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December 8, 2011

Shahab Biazar, PE
City of Albuquerque
Planning Department
PO Box 1293
Albuquerque, NM 87103

Re: **Lincoln Complex, Drainage Master Plan, Engineer Stamp Dated 10-11-2011 (K15/D47) – Responses to Review Comments.**

Dear Mr. Biazar:

Thank you for your review of the subject document and comment letter (copy attached). AMAFCA also has reviewed the document and a copy of their comment letter dated 11-16-2011 is also attached. We have revised the document to correct some typos and errors. Below are your comments and our responses to the comments. I respectfully request for you to review and respond to the acceptability of our responses prior to us reprinting the document for your final review.

- Comment:** *Please use the precipitation data from Zone 2, Table A.2 for the runoff calculations.*
Response: Chapter 22, Section 2, Part C.2 of the DPM states that the unit hydrograph procedure should not utilize precipitation depth values from the zone based tables. The DPM indicates that precipitation depth values obtained from the NOAA Atlas 2, or figures C-1, C-2 (included in DPM Part C-3) should be used for this type of analysis.

Figures C-2 and C-3 are isopluvial precipitation depth charts from Part C of the DPM for the P_{360} (6-hr) and P_{1440} (24-hour) storm events. The Lincoln Campus falls within K14 and K-15 of the Bernalillo County Map Index. The values indicated by the chart for this location are consistent with the values obtained from NOAA Atlas 14, which we utilized. Thus, we believe that precipitation values that were used in the AHYMO Model for the study are appropriate and respectfully request to leave them un-changed.

- Comment:** *It appears that Pond 3 will encroach into the proposed building.*
Response: We could not identify the encroachment that you indicated on Figure 9. Please note that the purpose of this drainage master plan is to provide general concepts for drainage design on the site. As such, the proposed drainage facilities and buildings that are shown on the exhibits are schematic in nature. We understand that all drainage facilities will need to be designed to avoid conflicts with buildings.



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3. **Comment:** *There are existing buildings where Pond 1 and 2 are proposed. Are these buildings being removed?*
Response: The existing buildings of concern are to be removed. Figure 7 shows the approximate footprints of the buildings proposed to remain or to be constructed on the site.
4. **Comment:** *Show existing easements on the plan.*
Response: We understand that existing easements will need to be tied down and presented as the design of proposed drainage facilities progresses to preliminary and final design. However, this work is not a part of the current scope. We respectfully request that this comment be deferred until preliminary design of the facilities occurs.
5. **Comment:** *Include on Tables 1 and 3 that the flows are based on the 100-yr/6-hr storm and volumes are based on the 100-yr/24-hr storm.*
Response: We have added labels to Tables 1 through 4 in the report to indicate that the presented peak flow rates are based on the 100-yr/6-hr storm and the presented volumes are based on the 100-yr/24-hr storm.
6. **Comment:** *Double check the numbers from the Tables against the AHYMO results.*
Response: All tables included in the report text and on the existing and proposed maps have been checked against the AHYMO output and revised where we found discrepancies.
7. **Comment:** *AHYMO input file shows that the site is within Zone 1, and it should be Zone 2.*
Response: We have corrected these comment statements in the model. They had been carried forward from a previous model. Since the errors were only in the comment statements, correction of the text did not have any impact on model output values.
8. **Comment:** *Approval from AMAFCA will be required for the proposed changes.*
Response: AMAFCA has reviewed the Master Drainage Plan and has indicated in the attached letter that the drainage concepts presented in the plan are approved. AMAFCA also identified some typos in the report. We have corrected these typos.
9. **Comment:** *New Mexico Department of Transportation approval will be required for any changes to the existing discharges to the NMDOT right-of-way as well as any construction work within the NMDOT right-of-way.*
Response: The Master Drainage Plan proposes to maintain existing discharge points to the NMDOT right-of-way and reduce peak flow rates to the right of way. Thus, we do not believe that NMDOT review and approval is currently required. We do agree that NMDOT review and approval will be required in the design and construction of drainage facilities that extend into the NMDOT right-of-way.



Please let me know if our responses are acceptable. Upon receiving your acceptance, we will publish the revised drainage master plan document for your final review and approval. Please do not hesitate to call me ((719) 302-6742) or e-mail me (vance.fossinger@wilsonco.com) if you have any questions or concerns that you would like to discuss.

Sincerely,
WILSON & COMPANY

Vancel Fossinger, PE
Project Manager

CC: Curtis Cherne, City Hydrologist
Lynn Mazur, AMAFCA Development Review Engineer

CITY OF ALBUQUERQUE



Vancel S. Fossinger, P.E.
Wilson & Company, Inc.
4900 Lang Ave. NE
Albuquerque, NM 87109

Re: Lincoln Complex, Drainage Master Plan, Engineer's Stamp
Dated 10-11-2011 (K15/D47)

Dear Mr. Fossinger,

Based upon the information provided in your submittal received 11-13-11, the above referenced report cannot be approved until the following comments are addressed:

- Please use the precipitation data from Zone 2, Table A.2 for the runoff calculations.
- It appears that Pond 3 will encroach into the proposed building.
- There are existing buildings where Pond 1 and 2 are proposed. Are these buildings being removed?
- Show existing easements on the plan.
- Include on Tables 1 and 3 that the flows are based on the 100-yr/6-hr storm and volumes are based on the 100-yr/24-hr storm.
- Double check the numbers from the Tables against the AHYMO results.
- AHYMO input file shows that the site is within Zone 1, and it should be Zone 2.
- Approval from AMAFCA will be required for the proposed changes.
- New Mexico Department of Transportation approval will be required for any changes to the existing discharges to the NMDOT right-of-way as well as any construction work within the NMDOT right-of-way.

If you have any questions, you can contact me at 924-3695.

Sincerely,

Shahab Biazar, P.E.
Senior Engineer, Planning Dept.
Development and Building Services

C: File

Danny Hernandez, Chairman
Ronald D. Brown, Vice Chairman
Bruce M. Thomson, Secretary-Treasurer
Tim Eichenberg, Assistant Secretary-Treasurer
Daniel F. Lyon, Director

Jerry M. Lovato, P.E.
Executive Engineer



**Albuquerque
Metropolitan
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Flood
Control
Authority**

2600 Prospect N.E., Albuquerque, NM 87107
Phone: (505) 884-2215 Fax: (505) 884-0214
Website: www.amafca.org

November 16, 2011

Mr. Vancel S. Fossinger, P.E.
Wilson & Company
4900 Land Ave. NE
Albuquerque, NM 87109

Via: Electronic & Regular Mail

Re: APS Lincoln Complex Drainage Master Plan, ZAP K-15
Engineer's Stamp Dated 10-11-11

Dear Mr. Fossinger:

I have reviewed the referenced Drainage Master Plant (DMP) for the Albuquerque Public Schools (APS) central complex site with respect to flow to the South Diversion Channel (SDC). I approve the drainage concepts presented in the report. One item I would like to note is that this area is covered in a current hydrologic and hydraulic re-study of the SDC. However, the APS complex was not included as a contributing basin. I have instructed the consultant to revise his models to include the area that will drain to the SDC. We know there is a freeboard deficiency downstream of Avenida Cesar Chavez, but I don't yet know what effect the additional flow from the added APS basin will have.

Following are some additional items I noted in the report:

1. On Figure 10, Pond #1 is labeled #2.
2. Page 26, paragraph 6, should "deferential" be "differential"?
3. Page 27, paragraph 4, "Basins 126-133" should be "Basins 226-233".
4. Page 30, title of Section 4.6.6 should be "Proposed".

You may call me at 884-2215 if you have further questions or require additional information.

Sincerely,
AMAFCA

Lynn M. Mazur, P.E., C.F.M.
Development Review Engineer

C: Curtis Cherne, City Hydrologist