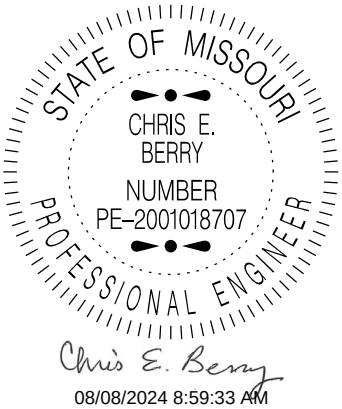
Job No.: JST0112
Route: Various
County: Various

JOB SPECIAL PROVISIONS TABLE OF CONTENTS

(Job Special Provisions shall prevail over General Provisions whenever in conflict therewith.)

Job No.: JST0112
Route: Various
County: Various



Chris E. Berry

08/08/2024 8:59:33 AM
CHRIS E. BERRY - CIVIL
MO-PE-2001018707

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 W. CAPITOL AVE.
JEFFERSON CITY, MO 65102
Phone 1-888-275-6636

If a seal is present on this sheet, JSP's have been electronically sealed and dated.

JOB NUMBER: JST0112
VARIOUS COUNTIES, MO
DATE PREPARED: 07/23/2024

ADDENDUM DATE:

Only the following items of the Job Special Provisions (Roadway) are authenticated by this seal: ALL

Job No.: JST0112
Route: Various
County: Various

JOB
SPECIAL PROVISION

A. General – State JSP-09-03K

1.0 Description. The Federal Government is not participating in the cost of construction of this project.

1.1 This contract requires payment of the prevailing hourly rate of wages for each craft or type of worker required to execute the contract as determined by the Missouri Department of Labor and Industrial Relations. The current State Wage Rates can be found on the Missouri Department of Transportation web page at www.modot.org under "Doing Business with MoDOT", "Contractor Resources" for the applicable bid opening. This supplemental bidding document has important legal consequences. It shall be conclusively presumed that they are in the bidder's possession, and they have been reviewed and used by the bidder in the preparation of any bid submitted on this project.

State Wage Rates

1.2 The following documents are available on the Missouri Department of Transportation web page at www.modot.org under "Doing Business with MoDOT"; "Standards and Specifications". The effective version shall be determined by the letting date of the project.

General Provisions & Supplemental Specifications

Supplemental Plans to July 2024 Missouri Standard Plans
For Highway Construction

These supplemental bidding documents contain all current revisions to the published versions and have important legal consequences. It shall be conclusively presumed that they are in the bidder's possession, and they have been reviewed and used by the bidder in the preparation of any bid submitted on this project.

B. Contract Liquidated Damages JSP- 13-01D

1.0 Description. Liquidated Damages for failure or delay in completing the work on time for this contract shall be in accordance with Sec 108.8. The liquidated damages include separate amounts for road user costs and contract administrative costs incurred by the Commission.

2.0 Period of Performance. Prosecution of work is expected to begin on the date specified below in accordance with Sec 108.2. Regardless of when the work is begun on this contract, all work on all projects shall be completed on or before the date specified below. Completion by this date shall be in accordance with the requirements of Sec 108.7.1.

Notice to Proceed:	November 4, 2024
Contract Completion Date:	November 1, 2025

2.1 Calendar Days and Completion Dates. Completion of the project is required as specified herein. The count of calendar days will begin on the date the contractor starts any construction operations on the project.

Project	Calendar Days	Daily Road User Cost
JST0112	N/A	$1,800

3.0 Liquidated Damages for Contract Administrative Costs. Should the contractor fail to complete the work on or before the contract completion date specified in Section 2.0, or within the number of calendar days specified in Section 2.1, whichever occurs first, the contractor will be charged contract administrative liquidated damages in accordance with Sec 108.8 in the amount of **$2,000** per calendar day for each calendar day, or partial day thereof, that the work is not fully completed. For projects in combination, these damages will be charged in full for failure to complete one or more projects within the specified contract completion date or calendar days.

4.0 Liquidated Damages for Road User Costs. Should the contractor fail to complete the work on or before the contract completion date specified in Section 2.0, or within the number of calendar days specified in Section 2.1, whichever occurs first, the contractor will be charged road user costs in accordance with Sec 108.8 in the amount specified in Section 2.1 for each calendar day, or partial day thereof, that the work is not fully completed. These damages are in addition to the contract administrative damages and any other damages as specified elsewhere in this contract.

C. Work Zone Traffic Management JSP-02-06N

1.0 Description. Work zone traffic management shall be in accordance with applicable portions of Division 100 and Division 600 of the Standard Specifications, and specifically as follows.

1.1 Maintaining Work Zones and Work Zone Reviews. The Work Zone Specialist (WZS) shall maintain work zones in accordance with Sec 616.3.3 and as further stated herein. The WZS shall coordinate and implement any changes approved by the engineer. The WZS shall ensure all traffic control devices are maintained in accordance with Sec 616, the work zone is operated within the hours specified by the engineer, and will not deviate from the specified hours without prior approval of the engineer. The WZS is responsible to manage work zone delay in accordance with these project provisions. When requested by the engineer, the WZS shall submit a weekly report that includes a review of work zone operations for the week. The report shall identify any problems encountered and corrective actions taken. Work zones are subject to unannounced inspections by the engineer and other departmental staff to corroborate the validity of the WZS's review and may require immediate corrective measures and/or additional work zone monitoring.

1.2 Work Zone Deficiencies. Failure to make corrections on time may result in the engineer suspending work. The suspension will be non-excusable and non-compensable regardless if road user costs are being charged for closures.

2.0 Traffic Management Schedule.

2.1 Traffic management schedules shall be submitted to the engineer for review prior to the start of work and prior to any revisions to the traffic management schedule. The traffic management schedule shall include the proposed traffic control measures, the hours traffic control will be in place, and work hours.

2.2 The traffic management schedule shall conform to the limitations specified in Sec 616 regarding lane closures, traffic shifts, road closures and other width, height and weight restrictions.

2.3 The engineer shall be notified as soon as practical of any postponement due to weather, material, or other circumstances.

2.4 In order to ensure minimal traffic interference, the contractor shall schedule lane closures for the absolute minimum amount of time required to complete the work. Lanes shall not be closed until material is available for continuous construction and the contractor is prepared to diligently pursue the work until the closed lane is opened to traffic.

2.5 Traffic Congestion. The contractor shall, upon approval of the engineer, take proactive measures to reduce traffic congestion in the work zone. The contractor shall immediately implement appropriate mitigation strategies whenever traffic congestion reaches an excess of 10 minutes to prevent congestion from escalating to 15 minute or above threshold. If disruption of the traffic flow occurs and traffic is backed up in queues of 15 minute delays or longer, then the contractor shall immediately review the construction operations which contributed directly to disruption of the traffic flow and make adjustments to the operations to prevent the queues from reoccurring. Traffic delays may be monitored by physical presence on site or by utilizing real-time travel data through the work zone that generate text and/or email notifications where available. The engineer monitoring the work zone may also notify the contractor of delays that require prompt mitigation. The contractor may work with the engineer to determine what other alternative solutions or time periods would be acceptable.

2.5.1 Traffic Safety.

2.5.1.1 Recurring Congestion. Where traffic queues routinely extend to within 1000 feet of the ROAD WORK AHEAD, or similar, sign on a divided highway or to within 500 feet of the ROAD WORK AHEAD, or similar, sign on an undivided highway, the contractor shall extend the advance warning area, as approved by the engineer.

2.5.1.2 Non-Recurring Congestion. When traffic queues extend to within 1000 feet of the ROAD WORK AHEAD, or similar, sign on a divided highway or to within 500 feet of the ROAD WORK AHEAD, or similar, sign on an undivided highway infrequently, the contractor shall deploy a means of providing advance warning of the traffic congestion, as approved by the engineer. The warning location shall be no less than 1000 feet and no more than 0.5 mile in advance of the end of the traffic queue on divided highways and no less than 500 feet and no more than 0.5 mile in advance of the end of the traffic queue on undivided highways.

3.0 Work Hour Restrictions.

3.1 Except for emergency work, as determined by the engineer, and long term lane closures required by project phasing, all lanes shall be scheduled to be open to traffic during the five major holiday periods shown below, from 12:00 noon on the last working day preceding the holiday until 6:00 a.m. on the first working day subsequent to the holiday unless otherwise approved by the engineer.

Memorial Day
Labor Day
Thanksgiving
Christmas
New Year's Day

3.1.1 Independence Day. The lane restrictions specified in Section 3.1 shall also apply to Independence Day, except that the restricted periods shall be as follows:

When Independence Day falls on:	The Holiday is Observed on:	Halt Lane Closures beginning at:	Allow Lane Closures to resume at:
Sunday	Monday	Noon on Friday	6:00 a.m. on Tuesday
Monday	Monday	Noon on Friday	6:00 a.m. on Tuesday
Tuesday	Tuesday	Noon on Monday	6:00 a.m. on Wednesday
Wednesday	Wednesday	Noon on Tuesday	6:00 a.m. on Thursday
Thursday	Thursday	Noon on Wednesday	6:00 a.m. on Friday
Friday	Friday	Noon on Thursday	6:00 a.m. on Monday
Saturday	Friday	Noon on Thursday	6:00 a.m. on Monday

3.2 The contractor shall not perform any construction operation on the roadway, roadbed or active lanes, including the hauling of material within the project limits, during restricted periods, holiday periods or other special events specified in the contract documents.

4.0 Detours and Lane Closures.

4.1 At least one lane of traffic in each direction shall be maintained at all times except for brief intervals of time required when the movement of the contractor's equipment will seriously hinder the safe movement of traffic. Periods during which the contractor will be allowed to interrupt traffic will be designated by the engineer.

5.0 Basis of Payment. No direct payment will be made to the contractor to recover the cost of equipment, labor, materials, or time required to fulfill the above provisions, unless specified elsewhere in the contract document. All authorized changes in the traffic control plan shall be provided for as specified in Sec 616.

D. Emergency Provisions and Incident Management JSP-90-11A

1.0 The contractor shall have communication equipment on the construction site or immediate access to other communication systems to request assistance from law enforcement or other emergency agencies for incident management. In case of traffic accidents or the need for law enforcement to direct or restore traffic flow through the job site, the contractor shall notify law enforcement or other emergency agencies immediately as needed. The area engineer's office shall also be notified when the contractor requests emergency assistance.

Audie Pulliam, PE - Resident Engineer
Southeast District
3956 East Main St
Willow Springs, MO 65793

Telephone Number: 417-469-9028 (office)
417-252-8004 (mobile)
Email: audie.Pulliam@modot.mo.gov

2.0 In addition to the 911 emergency telephone number for ambulance, fire or law enforcement services, the following agencies may also be notified for accident or emergency situation within the project limits.

Missouri Highway Patrol (Troop G):	(800) 525-5555
Douglas County Sheriff:	(417) 250-2320
Howell County Sheriff:	(417) 256-2544
Ozark County Sheriff:	(417) 679-4633
Wright County Sheriff:	(417) 741-7576

2.1 This list is not all inclusive. Notification of the need for wrecker or tow truck services will remain the responsibility of the appropriate law enforcement agency.

2.2 The contractor shall notify law enforcement and emergency agencies before the start of construction to request their cooperation and to provide coordination of services when emergencies arise during the construction at the project site. When the contractor completes this notification with law enforcement and emergency agencies, a report shall be furnished to the engineer on the status of incident management.

3.0 No direct pay will be made to the contractor to recover the cost of the communication equipment, labor, materials, or time required to fulfill the above provisions.

E. Project Contact for Contractor/Bidder Questions JSP-96-05

All questions concerning this project during the bidding process shall be forwarded to the project contact listed below.

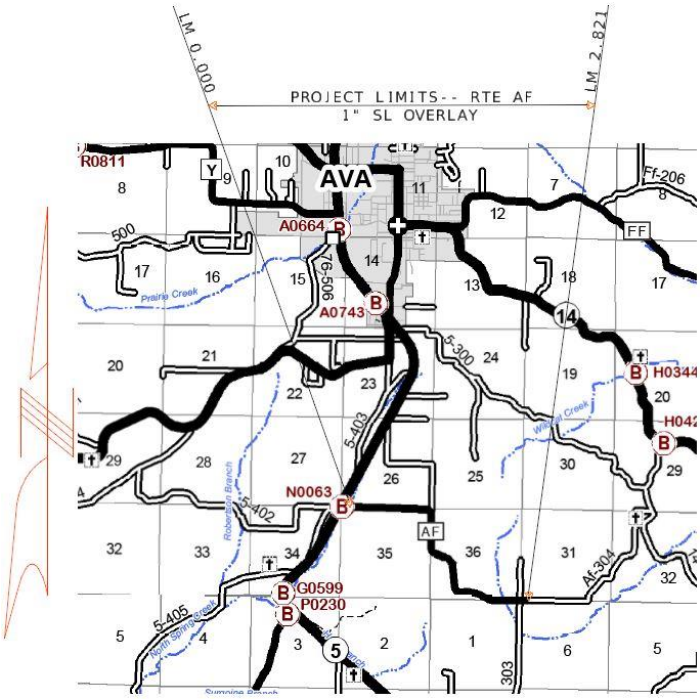
Pete Berry, PE - Project Manager
Southeast District
3956 East Main St
Willow Springs, MO 65793

Telephone Number: 417-469-6242 (office)
417-509-0181 (mobile)
Email: pete.berry@modot.mo.gov

All questions concerning the bid document preparation can be directed to the Central Office – Design at (573) 751-2876.

F. Project Details and Quantities: JST0112 – Route AF; Douglas County

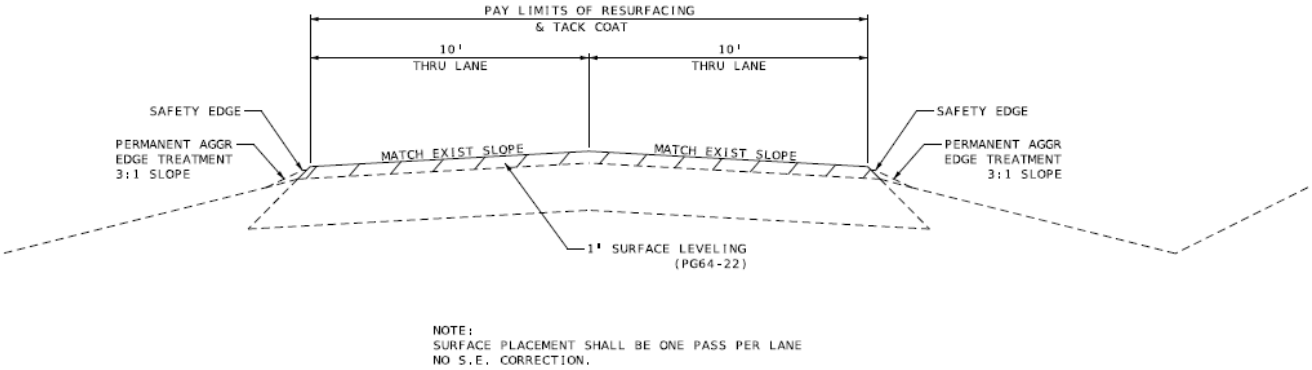
1.0 Description. This project consists of applying a plant mix bituminous pavement (surface leveling) as described here in. The project limits are from Log Mile 0.000 to 2.821 on Route AF in Douglas County. The total length of pavement limits are 2.821 miles with a total average width of 20 feet. Pavement will not be placed at the following exception locations:



EXCEPTIONS			
APPROX. LOG MILE		LENGTH	REMARKS
FROM	TO	(FT)	
-	-	-	NO EXCEPTIONS
	TOTAL	0	

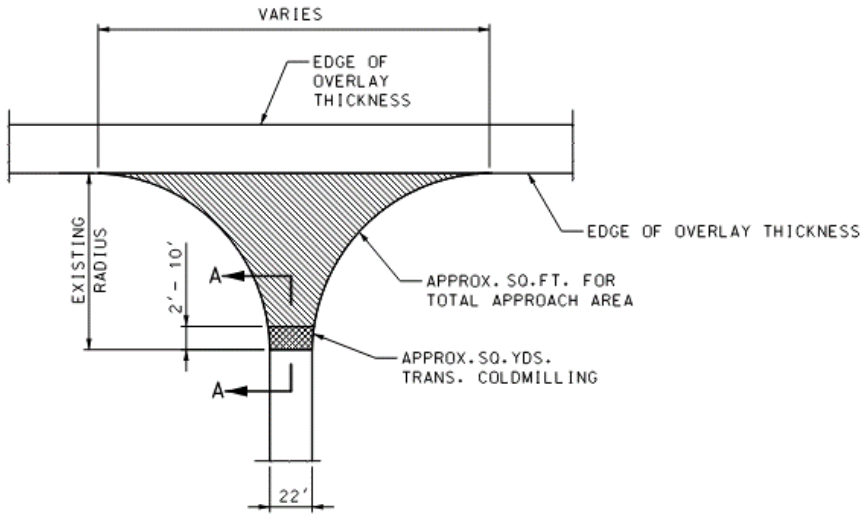
2.0 Mix and Pavement Transitions.

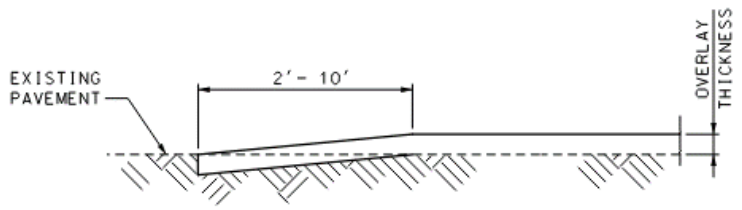
2.1 1" Plant Mix Bituminous Mixture PG 64-22 (Surface Leveling) pavement shall be placed the entire width of the lanes, one pass per lane with no superelevation correction. Tack coat shall be applied at the rate of 0.08 gal/yd^2 the entire width of the traveled way for the length of the pavement limits.



2.2 Depth transitions when beginning and ending at a state route shall be coldmilled at the rate of 1” in 25’. When beginning or ending mid-route, including exceptions, shall be coldmilled at the rate of 1” in 50’.

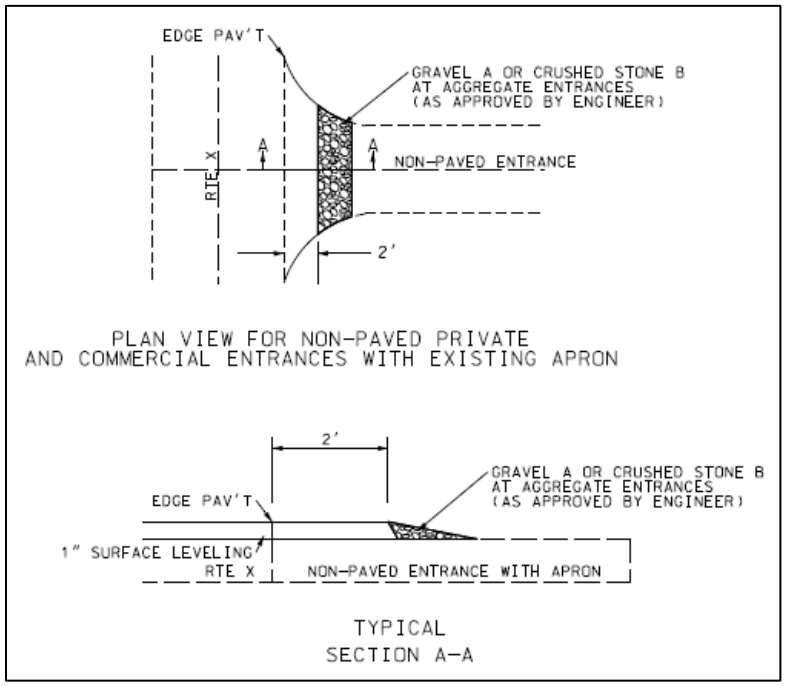
2.3 Coldmilling and pavement tapers at intersecting state routes will vary. See quantities for the approximate paved approach and coldmilling areas (see transition area details below).

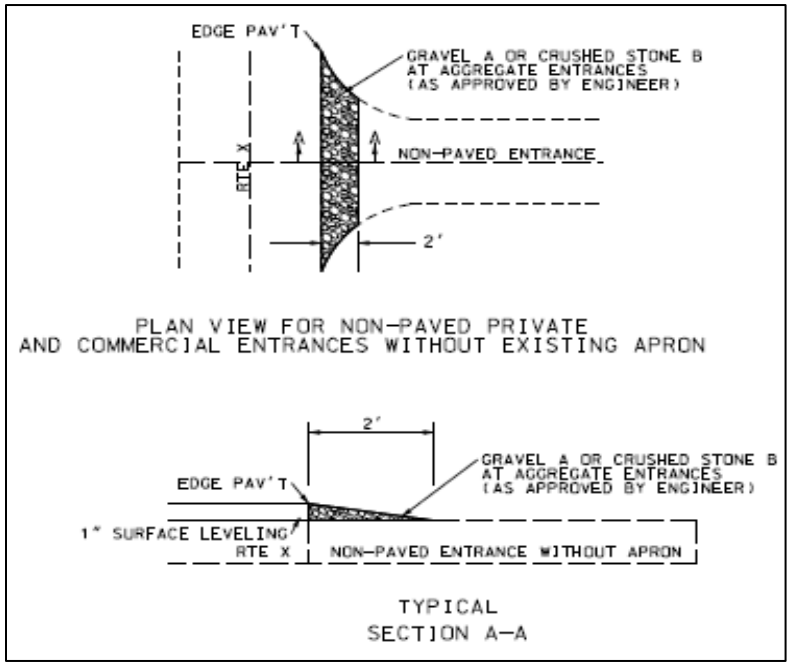


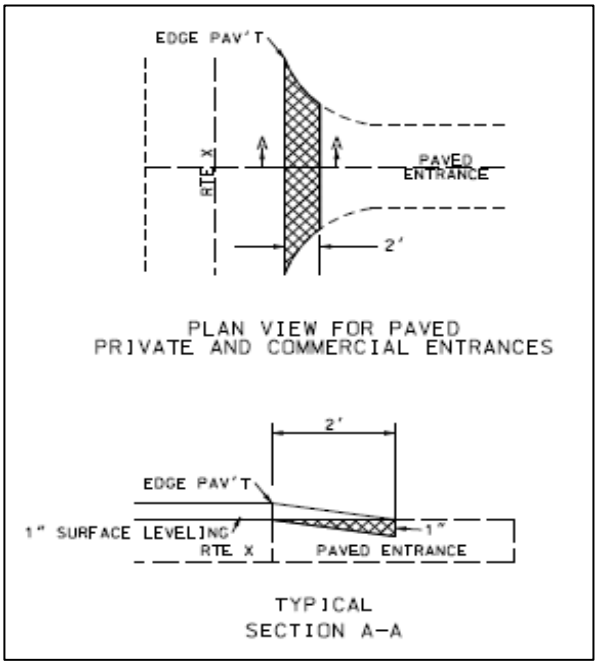


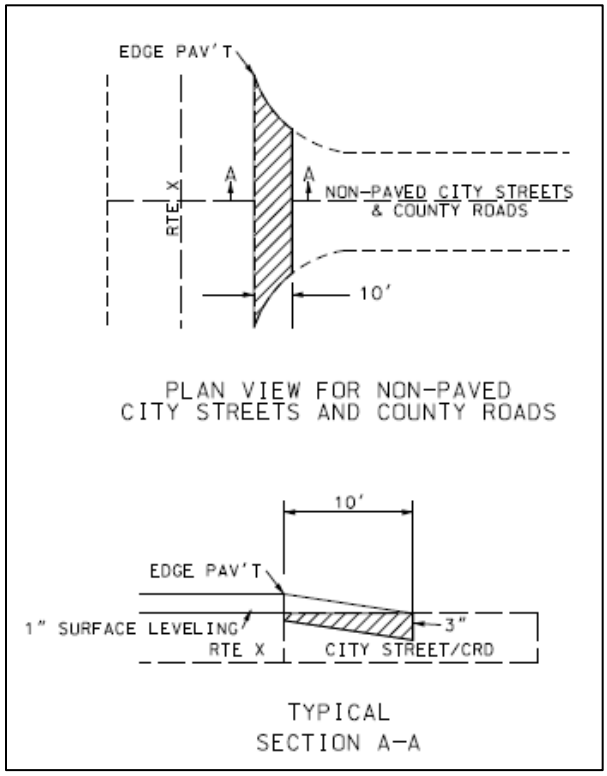
SECTION A-A
TYPICAL STATE ROUTE JUNCTION
(COLDMILLED TRANSITION)

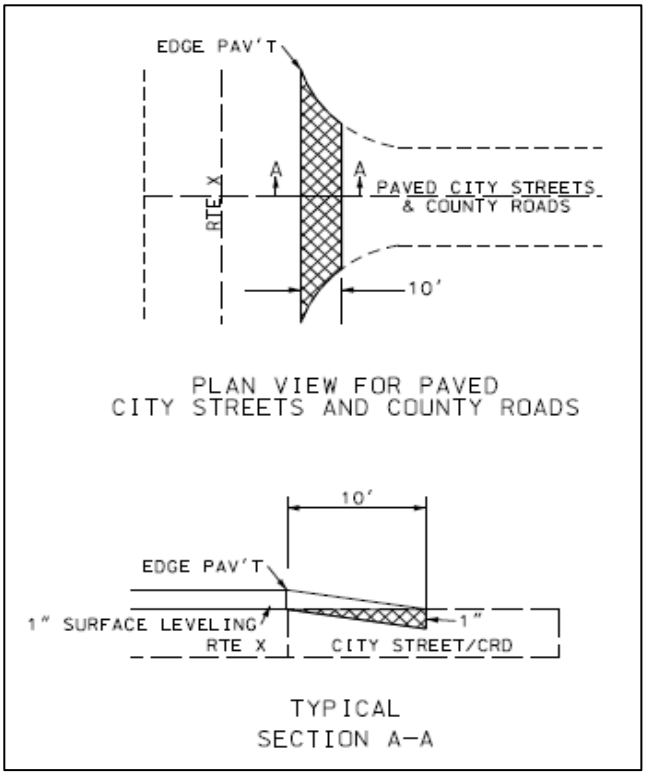
2.4 The bituminous pavement shall be tapered at entrances and non-state routes (see pavement taper details below).











3.0 Pavement and Coldmilling Quantities.

3.1 Pavement quantities are as follows:

BITUMINOUS PAVEMENT								
LOG MILE	**LOG MILE**	**NET LENGTH (MI)**	**AVERAGE WIDTH (FT)**	**DEPTH (IN)**	**BITUMINOUS PAVEMENT SL PG64-22 (2.034 TON/CY) (TONS)**	**TACK COAT (0.08 GAL/SY) (GAL)**	**PERMANENT AGG EDGE TREATMENT (85.6 TON/MI) (TONS)**	**REMARKS**
0.018	2.821	2.803	20	1.0	1858.3	2631.1	240.0	RTE AF TRAVELWAY OVERLAY
VARIOUS	-	0.046	10.0	3.0	45.8	21.6	-	4 NON-PAVED ST./COUNTY RD.
0.018	2.821	2.803	-	-	37.2	-	-	SAFETY EDGE @ 2% OF MAINLINE
0.018	2.821	2.803	-	-	420.5	-	-	IRREGULARITIES @ 150 TONS/MI
				TOTALS	2361.8	2652.7	240.0	
				USE	2361.8	2653	240.0	

3.2 Coldmilling Quantities are as follows:

MODIFIED COLDMILLING (DEPTH TRANSITION)			
LOG MILE	**LOG MILE**	**QUANTITY (SY)**	**REMARKS**
0.018	0.028	122.3	START OVERLAY - RTE AF TRAVELWAY
	TOTALS	122.3	
	USE	123	

3.3 Gravel Quantities are as follows:

GRAVEL A OR CRUSHED STONE B			
LOG MILE	**LOG MILE**	**TONS**	**REMARKS**
VARIOUS	-	28	28 NON-PAVED PVT/COMM ENTRANCES W/O APRON (1 TON EA)
VARIOUS	-	8	4 NON-PAVED STREETS/COUNTY ROADS (2 TON EA)
	TOTALS	36	
	USE	36	

4.0 Temporary Traffic Control Plans. See Standard Plans 616.20 for standard temporary traffic control requirements.

4.1 Construction signs and channelizers are as follows:

CONSTRUCTION SIGNING						
SIGN NO.	**SIGN**	**SIZE (IN)**	**AREA (SF)**	**QTY.**	**TOTAL AREA (SF)**	**DESCRIPTION**
1 *	GO20-1	60 x 24	10	2	20	ROAD WORK NEXT 3 MILES
2 **	WO20-1	48 x 48	16	8	128	ROAD WORK AHEAD
7	WO20-4	48 x 48	16	6	96	ONE LANE ROAD AHEAD
8	WO20-7A	48 x 48	16	8	128	FLAGGER (SYMBOL) WITH FLAGS
11	WO3-4	48 x 48	16	6	96	BE PREPARED TO STOP
26	GO20-2	48 x 24	8	2	16	END ROAD WORK
35	WO8-12	48 x 48	16	8	128	NO CENTER LINE
36	WO8-11	48 x 48	16	8	128	UNEVEN LANES
58	GO20-4a	42 x 30	8.75	4	35.00	PILOT CAR IN USE WAIT AND FOLLOW
58	GO20-4a	18 x 12	1.5	10	15.0	PILOT CAR IN USE WAIT AND FOLLOW
59	CONST-8	48 x 36	12	2	24	WORK ZONE NO PHONE ZONE
-	GO22-1	21 x 15	2.19	2	4.38	WET PAINT (ARROW PIVOTS)
	CONSTRUCTION SIGNS TOTAL				818.38	
				USE	819	

* - IF LESS THAN (2) MILES, DELETE SIGN NO. 1

** - ADDITIONAL SIGN NO. 2 USED AS SHOWN ON TRAFFIC CONTROL SHEET 3 OF 5 AND AS DIRECTED BY ENGINEER.

REFER TO STANDARD PLAN 616.10 AND 903.03 FOR SIGN AND SIGN MOUNTING REQUIRMENTS.

ITEM NO.	QTY.	DESCRIPTION
616-10.25	50	CHANNELIZERS (TRIM-LINE)

4.2 Mobilization is as follows:

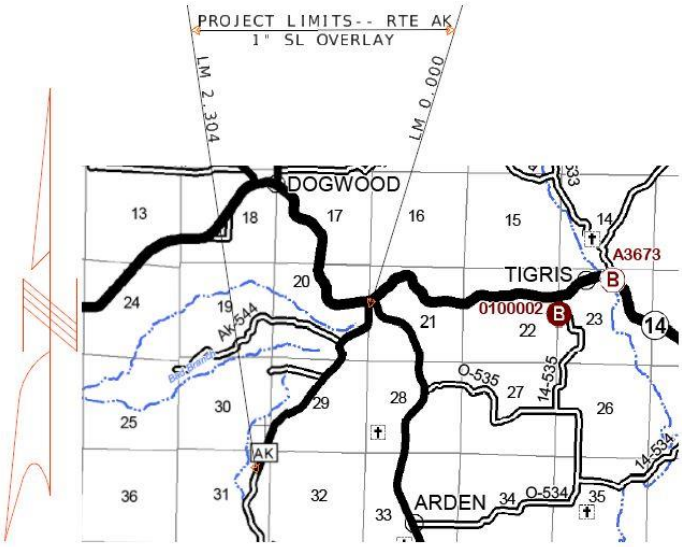
ITEM NO.	QTY.	DESCRIPTION
618-10.00	LUMP SUM	MOBILIZATION

5.0 Pavement Marking. Pavement marking quantities are as follows:

STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS						
LOG MILE	**LOG MILE**	**LENGTH (FT)**	**4" INT. YELLOW (FT)**	**4" SOLID YELLOW (FT)**	**4" SOLID WHITE (FT)**	**REMARKS**
0.000	2.821	14894.9	717.0	26921.8	-	ROUTE AF - DOUGLAS COUNTY
		TOTALS	717.0	26921.8	-	
		USE	27639		-	
NOTE: TEMPORARY AND PERMANENT PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH 620.10						

G. Project Details and Quantities: JST0112 – Route AK; Douglas County

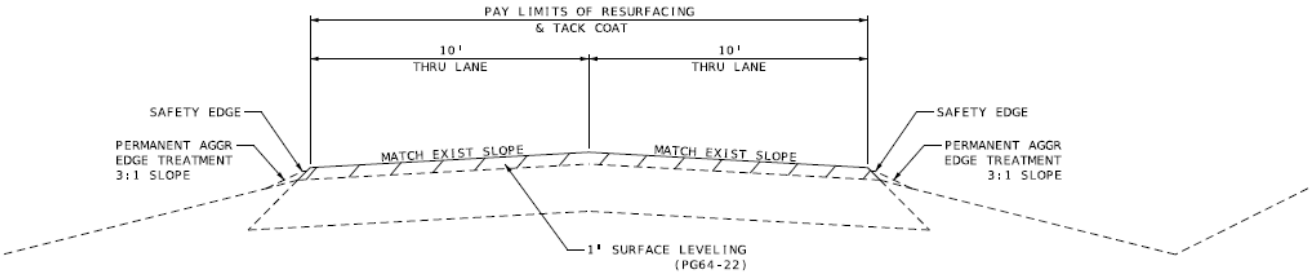
1.0 Description. This project consists of applying a plant mix bituminous pavement (surface leveling) as described here in. The project limits are from Log Mile 0.000 to 2.304 on Route AK in Douglas County. The total length of pavement limits are 2.304 miles with a total average width of 20 feet. Pavement will not be placed at the following exception locations listed below:



EXCEPTIONS			
APPROX. LOG MILE		**LENGTH (FT)**	**REMARKS**
FROM	**TO**		
-	-	-	NO EXCEPTIONS
	TOTAL	**0**	

2.0 Mix and Pavement Transitions.

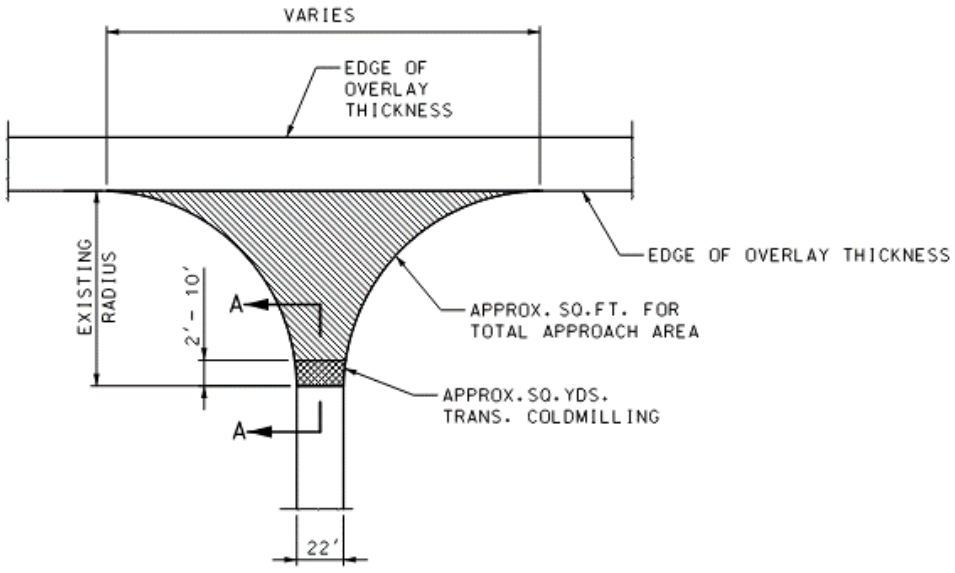
2.1 1" Plant Mix Bituminous Mixture PG 64-22 (Surface Leveling) pavement shall be placed the entire width of the lanes, one pass per lane with no superelevation correction. Tack coat shall be applied at the rate of 0.08 gal/yd^2 the entire width of the traveled way for the length of the pavement limits.

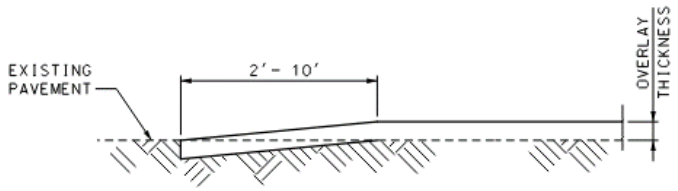


NOTE:
SURFACE PLACEMENT SHALL BE ONE PASS PER LANE
NO S.E. CORRECTION.

2.2 Depth transitions when beginning and ending at a state route shall be coldmilled at the rate of 1" in 25'. When beginning or ending mid-route, including exceptions, shall be coldmilled at the rate of 1" in 50'.

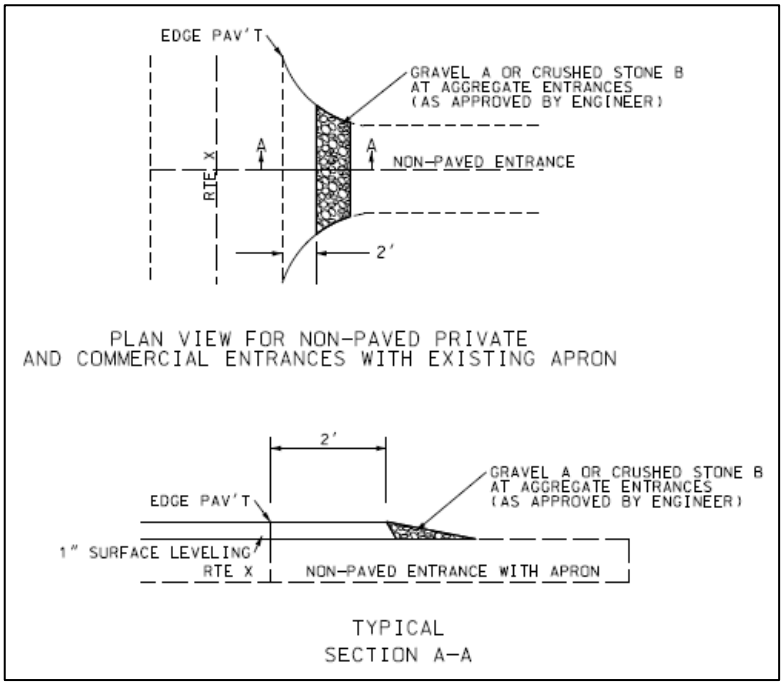
2.3 Coldmilling and pavement tapers at intersecting state routes will vary. See quantities for the approximate paved approach and coldmilling areas (see transition area details below).

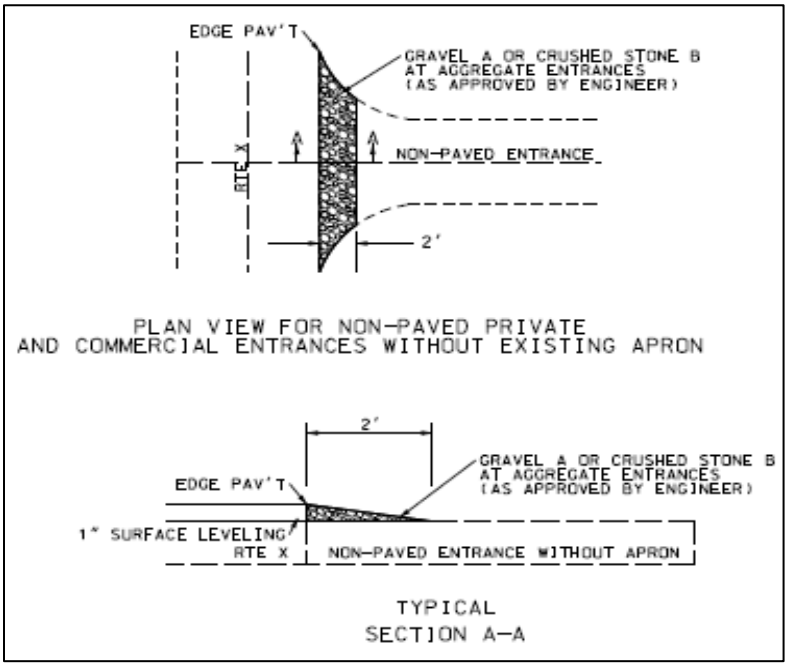


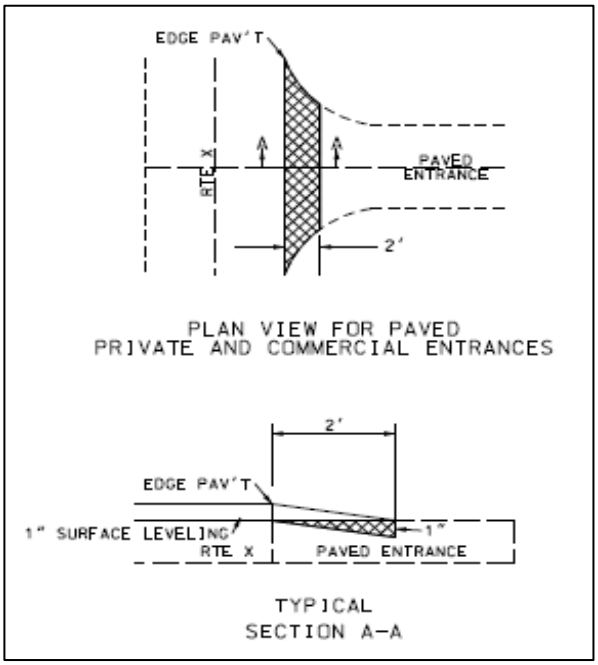


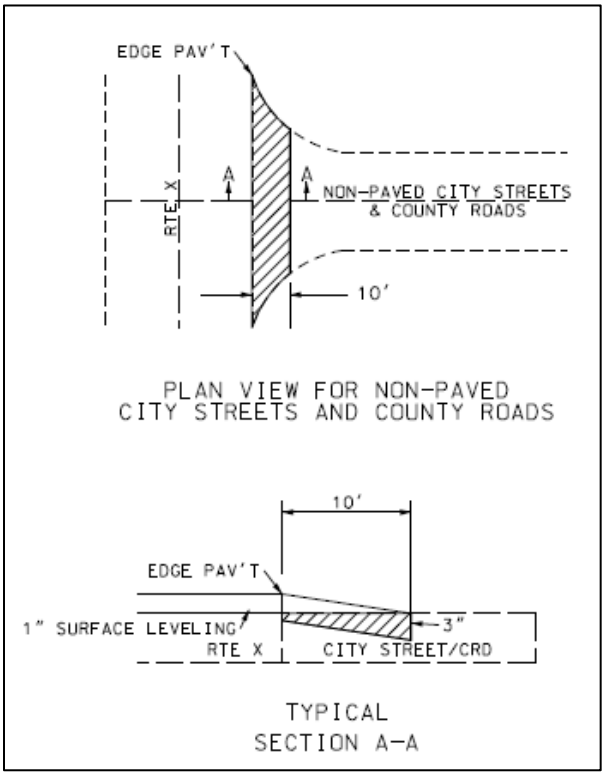
SECTION A-A
TYPICAL STATE ROUTE JUNCTION
(COLDMILLED TRANSITION)

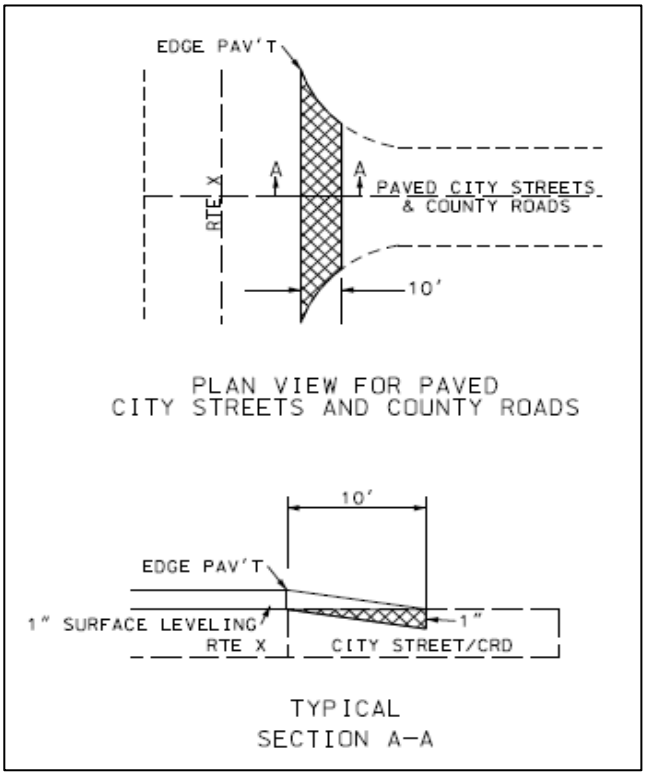
2.4 The bituminous pavement shall be tapered at entrances and non-state routes (see pavement taper details below).











3.0 Pavement and Coldmilling Quantities.

3.1 Pavement quantities are as follows:

BITUMINOUS PAVEMENT								
LOG MILE (MI)	**LOG MILE (MI)**	**NET LENGTH (MI)**	**AVERAGE WIDTH (FT)**	**DEPTH (IN)**	**BITUMINOUS PAVEMENT SL PG64-22 (2.034 TON/CY) (TONS)**	**TACK COAT (0.08 GAL/SY) (GAL)**	**PERMANENT AGG EDGE TREATMENT (85.6 TON/MI) (TONS)**	**REMARKS**
0.013	2.304	2.291	20	1.0	1518.8	2150.5	196.2	RTE AK TRAVELWAY OVERLAY
VARIOUS	-	0.023	2	1.0	1.6	2.2	-	3 NON-PAVED PVT/COMM ENTRANCES W/ APRON
VARIOUS	-	0.035	10	3.0	34.9	16.5	-	3 NON-PAVED STREETS/COUNTY ROADS
0.013	2.304	2.291	-	-	30.4	-	-	SAFETY EDGE @ 2% OF MAINLINE
0.013	2.304	2.291	-	-	343.7	-	-	IRREGULARITIES @ 150 TONS/MI
				TOTALS	1929.4	2169.2	196.2	
				USE	1929.4	2170	196.2	

3.2 Coldmilling Quantities are as follows:

MODIFIED COLDMILLING (DEPTH TRANSITION)			
LOG MILE	**LOG MILE**	**QUANTITY (SY)**	**REMARKS**
0.013	0.023	111.2	START OVERLAY - RTE AK TRAVELWAY
	TOTALS	111.2	
	USE	112	

3.3 Gravel Quantities are as follows:

GRAVEL A OR CRUSHED STONE B			
LOG MILE	**LOG MILE**	**TONS**	**REMARKS**
VARIOUS	-	3	3 NON-PAVED PVT/COMM ENTRANCES W/ ARPON (1 TON EA)
VARIOUS	-	15	15 NON-PAVED PVT/COMM ENTRANCES W/O APRON (1 TON EA)
VARIOUS	-	6	3 NON-PAVED STREETS/COUNTY ROADS (2 TON EA)
	TOTALS	24	
	USE	24	

4.0 Temporary Traffic Control Plans. See Standard Plans 616.20 for standard temporary traffic control requirements.

4.1 Construction signs and channelizers are as follows:

CONSTRUCTION SIGNING						
SIGN NO.	**SIGN**	**SIZE (IN)**	**AREA (SF)**	**QTY.**	**TOTAL AREA (SF)**	**DESCRIPTION**
1 *	GO20-1	60 x 24	10	2	20	ROAD WORK NEXT 3 MILES
2 **	WO20-1	48 x 48	16	15	240	ROAD WORK AHEAD
7	WO20-4	48 x 48	16	6	96	ONE LANE ROAD AHEAD
8	WO20-7A	48 x 48	16	11	176	FLAGGER (SYMBOL) WITH FLAGS
11	WO3-4	48 x 48	16	11	176	BE PREPARED TO STOP
26	GO20-2	48 x 24	8	2	16	END ROAD WORK
35	WO8-12	48 x 48	16	10	160	NO CENTER LINE
36	WO8-11	48 x 48	16	10	160	UNEVEN LANES
58	GO20-4a	42 x 30	8.75	5	44	PILOT CAR IN USE WAIT AND FOLLOW
58	GO20-4a	18 x 12	1.5	10	15.0	PILOT CAR IN USE WAIT AND FOLLOW
59	CONST-8	48 x 36	12	2	24	WORK ZONE NO PHONE ZONE
-	GO22-1	21 x 15	2.19	2	4.38	WET PAINT (ARROW PIVOTS)
			CONSTRUCTION SIGNS TOTAL		1131.38	
				USE	1132	

* - IF LESS THAN (2) MILES, DELETE SIGN NO. 1

** - ADDITIONAL SIGN NO. 2 USED AS SHOWN ON TRAFFIC CONTROL SHEET 3 OF 5 AND AS DIRECTED BY ENGINEER.

REFER TO STANDARD PLAN 616.10 AND 903.03 FOR SIGN AND SIGN MOUNTING REQUIRMENTS.

ITEM NO.	QTY.	DESCRIPTION
616-10.25	50	CHANNELIZERS (TRIM-LINE)

4.2 Mobilization is as follows:

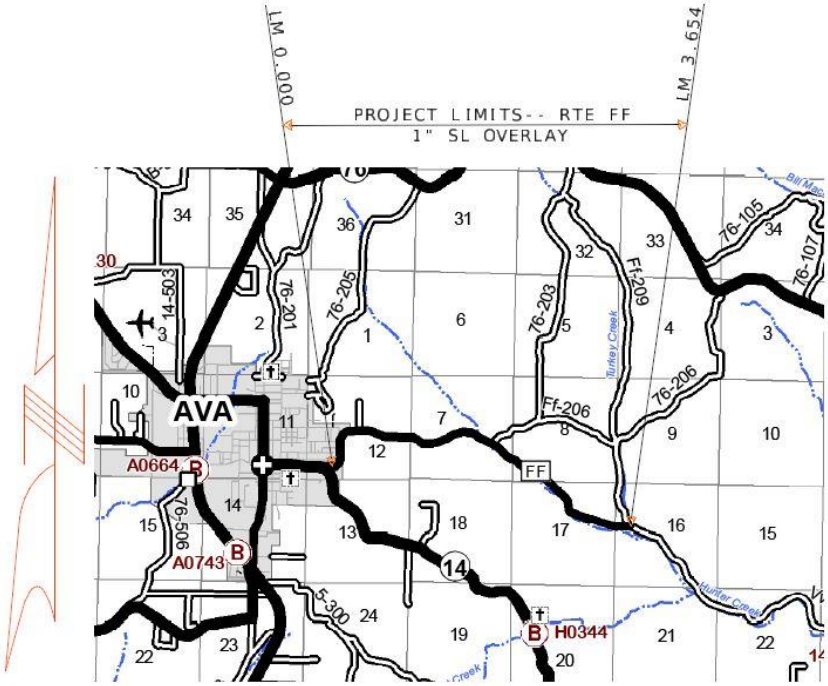
ITEM NO.	QTY.	DESCRIPTION
618-10.00	LUMP SUM	MOBILIZATION

5.0 Pavement Marking. Pavement marking quantities are as follows:

STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS						
LOG MILE	LOG MILE	LENGTH (FT)	4" INT. YELLOW (FT)	4" SOLID YELLOW (FT)	4" SOLID WHITE (FT)	REMARKS
0.000	2.304	12165.1	422.5	22730.2	-	ROUTE AK - DOUGLAS COUNTY
		TOTALS	422.5	22730.2	-	
		USE	23153		-	
NOTE: TEMPORARY AND PERMANENT PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH 620.10						

H. Project Details and Quantities: JST0112 – Route FF; Douglas County

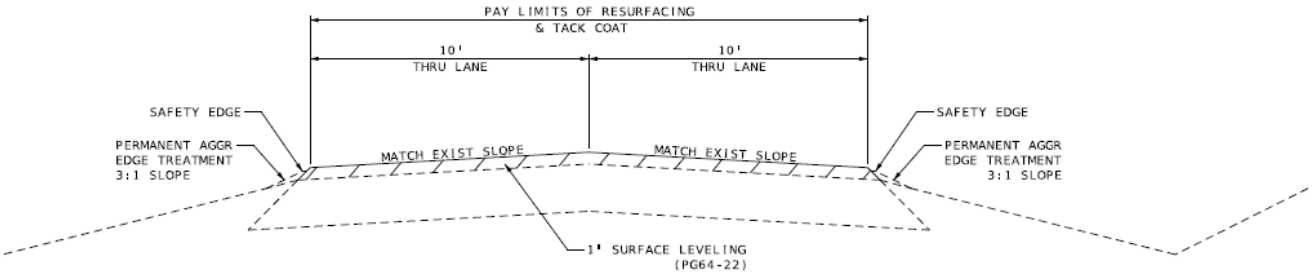
1.0 Description. This project consists of applying a plant mix bituminous pavement (surface leveling) as described here in. The project limits are from Log Mile 0.000 to 3.654 on Route FF in Douglas County. The total length of pavement limits are 3.654 miles with a total average width of 20 feet. Pavement will not be placed at the following exception locations:



EXCEPTIONS			
APPROX. LOG MILE		LENGTH (FT)	REMARKS
FROM	TO		
-	-	-	NO EXCEPTIONS
	TOTAL	0	

2.0 Mix and Pavement Transitions.

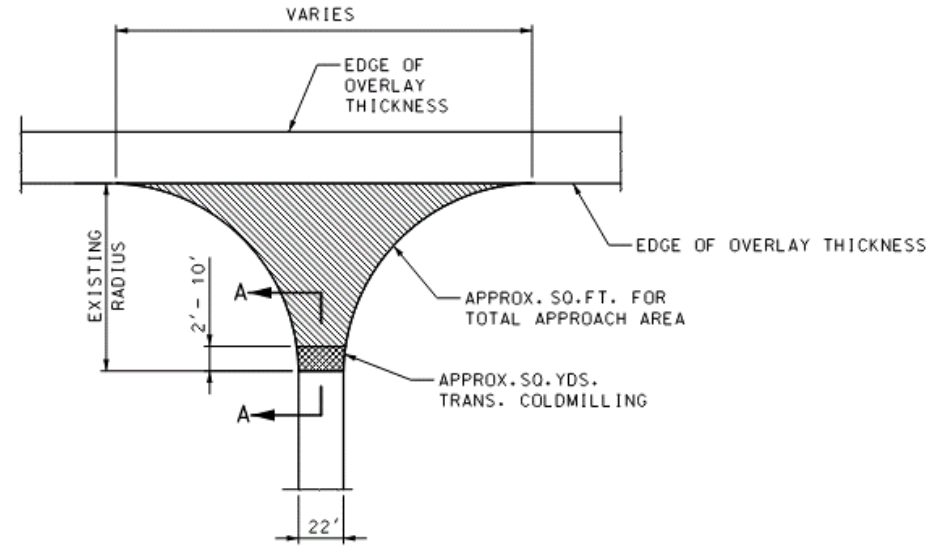
2.1 1" Plant Mix Bituminous Mixture PG 64-22 (Surface Leveling) pavement shall be placed the entire width of the lanes, one pass per lane with no superelevation correction. Tack coat shall be applied at the rate of 0.08 gal/yd^2 the entire width of the traveled way for the length of the pavement limits.



NOTE:
SURFACE PLACEMENT SHALL BE ONE PASS PER LANE
NO S.E. CORRECTION.

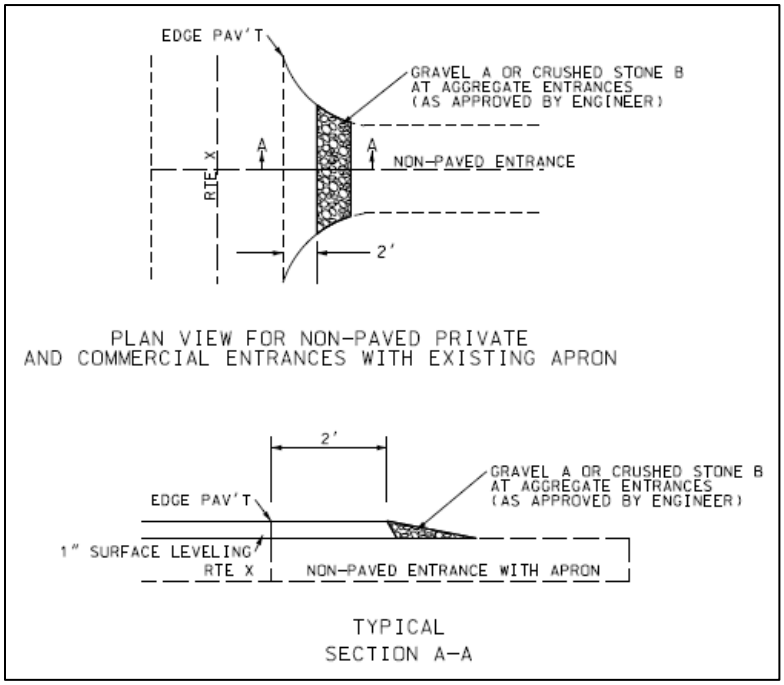
2.2 Depth transitions when beginning and ending at a state route shall be coldmilled at the rate of 1" in 25'. When beginning or ending mid-route, including exceptions, shall be coldmilled at the rate of 1" in 50'.

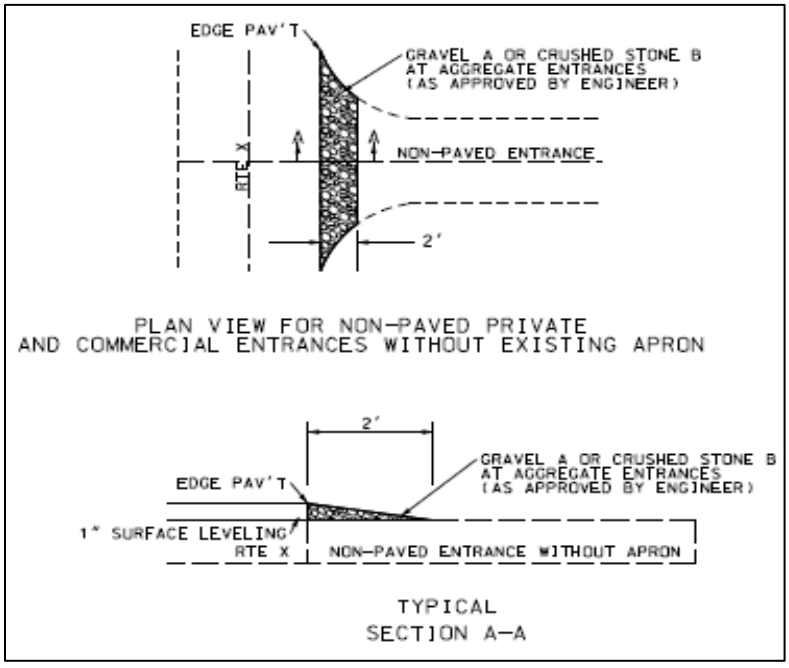
2.3 Coldmilling and pavement tapers at intersecting state routes will vary. See quantities for the approximate paved approach and coldmilling areas (see transition area details below).

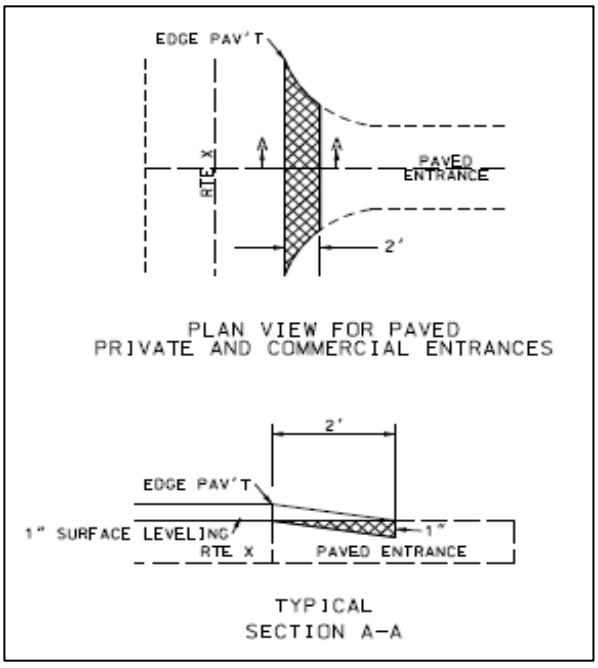


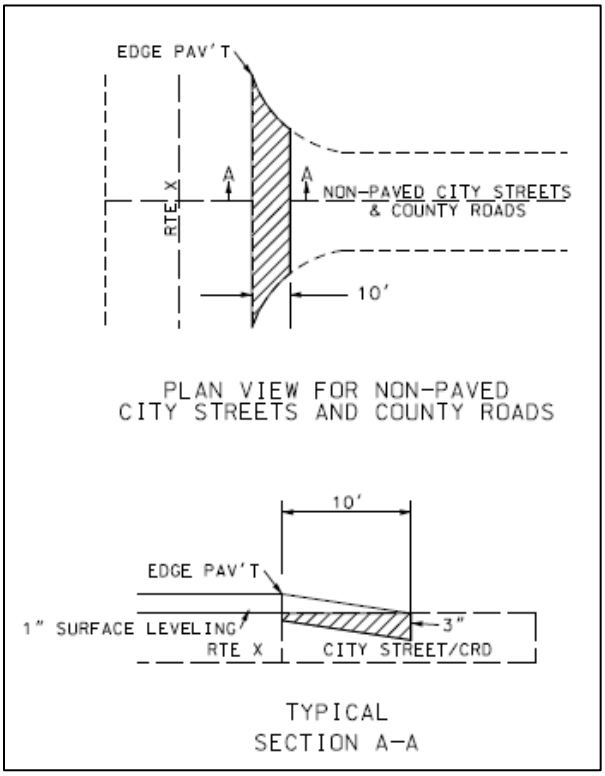
SECTION A-A
TYPICAL STATE ROUTE JUNCTION
(COLDMILLED TRANSITION)

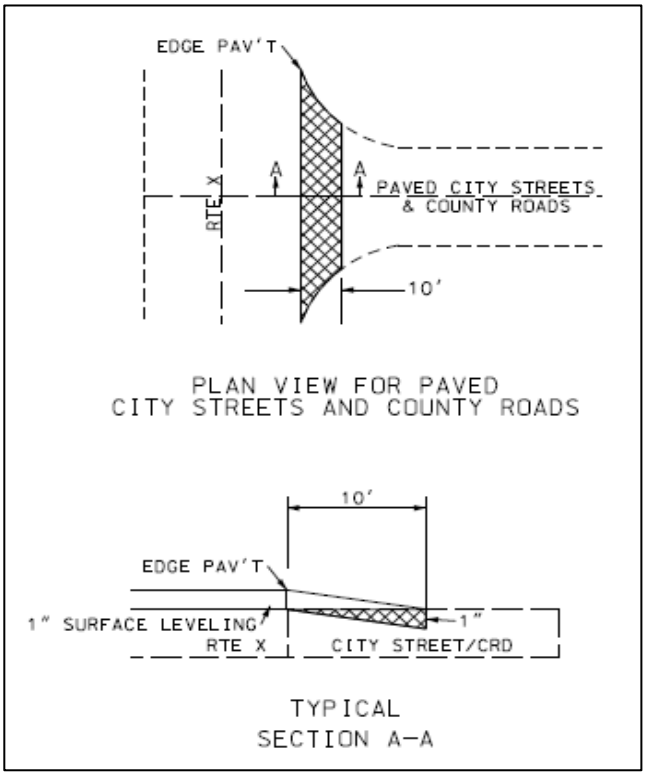
2.4 The bituminous pavement shall be tapered at entrances and non-state routes (see pavement taper details below).











3.0 Pavement and Coldmilling Quantities.

3.1 Pavement quantities are as follows:

BITUMINOUS PAVEMENT								
LOG MILE (MI)	**LOG MILE (MI)**	**NET LENGTH (MI)**	**AVERAGE WIDTH (FT)**	**DEPTH (IN)**	**BITUMINOUS PAVEMENT SL PG64-22 (2.034 TON/CY) (TONS)**	**TACK COAT (0.08 GAL/SY) (GAL)**	**PERMANENT AGG EDGE TREATMENT (85.6 TON/MI) (TONS)**	**REMARKS**
0.016	3.654	3.638	20.0	1.0	2411.8	3414.9	311.4	RTE FF TRAVELWAY OVERLAY
VARIOUS	-	0.099	2.0	1.0	6.6	9.3	-	13 PAVED PVT/COMM ENTRANCES W/ APRON
VARIOUS	-	0.012	10.0	3.0	12.0	5.7	-	2 NON-PAVED STREETS/COUNTY ROADS
VARIOUS	-	0.057	10.0	1.0	18.9	26.8	-	5 PAVED STREETS/COUNTY ROADS
0.016	3.654	3.638	-	-	48.3	-	-	SAFETY EDGE @ 2% OF MAINLINE
0.016	3.654	3.638	-	-	545.7	-	-	IRREGULARITIES @ 150 TONS/MI
				TOTALS	3043.3	3456.7	311.4	
				USE	3043.3	3457	311.4	

3.2 Coldmilling Quantities are as follows:

MODIFIED COLDMILLING (DEPTH TRANSITION)			
LOG MILE	**LOG MILE**	**QUANTITY (SY)**	**REMARKS**
0.016	0.026	111.2	START OVERLAY - RTE FF TRAVELWAY
3.644	3.654	111.2	END OVERLAY - RTE FF TRAVELWAY
VARIOUS	-	115.6	13 PAVED PVT/COMM ENTRANCES W/ APRON
VARIOUS	-	333.4	5 PAVED STREETS/COUNTY ROADS
	TOTALS	671.4	
	USE	672	

3.3 Gravel Quantities are as follows:

GRAVEL A OR CRUSHED STONE B			
LOG MILE	**LOG MILE**	**TONS**	**REMARKS**
VARIOUS	-	13	13 NON-PAVED PVT/COMM ENTRANCES W/ APRON (1 TON EA)
VARIOUS	-	39	39 NON-PAVED PVT/COMM ENTRANCES W/O APRON (1 TON EA)
VARIOUS	-	4	2 NON-PAVED STREETS/COUNTY ROADS (2 TON EA)
	TOTALS	56	
	USE	56	

4.0 Temporary Traffic Control Plans. See Standard Plans 616.20 for standard temporary traffic control requirements.

4.1 Construction signs and channelizers are as follows:

CONSTRUCTION SIGNING						
SIGN NO.	**SIGN**	**SIZE (IN.)**	**AREA (SF)**	**QTY.**	**TOTAL AREA (SF)**	**DESCRIPTION**
1 *	GO20-1	60 x 24	10	2	20	ROAD WORK NEXT 4 MILES
2 **	WO20-1	48 x 48	16	10	160	ROAD WORK AHEAD
7	WO20-4	48 x 48	16	6	96	ONE LANE ROAD AHEAD
8	WO20-7A	48 x 48	16	10	160	FLAGGER (SYMBOL) WITH FLAGS
11	WO3-4	48 x 48	16	10	160	BE PREPARED TO STOP
26	GO20-2	48 x 24	8	2	16	END ROAD WORK
35	WO8-12	48 x 48	16	4	64	NO CENTER LINE
36	WO8-11	48 x 48	16	8	128	UNEVEN LANES
58	GO20-4a	42 x 30	8.75	8	70.00	PILOT CAR IN USE WAIT AND FOLLOW
58	GO20-4a	18 x 12	1.5	20	30.0	PILOT CAR IN USE WAIT AND FOLLOW
59	CONST-8	48 x 36	12	2	24	WORK ZONE NO PHONE ZONE
-	GO22-1	21 x 15	2.19	2	4.38	WET PAINT (ARROW PIVOTS)
		CONSTRUCTION SIGNS TOTAL			932.38	
				USE	933	

* - IF LESS THAN (2) MILES, DELETE SIGN NO. 1

** - ADDITIONAL SIGN NO. 2 USED AS SHOWN ON TRAFFIC CONTROL SHEET 3 OF 5 AND AS DIRECTED BY ENGINEER.

REFER TO STANDARD PLAN 616.10 AND 903.03 FOR SIGN AND SIGN MOUNTING REQUIRMENTS.

ITEM NO.	QTY.	DESCRIPTION
616-10.25	50	CHANNELIZERS (TRIM-LINE)

4.2 Mobilization is as follows:

ITEM NO.	QTY.	DESCRIPTION
618-10.00	LUMP SUM	MOBILIZATION

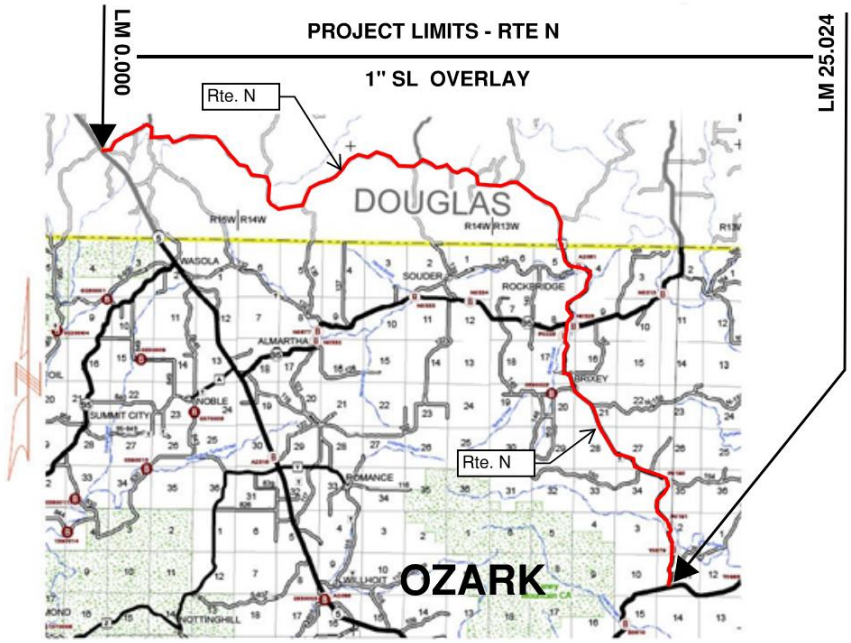
5.0 Pavement Marking. Pavement marking quantities are as follows:

STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS						
LOG MILE	**LOG MILE**	**LENGTH (FT)**	**4" INT. YELLOW (FT)**	**4" SOLID YELLOW (FT)**	**4" SOLID WHITE (FT)**	**REMARKS**
0.000	3.654	19293.1	240.3	37625.2	-	ROUTE FF - DOUGLAS COUNTY
		TOTALS	240.3	37625.2	-	
		USE	37866		-	
NOTE: TEMPORARY AND PERMANENT PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH 620.10						

Job No.: JST0112
Route: Various
County: Various

I. Project Details and Quantities: JST0112 – Route N; Douglas and Ozark Counties

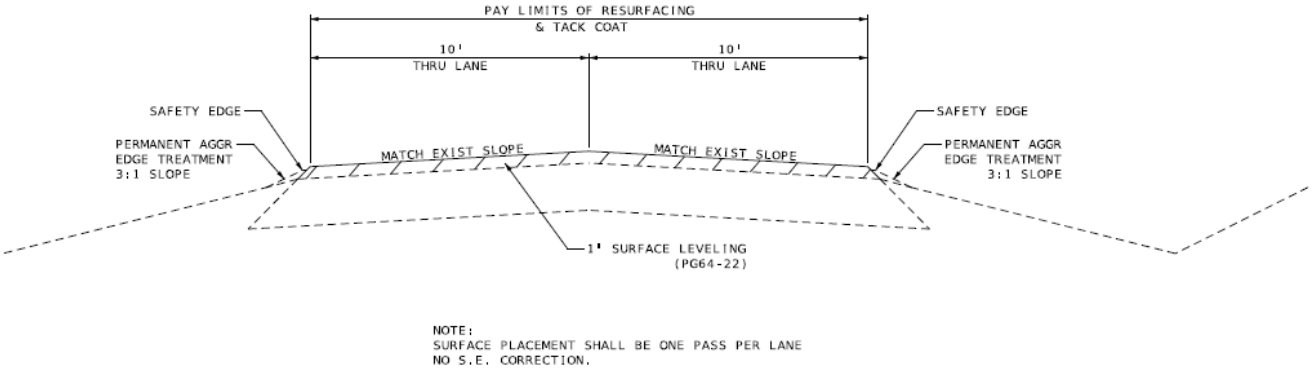
1.0 Description. This project consists of applying a plant mix bituminous pavement (surface leveling) as described here in. The project limits are from Log Mile 0.000 to 25.024 on Route N in Douglas County. The total length of pavement limits are 25.024 miles with a total average width of 20 feet. Pavement will not be placed at the following exception locations:



EXCEPTIONS			
APPROX. LOG MILE		LENGTH (FT)	REMARKS
FROM	TO		
15.388	15.425	196	BRIDGE A2061
17.259	17.290	164	INTERSECTION @ RTE 95
	TOTAL	**360**	

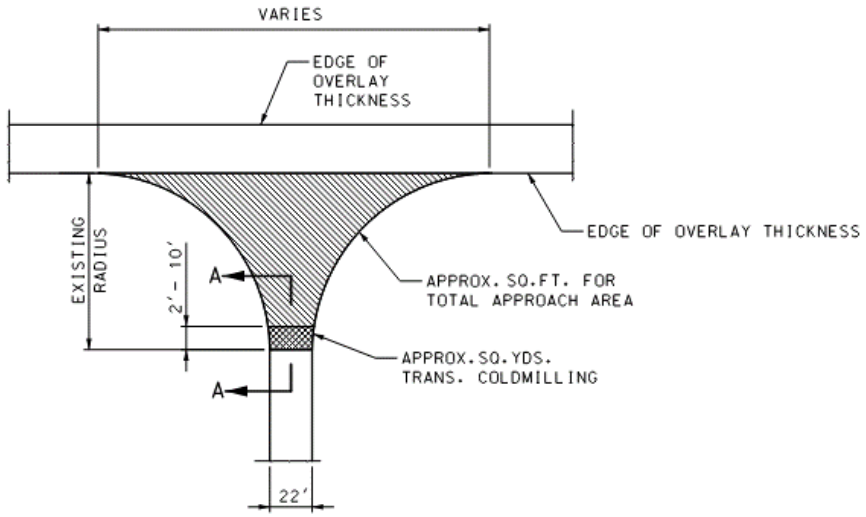
2.0 Mix and Pavement Transitions.

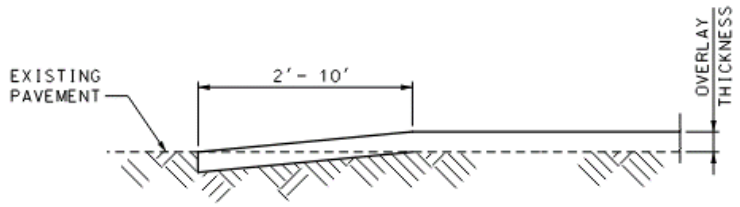
2.1 1" Plant Mix Bituminous Mixture PG 64-22 (Surface Leveling) pavement shall be placed the entire width of the lanes, one pass per lane with no superelevation correction. Tack coat shall be applied at the rate of 0.08 gal/yd^2 the entire width of the traveled way for the length of the pavement limits.



2.2 Depth transitions when beginning and ending at a state route shall be coldmilled at the rate of 1" in 25'. When beginning or ending mid-route, including exceptions, shall be coldmilled at the rate of 1" in 50'.

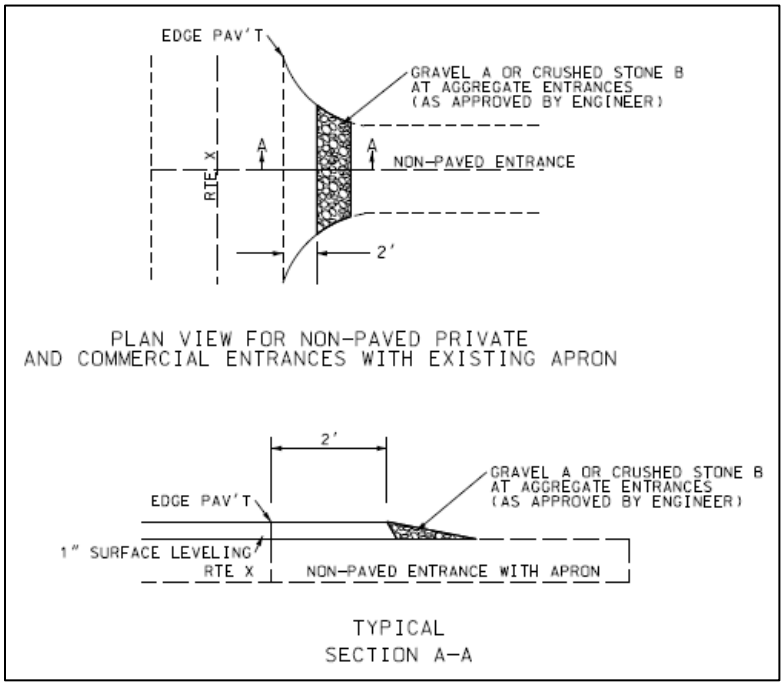
2.3 Coldmilling and pavement tapers at intersecting state routes will vary. See quantities for the approximate paved approach and coldmilling areas (see transition area details below).

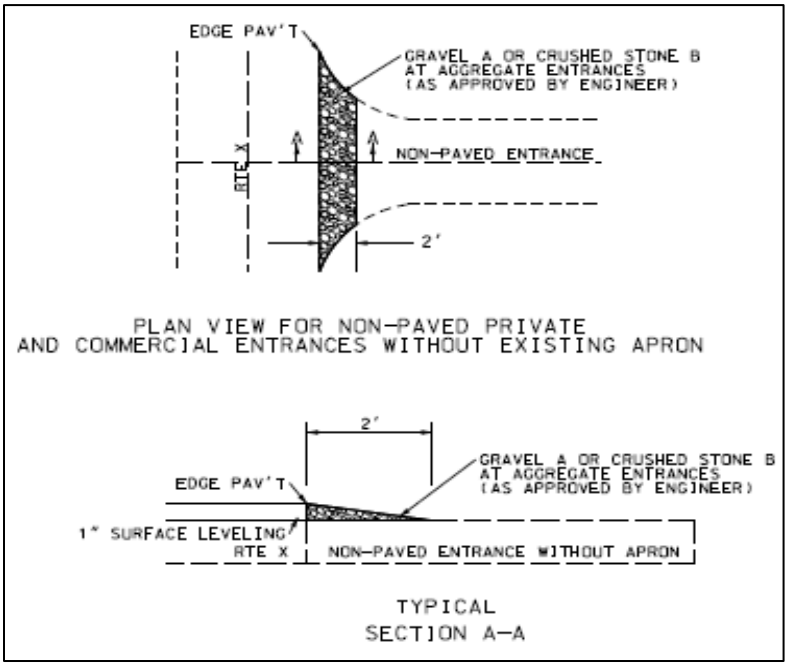


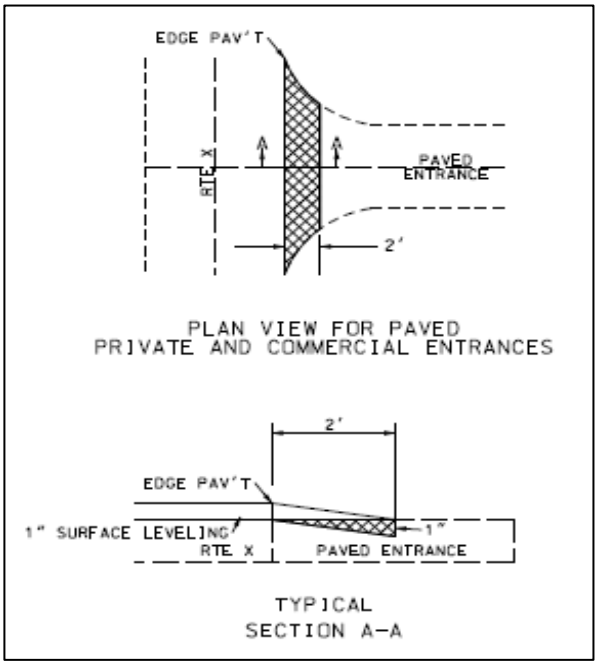


SECTION A-A
TYPICAL STATE ROUTE JUNCTION
(COLDMILLED TRANSITION)

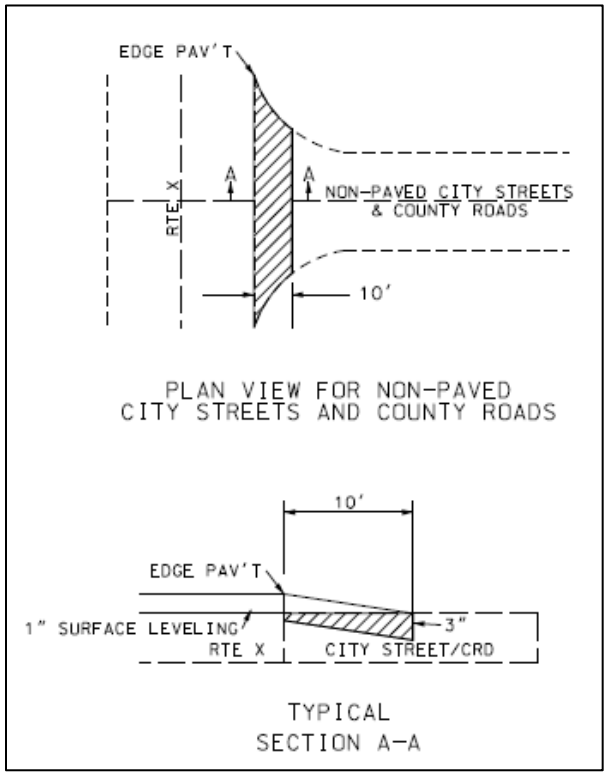
2.4 The bituminous pavement shall be tapered at entrances and non-state routes (see pavement taper details below).

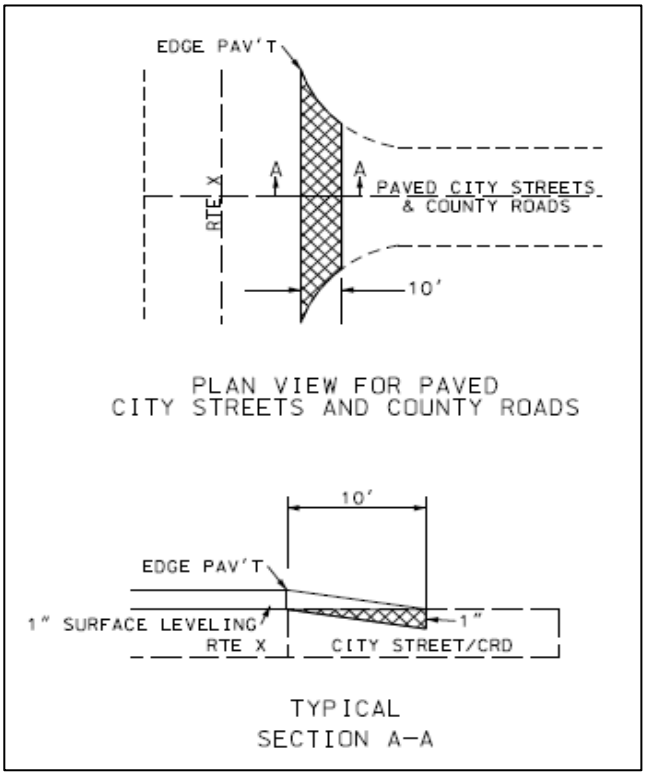






Job No.: JST0112
Route: Various
County: Various





3.0 Pavement and Coldmilling Quantities.

3.1 Pavement quantities are as follows:

BITUMINOUS PAVEMENT								
LOG MILE (MI)	**LOG MILE (MI)**	**NET LENGTH (MI)**	**AVERAGE WIDTH (FT)**	**DEPTH (IN)**	**BITUMINOUS PAVEMENT SL PG64-22 (2.034 TON/CY) (TONS)**	**TACK COAT (0.08 GAL/SY) (GAL)**	**PERMANENT AGG EDGE TREATMENT (85.6 TON/MI) (TONS)**	**REMARKS**
0.014	25.008	24.994	20.0	1.0	16569.4	23461.1	2139.5	RTE N TRAVELWAY OVERLAY
VARIOUS	-	0.023	2.0	1.0	1.6	2.2	-	3 NON-PAVED PVT/COMM ENTRANCES W/ APRON
VARIOUS	-	0.069	2.0	1.0	4.6	6.5	-	9 PAVED PVT/COMM ENTRANCES
VARIOUS	-	0.228	10.0	3.0	226.8	107.1	-	20 NON-PAVED STREETS/COUNTY ROADS
VARIOUS	-	0.035	10.0	1.0	11.7	16.5	-	3 PAVED STREETS/COUNTY ROADS
1.534	-	VARIES	VARIES	1.0	20.5	28.9	-	STATE ROUTE P INTERSECTION
10.006	-	VARIES	VARIES	1.0	30.5	43.2	-	STATE ROUTE OO INTERSECTION
15.388	15.425	(0.037)	20.0	1.0	(24.6)	(34.8)	(3.2)	EXCEPTION - BRIDGE DECK A2061
17.259	17.290	(0.031)	20.0	1.0	(20.6)	(29.1)	(2.7)	EXCEPTION - INTERSECTION @ STATE ROUTE 95
0.014	25.024	25.010	-	-	330.5	-	-	SAFETY EDGE @ 2% OF MAINLINE (LESS EXCEPTIONS)
0.014	25.024	25.010	-	-	3741.3	-	-	IRREGULARITIES @ 150 TONS/MI (LESS EXCEPTIONS)
				TOTALS	21313.1	24186.5	2133.6	
				USE	21313.1	24187	2133.6	

3.2 Coldmilling Quantities are as follows:

MODIFIED COLDMILLING (DEPTH TRANSITION)			
LOG MILE	**LOG MILE**	**QUANTITY (SY)**	**REMARKS**
0.014	0.024	111.2	START PROJECT- RTE N TRAVELWAY
24.998	25.008	111.2	END PROJECT – RTE N TRAVELWAY
VARIOUS	-	80.0	9 PAVED PVT/COMM ENTRANCES
VARIOUS	-	200.0	3 PAVED STREETS/COUNTY ROADS
1.534	-	55.6	ROUTE P INTERSECTION
10.006	-	55.6	ROUTE OO INTERSECTION
17.249	17.259	111.2	TRAVELWAY WEST OF EXCEPTION @ ROUTE 95 INTERSECTION
17.290	17.300	111.2	TRAVELWAY EAST OF EXCEPTION @ ROUTE 95 INTERSECTION
15.379	15.388	111.2	TRAVELWAY WEST OF EXCEPTION @ BRIDGE A2061
15.425	15.434	111.2	TRAVELWAY EAST OF EXCEPTION @ BRIDGE A2061
	TOTALS	1058.4	
	USE	1059	

3.3 Gravel Quantities are as follows:

GRAVEL A OR CRUSHED STONE B			
LOG MILE	**LOG MILE**	**TONS**	**REMARKS**
VARIOUS	-	3	3 NON-PAVED PVT/COMM ENTRANCES W/ APRON (1 TON EA)
VARIOUS	-	112	112 NON-PAVED PVT/COMM ENTRANCES W/O APRON (1 TON EA)
VARIOUS	-	40	20 NON-PAVED-STREETS/COUNTY ROADS (2 TON EA)
	TOTALS	155	
	USE	155	

4.0 Temporary Traffic Control Plans. See Standard Plans 616.20 for standard temporary traffic control requirements.

4.1 Construction signs and channelizers are as follows:

CONSTRUCTION SIGNING						
SIGN NO.	**SIGN**	**SIZE (IN)**	**AREA (SF)**	**QTY.**	**TOTAL AREA (SF)**	**DESCRIPTION**
1 *	GO20-1	60 x 24	10	2	20	ROAD WORK NEXT 25 MILES
2 **	WO20-1	48 x 48	16	15	240	ROAD WORK AHEAD
7	WO20-4	48 x 48	16	6	96	ONE LANE ROAD AHEAD
8	WO20-7A	48 x 48	16	11	176	FLAGGER (SYMBOL) WITH FLAGS
11	WO3-4	48 x 48	16	11	176	BE PREPARED TO STOP
26	GO20-2	48 x 24	8	2	16	END ROAD WORK
35	WO8-12	48 x 48	16	10	160	NO CENTER LINE
36	WO8-11	48 x 48	16	10	160	UNEVEN LANES
58	GO20-4a	42 x 30	8.75	8	105.00	PILOT CAR IN USE WAIT AND FOLLOW
58	GO20-4a	18 x 12	1.5	12	18.00	PILOT CAR IN USE WAIT AND FOLLOW
59	CONST-8	48 x 36	12	2	24	WORK ZONE NO PHONE ZONE
-	GO22-1	21 x 15	2.19	2	4.38	WET PAINT (ARROW PIVOTS)
	CONSTRUCTION SIGNS TOTAL				1195.38	
				USE	1196	

* - IF LESS THAN (2) MILES, DELETE SIGN NO. 1

** - ADDITIONAL SIGN NO. 2 USED AS SHOWN ON TRAFFIC CONTROL SHEET 3 OF 5 AND AS DIRECTED BY ENGINEER.

REFER TO STANDARD PLAN 616.10 AND 903.03 FOR SIGN AND SIGN MOUNTING REQUIRMENTS.

ITEM NO.	QTY.	DESCRIPTION
616-10.25	100	CHANNELIZERS (TRIM-LINE)

4.2 Mobilization is as follows:

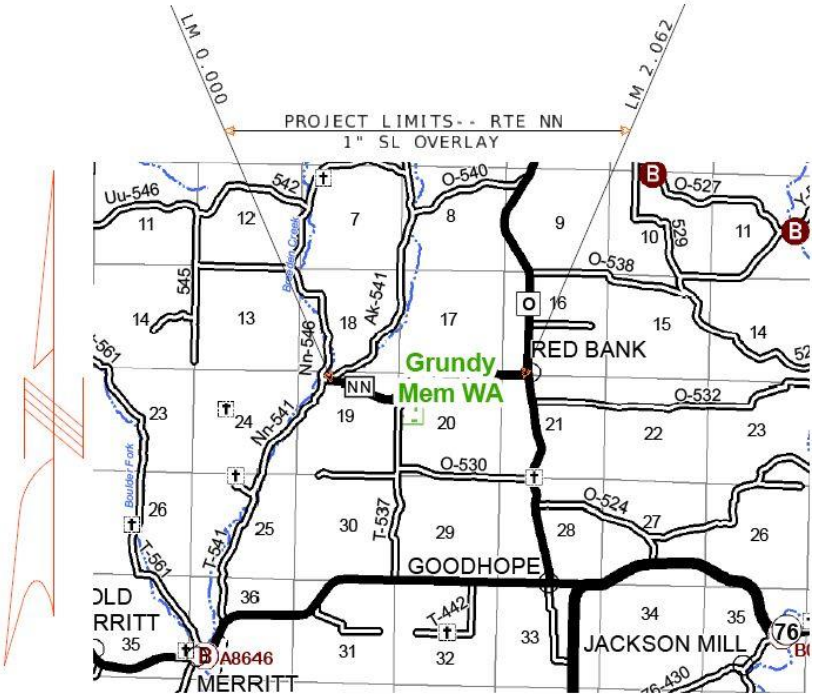
ITEM NO.	QTY.	DESCRIPTION
618-10.00	LUMP SUM	MOBILIZATION

5.0 Pavement Marking. Pavement marking quantities are as follows:

STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS						
LOG MILE	LOG MILE	LENGTH (FT)	4" INT. YELLOW (FT)	4" SOLID YELLOW (FT)	4" SOLID WHITE (FT)	REMARKS
0.000	25.024	132126.7	339.3	262896.4	830.0	ROUTE N - DOUGLAS COUNTY
		TOTALS	339.3	262896.4	830.0	
		USE	263236		830	
NOTE: TEMPORARY AND PERMANENT PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH 620.10						

J. Project Details and Quantities: JST0112 – Route NN; Douglas County

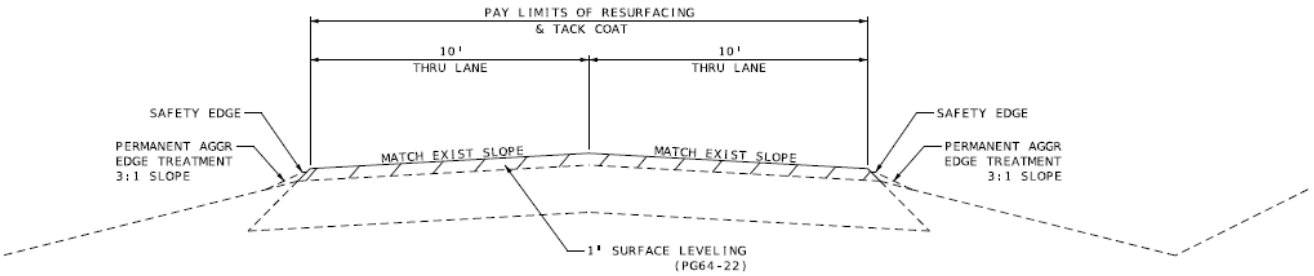
1.0 Description. This project consists of applying a plant mix bituminous pavement (surface leveling) as described here in. The project limits are from Log Mile 0.000 to 2.062 on Route NN in Douglas County. The total length of pavement limits are 2.062 miles with a total average width of 20 feet. Pavement will not be placed at the following exception locations:



EXCEPTIONS			
APPROX. LOG MILE		LENGTH (FT)	REMARKS
FROM	TO		
-	-	-	NO EXCEPTIONS
	TOTAL	**0**	

2.0 Mix and Pavement Transitions.

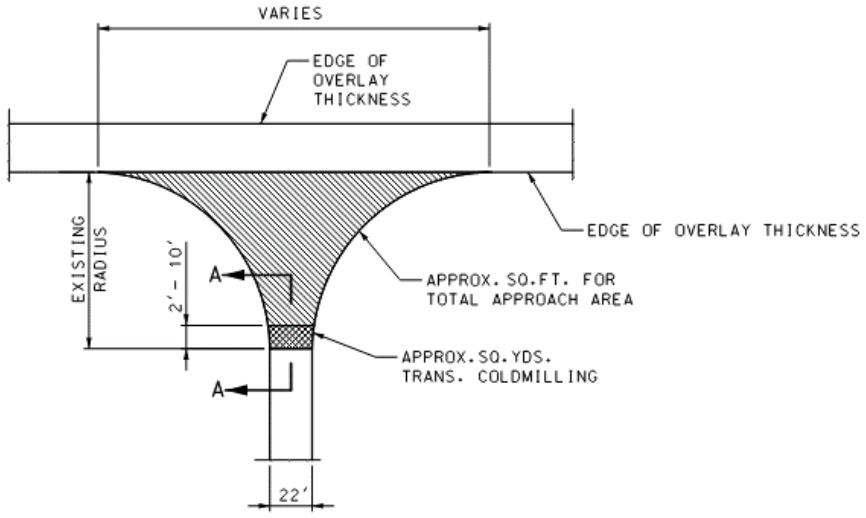
2.1 1" Plant Mix Bituminous Mixture PG 64-22 (Surface Leveling) pavement shall be placed the entire width of the lanes, one pass per lane with no superelevation correction. Tack coat shall be applied at the rate of 0.08 gal/yd^2 the entire width of the traveled way for the length of the pavement limits.

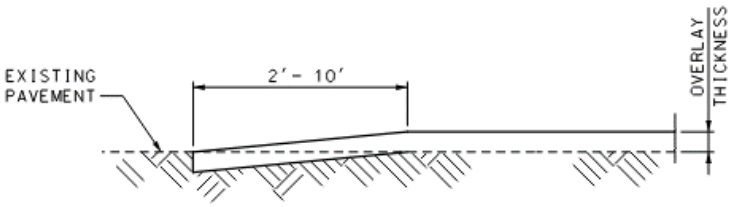


NOTE:
SURFACE PLACEMENT SHALL BE ONE PASS PER LANE
NO S.E. CORRECTION.

2.2 Depth transitions when beginning and ending at a state route shall be coldmilled at the rate of 1" in 25'. When beginning or ending mid-route, including exceptions, shall be coldmilled at the rate of 1" in 50'.

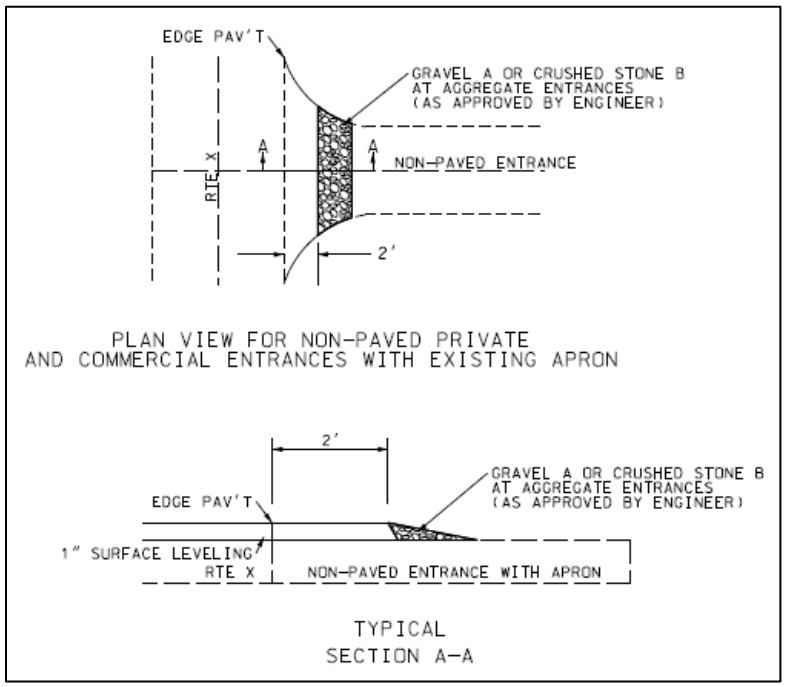
2.3 Coldmilling and pavement tapers at intersecting state routes will vary. See quantities for the approximate paved approach and coldmilling areas (see transition area details below).

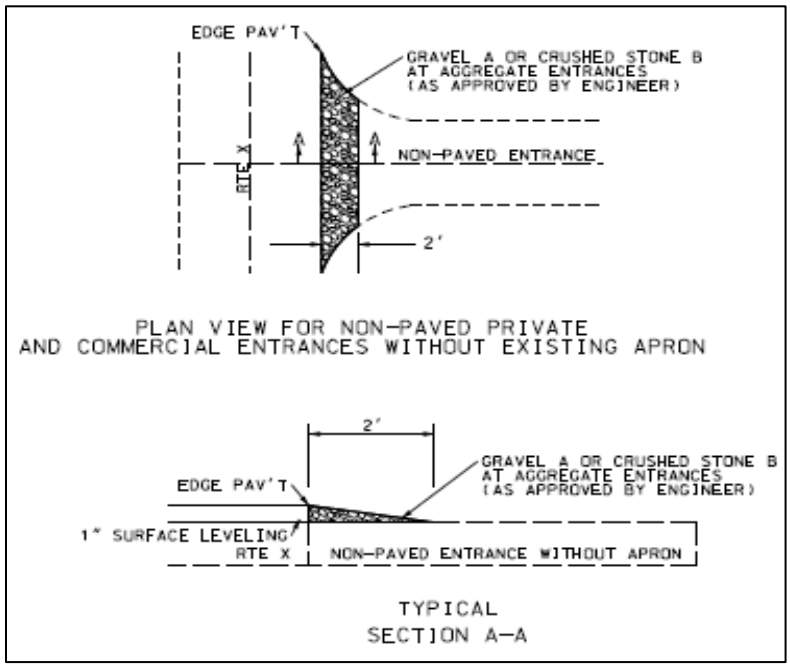


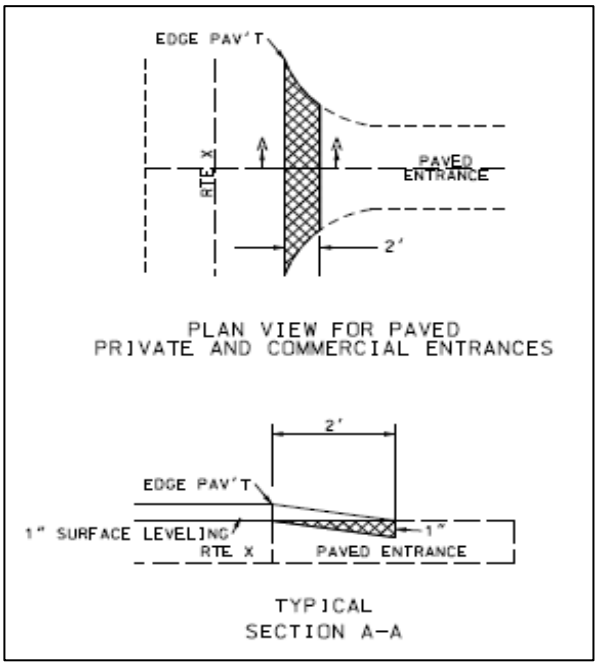


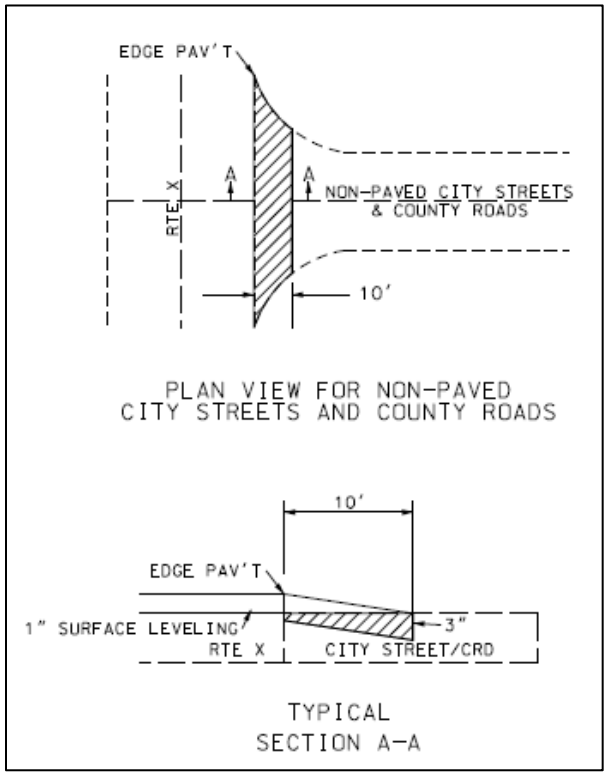
SECTION A-A
TYPICAL STATE ROUTE JUNCTION
(COLDMILLED TRANSITION)

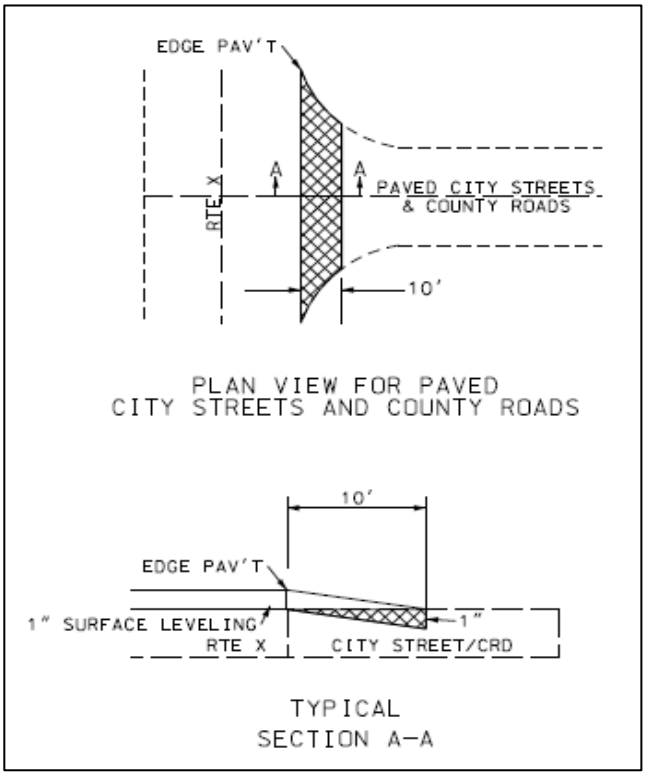
2.4 The bituminous pavement shall be tapered at entrances and non-state routes (see pavement taper details below).











3.0 Pavement and Coldmilling Quantities.

3.1 Pavement quantities are as follows:

BITUMINOUS PAVEMENT								
LOG MILE (MI)	**LOG MILE (MI)**	**NET LENGTH (MI)**	**AVERAGE WIDTH (FT)**	**DEPTH (IN)**	**BITUMINOUS PAVEMENT SL PG64-22 (2.034 TON/CY) (TONS)**	**TACK COAT (0.08 GAL/SY) (GAL)**	**PERMANENT AGG EDGE TREATMENT (85.6 TON/MI) (TONS)**	**REMARKS**
0.000	2.045	2.045	20.0	1.0	1355.7	1919.6	175.1	RTE NN TRAVELWAY OVERLAY
VARIOUS	-	0.035	10.0	3.0	34.9	16.5	-	3 NON-PAVED STREETS/COUNTY ROADS
0.000	2.045	2.045	-	-	27.2	-	-	SAFETY EDGE @ 2% OF MAINLINE
0.000	2.045	2.045	-	-	306.8	-	-	IRREGULARITIES @ 150 TONS/MI
				35	1724.6	1936.1	175.1	
				USE	1724.6	1937	175.1	

3.2 Coldmilling Quantities are as follows:

MODIFIED COLDMILLING (DEPTH TRANSITION)			
LOG MILE	**LOG MILE**	**QUANTITY (SY)**	**REMARKS**
2.035	2.045	111.2	END PROJECT - RTE NN TRAVELWAY
	TOTALS	111.2	
	USE	112	

3.3 Gravel Quantities are as follows:

GRAVEL A OR CRUSHED STONE B			
LOG MILE	**LOG MILE**	**TONS**	**REMARKS**
VARIOUS	-	16	16 NON-PAVED PVT/COMM ENTRANCES W/O APRON (1 TON EA)
VARIOUS	-	6	3 NON-PAVED STREETS/COUNTY ROADS (2 TON EA)
	TOTALS	22	
	USE	22	

4.0 Temporary Traffic Control Plans. See Standard Plans 616.20 for standard temporary traffic control requirements.

4.1 Construction signs and channelizers are as follows:

CONSTRUCTION SIGNING						
SIGN NO.	**SIGN**	**SIZE (IN)**	**AREA (SF)**	**QTY.**	**TOTAL AREA (SF)**	**DESCRIPTION**
1 *	GO20-1	60 x 24	10	2	20	ROAD WORK NEXT 2 MILES
2 **	WO20-1	48 x 48	16	8	128	ROAD WORK AHEAD
7	WO20-4	48 x 48	16	6	96	ONE LANE ROAD AHEAD
8	WO20-7A	48 x 48	16	8	128	FLAGGER (SYMBOL) WITH FLAGS
11	WO3-4	48 x 48	16	4	64	BE PREPARED TO STOP
26	GO20-2	48 x 24	8	2	16	END ROAD WORK
35	WO8-12	48 x 48	16	8	128	NO CENTER LINE
36	WO8-11	48 x 48	16	10	160	UNEVEN LANES
58	GO20-4a	42 x 30	8.75	4	35.00	PILOT CAR IN USE WAIT AND FOLLOW
58	GO20-4a	18 x 12	1.50	3	4.50	PILOT CAR IN USE WAIT AND FOLLOW
59	CONST-8	48 x 36	12	2	24	WORK ZONE NO PHONE ZONE
-	GO22-1	21 x 15	2.19	2	4.38	WET PAINT (ARROW PIVOTS)
		CONSTRUCTION SIGNS TOTAL			807.88	
				USE	808	

* - IF LESS THAN (2) MILES, DELETE SIGN NO. 1

** - ADDITIONAL SIGN NO. 2 USED AS SHOWN ON TRAFFIC CONTROL SHEET 3 OF 5 AND AS DIRECTED BY ENGINEER.

REFER TO STANDARD PLAN 616.10 AND 903.03 FOR SIGN AND SIGN MOUNTING REQUIRMENTS.

ITEM NO.	QTY.	DESCRIPTION
616-10.25	50	CHANNELIZERS (TRIM-LINE)

4.2 Mobilization is as follows:

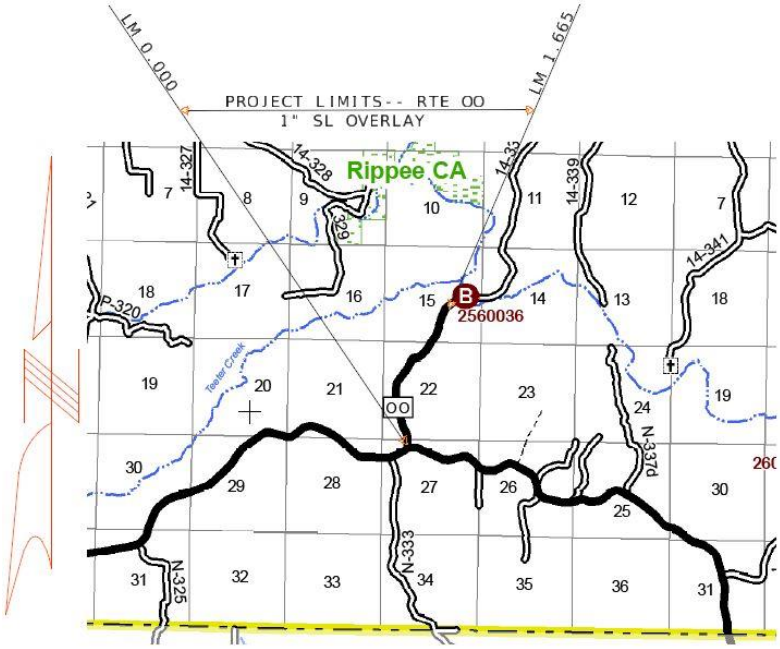
ITEM NO.	QTY.	DESCRIPTION
618-10.00	LUMP SUM	MOBILIZATION

5.0 Pavement Marking. Pavement marking quantities are as follows:

STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS						
LOG MILE	**LOG MILE**	**LENGTH (FT)**	**4" INT. YELLOW (FT)**	**4" SOLID YELLOW (FT)**	**4" SOLID WHITE (FT)**	**REMARKS**
0.000	2.062	10887.4	0.0	21774.8	-	ROUTE NN - DOUGLAS COUNTY
		TOTALS	0.0	21774.8	-	
		USE	21775		-	
NOTE: TEMPORARY AND PERMANENT PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH 620.10.						

K. Project Details and Quantities: JST0112 – Route OO; Douglas County

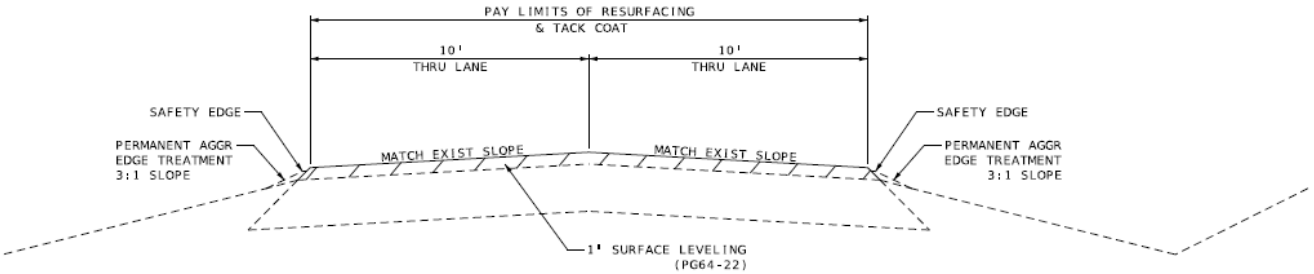
1.0 Description. This project consists of applying a plant mix bituminous pavement (surface leveling) as described here in. The project limits are from Log Mile 0.000 to1.665 on Route OO in Douglas County. The total length of pavement limits are 1.665 miles with a total average width of 20 feet. Pavement will not be placed at the following exception locations:



EXCEPTIONS			
APPROX. LOG MILE		**LENGTH (FT)**	**REMARKS**
FROM	**TO**		
-	-	-	NO EXCEPTIONS
	TOTAL	**0**	

2.0 Mix and Pavement Transitions.

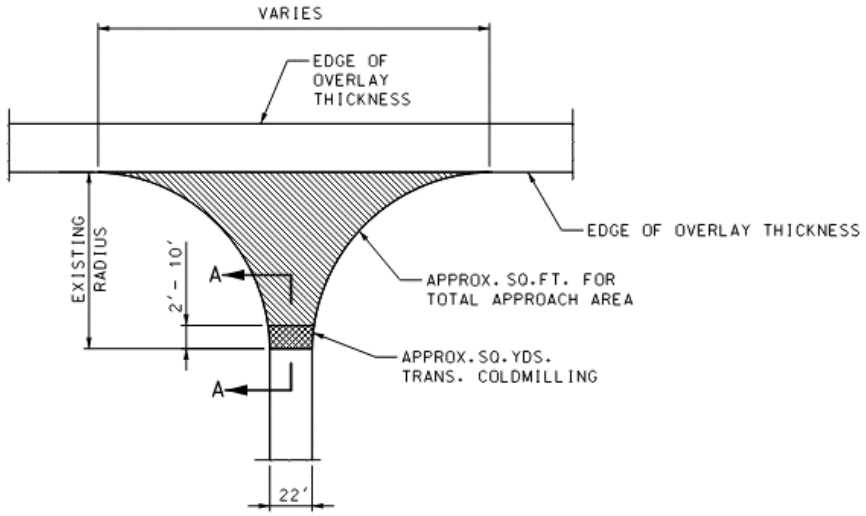
2.1 1" Plant Mix Bituminous Mixture PG 64-22 (Surface Leveling) pavement shall be placed the entire width of the lanes, one pass per lane with no superelevation correction. Tack coat shall be applied at the rate of 0.08 gal/yd^2 the entire width of the traveled way for the length of the pavement limits.

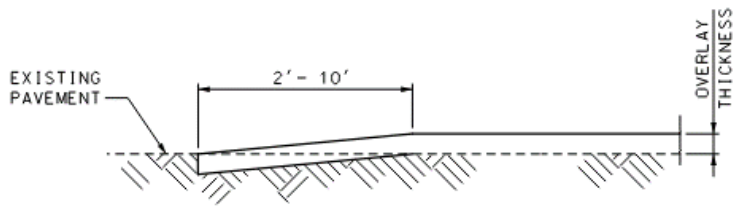


NOTE:
SURFACE PLACEMENT SHALL BE ONE PASS PER LANE
NO S.E. CORRECTION.

2.2 Depth transitions when beginning and ending at a state route shall be coldmilled at the rate of 1" in 25'. When beginning or ending mid-route, including exceptions, shall be coldmilled at the rate of 1" in 50'.

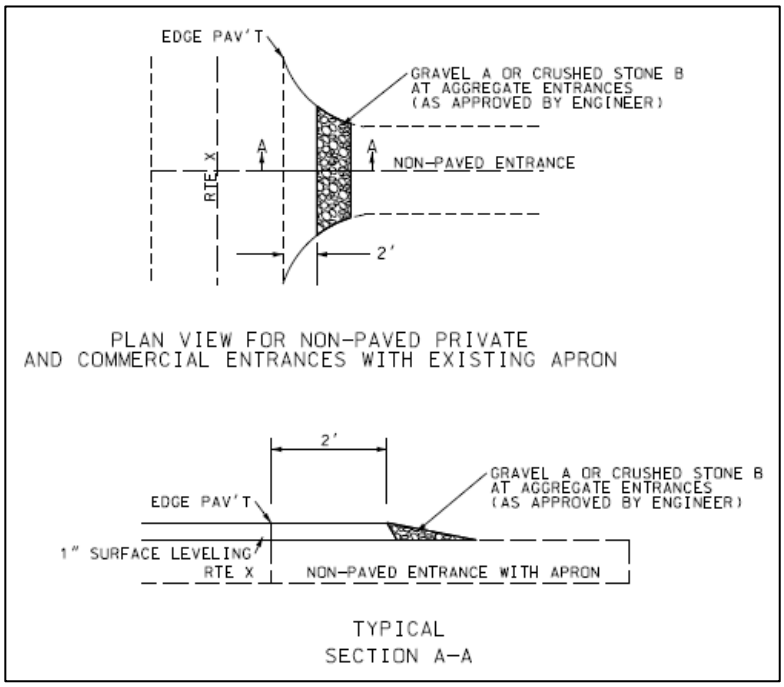
2.3 Coldmilling and pavement tapers at intersecting state routes will vary. See quantities for the approximate paved approach and coldmilling areas (see transition area details below).

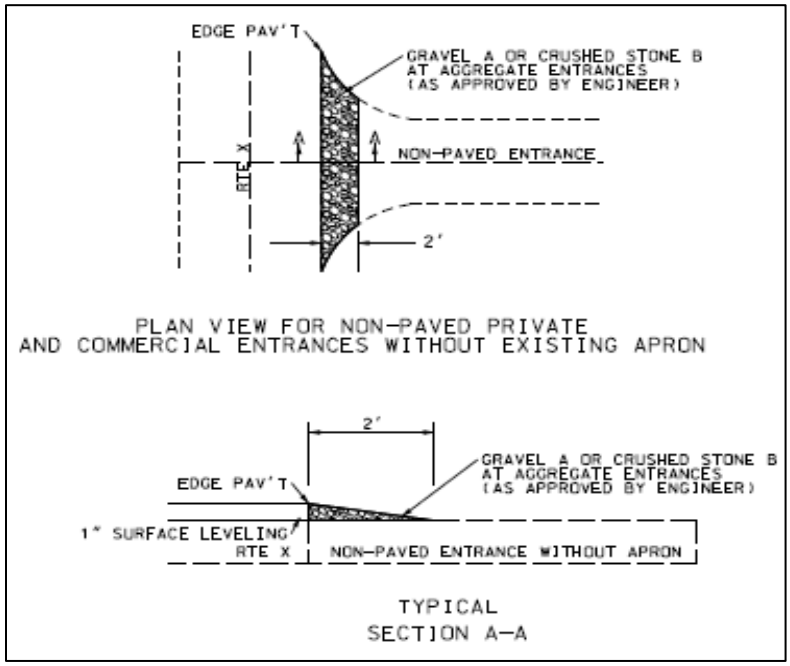


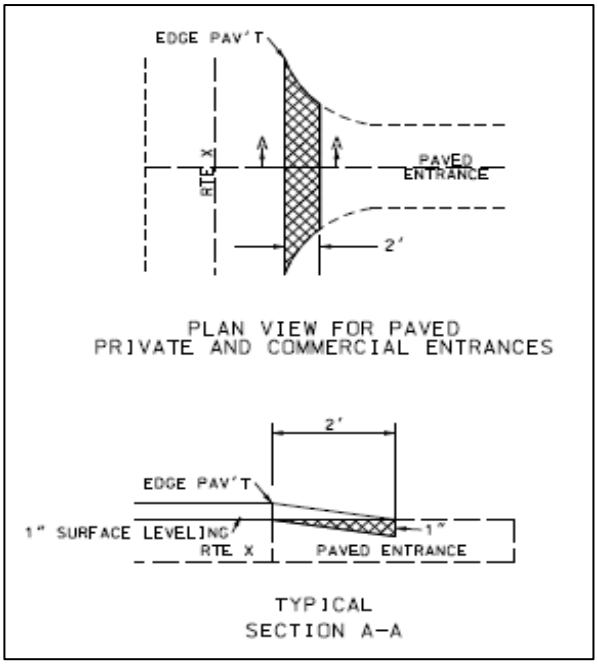


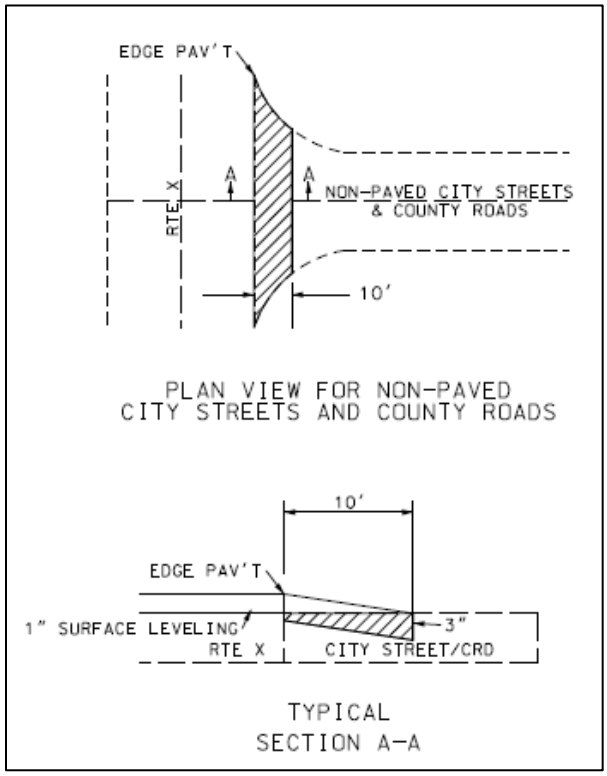
SECTION A-A
TYPICAL STATE ROUTE JUNCTION
(COLDMILLED TRANSITION)

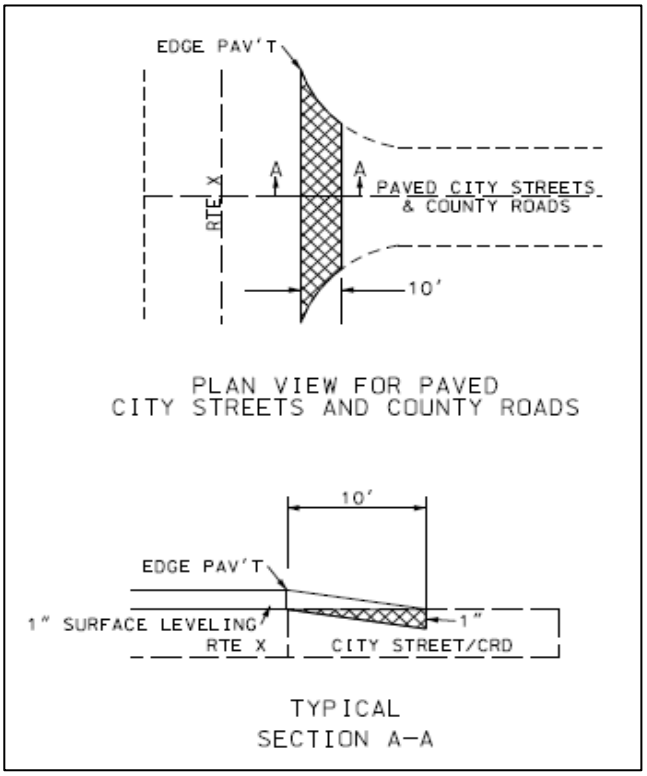
2.4 The bituminous pavement shall be tapered at entrances and non-state routes (see pavement taper details below).











3.0 Pavement and Coldmilling Quantities.

3.1 Pavement quantities are as follows:

BITUMINOUS PAVEMENT								
LOG MILE (MI)	**LOG MILE (MI)**	**NET LENGTH (MI)**	**AVERAGE WIDTH (FT)**	**DEPTH (IN)**	**BITUMINOUS PAVEMENT SL PG64-22 (2.034 TON/CY) (TONS)**	**TACK COAT (0.08 GAL/SY) (GAL)**	**PERMANENT AGG EDGE TREATMENT (85.6 TON/MI) (TONS)**	**REMARKS**
0.000	1.647	1.647	20.0	1.0	1091.9	1546.0	141.0	RTE OO TRAVELWAY OVERLAY
VARIOUS	-	0.012	10.0	3.0	12.0	5.7	-	1 NON-PAVED STREETS/COUNTY ROADS
0.000	1.647	1.647	-	-	21.9	-	-	SAFETY EDGE @ 2% OF MAINLINE
0.000	1.647	1.647	-	-	247.1	-	-	IRREGULARITIES @ 150 TONS/MI
				TOTALS	1372.9	1551.7	141.0	
				USE	1372.9	1552	141.0	

3.2 Coldmilling Quantities are as follows:

MODIFIED COLDMILLING (DEPTH TRANSITION)			
LOG MILE	**LOG MILE**	**QUANTITY (SY)**	**REMARKS**
1.637	1.647	111.2	END PROJECT - RTE OO TRAVELWAY
	TOTALS	111.2	
	USE	112	

3.3 Gravel Quantities are as follows:

GRAVEL A OR CRUSHED STONE B			
LOG MILE	**LOG MILE**	**TONS**	**REMARKS**
VARIOUS	-	4	4 NON-PAVED PVT/COMM ENTRANCES W/O APRON (1 TON EA)
VARIOUS	-	2	1 NON-PAVED STREETS/COUNTY ROADS (2 TON EA)
	TOTALS	6	
	USE	6	

4.0 Temporary Traffic Control Plans. See Standard Plans 616.20 for standard temporary traffic control requirements.

4.1 Construction signs and channelizers are as follows:

CONSTRUCTION SIGNING						
SIGN NO.	**SIGN**	**SIZE (IN)**	**AREA (SF)**	**QTY.**	**TOTAL AREA (SF)**	**DESCRIPTION**
1 *	GO20-1	60 x 24	10	2	20	ROAD WORK NEXT 2 MILES
2 **	WO20-1	48 x 48	16	4	64	ROAD WORK AHEAD
7	WO20-4	48 x 48	16	4	64	ONE LANE ROAD AHEAD
8	WO20-7A	48 x 48	16	4	64	FLAGGER (SYMBOL) WITH FLAGS
11	WO3-4	48 x 48	16	4	64	BE PREPARED TO STOP
26	GO20-2	48 x 24	8	2	16	END ROAD WORK
35	WO8-12	48 x 48	16	4	64	NO CENTER LINE
36	WO8-11	48 x 48	16	4	64	UNEVEN LANES
58	GO20-4a	42 x 30	8.75	2	18	PILOT CAR IN USE WAIT AND FOLLOW
58	GO20-4a	18 x 12	1.5	2	3.0	PILOT CAR IN USE WAIT AND FOLLOW
59	CONST-8	48 x 36	12	2	24	WORK ZONE NO PHONE ZONE
-	GO22-1		2.19	2	4.38	WET PAINT (ARROW PIVOTS)
		CONSTRUCTION SIGNS TOTAL			469.38	
				USE	470	

* - IF LESS THAN (2) MILES, DELETE SIGN NO. 1
** - ADDITIONAL SIGN NO. 2 USED AS SHOWN ON TRAFFIC CONTROL SHEET 3 OF 5 AND AS DIRECTED BY ENGINEER.

REFER TO STANDARD PLAN 616.10 AND 903.03 FOR SIGN AND SIGN MOUNTING REQUIRMENTS.

ITEM NO.	QTY.	DESCRIPTION
616-10.25	50	CHANNELIZERS (TRIM-LINE)

4.2 Mobilization is as follows:

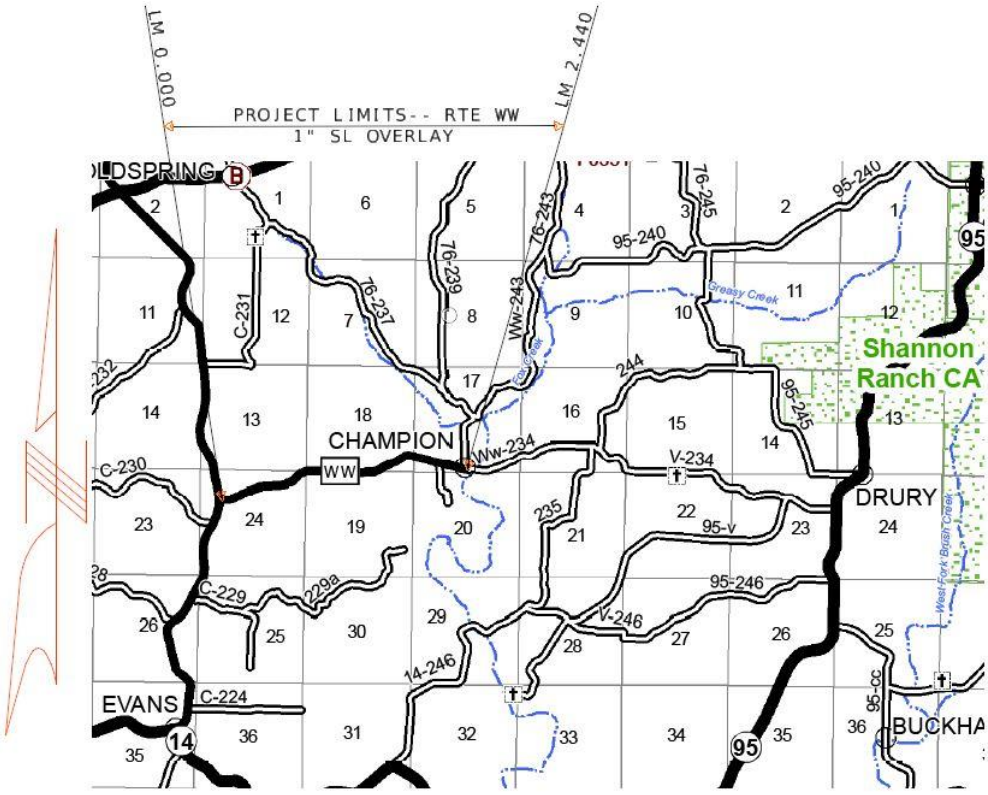
ITEM NO.	QTY.	DESCRIPTION
618-10.00	LUMP SUM	MOBILIZATION

5.0 Pavement Marking. Pavement marking quantities are as follows:

STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS						
LOG MILE	**LOG MILE**	**LENGTH (FT)**	**4" INT. YELLOW (FT)**	**4" SOLID YELLOW (FT)**	**4" SOLID WHITE (FT)**	**REMARKS**
0.000	1.665	8791.2	-	17582.4	-	STATE RTE. OO - DOUGLAS COUNTY
		TOTALS	-	17582.4	-	
		USE	17583		-	
NOTE: TEMPORARY AND PERMANENT PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH 620.10.						

L. Project Details and Quantities: JST0112 – Route WW; Douglas County

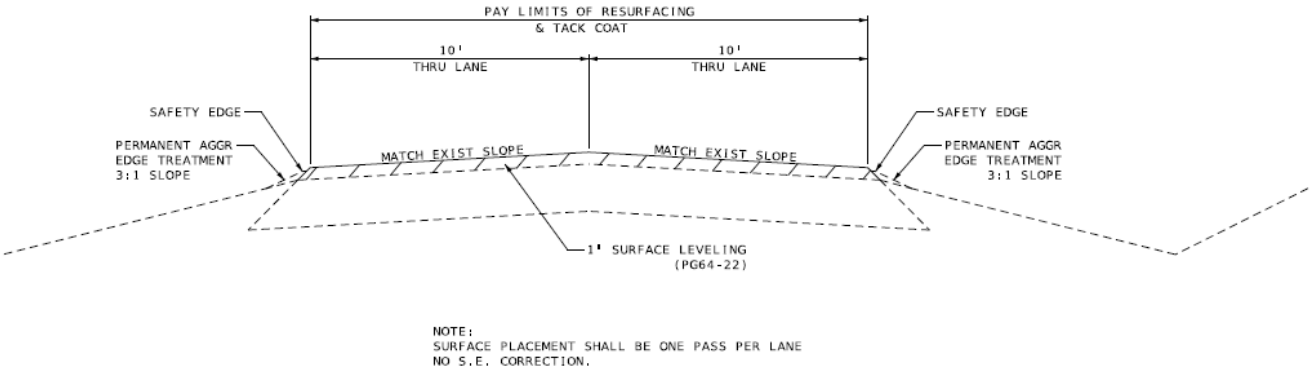
1.0 Description. This project consists of applying a plant mix bituminous pavement (surface leveling) as described here in. The project limits are from Log Mile 0.000 to 2.440 on Route WW in Douglas County. The total length of pavement limits are 2.440 miles with a total average width of 20 feet. Pavement will not be placed at the following exception locations:



EXCEPTIONS			
APPROX. LOG MILE		LENGTH (FT)	REMARKS
FROM	TO		
-	-	-	NO EXCEPTIONS
	TOTAL	0	

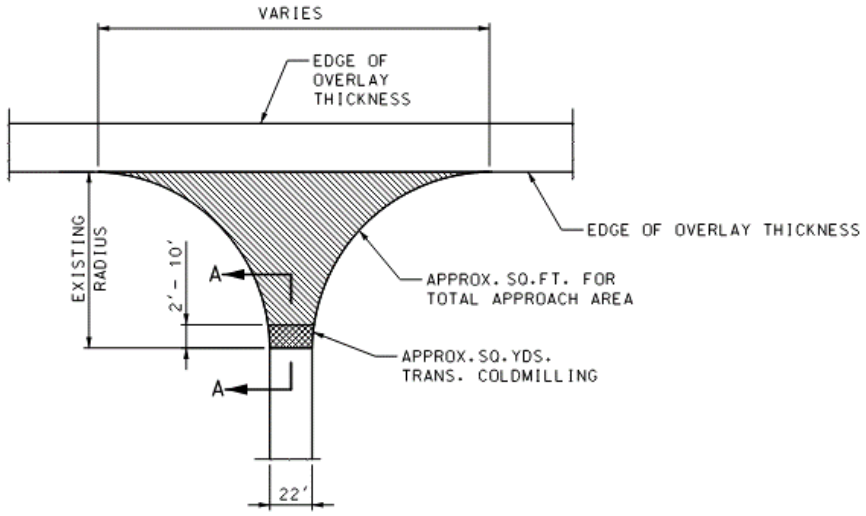
2.0 Mix and Pavement Transitions.

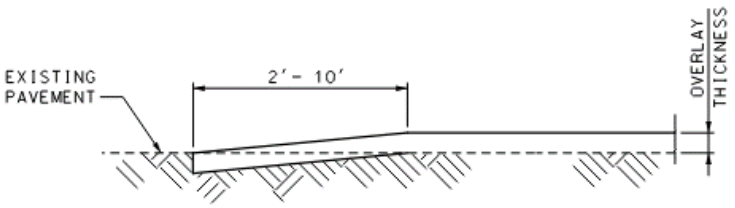
2.1 1" Plant Mix Bituminous Mixture PG 64-22 (Surface Leveling) pavement shall be placed the entire width of the lanes, one pass per lane with no superelevation correction. Tack coat shall be applied at the rate of 0.08 gal/yd^2 the entire width of the traveled way for the length of the pavement limits.



2.2 Depth transitions when beginning and ending at a state route shall be coldmilled at the rate of 1" in 25'. When beginning or ending mid-route, including exceptions, shall be coldmilled at the rate of 1" in 50'.

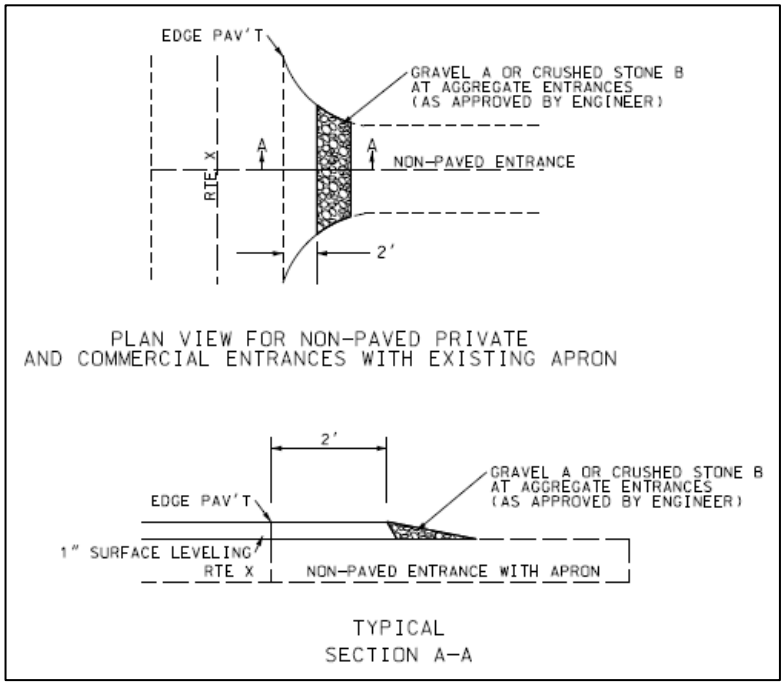
2.3 Coldmilling and pavement tapers at intersecting state routes will vary. See quantities for the approximate paved approach and coldmilling areas (see transition area details below).



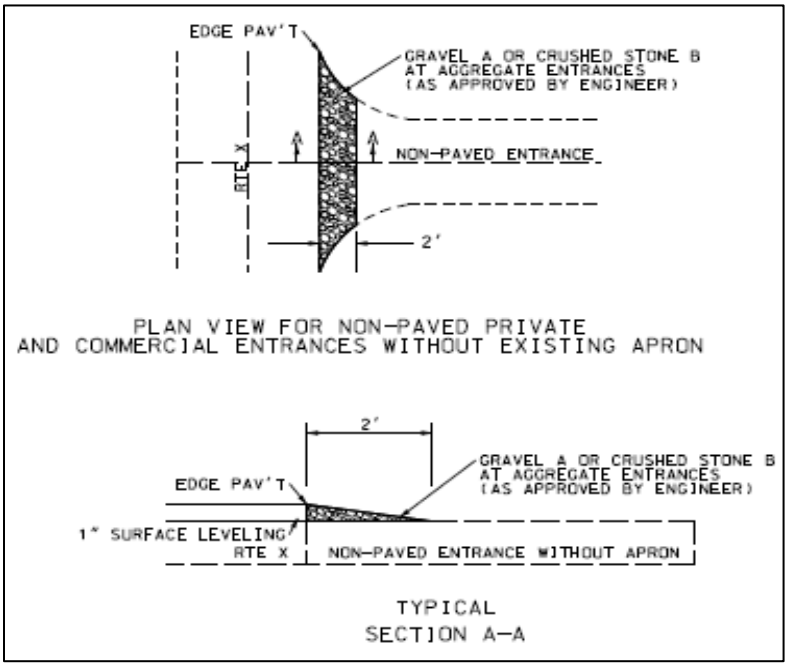


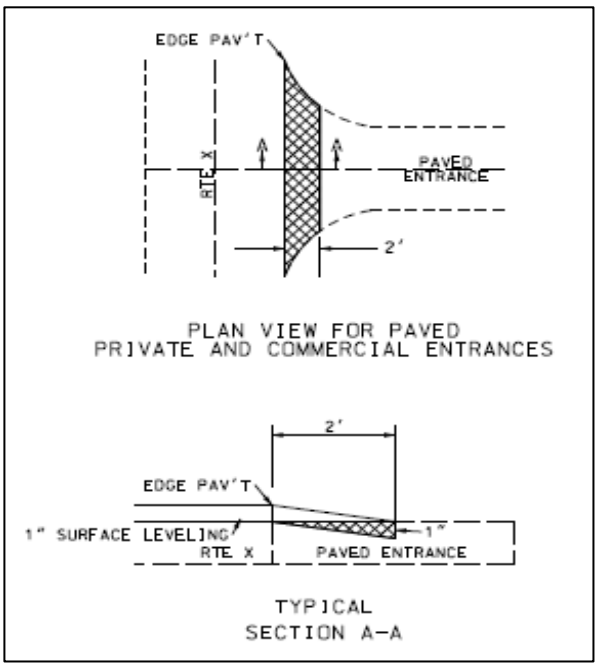
SECTION A-A
TYPICAL STATE ROUTE JUNCTION
(COLDMILLED TRANSITION)

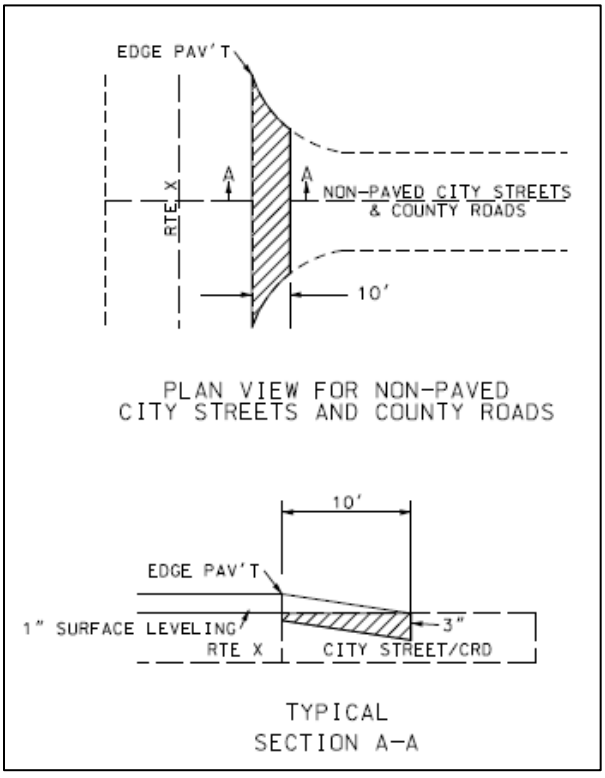
2.4 The bituminous pavement shall be tapered at entrances and non-state routes (see pavement taper details below).

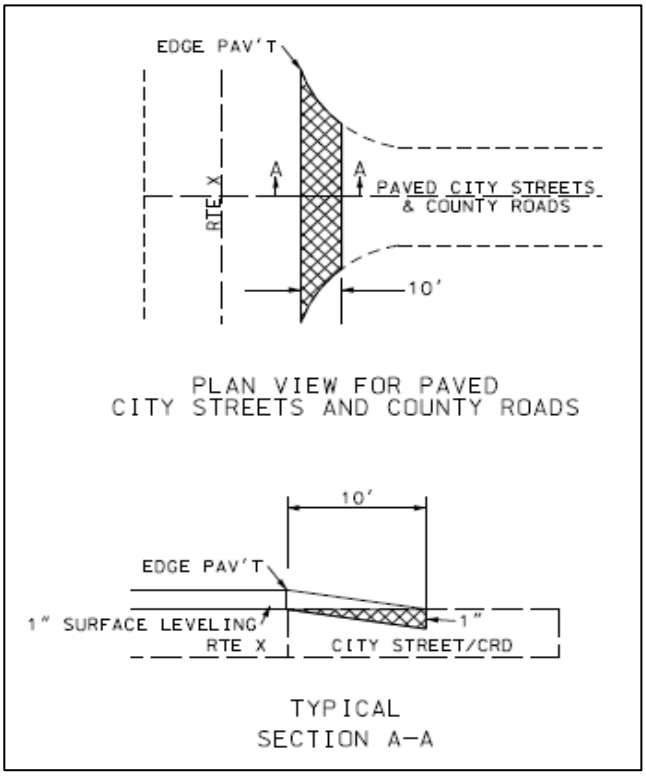


Job No.: JST0112
Route: Various
County: Various









3.0 Pavement and Coldmilling Quantities.

3.1 Pavement quantities are as follows:

BITUMINOUS PAVEMENT								
LOG MILE (MI)	LOG MILE (MI)	NET LENGTH (MI)	AVERAGE WIDTH (FT)	DEPTH (IN)	BITUMINOUS PAVEMENT SL PG64-22 (2.034 TON/CY) (TONS)	TACK COAT (0.08 GAL/SY) (GAL)	PERMANENT AGG EDGE TREATMENT (85.6 TON/MI) (TONS)	REMARKS
0.012	2.440	2.428	20.0	1.0	1609.7	2279.1	207.9	RTE WW TRAVELWAY OVERLAY
VARIOUS	-	0.023	2.0	1.0	1.6	2.2	-	3 NON-PAVED PVT/COMM ENTRANCES W/ APRON
VARIOUS	-	0.016	2.0	1.0	1.1	1.6	-	2 PAVED PVT/COMM ENTRANCES
VARIOUS	-	0.035	10.0	3.0	34.9	16.5	-	3 NON-PAVED STREETS/COUNTY ROADS
0.012	2.440	2.428	-	-	32.2	-	-	SAFETY EDGE @ 2% OF MAINLINE
0.012	2.440	2.428	-	-	364.2	-	-	IRREGULARITIES @ 150 TONS/MI
				TOTALS	2043.7	2299.4	207.9	
				USE	2043.7	2300	207.9	

3.2 Coldmilling Quantities are as follows:

MODIFIED COLDMILLING (DEPTH TRANSITION)			
LOG MILE	LOG MILE	QUANTITY (SY)	REMARKS
0.012	0.022	111.2	START PROJECT - RTE WW TRAVELWAY
VARIOUS	-	17.8	2 PAVED PVT/COMM ENTRANCES
	TOTALS	129.0	
	USE	129	

3.3 Gravel Quantities are as follows:

GRAVEL A OR CRUSHED STONE B			
LOG MILE	LOG MILE	TONS	REMARKS
VARIOUS	-	3	3 NON-PAVED PVT/COMM ENTRANCES W/ APRON (1 TON EA)
VARIOUS	-	16	16 NON-PAVED PVT/COMM ENTRANCES W/O APRON (1 TON EA)
VARIOUS	-	6	3 NON-PAVED STREETS/COUNTY ROADS (2 TON EA)
	TOTALS	25	
	USE	25	

4.0 Temporary Traffic Control Plans. See Standard Plans 616.20 for standard temporary traffic control requirements.

4.1 Construction signs and channelizers are as follows:

CONSTRUCTION SIGNING						
SIGN NO.	**SIGN**	**SIZE (IN)**	**AREA (SF)**	**QTY.**	**TOTAL AREA (SF)**	**DESCRIPTION**
1 *	GO20-1	60 x 24	10	2	20	ROAD WORK NEXT 2 MILES
2 **	WO20-1	48 x 48	16	8	128	ROAD WORK AHEAD
7	WO20-4	48 x 48	16	6	96	ONE LANE ROAD AHEAD
8	WO20-7A	48 x 48	16	8	128	FLAGGER (SYMBOL) WITH FLAGS
11	WO3-4	48 x 48	16	4	64	BE PREPARED TO STOP
26	GO20-2	48 x 24	8	2	16	END ROAD WORK
35	WO8-12	48 x 48	16	8	128	NO CENTER LINE
36	WO8-11	48 x 48	16	10	160	UNEVEN LANES
58	GO20-4a	42 x 30	8.75	2	17.50	PILOT CAR IN USE WAIT AND FOLLOW
58	GO20-4a	18 x 12	1.5	3	4.5	PILOT CAR IN USE WAIT AND FOLLOW
59	CONST-8	48 x 36	12	2	24	WORK ZONE NO PHONE ZONE
-	GO22-1	21 x 15	2.19	2	4.38	WET PAINT (ARROW PIVOTS)
	CONSTRUCTION SIGNS TOTAL				790.38	
				USE	791	

* - IF LESS THAN (2) MILES, DELETE SIGN NO. 1
** - ADDITIONAL SIGN NO. 2 USED AS SHOWN ON TRAFFIC CONTROL SHEET 3 OF 5 AND AS DIRECTED BY ENGINEER.

REFER TO STANDARD PLAN 616.10 AND 903.03 FOR SIGN AND SIGN MOUNTING REQUIRMENTS.

ITEM NO.	QTY.	DESCRIPTION
616-10.25	50	CHANNELIZERS (TRIM-LINE)

4.2 Mobilization is as follows:

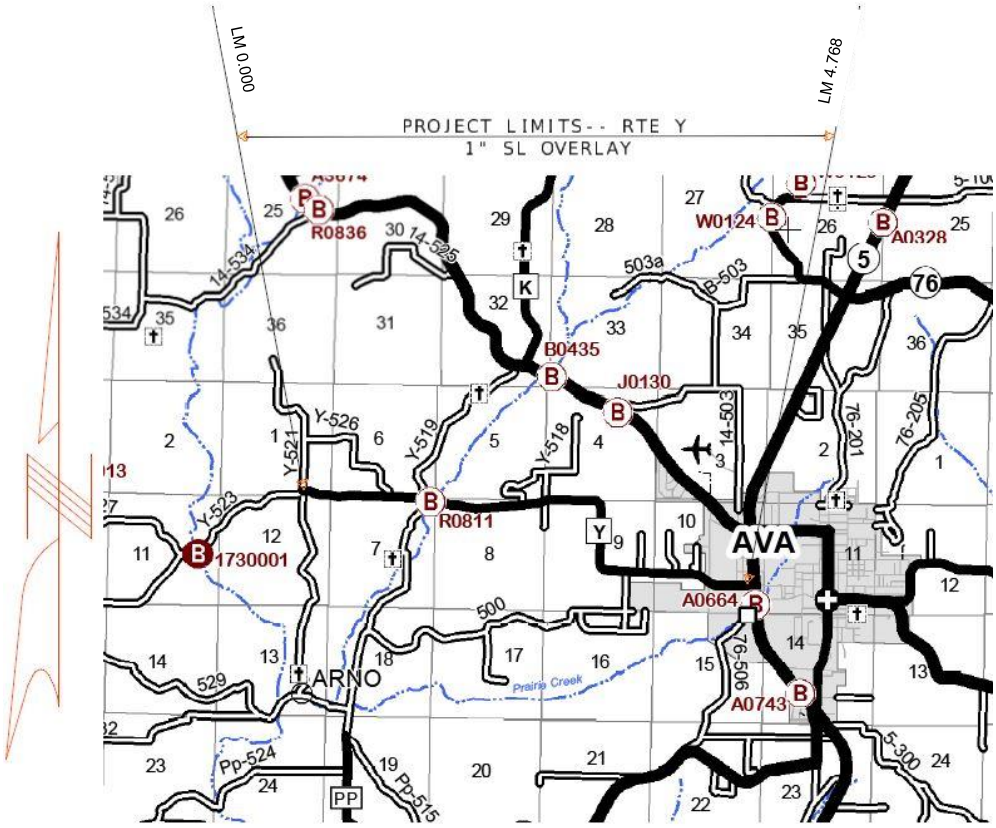
ITEM NO.	QTY.	DESCRIPTION
618-10.00	LUMP SUM	MOBILIZATION

5.0 Pavement Marking. Pavement marking quantities are as follows:

STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS						
LOG MILE	LOG MILE	LENGTH (FT)	4" INT. YELLOW (FT)	4" SOLID YELLOW (FT)	4" SOLID WHITE (FT)	REMARKS
0.000	2.440	12883.2	291.7	23432.6	-	ROUTE WW - DOUGLAS COUNTY
		TOTALS	291.7	23432.6	-	
		USE	23725		-	
NOTE: TEMPORARY AND PERMANENT PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH 620.10						

M. Project Details and Quantities: JST0112 – Route Y; Douglas County

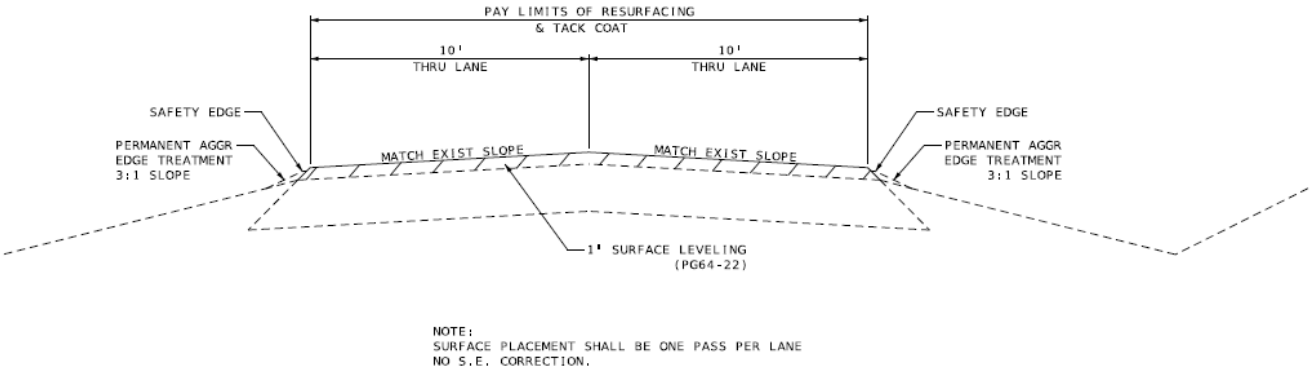
1.0 Description. This project consists of applying a plant mix bituminous pavement (surface leveling) as described here in. The project limits are from Log Mile 0.000 to 4.768 on Route Y in Douglas County. The total length of pavement limits are 4.768 miles with a total average width of 20.6 feet. Pavement will not be placed at the following exception locations:



EXCEPTIONS			
APPROX. LOG MILE		LENGTH (FT)	REMARKS
FROM	TO		
-	-	-	NO EXCEPTIONS
	TOTAL	0	

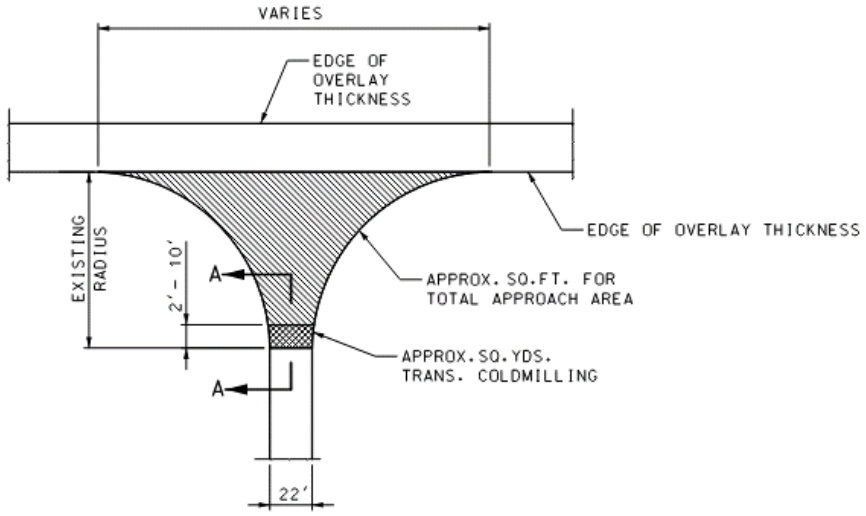
2.0 Mix and Pavement Transitions.

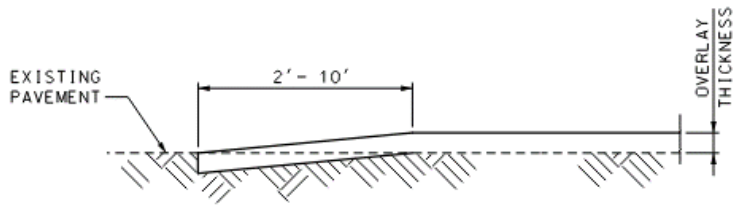
2.1 1" Plant Mix Bituminous Mixture PG 64-22 (Surface Leveling) pavement shall be placed the entire width of the lanes, one pass per lane with no superelevation correction. Tack coat shall be applied at the rate of 0.08 gal/yd^2 the entire width of the traveled way for the length of the pavement limits.



2.2 Depth transitions when beginning and ending at a state route shall be coldmilled at the rate of 1" in 25'. When beginning or ending mid-route, including exceptions, shall be coldmilled at the rate of 1" in 50'.

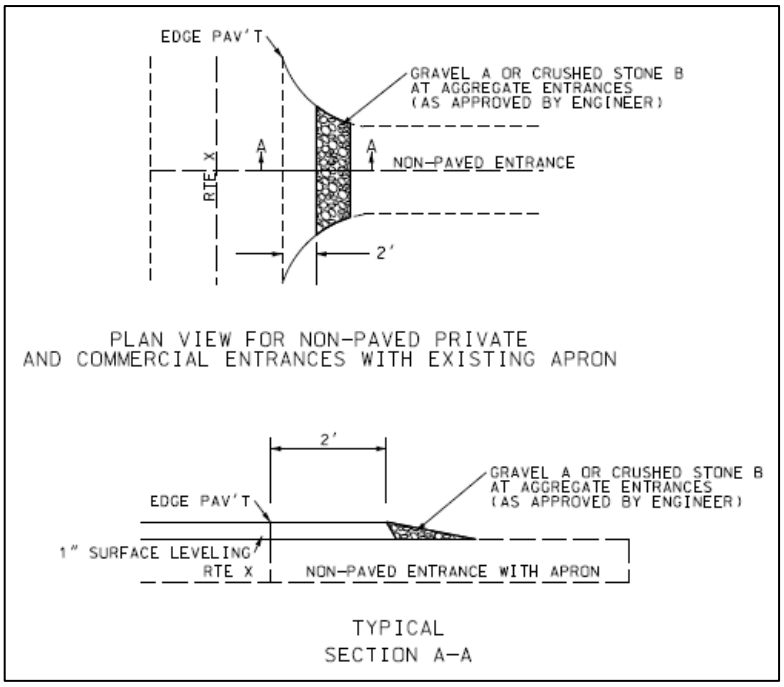
2.3 Coldmilling and pavement tapers at intersecting state routes will vary. See quantities for the approximate paved approach and coldmilling areas (see transition area details below).



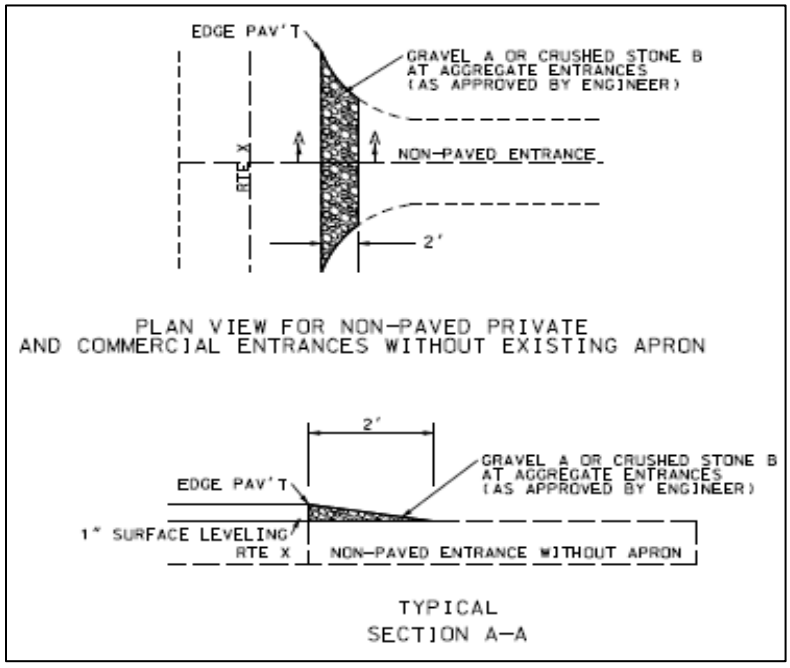


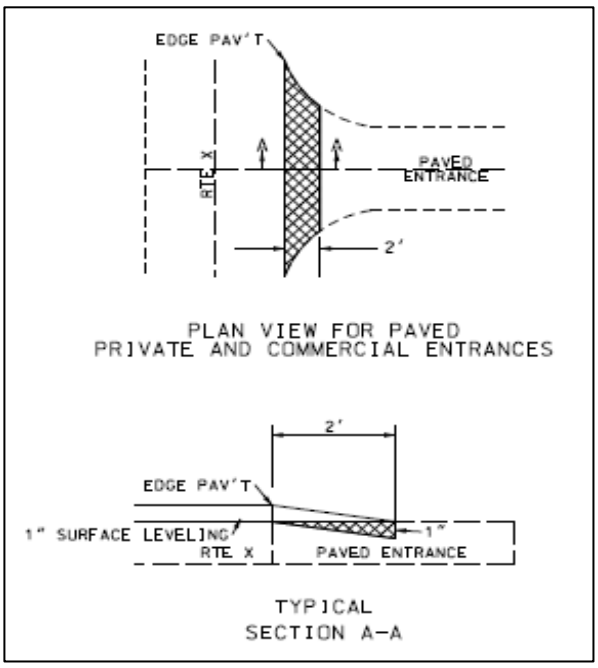
SECTION A-A
TYPICAL STATE ROUTE JUNCTION
(COLDMILLED TRANSITION)

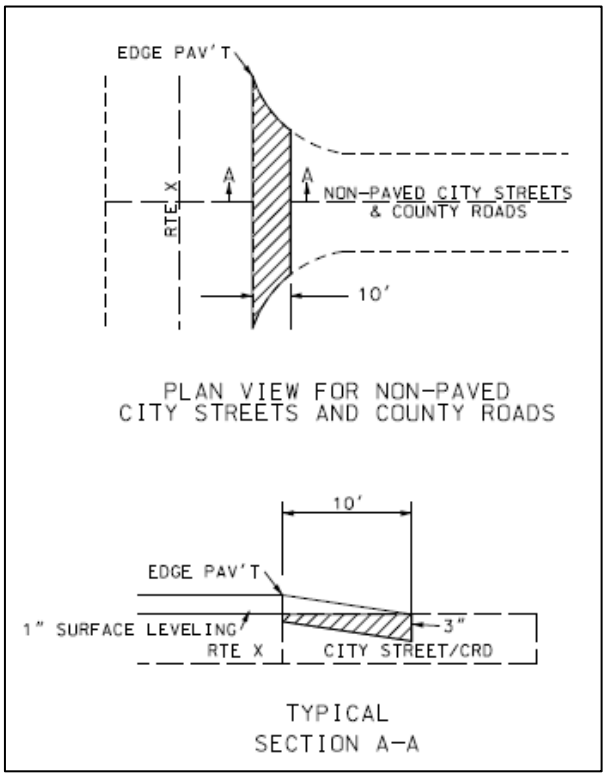
2.4 The bituminous pavement shall be tapered at entrances and non-state routes (see pavement taper details below).

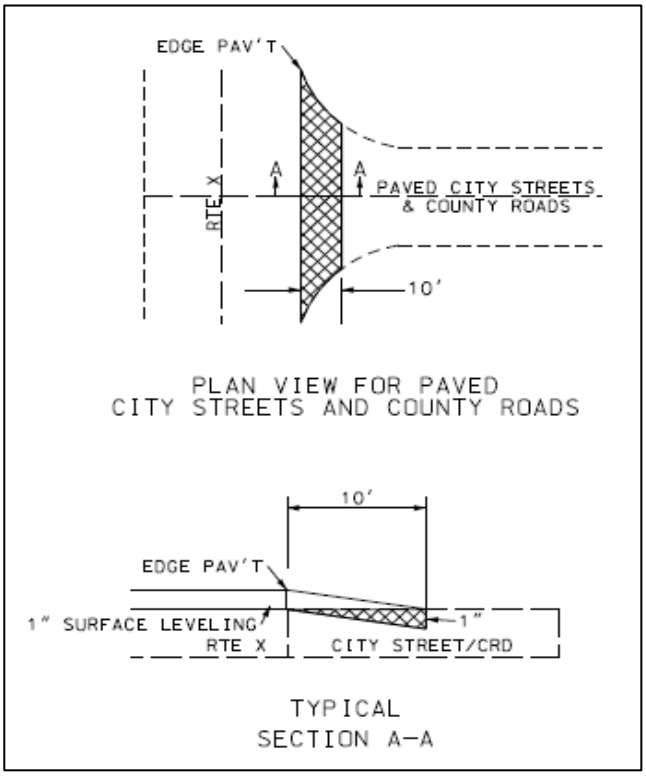


Job No.: JST0112
Route: Various
County: Various









3.0 Pavement and Coldmilling Quantities.

3.1 Pavement quantities are as follows:

BITUMINOUS PAVEMENT								
LOG MILE (MI)	LOG MILE (MI)	NET LENGTH (MI)	AVERAGE WIDTH (FT)	DEPTH (IN)	BITUMINOUS PAVEMENT SL PG64-22 (2.034 TON/CY) (TONS)	TACK COAT (0.08 GAL/SY) (GAL)	PERMANENT AGG EDGE TREATMENT (85.6 TON/MI) (TONS)	REMARKS
0.000	4.746	4.746	20.6	1.0	3240.7	4588.6	406.3	RTE Y TRAVELWAY OVERLAY
VARIOUS	-	0.099	2.0	1.0	6.6	9.3	-	13 PAVED PVT/COMM ENTRANCES W/ APRON
VARIOUS	-	0.103	10.0	3.0	102.5	48.4	-	9 NON-PAVED ST./COUNTY RD.
VARIOUS	-	0.114	10.0	1.0	37.8	53.6	-	10 PAVED STREETS./COUNTY RD.
-	0.000	0.010	20.0	1.0	6.7	9.4	0.9	COUNTY ROAD Y-523
0.000	4.746	4.746	-	-	64.9	-	-	SAFETY EDGE @ 2% OF MAINLINE
0.000	4.746	4.746	-	-	711.9	-	-	IRREGULARITIES @ 150 TONS/MI
				TOTALS	4171.1	4709.3	407.2	
				USE	4171.1	4710	407.2	

3.2 Coldmilling Quantities are as follows:

MODIFIED COLDMILLING (DEPTH TRANSITION)			
LOG MILE	LOG MILE	QUANTITY (SY)	REMARKS
4.736	4.746	133.4	END PROJECT - RTE Y TRAVELWAY
VARIOUS	-	115.6	13 PAVED PVT/COMM ENTRANCES W/ APRON
VARIOUS	-	666.7	10 PAVED STREETS/COUNTY ROADS
	TOTALS	915.7	
	USE	916	

3.3 Gravel Quantities are as follows:

GRAVEL A OR CRUSHED STONE B			
LOG MILE	LOG MILE	TONS	REMARKS
VARIOUS	-	36	36 NON-PAVED PVT/COMM ENTRANCES W/O APRON (1 TON EA)
VARIOUS	-	18	9 NON-PAVED STREETS/COUNTY ROADS (2 TON EA)
-	0.000	2	COUNTY ROAD Y-523 (2 TON)
	TOTALS	56	
	USE	56	

4.0 Temporary Traffic Control Plans. See Standard Plans 616.20 for standard temporary traffic control requirements.

4.1 Construction signs and channelizers are as follows:

CONSTRUCTION SIGNING						
SIGN NO.	**SIGN**	**SIZE (IN)**	**AREA (SF)**	**QTY.**	**TOTAL AREA (SF)**	**DESCRIPTION**
1 *	GO20-1	60 x 24	10	2	20	ROAD WORK NEXT 5 MILES
2 **	WO20-1	48 x 48	16	10	160	ROAD WORK AHEAD
7	WO20-4	48 x 48	16	6	96	ONE LANE ROAD AHEAD
8	WO20-7A	48 x 48	16	10	160	FLAGGER (SYMBOL) WITH FLAGS
11	WO3-4	48 x 48	16	10	160	BE PREPARED TO STOP
26	GO20-2	48 x 24	8	2	16	END ROAD WORK
35	WO8-12	48 x 48	16	8	128	NO CENTER LINE
36	WO8-11	48 x 48	16	10	160	UNEVEN LANES
58	GO20-4a	42 x 30	8.75	2	18	PILOT CAR IN USE WAIT AND FOLLOW
58	GO20-4a	18 x 12	1.5	10	15.0	PILOT CAR IN USE WAIT AND FOLLOW
59	CONST-8	48 x 36	12	2	24	WORK ZONE NO PHONE ZONE
-	GO22-1	21 x 15	2.19	2	4.38	WET PAINT (ARROW PIVOTS)
	CONSTRUCTION SIGNS TOTAL				941.38	
				USE	942	

* - IF LESS THAN (2) MILES, DELETE SIGN NO. 1
** - ADDITIONAL SIGN NO. 2 USED AS SHOWN ON TRAFFIC CONTROL SHEET 3 OF 5 AND AS DIRECTED BY ENGINEER.

REFER TO STANDARD PLAN 616.10 AND 903.03 FOR SIGN AND SIGN MOUNTING REQUIRMENTS.

ITEM NO.	QTY.	DESCRIPTION
616-10.25	75	CHANNELIZERS (TRIM-LINE)

4.2 Mobilization is as follows:

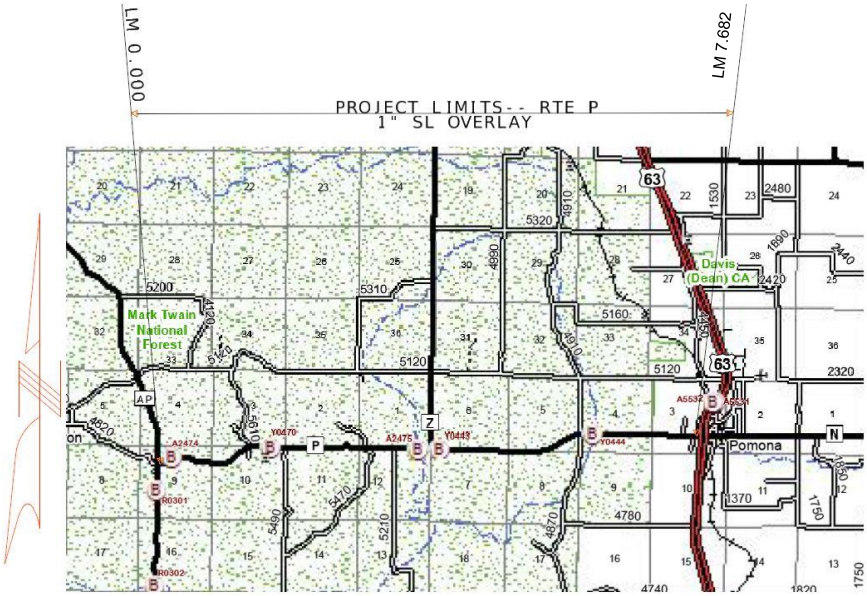
ITEM NO.	QTY.	DESCRIPTION
618-10.00	LUMP SUM	MOBILIZATION

5.0 Pavement Marking. Pavement marking quantities are as follows:

STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS						
LOG MILE	**LOG MILE**	**LENGTH (FT)**	**4" INT. YELLOW (FT)**	**4" SOLID YELLOW (FT)**	**4" SOLID WHITE (FT)**	**REMARKS**
0.000	4.768	25175.0	1082.0	45796.0	50350.0	ROUTE Y - DOUGLAS COUNTY
		TOTALS	1082.0	45796.0	50350.0	
		USE	46878		50350	
NOTE: TEMPORARY AND PERMANENT PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH 620.10						

N. Project Details and Quantities: JST0112 – Route P; Howell County

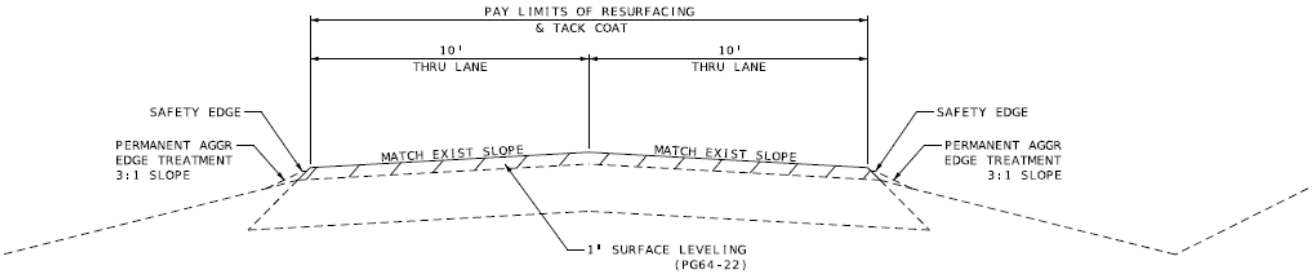
1.0 Description. This project consists of applying a plant mix bituminous pavement (surface leveling) as described here in. The project limits are from Log Mile 0.000 to 7.682 on Route P in Howell County. The total length of pavement limits are 7.682 miles with a total average width of 20 feet. Pavement will not be placed at the following exception locations:



EXCEPTIONS			
APPROX. LOG MILE		**LENGTH**	**REMARKS**
FROM	**TO**	**(FT)**	
-	-	-	NO EXCEPTIONS
	TOTAL	**0**	

2.0 Mix and Pavement Transitions.

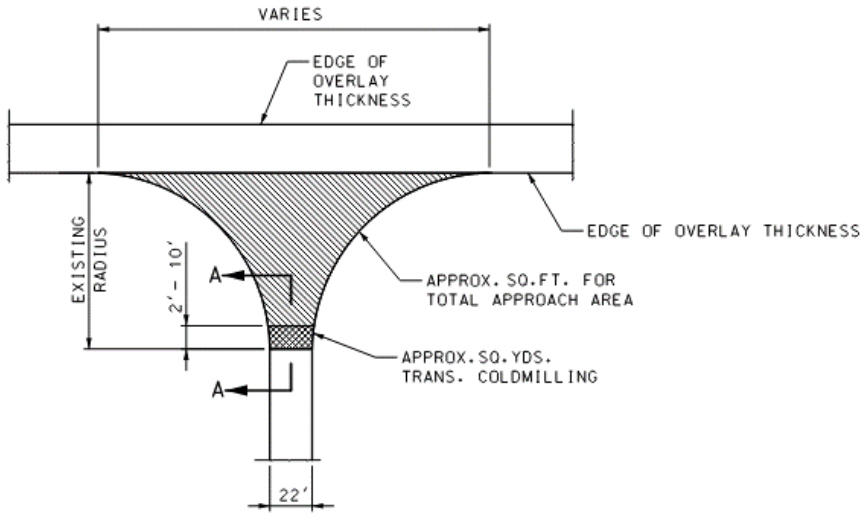
2.1 1" Plant Mix Bituminous Mixture PG 64-22 (Surface Leveling) pavement shall be placed the entire width of the lanes, one pass per lane with no superelevation correction. Tack coat shall be applied at the rate of 0.08 gal/yd^2 the entire width of the traveled way for the length of the pavement limits.

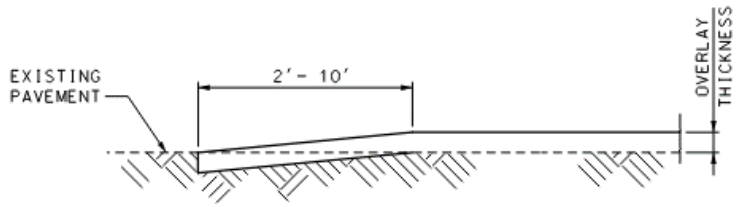


NOTE:
SURFACE PLACEMENT SHALL BE ONE PASS PER LANE
NO S.E. CORRECTION.

2.2 Depth transitions when beginning and ending at a state route shall be coldmilled at the rate of 1" in 25'. When beginning or ending mid-route, including exceptions, shall be coldmilled at the rate of 1" in 50'.

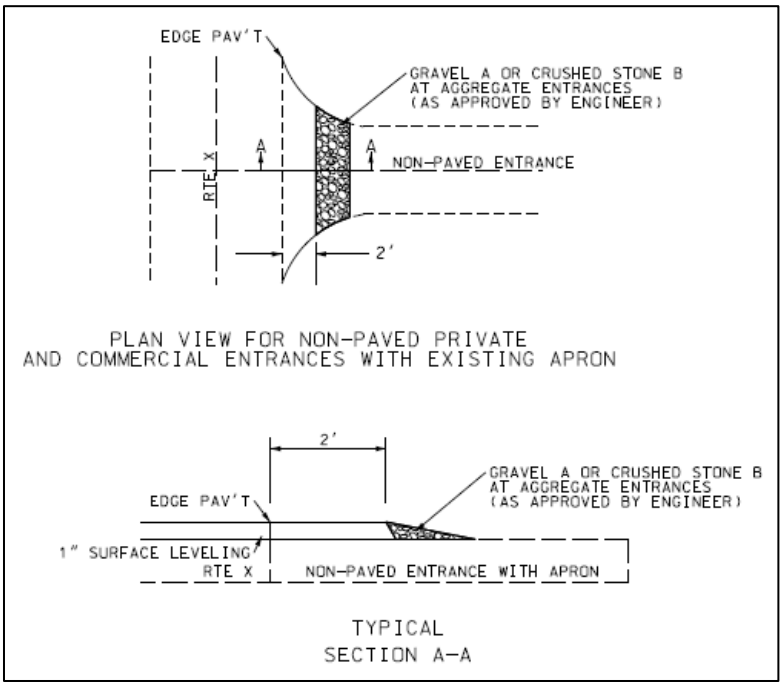
2.3 Coldmilling and pavement tapers at intersecting state routes will vary. See quantities for the approximate paved approach and coldmilling areas (see transition area details below).

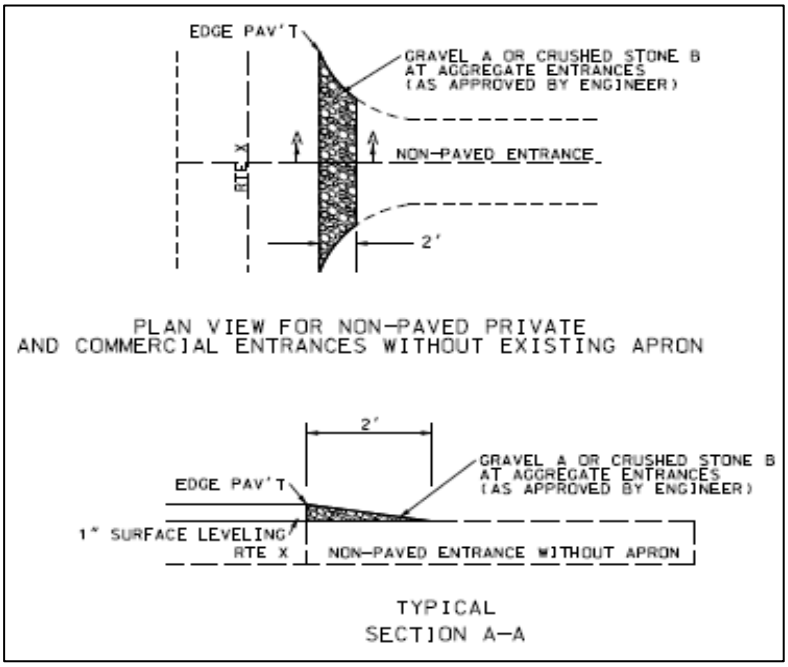


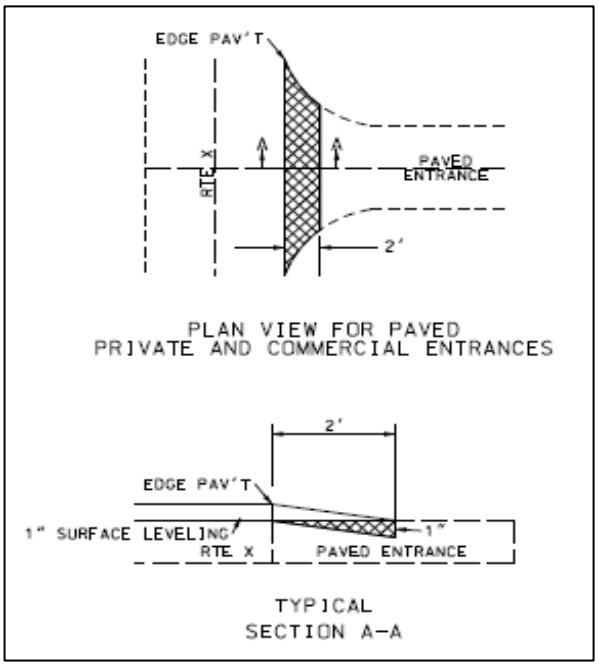


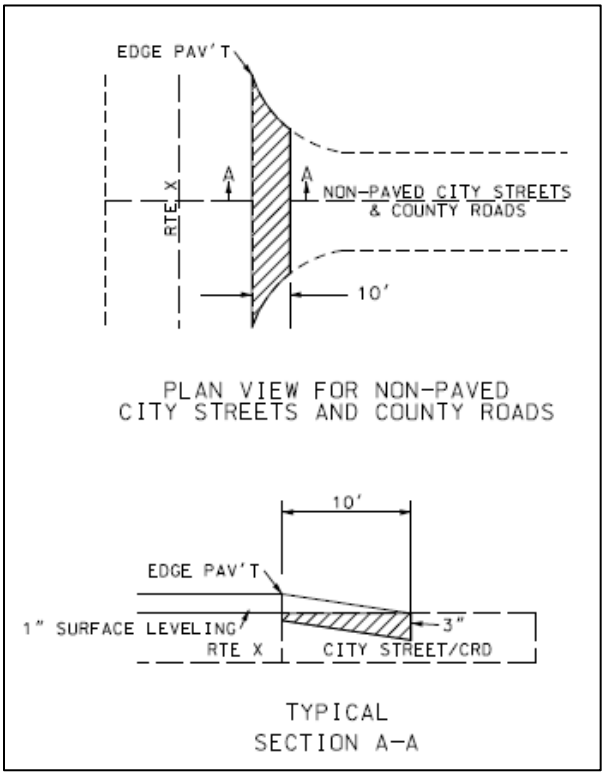
SECTION A-A
TYPICAL STATE ROUTE JUNCTION
(COLDMILLED TRANSITION)

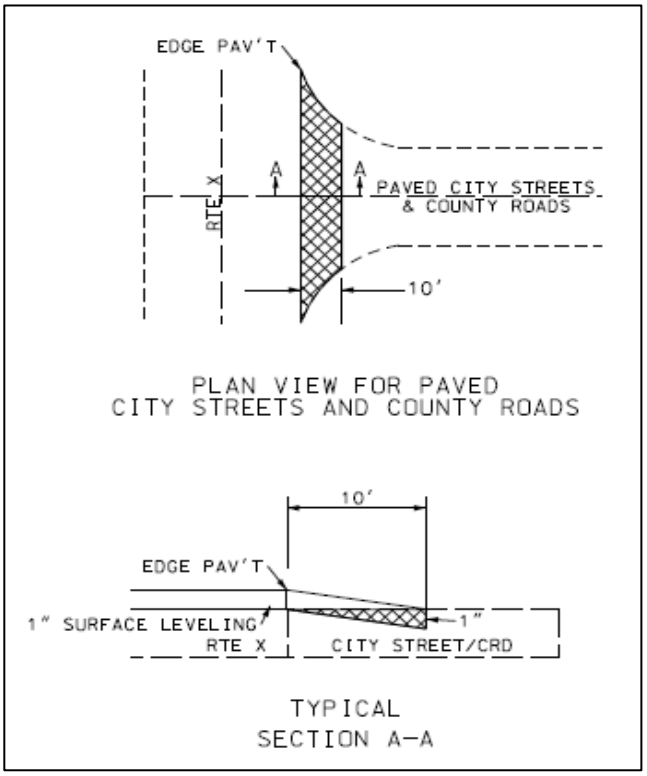
2.4 The bituminous pavement shall be tapered at entrances and non-state routes (see pavement taper details below).











3.0 Pavement and Coldmilling Quantities.

3.1 Pavement quantities are as follows:

BITUMINOUS PAVEMENT								
LOG MILE (MI)	**LOG MILE (MI)**	**NET LENGTH (MI)**	**AVERAGE WIDTH (FT)**	**DEPTH (IN)**	**BITUMINOUS PAVEMENT SL PG64-22 (2.034 TON/CY) (TONS)**	**TACK COAT (0.08 GAL/SY) (GAL)**	**PERMANENT AGG EDGE TREATMENT (85.6 TON/MI) (TONS)**	**REMARKS**
0.013	7.661	7.648	20.0	1.0	5070.2	7179.0	654.7	RTE P TRAVELWAY OVERLAY
VARIOUS	-	0.054	2.0	1.0	3.6	5.1	-	7 NON-PAVED PVT/COMM ENTRANCES W/ APRON
VARIOUS	-	0.046	2.0	1.0	3.1	4.4	-	6 PAVED PVT/COMM ENTRANCES
VARIOUS	-	0.061	10.0	3.0	60.7	28.7	-	5 NON-PAVED STREETS/COUNTY ROADS
VARIOUS	-	0.080	10.0	1.0	26.6	37.6	-	7 PAVED STREETS/COUNTY ROADS
3.903	-	0.019	20.0	1.0	686.2	17.9	-	ROUTE Z INTERSECTION
0.013	7.661	7.648	-	-	101.5	-	-	SAFETY EDGE @ 2% OF MAINLINE
0.013	7.661	7.648	-	-	1147.2	-	-	IRREGULARITIES @ 150 TONS/MI
				TOTALS	7099.1	7272.7	654.7	
				USE	7099.1	7273	654.7	

3.2 Coldmilling Quantities are as follows:

MODIFIED COLDMILLING (DEPTH TRANSITION)			
LOG MILE	**LOG MILE**	**QUANTITY (SY)**	**REMARKS**
0.013	0.023	111.2	START PROJECT - RTE P TRAVELWAY
7.651	7.661	111.2	END PROJECT - RTE P TRAVELWAY
VARIOUS	-	53.4	6 PAVED PVT/COMM ENTRANCES
VARIOUS	-	466.7	7 PAVED STREETS/COUNTY ROADS
3.903	-	55.6	INTERSECTION @ ROUTE Z
	TOTALS	798.1	
	USE	799	

3.3 Gravel Quantities are as follows:

GRAVEL A OR CRUSHED STONE B			
LOG MILE	**LOG MILE**	**TONS**	**REMARKS**
VARIOUS	-	7	7 NON-PAVED PVT/COMM ENTRANCES W/ APRON (1 TON EA)
VARIOUS	-	30	30 NON-PAVED PVT/COMM ENTRANCES W/O APRON (1 TON EA)
VARIOUS	-	10	5 NON-PAVED STREETS/COUNTY ROADS (2 TON EA)
	TOTALS	47	
	USE	47	

4.0 Temporary Traffic Control Plans. See Standard Plans 616.20 for standard temporary traffic control requirements.

4.1 Construction signs and channelizers are as follows:

CONSTRUCTION SIGNING						
SIGN NO.	**SIGN**	**SIZE (IN)**	**AREA (SF)**	**QTY.**	**TOTAL AREA (SF)**	**DESCRIPTION**
1 *	GO20-1	60 x 24	10	2	20	ROAD WORK NEXT 8 MILES
2 **	WO20-1	48 x 48	16	10	160	ROAD WORK AHEAD
7	WO20-4	48 x 48	16	6	96	ONE LANE ROAD AHEAD
8	WO20-7A	48 x 48	16	10	160	FLAGGER (SYMBOL) WITH FLAGS
11	WO3-4	48 x 48	16	10	160	BE PREPARED TO STOP
26	GO20-2	48 x 24	8	2	16	END ROAD WORK
35	WO8-12	48 x 48	16	4	64	NO CENTER LINE
36	WO8-11	48 x 48	16	8	128	UNEVEN LANES
58	GO20-4a	42 x 30	8.75	5	44	PILOT CAR IN USE WAIT AND FOLLOW
58	GO20-4a	18 x 12	1.5	12	18.0	PILOT CAR IN USE WAIT AND FOLLOW
59	CONST-8	48 x 36	12	2	24	WORK ZONE NO PHONE ZONE
-	GO22-1	21 x 15	2.19	2	4.38	WET PAINT (ARROW PIVOTS)
	CONSTRUCTION SIGNS TOTAL				894.38	
				USE	894	

* - IF LESS THAN (2) MILES, DELETE SIGN NO. 1

** - ADDITIONAL SIGN NO. 2 USED AS SHOWN ON TRAFFIC CONTROL SHEET 3 OF 5 AND AS DIRECTED BY ENGINEER.

REFER TO STANDARD PLAN 616.10 AND 903.03 FOR SIGN AND SIGN MOUNTING REQUIRMENTS.

ITEM NO.	QTY.	DESCRIPTION
616-10.25	75	CHANNELIZERS (TRIM-LINE)

4.2 Mobilization is as follows:

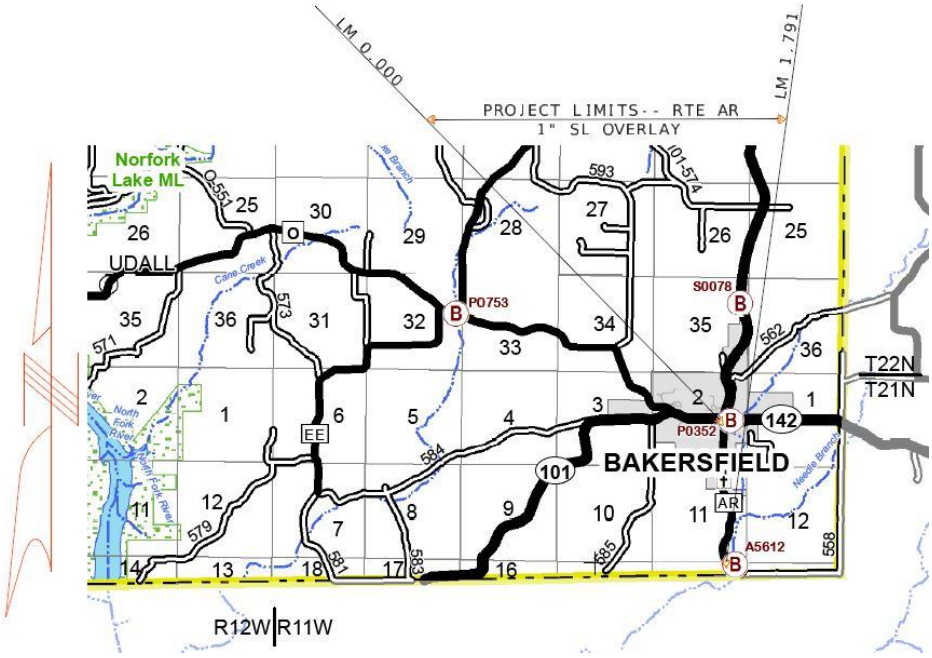
ITEM NO.	QTY.	DESCRIPTION
618-10.00	LUMP SUM	MOBILIZATION

5.0 Pavement Marking. Pavement marking quantities are as follows:

STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS						
LOG MILE	**LOG MILE**	**LENGTH (FT)**	**4" INT. YELLOW (FT)**	**4" SOLID YELLOW (FT)**	**4" SOLID WHITE (FT)**	**REMARKS**
0.000	7.682	40561.0	3069.0	67875.0	81122.0	RTE P TRAVELWAY – PROJECT LIMITS
		TOTALS	3069.0	67875.0	81122.0	
		USE	70944		81122	
NOTE: TEMPORARY AND PERMANENT PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH 620.10						

O. Project Details and Quantities: JST0112 – Route AR; Ozark County

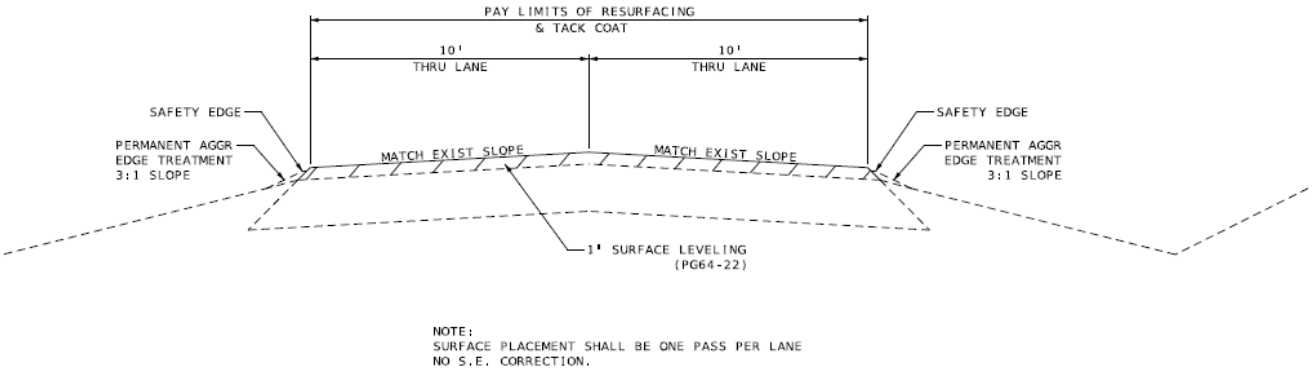
1.0 Description. This project consists of applying a plant mix bituminous pavement (surface leveling) as described here in. The project limits are from Log Mile 0.000 to 1.791 on Route AR in Ozark County. The total length of pavement limits are 1.791 miles with a total average width of 20 feet. Pavement will not be placed at the following exception locations:



EXCEPTIONS			
APPROX. LOG MILE		LENGTH (FT)	REMARKS
FROM	TO		
1.622	1.651	155	BRIDGE DECK A5612
	TOTAL	155	

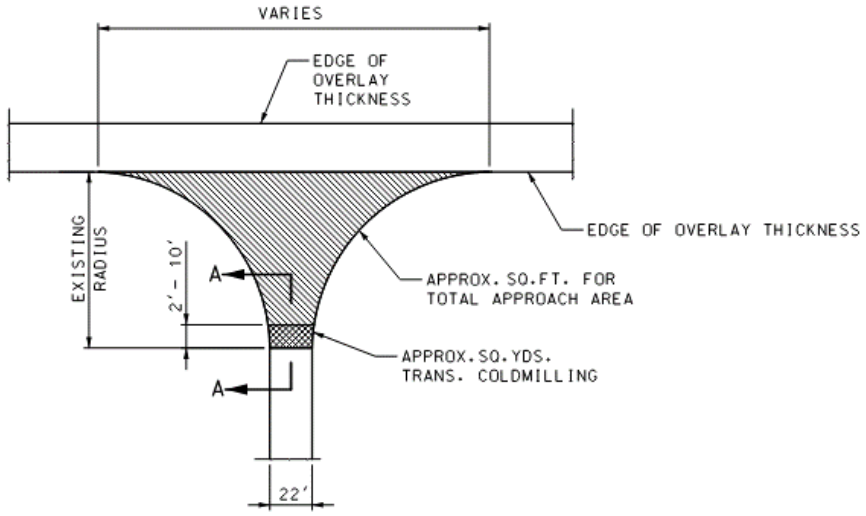
2.0 Mix and Pavement Transitions.

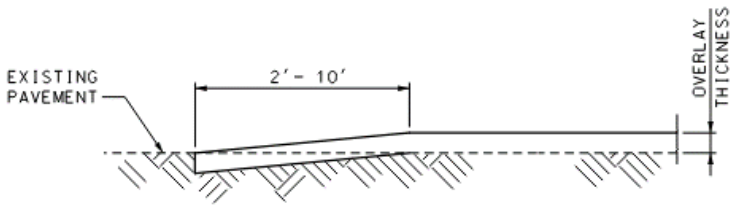
2.1 1" Plant Mix Bituminous Mixture PG 64-22 (Surface Leveling) pavement shall be placed the entire width of the lanes, one pass per lane with no superelevation correction. Tack coat shall be applied at the rate of 0.08 gal/yd^2 the entire width of the traveled way for the length of the pavement limits.



2.2 Depth transitions when beginning and ending at a state route shall be coldmilled at the rate of 1" in 25'. When beginning or ending mid-route, including exceptions, shall be coldmilled at the rate of 1" in 50'.

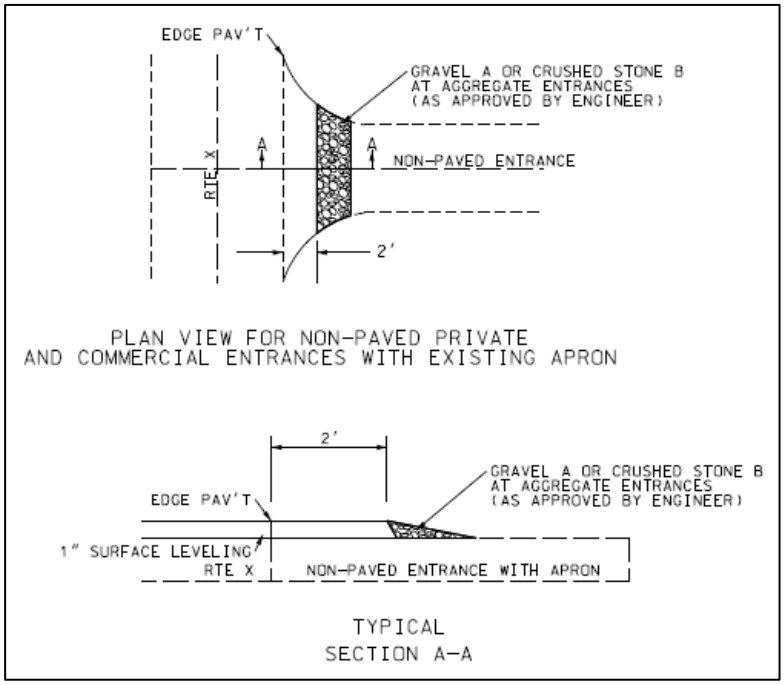
2.3 Coldmilling and pavement tapers at intersecting state routes will vary. See quantities for the approximate paved approach and coldmilling areas (see transition area details below).



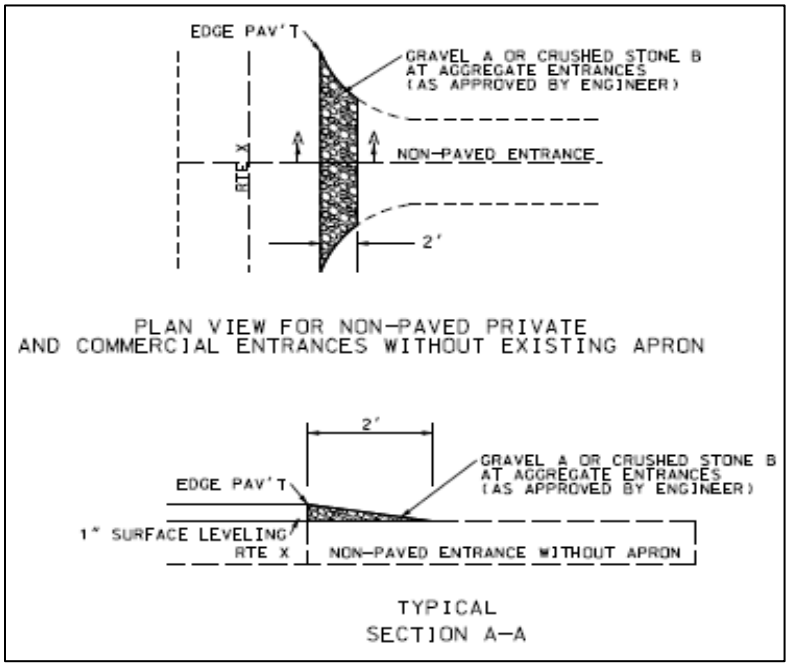


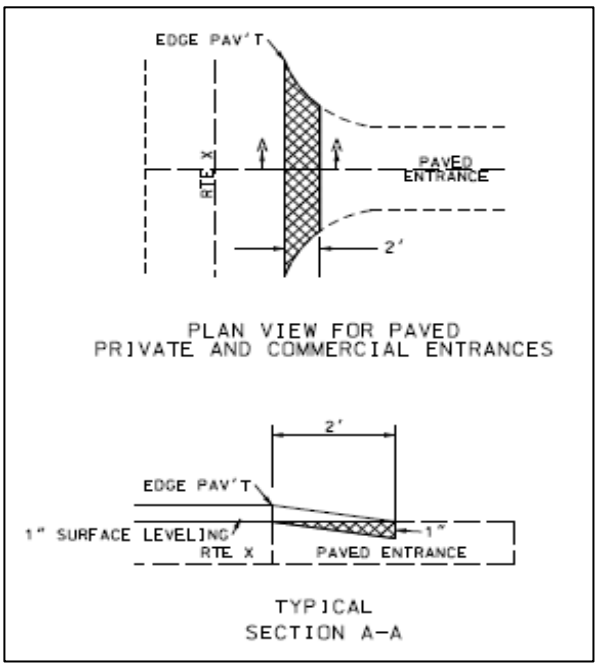
SECTION A-A
TYPICAL STATE ROUTE JUNCTION
(COLDMILLED TRANSITION)

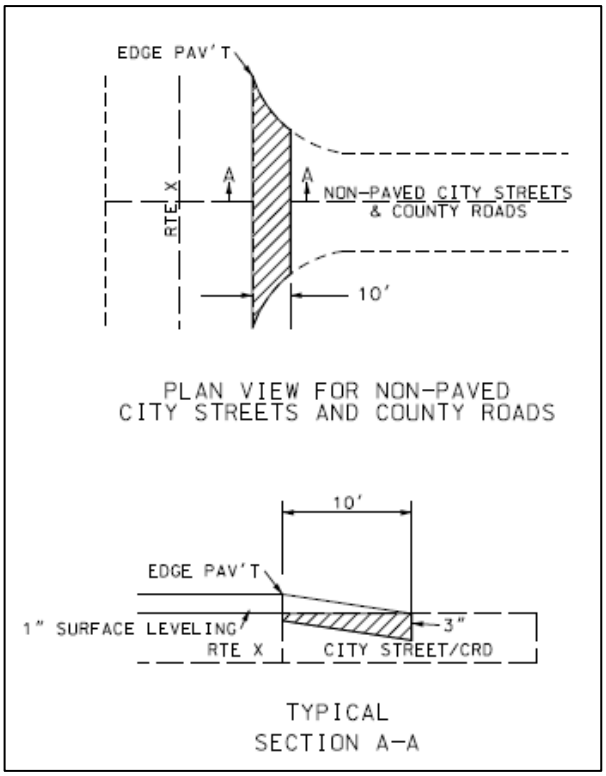
2.4 The bituminous pavement shall be tapered at entrances and non-state routes (see pavement taper details below).

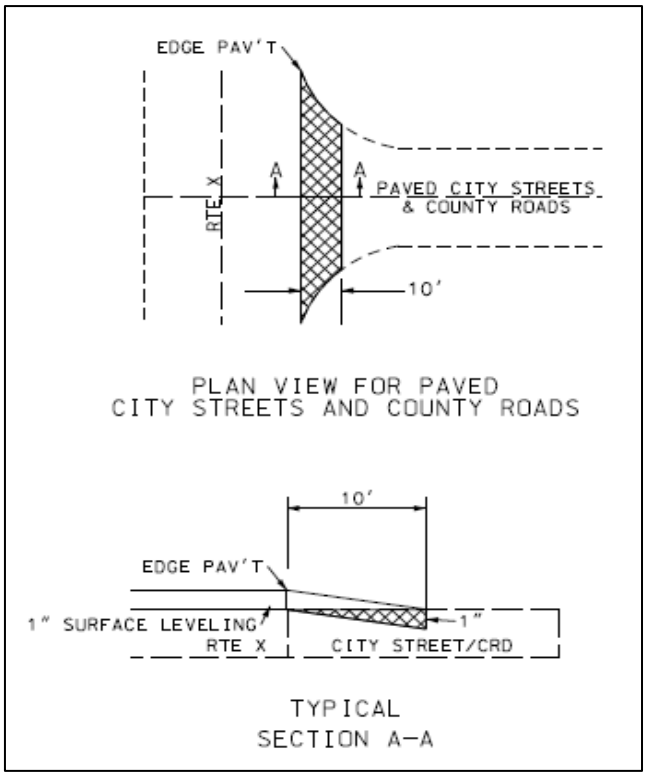


Job No.: JST0112
Route: Various
County: Various









3.0 Pavement and Coldmilling Quantities.

3.1 Pavement quantities are as follows:

BITUMINOUS PAVEMENT								
LOG MILE (MI)	LOG MILE (MI)	NET LENGTH (MI)	AVERAGE WIDTH (FT)	DEPTH (IN)	BITUMINOUS PAVEMENT SL PG64-22 (2.034 TON/CY) (TONS)	TACK COAT (0.08 GAL/SY) (GAL)	PERMANENT AGG EDGE TREATMENT (85.6 TON/MI) (TONS)	REMARKS
0.000	1.791	1.791	20.0	1.0	1187.4	1681.2	153.4	RTE AR TRAVELWAY OVERLAY
VARIOUS	-	0.008	2.0	1.0	0.6	0.8	-	1 PAVED PVT/COMM ENTRANCES
VARIOUS	-	0.035	10.0	1.0	11.7	16.5	-	3 PAVED STREETS/COUNTY ROADS
1.622	1.651	(0.029)	20.00	1.0	(19.3)	(27.3)	(2.5)	EXCEPTION - BRIDGE A5612 DECK
0.000	1.791	1.791	-	-	23.4	-	-	SAFETY EDGE @ 2% OF MAINLINE (LESS EXCEPTIONS)
0.000	1.791	1.791	-	-	264.3	-	-	IRREGULARITIES @ 150 TONS/M (LESS EXCEPTIONS)
				TOTALS	1468.1	1671.2	150.9	
				USE	1468.1	1672	150.9	

3.2 Coldmilling Quantities are as follows:

MODIFIED COLDMILLING (DEPTH TRANSITION)			
LOG MILE	LOG MILE	QUANTITY (SY)	REMARKS
0.000	0.010	111.2	START PROJECT - RTE AR TRAVELWAY
1.781	1.791	111.2	END PROJECT - RTE AR TRAVELWAY
VARIOUS	-	8.9	1 PAVED PVT/COMM ENTRANCES
VARIOUS	-	200.0	3 PAVED STREETS/COUNTY ROADS
1.613	1.622	111.2	APROACH @ BRIDGE A5612 DECK EXCEPTION
1.651	1.661	111.2	APROACH @ BRIDGE A5612 DECK EXCEPTION
	TOTALS	653.7	
	USE	654	

3.3 Gravel Quantities are as follows:

GRAVEL A OR CRUSHED STONE B			
LOG MILE	LOG MILE	TONS	REMARKS
VARIOUS	-	17	17 NON-PAVED PVT/COMM ENTRANCES W/O APRON (1 TON EA)
	TOTALS	17	
	USE	17	

4.0 Temporary Traffic Control Plans. See Standard Plans 616.20 for standard temporary traffic control requirements.

4.1 Construction signs and channelizers are as follows:

CONSTRUCTION SIGNING						
SIGN NO.	**SIGN**	**SIZE (IN)**	**AREA (SF)**	**QTY.**	**TOTAL AREA (SF)**	**DESCRIPTION**
1 *	GO20-1	60 x 24	10	2	20	ROAD WORK NEXT 2 MILES
2 **	WO20-1	48 x 48	16	5	80	ROAD WORK AHEAD
7	WO20-4	48 x 48	16	6	96	ONE LANE ROAD AHEAD
8	WO20-7A	48 x 48	16	5	80	FLAGGER (SYMBOL) WITH FLAGS
11	WO3-4	48 x 48	16	5	80	BE PREPARED TO STOP
26	GO20-2	48 x 24	8	2	16	END ROAD WORK
35	WO8-12	48 x 48	16	4	64	NO CENTER LINE
36	WO8-11	48 x 48	16	6	96	UNEVEN LANES
58	GO20-4a	42 x 30	8.75	2	18	PILOT CAR IN USE WAIT AND FOLLOW
58	GO20-4a	18 x 12	1.5	3	4.5	PILOT CAR IN USE WAIT AND FOLLOW
59	CONST-8	48 x 36	12	2	24	WORK ZONE NO PHONE ZONE
-	GO22-1	21 x 15	2.19	2	4.38	WET PAINT (ARROW PIVOTS)
	CONSTRUCTION SIGNS TOTAL				562.88	
				USE	563	

* - IF LESS THAN (2) MILES, DELETE SIGN NO. 1

** - ADDITIONAL SIGN NO. 2 USED AS SHOWN ON TRAFFIC CONTROL SHEET 3 OF 5 AND AS DIRECTED BY ENGINEER.

REFER TO STANDARD PLAN 616.10 AND 903.03 FOR SIGN AND SIGN MOUNTING REQUIRMENTS.

ITEM NO.	QTY.	DESCRIPTION
616-10.25	75	CHANNELIZERS (TRIM-LINE)

4.2 Mobilization is as follows:

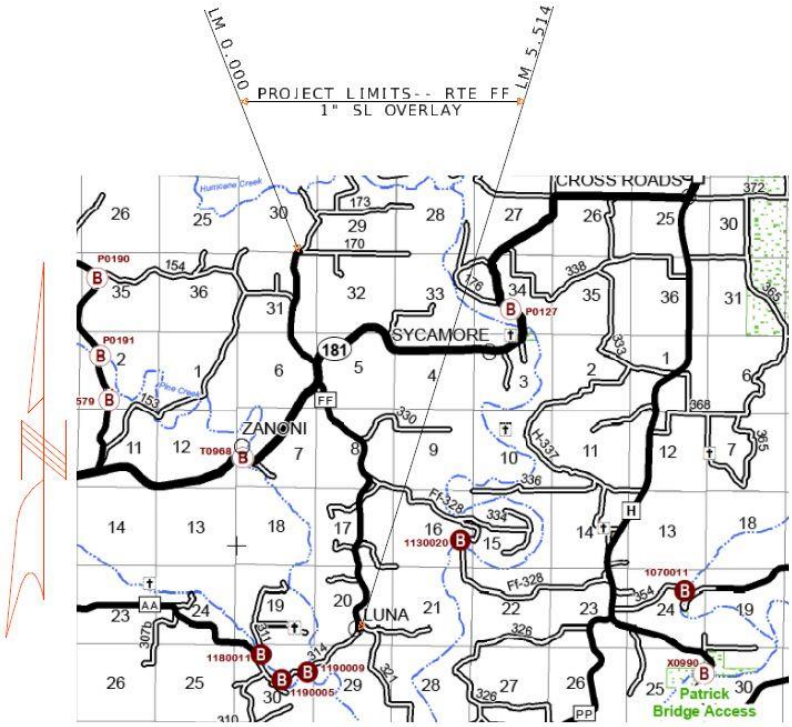
ITEM NO.	QTY.	DESCRIPTION
618-10.00	LUMP SUM	MOBILIZATION

5.0 Pavement Marking. Pavement marking quantities are as follows:

STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS						
LOG MILE	**LOG MILE**	**LENGTH (FT)**	**4" INT. YELLOW (FT)**	**4" SOLID YELLOW (FT)**	**4" SOLID WHITE (FT)**	**REMARKS**
0.000	1.791	9456.5	872.5	15422.9	-	RTE AR TRAVELWAY – PROJECT LIMITS
		TOTALS	872.5	15422.9	-	
		USE	16296		-	
NOTE: TEMPORARY AND PERMANENT PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH 620.10						

P. Project Details and Quantities: JST0112 – Route FF; Ozark County

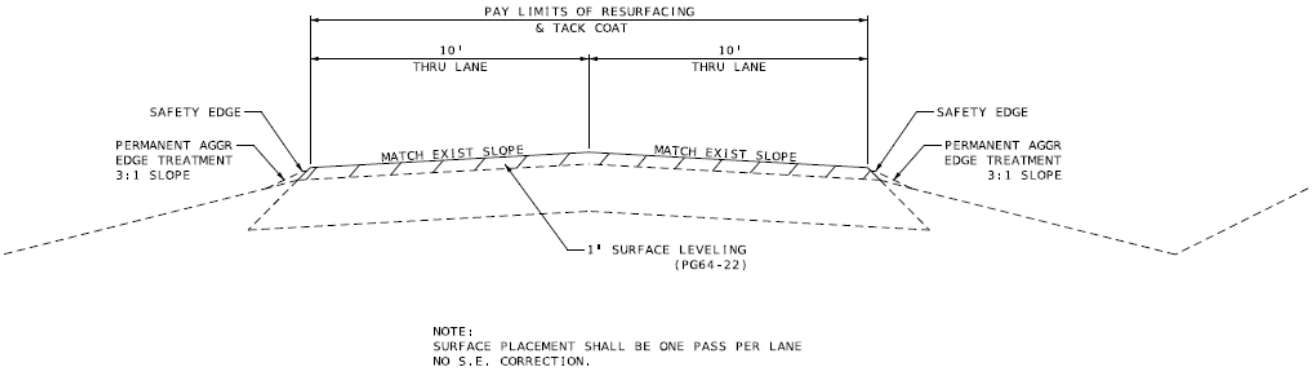
1.0 Description. This project consists of applying a plant mix bituminous pavement (surface leveling) as described here in. The project limits are from Log Mile 0.000 to 5.514 on Route FF in Ozark County. The total length of pavement limits are 5.514 miles with a total average width of 20 feet. Pavement will not be placed at the following exception locations:



EXCEPTIONS			
APPROX. LOG MILE		LENGTH (FT)	REMARKS
FROM	TO		
1.604	1.926	1700	RTE FF INTERSECTION W/ RTE 181 (APRONS & TRAVELWAY)
	TOTAL	1700	

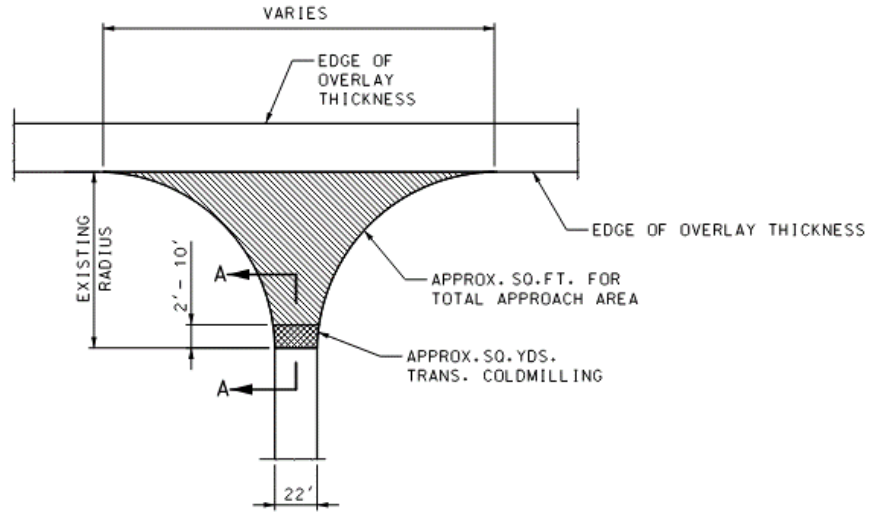
2.0 Mix and Pavement Transitions.

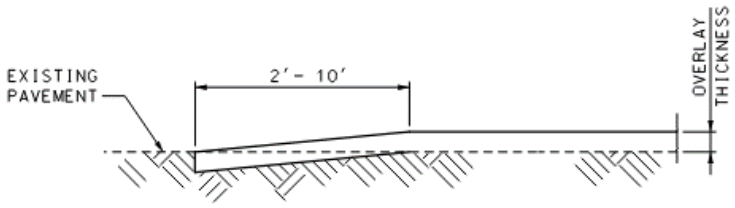
2.1 1" Plant Mix Bituminous Mixture PG 64-22 (Surface Leveling) pavement shall be placed the entire width of the lanes, one pass per lane with no superelevation correction. Tack coat shall be applied at the rate of 0.08 gal/yd^2 the entire width of the traveled way for the length of the pavement limits.



2.2 Depth transitions when beginning and ending at a state route shall be coldmilled at the rate of 1" in 25'. When beginning or ending mid-route, including exceptions, shall be coldmilled at the rate of 1" in 50'.

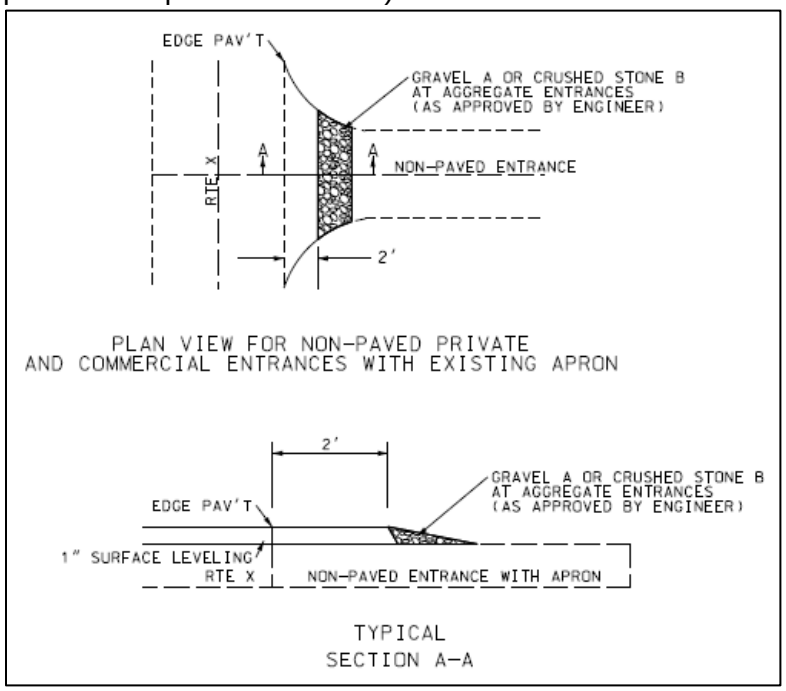
2.3 Coldmilling and pavement tapers at intersecting state routes will vary. See quantities for the approximate paved approach and coldmilling areas (see transition area details below).



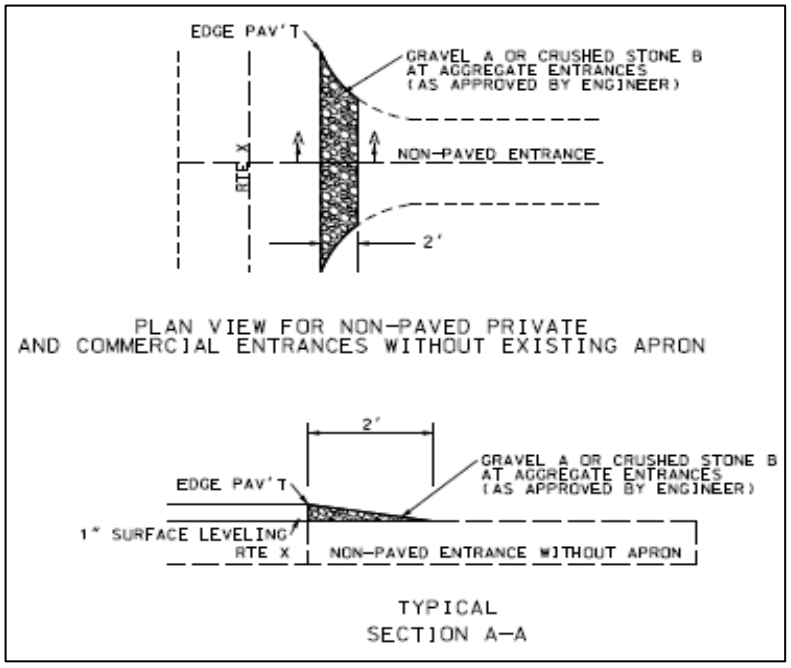


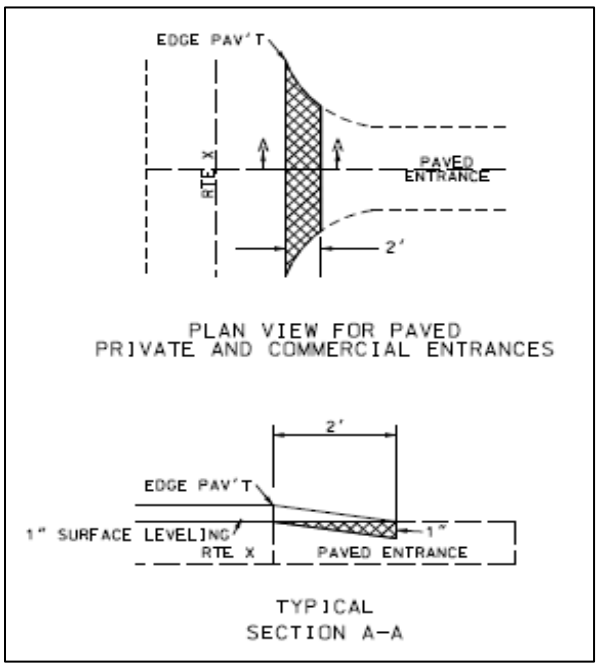
SECTION A-A
TYPICAL STATE ROUTE JUNCTION
(COLDMILLED TRANSITION)

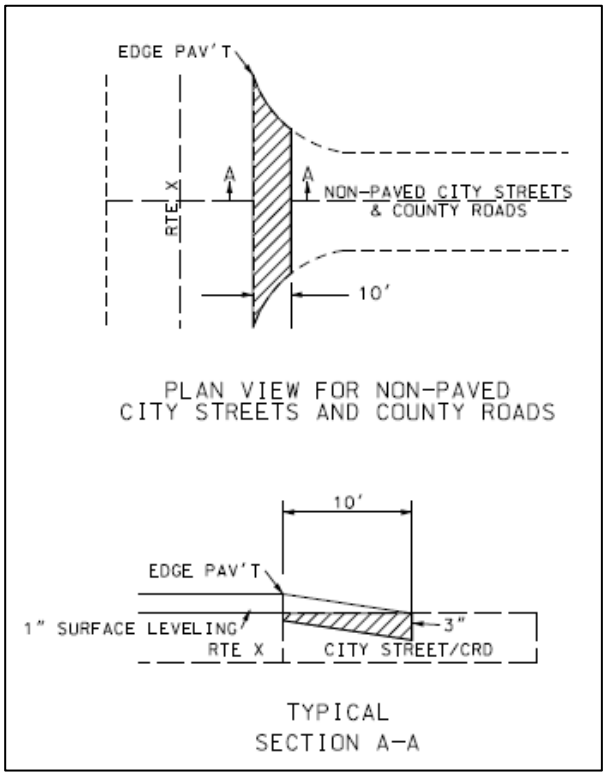
2.4 The bituminous pavement shall be tapered at entrances and non-state routes (see pavement taper details below).

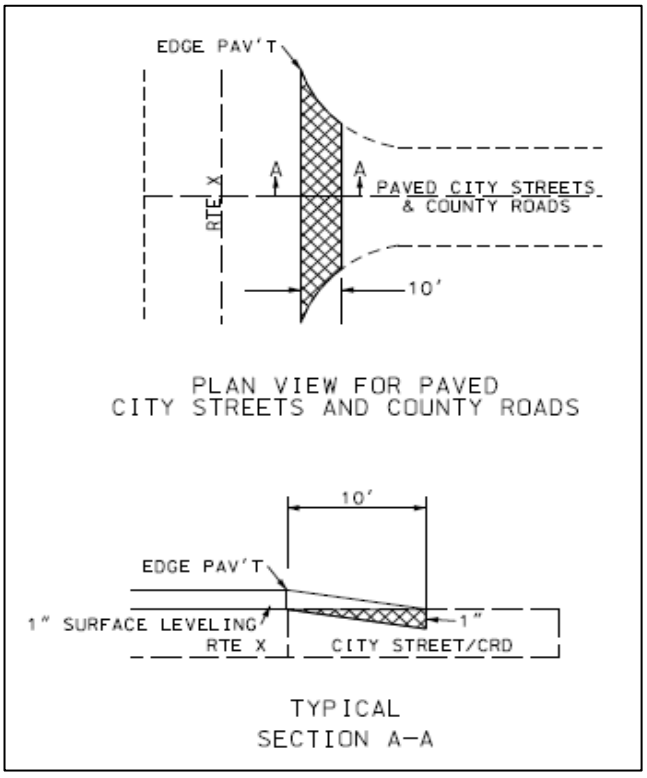


Job No.: JST0112
Route: Various
County: Various









3.0 Pavement and Coldmilling Quantities.

3.1 Pavement quantities are as follows:

BITUMINOUS PAVEMENT								
LOG MILE (MI)	LOG MILE (MI)	NET LENGTH (MI)	AVERAGE WIDTH (FT)	DEPTH (IN)	BITUMINOUS PAVEMENT SL PG64-22 (2.034 TON/CY) (TONS)	TACK COAT (0.08 GAL/SY) (GAL)	PERMANENT AGG EDGE TREATMENT (85.6 TON/MI) (TONS)	REMARKS
0.000	5.514	5.514	20.0	1.0	3655.5	5175.9	472.0	RTE FF TRAVELWAY – PROJECT LIMITS
VARIOUS	-	0.031	2.0	1.0	2.1	3.0	-	4 NON-PAVED PVT/COMM ENTRANCES W/ APRON
VARIOUS	-	0.016	2.0	1.0	1.1	1.6	-	2 PAVED PVT/COMM ENTRANCES
VARIOUS	-	0.091	10.0	3.0	90.5	42.8	-	8 NON-PAVED ST./COUNTY RD.
VARIOUS	-	0.012	10.0	1.0	4.0	5.7	-	1 PAVED STREETS/COUNTY RD.
1.604	1.625	(0.021)	20.0	1.0	(14.0)	(19.8)	(1.8)	EXCEPTION - RTE FF APRON @ RTE 181 INTERSECTION
1.625	1.907	(0.282)	20.0	1.0	(187.0)	(264.8)	(24.2)	EXCEPTION - ROUTE 181
1.907	1.926	(0.019)	20.0	1.0	(12.6)	(17.9)	(1.7)	EXCEPTION - RTE FF APRON @ RTE 181 INTERSECTION
0.000	5.514	5.514	-	-	68.9	-	-	SAFETY EDGE @ 2% OF MAINLINE (LESS EXCEPTIONS)
0.000	5.514	5.514	-	-	778.8	-	-	IRREGULARITIES @ 150 TONS/MI (LESS EXCEPTIONS)
				TOTALS	4387.3	4926.5	444.3	
				USE	4387.3	4927	444.3	

3.2 Coldmilling Quantities are as follows:

MODIFIED COLDMILLING (DEPTH TRANSITION)			
LOG MILE	LOG MILE	QUANTITY (SY)	REMARKS
0.000	0.010	111.2	START PROJECT - RTE FF TRAVELWAY
5.504	5.514	111.2	END PROJECT - RTE FF TRAVELWAY
VARIOUS	-	17.8	2 PAVED PVT/COMM ENTRANCES
VARIOUS	-	66.7	1 PAVED STREETS/COUNTY ROADS
1.594	1.604	111.2	APROACHING @ RTE 181 INTERSECTION EXCEPTION
1.926	1.936	111.2	APROACHING @ RTE 181 INTERSECTION EXCEPTION
	TOTALS	529.3	
	USE	530	

3.3 Gravel Quantities are as follows:

GRAVEL A OR CRUSHED STONE B			
LOG MILE	**LOG MILE**	**TONS**	**REMARKS**
VARIOUS	-	4	4 NON-PAVED PVT/COMM ENTRANCES W/ APRON (1 TON EA)
VARIOUS	-	27	27 NON-PAVED PVT/COMM ENTRANCES W/O APRON (1 TON EA)
VARIOUS	-	16	8 NON-PAVED STREETS/COUNTY ROADS (2 TON EA)
	TOTALS	47	
	USE	47	

4.0 Temporary Traffic Control Plans. See Standard Plans 616.20 for standard temporary traffic control requirements.

4.1 Construction signs and channelizers are as follows:

CONSTRUCTION SIGNING						
SIGN NO.	**SIGN**	**SIZE (IN)**	**AREA (SF)**	**QTY.**	**TOTAL AREA (SF)**	**DESCRIPTION**
1 *	GO20-1	60 x 24	10	2	20	ROAD WORK NEXT 6 MILES
2 **	WO20-1	48 x 48	16	15	240	ROAD WORK AHEAD
7	WO20-4	48 x 48	16	6	96	ONE LANE ROAD AHEAD
8	WO20-7A	48 x 48	16	15	240	FLAGGER (SYMBOL) WITH FLAGS
11	WO3-4	48 x 48	16	15	240	BE PREPARED TO STOP
26	GO20-2	48 x 24	8	2	16	END ROAD WORK
35	WO8-12	48 x 48	16	4	64	NO CENTER LINE
36	WO8-11	48 x 48	16	6	96	UNEVEN LANES
58	GO20-4a	42 x 30	8.75	5	44	PILOT CAR IN USE WAIT AND FOLLOW
58	GO20-4a	18 x 12	1.5	10	15.0	PILOT CAR IN USE WAIT AND FOLLOW
59	CONST-8	48 x 36	12	2	24	WORK ZONE NO PHONE ZONE
-	GO22-1	21 x 15	2.19	2	4.38	WET PAINT (ARROW PIVOTS)
	CONSTRUCTION SIGNS TOTAL				839.38	
				USE	840	

* - IF LESS THAN (2) MILES, DELETE SIGN NO. 1

** - ADDITIONAL SIGN NO. 2 USED AS SHOWN ON TRAFFIC CONTROL SHEET 3 OF 5 AND AS DIRECTED BY ENGINEER.

REFER TO STANDARD PLAN 616.10 AND 903.03 FOR SIGN AND SIGN MOUNTING REQUIRMENTS.

ITEM NO.	QTY.	DESCRIPTION
616-10.25	75	CHANNELIZERS (TRIM-LINE)

4.2 Mobilization is as follows:

ITEM NO.	QTY.	DESCRIPTION
618-10.00	LUMP SUM	MOBILIZATION

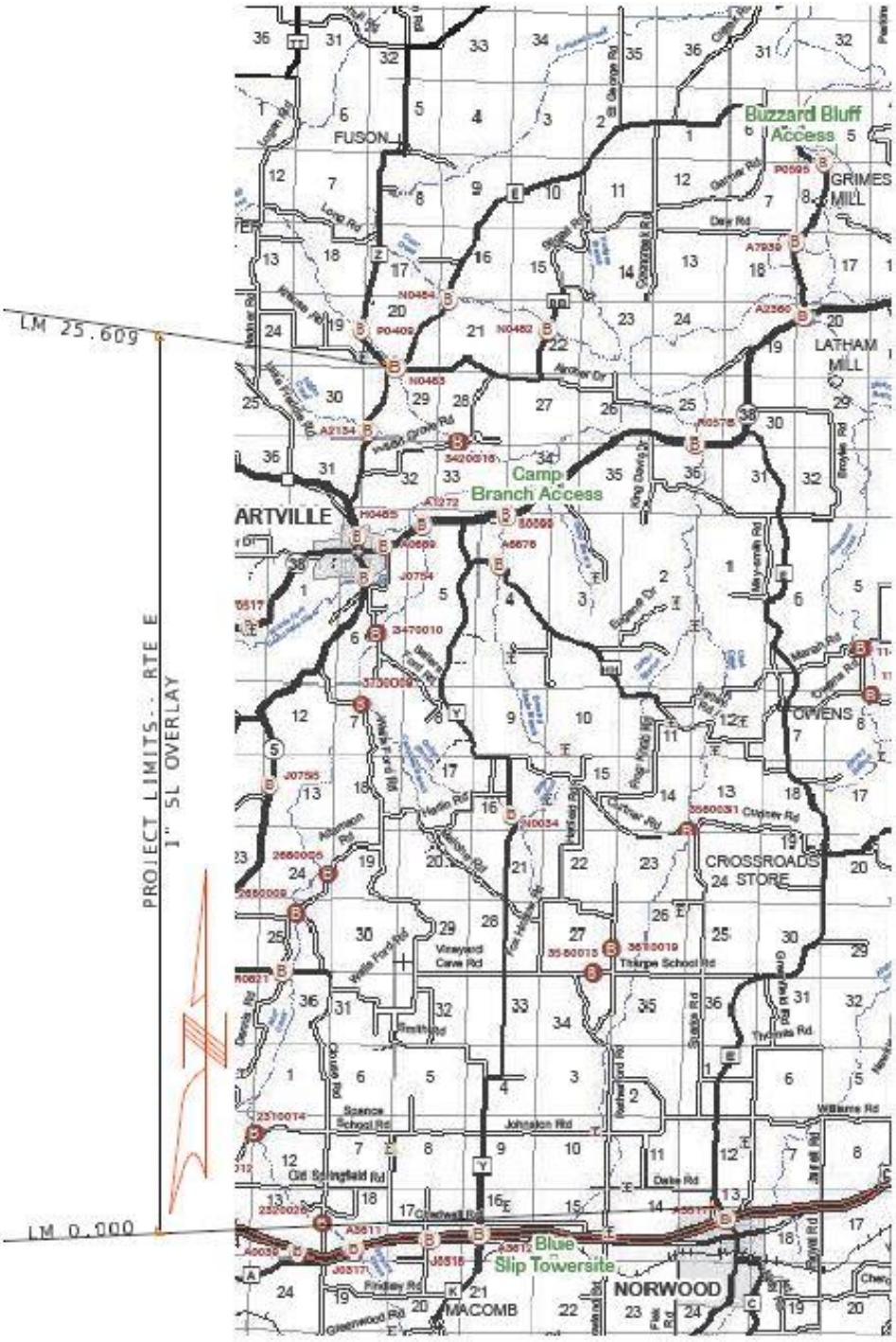
5.0 Pavement Marking. Pavement marking quantities are as follows:

STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS						
LOG MILE	LOG MILE	LENGTH (FT)	4" INT. YELLOW (FT)	4" SOLID YELLOW (FT)	4" SOLID WHITE (FT)	REMARKS
0.000	5.514	29113.9	283.8	57620.6	-	ROUTE FF - OZARK COUNTY
1.604	1.926	(1700.2)	-	(4007.6)	-	EXCEPTION - INTERSECTION @ RTE 181 (APRONS & TRAVELWAY)
		TOTALS	283.8	53613.0	-	
		USE	53897		-	
NOTE: TEMPORARY AND PERMANENT PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH 620.10						

Job No.: JST0112
Route: Various
County: Various

Q. Project Details and Quantities: JST0112 – Route E; Wright County

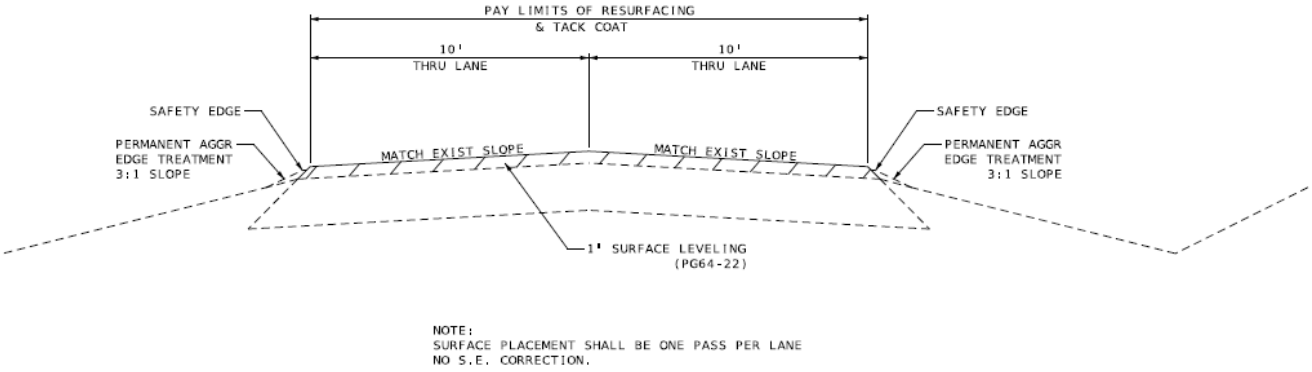
1.0 Description. This project consists of applying a plant mix bituminous pavement (surface leveling) as described here in. The project limits are from Log Mile 0.000 to 25.609 on Route E in Wright County. The total length of pavement limits are 25.609 miles with a total average width of 20 feet. Pavement will not be placed at the following exception locations:



EXCEPTIONS			
APPROX. LOG MILE		LENGTH (FT)	REMARKS
FROM	TO		
9.622	9.653	164	BRIDGE DECK A7939
10.743	12.756	10629	RTE E INTERSECTION W/ RTE 38 (APRONS & TRAVELWAY)
	TOTAL	10793	

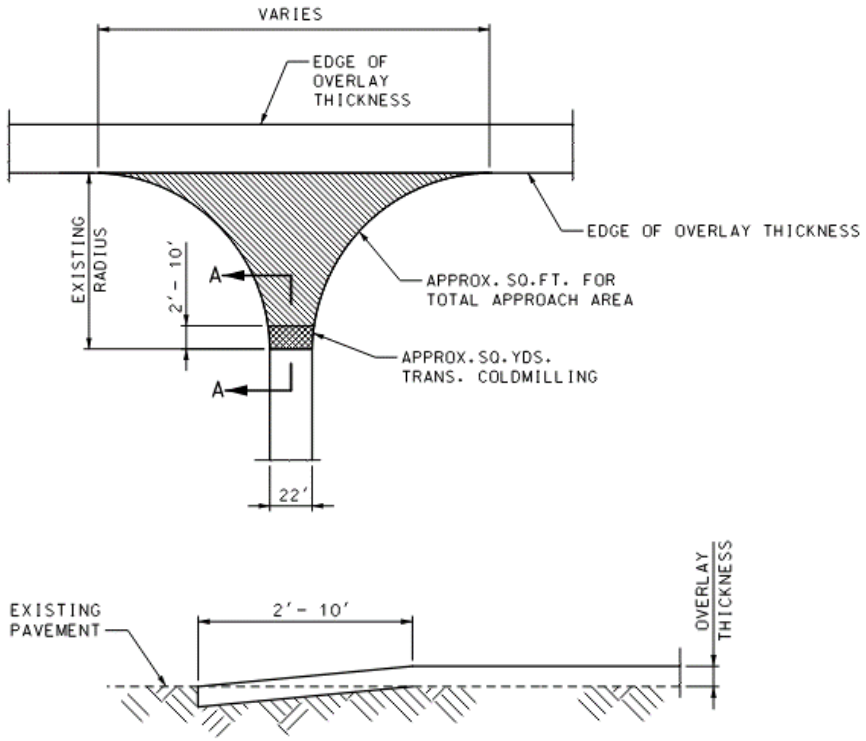
2.0 Mix and Pavement Transitions.

2.1 1" Plant Mix Bituminous Mixture PG 64-22 (Surface Leveling) pavement shall be placed the entire width of the lanes, one pass per lane with no superelevation correction. Tack coat shall be applied at the rate of 0.08 gal/yd^2 the entire width of the traveled way for the length of the pavement limits.



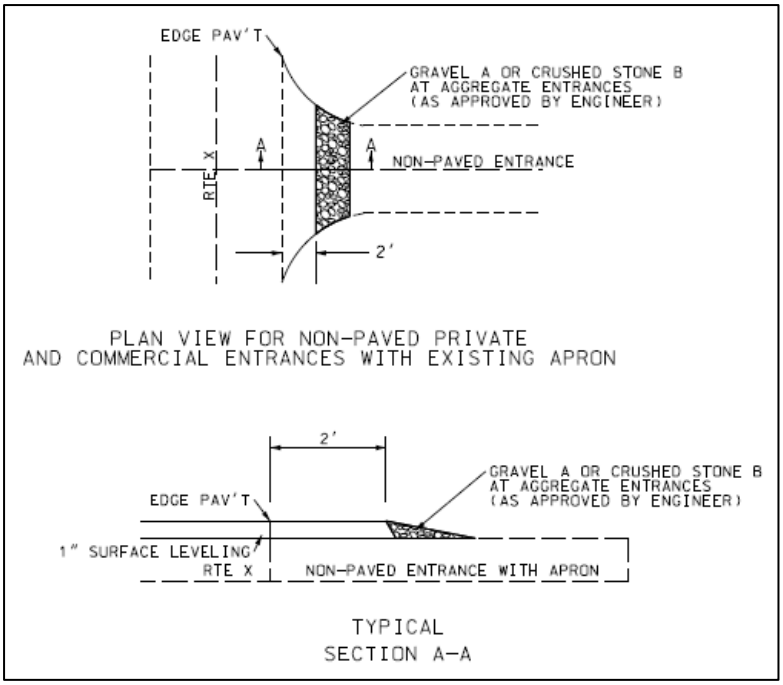
2.2 Depth transitions when beginning and ending at a state route shall be coldmilled at the rate of 1" in 25'. When beginning or ending mid-route, including exceptions, shall be coldmilled at the rate of 1" in 50'.

2.3 Coldmilling and pavement tapers at intersecting state routes will vary. See quantities for the approximate paved approach and coldmilling areas (see transition area details below).

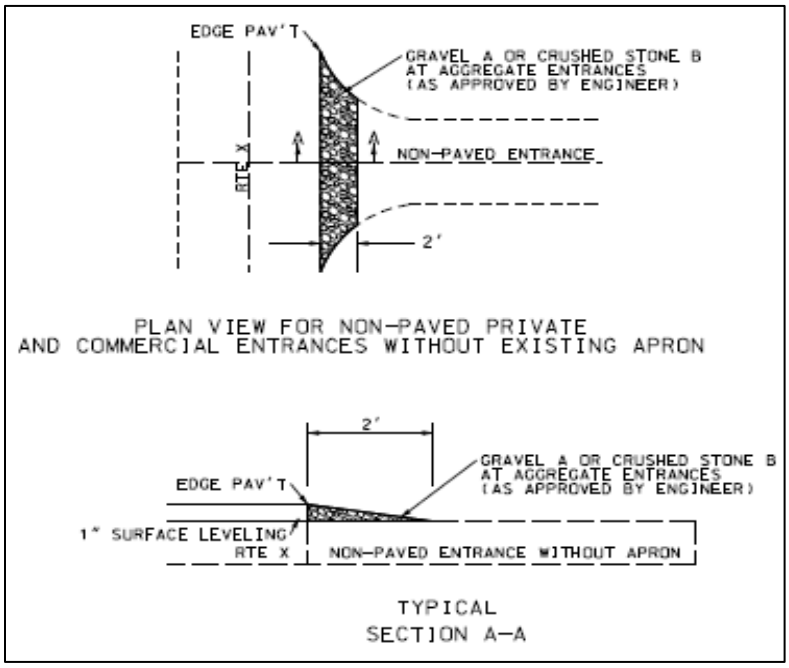


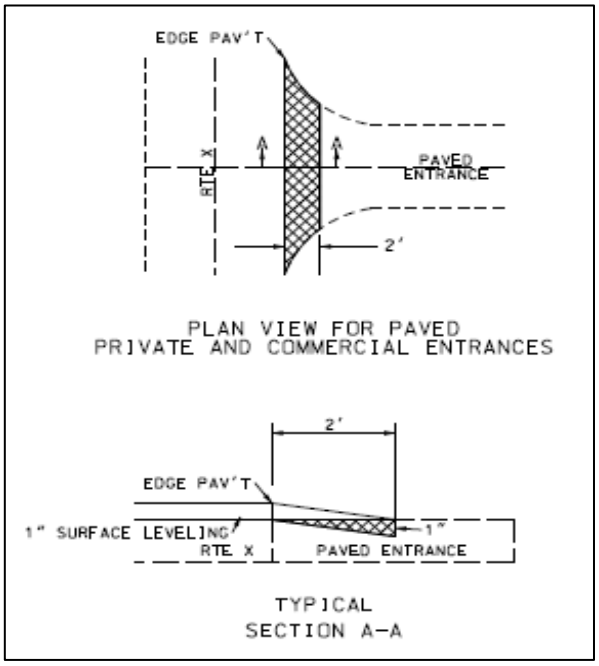
SECTION A–A
TYPICAL STATE ROUTE JUNCTION
(COLDMILLED TRANSITION)

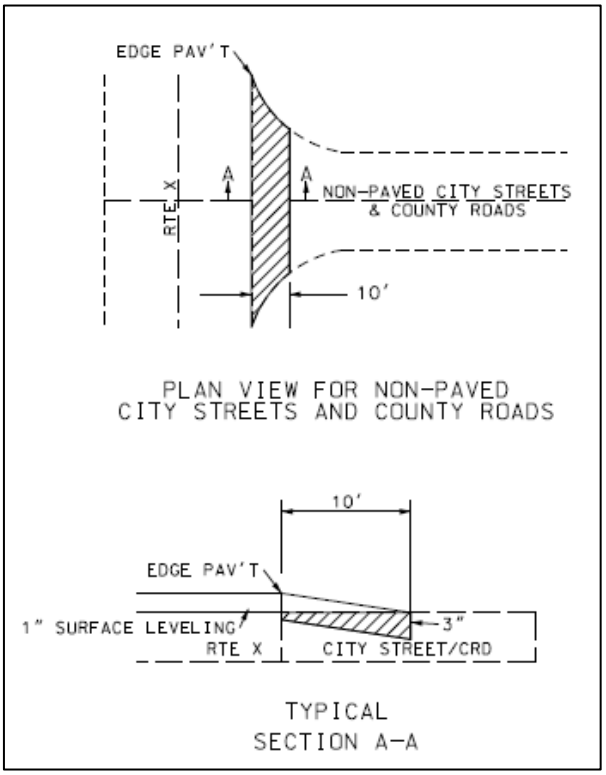
2.4 The bituminous pavement shall be tapered at entrances and non-state routes (see pavement taper details below).

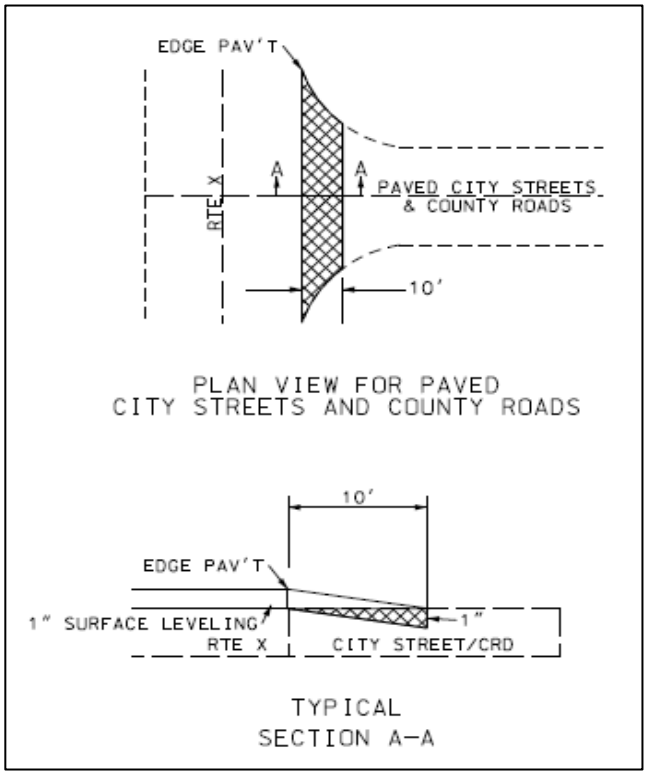


Job No.: JST0112
Route: Various
County: Various









3.0 Pavement and Coldmilling Quantities.

3.1 Pavement quantities are as follows:

BITUMINOUS PAVEMENT								
LOG MILE (MI)	**LOG MILE (MI)**	**NET LENGTH (MI)**	**AVERAGE WIDTH (FT)**	**DEPTH (IN)**	**BITUMINOUS PAVEMENT SL PG64-22 (2.034 TON/CY) (TONS)**	**TACK COAT (0.08 GAL/SY) (GAL)**	**PERMANENT AGG EDGE TREATMENT (85.6 TON/MI) (TONS)**	**REMARKS**
0.019	25.457	25.438	20.0	1.0	16863.7	23877.9	2177.5	RTE E TRAVELWAY OVERLAY
VARIOUS	-	0.175	2.0	1.0	11.7	16.5	-	23 NON-PAVED PVT/COMM ENTRANCES W/ APRON
VARIOUS	-	0.091	2.0	1.0	6.1	8.6	-	12 PAVED PVT/COMM ENTRANCES
VARIOUS	-	0.182	10.0	3.0	181.0	85.5	-	16 NON-PAVED STREETS/COUNTY ROADS
VARIOUS	-	0.171	10.0	1.0	56.7	80.3	-	15 PAVED STREETS/COUNTY ROADS
25.319	25.331	0.012	10.0	3.0	12.0	-	-	NON-PAVED PVT/COMM ENTRANCE @ SALE BARN 1
25.352	25.364	0.012	10.0	3.0	12.0	-	-	NON-PAVED PVT/COMM ENTRANCE @ SALE BARN 2
25.382	25.394	0.012	10.0	3.0	12.0	-	-	NON-PAVED PVT/COMM ENTRANCE @ SALE BARN 3
0.163	-	VARIES	VARIES	1.0	16.1	22.7	-	STATE ROUTE INTERSECTION @ ROUTE BB
19.494	-	VARIES	VARIES	1.0	24.2	34.3	-	STATE ROUTE INTERSECTION @ ROUTE N
9.622	9.653	(0.031)	20.0	1.0	(20.60)	(29.1)	(2.7)	EXCEPTION - BRIDGE DECK A7939
10.743	10.756	(0.013)	20.0	1.0	(8.70)	(12.3)	(1.2)	EXCEPTION - RTE E APRON @ RTE 38 INTERSECTION
10.756	12.743	(1.987)	22.0	1.0	(1449.00)	(2051.7)	(170.1)	EXCEPTION - ROUTE 38 TRAVELWAY
12.743	12.756	(0.013)	20.0	1.0	(8.70)	(12.3)	(1.2)	EXCEPTION - RTE E APRON @ RTE 38 INTERSECTION
0.019	25.457	25.438	-	-	307.6	-	-	SAFETY EDGE @ 2% OF MAINLINE (LESS EXCEPTIONS)
0.019	25.457	25.438	-	-	3509.1	-	-	IRREGULARITIES @ 150 TONS/MI (LESS EXCEPTIONS)
				TOTALS	19525.2	22020.4	2002.3	
				USE	19525.2	22021	2002.3	

3.2 Coldmilling Quantities are as follows:

MODIFIED COLDMILLING (DEPTH TRANSITION)			
LOG MILE	**LOG MILE**	**QUANTITY (SY)**	**REMARKS**
0.019	0.029	111.2	START OVERLAY - RTE E TRAVELWAY
25.467	25.457	111.2	END OVERLAY - RTE E TRAVELWAY
VARIOUS	-	106.7	12 PAVED PVT/COMM ENTRANCES
VARIOUS	-	1000.0	15 PAVED STREETS/COUNTY ROADS
0.163	-	61.2	STATE ROUTE INTERSECTION @ ROUTE BB
19.494	-	61.2	STATE ROUTE INTERSECTION @ ROUTE N
9.612	9.622	111.2	APPROACH @ BRIDGE DECK A7939
9.653	9.663	111.2	APPROACH @ BRIDGE DECK A7939
10.733	10.743	111.2	APPROACHING @ RTE 38 INTERSECTION EXCEPTION
12.743	12.753	111.2	APPROACHING @ RTE 38 INTERSECTION EXCEPTION
	TOTALS	1896.3	
	USE	1897	

3.3 Gravel Quantities are as follows:

GRAVEL A OR CRUSHED STONE B			
LOG MILE	**LOG MILE**	**TONS**	**REMARKS**
VARIOUS	-	23	23 NON-PAVED PVT/COMM ENTRANCES W/ APRON (1 TON EA)
VARIOUS	-	192	192 NON-PAVED PVT/COMM ENTRANCES W/O APRON (1 TON EA)
VARIOUS	-	32	16 NON-PAVED STREETS/COUNTY ROADS (2 TON EA)
25.319	25.331	2	NON-PAVED PVT/COMM ENTRANCE @ SALE BARN 1
25.352	25.364	2	NON-PAVED PVT/COMM ENTRANCE @ SALE BARN 2
25.382	25.394	2	NON-PAVED PVT/COMM ENTRANCE @ SALE BARN 3
	TOTALS	253	
	USE	253	

4.0 Temporary Traffic Control Plans. See Standard Plans 616.20 for standard temporary traffic control requirements.

4.1 Construction signs and channelizers are as follows:

CONSTRUCTION SIGNING						
SIGN NO.	**SIGN**	**SIZE (in.)**	**AREA (sq. ft.)**	**QTY.**	**TOTAL AREA (SF)**	**DESCRIPTION**
1 *	GO20-1	60 x 24	10	2	20	ROAD WORK NEXT 26 MILES
2 **	WO20-1	48 x 48	16	10	160	ROAD WORK AHEAD
7	WO20-4	48 x 48	16	6	96	ONE LANE ROAD AHEAD
8	WO20-7A	48 x 48	16	10	160	FLAGGER (SYMBOL) WITH FLAGS
11	WO3-4	48 x 48	16	10	160	BE PREPARED TO STOP
26	GO20-2	48 x 24	8	2	16	END ROAD WORK
35	WO8-12	48 x 48	16	8	128	NO CENTER LINE
36	WO8-11	48 x 48	16	10	160	UNEVEN LANES
58	GO20-4a	42 x 30	8.75	10	88	PILOT CAR IN USE WAIT AND FOLLOW
58	GO20-4a	18 x 12	1.5	10	15.0	PILOT CAR IN USE WAIT AND FOLLOW
59	CONST-8	48 x 36	12	2	24	WORK ZONE NO PHONE ZONE
-	GO22-1	21 x 15	2.19	2	4.38	WET PAINT (ARROW PIVOTS)
	CONSTRUCTION SIGNS TOTAL				1031.38	
				USE	1032	

* - IF LESS THAN (2) MILES, DELETE SIGN NO. 1

** - ADDITIONAL SIGN NO. 2 USED AS SHOWN ON TRAFFIC CONTROL SHEET 3 OF 5 AND AS DIRECTED BY ENGINEER.

REFER TO STANDARD PLAN 616.10 AND 903.03 FOR SIGN AND SIGN MOUNTING REQUIRMENTS.

ITEM NO.	QTY.	DESCRIPTION
616-10.25	100	CHANNELIZERS (TRIM-LINE)

4.2 Mobilization is as follows:

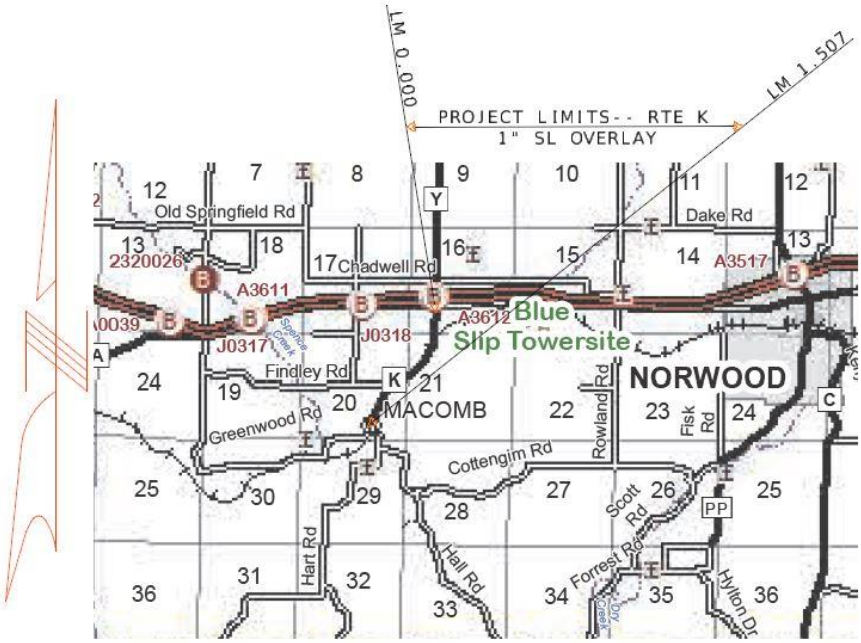
ITEM NO.	QTY.	DESCRIPTION
618-10.00	LUMP SUM	MOBILIZATION

5.0 Pavement Marking. Pavement marking quantities are as follows:

STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS						
LOG MILE	**LOG MILE**	**LENGTH (FT)**	**4" INT. YELLOW (FT)**	**4" SOLID YELLOW (FT)**	**4" SOLID WHITE (FT)**	**REMARKS**
0.000	25.609	135215.5	4581.8	252104.0	270431.0	ROUTE E - WRIGHT COUNTY
0.000	10.752	(56770.6)	-	(113541.2)	(113541.2)	EXCEPTION - RTE E TRAVELWAY, SEGMENT NORTH OF RTE 38
10.756	12.743	(10491.4)	-	(20982.8)	(20982.8)	EXCEPTION - ROUTE 38 TRAVELWAY
		TOTALS	4581.8	117580.0	135907.0	
		USE	122162		135907	
NOTE: TEMPORARY AND PERMANENT PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH 620.10						

R. Project Details and Quantities: JST0112 – Route K; Wright County

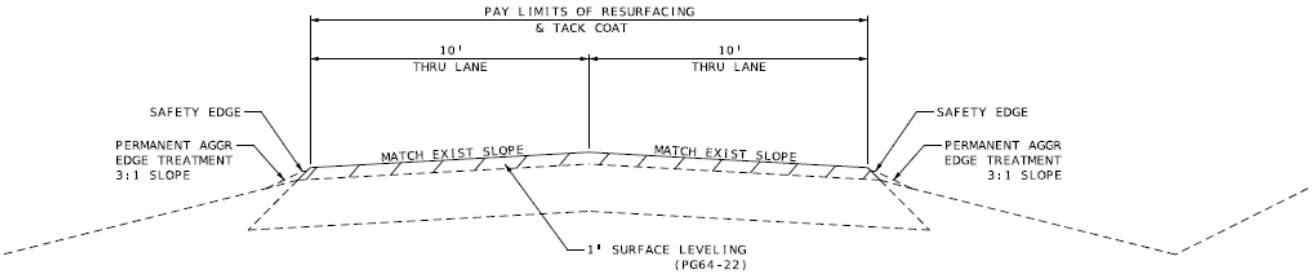
1.0 Description. This project consists of applying a plant mix bituminous pavement (surface leveling) as described here in. The project limits are from Log Mile 0.000 to 1.507 on Route K in Wright County. The total length of pavement limits are 1.507 miles with a total average width of 20.2 feet. Pavement will not be placed at the following exception locations:



EXCEPTIONS			
APPROX. LOG MILE		**LENGTH (FT)**	**REMARKS**
FROM	**TO**		
-	-	-	NO EXCEPTIONS
	TOTAL	**-**	

2.0 Mix and Pavement Transitions.

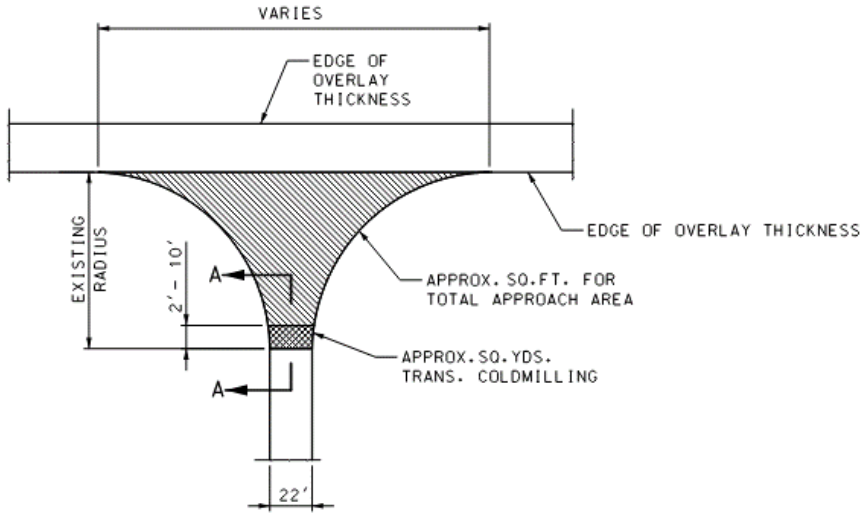
2.1 1" Plant Mix Bituminous Mixture PG 64-22 (Surface Leveling) pavement shall be placed the entire width of the lanes, one pass per lane with no superelevation correction. Tack coat shall be applied at the rate of 0.08 gal/yd^2 the entire width of the traveled way for the length of the pavement limits.

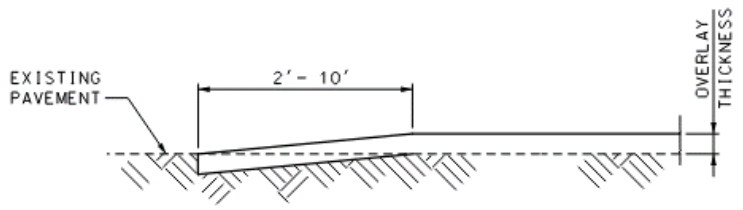


NOTE:
SURFACE PLACEMENT SHALL BE ONE PASS PER LANE
NO S.E. CORRECTION.

2.2 Depth transitions when beginning and ending at a state route shall be coldmilled at the rate of 1" in 25'. When beginning or ending mid-route, including exceptions, shall be coldmilled at the rate of 1" in 50'.

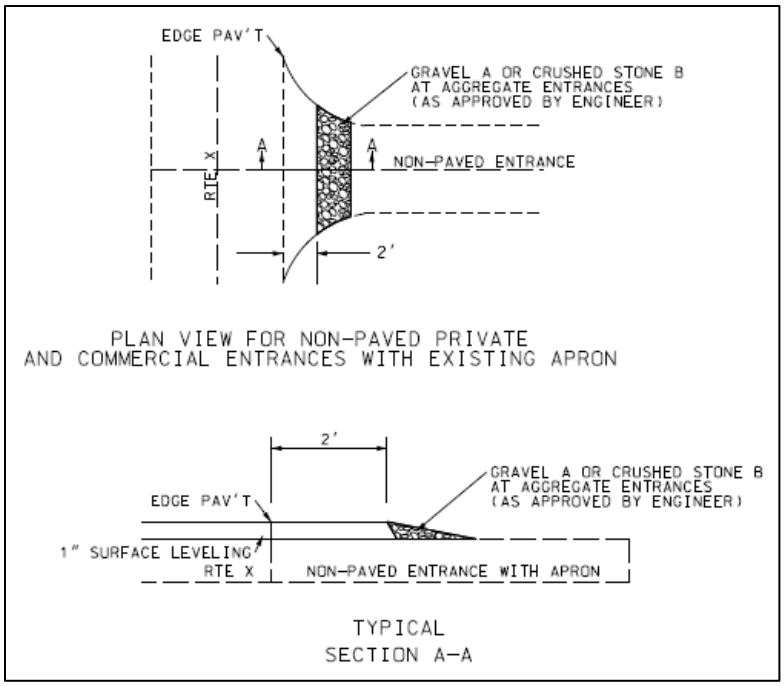
2.3 Coldmilling and pavement tapers at intersecting state routes will vary. See quantities for the approximate paved approach and coldmilling areas (see transition area details below).

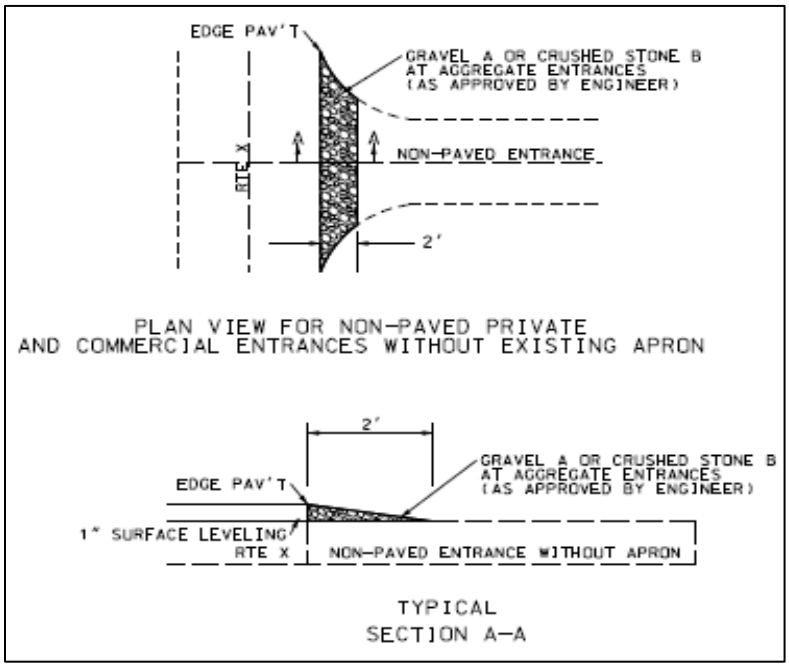


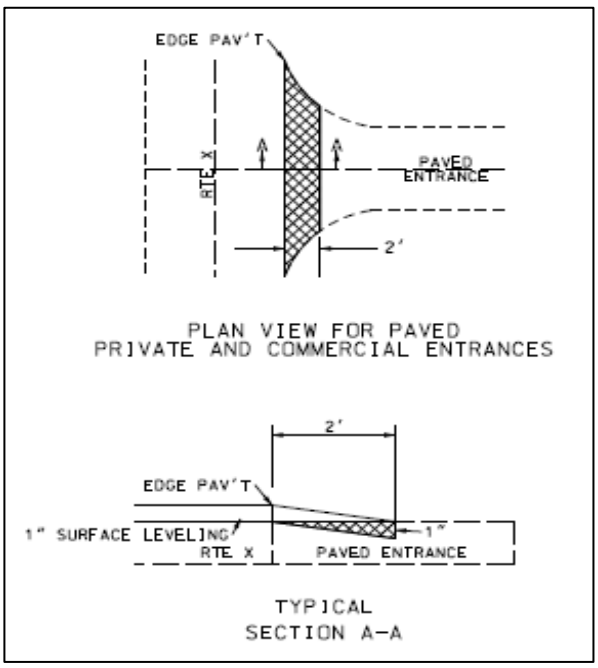


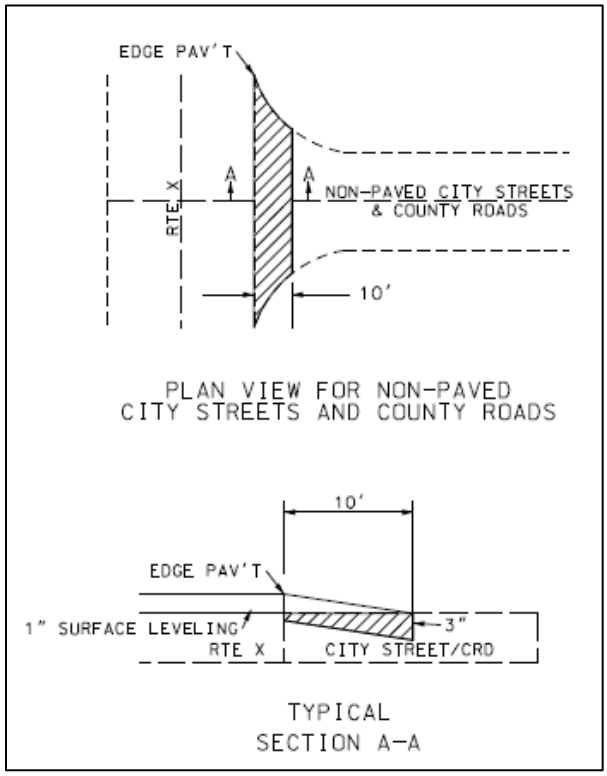
SECTION A-A
TYPICAL STATE ROUTE JUNCTION
(COLDMILLED TRANSITION)

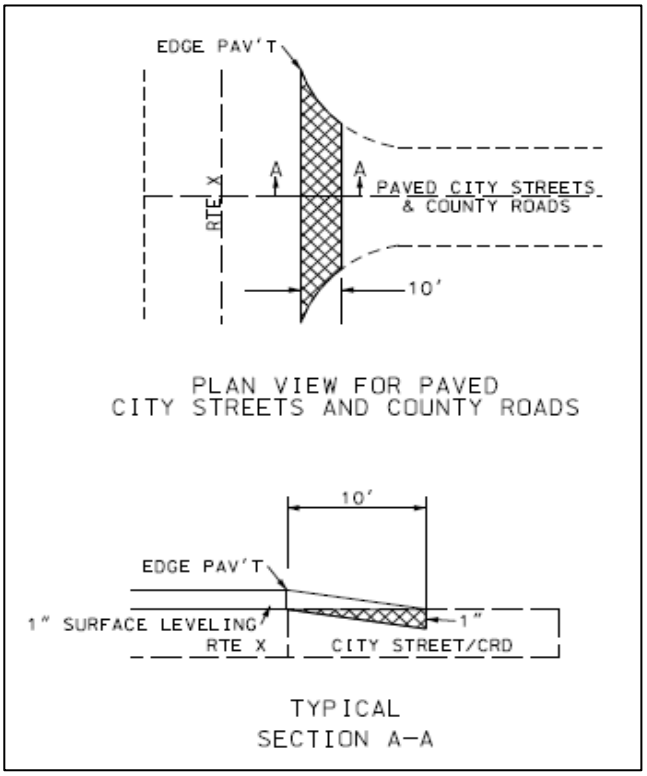
2.4 The bituminous pavement shall be tapered at entrances and non-state routes (see pavement taper details below).











3.0 Pavement and Coldmilling Quantities.

3.1 Pavement quantities are as follows:

BITUMINOUS PAVEMENT								
LOG MILE (MI)	**LOG MILE (MI)**	**NET LENGTH (MI)**	**AVERAGE WIDTH (FT)**	**DEPTH (IN)**	**BITUMINOUS PAVEMENT SL PG64-22 (2.034 TON/CY) (TONS)**	**TACK COAT (0.08 GAL/SY) (GAL)**	**PERMANENT AGG EDGE TREATMENT (85.6 TON/MI) (TONS)**	**REMARKS**
0.147	1.507	1.360	20.2	1.0	910.7	1289.4	116.5	RTE K TRAVELWAY OVERLAY
VARIOUS	-	0.023	2.0	1.0	1.6	2.2	-	3 NON-PAVED PVT/COMM ENTRANCES W/ APRON
VARIOUS	-	0.023	10.0	3.0	22.9	10.8	-	2 NON-PAVED STREETS/COUNTY ROADS
VARIOUS	-	0.012	10.0	1.0	4.0	5.7	-	1 PAVED STREETS/COUNTY ROADS
0.147	1.507	1.360	-	-	18.3	-	-	SAFETY EDGE @ 2% OF MAINLINE
0.147	1.507	1.360	-	-	204.0	-	-	IRREGULARITIES @ 150 TONS/MI
				TOTALS	1161.5	1308.1	116.5	
				USE	1161.5	1309	116.5	

3.2 Coldmilling Quantities are as follows:

MODIFIED COLDMILLING (DEPTH TRANSITION)			
LOG MILE	**LOG MILE**	**QUANTITY (SY)**	**REMARKS**
0.147	0.157	394.4	START OVERLAY - RTE K APRON SOUTH OF OUTER 60/OLD HWY 60
VARIOUS	-	66.7	1 PAVED STREETS/COUNTY ROADS
	TOTALS	461.1	
	USE	462	

3.3 Gravel Quantities are as follows:

GRAVEL A OR CRUSHED STONE B			
LOG MILE	**LOG MILE**	**TONS**	**REMARKS**
VARIOUS	-	3	3 NON-PAVED PVT/COMM ENTRANCES W/ APRON (1 TON EA)
VARIOUS	-	11	11 NON-PAVED PVT/COMM ENTRANCES W/O APRON (1 TON EA)
VARIOUS	-	4	2 NON-PAVED STREETS/COUNTY ROADS (2 TON EA)
	TOTALS	18	
	USE	18	

4.0 Temporary Traffic Control Plans. See Standard Plans 616.20 for standard temporary traffic control requirements.

4.1 Construction signs and channelizers are as follows:

CONSTRUCTION SIGNING						
SIGN NO.	**SIGN**	**SIZE (in.)**	**AREA (sq. ft.)**	**QTY.**	**TOTAL AREA (SF)**	**DESCRIPTION**
1 *	GO20-1	60 x 24	10	0	0	ROAD WORK NEXT 5 MILES
2 **	WO20-1	48 x 48	16	10	160	ROAD WORK AHEAD
7	WO20-4	48 x 48	16	6	96	ONE LANE ROAD AHEAD
8	WO20-7A	48 x 48	16	8	128	FLAGGER (SYMBOL) WITH FLAGS
11	WO3-4	48 x 48	16	8	128	BE PREPARED TO STOP
26	GO20-2	48 x 24	8	2	16	END ROAD WORK
35	WO8-12	48 x 48	16	4	64	NO CENTER LINE
36	WO8-11	48 x 48	16	8	128	UNEVEN LANES
58	GO20-4a	42 x 30	8.75	4	35	PILOT CAR IN USE WAIT AND FOLLOW
58	GO20-4a	18 x 12	1.5	15	22.5	PILOT CAR IN USE WAIT AND FOLLOW
59	CONST-8	48 x 36	12	2	24	WORK ZONE NO PHONE ZONE
-	GO22-1	21 x 15	2.19	2	4.38	WET PAINT (ARROW PIVOTS)
	CONSTRUCTION SIGNS TOTAL				805.88	
				USE	806	

* - IF LESS THAN (2) MILES, DELETE SIGN NO. 1

** - ADDITIONAL SIGN NO. 2 USED AS SHOWN ON TRAFFIC CONTROL SHEET 3 OF 5 AND AS DIRECTED BY ENGINEER.

REFER TO STANDARD PLAN 616.10 AND 903.03 FOR SIGN AND SIGN MOUNTING REQUIRMENTS.

ITEM NO.	QTY.	DESCRIPTION
616-10.25	50	CHANNELIZERS (TRIM-LINE)

4.2 Mobilization is as follows:

ITEM NO.	QTY.	DESCRIPTION
618-10.00	LUMP SUM	MOBILIZATION

5.0 Pavement Marking. Pavement marking quantities are as follows:

STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS						
LOG MILE	**LOG MILE**	**LENGTH (FT)**	**4" INT. YELLOW (FT)**	**4" SOLID YELLOW (FT)**	**4" SOLID WHITE (FT)**	**REMARKS**
0.000	1.507	7957.0	275.0	14814.0	830.0	ROUTE K - WRIGHT COUNTY
		TOTALS	275.0	14814.0	830.0	
		USE	15089		830	
NOTE: TEMPORARY AND PERMANENT PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH 620.10						

S. Supplemental Revisions JSP-18-01CC

Compliance with 2 CFR 200.216 – Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment.

The Missouri Highways and Transportation Commission shall not enter into a contract (or extend or renew a contract) using federal funds to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as substantial or as critical technology as part of any system where the video surveillance and telecommunications equipment was produced by Huawei Technologies Company, ZTE Corporation, Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).

Stormwater Compliance Requirements

1.0 Description. This provision requires the contractor to provide a Water Pollution Control Manager (WPCM) for any project that includes land disturbance on the project site and the total area of land disturbance, both on the project site, and all Off-site support areas, is one (1) acre or more. Regardless of the area of Off-site disturbance, if no land disturbance occurs on the project site, these provisions do not apply. When a WPCM is required, all sections within this provision shall be applicable, including assessment of specified Liquidated Damages for failure to correct Stormwater Deficiencies, as specified herein. This provision is in addition to any other stormwater, environmental, and land disturbance requirements specified elsewhere in the contract.

1.1 Definitions. The project site is defined as all areas designated on the plans, including temporary and permanent easements. The project site is equivalent to the “permitted site”, as defined in MoDOT’s State Operating Permit. An Off-site area is defined as any location off the project site the contractor utilizes for a dedicated project support function, such as, but not limited to, staging area, plant site, borrow area, or waste area.

1.2 Reporting of Off-Site Land Disturbance. If the project includes any planned land disturbance on the project site, prior to the start of work, the contractor shall submit a written report to the engineer that discloses all Off-site support areas where land disturbance is planned, the total acreage of anticipated land disturbance on those sites, and the land disturbance permit

number(s). Upon request by the engineer, the contractor shall submit a copy of its land disturbance permit(s) for Off-site locations. Based on the total acreage of land disturbance, both on and Off-site, the engineer shall determine if these Stormwater Compliance Requirements shall apply. The Contractor shall immediately report any changes to the planned area of Off-site land disturbance. The Contractor is responsible for obtaining its own separate land disturbance permit for Off-site areas.

2.0 Water Pollution Control Manager (WPCM). The Contractor shall designate a competent person to serve as the Water Pollution Control Manager (WPCM) for projects meeting the description in Section 1.0. The Contractor shall ensure the WPCM completes all duties listed in Section 2.1.

2.1 Duties of the WPCM:

(a) Be familiar with the stormwater requirements including the current MoDOT State Operating Permit for construction stormwater discharges/land disturbance activities; MoDOT's statewide Stormwater Pollution Prevention Plan (SWPPP); the Corps of Engineers Section 404 Permit, when applicable; the project specific SWPPP, the Project's Erosion & Sediment Control Plan; all applicable special provisions, specifications, and standard drawings; and this provision;

(b) Successfully complete the MoDOT Stormwater Training Course within the last 4 years. The MoDOT Stormwater Training is a free online course available at MoDOT.org;

(c) Attend the Pre-Activity Meeting for Grading and Land Disturbance and all subsequent Weekly Meetings in which grading activities are discussed;

(d) Oversee and ensure all work is performed in accordance with the Project-specific SWPPP and all updates thereto, or as designated by the engineer;

(e) Review the project site for compliance with the Project SWPPP, as needed, from the start of any grading operations until final stabilization is achieved, and take necessary actions to correct any known deficiencies to prevent pollution of the waters of the state or adjacent property owners prior to the engineer's weekly inspections;

(f) Review and acknowledge receipt of each MoDOT Inspection Report (Land Disturbance Inspection Record) for the Project within forty eight (48) hours of receiving the report and ensure that all Stormwater Deficiencies noted on the report are corrected as soon as possible, but no later than stated in Section 5.0.

3.0 Pre-Activity Meeting for Grading/Land Disturbance and Required Hold Point. A Pre-Activity meeting for grading/land disturbance shall be held prior to the start of any land disturbance operations. No land disturbance operations shall commence prior to the Pre-Activity meeting except work necessary to install perimeter controls and entrances. Discussion items at the pre-activity meeting shall include a review of the Project SWPPP, the planned order of grading operations, proposed areas of initial disturbance, identification of all necessary BMPs that shall be installed prior to commencement of grading operations, and any issues relating to compliance with the Stormwater requirements that could arise in the course of construction activity at the project.

3.1 Hold Point. Following the pre-activity meeting for grading/land disturbance and subsequent installation of the initial BMPs identified at the pre-activity meeting, a Hold Point shall occur prior to the start of any land disturbance operations to allow the engineer and WPCM the time needed to perform an on-site review of the installation of the BMPs to ensure compliance with the SWPPP is met. Land disturbance operations shall not begin until authorization is given by the engineer.

4.0 Inspection Reports. Weekly and post run-off inspections will be performed by the engineer and each Inspection Report (Land Disturbance Inspection Record) will be entered into a web-based Stormwater Compliance database. The WPCM will be granted access to this database and shall promptly review all reports, including any noted deficiencies, and shall acknowledge receipt of the report as required in Section 2.1 (f.).

5.0 Stormwater Deficiency Corrections. All stormwater deficiencies identified in the Inspection Report shall be corrected by the contractor within 7 days of the inspection date or any extended period granted by the engineer when weather or field conditions prohibit the corrective work. If the contractor does not initiate corrective measures within 5 calendar days of the inspection date or any extended period granted by the engineer, all work shall cease on the project except for work to correct these deficiencies, unless otherwise allowed by the engineer. All impact costs related to this halting of work, including, but not limited to stand-by time for equipment, shall be borne by the Contractor. Work shall not resume until the engineer approves the corrective work.

5.1 Liquidated Damages. If the Contractor fails to complete the correction of all Stormwater Deficiencies listed on the MoDOT Inspection Report within the specified time limit, the Commission will be damaged in various ways, including but not limited to, potential liability, required mitigation, environmental clean-up, fines, and penalties. These damages are not reasonably capable of being computed or quantified. Therefore, the contractor will be charged with liquidated damages specified in the amount of $2,000 per day for failure to correct one or more of the Stormwater Deficiencies listed on the Inspection Report within the specified time limit. In addition to the stipulated damages, the stoppage of work shall remain in effect until all corrections are complete.

6.0 Basis of Payment. No direct payment will be made for compliance with this provision.

Delete Sec 106.9 in its entirety and substitute the following:

106.9 Buy America Requirements.
Buy America Requirements are waived if the total amount of Federal financial assistance applied to the project, through awards or subawards, is below $500,000.

106.9.1 Buy America Requirements for Iron and Steel.
On all federal-aid projects, the contractor's attention is directed to Title 23 CFR 635.410 *Buy America Requirements*. Where steel or iron products are to be permanently incorporated into the contract work, steel and iron material shall be manufactured, from the initial melting stage through the application of coatings, in the USA except for "minimal use" as described herein. Furthermore, any coating process of the steel or iron shall be performed in the USA. Under a general waiver from FHWA the use of pig iron and processed, pelletized, and reduced iron ore manufactured outside of the USA will be permitted in the domestic manufacturing process for steel or iron material.

106.9.1.1 Buy America Requirements for Iron and Steel for Manufactured items.

A manufactured item will be considered iron and steel if it is “predominantly” iron or steel. Predominantly iron or steel means that the cost of iron or steel content of a product is more than 50 percent of the total cost of all its components.

106.9.2 Any sources other than the USA as defined will be considered foreign. The required domestic manufacturing process shall include formation of ingots and any subsequent process. Coatings shall include any surface finish that protects or adds value to the product.

106.9.3 “Minimal use” of foreign steel, iron or coating processes will be permitted, provided the cost of such products does not exceed 1/10 of one percent (0.1 percent) of the total contract cost or $2,500.00, whichever is greater. If foreign steel, iron, or coating processes are used, invoices to document the cost of the foreign portion, as delivered to the project, shall be provided and the engineer’s written approval obtained prior to placing the material in any work.

106.9.4 Buy America requirements include a step certification for all fabrication processes of all steel or iron materials that are accepted per Sec 1000. The AASHTO Product Evaluation and Audit Solutions compliance program verifies that all steel and iron products fabrication processes conform to 23 CFR 635.410 Buy America Requirements and is an acceptable standard per 23 CFR 635.410(d). AASHTO Product Evaluation and Audit Solutions compliant suppliers will not be required to submit step certification documentation with the shipment for some selected steel and iron materials. The AASHTO Product Evaluation and Audit Solutions compliant supplier shall maintain the step certification documentation on file and shall provide this documentation to the engineer upon request.

106.9.4.1 Items designated as Category 1 will consist of steel girders, piling, and reinforcing steel installed on site. Category 1 items require supporting documentation prior to incorporation into the project showing all steps of manufacturing, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements. This includes the Mill Test Report from the original producing steel mill and certifications documenting the manufacturing process for all subsequent fabrication, including coatings. The certification shall include language that certifies the following. That all steel and iron materials permanently incorporated in this project was procured and processed domestically and all manufacturing processes, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410.

106.9.4.2 Items designated as Category 2 will include all other steel or iron products not in Category 1 and permanently incorporated in the project. Category 2 items shall consist of, but not be limited to items such as fencing, guardrail, signing, lighting and signal supports. The prime contractor is required to submit a material of origin form certification prior to incorporation into the project from the fabricator for each item that the product is domestic. The Certificate of Materials Origin form (link to certificate form) from the fabricator must show all steps of manufacturing, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements and be signed by a fabricator representative. The engineer reserves the right to request additional information and documentation to verify that all Buy America requirements have been satisfied. These documents shall be submitted upon request by the engineer and retained for a period of 3 years after the last reimbursement of the material.

106.9.4.3 Any minor miscellaneous steel or iron items that are not included in the materials specifications shall be certified by the prime contractor as being procured domestically. Examples of these items would be bolts for sign posts, anchorage inserts, etc. The certification shall read

"I certify that all steel and iron materials permanently incorporated in this project during all manufacturing processes, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements procured and processed domestically in accordance with CFR Title 23 Section 635.410 Buy America Requirements. Any foreign steel used was submitted and accepted under minor usage". The certification shall be signed by an authorized representative of the prime contractor.

106.9.5 When permitted in the contract, alternate bids may be submitted for foreign steel and iron products. The award of the contract when alternate bids are permitted will be based on the lowest total bid of the contract based on furnishing domestic steel or iron products or 125 percent of the lowest total bid based on furnishing foreign steel or iron products. If foreign steel or iron products are awarded in the contract, domestic steel or iron products may be used; however, payment will be at the contract unit price for foreign steel or iron products.

106.9.6 Buy America Requirements for Construction Materials other than iron and steel materials. Construction materials means articles, materials, or supplies that consist of only one of the items listed. Minor additions of articles, materials, supplies, or binding agents to a construction material do not change the categorization of the construction material. Upon request by the engineer, the contractor shall submit a domestic certification for all construction materials listed that are incorporated into the project.

(a) Non-ferrous metals
(b) Plastic and Polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables)
(c) Glass (including optic glass)
(d) Fiber optic cable (including drop cable)
(e) Optical fiber
(f) Lumber
(g) Engineered wood
(h) Drywall

106.9.6.1 Minimal Use allowance for Construction Materials other than iron or steel.
"The total value of the non-compliant products is no more than the lesser of $1,000,000 or 5% of total applicable costs for the project." The contractor shall submit to the engineer any non-domestic materials and their total material cost to the engineer. The contractor and the engineer will both track these totals to assure that the minimal usage allowance is not exceeded.

106.9.7 Buy America Requirements for Manufactured Products.
Manufactured products means:

(a) Articles, materials, or supplies that have been:
    (i) Processed into a specific form and shape; or
    (ii) Combined with other articles, materials, or supplies to create a product with different properties than the individual articles, materials, or supplies.

(b) If an item is classified as an iron or steel product, a construction material, or a section 70917(c) material under § 184.4(e) and the definitions set forth in this section, then it is not a manufactured product. However, an article, material, or supply classified as a manufactured product under § 184.4(e) and paragraph (1) of this definition may include components that are construction materials, iron or steel products, or section 70917(c) materials.

106.9.7.1 Manufactured products are exempt from Buy America requirements. To qualify as a manufactured product, items that consist of two or more of the listed construction materials that have been combined together through a manufacturing process, and items that include at least one of the listed materials combined with a material that is not listed through a manufacturing process, should be treated as manufactured products, rather than as construction materials.

106.9.7.2 Manufactured items are covered under a general waiver to exclude them from Buy America Requirements. To qualify for the exemption the components must comprise of 55% of the value of materials in the item. The final assembly must also be performed domestically.

Pavement Marking Paint Requirements for Standard Waterborne and Temporary

1.0 Description. High Build acrylic waterborne pavement marking paint shall be used in lieu of standard acrylic waterborne pavement marking paint for all Standard Waterborne Pavement Marking Paint items and all Temporary Pavement Marking Paint items. Paint thickness, bead type, bead application rate, retroreflectivity requirements, and all other specifications shall remain as stated in the Missouri Standard Specifications for Highway Construction, except as otherwise amended in the contract documents.

2.0 Material Requirements. Material requirements for Sec 620.20.2.5 Standard Waterborne Paint, and Sec 620.10.2 Temporary Pavement Marking Paint shall be per Sec 1048.20.1.2 High Build Acrylic Waterborne Pavement Marking Paint.

T. Contractor Quality Control for Plant Mix Bituminous Surface Leveling NJSP-15-21A

1.0 Description. The contractor shall provide Quality Control (QC) testing and shall perform verification procedures associated with the production and placement of Plant Mix Bituminous Surface Leveling Mixture in accordance with this provision.

2.0 Asphalt Plant Requirements. The contractor shall perform quality control testing in the production of the Surface Leveling Mixture and report the results electronically on MoDOT-provided forms. All reports shall include the Contract ID, Project Number, Route, County, and Job Mix number.

2.1 Calibration of the asphalt plant shall be in accordance with Sec 403.17.2.2. Record retention for verification of test reports shall be in accordance with Sec 403.17.3.2.

2.2 At a minimum, the contractor shall perform one QC sieve analysis test for each day of production of Surface Level mixture in excess of 100 tons to verify the aggregate is within the required gradation range. Results of the QC sieve analysis test shall be reported to the engineer daily. A split of each sample shall be clearly labeled and stored by the contractor in a manner that prevents contamination. The engineer will collect a minimum of one random QC split sample, and one full sample from plant production, for testing per each 10,000 tons of production. Uncollected QC split samples shall be retained by the contractor until the engineer authorizes disposal or until the Final Inspection, whichever occurs earlier.

2.3 The contractor shall monitor the quantity of asphalt binder used in the production of the mix, including any commercial mix, and report that quantity to the engineer. Original asphalt binder

delivery tickets shall accompany the report submitted to the engineer. The engineer will perform a minimum of one asphalt binder content test per each 10,000 tons of production for any project that exceeds a total of 5,000 tons of production.

2.4 The contractor shall take a daily QC sample of the asphalt binder per instructions in Section 460.3.13 of the EPG. The engineer will collect the QC samples and ship to the MoDOT Central lab for random testing. In addition, the engineer will take a minimum of one random Quality Assurance sample per project from the binder line. The engineer sample will be shipped to the Central Lab along with the daily samples and will be designated for testing.

2.5 The contractor shall perform one moisture content test for each day of production of Surface Level mixture in excess of 100 tons. The frequency of the moisture test may be reduced if approved by the engineer.

3.0 Roadway Requirements. The contractor shall perform quality control verification of the Surface Leveling Mixture on the roadway and shall monitor the asphalt tonnage placed in relation to plan quantity.

3.1 Irregularities. Additional tons of Surface Leveling mix will be provided for irregularities in the existing roadway surface. The tonnage specified for irregularities is an estimated quantity and shall only be placed at locations where it is necessary to fill ruts and other low points. Prior to placing the mix, the contractor and engineer shall evaluate the entire route and develop a plan that best utilizes the tonnage needed for irregularities. Any excess quantity of irregularities shall not be placed.

3.2 Tack. On the first day of production, the contractor shall demonstrate proper application of tack coat in the presence of the engineer. Thereafter, when the engineer is not present to witness the application of the tack coat, the contractor shall document the tack application by taking a minimum of two high-resolution date/time stamped photographs of the tacked surface per one-mile segment. Pictures should be taken just in front of the paver in order to account for loss of tack from truck tires. The contractor shall also monitor and document the application rate. The contractor shall take distributor readings at the beginning and ending of each shift and document the quantity used.

3.3 Spreading and Rolling. On the first day of production, the contractor shall demonstrate successful spreading and compaction of the mixture, including proper rolling patterns, in the presence of the engineer. Thereafter, the contractor shall monitor all roadway production procedures and document daily. Use of approved Intelligent Compaction technology is an allowable substitute for daily documentation.

3.4 Monitoring of Quantity. The contractor shall monitor the quantity of Surface Level mix placed and report that information to the engineer and production staff as specified herein.

3.4.1 The contractor shall verify that the quantity of Surface Leveling mix in the contract for each route is sufficient to cover the roadway as shown on the typical sections, including any surface irregularities. Any discrepancies shall be brought to the engineer's attention in writing prior to the pre-construction conference. Plan quantity shall be defined as the total tons computed to cover the surface area according to the typical section, plus any amount pre-approved by the engineer for pavement irregularities.

3.4.2 The contractor shall provide temporary log mile reference points at no less than ½ mile intervals along each route to monitor the tons of Surface Leveling mix laid in relation to plan quantity. Entrances, shoulders, or other irregular areas will be monitored as directed by the engineer.

3.4.3 During production, the contractor shall document the total tons placed in each one-mile segment, along with the plan quantity and the percent over/under for that segment. The cumulative quantity and percent over/under for the route should also be documented. After each one-mile segment, the contractor shall provide a status report to the production manager and the engineer. When the engineer is not present on the project, the contractor shall send an electronic status report to the engineer.

3.4.4 The goal is to keep the placed quantity within 2% of plan quantity for the project. The engineer will monitor the status reports and will advise the contractor on how to proceed when there is an excessive variance from plan quantity. The engineer may decrease the frequency of the electronic status reports when the variances are consistently low.

3.4.5 The contractor shall collect asphalt tickets from the delivery trucks and group them per each one-mile segment. The contractor shall submit to the engineer a daily summary report that includes all of the information specified in Section 3.4.3. The contractor shall sign the summary report confirming that the information is accurate and that the attached tickets represent the asphalt material placed.

3.4.6 The contractor shall be equipped with a contractor-furnished cellular device capable of providing and maintaining a reliable means of immediate communication with the engineer when the engineer is not present on the project.

4.0 Excessive Quantity. If the contractor places Surface Level mix on any one-mile segment, or any other isolated areas, in excess of plan quantity by 5% or more, without prior approval from the engineer, further investigation may be required to determine if the excess was warranted. If directed by the engineer, the contractor shall core the pavement at locations established by the engineer to determine the amount that was excessive, if any. No payment will be made for the cost to core the pavement or for the tons of Surface Level mix that the engineer determines to be excessive. If the amount of Surface Level mix is determined to be justified, payment will be made for the mix, and for the cost of coring at the fixed price established in Sec 109. Placement of asphalt in excess of plan quantity for two consecutive segments without prior approval from the engineer may result in issuance of an Order Record to stop work.

5.0 Basis of Payment. No direct payment will be made for compliance with this provision. All costs shall be considered completely covered under the pay items provided in the contract.

U. Pavement Marking Log

1.0 Description. The contractor shall log the locations of existing pavement marking prior to any construction operations that may affect the existing pavement marking. The log shall contain all existing pavement marking and shall include center stripes, no passing stripes, lane lines, turn arrows, hash bars, cross walks, and stop bars. The contractor shall provide a copy of the existing pavement marking log to the engineer. The contractor shall place the new pavement marking at the same locations as the existing pavement marking, unless otherwise directed by the engineer or shown on the plans.

2.0 Basis of Payment. No direct payment will be made for logging of existing pavement marking.

V. Additional Flaggers

1.0 Description. Additional flagger(s) and appropriate construction signs shall be provided at state route intersections and at other locations, as requested by the Engineer.

2.0 Basis of Payment. There will be no direct pay for all labor and equipment necessary to provide additional flaggers. All cost shall be considered completely covered under the pay items provided in the contract.

W. Permanent Aggregate Edge Treatment NJSP-15-40B

1.0 Description. This work shall consist of furnishing and installing a permanent aggregate edge treatment along the edge of shoulder or pavement as shown on the plans or as directed by the engineer.

2.0 Construction Requirements. Aggregate shall be simultaneously deposited and spread on the sub-grade and shall not be deposited on the pavement or shoulder and bladed into place. Aggregate material shall be shaped according to the typical section and compacted until there is no visible evidence of further consolidation.

3.0 Material Requirements. Material used for the aggregate edge treatment shall be Type 1, 5, or 7 Aggregate in accordance with Sec 1007 or an allowable substitute approved by the engineer. Bituminous cold millings meeting the gradation for Type 1, 5 or 7 Aggregate may be used in lieu of aggregate. Limestone screenings or other material with excessive fines will not be allowed. Material will be accepted based on certification in lieu of testing contingent upon satisfactory results being obtained in the field.

4.0 Measurement by Weight. Measurement of the aggregate edge treatment material shall be per ton and in accordance with Sec 310.5.3.

5.0 Basis of Payment. The accepted quantities of aggregate edge treatment will be paid for at the contract unit price for 304-99.10, Permanent Aggregate Edge Treatment, per ton and will be full compensation for all labor, equipment and material to complete the described work. No fuel adjustment will be made for Permanent Aggregate Edge Treatment.

X. Damage to Existing Roadways and Entrances

1.0 Description. This work shall consist of repairing any damage to existing pavement, shoulders, side roads, and entrances caused by Contractor operations. This shall include, but is not limited to, damage caused by the traffic during Contractor operations within the project limits including the work zone signing.

2.0 Construction Requirements. Any cracking, gouging, or other damage to the existing pavement, shoulders, side roads, or entrances from general construction shall be repaired within

twenty-four (24) hours of the time of damage at the Contractor's expense. Repair of the damaged pavement, shoulders, side roads, or entrances shall be as determined by the Engineer.

3.0 Method of Measurement. No measurement of damaged pavement, shoulder, side roads, or entrances, as described above, shall be made.

4.0 Basis of Payment. No payment will be made for repairs to existing pavement, shoulders, side roads or entrances damaged by Contractor operations.