

Notice of Section 401 Application Reception

File Number: 362023-36

Project Name: Mountain Drive and 4th Avenue Culvert Installation

Received: 9/14/2023

Date Posted: 9/21/2023

End of 21 Day Public Comment Period: 10/12/2023

Project City: San Bernardino

Project County: San Bernardino

Applicant Organization: San Bernardino County Department of Public Works (DPW)

Applicant Name: Anthony Pham

Waterboard Staff: TBA

Brief Description of Project:

Project Description: The Mountain Drive and 4th Avenue crossings currently are prone to flooding during storm events and experience scouring from fast moving water during storm events. San Bernardino County Flood Control District (District) in cooperation with San Bernardino County Transportation Department is proposing to improve Devil Creek Channel (Devil Creek) crossings at Mountain Drive and North 4th Avenue from an interim to an ultimate condition channel culvert. The Project's purpose is to improve the capacity and conveyance of the District maintained facility to meet the calculated 100-year peak storm flows of 3,235 cfs and 3,428 cfs at 4th Avenue and Mountain Drive, respectively, while adhering to District design guidelines and standard engineering practices at the two crossings. This Project will be accomplished without requiring additional right-of-way. The District has 110 feet of right of way easement.

Project Activities: The Project consists of replacing the existing two-lane low water crossing on Mountain Drive at Devil Creek Channel and 4th Avenue at Devil Creek with a quadruple reinforced concrete box at each location. These culverts would either be pre-cast or cast-in-place, depending on future design decisions. Project limits of the full project at 4th Avenue and Mountain Drive are depicted in Figures 2-1 and 2-2, respectively. The project area for Mountain Drive is approximately 180 linear feet in length and 80 feet in width and the project area for 4th Avenue is approximately 180 linear feet in length and 64 feet in width, excluding the temporary ramp access areas within and pavement rehabilitations outside of Devil Creek. Total length inclusive of the temporary ramp access areas are 324 feet at Mountain Drive and 274 feet at 4th Avenue. Both locations overlap the existing interim channel footprint. The Project also includes construction of wingwalls, cut-off walls and invert slabs; installing drainage inlets and pipes; placing non-grouted rocks; re-construction of non-Americans with

Disabilities Act (ADA) compliant curb ramps, sidewalk, driveways, curb and gutter, cross-gutter, spandrel; placing asphalt concrete pavement, mill and overlay, and relocation of utility lines. At Mountain Drive, a 6-inch waterline will be relocated. At 4th Avenue, 4-inch and 12-inch waterlines will be relocated as well as a 2-inch gas line. As part of the Project, approximately 1,770 cubic yards of soil would be removed from Mountain Drive and 1,680 cubic yards would be removed from 4th Avenue. Excavation work would not exceed 12 feet in depth for quadruple boxes, 15 feet in depth for wingwalls plus 8 feet in depth for cut-off walls. Additionally, 1,720 cubic yards of fill would be added at the Mountain Drive crossings, and 1,620 cubic yards of fill would be added to the 4th Avenue crossing, respectively. Each culvert crossing replacement consists of four-cells with 12-inch deck on top. The four cells measure 12 feet wide by 6 feet high and a pier of 1-foot in width between each cell. The box culverts will convey the flow to pass under the road deck. The calculated design velocity averaged 21 feet per second in the culverts on the upstream side with the existing channel at 22 feet per second once the entire channel is constructed to ultimate configuration. The concrete box culverts were designed to reduce the amount elevation change to the roadways leading to the channel.