OHIO DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

70

(1/12)

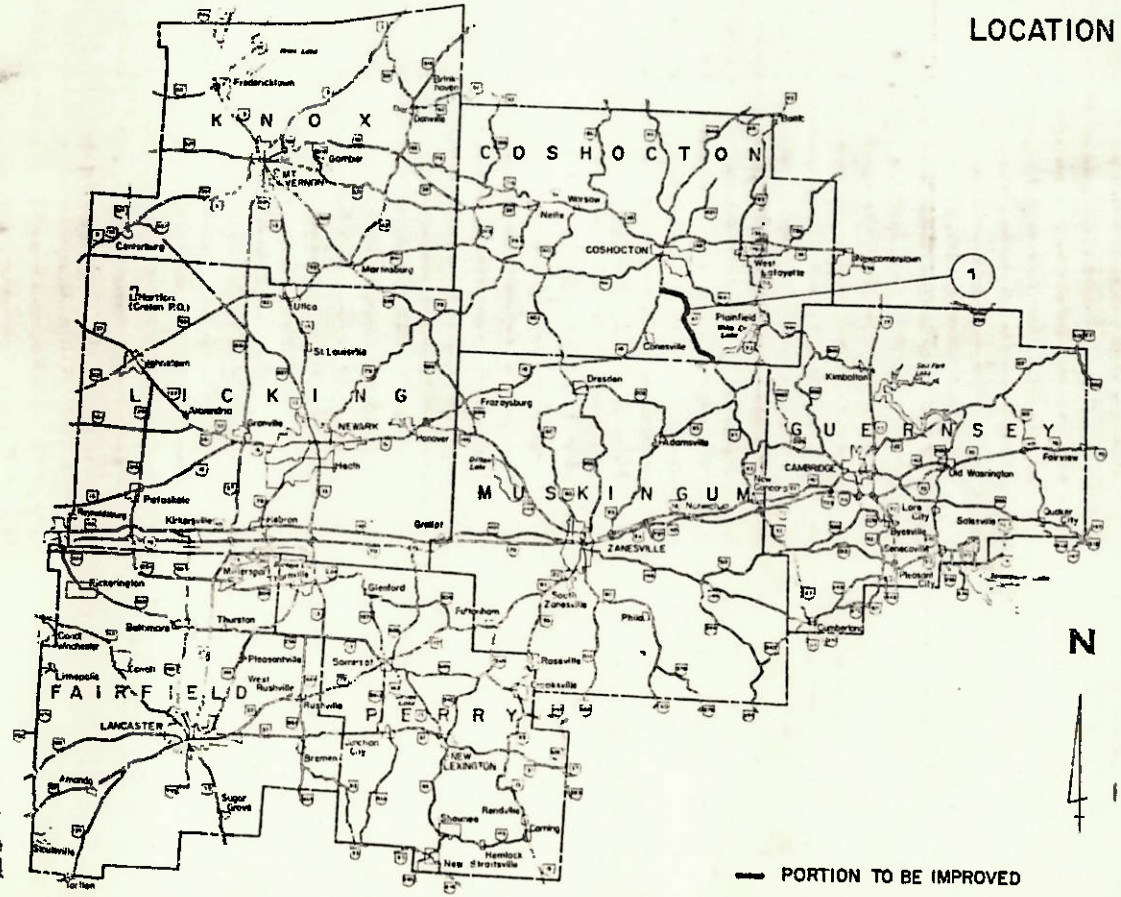
70(83)

(1/12)

PLAN NO. 62

PART	COUNTY	ROUTE	SECTIONS	PROJECT TERMINII BEGIN	PROJECT TERMINII END	NET LENGTH MILES	TOWNSHIP	CITY	VILLAGE
1	COS.	83	(0.00 – 7.49)	0.00	9.02	9.02			

LOCATION MAP



— PORTION TO BE IMPROVED

2-1-83

The Standard 19 81 Specifications of the State of Ohio, Department of Transportation, including changes and Supplemental Specifications listed in the plans and proposal shall govern these improvements.

I hereby approve these plans and declare that the making of these improvements will require the closing of the highways to traffic on Parts No. None and that detours will be provided by State forces. The closing to traffic of the highways will not be required on Parts No. 1 and provisions for the maintenance and safety of traffic will be as indicated in the proposal.

Approved Date 11-16-82 — District Deputy Director of Transportation

Approved Date 11-23-82 — Engineer of Bridges

Approved Date _____ — Engineer of Maintenance

Approved Date 12-1-82 — Chief Engineer, Operations

Approved Date _____ — Assistant Deputy Director, Program Development

Approved Date _____ — Chief Engineer, Construction

Approved Date _____ — Chief Engineer, Design

Approved Date _____ — Assistant Director, Department of Transportation

Approved Date 12-7-82 — Director, Department of Transportation

STANDARD DRAWINGS		SUPPLEMENTAL SPECIFICATIONS	
BP-5	7-16-81	SS-933	8-21-80

M & R 695

404 ASPHALT CONCRETE, AS PER PLAN –

Pavement marking (172' of 24" Stop Line) will be placed at indicated locations. Exact locations will be determined at a pre-construction conference. The state will furnish and place the plastic markings at the locations and the Contractor shall roll the plastic markings into the new surface during the finish rolling operation. Cost of rolling shall be included in the Unit Bid Price for Item 404 Asphalt Concrete, As Per Plan.

ITEM SPECIAL GRADER RENTAL (GRADING, SHAPING, BERMING AND DITCHING). –

A minimum grader size of 23,000 lbs. shall be required.

The quantity to be paid for shall be the actual number of hours of accepted equipment work. It will be the Contractors responsibility to remove and dispose of any excess material around guard rail and other areas to the satisfaction of the Engineer. The accepted quantity will be paid for at the contract price per unit and shall include all equipment, labor, fuel, removing and disposing of excess material and all incidental items necessary to complete this item. Cost of all the above work shall be paid for under ITEM SPECIAL-GRADER RENTAL.

PAVED SHOULDERS –

The paved shoulder shall be applied at the same time as the final course of 404 Asphalt Concrete, as directed by the Engineer.

ITEM 511 CLASS "S" CONCRETE (SUPERSTRUCTURE), as per plan

All patches other than sound portland cement concrete, and all obviously loose and disintegrated concrete shall be removed. After this initial removal, the Engineer will sound the deck and outline for removal all other areas of loose or unsound concrete.

Concrete may be removed by scarifying, chipping or hand dressing. Chipping hammers shall not be heavier than the nominal 35-pound class and shall be operated at an angle of less than 45 degrees with respect to the surface of the deck. Concrete shall be removed in a manner than prevents cutting, elongating or damaging reinforcing steel.

Deck surface shall be made free of spalls, laitance, and all traces of foreign material. If necessary, detergent cleaning shall precede blast cleaning to ensure the removal of contaminants detrimental to achieving an adequate bond.

Surface which will contact the overlay shall be cleaned with an air blast, wetted and kept wet but free of standing water for at least one hour prior to placing the overlay.

EXTRA AREAS
Approaches To Be Paved
Totals Are Carried To Sheet 5

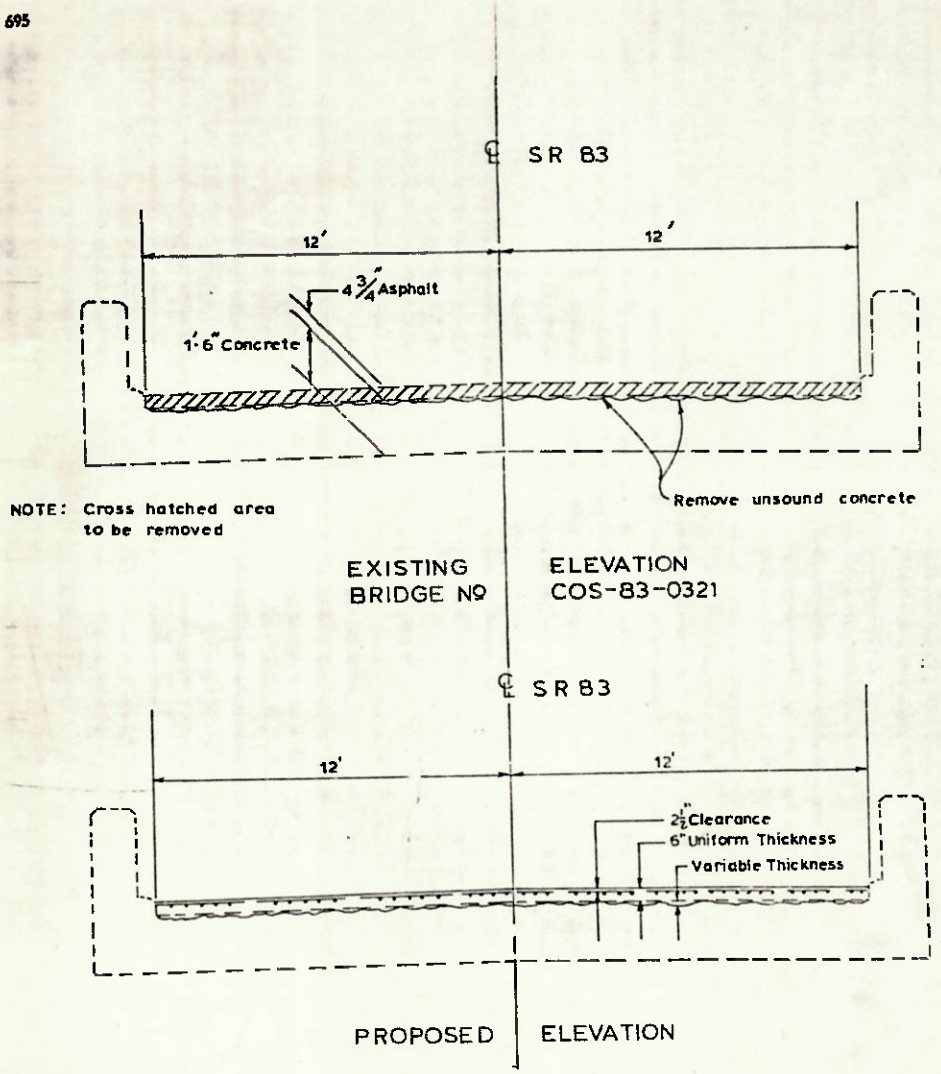
ROAD	EXISTING SURFACE TYPE	AREA IN SQUARE YARDS	PROPOSED THICKNESS ASPHALT CONCRETE	404 ASPHALT CONCRETE CU. YDS.	408 BITUMINOUS PRIME COAT @.04 GAL/SY. GALS.	407 TACK COAT @.005 GAL/SY. GALS.
TWP. RD. 15	Paved	162	1 1/2	7		8
CO. RD. 410	Paved	269	1 1/2	11		13
TWP. RD. 276	Gravel	254	2	14	102	
CO. RD. 429	Paved	219	1 1/2	9		11
CO. RD. 275	Gravel	133	2	7	53	
TWP. RD. 278	Paved	64	1 1/2	3		3
TWP. RD. 146	Paved	202	1 1/2	8		10
TWP. RD. 277	Paved	67	1 1/2	3		3
TWP. RD. 450	Paved	233	1 1/2	10		12
CO. RD. 7	Gravel	831	2	46	332	
CO. RD. 91(L)	Paved	55	1 1/2	2		3
CO. RD. 91(L)	Paved	55	1 1/2	2		3
CO. RD. 91(R)	Paved	519	1	14		26
TWP. RD. 270	Paved	519.	1	14		26
CO. RD. 271(N)	Paved	332	1	9		17
CO. RD. 271(S)	Paved	332	1	9		17
TURN LANES AT CO. RD. 271	Paved	696	1	19		35
TOTALS		4942		187	487	187

M & R 695

(3/12)

3/12

PLAN NO. 6.2.



GENERAL NOTES

ITEM 614 - MAINTAINING TRAFFIC -

Through traffic shall be maintained at all times by use of half width construction. The bridge shall be repaired half width at a time while one lane traffic is maintained on the other half. A minimum lane width of 12 feet shall be maintained for the one way traffic. The Contractor shall provide traffic signal lights for controlling the alternating flow of traffic over the one lane. These signals shall conform to the requirements of the Ohio Manual of Uniform Traffic Control Devices for Streets and Highways. See Sheet No. 10 for location of signals and signs.

Also, for a distance of 50± feet at each end of the bridge there will be a wearing course removal to assure smooth transition onto the bridge deck after the wearing course has been removed and while the bridge deck is being repaired. This transition shall begin at the concrete deck of the bridge after the wearing course has been removed and feather to 0 inches 50 ft.± in both directions. After the bridge deck has been repaired and overlayed, the transition area shall be tacked with 407 material before the 404 material is applied as directed by the Engineer. The actual thickness and distance of the transition area may vary due to irregularities in the existing surface. The final profile shall be smooth.

The following quantities are carried to the General Summary for the above purpose.

202	Wearing Course Removed	222 Sq. Yds.
404	Extra Asphalt Concrete-Transition Areas	10 Cu. Yds.

WIRE MESH REINFORCING, 1/4" diam X 6" Spacing:

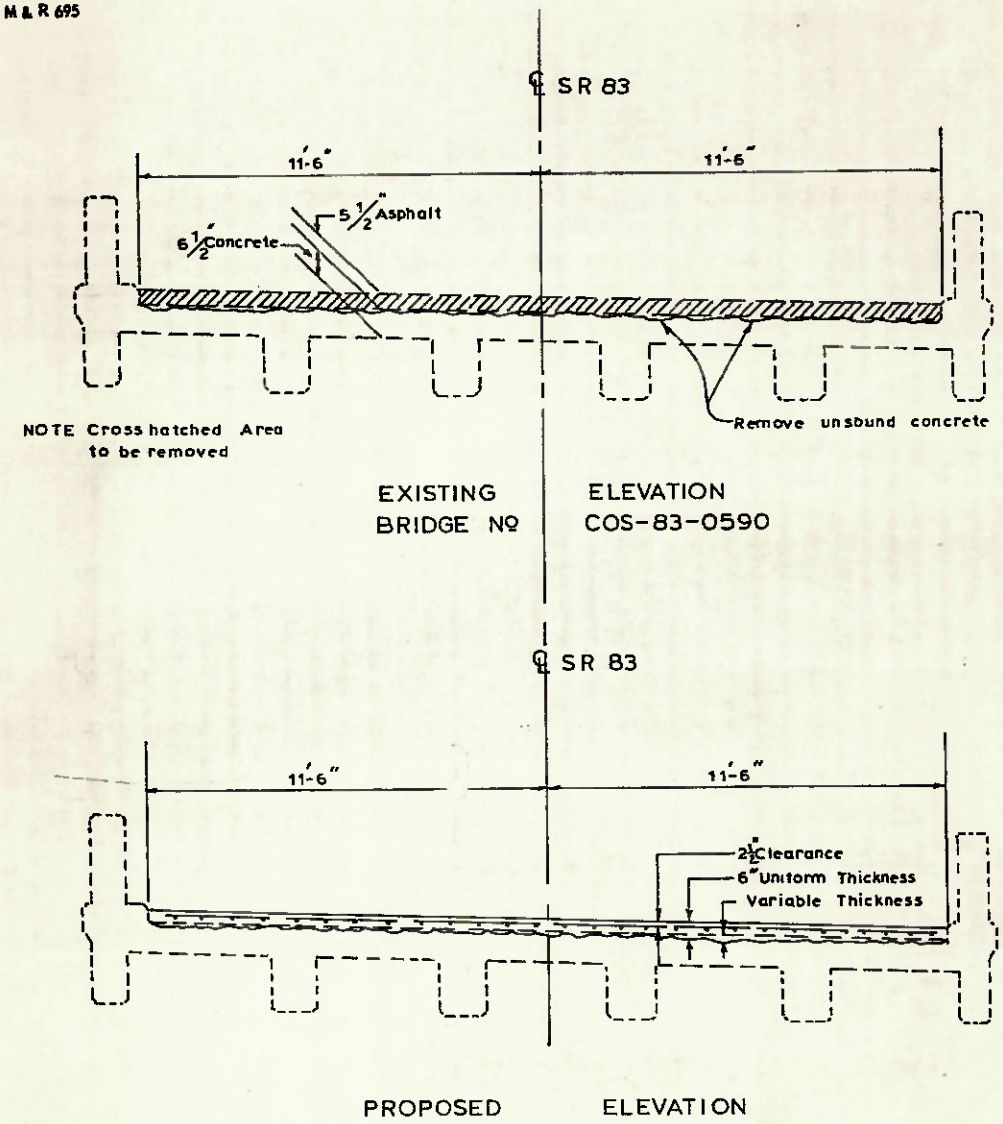
This item shall conform to 709.12 of the Construction and Material Specifications. The commercial designation is 6x6 - D5 x D5. Payment for wire mesh reinforcing shall be included in contract price bid for Item 511 Class "S" Concrete, as per plan

ITEM 511 Class "S" Concrete (Superstructure) -As Per Plan

Calculations: Uniform thickness 30'-5" x 24'-0"x6"	=	14 Cu.Yds.
Variable thickness 30'-5"x24'-0"x1 1/2" Avg.	=	3 Cu.Yds.
		17 Cu.Yds.

See note on sheet 2.

M & R 695



4/12 7

4/12

PLAN NO. 62

GENERAL NOTES

ITEM 614 - MAINTAINING TRAFFIC -

Through traffic shall be maintained at all times by the use of half width construction. The bridge shall be repaired half width at a time while one lane traffic is maintained on the other half. A minimum lane width of 12 feet shall be maintained for the one way traffic. The Contractor shall provide traffic signal lights for controlling the alternating flow of traffic over the one lane. These signals shall conform to the requirements of the Ohio Manual of Uniform Traffic Control Devices for Streets and Highways. See Sheet No. 10 for location of signals and signs.

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The following quantities are carried to the General Summary for the above purpose.

202	Wear Course Removed	222 Sq. Yd.
404	Extra Asphalt Concrete-Transition Areas	12 Cu. Yds.

WIRE MESH REINFORCING, 1/4" diam X 6" Spacing:

This item shall conform to 709.12 of the Construction and Material Specifications. The commercial designation is 6x6 - D5 x D5. Payment for wire mesh reinforcing shall be included in contract price bid for Item 511 Class "S" Concrete, as per plan

ITEM 511 Class "S" Concrete (Superstructure) -

Calculations: Uniform thickness 39'-0" x 23'-0" x 6"	=	17 Cu.Yds.
Variable thickness 39.0 x 23.0 x 1 1/2" avg.=		4 Cu.Yds.
		21 Cu.Yds.

See note on sheet 2.

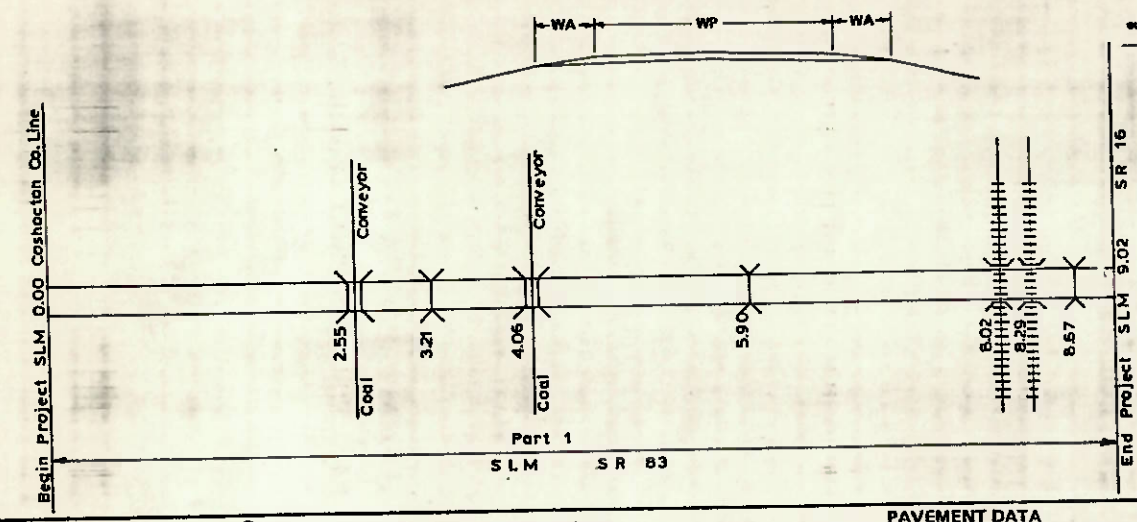
M & R 680 REV. 9-1-74

ASPHALT CONCRETE

(5/12)

PLAN NO. 62 (5/12)

TYPICAL 1



TYPICAL 2

BRIDGE TREATMENT

COS. 83—0321	30.42'X 24.0'	Overlay	See Sheet 3
COS.83—0590	39.0' X 23.0'	Overlay	See Sheet 4
COS. 83—0802	138.52' X 42.5'	Patch	See Sheet 7
COS. 83—0829	155.06' X 42.5'	Patch	See Sheet 7
COS. 83—0867	487.5' X 44.0'	Patch	See Sheet 7

*See note on sheet 6

PAVEMENT DATA

① Bridge Length X Pavement Width ② As Per Plan

PART	ROUTE	LOG POINT TO LOG POINT	LENGTH MILES	LENGTH LIN. FT	WP FEET	TYPICAL	EXISTING TYPE PAVEMENT	PAVEMENT AREA SQ. YDS.	PROPOSED PAVEMENT 407 TACK COAT @ 0.05 gal./s.y. GALS.	407 COVER AGGR. @ 1 lbs./s.y. TONS	ASPHALT CONCRETE ITEM 403 THICK INCHES	403 CU. YDS.	ITEM 404 ② THICK INCHES	404 CU. YDS.	ITEM ____ THICK INCHES	ITEM ____ CU. YDS.	614 Temporary Center Lines As Per Plan Miles	614 Temporary Edge Lines As Per Plan Miles	408* Bituminous Prime Coat Gals.
1	SR 83	0.00—7.49	7.49	39547	20	1	404	87882	4394	44	1/2	1221	1	2441			14.98	14.98	
		7.49 9.02	1.53	8078	24	1	404	21541	1077	11			1	598			3.06	3.06	
①	Deduct For Bridges							(2237)	(112)	(1)		(2)		(62)					
	Extra Areas See Sheet 2							4942	187					187					487
	Extra Tack Coat For Longitudinal Joint								110										
	TOTALS	PART 1	9.02	47625				112128	5656	54		1219		3164			18.04	18.04	487

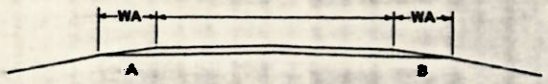
M & R 684 REV. 9-1-78

PAVED SHOULDERS

(6/12)

PLAN NO. 62 (6/12)

TYPICAL 1



TYPICAL 2

~~ITEM 411 - STABILIZED CRUSHED AGGREGATE: Whenever 411 stabilized crushed aggregate is stipulated, the first paragraph of 411.03 is waived and subgrade compaction shall be to the satisfaction of the Engineer.~~

** One station equals 100 lin. ft. Stations shall be measured along each edge of pavement.

*NOTES

1. ITEM 203 LINEAR GRADING: This work shall consist of preparing a subgrade for the shoulder paving by excavating the existing shoulder material to the depth shown in the plan, or as directed by the Engineer to remove any unstable material and by shaping and compacting the subgrade. The unsound or broken edge of bituminous pavements shall first be trimmed to a line established by the Engineer. The existing shoulder then shall be excavated and the subgrade shaped and compacted. Compaction shall be carried out to the satisfaction of the Engineer by means of a trench roller, 401.11. Areas graded in excess of depths specified or directed by the Engineer shall be backfilled to desired grade using 617 Compacted Aggregate at the contractor's expense. Excavated material shall be disposed of as indicated in the plan.

- ☐ a. Used to back up shoulders where required; the balance to be disposed of as directed by the Engineer.
- ☐ b. Disposed of by the Contractor at his own responsibility outside the limits of the right-of way.
- ☐ c. Wasted adjacent to the pavement and within the right-of-way as directed by the Engineer.

X ITEM 402 ASPHALT CONCRETE: Prior to placing a bituminous mixture for shoulder paving, the edge of the existing pavement, for the full depth of the trench, shall be coated with bituminous material in accordance with 401.12.

~~X~~ ITEM 301 BITUMINOUS AGGREGATE BASE may be used in lieu of Item 402 Asphalt Concrete.

~~X~~ ITEM 617 COMPACTED AGGREGATE: A quantity of Item 617 Compacted Aggregate has been provided for areas where the shoulders were low prior to grading and/or low areas caused by removal of unsuitable material.

5. ITEM 408 BITUMINOUS PRIME COAT: After application of the Prime Coat, no further treatment shall be performed until so directed by the Engineer.

~~X~~ ~~SHIELD: The contractor shall provide a shield to prevent the spraying or drifting of liquid bituminous material onto the edge of the pavement or adjoining. The attention of the contractor is directed to 107.12 of the Specifications.~~

PAVED SHOULDER DATA

PART	ROUTE	LOG POINT TO LOG POINT	LENGTH MILES	LENGTH LIN. FT.	TYPICAL	PROPOSED WIDTH (FT.) A	B	C	D	SHOULDER AREA SQ. YDS.	203 LINEAR GRADING DEPTH INCHES	**STA.	404 ASPHALT CONCRETE AVG. THICK INCHES	CU. YDS.	411 STABILIZED CRUSHED AGGREGATE AVG. THICK INCHES	CU. YDS.	408 PRIME Bit. Matl. @ 0.40 gal./s.y. GALS.	409 SEAL Bit. Matl. @ ..... gal./s.y. GALS.	Aggr. @ ..... c.y./s.y. CU. YDS.	617 COMPACTED AGGREGATE TO BACK UP PAVED BERMS 18" X 2" CU. YDS.	605 AGGREGATE DRAINS LIN. FT.	SPECIAL GRADER RENTAL AS PER PLAN HOURS		* NOTES
1	SR 83	0.00 9.02	9.02	47626	1	2	2			21167			2	1176			8467			882		27		5

M&R 670 REV. 9-1-79

BRIDGE DECK TREATMENT

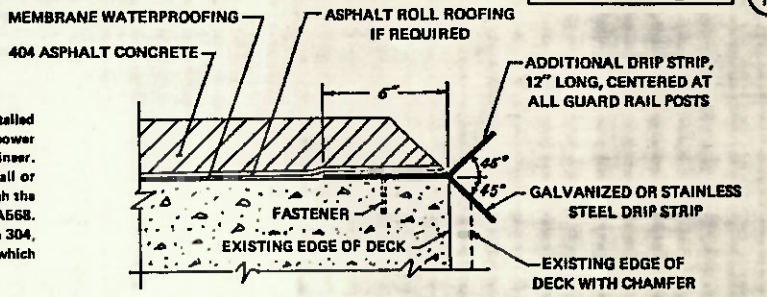
PLAN NO. 62 (7/12)

PROTECTIVE COURSE FOR MEMBRANE WATERPROOFING

MEMBRANE WATERPROOFING, Sheet Type 1: A minimum of 1-1/2 inches of 404 Asphalt Concrete shall be placed over the membrane.

MEMBRANE WATERPROOFING: A minimum of 2-1/2 inches of 404 Asphalt Concrete shall be placed over the membrane.

DRIP STRIP: Prior to applying deck membrane waterproofing, a bent drip strip shall be installed along the edges of the deck as shown. The strips shall be fastened at 1'-6" c/c maximum with power driven pins or no. 10 galvanized screws and expansion anchors, subject to the approval of the Engineer. The strips shall be placed the full length of the deck, ending at the face of the abutment wingwall or steel end dam angle. Where splices are required a 3" (Min.) lap shall be used with a fastener through the lap. Steel for galvanized strips shall be 8" X 0.105" and shall meet the requirements of ASTM A568. Galvanizing shall be in accordance with 711.02. Stainless steel shall be 20 gauge ASTM A167, Type 304, mill finish. Payment shall be at the contract price bid for item Special Sq. Ft. Steel Drip Strip, which shall include all materials, labor, tools and incidentals necessary to complete item.



TYP. SEC. DRIP STRIP

BRIDGE DECK DATA

PART	COUNTY, ROUTE, BRIDGE NO.	LENGTH (BRIDGE LIMITS) L.F.	WIDTH L.F.	BRIDGE DECK AREA S.Y.	202 WEARING COURSE REMOVED DEPTH ____" S.Y.	BRIDGE DECK REPAIR ☐ SS-845 LATEX MODIFIED CONCRETE ☐ SS-850 DENSE CONCRETE ____" THICK OVERLAY S.Y.	VARIABLE THICKNESS OVERLAY C.Y.	FULL-DEPTH REPAIR C.Y.	SPECIAL PATCHING TYPE	PATCHING S.Y.	STEEL DRIP STRIP S.F.	DECK WATERPROOFING MEMBRANE WATERPROOFING SHEET TYPE 1 S.Y.	DECK WATERPROOFING MEMBRANE WATERPROOFING S.Y.	516 VERT. EXT. OF STR. EXP. JOINTS L.F.	ASPHALT CONCRETE THICK INS.	ASPHALT CONCRETE 404 C.Y.
1	COS.-83-0321	30.42	24.00	81	81 (1)											
	COS.-83-0590	39.00	23.00	100	100 (2)											
	COS.-83-0802 *	138.52	42.50	654					II	6						
	COS.-83-0829 *	155.06	42.50	732					II	13						
	COS.-83-0867 *	487.50	44.00	2383					II	101						
	TOTAL				181					120						

(1) Wearing Course Removal Depth $4\frac{3}{4}$"
(2) Wearing Course Removal Depth $5\frac{1}{2}$"

* feather to bridge as directed

(8/12)7

8/12

PLAN NO. 62

614 Temporary Pavement Markings As Per Plan

The contractor shall furnish, install, maintain, and, when necessary, remove temporary retroreflective pavement markings on reconstructed, resurfaced or temporary roads within the work limits, in accordance with the following requirements.

The temporary markings shall be complete on all pavement courses exposed to traffic at the end of each day's operation. Where permanent markings are called for in these plans, the contractor shall furnish and place the permanent markings within 30 calendar days, following completion of all surface courses in a single roadway or prior to the end of the construction season, whichever comes first.

Temporary markings shall be placed in accordance with the following requirements, unless otherwise specified in the plans:

Center lines and lane lines shall consist of 12"x4" segments spaced at a maximum 40' center to center; channelizing lines shall be 12"x4" segments spaced at maximum 20' center to center. Freeway and expressway gore markings shall be two continuous lines, 50' long, 4" wide. Edge lines shall consist of 12" x 4" segments spaced at a maximum 20' center to center. Edge lines shall be placed 2 ft. from edge of paved berm.

The material furnished shall be flexible retroreflective preformed pressure sensitive tape for pavement lines. It shall be free of cracks with straight edges and consist of pigment and fillers, but have sufficient binder and plasticizer to retain glass beads having an appropriate refractive index to meet minimum reflective intensity standards outlined in the manufacturers information. Material shall be Flexolite "Wet Reflective", 3M "Scotchlane," or approved equal.

Glass beads shall be mixed uniformly throughout the marking material with sufficient surface beads to provide optimum reflectorization at all times.

The material shall have a precoated adhesive layer for pavement application without the use of heat, solvents or additional adhesives. The adhesive shall be sufficient to retain complete markings on the pavement surface throughout the useful life of the markings.

White marking material shall be free of tint. Yellow material shall conform to Color No. 33538 of Federal Standard 595.

In addition, all applicable manufacturers mat rial and application instructions, in force at the time of placement, shall be adhered t The contractor shall furnish to the engineer certification that the material supplied meets the properties specified herein.

Markings shall be accurately laid out in conformance with 621.051 and shall be located in a true line on the center line, lane line, or channelizing line where normal permanent marking would lie, unless otherwise specified in the plans. The temporary tape shall be placed by rolling the material into the surface. *edge line

As an alternate material to pavement marking tape, the contractor may furnish and apply painted retroreflective pavement markings conforming to 621. The width and length of painted segment shall be the same as required for temporary tape material. The paint application rate shall be not less than 16 gallons per mile for a solid line nor less than 0.4 gallons per mile for the 12"x4" dashed line.

The contractor shall provide complete pavement markings for all temporary roads constructed for this project, in accordance with material and performance requirements described herein and in the Ohio Manual as defined in 614.03.

In addition to the requirement of 614.03, the contractor shall, prior to placing temporary markings, remove all existing conflicting markings that are visible to the traveling public during daylight or nighttime hours. When temporary markings are no longer needed, any conflicting markings visible to the traveling public shall be removed by the contractor before the flow of traffic is diverted to the next phases. Removal of existing or temporary markings shall be performed in accordance with 621.134. The cost for removal of conflicting markings shall be incidental to the various pay items unless specically paid for as a separate item.

Method of measurement and basis of payment shall be in conformance with 621.15 and 621.16 respectively for:

Item	Unit	Description
~~614~~	~~Miles~~	~~Temporary Lane Lines~~
614	Miles	Temporary Center Lines
~~614~~	~~Miles/Lin.Ft.~~	~~Temporary Channelizing Lines~~
~~614~~	~~Lin. Ft.~~	~~Temporary Gore Marking~~
~~614~~	~~Lin. Ft.~~	~~Removal of Temporary Marking~~
614	Miles	Temporary Edge Lines

M & R 693 REV. 9-1-81

PLAN NO. 12 (9/12)

GENERAL SUMMARY

ITEM	PART 1		GRAND TOTAL PART 1	UNIT	DESCRIPTION
407	5,656		5,656	Gals.	Tack Coat
407	54		54	Tons	Cover Aggregate
403	1219		1219	Cu. Yds.	Asphalt Concrete AC-20
404	4362		4362	Cu. Yds.	Asphalt Concrete AC-20 As Per Plan
408	8,954		8,954	Gals.	Bituminous Prime Coat
SPECIAL	27		27	Hours	Grader Rental
SPECIAL	120		120	Sq.Yds.	Patching Concrete Bridge Decks, Type II
511	38		38	Cu.Yds.	Class "S" Concrete (Superstructure) As Per Plan
202	625		625	Sq.Yds.	Wearing Course Removed
614	18.04		18.04	Miles	Temporary Edge Lines, As Per Plan
614	18.04		18.04	Miles	Temporary Center Lines, As Per Plan
624	Lump		Lump	Lump	Mobilization
~~617~~				~~Sq. Yds.~~	~~Shoulder Preparation~~
617	882		882	Cu. Yds.	Compacted Aggregate
614	LUMP		Lump	Lump	Maintaining Traffic

GENERAL NOTES

TRAFFIC:
Traffic shall be maintained at all times. The length of restricted traffic zones shall be kept to a minimum consistent with the specification requirements for protection of completed courses.

~~RAILROAD CROSSINGS:~~
~~The new surface course shall be feathered or butt jointed to meet the rail grades as specified.~~

ALIGNMENT AND PROFILE:
The work proposed by this project is for the resurfacing of the existing pavement. The alignment of the existing pavement will not be changed, and the profile of the proposed surface will be similar to that of the existing pavement except that it will be raised an amount equal to the thickness of the resurfacing course or courses specified in these plans.

INTERMEDIATE COURSE, SPOT LEVELING AND PATCHING:
This material shall be placed in a separate operation where and as directed by the engineer.

TACK COAT:
The tack coat operation shall be as determined at a pre-construction conference as per 407.05, and application rates shall not exceed 0.10 gal. per sq. yd.

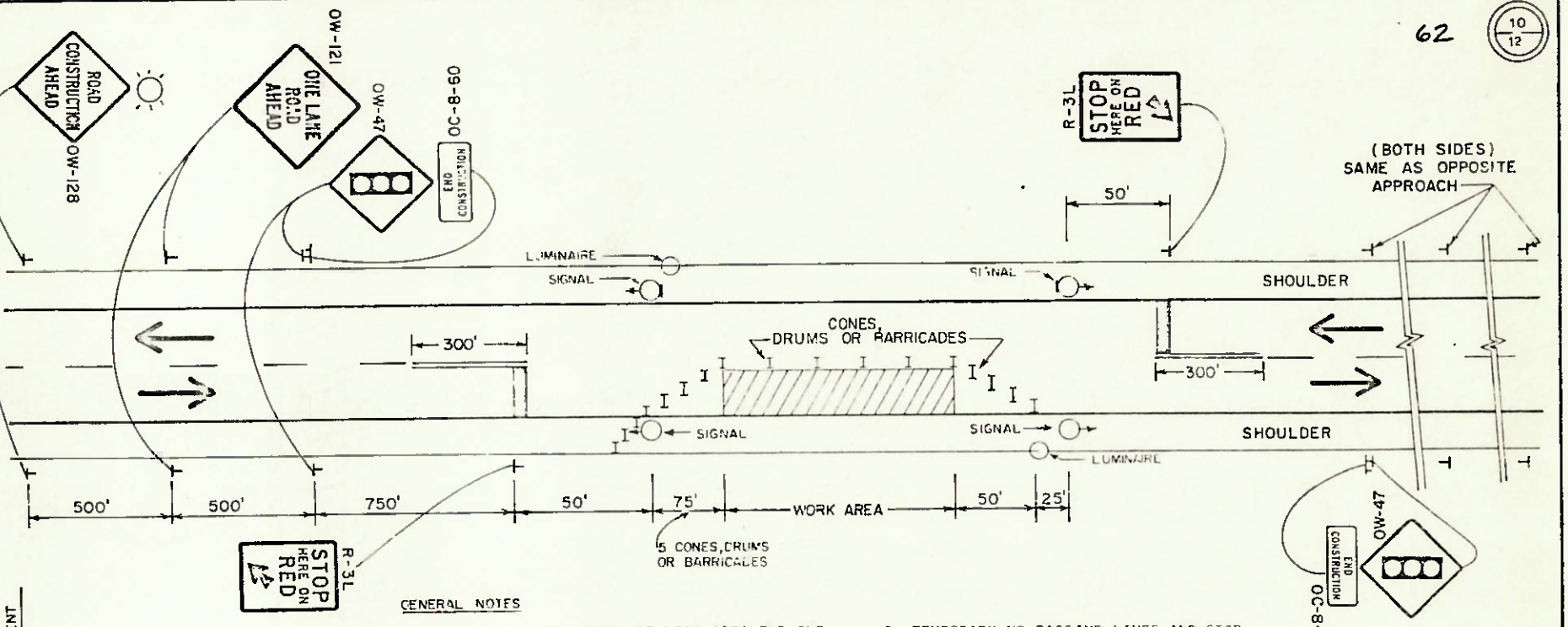
COVER AGGREGATE:
Cover aggregate shall conform to 703.06.

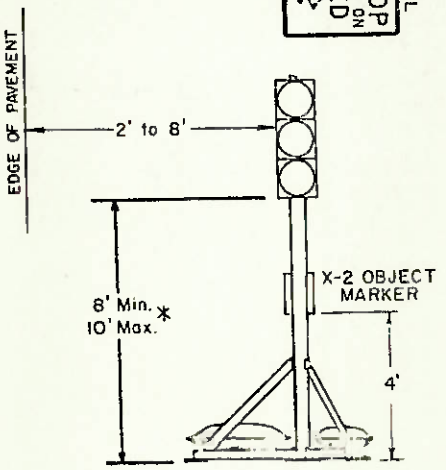
Tack Coat (Continued)
In addition to the requirements of 407.05 the tack coat shall be applied immediately ahead of the paving operations or as otherwise determined by the Project Engineer.

CONTROL OF ONE WAY TRAFFIC:
In addition to the requirements of the Ohio Manual of Uniform Traffic Control Devices and materials specifications, the following requirements shall apply:

Communication between flagmen shall be by two-way radio during the paving operation.

Payment for the above shall be included in Item 614, Maintaining Traffic.





TYPICAL POLE SUPPORTED SIGNAL

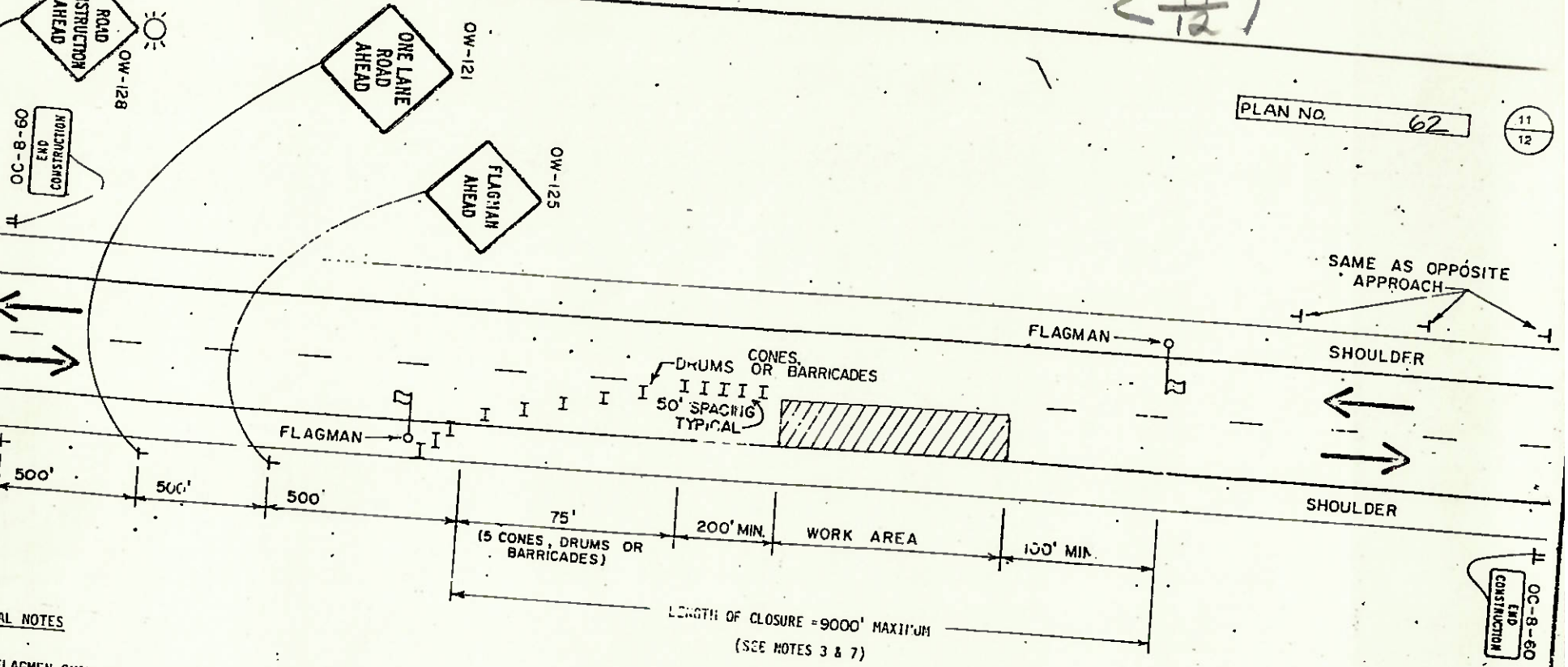
* Above grade of roadway centerline

GENERAL NOTES

1. THE MAXIMUM LENGTH OF WORK AREA FOR ONE WAY TRAFFIC SIGNAL CONTROL IS DETERMINED BY THE CAPACITY REQUIRED TO HANDLE THE PEAK HOUR DEMAND. PRACTICAL MAXIMUM LENGTH IS 900 FEET. SIGNAL TIMING SHALL BE APPROVED BY THE ENGINEER.
2. SIGNALS SHALL BE INSTALLED AND OPERATED IN ACCORDANCE WITH THE REQUIREMENTS OF PART 6 OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
3. CONES, DRUMS, OR BARRICADES SHALL BE SPACED AT 50 FOOT CENTERS WITHIN THE WORK AREA. CONES MAY BE SUBSTITUTED FOR BARRICADES OR STEEL DRUMS FOR THE LANE CLOSURES DURING DAYLIGHT HOURS ONLY.
4. ADEQUATE AREA ILLUMINATION TO CLEARLY IDENTIFY THE BEGINNING OF THE TRANSITION AT NIGHT SHALL BE PROVIDED BY USE OF A 175 WATT MINIMUM LUMINAIRE LOCATED ADJACENT TO ONE SIGNAL FOR EACH DIRECTION OF TRAFFIC AS SHOWN ABOVE.
5. TEMPORARY NO PASSING LINES AND STOP LINES SHALL BE INSTALLED. EXISTING PAVEMENT MARKING BETWEEN THE WORK AREA AND THE STOP LINES SHALL BE REMOVED OR COVERED.
6. THE TYPE B HIGH INTENSITY BARRICADE WARNING LIGHT SHOWN ON THE "ROAD CONSTRUCTION AHEAD" SIGN IS REQUIRED WHENEVER NIGHT LANE CLOSURE IS NECESSARY.
7. TYPE C STEADY BURNING BARRICADE WARNING LIGHTS SHALL BE ERECTED ON DRUMS OR BARRICADES FOR NIGHT LANE CLOSURES. MAXIMUM SPACING SHALL BE 50' CENTER TO CENTER IN ADVANCE OF THE WORK AREA AND 100' CENTER TO CENTER WITHIN THE WORK AREA.

OHIO DEPARTMENT OF TRANSPORTATION

SIGNALIZED CLOSING 1 LANE OF A 2 LANE HIGHWAY	DATE 4/77
DRGBD RLB	



GENERAL NOTES

1. FLAGMEN SHALL BE USED TO CONTROL TRAFFIC CONTINUOUSLY FOR AS LONG AS ONE LANE OPERATION IS IN EFFECT. FLAGMEN SHALL BE ABLE TO COMMUNICATE WITH EACH OTHER AT ALL TIMES EITHER VERBALLY OR BY MEANS OF RADIO OR FIELD TELEPHONES. FLAGMAN STATIONS SHALL BE ADEQUATELY ILLUMINATED FOR NIGHT TIME OPERATIONS BY USE OF A 175 WATT MINIMUM LUMINAIRE.

2. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS FOR THE LANE CLOSURES DURING DAYLIGHT HOURS ONLY.

3. WHEN THE AMBIENT TEMPERATURE EXCEEDS 80 DEGREES F, THE ENGINEER MAY INCREASE THE LENGTH OF CLOSURE TO ALLOW FOR SUFFICIENT COOLING OF THE NEW PAVEMENT.

   THE ENGINEER MAY SHORTEN THE MAXIMUM ALLOWABLE LENGTH OF CLOSURE TO RELIEVE EXCESSIVE TRAFFIC BACKUPS.

   ALL TRAFFIC CONTROL SIGNS, CHANNELIZING DEVICES, AND FLAGMEN SHALL BE MOVED FORWARD BEFORE THE CLOSURE REACHES THE MAXIMUM ALLOWABLE LENGTH. ONLY ONE SIDE OF THE ROAD SHALL BE CLOSED AT ANY TIME IN A WORK AREA.

4. THE TYPE B HIGH INTENSITY BARRICADE WARNING LIGHT SHOWN ON THE ROAD CONSTRUCTION AHEAD SIGN IS REQUIRED WHENEVER NIGHT LANE CLOSURE IS NECESSARY.

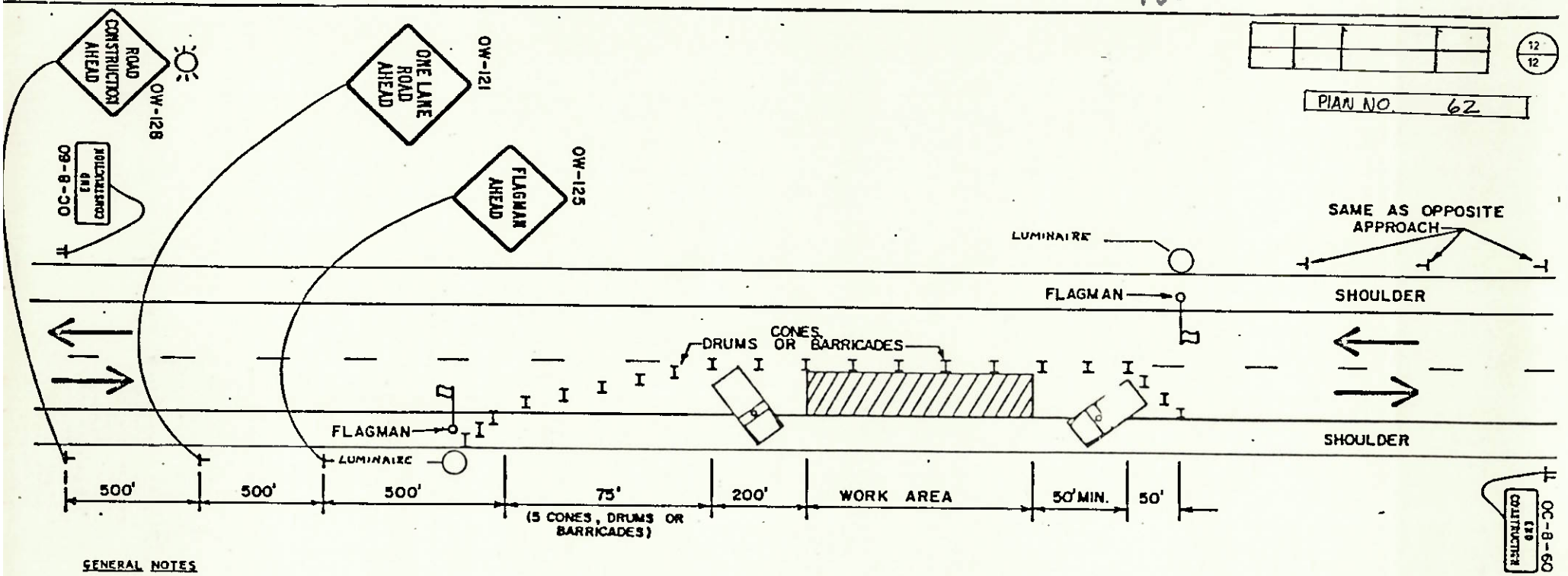
5. TYPE C STEADY BURNING BARRICADE WARNING LIGHTS SHALL BE ERECTED ON DRUMS OR BARRICADES FOR NIGHT LANE CLOSURES.

6. THE ADVANCE WARNING SIGNS "OW-128" "OW-121" AND "OW-125" SHALL BE MOVED BACK AS REQUIRED BY THE QUEUING OF STOPPED VEHICLES.

7. WITHIN THE LENGTH OF CLOSURE, PROVISION SHALL BE MADE TO CONTROL TRAFFIC ENTERING FROM INTERSECTING STREETS AND MAJOR DRIVES AS NECESSARY TO PREVENT WRONG WAY MOVEMENTS AND TO KEEP VEHICLES OFF OF NEW PAVEMENT NOT READY FOR TRAFFIC.

OHIO DEPARTMENT OF TRANSPORTATION

FLAGMEN CLOSING 1 LANE OF A 2 LANE HIGHWAY	DATE 12/80
PAVING OPERATIONS	



12/12

PLAN NO. 62

GENERAL NOTES

1. FLAGMEN SHALL BE USED TO CONTROL TRAFFIC CONTINUOUSLY FOR AS LONG AS ONE LANE OPERATION IS IN EFFECT. FLAGMAN SHALL COMMUNICATE WITH EACH OTHER AT ALL TIMES AS DESCRIBED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES IN THE SECTION "FLAGMAN CONTROL".

2. CONES, DRUMS, OR BARRICADES SHALL BE SPACED AT 50 FOOT CENTERS FOR THE FIRST 1000 FEET OF THE WORK AREA AND AT A MAXIMUM OF 100 FEET FOR THE BALANCE OF THE WORK AREA. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS FOR THE LANE CLOSURES DURING DAYLIGHT HOURS ONLY.

3. SEVERAL SMALL WORK SITES CLOSE TOGETHER SHALL BE COMBINED INTO ONE WORK AREA TO MAKE A CLOSURE NOT MORE THAN 2000 FEET LONG INCLUDING TAPERS. CLOSURES MORE THAN 2000 FEET MAY BE APPROVED BY THE ENGINEER. THE MINIMUM LENGTH BETWEEN CLOSURES SHALL BE 2000 FEET. ONLY ONE SIDE OF THE ROAD SHALL BE CLOSED IN ANY ONE WORK AREA.

4. THE WORK TRUCKS SHOWN AT EACH END OF THE WORK AREA SHALL BE IN PLACE AND UNOCCUPIED WHENEVER MEN ARE WORKING WITHIN THE WORK AREA. THESE TRUCKS SHALL BE MOVED FROM THE PAVEMENT WHENEVER WORKMEN ARE NOT IN THE WORK AREA. OTHER PROTECTIVE DEVICES MAY BE USED IN LIEU OF THE WORK TRUCKS SHOWN WHEN APPROVED BY THE ENGINEER.

5. THE TYPE B HIGH INTENSITY BARRICADE WARNING LIGHT SHOWN ON THE ROAD CONSTRUCTION AHEAD SIGN, IS REQUIRED WHENEVER NIGHT LANE CLOSURE IS NECESSARY.

6. TYPE C STEADY BURNING BARRICADE WARNING LIGHTS SHALL BE ERECTED ON DRUMS OR BARRICADES FOR NIGHT LANE CLOSURES. MAXIMUM SPACING SHALL BE 50' CENTER TO CENTER IN ADVANCE OF THE WORK AREA AND 200' CENTER TO CENTER WITHIN THE WORK AREA.

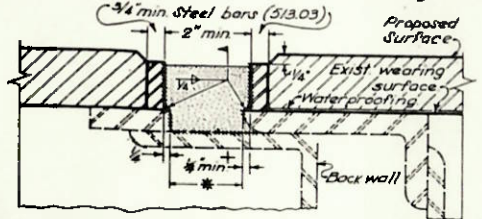
7. ADEQUATE AREA ILLUMINATION TO CLEARLY IDENTIFY THE BEGINNING OF THE TRANSITION AT NIGHT SHALL BE PROVIDED BY USE OF A 175 WATT MINIMUM LUMINAIRE LOCATED ADJACENT TO FLAGMAN STATIONS AS SHOWN ABOVE. THE MOUNTING HEIGHT FOR TEMPORARY LUMINAIRES SHALL BE A MINIMUM OF 27 FEET ABOVE THE PAVEMENT AND THE MINIMUM OVERHEAD CONDUCTOR CLEARANCE SHALL BE 20 FEET ABOVE THE PAVEMENT.

OHIO DEPARTMENT OF TRANSPORTATION

FLAGMEN CLOSING I LANE OF A 2 LANE HIGHWAY	DAT 4/7 12/8
CA GBD CK RLB	

RESURFACING

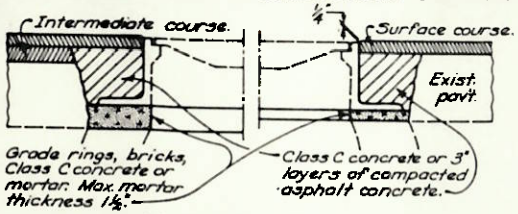
+ Increase as necessary to maintain 2" min opening.
* Vertical extension of joints found to be closed to ½" or less may be non-performed as directed by the Engineer



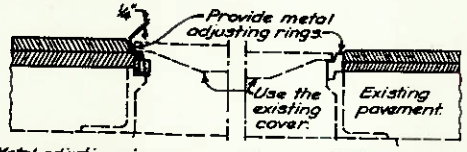
As a part of item 516, seal joint with a hot-applied bridge deck waterproofing material which also meets the requirements of 705.01. Sandblast vertical surfaces (|) and wipe clean. Seal joint before rust forms. If rust forms, re-sandblast. Use bond breaker on the horizontal surface (——).

MAINTENANCE OF TRAFFIC: Generally the bars shall be welded while the lane is closed for waterproofing or resurfacing. However, if traffic is routed over the bars before resurfacing, temporary ramps shall be constructed to the tops of the bars using 402 or 404 feathering at a max. slope of 6"/in. The ramps shall be removed prior to resurfacing. Payment for placing and removing the ramps shall be included in the lump sum bid for Item 614.

VERTICAL EXTENSION OF STRUCTURAL EXPANSION JOINTS

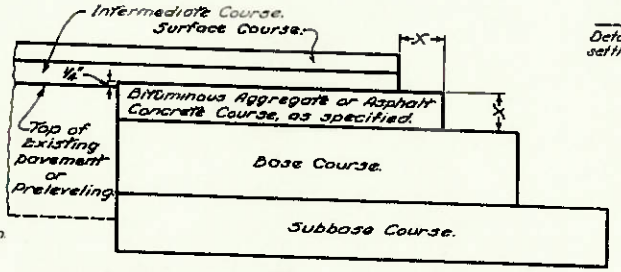


USING CONCRETE OR MORTAR



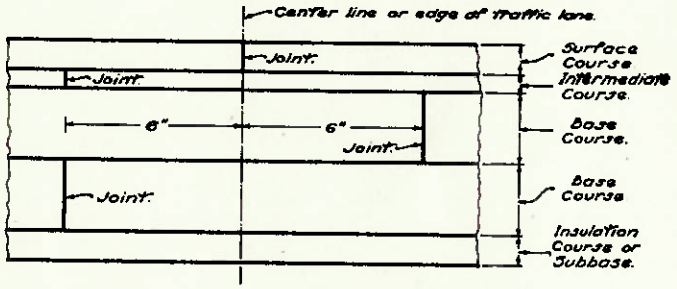
Metal adjusting rings shall fasten or tighten securely in the existing frame, or be welded permanently to the frame and be one piece or fabricated into one piece. Any installation unacceptable to the Engineer, including a poorly seated cover, shall be replaced by the Contractor at his expense.

USING METAL ADJUSTING RINGS MANHOLES ADJUSTED TO GRADE

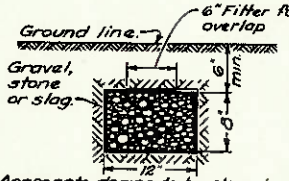


The Bituminous Aggregate in the upper part of the base widening shall finish approximately ¼" above the edge of the existing pavement where no preleveling is used. Where a preleveling (using intermediate course material) is specified, it shall be placed prior to excavation of the widening trench and the upper course of the base widening shall finish approximately ¼" above the preleveling.

COURSE DETAIL FOR WIDENING

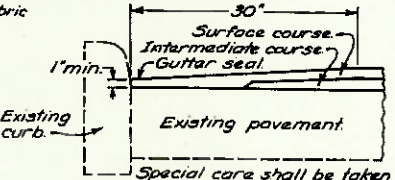


LAPPING LONGITUDINAL JOINTS



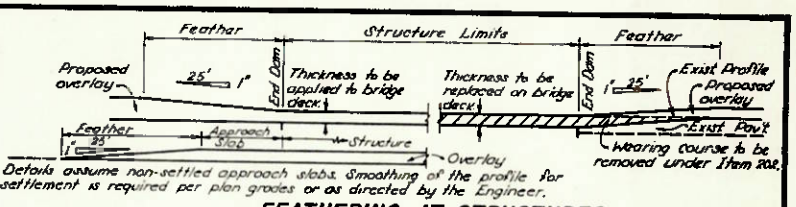
Aggregate drains to be placed where and as directed by Engineer. Provide filter fabric when specified as a separate pay item.

AGGREGATE DRAIN



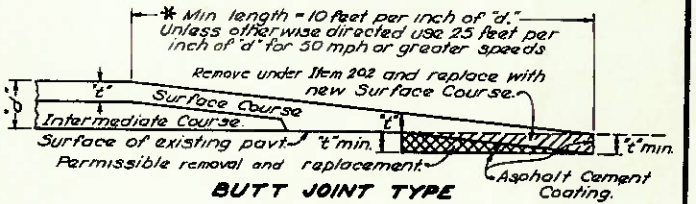
Special care shall be taken during construction to obtain maximum compaction of bituminous concrete in gutters.

GUTTER FINISH

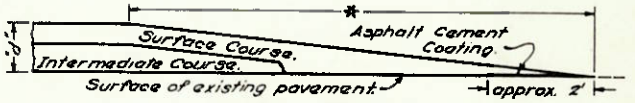


Details assume non-settled approach slabs. Smoothing of the profile for settlement is required per plan grades or as directed by the Engineer.

FEATHERING AT STRUCTURES



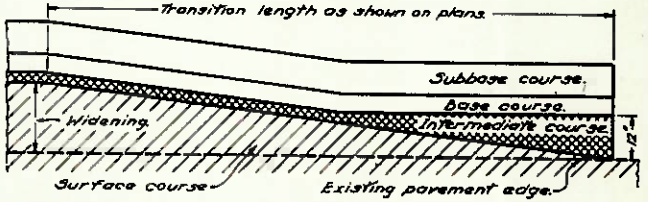
BUTT JOINT TYPE



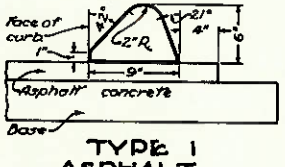
FEATHER EDGE TYPE

NOTE: Either butt or feather type may be used unless type is specified by the plan.

PLACING FEATHERED AREAS



MERGING EDGE OF PAVEMENT WIDENING WITH EDGE OF EXISTING PAVEMENT



TYPE 1 ASPHALT CONCRETE CURB

BUREAU OF LOCATION AND DESIGN
OHIO DEPARTMENT OF TRANSPORTATION

RESURFACING

DATE
8-1-69
6-1-73
6-1-75
8-11-78
4-16-79
7-16-81

STANDARD CONSTRUCTION DRAWING BP-5

APPROVED _____ ENGR. L.D.