

CITY OF ALBUQUERQUE

PLANNING DEPARTMENT – Development & Building Services



May 17, 2013

Richard J. Berry, Mayor

David Soule, P.E.
Rio Grande Engineering
P.O. Box 93924
Albuquerque, New Mexico 87199

RE: **Zia Park Townhouse Apartments** – Zia Road NE
Grading & Drainage Plan for Grading and Building Permit
Tracts H & I, La Cuesta Subdivision

File **K22-D022D**
PE Stamp: 5/5/13

Dear Mr. Soule,

Based upon the information provided in your submittal received 5/6/2013, the above referenced plan is cannot be approved for **Grading Permit**. Since this site grading is dependant upon some significant retaining walls, some comments require more detailed response than a simple grading plan would typically require. Resolution of all of the following issues would make this plan acceptable for Grading and Building Permit.

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1. The proposed Private Drainage Easement to the west, crossing Tract J, which was submitted with this plan is not acceptable, per comments from Curtis Cherne.
2. Detention of discharge from this site at the proposed rate of 12.72 cfs, will result in no off-site changes being required on tract K, west of Paisano Street.
3. Include all relevant Easement information on the plan. Update labeling when an approved Drainage Easement is filed on Tract J. There is an existing 15' wide, Private Sewer easement crossing the southern edge of this site, as well as Tract J. Show the location of any existing sewer facilities within this easement, and provide design details for conflicts, such as cleanouts that fall within pavement and drainage improvements, to ensure no cross connection of storm runoff to the sanitary sewer.
4. During a field visit to the site on 5/16/13, a broken off, 4" PVC riser was observed approx 200' east of the west lot line and 11' north of the south wall, which may be a clean out on a Private Sanitary Sewer system. Your survey also identifies a cleanout near the SE corner of the site. If there is a private sewer line in the easement, plumbing code would dictate cleanouts at 100' maximum spacing, which may result in conflicts with proposed drainage ponds and the outfall channel. Investigate and respond, similar to Item 3.

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5. Clearly label or identify by Legend, all proposed structures and surface treatment conditions shown on your plan (e.g.- Pavement, Curbs, Landscape or turf areas, etc.). Clean up typo errors and errant information on the LEGEND.
6. Provide curb cuts to allow street flows to enter the two water quality/harvesting ponds on the north side of the “U” drive (SE of Bldg. D and SW of Bldg. F). Show with flow arrows, how the water is directed into or through these areas.
7. You indicated that the backyards are not intended to retain storm water runoff. Add some flow arrows to show how these areas will drain, with attention to the several locations where retaining walls are shown crossing the apparent flow path.
8. Provide a cross section at the west property boundary showing how the proposed retaining wall is to be built with existing block/wrought iron fence, to keep Zia Park, back yard and roof runoff from discharging onto Tract J.
9. Check the spot elevation of 5541.11 shown at the east entrance off Zia Road.
10. Per the Legend symbols, there is a retaining wall proposed along the south edge of the site. If so, provide a cross section of how it is to fit; if not, clarify the plan.
11. Regarding the existing paved roadway and proposed retaining wall along the eastern boundary of the site:
 - a. Show and label/dimension the “Mutual Access Easement.”
 - b. Clarify the limits the existing and proposed pavement, and provide flow arrows for drainage patterns.
 - c. This plan shows a retaining wall, designed by others, separating the roadway from the new back yards, 4’ to 10’ lower. Although you may defer structural design details to others, this extreme situation of grade change adjacent to a traffic lane must be at least schematically addressed by this plan.
 - i. What structural barrier will be required to keep vehicles out of yards, and will it affect runoff?
 - ii. Code restrictions on back yard wall heights (including traffic barriers and garden walls) will dictate terraced retaining walls on a portion of this boundary. Investigate and resolve for grading requirements.
 - iii. Provide a typical Section through the retaining wall(s) and paving, extending to the east property line. This needs to show how drainage will be kept in the roadway, directed away from the retaining wall and yards below it.

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12. Regarding the outfall channel at the SW corner of the site and crossing Tract J:
- The portion of channel on site has a slope of $\pm 6\%$. What erosion protection is required for this pond outfall channel?
 - Provide a detail for the swale crossing of the security fence at the property line with Tract J. Consider flow capacity and security.
 - The 6" Fractured Rock Swale Detail is 7' wide, however site measurements revealed that the existing parking lot improvements on Tract J are approximately 6' from the southern property line, and the existing split faced block wall is over 6" south of the SW property corner (found plastic survey cap marked "Miers 12447").
 - Provide a cross section of the Tract J swale, showing relative position of Rock Swale, adjacent paving and CMU wall, and detailing any revisions to the existing landscaping and parking lot improvements.
 - The existing landscaping in the proposed drainage easement on Tract J includes four, 4' diameter Juniper shrubs, 2 Locust trees, and a very large (>20" dia.) Russian Olive tree. Will this landscaping all be removed, or will the channel capacity accommodate these obstructions?
 - If parking spaces on Tract J are revised to accommodate the drainage swale, Planning/Transportation Section must concur.
13. Regarding the Sidewalk culverts on Paisano Street:
- On 5/8/12, the DRB (Case No. 1005236) limited this sidewalk culvert installation to two, 24" wide culverts, rather than the three shown.
 - Provide Chezy/Manning's formula calculations to verify that the 2-24" culverts have capacity for the site/channel outflow of .
 - Provide design details for hydraulic transition to effectively get the flow from the rock lined, trapezoidal channel into the 2-24" rectangular culverts.
 - Refer to the COA Standard DWG 2236, amended May 2011, which includes welding the bolt heads to the cover plate. (Copy attached for reference)
 - Extend the sidewalk culverts at least two feet back of sidewalk, unless the hydraulic transition feature above, provides some alternate, drop-off safety at the upstream edge of the culvert.
14. Make corrections to numerous typos in the "Notice To Contractor" for the construction of "Private Drainage Improvements in Public R/W."
15. For clarity on some of these comments, I have attached a scanned copy of you plan, bearing Red Line markings of my comments. This attachment is intended as an aid, and is not required with any resubmittal.

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Since this site exceeds one (1) acre, an Erosion and Sediment Control (ESC) Plan prepared by a NM Registered Professional Engineer must be submitted to this office, and approved prior to start of **Grading**.

Attached for reference is a copy of our updated “Drainage and Transportation Information Sheet” which includes a section for ESC Plan submittals.

If you have any questions, please contact me at grolson@cabq.gov or phone 505-924-3994.

Sincerely,

A handwritten signature in blue ink, appearing to read "Gregory Olson", followed by the date "5/17/13" also in blue ink.

Gregory R. Olson, P.E.

Senior Engineer

Attachments: DRAINAGE INFO SHEET.pdf (Rev. 02/2013)
COA Standard Drawing 2236, amended May 2011
Scanned copy of Red line plan sheet, for info only

Orig: Drainage file K22-D022D
c.pdf Addressee via Email: david@riograndeengineering.com