

Board of Water and Sewer Commissioners
of the
City of Mobile, Alabama

Update of Standard Specifications
Section 14

Removing and Replacing Pavement

Updated June 2019

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PART 1 GENERAL

14.1.01 SCOPE

- A. These specifications form a part of the Contract Documents and shall govern for removing and replacing pavement for sanitary sewers, water mains and sewage pumping stations. All Work shall be in accordance with the State of Alabama Highway Department (SAHD) Standard Specifications for Highway Construction, latest edition. Centerline stripes or other pavement markings which existed prior to start of construction shall be replaced. No separate payment will be made for striping or marking.
- B. The term “pavement” shall be construed to mean either concrete, bituminous, cobblestones, or brick placed as a wearing surface in streets, driveways, or sidewalks; or placed as slope protection for ditches or drains. Shell surfacing, sand-clay surfacing, gravel surfacing and other such types of surfacing will not be considered paving and will not be paid for as such.
- C. The various types of pavement replacement and method of payment shall be as hereinafter specified. The specific type or types of pavement replacement for each project will be as indicated on the Drawings or as noted in the Proposal.

14.1.02 REVISIONS

- A. These specifications will be modified and updated as required to keep abreast of current technologies, industry standards, regulatory agency requirements, and best management practices. It shall be the responsibility of the end user of these Guide Specifications to insure the latest and most current revision is applied to the project.

14.1.03 REFERENCED SECTIONS

- A. Section 15 - Backfilling

14.1.04 REFERENCED CODES AND STANDARDS

- A. State of Alabama Highway Department Standard Specifications
 1. Plant Mix Bituminous Base
 2. Bituminous Concrete Wearing Surface
 3. Bituminous Concrete Plant Mix, Patching
 4. Portland Cement Concrete Pavement

14.1.05 MATERIALS

- A. Materials of this Section shall be as specified herein.

14.1.06 REMOVING AND REPLACING PAVEMENT:

- A. Base Course for Flexible Pavement: Base course shall conform to Section 15 entitled “Backfilling”.
- B. Replacement of Flexible Pavement: As soon as possible, and no later than 30 days, after the trench has been backfilled in accordance with Section 15 entitled “Backfilling”, the following procedures shall be followed:
 - 1. Preparation – Jagged edges of the pavement shall be squared and cut to a neat line with an appropriate saw. The edges of the pavement shall be cut along straight lines parallel to the center of the pavement cut. The trench shall be shaped to receive the permanent base and bituminous wearing surface. As specified herein.
 - 2. Base – After the pipe trench has been backfilled and compacted in accordance with Section 15 entitled “Backfilling”, bituminous base, 5 inches compacted thickness (8 inch compacted thickness at 2 to 4 inch lifts shall be required in Mobile County right-of-way), complying with “Plant Mix Bituminous Base, of the SAHD Specifications, latest edition, shall then be installed. Bituminous base shall be installed the width of trench plus paving cutback of 9 inches on each side of the trench, (within State right-of-way the bituminous base shall extend 12 inches beyond the sides of the trench), and shall be compacted to 100 percent maximum density. Bituminous base for patch surfacing shall be finished off 1-1/4 inches (or 1-1/2 inches in State and Mobile County right-of-way) below the surface of the existing pavement and to the shape of the original pavement. Bituminous base for full width street surfacing shall be installed flush with the existing bituminous surface treatment. Care shall be taken to seal the edges of the trench. In State and Mobile County right-of-way, the trench shall then immediately be prepared for bituminous wearing surface, and the bituminous base shall be maintained until surfacing is applied. In other than State and Mobile County right-of-way, the patched area shall then be maintained for a period of one to six months. If after a one month period no settlement problems occur, the Contractor may upon approval of the appropriate agency install the bituminous wearing surface. Note: Where the Bituminous base for patch surfacing is finished off 1-1/4 inches below the surface of the existing pavement, the top 1-1/4 inches, to existing surface, shall be filled with processed reef shell base in accordance with SAHD Specifications, latest edition, and maintained during the weathering period.
 - 3. Bituminous Wearing Surface for Patch Surfacing – If required, the trench shall be leveled and prepared for resurfacing. In the State right-of-way, the width of the surface course shall extend 6 inches beyond the bituminous base on each side. A tack coat using SS1 or SS1h emulsified asphalt shall be applied to the full trench width. After proper curing, the trench shall be surfaced full width using 1-1/4 inches (or 1-1/2 inches in State and Mobile County right-of-way) of “Bituminous Concrete

Wearing Surface”, in accordance with SAHD Specifications, latest edition.

4. Bituminous Wearing Surface for Full Width Street Surfacing – If required, the roadway surface shall be leveled and prepared for surfacing. A tack coat using SS1 or SS1h emulsified asphalt shall be applied to the full roadway width. After proper curing, the entire roadway within the Project limits shall be resurfaced with 1-1/4 inches of “Bituminous Concrete Wearing Surface”, in accordance with SAHD Specifications, latest edition.
 5. Certification – Any pavement failure that occurs during the warranty period shall be replaced at the Contractor’s expense, including removing and replacing subgrade material if necessary. A letter of certification shall be required from the testing lab, verifying that the materials used meet the above Specifications.
 6. Testing - Testing laboratory services shall be paid for by the Owner.
 7. Time Charges – Upon completion of the bituminous base course, where applicable, time charges will be stopped on pavement work only and will not resume until the placement of the wearing surface is resumed or at the end of six months, whichever occurs first.
- C. Replacement of Concrete Pavement: As soon as possible, and no later than 30 days, after the trench has been compacted in accordance with Section 15 entitled “Backfilling”, the following procedures shall be followed:
1. Preparation – Existing pavement shall be cut back a minimum of 9 inches from the edge of the trench with an appropriate saw. The edges of the pavement shall be sawed along straight lines parallel to the center of the pavement cut. In the event that a crack exists in the pavement within 2 feet of the saw cut, the width of pavement to be removed shall be widened to include the crack in the removal and replacement, and the saw cut shall be made parallel to the centerline of the street behind the crack between existing transverse pavement joints.
 2. Temporary Asphalt Patch – The top 2 inches of backfill material shall then be removed and a temporary asphalt patch, (complying with “Bituminous Concrete Wearing Surface” or “Bituminous Concrete Plant Mix, Patching” of the SAHD Specifications, latest edition), shall be installed and maintained for a period of one to six months. If after one month period no settlement problems occur, the Contractor may upon arrival of the appropriate agency, install the final concrete patch.
 3. Concrete Patch – If required the trench shall be leveled and prepared for resurfacing. The top 6 inches of material shall be removed from the trench, the subgrade material prepared, and the final concrete patch installed. Concrete used in the patch shall comply with “Portland Cement Concrete Pavement” of the SAHD Specifications, latest edition. All steel reinforcement shall be spliced according to acceptable

standards. Concrete finish shall match the finish of the existing concrete pavement. Note: Concrete patch work within Mobile County right-of-way, subject to vehicular traffic, shall have an 8 inch compacted thickness, at 2 to 4 inch lifts, sand-clay base. Cost for this base course shall be included in the cost for the concrete patch.

4. Certification – Any pavement failure that occurs during the warranty period will be replaced by the Contractor at his expense, including removing and replacing subgrade material if necessary. A letter of certification shall be required from the testing lab (if located within the City of Mobile right-of-way, a copy shall be submitted to the City Engineer), verifying that the installation and materials used in the patch meet the above Specifications.
5. Testing – Testing laboratory services shall be paid for by the Owner.
6. Time Charges – Upon completion of all of the temporary asphalt patching, time charges under this Contract shall be stopped and will not resume until the Work resumes for placing of the final concrete pavement, or after the six months waiting period, whichever occurs first.

D. Replacing Concrete Sidewalk or Ditch Paving:

1. Replacement of Concrete Sidewalks or Ditch Paving – After the trench has been compacted in accordance with the Section 15 entitled “Backfilling” the following procedure shall be followed:
 - a. Replacing Concrete Sidewalk or Ditch Paving: Where concrete sidewalks or paved ditches are removed, they shall be replaced with the same type and thickness as that removed including finish. Sidewalks shall be provided with expansion joints, and shall be constructed of 3,000 psi, minimum, concrete.

END OF SECTION