

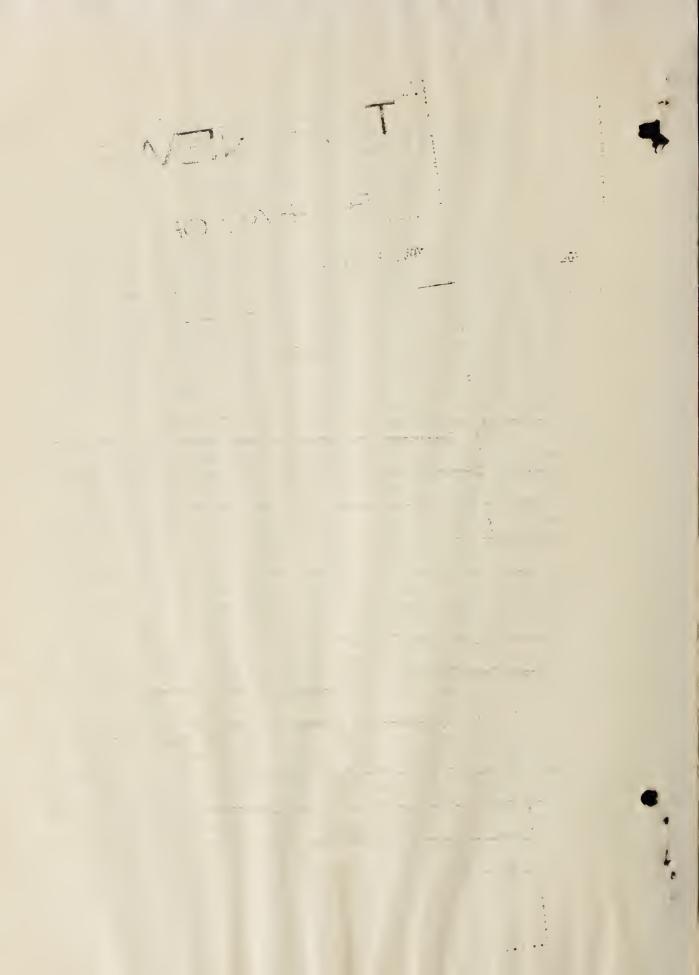
VOL. 3, NO. 9

JULY, 1928

A. C. ROSE, EDITOR

CONTENTS

Comptroller General Rules On Deductions Made To Forest Road Contractors For Surplus War Stock 1
STATUS OF CURRENT FEDERAL-AID ROAD WORK, AS OF JUNE 30, 1928 2
1927 State Highway Disbursements 3
1927 State Highway Income 4
Comprehensive Concrete Pavement Curing Tests Now In Progress In Tennessee 5
MILEAGE OF EXISTING LOCAL ROADS AT END OF 1926 9
Mileage Of Local Roads Built During 1926
Reddish-Brown Prints On White Background Used By Maryland State Roads Commission 11
A. A. S. H. O. Committee On Materials Hold Meeting On June 25-26, 192813
Model Analysis Of Yadkin River Bridge Completed 14
1928 Facilities OF State Highway Testing Laboratories 15
Mount Vernon Memorial Boulevard Survey Begun On June 15 16
JOHN WESLEY BALL 20



COMPTROLLER GENERAL RULES ON DEDUCTIONS MADE TO FOREST ROAD CONTRACTORS FOR SURPLUS WAR STOCK

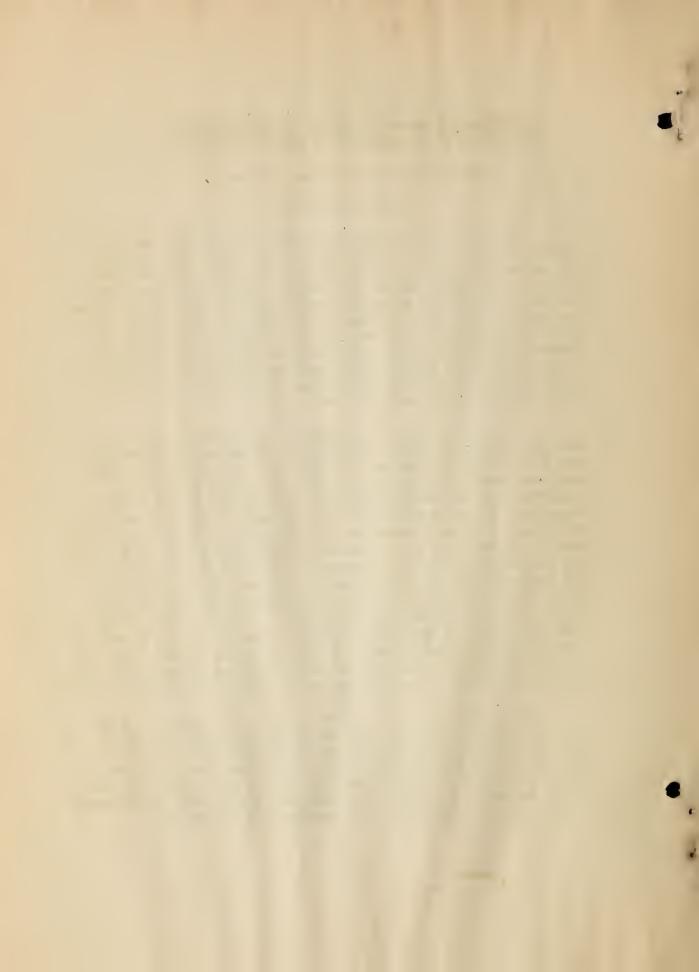
CONTRIBUTED BY THE LEGAL SECTION

(NOT FOR RELEASE)

Under the date of March 26, 1928, the General Accounting Office, in issuing the certificate of settlement (No. 7312-A) on the contract of Dayley and Adams for constructing the Warm River - Yellowstone forest road project, State of Idaho, transferred to the credit of Miscellaneous Receipts \$14,272.89, being the sums deducted for Government equipment and explosives used under the contract. This was the first instance in which the General Accounting Office actually transferred deductions of this character to Miscellaneous Receipts, although the question had been up several times and we had successfully avoided any such transfer up to the above date.

A REVIEW OF THIS SETTLEMENT BY THE COMPTROLLER GENERAL WAS REQUESTED IN A LETTER PREPARED IN THE BUREAU AND SIGNED BY THE ACTING SECRETARY ON MAY 31, 1928. IN THIS LETTER THE ARGU-MENT WAS ADVANCED THAT EQUIPMENT AND EXPLOSIVES OBTAINED BY TRANSFER FROM THE WAR DEPARTMENT AS SURPLUS WAR STOCKS WERE AP-PROPRIATED BY CONGRESS THE SAME AS THE MONEY APPROPRIATIONS FOR ROAD WORK, AND THAT, THEREFORE, DEDUCTIONS FOR THE VALUE OF THAT USED BY CONTRACTORS DO NOT REPRESENT MONEY RECEIPTS ON BEHALF OF THE UNITED STATES, AS CONTEMPLATED BY SECTIONS 3617 AND 3618 OF THE REVISED STATUTES, WHICH REQUIRE THAT ALL MONEY RECEIVED ON BEHALF OF THE UNITED STATES SHALL BE COVERED INTO THE TREASURY TO THE CREDIT OF MISCELLANEOUS RECEIPTS. IN AN OPINION DATED JUNE 29, 1928, THE COMPTROLLER GENERAL AGREED WITH THE CONTENTION MADE IN THE DEPARTMENT'S REQUEST FOR REVIEW AND ADVISED THAT THE SUM OF \$14,272.89 TRANSFERRED IN THE SETTLEMENT OF MARCH 26, 1928, WOULD BE RESTORED TO THE APPROPRIATION "FOREST ROADS AND TRAILS."

THIS DECISION OF THE COMPTROLLER GENERAL SHOULD DISPOSE OF THIS QUESTION AND WE SHOULD ENCOUNTER NO FURTHER DIFFICULTY WITH THE GENERAL ACCOUNTING OFFICE CONCERNING IT. HOWEVER IT RELATES ONLY TO DEDUCTIONS FOR SURPLUS WAR EQUIPMENT AND EXPLO-SIVES TRANSFERRED TO THIS DEPARTMENT BY THE WAR DEPARTMENT, AND WOULD NOT APPLY TO EQUIPMENT OR EXPLOSIVES PURCHASED OR OTHERWISE ACQUIRED BY THE DEPARTMENT AND FURNISHED TO CONTRACTORS.



UNITED STATES DEPARTMENT OF AGRICULTURE BUREAU OF PUBLIC ROADS

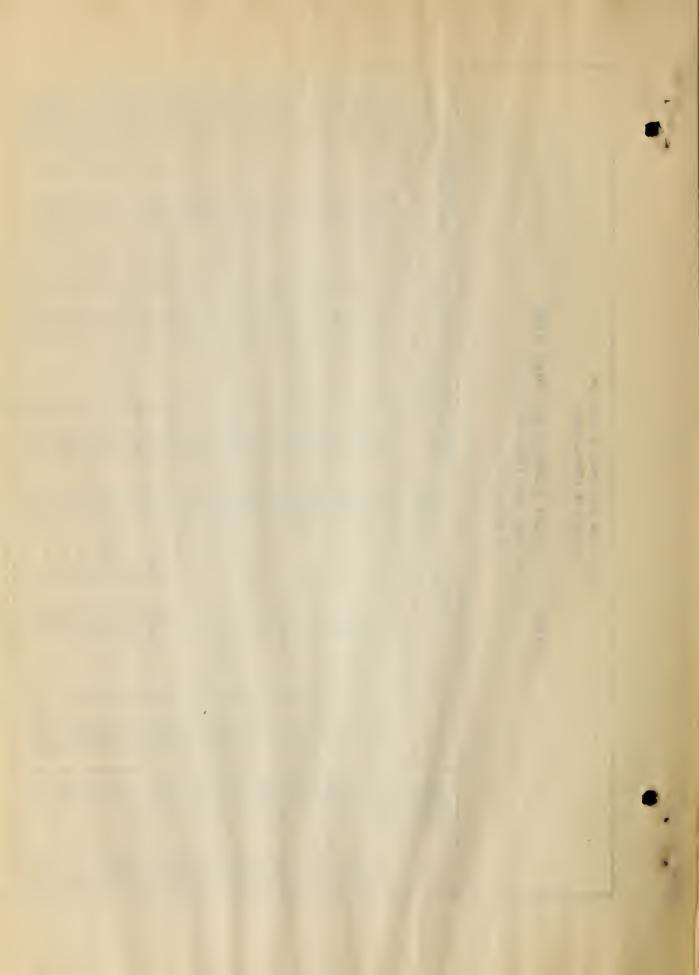
2.

STATUS OF CURRENT FEDERAL-AID ROAD WORK FOR THE FISCAL YEAR ENDING JUNE 30, 1928

AS OF JUNE 30, 1928

.

											e								Τ
04.4.400	SIALEX		Alabama Arizona Arkansas	California Colorado Connecticut	Delaware Florida Georgia	Idaho Illinois Indiana	Iowa Kansas Kentucky	Louisiana Maine Maryland	Massachusetts Michigan Minnesota	Mississippi Missouri Montana	Nebraska Nevada New Hampshire	New Jersey New Merico New York	North Carolina North Dakota Ohio	Oklahoma Oregon Pennsylvania	Rhode Island South Carolina South Dakota	Tennessee Texas Utah	Vermont Virginia Washington	West Virginia Wisconsin Wyoming Hawaii	
OR (EER	GE	STAGE	12.4	14.5	40.1	3.4	11.6	7.2	6.5	7.9	15.9		19.5 32.5 6.7	21.9	31.4 39.2	94.3 129.2 6.8	7.8		
STRICT ENGR			72.2 0.6 46.1	51.0 57.5	4.9 16.0 102.3	117.2 280.7 815.1	133.1 79.2	23.0 9.2 37.8	9.4 91.6 15.8	33.4 40.1 2.0	0.8	30.6 116.4 44.4	29.4 82.4 87.5	123.6 2.5 37.5	36.6 13.1	82.2 96.4 35.7	8.6 31.0 29.7	32.0 130.5 69.3	
P. S. & E. RECOMMENDED FOR APPROVAL BY DISTRICT ENGINEER	FEDERAL AID	~-+	\$ 529.985.93 58,468.74 349,562.88	966,026.31 887,226.13	87.157.75 269,730.00 1.142,782.14	819,294.69 3,615,490.41 1.222,315.10	157,660.21 794,115.48 847,933,69	332,060.14 168,834.43 443,530.00	167.325.32 1.782,616.57 80.000.00	358,017.06 527,435.22 49,450.39	21,647.68 37,439.31 97,590.00	462,675.00 927,343.02 664,800.00	559.298.86 226,104.56 1,515,261.26	1,333,827.72 176,779.12 597,607.04	289,500.00	2,356,755.56 2.830,746.14 607,924.44	68,490.42 472,957.21 632,236.89	374,950.03 1,696,710.75 412.043.75	
IN	3	STAGE	57.6 4.9	9.1 9.1	3.8 5.4 44.7	55.2 3.5	208.3 0.4		16.3	40.5 54.2 11.9	412.4 79.1	0.5	19.6 310.2 6.0	12.6 9.2	138.3 136.0	23.6 246.9 7.0	17.7	4.0 16.6 78.6	
CE NOW		DRIGINAL	404.4 120.3 224.2	121.6 192.5 88.3	13.7 136.3 203.2	100.9 561.9 369.5			114.7 292.1 339.9	236.8 225.7 566.4		54.5 228.2 573.0	70.6 844.0 305.1		30.6 260.4 782.1	193.0 463.6 124.2		184.3 252.3 227.6 14.1	
AGREEMENTS NOW FORCE	FEDERAL AD	<u>。</u>	\$ 3,651,299.83 1,847,848.61 2,320,744.20	2,829,821.96 2,463,556.16 1,430,667.51	183, 677. 80 2, 191, 826. 65 2, 156, 490, 55	1,075,230.61 6,349,068.85 5,664,573,44	3,867,088.48 3,993,226.33 3,077,806.16	2,316,011.76 896,022.84 327,100.00	1,865,151.14 4,787,554.23 8,299,100.00	2,282,178.51 3,171,108.11 4,106,087.47	4, 740, 926, 85 1, 549, 183, 14 526, 913, 32	806,401.52 2,708,342.27 9,046,728.95	1,083,411.36 2,396,617.22 4,590,931.13	2,212,486.84 980,015.17 5,577,212.93	511,963.47 2,369,003.01 2,533,549.03	2, 753, 784. 10 5, 525, 635. 93 1, 372, 642. 42	663,942.33 1,536,987.27 1,355,600.00	1,846,460.36 2,620,639.76 1,464,969.87 296,602.09	
AR	GE	STAGE		4 0. 4 0.	24.7	1.16	129.4 17.6 62.8	7.5	12.6	19.6 30.5 9.2	491.0		27.6 385.4 4.2	30.3 32.6 3.0	16.9 126.5	36.5 212.2 7.5		8.0 26.4 55.7	
AND P SCAL YE			248.4 16.1 37.8	149.1 111.6 41.0		168.7 80.1 252.0	•					88.0 99.9 385.6	134.4 497.4 243.3	150.6 39.1 243.9	20.2 101.3 300.5	96.3 449.7 161.5	48.7 89.4 85.6	122.3 273.7 130.5 20.6	
COMPLETED AND PAID DURING FISCAL YEAR	FEDERAL AD	<u>v</u> _	\$ 2,001,927.49 463,822.73 203,213.42	2,916,678.50 1,227,460.74 779,158.24	416,019.53 2,585,757.00 3,573,104.03	1,316,836.83 1,061,188.82 3,660,050,12	4,684,194.61 2,882,415.67 2,066,055.31	1,243,490.89 732,748.76 755,697.50	676,611,29 3,240,551,26 2,001,396.90	2,206,913.73 2,665,448.84 732,145.14	3,304,247.95 830,371.98 431,583.38	1, 319, 535.00 882, 413.37 5, 995, 343.59	1,843,327.37 2,126,042.17 3,123,399.00	1,609,237.74 783,910.30 3,565,732.44	312,324.31 1.846,158.75 977,914.01	1,590,594.84 5,707,467.76 1,545,381.40	692, 694, 43 1, 596, 834, 66 1, 704, 301, 70	1,666,016.44 3,372,831.77 1,266,792.83 373,119.33	01 Tes TO: 00
AMOUNT PAID STATES	DURING FISCAL YEAR		\$ 2, 759, 966.85 422, 436.01 798, 612.96	2,444,944.39 1,371,008.74 415,289,33	396,176.60 1,261,266.61 2,260,205.94	936,021,68 3,021,486.88 2.767,823,43	3,507,729.88 3,071,637.86 2,214,946.66	958,664.41 489,684.26 555,948,88	676, 611.29 2, 326, 490.55 1, 996, 835.11	1, 836, 908. 75 2, 658, 532. 48 1, 778, 896. 60	2,853,649.87 837,054.98 371,194.25	1,319,535.00 1,417,762.65 5,061,107.41	1,589,297.53 1,409,404.82 2,183,353,28	1,616,263.19 656,487.98 3,031,621.22	316,606.03 1,256,902,49 1,167,023.73	1,157,624.72 4,367,659.10 1,290,062.62	694,117.53 1,439,060.06 521,599.31	1,043,717.00 2,959,014.72 1,106,907.83 325,901.59	00 000 010 CF
-N(GB	STAGE	12.4 4.2 8.2	14.5	50.1	1.6	71.4	7.2	6.5 20.6	0.8 13.7 10.7	23.2	0.5 8.6	19.5 121.7 6.7	16.5	6.1 39.2	94.3 168.0 1.5	5.0	15.7	
FOR CO		ORIGINAL	48.7 9.6	43.7 12.7 3.8	12.9 30.7 102.3	101.6 148.0 61.3	10.2 106.3 62.7	6.6 14.2 38.6	5.8 29.4 49.6	11.5 48.3 235.1	9,2	58.1 116.9	5.0 192.4 88.6	108.7 8.7 82.4	4,0 10.4 107.0	25.6 161.9 19.4	11.9 31.6 21.2	26.3 36.5 41.6 1.6	- 100 -
APPROVED FOR CON- STRUCTION	FEDERAL AD	-	\$ 356,972.83 42,024.80 102,444.55	703,031.15 159,230.93 86,951.17	155, 295.80 333, 505.44 1, 239, 573. 27	863,838.57 1,942,089.60 807,135,04	778,011.52 598,232,45 579,848.00	239,803,83 200,682.36 416,900,00	84,345.00 526,885.00 291,000.00	100,459.53 602,718.59 1,309,589.16	37.768.83 51.419.56 190.235.78	492,343.74	269,500.00 502,502.23 1,340,636.26	837,938.01 146,673.72 1,318,028.22	80,919.66 69,700.00 350,684.24	1,368,324.58 2,627,106.00 240,096.90	147,464.36 156,605.91 440,238.89	294,283.84 433,998.43 190,064.91 57,501.20	
LION	GE	STAGE	57.6 4.8	8.2 9.2	3.8 5.4 34.7	56.6 3.5	148.5 0.4 16.6		54.7	47.1 49.6 4.1	369.2		19.6 221.0 6.0	19.2 9.2	161.6 136.0	23.6 220.1 12.3	26.5 16.1	4.0 35.9 78.8	
NSTRUC	MILEAGE	ORIGINAL	427.9 120.9 250.4	129.1 237.3 62.7	5.7 123.6 203.2	116.5 694.6 393.3	1847 528.6 286.8	203.6 48.0 30.0	118.5 354.3 306.9	258.7 218.6 333.3	_	86.3 290.5 500.5	96.2 734.0 304.0	348.5 51.4 299.7	26.6 288.6 688.2	249.6 400.1 140.5	51.2 129.4 124.3	171.0 346.3 256.3 12.3	5 101 UF
* UNDER CONSTRUCTION	FEDERAL AD		\$ 3,822,312,93 1,864,282.55 2,567,882.63	3,092,617.14 3,191,550.36 1.423.715,44	95, 739. 75 2, 126, 051. 21 2, 069, 899. 42	1,240,688.93 10,222,490.66 6.073,753,60	3,236,735.15 4,089,108.36 3,345,890,85	2,410,268.07 654,174.71 353,730.00	1,948,131.48 6,044,285.80 2,088,100.00	2,539,736,04 3,095,824.74 2,846,948,68	4, 724, 807. 70 1, 535, 202. 87 434, 287. 54	1,269.076.52 3,141,341.65 7,903,681.45	1,383,210.24 2,124,216,55 4,865,556,13	2,708,378.55 1,012,120.57 4,956,793.75	431,049.92 2,806,803.01 2,260,197.05	3,742,215.08 5,729,274.07 1,740,470.98	684,978.39 1,853,338.57 1,547,600.00	1,927,128.55 4,083,382.06 1,676,948.71 239,100.88	111 011 011 011
BALANCE OF FEDERAL- AID FIIND	AVAILABLE FOR NEW	LKUJELIS	\$ 1,645,844.61 2,896,024.65 1,785,771.75	3, 363, 012.39 2,573,202.04 566,752,81	1,210,680.44 1,210,489.75 17,567.82	138, 890.41 114,597.22 267.083.14	171,307.77 1,284,552.84 529,296.09	317,573.20 1,380,998.50 143,816.23	2, 151, 416, 10 627, 344, 95 398, 471, 43	892.222.08 1,650,938.55 4,353,988.31	1,999,143.13 595,556.89 66,727.25	263,177.00 894,613.29 3,910,482.61	1,141,631.23 837,992.37 2,691,001.86	387,602.49 1,267,096.47 1,860,129,27	576,048.18 84,396.43 514.514.16	254,777.15 3,975,498.70 220,749.78	26,473.81 237,853.61 491,643.46	476, 758.16 1, 436, 440.82 187, 116.50 1,054, 241.56	CT CA1 770 45
	STATES		Alabama Arizona Arkansas	California Colorado Connecticut	Delaware. Florida Georgia	Idaho Ilinois Indiana	Iowa Kansas Kentucky	Loufaiana Maine Maryland	Massachusetts Michigan Minnesota	Mississippi Missouri Montana	Nebraska Nevada New Hampshire	New Jersey. New Mexico New York	North Carolina North Dakota Ohio	Oklahome Oregon Pennsylvania	Rhode Island South Carolina South Dahota	Tennessee Texas Utah	Vermont Virginia Washington	West Virginia Wisconsin Wyoming Hawaii	TOTATC



F-2 (1927) R.G.A.	ATE AUTHORITIE8) 61ATE8	ALABAMA ARI ZONA ARI ZONA	CALIFORNIA COLORADO CONNECTICUT DELAWARE FLORIDA	GEORGIA IOAHO ILLINOI8 INOIANA	ICMA KANBAB KENTUCKY LOUI6IANA	MAINE MARYLAND MASSACHUSETTS MICHIGAN	MINNESOTA MISSISSIPPI MISSOURI MONTANA	NEBRASKA NEVADA NEW HAMPSHIRE NEW JERBEY	NEW MEXICO NEW YORK NORTH CAROLINA NORTH DAKOTA	OHLO OKLAHOMA OREGON PENNISYLVAN IA	RHOOE ISLAND SOUTH CAROLINA SOUTH DAKOTA TENNESBEE	TEXAB UTAH VERMONT VIRGINIA	WASHINGTON WEST VIRGINIA WISCONSIN WYOMING	TOTALS	
	(COMPLEC FROM REPORTS OF STATE AUTHORITIES) 0.004/01/01/01/01/01/01/01/01/01/01/01/01/01/		7160		5,446,258 - 657,924 2.274,428	1,243,759 1,926,750 659,118 3 959,553	8,902,898 1,076,219 4,842,914 249,593	1,750,731 -43,915 1,319,124 10,136,215	-2,253 44,585,290 20,816,364 775,348			5,860,201 569,011 406,151 974,396	4,523,916 4,003,440 334,342	\$ 223,001,706 -303,639 \$ 222,635,539	
	S OF S OF	6	0.6 4.4	0.9 0.7 3.1	2.9 1.4 1.6	1.7	5°6	0.6	0.1 9.1 22.3 0.5	1.7	2.4	2.0 2.0	- - 19.0	5.0	
	(COMP A-DOUNTY FUNDS 6-RICHT-OF-WAY C-TRAFFIC, ETC-	- - - - - - - - - - - - - 	6 347,416 0 30,632 80 153,013	A 142,905 ABC 29,514 A0 938,230 6 193,521	}	0	AB 465,193 A 42,517 A 7.749	AB 100,915 C 14,129 AB 6,145,591			ABC 102,673 AC 1,410,917 AC 1,718,689	AC 16,579 AB 306,190	A 3,329,644	\$ 34,707,676	
	A OF 101AL 0188-	6.7 4.8 4.8	0.5	2.1 5.1 0.3 7.6	- 7.7	1.1	8.8 1.0	6.1 1.9 1.3 0.2	8.2 1.7 0.3 3.7	2.4	3.6 3.8 0.8	0.8 5.5 3.1	- 1.2 0.1 2.5	9.1	1
	EQUIPNENT, MCHINERY & MATERIALS	 718,998 126,076 562,650 	24,766 24,766 11,008	317,460 196,000 94,716 1,124,834	- - 888,525 657,103	354,638 198,801 521,758	668,120 63,004 131,848	487,467 41,440 45,258 43,037	416,924 972,380 110,796 170,528		155,280 423,813 37,663 1.243,677	173,320 217,503 178,796 450,000	230,801 24,784 72,897	\$ 13,330,076	
	ARTNEN \$ OF TOTAL 0188-	5. P	8.6 8.6 12.6	3.6	1110	6.6 9.3 -	8°9 1 8°3	1 - 1 - 1	0.6 7.2 11.6	- - 16.2 8.6	4.4 5.5	1.8	10.6 - 3.3	4.8	
M	BLATE HIGHWAY DEP EARS OF - 1927. BONDS, NOTES, ETO- PAID ON INTEREST	\$ 895,535 317,795	3,030,694 486,976 - -	151,467 3,608,010	25.650	568,305 990,830 (3) - 2 239,490	1,595,811 2,141,025		27,936 4,220,000 3,825,139	- - 1,653,216 4,291,400		325,000	2,052,482 - 94,325		19
1	SCAL Y SOF TOTAL 0188-	8.1	11.5 7.8	10.4	1 1 0	5.1 5.7 5.7	1.1	4.5	6.7	15.6	ຜູ້ກິດ ຜູ້ຄືອ	10.5	12.0 -	4.5	PAYNE
UNITED BEAMTHERE OF ADAR OUT UNE BAREAU OF PORLID RAMA TOTAL OLBURGDARTS, 1987.	RAUD AND BRIDGE WORK UNDER BAPESVISION OF THE BIATE HIGHMANY OF ANTIHETIFS INCLUDING BIATE BOND EAVERTING, DURING FEBOLL, VEARS OF - 1957. INCLUDING BIATE BOND EAVERTING, EAR BONDS, MOTES, 5 OF MISELLANEOUE FORL ETC-PAID ON TOTAL ETC-PAID ON TOTAL EXPENSES 0199- MINETARY OF AND ANTION TOTAL ETC-PAID ON TOTAL		1,776,000 600,000 283,250	339,000 2,000,000		445,000 2,002,640 (3) 1,048,258 523,236		100,000 (3) 2.872,176				412,600	2,326,000	\$ 31,528,424	BARADEATG HERE GROWF, IN GENERAL, OVER MONEY GREAT ON STATE HIGHMAVG. INCLUESE \$901 288 EALO ON COMMIT ROLO GOUGE FOR PRINCIPAL AND INTERET, AND \$2,386,611 ON ANTICIPATION OERTIFICATE PAYNENTS. OLL ADMIL 16 FOR 182. DALA FOR 1827 MOT ANLIGALE. AND INTERET, AND \$2,386,611 ON ANTICIPATION OERTIFICATE PAYNENTS. EXOLUESE \$944110 EXECUTED ON DIATTER ON STATEHORMAND. MONOR PRINCIPAL.
OTAL O	CONO PUE	7.7 4.6	7.7 7.0 13.9 13.9	7.4 11.1 8.8 4.5	19.9 0.8 7.2 5.5	5.3 - 19.4	0.8 8.6 7.3	5.3 9.3 13.0	4.2 5.9 11.2	4.0 5.2 7.3	10.6 3.6 6.5 9.8	2.0 2.9 3.9 4.1	8.7 3.1 3.1 6.6	6.8	NTICIP
UNITED	ROAD AND BRIDGE W INDLUDING BTATE 6 MIBUCLLANEOUS EXPENDEE	\$ 115,053 115,661 541,098	1,574,728 359,410 562,917 484,471				143,657 555,262 1,892,360 245				449,558 489,048 314,761 1,582,744	394,564 81,430 161,087 161,087	750,825 590,820 543,760 188,415	\$ 47,861,923	D \$2,386,611 ON A
	FOR BLATE 10 OL	7.5 39.6 13.2	24.0 34.0 4.8	10.4 17.6 6,4 17.8	14.8 6.1 16.5 25.5	18.1 37.3 15.0 16.6	23.7 27.0 12.4 10.3	23.1 15.1 48.1 6.4	19.7 12.0 0.4 6.4	76.0 17.1 29.1 30.0	44.1 14.4 23.6 23.2	40.4 20.3 32.3 21.1	26.0 25.1 26.1	16.6	BT, AN
	MA INTERNUCE	\$ 810,504 1,039,583	5,217,587 843,570 4,335,820 148,050 148,050	1,573,331 876,045 1,942,610 2,628,586							1,868,262 1,923,106 1,164,840 3,707,505	8,085,308 798,086 1,319,148 3,980,383	2,243,256 2,171,978 4,175,330 721,067	\$ 138,783,358	ON STATE HICHWAYS NCIPAL AND INTERE LE. AND SHOWN UNDER F
	A OF TOTAL	63.7 50.7	41.7 55.4 61.7 57.0	78.2 51.2 65.5 66.6	62.4 93.0 64.5 80.8	58.1 34.5 58.8 54.2	56.1 62.6 60.5 67.1	64.2 67.2 39.6 55.1	58.5 63.4 51.6 75.2	20.0 30.9 35.2	32.1 68.3 50.3 62.4	58.8 52.6 59.4 63.7	85.3 61.9 64.0 62.5	57.2	BPENT OR PRI VAILAB ARATED
	CONSTRUCTION & RECONSTRUCTION		8, 572, 578 2, 896, 537 7, 885, 544 1, 982, 257											\$ 400 <mark>,038</mark> ,376	RAL, OOVER MONEY UNTY ROAO GONDS F TA FOR 1827 NOT A INTELEST NOT SEP 1 NTELEST NOT SEP 1 NTELEST NOT SEP
	OI BBURSEMENTS		20,558,842 5,231,783 12,783,981 3,478,548 91,557,248	15,113,561 3,847,216 30,269,902 14,798,311	24,076,785 16,509,292 11,484,452 10,752,704	6,684,283 10,567,544 16,378,612 26,882,861	17,836,557 6,461,037 25,896,475 1,540,789	6,004,355 2,199,431 3,564,979 27,762,871	5,086,904 56,798,232 33,144,486 4,567,350	18,213,619 12,616,237 10,263,443 50,064,021	4,242,096 13,410,166 4,862,474 16,002,628	20,018,254 3,829,203 4,080,316 14,714,337	8,627,901 19,311,231 17,547,385 2,873,445	\$ 699,875,182	OIGELARDERIG HERE GROWN, IN GENERAL, OOVER ADDRY GREAT ON (1) INCLUES SOOT 358 PALO ON COMMY ARAO, GONDE FOR PRIMAL (2) OLLY ADDRN (2) FOR 1852. AND OF MACA FOR 1879 ANALOLE. (3) ANARGING ON PRIORIAL AND OF INTEREST AND SAVALUAGE. (4) EXAMPLIES GRAVED FOR DEPENDENCY OF AND SEVANTORAL
	YEAR	8/30 6/30	12/31 8/30 12/31 12/31	12/31 12/31 12/31 12/31	11/30 12/31 6/30 12/31	12/31 6/30 11/30	12/31	12/31	12/31 12/31 6/30 6/30	12/31 12/31 11/30	11/30 12/31 12/31 6/30	6/31 12/31 12/31 6/30	12/31 12/31 8/30		DIENTE 1 DIENTE 19 BHORN ENTE ON UDEE 90
	81ATE8	ALABAMA ALABAMA ARIZOWA ARIXANBAG				2) TIS		ω			4		WASHIMOTON WEST VIRGINIA WISCONSIM WYOWING	TOTALB	REMARKAL 0160LASC MOTES: (1) HACL (2) ANTA (3) PANE (4) PANE (5) HACL

•

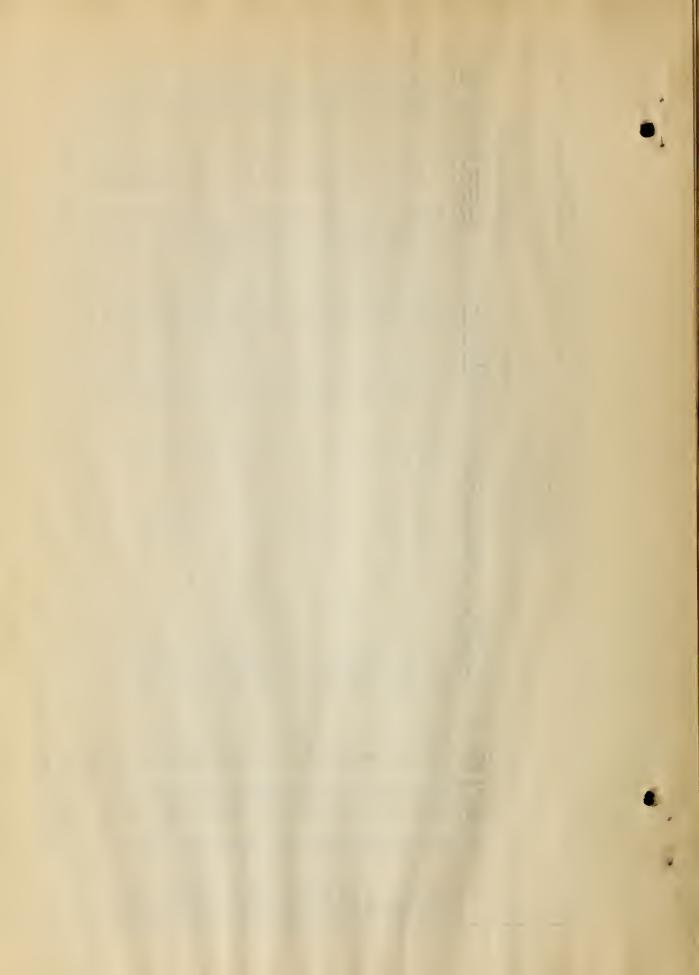
3

Jac .

.



		D \$ OF TOTAL FUNDS		1			1				9.8					
	F-1 (1927) R.8.A. AUTHORITIES)	FEDERAL ALD POST ROAD FUNDS USED	\$ 1,251,173 721,244 505,405 2,429,075	1,148,156 613,876 510,861 1,688,402	2, 745, 750 1, 067, 196 2, 997, 913 2, 075, 554	2,572,940 3,466,253 1,420,030	632,174 720,453 883,704 883,704	2,056,364 1,945,109 3,468,123 894,780	2,424,615 995,545 453,830	3,647,166	2, 367, 894 1, 206, 557 1, 111, 522 3, 569, 271	429,576 1,123,512 717,508	4,965,006	1, 800, 830 639, 119 639, 119 2, 357, 069 2, 357, 069	\$ 80,459,671	
	F-1 R BTATE AUT	A OF TOTAL FUNDB	1.3		11.1					1.9	23.6 5.6	70.0	12.3	2.7 2.7 4.3		
	REPORT6 OF 81	TRANSFERRED FUNOB FROM COUNTIES, ETC.	\$ 166,752 11,000 3699	4	1			660,203 1,044,098	84,939 477,889	66,140 8,132,316 - 0 510	3,132,137 6,132,137 618,679 6,772,177	16, 839, 867 16, 272 3, 273, 691	1,817,316 552,734 223,658	229,636 4,203 934,297	\$ 76,639,189	
	FROM	\$ OF TOTAL FUNDB			32.4 36.6 10.8	1		18.8 30.0 20.6	37.6 10.5 26.8	23.0 23.0	34.5	9.6 13.4 28.0	28.8 29.0 20.2	44.0 15.4 20.6	18.4	
	(COMPILEO	QABOLINE TAX APPLICABLE TO HIGHWAY9	\$ 1,854,279 474,264 4,338,736 10,599,924	1,740,651 2,886,648 632,394 8,243,691	4,993,111 4,993,111 1,669,057 3,953,048 6,461,275	2,866,066 3,850,720 5,282,931 2,979,618	1,897,965 1,687,282 10,618,424	5,035,794 5,035,794 6,353,032 6,353,032	3,656,906 233,501 1,268,681 3 376,653	8,120,604	3,639,967 4,798,000 3,887,666 11,821,094	729,967 3,019,399 2,074,669 3,625,750	7,453,797 1,305,500 906,244	3,799,498 3,676,372 4,437,929	\$169,818,473	
		L OF TOTAL	18.8 18.6 16.6	10.6 29.7 22.7 18.7	23.4 4.2 42.6 29.9	31.4 23.8 29.1 31.6	27.0 17.6 65.4 34.9	38.2 2.7 26.6	11.2 10.3 37.6	4.6 17.4 10.9	74.0 19.2 40.9	27.6 9.4 17.5 23.0	43.2 14.0 39.2 39.2	45.2 43.4 43.4	28.2	
	œ	MOTOR VEHICLE FEE8,ETC. FOR ROAD PURPOSE6	\$ 2,382,876 476,876 3,662,272 4,038,016		3,699,794 3,699,794 193,310 16,689,366	ļ				228,733 228,733 18,000,000 6,893,610 6,893,610		2,095,673 2,132,494 1,291,455 3,640,279			\$ 259,854,786	
	DEPARTMENT8	B \$ OF TOTAL FUNOB	0.4 1.3		0.0		13.0 2.6 3.0			0.0 2.1 2.1		20.0	0.4 3.5 3.5			
	HIGHMAY	MISCELLANEOUS 81ATE INCOME FOR HIGHMAYS	\$ 65,457 - 281,254	70,500 1,207,796 62,964 457,903	34,623 41,436 197,685 358,445	1,106 465,112 83,097	1,287,730 329,601 42,123 903,017	- 103,354 606,338 54,863	- 143,249 201,892 17,170	43,042 197,693 1,123,472 85,068	- 67,246 178,256 178,256,817		96,811 202,920 158,354 271,078	- 55,996 116,379 846,613	\$ 12,469,703	
	E 1927 THE BTATE	≸ OF TOTAL FUNDS	9.5 21.4		0.3		3.5		1.0	4.5	** 1 1 1	114	- - 7.5 0.4		3.3	
BUREAU OF PUBLIC ROADS	AVAILABI	APPROPRIATION 8Y BIATE FOR HIGHMAY8	\$ 245,000 6.885,894	3,166,500	15,544	150,000	348,565 - -		100,000	229, 344 18, 770, 176	142,884 - 23,878	300,000	- 335,425 66.435		\$ 30,794,645	i
n or Pr	AND FUNDS	\$ OF TOTAL	25.1	17.9	7.3		23.3 6.9	7.3	- 1.9 - 15.4	9*9 - 1		2.6 2.4 0.2	12.4 12.4		2.0	BALANCE
BURE	TOTAL INCOME BRIDGE WORK UN	BTATE TAX LEVIED FOR HIGHMAYB, ETO.	\$ 645,626	1,241,996 - 148.839	332,225		724,938 2,921,836 1,132,228	1,936,196	42,291 5.817,654	334,866		187,164 - 174,296 38,014	29,028 142,930 1,938,029		\$18,769,581	AS UNEXPENDED BALANCE
	ROMO AND	\$ OF TOTAL FUNDB	40.0	20.7	33.8	1.7 - 16.6	5.1 14.9 6.0	- - 16,7	4.5 - -	37.0		46.0 - 16.8		35.Z	9*8	TABLE
	FOR STATE RO	BTATE HWY. BONOB, NOTER, ETC, SOLD	\$ 5,090,613 13,235,625	- 173,037	12,		506,330 1,863,633 1,149,570	- 6,167,200		1,225,315 3,875,000 20,000,000		3,500,000 - 2,500,000		8,500,000	\$ 90,979,230	1928 OI SBURBENENT TABLE
		\$ OF TOTAL FUNDB									92.0 88.6 92.3 66.3					
		TOTAL INCOME DURING YEAR	\$ 10,801,050 2,673,910 22,023,292 23,317,608	6,039,616 14,712,404 3,124,948 19,472,310	14,097,930 3,822,083 34,929,641 14,292,254	23, 502, 327 16, 132, 044 14, 464, 066 12, 463, 914	8,411,300 10,800,823 18,324,194 26,027,009	19,910,647 5,669,715 23,777,971 1,683,801	7,354,931 2,222,314 3,754,063 2921,259	5,081,730 63,422,351 36,861,042 4,643,557	31,341,399 11,753,940 10,416,112 49,228,818	6,958,330 22,351,358 6,057,244 14,904,246	26, 612, 644 3, 869, 871 4, 236, 467 14, 468, 182	8,627,901 17,230,433 17,189,691 3,218,149	\$ 739,786,258	HIGHMAY FINANG OUSLY REPORTED
		\$ OF TOTAL		1	8.2 16.2 17.0						8.0 11.6 7.7 33.7	8.6 1.1 18.1 6.9	1.4 14.0 6.6 7.8	27.7 80.2 1.5	19.8	STATE) STATE) S PREVI
		BALINICE AT BEGINNING OF YEAR	1,896,293 -138,439 140,448 4,229,610								2,738,470 (2) 1,534,241 870,408 24,981,699	2		6,604,714 4,360,934 49,638	\$ 186, 241,098 -2,526,927 \$ 182,714,171	APPLICABLE TO OF COUNTY FUNC
		TOTAL FUNDS AVAILABLE (1005)	\$ 12,697,343 2,435,471 22,153,740 27,547,218	6,818,499 22,998,014 3,731,309 24,149,359	16, 364, 247 4, 568, 261 36, 640, 563 17, 213, 216	29,523,053 16,509,292 12,142,376 13,027,130	9,928,022 12,624,294 19,048,731 29,842,414	26,738,465 7,660,256 30,839,389 1,790,382	9,766,086 2,155,516 4,884,103 37,899,086	6,086,651 103,383,522 53,960,840 6,342,708	34,079,869 13,288,181 11,286,520 74,210,617	7,604,710 22,604,281 7,394,661 16,837,446	25,878,465 4,498,214 4,486,467 16,688,793	8,827,901 23,836,147 21,650,825 3,287,787	\$ 922,499,429	ABOYE FUNCS EXPERIALLY APPLICIABLE TO STATE HICHMAY FINANCING. (1) 1986 FICURES UNED. (2) EXCLURES \$585,488 OF COLARY FUNCS PREVIOUSLY REPORTED IN (3) INCLURES \$500,498 OMITED AS UNEXPENDED BALLANCE IN 1886.
		FISCAL	9/30 8/30 12/31	11/30 6/30 12/31	12/31 12/31 12/31 9/30	11/30 12/31 6/30 12/31	12/31 9/30 11/30 6/30	12/31 1/31 12/31 6/30	12/31 11/30 12/31 12/31	12/31 12/31 6/30 8/30	12/31 12/31 11/30 12/31	12/31 12/31 6/30	8/31 12/31 12/31 6/30	12/31 12/31 6/30 12/31		ABOVE F (1) 192 (2) EXC (3) INC
		BTATE8	ALABAMA ARI ZONA ARKANBAB CALI FORNI A	COLORADO CONNECTICUT DELAWARE FLORIDA	QEORGIA IDAHO ILLINDI8 INDIANA	1044 KANBAS KENTUCKY LOUIBIANA	MATNE MARYLANO (1) MASSACHUBETTB MICHICAN	MINNEGOTA MI 8SI SSI PPI MI SSOUR I MONT ANA	RABKA ADA HAMPBHIRE JERSEY	NEW MEXICO NEW YORK NORTH CAROLINA NORTH DAKOTA	CH10 OKLAHOMA OREGON PENNBYEVANIA	E IBLAND IN CAROLINA IN OAKDTA EBBEE	UTAN UTAN VERMONT VIRGINIA	WASHINGTON WEBT VIRGINIA WISCONBIN WYOMING	TOTALB	REMARK8: NOTES:



COMPREHENSIVE CONCRETE PAVEMENT CURING TESTS NOW IN PROGRESS IN TENNESSEE

CONTRIBUTED BY F. H. JACKSON OF THE DIVISION OF TESTS (NOT FOR RELEASE)

THE MOST COMPREHENSIVE SERIES OF CONCRETE PAVEMENT CURING TESTS, THAT HAVE BEEN CARRIED OUT UP TO THE PRESENT TIME, ARE NOW BEING INITIATED IN CONNECTION WITH THE CONSTRUCTION OF ABOUT 17 MILES OF CONCRETE PAVEMENT ON TENNESSEE FEDERAL-AID PROJECT 18-A, BETWEEN MEMPHIS AND SOMERVILLE. IT IS BELIEVED THAT EVERY CURING METHOD THAT HAS RECEIVED SERIOUS CONSIDERATION WILL BE INCLUDED IN THE PROGRAM. ABOUT I MILE OF THE PAVEMENT IS NOW COMPLETED AND IT IS EXPECTED THAT THE REMAINDER WILL BE FINISHED THIS YEAR.

The design of the pavement was modified from the State standard 8-6-8 cross-section to 8-7-8 so as to eliminate all tie bars across the center joint which would restrict the expansion or contraction of one side of the slab with respect to the other and soleffect the results of the test. The pavement consists of plain concrete, 18 feet wide, with a metal center strip from which the 3/4-inch pins to the subgrade are removed as soon as possible after the pavement is laid. The earth shoulder on each side of the pavement is 4 feet wide.

THE GENERAL SCHEME OF THE TEST IS TO CURE ONE SIDE OF THE PAVEMENT CONTINUOUSLY WITH THE STATE STANDARD METHOD, CONSISTING OF WET BURLAP FOR 24 HOURS FOLLOWED BY 2 INCHES OF EARTH KEPT WET FOR 10 DAYS. FOR COMPARISON WITH THE STANDARD CURING, THE OTHER SIDE OF THE PAVEMENT WILL CONSIST OF A SERIES OF SECTIONS APPROXIMATELY 1,000 FEET LONG, EACH CURED IN A DIFFERENT MANNER.

TWENTY-FOUR BEAMS WILL BE CAST FOR EACH 1,000 LINEAL FEET OF PAVEMENT, 12 ON THE EXPERIMENTAL SIDE AND 12 ON THE STANDARD SIDE. THESE BEAMS WILL BE TESTED AT THE AGES OF 3, 7, 14, AND 28 DAYS. CORES DRILLED FROM LOCATIONS CORRESPONDING WITH THE BEAMS WILL BE TESTED AT THE END OF 30 DAYS. THE BEAMS WILL BE CURED IN THE SAME MANNER AS THE PAVEMENT. THE SIDES OF THE BEAMS WILL BE PROTECTED WITH SISALCRAFT PAPER AGAINST WHICH EARTH WILL BE BANKED.

A DETAILED DESCRIPTION OF THE VARIOUS CURING METHODS

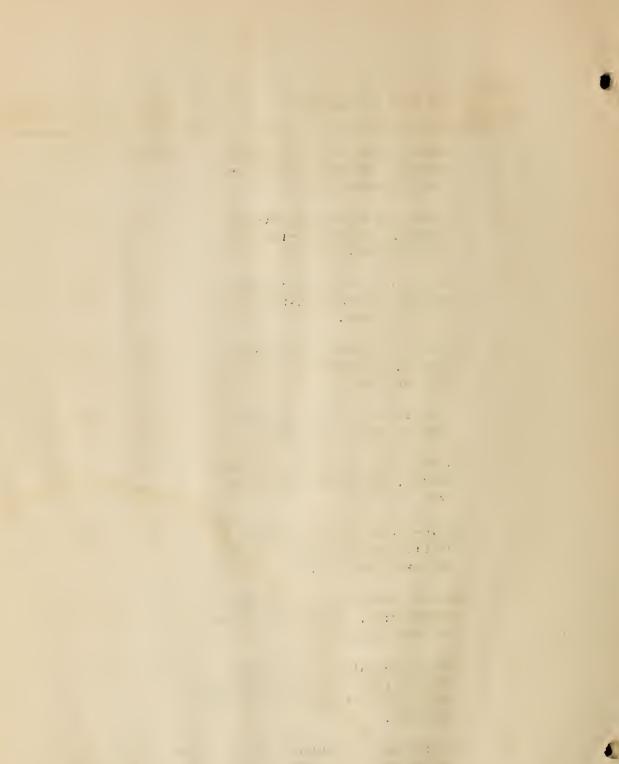
Constraint and the second se Second seco second sec

NUMBER OF SECTION	ONE SIDE OF PAVEMENT	OTHER SIDE	OF PAVEMENT
1	Burlap, 24 hours, no further curing. Concrete laid on the bare subgrade.	STANDARD C	UR I NG
2	Burlap, 48 hours, no further curing. Concrete laid on the bare subgrade.	Do	DO
3	BURLAP, 72 HOURS, NO FURTHER CURING. CONCRETE LAID ON THE BARE SUBGRADE.	Do	D0
4	Burlap, 96 hours, no further curing. Concrete laid on the bare subgrade.	Do	DO
5	No curing whatever. Concrete Laid on the bare subgrade.	Do	DO
6	SISALCRAFT, 24 HOURS, NO FURTHER CURING. CONCRETE LAID ON THE BARE SUBGRADE.	Do	DO
7	SODIUM SILICATE AS A SURFACE APPLICATION. CONCRETE LAID ON THE BARE SUBGRADE.	Do	DO
8	ASPHALT EMULSION AS A SURFACE APPLICATION. CONCRETE LAID ON THE BARE SUBGRADE.	Do	DO
9	CALGIUM CHLORIDE AS A SURFACE APPLICATION; 2 POUNDS PER SQUARE YARD. CONCRETE LAID ON THE BARE SUBGRADE.	Do	DO
10	CALCIUM CHLORIDE ADMIXTURE; 21 POUR		

10 CALGIUM CHLORIDE ADMIXTURE; 25 POUNDS PER SQUARE YARD, ACROSS THE FULL WIDTH OF THE PAVEMENT. CONCRETE LAID ON THE BARE SUBGRADE.

- 6 -

•



.

NUMBER OF SECTION	ONE SIDE OF PAVEMENT	OTHER	SIDE	OF PAVEMENT
H	CALCIUM CHLORIDE AS A SURFACE APPLICATION; 2 POUNDS PER SQUARE YARD. CONCRETE LAID ON THE BARE SUBGRADE.	STANDA	RD CU	JR I NG
15	TAR - BOTH COLD AND HOT - AS A SURFACE APPLICATION. CON- CRETE LAID ON THE BARE SUB- GRADE.	Do		DO
13	HUNT PROCESS AS A SURFACE APPLI- CATION. CONCRETE LAID ON THE BARE SUBGRADE.	Do		DO
14	HUNT PROCESS AS A SURFACE APPLI- CATION. CONCRETE LAID ON A SUBGRADE COVERED WITH TAR PAPER.	Do		DO
15	TAR - BOTH COLD AND HOT - AS A SURFACE APPLICATION. CONCRETE LAID ON A SUBGRADE COVERED WITH TAR PAPER.	Do		DO
16	CALCIUM CHLORIDE AS A SURFACE APPLICATION; 2 POUNDS PER SQUARE YARD. CONCRETE LAID ON A SUB- GRADE COVERED WITH TAR PAPER.	Do		DO
17	CALCIUM CHLORIDE ADMIXTURE; 23 POUR ACROSS THE FULL WIDTH OF THE PAVE ON A SUBGRADE COVERED WITH TAR PA	MENT .		
18	CALCIUM CHLORIDE AS A SURFACE APPLICATION; 2 POUNDS PER SQUARE YARD. CONCRETE LAID ON A SUB- GRADE COVERED WITH TAR PAPER.	STANDAR	D CUR	ING
19	ASPHALT EMULSION AS A SURFACE APPLICATION. CONCRETE LAID ON A SUBGRADE COVERED WITH TAR PAPER.	Do		DO

3

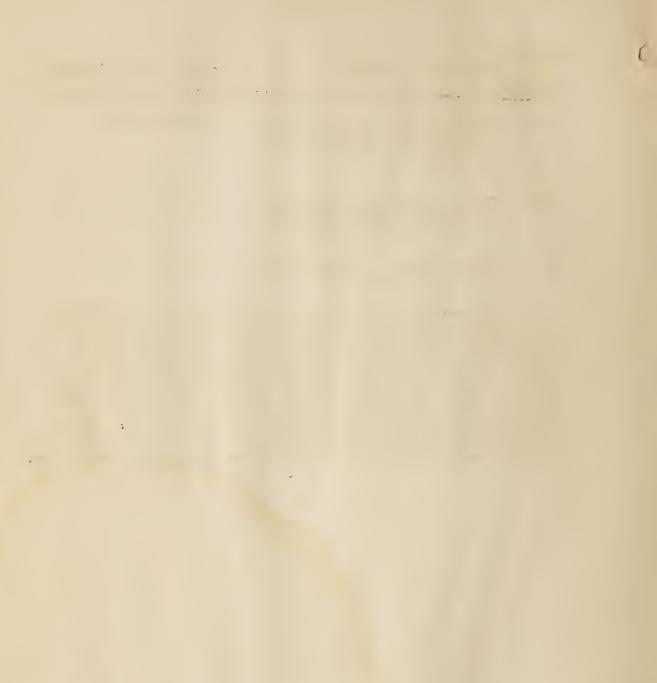
 $= e_{1}e_{2}\pi_{1} + e_{2}e_{2}\pi_{2} + e_{2}e_$

tion (1997) Anno 1997 An

and a star of the second se

NUMBER OF SECTION	ONE SIDE OF PAVEMENT	OTHER SIDE OF PAVEMENT
20	SODIUM SILICATE AS A SURFACE APPLICATION. CONCRETE LAID ON A SUBGRADE COVERED WITH TAR PAPER.	STANDARD CURING
21	EARTH TO SIMULATE INFERIOR WORKMANSHIP, WHERE THE EARTH IS ONLY PARTIALLY WETTED.	Do do
22	Ponded surface. Concrete LAID on the bare subgrade.	Do Do

THE NUMBERS OF THE SECTIONS GIVEN ABOVE DO NOT CORRESPOND WITH ANY NUMBERS IDENTIFYING THE SECTIONS IN THE FIELD BUT ARE GIVEN ONLY TO FACILITATE THIS DESCRIPTION OF THE TEST. THESE FIRST 22 SECTIONS WILL BE FOLLOWED BY ANOTHER GROUP OF 22 OF EXACTLY THE SAME KIND AND IN THE SAME ORDER, AND THE PAVEMENT WILL BE FURTHER CONTINUED BY THIRD AND FOURTH GROUPS OF 22 IDEN-TICAL SECTIONS. THERE WILL THUS DE AVAILABLE FOR COMPARISON 4 CORRESPONDING SECTIONS OF EACH METHOD OF TESTING AND IT IS HOPED BY THIS MEANS TO OBTAIN RESULTS WHICH WILL ELIMINATE THE OTHER VARIABLES WHICH NECESSARILY ENTER INTO THE CONSTRUCTION OPERATIONS.



H- 5(19 26) R.8.A.		1921 AND 1925.		8TATE8	ALABAMA ARI ZONA ARK ANBAB ANK ANBAB	COLDRADO COLDRADO CONNECTICUT DELAWARE	GEORGIA I OAHO	ILLIN018 INDI ANA	IOWA KANSAS KENTUCKY I CUITSIANA	MAINE MARYLAND MABSACHUSETTB	MICHIGAN MINNESCT A	MIBSIBBIPPI MIBSOURI MONTANA	NEBRASKA NEVADA	NEW HANPSHIRE	NEW MEXICO NEW YORK NORTH CAROLINA NORTH DAKOTA	OH 10 OKLAHOMA	PENNSYLV AN LA	BOUTH CAROLINA BOUTH CAROLINA BOUTH OAKOTA	TENNESSEE	UTAH VERMONT	WASHINGTON WEBT VIRGINIA WIBCONSIN	TOTALS
1 8		DETAIL AS FOR 1921		BTONE						- 0				51	თ		80	ен си 			Q1	87
		O DETAIL		PAVEMENT8						Q						۳ ۱	83 m		-			37
		ACCURATE A8 TO		BLOCK PI			ē							9	15							61£
		84		VI TRIFIED	Ø	-	0 N	117	Q	un.	9	Ω	Q	S	- a	562	413	12			ଣ୍ଡ ଦ୍	1,384
		G AND ARE NOT	TYPEB	PORTLANO CEMENT	270 270 6	125	117	1.093	a 8 8 5	3 78 67	910	8 8 2 -	55	690	703 237	571 88	142 520	45	69	24 9	755 188 208	10,405
	MAE EXCLUDED	BOME ESTIMATES	L ROADS, BY	BI TUMI NOUS CONCRETE		455 - 051	18 - 1	172	CD P	9 1	3	11 19	8,	495	1 25	70 6	379 421	51	7	3 M	171 34	3,607
TUNE	1825 Mi un		SURFACED LOCAL ROADS, BY TYPES	SHEET ASPHALT	ω -	e o	248 27	22 14	ର ମ	- 4	60	-		357	53 104	8 20	61	ω a	9	чен (3	5 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	1,548
r or Agriculture Ic Roade	RURAL	E OF OOUMTY AUTHOMITIES) Intervening veare jontain		BI TUMI NOUB	38	1	<u>ਵ</u> ਲ જ		48 48	-		81		375	4	-	483			<u>-</u>		11,651
UNITED BTATES DEMATHMENT OF AGA BUREAU OF PUBLIC ROADS	EXISTING LOCAL R we Townente Roads,	REPORT		NUTREATED	216 25 46	1.386 377 160	4 2 2 4	429 2,216	66 5,859	2 12 28 CB	1,236	32 1,189	4-	1,059	4.317	5,439 2	1,050	8	3,178	194	10,271 1,555 10,271 1,555 11,355 834	42,732
NITED BTAT	OF EXI	RECORDS A		CHERTED AN	5,689 1,077 1,559	9,609 1,073 971 75	1,277 3,540	10,695 41,511	5,812 668 3,965	3,083	13,112	7,003 4,825	401	3,486	183 7,331 2,689 538	23,313 1,009	5,515 11,387	183	4, 178	1.200 1.200 1.200	10,271 520 11,335	246,524
5	MILE	(FROM		SAND-CLAY	8,286 209 210	1,402	5,999 888 888		366 155	115 9	19	200 200 1,463	17		86 528 17, 046	197 222		8,351 21	234	25 25 143 143	902 902 2,769	
	Local, Roads	MITH 81MI		TOTAL BURFACEO MI LEAGE						3,123 2,220 6 799	15.460	7,447 7,447 7,867	509 430	256	269 17,103 21,421 539	32,770	8,368 15,066	424 8,605 1.042	7, 682	1,410	13,876 1,306 15,005	387,005
		GE COMPARED		IMPROVED TO EBTAB. GRADE AND	13,756 3,904 26,706	29,885 3,798 1,681 841	7, 203	9,018 387	5,117 5,117 3,506	2,361 2,361	334	2,628 2,628 37,016	4,521	1,491 8,212	729 588 23,531 39,028	10,920	6,366 63,239	1,882	4,060	3,502	11,449 2,108 6,012 819	598,603
		AND MAY	EARTH ROADS, NON-BURFACED	UNIMPROVED AND PARTLY	30,217 13,952 38,406	E7, 808 23, 885 50, 343 3, 738 8, 837 1, 681 2, 071 8,41	9,821 76,178 12,894	55,712	89,663 114,928 37,064		- 1	39, 419 39, 413 58, 043 36, 781			(21,600 49,083	1 2
		COUNTY RECORDS	EARTH	OTAL NON BURFACED LOCAL	43,973 43,973 17,856 64,111	67,493 54,141 10,518 2,912	82,379 23,795	76,728	90,647 120,045 40,570	15,305 9,992 10,004	58,784	42,465 95,069 57,449	87,227 87,227 20,287	9,432 8,663	38,546 48,346 43,890 100,033	41,102 115,338	38,918 64,075	1,223 42,331 111,775	61,471	18,520 18,520 9,223	29,570 29,710 54,105	.325,267
		BEOURED FROM OF		MILEAGE	59,315 19,505 65,339	76,020 56,639 12,020 3,206	91,131 28,318	88,160	96,461 121,216 51,614	19,428	74,253	100,292 49,903 102,728 69 030	87,736 20,717	9,687	38,814 65,449 65,311 65,311	73,872	47.274	1,847 50,935 112 817	59, 153	169,836 19,930 10,574	43,445 31,015 69,111	2.712.262
		OATA WERE BED		BTATES	ALABAMA ARIZONA ARIXANSAS	CAL 1 FORNIA COLDRADO CONNECTICUT DELAWARE	FLORIDA GEORGIA IDAHO	1LLINOI8	10MA KANSAS KENTUCKY	MAINE MARYLAND	MICHIGAN	MI NVESOTA MI 891881PP1 MI 890UR1	NEBRASKA	NEW HAMPOHIRE	NEW NEXI CO NEW YORK NORTH CAROLI NA NORTH CAROLI NA	OHIO OKLAHOMA	BYLVANIA	RHODE 18LAND SOUTH CAROLINA BOUTH DAKOTA	TENNEBSEE	TEXAB UTAH VERMONT	WASHINGTON MEET VIRGINIA WISCONSIN	TOTALS



UNITED STATES DEPARTMENT OF AGRICULT	
T OF A	10 Ros
RTMEN	- Puet
te DEP.	BUREAU OF PUBLIO ROADS
STATI	Bu
UNITED	

a Ru

M-2(1926) R.8.A.

.

è

MILES OF COUNTY AND OTHER RURAL ROADS BUILT TO GRADE, BURFACED , AND RESURFACED, DURING 1926

THERE ROADS ARE EXOLUCED FROM REPORTS OF STATE HIGHWAY SYSTEM. THE OATS SHOWN IN THIS REPORT WERE BEDURED FROM EACH COUNTY OF EACH STATE, AND MAY SE COMPARED WITH REBULTS OF THE BURVEY ANDE IN 1921 UNDER SIMILAR CONDITIONAL. THE REPORTS PUBLISHED FOR 1922, 1923, 1924 AND 1925 WERE PREARED FROM BEHRAL INFORMATION COMMINING BAME LESTIMATES AND ARE NOT COMPAGALE AS TO FOR 1922, 1923, 1924 AND 1925 WERE PREARED FROM BEHRAL INFORMATION COMMINING BAME LESTIMATES AND ARE NOT COMPAGALE AS TO

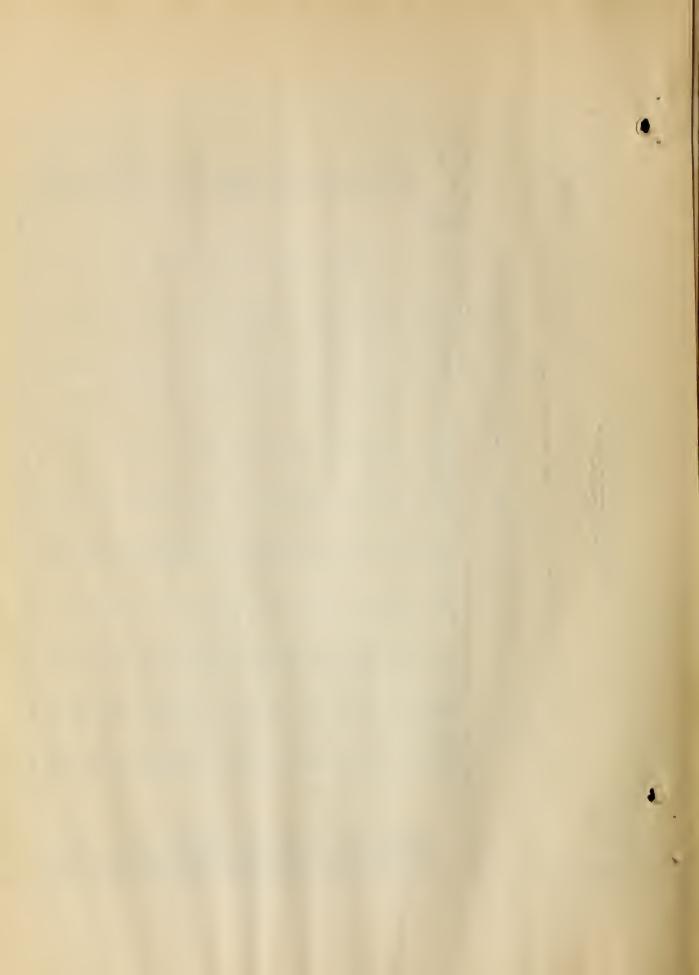
J	
ł	
Ľ	
E	
5	
;	
ŕ	
į	
ł	
2	
ĩ	
,	
1	
F	
2	
	Q.
Ē	ő
S	Ξ.
,	Ň
1	٠.
	5
1	19
5	~
5	ē
1	-
	Ĕ.
ī.	ŏ
	5
2	æ
	¥
,	•
	Ŧ
	Ξ.
	2
5	2
1	DETAILS WITH THE REPORTS FOR 1921 AND 1926.

ALABAM 2,433,3 1,323,0 1,164,3 ARANSAS 2,324,5 267,8 302,4 ARANSAS 3,224,5 267,8 302,4 ARANSAS 3,224,5 267,8 302,4 COLORDON 100,3 753,3 250,5 302,5 COLORNON 100,3 255,3 76,3 302,5 COLORNON 100,3 255,0 305,5 76,3 COLORNON 100,3 733,3 41,0 732,3 COMMECTICUT 2,887,5 773,3 41,0 732,3 IOAMO 1,570,6 5,44,1 398,5 180,4 IOAMO 1,573,3 41,0 732,3 333,3 IOAMO 1,74,3 3,54,0 732,3 333,3 IOAMO 1,74,3 3,54,0 732,3 333,3 IOAMO 1,74,3 1,74,3 56,1,9 000,6 MONIAMO 1,96,5 1,174,3 56,1,9 000,6 MAIK 1,98,4 5,136,0	1,164,9 645.0 302.8 905.6 905.6 60.0 205.5 60.0 205.5 60.0 205.5 751.5 305.5 751.5 305.5 751.5 305.5 751.5 305.5 751.5 305.5 751.5 305.5 751.5 305.5 751.5 305.5 751.5 305.5 751.5 305.5 751.5 305.5 751.5 305.5 751.5 305.5 751.5 305.5 0.4 137.4 12.0 137.4 12.7 321.0 20.4 321.0 40.0	480.4 480.4 80.5 302.5 302.5 310.5 183.1 183.1 1.2.5 1.2.5 54.5 1.2.5 54.5 1.2.5 590.5 800.5 800.5 800.5 800.5 800.5 800.5 1.231.5 1.5	32.0 66.6 68.6 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0	132.5 132.5 9.0 0.3	1	1	u u			
RE 3,240.8 2,825.0 1,153.4 2,677.8 2,57.3 1,01.3 2,50.4 2,57.3 1,01.3 2,50.5 3,54.1 1,570.6 7,64.1 7,64.1 1,570.6 7,64.1 7,64.1 1,570.6 7,64.1 7,64.1 1,570.6 7,64.3 3,76.3 1,570.6 7,64.3 1,74.3 1,570.6 7,64.3 7,73.1 1,374.3 1,74.3 7,73.0 1,366.4 7,53.10 7,53.10 1,366.4 7,53.10 7,53.10 1,880.4 1,05.5 1,77.8 1,880.4 1,05.6 6,77.1 1,880.4 5,37.0 1,19.5 1,880.4 5,37.0 1,19.5 1,880.4 5,37.0 1,19.5 1,880.4 5,357.0 1,19.5 1,880.4 5,357.0 1,19.5 1,880.4 5,357.0 1,19.5 1,880.4 5,357.0 1,19.5		300.5 300.5 300.5 300.5 300.5 301.5 31.5 31.5 31.5 31.5 31.5 31.5 31.5 3	86.6 8.0 8.0 8.0 8.0 8.0 11.0 11.0 11.0 253.2 70.3 70.3 88.6	132.5 9.0 0.3			0.0	1	1	ALABAMA
1 1 1 2		481.1 481.5 545.5 54.5 364.5 364.5 364.5 364.5 351.5 578.1 1.531.5 255.4 890.5 890.5 890.5 890.5 890.5 1.231.5 2.742.3 1.231.5	86.6 86.6 8.0 8.0 8.0 11.0 11.0 11.0 12.	132.5 9.0 0.3 75.7	: :	5.0		: :		ARKANSAS
R03.7 551.3 12.0 55.0 12.0 56.0 13.0 52.3 15.0 56.0 15.0 56.0 15.0 56.0 15.0 764.1 752.3 354.0 773.3 314.0 773.3 314.0 773.3 314.0 773.3 314.0 773.3 314.0 773.3 314.0 941.9 95.1 1374.3 1,174.3 1374.5 753.0 1365.4 5336.0 151.9 67.1 151.9 10.5 151.9 11.1 1585.4 5336.0 1680.4 5337.0 1536.5 77.1 73.175.6 2.654.5 744.9 3.175.6 80.1 3.953.7 80.5 3.33.7 10.4 2.161.3 2.161.3 3.33.7 1.1		184.5 84.5 84.5 84.5 84.5 84.5 84.5 84.5		9.0 0.3 7.7	8.6	100.9	85.9	1	1	CALIFORNIA
101.3 25.0 101.3 25.0 1,570.5 505.0 727.3 764.1 727.3 764.1 727.3 764.1 727.3 764.1 727.3 764.1 727.3 764.1 727.3 764.1 727.3 764.1 773.3 1,376.3 1364.9 763.0 1536.4 763.0 1536.4 763.0 198.4 10.2 198.4 10.5 16805.4 5,336.0 16805.4 5,336.0 175.7 135.0 16805.4 5,337.0 175.7 135.0 16805.4 5,337.0 175.7 135.0 175.8 944.9 175.7 135.0 175.7 135.0 175.7 135.0 18.4 11.15.3 19.4 11.15.3 10.5 333.7		54.5 54.5 34.5 12.5 12.5 12.5 12.5 12.5 51.5 51.5 51	8.0 8.0 8.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	9.0 0.3 75.7	-			1		COLORADO
E. 612.0 F. 612.0 F. 613.0 1.870.6 753.3 764.1 1.870.6 753.3 764.1 773.3 733.3 764.1 773.3 734.3 764.1 773.3 734.3 1764.3 773.4 1.906.5 376.1 773.3 1.374.3 1.74.3 1.906.5 377.0 943.0 733.4 1.906.5 377.0 1.906.5 7.37.0 943.1 733.4 1.936.4 10.2 1.936.4 1.937.0 918.1 1.936.4 1.937.0 717.8 1.936.4 1.935.4 136.0 1.936.4 1.935.4 136.0 1.936.4 1.175.3 335.7 1.175.3 994.4 3.35.7 1.115.3 942.4 942.4 1.115.3 942.4 136.0 1.115.3 942.4 942.4 1.115.3 942.4 135.7 1.115.3 9429		1123.0 112.5 14.5 14.5 14.5 15.1 15.1 15.1 15.1 15	380.2 11.0 63.2 11.0 63.2 254.0 12.0 254.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12	0.3	0.5	1	4.3	1	1	CONNECTICUT
Teleficione Teleficione Teleficione 1,752,3 764,1 752,3 752,3 752,3 354,0 752,3 764,1 764,1 752,3 1,374,3 31,6 1,374,3 1,174,3 31,6,3 1,374,3 1,174,3 31,6 1,374,3 1,174,3 356,1 1,374,3 1,174,3 356,1 1,374,3 1,174,3 356,1 1,374,3 1,173,1 356,1 1,395,4 5,337,0 3,456,1 1,395,4 5,337,0 3,456,1 1,395,4 5,337,0 3,456,1 1,395,4 5,337,0 3,456,1 1,395,4 5,337,0 3,33,7 1,16,3 3,456,1 3,33,7 1,115,3 9,34,4 1,33,7 1,116,3 9,39,9 9,39,9 1,116,3 9,34,4 3,33,7 1,116,3 9,39,9 9,39,9 1,116,3 9,33,7 9,34,1		11215 1 1215 1 15415 1 15513 1 15513 1 15513 1 15513 1 15515 1 1505 1 12312 1	11.0 11.0 11.0 11.6 11.6 11.6 11.6 11.6	75.7	1	4.0	0.5			DELAWARE
RE 3.17.3.3 7.64.1 773.3 7.64.1 7.73.3 773.3 7.10.5 3.76.3 93.1 1.966.5 3.76.3 93.1 1.966.5 3.76.3 94.1 3.76.3 1.15.3 94.1 1.966.5 3.76.3 94.1 1.966.5 1.74.3 1.966.5 1.664.9 765.0 1.964.9 765.0 765.0 1.964.9 765.0 765.0 1.964.9 765.0 765.0 1.964.9 765.0 765.0 1.965.4 5.538.0 10.5 8.965.4 5.538.0 777.8 8.965.4 5.738.0 777.8 8.965.4 5.738.0 777.8 8.95.5 2.156.0 7.556.0 7.75.7 1.15.0 94.9.3 8.5 94.1.3 333.7 8.6 5.957.0 94.9.3 8.6 5.957.0 94.9.3 8.766.5 5.994.3		84.5 351.0 351.1 551.1 51.5 51.5 51.5 251.5 251.5 250.5 80.9 80.9 80.9 80.9 80.9 1.231.5 1.531.531.5 1.531.531.5 1.531.531.531.531.531.531.531.531.531.53	11.0 10.3 10.3		133.0	3.0	46.0	10.7	65.5	FLORIOA
RE 3,1,5,3 1,1,0,5,5 3,7,5,3 1,1,0,5,5 3,7,5,3 1,1,7,4,3 1,1,7,4,3 1,1,7,4,3 1,1,7,4,3 1,1,7,4,5 1,1,7,4,5 1,1,7,4,5 1,1,5,5 1,1,5,5 1,1,5,5 1,1,5,5 1,1,5,5 1,1,5,5 1,1,5,5 1,1,5,5 1,1,5,5 1,1,5,5 1,1,5,5 1,2,5,5 1,2,5 1,2,5 1,2,5 1,2,5 1,2,5 1,2,5 1,2,5 1,2,5 1,2,5 1,2,5 2,1,5,5 1,2,5 2,1,5,5 1,2,5 2,1,5,5 1,2,5 2,1,5,5 1,2,5 2,1,5,5 1,2,5 2,1,5,5 1,2,5 2,1,5,5 1,2,5 2,1,5,5 1,2,5 2,1,5,5 1,2,5 2,1,5,5 1,2,5 2,1,5,5 1,2,5 2,1,5,5 1,2,5 2,1,5,5 1,2,5 2,2,3,5 1,2,5 2,2,3,5 1,2,5 2,2,3,5 1,2,5 2,2,3,5 1,2,5 2,3,5,5 2,3,5,5 2,3,5,5 2,3,5,5 2,3,5,5 2,3,5,5 2,3,5,5 2,3,5,5 2,3,5,5 2,3,5,5 2,3,5,5 2,3,5,5 2,3,5,5 2,3,5,5		626.13 678.3 1, 511.3 511.3 511.3 513.1 513.1 505.5 80.5 80.5 80.5 80.5 80.5 1, 231.5 1, 235.5 1, 235.	11.0 63.2 10.6 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	0.68	1	1	11.5	1	1	GEORGIA
947.0 3.6 1,947.0 3.6 1,374.5 3.75.3 1,374.5 3.75.3 1,374.5 3.75.3 1,374.5 1.75.3 1,374.5 1.75.3 1,374.5 1.75.3 1,374.5 1.74.3 1,96.5 1.71.5 1,96.4 5.71.1 1,96.4 5.336.0 1,15.4 5.336.0 1,15.5 2.64.5 1,15.6 2.654.5 1,15.6 2.733.0 1,15.6 2.64.5 1,15.7 13.5.0 1,15.8 80.3.1 1,15.3 992.9 1,14.8 1.115.3 1,15.3 992.9 1,115.3 992.9 1,115.3 992.9 1,115.3 992.9 1,115.3 992.9 1,115.3 992.9 1,115.3 992.9 1,115.3 997.9 1,115.3 997.9 1,115.3 </td <td></td> <td>1, 531, 3 1, 531, 3 225, 4 296, 9 996, 9 90, 9 80, 9 80, 9 80, 4 80, 4 80, 7 1, 231, 5 1, 231, 3 1, 231, 5 1, 231, 3 1, 331, 33</td> <td>2554-0 254-0 12-0 76.3 28-6 68-6</td> <td></td> <td></td> <td>4 0 9 U</td> <td>0 00</td> <td></td> <td> </td> <td></td>		1, 531, 3 1, 531, 3 225, 4 296, 9 996, 9 90, 9 80, 9 80, 9 80, 4 80, 4 80, 7 1, 231, 5 1, 231, 3 1, 231, 5 1, 231, 3 1, 331, 33	2554-0 254-0 12-0 76.3 28-6 68-6			4 0 9 U	0 00			
RE 3,1,1,3,3,3 3,1,1,3,3 3,1,1,3,3 3,1,1,3,3 3,1,1,3,3 3,1,1,3,3 3,1,1,3,3 3,1,1,3,3 3,1,1,3,3 3,1,1,3,3 3,1,1,3,3 3,1,1,3,3 3,1,1,3,3 3,3,3,7		1, 531, 3 251, 5 251, 5 251, 5 398, 9 390, 5 80, 5 80, 5 890, 5 88, 4 742, 3 742, 3 744, 3 74	254.0 254.0 12.0 76.3 28.6 68.6	18.5	13.1	10.6	153.4	2.0		1 ND I ANA
1.374.3 1.74.3 1.74.3 1.374.3 1.174.3 75.0 1.804.9 75.0 75.0 1.81.9 195.4 10.2 1.95.9 195.4 10.2 1.95.9 195.4 10.2 1.95.9 195.4 10.2 1.95.9 195.4 10.2 1.95.4 10.2 77.1 1.055.4 5.338.0 77.1 1.055.4 5.338.0 77.1 1.055.5 2.956.7 5.336.0 1.155.7 3.956.7 136.0 1.75.4 2.161.3 3.53.7 1.155.3 3.53.7 3.53.7 1.115.3 994.4 1.1 1.115.3 994.9 1.5 1.115.3 994.9 1.5 1.115.3 994.9 1.5 1.115.3 994.9 1.5 1.115.3 997.9 997.9 1.115.4 997.9 1.5 1.115.5 997.9 1.5 <td></td> <td>51.5 225,4 398.9 50.5 90.5 88.4 88.4 2,906.7 1.231.5</td> <td>10.6 254.0 12.0 0.3 76.3 2.4 68.6</td> <td>:</td> <td>1</td> <td>1</td> <td>1</td> <td>-</td> <td>-</td> <td>LOWA</td>		51.5 225,4 398.9 50.5 90.5 88.4 88.4 2,906.7 1.231.5	10.6 254.0 12.0 0.3 76.3 2.4 68.6	:	1	1	1	-	-	LOWA
T36.1 36.1 36.1 1,866.1 51.3 0.2 51.3 151.4 0.2 51.4 151.4 0.2 51.5 51.5 0.2 151.4 1151.5 517.1 151.4 1151.5 517.1 1586.4 5.336.0 1.557.0 1586.4 5.337.0 1.557.0 1580.4 5.357.0 1.557.0 1580.4 5.357.0 1.557.0 1580.4 5.357.0 3.175.6 173.7 7.135.0 954.5 113.0 2.161.3 3.33.7 114. 2.161.3 3.33.7 115.3 992.9 992.9 116.3 957.9 992.9 1115.3 992.1 992.9 1115.3 997.9 997.9 1115.3 997.9 997.9 1115.3 997.9 997.9		225.4 996.9 50.5 80.4 88.4 742.3 742.3 1.231.5	254.0 12.0 0.3 76.3 2.4 68.6	2.2	2.9	1	10.9	1	1	KANSAS
1.004-9 763-0 1 18 1.984-4 10.5 198-4 10.5 1 198-4 10.5 1 198-4 10.5 1 151.5 1.955.4 5.338.0 3 1.055.6 1.055.6 5.338.0 3 1.055.6 1.055.6 5.338.0 3 1.055.6 2.358.7 5.338.0 3 1.055.6 2.864.5 177.8 8 2.175.6 2.864.5 1.95.0 1 1.337.7 1.337.7 1.95.0 1 1.4 2.175.6 2.864.5 1.95.0 1.13.7 1.13.05.0 1.95.0 1.15.0 2.156.1 33.3.7 1.95.0 1.1 A 1.117.3 33.3.7 1.1 A 3.785.9 994.1 1.1 A 3.785.7 5.977.9 2.7 335.5 5.331.1 994.1 1.1 335.5 5.331.1		998.9 50.5 50.5 80.9 89.4 88.4 2,905.7 2,905.7 1.231.5	12.0 0.3 76.3 2.4 68.6	4.0	1.8	1	0.8	1	1	KENTUCKY
Te 195.5 0.2 195.4 10.5 195.1 10.5 195.5 195.5 195.1 10.5 195.1 10.5 195.1 10.5 195.1 10.5 195.1 10.5 195.5 195.5 195.5 195.5 195.5 195.5 195.5 195.5 195.5 195.5 195.5 195.5 195.5 195.5 195.5 195.5 195.5 195.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 1		50.5 90.9 89.4 742.3 2,905.7 1.231.5	0.3 76.3 2.4 68.6	5.0	:	1	:	:	1	LOUISIANA
T8 151.9 10.5 1053.6 67.1 1053.6 67.1 1053.6 67.1 1053.6 67.1 1053.6 13.9 1053.6 13.9 1053.6 13.9 177.8 1350.6 27.9 135.0 27.9 135.0 27.9 135.0 27.1 135.0 27.1 135.0 27.1 135.0 27.1 135.0 27.1 135.0 27.1 135.0 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1		90.9 89.4 742.3 2,905.7 1.231.5	76.3 2.4 68.6 	6.0	1	:	1	;	;	MAINE
T8 1055.4 5.336.0 3 1055.4 5.336.0 3 1055.4 5.336.0 3 10.865.4 5.336.0 3 10.865.4 5.336.0 1 10.865.4 5.336.0 1 10.865.4 5.336.0 1 10.865.4 5.336.0 1 10.85.6 2.854.5 1 10.65.6 1		89.4 742.3 2.905.7 1.231.9	2.4 68.6 	2.1	0.5	1	15.0	1	1	MARYLAND
RE 2,155,156 2,337,0 1, 1,2680,7 3,370,0 1, 1,280,7 1,17,8 1,356,7 1,17,8 1,156 1,17,56 2,1854,5 1,156,0 1,159 2,7,8 1,15,9 1,15,9 1,19 2,7,8 1,15,9 1,19,9 1,19 2,175,1 1,15,3 1,19,9 1,19 2,161,3 1,33,7 1,19 2,165,1 2,33,1 1,19 2,175,1 2,175,1 2,175,1 1,19 2,175,1 2,175,1 2,175,1 1,10,10,10,10,10,10,10,10,10,10,10,10,10		2,906.7 1.231.5	0.00	30.0	1 0	11.7	147.0	1.0		MASSACHUSETTS
RE 3.136.4 3.356.0 1.680.7 3.356.0 1. RE 3.175.6 2.864.6 3.77.8 3.956.6 1. RE 3.175.6 2.864.6 3.956.6 1. 1.660.7 3.336.6 1. RE 3.175.6 2.864.6 1.156.0 1.660.6 1. 1.660.6 1. RE 2.161.3 3.337.7 1.66.9 690.6 1. 1. A 1.117.3 429.4 1.115.3 3333.7 1. 1. A 3.785.9 994.1 1.117.3 994.1 1. 1. A 3.785.5 994.3 1. 1.115.3 2.7 3.337.7 1. A 3.785.5 994.3 1. 1. 3.337.7 1. 1. A 3.785.5 5.977.3 2.8 3.337.1 1. 3.337.1 3.337.1 3.337.1 3.337.7 3.337.7 3.337.7 3.337.7 3.337.1 3.335.5 3.337.1		1.231.5	:	1.01	C.3	- 0	0.0			N N N N N N N N N N N N N N N N N N N
RE 3,175,6 777,8 3,175,6 2,854,5 777,8 3,175,6 2,854,5 136,0 273,7 136,0 136,0 273,7 136,0 136,0 81,0 27,3 136,0 82,0 136,0 136,0 81,0 20,1 8,5 93,1 115,3 333,1 1115,3 994,1 1,1 A 1,115,3 994,1 1,1 A 3,785,3 994,3 1,1 934,5 5,331,1 994,3 1,1 934,5 5,331,1 994,3 1,1				16.2	0.2	4 4	0	0.5		MISSISSIPPI
RE 2,175,6 2,1864,5 3,175,6 2,1864,5 173,7 8,1964,5 173,7 15,9 88,0 59,0 1,115,3 994,1 1,115,3 994,1 1,115,3 997,9 2,78,5 997,9 2,78,1 1,115,3 997,9 2,78,5 997,5 997,5 997,5 9 2,797,5 997,5 9 2,797,5 907,5 9 2,797,5 9 2,797,	_	0.99	20.5				6.8	; ;	1	MISGOURI
RE 3,175,6 2,654,6 773,7 136,0 273,1 136,0 80,1,1 8,5 80,1,1 8,5 80,1,1 8,5 80,1,1 8,5 80,1,1 8,5 80,1,1 1,115,0 1,113,0 997,9 1,115,0 997,9 2, 1,115,0 997,0 1,115,0 0,115,0		243.4		3 1	1	1		1	1	MONTANA
RE 173.7 136.0 27.8 1.9 88.0 69.0 88.0 69.0 1.15.3 333.7 1, 429.1 1.115.3 994.1 1.115.3 994.1		274.0		1		1.0	6.0	1	1	NEBRASKA
RE 27.8 1.9 88.0 18.5 89.0 1.1 2.115.3 333.7 1 2.175.0 429.9 1.1 3.785.9 997.9 2.1 5.785.9 997.9 2.1 5.785.7 5.971.1 936.5 331.1 936.5 331.1		1	1	;	ł	ł	1	1	ł	NEVADA
B03.1 B.0. B.5. 803.1 8.3. 8.5. 2.161.3 3.33.7 1 2.161.3 3.33.7 1 1.173.0 994.9 1 A 3.785.9 997.9 2.785.9 997.9 2 3.35.7 5.971.0 2 935.5 3.31.1 937.1		24.3	0.3	0.2	-	1	1	1	1	NEW HAMPSHIRE
A 1.115.3 333.7 2.161.3 333.7 2.171.3 333.7 2.171.3 429.9 1.115.3 994.1 1.115.3 994.1 5.785.9 994.1 5.785.9 391.1 935.5 331.1	-	139.9	187.0	37.1	17.6	30.0	65-0		0.4	NEW JERSEY
ORK 2,161,3 333,7 (ANOTA 2,173,3 294,1 (ANOTA 1,115,3 294,1 (ANOTA 1,115	19.0 8.0	11.0	1	1	1	1	1	1		NEW MEXICO
CARGLINA 2,173.0 429.9 0.AKOTA 1,115.0 429.9 7785.9 997.9 0.AKA 6,253.7 5,911.0 0.AKA 8,255.5 331.1		552.9	484.5	597.0	17.4	20.8	121.1	0.7	25.5	NEW YORK
OWAL 2012 3, 785, 9 997 9 OWA 6,263.7 5, 917.0 0.10.1 8,265 3,31.1 0.10.1 935.5 3,31.1		268.4	59.0	24.9	25.0	1	56.9	1	1	NORTH CAROLINA
CMA 6,263.7 5,971.0 0.4.4 6,263.7 5,971.0 0.4.4 936.5 3,331.1		2.121 .								NUKIT UNVU A
936-5 331-1 936-5 331-1		1,8/1.0	603.60 1 E	130.5	ກ ແ ກ	0.1	0.45	2.2	; ;	OKI AHOMA
	05 4 10 0	235.0	177 4	0.0		47.9	17.4	1	;	ORFCON
833.8 119.8		472.3	116.2	48.0	3.5	70.7	56.4	8.8		PENNSYLVAN 1 A
34.1	34.1	15.9	14.5	2.6	:	1.1	:	-	1	RHODE ISLAND
1,284.8 174.0		50.2	1	1	;	1	1	ļ	1	SOUTH CAROLI NA
0TA 5,494.4 5,238.5	. 255.9 6.5	223.4	;	;	26.0	1	1	1	1	SOUTH OAKOTA
JBLE 1,024.6 384.1	+	292.2	261.8	7.6		1.5	17.4	:	;	I TENNESSEE
	_	1,490.3	41,8	13.0	0.8	1 0	18.2	1	1	TEXAS
1 2 4 1 2 4 1 4 4 1	214-0	2° /21	:		. 1	2			1	UT MOTO
A 392.2		125.2	156.0	55.2	;		16.6	1	: :	VIRGINIA
ON 1.231.1 257.5		680.7	236.0		:	0.6	16.9	:	:	WASHINGTON
NIA 637.1 313.4		84.8	40.0	157.9	0.5	22.3	16.2	;	2.0	WEST VIRGINIA
IN 7,093.7 4,542.5	2,551.2 535.5	1,819.3	175.0	:	:	1	21.4	1	ł	WIGCONSIN
WYOMING 508.3	17.2	17.2	:		-	•	1	:	:	WY OW ING
					0 000					

•

•

,



REDDISH-BROWN PRINTS ON WHITE BACKGROUND USED BY MARYLAND STATE ROADS COMMISSION

COMPILED FROM A REPORT SUBMITTED BY BEN. F. HEIDEL OF DISTRICT 10 (NOT FOR RELEASE)

AS A SUBSTITUTE FOR STANDARD ELUEPRINTS, THE MARYLAND STATE ROADS COMMISSION HAS FOR SOME TIME PAST BEEN SUBMITTING FEDERAL-AID PLANS PRINTED ON A NEW KIND OF PAPER ON WHICH ARE DEVELOPED REDDISH-BROWN LINES OR LETTERS ON A WHITE BACKGROUND. THE PROCESS DIFFERS FROM THE STANDARD BLUEPRINTING METHOD IN THAT THE PAPER USED IS PATENTED AND THE PRINTS ARE DEVELOPED BY EXPOSURE TO AMMONIA FUMES.

THE MARYLAND STATE ROADS COMMISSION IS USING TWO DIF-FERENT MAKES OF PAPER, ONE CALLED "OZALID", MANUFACTURED IN GERMANY, AND DISTRIBUTED IN THIS COUNTRY BY EUGENE DIETZGEN AND CO., AND THE OTHER KNOWN UNDER THE TRADE NAME OF "PRIMULIN" WHICH IS PRODUCED IN THE UNITED STATES AND DISTRIBUTED BY THE NEW YORK BLUEPRINT PAPER COMPANY. THE MANUFACTURERS CLAIM THE FOLLOWING ADVANTAGES FOR THE UTILITY OF THE PAPER:

- 1.- THERE IS NO DISTORTION OF THE PRINT DUE TO WASHING AND DRYING.
- 2.- THE PRINTS DO NOT FADE WHEN EXPOSED TO THE SUNLIGHT.
- 3.- THE PRINTS ARE NOT FADED BY PERSPIRATION.
- 4.- READILY LEGIBLE FIELD NOTES MAY BE MADE ON THE PRINTS WITH EITHER A PENCIL OR A PEN.
- 5.- WHERE THE BASIC DATA FOR A SERIES OF STUDIES ARE PLOTTED ON A TRACING, THE STUDIES MAY BE COMPLETED ON A PRINT, AND THE ACCEPTED STUDY TRACED UPON THE ORIGINAL TRACING.
- 6.- WHERE THE PRINTS ARE MADE ON THIN PAPER, EACH MAY BE USED AS A TRACING TO MAKE OTHER PRINTS, SINCE EACH HAS THE PROPERTIES OF A TRACING MADE ON TRACING PAPER.
- 7 .- THE PRINTS, LIKE TRACINGS, MAY BE PHOTOGRAPHED.

· · · ·

· · ·

.

•

THE MANUFACTURERS ALSO ALLEGE THE SUPERIORITY OF THE PAPER FOR PRINTING BY THE FOLLOWING ARGUMENTS:

- 1.- THE PAPER PRINTS AT THE SAME RATE OF SPEED AS STANDARD BLUEPRINT PAPER, AND THEN IS DEVELOPED BY EXPOSURE TO AMMONIA FUMES FOR A FEW MOMENTS; HENCE THE USUAL DELAY OF WASHING AND DRYING IN. WATER IS ELIMINATED.
- 2.- THE PRINTS MAY BE MADE ONE DAY AND DEVELOPED THE NEXT DAY WITHOUT BEING STORED, IN THE INTERVEN-ING TIME, IN A DARK ROOM. ACCORDING TO THE METHOD USED BY THE MARYLAND STATE ROADS COMMIS-SION, THE OPERATOR FIRST MAKES ALL THE PRINTS AND SUBSEQUENTLY THE SAME OPERATOR ACCOMPLISHES THE DEVELOPING.
- 3.- IT IS A SIMPLE MATTER TO BLOCK OUT INFORMATION ON A TRACING NOT DESIRED ON THE PRINT OR TO IN-SERT DATA NOT SHOWN ON THE ORIGINAL TRACING.
- 4.- WHERE NEW PRINTING EQUIPMENT IS TO BE INSTALLED, THE COST OF THE AMMONIA-TREATMENT CHAMBER IS APPRECIABLY LESS THAN A STANDARD BLUEPRINT WASHING-AND-DRYING MACHINE.

THE MARYLAND STATE ROADS COMMISSION HAS NOT MADE A COM-PARISON OF THE TOTAL DIFFERENCE IN COST RESULTING FROM THE USE OF THE PATENTED PAPER AS COMPARED WITH THE STANDARD BLUEPRINT PAPER. A ROLL OF 50 YARDS OF OZALID OR PRIMULIN PAPER, 36 INCHES WIDE, COSTS THE STATE APPROXIMATELY \$1.00 MORE PER ROLL THAN BLUEPRINT PAPER. AN APPRECIABLE SAVING, HOWEVER, IS MADE IN THE NUMBER OF PRINTS SENT TO THE FIELD BECAUSE THE NEW PRINTS DO NOT FADE AND, UNDER ORDINARY CONDITIONS, LESS PRINTS ARE REQUIRED FOR A PROJECT. NO ATTEMPT HAS BEEN MADE, HOWEVER, TO COMPARE ACCURATELY THE COST OF THE NEW PROCESS WITH SIMILAR WORK ACCOM-PLISHED WITH A BLUEPRINTING PLANT.

MANY OF THE PRINTS MADE BY THE NEW PROCESS, AS SUBMITTED TO THE BUREAU ON FEDERAL-AID PROJECTS, ARE OF INFERIOR QUALITY. IT DOES NOT SEEM FAIR, HOWEVER, TO ATTRIBUTE THIS INFERIORITY TO THE PAPER OR THE PROCESS. THE ROUTINE PRINTING OF THE MARYLAND STATE ROADS COMMISSION IS IN THE HANDS OF MESSENGER BOYS WHO HAVE NO KNOWLEDGE OR APPRECIATION OF THE PURPOSES WHICH THE PRINTS ARE INTENDED TO SERVE. THE BOYS DO NOT SENSE

1 3 A 3 . . .

THE NEED OF A UNIFORM LIGHT ALONG THE GLASS BARREL OF THE PRINT-ING MACHINE. CONSEQUENTLY THE BUREAU RECEIVED PRINTS WITH BLUR-RED STREAKS EXTENDING THE FULL LENGTH OF SEVERAL SHEETS, SIMPLY BECAUSE SOME BOY, NOT KNOWING HOW TO CORRECT THE TROUBLE, ALLOW-ED AN ARC LIGHT TO BURN DIMLY. THE STATE AUTHORITIES, HOWEVER, HAVE, IN THEIR OFFICE FILES, PRINTS MADE BY THEIR ENGINEERS FOR SPECIAL STUDIES, WHICH ARE AS CLEAR AS ANY BLUEPRINT COULD BE MADE FROM THE SAME TRACING. THE BUREAU HAS ALSO RECEIVED A NUMBER OF EXCELLENT PRINTS.

A.A.S.H.O. COMMITTEE ON MATERIALS HOLD MEETING ON JUNE 25-26, 1928. (Not for release)

THE REGULAR ANNUAL MEETING OF THE COMMITTEE ON MATERIALS OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIALS, HELD AT THE HEADQUARTERS OFFICE OF THE BUREAU ON MONDAY AND TUESDAY, JUNE 25 AND 26, 1928, WHEN CALLED TO ORDER BY THE CHAIRMAN -H. S. MATTIMORE OF PENNSYLVANIA - MUSTERED REPRESENTATIVES FROM 17 STATES.

REPORTS OF OUTSTANDING INTEREST WERE PRESENTED BY A NUM-BER OF THE SECTIONAL RESEARCH COMMITTEES. MR. REAGEL OF MISSOURI SUBMITTED REPORTS DEALING WITH THE STANDARDIZATION OF METHODS FOR MAKING TRANSVERSE TESTS OF CONCRETE, AND ON METHODS FOR THE DEHYDRATION OF ROCK ASPHALTS. MR. REA OF OHIO GAVE A DETAILED DESCRIPTION OF A PROPOSED SPECIFICATION FOR GRAVEL FOR CONCRETE PAVEMENTS. MR. ULMAN OF PENNSYLVANIA DISCUSSED THE RECOVERY OF BITUMEN EXTRACTED FROM BITUMINOUS MATERIALS, AND MR. MILBURN OF THE BUREAU OUTLINED METHODS FOR THE DETERMINATION OF THE TOUGH-NESS OF BITUMINOUS AGGREGATES. A REPORT WAS ALSO RECEIVED GIVING THE RESULTS OF THE WORK, OF A JOINT COMMITTEE OF THE A.A.S.H.O. AND THE A.S.T.M., ON METHODS OF DISTILLATION.

SUBCOMMITTEES WERE APPOINTED TO STUDY THE EQUIPMENT USED IN THE WEIGHING OF CONCRETE AGGREGATES, AND TO FORMULATE A RECOMMENDED PRACTICE GOVERNING THE DESIGN AND USE OF SUCH EQUIP-MENT; AND TO MAKE A FULL INVESTIGATION OF ABRASION TESTS FOR AGGREGATES, WITH SPECIAL REFERENCE TO THE RELATION BETWEEN THE PERCENTAGE OF LOSS AND THE STRENGTH OF CONCRETE; TOGETHER WITH A STUDY OF THE VARIOUS PROPOSED TESTS TO DETERMINE THE PERCENTAGE OF SOFT PIECES IN GRAVEL. 5.4

i

THE COMMITTEE VOTED TO CHANGE CERTAIN REQUIREMENTS FOR PERCENTAGE OF WEAR IN THE VARIOUS ASSOCIATION SPECIFICATIONS FOR BLAST-FURNACE SLAG. IN ALL CASES WHERE THE EXISTING SPECI-FICATIONS CALL FOR A PERCENTAGE OF WEAR OF 12, THE COMMITTEE VOTED TO RECOMMEND THAT THE PERCENTAGE OF WEAR BE CHANGED TO 15.

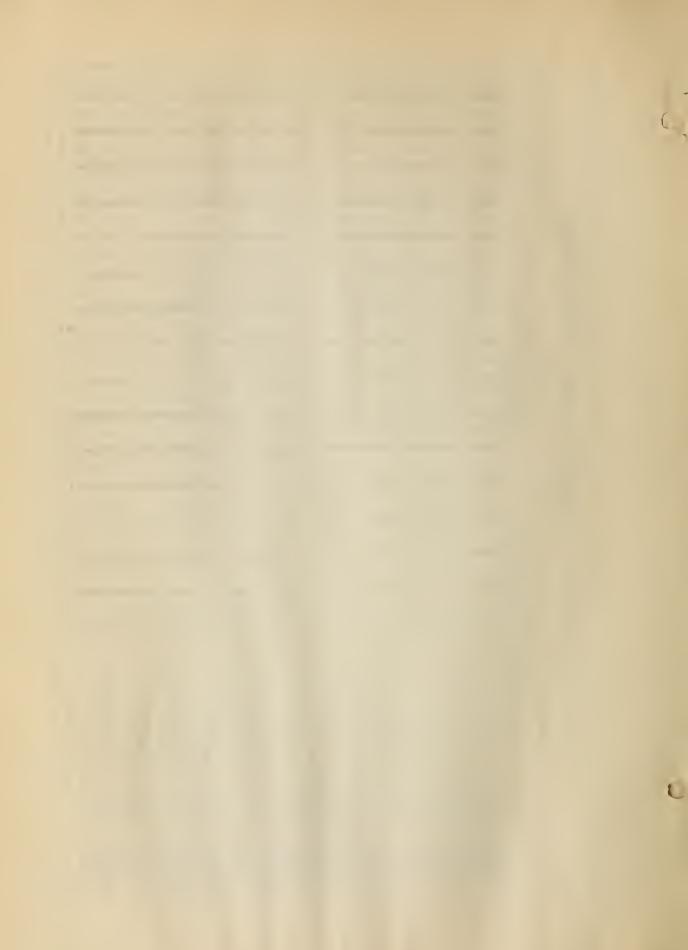
MODEL ANALYSIS OF YADKIN RIVER BRIDGE COMPLETED CONTRIBUTED BY A. L. GEMENY OF THE DIVISION OF TESTS (NOT FOR RELEASE)

A COMPLETE MODEL ANALYSIS OF THE YADKIN RIVER FEDERAL-AID BRIDGE BETWEEN 'ALBEMARLE AND MT. GILEAD, N'. C., HAS JUST BEEN FINISHED AS A COOPERATIVE PROJECT OF THE BUREAU AND JOHNS HOPKINS UNIVERSITY REPRESENTED BY PROF. J. T. THOMPSON. THE ANALYSIS WAS MADE BY MEANS OF THE BEGGS DEFORMETER GAUGES AND A CELLULOID MODEL. THE RESULTS, WHICH ARE NOW BEING COM-PILED, WILL BE INCLUDED IN THE REPORT OF THE YADKIN RIVER BRIDGE TEST.

IN DESIGNING AN OPEN SPANDREL RIB ARCH OF THE TYPE OF THE YADKIN RIVER BRIDGE, IT IS USUALLY ASSUMED THAT THE ACTION OF THE RIB IS UNAFFECTED BY THE SUPERSTRUCTURE. OBVIOUSLY, THIS IS NOT THE CASE BUT A MATHEMATICAL ANALYSIS OF THE COM-PLETE ARCH, INCLUDING THE SUPERSTRUCTURE, IS SO COMPLEX AS TO BE IMPRACTICABLE FOR THE PURPOSES OF DESIGN. A COMPARISON OF RESULTS FROM THE MODEL ANALYSIS AND THE MEASURED RESULTS OB-TAINED BY LOADING THE BRIDGE ITSELF WILL INDICATE TO WHAT EX-TENT THE ACTION OF A MODEL MADE OF A UNIFORM, ELASTIC MATERIAL SUCH AS CELLULOID MAY BE TAKEN AS REPRESENTING THE ACTION OF A REINFORCED CONCRETE STRUCTURE BUILT OF A NON-UNIFORMLY ELASTIC MATERIAL SUCH AS CONCRETE. IT IS HOPED THAT THE COMPLETE YADKIN RIVER BRIDGE REPORT WILL BE READY FOR PUBLICATION AT AN EARLY DATE.

and the second second

	NUME NUME <th< th=""><th>Luberton Matterial <th< th=""><th>LABORATORY LABORATORY Location In CHARGE DATE EMPERVIK, MAPPROX MAPROX MAPPROX MAPPROX MAPROX MAPPROX MAPPROX MAPPROX M</th><th>I928 PAVING ARES BAICK 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</th><th>ONCRETE CLUVERT COLVERTAL CORNETAL CORNETAL</th><th></th><th></th><th>TIMA 000000000000000000000000000000000000</th><th></th><th></th><th></th></th<></th></th<>	Luberton Matterial Matterial <th< th=""><th>LABORATORY LABORATORY Location In CHARGE DATE EMPERVIK, MAPPROX MAPROX MAPPROX MAPPROX MAPROX MAPPROX MAPPROX MAPPROX M</th><th>I928 PAVING ARES BAICK 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</th><th>ONCRETE CLUVERT COLVERTAL CORNETAL CORNETAL</th><th></th><th></th><th>TIMA 000000000000000000000000000000000000</th><th></th><th></th><th></th></th<>	LABORATORY LABORATORY Location In CHARGE DATE EMPERVIK, MAPPROX MAPROX MAPPROX MAPPROX MAPROX MAPPROX MAPPROX MAPPROX M	I928 PAVING ARES BAICK 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ONCRETE CLUVERT COLVERTAL CORNETAL CORNETAL			TIMA 000000000000000000000000000000000000			
Lubort/Oth Interesting Matrixing Interesting Matrixing Interesting Matrixing Interesting Matrixing Interesting Matrixing Interesting Matrixing Matrix	Indicatory Indicat	Image: marked black	LABORATORY APRONKNA APPRONKNA APPRONKNA IN CHARCE DATE APPRONKNA APPRONKNA APPRONKNA IN CHARCE ESTNALUSERE BATE TESTS R.S. HALLE ESTNALUSERE BATE TESTS IN CHARCE ESTNALUSERE BATE TESTS IN S. HALLE 1912 20 0079 F.G. FLOOO 1923 3 0079 F.G. FLOOO 1923 20 079 F.G. FLOOO 1924 3 1067 J.M. POWER 1917 7 557 MARSH 1912 20 079 M.E.BOWICE 1917 7 567 M.L.LEOWER 1917 7 567 M.L.LEWITT 1914 4 5442 M.L.RAGEL 1913 17 4411 M.L.EWITT 1924 4 5476 M.L.RAGEL 1923 6 5476 M.L.RAGEL 1923 14 41175 M.L.RAGEL 1923	PAVING CEMENT BRICK CEMENT 000000000000000000000000000000000000	CULVERT CULVERT CORARTAL CORARTAL		Z				
	Decision	In clubble Desc Desc Current C	Lucation In Chance Date Estructure Date Estructures Date Estructures <th< th=""><th>PAVING CEMENT BRICK 000000000000000000000000000000000000</th><th>Curverat BiPE Costanetral</th><th></th><th></th><th></th><th></th><th></th><th></th></th<>	PAVING CEMENT BRICK 000000000000000000000000000000000000	Curverat BiPE Costanetral						
Montroline 6. k Mud. 1	Mort Trouch As Macci 11333 11333 1133 <th>In the firmt In the firmt<</th> <th>MONTGOMENT R.S. SHALE R.S. SHALE R. SREWER 924 3 FPICENILLE W. R. SREWER 1924 3</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>• • • • • • • • • • • • • • • • • • • •</th> <th></th>	In the firmt In the firmt<	MONTGOMENT R.S. SHALE R.S. SHALE R. SREWER 924 3 FPICENILLE W. R. SREWER 1924 3							• • • • • • • • • • • • • • • • • • • •	
MERRING MERRING	PREFIGULE MA SERVERING 192 20 100 100 20 100	W FORMERI Dist	FAFETEVILLE M. R. SPENCER 1924 3 APPIOENIX J.W POWERS 1921 20 AMALLERS F.G. FLODO 1922 20 AMALLABS F.G. FLODO 1922 20 AMALLABS F.G. FLODO 1922 20 AMALSNILLE M. ANALL 1917 3 CONERSNILLE M. ANALL 1917 3 CARANENT J. E.G. FLODO 1922 20 ONERSNILLE M. ANALL 1911 28 ANANATSN BERT WIRENS 1919 3 SPANCEL C.H. SCHOLO 1923 4 ANMHATSN D. VERELER 1915 28 ANMHATSN D. VERELER 1913 21 ANMHATSN D. VERELER 1915 24 ANNATSN D. VERELER 1915 24 ANNATSN D. VERELER 1915 24 ANNATSN D. VERELER 1915 24 ANNATSNONC ANASN 1911								
Prediction 100	Prediction An Workels 192 300 600 900	Thronelly 131 2 0001 132 2 0001 130 2 0001 130 2 0001 130 </td <td>PROFININ APPONENTO JW POWERS (CAMMENTO) JW POWERS (CAMMENTO) JW POWERS (CAMMENTO) JW POWERS (CAMMENT) JW POWERS (CAMMENT)<td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td>	PROFININ APPONENTO JW POWERS (CAMMENTO) JW POWERS (CAMMENTO) JW POWERS (CAMMENTO) JW POWERS (CAMMENT) JW POWERS (CAMMENT) <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
Contration Contrat	Contrained F & G = G = G = G = G = G = G = G = G = G	Fre-free 1 2 <th2< th=""> 2 <th2< th=""> 2 <th2< th=""> <th2< th=""></th2<></th2<></th2<></th2<>	Cont. Lanvit.Leis, PORTLAND F. G. FLOOD 1925 5 PORTLAND F. S. STITCHET 1917 7 CAINESVILLE H. A. HALL 1917 7 EAST POINT J. E. SPITCHET 1917 7 EAST POINT J. E. SPITCHET 1917 7 EAST POINT J. E. SPITCHET 1911 128 BOISE R. HARSCH 1911 128 ANES R. HARSCH 1911 22 ANES R. HARSCH 1911 22 ANES RATON POLICE V. L. GLOVER 1911 22 ANES C. H. SCHOLER 1917 22 22 ANES C. H. SCHOLER 1913 21 4 ANES A. V. BRATT 1925 7 4 ANES A. V. BRATT 1921 2 17 MINNEAPOLIS K. J. EMMONS 1913 17 MINNEAPOLIS K. J. EMMONS 1913 17 MINNEAPOLIS K. J. EMMONS							000000000000000000000000000000000000000	
TOTINGA F. FATCOL 100 2 2000 100 <t< td=""><td>Portrand F. at Filterian 91 3 300 91 3 311</td><td>F F T</td><td>PORTLAND F.G.FLODO 1925 5 GANRESVILLE H.A. ANLL 1917 3 FAST POINT J.E.BOYD 1924 8 BATON ROUCE N.L.GLOVER 1911 128 AMMATTAN C.H.SCHOLER 1917 221 ANDARTIN C.H.SCHOLER 1917 221 ANDARTIN C.H.SCHOLER 1917 221 ANDARTIN C.H.SCHOLER 1917 221 ANDARTIN C.H.SCHOLER 1917 221 ANMATTAN C.H.SCHOLER 1913 17 ANN ARBOR A.V.BATT 1924 3 ANN ARBOR A.J.E.MONS 1913 17 ANN ARBOR A.J.E.MONS 1913 17 ANN ARBOR A.J.E.MONS 1913 17 ANN ARBOR A.J.E.MONS</td><td></td><td></td><td></td><td></td><td>• • • • • • • • • • • • • • • • • • • •</td><td></td><td></td><td></td></t<>	Portrand F. at Filterian 91 3 300 91 3 311	F F T	PORTLAND F.G.FLODO 1925 5 GANRESVILLE H.A. ANLL 1917 3 FAST POINT J.E.BOYD 1924 8 BATON ROUCE N.L.GLOVER 1911 128 AMMATTAN C.H.SCHOLER 1917 221 ANDARTIN C.H.SCHOLER 1917 221 ANDARTIN C.H.SCHOLER 1917 221 ANDARTIN C.H.SCHOLER 1917 221 ANDARTIN C.H.SCHOLER 1917 221 ANMATTAN C.H.SCHOLER 1913 17 ANN ARBOR A.V.BATT 1924 3 ANN ARBOR A.J.E.MONS 1913 17 ANN ARBOR A.J.E.MONS 1913 17 ANN ARBOR A.J.E.MONS 1913 17 ANN ARBOR A.J.E.MONS					• • • • • • • • • • • • • • • • • • • •			
Oronom Example Total	CONCIL IS SMIDGETT 917 3 201 0	I A MINULET 01 7 281 0	00VER F. S. PRITCHETT 917 3 CALINES'OLLIC M. MALL 1917 3 EAST POINT J. E. BOYO 1921 3 SPRINGFELD V. LGUVKR 1911 28 STINOTAN BERT WERS 1919 3 SPRINGFELD V. LGUVKR 1911 28 MANHATTAN BERT WERS 1919 24 MANHATAN C. H. SCHOLER 1917 22 MANHATAN C. H. SCHOLER 1917 24 MANHATAN C. H. SCHOLER 1917 24 ADTIMOR D. V. TERRELL 1915 24 ADTIMORE F. C. ROSSELL 1916 2 BOSTINOR M. M. EAVITT 1914 4 ADTIMORE F. C. LONG 1913 17 ANN ARBOR M. J. E. MONS 1916 2 J. SCONCORD M. M. PRALL 1923 14 CONLLADORITY F. C. LONG 1916 2 J. REFERSON CITY F. M. RE								
Constant	Contribution F A MALL T A MALL	U. R.M.L. U. R.M.R.M.R. U. R.M.R.M.R.M.R. U. R.M.R.M.R.M.R. U. R	GAST FORULE H.A. A.LL 9917 7 GAST FORULE M. A.L. 1919 93 9 BOISE R. HARSCH 991 3 SPRINEFELDER 1911 128 INDIAMAPOLIS P.M. LEGOYD 1911 128 MAHMATTAN BET WRERAS 1919 41 MAHMATTAN D.V. TERRELL 1915 41 MAHMATAN D.V. TERRELL 1915 41 MAHMATAN D.V. TERRELL 1915 41 ANN ARBOR D.V. TERRELL 1915 4 ANN ARBOR A.V. BAATT 1914 4 ANN ARBOR A.V. BAATT 1914 4 ANN ARBOR A.V. BAATT 1914 4 JEFFERSON CITY F.V. REACEL 1923 14 ANN ARBOR A.N. BAATT 1919 2 JEFFERSON CITY F.V. REACEL 1919 2 JEFERSON CITY F.V. REACEL 1923 3 JEFERNON CITY F.V. REACEL								
Strenger Function 101 23 101 24 101 24 101 24 101 24 101 24 101 24 101 24 101 24	9062 0.002 <th0< td=""><td>massing massing <t< td=""><td>BOISE R.HARCH 1919 3 SPENFEIED R.HARCH 1911 126 SPENFEIED RET WRES 191 126 INDIANAPOLIS FOLMEENHELDER 1911 126 MAES BERT WRES 191 22 LEXINGTON C.H. SCHOLER 1917 22 LEXINGTON C.H. SCHOLER 1913 4 BATON ROUGE JH.EATEWAN 1925 7 BATON ROUGE JH.EATEWAN 1925 7 BATTMORE F. C.ROSELL 1914 4 BATTMORE F. C.ROUGE 1913 17 MINREAPOLIS F. C.LANG 1913 14 COLLABORTORE F. C.LANG 1913 14 CATLADORATORE S.M.ASON 1913 14 CATLADORATOR S.M.ASON 1913 14 CATLADORATOR S.M.ASON 1913 14 CATLADORATOR S.M.ASON 1913 14 CATLADORATOR S.M.ASON</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<></td></th0<>	massing massing <t< td=""><td>BOISE R.HARCH 1919 3 SPENFEIED R.HARCH 1911 126 SPENFEIED RET WRES 191 126 INDIANAPOLIS FOLMEENHELDER 1911 126 MAES BERT WRES 191 22 LEXINGTON C.H. SCHOLER 1917 22 LEXINGTON C.H. SCHOLER 1913 4 BATON ROUGE JH.EATEWAN 1925 7 BATON ROUGE JH.EATEWAN 1925 7 BATTMORE F. C.ROSELL 1914 4 BATTMORE F. C.ROUGE 1913 17 MINREAPOLIS F. C.LANG 1913 14 COLLABORTORE F. C.LANG 1913 14 CATLADORATORE S.M.ASON 1913 14 CATLADORATOR S.M.ASON 1913 14 CATLADORATOR S.M.ASON 1913 14 CATLADORATOR S.M.ASON 1913 14 CATLADORATOR S.M.ASON</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	BOISE R.HARCH 1919 3 SPENFEIED R.HARCH 1911 126 SPENFEIED RET WRES 191 126 INDIANAPOLIS FOLMEENHELDER 1911 126 MAES BERT WRES 191 22 LEXINGTON C.H. SCHOLER 1917 22 LEXINGTON C.H. SCHOLER 1913 4 BATON ROUGE JH.EATEWAN 1925 7 BATON ROUGE JH.EATEWAN 1925 7 BATTMORE F. C.ROSELL 1914 4 BATTMORE F. C.ROUGE 1913 17 MINREAPOLIS F. C.LANG 1913 14 COLLABORTORE F. C.LANG 1913 14 CATLADORATORE S.M.ASON 1913 14 CATLADORATOR S.M.ASON 1913 14 CATLADORATOR S.M.ASON 1913 14 CATLADORATOR S.M.ASON 1913 14 CATLADORATOR S.M.ASON								
Semantical Martinal and Martinal and semantical semantical martinal martinal semantical martinal semantical martinal semant	Spender Description Description <thdescription< th=""> <thdescription< th=""> <th< td=""><td>Witchenden 131 4542 4542 454 <t< td=""><td>SPRINGFIELD VL GLOVER 1911 128 INDIAMPOLIS POLMESENHELDER 1921 128 INDIAMPOLIS POLMESENHELDER 1917 22 AMES C H SCHOLER 1917 22 ILENNGTON UL METRELL 1955 7 ANES C H SCHOLER 1913 22 ILENNGTON UL METRELL 1914 4 BATON ROUGE H.M. LEANTT 1914 4 BATON ROUGE H.M. LEANTT 1914 4 BATON ROUGE H.M. LEANTT 1914 4 Contouce H.M. LEANTT 1921 5 ANNEAPOLIS K.J. ELANDS 1913 17 MINNEAPOLIS K.L. LANCE 1990 8 CONLUBORTON C.M. JUFF 9909 10 LINCOLN C.M. OUFF 1900 8 CONLONDIN C.M. OUFF 1900 8 CONLUBORTON C.M. OUFF 1900 13 A.RENNN S.C.A.COMPELL<td></td><td>• • • • • • • • • • • • • • • • • • •</td><td></td><td></td><td></td><td></td><td></td><td></td></td></t<></td></th<></thdescription<></thdescription<>	Witchenden 131 4542 4542 454 <t< td=""><td>SPRINGFIELD VL GLOVER 1911 128 INDIAMPOLIS POLMESENHELDER 1921 128 INDIAMPOLIS POLMESENHELDER 1917 22 AMES C H SCHOLER 1917 22 ILENNGTON UL METRELL 1955 7 ANES C H SCHOLER 1913 22 ILENNGTON UL METRELL 1914 4 BATON ROUGE H.M. LEANTT 1914 4 BATON ROUGE H.M. LEANTT 1914 4 BATON ROUGE H.M. LEANTT 1914 4 Contouce H.M. LEANTT 1921 5 ANNEAPOLIS K.J. ELANDS 1913 17 MINNEAPOLIS K.L. LANCE 1990 8 CONLUBORTON C.M. JUFF 9909 10 LINCOLN C.M. OUFF 1900 8 CONLONDIN C.M. OUFF 1900 8 CONLUBORTON C.M. OUFF 1900 13 A.RENNN S.C.A.COMPELL<td></td><td>• • • • • • • • • • • • • • • • • • •</td><td></td><td></td><td></td><td></td><td></td><td></td></td></t<>	SPRINGFIELD VL GLOVER 1911 128 INDIAMPOLIS POLMESENHELDER 1921 128 INDIAMPOLIS POLMESENHELDER 1917 22 AMES C H SCHOLER 1917 22 ILENNGTON UL METRELL 1955 7 ANES C H SCHOLER 1913 22 ILENNGTON UL METRELL 1914 4 BATON ROUGE H.M. LEANTT 1914 4 BATON ROUGE H.M. LEANTT 1914 4 BATON ROUGE H.M. LEANTT 1914 4 Contouce H.M. LEANTT 1921 5 ANNEAPOLIS K.J. ELANDS 1913 17 MINNEAPOLIS K.L. LANCE 1990 8 CONLUBORTON C.M. JUFF 9909 10 LINCOLN C.M. OUFF 1900 8 CONLONDIN C.M. OUFF 1900 8 CONLUBORTON C.M. OUFF 1900 13 A.RENNN S.C.A.COMPELL <td></td> <td>• • • • • • • • • • • • • • • • • • •</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		• • • • • • • • • • • • • • • • • • •						
Montecles Participation Distribution Participation Distribution Participation Distribution Distribution<	Industry Evention 101 2201 0	Protection Distribution Distribution <td>INDIARAPCIIS POLIMESCHRELDER QR21 NUMARTAN C.H. SCHOLER 1917 22 MANHATTAN C.H. SCHOLER 1917 22 MANHATAN C.H. SCHOLER 1917 22 ATON ROUCE J.H. BATEMAN 1915 7 BATON ROUCE J.H. BATEMAN 1916 5 ANNARDON H.W. LEAVITT 1914 4 BATON ROUCE H.W. LEAVITT 1916 5 ANNA ABDON A. V. BRATEMAN 1919 14 JEFELENS A. V. BRATEMAN 1919 14 JEFERSON CITY F. C. LANG 1919 14 Conditions F. C. LANG 1919 2 JEFERSON CITY F. H. MORRIDON 1919 2 Concordin F. C. LANG 1923 3 JEFERSON CITY F. H. MORRIDON 1919 2 CONCORD C.M. OUFF 1920 3 LINCOLN C.M. OUFF 1920 3 LINCOLN C.M. OUFF</td> <td></td> <td>••••••••••••••••••••••••••••••••••••••</td> <td></td> <td></td> <td></td> <td>••••••</td> <td></td> <td></td>	INDIARAPCIIS POLIMESCHRELDER QR21 NUMARTAN C.H. SCHOLER 1917 22 MANHATTAN C.H. SCHOLER 1917 22 MANHATAN C.H. SCHOLER 1917 22 ATON ROUCE J.H. BATEMAN 1915 7 BATON ROUCE J.H. BATEMAN 1916 5 ANNARDON H.W. LEAVITT 1914 4 BATON ROUCE H.W. LEAVITT 1916 5 ANNA ABDON A. V. BRATEMAN 1919 14 JEFELENS A. V. BRATEMAN 1919 14 JEFERSON CITY F. C. LANG 1919 14 Conditions F. C. LANG 1919 2 JEFERSON CITY F. H. MORRIDON 1919 2 Concordin F. C. LANG 1923 3 JEFERSON CITY F. H. MORRIDON 1919 2 CONCORD C.M. OUFF 1920 3 LINCOLN C.M. OUFF 1920 3 LINCOLN C.M. OUFF		••••••••••••••••••••••••••••••••••••••				••••••		
MARTING CH STREIL DIS 2201 CH 2201 <th2< td=""><td>MANATRA Entrol 131 2 2001 1 2 101 2 101<td>Effer wreis (ur standing (ur stand</td><td>AMES BET VARERS 919 AL MANHATRN BET VARERS 919 41 MANHATRN D.V. TERRELL 1915 6 ACTOR ROUG J.M. ARTENAN 1913 22 AROND M.N. TERRELL 1915 6 AROND M.N. ERVICT 1914 4 AROND M.N. AL BAVIT 1914 4 BALTIMORE F.C. ROSSELL 1916 5 ANN ARBOR M.J. BAMTT 1921 1 ANN ARBOR M.A. BAMT 1919 1 ANN ARBOR M.A. MANT 1919 2 ANN ARBOR M.A. MANN 1919 2 ANN ARBOR S. MAJON 1919 2 ANN ARDOR S. MAJON 1919 2 ALERA MARRINGURE 1923 3 <!--</td--><td></td><td></td><td></td><td></td><td></td><td>••••••</td><td></td><td></td></td></td></th2<>	MANATRA Entrol 131 2 2001 1 2 101 2 101 <td>Effer wreis (ur standing (ur stand</td> <td>AMES BET VARERS 919 AL MANHATRN BET VARERS 919 41 MANHATRN D.V. TERRELL 1915 6 ACTOR ROUG J.M. ARTENAN 1913 22 AROND M.N. TERRELL 1915 6 AROND M.N. ERVICT 1914 4 AROND M.N. AL BAVIT 1914 4 BALTIMORE F.C. ROSSELL 1916 5 ANN ARBOR M.J. BAMTT 1921 1 ANN ARBOR M.A. BAMT 1919 1 ANN ARBOR M.A. MANT 1919 2 ANN ARBOR M.A. MANN 1919 2 ANN ARBOR S. MAJON 1919 2 ANN ARDOR S. MAJON 1919 2 ALERA MARRINGURE 1923 3 <!--</td--><td></td><td></td><td></td><td></td><td></td><td>••••••</td><td></td><td></td></td>	Effer wreis (ur standing (ur stand	AMES BET VARERS 919 AL MANHATRN BET VARERS 919 41 MANHATRN D.V. TERRELL 1915 6 ACTOR ROUG J.M. ARTENAN 1913 22 AROND M.N. TERRELL 1915 6 AROND M.N. ERVICT 1914 4 AROND M.N. AL BAVIT 1914 4 BALTIMORE F.C. ROSSELL 1916 5 ANN ARBOR M.J. BAMTT 1921 1 ANN ARBOR M.A. BAMT 1919 1 ANN ARBOR M.A. MANT 1919 2 ANN ARBOR M.A. MANN 1919 2 ANN ARBOR S. MAJON 1919 2 ANN ARDOR S. MAJON 1919 2 ALERA MARRINGURE 1923 3 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td>••••••</td> <td></td> <td></td>						••••••		
Lumentrial C H Scholzif Dist Dist <thdist< th=""> Dist Dist<td>LINITIAN CH SERICIER 1917 22 5000 0<td>CH HARCIER 011 22 360 0</td><td>MANNATAN C.H. SCHOLER 917 22 LEXINGTON C.H. ERRELL 1914 4 BATON ROLGE J.H. ERRELL 1914 4 BATON ROLGE J.H. ERRELL 1914 4 BATON ROLGE H.M. LEXINTON 122 17 BATON ROLGE K. ROSSELL 1914 4 BATTMON R. CASSELL 1913 17 MINNEAPOLIS K. LANGN 1913 17 MINNEAPOLIS K.L. LANG 1913 14 CONLABGORTORY W.F. ELANG 1913 14 CONLABGORTORY K.M.SON 1913 2 CONCOLN C.M. OUFF 1900 8 2 CONCOLN C.M. OUFF 1900 13 2 TERNTON K.B. GAGE 1993 2 2 ALBANY K.M. ACHESON 1913 3 3 ALANN M.A. ACHESON 1923 3 3 ALENYN M.A. ACHESON 1914</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td></thdist<>	LINITIAN CH SERICIER 1917 22 5000 0 <td>CH HARCIER 011 22 360 0</td> <td>MANNATAN C.H. SCHOLER 917 22 LEXINGTON C.H. ERRELL 1914 4 BATON ROLGE J.H. ERRELL 1914 4 BATON ROLGE J.H. ERRELL 1914 4 BATON ROLGE H.M. LEXINTON 122 17 BATON ROLGE K. ROSSELL 1914 4 BATTMON R. CASSELL 1913 17 MINNEAPOLIS K. LANGN 1913 17 MINNEAPOLIS K.L. LANG 1913 14 CONLABGORTORY W.F. ELANG 1913 14 CONLABGORTORY K.M.SON 1913 2 CONCOLN C.M. OUFF 1900 8 2 CONCOLN C.M. OUFF 1900 13 2 TERNTON K.B. GAGE 1993 2 2 ALBANY K.M. ACHESON 1913 3 3 ALANN M.A. ACHESON 1923 3 3 ALENYN M.A. ACHESON 1914</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	CH HARCIER 011 22 360 0	MANNATAN C.H. SCHOLER 917 22 LEXINGTON C.H. ERRELL 1914 4 BATON ROLGE J.H. ERRELL 1914 4 BATON ROLGE J.H. ERRELL 1914 4 BATON ROLGE H.M. LEXINTON 122 17 BATON ROLGE K. ROSSELL 1914 4 BATTMON R. CASSELL 1913 17 MINNEAPOLIS K. LANGN 1913 17 MINNEAPOLIS K.L. LANG 1913 14 CONLABGORTORY W.F. ELANG 1913 14 CONLABGORTORY K.M.SON 1913 2 CONCOLN C.M. OUFF 1900 8 2 CONCOLN C.M. OUFF 1900 13 2 TERNTON K.B. GAGE 1993 2 2 ALBANY K.M. ACHESON 1913 3 3 ALANN M.A. ACHESON 1923 3 3 ALENYN M.A. ACHESON 1914								
LENTION DV PAREL P13 P PAD Reversite VI VERNIT 1914 7 744 0	LENKERICIA UV TermeLL UPI UPI <thu< td=""><td>UN TRERL UN <</td><td>LETINGTON D.V. TERRELL 913 7 BATON ROUGE J.H.BATEMAN 9243 7 BATON ROUGE H.W. LEWITT 1944 4 BATON ROUGE H.W. LEWITT 1944 4 BASTON A. V. BRATEMAN 1916 5 ANN ARBOR W.J. ELMONS 1913 17 JEFERSON CITY F. C. LANG 1919 14 JEFERSON CITY F. N. ARBOR W.J. ELMONS 1919 14 CMALLABOATIORES F. C. LANG 1919 12 2 JEFERSON CITY F. H. MORRIJON 1919 2 2 CANOLABOATIVERS F. L. CANFELL 1923 3 3 LINCOLN C.M. OUFF 1920 8 2 3 LINCOLN R.B. GAGE 1923 2 3 3 LINCOLN R.B. GAGE 1923 3 3 3 LINCOLN R.B. GAGE 1923 3 3 3 A.B. RIV <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<></td></thu<>	UN TRERL UN <	LETINGTON D.V. TERRELL 913 7 BATON ROUGE J.H.BATEMAN 9243 7 BATON ROUGE H.W. LEWITT 1944 4 BATON ROUGE H.W. LEWITT 1944 4 BASTON A. V. BRATEMAN 1916 5 ANN ARBOR W.J. ELMONS 1913 17 JEFERSON CITY F. C. LANG 1919 14 JEFERSON CITY F. N. ARBOR W.J. ELMONS 1919 14 CMALLABOATIORES F. C. LANG 1919 12 2 JEFERSON CITY F. H. MORRIJON 1919 2 2 CANOLABOATIVERS F. L. CANFELL 1923 3 3 LINCOLN C.M. OUFF 1920 8 2 3 LINCOLN R.B. GAGE 1923 2 3 3 LINCOLN R.B. GAGE 1923 3 3 3 LINCOLN R.B. GAGE 1923 3 3 3 A.B. RIV <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>								
ROM RULE ALENTRATION NUM Solution	PRON MOLGE ALTANTAN VISA P 341	Mit Refine Tit	BALTIMORE A.L. LEAVIT 19/25 4 RONOL M.H.M. LEAVIT 19/25 4 BALTIMORE F.C. ROSSELL 19/16 5 S ANN ARBOR M.J. UBANT 19/15 17 MIN ARBOR M.J. UBANT 19/15 14 ANN ARBOR M.J. UBANT 19/15 14 ANN ARBOR M.J. UBANT 19/16 2 JEFFERSON CITY F.V.REACEL 19/23 14 JEFFERSON CITY F.V.REACEL 19/19 2 JEFFERSON CITY F.H. MORNISON 19/19 2 ALBANT M.M.OFES L.C.AMPELL 19/24 3 ALBANT M.M.ARBOR 19/19 2 2 COLUMOUS A.L.GANT 19/24 12 3 ALLBANT M.M.ARBOR 19/24 12 3 ALLBANT M.M.ARMER 19/24 12 3 COLUMOUS A.S.REA 19/24 12 3 ALLBANT								
Invitation Invitat	NAME F. TA BALTINGE F. C. RAUSHL 111 7 <th7< th=""> 7 7 <th7< td=""><td>F. FORSTIL 171</td><td>NONCE F. M. CARSELL 914 7 BALTIMORE F. CASSELL 913 17 MINURAPCIOR K. CASSELL 913 17 MINURAPCIOR K. J. EMMONS 1913 17 ANINURAPCIOR K. J. EMMONS 1913 17 ANINURAPCIOR K. A. UBATT 1921 5 AMINURAPCIORE F. CLANG 1913 14 COMJUNIC C.M. MORTION 1913 2 JEFERSION CITY F.M. MORTION 1913 2 CLINCOLN C.M. MORTION 1917 2 CLINCOLN C.M. MORTION 1917 2 TRENTON R.B. GARCE 1900 2 ALBANY W.M. ACREON 1922 3 ALBANY W.M. ACREON 1922 3 ALBANY W.M. ACREON 1922 3 ALBANY M.M. ACREON 1922 3 ALBANY M.M. ACREON 1922 3 ALBANY M.M. MILLS, M.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th7<></th7<>	F. FORSTIL 171	NONCE F. M. CARSELL 914 7 BALTIMORE F. CASSELL 913 17 MINURAPCIOR K. CASSELL 913 17 MINURAPCIOR K. J. EMMONS 1913 17 ANINURAPCIOR K. J. EMMONS 1913 17 ANINURAPCIOR K. A. UBATT 1921 5 AMINURAPCIORE F. CLANG 1913 14 COMJUNIC C.M. MORTION 1913 2 JEFERSION CITY F.M. MORTION 1913 2 CLINCOLN C.M. MORTION 1917 2 CLINCOLN C.M. MORTION 1917 2 TRENTON R.B. GARCE 1900 2 ALBANY W.M. ACREON 1922 3 ALBANY W.M. ACREON 1922 3 ALBANY W.M. ACREON 1922 3 ALBANY M.M. ACREON 1922 3 ALBANY M.M. ACREON 1922 3 ALBANY M.M. MILLS, M.								
B B	Martine A V RMIT 1921 5 1731 0	A V BRAT 021 5 1731 0 <	5 00570N A. V. BATT 1921 5 5 MINK ARBOR W. J. EMMONS 1913 17 MINK ARBOR W. J. EMMONS 1913 17 AMINK ARBOR W. J. EMMONS 1913 17 Cond. LABORTORES F. CLANG 1913 17 Cond. LABORTORES F. C. ANG 1919 2 7 TRENTON C.M. OUFF 1900 8 1 CONCORD W.F. PARRINCION 1917 2 1 C.M. OUFF 1900 8 2 1 C.M. OUFF 1900 8 3 1 C.M. OUFF 1900 8 3 1 A.BANY M. A.CHESON 1913 2 1 A.BANK M. A.GRESON 1923 3 1 A.BANK M. A.GRESON 12 3 1 A.BANK M. A.GRESON 12 3 1 A.BANK A.GOUNES 12 3							0	
Anne Regen Mark Fight Mark Fight <thmark fight<="" th=""></thmark> Fight <thmark fight<="" th=""> <t< td=""><td>AWW AREION W.J. ELMIONS 191 14 4411 0 <th0< th=""> 0<!--</td--><td>w. J. Exalors 191 17 1018 191 17 1018 17 1018 17 1018 17 1018 17 1018 17 1018 17 1018 17 1018 17 1018 17 1018 17 1018 17 1018 17 1018 17 1018</td><td>ANN ARGR W. J. EMDNS [913 17 ANN ARGR W. J. EMDNS [913 14 ANN ARGR 919 14 14 ANLADOKTORES F. C.LANG [919 14 JEFFERSON CITY F. V. RACKL [923 14 JEFFERSON CITY F. V. RACKL [993 14 ANNARCHOR C.M. OUFP 1900 8 LINCOLN C.M. OUFP 1900 8 CARSON CITY F. HAMRINSON 1911 2 TRENTON A. BARN 1912 2 LASCNOR A. B. GAGE 1924 3 LABANY A. A. CHESON 1923 3 ALEM M. A. GROVCS 1923 3 COLUMBUS A. S. RAC 1923 3 ALEM M. M. HULLS, H. 1923 3 PROVIDENCE J. V. KILLS, H. 1923 3 ALEM M. M. MILLS, H. 1923 3 ALEM M. M. MILLS, H. 1923</td><td></td><td></td><td></td><td></td><td>0.0</td><td></td><td></td><td></td></th0<></td></t<></thmark>	AWW AREION W.J. ELMIONS 191 14 4411 0 <th0< th=""> 0<!--</td--><td>w. J. Exalors 191 17 1018 191 17 1018 17 1018 17 1018 17 1018 17 1018 17 1018 17 1018 17 1018 17 1018 17 1018 17 1018 17 1018 17 1018 17 1018</td><td>ANN ARGR W. J. EMDNS [913 17 ANN ARGR W. J. EMDNS [913 14 ANN ARGR 919 14 14 ANLADOKTORES F. C.LANG [919 14 JEFFERSON CITY F. V. RACKL [923 14 JEFFERSON CITY F. V. RACKL [993 14 ANNARCHOR C.M. OUFP 1900 8 LINCOLN C.M. OUFP 1900 8 CARSON CITY F. HAMRINSON 1911 2 TRENTON A. BARN 1912 2 LASCNOR A. B. GAGE 1924 3 LABANY A. A. CHESON 1923 3 ALEM M. A. GROVCS 1923 3 COLUMBUS A. S. RAC 1923 3 ALEM M. M. HULLS, H. 1923 3 PROVIDENCE J. V. KILLS, H. 1923 3 ALEM M. M. MILLS, H. 1923 3 ALEM M. M. MILLS, H. 1923</td><td></td><td></td><td></td><td></td><td>0.0</td><td></td><td></td><td></td></th0<>	w. J. Exalors 191 17 1018 191 17 1018 17 1018 17 1018 17 1018 17 1018 17 1018 17 1018 17 1018 17 1018 17 1018 17 1018 17 1018 17 1018 17 1018	ANN ARGR W. J. EMDNS [913 17 ANN ARGR W. J. EMDNS [913 14 ANN ARGR 919 14 14 ANLADOKTORES F. C.LANG [919 14 JEFFERSON CITY F. V. RACKL [923 14 JEFFERSON CITY F. V. RACKL [993 14 ANNARCHOR C.M. OUFP 1900 8 LINCOLN C.M. OUFP 1900 8 CARSON CITY F. HAMRINSON 1911 2 TRENTON A. BARN 1912 2 LASCNOR A. B. GAGE 1924 3 LABANY A. A. CHESON 1923 3 ALEM M. A. GROVCS 1923 3 COLUMBUS A. S. RAC 1923 3 ALEM M. M. HULLS, H. 1923 3 PROVIDENCE J. V. KILLS, H. 1923 3 ALEM M. M. MILLS, H. 1923 3 ALEM M. M. MILLS, H. 1923					0.0			
Universentise C.C.LAGE 193 141 411 6 411 6	WINREAPCLS F.C.LANG 131 14 4411 6	F.C.IMG [31] (4 (41) (4	MINNEAPOLIS F. C.LMG 1919 14 continues F. V.R.AGEL 1923 14 JEFFERSON CITY F. N.R.AGEL 1923 14 JEFFERSON CITY F. M.R.AGEL 1923 14 JEFFERSON CITY F. M.R.AGEL 1929 2 CABSOLTY F. M.MARIJSON 1913 2 CARSON R.B. GARD 1914 2 CARSON R.B. GARD 1913 2 LANT W.R. ACRESON 1917 2 LARNT M. ACRESON 1921 13 ALBANT M. ACRESON 1923 13 ALBANT W. ACRESON 1923 13 ALBANT W. ACRESON 1923 13 ALBANT M. ALLEGAN 1922 <				•		•	•	
Contrastance State	Contransmerter Standbounder Standbounde	FV RAMEL 923 14 916	Cont. Jugoartores And Source JEFERSON CITY F. V. REAGEL 1923 1 JEFERSON CITY S. M. SON 1913 2 HELEN S. M. SON 1913 2 CUNCOLN S. M. SON 1916 2 TERNTON K. B. G. M. ORGRISON 1917 2 TERNTON K. B. G. G. M. ORGRISON 1917 2 TRENTON K. B. G. G. M. CHESON 1917 2 A. D. SCHUCE 1909 4510 60 1 A. A. ACHESON 1923 20 20 N. A. A. A. CHESON 1923 20 20 A. B. A.		• • • •		••	. •			
greension CITY F.V.R.AGL 1923 14 991 971	JEFERSON CITY F. M. RAGEL 1923 1.4 9516 0 </td <td>Victorial 103 14 7 <t< td=""><td>JEFERSON CITY HELERA, S, MASON 1923 14 HELERA, S, MASON 91923 14 LINCOLN C.M. OUFF 1900 8 LUNCOLN C.M. OUFF 1919 2 CASSON CITY FH MORRISON 1918 2 CONORDN R.B. GAGE 1924 3 LABANY M.F.B. GAGE 1999 45 TD 60 LABANY R.B. GAGE 1992 3 ALEIGH R.M.MWI3 1921 13 RALEICH FAMMRI3 1921 12 RALEICH FAMMRI3 1923 3 ROUVUBIA A.S.REA 1922 3 ROUVUBIA A.M.HILLS, HANDON 1922 3 ROUVUBIA M.M.FILVRINE 1923 2 ROUVUBIA<</td><td></td><td>• • • •</td><td>+</td><td>•••</td><td>•</td><td></td><td></td><td></td></t<></td>	Victorial 103 14 7 <t< td=""><td>JEFERSON CITY HELERA, S, MASON 1923 14 HELERA, S, MASON 91923 14 LINCOLN C.M. OUFF 1900 8 LUNCOLN C.M. OUFF 1919 2 CASSON CITY FH MORRISON 1918 2 CONORDN R.B. GAGE 1924 3 LABANY M.F.B. GAGE 1999 45 TD 60 LABANY R.B. GAGE 1992 3 ALEIGH R.M.MWI3 1921 13 RALEICH FAMMRI3 1921 12 RALEICH FAMMRI3 1923 3 ROUVUBIA A.S.REA 1922 3 ROUVUBIA A.M.HILLS, HANDON 1922 3 ROUVUBIA M.M.FILVRINE 1923 2 ROUVUBIA<</td><td></td><td>• • • •</td><td>+</td><td>•••</td><td>•</td><td></td><td></td><td></td></t<>	JEFERSON CITY HELERA, S, MASON 1923 14 HELERA, S, MASON 91923 14 LINCOLN C.M. OUFF 1900 8 LUNCOLN C.M. OUFF 1919 2 CASSON CITY FH MORRISON 1918 2 CONORDN R.B. GAGE 1924 3 LABANY M.F.B. GAGE 1999 45 TD 60 LABANY R.B. GAGE 1992 3 ALEIGH R.M.MWI3 1921 13 RALEICH FAMMRI3 1921 12 RALEICH FAMMRI3 1923 3 ROUVUBIA A.S.REA 1922 3 ROUVUBIA A.M.HILLS, HANDON 1922 3 ROUVUBIA M.M.FILVRINE 1923 2 ROUVUBIA<		• • • •	+	•••	•			
HELIN 5. Machine 1919 2 734 1919 2 744 1919 2 744 1919 2 744 1919 2 744 1919 2 744 1919 2 744 1919 2 744 1919 2 744 1919 2 744 1919 2 744 1919 2100 1919 2 744 1919 2100 1919 2 744 1919 2100 1919 2 744 1919 2100 1919 2 744 1919 2100 1919 2 744 1919 2100 1919 2 744 1919 2100 1919 2100 1919 2100 1919 2100 1919 2100 1919 2100 1919 2100 1919 2100 1919 2100 1919 2100 2100 2100 2100 2100 2100 2100 2100 2100 2100 2100	HILEMA 5. MASON 1919 2 756 4 9 0	S. MASIN 1919 2 756 100	HILEIA S. MASON 1919 Z LINCLUN S. MASON 1919 Z CARSON CITY F. M. UDFF 1900 Z TERUTON W.F. PURRINCION 1917 Z TRENTON W.E. CAMPBELL 1999 45 TD 60 LAS CRUCES L.C. CAMPBELL 1924 3 LAS CRUCES L.C. CAMPBELL 1924 3 A.LBANY W.A. ACHESON 1921 3 A.LBANY W.A. ACHESON 1923 3 A.LBANY W.A. ACHESON 1923 3 A.LEIGH W.A. ACHESON 1923 3 CLUNBUS A.S. REA 1929 12 ALLIGH M.A. ACHEVA 1923 3 CLUNBUS A.S. MATTIWORE 1914 4 MARRINGEN J.N. MELL 31 A PRERE J.N. MILLS, J.M. 1922 3 A.S.NEL J.N. MELL 1922 3 A.S.LIAN M.M.HULS,J.M. 1923 </td <td></td> <td></td> <td>-</td> <td></td> <td></td> <td>•</td> <td></td> <td></td>			-			•		
CARRONCITY F-MARRISON 101 2 641 0	- CARSONCITY F. MURRISON 918 2 64.4 9 9 2 64.4 9 2 64.4 9 2 64.4 9 2 64.4 9 2 64.4 9 1 <th1< th=""> 1 <th1< th=""> 1</th1<></th1<>	Friedmantisch 1918 2 644 9	CARSONCTTY F. M. MORTISON 1916 2 CARSONCTTY K. H. MORTISON 1917 2 CONCORD W. F. PURRINCTON 1917 2 LAST R. B. GARG A 1909 3 T0 60 LAST R. B. GARG 1929 3 T0 60 20 ALBANY W. A ACIESON 1920 20 20 RISMARK H. GAROVES L. C. GANPEELL 1929 13 RISMARK H. GAROVES 1921 13 20 RISMARK H. GAROVES 1923 13 20 20 ALBAN W. MACINESON 1923 3 2 2 2 OLUMBUS A.S. REA 1923 3 3 3 3 ALANDACITY D. WOODENER 1922 3 3 3 ARCUMBUS M. M.LLS, JM: 1923 3 3 3 3 ALANDACITY M. MALLLS, JM: 1923 3 3 3 ASALTAWE M. MALL			-					
Econome ME FURINICTION 191 2 2000 9 45 TO 10011 10011 1001	E CONCORD ME FURINCION 1917 2 2000 917 2 2000 917 2 2000 917 2 2000 917 2 2000 115	Mc Furenkuttion 191 2 200 0	E CONCORD W.F. PURRINGTON 1917 2 TAERNTON R.B. GAGE 1909 45 T0 60 TAS GRUCES L.C. GAMPEEL 1924 10 ALBANY W.M. ACRESON 1929 20 ALBANY W.M. ACRESON 1929 20 N ALBANY W.M. ACRESON 1929 20 N M.A. CAROVES 1923 13 3 ALBANY M.M. GROVES 1923 13 3 COLUMBUS A.S.REA 1999 12 31 OCLUMBUS A.S.REA 1919 12 31 MARISBUG H.M. MILLS, M. 1922 3 31 POLUMBUS J.V.KELY 1922 3 31 POLUMBUS H.S.MATTIMORE 1914 31 31 POLUMBUS J.V.KELY 1922 3 31 POLUMBUS H.M.LLS, M. 1922 3 31 AUSTIVILE D. MCOMER 1922 3								
TRENTON R.B. GAGE 1939 45 T0 60 1300	TRENTON R.B. GAGE 1909 25 TD 600 13067 6 1 <th< td=""><td>R.B. GAGE 190 13 Th 100 13 Ger 0</td></th<> <td>TRENTON R.B.GAGE 1909 45 TD 60 LAS FRUCES L.C.GAMPERIL 1924 3 LAS FRUCES L.C.GAMPERIL 1924 3 ALEANY W.M. ACHESOKI 1993 3 ALEANY W.M. ACHESOKI 1924 3 RALEICH RAMMERI 1921 13 REISMARK H.G.GROVCS 1923 3 COLUMBIDS A.S.REA 1924 12 OLLAHDALA CITY D. WOOOO 1924 12 RALEM M.K.FINKBINER 1919 4 HARRISBIDG H.S.MATIMONE 1919 3 ROUNDENCE J.V.KELV 1922 3 ROUNDENCE J.V.KELV 1922 3 ADSTULLE D. MCONIE 1922 2 AUSTULLE D. MCONIE 1922 2 AUSTULLE D. MCONIE 1922 2 AUSTULLE D. MCONIE 1922 3 AUSTULLE D. MCONIE 1922 <</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	R.B. GAGE 190 13 Th 100 13 Ger 0	TRENTON R.B.GAGE 1909 45 TD 60 LAS FRUCES L.C.GAMPERIL 1924 3 LAS FRUCES L.C.GAMPERIL 1924 3 ALEANY W.M. ACHESOKI 1993 3 ALEANY W.M. ACHESOKI 1924 3 RALEICH RAMMERI 1921 13 REISMARK H.G.GROVCS 1923 3 COLUMBIDS A.S.REA 1924 12 OLLAHDALA CITY D. WOOOO 1924 12 RALEM M.K.FINKBINER 1919 4 HARRISBIDG H.S.MATIMONE 1919 3 ROUNDENCE J.V.KELV 1922 3 ROUNDENCE J.V.KELV 1922 3 ADSTULLE D. MCONIE 1922 2 AUSTULLE D. MCONIE 1922 2 AUSTULLE D. MCONIE 1922 2 AUSTULLE D. MCONIE 1922 3 AUSTULLE D. MCONIE 1922 <								
LAS CRUCES L.C.AMPELL 1924 3 661 661 661 661 661 661 661 661 661 661 661 661 661 661	LAS CRUCES L.C.AMPELL 1924 3 661 - 6 6 <td>L C.CAMPELL 924 3 661 6</td> <td>LAS CRUCES L.C.CAMPELL 1924 3 I.AS CRUCES L.C.CAMPELL 1929 20 I.A.LEIGH M.M. ACHESON 1921 13 I.A.LEIGH M.M. ACHESON 1921 13 I.B.MARK H.G.GNVES 1921 13 I.B.MARK H.G.GNVES 1923 3 RCLUMBUS A.S.REA 1909 12 RCLUMBUS A.S.REA 1909 12 RCLUMBUS A.S.REA 1909 12 RCLUMBUS N.M.FINKBINER 1914 31 PROVIDENC H.M.LLS, Jr. 1923 6 PROVIDENC H.M. MLLS, Jr. 1923 6 R.REVERT O.M.CONER 1923 6 A.STLINORE O.M.CONER 1923 6 A.STLINORE A.S.LIN M. M.LLS, Jr. 1923 6 A.STLINORE O.M.CONER 1923 6 5 A.STLINORE D.M.CONER 1923 6 5</td> <td></td> <td></td> <td></td> <td>•</td> <td></td> <td></td> <td></td> <td></td>	L C.CAMPELL 924 3 661 6	LAS CRUCES L.C.CAMPELL 1924 3 I.AS CRUCES L.C.CAMPELL 1929 20 I.A.LEIGH M.M. ACHESON 1921 13 I.A.LEIGH M.M. ACHESON 1921 13 I.B.MARK H.G.GNVES 1921 13 I.B.MARK H.G.GNVES 1923 3 RCLUMBUS A.S.REA 1909 12 RCLUMBUS A.S.REA 1909 12 RCLUMBUS A.S.REA 1909 12 RCLUMBUS N.M.FINKBINER 1914 31 PROVIDENC H.M.LLS, Jr. 1923 6 PROVIDENC H.M. MLLS, Jr. 1923 6 R.REVERT O.M.CONER 1923 6 A.STLINORE O.M.CONER 1923 6 A.STLINORE A.S.LIN M. M.LLS, Jr. 1923 6 A.STLINORE O.M.CONER 1923 6 5 A.STLINORE D.M.CONER 1923 6 5				•				
ALBANY W. ACHEGON 1908 20 10443 13 10443 13 10443 13 10443 13 10443 13 10443 14 14	ALBANY W. ActEGN 1909 2D 1449 0	WM ACHESON 130 14449 0	ALBANY W.M. ACIESON' 1909 ZD R RALEICH W.M. ACIESON' 1909 ZD R RISMARIN 1921 13 R RISMARIN 1921 13 R RISMARIN M.G.ROVES 1923 13 CLUMBUS A.S.REA 1909 12 ACLANALCITY M.M. FINSINER 1913 4 HARRISURG H.S. MATTIWORE 1914 31 HARRISURG H.S. MATTIWORE 1914 31 ARVOLENCE J.V. KELL 1922 8 ACOLUMBIA M.H.MILLS, Mr. 1923 8 7 ROWORENCE J.V. KELL 1922 8 ALSTIN M. H.MILLS, Mr. 1923 8 6 AUSTIN M. REWNSTER 1920 13 AUSTINILL AL REWNSTER 1914 6 AUSTINILL AL REWNSTER 1914 6 AUSTINILL AUSTINILL 12 13 6 AUSTINILL AUSTINICE 1914 6				•	0	•	•	•
MALEICH MALEICH <t< td=""><td>N RALEICH CANARIAL 132 1400 132 1710 132 1400 132 1710 132 1400 132 1710 132 1400 132 1710 132 1410 132 1410 132 1410 132 1410 132 1410 132 1410 132 1410 132 1410 132 1410 132 1410 132 1410 132 1410 132 1410 132 1410 132 1410 132 1410 132 1410 <t< td=""><td>MANNARIS 1921 13 9600 10</td><td>N RLEICH M.X.Mikinja 1921 13 B1SAARK H.G.KAOVES 1993 13 13 COLUMBUS A.S.REA 1993 12 12 OKLABAAL GTTY D.WOOD 1924 12 OKLABAAL GTTY D.WOOD 1924 12 OKLABAAL GTTY D.WOOD 1924 12 ALLANKEINER 1919 12 31 MARISBURG H.M. MINBINER 1914 31 PROVIDENCE H.J. MILLS, JH: 1922 3 PROVIDENCE H.M. MILLS, JH: 1923 3 PROVIDENCE G. J. UOOMER 1922 3 AUSTIVILE D. MCOMER 1920 13 AUSTIVILE D. MCUIRE 1920 13 AUSTIVILE M. BRWSTER 1914 6 AUSTIVILE D. MCUIRE 1920 13 AUSTIVILE D. MCUIRE 1914 6 AUSTIVILE M. RINNELL 1919 6 <t< td=""><td>•</td><td>•</td><td>•</td><td>•</td><td>•</td><td>•</td><td>0</td><td>•</td></t<></td></t<></td></t<>	N RALEICH CANARIAL 132 1400 132 1710 132 1400 132 1710 132 1400 132 1710 132 1400 132 1710 132 1410 132 1410 132 1410 132 1410 132 1410 132 1410 132 1410 132 1410 132 1410 132 1410 132 1410 132 1410 132 1410 132 1410 132 1410 132 1410 132 1410 <t< td=""><td>MANNARIS 1921 13 9600 10</td><td>N RLEICH M.X.Mikinja 1921 13 B1SAARK H.G.KAOVES 1993 13 13 COLUMBUS A.S.REA 1993 12 12 OKLABAAL GTTY D.WOOD 1924 12 OKLABAAL GTTY D.WOOD 1924 12 OKLABAAL GTTY D.WOOD 1924 12 ALLANKEINER 1919 12 31 MARISBURG H.M. MINBINER 1914 31 PROVIDENCE H.J. MILLS, JH: 1922 3 PROVIDENCE H.M. MILLS, JH: 1923 3 PROVIDENCE G. J. UOOMER 1922 3 AUSTIVILE D. MCOMER 1920 13 AUSTIVILE D. MCUIRE 1920 13 AUSTIVILE M. BRWSTER 1914 6 AUSTIVILE D. MCUIRE 1920 13 AUSTIVILE D. MCUIRE 1914 6 AUSTIVILE M. RINNELL 1919 6 <t< td=""><td>•</td><td>•</td><td>•</td><td>•</td><td>•</td><td>•</td><td>0</td><td>•</td></t<></td></t<>	MANNARIS 1921 13 9600 10	N RLEICH M.X.Mikinja 1921 13 B1SAARK H.G.KAOVES 1993 13 13 COLUMBUS A.S.REA 1993 12 12 OKLABAAL GTTY D.WOOD 1924 12 OKLABAAL GTTY D.WOOD 1924 12 OKLABAAL GTTY D.WOOD 1924 12 ALLANKEINER 1919 12 31 MARISBURG H.M. MINBINER 1914 31 PROVIDENCE H.J. MILLS, JH: 1922 3 PROVIDENCE H.M. MILLS, JH: 1923 3 PROVIDENCE G. J. UOOMER 1922 3 AUSTIVILE D. MCOMER 1920 13 AUSTIVILE D. MCUIRE 1920 13 AUSTIVILE M. BRWSTER 1914 6 AUSTIVILE D. MCUIRE 1920 13 AUSTIVILE D. MCUIRE 1914 6 AUSTIVILE M. RINNELL 1919 6 <t< td=""><td>•</td><td>•</td><td>•</td><td>•</td><td>•</td><td>•</td><td>0</td><td>•</td></t<>	•	•	•	•	•	•	0	•
CUID-BUARK A.S. GROVES 1903 2 1751 0 </td <td>CUBAMAR H. G. REVUS 1923 3 1751 0</td> <td>Holdschores 1923 3 1751 0</td> <td>CBLUMARX H. G.GOVES 1923 3 CBLUMBUX H. G.GOVES 1923 3 ORLHPMA CITY D. WOOO 1924 12 ORLHPMA CITY D. WOOO 1919 12 HARRISBUG H.M. FINIGINER 1919 1 FROVIDENCE J. V. KELY 1923 3 PROVIDENCE J. V. KELY 1923 3 ACLUMBIA M. M. M.L.S., M. P. 1923 3 ACLUMBIA N. M. M.L.S., M. P. 1923 3 AUSTVILLE D. M. CONIE 1923 2 AUSTVILLE D. M. CONIE 1923 2 AUSTVILLE D. M. CONIE 1923 2 AUSTVILLE D. M. CONIE 1920 13 AUSTVILLE D. M. CONIEL 1923 6 SALT LAKE CITY L. MURELL 1923 3 MICHMOND S. C.LAIN 1929 3</td> <td></td> <td>•</td> <td>•</td> <td>•</td> <td>•</td> <td>•</td> <td>•</td> <td>•</td>	CUBAMAR H. G. REVUS 1923 3 1751 0	Holdschores 1923 3 1751 0	CBLUMARX H. G.GOVES 1923 3 CBLUMBUX H. G.GOVES 1923 3 ORLHPMA CITY D. WOOO 1924 12 ORLHPMA CITY D. WOOO 1919 12 HARRISBUG H.M. FINIGINER 1919 1 FROVIDENCE J. V. KELY 1923 3 PROVIDENCE J. V. KELY 1923 3 ACLUMBIA M. M. M.L.S., M. P. 1923 3 ACLUMBIA N. M. M.L.S., M. P. 1923 3 AUSTVILLE D. M. CONIE 1923 2 AUSTVILLE D. M. CONIE 1923 2 AUSTVILLE D. M. CONIE 1923 2 AUSTVILLE D. M. CONIE 1920 13 AUSTVILLE D. M. CONIEL 1923 6 SALT LAKE CITY L. MURELL 1923 3 MICHMOND S. C.LAIN 1929 3		•	•	•	•	•	•	•
Occumentary A.SMCA 1914 12 1900 0	Occurred Corr A.S.MCA 1914 12 1900 1 <t< td=""><td>M.S.MKA 190 12 2900 13 245 100 100 12 2900 100<</td><td>CCLUMBOS A.S.ReA 1919 12 ORLANDALA CITY D. WOOO 1924 12 SALEM N.M. FINKBINER 1919 4 HARRISBURG J. S. MATIMORE 1914 31 FROVIDER J. S. MATIMORE 1914 31 RENDISBURG J. S. MATIMORE 1914 31 RENDISBURG J. S. MATIMORE 1914 31 RENDISBURG J. S. MALLUS, MR. 1923 8 R. COLUMBIA W. H.MILLS, MR. 1922 2 A. SALTANCLE D.O. MEGUIRE 1924 6 AUSTIN H.T. BREWSTER 1914 6 ANSTIN L. MUIR 1914 6 ANNTELLER R. I. NOWELL 1925 3 MONTFELLIR R. R. NOWELL 1925 3</td><td></td><td></td><td></td><td>•</td><td>0</td><td></td><td>•</td><td></td></t<>	M.S.MKA 190 12 2900 13 245 100 100 12 2900 100<	CCLUMBOS A.S.ReA 1919 12 ORLANDALA CITY D. WOOO 1924 12 SALEM N.M. FINKBINER 1919 4 HARRISBURG J. S. MATIMORE 1914 31 FROVIDER J. S. MATIMORE 1914 31 RENDISBURG J. S. MATIMORE 1914 31 RENDISBURG J. S. MATIMORE 1914 31 RENDISBURG J. S. MALLUS, MR. 1923 8 R. COLUMBIA W. H.MILLS, MR. 1922 2 A. SALTANCLE D.O. MEGUIRE 1924 6 AUSTIN H.T. BREWSTER 1914 6 ANSTIN L. MUIR 1914 6 ANNTELLER R. I. NOWELL 1925 3 MONTFELLIR R. R. NOWELL 1925 3				•	0		•	
SALEM MA FINENCE 13 2573B 0	SALEM IM. FINERINER 15 4 2473 0	MK FINKER 137 253 0 0<	OWNER OWNER <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>								
HARTSBUG N.A.TTMORE 31 23738 9	HARRISBUG H.S. MATTHONE 11 31 23738 9<	H5. MATTIMORE 31 25733 9	HARISBURG H.S. MATTIMORE 1914 31 PROVIDENCE J. V. KELLY 1922 3 PROVIDENCE J. V. KELLY 1922 3 A COLUMBIA M. MLLLS, J.Y. 1923 3 ANDERIA K. MLLS, J.Y. 1923 3 ANSHVILLE C. J.LOOMER 1921 2 AUSTIVILLE D. MACHURE 1914 6 AUSTIN M. MURSAURE 1914 6 AUSTIN L. MUIR 1913 7 AUSTIN L. MUIR 1913 7 AUSTIN S.CLARK 1925 3								
PROVIDENCE JV KELY 1922 3 6000 0	PROVIEKCE J.V. KELLY 1922 3 6000 9 0 9 0 <td>J.V. Kell.Y 1322 3 6000 0</td> <td>PROVIDENCE J.V. KEILY 1922 3 A COLUMBIA W.H. MILLS, JR. 1923 6 PIERRE C.J.LOOMER 1921 13 NASHVILLE C.J.LOUKER 1920 13 NASHVILLE D.M.KGUIRE 1920 13 AUSTIN H.T. BREWSTER 1914 6 SALT LAKE GITY L. MUIR 1919 3 ANOFFELIAR A.I. RAWNELL 1925 3 ANOFFELIAR A.I. RAWNELL 1920 9</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	J.V. Kell.Y 1322 3 6000 0	PROVIDENCE J.V. KEILY 1922 3 A COLUMBIA W.H. MILLS, JR. 1923 6 PIERRE C.J.LOOMER 1921 13 NASHVILLE C.J.LOUKER 1920 13 NASHVILLE D.M.KGUIRE 1920 13 AUSTIN H.T. BREWSTER 1914 6 SALT LAKE GITY L. MUIR 1919 3 ANOFFELIAR A.I. RAWNELL 1925 3 ANOFFELIAR A.I. RAWNELL 1920 9								
COLUMBIA W H MILS,M 1923 C 2500 C <thc< th=""> C<td>Columbia W H MILLS, M: 1923 6 2500 0<!--</td--><td>W H MILLS, IR: 1923 6 2433 0</td><td>COLUMBIA W. H. MILLS, R 1223 6 RIPERE C.J. LOOMER 1921 2 NASHVILE D. D. MCGUIRE 1220 13 AUSTIN H.T. BREWSTER 1914 6 SALT LAKE CITY L. MUIR 1919 3 MONFBLIAR R.I. ROWELL 1925 3 MONFPLIAR R.I. ROWELL 1925 3 MICHMONO S.L.LARE R.I. ROWELL 1925 3</td><td>•</td><td>•</td><td>0</td><td>•</td><td>0</td><td>•</td><td>•</td><td>0</td></td></thc<>	Columbia W H MILLS, M: 1923 6 2500 0 </td <td>W H MILLS, IR: 1923 6 2433 0</td> <td>COLUMBIA W. H. MILLS, R 1223 6 RIPERE C.J. LOOMER 1921 2 NASHVILE D. D. MCGUIRE 1220 13 AUSTIN H.T. BREWSTER 1914 6 SALT LAKE CITY L. MUIR 1919 3 MONFBLIAR R.I. ROWELL 1925 3 MONFPLIAR R.I. ROWELL 1925 3 MICHMONO S.L.LARE R.I. ROWELL 1925 3</td> <td>•</td> <td>•</td> <td>0</td> <td>•</td> <td>0</td> <td>•</td> <td>•</td> <td>0</td>	W H MILLS, IR: 1923 6 2433 0	COLUMBIA W. H. MILLS, R 1223 6 RIPERE C.J. LOOMER 1921 2 NASHVILE D. D. MCGUIRE 1220 13 AUSTIN H.T. BREWSTER 1914 6 SALT LAKE CITY L. MUIR 1919 3 MONFBLIAR R.I. ROWELL 1925 3 MONFPLIAR R.I. ROWELL 1925 3 MICHMONO S.L.LARE R.I. ROWELL 1925 3	•	•	0	•	0	•	•	0
PIERE C.J.LOOMER 1921 2 433 0	PIERE C.J.LOOMEN 1921 2 433 0	C.J.LOOMER 1821 2 4.33 0	PIERRE C.J.LOOMER 1921 2 ANSHILLE D.D.McGUIRE 1920 13 AUSTIN H.T.BREWSTER 1914 6 AUSTIN H.T.BREWSTER 1914 6 SALT LAKE CITY L.MUIR 1919 6 AUNTELIER A.NONTELLER 1923 3 MONTPELLER R.I.ROWELL 1925 3 RICHMONO S.CLARK 1920 9	•	•	•	•	•	•	•	-
MASHVILE D. McGURE 1920 13 6662 10 <td>MASHVILE D. McGure 1920 13 6662 13 6662 13 6662 13 14</td> <td>D. McWIRE 1920 662 0</td> <td>0.0.McGURE 1920 13 H.T.BREWSTER 1914 6 L.MUIR 1919 3 R.I.ROWELL 192S 3 S.CLARK 192D 9</td> <td></td> <td>•</td> <td>•</td> <td>•</td> <td>0</td> <td>•</td> <td>•</td> <td></td>	MASHVILE D. McGure 1920 13 6662 13 6662 13 6662 13 14	D. McWIRE 1920 662 0	0.0.McGURE 1920 13 H.T.BREWSTER 1914 6 L.MUIR 1919 3 R.I.ROWELL 192S 3 S.CLARK 192D 9		•	•	•	0	•	•	
Sult Lake City L. Buewarrer (N) 914 0 041 0 041 0 041 0 041 0 041 0 041 0 041 0 041 0 041 0 041 0 041 0 041 0 041 0 041 0	AUSTIN -: H. FREWNER 1914 6 0.01 - 0 0.	H. L. BRENSTER 1914 0	H.T. BREWSTER 1914 6 L. MUIR 1919 3 R.L.ROWELL 1920 9 S.CLARK 1920 9		•	•	•	•	•	•	
SALLEMECITY LAUIR 1919 3 14.3 0	SALL LARE II I. L.WUIK 1913 3 1443 0 </td <td>I. L. WUIK 1919 3 1433 0</td> <td>L.MUIK 1919 R.I.ROWELL 192S 3 S.CLARK 192D 9</td> <td></td> <td></td> <td>•</td> <td>•</td> <td>0</td> <td>•</td> <td>•</td> <td>•</td>	I. L. WUIK 1919 3 1433 0	L.MUIK 1919 R.I.ROWELL 192S 3 S.CLARK 192D 9			•	•	0	•	•	•
Montecan S.C.I.ARK 1923 3 1943 Richhord S.C.LARK 1920 9 5145 Richhord S.C.LARK 1920 9 5145 Richhord R.T.M.R.L 1920 9 5145 MORGANTOWN R. TREMPER 1921 3 3500 6 6 MORGANTOWN R. B. DATTON 1919 10 4575 6 6 6 6 MORGANTOWN R. B. DATTON 1919 10 4575 6 6996 6 <t< td=""><td>MICHINELIA N. MOMELLA YZC 3 5 750 0 750 0 750 0 750 <th0< td=""><td>ALTOWELL 1920 9 5750 0</td><td>S.CLARK 1920 9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th0<></td></t<>	MICHINELIA N. MOMELLA YZC 3 5 750 0 750 0 750 0 750 0 <th0< td=""><td>ALTOWELL 1920 9 5750 0</td><td>S.CLARK 1920 9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th0<>	ALTOWELL 1920 9 5750 0	S.CLARK 1920 9								
OLIVINION B. SLORM OLIVINION B. SLORM Pactor <	ALCHMOND 3. J.C.MI 1920 3. 3500 6 <td>3 3</td> <td>S.CLARN 1920 9</td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td>	3 3	S.CLARN 1920 9			-					
ULTMITA B. INCAPER 1921 0 0000 0000 0000 0000 0000 0000 00	OLTENTON R.B. DATTON 1921 2020 2020 MORGANTONN R.B. DATTON 1919 10 400 MAGISON C.R.STOKES 1925 6 698 0 0 0 0 0 MAOISON C.R.STOKES 1919 2 1025 0	B. Incoments 192 0 470 9 0 470 9 0 6 9 0	B TDE11050 1021 3								
MAOISON C.R.STORES 1925 6 6899 6 7 6 6 CHEYENNE W.A.NORRIS 1919 2 1025 6 699 6 7 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	MAOISON C.R.STORES 1925 6 899 9 0	C. R.STOKES 1925 6 6939 6 7 6 7 6 6 7 6 6 7 6 6 7 6 6 7 6 6 7 6 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 <th7< th=""></th7<>	MORGANTOWN & B DAYTON 1919 * 10								
W.A. NORRIS 1919 2 1025	W.A.NORRIS 1919 2 1025 0 0 0 0 0 0 0	W.A.NORRIS 1919 2 1025 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	MAOISON C.R.STOKES 1925 6								
		LEGEND: LABORATORY NOT EQUIPPED- O PARTIALLY EQUIPPEO- O FULLY	W. A. NORRIS 1919 2						•		



MOUNT VERNON MEMORIAL BOULEVARD SURVEY BEGUN ON JUNE 15

(NOT FOR RELEASE)

ON JUNE 15, 1928, THE SURVEY TO DETERMINE THE LOCATION OF THE MOUNT VERNON MEMORIAL BOULEVARD WAS BEGUN BY THE BUREAU UNDER THE IMMEDIATE DIRECTION OF THE DIVISION OF DESIGN. MESSRS. D. T. BROWN AND C. S. JARVIS OF THIS DIVISION ARE IN CHARGE OF THE FIELD AND OFFICE WORK, RESPECTIVELY. WHEN THE SURVEYS AND PLANS ARE COMPLETED, THEY WILL BE SUBMITTED TO THE COMMISSION FOR THE CELEBRATION OF THE TWO HUNDREDTH ANNIVERSARY OF THE BIRTH OF GEORGE WASHINGTON FOR THE FINAL DETERMINATION OF THE ROUTE AND THE APPROVAL OF THE CHARACTER OF THE PROPOSED CONSTRUCTION. THE CHAIRMAN OF THIS COMMISSION IS THE PRESIDENT OF THE UNITED STATES AND THE VICE CHAIRMAN IS SENATOR SIMEON D. FESS OF OHIO. IT IS HOPED THAT THE CONSTRUCTION OF SOME OF THE HYDRAULIC FILLS MAY BE BEGUN THIS FALL SO THAT THE ENTIRE PROJ-ECT MAY BE COMPLETED BY JANUARY 1, 1932, IN TIME TO ACCOMMODATE THE LARGE CROWDS WHICH ARE EXPECTED TO VISIT THE HOME AND TOMB OF GEORGE WASHINGTON, AT THE BI-CENTENNIAL OF HIS BIRTH.

THIS MEMORIAL HIGHWAY, THE AUTHORIZED APPROPRIATION FOR WHICH TOTALS \$4,500,000, IS THE MOST IMPORTANT ROAD PROJECT EVER ENTRUSTED TO THE BUREAU IN THE VICINITY OF THE NATIONAL CAPITOL. IT WILL BEGIN AT THE VIRGINIA SIDE OF THE ARLINGTON MEMORIAL BRIDGE OVER THE POTOMAC RIVER AT WASHINGTON AND EXTEND FOR A DISTANCE OF 12 TO 15 MILES, DEPENDING UPON THE ROUTE SE-LECTED, TO MOUNT VERNON, WHERE THERE IS SITUATED THE ESTATE AND FINAL RESTING PLACE OF OUR FIRST AND GREATEST PRESIDENT. THE PREVIOUS INVESTIGATIONS OF THE BUREAU INDICATE THAT THE RIVER ROUTE IS THE BEST ONE FOR MONUMENTAL PURPOSES, PRINCIPALLY BECAUSE OF THE SCENIC ADVANTAGES. THE GENERAL NATURE OF THE DEVELOPMENT WAS SUGGESTED BY MR. MACDONALD DURING THE HEARINGS BEFORE THE HOUSE COMMITTEE ON ROADS OF THE SEVENTIETH CONGRESS, WHEN HE STATED ". AND IT IS MY CONCEPTION THAT THIS BOULEVARD COULD BE MADE AN EXTENSION OF THE ROCK CREEK PARK AND POTOMAC PARK DEVELOPMENTS, EXTENDING CLEAR FROM THE MARYLAND LINE THROUGH ROCK CREEK PARK, THROUGH POTOMAC PARK, AND ALONG THE RIVER TO MOUNT VERNON. IT WOULD BE ONE OF THE MOST BEAUTI-FULL DRIVES IN THE WHOLE WORLD; AND MY CONCEPTION OF ITS DEVEL-OPMENT WOULD BE TO HAVE IT WITH PROPER CONSTRUCTION, BUT WITH THE PLANNING AND THE RATHER SIMPLE DEVELOPMENT THAT HAS BEEN

- 16 4

the second se A bundan set of the . IT ADTAD BUT TALL TALL MOT A LOTAL BUT A The same a set of the set of the A second sec second sec and a second A second s

SO SUCCESSFUL IN ROCK CREEK PARK.

"IT IS NOT MY CONCEPTION OF WASHINGTON'S CHARACTER THAT HE WOULD HAVE CARED TO HAVE A ROAD LEADING TO HIS TOMB, AS THEY BUILT ROADS FROM ROME LEADING TO THE APPIAN WAY, WHERE THERE SEEMED TO BE A GREAT EFFORT ON THE PART OF EACH ONE TO OUTDO THE OTHERS IN BUILDING THE MOST MAGNIFICENT TOMBS AND APPROACHES.

"I THINK THE SIMPLE TREATMENT OF ROCK CREEK PARK WOULD MEET MORE NEARLY THE REQUIREMENTS OF THE SITUATION."

IN HIS REPORT TO MR. MACDONALD, COMPARING THE ESTIMATED COSTS OF THE INLAND WITH THE RIVER ROUTE, THE RECOMMENDATION FOR WHICH HAS BEEN CONCURRED IN BY THE SECRETARY OF WAR, AND IS WARMLY ENDORSED BY THE COMMISSION ON FINE ARTS, AND THE NATIONAL CAPITOL PARK AND PLANNING COMMISSION; CAPTAIN P. ST. J. WILSON OUTLINED THE ADVANTAGES OF THE RIVER ROUTE, OVER ALL OTHER ROUTES, WITH RESPECT TO ITS SCENIC POSSIBILITIES AND ITS HISTORICAL ASSOCIATIONS, AS FOLLOWS: ".... ABOUT HALFWAY BETWEEN WASHINGTON AND ALEXANDR'A, THIS ROUTE PASSES CLOSE TO ABINGTON, THE HOME OF JOHN CUSTIS, MRS. WASHINGTON'S SON, WHICH STILL STANDS OVERLOOKING THE RIVER. HERE NELLIE CUSTIS, WASHINGTON'S ADOPTED DAUGHTER, WAS BORN. A BEAUTIFUL VIEW OF THE RIVER AND A PANORAMA OF WASHINGTON AND THE NORTH SHORE ARE OBTAINABLE FROM THIS POINT.

"PASSING ON TO ALEXANDRIA, THIS ROUTE ENTERS THE CITY BY WASHINGTON STREET AND PASSES DIRECTLY BY CHRIST CHURCH, where the Washington pew may still be seen. This church was visited by 154,318 people in 1926, in addition to those attending services. One of the outstanding points of superiority favoring the choice of this route is that it passes directly through Alexandria instead of around it.

"ALEXANDRIA WAS WASHINGTON'S OWN TOWN. IT WAS HIS MAR-KET PLACE, HIS POST OFFICE, AND HIS VOTING PLACE. IT WAS THE MEETING PLACE OF THE LODGE OF MASONS TO WHICH HE BELONGED, AND THE LODGE HALL IS NOW THE REPOSITORY OF A GREAT MANY ARTICLES AND PAINTINGS ASSOCIATED WITH HIM.

"THE TROWEL, SQUARE, AND PLUMB BOB USED IN LAYING THE CORNERSTONE OF THE CAPITOL MAY BE SEEN HERE; AND, ALSO THE BIBLE THAT WAS USED IN THE DAYS OF WASHINGTON. HERE: ALSO IS

AN ORIGINAL PAINTING OF WASHINGTON BY GILBERT STUART, THE POPE PEALE PAINTING OF HIM IN EARLY LIFE, AND MANY OTHER PAINTINGS AND INTERESTING RELICS TOO NUMEROUS TO MENTION. THERE WERE 93,484 VISITORS TO THIS SHRINE IN 1926.

"THERE IS SCARCELY A FOOT OF GROUND IN ALEXANDRIA THAT WASHINGTON DID NOT TREAD. THE OLD QUARTERS OF THE VOL-UNTEER FIRE COMPANY, OF WHICH WASHINGTON WAS A MEMBER, STILL STAND. IN GADSBY'S INN, NOW THE CITY HOTEL, HE RECRUITED HIS FIRST COMPANY OF PROVINCIAL TROOPS AUTHORIZED BY GOVERNOR DINWIDDIE, WITH WHICH HE FOUGHT THE BATTLE OF GREAT MEADOWS.

"IN THE BALL ROOM OF THE CITY HOTEL, IN 1798, WAS HELD THE FIRST CELEBRATION OF WASHINGTON'S BIRTHDAY. FROM THE STEPS OF THE SAME BUILDING HE GAVE HIS LAST MILITARY COMMAND TO THE ALEXANDRIA LIGHT INFANTRY BLUES, HIS BODYGUARD DURING THE REVOLUTION; AND HERE, ALSO IN NOVEMBER, 1799, LESS THAN 30 DAYS BEFORE HIS DEATH, HE CAST HIS LAST VOTE.

"AT THE CARLYLE HOUSE, STILL STANDING, HE RECEIVED HIS APPOINTMENT AS MAJOR IN THE BRITISH ARMY ON GENERAL BRADDOCK'S STAFF; AND IN THIS HOUSE, ALSO, AT THE CONVENTION OF THE FIVE GOVERNORS ASSEMBLED TO CONFER WITH GENERAL BRADDOCK, THE FIRST SUGGESTION OF COLONIAL TAXATION WAS MADE, THE STEP WHICH ULTIMATELY LED TO THE REVOLT OF THE COLONIES.

"OTHER PLACES OF HISTORIC INTEREST STILL STANDING IN THE CITY AND INTIMATELY ASSOCIATED WITH THE LIFE OF WASHINGTON ARE THE HOMES OF DR. JAMES CRAIK, OF DR. ELISHA CULLEN DICK, HIS FAMILY PHYSICIANS, AND THE HOMES OF LIGHT HORSE HARRY LEE AND OF HIS TWO FAMOUS SONS, ROBERT E. AND SYDNEY SMITH LEE.

"A SHORT SIDE TRIP FROM WASHINGTON STREET DOWN KING STREET TAKES THE TRAVELER TO THE GEORGE WASHINGTON NATIONAL MASONIC MEMORIAL WHICH IS BEING ERECTED AT THE WESTERN OUT-SKIRTS OF THE TOWN ON SHOOTERS' HILL.

"RETURNING TO WASHINGTON STREET AND PROCEEDING SOUTH-WARD, THE TRAVELER SOON REACHES THE SOUTHERN LIMITS OF THE TOWN AND PASSES WITHIN A STONE'S THROW OF THE FIRST CORNER-STONE OF THE DISTRICT OF COLUMBIA, STILL STANDING ON JONES POINT WITH THE INSCRIPTION STILL COMPLETE.



"LEAVING ALEXANDRIA, THE RIVER ROUTE CROSSES HUNTING CREEK AND RISES TO HIGH GROUND FROM WHICH A BROAD PANORAMA OF THE RIVER AND DISTANT WASHINGTON ARE SPREAD BEFORE THE EYE; AND THEN, OVERLOOKING THE RIVER, IT FOLLOWS THE RIDGE TO OLD FORT HUNT, AND THENCE TO THE POSTERN GATES OF MOUNT VERNON."

6.4

ŧ



{ 		•	





JOHN WESLEY BALL

(NOT FOR RELEASE)

JOHN WESLEY BALL, SENIOR HIGHWAY ENGINEER OF THE REGIONAL OFFICE, ENGAGED IN THE ADMINISTRATION OF NATIONAL FOREST ROAD WORK IN THE ELEVEN WESTERN STATES, DIED ON JULY 22 IN SAN FRANCISCO, FOLLOWING AN ILLNESS OF THREE WEEKS THAT DEVELOPED FROM A COLD AND INVOLVED SOME INFLAM-MATORY RHEUMATIC CONDITIONS AFFECTING THE HEART. HE WAS ON THE WAY TO RECOVERY WHEN THE FATAL HEART ATTACK OCCURRED.

The cold is believed to have been contracted while he was on a trip to Gibbonsville, located on the forest highway section of the Sawtooth Park Highway, between Salmon, idaho and the Montana State boundary on the Continental Divide. Returning to San Francisco, he went back to his work in the office on June II, and remained there for a number of days, apparently recovering from his cold. However, on June 22, he felt so badly that it was necessary for him to go home to bed although even then his family felt no serious misgivings concerning his condition. On July 15, his condition was grave but he grew much better during the following week until on Sunday morning July 22, when, considered to be surely on the Mend, he suddenly collapsed.

BESIDES HIS WIDOW, RUTH, HE LEAVES TWO YOUND CHILDREN -ELIZABETH ANN, AGE THREE, AND JOHN WESLEY, JUNIOR, AGE 10 MONTHS. THE FUNERAL WAS HELD ON JULY 25 UNDER THE AUSPICES OF THE MASONIC ORDER.

MR. BALL WAS BORN ON AUGUST 8, 1888, AT WALTON, IND., AND WAS GRADUATED FROM THE GALVESTON, IND., HIGH SCHOOL IN 1908. AFTER 3 TERMS OF SCHOOLING IN THE INDIANA STATE NORMAL SCHOOL, HE ENTERED PURDUE UNIVERSITY AND RECEIVED A B.S.C.E. DEGREE, IN 1914, AND LATER A C.E. DEGREE FROM THE SAME INSTI-TUTION. AFTER SOME PRELIMINARY ENGINEERING EXPERIENCE, HE ENTERED THE HEADQUARTERS OFFICE OF THE BUREAU ON APRIL 22, 1914, AS A CIVIL ENGINEER STUDENT. HE WAS ASSIGNED TO WORK IN THE WESTERN STATES AND HIS FIRST DUTY CONSISTED IN LOCATING ROADS IN THE SEQUOIA AND YOSEMITE NATIONAL PARKS IN CALIFORNIA. FROM JULY, 1915, TO MARCH, 1916, HE WAS LOANED BY THE BUREAU

• •

A de la capacita de la ca

. .

TO SKAMANIA COUNTY, WASH., TO SUPERVISE THE LOCATION AND DESIGN OF THE COUNTY HIGHWAYS TO BE CONSTRUCTED WITH A LOCAL BOND ISSUE OF \$210,000. FROM MARCH, 1916, TO MARCH, 1917, HE WAS IN CHARGE OF THE LOCATION AND DESIGN OF THE NATIONAL FOREST HIGHWAY, NEARLY 70 MILES IN LENGTH, BETWEEN MEDFORD AND CRATER LAKE, ORE. FROM NOVEMBER, 1917, TO FEBRUARY, 1918, HE DIRECTED THE PAVING OPERATIONS ON THE CANTONMENT STREETS AT CAMP LEWIS, AMERICAN LAKE, WASH. HE WAS IN CHARGE OF THE CONSTRUCTION OF THE COW CREEK SECTION OF THE CANYONVILLE-GALESVILLE NATIONAL FOREST ROAD PROJECT ON THE PACIFIC HIGHWAY IN OREGON, FROM OCTOBER, 1918, TO OCTOBER, 1919; AND FOLLOWING THIS WORK UNTIL APRIL, 1921, HE SUPER-VISED THE CONSTRUCTION OF THE CRESCENT LAKE NATIONAL FOREST ROAD, ON THE OLYMPIC PENINSULA IN THE STATE OF WASHINGTON.

IN APRIL, 1921, MR. BALL WAS TRANSFERRED TO THE REGIONAL OFFICE WHERE HE WAS ENGAGED, UNTIL THE TIME OF HIS DEATH, IN THE ADMINISTRATION OF NATIONAL FOREST ROAD WORK IN THE PUBLIC-LAND STATES, WORKING UNDER THE IMMEDIATE DIRECTION OF DR. HEWES. MR. BALL'S RECORD INDICATES CONSISTENT PROGRESS IN THE BUREAU AS A RESULT OF CONSCIENTIOUS AND FAITHFUL SER-VICE. FROM THE TIME OF HIS ENTRANCE AS A STUDENT IN 1914, HE ROSE REGULARLY THROUGH THE VARIOUS ENGINEERING GRADES, UNTIL HE REACHED THE HIGHEST PROFESSIONAL STATUS - SENIOR HIGHWAY ENGINEER.

MR. BALL WAS A PHI BETA KAPPA, A SIGMA XI, A MEMBER OF THE MYSTIC SHRINE, AND A THIRTY-SECOND DEGREE MASON, HIS ASSOCIATES IN THE BUREAU SYMPATHIZE WITH HIS FAMILY IN HIS UNTIMELY END.

