LOCATION HYDRAULIC STUDY FORM *

Dist. 12 Co. Orange Rte. _____ P.M. _____
EA 15-6827 Bridge No. 55C0513
Floodplain Description:
Santa Ana River Floodplain

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

City of Santa Ana proposes to widen the Fairview Street Bridge over the Santa Ana River in order to accommodate 6 lanes; 3 lanes in each direction.

2. ADT: Current 38,544 (2017) Projected _____

3. Hydraulic Data: Base Flood Q_{100}= 50,000 CFS
WSE_{100}= n/a The flood of record, if greater than Q_{100}:
Q= n/a CFS WSE= _____
Overtopping flood Q= _____ CFS WSE= _____
Are NFIP maps and studies available? YES X NO _____

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

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 _____ YES X

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_{100} flood damages (if any) – moderate risk level.

A. Roadway $ 0
B Property $ 0
Total $ 0

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 _____ Date _____
(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 –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