

JBM & R
ENGINEERING, INC.

Sheriff's Office Training Facility

Skid Pad Milling and Resurfacing

Specifications and Drawings

JBM&R Engineering, Inc. - C.A.N. 7457
11001 Fern Hill Drive, Riverview, Florida 33569
P.O. Box 1566 - Valrico, FL 33595-1566
(813) 741-2109 (office)
(813) 598-4643 (mobile)
(813)655-0061 (fax)

Ralph E. Remmert, P.E. #39610

Date: May 11, 2015

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
I.	GENERAL SPECIFICATIONS	1
	A. Hillsborough County Contact	
	B. Engineer Preparing Specifications	
	C. General Specifications	
II.	MILLING OPERATIONS	2-3
	A. Milling Description	
	B. Equipment	
	C. Construction	
	D. Final Milled Surface and Tolerance	
	E. Milling Material	
	F. Existing Milled Surface Repairs	
	G. Inspection	
III.	ASPHALT CONCRETE PAVEMENT RESURFACING	4-6
	A. Description	
	B. Tack Coat	
	C. Asphalt Concrete Pavement	
	D. Paving Equipment	
	E. Resurfacing Construction	
	F. Resurfacing Tolerance	
	G. Finished Pavement Surface	
	H. Inspection and Testing	

DRAWING LIST

- C-1: Cover Sheet
- C-2: Overall Site Plan
- C-3: Resurfacing Plan

1. **GENERAL SPECIFICATIONS**

These specifications are for the Hillsborough County Sheriff's Office Training Facility Skid Pad Milling and Resurfacing Project located at 14063 S Highway 39, Lithia, Florida. 33547. Additional general notes and specifications regarding this project may be found on the referenced drawings.

A. Hillsborough County Contact

Richard H. Swann, Risk and Facilities Management Director
email: rswann@hcsso.tampa.fl.us
Albert Cordova, Special Projects Manager
email: acordova@hcsso.tampa.fl.us
Hillsborough County Sheriff's Office
2008 E. 8th Ave.
Tampa, FL 33605
(813) 247-8000

David Gray, Site Construction Superintendent
email: dgray@hcsso.tampa.fl.us
Hillsborough County Sheriff's Office Training Facility
14063 S Highway 39
Lithia, Florida. 33547
(813) 247-0769

B. Professional Engineer Preparing Specifications Contact

Ralph E. Remmert, P.E.
(813)598-4643, mobile
email: rremmert@jbmr-eng.com
Brett R. Hedstrom, P.E.
email: bhedstrom@jbmr-eng.com
(727)776-2620, mobile
JBM&R Engineering, Inc.
11001 Fern Hill Drive,
Riverview, Florida 33569
(813)741-2109

C. General Specifications

All work for the Skid Pad Milling and Resurfacing Project shall be done in accordance with the referenced drawings, the specifications provided herein, and with the following Hillsborough County (HC) and Florida Department of Transportation (FDOT) specifications or requirements.

- Hillsborough County Transportation Technical Manual, Sections 8 and 12
- FDOT Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways (Green Book)
- FDOT Standard Specifications for Road and Bridge Construction (Purple Book).

2. **MILLING OPERATIONS**

Milling of the existing skid pad will be performed in accordance with the applicable Hillsborough County and FDOT standards as well as noted on the referenced construction plans and as noted herein.

A. Milling Description

Milling operations will remove existing asphalt concrete pavement. Per the referenced construction plans 1-1/2 inch of the existing asphalt concrete pavement will be removed from the existing skid pad. Milling operations will be performed in accordance with section 327 of the FDOT Standard Specifications for Road and Bridge Construction, latest edition.

B. Equipment

Contractor shall provide a milling machine capable of maintaining a depth of cut and the current skid pad cross slope as specified herein. Machine must have built-in automatic grade control system that can control the traverse slope and longitudinal profile to match the existing skid pad contours. The milling machine must include a means to effectively limit the amount of dust escaping the removal operations.

C. Construction

Milling construction operations to be in accordance with all applicable Hillsborough County and FDOT specifications

Both milling and resurfacing operations shall be constructed in a longitudinal direction from east to west.

Contractor shall maintain positive drainage of the milled surface and the adjacent pavement.

All milled surfaces will be repaved no later than the day after the surface was milled.

Contractor shall sweep the milled surface with a power broom or street sweeper capable of removing excess milled materials and dust immediately after the milling operations and prior to the placement of any asphalt concrete.

D. Final Milled Surface and Tolerance

Contractor shall provide a milled surface with a reasonably uniform texture, clean of debris or milling waste.

Milling surface must average 1-1/2 inches in depth with no greater than 1/4 inch deviation from the true profile grade. The Engineer may require, at no additional expense to the owner, additional milling or asphalt concrete build-up for any areas exceeding the 1/4-inch tolerance.

E. Milling Material

The Contractor shall indicate as part of the bidding process the intention of disposal of the milling material. The Contractor shall provide dispose of, or stockpile the milled material as agreed to as part of the accepted bid.

F. Existing Milled Surface Repairs

If at any time the milling operations expose the base material, revealing an area in which the existing asphalt of the skid pad is less than 1-1/2 inch thick, the area of exposed base shall be squared off by saw cutting the existing milled surface a minimum of 5 feet from the exposed area. The base material will be removed 1-inch below the milled surface and the area will be compacted with a plate compactor to a minimum of 98% based on the maximum dry density of the base material. 1-inch of FC 9-5 asphalt concrete will be placed and compacted in the repaired area prior to general resurfacing operations. If base material was exposed by the contractor exceeding the specified milling tolerance, these specified repairs will be at the Contractor expense.

G. Inspection

Milling inspections will be performed in accordance with all applicable Hillsborough County and FDOT requirements, and as outlined herein.

At the end of each day's milling and brushing operation and prior to start of resurfacing operations a visual inspection will be performed by the Owner. Any areas found to be outside of specified tolerances will be repaired at the contractor's expense.

If during the milling operations or as part of the inspection any area of the milled surface appears to lack adequate support of the resurfacing operations the Contractor and/or Owner shall contact the Engineer to determine what, if any corrective actions may be necessary.

3. **ASPHALT CONCRETE PAVEMENT RESURFACING**

Asphalt Concrete Pavement Resurfacing of the existing skid pad will be performed in accordance with the applicable Hillsborough County and FDOT standards as well as noted on the referenced construction plans and as noted herein.

A. Description

Following the milling operations, the skid pad will be resurfaced with two (2) 1-inch lifts of FC-9.5 asphalt concrete pavement. The resurfacing operations include the application of tack coat, two lifts of FC-9.5 asphalt concrete pavement and all associated preparation, consolidation, and final clean-up.

All asphalt concrete pavement operations shall be in accordance with the Hillsborough County Transportation Technical Manual and with the applicable sections of the FDOT Standard Specifications for Road and Bridge Construction, latest edition, specifically Division I, Division II, Sections 300-339 and Division III, Sections 901-919.

B. Tack Coat

Tack coat will be applied to the milled surface and between two asphalt concrete lifts in accordance with the FDOT Standard Specifications for Road and Bridge Construction, latest edition, Section 300.

C. Asphalt Concrete Pavement

All asphalt concrete pavement construction shall meet the requirements of sections 320, 330 and 337 of the FDOT Standard Specifications for Road and Bridge Construction. Asphalt concrete pavement shall meet the requirements of FDOT friction course FC-9.5 asphalt concrete pavement.

Asphalt concrete pavement shall be plant-mixed hot bituminous mixture meeting the applicable FDOT requirements. The contractor shall provide a copy of the mix design to the Engineer for approval prior to construction.

D. Paving Equipment

The Contractor shall perform resurfacing operations with paving equipment that meets the applicable FDOT specifications. The paving equipment shall provide mechanical spreading and screeding that is self-propelled, steered; have a receiving and distribution hopper and a screed that is capable of adjustment to regulate depth of material and width of spread to meet the specified requirements.

Rolling equipment shall be able to provide compaction meeting the density requirements of the applicable FDOT specifications. Hand tools and plate style compactors may be required for any areas of the milled surface requiring repairs or for detail pavement operations around drainage structures.

E. Resurfacing Construction

Asphalt concrete pavement resurfacing operations shall be in accordance with all applicable Hillsborough County and FDOT specifications.

Resurfacing operations constructed in a longitudinal direction from east to west.

Two 1-inch lifts of FC-9.5 asphalt concrete shall be installed to resurface the existing skid pad. Each lift shall be installed only after the milling operations and any required repairs have been performed and approved, and following the application of the required tack coat. The first lift of the resurfacing operations shall be installed no more than one day following the milling operations.

The Contractor shall maintain the resurfacing operations in a continuous placement, with the temperature of spreading as required by the FDOT Standards for Road and Bridge Construction, latest edition, section 330-6.3. Any load, or portion of a load of asphalt mix that has a temperature outside the master range shall be rejected.

All asphalt concrete pavement resurfacing joints shall be installed per the applicable FDOT requirements. All paving operations shall end at the end of the pad and transverse joints shall be not be installed without prior approval of the Engineer.

If at any time the resurfacing operations are delayed or suspended due to weather, rejected loads, or any other reason, thus requiring a transverse joint, the existing mat will be cut back on the previous run to expose the full depth of the mat. Any existing asphalt material in the hopper that does not meet the mater temperature range will be removed.

At the existing drainage structures the Contractor shall taper each lift of asphalt concrete from 1 inch to $\frac{3}{4}$ inch beginning 20 feet from the edge of the structure. The final resurfacing grade shall match the existing structure grade at all drainage structures.

F. Resurfacing Tolerance

Asphalt resurfacing shall be tested in accordance with the FDOT Standards for Road and Bridge Construction sections 330 and 337. The final thickness tolerance for any lift shall be a total of $\frac{3}{16}$ " with the total resurfacing tolerance of no greater than $\frac{1}{4}$ ". No core taken shall be less than the specified total thickness for the total resurfacing project.

G. Finished Pavement Surface

The finished pavement surface shall be smooth pavement with good surface texture and proper cross slopes. Specifically the finished surface will be of uniform texture and compaction with no pulled, torn, raveled, crushed or loosened portions and free of segregation, bleeding, flushing, sand streaks or spots, or ripples. Any areas of the pavement that do not meet the requirements of this specification or the referenced Hillsborough County or FDOT specifications will be addressed at the Contractor's expense.

H. Inspections and Testing

Inspections and testing will be performed in accordance with all applicable Hillsborough County and FDOT requirements, and as outlined herein.

All aggregate analysis, design mix, bitumen content, maximum specific gravity and other testing indicated within the FDOT Standards for Road and Bridge Construction, latest edition will be performed in the frequency and manner indicated therein. Density testing for each lift and total thickness core samples shall be performed and meet the tolerances of the FDOT specifications at a minimum of 500 feet for each longitudinal placement (minimum of two per pass).

Any material or placement that does not meet the minimum specifications outlined herein shall be addressed and repaired or replaced at the Contractor's expense.

All testing shall be contracted via an independent testing agency, acceptable to the Owner and paid for by the Contractor.