



Florida Department of Transportation

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STEPHANIE KOPELOUSOS
SECRETARY

January 27, 2010

Monica Gourdine
Program Operations Engineer
Federal Highway Administration
545 John Knox Road, Suite 200
Tallahassee, Florida 32303

Re: Office of Design, Specifications
Section 355
Proposed Specification: 3550100 Value Added Portland Cement Concrete Pavement

Dear Ms. Gourdine:

We are submitting, for your approval, two copies of the above referenced Supplemental Specification.

This change was proposed by the State Construction Office to state that the Department will perform the final survey before the end of the warranty period and the Department will notify the Contractor within 60 days after the end of the warranty period. Other changes are clarification and to make the wording in Sections 338 and 355 consistent.

Please review and transmit your comments, if any, within two weeks. Comments should be sent via Email to ST986RP or rudy.powell@dot.state.fl.us.

If you have any questions relating to this specification change, please call Rudy Powell, State Specifications Engineer at 414-4280.

Sincerely,

Signature on File

Rudy Powell, Jr., P.E.
State Specifications Engineer

RP/ft

Attachment

cc: Gregory Jones, Chief Civil Litigation
Florida Transportation Builders' Assoc.
State Construction Engineer

VALUE ADDED PORTLAND CEMENT CONCRETE PAVEMENT.**REV (9-26-0910-1427-0910)**

SECTION 355-1 (Page 368) is deleted and the following substituted:

355-1 Description.

Construct Value Added Portland Cement Concrete Pavement (Concrete Pavement), subject to a five year warranty period *after final acceptance of the Contract in accordance with 5-11*. This Section applies *only* to ~~only~~-new pavements, including added lanes.

~~Assume responsibility for the quality control, production, placement, consolidation, testing and inspection of all concrete mixtures. Assume responsibility for all mix designs and f~~**F**urnish a copy of each mix design to the Engineer at least 14 days prior to any paving work.

~~Perform all the associated work specified in this Section for a period of five years after final acceptance of the Contract in accordance with 5-11~~ *including continued responsibility for performing all remedial work associated with pavement distresses exceeding threshold values determined in accordance with this Section and as to which notice was provided to the Responsible Party Contractor. within the five year warranty period.*, including continued responsibility as to any deficiencies discovered by the Department and as to which notice was provided within such maintenance warranty period until all such pre-existing deficiencies are resolved.

The work specified in this Section will not be paid for directly, but will be considered as incidental to other ~~concrete pay~~**Contract** items.

SECTION 355-4 (Pages 368 - 370) is deleted and the following substituted:

355-4 Pavement Evaluation and Remedial Action Work.

355-4.1 General: The Department's Pavement Condition Survey Program ~~and observation~~*along with observations* by the Engineer will be used as the basis for determining the extent and the magnitude of the pavement distresses occurring on the project. *In the event the level of distress exceeds any of the threshold values defined below, remedial action by the Contractor will be required.*

The Department will continuously monitor the pavement and may require remedial action at any time. The Department will be responsible for all costs associated with the surveys. ~~For evaluation purposes, the project will be subdivided into sections LOTs of 0.1 mile per lane. When the segment is less than 0.1 mile, the segment will be called a partial LOT.~~ The Department may conduct *a Pavement Condition Survey of the value added pavement following the final acceptance of the project, and at intermediate times throughout the warranty period.* ~~a section-by-section Pavement Condition Survey of the value added pavement at intermediate times throughout the warranty period.~~

The final survey, if determined by the Engineer to be necessary, will be conducted ~~no later than 45 calendar days before the end of the warranty period.~~ *The Department will advise the Contractor within 60 calendar days after the end of the warranty period of any remedial action the Department believes is required. The All*

surveys conducted by the Department will be at no cost to the Contractor *responsible for all costs associated with the surveys.*

The results of the survey, intermediate or final, will be made available to the Contractor within 15 calendar days after completion of the survey.

If the survey findings, intermediate or final, are to be disputed by the Contractor, written notification must be provided to the Engineer within 30 calendar days of the date of receipt of the survey.

The Contractor will be advised if/when the Department believes remedial action is required. If the survey findings, intermediate or final, are to be disputed by the Contractor, written notification must be provided to the Engineer within 30 calendar days of the date of receipt of the information from the Department.

During the warranty period, the Contractor may monitor the pavement using nondestructive methods. Do not conduct any coring, milling or other destructive methods without prior approval by the Engineer.

355-4.2 Distress Indicators: The Department will use Rideability, Spalling and Cracking, as distress indicators in accordance with the Rigid Pavement Condition Survey Handbook to evaluate the Concrete Pavement. *Ride Number (RN) ~~to~~ will be established by Laser Profiler in accordance with FM 5-549. For ride evaluation purposes, the project will be subdivided into lots of 0.1 mile per lane and partial ~~lots~~ lots which are segments that are less than 0.1 mile. For the purposes of threshold values and remedial work, partial lots and lots will be treated as lots.*

355-4.3 Threshold Values and Remedial Work: Threshold values and associated remedial work for the Concrete Pavement are specified in Table 355-1.

<i>Type of</i> <i>Distress</i> DEFICIENCY TYPE	<i>Threshold</i> <i>Values</i> THRESHOLD LEVEL	<i>Remedial</i> <i>Work</i> REMEDIAL ACTION
Rideability	Ride Number < 3.7050	Grind all deficient sections <i>LOT</i> lots and partial <i>LOT</i> lots in accordance with Section 352.
Spalling in the wheel path	Four areas in any Lane Mile exceeding 1 inch in width and exceeding 6 inches in length OR any single area exceeding 3 inches in width.	Full depth slab replacement for a minimum of 6 feet in length and the full width of the slab in accordance with Section 353.
Spalling outside the wheel path	Four areas in any Lane Mile exceeding 1 1/2 inches in width and 12 inches in length OR any single area exceeding 3 inches in width and 12 inches in length.	Full depth slab replacement for a minimum of 6 feet in length and the full width of the slab in accordance with Section 353.

<i>Type of Distress</i> DEFICIENCY TYPE	<i>Threshold Values</i> THRESHOLD LEVEL	<i>Remedial Work</i> REMEDIAL ACTION
Cracking	Four Cracks in any Lane Mile with width exceeding 1/8 inch OR any Crack exceeding 3/16 inch.	Full depth slab replacement for a minimum of 6 feet in length and the full width of the slab in accordance with Section 353.
Shattered Slab	Cracking patterns that divide the slab into three or more segments	Full slab replacement in accordance with Section 353.

————— If a measured distress value indicates remedial action is required per Table 355-1, begin remedial work within 45 calendar days of notification by the Department or a ruling of the Statewide Disputes Review Board. The Statewide Disputes Review Board will determine the allowable duration for the completion of the remedial work, but not to exceed 6 months. However, after each survey, if the Department determines the extent and magnitude of pavement distresses in any areas will not affect the traffic safety, strength of pavement structure or highway esthetics, the Engineer, at his sole option, may defer the remedial work associated with the pavement distresses.

————— If remedial action is necessary and forensic information is required, it is the responsibility of the Contractor to determine the source of the distress. The Contractor will not be responsible for damages to the pavement as a result of any forensic activities conducted at the discretion of the Engineer.

————— The Contractor has the first option to perform all remedial work, as determined by the Department. If, in the opinion of the Engineer, the problem poses an immediate danger to the traveling public and the Contractor cannot begin remedial work within 72 hours of written notification, the Engineer has the authority to have the remedial work performed by other forces. The Contractor is responsible for all incurred costs of such work performed by other forces. Remedial work performed by other forces does not alter any of the requirements, responsibilities or obligations of the Contractor.

————— Complete all remedial work to the satisfaction of the Engineer. Any disputes regarding the adequacy of the remedial work will be resolved by the Statewide Disputes Review Board. Approval of remedial work does not relieve the Contractor from continuing responsibility under the provisions of this Specification.

————— Notify the Engineer in writing prior to beginning any remedial work. Meet the requirements of the Department's Standard Specifications for Road and Bridge Construction when performing any remedial work. Perform all signing and traffic control in accordance with the current edition of the Department's Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System. Provide Maintenance of Traffic during remedial work at no additional cost to the Department. Lane closure restrictions listed in the original contract will apply to remedial work. Written request(s) to obtain permission for lane closure(s) for either forensic investigation or remedial work must be made to the Engineer 48 hours in advance of any

lane closures. Do not perform any lane closures until written permission is given by the Engineer.

~~_____ Perform all remedial work at no cost to the Department. If remedial work necessitates a corrective action to the pavement markings, adjacent lane(s), or roadway shoulders, perform these corrective actions using similar products at no additional cost to the Department.~~

SECTION 355-5 (Pages 370 and 371) is deleted and the following substituted:

355-5 Remedial Work.

~~During the warranty period,~~ **Perform all necessary remedial work described in 355-4** *this Section* at no cost to the Department. Should an impasse develop in *any* regard *as* to the ~~required~~ *need for* remedial work *or the extent required*, the Statewide Disputes Review Board will render a final decision by a majority vote.

Remedial work will not be required if any one of the following conditions is found to apply: The warranty will not apply to deficiencies caused by any one of the following factors, or any other factor found to be beyond the control of the Contractor:

a. Determination that the pavement thickness design is deficient. The Department will make available a copy of the original pavement thickness design package and design traffic report to the Responsible Party upon request. Determination that the pavement thickness design as provided by the Department is deficient. The Department will make available a copy of the original pavement thickness design package and design traffic report to the Responsible Party Contractor upon request. The Responsible Party Contractor will be responsible for performing all remedial work associated with the pavement distress if the pavement design is provided by the Design/Build Contractor.

b. Determination that the Accumulated ESALs (Number of 18 Kip Equivalent Single Axle Loads in the design lane) have ~~has~~ increased by 25% or more over than the Accumulated ESALs used by the Department for design purposes for the warranty period for the pavement design life. In calculating ESALs, the Average Annual Daily Traffic (AADT) will be obtained from the Department's traffic count data and the T24 (Percent Heavy Trucks during a 24 hour period) will be obtained from the Department's traffic classification survey data.

c. Determination that the deficiency was due to the failure of the existing underlying layers that were not part of the Contract work.

d. Determination that the deficiency was the responsibility of a third party or its actions, unless the third party was performing work included in the Contract.

~~a. Determination that the accumulated ESALs (Number of 18 Kip Equivalent Single Axle Loads in the design lane) have increased by 25% or more over the Accumulated ESALs used by the Department for the design purposes for the warranty period, as determined in accordance with Chapter 8 of the FDOT Project Traffic Forecasting Handbook. In calculating the ESALs, the Average Annual Daily Traffic will be obtained from the Department's traffic classification survey data.~~

~~_____ b. Determination that the deficiency was due to failure of the existing underlying layers, for which the Contractor was not responsible.~~

_____ c. Determination that the deficiency was the responsibility of a third party or its actions, unless the third party was performing work included in the Contract.

~~_____ As applicable to distress criteria for ride, when two LOTS requiring remedial action or a partial LOT and a LOT are not separated by three or more LOTS not requiring remedial action, the remedial work shall be required for the total length of all such continuous LOTS and partial LOTS, including the intermediate LOTS not requiring remedial action.~~

If a measured distress value indicates remedial action is required per Table 355-1, begin remedial work within 45 calendar days of notification by the Department or a ruling of the Statewide Disputes Review Board. The Statewide Disputes Review Board will determine the allowable duration for the completion of the remedial work, but not to exceed 6 months.

If remedial action is necessary and forensic information is required, it is the responsibility of the Contractor to determine the source of the distress. The Contractor will not be responsible for damages to the pavement as a result of any forensic activities conducted at the discretion of the Engineer.

As applicable to distress criteria for ride, when two lots requiring remedial action or a partial lot and a lot are not separated by three or more lots not requiring remedial action, the remedial work shall be required for the total length of all such contiguous lots and partial lots, including the intermediate lots not requiring remedial action.

The Contractor has the first option to perform all remedial work, as determined by the Department. If, in the opinion of the Engineer, the problem poses an immediate danger to the traveling public and the Contractor cannot provide temporary mitigation for the defect within 4 hours of written notification and restore the pavement to its original design condition within 72 hours of written notification, the Engineer has the authority to have the remedial work performed by other forces. Temporary mitigation includes the use of traffic control systems such as barricades, drums, or other approved devices to secure the area including lane closures if necessary, and constructing temporary repairs making it safe for the roadway user until the defect can be restored to its original design condition. The Contractor is responsible for all incurred costs of the work performed by other forces should the problem (remedial work) be determined to be the responsibility of the Contractor. Remedial work performed by other forces does not alter any of the requirements, responsibilities or obligations of the Contractor.

~~*If, in the opinion of the Engineer, the problem poses an immediate danger to the traveling public and the Contractor cannot begin remedial work within 4 hours of written notification, the Engineer has the authority to have the remedial work performed by other forces. The Contractor is responsible for all incurred costs of such work performed by other forces. Remedial work performed by other forces does not alter any of the requirements, responsibilities or obligations of the Contractor.*~~

Complete all remedial work to the satisfaction of the Engineer. Any disputes regarding the adequacy of the remedial work will be resolved by the Statewide Disputes Review Board. Approval of remedial work does not relieve the Contractor from continuing responsibility under the provisions of this Specification.

Notify the Engineer in writing prior to beginning any remedial work. Meet the requirements of the Department's Standard Specifications for Road and Bridge Construction and implemented modifications hereto when performing any remedial work.

Perform all signing and traffic control in accordance with the Department's Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System. Provide Maintenance of Traffic during remedial work at no additional cost to the Department. Lane closure restrictions listed in the original Contract will apply to remedial work. Written request(s) to obtain permission for lane closure(s) for either forensic investigation or remedial work must be made to the Engineer 48 hours in advance of any lane closures. Do not perform any lane closures until written permission is given by the Engineer.

~~Perform all remedial work at no cost to the Department.~~ If remedial work necessitates a corrective action to the pavement markings, adjacent lane(s), or roadway shoulders, perform these corrective actions using similar products at no cost to the Department.

VALUE ADDED PORTLAND CEMENT CONCRETE PAVEMENT.**REV (1-27-10)**

SECTION 355-1 (Page 368) is deleted and the following substituted:

355-1 Description.

Construct Value Added Portland Cement Concrete Pavement (Concrete Pavement), subject to a five year warranty period after final acceptance of the Contract in accordance with 5-11. This Section applies only to new pavements, including added lanes.

Furnish a copy of each mix design to the Engineer at least 14 days prior to any paving work.

Perform all the associated work specified in this Section including continued responsibility for performing all remedial work associated with pavement distresses exceeding threshold values determined in accordance with this Section and as to which notice was provided to the Contractor.

The work specified in this Section will not be paid for directly, but will be considered as incidental to other Contract items.

SECTION 355-4 (Pages 368 - 370) is deleted and the following substituted:

355-4 Pavement Evaluation and Remedial Work.

355-4.1 General: The Department's Pavement Condition Survey Program along with observations by the Engineer will be used as the basis for determining the extent and the magnitude of the pavement distresses occurring on the project. In the event the level of distress exceeds any of the threshold values defined below, remedial action by the Contractor will be required.

The Department will monitor the pavement and may require remedial action at any time. The Department will be responsible for all costs associated with the surveys.. The Department may conduct a Pavement Condition Survey of the value added pavement following the final acceptance of the project, and at intermediate times throughout the warranty period.

The final survey, if determined by the Engineer to be necessary, will be conducted before the end of the warranty period. The Department will advise the Contractor within 60 calendar days after the end of the warranty period of any remedial action the Department believes is required. The Department will be responsible for all costs associated with the surveys.

The Contractor will be advised if/when the Department believes remedial action is required. If the survey findings, intermediate or final, are to be disputed by the Contractor, written notification must be provided to the Engineer within 30 calendar days of the date of receipt of the information from the Department.

During the warranty period, the Contractor may monitor the pavement using nondestructive methods. Do not conduct any coring, milling or other destructive methods without prior approval by the Engineer.

355-4.2 Distress Indicators: The Department will use Ride, Spalling and Cracking, as distress indicators in accordance with the Rigid Pavement Condition Survey Handbook to evaluate the Concrete Pavement. Ride Number (RN) will be established by Laser Profiler in accordance with FM 5-549. For ride evaluation purposes, the project will be subdivided into lots of 0.1 mile per lane and partial lots which are segments that are less than 0.1 mile. For the purposes of threshold values and remedial work, partial lots and lots will be treated as lots.

355-4.3 Threshold Values and Remedial Work: Threshold values and associated remedial work for the Concrete Pavement are specified in Table 355-1.

TABLE 355-1 Concrete Pavement Threshold Values and Remedial Work		
Type of Distress	Threshold Values	Remedial Work
Ride	Ride Number < 3.50	Grind all deficient lots and partial lots in accordance with Section 352.
Spalling in the wheel path	Four areas in any Lane Mile exceeding 1 inch in width and exceeding 6 inches in length OR any single area exceeding 3 inches in width.	Full depth slab replacement for a minimum of 6 feet in length and the full width of the slab in accordance with Section 353.
Spalling outside the wheel path	Four areas in any Lane Mile exceeding 1 1/2 inches in width and 12 inches in length OR any single area exceeding 3 inches in width and 12 inches in length.	Full depth slab replacement for a minimum of 6 feet in length and the full width of the slab in accordance with Section 353.
Cracking	Four Cracks in any Lane Mile with width exceeding 1/8 inch OR any Crack exceeding 3/16 inch.	Full depth slab replacement for a minimum of 6 feet in length and the full width of the slab in accordance with Section 353.
Shattered Slab	Cracking patterns that divide the slab into three or more segments	Full slab replacement in accordance with Section 353.

SECTION 355-5 (Pages 370 and 371) is deleted and the following substituted:

355-5 Remedial Work.

Perform all necessary remedial work described in this Section at no cost to the Department. Should an impasse develop in any regard as to the need for remedial work or the extent required, the Statewide Disputes Review Board will render a final decision by majority vote.

Remedial work will not be required if any one of the following conditions is found to apply:

a. Determination that the pavement thickness design as provided by the Department is deficient. The Department will make available a copy of the original pavement thickness design package and design traffic report to the Contractor upon request. The Contractor will be responsible for performing all remedial work associated with the pavement distress if the pavement design is provided by the Contractor.

b. Determination that the Accumulated ESALs (Number of 18 Kip Equivalent Single Axle Loads in the design lane) have increased by 25% or more than the Accumulated ESALs used by the Department for design purposes for the warranty period for the pavement design life. In calculating ESALs, the Average Annual Daily Traffic (AADT) will be obtained from the Department's traffic count data and the T24 (Percent Heavy Trucks during a 24 hour period) will be obtained from the Department's traffic classification survey data.

c. Determination that the deficiency was due to the failure of the existing underlying layers that were not part of the Contract work.

d. Determination that the deficiency was the responsibility of a third party or its actions, unless the third party was performing work included in the Contract.

If a measured distress value indicates remedial action is required per Table 355-1, begin remedial work within 45 calendar days of notification by the Department or a ruling of the Statewide Disputes Review Board. The Statewide Disputes Review Board will determine the allowable duration for the completion of the remedial work, but not to exceed 6 months.

If remedial action is necessary and forensic information is required, it is the responsibility of the Contractor to determine the source of the distress. The Contractor will not be responsible for damages to the pavement as a result of any forensic activities conducted at the discretion of the Engineer.

As applicable to distress criteria for ride, when two lots requiring remedial action or a partial lot and a lot are not separated by three or more lots not requiring remedial action, the remedial work shall be required for the total length of all such contiguous lots and partial lots, including the intermediate lots not requiring remedial action.

The Contractor has the first option to perform all remedial work, as determined by the Department. If, in the opinion of the Engineer, the problem poses an immediate danger to the traveling public and the Contractor cannot provide temporary mitigation for the defect within 4 hours of written notification and restore the pavement to its original design condition within 72 hours of written notification, the Engineer has the authority to have the remedial work performed by other forces. Temporary mitigation includes the use of traffic control systems such as barricades, drums, or other approved devices to secure the area including lane closures if necessary, and constructing temporary repairs making it safe for the roadway user until the defect can be restored to its original design condition. The Contractor is responsible for all incurred costs of the work performed by other forces should the problem (remedial work) be determined to be the responsibility of the Contractor. Remedial work performed by other forces does not alter any of the requirements, responsibilities or obligations of the Contractor.

Complete all remedial work to the satisfaction of the Engineer. Any disputes regarding the adequacy of the remedial work will be resolved by the Statewide Disputes

Review Board. Approval of remedial work does not relieve the Contractor from continuing responsibility under the provisions of this Specification.

Notify the Engineer in writing prior to beginning any remedial work. Meet the requirements of the Department's Standard Specifications for Road and Bridge Construction and implemented modifications hereto when performing any remedial work. Perform all signing and traffic control in accordance with the Department's Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System. Provide Maintenance of Traffic during remedial work at no additional cost to the Department. Lane closure restrictions listed in the original Contract will apply to remedial work. Written request(s) to obtain permission for lane closure(s) for either forensic investigation or remedial work must be made to the Engineer 48 hours in advance of any lane closures. Do not perform any lane closures until written permission is given by the Engineer.

If remedial work necessitates a corrective action to the pavement markings, adjacent lane(s), or roadway shoulders, perform these corrective actions using similar products at no cost to the Department.