

# Sound Walls – Additional Information

This attachment contains additional information for each of the four sub-sections in the [Contract Specifications](#) (CS), Section 58, *Sound Walls*.

## **1 - CS, Section 58-1, Sound Wall – General**

To follow is additional information corresponding to CS, Section 58-1, *Sound Walls – General*:

1. During review of the [contract documents](#) before construction begins, it is important to consider the following aesthetic-related items and discuss with the District Landscape Architect (and potentially Local Agency Representatives as well) if there are any questions or concerns.
  - a. If a federal color number is specified for materials for sound walls that are not shown to be painted or stained in accordance with the CS, Section 78, *Incidental Construction*, verify that the District Landscape Architect has checked that this color is commercially available from various vendors (particularly for masonry block sound walls). If not, discuss whether there is an acceptable level of variance for the specified color.
  - b. For repeating architectural patterns, particularly on long sound walls, verify that the sound wall does not end mid-pattern (unless connecting to an existing sound wall with the same pattern at the same mid-pattern point).
  - c. For architectural patterns on short sound walls, verify that the pattern is centered at the midpoint of wall.
  - d. If there is an existing sound wall on the opposite side of the highway or in relative proximity longitudinally to the new sound wall, consider how the new sound wall will match the overall aesthetics of the highway corridor. Texture, color, architectural treatment, and top of wall profile are examples of things to review. Verify that there is no significant contrast to any nearby existing sound walls.
  - e. If anti-graffiti coating is only shown on the back side of the sound wall (the side opposite of the highway) for sound walls that are pedestrian-accessible or if anti-graffiti coating is not shown at all, it may be worth pursuing a change order to add this item of work. Graffiti on both sides of sound walls, particularly in densely populated areas and even when means of public access is not obvious, is common and has a high degree of visual impact to the public.
2. During review of the contract documents before construction begins, it is important to consider alignment when new sound wall construction is shown to adjoin existing sound walls and discuss with the Bridge Design Structure Project Engineer if there are any questions or concerns.

- a. Verify the offset of existing sound walls from a known layout line, particularly if the new sound wall layout line is not the same as the centerline of the sound wall.
- b. Verify the height of existing sound walls and compare with the heights shown for the new sound wall at begin wall and end wall locations.

## **2 - CS, Section 58-2, Sound Wall – Masonry Block**

To follow is additional information corresponding to CS, Section 58-2, *Sound Walls – Masonry Block*:

1. Figure 1 and Figure 2 are examples of sound walls constructed with masonry block.



**Figure 1. Masonry Block Sound Wall in San Mateo, CA on Hwy 92, EA 04-235524**



Figure 2. Masonry Block Sound Wall in San Mateo, CA on Hwy 101, EA 04-1J5694

2. Additional resources for masonry block sound walls include:
  - a. *Building Construction Manual*, [Division 4, Masonry](#) (pgs. 80-92 of manual)
  - b. [Concrete Masonry Association of California and Nevada \(CMACN\)](#).

### **3 - CS, Section 58-3, Sound Wall – Precast Concrete Panels**

To follow is additional information corresponding to CS, Section 58-3, *Sound Walls – Precast Concrete Panels*:

1. Figure 3 and Figure 4 are examples of sound walls constructed with precast concrete panels from the:  
[Precast Concrete Sound Walls – National Precast Concrete Association \(NPCA\)](#)



**Figure 3. Example of Precast Sound Wall in Construction**



**Figure 4. Example of a Constructed Precast Sound Wall**

## **4 - CS, Section 58-4, Sound Wall – Alternative Sound Wall Systems**

To follow is additional information corresponding to CS, Section 58-4, *Sound Walls – Alternative Sound Wall Systems*:

1. Figure 5 is an example of a sound wall constructed with an alternative sound wall system using acrylic or tempered glass panels.



**Figure 5. Sample of an Alternative Sound Wall System in Brea, CA on SR 57, EA 12-0C1104**

2. Additional resources for sound walls constructed with alternative sound wall systems include:
  - a. Division of Design's [Noise Barriers](#) website
  - b. [Pre-Qualified Noise Barrier Systems](#), which is a sub-page from link above. Note that this list was last updated on 5/1/14 and is not consistent with the current Materials Engineering Testing Services [Authorized Material Lists](#) where no systems are listed as preapproved.