

CITY OF ALBUQUERQUE



December 1, 2015

James D. Hughes, P.E.
Mark Goodwin & Associates, PA
P.O. Box 90606
Albuquerque, NM 87199

**Re: Juan Tabo Hills Estates request for CLOMR
Engineer's Stamp Date-no stamp- (M21D018)**

Dear Mr. Hughes,

Based upon the information provided in your submittal received 11-12-15, the above referenced CLOMR cannot be submitted to FEMA until the following comments are addressed:

1. The following comments from the letter dated April 8, 2015, were not adequately addressed:
 - a. The Bank Protection Design Analysis is to be included with the CLOMR.
 - b. Provide written concurrence for proposed work on Tract 1A1 from the Open Space Division.
 - c. A Topographic Work Map is required. It is a standard plan for all LOMC's. See LOMR for Juan Tabo Hills Tijeras Arroyo Improvements.
 - d. Comment 12 was provided to see what the increase in WSE would in the arroyo after filling in the AO zone because it is over 100 feet wide.
 - e. Comment 15. The copy of the letter dated April 8th, 2015 the City has does not state that AMAFCA will maintain the improvements pursuant to a Turnkey agreement. It does state that the Board of Directors commented on adverse impacts to adjacent properties. If Mark Goodwin and Associates has a revised letter from AMAFCA, please provide it. In addition, please have AMAFCA mention it is acceptable to construct improvements on their property (unplatted-north of Tract A1A).
2. The City Engineer and Mark Goodwin reached an agreement that the LOMR that should have been submitted for Juan Tabo Hills Unit 3B would be submitted with the LOMR for Juan Tabo Hills West. Since the LOMR should have the same extents as the CLOMR, include the information for the flood zone changes that occurred with Juan Tabo Hills Unit 3B with this CLOMR.
3. There is a fence across the arroyo at the KAFB property line. It will impact the WSE. Provide a HEC-RAS cross-section in this location and adjust the WSE as necessary.
4. The WSE provided in the HEC-RAS Effective section do not match the WSE's in the FIS from LOMR Case number 13-06-1053P. They are off by about 3 feet, which is close to the difference between NAVD 29 and NAVD 88. It appears the LOMR Case number 13-06-1053P was submitted in NAVD 29.
5. Label all HEC_RAS sections with RS and/or FEMA x-section.
6. The Bank Protection Plan and Profile sheet does not show the floodway. There is a legend for the line-type, but no floodway line on the sheet. In addition, the Waters of the U.S. information should be removed for clarity.

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7. The floodway and flood zones should be shown in the cross-sections section of the report. The "Waters of the US" information can remain if it does not interfere with the clarity of showing the floodway and flood zones.
8. Show the scour wall in section 6.
9. Numerous more cross-sections are required. At a minimum every cross-section location on the plan and every FIS cross section. See comment #2 for extents.
10. The Annotated FIRM is to be revised based upon above mentioned comments.
11. The following comments on the grading plan are related to the CLOMR.
 - a. At the northern end of the project, the scour wall is shown near the middle of the floodway and stops without tying into anything. What is to prevent the scour wall from being flanked? The scour wall should be closer to the edge of the floodway.
 - b. Why is 8 to 10 feet of cut proposed at the north end? This will cause a head-cut to develop and result in erosion of the arroyo bed and additional sediment deposition downstream.
 - c. Why is the arroyo bed proposed to be cut 5 feet or more from station 15+00 to 19+00? This will cause a head-cut to develop and result in erosion of the arroyo bed and additional sediment deposition downstream.
 - d. Why is the arroyo bed proposed to be cut up to 9 feet near the SWQ pond? This will cause a head-cut to develop and result in erosion of the arroyo bed and additional sediment deposition downstream.
 - e. A 4" outlet pipe seems extremely small for this size of a development.
 - f. There is some line work that looks like a storm drain south of the 4" pipe, but there is no build note.
 - g. The bottom of the SWQ pond is below the water surface elevation of the arroyo. FEMA may consider the scour wall as a levee. The SWQ pond could be proposed as an AE zone (non-floodway), which may negate levee requirements. It is recommended to not propose a levee as the construction and design criteria is stricter than if a levee is not proposed.
 - h. Please explain why it is necessary to propose so much cutting of the arroyo bed. The City would prefer to see a design that does not cut the arroyo bed to this extent, especially without grade control. The project site has lots of elevation gain above the arroyo. Why doesn't this design just increase in grade from the existing channel edge elevation?
 - i. At station 15+60, an arroyo bed elevation of 84 is proposed, which is 8 feet lower than the arroyo bed elevation at station 14+75. The grading plan does not show the proposed grades from 84 to 92 and why is a hole proposed?
 - j. Provide erosion protection where the 66" storm drains enter the arroyo. Provide method and calculations. An acceptable method is shown in "Urban Storm Drainage Criteria Manual, Volume 2" from Denver Colorado.
 - k. Erosion protection criteria specified in comment J above also applies to the outlet(s) from the SWQ pond and additional outlets to the arroyo.
 - l. A different line type for the floodway is shown on the east side of the floodway.

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- m. Once the WSE elevation is corrected to NAVD 88, the WSE can be compared to the grading plan.

If you have any questions, you can contact me at 924-3420.

Sincerely,

A handwritten signature in black ink, appearing to read 'Curtis C. Cherne'.

Curtis Cherne, P.E., CFM
Principal Engineer
Floodplain Administrator

Copy: Hydrology, DRB Chair, City Engineer, AMAFCA

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