

PROJECT DESCRIPTION

REPAIR AND RESURFACING OF ALL LANES, SHOULDERS, RAMPS AND MEDIAN CROSSOVERS ON I.R. 70 IN PREBLE COUNTY. THE PROJECT INCLUDES 22 BRIDGES THAT RECEIVE A RANGE OF WORK FROM SEALING TO DECK REPLACEMENT. THE EASTBOUND REST AREA IS ALSO INCLUDED FOR CONCRETE PAVEMENT REPAIR AND RESURFACING OF ASPHALT RAMPS. THE EASTBOUND WEIGH STATION ASPHALT PARKING AREA AND RAMPS ARE TO BE RESURFACED. REHABILIATION OF EXISTING LIGHTING SYSTEMS WEIGH STATION AND U.S. 127 INTERCHANGE. INSTALLATION OF PARTIAL INTERCHANGE LIGHTING AT U.S. 35 AND S.R. 503 INTERCHANGES. REMOVAL OF EXISTING PAVEMENT, LIGHTING AND OTHER APPURTENANCES IN THE FORMER WESTBOUND REST AREA.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:N/A*ESTIMATED CONTRACTOR EARTH DISTURBED AREA:N/A*NOTICE OF INTENT EARTH DISTURBED AREA:N/A*

* MAINTENANCE PROJECT

LIMITED ACCESS

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 SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

4 <i>, 48B</i>		
MENTAL CATIONS 10/18/19 1/18/19 10/18/19	I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY EXCEPT FOR THE FIVE LOCATIONS AS DESCRIBED ON SHEET 21 AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND	-0.00 r 1
10/19/18 4/20/12 10/19/18 10/18/19 1/18/19 10/20/17 4/21/17	APPROVED Jam K Casel DATE 11/7/19 STRICT DEPUT DIRECTOR	PRE-70 PAR1
4/20/12 CIAL SIONS	APPROVED ALL MALALAR DATE ALL DIRECTOR, DEPARTMENT OF TRANSPORTATION	1 147

CT NO		66)	
		E150(9	
	PID NO.	96654	
	CONSTRUCTION PROJECT NO.		
	RAILROAD INVOLVEMENT	NONE	
	DRE-70-00	PART 1	
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SEEDING AND MULCHING

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

659, REPAIR SEEDING AND MULCHING 24713 SQ. YD. (S&M) × 0.05 = 1235.6 SQ. YD. USE 1236 SQ. YD.

659, COMMERCIAL FERTILIZER 24713 / 7410 = 3.34 TON

659, LIME 24713 × 9 / 43560 = 5.11 ACRES

659, WATER 24713 × 2 × .0027 = 133.4 M. GAL USE 134 M. GAL.

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.

ITEM 832 EROSION CONTROL

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR LOCATING, FURNISHING, INSTALLING AND MAINTAINING TEMPORARY SEDIMENT AND EROSION CONTROL FOR EARTH DISTURBED AREAS.

ITEM 832 EROSION CONTROL 5000 EACH

VERTICAL GRADE WARNING SIGNS

THE CONTRACTOR SHALL FURNISH AND INSTALL PERMANENT W7-6-36 "HILL BLOCKS VIEW" SIGNS WITH W13-IP-18 "ADVISORY SPEED PLAQUE" SIGNS ON SR 726 ON EITHER SIDE OF THE IR 70 OVERPASS BRIDGE TO WARN DRIVERS TO REDUCE SPEED APPROACHING THE CREST VERTICAL CURVE ON THE BRIDGE. THE ADVISORY SPEED TO BE LISTED ON THE W13-IP-18 SIGNS SHALL BE 45 MPH. THESE SIGNS SHOULD BE LOCATED AT APPROXIMATELY STA 6+00 AND STA 14+00.

SEE SHEET NO. 38 FOR QUANTITIES

COORDINATION BETWEEN CONTRACTORS

THE CONSTRUCTION AT PRE-70-0.00 MAY REQUIRE THE CONTRACTOR TO COORDINATE WITH THE ADJACENT PREBLE COUNTY CULVERT PROJECTS (PID 106504 AND PID 105967) AND PRE-35-1.76 (PID 100807).

COOPERATION WITH THE ENGINEER, INSPECTORS, AND ALL OTHER CONTRACTORS ON OR ADJACENT TO THE PROJECT IS REQUIRED, AS PER CMS 105.08.

ASBESTOS NOTIFICATION

SHOULD THE CONTRACTOR ENCOUNTER ASBESTOS CONTAINING MATERIALS (ACM) ON THE EXISTING STRUCTURES, THE HANDLING AND DISPOSAL OF SAID ACM WILL BE COVERED UNDER CMS ITEM 202 WITH PAYMENT IN ACCORDANCE WITH CMS 109.05.

A WEBLINK TO THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORM, WILL BE PROVIDED TO THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING. ODOT WILL SUPPLY THE INFORMATION FOR SECTIONS I-VII AND XVII-XVIII OF THE FORM. THE CONTRACTOR WILL COMPLETE THE ONLINE FORMS AND SUBMIT THEM TO THE SOUTHWEST OEPA DISTRICT OFFICE (OEPA-SWDO) AT LEAST 10 DAYS PRIOR TO DEMOLITION/RENOVATION ACTIVITIES. THE COSTS ASSOCIATED WITH ASBESTOS NOTIFICATION SHALL BE INCIDENTAL TO ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

IN THE EVENT THAT THE CONTRACTOR, OR THE ASSOCIATED SUB-CONTRACTORS, ENCOUNTER ANY MATERIAL SUSPECTED OF CONTAINING ACM, DEMOLITION ACTIVITIES SHALL CEASE AND THE SUSPECT AREAS WETTED. THE CONTRACTOR SHALL THEN NOTIFY THE PROJECT ENGINEER, OEPA-SWDO AND THE ODOT DISTRICT 08 CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST (CAHES) (KEITH SMITH, (513) 933-6590).

ASBESTOS ABATEMENT

IN THE EVENT THAT ACM IS ENCOUNTERED, THE CONTRACTOR SHALL TAKE WHATEVER PRECAUTIONS ARE POSSIBLE TO ENSURE THAT THE ACM DOES NOT BECOME FRIABLE. TO ENSURE THAT THE NONFRIABLE ACM DOES NOT BECOME FRIABLE, OR IN THE EVENT THAT THE NONFRIABLE MATERIALS BECOME FRIABLE, THE CONTRACTOR SHALL PROVIDE AN INDIVIDUAL TRAINED IN THE PROVISIONS OF THE NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP) TO BE LOCATED ON-SITE DURING DEMOLITION AND/OR REMOVAL OF THE ACM. ALL ACM SHALL BE PROPERLY CONTAINERIZED, TRANSPORTED AND DISPOSED OF IN ACCORDANCE WITH THE ASSOCIATED STATE AND FEDERAL REGULATIONS.

THE CONTRACTOR SHALL FURNISH ALL THE LABOR (INCLUDING A CAHES), EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE, SUBMIT AND COMPLY WITH THE OEPA NOTIFICATION FOR, AND TO REMOVE, TRANSPORT AND DISPOSE OF ACM IN A LICENSED (BY THE LOCAL HEALTH DEPARTMENT) AND PERMITTED (BY THE OEPA) SOLID WASTE FACILITY.

NON-USE OF ASBESTOS-CONTAINING MATERIALS

THE CONTRACTOR SHALL AT NO TIME INCORPORATE ANY MATERIALS WHICH ARE COMPOSED OF OR CONTAIN ANY AMOUNTS OF ASBESTOS. THE SUBSTITUTION OF MATERIALS WHICH CONTAIN ANY AMOUNTS OF ASBESTOS WILL IN NO CIRCUMSTANCES BE ACCEPTABLE. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT OF CERTIFICATION ASSERTING THAT NO ASBESTOS CONTAINING MATERIALS WERE USED IN ANY PORTION OF THE CONSTRUCTION.

	20	23		204		659
LOCATION	EXCA VA TION	EMBANKMENT	EXCAVATION OF SUBGRADE	GRANULAR MATERIAL, TYPE C	GEOTEXTILE FABRIC (AREA IS EQUAL TO SUBGRADE COMPACTION FROM PAVEMENT CALCS)	SEEDING AND MULCHING
	СҮ	СҮ	CY	СҮ	SY	SY
SR 320	325	20	223	223	825	556
SR 726	455	19	443	443	1167	668
SR 320 STA 20+20.19 DRIVE LT	12	1				
SR 320 STA 24+66.22 DRIVE LT	10	2				
SR 320 STA 24+66.55 DRIVE RT	22	2				
FROM SHEET NO. 50 (LIGHTING)						10860
OTALS CARRIED TO GENERAL SUMMARY	824	44	666	666	1992	12084

	PR
	PRE-70-0
CONTROL	
CONTROL FOR SR 320	Grid Nor
SA1	674213.32
SA3	673998.72
VA2	674366.55
CONTROL FOR SR 726	Grid Nor
SE2	675692.32
VE1	675186.49

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SEQUENCE OF CONSTRUCTION

THE SEQUENCE OF CONSTRUCTION OUTLINED BELOW IS INTENDED TO GUIDE THE WORK IN A MANNER THAT PROVIDES A BASIC LEVEL OF SERVICE TO ALL MOTORISTS. ALTHOUGH THIS SEQUENCE OF CONSTRUCTION LISTS TASKS IN A SPECIFIC ORDER, NOT EVERY ITEM LISTED MUST BE COMPLETED BEFORE COMMENCING THE NEXT ITEM, AND SOME TASKS MAY BE PERFORMED CONCURRENTLY.

PHASE 1, TASK 1: MAJOR BRIDGE REHABILITATION OF PRE-320-0117

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES EXCEPT FOR A PERIOD OF TIME AS DESCRIBED ON SHEET 24 WHEN TRAFFIC MAY BE DETOURED. THE DETOUR AND DETOUR SIGNING ARE SHOWN ON SHEET 26. ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES, INCLUDING DURING THE CLOSURE. FALSEWORK WILL BE REQUIRED ON THE BRIDGE DURING CONSTRUCTION AND SHOULD BE INSTALLED PRIOR TO ANY BRIDGE WORK. THE FALSEWORK CAN BE INSTALLED, AND SUBSUEQUENTLY REMOVED, USING SINGLE LANE CLOSURES ON I.R. 70 AT PERMISSIBLE TIMES AS SHOWN ON SHEET 24. LANE CLOSURES ON I.R. 70 SHOULD BE INSTALLED ACCORDING TO STANDARD CONSTRUCTION DRAWING (SCD) MT-95.30.

PHASE 1, TASK 2: MAJOR BRIDGE REHABILITATION OF PRE-726-0428

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES EXCEPT FOR A PERIOD OF TIME AS DESCRIBED ON SHEET 24 WHEN TRAFFIC MAY BE DETOURED. THE DETOUR AND DETOUR SIGNING ARE SHOWN ON SHEET 27. ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES, INCLUDING DURING THE CLOSURE. FALSEWORK WILL BE REQUIRED ON THE BRIDGE DURING CONSTRUCTION AND SHOULD BE INSTALLED PRIOR TO ANY BRIDGE WORK. THE FALSEWORK CAN BE INSTALLED, AND SUBSEQUENTLY REMOVED, USING SINGLE LANE CLOSURES ON I.R. 70 AT PERMISSIBLE TIMES AS SHOWN ON SHEET 24. LANE CLOSURES ON I.R. 70 SHOULD BE INSTALLED ACCORDING TO SCD MT-95.30.

PHASE 1, TASK 3: BRIDGE PARAPET REPAIR ON PRE-70-0632

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON PENCE SHEWMAN ROAD SHALL BE MAINTAINED AT ALL TIMES EXCEPT FOR A PERIOD OF TIME AS DESCRIBED ON SHEET 24 WHEN TRAFFIC MAY BE DETOURED. THE DETOUR AND DETOUR SIGNING ARE SHOWN ON SHEET 28. ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES, INCLUDING DURING THE CLOSURE. FALSEWORK WILL BE REQUIRED ON THE BRIDGE DURING CONSTRUCTION AND SHOULD BE INSTALLED PRIOR TO ANY BRIDGE WORK. THE FALSEWORK CAN BE INSTALLED, AND SUBSEQUENTLY REMOVED, USING SINGLE LANE CLOSURES ON I.R. 70 AT PERMISSIBLE TIMES AS SHOWN ON SHEET 24. LANE CLOSURES ON I.R. 70 SHOULD BE INSTALLED ACCORDING TO STANDARD CONSTRUCTION DRAWING (SCD) MT-95.30.

THE DETOUR PLAN FOR THIS WORK UTILIZES S.R. 726. THEREFORE, TASK 2 AND TASK 3 SHALL NOT BE CONSTRUCTED CONCURRENTLY. ONLY ONE DETOUR MAY BE IN PLACE AT A TIME.

SEQUENCE OF CONSTRUCTION (CONTINUED)

PHASE 1, TASK 4: BRIDGE PARAPET REPAIR ON PRE-70-1541

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON LEWISBURG ROAD SHALL BE MAINTAINED AT ALL TIMES EXCEPT FOR A PERIOD OF TIME AS DESCRIBED ON SHEET 24 WHEN TRAFFIC MAY BE DETOURED. THE DETOUR AND DETOUR SIGNING ARE SHOWN ON SHEET 28A. FALSEWORK WILL BE REQUIRED ON THE BRIDGE DURING CONSTRUCTION AND SHOULD BE INSTALLED PRIOR TO ANY BRIDGE WORK. THE FALSEWORK CAN BE INSTALLED, AND SUBSEQUENTLY REMOVED, USING SINGLE LANE CLOSURES ON I.R. 70 AT PERMISSIBLE TIMES AS SHOWN ON SHEET 24. LANE CLOSURES ON I.R. 70 SHOULD BE INSTALLED ACCORDING TO SCD MT-95.30.

PHASE 2, TASK 1: MINOR BRIDGE REHABILITATION ON THE REMAINING STRUCTURES AS DETAILED IN THE PLANS.

REHABILITATION OF THE FOLLOWING BRIDGES AS DETAILED IN THE PLANS SHOULD NOT REQUIRE ANY LANE OR SHOULDER CLOSURES OR RESTRICTIONS. ALTHOUGH NONE ARE ANTICIPATED, ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE INSTALLED ACCORDING TO AND WHEN REQUIRED BY THE OMUTCD AND SCDS.

PRE-70-358	PRE-503-1955
PRE-70-0489	PRE-70-1665
PRE-70-0632	PRE-70-1766
PRE-70-1366	

NIGHTTIME LANE CLOSURES WILL BE REQUIRED TO PERFORM BRIDGE REHABILITATION ON THE FOLLOWING STRUCTURES.

PRE-70-0504 L/R	PRE-70-1349 L/R
PRE-70-0689 L/R	PRE-70-1500 L/R
PRE-70-1072 L/R	
PRE-70-1249 L/R	

THE HOURS OF SUCH CLOSURES ARE SUBJECT TO THE PERMITTED LANE CLOSURE SCHEDULE AND LANE VALUE CONTRACT TABLE SHOWN IN THE PLANS. LANES SHOULD BE CLOSED AS OUTLINED ON SCD MT-95.30, CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS. SOME BRIDGES ARE LOCATED NEAR ENTRANCE AND EXIT RAMPS AND WILL ALSO REQUIRE SCDS MT-98.10 LANE CLOSURE AT ENTRANCE RAMP AND MT-98.20 LANE CLOSURE AT EXIT RAMP USING DRUMS. ONE LANE IN EACH DIRECTION MUST REMAIN OPEN TO TRAFFIC AT ALL TIMES.

PARAPET REPAIR ON PRE-70-1541 WILL REQUIRE ADDITIONAL MAINTENANCE OF TRAFFIC ON C.R. 34 (LEWISBURG RD). REPAIRS SHOULD NOT BE MADE ABOVE LIVE TRAFFIC ON I.R. 70. WORK MAY ONLY BE COMPLETED OVER ONE LANE AT A TIME, WHILE CLOSED, TO PREVENT DEBRIS FROM FALLING ONTO MOTORISTS. ALTERNATIVELY, AT THE APPROVAL OF THE ENGINEER, THE CONTRACTOR MAY CHOOSE TO PROTECT I.R. 70 MOTORISTS BY INSTALLING A CATCHMENT SYSTEM ON THE BRIDGE TO PREVENT DEBRIS FROM FALLING ON THE HIGHWAY BELOW. A FLAGGER SHOULD BE USED TO MAINTAIN ONE LANE OF TRAFFIC ON C.R. 34 DURING PARAPET REPAIR. USE SCD MT-97.10 FLAGGER CLOSING I LANE OF A 2-LANE HIGHWAY – STATIONARY OPERATION.

SEQUENCE OF CONSTRUCTION (CONTINUED)

PHASE 2, TASK 2: LIGHTING INSTALLATIONS

IT IS ANTICIPATED THAT ALL WORK RELATED TO LIGHTING CAN BE COMPLETED WITHOUT LANE RESTRICTIONS ON ANY ROAD. ALL LIGHTING WORK, WITH THE EXCEPTION OF LUMINAIRE REPLACEMENTS, ARE OUTSIDE OF THE EXISTING SHOULDERS OF ALL ROUTES. USE SCD MT-95.45 CLOSING RIGHT OF LEFT SHOULDER OF A MULTILANE DIVIDED HIGHWAY TO CLOSE SHOULDERS AS NECESSARY. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE INSTALLED ACCORDING TO AND WHEN REQUIRED BY THE OMUTCD AND SCDS.

PHASE 2, TASK 3: MILLING AND FILLING OF WEIGH STATION PAVEMENT

THIS WORK SHALL CONSIST OF MILLING AND FILLING PAVEMENT WITHIN THE LIMITS OF THE WEIGH STATION. THE WEIGH STATION MAY BE CLOSED FOR A PERIOD NOT TO EXCEED THE NUMBER OF CONSECUTIVE CALENDAR DAYS SHOWN ON SHEET 24. CLOSURE OF THE WEIGH STATION SHALL BE PERFORMED AS OUTLINED ON SHEET NO. 29. A NOTICE OF CLOSURE SIGN SHALL BE INSTALLED PRIOR TO THE RAMP CLOSURE AS NOTED ON SHEET 21. FINAL PAVEMENT MARKINGS SHALL BE IN PLACE BEFORE THE WEIGH STATION IS OPENED TO TRAFFIC.

PHASE 2, TASK 4: PAVEMENT REPAIR IN REST AREA

THIS WORK SHALL CONSIST OF CONCRETE PAVEMENT REPAIR ON THE RAMPS AND TRUCK PARKING AREAS WITHIN THE EASTBOUND REST AREA. THE REST AREA MAY BE CLOSED FOR A PERIOD NOT TO EXCEED THE NUMBER OF CONSECUTIVE CALENDAR DAYS SHOWN ON SHEET 24 IN ORDER TO COMPLETE THIS WORK. CLOSURE OF THE REST AREA SHALL BE COMPLETE AS OUTLINED ON SHEET NO. 30. A NOTICE OF CLOSURE SIGN SHALL BE INSTALLED PRIOR TO THE RAMP CLOSURE AS NOTED ON SHEET 21. FINAL PAVEMENT MARKINGS SHALL BE IN PLACE BEFORE THE REST AREA IS OPENED TO TRAFFIC.

PHASE 3, TASK 1: WESTBOUND REST AREA

THE CONTRACTOR SHALL CLOSE THE SHOULDER OF WESTBOUND I.R. 70 AS NECESSARY TO PERFORM THE WORK. THE SHOULDER SHALL BE CLOSED ACCORDING TO SCD MT-95.45 CLOSING SHOULDER OF A MULTI-LANE DIVIDED HIGHWAY.

PHASE 3, TASK 2: PAVEMENT REPAIR ALONG IR 70 AND RAMPS

NIGHTLY LANE CLOSURES WILL BE REQUIRED TO PERFORM PAVEMENT REPAIRS ALONG MAINLINE I.R. 70. THE HOURS OF SUCH CLOSURES ARE SUBJECT TO THE PERMITTED LANE CLOSURE SCHEDULE AND LANE VALUE CONTRACT TABLE SHOWN IN THE PLANS. LANES SHOULD BE CLOSED AS OUTLINED ON SCD MT-95.30, CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS. SOME PAVEMENT REPAIRS ARE LOCATED NEAR ENTRANCE AND EXIT RAMPS AND WILL REQUIRE SCDS MT-98.10 LANE CLOSURE AT ENTRANCE RAMP AND MT-98.20 LANE CLOSURE AT EXIT RAMP USING DRUMS. ONE LANE IN EACH DIRECTION MUST REMAIN OPEN TO TRAFFIC AT ALL TIMES.

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SEQUENCE OF CONSTRUCTION (CONTINUED)

PHASE 3, TASK 3: MILLING PAVEMENT AND PLACING INTERMEDIATE COURSE

THIS WORK SHALL CONSIST OF MILLING THE EXISTING ASPHALT SURFACE AND PLACING A NEW INTERMEDIATE COURSE ON I.R. 70 AS INDICATED IN THE PLANS. PAVEMENT REPAIRS SHALL BE COMPLETED PRIOR TO PLACING THE NEW PAVEMENT. A MINIMUM OF ONE LANE OF TRAFFIC SHALL BE MAINTAINED ON I.R. 70 IN EACH DIRECTION AT ALL TIMES, INCLUDING RAMPS. LANE CLOSURES SHOULD BE PERFORMED AS OUTLINED IN SCD MT-95.30 CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS. PAVING WORK IN THE VICINITY OF RAMPS SHALL ALSO BE ACCORDING TO SCDS MT-98.10 LANE CLOSURE AT ENTRANCE RAMP, MT-98.11 LANE CLOSURE AT ENTRANCE RAMP ACCELERATION LANE, MT-98.20 LANE CLOSURE AT EXIT RAMP USING DRUMS, MT-98.22 LANE CLOSURE IN DECELERATION LANE, AND MT-98.28 LANE CLOSURE WITHIN EXIT RAMP. INSTALL TEMPORARY PAVEMENT MARKINGS PRIOR TO OPENING ANY PAVED SECTION TO TRAFFIC.

A MINIMUM OF ONE 10' LANE SHALL BE MAINTAINED ON ALL RAMPS DURING MILLING AND PAVING OPERATIONS. HALF OF EACH RAMP SHOULD BE CLOSED AT A TIME AS OUTLINED ON SCD MT-98.28 LANE CLOSURE WITHIN EXIT RAMP. TEMPORARY PAVEMENT MARKINGS SHOULD BE PERFORMED AS OUTLINED IN SCD MT-99.20 TRAFFIC CONTROL FOR LONG LINE PAVEMENT MARKING OPERATIONS.

PHASE 4: PLACING FINAL SURFACE COURSE ON IR 70

THIS WORK SHALL CONSIST OF PAVING THE FINAL SURFACE COURSE ON IR 70, INCLUDING RAMPS, AS INDICATED IN THE PLANS. LANE CLOSURES FOR PAVING SHALL BE IN ACCORDANCE WITH THE PERMITTED LANE CLOSURE SCHEDULE AND LAE VALUE CONTRACT TABLE SHOWN IN THE PLANS. A MINIMUM OF ONE LANE OF TRAFFIC SHALL BE MAINTAINED ON IR 70 IN EACH DIRECTION AT ALL TIMES, INCLUDING RAMPS. LANE CLOSURES SHOULD BE PERFORMED AS OUTLINED IN SCD MT-95.30 CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS. PAVING WORK IN THE VICINITY OF RAMPS SHALL ALSO BE ACCORDING TO SCDS MT-98.10 LANE CLOSURE AT ENTRANCE RAMP, MT-98.11 LANE CLOSURE AT ENTRANCE RAMP ACCELERATION LANE, MT-98.20 LANE CLOSURE AT EXIST RAMP USING DRUMS. MT-98.22 LANE CLOSURE IN DECELERATION LANE, AND MT-98.28 LANE CLOSURE WITHIN EXIT RAMP. INSTALL PERMANENT PAVEMENT MARKINGS PRIOR TO OPENING ANY PAVED SECTION TO TRAFFIC.

A MINIMUM OF ONE 10' LANE SHALL BE MAINTAINED ON ALL RAMPS DURING PAVING OPERATIONS. HALF OF EACH RAMP SHOULD BE CLOSED AT A TIME AS OUTLINED ON SCD MT-98.28 LANE CLOSURE WITHIN EXIT RAMP. PERMANENT PAVEMENT MARKINGS SHOULD BE PERFORMED AS OUTLINED IN SCD MT-99.20 TRAFFIC CONTROL FOR LONG LINE PAVEMENT MARKING OPERATIONS. S

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PRE-70

				SHEET	F NUM.						PA	RT.		ITEM	ITEM	GRAND		
16	17	19	20	35	36A	48				01/IMS/PV	02/IMS/BR	03/IMS/PV	05/STR/PV		ЕХТ	TOTAL		
	1.6									1.6				201	11000			
	LS				3 688					LS		3 688		201	23000	LS 3 688	SV	CLEARING AND GRUBBING
				8 700	3,000					8 700		3,000		202	23000	12 681	ST SV	PAVEMENT REMOVED ASPHALT
				0,100	472					0,100		472		202	32000	472	FT	CURB REMOVED
					76							76		202	35100	76	FT	PIPE REMOVED. 24" AND UNDER
				19,109						19,109				202	38000	19,109	FT	GUARDRAIL REMOVED
				46						46				202	42010	46	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E
				14						14				202	42040	14	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T
				12						12				202	42050	12	EACH	ANCHOR ASSEMBLY REMOVED, TYPE B
				63						63				202	47000	63	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED
																	5.00	
					1							1		202	58100	1	EACH	CATCH BASIN REMOVED
					2							2		202	58200	2	EACH	INLET REMOVED
		004								004		1		202	58400	/	EACH	INLET ABANDONED
		824			95					824		95		203	10000	919	CY CY	EXLAVATION
		44								44				203	20000	44	67	EMBANKMENT
1 992		-		+		-		+		1 902	+			201	10000	1 992	۲۷	SUBGRADE COMPACTION
1,032		666		+				+		1,332 666				204	13000	666		EXCAVATION OF SUBGRADE
		666								666				204	30020	666	CY	GRANII AR MATERIAL TYPE C
1				1				+		1				204	45000	1	HOUR	PROOF ROLLING
1		1.992								1.992				204	50000	1.992	SY	GEOTEXTILE FABRIC
		.,002		1				1		.,002				201		1,002		
				227						227				209	15000	227	STA	RESHAPING UNDER GUARDRAIL
				734						734				209	70000	734	СҮ	BORROW
				15,250						15,250				606	15050	15,250	FT	GUARDRAIL, TYPE MGS
				4,213						4,213				606	15100	4,213	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS
				12						12				606	26050	12	EACH	ANCHOR ASSEMBLY, MGS TYPE B
				46						46				606	26150	46	EACH	ANCHOR ASSEMBLY, MGS TYPE E, (MASH .
				14						14				606	26550	14	EACH	ANCHOR ASSEMBLY, MGS TYPE T
				59						59				606	35002	59	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE
				4						4				606	35102	4	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE
				5						5				SPECIAL	69050100	5	EACH	MAILBOX SUPPORT SYSTEM, SINGLE
			LS							LS				SPECIAL	69098400	LS		CONSULTANT FOR CONCRETE QUALITY CC
					1.001							1.001		050	00700	1.001	CV	
		12 001		12 620	1,201					24 717		1,201		659	10000	76.069	CT CV	
		12,004		12,029	11,355					24,113		11,355		659	10000	1 276	57	DEPATR SEEDING AND MULCHING
		7,230			151					7,230		154		659	20000	1,230		
		5.11			2 35					5.11		2 35		659	31000	7.00	ACRE	I IME
		5.11			2.55					5.11		2.55		003	51000	7.40	AUNE	
		134			62					134		62		659	35000	196	MGAL	WATER
		154			4 861					13 1		4 861		670	00500	4 861	SY	SLOPE EROSION PROTECTION
		5 000		+	10,000			+		5 000		10,000		832	30000	15 000	FACH	
		0,000			15					0,000		15		832	15000	1.5	EAGI	STORM WATER POLITION PREVENTION F
					15							1.5		832	15002	1.5		STORM WATER POLITION PREVENTION I
												20		002	10002			
					LS							LS		832	15010	LS		STORM WATER POLLUTION PREVENTION I
	5.000									5.000				253	01000	5.000	SY	PAVEMENT REPAIR
2.811										2.811				253	02000	2,811	СҮ	PAVEMENT REPAIR
888,996										884,678			4,318	254	01000	888,996	SY	PAVEMENT PLANING, ASPHALT CONCRETE
8,890										8,847			43	254	01600	8,890	SY	PATCHING PLANED SURFACE
						566						566		255	10160	566	SY	FULL DEPTH PAVEMENT REMOVAL AND RIG
						852						852		255	20000	852	FT	FULL DEPTH PAVEMENT SAWING
						2,452						2,452		256	10000	2,452	SF	BONDED PATCHING OF PORTLAND CEMENT
						1,270						1,270		258	10000	1,270	EACH	RETROFIT DOWEL BAR
374				1						374				301	46000	374	CY	ASPHALT CONCRETE BASE, PG64-22
354				1				1		354				304	20000	354	СҮ	AGGREGATE BASE
											ļ							
242						ļ			ļ	242	ļ			407	10000	242	GAL	TACK COAT
124,460		L								123,855			605	407	20000	124,460	GAL	NON-TRACKING TACK COAT
51		L		1				1		51	ļ			441	50000	51	CY	ASPHALT CONCRETE SURFACE COURSE, T
			1	1		1	1	1			1							

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DESCRIPTION	SEE Sheet No.	CALCULATED LBA CHECKED SNS
ROADWAY		
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7E 1, (448), PG64-22		147

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	18	35	37	36A	38	49	57		01/IMS/PV	02/IMS/BR	03/IMS/PV	05/STR/PV	ITEM	ЕХТ	TOTAL		
									70				4.41	50700	70	014	
									13				441	50300	13	CY CY	ASPHALT CONCRETE INTERMEDIATE COURSE
									47,814			233	442	00100	48,047	CY	ANTI-SEGREGATION EQUIPMENT
									42,809			210	442	10101	43,019	СҮ	ASPHALT CONCRETE INTERMEDIATE COURSE
									36,652			180	442	10300	36,832	СҮ	ASPHALT CONCRETE SURFACE COURSE, 12.
p_								 	211				440	20000	011	CV	
									211				442	20000	211	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 12.
ĭ-		736							736				609	24510	736	FT	CURB. TYPE 4-C
									70				618	40600	70	MILE	RUMBLE STRIPS, SHOULDER (ASPHALT CON
C450							110		110				625	00450	110	ЕЛСИ	
0:2							20		20				625	00450	20	EACH FACH	CONNECTION, FUSED FULL AFART
							99		99				625	00480	99	EACH	CONNECTION, UNFUSED PERMANENT
							42		42				625	10490	42	EACH	LIGHT POLE, CONVENTIONAL, AT20B40
2							42		42				625	14100	42	EACH	LIGHT POLE FOUNDATION, 24" X 8' DEEP
							17		17				625	18400	17	EACH	BRACKET ARM, 20'
<u>_</u>							7,053		7,053				625	23200	7,053	FT	NO. 4 AWG 2400 VOLT DISTRIBUTION CAB
							10,725	 	10,725				625	23302	10,725	FT	NO. 6 AWG 2400 VOLT DISTRIBUTION CABL
8-							9,036		9,036				625	23400	9,036	FT FT	NO. 10 AWG POLE AND BRACKET CABLE
							10,101		10,101				020	27320	10,101		
061							708		708				625	24324	708	FT	1-1/2" DUCT CABLE WITH THREE NO. 6 AWG
							160		160				625	25500	160	FT	CONDUIT, 3", 725.04
- - -							1,926		1,926				625	25902	1,926	FT	CONDUIT, JACKED OR DRILLED, 725.04, 3'
┝							67		67				625	26253	67	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE
ŗĽ							2		2				625	26273	2	EACH	LUMINAIRE, LOW MAST, SOLID STATE (LED.
ź							19,552		19,552				625	29000	19,552	FI	TRENCH
				11			6		6		11		625 625	31510		EACH	PULL BOX, 725.06, 78 PULL BOX REMOVED
							59		5.9				625	32000	5.9	FACH	GROUND ROD
Ë							5		5				625	34001	5	EACH	POWER SERVICE, AS PER PLAN
							19,552		19,552				625	36000	19,552	FT	PLASTIC CAUTION TAPE
						LS			LS				SPECIAL	62540000	LS		MAINTAIN EXISTING LIGHTING
F						2			2				SPECIAL	62540010	2	EACH	REPLACEMENT OF EXISTING LIGHTING UNIT
Γ						_	16		16				625	75350	16	EACH	LIGHT TOWER REMOVED
				9							9		625	75351	9	EACH	LIGHT TOWER REMOVED, AS PER PLAN
				50			82		82		50		625	75506	132	EACH	LUMINAIRE REMOVED
							2		2				625	75510	2	EACH	POWER SERVICE REMOVED
							1		1				625	75511	1	EACH	POWER SERVICE REMOVED, AS PER PLAN
				9			16		16		9		625	75540	25	EACH	LIGHT TOWER FOUNDATION REMOVED
							3		3				625	75800	3	EACH	DISCONNECT CIRCUIT
							3,722 17		3,122 17				632 632	29901 64000	3,122 17	EACH	STRAIN POLE FOUNDATION
ŀ							17		17				632	84501	17	EACH	COMBINATION STRAIN POLE, TYPE TC-81.10
┢			1,996						1,979			17	621	00100	1,996	EACH	RPM
L			1,927						1,910			17	621	54000	1,927	EACH	RAISED PAVEMENT MARKER REMOVED
ľ	10	16								26			626	00102	26	EACH	BARRIER REFLECTOR, TYPE 1, ONE WAY
┝		338			200				338				626	00110	338	EACH	BARRIER REFLECTOR, TYPE 2, ONE WAY
					280				280				630	03100	280		UNUNU MUUNIEU SUPPURI, NU. 3 POST
\mathbb{F}					4				4				630	08004	4	FT	ONE WAY SUPPORT, NO. 3 POST
Ś					32 186 5				32 186 5				630	80100	32 186 5	EAUH SE	SIGN FUST KEFLEUTUK
⊢				2	100.0				100.3		2		630	84900	100.5	Sr FACH	REMOVAL OF GROUND MOUNTED STON AND
				4	8				8		4		630	86002	12	EACH	REMOVAL OF GROUND MOUNTED POST SUP
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DESCRIPTION	SEE SHEET NO.	CALCULA LBA CHECKE SNS
PAVEMENT CONTINUED		
E, TYPE 2, (448) DE 1 (448) (DDIVEWAYS)		
E, 19 MM, TYPE A (446), AS PER PLAN, PG64-28	17	
5 MM, TYPE A (447)		
5 MM, TYPE A (448) E, 19 MM, TYPE A (448), AS PER PLAN, PG64-28	17	
CRETE)		
LIGHTING		
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2400 VOLT CABLES		
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2400 VOLT CABLES		
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(LED), AS PER PLAN, IES-III-M, LED, 9200-11600 LUMENS	49	L R
). AS PER PLAN. IES-V-M. LED. 38400-42000 LUMENS	49	N N
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ER WITH ACCESSORIES, AS PER PLAN	50	
O, DESIGN 5, AS PER PLAN	50	
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ITEM

THE CO ALL EXCEPT STOREL PICKEL

- LIGHT TOWER TRACTOR SHALL R IT TOWER COMP THAT THE LIGHT ON THE PROJEC IP BY ODOT FOR	REMOVED, AS PER MEMOVE AND PROPER ONENTS ACCORDING RINGS SHALL BE T SITE. THE LIGHT USE ON ANOTHER	PLAN PLY DISPO 5 TO C& 5 SALVAG 7 RINGS W PROJECT	DSE OF MS 625 ED AND VILL BE																										
												SUBSI	JMMA	RY															
					2	02			203	6	14	622		6	25		626	6	30			659				83	2		
REF. NO	SHEET NO	PAVEMENT REMOVED	PAVEMENT REMOVED, ASPHAL T	CURB REMOVED	PIPE REMOVED, 24" AND UNDER	CATCH BASIN REMOVED	INLET REMOVED	INLET ABANDONED	EXCAVATION	WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)	OBJECT MARKER, ONE WAY	PORTABLE BARRIER, UNANCHORED	PULL BOX REMOVED	LIGHT TOWER REMOVED, AS PER PLAN	LUMINAIRE REMOVED	LIGHT TOWER FOUNDATION REMOVED	BARRIER REFLECTOR, TYPE 1, ONE WAY	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	TIOSd01	SEEDING AND MULCHING	COMMERCIAL FERTILIZER	TIME	WATER	EROSION CONTROL	STORM WATER POLLUTION PREVENTION PLAN	STORM WATER POLLUTION PREVENTION INSPECTIONS	STORM WATER POLLUTION PREVENTION SOFTWARE	
		SY	SY	FT	FT	EACH	EACH	EACH	СҮ	EACH	EACH	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	СҮ	SY	TON	ACRE	MGAL	EACH	LUMP	LUMP	LUMP	
RA1 RA2 RA3 RA4 RA5 RA6 RA7 RA6	48A,48B 48A 48A 48A 48A 48A NOT USED 48A 48A	2575	1927	472					95					1	4 6	1		2	4	1261	11355	1.54	2.35	62					
RA8 RA9 RA10 RA11 RA12	48A 48A 48A 48A 48A 48A		514		28		1	1					1	1	6	1													
RA13 RA14 RA15 RA16 RA17 RA17	48A 48A 48A 48A 48A 48A												1	1	6 6 6	1													
RA18 RA19 RA20	48B 48B 48B												1	1	6	1													
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RA27 RA28	48B 48B				48	1	1							1	6	1													
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NOTES:

- EXISTING PLANS ENTITLED PRE-70-2.41 MAY BE INSPECTED IN THE ODOT DISTRICT 8 OFFICE IN LEBANON, OHIO.

- TYPICAL SLAB DIMENSIONS ARE 21' LONG X 16' WIDE

- CONCRETE PAVEMENT DETERIORATION WAS SURVEYED IN JULY 2018 AND THE PROPOSED REPAIRS SHOWN ON THESE PLANS CORRECT HIGH PRIORITY PROBLEMS AT THAT TIME. NOT ALL PAVEMENT REPAIRS SHOWN ON SHEETS 47 AND 48 WILL BE PERFORMED. THE REPAIR WORK SHALL NOT EXCEED THE QUANTITIES SHOWN ON SHEET 48. FINAL DETERMINATION OF REPAIRS INCLUDING, BUT NOT LIMITED TO, THOSE SHOWN IN THE PLANS SHALL BE AT THE DISCRETION AND APPROVAL OF THE ENGINEER. THE ENGINEER WILL LOCATE AND MARK ALL AREAS TO BE REPAIRED AS INDICATED IN THE C&MS.

- LOAD TRANSFER RETROFIT REPAIRS WILL BE PAID FOR ACCORDING TO ITEM 258 RETROFIT DOWEL BARS. THE TYPICAL SPACING FOR THE DOWEL BARS SHOULD BE MODIFIED FROM SCD BP-2.6 AS SHOWN, OR AS DIRECTED BY THE ENGINEER.

- ALL FULL DEPTH PAVEMENT REPAIRS SHOULD BE MADE ACCORDING TO SCD BP-2.5 AND ITEM 255 FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT. FULL DEPTH REPAIRS CONSIST OF FULL SLAB REPLACEMENTS AND PARTIAL SLAB REPLACEMENTS. CLASS QC MS SHALL BE USED FOR PAVEMENT REPAIRS. WHERE FULL DEPTH REPAIRS OCCUR AT EXISTING EXPANSION JOINTS, THE EXPANSION JOINT SHALL BE REPLACED ACCORDING TO SCD BP-2.2. WHERE FULL DEPTH REPAIRS REPLACE EXISTING REINFORCED SLABS, AS SHOWN ON THE PLANS, THE REPLACEMENT PAVEMENT SHALL ALSO INCLUDE STEEL REINFORCING ACCORDING TO SCD BP-1.1. THE FOLLOWING ASSUMPTION HAS BEEN MADE TO CALCULATE A BIDDABLE ESTIMATE OF QUANTITIES:

- PARTIAL SLAB REPLACEMENTS ARE ON AVERAGE 4' \times 4' AND REQUIRE 16' OF PAVEMENT SAWING.

-JOINTS ARE TO BE REPAIRED ACCORDING TO ITEM 256, BONDED PATCHING OF PORTLAND CEMENT CONCRETE PAVEMENT. IT HAS BEEN ASSUMED THAT EACH JOINT, AS INDICATED, WILL REQUIRE 12 SQUARE FEET OF BONDED PATCHING. AN ADDITIONAL 160 SF OF ITEM 256 HAS BEEN INCLUDED IN THE PLANS TO BE USED AS NEEDED, AND DIRECTED, BY THE ENGINEER.

- A SUMMARY TABLE OF THE QUANTITIES REQUIRED TO REPAIR THE REST AREA PAVEMENT HAS BEEN INCLUDED ON THE FOLLOWING SHEET AND CARRIED TO THE GENERAL SUMMARY.

EXISTING PAVEMENT MAKEUP

11" UNREINFORCED CONCRETE PAVEMENT (EX. PAVEMENT REINFORCED AS INDICATED IN THE LEGEND) 6" AGGREGATE BASE





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ALL BACKFILL MATERIAL REQUIRED BY C&MS 202.02 AND 202.05 THAT IS LOCATED WITHIN 15' OF THE EDGE OF TRAVELED WAY OF I.R. 70, SHALL HAVE A SLOPE

ITEM 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:

DAYTON POWER & LIGHT 1900 DRYDEN ROAD DAYTON, OHIO 45439 (937) 331-4521 (BILL GOURLEY) WILLIAM.GOURLEY@AES.COM

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.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH C&MS 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.

PADLOCKS AND KEYS

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

ITEM SPECIAL, MAINTAIN EXISTING LIGHTING

DURING CONSTRUCTION OF THIS PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE ENTIRETY OF ANY CIRCUIT, INCLUDING BUT NOT LIMITED TO POLES, FIXTURES, CABLE, FUSES, ETC., THAT PASSES THROUGH THE PROJECT LIMITS.

BEFORE ANY WORK IS STARTED IN THE IMMEDIATE VICINITY OF THE EXISTING LIGHTING CIRCUITS, REPRESENTATIVES OF ODOT, THE MAINTAINING AGENCY AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE EXISTING ROADWAY LIGHTING CIRCUITS TO BE MAINTAINED. DURING THIS INSPECTION, A WRITTEN RECORD OF THE CONDITION OF EXISTING LIGHTING SHALL BE MADE BY ODOT'S REPRESENTATIVE. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL LUMINAIRES WHICH ARE NOT IN WORKING ORDER, INDIVIDUAL POLES WHICH ARE NOT STANDING, AND INDIVIDUAL CIRCUITS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE SIGNED BY THE REPRESENTATIVES OF ODOT, THE MAINTAINING AGENCY AND THE CONTRACTOR.

IF, AS A RESULT OF THIS INSPECTION, IT IS DETERMINED THAT THE CONDITION OF THE EXISTING SYSTEM IS BELOW THAT REQUIRED FOR THE SAFETY OF THE TRAVELING PUBLIC, THEN THE MAINTAINING AGENCY SHALL MAKE THE REPAIRS NECESSARY TO RETURN THE SYSTEM TO AN ACCEPTABLE CONDITION. FOLLOWING THESE REPAIRS, THE SYSTEM SHALL AGAIN BE INSPECTED AND A REPORT SHALL BE MADE AND SIGNED AS OUTLINED HEREIN.

WHEN THE EXISTING SYSTEM IS IN AN ACCEPTABLE CONDITION, IT SHALL BE TURNED OVER TO THE CONTRACTOR WHO SHALL THEN BE REQUIRED TO MAINTAIN THE EXISTING LIGHTING TO THE CONDITION OUTLINED IN THIS REPORT WITH THE EXCEPTION OF KNOCKDOWNS DUE TO TRAFFIC ACCIDENTS.

ITEM SPECIAL, MAINTAIN EXISTING LIGHTING (CONTINUED)

REPLACEMENT OF KNOCKED DOWN UNITS SHALL BE DONE ONLY WHEN THE ENGINEER HAS DETERMINED THAT THE REPLACEMENT OF THE KNOCKED DOWN UNIT IS NECESSARY AND SHALL BE PAID SEPARATELY ON A UNIT BASIS.

BETTERMENTS SHALL BE COVERED IN ITEMS OF WORK PERTAINING TO THE CONSTRUCTION OF PERMANENT IMPROVEMENT.

WHEN THE SEQUENCE OF CONSTRUCTION ACTIVITIES REQUIRES, OR SHOULD THE CONTRACTOR DESIRE, THE REMOVAL OF THE EXISTING LIGHTING BEFORE THE NEW LIGHTING IS OPERATIONAL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY LIGHTING OF THIS PORTION OF THE ROADWAY.

PRIOR TO INSTALLING SUCH LIGHTING, THE CONTRACTOR SHALL PREPARE AND SUBMIT FOUR SETS OF THE TEMPORARY LIGHTING PLAN TO THE ENGINEER FOR REVIEW AND APPROVAL.

THIS PLAN SHALL SHOW LOCATIONS OF POLES, LENGTHS OF BRACKET ARMS, STYLES OF LUMINAIRES, MOUNTING HEIGHTS, WIRING METHODS AND OTHER PERTINENT INFORMATION. THE TEMPORARY LIGHTING SHALL PROVIDE AN AVERAGE INITIAL INTENSITY OF 1.2 FOOTCANDLES WITH AN AVERAGE TO MINIMUM UNIFORMITY NOT TO EXCEED 3:1. MOUNTING HEIGHT OF TEMPORARY LUMINAIRES SHALL NOT BE LESS THAN 30 FEET, AND THE MINIMUM OVERHEAD CONDUCTOR CLEARANCE SHALL BE 20 FEET. TEMPORARY OVERHEAD CONSTRUCTION SHALL NOT BE LESS THAN GRADE "B" FOR STRENGTH REQUIREMENTS AS DEFINED BY THE NATIONAL ELECTRIC SAFETY CODE. WOOD POLES WITH OVERHEAD WIRING MAY BE USED. HOWEVER, TEMPORARY LIGHTING SHALL MEET FEDERAL AND STATE SAFETY CRITERIA. IF BREAKAWAY POLES ARE USED TO MEET THESE CRITERIA, THEN UNDERGROUND WIRING SHALL BE USED. RECONDITIONED OR USED MATERIALS MAY BE FURNISHED FOR TEMPORARY LIGHTING.

ALL MATERIALS NECESSARY TO COMPLETE THE TEMPORARY LIGHTING SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. WHEN NO LONGER NEEDED, THE TEMPORARY LIGHTING INSTALLATION SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR.

THE MAINTAINING AGENCY WILL PAY FOR ELECTRICAL ENERGY CONSUMED BY EXISTING POWER SERVICES. THE CONTRACTOR WILL PAY FOR ELECTRICAL ENERGY, INSTALLATION, REMOVAL AND MAINTENANCE OF ANY TEMPORARY POWER SERVICES.

THE LUMP SUM PRICE BID FOR ITEM SPECIAL "MAINTAIN EXISTING LIGHTING" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO MAINTAIN THE EXISTING LIGHTING AS SPECIFIED HEREIN.

THE UNIT PRICE BID FOR ITEM SPECIAL "REPLACEMENT OF EXISTING LIGHTING UNIT" SHALL BE FULL PAYMENT FOR THE REPLACEMENT OF AN EXISTING LIGHTING UNIT WHICH HAS BEEN KNOCKED DOWN AFTER THE AFOREMENTIONED INSPECTION AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO PROVIDE A REPLACEMENT FOR SUCH UNIT.

THE FOLLOWING ESTIMATED QUANTITES ARE INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM SPECIAL, MAINTAIN EXISTING LIGHTING LUMP ITEM SPECIAL, REPLACEMENT OF EXISTING LIGHTING UNIT 2 EACH

ITEM 625, LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, IES-III-M, LED, 9200-11600 LUMENS

LUMINAIRES FOR CONVENTIONAL LIGHTING UNITS SHALL BE AMERICAN ELECTRIC LIGHTING "AUTOBAHN ATBM D 480 R2 4B", COOPER INDUSTRIES "VERDEON VERD-A02-E-U-T2-7030-10K-IP66-4B-AP", GENERAL ELECTRIC "EVOLVE ERLH-5-10-B3-30-E-GRAY", OR EQUAL AS APPROVED BY THE ENGINEER. PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH C&MS ITEM 625 LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), IES-III-M, LED, 9200-11600 LUMENS, AS PER PLAN FOR EACH LUMINAIRE 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, LOW MAST, SOLID STATE (LED), AS PER PLAN, IES-V-M, LED, 38400-42000 LUMENS

THE LUMINAIRE ARRAYS AND ASSOCIATED ILLUMINATION TEST AREAS SPECIFIED IN C&MS 725.11 ARE HEREBY WAIVED. INSTEAD, THE LUMINAIRES FOR LOW-MAST AND HIGH-MAST LIGHTING SHALL MEET THE FOLLOWING REQUIREMENTS:

LUMINAIRES FOR LOW-MAST UNITS SHALL BE HOLOPHANE "HMLED3-PK2-30K-HVOLT- G-AW", CAROLINA HIGH MAST "CLED-4M-G-30-SO-B-05", GENERAL ELECTRIC "ERHM-01-5-40-VM-7-30-N-1-4B-GRAY-R", OR EQUAL AS APPROVED BY THE ENGINEER.

IN ADDITION, OTHER LUMINAIRES WILL BE CONSIDERED IF THE DESIGNED INTENSITY AND UNIFORMITY ARE PROVIDED USING THE DESIGNED POLE LOCATIONS AND THE DESIGNED NUMBER AND TYPE OF FIXTURES PER POLE.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH C&MS ITEM 625, LUMINAIRE, LOW MAST, SOLID STATE (LED), AS PER PLAN, IES-V-M, LED, 38400-42000 LUMENS FOR EACH LUMINAIRE WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

			СО	NTROL CEN	TER
CONTROL CENTER DESIGNATION	LINE VOLTS	CONNECTED LOAD (KVA)	SERVICE ENTRANCES CONDUCTOR SIZE - AWG	ENCLOSURE RATING (AMPS)	C
В	480	2.09	4	60	
С	480	1.3	4	60	
D	480	1.56	4	60	
E	480	1.56	4	60	
F	480	3.11	4	60	

NOTE: FOR ADDITIONAL CONTROL CENTER DETAILS, SEE STANDARD DRAWINGS.

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GROUNDING AND BONDING

THE REQUIREMENTS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (CMS) AND THE TC SERIES OF STANDARD CONSTRUCTION DRAWINGS ARE MODIFIED AS FOLLOWS:

- 1. ALL METALLIC PARTS CONTAINING ELECTRICAL CONDUCTORS SHALL BE PERMANENTLY JOINED TO FORM AN EFFECTIVE GROUND FAULT CURRENT PATH BACK TO THE GROUNDED CONDUCTOR IN THE POWER SERVICE DISCONNECT SWITCH.
 - A. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN METALLIC CONDUITS (725.04) IN ADDITION TO THE CON-DUCTORS SPECIFIED AND BOND THE CONDUIT TO THIS GROUNDING CONDUCTOR.
- B. WHEN AN EQUIPMENT GROUNDING CONDUCTOR IS RE-QUIRED IN PLASTIC CONDUIT (725.05), THE INSTALLATION SHALL INCLUDE A SEPARATE EQUIPMENT GROUNDING CONDUCTOR IN ADDITION TO THE CONDUCTORS SPECIFIED.
- C. METALLIC CONDUIT CARRYING THE LOOP WIRES FROM IN THE PAVEMENT TO THE PULL BOX SPLICE LOCATION WILL ONLY BE BONDED AT THE PULL BOX END, AND WILL NOT CONTAIN AN EQUIPMENT GROUNDING CONDUCTOR.
- D. IF MULTIPLE CONDUIT RUNS BEGIN AND END AT THE SAME POINTS, ONLY ONE EQUIPMENT GROUNDING CON-DUCTOR IS REQUIRED.
- E. THE MESSENGER WIRE AT SIGNALIZED INTERSECTIONS WILL BE USED AS THE CONDUCTIVE PATH FROM CORNER TO CORNER IF CONDUIT IS NOT PROVIDED UNDER THE ROADWAY. WHEN CONDUIT CONNECTS THE CORNERS OF AN INTERSECTION, AN EQUIPMENT GROUNDING CON-DUCTOR SHALL BE USED IN THE CONDUIT.
- 2. CONDUITS.
- A. THE 725.04 CONDUIT SHALL HAVE GROUNDING BUSHINGS INSTALLED AT ALL TERMINATION POINTS. THE BUSHING MATERIAL SHALL BE COMPATIBLE WITH GALVANIZED STEEL CONDUIT AND THE GROUNDING LUG MATERIAL SHALL BE COMPATIBLE FOR USE WITH COPPER WIRE. THREADED OR COMPRESSION TYPE BUSHINGS MAY BE USED.
- B. THE 725.05 CONDUIT SHALL HAVE THE INSIDE AND OUT-SIDE DIAMETERS OF THE CONDUIT DEBURRED AT ALL TERMINATION POINTS.
- C. BOTH ENDS OF METALLIC CONDUIT SHALL BE BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.
- D. METALLIC CONDUIT MAY BE BONDED TO METALLIC BOXES THROUGH THE USE OF CONDUIT FITTINGS UL APPROVED FOR THIS TYPE OF CONNECTION, WITH THE BOX BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.
- 3. WIRE FOR GROUNDING AND BONDING.
- A. USE INSULATED, COPPER WIRE FOR THE EQUIPMENT GROUNDING CONDUCTOR. BONDING JUMPERS IN BOXES AND ENCLOSURES MAY BE BARE OR INSULATED COPPER WIRE. WIRE SIZE SHALL BE AS FOLLOWS:
 - I. USE 4 AWG BETWEEN THE POWER SERVICE AND SUPPORTS, POLES, PEDESTALS, CONTROLLER OR FLASHER CABINETS.
 - II. THE INSULATION SHALL BE GREEN OR GREEN WITH YELLOW STRIPE(S). FOR 4 AWG OR LARGER, INSULATION MAY ALSO BE BLACK WITH GREEN TAPE/LABELS INSTALLED AT ALL ACCESS POINTS.

GROUNDING AND BONDING (CONTINUED)

- B. IN A HIGHWAY LIGHTING SYSTEM, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE THE SAME WIRE SIZE AS THE DUCT CABLE OR DISTRIBUTION CABLE CIRCUIT CONDUCTORS, WITH THE MINIMUM CONDUCTOR SIZE OF 4 AWG. BONDING JUMPERS WILL BE MINIMUM SIZE 4 AWG.
 4. GROUND ROD.
- A. A¾INCH SCHEDULE 40 PVC CONDUIT WILL BE USED IN FOUNDATIONS AND CONCRETE WALLS FOR THE GROUNDING CONDUCTOR (GROUND WIRE) RACEWAY TO THE GROUND ROD. SHOULD METALLIC CONDUIT BE USED, BOTH ENDS OF THE CONDUIT SHALL BE BONDED TO THE GROUNDING CONDUCTOR.
- B. THE TYPICAL GROUNDING CONDUCTOR (GROUND WIRE) SHALL BE 4 AWG INSULATED, COPPER.
- 5. POWER SERVICE AND DISCONNECT SWITCH.
- A. AT THE POWER SERVICE LOCATION, THE GROUNDING CONDUCTOR (GROUND WIRE) FROM THE DISCONNECT SWITCH NEUTRAL (AC-) BAR TO THE GROUND ROD SHALL BE A CONTINUOUS, UN-SPLICED CONDUCTOR. IF SPLICED, IT SHALL BE AN EXOTHERMIC WELD BUTT SPLICE.
- B. THE SERVICE NEUTRAL (AC-) SHALL ONLY BE CONNECTED TO GROUND AT THE PRIMARY POWER SERVICE DISCON-NECT SWITCH.
 - I. NEMA CONTROLLER CABINETS: IF A POWER SERVICE DISCONNECT SWITCH IS LOCATED BEFORE THE CON-TROLLER CABINET, THE NEUTRAL (AC-) AND THE GROUNDING BARS IN THE CONTROLLER CABINET SHALL NOT BE CONNECTED TOGETHER AS SHOWN IN NEMA TS-2, FIGURE 5-4.
 - II. IF SECONDARY DISCONNECT SWITCHES ARE CONNECT-ED AFTER THE PRIMARY DISCONNECT SWITCH, THE NEUTRAL (AC-) SHALL ONLY BE GROUNDED AT THE PRIMARY SWITCH. EQUIPMENT GROUNDING CON-DUCTORS SHALL BE BROUGHT TO THE PRIMARY SWITCH, BUT SHALL BE GROUNDED AT BOTH SE-CONDARY AND PRIMARY SWITCHES.
- 6. PAYMENT ALL MATERIALS AND WORK REQUIRED TO COM-PLETE THE EFFECTIVE GROUND FAULT CURRENT PATH SYSTEM ARE INCIDENTAL TO THE CONDUCTORS INSTALLED BY CONTRACT.

ITEM 625, CONNECTION, FUSED PULL APART, AS PER PLAN

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A FUSED PULL APART CONNECTION AS DETAILED IN C&MS 625. ADDITIONAL WORK INCLUDED WITH THIS ITEM SHALL CONSIST OF REMOVING AND DISPOSING OF THE REMAINING PORTION OF THE EXISTING PULL APART CONNECTION AT THE END OF THE POLE AND BRACKET CABLE. PAYMENT SHALL BE MADE AT THE UNIT PRICE BID UNDER C&MS ITEM 625, "CONNECTION, FUSED PULL APART, AS PER PLAN" FOR EACH CONNECTION AND SHALL INLCUDE ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 632, MESSENGER WIRE, 7 STRAND, 1/4" DIAMETER WITH ACCESSORIES, AS PER PLAN

ALL ASPECTS OF ITEM 632 SHALL APPLY WITH THE EXCEPTION THAT PVC COATED MESSENGER SUPPORT RINGS SHALL BE USED TO SUPPORT LIGHTING CONDUCTORS INSTEAD OF LASHING ROD. MESSENGER SUPPORT RINGS SHOULD BE INSTALLED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. PAYMENT SHALL BE MADE AT THE UNIT PRICE BID UNDER C&MS ITEM 632 MESSENGER WIRE, T STRAND, ¼" DIAMETER WITH ACCESSORIES, AS PER PLAN PER FOOT AND SHALL INLCUDE ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 632, COMBINATION STRAIN POLE, TYPE TC-81.10, DESIGN 5, AS PER PLAN

ALL ASPECTS OF 632 SHALL APPLY. ADDITIONALLY, LABEL EACH STRAIN POLE WITH THE ALPHA NUMERIC IDENTIFIER. PLACE THE IDENTIFIER ON THE QUADRANT OF THE SURFACE OF THE POLE THAT FACES ONCOMING TRAFFIC AT APPROXIMATELY 7 FEET (2 METERS) ABOVE THE ROADWAY SURFACE. APPLY THE IDENTIFIER LETTERS AND NUMERALS WHEN THE AMBIENT AIR TEMPERATURE, THE TEMPERATURE OF THE LABELING MATERIAL AND THE TEMPERATURE OF THE SURFACE TO WHICH THE LABELS ARE APPLIED ARE ALL ABOVE 40° F (4° C).

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ITEM 659, SEEDING AND MULCHING

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL NOTES TO COVER SEEDING AND MULCHING OF DISTURBED AREAS DUE TO THE CONSTRUCTION OF THE PROPOSED LIGHTING CIRCUITS. THE ESTIMATED QUANTITY WAS CALCULATED BASED ON AN ASSUMPTION OF 5 FEET OF DISTURBANCE PER LINEAR FOOT OF TRENCH.

ITEM 659, SEEDING & MULCHING 10860 SY

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SHEET NO.	REFERENCE NO.	CIRCUIT	COORD	INATES	CONNECTION, FUSED PULL APART	CONNECTION, FUSED PULL APART, AS PER PLAN	CONNECTION, UNFUSED PERMANENT	SHT POLE, CONVENTIONAL, AT20B40	.IGHT POLE FOUNDATION, 24" X 8' DEEP	BRACKET ARM, 20'	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE	NO. 6 AWG 2400 VOLT DISTRIBUTION CABLE	IO AWG POLE AND BRACKET CABLE	2" DUCT CABLE WITH THREE .4 AWG 2400 VOLT CABLES	2" DUCT CABLE WITH THREE .6 AWG 2400 VOLT CABLES	CONDUIT, 3", 725.04	VDUIT, JACKED OR DRILLED, 725.04, 3"	UMINAIRE, CONVENTIONAL, DLID STATE (LED), AS PER PLAN	52 WINAIRE, LOW MAST, SOLID TATE (LED), AS PER PLAN	TRENCH	PULL BOX, 725.08, 18"	PULL BOX REMOVED	GROUND ROD	WER SERVICE, AS PER PLAN	PLASTIC CAUTION TAPE
			NORTHING	FASTING	EACH	EACH	ЕАСН	EACH	EACH	EACH	FT	FT	9 FT	I I I I I I I I I I I I I I I I I I I	I ON FT	FT	ÖJ FT	ی کر FACH	Τ Τ FACH	FT	ЕАСН	EACH	FACH	EACH	FT
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	4	B	614113	1321287		2								243				1		233					233
	5 6	B B	674132	1321514		2								265				1		255					255
	7 8	B B	674065	1321756			6							200						190	1				190
	9	B	673924	1321833		2								220				1		210					210
	10	B	673918	1322041		2								220				1		210					210
	12 13	B B	674068	1322133			3							221						211	1				211
	14 15	B B	674064	1321728										16						11				1	11
	16 17	B									135 360					30	110			30					30
	18	B	674087	1321864		2					715						05		1						
	19 20	B B	674082	1322039		2					315						95		1						
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	2	B B	674131	1323558		2								40				1		35					
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T TOWER REMOVED	INAIRE REMOVED	R SERVICE REMOVED	SERVICE REMOVED, AS PER PLAN	TOWER FOUNDATION REMOVED	CONNECT CIRCUIT	GER WIRE, 7 STRAND, " DIAMETER WITH ORIES, AS PER PLAN	V POLE FOUNDATION	IATION STRAIN POLE, TC-81.10, DESIGN 5, AS PER PLAN	CALCULA PJD CHECKE SNS
H1CH.	WN 7	POWEF	POWER S	LIGHT	DISI	MESSEN 1/4 ACCESS	STRAIN	COMBIN TYPE	
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SHEET NO.	REFERENCE NO.	CIRCUIT	COORD	INATES	CONNECTION, FUSED PULL APART	CONNECTION, FUSED PULL APART, AS PER PLAN	CONNECTION, UNFUSED PERMANENT	LIGHT POLE, CONVENTIONAL, AT20B40	LIGHT POLE FOUNDATION, 24" X 8' DEEP	BRACKET ARM, 20'	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE	NO. 6 AWG 2400 VOLT DISTRIBUTION CABLE	VO. 10 AWG POLE AND BRACKET CABLE	1-1/2" DUCT CABLE WITH THREE NO.4 AWG 2400 VOLT CABLES	1-1/2" DUCT CABLE WITH THREE NO.6 AWG 2400 VOLT CABLES	CONDUIT, 3", 725.04	CONDUIT, JACKED OR DRILLED, 725.04, 3″	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN	LUMINAIRE, LOW MAST, SOLID STATE (LED), AS PER PLAN	TRENCH	PULL BOX, 725.08, 18"	PULL BOX REMOVED	скоиир кор	POWER SERVICE, AS PER PLAN	PLASTIC CAUTION TAPE
			NORTHING	EASTING	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	FT	EACH	EACH	EACH	EACH	FT
60	7	C	674346	1324324																				1	
	8	C	074004	1704707			7				195					50				50					50
	9 10	C C	674294	1324323			5							210						200	/				200
	11 12	C C	674294	1324523	2			1	1				180	277				1		272			1		272
	12													211											
	2	С С	674291	1324897	2			1	1				180	109				1		104			1		104
	3	С	674200	1725257	2			1	,				100	366				1		356					356
	5	С С	014230	1323233	2			,	/				100	345				1		335					335
	6 7	C C	674288	1325587	2			1	1				180	320				1		310			1		310
_	8	С	674287	1325897	2			1	1				180	1/				1					1		
	9 10	C C	674282	1325897			3							15						5	1				5
_	11 12	C C	674084	1325897			.3				624						198				1				
	13	C												295						290					290
	1	С												451						446					446
	2	C	674055	1326626	2			1	1				180	487				1		477			1		477
_	4	C	674035	1327102	2			1	1				180	407				1					1		
_	5 6	С С	674013	1327275	2			1	1				180	185				1		175			1		175
	7	С	071077	1707470				,	,				100	210						200					200
	0 9	C C	671977	1321410	2				7		171		180				47	1							
	10 11	C C	674022	1327457			3							36						26	1				26
	12	С	674046	1327450	2			1	1				180					1					1		
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CALCULATED PJD CHECKED SNS	POLE, SN 5,	632 NOIL	FRAND, TH PLAN	ſΤ	NOIL	ED, AS	DVED	ED	
	COMBINATION STRAIN TYPE TC-81.10, DESI AS PER PLAN	STRAIN POLE FOUND.	MESSENGER WIRE, 7 S 1/4" DIAMETER WI ACCESSORIES, AS PEI	DISCONNECT CIRC	LIGHT TOWER FOUND. REMOVED	POWER SERVICE REMOI PER PLAN	POWER SERVICE REM	LUMINAIRE REMOV	LIGHI I UWEK KEMU
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SHEET NO.	REFERENCE NO.	CIRCUIT	COORD	INATES	CONNECTION, FUSED PULL APART	CONNECTION, FUSED PULL APART, AS PER PLAN	CONNECTION, UNFUSED PERMANENT	LIGHT POLE, CONVENTIONAL, AT20840	LIGHT POLE FOUNDATION, 24" X 8' DEEP	BRACKET ARM, 20'	NO. 4 AWG 2400 VOL T DISTRIBUTION CABLE	NO. 6 AWG 2400 VOLT DISTRIBUTION CABLE	NO. 10 AWG POLE AND BRACKET CABLE	1-1/2" DUCT CABLE WITH THREE NO.4 AWG 2400 VOLT CABLES	i-1/2" DUCT CABLE WITH THREE NO.6 AWG 2400 VOLT CABLES	CONDUIT, 3", 725.04	CONDUIT, JACKED OR DRILLED, 725.04, 3"	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN	CLUMINAIRE, LOW MAST, SOLID STATE (LED), AS PER PLAN	TRENCH	PULL BOX, 725.08, 18"	PULL BOX REMOVED	GROUND ROD	POWER SERVICE, AS PER PLAN	PLASTIC CAUTION TAPE
			NORTHING	EASTING	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	FT	EACH	EACH	EACH	EACH	FT
66	1	D	675698	1368143	2			1	1				180					1					1	<u> </u>	
	2	D												384						374					374
	3	D D	675697	1368517	2			1	1				180	366				1		356			1		356
	5	D	675696	1368873	2			1	1				180					1		000			1		
	6	D	075004	1700007	2			,	,				10.0	344				1		334			1		334
	/ 8	D D	675694	1369207	2				/				180	332				1		322				<u> </u>	322
	9	D	675694	1369529	2			1	1				180					1					1		
	10	D D	675717	1768701										91						86			<u> </u>	<u> </u>	86
	12	D	675714	1369330	-	1		1					1										<u> </u>	<u> </u>	<u> </u>
	13	E	675498	1368919	2	1		1	1				180					1					1	<u> </u>	L
	14 15	E F	675478	1369413	2			1	1				180	505				1		495			1		495
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	17	E	675456	1369587	2			1	1				180					1					1		
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	20	E	675432	1369578																					
27	•	6												1000						10.01				[
67	2	D D	676103	1370589			3							1086						1081	1			<u> </u>	108
	3	D	010100	1010000							159						48								
	4	D	070001	1770505			7				276						82							<u> </u>	
	5	D D	676021	1370585			3							37						27	1			<u> </u>	27
	7	D	675995	1370584	2			1	1				180					1					1		
	8	D	675736	1369832																		1		 	
	9 10	D	675732	1370389																		/		<u> </u>	<u> </u>
	11	E												123						118					118
	12	E	675430	1369728			3							65						55	1		<u> </u>	 	55
	13	E	675417	1369782	2			1	1				180	00				1		- 55			1		
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	18	E									171						47								
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	CALCULATE PJD CHECKED SNS	LIGHTING QUANTITIES	00°0	54	
	COMBINATION STRAIN POLE, TYPE TC-81.10, DESIGN 5, AS PER PLAN				U
670	STRAIN POLE FOUNDATION				U
	MESSENGER WIRE, 7 STRAND, 1/4" DIAMETER WITH ACCESSORIES, AS PER PLAN				U
	DISCONNECT CIRCUIT				υ
	LIGHT TOWER FOUNDATION REMOVED	EACH			Ø
	POWER SERVICE REMOVED, AS PER PLAN				U
	POWER SERVICE REMOVED				U
	LUMINAIRE REMOVED	EACH	4 6 		36
	LIGHT TOWER REMOVED	EACH			Ø

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SHEET NO.	REFERENCE NO.	CIRCUIT	COORDIN	NATES	CONNECTION, FUSED PULL APART	CONNECTION, FUSED PULL APART, AS PER PLAN	CONNECTION, UNFUSED PERMANENT	LIGHT POLE, CONVENTIONAL, AT20840	LIGHT POLE FOUNDATION, 24" X 8' DEEP	BRACKET ARM, 20'	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE	NO. 6 AWG 2400 VOLT DISTRIBUTION CABLE	NO. 10 AWG POLE AND BRACKET CABLE	1-1/2" DUCT CABLE WITH THREE NO.4 AWG 2400 VOLT CABLES	i-1/2" DUCT CABLE WITH THREE NO.6 AWG 2400 VOLT CABLES	CONDUIT, 3", 725.04	CONDUIT, JACKED OR DRILLED, 725.04, 3"	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN	LUMINAIRE, LOW MAST, SOLID STATE (LED), AS PER PLAN	TRENCH	PULL BOX, 725.08, 18"	PULL BOX REMOVED	GROUND ROD	POWER SERVICE, AS PER PLAN	PLASTIC CAUTION TAPE
			NORTHING	EASTING	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	FT	EACH	EACH	EACH	EACH	FT
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	7	D	013113	1371432	2				/				100	45				1		35					35
	8	D	675711	1371485			3														1				
	9	D												133						128			 '		128
	10	D	676133	1370700	2			1	1				180	19				1		9					9
	12	D	010100	1510100	2			,	,		180		100			45		,					, 		
	13	D	675985	1371043																				1	
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	17	D	675647	1371472	2			1	1				180					1					1		
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	20	D	675667	1371200																		1			<u> </u>
	22	E									261						82								
	23	E	675057	1370649			3							107			-			157	1		 '	ļ!	157
	24	E F	675130	1370788			3							167						157	1		'		157
	26	E	010100	1510100			- Ŭ							892						887	, '				887
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	28	E	675135	1370649			3							27						17	1		 '	!	17
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69	1	D	075004	17710.40				<u>.</u>	 .				100	41			-	.		36			<u> </u> '	ļ!	36
	2	D	675684	1371646	2			/	/				180	185				1		175					175
	4	D	675666	1371820	2			1	1				180					1					1		
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	6	D	675654	1372353	2			1	1				180					1						!	
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	10	E	675448	1371664	2			1	1				180	770			-	1		700					700
	12	E F	675450	1371986	2			1	1				180	332				1		522			1		522
	13	E	010100	1011000	-			,					100	344				,		334			, <u> </u>		334
	14	Ε	675455	1372320	2			1	1				180					1					1		
	15	E	675467	1770676	2			,	,				100	366				1		356					356
	17	E	010400	1312010		1							100	384		1				374			/		374
	18	E	675469	1373050	2			1	1				180			1		1					1		
	19	E	675420	1371668																			 '	Į/	
	20		675421	1372670																			 '	<u>├</u> ───┤	<u> </u>
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	CALCULATI PJD CHECKED SNS		LIGHTING QUANTITIES		PRE-70-0.00	55 147
	ION STRAIN POLE, -81.10, DESIGN 5, PER PLAN	COMBINAT TYPE TC AS				0
632	OLE FOUNDATION	STRAIN P				0
	R WIRE, 7 STRAND, DIAMTER WITH TES, AS PER PLAN	MESSENGEH 1/4" I ACCESSOR	<i>FT</i>			0
	WECT CIRCUIT	DISCO				2
	WER FOUNDATION REMOVED	י 1 11917 וכ		1		8
	PER PLAN	POWER SER				0
	ERVICE REMOVED	POWER S				2
	AIRE REMOVED	NIWIN	EACH	6	4 4 4 4 4 4 4 4 4	36
	OWER REMOVED	TICHL 1		1		8

						-												6	25				1		
SHEET NO.	REFERENCE NO.	CIRCUIT	COORDII	NATES	CONNECTION, FUSED PULL APART	CONNECTION, FUSED PULL APART, AS PER PLAN	CONNECTION, UNFUSED PERMANENT	LIGHT POLE, CONVENTIONAL, AT20840	LIGHT POLE FOUNDATION, 24" X 8' DEEP	BRACKET ARM, 20'	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE	NO. 6 AWG 2400 VOLT DISTRIBUTION CABLE	NO. 10 AWG POLE AND BRACKET CABLE	1-1/2" DUCT CABLE WITH THREE NO.4 AWG 2400 VOLT CABLES	1-1/2" DUCT CABLE WITH THREE NO.6 AWG 2400 VOLT CABLES	CONDUIT, 3", 725.04	CONDUIT, JACKED OR DRILLED, 725.04, 3"	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN	LUMINAIRE, LOW MAST, SOLID STATE (LED), AS PER PLAN	TRENCH	PULL BOX, 725.08, 18"	PULL BOX REMOVED	GROUND ROD	POWER SERVICE, AS PER PLAN	PLASTIC CAUTION TAPE
			NORTHING	EASTING	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	FT	EACH	EACH	EACH	EACH	FT
70	1	F	675773	1393545	2			1	1				180					1					1		<u> </u>
	2	F													385					375					375
	<u> </u>	F	675786	1393919	2					1		1098	150					/					1		<u> </u>
	5	F	675782	1394275	2					1			60					1					1		
	6 7	F	675786	1394609	2					1		1032	60					1					1		<u> </u>
	8	F	010100	1001000						,		1032	00					,					,		
	9	F	675791	1394943	2					1			150	FO				1		<i>E</i> 7			1		57
	11	F F	675593	1393861	2			1	1				174	50				1		- 55			1		
	12	F	675576	170 / 171						1			15.0		323			1		313			1		313
	13 14	F F	010010	1594111		-				1		555	150					/							
	15	F	675566	1394345	2					1			54					1					1		
	16 17	F	675560	1394519	2					1		555						1					1	<u> </u>	
	18	F										555													
	19 20	F	675557	1394693	2					1		615	54					1					1		
	20	F	675555	1394888	2					1		010	150					1					1		
	22	F	675554	130/039			3							60						50	,				50
	23	F F	675554	1394938			5				153						41				/				
	25	F	675595	1394938			3														1				
	26	F												62						57					57
71	1	F												218						213					213
	2	F	675823	1395203			3				279						78				1				
	4	F, G	675893	1395168							210						10							1	
	5	G	676209	1305600			7							564						554	,				554
	7	G	070203	1555005			5				216						62				,				
	8	G	676209	1395671			3							1/							1				
	9 10	G	676209	1395676	2			1	1				180	15				1		5			1		5
	11	G												704						699					699
	12	G	676089	1395612			3				390						120				1				
	14	G												15						5					5
	15 16	G F	676084	1395612	2			1	1		162		180				44	1					1		
	17	F	675784	1395222			3				102										1				
	18 19	F	675592	1305220			3				609						193				1				
	20	F	073332	1333220										230						225					225
	21	F	075074	1705505			7							532						522	,				522
	22	F	675234	1395595			3				297						89				/				
	24	F	675146	1395604	1		3														1				L
	25 26	F F	675131	1395606	2			1	1				180	26				1		16			1		16
	27	F									207						59	, 							
	28 29	F	675240	1395653			3							21						11	1				11
	30	F	675241	1395653	2			1	1				180	<u> </u>				1					1		
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					70		77	6	_		0717	E 4 4 0	1000	2505	700		600	15		7000	,,		15		7000
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CALCULATED PJD CHECKED SNS	LIGHTING QUANTITIES	RE-70-0.00
COMBINATION STRAIN POLE, TYPE TC-81.10, DESIGN 5, AS PER PLAN	EACH I I I I I I I I I I I I I	
STRAIN POLE FOUNDATION 25	CS EACH 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
MESSENGER WIRE, 7 STRAND, 1/4" DIAMETER WITH ACCESSORIES, AS PER PLAN	FT FT 356 334 334 334 175 175 175 175 195	
DISCONNECT CIRCUIT		
LIGHT TOWER FOUNDATION REMOVED		
POWER SERVICE REMOVED, AS		
POWER SERVICE REMOVED		
LUMINAIRE REMOVED		
LIGHT TOWER REMOVED		

																		6	25						
SHEET NO.	REFERENCE NO.	CIRCUIT	COORD	INATES	CONNECTION, FUSED PULL APART	CONNECTION, FUSED PULL APART, AS PER PLAN	CONNECTION, UNFUSED PERMANENT	LIGHT POLE, CONVENTIONAL, AT20B40	LIGHT POLE FOUNDATION, 24" X 8' DEEP	BRACKET ARM, 20'	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE	NO. 6 AWG 2400 VOLT DISTRIBUTION CABLE	NO. 10 AWG POLE AND BRACKET CABLE	1-1/2" DUCT CABLE WITH THREE NO.4 ANG 2400 VOLT CABLES	1-1/2" DUCT CABLE WITH THREE NO.6 AMG 2400 VOLT CABLES	CONDUIT, 3", 725.04	CONDUIT, JACKED OR DRILLED, 725.04, 3"	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN	LUMINAIRE, LOW MAST, SOLID STATE (LED), AS PER PLAN	TRENCH	PULL BOX, 725.08, 18"	PULL BOX REMOVED	GROUND ROD	POWER SERVICE, AS PER PLAN	PLASTIC CAUTION TAPE
			NORTHING	EASTING	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	FT	EACH	EACH	EACH	EACH	FT
72	1	C												121						116			'		116
₹ <u>72</u>	2	G	675816	1396413	2			1	1				174	121				1		110			1		110
	3	G					_							93						83					83
20	4	G	675800	1396494			3							125						115	1		'		115
2	6	G	675782	1396608	2					1			150	120				1		110			1		110
07/	7	G	075707	1700700								555											<u> </u>		
	8	G	675763	1396782	2					/		630	60					/							
-	10	G	675753	1396981	2					1			60					1					1		
רת 	11	G	675750	1307259	2					1		861	60					1						ļ	
	13	G	013130	1337230	2					/	195		00				55	/							
1	14	G	675746	1396494			3														1				
	15 16	G	675535	1396494			3				663						211				1		'		
070	17	G												207						197					197
2-0	18 19	G	675544	1396691	2					1		960	150					1					1		
ר ר	20	G	675548	1397001	2					1		000	60					1					1		
5	21	G	075554	1707775						1		1032	60					1							
D D	22	G	675554	1397335	2					/		1245	00					/							
	24	G	675558	1397740	2					1			60					1					1		
D	25 26	G	675746	1396434	2			1	1				180	71				1		61			1		61
> D	20		010110	1300131	-			,	,				100					,					,		
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		TOTALS F.	ROM SHEET 51	I	0	20	9	0	0	0	810	0	0	4061	0	30	205	8	2	4001	2	2	0	1	4001
		TOTALS FI	ROM SHEET 52 ROM SHEET 54		20	0	12	10	10	0	990 843	0	1800 2160	3306 4474	0	50 0	245	10	0	3246 4344	4	0	10	1	3246 4344
		TOTALS FI	ROM SHEET 55		24	0	21	12	12	0	1239	0	2160	4441	0	80	273	12	0	4291	7	2	12	2	4291
2		TOTALS FI	ROM SHEET 56		30	0	33	6	6	9	2313	5442	1902	2505	708	0	686	15	0	3098	11	0	15	1	3098
	AL 0. 0	ADDIED T	O OFNERA	CIIMMA DY	20	0	9	2	2	<u></u> ,-,	858	0283	1014	01/	700	100	200	10	0	572	70		10		572
Πιοτ	ALS C	ARRIED T	U GENERAL	SUMMARY	118	20	99	42	42	11	1053	10725	9036	19404	108	160	1926	67	2	19552	52	6	59	5	19552

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	CALCULATI PJD CHECKED SNS	LIGHTING QUANTITIES	PRE-70-0.00	(57)
	COMBINATION STRAIN POLE, TYPE TC-81.10, DESIGN 5, AS PER PLAN	EACH		8 17
632	STRAIN POLE FOUNDATION	EACH	0 0 0 0 9	8 17
	MESSENGER WIRE, 7 STRAND, 1/4" DIAMETER WITH ACCESSORIES, AS PER PLAN	FT FT 175 200 277 277 277 310 334 405 	0 0 0 0 1744	1978 3722
	DISCONNECT CIRCUIT		1 0 2 0	0
	LIGHT TOWER FOUNDATION REMOVED			0 16
	POWER SERVICE REMOVED, AS PER PLAN		1 0 0 0	0
	POWER SERVICE REMOVED			0
	LUMINAIRE REMOVED		10 0 36 36 0	0 82
	LIGHT TOWER REMOVED			0 16