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WORK ZONE SPEED ZONES (WZSZS)

THE FOLLOWING WORK ZONE SPEED ZONE (WZSZ) SPEED LIMIT REVISION(S) HAVE BEEN APPROVED FOR USE ON THIS PROJECT WHEN WORK ZONE CONDITIONS AND FACTORS ARE MET AS DESCRIBED BELOW:

WZSZ REVISION NUMBERCOUNTY-ROUTE-SECTION(S)DIRECTIONWZ-35620DEL-023_SLM 8.50 to 9.50NB & SB

POTENTIAL WZSZ LOCATIONS SHALL HAVE AN ORIGINAL (PRE-CONSTRUCTION) POSTED SPEED LIMIT OF 55 MPH OR GREATER, A QUALIFYING WORK ZONE CONDITION OF AT LEAST 0.5 MILE IN LENGTH, AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS, AND A WORK ZONE CONDITION IN PLACE THAT REDUCES THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS (I.E., LANE CLOSURE, LANE SHIFT, CROSSOVER, CONTRAFLOW AND/OR SHOULDER CLOSURE). THE LENGTH OF THE WORK ZONE CONDITION IS MEASURED FROM THE BEGINNING OF THE TAPER FOR THE SUBJECT WORK ZONE CONDITION IMPACTING THE TRAVEL LANES AND/OR SHOULDER TO THE END OF THE DOWNSTREAM TAPER. WHERE DRIVERS ARE RETURNED TO TYPICAL ALIGNMENT. AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS IS REQUIRED TO BALANCE THE ADDITIONAL EXPOSURE CREATED BY INSTALLING AND REMOVING WZSZ SIGNING WITH THE TIME NEEDED TO COMPLETE THE WORK.

IF THE WORK ZONE MEETS THESE MINIMUM CRITERIA, IT SHALL BE ANALYZED FURTHER USING TABLE 1 BELOW TO DETERMINE IF AND WHEN IT QUALIFIES FOR A SPEED LIMIT REDUCTION. DEPENDING ON THE ORIGINAL POSTED SPEED LIMIT, THE TYPE OF TEMPORARY TRAFFIC CONTROL USED, AND WHETHER OR NOT WORKERS ARE PRESENT, A WARRANTED WZSZ WILL VARY IN THE APPROVED SPEED LIMIT TO BE POSTED OVER TIME.

C&MS ITEM 614, PARAGRAPH 614.02(B), INDICATES THAT TWO DIRECTIONS OF A DIVIDED HIGHWAY ARE CONSIDERED SEPARATE HIGHWAY SECTIONS. THEREFORE, IF THE WORK ON A MULTI-LANE DIVIDED HIGHWAY IS LIMITED TO ONLY ONE DIRECTION, A SPEED LIMIT REDUCTION IN THE DIRECTION OF THE WORK DOES NOT AUTOMATICALLY CONSTITUTE A SPEED LIMIT REDUCTION IN THE OPPOSITE DIRECTION. EACH DIRECTION SHALL BE ANALYZED INDEPENDENTLY FROM EACH OTHER.

ALL WZSZS FLUCTUATE BETWEEN TWO APPROVED REDUCED SPEED LIMITS OR BETWEEN AN APPROVED REDUCED SPEED LIMIT AND THE ORIGINAL POSTED SPEED LIMIT. ONLY ONE OF TWO SIGNING STRATEGIES SHALL BE USED TO IMPLEMENT A WZSZ.

WZSZS USING DSL SIGN ASSEMBLIES SHALL BE IN ACCORDANCE WITH THIS NOTE, APPROVED LIST, SUPPLEMENTAL SPECIFICATIONS (SS) 808 AND 908, AND TRAFFIC SCD MT-104.10.

ONLY ONE WARRANTED SPEED LIMIT APPLIES AT ANY ONE TIME; SPEED LIMIT REDUCTIONS ARE NOT CUMULATIVE. WZSZS SHALL NOT BE USED FOR MOVING/MOBILE ACTIVITIES, AS DEFINED IN OMUTCD PART 6.

WHEN LOOKING UP THE WARRANTED WORK ZONE SPEED LIMITS. ALWAYS USE THE ORIGINAL. PRECONSTRUCTION. POSTED SPEED LIMIT. DO NOT USE A PRIOR OR CURRENT WORK ZONE SPEED LIMIT AS A LOOK UP VALUE IN THE TABLE. POSITIVE PROTECTION IS GENERALLY REGARDED AS PORTABLE BARRIER OR OTHER RIGID BARRIER IN USE ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WITHOUT POSITIVE PROTECTION IS GENERALLY REGARDED AS USING DRUMS, CONES, SHADOW VEHICLE, ETC., ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WORKERS ARE CONSIDERED AS BEING PRESENT WHEN ON-SITE, WORKING WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WHEN THE WORK ZONE CONDITION REDUCING THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS IS REMOVED. THE SPEED LIMIT DISPLAYED SHALL RETURN TO THE ORIGINAL POSTED SPEED LIMIT.

WORK ZONE SPEED ZONES (WZSZS) CONTINUED

TABLE 1: WARRANTED WORK ZONE SPEED LIMITS (MPH) FOR WORK ZONES ON HIGH-SPEED (55 MPH OR GREATER) MULTI-LANE HIGHWAYS.

ORIGINAL	WITH POSITI	VE PROTECTION	WITHOUT POS.	ITIVE PROTECTION
POSTED	WORKERS	WORKERS NOT	WORKERS	WORKERS NOT
SPEED LIMIT	PRESENT	PRESENT	PRESENT	PRESENT
70	60	65	55	65
65	55	60	50	60
60	55	60	50	60
55	50	55	45	55

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 808, DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY - 24 SIGN MNTH [ASSUMING 2 DSL SIGN ASSEMBLIES FOR 12 MONTHS]

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC

COOPERATION BETWEEN CONTRACTORS:

THE CONTRACTOR WILL BE REQUIRED TO COORDINATE WORK WITH OTHER ODOT PROJECTS IDENTIFIED BELOW. IT IS IMPERATIVE THAT THE CONTRACTORS COOPERATE FULLY WITH EACH OTHER AS OUTLINED IN SECTION 105.08 OF ODOT 2019 CONSTRUCTION AND MATERIAL SPECIFICATIONS. ALL MAINTENANCE OF TRAFFIC SHALL BE COORDINATED BETWEEN PROJECTS AND NOT BE IN CONFLICT WITH ONE ANOTHER.

- PID 109156, DEL-23-7.60
- PID 113769, DEL-23-9.74
- PID 109074, DEL-42-2.26
- PID 110618, DEL-750-2.17
- PID 108799, DEL-315 DRAINAGE IMPROVEMENTS

ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN

PAVEMENT BUILD-UP FOR ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN SHALL MATCH MAINLINE BUILD-UP ON TYPICAL SECTIONS.

ALL COSTS ASSOCIATED WITH REMOVING AND REPLACING PAVEMENT AND TACK COAT FOR THE REPAIRS SHALL BE INCIDENTAL TO ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN.

WORK ZONE INCREASED PENALTIES SIGN (R11-H5A)

RII-H5A-48 SIGNS SHALL BE FURNISHED, ERECTED, AND MAINTAINED IN GOOD CONDITION AND/OR REPLACED AS NECESSARY AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. SIGNS SHALL BE MOUNTED AT THE APPROPRIATE OFFSETS AND ELEVATIONS AS PRESCRIBED BY THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THEY SHALL BE MAINTAINED ON SUPPORTS MEETING CURRENT SAFETY CRITERIA.

THE SIGNS MAY BE ERECTED OR UNCOVERED NO MORE THAN FOUR HOURS BEFORE THE ACTUAL START OF WORK. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN FOUR HOURS FOLLOWING RESTORATION OF ALL LANES TO TRAFFIC WITH NO RESTRICTIONS, OR SOONER AS DIRECTED BY THE ENGINEER. TEMPORARY SIGN COVERING AND UNCOVERING DUE TO TEMPORARY LANE RESTORATIONS SHALL BE GUIDED BY THE FOUR-HOUR LIMITATIONS STATED ABOVE. SUCH LANE RESTORATIONS SHOULD BE EXPECTED TO REMAIN IN EFFECT FOR 30 OR MORE CONSECUTIVE CALENDAR DAYS, SUCH AS DURING WINTER SHUTDOWNS.

THE SIGNS ON THE MAINLINE SHALL BE DUAL MOUNTED UNLESS NOT PHYSICALLY POSSIBLE. THE FIRST SIGN SHALL BE PLACED BETWEEN THE ROAD WORK AHEAD (W20-I)SIGN AND THE NEXT SIGN IN THE SEQUENCE. SIGNS SHALL BE ERECTED ON EACH ENTRANCE RAMP AND EVERY 2 MILES THROUGH THE CONSTRUCTION WORK LIMITS. SIGNS ON THE MAINLINE SHALL BE R11-H5A-48. R11-H5A-24 SIGNS MAY BE USED IN THE MEDIAN IN LIEU OF R11-H5A-48 SIGNS IF IT IS NOT PHYSICALLY POSSIBLE TO PROVIDE R11-H5A-48 SIGNS IN THE MEDIAN.

THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED, BUT GOOD, CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE RETROREFLECTORIZED WITH TYPE G SHEETING COMPLYING WITH THE REQUIREMENTS OF C&MS 730.19.

WORK ZONE INCREASED PENALTIES SIGNS AND SUPPORTS WILL BE MEASURED AS THE NUMBER OF SIGN INSTALLATIONS, INCLUDING THE SIGN AND NECESSARY SUPPORTS. IF A SIGN AND SUPPORT COMBINATION IS REMOVED AND REERECTED AT ANOTHER LOCATION AS DIRECTED BY THE ENGINEER, IT SHALL BE CONSIDERED ANOTHER UNIT.

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE, IN PLACE WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, COVERING DURING SUSPENSION OF WORK, AND REMOVAL OF THE SIGN AND SUPPORT.

ITEM 614, WORK ZONE INCREASED PENALTIES SIGN 2 EACH

TRENCH FOR WIDENING

TRENCH EXCAVATION FOR BASE WIDENING SHALL BE ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

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ITEM 614 - BUSINESS ENTRANCE (M4-H15) SIGN, AS PER PLAN THE BUSINESS ENTRANCE (M4-H15) SIGN SHOULD BE PROVIDED AT EACH TEMPORARILY RELOCATED COMMERCIAL DRIVEWAY FOR WHICH THE RELOCATION IS NOT OBVIOUS TO THE MOTORIST. THE PROJECT ENGINEER SHALL DETERMINE WHETHER OR NOT THE DRIVEWAY RELOCATION IS, OR IS NOT, OBVIOUS AND WHETHER OR NOT A SIGN SHOULD BE PROVIDED. ONLY ONE SIGN PER BUSINESS SHALL BE PERMITTED. THE SIGN SHALL BE 36 INCH X 48 INCH IN SIZE WITH TYPE G OR TYPE H ORANGE RETROREFLECTIVE SHEETING. THE SIGN LEGEND SHALL BE PLACED ON BOTH SIDES OF THE SIGN (BACK TO BACK). THE SIGN SHALL HAVE THE STANDARD M4-HI5 LEGEND WITH THE WORD "BUSINESS" ON THE TOP LINE, EXCEPT UNDER UNUSUAL CIRCUMSTANCES WHERE IT MAY NOT BE INTUITIVE THAT A DRIVEWAY SERVES A SPECIFIC BUSINESS. IN SUCH UNUSUAL CASES. THE ACTUAL BUSINESS NAME MAY BE SUBSTITUTED FOR THE WORD "BUSINESS".

THE SIGN SHALL BE MOUNTED ON TWO NO. 3 POSTS OR ON TEMPORARY POSTS IN ACCORDANCE WITH SCD MT-105.10 AND IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION. THE SIGN SHALL BE CLEARLY VISIBLE AND SHALL CLEARLY IDENTIFY THE LOCATION OF THE DRIVEWAY. THE SIGN SHOULD BE POSITIONED AT 90 DEGREES TO THE DIRECTION(S) OF TRAFFIC. THE SIGN MAY NEED TO BE MOVED FOR EACH PHASE OF THE MAINTENANCE OF TRAFFIC OPERATIONS.

PAYMENT FOR ALL COSTS ASSOCIATED WITH MANUFACTURING, MOUNTING, RELOCATING, AND REMOVING THE SIGN, INCLUDING ALL LABOR, MATERIALS AND EQUIPMENT SHALL BE INCLUDED IN THE CONTRACT PRICE PER EACH FOR ITEM 614-BUSINESS ENTRANCE SIGN.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THIS ITEM.

ITEM 614 BUSINESS ENTRANCE SIGN, AS PER PLAN 1 EACH

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MAINTENANCE OF TRAFFIC - SEQUENCE OF OPERATIONS

PRE-PHASE WORK

REMOVE EXISTING SHOULDERS AND REPLACE WITH ITEM 615 -PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A. PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A SHALL BE PLACED ON EAST SHOULDER AND MEDIAN OF US-23 AS DETAILED ON SHEETS 15, 16. REMOVE CATCH BASINS AT STA. 475+55.60 AND STA. 477+77.20 AND REPLACE WITH A CATCH BASIN. TYPE 6. AS PER PLAN TO CONNECT AND INSTALL 15" CONDUIT DOWN TO EXISTING CULVERT. THIS CONNECTION WILL BE REPLACED WITH NEW OUTLET IN PHASE 3 WHEN NEW CULVERT IS CONSTRUCTED. THIS WORK ALSO INCLUDES INSTALLING TRENCH DRAIN, TYPE A AS SHOWN IN THE PROJECT PLANS. THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH MT-95.30, MT-95.31, AND MT-95.32 FOLLWING PERMITTED LANE CLOSURE TIMES. WORK LIKELY TO OCCUR OVER WEEKEND WITH BARRELS PROTECTING WORK DURING THE WEEK. PRE-PHASE WORK SHALL BE COMPLETE PRIOR TO PHASE 1 WORK.

PHASE 1

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MAINTENANCE OF TRAFFIC:

TRAFFIC IN PHASE 1 SHALL BE SHIFTED AS DETAILED ON SHEETS 15, 16 WITH TWO LANES BEING MAINTAINED IN EACH DIRECTION AT ALL TIMES. LANE SHIFTS SHALL BE IN ACCORDANCE WITH THE MODIFIED SCD-102.10 INCLUDED WITH THE PLANS, AND THE PERMITTED LANE CLOSURE TABLE. EXISTING PAVEMENT MARKINGS SHALL BE REMOVED AS SHOWN ON SHEETS 15, 16. RAISED PAVEMENT MARKERS SHALL BE REMOVED WITHIN THE WORK ZONE. PORTABLE BARRIER DIVIDING NORTHBOUND AND SOUTHBOUND LANES SHALL BE PLACED AND ANCHORED IN PHASE 1 AND REMAIN IN PLACE FOR PHASE 2. CONSTRUCT CULVERT AND FULL DEPTH PAVEMENT THROUGH TEMPORARY SURFACE COURSE BEFORE SHIFTING TRAFFIC FOR PHASE 2. LEFT TURN LANE FROM US-23 TO CR-4 (STRATFORD ROAD) SHALL BE DETOURED PER SHEET 12. THE INSIDE LEFT TURN LANE SHALL BE CLOSED ON SR-315 NORTHBOUND AND MEEKER WAY WESTBOUND WHILE THE OUTSIDE LEFT TURN LANE SHALL REMAIN OPEN AS SHOWN ON SHEET 25. THE LEFT TURN LANE CLOSURES SHALL REMAIN FOR THE DURATION OF PHASES 1-5.

CONSTRUCTION SHALL INCLUDE:

WORK IN THIS PHASE SHALL INCLUDE REPLACEMENT OF 19'-0'/2" OF THE EXISTING CULVERT STARTING AT THE WEST END OF THE CULVERT AND CONSTRUCTING 20'-6" OF THE PROPOSED CULVERT. CONSTRUCT GUARDRAIL REPLACEMENT, GRADING, FULL DEPTH PAVEMENT THROUGH TEMPORARY SURFACE COURSE AND SHOULDER REPLACEMENT. SEE PHASE CONSTRUCTION DIAGRAMS FOR ADDITIONAL DETAILS.

PHASE 2

MAINTENANCE OF TRAFFIC:

TRAFFIC IN PHASE 2 WILL BE SHIFTED AS DETAILED ON SHEETS 17, 18 WITH TWO LANES BEING MAINTAINED IN EACH DIRECTION AT ALL TIMES. CONSTRUCTION JOINTS FROM PREVIOUS PHASES EXHIBITING DETERIORATION SHALL BE REPAIRED IN ACCORDANCE WITH ITEM 251 PARTIAL DEPTH PAVEMENT REPAIR PRIOR TO SHIFTING TRAFFIC FOR PHASE 2. THE WIDTH OF THE REPAIR SHALL BE LIMITED TO TWO FEET WIDE AND 2" DEEP. LANE SHIFTS SHALL FOLLOW ODOT SCD MT-102.10 AND BE PERFORMED DURING OFF-PEAK HOURS. CONFLICTING MARKINGS FROM PHASE 1 OR EXISTING MARKINGS SHALL BE REMOVED PRIOR TO SHIFTING TRAFFIC FOR PHASE 2. CONSTRUCT CULVERT AND FULL DEPTH PAVEMENT THROUGH TEMPORARY SURFACE COURSE BEFORE SHIFTING TRAFFIC. LEFT TURN LANE FROM US-23 TO CR-4 (STRATFORD ROAD) SHALL BE DETOURED PER SHEET 12.

CONSTRUCTION WILL INCLUDE:

WORK IN THIS PHASE SHALL INCLUDE REMOVAL OF 11'-0'' OF THE EXISTING CULVERT. CONSTRUCT $10'-11!/_2$ OF THE PROPOSED CULVERT STARTING WHERE PHASE 1 WORK LEFT OFF. SEE PHASE CONSTRUCTION DIAGRAMS FOR ADDITIONAL DETAILS.

PHASE 3

MAINTENANCE OF TRAFFIC: TRAFFIC IN PHASE 3 SHALL BE SHIFTED AS DETAILED ON SHEETS 19, 20 WITH TWO LANES BEING MAINTAINED IN EACH DIRECTION AT ALL TIMES. CONSTRUCTION JOINTS FROM PREVIOUS PHASES EXHIBITING DETERIORATION SHALL BE REPAIRED IN ACCORDANCE WITH ITEM 251 PARTIAL DEPTH PAVEMENT REPAIR PRIOR TO SHIFTING TRAFFIC FOR PHASE 3. THE WIDTH OF THE REPAIR SHALL BE LIMITED TO TWO FEET WIDE AND 2" DEEP. LANE SHIFTS SHALL BE IN ACCORDANCE WITH ODOT SCD MT-102.10 AND BE PERFORMED DURING OFF-PEAK HOURS. CONFLICTING MARKINGS FROM PHASE 2 OR EXISTING MARKINGS SHALL BE REMOVED PRIOR TO SHIFTING TRAFFIC FOR PHASE 3. CONSTRUCT CULVERT AND FULL DEPTH PAVEMENT THROUGH TEMPORARY SURFACE COURSE BEFORE SHIFTING TRAFFIC FOR PHASE 4.

CONSTRUCTION SHALL INCLUDE:

WORK IN THIS PHASE SHALL INCLUDE REPLACEMENT OF 16'-0" OF THE EXISTING CULVERT. CONSTRUCT $16'-0'/_2$ " OF THE PROPOSED CULVERT STARTING WHERE PHASE 2 WORK LEFT OFF. SEE PHASE CONSTRUCTION DIAGRAMS FOR ADDITIONAL DETAILS.

PHASE 4

MAINTENANCE OF TRAFFIC:

TRAFFIC IN PHASE 4 SHALL BE SHIFTED AS DETAILED ON SHEETS 21, 22 WITH TWO LANES BEING MAINTAINED IN EACH DIRECTION AT ALL TIMES. CONSTRUCTION JOINTS FROM PREVIOUS PHASES EXHIBITING DETERIORATION SHALL BE REPAIRED IN ACCORDANCE WITH ITEM 251 PARTIAL DEPTH PAVEMENT REPAIR PRIOR TO SHIFTING TRAFFIC FOR PHASE 4. THE WIDTH OF THE REPAIR SHALL BE LIMITED TO TWO FEET WIDE AND 2" DEEP. LANE SHIFTS SHALL BE IN ACCORDANCE WITH ODOT SCD MT-102.10 AND BE PERFORMED DURING OFF-PEAK HOURS. CONFLICTING MARKINGS FROM PHASE 3 OR EXISTING MARKINGS SHALL BE REMOVED PRIOR TO SHIFTING TRAFFIC FOR PHASE 4. CONSTRUCT CULVERT AND FULL DEPTH PAVEMENT THROUGH TEMPORARY SURFACE COURSE BEFORE SHIFTING TRAFFIC FOR PHASE 5.

CONSTRUCTION SHALL INCLUDE:

WORK IN THIS PHASE SHALL INCLUDE REPLACEMENT OF 11'-O" OF THE EXISTING CULVERT. CONSTRUCT 10'-11½" OF THE PROPOSED CULVERT STARTING WHERE PHASE 3 WORK LEFT OFF. SEE PHASE CONSTRUCTION DIAGRAMS FOR ADDITIONAL DETAILS.

PHASE 5

MAINTENANCE OF TRAFFIC:

TRAFFIC IN PHASE 5 SHALL BE SHIFTED AS DETAILED ON SHEETS 23, 24 WITH TWO LANES BEING MAINTAINED IN EACH DIRECTION AT ALL TIMES. CONSTRUCTION JOINTS FROM PREVIOUS PHASES EXHIBITING DETERIORATION SHALL BE REPAIRED IN ACCORDANCE WITH ITEM 251 PARTIAL DEPTH PAVEMENT REPAIR PRIOR TO SHIFTING TRAFFIC FOR PHASE 5. THE WIDTH OF THE REPAIR SHALL BE LIMITED TO TWO FEET WIDE AND 2" DEEP. LANE SHIFTS SHALL BE IN ACCORDANCE ODOT SCD MT-102.10 AND BE PERFORMED DURING OFF-PEAK HOURS. CONFLICTING MARKINGS FROM PHASE 4 OR EXISTING MARKINGS SHALL BE REMOVED PRIOR TO SHIFTING TRAFFIC FOR PHASE 5. CONSTRUCT CULVERT AND FULL DEPTH PAVEMENT THROUGH TEMPORARY SURFACE COURSE BEFORE OPENING TO TRAFFIC.

CONSTRUCTION SHALL INCLUDE:

WORK IN THIS PHASE SHALL INCLUDE REPLACEMENT OF THE REMAINING PORTION OF THE EXISTING CULVERT AND CONSTRUCTING THE REMAINING PORTION OF THE PROPOSED CULVERT AS WELL AS GUARDRAIL REPLACEMENT, GRADING, FULL DEPTH PAVEMENT THROUGH TEMPORARY SURFACE COURSE, AND SHOULDER REPLACEMENT. SEE PHASE CONSTRUCTION DIAGRAMS FOR ADDITIONAL DETAILS.

PHASE 6 MAINTENANCE OF TRAFFIC:

SHIFT TRAFFIC IN EACH DIRECTION OF US-23 ONTO THE OUTSIDE LANES IN ACCORDANCE WITH SCD MT-95.32 AND CONDUCT THE PLANING AND RESURFACING OPERATION OVER THE INSIDE LANES AND PAVED MEDIAN (WHERE APPLICABLE).

UPON COMPLETION OF THIS WORK, SHIFT TRAFFIC TO THE INSIDE LANES IN ACCORDANCE WITH MT-95.31 AND CONDUCT THE PLANING AND RESURFACING OPERATION ON THE OUTSIDE LANES.

THIS WORK SHALL INCLUDE FINAL PAVEMENT MARKING AND RPM INSTALLATION, AND BE IN ACCORDANCE WITH THE PERMITTED LANE CLOSURE TABLE. WORK THROUGH THE INTERSECTIONS SHALL BE PERFORMED DURING OFF-PEAK HOURS AND WITH LAW ENFORCEMENT OFFICER ASSISTANCE, AS NECESSARY.

ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 2

THIS ITEM SHALL BE UTILIZED FOR THE PAVEMENT REPAIRS NEEDED DURING THIS CONSTRUCTION PROCESS. ALL AREAS TO BE REPAIRED SHALL BE LOCATED BY THE ENGINEER. IT IS LIKELY THAT REPAIRS WILL BE NEEDED PRIOR TO EACH PHASE SWITCH. GREAT CARE SHALL BE TAKEN TO MAINTAIN THE EXISTING PAVEMENT CROSS SLOPE AS WELL AS ALL LONGITUDINAL SLOPES. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS REQUIRED FOR MAINTENANCE OF TRAFFIC FOR PAVEMENT REPAIRS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

THIS WORK SHALL BE CONDUCTED IN ACCORDANCE WITH SCD MT-95.31 AND MT-95.32, AS APPLICABLE, AND IN A MANNER CONFORMING TO THE PERMITTED LANE CLOSURE MAP.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN FORWARDED TO THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE ENGINEER FOR THE WORK NOTED ABOVE:

ITEM 615, PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN

ALL COSTS ASSOCIATED WITH REMOVING AND REPLACING PAVEMENT AND TACK COAT FOR THE REPAIRS SHALL BE INCIDENTAL TO ITEM

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<u>TYPE 2 DETAIL</u>

ITEM 622, PORTABLE BARRIER, 50", AS PER PLAN

THIS WORK SHALL CONSIST OF FURNISHING, MAINTAINING, AND SUBSEQUENTLY REMOVING A 50-INCH PORTABLE BARRIER AT THE LOCATIONS SHOWN ON THE PLANS. FOR DETAILS, SEE SCD RM-4.1.

PORTABLE STEEL BARRIER IS AN APPROVED ALTERNATIVE TO PORTABLE CONCRETE BARRIER. FOR INFORMATION ON APPROVED VENDORS, SEE THE APPROVED PRODUCTS LIST MAINTAINED BY ROADWAY STANDARDS.

PORTABLE BARRIER, 32 INCHES HIGH WITH AN 18-INCH MINIMUM HEIGHT GLARE SCREEN MAY BE USED AT THE OPTION OF THE CONTRACTOR. THE GLARE SCREEN SHALL BE CONSTRUCTED USING ONE OF THE SCREENS PROVIDED ON THE APPROVED LIST, AVAILABLE ON THE OFFICE OF ROADWAY ENGINEERING WEBSITE.

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PADDLE OR INTERMITTENT TYPE GLARE SCREENS SHALL BE DESIGNED USING A 20 DEGREE CUT-OFF ANGLE BASED ON TANGENT ALIGNMENT. THAT SPACING SHALL BE USED THROUGHOUT THE BARRIER LENGTH WITHOUT REGARD TO BARRIER CURVATURE.	CALCULATI CAG CHECKED GPD
THE GLARE SCREEN SYSTEM SHALL BE SECURELY FASTENED TO THE 32-INCH PORTABLE BARRIER USING THE HARDWARE AND PROCEDURES SPECIFIED BY THE MANUFACTURER.	
FOR DIRECTIONS ON HOW TO INSTALL THE GLARE SCREEN AND THE BARRIER, SEE THE MANUFACTURER'S INSTRUCTIONS.	S
PAYMENT SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO PERFORM THE WORK AND SHALL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR ITEM 622, PORTABLE BARRIER, 50", AS PER PLAN.	NOTE
ITEM 614 - WORKZONE RAISED PAVEMENT MARKERS, AS PER PLAN	AL
WORK ZONE RAISED PAVEMENT MARKERS, AS PER PLAN, AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614 OR C&MS 621 AS SPECIFIED HEREIN.	ENER
RAISED PAVEMENT MARKERS IN USE DURING THE SNOW- PLOWING SEASON SHALL CONFORM TO 621.	ບ ບ
RAISED PAVEMENT MARKERS IN USE DURING THE NON-SNOW- PLOW SEASON SHALL CONFORM TO EITHER 614 OR TO 621.	
THE SNOW-PLOWING SEASON SHALL RUN FROM OCTOBER 15 THROUGH APRIL 1.	TRA
IF PROJECT DELAYS, NOT THE FAULT OF ODOT, CAUSE THE WORK TO EXTEND INTO THE SNOW-PLOWING SEASON, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING WORK	ОF
ZONE RAISED PAVEMENT MARKERS (WZRPMS) CONFORMING TO C&MS 614, WITH RAISED PAVEMENT MARKERS CONFORMING TO 621, AS DETERMINED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.	ANCE
THIS ITEM SHALL INCLUDE PURCHASE, INSTALLATION AND REMOVAL OF ITEM 614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN, INCLUDING FILLING OF ANY DEPRESSIONS CREATED IN THE PAVEMENT AS PER C&MS 621.08.	INTEN
RESURFACING OF THE TRANSITION AREAS SHALL BE PERFORMED AT THE TIME THAT THE SURFACE COURSE IS BEING APPLIED TO THE ENTIRE PROJECT. PRIOR TO APPLICATION OF THE SURFACE COURSE ON THE PROJECT, THE EXISTING PAVEMENT WITHIN THE TRANSITION AREA SHALL BE REMOVED TO A DEPTH NECESSARY TO REACH THE LEVEL OF THE INTERMEDIATE COURSE OF THE PAVEMENT, AS DETERMINED BY THE ENGINEER.	MA
THE FOLLOWING BID ITEMS SHALL BE INCLUDED IN THE PLANS:	
ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE 681 SY	
ITEM 614, WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN 1413 EACH	.96∕ -2.14
PAYMENT FOR RESURFACING WITHIN THE TRANSITION AREA SHALL BE PAID FOR UNDER THE APPROPRIATE BID ITEMS FOR THE WORK REQUIRED, AS PROVIDED FOR IN THE PLANS.	-23-8 -423
DUST CONTROL	A R
THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:	۵۶

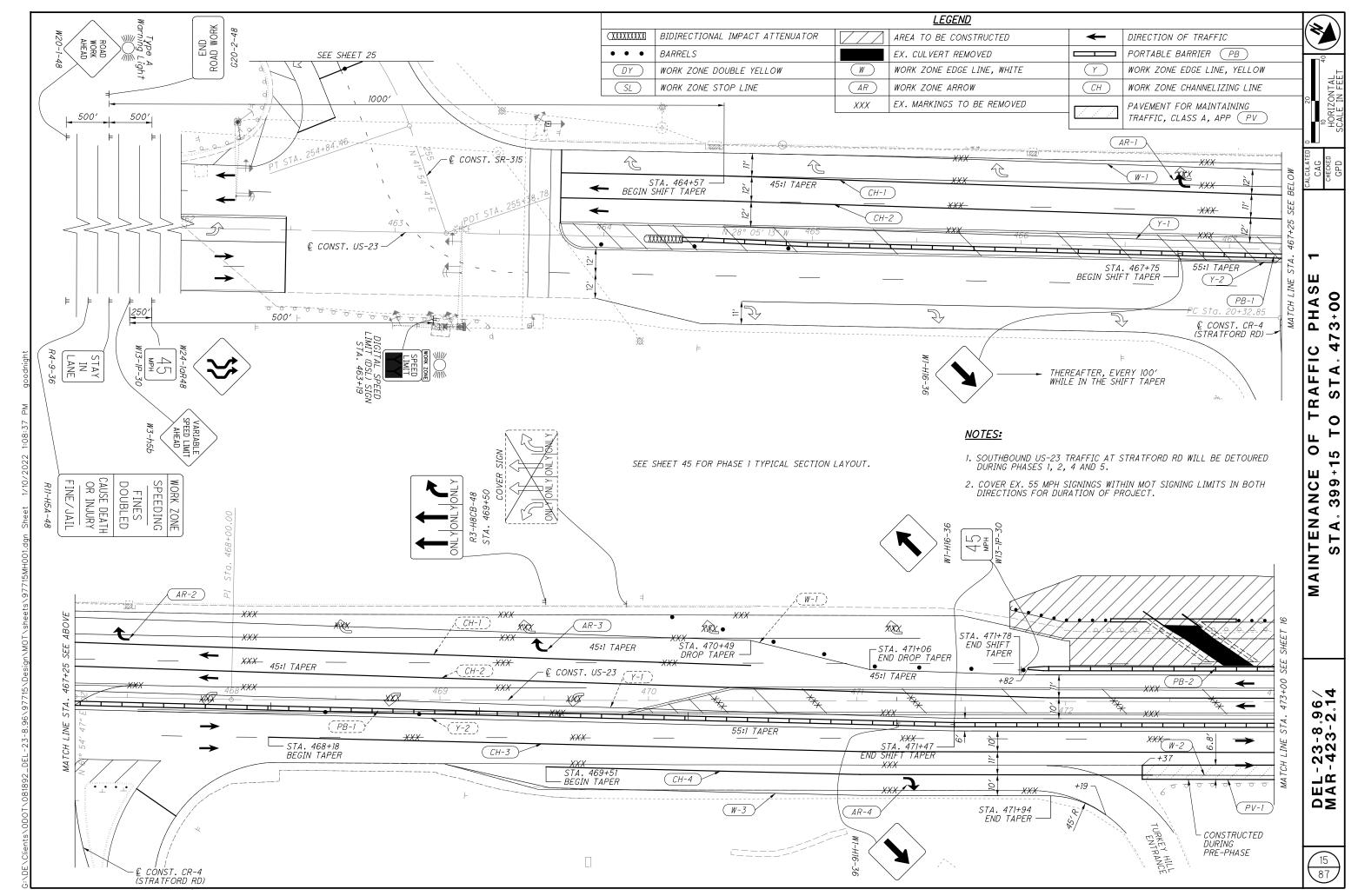
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ITEM 616, WATER 1 M. GAL

					614 514 615 615 622 57 57 57 57 57 57 57 57 57 57												522	ALCULATED CAG CHECKED			
REF. SHEET NO. NO.		STATION T	TO STATION	OBJECT MARKER, TWO-WAY	BARRIER REFLECTOR, TYPE 1, BIDIRECTIONAL	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, UNIDIRECTIONAL)	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (BIDIRECTIONAL)	WORK ZONE CENTER LINE, CLASS 1, 807 PAINT	WORK ZONE CHANNELIZING LINE, CLASS 1, 12°, 807 PAINT	WORK ZONE EDGELINE, CLASS I, 6°, 807 PAINT (MHITE)	WORK ZONE EDGELINE, CLASS I, 6°, 807 PAINT (YELLOW)	WORK ZONE STOP LINE, CLASS I, 642 PAINT	WORK ZONE ARROW, CLASS 1, 642	WORK ZONE DOTTED LINE, CLASS 1, 4", 807 PAINT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 642 PAINT	SPECIAL - FLASHING ARROW PANEL	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	PORTABLE BARRIER, UNANCHORED	PORTABLE BARRIER, 50", A PER PLAN	PORTABLE BARRIER, ANCHORED	
<u></u>	1/	407,70.04	470,40,07	EACH	EACH	EACH	EACH	MILE	FT C70	MILE	MILE	FT	EACH	FT	FT	ΕA	SY	FT	FT	FT	
<u>СН-1</u> СН-2	15 15,16	<u> </u>	470+48.93 478+49.63						670 1471											+ +	
CH-3	15, 16	468+17.81	476+87.47						870												
CH-4	15	469+50.92	472+41.65						141												
СН-5	16	471+89.82	483+25.87						345												
CH-6	16	471+89.82	482+10.80						229												
	16	479+82.13	481+03.25					0.03													
DY-1	10	419+02.13	401+03.25					0.03													
W-1	15,16	465+24.25	484+00.00							0.36										1	
W-2	15, 16	472+41.65	476+27.33							0.08											
W-3	15	469+11.00	472+19.42							0.03											
Y-1	15,16	464+57.55	478+59.19								0.27										
Y-2	15,16	466+75.48	478+59.19								0.23										
DL -1	16	478+49.63	479+66.76											118							
DLI	10		475700.70											110							
												11									
SL -2	16	479-	+82.13									2									
PV-1	15,16	472+36.80	475+24.00														214				
PV-2	16	476+24.71	478+13.36														303				
1 00	15 10	464+37.58	470,77.00	20	0.7		2												1400		
PB-1 PB-2	15,16 15,16	404+57.58 471+81.88	478+33.00 477+89.36	29 12	87 36	1	2						-				-	430	1400	180	
102	10,10	411701.00	477703.30	12	50	,												450		100	
AR-1	15	466+	+72.69										1								
AR-2	15		+42.58										1								
AR-3	15		+43.56										1								
AR-4	15	471+	+22.13										1								
011.1	17	407.70.04	100-05-00						401												
CH-1	17	463+79.04 463+79.04	<u>468+05.00</u> 478+31.90			_			421	-									-		
<u>СН-2</u> СН-3	17, 18 18	478+12.39	478+31.90						1453 20											+	
CH-4	18	479+81.76	483+25.87						345											+	
0	,,,		100 20101						0.10												
W-1	17,18	464+79.00	484+00							0.38											
FP-1	18		+51.43													1					
DL -1	18	478+12.06	479+66.70											155							
	17	100	74.00																		
AR-1 AR-2	17		+74.09 +28.46										1							<u> </u>	[
PB-1	17, 18	4674	475+34.97	7	21	1							+ '				+	170	+	180	
PB-2	17,18	471+81.89	474+10.96	4	12	1				1			1				1	50	1	180	
	, io			,																,	
TR-1	18	477+07.01	478+31.86												86						
TR-2	18	479+81.86	483+25.87												50						
		107 55 01	100.01.15																		
CH-1	19	467+55.21	469+98.05						243												
СН-2	19	468+05.00 467+85.03	469+03.52 478+27.2812			-			99 1043												
<u>СН-3</u> СН-4	19,20 20	467+85.03 474+51.75	476+87.51			+			236										+		
UII 4	20	479+81.87	482+10.95						236							1					
CH-5			102 - 10,00																		
СН-5	· ·	463+79.04	467+55.13					0.07													
	19	703113.07								1	1		1		1 1		1		-		
CH-5 DY-1 DY-2	19 19	467+55.12	470+83.74					0.06													ŀ
DY-1								0.06 0.02													

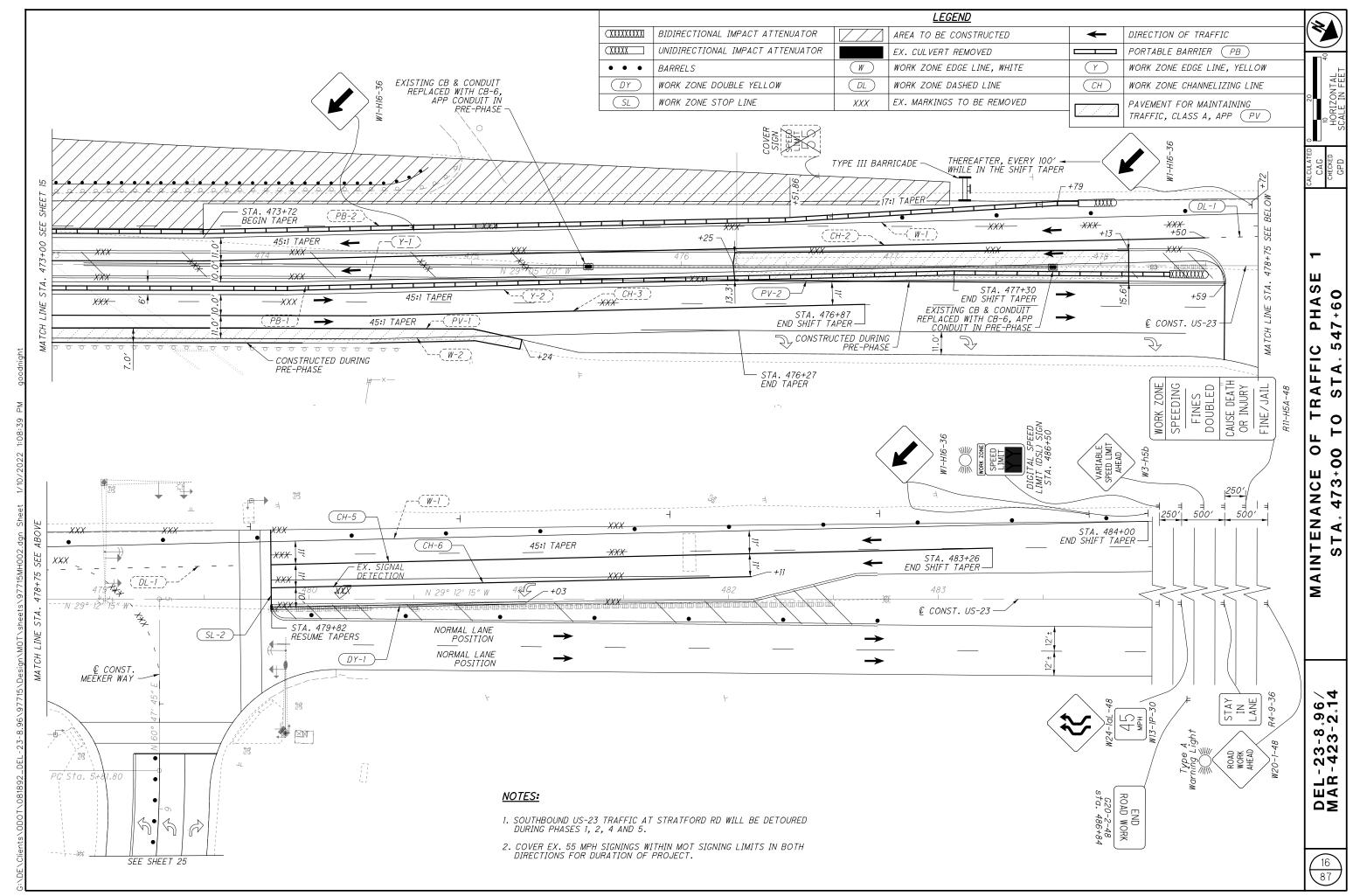
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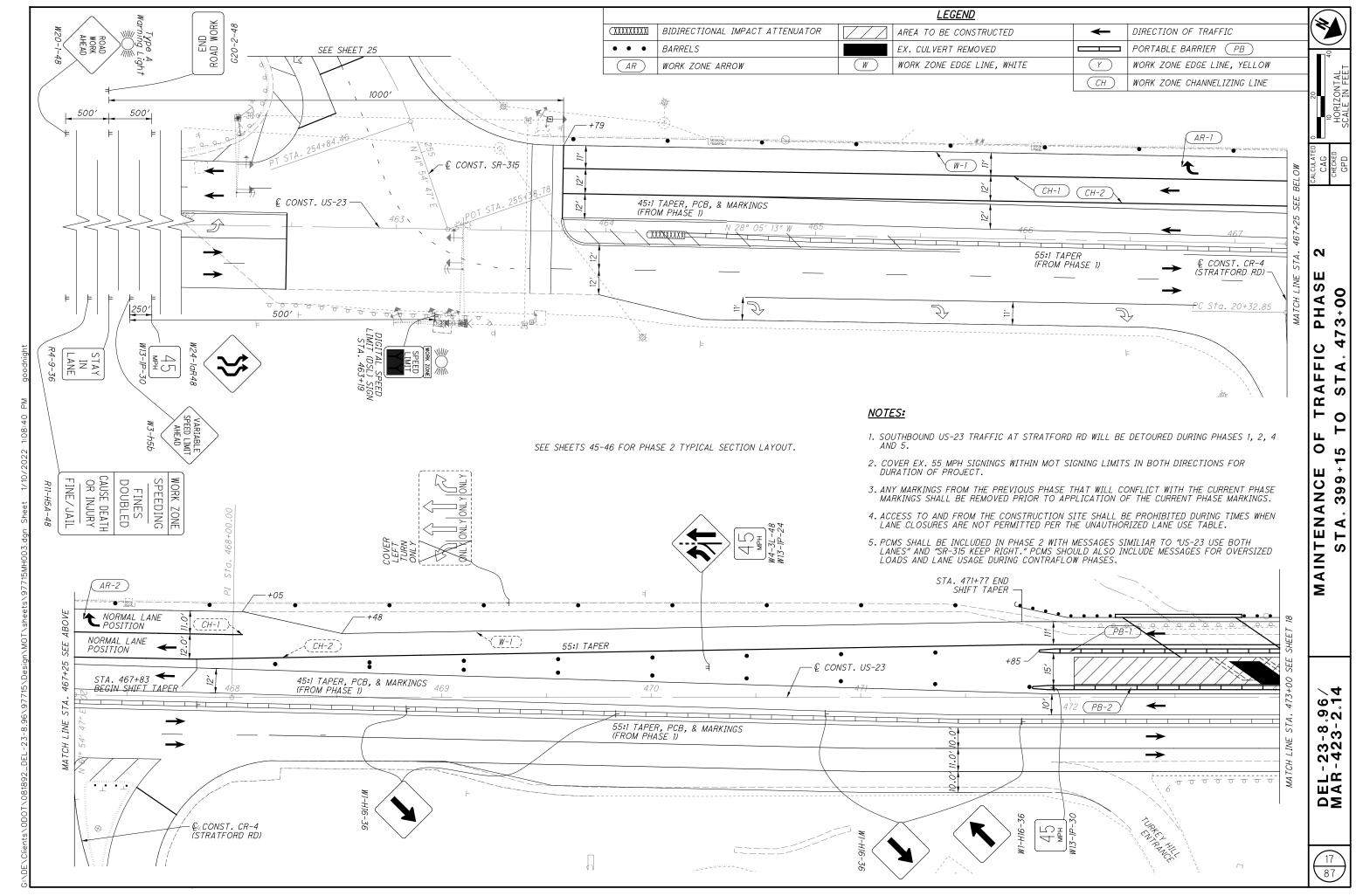
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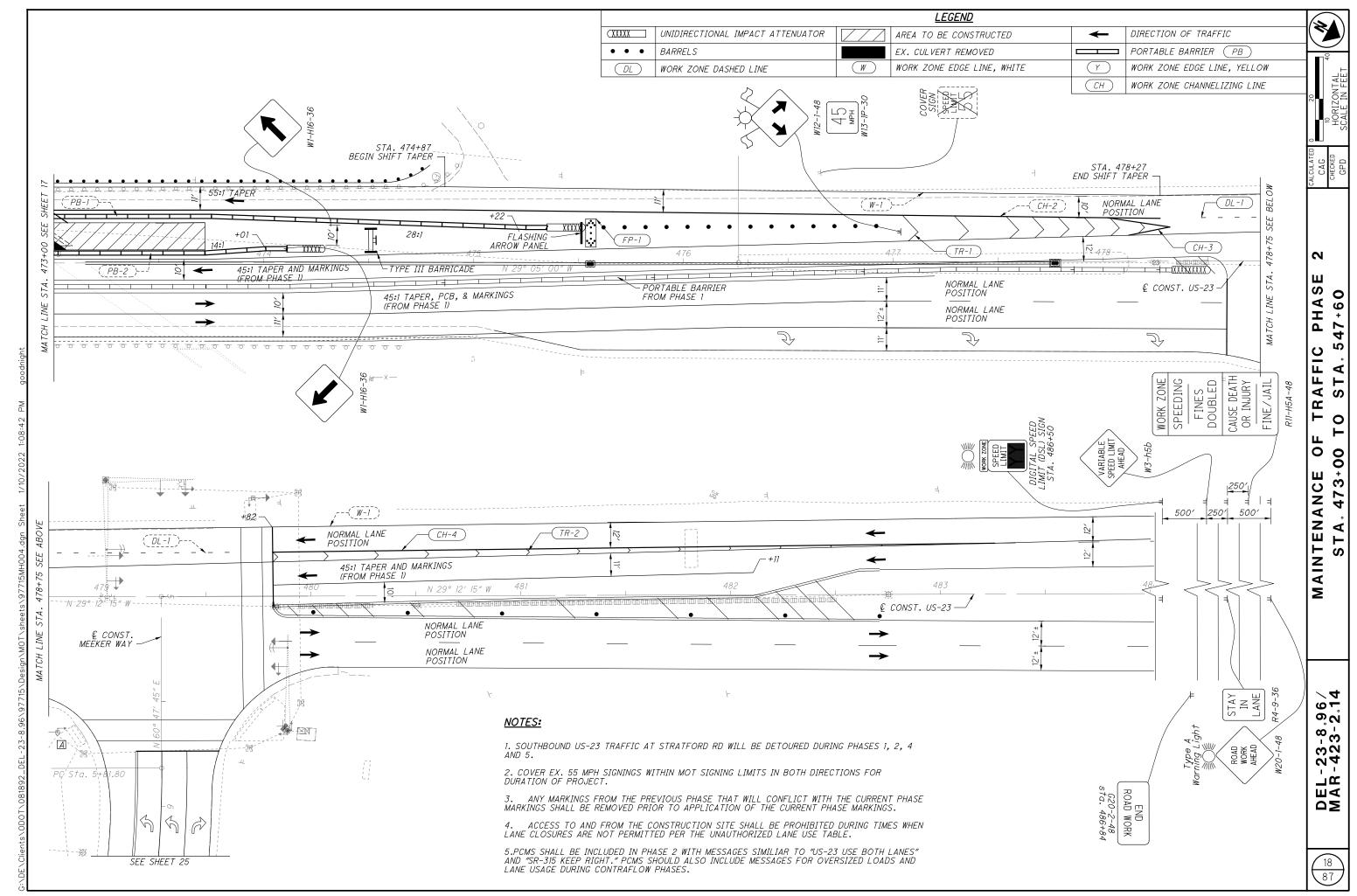
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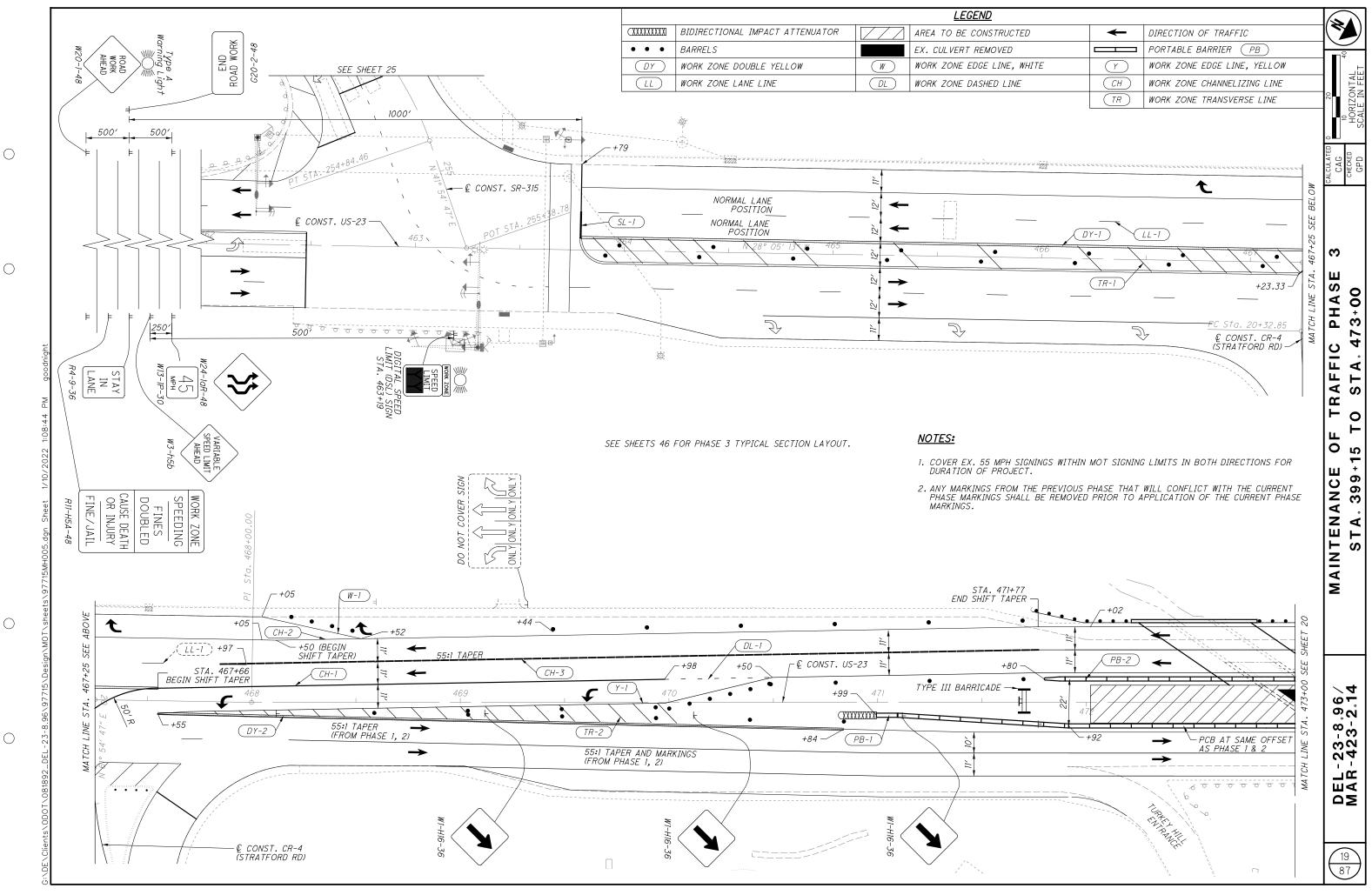
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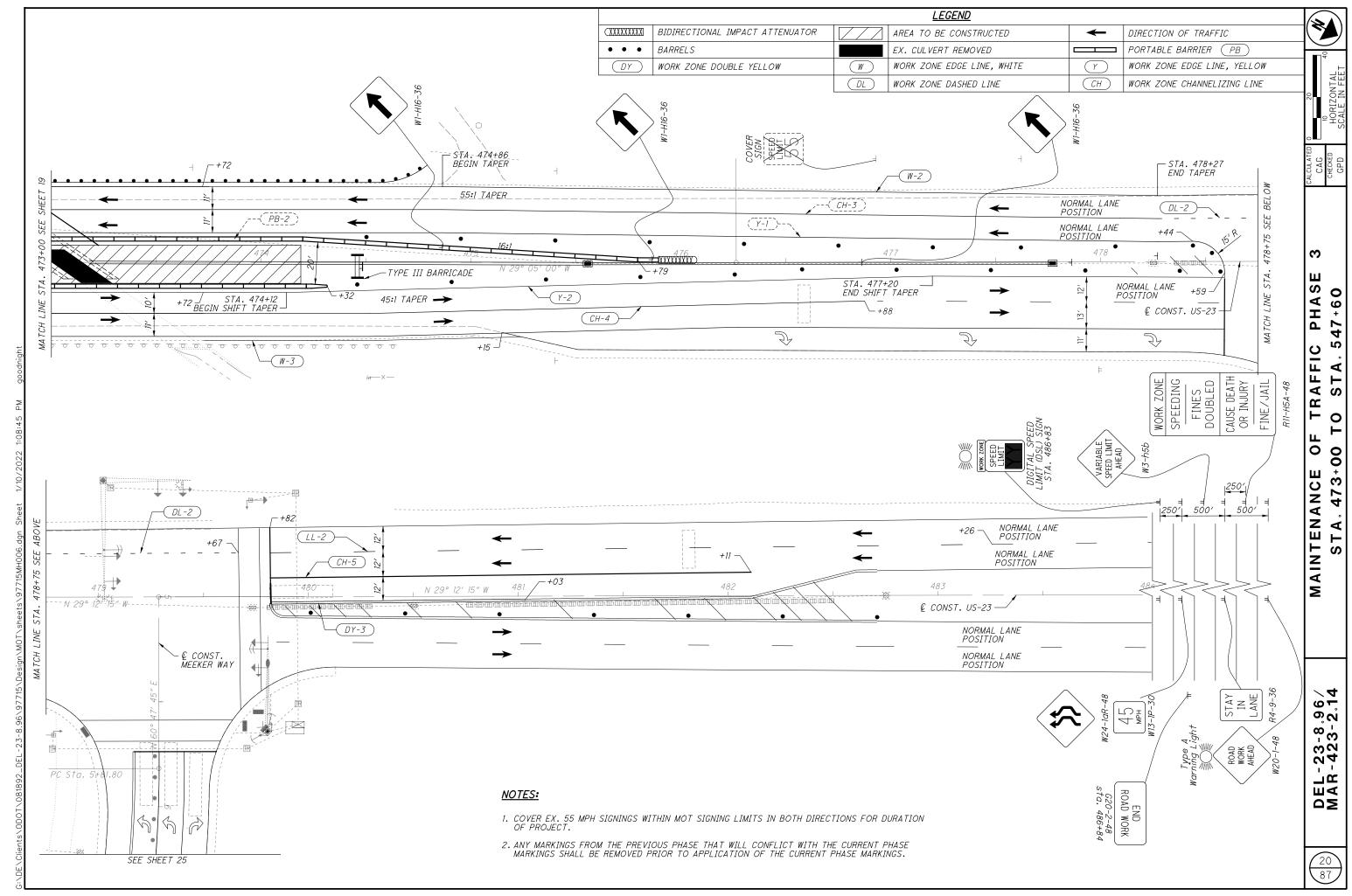


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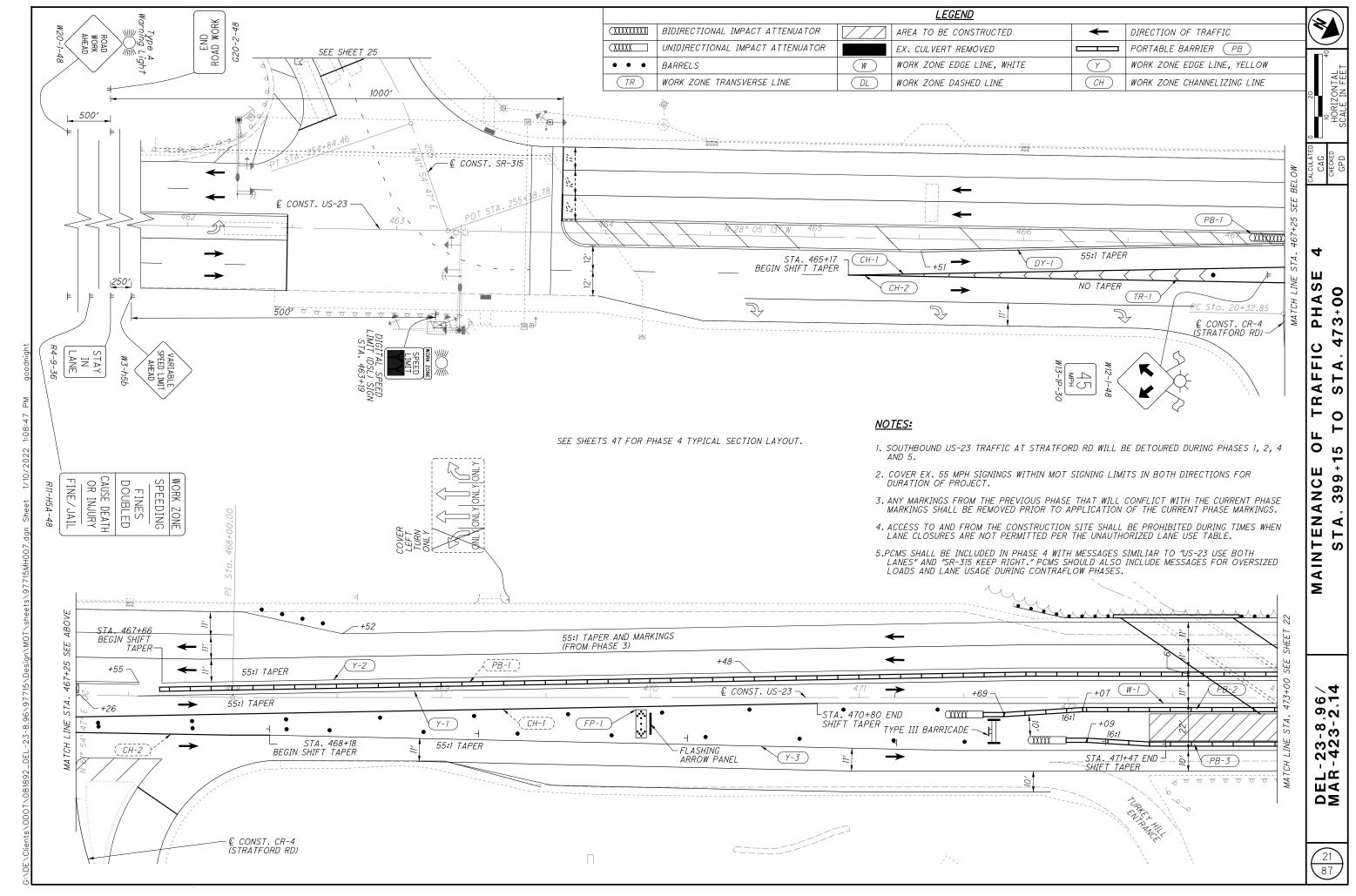
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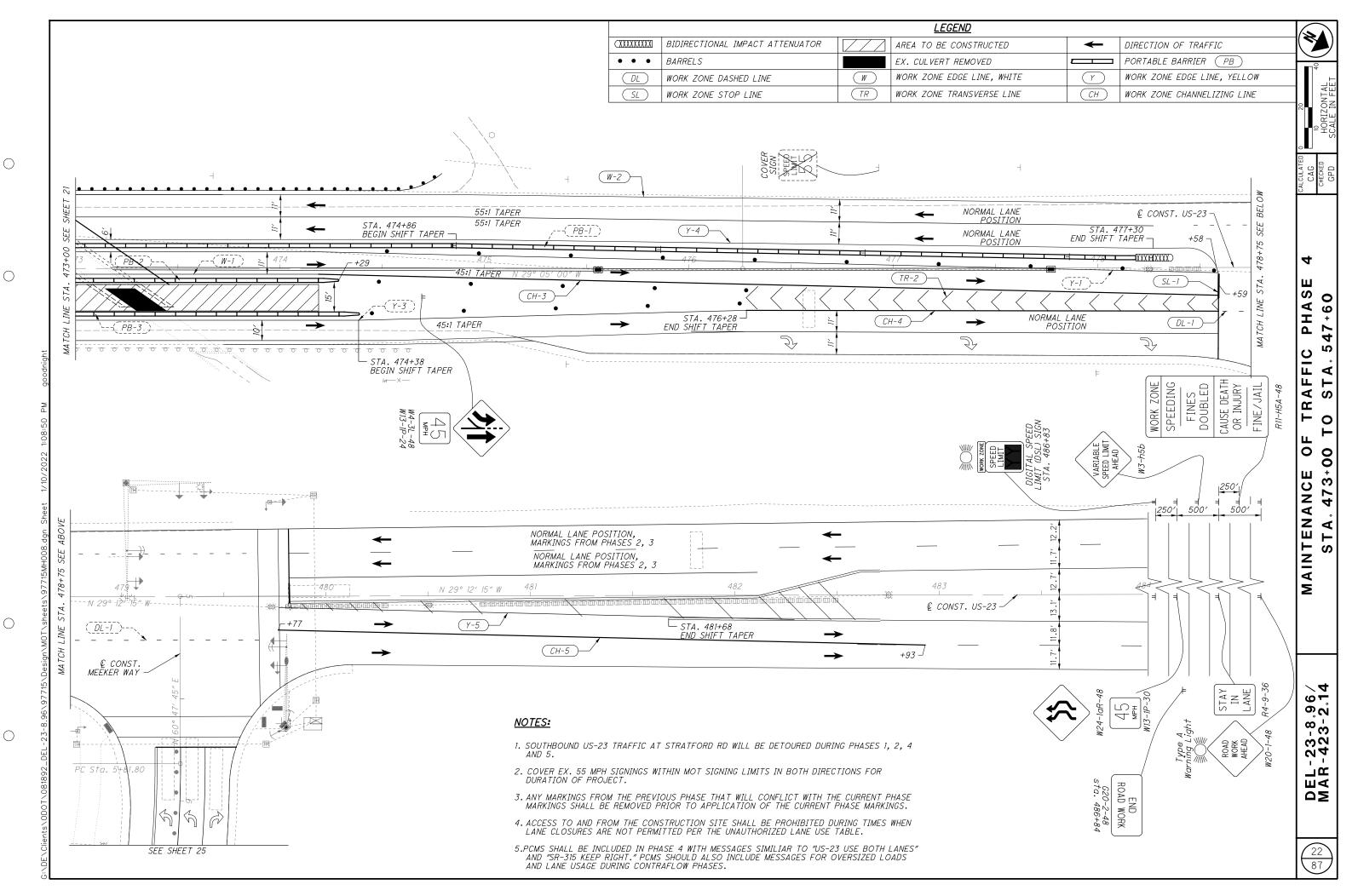
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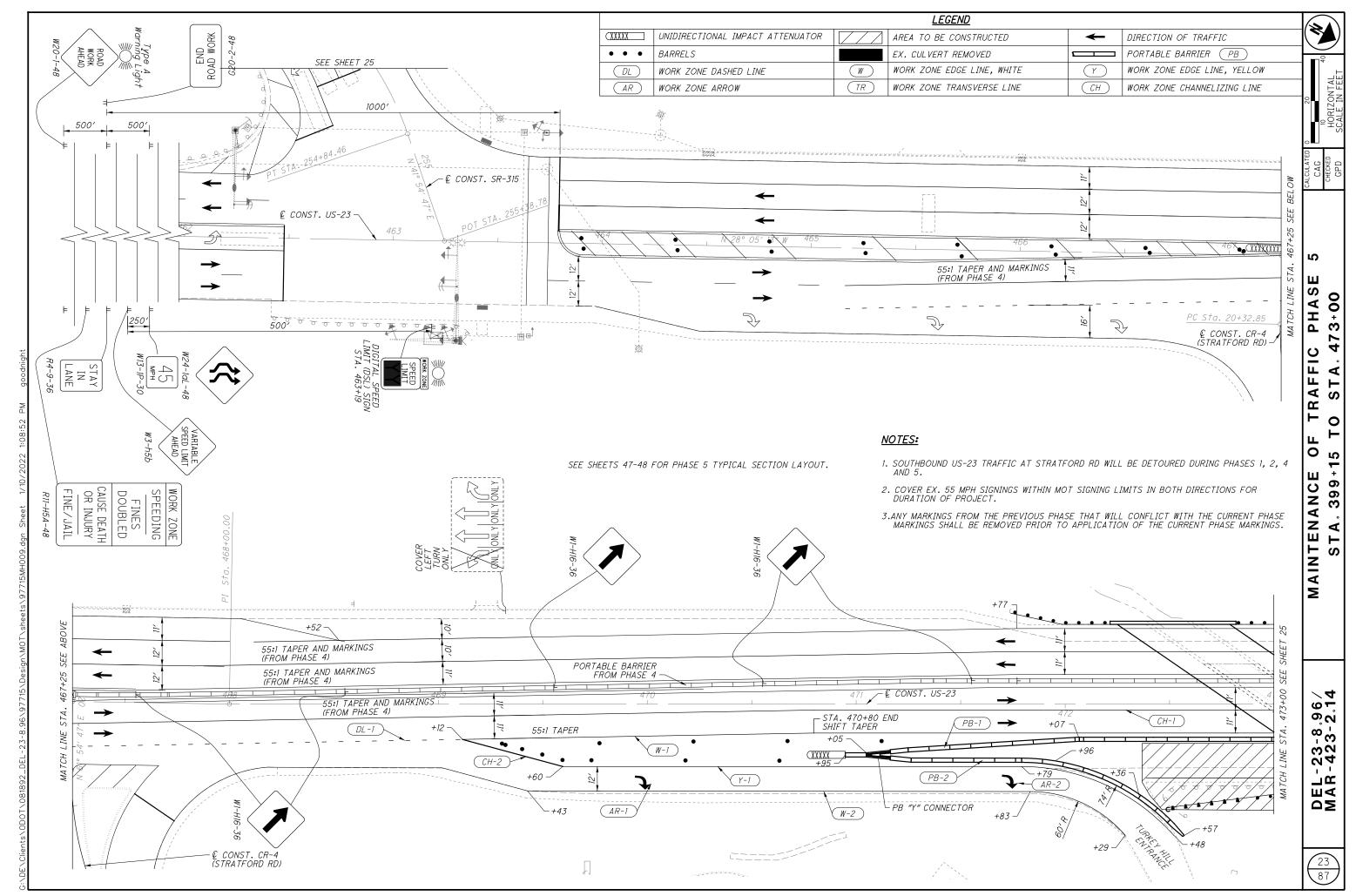
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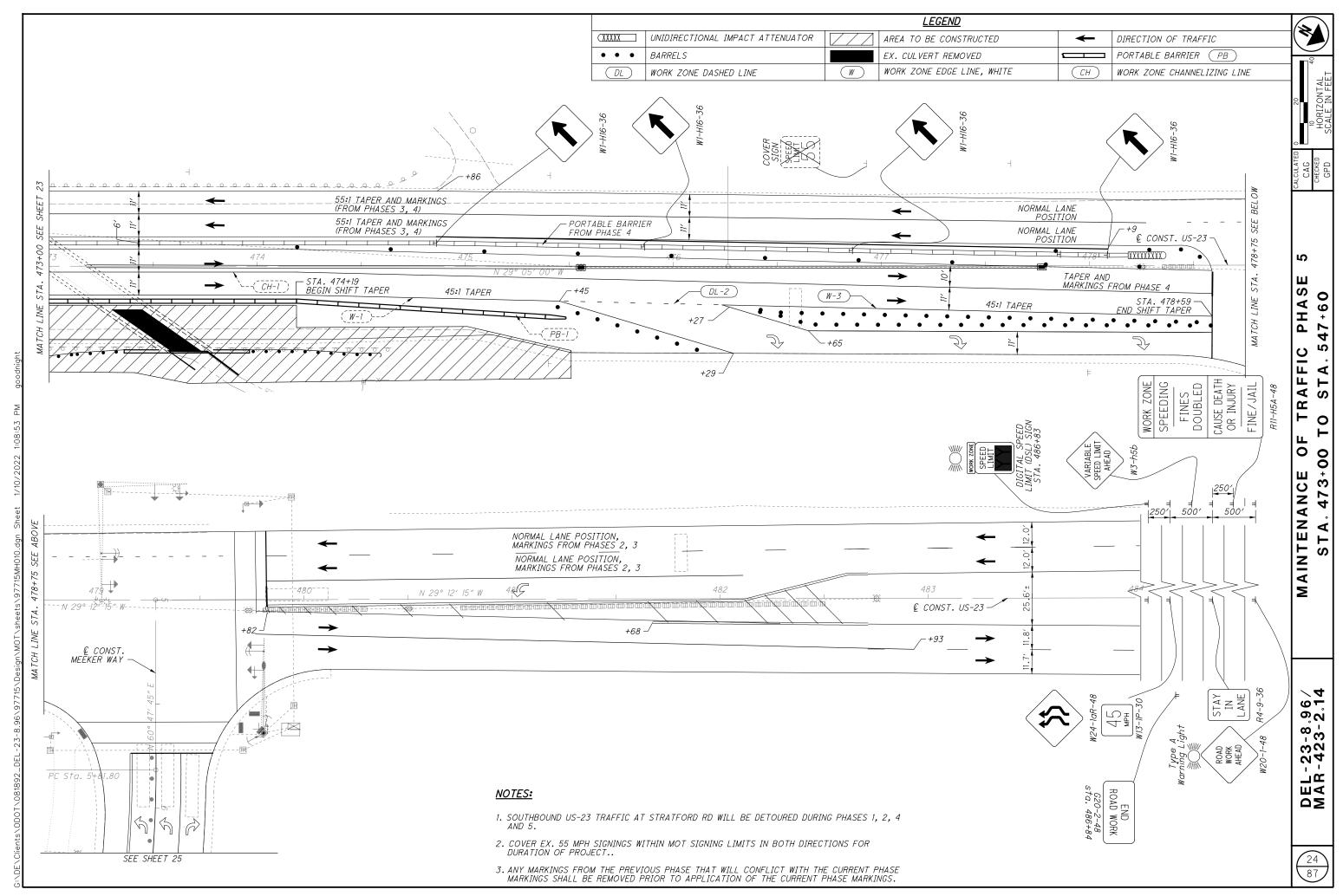


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	 	I	Si	HEET NUI	И. I — — — — — — — — — — — — — — — — — — —					<i>RT.</i>	ITEM	ITEM	GRAND	UNIT	
OFFICE CALCS	7	8	9	10	12	13	14	61	01/NHS/BR	02/STR/B R	1.2.00	EXT	TOTAL		
															MAINT
	130								130		614	11110	130	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FO
						3	3		6		614	12380	6	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZA
						2	4		6		614	12384	6	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZA.
		2			1.5			1.5	2	1.5	614 614	12410	2	EACH	SPEED ZONE AHEAD SYMBOL SIGN
					LS			LS	LS	LS	614	12420	LS		DETOUR SIGNING
		4							4		614	12470	4	EACH	WORK ZONE SPEED LIMIT SIGN
		2							2		614	12484	2	EACH	WORK ZONE INCREASED PENALTIES SIGN
						1	1		2		SPECIAL	61412760	2		FLASHING ARROW PANEL
			1,413					70	1,413	75	614	12801	1,413	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER F
						 		75		75	614	13000	75	СҮ	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
						156	189		345		614	13310	345	EACH	BARRIER REFLECTOR, TYPE 1, BIDIRECTIONAL
						52	63		115		614	13360	115	EACH	OBJECT MARKER, TWO WAY
				18					18		614	18601	18	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PL
							0.10		0.10		614	20050	0.10		
							0.16		0.16		614	20056	0.16	MILE	WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT
						0.18	0.03		0.21		614	21050	0.21	MILE	WORK ZONE CENTER LINE, CLASS I, 807 PAINT
						1.35	1.48		2.83		614	22056	2.83	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT
						7,815	2,245		10,060		614	23100	10,060	FT	WORK ZONE CHANNELIZING LINE, CLASS 1, 8", 807
						273	584		857		614	24100	857	FT	WORK ZONE DOTTED LINE, CLASS I, 4", 807 PAIN
						136	615		751		614	25200	751	FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS
						13	23		36		614	26200	36	FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT
						6	2		8		614	30200	8	EACH	WORK ZONE ARROW, CLASS I, 642 PAINT
		1							1		614	40051	1	EACH	BUSINESS ENTRANCE SIGN, AS PER PLAN
						 517			517		615	20001	517	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, A
			242						242		615	25001	242	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, A
			1						1		616	10000	1	MGAL	WATER
			,			1,400	1,210		2,610		622	41011	2,610	FT	PORTABLE BARRIER, 50", AS PER PLAN
							230		230		622	41031	230	FT	PORTABLE BARRIER, 50", BRIDGE MOUNTED, AS PL
							1		1		622	41050	1	EACH	PORTABLE BARRIER, "Y" CONNECTOR
						650	850		1,500		622	41100	1,500	FT	PORTABLE BARRIER, UNANCHORED
						540	670		1,210		622	41110	1,210	FT	PORTABLE BARRIER, ANCHORED
		24				0.10	0/0		24		808	18700	24		DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY
									1.0	1.0	C14	11000	1.0		
			-						LS 9	LS	<u> </u>	11000 16010	LS 9	MNTH	MAINTAINING TRAFFIC FIELD OFFICE, TYPE B
									LS	LS	<u> </u>	10000	LS	NIN I H	CONSTRUCTION LAYOUT STAKES AND SURVEYING
									LS	LS	624	10000	LS		MOBILIZATION
											02.	10000	20		
			1			 									1

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	SEE	CALCULATED NRH CHECKED GPD
DESCRIPTION	SHEET	NR NR GP
	NO.	CA
TENANCE OF TRAFFIC		
OR ASSISTANCE ARDS, (UNIDIRECTIONAL)		
ARDS, (UNIDIRECTIONAL)		
ands, (DIDINECTIONAL)		
	9	
PLAN	8	
PLAN	9	
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		GENERAL SUMMARY
D7 PAINT		Σ
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I, 642 PAINT		S
	7	87
AS PER PLAN	8	
AJILNILAN		7
AS PER PLAN	9	ш
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INCIDENTALS		
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