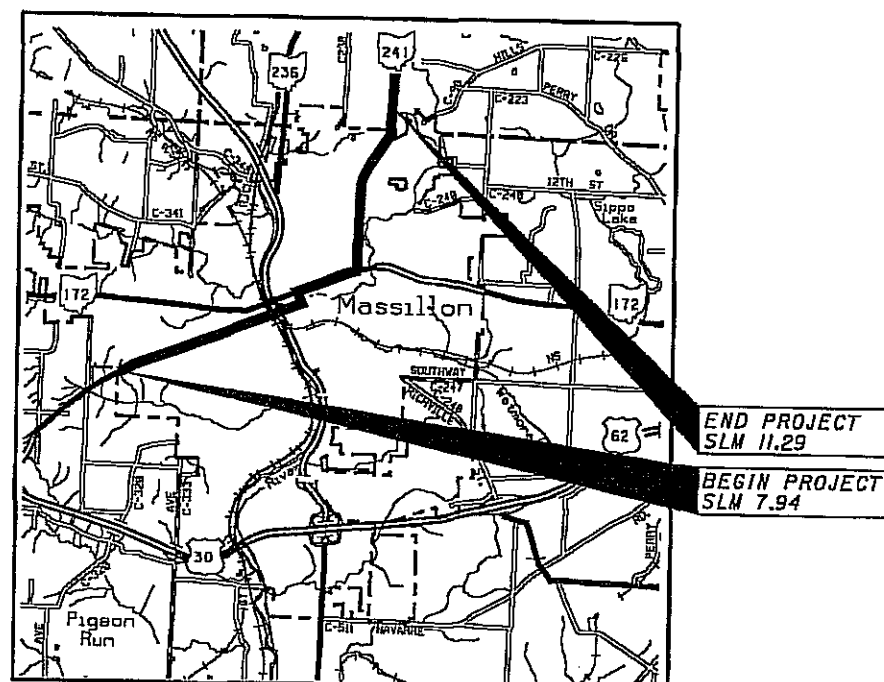




STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

STA-241-7.94

**CITY OF MASSILLON
STARK COUNTY**

PROJECT DESCRIPTION

IMPROVEMENT OF 2.45 MILES OF S.R. 241
BY PLANING AND RESURFACING, INCLUDING
PAVEMENT MARKING AND CURB REPAIR.

EARTH DISTURBED AREAS

PROJECT EDA - 0.00 ACRES
EST. CONTRACTOR EDA - N/A (MAINTENANCE PROJECT)
NOTICE OF INTENT EDA - N/A (MAINTENANCE PROJECT)

LOCATION MAP

LATITUDE: 40°47'47" LONGITUDE: 81°31'22"



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

DESIGN FUNCTIONAL CLASSIFICATION-
URBAN ARTERIAL

INDEX OF SHEETS:

TITLE SHEET	1
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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.

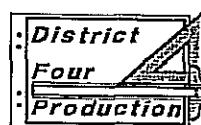
I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

UNDERGROUND UTILITIES

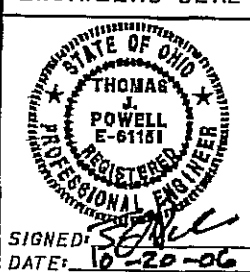
**TWO WORKING DAYS
BEFORE YOU DIG**

CALL 1-800-362-2764 (TOLL FREE)

**OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY**



ENGINEERS SEAL:



STANDARD CONSTRUCTION DRAWINGS

STANDARD CONSTRUCTION DRAWINGS							SUPPLEMENTAL SPECIFICATIONS
BP-3.I	7-16-04	MT-35.10	4-20-01	TC-41.20	1-19-01		800 10-20-06
BP-5.I	7-28-00	MT-95.31	9-05-06	TC-42.20	7-16-04		832 4/25/06
		MT-95.32	9-05-06	TC-52.10	4-20-01		
				TC-52.20	4-20-01		
		MT-97.10	9-05-06	TC-71.10	1-21-05		
RM-I.I	4-21-06	MT-97.11	9-05-06	TC-73.10	1-19-01		
		MT-99.20M	1-30-95	TC-82.10	4-19-02		
		MT-105.10	10-18-02				
I-1.2	7-15-05	MT-105.11	10-18-02				
DM-4.3	7-19-02						SPECIAL PROVISIONS
DM-4.4	7-19-02						

SPECIAL PROVISIONS

APPROVED _____
DATE 10-23-06 DISTRICT DEPUTY DIRECTOR

APPROVED *[Signature]*
DATE 11-20-06 DIRECTOR, DEPARTMENT OF
TRANSPORTATION

RAILROAD INVOLVEMENT

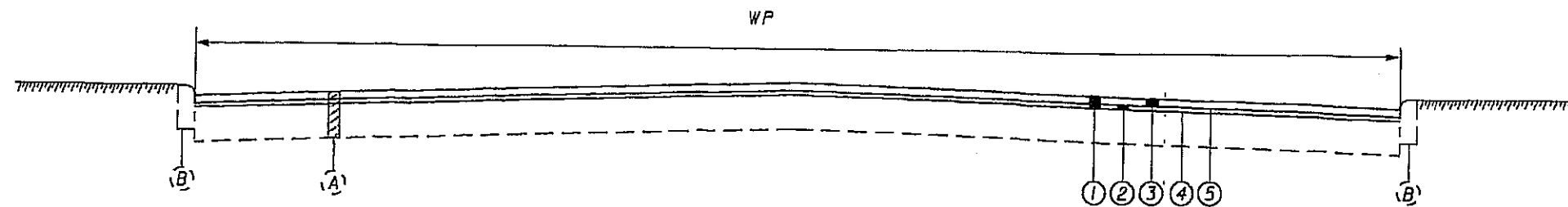
STA-241-7.94

FEDERAL PROJECT NO.

PID No.
25450

NON-FEDERAL

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SECTION APPLIES				
Route	SLM		Length (Miles)	WP (Feet)
	From	To		
241	7.94	8.86	0.92	47
241	8.86	8.96	0.10	60
TOTAL			1.02	

LEGEND

- ① 254, 2" PAVEMENT PLANING
- ② 448, 1 1/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I, PG64-22
- ③ 424, 3/4" FINE GRADED POLYMER ASPHALT CONCRETE, TYPE A
- ④ 407, TACK COAT
- ⑤ 407, TACK COAT FOR INTERMEDIATE COURSE

- (A) EXISTING ASPHALT PAVEMENT
- (B) EXISTING CURB

NOTES:
WP IS THE AVERAGE WIDTH OF PAVEMENT
EXCLUDING, TWO WAY LEFT TURN LANES,
MEDIANS, AND ONE WAY TURN LANES.

TYPICAL SECTIONS

STA-241-7.94

2
20

CALCULATED
LMB
SECTION
TJP

UTILITIES

THE CONTRACTOR SHALL USE THE FOLLOWING PROCEDURE AT EACH LOCATION WHERE WORK IS PERFORMED, IN ACCORDANCE WITH SECTIONS 105.07 AND 107.16 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS.

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, THE OHIO UTILITIES PROTECTION SERVICE (OUPS), THE OHIO & GAS PROCEDURES UNDERGROUND PROTECTION SERVICE (OGPUPS), THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 4 HEAD-QUARTERS AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION IN ALL AREAS.

OUPS 1-800-362-2764 (CONTACT LIMITED BASIS PARTICIPANTS DIRECTLY)

OGPUPS 1-800-925-0988

ODOT 330-786-3145 KEN GREENE

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE NOT SHOWN ON THE PLANS, BUT CAN BE OBTAINED FROM THE OWNERS OF THE UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

CONVERSION OF STANDARD CONSTRUCTION DRAWINGS

CONVERT THE METRIC STANDARD DRAWINGS REFERENCED IN THIS PLAN TO ENGLISH UNITS USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.02 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

CONVERSIONS WILL BE APPROPRIATELY PRECISE AND REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

PROFILE AND ALIGNMENT

THE PROPOSED PAVEMENT RESURFACING SHALL FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. THE PROPOSED ASPHALT CONCRETE OVERLAY SHALL BE AS SHOWN ON THE TYPICAL SECTIONS.

GRADING AND FILLING OPERATIONS

THE PLACEMENT OF COMPACTED AGGREGATE SHALL NOT EXTEND PAST THE EXISTING GRADED SHOULDERS. NO EXCAVATION, GRADING, OR FILLING OPERATIONS SHALL BE PERFORMED IN ANY WETLANDS OR STREAMS, UNLESS THE REQUIRED STATE AND/OR FEDERAL PERMITS HAVE BEEN OBTAINED IN ACCORDANCE WITH ALL APPLICABLE STATE AND/OR FEDERAL LAWS AND REGULATIONS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE EQUIPMENT AND/OR MATERIALS IN ANY WETLANDS OR STREAMS.

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

ITEM SPECIAL MISCELLANEOUS METAL

EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CASTINGS OF THE REQUIRED TYPE, SIZE AND STRENGTH (HEAVY OR LIGHT DUTY) FOR THE PARTICULAR STRUCTURE IN QUESTION. ALL MATERIAL SHALL MEET ITEM 604 OF THE SPECIFICATIONS AND SHALL HAVE THE PRIOR APPROVAL OF THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

SPECIAL, MISCELLANEOUS METAL 500 POUNDS

THE CONTRACTOR IS CAUTIONED TO USE EXTREME CARE IN THE REMOVAL, STORAGE, AND REPLACEMENT OF ALL EXISTING CASTINGS. CASTINGS DAMAGED BY THE NEGLIGENCE OF THE CONTRACTOR, AS DETERMINED BY THE ENGINEER, SHALL BE REPLACED WITH THE PROPER NEW CASTINGS AT THE EXPENSE OF THE CONTRACTOR.

QUANTITY
LMB
CUBIC
DAY

GENERAL NOTES

STA-241-7.94

3
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CURB RAMPS

CURB RAMPS AND TRUNCATED DOMES SHALL BE CONSTRUCTED ACCORDING TO THE PLAN INSERT SHEETS TITLED CURB RAMPS WITH TRUNCATED DOMES AT EVERY EXISTING ROAD INTERSECTION WITH CURBS. TRUNCATED DOMES WILL BE INSTALLED AT EVERY EXISTING ROAD INTERSECTION WITH SIDEWALK, EVEN IF THERE IS NO CURB.

UNLESS OTHERWISE DIRECTED BY THE ENGINEER, CURB RAMPS SHALL BE PERFORMED PRIOR TO MAINLINE RESURFACING.

THERE ARE AN ESTIMATED 48 LOCATIONS WITHIN THE PROJECT LIMITS REQUIRING CURB RAMPS WITH TRUNCATED DOMES TO BE INSTALLED.

THERE ARE AN ESTIMATED 3 SIDEWALK LOCATIONS WITHIN THE PROJECT LIMITS REQUIRING THE INSTALLATION OF TRUNCATED DOMES.

PAYMENT:

ITEM 202 - WALK REMOVED (FT), A QUANTITY OF 3264 SQ FT WILL BE CARRIED TO THE GENERAL SUMMARY.

ITEM 202 - CURB REMOVED (FT), A QUANTITY OF 529 FT WILL BE CARRIED TO THE GENERAL SUMMARY.

ITEM 608 - CURB RAMP, AS PER PLAN (SQ FT) SHALL INCLUDE THE COST OF FINISHING AND INSTALLING ALL MATERIALS (EXCEPT TRUNCATED DOMES), GRADING, FORMING, CURB AND FINISHING OF THE CURB AND WALK. A QUANTITY OF 2805 SQ FT WILL BE CARRIED TO THE GENERAL SUMMARY.

ITEM 608 - WALKWAY MISC. TRUNCATED DOMES (SQ FT) SHALL INCLUDE THE COST OF FINISHING AND INSTALLING TRUNCATED DOMES INCLUDING ALL MATERIALS, FORMING, AND FINISHING. A QUANTITY OF 454 SQ FT WILL BE CARRIED TO THE GENERAL SUMMARY.

ITEM 604 - MANHOLE ADJUSTED TO GRADE, AS PER PLAN

GRADE RINGS SHALL NOT BE USED TO ADJUST MANHOLES TO GRADE. ALL OTHER REQUIREMENTS SHALL STILL BE APPLICABLE.

ITEM 604 MANHOLE ADJUSTED TO GRADE, AS PER PLAN 2 EACH

ITEM 604 - CATCH BASIN ADJUSTED TO GRADE

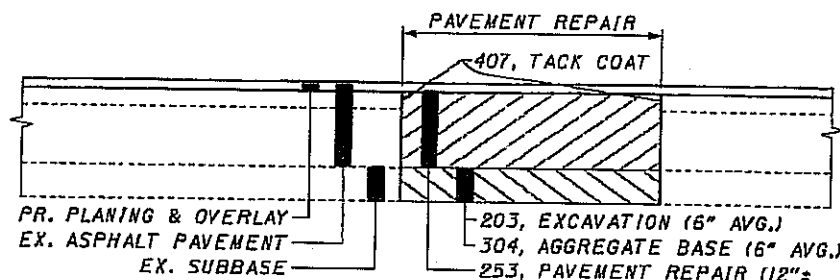
THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED, CARRIED TO THE GENERAL SUMMARY, AND SHALL BE USED AS DIRECTED BY THE ENGINEER.

ITEM 604 CATCH BASIN ADJUSTED TO GRADE 2 EACH

ITEM 253 - PAVEMENT REPAIR

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THIS ITEM SHALL CONSIST OF CUTTING AND REMOVING DETERIORATED PAVEMENT FULL DEPTH AND PLACING 12"± 301 ASPHALT CONCRETE BASE, PG64-22. THE MAXIMUM COMPACTED DEPTH OF ANY ONE LAYER SHALL BE 6 INCHES. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING. ALSO, THIS ITEM SHALL COMMENCE WITHIN 7 DAYS OF THE COMPLETION OF MAINLINE PAVEMENT PLANING. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REMOVED AND REPLACED TO THE LIMITS DESIGNATED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

253, PAVEMENT REPAIR, 100 SQ YD



ITEM 203 - EXCAVATION

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AND DISPOSING OF ALL UNSUITABLE MATERIAL BY EXCAVATING THE EXISTING SUBGRADE AND SUBBASE TO AN AVERAGE DEPTH OF 6 INCHES OR AS DIRECTED BY THE ENGINEER. EXACT LIMITS OF REMOVAL SHALL BE DETERMINED BY THE ENGINEER. ALL EQUIPMENT, LABOR, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203 EXCAVATION. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

203, EXCAVATION 17 CU. YD.

ITEM 304 - AGGREGATE BASE

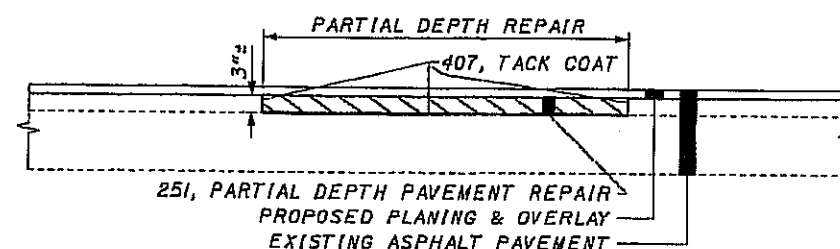
THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED AND SHALL BE USED AS DIRECTED BY THE ENGINEER TO BACKFILL AREAS WHICH WERE EXCAVATED UNDER ITEM 203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

304, AGGREGATE BASE 17 CU. YD.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THE ITEM SHALL CONSIST OF REPAIRING EXISTING LOCATIONS EXHIBITING SURFACE DETERIORATION AND PLACING 3"± OF ITEM 448 ASPHALT CONCRETE, TYPE 2. THE ASPHALT CONCRETE SHALL BE COMPACTED WITH A TYPE 1 PNEUMATIC TIRE ROLLER AND A STEEL WHEEL ROLLER AS PER 401.13. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING. ALSO, THIS ITEM SHALL COMMENCE WITHIN 7 DAYS OF THE COMPLETION OF MAINLINE PAVEMENT PLANING. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REPAIR. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

251, PARTIAL DEPTH PAVEMENT REPAIR, 100 SQ. YD.



GENERAL NOTES

STA-241-7.94

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MAINTENANCE OF TRAFFIC

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS AND RAMPS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

1. A MINIMUM OF ONE TEN FOOT BIDIRECTIONAL LANE SHALL BE MAINTAINED FOR TWO LANE SECTIONS AND A MINIMUM OF ONE TEN FOOT LANE IN EACH DIRECTION SHALL BE MAINTAINED FOR THREE OR MORE LANE SECTIONS ON THE EXISTING PAVEMENT OR COMPLETED PAVEMENT DURING CONSTRUCTION OF THE WORK.
2. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (330) 786-2211, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.
3. CONES SHALL NOT BE ACCEPTABLE TRAFFIC CONTROL DEVICES FOR LANE RESTRICTIONS OR LANE REDUCTIONS THAT ARE IN OPERATION ONE-HALF HOUR AFTER SUNSET OR ONE HALF-HOUR BEFORE SUNRISE. ALL NIGHTTIME LANE RESTRICTIONS SHALL REQUIRE DRUMS OR BARRICADES AT A MAXIMUM SPACING OF FIFTY (50) FEET. WEIGHTED CHANNELIZERS MAY BE USED IN ACCORDANCE WITH THE ADDITIONAL NOTE HEREIN.
4. LANE RESTRICTIONS OR LANE REDUCTIONS SHALL NOT BE PERMITTED AFTER NORMAL WORKING HOURS. NORMAL WORKING HOURS SHALL BE THOSE HOURS DURING WHICH THE CONTRACTOR HAS A FULL COMPLEMENT OF EMPLOYEES AND EQUIPMENT ACTIVELY REMOVING AND/OR PLACING PAVEMENT MATERIALS.
5. THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN AND SUBSEQUENTLY REMOVE ALL FLAGS, BARRICADES, SIGNS, SIGN SUPPORTS AND FURNISH AND MAINTAIN ALL FLAGGERS, WATCHERS AND INCIDENTALS RELATED THERETO.
6. ALL FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT OPERATIONS SHALL BE COMPLETED THE SAME DAY THE EXCAVATION IS MADE. IF THE CONTRACTOR CANNOT COMPLETE THE WORK, THE EXCAVATION SHALL BE BACKFILLED.
7. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO HAVE SUCCESSIVE WORK ZONES UNLESS THE DISTANCE BETWEEN THE DRUMS, BARRICADES OR CONES EXCEEDS ONE (1) MILE.
8. NO WORK SHALL BE PERFORMED BETWEEN 10PM AND 6AM DAILY.
9. IN ADDITION TO THE REQUIREMENTS OF 614 WORK ZONE PAVEMENT MARKINGS (614.11), AT THE END OF EACH DAY OF WORK, THE CONTRACTOR SHALL REPLACE (WITH TEMPORARY MARKINGS) ALL LANE, CENTER, CHANNELIZING, AND STOP LINES THAT WERE REMOVED OR COVERED DURING THE PAVEMENT REMOVAL OR PLACEMENT OPERATIONS. QUANTITIES FOR SUCH REPLACEMENT ARE CARRIED AS PART OF THE ITEMS LISTED UNDER 614 WORK ZONE PAVEMENT MARKINGS.
10. A QUANTITY OF 20 CU. YDS. OF 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC SHALL BE PROVIDED FOR USE IN MAINTAINING PAVEMENT, SHOULDERS AND OTHER LOCATIONS PRIOR TO RESURFACING, AS DIRECTED BY THE ENGINEER.
11. PRIOR TO OPENING TO TRAFFIC, EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND SHOULDER WIDTH AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.

MAINTENANCE OF TRAFFIC (CONTINUED)

12. A QUANTITY OF ITEM 614 WORK ZONE MARKING SIGN HAS BEEN INCLUDED IN THE PLAN. THIS QUANTITY SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING SIGNS: W8-1 (BUMP), W8-3 (TWO-WAY TRAFFIC), W8-11 (UNEVEN LANES SYMBOL). THESE QUANTITIES SHALL BE AS PER 614.04.

THE FOLLOWING QUANTITIES SHALL BE USED FOR THE MAINTENANCE OF TRAFFIC ON THIS PROJECT:

PLANED SURFACE

ITEM 614 WORK ZONE CENTER LINE, CLASS II	1.02 MILE
ITEM 614 WORK ZONE LANE LINE, CLASS II	0.06 MILE
ITEM 614 WORK ZONE CHANNELIZING LINE, CLASS I	900 FT
ITEM 614 WORK ZONE STOP LINE CLASS I,	363 FT
ITEM 614 WORK ZONE MARKING SIGN (ALL PHASES)	6 EACH

INTERMEDIATE COURSE

ITEM 614 WORK ZONE CENTER LINE, CLASS II	1.02 MILE
ITEM 614 WORK ZONE LANE LINE, CLASS II	0.06 MILE
ITEM 614 WORK ZONE CHANNELIZING LINE, CLASS I	900 FT
ITEM 614 WORK ZONE STOP LINE CLASS I,	363 FT

SURFACE COURSE

ITEM 614 WORK ZONE CENTER LINE, CLASS II	1.02 MILE
ITEM 614 WORK ZONE LANE LINE, CLASS II	0.06 MILE
ITEM 614 WORK ZONE CHANNELIZING LINE, CLASS I	900 FT
ITEM 614 WORK ZONE STOP LINE CLASS I,	363 FT

WEIGHTED CHANNELIZERS

THE WEIGHTED CHANNELIZER SHALL BE PREDOMINATELY ORANGE IN COLOR AND SHALL BE MADE OF A LIGHTWEIGHT, FLEXIBLE, AND DEFORMABLE MATERIAL. THEY SHALL BE AT LEAST 42 INCHES IN HEIGHT WITH A WEIGHTED BASE. THEY MAY HAVE A "HANDLE" OR LIFTING DEVICE WHICH EXTENDS ABOVE THE 42" MINIMUM HEIGHT.

THE MARKINGS ON THE WEIGHTED CHANNELIZER SHALL BE HORIZONTAL, CIRCUMFERENTIAL, ALTERNATING ORANGE AND WHITE RETROREFLECTIVE STRIPES 6 INCHES WIDE. EACH WEIGHTED CHANNELIZER SHALL HAVE A MINIMUM OF TWO ORANGE AND TWO WHITE STRIPES. ANY NON-RETROREFLECTIVE SPACES BETWEEN THE HORIZONTAL ORANGE AND WHITE STRIPES SHALL NOT EXCEED 2 INCHES WIDE. THE WEIGHTED CHANNELIZER SHALL HAVE A 4-INCH MINIMUM WIDTH, REGARDLESS OF ORIENTATION.

ON FREEWAYS AND MULTILANE HIGHWAYS:

USE OF WEIGHTED CHANNELIZERS ON FREEWAYS AND MULTILANE HIGHWAYS SHALL BE LIMITED TO SHORT-TERM OPERATION, GENERALLY TWELVE HOURS OR LESS, FOR EITHER DAY OR NIGHT. UPON COMPLETION OF WORK WITHIN THE ABOVE NOTED TIME PERIOD, THE WEIGHTED CHANNELIZERS SHALL BE REMOVED. THE WEIGHTED CHANNELIZERS MAY AGAIN BE PLACED ON THE HIGHWAY WHEN THE WORK IS TO RESUME ON THE FOLLOWING DAY OR NIGHT. ANY LANE CLOSURE USING CHANNELIZATION DEVICES, EXPECTED TO REMAIN FOR MORE THAN TWELVE HOURS, SHALL REQUIRE THE USE OF DRUMS OR BARRIERS.

WHEN USED AT NIGHT, WEIGHTED CHANNELIZERS SHALL ONLY BE PLACED IN THE "TANGENT AREA". THE "TANGENT AREA" IS DEFINED AS THE AREA AFTER THE TRANSITION TAPER WHERE THE WORK TAKES PLACE. DRUMS SHALL BE USED IN THE TRANSITION TAPERS FOR NIGHT OPERATIONS.

ON OTHER HIGHWAYS:

THERE ARE NO DURATIONS OF WORK RESTRICTIONS FOR USE OF WEIGHTED CHANNELIZERS ON ALL OTHER TYPES OF HIGHWAYS, DAY OR NIGHT. ON THESE ROADWAYS THE WEIGHTED CHANNELIZER MAY BE USED IN THE TRANSITION TAPERS AS WELL AS IN THE TANGENT AREAS, DAY OR NIGHT.

MAXIMUM SPACING OF THE WEIGHTED CHANNELIZER SHALL BE 40 FEET.

STEPS SHOULD BE TAKEN TO ENSURE THAT THE WEIGHTED CHANNELIZERS WILL NOT BE BLOWN OVER OR DISPLACED BY WIND OR MOVING TRAFFIC. BALLASTS SHOULD NOT PRESENT A HAZARD IF THE WEIGHTED CHANNELIZERS ARE INADVERTENTLY STRUCK, NOR SHOULD THEY AFFECT THE VISIBILITY OF THE WEIGHTED CHANNELIZERS. ALL BALLASTS USED SHOULD BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

CONTRACTOR'S EQUIPMENT - OPERATION AND STORAGE

A QUALIFIED FLAGGER SHALL BE EMPLOYED WHERE THE CONTRACTOR'S EQUIPMENT MUST MERGE WITH THE TRAFFIC STREAM. THE CONTRACTOR'S EQUIPMENT SHALL BE EQUIPPED WITH AT LEAST ONE AMBER FLASHING LIGHT. THE EQUIPMENT SHALL BE STORED AT A STORAGE AREA OUTSIDE THE R/W, THE LOCATION OF WHICH SHALL HAVE PRIOR APPROVAL OF THE ENGINEER. WHEN PARKING ALONG THE HIGHWAY, THE EQUIPMENT SHALL BE PLACED AND DELINEATED AS PER 614.03. NO EQUIPMENT SHALL BE PARKED IN THE MEDIAN OF THE HIGHWAY. ADEQUATE BARRICADES AND LIGHTS SHALL BE PLACED ON THE PAVEMENT SIDE OF THE EQUIPMENT TO IDENTIFY THE LIMITS OF THE EQUIPMENT. ALL OTHER EQUIPMENT, INCLUDING PRIVATE VEHICLES, SHALL BE STORED AT THE APPROVED CONTRACTOR'S STORAGE AREA. NO EQUIPMENT SHALL BE PARKED ON PRIVATE PROPERTY UNLESS PRIOR APPROVAL OF THE OWNER AND THE PROJECT ENGINEER/SUPERVISOR HAS BEEN GRANTED.

TRAFFIC CONTROL INSPECTOR

THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE ENGINEER, TO CONTINUOUSLY INSPECT ALL TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS OF THE PROJECT. THE DESIGNATED INDIVIDUAL SHALL ALSO INSPECT ALL TRAFFIC DEVICES AT THE BEGINNING AND AT THE END OF EACH WORK DAY. THE DESIGNATED INDIVIDUAL OR A QUALIFIED REPRESENTATIVE SHALL ALSO BE AVAILABLE ON AN AROUND THE CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. THESE INDIVIDUALS SHALL BE EQUIPPED WITH CELLULAR PHONES AND THEIR NAMES AND PHONE NUMBERS SHALL BE GIVEN TO THE PROJECT ENGINEER AT THE PRE-CONSTRUCTION MEETING. THE DESIGNATED INDIVIDUAL MAY HAVE OTHER CONSTRUCTION RELATED DUTIES AS LONG AS IMMEDIATE ATTENTION IS GIVEN TO TRAFFIC CONTROL. PAYMENT FOR THE SERVICES OF THE TRAFFIC CONTROL INSPECTOR SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

ADVANCE NOTICE TO PAVE

THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE DISTRICT CONSTRUCTION ENGINEER A DETAILED SCHEDULE 15-DAYS PRIOR TO THE PLACEMENT OF THE OVERLAY COURSES, ON HOW THEY PROPOSE TO PROSECUTE THE PAVING OPERATIONS. THE DETAILS SHALL SHOW THE ORDER OF PERFORMANCE OF EACH STAGE (START TO FINISH) OF THE WORK INCLUDING THE MAINTENANCE OF TRAFFIC THAT WILL BE USED.

WINTER TRAFFIC LIMITATIONS

ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC BETWEEN NOVEMBER 15 AND APRIL 1. NOVEMBER 14 SHALL BE CONSIDERED TO CONSTITUTE AN INTERIM COMPLETION DATE AND LIQUIDATED DAMAGES AS SPECIFIED IN 108.07 SHALL BE ASSESSED FOR EACH CALENDAR DAY THAT THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT. THE CONTRACTOR MAY CLOSE LANES PRIOR TO APRIL 1 WITH WRITTEN APPROVAL FROM THE DISTRICT CONSTRUCTION ENGINEER.

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ITEM 614 - MAINTAINING TRAFFIC

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

CHRISTMAS NEW YEARS
MEMORIAL DAY FOURTH OF JULY
LABOR DAY THANKSGIVING

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF THE WEEK	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 12:00N MONDAY
MONDAY	12:00N FRIDAY THROUGH 12:00N TUESDAY
TUESDAY	12:00N MONDAY THROUGH 12:00N WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 12:00N THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 12:00N MONDAY
FRIDAY	12:00N THURSDAY THROUGH 12:00N MONDAY
SATURDAY	12:00N FRIDAY THROUGH 12:00N MONDAY

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY-WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA-WIDE.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN ACCORDANCE WITH 108.07.

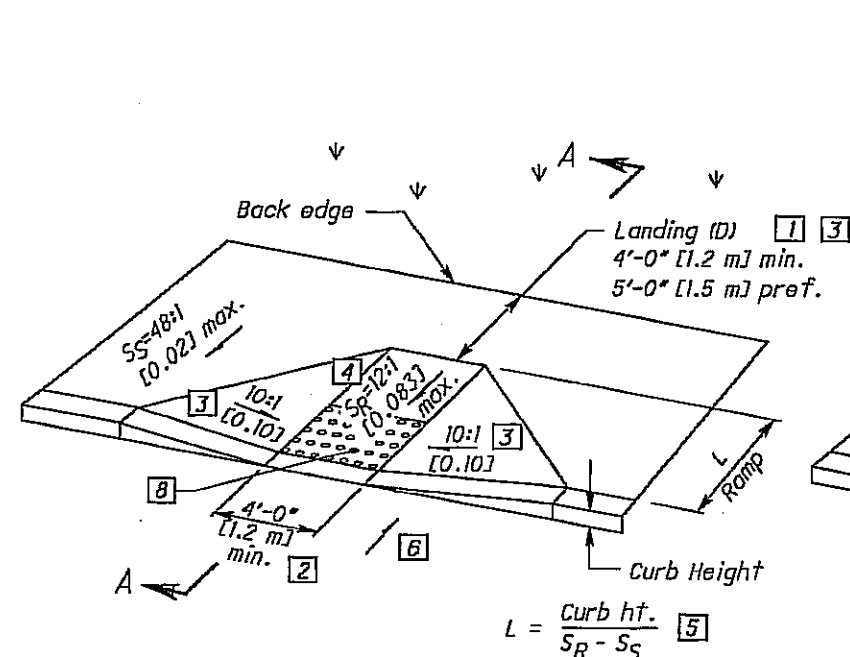
LOOP DETECTOR REPLACEMENT

THE CONTRACTOR SHALL CONTACT THE DISTRICT OFFICE (330-786-3146) THREE WORKING DAYS PRIOR TO ANY PLANING OR TRENCHING AT THE INTERSECTIONS LISTED BELOW. LOOP DETECTORS DISTURBED BY PAVEMENT PLANING OR TRENCHING SHALL BE ABANDONED IN PLACE. THE LOOP DETECTOR WIRE WILL BE CUT INTO THE PAVEMENT AFTER THE PROPOSED SURFACE COURSE HAS BEEN PLACED. EACH DETECTOR SHALL BE REPLACED IN KIND, AT THE SAME LOCATION AS EXISTING. THE QUANTITIES LISTED BELOW HAVE BEEN CARRIED TO THE GENERAL SUMMARY. THE NEW LOOP DETECTOR WIRES SHALL BE RUN INTO THE EXISTING CONTROL BOX OR THE EXISTING PULLBOX. INCLUDED IN THIS ITEM IS THE POURED EPOXY TYPE CABLE SPLICE KIT CONFORMING TO 725.15E THAT MUST BE USED IN MAKING THESE CONNECTIONS.

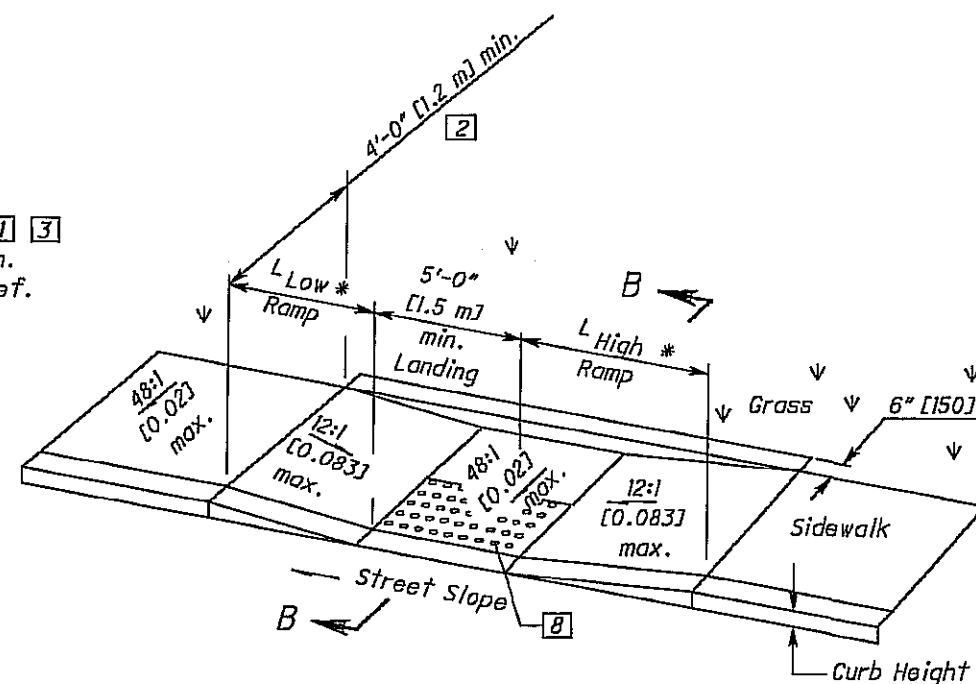
ALL NECESSARY MATERIAL, LABOR, SPLICE KITS, AND EQUIPMENT SHALL BE INCIDENTAL TO PAYMENT OF THESE ITEMS.

ITEM 632 DETECTOR LOOP	2 EACH
SR 241 (LINCOLN WAY)	2 EACH, 8'x30'

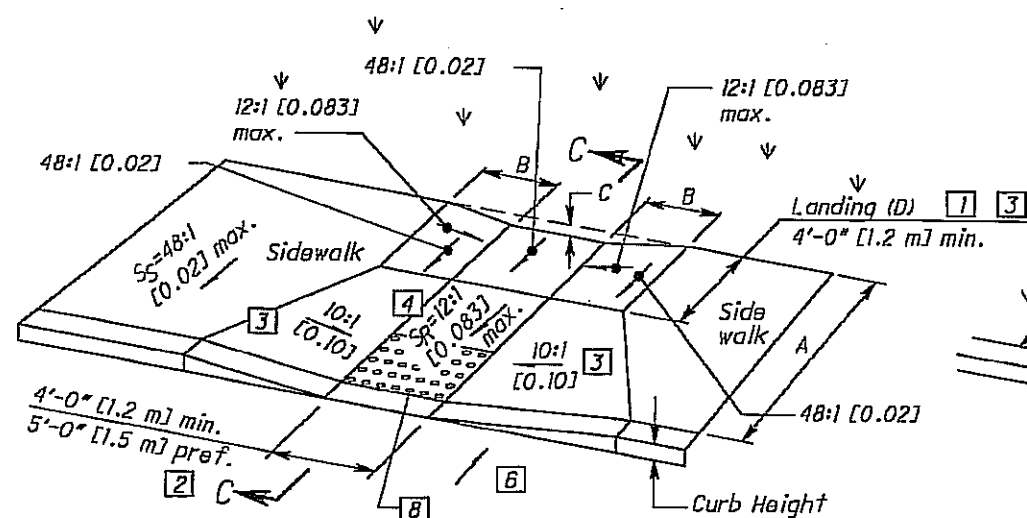
SHEET NUMBER										PARTICIPATION		ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
3	4	6	9	13				PROJECT	100% CITY								



See Sht. 3 of 3 for SECTION A-A
PERPENDICULAR CURB RAMP DETAIL



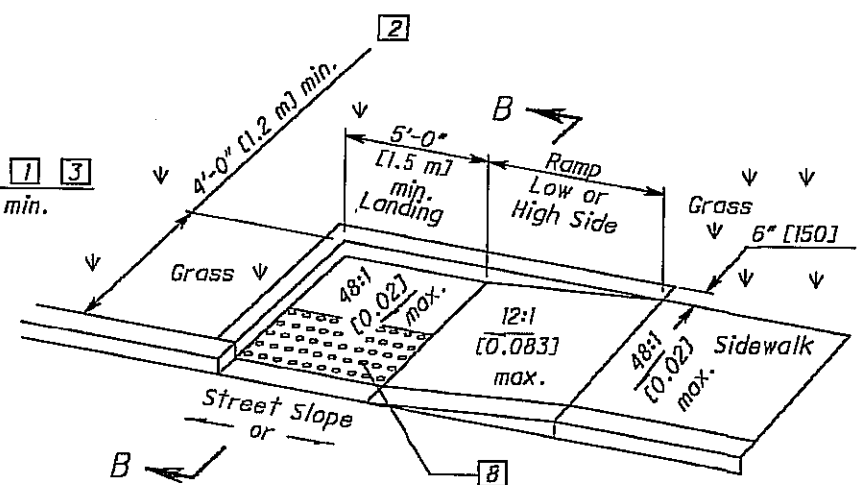
See Sht. 3 of 3 for SECTION B-B
PARALLEL CURB RAMP DETAIL
(DOUBLE)



See Sht. 3 of 3 for SECTION C-C
COMBINED CURB RAMP DETAIL

$$B = C / 0.083$$

$$C = [\text{Curb ht.} + A(S_S)] - [(A-D)S_R + D(0.02)]$$



See Sht. 3 of 3 for SECTION B-B
PARALLEL CURB RAMP DETAIL
(SINGLE)

Street Slope	Ramp Length @ 1"/ft [0.083]	
	L LOW SIDE*	L HIGH SIDE*
0.01	5'-5" [1.6 m]	6'-10" [2.1 m]
0.02	4'-10" [1.5 m]	7'-11" [2.4 m]
0.03	4'-5" [1.3 m]	9'-5" [2.9 m]
0.04	4'-1" [1.2 m]	11'-8" [3.6 m]
0.05	3'-9" [1.1 m]	15'-2" [4.6 m]

* Measured along the back of a 6" [150] high curb.

$$L_{\text{HIGH}} = \frac{\text{Curb ht.}}{0.083 - \text{Street Slope}} \quad [7]$$

$$L_{\text{LOW}} = \frac{\text{Curb ht.}}{0.083 + \text{Street Slope}} \quad [7]$$

LEGEND

- [1] May be reduced to 3'-0" [915] in existing sidewalks if the landing is unconstrained along the back edge.
- [2] May be reduced to 3'-4" [1.02 m] in existing sidewalks to better fit the walk configuration or where site conditions are restricted by narrow walks, pole foundations, drainage inlets, etc. The width may be tapered.
- [3] Where landing width (D) has been reduced to 3'-0" [915] the flared sides shall have a maximum slope of 12:1 [0.083].

Flared sides are not required where the edges of a curb ramp are protected by landscaping or other barriers to travel by wheel chair users or pedestrians across the edge of the curb ramp. However, if the flared sides are used in these areas, they may be of any slope.

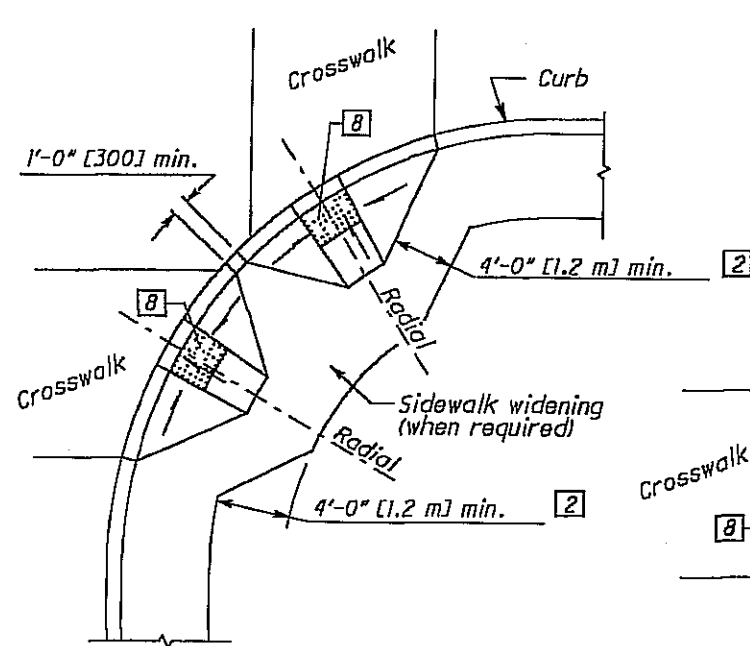
- [4] The slope of the ramp toward the curb is preferred to be 12:1 [0.083] or flatter related to the horizontal, but the maximum slope shall be 12:1 [0.083] relative to the existing or proposed walk slope.

In existing sidewalks, where the maximum ramp slope (S_R) is not feasible, it may be reduced as follows:

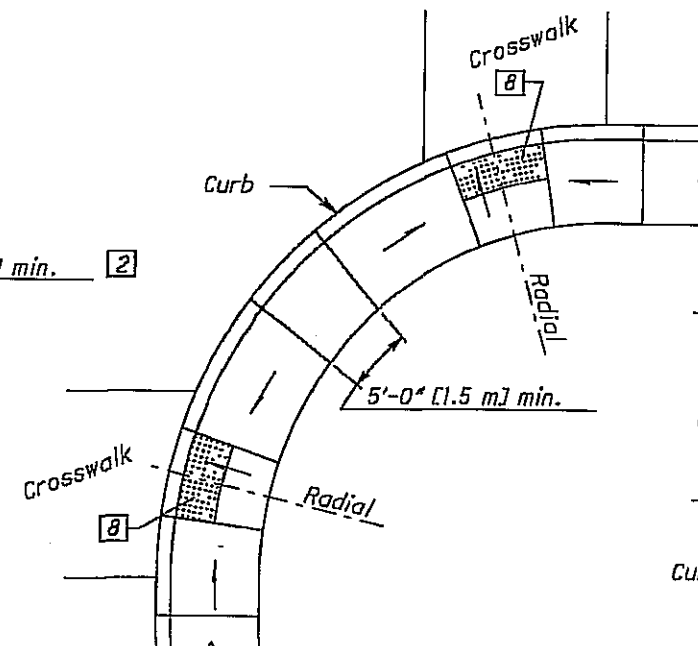
- A) 10:1 [0.10] for a max. rise of 6" [150],
- B) 8:1 [0.125] for a max. rise of 3" [75],
- C) 6:1 [0.167] over a max. run of 2'-0" [610] for historic areas where a flatter slope is not feasible.

- [5] The minimum length of a perpendicular ramp is 6' [2.0 m] from the back of a 6" [150] curb and may be increased where feasible to obtain a flatter ramp slope or to better blend with the walk configuration.
- [6] Gutter counter slopes at the foot of perpendicular curb ramps should not exceed 20:1 [0.05] over a distance of 2'-0" [610] from the curb.
- [7] Dimensions derived by equation are nominal. Construct ramps to meet required slopes and existing conditions.
- [8] Detectable Warnings (truncated domes) are to be installed in the location shown. Dimensions of the domes are 24" [610] from the back of the curb by the width of the ramp. See NOTES on sheet 3 of 3.

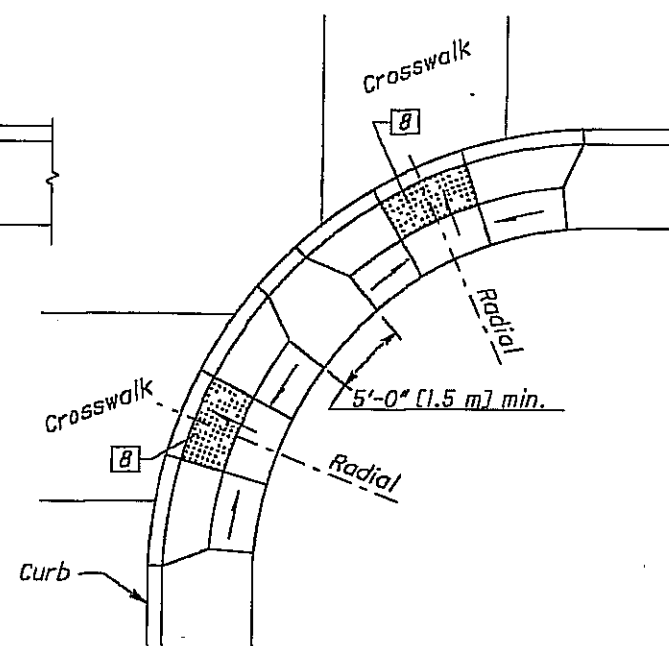
I:\Projects\25450_STA-241-7.94\roadway\bp7\ps040606v8.dgn 19-OCT-2006 3:19PM abennett



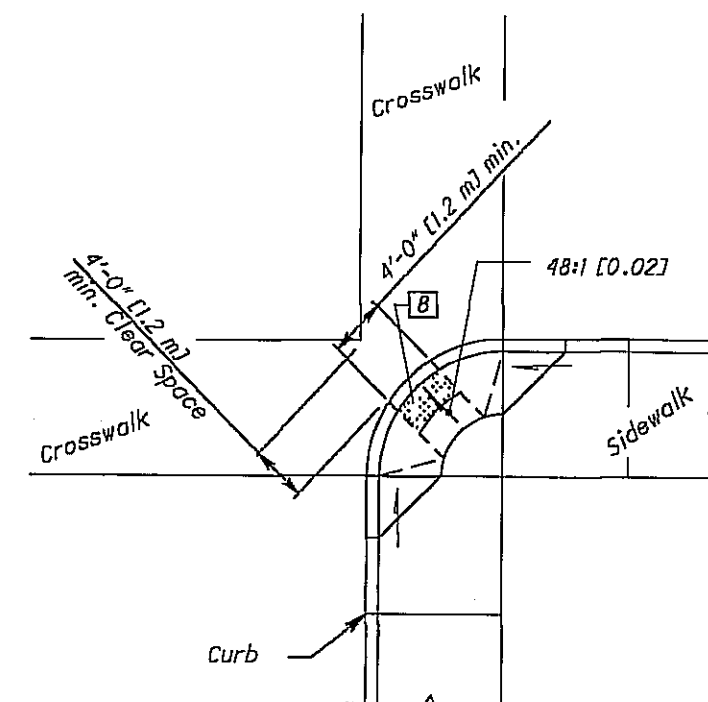
DESIGN A
PERPENDICULAR RAMP



DESIGN B
PARALLEL RAMP



DESIGN C
COMBINATION RAMP



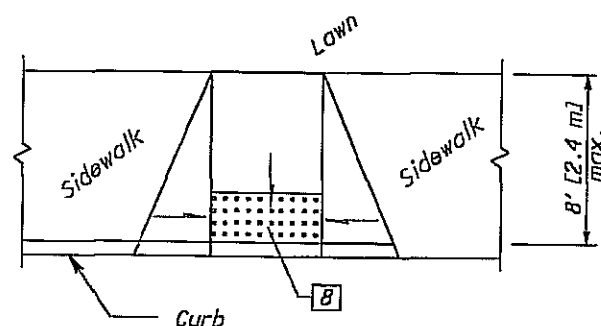
DESIGN D
DIAGONAL RAMP

CORNER CURB RAMP DESIGNS

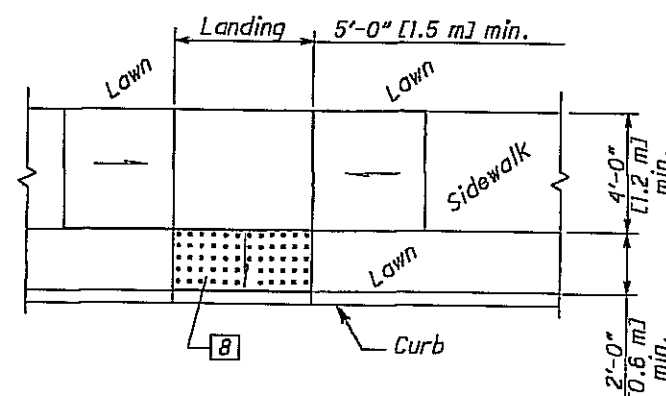
(See Curb Ramp Details on Sht. 1 of 3
for additional requirements.)

For LEGEND, See sheet 1 of 3.

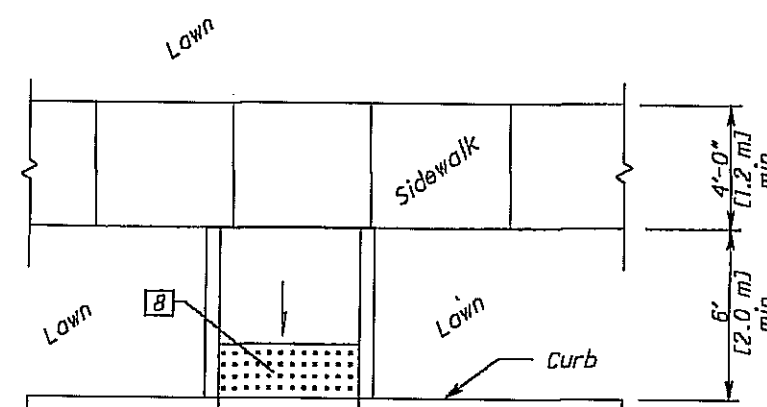
Use in existing walks only and when
site constraints prohibit other designs.
The diagonal ramp may be perpendicular,
parallel or combination.
Avoid using where curb radii are
less than 20'-0" [6.0 m].



DESIGN E
PERPENDICULAR RAMP



DESIGN F
PARALLEL RAMP



DESIGN G
PERPENDICULAR RAMP
w/o FLARES

MID BLOCK CURB RAMP DESIGNS

(See Curb Ramp Details on Sht. 1/3
for additional requirements.)

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CENTER LINE											GENERAL SPEC. 640		
COUNTY	ROUTE	TRU LOG	FROM	TRU LOG	TO	TOTAL MILES	EQUIVALENT SOLID LINE	COMMENTS					
STA	241	7.94	FINEFROCK ST.	8.96	LINCOLN WAY	1.02	1.61						

TS 54
DISTRICT 4



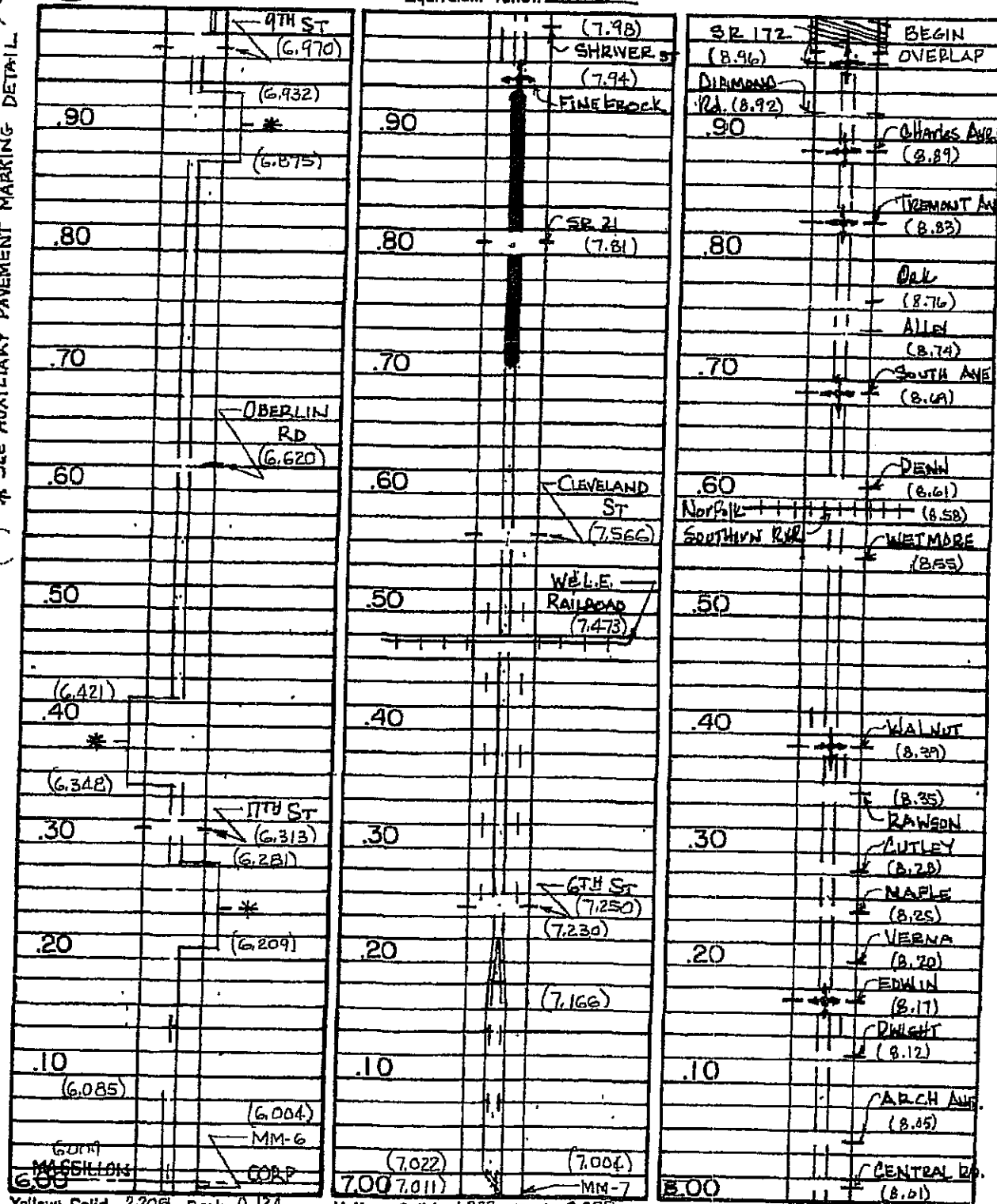
CITY OF MASSILLON
Center Line Log Record and Field Sheet

COUNTY STARK ROUTE 241

SHEET OF

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

* SEE AUXILIARY PAVEMENT MARKING DETAIL



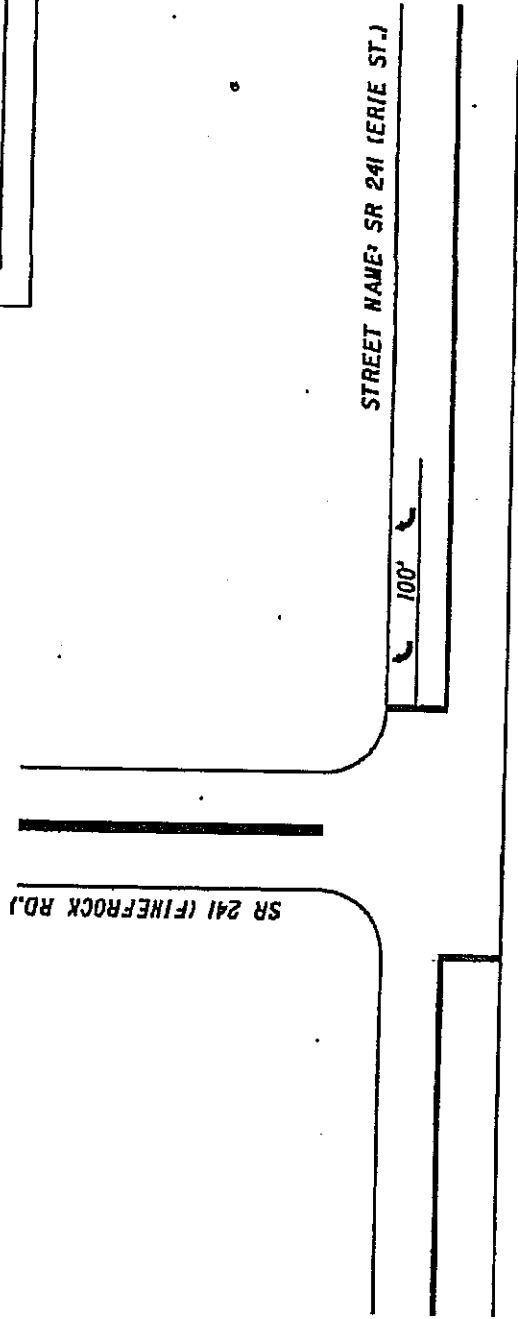
Yellow: Solid 2.208 Dash 0.124 Yellow: Solid 1.222 Dash 0.285 White: Solid Dash
TOTAL YELLOW THIS PAGE: SOLID 3.430 DASH 0.412 EQUIVALENT LINE 3.533

PAVEMENT MARKINGS

SIA-241-7.94

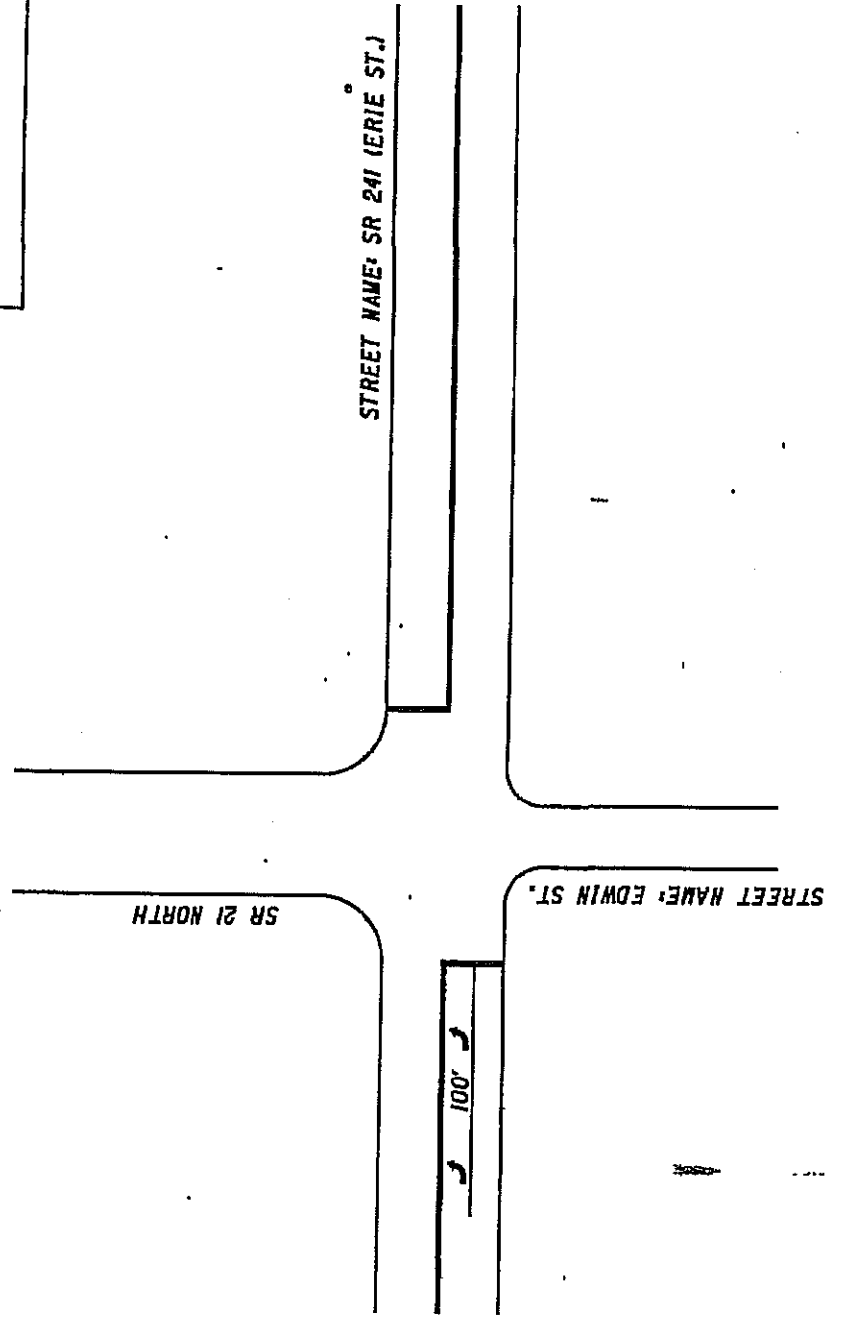
14
20

COUNTY:	STARK
LOCATION:	SR 241 @ ERIE ST.
S.L.M.:	7.94
24" STOP LINE	24 L.F.
12" CROSSWALK LINE	L.F.
DOTTED LINE	L.F.
8" CHANNELIZING LINE	100 L.F.
24" TRANSVERSE LINE (WH)	L.F.
24" TRANSVERSE LINE (YW)	L.F.
SYMBOLS 2-RT. TURN ARROW	

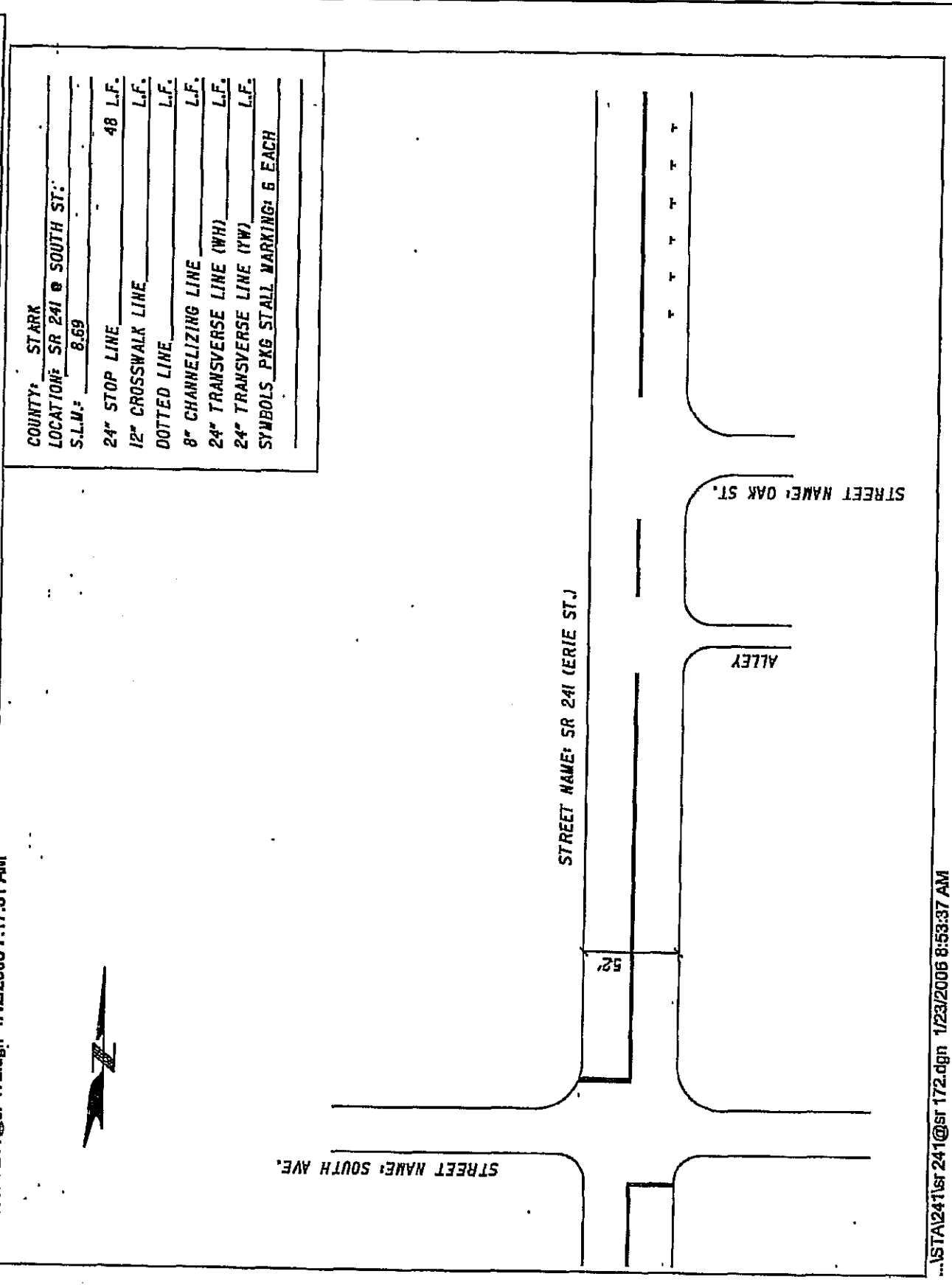
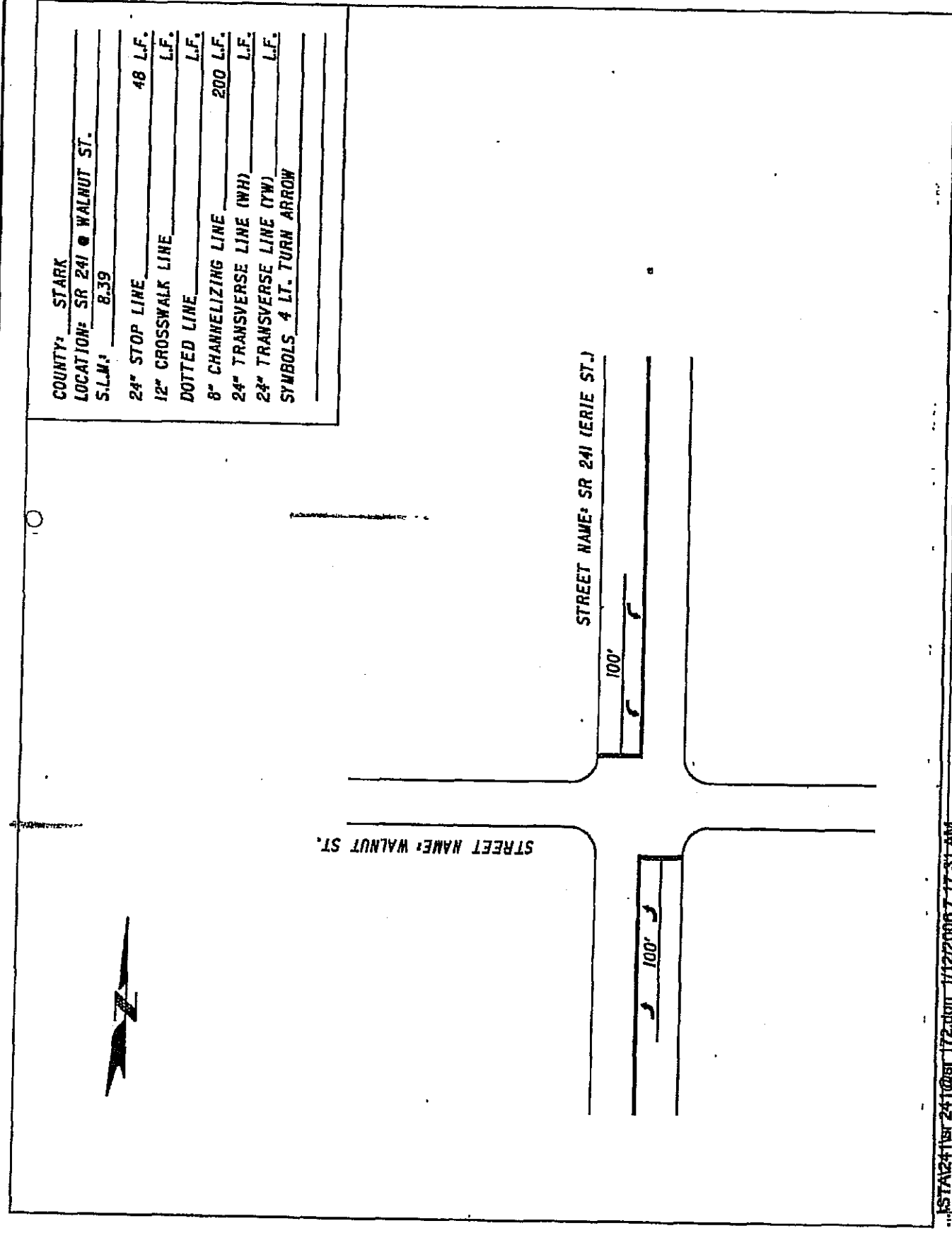


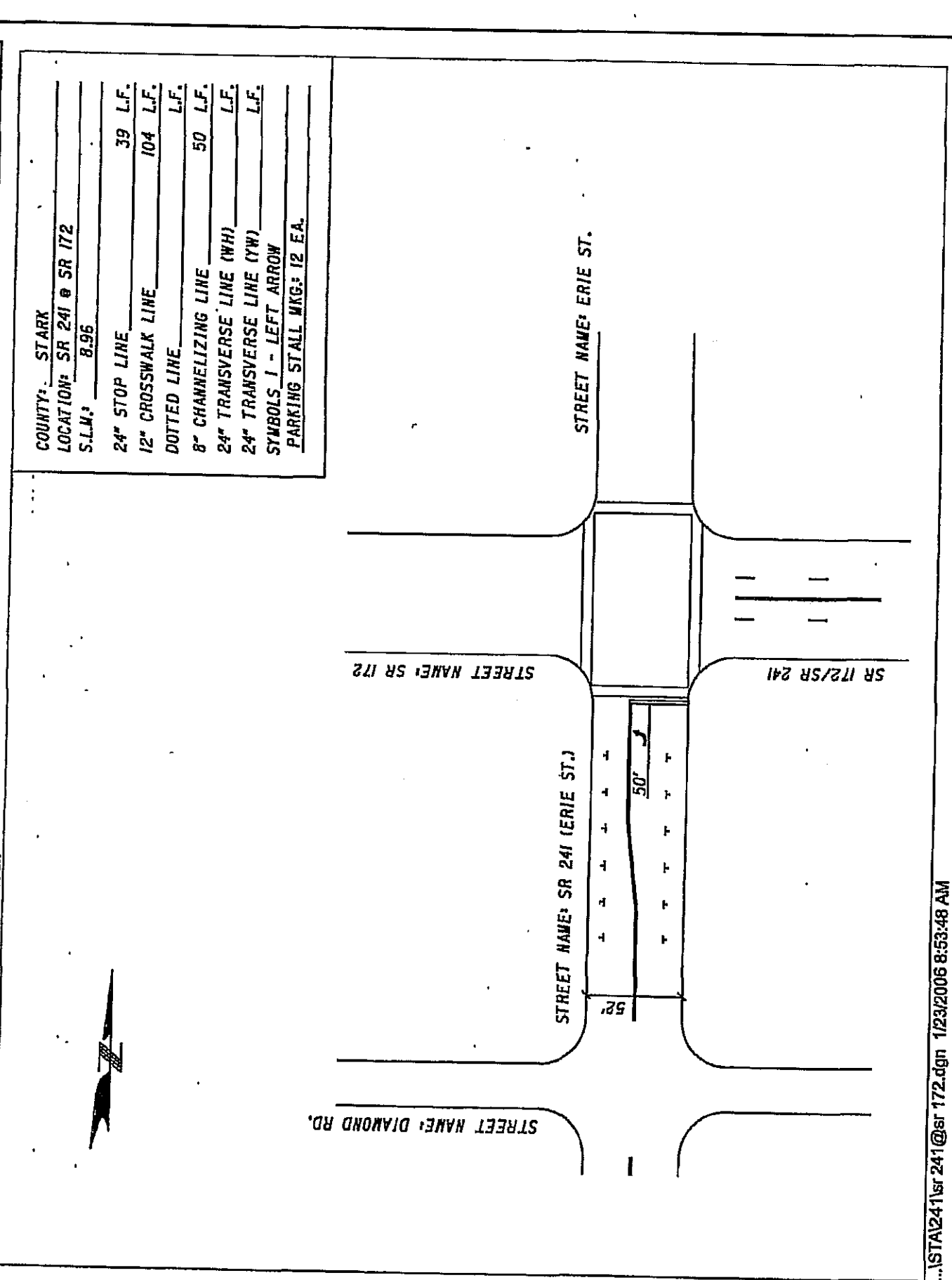
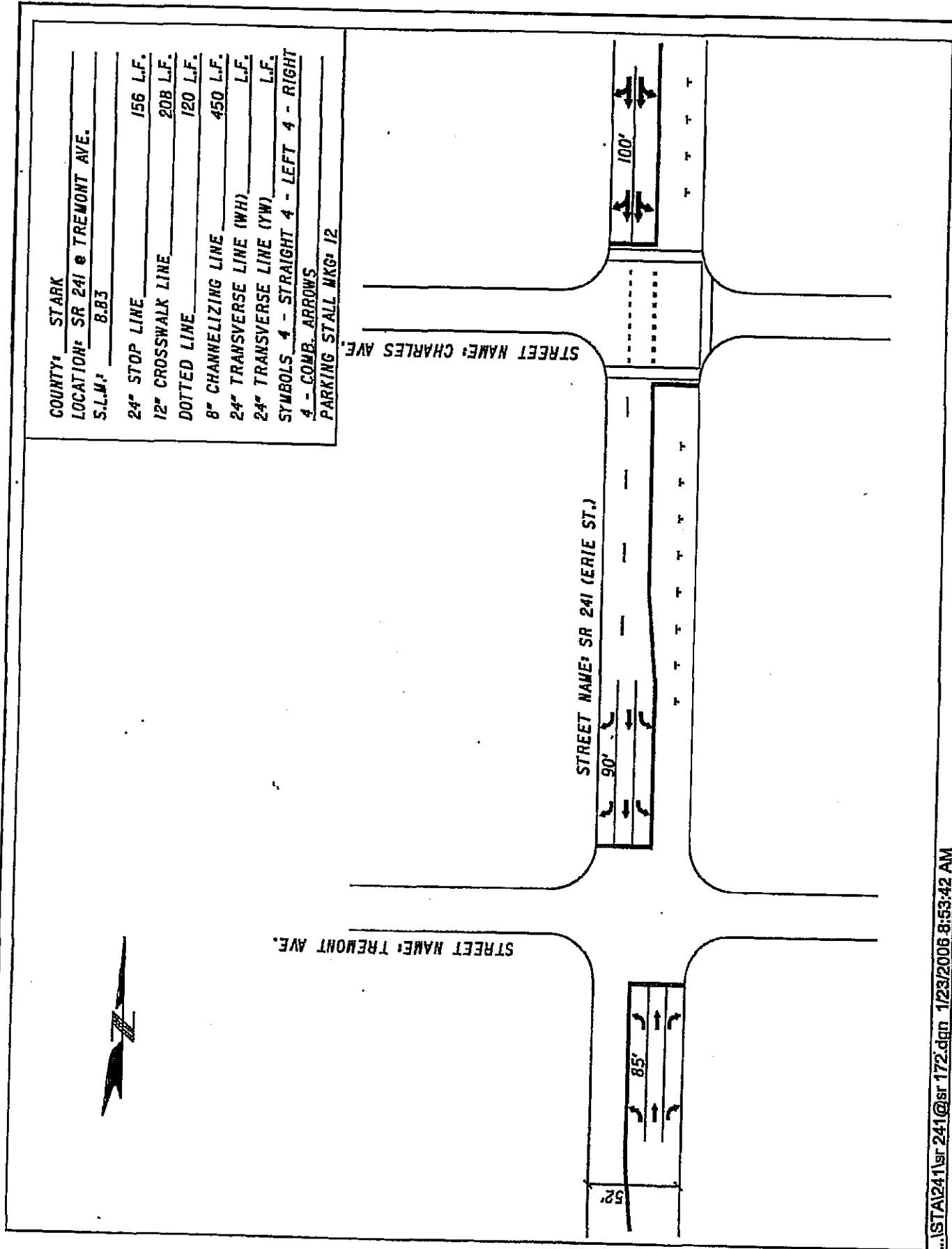
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COUNTY:	STARK
LOCATION:	SR 241 @ EDWIN ST.
S.L.M.:	8.17
24" STOP LINE	48 L.F.
12" CROSSWALK LINE	L.F.
DOTTED LINE	L.F.
8" CHANNELIZING LINE	100 L.F.
24" TRANSVERSE LINE (WH)	L.F.
24" TRANSVERSE LINE (YW)	L.F.
SYMBOLS 2-LT. TURN ARROW	

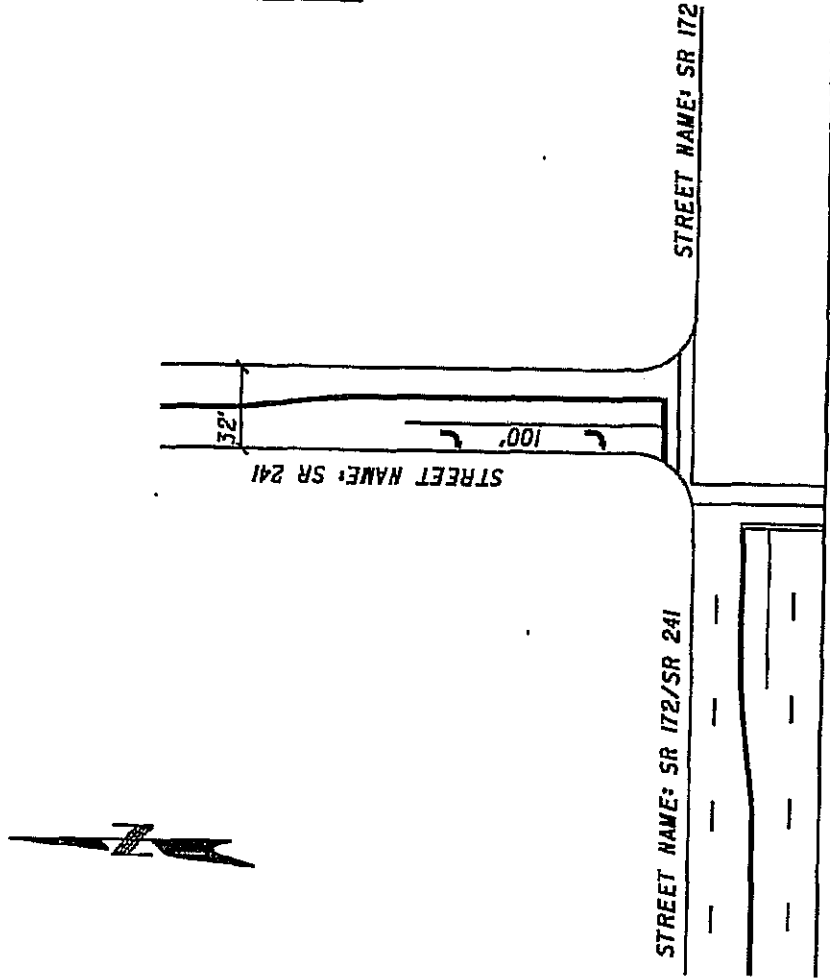


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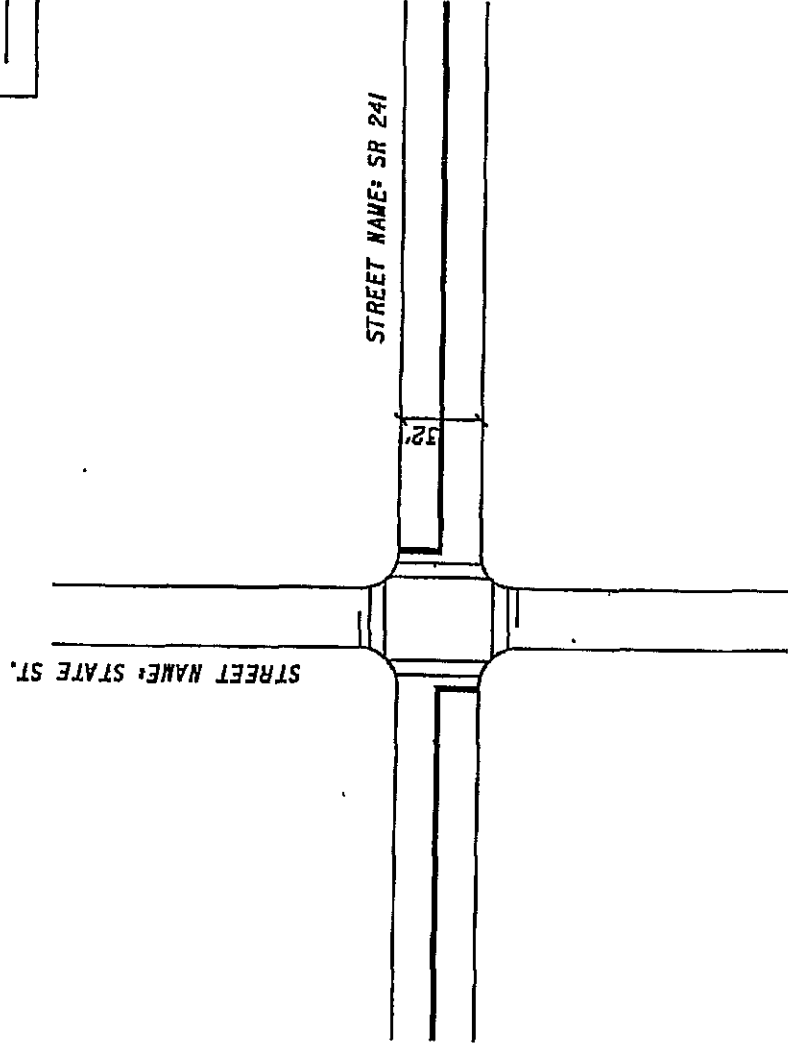


COUNTY: STARK
LOCATION: SR 241 @ SR 172
S.L.M.: 9.71
24" STOP LINE 25 L.F.
12" CROSSWALK LINE 64 L.F.
DOTTED LINE L.F.
8" CHANNELIZING LINE 100 L.F.
24" TRANSVERSE LINE (WH) L.F.
24" TRANSVERSE LINE (YW) L.F.
SYMBOLS 2 - RIGHT ARROWS



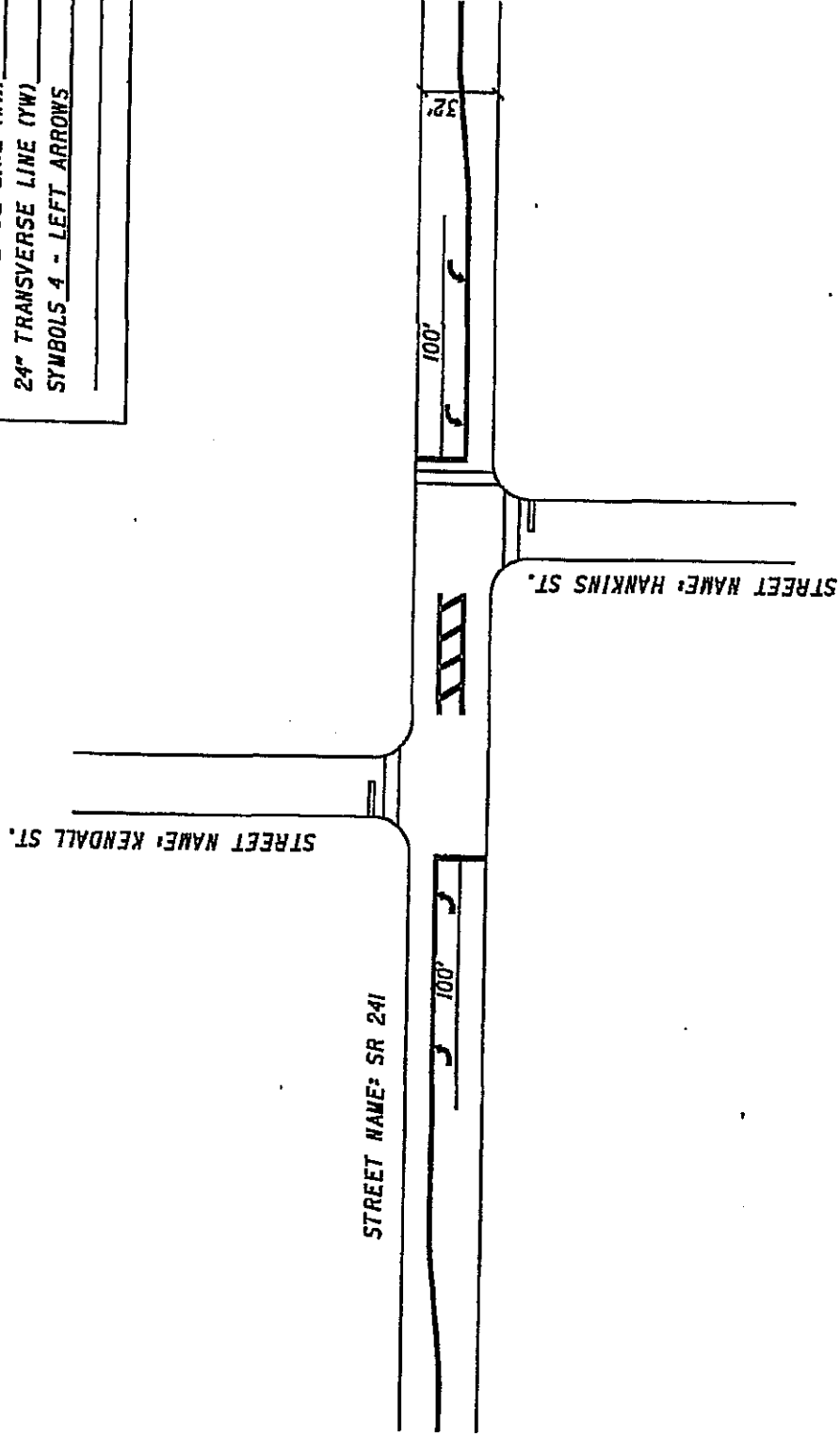
...ISTA\241\sr 241@sr 172.dgn 1/23/2006 8:53:52 AM

COUNTY: STARK
LOCATION: SR 241 @ STATE ST.
S.L.M.: 9.98
24" STOP LINE 32 L.F.
12" CROSSWALK LINE 144 L.F.
DOTTED LINE L.F.
8" CHANNELIZING LINE L.F.
24" TRANSVERSE LINE (WH) L.F.
24" TRANSVERSE LINE (YW) L.F.
SYMBOLS



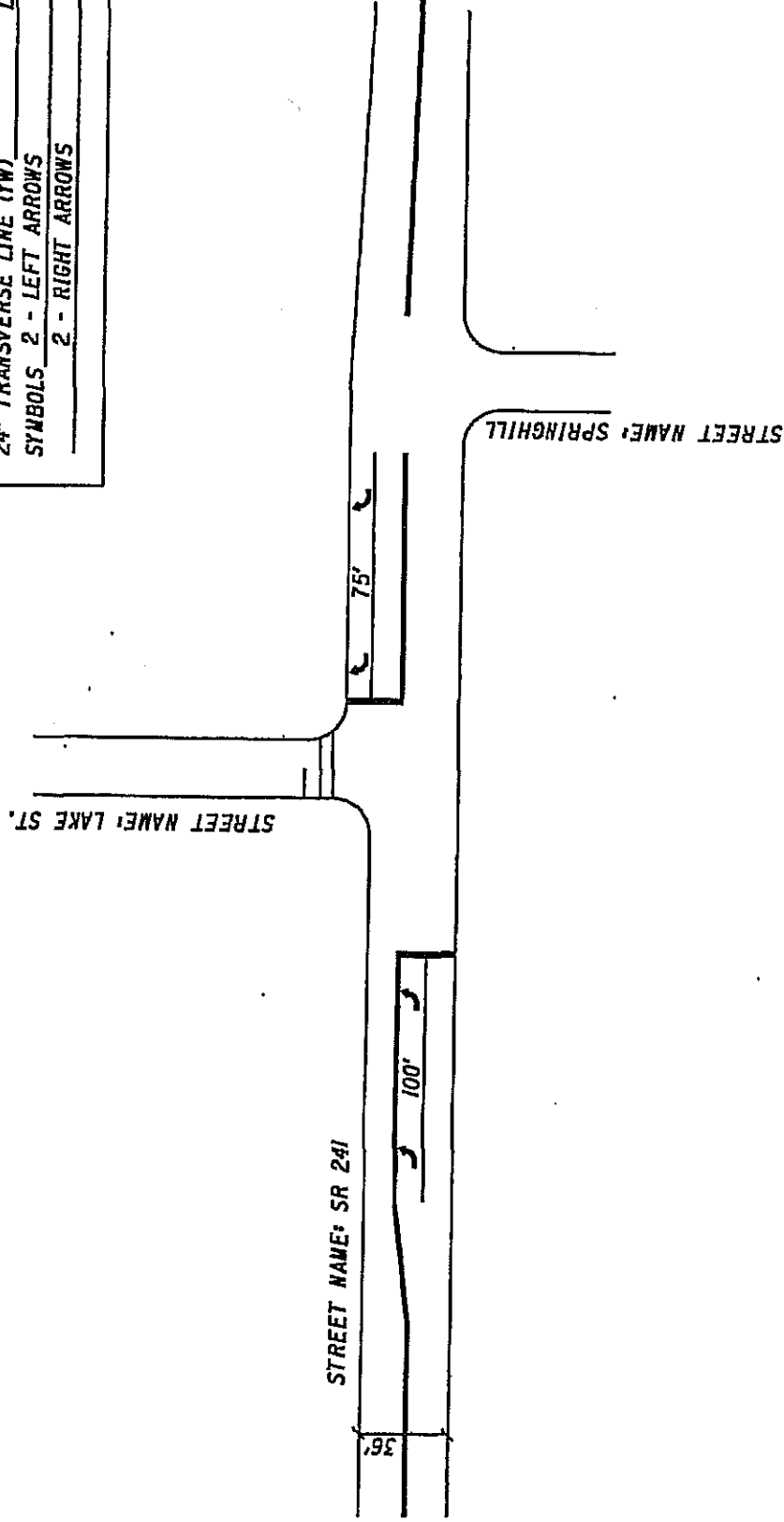
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COUNTY: STARK
LOCATION: SR 241 @ HANKINS ST.
S.L.M.: 10.29
24" STOP LINE 42 L.F.
12" CROSSWALK LINE 72 L.F.
DOTTED LINE L.F.
8" CHANNELIZING LINE 200 L.F.
24" TRANSVERSE LINE (WH) L.F.
24" TRANSVERSE LINE (YW) 72 L.F.
SYMBOLS 4 - LEFT ARROWS



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COUNTY: STARK
LOCATION: SR 241 @ LAKE AVE.
S.L.M.: 10.58
24" STOP LINE 48 L.F.
12" CROSSWALK LINE L.F.
DOTTED LINE L.F.
8" CHANNELIZING LINE 175 L.F.
24" TRANSVERSE LINE (WH) L.F.
24" TRANSVERSE LINE (YW) L.F.
SYMBOLS 2 - LEFT ARROWS
2 - RIGHT ARROWS



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