FORM 129 A REV. '64

CONVENTIONAL SIGNS

STATE LINE
COUNTY LINE
TOWNSHIP OR RANGE LINE
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
RIGHT-OF-WAY LINE
PRESENT RIGHT-OF-WAY LINE
CONTROL OF ACCESS LINE
PROPERTY LINE (Except Land Lines)
VACATED PLATTED PROPERTY
CORPORATE OR CITY LIMITS
TRUNK HIGHWAY CENTER LINE (P.I. 45 P.C. P.I.)
RETAINING WALL
RAILROAD
RAILROAD RIGHT OF WAY LINE
RIVER OR CREEK (NAME)
DRY RUN
DRAINAGE DITCH (SIZE)
ELECTRIC POWER LINE
TELEPHONE OR TELEGRAPH LINE
JOINT TELEPHONE AND POWER
CONDUIT
TELEPHONE CABLE-AERIAL (T-AE)
TELEPHONE CABLE-UNDERGROUND (T-UG)
POWER CABLE UNDERGROUND (P)
GAS MAIN (G)
CULVERT
DROP INLET
GUARD RAIL
BARBED WIRE FENCE
WOVEN WIRE FENCE (W)
CHAIN LINK FENCE (C-L)
RAILROAD SNOW FENCE
STONE WALL OR FENCE
HEDGE
WATER PIPE
SEWER PIPE
DRAIN TILE
SPRINGS
MARSH
TIMBER, ORCHARD, BRUSH, NURSERY (TIMBER)
CATCH BASIN C.B.
MANHOLE M.H.
FIRE HYDRANT
STREET LIGHT
RAILROAD CROSSING SIGN
RAILROAD CROSSING BELL
ELECTRIC WARNING SIGN
CROSSING GATE
CATTLE GUARD
OVERPASS (Highway Over)
UNDERPASS (Highway Under)
BRIDGE
BUILDING (One Story Frame) (1-S-F)
F-FRAME C-CONCRETE
S STONE T-TILE
B BRICK ST-STUCCO
IRON PIPE OR ROD
MONUMENT (STONE, CONCRETE, OR METAL)
WOODEN HUB
GRAVEL PIT (G)
SAND PIT (S)
BORROW PIT (B)
ROCK QUARRY (Q)
MEANDER CORNER

Fed. Proj. No.

STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS

CONSTRUCTION PLAN FOR GRADING, BASE & BITUMINOUS SURFACING

County Highway No. 52

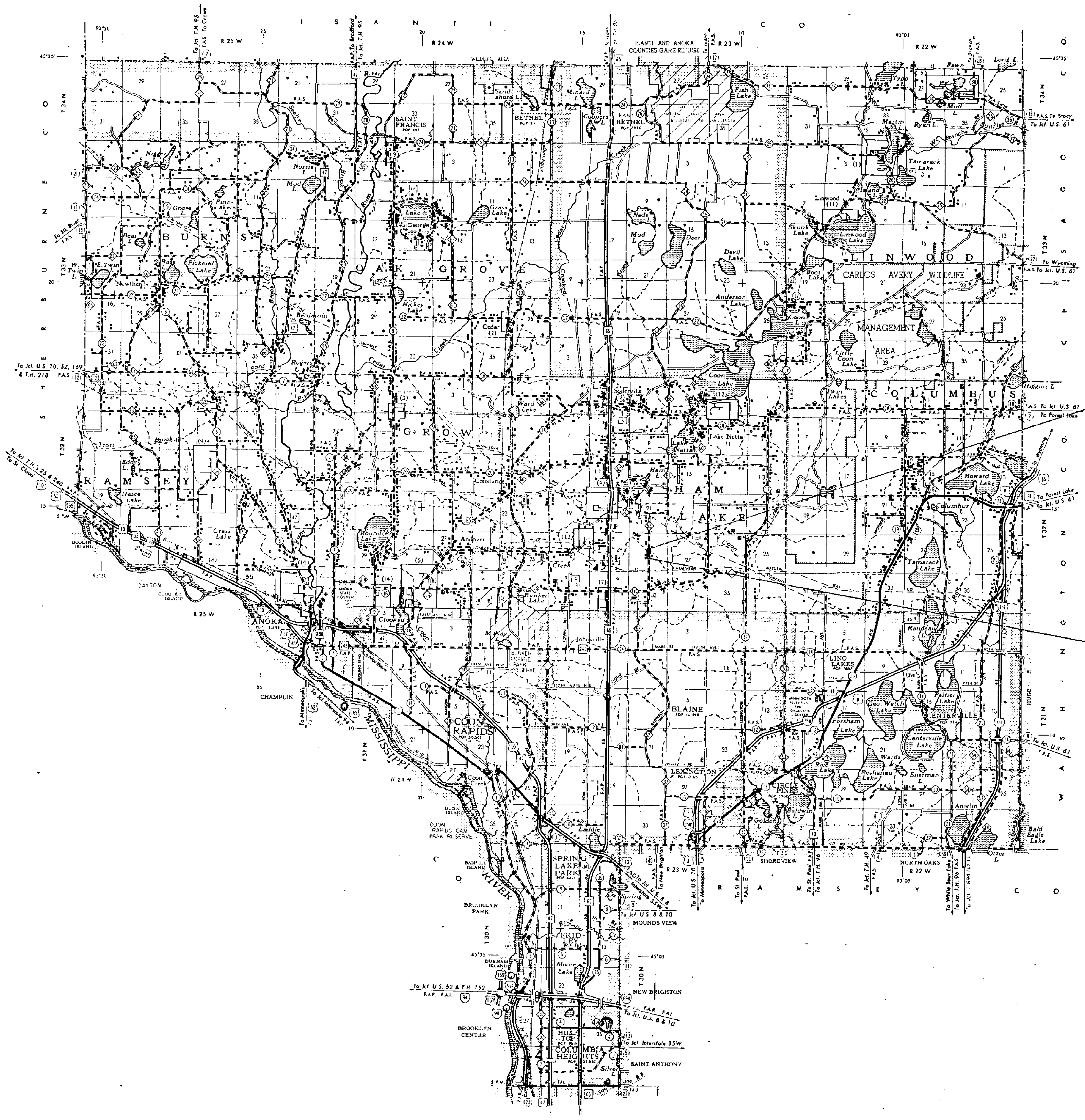
Between C.R. 116 And C.R. 61

From A PT. 2,023.0' N. & 8.77' W. OF THE S 1/4 COR OF SEC. 28, T. 32 N., R. 23 W. To A PT. 566.81' N. & 26.13' W. OF THE CENTER OF SECTION 28, T. 32 N., R. 23 W.

Give proper reference to Sections, Township and Range

GROSS LENGTH	1200.0	FEET	.227	MILES
BRIDGES-LENGTH	67.83	FEET	.013	MILES
EXCEPTIONS-LENGTH	—	FEET	—	MILES
NET LENGTH	1,132.17	FEET	.214	MILES

INDEX OF SHEETS



END PROJECT C.P. 83-18-52
STA. 20+00

BEGIN PROJECT C.P. 83-18-52
STA. 8+00

SCALE

INDEX MAP		2 MI.
PLAN & PROFILE	VERT.	10'
	HORIZ.	100'
CROSS SECTIONS		10'

DESIGN DESIGNATION

ADT (CURRENT YEAR) 1177
ADT (FUTURE YEAR) 2354
T (HEAVY COMMERCIAL) 150-300
9 Ton Design SOIL FACTOR 50%
Design Speed 50 MPH
Design Speed not achieved at:
STA. ____ TO STA. ____ MPH ____
STA. ____ TO STA. ____ MPH ____

SPECIFICATIONS

THE "STANDARD" SPECIFICATIONS FOR HIGHWAY CONSTRUCTION", 1983 EDITION SHALL GOVERN.

ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND ORDINANCES WILL BE COMPLIED WITH, IN THE CONSTRUCTION OF THIS PROJECT.

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Paul K. Ruud DATE 6/22/83
COUNTY ENGINEER

ANOKA COUNTY REG. NO. 6549

RECOMMENDED FOR APPROVAL ____, 19__
DISTRICT ENGINEER

RECOMMENDED FOR APPROVAL ____, 19__

APPROVED ____, 19__
STATE AID ENGINEER

Minn. Proj. No. ____ County Proj. No. 83-18-52
State Proj. No. ____ S.A.P. ____

DAHMS PHOTO PRINT CO.
MINNEAPOLIS, 1, MINN.

FORM MHD 21165 - 10 - 58

STATEMENT OF ESTIMATED QUANTITIES

	ITEM NO.	ITEM	UNIT	TOTAL ESTIMATED QUANTITIES	TOTAL FINAL QUANTITIES
	2021.501	MOBILIZATION	LUMP SUM	1	
	2031.503	FIELD LABORATORY, TYPE-D	EACH	1	
	2101.501	CLEARING	ACRE	0.05	
	2101.502	CLEARING	TREE	15	
	2101.506	GRUBBING	ACRE	0.05	
	2101.507	GRUBBING	TREE	11	
	2104.505	REMOVE BITUMINOUS PAVEMENT	SQ. YD.	3013	
	2104.521	SALVAGE FENCE	LIN. FT.	817	
	0557.604	INSTALL FENCE	LIN. FT.	817	
(3)	2105.501	COMMON EXCAVATION	CU. YD.	4443	
	2105.525	TOPSOIL BORROW (L.V.)	CU. YD.	462	
(4)	2130.501	WATER	M-GALLON	25	
(1)	2211.501	AGGREGATE BASE PLACED, CL.-5	CU. YD.	716	
	2331.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	29	
	2331.510	BINDER COURSE MIXTURE	TON	347	
(2)	2331.516	SHOULDER MIXTURE	TON	216	
	2341.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	15	
	2341.508	WEARING COURSE MIXTURE	TON	250	
	2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GALLON	151	
	2501.511	15" CM. PIPE CULVERT	LIN. FT.	30	
	2501.515	15" CM. PIPE APRONS	EACH	2	
	2575.501	ROADSIDE SEEDING	ACRE	0.47	
	2575.502	SEED MIXTURE NO. 5	POUNDS	24	
	2575.505	SODDING	SQ. YD.	2230	
	2575.511	MULCH MATERIAL TYPE-1	TON	1	
	2575.519	DISC ANCHORING	ACRE	0.47	
	2575.531	COMMERCIAL FERTILIZER, ANALYSIS 10-10-10	TON	0.25	
	0575.602	HAY OR STRAW BALES	EACH	50	

(1) INCLUDES 38 CU. YD. FOR ENTRANCES
(2) INCLUDES 48 TON FOR ENTRANCES
(3) INCLUDES 1018 CU. YD. FOR SUBCUT FOR COMPACTION AND UNIFORMITY OF SOILS
(4) FOR DUST CONTROL

BASIS OF PLANNED QUANTITIES

2331 PLANT MIXED BINDER COURSE
BITUMINOUS MIXTURE 220 LBS. PER SQ. YD. PER 2-INCH THICKNESS
BITUMINOUS MATERIAL FOR MIXTURE 4.5% BY WEIGHT

2331 PLANT MIXED SHOULDER COURSE
BITUMINOUS MIXTURE 165 LBS. PER SQ. YD. PER 1 1/2-INCH THICKNESS
BITUMINOUS MATERIAL FOR MIXTURE 6.0% BY WEIGHT

2341 PLANT MIXED WEARING COURSE
BITUMINOUS MIXTURE 165 LBS. PER SQ. YD. PER 1 1/2-INCH THICKNESS
BITUMINOUS MATERIAL FOR MIXTURE 6.0% BY WEIGHT

2357 BITUMINOUS MATERIAL FOR TACK COAT
0.05 GALLONS PER SQ. YD.

2575 ROADSIDE SEEDING BASED ON HORIZONTAL MEASUREMENTS PLUS 10%

CLEARING AND GRUBBING

STATION (TO STATION)	LOC.	CLEARING TREE	CLEARING ACRE	GRUBBING TREE	GRUBBING ACRE
10+30	115' RT.	1		1	
15+00	41' LT.	2		1	
16+80	28' RT.	4		1	
17+98	37' RT.	1		1	
17+99	37' RT.	1		1	
18+33 - 19+10	43' LT.		.05		.05
18+44 - 19+05	40' RT.	6		6	
	TOTAL=	15	.05	11	.05

SODDING

STATION	LOC.	S.Y.
8+00 - 9+20	LT.	110
8+00 - 10+24	RT.	204
9+34 - 13+72	LT.	820
10+36 - 12+24	RT.	438
12+36 - 15+00	RT.	291
13+84 - 15+50	LT.	167
16+63 - 16+88	LT. & RT.	100
17+25 - 17+50	LT. & RT.	100
	TOTAL=	2,230

SPECIAL DETAILS

THE CONTRACTOR SHALL REMOVE THE TOPSOIL WITHIN THE EXCAVATION AREAS, STOCKPILE IF NECESSARY, AND USE IT AS TOPSOIL COVERING ON THE NEW SLOPES AND DITCH BOTTOMS. THIS MATERIAL WILL BE USED WITH THE 462 CU. YD. OF TOPSOIL BORROW MATERIAL TO PROVIDE A MINIMUM COVER OF 3 INCHES. THIS WORK SHALL BE CONSIDERED AS INCIDENTIAL TO COMMON EXCAVATION.

TOPSOIL BORROW MATERIAL SHALL BE USED FOR FRONT YARD AREAS TO BE SODDED.

THERE WILL BE APPROXIMATELY 475 CU. YD. OF EXCESS COMMON EXCAVATION WHICH SHALL BE DISPOSED OF BY THE CONTRACTOR.

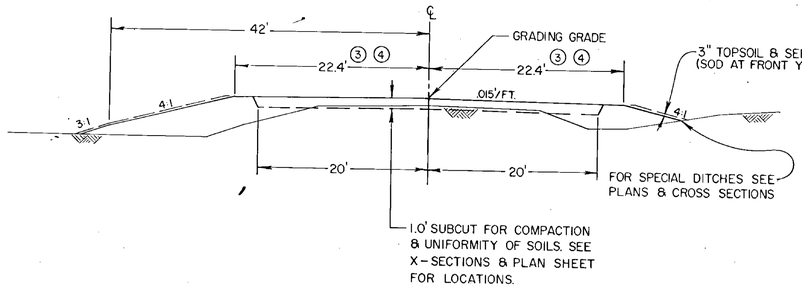
STANDARD DETAIL PLATES

PLATE NO.	DESCRIPTION
0002 A	SPECIFICATION REFERENCE TO STANDARD PLATES
3041 B	CORRUGATED METAL PIPE CULVERT
3123 H	METAL APRON FOR C.M. PIPE
8000 H	STANDARD BARRICADES
9000 B	APPROACHES AND ENTRANCES
9102 C	SODDING AT PIPE CULVERT ENDS

TYPICAL SECTIONS

ALL DIMENSIONS NOMINAL

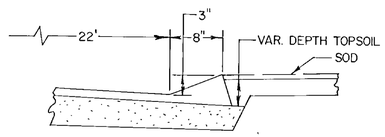
GRADING



③ TAPERS FROM 22.4' TO 24.4' ADJ. TO BRIDGE. SEE BRIDGE APPROACH CONST. DETAILS.

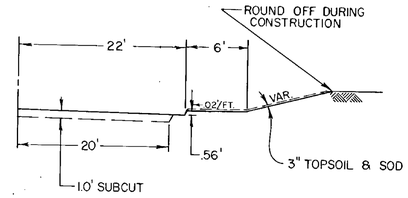
④ TAPERS FROM 22.4 TO MATCH INP. ROADWAY STA. 8+00-9+00 & STA. 19+00-20+00

DETAIL "A"



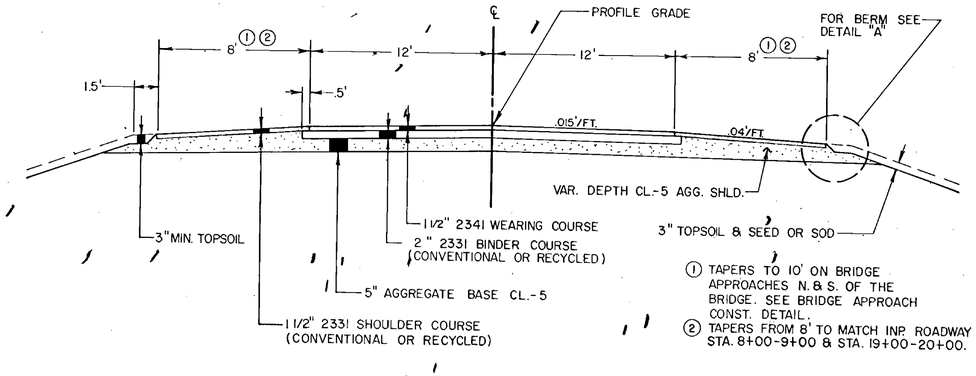
NOTE: CONTRACTOR MAY MODIFY LIP DESIGN UPON APPROVAL OF ENGINEER.

BERM SECTION

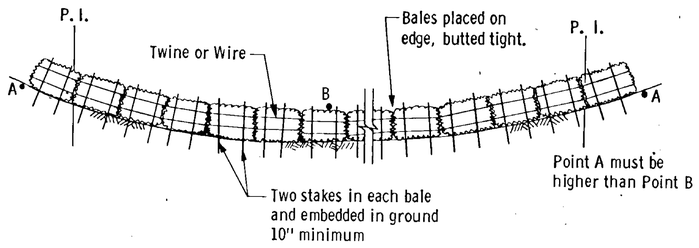


LOCATION
STA. - STA.
9+15 - 14+50 LT.
10+00 - 13+50 RT.

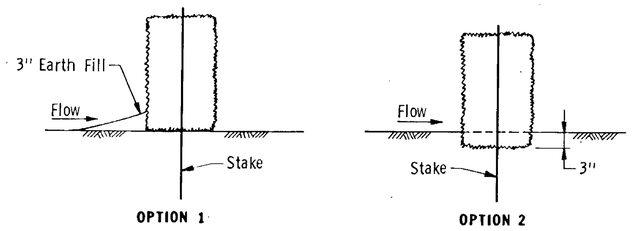
TYPICAL BASE & SURFACING SECTION



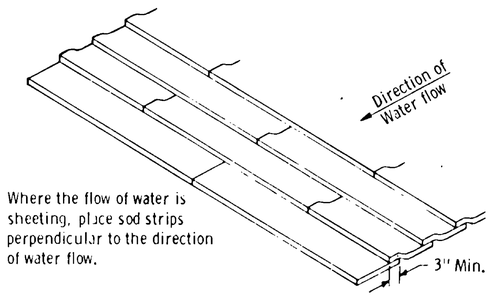
① TAPERS TO 10' ON BRIDGE APPROACHES N. & S. OF THE BRIDGE. SEE BRIDGE APPROACH CONST. DETAIL.
② TAPERS FROM 8' TO MATCH INP. ROADWAY STA. 8+00-9+00 & STA. 19+00-20+00.



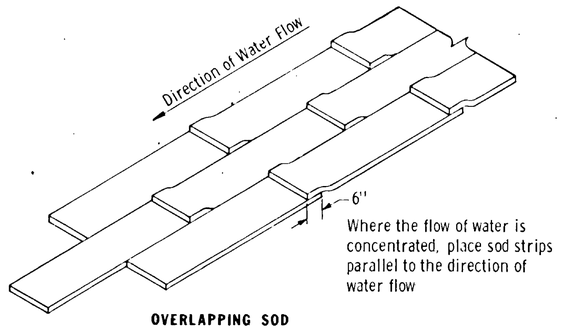
BALE HAY OR STRAW DITCH CHECK



DITCH CHECK SECTIONS

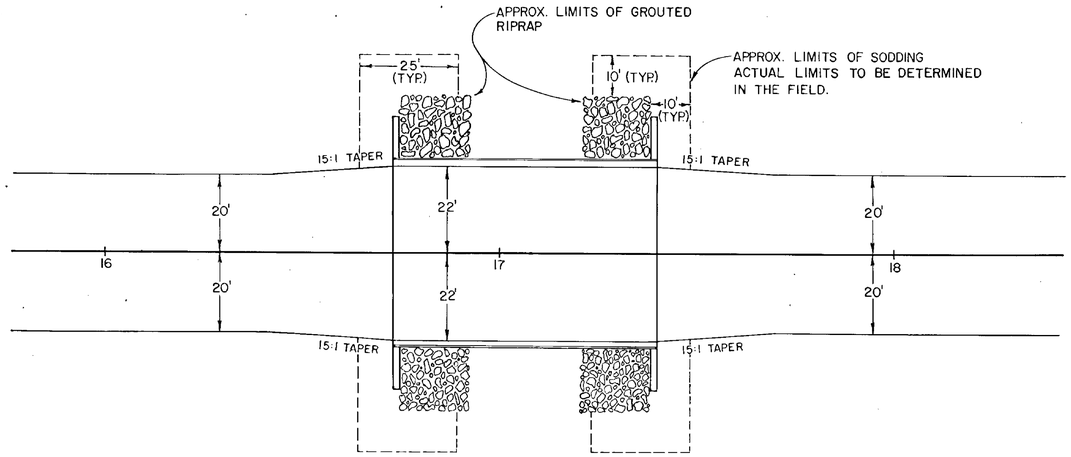


SHINGLING SOD

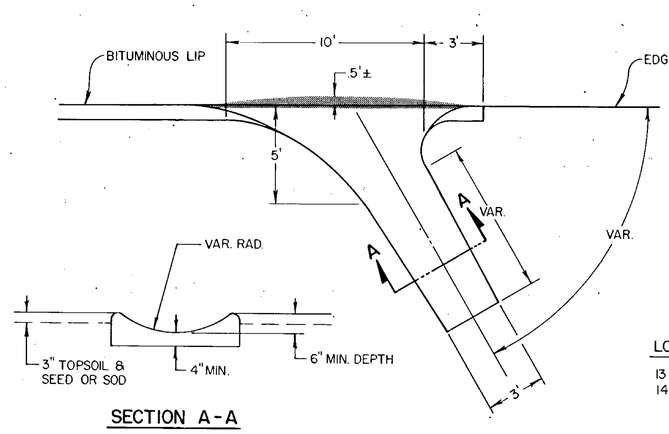


OVERLAPPING SOD

BRIDGE APPROACH CONSTRUCTION DETAILS



TYPICAL BITUMINOUS FLUME



SECTION A-A

DENOTES AREA OF INCREASED SLOPE TO DIVERT WATER FLOW INTO FLUME. THIS MUST BE ACCOMPLISHED DURING SHOULDER PAVING OPERATIONS.

NOTE: BITUMINOUS FLUME CONSTRUCTION SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION AND NO ADDITIONAL COMPENSATION WILL BE MADE.

FLUME DESIGN MAY BE MODIFIED TO MATCH EXISTING CONDITIONS UPON APPROVAL OF THE ENGINEER.

LOCATION *

13+50 RT.
14+50 LT.

* LOCATIONS ARE APPROX. EXACT LOCATIONS ARE TO BE DETERMINED IN THE FIELD DURING CONST.

State Proj. No. C.P. 83-18-52 **Sheet No.** 4 **of** 6 **Sheets**

TELEDYNE POST - SINGLE PLAN - PROFILE - 102M

Fed. Proj. No.

EXCAVATION EMBANKMENT

R/W

14' SAND ENT. LT.
9+27 120.10

+15 BEG. BERM LT.

9+00 119.55

S.D. 117.10

3/7 4
S.C. 14B

R/W

CONST. NEW ENT.

8/1 4
S.C. 7A

+00 BEG. 10' S.E.

8+00 117.55

12' SAND ENT. LT.
7+85 117.27

7+00 115.77

6+00 114.53

R/W

+50 END BERM RT.

13+00 120.00

8.50 0
S.C. 14B

12' SAND ENT. RT.
12+30 122.02

13.16%

12+00 122.31

10.33 0
S.C. 14B

11+00 122.44

12' SAND ENT. RT.
10+30 121.87

11.23%

7.24 0
S.C. 14B

10+00 121.49

+00 BEG BERM RT.

TELEDYNE POST CROSS SECTION 1011 6/76 M4835

State Proj. No. [illegible] C.P. 83-18-52 **Sheet No.** 5 **of** 6 **Sheets**

Fed. Proj. No.

EXCAVATION EMBANKMENT

COON CREEK BRIDGE
17+00 104.69

N/W

NEW R/W

16+75 104.93

BEGIN BRIDGE DECK 4 73.75

D 9.56

16+00 107.03

NOTE: MODIFY FILL SLOPE TO AVOID TREES

+25 BEGIN 25' S.E.
END 10' S.E.

+50 BEG. 10' S.E.

139 30.9
S.C. 65

15+00 110.14

+50 END BERM LT

141 93
S.C. 139

14+00 115.81

307 93
S.C. 148

12' SAND ENT. LT.
13+78 116.80

9.43%

+50 END BERM RT.

EXCAVATION EMBANKMENT

21+00 112.36

14' SAND ENT. RT.
20+00 109.55 END GRADING

+75 END 25' S.E.

+50 END 10' S.E.

D 17.8

19+00 106.92

D 38.1

18+00 105.13

END BRIDGE DECK 4 40.25

D 30.3

NEW R/W

17+35 104.48

NEW R/W

TELEPHONE POST CROSS SECTION 1011 6/76 NMDOT

State Proj. No. C.P. 83-18-52 **Sheet No.** 6 **of** 6 **Sheets**