 alignment.

**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 it 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 (W20-1) or END ROAD WORK (G20-2) sign which falls within the limits of another traffic control zone shall be omitted or covered during the period when both projects are active.

**SIGNING DETAILS**

6A. The Advisory Speed (W13-1P) 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 is necessary.

**DRUMS / CONES**

8A. Drum spacing shall be as follows:

a) Spacing along the closure shall be 40' center-to-center. b) Spacing along the approach taper shall be 10' center-to-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". c) Use of cones at night shall be prohibited along tapers.

8C. Provisions shall be made to stabilize the cones and drums to prevent them from blowing over.

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

**(RESERVED FOR FUTURE USE)**

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 adjacent 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 Engineer.

**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 whenever workers are not in the work area.

12B. The shadow vehicle shall be equipped with a high-intensity yellow rotating, flashing, oscillating, or strobe light(s).

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 area.

**MAINTAINING TRAFFIC**

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.

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 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.

NOTICE OF CLOSURE SIGNS, FOR SEVERAL SIDE ROADS, AS DETAILED IN THESE PLANS, SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT HAND SIDE OF THE ROAD FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. THEY SHOULD BE ERECTED AT THE POINT OF CLOSURE.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND TYPE III BARRICADES OF THE TYPE AND LOCATION AS SHOWN ON THE PLANS.

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.

**PAVEMENT REPLACEMENT**

TRENCH EXCAVATION FOR PAVEMENT REPLACEMENT SHALL BE ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF REPLACEMENT SECTION WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

**CONTRACTOR'S EQUIPMENT - OPERATION AND STORAGE**

THE CONTRACTOR'S EQUIPMENT SHALL BE OPERATED IN THE DIRECTION OF TRAFFIC. A QUALIFIED FLAGGER SHALL BE EMPLOYED WHERE THE CONTRACTOR'S EQUIPMENT MUST MERGE WITH THE TRAFFIC STREAM. THE CONTRACTOR'S EQUIPMENT SHALL BE EQUIPPED WITH AT LEAST ONE AMBER FLASHING LIGHT. PAVERS, ROLLERS AND OTHER EQUIPMENT MAY BE PARKED IN AREAS ALONG THE HIGHWAY WHEN PAVING OPERATIONS ARE SCHEDULED TO CONTINUE WITHIN THE NEXT WORKDAY; OTHERWISE THE EQUIPMENT SHALL BE STORED AT A STORAGE AREA OUTSIDE THE R.W. THE LOCATION OF WHICH SHALL HAVE PRIOR APPROVAL OF THE ENGINEER. WHEN PARKING ALONG THE HIGHWAY THE EQUIPMENT SHALL BE PLACED AND DELINEATED AS PER 614.03. ALL EQUIPMENT AND STORED MATERIALS SHALL NOT CAUSE SIGNIFICANT SIGHT DISTANCE HAZARDS TO THE TRAVELING PUBLIC. ALL OTHER EQUIPMENT, INCLUDING PRIVATE VEHICLES, SHALL BE STORED AT THE APPROVED CONTRACTOR'S STORAGE AREA. NO EQUIPMENT SHALL BE PARKED ON PRIVATE PROPERTY UNLESS PRIOR APPROVAL OF THE OWNER AND THE PROJECT ENGINEER/SUPERVISOR HAS BEEN GRANTED.

**WINTER TRAFFIC LIMITATIONS**

TWO LANES IN EACH DIRECTION SHALL BE OPEN TO TRAFFIC.

**SUSPENSION OF WORK**

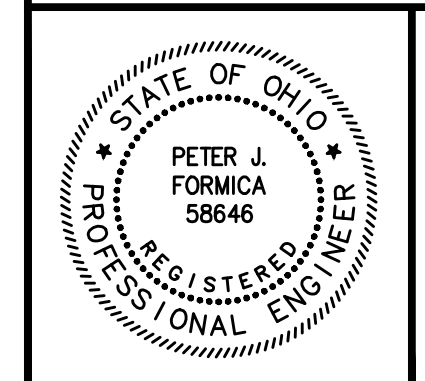
IF THE CONTRACTOR FAILS TO COMPLY WITH THE PROVISIONS FOR MAINTENANCE OF TRAFFIC AS SET FORTH IN THESE PLANS OR WITH PROVISIONS OF THE MANUAL, THE ENGINEER MAY SUSPEND WORK UNTIL THE CONTRACTOR COMPLIES WITH THE NECESSARY REQUIREMENTS. NO COMPENSATION WILL BE PAID FOR SUSPENSION OF WORK.

**METHOD OF PAYMENT**

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.

**ALTERNATE MAINTENANCE OF TRAFFIC PLANS**

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.



NO	REVISION	DATE

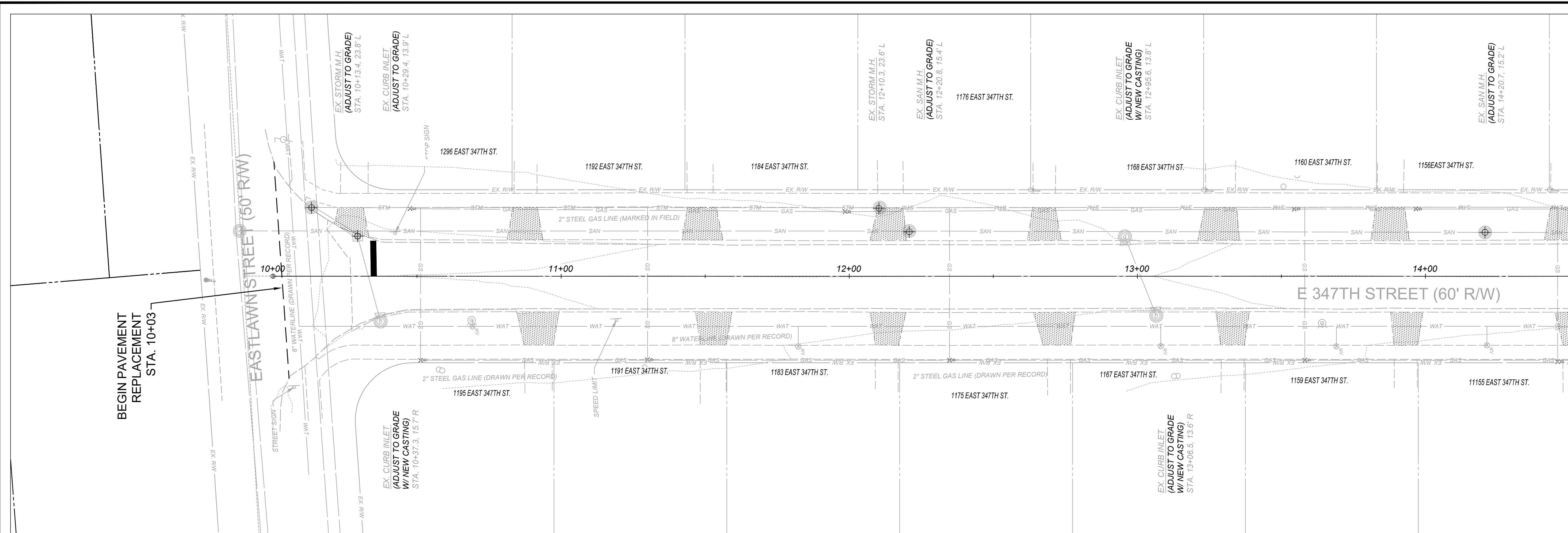
**CITY OF EASTLAKE**  
**EAST 347TH STREET**  
**PAVEMENT RECONSTRUCTION**  
**LAKE COUNTY, OHIO**

ISSUED FOR:	BID SET
ISSUE DATE:	3/6/2024
SCALE:	AS SHOWN
DESIGNED BY:	PJF
DRAWN BY:	TJM
CHECKED BY:	TBG

**MAINTENANCE OF TRAFFIC**

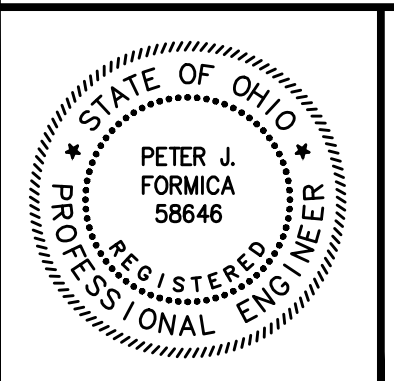
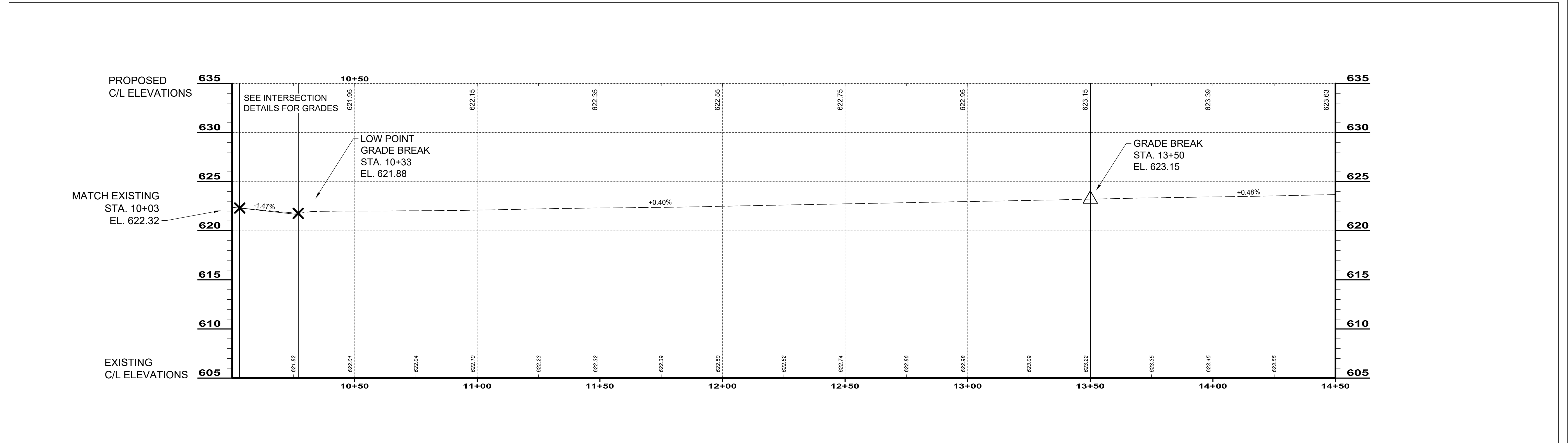
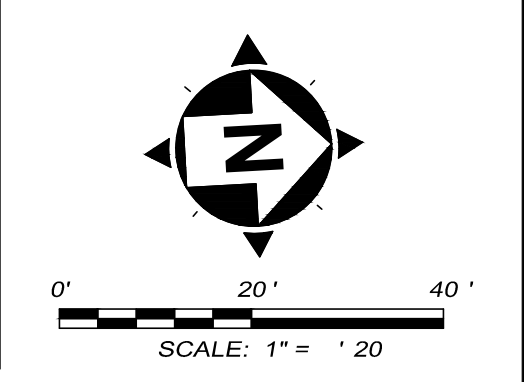
PROJECT NO.	<b>232528</b>
DISCIPLINE	<b>CIVIL</b>
SHEET NAME	<b>MOT-1</b>
SHEET	OF
<b>3</b>	<b>12</b>





### LEGEND

- REMOVE & REPLACE CONCRETE APRON  
SEE DETAILS, SHEET 9
- PROPOSED 6" CONCRETE CURB RAMP  
SEE DETAILS, SHEET 9



NO	REVISION	DATE

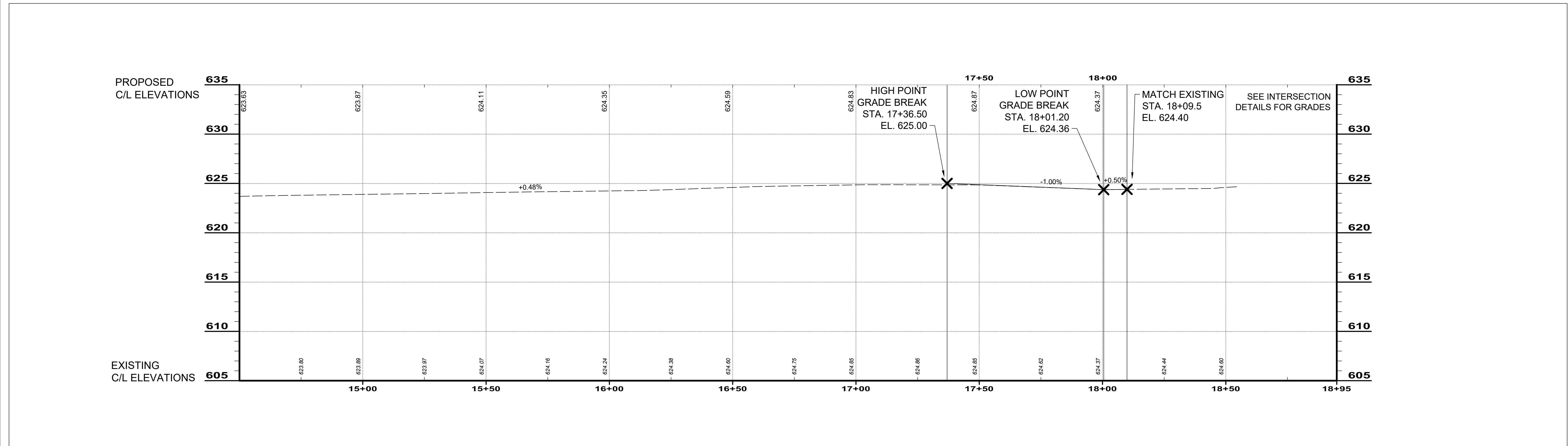
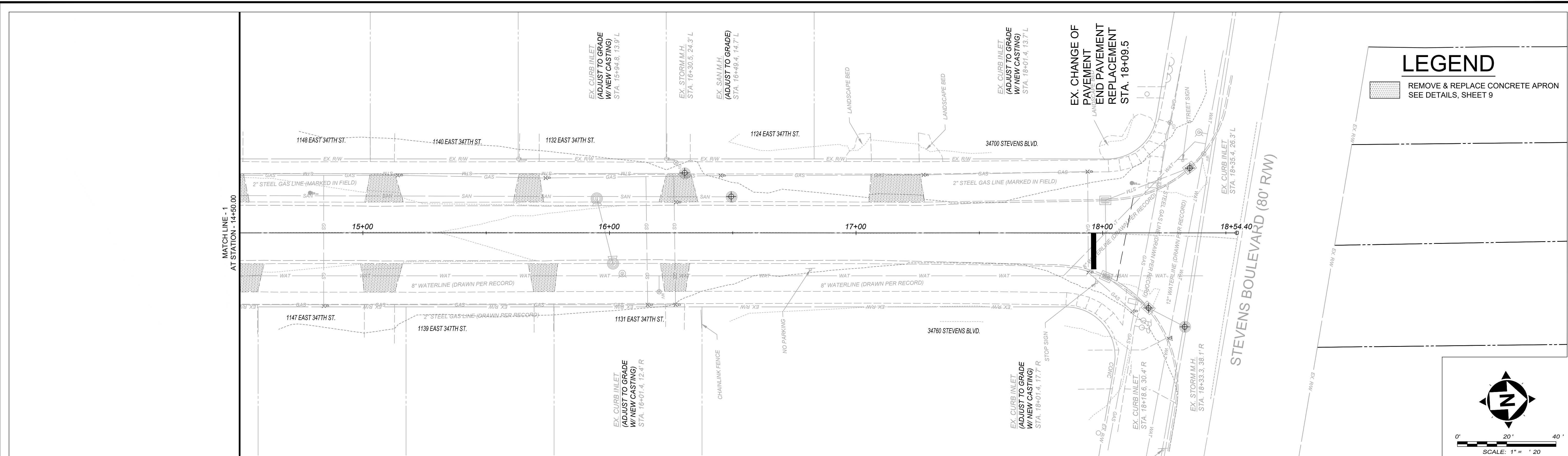
CITY OF EASTLAKE  
**EAST 347TH STREET  
PAVEMENT RECONSTRUCTION**  
LAKE COUNTY, OHIO

ISSUED FOR: BID SET  
ISSUE DATE: 3/6/2024  
SCALE: AS SHOWN  
DESIGNED BY: PJF  
DRAWN BY: TJM  
CHECKED BY: TBG

## PLAN & PROFILE STA. 10+00 TO 14+50

PROJECT NO. <b>232528</b>	
DISCIPLINE <b>CIVIL</b>	
SHEET NAME <b>Plan 1</b>	
SHEET <b>4</b>	OF <b>12</b>





NO	REVISION	DATE

**CITY OF EASTLAKE**  
**EAST 347TH STREET**  
**PAVEMENT RECONSTRUCTION**  
 LAKE COUNTY, OHIO

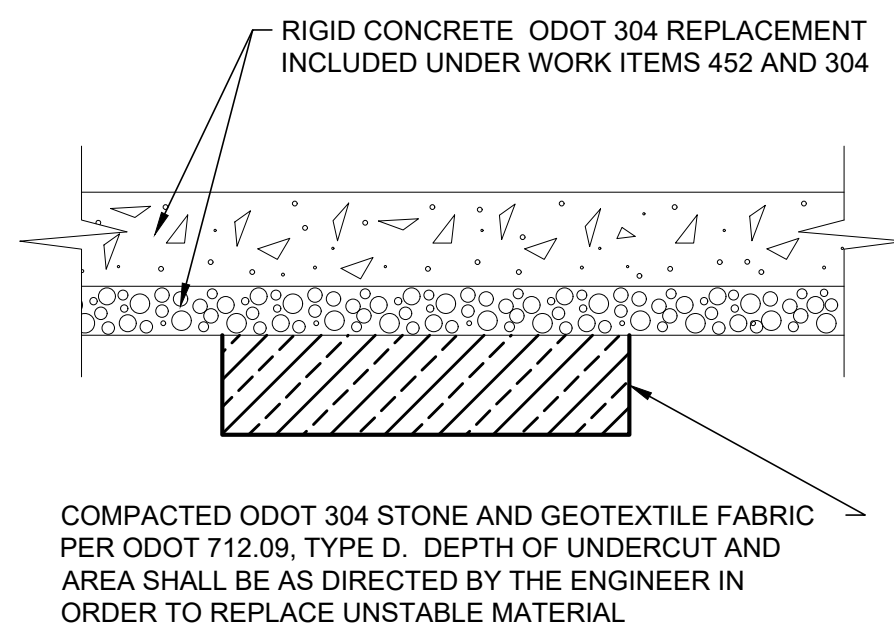
ISSUED FOR: BID SET  
 ISSUE DATE: 3/6/2024  
 SCALE: AS SHOWN  
 DESIGNED BY: PJF  
 DRAWN BY: TJM  
 CHECKED BY: TBG

**PLAN & PROFILE**  
**STA. 14+50 TO 18+54.40**

PROJECT NO.		<b>232528</b>
DISCIPLINE		<b>CIVIL</b>
SHEET NAME		<b>Plan 2</b>
SHEET	OF	
<b>5</b>	<b>12</b>	

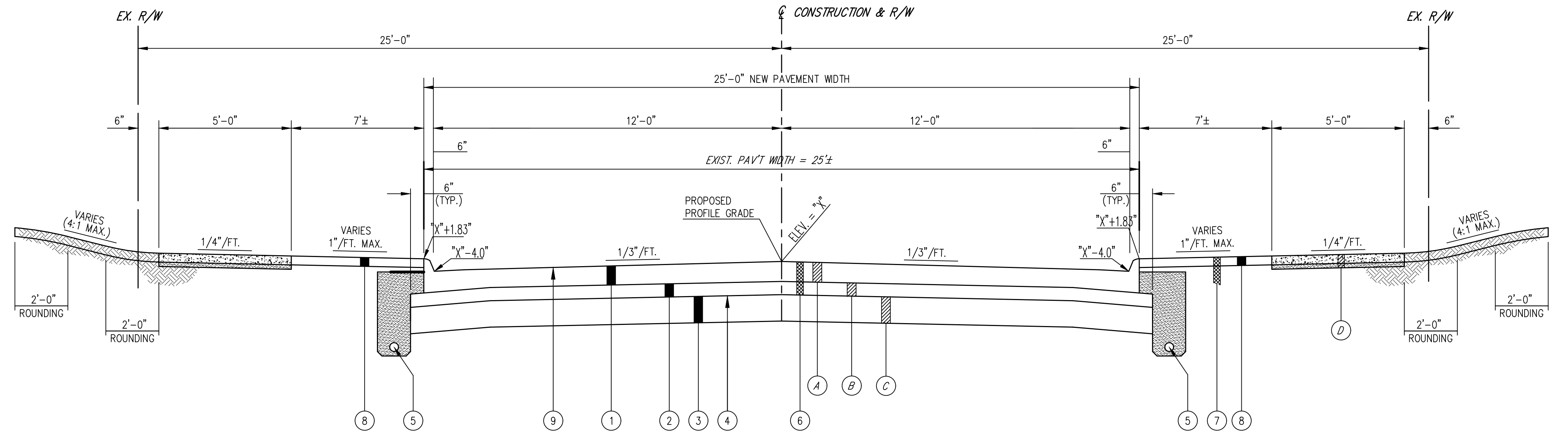


NOTE: TYPICAL SECTIONS ARE INTENDED TO SHOW GENERAL ROADWAY AND PAVEMENT FEATURES ONLY. FOR FURTHER DETAILS SEE PLAN & PROFILES, CROSS-SECTIONS AND INTERSECTION DETAILS.



**ADDITIONAL SUBGRADE REPLACEMENT DETAIL (ITEM 204)**

NOTE: ITEM SHALL BE USED AS DIRECTED



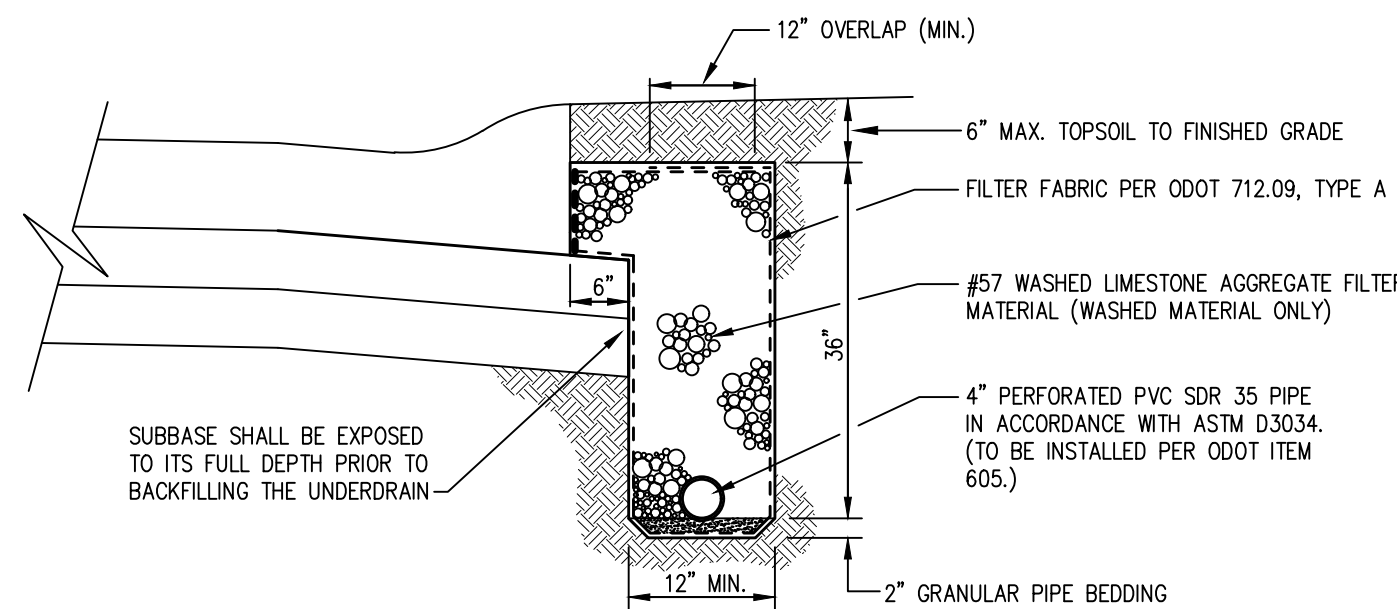
**EAST 347th STREET TYPICAL RECONSTRUCTION SECTION**

**LEGEND**

- ① ITEM 452 - 8" NON-REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT - CLASS QC MS INCLUDING FIBER REINFORCING.
  - ② ITEM 304 - 4" SUB-BASE (SEE NOTE 2)
  - ③ ITEM 203 - ROADWAY UNDERCUT EXCAVATION AND BACKFILL WITH 304 AGGREGATE BASE AND TYPE D SUBGRADE STABILIZATION FABRIC PER ODOT ITEM 712.09 (CONTINGENCY - AS DIRECTED BY ENGINEER)
  - ④ ITEM 204 - SUBGRADE COMPACTION
  - ⑤ ITEM 605 - 4" UNDERDRAIN, AS PER PLAN (See Detail, This Sheet)
  - ⑥ ITEM 203 - EXCAVATION, AND REMOVAL OF EXISTING PAVEMENT, CURB, BASE, A.P.P.
  - ⑦ ITEM 203 - EMBANKMENT, (INCLUDED IN EXCAVATION)
  - ⑧ ITEM SPEC. - LAWN RESTORATION INCLUDING LINEAL GRADING & TOPSOIL, T=4" MIN.
  - ⑨ ITEM SPEC. - CONCRETE SURFACE TREATMENT
- (A) EXISTING CONCRETE PAVEMENT (Thickness Varies - 6 1/2" to 8")
  - (B) EXISTING BASE COURSE (Thickness Varies - 3" to 6")
  - (C) EXISTING SOIL TYPE AT PROPOSED SUBGRADE ELEVATION: BROWN/GRAY CLAY.
  - (D) EXISTING CONCRETE WALK

NOTE: CURING COMPOUND USED ON CONCRETE SHALL BE COMPATIBLE WITH CONCRETE SURFACE TREATMENT

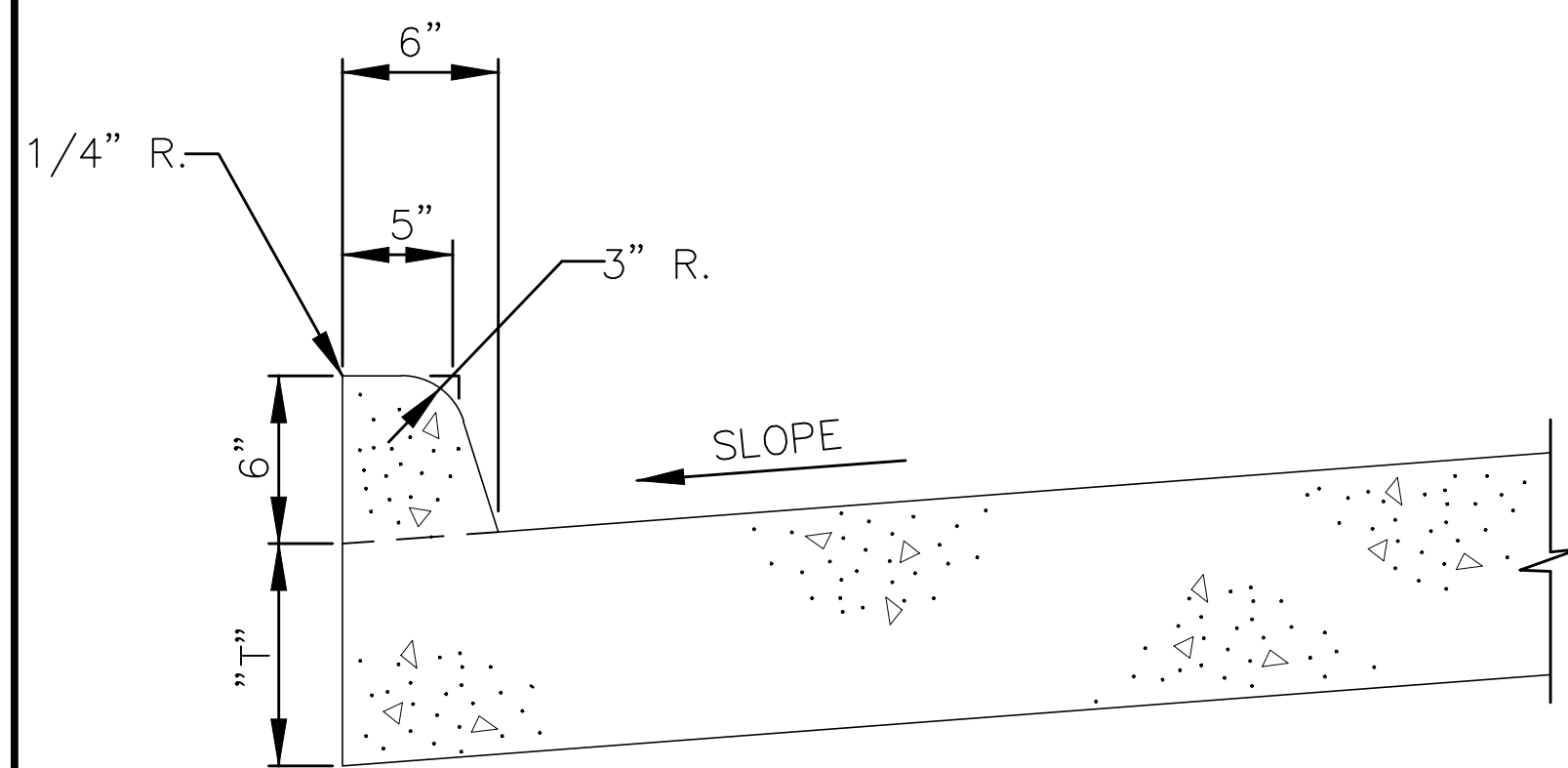
NOTE 2: RECYCLED CONCRETE SHALL NOT BE USED FOR ANY SUBBASE OR UNDERCUT CONTRACT ITEMS.



NOTE: ALL LOOSE DIRT SHALL BE REMOVED FROM TRENCH PRIOR TO BACKFILLING WITH WASHED LIMESTONE AGGREGATE. ALL CONNECTIONS TO INLETS AND MANHOLES SHALL BE MADE AT THE ENGINEER'S DIRECTION AND SHALL BE INCLUDED IN THE UNIT BID PRICE OF ITEM 605 - 4" UNDERDRAIN.

NOTE: ALL PRIVATE YARD DRAIN PIPE WHICH CURRENTLY OUTLET TO THE ROADSIDE DITCH SHALL BE TIED INTO THE UNDERDRAIN. AND PAID PER LINEAL FOOT OF PIPING REQUIRED.

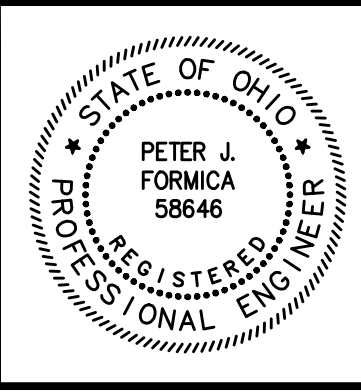
**UNDERDRAIN DETAIL NO SCALE**



**VERTICAL CURB DETAIL**

1/89

SD-5-19



NO	REVISION	DATE

CITY OF EASTLAKE

**EAST 347TH STREET PAVEMENT RECONSTRUCTION**

LAKE COUNTY, OHIO

ISSUED FOR: BID SET

ISSUE DATE: 3/6/2024

SCALE: AS SHOWN

DESIGNED BY: PJF

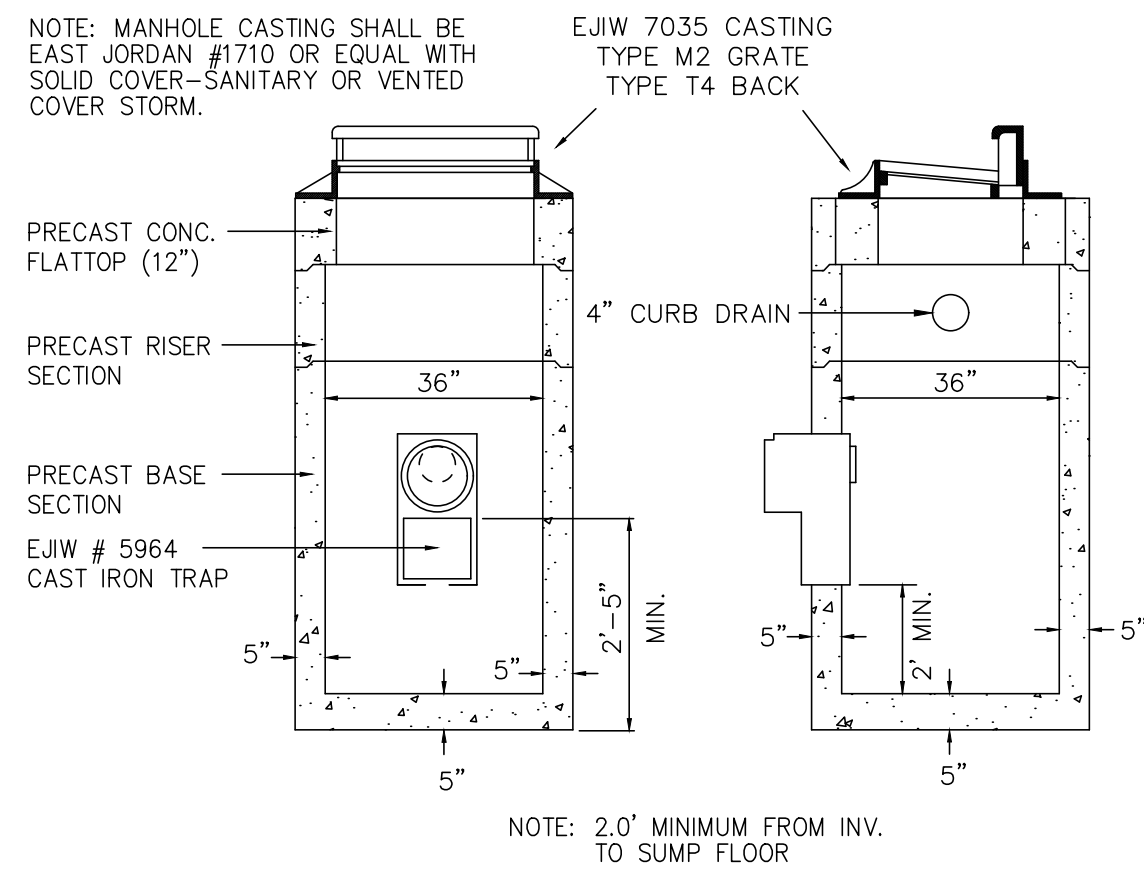
DRAWN BY: TJM

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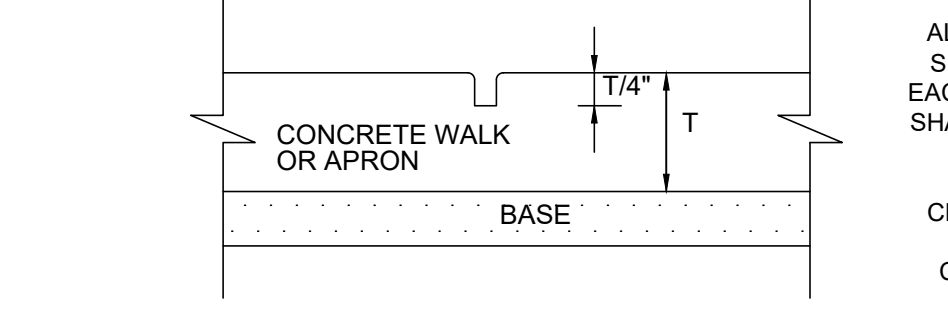
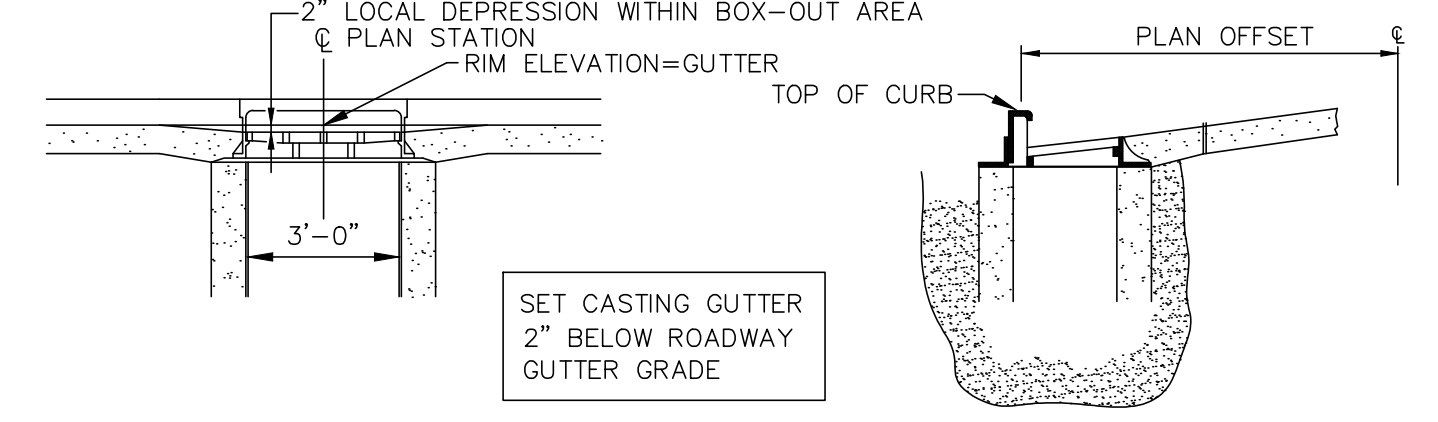
**TYPICAL SECTION AND DETAILS**

PROJECT NO.	
232528	
DISCIPLINE	
CIVIL	
SHEET NAME	
TS-1	
SHEET	OF
6	12





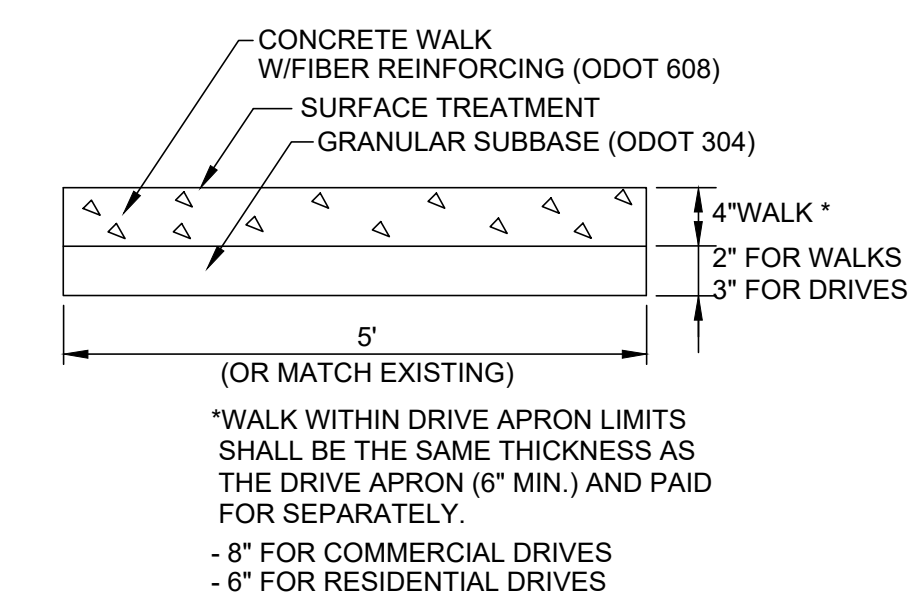
**PRECAST CATCH BASIN**



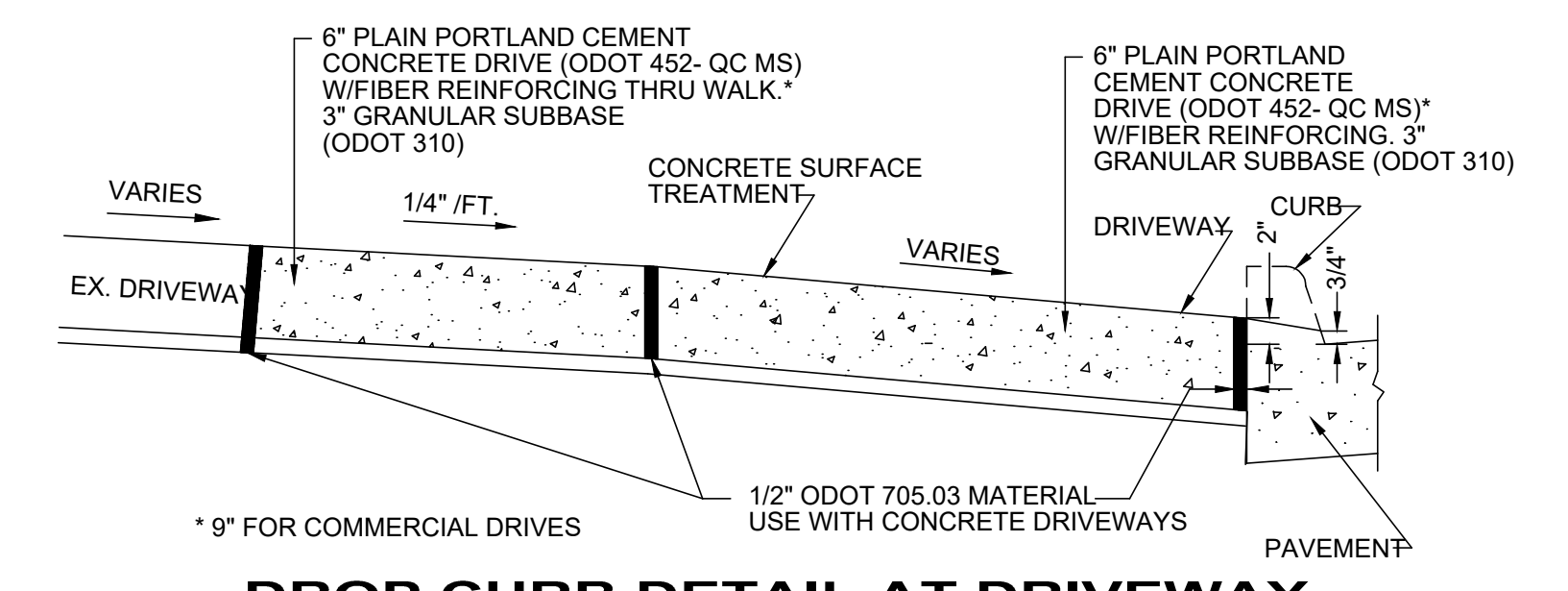
**IMPRESSION JOINT FORMED**

ALL DRIVE AND SIDEWALK JOINTS SHALL BE FORMED, NOT SAWCUT. EACH AND EVERY SLAB PERIMETER SHALL BE EDGE TOoled (2") AFTER TEXTURING SURFACE.

CLASS MS CONCRETE WITH FIBER MESH SHALL BE USED ON ALL CONCRETE APRONS AND WALKS FOR THIS PROJECT.

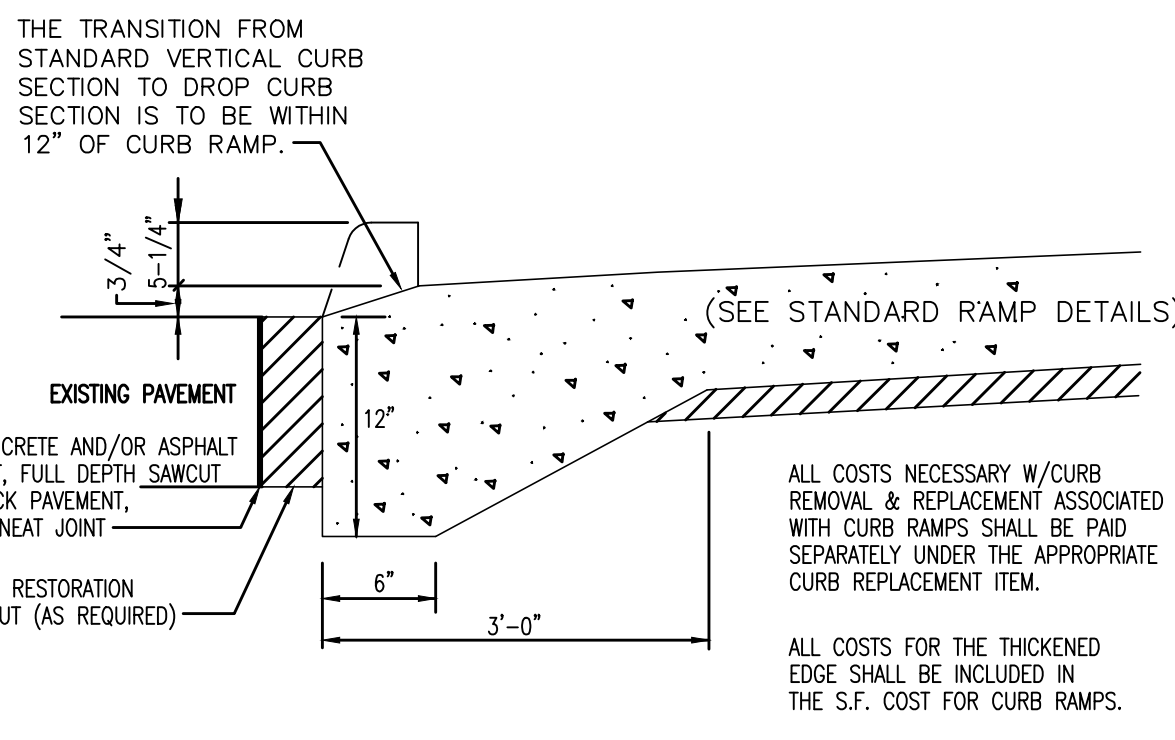


**CONCRETE WALK DETAIL**

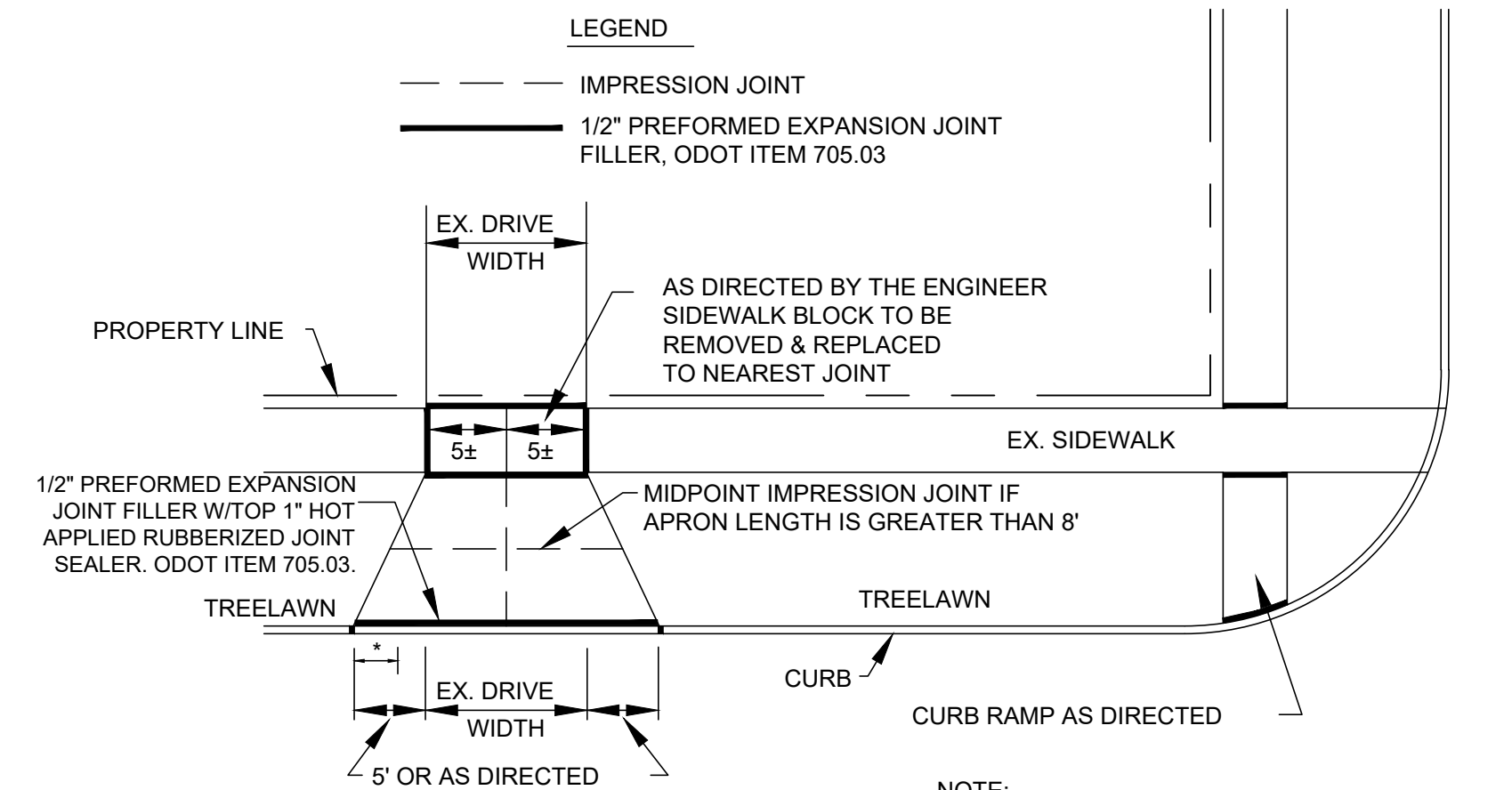


**DROP CURB DETAIL AT DRIVEWAY**

NOTE: WIRE MESH REINFORCING SHALL BE FURNISHED & INSTALLED IN-KIND IF FOUND IN THE EXISTING APRON.

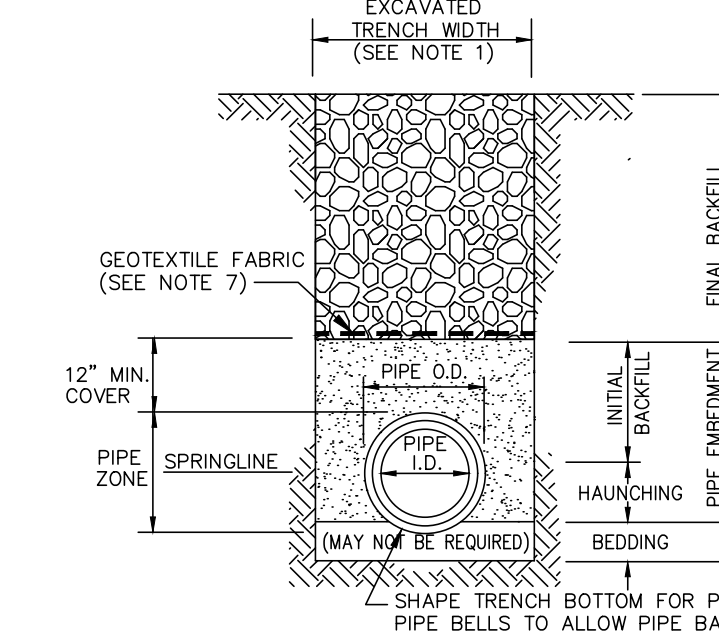
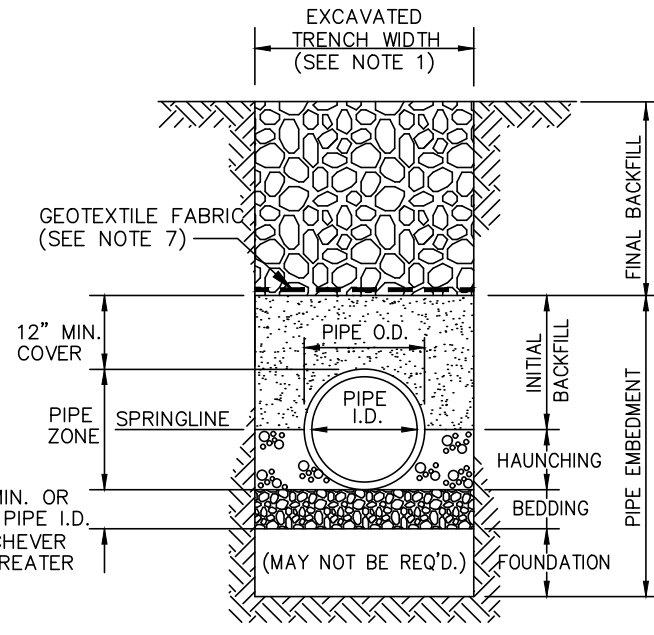
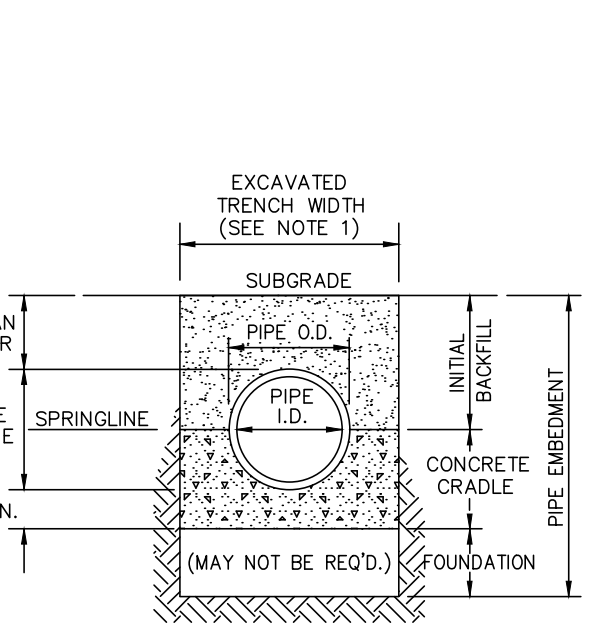
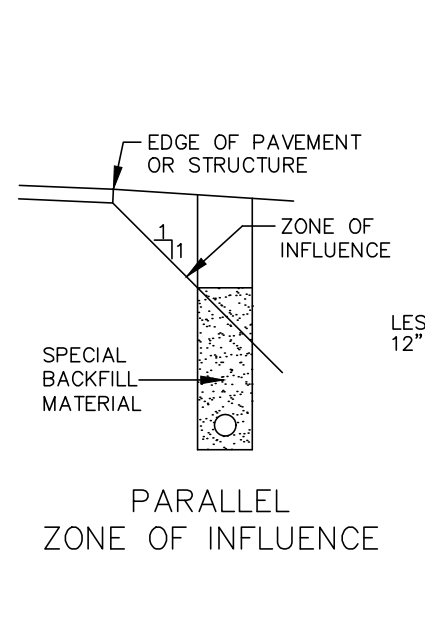


**DROP CURB DETAIL (CURB RAMP)**



**DRIVEWAY APPROACH DETAIL**

NOTE: IN NO CASE SHALL THE DRIVE APRON SECTION TO DROP CURB SECTION IS TO BE SMALLER IN DIMENSION THAN THE EXISTING APRON.



**CLASS 'A' PIPE EMBEDMENT**

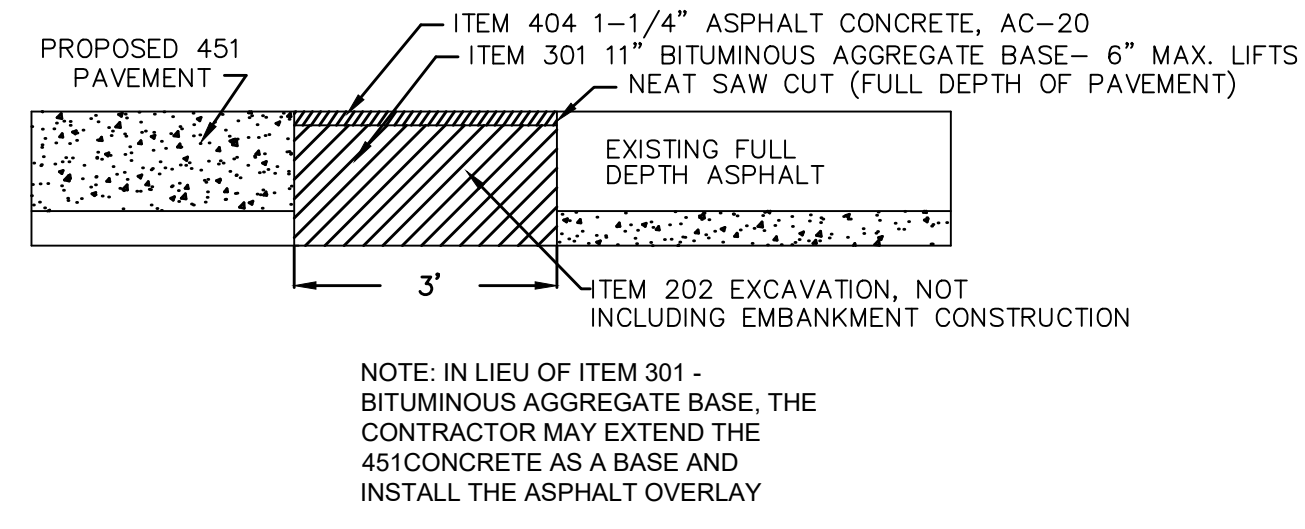
**CLASS 'B' PIPE EMBEDMENT**

**CLASS 'C' PIPE EMBEDMENT**

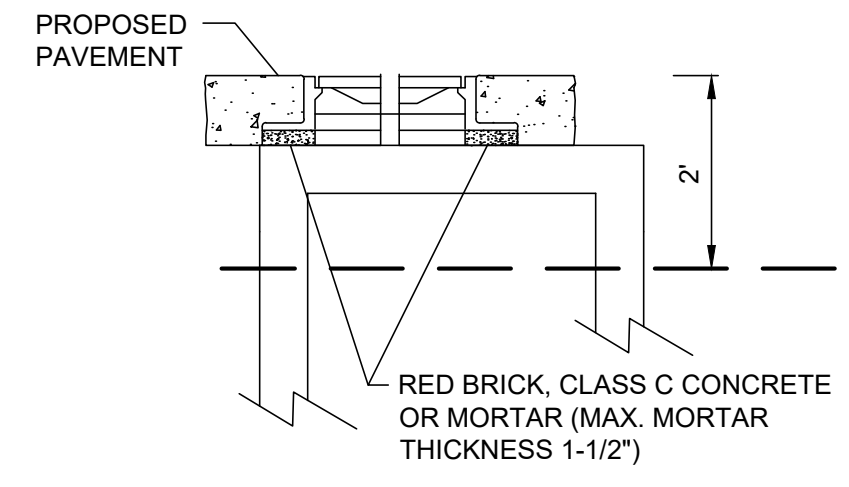
- NOTES:**
- MAXIMUM EXCAVATED TRENCH WIDTH: THE MAXIMUM EXCAVATED TRENCH WIDTH FROM THE BOTTOM OF THE TRENCH TO 12" OVER THE TOP OF THE PIPE (WITHIN PIPE EMBEDMENT) SHALL BE O.D. + 24" FOR ALL PIPES UP TO AND INCLUDING 24" I.D. + 30" FOR PIPE FROM 24" I.D. TO 54" I.D. AND O.D. + 48" FOR PIPES SIZES 60" I.D. AND OVER.
  - FOUNDATION: WHERE AN UNSTABLE TRENCH BOTTOM CONDITION IS ENCOUNTERED, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH MATERIAL AS DIRECTED BY THE ENGINEER.
  - PIPE EMBEDMENT: CLASS A PIPE EMBEDMENT SHALL BE USED FOR ALL PIPING UNDER PAVEMENT OR STRUCTURES WITH LESS THAN 12 INCHES OF PIPE COVER TO THE SUBGRADE. THE CONCRETE CRADLE SHALL BE IN ACCORDANCE WITH ODOT ITEM 499, CLASS "C". THE INITIAL BACKFILL SHALL BE AASHTO NO. 57 OR NO. 67 GRANULAR PIPE EMBEDMENT.
  - CLASS B PIPE EMBEDMENT SHALL BE USED FOR ALL PIPING UNLESS OTHERWISE NOTED ON THE PLANS OR AUTHORIZED BY THE ENGINEER. THE PIPE EMBEDMENT SHALL BE AASHTO NO. 57 OR NO. 67 GRANULAR PIPE EMBEDMENT. IN ALL AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE, THE INITIAL BACKFILL SHALL BE AASHTO NO. 57 OR NO. 67 STONE GRANULAR PIPE EMBEDMENT. IN ALL AREAS OUTSIDE OF PAVEMENT, STRUCTURES OR THE ZONE OF INFLUENCE, THE INITIAL BACKFILL SHALL BE SUITABLE ON-SITE MATERIAL APPROVED BY THE ENGINEER FOR ONLY REINFORCED CONCRETE PIPE AND DUCTILE IRON PIPE. THE INITIAL BACKFILL FOR ALL OTHER PIPES SHALL BE AASHTO NO. 57 OR NO. 67 GRANULAR PIPE EMBEDMENT.
  - CLASS C PIPE EMBEDMENT SHALL ONLY BE USED FOR DUCTILE IRON WATER MAIN, DUCTILE IRON FORCE MAINS OR AS AUTHORIZED BY THE ENGINEER. THE PIPE EMBEDMENT SHALL BE AASHTO NO. 57 OR NO. 67 GRANULAR PIPE EMBEDMENT IN ALL AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE. THE PIPE EMBEDMENT SHALL BE SUITABLE ON-SITE MATERIAL APPROVED BY THE ENGINEER IN ALL AREAS OUTSIDE OF PAVEMENT, STRUCTURES OR THE ZONE OF INFLUENCE. WHERE ROCK OR SHALE IS ENCOUNTERED, A MINIMUM 6-INCHES OF AASHTO NO. 57 OR NO. 67 GRANULAR PIPE BEDDING OR SAND BEDDING SHALL BE PLACED AS DIRECTED BY THE ENGINEER.
  - FINAL BACKFILL: IN ALL AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE THE FINAL BACKFILL SHALL BE SPECIAL BACKFILL MATERIAL IN ALL AREAS OUTSIDE OF PAVEMENT, STRUCTURES OR THE ZONE OF INFLUENCE, THE FINAL BACKFILL SHALL BE SUITABLE ON-SITE MATERIAL APPROVED BY THE ENGINEER.
  - SPECIFICATIONS: ALL TRENCHING, PIPE EMBEDMENT AND BACKFILL MATERIALS SHALL BE IN ACCORDANCE WITH SPECIFICATION 02204CT.
  - CLAY TRENCH DAMS: CLAY TRENCH DAMS SHALL BE REQUIRED AS SHOWN ON PLANS OR WHEN AND WHERE NECESSARY AS DIRECTED BY THE ENGINEER.
  - GEOTEXTILE FABRIC: INSTALL A GEOTEXTILE FABRIC IN ACCORDANCE WITH ODOT 712.09, TYPE A, AFTER ALL INITIAL BACKFILL CONSISTING OF AASHTO NO. 57 OR NO. 67 GRANULAR PIPE EMBEDMENT.
  - DETECTOR TAPE: IF REQUIRED IN THE SPECIFICATIONS, INSTALL DETECTABLE WARNING TAPE ABOVE UTILITIES, 12" BELOW FINISHED GRADE, EXCEPT 6 INCHES BELOW SUBGRADE UNDER PAVEMENT AND SLABS.

**TRENCHING, EMBEDMENT AND BACKFILL DETAIL**

6/04 NOT TO SCALE SD-1-1  
(FOR STORM SEWER INSTALLATION)



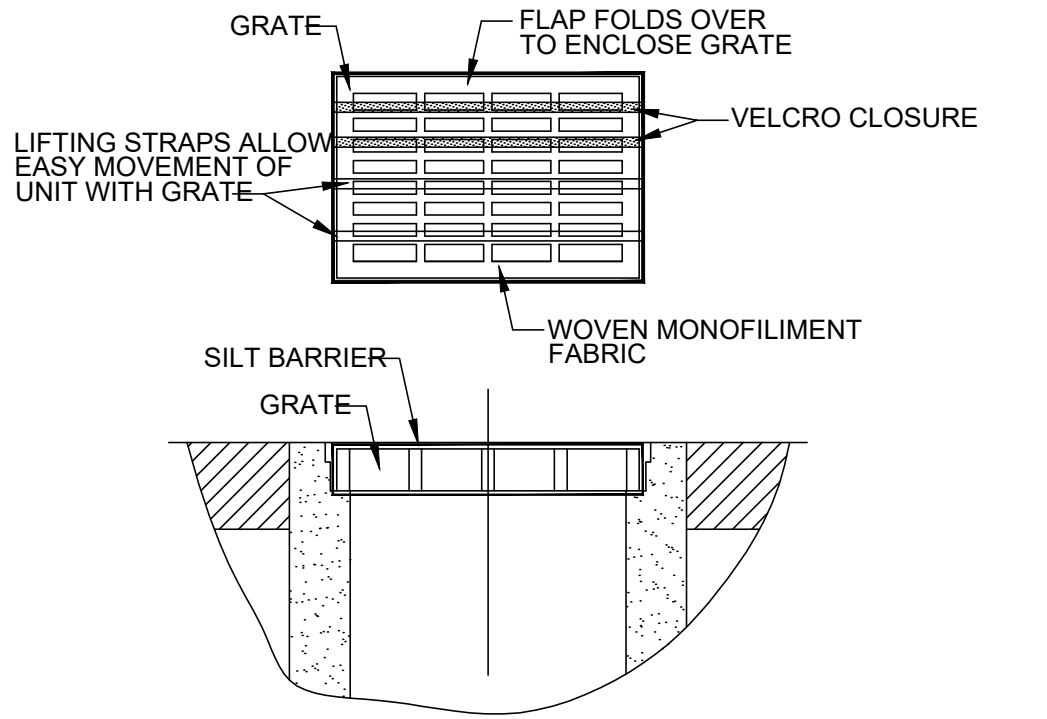
**ASPHALT BUFFER STRIP (AT INTERSECTIONS)**



**M.H./I.B. ADJUSTED TO GRADE**

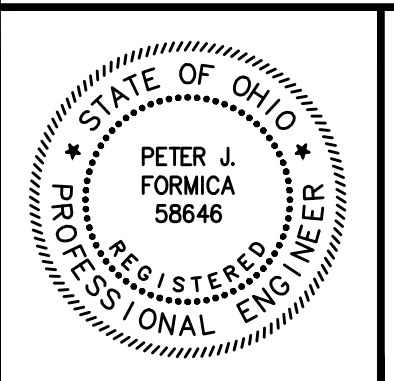
ADJUST TO GRADE WORK SHALL INCLUDE RECONSTRUCTION OF MANHOLE/BASIN FOR UP TO 2' FROM PROPOSED RIM ELEVATION OR GUTTER GRADE ELEVATION.

RECONSTRUCTION OF MANHOLE/BASIN BELOW 2' FROM PROPOSED RIM ELEVATION OR GUTTER GRADE ELEVATION SHALL BE PAID FOR UNDER MANHOLE/BASIN RECONSTRUCTED TO GRADE.



**INLET PROTECTION FOR CATCH BASIN IN ROADWAY**

- GEOTEXTILE SHALL HAVE AN EQUIVALENT OPENING SIZE OF 20-40 Sieve AND BE RESISTANT TO SUNLIGHT.
- MAINTENANCE: REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM SURFACE AND VICINITY OF UNIT AFTER EACH STORM EVENT. REMOVE SEDIMENT THAT HAS ACCUMULATED WITHIN THE CONTAINMENT AREA OF THE SILT BARRIER AS NEEDED.
- TO INSTALL CATCH BASIN INLET SILT BARRIER: THE EMPTY SILT BARRIER SHOULD BE PLACED OVER THE GRATE AS THE GRATE STANDS ON END. TUCK THE ENCLOSURE FLAP INSIDE TO COMPLETELY ENCLOSE THE GRATE. HOLDING THE LIFTING DEVICES (DO NOT RELY ON LIFTING DEVICES TO SUPPORT THE ENTIRE WEIGHT OF THE GRATE), PLACE THE GRATE INTO ITS FRAME.



NO	REVISION	DATE

CITY OF EASTLAKE  
**EAST 347TH STREET PAVEMENT RECONSTRUCTION**  
LAKE COUNTY, OHIO

ISSUED FOR:	BID SET
ISSUE DATE:	3/6/2024
SCALE:	AS SHOWN
DESIGNED BY:	PJF
DRAWN BY:	TJM
CHECKED BY:	TBG

**DETAILS**

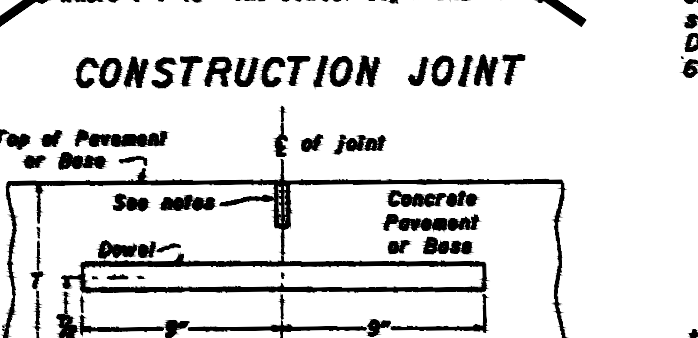
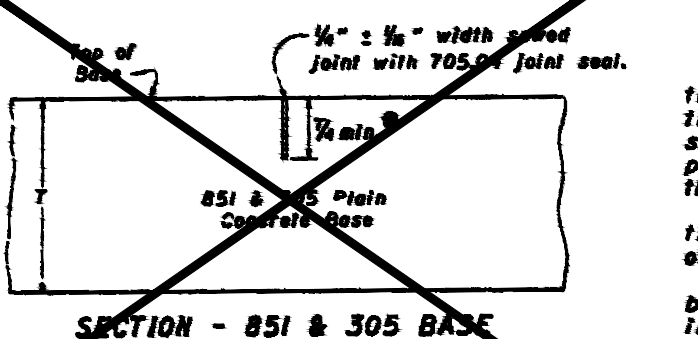
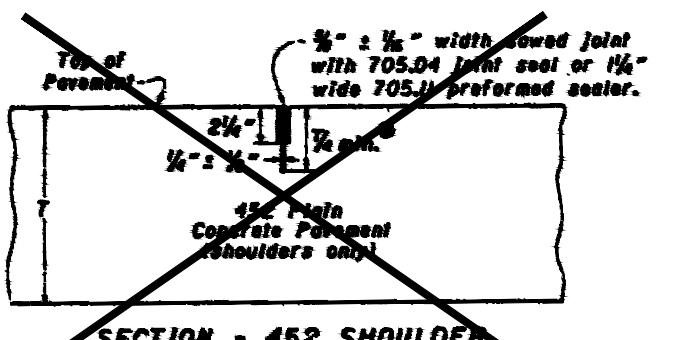
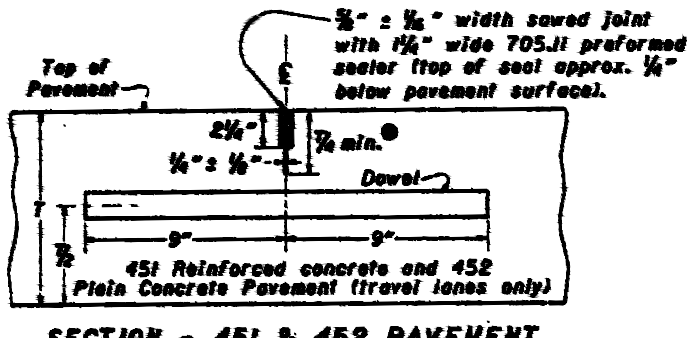
PROJECT NO.	232528
DISCIPLINE	CIVIL
SHEET NAME	
SHEET	OF
7	12



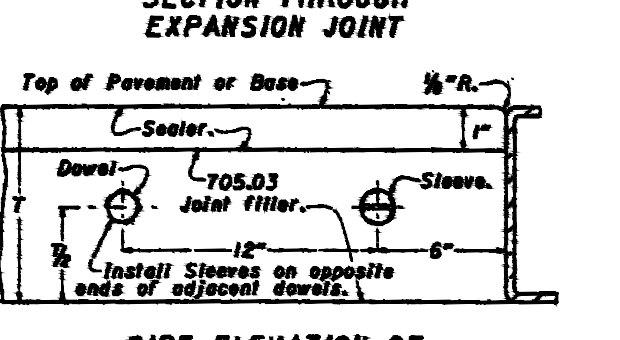
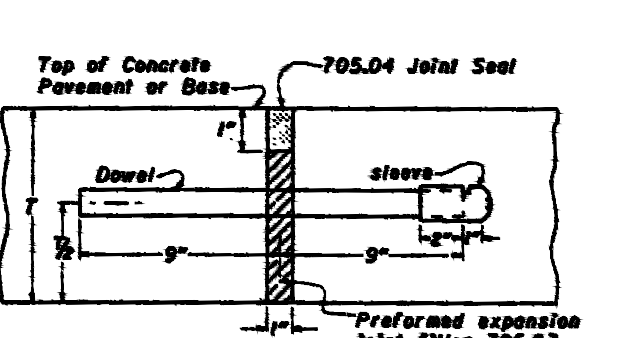




**CONTRACTION JOINTS**



**EXPANSION JOINT**



**GENERAL:** Notes and details shown on this drawing shall be considered in conjunction with and supplemental to the pertinent specifications for portland cement concrete pavements and bases, and incidentals related thereto.

All joints shall be constructed normal to the centerline of the pavement lane unless otherwise directed.

Where dowels are specified, they shall be round, straight steel bars of the size indicated in the following table, and shall be coated in accordance with the requirements of specification 705.J.3. Dowel basket assemblies shall also be coated in accordance with 705.J.3. Dowels shall be spaced at 12" centers, beginning 6" from the longitudinal joint.

DOWEL SIZE	
(1) THICKNESS OF PAVEMENT	DIAMETER OF DOWEL
8.5" or less	1"
8.5" to 10"	1 1/4"
over 10"	1 1/2" or as shown on plan

**ASSEMBLY:** Each joint assembly used to hold dowels in position shall be continuous between longitudinal joints, or between longitudinal joint and pavement edge. The assembly shall be firmly held in proper position by at least eight 1/4" steel pins driven at

an angle to brace the assembly from lateral and vertical displacement during the placing of the concrete. These pins shall be of least 1/4" in length. Two of these pins shall be driven opposite each other at each end of the assembly and the remaining pins shall be driven in staggered positions on each side of the assembly. In exceptional cases where it is impractical to use the 1/4" length pins, such as where hardware or rock is encountered, the Engineer may authorize use of shorter pins provided the assembly is held firmly. Where the assembly is placed on granular material which may allow settlement or distortion, the assembly shall be anchored to prevent settlement or distortion with some combination of pins and/or steel plates, or by some other means to the satisfaction of the Engineer.

When concrete pavement is placed on an existing concrete pavement or a stabilized base, the joint assembly (basket) shall be held firmly in position by the use of a power driven fastener and an apron clip at 6 locations along the assembly (3 each side of the assembly) to secure the basket from lateral and vertical displacement during concrete placement.

Dowel spacing is shown for pavement lanes of even foot widths. Where other widths are specified, standard cages may be used with dowel spacings adjusted as follows:

The 6" dowel spacing shall be maintained at the longitudinal joint. The spacing at the outer edge of the lane may be increased up to 12". Where an odd width of lane occurs, a dowel shall be placed 6" from the outer edge of the lane if the standard cage would provide for a space exceeding 12". Such a dowel shall be held rigidly in proper position by a method satisfactory to the Engineer or a dowel cage of greater length than required may be used by cutting the assembly and splicing to obtain the required length.

This drawing is intended for use with a uniform depth pavement. When the project involves the placing of vertical depth pavement, the joint components shall be held in place in accordance with the method shown in the plan or as approved by the Engineer.

**EXPANSION JOINTS:** Expansion joint filler shall be held rigidly in position and shall be continuous for the full width of each lane. The face of the expansion joint shall be perpendicular to the concrete surface and shall not be skewed horizontally except when abutting a stowed bridge approach slab.

Smooth dowels shall be used, and free movement shall be provided by applying a coating of a thin layer of oil or other "bond-breaking" material just prior to placing the concrete. One free end of each dowel shall be equipped, after coating, with a sleeve of metal or other approved material approximately 3" long, designed with crimped and overlapping seams, fitting closely around the dowel. Each sleeve shall be provided with a depression or interior projection to act as a stop for the dowel, sufficiently distant from the crimped end to allow 1" for longitudinal dowel movement with pavement expansion. In lieu of this requirement, any other means may be used if approved by the Director.

Proper size dowel holes shall be punched or drilled into the preformed expansion joint filler in order to insure tight fitting dowels.

**CONTRACTION JOINTS:** All contraction joints in 451 reinforced concrete and 452 plain concrete pavements shall be dowelled. Contraction joints in 305 plain concrete base or shoulders shall be dowelled if within 500' of a pressure relief joint.

To provide for longitudinal movement of the joint, dowels shall be spaced and coated with a bond breaking material such as a thin layer of oil just prior to placing the concrete. Contraction joints of the type specified shall be spaced in accordance with "ASSEMBLY". The use of starter pins provided the assembly is held firmly. SEE TYPICAL JOINT DETAIL.

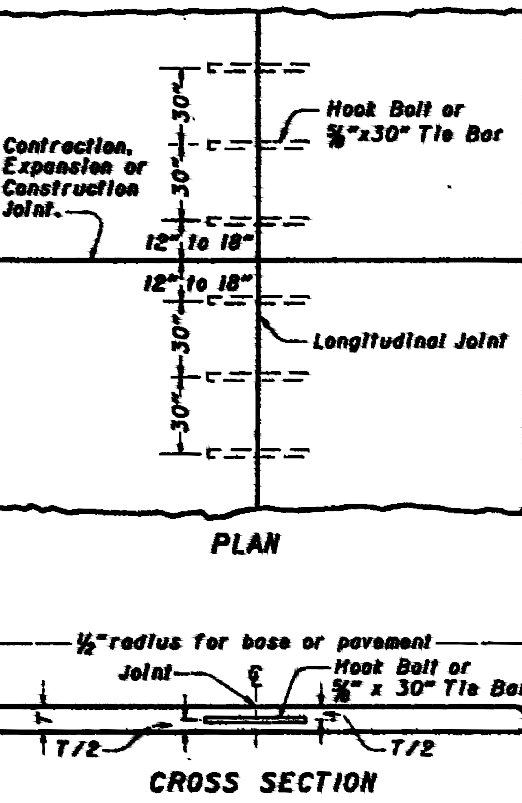
TYPES OF PAVEMENT OR BASE	MAXIMUM SPACING BETWEEN JOINTS
451 Reinforced Concrete Pavement	21 ft. ft.
452 Plain Concrete Pavement	17 ft. ft.
851 & 305 Plain Concrete Base	20 ft. ft.

**CONSTRUCTION JOINTS:** Smooth dowels shall be used in transverse construction joints in all portland cement concrete pavements, shoulders and bases. The joint shall be formed by using an adequate bulkhead that will provide a straight joint. The bulkhead shall have openings provided for dowel bars spaced as outlined under "ASSEMBLY". The plain concrete pavement is being used in conjunction with a concrete base. Construction joints in reinforced concrete pavement may be located at a contraction joint or between contraction joints, provided they are not closer than 10 feet to another parallel joint. In plain concrete pavement or concrete base a construction joint shall not be located closer than 6 feet to another parallel joint.

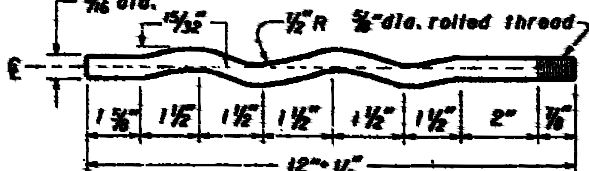
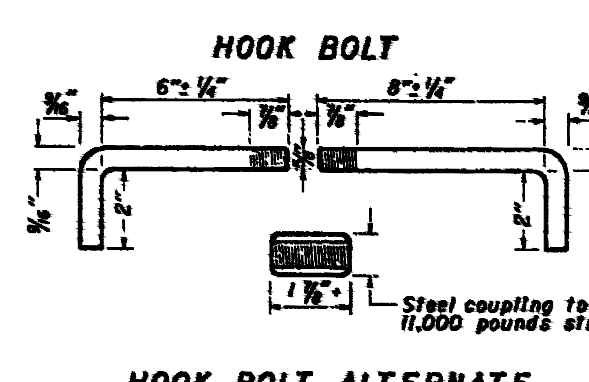
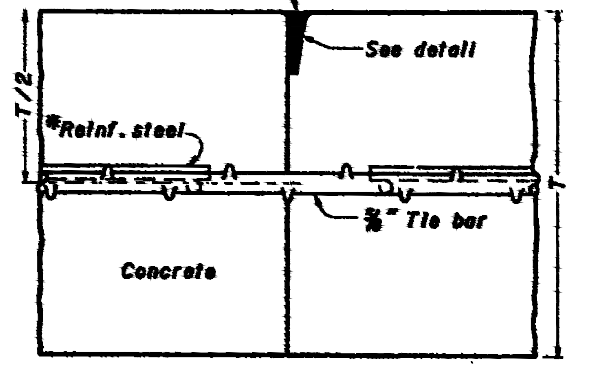
**SEALING BASE CONTRACTION JOINTS:** All contraction joints for plain concrete bases shall be sealed as detailed hereon and the cost included in the unit price bid for Item 305 or 851.

BUREAU OF LOCATION AND DESIGN  
OHIO DEPARTMENT OF TRANSPORTATION  
**TRANSVERSE PAVEMENT JOINTS**  
STANDARD CONSTRUCTION DRAWING  
**BP-2.2**  
APPROVED: [Signature] ENGR. L & D

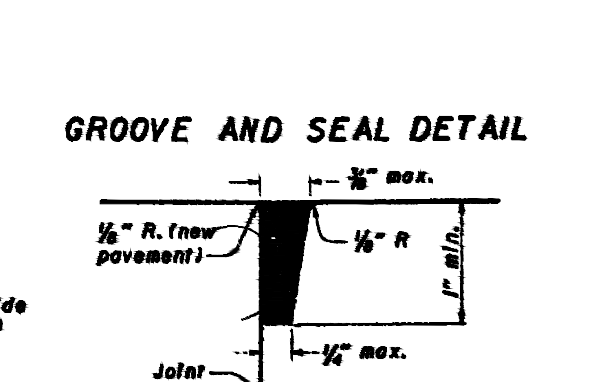
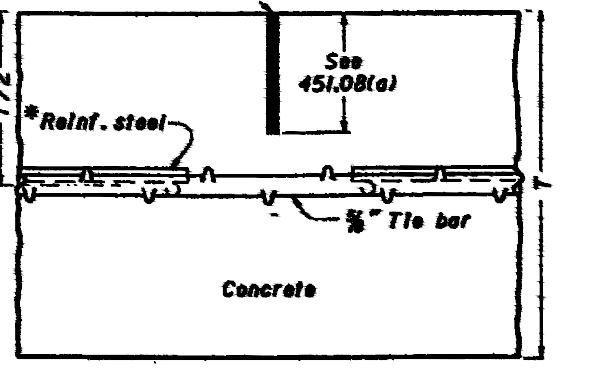
**TIE BAR OR HOOK BOLT SPACING**



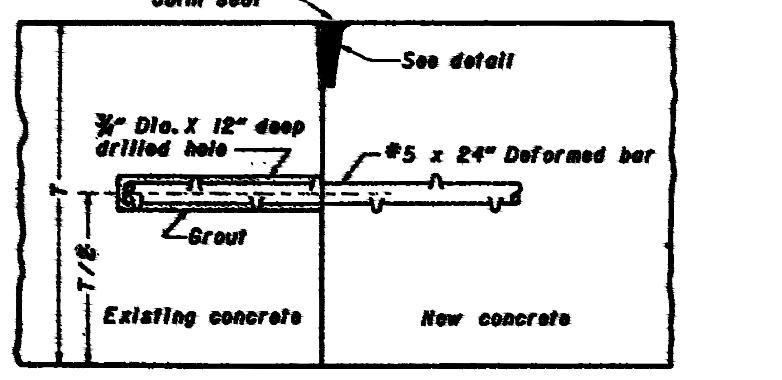
**BUTT JOINT**



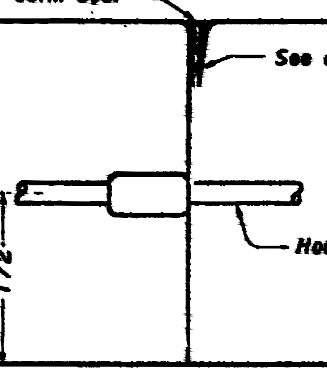
**SAWED JOINT**



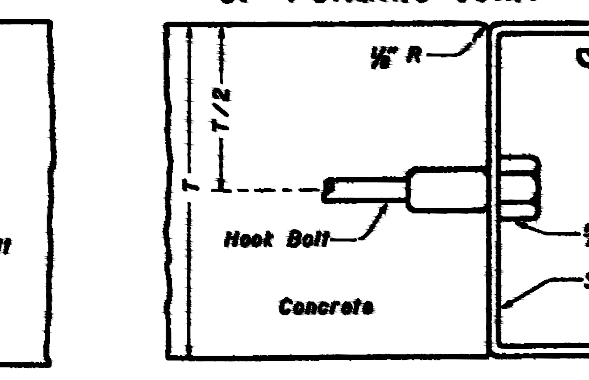
**TYPE D (DRILLED TIED LONGITUDINAL) JOINT**



**BUTT JOINT**



**ACCEPTABLE METHOD OF FORMING JOINT**



**NOTES**

GENERAL: Longitudinal joints shall be used when called for on the typical section and shall be constructed as shown on this drawing in 451 and 452 pavement and 305 base.

The joint shall be on the centerline of the pavement unless otherwise shown on the plans.

Tie bars shall be 3/8" inch round, deformed bars. A satisfactory device shall be used to hold the tie bars in proper position or they may be installed by a mechanical installing device.

**BUTT JOINTS:** The longitudinal joint between adjoining slabs poured in separate operations shall be a butt joint with hook bolts or tie bars, unless otherwise shown on plans. Seal the bar construction shall not be permitted.

**TYPE D (DRILLED TIED LONGITUDINAL JOINTS):** Type D joints shall be constructed in accordance with 255.05. Spacing shall meet the requirements of 255.02. The use of 3" expansion embeds FF-S-305 Group III, Type I, or Group II, Type 4, Class I may be used in lieu of the "5" x 24" deformed bar and shall be installed according to the manufacturer's recommendations.

The use of self-drilling separator shield anchors FF-S-305 Group III, Type I, and II shall not be permitted.

**GROOVES:** Grooves for sealing expansion bolt or butt joints in 451 or 452 pavements shall be formed by impressing a device or bar into the newly deposited concrete adjacent to the existing or previously poured lane. The device or bar shall be removed as soon as the concrete is in such condition as to preclude distortion of the concrete. Adjoining slabs adjacent to grooved joints shall be edged with a thin metal edge having a radius of 1/8" inch. Any impression left in the surface of the pavement by the flat part of the edging tool shall be eliminated.

In lieu of the above method the longitudinal joint may be constructed in accordance with 451.05(1).

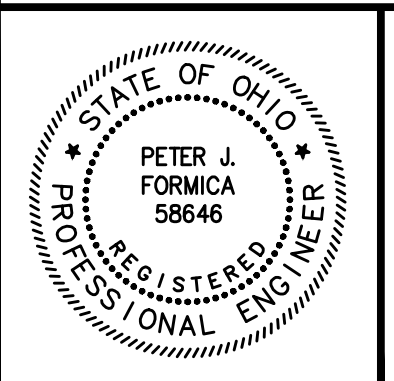
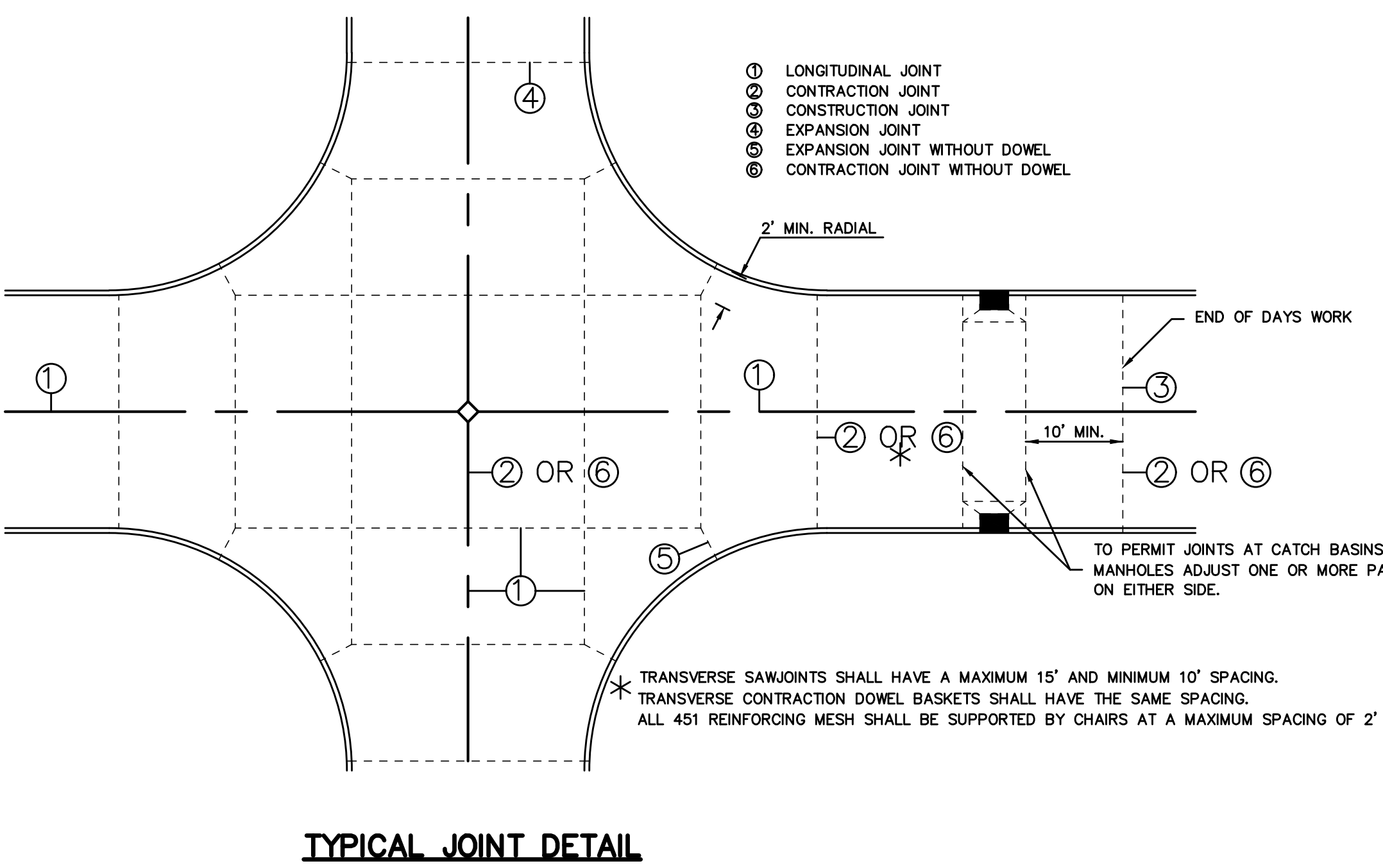
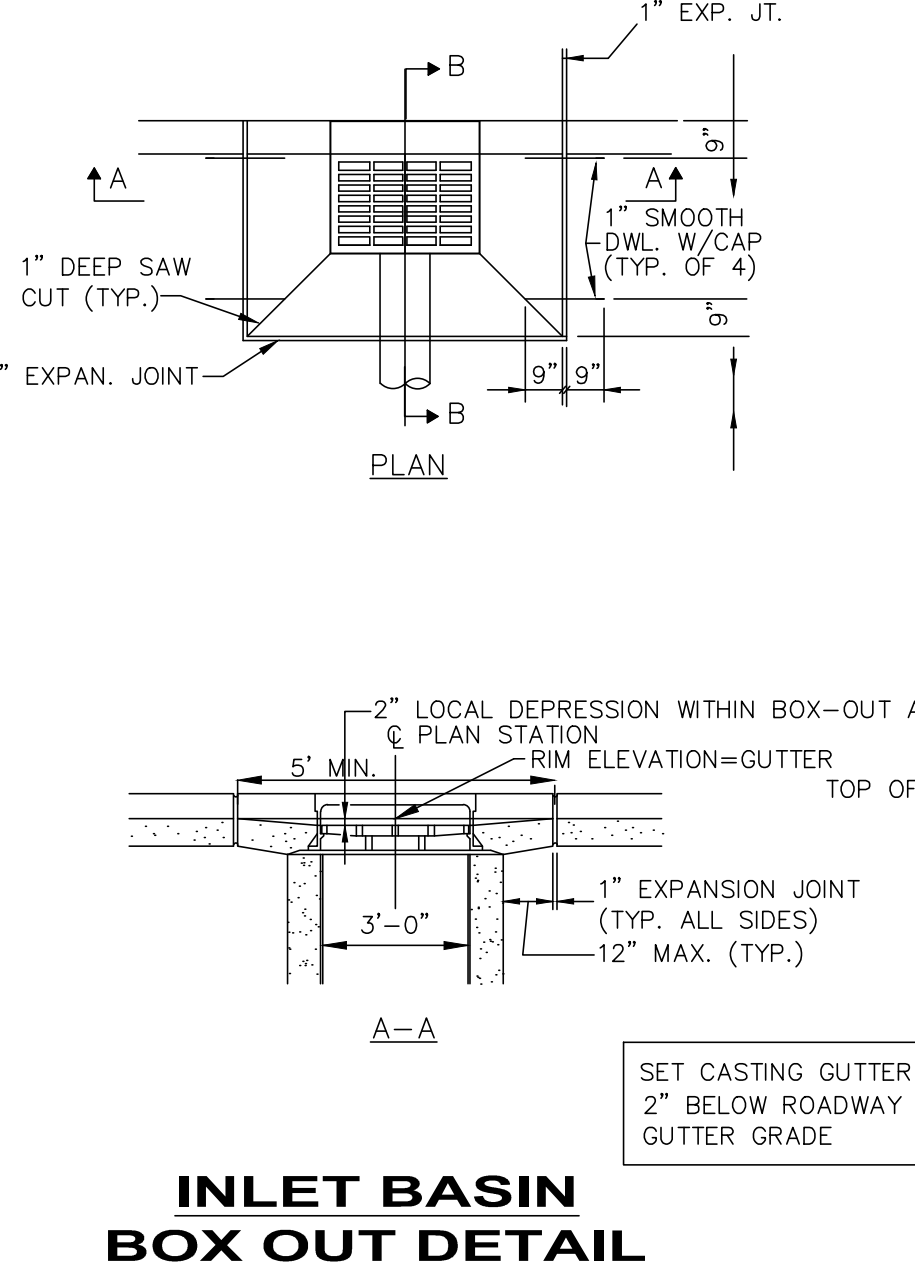
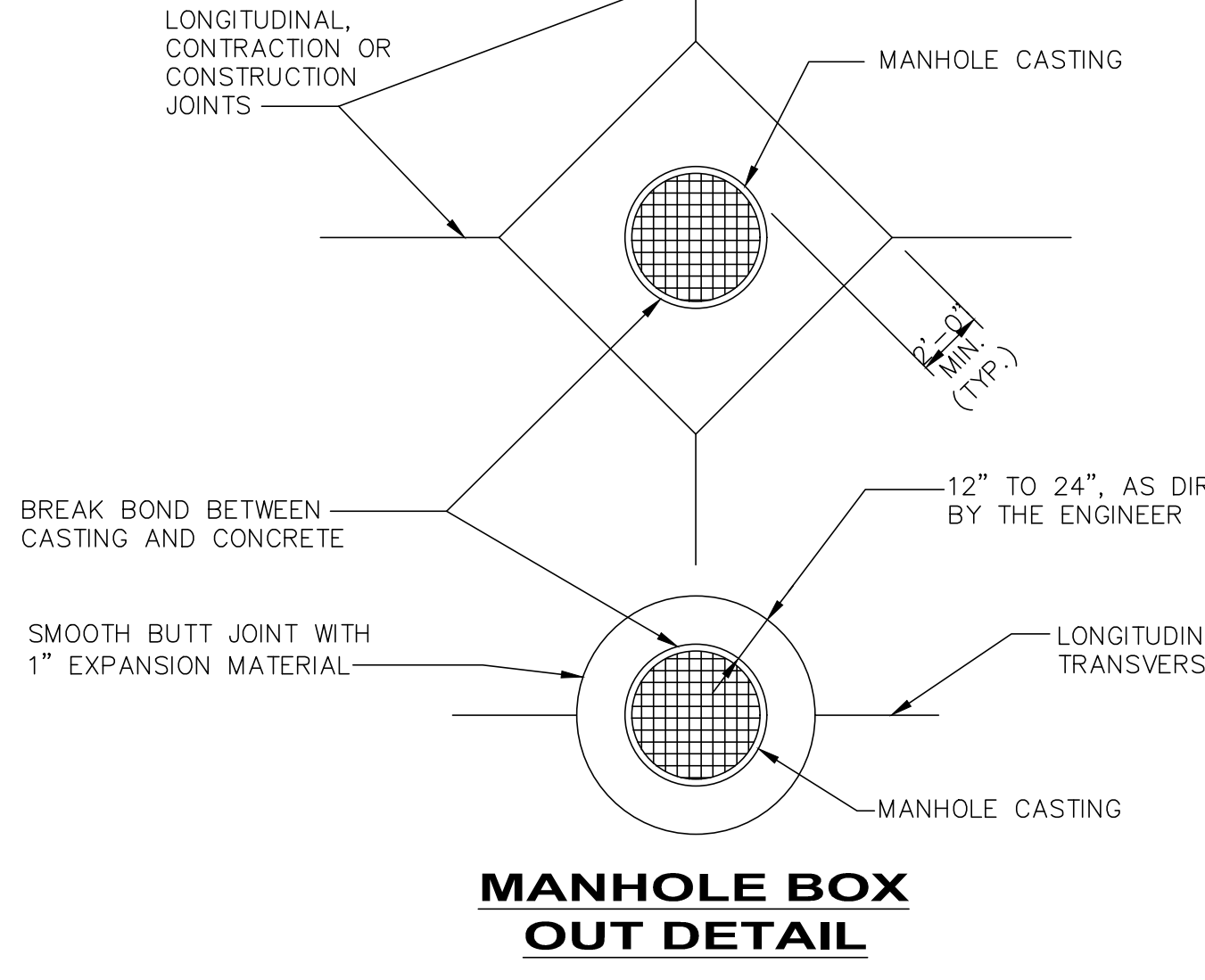
After the joint is formed it shall be protected from dirt and foreign matter until the joint seal is placed.

**SEALING JOINTS:** Sawed or hand-formed joints may be sealed with 705.04 or 705.11 joint sealer.

**HOOK BOLTS:** Hook bolt inserts shall be turned to a tight fit when installed in threaded hook bolts or couplings.

**METAL STRENGTH:** Tie bars, hook bolt assemblies and hook bolt alternate shall have a minimum strength of 11,000 pounds.

BUREAU OF LOCATION AND DESIGN  
OHIO DEPARTMENT OF TRANSPORTATION  
**LONGITUDINAL PAVEMENT JOINTS**  
STANDARD CONSTRUCTION DRAWING  
**BP-2.1**  
APPROVED: [Signature] ENGR. L & D



NO	REVISION	DATE

CITY OF EASTLAKE  
**EAST 347TH STREET PAVEMENT RECONSTRUCTION**  
LAKE COUNTY, OHIO

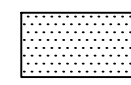


ISSUED FOR: BID SET  
ISSUE DATE: 3/6/2024  
SCALE: AS SHOWN  
DESIGNED BY: PJF  
DRAWN BY: TJM  
CHECKED BY: TBG

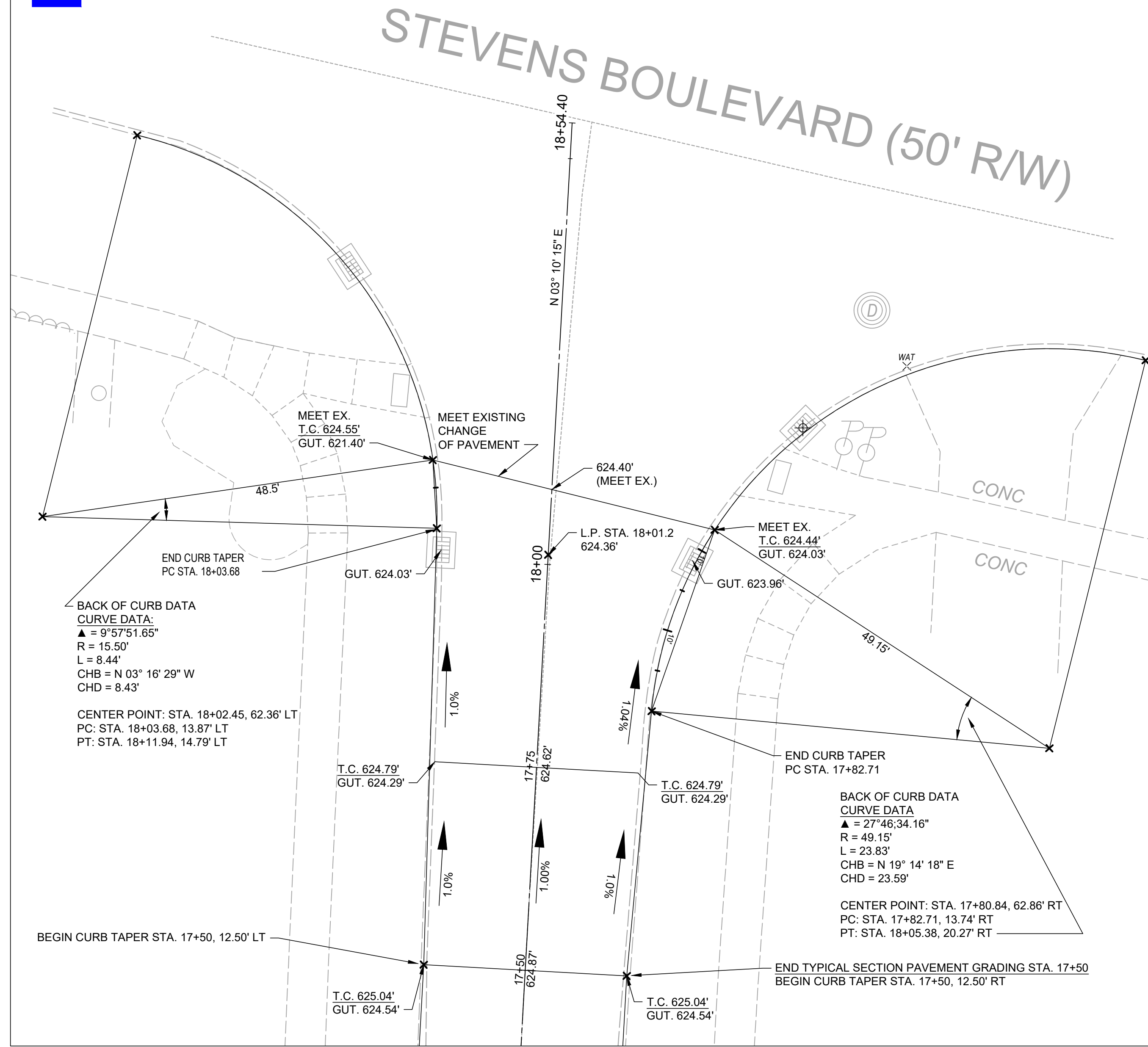
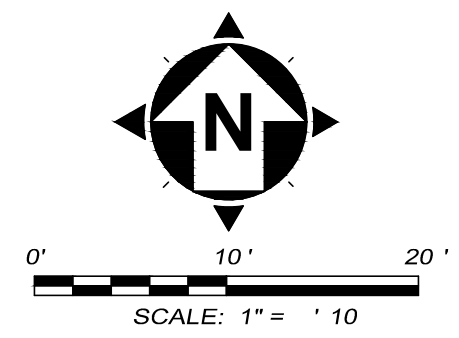
**DETAILS**

PROJECT NO. **232528**  
DISCIPLINE **CIVIL**  
SHEET **8** OF **12**

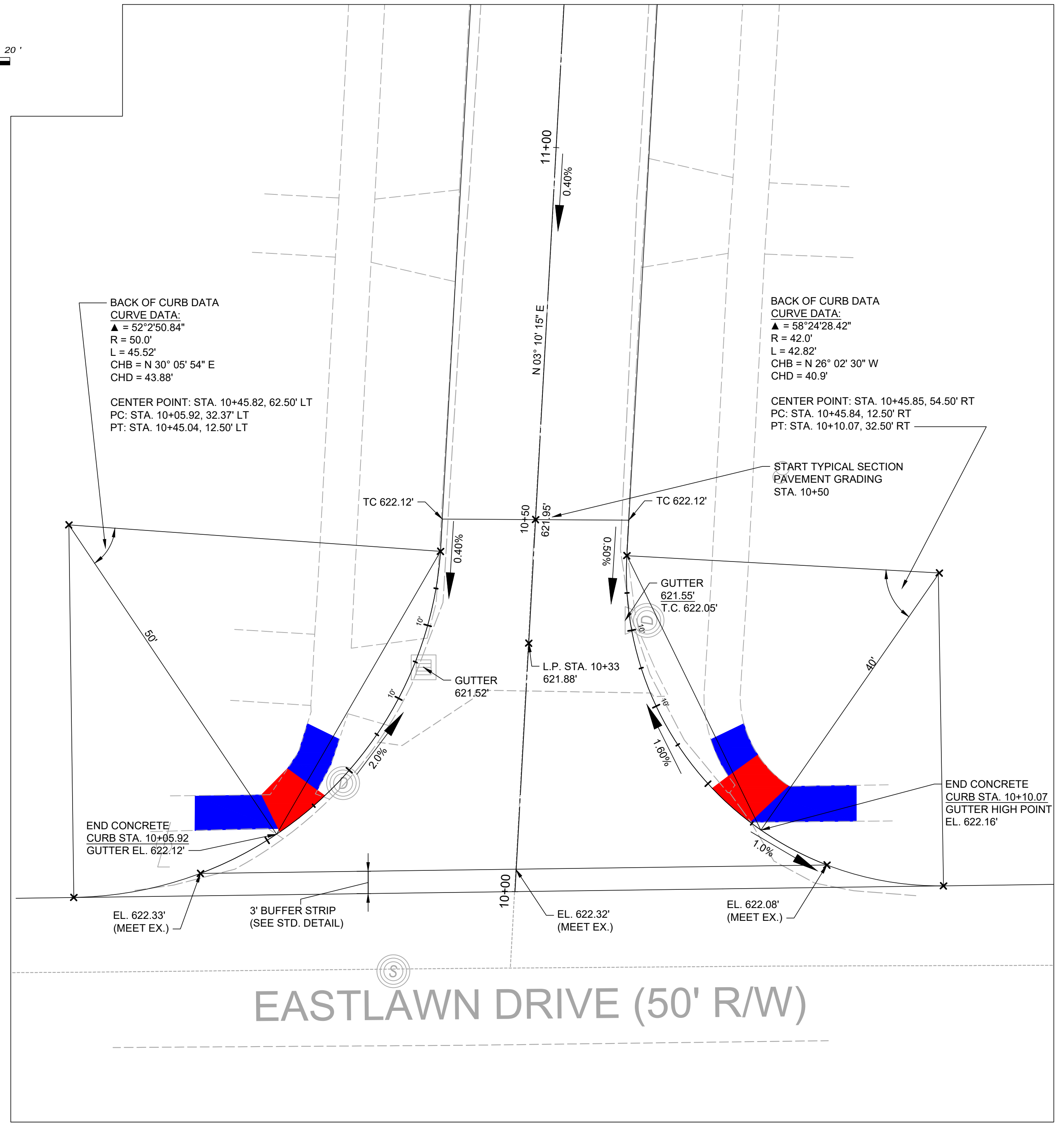


# LEGEND

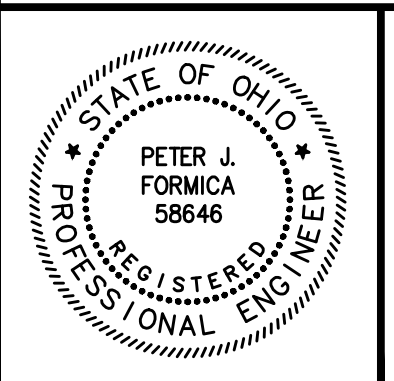
-  REMOVE & REPLACE CONCRETE APRON  
SEE DETAILS, SHEET 9
-  PROPOSED 6" CONCRETE CURB RAMP  
SEE DETAILS, SHEET 9
-  PROPOSED 4" WALK



**INTERSECTION OF E. 347TH STREET  
AND STEVENS BOULEVARD**



**INTERSECTION OF E. 347TH STREET  
AND EASTLAWN DRIVE**



NO	REVISION	DATE

CITY OF EASTLAKE  
**EAST 347TH STREET  
PAVEMENT RECONSTRUCTION**  
LAKE COUNTY, OHIO

ISSUED FOR: BID SET  
ISSUE DATE: 3/6/2024  
SCALE: AS SHOWN  
DESIGNED BY: PJF  
DRAWN BY: TJM  
CHECKED BY: TBG

**INTERSECTION DETAILS**

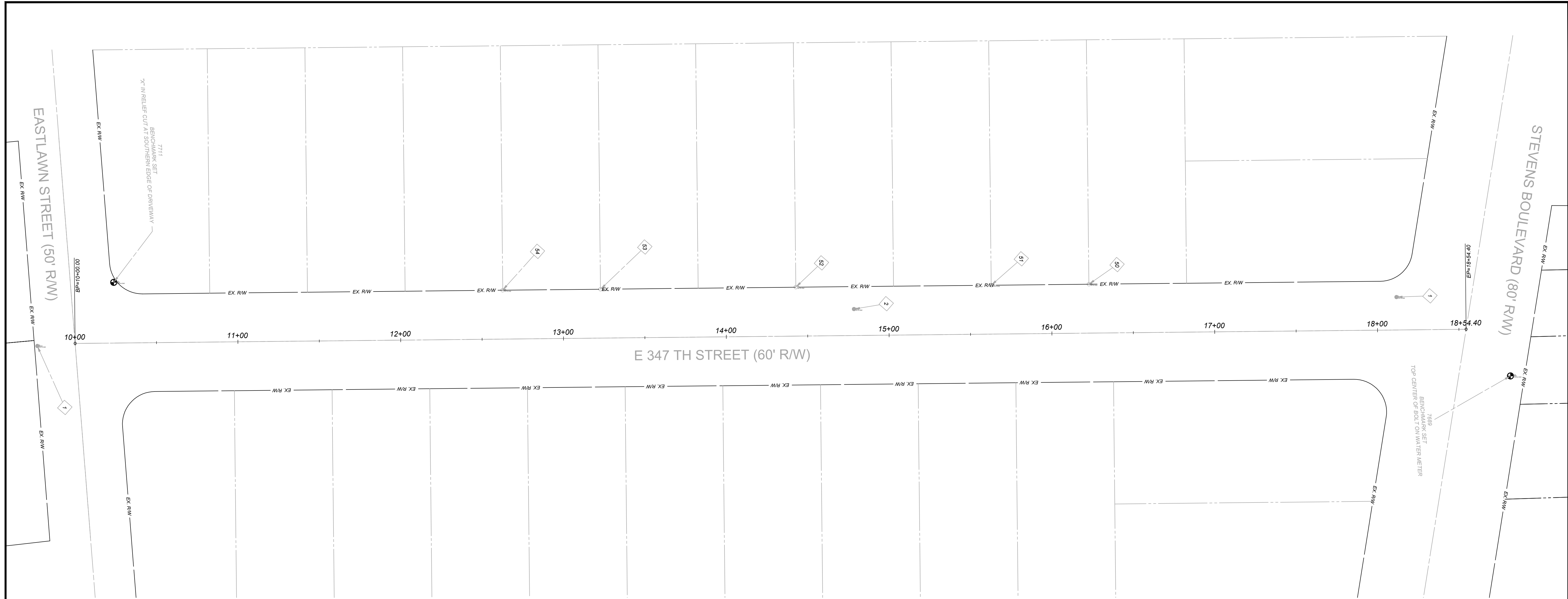
PROJECT NO. <b>232528</b>	
DISCIPLINE <b>CIVIL</b>	
SHEET NAME <b>I-1</b>	
SHEET <b>10</b>	OF <b>12</b>

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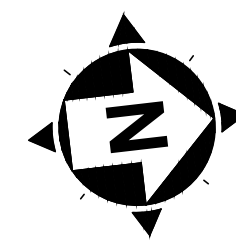




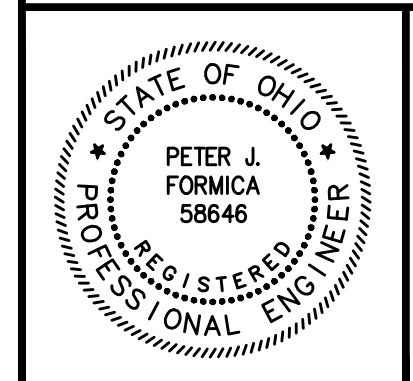


**LEGEND:**

- CENTERLINE MONUMENT
- I.PIN SET
- I.PIN FOUND
- I.PIPE FOUND
- LIMITS OF PUBLIC RW
- CENTERLINE PUBLIC RW
- PARCEL LINES
- SUBDIVISION LINES



POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	724149.2924	2257885.8871	624.99'	Iron Pin (Set)
2	723816.3181	2257871.4236	623.96'	Iron Pin (Set)
3	723314.3231	2257861.1728	622.48'	Iron Pin (Set)
50	723961.2867	2257865.6545	0.00'	Iron Pin (Fnd)
51	723901.3985	2257862.3384	0.00'	Iron Pin (Fnd)
52	723781.5332	2257855.6652	0.00'	Iron Pin (Fnd)
53	723661.7732	2257849.0998	0.00'	Iron Pin (Fnd)
54	723601.6997	2257845.7341	0.00'	Iron Pin (Fnd)
7689	724216.0092	2257938.7561	626.12'	Benchmark (Set)
7711	723363.7139	2257825.2561	622.97'	Benchmark (Set)



NO	REVISION	DATE

CITY OF EASTLAKE  
**EAST 347TH STREET  
 PAVEMENT RECONSTRUCTION**  
 LAKE COUNTY, OHIO

ISSUED FOR: BID SET  
 ISSUE DATE: 3/6/2024  
 SCALE: AS SHOWN  
 DESIGNED BY: PJF  
 DRAWN BY: TJM  
 CHECKED BY: TBG

**SURVEY CONTROL**

PROJECT NO. <b>232528</b>	
DISCIPLINE <b>CIVIL</b>	
SHEET NAME	
SHEET <b>12</b>	OF <b>12</b>