

# CITY OF ALBUQUERQUE



October 9, 2012

David B. Thompson, P.E.  
Thompson Engineering Consultants, Inc.  
P.O. Box 65760  
Albuquerque, NM 87193

**Re: Amendment to the Trails Drainage Master Plan  
Engineer's Stamp Date 9-7-12 (C09-D001)**

Dear Mr. Thompson,

Based upon the information provided in your submittal received 9-7-12, the above referenced report cannot be approved until the following comments are addressed:

1. The report proposes a public storm drain, from Basin F6, through a future private drainage easement on Future Pond F5. Pond F5 could be restricted to the eastern portion of Tract OS-3 to remove the conflict with the public storm drain. The proposed storm drain would also require an easement and should be located in Tract 2 rather than Tract 8. In addition, the plat has a blanket public storm drain easement on Tract OS-3 that should be vacated.
2. It is not clear that pipe sizes are adequate in the reaches STA 600 to 800 and STA 3285 to 3885. The ground elevation used in the HGL should be specified (e.g. street centerline or storm drain centerline). In addition, the street section has changed from 100 feet to 77 feet. Therefore, the storm drain centerline is no longer at the high point in the street cross section.
3. Analysis Point AP-D is shown to have a peak flow of 9.15 cfs. The as-builts show a flow of 24 cfs. With pressure flow, shouldn't this pipe be carrying closer to 35 cfs? If an orifice plate is proposed, it should be shown on the plate and discussed in the report.
4. Why is the outflow from Pond G only 7 cfs? Similar to Pond D, a 24" storm drain with 6 feet of head should have a higher flow.
5. Hydrology is concerned with the use of orifice plates as they may plug and unlike a standpipe, the debris/sediment cannot be easily detected. What is the smallest orifice that should be built in a storm drain before it will get plugged with debris? 8 inches? 12 inches?

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6. What is the required volume of Pond K if orifice plates are not installed?
7. In surge ponds D, G and H the invert is lower than the bottom of pond. The flow values appear to be low.
8. Why was the 24-hour storm used for peak flows, when the 6-hour storm produces a higher peak? Provide an HGL for the Universe Blvd storm drain using the 6 hr storm. The flow values for the storm drains shown on the plates should be the 6 hour storm values rather than the 24 hour storm. Pond volumes and WSE's should use be the 24 hour storm if it takes longer than 6 hours for them to drain.
9. Provide pond hydrographs so the drain time is known.
10. The storm drain in Rio Glister Pl is shown as 24" on Plate 2, but is a 30" on the CPN 730087 as-builts. Provide as-builts for all storm drains at The Trails, so storm drains in the proposed DMP can be verified.
11. The additional data that was provided via e-mail for the Cantata Storm Drain approval should be contained in the drainage report.
12. In the Methodology section of the report, change the second sentence to remove "...the interim conditions" and that only the 24-hour storm event was used.
13. On page 4 the statement is made "...area is 41.80 CFS, which is less that (typo) the 42 CFS allowable in the previously approved Trails DMP. It should be clear that the lower flow rate was requested by the developer and was not a requirement of the City.
14. Since there is no Pond L, would it be clearer to rename the "L" basins to "J"?
15. Are ponds Pond Offsite 2, Pond Offsite 1, Pond B, Pond A5, Pond A6 Pond D1 and Pond E constructed? If not, please label them as future ponds.
16. In the existing condition, doesn't Basin B drain through Tract 7 to the Valle Vista subdivision?
17. Are any offsite ponds required to protect existing homes and infrastructure?
18. Valle Vista at the Trails Unit 2 has constructed streets. It does not appear that the drainage from Tract 8, Tract 7, Tract 2 and the Monument Tract to the west of it will drain into the 24" RCP. Is additional grading and a sedimentation pond required?

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19. Easements and Agreements and Covenants will be required for Basins A, B and E. They can be delayed until development occurs in these areas.
20. Provide an existing conditions plate with a table of existing flows and volumes per basin.
21. It appears that offsite flows enter this site west of the area shown. The offsite basin(s) should be shown and the flows accounted for. This information could be shown on the existing conditions plate.

If you have any questions, you can contact me at 924-3986.

Sincerely,

Curtis Cherne, P.E.  
Principal Engineer, Planning Dept.  
Development and Building Services

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Cc: file

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