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March 4, 2020

El Paso County Planning and Community Development Department
Attn: Nina Ruiz, Project Manager
2880 International Circle
Colorado Springs, CO 80910

**SUBJECT: Monument Academy – Construction Drawing Review
Response to County Review Comments
CDR-20-001**

Dear Nina:

In conjunction with our TIS, Roundabout Design Report, and Construction Drawing resubmittal, this letter provides responses to the review comments detailed in the Memorandum from PCD-Engineering dated February 6, 2020. These review comments are specifically addressed as follows (**Applicant responses are annotated in bold / red / parenthesis following each County comment**):

PCD Memorandum dated February 6, 2020

Transportation / Traffic Impact Study

1. See TIS redlines and previous comments on PCD project U-19-002. Resolution of those comments will be completed through this Site Development Plan review. Partially resolved; see remaining/updated redlines. *Partially resolved; see remaining/updated redlines. **Partially resolved; see remaining/updated redlines.***
 - a. Walker Road is identified as Project C9, 4-Lane Minor Arterial, in Table 4 of the 2016 MTCP Update. It remains to be determined what the actual cross-section and limits of ROW will be in the subject segment. The necessary minimum ROW will be between 140 and 180 feet depending on the agreed-upon cross-section and topography (side slopes). This site is anticipated to generate almost half the traffic on Walker Road, not including potential future commercial uses. The total 2040 ADT in the previous report seemed to indicate that the 4-lane cross-section (plus turn lanes) will be necessary, at least to the proposed site access. Further discussion is required. *Anticipated ROW lines resolved for SDP; to be*

verified with CD approval and subdivision plat. See PPR-19-009 comments regarding showing latest design for ultimate ROW.

- b. Address conflicting left turns from Walker Road to Shannon Road and proposed Road A (previous redline). *Resolved; confirm that the eastbound left turn to Shannon Road from the through lane is anticipated to function properly. (See redlines on preliminary roundabout design).*
- c. It is unclear between the plans and TIS what the configuration will be at the proposed southeast driveway to Pinehurst Circle. Will a limitation on left turns/southbound traffic be realistic? Please clarify. *(additional comments may follow)*
- d. **Resolved.**

Note: the TIS was revised to not include potential commercial development on this site which would generate approximately 10,700 additional ADT and result in a cumulative total of about 900 peak hour trips entering and exiting the site during both the afternoon regular and school peak hours as previously estimated. The ultimate complete intersection/ roundabout capacity analyses will need to account for an assumed “highest and best” use of the site. **Resolved.**

- 2. Provide a complete roundabout design report (for the Walker Road intersection). See CD redlines regarding the roundabout. It is anticipated that the roundabout size will be similar (or closer to) to the Baptist Road (west) roundabout size for the WB-67 design vehicle. Provide when available; to be further addressed at the subdivision stage. Provide when available. **Partially resolved; see redlines on preliminary roundabout report.**
- 3. Resolved
- 4. Note: Deviation requests will be further addressed with the complete TIS submittal, development agreement, and access permit review; see cursory redlines. *TIS redlines and additional comments will be provided separately. Approval of the deviation requests is critical. Please use the new deviation request form for the resubmittal.*
 - a. **Resolved with roundabout design.**
 - b. *Deviation request #2 (Jane Lundeen Drive access and cross-section) – See redlines. (previous comments; deviation requests not resubmitted)*
 - i. *A roundabout may also be desirable at the northernmost parking lot access, aligning with the future commercial access to the west; address as appropriate.*
 - ii. *A right-in/right-out only access may be appropriate for the southern, YMCA parking lot access; address this option in the deviation request.*
 - iii. *With analysis of potential roundabouts at three locations along this road, address the use raised medians between them which would provide superior safety and traffic management benefits. The use of roundabouts would also negate the need for turn lane additions and allow for a narrower roadway cross-section for a vast majority of the newly constructed roads with widening at the access / intersection locations only for the roundabouts, thereby minimizing intersection and roadway construction costs. Since these are new*

roads, roundabout constructability would be streamlined and cost effective.

- c. Deviation request #3 (Pinehurst Circle design speed, radius and cross-section) – See comment #5 below and deviation request redlines.
- d. **Note: curve radii and posted speeds approaching the Walker Road roundabout need to be addressed.**

Include supporting information from the TIS as applicable in the deviation requests.

- 5. The traffic on Pinehurst Circle east of Highway 83 is shown to be 1,065 ADT, rising to 5,600 ADT with ultimate development of the area; a Rural Major Collector allows 3,000 ADT. Address the ADT, phasing and ultimate cross-sections in the deviation requests. Since access to Highway 83 is being limited to right-in only, the cross-section for the one-lane cross-section should be sized according to the long term one-way entering traffic. **Address the recommended cross-section for the one-way road design.**
- 6. **Resolved.**
- 7. Address queuing with the school 15-minute peak. **Resolved; provide the MSTA calculations for charter school (see attached form screenshot).**
- 8. Address the amount of traffic from Shannon Road. **Unresolved; address on page 4 of the TIS in the “Area Roadways” section.**
- 9. Provide safety/accident information and analysis. **Unresolved.**
- 10. Address neighborhood and public input issues. **Unresolved.**
- 11. Verify coordination with law enforcement (CSP, EPSO) and school officials on the school routing plan. **Provide when available.**
- 12. Regarding pedestrian and bicycle facilities, include the use of rural road shoulders (as provided for in the EPC typical cross-sections) in the discussion and analysis. Address pedestrian and bicycle LOS. **Unresolved.**
- 13. Provide signing and striping recommendations in the TIS. Specifically address signage recommended for the school vicinity. **Unresolved.**
- 14. Note: As requested, County Staff have deliberated the MTCP classification of Walker Road as a four-lane arterial and confirm that it is a valid classification for the amount of future traffic anticipated, the type of development, and access locations on the corridor.
- 15. Note: For clarity going forward, this is how Staff sees the phasing:
 - a. Phase 1a – Onsite grading only
 - b. Phase 1b – Site development plan with assumed access (Development Agreement needed)
 - c. Phase 1c – Site development plan with CDs for roads/access configuration
 - d. Phase 2 – Subdivision, additions to school and YMCA (order ?)
 - e. Phase 3 – Connection of Pinehurst Circle to Walden Way
 - f. Phase 4 – Additional site developmentThese assumptions can be adjusted as necessary.
- 16. (From 12/19/19 e-mail): The spreadsheet total calculations for the 2040 midday appear to have left out the high school trips and it appears that Table 9b (page 9) appears to have the 3:00 to 3:15 pm interval missing from the table. **Partially resolved; see updated redlines on PHF sheets (discussed by phone 2/5/20).**

(Please refer to LSC Responses to Traffic / TIS review items)

Construction Plans / Geotechnical Issues (previous comments; CDs not resubmitted)

1. See CD redlines. Partially resolved; see remaining/updated redlines. ***Partially resolved; see remaining/updated redlines. (Redline comments on CD's have been addressed)***
2. Note: Complete CDs and deviation requests must be submitted for Staff to provide a complete review of the CDs. Unresolved. ***Unresolved. (Complete CDs and deviation requests have been submitted)***
3. through 5 – Resolved.
6. Provide a master construction phasing plan/map addressing the following:
Unresolved; address with development agreement. (Development agreement is being processed by Duncan Bremer and coordinated with County Attorney's Office)
 - a. Initial access for school construction;
 - b. Timing of right-of-way acquisition for roundabout and Shannon Road (will that property owner be a co-applicant or sell developer the property?);
 - c. Shannon Road (public road) realignment and construction of the roundabout on Walker Road;
 - d. Internal road construction phasing (address cul-de-sac on east end);
 - e. Timing of conveyance of the internal roads to El Paso County.
 - f. ***If the onsite roads are proposed to be phased from local/rural (as shown on the CDs) to collector/urban (per the TIS), this needs to be clearly addressed. The traffic on Pinehurst east of Highway 83 is shown to be 1,065 ADT, rising to 5,600 ADT with ultimate development of the area; a Rural Major Collector allows 3,000 ADT. Address the ADT, phasing and ultimate cross-sections in the deviation requests. (Phasing of road improvements from local/rural to collector/urban is no longer proposed)***
7. Provide complete construction plans including ROW/easement plans for the roundabout, Walker Road shoulders and ditches and the proposed relocation of Shannon Road to the west. Unresolved. ***For the purposes of Phase 1B, the proposed T intersection at Walker Road and Jane Lundeen Drive is being preliminarily reviewed. (See updated Roundabout Plans in CD's)***
 - a. ***See deviation request comments above.***
 - b. ***The taper lengths should be based on at least a 45 MPH design speed.***
 - c. ***It appears that off-site easements will be required (on the north side) for the improvements along Walker Road. Show the easements on the plans, provide detailed grading plans and documentation from the property owners that they intend to grant the necessary easements.***
8. Verify that fire hydrant locations meet ECM Section 2.3.5 and Table 2-17 clear zone requirements for the road classifications. Resolved. ***(Verify that the clear zones will be met with ultimate road widths.) (Verified)***

Agreements / Forms / Financial Assurances Estimate / Other ([previous comments; items not resubmitted](#))

1. Resolved.
2. FAE:
 - a. Resolved.
 - b. *The FAE provided only includes Section 1 items for grading; update to include all improvements required for the SDP (review will continue through Phase 1C). (Updated FAE has been submitted for all County public road and drainage improvements)*
 - c. Resolved.
3. See attached Engineering Final Submittal Checklist; the items highlighted in blue will be required prior to the preconstruction meeting.
4. *See previous O&M Manual redlines. Provide instructions for all permanent BMPs, including the two sediment basins next to Highway 83. (As noted on Sh. C2.2 and C3.3 of the plans, and Sh. D1 of the drainage report, the two sediment basins next to Highway 83 are temporary BMPs, not permanent BMPs.)*
5. *Update the SWMP as appropriate and submit with checklist prior to the Phase 1B construction. (Updated SWMP has been submitted)*

Please call if you have any questions or need any additional information.

Sincerely,
JPS Engineering, Inc.

John P. Schwab, P.E.

cc: Brian Risley, CRP Architects
 Matt Dunston
 Duncan Bremer