

## EXHIBIT B-1

# Green Colored Pavement in Bicycle Lanes, Extensions of Bicycle Lanes and Within Other Potential Traffic Conflict Areas

## Special Technical Provisions

### General

1. The following Broward County Special Technical Provisions provide requirements and guidance for the use of green colored pavement in bicycle lanes, extensions of bicycle lanes, and within other potential traffic conflict areas on County roadways.
2. The special technical provisions herein are supplemental requirements to the applicable minimum standard conditions contained within the Broward County Public Works Department, Highway Construction & Engineering Division APPLICATION FOR PERMIT FOR CONSTRUCTION IN THE PUBLIC RIGHT-OF-WAY. The special technical provisions described are intended to meet the special circumstances associated with the installation and maintenance of green colored pavement in bicycle lanes, extensions of bicycle lanes, and within other potential traffic conflict areas on County roadways.

### Governing Standards

1. The governing standards and specifications related the use of green colored pavement in bicycle lanes, extensions of bicycle lanes, and within other potential traffic conflict areas is limited, however, relevant technical standards, guidance and support is provided in Chapter 9C of the USDOT/FHWA Manual on Uniform Traffic Control Devices (MUTCD). Additional guidance on the use of colored pavement is provided in Section 3G.01 of the MUTCD.
2. Additional guidance on the use of green colored pavement in bicycle lanes can be found in the Broward County Engineering Division's Technical Policy Memo #TPM-15-003 located at <http://www.broward.org/Traffic/About/Pages/Publications.aspx>.
3. The Federal Highway Administration (FHWA) has issued Interim Approval to Broward County for the use of green colored pavement in bicycle lanes, extensions of bicycle lanes, and within other potential traffic conflict areas. A copy of the approval letter is included as Exhibit D.

### **Installation Requirements**

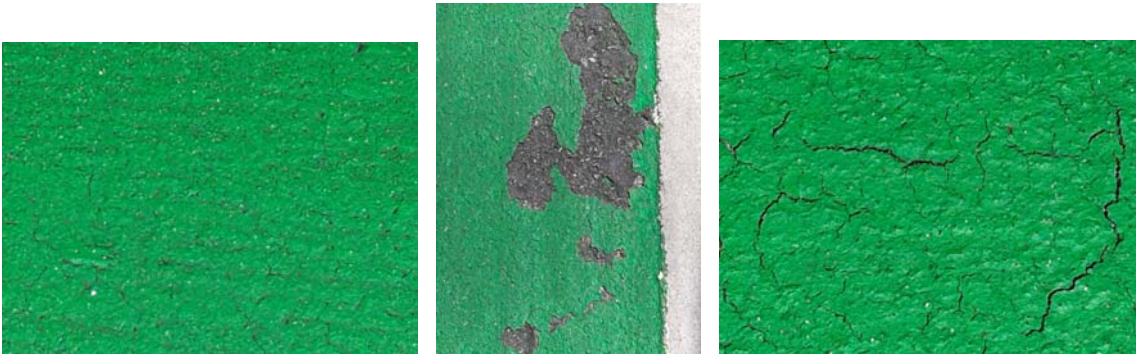
1. The green colored patterned pavement surface product used for the project shall be suitable for application to asphalt surfaces (per manufacturer's specifications) and shall have received federal or State of Florida approval for application on asphalt roadway surfaces with moderate to high levels of vehicular traffic. The product shall be listed on the Florida Department of Transportation's (FDOT) Approved Product List (APL)
2. The installation, materials and performance of the green colored pavement surface shall be in accordance with the manufacturer's specifications included in the attached Exhibit B-2.
3. The initial installation shall be inspected by County staff to ensure that the green colored pavement surface conforms with the approved plans and the manufacturer's specifications included in Exhibit B-2. The initial installation shall attain 100% coverage of the designated bike lane area, and 98% of the green surface area shall be free of defects including, but not limited to: insufficient or incorrect colorization, surface contamination, embedded foreign particles, uneven application, rippling/buildup greater than 0.25 inches vertical, cracks, chipping, flaking, scaling or inadequately textured (slick) surface.
4. The applicant shall be responsible for any permitting requirements, insurance, security, public information and maintenance of traffic regarding the installation.

### **Maintenance Requirements**

1. The applicant shall be responsible for the continued maintenance of the green colored pavement surface throughout the life of the project, and shall be fully responsible for any direct and indirect costs associated with permitting, insurance, security, public information and maintenance of traffic.
2. The applicant shall ensure that the original quality and visibility of the green colored pavement surface remains in good condition throughout the life of the installation.
3. The applicant shall be responsible for addressing graffiti removal and any other intentional or unintentional damage to the green colored pavement surface.
4. Upon the first and each subsequent bi-annual anniversary of the installation, the applicant's city engineer shall submit a signed and sealed report to the County certifying that the green colored pavement surface is still in good order, provides adequate frictional surface for the safe flow of traffic across the surface and meets minimum color differential criteria in accordance with the manufacturer's specifications included in Exhibit B-2. Any cracking, flaking, chipping, raveling, or peeling of the green colored pavement surface shall be considered a failed condition (examples of failures are shown below). To properly document the condition of the green colored pavement, the engineer's report shall include randomly selected portions of the green colored pavement surface a minimum of 200 feet in length and representing at least 25% of the entire green colored pavement area within

the project limits. The selected areas shall be photo documented and/or video documented during daylight conditions. Resurfacing or other remedial action shall be required if collectively 10% or more of the surface of any 200-foot segment exhibits a failure condition, or if there is a failure extending continuously for 10.0 feet or more. Should the applicant's city engineer identify any deficiencies at any time, regardless of whether they are included within the documented 25% surface area, the city engineer shall notify the County within five (5) business days of the deficiency, and outline the proposed course of remedial action and timetable. The city engineer shall then submit a signed and sealed letter to the County within five (5) business days of successful completion of the mitigation, certifying that the issue has been satisfactorily corrected. The above requirement does not preclude County staff from inspecting the condition of the bike lane surface at any time and reporting any identified failures or deficiencies to the city for remedial action.

#### **Examples of Surface Failures:**



5. Notwithstanding the submittal of a condition's report as specified above, the applicant shall be responsible for the recoating/resurfacing of all of the green colored pavement surfaces consistent with the original design of the project and the manufacturer's specifications every five (5) years upon the anniversary of the installation unless it is clearly apparent to both the applicant and the County that the resurfacing is not required; such resurfacing shall be extended in one year increments. The County shall make the final determination on whether recoating/resurfacing is required.

#### **Termination Requirements**

1. The green colored pavement surface installation may be terminated by either the County and/or the applicant should the surface be determined to create safety or other concerns attributable to the textured roadway surface or any other aspect of its design.
2. If the installation is terminated, the County will provide written notice to the applicant that the green colored pavement surface must be removed, and the applicant shall have fourteen calendar days from the date of the notice to submit to the County the appropriate permit application, maintenance of traffic plans, and any other required documentation.

The applicant shall have 30 calendar days from the date of notification to satisfactorily remove the textured surface from the existing asphalt pavement.

3. The green colored pavement surface shall be removed by the applicant's forces or an appropriately licensed contractor. The surface shall be removed by water-blasting, sandblasting, or other approved removal method, and shall be performed during off-peak traffic hours. Any pavement markings or asphalt damage as part of the removal process shall be fully restored. The applicant shall be responsible for all direct and indirect costs associated with the surface removal process.