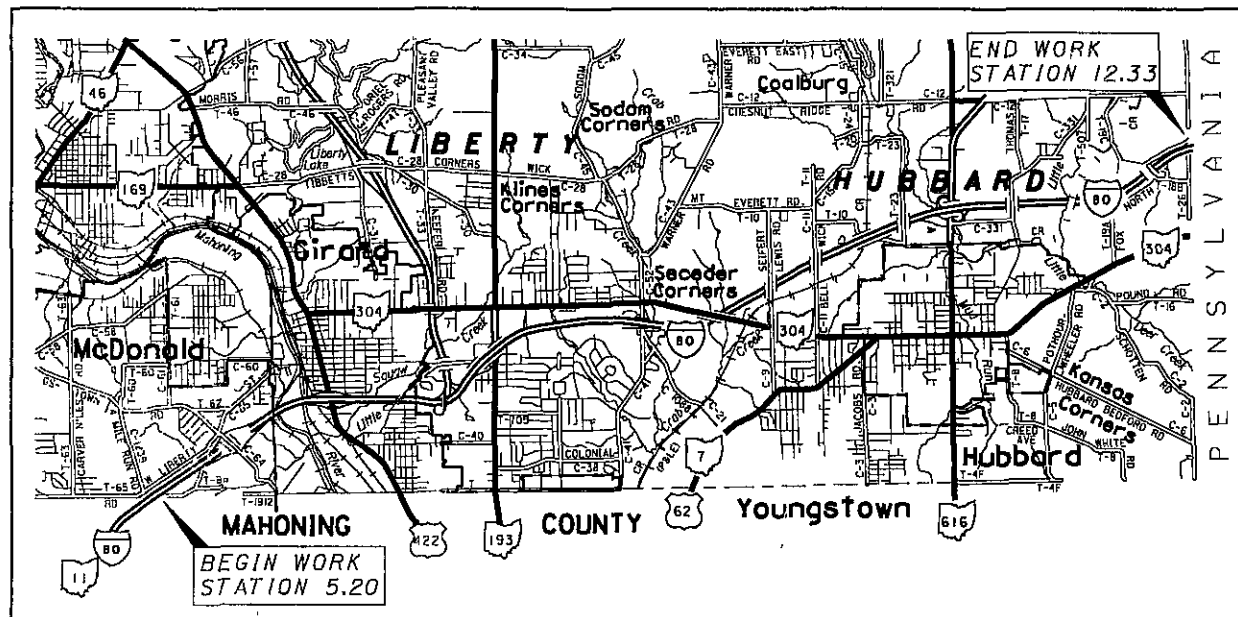




LOCATION MAP
LATITUDE: 41° 10' 18" LONGITUDE: 80° 35' 11"



PORTION TO BE IMPROVED: _____
INTERSTATE & DIVIDED HIGHWAY: _____
UNDIVIDED STATE & FEDERAL ROUTES: _____
OTHER ROADS: _____

TRU - IR 80-5.20
060388 PID - 80793
Dist 4 8/9/2006

STATE OF OHIO DEPARTMENT OF TRANSPORTATION

TRU-80-5.20 LIBERTY TOWNSHIP HUBBARD TOWNSHIP TRUMBULL COUNTY

PROJECT DESCRIPTION
INSTALLATION OF EPOXY PAVEMENT MARKING

2005 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

EARTH DISTURBED AREAS

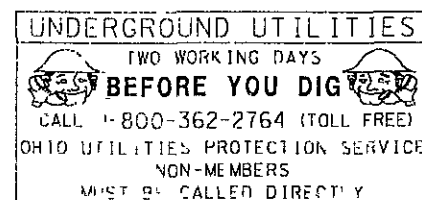
PROJECT EDA = N/A (MAINTENANCE PROJECT)
EST. CONTRACTOR EDA = N/A (MAINTENANCE PROJECT)
NOTICE OF INTENT EDA = N/A (MAINTENANCE PROJECT)

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 REVISED CODE OF OHIO.

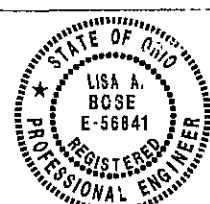
INDEX OF SHEETS:

TITLE SHEET	1
GENERAL NOTES	2
GENERAL SUMMARY	3
SUB SUMMARY	4-5
PAVEMENT MARKING DETAILS	6-19



PLAN PREPARED BY:
ODOT DISTRICT 4
PRODUCTION

ENGINEERS SEAL:



SIGNED: Lisa A. Boese
DATE: 4/27/06

STANDARD CONSTRUCTION DRAWINGS

TC-42.20	7-16-04	MT-35.10	4-20-01
TC-52.10	4-20-01	MT-95.30	7-16-04
TC-52.20	4-20-01	MT-98.12	4-19-02
TC-71.10	1-21-05	MT-98.13	4-19-02
TC-72.20	1-21-05	MT-98.14	4-19-02
TC-73.10	1-19-01	MT-98.15	7-16-04
		MT-98.16	4-19-02
		MT-98.17	10-18-02
		MT-98.18	10-18-02
		MT-99.20M	1-30-95
		MT-105.10	10-18-02
		MT-105.11	10-18-02

SUPPLEMENTAL SPECIFICATIONS

800	04/21/06
832	4/25/06

SPECIAL PROVISIONS

APPROVED:
DATE: 4-27-06 DISTRICT DEPUTY DIRECTOR

APPROVED:
DATE: 6-2-06 DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO.

N/A

PID NO.

80793

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT

N/A

TRU-80-5.20

1/19

LAYOUT AND PRE-MARKING

AT LOCATIONS WHERE THE EXISTING MARKINGS ARE NOT IN PROPER ALIGNMENT THE CONTRACTOR SHALL PRE-MARK THOSE LOCATIONS TO INSURE PROPER PLACEMENT OF THE EPOXY PAVEMENT MARKINGS. NEW AUXILIARY MARKINGS SHALL BE PLACED OVER EXISTING MARKINGS. AT LOCATIONS WHERE EXISTING MARKINGS ARE NO LONGER VISIBLE, THE CONTRACTOR SHALL PRE-MARK THE LOCATIONS PER THESE DRAWINGS. ANY DISCREPANCIES BETWEEN THE PROPOSED AUXILIARY MARKINGS AND THE EXISTING REGULATORY LANE CONTROL SIGNS, SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER, PRIOR TO PLACING THE EPOXY MARKINGS.

CLEANING AND SURFACE PREPARATION

SINCE THE MAJORITY OF THE LOCATIONS TO BE STRIPED WITH EPOXY MARKINGS WILL BE PLACED OVER EXISTING MARKINGS, PAVEMENT PREPARATION SHALL INCLUDE THE ABRADING OF ALL EXISTING MARKINGS, TO PROVIDE AN ACCEPTABLE SURFACE FOR THE PLACEMENT OF THE NEW EPOXY MARKINGS, THE COST OF THE ABRADING SHALL BE INCLUDED IN THE UNIT BID COST FOR EACH LINE OR PAVEMENT MARKING.

METHOD OF MEASUREMENT

A DAY'S APPLIED MILEAGE OF LESS THAN 10 MILES OR A DAYS APPLIED QUANTITY OF LESS THAN 5 GALLONS OF MARKING MATERIAL USED TO APPLY OTHER TYPE OF MARKING MAY BE INCLUDED IN THE NEXT DAYS APPLIED MARKINGS FOR THE PURPOSE OF COMPUTING MARKING MATERIAL AND BEAD APPLICATION RATES.

THE QUANTITY OF MARKING MATERIAL USED SHALL BE DETERMINED BY MEASURING THE MARKING MATERIAL BEFORE AND AFTER THE MARKING MATERIAL IS APPLIED. THE CONTRACTOR SHALL PROVIDE MEASUREMENTS WHENEVER REQUESTED BY THE ENGINEER. THE MARKING MATERIAL APPLICATION RATE SHALL BE DETERMINED BY DIVIDING THE TOTAL GALLONS USED BY THE APPROPRIATE MARKING LENGTH AS DETERMINED FROM THE ELECTRICAL COUNTER AS DESCRIBED WITHIN 641.04 .

ANY DETERMINATION OF PAY DEDUCTION RESULTING FROM SHORTAGES IN MARKING QUANTITIES SHALL BE BASED ON THE MEASUREMENTS OBTAINED BY THIS METHOD. THE AMOUNT OF GLASS BEADS APPLIED SHALL BE ASCERTAINED BY THE ENGINEER BY OBSERVATION AND FROM INFORMATION SUPPLIED BY THE CONTRACTOR AS THE QUANTITY USED.

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR SHALL COORDINATE HIS OPERATIONS AND COOPERATE WITH THE CONTRACTORS ON OTHER PROJECTS THAT MAY BE IN FORCE DURING THE LIFE OF THIS CONTRACT. NO WAIVER OF ANY PROVISION OF 105.07 OF THE CONSTRUCTION AND MATERIALS SPECIFICATION IS INTENDED.

CONVERSION OF METRIC STANDARD CONSTRUCTION DRAWINGS

THE METRIC STANDARD DRAWINGS REFERENCED IN THIS PLAN SHALL BE CONVERTED TO ENGLISH UNITS USING SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.02 OF THE 2005 CONSTRUCTION AND MATERIALS SPECIFICATIONS. THE APPENDIX OF ASTM E 380 SHALL BE UTILIZED FOR ANY ADDITIONAL CONVERSION FACTORS REQUIRED. CONVERSION SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

ITEM 646 EPOXY PAVEMENT MARKINGS, AS PER PLAN

THE EPOXY PAVEMENT MARKING MATERIAL FURNISHED UNDER THESE ITEMS SHALL BE EPOPLEX LS-60 AS FURNISHED BY EPOPLEX, MAPLE SHADE, NEW JERSEY 646 EPOXY PAVEMENT MARKINGS.

ITEM 646 EPOXY PAVEMENT MARKINGS, (ALTERNATE BID)

THE EPOXY PAVEMENT MARKING MATERIAL SHALL BE MARK 55.4 AS FURNISHED BY POLYCARB, CLEVELAND, OHIO. PAYMENT WILL BE AT THE NORMAL CONTRACT PRICE AS SPECIFIED IN ITEM 646.

ITEM 614-MAINTAINING TRAFFIC

TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH THIS PLAN,ITEM 614, AND THE OMUTCD NEWEST EDITION LATEST REVISION. THE FLASHING ARROW PANEL, INCLUDING CAUTION BAR MODE,SHALL NOT BE USED ON TWO LANE ROADWAYS. THE TRAIL VEHICLE CLOSEST TO APPROACHING TRAFFIC SHALL BE EQUIPPED WITH A TRUCK MOUNTED ATTENUATOR (TMA). THE TMA MUST BRING A VEHICLE WEIGHING ABOUT 1800 TO 4500 LBS. AND TRAVELING AT 60 MPH TO A SAFE, CONTROLLED STOP, PER NCHRP 350 CRITERIA. THE MANUFACTURER'S SPECIFICATION MUST BE FOLLOWED CONCERNING THE SIZE OF THE TRUCK AND THE CONNECTIONS TO THE TMA .

AN EQUAL PRODUCT MAY BE SUBMITTED FOR APPROVAL BY THE ENGINEER. THE TMA MUST BRING A VEHICLE WEIGHING BETWEEN 1800 AND 4500 LBS. AND TRAVELING AT 60 MPH TO A SAFE, CONTROLLED STOP, PER NCHRP 350 CRITERIA.

THE MANUFACTURER'S SPECIFICATIONS MUST BE FOLLOWED CONCERNING THE SIZE OF THE TRUCK AND THE CONNECTIONS TO THE TMA. THE TRAIL VEHICLES MUST HAVE ALL THE EQUIPMENT LISTED IN STANDARD DWG. NO. MT-99.20M, DATED 1-30-95.

IN LIEU OF A TMA, LANES MAY BE CLOSED AT THE TIMES PERMITTED BY DISTRICT FOUR'S PERMITTED LANE CLOSURE CHART.

THE CHART CAN BE FOUND AT:

https://dotaw100.dot.state.oh.us/plcm/plcm_web.jsp

THE CONTRACTOR SHALL NOT CLOSE ANY LANES OR OTHERWISE IMPEDE THE FLOW OF TRAFFIC:

A) DURING NATIONAL HOLIDAYS, MOTHERS DAY, EASTER, OR OTHER HOLIDAY WEEKENDS. A "WEEKEND" FOR TRAFFIC CONTROL PURPOSES IS TO BEGIN AT NOON ON THE LAST NORMAL WEEKDAY PRECEEDING THE HOLIDAY WEEKEND AND IS TO 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).

ALL COSTS ASSOCIATED WITH THE ABOVE SHALL BE INCLUDED UNDER 614-MAINTAINING TRAFFIC.

THE CONTRACTOR SHALL PLACE TWO 48" X 48" DIAMOND SHAPED ADVANCE WARNING SIGNS MOUNTED ON BOTH SIDES OF THE ROADWAY 1500 FEET IN ADVANCE OF THE STARTING POINT. THE LEGEND SHALL SAY "LINE PAINTING" WITH 6 INCH BLACK LETTERS. THE SIGNS' SHEETING SHALL BE ORANGE FLUORESCENT DIAMOND GRADE SHEETING BY 3M OR HIGH PERFORMANCE GRADE FLUORESCENT ORANGE BY STIMSONITE.

A 24" X 18" SIGN SHALL BE MOUNTED DIRECTLY BELOW THE WARNING SIGNS WITH THE LEGEND "NEXT" ON LINE 1 AND "XX" MILES ON LINE 2. THIS SIGN SHALL HAVE THE SAME SHEETING AS THE WARNING SIGNS WITH 6" BLACK LETTERS. THE BLANK AREA SHALL BE FILLED IN TO THE NEAREST MILE, THE NUMBER OF MILES TO BE PAINTED. THESE SIGNS SHALL BE REMOVED WHEN THE PAINTING IS DONE. THE LOCATION AND SIGN SUPPORTS SHALL BE AS PER STANDARD DWG. MT-105.10 AND MT-105.11 DATED 10-18-02. ENTRANCE RAMP AND INTERCHANGE LANE TRAFFIC SHALL RECEIVE INFORMATION ABOUT THE WORK AHEAD EQUAL TO THAT OF MAINLINE TRAFFIC WHEN THE RAMP OR LANE IS LOCATED WITHIN THE BOUNDARIES OF THE INITIAL CONSTRUCTION WARNING SIGNS AND THE PROTFCTED ZONE. THE MILEAGE PLAQUE IS NOT REQUIRED ON THE RAMP SIGNS. WORK SHALL BE PERFORMED ONLY AFTER THE APPROPRIATE SIGNS ARE PLACED.

$\frac{3}{19}$

CENTER LINE											GENERAL SPEC. 640 MATERIAL TYPE - 646 EPOXY							
COUNTY	ROUTE	TRU LOG	FROM	TRU LOG	TO	TOTAL MILES	EQUIVALENT SOLID LINE		COMMENTS									
TOTAL																		
LANE LINE																		
COUNTY	ROUTE	TRU LOG	FROM	TRU LOG	TO	TOTAL MILES	4" LANE LINE		COMMENTS									
							DASHED	SOLID										
TRU	80	0.00	TRUMBULL COUNTY LINE	12.33	PENNSYLVANIA STATE LINE	26.10												
TOTAL						26.10												
EDGE LINE																		
COUNTY	ROUTE	TRU LOG	FROM	TRU LOG	TO	WHITE EDGE LINE			YELLOW EDGE LINE			COMMENTS						
						TOTAL MILES	HIGH-WAY	RAMP	TOTAL MILES	HIGH-WAY	RAMP							
TRU	80	0.00	TRUMBULL COUNTY LINE	12.33	PENNSYLVANIA STATE LINE	34.41	24.66	9.75	30.45	24.66	5.79							
TOTAL						34.41	24.66	9.75	30.45	24.66	5.79							
AUXILIARY																		
COUNTY	ROUTE LOCATION	TRU LOG	CHANNEL LINE	STOP LINE	TRANSVERSE DIAGONAL LINES		CROSS-WALK LINES	WORD ON PAVEMENT		LANE ARROWS				SYMBOL MARKINGS		ISLAND MARK-INGS	DOTTED LINES	COMMENTS
					WHITE	YELLOW		ONLY		TURN	TURN	THRU	COMB.	RxR	SCHOOL			
			FT	FT	FT	FT	FT	72"	96"	LEFT	RIGHT	EACH	EACH	EACH	EACH	EACH	72"	
TRU	I-80 EB OFF RAMP TO SALT SPRINGS ROAD	0.68	1241	40	335				5	6								
TRU	I-80 WB ON RAMP FROM SALT SPRINGS ROAD	0.682	244															
TRU	I-80 WB OFF RAMP TO SALT SPRINGS ROAD	1.353	1275	40	280				4	5								
TRU	I-80 EB ON RAMP FROM SALT SPRINGS ROAD	1.286	245															
TRU	I-80 EB OFF RAMP TO US 422	1.917	606	47	335													
TRU	I-80 WB ON RAMP FROM US 422	2.036	244															
TRU	I-80 WB OFF RAMP TO US 422	2.564	805	48	305				4	3	3							
TRU	I-80 EB ON RAMP FROM US 422	2.568	145															
TRU	I-80 EB TO NB SR II	3.144	580		353													
TRU	I-80 WB FROM SB SR II	3.100	323															
TRU	I-80 WB TO NB SR II	3.221	600		360													
TRU	I-80 EB FROM SB SR II	3.465	175															
TRU	I-80 EB TO LIBERTY ROAD	3.710	640	38	172				1	2	3						70	
TRU	I-80 WB FORM NB SR 193	4.013	205															
TRU	I-80 WB TO SR 193	4.520	454	35	252													
TRU	I-80 EB FROM SR 193	4.702	215															
TRU	I-80 WB ON RAMP FROM WEIGH STATION	6.846	235															
TRU	I-80 WB OFF RAMP TO WEIGH STATION	7.437	520		307													
TRU																		
TOTAL																		

26-APR-2006 12:23PM
t.perez
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PAVEMENT MARKING SUB-SUMMARY

TRU-80-5.20

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19

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CALCULATED
TJD
CHECKED
LB

PLAN No.

PAVEMENT MARKING SUB-SUMMARY

TRU-80-5.20

4
19

5 19 TRU-80-5.20	PAVEMENT MARKING SUB-SUMMARY	PLAN No.	CALCULATED
			TJD
			CHECKED
		LB	

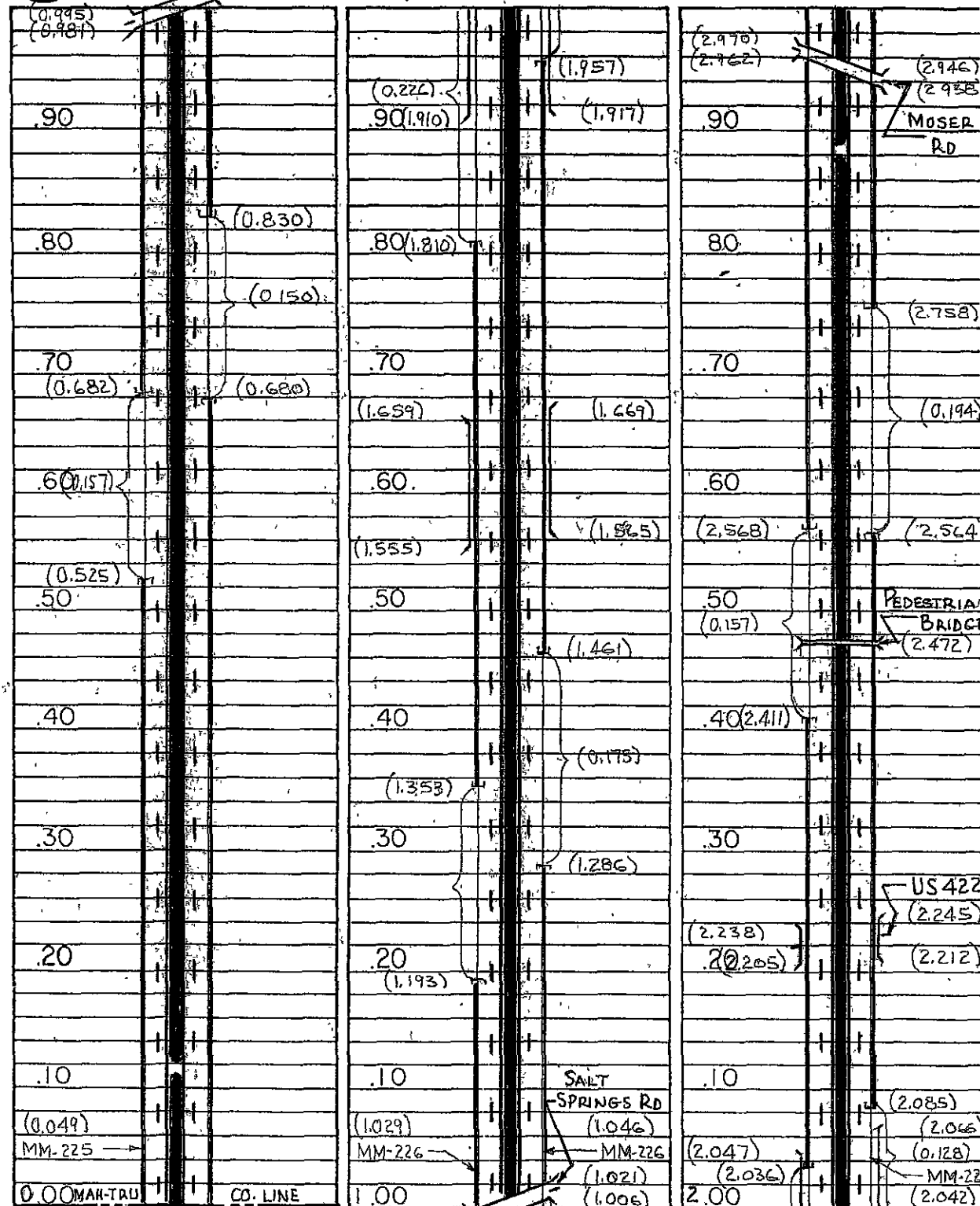
TS 54
DISTRICT 4

Center Line Log Record and Field Sheet

SHEET 1 OF 5

COUNTY TRUMBULL ROUTE 80

Total This Route = Yellow: Solid _____, Yellow: Dash _____, White: Dash _____
Equivalent Yellow _____



Yellow Solid _____ Dash _____
TOTAL YELLOW THIS PAGE SOLID _____, DASH _____, EQUIVALENT LINE _____

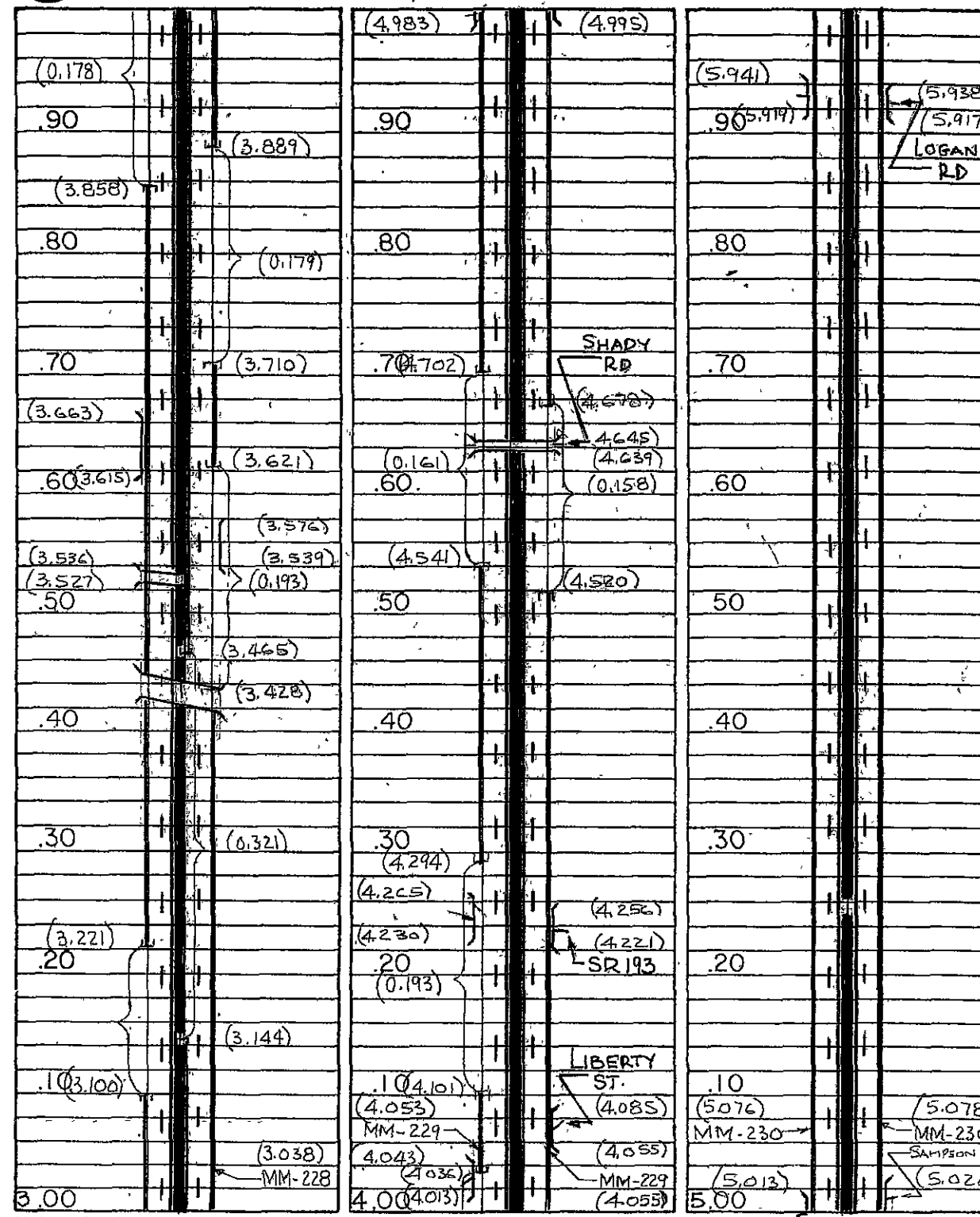
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DISTRICT 4

Center Line Log Record and Field Sheet

SHEET 2 OF 5

COUNTY TRUMBULL ROUTE 80

Total This Route = Yellow: Solid _____, Yellow: Dash _____, White: Dash _____
Equivalent Yellow _____

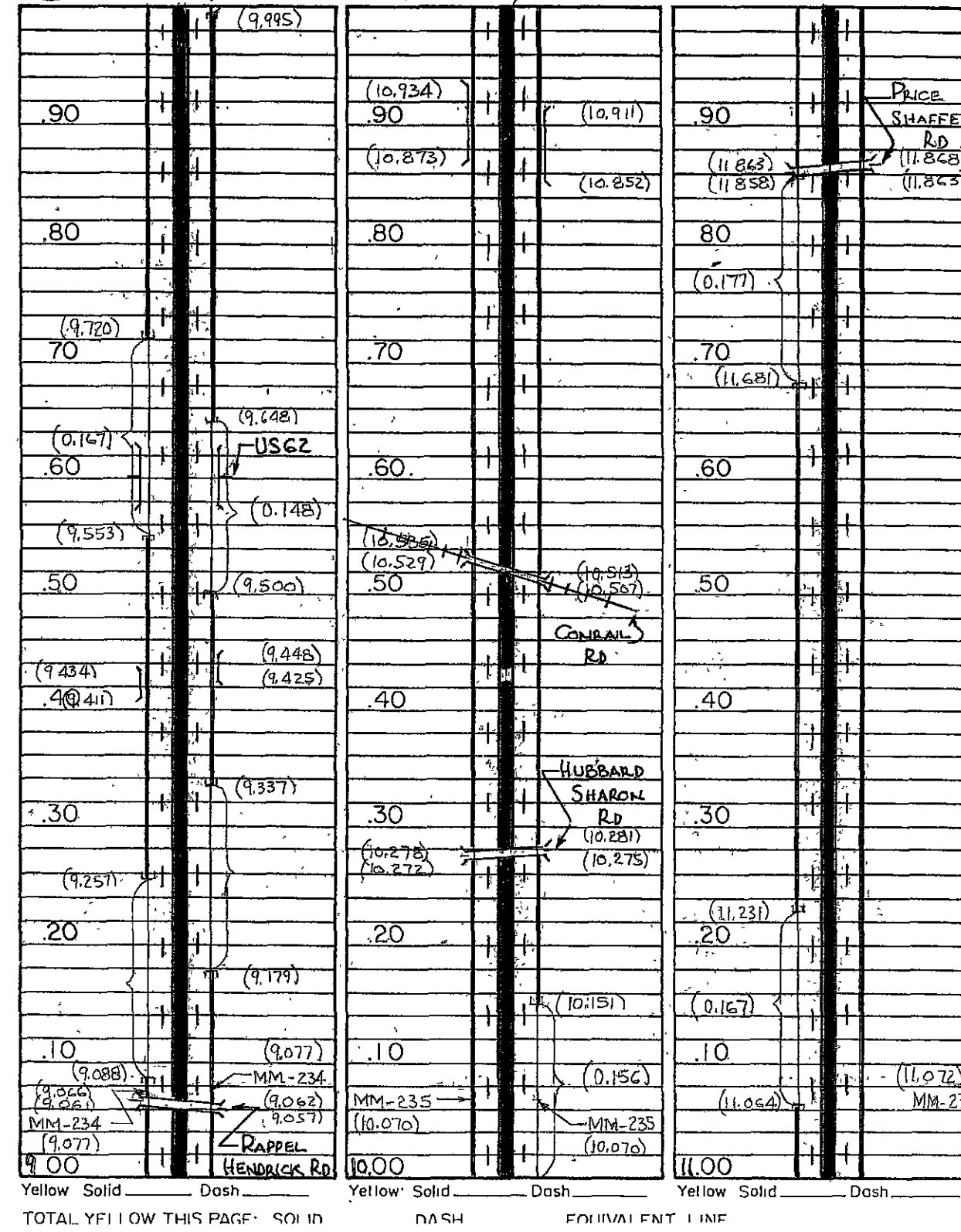


Yellow Solid _____ Dash _____
TOTAL YELLOW THIS PAGE SOLID _____, DASH _____, EQUIVALENT LINE _____

PAVEMENT MARKING DETAILS

TRU-80-5.20

6
19



TS 54
DISTRICT 4



Center Line Log Record and Field Sheet

COUNTY TRUMBULL ROUTE 80

SHEET 5 OF 5

Total This Route = Yellow: Solid _____, Yellow: Dash _____, White: Dash _____

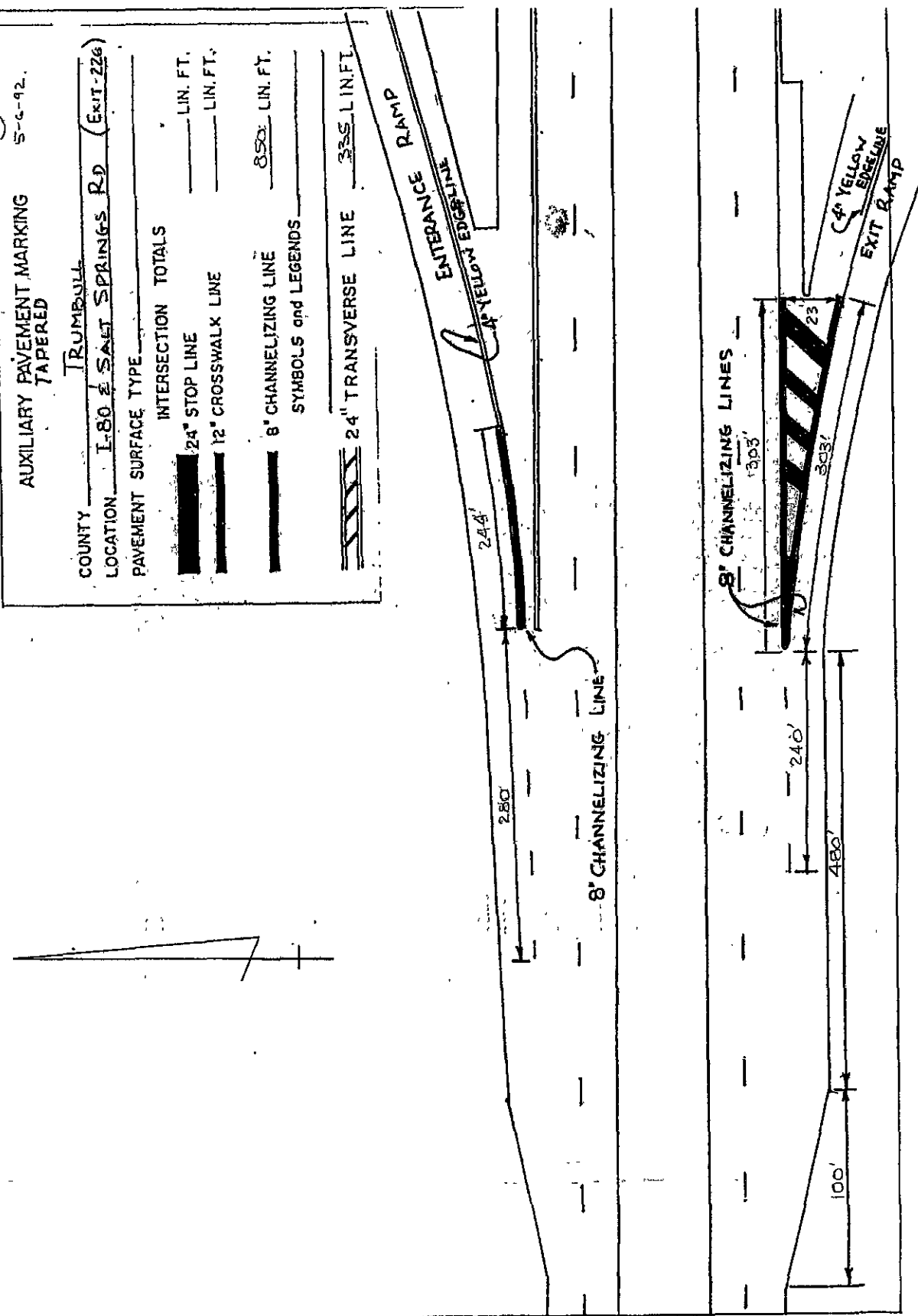
Equivalent Yellow _____

.90			.90			.90		
.80			.80			.80		
.70			.70			.70		
.60			.60			.60		
.50			.50			.50		
.40			.40			.40		
.30			.30			.30		
.20			.20			.20		
.10			.10			.10		
.00			.00			.00		

PENNA
OHIO
STATE LINE
STATE LINE

Yellow: Solid _____ Dash _____ Yellow: Solid _____ Dash _____ Yellow: Solid _____ Dash _____

TOTAL YELLOW THIS PAGE: SOLID _____ DASH _____ EQUIVALENT LINE _____

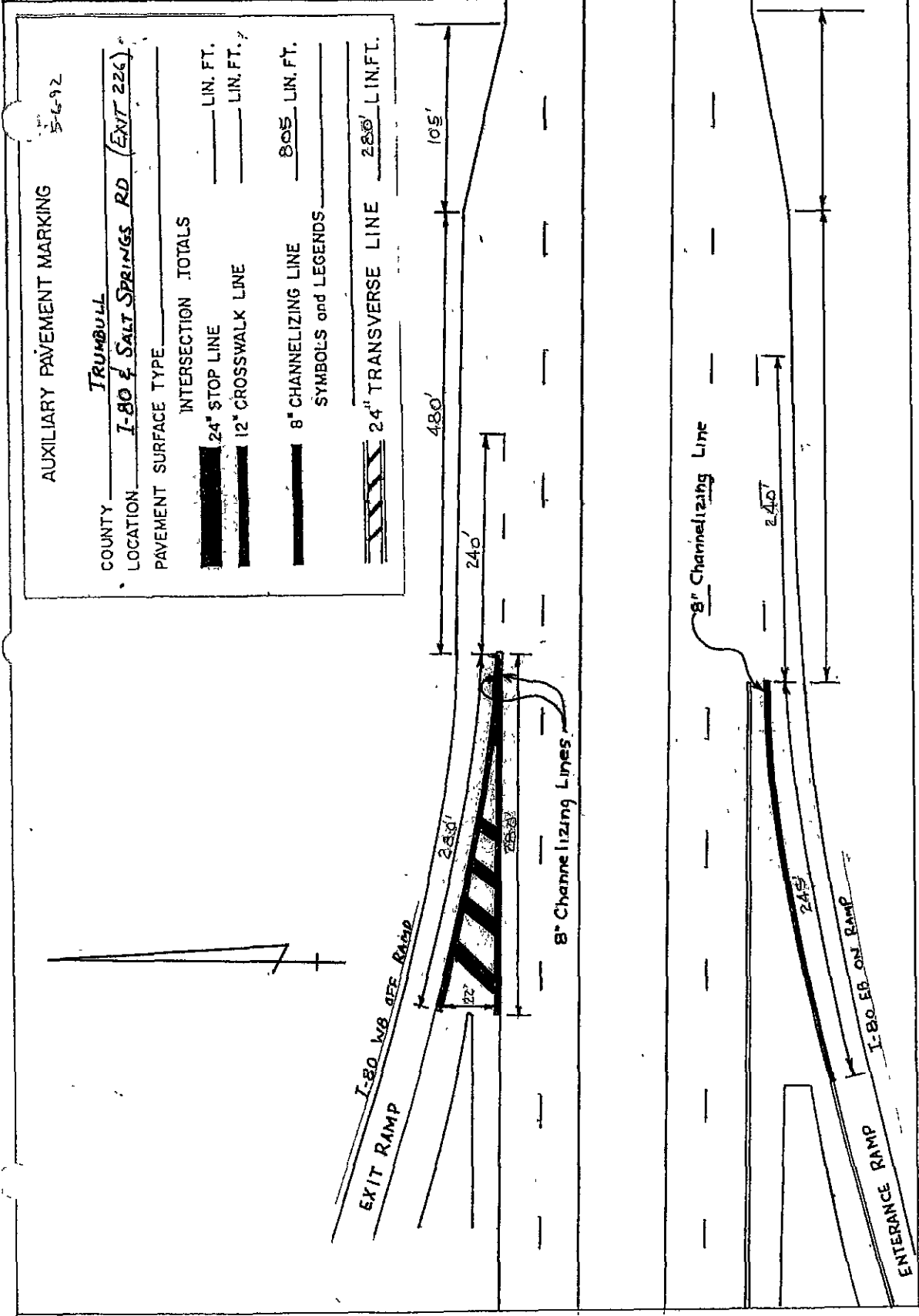
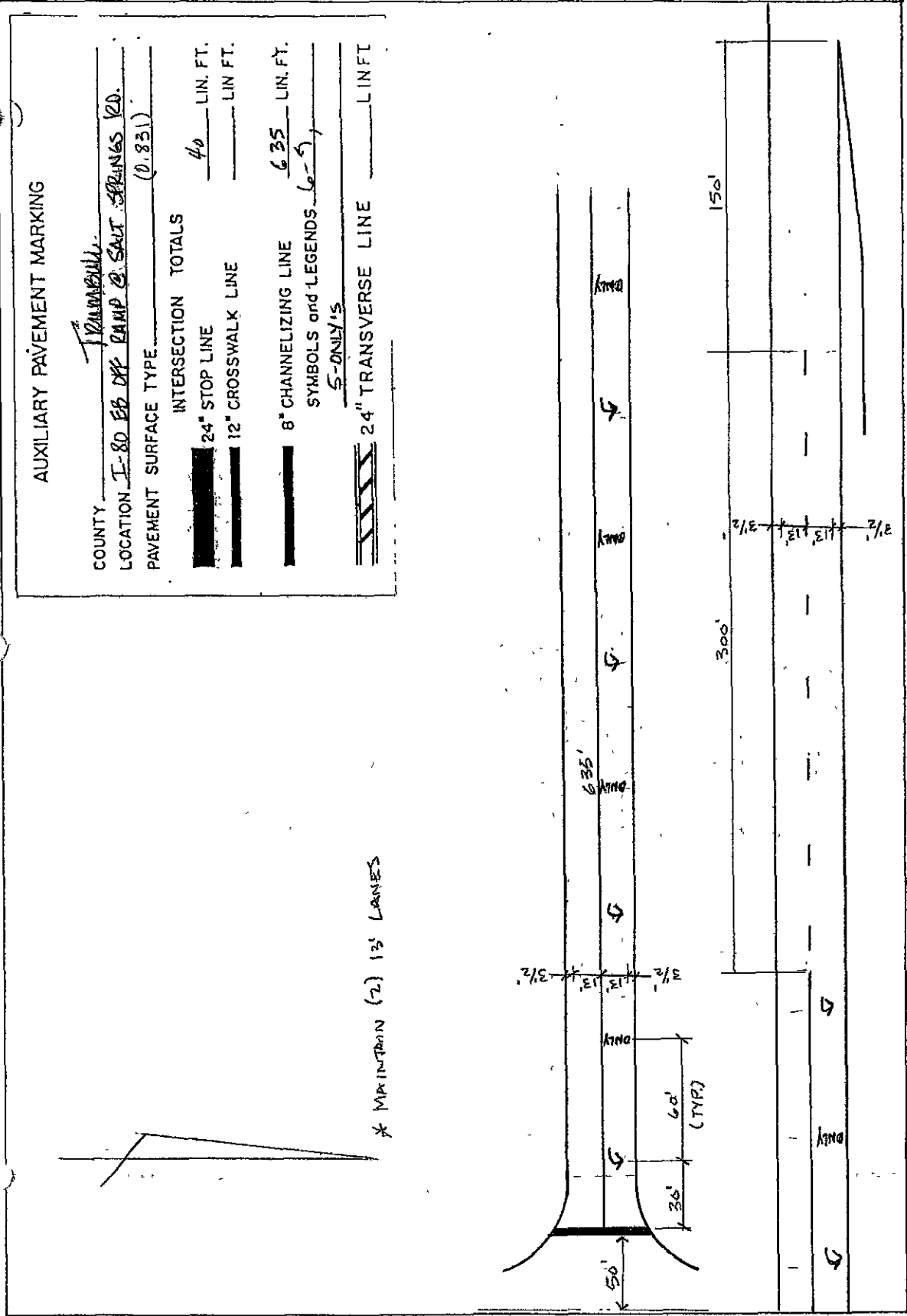


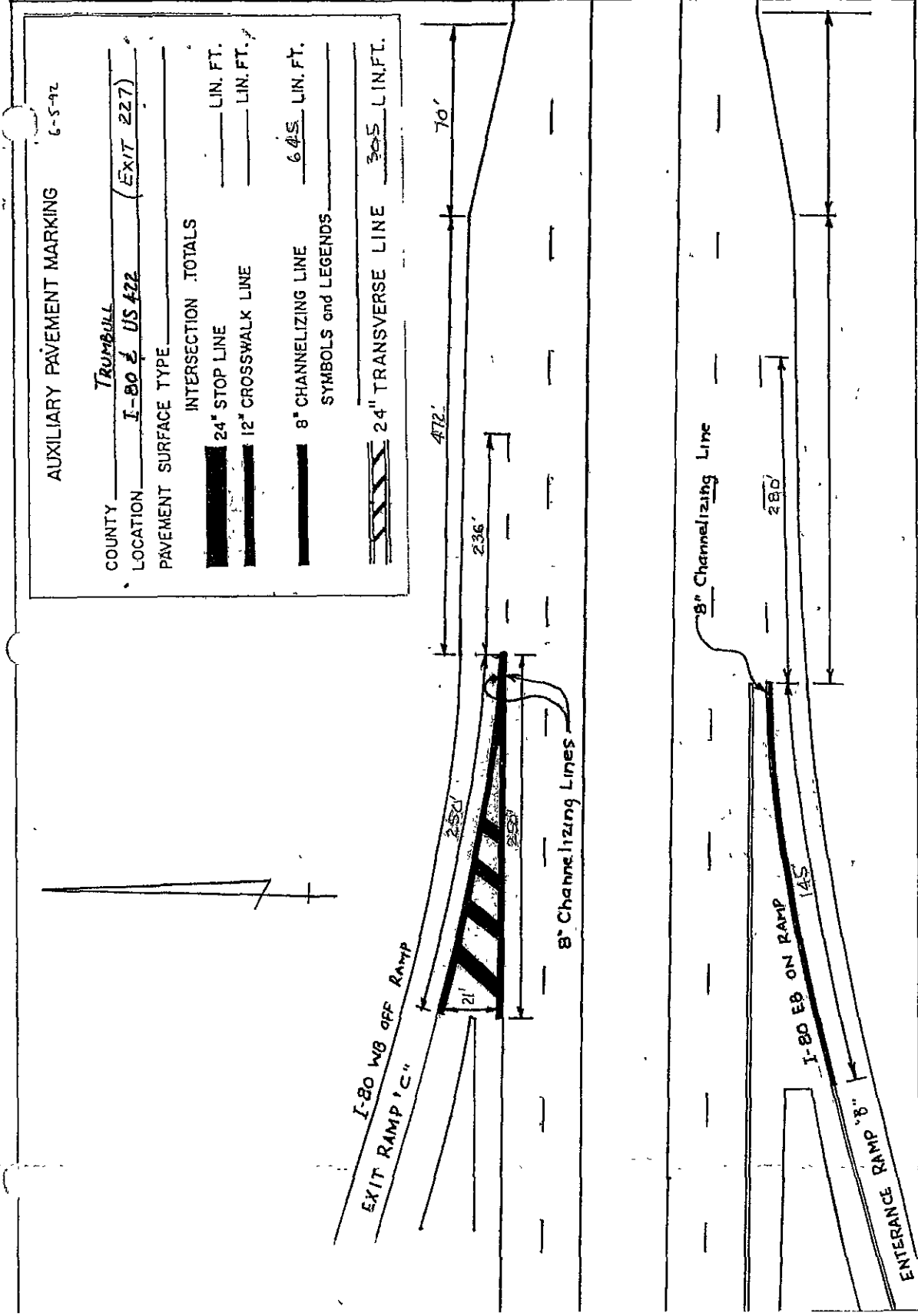
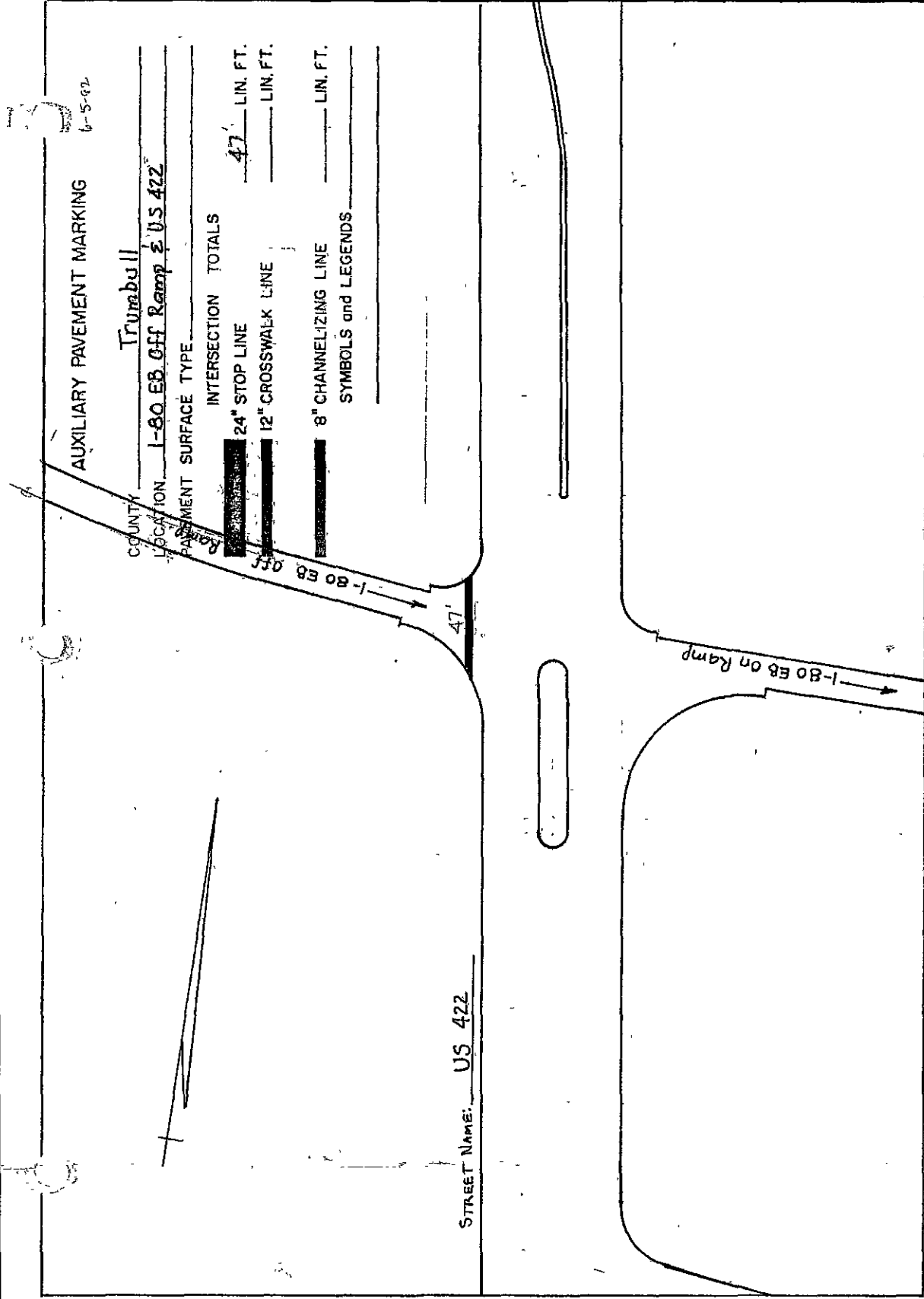
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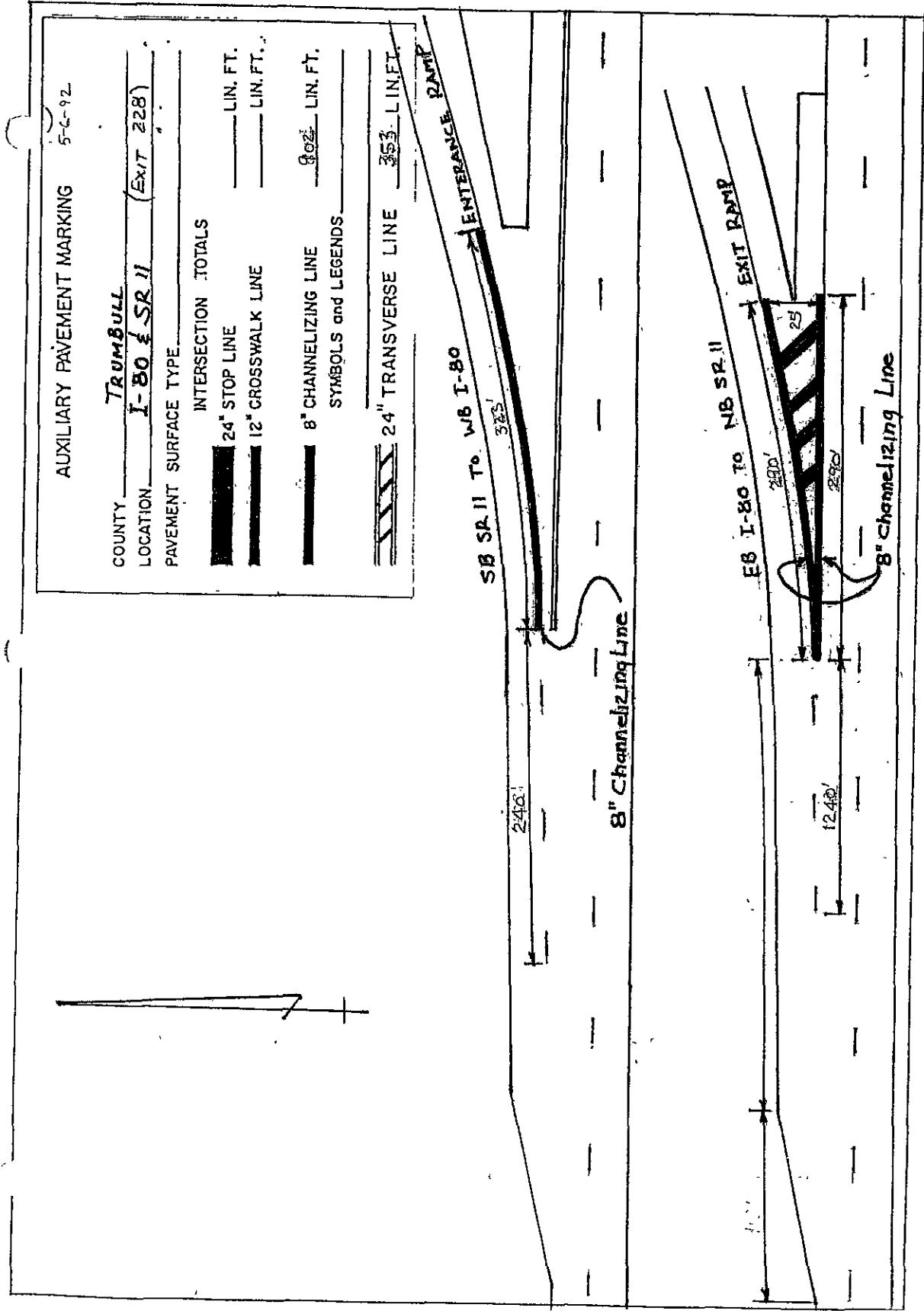
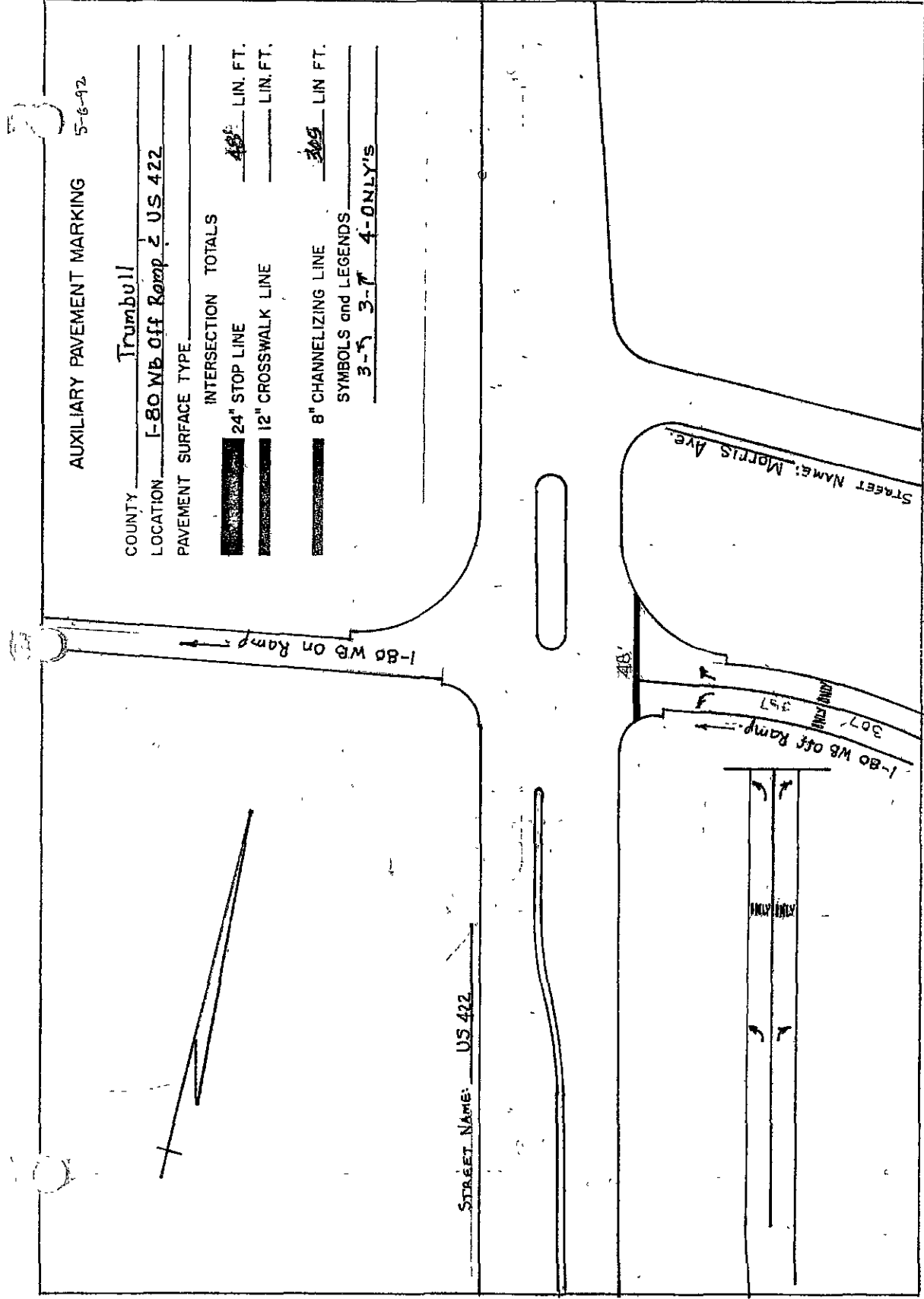
PAVEMENT MARKING DETAILS

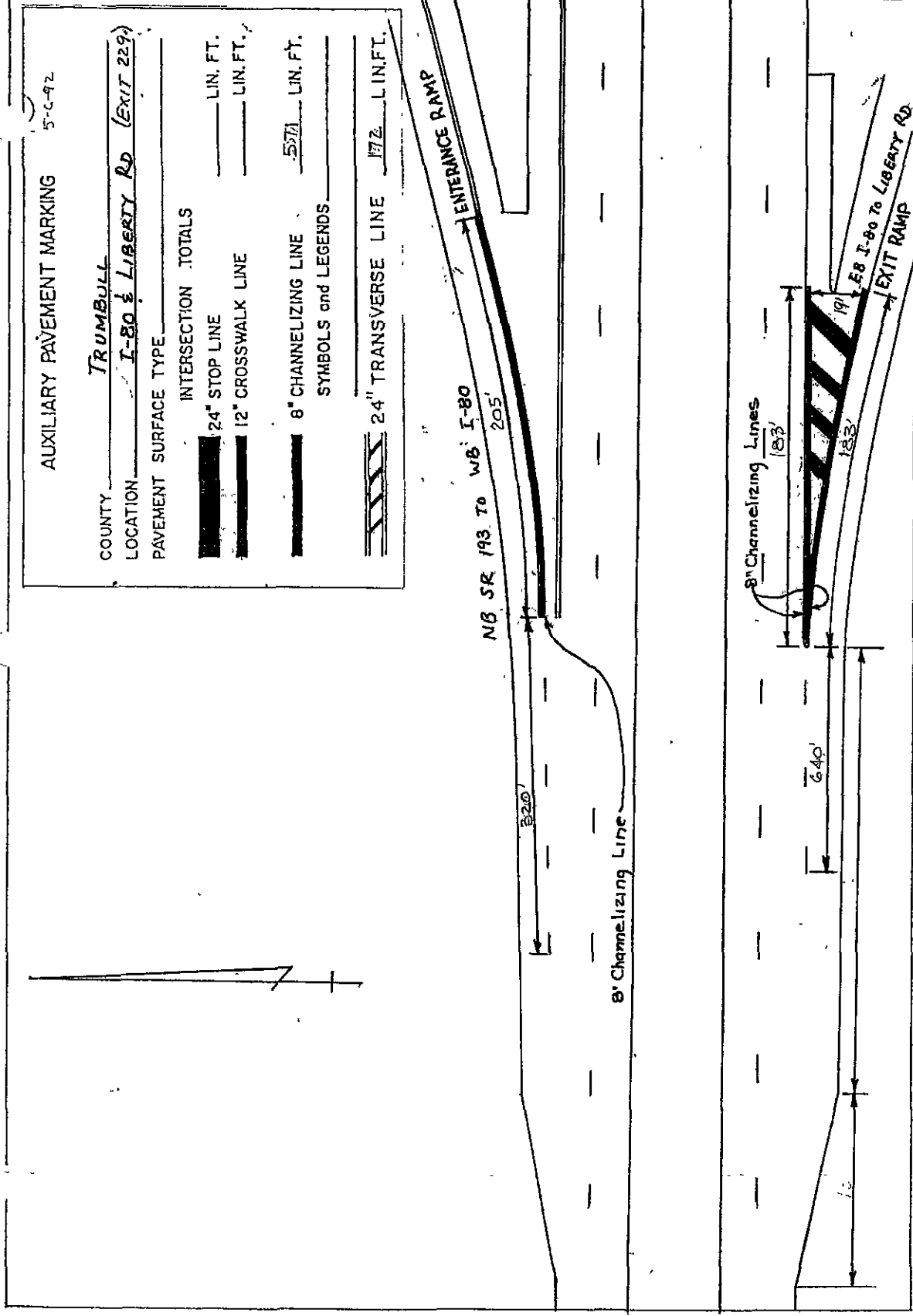
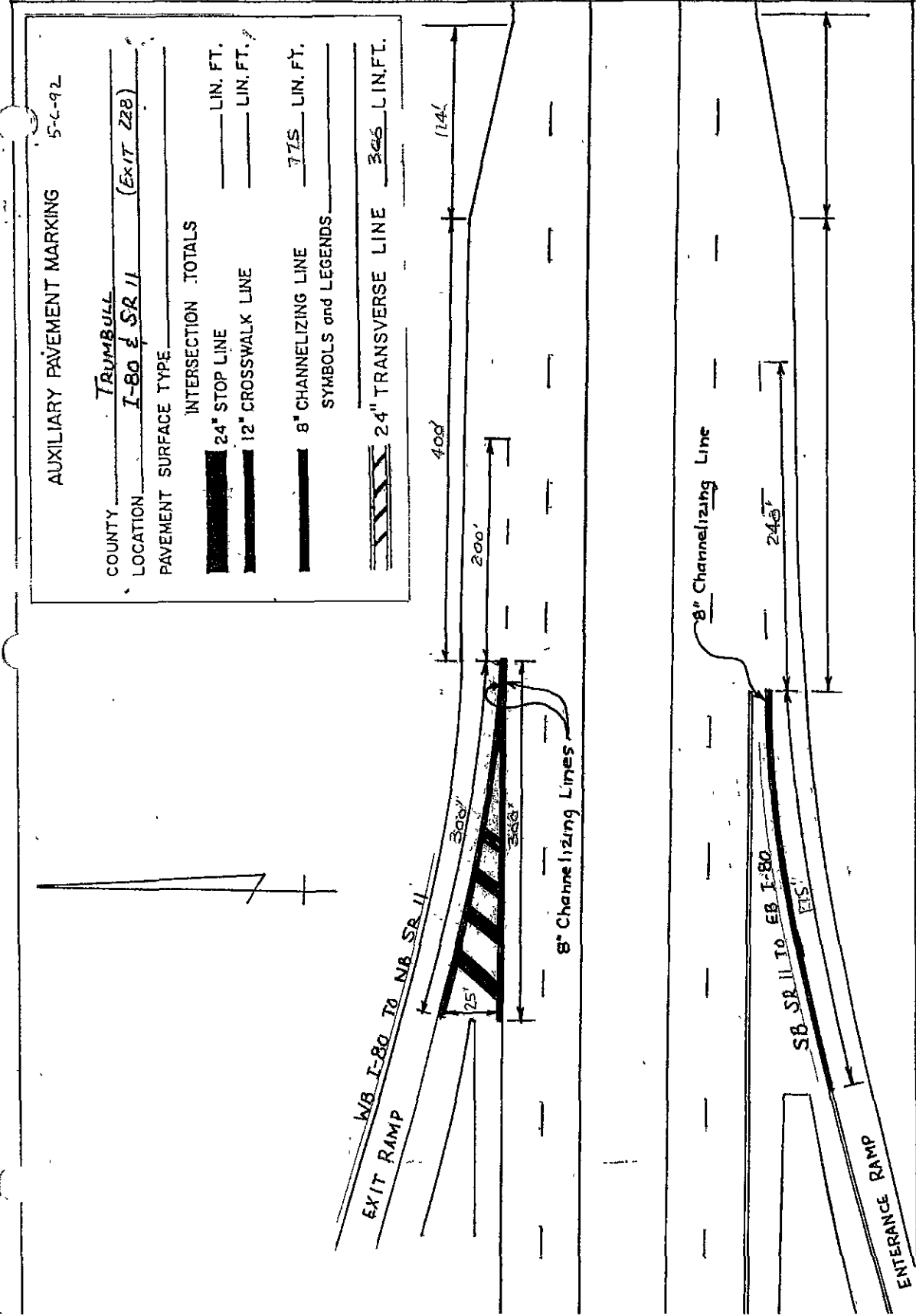
TRU-80-5.20

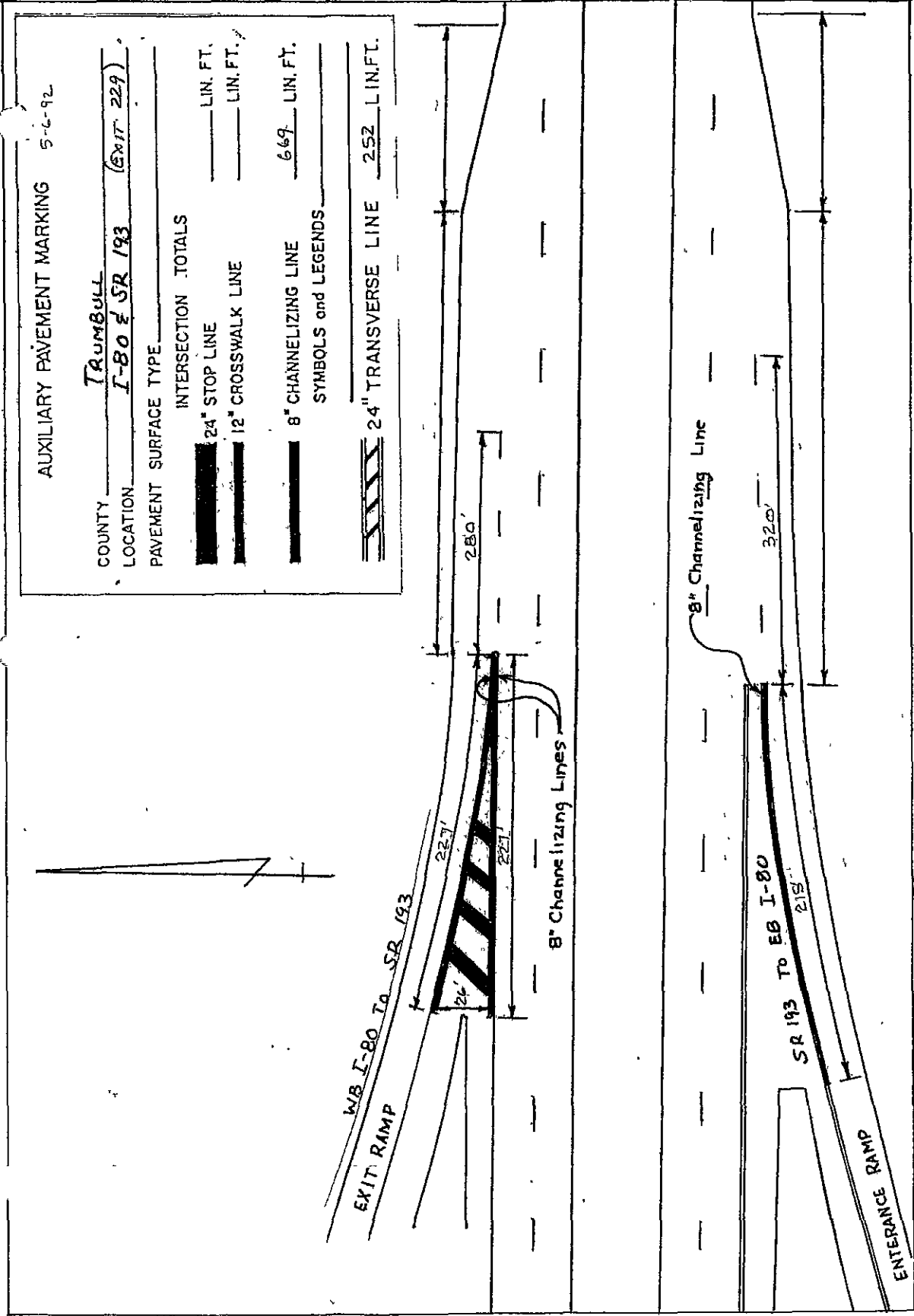
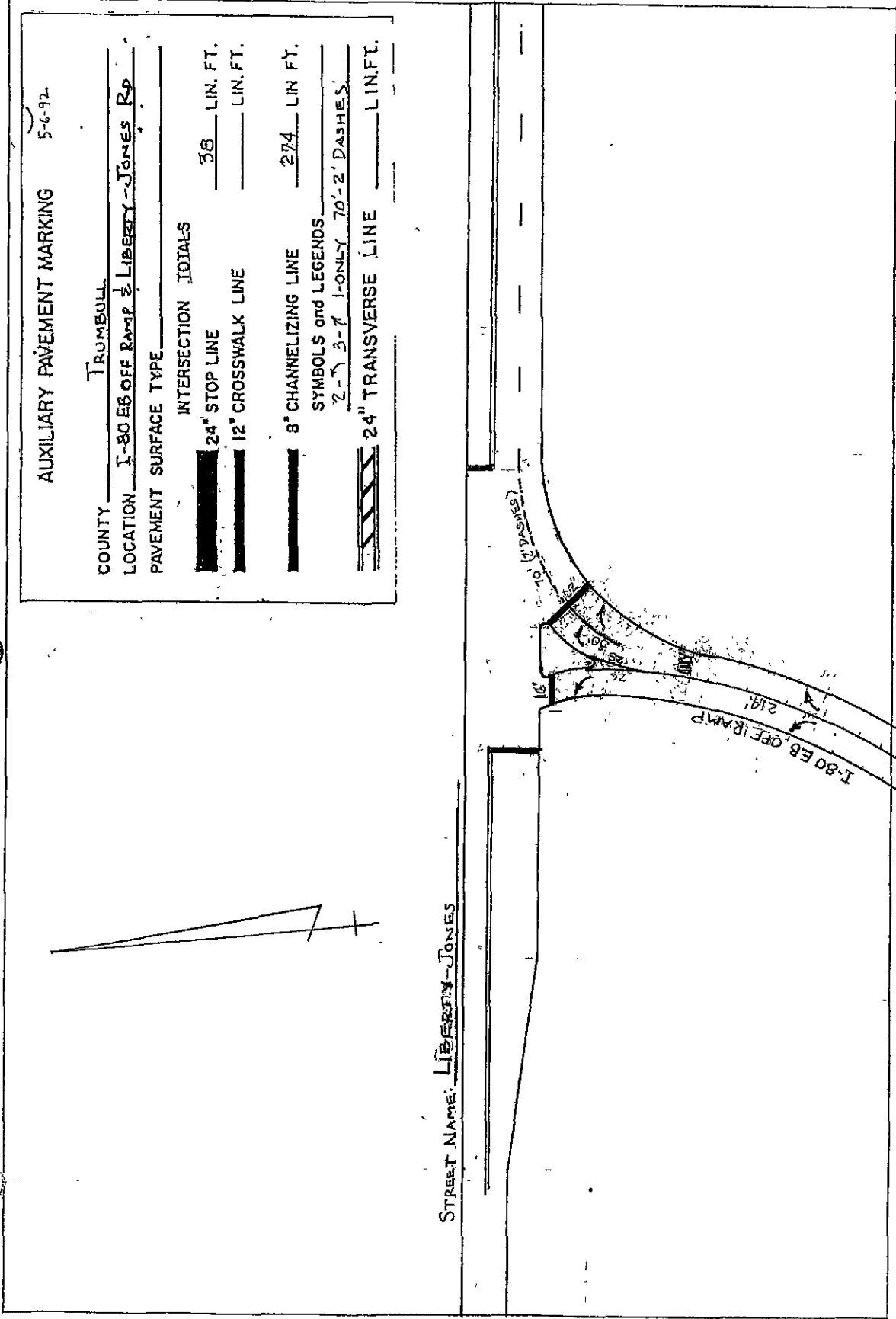
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19





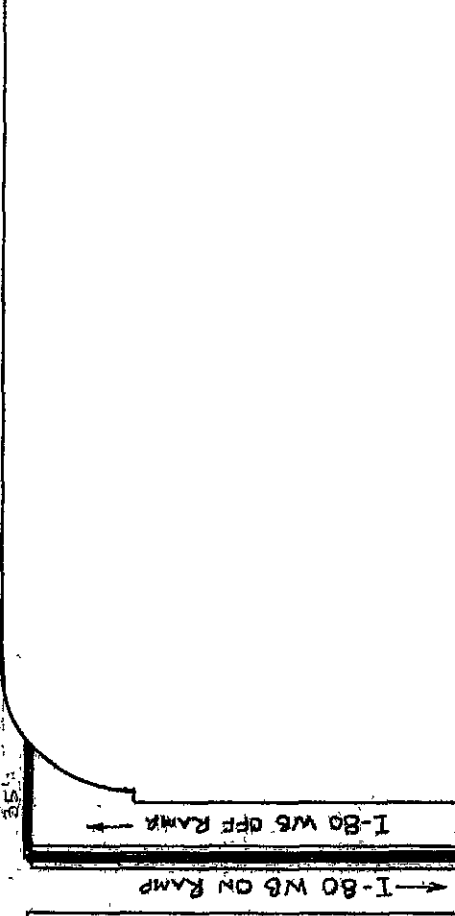
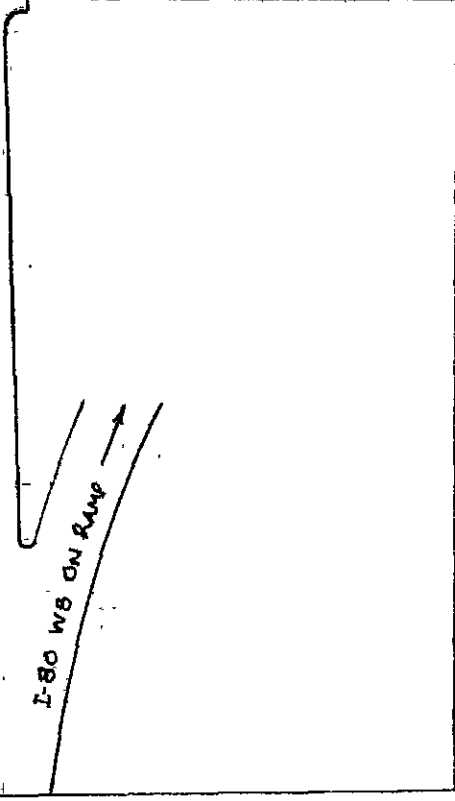






AUXILIARY PAVEMENT MARKING		5-6-92
COUNTY	TRUMBULL	
LOCATION	I-80 WB OFF RAMP & SR 193	
PAVEMENT SURFACE TYPE		
INTERSECTION TOTALS		
24" STOP LINE	35'	LIN. FT.
12" CROSSWALK LINE		LIN. FT.
8" CHANNELIZING LINE		LIN. FT.
SYMBOLS and LEGENDS		
24" TRANSVERSE LINE		LIN. FT.

STREET NAME: SR 193



AUXILIARY PAVEMENT MARKING		5-6-92
COUNTY	TRUMBULL	
LOCATION	I-80 & WEIGH STATION	
PAVEMENT SURFACE TYPE		
INTERSECTION TOTALS		
24" STOP LINE		LIN. FT.
12" CROSSWALK LINE		LIN. FT.
8" CHANNELIZING LINE	235	LIN. FT.
SYMBOLS and LEGENDS		
24" TRANSVERSE LINE		LIN. FT.

