STA. 420+00 WYOMINO BEGIN PROJECT STA. 324+00

## LOCATION MAP

LATITUDE: N 39°16′15″ LONGITUDE: W 84°26′25″ SCALE IN MILES PORTION TO BE IMPROVED. INTERSTATE HIGHWAY.\_\_\_\_\_ STATE & FEDERAL ROUTES \_\_\_\_\_ COUNTY & TOWNSHIP ROADS OTHER ROADS.\_\_\_\_

# FOR ENTIRE PLAN.

EXCEPT STRUCTURES AND

ENGINEERS SEAL:

# ROADWAY

JEFFREY

HL-30.11

4-17-2020 MGS-2.1

4-17-2020 MGS-3

SIGNED: And

DATE: 5-8-2020

DESIGN DESIGNATION - SEE SHEET 2

DESIGN EXCEPTIONS

 $\bigcirc$ 

## **UNDERGROUND UTILITIES**

**Contact Two Working Days Before You Dig** 



OHIO811, 8-1-1, or 1-800-362-2764

(Non-members must be called directly)

PLAN PREPARED BY:

IB

8101 North High Street, Suite 100 Columbus, OH 43235 USA Phone: 614-818-4900 Fax: 614-818-4901

## STATE OF OHIO

## DEPARTMENT OF TRANSPORTATION

# HAM-75-14.61

CITY OF SHARONVILLE VILLAGE OF EVENDALE VILLAGE OF GLENDALE HAMILTON COUNTY A

2-19-2021 - Added Sheet 444A

SUPERELEVATION TABLES SCHEMATIC PLAN 417-418 INTERCHANGE DETAILS TYPICAL SECTIONS 5-20 RAMP TERMINAL DETAILS 419-430 431-432 GENERAL NOTES MAINTENANCE OF TRAFFIC U-TURN MEDIAN CROSSING DETAILS 21-24 433-437 INTERSECTION DETAILS 25-191 (\*) GENERAL SUMMARY PAVEMENT JOINT DETAILS 192-201 SUBSUMMARIES ROADWAY BARRIER DETAILS 444<del>44</del>4 PROJECT SITE PLAN DRIVE DETAILS PLAN AND PROFILE 450A-450D 216-221 I-75 SB/NB DRAINAGE DETAILS 451-452 UNDERDRAIN DETAILS 222-230 231-233 453-473 RAMP C GREATER CINCINNATI WATER WORKS 473A-473D RAMP A 234-237 TRAFFIC CONTROL 474-544 RAMP G 545-560 238-240 TRAFFIC SIGNALS RAMP I 241-243 TRAFFIC SURVEILLANCE SHARON ROAD 579-606 STRUCTURE OVER 20 FOOT SPAN CHESTER ROAD SOUTH 249-250 (HAM-75-15.39L,SFN 3110931) (HAM-75-15.39R,SFN 3110966) 607-642 CROSS SECTIONS I-75 SB I-75 NB 251-311 643-678 312-357 STRUCTURE 20 FOOT SPAN AND UNDER RAMP C 358-368 (HAM-75-15.57,SFN 3110982) 679-684 RAMP A STRUCTURE REPAIR RAMP G 377-383 (HAM-75-16.42L,SFN 3111040) 684A-684C RAMP F 384-389 FENCE PLAN 685-689 SHARON ROAD 390-406 407-410 RIGHT OF WAY 690-708

E-56364		ON ROAD TER ROAD S	SOUTH	390-4 407-4		RUCTURE FOL	INDATION E		90-708 N & SOIL F	PROFILE	159A ,165A		TH
E-56340 E									EMENTAL ICATIONS	TH AC			
	BP-2.1	7-17-2015	HL-30.22	4-17-2020	MGS-3.2	1-18-2013	MT-102.30	10-16-2015	TC-61.30	7-19-2019	JI LUII	ICATIONS	DI
SIGNED: Jeffrey O. Huchenbrust	BP-2.2	7-18-2008	HL-30.31	4-17-2020	MGS-4.2	7-19-2013	MT-103.10	1-19-2018	TC-64.10	1-17-2020	800-2019	4-17-2020	SE
DATE: 5-8-2020	BP-3.1	1-17-2020	HL-30.32	4-17-2020	MGS-5.2	7-15-2016	MT-104.10	10-16-2015	TC-65.10	1-17-2014	804	4-17-2020	
ENGINEERS SEAL:	BP-4.1	7-19-2013	HL-30.33	4-17-2020	MGS-5.3	7-15-2016	MT-105.10	1-17-2020	TC-65.11	7-21-2017	808	1-18-2019	
ENGINEERS SEAL.	BP-5.1		HL-40.20	1-17-2020	MGS-6.1	1-19-2018	MT-110.10	7-19-2013	TC-71.10	1-19-2018	809	1-17-2020	20
HAM-75-15.57	BP-6.1	7-19-2013	HL-50.11	1-16-2015		1-15-2016		7-18-2014	TC-72.20	7-20-2018		10-19-2018	
HAM-75-16.42 L HAM-75	BP-7.1	7-20-2018	HL-50.21	4-17-2020	MT-95.30	7-19-2019	RM-4.2	1-17-2020	TC-73.20	1-17-2020	816	10-18-2019	TH.
HILL ATE OF ONLY	BP-9.1	1-18-2019	HL-60.11	7-21-2017	MT-95.31	7-19-2019	RM-4.4	7-19-2019	TC-81.22	4-17-2020	821	4-20-2012	OF
STEVEN STEVEN	CB-2.1	7-20-2018		1-17-2020		4-19-2019	RM-4.5	7-21-2017	TC-85.10	4-17-2020	824	1-18-2019	CH
R. X	CB-2.2	7-20-2018	HW-2.1	7-20-2018	MT-95.40	1-17-2020	RM-4.6	7-19-2013	TC-85.20	7-20-2018	832	10-19-2018	ΙN
BUTLER E-71774	CB-3.1	1-15-2016	HW-2.2	7-20-2018	MT-95.41	1-17-2020	TC-9.31	4-17-2020			836	1-19-2018	
English Surrespondent State	CB-3.2	1-15-2016	I-2.3	1-15-2016	MT-95.45	1-17-2020	TC-12.31	4-17-2020			840	1-17-2020	
NAME OF THE PARTY	CB-3.3	1-15-2016	ITS-10.10	7-19-2019	MT-95.50	7-21-2017	TC-15.116	4-17-2020			843	10-18-2019	7
Mannanan Ma	CB-3.4	1-15-2016	ITS-10.11	7-19-2019	MT-97.10	4-19-2019	TC-16.22	4-17-2020			846	4-17-2015	TL
SIGNED: Um lath	CB-4.1	1-18-2013	ITS-12.10	7-19-2019	MT-98.10	1-17-2020	TC-17.11	4-17-2020			866	4-21-2017	TH
DATE: 5-8-2020	DM-1.1	7-21-2017	ITS-13.10	1-17-2020	MT-98.11	1-17-2020	TC-21.11	4-17-2020			867	1-18-2019	PR
JA 1E: 0 0 2020	DM-1.2	1-18-2013	ITS-14.10	7-17-2015	MT-98.20	4-19-2019	TC-21.21	4-17-2020			878	1-17-2020	TA
ENGINEERS SEAL:	DM-2.1	1-18-2013	ITS-14.11	1-18-2019	MT-98.21	1-17-2020	TC-21.50	4-17-2020			902	7-19-2019	ES
HAM-75-15.39 L/R	DM-4.3	1-15-2016	ITS-15.10	7-19-2019	MT-98.28	1-17-2020	TC-22.20	1-17-2014			904	7-19-2019	LJ
MAN TO TO SO EXT	DM-4.4	1-15-2016	ITS-15.11	7-19-2019	MT-98.29	1-17-2020	TC-41.10	7-19-2013			907	10-18.2019	
WHITE OF ON THE	F-2.1	7-20-2018	ITS-18.00	7-19-2019	MT-98.30	7-19-2019	TC-41.20	10-18-2013			908	10-20-2017	
MICHAEL	F-3.1	7-19-2013	ITS-35.12	1-15-2016	MT-99.20	4-19-2019	TC-41.30	10-18-2013			913	4-21-2017	
*/ JOHN *	F-3.3	7-19-2013	ITS-35.14	7-19-2019	MT-99.30	1-17-2020	TC-41.40	10-18-2013	AS-1-15	7-17-2015	916	1-19-2018	Α
ZWICK Z	F-3.4	7-19-2013	ITS-40.10	7-19-2019	MT-99.60	7-15-2016	TC-41.41	7-19-2019	AS-2-15	1-18-2019	921	4-20-2012	D
59572	HL-10.11	4-17-2020	ITS-50.10	7-19-2019	MT-101.70	1-17-2020	TC-41.50	10-18-2013	BR-1-13	1-17-2014	977	4-17-2009	
TO STATE OF THE PARTY OF THE PA	HL-10.12	1-20-2017	ITS-50.12	1-19-2018	MT-101.75	1-17-2020	TC-42.10	10-18-2013	PCB-91	1-18-2013			
MICHAEL JOHN ZWICK S9572	HL-10.13	4-17-2020	ITS-76.10	4-17-2020	MT-101.80	1-17-2020	TC-42.20	10-18-2013	PSID-1-13	7-20-2018			Δ
11101	HL-20.11	4-17-2020	MGS-1.1	1-19-2018	MT-101 <b>.</b> 90	7-21-2017	TC-51.11	1-15-2016	SBR-1-13	7-20-2018	SP	ECIAL	$\Gamma$

1-19-2018 MT-102.10 1-20-2017 TC-52.10

1-19-2018 MT-102 20 4-19-2019 TC-52 20 7-20-2018

## PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF TOTAL RECONSTRUCTION OF 2.0 MILES OF I-75 THROUGH HAMILTON COUNTY FROM APPROXIMATELY 0.2 MILES NORTH OF GLENDALE-MILFORD INTERCHANGE TO I-275 INTERCHANGE. IN ADDITION TO TOTAL RECONSTRUCTION OF 1.0 MILE OF ALL RAMPS AT THE SHARON ROAD INTERCHANGE AND STRUCTURE REPLACEMENT OF HAM-75-15.39 L&R OVER SHARON ROAD. THIS PROJECT ALSO INVOLVES PLANING & RESURFACING WITH WIDENING AND RECONSTRUCTION ALONG PORTIONS OF SHARON ROAD AND CHESTER ROAD.

IN ADDITION, IT INCLUDES DRAINAGE AND BMP'S, MODIFICATION OF THREE (3) TRAFFIC SIGNALS ALONG SHARON ROAD, HIGHWAY LIGHTING AND TRAFFIC SURVELLIANCE ALONG I-75, TRAFFIC CONTROL, WATER WORKS ALONG SHARON ROAD, AND STRUCTURE REPAIR AT HAM-75-16.42 L OVER KEMPER ROAD.

THIS PROJECT IS PHASE 8 OF THE BROADER I-75 TTV "THRU THE VALLEY" PROJECT, WHICH WILL RECONSTRUCT A PORTION OF THE I-75 CORRIDOR TO ADD CAPACITY TO EFFECTIVELY HANDLE HIGH TRAFFIC VOLUMES AND AND HIGH PERCENTAGES OF COMMERCIAL TRAFFIC USING THIS SECTION OF ROADWAY.

## EARTH DISTURBED AREA (E.D.A.)

PROJECT E.D.A.	47.0 ACRES
ESTIMATED CONTRACTOR E.D.A.	5.0 ACRES
TOTAL PROJECT E.D.A.	52.0 ACRES
NOTICE OF INTENT E.D.A.	52.0 ACRES

## LIMITED ACCESS

(\*) ADDITIONAL

**PROVISIONS** 

10-18-2013 SICD-1-96 7-18-2014

SHEETS USED: 145A.150A.

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

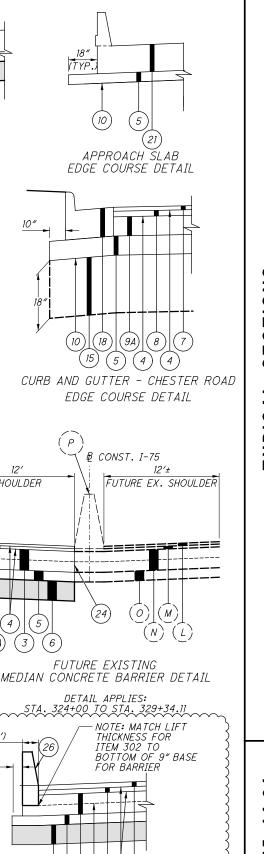
## 2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO. DEPARTMENT OF TRANSPORTATION. INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

HEREBY APPROVED THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

ı	APPROVED			
ı	DATE <u>5-8-2020</u>	_ DISTRICT	DEPUTY	DIRECTOR

APPROVED. DATE 5-8-2020 DIRECTOR, DEPARTMENT OF TRANSPORTATION



(5)

SEE SHEET 444 FOR LIMITING STATIONS (I-75)

(2A)

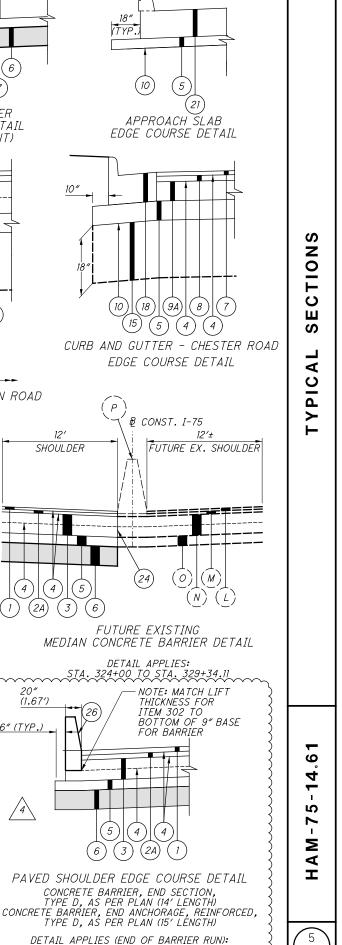
PAVED SHOULDER EDGE COURSE DETAIL

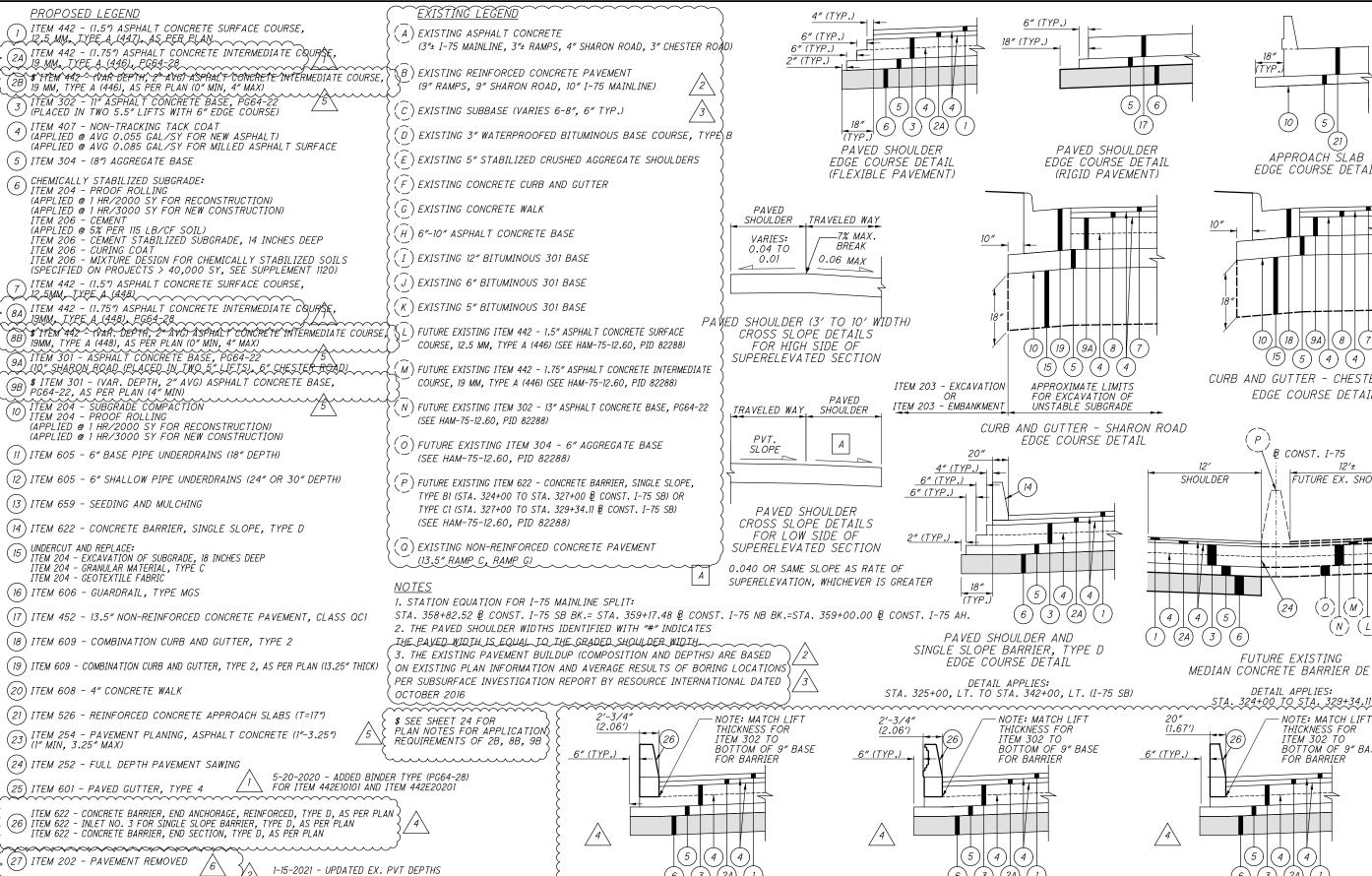
INLET NO. 3 FOR SINGLE SLOPE BARRIER,

TYPE D, AS PER PLAN (25.5' LENGTH)

DETAIL APPLIES (MIDDLE OF BARRIER RUN):

SEE SHEET 444 FOR LIMITING STATIONS (I-75)





USE ITEM 202-PAVEMENT REMOVED, COMBINE INTO SINGLE PAY STEM CONCRETE BARRIER, END ANCHORAGE, REINFORCED,

AND EARTHWORK EQ ON CROSS SECTIONS

1-15-2021 - ADDED ITEM 202-WEARING COURSE

REMOVED ITEM 202-PAVEMENT REMOVED, APP

2-19-2021 - ADDED PAVED EDGE COURSE DETAIL

FOR ROADWAY PARAPET AS SHOWN ON SHEET 444

2-19-2021 - ADDED PAY ITEMS AND BALLOONS TO

2-19-2021 - UPDATED TYPICAL SECTION BALLOON CALLOUTS FOR 8B AND 9B FOR CLARITY. ADDED SHEET REFERENCE TO

"AS PER PLAN" NOTES AND UPDATED NOTES FOR CLARITY.

(28) ITEM 202 - PAVEMENT REMOVED, ASPHALT)

(29) ITEM 202 - WEARING COURSE REMOVED

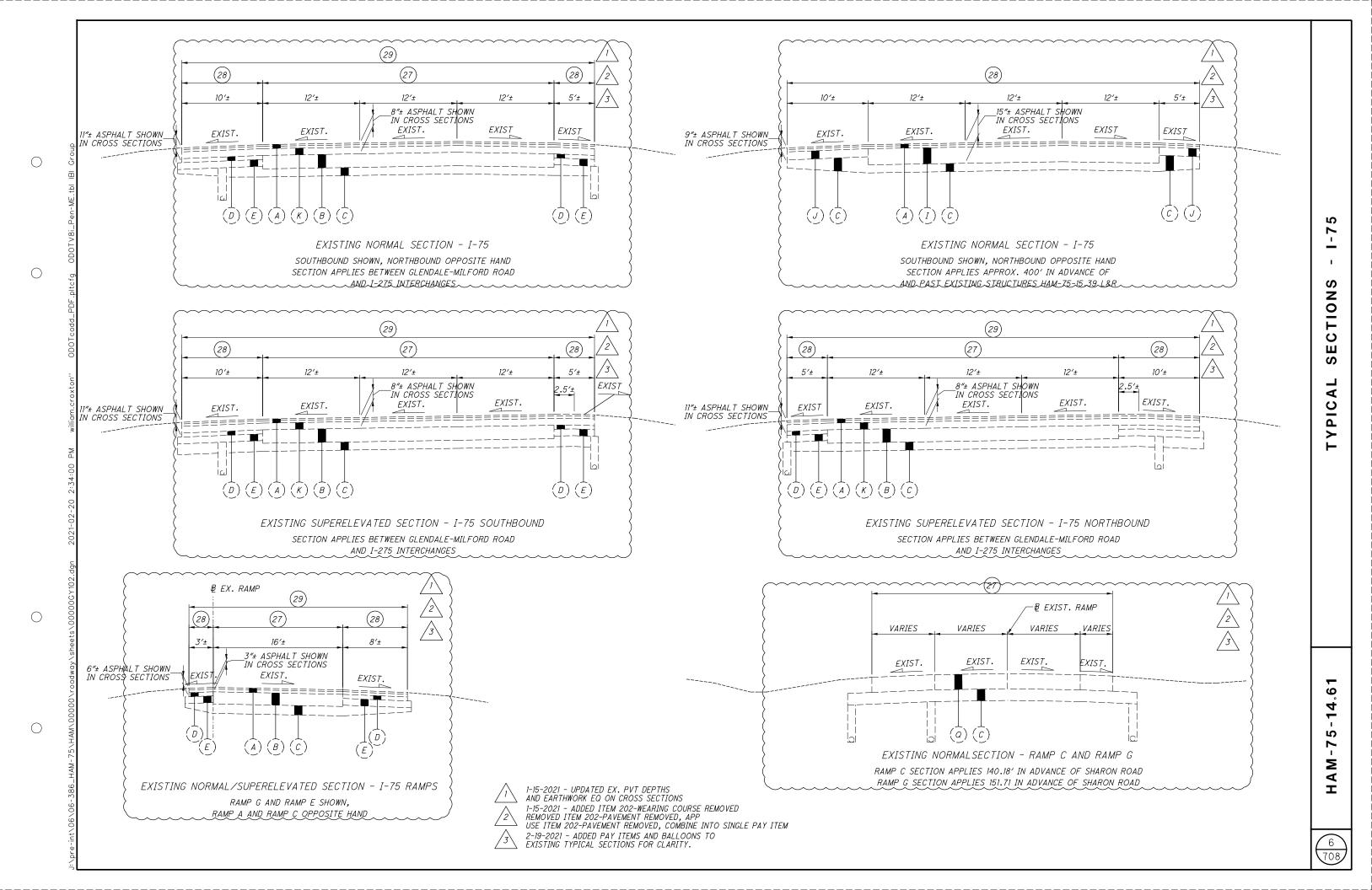
(3) (2A)

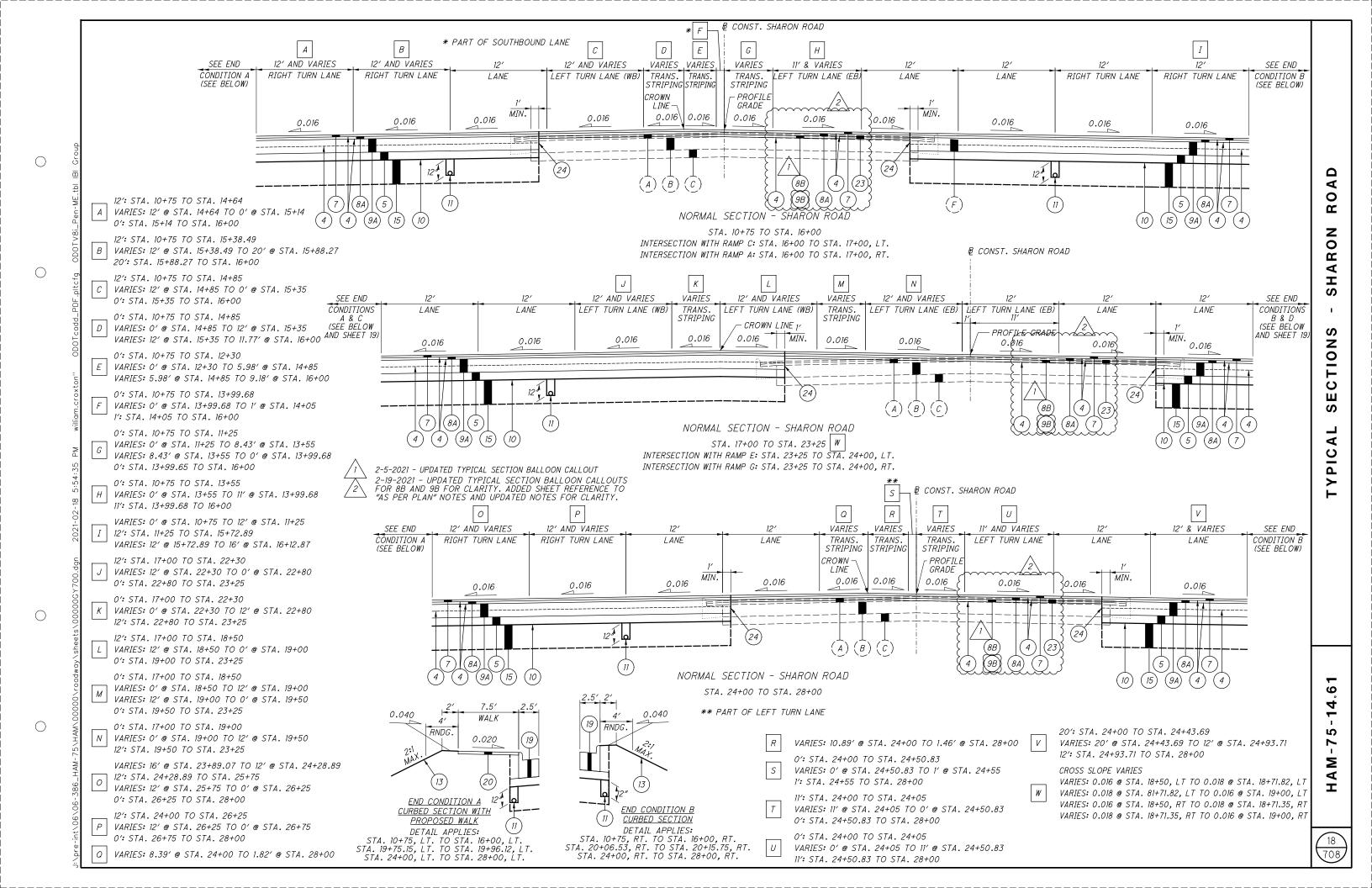
PAVED SHOULDER EDGE COURSE DETAIL

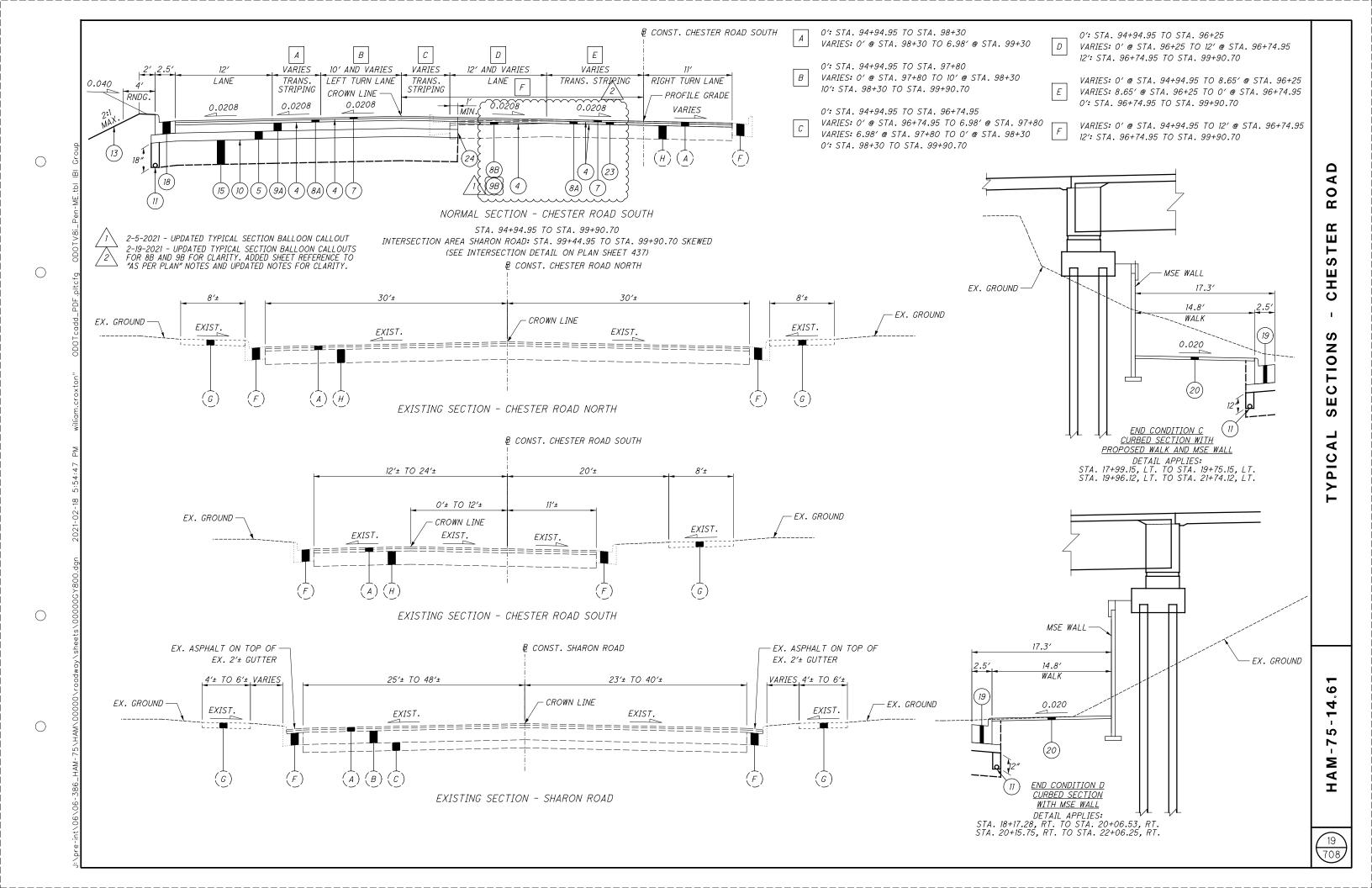
TYPE D, AS PER PLAN (15' LÉNGTH)

DETAIL APPLIES (BEGIN OF BARRIER RUN):

SEE SHEET 444 FOR LIMITING STATIONS (I-75)







0

S

Z

⋖

 $\mathbf{\alpha}$ 

Ш

ш

 $\bigcirc$ 

UTILITIES:

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

DUKE ENERGY (TRANSMISSION)

TIM.MEYER@DUKE-ENERGY.COM

CINCINNATI BELL TELEPHONE

221 E. 4TH STREET, BLDG 121-900

GREATER CINCINNATI WATER WORKS

JON.HUNSEDER@GCWW.CINCINNATI-OH.GOV

CINCINNATI, OH 45202

CINCINNATI, OH 45201

CINCINNATI, OH 45204

ITS (FORMERLY ARTIMIS)

OF TRAFFIC ENGINEERING

1980 WEST BROAD STREET

CEN.ITS.LAB@DOT.OHIO.GOV

JKEMPE@CITYOFSHARONVILLE.COM

ODOT CENTRAL OFFICE

COLUMBUS. OH 43223

JASON M. YERAY. P.E.

CITY OF SHARONVILLE

SHARONVILLE, OH 45241

VILLAGE OF EVENDALE

10500 READING ROAD

EVENDALE, OH 45241

JJEFFERS@PEGROUPLLC.COM

10900 READING ROAD

513-287-1266

513-565-7043

MARK CONNER

513-557-5799

JON HUNSEDER

614-466-2168

503-563-1177

JOSEPH KEMPE

513-563-2244 JAMES JEFFERS

TIM MFYFR

139 E. 4TH STREET, ROOM 552A

139 E. 4TH STREET, ROOM 467A CINCINNATI, OH 45202 513-287-3674 AARON WRIGHT AARON.WRIGHT@DUKE-ENERGY.COM

DUKE GAS 139 E. 4TH STREET. ROOM 460A CINCINNATI, OH 45202 513-287-1232 RICHARD HACKER RICHARD.HACKER@DUKE-ENERGY.COM MARK.CONNER@CINBELL.COM

11254 CORNELL PARK DRIVE, STE 430B 1600 GEST STREET CINCINNATI, OH 45242 513-386-5499 KENT RIFGER KENT.RIEGER@CHARTER.COM

SOUTHWESTERN OHIO WATER COMPANY (SOWC) 600 SHEPHERD AVE., SUITE 1 CINCINNATI, OHIO 45215 513-489-4844 MICHAEL C. FLAVIN. PE MIKE.FLAVIN@FUSE.NET

METROPOLITAN SEWER DISTRICT CINCINNATI, OH 45204 513-557-7188 ROR FRANKI IN ROB.FRANKLIN@CINCINNATI-OH.GOV

UTILITY DEPARTMENT 30 VILLAGE SQUARE GLENDALE, OH 45246 513-678-0992 KEVIN BELL KBELL@GLENDALEOHIO.ORG LORETTA ROKEY

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

## UTILITY NOTIFICATION

THE OHIO DEPARTMENT OF TRANSPORTATION HAS UTILITY FACILITIES (HIGHWAY LIGHTING, TRAFFIC SIGNALS, ARTIMIS) WITHIN THE LIMITS OF THIS PROJECT.

IN ADDITION TO THE INFORMATION OUTLINED IN THE 4A NOTES OF THIS CONTRACT, AND EVEN THOUGH ODOT IS LISTED AS A MEMBER OF THE OHIO UTILITIES PROTECTION SERVICE (OUPS), THE CONTRACTOR ON THIS PROJECT IS REQUIRED TO CONTACT ODOT, DISTRICT 8, TRAFFIC DEPARTMENT, AND ARTIMIS DIRECTLY SO THAT THE ODOT UTILITIES, LOCATED WITHIN THIS PROJECT, ARE MARKED.

THE CONTRACTOR SHALL NOTIFY DISTRICT 8, TRAFFIC AT (513) 933-6689, CENTRAL OFFICE ITS AT (614) 387-4113 OR CEN.ITS.Lab@dot.ohio.gov, AND THE PROJECT ENGINEER, FOURTEEN (14) CALENDAR DAYS IN ADVANCE OF WORK, FOR THE NEED TO MARK ODOT OWNED UTILITIES. CONTRACTOR SHALL RE-MARK EXISTING AND NEW ITS UTILITIES AFTER EXISTING IS MARKED FIRST TIME BY ODOT ACCORDING TO SS809.

THE ABOVE REQUIREMENTS ARE IN ADDITION TO SECTION 105.07 & 107.16 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS AND THE 4A PROPOSAL NOTE.

THE CONTRACTOR SHALL NOTIFY OTHER UTILITIES THROUGH OUPS OR DIRECTLY A MINIMUM OF FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY WORK.

THE COST FOR THE ABOVE DESCRIBED WORK IS INCIDENTAL TO THE OVERALL BID PRICE OF THE PROJECT.

UTILITY NOTIFICATION (CONT.)

UTILITY LINE AT STA. 390+56: THE UNKNOWN UTILITY LINE APPEARS TO BE ABANDONED AS THE UTILITY COMPANIES LISTED ON THIS SHEET PROVIDED NO RECORD OF CURRENT USAGE OF THIS LINE. PRIOR TO CONSTRUCTION NEAR THIS LINE, THE CONTRACTOR SHALL EXPOSE THE LINE IN THREE (3) LOCATIONS AS DETERMINED BY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE TYPE, SIZE, AND DEPTH OF THE UNKNOWN UTILITY LINE TO THE ENGINEER FOR FURTHER COORDINATION. THE COST FOR THE ABOVE DESCRIBED WORK SHALL BE INCIDENTAL TO THE

#### **EXISTING PLANS:**

THE FOLLOWING EXISTING PLANS MAY BE INSPECTED AT ODOT DISTRICT 8:

1958 - HAM-25-13.84 BY VOGT, IVERS, SEAMAN & ASSOCIATES

1958 - HAM-25-15.60 & HAM-50B-22.02 BY VOGT, IVERS, SEAMAN & ASSOCIATES

1992 - HAM-75-14.26 BY HAZELET & ERDAL, INC.

OVERALL BID PRICE OF THE PROJECT.

2011 - HAM-75-15.34 (PID 86798) BY M-E COMPANIES

2013 - GRE/HAM-PPS-FY2013 (PID 75909) BY ODOT DISTRICT 8

THE FOLLOWING EXISTING PLANS MAY BE INSPECTED AT THE CITY OF SHARONVILLE:

2012 - CHESTER RD. AT SHARON RD. ROADWAY IMPROVEMENTS BY KLEINGERS & ASSOCIATES

## SURVEYING PARAMETERS:

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEETS 2-4 OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING FOR ALL SURVEYING:

**VERTICAL POSITIONING:** ORTHOMETRIC HEIGHT DATUM: NAVD88 GEOID: GEOID 09

HORIZONTAL POSITIONING: REFERENCE FRAME: NAD83 (CORS96) ELLIPSOID: GRS80 MAP PROJECTION: LAMBERT CONFORMAL CONIC COORDINATE SYSTEM: OHIO STATE PLANE, SOUTH ZONE COMBINED SCALE FACTOR: 0.999916593 ORIGIN OF COORDINATE SYSTEM: OHIO SOUTH ZONE (0,0)

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

UNITS ARE IS U.S. SURVEY FEET.

## ROUNDING:

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS SECTIONS EVEN THOUGH OTHERWISE SHOWN.

## CONSTRUCTION NOISE:

THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING AND COMPLYING WITH ALL LOCAL NOISE ORDINANCES FOR CITY OF SHARONVILLE & CITY OF GLENDALE AND THESE LOCAL ORDINANCES, IF IN PLACE, SHALL SUPERSEDE THE MINIMUM TIME FRAMES MENTIONED ABOVE. 

#### **WORK LIMITS:**

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

#### FENCE-L'ENGTHS WWW.

THE LENGTHS OF FENCE SHOWN IN THE PLANS ARE HORIZONTAL DIMENSIONS. MEASUREMENTS OF THE FINAL QUANTITIES WILL BE IN ACCORDANCE WITH ITEM 607.

#### BENCHING OF FOUNDATION SLOPES:

ALTHOUGH CROSS-SECTIONS INDICATE SPECIFIC DIMENSIONS FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. BENCH ALL OTHER SLOPED EMBANKMENT AREAS AS SET FORTH IN 203.05. NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF 203.05.

## CONTRACT REQUIREMENT:

THE CONTRACTOR SHALL NOT BEGIN WORK UNTIL ON OR AFTER (AUGUST 1, 2021.

## CONSTRUCTION DATES:

(THE CONTRACTOR SHALL ADHERE TO THE FOLLOWING CONSTRUCTION) (DATES FOR THIS PROJECT:

- START DATE: ON OR AFTER 8-1-2021
- INTERIM COMPLETION: 9-30-2023
- END CONSTRUCTION: 6-30-2024

## INTERIM COMPLETION REQUIREMENTS:

THE PROJECT HAS AN INTERIM COMPLETION DATE OF 9-30-2023 >ON OR BEFORE THE INTERIM COMPLETION DATE, ALL ROADWAYS >SHALL BE PLACED IN THEIR FINAL TRAFFIC CONFIGURATION WITH angleALL CONTRACT ITEMS OF WORK COMPLETE EXCEPT FOR THE FINAL: ASPHALT CONCRETE SURFACE COURSE, FINAL PAVEMENT MARKINGS, RAISED PAVEMENT MARKERS AND RUMBLE STRIPS.

THE CONTRACTOR WILL BE SUBJECT TO DAILY DISCENTIVES IN THE (AMOUNT OF \$3500 PER DAY FOR FAILURE TO COMPLETE ALL THE) (REQUIRED WORK AND ASSOCIATED INCIDENTALS RELATED TO THE) (WORK PRIOR TO THE INTERIM COMPLETION DATE. DAILY DISINCENTIVES) ARE APPLICABLE TO THE WORK REQUIRED TO THE INTERIM COMPLETION DATE ONLY. THE CONTRACTOR IS STILL SUBJECT TO LIQUIDATED < DAMAGES AS OUTLINED IN CMS 108.07 FOR THE REMAINDER OF THE CONTRACT.

### ITEM 204 - SUBGRADE COMPACTION AND PROOF ROLLING: CONSTRUCT THE SUBGRADE AS FOLLOWS AND IN THE FOLLOWING SEQUENCE:

1. SHAPE THE SUBGRADE TO WITHIN 0.2 FEET OF THE PLAN SUBGRADE ELEVATION.

2. EXCAVATE AND REPLACE UNSUITABLE SUBGRADE BEFORE PROOF ROLLING. THE UNSUITABLE SUBGRADE IS A BEDROCK UNDERCUT. APPROXIMATE LIMITS FOR EXCAVATION OF UNSUITABLE SUBGRADE ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSUITABLE SUBGRADE ALONG I-75 SOUTHBOUND. THE LIMITING STATIONS HAVE BEEN ESTIMATED BASED ON BEDROCK ELEVATIONS FROM HISTORIC BORINGS PER ORIGINAL 1-75 CONSTRUCTION PLANS. IT IS ANTICIPATED THAT THE TOP OF EXISTING BEDROCK IS PRESENT AT OR NEAR THE PROPOSED SUBGRADE ALONG I-75 SOUTHBOUND FROM APPROXIMATELY STA. 325+00 TO STA. 351+00. WITH AGGREGATE BASE BEING PART OF THE PAVEMENT DESIGN AND PER ODOT CMS 204.05, A TOTAL EXCAVATION DEPTH OF 18" SHALL BE MAINTAINED BELOW THE BOTTOM OF SUBGRADE. UNSUITABLE SUBGRADE INCLUDES UNSUITABLE SOIL (A-4B, A-2-5, A-5, A-7-5, AND SOIL WITH A LIQUID LIMIT GREATER THAN 65) AND ANY COAL, SHALE, OR ROCK WHICH NEEDS TO BE REMOVED ACCORDING TO 204.05.

IF THERE IS UNSUITABLE SUBGRADE IN A SHALLOW FILL LOCATION, EXCAVATE AND REPLACE THE UNSUITABLE SUBGRADE BEFORE CONSTRUCTING THE SHALLOW FILL AND SHAPING THE SUBGRADE.

3. APPROXIMATE LIMITS FOR EXCAVATION OF UNSTABLE SUBGRADE ARE SHOWN AND LABELED ON THE CROSS SECTIONS ≥ AS UNSTABLE SUBGRADE ALONG SHARON RD. AND CHESTER RD. THE ENGINEER WILL IDENTIFY THE ACTUAL LIMITS OF EXCAVATION FOR UNSTABLE SUBGRADE BASED ON THE PROOF ROLLING RESULTS 🔄 AND VISUAL OBSERVATIONS.

PROOF ROLL THE COMPACTED SUBGRADE ACCORDING TO 204.06.

- 4. COMPACT THE SUBGRADE ACCORDING TO 204.03.
- 5. EXCAVATE UNSTABLE SUBGRADE AS DIRECTED BY THE € ₩ 8 ENGINEER AND STABILIZE BY REPLACING WITH THE SPECIFIED TO MATERIALS ACCORDING TO 204.07. EXCAVATIONS WILL EXTEND 18 INCHES BEYOND THE EDGE OF THE SURFACE OF THE PAVEMENT, PAVED SHOULDERS, OR PAVED MEDIANS.
- 6. PROOF ROLL THE STABILIZED AREAS ACCORDING TO 204.06 TO VERIFY STABILITY.
- 7. FINE GRADE THE SUBGRADE TO THE SPECIFIED GRADE.

THE QUANTITIES FOR EXCAVATING THE UNSUITABLE SUBGRADE AND UNSTABLE SUBGRADE ARE BOTH PAID UNDER ITEM 204 EXCAVATION OF SUBGRADE.

THE PAY ITEMS FOR REPLACING THE UNSUITABLE SUBGRADE IS PAID UNDER ITEM 204 - EMBANKMENT, AS PER PLAN

THE PAY ITEMS FOR REPLACING THE UNSTABLE SUBGRADE IS PAID UNDER ITEM 204 - GRANULAR MATERIAL, TYPE C AND ITEM 204 - GEOTEXTILE FABRIC.

#### CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL:

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A W-BEAM, BEAM SPLICE AS SHOWN IN AASHTO M 180-12, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

4

0

3

ഗ Ш

 $\vdash$ 

0

Z

⋖

 $\mathbf{\alpha}$ 

ш

Z

ш

## ITEM 201-CLEARING AND GRUBBING:

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201-CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201-CLEARING AND GRUBBING.

#### ITEM SPECIAL-FILL AND PLUG EXISTING CONDUIT

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULK-HEADS IN AN EXISTING 12" DIAMETER CONDUIT AND FILLING THE AREA THUS SEALED OFF WITH ITEM 613, SAND OR OTHER MATERIAL APPROVED BY THE ENGINEER.

BULKHEADS SHALL BE LOCATED AT THE LIMITS OF THE AREA TO BE FILLED AS INDICATED ON THE PLANS. THE BULKHEADS SHALL CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

THE FILL MATERIAL SHALL BE PUMPED INTO PLACE, OR PLACED BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT, AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSS- SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH, SHALL BE FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

IN LIEU OF FILLING AND PLUGGING THE EXISTING CONDUIT, THE PIPE MAY BE CRUSHED AND BACKFILLED IN ACCORDANCE WITH THE PROVISIONS OF 203, OR IT MAY BE REMOVED. THE LENGTH, MEASURED AS PROVIDED ABOVE, SHALL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR, ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT.

#### ITEM 204- EMBANKMENT, AS PER PLAN:

THE REQUIREMENTS OF ITEM 204 WILL APPLY; DEVIATIONS FROM THESE ARE AS FOLLOWS:

THE CONTRACTOR SHALL REPLACE UNSUITABLE SUBGRADE WITH NEW EMBANKMENT WITH A PLASTICITY INDEX OF 20 OR LESS. APPROXIMATE LIMITS FOR EXCAVATION OF UNSUITABLE SUBGRADE ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSUITABLE SUBGRADE ALONG I-75 SOUTHBOUND FROM APPROXIMATELY STA. 325+00 TO STA. 351+00. THE USE OF EXISTING SHALE BEDROCK AS A REPLACEMENT MATERIAL FOR UNSUITABLE SUBGRADE IS NOT PERMITTED.

#### ITEM 606-ANCHOR ASSEMBLY, MGS TYPE B:

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON 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.

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 PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

THE FACE OF THE TYPE B IMPACT HEAD SHALL BE COVERED WITH TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE B, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING REFLECTIVE SHEETING AND ALL RELATED HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

## ITEM 606- ANCHOR ASSEMBLY, MGS TYPE E:

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON 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.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

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 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, EACH, 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 606-IMPACT ATTENUATOR, TYPE 3 (UNIDIRECTIONAL) (DS=70 MPH, W=90 INCHES)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE TYPE 3 IMPACT ATTENUATORS AS LISTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE (REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS). WHEN BI- DIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS. THE FACE OF THE IMPACT HEAD SHALL BE COVERED WITH TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 3 [(SPEED (IN MPH), HAZARD WIDTH (IN INCHES)), (UNIDIRECTIONAL OR BIDIRECTIONAL)J, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS/BACKSTOPS, TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

## ITEM 607-FENCE MISC.: TEMPORARY CONSTRUCTION FENCE

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING TEMPORARY CONSTRUCTION FENCE ALONG THE PRINCETON CITY SCHOOL DISTRICT PROPERTY TO IMPROVE SAFETY DURING CONSTRUCTION ALONG 1-75 AT LOCATIONS IN WHICH LIMITED ACCESS FENCE IS TO BE REMOVED. BEFORE ANY FENCE WORK, THE CONTRACTOR SHALL CONTACT THE SCHOOL DISTRICT FOR PERMISSION TO ACCESS THE PROPERTY AND TO MUTUALLY DETERMINE APPROPRIATE LOCATION TO CONSTRUCT TEMPORARY CONSTRUCTION FENCE ON PRIVATE PROPERTY.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 607 - FENCE MISC.: TEMPORARY CONSTRUCTION FENCE 2000 FT



(ITEM 622-CONCRETE BARRIER, END SECTION, TYPE D, AS PER PLAN (IN ADDITION TO THE REQUIREMENTS OF CMS 622, THE CONCRETE) (BARRIER SHALL BE CONSTRUCTED AS SHOWN ON SHEET 444 AND angle(SHEET 444A. THE CONCRETE SHALL UTILIZE SELF-COMPACTING < (CONCRETE AS SPECIFIED ON SHEET 609 AND SHEET 645. ALL LABOR, (EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO PERFORM<  $\$  THE REQUIRED WORK SHALL BE INCLUDED IN THE CONTRACT BID  $\$ PRICE PER EACH FOR ITEM 622-CONCRETE BARRIER, END SECTION, TYPE D. AS PER PLAN

## (ITÉM 622-CONCRÉTÉ BARRIER, END ANCHORAGE, RÉINFORCED, TYPE D AS PER PLAN

(IN ADDITION TO THE REQUIREMENTS OF CMS 622, THE CONCRETE) BARRIER SHALL BE CONSTRUCTED AS SHOWN ON SHEET 444 AND (SHEET 444A. THE CONCRETE SHALL UTILIZE SELF-COMPACTING) (CONCRETE AS SPECIFIED ON SHEET 609 AND SHEET 645. REINFORCING STEEL FROM ODOT SCD RM-4.5 SHALL BE UTILIZED EXCEPT WHERE NOTED WITHIN THE PLANS. ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO PERFORM THE REQUIRED WORK SHALL BE INCLUDED IN THE CONTRACT BID PRICE PER EACH FOR FITEM 622-CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D. AS PER PLAN.

ITEM 623-MONUMENT ASSEMBLY, ITEM 623-RIGHT OF WAY ASSEMBLY CONSTRUCT MONUMENT ASSEMBLIES IN ACCORDANCE WITH THE DETAILS SHOWN ON THE ODOT SCD RM-1.1 AND AT THE LOCATIONS SHOWN IN THE RIGHT OF WAY PLANS ON SHEETS 692-693.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 623 - MONUMENT ASSEMBLY ITEM 623 - RIGHT OF WAY MONUMENT 4 FACH 2 EACH

## ITEM SPECIAL, MISC.: BOLLARD REMOVED AND RESET

IN ADDITION TO THE REQUIREMENTS OF SCD RM-5.1, THE EXISTING BOLLARDS SHALL BE REMOVED AND RESET AT LOCATIONS SHOWN IN THE PLANS, THE BOLLARDS SHALL BE RESET INTO THE EXISTING ASPHALT CONCRETE DRIVEWAY PAVEMENT AT A DISTANCE OF 1-FOOT BEYOND THE LIMITS OF PROPOSED ASPHALT CONCRETE DRIVEWAY PAVEMENT. THE CENTER BOLLARD SHALL BE CONSTRUCTED AT CENTER OF EXISTING DRIVEWAY. THE OUTER BOLLARDS SHALL BE CONSTRUCTED AT 6-FOOT SPACING FROM CENTER BOLLARD. ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO PERFORM THE REQUIRED WORK SHALL BE INCLUDED IN THE CONTRACT BID PRICE PER EACH FOR ITEM SPECIAL, MISC .: BOLLARD REMOVED AND RESET.



1-15-2021 - ADDED ITEM 202-WEARING COURSE REMOVED REMOVED ITEM 202-PAVEMENT REMOVED. APP USE ITEM 202-PAVEMENT REMOVED, COMBINE INTO SINGLE PAY ITEM



2-19-2021 - UPDATED PLAN NOTES ASSOCIATED WITH ROADWAY BARRIER APP DETAILS



Z

## ITEM SPECIAL-CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION

ALL CONCRETE SHALL BE TESTED. ALL TESTING, INSPECTION AND QUALITY CONTROL FOR CONCRETE, NOT INCLUDED UNDER QC/QA PAY ITEMS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE A CONCRETE TESTING CONSULTANT WITH PREVIOUS EXPERIENCE AND FAMILIARITY IN ODOT PROCEDURES, CONCRETE TESTING REQUIREMENTS AND CONCRETE TESTING DOCUMENTATION. AT LEAST 30 DAYS PRIOR TO CONCRETE PLACEMENT, SUBMIT TO THE ENGINEER FOR APPROVAL, THE PROPOSED CONCRETE TESTING CONSULTANT ALONG WITH THE RESUMES OF THE PROPOSED TESTING PERSONNEL.

TESTING CONCRETE FOR STRUCTURES AND PORTLAND CEMENT CONCRETE PAVEMENT SHALL BE PERFORMED AS OUTLINED IN CMS SPECIFICATIONS 455 RESPECTIVELY.

THROUGH THE CONTRACTOR, THE CONSULTANT SHALL BE RESPONSIBLE FOR ENSURING THAT ALL CONCRETE PLACED IS IN ACCORDANCE WITH THE SPECIFICATIONS. SUCH WORK SHALL BE IN ACCORDANCE WITH THE APPLICABLE CONSTRUCTION AND MATERIAL SPECIFICATIONS AND THE ODOT CONSTRUCTION INSPECTION MANUAL OF PROCEDURES FOR CONCRETE. THE CONCRETE CONSULTANT SHALL PROVIDE THE NECESSARY TRAINED TECHNICIAN(S), ALL EQUIPMENT, AND SHALL FURNISH THE PROJECT ENGINEER WITH TWO (2) COPIES OF ALL TEST RESULTS WITHIN 24 HOURS AFTER COMPLETION OF CONCRETE PLACEMENT.

THE TECHNICIAN SHALL BE ACI LEVEL 1 CERTIFIED AND WILL BE REQUIRED TO DEMONSTRATE HIS/HER COMPETENCE AND EXPERIENCE LEVELS TO THE ENGINEER PRIOR TO BEGINNING WORK. THE ENGINEER WILL ORDER THE CONTRACTOR TO REPLACE ANY TECHNICIAN THAT IS NOT VERSED IN THE REQUIRED TESTING PROCEDURE.

THE TECHNICIAN SHALL VERBALLY NOTIFY THE ODOT PROJECT ENGINEER OF ANY FAILING TEST AND SHALL SUBMIT FOLLOW-UP WRITTEN NOTIFICATION TO THE PROJECT ENGINEER OF REMEDIAL ACTION(S) TAKEN. TESTS SHALL BE TAKEN AS SPECIFIED WITHIN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, CONCRETE MANUAL OR APPROPRIATE SUPPLEMENTAL SPECIFICATION AS LISTED IN THE PROPOSAL GOVERNING THE PROJECT. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO MAKE IMMEDIATE CORRECTIONS OR ADJUSTMENTS TO THE CONCRETE MIX VIA DIRECT COMMUNICATION WITH THE CONCRETE SUPPLIER'S PLANT PERSONNEL TO MAINTAIN UNINTERRUPTED COMPLIANCE WITH THE SPECIFICATIONS UPON NOTIFICATION OF CONCRETE MIX NON-COMPLIANCE BY THE CONSULTANT TECHNICIAN. THE PROJECT ENGINEER MAY REQUIRE MORE FREQUENT TESTING AS CONDITIONS WARRANT.

UPON COMPLETION OF DAILY CONCRETE PLACEMENT(S), THE CONCRETE CONSULTANT SHALL PROVIDE THE PROJECT ENGINEER WITH DAILY TEST REPORTS, TE-45'S, INSPECTORS DAILY REPORT AND SUPPORTING DOCUMENTATION FOR EACH ITEM OF CONCRETE WORK PERFORMED SEPARATED BY MIX DESIGN. SUBSEQUENTLY, UPON COMPLETION OF AN ENTIRE CONCRETE SPECIFICATION ITEM, THE CONCRETE CONSULTANT SHALL ALSO PROVIDE THE PROJECT ENGINEER WITH TWO (2) COPIES OF AN ADDITIONAL INSPECTION REPORT BY A REGISTERED PROFESSIONAL ENGINEER. STATE OF OHIO, WHICH CONTAINS THE TESTING-RESULTS SUMMARY FOR EACH ITEM BY CONTRACT REFERENCE NUMBER AND THE CONSULTANT'S CONCLUSIONS RELATIVE TO SPECIFICATION COMPLIANCE FOR ALL CONCRETE-TESTING WORK.

THE ODOT PROJECT ENGINEER RESERVES THE RIGHT TO MAKE UNANNOUNCED QUALITY-CONTROL TESTS TO VERIFY PROCEDURES USED AND RESULTS BEING OBTAINED BY THE CONTRACTOR.



2-19-2021 - UPDATED PLAN NOTES ASSOCIATED WITH ROADWAY BARRIER APP DETAILS

2-19-2021 - UPDATED PLAN SHEET REFERENCE FROM 449 TO 452

## ITEM SPECIAL-CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION (CONTINUED)

THE CONCRETE TECHNICIAN SHALL WORK UNDER THE DIRECTION OF A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO, WHO WILL MONITOR THE CONCRETE TEST RESULTS. THE FINAL INSPECTION REPORTS FOR EACH COMPLETED ITEM SHALL BE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO, CERTIFYING THAT ALL CONCRETE TESTS PROVIDED BY THE CONTRACTOR MET APPLICABLE CONTRACT REQUIREMENTS. A FINAL REPORT ISSUED BY THE CONSULTING FIRM SHALL CONTAIN A CERTIFIED STATEMENT OF COMPLIANCE WITH ODOT SPECIFICATIONS AND ANY OTHER CONCLUSIONS REGARDING THE CONCRETE MATERIALS INCORPORATED INTO THE PROJECT. SUCH STATEMENT SHALL BE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO. AND, THE CONCRETE CONSULTANT SHALL BE REQUIRED TO ATTEND MONTHLY PROGRESS MEETINGS AS REQUIRED BY THE PROJECT ENGINEER.

ADDITIONALLY, THE CONTRACTOR SHALL BE REQUIRED TO KEEP A POSTED LIST OF BEAM AND CYLINDER IDENTIFICATION NUMBERS FOR THE PURPOSE OF IDENTIFYING THE CORRESPONDING PLACEMENT LOCATION AND CONCRETE SPECIFICATION ITEM.

PAYMENT SHALL BE BID AS LUMP SUM FOR ITEM SPECIAL MISC .: CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION. THE ITEM WILL BE PAID FOR AS FOLLOWS:

UPON APPROVAL OF CONSULTANT......20% PROGRESSIVE EQUIVALENT PAYMENTS....50% UPON SUBMISSION OF FINAL REPORT.....30%

THE TECHNICIAN SHALL HAVE FULL EFFECT AND AUTHORITY OF AN ODOT PROJECT INSPECTOR IN DETERMINING ACCEPTABILITY OF MATERIAL AND CONCRETE PLACEMENT PRACTICES.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM SPECIAL-CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION

#### SEEDING AND MULCHING:

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 THESE LIMITS.

## POST CONSTRUCTION STORM WATER TREATMENT:

THIS PLAN UTILIZES STRUCTURAL BEST MANAGEMENT PRACTICES (BMP'S) FOR POST CONSTRUCTION STORM WATER TREATMENT.

1.) BIORETENTION CELLS - I-75 MEDIAN DITCH THE CONTRACTOR SHALL PLACE BIORETENTION CELLS TO SATISFY BMP REQUIREMENTS AT THE FOLLOWING I-75 MEDIAN LOCATIONS:

STA 331+53 TO STA 366+20

SEE PLAN SHEETS 216, 218, 220, 222 FOR LOCATIONS AND BMP DETAIL SHEETS 450C-450D FOR ADDITIONAL DETAILS. SEE SHEET 450D FOR PAY ITEMS.

2.) VEGETATED FILTER STRIPS - I-75 MEDIAN DITCH THE CONTRACTOR SHALL PLACE VEGETATED FILTER STRIPS TO SATISFY BMP REQUIREMENTS AT THE FOLLOWING I-75 MEDIAN LOCATIONS:

STA 372+50 TO STA 392+66 AND STA 392+84 TO STA 415+00

SEE PLAN SHEETS 223, 225-226, 228 FOR LOCATIONS AND CROSS SECTION SHEETS 284-308 AND 330-354 FOR ADDITIONAL DETAILS. SEE SHEET 205 FOR PAY ITEMS. QUANTITY CALCULATIONS BASED ON 25-FOOT WIDTH FOR ITEM 670-SLOPE EROSION PROTECTION & ITEM 659-TOPSOIL AND 6-INCH DEPTH FOR ITEM 659-TOPSOIL

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

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

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

INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

#### REVIEW OF DRAINAGE FACILITIES:

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE AND LOCAL GOVERNMENT AGENCIES, REPRESENTATIVES OF THE STATE AND LOCAL GOVERNMENT AGENCIES AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE AND LOCAL GOVERNMENT AGENCIES.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

#### UNRECORDED STORM WATER DRAINAGE:

FURNISH A CONTINUANCE FOR ALL UNRECORDED STORM WATER DRAINAGE, SUCH AS ROOF DRAINS, FOOTER DRAINS, OR YARD DRAINS, DISTURBED BY THE WORK. FURNISH EITHER AN OPEN CONTINUANCE OR AN UNOBSTRUCTED CONTINUANCE BY CONNECT-ING A CONDUIT THROUGH THE CURB OR INTO A DRAINAGE STRUCTURE, THE LOCATION, TYPE, SIZE AND GRADE OF THE NEEDED CONDUIT TO REPLACE OR EXTEND AN EXISTING DRAIN WILL BE DETERMINED BY THE ENGINEER. ALL SUCH CONTINUANCE REQUIRES A RIGHT OF WAY USE PERMIT.

THE FOLLOWING CONDUIT TYPES MAY BE USED: 707.33, 707.41. NON-PERFORATED, 707.42, 707.43, 707.45, 707.46, 707.47, 707.51, 707.52 SDR35.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 611 - 4" CONDUIT,	TYPE B	100 FT
ITEM 611 - 6" CONDUIT,	TYPE B	100 FT
ITEM 611 - 4" CONDUIT,	TYPE C	100 FT
ITEM 611 - 6" CONDUIT,	TYPE C	100 FT
·		

#### EXISTING UNDERDRAINS

PROVIDE UNOBSTRUCTED OUTLETS FOR ALL EXISTING UNDER-DRAINS ENCOUNTERED DURING CONSTRUCTION.

PROVIDE AN OUTLET PER STANDARD CONSTRUCTION DRAWING DM-1.1 FOR ALL UNDERDRAINS THAT OUTLET TO A SLOPE.

UNDERDRAINS THAT CAN BE CONNECTED TO THE NEW OR EXISTING UNDERDRAINS AT THE END OF THE PROJECT LIMITS AS WELL AS ALL NECESSARY BENDS OR BRANCHES REQUIRED FOR CONNECTION ARE INCLUDED IN THE BASIS OF PAYMENT FOR UNCLASSIFIED PIPE UNDERDRAINS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 601 - TIED CONCRETE BLOCK MAT, TYPE 1 10 SY ITEM 611 - 6" CONDUIT, TYPE F 100 FT ITEM 611 - PRECAST REINFORCED CONCRETE OUTLET 5 FACH ITEM 605 - 6" UNCLASSIFIED PIPE UNDERDRAINS 100 FT

## (ITEM 602-MASONRY, MISC .: SPECIAL HALF-HEIGHT HEADWALL

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE 2 (IN ADDITION TO THE REQUIREMENTS OF CMS 602 AND SCD HW-(2.2, THE CONCRETE HEADWALL SHALL BE CONSTRUCTED AS) (SHOWN ON SHEET 452. ALL LABOR, EQUIPMENT, MATERIALS, AND) (INCIDENTALS NECESSARY TO PERFORM THE REQUIRED WORK) SHALL BE INCLUDED IN THE CONTRACT BID PRICE PER CUBIC (YARD FOR ITEM 602-MASONRY, MISC: SPECIAL HALF-HEIGHT HEADWALA 

#### ITEM 611-CONDUIT BORED OR JACKED

WHERE IT IS SPECIFIED THAT A CONDUIT BE INSTALLED BY THE METHOD OF BORING OR JACKING, NO TRENCH EXCAVATION SHALL BE CLOSER THAN 25 FEET TO THE EDGE OF THE PAVEMENT. PROVIDE A 0.50 INCH (12.7 MM) UNGAL VANIZED CASING PIPE CONFORMING TO 748.06 THAT HAS JOINTS WITH A CIRCUMFERENCIAL FULLY PENETRATING B-U4B WELD THAT IS PERFORMED BY AN ODOT APPROVED FIELD WELDER. THE INSTALLED CASING PIPE IS THE STORM WATER CONVEYANCE CARRIER UNLESS OTHERWISE SPECIFIED IN THE PLANS. HYDROSTATIC TESTING IS NOT REQUIRED FOR THE CASING PIPE.

## (ITEM 611-INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D, AS PER PLAN

(IN ADDITION TO THE REQUIREMENTS OF CMS 611, THE CONCRETE) (BARRIER SHALL BE CONSTRUCTED AS SHOWN ON SHEET 444 AND ) (SHEET 444A. THE CONCRETE SHALL UTILIZE SELF-COMPACTING) (CONCRETE AS SPECIFIED ON SHEET 609 AND SHEET 645. REINFORCING) (STEEL FROM ODOT SCD I-2.3 SHALL BE UTILIZED EXCEPT WHERE) NOTED WITHIN THE PLANS. IN ADDITION TO THE END SECTION, THE ADJACENT SECTION OF UNREINFORCED BARRIER SHALL BE PAIDS FOR UNDER THIS ITEM ALL LABOR, EQUIPMENT, MATERIALS, AND >INCIDENTALS NECESSARY TO PERFORM THE REQUIRED WORK SHALL >BE INCLUDED IN THE CONTRACT BID PRICE PER EACH FOR ITEM 611-INLET NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D, AS PER PLAN. 

## ITEM SPECIAL-MISCELLANEOUS METAL:

THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY ENGINEER (ADBE) AND SHALL CONSIST OF PROVIDING CASTINGS OF THE TYPE, SIZE AND STRENGTH (HEAVY OR LIGHT DUTY) FOR ANY STRUCTURE THAT MAY PROVE TO BE UNSUITABLE FOR REUSE PER ITEM 611 SPECIFICATIONS AND SHALL HAVE THE PRIOR APPROVAL OF THE ENGINEER.

THE CONTRACTOR IS CAUTIONED TO USE EXTREME CARE IN THE REMOVAL, STORAGE AND REPLACEMENT OF ALL EXISTING CASTINGS. CASTINGS DAMAGED BY THE NEGLIGENCE OF THE CONTRACTOR, AS DETERMINED BY THE ENGINEER, SHALL BE REPLACED WITH THE PROPER NEW CASTINGS AT THE EXPENSE OF THE CONTRACTOR.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM SPECIAL - MISCELLANEOUS METAL

1000 LB

⋖

I

4

0

S

ш

0

Z

 $\mathbf{\alpha}$ 

ш

Z

ш

O

## PAVEMENT RESTORATION FOR PIPE INSTALLATIONS AND/OR REMOVALS:

THIS ITEM SHALL CONSIST OF RESTORATION OF ASPHALT PAVEMENT AREAS FOLLOWING INSTALLATION AND/OR REMOVAL OF PIPES OUTSIDE OF PAVEMENT LIMITS ALREADY ITEMIZED IN THE ROADWAY PLANS.

AREAS INCLUDED IN THIS ESTIMATION ARE AS FOLLOWS:

SHARON RD : 11 SY CHESTER RD.: 27 SY

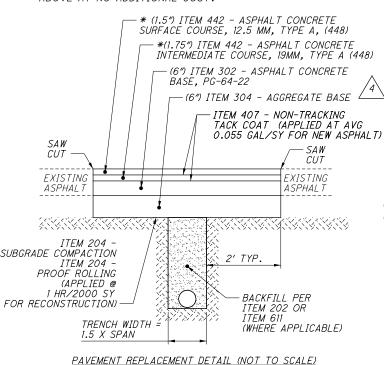
THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 204-SUBGRADE COMPACTION	38 SY
ITEM 204-PROOF ROLLING	1 HR
(38 SY) X (1/3000) = 0.13 HR	, ,,,,
ITEM 302-ASPHALT CONCRETE BASE, PG64-22	7 CY
(38 SY) X (6") X (1/12) X (1/3) = 6.3 CY	
ITEM 304-AGGREGATE BASE	7 CY
(38 SY) X (6") X (1/12) X (1/3) = 6.3 CY	
ITEM 407-NON-TRACKING TACK COAT	5 GAL
(38 SY) X 0.055 (2) = 4.18 GAL	
*ITEM 442-ASPHALT CONCRETE SURFACE COURSE,	2 CY
12.5 MM, TYPE A, (448)	
(38 SY) X (1.5") X (1/12) X (1/3) = 1.6 CY	
*ITEM 442-ASPHALT CONCRETE INTERMEDIATE COURSE,	2 CY
19MM, TYPE A (448)	
(38 SY) X (1.75") X (1/12) X (1/3) = 1.8 CY	

\* FOR AREAS WITHIN PAVEMENT PLANING & RESURFACING AREAS, ITEM 302 MAY BE INSTALLED TO EXISTING SURFACE IN PLACE OF ITEM 442 ITEMS.

THE ABOVE QUANTITIES ARE BASED ON THE PAVEMENT REPLACEMENT DETAIL BELOW AND A PAVEMENT RESTORATION WIDTH THAT INCLUDES THE TRENCH WIDTH PLUS TWO FEET ON EACH SIDE OF THE TRENCH.

PROVIDE ANY MATERIALS USED OUTSIDE THE LIMITS STATED ABOVE AT NO ADDITIONAL COST.



## CONTRACTION AND/OR EXPANSION JOINTS:

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN CONTRACTION AND EXPANSION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. IN ALL CASES. THE PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES INCLUDING THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS IS IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2 AND THE SPECIFICATIONS.

CONTRACTION JOINTS IN CONCRETE PAVEMENT OR BASE WIDENING: WHERE NEW CONCRETE IS PLACED ADJACENT TO EXISTING CONCRETE, PROVIDE CONTRACTION JOINTS IN THE NEW CONCRETE TO FORM CONTINUOUS JOINTS WITH THOSE IN THE EXISTING CONCRETE.

THE MAXIMUM DISTANCE BETWEEN THE JOINTS IN THE NEW CONCRETE ARE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2, IF NECESSARY, ADDITIONAL JOINTS MAY BE PROVIDED IN THE NEW CONCRETE AT APPROXIMATELY EQUAL INTERVALS BETWEEN EXISTING JOINTS THAT EXCEED THE MAXIMUM SPACING.

## PART-WIDTH CONSTRUCTION:

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

(ITEM 301 - ASPHALT CONCRETE BASE, PG64-22, AS PER PLAN THIS ITEM SHALL CONSIST OF CONSTRUCTING A VARIABLE DEPTH (ITEM 301 ASPHALT WEDGE COURSE (4" MIN) IN BETWEEN THE (EXISTING PLANED PAVEMENT SURFACE AND INTERMEDIATE COURSE (TO ACCOUNT FOR DIFFERENCES IN EXISTING/PROPOSED PROFILE) (GRADE ELEVATIONS AND CROWN SHIFTS WITHIN THE PLANING & (RESURFACING AREA (1" MIN, 3.25" MAX) AS SHOWN IN THE CROSS SECTIONS. THIS ITEM SHALL BE USED AS A WEDGE COURSE TO FILL (AND MAKE UP ELEVATION DIFFERENCES IN EXCESS OF THE UNIFORM, ♥3.25" DEPTH OF OVERLYING SURFACE AND INTERMEDIATE COURSES. IN AREAS WHERE THIS ITEM 442 ASPHALT WEDGE COURSE (AS PER PLAN) EXCEEDS 4". AN ITEM 301 ASPHALT WEDGE COURSE < XAS PER PLAN) SHALL BE CONSTRUCTED UNDERNEATH TO SUPPLEMEN⊀ THE ITEM 442 ASPHALT WEDGE COURSE IN THICKENED SECTIONS. >QUANTITY CALCULATIONS ARE BASED ON AN AVERAGE 2" DEPTH

YALL REQUIREMENTS OF ITEM 301 ARE APPLICABLE.

## /ITEM 442 - AŠPHALT CONCŘETĚ SÚRFÁCE COURŠE, 12.5 MM, TYPE A (447), AS PER PLAN

PLACE THE MAINLINE PAVEMENT SURFACE COURSE WITH A SINGLE, COLD LONGITUDINAL JOINT LOCATED BETWEEN LANES 2 AND 3. WHERE THE NUMBER OF MAININE LANES EXCEEDS FOUR (4) LANES. ≻AN ADDITIONAL COLD JOINT IS PERMITTED.

NO OTHER COLD JOINTS ARE PERMITTED IN THE SURFACE COURSE OF MAINLINE PAVEMENT UNLESS APPROVED BY THE ENGINEER.

## (ITÉM 442 - ASPHÄLT CONCRETE INTERMEDIATE COURSE, 19 MM) TYPE A (446). AS PER PLAN. PG64-28

THÍS TTÊM SHALL CONSIST OF CONSTRUCTING A VARTABLE DEPTI (ITEM 442 ASPHALT WEDGE COURSE (O" MIN, 4" MAX) IN BETWEEN THE (EXISTING PLANED PAVEMENT SURFACE AND INTERMEDIATE COURSE) (TO ACCOUNT FOR DIFFERENCES IN EXISTING/PROPOSED PROFILE, GRADE ELEVATIONS AND CROWN SHIFTS WITHIN THE PLANING & RESURFACING AREA (1" MIN, 3.25" MAX) AS SHOWN IN THE CROSS SECTIONS. THIS ITEM SHALL BE USED AS A WEDGE COURSE TO FILL AND MAKE UP ELEVATION DIFFERENCES IN EXCESS OF THE UNIFORM >3.25" DEPTH OF OVERLYING SURFACE AND INTERMEDIATE COURSES. >QUANTITY CALCULATIONS ARE BASED ON AN AVERAGE 2" DEPTH

>ALL REQUIREMENTS OF ITEM 442 ARE APPLICABLE.

## (ITÉM 442 - ASPHALT CONCRETÉ INTERMEDIATÉ COURSE, 19 MM) TYPE A (448), AS PER PLAN, PG64-28

THÍS ITÉM SHALL CONSIST OF CONSTRUCTING A VARIABLE DEPTR (ITEM 442 ASPHALT WEDGE COURSE (O" MIN. 4" MAX) IN BETWEEN THE) (EXISTING PLANED PAVEMENT SURFACE AND INTERMEDIATE COURSE) (TO ACCOUNT FOR DIFFERENCES IN EXISTING/PROPOSED PROFILE) GRADE ELEVATIONS AND CROWN SHIFTS WITHIN THE PLANING & (RESURFACING AREA (1" MIN, 3.25" MAX) AS SHOWN IN THE CROS\$ (SECTIONS. THIS ITEM SHALL BE USED AS A WEDGE COURSE TO FILL AND MAKE UP ELEVATION DIFFERENCES IN EXCESS OF THE UNIFORM 3.25" DEPTH OF OVERLYING SURFACE AND INTERMEDIATE COURSES. IN AREAS WHERE THE ITEM 442 ASPHALT WEDGE COURSE (AS PER PLAN) EXCEEDS 4", AN ITEM 301 ASPHALT WEDGE COURSE XAS PER PLAN) SHALL BE CONSTRUCTED UNDERNEATH TO SUPPLEMEN⊀ >THE ITEM 442 ASPHALT WEDGE COURSE IN THICKENED SECTIONS. >QUANTITY CALCULATIONS ARE BASED ON AN AVERAGE 2" DEPT

ALL REQUIREMENTS OF ITEM 442 ARE APPLICABLE.

ITEM 609 - COMBINATION CURB AND GUTTER. TYPE 2. AS PER PLAN THE REQUIREMENTS OF ITEM 609 AND STANDARD CONSTRUCTION DRAWING BP-5.1 WILL APPLY: DEVIATIONS FROM THESE ARE AS FOLLOWS:

THE GUTTER PLATE THICKNESS SHALL BE 13.25 INCHES TO MATCH PROPOSED ASPHALT BUILDUP DEPTH OF ITEM 442 AND ITEM 301 ALONG SHARON RD.

## ITEM 618 - RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE) AS PER PLAN

RUMBLE STRIPS SHALL BE PLACED ALONG I-75 PER SCD BP-9.1; HOWEVER, THEY SHALL BE PLACED 5' FROM THE EDGE OF PAVEMENT FOR BOTH THE INSIDE AND OUTSIDE SHOULDERS. WHEN TRANSITIONING FROM A NORMAL SHOULDER WIDTH TO AN EXISTING SHOULDER WIDTH, THE OFFSET DISTANCE SHALL VARY FROM 5' TO THE MIDPOINT OF THE EXISTING SHOULDER WIDTH. ·

ITEM SPECIAL - SANITARY SEWER, MSD SANITARY SEWER PROTECTION THE CONTRACTOR SHALL BE REQUIRED TO VIDEO INSPECT ALL SANITARY SEWER FACILITIES BOTH PRE AND POST CONSTRUCTION: THE CONTRACTOR SHALL CONTACT WASTEWATER COLLECTION (WWC) DIVISION OF MSD (513-352-4204) AND REQUEST ADVANCE NOTIFICATION/COORDINATION OF AT LEAST 7 DAYS PRIOR TO ANY VIDEO WORK. ONE (1) COPY OF THE VIDEO INSPECTION SHALLS BE PROVIDED TO THE PROJECT ENGINEER AND MSD FOR REVIEW. IF DAMAGE IS FOUND IN THE PRE-CONSTRUCTION VIDEO. THE CONTRACTOR SHALL DOCUMENT THE DAMAGE AND PROVIDE THE DOCUMENTATION TO THE PROJECT ENGINEER. IF DAMAGE IS FOUND IN THE POST-CONSTRUCTION VIDEO, THEN REPAIRS TO THE SATISFACTION OF THE DEPARTMENT AND MSD SHALL BE PERFORMED BY THE CONTRACTOR AT CONTRACTOR EXPENSE.

ALL LABOR, MATERIAL AND INCIDENTALS FOR THE ABOVE WORK SHALL BE PAID FOR BY LUMP SUM, ITEM SPECIAL - SANITARY SEWER, MSD SANITARY SEWER PROTECTION.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM SPECIAL-SANITARY SEWER, MSD SANITARY SEWER PROTECTION LS

### **WATERWAY PERMITS:**

ALL NECESSARY 404/401 WATERWAY PERMITS WILL BE ACQUIRED PRIOR TO ANY CONSTRUCTION ACTIVITY. PER THE NOVEMBER 9. 2007 COMMENTS RECEIVED FROM ODNR, NO IN-STREAM WORK WILL OCCUR BETWEEN APRIL 15 AND JUNE 30.

## ENDANGERED BAT HABITAT REMOVAL:

THIS PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT, NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER . THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID PAND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT.

#### WETLANDS

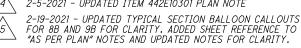
WETLANDS AVOIDANCE - UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR IMPACT THE WETLANDS (WETLANDS ID A AND B) INDICATED ON THE SCHEMATIC PLAN, NO EXCAVATION, GRADING OR FILLING OPERATIONS SHALL BE PERFORMED IN THESE WETLANDS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE CONSTRUCTION EQUIPMENT AND/OR MATERIALS IN THESE WETLANDS. TEMPORARY CONSTRUCTION FENCE AND FILTER FABRIC FENCE SHALL BE INSTALLED BY THE CONTRACTOR TO PROTECT THE BOUNDARY OF THESE WETLAND PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES WITHIN THESE LIMITS AND ADJACENT AREA AND MAINTAINED BY THE CONTRACTOR THROUGHOUT PROJECT CONSTRUCTION. BEST MANAGEMENT PRACTICES AND PRACTICES FOR SOIL EROSION CONTROL SHALL BE FULLY COMPLIED WITH, AS WELL AS, ALL OF THE REGULATIONS AND CONDITIONS ASSOCIATED WITH THE REQUIRED SWPPP AND NPDES PERMIT.

5-20-2020 - ADDED BINDER TYPE (PG64-28) FOR ITEM 442E10101 AND ITEM 442E20201

1-15-2021 - UPDATED BAT NOTE

2-5-2021 - UPDATED SANITARY SEWER PROTECTION NOTE

2-5-2021 - UPDATED ITEM 442E10301 PLAN NOTE







S

ш

 $\vdash$ 

Z

⋖

Σ

#### IR-75 AND RAMPS

MAINTAIN THE SAME NUMBER OF LANES AS CURRENTLY EXISTS IN EACH DIRECTION AND RAMPS AT ALL TIMES. EXCEPT IN ACCORDANCE WITH THE UNAUTHORIZED LANE USE TABLE (SEE SHEET 34), BY USE OF THE EXISTING PAVEMENT, COMPLETED PAVEMENT, ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC AND ITEM 615 ROADS FOR MAINTAINING TRAFFIC.

#### SHARON RD

A MINIMUM OF 2 LANES OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY UTILIZING A COMBINATION OF EXISTING PAVEMENT, THE COMPLETED PAVEMENT, ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC, ITEM 615 ROADS FOR MAINTAINING TRAFFIC, AND TEMPORARY SURFACES USING ITEMS 410, AND 614.

#### CHESTER RD

A MINIMUM OF 1 LANES OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD WHEN TRAFFIC MAY BE MAINTAINED USING A FLAGGER OPERATION AS DETAILED IN SCD MT-97.10.

NO WORK SHALL BE PERFORMED ON I-75 AND A MINIMUM OF THREE LANES OF TRAFFIC IN EACH DIRECTION ON I-75 SHALL BE OPEN TO TRAFFIC ALONG WITH NO WORK ON THE RAMPS, SHARON ROAD, AND CHESTER ROAD DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

CHRI	STMAS	S
NEW	YEAR	S
MEM	ORIAL	DAY
FAST	TER	

FOURTH OF JULY LABOR DAY THANKSGIVING

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY	TIME ALL LANES MUST
OR EVENT	BE OPEN TO TRAFFIC

SUNDAY	6:00 AM FRIDAY THROUGH 9:00 PM MONDAY
MONDAY	6:00 AM FRIDAY THROUGH 9:00 PM TUESDAY
TUESDA Y	6:00 AM MONDAY THROUGH 9:00 PM WEDNESDAY
WEDNESDAY	6:00 AM TUESDAY THROUGH 9:00 PM THURSDAY
THURSDAY	6:00 AM WEDNESDAY THROUGH 9:00 PM FRIDAY
	(THANKSGIVING ONLY)
	6:00 AM WEDNESDAY THROUGH 9:00 PM MONDAY

FRIDAY 6:00 AM THURSDAY THROUGH 9:00 PM MONDAY SA TURDA Y 6:00 AM FRIDAY THROUGH 9:00 PM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT SHOWN IN THE UNAUTHORIZED LANE USE TABLE ON SHEET 34 WHEN THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

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 (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW. AT THE APPROVAL OF THE ENGINEER. PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLATSHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

#### NOTICE OF CLOSURE SIGN TIME TABLE

TO THE OF SESSONE SIGN TIME TABLE						
DUBATION OF CLOSURE	SIGN DISPLAYED					
DUNATION OF CLOSURE	TO PUBLIC					
\- 2 WEEVS	14 CALENDAR DAYS					
/- Z WEEKS	PRIOR TO CLOSURE					
\ 12 UOUDS 9 / 2 WEEKS	7 CALENDAR DAYS					
/ 12 HOUNS & \ 2 WEEKS	PRIOR TO CLOSURE					
/ 12 U∩UPS	2 BUSINESS DAYS					
\ 12 1100N3	PRIOR TO CLOSURE					
	DURATION OF CLOSURE  >= 2 WEEKS  > 12 HOURS & < 2 WEEKS  < 12 HOURS					

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES AND LIGHTS, AS DETAILED IN SCD MT-101.60 AT THE FOLLOWING LOCATIONS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

SHARON ROAD AT CURB RETURN TO I-75 SB EXIT RAMP SHARON ROAD AT CURB RETURN TO I-75 SB ENTRANCE RAMP SHARON ROAD AT CURB RETURN TO I-75 NB EXIT RAMP SHARON ROAD AT CURB RETURN TO I-75 SB ENTRANCE RAMP CHESTER ROAD STA. 95+00 AND STA. 96+50

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC.

ITEM 410, TRAFFIC COMPACTED SURFACE,	
TYPE A OR B	100 CU YD

ITEM	614,	ASPHAL T	CO	NCRETE FOR	
		ΜΔΙΝΤΔΙΝΙ	NG	TRAFFIC	

ITEM 616. WATER 50 M GAL

100 CU YD

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 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 ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

#### TRENCH FOR WIDENING

TRENCH EXCAVATION FOR BASE WIDENING 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 WIDENING TRENCH 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.

## OVERNIGHT TRENCH CLOSING

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 5 INCHES BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UN-COMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

#### DRUM REQUIREMENTS

IN ADDITION TO THE REQUIREMENTS OF THE PLANS, SPECIFICATION AND PROPOSAL, DRUMS FURNISHED BY THE CONTRACTOR SHALL BE NEW AND UNUSED AT THE TIME OF ARRIVAL ON THE PROJECT. ANY DRUMS BROUGHT ON THE PROJECT, WHICH HAVE PREVIOUSLY BEEN USED ELSEWHERE, SHALL NOT BE ACCEPTED.

PAYMENT FOR DRUMS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR MAINTAINING TRAFFIC UNLESS SEPARATELY ITEMIZED.

#### DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER

2,500 M GAL

## ITEM 614 - REPLACEMENT DRUM

DRUMS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT DRUMS SHALL BE NEW.

PAYMENT FOR THE NEW DRUMS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT DRUM, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM. AND PROVIDING AND MAINTAINING THE REPLACEMENT DRUM IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

AN ESTIMATED QUANTITY OF 100 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

#### EARTHWORK FOR MAINTAINING TRAFFIC

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE PLAN FOR INFORMATION ONLY:

EXCAVATION FOR MAINTAINING TRAFFIC EMBANKMENT FOR MAINTAINING TRAFFIC



5000 CY 3000 CY

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC. 

#### ITEM 614 - REPLACEMENT SIGN

FLATSHEET SIGNS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT SIGNS SHALL BE NEW. OTHER MATERIALS MAY BE IN USED, BUT GOOD CONDITION SUBJECT TO APPROVAL BY THE ENGINEER.

PAYMENT FOR THE NEW SIGNS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT SIGN, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF DAMAGED SIGNS, HARDWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

AN ESTIMATED QUANTITY OF 20 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

## ITEM 614 - MAINTAINING TRAFFIC, MISC.: RUMBLE STRIPS, /2\ SHOULDER (ASPHALT CONCRETE)

THE CONTRACTOR SHALL MILL 2" DEEP BY 4' WIDE OF THE / EXISTING ASPHALT SHOULDER IN ORDER TO ELIMINATE THE EXISTING EDGE LINE AND RUMBLE STRIPS ALONG I-75 IN THE AREA WHERE TRAFFIC IS SHIFTED. NEXT THE CONTRACTOR SHALL PLACE ITEM 407-NON-TRACKING TACK COAT (APPLIED AT 0.85 GAL/SY) AND 2" OF ITEM 442-ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), AS PER PLAN. ALL COST ASSOCIATED WITH THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID PER MILE OF ITEM 614-MAINTAINING TRAFFIC, MISC,: RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)

, AN ESTIMATED QUANTITY OF 14,000 FT HAS BEEN CARRIED TQ THE GENERAL SUMMARY. 

## ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN:

THE TEMPORARY PAVEMENT BUILD-UP SHALL BE CONSTRUCTED AS SPECIFIED PER CMS 615 FOR CLASS A FLEXIBLE PAVEMENT WITH THE EXCEPTION THAT A SINGLE LAYER OF 2" OF ITEM 448, TYPE 2, PG64-22 PLACED ABOVE 8" ITEM 302 AND 6" ITEM 304.



1-15-2021 - UPDATED MOT QUANTITIES



2-5-2021 - UPDATED PAY ITEM FOR RUMBLE STRIPS FOR MOT TO ITEM 614-MAINTAINING TRAFFIC, MISC .: RUMBLE STRIPS (ASPHALT) (FT), UPDATEĎ ESTIMATED QUANTITY FOR RUMBLE STRIPS FOR ROADWAY



2-19-2021 - UPDATED EMBANKMENT QUANTITY FOR EMBANKMENT FOR MAINTAINING TRAFFIC. DELETED PARAGRAPH WITH UNDERCUTS.



2-19-2021 - UPDATED PAVEMENT PAY ITEMS WITHIN ITEM 614-MAINTAINING TRAFFIC, MISC.: RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETÉ)



25 708

I

#### 1. FURNITURE

 $\bigcirc$ 

- ELEVAN (11) SETS OF DESK, OFFICE CHAIR, AND 4 DRAWER LEGAL SIZE LOCKABLE FILE CABINETS
- TWO (2) LOCKABLE CABINETS
- FOURTEEN (14) 2' X 8' COLLAPSIBLE TABLES
- TWENTY (20) FOLDING CHAIRS
- 2. COPY MACHINE WITH SCAN/PRINT/FAX/INTERNET HOOK UP CAPABILITIES. THE COPIER WILL PRINT 25 PPM AND CAPABLE OF COLOR PRINTING SHEETS 8.5"X11", 8.5"X14", AND 11"X17". COPIER PAPER SUPPLIES AND MAINTENANCE TO BE
- 3. CONTRACTOR TO SUPPLY INTERNET SERVICE WITH MINIMUM SPEED OF 200 MBPS. THE CONTRACTOR SHALL SUPPLY THE PROJECT WITH THE IP ADDRESS SO THAT ODOT CAN ATTACH AN ODOT OWNED HUB. ODOT'S OWNED HUB WILL PROVIDE THE ODOT STAFF WITH A WIRELESS ROUTER AND ODOT FIRFWAL.
- 4. ONE (1) SEPARATE WATER COOLER AND SERVICE.
- 5. FIELD OFFICE SHALL INCLUDE A SECURE PARKING AREA OF NOT LESS THAN 4000 S.F. CAPABLE OF SUPPLYING 20 EACH "ALL WEATHER" PARKING SPOTS. "ALL WEATHER" SHALL BE DEFINED AS A HARD SMOOTH SURFACE THAT WILL ALLOW FOR SNOW REMOVAL. GRAVEL SURFACE IS NOT ACCEPTABLE. PARKING AREA TO BE SURROUNDED BY A 6 FT. HIGH SECURITY FENCE WITH A LOCKABLE GATE INCLUDING KEYS AND ILLUMINATED BY SECURITY LIGHTING.
- 6. SNOW REMOVAL SHALL BE REQUIRED FOR PARKING AREA.
- 7. BI-WEEKLY CLEANING SERVICE.
- 8. DUMPSTER WITH NECESSARY SERVICE.
- 9. FIVE (5) EACH TELEPHONES.

THE CONTRACTOR SHALL OBTAIN APPROVAL OF THE PROPOSED FACILITY FROM THE ENGINEER PRIOR TO USE THIS FACILITY SHALL BE AVAILABLE FOR ODOT USE NOT MORE THAN 30 DAYS FROM AWARD OF CONTRACT. 

## PERMITTED LANE CLOSURE TIMES

SHORT TERM LANE CLOSURES ARE THOSE WHICH ARE PERMITTED BY THE PERMITTED LANE CLOSURE NOTE. THESE TIMES SHALL NOT BE REVISED WITHOUT PRIOR APPROVAL FROM THE DISTRICT 8 WORK ZONE TRAFFIC CONTROL MANAGER. SHORT TERM LANE CLOSURES SHALL ONLY BE IMPLEMENTED WHEN WORK IS BEING CONTINUOSLY PERFORMED IN THE LANE. THE CLOSURE SHALL BE REMOVED AS SOON AS POSSIBLE AFTER WORK HAS STOPPED. PERMITTED LANE CLOSURES SHALL ONLY BE ALLOWED DURING THE TIMES SPECIFIED IN THE UNAUTHORIZED LANE USE TABLE INCLUDED AT THE BOTTOM OF THIS SHEET.

#### UNAUTHORIZED LANE USE TABLE NOTES

- 1. NORTHBOUND I-75: NO CLOSURES FROM 2 HOURS BEFORE TO THE SCHEDULED START TIME OF EVENTS AT GREAT AMERICAN BALL PARK, PAUL BROWN STADIUM, OR US BANK ARENA. THIS RESTRICTION ALSO APPLIES TO EVENTS REACHING AN ATTENDANCE OF 10.000+.
- 2. SOUTHBOUND I-75: NO CLOSURES FROM THE SCHEDULED START TIME TO 2 HOURS AFTER EVENTS AT GREAT AMERICAN BALL PARK, PAUL BROWN STADIUM, OR US BANK ARENA. THIS RESTRICTION ALSO APPLIES TO EVENTS REACHING AN ATTENDANCE OF 10,000+.
- 3. NO SHORT-TERM SHOULDER CLOSURE BETWEEN THE HOURS OF 6 AM TO 9 AM AND 3 PM TO 7 PM MONDAY THROUGH
- 4. NO SHORT-TERM RAMP SHOULDER CLOSURE BETWEEN 6 AM TO 9 AM AND 3 PM TO 7 PM MONDAY THROUGH FRIDAY.
- 5. CHESTER RD SHALL HAVE A MINIMUM OF 1 LANE OF TRAFFIC IN EACH DIRECTION MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD WHEN TRAFFIC MAY BE MAINTAINED USING A FLAGGER OPERATION AS DETAILED IN SCD MT-97.10.
- 6. RAMP CLOSURES ARE PERMITTED FOR TRAFFIC SWITCHES ONLY. ONLY 1 RAMP IS PERMITTED TO BE CLOSED AT A TIME. CLOSUREOF AN I-75/I-275 RAMP REQUIRES THE USE OF 2 PCMS FOR DETOUR INFORMATION.

	UNAUTHORIZED LANE USE TABLE									
$\overline{}$ $k$		EX. NO. OF	1 LANE	CLOSED	2 LANES	CLOSED	15 MIN. SHORT		TIME	DISINCENTIVE PER
LOCATION	DIRECTION	THRU LANES	WEEKDAY	WEEKEND	WEEKDAY	WEEKEND	DURATION COMPLETE CLOSURE	COMPLETE CLOSURE	UNIT	TIME UNIT PER LAN
I-75	NB/SB	3	8 PM - 6 AM	8 PM - 8 AM	11 PM - 5 AM	11 PM - 6 AM	12 AM - 4 AM	NONE	1 MIN.	<b>\$</b> 495
RAMPS	ALL	1	NONE	NONE	NONE	NONE	NONE	10PM-5PM; SHARON ROAD	1 MIN.	<i>\$495</i>
TAMI 3	2 8 PM - 6 AM 8 PM	8 PM - 8 AM	- 8 AM	INCINE	IVOIVE	RAMPS ONLY	I IVITIV.	#733		
SHARON RD	ВОТН	2	9 AM - 3 PM	7 PM - 3 PM	NONE	NONE	11 PM - 5 AM	NONE	1 MIN.	<b>\$</b> 115
			7 PM - 6 AM							
CHESTER RD	ВОТН	1	9 AM - 4 PM	ALL TIMES	NONE	NONE	NONE	NONE	1 MIN.	<b>\$</b> 35
		· ·	7 PM - 6 AM							
KEMPER RD	ВОТН	2	7 PM - 6 AM	7 PM - 6 AM	NONE	NONE	NONE	NONE	1 MIN.	<b>\$</b> 70
	•	•								3

>NOTES:

). SHARON ROAD RAMP CLOSURES ARE PERMITTED FOR MOT TRAFFIC SWITCHES ONLY. WHEN CLOSING THE ENTRANCE/EXIT RAMP IN ONE DIRECTION, THE OPPOSITE DIRECTION `RAMPS SHALL REMAIN OPEN.

2. SHOULDER CLOSURES ARE NOT PERMITTED BETWEEN THE HOURS OF 6AM-9AM AND 3PM-7PM MONDAY THRU FRIDAY. 

MAINTENANCE OF TRAFFIC SUBSUMMARIES	35 TO 48
MAINTENANCE OF TRAFFIC PLANS: I-75 MAINLINE PHASE 1	49 TO 65
I-75 MAINLINE PHASE 2	66 TO 85
I-75 MAINLINE PHASE 3	86 TO 105
I-75 MAINLINE PHASE 4 I-75 MAINLINE PHASE 5	106 TO 125 126 TO 135
1-10 MAINLINE I HAGE 3	120 10 133
RAMP C PHASE 1	136
RAMP C PHASE 2	137
RAMP C PHASE 3-4	138
RAMP A PHASE 1	139
RAMP A PHASE 2	140
RAMP A PHASE 3A	141
RAMP A PHASE 3	142
RAMP A PHASE 4	143
RAMP G PHASE 1	144
RAMP G PHASE 2	145
RAMP G PHASE 2-1	145A
RAMP G PHASE 3	146
RAMP G PHASE 4	147
RAMP E PHASE 1	148
RAMP E PHASE 2	149
RAMP E PHASE 4	150
RAMP E PHASE 4-2	150A
RAMP E PHASE 5	151
SHARON RD PHASE 1	152 TO 155
SHARON RD PHASE 2	156 TO 159
SHARON RD PHASE 2-1	159A
SHARON RD PHASE 3	160 TO 162
SHARON RD PHASE 4	163 TO 165
SHARON RD PHASE 4-1	165A
SHARON RD PHASE 4-2	165B
SHARON RD PHASE 5	166 TO 168
CHESTER ROAD PHASE 1	169
E KEMPER RD PHASE 2	170
E KEMPER RD PHASE 3	171
MAINTENANCE OF TRAFFIC SECTIONS:	
I-75	172 TO 178
RAMP C	179 TO 182
RAMP A	183 TO 184
RAMP G	185 TO 187
RAMP E	188 TO 189
SHARON ROAD	190
PLAN INSERT SHEETS:	
PCB "Y" CONNECTOR SEGMENT	191

2-19-2021 - UPDATED MOT NOTES

Σ ⋖ I

Z ОШ  $\mathbf{x}$  $\mathbf{I}$ **⊢** S

S

C

 $\mathbf{Z}$  $\mathbf{L}$ 

00

ЩЩ

00

ш-

ပတ္သ

PP

ОЩ

 $\blacksquare \blacktriangleleft$ 

**╙** œ

۲,

 $\vdash$  $\sqsubseteq$ 

ОШ

Α̈́

ZĻ

ωZ

A N A N

Σ

0

C ШŽ

 $\mathbf{\alpha}$ 

ш

Ш

, Åg တပ ο<sub></sub> ZZ

					SHEE T	NUM.					_			PART.			ITCM	ITEM	GRAND	LINIT	DESCRIPTION	SEE SHEET	JLATED LC CKED
22	23	24	(48)	202	203	204	206	212	445	450C	450D	01/IMS/PV	02/NHS/0 T	03/IMS/01	04/IMS/BR 05/II	us/BR	ITEM	EXT	TOTAL	UNIT	DESCRIPTION	NO.	CALCUL WL CHECK
			6																		ROADWAY		
LS													LS				201	11000	LS	51011	CLEARING AND GRUBBING		4
							3	600000	~~~~~	~~~~	<del> </del>	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	2			$\triangle$	202	20010	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	EACH	HEADWALL REMOVED		_
								88,203	201	·····	<del> </del>	50,937	37,467} 20,190			/3	202	23000 23010	88,404 39,444	SY	PAVEMENT REMOVED ) 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9		_
								39,444 {127,644}				19,254 70,189	57 155			3	202	23500	127,644	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			-
								(21,077)				Commen				<del>-</del>	- Cillian		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	······	WEARING COURSE REMOVED   SO		_
				10,228									10,228			_	202	30000	10,228	SF			_
				(315)								£ 212	103	2		4	202	30700	{315}	FT			
				1,307									1,307			$\rightarrow$	202	32000	1,307	FT	CONCRETE RAHKIEK KEWOAFD		
				1,391									1,391				202	32500	1,391	FΤ	CURB AND GUTTER REMOVED  PIPE REMOVED 24" AND UNDER  PIPE REMOVED 24" AND UNDER	Ì	
				1,419			75					345	1,149				202	35100	1,494	FT	CURB AND GUTTER REMOVED  PIPE REMOVED, 24" AND UNDER  OO THE SECOND OF T		
																					DIPE REMOVED, OVER 24"  SIGN SUPPLY OF A STANDARD COLOR OF A STAND		
				10.000			68					30	38				202	35200	68	FT	PIPE REMOVED, OVER 24"		<b>⊣</b> ≘
				10,069		5						5,684.5	4,384.5 5				202	38000 53100	10 <b>,</b> 069 5	FT EACH	GUARDRAIL REMOVED		⊣ Չ
-				3		3						,	2	1			202 202	58000	3	EACH	WAITBOX KEWOAD  WATED AND AUTO MANUAL MATERIAL M		⊣ ՝
				29								2	27	1			202	58100	29	EACH	GUARDRAIL REMOVED  MAIDED THEM STORE  MANDED THEM STORE  MAINTED STORE  MANUAL ED CONS  MANUAL		⊢ ш
				20									21				202	00100	20	LAUIT	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		<b>⊣</b> o
				3									3				202	58500	3	EACH	CATCH BASIN ABANDONED 2007 12 10 20 20 20 20 20 20 20 20 20 20 20 20 20		┪ _
				341								341					SPECIAL	20270000	341	FT	CATCH BASIN ABANDONED  CATCH BASIN ABANDONED  FILL AND PLUG EXISTING CONDUIT  SOURCE LITERAL STATES  FENCE REMOVED  AND FOR IT TO PLUS ABANDONED  AND FOR IT	23	コ こ
				2,306						/7		536	1,770			$\Lambda$	202	75000	2,306	FT	FILL AND PLUG EXISTING CONDUIT SO STANDING SONDUIT SO STANDING SONDUIT SO STANDING SONDUIT SON		
					{ 114,258 }				/7	<u></u>		63,495	50,763			/2\	203	10000	{ 114,258 } { 4,459 }	CY	EXCAVATION	1	<b>」 ≻</b>
										<del>\</del>	4,459	'		4,459			203	10001	{ 4,459 }	CY	EXCAVATION, AS PER PLAN	450C	۳ سے
					<i>[156,142]</i>							91,274	64,868	275		2	203	20000	{156,417}	CY	EMBANKMENT	1	⊣ ⊴
		38			(100,172)			11,120	114			819	10,453	<del>lutiu</del>	1 -		203	10000	11.272	SY	SUBGRADE COMPACTION		<b>∃</b>
					£ 17,915 }			.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				9,170	8,745			2	204	13000	£ 17,915 }	CY	EXCAVATION OF SUBGRADE, 18 INCHES DEEP		<b>⊢</b> ≥
					[13,866]							9,170 9,845	8,745) 4,021)		2/2	$\overline{}$	204	20001	11,272 (17,915) (13,866) (5,041)	CY	EMBANKMENT, AS PER PLAN	22	⊨ Ոջ
					[17,915] [13,866] [5,041]								5,041	3		2	204	30020	5,041	CY	GRANULAR MATERIAL, TYPE C		
												40	ستتس				201	45000	~~~~	110115	DD005 D0U NO		<b>⊣</b> ⊸
								9,966	/			42	33	<u> </u>			204 204	45000 50000	<i>9,966</i>	HOUR SY	PROOF ROLLING GEOTEXTILE FABRIC		⊢ ∢
												3,588	9,966				204	10500	(5,759)	TON	CEMENT		⊣ ლ
							5	190.682				118,822	71.860	2			206	11000	[190,682]	SY	CURING COAT		⊢ Ш
								{ 5,759 } { 190,682 } { 190,682 }				118,822	2,171 71,860 71,860				206	15020	{190,682}	SY	CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP		Z
								000000															Ш
						10 077 5		LS				LS	LS				206	30000	LS		MIXTURE DESIGN FOR CHEMICALLY STABILIZED SOILS		<b>⊣</b>
						12,037.5 9						9,237.5	2,800 9				606 606	15050 26050	12,037.5 9	FT EACH	GUARDRAIL, TYPE MGS ANCHOR ASSEMBLY, MGS TYPE B		$\dashv$
						11						4	7				606	26150	11	EACH	ANCHOR ASSEMBLY, MGS TYPE E. MASH 2016		-
						16						4	12				606	26550	16	EACH	ANCHOR ASSEMBLY, MGS TYPE T		
																					·		
						6						2	4				606	35002	6	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1		
						3						3	,				606	35102	3	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2		_
						2,017		<u> </u>			-	451	1,566	+	+	+	606 607	60040 23000	1 2,017	EACH FT	IMPACT ATTENUATOR, TYPE 3 UNIDIRECTIONAL ,(DS=70 MPH, W=90 INCHES) FENCE, TYPE CLT		$\dashv$
	+					2,017 2,017						451	1,566	+		-	607	70000	2,017	FT	FENCELINE SEEDING AND MULCHING		$\dashv$
						/						T	1 /	1				•	.,				1
2,000													2,000				607	98000	2,000	FT	FENCE, MISC.:TEMPORARY CONSTRUCTION FENCE	22	]
						13,636							13,636				608	10000	13,636	SF	4" CONCRETE WALK	ļ	
	-		(2)			390					-		390 6,410			6	608 608	15000 21200	390 6,410	SF SF	8" CONCRETE WALK TEMPORARY ASPHALT CONCRETE WALK }	1	
	+	6	(6,410)			761							761	1		0 1	608	52000 52000	761	SF	CURB RAMP		$\dashv$
						101										$\overline{}$	500	52000	101	31	COND TIME		<b>⊣</b> ←
						£ 180							£ 80 3	2	1 1 ,	4	622	10140	80	FŤ	CONCRETE BARRIER, SINGLE SLOPE, TYPE CT		⊣ ဖ့
						1,590							1,590				622	10160	1,590	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D		<b>4</b>
						1							1				622	25000	1	EACH	CONCRETE BARRIER END SECTION, TYPE D		╛╌
						3							~~~~~			4 (	622	25001	3	EACH	CONCRETE BARRIER END SECTION, TYPE D, AS PER PLAN	22	ري
						2							نسئسا			4	622	25014		EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE CI		<b>⊣ ∵</b>
						[							5		<del>                                     </del>	_	622	25050	5	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D		Ş
						5							5		<del>                                     </del>		622	25051	5	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN	22	
4													4				623	38500	4	EACH	MONUMENT ASSEMBLY		<b> </b> ₹
2													2				623	40520	2	EACH	RIGHT-OF-WAY MONUMENT		_]
						3							3			$\perp$	SPECIAL	69098000	3	EACH	BOLLARD REMOVED AND RESET	22	_
						I I					ļ			1									
	10		t								1	1 (	10	1	] !		SPECIAL I	EQUARIAN I	10		CONSULTANT FOR CONCRETE OUALITY CONTROL INCLUDING	クマ	_
	LS											LS	LS			_	SPECIAL	69098400	LS		CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION	23	192

 $\bigcirc$ 

 $\bigcirc$ 

20			Si	HEET NUI	И.	_				PART.	1	ITEM	ITEM	GRAND	UNIT	6-26-2020 - ADDED FUNDING COLUMNS FOR 04/IMS/BR, 05/IMS/BR DESCRIPTION	SEE SHEET	CULATE
1	?3	203	205	206	450C	450D	458	01/IMS/PV	, 02/NHS/0 T	03/IMS/OT 04/IMS/BR	05/IMS/BR		EXT	TOTAL		2-19-2021 - UPDATED QUANTITY FOR PAY ITEM B32E30000-EROSION CONTROL		CAL
1																		]
1				9												,		4
25	0					1,320	38	28	_	1,320						•		4
1								00	4									4
1,000									70									4
1.50								3	30			601	32204	33	LY	ROLK CHANNEL PROTECTION, TYPE C WITH GEOTEXTILE FABRIC		$\dashv$
1.50			1.000						1.000			CO1	70000	1.000		DAVED CUTTED TYPE A		$\dashv$
Section   Sect			1,626		-	4 450			1,626	4.450								4
1					-	4,459				4,459								4
20.50					-													$\dashv$
1.50   1.50			28,390					170 700										ᅴ
1,091		220,445						132,320	88,125			659	10000	220,445	SY	SEEDING AND MULCHING		$\dashv$
1,091			11 007						11.007			050	14000	11.007	CV	DEDUTE CEEDING AND		$\dashv$
10.54	-																	$\dashv$
																		$\dashv$
1					1	1	-	-			1							$\dashv$
13.50					1	1	-				1							$\dashv$
1			اعكوا			1		<del>                                     </del>	1,221			009	J3000	1,221	MUAL	TATEN		$\dashv$
1	-+		⊿07		1	1	-	<del> </del>	107			650	40000	107	MCE	MOWING		$\dashv$
2.3.42	-+	-	731		7 750	1	1	<del>                                     </del>	131	3 350	<del>                                     </del>						1500	$\dashv$
1,955	-		23 512		7,000	1	-	<del> </del>	27 510	3,300	<del>                                     </del>						4300	$\dashv$
1	-					1		971										$\dashv$
15			7,720			7 977		314	7,701	3 937								$\dashv$
15						3,331				3,331		071	13000	3,331	31	ENGION CONTIOL MAT, THE A		$\dashv$
15			15						15			832	15000	15		STORM WATER POLITITION PREVENTION PLAN		-
Second Content   Seco	<del></del>																	-
																		$\dashv$
155   156   157   158   158   158   158   158   159		/2 /	\$1 248 3072					/2							FACH			$\dashv$
A58			2 5 31					382										$\dashv$
	-		2,001					302	2,170			050	70000	2,001	31	SEEDING AND ENGSION CONTROL WITH TON NEIN ONCING WAT, THE I		$\dashv$
	_		658					458	200			836	10020	658	SY	SEEDING AND EROSION CONTROL WITH THRE REINFORCING MAT. TYPE 2		$\dashv$
			- 000					100	200			050	10020	000	31	SEEDING AND ENGSION CONTROL WITH TON HEIM CHOING WAT, THE 2		$\dashv$
																DRAINAGE		┪
				6.72				0.92	5.8			602	20000	6.72	CY			-
									1								2.3	Ⅎ
				<u> </u>				,					00200	,	, , , , , , , , , , , , , , , , , , ,	The state of the s		┪
							50.564	30.070	20.494			605	11110	50.564	FT	6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC		Ⅎ
339	0						11,111		<del></del>					<u> </u>		6" UNCLASSIFIED PIPE UNDERDRAINS		Ⅎ
							389	44										┪
									27.963									┨
100   611   00200   100   71   4' COMBUT, TYPE C, 707.41   PERCONATED)   100														,				٦
100   611   00200   100   71   4' COMBUT, TYPE C, 707.41   PERCONATED)   100	0								100			611	00100	100	FT	4" CONDUIT, TYPE B		П
	0											611		100	FT			П
S27   S1						2,709				2,709		611		2,709	FT			٦
3,922   1,403   2,519   611   00510   3,922   FT   8' CONDUIT, TYPE FOR INDERDRAIN OUTLETS     59   27   132   611   00500   159   FT   8' CONDUIT, TYPE Q     100   611   01500   100   FT   8' CONDUIT, TYPE Q     100   611   04400   325   FT   12'' CONDUIT, TYPE B     325   325   611   04400   325   FT   12'' CONDUIT, TYPE B     66   66   66   66   661   04400   66   FT   12'' CONDUIT, TYPE B     20   87   87   87   611   05900   87   FT   8' CONDUIT, TYPE B     123   123   123   123   611   05900   17   FT   18'' CONDUIT, TYPE B     150   150   150   150   161   07400   150   FT   18'' CONDUIT, TYPE G     17   17   611   08900   17   FT   18'' CONDUIT, TYPE G     17   17   611   08900   17   FT   18'' CONDUIT, TYPE G     17   17   611   08900   17   FT   18'' CONDUIT, TYPE G     17   17   611   08900   17   FT   18'' CONDUIT, TYPE G     17   17   611   08900   17   FT   21'' CONDUIT, TYPE G     18   19   19   19   19   19   19     19   10   10   10   10   10     10   10																		$\exists$
59   27   132   6 1   00900   59   FT   6" CONDUIT, TYPE B   6" CONDUIT, TYPE C   6" CONDUIT, TYPE C   6" CONDUIT, TYPE C   6" CONDUIT, TYPE F   6" CONDUIT, TYPE F   6" CONDUIT, TYPE F   6" CONDUIT, TYPE B   7" CONDUI						1												$\exists$
59   27   132   6 1   00900   59   FT   6" CONDUIT, TYPE B   6" CONDUIT, TYPE C   6" CONDUIT, TYPE C   6" CONDUIT, TYPE C   6" CONDUIT, TYPE F   6" CONDUIT, TYPE F   6" CONDUIT, TYPE F   6" CONDUIT, TYPE B   7" CONDUI						1	3,922	1,403	2,519			611	00510	3,922	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS		$\exists$
100   611   01500   100   FT   6" CONDUIT, TYPE F   12" CONDUIT, TYPE B   75.00   100	0					1										6" CONDUIT, TYPE B		$\exists$
100   611   01500   100   FT   6" CONDUIT, TYPE F   12" CONDUIT, TYPE B   75.00   100	0								100			611	01100	100	FT			_1
66	0								100			611	01500	100	FT			
66																		_1
20				325					325			611		325	FT			
87   87   611   05900   87   FT   15" CONDUIT, TYPE B   123   123   611   07400   123   FT   15" CONDUIT, TYPE B, 706.02   123				66					66			611	04400	66	FT			
123				20					20			611	04600	20	FT	12" CONDUIT, TYPE C		
123																		
1339																		
150				123					123			611	05900	123	FT	15" CONDUIT, TYPE B, 706.02		_]
150						1												
401									339									
17   17   611   08900   17   FT   21" CONDUIT, TYPE B, 706.02   187   19								150										╝
50 50 611 10400 50 FT 24" CONDUIT, TYPE B 87 87 611 10400 87 FT 24" CONDUIT, TYPE B, 706.02				401					401			611	07600	401	FT	18" CONDUIT, TYPE C		$\Box$
50 50 611 10400 50 FT 24" CONDUIT, TYPE B 87 87 611 10400 87 FT 24" CONDUIT, TYPE B, 706.02																		
87 87 611 10400 87 FT 24" CONDUIT, TYPE B, 706.02				17					17			611	08900	17	FT	21" CONDUIT, TYPE B, 706.02		
87 87 611 10400 87 FT 24" CONDUIT, TYPE B, 706.02																		
									_									╝
17   17   611   12100   17   FT   27" CONDUIT, TYPE C, 706.02				87					87			611	10400	87	FT	24" CONDUIT, TYPE B, 706.02		
17   17   611 12100 17 FT 27" CONDUIT, TYPE C, 706.02																		
				17					17			611	12100	17	FT	27" CONDUIT, TYPE C, 706.02		$\Box$
, , , , , , , , , , , , , , , , , , ,	T						1		1									1

 $\bigcirc$ 

 $\bigcirc$ 

		Si	HEET NUN	1.				PART.	1	ITEM	ITEM	GRAND	UNIT	6-26-2020 - ADDED FUNDING COLUMNS FOR 04/IMS/BR, 05/IMS/BR  1-15-2021 - UPDATED SIGN SUPPORT FOUNDATION DUE TO PID 82288 CONSTRUCTION  2-19-2021 - ADDED ITEM 642 ITEMS (4), UPDATED ITEM 644 ITEMS (2), DELETED ITEM 644 ITEMS (2), DELETED ITEM 646 ITEMS (3)	SEE SHEET	CULATE
204	476	479	480	484	548	01/IM	MS/PV 02/NHS/0 T		05/IMS/BR	) 1/2///	EXT	TOTAL	07.17	2 DUE TO PID 82288 CONSTRUCTION DELETED ITEM 644 ITEMS (2), DUE TO PID 82288 CONSTRUCTION	NO.	CALC
														TRAFFIC CONTROL		7
-				1,693 1,524			1,693			621	00100	1,693	EACH	RPM		4
				1,324			1,524			621	54000	1,524	EACH	RAISED PAVEMENT MARKER REMOVED		$\dashv$
	_	8	22				30			625	32000	30	EACH	GROUND ROD		┪
<b>3</b>	2	_					(28)			626	00102	(28)	EACH	BARRIER REFLECTOR, TYPE 1, ONE-WAY		┨
8							8			626	00102	8	EACH	BARRIER REFLECTOR, TYPE 1, BI-DIRECTIONAL		
39							139			626	00110	139	EACH	BARRIER REFLECTOR, TYPE 2, ONE-WAY		_
7							27			626	00110	27	EACH	BARRIER REFLECTOR, TYPE 2, BI-DIRECTIONAL		4
		1,374			45		1,419			630	03100	1,419	FT	GROUND MOUNTED SUPPORT, NO. 3 POST		$\dashv$
		99.9			70		99.9			630	06400	99.9	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, S4X7.7		┪
		348.7					348.7			630	07500	348.7	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, WIOX22		٦
		172.6					172.6			630	07600	172.6	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, WIOX12		٦
		120					120			630	08004	120	FT	ONE WAY SUPPORT, NO. 3 POST		$\Box$
		18					18			630	08600	18	EACH	SIGN POST REFLECTOR		4
		14	2				14			630 630	09000 20800	14	EACH EACH	BREAKAWAY STRUCTURAL BEAM CONNECTION		$\dashv$
		2	2				2			630	74500	2	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 8  OVERHEAD SIGN SUPPORT, MISC.: TYPE TC-16.22 DESIGN 13	512	$\dashv$
		2					2			630	74500	2	EACH	OVERHEAD SIGN SUPPORT, MISC.: TYPE TC-17.11 DESIGN 8	496	$\exists$
		1					1			630	74500	1	EACH	OVERHEAD SIGN SUPPORT, MISC.: TYPE TC-17.11 DESIGN 10	512	╛
			2				2			630	74500	2	EACH	OVERHEAD SIGN SUPPORT, MISC.: TYPE TC-12.31 DESIGN 6	512	$\Box$
			4				4			630	74500	4	EACH	OVERHEAD SIGN SUPPORT, MISC.: TYPE TC-12.31 DESIGN 12	496	4
			6				6			630	74500	6	EACH	OVERHEAD SIGN SUPPORT, MISC.: TYPE TC-15.116 DESIGN 2	496	$\dashv$
		3	1		11		14			630 630	74500 79100	1	EACH EACH	OVERHEAD SIGN SUPPORT, MISC.: TYPE TC-15.116 DESIGN 3 SIGN HANGER ASSEMBLY, MAST ARM	496	_
		J			2		2			630	79500	2	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED		$\exists$
		1,087.7			115		1,202.7			630	80100	1,202.7	SF	SIGN, FLAT SHEET		٦
		549					549			630	80200	549	SF	SIGN, GROUND MOUNTED EXTRUSHEET		
			3,429.5				3,429.5			630	80224	3,429.5	SF	SIGN, OVERHEAD EXTRUSHEET		$\Box$
		1	~~~				1			630	81020	1	EACH	CONCRETE MEDIAN BARRIER SIGN BRACKET		$\dashv$
		28					28		2	630 630	84010 84500	28	ÉACH EACH	CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TYPE TC-21.50) GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION		$\dashv$
		20	19				20			630	84510	21	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION		$\dashv$
		6	10				6			630	84520	6	EACH	SPAN WIRE SIGN SUPPORT FOUNDATION		$\exists$
	130						130			630	84900	130	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL		٦
	6						6			630	85400	6	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL		$\Box$
	7						7			630	85600	7	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND REERECTION		4
	112 43						112 43			630 630	86002 86102	112 43	EACH EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL		$\dashv$
	2						2			630	86310	2	EACH	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL  REMOVAL OF STRUCTURE MOUNTED SIGN AND DISPOSAL		$\dashv$
					1		1			630	87100	1	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND BISH COAL		$\exists$
	41				1		42			630	87400	42	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL		┨
	4						4			630	87500	4	EACH	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL		
	5						5			630	89706	5	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-12.30		4
	5						5			630	89802	5	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-7.65		$\dashv$
	4						4			630 630	89810 89812	1	EACH EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-17.10 REMOVAL OF WOOD POLE AND DISPOSAL		$\dashv$
	,						'			030	00012	,	LACIT	TEMOTRE OF TOOL FOLE AND BISTOSAL		$\exists$
	1						1			631	94406	1	EACH	REMOVAL OF SIGNS WIRED		
					2		2			631	97700	2	EACH	SIGN LIGHTING MISC.: REMOVE AND REERECT ILLUMINATED SIGN	545	
				$\sim$			-			$\sim$						_
				15.1			15.1		<b>\</b>	642	00104	15.1	MILE	EDGE LINE, 6", TYPE 1		$\dashv$
			/3\	18.14 20,866	$\mathbb{R}$		18.14	$\mathbb{R}$	$\longmapsto$	642 642	00204 00404	18.14 20,866	MILE FT	LANE LINE, 6", TYPE 1 ) CHANNELIZING LINE, 12", TYPE 1 )		$\dashv$
				9,705	K I		9,705	<del>K I</del>		642	01510	9,705	FT	DOTTED LINE. 6". TYPE I		$\exists$
			^ _					1		644	100000			EDGE LINE, 4		٦
			/3\(	0.41			( 0.41			644	00104 (	0.41	) MILE	EDGE LINE, 6"		
				0.11			0.11	<u> </u>		644	00200	V 9.71	MILE	LANE LINE, 4"		$\Box$
				1			1			644	00300	1 0.53:	MILE	CENTER LINE		4
$\dashv$			$\sqrt{2}$	6,531	$\vdash$		6,531	$\uparrow - \downarrow$		644 644	00400 00404 (	6,531	FT FT	CHANNELIZING LINE, 8"  CHANNELIZING LINE, 12"		$\dashv$
+			73/	1,162 3 <del>9</del> 2	$\vdash$		1,162 392	<del>√                                    </del>		644	00404 (	1,162 392	) FT FT	STOP LINE		$\dashv$
-+				630			630			644	00600	630	FT	CROSSWALK LINE		$\dashv$
				735			735			644	00700	735	FT	TRANSVERSE/DIAGONAL LINE		$\dashv$
				887			887			644	00720	887	FT	CHEVRON MARKING		╛
$\Box$				640			640			644	00900	640	SF	ISLAND MARKING		_]
				2			2			644	01120	2	EACH	SCHOOL SYMBOL MARKING, 120"		$\perp$
$\dashv$				86 620			86			644	01300	86	EACH	LANE ARROW		$\dashv$
				020	1	I	620	1 1	I	644	01500	620 3.72	FT MILE	DOTTED LINE, 4"		

 $\bigcirc$ 

 $\bigcirc$ 

		S	HEET NUM.			PART.	1	ITEM	ITEM	GRAND	UNIT	6-26-2020 - ADDED FUNDING COLUMNS FOR 04/IMS/BR, 05/IMS/BR DESCRIPTION  2-19-2021 - ADDED ITEM 642 ITEMS (4), UPDATED ITEM 644 ITEMS (2), DELETED ITEM 644 ITEMS (2),	SEE SHEET
484	545	548	549		01/IMS/PV 02/NHS/C	03/IMS/OT 04/IMS/	BR 05/IMS/BR	112101	EXT	TOTAL	0/11/	DELEGION FIGHT OF THE MEANS (2),  DELETED ITEM 646 ITEMS (3)	NO.
												TRAFFIC CONTROL (CONT.)	
69					169			646	10400	169	FT	STOP LINE	
265					265			646	10500	265	FT	CROSSWALK LINE	
31					31			646 646	20300 20320	31 4	EACH EACH	LANE ARROW  WRONG WAY ARROW	
276					276		+	646	20502	276	FT	DOTTED LINE, 4"	
					210			0.10	20002	210	, ,		
												TRAFFIC SIGNALS	
	100				100			611	00400	100	FT	4" CONDUIT, TYPE E	
		2			2			625	00450	2	EACH	CONNECTION, FUSED PULL APART	
		2			2			625	00460	2	EACH	CONNECTION, UNFUSED PULL APART	540
		2			2			625	18401	2	EACH	BRACKET ARM, 20', AS PER PLAN	546
		646			646			625	23304	646	FT	NO. 8 AWG 600 VOLT DISTRIBUTION CABLE	
		420			420			625	23400	420	FT	NO. 10 AWG POLE AND BRACKET CABLE	
		272			272			625	25400	272	FT	CONDUIT, 2", 725.04	
		187			187			625	25600	187	FT	CONDUIT, 4", 725.04	
		2			2			625	27551	2	EACH	LUMINAIRE, DECORATIVE, AS PER PLAN (SHARONVILLE)	546
		459			459			625	29000	459	FT	TRENCH	
						1		005	70700	<b>.</b>	54611	DULL DOV 705 00 10#	
-		.3			1 3			625	30700	3	EACH	PULL BOX, 725.08, 18"  PULL BOX REMOVED AND REPLACED	
-+		3 8			3 8			625 625	31506 32001	8	EACH EACH	GROUND ROD, AS PER PLAN	545
-+		272			272			625	36000	272	FT	PLASTIC CAUTION TAPE	340
		4			4			632	05007	4	EACH	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN (NO BACKPLATES)	545
		10			10			632	05007	10	EACH	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN	545
		2			2			632	05087	2	EACH	VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN (NO BACKPLATES)	545
		5			5			632	20731	5	EACH	PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, COUNTDOWN, AS PER PLAN	545
		16			16			632	25000	16	EACH	COVERING OF VEHICULAR SIGNAL HEAD	
		7			/			632	25010	7	EACH	COVERING OF PEDESTRIAN SIGNAL HEAD	
		.3			3			632	26000	3	EACH	PEDESTRIAN PUSHBUTTON	
		<u> </u>	3		3	<del> </del>	1	632	26501	3	EACH	DETECTOR LOOP, AS PER PLAN	545
			1,975		1,975			632	40500	1,975	FT	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG	
			1,546		1,546			632	40700	1,546	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	
			3		3			632	64010	3	EACH	SIGNAL SUPPORT FOUNDATION	
			5		5			632	64020	5	EACH	PEDESTAL FOUNDATION	
			7		7			632	70400	7	EACH	CONDUIT RISER, 2" DIAMETER	
			3		3			632	80700	3	EACH	SIGNAL SUPPORT, MISC.:SIGNAL SUPPORT, MECHANICAL DAMPER FOR TYPE TC-81.22 MAST ARM (GREATER THAN 39' IN LENGTH)	546
			2		2			632 632	80700 81700	2	EACH EACH	SIGNAL SUPPORT, MISC.:SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 13  COMBINATION SIGNAL SUPPORT, MISC.:COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 13 (SHARONVILLE)	546 546
			2		2			032	01100	2	EAUT	COMBINATION SIGNAL SUFFORT, MISC. COMBINATION SIGNAL SUFFORT, TIFE TC-01.22, DESIGN IS ISHAROWVILLE)	340
			4		4			632	89900	4	EACH	PEDESTAL, 8', TRANSFORMER BASE	
			1		1			632	89901	1	EACH	PEDESTAL, 8', TRANSFORMER BASE, AS PER PLAN	546
			3		3			632	90100	3	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION	545
			9		9			<i>632</i>	90200	9	EACH	REUSE OF VEHICULAR SIGNAL HEAD	
			2		2			632	90202	2	EACH	REUSE OF PEDESTRIAN SIGNAL HEAD	
			1.0			1		077	00700	1.0		CONTROLLED ITEM MICC - DEFENDION DELICE / DENICTAL ATION	540
			LS 4		LS 4			633 804	99300 30000	LS 4	EACH	CONTROLLER ITEM, MISC.: PREEMPTION REUSE / REINSTALLATION	546
-+			4		4 4	+ + +		804 804	32020	4	EACH FT	PAN-OUT KIT, 6 FIBER  DROP CABLE, 6 FIBER	-
-+			4		4			804	34000	4	EACH	FIBER TERMINATION PANEL, 6 FIBER	
-+			4		4	1		804	36000	4	EACH	SLACK INSTALLATION	
			4		4			804	37001	4	EACH	SPLICE ENCLOSURE, AS PER PLAN	546
			LS		LS			804	37700	LS		FIBER OPTIC CABLE TESTING	
$\longrightarrow$			4		4			804	38000	4	EACH	FIBER OPTIC CABLE MODEM	
-+			100		100			804 804	98000 98000	100 1 <b>,</b> 686	FT FT	FIBER OPTIC CABLE, MISC.: FIBER OPTIC CABLE, ARMORED, 6 FIBER  FIBER OPTIC CABLE, MISC.: REROUTE EXISTING FIBER OPTIC INTERCONNECT	546 546
			1,686		1,686	+ +		004	30000	1,000	FI	TIDEN OF THE CADEL, MISC. NENOVIE EXISTING FIDEN OF HE INTERCONNECT	340
$\rightarrow$			6		6			809	69100	6	EACH	STOP LINE RADAR DETECTION	
			2		2	1		816	30001	2	EACH	VIDEO DETECTION SYSTEM, AS PER PLAN	546
			LS		LS			824	00010	LS		SYSTEM ANALYSIS	
									00000		21.	RETAINING WALLS (HAM-75-15.39L MSE WALL)	
					298 1,025			203 203	20000 35110	298 1,025	CY CY	RETAINING WALLS (HAM-75-15.39L MSE WALL)  EMBANKMENT  GRANULAR MATERIAL, TYPE B	

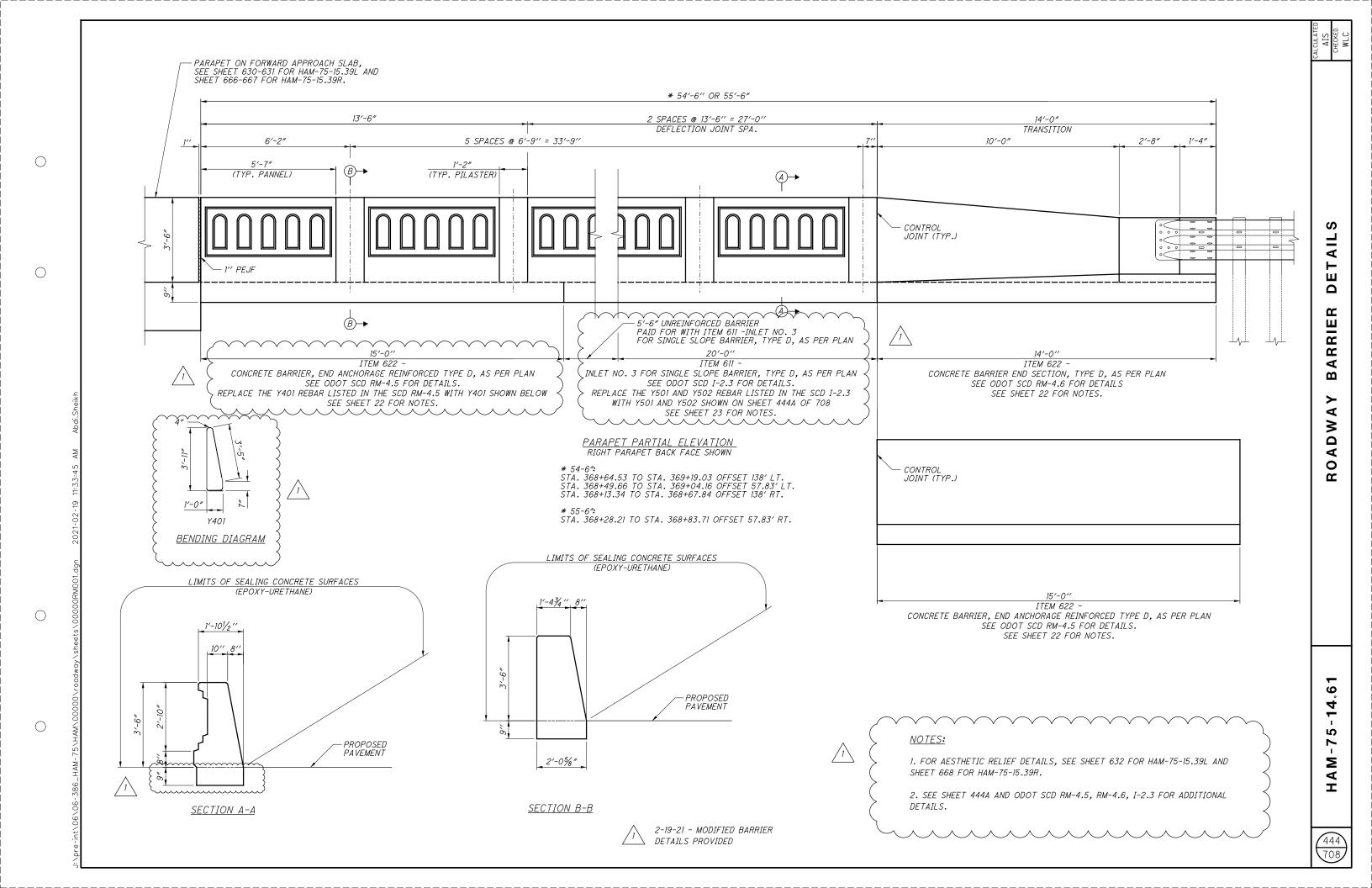
 $\bigcirc$ 

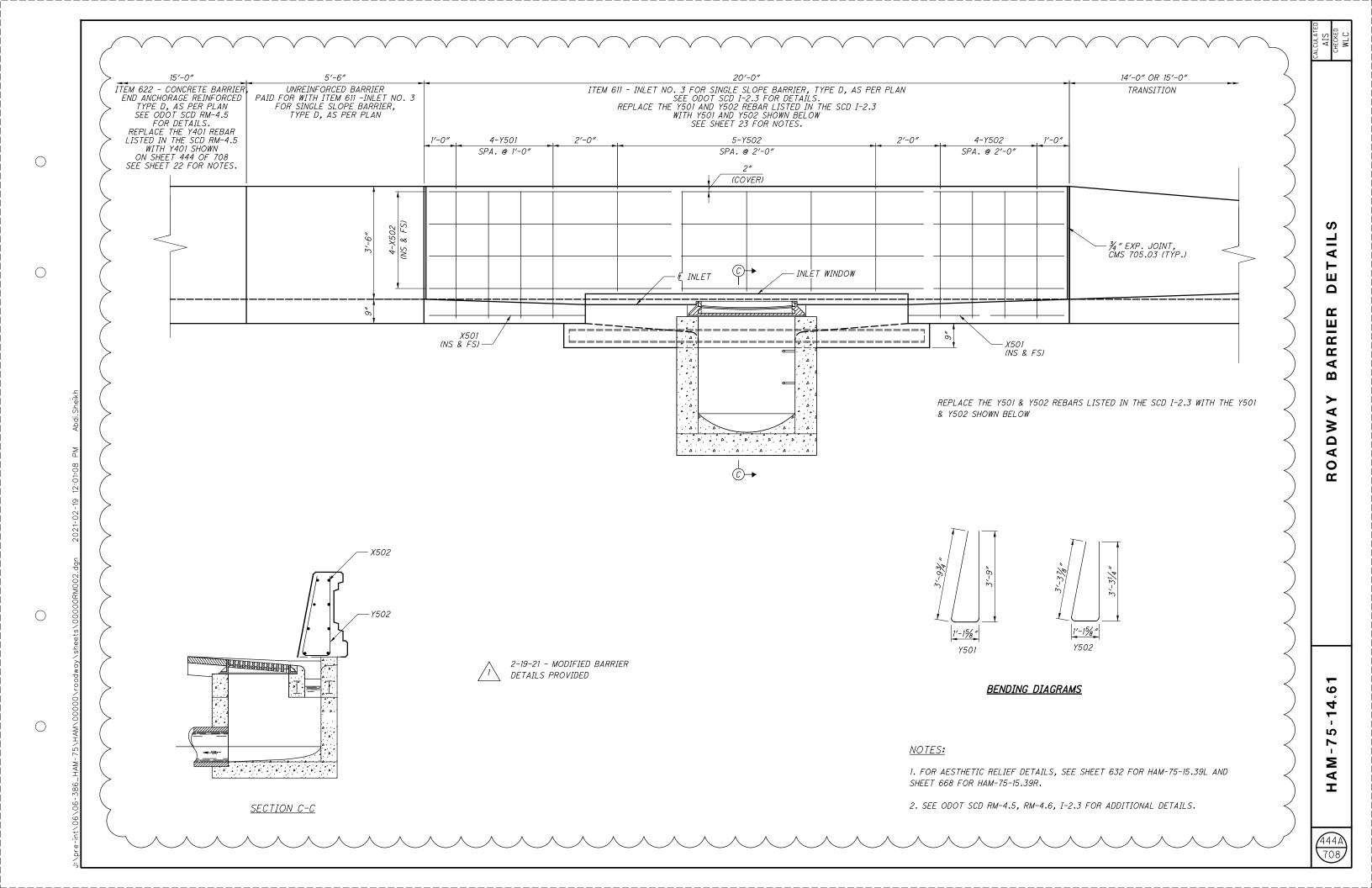
 $\bigcirc$ 

	_	Si	HEET NUM	'· .					PART.			ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET	
25	26	27	28	29	31	48	01/IMS/PV	02/NHS/0 T	03/IMS/0T	04/IMS/BR	05/IMS/BR	II EIVI	EXT	TOTAL	ONI I	DESCRIFTION	NO.	- IV
100								100				410	10000	100	0.4	MAINTENANCE OF TRAFFIC		$\exists$
100			3,000					3,000				410 614	12000 11110	3,000	CY HOUR	TRAFFIC COMPACTED SURFACE, TYPE A OR B  LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE		$\dashv$
			11,680					11,680				614	11630	11,680	FT			$\exists$
			ŕ			(38)	4	(38)				614	12380	(38)	EACH	WORK ZONE IMPACT ATTENUATOR. 24" WIDE HAZARDS. (UNIDIRECTIONAL)		
		20						20				614	12484	20	EACH	WORK ZONE INCREASED PENALTIES SIGN		$\Box$
20								20				614	12500	20	FACIL	SOAD MODES  TO ROW OF SOAD AND TO SOAD AND		4
20 100								20 100				614 614	12500 12600	20 100	EACH EACH	REPLACEMENT SIGN  REPLACEMENT DRUM  WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN  ASPHALT CONCRETE FOR MAINTAINING TRAFFIC  BARRIER REFLECTOR, TYPE 1, ONE-WAY  BARRIER REFLECTOR, TYPE 1, ONE-WAY  BARRIER REFLECTOR, TYPE 2, ONE-WAY  OBJECT MARKER, ONE WAY  OBJECT MARKER, ONE WAY  CAND COMPANY  OBJECT MARKER, ONE WAY  CAND COMPANY  OBJECT MARKER, ONE WAY		$\dashv$
100				12,500				12,500				614	12801	12,500	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	•	$\dashv$
100				,			_	100				614	13000	100	CY	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN  STATE OF MAINTAINING TRAFFIC  SECTION OF THE MAINTAINING TRAFFIC		
			2,720			{ 2,213 }	4	{4,933}				614	13310	{4,933}	EACH	BARRIER REFLECTOR, TYPE 1, ONE-WAY		
																BARRIER REFLECTOR, TYPE 2, ONE-WAY  OBJECT MARKER, ONE WAY  OBJECT MARKER, ONE WAY  WANTAMING TRAFFIC MISS: MAINTENANCE OF MA IOP CHIPE SIGNS  - SO OF THE COLUMN TRAFFIC MISS: MAINTENANCE OF MA IOP CHIPE SIGNS  - SO OF THE COLUMN TRAFFIC MISS: MAINTENANCE OF MA IOP CHIPE SIGNS  - SO OF THE COLUMN TRAFFIC MISS: MAINTENANCE OF MA IOP CHIPE SIGNS  - SO OF THE COLUMN TRAFFIC MISS: MAINTENANCE OF MA IOP CHIPE SIGNS		
			50			(2227)		50 (4,983)				614 614	13312	50 {4,983}	EACH	BARRIER REFLECTOR, TYPE 2, ONE-WAY  OBJECT MARKER, ONE WAY		
			2,770			{ 2,213 }	4	13				614	13350 18000	13	EACH EACH	OBJECT MARKER, ONE WAY  MAINTAINING TRAFFIC, MISC.: MAINTENANCE OF MAJOR GUIDE SIGNS  OBJECT MARKER, ONE WAY  A B C C C C C C C C C C C C C C C C C C	26	_
		LS				,5		LS				614	18002	LS	EAGIT	MAINTAINING TRAFFIC, MISC.: MAINTENANCE OF MAJOR GUIDE SIGNS  MAINTAINING TRAFFIC, MISC.: TEMPORARY TRAFFIC SIGNAL  MAINTAINING TRAFFIC, MISC.: RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE) / 3	27	
,000}								[14,000]				(614	18030	14,000	FT	MAINTAINING TRAFFIC, MISC.: RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE) /3\ \ \\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\	25	_
																07 14 VRSQ V VST V V V V V V V V V V V V V V V V V		
<u>/2\</u>	60			7 75				{				614	18601	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	26	
5				7.75 2		£ 1.34	4	(3.34)				614 614	20011 20100	7.75	MILE MILE	WORK ZONE LANE LINE, CLASS I, 6", SPRAY THERMOPLASTIC, AS PER PLAN WORK ZONE LANE LINE, CLASS I, 4", 642 PAINT	29	_
$\leftarrow$				24.75		15.62	<del>  '</del>	40.37				614	20100	40.37	MILE	WORK ZONE LANE LINE, CLASS I, 4', 642 PAINT	<u> </u>	_
				0.71				0.71				614	20550	0.71		WORK ZONE LANE LINE, CLASS III, 4", 642 PAINT		
				17				17				614	20560	17		WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT		
				2.25		1.25		3.5				614	21100	3.5	MILE	WORK ZONE CENTER LINE, CLASS II, 642 PAINT		
				22.06				22.06				614 614	21550 22011	22.06	MILE MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT WORK ZONE EDGE LINE, CLASS I, 6", SPRAY THERMOPLASTIC, AS PER PLAN	29	
				1.62		1.52		3.14				614	22100	3.14		WORK ZONE EDGE LINE, CLASS I, 4", 642 PAINT	20	_
																		_
				34.8		39.47		74.27				614	22110	74.27	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT		
				0.1				0.1				614	22350	0.1	MILE	WORK ZONE EDGE LINE, CLASS III, 4", 642 PAINT		
				12.74 60,114				12.74 60,114				614 614	22360 23011	12.74	MILE FT	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT WORK ZONE CHANNELIZING LINE, CLASS I, 12", SPRAY THERMOPLASTIC, AS PER PLAN	29	_
				12,042		(5,282)	4	£17,324}				614	23200	{17,324}	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT	25	
														1				_
				78,870		113,522		192,392				614	23210	192,392	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT		
				6,531				6,531				614	23680	6,531	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 8", 642 PAINT		_
				18,756 15,842				18,756 15,842				614 614	23690 24001	18,756 15,842	FT FT	WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT WORK ZONE DOTTED LINE, CLASS I, 6", SPRAY THERMOPLASTIC, AS PER PLAN	29	
				2,093		1,374		3,467				614	24200	3,467	FT	WORK ZONE DOTTED LINE, CLASS I, 4", 642 PAINT	23	
						.,,								1				
				25,547		27,159		52,706				614	24202	52,706	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 642 PAINT		
				620				620				614	24610	620	FT	WORK ZONE DOTTED LINE, CLASS III, 4", 642 PAINT		
				9,705 890		498		9,705 1,388				614 614	24612 26200	9,705 1,388	FT FT	WORK ZONE DOTTED LINE, CLASS III, 6", 642 PAINT  WORK ZONE STOP LINE, CLASS I, 642 PAINT		_
				392		430		392				614	26610	392	FT	WORK ZONE STOP LINE, CLASS II, 642 PAINT		
														1		The state of the s		_
						1,071		1,071				614	27200	1,071	FT	WORK ZONE CROSSWALK LINE, CLASS I, 642 PAINT		
				107		1,112		1,112				614	28200	1,112	FT	WORK ZONE GORE MARKING, CLASS II, 642 PAINT		
				163 86		77		240 86				614 614	30200 30650	240 86		WORK ZONE ARROW, CLASS I, 642 PAINT WORK ZONE ARROW, CLASS III, 642 PAINT	-	_
		2		30				2				614	40051	2	EACH	BUSINESS ENTRANCE SIGN, AS PER PLAN	27	_
												<u> </u>	1.5507	<u> </u>			† <u>- '</u>	_
						LS		LS				615	10000	LS		ROADS FOR MAINTAINING TRAFFIC		
						38,914		38,914				615	20001	38,914	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	25	
.550						505 800		2,550 {105,800}	-			616 622	10000 41100	2,550 {105,800}	MGAL FT	WATER PORTABLE BARRIER, UNANCHORED	-	
						[105,800] 1,528	7	1,528				622	41110	1,528	FT	PORTABLE BARRIER, ANCHORED		_
						6		6				622	41050	6	EACH	PORTABLE BARRIER, "Y" CONNECTOR		_
					162			162				808	18700	162	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY		
																WODELLY O		
							-	10	-			107	05000	10		INCIDENTALS  PREMIUM FOR CONTRACT REDEORMANCE ROND AND FOR RAYMENT ROND	-	_
								LS LS	<del> </del>			103 108	10000	LS LS		PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND  CPM PROGRESS SCHEDULE		_
								LS	_			614	11000	LS		MAINTAINING TRAFFIC		
								(36)	6			619	16021	36	MNTH	FIELD OFFICE, TYPE C, AS PER PLAN	34	
								LS				623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING		_
								LS				<i>623</i>	11000	LS	ı	PROVIDING ELECTRONIC INSTRUMENTATION		

 $\bigcirc$ 

 $\bigcirc$ 





CONSTRUCT THE BIORETENTION CELLS AFTER ALL CONTRIBUTING DRAINAGE AREAS

ARE STABILIZED AS SHOWN ON THE CONTRACT PLANS AND TO THE SATISFACTION

FACILITY DURING EXCAVATION, UNDERDRAIN PLACEMENT, BACKFILLING, PLANTING,

OR MULCHING OF THE FACILITY. USE ALL SUITABLE EXCAVATED MATERIAL IN THE

WORK. ALTERNATIVELY, LEGALLY USE, RECYCLE, OR DISPOSE OF ALL EXCAVATED

EXCAVATE THE BIORETENTION CELLS TO THE DIMENSIONS, SIDE SLOPES, AND

ELEVATIONS SHOWN ON THE CONTRACT PLANS. MINIMIZE THE COMPACTION OF

OF THE ENGINEER. DO NOT USE THE COMPLETED BIORETENTION CELLS AS

OPERATE HEAVY EQUIPMENT WITHIN THE PERIMETER OF A BIORETENTION

TEMPORARY SEDIMENT CONTROL FACILITIES DURING CONSTRUCTION, DO NOT

PH RANGE: 5.2-7.0

MATERIALS ACCORDING TO 105.16 AND 105.17.

COMPOSITION BY VOLUME:

BIORETENTION CELLS

 $\bigcirc$ 

4 PARTS SAND - CMS FINE AGGREGATE AS PER 703

2 PARTS COMPOST - CMS 659.06

2 PARTS TOPSOIL - CMS 659.05

THOROUGHLY MIX THE BIORETENTION SOIL PRIOR TO PLACEMENT. TEST AND ADJUST THE PH AS PER CMS 659.02.B. ALL SAND USED SHALL MEET CMS 203.02.H, NATURAL GRANULAR MATERIALS.

PLACE THE SOIL IN 12 INCH LIFTS AND CONSOLIDATE BY WATERING UNTIL SATURATED.

CONSTRUCT THE UNDERDRAIN SYSTEM AS PER CMS 605. PLACE THE GRANULAR BACKFILL MATERIAL TO THE INVERT OF THE BIORETENTION SOIL. ENSURE A MINIMUM OF 2 INCHES OF GRANULAR COVER OVER THE UNDERDRAIN PRIOR TO PLACEMENT OF THE BIORETENTION SOIL.

PLACE OBSERVATION WELLS (CLEAN-OUTS) WHERE SHOWN IN THE PLANS. CONNECT THE OBSERVATION WELLS TO THE PERFORATED 4" CONDUIT, TYPE C WITH THE APPROPRIATE MANUFACTURED CONNECTIONS. THE OBSERVATION WELLS SHALL EXTEND 4 INCHES ABOVE THE TOP ELEVATION OF THE BIORETENTION FACILITY MULCH. CAP THE OBSERVATION WELLS WITH A THREADED SCREW CAP. CAP THE ENDS OF 4" CONDUIT, TYPE C NOT TERMINATING IN AN OBSERVATION WELL OR CONNECTED TO OTHER CONDUITS/STRUCTURES. MANUFACTURED CONNECTIONS AND CAPS ARE INCLUDED IN THE COST OF THE 4" CONDUIT, TYPE C.

PLACE SEED AS SPECIFIED IN THE BIORENTETION CELL SEEDING NOTE ON THIS SHEET.

BIORETENTION CELLS WILL BE PAID FOR AS ITEM 601-BIORETENTION CELLS BY THE CUBIC YARD, COMPLETED AND ACCEPTED IN PLACE ACCORDING TO THE DIMENSIONS SHOWN ON THE PLANS. THE PAYMENT WILL BE FULL COMPENSATION FOR ALL APPLICABLE INCIDENTALS NECESSARY TO SATISFACTORILY COMPLETE THE WORK, UNLESS ITEMIZED ON THE BIORETENTION CELL NOTES AND DETAIL SHEETS.

#### BIORETENTION CELL SEEDING

THE CONTRACTOR SHALL APPLY SEED TO THE BIORETENTION CELL AREAS ACCORDING TO THE SEED MIX SPECIFIED IN THE PLANS. ENSURE THAT THE BIORETENTION CELL AREAS ARE NOT COMPACTED, OR RAKE LIGHTLY TO LOOSEN BED AREA PRIOR TO SEED APPLICATION.

THOROUGHLY MIX ALL SEED, AND EVENLY SOW THE SEED OVER THE PREPARED AREAS AT THE REQUIRED RATES. DO NOT SOW SEED DURING HIGH WINDS. BROADCAST SEED DIRECTLY TO BIORETENTION CELL AREA; DO NOT APPLY USING HYDRO SEEDING METHODS. BIORETENTION CELL SEEDING SHALL BE COMPLETED BETWEEN MARCH 15 AND MAY 31 OR BETWEEN AUGUST 15 AND NOVEMBER 15.

BIORETENTION NATIVE GRASS SEED MIX: APPLY AT A RATE OF 70 LB/ACRE 32% LITTLE BLUESTEM (SCHIZACHYRIUM SCOPARIUM) 6% SIDEOATS GRAMA GRASS (BOUTELOUA CURTIPENDULA) 6% PRAIRIE DROPSEED (SPOROBOLUS HETEROLEPIS) 28% GRAIN OATS (AVENA SATIVA) 28% GRAIN RYE (SECALE CEREAL) DO NOT ROLL OR COMPACT THE SEEDED AREA WITH EQUIPMENT AFTER BROADCASTING. THOROUGHLY WATER ALL SEEDED AREAS TO HELP INCORPORATE THE SEED. DO NOT APPLY LIME OR FERTILIZER TO THE BIORETENTION CELL

WITHIN 48 HOURS OF APPLYING SEED TO BIORETENTION AREAS, CONSTRUCT EROSION CONTROL MAT TYPES A PER CMS 671 OVER THE SURFACE OF ALL BIORETENTION CELLS. PLACE EROSION CONTROL MATS SUCH THAT THEY EXTEND A MINIMUM OF 1 FOOT OUTSIDE THE PERIMETER OF THE BIORETENTION CELLS ON ALL SIDES TO ENABLE THE MATS TO BE SECURED TO THE SOIL OUTSIDE OF THE BIORETENTION CELLS THOROUGHLY WATER THE BIORETENTION CELL AREAS AFTER INSTALLATION OF EROSION CONTROL MAT.

CONTRACTOR SHALL WATER ONE INCH PER WEEK FOR THE FIRST SIX TO EIGHT WEEKS KEEPING THE SEEDED AREA MOIST UNTIL ESTABLISHMENT. NO SEPARATE PAYMENTS WILL BE MADE.

ALL LABOR, MATERIAL, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED WITHIN THE UNIT PRICE BID ITEM.

3350 SY

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM 659 SEEDING, MISC.: BIORETENTION CELLS

ITEM 203-EXCAVATION, AS PER PLAN

IN ADDITION TO THE REQUIREMENT OF ITEM 203-EXCAVATION, PERFORM EXCAVATION TO THE LINES AND GRADES REQUIRED FOR INSTALLATION OF THE BIORETENTION CELLS. BASED ON THE EXISTING BORING INFORMATION, WEATHERED SAND UNWEATHERED INTERBEDDED SHALE AND LIMESTONE BEDROCK IS EXPECTED WHEN EXCAVATING FOR THE BIORETENTION CELLS, ESPECIALLY FROM STA 332+00 TO 353+00. BEDROCK ELEVATION AND DIFFICULTY TO REMOVE MAY VARY ALONG THE PROJECT LENGTH AND WITH DEPTH. ALL EXCAVATION FOR THE BIORETENTION CELLS IS UNCLASSIFIED AND ADDITIONAL COMPENSATION WILL NOT BE CONSIDERED FOR BEDROCK REMOVAL. ALL LABOR, EQUIPMENT, AND MATERIALS REQUIRED TO EXCAVATE FOR THE BIORETENTION CELLS IS INCLUDED WITHIN THE (UNIT PRICE OF ITEM 203-EXCAVATION, AS PER PLAN.

\_\_\_\_\_

·//·/

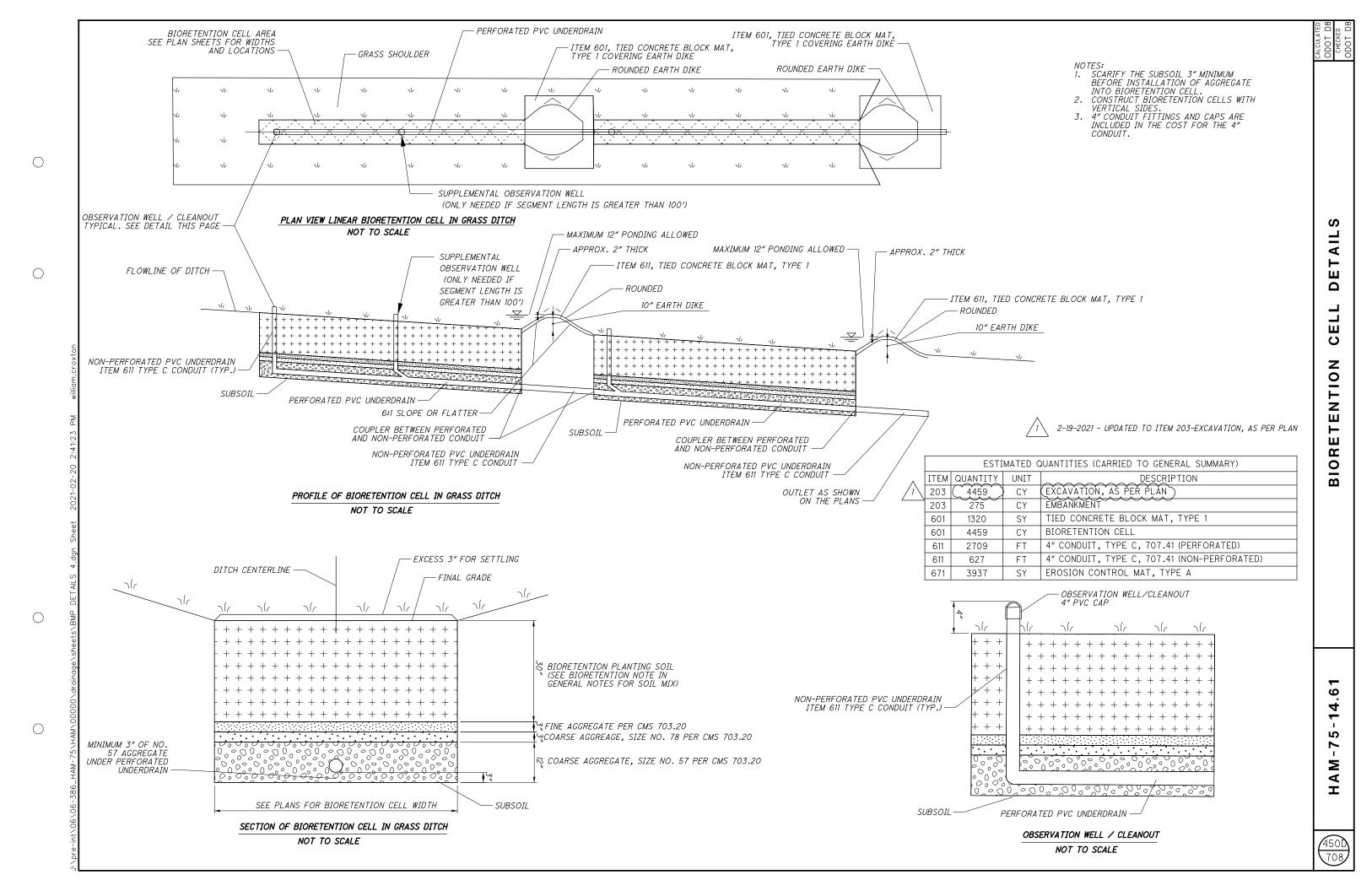
Ш  $\vdash$ 0 Z Ш C

S

10 Z Ш ш  $\mathbf{\alpha}$ 0  $\mathbf{\omega}$ 

4 S / Σ ⋖ I





		∴ 2-19-2021 - ADDED IV	TEM 642 ITEMS (4.	1),		621	$\Box$	_	642		1		- 1					$\epsilon$	644		- 1	-		-					646		$\overline{}$		TFD
	.	UPDATED ITEM 644 I DELETED ITEM 644 IV DELETED ITEM 646 IV	TFMS (2).			MARKER	-	_	1	,	Ē 1	\	ا ا	(M			8" 8			747			ING,		ніте)						(31		rcnr,
	N 0	DELETED ITEM 646 I	TEMS (3)			1AR	() ₩	TYPE	TYPE	1 .	TYPE	(WHITE)	(WHITE)	(YELLOW)	,				Æ	DIAGONAL LOW)	9N.	9/	MARKI		LIHM	MEN		Æ		MO	(WHI)		CA
8						\ \triangle \tri	, i ke			L INE			(W)	(YEI	., 4″	JNI 7	LINE,	JNI7	JNI7	DIAC	MARKING	MARKING		ARROW	4" (	A VE	7INE	TINE	ARROW	ARR	4" (1		
_	JW.	LOCATION	STAT	TION	SIDE	RPM /EME/	LINE, 6", (WHITE)	,9	, 6",	1 3 <sub>d</sub>	LINE, 6' (WHITE)	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	, 6	,9	LINE,	T		17 ,	ALK	E/ I	/W /	MAH	SYMBOL 120"	ARF		F PA KING	17 .	ALK	ARF	WAY			- 1
SHEET	RE	LOCATION			JIDL	RPI 'A VEM	₹ } } } }	LINE, 6"	LINE,	VIZI 7YF	NI7	INE,	LINE,	LINE,	7 JN	CENTER	721	STOP	NSS	ERSI E ()	ROA	AND	SYM.	ANE	LINE,	MAF	STOP	SSIN	LANE		TINE		- 1
<i>FS</i>	REFERENCE					1 4	, E L.	E L.	Ę 7.	INE	QЭ.	$^{\prime}$	7 3:	17 :	LANE	CE	NNE	Ι ς	CROSSWALK	NI7	CHEVRON	1251	700	77	LED	MOVAL OF MARKI	S	CROSSWALK	7	SONG	TTED		- 1
	RE					RAISED	EDGE	EDGE	LANE	СНАЛ	DOTTED	EDGE	EDGE	EDGE			CHANNEL IZING			TRANSVERSE/ L LINE (YELL	Ö		SCHO		роттер	REMC		<sup>3</sup>		WR			- 1
						Ř					0	K I											SC								a		
0.507	- FV 1	1 75 MATH INC CD	FROM	<i>TO</i>	1.7.07	EACH EAG	CH MILE		MILE	FT	FT	MILE	MILE	MILE	MILE	MILE	FT F	FT	FT	FT	FΤ	SF	EACH	EACH	FT	MILE	FT	FT	EACH	EACH	FT		4
	EY-1 EY-2	I-75 MAINLINE SB I-75 MAINLINE NB	198+50 213+75	444+25 429+80	LT/RT LT/RT			4.47																									$\dashv$
	DW-1	I-75 MAINLINE SB	198+50	208+50	RT			7.00			1000															0.19			$\rightarrow$		-+		$\exists$
6-507	LL-1	I-75 MAINLINE SB	208+50	444+25	LT/RT	189			4.28																	1.68							
	LL-2	I-75 MAINLINE NB	215+00	406+00	LT/RT	160			3.62																	1.85							$\exists$
	LL-3	I-75 MAINLINE	306+85	444+25	LT	115		-	2.60 2.33									-											$\rightarrow$				4
	LL-4 LL-5	I-75 MAINLINE RAMP B	306+85 309+85	429+79 314+00	LT LT	103 6			0.08																								$\dashv$
	CH-1	RAMP B	309+85	318+14	LT	22			0.00	829																			$\rightarrow$				$\exists$
497	CH-2	I-75 MAINLINE	310+60	318+14	LT	20				754																							
	EW-1	I-75 MAINLINE	309+85	426+60	LT		2.21																						$\Box$		T		$\dashv$
	CV-1	I-75 MAINLINE I-75 MAINLINE	311+50 311+54	318+14	LT	00			2 24										1		370							-+	$\longrightarrow$				$\dashv$
	LL-6 LL-7	I-75 MAINLINE I-75 MAINLINE	311+54 311+54	429+80 429+80	RT RT	99 99	-		2.24		1								1	$\vdash$									$\rightarrow$				$\dashv$
	CH-3	I-75 MAINLINE	314+00	323+00	LT	24			/	900		1						1	1								- 1		$\rightarrow$	+			$\dashv$
7-507 i	EW-2	I-75 MAINLINE	315+00	429+80	RT		2.17																										╛
	CH-4	I-75 MAINLINE	315+46	329+34	RT	170				1388									1														$\dashv$
	CH-5 DW-2	RAMP DR I-75 MAINLINE	315+46 323+00	329+34 334+00	RT LT	36				1388	1100								1	$\vdash$									$\rightarrow$				$\dashv$
	DW-3	I-75 MAINLINE	329+34	347+47	RT						1813								1							-+	-+	-+	$\rightarrow$				$\dashv$
	CH-6	I-75 MAINLINE	334+00	352+57	LT					1857																	_ †						$\exists$
	CH-7	RAMP A	334+00	352+30	RT	47				1830																							$\exists$
	CH-8	RAMP G	347+47	356+71	LT	25		0.00		924																			$\longrightarrow$				_
	EY-3 EW-3	RAMP A RAMP A	352+30 352+30	367+42 367+31	RT LT	19	0.28	0.29																									$\dashv$
	LL-8	RAMP A	353+39	366+86	RT	17	0.20		0.26																1				$\rightarrow$		-+		$\dashv$
	SL-1	RAMP A	353	3+39	RT																						24						
	CH-9	I-75 MAINLINE	352+90	356+54	RT	11				364																							4
	CH-10 CV-2	RAMP G RAMP G	352+90 352+90	356+71 356+71	LT LT	11				381									-		165								$\rightarrow$	+			$\dashv$
	EY-4	RAMP G	356+71	366+73	LT	18		0.19													100					+		+	$\overline{}$				$\dashv$
	EW-4	RAMP G	356+71	366+62	RT	18	0.19																										目
	LL-9	RAMP G	356+71	362+70	LT	9			0.11																								$\Box$
	A-56	RAMP G		1+50	LT	10.		0.00																					$\longrightarrow$	2			4
	EY-5 EW-5	RAMP C RAMP C	368+45 356+84	380+22 380+22	RT LT	21 21	0.44	0.22																	-+	-	-	-	$\rightarrow$	-	-+		$\dashv$
	LL-10	RAMP C	371+30	380+22	RT	14	0.44		0.17																						-+		$\dashv$
02-511	EY-6	RAMP E	366+96	376+29	LT	12		0.18																									╛
	EW-6	RAMP E	367+08	376+29	RT		0.17																										_]
	LL-11 SL-2	RAMP E RAMP E	367+50 374	374+19 4+19	LT LT	9			0.13										1								24		$\longrightarrow$				$\dashv$
	CH-11	RAMP E	376+29	394+50	LT	47				1821									1						-+	-+	27	-+	$\rightarrow$				$\dashv$
2-504 (	CH-12	I-75 MAINLINE	376+28	394+50	RT					1822																	†						$\exists$
	CH-13	RAMP C	380+22	390+00	RT	26				978																							寸
	CH-14	RAMP C	380+22	385+02	RT	13	_			480									1														$\dashv$
	CH-15 CV-3	I-75 MAINLINE RAMP C	380+22 380+22	385+02 385+02	LT RT	13				480								-	1		205							+	-+	+			$\dashv$
	DW-4	I-75 MAINLINE	390+00	419+42	LT						2942								1							-+		-+	$\rightarrow$				$\dashv$
4-505 l	DW-5	I-75 MAINLINE	394+50	409+00	RT						1450																						$\Box$
	DW-6	I-75 MAINLINE	406+00	420+00	RT						1400									$\coprod$													$\dashv$
	CH-16 CH-17	RAMP D I-75 MAINLINE	409+00 413+68	417+46 417+48	LT RT	23			-	846 380									1								-+		$\longrightarrow$				$\dashv$
	CH-17 CH-18	RAMP D	413+68	417+48	LT	11				378								+	1	$\vdash$							+	+	$\rightarrow$	+			$\dashv$
	CV-4	RAMP D	413+68	417+46	LT					1									1		147								$\neg \uparrow$				$\exists$
	EY-7	RAMP D	417+46	422+50	LT	7		0.10																									╛
	EW-7	RAMP D	417+46	422+50	CL	<u> </u>	0.10													$\sqcup \sqcup$													$\dashv$
	LL-12 CH-19	RAMP D I-75 MAINLINE	417+46 419+42	422+50 426+60	LT LT	7 19			0.10	710									1								-+		$\longrightarrow$				$\dashv$
	CH-19 CH-20	I-75 MAINLINE	419+42	426+60	LT	13				718 718									1										$\rightarrow$				$\dashv$
				125 35			$\perp$																										_}
			-				' <b>\</b>	$\frac{1}{2}$	$\overline{\sim}$		<u></u>		$\sim$	$\sim$															$\Box$				_]
		TOTALS CARRIED	TO CUEET 40			1302 0	5.57	9.53	18.14	I	1	0.00		0.00	L I	0.00	1 o 8 o	R o	0	0	887	0	0	0		3.72		- 1				1	- 1

 $\bigcirc$ 

 $\bigcirc$ 

		↑ 2-19-2021 - 4DDED 117	TEM 642 ITEMS (4)		62	21	$\sim$	<u> </u>	642	71	$\sim$								. 64	44										646				9 (
SHEET NO.	REFERENCE NO.	2-19-2021 - ADDED IN UPDATED ITEM 644 IN DELETED ITEM 644 IN DELETED ITEM 646 IN LOCATION	TEMS (2), TEMS (2), TEMS (3)  STATION	SIDE	RPM	RAISED PAVEMENT MARKER REMOVED	EDGE LINE, 6", TYPE 1 (WHITE)	EDGE LINE, 6", TYPE 1 (YELLOW)	7	CHANNELIZING LINE, 12", TYPE 1	DOTTED LINE, 6", TYPE 1 (WHITE)	EDGE LINE, 4" (WHITE)	EDGE LINE, 6" (WHITE)	EDGE LINE, 6" (YELLOW)	LANE LINE, 4"	CENTER LINE	CHANNELIZING LINE, 8"	CHANNELIZING LINE, 12"	STOP LINE	CROSSWALK LINE	TRANSVERSE/ DIAGONAL LINE (YELLOW)	CHEVRON MARKING	ISLAND MARKING	SCHOOL SYMBOL MARKING, 120″	LANE ARROW	DOTTED LINE, 4" (WHITE)	REMOVAL OF PAVEMENT MARKING	STOP LINE	CROSSWALK LINE	LANE ARROW	WRONG WAY ARROW	DOTTED LINE, 4" (WHITE)		CALCULAT
		-	FROM TO		EACH			MĪLE	MILE	FT	FT	) )MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	FT	SF	EACH	EACH	FT	MĪLE	FT	FT	EACH	EACH	FT		_
507	EY-8	I-275 RAMP A	426+60 433+20	LT	10		$\sim$	$\sim$	<del></del>		$\sim$			0.14																				]
507 507	EW-8 CH-21	I-275 RAMP A I-75 MAINLINE	426+60 433+20 429+79 435+60	LT LT	16								0.14					581															-	-
507	CH-22	I-75 MAINLINE	429+79 435+60	LT	10													581																╛╭
507	EY-9	I-275 WB TO I-75 SB RAMP	435+60 439+50	LT	5								0.05	0.07																				_ C
507 508	EW-9 XW-1	I-275 WB TO I-75 SB RAMP RAMP C	435+60     438+48       368+35     368+45	LT/RT									0.05																175					<b>⊢</b> ⊴
508	SL-3	RAMP C	368+50	LT/RT																								67	110					<b>∮</b> ⋝
508	CH-23	RAMP C	368+50 368+79	LT	2					30																								E
508	CH-24	RAMP C	368+50 371+30 368+50 371+30	CL	7					280 280																							-	่⊣ ร
508 508	CH-25 CH-26	RAMP C RAMP C	368+50 371+30 368+50 371+30	RT RT	7				+	280																								<b>⊣ m</b>
508	A-1	RAMP C	368+60	LT/RT	<u> </u>																									4				<b>∣</b> ⊃
508	A-2	RAMP C		LT/RT																										4				၂ ဟ
508	A-3	RAMP C		LT/RT																										4				┤╭╸
508 508	A-4 A-55	RAMP C RAMP C	371+20 372+50	LT/RT RT																										4	2			ე
510	CH-27	RAMP G	362+70 366+50	CL	9					380																								<u>Z</u>
510	CH-28	RAMP G	362+70 366+50	LT	9					380																								<b> </b> ×
510	A-5	RAMP G	362+80	LT/RT																										3				A
510 510	A-6 A-7	RAMP G RAMP G		LT/RT LT/RT																										3			-	d ≥
510	A-8	RAMP G	365+74	LT/RT																										3			-	<b>┤</b> ¯
510	A-9	RAMP G	366+40	LT/RT																										3				<b>」⊢</b>
510	SL-4	RAMP G	366+50	LT/RT																								54	L					Z
511 512	XW-2 EW-10	RAMP E SHARON RD	367+23 367+42 2+30 7+33	LT/RT RT								0.10																	90					┦╫
512-517	CL-1	SHARON RD	2+76 28+00	LT/RT	33							0.10				0.48																		
512	CL-8	SHARON RD	2+76 4+40	LT	4											0.03																		5
512	TY-6	SHARON RD	2+76 4+40	LT	_																60													<b> </b>
512 512	CH-47 A-50	SHARON RD SHARON RD	2+85 3+65 2+95	LT LT	3												80								1								_	⊣ ଦ
512	A-51	SHARON RD	3+52	LT																					1									1
512	A-52	SHARON RD	4+80	RT																					1									]
512	A-53	SHARON RD	6+37	RT																					1								_	4
512 512-513	A-54 CH-29	SHARON RD SHARON RD	7+03 4+60 7+80	RT CL	9												320								1									-
513	A-55	SHARON RD	7+70	LT	Ů												020								1									1
513	SL-5	SHARON RD	7+80	LT/RT															27															]
513 517	XW-3	SHARON RD	7+88 8+00	LT/RT																120														4
513 513	XW-8 SL-16	SHARON RD SHARON RD	8+97 9+07 9+15	LT/RT LT					+										48	156														1
513-517	LL-13	SHARON RD	9+15 28+00	RT	24										0.36																			
513-514	CH-31	SHARON RD	9+15 14+45	LT	15												530																	$\bot$
513-514 513-514	CH-32 CH-33	SHARON RD SHARON RD	9+15 14+65 9+15 14+65	LT LT	15 15												550 550																-	-
513-314	A-10	SHARON RD	9+25	LT	15				+								330								4		$\vdash$							<b>┤ ←</b>
513	A-11	SHARON RD	9+91	LT																					4									၂ ဖ
513	A-12	SHARON RD	10+57	LT	L ]				$\Box$																4									4
513-514 513	CH-30 A-13	SHARON RD SHARON RD	10+70 16+00 10+78	RT RT	15				+								530								1								-	<b>┤</b>
513-514	CL-2	SHARON RD	11+25 16+00	LT	7				+							0.09									'									7.
513-514	TY-1	SHARON RD	11+25 16+00	LT/RT												-					213													<b> </b>
513-514	CH-34	SHARON RD	11+45 16+00	RT	13												455																	Σ
513 513	A-14 A-15	SHARON RD SHARON RD	11+70 12+50	RT RT					+																2 2								-	<b>⊢</b> ⊴
513	A-15 A-16	SHARON RD	12+50	LT					$\overline{}$																4									<b>∤</b> ∓
									$\Box$																									<u></u>
												$\wedge$		_			$\wedge$	<u> </u>									$\vdash$	-			$\vdash$		+	1/10
	ļ	TOTALS CARRIED 7	TO SUEET 101		225	0 \$	$\sim$	$\sim$	0.00	$\sim$	$\sim$	(	$\sim$	$\sim$	0.36		(	1162	75	276	273	0	0	0	27	_		<u> </u>	<b>t</b>		<u> </u>	0	1	482
									0 00 1	1630	0	0.10 \	0 20	(1) (2)	117) 74	0.60	3015 >	11167	V /L				//		0/	0	0.00	121	265	31	l 2 l	()		

 $\bigcirc$ 

 $\bigcirc$ 

	I	↑ 2-19-2021 - ADDED I	TEM 642 ITEMS (4)		62		·	$\sim$	642	<del>//</del>	$\sim$								64	14										646				ر ا
		UPDATED ITEM 644 I DELETED ITEM 644 I DELETED ITEM 646 I	TFMS (2)			MARKER		1 3.	1 3	12",	TYPE 1	(F)	<i>TE)</i>	(MO			.8″	15"			)NAL	g	_	MARKING,		(WHITE)	ENT				MO.	HTE)		CALCULAT BSS CHECKEI
NO.	SE NO		STATION			L ~ \	i", TYPE E)	, TYPE JW)	6", TYPE	LINE, 1	. •	4" (WHITE)	6" (WHITE)	" (YELL	E, 4"	TINE	, LINE,	. LINE,	TINE	K LINE	DIAGO	MARKING	MARKING	L MAR	ARROW	4″	PA VEM ING	INE	K LINE	ARROW	ARR	4" (WHI		
SHEET	REFERENCE	LOCATION	STATION	SIDE	RPM	PA VEMEN REMOVE	LINE, 6", (WHITE)	LINE, 6", (YELLOW)	NE,	IZING	LINE, 6° (WHITE)	LINE, '	LINE, 6	LINE, 6″	ANE LINE,	CENTER	T. IZING	7 IZING	STOP L	CROSSWALK	ERSE/ IE (YEL		AND MA	SYMBOL 120"	ANE AF	LINE,	OF 4RK.	STOP L	CROSSWALK	LANE AF	G WAY	LINE,		
18	REFE					RAISED F	EDGE L	EDGE L		CHANNEL	DOTTED	EDGE 1	EDGE 1	EDGE LI	74	CE	CHANNELIZING	CHANNEL IZING	0)	CRO	RANSV LIN	CHEVRON	IST'	ТООНЭЅ	/7	DOTTED	REMOVAL M.	"	CRO	7	WRONG	роттер		
			FROM TO		EACH	(				G FT	O FT	5			MILE	MUL	FT	FT	FT	FT	FT	ГТ	SF	SS EACH	FACIL			FT	FT	FACIL	FACU	FT		
514	SS-1	SHARON RD	14+00	LT	EACH	EACH				<del></del>	<del>///</del>	) MILE	MILE	MILE	IVIILE	WILE	FI	FI	F 1	<i>F1</i>	FI	FI	SF	1	EAUT	ГІ	MILE	F1	+	EACH	EACH	FI		1
514	CH-35	SHARON RD	14+25 16+00	RT	6												175												1					]
514 514	A-17 A-18	SHARON RD SHARON RD	14+25 14+35	RT LT																					3 4				+					┨
514-517	LL-14	SHARON RD	14+65 28+00	LT	17										0.25										7				<del>+</del>					ן ≿
514	A-19	SHARON RD	15+24	RT																					3									₹
514	A-20	SHARON RD	15+90	RT															0.7						3				<del> </del>		<u> </u>			Σ
514 514	SL-6 IY-1	SHARON RD SHARON RD	16+00 16+00 16+11	RT LT															63				190						+					<b>∣</b> ∑
514	DW-7	SHARON RD	16+00 16+72	RT																			700						+			96		<b>∣</b> ⊃
514	DW-8	SHARON RD	16+60 17+00	LT/RT																						70			$\prod$			63		ျှော်
514 514	DW-9	SHARON RD	16+65 17+10	LT/RT															70							105			+		-	$\vdash$		l B
514 514-516	SL-7 CH-36	SHARON RD SHARON RD	17+00 17+00 22+10	LT LT	14	+		+	-+								510		36										+	-	-		-	ี่ ∣ร
514-515	CH-37	SHARON RD	17+00 18+30	LT	5												130																	1
514-515	LL-15	SHARON RD	17+10 17+90	RT	1										0.02																			] ტ
514	A-21	SHARON RD SHARON RD	17+10	LT LT				-											12						1				+		-			∣Z
514 514	SL-8 A-22	SHARON RD	17+25 17+35	LT															12						1				+					<b>                                     </b>
\$ 515	A-23	SHARON RD	17+76	LT																					1				<del></del>		1			۳
S 515-516	CH-38	SHARON RD	17+90 23+25	RT	15												535																	≰
515 515	A-24	SHARON RD	18+01	LT																					1				₩		<u> </u>			Σ
515 515	A-25 CL-3	SHARON RD SHARON RD	18+28 18+50 19+50	RT LT	3											0.02									1				+					<b>┤</b> ⊢
515	TY-2	SHARON RD	18+50 19+50	LT												0.02					60								t					ż
<u>515</u>	A-26	SHARON RD	18+94	RT																					1									ш
∞ 515 515-516	A-27 CH-39	SHARON RD SHARON RD	19+00 19+70 23+00	LT RT	10												330								1				+		-			Σ
515-516 515	A-28	SHARON RD	20+26	RT	10												330								2				+-		<u> </u>			┨
<u>515</u>	A-29	SHARON RD	20+35	LT																					1									<b>~</b>
515	A-30	SHARON RD	21+58	RT																					2						<u> </u>			∡ ا
515 516	A-31 A-32	SHARON RD SHARON RD	21+85 22+24	LT RT																					2				+					-
516-517	CL-4	SHARON RD	22+30 28+00	LT	9											0.11													<del>+</del>					1
± 516	TY-3	SHARON RD	22+30 23+00	LT																	54													1
ර් 516	A-33	SHARON RD	22+90	RT															0.4						2				<del></del>		<u> </u>			-
516 5. 516	SL-9 IY-2	SHARON RD SHARON RD	23+00 23+00 23+06	LT/RT LT															24				66						+		<u> </u>			-
516	DW-10	SHARON RD	23+00 23+76	LT/RT																						114			t			22		1
516	DW-11	SHARON RD	23+00 23+44	LT																						82			1			30		]
516 516	SL-10 DW-12	SHARON RD SHARON RD	23+25 23+44 24+00	RT LT			-+												24									-	+	-	-	65		-
516 516	IY-3	SHARON RD	23+84 24+00	LT/RT				-+	-+														384						+-		$\vdash$	"		1
± 516	SL-11	SHARON RD	24+00	LT															51															1
/ — —	CH-40	SHARON RD	24+00 25+55	LT	5												155												<del>                                     </del>					-
516-517 516-517	CH-41 TY-4	SHARON RD SHARON RD	24+00 26+05 24+00 28+00	LT LT	'	+	+	+									205				268								+	-	-		-	<b> </b>
516	A-34	SHARON RD	24+10	LT					-+												200				2				+-		1			ين ∣
	CH-42	SHARON RD	24+75 28+00	RT	10												325												$\perp$					4
S 516	A-35	SHARON RD SHARON RD	24+76	LT RT				$\dashv$																	2				+		-		_	<b>↓ ∵</b>
516 516	A-36 A-37	SHARON RD SHARON RD	25+00 25+42	LT			+	+																	1 2				+		+	<del>                                     </del>		- থ
516	A-38	SHARON RD	25+90	LT																					1									<u></u> '-
± 517	A-39	SHARON RD	26+58	RT																					1				<u> </u>					Σ
517 517	A-40 A-41	SHARON RD SHARON RD	27+24 27+90	RT RT				+																	1				+		-			∣
517	SL-12	SHARON RD	28+00	RT				+											36										+-		<u> </u>			<b>∤</b> ≖
9 517	XW-4	SHARON RD	28+33 28+50	LT																22														1
9 517	XW-5	SHARON RD	28+94 29+04	LT/RT																46									+		-			<u></u>
<u> </u>												$\wedge$		0.5			$\wedge$												+	-	<u> </u>	+		483
ن ا	!	TOTALS CARRIED	TO CUEET 404		102	<del></del>	· · · ·	$\stackrel{\sim}{\longrightarrow}$	×	<u>~~</u>	$\sim$	(	$\sim$	$\sim$	L		<del></del>	$\sim$	246		382							<b>†</b>	_	<del>                                     </del>	<del>                                     </del>	<del>                                     </del>		708
Į.			1() \HEE   2/8/1		102	$\kappa$	0.00	0.00	0.00	0	0	K00.0(	0.00	() ()()	I) <i>(</i> ) 27 •	0.13	2365	0	V 746	68	422	0	640	7 1	41	371	0.00	0	1 0	0	0	276		

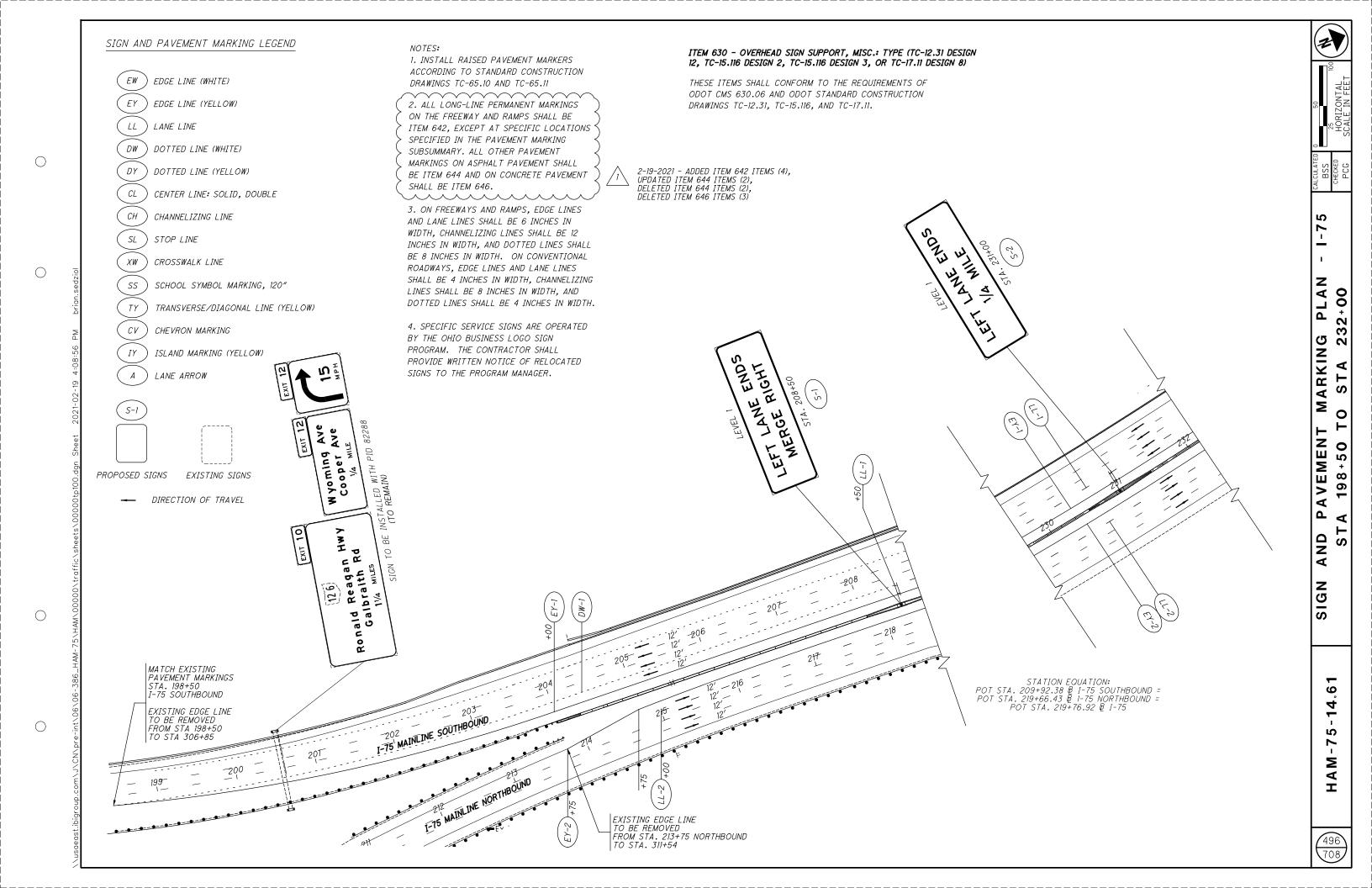
 $\bigcirc$ 

 $\bigcirc$ 

			TEM 642 ITEMS (4.			$\epsilon$	521			642			<u> </u>			1			644	1					1				646			
SHEET NO.	REFERENCE NO.	2-19-2021 - ADDED I UPDATED ITEM 644 I DELETED ITEM 646 I DELETED ITEM 646 I		TION	SIDE	RPM	RAISED PAVEMENT MARKER REMOVED	EDGE LINE, 6", TYPE 1 (WHITE)	EDGE LINE, 6", TYPE 1 (YELLOW)	LANE LINE, 6", TYPE I	CHANNELIZING LINE, 12", TYPE 1	DOTTED LINE, 6", TYPE 1 (WHITE)	EDGE LINE, 4" (WHITE)	EDGE LINE, 6" (WHITE)	EDGE LINE, 6" (YELLOW)	LANE LINE, 4"	CENTER LINE	CHANNELIZING LINE, 8" CHANNELIZING LINE, 12"	STOP LINE	CROSSWALK LINE	TRANSVERSEZ DIAGONAL LINE (YELLOW)	2	ISLAND MARKING SCHOOL SYMBOL MARKING,	IZO: LANE ARROW	DOTTED LINE, 4" (WHITE)	REMOVAL OF PAVEMENT MARKING	STOP LINE	CROSSWALK LINE	LANE ARROW	WRONG WAY ARROW	DOTTED LINE, 4" (WHITE)	
			FROM	TO		EACH	EACH (	MILE	MILE	MILE	FT	FT	) )MILE	MILE	MILE	MILE	MĪLE	FT FT	FT	FT	FT F	Т .	SF EAC	H EACH	f FT	MĪLE	FT	FT	EACH	EACH	FT	
518	CL-5	CHESTER RD	94+10	99+30	LT	8			$\overline{\mathcal{M}}$			$\sim$					0.10															
518	CL-6	CHESTER RD	94+94	99+30	LT	7											0.08															
518	TY-5	CHESTER RD	94+94	99+30	LT	<b>—</b>												252			80											
518	CH-43	CHESTER RD	96+95	99+47	CL	8												252						-								
518	A-42	CHESTER RD		7+10	RT																			1	-							
518	A-43	CHESTER RD		+93	RT													0.7							-							
518	CH-44	CHESTER RD	98+50	99+47	LT	4												97						-								
518	A-44	CHESTER RD		2+61	LT/RT																			3				_				
518	A-45	CHESTER RD		1+17	LT/RT														10					3								
518	SL-13	CHESTER RD		+30	LT														10						110							
518	DW-13	CHESTER RD	99+30	100+55	LT														05						116							
518	SL-14	CHESTER RD		+47	LT/RT	1	1		$\vdash$										25	120		-		-	1	$\vdash$	-	-			$\vdash$	
518	XW-6	CHESTER RD	99+52	99+62	LT/RT	1	1		$\vdash$										$\vdash$	126		$ \vdash$			- 00		-	-		$\vdash$	$\vdash$	
519	DW-14	CHESTER RD	99+86	100+53	LT/RT	1	1								-				$\vdash$		-+			-	98		-	-			$\vdash$	
519	DW-15	CHESTER RD	100+34	100+53	RT	1	1								ļ				$\vdash$	100					35		-	1			$\vdash$	
519	XW-7	CHESTER RD	100+55	100+65	LT/RT	1	1												70	160											-	
519	SL-15	CHESTER RD		105,45	LT/RT	1 -	1		$\vdash$								0.00		36									-			$\vdash$	
519	CL-7	CHESTER RD	100+74	105+45	RT	7	1										0.09	401				-		-		-						
519	CH-45	CHESTER RD	100+74	104+75	LT	12	1		$\vdash$									401	$\vdash$	$\longrightarrow$		-			-	$\vdash$		-			$\vdash$	
519	CH-46	CHESTER RD	100+74	104+75	LT	12										0.00		401										-				
519	LL-16	CHESTER RD	100+74	105+45	RT	6										0.09																
519	A-45	CHESTER RD		)+84	LT/RT	1																		2								
519	A-46	CHESTER RD		+50	LT/RT	1																		2								
519	A-47	CHESTER RD		2+16	LT/RT																		<u> </u>	2	-							
519	SS-2	CHESTER RD		2+92	RT																		'									
519	A-48	CHESTER RD		3+48	LT/RT																			2								
519	A-49	CHESTER RD	104	1+50 1	LT/RT																-			2								
																															<del>  </del>	
	RPM RFMC	OVED QUANTITY ESTIMATED AS	. 90% OF PROPOSE	TO RPM OUANTITY	1		1524																									
	117 1117 112.1110	7725 der 2071 710	1	1	1		1027																									
																										1						
				1	1	1	1											1										1				
					1	1	1											1														
					1	1	1													-+								1				
					1	1	1											1														
						1	1													1												
					1	1	1											1										1				
					1	1	1											1								1	l	1				
					1	1	1											1														
					1	1	1											1														
						1	1																									
						1	1																									
						1	1																									
					1	1												1														
				1	1	1	1											1								1		1				
				1	1	1																										
					1	1	1/1				<u> </u>		<del>  //\</del>					//\		-+		-										
		TOTALS THIS	S SHEET	-		64	1524	0.00	0.00	0.00	$\sim$	$\bigcap$	0.00	0.00	0.00	0.09	0.27	1151 0	71	286	80	0	0 1	18	249	0.00	0	0	0	0	0	
		TOTALS FROM				1302	0	5.57	9.53	18.1	19236	9705	(0.00	0.00	0.00	0.00	0.00	0 0	0	0			0 0		0	3.72	48	0	0	2	0	
						225	0	0.00	0.00	0.00	1630	0	0.10	0.20	0.21	0.36	0.60	3015 1162					0 0	_		0.00	121	265	31		0	
		TOTALS FROM	SHEET 482			220	0 /																0 1	_ / /			121	200	J 1	/ '		
		TOTALS FROM TOTALS FROM					0	0.00	0.00	0.00	0	0	0.00	0.00	0.00	0.27	0.13		246	68	382			41		0.00	0	0	0	2		
		TOTALS FROM TOTALS FROM TOTALS CARRIED TO	SHEET 483	W ( A C ) (		102 1693	0	0.00	0.00	0.00	0 20866	0	0.00	0.00	0.00	0.27	0.13	2365 0	246	68		0 6	640 1 640 2	41	371	0.00 3.72					276 276	

 $\bigcirc$ 

 $\bigcirc$ 



AS-1-15 DATED/REVISED 7-17-15

AS-2-15 DATED/REVISED 1-18-19

PCB-91 DATED/REVISED 1-18-13

PSID-1-13 DATED/REVISED 7-20-18

SBR-1-13 DATED/REVISED 7-20-18

SICD-1-96 DATED/REVISED 7-18-14

SICD-2-14 DATED/REVISED 7-18-14

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

840 DATED 4-17-20

 $\bigcirc$ 

 $\bigcirc$ 

 $\bigcirc$ 

846 DATED 4-17-15

866 DATED 4-21-17

867 DATED 1-18-19

878 DATED 1-17-20

## **DESIGN SPECIFICATIONS**

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE 8TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2017 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

## LOAD MODIFIER FOR OPERATIONAL IMPORTANCE

OPERATIONAL IMPORTANCE: A LOAD MODIFIER OF 1.00 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCOR-DANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL, 2007.

#### DESIGN LOADING

DESIGN LOADING: HL-93

FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/SQ.FT.

## **DESIGN DATA**

CONCRETE CLASS OC3 - COMPRESSIVE STRENGTH 4.5 KSI
(BRIDGE DECK, DIAPHRAGM, APPROACH SLAB) CONCRETE CLASS CQ SCC - COMPRESSIVE STRENGTH 4.5 KSI (PARAPETS)

STRENGTH 50 KSI

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI STEEL PIPE PILES - GRADE A 252 - GRADE 3 - YIELD STRENGTH 45 KSI STRUCTURAL STEEL - ASTM A709 GRADE 50 - YIELD

CONCRETE FOR PRESTRESSED BEAMS: COMPRESSIVE STRENGTH (FINAL) - 9.5 KSI COMPRESSIVE STRENGTH (RELEASE) - 7 KSI

WELDED WIRE FABRIC: YIELD STRENGTH - 70 KSI

PRESTRESSING STRAND: AREA = 0.217 IN2 ULTIMATE STRENGTH = 270 KSI INITIAL STRESS = 202.5 KSI (LOW RELAXATION STRANDS)

## **DECK PROTECTION METHOD**

EPOXY COATED REINFORCING STEEL

2.5" CONCRETE COVER

## MONOLITHIC WEARING SURFACE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

## **EXISTING STRUCTURE PLANS:**

CONSTRUCTION PLANS FOR EXISTING BRIDGE ARE ON FILE AT THE DEPARTMENT OF TRANSPORTATION, DISTRICT 8 OFFICE, 505 SOUTH STATE ROUTE 741, LEBANON, OHIO AND ARE AVAILABLE FOR REFERENCE.

## PILE DRIVING CONSTRAINTS

PRIOR TO DRIVING ABUTMENT PILES TO THE ULTIMATE BEARING VALUE (UBV), CONSTRUCT THE MSE WALL AND THE BRIDGE APPROACH EMBANKMENT UP TO THE BOTTOM OF THE FOOTINGS. PROVIDE A SURCHARGE FROM THE BOTTOM OF THE ABUTMENT FOOTING TO THE BOTTOM OF THE SUBGRADE FOR A MINIMUM DISTANCE OF 100 FEET BEHIND THE ABUTMENT. SURCHARGE LOADS SHALL REMAIN UNTIL THE REQUIRED SETTLEMENT HAS OCCURRED AND AS DIRECTED BY THE ENGINEER. COMPLETE THE MSE WALL CONSTRUCTION IMMEDIATELY FOLLOWING THE SURCHARGE REMOVAL.

THE CONTRACTOR MAY PRE-DRIVE ABUTMENT PILES BEFORE CONSTRUCTING MSE WALLS. PRE-DRIVING CONSISTS OF INSTALLING THE ABUTMENT PILES INTO THE SOIL ONLY AS FAR AS NECESSARY SO THAT THE PILE WILL REMAIN VERTICAL DURING MSE WALL CONSTRUCTION. IF PRE-DRIVING PILES, INSTALL PILE SLEEVES AROUND PILES BEFORE CONSTRUCTING THE MSE WALL AT LEAST THREE FEET OF PILE MIST EXTENDED THE MSE WALL. AT LEAST THREE FEET OF PILE MUST EXTEND ABOVE THE TOP OF THE PILE SLEEVE TO MEET THE REQUIREMENTS OF CMS 507.09 REGARDING SPLICES. DO NOT DRIVE ABUTMENT PILES TO THE UBV UNTIL AFTER THE ABOVE REQUIRED MSE WALL AND EMBANKMENT HAVE BEEN CONSTRUCTED AND THE SPECIFIED WAITING PERIOD HAS ELAPSED.

IF NOT PRE-DRIVING ABUTMENT PILES. INSTALL THE ABUTMENT PILES THROUGH PILE SLEEVES AFTER THE ABOVE REQUIRED MSE WALL AND EMBANKMENT HAVE BEEN CONSTRUCTED AND THE SPECIFIED WAITING PERIOD HAS ELAPSED.

ABUTMENT PILE DRIVING TO THE UBV (FOR PILES DRIVEN AFTER MSE CONSTRUCTION) OR PILE REDRIVING (FOR PILES PRE-DRIVEN BEFORE MSE CONSTRUCTION) MAY NOT BEGIN UNTIL A MINIMUM 30 DAY CALENDAR DAY WAITING PERIOD HAS ELAPSED AFTER THE COMPLETION OF EMBANKMENT AND SURCHARGE CONSTRUCT-ION. THE WAITING PERIOD BEGINS ONCE THE APPROACH EMBANK-MENT HAS REACHED THE PROPOSED SUBGRADE ELEVATION. WAITING PERIOD WILL BE EVALUATED ON A PER READING BASIS AND MAY BE EXTENDED OR TERMINATED BY THE DEPARTMENT BASED ON THE SETTLEMENT PLATFORM READINGS.

CONSECUTIVE SETTLEMENT READINGS SHOULD BE RECORDED AT LEAST ONE WEEK AFTER EMBANKMENT CONSTRUCTION AS COMPLETE. TERMINATION OF THE SETTLEMENT MONITORING
WILL BE EVALUATED AFTER THE 30 DAY WAITING PERIOD, PROVIDED SETTLEMENT PLATFORMS HAVE INDICATED 1/8" OR LESS OF SETTLEMENT FOR EACH OF THE LAST TWO WEEKS OF READING.

AFTER THE SPECIFIED WAITING PERIOD HAS ELAPSED, DRIVE PILES TO THE UBV. IN ORDER TO REMOVE ANY NEGATIVE SKIN FRICTION THAT HAS DEVELOPED DURING THE WAITING PERIOD, DRIVE EACH ABUTMENT PILE A DISTANCE OF AT LEAST 0.5

## PROPRIETARY RETAINING WALL DATA

THE PROPRIETARY WALL SUPPLIER SHALL DESIGN THE INTERNAL STABILITY OF A MECHANICALLY STABILIZED EARTH (MSE) WALL IN ACCORDANCE WITH SS840 TO SUPPORT THE ABUTMENT. THE DESIGN FOR INTERNAL STABILITY SHALL INCLUDE A NOMINAL (I.E. UNFACTORED) HORIZONTAL STRIP LOAD DUE TO FRICTION (FR) FROM THE SUPERSTRUCTURE OF 6.0 K/FT APPLIED PER-PENDICULAR TO THE FACE OF WALL AT THE BASE OF THE CON-CRETE FOOTING. THIS STRIP LOAD DOES NOT INCLUDE EARTH PRESSURE LOADS FROM THE ABUTMENT BACKFILL. HOWEVER, THE PROPRIETARY WALL SUPPLIER SHALL INCLUDE EARTH PRESSURE LOADS FROM THE ABUTMENT BACKFILL IN THE DE-SIGN CALCULATIONS.

## **DECK PLACEMENT DESIGN ASSUMPTIONS:**

THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 2.4 KIPS.

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103".

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 IN.

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 65".

## PILES DRIVEN TO TIP ELEVATION FOR PILE/SOIL SETUP

THE ULTIMATE BEARING VALUE IS 330 KIPS PER PILE FOR THE ABUTMENT PILES. PART OF THE ULTIMATE BEARING VALUE WILL BE ACHIEVED THROUGH PILE/SOIL SETUP, WHICH IS A TIME-DEPENDENT INCREASE IN RESISTANCE THAT OCCURS IN SOME SOILS.

NOTIFY THE ENGINEER AT LEAST 5 DAYS BEFORE DRIVING PILES SO THAT THE ENGINEER CAN NOTIFY THE DISTRICT GEOTECHNICAL ENGINEER, THE OFFICE OF CONSTRUCTION ADMINISTRATION, AND THE OFFICE OF STRUCTURAL ENGINEERING.

DRIVE THE FIRST TWO PILES IN EACH SUBSTRUCTURE TO THE TIP ELEVATION GIVEN BELOW FOR THE SUBSTRUCTURE. DRIVE THE THIRD AND FORTH PILES TO 75% AND 85% OF THE LENGTH OF THE FIRST TWO PILES. PERFORM DYNAMIC LOAD TESTING ON OF THE FIRST TWO FILES. PERFORM DINAMIC LOAD TESTING ON ALL FOUR PILES WHILE DRIVING. AFTER DRIVING THE FOUR PILES, CEASE ALL DRIVING OPERATIONS AT THE SUBSTRUCTURE FOR A MINIMUM OF 7 DAYS. INCLUDE THE WAITING PERIOD AS A SEPARATE ACTIVITY IN THE PROGRESS SCHEDULE. AFTER THE WAITING PERIOD, PERFORM PILE RESTRIKES ON THE FOUR PILES (TWO RESTRIKE ITEMS). SUBMIT ALL TEST RESULTS TO THE ENGINEER. THE ENGINEER WILL REVIEW THE TEST RESULTS AND ESTABLISH DRIVING CRITERIA FOR THE PILING IN THE SUB-STRUCTURE WITH ASSISTANCE OF THE DISTRICT GEOTECHNICAL ENGINEER, THE OFFICE OF CONSTRUCTION ADMINISTRATION, AND THE OFFICE OF STRUCTURAL ENGINEERING.

IF THE DYNAMIC LOAD TESTING INDICATES A PILE HAS ACHIEVED THE ULTIMATE BEARING VALUE ABOVE THE TIP ELEVATION DURING THE INITIAL DRIVING (BEFORE THE WAITING PERIOD), STOP DRIVING AND NOTIFY THE ENGINEER. IF THE RESTRIKE TEST RESULTS ON THE FOUR PILES INDICATE THAT A PILE DID NOT ACHIEVE THE REQUIRED ULTIMATE BEARING VALUE, DRIVE THE PILE TO THE ESTABLISHED DRIVING CRITERIA.

REAR ABUTMENT PILES: 36 PILES 70 FEET LONG, ORDER LENGTH TIP ELEVATION, 558.00 FEET 2 DYNAMIC LOAD TESTING ITEMS 2 RESTRIKES

FORWARD ABUTMENT PILES: 36 PILES 75 FEET LONG, ORDER LENGTH TIP ELEVATION, 550.30 FEET 2 DYNAMIC LOÁD TESTING ITEMS 2 RESTRIKES

## ITEM 503, COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN:

THE DESIGN SHOWN ON THE PLANS FOR TEMPORARY SUPPORT OF EXCAVATION IS ONE REPRESENTATIVE DESIGN THAT MAY BE USED TO CONSTRUCT THE PROJECT. THE CONTRACTOR MAY CONSTRUCT THE DESIGN SHOWN ON THE PLANS OR PREPARE AN ALTERNATE DESIGN TO SUPPORT THE SIDES OF EXCAVATIONS.
IF CONSTRUCTING AN ALTERNATE DESIGN FOR TEMPORARY
SUPPORT OF EXCAVATION, PREPARE AND PROVIDE PLANS IN
ACCORDANCE WITH C&MS 501.05. THE DEPARTMENT WILL PAY
FOR THE TEMPORARY SUPPORT OF EXCAVATION AT THE CON-TRACT LUMP SUM PRICE FOR COFFERDAMS AND EXCAVATION BRACING. NO ADDITIONAL PAYMENT WILL BE MADE FOR PROVIDING AN ALTERNATE DESIGN.

## ITEM 202 - STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN

THE EXISTING STRUCTURE SHALL BE REMOVED IN ACCORDANCE WITH ITEM 202 EXCEPT THAT THE EXISTING ABUTMENTS SHALL BE REMOVED IN THEIR ENTIRETY.

## ITEM 511 CLASS QC3 CONCRETE, MISC.: WITH QC/QA, BRIDGE DECK & ITEM 511 CLASS QC SCC CONCRETE WITH QC/QA, BRIDGE DECK PARAPET

THIS ITEM MODIFIES THE STANDARD SIT CONCRETE FOR STRUCTURES SPECIFICATION TO INCLUDE MACRO-SYNTHETIC AND CORROSION INHIBITORS INTO THE SUPERSTRUCTURE CONCRETE. THIS ITEM SHALL CONFORM TO CMS 511 WITH THE FOLLOWING CONDITIONS AND REVISIONS:

PROVIDE MATERIALS CONFORMING TO 511.02 EXCEPT AS MODIFIED BELOW:

PORTLAND CEMENT CONCRETE 499.03, CLASS OC3 MEETING A DESIGN STRENGTH OF 4,500 PSI, WITH MACRO-SYNTHETIC FIBERS WITH MODIFICATION PER 511.02 FIBERS FOR CONCRETE: ASTM C 1116, TYPE III 515.15 CORROSION INHIBITOR:

THE CLASS QC3 CONCRETE FOR THE SUPERSTRUCTURE SHALL MEET THE FOLLOWING CRITERIA: WATER/CEMENT RATIO = 0.40 MAXIMUM; MINIMUM 4 LBS/CY MACRO-SYNTHETIC FIBERS (1.5 IN. MIN. TO 2.5 IN. MAX.) MEETING ASTM CIII6 TYPE III SHALL BE ADDED TO THE MIX.

MIX SHALL INCLUDE A MIGRATING CORROSION INHIBITOR AS MANUFACTURED BY AN APPROVED SUPPLIER LISTED ON ODOT'S QUALIFIED APPROVED SUPPLIERS, ITEM 515.15. THE DOSAGE RATE LISTED ON THE ODOT QUALIFIED APPROVED SUPPLIERS LIST WILL

## ITEM 511 CLASS QC3 CONCRETE, MISC.: WITH QC/QA, BRIDGE DECK. 8. ITEM 511 CLASS QC CONCRETE WITH QC/QA, BRIDGE DECK. (PARAPET) CONTINUED.

(PARAPET) CONTINUED

THE MACRO-SYNTHETIC FIBERS SHALL BE INCORPORATED
INTO THE MIX IN SUCH A WAY THAT NO 'BALLING'
OCCURS. UPON INSPECTION OF THE MIX AT THE TIME OF
PLACEMENT, IF ANY 'BALLING' OCCURS, THE ENGINEER
SHALL REJECT THE REMAINDER OF THE LOAD AT ANY TIME DURING THE POUR. IT IS IMPORTANT TO FOLLOW INDUSTRY STANDARDS AND ASTM SPECIFICATIONS ON THE PREMIXING OF THE CEMENT, AGGREGATE, AND MACRO-SYNTHETIC FIBERS PRIOR TO THE ADDITION OF WATER AND ADMIXTURES. PROVIDE MACRO-SYNTHETIC FIBERS THAT ARE MONOFILAMENT FIBERS MADE FROM VIRGIN POLYPROPYLENE, POLYETHYLENE, OR CO-POLYMERS THAT ARE INERT TO ALKALI ATTACK CO-POLYMERS IHAI ARE INERT TO ALKALI ATTACK.
ENSURE THE MACRO-SYNTHETIC FIBERS HAVE A MINIMUM
TENSILE STRENGTH OF 70 KSI, A MINIMUM MODULUS OF
ELASTICITY OF 800 KSI, A MINIMUM FILAMENT
DIAMETER OF 0.012 INCHES, AND ASPECT RATIO
BETWEEN 60 AND 100, AND ARE BETWEEN 1.0 AND 2.5
INCHES IN LENGTH. STORE THE MACRO-SYNTHETIC
FIBERS ACCORDING TO THE MANUFACTURE'S
DECOMMENDATION AND ASPECT THE MATERIAL FERE FROM RECOMMENDATION AND KEEP THE MATERIAL FREE FROM DUST, DIRT AND MOISTURE. PLACING THE BAG THAT THE FIBERS COME IN INTO THE CONCRETE MIX IS NOT PFRMITTED.

USE A MINIMUM DOSAGE RATE OF MACRO-SYNTHETIC FIBERS OF 4.0 LBS/CY OF CONCRETE. DETERMINE THE FINAL PROPOSED DOSAGE RATE THROUGH MIX TESTING. ENSURE THE FIBER REINFORCED CONCRETE MEETS OR EXCEEDS A MINIMUM EQUIVALENT FLEXURAL STRENGTH RATIO OF 25% ACCORDING TO ASTM C 1609. ENSURE
THE FINAL PROPOSED MIX IS WORKABLE AND ABLE TO BE
PRODUCED SUCH THAT BALLING OR CLUMPING OF THE
FIBERS IS NOT A PROBLEM AS DETERMINED BY THE
ENGINEER. UTILIZE A LABORATORY REGULARLY INSPECTED BY THE CEMENT AND CONCRETE REFERENCE LABORATORY (CCRL) OF THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY, OR OTHER APPROVED REFERENCE LABORATORY, TO PERFORM THE TESTING. BEFORE USE, SUBMIT DOCUMENTATION TO THE PROJECT ENGINEER CERTIFYING BOTH THE MACRO-SYNTHETIC FIBERS AND THE MIX MEET OR EXCEED THE REQUIRED PROPERTIES. SAMPLING WILL BE ALLOWED FOR TESTING PURPOSES. A DEMONSTRATION OF THE MIX PRODUCTION OR TRIAL MIX, MAY BE REQUIRED BY THE ENGINEER PRIOR TO PLACING ANY OF THE MIX ON THE PROJECT.

THE BATCH WEIGHTS SHALL BE CORRECTED TO COMPENSATE FOR THE MOISTURE CONTAINED IN THE AGGREGATE AT THE TIME OF USE. A CHEMICAL ADMIXTURE (705.12, TYPE A OR D) SHALL BE USED. THE TRANSIT MIXER CHARGE SHALL BE LIMITED TO 3/4 OF ITS RATED CAPACITY OR 6 CUBIC YARDS, WHICHEVER IS SMALLER. THE FIRST THREE TRANSIT MIXER LOADS ARE REQUIRED TO BE AT THE MINIMUM YARDAGE LISTED ABOVE TO SHOW PROOF OF THE SUCCESSFUL BATCHING OPERATION. AFTER CONSISTENCY IN THE DELIVERED MATERIAL HAS BEEN ESTABLISHED, THE CONCRETE SUPPLIER MAY INCREASE THE BATCH DELIVERED
OUANTITIES AS LONG AS THE QUALITY REMAINS
ACCEPTABLE TO THE ENGINEER. THE ENGINEER CAN
REDUCE THE BATCH LOAD SIZE AT ANY TIME AS NEEDED
TO CORRECT/IMPROVE CONCRETE QUALITY.

CONCRETE SUPPLIERS SHOULD RECOGNIZE THAT THE CORROSION INHIBITOR AND ADMIXTURES MAY HAVE AN EFFECT ON STRENGTH, ENTRAINED AIR CONTENT,
WORKABILITY, ETC. OF THEIR CONCRETE MIXES. THE
CORROSION INHIBITOR IS SUGGESTED TO BE A MCI
PRODUCT BY CORTEC OR AN APPROVED EQUAL FROM THE
QUALIFIED PRODUCTS LIST. THE CONCRETE SUPPLIER'S CHOICE OF ONE OF THESE CORROSION INHIBITORS DOES NOT ALLEVIATE MEETING DESIGN REQUIREMENTS. PLEASE BE ADVISED THAT SOME PRODUCTS ON THE LIST EFFECT THE DELIVERED MIX PROPERTIES GREATLY WHILE OTHER PRODUCTS DO NOT.

APPROACH SLABS, DIAPHRAGMS, AND BRIDGE RAILING CONCRETE (WHEN APPLICABLE) ARE TO USE THE SAME MIX DESIGN AS THE BRIDGE DECK. THE CONTRACTOR SHOULD BE ADVISED THAT CONCRETE RETARDING AGENTS MAY NEED TO BE ADDED TO OFFSET THE EFFECTS OF THE MIGRATING CORROSION INHIBITOR SELECTED. USE SELF-COMPACTING CONCRETE ON DECORATIVE RAILING SIMILAR TO TEXAS RAILING AND MACRO-SYNTHETIC CONCRETE PER THIS SPECIFICATION ON TRADITIONAL CONCRETE RAILING WHEN APPLICABLE.

THE CONTRACTOR SHALL PROVIDE TRADITIONAL BRIDGE DECK FORMS CONFORMING TO CMS 508. PERMANENT STAY-IN-PLACE (SIP) FORMS ARE NOT ALLOWED. THE PLACING OF THE DECK AND THE APPROACH SLABS IN THE SAME CONCRETE POUR IS NOT PERMITTED.



61

HAM-75-14.

76256

Š

PID

GENERAL NOTES RIDGE NO. HAM-75-153: 75 SB OVER SHARON R

BRIDGE I-75 SB

SUITE

	NUMBER			1				IMENSION	IS		
MARK	TOTAL	LENGTH	WEIGHT	TYPE	A	В	С	D	Ε	R	INC
				9	SUPERSTR	RUCTURE					
S401	396	30'- 00''	7,936	STR							
5402	94	23'- 07"	1,481	STR	01.5"						
S403	563	8'- 11''	3,354	16	8'-5"	7//				2"	
S404 S405	28 4	4'- 07'' 4'- 00''	86 11	35 STR	3′-9″	7"				2"	
S405 S406	8	6'- 07''	36	STR							
S407	8	6'- 04"	34	STR							
5408	32	5'- 11''	127	28	4'-0"	1'-0"					
5409	48	4'- 00''	129	STR							
5410	32	5'- 00''	107	2	8"	3′-10″	8"				
S411	364	3'- 00''	730	11	1'-1"	1'-8"	1'-1"				
5412	364	1'- 08''	406	19	10"	2"	10"				
S501	420	30'- 00''	13,142	STR							
S502	105	28'- 07''	3,131	STR							
S504	276	20'- 03''	5,830	STR							
* \$505	273	24'- 11''	7,095	STR							
* \$506	548	21'- 06''	12,289	STR							
<u> </u>	1	5'- 10''									1
S507	SER. OF	10	58	STR		1					2'-7"
	5	16'- 02''		-							
CE00	I SER OF	3'- 00''	101	CTD							2/ 7#
S508	SER. OF	70	101	STR							2'-7"
	8	21'- 01'' 5'- 00''									
* \$509	SER. OF	TO	144	CTD							2'-7"
* 5509		25'- 08''	144	STR							2-1
	9	5'- 11''									
S510	SER. OF	TO	125	STR							2'-7"
3310	3LN. OI	24'- 00''	12.5	3111							2 /
	1	5'- 10''									
S511	SER. OF	TO	125	STR							2'-7"
	8	23'- 11''	,20	1							
-	1	1'- 08''									
* }S512	SER. OF	TO	113	STR							2'-7"
W -	9	22'- 04''									
	1	1'- 07''									
S513	SER. OF	TO	112	STR							2'-7"
	9	22'- 03''									
	1	5′- 11′′									
S514	SER. OF	ΤΟ	78	STR							2'-7"
	6	18'- 10''									
S516	274	25'- 11''	7,407	STR							
* \$517	275	19'- 11''	5,713	STR							
* \$518	276	16'- 01''	4,630	STR							
S519	273	27'- 07"	7,855	STR							
S520	12	7′- 06′′	94	STR							
S521	NOT USED	6'- 04"		-							
S522	SER. OF	6'- 04'' TO	103	STR							2'-7"
3322	3ER. OF	21'- 10''	כטו	JIK							2 -1
	1	3'- 00"									1
S523	SER. OF	TO	153	STR							2'-7"
3023	10	26'- 03''	100	3111							- '
$\vdash$	1	2'- 05"									
* S524	SER. OF	10	96	STR							2'-7"
W	8	20'- 06"		1							T - '
	1	6'- 01''									
S525	SER. OF	10	79	STR							2'-7"
	6	19'- 00''									
	1	5'- 07''									
S526	SER. OF	ΤΟ	57	STR							2'-7"
	5	15'- 11''									
	1	1'- 08''									
* \$527	SER. OF	TO	69	STR							2'-7"
u	7	17'- 02''									
	1	1'- 07''									
S528	SER. OF	TO	167	STR							2'-7"
I	11	27'- 05''									

 $\bigcirc$ 

 $\bigcirc$ 

 $\bigcirc$ 

	NUMBER			LU				IMENSION	S		
MARK	TOTAL	LENGTH	WEIGHT	TYPE	A	В	С	D	Ε	R	INC
	•	<u>'</u>	<u>'</u>	SUPE	RSTRUCTO	JRE (CONT	·.)			· ·	
	1	6'- 10''									
S529	SER. OF	TO	133	STR							2'-7"
	8	24'- 11''									
S530	116	8'- 05''	1,019	2	2'-7"	3'-6"	2'-7"				
S531	244	13'- 01''	3,330	2	4'-8"	4'-0"	4'-8"				
S532	NOT USED	15 01	3,330	-	7 0	7 0	7 0				
		11/ 05//	70	+ -	7/ 10//	4/ 0//	7/ 10//				
S533	6	11'- 05''	72	2	3′-10″	4'-0"	3′-10″				
S534	40	30'- 00''	1,252	STR							
S535	368	7'- 04''	2,815	23	11"	3'-3"	3'-0"			2 3/4"	
S536	120	8'- 05''	1,054	29	11"	1'-7"	3'-2"	3'-0"			
S537	54	4'- 11''	277	3	11"	1'-3"					
S538	54	5'- 03''	296	3	11"	1′-5″					
S539	4	6'- 05''	27	3	1'-8"	1'-3"					
S540	4	6'- 09''	29	3	1′-8″	1'-5"					
					1 0	1 3					
S541	8	5'- 08''	48	STR	1/ 10 "	04.5"	1, 5 "				
S542	8	5'- 08''	48	25	1′-10″	2'-5"	1′-5″	1 1/2"	5″		
S543	10	7'- 07''	80	STR							
S544	220	6'- 05''	1,473	STR							
S545	10	8'- 05''	88	STR							
S546	10	7'- 03''	76	STR							
S547	8	29'- 07''	247	STR							
S548	8	25'- 09"	215	STR							
S549	4	12'- 03''	52	STR							
3343	4	12 - 03	52	3111							
6601	40	C/ 05//	444	CTD							
S601	46	6'- 05''	444	STR							
S602	488	5'- 02''	3,788	1	1'-6"	3′-10″					
S603	492	3'- 01''	2,279	28	11"	1'-7"					
S604	4	2'- 05''	15	1	1'-0"	1'-7"					
	4	3'- 11''				3'-1"					
S605	SER. OF	TO	316	1	1'-0"	70					1"
3000	12	4'- 10''	370	<u> </u>	, ,	4'-0"					· ·
S606	12	4'- 00''	73	1	1'-0"	3'-2"					
					1-0	3 -2					
S607	2	8'- 05"	26	STR							
S608	2	7'- 07''	23	STR							
S609	2	4'- 06''	14	STR							
S610	2	7'- 03''	22	STR							
`							-				
*) 5801	36	24'- 03''	2,331	STR							
*)5802	8	31'- 07''	675	1	30′-5″	1'-4"					
25803	8	8'- 03''	177	1	7′-1″	1'-4"					
25804		6'- 07''				1'-1"	1/_1//				
	16		282	18	4'-2"	1 -1"	1'-1"				
* <\$805	30	2'- 06"	201	STR		-					
<b>₹</b> \$806	20	10'- 08''	570	STR							
<b>*</b> \$807	10	7'- 03''	194	STR							
\$808	30	9'- 10''	788	STR							
* \$809	64	25'- 04''	4,329	STR							
S810	4	7'- 11''	85	STR							
)S811	6	7'- 01''	114	STR							
* 25812	2	1'- 02''	7	STR		-					
* <\$813	2	5'- 11''	32	STR							
<i>₹S814</i>	6	7'- 01''	114	STR							
* \S815	6	30'- 05''	488	STR							
S816	4	2'- 01''	23	STR							
S817	10	12'- 06''	334	17	10'-8"						
	1										
D801	116	4'- 11''	1,523	18	2'-7"	1'-0"	1'-0"				
				10	2 -1	1 .0	1 -0				
SUPL	ERSTRUCTURE	IUIAL	115,101								

	NUMBER	LENGTH	TOTAL	TYPE	DIMENSIONS								
MARK	TOTAL		LENGTH		A	В	С	D	R	INC			
SUPERSTRUCTURE (PARAPET GLASS FIBER POLYMER REINFORCING)													
GS601	144	4'- 06''	648′-0″	STR									
GFRP TOTAL			648′-0″										
INCLUDED WITH ITEM 509: NO XX GFRP DEFORMED BARS FOR PAYMENT													

TWO MIRANOVA PLACE SUITE 450 COLUMBUS, OHIO 43215

REINFORCING STEEL LIST BRIDGE NO. HAM-75-1539L I-75 SB OVER SHARON RD.

HAM-75-14.61 PID No. 76256

30/36 636 708

		NUMBER				41		DIMEN	SIONS	
MARK	REAR	FWD.	TOTAL	LENGTH	WEIGHT	TYPE	А	В	С	INC
				ΔRIIT	MENTS					
A501	32	32	64	30'- 00''	2,003	STR				
* 4502	7	7	14	9'- 03''	136	STR				
* A503	7	7	14	11'- 06''	168	STR				
A)504	8	8	16	23'- 01"	386	STR				
* \$ 505	2	2	4	13'- 09''	58	STR				
* 1506	2	2	4	15'- 11''	67	STR				
A507	122	122	244	18'- 01''	4,603	3	6'-2"	2'-7"		
A508	81	81	162	15'- 05''	2,605	3	4'-0"	3′-5″		
A509	22	22	44	14'- 03''	654	2	6'-2"	2'-2"	6'-2"	
A510	4	3	7	15'- 07''	114	3	4'-1"	3′-5″		
A511	2	1	3	18'- 05''	58	3	6'-3"	2'-8"		
A512	2	2	4	13'- 01''	55	3	2'-2"	4'-1"		
A513	2	2	4	13'- 11''	59	3	2'-2"	4'-6"		
	2	2	4	15'- 03''				5'-2"		
A514	SER. OF	SER. OF	SER.OF	TO	514	3	2'-2"	10		9 3/8"
	7	7	7	19'- 11''				7′-6″		
	2	2	4	10'- 05''			4'-3"		4'-3"	
A515	SER. OF	SER. OF	SER.OF	TO	370	2	10	2'-2"	TO	9"
	7	7	7	14'- 11''			6'-6"		6'-6"	
A516	1	1	2	16'- 05''	35	2	7′-3″	2'-2"	7′-3″	
A517	4	4	8	17'- 01''	143	2	7′-7″	2'-2"	7′-7″	
A518	3	3	6	17'- 09''	112	2	7′-11″	2'-2"	7′-11″	
	1	1	2	3'- 08''						
A519	SER. OF	SER. OF	SER.OF	TO	159	STR				2'-4 7/8"
	7	7	7	18'- 00''						
	1	1	2	3'- 03''						
A520	SER. OF	SER. OF	SER.OF	TO	153	STR				2'-4 7/8"
	7	7	7	17'- 07''						
A521	1	1	2	21'- 07''	46	19	1'-7"	18′-5″	7′-9″	
A522	1	1	2	21'- 02''	45	19	1'-2"	18'-5"	7′-9″	
A523	1	1	2	15'- 11''	34	2	7′-0″	2'-2"	7′-0″	
A524	1	1	2	16'- 09''	35	2	7′-5″	2'-2"	7′-5″	
	1	1	2	3'- 04''						
A525	SER. OF	SER. OF	SER.OF	TO	159	STR				2'-6"
	7	7	7	18'- 04''						
	1	1	2	3'- 09''						
A526	SER. OF	SER. OF	SER.OF	TO	165	STR				2'-6"
	7	7	7	18'- 09''						
A527	1	1	2	21'- 01''	44	19	1'-3"	18'-5"	7′-5″	
A528	1	1	2	21'- 05''	45	19	1'-7"	18'-5"	7′-5″	
A801	32	32	64	30'- 00''	5,127	STR				
* \A802	5	5	10	12'- 03''	328	STR				
* \A803	5	5	10	14'- 05''	385	STR				
* <4804	6	6	12	19'- 10''	636	STR				
* \$4805	6	6	12	17'- 08''	567	STR				-
<u> </u>	A	BUTMENT TO	I AL		20,068					
	1	NULL 10.55			1		1	011151	CIONC	
1440%		NUMBER		LENGTH	WETCHT	30		DIMEN	SIUNS	<u> </u>
MARK	REAR	FWD.	TOTAL	LENGTH	WEIGHT	TYPE	A	В	С	INC
				DIADUDA	CM CUIDE					
DCCOI	E	F	10	DIAPHRA 16'- 09''	GM GUIDE	7	11 0 7 1111	7/01/2/		
DG601	5 9	5	10	13'- 08"	252	5	4'-0 3/4" 2'-8"	3'-8 1/2" 3'-7"	2'-4"	
DG801	9	<u> 9</u>	18	13 - 08"	657	1 5	<u></u>	J -/"	2'-4"	

	MARK	REAR	FWD.	TOTAL	LENGIH 	WEIGHT	177	Α	В	С	
					DIAPHRAC	GM GUIDE					
	DG601	5	5	10	16'- 09''	252	3	4'-0 3/4"	3'-8 1/2"		
ĺ	DG801	9	9	18	13'- 08''	657	5	2'-8"	3'-7"	2'-4"	
			F	OR INFORMAT	ION ONLY. NO	T INCLUDED	WITH .	ITEM 509.			
_											

## NOTES:

 $\bigcirc$ 

 $\bigcirc$ 

 $\bigcirc$ 

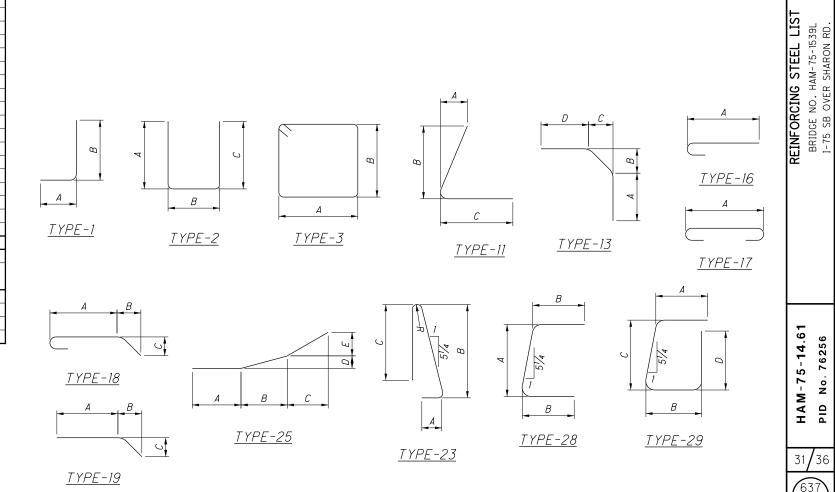
 $\bigcirc$ 

1. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

2. ALL REINFORCEMENT IS TO BE EPOXY COATED.

3. \* - MECHANICALLY SPLICED BAR: LENGTH GIVEN INCLUDES 2 INCHES OF CLEARANCE AT EACH END. CONTRACTOR SHALL ADJUST LENGTH AS REQUIRED FOR TYPE OF MECHANICAL SPLICE USED.

MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS									
MARK	TOTAL	LENGIA	MEIGHI	7	A	В	С	D						
	SUPERSTRUCTURE (INTERMEDIATE DIAPHRAGMS)													
SI401	198	10'- 08''	1,411	3	6"	4'-9"								
SI601	72	9'- 08''	1,045	STR										
SI602	84	11'- 00''	1,388	13	3′-10″	7"	1'-2"	6'-0"						
SI603	54	10'- 06''	852	STR										
INTERME	INTERMEDIATE DIAPHRAGM TOTAL 4,696													
	FOR INFORMATION ONLY NOT INCLUDED WITH ITEM 509.													



699

TWO MIRANC SUITE 450 COLUMBUS,

AS-1-15 DATED/REVISED 7-17-15

AS-2-15 DATED/REVISED 1-18-19

PCB-91 DATED/REVISED 1-18-13

PSID-1-13 DATED/REVISED 7-20-18

SBR-1-13 DATED/REVISED 7-20-18

SICD-1-96 DATED/REVISED 7-18-14

SICD-2-14 DATED/REVISED 7-18-14

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

840 DATED 4-17-20

846 DATED 4-17-15

866 DATED 4-21-17

867 DATED 1-18-19

878 DATED 1-17-20

## **DESIGN SPECIFICATIONS**

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE 8TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2017 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

## LOAD MODIFIER FOR OPERATIONAL IMPORTANCE

OPERATIONAL IMPORTANCE: A LOAD MODIFIER OF 1.00 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCOR-DANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL, 2007.

#### DESIGN LOADING

DESIGN LOADING: HL-93

FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/SQ.FT.

## **DESIGN DATA**

CONCRETE CLASS OC3 - COMPRESSIVE STRENGTH 4.5 KSI
(BRIDGE DECK, DIAPHRAGM, APPROACH SLAB) CONCRETE CLASS CQ SCC - COMPRESSIVE STRENGTH 4.5 KSI (PARAPETS)

STRENGTH 50 KSI

CONCRETE CLASS QCI - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI STEEL PIPE PILES - GRADE A 252 - GRADE 3 - YIELD STRENGTH 45 KSI STRUCTURAL STEEL - ASTM A709 GRADE 50 - YIELD

CONCRETE FOR PRESTRESSED BEAMS: COMPRESSIVE STRENGTH (FINAL) - 9.5 KSI COMPRESSIVE STRENGTH (RELEASE) - 7 KSI

WELDED WIRE FABRIC: YIELD STRENGTH - 70 KSI

PRESTRESSING STRAND: AREA = 0.217 IN2 ULTIMATE STRENGTH = 270 KSI INITIAL STRESS = 202.5 KSI (LOW RELAXATION STRANDS)

## **DECK PROTECTION METHOD**

EPOXY COATED REINFORCING STEEL

2.5" CONCRETE COVER

## MONOLITHIC WEARING SURFACE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

## **EXISTING STRUCTURE PLANS:**

CONSTRUCTION PLANS FOR EXISTING BRIDGE ARE ON FILE AT THE DEPARTMENT OF TRANSPORTATION, DISTRICT 8 OFFICE, 505 SOUTH STATE ROUTE 741, LEBANON, OHIO AND ARE AVAILABLE FOR REFERENCE.

## PILE DRIVING CONSTRAINTS

PRIOR TO DRIVING ABUTMENT PILES TO THE ULTIMATE BEARING VALUE (UBV), CONSTRUCT THE MSE WALL AND THE BRIDGE APPROACH EMBANKMENT UP TO THE BOTTOM OF THE FOOTINGS. PROVIDE A SURCHARGE FROM THE BOTTOM OF THE ABUTMENT FOOTING TO THE BOTTOM OF THE SUBGRADE FOR A MINIMUM DISTANCE OF 100 FEET BEHIND THE ABUTMENT. SURCHARGE LOADS SHALL REMAIN UNTIL THE REOUIRED SETTLEMENT HAS OCCURRED AND AS DIRECTED BY THE ENGINEER. COMPLETE THE MSE WALL CONSTRUCTION IMMEDIATELY FOLLOWING THE SURCHARGE REMOVAL.

THE CONTRACTOR MAY PRE-DRIVE ABUTMENT PILES BEFORE CONSTRUCTING MSE WALLS. PRE-DRIVING CONSISTS OF INSTALLING THE ABUTMENT PILES INTO THE SOIL ONLY AS FAR AS NECESSARY SO THAT THE PILE WILL REMAIN VERTICAL DURING MSE WALL CONSTRUCTION. IF PRE-DRIVING PILES, INSTALL PILE SLEEVES AROUND PILES BEFORE CONSTRUCTING THE MSE WALL. AT LEAST THREE FEET OF PILE MUST EXTEND ABOVE THE TOP OF THE PILE SLEEVE TO MEET THE REQUIREMENTS OF CMS 507.09 REGARDING SPLICES. DO NOT DRIVE ABUTMENT PILES TO THE UBV UNTIL AFTER THE ABOVE REQUIRED MSE WALL AND EMBANKMENT HAVE BEEN CONSTRUCTED AND THE SPECIFIED WAITING PERIOD HAS ELAPSED.

IF NOT PRE-DRIVING ABUTMENT PILES, INSTALL THE ABUTMENT PILES THROUGH PILE SLEEVES AFTER THE ABOVE REQUIRED MSE WALL AND EMBANKMENT HAVE BEEN CONSTRUCTED AND THE SPECIFIED WAITING PERIOD HAS ELAPSED.

ABUTMENT PILE DRIVING TO THE UBV (FOR PILES DRIVEN AFTER MSE CONSTRUCTION) OR PILE REDRIVING (FOR PILES PRE-DRIVEN BEFORE MSE CONSTRUCTION) MAY NOT BEGIN UNTIL A MINIMUM 30 DAY CALENDAR DAY WAITING PERIOD HAS ELAPSED AFTER THE COMPLETION OF EMBANKMENT AND SURCHARGE CONSTRUCT-ION. THE WAITING PERIOD BEGINS ONCE THE APPROACH EMBANK-MENT HAS REACHED THE PROPOSED SUBGRADE ELEVATION. WAITING PERIOD WILL BE EVALUATED ON A PER READING BASIS AND MAY BE EXTENDED OR TERMINATED BY THE DEPARTMENT BASED ON THE SETTLEMENT PLATFORM READINGS.

CONSECUTIVE SETTLEMENT READINGS SHOULD BE RECORDED AT LEAST ONE WEEK AFTER EMBANKMENT CONSTRUCTION AS COMPLETE. TERMINATION OF THE SETTLEMENT MONITORING
WILL BE EVALUATED AFTER THE 30 DAY WAITING PERIOD, PROVIDED SETTLEMENT PLATFORMS HAVE INDICATED 1/8" OR LESS OF SETTLEMENT FOR EACH OF THE LAST TWO WEEKS OF READING.

AFTER THE SPECIFIED WAITING PERIOD HAS ELAPSED, DRIVE PILES TO THE UBV. IN ORDER TO REMOVE ANY NEGATIVE SKIN FRICTION THAT HAS DEVELOPED DURING THE WAITING PERIOD, DRIVE EACH ABUTMENT PILE A DISTANCE OF AT LEAST 0.5

## PROPRIETARY RETAINING WALL DATA

THE PROPRIETARY WALL SUPPLIER SHALL DESIGN THE INTERNAL STABILITY OF A MECHANICALLY STABILIZED EARTH (MSE) WALL IN ACCORDANCE WITH SS840 TO SUPPORT THE ABUTMENT. THE DESIGN FOR INTERNAL STABILITY SHALL INCLUDE A NOMINAL (I.E. UNFACTORED) HORIZONTAL STRIP LOAD DUE TO FRICTION (FR) FROM THE SUPERSTRUCTURE OF 6.0 K/FT APPLIED PER-PENDICULAR TO THE FACE OF WALL AT THE BASE OF THE CON-CRETE FOOTING. THIS STRIP LOAD DOES NOT INCLUDE EARTH PRESSURE LOADS FROM THE ABUTMENT BACKFILL. HOWEVER, THE PROPRIETARY WALL SUPPLIER SHALL INCLUDE EARTH PRESSURE LOADS FROM THE ABUTMENT BACKFILL IN THE DE-SIGN CALCULATIONS.

## **DECK PLACEMENT DESIGN ASSUMPTIONS:**

THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 2.4 KIPS.

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103".

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 IN.

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 65".

## PILES DRIVEN TO TIP ELEVATION FOR PILE/SOIL SETUP

THE ULTIMATE BEARING VALUE IS 330 KIPS PER PILE FOR THE ABUTMENT PILES. PART OF THE ULTIMATE BEARING VALUE WILL BE ACHIEVED THROUGH PILE/SOIL SETUP, WHICH IS A TIME-DEPENDENT INCREASE IN RESISTANCE THAT OCCURS IN SOME SOILS.

NOTIFY THE ENGINEER AT LEAST 5 DAYS BEFORE DRIVING PILES SO THAT THE ENGINEER CAN NOTIFY THE DISTRICT GEOTECHNICAL THE ENGINEER CAN NOTIFY THE DISTRICT GEOTECHNICAL ENGINEER, THE OFFICE OF CONSTRUCTION ADMINISTRATION, AND THE OFFICE OF STRUCTURAL ENGINEERING.

DRIVE THE FIRST TWO PILES IN EACH SUBSTRUCTURE TO THE TIP ELEVATION GIVEN BELOW FOR THE SUBSTRUCTURE. DRIVE THE THIRD AND FORTH PILES TO 75% AND 85% OF THE LENGTH OF THE FIRST TWO PILES. PERFORM DYNAMIC LOAD TESTING ON OF THE FIRST TWO FILES. PERFORM DINAMIC LOAD TESTING ON ALL FOUR PILES WHILE DRIVING. AFTER DRIVING THE FOUR PILES, CEASE ALL DRIVING OPERATIONS AT THE SUBSTRUCTURE FOR A MINIMUM OF 7 DAYS. INCLUDE THE WAITING PERIOD AS A SEPARATE ACTIVITY IN THE PROGRESS SCHEDULE. AFTER THE WAITING PERIOD, PERFORM PILE RESTRIKES ON THE FOUR PILES (TWO RESTRIKE ITEMS). SUBMIT ALL TEST RESULTS TO THE ENGINEER. THE ENGINEER WILL REVIEW THE TEST RESULTS AND ESTABLISH DRIVING CRITERIA FOR THE PILING IN THE SUB-STRUCTURE WITH ASSISTANCE OF THE DISTRICT GEOTECHNICAL ENGINEER, THE OFFICE OF CONSTRUCTION ADMINISTRATION, AND THE OFFICE OF STRUCTURAL ENGINEERING.

IF THE DYNAMIC LOAD TESTING INDICATES A PILE HAS ACHIEVED IF THE DYNAMIC LOAD TESTING INDICATES A PILE HAS ACHIEVED THE ULTIMATE BEARING VALUE ABOVE THE TIP ELEVATION DURING THE INITIAL DRIVING (BEFORE THE WAITING PERIOD), STOP DRIVING AND NOTIFY THE ENGINEER. IF THE RESTRIKE TEST RESULTS ON THE FOUR PILES INDICATE THAT A PILE DID NOT ACHIEVE THE REGUIRED ULTIMATE BEARING VALUE, DRIVE THE PILE TO THE ESTABLISHED DRIVING CRITERIA.

REAR ABUTMENT PILES: 36 PILES 75 FEET LONG, ORDER LENGTH TIP ELEVATION, 558.00 FEET 2 DYNAMIC LOAD TESTING ITEMS 2 RESTRIKES

FORWARD ABUTMENT PILES: 36 PILES 65 FEET LONG, ORDER LENGTH TIP ELEVATION, 550.30 FEET 2 DYNAMIC LOÁD TESTING ITEMS 2 RESTRIKES

## ITEM 503, COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN:

THE DESIGN SHOWN ON THE PLANS FOR TEMPORARY SUPPORT THE DESIGN SHOWN ON THE PLANS FOR TEMPORARY SUPPORT OF EXCAVATION IS ONE REPRESENTATIVE DESIGN THAT MAY BE USED TO CONSTRUCT THE PROJECT. THE CONTRACTOR MAY CONSTRUCT THE DESIGN SHOWN ON THE PLANS OR PREPARE AN ALTERNATE DESIGN TO SUPPORT THE SIDES OF EXCAVATIONS. IF CONSTRUCTING AN ALTERNATE DESIGN FOR TEMPORARY SUPPORT OF EXCAVATION, PREPARE AND PROVIDE PLANS IN ACCORDANCE WITH C&MS 501.05. THE DEPARTMENT WILL PAY FOR THE TEMPORARY SUPPORT OF EXCAVATION AT THE CONTRACT LAND STANDARD AND EXCAVATION. TRACT LUMP SUM PRICE FOR COFFERDAMS AND EXCAVATION BRACING. NO ADDITIONAL PAYMENT WILL BE MADE FOR PROVIDING AN ALTERNATE DESIGN.

## ITEM 202 - STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN

THE EXISTING STRUCTURE SHALL BE REMOVED IN ACCORDANCE WITH ITEM 202 EXCEPT THAT THE EXISTING ABUTMENTS SHALL BE REMOVED IN THEIR ENTIRETY.

ITEM 511 CLASS QC3 CONCRETE, MISC.: WITH QC/QA, BRIDGE DECK & ITEM 511 CLASS QC SCC CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)

THIS ITEM MODIFIES THE STANDARD 511 CONCRETE FOR STRUCTURES SPECIFICATION TO INCLUDE MACRO-SYNTHETIC INTO THE SUPERSTRUCTURE CONCRETE, THIS ITEM SHALL AND CONFIDENT AND STANDARD STANDARD AND STANDARD AN CONFORM TO CMS 511 WITH THE FOLLOWING CONDITIONS AND REVISIONS:

PROVIDE MATERIALS CONFORMING TO 511.02 EXCEPT AS MODIFIED BELOW:

PORTLAND CEMENT CONCRETE 499.03, CLASS OC 3 MEETING A DESIGN STRENGTH OF 4,500 PSI, WITH MACRO-SYNTHETIC FIBERS WITH MODIFICATION PER 511.02 FIBERS FOR CONCRETE: ASTM C 1116, TYPE III 515.15 CORROSION INHIBITOR:

THE CLASS QC3 CONCRETE FOR THE SUPERSTRUCTURE SHALL MEET THE FOLLOWING CRITERIA: WATER/CEMENT RATIO = 0.40 MAXIMUM; MINIMUM 4 LBS/CY MACRO-SYNTHETIC FIBERS (1.5 IN. MIN. TO 2.5 IN. MAX.) MEETING ASTM C1116 TYPE III SHALL BE ADDED TO THE MIX.

MIX SHALL INCLUDE A MIGRATING CORROSION INHIBITOR AS MANUFACTURED BY AN APPROVED SUPPLIER LISTED ON ODOT'S QUALIFIED APPROVED SUPPLIERS, ITEM 515.15. THE DOSAGE RATE LISTED ON THE ODOT QUALIFIED APPROVED SUPPLIERS LIST WILL

## ITEM 511 CLASS QC3 CONCRETE, MISC.: WITH QC/QA, BRIDGE DECK. & ITEM 511 CLASS QC SCC CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET) CONTINUED

THE MACRO-SYNTHETIC FIBERS SHALL BE INCORPORATED INTO THE MIX IN SUCH A WAY THAT NO 'BALLING' OCCURS. UPON INSPECTION OF THE MIX AT THE TIME OF PLACEMENT, IF ANY 'BALLING' OCCURS, THE ENGINEER SHALL REJECT THE REMAINDER OF THE LOAD AT ANY TIME DURING THE POUR. IT IS IMPORTANT TO FOLLOW INDUSTRY STANDARDS AND ASTM SPECIFICATIONS ON THE PREMIXING OF THE CEMENT, AGGREGATE, AND MACRO-SYNTHETIC FIBERS PRIOR TO THE ADDITION OF WATER AND ADMIXTURES. PROVIDE MACRO-SYNTHETIC FIBERS THAT ARE MONOFILAMENT FIBERS MADE FROM VIRGIN POLYPROPYLENE, POLYETHYLENE, OR CO-POLYMERS THAT ARE INERT TO ALKALI ATTACK. EO-POLYMERS THAT ARE INERT TO ALKALI ATTACK.
ENSURE THE MACRO-SYNTHETIC FIBERS HAVE A MINIMUM
TENSILE STRENGTH OF 70 KSI, A MINIMUM MODULUS OF
ELASTICITY OF 800 KSI, A MINIMUM FILAMENT
DIAMETER OF 0.012 INCHES, AND ASPECT RATIO
BETWEEN 60 AND 100, AND ARE BETWEEN 1.0 AND 2.5
INCHES IN LENGTH. STORE THE MACRO-SYNTHETIC
FIBERS ACCORDING TO THE MANUFACTURE'S RECOMMENDATION AND KEEP THE MATERIAL FREE FROM DUST, DIRT AND MOISTURE. PLACING THE BAG THAT THE FIBERS COME IN INTO THE CONCRETE MIX IS NOT

USE A MINIMUM DOSAGE RATE OF MACRO-SYNTHETIC FIBERS OF 4.0 LBS/CY OF CONCRETE. DETERMINE THE FINAL PROPOSED DOSAGE RATE THROUGH MIX TESTING. ENSURE THE FIBER REINFORCED CONCRETE MEETS OR EXCEEDS A MINIMUM EQUIVALENT FLEXURAL STRENGTH RATIO OF 25% ACCORDING TO ASTM C 1609. ENSURE THE FINAL PROPOSED MIX IS WORKABLE AND ABLE TO BE PRODUCED SUCH THAT BALLING OR CLUMPING OF THE FIBERS IS NOT A PROBLEM AS DETERMINED BY THE ENGINEER. UTILIZE A LABORATORY REGULARLY INSPECTED BY THE CEMENT AND CONCRETE REFERENCE LABORATORY (CCRL) OF THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY, OR OTHER APPROVED REFERENCE LABORATORY, TO PERFORM THE TESTING.
BEFORE USE, SUBMIT DOCUMENTATION TO THE PROJECT ENGINEER CERTIFYING BOTH THE MACRO-SYNTHETIC FIBERS AND THE MIX MEET OR EXCEED THE REQUIRED PROPERTIES. SAMPLING WILL BE ALLOWED FOR TESTING PURPOSES. A DEMONSTRATION OF THE MIX PRODUCTION OR TRIAL MIX, MAY BE REQUIRED BY THE ENGINEER PRIOR TO PLACING ANY OF THE MIX ON THE PROJECT.

THE BATCH WEIGHTS SHALL BE CORRECTED TO COMPENSATE FOR THE MOISTURE CONTAINED IN THE AGGREGATE AT THE TIME OF USE. A CHEMICAL ADMIXTURE (705.12, TYPE A OR D) SHALL BE USED ADMIXTURE (105.12, TIPE A OR D) SHALL BE USED.
THE TRANSIT MIXER CHARGE SHALL BE LIMITED TO 3/4
OF ITS RATED CAPACITY OR 6 CUBIC YARDS, WHICHEVER
IS SMALLER. THE FIRST THREE TRANSIT MIXER LOADS
ARE REQUIRED TO BE AT THE MINIMUM YARDAGE LISTED
ABOVE TO SHOW PROOF OF THE SUCCESSFUL BATCHING OPERATION. AFTER CONSISTENCY IN THE DELIVERED MATERIAL HAS BEEN ESTABLISHED, THE CONCRETE SUPPLIER MAY INCREASE THE BATCH DELIVERED
OUANTITIES AS LONG AS THE OUALITY REMAINS
ACCEPTABLE TO THE ENGINEER. THE ENGINEER CAN
REDUCE THE BATCH LOAD SIZE AT ANY TIME AS NEEDED
TO CORRECT/IMPROVE CONCRETE QUALITY.

CONCRETE SUPPLIERS SHOULD RECOGNIZE THAT THE CORROSION INHIBITOR AND ADMIXTURES MAY HAVE AN EFFECT ON STRENGTH, ENTRAINED AIR CONTENT,
WORKABILITY, ETC. OF THEIR CONCRETE MIXES. THE
CORROSION INHIBITOR IS SUGGESTED TO BE A MCI
PRODUCT BY CORTEC OR AN APPROVED EQUAL FROM THE
QUALIFIED PRODUCTS LIST. THE CONCRETE SUPPLIER'S CHOICE OF ONE OF THESE CORROSION INHIBITORS DOES NOT ALLEVIATE MEETING DESIGN REQUIREMENTS. PLEASE BE ADVISED THAT SOME PRODUCTS ON THE LIST EFFECT THE DELIVERED MIX PROPERTIES GREATLY WHILE OTHER PRODUCTS DO NOT.

APPROACH SLABS, DIAPHRAGMS, AND BRIDGE RAILING CONCRETE (WHEN APPLICABLE) ARE TO USE THE SAME MIX DESIGN AS THE BRIDGE DECK. THE CONTRACTOR SHOULD BE ADVISED THAT CONCRETE RETARDING AGENTS MAY NEED TO BE ADDED TO OFFSET THE EFFECTS OF THE MIGRATING CORROSION INHIBITOR SELECTED. USE SELF-COMPACTING CONCRETE ON DECORATIVE RAILING SIMILAR TO TEXAS RAILING AND MACRO-SYNTHETIC CONCRETE PER THIS SPECIFICATION ON TRADITIONAL CONCRETE RAILING WHEN APPLICABLE.

THE CONTRACTOR SHALL PROVIDE TRADITIONAL BRIDGE DECK FORMS CONFORMING TO CMS 508. PERMANENT STAY-IN-PLACE (SIP) FORMS ARE NOT ALLOWED. THE PLACING OF THE DECK AND THE APPROACH SLABS IN THE SAME CONCRETE POUR IS NOT PERMITTED.

3/36

61

4

M-75-

76256

° N

PID Η

GENERAL NOTES RIDGE NO. HAM-75-153: 75 NB OVER SHARON R

BRIDGE I-75 NB

SULE

	NUMBER			Lu	ш DIMENSIONS								
MARK	TOTAL	LENGTH	WEIGHT	TYPE	A	В	С	D	Ε	R	INC		
				5	<b>UPERSTR</b>	RUCTURE							
S401	396	30'- 00''	7,936	STR									
5402	94	23'- 07''	1,481	STR	0/ 5//								
S403 S404	563	8'- 11'' 4'- 07''	3,354	<i>16</i> <i>35</i>	8′-5″ 3′-9″	7"				2"			
S404 S405	28 4	4'- 00''	86 11	STR	3"-9"	7"				2"			
S406	8	6'- 07''	36	STR									
5407	8	6'- 04''	34	STR									
5408	32	5'- 11''	127	28	4'-0"	1'-0"							
5409	48	4'- 00''	129	STR									
S410	32	5'- 00''	107	2	8"	3′-10″	8"						
S411	364	3'- 00''	730	11	1′-1″	1′-8″	1'-1"						
S412	364	1'- 08''	406	19	10"	2"	10"						
S501	420	30'- 00''	13,142	STR									
S502	105 276	28'- 07"	3,131	STR STR									
\$504	273	20'- 03'' 24'- 11''	5,830 7,095	STR									
* \$506	548	21'- 06"	12,289	STR									
73000	1	5'- 10''	12,200	3111									
S507	SER. OF	10	58	STR							2'-7"		
	5	16'- 02''											
	1	3'- 00''											
S508	SER. OF	TO	101	STR							2'-7"		
	8	21'- 01''											
	1	5'- 00''											
* \S509	SER. OF	10	144	STR							2'-7"		
	9	25'- 08''											
S510	SER. OF	5'- 11'' TO	125	STR							2'-7"		
3510	SER. OF	24'- 00''	125	SIR							2 - 1		
	1	5'- 10''											
S511	SER. OF	TO	125	STR							2'-7"		
33	8	23'- 11''	,,,,	1									
	1	1'- 08''											
\(\begin{align*} \cdot \ \cdot \	SER. OF	TO	113	STR							2'-7"		
	9	22'- 04''											
	1	1'- 07''											
S513	SER. OF	70	112	STR							2'-7"		
	9	22'- 03''											
S514	SER. OF	5'- 11'' TO	78	STR							2'-7"		
3314	3ER. OF	18'- 10''	10	SIR							2 -1		
S516	274	25'- 11''	7,407	STR									
* \$517	275	19'- 11''	5,713	STR									
* \$5518	276	16'- 01''	4,630	STR									
S519	273	27'- 07''	7 <b>,</b> 855	STR									
S520	12	7'- 06''	94	STR									
S521	NOT USED												
6500	1	6'- 04''	10.7	CTC							0/ 7"		
S522	SER. OF	70	103	STR							2'-7"		
	7	21'- 10'' 3'- 00''		1									
S523	SER. OF	TO	153	STR		1					2'-7"		
3323	10	26'- 03''	100	3,11		1					+ - '		
	1	2'- 05"		1									
(*)S524	SER. OF	10	96	STR							2'-7"		
	8	20'- 06''											
	1	6'- 01''											
S525	SER. OF	TO	79	STR							2'-7"		
	6	19'- 00''											
6566	1	5'- 07''	<i></i>	CTO		1					0, 7"		
S526	SER. OF	TO 151	57	STR							2'-7"		
	5	15'- 11'' 1'- 08''		1									
(*)S527	SER. OF	TO TO	69	STR							2'-7"		
ا عدد س	7 7	17'- 02''	0.0	3111							'		
	1	1'- 07''											
S528	SER. OF	TO	167	STR							2'-7"		
	11	27'- 05''		1									

 $\bigcirc$ 

 $\bigcirc$ 

 $\bigcirc$ 

	NUMBER			ш			D	IMENSION	S		
MARK	TOTAL	LENGTH	WEIGHT	TYPE	A	В	С	D	Ε	R	INC
	•	•	<u>'</u>	SUPE	RSTRUCTO	JRE (CONT	·.)				
	1	6'- 10''									
S529	SER. OF	TO	133	STR							2'-7"
	8	24'- 11''									
S530	116	8'- 05"	1,019	2	2'-7"	3'-6"	2'-7"				
S531	244	13'- 01''	3,330	2	4'-8"	4'-0"	4'-8"				
S532	NOT USED	13 01	3,330	2	9 0	7 0	9 0				
		11/ 05//	70	1	7/ 10//	4/ 0//	7/ 10//				
S533	6	11'- 05''	72	2	3′-10″	4'-0"	3′-10″				
S534	40	30'- 00''	1,252	STR							
S535	368	7'- 04''	2,815	23	11"	3'-3"	3'-0"			2 3/4"	
S536	120	8'- 05''	1,054	29	11"	1'-7"	3'-2"	3'-0"			
S537	54	4'- 11''	277	3	11"	1'-3"					
S538	54	5'- 03''	296	3	11"	1′-5″					
S539	4	6'- 05''	27	3	1'-8"	1'-3"					
S540	4	6'- 09''	29	3	1'-8"	1'-5"					
					1 0	1 3					
S541	8	5'- 08''	48	STR	1/ 10 "	2/ 5"	1/ 5"	11/0"	F."	+	
S542	8	5'- 08''	48	25	1′-10″	2'-5"	1′-5″	1 1/2"	5″		
S543	10	7'- 07''	80	STR							
S544	220	6'- 05''	1,473	STR							
S545	10	8'- 05''	88	STR							
S546	10	7'- 03''	76	STR							
S547	8	29'- 07''	247	STR							
S548	8	25'- 09"	215	STR							
S549	4	12'- 03''	52	STR							
3349	4	12 - 03	32	3111							
S601	46	6'- 05''	444	STR							
				_	1/ 0//	7, 10, "					
5602	488	5'- 02''	3,788	1	1′-6″	3′-10″					
S603	492	3'- 01''	2,279	28	11"	1'-7"					
S604	4	2'- 05''	15	1	1'-0"	1'-7"					
	4	3'- 11''				3'-1"					
S605	SER. OF	TO	316	1	1'-0"	TO					1"
	12	4'- 10''				4'-0"					
S606	12	4'- 00''	73	1	1'-0"	3'-2"					
S607	2	8'- 05"	26	STR	7 0	J 2					
S608	2	7'- 07''	23	STR							
S609	2	4'- 06''	14	STR							
S610	2	7'- 03''	22	STR							
*) S801	36	24'- 03''	2,331	STR							
* )S802	8	31'- 07''	675	1	30′-5″	1'-4"					
25803	8	8'- 03''	177	1	7′-1″	1'-4"					
ZS804	16	6'- 07''	282	18	4'-2"	1'-1"	1'-1"				
* <\$805	30	2'- 06"	201	STR							
\$806	20	10'- 08''	570	STR							
* \$807	10	7'- 03''	194	STR							
\$808	30	9'- 10''	788	STR							
* )\$809	64	25'- 04''	4,329	STR							
)S810	4	7'- 11''	85	STR							
)S811	6	7'- 01''	114	STR							
* 25812	2	1'- 02''	7	STR							
* <\S813	2	5'- 11"	32	STR							
\$5814	6	7'- 01''	114	STR							
										+	
* 5815	6	30'- 05''	488	STR							
S816	4	2'- 01''	23	STR							
S817	10	12'- 06''	334	17	10′-8″						
D801	116	4'- 11''	1,523	18	2'-7"	1'-0"	1'-0"				
		TOTAL	115,101			1					

	NUMBER TOTAL	LENGTH	TOTAL	Ę		DIMENSIONS							
MARK			LENGTH	TYPE	A	В	С	D	R	INC			
		SUPERSTRUC	TURE (PARAI	PET G	LASS FIB	ER POLYM	ER REINFO	ORCING)					
GS601	144	4'- 06''	648′-0″	STR									
GFRP TOTA	Ĺ		648′-0″										
		INCLUDED I	VITH ITEM 509	NO X	X GFRP DEF	ORMED BAR	S FOR PAY	MENT					

TWO MIRANOVA PLACE SUITE 450 COLUMBUS, OHIO 43215

REINFORCING STEEL LIST BRIDGE NO. HAM-75-1539R I-75 NB OVER SHARON RD.

HAM-75-14.61 PID No. 76256



		NUMBER				M		DIMEN	SIONS	
MARK	REAR	FWD.	TOTAL	LENGTH	WEIGHT	TYPE	A	В	С	INC
				ABUT	MENTS					
A501	32	32	64	30'- 00''	2,003	STR				
* ¥ \$4502	7	7	14	9'- 03"	136	STR				
* A503	7	7	14	11'- 06''	168	STR				
A)504	8	8	16	23'- 01"	386	STR				
* \$1505	2	2	4	13'- 09''	58	STR				
* À506	2	2	4	15'- 11''	67	STR				
J <sub>A507</sub>	122	122	244	18'- 01''	4,603	3	6'-2"	2'-7"		
A508	81	81	162	15'- 05''	2,605	3	4'-0"	3′-5″		
A509	22	22	44	14'- 03''	654	2	6'-2"	2'-2"	6'-2"	
A510	4	4	8	15'- 07''	131	3	4'-1"	3′-5″		
A511	2	2	4	18'- 05''	77	3	6'-3"	2'-8"		
A512	2	2	4	13'- 01''	55	3	2'-2"	4'-1"		
A513	2	2	4	13'- 11''	59	3	2'-2"	4'-6"		
	2	2	4	15'- 01''				5′-1″		
A514	SER. OF	SER. OF	SER.OF	TO	507	3	2'-2"	TO		9"
	7	7	7	19'- 07''				7′-4″		
	1	1	2	10'- 03''			4'-2"		4'-2"	
A515	SER. OF	SER. OF	SER.OF	TO	183	2	TO	2'-2"	TO	9"
	7	7	7	14'- 09''			6'-5"		6'-5"	
A516	1	1	2	15'- 11''	34	2	7′-0″	2'-2"	7′-0″	
A517	2	2	4	16'- 05''	69	2	7′-3″	2'-2"	7′-3″	
A518	4	4	8	17'- 03''	144	2	7′-8″	2'-2"	7′-8″	
	1	1	2	3'- 08''						
A519	SER. OF	SER. OF	SER.OF	TO	159	STR				2'-4 7/8"
	7	7	7	18'- 00''						
	1	1	2	3'- 03''						
A520	SER. OF	SER. OF	SER.OF	TO	153	STR				2'-4 7/8"
	7	7	7	17'- 07''						
A521	1	1	2	21'- 07''	46	19	1'-7"	18'-5"	7′-9″	
A522	1	1	2	21'- 02''	45	19	1'-2"	18'-5"	7′-9″	
A523	3	3	6	18'- 01''	114	2	8'-1"	2'-2"	8′-1″	
	1	1	2	10'- 09''			4'-5"		4′-5″	
A524	SER. OF	SER. OF	SER.OF	TO	190	2	TO	2'-2"	TO	9"
	7	7	7	15'- 03''			6′-8″		6'-8"	
	1	1	2	3'- 04''						
A525	SER. OF	SER. OF	SER.OF	TO	159	STR				2'-6"
	7	7	7	18'- 04''						
	1	1	2	3'- 09''						
A526	SER. OF	SER. OF	SER.OF	TO	165	STR				2'-6"
	7	7	7	18'- 09''						
A527	1	1	2	21'- 01''	44	19	1'-3"	18'-5"	7′-5″	
A528	1	1	2	21'- 05''	45	19	1'-7"	18′-5″	7′-5″	
A801	32	32	64	30'- 00''	5,127	STR				
* \A802	5	5	10	12'- 03''	328	STR				
* \4803	5	5	10	14'- 05''	385	STR				
* <4804	6	6	12	19'- 10''	636	STR				
* SA805	6	6	12	17'- 08''	567	STR				
	A	BUTMENT TO	TAL		20,102					
		NUMBER				Įų,		DIMEN	SIONS	
MARK	REAR	FWD.	TOTAL	LENGTH	WEIGHT	TYPE	A	В	С	INC
					GM GUIDE		I			
	-							1 7/ 0 1/0//		
DG601 DG801	5 9	5 9	10 18	16'- 09''	252 657	<i>3 5</i>	4'-0 3/4" 2'-8"	3'-8 1/2" 3'-7"	2'-4"	

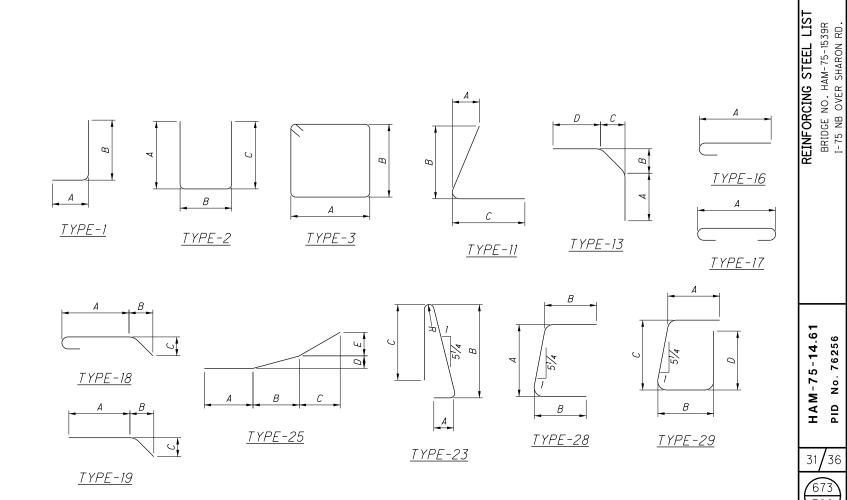
Ν	<u>01</u>	E	<u>S:</u>

 $\bigcirc$ 

2. ALL REINFORCEMENT IS TO BE EPOXY COATED.

MARK	NUMBER	LENGTH	WEIGHT	YPE	DIMENSIONS									
MARK	TOTAL	LENGIA	METOUL	77	A	В	С	D						
	SUPERSTRUCTURE (INTERMEDIATE DIAPHRAGMS)													
SI401	198	10'- 08''	1,411	3	6"	4'-9"								
SI601	72	9'- 08''	1,045	STR										
SI602	84	11'- 00''	1,388	13	3′-10″	7"	1'-2"	6'-0"						
SI603	54	10'- 06''	852	STR										
INTERME	INTERMEDIATE DIAPHRAGM TOTAL 4,696													
	FOR INFORMATION ONLY NOT INCLUDED WITH ITEM 509.													

TWO MIRANC SUITE 450 COLUMBUS,



<sup>1.</sup> THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

<sup>3. \* -</sup> MECHANICALLY SPLICED BAR: LENGTH GIVEN INCLUDES 2 INCHES OF CLEARANCE AT EACH END. CONTRACTOR SHALL ADJUST LENGTH AS REQUIRED FOR TYPE OF MECHANICAL SPLICE USED.