

STATE OF OHIO  
DEPARTMENT OF TRANSPORTATION

**STA-172/241-  
0.00/(0.01)(1.68)**  
TUSCARAWAS TOWNSHIP  
CITY OF MASSILLON  
STARK COUNTY

PROJECT DESCRIPTION

IMPROVEMENT OF 3.95 MILES OF SR 172 BY PLANING AND RESURFACING INCLUDING MINOR WORK ON STRUCTURES STA-172-0226, STA-241-0001, AND STA-241-0168

PROJECT EDA: 0 ACRES  
ESTIMATED CONTRACTOR EDA: N/A (MAINTENANCE PROJECT)  
NOTICE OF INTENT EDA: N/A (MAINTENANCE PROJECT)

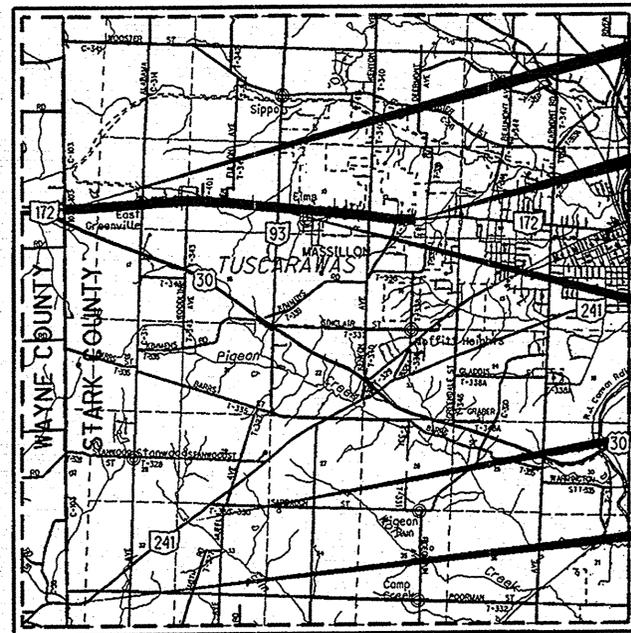
2010 SPECIFICATIONS

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

APPROVED *[Signature]*  
DATE 8-4-11 DISTRICT DEPUTY DIRECTOR

APPROVED *[Signature]*  
DATE 8-31-11 DIRECTOR, DEPARTMENT OF TRANSPORTATION



BEGIN PROJECT  
SLM 00.00

END PROJECT  
SLM 03.95

STRUCTURE  
STA-172-0226

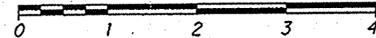
STRUCTURE  
STA-241-0168

STRUCTURE  
STA-241-0001

LOCATION MAP

LATITUDE: 40°47'54.74"N LONGITUDE: 81°38'53.67"W

SCALE IN MILES



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

DESIGN FUNCTIONAL CLASSIFICATION:

ROUTE	FROM SLM	TO SLM	CLASSIFICATION
SR 172	0.00	2.41	RURAL/ MINOR ARTERIAL
SR 172	2.41	3.95	URBAN/ PRINCIPLE ARTERIAL
SR 241	0.00	1.68	RURAL/ MAJOR COLLECTOR

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DESIGN EXCEPTIONS

NONE

UNDERGROUND UTILITIES

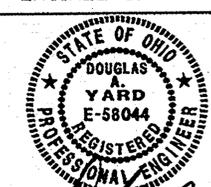
CONTACT BOTH SERVICES  
CALL TWO WORKING DAYS  
**BEFORE YOU DIG**

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:  
ODOT --- DISTRICT 4  
2088 S. ARLINGTON ROAD  
AKRON, OH 44306

ENGINEERS SEAL:



SIGNED: *[Signature]*  
DATE: 8/2/11

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS	
BP-3.1	10/19/07	MT-101.90	1/16/09	TC-82.10	1/21/11	800-2010	7/15/11
BP-4.1	7/16/04	MT-105.10	1/16/09			832	5/5/09
BP-5.1	7/28/00						
BP-7.1	10/15/10	TC-41.20	1/19/01				
		TC-42.20	1/21/11				
GR-1.1	7/16/04						
GR-2.1	1/16/04	TC-52.10	1/19/07				
		TC-52.20	1/19/07				
MT-35.10	4/20/01						
MT-95.50	4/17/09	TC-65.10	1/21/05				
MT-95.31	7/17/09	TC-65.11	1/21/05				
MT-95.32	7/17/09						
		TC-71.10	1/21/11				
MT-97.10	10/15/10	TC-73.10	1/19/01				
MT-97.12	10/15/10						
MT-99.20	1/16/09						

SPECIAL PROVISIONS

FEDERAL PROJECT NO.  
**E080(401)**

PID NO.  
**76341**

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT  
**NONE**

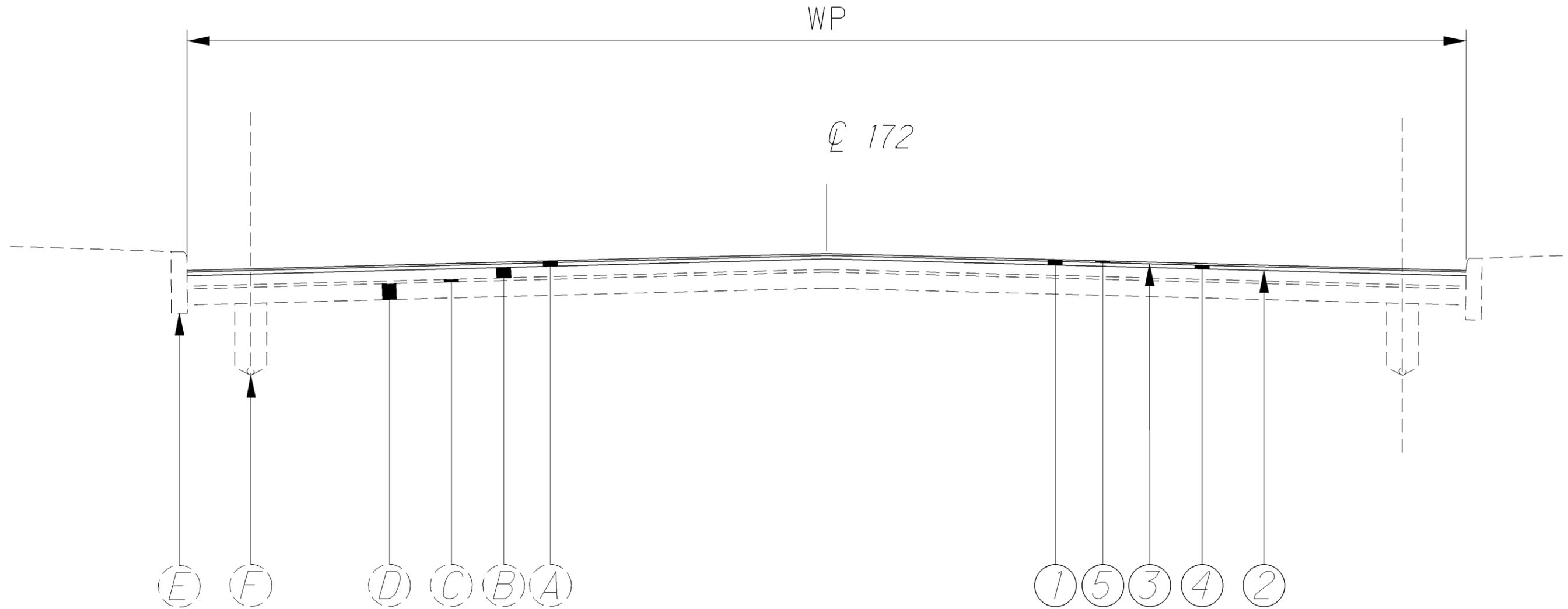
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STA-SR-172/241-0.00/(0.01)(1.68)  
117009 PID-76341  
Dist 4 11/3/2011

Contract Proposal available  
@www.contracts.dot.  
state.oh.us/home

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SR 172			
SLM		AVG WP	LENGTH
FROM	TO	(FT)	(MILES)
0.00	3.95	41	3.95

**LEGEND**

- ① ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN (T = 2")
- ② ITEM 407, TACK COAT @ 0.15 GAL/SY
- ③ ITEM 407, TACK COAT FOR INTERMEDIATE COURSE @ 0.04 GAL/SY
- ④ ITEM 448, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22 (T=1 1/4")
- ⑤ ITEM 424, FINE GRADED POLYMER ASPHALT CONCRETE, TYPE A (T=3/4")

- (A) VARIABLE THICKNESS OF ASPHALT
- (B) 4" BRICK
- (C) 1" BED OF SAND
- (D) 6" CONCRETE BASE
- (E) 6" X 20" SANDSTONE CURB
- (F) 4" TILE UNDERDRAIN

TYPICAL SECTIONS

STA-172/241-  
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**WATERWAY PERMIT DETERMINATION (404/401) - ODOT PROJECTS**

ALL PROJECTS INVOLVING JURISDICTIONAL WATERS OF THE UNITED STATES (STREAMS, RIVERS, NON-ISOLATED WETLANDS) AND/OR ISOLATED WETLANDS ARE SUBJECT TO REGULATION UNDER SECTIONS 404 AND 401 OF THE CLEAN WATER ACT, AND POSSIBLY OHIO EPA ISOLATED WETLAND LAW. THE OHIO DEPARTMENT OF TRANSPORTATION - OFFICE OF ENVIRONMENTAL SERVICES (OES) HAS DETERMINED THAT THE PROJECT MEETS THE CRITERIA OF REGIONAL GENERAL PERMIT (RGP); BASED UPON THE ANTICIPATED IMPACTS TO STREAMS. USE OF TEMPORARY CONSTRUCTION ACCESS FILLS BELOW ORDINARY HIGH WATER MARK OF ANY STREAM IS PROHIBITED FOR THIS PROJECT. PLEASE NOTE THAT FORDING OF WATERWAYS IS NOT ALLOWED PER ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS 2002, ITEM 207.03. THE CONTRACTOR SHALL REVIEW AND ADHERE TO ALL WATERWAY PERMIT TERMS AND CONDITIONS THROUGHOUT PROJECT CONSTRUCTION.

**BEST MANAGEMENT PRACTICES**

WATER COLUMN AND SEDIMENTATION IMPACTS SHALL BE KEPT TO A MINIMUM THROUGH THE USE OF BEST MANAGEMENT PRACTICES. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE PRIOR TO ANY EXCAVATION, GRADING OR FILLING OPERATIONS AND INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES. THEY SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED AND THE AREA IS STABILIZED AS ACCEPTED BY THE ENGINEER. THEY SHALL ALSO COMPLY WITH ODOT'S HANDBOOK FOR SEDIMENT AND EROSION CONTROL.

THE CONTRACTOR SHALL KEEP ALL EQUIPMENT AND MATERIAL STAGING AREAS WELL AWAY FROM WETLANDS, STREAM BANKS OR RIVERBANKS. ALL MATERIALS REMOVED FROM STREAMS AND DITCHES SHALL BE IMMEDIATELY REMOVED TO AN UPLAND SITE AND STABILIZED (I.E., SEEDED) TO PREVENT REDISTRIBUTION INTO ANY WATERS OF THE UNITED STATES. AREAS DISTURBED BY EQUIPMENT ACTIVITIES SHALL BE SEEDED WITH NATIVE PLANT SPECIES. THE CONTRACTOR SHALL UTILIZE AN APPROVED DISPOSAL SITE FOR THE DISPOSAL OF ALL WASTE FILL MATERIAL. THE APPROVED DISPOSAL SITE SHALL NOT INCLUDE ANY WETLANDS, STREAM BANKS OR RIVERBANKS OR ANY 100-YEAR FLOOD PLAINS.

THE MECHANICAL EQUIPMENT USED TO EXECUTE THE WORK IN THE STREAM CHANNEL SHALL BE OPERATED IN SUCH A MANNER AS TO MINIMIZE TURBIDITY THAT COULD DEGRADE WATER QUALITY AND ADVERSELY AFFECT AQUATIC PLANT AND ANIMAL LIFE.

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

**ENDANGERED SPECIES HABITAT**

TREE CLEARING SHALL BE PERFORMED ONLY BETWEEN SEPTEMBER 30 AND APRIL 1, WHENEVER PRACTICABLE. IF SOME TREE REMOVAL MUST BE CONDUCTED BETWEEN APRIL 1 AND SEPTEMBER 30, TREES CONTAINING SUITABLE INDIANA BAT ROOSTING HABITAT (I.E., LIVING OR DEAD TREES OR SNAGS WITH EXFOLIATING, PEELING OR LOOSE BARK, SPLIT TRUNKS AND/OR BRANCHES OR CAVITIES) SHALL BE MARKED FOR AVOIDANCE DURING THESE MONTHS, IF AT ALL POSSIBLE.

SHOULD ADDITIONAL INFORMATION ON LISTED ENDANGERED/THREATENED/POTENTIALLY THREATENED SPECIES OR THEIR CRITICAL HABITAT BECOME AVAILABLE, OR IF NEW INFORMATION REVEALS EFFECTS OF THIS PROJECT THAT WERE NOT PREVIOUSLY CONSIDERED, ODOT WILL REINITIATE CONSULTATION WITH THE USFWS ACCORDINGLY.

**UTILITIES**

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

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

OUPS 1-800-362-2764 (CONTACT LIMITED BASIS PARTICIPANTS DIRECTLY)  
OGPUPS 1-800-925-0988  
ODOT 330-786-3145 KEN GREENE

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

**PROFILE AND ALIGNMENT**

PLACE THE PROPOSED PAVEMENT TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. PLACE THE PROPOSED ASPHALT CONCRETE OVERLAY AS SHOWN ON THE TYPICAL SECTIONS.

**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.

**PAVEMENT MARKING LANE WIDTHS**

THE NORMAL LANE WIDTH FOR THE PAVEMENT MARKINGS ON THIS PROJECT SHALL BE AS FOLLOWS [AT LEAST 3 DAYS PRIOR TO PERFORMING THE WORK CONTACT THE TRAFFIC OFFICE AT 330-786-3147 TO CONFIRM THE WIDTHS]:

ROUTE	S.L.M. TO S.L.M.	LANE WIDTH
SR 172	0.00 TO 3.95	10'

**PAVEMENT MARKING DETAILS**

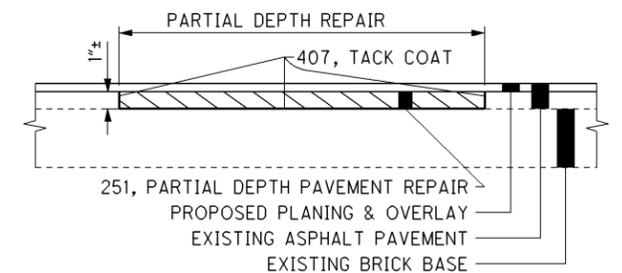
THE PAVEMENT MARKING DETAIL SHEETS WILL BE SUPPLIED TO THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING.

**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.

**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 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.



**ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN**

THIS ITEM OF WORK SHALL BE PERFORMED IN CONFORMANCE WITH ITEM 254 IN THE CMS EXCEPT THE DEPTH SHALL VARY FROM 2" TO THE TOP OF THE BRICK WHICHEVER IS FIRST. THIS WORK SHALL BE PERFORMED SO THAT THE BRICK BASE IS NOT DISTURBED. ALL EQUIPMENT, LABOR, TOOLS, AND OTHER INCIDENTALS REQUIRED TO PERFORM THIS WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN.

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**GENERAL NOTES**  
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**INTERSECTIONS**

INTERSECTIONS WILL 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 OR WITH THE MAINLINE PAVEMENT IF THIS CAN BE ACCOMPLISHED WITHOUT CHANGING THE VELOCITY AND DIRECTION OF THE PAVER. USE THE SAME ASPHALT CONCRETE AS THE MAINLINE PAVEMENT. PROVIDE A SMOOTH TRANSITION TO THE EXISTING PAVEMENT. ANY GRADING OR PRIME NECESSARY TO ACCOMPLISH THIS WORK SHALL BE INCLUDED IN THE COST OF THE PERTINENT BID ITEM.

**DRIVEWAYS**

THE CONTRACTOR WILL NOT BE PERMITTED TO LEAVE A DIFFERENCE IN ELEVATION BETWEEN THE MAINLINE ASPHALT SURFACE COURSE AND THE EXISTING DRIVEWAYS. IF APPROVED BY THE ENGINEER, AN ASPHALT WEDGE WITH A WIDTH OF APPROX 2' MAY BE PLACED EITHER ON THE ROADWAY SHOULDER OR DRIVEWAY DEPENDENT UPON WHICH SIDE IS HIGH. A QUANTITY OF MAINLINE SURFACE COURSE ASPHALT HAS BEEN PROVIDED IN THE CALCULATIONS AND GENERAL SUMMARY TO PERFORM THIS ITEM OF WORK.

**FIELD DRIVES**

THIS ITEM OF WORK WILL CONSIST OF PLACING ITEM 304, AGGREGATE BASE FOR ALL FIELD DRIVES. FIELD DRIVES ARE TO BE PLACED A DISTANCE OF 10 FT FROM THE EDGE OF PAVED SHOULDER UNLESS OTHERWISE DIRECTED BY THE ENGINEER. FIELD DRIVES WILL BE PLACED AFTER THE COMPLETION OF THE SURFACE COURSE. AVERAGE THICKNESS WILL BE 2 IN. ALL GRADING, TOOLS, EQUIPMENT, MATERIAL, AND INCIDENTALS REQUIRED TO LAYOUT AND CONSTRUCT THE FIELD DRIVES WILL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 304, AGGREGATE BASE.

AN ESTIMATED QUANTITY OF 3 CU.YD. HAS BEEN CARRIED TO THE GENERAL SUMMARY.

**CURB RAMPS / DETECTABLE WARNINGS**

UNLESS OTHERWISE DIRECTED BY THE ENGINEER, INSTALLATION OF THE CURB RAMPS / DETECTABLE WARNINGS WILL BE PERFORMED PRIOR TO MAINLINE RESURFACING.

**CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN**

THERE ARE 10 EXISTING CATCH BASINS ON U.S. 172 THAT SHALL BE RECONSTRUCTED TO GRADE FROM THE FLOW LINE TO THE TOP OF THE CATCH BASIN.

THE LOCATIONS OF THE EXISTING CATCH BASINS SHALL BE DETERMINED BY THE ENGINEER:

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

- 202, CURB AND GUTTER REMOVED, 90 FT
- 202, PAVEMENT REMOVED, 90 SQ. YD.
- 202, PIPE REMOVED, 24" AND UNDER, 100 FT
- 252, FULL DEPTH PAVEMENT SAWING, 275 FT
- 603, 12" CONDUIT, TYPE B, 100 FT
- 604, CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN, 10 EACH
- 609, COMBINATION CURB AND GUTTER, TYPE 2, 60 FT

**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 INTERSECTION OF SR 172 AND THE SR 93. 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. ALL

STOP LINE INDUCTANCE DETECTOR LOOPS SHALL BE THE POWERHEAD CONFIGURATION SHOWN ON TC-82.10. THE WIDTH SHALL BE AS SPECIFIED ON TC-82.10 UNLESS SPECIFIED BELOW AND THE LENGTH SHALL BE AS SPECIFIED BELOW. THE LOCATION OF THESE LOOPS SHALL BE SUCH THAT THE POWERHEAD IS LOCATED AT THE STOP LINE, NOT PAST IT. ALL DILEMMA ZONE INDUCTANCE DETECTOR LOOPS CALLED FOR IN THE PLANS SHALL BE THE ANGULAR DESIGN DETECTION (ADD) LOOP AS SHOWN ON TC-82.10. DIMENSIONS SHALL BE AS SPECIFIED ON TC-82.10 AND THE LOOP SHALL BE PLACED AT THE SAME LOCATION AS THE EXISTING LOOPS.

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, 2 EACH

- SR 172 WB EXT (THRU/LEFT LANE) AT SR 93 ADD, BY SIZE, 15' X 18' 1 EACH
- SR 172 EB EXT (THRU/LEFT LANE) AT SR 93 ADD, BY SIZE, 15' X 18' 1 EACH

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**GENERAL NOTES**

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**MAINTENANCE OF TRAFFIC**

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

1. A MINIMUM OF ONE BI-DIRECTIONAL LANE SHALL BE MAINTAINED ON THE EXISTING PAVEMENT OR COMPLETED PAVEMENT DURING CONSTRUCTION OF THE WORK.
2. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (330) 786-2211, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.
3. CONES SHALL NOT BE ACCEPTABLE TRAFFIC CONTROL DEVICES FOR LANE RESTRICTIONS OR LANE REDUCTIONS THAT ARE IN OPERATION ONE-HALF HOUR AFTER SUNSET OR ONE HALF-HOUR BEFORE SUNRISE. ALL NIGHTTIME LANE RESTRICTIONS SHALL REQUIRE DRUMS OR BARRICADES AT A MAXIMUM SPACING OF FIFTY (50) FEET. WEIGHTED CHANNELIZERS MAY BE USED IN ACCORDANCE WITH THE STANDARD CONSTRUCTION DRAWINGS.
4. LANE RESTRICTIONS OR LANE REDUCTIONS SHALL NOT BE PERMITTED AFTER NORMAL WORKING HOURS. NORMAL WORKING HOURS SHALL BE THOSE HOURS DURING WHICH THE CONTRACTOR HAS A FULL COMPLEMENT OF EMPLOYEES AND EQUIPMENT ACTIVELY REMOVING AND/OR PLACING PAVEMENT MATERIALS.
5. THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN AND SUBSEQUENTLY REMOVE ALL FLAGS, BARRICADES, SIGNS, SIGN SUPPORTS AND FURNISH AND MAINTAIN ALL FLAGGERS, WATCHERS AND INCIDENTALS RELATED THERETO.
6. ALL FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT OPERATIONS SHALL BE COMPLETED THE SAME DAY THE EXCAVATION IS MADE. IF THE CONTRACTOR CANNOT COMPLETE THE WORK, THE EXCAVATION SHALL BE BACKFILLED OR PROTECTED.
7. THE LENGTH OF LANE CLOSURES SHALL BE RESTRICTED TO ONE MILE OR LESS. LANE CLOSURES IN THE OPPOSITE DIRECTIONS SHALL BE AT LEAST TWO MILES APART. LANE CLOSURE DRUMS/CONES SHALL BE PLACED ALONG THE CENTERLINE WITHIN THE CLOSED LANE AS MUCH AS POSSIBLE AND AT ALL TIMES SUBJECT TO THE APPROVAL OF THE ENGINEER.
8. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO HAVE SUCCESSIVE WORK ZONES UNLESS THE DISTANCE BETWEEN THE DRUMS, BARRICADES OR CONES EXCEEDS TWO (2) MILES RURAL OR ONE (1) MILE URBAN.
9. ONLY DURING OFF-PEAK PERIODS (ie 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.
10. 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, CENTER, 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.

11. A QUANTITY OF 10 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.

12. PRIOR TO OPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND SHOULDER WIDTH AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.

13. 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], W6-3 [TWO-WAY TRAFFIC], W8-H13 [NO EDGE LINES], R4-1 [DO NOT PASS], R4-2 [PASS WITH CARE], 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 I - PLANED SURFACE
  - 614, WORK ZONE CENTER LINE, CLASS II, 3.95 MILE
  - 614, WORK ZONE STOP LINE, CLASS 1, 82 FT
  - 614, WORK ZONE MARKING SIGN (ALL PHASES) 12 EACH
- PHASE II - INTERMEDIATE COURSE
  - 614, WORK ZONE CENTER LINE, CLASS II, 3.95 MILE
  - 614, WORK ZONE STOP LINE, CLASS 1, 82 FT
- PHASE III - SURFACE COURSE
  - 614, WORK ZONE CENTER LINE, CLASS III, 642 PAINT, 3.95 MILE
  - 614, WORK ZONE STOP LINE, CLASS III, 642 PAINT, 82 FT

**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 DISINCENTIVES OF \$1000 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.

**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.

**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 HOLIDAY OR EVENT	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 FRIDAY
THURSDAY (THANKSGIVING ONLY)	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 A DISINCENTIVE IN THE AMOUNT OF \$1000 FOR EACH HOUR THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

CALCULATED  
A AM  
CHECKED

**MAINTENANCE OF TRAFFIC**

STA-172/241-  
0.00/(0.01)(1.68)



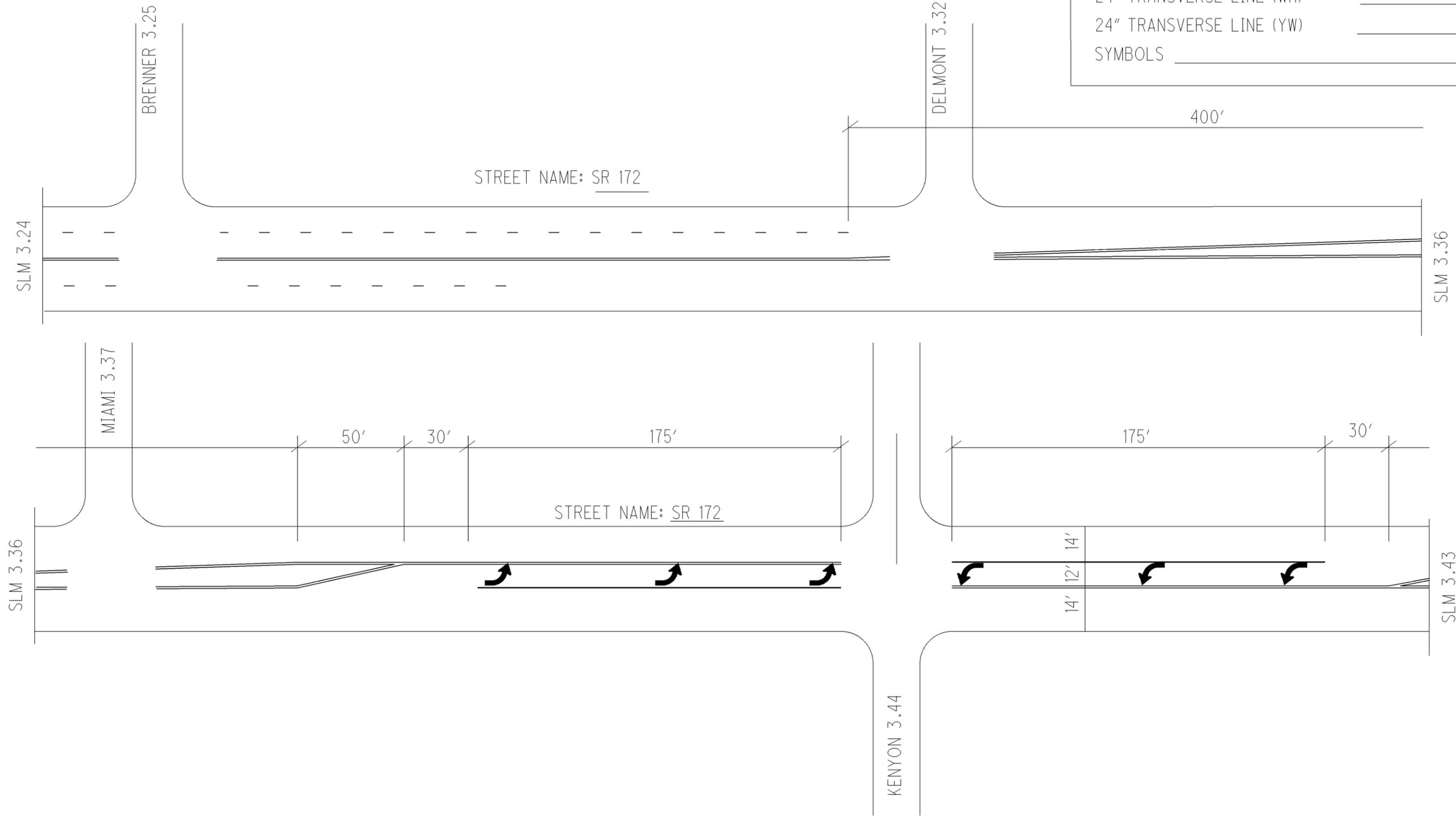


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COUNTY	ROUTE	LOCATION						621	621	621	621	621	REMARKS
		RPM, LOW PROFILE, YELLOW/YELLOW	RPM, LOW PROFILE WHITE/RED					RPM, LOW PROFILE, WHITE	RPM, LOW PROFILE YELLOW/RED	RAISED PAVEMENT MARKER REMOVED			
		FROM	TO					EACH	EACH	EACH	EACH	EACH	
STARK	172	0.00	0.03					4	5			6	
		0.03	0.13					16				15	
		0.13	0.72					40	79			85	
		0.72	0.82					16				17	
		0.82	0.88					4	7			12	
		0.88	0.92					4	5			8	
		0.92	1.01					16				16	
		1.01	2.24					82	163			177	
		2.24	2.34					16				17	
		2.34	2.40					4	7			12	
		2.40	2.46					4	7			11	
		2.46	2.55					16				17	
		2.55	3.32					51	101			114	
		3.32	3.40					14				14	
		3.40	3.44					4	5			9	
		3.44	3.48					4	5			9	
		3.48	3.57					14				15	
		3.57	3.95					26	51			57	
TOTALS CARRIED TO GENERAL SUMMARY				0	0	0	0	335	435	0	0	611	

CALCULATED	AA	MM	CHECKED
<b>RAISED PAVEMENT MARKER SUBSUMMARY</b>			
<b>STA-172/ 241-</b>			
<b>0.00/ (0.01)(1.68)</b>			
8		18	





COUNTY: STARK

LOCATION: SR 172 @ KENYAN

S.L.M.: (3.24-3.36) (3.36-3.43)

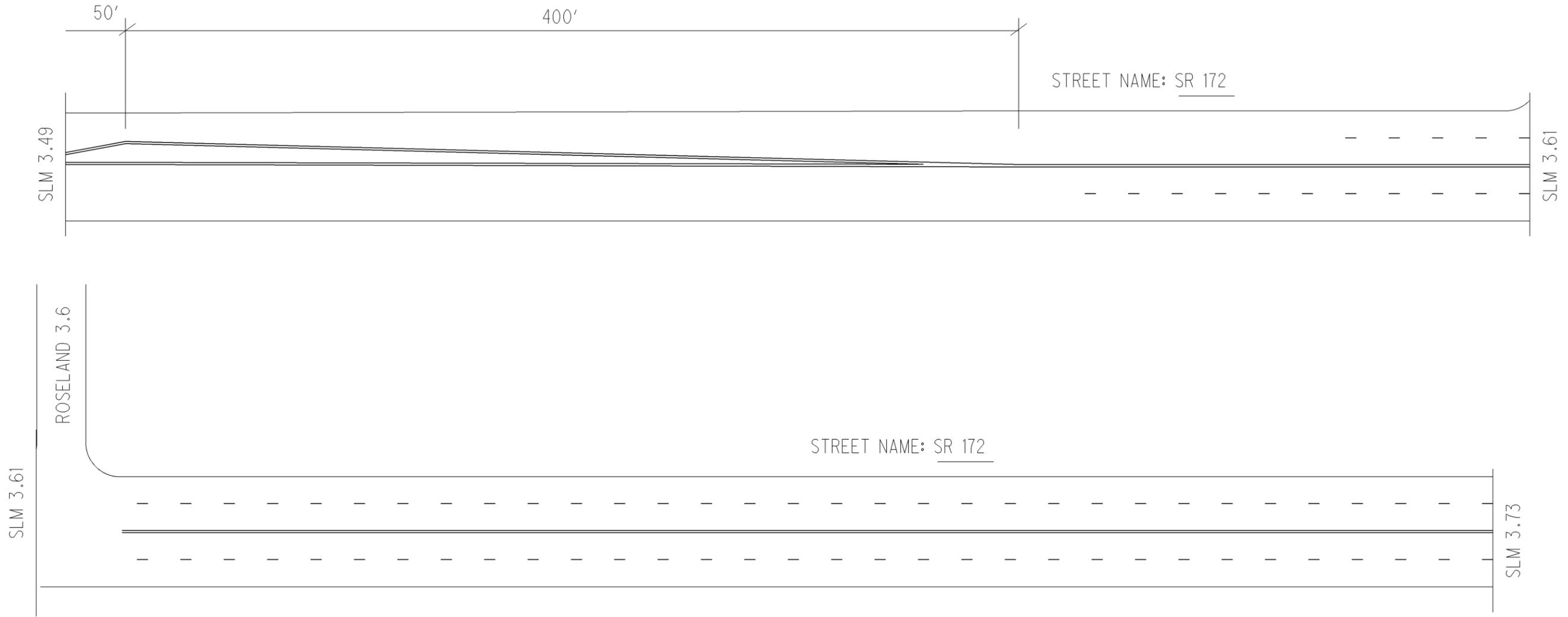
24" STOP LINE	_____	L.F.
12" CROSSWALK LINE	_____	L.F.
DOTTED LINE	_____	L.F.
8" CHANNELIZING LINE	_____ 350	L.F.
24" TRANSVERSE LINE (WH)	_____	L.F.
24" TRANSVERSE LINE (YW)	_____	L.F.
SYMBOLS	_____	

CALCULATED  
TJD  
CHECKED

0 20 40  
HORIZONTAL  
SCALE IN FEET

**STRIPING SHEETS**  
**SLM 3.24-3.43**

**STA-172/241-**  
**0.00/(0.01)(1.68)**



COUNTY: STARK

LOCATION: SR 172

S.L.M.: (3.49-3.61) (3.61-3.73)

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	_____	

CALCULATED  
TJD  
CHECKED

0 10 20 40  
HORIZONTAL  
SCALE IN FEET

**STRIPING SHEETS**  
**SLM 3.49-3.73**

**STA-172/241-**  
**0.00/(0.01)(1.68)**

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MAIN ROUTE	INTERSECTING ROUTE	QUADRANT RL=REAR LT, RR=REAR RT FL=FWD LT, FR=FWD RT (LOOKING UPSTATION)	CURB RAMP TYPE (SCD BP-7.1, SHEET 2/3)	202	202	202	202	202		203		608	608	608	608			609	609		
				PAVEMENT REMOVED	PAVEMENT REMOVED, ASPHALT	WALK REMOVED	CURB REMOVED	CURB AND GUTTER REMOVED		EXCAVATION (FOR WALK OR CURB RAMP INSTALLATION)		4" CONCRETE WALK	6" CONCRETE WALK	CURB RAMP	DETECTABLE WARNING			COMBINATION CURB AND GUTTER, TYPE 2	CURB, TYPE 6		
				SQ YD	SQ YD	SQ FT	FT	FT		CU YD		SQ FT	SQ FT	SQ FT	SQ FT			FT	FT		
SR 172	DEERFIELD	RL																			
	DEERFIELD	RR																			
	DEERFIELD	FR																			
	DEERFIELD	FL																			
SR 172	ALABAMA	RL					8.00												8.00		
	ALABAMA	RR					8.00												8.00		
	ALABAMA	FR																			
	ALABAMA	FL					8.00												8.00		
SR 172	BAYMAN	RL																			
	BAYMAN	FL					8.00												8.00		
SR 172	HILLMAN	RL					8.00												8.00		
	HILLMAN	RR					8.00												8.00		
	HILLMAN	FR					8.00												8.00		
	HILLMAN	FL					8.00												8.00		
SR 172	HOWELL	RL					8.00												8.00		
	HOWELL	FL					8.00												8.00		
SR 172	EDGEWAY	RR					8.00												8.00		
	EDGEWAY	FR					8.00												8.00		
SR 172	GLENWAY	RL					8.00												8.00		
	GLENWAY	RR																			
SR 172	GREENSIDE	RL	TYPE A2			30.00	6.00							30.00							
	GREENSIDE	RR	TYPE A2			30.00	6.00							30.00							
	GREENSIDE	FR	TYPE A2			30.00	6.00							30.00							
	GREENSIDE	FL	TYPE A2			30.00	6.00							30.00							
SR 172	WOODLINE	RR					8.00												8.00		
	WOODLINE	FR					8.00												8.00		
SR 172	ISABELLA	RL	TYPE A2			30.00	6.00							30.00							
	ISABELLA	FL	TYPE B2			64.00	16.00							72.00							
SR 172	PRINCEHORN	RL	TYPE A2			30.00	6.00							30.00							
	PRINCEHORN	FL	TYPE A2			30.00	6.00							30.00							
SR 172	BEN FULTON	RL					8.00												8.00		
	BEN FULTON	FL					8.00												8.00		
SR 172	ENDLING	RL					8.00												8.00		
SR 172	ENDLING	FL					8.00												8.00		
SR 172	MANCHESTER	RL					8.00												8.00		
	MANCHESTER	RR					8.00												8.00		
	MANCHESTER	FR					8.00												8.00		
	MANCHESTER	FL					8.00												8.00		
SR 172	WOUTAT	RR					8.00												8.00		
	WOUTAT	FR					8.00												8.00		
SR 172	LANEDALE	RL					8.00												8.00		
	LANEDALE	FL					8.00												8.00		
<b>SUBTOTALS</b>				0.00	0.00	0.00	274.00	274.00	0.00	0.00	0.00	0.00	0.00	0.00	282.00	0.00	0.00	0.00	0.00	216.00	0.00
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>				0	0	0	274	274	0	0	0	0	0	0	282	0	0	0	0	216	0

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">CALCULATED</td> <td style="text-align: center;">AAM</td> <td style="text-align: center;">CHECKED</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;"> </td> <td style="text-align: center;"> </td> </tr> </table>	CALCULATED	AAM	CHECKED				<p><b>STA-172/ 241-</b> <b>0.00/ (0.01)(1.68)</b></p>	<p><b>CURB RAMP SUBSUMMARY</b></p>
CALCULATED	AAM	CHECKED						

MAIN ROUTE	INTERSECTING ROUTE	QUADRANT RL=REAR LT, RR=REAR RT FL=FWD LT, FR=FWD RT (LOOKING UPSTATION)	CURB RAMP TYPE (SCD BP-7.1, SHEET 2/3)	202					203					608			609					
				PAVEMENT REMOVED SQ YD	PAVEMENT REMOVED, ASPHALT SQ YD	WALK REMOVED SQ FT	CURB REMOVED FT	CURB AND GUTTER REMOVED FT	EXCAVATION (FOR WALK OR CURB RAMP INSTALLATION) CU YD	4" CONCRETE WALK SQ FT	CURB RAMP SQ FT	TRUNCATED DOME SQ FT	COMBINATION CURB AND GUTTER, TYPE 2 FT	CURB, TYPE 6 FT								
SR 172	RICHARD RICHARD	RL FL					8.00 8.00												8.00 8.00			
SR 172	KISKI KISKI	RL FL					8.00 8.00												8.00 8.00			
SR 172	CULVERNE CULVERNE	RL FL					8.00 8.00												8.00 8.00			
SR 172	BRENNER BRENNER	RL FL					8.00 8.00												8.00 8.00			
SR 172	DELMONT DELMONT	RL FL					8.00 8.00												8.00 8.00			
SR 172	MIAMI MIAMI	RL FL					8.00 8.00												8.00 8.00			
SR 172	KENYON KENYON KENYON KENYON	RL RR FR FL					8.00 8.00 8.00 8.00												8.00 8.00 8.00 8.00			
SR 172	ROSELAND ROSELAND	RL FL					8.00												8.00			
SR 172	HIGHLANDER HIGHLANDER HIGHLANDER HIGHLANDER	RL RR FR FL					8.00 8.00 8.00 8.00												8.00 8.00 8.00 8.00			
SR 172	VINDELL VINDELL	RL FL																				
<b>SUBTOTALS</b>				0.00	0.00	0.00	0.00	168.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	168.00	0.00
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>				0	0	0	0	168	0	0	0	0	0	0	0	0	0	0	0	0	168	0

<p><b>STA-172/ 241-</b>  <b>0.00/ (0.01)(1.68)</b></p>	<p><b>CURB RAMP SUBSUMMARY</b></p>
<p>13 18</p>	<p>CALCULATED AAM CHECKED</p>

**STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS**

REFER TO THE FOLLOWING STANDARD DRAWING:

GR-2.1 DATED/REVISED 01-16-04

**DESIGN SPECIFICATIONS**

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH, INCLUDING THE 2002 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

**EXISTING STRUCTURE VERIFICATION**

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

**PROPOSED WORK - STA-172-0226 (OVER BRANCH TUSCARAWAS RIVER)**

- REMOVE EXISTING ASPHALT CONCRETE OVERLAY AND REPLACE WITH NEW ASPHALT CONCRETE OVERLAY AND WATERPROOFING ON THE TOP SURFACE OF THE THREE-SIDED CULVERT
- SEAL ALL EXPOSED CONCRETE SURFACES OF THE WINGWALLS AND HEADWALLS WITH EPOXY-URETHANE
- CLEARING AND GRUBBING 15 FEET AROUND HEADWALLS FOR SEALING OPERATIONS
- PROVIDE NEW STRUCTURE IDENTIFICAN SIGNS

**PROPOSED WORK - STA-241-0001 (OVER SUGAR CREEK)**

- REPAIR ROCK CHANNEL PROTECTION UNDER STRUCTURE AT BOTH ABUTMENTS
- REPLACE CONCRETE SLOPE PROTECTION AROUND ALL FOUR WING WALLS
- CHANNEL CLEANOUT 10' OUT EACH SIDE OF THE STRUCTURE AND UNDER THE STRUCTURE

**PROPOSED WORK - STA-241-0168 (OVER ELM RUN)**

- REMOVE EXISTING ANCHOR ASSEMBLY AND THEN EXTEND THE GUARDRAIL BY 125' AND THEN INSTALL NEW ANCHOR ASSEMBLY AT THE FORWARD LEFT CORNER
- PAVE EXISTING INVERT WITH CONCRETE
- REPAIR SCOUR AT THE OUTLET END
- REPAIR UNDERMINED CONCRETE CHANNEL PROTECTION
- REPAIR EROSION AROUND THE FORWARD LEFT WING WALL, AND THE REAR RIGHT AND LEFT WING WALL
- PROVIDE NEW STRUCTURE IDENTIFICAN SIGNS

**ITEM 201, 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.

**ITEM 202, REMOVAL MISC.: CHANNEL CLEANOUT**

THIS WORK SHALL CONSIST OF RE-ESTABLISHING THE ORIGINAL CHANNEL PROFILE BY REMOVING SEDIMENT BUILDUP, VEGETATION, AND DEBRIS FROM THE EXISTING CHANNEL OR BANK LIMITS AS SPECIFIED IN THE PLANS. ANY TREES LOCATED WITHIN CHANNEL OR BANK LIMITS SHALL BE INCLUDED UNDER ITEM 201 CLEARING AND GRUBBING. ALL MATERIALS REMOVED SHALL BE DISPOSED IN ACCORDANCE WITH 105.16 AND 105.17 OF THE CMS WITH THE APPROVAL OF THE ENGINEER. NO AREAS OF EXISTING CHANNEL PROTECTION SHALL BE REMOVED IN ORDER TO RESTORE THE ORIGINAL CHANNEL PROFILE. AFFECTED CHANNEL AREAS SHALL BE CLEANED OUT TO THE SATISFACTION OF THE ENGINEER.

CHANNEL CLEANOUT SHALL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 202 REMOVAL MISC.: CHANNEL CLEANOUT. THIS PRICE SHALL INCLUDE THE COST FOR LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THE CHANNEL CLEANOUT.

**ITEM 202, WEARING COURSE REMOVED, AS PER PLAN**

REMOVE ALL OF THE ASPHALT CONCRETE ON STRUCTURE STA-172-0226. MILLING OR OTHER MECHANICAL METHOD OF ASPHALT DECK REMOVAL MAY BE PERFORMED TO WITHIN 1/2"± OF THE TOP OF THE EXISTING PRECAST THREE-SIDED CULVERT. THE LAST 1/2"± OF ASPHALT CONCRETE TO BE REMOVED AND THE WATERPROOFING WILL BE REMOVED USING A NON- DESTRUCTIVE METHODS SUCH AS HAND SCRAPING. THE CONTRACTOR WILL USE CAUTION IN REMOVING THE REMAINING ASPHALT AND WATERPROOFING SO THAT THE SURFACE OF THE PRECAST THREE-SIDED CULVERT IS NOT DAMAGED. ANY DAMAGE INCURRED TO THE CULVERT WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

PAYMENT FOR THIS ITEM WILL INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO PERFORM THIS ITEM. PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER SQUARE YARD FOR ITEM 202 - WEARING COURSE REMOVED, AS PER PLAN.

**ITEM SPECIAL - PIPE CLEANOUT**

THIS WORK SHALL CONSIST OF REMOVING SEDIMENT AND DEBRIS FROM THE EXISTING DRAINAGE CONDUITS SPECIFIED IN THE PLANS. ALL MATERIAL REMOVED SHALL BE DISPOSED OF AS PER 105.16 AND 105.17. ALL SEWERS SHALL BE CLEANED OUT TO THE SATISFACTION OF THE ENGINEER.

CLEANOUT OF THE PIPE SHALL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM SPECIAL - PIPE CLEANOUT. THIS PRICE SHALL INCLUDE THE COST FOR MATERIAL, EQUIPMENT, LABOR, AND ALL INCIDENTALS REQUIRED TO COMPLETE THE CLEANOUT.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE ABOVE NOTED WORK:

SPECIAL, PIPE CLEANOUT 68 FT.

**ITEM 407 TACK COAT, TRACKLESS TACK, INTERMEDIATE AND SURFACE COURSE**

**Description:** This work consists of preparing and treating a paved surface with NTSS-1HM Trackless Tack produced by Blackidge Emulsions, Inc. Meet all requirements of Construction and Material Specifications Item 407 Tack Coat except as noted below.

**Material:** Conform to the following typical physical properties:

Parameter	Test Method	MIN	MAX
Saybolt Furol Viscosity, SFS @ 25C	AASHTO T59	15	100
Storage Stability, 24 hrs %	AASHTO T59	--	1
Storage Stability, 5 days, %	AASHTO T59	--	5
Residue by Distillation, %	AASHTO T59	50	--
Oil Distillate, %	AASHTO T59	--	1
Sieve Test, %	AASHTO T59	--	0.30

**Test on Residue:**

Penetration @ 25C	AASHTO T49	--	20
Softening Point Range Deg C	AASHTO T53	65	--
Solubility, %	AASHTO T44	97.5	--
Original Binder DSR@82C			
G/SIN δ, 10 rad/sec	AASHTO T315	1.00	--

Note: Product should not contain filler such as clay, etc. Keep from freezing. Supply certified test data from an independent lab to the Engineer showing the material supplied was tested for and meets the above properties.

**Equipment.** All requirements of 407.03 apply. See manufacturer's representative for correct distributor settings. Thoroughly clean all equipment if cationic emulsion was previously used.

**Weather Limitations.** All requirements of 407.04 apply.

**Preparation of Surface.** All requirements of 407.05 apply.

**Application of Asphalt Material.** Uniformly apply the asphalt material with a distributor per the requirements of 407.06 except as noted. If product is stored for an extended period of time, prior to application, agitate or gently circulate the material. All nozzles and spray patterns shall be identical to one another along the distributor spray bar. The angle of the nozzle should a 15 to 30 degree angle to the spray bar axis to maximize overlap or as recommended by the nozzle manufacturer.

Contact the manufacturer's representative for required spray nozzle size, and distributor and nozzle settings. Apply at a rate of 0.04 to 0.08 gallons per square yard. Recommended application temperature is 160F to 180F. Do not exceed 180F. Dilution is not allowed.

The Engineer and manufacturer's representative will approve rate of application, temperature, distributor settings, and areas to be treated before application of the tack coat. The Engineer will determine the actual application in gallons per square yard by a check on the project. The application is considered satisfactory when the material is applied uniformly with no visible evidence of streaking or ridging and the application rate is ±10% of the specified rate.

Contact Julia Miller, Office of Construction Administration if any placement or field performance issues exist.

**Method of Measurement.** All requirements of 407.07 apply.

**Basis of Payment.** All requirements of 407.08 apply.

**ITEM 203, BORROW**

THIS ITEM WILL BE USED TO REPAIR THE EROSION AROUND THE FORWARD LEFT, THE REAR RIGHT, AND LEFT WING WALLS FOR STRUCTURE STA-241-0168

BORROW WILL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 203, BORROW. THIS PRICE WILL INCLUDE THE COST FOR LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

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STA-172/241-0.00/ (0.01)(1.68) PID No. 76341	STRUCTURE GENERAL NOTES BRIDGE NO.: STA-172-0226, STA-241-0001, & STA-241-0168 SFN NO. : 7605331, 7606036, & 7606052	DESIGN AGENCY ODOT --- DISTRICT 4 PLANNING & ENGINEERING
	DATE STRUCTURE FILE NUMBER	REVIEWED STRUCTURE FILE NUMBER
	DRAWN AAM REVISED	CHECKED AAM
	1 / 5	

**ITEM 601, CONCRETE SLOPE PROTECTION**

THIS WORK WILL CONSIST OF REPLACING PORTIONS OF THE CONCRETE SLOPE PROTECTION FOR STRUCTURE STA-241-0001 AROUND ALL FOUR WING WALLS.

PLACE LOW STRENGTH MORTAR BACKFILL TO FILL ALL EROSION UNDER THE OLD CONCRETE SLOPE PROTECTION AND THEN PLACE NEW CONCRETE SLOPE PROTECTION SLABS AS DIRECTED BY THE PROJECT ENGINEER.

CONCRETE SLOPE PROTECTION REPLACEMENT WILL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 601 - CONCRETE SLOPE PROTECTION AND ITEM 613, LOW STRENGTH MORTAR BACKFILL. THE PRICE FOR EACH ITEM WILL INCLUDE THE COST OF LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

**ITEM 601, ROCK CHANNEL PROTECTION, WITH GROUT , TYPE B**

THIS WORK WILL CONSIST OF REPAIRING THE ROCK CHANNEL PROTECTION UNDER STRUCTURE STA-241-0001 AT REAR AND FORWARD ABUTMENTS

PLACE TYPE B ROCK CHANNEL PROTECTION WITH GROUT AT EACH ABUTMENT PER CMS 601 AS DIRECTED BY THE PROJECT ENGINEER.

EROSION REPAIR WILL BE PAID FOR IN CUBIC YARDS AT THE UNIT BID PRICE UNDER ITEM 601, ROCK CHANNEL PROTECTION, WITH GROUT , TYPE B. THE PRICE WILL INCLUDE THE COST OF LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

**ITEM 601, ROCK CHANNEL PROTECTION, TYPE B WITH AGGREGATE FILTER**

THIS WORK WILL CONSIST OF REPAIRING THE ROCK CHANNEL PROTECTION AT THE OUTLET END OF STRUCTURE STA-241-0168

PLACE TYPE B ROCK CHANNEL PROTECTION WITH AGGREGATE FILTER TO REPAIR ALL EROSION AT THE OUTLET END PER CMS 601 AS DIRECTED BY THE PROJECT ENGINEER.

EROSION REPAIR WILL BE PAID FOR IN CUBIC YARDS AT THE UNIT BID PRICE UNDER ITEM 601, ROCK CHANNEL PROTECTION, TYPE B WITH AGGREGATE FILTER. THE PRICE WILL INCLUDE THE COST OF LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

**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 603 - FIELD PAVING OF EXISTING PIPE**

FIELD PAVE THE EXISTING CORRUGATED METAL PIPE ARCH 12'-6" x 7'-11". THE CONTRACTOR WILL PAVE THE BOTTOM OF THE EXISTING PIPE AS SHOWN IN THE DETAIL WITH CLASS C PORTLAND CEMENT CONCRETE AS PER CMS 603.13.

AREAS TO BE PAVED WILL BE CLEANED TO REMOVE ALL DEBRIS AND SEDIMENT AND WILL BE PAID FOR UNDER ITEM SPECIAL - PIPE CLEANOUT.

THE CONTRACTOR WILL BE REQUIRED TO USE ITEM 503 - COFFERDAMS AND EXCAVATION BRACING (CRIBS, AND SHEETING) TO DEWATER THE EXISTING PIPE PRIOR TO THE PREPARATION AND FIELD PAVING. AFTER THE PIPE HAS BEEN CLEANED OF ALL DEBRIS AND SEDIMENT, NO WATER WILL BE ALLOWED TO CONTAMINATE THE PIPE. IF ANY CONTAMINATION OCCURS, THE CONTRACTOR WILL RESEAL THE AREA AND RECLEAN THE PIPE AT NO ADDITIONAL COST.

ALL EROSION UNDER THE PIPE AND IN THE VOIDS WHERE THE PIPE IS RUSTED THROUGH WILL BE FILLED WITH ITEM 613 - LOW STRENGTH MORTAR BACKFILL.

ANY TREES LOCATED WITHIN 5' OF THE HEADWALLS THAT MAY POTENTIALLY DAMAGE THE CULVERT IN THE FUTURE OR ENCROACH UPON THE STREAM BED OR FIELD PAVING OPERATIONS WILL BE REMOVED. REMOVAL WILL BE DETERMINED BY THE PROJECT ENGINEER AND REMOVED UNDER ITEM 201 - CLEARING AND GRUBBING.

**ITEM 606 - ANCHOR ASSEMBLY, TYPE E**

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

REFER TO THE MANUFACTURER'S INSTRUCTIONS 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 27.75 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, 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.

**STRUCTURE IDENTIFICATION SIGNS**

STRUCTURE IDENTIFICATION SIGNS (1-H25a) WILL BE PLACED ON EACH APPROACH OFF THE RIGHT SHOULDER, FACING TRAFFIC, AND BEHIND THE GUARDRAIL IF APPLICABLE. A QUANTITY OF ONE SIGN PER APPROACH WILL BE INSTALLED. THE SIGNS WILL BE HAVE A NON-REFLECTIVE WHITE SHEETING BACKGROUND.

THE SIGNS WILL BE MOUNTED ON NEW NO. 2 POSTS AND WILL BE INSTALLED AS PER STANDARD CONSTRUCTION DRAWING TC-41.20, MOST CURRENT REVISION. EACH POST WILL BE 7.5' IN LENGTH.

INSTALL SIGNS FOR THE FOLLOWING STRUCTURES:

- STA-172-0226 (2 APPROACHES)
- STA-241-0168 (2 APPROACHES)

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED FOR EACH APPROACH:

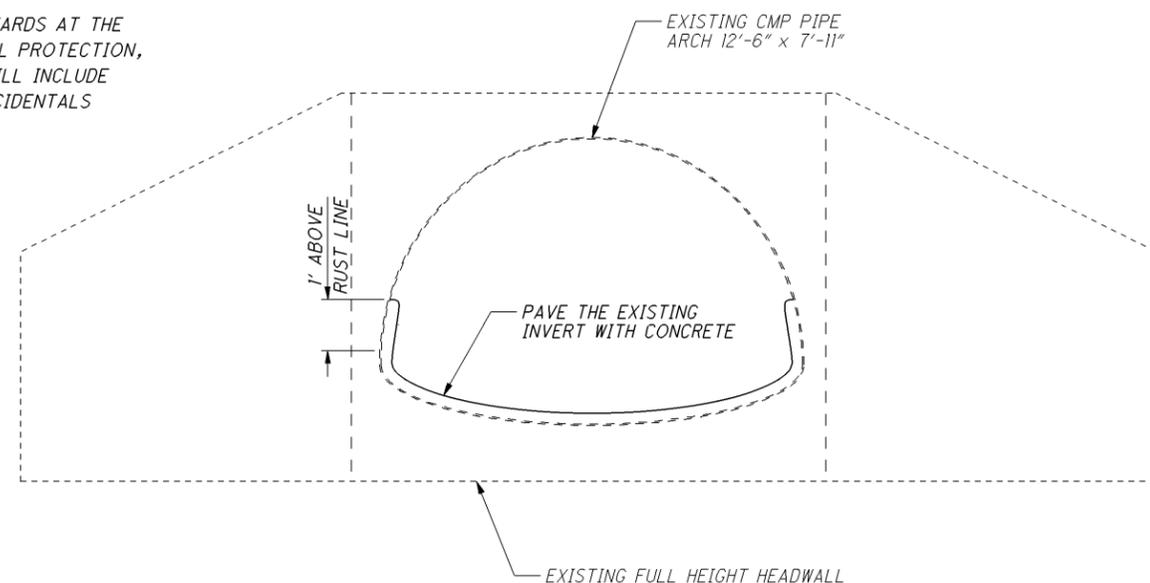
- ITEM 630 - SIGN, FLAT SHEET, 730.20, 1 SQ FT
- ITEM 630 - GROUND MOUNTED SUPPORT, NO. 2 POST, 7.5 FT
- ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, 1 EACH
- ITEM 630 - REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL, 1 EACH

**CORRECTING BRIDGE IDENTIFICATION SIGN NUMBERS:**

SOME OF THE EXISTING BRIDGE NUMBER SIGNS HAVE INCORRECT BRIDGE NUMBERS ON THEM. THE FOLLOWING BRIDGE NUMBERS ARE THE CORRECT ONES AND WILL BE USED ON THE NEW BRIDGE IDENTIFICATION SIGNS.

STRUCTURE STA-172-0226 (SFN:7605331) THE EXISTING SIGN SHOWS 02.24. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 0226.

STRUCTURE STA-241-0168 (SFN:7606052) THE EXISTING SIGN SHOWS 01.67. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 0168.



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DESIGNED AAM CHECKED	DRAWN AAM REVISED	REVIEWED	DATE	DESIGN AGENCY ODOT --- DISTRICT 4 PLANNING & ENGINEERING
		STRUCTURE FILE NUMBER		
<b>STRUCTURE GENERAL NOTES</b>				
BRIDGE NO.: STA-172-0226, STA-241-0001, & STA-241-0168 SFN NO. : 7605331, 7606036, & 7606052				
STA-172/241-0.00/ (0.01)(1.68) PID No. 76341				
2 / 5				
15 18				

CALC: AAM DATE: 6/13/2011  
 CHECKED: DATE:

**ESTIMATED QUANTITIES**

BRIDGE NO. / STRUCTURE FILE NO.						ITEM	EXTENSION	UNIT	DESCRIPTION	SEE SHEET
STA-172-0226 SFN 7605331	STA-241-0001 SFN 7606036	STA-241-0168 SFN 7606052								
LUMP		LUMP				201	11000		CLEARING AND GRUBBING	
79						202	23501	SQ YD	WEARING COURSE REMOVED, AS PER PLAN	1 / 5
	146					202	32800	SQ YD	CONCRETE SLOPE PROTECTION REMOVED	
		50				202	38000	FT	GUARDRAIL REMOVED	
			68			SPEC	20270100	FT	PIPE CLEANOUT	1 / 5
	80					202	98200	FT	REMOVAL MISC. CHANNEL CLEANOUT	1 / 5
		20				203	40000	CU YD	BORROW	
12						407	20000	GALLON	TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE	
4						407	20100	GALLON	TACK COAT, TRACKLESS TACK, SURFACE COURSE	
2						424	10000	CU YD	FINE GRADED POLYMER ASPHALT CONCRETE, TYPE A	
5						448	46020	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22	
		LUMP				503	11100		COFFERDAMS AND EXCAVATION BRACING	
52						512	10100	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
97						512	33010	SQ YD	TYPE 3 WATERPROOFING	
52						512	74000	SQ YD	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	
	146					601	21000	SQ YD	CONCRETE SLOPE PROTECTION	
		25				601	32110	CU YD	ROCK CHANNEL PROTECTION, TYPE B WITH AGGREGATE FILTER	
	300					601	34400	CU YD	ROCK CHANNEL PROTECTION, WITH GROUT, TYPE B	
		68				603	96550	FT	FIELD PAVING OF EXISTING PIPECORRUGATED METAL PIPE ARCH 12'-6" x 7'-11"	
		75				606	13000	FT	GUARDRAIL, TYPE 5	
		1				606	26100	EACH	ANCHOR ASSEMBLY, TYPE E	
	15	2				613	41200	CU YD	LOW STRENGTH MORTAR BACKFILL	
15		15				630	02100	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
2		2				630	80100	SQ FT	SIGN, FLAT SHEET, 730.20	
2		2				630	84900	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
		2				630	86002	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	

DESIGN AGENCY  
 ODOT --- DISTRICT 4  
 PLANNING & ENGINEERING

DESIGNED  
 AAM  
 CHECKED

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 AAM  
 REVISED

REVIEWED  
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DATE  
 STRUCTURE FILE NUMBER

**STRUCTURE ESTIMATED QUANTITIES**  
 BRIDGE NO.: STA-172-0226, STA-241-0001, & STA-241-0168  
 SFN NO. : 7605331, 7606036, & 7606052

**STA-172/241-0.00/(0.01)(1.68)**  
 PID No. 76341



