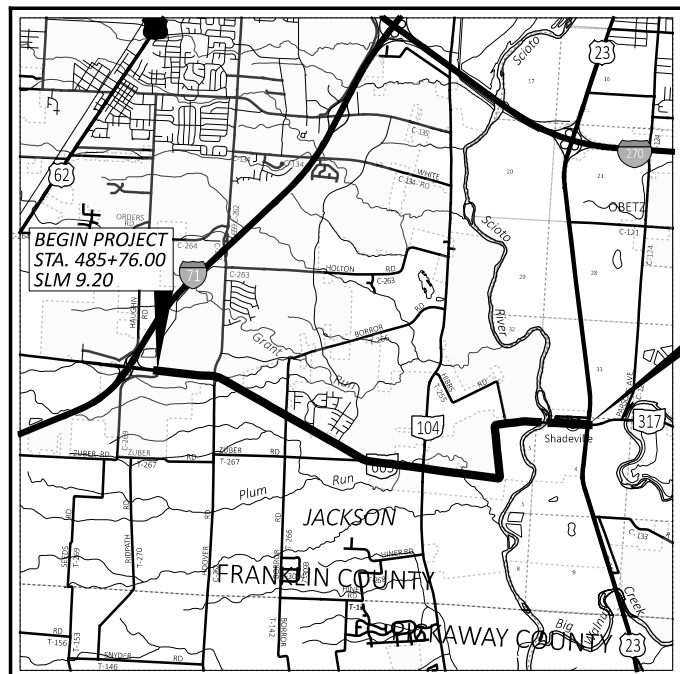


# STATE OF OHIO DEPARTMENT OF TRANSPORTATION

## FRA-665-9.20

CITY OF GROVE CITY  
JACKSON TOWNSHIP  
HAMILTON TOWNSHIP  
FRANKLIN COUNTY



**LOCATION MAP**

LATITUDE: 39°49'35" LONGITUDE: 83°02'20"



PORTION TO BE IMPROVED	-----
INTERSTATE HIGHWAY	=====
FEDERAL ROUTES	====
STATE ROUTES	====
COUNTY & TOWNSHIP ROADS	====
OTHER ROADS	-----

**DESIGN DESIGNATION**

CURRENT ADT (2023)	8,700
DESIGN YEAR ADT (2035)	10,500
DESIGN HOURLY VOLUME (2035)	1,000
DIRECTIONAL DISTRIBUTION	52%
TRUCKS (24 HOUR B&C)	7%
DESIGN SPEED	MATCH LEGAL
LEGAL SPEED	45 MPH (8.34-9.09)
	35 MPH (9.09-9.79)
	55 MPH (9.79-13.91)
	40 MPH (13.91-14.51)
DESIGN FUNCTIONAL CLASSIFICATION:	03 PRINCIPAL ARTERIAL (URBAN)
NHS PROJECT	YES

**DESIGN EXCEPTIONS**

NONE REQUIRED

**ADA DESIGN WAIVERS**

NONE REQUIRED

**UNDERGROUND UTILITIES**  
Contact Two Working Days  
Before You Dig

**OHIO811.org**  
Before You Dig

OHIO 811. 8-1-1. or 1-800-362-2764  
(Non members must be called directly)

PLAN PREPARED BY:  
  
IN HOUSE DESIGN

**INDEX OF SHEETS:**

TITLE	P.1
SCHEMATIC PLAN	P.2 - P.3
TYPICAL SECTIONS	P.4
TYPICAL DETAILS	P.5 - P.7
GUARDRAIL PLAN INSERT SHEETS	P.8 - P.10
GENERAL NOTES	P.11 - P.13
MAINTENANCE OF TRAFFIC NOTES	P.14 - P.17
DETOUR PLAN	P.18 - P.19
GENERAL SUMMARY	P.20 - P.21
PAVEMENT REPAIR CALCULATIONS	P.22 - P.25
PAVEMENT CALCULATIONS	P.26 - P.27
PLAN SUBSUMMARY	P.28
FRA-665 PLAN	P.29 - P.42
DRAINAGE PLAN	P.43
CULVERT DETAIL	P.44
EARTHWORK SUBSUMMARY	P.45
DITCH CROSS SECTIONS	P.46 - P.50
TRAFFIC CONTROL CALCULATIONS	P.51 - P.53
CENTER LINE STRIPING - NO PASSING ZONES	P.54 - P.55
STRUCTURE PLAN	P.56 - P.58

**FEDERAL PROJECT NUMBER**

E200 (817)

**RAILROAD INVOLVEMENT**

NONE

**PROJECT DESCRIPTION**

RESURFACING OF 5.10 MILES OF SR 665 FROM SLM 9.20 TO SLM 14.51 IN CITY OF GROVE CITY, JACKSON TOWNSHIP, AND HAMILTON TOWNSHIP IN FRANKLIN COUNTY. SUSPEND RESURFACING AT SLM 13.94 AND RESUME AT SLM 14.15 FOR ODOT PROJECT FRA-665-14.00, PID 104949.

REPAIR OF CONCRETE PAVEMENT ON SR 665 FROM SLM 8.32 TO SLM 9.20.

REPLACEMENT OF 24" CULVERT AT SLM 10.70 AND DITCH REGRADING.

REPAIR OF DECK ON FRA-665-1262 STRUCTURE OVER PLUM RUN.

PROJECT ALSO INCLUDES GUARDRAIL REPLACEMENT AND REPAIR, PAVEMENT REPAIR, AND STRUCTURE SEALING.

**EARTH DISTURBED AREAS**

PROJECT EARTH DISTURBED AREA:	1.28 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.00 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	N/A (NOI NOT REQUIRED)* *ROUTINE MAINTENANCE PROJECT

**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.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEET P.18.

**DISTRICT DEPUTY DIRECTOR**

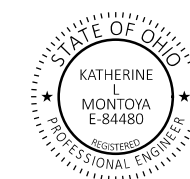
*g c 25*

**DIRECTOR, DEPARTMENT OF TRANSPORTATION**

*Jackie Montoya*

STANDARD CONSTRUCTION DRAWINGS								SUPPLEMENTAL SPECIFICATIONS	
BP-2.5	01/21/22	RM-1.1	01/15/21	MT-95.31	07/19/19	TC-41.20	10/18/13	800 - SEE PROPOSAL	
BP-2.6	07/15/16			MT-95.32	04/19/19	TC-42.20	10/18/13	821	4/20/12
BP-3.1	01/21/22	MGS-1.1	07/16/21	MT-95.50	07/21/17	TC-52.10	10/18/13	834	7/13/22
BP-4.1	07/19/13	MGS-2.1	01/19/18	MT-97.10	04/19/19	TC-52.20	01/15/21	850	4/15/22
		MGS-4.3	01/18/13	MT-97.12	01/20/17	TC-61.30	07/19/19	902	8/7/19
DM-4.2	07/20/12	MGS-5.3	07/15/16	MT-98.29	01/17/20	TC-65.10	01/17/14	921	4/20/12
DM-4.4	01/15/16			MT-98.30	07/16/21	TC-65.11	07/15/22		
				MT-99.20	04/19/19	TC-71.10	07/15/22		
HW-2.1	07/20/18			MT-101.60	01/17/20	TC-74.10	01/21/22		
HW-2.2	07/20/18			MT-101.90	07/17/20				
				MT-105.10	01/17/20				
								<b>SPECIAL PROVISIONS</b>	
								WATERWAY PERMITS CONDITIONS	
								11/21/2022	

ENGINEER'S SEAL



FRA-665-9.20

MODEL: 112800\_GT001 PAPER SIZE: TX11 (in.) DATE: 2/21/2023 TIME: 12:13:58 PM USER: kbownan pwc:\ohio\dot-pw\l.bentley.com\shido\pww-102\Documents\01 Active Projects\District 06\Franklin\112800\400-Engineering\Roadway\Sheets\112800\_GT001.dgn

FRA-665-9.20 PID#112800

DESIGN AGENCY



DESIGNER

KLM

REVIEWER

AMH 11/03/22

PROJECT ID

112800

SHEET

P.1

TOTAL

58

**EXISTING CONCRETE CURB AND GUTTER:**

THE CONTRACTOR SHALL USE EXTREME CARE AND CAUTION WHEN WORKING AROUND EXISTING CONCRETE CURB AND GUTTER. EXISTING CONCRETE CURB AND GUTTER SHALL IN NO WAY BE EXPOSED TO TACK COAT AT ANY TIME. IN THE OCCURRENCE THAN CONCRETE CURB AND/OR GUTTER IS EXPOSED TO TACK COAT, THE CONTRACTOR SHALL RECTIFY IT AT THE CONTRACTOR'S EXPENSE. RECTIFICATION MAY INCLUDE (BUT IS NOT LIMITED TO) CLEANING, PATCHING, OR FULLY REPLACING THE EXPOSED/DAMAGED CONCRETE. THE TYPE AND MEANS OF RECTIFICATION SHALL BE DETERMINED BY THE PROJECT ENGINEER ON A CASE BY CASE BASIS.

**DRAINAGE AT INTERSECTING STREETS:**

AT INTERSECTING STREETS WHERE THE DRAINAGE IS TOWARD OR INTO THE PROJECT, SPECIAL CARE SHALL BE TAKEN BY THE CONTRACTOR TO MAINTAIN PROPER GRADE ALONG THE EDGE OF PAVEMENT SO THAT WATER WILL NOT POND. AT INTERSECTING STREETS, WHERE THE EDGE OF PAVEMENT CONTINUES ACROSS THE STREET, CARE SHALL BE TAKEN TO FEATHER DOWN AND FORM A NEAT SEAM WITH THE PROPER GRADE.

**ITEM 304 - AGGREGATE BASE, AS PER PLAN:**

THIS ITEM SHALL CONFORM TO ITEM 304 OF THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS. THE QUANTITY PROVIDED ON THE CULVERT DETAIL ON SHEET P.44 HAS BEEN ESTIMATED USING A 6" THICKNESS. THE CONTRACTOR MUST FIRST FIELD VERIFY THE ELEVATION OF THE EXISTING SUBGRADE PRIOR TO THE PLACEMENT OF THIS ITEM. IF THE EXISTING SUBGRADE IS FOUND TO BE AT A DIFFERENT ELEVATION THAN THE PROPOSED SUBGRADE (WHEN ASSUMING A PROPOSED 6" AGGREGATE BASE), THE CONTRACTOR SHALL PROVIDE THE RESULTS OF THE INVESTIGATION TO THE PROJECT ENGINEERING. THE ENGINEERING SHALL THEN DIRECT THE CONTRACTOR TO ADJUST THE THICKNESS OF THIS ITEM ACCORDINGLY.

THE CONTRACTOR WILL BE COMPENSATED FOR ANY ADDITIONAL QUANTITY OF THIS ITEM AT THE CONTRACT BID PRICE OF THE ITEM. THE CONTRACTOR WILL NOT RECEIVE ANY ADDITIONAL COMPENSATION BEYOND THE ADJUSTED QUANTITY AT THE CONTRACT BID PRICE.

**ITEM 617 - WATER:**

THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND CARRIED TO THE GENERAL SUMMARY:

ITEM 617 - WATER = 2 MGAL

**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.

**ITEM 638 - VALVE BOX ADJUSTED TO GRADE:**

THE FOLLOWING CONTINGENCY QUANTITY HAS BEEN PROVIDED AND CARRIED TO THE GENERAL SUMMARY FOR USE WHEN ENCOUNTERING VALVE BOX(ES) THAT REQUIRE ADJUSTMENT TO GRADE:

ITEM 638 - VALVE BOX ADJUSTED TO GRADE = 4 EACH

**ITEM 644 - THERMOPLASTIC PAVEMENT MARKINGS:**

**ITEM 646 - EPOXY PAVEMENT MARKINGS:** THE LOCATIONS, SIZES AND SHAPES OF PROPOSED PAVEMENT MARKINGS WILL BE THE SAME AS EXISTING ON THE MAJORITY OF THIS PROJECT. ANY DEVIATION FROM EXISTING WILL BE IDENTIFIED WITHIN THIS PLAN.

EXISTING CROSSWALK MARKINGS WILL BE STRIPED BACK ACCORDING TO THE HIGH VISIBILITY CROSSWALK DETAIL IN SCD TC-74.10.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION, SIZE AND SHAPE OF THESE EXISTING PAVEMENT MARKINGS BEFORE THE PAVEMENT PLANING AND RESURFACING OBLITERATES THEM. ANY PAVEMENT MARKING WHICH IS PLACED AT THE WRONG LOCATION SHALL BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED TO PERMANENTLY STRIPE CONCRETE REPAIR LOCATIONS AND HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 646 - EDGE LINE, 6" = 0.17 MILE  
 ITEM 646 - CENTER LINE = 0.09 MILE  
 ITEM 646 - CHANNELIZING LINE, 12" = 227 FT  
 ITEM 646 - STOP LINE = 24 FT  
 ITEM 646 - TRANSVERSE/DIAGONAL LINE = 50 FT  
 ITEM 646 - LANE ARROW = 4 EACH

**CENTERLINE CONSTRUCTION:**

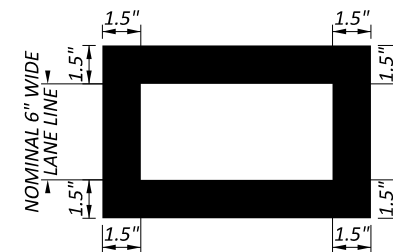
THE INTENT OF THIS PROJECT IS THAT ALL WORK IS TO BE COMPLETED WITHIN THE EXISTING RIGHT OF WAY. ANY CENTERLINE SHOWN IN THIS PLAN IS TO BE CONSIDERED A CENTERLINE OF CONSTRUCTION ONLY AND NOT TO BE CONSTRUED AS THE ACTUAL GEOMETRIC ALIGNMENT OF THE ROADWAY. FOR THE MAJORITY OF THIS PLAN, MEASUREMENTS AND CALCULATIONS WILL BE PROVIDED USING COUNTY STRAIGHT LINE MILEAGE (SLM). THE SLM CONVERSION EQUATION ON THE SCHEMATIC GIVES THE RELATIVITY OF STATIONING TO SLM (AND VICE VERSA). ANY CENTERLINE STATIONING PROVIDED IS TO BE USED AS A REFERENCE OF PROJECT LENGTH ONLY AND SHALL NOT BE USED TO ESTABLISH PRECISE LOCATIONS OF ANY OTHER FEATURES SUCH AS/NOT LIMITED TO THE EXISTING RIGHTS OF WAY. ANY RIGHT OF WAY SHOWN IN THE PLAN IS A GRAPHICAL REPRESENTATION (OF SAID RIGHT OF WAY) CONFIRMING THAT THE PLANNED WORK HAS BEEN DETERMINED TO BE IN ODOT RIGHT OF WAY. IN THE EVENT THAT ANY ACTIVITIES DEVIATE FROM THE PLAN, THE CONTRACTOR MAY BE REQUIRED, PER THE ENGINEER, TO VERIFY THE RIGHT OF WAY LIMITS IN THE FIELD. PAYMENT FOR ANY RIGHT OF WAY VERIFICATION WILL BE INCLUDED UNDER THE LUMP SUM BID ITEM 623 - CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN.

**ITEM 645 - PAVEMENT MARKING, MISC.: LANE LINE, 6", TYPE A3 CONTRAST MARKING WITH GROOVING:**

IN ADDITION TO THE REQUIREMENTS OF CMS 645, THIS ITEM SHALL INCLUDE

FIRST, GROOVE THE NEW PAVEMENT REPAIR FOR THE MARKINGS AS SPECIFIED IN SS 850.

SECOND, APPLY BLACK PAVEMENT MARKING ON THE PAVEMENT. LASTLY, APPLY THE WHITE PAVEMENT MARKING ON TOP OF THE BLACK MARKING AFTER THE BLACK MARKING HAS CURED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. THE BLACK CONTRAST MARKING AND THE WHITE LANE LINE MARKING SHALL BE PLACED ACCORDING TO THE FOLLOWING DIAGRAM:



THE WHITE LANE LINE SHALL BE CENTERED ON THE BLACK MARKING SUCH THAT THERE WILL BE 1.5 INCH BLACK BORDER ON EITHER SIDE OF THE WHITE LANE LINE. THE WHITE LANE LINE SHALL BE CENTERED WITHIN THE BLACK PAINT AREA WITH BLACK ON BOTH THE LEADING AND TRAILING EDGES.

ITEM 645 - PAVEMENT MARKING, MISC.: LANE LINE, 6", TYPE A3, CONTRAST MARKING WITH GROOVING SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT. THE BLACK CONTRAST MARKING (AS DETAILED) AND THE GROOVING SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM.

THE FOLLOWING QUANTITY HAS BEEN PROVIDED TO PERMANENTLY STRIPE CONCRETE REPAIR LOCATIONS AND HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 645 - PAVEMENT MARKING, MISC.: LANE LINE, 6", TYPE A3 CONTRAST MARKING WITH GROOVING = 0.09 MILE

**ENVIRONMENTAL COMMITMENTS:**

ANY AND ALL CONSTRUCTION DEBRIS, EARTHEN DEBRIS, EXCESS ASPHALT OR CONCRETE, WOOD DEBRIS FROM CLEARING, EXCESS FILL MATERIAL, AND TRASH SHALL BE REMOVED AND DISPOSED OF AT AN APPROVED UPLAND SITE OR LAND FILL ABOVE FEMA 100-YEAR FLOOD ELEVATIONS.

NO TREE CLEARING IS REQUIRED OR PERMITTED ON THIS PROJECT.

THE CONTRACTOR SHALL KEEP ALL IDLE EQUIPMENT, FUELS, LUBRICANTS, AND ANY STORAGE FOR/OF POTENTIALLY TOXIC OR HAZARDOUS MATERIALS OUT OF THE FEMA DESIGNATED SPECIAL FLOOD HAZARD AREA.

NO STREAMS SHALL BE IMPACTED AS PART OF THIS PROJECT.

THE NECESSARY STREAM AND WETLAND MITIGATION WILL BE COMPLETED FOR THE PROJECT AND APPROPRIATE DOCUMENTATION WILL BE INCLUDED IN THE PROJECT FILE.

ODOT SHALL OBTAIN ALL NECESSARY WATERWAY PERMITS PRIOR TO CONSTRUCTION AND SPECIAL PROVISIONS ATTACHED TO THE FINAL PLAN SET.

THE CONTRACTOR SHALL FOLLOW ALL WATERWAY PERMIT SPECIAL PROVISIONS THROUGHOUT CONSTRUCTION.

**ITEM 632 - DETECTOR LOOP, AS PER PLAN:**

THE LOCATIONS, SIZES AND SHAPES OF PROPOSED LOOP DETECTORS WILL BE THE SAME AS EXISTING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION, SIZE AND SHAPE OF THE EXISTING LOOP DETECTORS LISTED IN THE PLAN BEFORE THE PAVEMENT PLANING DESTROYS THEM. ALL LOOP WIRE SHALL BE IDENTIFIED WITH A PLASTIC TAG (WBLT, EBRT, ETC.) AT THE SPLICE POINT OR AT ENTRANCE TO THE CONTROL CABINET. WHEN A PULLBOX IS NOT USED, THE SOLDERED SPLICE SHALL BE MADE IN AN ANCHOR BASE, STRAIN POLE OR A CONDUIT RISER SPECIFIED BY THE PROJECT ENGINEER, EXCEPT WHERE A CONTROLLER CABINET IS MOUNTED ON THAT POLE IN WHICH CASE THE LOOP WIRE SHALL BE ROUTED DIRECTLY INTO THE CABINET. THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER PRIOR TO THE COMMENCEMENT OF WORK, A COPY OF THE IMSA CERTIFICATION PAPERS FOR ALL SIGNAL TECHNICIANS WORKING ON THIS PROJECT. THE CONTRACTOR SHALL ALSO CONTACT THE TRANSPORTATION DIVISION SIGNALS MANAGEMENT ENGINEER AT LEAST FORTY-EIGHT HOURS (EXCLUDING SAT & SUN) IN ADVANCE OF THIS ITEM OF WORK. ALL DETECTOR LOOPS SHALL BE REPLACED AND FUNCTIONAL WITHIN 48 HOURS OF BEING REMOVED. THE CONTRACTOR SHALL ALSO PROTECT ANY INLET OR CATCH BASIN FROM FOREIGN MATERIAL OR CONSTRUCTION DEBRIS ENTERING THE INLET OR CATCH BASIN WHILE CUTTING DETECTOR LOOPS.

**ITEM 632 - LOOP DETECTOR TIE IN:**

THIS ITEM SHALL BE USED TO CONNECT AND SPLICE PROPOSED LOOP DETECTORS TO THE APPROPRIATE EXISTING LEAD IN CABLE INSIDE THE PULL BOX.

**ITEM 517 - RAILING, MISC.: DEEP BEAM RAIL PANEL REPLACEMENT:**

THIS ITEM SHALL CONSIST OF REPLACING THE EXISTING PANELS (ONLY) ON AN EXISTING TUBULAR BACKUP SYSTEM (DBR-2-73). PAYMENT FOR THIS ITEM SHALL BE MADE AT THE UNIT PRICE BID OF FEET AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT, MATERIALS, AND ANY GUARDRAIL COMPONENTS NECESSARY TO REMOVE AND REPLACE THE EXISTING PANEL(S).

**ITEM 512 - SEALING OF CONCRETE SURFACES (NON-EPOXY), AS PER PLAN:**

THIS ITEM SHALL CONSIST OF SEALING ON STRUCTURE FRA-665-0887 AS DESCRIBED IN CMS ITEM 512. IN ADDITION TO THE SPECIFICATION THE CONTRACTOR SHALL AVOID PLACING THE SEALING MATERIAL ON ANY EXISTING PAVEMENT MARKING ON THE BRIDGE OR EITHER APPROACH SLAB. PAYMENT FOR THIS ITEM SHALL BE MADE AT THE THE UNIT PRICE BID FOR SQUARE FEET AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO PERFORM THIS ITEM OF WORK.

**ITEM 623 - CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN:**

THE ITEM SHALL CONSIST OF STATIONING USING 3 FT LATH STAKES OR PAINT MARKINGS. THE STAKES OR PAINT MARKINGS SHALL BE SPACED AT 200 FT INTERVALS AND EXTEND THROUGHOUT THE LENGTH OF THE PROJECT. PLACEMENT OF THE STAKES OR PAINT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY DAMAGED, MISSING STAKES, OR PAINT MARKINGS. PAINT MARKINGS SHALL BE PLACED ON CURBS AND USED IN AREAS WHERE THE PLACEMENT OF STAKES IS NOT POSSIBLE AND APPROVED BY THE PROJECT ENGINEER. STAKES AND PAINT SHALL BE MAINTAINED AND LEGIBLE UNTIL THE END OF THE PROJECT.


CONSTRUCTION LAYOUT STAKES, AS PER PLAN, WILL BE PAID FOR AT THE CONTRACT LUMP SUM BID, WHICH PRICE SHALL BE FULL COMPENSATION FOR ALL SERVICES, MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS, INCLUDING THE REMOVAL, NECESSARY TO COMPLETE THIS ITEM.



SHEET												PARTICIPATION				ITEM	EXT	TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.	
P.11-P.13	P.14-P.17	P.23	P.25	P.27	P.28	P.44	P.45	P.52	P.53	P.56	P.57	P.58	01/NHS/05	02/NHS/05/GROV	03/S>2/05							04/S>2/05
<b>TRAFFIC CONTROL</b>																						
									444				310	134			621	00100	444	EACH	RPM	
									582				310	272			621	54000	582	EACH	RAISED PAVEMENT MARKER REMOVED	
				18									8	10			626	00110	18	EACH	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL	
				2									1	1			630	85100	2	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
0.10													0.10				642	00100	0.10	MILE	EDGE LINE, 4", TYPE 1	
														8.87			644	00104	8.87	MILE	EDGE LINE, 6"	
														1.28			644	00204	1.28	MILE	LANE LINE, 6"	
														5.24			644	00300	5.24	MILE	CENTER LINE	
														446			644	00400	446	FT	CHANNELIZING LINE, 8"	
														2894			644	00404	2894	FT	CHANNELIZING LINE, 12"	
														511			644	00500	511	FT	STOP LINE	
														1569			644	00630	1569	FT	CROSSWALK LINE, 24"	
														787			644	00700	787	FT	TRANSVERSE/DIAGONAL LINE	
														39			644	01300	39	EACH	LANE ARROW	
														13			644	01410	13	EACH	WORD ON PAVEMENT, 96"	
0.09																	645	90000	0.09	MILE	PAVEMENT MARKING, MISC.: LANE LINE, 6", TYPE A3, CONTRAST MARKING WITH GROOVING	P.13
0.17																	646	10010	0.25	MILE	EDGE LINE, 6"	
0.09																	646	10200	0.13	MILE	CENTER LINE	
227																	646	10310	227	FT	CHANNELIZING LINE, 12"	
24																	646	10400	24	FT	STOP LINE	
50																	646	10600	50	FT	TRANSVERSE/DIAGONAL LINE	
4																	646	20300	4	EACH	LANE ARROW	
<b>TRAFFIC SIGNALS</b>																						
					1									1			632	26501	1	EACH	DETECTOR LOOP, AS PER PLAN	P.13
					1									1			632	27200	1	EACH	LOOP DETECTOR TIE IN	
																					<b>STRUCTURE OVER 20 FOOT SPAN (FRA-665-0887, SFN 2516969)</b>	
																	512	10051	6119	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY), AS PER PLAN	P.13
																					<b>STRUCTURE OVER 20 FOOT SPAN (FRA-665-0988, SFN 2516985)</b>	
																	517	76300	50	FT	RAILING, MISC.: DEEP BEAM RAIL PANEL REPLACEMENT	P.13
																					<b>STRUCTURE OVER 20 FOOT SPAN (FRA-665-1194, SFN 2517043)</b>	
														536			512	10050	536	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
														330			512	74500	330	FT	REMOVAL OF EXISTING PAVEMENT MARKING	
																					<b>STRUCTURE OVER 20 FOOT SPAN (FRA-665-1262, SFN 2517078)</b>	
														464			512	10050	464	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
														333			512	74500	333	FT	REMOVAL OF EXISTING PAVEMENT MARKING	
														22			519	12300	22	SY	PATCHING CONCRETE BRIDGE DECK - TYPE B	
<b>MAINTENANCE OF TRAFFIC</b>																						
100																	614	11110	100	hour	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
LS																	614	12420	LS		DETOUR SIGNING	
37																	614	12460	37	EACH	WORK ZONE MARKING SIGN	
40																	614	13000	40	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
14																	614	18601	14	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	P.16
2.56																	614	20560	2.56	MILE	WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT	
10.48																	614	21550	10.48	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	
892																	614	23680	892	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 8", 642 PAINT	
5788																	614	23690	5788	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT	
1022																	614	26610	1022	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	
<b>INCIDENTALS</b>																						
																	LS	11000	LS		MAINTAINING TRAFFIC	
																	LS	10001	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	P.13
																	LS	10000	LS		MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY



DESIGNER  
**KLM**

REVIEWER  
**AMH 11/03/22**

PROJECT ID  
**112800**

SHEET TOTAL  
P.21 | 58

LOCATION									644 (THERMO)											646 (EPOXY)						REMARKS											
C O U N T Y	R O U T E	B E G I N G S T A	E N D I N G S T A	B E G I N G S L M	E N D I N G S L M	L E N G T H F T	L E N G T H M I L E	D I R E C T I O N	C E N T E R L I N E M I L E	E D G E L I N E 6" M I L E	L A N E L I N E 6" M I L E	C H A N N E L I Z I N G L I N E 8" F T	C H A N N E L I Z I N G L I N E 12" F T	S T O P L I N E F T	C R O S S W A L K L I N E 24" F T	T R A N S V E R S E / D I A G O N A L L I N E					L A N E A R R O W						W O R D O N P A V E M E N T 96" E A C H	C E N T E R L I N E M I L E	E D G E L I N E 6"		L A N E L I N E 6" M I L E	S T O P L I N E F T	C R O S S W A L K L I N E 24" F T	D O T T E D L I N E 6"			
																W H I T E	Y E L L O W	L T	L T T H R U	R T	R T T H R U	R T	W H I T E	Y E L L O W	W H I T E				Y E L L O W								
																FT	FT	FT	FT	FT	FT	FT	FT	FT	FT				FT	FT							
MEADOWS DR TO RINGS AVE																																					
FRA	665	485+75.62	485+87.82	9.200	9.202	12	0.002								169																						
FRA	665	485+93.02	493+54.99	9.203	9.348	762	0.144	0.29										196																			
FRA	665	493+54.99	494+68.16	9.348	9.369	113	0.021	0.02																													
FRA	665	494+75.30	494+86.30	9.370	9.372	11	0.002								77																						
FRA	665	485+89.87	493+72.66	9.203	9.351	783	0.148	EB		0.30																											
FRA	665	493+72.66	494+68.16	9.351	9.369	96	0.018	EB		0.02		191				1					1	2											"ONLY"				
FRA	665	494+68.16		9.369				EB					49																								
FRA	665	485+93.02		9.203				WB					52																								
FRA	665	485+93.02	492+81.42	9.203	9.334	688	0.130	WB		0.26		688				5																					
FRA	665	492+81.42	494+68.20	9.334	9.369	187	0.035	WB		0.04																											
RINGS AVE																																					
FRA	665	495+16.99	495+79.20	9.378	9.390	62	0.012				2		26	110																							
RINGS AVE TO SUMMIT DR																																					
FRA	665	496+04.33	496+15.38	9.395	9.397	11	0.002								143																						
FRA	665	496+21.55	500+05.89	9.398	9.471	384	0.073	0.07																													
FRA	665	500+05.89	501+75.14	9.471	9.503	169	0.032	0.06								77																					
FRA	665	501+75.14	504+11.08	9.503	9.548	236	0.045	0.05																													
FRA	665	504+17.07	504+27.07	9.549	9.551	10	0.002								140																						
FRA	665	496+21.55	501+95.67	9.398	9.507	574	0.109	EB		0.11																											
FRA	665	501+95.67	503+12.84	9.507	9.529	117	0.022	EB		0.02		117				1					1												"ONLY"				
FRA	665	503+12.84	504+11.08	9.529	9.548	98	0.019	EB		0.02		196				1				1	1												"ONLY"				
FRA	665	494+68.16		9.369				EB					48																								
FRA	665	496+21.55		9.398				WB					35																								
FRA	665	496+21.55	499+83.51	9.398	9.467	362	0.069	WB		0.07		362				4					1												"ONLY"				
FRA	665	499+83.51	504+11.08	9.467	9.548	428	0.081	WB		0.08																											
FRA	665	498+92.58	500+33.95	9.449	9.476	141	0.027	WB		0.01		141				25				1	1												RIGHT TURN LANE FOR DRIVEWAY				
SUMMIT DR																																					
FRA	665	504+45.36	505+05.41	9.554	9.565	60	0.011								99																						
SUMMIT DR TO DRIVEWAY INTERSECTION																																					
FRA	665	505+16.66	505+28.40	9.568	9.570	12	0.002								140																						
FRA	665	505+33.12	509+60.04	9.571	9.652	427	0.081	0.08																													
FRA	665	509+66.84	509+78.00	9.653	9.655	11	0.002								132																						
FRA	665	505+33.12	507+51.94	9.571	9.612	219	0.041	EB		0.04																											
FRA	665	507+51.94	509+60.04	9.612	9.652	208	0.039	EB		0.04		208				3					1												"ONLY"				
FRA	665	509+60.04		9.652				EB					36																								
FRA	665	505+33.12		9.571				WB					47																								
FRA	665	505+33.12	506+25.34	9.571	9.588	92	0.017	WB		0.02		184				1					1	2											"ONLY"				
FRA	665	506+25.34	506+62.02	9.588	9.595	37	0.007	WB		0.01		37				1																					
FRA	665	506+62.02	509+60.04	9.595	9.652	298	0.056	WB		0.06																											
<b>TOTALS CARRIED TO NEXT SHEET</b>									0.57	0.01	1.07	2	2126	293	1010		25	273	17						4												

DESIGN AGENCY



DESIGNER  
**KLM**

REVIEWER  
**AMH 11/03/22**

PROJECT ID  
**112800**

SHEET TOTAL  
**P.51 | 58**

LANE WIDTHS IN MULTI-LANE UNDIVIDED SECTION: 12' LANE, 11' TURN LANE, OR AS SHOWN ON PLAN SHEETS

LOCATION									644 (THERMO)											646 (EPOXY)								REMARKS				
C O U N T Y	R O U T E	B E G I N G S T A	E N D I N G S T A	B E G I N G S L M	E N D I N G S L M	L E N G T H	L E N G T H	D I R E C T I O N	C E N T E R L I N E	E D G E L I N E, 6"	L A N E L I N E, 6"	C H A N N E L I Z I N G L I N E, 8"	C H A N N E L I Z I N G L I N E, 12"	S T O P L I N E	C R O S S W A L K L I N E, 24"	T R A N S V E R S E / D I A G O N A L L I N E					L A N E A R R O W	W O R D O N P A V E M E N T, .96"	C E N T E R L I N E	E D G E L I N E, 6"		L A N E L I N E, 6"	S T O P L I N E		C R O S S W A L K L I N E, 24"	D O T T E D L I N E, 6"		
																W H I T E	Y E L L O W	L T	L T T H R U	R T				R T T H R U	R T					W H I T E	Y E L L O W	W H I T E
									MILE	MILE	MILE	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT		FT	FT	FT	
DRIVEWAY INTERSECTION TO HOOVER RD																																
FRA	665	510+87.16	511+00.01	9.676	9.678	13	0.002								132																	
FRA	665	511+07.21	512+91.30	9.679	9.714	184	0.035	0.04																								
FRA	665	512+91.30	514+28.31	9.714	9.740	137	0.026	0.05							57																	
FRA	665	514+28.31	516+12.45	9.740	9.775	184	0.035	0.04																								
FRA	665	516+16.85	516+30.86	9.776	9.779	14	0.003							154																		
FRA	665	511+07.21	514+50.28	9.679	9.744	343	0.065	EB		0.07																						
FRA	665	514+50.28	516+12.45	9.744	9.775	162	0.031	EB		0.03			324				3				3	2							"ONLY"			
FRA	665	509+60.04		9.652				EB					35																			
FRA	665	512+28.68	513+91.28	9.702	9.733	163	0.031	EB		0.01			163						97			2							RIGHT TURN LANE TO DRIVEWAY			
FRA	665	511+07.21		9.679				WB					35																			
FRA	665	511+07.21	512+69.10	9.679	9.710	162	0.031	WB		0.03			162				2				1								"ONLY"			
FRA	665	512+69.10	516+12.45	9.710	9.775	343	0.065	WB		0.07																						
HOOVER RD (NORTH)																																
FRA	665	516+43.90	517+08.68	9.781	9.793	65	0.012		0.002			18		34	138																	
HOOVER RD TO TWO-LANE SECTION																																
FRA	665	517+35.41	517+59.45	9.798	9.803	24	0.005								135																	
FRA	665	517+60.03	518+91.70	9.803	9.828	132	0.025		0.03																							
FRA	665	518+91.70	522+35.53	9.828	9.893	344	0.065		0.13									226														
FRA	665	517+79.51	522+35.53	9.807	9.893	456	0.086	EB		0.09					109																	
FRA	665	517+60.03		9.803				WB					35																			
FRA	665	517+60.03	518+79.65	9.803	9.826	120	0.023	WB		0.02			120				2				1								"ONLY"			
FRA	665	518+79.65	522+35.53	9.826	9.893	356	0.067	WB		0.07																						
TWO-LANE SECTION																																
FRA	665	522+35.53	522+72.00	9.893	9.900	36	0.007		0.01	0.01																						
FRA	665	522+72.00	578+85.33	9.900	10.963	5613	1.063		1.06	2.13																						
FRA	665	578+85.33	579+85.33	10.963	10.982	100	0.019		0.02	0.04																						
FRA	665	579+85.33	613+00.80	10.982	11.610	3315	0.628		0.63	1.26																						
FRA	665	611+64.71		8.135										10															ZUBER RD			
FRA	665	613+00.80	627+94.39	11.610	11.893	1494	0.283		0.28	0.57																						
FRA	665	627+94.39	629+86.43	11.893	11.929	192	0.036		0.04	0.07																						
FRA	665	629+86.43	630+96.19	11.929	11.950	110	0.021														0.02	0.04							AT GRADE STRUCTURE FRA-665-1194			
FRA	665	630+96.19	643+81.38	11.950	12.193	1285	0.243		0.24	0.49				12																		
FRA	665	643+81.38	644+53.42	12.193	12.207	72	0.014																						SR 104			
FRA	665	644+53.42	646+18.03	12.207	12.238	165	0.031		0.03	0.06				12																		
FRA	665	646+18.03	666+06.57	12.238	12.615	1989	0.377		0.38	0.75																						
FRA	665	666+06.57	667+17.63	12.615	12.636	111	0.021														0.02	0.04							AT GRADE STRUCTURE FRA-665-1262			
FRA	665	667+17.63	711+86.07	12.636	13.482	4468	0.846		0.85	1.69																						
FRA	665	711+86.07	736+07.09	13.482	13.941	2421	0.459		0.46	0.92																						
FRA	665	736+07.09	747+34.63	13.941	14.154	1128	0.214																						AT GRADE STRUCTURE FRA-665-1404			
FRA	665	747+34.63	761+91.04	14.154	14.430	1456	0.276		0.28	0.55																						
FRA	665	761+91.04	763+88.27	14.430	14.467	197	0.037		0.07	0.07																						
FRA	665	763+88.27	766+38.13	14.467	14.515	250	0.047		0.05	0.09			426		45			3														
LANE WIDTH IN TWO-LANE SECTION: 10' OR AS SHOWN ON PLAN SHEETS. LANE WIDTHS ARE WIDER IN SHARP CURVE AREAS.																																
<b>TOTALS FROM THIS SHEET</b>									4.67	8.87	0.22	444	768	218	559		489			18		8		0.04	0.08							
<b>TOTALS FROM PREVIOUS SHEET</b>									0.57	0.01	1.07	2	2126	293	1010		298															
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>									5.24	8.87	1.28	446	2894	511	1569		787									0.04	0.08					

PAVEMENT MARKING CALCULATIONS

DESIGN AGENCY

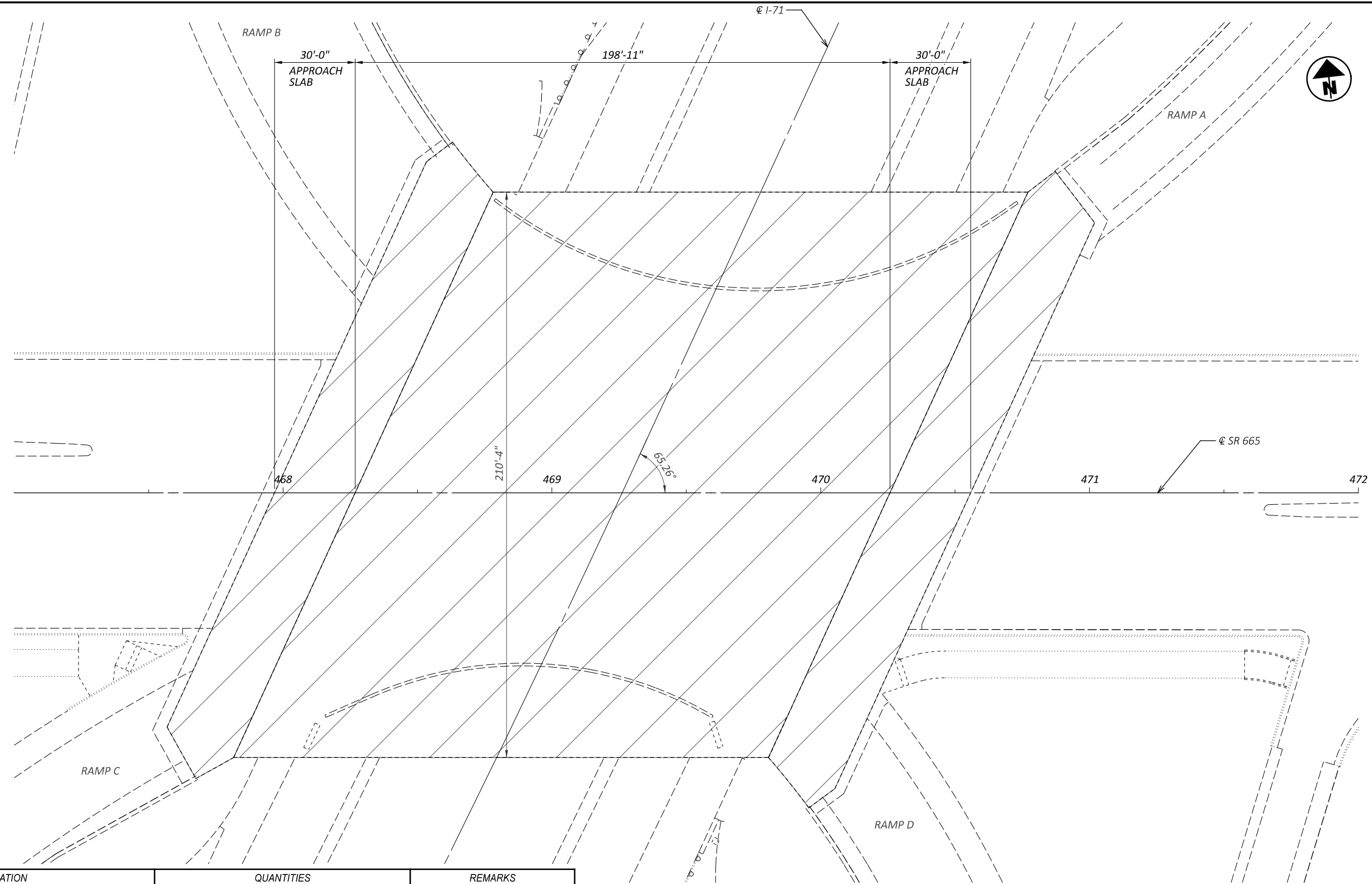


DESIGNER  
KLM

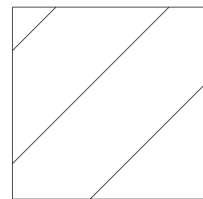
REVIEWER  
AMH 11/03/22

PROJECT ID  
112800

SHEET TOTAL  
P.52 | 58

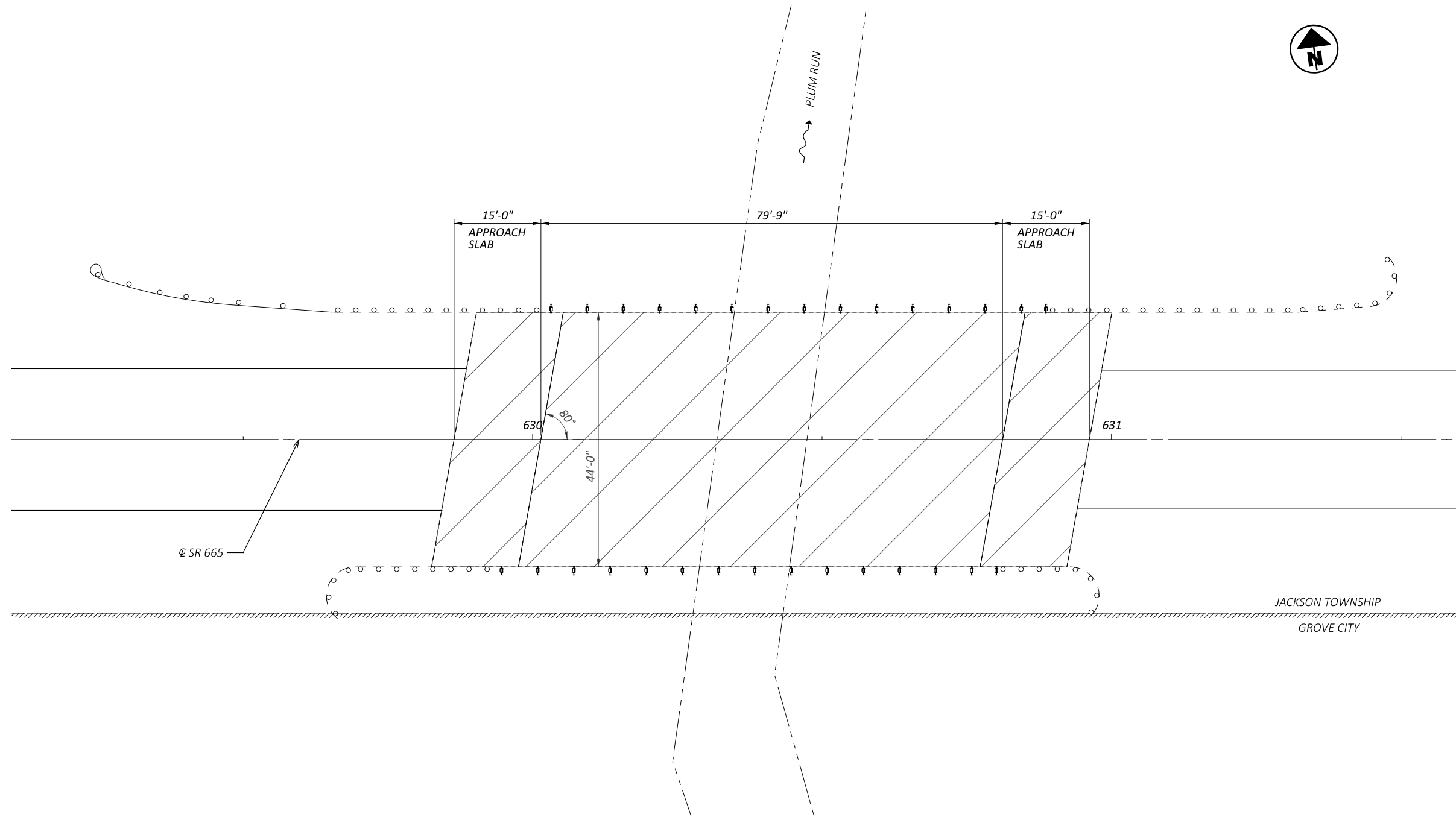


LOCATION		QUANTITIES		REMARKS
STRUCTURE NO.	SFN			
		512		
		SEALING OF CONCRETE SURFACES (NON-EPOXY), AS PER PLAN		
		SY		
FRA-665-0887	2516969	736		REAR APPROACH
		4649		DECK
		734		FORWARD APPROACH
TOTALS CARRIED TO GENERAL SUMMARY		6119		



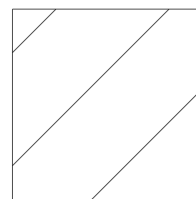
NON-EPOXY SEALING





FRA-665-1194 BRIDGE PLAN - SFN 2517043  
 SR 665 OVER PLUM RUN

LOCATION		QUANTITIES		REMARKS
STRUCTURE NO.	SFN			
		512	512	
		SEALING OF CONCRETE SURFACES (NON-EPOXY)	REMOVAL OF EXISTING PAVEMENT MARKING	
		SY	FT	
FRA-665-1194	2517043	73		REAR APPROACH
		390		DECK
		73		FORWARD APPROACH
			110	CENTER LINE
			220	EDGE LINE
TOTALS CARRIED TO GENERAL SUMMARY		536	330	

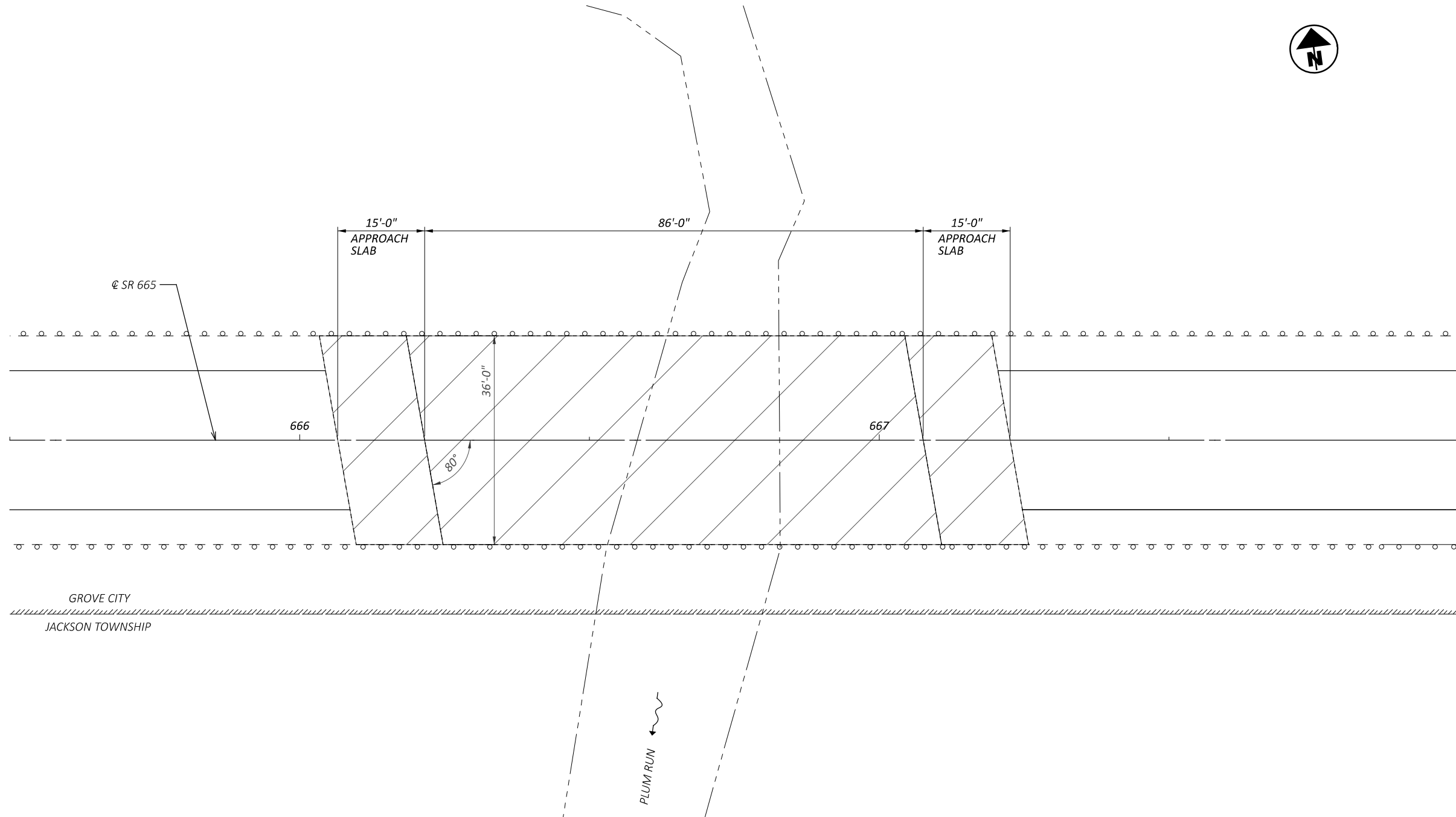


NON-EPOXY SEALING

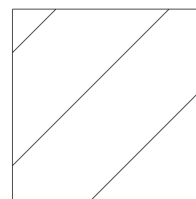
DESIGN AGENCY



DESIGNER  
 KLM  
 REVIEWER  
 AMH 11/03/22  
 PROJECT ID  
 112800  
 SHEET TOTAL  
 P.57 58



STRUCTURE NO.	SFN	QUANTITIES			REMARKS
		SEALING OF CONCRETE SURFACES (NON-EPOXY)	REMOVAL OF EXISTING PAVEMENT MARKING	PATCHING CONCRETE BRIDGE DECK - TYPE B	
		512	512	519	
		SY	FT	SY	
FRA-665-1262	2517078	60			REAR APPROACH
		344		22	DECK
		60			FORWARD APPROACH
			111		CENTER LINE
			222		EDGE LINE
TOTALS CARRIED TO GENERAL SUMMARY		464	333	22	



NON-EPOXY SEALING

