

CITY OF ALBUQUERQUE



May 29, 2014

Charles Easterling, P.E.
Easterling Consultants
3613 NM 528, Suite E-2
Albuquerque, NM 87114

**Re: I40 South and Unser Mini DMP
Engineer's Stamp Date 4-21-14 (K09D026)**

Dear Mr. Easterling,

Based upon the information provided in your submittal received 4-21-14, the above referenced report cannot be approved for Drainage Masterplan until the following comments are addressed:

1. This is the first drainage submittal to the City of Albuquerque using the HEC-HMS model. As you are aware, incorporating HEC-HMS into the DPM is scheduled to be discussed with the DPM Technical Committee in the next few months. It appears you do not wish to wait for the usual collaboration. Therefore, submit a parallel analysis using AHYMO (preferably version 97) as the model for comparison using the DEVEX land treatments.
2. Show the new alignment of 94th/Daytona per the Avalon Unit 5 plat. This will most likely change DEVEX basins A-1D and C-2D.1 by removing the piece east of 94th out of basin A-1D and putting this area into basin C-2D.1
3. On the existing and DEVEX plates, it would be beneficial to replace the HEC-HMS input parameters table with a table that provides curve number, soil group, volumes and flows per basin.
4. There should be an eastern boundary for basin C-2D.2. Why would platting change the existing basin boundaries?
5. Include the offsite basins and entry location shown in Brucker's drainage report by Tierra West as well as the offsite basin on the north side of I-40 that drains to the pipe near the existing box culvert that caused the flooding problem at Bruckner's. This offsite basin extends west to 98th street
6. On the bottom of p.3 the report states that "Pond 6...outfall through and connects to Pond 5.." The Unser Diversion Channel Design report states that "A 36" storm drain will connect Pond 6 to downstream Pond 4..."
7. The eastern boundary for basin C-2D.2 in the developed condition should be near the east side of the ponds.
8. Provide documentation of how the program uses the information when information is included in the Curve Number and the Impervious boxes.
9. Provide a time-stage/wse elevation curve for each pond so it is evident how long it takes for the ponds to drain.

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10. The 24-hour storm was used in this analysis, but the model was set to run for 7 days. Therefore, the 7-day storm should be used. Hydrology would prefer modeling back-to-back six hour storms as that is more representative to conditions in Albuquerque. HEC-HMS has an "Initial Storage" component that could be used in this analysis.
11. For street and pipe flows, the 6-hour storm should be used as the peak is higher than the 24-hour storm.
12. How does the SCS Type II storm differ from the AHYMO storm? Provide both hyetographs on the same page for review.
13. TR 55 specifies using a curve number of 98 for streets. Why did you use a curve number of 82?
14. "DEVEX" is an unusual designation and may not be received as meaning developed conditions. Please replace all instances of "DEVEX" with "Developed Conditions".

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

Sincerely,

A handwritten signature in cursive script, reading "Curtis Cherne".

Curtis Cherne, P.E.
Principal Engineer, Hydrology
Planning Dept.

PO Box 1293

Albuquerque

C: e-mail

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