

MEMORANDUM

**CCES RESPONSES**

DATE: May 21, 2019

TO: Kari Parsons, PCD-Project Manager

FROM: Jeff Rice, PCD-Engineering  
719-520-7877

SUBJECT: SF-19-009– Retreat at Timber Ridge Filing 1  
First Submittal

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**Engineering Division**

Planning and Community Development (PCD)-Engineering reviews plans and reports to ensure general conformance with El Paso County standards and criteria. The project engineer is responsible for compliance with all applicable criteria, including other governmental regulations. Notwithstanding anything depicted in the plans in words or graphic representation, all design and construction related to roads, storm drainage and erosion control shall conform to the standards and requirements of the most recent version of the relevant adopted El Paso County standards, including the Land Development Code (LDC), the Engineering Criteria Manual (ECM), the Drainage Criteria Manual (DCM), and the Drainage Criteria Manual Volume 2 (DCM2). Any deviations from regulations and standards must be requested, and approved by the ECM Administrator, in writing. Any modifications necessary to meet overlooked criteria after-the-fact will be entirely the developer's responsibility to rectify.

A written response to all comments and redlines is required for review of the re-submittal. Please arrange a meeting between the developer's team and County staff to review and discuss these comments and prepared revisions/responses prior to the next submittal. Additional comments may be generated on items added or revised after the original comments.

**Due to the volume and complexity of comments and redlines and the additional information and details required, Staff will provide additional, more detailed comments on the next submittal. If any deviation requests are submitted, a 21-day review period will be necessary with the next review.**

General

1. Note: regarding the "Notice of Fair Share Reimbursement", reference LDC 8.7.2(D) - Process for Request and Approval of Fair Share Reimbursement. The request will be processed when all required items have been submitted, which is to be no earlier than the date of final plat approval and no later than one year after the date of completion of the improvement. **Noted**
2. Show the proposed trail on all applicable plans. **Added**
3. Deviation requests were not found. Provide requests for the following and any other deviations:
  - a. A deviation request from ECM Section I.7.1.B is required addressing all urban lot and road areas not provided with a standard WQCV control measure/BMP. If a deviation is requested for any urban lots, address roof drains being required to drain to the front yards. **Revised plan and no deviation required**
  - b. Non-standard stormwater BMP design; **Revised to Rain Garden**
  - c. Bridge/culvert design; if a deviation is proposed regarding DCM 6.4.2 (bridge freeboard) it should be requested as soon as possible. **Already submitted and now resubmitted addressing comments**

Provide a complete wetland mitigation plan. Documentation regarding adherence to the mitigation plan shall be provided to the Planning and Community Development Department by December 31 of each year beginning at the time of initial ground disturbing activities continuing for three years or until the USACE permit is closed. **Now included in Appendix of FDR**

4. See Letter of Intent redlines. **Revised**
5. Address any proposed street lighting in the Letter of Intent. A license agreement will be required if street lights are proposed within County rights-of-way. **Revised**

#### Final Plat

1. Provide note indicating that the secondary gravel access road will not be County maintained and will be the responsibility of the district or HOA. **Added**
2. If there will be underdrains, add a note stating the entity responsible for maintenance. **Added**
3. Regarding maintenance of Tracts A and C, it is recommended that the district or HOA provide aesthetic maintenance/mowing, etc. Revise notes per redlines. **Revised**
4. Add a plat note stating that lots 29-35, 36-45, and 61-70 accept drainage from upstream areas and purchasers of these lots are responsible for constructing side-lot drainage swales to accommodate the runoff. **Revised**
5. Regarding the Staff-requested (redlined) temporary cul-de-sac easements, the template of the Non-Exclusive Permanent Easement can be provided electronically upon request. **Added**
6. See final plat redlines for additional comments. **Noted**

#### Transportation / Traffic Impact Study

1. See TIS redlines. **Responses by LSC**

#### Final Drainage Report / Drainage Plans

1. Note: this review is cursory due to the need for additional information and analysis as described in the comments below. **Noted**
2. See FDR redlines. **Noted**
3. Remaining SP-18-002 comments on the Sand Creek channel:
  - a. Address specifically how re-routing of flows to specific outfalls on the Sand Creek channel will affect the overall channel flows, velocities, volumes and depths. **HEC-RAS analysis now provided to address**
  - b. Address channel velocities, in the range of 8 to 11 fps per the FEMA study, above the 7 fps recommended in the DBPS, and any stabilization necessary above that called for in the DBPS... to be further addressed with detailed modeling in the FDR. **See HEC-RAS analysis**
  - c. Details, including preliminary design, sizing, and modeling (to verify depths and velocities) are required, including the offsite area in Sterling Ranch adjacent to the west side of the south portion of Timber Ridge (proposed Tract G). The entire reach through and adjacent to this development needs to be addressed... final drainage reports at the final plat stage have a comprehensive plan for improvements. **See revised FDR and CDs**
4. Regarding the Sand Creek channel:
  - a. Provide a complete channel plan and profile. **Now provided**
  - b. Provide maintenance access to the channel and box culvert. **Now provided**
  - c. If the channel is proposed to be County-maintained rather than metro district-maintained, improvements according to the DBPS need to be provided; address completely in the FDR. Additional improvements to those proposed in the DBPS may be needed to qualify for reimbursement and maintenance eligibility. If the developer desires reimbursement for the construction costs and for the County to maintain the

- improvements, the process in the DCM needs to be followed (reference DCM Sections 1.7 and 3.3). **Noted. See revised FDR and CDs**
- d. Verify culvert outlet protection design. It appears that a low tailwater basin/plunge pool may be necessary (DCM10.8.3/UDFCD 9.3.2.2). **See revised culvert design**
  - e. Complete channel stabilization improvements need to be provided adjacent to/around the proposed pond outfall to protect the outfall and to protect the area of the creek impacted by the outfall. **See revised CDs**
  - f. Specifically address geotechnical hazards including unstable slopes and how the channel improvements will fit in with the wetlands mitigation areas. A wetlands mitigation map will be required showing the proposed/required locations of mitigation (replacement areas) as overlapped with the necessary channel improvements. **Specific areas of the channel have been widened outside of the wetlands area to expand the floodplain terraces and manage the existing steep channel slopes. See FDR Appendix for Wetland Mitigation plan**
  - g. An O&M manual for permanent stormwater measures in Sand Creek will need to be provided prior to County acceptance of the channel; the template for this document will be provided to you when available. **Noted. Please send us document when you can.**
5. Regarding ditch protection calculations, long-term stability of native vegetation needs to be shown in areas where temporary ECB is proposed initially. Long runs of channel (over 200 feet) needing permanent long-term protection need a long-term design, such as ditch checks, drop structures or riprap. Address as appropriate. **See revised CDs and grading plan**
  6. Provide discussion of maintenance access and aspects of the preliminary design. Show access roads for ponds/permanent BMPs and channels on the drainage plans. Reference ECM 3.3.3.K. **All Permanent BMPs have access provided to them for maintenance**
  7. Provide a PDB/BMP Maintenance Agreement and Easement for district maintenance of PBMPs. The latest template for the Agreement can be e-mailed upon request. **Please provide us the latest agreement**
  8. Note: The use of permanent sediment basins rather than a standard BMP (PLD/SFB, etc.) for urban lots will require a deviation request. **Revised plan to now include RG** See General comment #3 above. A deviation to allow the area to flow to the creek untreated may be feasible depending on the acreage of the untreated area. **Adjusted location of Perm. BMP and untreated rear yard area is less the 1.0 ac.**
  9. The MS4 Post-Construction Documentation Forms and SDI Worksheets for FSD ponds and any permanent sediment basins will be reviewed with the next submittal. Provide the forms for all detention BMPs. **Now provided** Note: this project is in the Fountain Creek watershed, which requires strict adherence to state statute meaning any detention facilities must be required by the County's MS4 permit. **Noted**
  10. Regarding the BMP O&M/I&M Plan, ensure that all stormwater control measures/BMPs are addressed and maintenance procedures provided corresponding to the final design. **Noted**
  11. Note: Any urban lot areas draining directly offsite may require an easement or other documentation from the adjoining owner(s) that the proposed developed condition is acceptable. **Noted**

#### Construction Plans / Geotechnical Issues / Grading and Erosion Control Plan / SWMP

1. Clearly show and label all required offsite easements. Provide permission/easement documentation or reception numbers. **Off-site esmts. now shown and acquired recorded documentation will be provided prior to approval**
2. Revise pipe size/slope or provide a deviation request with adequate justification and specifications for watertight pressure pipe (ECM 3.3.1.D - exceeding short runs with a pressure head) where applicable. **Watertight joints now specified**
3. Assess the need for signage at the entrances and ends of the cul-de-sacs (W14-1/W14-2 and Type 4 object markers?). **Added/revised**

4. Show and label all maintenance access roads and the trail on the plans. **Added**
5. Address TIS revisions in regard to Vollmer Road improvements. **LSC to address in revised report**
6. Geotechnical issues:
  - a. Provide the necessary additional geotechnical study for final design. **Separate Entech report now provided**
  - b. Address sheet pile and channel improvements and pond embankments. **Reference separate Entech report**
  - c. Generally address stability of existing stock pond embankment(s) proposed to remain. **Only historic undeveloped flows continue to be tributary to exist. stock pond. Embankment will be analyzed**
7. If there will be USPS mail kiosk/cluster(s) in this subdivision provide location(s) and details. **Currently confirming locations with USPS and will provide with final submittal.**
8. Ensure that all GEC Plan and SWMP checklist items (attached) are provided. GEC and SWMP checklists will be reviewed further with the next submittal. **Noted**
9. See CD/GEC Plan redlines for additional comments and clarification of these comments. **Noted**

#### Forms / SIA / Surety Estimate Form

1. Provide the draft Subdivision Improvements Agreement (SIA). **Draft submitted with initial submittal (See EDARP)**
2. See FAE redlines. Note: FAE minimum costs may be revised in the near future requiring update of this FAE. FAE quantities and costs will be reviewed in detail with the next submittal. **See revised/updated FAE**
3. See attached Engineering Final Submittal Checklist for reference. **Noted**