DRB Alternate Curtis Cherne Comments on PR-2019-002496

1. Hydrology

As part of the review, I reviewed the North Albuquerque Acres Drainage Master Plan. It is referenced on the Preliminary Grading and Drainage Plan. I also reviewed the drainage plan for Hope Plaza.

Since this is a “Preliminary” or “Conceptual” drainage plan any shortcomings and details would get picked up during the review of the project for Building Permit approval. I did not see any details of the pond routing to be able to verify the flow rate out of the pond and to verify the required pond volume.

The drainage plan states a proposed discharge from the site of 6.9 cfs, which is reduced from 12.1 cfs due to the onsite pond.

1. The drainage plan uses a time of concentration and time to peak that in effect reduces the required pond volume. I do not think this is applicable since all the drainage ends up in the pond and does not start to drain out until the pond is 1 foot full. Not using time of concentration and time to peak, I calculated 21,599 cu ft rather than the 20,730 cu. ft. stated in the drainage plan. Of course, this is only 5% difference.
2. Pond depth is reported as 3.5 feet deep. Bottom of wall at 86.0 and top of wall at 89.5, with the invert of the sidewalk culverts at 87.0. The calculations do not appear to take “Freeboard” into account which is usually 1 foot. This effectively reduces the pond volume as its depth is only 2.5 feet rather than 3.5 feet as stated.
3. Provide sidewalk culvert calculations.
4. The Consultant should consider a fence around the pond it is deeper than 18”.

Conclusions:

1. For a Preliminary Grading and Drainage Plan it is acceptable, but the Consultant should address comments (a), (b), (c) and (d) above when submitting for Building Permit.
2. Street alignment: It is difficult to tell if the proposed lanes east of Barstow will align with the through lane west of Barstow for the east-bound movement. Please add an exhibit.