

**ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN:**  
THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, AND REMOVE WHEN NO LONGER NEEDED, CHANGEABLE MESSAGE SIGNS, ON SITE, FOR THE DURATION OF THE PROJECT. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS MAINTAINED BY THE DIRECTOR. ONLY CLASS I OR II SIGNS WILL BE PERMITTED.

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 TROUBLE SHOOT 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.

A PCMS SHALL BE PLACED "AS DIRECTED BY THE PROJECT ENGINEER" IN CONJUNCTION WITH LANE CLOSURES. THE MESSAGES SHALL BE AS DIRECTED BY THE ENGINEER. THE 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 CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE 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" BY 15" MINIMUM, FACING TRAFFIC. THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLE SHOOT THE UNIT AND TO REVISE SIGN MESSAGES, IF NEEDED.

THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LAST AS A RESULT OF POWER FAILURES TO THE ON BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-

LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHOULD BE SUPPORTED, BUT NORMALLY, NOT MORE THAN TWO MESSAGE PHASES SHOULD BE EMPLOYED, ALTHOUGH THREE PHASES MAY BE USED IN UNUSUAL CONDITIONS. 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, DEACTIVATED, OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES FOR DIFFERENT DAYS OF THE WEEK.

THE CONTRACTOR, IN ACCORDANCE WITH THE PROVISIONS OF 614.03, SHALL MAINTAIN THE PCMS UNIT IN GOOD WORKING ORDER. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS TO ENSURE PROMPT SERVICE IN THE EVENT OF A FAILURE. ANY FAILURE SHALL NOT 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 TO THE CONTRACTOR ON THE CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24 HOUR PER DAY OPERATIONS AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE. THE REQUIREMENT TO FURNISH, INSTALL, MAINTAIN, AND REMOVE A PCMS UNIT ON THIS PROJECT SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF ITS RESPONSIBILITIES AS OUTLINED IN 104.04.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT BID PRICE PER MONTH FOR EACH 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.

THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN,  
AS PER PLAN ASSUMING 2 SIGNS X 4 MONTHS = 8 SNMT

**ITEM 614 - WORK ZONE MARKING SIGN:**  
"DO NOT PASS" AND "PASS WITH CARE" SIGNS SHALL BE PLACED TO REFLECT THE EXISTING PASSING AND NO PASSING ZONES. THESE SIGNS SHALL BE COVERED OR REMOVED WITHIN 24 HOURS OF THE PLACEMENT OF THE FINAL CENTERLINE MARKINGS. "NO EDGE LINE" SIGNS SHALL BE PLACED AS PER SPECIFICATIONS OF ITEM 614.

ROUTE	WORK ZONE MARKING SIGN		
	R4-1-18	R4-2-18	W8-H2A-36
	NO EDGE LINES	DO NOT PASS	PASS WITH CARE
	EACH	EACH	EACH
MAR-95	18	17	14
TOTAL	49		

THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND CARRIED TO THE GENERAL SUMMARY:

ITEM 614 - WORK ZONE MARKING SIGN = 49 EACH

**ITEM 614 - WORK ZONE PAVEMENT MARKING, CLASS III, 642 PAINT:**  
WORK ZONE CENTER LINE SHALL BE PLACED TO REFLECT THE PROPOSED CENTER LINE AS DETERMINED FROM THE PROPOSED MARKINGS WITHIN THE PROJECT LIMITS. AN ADDITIONAL QUANTITY HAS BEEN INCLUDED TO STRIPE PAVEMENT REPAIRS LOCATED ON THE CENTER LINE.

WORK ZONE EDGE LINE SHALL BE PLACED TO REFLECT THE PROPOSED EDGE LINE AS DETERMINED FROM THE PROPOSED MARKINGS IN LOCATIONS WHERE THERE ARE TURN LANES OR WIDE SHOULDERS PRESENT. THESE LOCATIONS ARE ESTIMATED TO BE SLM 18.48 TO SLM 18.91, SLM 19.80 TO SLM 20.12, AND SLM 21.13 TO SLM 21.56.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION, SIZE, AND TYPE OF WORK ZONE MARKINGS NEEDED MEETING THE REQUIREMENTS OF ITEM 614 BEFORE THE REMOVAL OR RESURFACING OBLITERATES THE EXISTING.

TOTAL QUANTITY PROVIDED IS FOR EACH ITEM IS FOR TWO APPLICATIONS; THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED AND CARRIED TO THE GENERAL SUMMARY:

ITEM 614 - WORK ZONE CENTER LINE, CLASS III, 642 PAINT = 13.38 MILE  
ITEM 614 - WZ EDGE LINE, CLASS III, 6", 642 PAINT = 4.72 MILE  
ITEM 614 - WZ CHANNELIZING LINE, CLASS III, 8", 642 PAINT = 6398 FT  
ITEM 614 - WORK ZONE STOP LINE, CLASS III, 642 PAINT = 370 FT

WORK ZONE PAVEMENT MARKINGS ARE NOT TO BE SUBSTITUTED FOR PERMANENT PAVEMENT MARKINGS.

**COORDINATION WITH ADJACENT PROJECTS:**  
THE CONTRACTOR SHALL COORDINATE WORK WITH ODOT AND THE CONTRACTORS ON THE ADJACENT PROJECTS:  
MRW-VAR CR PAVING FY24, PID 111254  
MRW-95/95A-5.47/0.00, PID 110582  
MAR-95-13.95, PID 108749

COORDINATION SHALL BE MADE TO PREVENT CONFLICTING ADVANCE WARNING SIGNS, CONFLICTING DETOUR ROUTES, OVERLAPING/CONFLICTING LANE CLOSURES, AND TO ENSURE THAT A MINIMUM DISTANCE OF 2 MILES BETWEEN ADJACENT LANE CLOSURES IS MAINTAINED. THIS IS NOT AN EXHAUSTIVE LIST OF COORDINATION ITEMS THAT MAY NEED TO BE RESOLVED BETWEEN PROJECTS. THE DEPARTMENT RESERVES THE RIGHT TO DECIDE WHICH PROJECT'S ACTIVITIES TAKE PRECEDENCE. PROJECTS THAT HAVE ACTIVITIES DELAYED DUE TO CONFLICTS WILL CONSIDER THIS AN EXCUSABLE, NON-COMPENSABLE DELAY PER 108.06.B. ON PROJECTS THAT HAVE ACTIVITIES DELAYED DUE TO CONFLICTS WHERE THE CONTRACTOR FAILED TO MEET THE NOTIFICATION REQUIREMENTS, THE DELAYS SHALL NOT BE CONSIDERED EXCUSABLE OR COMPENSABLE. ATTENDANCE AT DEPARTMENT ORDERED TRAFFIC COORDINATION MEETINGS BETWEEN ADJACENT PROJECTS SHALL BE CONSIDERED MANDATORY FOR EACH PROJECT'S SUPERINTENDENT AND WORKSITE TRAFFIC SUPERVISOR (WTS)\*, AND INCIDENTAL TO THE LUMP SUM MAINTENANCE OF TRAFFIC PAYMENT ITEM.

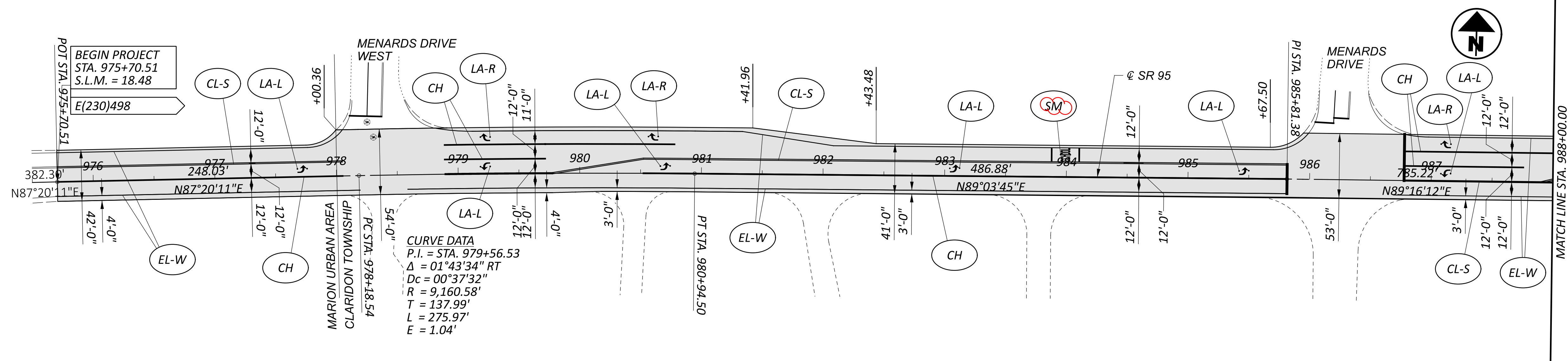
\*IF REQUIRED BY THE PROJECT

**ITEM 614 - MAINTENANCE OF TRAFFIC: PAYMENT**  
NO ADDITIONAL COMPENSATION SHALL BE MADE BEYOND THE QUANTITIES LISTED ABOVE. ANY OTHER WORK SHALL BE PAID UNDER THE LUMP SUM PAY ITEM FOR ITEM 614, MAINTAINING TRAFFIC.







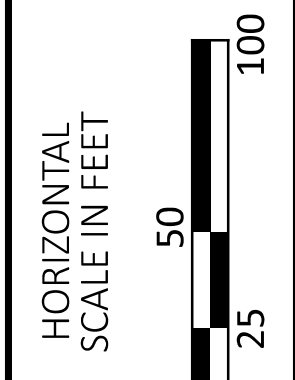
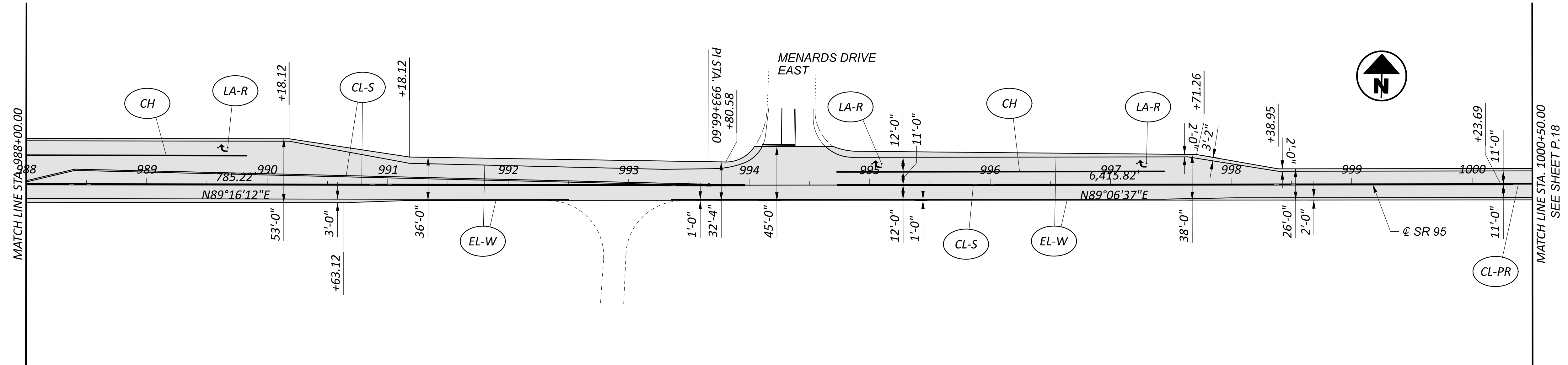


CROSS REFERENCES	
PAVEMENT QUANTITIES	P.15
ROADWAY QUANTITIES	P.16
TRAFFIC CONTROL QUANTITIES	P.30-P.31
STRUCTURE QUANTITIES	P.33-P.35

- 1.5" PLANING AND 442 (446) RESURFACING
- 1.5" PLANING AND 442 (449) RESURFACING [SIDE ROADS]

- EDGE LINE, 6", WHITE
- CENTER LINE, SOLID
- CENTER LINE, DASHED
- CENTER LINE, PASSING PROHIBITED LEFT
- CENTER LINE, PASSING PROHIBITED RIGHT
- CHANNELIZING LINE, 8"
- STOP LINE
- TRANSVERSE/DIAGONAL LINE
- LANE ARROW - LEFT
- LANE ARROW, RIGHT
- SCHOOL SYMBOL MARKING, 96"

- NOTES:
- UTILITIES ONLY SHOWN AT GUARDRAIL LOCATIONS
  - NOT ALL DRIVEWAYS ARE SHOWN. DRIVEWAYS SHOWN ARE FOR LOCATION REFERENCE ONLY.
  - SEE TYPICAL DETAILS FOR EMBANKMENT, AS PER PLAN DETAILS



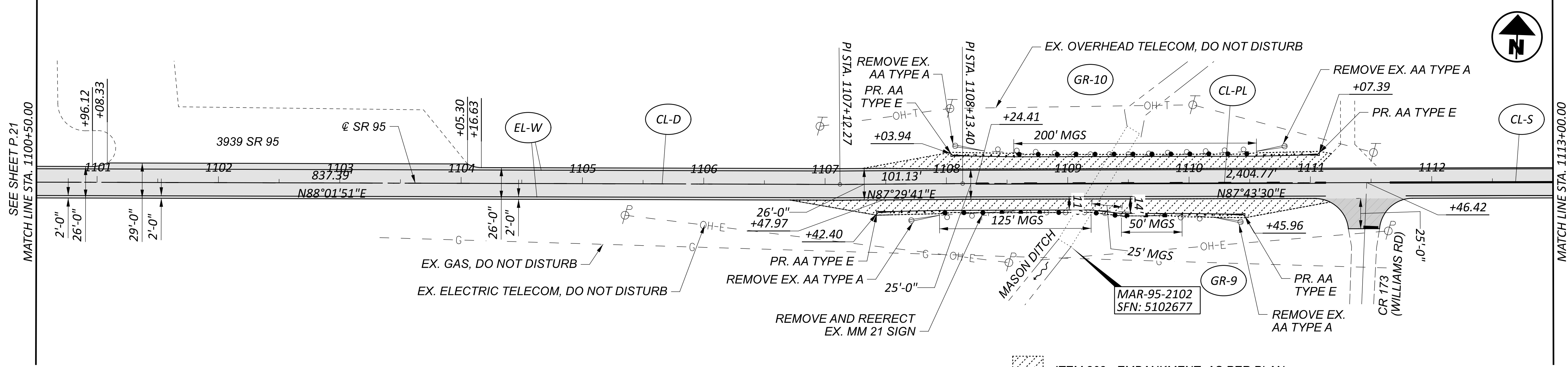
**ROADWAY PLAN**  
 STA. 975+50 TO STA. 1000+50

DESIGN AGENCY



DESIGNER	KLM
REVIEWER	XXX MM-DD-YY
PROJECT ID	116584
SHEET	TOTAL
P.17	35

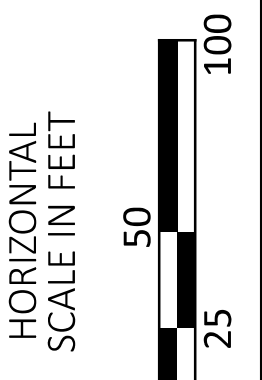
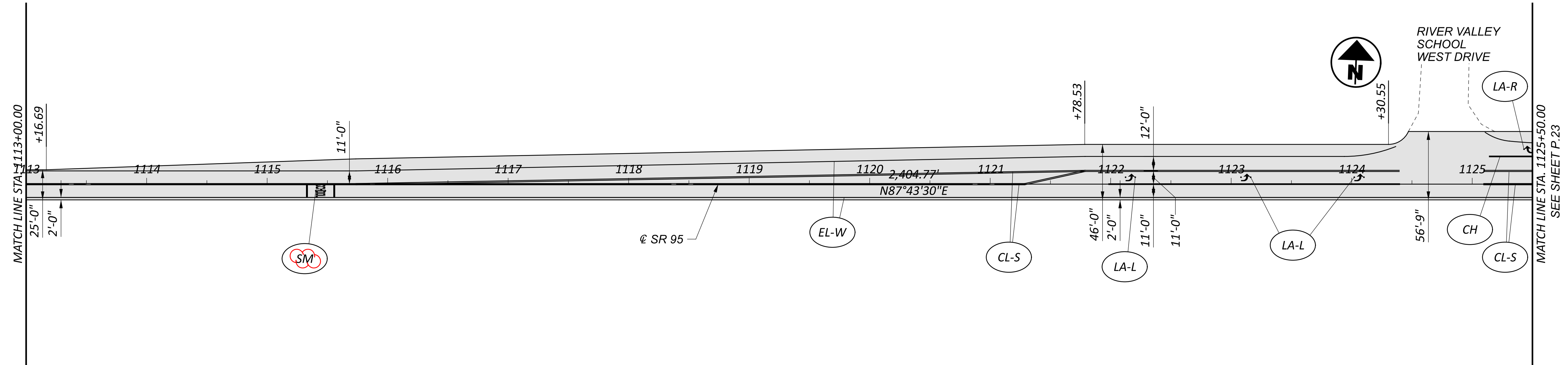




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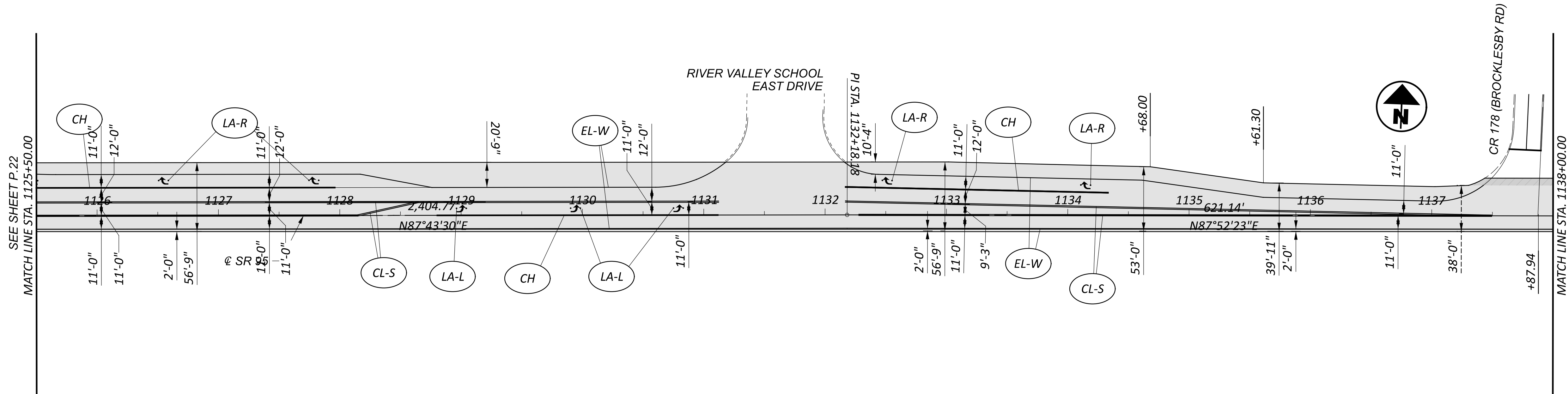
- ITEM 203 - EMBANKMENT, AS PER PLAN
- 1.5" PLANING AND 442 (446) RESURFACING
- 1.5" PLANING AND 442 (449) RESURFACING [SIDE ROADS]

- NOTES:
- UTILITIES ONLY SHOWN AT GUARDRAIL LOCATIONS
  - NOT ALL DRIVEWAYS ARE SHOWN. DRIVEWAYS SHOWN ARE FOR LOCATION REFERENCE ONLY.
  - SEE TYPICAL DETAILS FOR EMBANKMENT, AS PER PLAN DETAILS



**ROADWAY PLAN**  
 STA. 1100+50 TO STA. 1125+50

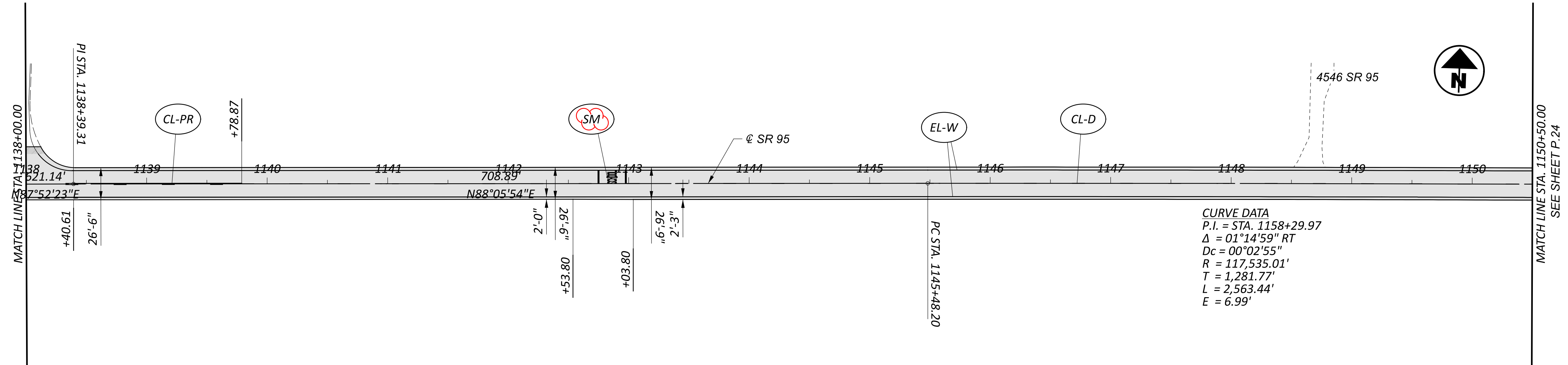
DESIGN AGENCY	
DESIGNER	KLM
REVIEWER	XXX MM-DD-YY
PROJECT ID	116584
SHEET	TOTAL
P.22	35



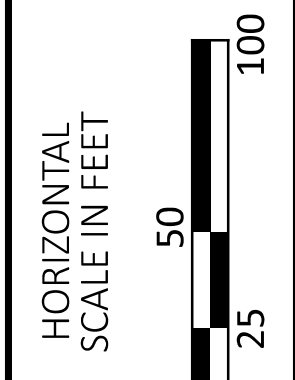
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ROADWAY QUANTITIES	P.16
TRAFFIC CONTROL QUANTITIES	P.30-P.31
STRUCTURE QUANTITIES	P.33-P.35

- 1.5" PLANING AND 442 (446) RESURFACING
- 1.5" PLANING AND 442 (449) RESURFACING [SIDE ROADS]

- NOTES:
- UTILITIES ONLY SHOWN AT GUARDRAIL LOCATIONS
  - NOT ALL DRIVEWAYS ARE SHOWN. DRIVEWAYS SHOWN ARE FOR LOCATION REFERENCE ONLY.
  - SEE TYPICAL DETAILS FOR EMBANKMENT, AS PER PLAN DETAILS



**CURVE DATA**  
 P.I. = STA. 1158+29.97  
 $\Delta = 01^{\circ}14'59''$  RT  
 $D_c = 00^{\circ}02'55''$   
 $R = 117,535.01'$   
 $T = 1,281.77'$   
 $L = 2,563.44'$   
 $E = 6.99'$



**ROADWAY PLAN**  
 STA. 1125+50 TO STA. 1150+50

DESIGN AGENCY



DESIGNER  
**KLM**

REVIEWER

XXX MM-DD-YY

PROJECT ID  
**116584**

SHEET	TOTAL
P.23	35



