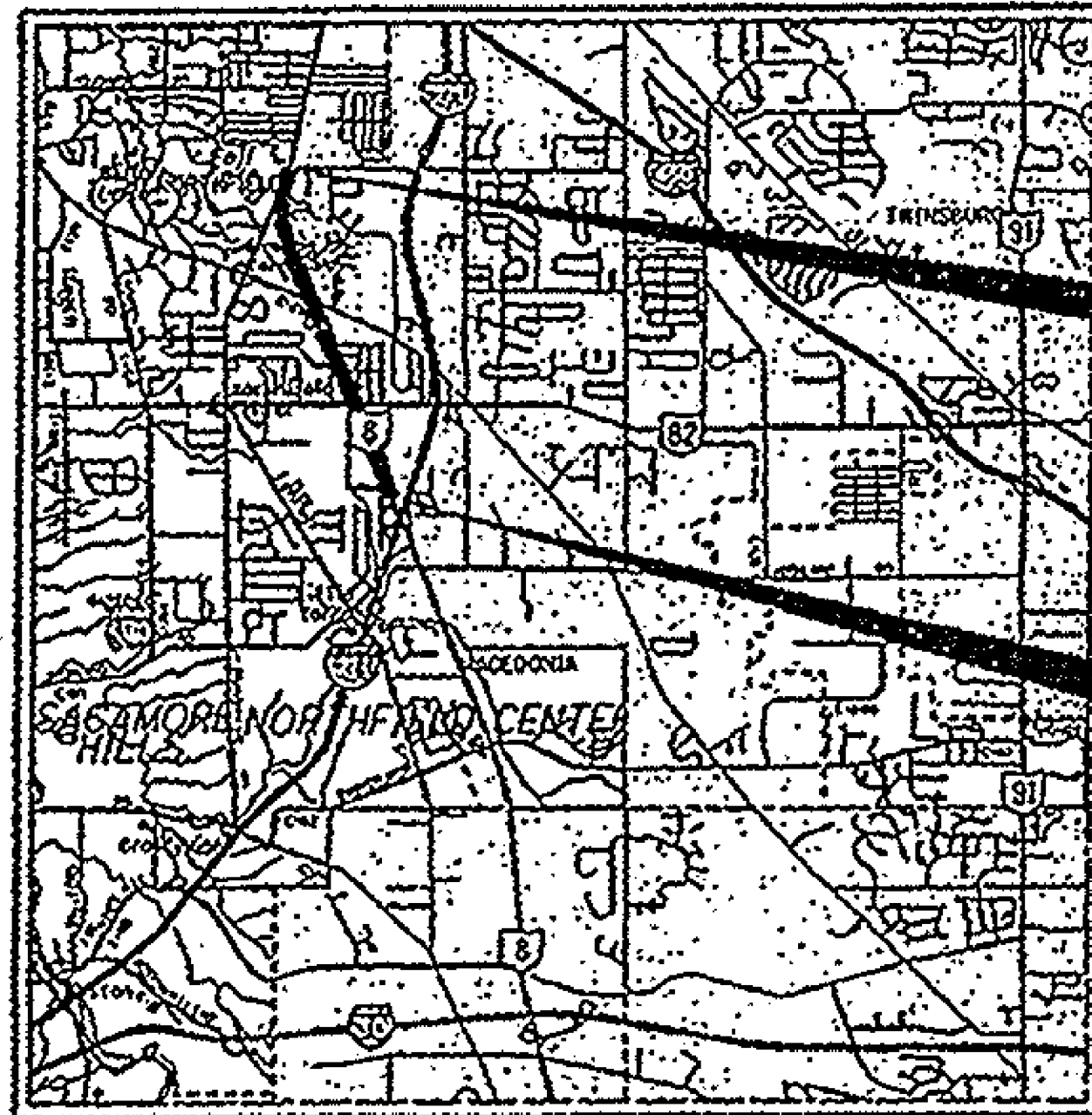


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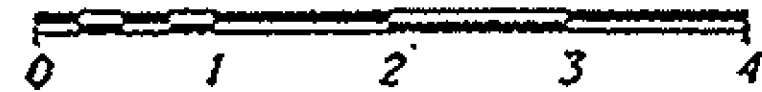
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LOCATION MAP

LATITUDE: N41°19'12" LONGITUDE: W81°31'35"

SCALE IN MILES



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

DESIGN FUNCTIONAL CLASSIFICATION:
 URBAN MINOR ARTERIAL
 NHS PROJECT ----- YES

DESIGN EXCEPTIONS
 NONE

UNDERGROUND UTILITIES
 CONTACT BOTH SERVICES
 CALL TWO WORKING DAYS
 BEFORE YOU DIG

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

OHIO UTILITIES PROTECTION SERVICE
 NON-MEMBERS
 MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS PROTECTIVE
 SERVICE CALL: 1-800-925-0988

PLAN PREPARED BY:
 OHIO DEPARTMENT OF TRANSPORTATION
 DISTRICT 4
 OFFICE OF PRODUCTION
 2088 SOUTH ARLINGTON ROAD
 AKRON, OHIO 44306

STATE OF OHIO
 DEPARTMENT OF TRANSPORTATION

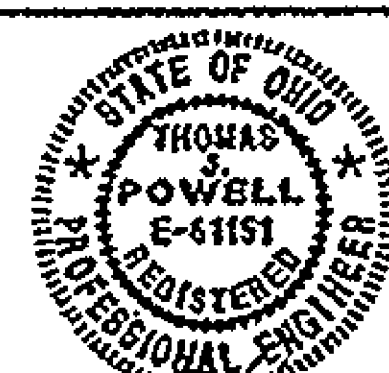
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CITY OF MACEDONIA,
 VILLAGE OF NORTHFIELD,
 NORTHFIELD CENTER & SAGAMORE HILLS TOWNSHIPS
 SUMMIT COUNTY

INDEX OF SHEETS:

TITLE SHEET	1
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TRAFFIC CONTROL	16-30
STRUCTURES	31

ENGINEERS SEAL:



SIGNED: *Thomas Powell*
 DATE: 04/23/08

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS
BP-3.1	10/19/07	PCB-91	7/19/02	TC-23.10	1/19/01	800-2008 1/16/09
				TC-82.10	4/19/02	802 4/15/05
CB-3.3	7/15/05	MT-35.10	4/20/01			832 4/25/06
		MT-95.30	9/05/06			
DM-1.1	4/21/06	MT-99.20m	1/30/95			
DM-1.A	4/21/06	MT-101.60	9/20/08			
DM-4.3	7/15/02	MT-105.10	10/18/02			
DM-4.4	7/15/02	MT-105.11	10/18/02			
CR-1.1	7/16/04	TC-41.20	1/19/01			
CR-2.1	1/16/04	TC-42.20	7/16/04			
		TC-52.10	1/19/01			
RM-2.2	4/21/06	TC-52.20	1/19/01			
		TC-65.10	1/21/05			
RM-4.2	10/19/07	TC-65.11	1/21/05			
		TC-71.10	1/19/01			

SPECIAL PROVISIONS

PROJECT DESCRIPTION
 MINOR REHABILITATION; RESURFACING OF SR 8 FROM
 SLM 18.05 TO SLM 20.26 INCLUDING SIGNING UPGRADE.

PROJECT EARTH DISTURBED AREA: 0.03 ACRES
 ESTIMATED CONTRACTOR EOA: N/A (MAINTENANCE PROJECT)
 NOTICE OF INTENT EOA: N/A (MAINTENANCE PROJECT)

2008 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 REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEETS 8-11.

APPROVED: *E. M. Getts*
 DATE: 6-24-08 DISTRICT DEPUTY DIRECTOR

APPROVED: *James A. Beatty*
 DATE: 7-15-08 DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO.
 E032(214)

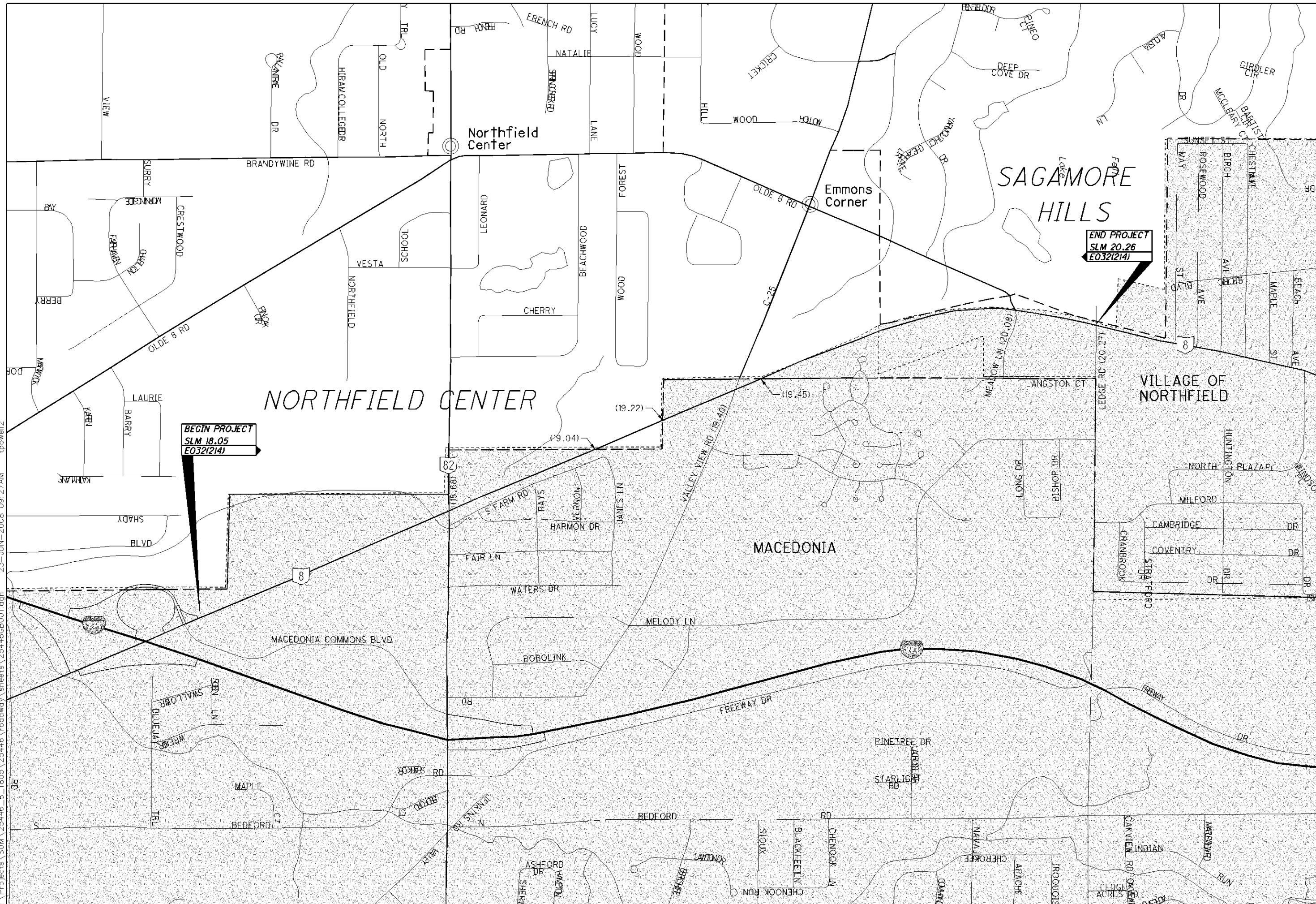
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 25446

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT
 NONE

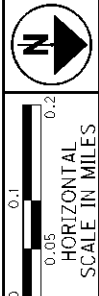
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BEGIN PROJECT
 SLM 18.05
 E032(214)

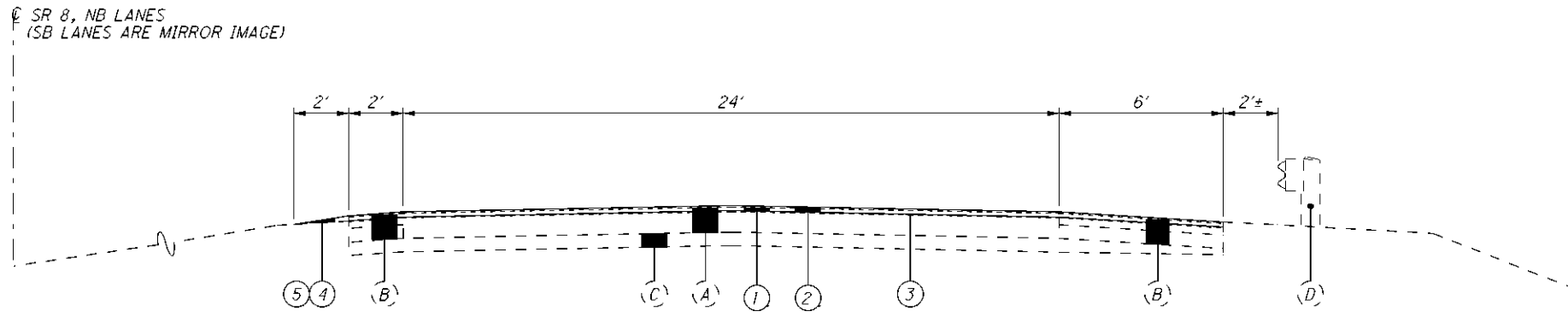
END PROJECT
 SLM 20.26
 E032(214)



SCHEMATIC PLAN

SUM - 8 - 18.05

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TYPICAL HALF-SECTION - SR 8
SLM 18.05 TO SLM 20.26 = 2.21 mi.

LEGEND

- (1) 254, PAVEMENT PLANING, ASPHALT CONCRETE (T=1/2")
 - (2) 448, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M (T=1/2")
 - (3) 407, TACK COAT
 - (4) 617, COMPACTED AGGREGATE, AS PER PLAN
 - (5) 408, PRIME COAT, AS PER PLAN
-
- (A) EXISTING ASPHALT PAVEMENT (4"± ASPHALT SURFACE OVER 8" ASPHALT BASE)
 - (B) EXISTING ASPHALT SHOULDER
 - (C) EXISTING 6" SUBBASE
 - (D) EXISTING GUARDRAIL

PROFILE AND ALIGNMENT

PLACE THE PROPOSED PAVEMENT TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT.

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.

CLEARING AND GRUBBING

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

PAVEMENT MARKING LANE WIDTHS

THE NORMAL LANE WIDTH FOR THE PAVEMENT MARKINGS ON THIS PROJECT SHALL BE AS FOLLOWS:

ROUTE	S.L.M.	TO	S.L.M.	LANE WIDTH
8	18.05		20.26	12'

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 OPERATIONS 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 THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

Dominion East Ohio ATTN: Scott Hallam 7015 Freedom Ave., NW North Canton, OH 44720 330-266-2041 330-266-2127 Fax	Ohio Edison ATTN: Bill Speece 730 South Avenue Youngstown, OH 44502 330-740-7635 330-740-7655 Fax
---	--

Time Warner Cable ATTN: Tod Dean 530 South Main St. Suite 1741 Akron, OH 44311 330-490-2506 330-384-8206 Fax	Windstream ATTN: Jeff Gulyas 100 Owen Brown Road Hudson, OH 44236 330-650-8404 330-656-2929 Fax
--	--

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 RAIL SPLICE" AS SHOWN IN AASHTO M 180. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

ITEM 646 - EPOXY PAVEMENT MARKING, 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.

ITEM 646- EPOXY PAVEMENT MARKING - (POLYCARB) - 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.

INTERSECTIONS

INTERSECTIONS SHALL BE RESURFACED 2 FT. BEYOND THE EDGE LINE, UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR INDICATED IN THE PLAN. INTERSECTIONS SHALL BE PAVED AFTER COMPLETION OF THE SURFACE COURSE. A BUTT JOINT, AS PER STANDARD CONSTRUCTION DRAWING BP-3.1, SHALL BE USED TO PROVIDE A SMOOTH TRANSITION TO THE EXISTING PAVEMENT. INTERSECTIONS SHALL BE RESURFACED WITH STANDARD MIX, AS SHOWN ON THE CALCULATION SHEET. ANY GRADING OR PRIME NECESSARY TO ACCOMPLISH THIS WORK SHALL BE INCLUDED IN THE COST OF THE PERTINENT BID ITEM.

ITEM 408 - PRIME COAT, AS PER PLAN

THE CONTRACTOR WILL APPLY "MC-70" AT A RATE OF 0.4 GALLONS PER SQUARE YARD, OR AS DETERMINED BY THE ENGINEER, TO THE COMPLETED COMPACTED AGGREGATE SHOULDER.

THE CONTRACTOR SHALL PROVIDE A SHIELD TO PREVENT THE SPRAYING OR DRIFTING OF LIQUID PRIME COAT MATERIAL ONTO THE EDGE OF THE PAVEMENT OR EDGELINE. CARE ALSO SHALL BE TAKEN TO AVOID SPRAYING LIQUID PRIME COAT MATERIAL ONTO DRIVEWAY APRONS, MAILBOX APPROACHES OR ANY PEDESTRIAN AREAS. THE ATTENTION OF THE CONTRACTOR IS DIRECTED TO 107.10 OF THE SPECIFICATIONS.

ITEM 617 COMPACTED AGGREGATE, AS PER PLAN

IN LOW SHOULDER AREAS EXCEEDING 1", OR AS DIRECTED BY THE ENGINEER, RECYCLED ASPHALT PAVEMENT (RAP) SHALL BE USED IN AREAS ADJACENT TO THE PAVED BERM. THE RAP SHALL HAVE A MINIMUM PG CONTENT OF 4.5% AND MEET THE FOLLOWING GRADATION. ONCE THE STOCKPILE MEETS THE GRADATION, THE PG CONTENT OF THE RAP SHALL BE DETERMINED PER 441.03. THE RAP ANALYSIS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL 2 WEEKS PRIOR TO USE. METHOD OF MEASUREMENT SHALL BE AS PER 617.06. PLACEMENT AND COMPACTION SHALL MEET THE REQUIREMENTS OF ITEM 617. ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 617 COMPACTED AGGREGATE, AS PER PLAN.

MODIFIED GRADATION SHALL APPLY:

SIEVE	TOTAL PERCENT PASSING
1 1/2"	100
3/4"	50-100
NO. 4	35-70
NO. 30	9-33
NO. 200	0-13

ITEM 606 - ANCHOR ASSEMBLY, TYPE E-98

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS, OR AN APPROVED EQUAL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE AT WWW.DOT.STATE.OH.US/DRRC/ UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS:

1) THE ET-2000 (1997) MANUFACTURED BY TRINITY INDUSTRY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373). THE LENGTH OF THE ET-2000 (1997) SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF TWO 25'-0" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DATE	DATE
SSS265M	ET-2000 (1997) PLAN, ELEVATION AND SECTIONS	6/20/97	3/6/98
SSI42	ET2000 PLUS 50'-0" PLAN, ELEVATION AND SECTION 25'-0" RAIL, SLEEVE W/PL POSTS 1-4	4/12/00	7/31/00
SSI41	ET2000 PLUS PLAN, ELEVATION AND SECTION 25'-0" RAIL, HBA POSTS 1-4	2/29/00	7/31/00
SSI58	ET2000 PLUS 50'-0" WITH 12'-6" PANELS AND HBA POSTS 1-4 PLAN, ELEVATION AND SECTION	5/22/00	7/31/00

DWG. NO.	DRAWING NAME	DATE	DATE
SSS265M	ET-2000 (1997) PLAN, ELEVATION AND SECTIONS	6/20/97	3/6/98
SSI42	ET2000 PLUS 50'-0" PLAN, ELEVATION AND SECTION 25'-0" RAIL, SLEEVE W/PL POSTS 1-4	4/12/00	7/31/00
SSI41	ET2000 PLUS PLAN, ELEVATION AND SECTION 25'-0" RAIL, HBA POSTS 1-4	2/29/00	7/31/00
SSI58	ET2000 PLUS 50'-0" WITH 12'-6" PANELS AND HBA POSTS 1-4 PLAN, ELEVATION AND SECTION	5/22/00	7/31/00

2) THE SKT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 2516 MALLORY LANE, STOW, OHIO, 44224, (TELEPHONE: 330-346-0721). THE LENGTH OF THE SKT-350 SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF FOUR 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DATE	DATE
SKT-4M	SEQUENTIAL KINKING TERMINAL (SKT-350) ASSEMBLY WITH 4 FOUNDATION TUBES	12/11/97	3/6/98

DWG. NO.	DRAWING NAME	DATE	DATE
SKT-4M	SEQUENTIAL KINKING TERMINAL (SKT-350) ASSEMBLY WITH 4 FOUNDATION TUBES	12/11/97	3/6/98

THE FACE OF THE TYPE E-98 IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19, APPROXIMATELY 18" X 18", OR 12" X 18" IF APPLIED TO A RECTANGULAR ET-2000 PLUS EXTRUDER HEAD. REFER TO THE MANUFACTURER'S INSTRUCTION REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4-INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 27-3/4-INCHES FROM THE EDGE OF THE SHOULDER. ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4-INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE E-98, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

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GENERAL NOTES

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BARRIER REFLECTORS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS DIRECTED BY THE ENGINEER FOR INSTALLING/REPLACING BARRIER REFLECTORS ON ALL EXISTING BARRIER RUNS WITHIN THE PROJECT LIMITS.

202, REMOVAL MISC.: BARRIER REFLECTOR	7 EACH
626, BARRIER REFLECTOR, TYPE A	25 EACH

TYPE A ANCHOR ASSEMBLY REPLACEMENT

THERE IS 1 LOCATION BETWEEN SLM 18.05 AND SLM 20.26 WHERE TYPE A ANCHOR ASSEMBLIES CURRENTLY EXIST ADJACENT TO SR 8. THE FOLLOWING ITEMS WILL BE USED TO REMOVE THE EXISTING ANCHOR ASSEMBLY, TYPE A AND 3 PANELS OF EXISTING GUARDRAIL AND INSTALL A NEW ANCHOR ASSEMBLY, TYPE E-98 AND 1 PANEL GUARDRAIL, TYPE 5 FOR THIS LOCATION:

- GUARDRAIL REMOVED, 62.5 FT
- BORROW, 2.5 CU YD
- GUARDRAIL, TYPE 5, 12.5 FT
- ANCHOR ASSEMBLY, TYPE E-98, 1 EACH
- BARRIER REFLECTOR, TYPE A, 2 EACH
- SEEDING AND MULCHING, 33 SQ YD

ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE FOR THE PERTINENT BID ITEM. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

202, GUARDRAIL REMOVED	62.5 FEET
203, BORROW	2.5 CU YD
606, GUARDRAIL, TYPE 5	12.5 FEET
606, ANCHOR ASSEMBLY, TYPE E-98	1 EACH
626, BARRIER REFLECTOR, TYPE A	2 EACH
659, SEEDING AND MULCHING	33 SQ 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 I 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	500 SQ. YD.
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PAVEMENT RESTORATION FOR PIPE INSTALLATIONS

THE FOLLOWING QUANTITY HAS BEEN PROVIDED FOR PAVEMENT RESTORATION FOLLOWING INSTALLATION OF PIPES UNDER ITEM 603.

SLM	SPAN	LENGTH	
19.01	60"	122'	(Asp. Pavement)
301, 12" ASPHALT CONCRETE BASE, PG64-22			48 CU. YD.
304, 6" AGGREGATE BASE			24 CU. YD.
448, 1 1/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22			7 CU. YD.

QUANTITIES ABOVE ARE BASED ON A PAVEMENT RESTORATION WIDTH THAT INCLUDES THE TRENCH WIDTH PLUS TWO FEET ON EACH SIDE OF THE TRENCH. SEE STANDARD CONSTRUCTION DRAWING DM-1.4 FOR TRENCH WIDTH FORMULA AND CALCULATION.

PROVIDE ANY MATERIALS USED OUTSIDE THE LIMITS STATED ABOVE AT NO ADDITIONAL COST.

BEST MANAGEMENT PRACTICES - SOIL EROSION AND SEDIMENTATION CONTROL

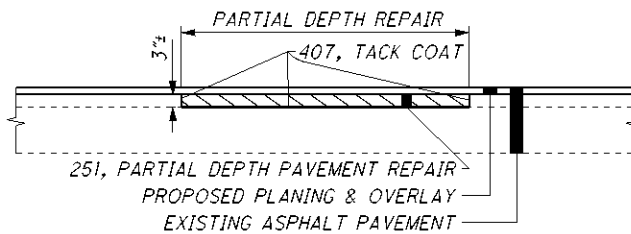
WATER COLUMN AND SEDIMENTATION IMPACTS SHALL BE KEPT TO A MINIMUM THROUGH THE USE OF BEST MANAGEMENT PRACTICES FOR SOIL EROSION AND SEDIMENT CONTROL. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN PLACE PRIOR TO ANY GRADING OR FILLING OPERATIONS AND INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES. THEY SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE AND THE AREA IS STABILIZED AS ACCEPTED BY THE ENGINEER. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT ANY INCIDENTAL DISCHARGES ASSOCIATED WITH THE EXCAVATION AND HAULING OF MATERIALS FROM DITCHES, STREAM CHANNELS AND WETLANDS. THIS PERTAINS TO ANY EXCAVATION OPERATION SUCH AS HEADWALL AND CHANNEL EXCAVATION, CHANNEL CLEAN OUT, EXCAVATION FOR ROCK CHANNEL PROTECTION AND REMOVAL OF ANY FILL ASSOCIATED WITH CONSTRUCTION OPERATIONS.

IN-STREAM WORK

ALL MATERIALS REMOVED FROM DITCHES, STREAMS OR WETLANDS SHALL BE IMMEDIATELY REMOVED TO AN UPLAND SITE AND STABILIZED (I.E., SEEDED) TO PREVENT REDISTRIBUTION INTO ANY WATERS OF THE UNITED STATES. IMMEDIATE REMOVAL IS DEFINED BY THE CORPS AS DEPOSITING THE REMOVED MATERIALS DIRECTLY INTO A TRUCK AND REMOVING THE MATERIAL FROM THE SITE; PLACEMENT OF REMOVED MATERIALS INTO A WETLAND OR ON THE BANKS OF A STREAM EVEN TEMPORARILY IS CONSIDERED A FILL AND REQUIRES A PERMIT ACTION. ANY AREA DISTURBED BY EQUIPMENT ACTIVITIES MUST BE SEEDED TO PREVENT EROSION OF SEDIMENTS INTO THE WATER OF THE UNITED STATES. THE CONTRACTOR SHALL UTILIZE AN APPROVED DISPOSAL SITE FOR THE DISPOSAL OF ALL FILL MATERIAL. THE APPROVED DISPOSAL SITE SHALL NOT INCLUDE ANY WETLANDS, STREAMBANKS OR RIVERBANKS OR ANY 100-YEAR FLOOD PLAINS. THE MECHANICAL EQUIPMENT USED TO EXECUTE THE WORK IN STREAM CHANNELS AND WETLANDS SHALL BE OPERATED IN SUCH A MANNER AS TO MINIMIZE TURBIDITY THAT COULD DEGRADE WATER QUALITY AND ADVERSELY AFFECT AQUATIC PLANT AND ANIMAL LIFE.

CONSTRUCTION AND DEMOLITION DEBRIS

THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID AND/OR LIMIT CONSTRUCTION AND DEMOLITION DEBRIS FROM ENTERING THE STREAM. ANY DEBRIS MATERIAL THAT DOES FALL INTO THE STREAM SHALL BE REMOVED AS SOON AS POSSIBLE.



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GENERAL NOTES

SUM - 8 - 18.05

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 ELEVEN FOOT LANE IN EACH DIRECTION SHALL BE MAINTAINED ON THE EXISTING PAVEMENT OR COMPLETED PAVEMENT DURING CONSTRUCTION OF THE WORK EXCEPT WHERE A DETOUR IS IN EFFECT.

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. 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.

7. IN ADDITION TO THE REQUIREMENTS OF 614.11 WORK ZONE PAVEMENT MARKINGS, AT THE END OF EACH DAY OF WORK, THE CONTRACTOR SHALL REPLACE (WITH WORK ZONE MARKINGS) ALL LANE, STOP OR CHANNELIZING LINES THAT WERE REMOVED OR COVERED DURING THE PAVEMENT REMOVAL OR PLACEMENT OPERATIONS. QUANTITIES FOR SUCH PLACEMENT ARE CARRIED AS PART OF THE ITEMS LISTED UNDER 614 WORK ZONE PAVEMENT MARKINGS.

8. 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 AS DIRECTED BY THE ENGINEER.

9. PRIOR TO OPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULLLANE 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.

10. ONLY DURING OFF-PEAK PERIODS (i.e. ANY PERIOD OTHER THAN 6-8AM AND 3-6PM) SHALL THE CONTRACTOR INSTALL AND SUBSEQUENTLY RESET ALL TRAFFIC CONTROL NECESSARY FOR THE WORK ZONE FOR EACH CONSTRUCTION PHASE.

11. 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-H13 [NO EDGE LINES], W8-11 [UNEVEN LANES]. THESE QUANTITIES SHALL BE AS PER 614.04.

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

PHASE 1 - PLANED SURFACE

- 614, WORK ZONE LANE LINE, CLASS II, 4.44 MILE
- 614, WORK ZONE STOP LINE, CLASS I, 420 FT
- 614, WORK ZONE CHANNELIZING LINE, CLASS I, 5411 FT
- 614, WORK ZONE MARKING SIGN (ALL PHASES), 24 EACH

PHASE 2 - SURFACE COURSE

- 614, WORK ZONE LANE LINE, CLASS III, 4.44 MILE
- 614, WORK ZONE STOP LINE, CLASS III, 420 FT
- 614, WORK ZONE CHANNELIZING LINE, CLASS III, 5411 FT

TO BE USED AS DIRECTED BY THE ENGINEER

- 614, WORK ZONE EDGE LINE, CLASS III, 8.88 MILE

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. PAVERS, ROLLERS AND OTHER EQUIPMENT MAY BE PARKED IN AREAS ALONG THE HIGHWAY WHEN PAVING OPERATIONS ARE SCHEDULED TO CONTINUE WITHIN THE NEXT WORKDAY. OTHERWISE 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.

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.

ADVANCED 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.

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.

ITEM 632 - DETECTOR LOOP, AS PER PLAN

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.
632 DETECTOR LOOP, AS PER PLAN, 19 EACH

- SR-8 AND SR-82
- 4 EACH, 40' X 8' QUADRAPOLE
- 1 EACH, 20' X 6'

- SR-8 AND VALLEY VIEW RD
- 2 EACH, 45' X 6'
- 2 EACH, 40' X 6'
- 2 EACH, 20' X 6'
- 2 EACH, 6' X 6'

- SR-8 AND OLDE 8/MEADOW LANE
- 3 EACH, 40' X 8' QUADRAPOLE
- 2 EACH, 20' X 6'
- 1 EACH, 22' X 6'

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR

IN ADDITION TO THE REQUIREMENTS OF 614 AND THE LATEST EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD). A UNIFORMED LAW ENFORCEMENT OFFICER AND OFFICIAL PATROL CAR WITH WORKING TOP MOUNTED EMERGENCY FLASHING LIGHTS SHALL BE PROVIDED FOR CONTROLLING TRAFFIC AS DIRECTED BY THE ENGINEER FOR THE FOLLOWING TASKS:

1. FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED.

LAW ENFORCEMENT OFFICERS (L.E.O.'S) SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED. THE LEO'S ARE CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACTIONS. ALTHOUGH THEY ARE EMPLOYED BY THE CONTRACTOR, THE PROJECT ENGINEER SHALL HAVE CONTROL OVER THEIR PLACEMENT. THE OFFICIAL PATROL CAR SHALL BE A PUBLIC SAFETY VEHICLE AS REQUIRED BY THE OHIO REVISED CODE.

THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THESE SERVICES WITH:

CANTON PATROL POST
4710 SHUFFEL ROAD
NORTH CANTON, OH 44720
PHONE: (330) 433-6200

IF AFTER CONTACTING THE OHIO HIGHWAY PATROL, IT IS DETERMINED THAT THEY CANNOT SUPPLY THE LEO, THEN AN AUTHORIZED MUNICIPAL OR COUNTY POLICE OFFICER WITH A MARKED AND FLASHER-LIGHT EQUIPPED OFFICIAL POLICE OR PATROL CAR SHALL BE PROVIDED.

LAW ENFORCEMENT OFFICERS WITH PATROL CAR REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614 LAW ENFORCEMENT OFFICER WITH PATROL CAR. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

- 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR, 350 HOURS

THE HOURS PAID SHALL INCLUDE MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

IF THE CONTRACTOR WISHES TO UTILIZE LEO'S FOR FLAGGING AND TRAFFIC CONTROL OTHER THAN FOR THAT REQUIRED IN THESE PLANS, HE MAY DO SO AT HIS OWN EXPENSE. PAYMENT FOR THE EXCESS ABOVE THE CONTRACT REQUIREMENTS WILL BE INCLUDED UNDER ITEM 614 MAINTAINING TRAFFIC.

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR SHALL BE ADVISED THAT THERE WILL BE SEVERAL PROJECTS UNDER CONSTRUCTION AT THIS SAME TIME: STA/SUM-ITS, PIDs 77482 AND 77331, WHICH SELLS SPRING 2009 SUM-8-15.63, PID 24508, PROJECT NO. 467-06, COMPLETION DATE OF 7/31/2010

ALL LANE CLOSURES ON THE SUM-8-15.63 ODOT PROJECT SHALL GOVERN OVER LANE RESTRICTION REQUIREMENTS FOR THIS PROJECT. INSTALLATION OF ALL MOT ZONES WILL BE SUBJECT TO THE PROJECT ENGINEER'S REVIEW AND APPROVAL. THE CONTRACTOR SHALL SCHEDULE HIS WORK SO AS TO CAUSE NO DELAY OR CONFLICT WITH THE SUM-8-15.63 PROJECT. COMPENSATION FOR THIS COORDINATION SHALL BE INCIDENTAL TO THE VARIOUS PAY ITEMS WITHIN THIS CONTRACT.

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MAINTENANCE OF TRAFFIC GENERAL NOTES

SUM-8-18.05

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, 2 PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS), ON SITE, FOR THE DURATION OF TIME SPECIFIED IN THIS NOTE, EACH SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS MAINTAINED BY THE DIRECTOR. THIS LIST IS AVAILABLE ON THE ODOT WEBSITE AT [HTTP://WWW.DOT.STATE.OH.US/TESTLAB/APPLISTS/MISC/PCMS.HTM](http://www.dot.state.oh.us/testlab/applists/misc/pcms.htm) THE CLASS 1 UNITS SHALL HAVE A MINIMUM LEGIBILITY DISTANCE OF 1250 FEET.

EACH SIGN SHALL BE TRAILER MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM TO DIM THE SIGN DURING DARKNESS AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. PCMS TRAILERS SHOULD BE DELINEATED ON A PERMANENT BASIS BY AFFIXING RETRO-REFLECTIVE MATERIAL, IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER AS SEEN BY ONCOMING ROAD USERS.

PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE PCMS SHOULD NOT BE LOCATED IN THE MEDIAN OF THE HIGHWAY UNLESS IT IS PROTECTED FROM BOTH DIRECTIONS OF TRAFFIC. THE PCMS SHOULD BE LOCATED BEHIND GUARDRAIL WHEREVER POSSIBLE. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE THE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS WILL BE OFF, FACING AWAY FROM ALL TRAFFIC AND SHALL DISPLAY ONE OR MORE HIGH INTENSITY YELLOW REFLECTIVE SHEETING SURFACES OF 9-INCH BY 15-INCH MINIMUM SIZE FACING TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT AND TO REVISE SIGN MESSAGES, IF NECESSARY.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE CONTRACTOR. A LIST OF ALL PROPOSED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION. THE SIGN SHALL HAVE TWO DIFFERENT MEMORIES (PROM AND RAM) AND CAPABILITY TO STORE UP TO 99 MESSAGES IN EACH MEMORY. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. IN ORDER TO CONVEY A MAXIMUM OF INFORMATION AT A SINGLE GLANCE, ONLY THREE LINE PRESENTATION FORMATS WITH A MAXIMUM OF SIX MESSAGE PHASES WILL BE PERMITTED. NORMALLY, ONLY A MAXIMUM OF THREE MESSAGE PHASES SHOULD BE EMPLOYED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST ONCE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DE-ACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL [IN ACTIVE CELLULAR AREAS] ALLOW REMOTE SIGN ACTIVATION, DEACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF 614. THE CONTRACTOR SHALL PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC AND THE ENTIRE COST TO CONTROL TRAFFIC ACCRUED BY THE DEPARTMENT WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24 HOURS PER DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES. THE REQUIREMENT TO FURNISH, INSTALL, MAINTAIN AND REMOVE A PCMS UNIT ON THIS PROJECT SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES AS OUTLINED IN 614.02.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE BID FOR EACH SIGN MONTH OF ITEM 614 PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN AND SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

614 PORTABLE CHANGEABLE MESSAGE SIGN,
AS PER PLAN, 4 SIGN MONTH

ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN) FOR WORK ON CULVERT AT SLM 19.01

NOTICE OF CLOSURE SIGNS, AS DETAILED IN THESE PLANS, SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD OR RAMP CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMP AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

SR-8 WILL BE
CLOSED (date)
FOR 2 DAYS
INFO: 330-786-2211

W20-H13-60

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 INCH 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.

DESIGNATED LOCAL DETOUR ROUTE - FOR WORK ON CULVERT AT SLM 19.01

IN ADDITION TO THE OFFICIAL, SIGNED DETOUR ROUTE, A LOCAL ROUTE HAS BEEN DETERMINED TO BE THE SECONDARY, UNSIGNED DETOUR ROUTE OR "DESIGNATED LOCAL DETOUR ROUTE." THIS ROUTE IS SHOWN ON SHEET NO. 8. DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THIS ROUTE IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST AND STANDING WATER. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL DETOUR ROUTE SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PURPOSE. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DETERMINED BY THE ENGINEER.

DETOUR NOTIFICATION - FOR WORK ON CULVERT AT SLM 19.01

THE CONTRACTOR SHALL ADVISE THE ODOT DISTRICT OFFICE (330-786-3148) EIGHTEEN (18) DAYS IN ADVANCE OF WHEN THE DETOUR ROUTE SHOULD BE IN EFFECT. ALL WORK ZONE DEVICES REQUIRED SHALL BE FURNISHED, ERECTED, MAINTAINED, AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. PAYMENT FOR ALL WORK ASSOCIATED WITH THE DETOUR SHALL BE INCLUDED UNDER THE LUMP SUM BID FOR ITEM 614, DETOUR SIGNING.

DETOUR DURATION - FOR WORK ON CULVERT AT SLM 19.01

THE MAXIMUM LENGTH OF TIME FOR THE DETOUR ROUTE TO BE IN EFFECT SHALL BE TWO WEEKENDS (A WEEKEND IS 7:00PM FRIDAY TO 6:00AM MONDAY). THE TWO WEEKENDS WILL BE DIVIDED AS FOLLOWS: ONE WEEKEND FOR NORTHBOUND WORK AND ONE WEEKEND FOR SOUTHBOUND WORK. ONLY ONE DIRECTION AT A TIME MAY BE CLOSED. CONSTRUCTION WORK MAY BE PERFORMED BEFORE AND AFTER THE DETOUR LIMITATION DATES, BUT THERE SHALL BE NO RESTRICTIONS (LANE WIDTH REDUCTIONS, TEMPORARY ROADWAYS, OR ONE WAY TRAFFIC) TO THROUGH OR LOCAL TRAFFIC. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SCHEDULE AND PERFORM THE CONSTRUCTION WORK WITHIN THE DETOUR LIMITATION TIME. THE FAILURE OF THE CONTRACTOR TO MEET THE DETOUR LIMITATION DATES WILL CAUSE SEPARATE LIQUIDATED DAMAGES AS PER 108.07 OF THE CMS OF OVERRUN OF DETOUR LIMITATION TIME TO BE ASSESSED. THE CONTRACTOR WILL COMPLY WITH ALL PROVISIONS OF 108.07 OF THE DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS.

ITEM 614, MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS)

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

CHRISTMAS	FOURTH OF JULY
NEW YEARS	LABOR DAY
MEMORIAL 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 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM 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 CMS 108.07.

LEGEND (CONTINUED)

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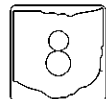
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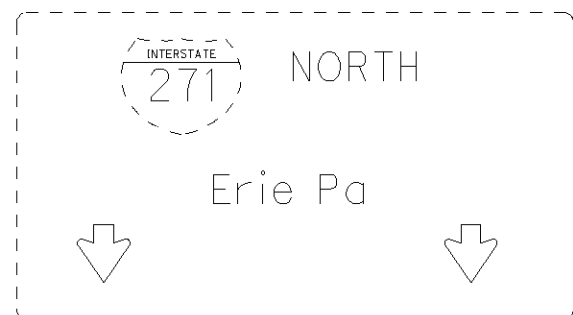
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NORTH

M3-1-36



MI-5-36-2



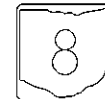
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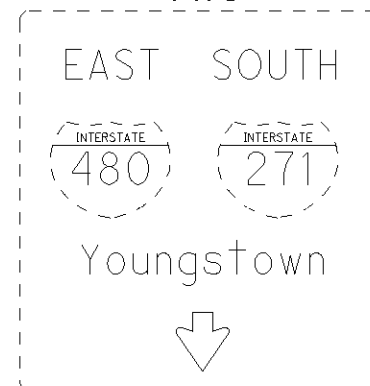
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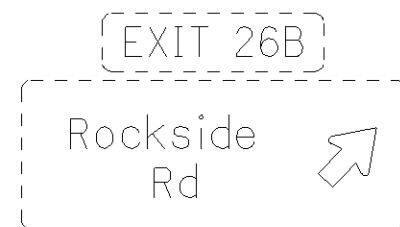
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EXIT 26B



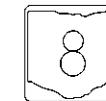
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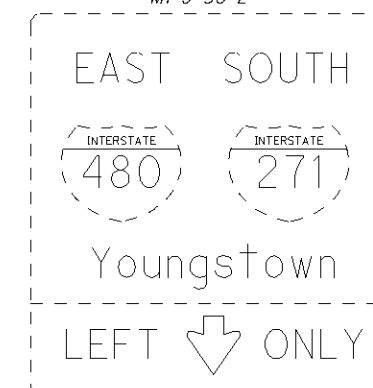
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M3-3-36



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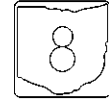
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LEGEND (CONTINUED)

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DETOUR

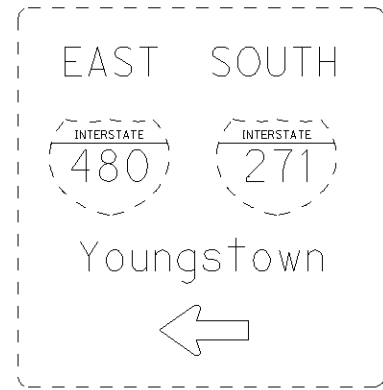
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M1-5-36-2



M6-1L-30



THIS SIGN IS MOUNTED ON A SIGNAL SUPPORT.

P

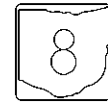


DETOUR

M4-8-30

SOUTH

M3-3-36

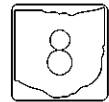


M1-5-36-2

O

DETOUR

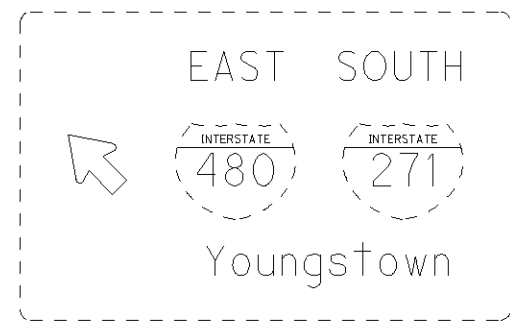
M4-8-30



M1-5-36-2



M6-2L-30

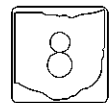


DETOUR

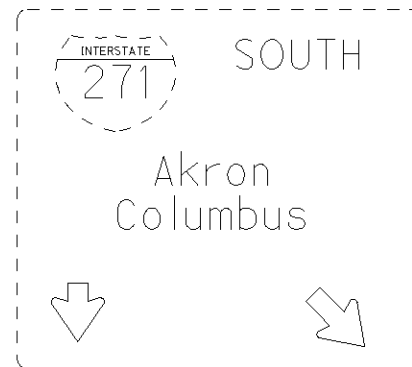
M4-8-30

SOUTH

M3-3-36

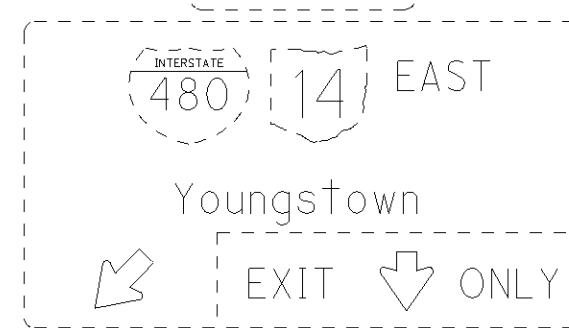


M1-5-36-2

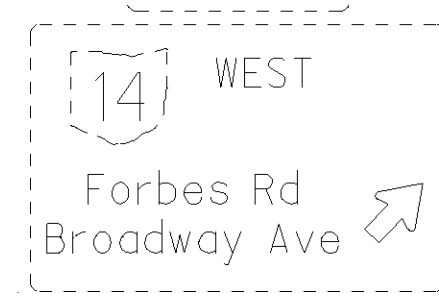


R

EXIT 21



EXIT 23



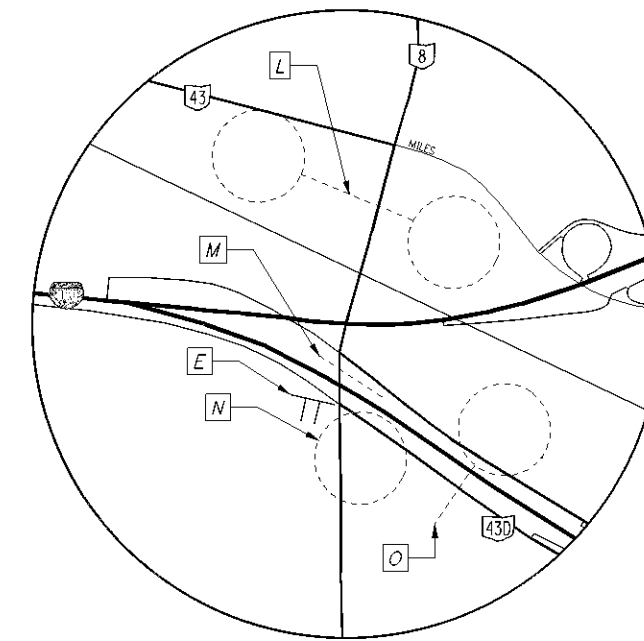
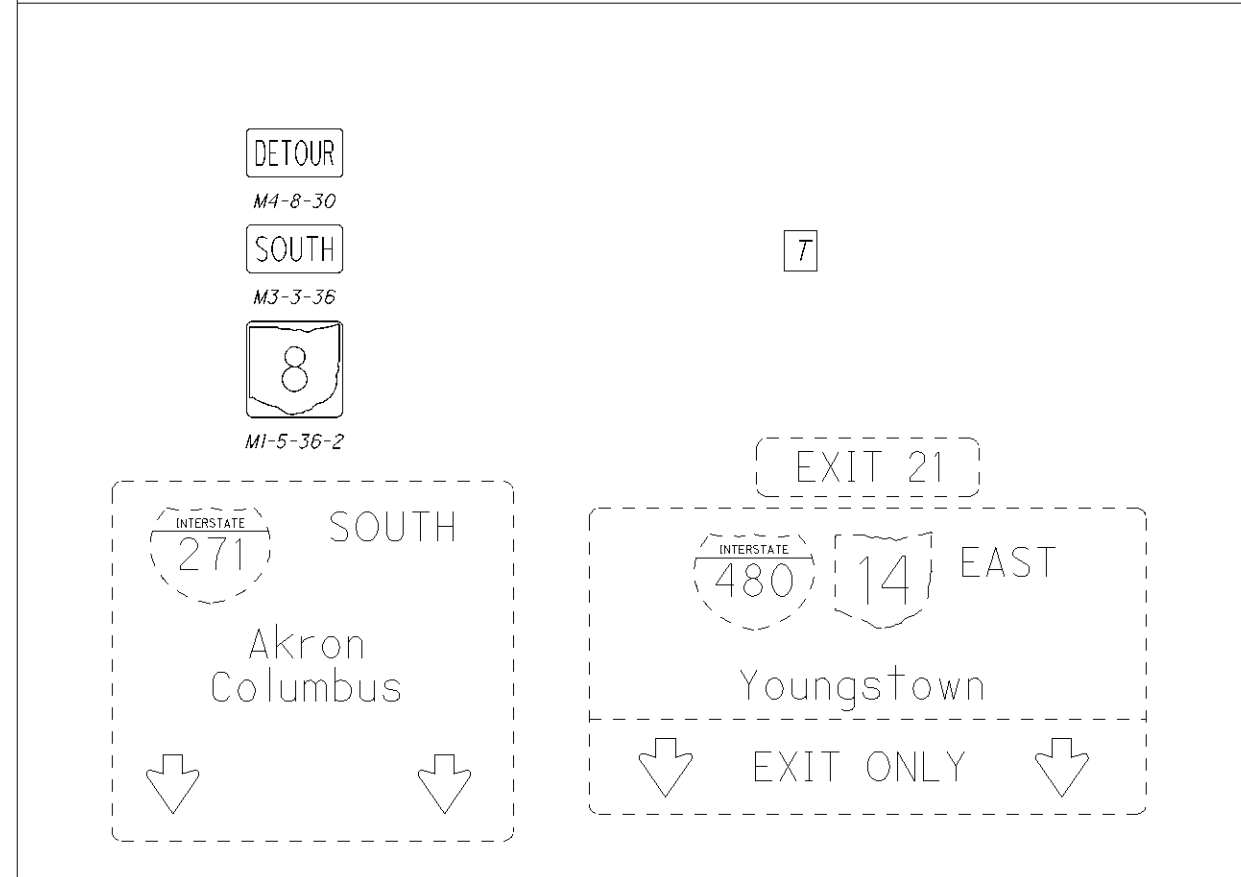
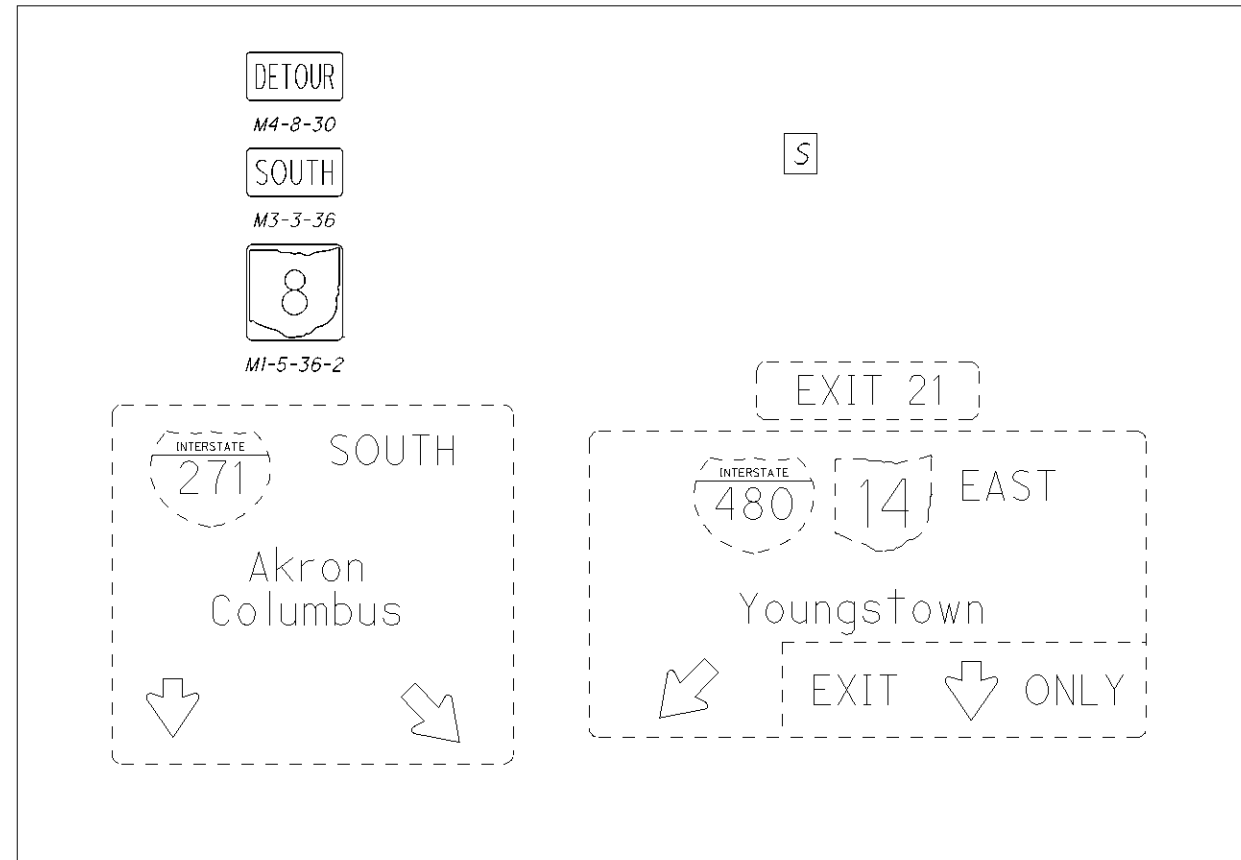
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CALCULATED
MJH
CHECKED

DETOUR PLAN FOR CLOSURE OF SR-8

SUM-8-18.05

LEGEND (CONTINUED)



DETAIL A



NOT TO SCALE

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CALCULATED
MJH
CHECKED

DETOUR PLAN FOR CLOSURE OF SR-8

SUM-8-18.05

GENERAL NOTES

1. It is intended that this drawing be used for treatment of drop-offs that develop during construction operations, and that are not otherwise provided for in the construction plans. Where the plans do not provide specific items for labor, equipment, or materials to implement the drop-off treatments specified herein, they shall be included for payment in the lump sum bid for Item 614 - Maintaining Traffic.

2. While the need for certain advisory signing is noted herein, it is not intended that this be indicative of all signing that may be required to advise or warn motorist, and all requirements of the Ohio Manual of Uniform Traffic Control Devices (OMUTCD) must be fulfilled.

3. In urban or otherwise heavily developed areas where pedestrians and/or bicyclists may be present in significant numbers, additional signing and protective measures other than those shown herein may be required.

4. The drop-off treatment selected for use at any given location shall be appropriate for the prevailing conditions at the site.

5. Where concrete barrier is specified, it shall be in accordance with Standard Construction Drawing PCB - 9.1, RM-4.2 and Item 622.

6. When drums are specified for a drop-off condition, a minimum number of four drums shall be used. Spacing shall be as indicated in the plans or as specified in the OMUTCD.

7. When W8-9 (Low Shoulder) signs or W8-11 (Uneven Lanes) and R4-9 (Stay in Lane) signs are required, they shall be placed 750' in advance of the condition, on all intersecting entrance ramps within the limits of the condition and immediately beyond all intersecting roadways within the limits of the condition. When the drop-off condition extends more than one-half mile, additional signs shall be erected at intervals of a maximum of one mile.

8. For locations, such as at ramps, lane shifts, lane closures, etc., where traffic is required to negotiate any difference in elevation between pavements, the Optional Wedge Treatment shall be provided.

9. Portable concrete barrier shall be placed on the same level as the traffic surface and shall not encroach on lane width(s) designated as the minimum required for traffic use. Where drums are used, and their presence would reduce traveled lane widths to less than 10', drums may be placed on the opposite level from that of traffic provided the drop-off depth does not exceed 5" and approval is granted by the Project Engineer.

10. Pavement Repairs (or similar work):

a. Lengths greater than 60 feet - utilize appropriate treatment from Condition I.

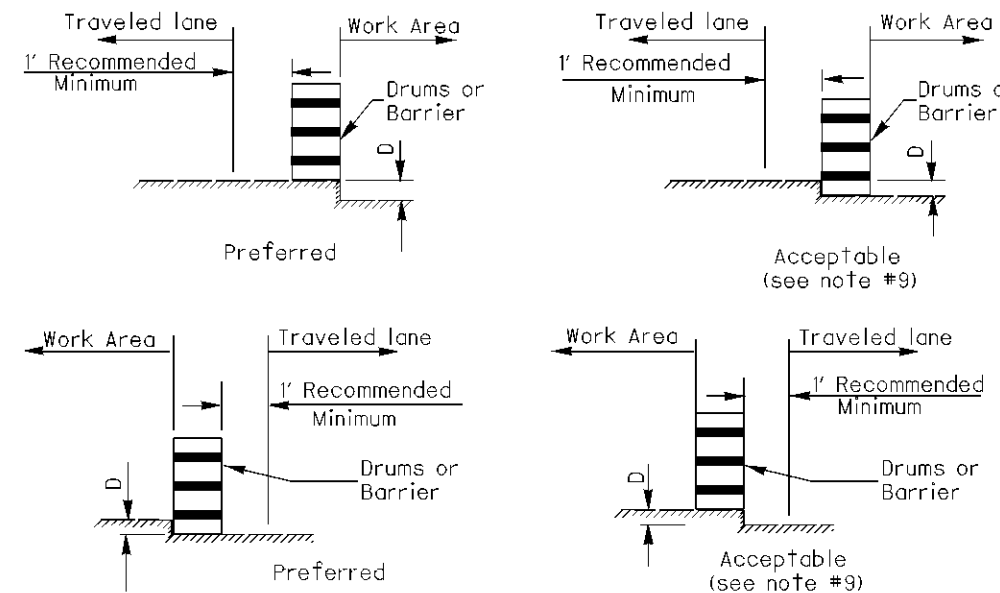
b. Lengths of 60 feet or less - repairs shall be affected in accordance with Item 255.08. Drums may be used as a separator adjacent to the traveled lane.

CONDITION I

1. These treatments are to be used for resurfacing, pavement planing excavation, etc., between, beside or within traveled lanes.

Distance From Traveled Lane	D (in)	Treatment
1FT-12FT	$\leq 1/2$	Erect W8-11.
1FT-12FT	$1/2-3$	1. Lane closure utilizing drums* as shown below. (use only on 3 or more lanes) - or - 2. Optional Wedge Treatment.
1FT-12FT	3 - 5	Lane closure utilizing drums as shown below
1FT-12FT	5 - 12	Lane closure utilizing portable concrete barrier as shown below.
>12FT-20FT	12 - 24	Lane closure utilizing drums as shown below
>12FT-20FT	>24	Lane closure utilizing portable concrete barrier as shown below.

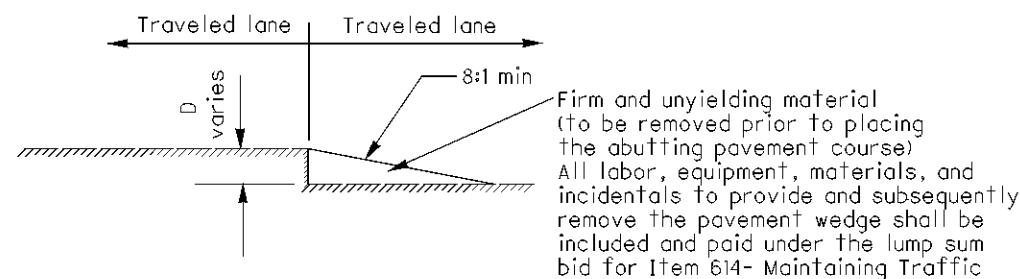
*Cones may be used for daytime only conditions.



OPTIONAL WEDGE TREATMENT

(MILLING OR RESURFACING)

1. This treatment may be used when permitted for Condition I only.
2. W8-11 and R4-9 signs required.



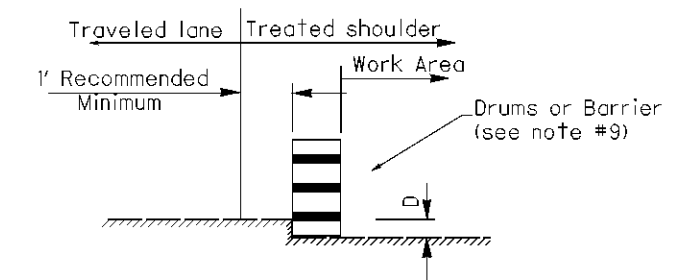
CONDITION II

DROPOFFS WITHIN GRADED SHOULDER AREA
[except for linear grading areas]

The treatments indicated below are for use in conjunction with resurfacing, planing, or excavation within the graded shoulder area.

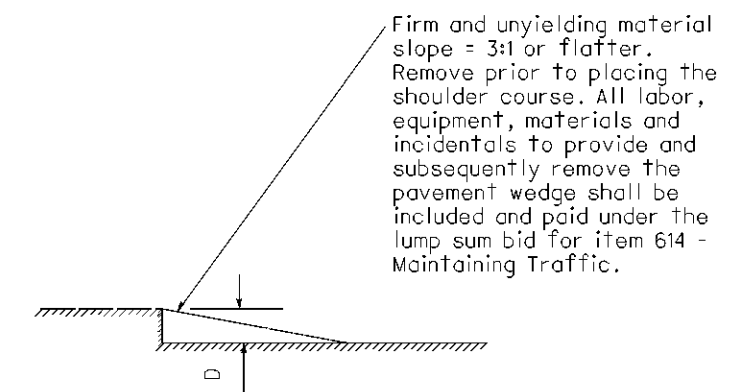
Distance From Traveled Lane	D (in)	Treatment
1FT-12FT	$\leq 1/2$	1.) If edgelines are present, no treatment necessary. or 2.) Erect W8-11 and R4-9 signs
1FT-12FT	$1/2-5$	1) If min. lane widths* requirements can be met, maintain lanes utilizing drums as shown below. - or - 2) If min. lane width* requirements cannot be met, close adjacent lane utilizing drums. (use only on 3 or more lanes) - or - 3) Optional shoulder treatment
>12FT-30FT	≤ 24	Shoulder closure utilizing drums as shown below
>12FT-30FT	>24	Shoulder closure utilizing portable concrete barrier as shown below.

*Minimum lane widths shall be 10' unless otherwise specified in the plans.



OPTIONAL SHOULDER TREATMENT

1. This treatment shall not be used within a bituminous shoulder where a hot longitudinal joint per 401.17 is required.
2. W8-9 signs required.



TS 54
DISTRICT 4

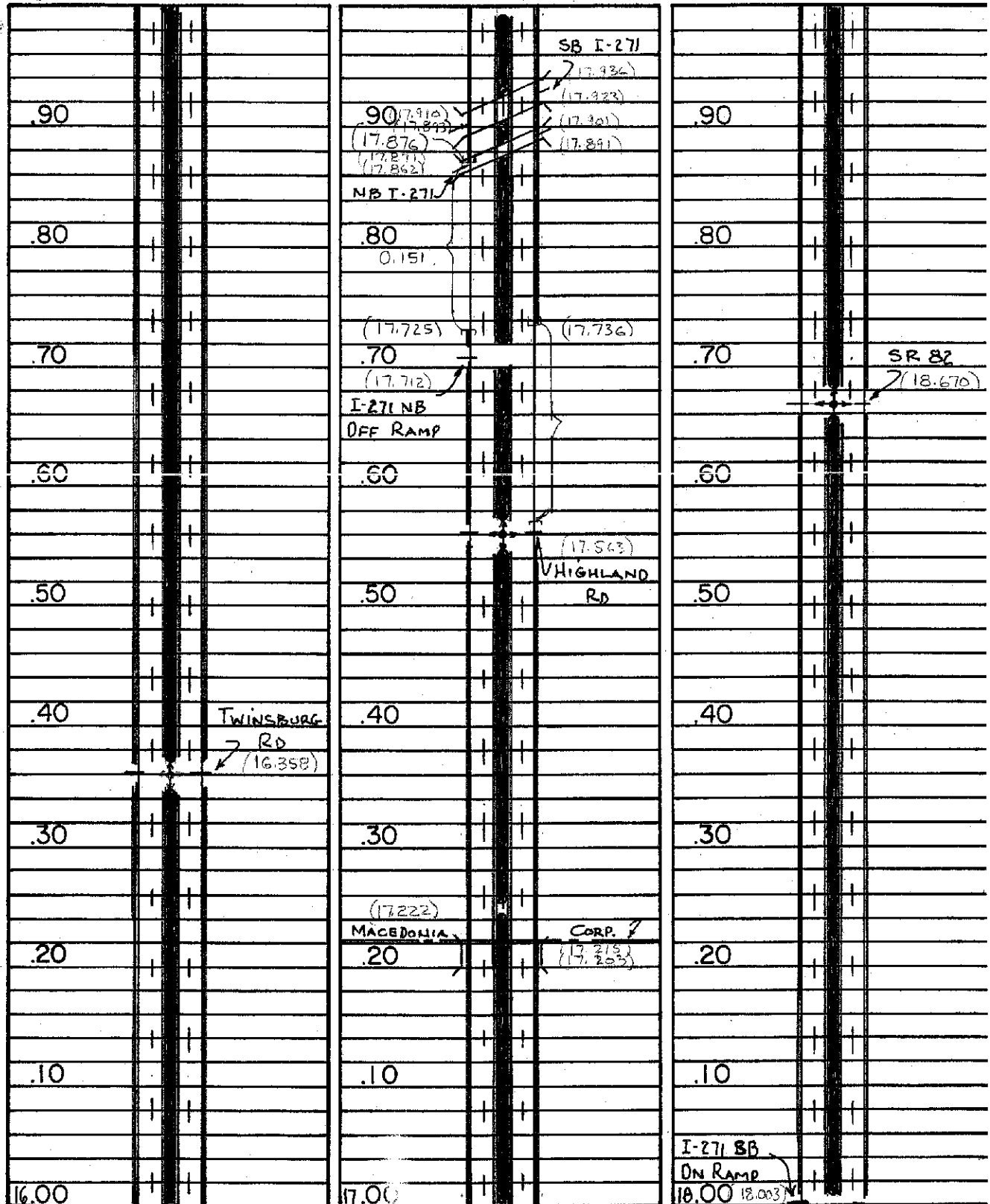


Center Line Log Record and Field Sheet

COUNTY SUMMIT ROUTE 8

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

SHEET 3 OF 7



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

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

TS 54
DISTRICT 4

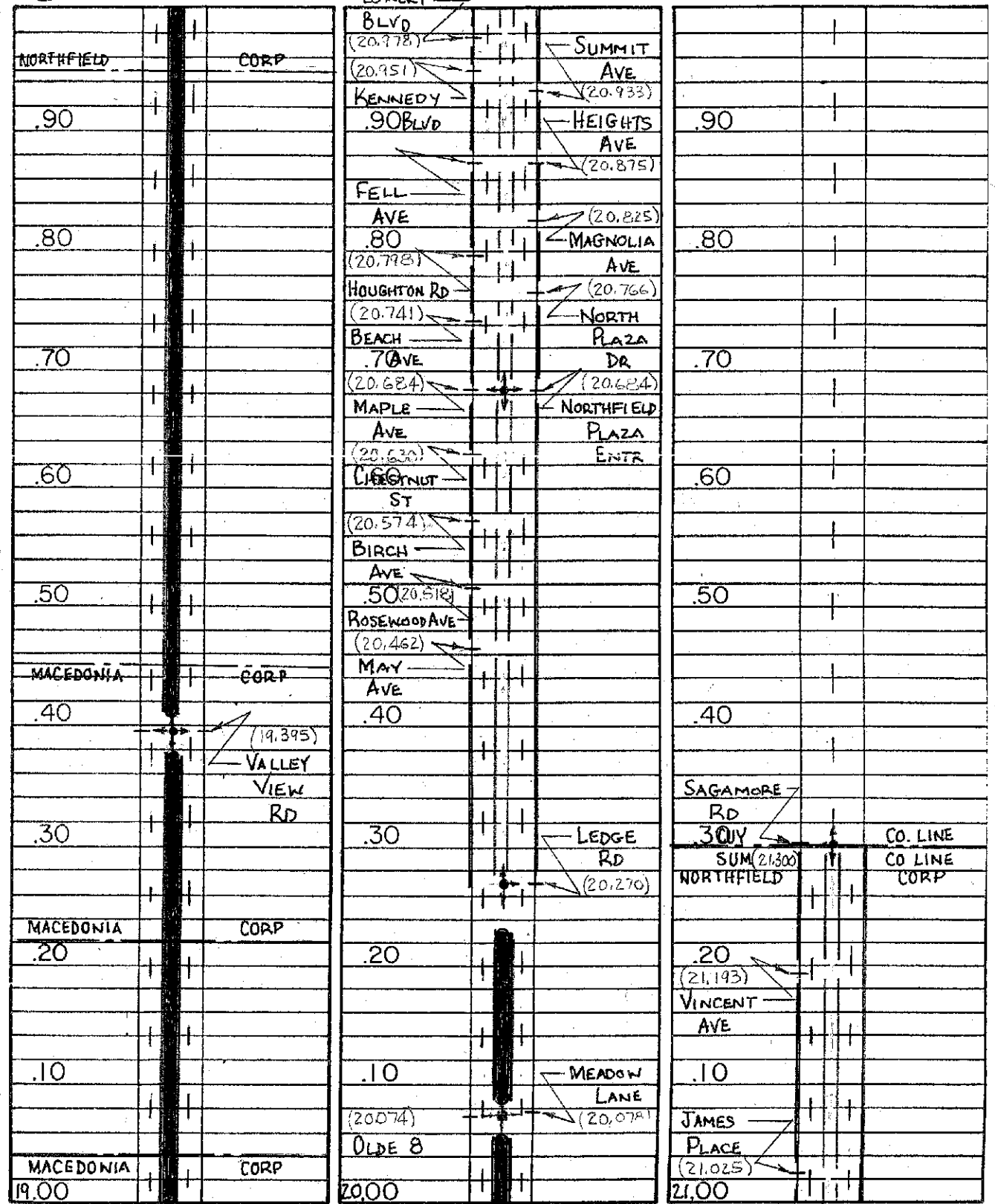


Center Line Log Record and Field Sheet

COUNTY SUMMIT ROUTE 8

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

SHEET 4 OF 4



Yellow: Solid _____ Dash _____ Yellow: Solid 1.136 Dash _____ Yellow: Solid 0.540 Dash _____

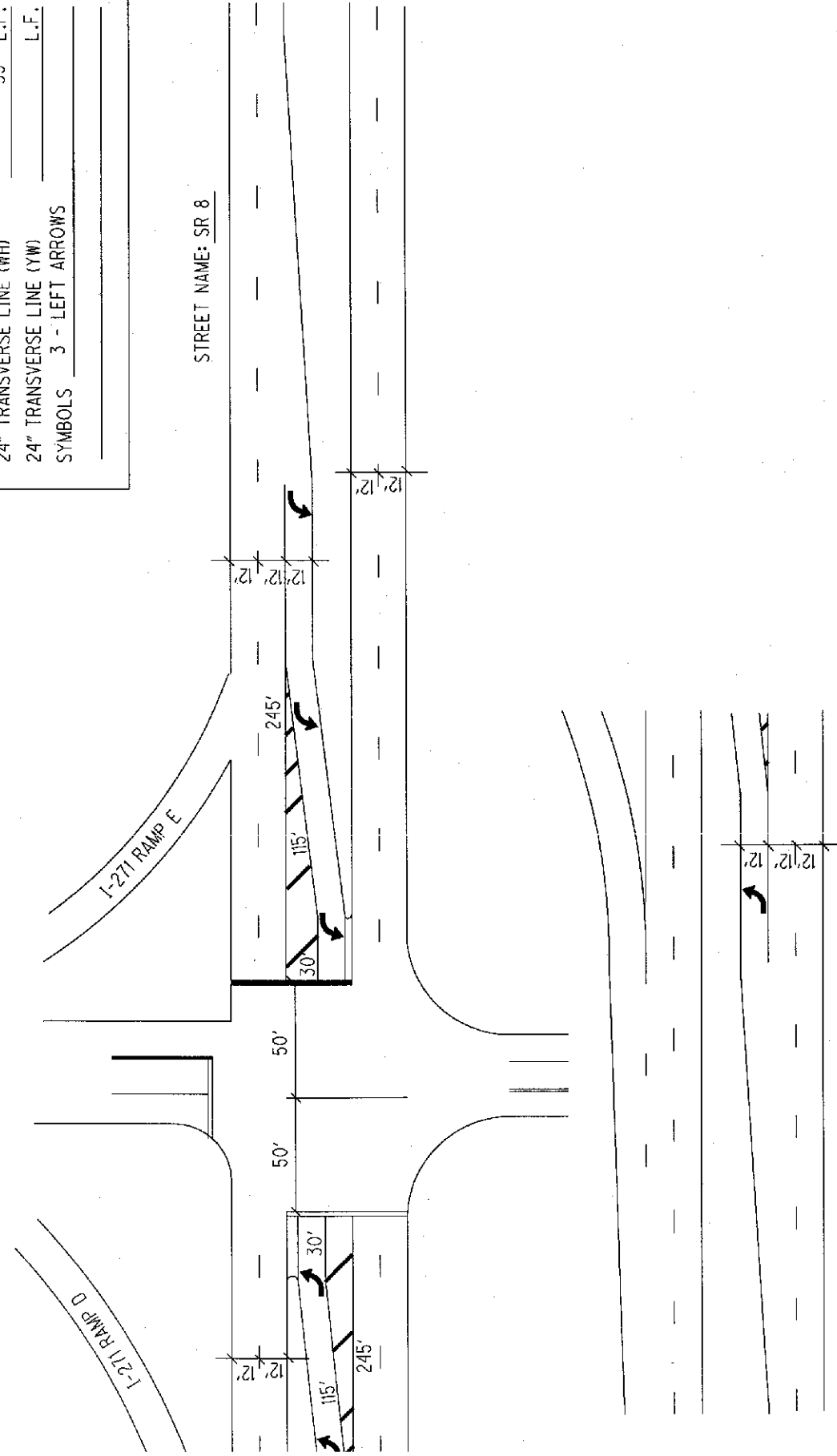
TOTAL YELLOW THIS PAGE: SOLID 1.676 DASH _____, EQUIVALENT LINE 1.676

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PAVEMENT MARKING DETAILS

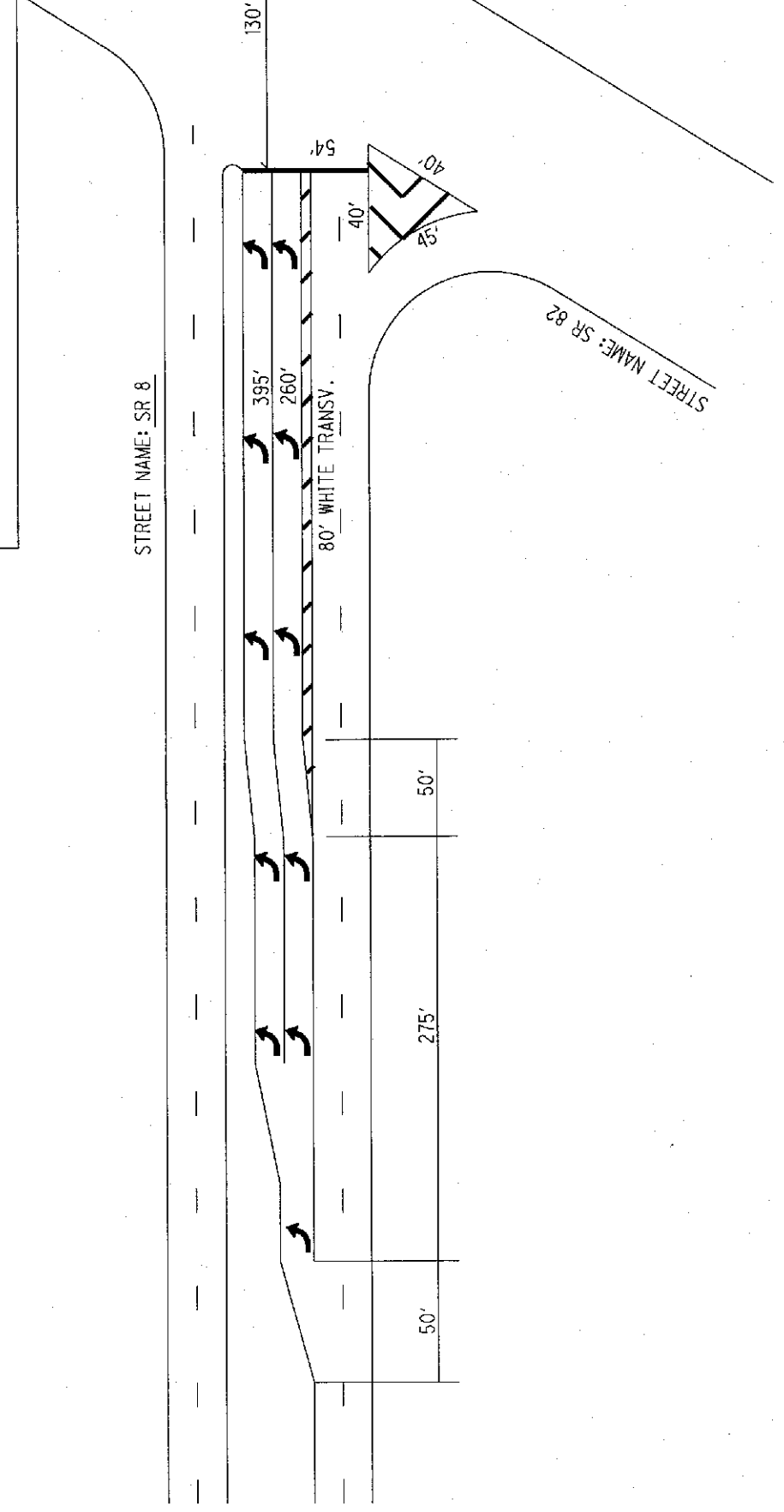
SUM-8-18.05

COUNTY: SUMMIT
 LOCATION: SR 8 @ I-271 RAMP
 S.L.M.: 18.05
 24" STOP LINE 48 L.F.
 12" CROSSWALK LINE L.F.
 DOTTED LINE L.F.
 8" CHANNELIZING LINE 390 L.F.
 24" TRANSVERSE LINE (WH) 35 L.F.
 24" TRANSVERSE LINE (YW) L.F.
 SYMBOLS 3 - LEFT ARROWS



STREET NAME: SR 8

COUNTY: SUMMIT
 LOCATION: SR 8 @ SR 82
 S.L.M.: 18.670
 24" STOP LINE 108 L.F.
 12" CROSSWALK LINE L.F.
 DOTTED LINE L.F.
 8" CHANNELIZING LINE 2600 L.F.
 24" TRANSVERSE LINE (WH) 173 L.F.
 24" TRANSVERSE LINE (YW) L.F.
 SYMBOLS 22-LEFT TURN ARROWS

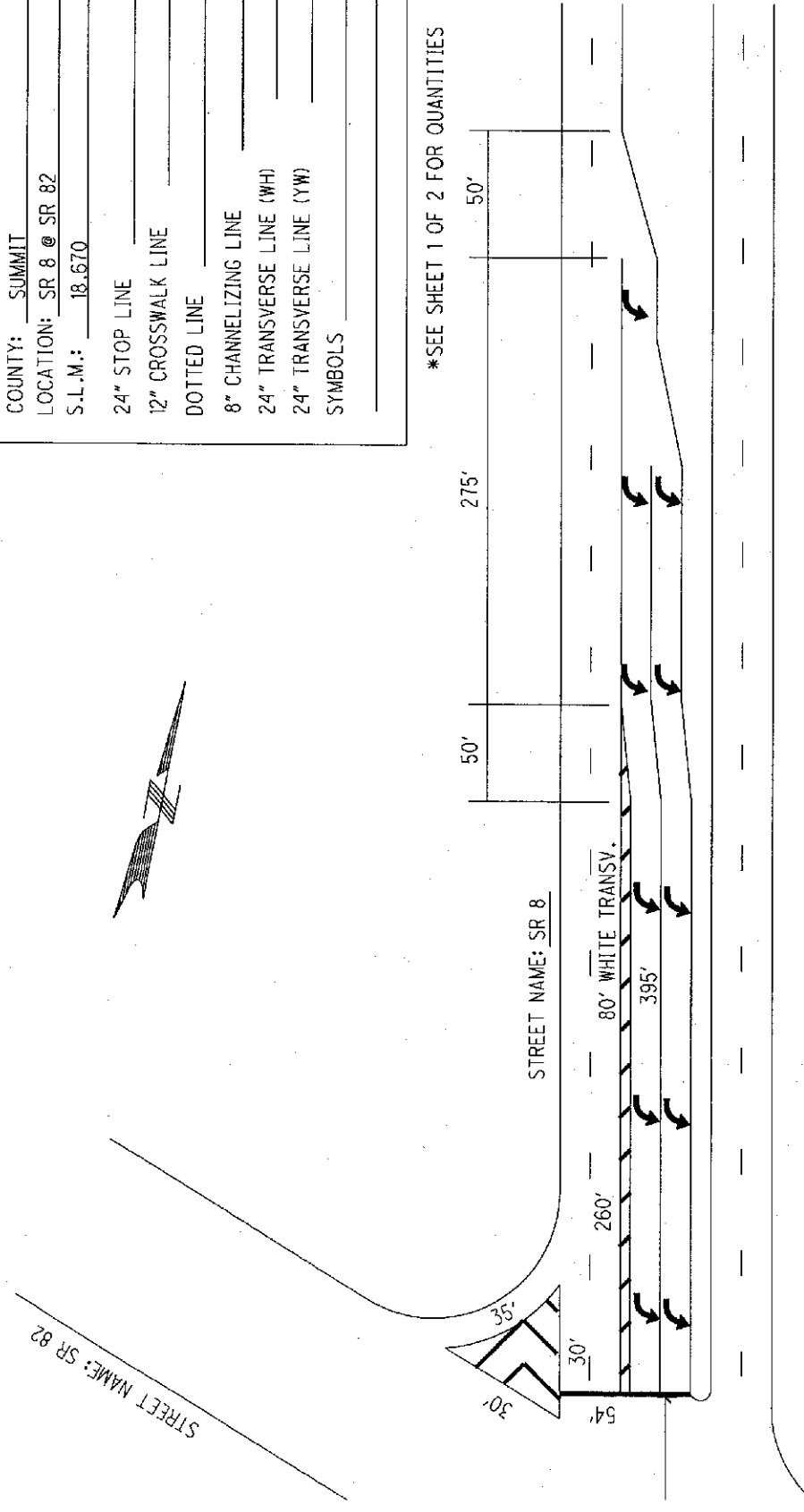


STREET NAME: SR 8

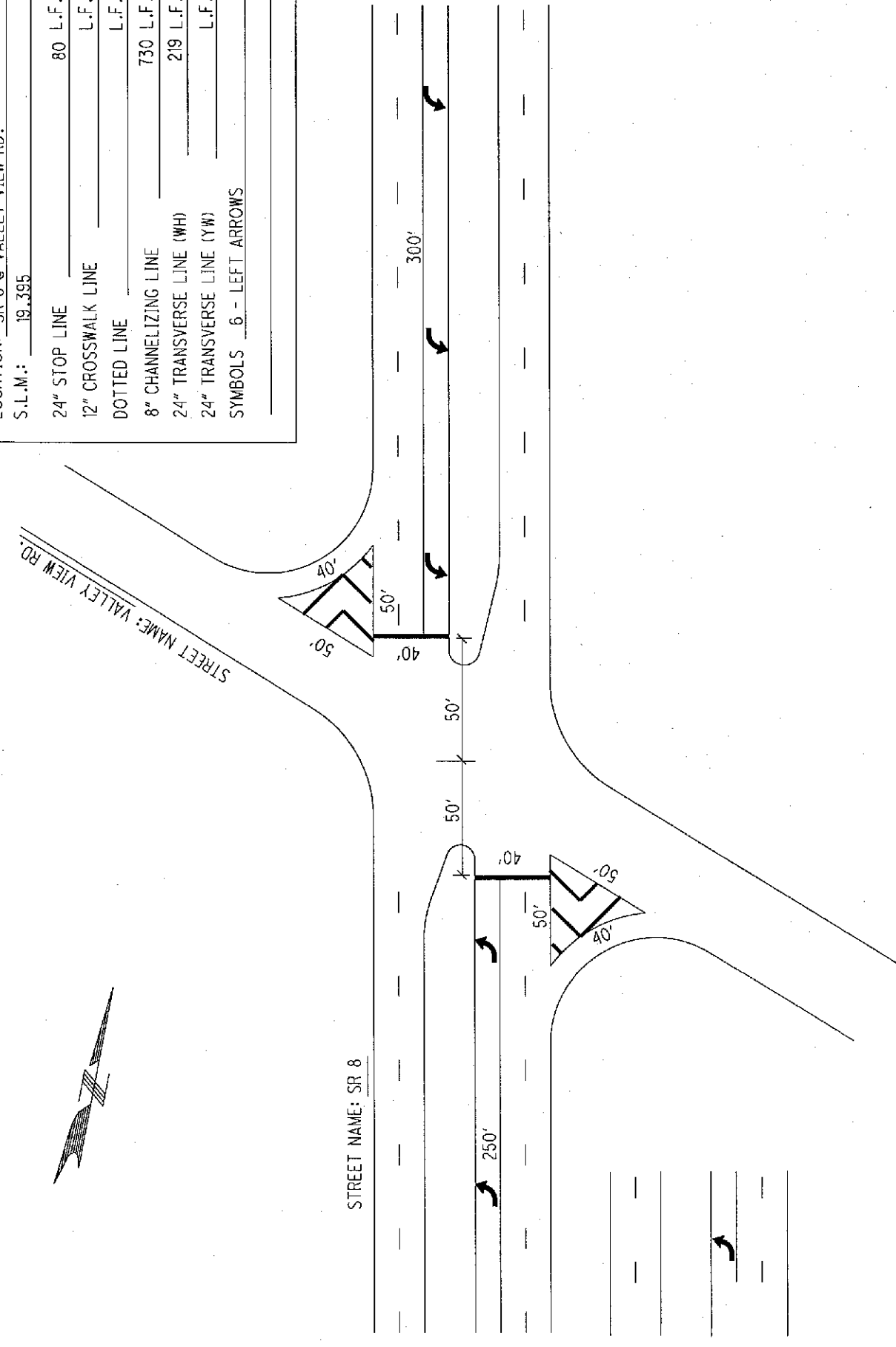
STREET NAME: SR 82

COUNTY: SUMMIT 2 OF 2
 LOCATION: SR 8 @ SR 82
 S.L.M.: 18.670
 24" STOP LINE _____ L.F.
 12" CROSSWALK LINE _____ L.F.
 DOTTED LINE _____ L.F.
 8" CHANNELIZING LINE _____ L.F.
 24" TRANSVERSE LINE (WH) _____ L.F.
 24" TRANSVERSE LINE (YW) _____ L.F.
 SYMBOLS _____

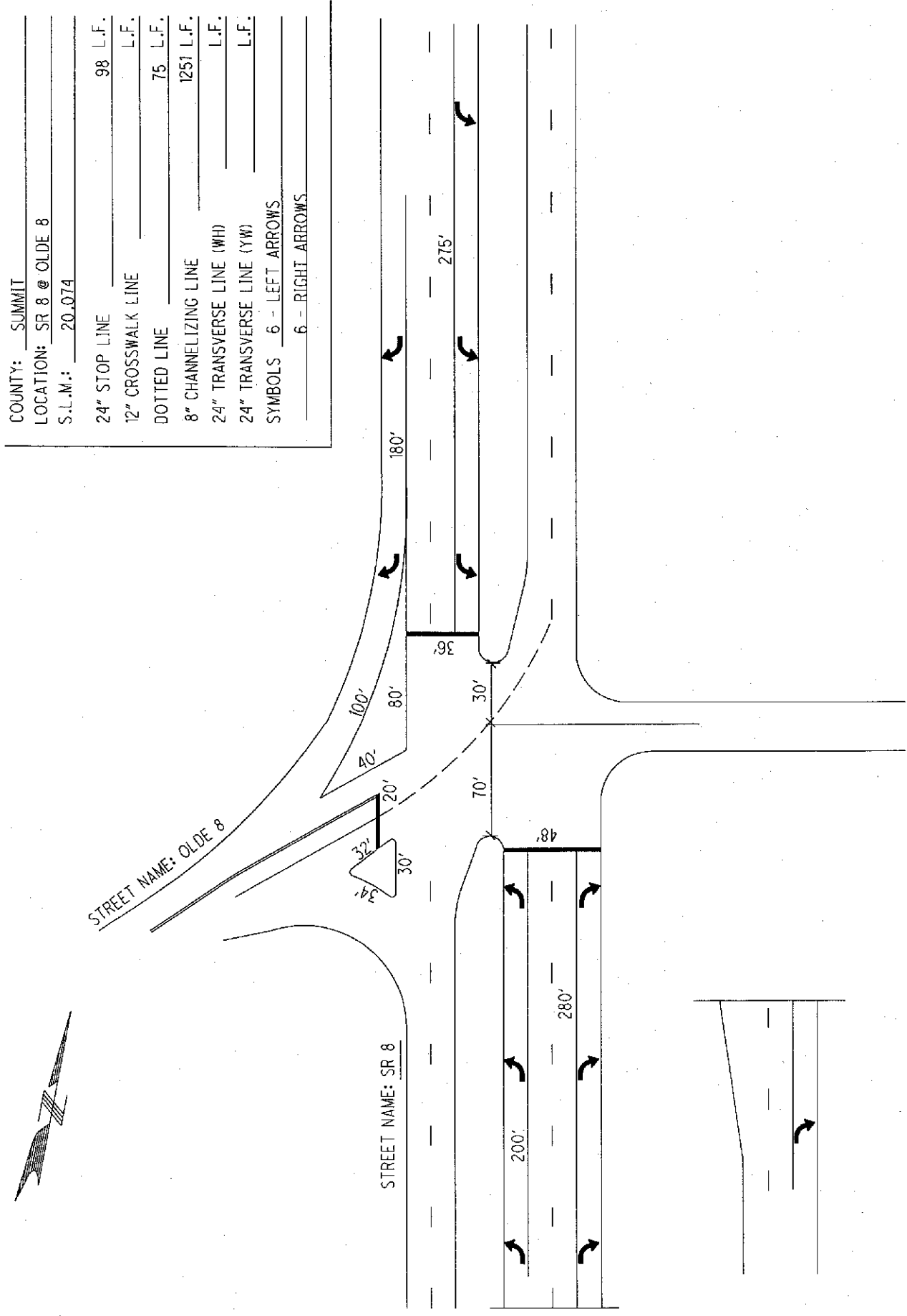
*SEE SHEET 1 OF 2 FOR QUANTITIES



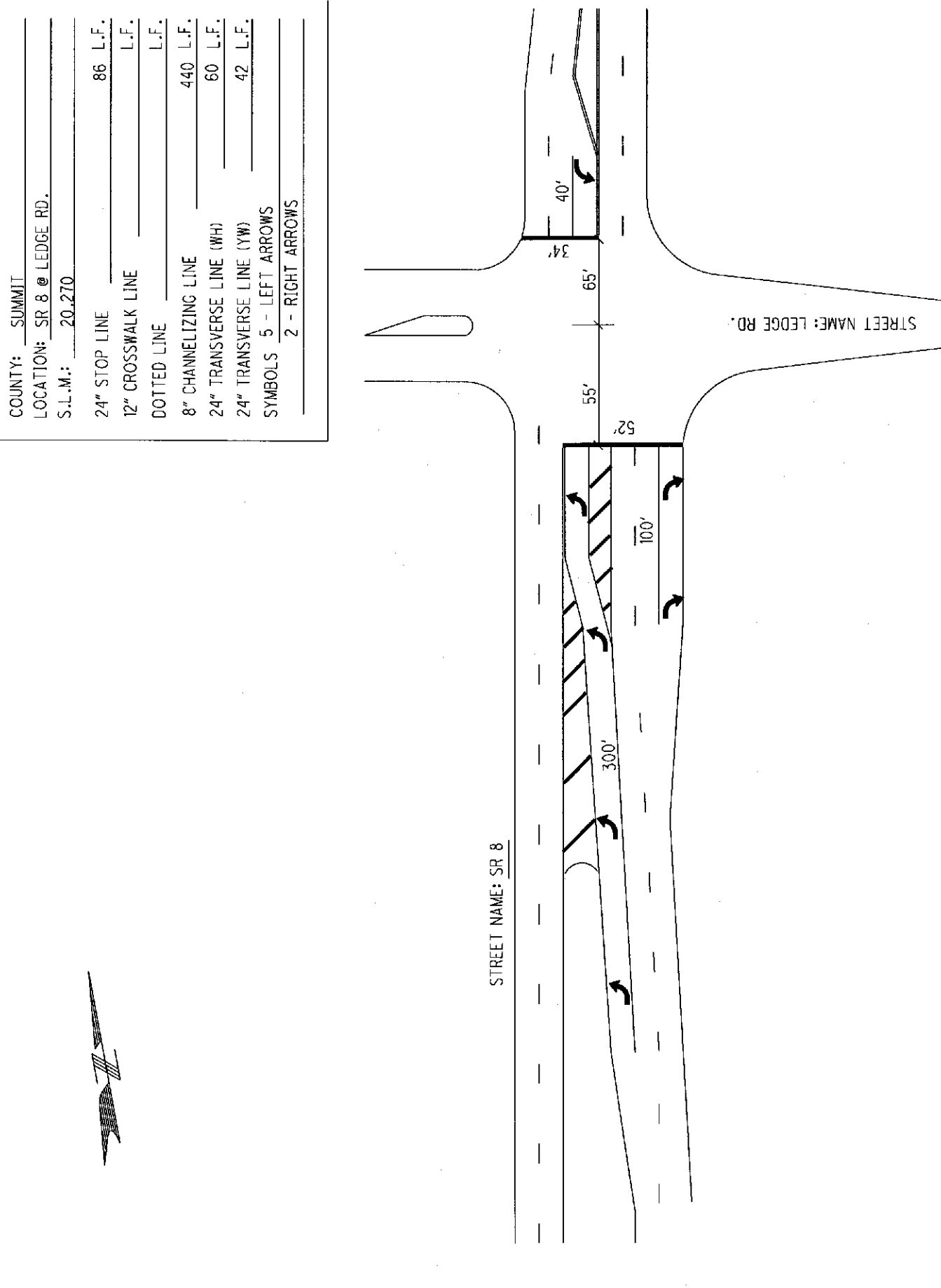
COUNTY: SUMMIT
 LOCATION: SR 8 @ VALLEY VIEW RD.
 S.L.M.: 19.395
 24" STOP LINE _____ 80 L.F.
 12" CROSSWALK LINE _____ L.F.
 DOTTED LINE _____ L.F.
 8" CHANNELIZING LINE _____ 730 L.F.
 24" TRANSVERSE LINE (WH) _____ 219 L.F.
 24" TRANSVERSE LINE (YW) _____ L.F.
 SYMBOLS 6 - LEFT ARROWS



COUNTY: SUMMIT
 LOCATION: SR 8 @ OLDE 8
 S.L.M.: 20.074
 24" STOP LINE 98 L.F.
 12" CROSSWALK LINE L.F.
 DOTTED LINE 75 L.F.
 8" CHANNELIZING LINE 1251 L.F.
 24" TRANSVERSE LINE (WH) L.F.
 24" TRANSVERSE LINE (YW) L.F.
 SYMBOLS 6 - LEFT ARROWS
6 - RIGHT ARROWS

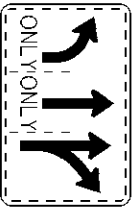


COUNTY: SUMMIT
 LOCATION: SR 8 @ LEDGE RD.
 S.L.M.: 20.270
 24" STOP LINE 86 L.F.
 12" CROSSWALK LINE L.F.
 DOTTED LINE L.F.
 8" CHANNELIZING LINE 440 L.F.
 24" TRANSVERSE LINE (WH) 60 L.F.
 24" TRANSVERSE LINE (YW) 42 L.F.
 SYMBOLS 5 - LEFT ARROWS
2 - RIGHT ARROWS



BEGIN WORK SLM 17.98

17.98

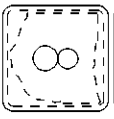


MACEDONIA COMMONS 18.02

18.03



18.04



18.10

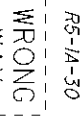


18.03

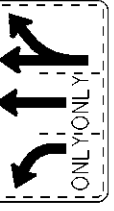
RAMP 1 271 18.06



18.07



18.09



18.81

18.04

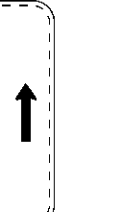
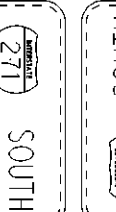


18.00



18.04

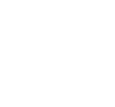
E6-2A-108



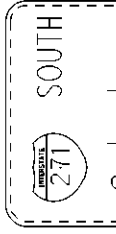
18.04



18.81



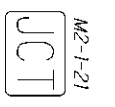
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18.27

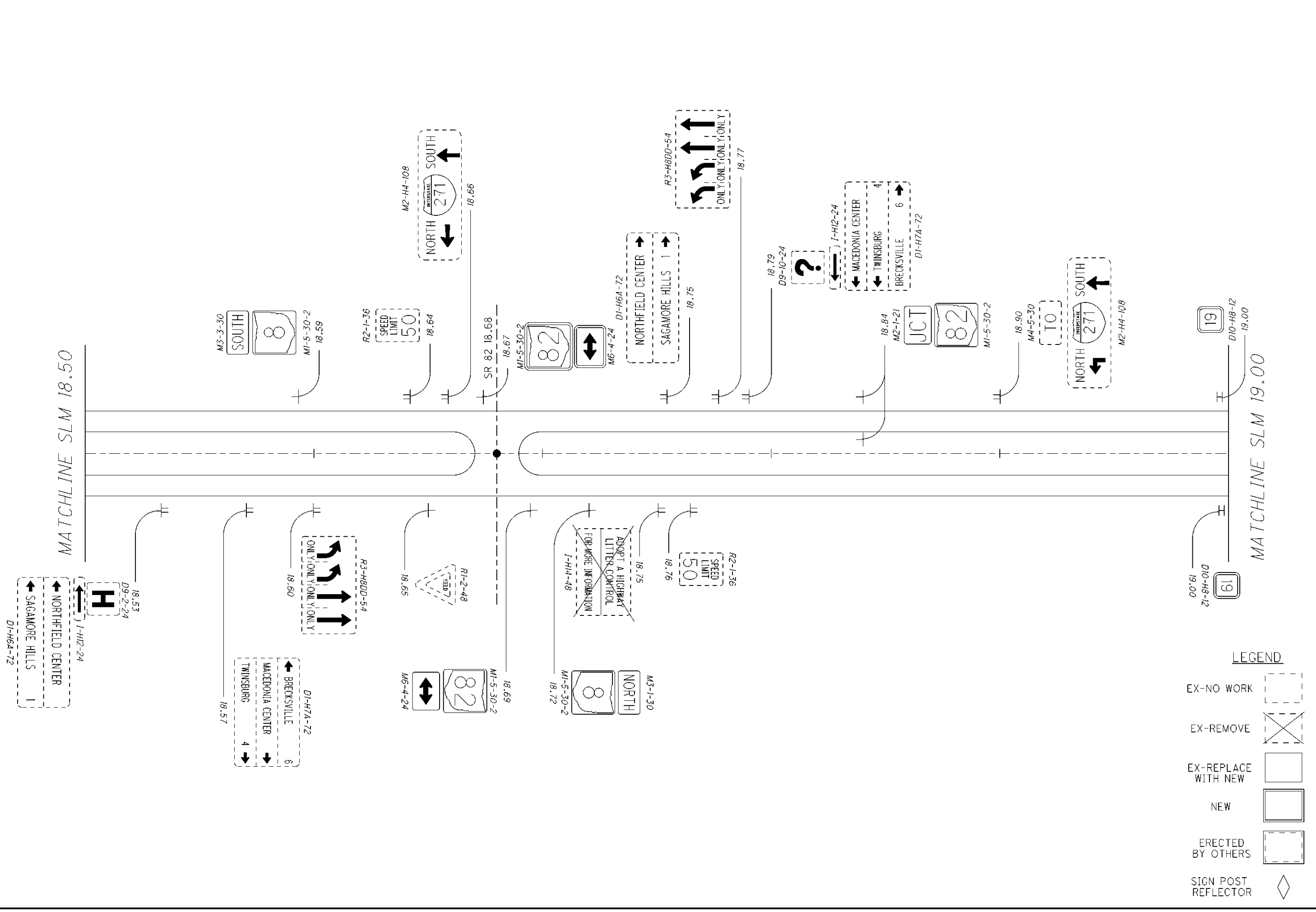
MATCHLINE SLM 18.50

18.44



LEGEND

- EX-NO WORK
- EX-REMOVE
- EX-REPLACE WITH NEW
- NEW
- ERECTED BY OTHERS
- SIGN POST REFLECTOR



LEGEND

- EX-NO WORK
- EX-REMOVE
- EX-REPLACE WITH NEW
- NEW
- ERECTED BY OTHERS
- SIGN POST REFLECTOR

CALCULATED ALP CHECKED

HORIZONTAL SCALE IN FEET

SR 8 SIGNING PLAN
SLM 18.50 TO SLM 19.00

MATCHLINE SLM 19.00

MACEDONIA CORP 19.04

SAGAMORE HILLS TWP

MACEDONIA CORP 19.22

MATCHLINE SLM 19.50







SAGAMORE HILLS TWP 19.45

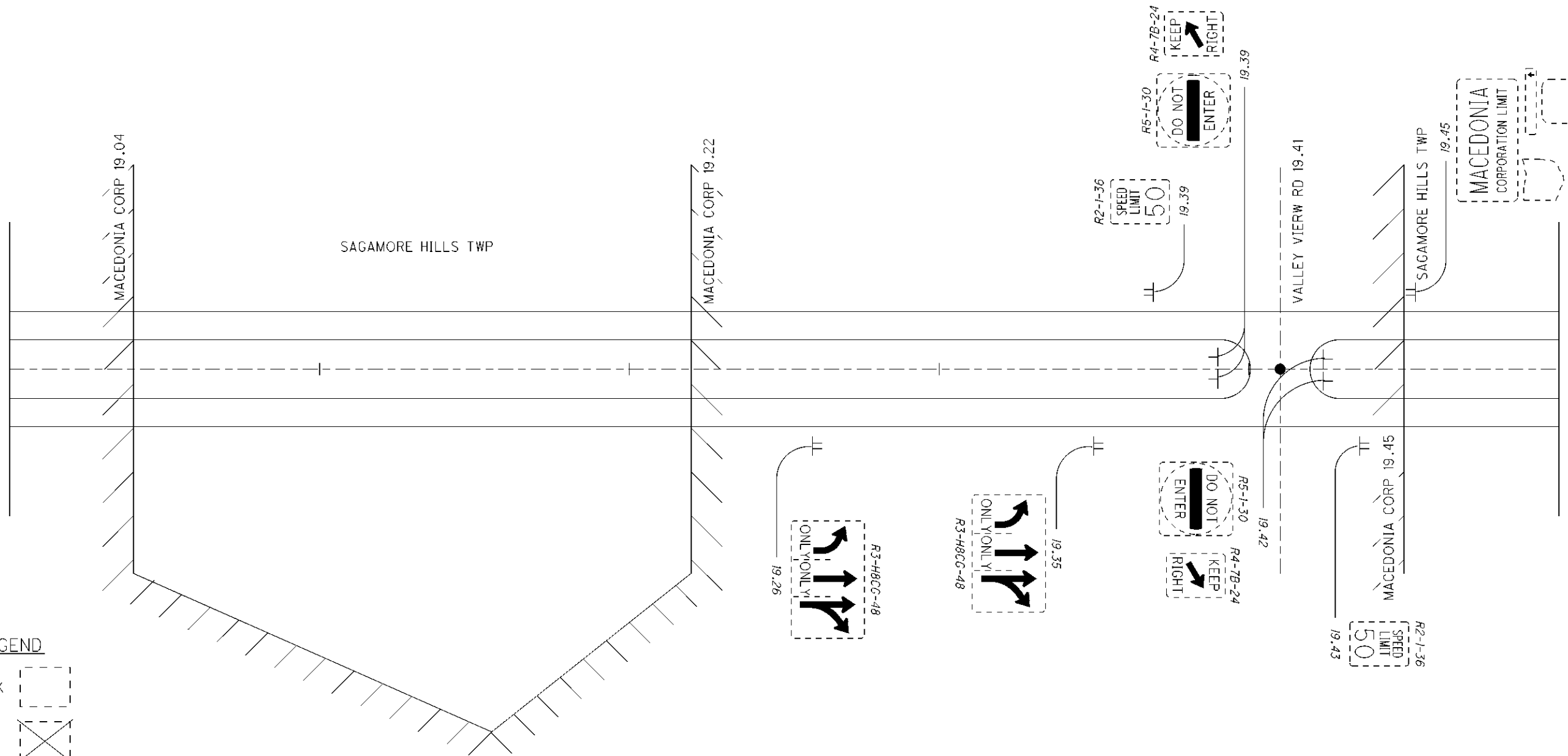
VALLEY VIEW RD 19.41

MACEDONIA CORP 19.45

MACEDONIA CORPORATION LIMIT

I-H2A-40

- LEGEND**
- EX-NO WORK 
 - EX-REMOVE 
 - EX-REPLACE WITH NEW 
 - NEW 
 - ERECTED BY OTHERS 
 - SIGN POST REFLECTOR 



CALCULATED ALP CHECKED

HORIZONTAL SCALE IN FEET



SR 8 SIGNING PLAN
SLM 19.00 TO SLM 19.50

SUM - 8 - 18.05

EXISTING STRUCTURE

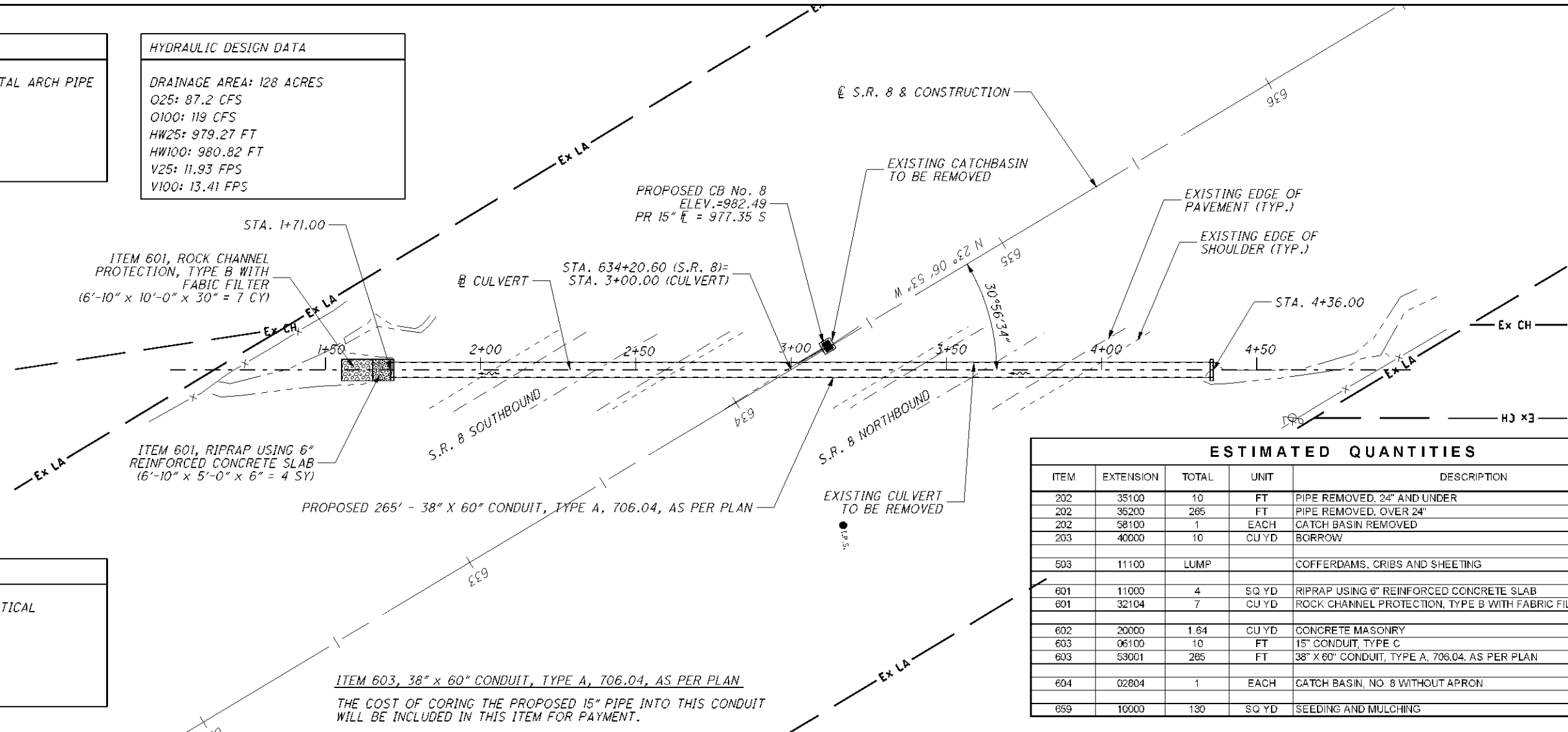
TYPE: CORRUGATED METAL ARCH PIPE
 SIZE: 54" x 36"
 LENGTH: 265'
 SLOPE: 0.0098
 HEADWALLS: NONE
 SKEW: 30°56'34"

HYDRAULIC DESIGN DATA

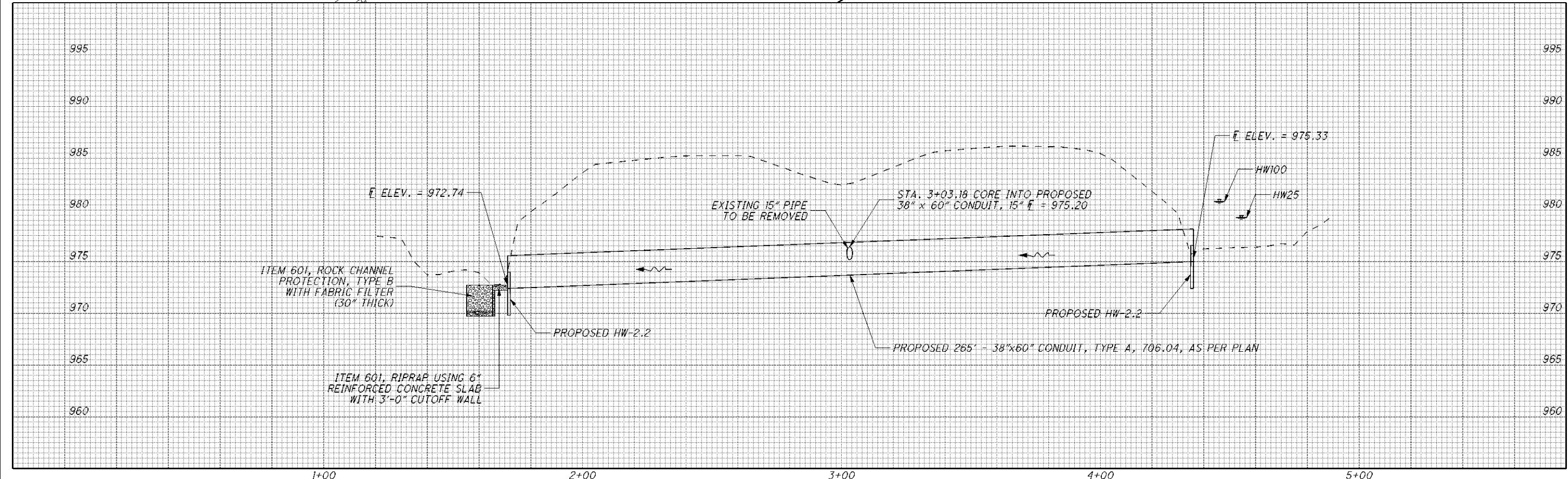
DRAINAGE AREA: 128 ACRES
 Q25: 87.2 CFS
 Q100: 119 CFS
 HW25: 979.27 FT
 HW100: 980.82 FT
 V25: 11.93 FPS
 V100: 13.41 FPS

PROPOSED STRUCTURE

TYPE: CONCRETE ELLIPTICAL
 SIZE: 60" x 38"
 LENGTH: 265'
 SLOPE: 0.0098
 HEADWALLS: HW-2.2
 SKEW: 30°56'34"



ESTIMATED QUANTITIES					
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	
202	35100	10	FT	PIPE REMOVED, 24" AND UNDER	
202	35200	265	FT	PIPE REMOVED, OVER 24"	
202	58100	1	EACH	CATCH BASIN REMOVED	
203	40000	10	CU YD	BORROW	
503	11100	LUMP		COFFERDAMS, CRIBS AND SHEETING	
601	11000	4	SQ YD	RIPRAP USING 6" REINFORCED CONCRETE SLAB	
601	32104	7	CU YD	ROCK CHANNEL PROTECTION, TYPE B WITH FABRIC FILTER	
602	20000	1.64	CU YD	CONCRETE MASONRY	
603	06100	10	FT	15" CONDUIT, TYPE C	
603	53001	265	FT	38" X 60" CONDUIT, TYPE A, 706.04, AS PER PLAN	
604	02804	1	EACH	CATCH BASIN, NO. 8 WITHOUT APRON	
659	10000	130	SQ YD	SEEDING AND MULCHING	



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