City and County of San Francisco

San Francisco Public Works

INFRASTRUCTURE DIVISION
Design and Construction
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DPW Order No: 183872

ESTABLISHING PROCEDURES AND GUIDELINES FOR THE CONSTRUCTION AND MAINTENANCE OF REINFORCED CONCRETE BUS PADS IN THE PUBLIC RIGHT-OF-WAY.

I. <u>PURPOSE:</u>

To establish procedures for the construction and maintenance of reinforced concrete bus pads within the public right-of-way to reduce and mitigate the cracks and damage occurring in new concrete.

II. GENERAL INFORMATION:

- A. Cracks and damage in concrete pavement, including parking strips and bus pads, occur as a result of shrinkage, settlement, uplift, excessive weight atop the slab, etc. When the existing concrete pavement develops gaps, cracks, chips, displacement, holes, or other defects, permanent repairs or replacement of the concrete pavement shall be required in order to maintain defect-free pavement and provide a safe public environment.
- B. Reinforcement shall be used in concrete bus pads to control cracks, damage, and to produce aggregate interlock. This helps to keep the cracked sections of a slab close together so the slab will act as a unit and transfer loads across a crack.
- C. Reducing cracking will improve safety for all types of traffic; including pedestrians, cars, transit, bicycles, etc.

III. GUIDELINES:

- A. The requirement for reinforced concrete bus pads shall be effective upon the adoption of this DPW Order. Reinforcing shall be required for new concrete bus pads and the reinforcing shall continue into the new concrete curb where there is a combined concrete curb and bus pad.
- B. Permits issued after the adoption of this DPW Order shall be constructed per the new DPW Reinforced Concrete Bus Pad Standard, File No.96,607.
- C. City construction contracts advertised after the adoption of this DPW Order shall be constructed per the new DPW Reinforced Concrete Bus Pad Standard, File No. 96,607.
- D. Concrete bus pads shall be constructed at a minimum thickness of 10 to 12 inches and shall be approximately 10-feet wide. The width of the bus pad may vary depending on



the proximity to a traffic or bike lane. The bus pad shall extend the entire length of the bus zone.

- E. Transverse reinforcement shall consist of #6 bars spaced 18-inches on center and 4-inches minimum cover.
- F. Longitudinal reinforcement shall consist of #6 bars spaced 8-inches on center and 4-inches minimum cover.
- G. Minimum 3-inch cover is required from the edges of the reinforcement to the ends of the concrete slab for adequate protection of the reinforcement.
- H. Transverse construction joints are to be placed 10-feet apart to control cracking and to provide a section that can be removed for repair or utility work without affecting the integrity of the entire bus pad.
- I. Dowel bars are to be placed at 1-foot spacing for both new reinforced concrete bus pads and for the replacement of 10-foot sections of bus pads.
- J. For sections that are removed for repair or utility work, Contractors shall take care not to damage existing dowels. If dowels are damaged, they shall be removed and replaced at the Contractor's expense.
- K. New reinforced concrete bus pads and the replacement of 10-foot sections of bus pads shall be constructed in accordance with the SFDPW Standard Plan 96,607 and the SFDPW Standard Specification Section 210 except that the concrete bus pad shall have a minimum compressive strength of 5,000 psi.

This DPW Order rescinds and supersedes DPW Order No. 181,305 originally approved on June 18, 2013.

7/30/2015 7/31/2015

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8/3/2015

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Signed by: Nuru, Mohammed

