PAVEMENT

Profile and Alignment

Place the proposed pavement to follow the alignment of the existing pavement. Previous construction plans showing the original alignment are available for inspection at the ODOT District 12 Office. Place the proposed asphalt concrete as shown on the typical sections.

Planing Requirements

The duration of time between planing the asphalt and placing the surface course shall be kept to a minimum. In no instance shall this time exceed 10 calendar days. The time limit shall begin on the first day of planing, and shall continue based on calendar days, minus any bad weather days, until completion of the asphalt concrete surface course. This is to ensure that the potential degradation of the exposed pavement due to traffic is kept to a minimum.

In the event that the time between exposing the existing pavement and placing the asphalt surface course exceeds 10 calendar days, liquidated damages as per 108.07 of the CMS shall be assessed.

Asphalt Concrete Surface Course Sealing Requirements

In addition to the gutter sealing requirements specified on SCD BP-3.1 and in CMS 401.15, after completion of the surface course, the Contractor shall use a certified 702.01 PG binder to seal the following locations:

- All castings, including but not limited to monuments, manholes, water valves, catch basins, curb inlets.
- Butt joints and feather joints including bridge approaches.
- Forward joint for driveway asphalt and trailing joint when butting to existing asphalt drive.
- Perimeter of all pavement repairs or other asphalt inlays when pavement repairs/inlays are not overlaid with an asphalt concrete surface course.
- All cold longitudinal joints between paved shoulders and guardrail asphalt.

The width of the sealer shall be 2 to 3 inches.

Any additional costs associated with the work identified in this note shall be included in the appropriate asphalt concrete surface course item of work.

Item 251 – Partial Depth Pavement Repair (441), As Per Plan

This item shall be used to repair pavement as directed by the Engineer. This work shall be performed after the planing operation. The depth of the repair shall be 3" below the top of the planed asphalt surface. The width of the repair shall be as directed by the Engineer.

Use replacement materials conforming to the requirements of Item 441, Type 2.

The following estimated quantity has been carried to the General Summary:

Item 251 – Partial Depth Pavement Repair, As Per Plan.....**3,000 SY**

Item 253 – Pavement Repair, As Per Plan

This work item is for use as directed by the Engineer for the purpose of pavement repair. All labor and material necessary to perform this work and section 250 of the CMS shall be included for payment under Item 253.

Depth of pavement repair removal shall typically be 5" measured after the pavement has been planed. The depth of repair shall be as directed by the Engineer if unsound material is encountered after the removal of the 5".

The pavement repairs at the Chagrin River bridge shall be 3" measured after the pavement has been planed. This depth of repair shall be directed by the Engineer if unsound material is encountered after the removal of the 3".

Use replacement materials conforming to the requirements of Item 301.

The following item has been carried to the General Summary for use as directed by the Engineer:

Item 253 – Pavement Repair, As Per Plan .....**42 CY**

Item 254 – Pavement Planing, Asphalt Concrete, As Per Plan, 1½"
Item 254 – Pavement Planing, Asphalt Concrete, As Per Plan, 2½"
Item 254 – Pavement Planing, Asphalt Concrete, As Per Plan, Variable, 2" Average

This item shall be used to remove the existing asphalt overlay full width to a depth of two and one-half (2½") inches in the curbed section of SR-87, a depth of approximately one and one-half (1½") inches in the uncurbed section of SR-87, and variable depth of approximately two inches where specified.

Areas which have transverse wedges (butt joints) are to be removed in two passes as required for maintaining traffic. No additional payment shall be made for the second pass.

Item 441 – Asphalt Concrete Surface Course, Type 1, (446), As Per Plan, PG70-22M, 1.5"

The coarse virgin aggregate shall consist of a blend of 60% min. air cooled blast furnace slag (ACBFS) or Trap Rock from Ontario with limestone comprising the remaining percentage.

Use a PG 70-22M binder for this item.

Item 441 – Asphalt Concrete Surface Course, Type 1, (449), As Per Plan, 1.5"

The use of gravel for coarse virgin aggregate is prohibited. Use a PG64-22 binder.

Item 617 – Compacted Aggregate, As Per Plan

This item shall be used along the shoulders. Material shall be limited to reclaimed asphalt concrete pavement.

The actual depth of compacted aggregate placed will vary depending upon existing conditions. For estimating purposes, an average depth of two inches (2.0") has been used. Water, if needed, shall be applied as per 617.05 and included under Item 617 – Compacted Aggregate, As Per Plan.

This item shall be used as directed by the Engineer to fill any remaining low areas after Item 209 – Linear Grading, As Per Plan, is completed.

Driveways – Non-Curbed Sections

This work item shall consist of paving all existing driveways that do not have a curb cut or are not paved as an intersection shown on the pavement subsummary. Driveways are to be paved 5 feet for asphalt and 2 feet for concrete from the edge of the paved shoulder unless otherwise directed by the Engineer. Asphalt concrete average thickness shall be 2 inches for aggregate driveways (unimproved) and 2 inches for improved asphalt driveways, and a variable thickness wedge for improved concrete driveways. Aggregate driveways shall be graded prior to paving. The Contractor shall apply a uniform coat of 702.01 PG Binder to existing concrete driveways and Item 407 Tack Coat to asphalt driveways prior to paving. All grading, tools, equipment, materials, and incidentals required to layout and construct the driveways shall be included in the unit price bid for Item 441 – Asphalt Concrete Surface Course, Type 1 (449), As Per Plan.

Driveways Asphalt

The Contractor shall place the driveway asphalt within 10 calendar days of placing the final surface course. In the event the time between placing the final surface course and placing the driveway asphalt exceeds 10 calendar days, liquidated damages as per 108.07 of the CMS shall be assessed.

MODEL: Sheet_SurvFt PAPERSIZE: 34x22 (in.) DATE: 10/20/2023 TIME: 2:01:31 PM USER: vng
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 12\Geauga\85601\400-Engineering\Roadway\Sheets\85601_GN003.dgn

DESIGN AGENCY

DESIGNER VLN

REVIEWER EJK 5/17/23

PROJECT ID 85601

SHEET 8 TOTAL 24

SHEET NUM.												PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
6	7	8	9	10	11		13	14	15			01/S>2/05	02/STR/05						
																		ROADWAY	
							2.96					1.21	1.75	209	60501	2.96	MILE	LINEAR GRADING, AS PER PLAN	7
							2.96					1.21	1.75	209	72051	2.96	MILE	PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN	7
																		EROSION CONTROL	
												340	660	832	30000	1,000	EACH	EROSION CONTROL	
																		DRAINAGE	
	6											6		611	98631	6	EACH	CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN	7
	2											2		611	98635	2	EACH	CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN	7
	500											500		SPECIAL	61199820	500	LB	MISCELLANEOUS METAL	7
																		PAVEMENT	
		3,000										1,005	1,995	251	01001	3,000	SY	PARTIAL DEPTH PAVEMENT REPAIR (441), AS PER PLAN	8
		42										14	28	253	02001	42	CY	PAVEMENT REPAIR, AS PER PLAN	8
							41,443					10,264	31,179	254	01001	41,443	SY	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN, 1.5"	8
							5,109					4,752	357	254	01001	5,109	SY	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN, 2.5"	8
							1,397					740	657	254	01001	1,397	SY	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN, VARIABLE, 2" AVG.	8
							8,174					2,680	5,494	407	20000	8,174	GAL	NON-TRACKING TACK COAT	8
							1,932					635	1,297	441	10101	1,932	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), AS PER PLAN, PG70-22M, 1.5"	
							1,311					428	883	441	50200	1,311	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448), 1"	8
							51					13	38	441	70101	51	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), AS PER PLAN, 1.5"	8
							52					21	31	441	70500	52	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS), 2" AVG	
							25					10	15	617	10101	25	CY	COMPACTED AGGREGATE, AS PER PLAN	8
								2.37				0.65	1.72	618	43000	2.37	MILE	RUMBLE STRIPES, CENTER LINE (ASPHALT CONCRETE)	
								2.37				0.65	1.72	874	21000	2.37	MILE	LONGITUDINAL JOINT PREPARATION	
																		TRAFFIC CONTROL	
									178			64	114	621	00100	178	EACH	RPM	
			134									45	89	621	54000	134	EACH	RAISED PAVEMENT MARKER REMOVED	
					300							200	100	630	97800	300	SF	SIGNING, MISC.: ADDITIONAL SIGNS, GROUND MOUNTED, AS DIRECTED BY THE ENGINEER	11
									5.42			1.8	3.62	646	10010	5.42	MILE	EDGE LINE, 6"	11
									2.62			0.9	1.72	646	10200	2.62	MILE	CENTER LINE	
									121			121		646	10300	121	FT	CHANNELIZING LINE, 8"	
									198			102	96	646	10400	198	FT	STOP LINE	
									62			62		646	10600	62	FT	TRANSVERSE/DIAGONAL LINE	
									3			3		646	20300	3	EACH	LANE ARROW	
			LS									LS	LS	SPECIAL	69098400	LS		INVENTORY EXISTING PAVEMENT MARKINGS	
																		MAINTENANCE OF TRAFFIC	
					80							27	53	614	11110	80	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
				12								4	8	614	12460	12	EACH	WORK ZONE MARKING SIGN	
				50								17	33	614	13000	50	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
					12							4	8	614	18601	12	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	11
				5.24								1.76	3.48	614	21100	5.24	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT	
				2.62								0.88	1.74	614	21550	2.62	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	
				10.84								3.64	7.2	614	22110	10.84	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT, 6"	
				5.42								1.82	3.6	614	22360	5.42	MILE	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT, 6"	
				242								242		614	23200	242	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT	
				121								121		614	23680	121	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 8", 642 PAINT	
				48								48		614	26200	48	FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	
				24								24		614	26610	24	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	
				6								6		614	30200	6	EACH	WORK ZONE ARROW, CLASS I, 642 PAINT	
				3								3		614	30650	3	EACH	WORK ZONE ARROW, CLASS III, 642 PAINT	
																		INCIDENTALS	
			LS									LS	LS	614	11000	LS		MAINTAINING TRAFFIC	
6												2	4	619	16010	6	MNTH	FIELD OFFICE, TYPE B, AS PER PLAN	6
	LS											LS	LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
												LS	LS	624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY

DESIGNER VLN

REVIEWER EJK 5/17/23

PROJECT ID 85601

SHEET 12 TOTAL 24

GEA-87-0.00

REF. NO.	SHEET NO.	PLAN SPLIT NO.	STATION TO STATION		LENGTH	BEGIN WIDTH	ENDING WIDTH	AVERAGE WIDTH	AREA	209 LINEAR GRADING, AS PER PLAN	209 PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN	254 PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN, 2.5"	254 PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN, VARIABLE, 2" AVG.	254 PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN, 1.5"	407 NON-TRACKING TACK COAT	441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), AS PER PLAN, PG70-22M, 1.5"	441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448), 1"	441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), AS PER PLAN, 1.5"	441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS), 2" AVG	617 COMPACTED AGGREGATE, AS PER PLAN	
					FT.	FT.	FT.	FT.	SQ. YD.	MILE	MILE	SY	SY	SY	GAL	CY	CY	CY	CY	CY	
			SR-87 (KINSMAN ROAD)																		
		1	0+00.00	1+08.70	108.70	38.3	24.0	31.2	376.23			376.3			64.0	15.7	10.5				
		1	1+08.70	13+18.70	1,210.00	24.0	24.0	24.0	3,226.67			3,226.7			548.5	134.5	89.7				
		2	13+18.70	13+73.70	55.00	24.0	28.5	26.3	160.42			160.5			27.3	6.7	4.5				
		2	13+73.70	14+35.55	61.85	28.5	28.5	28.5	195.86			195.9			33.3	8.2	5.5				
		2	14+35.55	15+25.55	90.00	30.0	30.0	30.0	300.00				300.0		51.0	12.5	8.4				
		2	15+25.55	63+33.70	4,808.15	30.0	30.0	30.0	16,027.17					16,027.2	2,724.6	667.8	445.2				
		2	63+33.70	107+43.70	4,410.00	28.0	28.0	28.0	13,720.00					13,720.0	2,332.4	571.7	381.2				
		2	107+43.70	107+71.31	27.61	31.0	32.8	31.9	97.87					97.9	16.6	4.1	2.8				
		2	107+71.31	108+61.31	90.00	32.8	38.6	35.7	357.00				357.0		60.7	14.9	10.0				
			BRIDGE GEA-87-0205 (SFN 2800640)																		
		1	110+48.70	111+38.70	90.00	39.5	36.2	37.9	378.50				378.5		64.3	15.8	10.6				
		1	111+38.70	112+08.70	70.00	36.2	32.8	34.5	268.34					268.4	45.6	11.2	7.5				
		1	112+08.70	113+83.00	174.30	32.8	31.5	32.2	622.64					622.7	105.8	26.0	17.3				
		1	113+83.00	140+33.70	2,650.70	28.0	28.0	28.0	8,246.63					8,246.7	1,401.9	343.7	229.1				
		1	140+33.70	141+60.00	126.30	28.0	33.6	30.8	432.23					432.3	73.5	18.1	12.1				
		1	141+60.00	142+50.00	90.00	33.6	38.6	36.1	361.00				361.0		61.4	15.1	10.1				
		1	142+50.00	144+72.20	222.20	38.6	54.5	46.6	1,149.27			1,149.3			195.4	47.9	32.0				
			SAFETY EDGE																		
		2	14+35.55	107+43.70	9,308.15			0.5 + 0.5	517.12	3.53	3.53				87.9	21.6				28.8	
		1	112+88.31	144+72.20	3,183.89			0.5 + 0.5	176.89	1.21	1.21				30.1	7.4				9.9	
		2	GUARDRAIL DEDUCTION		4,707.80			0.5	261.55	-1.78	-1.78				-44.5	-10.9				-14.6	
			INTERSECTION EXTRA AREAS																		
		2	DEEPWOOD DRIVE		CADD AREA				74.51					74.6	12.7		2.1	3.2			
		2	HILLBROOK LANE S		CADD AREA				62.79					62.8	10.7		1.8	2.7			
		2	HILLBROOK LANE E		CADD AREA				62.94					63.0	10.7		1.8	2.7			
		2	RUSSELL ROAD		CADD AREA				195.38					195.4	33.2		5.5	8.2			
		2	TRAPPERS TRAIL		CADD AREA				162.43					162.5	27.6		4.6	6.8			
		2	CAVES ROAD		CADD AREA				101.63					101.7	17.3		2.9	4.3			
		2	RIVER GLEN DRIVE		CADD AREA				165.43					165.5	28.1		4.6	6.9			
		2	STILLWATER DRIVE		CADD AREA				58.29					58.3	9.9		1.7	2.5			
		1	HEMLOCK POINT DRIVE		CADD AREA				123.66					123.7	21.0		3.5	5.2			
		1	HILL DRIVE		CADD AREA				91.56					91.6	15.6		2.6	3.9			
		1	RUSSELL LANE		CADD AREA				91.84					91.9	15.6		2.6	3.9			
			ASPHALT DRIVEWAYS																		
		1	0+00.00	13+18.70	5' AVG	TOTAL WIDTH		93.5	51.95					52.0	4.4				2.9		
		2	13+18.70	108+61.31	5' AVG	TOTAL WIDTH		809.5	449.73					449.7	38.2				25.0		
		1	110+48.71	144+72.70	5' AVG	TOTAL WIDTH		471.0	261.67					261.7	22.2				14.5		
			CONCRETE DRIVEWAYS																		
		1	0+00.00	13+18.70	2' AVG	TOTAL WIDTH		25.5	5.67						0.5				0.3		
		2	13+18.70	108+61.31	2' AVG	TOTAL WIDTH		147.0	32.67						2.8				1.8		
		1	110+48.71	144+72.70	2' AVG	TOTAL WIDTH		63.5	14.12						1.2				0.8		
		1	**AGGREGATE DRIVEWAYS** - PLAN SPLIT 1		ESTIMATED AREA				22.33						1.9				1.2		
		2	**AGGREGATE DRIVEWAYS** - PLAN SPLIT 2		ESTIMATED AREA				44.33						3.8				2.5		
			EXTRA SHOULDER AREAS																		
		1	MAILBOX APPROACHES		ESTIMATED AREA				21.39					21.4	1.8				0.7		
		2	MAILBOX APPROACHES		ESTIMATED AREA				92.77						7.9				1.3		
			SUBTOTALS							2.96	2.96	5,109	1,397	41,391	8,167	1,932	1,311	51	52	25	
			TOTALS CARRIED TO GENERAL SUMMARY							2.96	2.96	5,109	1,397	41,391	8,167	1,932	1,311	51	52	25	
			PLAN SPLIT #1 TOTAL							1.21	1.21	4,752	740	10,213	2,675	635	427	13	21	10	
			PLAN SPLIT #2 TOTAL							1.75	1.75	357	657	31,179	5,493	1,297	883	38	31	15	

PAVEMENT SUBSUMMARY 1 OF 2

DESIGN AGENCY

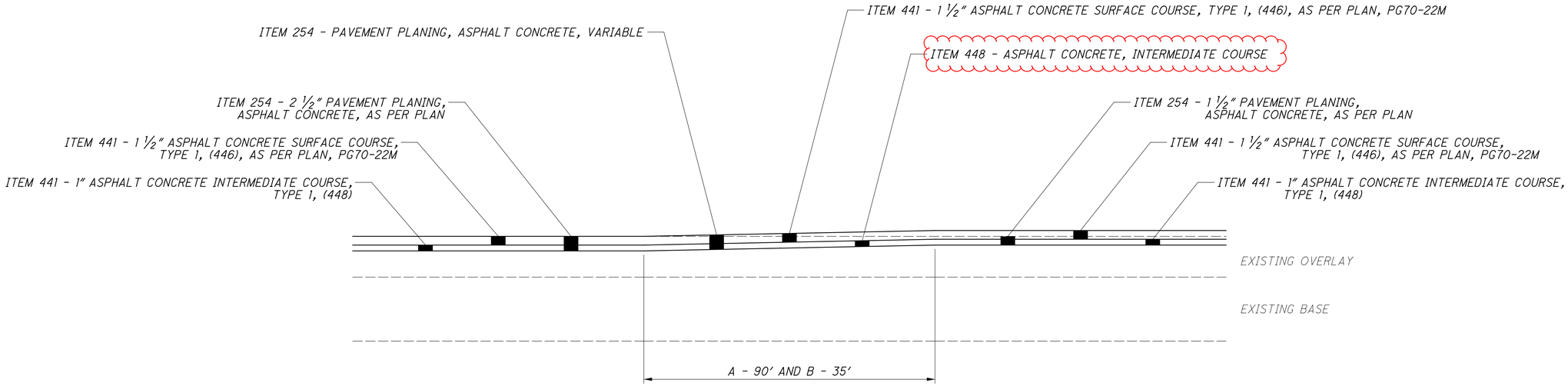
DESIGNER VLN

REVIEWER EJK 5/17/23

PROJECT ID 85601

SHEET 13 TOTAL 24

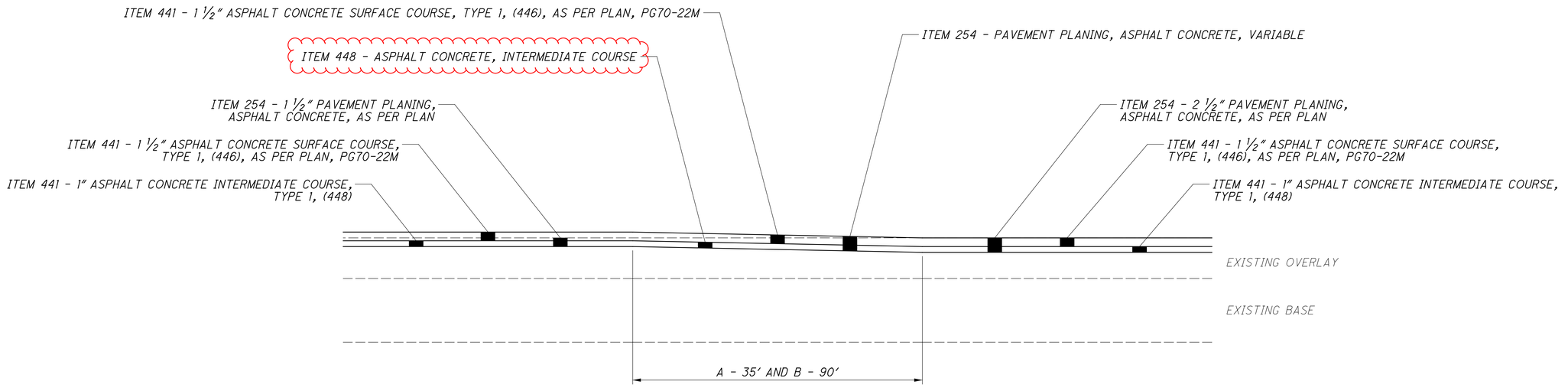
GEA-87-0.00



TRANSITION BETWEEN 2 ½" PLANING & 1 ½" PLANING

A - STA. 14+35.55 TO STA. 15+25.55

B - STA. 110+73.70 TO STA. 111+08.70



TRANSITION BETWEEN 1 ½" PLANING & 2 ½" PLANING

A - STA. 108+01.31 TO STA. 108+36.31

B - STA. 141+60.00 TO STA. 142+50.00

PAVEMENT DETAILS

GEA-87-0.00

DESIGN AGENCY

DESIGNER VLN

REVIEWER EJK 5/17/23

PROJECT ID 85601

SHEET 23 TOTAL 24