OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION

#### ADDENDUM NO. 3

## PROJECT NO. 39-16-01 (PART A) RIGHT TWO (2) LANES AND SHOULDER RECONSTRUCTION MILEPOST 107.3 TO MILEPOST 112.5 ERIE COUNTY, OHIO

## PROJECT NO. 39-16-01 (PART B) BRIDGE DECK REPAIR & REHABILITATION OHIO TURNPIKE OVER NS RAILROAD AND KELLY ROAD MILEPOST 117.3 OHIO TURNPIKE OVER US ROUTE 250 MILEPOST 118.1 ERIE COUNTY, OHIO

#### OPENING DATE: 2:00 P.M. (EASTERN), DECEMBER 21, 2015

#### ALL BIDS MUST BE ELECTRONICALLY SUBMITTED THROUGH BID EXPRESS

#### ATTENTION OF BIDDERS IS DIRECTED TO:

#### ANSWERS TO QUESTIONS RECEIVED THROUGH 10:00PM ON DECEMBER 15, 2015

#### MODIFICATIONS TO THE CONTRACT DOCUMENTS

Project 39-16-01A: Plan Sheet Nos. 6, 9, 18, 215, 216, 218, 233 and 234 of 432; Plan Insert Sheets 1 and 2 of 2. Bid Schedule of Items at Ref. Nos. 33, 53, 337, 339, 340, 342, 344, 345, 346 Special Provision at Index Page 2 of 2

Issued by the Ohio Turnpike and Infrastructure Commission on December 15, 2015. Issuance authorized by Anthony D. Yacobucci, Chief Engineer, and Mark R. Musson, Director of Contract Administration.

22/15/15 Anthony D. Yacobucci

Mark R. Musson

#### OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION ADDENDUM NO. 3 PROJECT NO. 39-16-01 (PART A & PART B)

#### QUESTIONS AND ANSWERS THROUGH 10:00 PM DECEMBER 15, 2015

- Q#17 Would the OTC allow a contractor to use OTC property (infield bowls) as a disposal site for this Project? Possible proposed locations include Toll Plaza 110 and/or Toll Plaza 118. Please advise if this would be acceptable and what stipulations and/or credits (if any) back to the OTC would apply to this scenario.
- A#17 No, the Toll Plaza 110 Waste Site Deduct Alternate is included in this Project for disposal of all waste for both Eastbound and Westbound lanes. The TP 110 waste site, as shown on Plan Insert Sheet 2 of 2, has enough capacity for the entire Project.
- Q#18 Will permission be granted to use OTC property at Toll Plaza 110 and/or Toll Plaza 118 for a temporary plant site? Please advise if this would be acceptable and what stipulations and/or credits (if any) back to the OTC would apply to this scenario.
- A#18 The Commission will authorize the use of the interchange infield areas at Toll Plaza 110 and/or Toll Plaza 118 for any portable asphalt or concrete plants ("Plants"), subject to the following obligations of the Contractor incorporated into the Contract Documents through this Addendum No. 3:
  - 1. Plant installation and operation shall conform with all local, state, federal and regulatory ordinances, statutes, rules or other requirements, including all local noise ordinances. The Contractor shall acquire any required permits, approvals or authorizations from those entities with jurisdiction over the operation and location. The Contractor shall bear the entire the risk that any regulatory authority prohibits or stops the use of the Plants on the Commission's property.
  - 2. Perform pre-survey and post-survey documenting the existing and remaining conditions of the entire Toll Plaza interchange infield areas affected by the grading. The surveys shall provide one (1) foot contours detailing any swales or drainage facilities. The surveys shall be stamped by a Professional Surveyor licensed in the State of Ohio.
  - 3. Prepare modified SWPPP Design and implement the modified SWPPP in accordance with the Contract Documents. Provide any OEPA permit modifications.
  - 4. Prepare and provide a scaled set of drawings of the interchange and all details required to perform the proposed work. The general plan shall show all the work to be completed with this modification. At a minimum, the existing topographic drawings shall be shown with the existing and proposed grading, drainage, utilities and lighting. Details of all drainage and lighting shall be provided with all the info that is required to build the proposed work.
  - 5. The infield areas will require grading and drainage work to create a work area. The existing drainage system with the proposed modifications shall be designed in

accordance with the most current addition of the ODOT Location and Design Manual, Volume Two, Drainage Design. Both the existing system and proposed system shall be hydraulically analyzed. The Drainage Design and Plans shall be prepared and stamped by a Professional Engineer licensed in the State of Ohio. The drainage design and the set of drawings shall be submitted to the Commission for approval prior to implementing any drainage work.

- 6. Additional Drainage, as needed to maintain existing drainage ditches and conduits:
  - a. The Drainage shall be installed in accordance with the current edition of the OTIC and/or ODOT Standard Drawings.
  - b. The piping material shall be either Type B, 706.02 or Type B, 707.33.
- 7. Existing trees will need to be felled before April 1, 2015 due to the Indiana Fruit Bat Restrictions between April 1 and September 30.
- 8. Compliance with any ODOT and or local agency permit requirements for accessing the local roads is required.
- 9. The Contractor shall comply with all Ohio Environmental Protection Agency and any additional agency permits, authorizations or conditions required for the setup, operation and removal of Plants.
- 10. The Contractor's operations shall in no way interfere with Turnpike operations or Traffic flow in the Toll Plazas. The Contractor shall provide all Maintenance of Traffic Controls in accordance with SP 614 and OTIC Standard Drawings. At all access points, a Flagger shall be stationed to control ingress/egress of construction vehicles.
- 11. MOT for local roads MOT for State and/ or local roads shall be provided in accordance with the OMUTCD and local regulations.
- 12. Lighting shall be provided at each ingress and egress location for all night operations.
- 13. No waste material is to be stored at the Plant location. Any waste material as a result of production is to be removed and disposed of in accordance with SP 105.
- 14. Grading/Guardrail/Seeding:
  - a. The Contractor shall remove and stockpile topsoil for reuse at the completion of the batch plant use. All disturbed areas shall be restored by placing eight (8) inches of stockpiled topsoil and graded to provide positive drainage.
  - b. All disturbed Ramp shoulders shall be restored in accordance with the mainline shoulder typical sections.
  - c. The Commission reserves the right to modify final grading and elevations as work progresses at no additional cost to the Commission.
  - d. Contractor-proposed modifications to existing guardrail shall be submitted to the Commission for approval prior to any modifications. Contractor shall provide an existing condition plan and a proposed modified plan and a final permanent plan. All guardrail modifications shall be in accordance with OTIC standards and approved by the Chief Engineer.
  - e. All disturbed areas shall be seeded and mulched after completion of the work in accordance with ODOT CMS 659, as approved by the Chief Engineer.
- 15. Additional Items:

- a. For safety reasons, Ramp Traffic volume may restrict or dictate when off-road trucks or construction vehicles may cross Ramp.
- b. All access points shall be closed with Barrels and Type 3 barricades when not in use.
- c. Ramp Access Points are to have Standard Construction Entrances constructed in accordance with SWPPP requirements. The adjacent ramp pavement shall be kept free from mud and debris.
- d. Early Warning advisory signage may need to be placed and active when dump site is in use to advise traffic that construction vehicles are crossing, entering and/or exiting.
- 16. Provide As-built Drawings following restoration of the disturbed areas in AutoCAD, Version 2011 or newer.
- 17. If the Contractor elects to pursue the use of the Commission's property for the Plants in accordance with these preceding conditions, the cost of all items listed above and any other costs incurred by the Contractor due to this Work shall be reflected as incidental to the unit prices bid on the Contract items.

# Q#19 In regards to Reference No. 33 (Granular Material), the bid form lists the unit as CY. Is that the correct unit or should it be TN?

- A#19 This Addendum No. 3 revises the quantity of Item SP 304 Granular Material in the General Note on Plan Sheet 18 of 432, General Summary on Plan Sheet 215 of 432 and the Bid Schedule at Ref. No. 33 to reflect 360 TONS.
- Q#20 Bid items 326 and 337 (Excavation for both Asphalt and Concrete Alternates): the subsummary for the asphalt alternate on sheets 229 and 230 shows nominal pavement and shoulder widths of 35.25'. The concrete alternate on sheets 233 and 234 shows both 34.25' and 35.25' nominal widths. The pavement widths on the typical sections appear to show a nominal for both of 35.25'. Please review the excavation quantities shown in the concrete alternate subsummary and revise accordingly.
- A#20 The nominal pavement width for both alternatives is 35.25'. This Addendum No. 3 revises the pavement widths and quantities for the Westbound Concrete Alternate on Plan Sheet 233 of 432 and carried through the General Summary and Bid Schedule at Ref. 337.
- Q#21 Plan sheet 6, note #4 states that extra excavation and embankment needed for the placement of aggregate/pavement steps shall be incidental. Please note that the proposed nominal width of reconstruction (pavement and shoulder) to edge of surface asphalt course is 35.25'. For the asphalt option, the stepped width to the edge of the aggregate is 37.08' and for the concrete option is 36.08'. Typically excavation is paid for to the outside edge of the stepped boxout and not to the edge of pavement. In either case, the owner's quantity is understated compared to the actual amount excavated and will inflate the costs and unit prices accordingly. Please verify that the intent is not to pay for any excavation quantities to truly represent quantities excavated.

- A#21 Excavation quantities are calculated to the neat line of the actual pavement buildup or edge of SP 304 to be placed. Any over excavation and subsequent embankment needed in the area over the step construction or outside is incidental to other costs per Note 4 on Plan Sheet 6 of 432. Excavation quantities are calculated to the depths as shown in the pavement sub-summaries Plan Sheets 227 through 234 of 432 and are exclusive of the volume of pavement removed. Excavation quantities for the Concrete Alternate are revised as outlined in the response to Q#20.
- Q#22 Bid item 117- Joint Sealer (SP 404A)- the pavement joint detail on plan sheet 6 shows legend item 22 (SP 404A) as joint sealer "applied to vertical face, each lift". This would be a total of four lifts per directional joint. In addition this is called for the crossover restorations (1 lift) shown on sheet 329 as well as resurfacing of median shoulders (1 lift, against the median barrier and the existing pavement) as shown on plan sheet 13. We believe that the owner quantity is understated based on these details. We feel that based on these conditions that the owner quantity is incorrectly understated. Please review and revise the quantity and/or clarify that the contractor gets paid per foot per lift given the different depths of pavement joints.
- A#22 This Addendum No. 3 revises Item 22 Joint Sealer on Plan Sheets 6 and 9 of 432 to read "applied to vertical face".
- Q#23 In regards to the TP 110 Waste Site Deduct Alternate, the construction drive off the turnpike spans the westbound outside ditch and requires a drive culvert. In order to size up the pipe, will the contractor be required to do a hydraulic study in addition to what is required for the waste area itself?
- A#23 Yes, if the Contractor elects to use the construction drive to the Westbound lanes, drainage calculations are required to size the mandatory drive culvert. Plan Insert Sheet 2 of 2 under Note 3 of the Waste Site Plan submittal requirements states: "All required drainage elements shall be designed in accordance with the current ODOT Drainage Location and Design Manual, Volume 2."
- Q#24 In regards to the TP 110 Waste Site Deduct Alternate, access from the construction drive off the turnpike goes through a construction gate. When the project is finished, do the gate, drive, and culvert have to be removed and restored or can these all be left in place for possible future turnpike use?
- A#24 This Addendum No. 3 adds Note 4.I. on Plan Insert Sheet 2 of 2 that states: "The Contractor shall be required to remove the westbound construction drive, remove the temporary construction gate, repair existing fence at construction entrance and remove any drainage structures associated with the construction drive prior to completion of this Project."
- Q#25 Bid item 176- Asphalt Concrete for Maintaining Traffic: plan sheet 26 note describes this as being used for transitions to milled surfaces and toll/service plazas. Please verify that this bid item is for exclusively for this use, and that "pot hole patching" and repairs not covered under the partial depth repair items are not considered part of this bid item.

- A#25 Yes, Reference No. 176 Item 614 Asphalt Concrete for Maintaining Traffic is to be used as described in the Contract Documents. Any pot-hole patching or repairs the Contractor is directed to perform are not included in the bid item, and will be paid under an appropriate change order.
- Q#26 Bid item #33- SP304 Granular Material- 6560 cy. The proposal and summary show cubic yards, but the note on plan sheet 18 shows 6560 tons. Please clarify whether the correct unit.
- A#26 See the response to Q#19 of Addendum #3.
- Q#27 Bid item #33- SP304 Granular Material- 6560 cy. Plan sheet 18 gives the note for the use of this per "Section E.3" of the stabilization notes. The quantity of 6560 seems way out of proportion with the volume of excavation removed and area of undercut. Please review this quantity as it appears to be overstated.
- A#27 See the response to Q#19 of Addendum #3.
- Q#28 Bid item #53- Limestone Sand, 2500 CY: slope repair sheet 1 calls for 10% incorporation of limestone sand into embankments in note 3. Note 12 also calls for a contingency of 2500 cy in case mixed dirt doesn't meet specifications. Is the volume of sand in the 10% incorporation included as part of the 2500 cubic yards?
- A#28 The inclusion of the limestone sand is only where it is required for stability and the quantity of Item Special Limestone Sand is provided as the estimated amount to meet the requirements of Note 10 and 12 on Plan Insert Sheet 1 of 1.
- Q#29 Bid item #53- Limestone Sand, 2500 CY: this quantity seems to be overstated given the amount of excavation and borrow called for n the three areas of slope repair. Please review this plan quantity and if necessary revise.
- A#29 This Addendum No. 3 revises the quantity of Item Special Limestone Sand in Note 12 on Plan Insert Sheet 1 of 1, General Summary on Plan Sheet 216 of 432 and the Bid Schedule Ref. No. 53 to reflect 225 CY.
- Q#30 Bid item 199- Portable Concrete Barrier, 32", As Per Plan: Plan sheet 26 calls for this to be installed per ODOT spec and left in place upon completion of work. Does the portable barrier wall have to be newly-purchased for this project?
- A#30 Yes, the portable concrete barrier shall be purchased new for this Project. The General Note on Plan Sheet 26 of 432 for Item 622 – Portable Concrete Barrier, 32", As Per Plans states: "The barrier shall be new and left in place upon completion of the work."
- Q#31 What is included in Reference No. 68 (Erosion Control)? It appears that individual reference items exist for typical erosion control activities. Those typical activities are Reference No.'s 69-77 and therefore it is unclear the need for Reference No. 68. There are also no notes that specify what is included in that item. Is

# Reference No. 68 necessary and if it is please detail what work would be included under that item.

A#31 Reference No. 68 – Item SS832 - Erosion Control is payment for maintenance of the erosion control items Reference Nos. 69 through 76. The Requirements are described in the SS832 – Temporary Sediment and Erosion Control Specification on page 385 through 444 of the Special Provisions.

# Q#32 Installation and removal of temporary falsework item SP XXX will require access from NSRR tracks. Please confirm that this is acceptable per the OTIC agreement with NSRR.

- A#32 Yes, the Contractor shall have access to install, maintain and remove temporary falsework from the Norfolk Southern Railway Company Right of Way. The Contractor shall follow all Railroad Requirements as described in the Special Provision SP 827B Protection of Norfolk Southern Railway Interest and the applicable requirements for contractors described in the Norfolk Southern Public Projects Manual dated August 1, 2015 available online at: <u>http://www.nscorp.com/content/nscorp/en/transportation-terms</u> /<u>other-requirements/public-project-guidelines.html</u>. This Addendum No. 3 modifies the Index for the Special Provisions to reference Appendix D, which provides the Form Agreement for the right of entry to the Norfolk Southern right of way that the Contractor is required to execute under SP 827.
- Q#33 Plan Sheets 405, 411, 417, 425 call for "COMPACTED GRANULAR FILL, AS PER SP 304, THICKNESS AS REQUIRED (PAYMENT INCIDENTAL TO ITEM SP202 – PORTIONS OF STRUCTURE REMOVED". Can the commission please define a depth and area or setup a bid item to pay for this work on a unit price basis?
- A#33 The quantity of fill required, if any, under the abutment slab cannot be determined until the existing abutment slab is removed. The Contractor should bid this item as specified in the plans. No additional information can be provided by the Commission for bidding this item.
- Q#34 Addendum 1 answered a prebid question (Q#10, A#10) regarding "Vegetative Filter Strips and Biofilters". The contractor is to grade the area prior to installing the 6" worth of topsoil. Is the graded existing material to be removed from the area and if so please add a bid item for this corresponding excavation that would be performed in order to accommodate the new 6" topsoil.
- A#34 The intent of the Vegetative Filter Strip work is not to excavate existing material prior to placing the topsoil. The six inches of topsoil shall be placed on top of the existing slopes with a tapered thickness where it meets the SP 617 or SP 627 material.
- Q#35 Bid items 326 and 337: Excavation- the subsummary tables show an assumed depth of asphalt paid under pavement removal of 5". If the asphalt removal on the shoulder exceeds 5", will this volume be paid for as part of the excavation or will the volume be considered incidental to the pavement removal with deduction of quantity from the excavation, and if so how would owner determine paid volume deduct?

A#35 If the existing asphalt removal exceeds 5", the removal of this additional volume of asphalt shall be paid under Item No. 203 – Excavation quantity.

## MODIFIED CONTRACT DOCUMENTS

With this Addendum No. 3, the Commission substitutes the enclosed materials for the following Plan Drawings:

Project 39-16-01A: Plan Sheet Nos. 6, 9, 18, 215, 216, 218, 233 and 234 of 432; and Plan Insert Sheets 1 and 2 of 2.

Additions to the Plan Drawings are called out with a cloud and deletions are marked with a revision triangle as thus:



Bid Schedule of Items at Ref. Nos. 33, 53, 337, 339, 340, 342, 344, 345, 346

Changes are highlighted in yellow and contained in **bold italicized text** in the excel worksheet provided with this Addendum No. 1 in accordance with IB 2.6.2.3.

Special Provision at Index Page 2 of 2: Additions are contained in *bold italicized* text.

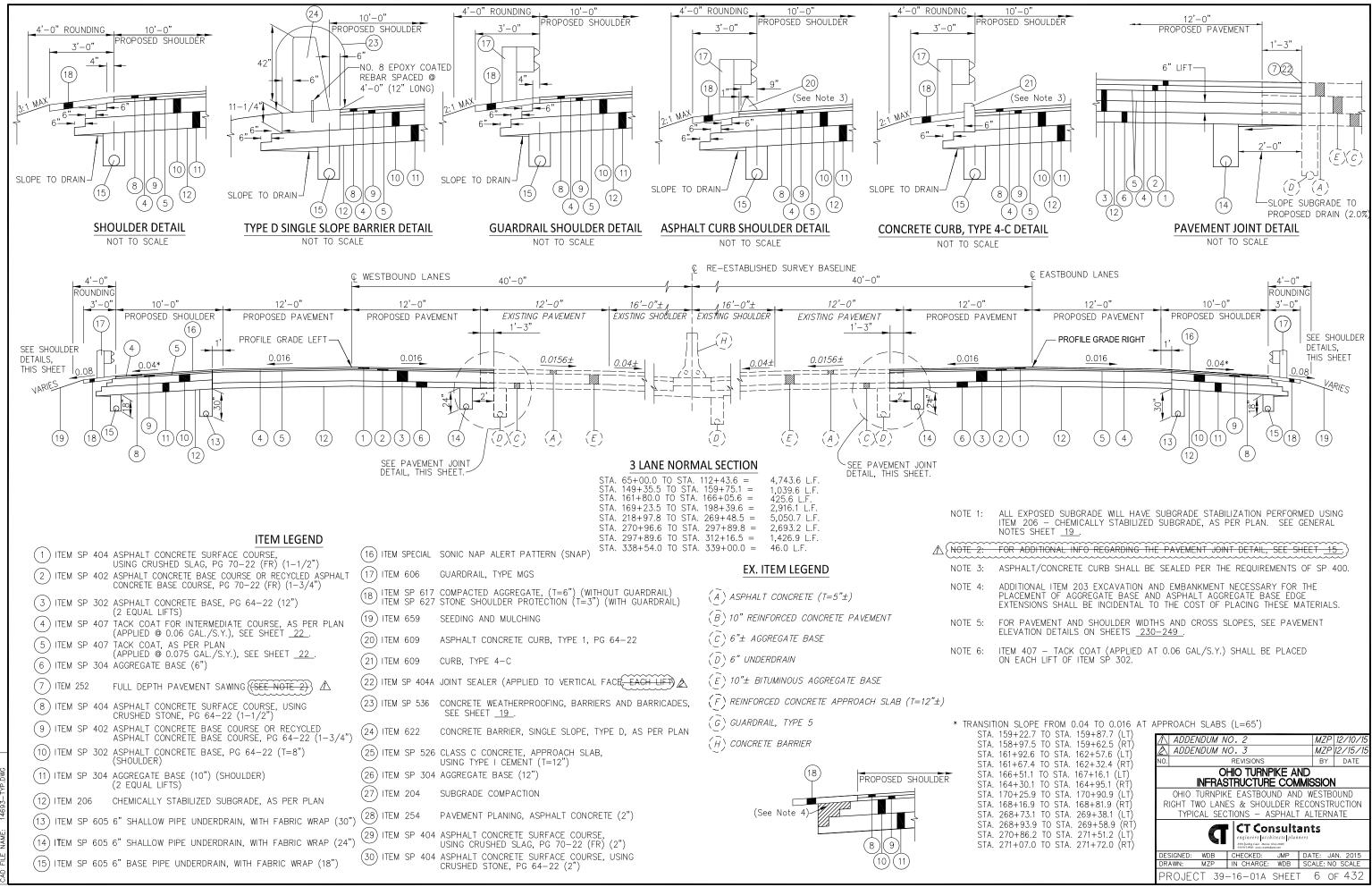
Bidders Acknowledgment of Addendum No. 3 to Contract No. 39-16-01 (PART A & PART B):

(Firm Name)

(Signature)

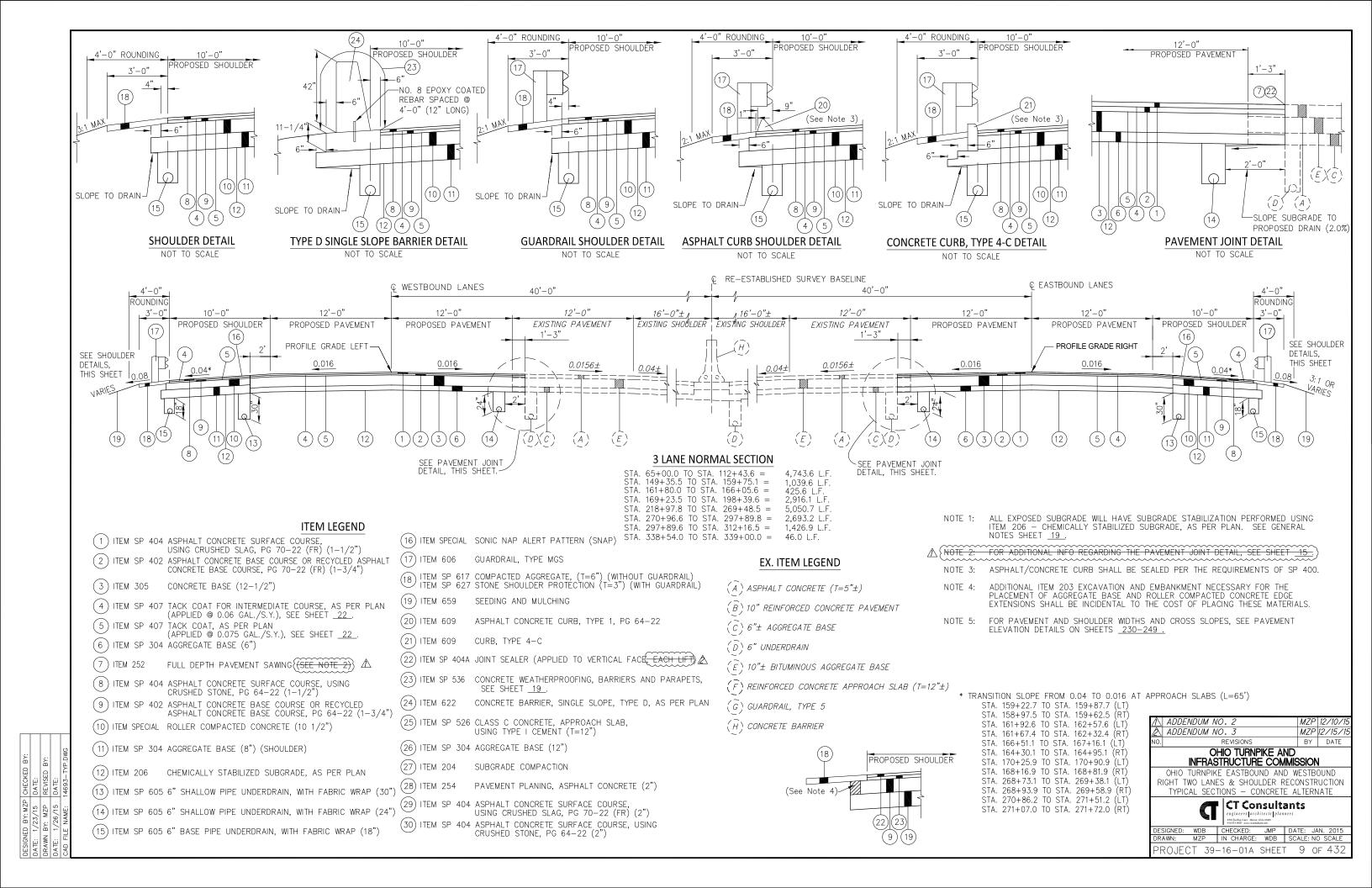
(Printed Name)

Date: \_\_\_\_\_



CHECKED DATE: REVISED F DATE:

DESIGNE DATE: DRAWN DATF:



#### **ROADWAY (CONTINUED)**

#### ITEM 206 - CHEMICALLY STABILIZED SUBGRADE, AS PER PLAN (CONTINUED)

3 BOX CULVERTS WHERE DEPTH OF COVER IS LESS THAN 2 FEET: EXCAVATE 16 INCHES OF THE EXPOSED SOIL SUBGRADE FROM THE BOX CULVERT TO A DISTANCE 20 FEET LONGITUDINALLY EACH SIDE (FORWARD AND REAR). SPREAD THE EXCAVATED SOIL AND PERFORM CHEMICAL STABILIZATION ON THE EXCAVATED SOIL USING THE SAME REQUIREMENTS AS THE ADJACENT SUBGRADE. AFTER CHEMICALLY STABILIZING THE EXCAVATED SOIL, PLACE THE EXCAVATED SOIL BACK IN THE EXCAVATION TO A DISTANCE OF 20 FEET LONGITUDINALLY ON EACH SIDE OF THE BOX CULVERT. COMPACT ACCORDING TO THE SPECIAL PROVISIONS DETAILED BELOW.

SPECIAL PROVISIONS FOR COMPACTION OF ITEMS 2 AND 3 ABOVE COMPACT THE EXISTING SUBGRADE MATERIAL OVER THE BOX CULVERT USING A NON-VIBRATORY ROLLER AND TEST FOR PERCENT COMPACTION ACCORDING TO THE PROJECT SPECIFICATIONS. DO NOT PROOF ROLL. IF THE COMPACTED SOIL DOES NOT MEET THE SPECIFICATION REQUIREMENTS FOR DENSITY, THE ENGINEER WILL DELINEATE THE AREA TO BE UNDERCUT AND BACKFILL WITH ITEM SP304 MATERIAL.

FOR ALL SCENARIOS LISTED ABOVE. AND IN OTHER AREAS INACCESSIBLE TO THE SPECIFIED COMPACTION EQUIPMENT. THE CONTRACTOR SHALL ENSURE THAT THE SPECIFIED COMPACTION IS OBTAINED USING OTHER SUITABLE EQUIPMENT.

PAYMENT FOR EXCAVATION AND EMBANKMENT REQUIRED TO COMPLETE THE STABILIZATION IN THE AREAS SHALL BE INCLUDED IN AND INCIDENTAL TO ITEMS 206 - CEMENT STABILIZED SUBGRADE. 14 INCHES DEEP. AS PER PLAN.

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK UNDER ITEM 206 - CHEMICALLY STABILIZED SUBGRADE, AS PER PLAN:

I TEM	206	_	CEMENT STABILIZED	· · ·		DEEP
			AS PER PLAN	<u>231,000 SQ.</u>	<u>YD.</u>	
I TEM	206	—	CEMENT	<u>6,980 TON</u>		
ITEM	206	—	CURING COAT	<u>13,860 GAL.</u>		
ITEM	206	_	TEST ROLLING	120 HOURS		

THE FOLLOWING CONTINGENCY QUANTITIES SHALL BE USED TO EXCAVATE AND STABILIZE THE UNSTABLE SUBGRADE SOILS AS DESCRIBED ABOVE IN SECTION E.1:

ITEM 203 – ROADWAY EXCAVATION & EMBANKMENT	<u>1600 CU. YD.</u>
ITEM 206 – CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP	<u>8000 SQ. YD.</u>
ITEM 206 – CEMENT	<u>210 TON</u>
ITEM 206 – CURING COAT	<u>240 GAL.</u>
ITEM 206 – TEST ROLLING	<u>10 HOURS</u>

THE FOLLOWING CONTINGENCY QUANTITIES SHALL BE USED TO EXCAVATE AND STABILIZE THE UNSTABLE SUBGRADE SOILS AS DESCRIBED ABOVE IN SECTION E.2:

ITEM 206 -	CEMENT STABILIZED	SUBGRADE,	16 INCHES D	EEP, <u>4000 SQ. YD.</u>
ITEM 206 —	CEMENT			<u>170 TON</u>
ITEM 206 –	CURING COAT			<u>240 GAL.</u>
ITEM 206 –	TEST ROLLING			<u>10 HOURS</u>

THE FOLLOWING CONTINGENCY QUANTITIES SHALL BE USED TO UNDERCUT AND REPLACE THE UNSTABLE SUBGRADE SOILS AS DESCRIBED ABOVE IN SECTION E.3:

ITEM 204 – EXCAVATION	<u>178_CU. YD.</u>
ITEM SP 304 – GRANULAR MATERIAL	( <u>360 ŤŎŇ</u> ) A
ITEM 204 – SUBGRADE COMPACTION	<u>227 SQ. YD.</u>
ITEM 204 – TYPE D GEOTEXTILE, 712.09	<u>227 SQ. YD.</u>
ITEM 861 – GEOGRID FOR SUBGRADE STABILIZATION,	
AS PER PLAN, TENSAR TRIAX 160 GEOGRID	<u>227 SQ. YD.</u>

#### ITEM 209 - DITCH CLEANOUT

CHECKED DATE: REVISED B DATE:

DESIGNE DATE: DRAWN DATE:

THIS ITEM SHALL CONSIST OF FIELD SURVEY, CLEARING, EXCAVATION AND EMBANKMENT AS NECESSARY TO RE-ESTABLISH THE CROSS SECTION OF THE EXISTING DITCHES AS DIRECTED BY THE CHIEF ENGINEER. FOR STORM SEWER PIPES OR STRUCTURES ADJACENT TO THE DITCHES, ADDITIONAL CLEARING OF THOSE ITEMS SHALL BE DONE AS DIRECTED BY THE CHIEF ENGINEER AND CONSIDERED INCIDENTAL TO THE DITCH CLEANOUT. EXISTING DITCH CENTERLINE ELEVATIONS SHALL BE FIELD MEASURED AND RECORDED BY THE CONTRACTOR PRIOR TO PERFORMING ANY WORK ON THE DITCHES. PROPOSED ELEVATIONS FOR THE RE-ESTABLISHED DITCH SHALL BE SUBMITTED AND REVIEWED BY THE CHIEF ENGINEER BEFORE WORK MAY COMMENCE. THIS SHALL BE DONE TO ENSURE THE DITCH CLEANOUT ACCOMPLISHES POSITIVE DRAINAGE.

PAYMENT FOR THIS ITEM WILL BE AT UNIT BID PRICE PER FOOT FOR ITEM 209 - DITCH CLEANOUT AND SHALL INCLUDE ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THIS ITEM. ALL MAINTENANCE OF TRAFFIC NECESSARY TO COMPLETE THIS ITEM SHALL BE CONSIDERED INCIDENTAL TO ITEM SP 614 - MAINTAINING TRAFFIC.

#### ITEM 209 - DITCH CLEANOUT (CONTINUED)

THE FOLLOWING CONTINGENCY QUANTITY IS PROVIDED IN THE GENERAL SUMMARY IN ADDITION TO THAT CALLED OUT ELSEWHERE FOR USE AS DIRECTED BY THE ENGINEER.

ITEM 209 - DITCH CLEANOUT

5000 FT

#### ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E, AS PER PLAN

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ODOT ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. INSTALL THIS ASSEMBLY AT A 25:1 MAXIMUM FLARE RATE SO THAT THE INSIDE EDGE OF THE IMPACT HEAD IS NO CLOSER THAN 6 INCHES FROM THE OUTER EDGE OF THE SHOULDER.

THE COMMISSION SHALL SUPPLY A TYPE G REFLECTIVE SHEETING PER CMS 730.19 MOUNTED ON A PIECE OF ALUMINUM. THE CONTRACTOR SHALL RIVET THE ALUMINUM TO THE FACE OF THE TYPE E IMPACT HEAD.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES NOT PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE. PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606. ANCHOR ASSEMBLY, MGS TYPE E, AS PER PLAN, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

#### ITEM 617 - SHOULDER PREPARATION, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ITEM 617.04 OF THE SPECIFICATIONS, THE CONTRACTOR SHALL PERFORM THE FOLLOWING ADJACENT TO NEW PAVEMENT:

THE SUBGRADE SHALL BE PLACED IN 6" LIFTS (MAX) AND COMPACTED IN ACCORDANCE WITH ITEM 204 IMMEDIATELY PRIOR TO PLACING THE AGGREGATE AND AFTER THE SUBGRADE IS SHAPED OR BLADED TO GIVE A STRAIGHT VERTICAL EDGE WITH THE ADJACENT DIRT. THE ENTIRE THICKNESS OF AGGREGATE SHALL BE SUPPORTED ALONG THE OUTER EDGE WITH TOPSOIL AND FILL DIRT THAT IS CONSISTENT WITH THE FORE SLOPE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID PER SQUARE YARD FOR ITEM 617- SHOULDER PREPARATION, AS PER PLAN, AND SHALL INCLUDE ANY EXCAVATION, EMBANKMENT, LINEAR GRADING, SUBGRADE COMPACTION, PROOF ROLLING, ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THIS WORK.

#### ITEM SPECIAL - CONCRETE CHANNEL CLEANOUT

THIS WORK SHALL CONSIST OF REMOVING SEDIMENT AND DEBRIS FROM THE EXISTING CONCRETE CHANNEL SPECIFIED IN THE PLANS. ALL MATERIAL REMOVED SHALL BE DISPOSED OF AS PER SP 105. ALL EXISTING CONCRETE CHANNELS SHALL BE CLEANED OUT TO THE SATISFACTION OF THE CHIEF ENGINEER.

CLEANOUT OF THE CONCRETE CHANNEL SHALL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM SPECIAL - CONCRETE CHANNEL CLEANOUT, FOOT. THIS PRICE SHALL INCLUDE THE COST FOR MATERIAL DISPOSAL, EQUIPMENT, LABOR AND ALL INCIDENTALS REQUIRED TO COMPLETE THE CLEANOUT.

#### ITEM SPECIAL - CHANNEL CLEANOUT

THIS WORK SHALL CONSIST OF REMOVING SEDIMENT AND DEBRIS FROM THE EXISTING CHANNELS SPECIFIED IN THE PLANS. ALL MATERIAL REMOVED SHALL BE DISPOSED OF AS PER SP 105. ALL CHANNELS SPECIFIED SHALL BE CLEANED OUT TO THE SATISFACTION OF THE CHIEF ENGINEER.

CLEANOUT OF THE CHANNEL SHALL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM SPECIAL - CHANNEL CLEANOUT, SQ YD. THIS PRICE SHALL INCLUDE THE COST FOR MATERIAL DISPOSAL, EQUIPMENT, LABOR AND ALL INCIDENTALS REQUIRED TO COMPLETE THE CLEANOUT.

## ITEM 202 - FENCE REMOVED ITEM 607 - FENCE, TYPE 47, AS PER PLAN

CONTINGENCY QUANTITIES FOR FENCE REMOVAL AND REPLACEMENT HAVE BEEN INCLUDED IN THE PLANS FOR USE AS DIRECTED BY THE ENGINEER. CLEARING OF BRUSH NECESSARY FOR INSTALLATION SHALL BE INCIDENTAL TO THE COST PER FOOT OF FENCE.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 202 - FENCE REMOVED ITEM 607 - FENCE, TYPE 47, AS PER PLAN <u>500 FT</u>

#### ITEM 202 - PAVEMENT REMOVED, AS PER PLAN

#### EROSION CONTROL

#### SEEDING AND MULCHING

ARFAS:

ITEM 659 - SOIL ANALYSIS TEST ITEM 659 - TOPSOIL ITEM 659 - SEEDING AND MULCHING ITEM 659 - REPAIR SEEDING AND MULCHING ITEM 659 - INTER-SEEDING ITEM 659 - COMMERCIAL FERTILIZER ITFM 659 - 1 IMF ITEM 659 - WATER

ITEM 659 - TOPSOIL IS ONLY APPLICABLE WHEN TOPSOIL IS PHYSICALLY REMOVED FROM THE SLOPES AND MOVED TO A CONSTRUCTED TOP SOIL STOCK PILE SOLELY FOR THE PURPOSE OF TEMPORARY STORAGE PRIOR TO REUSE. SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF- WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON AN ASSUMED LIMIT 10' BEYOND THE EDGE OF THE OUTSIDE SHOULDER FOR THE LENGTH OF THE PROJECT, A WIDTH OF 20' PER RUNNING FOOT OF DITCH CLEANOUT, SLOPE REPAIR AREAS, AND ON THE SLOPES WHERE DRAIN PIPE PLACEMENT OCCURS. FOR THE PURPOSES OF THE DRAIN PIPE PLACEMENT AREA CALCULATIONS, A WIDTH OF 30' AND A LENGTH OF 37' WAS ASSUMED FOR EACH OF THE PIPE PLACEMENT AREAS AND A WIDTH OF 10' AND A LENGTH OF 10' WAS ASSUMED FOR EACH OF THE UNDERDRAIN OUTLETS.

#### ITEM 207 - PERIMETER FILTER FABRIC FENCE

THE FENCE.

FABRIC.

THE COST OF ALL MATERIALS, CONSTRUCTION, MAINTENANCE AND REMOVAL REQUIRED SHALL BE PAID FOR UNDER ITEM 207 - PERIMETER FILTER FABRIC FENCE.

#### SLOPE EROSION PROTECTION

FOR INDICATED SLOPE EROSION AREAS, REMOVE TOPSOIL FROM THE EXTENTS OF THE INDICATED AREA AND REMOVE SOIL DOWN TO THE LOWEST EXPOSED DEPTH IN THE EROSION AREA OR 12 INCHES, WHICHEVER IS GREATER. REMOVE ALL ROCKS, GRAVEL AND COBBLES AND FOREIGN MATERIAL 1 1/2" OR GREATER FROM THE SLOPE EROSION AREA. PLACE AND COMPACT BACKFILL TO MATCH THE ADJACENT SLOPE AND PLACE 4 INCHES OF TOPSOIL TO MEET EXISTING SLOPE GRADES AT ALL EXTENTS OF THE INDICATED SLOPE. PLACE ITEM 671 - EROSION CONTROL MAT, TYPE B FROM THE TOP OF THE SLOPE DOWN TO THE LOWEST INDICATED EXTENT OF THE SLOPE EROSION CONTROL AREA. CONTINUE THE EROSION CONTROL MAT LATERALLY FIVE (5) FEET BEYOND THE SIDE EXTENTS OF THE SLOPE EROSION AREA. FOR AREAS ADJACENT TO PROPOSED CONCRETE BARRIER. THE TOP OF SLOPE MAT SHALL START AT THE OUTSIDE FACE OF THE BARRIER. FOR ALL OTHER AREAS, THE TOP OF SLOPE MAT SHALL AT THE EDGE OF SHOULDER COMPACTED AGGREGATE BEHIND THE GUARDRAIL.

THE FOLLOWING QUANTITIES ARE PROVIDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

ТЕМ	203	-	EXCAVAT	IO
ТЕМ	203	-	EMBANKM	ΈN
ТЕМ	659	-	TOPSOIL	
ТЕМ	659	-	WATER	
TEM	671	-	EROSION	СС
	TEM TEM TEM	TEM 203 TEM 659 TEM 659	TEM 203 - TEM 659 - TEM 659 -	TEM 203 - EXCAVAT TEM 203 - EMBANKM TEM 659 - TOPSOIL TEM 659 - WATER TEM 671 - EROSION

REMOVAL OF EXISTING ASPHALT CURB SHALL BE CONSIDERED INCIDENTAL TO PAVEMENT REMOVAL.

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED

<u>10 EACH</u> <u>10470 CY</u> <u>94300 SY</u> <u>4720 SY</u> <u>4720 SY</u> 12.73 TON 19.5 ACRES 510 M GAI

THE BOTTOM OF THE FENCE SHALL BE BURIED 6" BELOW THE GROUND. THE FENCE SHALL BE HIGH ENOUGH TO RETAIN SEDIMENT LADEN WATER AND ADEQUATELY SUPPORTED TO PREVENT COLLAPSE OR BURSTING. THE GROUND ELEVATION OF THE FENCE SHALL BE HELD CONSTANT EXCEPT THAT THE END ELEVATION SHALL BE RAISED TO PREVENT FLOW AROUND THE END OF

THE FILTER FABRIC SHALL BE MAINTAINED TO BE FUNCTIONAL. THIS SHALL INCLUDE REMOVAL OF TRAPPED SEDIMENT AND REQUIRED CLEANING, REPAIR AND/OR REPLACEMENT OF THE FILTER

ON FOR SLOPE EROSION PROTECTION

ONTROL MAT. TYPE B

	<u>300 CY</u> <u>150 CY</u>								
	<u>10 M GAL</u> 2,000 S								
$\wedge$	ADDENDUM N	0.3		DLF	12/15/15				
NO.		BY	DATE						
	OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION								
R	OHIO TURNPIKE EASTBOUND AND WESTBOUND RIGHT TWO LANES & SHOULDER RECONSTRUCTION GENERAL NOTES								
	<b>CT Consultants</b> engineers[architects]plannes enginters workscherweiters								
	SIGNED: WDB	CHECKED:	JMP		PRIL 2015				
DR,	AWN: MZP	IN CHARGE:	WDB	SCALE: NO	) SCALE				
PF	ROJECT 39-	-16-01A	SHEET	18 0	F 432				

<u>500 CY</u>

	UNIT	GRAND	ITEM	 	 			NUMBER							 		
		TOTAL				PIS-1	329		236	230	224	223	222	220	18	17	16
RAILROAD	LUMP	1	SP 119	 	 						L						
					 						ļ	I					
CLEARING		1	201	 	 			<u> </u>			<u> </u>	I					
TREE REMO	EACH	4 4	201	 <u> </u>	 			<u> </u>			<b> </b>						4
TREE REMO	EACH	4	201		 					+	<u> </u>						4
HEADWALL	EACH	12	202	 <u> </u>	 					++	<u> </u>		12				
PIPE REMO	FT	1,888	202		 					+ +		<del> </del>	1,888				
PIPE REMO	FT	28	202		 			<u> </u>		++		<del> </del>	28				
CATCH BAS	EACH	31	202		 					+ +			31				
FENCE REM	FT	500	202												500		
GUARDRAIL	FT	23,540	202	 	 						L			23,540			
APPROACH	SY	1,984	202	 	 									1,984			
CONCRETE PAVEMENT	FT	692	202	 	 					219 140	540			152			
PAVEMENT	SY	218,149	202		 					218,149	<u> </u>	l					
EXCAVATIO	CY	1,482	203	 	 			<u> </u>	982	++	<u> </u>				500		
EXCAVATIO	CY	2,265	203		 	2,265			302	+		<del> </del>			 500		
		2,200	200		 			<u> </u>		+ +		<del> </del>					
ROADWAY	CY	1,600	203		 					+ +		<del> </del>			1,600		
EMBANKME		3,269	203		 				2,969	++		ł			300		
GRANULAR	CY	15	203		 	15				+ +							
GRANULAR	CY	30	203		 	30											
BORROW	CY	1,133	203			1,133											
EXCAVATIO	CY	178	204		 										178		
GEOTEXTILE	SY	140	204		 	140		<u> </u>			L						
TYPE D GE	SY	227	204		 						ļ	µ]			227		
SUBGRADE	SY	2,283	204	 	 					2,056	<b> </b>				227		
CEMENT S	SY	8,000	206		 						<u> </u>				8,000		
CEMENT S	SY	231,000	206	 <u> </u>	 					++	<u> </u>				231,000		
CEMENT S	SY	4,000	200		 					+	<u> </u>				4,000		
CEMENT	TON	7,360	200		 					+ +		<del> </del>			7,360		
CURING CC	GAL	14,340	206												14,340		
TEST ROLL	HOUR	140	206												140		
					 						L						
DITCH CLE		11,797	209	 	 						<u> </u>			6,797	5,000		
CHANNEL (	SY	272	SPECIAL	 <u> </u>	 						<b> </b>			272			
GRANULAR	TON .	360	SP 304 (		 					+	<u> </u>				760	(	
GRANULAR	TON		JF 304 (	 <u> </u>	 					++	<u> </u>	<u> </u>		-		(	
PATCHING (		35	SP 519C		 					++	35	<del> </del>					
			31 3130	 <u> </u>	 					+	- 55						
CLASS C C	SY	2,012	SP 526		 			<u> </u>		++		2,012					
CONCRETE		1,516	SP 536		 		624			+ +	892						
										-							
GUARDRAIL		21,683	606		 							21,683					
ANCHOR A		19	606									19					
ANCHOR A	EACH	21	606		 							21					
MGS BRIDG	EACH	11	606		 				L		<b> </b>	11					
MGS BRIDG	EACH	9	606	 	 						<u> </u>	9					
		50	6.06	 	 						<b> </b>	50					
GUARDRAIL	FT	50	606	 <u> </u>	 					+	<u> </u>	50					
FENCE, TY	FT	500	607		 					+	<u> </u>				 500		
		500	007		 			<u> </u>	<u> </u>	+	<u> </u>	<del> </del>			 		
ASPHALT (	FT	6,030	609		 			<u> </u>		+ +		6,030					
CURB, TYP	FT	111	609									111					
										T +							

	_	
DESCRIPTION		REF. NO.
ROADWAY		
ROTECTION LIABILITY INSURANCE – NS	_	
ID GRUBBING	_	16
ED, 12" – 24" SIZE		
ED, OVER 24" SIZE	-	
EMOVED ID, 24" AND UNDER	_	
D, OVER 24"		
I OR INLET REMOVED VED	_	
REMOVED, AS PER PLAN	_	17
ILAB REMOVED		
ARRIER REMOVED EMOVED, AS PER PLAN	+	18
FOR SLOPE EROSION PROTECTION		
INCLUDING EMBANKMENT, AS PER PLAN	_	PIS-1
CAVATION & EMBANKMENT	_	
-		
MBANKMENT, AS PER PLAN (NO. 8 AGGREGATE) ATERIAL, TYPE C	-	PIS-1
·		
	_	
FABRIC, 712.09 TYPE A TEXTILE, 712.09	_	
OMPACTION		
BILIZED SUBGRADE, 14 INCHES DEEP	_	
BILIZED SUBGRADE, 14 INCHES DEEP, AS PER PLAN BILIZED SUBGRADE, 16 INCHES DEEP	_	17, 18
Γ	_	
3	_	
OUT		
EANOUT	_	18
ATERIAL	_	
NCRETE STRUCTURES WITH TROWELABLE EPOXY MORTAR		
CRETE, APPROACH SLAB, USING TYPE I CEMENT (T=12"), AS PER PLAN	-	20
EATHERPROOFING, BARRIERS AND PARAPETS		17
TYPE MGS, USING LONG STEEL POSTS	_	
EMBLY, MGS TYPE T, USING LONG STEEL POSTS EMBLY, MGS TYPE E, USING LONG STEEL POSTS, AS PER PLAN	-	18
TERMINAL ASSEMBLY, TYPE 1, USING LONG STEEL POSTS TERMINAL ASSEMBLY, TYPE 2		
TERMINAL ASSEMBLT, TIPE Z		
REBUILT	_	17
47, AS PER PLAN		18
NCRETE CURB, TYPE 1, PG64-22		
4-C		
ADDENDUM NO. 3	F	12/15/15
NO. REVISIONS B'		DATE
INFRASTRUCTURE COMMISSION OHIO TURNPIKE EASTBOUND AND WEST		
UNIT TURNETIKE EASTBOUND AND WEST	00	JUNU

RIGHT TWO LANES & SHOULDER RECONSTRUCTION GENERAL SUMMARY

	(	engineers arch 8150 Surling Coar Meeter, 440.951.9000 www.cetorada	itects plan	
DESIGNED:	WDB	CHECKED:	JMP	DATE: AUG 2015
DRAWN:	MZP	IN CHARGE:	WDB	SCALE: NO SCALE
PROJEC	CT 39-	-16-01A	SHEET	r 215of 432

									SHEET	NUMBER						GRAND	LINUT	
17	18	19	20		222	223	224	236		238	239	240	329	PIS-1	ITEM	TOTAL	UNIT	
17	10	13	20			225	221	200		200	200	210	525	113 1				
							190								622	190	FT	CONCRETE BAR
							345						600		622	945	FT	CONCRETE BAR
							195						000		622	1945	FT	CONCRETE BA
							195								022	195	FI	CONCILLE DAI
50															623	50	EACH	MONUMENT BC
50															023	50	EACH	MUNUMENT BC
						249									SP 626	249	EACH	BARRIER REFLI
			550			249	80						16		SP 626			BARRIER REFL
			550				00						10		SP 020	040		DANNEN NEI LI
	227														861	227		GEOGRID FOR
	227													▲ 225 }		<u>A</u> {225}		LIMESTONE SA
					-													LIMESTONE SA
					-						LUMP				SP 113	1	LIMD	SWPPP MANAG
											LOWF				3F 113		LOWIF	SWFFF MANAG
		200												3	601	203	CY	ROCK CHANNE
		200			86										601	286	CY	ROCK CHANNE
		200			- 00										801	200		INVER CHANNE
	10														659	10		SOIL ANALYSIS
	10,620							328						144	659	11,092		TOPSOIL
	10,020							520		4,400				144	659	4,400	CY	TOPSOIL FURN
	94,300				-			9,763		4,400				1,308	659	105,371		SEEDING AND
	34,300							9,705		26,400				1,508	659	26,400	SY	SEEDING AND
										20,400					629	20,400	51	SEEDING AND
	4,720														659	4,720	CV	REPAIR SEEDIN
	4,720														659	4,720	51	INTER-SEEDING
	12.73														659	13		COMMERCIAL F
	19.5														659	20	ACRE	LUME
	520							16							659	536	AURE	WATER
	520							10							629	536	M GAL	WAIER
	2,000							4,068		26,400				1,308	671	33,776		EROSION CONT
	2,000							4,000		20,400				1,308	671	55,770	51	ERUSION CONT
											LUMP				832	1		EROSION CONT
											LUMF				032	1	LUMP	ERUSION CONT
												100			832	100	ET	INLET PROTECT
												200			832	200	FT	SLOPE DRAIN
												109,115			832	109,115	SY	CONSTRUCTION
												47,000			832	47,000	SY	WINTER SEEDIN
												47,000			032	47,000	- 31	WINTER SEEDIN
												10,000			832	10,000	FT	PERIMETER FIL
												2,670			832	2,670	FT	FILTER FABRIC
												60			832	60	CY	CONSTRUCTION
												250			832	250		ROCK CHANNE
												2,800			832	2,800		MISCELLANEOU
												2,000			052	2,000		IMISCLLLANLOO
					-		-	-		-								1
					-												-	
					-											+		
						-	-			-								
								-										
																		<u> </u>
	1			I				I										

DESCRIPTION	REF. NO.
ROADWAY, CONT'D	
ARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN ARRIER, TYPE B-50, AS PER PLAN ARRIER, TYPE C-50, AS PER PLAN	16 16 16
OX ADJUSTED TO GRADE	17
LECTOR, TYPE A LECTOR, TYPE B	
SUBGRADE STABILIZATION, AS PER PLAN, TENSAR TRIAX 160 GEOGRID AND	17, 18
EROSION CONTROL	
GEMENT IEL PROTECTION, TYPE B WITH FILTER IEL PROTECTION, TYPE C WITH FILTER	
IS TEST	
NISHED AND PLACED MULCHING MULCHING, CLASS 3A	
ING AND MULCHING	
NG FERTILIZER	
ITROL MAT, TYPE B	
ITROL	
CTION	
N SEEDING AND MULCHING ING AND MULCHING	
ILTER FABRIC FENCE	18
C DITCH CHECK N ENTRANCE	
EL PROTECTION, TYPE C OR D, WITH FILTER	
US SEDIMENT REMOVAL	
🕂 ADDENDUM NO. 3 DLF	12/15/15
NO. REVISIONS BY	DATE
OHIO TURNPIKE AND INFRASTRUCTURE COMMISSIOI	J
OHIO TURNPIKE EASTBOUND AND WESTB RIGHT TWO LANES & SHOULDER RECONSTF GENERAL SUMMARY	OUND
DESIGNED: WDB CHECKED: JMP DATE: A	
DRAWN: MZP IN CHARGE: WDB SCALE: N PROJECT 39-16-01A SHEET 216 C	

	SHEET NUMBER				
21 230 234 236	329 385 385	ITEM	GRAND TOTAL	UNIT	DESCRIPTION REF NO.
					PAVEMENT, CONTINUED
					ASPHALT ALTERNATE – ASPHALT PAVEMENT BASE
<u>F0.204</u>			CO 751	0.7	
59,294 1,057 13,107		203 SP 302	60,351 13,107	CY	EXCAVATION ((ASPHALT ALTERNATE)) // ASPHALT CONCRETE BASE, PG64-22 (SHOULDER) (ASPHALT ALTERNATE)
54,580		SP 302	54,580	CY	ASPHALT CONCRETE BASE, PG64-22 (ASPHALT ALTERNATE))
18,039		SP 304	18,039	CY	AGGREGATE BASE (SHOULDER) { (ASPHALT ALTERNATE))
27,984 2,718		SP 304 SP 402	27,984 2,718	CY	ASPHALT CONCRETE BASE, PG64-22 (SHOULDER) (ASPHALT ALTERNATE) ASPHALT CONCRETE BASE, PG64-22 (ASPHALT ALTERNATE) AGGREGATE BASE (SHOULDER) (ASPHALT ALTERNATE)) AGGREGATE BASE (SHOULDER) (ASPHALT ALTERNATE)) ASPHALT CONCRETE BASE COURSE OR RECYCLED ASPHALT CONCRETE BASE COURSE, PG64-22 ((ASPHALT ALTERNATE)) ASPHALT CONCRETE BASE COURSE OR RECYCLED ASPHALT CONCRETE BASE COURSE, PG64-22 ((ASPHALT ALTERNATE)) ASPHALT CONCRETE BASE COURSE OR RECYCLED ASPHALT CONCRETE BASE COURSE, PG70-22 (FR) ((ASPHALT ALTERNATE)) ASPHALT CONCRETE SURFACE COURSE, USING CRUSHED STONE, PG64-22 ((ASPHALT ALTERNATE)) ASPHALT CONCRETE SURFACE COURSE, USING CRUSHED SLAG, PG70-22 (FR) ((ASPHALT ALTERNATE)) TACK COAT FOR INTERMEDIATE COURSE, AS PER PLAN (ASPHALT ALTERNATE)) 20
			2,710		BASE COURSE, PG64-22 (ASPHALT ALTERNATE)) /
8,329		SP 402	8,329	CY	ASPHALT CONCRETE BASE COURSE OR RECYCLED ASPHALT CONCRETE
8,396	166	SP 404	8,562		BASE COURSE, PG/0-22 (FR) ((ASPHALT ALTERNATE)) //
0,000			0,502		PG64-22{(ASPHALT ALTERNATE))
10,991		SP 404	10,991	CY	ASPHALT CONCRETE SURFACE COURSE, USING CRUSHED SLAG,
13,189			13,441		PG70-22 (FR) (ASPHALT ALTERNATE)) //
44,567	252	SP 407	44,567	GAL	TACK COAT FOR INTERMEDIATE COURSE AS PER PLAN{(ASPHALT ALTERNATE)) 20   TACK COAT, AS PER PLAN{(ASPHALT ALTERNATE)) 20
			,		
					CONCRETE ALTERNATE - CONCRETE PAVEMENT BASE
		203	61,685	) CY	EXCAVATION ((CONCRETE ALTERNATE)) AGGREGATE BASE (SHOULDER) (CONCRETE ALTERNATE) AGGREGATE BASE ((CONCRETE ALTERNATE)) CONCRETE BASE (12-1/2") ((CONCRETE ALTERNATE)) ASPHALT CONCRETE BASE COURSE OR RECYCLED ASPHALT CONCRETE PASE COURSE DOCE ON OPETE ALTERNATE)
12,134		SP 304	61,685 12,134	(VCA	AGGREGATE BASE (SHOULDER) (CONCRETE ALTERNATE)
28,966		SP 304	28,966	CY	AGGREGATE BASE ((CONCRETE ALTERNATE))
<u>∧</u> {169,623} 2,428		305 ( SP 402	169,623 2,428	CY	ASPHALT CONCRETE BASE COURSE OR RECYCLED ASPHALT CONCRETE
					BASE COURSE, PG64-22((CONCRETE ALTERNATE))
▲ (8,613)		SP 402	8,613	CY	ASPHALT CONCRETE BASE COURSE OR RECYCLED ASPHALT CONCRETE
8,152	166	SP 404	8,318	CY	BASE COURSE, PG70-22 (FR) ((CONCRETE ALTERNATE))
					ASPHALT CONCRETE SURFACE COURSE, USING CRUSHED STONE, PG64-22((CONCRETE ALTERNATE))/ ASPHALT CONCRETE SURFACE COURSE, USING CRUSHED SLAG,
A (11,237)		SP 404	11,237	) CY	ASPHALT CONCRETE SURFACE COURSE, USING CRUSHED SLAG,
{13,184}	252	SP 407	13,436	GAL	PG70-22 (FR) ((CONCRETE ALTERNATE)) TACK COAT FOR INTERMEDIATE COURSE, AS PER PLAN ((CONCRETE ALTERNATE)) 20
▲ 29,829		SP 407	29,829	GAL	TACK COAT, AS PER PLAN ((CONCRETE ALTERNATE))
47,053		SPECIAL	47,053	SY	ROLLER COMPACTED CONCRETE BASE (10-1/2")((CONCRETE ALTERNATE))
,228		SPECIAL	1,228	FT	PRESSURE RELIEF JOINT, TYPE A, AS PER PLAN (CONCRETE ALTERNATE) 21
					LIGHTING
			4.0	EAGU	
		625	40		CONNECTOR KIT, TYPE II GROUND ROD
	3,159	625	3,159	FT	TRENCH, 24" DEEP
	3,339	625 625	<u>3,339</u> 1,962		1 1/2" DUCT CABLE WITH TWO NO. 4 AWG, 5000 VOLT CABLES NO. 10 AWG POLE AND BRACKET CABLE
			1,902		NO. TO AWG FOLE AND BRACKET CABLE
		625	16		
		625	<u> </u>		LUMINAIRE SUPPORT REMOVED
	16	625	16	EACH	LIGHT POLE INSTALLATION ONLY, AS PER PLAN
	18	625	18	EACH	LUMINAIRE, AS PER PLAN
		625	2	EACH	LIGHT POLE DESIGN, AT 15B34.2
	18	625	18	EACH	LIGHT POLE FOUNDATION, 24" X 6' DEEP
			2		
	16   16     16   16     18   18     2   10	625 625 625 625 625	16 16 18 2	EACH EACH EACH EACH EACH EACH	LUMINAIRE SUPPORT FOUNDATION REMOVED LIGHT POLE INSTALLATION ONLY, AS PER PLAN LUMINAIRE, AS PER PLAN LIGHT POLE DESIGN, AT 15B34.2

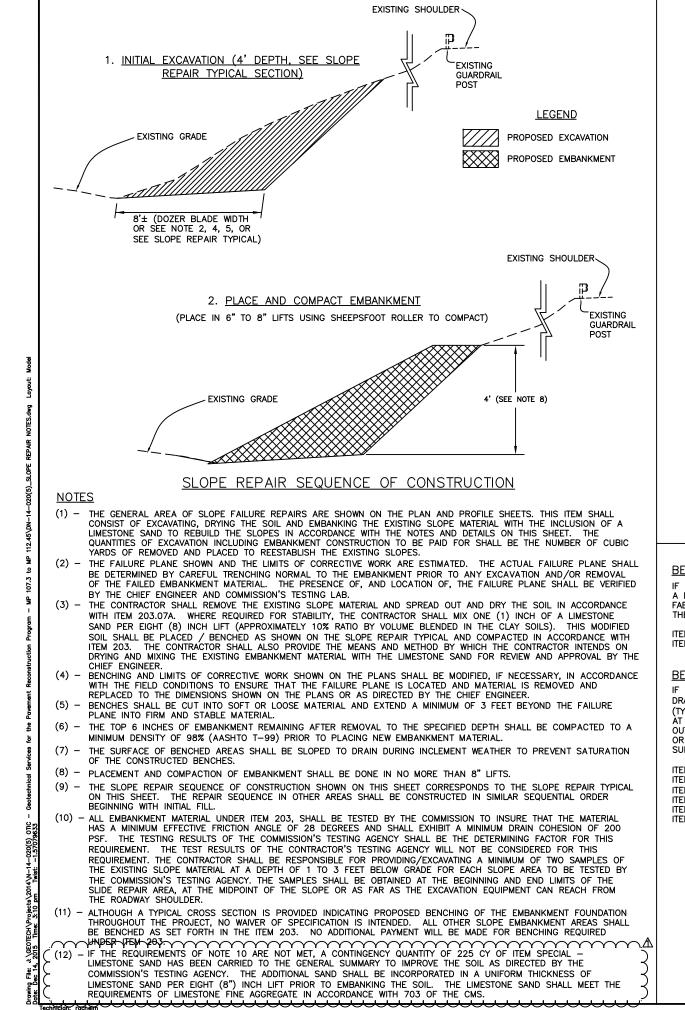
DESIGNED: WDB CHECKED: JMP DATE: AUG 2015 DRAWN: MZP IN CHARGE: WDB SCALE: NO SCALE PROJECT 39–16–01A SHEET 2180F 432

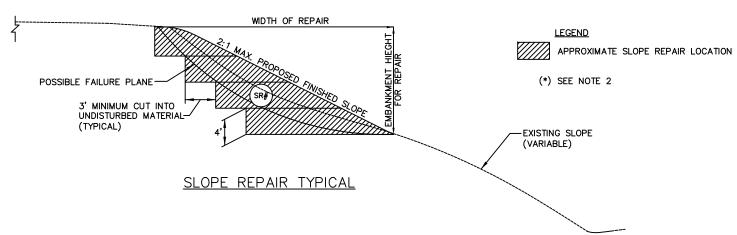
						0.07				705	00 704	05.70		0.5 100	00.400		10.1	00.404	1		
						203			SPECIAL	305	SP 304	SP 30	)4	SP 402	SP 402	SP	404	SP 404		SP 407 SP 407	
MAINLINE	LENGTH	PAVEMENT WIDTH (AVG.)	SURFACE AREA	APPROACH SLAB AREA	AREA BY COMPUTER	T=14"+/- APPROACH SCAVATION T=14"+/- APPROACH SLABS)			ROLLER COMPACTED CONCRETE BASE (10-1/2")	CONCRETE BASE (12-1/2")	AGGREGATE BASE (8") (SHOULDER)	AGGREGATE BASE (6")	AGGREGATE BASE (12")	ASPHALT CONCRETE BASE COURSE OR RECYCLED ASPHAL CONCRETE BASE COURSE, PG64-22 (1-3/4")	ASPHALT CONCRETE BASE COURSE OR RECYCLED ASPHALT CONCRETE BASE COURSE, PG70-22 (FR) (1-3/4")	ASPHALT CONCRETE SURFACE COURSE, USING CRUSHED STONE, PG64-22 (1-1/2")	ASPHALT CONCRETE SURFACE COURSE, USING CRUSHED STONE, PG64-22 (2"	ASPHALT CONCRETE SURFACE COURSE, USING CRUSHED SLAG, PG70–22 (FR) (1–1/2") ASPHALT CONCRETE SURFACE COURSE, USING CRUSHED SLAG, PG70–22 (FR) (2")		TACK COAT FOR INTERMEDIATE COURSE, AS PER PLAN (0.06 GAL./S.Y.) TACK COAT, AS PER PLAN (0.075 GAL./S.Y.)	
	FT	FT F	T SF	SF	SF	CY			SY	SY	CY	CY	CY	CY	CY	CY		CY		GAL. GAL.	
	TWO LANES	AND OUTSI	DE SHOULDE	R																	
65+00.0 116+03.9 LT				_		3,213				(15,454			A			A					
65+00.0 116+03.9 LT	5103.9 (_2	<u>27.25 / / </u> 8.	( <u>13908</u> 00 40832			2,271			4,726	<u><u> </u></u>	1,114	2,576		221		190		674 A		928 1,160 <u>A</u> 273 341	
116+03.9 116+18.9 LT MILLS CREEK BRIDGE	15.0			896		39							34								
117+18.0 117+33.0 LT	15.0			896		39 1,059							34								
117+33.0 134+15.4 LT 117+33.0 134+15.4 LT	1682.4	27.25	(45846)			1,059			1,558	5,094	1 567	<u></u>	1	73	259	63		<u>222</u>	₹	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
134+34.0 159+75.1 LT	2541.1 (22	27.25	69245			749				7,694		1,283 /		8	392			336		462 578	
<u>134+34.0</u> <u>159+75.1</u> <u>LT</u> <u>159+75.2</u> <u>159+90.5</u> <u>LT</u>	2541.1	8.	20329	914		1,131			2,353		555		35	110		95				136 170	
N.S. RAILROAD BRIDGE													55								
<u>161+64.7</u> <u>161+80.0</u> <u>LT</u> 161+80.0 <u>166+05.6</u> LT	15.3	775 A	(11508	914		39 268 190				(1,289		215	35					57			
161+80.0 166+05.6 LT	425.6	8.	( <u>11598</u> 00 3405			190			395	hitti	93	hit is a f		19	<u>66</u>	16		him -		~23~~29~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
166+05.6 166+35.7 LT PORTLAND ROAD BRIDGE	30.1			1798		78							68								
168+93.4 169+23.5 LT	30.1			1798		78							68								
169+23.5 191+70.0 LT 169+23.5 191+70.0 LT	2246.5	<u>27.25 / A</u>	61218 00 17972			1,415			2,081	6,802	) <u>/\</u> 490	1,134		98	346	84		<u>297</u>		409 <u>511</u> <u>A</u> 120 150	
191+70.0 208+00.0 LT	1630.0 4	43.16			70356	1,567				7,818		1,303			392	0+		336		470 587	
<u>191+70.0</u> <u>208+00.0</u> <u>LT</u> 208+00.0 <u>225+72.4</u> <u>LT</u>	1630.0	27.25 <u>/</u>	00 <u>13040</u> (48298			725			1,510	5,367	356	895 /	A	71	273	61		234		87 109 322 403 A	
208+00.0 225+72.4 LT	1772.4	8.				789			1,642		387			77		66				95 119	
225+72.4 233+75.0 LT 225+72.4 233+75.0 LT	802.6 4		0 6421		34928	778			744	3,881	176	647		35	195	30		167		233 292	
233+75.0 269+55.2 LT	3580.2 (2	27.25	( 9756	D //\		357 2,254			,	(10,841		1,807 /	Δ	8	552			47 <u>3</u>	1	651 814 /	
233+75.0 269+55.2 LT 269+55.2 269+70.4 LT	3580.2 15.2	8.	28642	908		1,593			3,316		781		35	155		133					
S.R. 99 BRIDGE																					
270+85.5 271+00.7 LT 271+00.7 297+89.8 LT	15.2	27.25	(73278	908		<u> </u>				8,142		1,357	35		414			355		489 611	
271+00.7 297+89.8 LT	2689.1	8.	0 21513	~		1,197			2,490		587			117		100				144 180	
297+89.6 339+00.0 LT 297+89.6 339+00.0 LT	4110.4		<u>(11200)</u> 00 <u>3288</u> 2			<u>2,588</u> 1,829			3,806	12,446	<u>)</u> <u>//</u> ( 897		1	178	<u> </u>	<u>153</u>		<u>543</u>		<u>747 934 / //</u> 220 275	
	1110.1	0.	0200			1,020			0,000		007			170		100				220 270	
OUTSIDE SI	HOULDER AD	DITIONS AN	D REDUCTIO	NS																	
76+05.0 76+60.0 LT	55.0		.33 –18	_		6			-2		2										
131+00.0 136+18.6 LT	500.0	15.	00		5625	291			625		139			31		27				38 47	
147+38.0 159+87.7 LT 161+92.6 167+16.1 LT	1249.7		83 1038 83 435			<u> </u>		_	116 49		26 11			6		5				7 <u>9</u> 34	
170+25.9 173+76.2 LT	350.3	0.	83 291			13			33		8			2		2				2 2	
170+50.0 182+00.0 LT 175+81.5 176+70.5 LT	89.0		00 00 445		2150	108			239		54			12		10	3			<u>15 18</u> 3 4	
263+90.3 269+44.9 LT	554.6	0.	83 461			24			52		12			3		3				4 4	
270+90.3 274+10.5 LT	320.2	0.	33 266			14			30		7			2		2				2 2	
	TALS CARRIE	דה דה כטרי	T 234			30,305			25 767	84 828	6.062 (	14,141	344	1,213 (	4,308	) 1,043	3	3,694 0		6,591 8,239	
10	TALS CANAL	LU TO SHEE	1 207			<u>`````````````````````````````````</u>	$\land$		20,700	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	<u>} 0,002 (</u>	$\square$		1,210 (		♪ 1,043		▲	L		
											<u>~~</u>	<u> </u>				<u> </u>				ADDENDUM NO. 3	DLF 12/15/15

DESIGNED BY: MZP CHECKED BY: DATE: 8/07/15 DATE: DRAWN BY: MZP REVISED BY: DATE: 8/07/15 DATE: CAD FILE NAME: 14693-SUBSUM.DWG

\land ADDENDUM N	0.3	DLF	12/15/15					
NO.	REVISIONS	BY	DATE					
OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION								
RIGHT TWO LANE	E EASTBOUND ANI ES & SHOULDER R UMMARY – CONCF	ECONSTR	UCTION					
CT Consultants engineers prehivers planners Moder Consultants								
DESIGNED: WDB	CHECKED: JMP	DATE: AU	JG 2015					
DRAWN: MZP	IN CHARGE: WDB	SCALE: NO	) SCALE					
PROJECT 39-	-16-01A SHEET	2330	F 432					

								203		SPECIAL	305	SP 304	SP 3	304	SP 402	SP 402	SP -	404	SP	404	SP 407	SP 407	
								EXCAVATION =6-3/4"+/- MAINLINE PAVT. T=16-3/4"+/- SHOULDERS E=14"+/- APPROACH SLABS)	x		$\sim$	01 001		501				G (2")	Ŕ	$\widehat{}$			
			(AVG.)			EA	~	P P P		CRE	5.	$\sim$	$\sim$	<u>,</u>	SE,	E BASE D ASPHAL <sup>-</sup> COURSE, -3/4")	ASPHALT CONCRETE SURFACE COURSE, USING CRUSHED STONE, PG64-22 (1-1/2")	S NG	UC NC	Let NG	INTERMEDIATE R PLAN (0.06 S.Y.)	AN	
			(A)	MIDTH	EA	ARE	COMPUTER	SL NE		CONCRE (2")		(8)	(6")	(12	BASE ASPH DURSE,	AS AS UR: 3/4	ETE USII 64-	ASPHALT CONCRETE SURFACE COURSE, USIN CRUSHED STONE, PG64-22	ETE USII -22	LT CONCRETE COURSE, USIN AG, PG70-22 (2")	N ()	S PL	
		L I			AREA	AB	MPU			/2,	(12-	R) SE	BASE		ETE ED 3/4		PG PG	S64	), LCRE 70	20- 70-	) TEF	PER /S.Y	
MAINLINE STATION TO STATION	SIDE	ENGTH	WIDTH	ER I	UH UH	S	8	RO O		ACTED (10-1/:	SE	BA		BASE		ASE (	NEN NEN NEN	LRSN .	PG'	LRS DRS DRS	S	AS GAL. ,	
STATION TO STATION	N N				SURFACE	E H	B			PAC	BAS	ATE	ATE	GATE	T CONCRETE R RECYCLED , ETE BASE COU	E BZ CO	100	NE CO	μ 0 0 0 1	ALT COU C COU AG, F (2")	L- /		
			AVEMENT	SHOULDER	SUI	APPROACH	AREA	Ц Ц Ц Ц Ц Ц Ц Ц Ц Ц Ц Ц Ц Ц Ц Ц Ц Ц Ц		COMP. BASE		AGGREGATE BASE (SHOULDER)	AGGREGATE	EGA		ASPHALT CONCRETE I COURSE OR RECYCLED A CONCRETE BASE COU PG70-22 (FR) (1-3,	D E HAI	STG	ASPHALT CONCRE SURFACE COURSE, I RUSHED SLAG, PG70- (1-1/2")	ASPHALI JRFACE C HED SLAC	TACK COAT FOR COURSE, AS PER GAL./S.	,CK COAT, (0.075	
			AVE			d d	AR	3/2		ER C	ICRETE	0GR	00 00 00	AGGRE(	CCR CR	ACR O	ASP RFA SHE	ASP RFA	ASP RFA	ASP RFA	SE, S	× 0.	
			۵.					- 9 - 16 - 14		OLLE	CONC	Ā	Ā	AC	ASPHALT JRSE OR CONCRE1 PG64-	PG	SUSU SUL	INS H	INS HSr	INS SU	CK SUR	TAC	
										RO	0				Co	COL	0	CRL	CRL	CRL	CC	'	
011		FT TWO LANES	FT S AND O	FT	SF SHOLILDER	SF	SF	CY		SY	SY	CY	CY	СҮ	CY	CY	CY		CY		GAL.	GAL.	
<u>65+00.0</u> <u>116+03.9</u> <u>65+00.0</u> <u>116+03.9</u>		5103.9 5103.9	27.25	8.00	1 <u>39082</u> 40832			3,213 2,271		4,726	15,454	1,114	2,576		221	786	190		674		<u>928</u> 273	1,160	
116+03.9 116+18.9	RT	15.0				896		39						34									
MILLS CREEK BRID( 117+18.0   117+33.0		15.0				896		39						34									
117+33.0 134+15.4 117+33.0 134+15.4	RT		27.25	8.00	45846			1,059 749		1,558	5,094	367	849		73	259	63		222		306 90	383 113	
134+34.0 159+75.1	RT	2541.1	27.25		13460 69245			1,600			7,694		1,283			392			336		462	578	
<u>134+34.0</u> <u>159+75.1</u> 159+75.2 <u>159+90.5</u>		2541.1 15.3		8.00	20329	914		1,131 39		2,353		555		35	110		95				136	170	
N.S. RAILROAD BRID	DGE																						
<u>161+64.7 161+80.0</u> 161+80.0 166+05.6		15.3 425.6	27.25		11598	914		<u> </u>			1,289		215	35		66			57	+	78	97	
161+80.0 166+05.6	RT	425.6		8.00	3405	1700		190		395	,	93		~~~	19		16				23	29	
166+05.6 166+35.7 PORTLAND ROAD BRI		30.1				1798		78						68									
168+93.4 169+23.5 169+23.5 213+47.0		30.1 4423.5	27.25		120541	1798		78			13,394		2,233	68		681			584		804	1,005	
169+23.5 213+47.0	RT	4423.5		8.00	35388			1,968		4,096	,	965			192		164				236	295	
<u>213+47.0</u> <u>221+50.9</u> 213+47.0 <u>221+50.9</u>		803.9 803.9	43.65	8.00	6432		35087			745	3,899	176	650		35	195	30		168		<u> </u>	293 54	
221+50.9 233+50.0	RT	1199.1	27.25		32676			755			3,631		606			185			159		218	273	
221+50.9 233+50.0 233+50.0 249+80.0		1199.1	42.91	8.00	9593		69939	534		1,111	7,771	262	1,296		52	389	45		334		64	80 583	
233+50.0 249+80.0	RT	1630.0		8.00	13040			725		1,510	5 0.91	356	007		71		61				87	109	
249+80.0 269+55.2 249+80.0 269+55.2		1975.2 1975.2	27.25	8.00	53825 15802			879		1,829	5,981	431	997		86	305	74		261		359 106	449 132	
269+55.2 269+70.4 S.R. 99 BRIDGE	RT	15.2				908		39						35									
270+85.5 271+00.7		15.2				908		39						35									
<u>271+00.7</u> <u>297+89.8</u> 271+00.7 <u>297+89.8</u>		2689.1	27.25	8.00	73278 21513			1,693 1,197		712	8,142	587	1,357		117	414	100		355		489	611 180	
297+89.6 339+00.0	RT	4110.4	27.25		112009			2,588			12,446		2,075			633			543		747	934	
297+89.6 339+00.0	RI	4110.4		8.00	32884			1,829		1,088		897			178		153				220	275	
OUTS	SIDE SI	HOULDER	ADDITION:	S AND R		S																	
76+18.5 76+73.5		55.0		-0.33				6		-2		2											
<u>115+87.2</u> <u>116+03.9</u> 130+00.0 <u>135+18.6</u>		16.7 500.0		0.83	14		5625	291		<u>2</u> 625		1 139			<u>1</u> 31		1 27				38	47	
144+90.7 159+62.5	RT	1471.8		0.83	1222		5020	64		136		31			7		6				9	10	
<u>161+67.4</u> <u>164+95.1</u> 168+16.9 <u>174+28.6</u>	RT RT	327.7 611.7		0.83 0.83	272 508			15		<u>31</u> 57	-	7 13			2 3		2 3				2 4	2 4	
171+00.0 182+50.0 175+84.0 177+18.0	RT	1150.0		2.00	670		2150	108		239		54			12		10	5			15	18 6	
236+43.0 237+23.0	RT	80.0		-0.33	-26			8		-3		3											
<u>263+88.6</u> <u>269+65.5</u> 271+11.0 <u>274+10.0</u>				0.83	479 249			25		54 28		12			3		3				4	4	
		UBTOTALS	FROM TH			·		30,323		21,290	84,795	6,072	14,137	344	1,215	4,305	1,045	5	3,693	0	6,593	8,237	
		SUBTOTALS						0		0	0	0	0	0	0	0	0	3,028	0	2,026	0	6,813	
		UBTOTALS						0		0 25,763	0	0	0	0	0	0	0	3,028	0 3,694	1,824	6,591	6,540	
Т		UBTOTALS CARRIED						60,628		47,053	84,828 169,623		28,9	344	2,428	4,308 8,613	8,1	52		237		8,239 29,829	
	I U I ALC			LIVIE JUI	volvi z MA T			L			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	<u>} 12,134</u>	L		♪ 2,+20	Service of the servic	<u>, 0,1</u>	(	لىمىمىنى'	$\Delta$		L	   DLF   12/15/15
											2	<b>`</b>				L	_						
																					NO.		DNS BY DATE
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																							ED: JMP DATE: AUG 2015 ARGE: WDB SCALE: NO SCALE
																							DIA SHEET 2340F 432





#### NOTES

(1) - NUMBER OF BENCHES VARIES PER HEIGHT

(2) - GEOTECHNICAL REPORT FOR THIS PROJECT IS AVAILABLE FOR REVIEW AT THE COMMISSION'S ADMINISTRATION BUILDING IN BEREA, OHIO,

									203	203	659	659	671
SLOPE REPAIR AREA	MILE	POST	LENGTH	LENGTH DESIGNATED FOR REPAIR	APPROXIMATE WIDTH OF REPAIR	EMBANKMENT HEIGHT FOR REPAIR (*)	NUMBER OF BENCHES	BENCH WIDTH	EXCAVATION, INCLUDING EMBANKMENT AS PER PLAN (#)	BORROW	TOPSOIL	SEEDING AND MULCHING	EROSION CONTROL MAT, TYPE B
(SL)	BEGIN	END	FEET	FEET	FEET	FEET	EACH	FEET	CU. YD.	CU. YD.	CU. YD.	SQ. YD.	SQ. YD.
SL-1	111.22	111.23	50	90	48	20	5	12	800	400	46	415	415
SL-2	111.30	111.31	50	90	32	12	3	12	480	240	27	249	249
SL-3	111.42	111.45	150	190	38	10	2.5	14	985	493	71	644	644
					T	OTALS CARRIED	TO GENERAL	SUMMARY	2265	1133	144	1308	1308

(\*) - EMBANKMENT HEIGHT FOR REPAIR IS MEASURED FROM THE TOP OF THE SLOPE DOWN.

THE ESTIMATED QUANTITIES FOR EXCAVATION INCLUDING EMBANKMENT, ARE APPROXIMATE AND BASED ON A SET AREA OF 4' X BENCH WIDTH X LENGTH DESIGNATED FOR REPAIR (#) -X NUMBER OF BENCHES. THE ACTUAL EXCAVATION AND EMBANKMENT QUANTITIES SHALL BE VERIFIED BY FIELD SURVEY. THE CONTRACTOR SHALL FIELD SURVEY THE SLOPE REPAIR AREA PRIOR TO, DURING, AND AFTER EXCAVATION AND EMBANKMENT OPERATIONS. THE SURVEY SHALL GENERATE CROSS SECTIONS AT 100 FOOT INTERVALS. AVERAGE END AREAS WILL BE USED TO DETERMINE THE ACTUAL AMOUNT OF MATERIAL REMOVED AND REPLACED. THE COST OF SURVEYING, GENERATING CROSS SECTIONS AND QUANTITIES SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT. NO ADDITIONAL COMPENSATION WILL BE GRANTED.

#### BENCHING UNDERCUT AND REPLACEMENT

IF UNSUITABLE MATERIAL AND/OR UNSTABLE SOIL IS ENCOUNTERED AT THE BOTTOM OF THE BENCH CUT. UNDERCUT THE UNSUITABLE/UNSTABLE MATERIAL TO A DEPTH OF 1.5 FEET BELOW THE BOTTOM OF THE BENCH CUT AND REPLACE WITH ITEM 203 GRANULAR MATERIAL, TYPE C, WITH ITEM 204 GEOTEXTILE FABRIC, 712.09 TYPE A. THE FOLLOWING ESTIMATED CONTINGENCY QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE CHIEF ENGINEER FOR BENCHING UNDERCUT AND REPLACEMENT

ITEM 203 - GRANULAR MATERIAL, TYPE C 30 CY ITEM 204 - GEOTEXTILE FABRIC, 712.09 TYPE A 70 SY

#### BENCHING SLOPE DRAINS

IF WET, UNSTABLE SOILS ARE ENCOUNTERED DURING CONSTRUCTION OF THE BENCHING, SLOPE DRAINS SHALL BE INSTALLED AT THE BACK OF THE EXCAVATION AS DETAILED BELOW. THESE DRAINS SHALL CONSIST OF ITEM 203 GRANULAR EMBANKMENT, AS PER PLAN (NO. 8 AGGREGATE), ITEM 204 GEOTEXTILE FABRIC, 712.09 TYPE A, AND ITEM 603 CONDUIT TYPE E, 707.31 (TYPE CP). THE GRANULAR EMBANKMENT SHALL BE PLACED IN LIFTS AS THE BENCHING BACKFILL IS CONSTRUCTED. TRANSVERSE OUTLET DRAINS SHALL OUTLET FROM THE AGGREGATE DRAIN AT THE LOW END OF THE BENCHES. THESE OUTLET DRAINS SHALL CONSIST OF ITEM 603 CONDUIT TYPE F, 707.33 WITH ITEM 603 PRECAST REINFORCED CONCRETE OUTLETS. TRANSVERSE OUTLET SHALL BE INSTALLED AT A MINIMUM 1 PERCENT SLOPE AND OUTLET THROUGH THE FACE OF THE SLOPE. PROVIDE ITEM 601 ROCK CHANNEL PROTECTION WITH FILTER FABRIC LINING OR OTHER EROSION PROTECTION BELOW THE OUTLETS, EXTENDING TO THE TOE OF THE SLOPE. THE FOLLOWING ESTIMATED CONTINGENCY QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE CHIEF ENGINEER FOR BENCHING SLOPE DRAINS.

TEM 203 – GRANULAR EMBANKMENT, AS PER PLAN (NO. 8 AGGREGATE TEM 204 – GEOTEXTILE FABRIC, 712.09 TYPE A TEM 603 – CONDUIT TYPE E, 707.31 (TYPE CP) TEM 603 – CONDUIT TYPE F, 707.33 TEM 603 – PRECAST REINFORCED CONCRETE OUTLET TEM 601 – ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	) 15 CY 70 SY 60 LF 40 LF 3 EACH 3 CY
GRANULAR EMBANKMENT, AS PER PLAN (NO. 8 AGGREGATE) GEOTEXTILE FABRIC,	
CONDUIT TYPE E, 707.33 (PERFORATED)	Ņ
BENCHING SLOPE DRAIN DETAIL	~ `

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	$\square$		ADDENDUM NO.	3		RRM	12/15
	NO.		REVISIONS			BY	DATE
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	INFRA	STR	UCTUR	E CC	MMI	SSI	NC
		SLO	PE REPA	IR DET	AIL 1		
	Rii		OURCE IN 350 PRES COLUMB	IDENTIA	L GATE		IC.
	DESIGNED:	BRT	CHECKED:	JPS	DATE:	12/02/	
	DRAWN:	RRM	IN CHARGE:	JAM	SCALE:	N.T.S	<b>.</b>
PLAN INSERT SHEET 1	CONTRA	CT 3	9-16-02A	SHEE	T 1	OF	1

#### TOLL PLAZA 110 WASTE SITE DEDUCT ALTERNATE

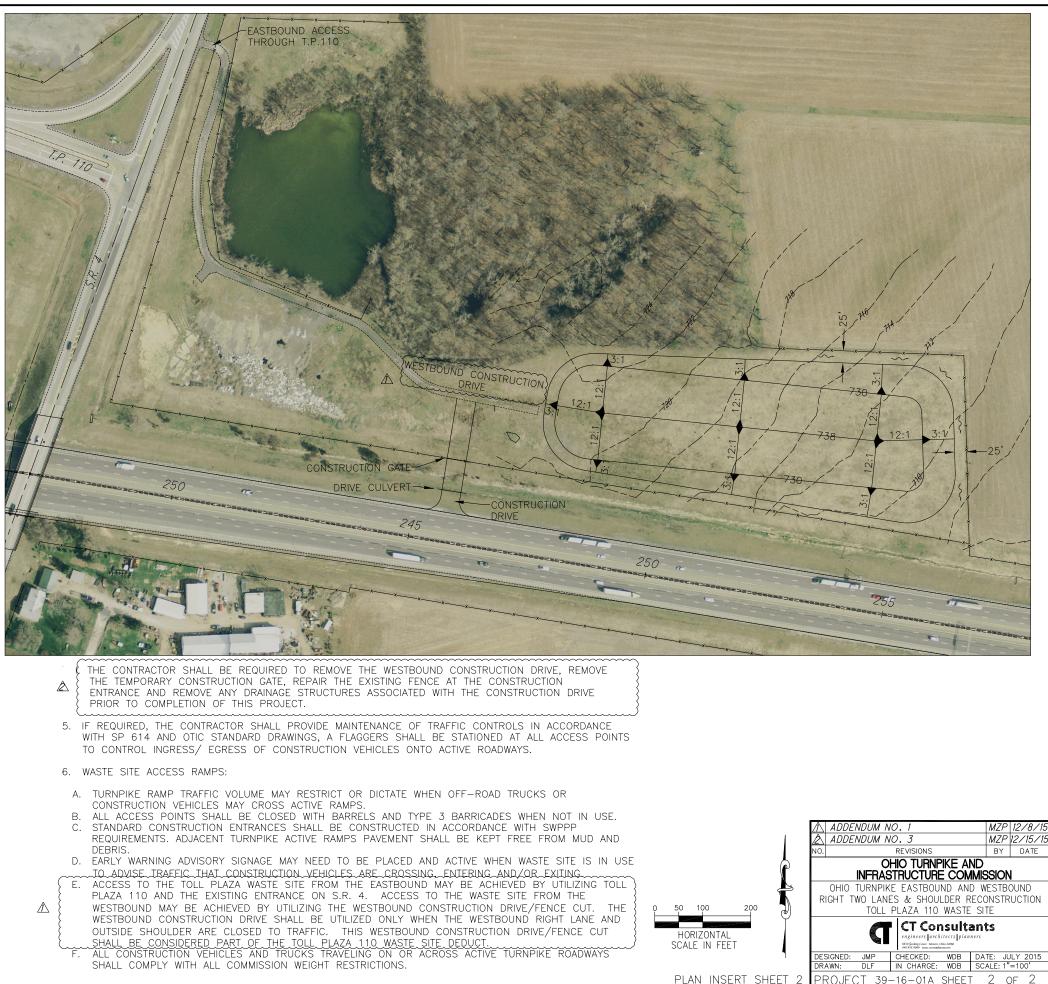
THIS DEDUCT ALTERNATE PROVIDES THE CONTRACTOR A WASTE AREA AT TOLL PLAZA 110, AS DETAILED ON THIS SHEET, FOR THE EXCAVATED EMBANKMENT AND CONCRETE PAVEMENT MATERIALS REMOVED FROM THE 39-16-01A PROJECT. ALL WORK DESCRIBED BELOW SHALL BE INCLUDED IN THE TOLL PLAZA 110 WASTE SITE DEDUCT ALTERNATE CREDIT. THIS CREDIT REPRESENTS THE DIFFERENCE BETWEEN THE COSTS TO TRUCK WASTE MATERIAL OFF COMMISSION PROPERTY COMPARED TO WASTING THE MATERIAL AT TOLL PLAZA 110, AS WELL AS ALL REQUIREMENTS DESCRIBED IN THIS NOTE. THE UNIT PRICES BID SHALL NOT REFLECT ANY COSTS WHICH APPLY TO SUCH TEMPORARY CONSTRUCTION, RESTORATION, OR REPAIR WORK, AND SUCH WORK SHALL NOT BE SEPARATELY MEASURED OR PAID FOR. BUT SHALL BE PERFORMED WITHOUT COST TO THE COMMISSION. IN THE EVENT THAT THE CONSTRUCTION OF THE TOLL PLAZA WASTE SITE IS NOT APPROVED BY THE CHIEF ENGINEER, THE CONTRACT SHALL PROCEED AS IF NO REQUEST OR BID HAD BEEN MADE FOR THE CONSTRUCTION THEREOF

THE SCHEMATIC PLAN ON THIS SHEET PROVIDES ONLY GENERAL DETAILS OF THE ALLOWABLE WASTE SITE AREA, WITH A CAPACITY OF APPROXIMATELY 127,000 CY OF MATERIAL. THE CONTRACTOR AWARDED THIS CONTRACT SHALL PROVIDE A FORMAL PLAN SUBMITTAL FOR REVIEW AND APPROVAL BY THE CHIEF ENGINEER NO LATER THAN TWENTY-ONE (21) DAYS PRIOR TO THE INTENDED WASTE SITE WORK COMMENCEMENT. NO SUBMITTALS ARE DUE WITH THE BID DOCUMENTS. THE WASTE SITE PLAN SUBMITTAL SHALL INCLUDE, AT A MINIMUM:

- 1. EXISTING AND PROPOSED CONTOURS (ONE-FOOT INTERVALS), RAMPS, SITE ACCESS RAMPS, DRAINAGE, LIGHTING, UTILITIES, AND ALL OTHER DETAILS REQUIRED TO PERFORM THE PROPOSED WORK.
- APPROXIMATE CUBIC YARDS OF MATERIAL TO BE DISPOSED OF AT THE WASTE 2. SITE.
- 3. PROPOSED DRAINAGE PLAN DETAILING HOW WATER WILL BE CONVEYED OR CONTROLLED, INCLUDING ANY CHANNELS, DITCHES, SWALES AND/OR DRAINAGE STRUCTURES ALL REQUIRED DRAINAGE ELEMENTS SHALL BE DESIGNED IN ACCORDANCE WITH THE CURRENT ODOT DRAINAGE LOCATION AND DESIGN MANUAL, VOLUME 2.
- 4. TEMPORARY DITCH CROSSING DETAILS.
- 5. TEMPORARY SEDIMENT AND EROSION CONTROL BMPS REQUIRED FOR COMPLIANCE UNDER THE CLEAN WATER ACT, OHIO WATER POLLUTION CONTROL ACT, (OWPCA) (ORC CHAPTER 6111) AND THE NPDES PERMIT.

THE WASTE SITE PLAN AND CONSTRUCTION OPERATIONS SHALL ALSO MEET THE FOLLOWING REQUIREMENTS:

- 1. AS-BUILT DRAWINGS SHALL BE PROVIDED IN AUTOCAD, VERSION 2011 OR NEWER.
- 2. PRE AND POST TOPOGRAPHIC SURVEY PLAN OF THE ENTIRE AREA AFFECTED BY THE PROPOSED CHANGES SHALL BE STAMPED BY A PROFESSIONAL SURVEYOR LICENSED IN THE STATE OF OHIO.
- ALL EXISTING TREES AND BRUSH SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH SP105 AND THE ENDANGERED SPECIES - INDIANA BAT NOTE ON SHEET 16 OF 432 SHALL BE FOLLOWED.
- 4. FINAL GRADING AND SEEDING:
- A. WHEN WASTING PCC, MIX THE PCC WITH AT LEAST 30 PERCENT NATURAL SOIL TO CONSTRUCT AN INNER CORE IN THE WASTE AREA. ALL MATERIAL BEING WASTED SHALL MEET THE STANDARDS FOR CLEAN HARD FILL PER OAC 3745-400-05. COVER THIS INNER CORE WITH 3 FEET OF NATURAL SOIL ON THE TOP AND ON ALL SIDE SLOPES. PLACE AND COMPACT THE MATERIAL ACCORDING TO ITEM 203.06.D TO PREVENT FUTURE SETTLEMENT AND SLIDING.
- THE PRESENCE OF A SLAG BASE MATERIAL HAS BEEN VERIFIED UNDER THE EXISTING PAVEMENT AND CAN BE WASTED IN THIS DESIGNATED AREA. MATERIAL CONTAINING SLAG SHALL NOT BE WITHIN THE FIRST 3 FEET ABOVE GRADE
- С. CONTRACTOR SHALL BEGIN FILLING THE WASTE AREA FROM THE WEST SIDE OF THE PROPOSED PILE AREA, THEN FILLING TOWARDS THE EAST.
- SLOPES SHALL BE CONSTRUCTED AT A 3.1 MAX WITH THE TOP SLOPING FROM D. THE CENTER WITH 12:1 MINIMUM GRADING.
- E. EXISTING TOPSOIL SHALL BE REMOVED, STOCKPILED, AND RE-SPREAD OVER THE ENTIRE INFIELD AREA. A MINIMUM THICKNESS OF 6" OF TOPSOIL SHALL COVER THE ENTIRE WASTE PILE
- CONTRACTOR MAY TEST EXISTING SOIL WITHIN THE DESIGNATED WASTE SITE AREA TO VERIFY SUITABILITY FOR USE ON OTHER AREAS OF THE PROJECT. IF THE SOIL IS DETERMINED TO BE SUITABLE FOR OTHER USES, THE CONTRACTOR MAY USE THE WASTE SITE AREA FIRST AS A BORROW AREA. FINAL GRADING SHALL NOT CAUSE THE PONDING OF ANY WATER.
- G. THE COMMISSION RESERVES THE RIGHT TO MODIFY FINAL GRADING AND ELEVATIONS AS WORK PROGRESSES.
- RESTORATION OF ALL DISTURBED AREAS SHALL INCLUDE CLEANUP, SHAPING, REPLACEMENT OF TOPSOIL, AND ESTABLISHMENT OF VEGETATIVE COVER BY SEEDING AND MULCHING IN ACCORDANCE WITH ALL ITEMS 659. ENSURE THE RESTORED AREA IS WELL DRAINED.



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