

November 13, 2017

James D. Hughes, PE  
City of Albuquerque  
Development Review Services  
600 2<sup>nd</sup> Street NW  
Albuquerque, NM 87102

Re: Del Webb @ Mirehaven Arroyo LOMR Request  
Comment Response Letter  
Hydrology File No. H09D017D

Dear Doug:

Please find attached the second submittal of the Letter of Map Revision (LOMR) Request package for Mirehaven Arroyo A and Mirehaven Arroyos B & C, located within Zone Atlas Map Number H-08-Z and H0-9-Z, to the east and west of Tierra Pintada Boulevard. The request has been revised to address your comments dated October 16, 2017, and in accordance with discussions at our meeting on the same date. We are requesting your review and approval. After completing your review, please provide your signature on the Overview & Concurrence Form for us to include in our submittal to FEMA.

Your comments provided in a letter dated August 30, 2017, and a response to each are provided below:

1. The request should be bound in a three-ring binder so that additional information, if requested, by FEMA can be easily inserted. The binder should have pockets in the front and back also for additional data.
  - *Response: The hard copy submittal has been formatted as requested.*
2. Sheet 2 of the Topo Work Map is missing so that part of the request could not be reviewed.
  - *Response: Sheet 2 was included in the digital submittal of the LOMR Request but was mistakenly omitted from the hard copy. A hard copy is included in the attached submittal.*
3. The Revised SFHA Boundary on the Annotated FIRM should not include any revisions below Tierra Pintada St. The arroyo below Tierra Pintada is under construction as part of the Stormcloud subdivision construction. That separate development will provide a separate LOMR after that construction is complete. This should be added to the explanation on the forms and the Annotated FIRM should be revised accordingly.
  - *Response: Additional Explanations for Form 1, section B.5 has been revised to discuss the limit of the proposed SFHA revision as requested by COA. It should be noted that FEMA may not allow the limit of the proposed SFHA revision be to be limited to upstream of Tierra Pintada Blvd because the proposed SFHA limit does not tie into the effective Zone AO SFHA at this location. However, per your direction we have limited the revision and indicated that this was required by the community official.*
4. Provide full sized plots of the annotated FIRMs.
  - *Response: Full size plots are provided as requested.*
5. Provide digital copies of the Annotated FIRMs, the Topo Work Maps, and the HEC-RAS

Engineering ▲

Spatial Data ▲

Advanced Technologies ▲

Models on a CD or flash drive enclosed in the three ring binder. Digital files should consist of both PDF files, and the basic software files such as HEC-RAS and ACAD. A PDF copy of the entire request should also be on the CD.

- *Response: Digital files as requested are provided on a CD enclosed in the binder.*
6. Form 2.A.1 "changed condition" should not be checked.
- *Response: Form revised as requested. No revision to hydrology is included in the request.*
7. Form 1.B.5.b " fill" should also be checked.
- *Response: Form revised.*
8. Form 1.D "Community Official" information should be filled in. The Community Official's signature indicates a certification that ESA compliance has been achieved, so please include documentation of ESA compliance in the LOMR request.
- *Response: Form revised to include your information as the Community Official as discussed at our 10/16/2017 meeting. The Phase 1 Environmental Site Assessment, which was the environmental documentation required by the City during the permitting process, is provided on a CD for your reference. This documentation is not required by FEMA and is not included in the LOMR Request package to be submitted to FEMA. We have not yet located any Endangered Species Act compliance documentation for the subject reach of Mirehaven Arroyo A but have reached out to Marron and Associates, who has performed much of the environmental consulting work in this area, and continue to research this matter. We will provide any additional documentation to you if it becomes available.*
9. Form 2.B.4 should include "Duplicate Effective" and "Corrected Effective Models" obtained from FEMA. Use a data request form to obtain the downstream models. Models of the existing predevelopment conditions in the AO zones will not be required by the City of Albuquerque but they may be required by FEMA. The river stationing used should agree with previous approved FEMA studies. Current effective models should be requested from FEMA and included in the analysis. There are two other studies downstream of this one, Stormcloud LOMR and the currently mapped AE zone that that study ties into. This study should assume that the Stormcloud construction will be completed according to the CLOMR for that development as the starting downstream condition.
- *Response: The effective model for the Mirehaven Arroyo A from the Ladera Dam Pond to approximately 2,700 feet upstream of the Ladera Dam Pond was obtained from FEMA through a FIS Data Request. The HEC-RAS analysis provided with this LOMR request ties into that effective model. The effective SFHA upstream of that model is a Zone AO and no effective model was provided by FEMA. Modeling associated with the Stormcloud CLOMR is not an effective model because the improvements have not been constructed and a LOMR processed through FEMA. We do not believe FEMA will accept a downstream boundary condition based on proposed improvements (channel improvements associated with Stormcloud) and so no revision to the downstream limits or boundary condition of the model have been made. The effective downstream model is not georeferenced and uses river stationing that does not correspond to reach lengths. Therefore, the relationship between river stationing used by this LOMR request and the effective downstream model is provided on the Topographic Work Map but the river stationing used by each do not match.*

10. The annotated FIRM needs more specific labels added. The portion of the revised floodplain that is contained by the shotcrete bank protection should be changed from an AO zone to an AE zone with BFE contours labeled near the top and toe of each grade control structure. The portion upstream of the shotcrete should still be mapped as an AO zone due to its erosive shifting nature.
  - *Response: As requested, the proposed revised reaches upstream of the shotcrete bank protection have been labeled as Zone AO. The reach contained by the shotcrete is labeled as Zone AE. As discussed at our October 16, 2017, meeting, it is my experience that FEMA produces their own BFE labels for the revised FIRM that accompanies the LOMR and that the Annotated FIRM does not require BFE labels. As the engineer of record, it is our preference to not provide BFEs on the Annotated FIRM to limit the potential for this data to be misinterpreted by others in the future. Our opinion is that the HEC-RAS model and more detailed Topographic Work Map or the official FIRM issued by FEMA should be consulted to determine BFEs. BFE labels were not added to the Annotated FIRM.*
11. The BFE should be based on subcritical depth. Please revise the HEC-RAS model and all profiles and exhibit to reflect the subcritical elevations. There are too many abrupt changes in channel geometry to assume that any portion of the flow is supercritical.
  - *Response: As requested, only the subcritical model has been submitted and subcritical water surface elevations are reflected on exhibits.*
12. Additional comments may be made after the city is given the opportunity to review the missing and revised information listed above.
  - *Response: Noted.*
13. The erosion noted during the final inspection must be repaired prior to the City acceptance of the improvements and prior to submitting this LOMR Request to FEMA.
  - *Response: Noted. The developer, Pulte, has contracted with Superior Construction and has assured us that the erosion will be repaired within two weeks.*

If you have questions or require additional information, please contact me at 823-1000.

Sincerely,



Vincent Steiner, PE  
Engineer  
Water Resources

Enclosures

VS/crh

cc: Alandren Etiantus, BHI (w/o encls.)  
Yolanda Padilla Moyer, BHI (w/o encls.)  
Kevin Patton, Pulte Group (w/o encls.)