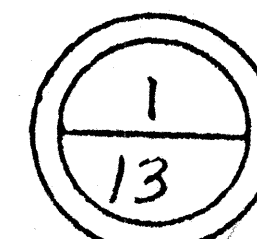


OHIO DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

IMG-270 4(43)

FHWA REGION	STATE	FEDERAL PROJECT	
5	OHIO		



GUARDRAIL UPGRADE

PLAN NO. 6D11532

Design & Planning

The Standard 19 91 Specifications of the State of Ohio, Department of Transportation, including changes and Supplemental Specifications listed in the plans and proposal shall govern these improvements.

I hereby approve these plans and declare that the making of these improvements will require the closing of the highways to traffic on Parts No. NONE and that detours will be provided by State forces. The closing to traffic of the highways will not be required on Parts No. 1,2 and provisions for the maintenance and safety of traffic will be as indicated in the proposal.

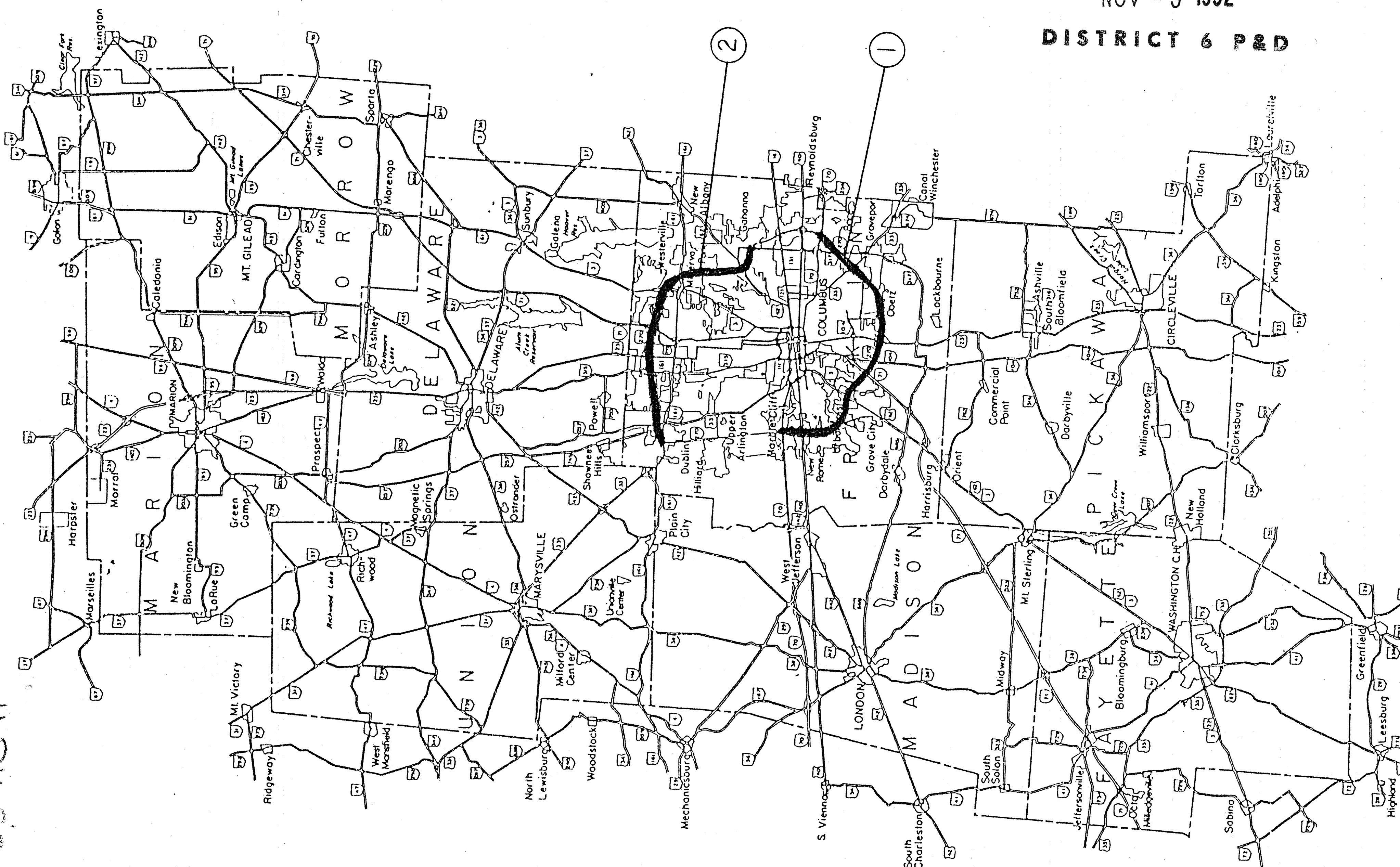
PART	COUNTY	ROUTE	SECTIONS	PROJECT TERMINI		NET LENGTH MILES	TOWNSHIP	CITY	VILLAGE
				BEGIN	END				
1	FRA	IR270		0.01	9.45	20.48		COLUMBUS	
2	FRA	IR270		43.46	54.50			COLUMBUS	
				17.52	36.92	19.40			

LOCATION MAP

RECEIVED

NOV - 5 1992

DISTRICT 6 PRD



— PORTION TO BE IMPROVED

Approved
Date 7/1/92 *[Signature]*
District Deputy Director of Transportation

Approved
Date _____
Engineer, Bureau of Bridges and Structural Design

Approved
Date 8-27-92 *Alexander H. Hynds*
Deputy Director, Operations

Approved
Date _____
Assistant Director, Department of Transportation

Approved
Date 8-28-92 *[Signature]*
Director, Department of Transportation

SHEET 13 DELETED

STANDARD DRAWINGS		SUPPLEMENTAL SPECIFICATIONS	
GR - 1.1	5-6-91	802	4-13-90
GR - 1.2	5-6-91		
GR - 1.3	2-21-92		
GR - 2.1	5-6-91		
GR - 4.1	5-6-91		
MT-95.30	10-10-88	MT-98.14	8-25-89
MT-98.12	8-25-89	MT-98.15	8-25-89
MT-98.13	8-25-89		

KEL 8-24-92

FHWA REGION	STATE	PROJECT	
5	OHIO		

2
13

PLAN No. 6 D11532

PROJECT DESCRIPTION: The purpose of this project is to retrofit barrier end treatments (replace Type A with Type E Anchor Assembly and replace sand barrel Energite System with GREAT System).

GENERAL: The Contractor shall submit in writing a schedule of operations to the Engineer (see 101.18) and receive approval in writing before work is started on this project. All work shall be performed in the existing right-of-way. All traffic control devices shall be furnished, erected, maintained, and removed by the Contractor in accordance with the Ohio Manual of Uniform Traffic Control Devices.

LANE CLOSURES: At least one lane of traffic shall be maintained in each direction at all times. No work shall be performed during the hours of 6:00 to 9:00 A.M. and 3:00 to 6:00 P.M. Monday through Friday. No work shall be performed and all lanes shall be open to traffic during the Ohio State Fair and during the following holidays and holiday weekends:

- | | | |
|--------------|-------------------|-----------------|
| 1) Christmas | 4) Memorial Day | 7) Thanksgiving |
| 2) New Years | 5) Fourth of July | |
| 3) Easter | 6) Labor Day | |

A holiday weekend is to begin at noon on the last normal weekday preceding the holiday and end at noon on the first normal weekday following the weekend. A day between the holiday and Saturday or Sunday is considered part of the weekend. (i.e. the Friday after Thanksgiving)

LOCATION OF GUARDRAIL: The log points of the proposed guardrail shown are approximate. Exact locations will be determined by the Engineer.

GUARDRAIL POST HOLES: All holes remaining after removal of guardrail posts shall be filled with granular material, excess material resulting from guardrail reconstruction or excess material from berm reshaping. Fill material containing sod shall not be used. All fill material shall be approved by the Engineer. Material placed in holes shall be thoroughly compacted and leveled off as directed by the Engineer. Payment for the above shall be included in the unit price bid for the applicable guardrail item.

GUARDRAIL REPLACEMENT: No hazard shall be left unprotected except for the actual time necessary to remove and reinstall the guardrail in a continuous operation. The removal of all existing guardrail shall at all times be as directed by the Engineer. No guardrail shall be removed until the new materials are on the site, ready for installation. The exposed approach end of the final section of an incomplete guardrail run shall be dropped to the ground until the installation is completed. When a gap exists in a guardrail run, rail elements shall be bolted together to eliminate exposed ends during non-working hours. Failure to comply with these requirements shall be deemed sufficient cause to order work suspended on this project until such time that the Engineer is assured of said compliance.

GUARDRAIL HEIGHT: All guardrail shall be installed at the proper height. When attaching to low guardrail a smooth transition to the proper height shall be made over the last 25 feet of existing guardrail. Payment for the above shall be included in the unit price bid for the applicable guardrail item.

GUARDRAIL OFFSET: When the entire flare of a guardrail run is removed, guard rail shall be installed at the same offset as the existing guardrail. When only a portion of the flare is removed, a smooth transition shall be provided using 50 feet of new or rebuilt guardrail to bring the flare parallel to the roadway.

~~ITEM 202 - ANCHOR ASSEMBLY REMOVED, TYPE A: Where designated existing anchor assemblies including all posts and hardware shall be removed. This item shall also include the removal of the entire concrete anchor and concrete encasements. Payment shall include all necessary labor and equipment required to perform the work as indicated above. Basis of payment shall be as follows: Item 202-Anchor Assembly Removed at the contract bid price per each anchor assembly removed.~~

ITEM 202 - GUARDRAIL REMOVED: Guardrail, posts and miscellaneous hardware designated for removal become the property of the contractor and shall be disposed of. Payment for the above shall be included in the unit price bid for Item 202 Guardrail Removed.

ITEM 202 - GUARDRAIL REMOVED FOR RE-USE: Guardrail, posts, standard terminals and miscellaneous hardware designated for re-use shall be removed and stored for re-use as directed by the Engineer. This work will be paid in the unit price bid for Item 202 Guardrail Removed for Re-Use.

ITEM SPECIAL - BERM RESHAPING: Berms at locations where existing guardrail is removed or where new guardrail is to be erected shall be reshaped as directed by the Engineer to insure a smooth surface free of all irregularities. Excess excavation resulting from reshaping berms shall be disposed of as directed by the Engineer. Payment for reshaping berms as described shall be included in the contract price bid per lineal foot for Item 606 Berm Reshaping.

ITEM 202 ANCHOR ASSEMBLY REMOVED, TYPE A, AS PER PLAN

THIS ITEM SHALL INCLUDE THE REMOVAL OF THE EXISTING TYPE A ASSEMBLY INCLUDING ALL POSTS, HARDWARE, RAIL ELEMENT AND CONCRETE ANCHORS. ALL ITEMS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF.

THE EXISTING CONCRETE ANCHOR AND CONCRETE AT THE POSTS SHALL BE REMOVED ENTIRELY. ALL HOLES REMAINING AFTER REMOVAL SHALL BE FILLED WITH GRANULAR MATERIAL OR EXCESS MATERIAL RESULTING FROM GUARDRAIL CONSTRUCTION. ALL FILL MATERIAL SHALL BE APPROVED BY THE ENGINEER. THIS FILL SHALL BE THOROUGHLY COMPACTED AND LEVELED, AS DIRECTED BY THE ENGINEER.

PAYMENT FOR ALL OF THE ABOVE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 202, ANCHOR ASSEMBLY REMOVED, TYPE A, AS PER PLAN.

FHWA REGION	STATE	PROJECT	PLAN No.
5	OHIO		6011532

ITEM 606 - ANCHOR ASSEMBLY, TYPE E: This item shall consist of furnishing and installing an ET-2000, Option "C", guardrail end terminal as manufactured by Syro Steel Company, 1170 N. State Street, Girard, OH 44420 (Telephone: 216-545-4373). The anchor assembly shall be placed in accordance with the manufacturer's specifications and at the locations shown in the plans. Payment for the above work shall be made at the unit bid price for Item 606, Each, Anchor Assembly, Type E. Payment shall include all labor, tools, equipment and materials necessary to construct the 25' long anchor assembly, including all related hardware, not separately specified, as required by the manufacturer to construct a complete and functional anchor assembly. This item shall also include payment over and above the cost of Standard Type 5 Guardrail for installing Type 1 Breakaway Posts (as per Standard Construction Drawing GR-1.3) at the following locations: 1) at the point where the anchor assembly and the guardrail run meet; and 2) at the next three (3) post locations into the guardrail run.

ITEM SPECIAL - IMPACT ATTENUATOR - GREAT SYSTEM: This work shall consist of providing an impact attenuator unit and backup assembly supplied by Energy Absorption Systems, One IBM Plaza, Chicago, IL 60611, and placed in accordance with the manufacturer's specifications and plan details or as established by the Engineer. The nose of the attenuator shall be marked with three evenly spaced 4" horizontal stripes of white reflective material. The fender panels shall be marked with white reflective material in 2 vertical stripes 4" in width. The center of the first stripe shall be located 8' from the rear edge of each panel. The unit is identified as model number 200200SF9G. Included in the cost of the impact attenuator shall be all excavation, removal of other existing conflicting materials, concrete and reinforcing steel necessary to construct the installation pad according to the detail design sheets. Concrete for the installation pad shall be 499, Class C. Reinforcing shall meet the requirements of 509.02. Installation pads shall be constructed such that the cross slope does not exceed 5%. Also included in the impact attenuator cost are all other related components and incidental items necessary to construct a complete and functional GREAT System impact attenuator. The accepted quantity of impact attenuators will be paid for at the contract unit price bid per each installation under Item Special - Impact Attenuator - GREAT System.

ITEM SPECIAL - ENERGITE SYSTEM REMOVED FOR STORAGE: This work shall consist of removing sand barrels, barrel contents, and other incidental items comprising the Energite System and transporting them to:

Franklin County Hilliard Outpost
4400 Currency Drive
Columbus, OH 43228
614-876-8521
1/4 Mile West of I-270 - Roberts Road Interchange,
North Side of Roberts Road in Industrial Park

Payment for the above work shall be made at the contract unit price bid per each removal under Item Special - Energite System Removed for Storage.

ITEM SPECIAL - LAW ENFORCEMENT OFFICER WITH PATROL CAR: The Contractor shall provide the services of one special duty Law Enforcement Officer (L.E.O.) and patrol car for the purpose of closing one or more lanes of directional traffic and channelizing that traffic into one or two lanes. When the period of closure is expected to last more than one working day, the L.E.O. shall be present during the initial first day set-up period but is not considered necessary and shall not be included for payment under L.E.O. with patrol car during the remainder of the period of use of a given closure arrangement. A flashing arrow barricade with signs and drums as detailed is sufficient for warning at the beginning and end of such arrangements after the first day. A downstream extension of such arrangement shall not require the use of a L.E.O. When the beginning point of a lane closure operation is shifted substantially, or a new lane closure arrangement is initiated in another part of the project area, a L.E.O. shall again be required. In all cases the L.E.O. shall be utilized as directed by the Engineer. Information regarding arrangement and payments by the Contractor for special duty L.E.O. with patrol car may be obtained by contracting:


Ohio Highway Patrol
650 East Main Street
Columbus, OH 43215
614-466-2660

Payment for the L.E.O. with patrol car shall be made at the contract price for Item Special-Law Enforcement Officer with Patrol Car.

GUARDRAIL DATA																			FHWA REGION 5		STATE OHIO	PROJECT	PLAN NO 6DI1532	<div>4 13</div>
PART	ROUTE	LOG POINT	DIR- EC- TION	SIDE	ITEM 202				ITEM 606								ITEM 802			ITEM SPECIAL		TYPICAL SECTION		
					GUARDRAIL REMOVED, TYPE-5			ANCHOR ASSEMBLY REMOVED TYPE A AS PER PLAN EACH	GUARDRAIL TYPE 5 LIN. FT.	GUARDRAIL REBUILT TYPE 5 LIN. FT.	BERM RESHAPING LIN. FT.		ANCHOR ASSEMBLY TYPE E EACH			BARRIER REFLECTORS		G•R•E•A•T SYSTEM EACH		ENERGITE SYSTEM REMOVED FOR STORAGE EACH				
					REMOVED LIN. FT.	FOR STORAGE LIN. FT.	FOR RE-USE LIN. FT.									WHITE	YELLOW							
1	FRA-270	44.33	SB	RT				1			25.0				1					1				
		44.67	SB	RT				1	62.5		87.5		1			2				4				
		45.47	SB	RT				1			25.0		1			1				1				
		45.83	SB	RT				1	75.0		100.0		1			2				4				
		45.83	SB	LT				1	62.5		87.5		1			2				4				
		46.11	SB	RT				1			25.0		1			1				1				
		46.81	SB	RT				1			25.0		1			1				1				
		48.67	SB	RT				1			25.0		1			1				1				
		48.96	WB	RT				1	37.5		62.5		1			2				4				
		49.41	WB	RT				1	25.0		50.0		1			2				4				
		49.68	WB	RT				1			25.0		1			1				1				
		50.88	WB	RT				1	12.5		37.5		1			1				4				
		51.49	WB	RT				1	25.0		50.0		1			1				4				
		51.92	WB	RT				1	25.0		50.0		1			1				4				
		52.17	WB	LT				1			25.0		1				1			1				
		52.28	WB	RT			50.0	1	25.0	50.0	100.0		1			2				3				
		52.61	WB	RT			37.5	1	25.0	37.5	87.5		1			2				3				
		54.47	WB	RT			62.5	1		62.5	87.5		1			1				2				
		54.50	WB	LT				1	50.0		75.0		1			2				4				
		0.94	WB	RT				1	12.5		37.5		1			1				4				
		1.49	WB	RT				1	37.5		62.5		1			2				4				
		1.84	WB	RT				1	37.5		62.5		1			2				4				
		3.07	WB	RT			37.5	1		37.5	62.5		1			1				2				
		3.71	WB	RT			25.0	1		25.0	50.0		1			1				2				
		4.67	WB	RT			25.0	1		25.0	50.0		1			1				2				
		5.45	NB	RT			37.5	1		37.5	62.5		1			1				2				
		5.83	NB	RT			37.5	1		37.5	62.5		1			1				2				
		6.15	NB	RT			25.0	1		25.0	50.0		1			1				2				
		6.38	NB	RT			25.0	1		25.0	50.0		1			1				2				
		6.78	NB	RT			50.0	1	75.0	50.0	150.0		1			2				3				
		6.78	NB	LT				1			25.0		1				1			1				
		6.89	NB	RT			25.0	1		25.0	50.0		1			1				2				
		7.15	NB	RT			25.0	1		25.0	50.0		1			1				2				
		7.24	NB	CD-RT				1			25.0		1			1				1				
		7.61	NB	RT			37.5	1		37.5	62.5		1			1				2				
		8.37	NB	CD-RT			25.0	1		25.0	50.0		1			1				2				
		8.53	NB	CD-RT			25.0	1		25.0	50.0		1			1				2				
		8.66	NB	CD-RT			62.5	1		62.5	87.5		1			1				2				

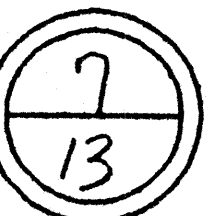
GUARDRAIL DATA															FHWA REGION 5	STATE OHIO	PROJECT	PLAN NO 6DI1532	<div>5 13</div>	
PART	ROUTE	LOG POINT	DIR- EC- TION	SIDE	ITEM 202				ITEM 606						ITEM 802			ITEM SPECIAL		TYPICAL SECTION
					GUARDRAIL REMOVED, TYPE-5			ANCHOR ASSEMBLY REMOVED TYPE A AS PER PLAN EACH	GUARDRAIL TYPE 5 LIN. FT.	GUARDRAIL REBUILT TYPE 5 LIN. FT.	BERM RESHAPING LIN. FT.		ANCHOR ASSEMBLY TYPE E EACH		BARRIER REFLECTORS			G•R•E•A•T SYSTEM EACH	ENERGITE SYSTEM REMOVED FOR STORAGE EACH	
					REMOVED LIN. FT.	FOR STORAGE LIN. FT.	FOR RE-USE LIN. FT.								WHITE EACH	YELLOW EACH				
1	FRA-270	8.75	NB	CD-RT			37.5	1		37.5	62.5		1		1				2	
		8.85	NB	CD-RT			50.0	1		50.0	75.0		1		2				2	
		9.28	NB	RT			37.5	1		37.5	62.5		1		1				2	
		9.45	NB	RT			37.5	1		37.5	62.5		1		1				2	
		9.32	SB	RT			50.0	1		50.0	75.0		1		1				2	
		9.18	SB	RT			37.5	1		37.5	62.5		1		1				2	
		8.75	SB	RT			50.0	1		50.0	75.0		1		1				2	
		8.60	SB	RT			37.5	1		37.5	62.5		1		1				2	
		8.35	SB	RT			37.5	1		37.5	62.5		1		1				2	
		8.26	SB	RT			50.0	1	25.0	50.0	100.0		1		2				3	
		7.35	SB	RT			50.0	1		50.0	75.0		1		1				2	
		7.21	SB	RT				1			25.0		1		1				1	
		6.97	SB	RT			87.5	1	37.5	87.5	150.0		1		2				3	
		6.19	SB	RT			50.0	1		50.0	75.0		1		1				2	
		5.95	SB	RT			50.0	1	25.0	50.0	100.0		1		2				3	
		5.69	SB	RT			25.0	1		25.0	50.0		1		1				2	
		5.49	SB	RT			50.0	1		50.0	75.0		1		1				2	
		5.25	SB	RT			37.5	1		37.5	62.5		1		1				2	
		4.24	EB	RT			50.0	1	25.0	50.0	100.0		1		2				3	
		3.45	EB	RT			25.0	1		25.0	50.0		1		1				2	
		3.13	EB	RT			62.5	1		62.5	87.5		1		1				2	
		2.89	EB	RT			37.5	1		37.5	62.5		1		1				2	
		2.48	EB	RT				1			25.0		1		1				1	
		2.32	EB	RT				1			25.0		1		1				1	
		1.53	EB	RT				1			25.0		1		1				1	
		1.00	EB	RT				1	37.5		62.5		1		2				4	
		0.47	EB	RT			75.0	1	37.5	75.0	137.5		1		2				3	
		0.47	EB	LT			75.0	1	37.5	75.0	137.5		1			2			3	
		0.31	EB	CD-RT			50.0	1	12.5	50.0	87.5		1		1				3	
		0.01	EB	CD-RT				1			25.0		1		1				1	
		54.26	EB	RT			62.5	1	25.0	62.5	112.5		1		1				3	
		53.70	EB	RT			50.0	1		50.0	75.0		1		1				2	
		53.16	EB	LT			62.5	1	25.0	62.5	112.5		1			1			3	
		52.90	EB	CD-RT			125.0	1	37.5	125.0	187.5		1		2				3	
		52.64	EB	CD-RT			37.5	1		37.5	62.5		1		1				2	
		52.64	EB	LT			12.5	1		12.5	37.5		1			1			2	
		51.95	EB	RT				1			25.0		1		1				1	

FHWA REGION	STATE	PROJECT	PLAN NO.
5	OHIO		6D11532

[illegible]

GUARDRAIL DATA

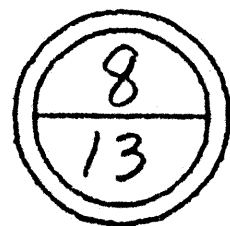
FHWA REGION	STATE	PROJECT	PLAN NO.
5	OHIO		6D11532



PART	ROUTE	LOG POINT	DIR- EC- TION	SIDE	ITEM 202				ITEM 606							ITEM 802			ITEM SPECIAL		TYPICAL SECTION
					GUARDRAIL REMOVED, TYPE-5			ANCHOR ASSEMBLY REMOVED TYPE A AS PER PLAN EACH	GUARDRAIL TYPE 5 LIN. FT.	GUARDRAIL REBUILT TYPE 5 LIN. FT.	BERM RESHAPING LIN. FT.		ANCHOR ASSEMBLY TYPE E EACH			BARRIER REFLECTORS			G•R•E•A•T SYSTEM EACH	ENERGITE SYSTEM REMOVED FOR STORAGE EACH	
					REMOVED LIN. FT.	FOR STORAGE LIN. FT.	FOR RE-USE LIN. FT.									WHITE EACH	YELLOW EACH				
2	FRA-270	36.44	NB	LT			75.0	1		75.0	100.0		1				2			2	
		36.44	NB	RT			50.0	1	100.0	50.0	175.0		1			2				3	
		36.05	NB	LT			62.5	1	25.0	62.5	112.5		1				1			3	
		35.53	NB	RT			62.5	1		62.5	87.5		1			1				2	
		35.38	NB	RT			50.0	1		50.0	75.0		1			1				2	
		35.18	NB	RT			37.5	1		37.5	62.5		1			1				2	
		34.89	NB	RT			50.0	1		50.0	75.0		1			1				2	
		34.38	NB	RT			25.0	1		25.0	50.0		1			1				2	
		33.99	NB	RT			50.0	1		50.0	75.0		1			1				2	
		33.51	NB	RT			37.5	1	25.0	37.5	87.5		1			1				3	
		32.94	NB	RT			50.0	1		50.0	75.0		1			1				2	
		32.57	NB	RT			62.5	1		62.5	87.5		1			1				2	
		32.30	NB	RT			62.5	1	25.0	62.5	112.5		1			1				3	
		31.55	NB	RT			125.0	1	50.0	125.0	200.0		1			2				3	
		31.03	NB	RT			75.0	1		75.0	100.0		1			1				2	
		30.83	NB	RT			62.5	1		62.5	87.5		1			1				2	
		30.83	NB	LT			25.0	1		25.0	50.0		1				1			2	
		30.55	NB	RT			12.5	1		12.5	37.5		1			1				2	
		30.24	NB	RT			50.0	1		50.0	75.0		1			1				2	
		29.82	WB	RT			50.0	1		50.0	75.0		1			1				2	
		29.65	WB	RT			50.0	1		50.0	75.0		1			1				2	
		29.37	WB	RT			37.5	1		37.5	62.5		1			1				2	
		29.10	WB	RT			12.5	1		12.5	37.5		1			1				2	
		29.02	WB	RT				1	25.0		50.0		1			1				4	
		28.76	WB	RT				1			25.0		1			1				1	
		28.58	WB	RT				1			25.0		1			1				1	
		28.22	WB	LT				1			25.0		1				1			1	
		28.04	WB	RT				1			25.0		1			1				1	
		27.92	WB	LT				1			25.0		1				1			1	
		27.80	WB	RT				1			25.0		1			1				1	
		27.80	WB	LT				1			25.0		1				1			1	
		27.40	WB	CD-RT				1			25.0		1			1				1	
		27.24	WB	CD-RT				1			25.0		1			1				1	
		26.77	WB	RT				1			25.0		1			1				1	
		26.77	WB	LT				1			25.0		1				1			1	
		26.34	WB	RT				1			25.0		1			1				1	
		26.29	WB	LT				1			25.0		1				1			1	
		26.03	WB	RT				1			25.0		1			1				1	
		25.11	WB	RT			25.0	1		25.0	50.0		1			1				2	
		24.94	WB	RT				1			25.0		1			1				1	

GUARDRAIL DATA

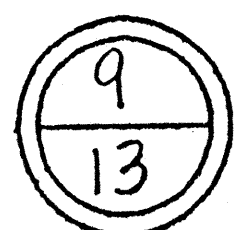
FHWA REGION	STATE	PROJECT	PLAN NO.
5	OHIO		6011532



PART	ROUTE	LOG POINT	DIR- EC- TION	SIDE	ITEM 202				ITEM 606							ITEM 802			ITEM SPECIAL		TYPICAL SECTION
					GUARDRAIL REMOVED, TYPE-5			ANCHOR ASSEMBLY REMOVED TYPE A AS PER PLAN EACH	GUARDRAIL TYPE 5 LIN. FT.	GUARDRAIL REBUILT TYPE 5 LIN. FT.	BERM RESHAPING LIN. FT.		ANCHOR ASSEMBLY TYPE E EACH			BARRIER REFLECTORS			G•R•E•A•T SYSTEM EACH	ENERGITE SYSTEM REMOVED FOR STORAGE EACH	
					REMOVED LIN. FT.	FOR STORAGE LIN. FT.	FOR RE-USE LIN. FT.									WHITE EACH	YELLOW EACH				
2	FRA-270	24.61	WB	LT				1			25.0		1				1		1		
		24.17	WB	LT				1			25.0		1				1		1		
		24.13	WB	RT													1	1	5		
		24.01	WB	CD-RT				1			25.0		1			1			1		
		23.80	WB	CD-RT				1			25.0		1			1			1		
		23.69	WB	CD-RT				1			25.0		1			1			1		
		23.31	WB	RT				1			25.0		1			1			1		
		23.31	WB	LT				1			25.0		1				1		1		
		23.11	WB	RT				1			25.0		1			1			1		
		23.11	WB	LT				1			25.0		1				1		1		
		22.83	WB	RT				1			25.0		1			1			1		
		22.68	WB	RT				1			25.0		1			1			1		
		22.44	WB	RT				1			25.0		1			1			1		
		21.97	WB	RT				1			25.0		1			1			1		
		19.87	WB	RT				1			25.0		1			1			1		
		18.81	WB	RT				1			25.0		1			1			1		
		18.25	WB	RT				1			25.0		1			1			1		
		17.69	SB	RT			12.5	1		12.5	37.5		1			1			2		
		17.52	SB	LT				1			25.0		1				1		1		
		18.22	EB	RT				1			25.0		1			1			1		
		18.52	EB	RT				1	25.0		50.0		1			1			4		
		19.81	EB	RT				1			25.0		1			1			1		
		21.15	EB	RT				1			25.0		1			1			1		
		22.40	EB	RT			12.5	1		12.5	37.5		1			1			2		
		22.51	EB	RT				1			25.0		1			1			1		
		22.51	EB	LT				1			25.0		1				1		1		
		22.64	EB	RT				1			25.0		1			1			1		
		22.77	EB	RT				1			25.0		1			1			1		
		22.92	EB	RT			12.5	1		12.5	37.5		1			1			2		
		23.16	EB	RT				1			25.0		1			1			1		
		23.16	EB	LT				1			25.0		1				1		1		
		23.32	EB	RT				1			25.0		1			1			1		
		23.32	EB	LT				1			25.0		1				1		1		
		23.41	EB	RT																	
		23.48	EB	CD-RT				1			25.0		1			1		1	5		
		23.76	EB	CD-RT				1			25.0		1			1			1		
		24.11	EB	RT			12.5	1		12.5	37.5		1			1			2		
		24.39	EB	LT			12.5	1		12.5	37.5		1				1		2		

GUARDRAIL DATA

FHWA REGION	STATE	PROJECT	PLAN NO.
5	OHIO		6D11532



PART	ROUTE	LOG POINT	DIR- EC- TION	SIDE	ITEM 202			ITEM 606							ITEM 802		ITEM SPECIAL			TYPICAL SECTION	
					GUARDRAIL REMOVED, TYPE-5			ANCHOR ASSEMBLY REMOVED TYPE A AS PER PLAN EACH	GUARDRAIL TYPE 5 LIN. FT.	GUARDRAIL REBUILT TYPE 5 LIN. FT.	BERM RESHAPING LIN. FT.		ANCHOR ASSEMBLY TYPE E EACH			BARRIER REFLECTORS			G•R•E•A•T SYSTEM EACH		ENERGITE SYSTEM REMOVED FOR STORAGE EACH
					REMOVED LIN. FT.	FOR STORAGE LIN. FT.	FOR RE-USE LIN. FT.									WHITE EACH	YELLOW EACH				
2	FRA-270	25.01	EB	RT			12.5	1		12.5	37.5		1			1					2
								1			25.0		1				1				1
		25.01	EB	LT				1			25.0		1			1					1
		25.52	EB	RT				1			25.0		1			1					1
		25.52	EB	LT				1			25.0		1				1				1
		25.65	EB	RT				1			25.0		1			1					1
		25.94	EB	RT				1			25.0		1			1					1
		26.57	EB	RT				1			25.0		1			1					1
		26.57	EB	LT				1			25.0		1				1				1
		26.67	EB	RT				1			25.0		1			1					1
		26.98	EB	RT				1			25.0		1			1					1
		26.98	EB	LT				1			25.0		1				1				1
		27.03	EB	RT														1	1		5
		27.10	EB	CD-RT				1			25.0		1			1					1
		27.36	EB	CD-RT				1			25.0		1			1					1
		27.90	EB	RT				1			25.0		1			1					1
		27.90	EB	LT				1			25.0		1				1				1
		28.19	EB	RT				1			25.0		1			1					1
		28.46	EB	LT				1			25.0		1				1				1
		28.82	EB	RT				1			25.0		1			1					1
		29.25	EB	RT			75.0	1		75.0	100.0		1			2					2
		29.51	EB	RT			62.5	1		62.5	87.5		1			2					2
		29.78	SB	RT			62.5	1		62.5	87.5		1			2					2
		30.11	SB	RT			75.0	1		75.0	100.0		1			2					2
		30.25	SB	LT			75.0	1		75.0	100.0		1				2				2
		30.50	SB	RT			25.0	1		25.0	50.0		1			1					2
		31.13	SB	RT			75.0	1	25.0	75.0	125.0		1			2					3
		31.69	SB	RT			100.0	1		100.0	125.0		1			3					2
		32.04	SB	RT			100.0	1		100.0	125.0		1			3					2
		32.25	SB	RT			87.5	1	25.0	87.5	137.5		1			3					3
		33.94	SB	RT			62.5	1		62.5	87.5		1			2					2
		34.15	SB	RT			75.0	1	12.5	75.0	112.5		1			2					3
		34.26	SB	RT			75.0	1		75.0	100.0		1			2					2
		34.55	SB	RT			75.0	1	75.0	75.0	175.0		1			3					3
		34.84	SB	RT			62.5	1		62.5	87.5		1			2					2
		35.14	SB	RT			50.0	1		50.0	75.0		1			2					2
		35.35	SB	RT			62.5	1		62.5	87.5		1			2					2
		36.09	SB	RT			62.5	1		62.5	87.5		1			2					2
		36.63	SB	RT	62.5		12.5	1	62.5	12.5	100.0		1			3					3
		36.92	SB	RT			87.5	1	25.0	87.5	137.5		1			3					3

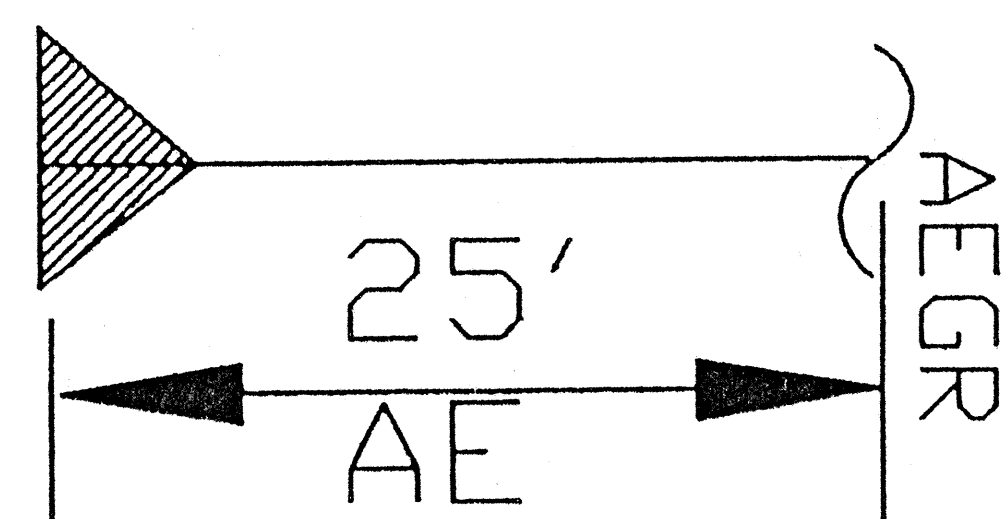
TYPICAL SECTIONS

FHWA REGION	STATE	PROJECT	PLAN NO.
5	OHIO	10-13	6D11532

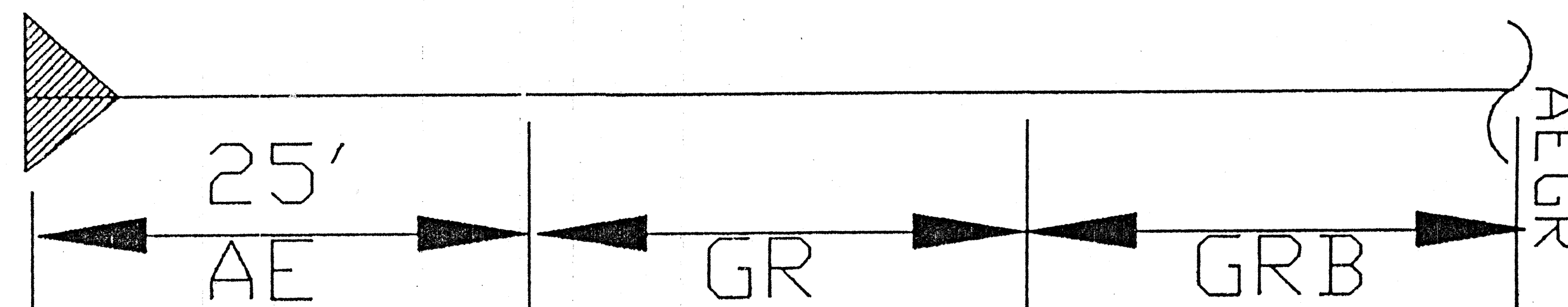
10
13

AEGR - ATTACH TO EXISTING GUARDRAIL
AE - ANCHOR ASSEMBLY, TYPE E
GRB - GUARDRAIL REBUILT, TYPE 5
GR - GUARDRAIL, TYPE 5

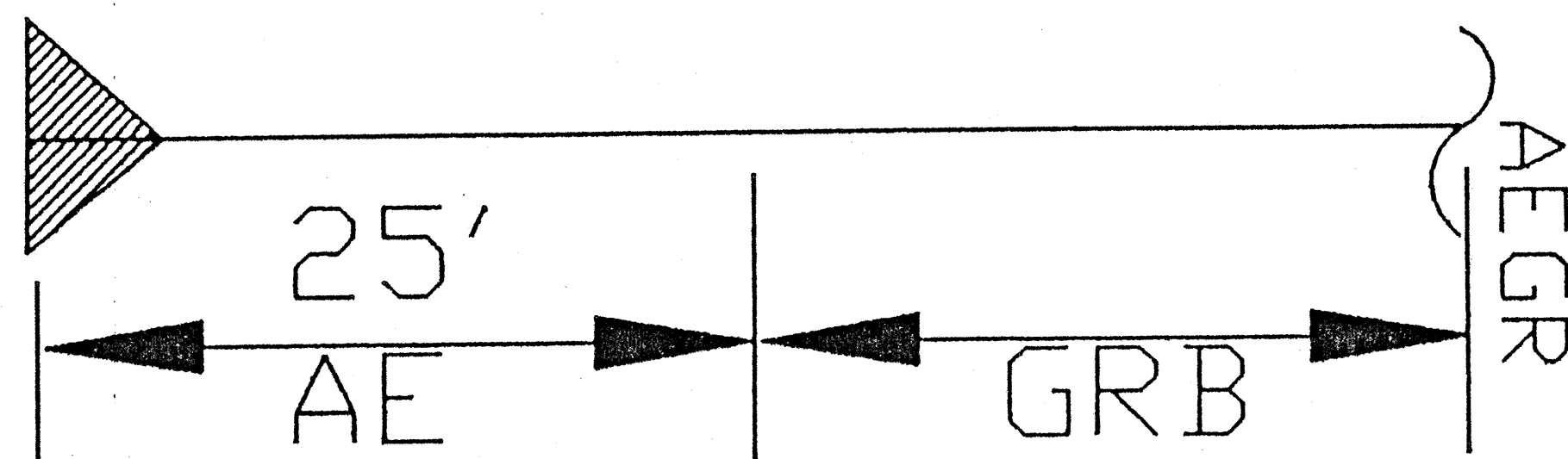
TYPICAL 1



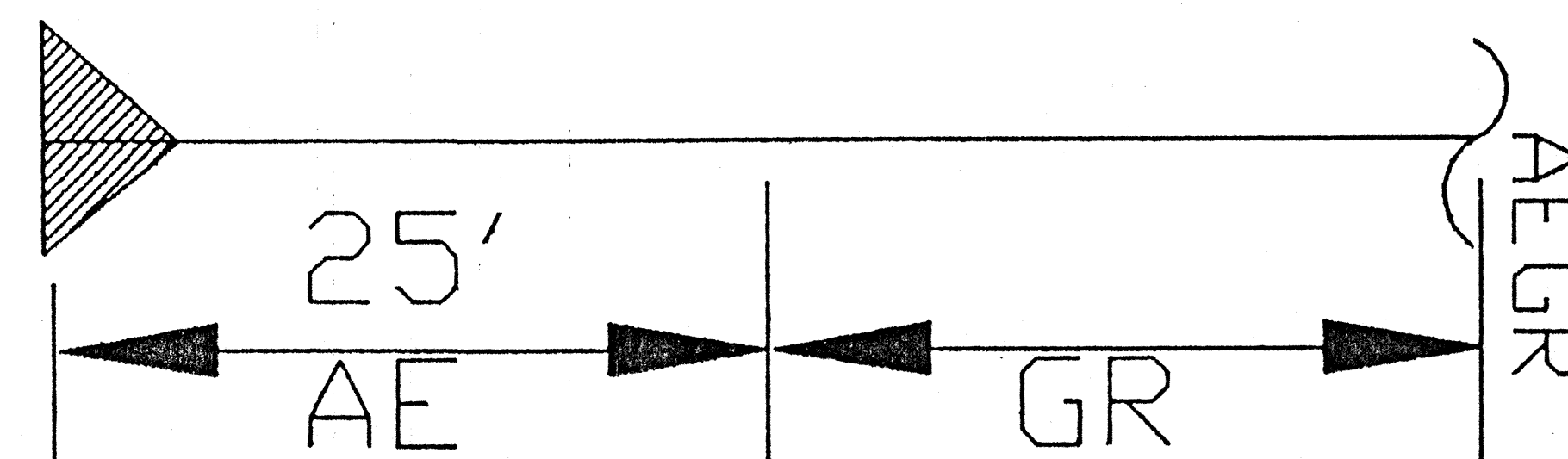
TYPICAL 3



TYPICAL 2

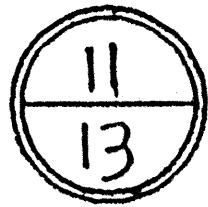


TYPICAL 4



TYPICAL SECTIONS

FHWA REGION	STATE	PROJECT	PLAN NO
5	OHIO		6D11532



AECB - ATTACH TO EXISTING CONCRETE BARRIER

TYPICAL 5

