

**ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN**

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

THE PCMS LOCATIONS AND WORK LIMITS WILL BE AS DIRECTED BY THE ENGINEER.

PLAN. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE, AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN  
37 SIGN MONTH  
ASSUMING 2 PCMS SIGNS FOR 18 MONTHS  
ASSUMING 1 PCMS SIGNS FOR 1 MONTH

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

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

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

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

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

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN A NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

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

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

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

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

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

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

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE, 500 HOURS

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF A LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

**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 - 68 M. GAL.

**ITEM 614 - MAINTAINING TRAFFIC, MISC.: RUMBLE STRIP REMOVAL**

THE CONTRACTOR SHALL MILL 2 INCHES DEEP BY 2 FEET WIDE OF THE EXISTING ASPHALT SHOULDER IN ORDER TO REMOVE THE EXISTING RUMBLE STRIPS ALONG EASTBOUND USR 35 AT THE FOLLOWING LOCATIONS:

STA. 559+63.94 TO STA. 570+47.53 = 1,083.59 FT.  
STA. 573+44.31 TO STA. 577+11.13 = 366.82 FT.  
STA. 631+20.00 TO STA. 634+90.00 = 370.00 FT.

THE ABOVE AREAS CONSIST OF FULL-DEPTH OUTSIDE SHOULDER REPLACEMENT, AS SHOWN IN PHASE 3.

THE CONTRACTOR SHALL THEN COAT ALL MILLED SURFACES (HORIZONTAL AND VERTICAL) WITH APPROVED AC LIQUID. NEXT THE CONTRACTOR SHALL PLACE 2 INCHES OF ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A, (448), PG64-28 AS PER PLAN.

AN ESTIMATED QUANTITY OF 1,821 FEET HAS BEEN CARRIED TO THE GENERAL SUMMARY.

**ITEM 614 - DETOUR SIGNING**

THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN AND REMOVE THE DETOUR SIGNING SHOWN IN THESE PLANS. MATERIAL, LABOR AND EQUIPMENT TO IMPLEMENT THE DETOUR SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614, DETOUR SIGNING.

**PROPOSED RETAINING WALL & NOISE WALL**

THE CONTRACTOR SHALL CONSTRUCT THE PROPOSED RETAINING WALL & NOISE WALL WITHIN A PERIOD NOT TO EXCEED 60 DAYS. HOWEVER MINOR WORK THAT DOES NOT AFFECT THE NOISE ABATEMENT FUNCTION OF THE WALL CAN BE DONE OUTSIDE THE 60 DAY WINDOW AS LONG AS IT IS COMPLETED IMMEDIATELY FOLLOWING THE 60 DAY DURATION EXPIRATION. SHOULD THE CONTRACTOR FAIL TO MEET THIS REQUIREMENT, A DISINCENTIVE IN THE AMOUNT OF \$5,000 FOR EACH DAY THE 60 DAY PERIOD IS VIOLATED (PN 121).

**PN 121 - DISINCENTIVE CONTRACT**

THE CONTRACTOR SHALL COMPLETE ALL CRITICAL WORK AND SAFETY ITEMS ACCORDING TO THE DISINCENTIVE CONTRACT TABLE. THE DISINCENTIVE CONTRACT TABLE IS LOCATED IN THE PLAN GENERAL NOTES. IN THE EVENT THE CONTRACTOR IMPEDES THE FLOW OF TRAFFIC SUBSEQUENT TO THE OPENING TO UNRESTRICTED TRAFFIC, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE ACCORDING TO THE DISINCENTIVE CONTRACT TABLE.

CRITICAL WORK IS SHOWN IN THE DISINCENTIVE CONTRACT TABLE.

CRITICAL WORK IS DEFINED AS HAVING THE DESIGNATED SECTION OF WORK OPEN TO UNRESTRICTED TRAFFIC AS SHOWN IN THE TABLE, OR THE ENTIRE PROJECT IF NOT OTHERWISE LISTED.

UNRESTRICTED TRAFFIC IS DEFINED AS ALL TRAFFIC LANES BEING AVAILABLE FOR USE AT THEIR FINAL DESIGN WIDTH WITH ALL MARKINGS, RPM'S, AND SAFETY FEATURES INSTALLED, ALONG WITH NO RESTRICTIONS WITHIN 2 FEET OF THE EDGE LINE ON THE SHOULDERS.

DISINCENTIVE AMOUNT:

THE CONTRACTOR WILL BE ASSESSED A DISINCENTIVE ACCORDING TO THE DISINCENTIVE CONTRACT TABLE.

EXTENSIONS OF TIME WILL BE FOR CALENDAR DAYS AND CALCULATED IN ACCORDANCE WITH C&MS 108.06 EXCEPT AS FOLLOWS: NO EXTENSIONS OF TIME WILL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES (UNLESS SUCH DELAYS ARE INDUSTRY WIDE), AND LABOR STRIKES (UNLESS SUCH STRIKES ARE AREA WIDE).

**DISINCENTIVE CONTRACT TABLE**

DESCRIPTION OR LOCATION OF CRITICAL WORK	COMPLETION TIME OR TIME DURATION	TIME PERIOD	DISINCENTIVE \$ PER TIME PERIOD
PHASE 1	10/15/2020 SEE PLCS NOTE ON SHEET 27	DAY	\$5,000
PHASE 2	10/15/2021 SEE NOTE ON SHEET 27	DAY	\$12,500
NOISEWALL	60 DAYS SEE NOTE ON SHEET 26	DAY	\$5,000

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MAINTENANCE OF TRAFFIC NOTES

MOT-35-18.57  
GRE-35-0.00

**STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:**

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):  
SBR-1-13 REVISED 7-20-18

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):  
800 DATED 1-17-2020

**DESIGN SPECIFICATIONS:**

THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2012 - 6TH EDITION, THE ODOT BRIDGE DESIGN MANUAL, 2007 AND THE AASHTO GUIDE SPECIFICATIONS FOR STRUCTURAL DESIGN OF SOUND BARRIERS, 1989, INCLUDING THE 2002 INTERIM.

**DESIGN DATA:**

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)  
REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI, EPOXY COATED PER MATERIAL SPECIFICATION 709.00.  
STRUCTURAL STEEL - ASTM A709 GRADE 50 - YIELD STRENGTH 50 KSI (FURNISH ACCORDING TO 711.01) GALVANIZED  
HIGH STRENGTH BOLTS - 1" DIAMETER, ASTM A325 (FURNISH ACCORDING TO 711.09) GALVANIZED

**DESIGN PARAMETERS:**

EMBANKMENT:  
SOIL UNIT WEIGHT,  $\gamma$  (SOIL) = 120 PCF  
ANGLE OF INTERNAL FRICTION,  $\phi = 30^\circ$   
LIVE LOAD SURCHARGE = 250 PSF

BEARING SOIL:  
SOIL UNIT WEIGHT,  $\gamma$  (SOIL) = 120 PCF  
ANGLE OF INTERNAL FRICTION,  $\phi = 33^\circ$

**UTILITY LINES:**

THE UTILITIES SHALL BEAR ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITIES ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

**FOUNDATION BEARING RESISTANCE:**

RETAINING WALL TRANSITION SECTION FOOTINGS, AS DESIGNED, PRODUCE A MAXIMUM SERVICE LOAD PRESSURE OF 3.00 KIPS PER SQUARE FOOT AND A MAXIMUM STRENGTH LOAD PRESSURE OF 3.30 KIPS PER SQUARE FOOT. THE FACTORED BEARING RESISTANCE IS 7.50 KIPS PER SQUARE FOOT.

MADE BY: FIB DATE: 12/19/12  
CHECKED BY: BMG DATE: 1/14/13

ESTIMATED QUANTITIES					
ITEM	EXT.	TOTAL	UNIT	DESCRIPTION	AS PER PLAN REFERENCE SHEET NUMBER
202	11000	LUMP		STRUCTURE REMOVED	
503	11100	LUMP		COFFERDAMS AND EXCAVATION BRACING	
503	21300	LUMP		UNCLASSIFIED EXCAVATION	
509	10001	74,597	POUND	EPOXY COATED REINFORCING STEEL, AS PER PLAN	2/8
511	46012	208	CU YD	CLASS QC1 CONCRETE WITH QC/QA, RETAINING/WINGWALL NOT INCLUDING FOOTING	
511	46512	119	CU YD	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	
512	10100	582	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
512	33000	20	SQ YD	TYPE 2 WATERPROOFING	
516	13600	537	SQ FT	1" PREFORMED EXPANSION JOINT FILLER	
516	31010	328	FT	2" DEEP JOINT SEALER	
518	21200	32	CU YD	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
518	40000	328	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
518	40012	6	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE	

**ITEM 509 EPOXY COATED REINFORCING STEEL, AS PER PLAN:**

IN ADDITION TO THE PROVISIONS OF ITEM 509, FIELD BEND AND/OR FIELD CUT THE REINFORCING STEEL DESIGNATED IN THE PLANS, AS NECESSARY, IN ORDER TO MAINTAIN THE REQUIRED CLEARANCES AND BAR SPACINGS. REPAIR ALL DAMAGE TO THE EPOXY COATING, AS A RESULT OF THIS WORK, ACCORDING TO 709.00.

**ITEM 202 STRUCTURE REMOVED:**

THE CONTRACTOR SHALL REMOVE THE EXISTING JORDAN AVENUE RETAINING WALL AS REQUIRED TO CONSTRUCT PROPOSED RETAINING WALL 1. REMOVAL AND DISPOSAL SHALL BE DONE IN ACCORDANCE WITH CMS ITEM 202.

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DESIGNED	DATE
JN	1/2013
CHECKED	DFT
MRV	STRUCTURE FILE NUMBER
DRAWN	BMG
REVIEWED	REVISID

GENERAL NOTES AND ESTIMATED QUANTITIES  
RETAINING WALL NO. 1  
ALONG USR 35

MOT-35-18-57  
GRE-35-0.00  
PID No. 89130

2 / 8

243  
310

**ITEM 606 - SPECIAL - NOISE BARRIER (REFLECTIVE)**

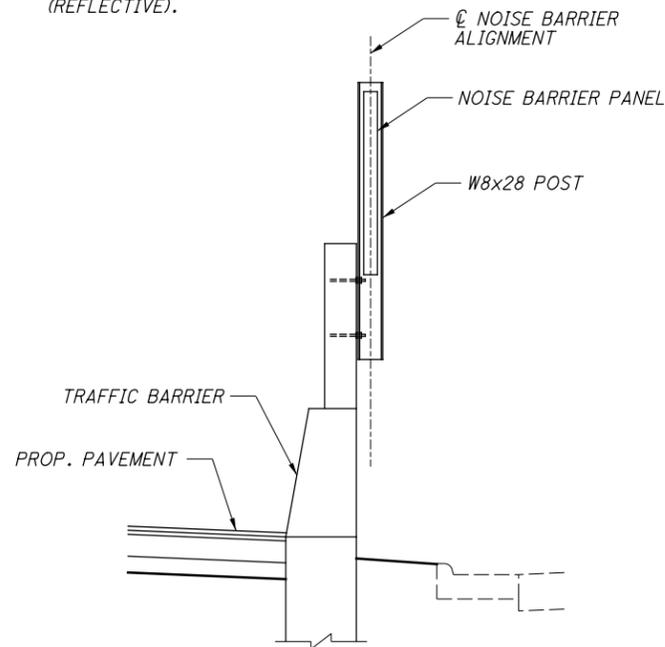
**GENERAL**

- FOR EXISTING NOISE BARRIER DETAILS, SEE MOT-35-18.18 (PID 80277) PLANS AVAILABLE AT THE DISTRICT OFFICE. THESE PLANS ARE NOT AS-BUILT DRAWINGS. THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING NOISE BARRIER INSTALLATION PRIOR TO REMOVAL OF THE PANELS. ANY ADJUSTMENTS TO ADJACENT POSTS SHOULD BE DONE AT THE DIRECTION OF THE ENGINEER.
- EXISTING NOISE BARRIER PANELS FROM POST #74 TO POST #86 SHALL BE REMOVED AND STORED UNTIL THE COMPLETION OF THE PROPOSED RETAINING WALL.
- AFTER COMPLETION OF THE PROPOSED RETAINING WALL, THE NOISE BARRIER PANELS SHALL BE INSTALLED IN THE W8X28 POSTED MOUNTED TO THE BACK OF THE RETAINING WALL. AFTER ALL PANELS HAVE BEEN INSTALLED, THE CONTRACTOR SHALL DISPOSE OF THE UNUSED PANELS.
- THE CONTRACTOR SHALL EXERCISE CARE WHEN REMOVING, TRANSPORTING, AND REINSTALLING THE NOISE BARRIER PANELS. ANY DAMAGED PANELS SHALL BE REPLACED WITH A PANEL OF EQUAL SIZE, SHAPE, AND APPEARANCE. REPLACEMENT PANELS MAY BE PANELS MARKED FOR REMOVAL OR NEW PANELS MATCHING THE DAMAGED PANEL.
- THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE EXISTING NOISEWALL DRILLED SHAFTS NECESSARY TO CONSTRUCT THE PROPOSED RETAINING WALL ACCORDING TO CMS 202.03.

**PAYMENT**

IN ADDITION TO THE REQUIREMENTS OF STANDARD CONSTRUCTION DRAWING NBS-1-09, THIS ITEM SHALL INCLUDE THE COSTS ASSOCIATED WITH THE ABOVE DESCRIBED WORK, INCLUDING FURNISHING AND INSTALLING ALL ANCHOR BOLTS AND STEEL POSTS, AND PLACING EXISTING PANELS.

ALL OF THE ABOVE REQUIREMENT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 606 - SPECIAL - NOISE BARRIER (REFLECTIVE).



**TYPICAL SECTION ON TRAFFIC BARRIER**

BARRIER NO. 3  
STA. 317+38.00 TO STA. 320+16.00 = 278.00'

NOISE BARRIER BASELINE GEOMETRY						
P.I. NO.	NOISE BARRIER STATION	USR-35 STATION	USR-35 OFFSET	NORTHING	EASTING	BEARING
	WALL NO. 3					
13	316+32.00	563+97.86	84.06' RT.	642295.0029	1506433.6411	S 61°-10'-22" E
13A	316+80.00	564+45.45	77.80' RT.	642271.8589	1506475.6929	S 53°-40'-22" E
14	316+97.00	564+62.45	77.80' RT.	642261.7882	1506489.3889	S 59°-35'-23" E
15	317+14.00	564+79.36	76.05' RT.	642253.1829	1506504.0501	N 85°-42'-27" E
16	317+29.00	564+90.75	66.28' RT.	642254.3057	1506519.0080	S 69°-02'-14" E
17	317+53.00	565+13.89	59.92' RT.	642245.7194	1506541.4195	S 53°-40'-22" E
18	318+49.00	566+09.89	59.92' RT.	642188.8495	1506618.7617	S 47°-41'-37" E
19	319+45.00	567+05.37	69.92' RT.	642124.2325	1506689.7592	S 53°-40'-22" E
20	319+93.00	567+53.26	69.95' RT.	642095.7976	1506728.4303	S 47°-33'-59" E
21	320+16.00	567+76.01	72.45' RT.	642080.2787	1506745.4057	S 12°-19'-11" W
22	320+40.00	567+85.63	94.41' RT.	642056.8313	1506740.2849	S 49°-04'-19" E
23	320+88.00	568+32.93	98.56' RT.	642025.3860	1506776.5504	

BENCHMARKS FOR C USR-35					
DESCRIPTION	STATION	OFFSET	NORTHING	EASTING	ELEVATION
CL MON.	567+01.10	0.11' LT.	642183.1845	1506727.8101	862.35
CL MON.	575+25.89	0.04' RT.	641748.8400	1507427.3542	860.26

SHEET NO.	REFERENCE NO.	STATION		SIDE	606
		FROM	TO		SPECIAL - NOISE BARRIER (REFLECTIVE)
					SF
USR 35 - NOISE BARRIER					
251	NW-1	317+29.00	317+53.00	CL	384
251	NW-2	317+53.00	318+49.00	CL	888
251	NW-3	318+49.00	319+45.00	CL	936
251	NW-4	319+45.00	319+93.00	CL	432
251	NW-5	319+93.00	320+16.00	CL	368
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>					<b>3008</b>

CALCULATED  
MJC  
CHECKED  
BBD

NOISE BARRIER MISCELLANEOUS DETAILS

MOT-35-18.57  
GRE-35-0.00

250  
310

**EXISTING CABLE AND CONDUIT**

THE LOCATION OF EXISTING CIRCUIT CABLE, AS SHOWN IN THIS PLAN, WERE APPROXIMATED FROM EXISTING DESIGN PLANS. PRIOR TO INITIATING ANY NEW TRENCHING, THE CONTRACTOR SHALL FIELD LOCATE ALL EXISTING CIRCUITS, AND VERIFY THE ASSUMED CIRCUIT INFORMATION.

IT IS ALSO ASSUMED THAT PROPOSED FOUNDATION LOCATIONS AND PROPOSED TRENCH LOCATIONS MAY IMPACT EXISTING CIRCUITS. IF CONSTRUCTION PROCEDURES WILL IMPACT ENERGIZATION OF AN EXISTING LIGHTING UNIT FOR MORE THAN TWENTY-FOUR HOURS, THEN TEMPORARY CIRCUITS SHALL BE PROVIDED, PER "ITEM 625 SPECIAL, MAINTAIN EXISTING LIGHTING". THE CONTRACTOR SHALL NOT ADJUST PROPOSED FOUNDATION OR TRENCH LOCATIONS, WITHOUT APPROVAL IN WRITING FROM THE ENGINEER.

EXISTING CIRCUITS WHICH HAVE BEEN ABANDONED, AS INDICATED IN THE PLAN (OR AS A RESULT OF THE FIELD REVIEW/CONFIRMATION), MAY BE ABANDONED IN PLACE OR REMOVED. REMOVED CIRCUIT CABLE SHALL BE DISPOSED OF BY THE CONTRACTOR. THE REMOVAL OR ABANDONMENT OF THESE CIRCUITS SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS LIGHTING BID ITEMS.

REMOVAL OF CIRCUITS IN EXISTING UNDERGROUND OR BARRIER CONDUITS TO BE REUSED: WORK IS INCLUDED UNDER ITEM 625, "CONDUIT CLEANED AND CABLES REMOVED".

**625. POWER SERVICE, AS PER PLAN**

IN ADDITION TO THE REQUIREMENTS OF THE SPECIFICATIONS, THE FOLLOWING IS ADDED. THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:  
POWER COMPANY - DP&L  
ADDRESS - 1065 WOODMAN DR, DAYTON, OH 44035  
PHONE NUMBER - 937.224.6000  
CONTACT NAME - WILLIAM WARD

THE ENGINEER SHALL ENSURE THAT EACH POWER SERVICE ELECTRICAL ENERGY ACCOUNT IS IN THE NAME OF AND THAT THE BILLING ADDRESS IS TO THE MAINTAINING AGENCY NOTED IN THE PLANS. THIS SHALL BE DONE NOT ONLY FOR EACH NEW POWER SERVICE ESTABLISHED BY THIS PROJECT BUT ALSO FOR EACH EXISTING POWER SERVICE, SINCE THERE MAY BE A REASSIGNMENT OF THE RESPONSIBILITY FOR AN EXISTING SERVICE AS A RESULT OF THE WORK PERFORMED BY THIS PROJECT.

PADLOCKS FURNISHED SHALL BE EITHER BRASS OR BRONZE, EQUAL TO MASTER NO. 4BKA OR WILSON BOHANNAN 660A, AND SHALL BE KEYED IN ACCORDANCE WITH CMS 631.06. PAYMENT SHALL BE INCLUDED IN THE BID FOR THE ITEM(S) BEING LOCKED.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH CMS ITEM 625, "POWER SERVICE, AS PER PLAN" WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

**ITEM 625 - LUMINAIRE. (BY TYPE), AS PER PLAN: 400W, LED, 480V**

THE LUMINAIRE FOR LOW MAST AND HIGH MAST LIGHTING SHALL BE 3000K CCT, 400 WATTS (EQUIVALENT). THE LUMINAIRE ARRAYS AND ASSOCIATED ILLUMINATION TEST AREAS SPECIFIED IN CMS 725.11 ARE HEREBY WAIVED. INSTEAD, THE LUMINAIRES FOR SHALL MEET THE FOLLOWING REQUIREMENTS:

LUMINAIRES WITH SYMMETRIC DISTRIBUTION SHALL BE HOLOPHANE HMLD3-PK2-30K-HVOLT-G-AW (319 WATTS), GENERAL ELECTRIC "EVOLVE" ERHM-01-5-60-VM-7-30-N-1-4B-GRAY-R (475 WATTS), EATON STREETWORKS CELESTEON CST-8-6-D-8-T5-7030-AP (477 WATTS), OR EQUAL AS APPROVED BY THE ENGINEER.

LUMINAIRES WITH ASYMMETRIC DISTRIBUTION SHALL BE HOLOPHANE HMLD3-PK3-30K-HVOLT-G-LN (475 WATTS), GENERAL ELECTRIC "EVOLVE" ERHM-01-5-60-E1-7-30-N-1-4B-GRAY-R (501 WATTS), EATON STREETWORKS CELESTEON CST-10-8-D-8-T3-7030-AP (631 WATTS), OR EQUAL AS APPROVED BY THE ENGINEER.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 625, "LUMINAIRE, (BY TYPE), AS PER PLAN", WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

**ITEM 625 - LUMINAIRE, UNDERPASS, AS PER PLAN: LED, TYPE III, 480 VOLT**

IN ADDITION TO THE REQUIREMENTS OF ODOT'S CONSTRUCTION AND MATERIALS SPECIFICATIONS, LUMINAIRES FOR UNDERPASS LIGHTING SHALL BE AS FOLLOWS: LUMINAIRES SHALL BE GE EVOLVE EWNB-5-7-30-1-N-GRAY-FR, EATON/COOPER GALLEON GWC-AF-01-LED-480-T4FT-AP--7030 OR EQUAL AS APPROVED BY THE ENGINEER.

IES DISTRIBUTION OF THE LUMINAIRE SHALL BE TYPE III. LUMINAIRES SHALL BE WALL-MOUNT, THE THRU-WIRING REQUIREMENT OF 725.11.F BEING WAIVED FOR THIS UNDERPASS APPLICATION; TOP-ENTRY SHALL BE THE WIRING METHOD USED, UNLESS SHOWN OTHERWISE IN THE PLAN DETAILS.

LUMINAIRE LED DRIVERS SHALL BE COMPATIBLE WITH 480VAC INPUT AS SHOWN IN THE PLANS, MODULAR, HAVE THE MANUFACTURER NAME AND PART NUMBER CLEARLY MARKED ON THE DRIVER ENCLOSURE, AND SHALL CARRY A MINIMUM 5-YEAR REPLACEMENT WARRANTY. EACH LUMINAIRE SHALL INCLUDE AN INTEGRAL LINE FUSE.

THE LED EMITTER ASSEMBLY SHALL CARRY A MINIMUM 5-YEAR REPLACEMENT WARRANTY, 10-YEAR STANDARD MANUFACTURER LIMITED WARRANTY. THE LUMINAIRE ENCLOSURE SHALL BE RATED IP65, MINIMUM, AS PER IEC 60529, AND SHALL CARRY A MINIMUM 5-YEAR REPLACEMENT WARRANTY WITH 10-YEAR STANDARD MANUFACTURER LIMITED WARRANTY.

A WRITTEN WARRANTY STATEMENT, SPARE PARTS LIST, AND MANUAL FROM THE LED SUPPLIER SHALL BE SUPPLIED TO THE ENGINEER BEFORE LUMINAIRES SHALL BE ACCEPTED BY ODOT.

SURGE PROTECTION SHALL BE 10KV/5KA MINIMUM, PER ANSI C62.41.2, AND THE MODULAR PACKAGE SHALL BE CLEARLY MARKED WITH THE MANUFACTURER AND PART NUMBER. COLOR TEMPERATURE SHALL BE 3000K +/- 400K UNLESS APPROVED OTHERWISE BY THE ENGINEER. THE FIXTURE SHALL PROVIDE 7,000 TO 9,000 INITIAL LUMENS.

PAYMENT SHALL BE MADE AT THE UNIT BID PRICE, UNDER CMS ITEM 625, "LUMINAIRE, UNDERPASS, AS PER PLAN: LED, TYPE III", (WITH TYPE III DISTRIBUTION) FOR EACH LUMINAIRE WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIAL AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

**ITEM 625 - SERVICE TO UNDERPASS LIGHTING, AS PER PLAN**

THIS ITEM SHALL CONSIST OF PROVIDING COMPLETE ELECTRICAL SERVICE, EXCEPT FOR LUMINAIRES, FOR AN UNDERPASS LIGHTING SYSTEM. THE WORK SHALL INCLUDE DISCONNECT SWITCH, CONDUITS, FITTINGS, WIRING, AND ALL INCIDENTALS NECESSARY TO PROVIDE A COMPLETE UNDERPASS LIGHTING SYSTEM, IN PLACE, TESTED AND ACCEPTED.

PAYMENT SHALL BE MADE AT THE UNIT BID PRICE, UNDER CMS ITEM 625, "SERVICE TO UNDERPASS LIGHTING, AS PER PLAN" FOR EACH LIGHTED UNDERPASS, WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIAL AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

**ITEM 625 - CONDUIT CLEANED AND CABLES REMOVED**

THIS ITEM SHALL CONSIST OF CLEANING AN EXISTING CONDUIT BY REMOVING EXISTING CABLES, MUD, AND DEBRIS SO THAT NEW CABLE MAY BE INSTALLED. INCIDENTAL TO THE CLEANING IS THE INSTALLATION OF BUSHINGS AND/OR COUPLINGS ON THE ENDS OF EXISTING CONDUIT AS REQUIRED. IN ADDITION, THIS ITEM WILL ALSO INCLUDE REPAIRS TO EXISTING CONDUIT, WHEN NECESSARY TO PROVIDE A SECURE CONNECTION. ALL CABLE AND DEBRIS SHALL BE PROPERLY REMOVED FROM THE PROJECT SITE. DISTURBED AREAS SHALL BE PROPERLY RESTORED.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 625, "CONDUIT CLEANED AND CABLES REMOVED" PER FOOT OF CONDUIT CLEANED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

**625. PULL BOX CLEANED**

THIS ITEM OF WORK SHALL CONSIST OF CLEANING AN EXISTING PULL BOX BY REMOVING ANY EXISTING CABLES NOT BEING RECONNECTED, AND DEBRIS SO THAT NEW CABLES CAN BE INSTALLED. ANY UNUSED OPENINGS SHALL BE CLOSED. DISTURBED AREAS NEAR THE PULL BOX SHALL BE CLEARED OF WEEDS OR DEBRIS AND SHALL BE FULLY RESTORED. MATERIAL REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFF OF THE PROJECT SITE.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 625, "PULL BOX CLEANED" FOR EACH PULL BOX CLEANED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

**625. LIGHT TOWER REMOVED, AS PER PLAN**

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AN EXISTING LIGHT TOWER, INCLUDING LOWERING DEVICE AND DELIVERING THE MATERIAL AS DESCRIBED BELOW. THE TOWER SHALL BE PROPERLY SUPPORTED TO PREVENT BENDING OF THE POLE OR DAMAGE TO THE LOWERING DEVICE DURING STORAGE ON THE PROJECT SITE.

REMOVED LIGHT TOWERS WITHIN THE CITY OF RIVERSIDE SHALL BE DELIVERED TO THE CITY FACILITY AT 1530 WAKE AVENUE. THE CONTRACTOR SHALL CONTACT JAY KEATON AT 937.684.7747 TO ARRANGE DELIVERY.

REMOVED LIGHT TOWERS WITHIN THE CITY OF DAYTON SHALL BE DELIVERED TO THE CITY FACILITY AT 1921 GETTYSBURG AVENUE. THE CONTRACTOR SHALL CONTACT KEITH STEEBER AT 937.333.3838 TO ARRANGE DELIVERY.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 625, "LIGHT TOWER REMOVED, AS PER PLAN" FOR EACH TOWER REMOVED AND DELIVERED, AND SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

**PADLOCKS AND KEYS**

PADLOCKS FURNISHED FOR ODOT CONTROL CENTERS SHALL BE EITHER BRASS OR BRONZE, EQUAL TO MASTER NO. 4BKA OR WILSON BOHANNAN 660A, AND SHALL BE KEYED IN ACCORDANCE WITH CMS 631.06. PAYMENT SHALL BE INCLUDED IN THE BID FOR THE ITEMS BEING LOCKED.

**LIGHT POLE REMOVED**

REMOVAL OF THE LUMINAIRE SHALL BE CONSIDERED INCIDENTAL TO AND INCLUDED WITH REMOVAL OF LIGHT POLES.

**LIGHT TOWER REMOVED**

REMOVAL OF THE LUMINAIRE SHALL BE CONSIDERED INCIDENTAL TO AND INCLUDED WITH REMOVAL OF LIGHT TOWER.

**POLES RELABELED**

WHEN SPECIFIED IN THE PLANS, LIGHT POLES WHICH ARE MOVED TO A DIFFERENT CONTROLLER/CIRCUIT SHALL BE LABELED PER STANDARD DRAWING HL-10.12. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL TO AND INCLUDED WITH THE OTHER VARIOUS BID ITEMS.

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LIGHTING GENERAL NOTES

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