

**LOCATION HYDRAULIC STUDY FORM \***

Dist. 07 Co. LA Rte. 60/57 P.M. R23.6/R26.5 (R38.0/42.6) ; R4.3/R4.8 (R6.9/R7.7)

EA 279100 Bridge No. N/A

Floodplain Description: Diamond Bar Creek

1. Description of Proposal (include any physical barriers i.e. concrete barriers, soundwalls, etc. and design elements to minimize floodplain impacts)

Reconstruct Grand Avenue interchange to partial cloverleaf; add new EB loop on-ramp; Add EB & WB SR-60 auxiliary lane; widen Grand Avenue overcrossing structure

2. ADT: Current 28,110 Projected 50,555 Grand Avenue  
Current 225,954 Projected 251,400 SR-57 / SR-60

3. Hydraulic Data: Base Flood  $Q_{100}$ = N/A  
WSE<sub>100</sub>= N/A The flood of record, if greater than  $Q_{100}$ :  
 $Q$ = N/A CFS WSE= N/A  
Overtopping flood  $Q$ = N/A CFS WSE= N/A  
Are NFIP maps and studies available? YES X NO \_\_\_\_\_

4. Is the highway location alternative within a regulatory floodway?  
YES \_\_\_\_\_ NO X

5. Attach map with flood limits outlined showing all buildings or other improvements within the base floodplain.

Potential  $Q_{100}$  backwater damages:

A. Residences? NO X YES \_\_\_\_\_  
B. Other Bldgs? NO X YES \_\_\_\_\_  
C. Crops? NO X YES \_\_\_\_\_  
D. Natural and beneficial Floodplain values? NO X YES \_\_\_\_\_

6. Type of Traffic:

A. Emergency supply or evacuation route? NO \_\_\_\_\_ YES X  
B. Emergency vehicle access? NO \_\_\_\_\_ YES X  
C. Practicable detour available? NO \_\_\_\_\_ YES X  
D. School bus or mail route? NO \_\_\_\_\_ YES X

7. Estimated duration of traffic interruption for 100-year event hours: 0

8. Estimated value of Q<sub>100</sub> flood damages (if any) – moderate risk level.

A.	Roadway	\$	<u>0</u>
B	Property	\$	<u>0</u>
	Total	\$	<u>0</u>

9. Assessment of Level of Risk Low X  
Moderate \_\_\_\_\_  
High \_\_\_\_\_

For High Risk projects, during design phase, additional Design Study Risk Analysis may be necessary to determine design alternative.

Signature – Dist. Hydraulic Engineer Maria M. [Signature] Date 9-14-10  
(Item numbers 3,4,5,7,9)

Is there any longitudinal encroachment, significant encroachment, or any support of incompatible Floodplain development? NO X YES \_\_\_\_\_

If yes, provide evaluation and discussion of practicability of alternatives in accordance with 23 CFR 650.113

Information developed to comply with the Federal requirement for the Location Hydraulic Study shall be retained in the project files.

Signature – Dist. Project Engineer \_\_\_\_\_ Date \_\_\_\_\_  
(Item numbers 1, 2, 6, 8)

\* Same as Figure 804.7A Technical Information for Location Hydraulic Study located in Chapter 804 of the Highway Design Manual