Transportation

Kentucky Transportation Center Research Report

University of Kentucky Year 1972

Subject Listing of Research Reports

Division of Research, Kentucky Department of Highways

This paper is posted at UKnowledge.
https://uknowledge.uky.edu/ktc_researchreports/941
SUBJECT LISTING
OF
RESEARCH REPORTS

issued by
Division of Research

DEPARTMENT OF HIGHWAYS
Commonwealth of Kentucky

January 1972
ACID WATER AND CULVERT DURABILITY


121. A Survey Inspection of Plain Corrugated Metal Pipe Arches and Multi-Plate Metal Pipe Arches in Kentucky, West, E. M.; March 1957.


ADMINISTRATION AND RESEARCH PROGRAM


207. *Kentucky Highway Research Program*, Havens, J. H. and Deen, R. C.; March 1964; also *Bulletin No. 73*, Engineering Experiment Station, University of Kentucky, September 1964.


AGGREGATE EVALUATIONS


44. An Examination of Equipment for Preventing Segregation in Storage of Coarse Aggregates, Collier, S. T.; February 1949.

56. Determination of Unit Weights of Aggregates in the Laboratory and at the Source, Collier, S. T.; February 1950.


224. Freeze-Thaw Characteristics of Aggregates, Laughlin, G. R.; Scott, J. W.; and Havens, J. H.; March 1965; also Bulletin No. 76, Engineering Experiment Station, University of Kentucky, September 1965.

BASE MATERIALS AND CONSTRUCTION PRACTICES


70. Memorandum Report on Vibratory Compaction of Base Courses, November 1951.

75. Report No. 1 on a Bank Gravel Base Containing Calcium Chloride, Drake, W. B.; February 1952.

82. Report No. 1 on a Limestone-Calcium Chloride Stabilized Base, Drake, W. B.; August 1952.

88. Report No. 2 on a Bank Gravel Base Containing Calcium Chloride, Drake, W. B.; December 1952.

89. Report No. 2 on an Investigation of Lean Concrete Mixes as Base Courses for Bituminous Surfaces, Sawyer, D. H.; December 1952.

92. Report No. 1 on Vibratory Compaction of a Macadam Base, Williams, E. G.; December 1953.


109. Observations of Stabilized Turf Shoulders, Warren County Project No. 1 16(2) and 1 113(5) U. S. 31W and U. S. 68 Bowling Green-Cave City Road, Williams, E. G.; November 1955.


137. Dense Graded Aggregate Base Development, Drake, W. B.; April 1959; prepared for presentation at the 16th Annual Meeting of Kentucky Crushed Stone Association.


<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Stability Investigation of Bituminous Pavements, Preliminary Reports,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>March 1946.</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Report I on Research Project B-9, Bituminous Construction with</td>
<td>Johnson County, Project S. P. 58-37-1,</td>
</tr>
<tr>
<td></td>
<td>Sandstone Aggregate,</td>
<td>January 1946.</td>
</tr>
<tr>
<td></td>
<td>Bituminous Concrete, June 1947.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Construction in 1950,</td>
<td></td>
</tr>
<tr>
<td>68</td>
<td>Final Report on Evaluation of Plant Mix Surface Treatments by Road</td>
<td>Drake, W. B.; July 1951.</td>
</tr>
<tr>
<td></td>
<td>Test Sections,</td>
<td></td>
</tr>
<tr>
<td>71</td>
<td>Observation on Seal Coats, Tack Coats, Penetration Macadam, and Blade Spread Hot Mix in 1951,</td>
<td>Drake, W. B. and Field, H. J., Jr.; December 1951.</td>
</tr>
<tr>
<td>90</td>
<td>Report No. 2 on a Test Road for the Evaluation of Sandstone as an Aggregate in Plant-Mix Bituminous Pavements, Williams, E. G.; April 1953.</td>
<td></td>
</tr>
<tr>
<td>96</td>
<td>Pavement Investigation, Middletown-Eastwood Portion of U. S. 60</td>
<td>Drake, W. B.; June 1954.</td>
</tr>
<tr>
<td></td>
<td>Louisville-Shelbyville Road,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Action,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Concrete Mixes,</td>
<td></td>
</tr>
</tbody>
</table>
BRIDGE DESIGN; CONSTRUCTION AND MAINTENANCE


143. The Use of Epoxy Resin for Sealing Cracks in a Reinforced Concrete Bridge, Evans, Milton, Jr.; July 1959.


301. Evaluation of Cored Specimens from Timber Culson beneath Pier No. 2 of the US 25 Bridge over the Ohio River between Covington and Cincinnati; F141 (1), Havens, J. H. and Rahal, R. A.; December 1970.


CHARACTERIZATION OF BITUMINOUS MATERIALS AND MIXTURES


CLASS I MIXTURES

67. Memorandum Report on Proposed Specification Class I, Type C and Blade Spreading Hot Mixes, Gregg, L. E.; 1951

85. A Compendium on Class I, Type C Mixes, Williams, E. G.; December 1952.


217. Memorandum Report on Construction of a Class I, Type A Surface Containing Paradise Slag Aggregate (Experimental), Drakesboro-Paradise Road (KY 176); SP 89-43-68, Florence, R. L.; October 1964.

COAL - TAR MIXTURES


159. *Experimental Paving Project Using Curtiss-Wright's Coal-Modified, Coal-Tar Binder (First Year Performance)*, Hardymon, J. F.; March 1961; also *Bulletin No. 60*, Engineering Experiment Station, University of Kentucky, June 1961.


CONCRETE MIXTURES


5. Summary Report of Concrete Investigations in Research Projects C-1, C-2, C-3, and C-17, Collier, S. T.; December 1945.


15. Outline of Proposed Study of Sand Used as Concrete Fine Aggregates, March 1946.


19. A Summary of Experiments with Air Entrainment in Cement Concrete, September 1946.


27. Bond Characteristics of Commercial and Prepared Reinforcing Bars, Collier, S. T.; March 1947; also Journal of the American Concrete Institute, Vol 18, No 10, June.


35. Supplementary Report No. 1 on Experiments with Air Entrainment in Cement Concrete, October 1947; also Experiments with Air Entrainment in Cement Concrete, Gregg, L. E.; Bulletin No. 5, Engineering Experiment Station, University of Kentucky, September.


53. A Summary of Experiments with Air Entrainment in Cement Concrete, September 1946.


63. Outline of Proposed Study of Sand Used as Concrete Fine Aggregates, March 1946.


68. A Summary of Experiments with Air Entrainment in Cement Concrete, September 1946.


CONCRETE PAVEMENT


91. Applications of Geology to Highway Engineering in Kentucky, Gregg, L. E. and Havens, J. H.; February 1953.

115. Kentucky Soils: Their Origin, Distribution and Engineering Properties, Deen, R. C.; March 1956; also Bulletin No. 40, Engineering Experiment Station, University of Kentucky, June.


HYDRAULICS AND HYDROLOGY


103. Roughness as a Factor in Culvert Hydraulics, West, E. M.; December 1954.


114. Model Study of Flow through Culverts, West, E. M.; March 1956; also Bulletin No. 40, Engineering Experiment Station, University of Kentucky, June.


<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Authors</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>196</td>
<td>Status Report on Landslide Area on I-75, Covington, Kentucky, Deen, R. C.; August 1963.</td>
<td>Deen, R. C.</td>
<td>August 1963</td>
</tr>
<tr>
<td>254</td>
<td>The Crab Orchard and Osgood Formations, the Case for Slope Instability, Deen, R. C.; April 1968.</td>
<td>Deen, R. C.</td>
<td>April 1968</td>
</tr>
<tr>
<td>268</td>
<td>Proposed Experimental Design and Construction Features, Boyd County, F(10), SP 10-165-23L, Cannonsburg -- Ashland Road (US 60), October 1968.</td>
<td>Boyd County, F(10), SP 10-165-23L, Cannonsburg -- Ashland Road (US 60)</td>
<td>October 1968</td>
</tr>
</tbody>
</table>
244. *Impact of I-75 on the Local Economy between Walton and Georgetown*, Deen, R. C.; February 1966.


PAINT


PAVEMENT DEMARCATION


116. The Application of Kentucky Flexible Pavement Design Method to WASHO Test Road Conditions, Drake, W. B.; March 1956; also Bulletin No. 40, Engineering Experiment Station, University of Kentucky, June.


268. Proposed Experimental Design and Construction Features, Boyd County, F(10), SP 10-165-23L, Cannonsburg – Ashland Road (US 60), October 1968.


PAVEMENT DESIGN (CONTINUED)

305. Structural Analysis of Bituminous Concrete Pavements, Deen, R. C.; Southgate, H. F.; and Havens, J. H.; February 1971; also Supplement, October; also Record 399, Highway Research Board, 1972.

| 2. | Cooperative Investigation of Joint Spacing in Concrete Pavements, Campbell, Louis, 1940. |
| 52. | Report No. 2 on a Concrete Pavement without Transverse Joints, Drake, W. B.; December 1949. |
| 64. | Report No. 3 on a Concrete Pavement without Transverse Joints, Drake, W. B.; February 1951. |
| 87. | Report No. 4 on a Concrete Pavement without Transverse Joints, Drake, W. B.; December 1952. |
PAVEMENT ROUGHNESS


PAVEMENT SLIPPERINESS


REFLECTION CRACKING


100. Application of Wire Mesh Reinforcement to Asphaltic Concrete Pavement Overlays, Franklin-Shelby County Project FI 172(12), Williams, E. G.; December 1954.


REINFORCED CULVERT PIPE AND CULVERTS


304. Establishment of Wood Plants on Roadsides (Southeastern Kentucky), Whitaker, S. E.; January 1971.

ROCK ASPHALT


<table>
<thead>
<tr>
<th>Page</th>
<th>Reference</th>
</tr>
</thead>
</table>
SAND ASPHALT


SETTLEMENT


SIGN MATERIALS


SLURRY SEALS


SOIL PROPERTIES AND CHARACTERISTICS


TRAFFIC AND OPERATIONS

212. Weighing Vehicles in Motion, April 1964.

227. Weighing Vehicles in Motion, September 1965.

276. Lateral Distribution of Traffic on a Four-Lane and Six-Lane Section of I 75 South of Covington, Lynch, R. L. and Hamby, G. N.; June 1969.

284. Weighing Vehicles in Motion, University of Kentucky Research Foundation; November 1969.


