





## PERMITS ISSUED BY BUREAU OF STREET-USE AND MAPPING

- Additional Street Space
- Banners
- Boring/Monitoring Well
- Café Tables and Chairs
- Debris Box
- Display Merchandise
- Flower Market
- Free Sample Merchandise
- General Excavation
- Inspection of Conformity Right of Way
- Major Encroachment
- Minor Sidewalk Encroachment
- Mobile Food Facility (Food Trucks)
- Mobile Storage Container
- Night Noise
- Notice to Repair
- Over-wide Driveway (over 30')
- Parklet
- Pipe Barrier / Security Bollards
- Side Sewer
- Sidewalk Landscaping
- Sidewalk Repair (Voluntary)\*
- Special Sidewalk
- Street Space Occupancy\*
- Street Improvement
- Transit Shelters
- Temporary Occupancy
- Tree Planting and Removal
- Underground Tank Removal
- Utility Excavation
- Vault Encroachment
- Wireless Box

\*Issued only at Bureau of Street-Use Mapping counter at

Department of Building Inspection —

1660 Mission Street, 5th Floor

San Francisco, CA 94103



# REINFORCED

## **CONCRETE BUS PAD**

#### DPW Order 181305:

Establishing procedures and guidelines for the construction and maintenance of reinforced concrete bus pads in the public right of way

**Bureau of Street-Use & Mapping** 

1155 Market Street, 3rd Floor San Francisco, CA 94103 (415) 554-5810 (T) | (415) 554-6161 (F) Processing Hours: 7:30A-4:00P

Monday through Friday

## To establish procedures for 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.

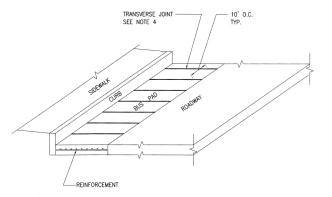
Cracks and damage in concrete pavement, including parking strips and bus pads, occur as a result of shrinkage, settlement, uplift and excessive weight atop the slab, etc. When the existing concrete pavement develops gaps, cracks, chips, displacement, holes or other defects, permanent repairs or replacement of the concrete pavement shall be required in order to maintain defect-free pavement and provide a safe public environment.

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.

Reducing cracking will improve safety for all types of traffic, including pedestrians, cars, transit and bicycles, etc.

#### **Guidelines**

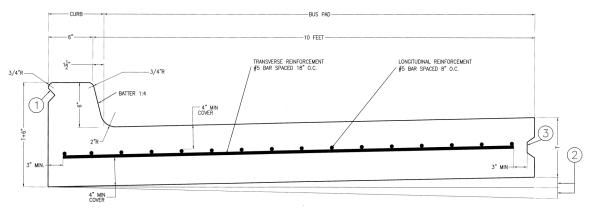
- **A.** The requirement for reinforced concrete bus pads shall be effective upon the adoption of this order. Reinforcing shall be required for new concrete bus pads and the reinforcing shall continue into the new concrete curb where there is a combined concrete curb and bus pad.
- **B.** Permits issued after the adoption of this 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 #5 bars spaced 18 inches on center and 4 inches minimum cover.
- **F.** Longitudinal reinforcement shall consist of #5 bars spaced 8 inches on center and 4 inches minimum cover.
- **G.** Minimum 2-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 score joints are to be placed 10 feet apart to control cracking.
- **I.** Construction of new reinforced concrete bus pads shall be constructed in accordance with the DPW Standard Plan 96,607 and the DPW Standard Specification Section 210 except that the concrete bus pad shall have a minimum compressive strength of 5,000 psi.



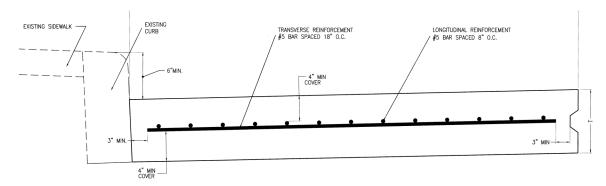
### **Specification Notes:**

- Longitudinal joints for concrete curb shall be as shown on Standard Plan 87,173
- Set to fit crown or super-elevation of adjacent roadway
- Longitudinal joint not required for aggregate base or asphalt concrete base. Longitudinal joints for concrete bus pad shall be as shown on Standard Plan 87,174
- 4. See Standard Plan 87,174 for transverse joint detail

T = 10" Minimum Thickness R = Radius



### COMBINED 6-INCH CONCRETE CURB AND REINFORCED BUS PAD (NOT TO SCALE)



### REINFORCED CONCRETE BUS PAD

(NOT TO SCALE)

This Standard Plan was developed for use on public works projects in the City and County of San Francisco, and shall not be used without consulting a Registered Professional Engineer. The Department of Public Works reserves the right to make revisions to this Standard Plan at any time.