



COLORADO
Department of Transportation

Region 2
Traffic & Safety - Permits
5615 Will Blvd.
Pueblo, CO 81008

December 18, 2020

SH21A
El Paso County

Lindsay Darden, Planner II
El Paso County Planning and community Development
2880 International Circle, Suite 110
Colorado Springs, CO 80910-3127

RE: Trails at Aspen Ridge_Legacy Hills Rd. / Bradley Rd. - SIGNAL **SubNo.2** - review of construction drawings.

Dear Lindsay,

All previous comments are still valid and need to be addressed. Some of those comments are listed within this document.

I am in receipt of a referral request of the subject planned development to provide comments for the construction drawings for a signal to be located at Legacy Rd and Bradley Rd intersection just east of the intersection of Powers Blvd. and Bradley Rd intersection that is planned to be an interchange in the future.

I understand that the Trails at Aspen Ridge formerly known as Springs East at Waterview is located to the east of the development of Waterview East Preliminary Plan, but still within the existing boundary of that development. This mixed use development on 195.25-acres with 713 single-family residential lots on 166.89-acre and 28.36-acres of commercial parcels. The trails at Aspen Ridge proposed to amend the use of 117.98-acres of the original submittal for 180 single-family lots on the southeastern portion of 47-acres with the remaining to be commercial acreage. The development is located east of the Powers Blvd between Bradley Rd and Fontaine Blvd. on the southeast portion of the Waterview East Preliminary Plan area in El Paso County. Comments are as follows;

- Access comments:
 - a. A State Highway Access Permit will be required for the connection of Bradley Road east to SH21A.
 - b. State Highway Access Code, Vol 2, March 2002, Sec 2.13, Interchange Management Plan states; *any access in proximity to the interchange or potential interchange Access Rights should be obtained for a distance of 550-feet along the lesser street or crossroad measured from the radius point of the ramp touchdown curve.* It appears that the PUD Site Plan took this measurement from the centerline of existing SH21 to allow for the Legacy Hill Drive to obtain access from Bradley Rd. This does not comply with the State Highway Access Code and shall be revised.
 - c. There will not be any allowance of direct access from the north-south section of SH21 to the westerly boundary of the subdivision. The only access points will be from local roadways on Bradley Rd. and possibly Fontaine Blvd. and by following the State Highway Access Code.



- d. Legacy Hill Drive access may be converted to RI/RO in the future if traffic issues arise or future traffic warrants are met to close this proposed full movement access crossing. Is it possible to pursue a roundabout at this location?
- e. Escrow funds will be required as a term and condition of Access Permit for a portion of the future SH21A(Powers Blvd.) / Bradley Rd. interchange based on a pro-rata share determined by the traffic impact.
- **Traffic Operations comments dated 11/20/2020:**
 - a. **Per the comments submitted on Nov. 20, 2020, the following need to be included as part of the construction plans:**
 - b. **Plans need to include the construction of the SB dual left turn lane on Powers (Sh21).**
 - c. **Plans need to include the lengthening of the NB right turn decel lane.**
- **Traffic Operations comments dated 10/01/2020**
 - a. Over the past several years, CDOT has made multiple comments regarding the spacing between SH21 and this proposed signal - comments have essentially been dismissed. While I understand that this location of the proposed signal is barely beyond the minimum 550' from SH21, in the future Bradley and Powers will eventually become an interchange. It is highly likely that the proposed location will be within the functional area of the the interchange requiring modifications and possibly the removal of full movement access to Legacy Hills Rd north and south to this development. I do not see the need to push the spacing so tight as this is virgin ground. CDOT requests, again, that the signal be shifted east along Bradely (approximately 750') to avoid future access modifications.
 - b. With this development it will be likely that intersection improvements at the intersection of SH21/Powers Blvd. and Bradley Rd. that will be needed and addressed in an access permit.
- **Traffic Operations Comments 03/21/2020:** Review of the updated Traffic Impact Study dated October 15, 2019 has been reviewed and comments are as follows. Some previous comments were not addressed from previous submittals or comments from 10/01/19. please update.
 - a. Table 4 states that the southbound left turn lane on Powers Blvd can be restriped as dual left turn lanes, however there is no road surface for such restripe; a 150-ft long raised median exists at that location. How is this to be corrected, this will be required as part of terms and conditions of the Access Permit. Please provide update in recommended improvements.
 - b. The existing mast arm will need to be lengthened for the second left turn.
 - c. Bradley Road has been restriped for dual westbound to southbound left turn lanes when the signal was installed; This will be required as part of the Access Permit, please update table 4.
 - d. Table 4 does not include the necessary lengthening of northbound right turn deceleration lane from Power Blvd to Bradley Rd. This will be required as part of the Access Permit, please update in recommended improvements.
 - e. The 2040 Synchro reports for Powers Blvd. Interchange Northbound Ramp at Bradley Rd is missing the existing left turn traffic in both time periods from Figure 13. Please update Figure 13.
 - f. The 2040 assumption of a six-lane Powers Blvd at Bradley overlooks the cost comparison of an interchange versus widening three miles of highway particularly with ADTs only at 40,000. The study should include an interchange alternative of 2040 traffic. Please update.



- g. Figure 19 depicts the long-term Bradley Road lane configuration east of Powers Blvd. It is clear from the drawing that the future eastbound left turn lanes for the future north side access will conflict with the future northbound ramp intersection. Please update.

Previous comments dated 03/12/19 and 10/01/19 are still valid and were not addressed by the developer and require attention (see below).

Hydraulics comments:

- a. Review of the Master Drainage Study dated June 2019.
- b. Please provide calculations that show the capacity of the culvert crossing Powers, and how the Pond outfall and basin that don't drain to the pond affect the capacity of this culvert.
- c. It looks like the southern portion of the Big Johnson Basin is draining south to the existing 48" culvert in the existing condition. Please verify that changing the drainage patterns by capturing and conveying runoff from this area to the detention pond and then to the 60" culvert doesn't cause issues downstream.
- d. Also, the 60" culvert needs to be checked that minor storm event flows will produce velocities high enough to provide self cleaning velocity, per CDOT requirements.
- e. Conversely, please check that the existing 48" culvert, south of the project will have sufficient cleansing velocity flows in the minor storm even after reducing flows at this culvert.
- f. Previous comments on the Powers culvert capacities and minor flow cleansing velocity have not been addressed underlined above. Please provide calculations showing that the CDOT drainage infrastructure is not affected by this development. Include hydrology showing existing vs. proposed overall basin area tributary to culverts crossing under Powers as well as hydraulic analysis of each culvert.

Additionally,

- a. On-premise and off-premise signing shall comply with the current Colorado Outdoor Advertising Act, sections 43-1-401 to 421, C.R.S., and all rules and regulations pertaining to outdoor advertising. Please contact Mr. Todd Ausbun at (719) 696-1403 for any questions regarding advertising devices.
- b. Any utility work within the state highway right of way will require a utility permit from the CDOT. Information for obtaining a utility permit can also be obtained by contacting Mr. Ausbun.

Please contact me in Pueblo at (719) 248-0905 with any questions.

Sincerely,

Arthur Gonzales
R2 - Access Manager

Xc: Jeff Hodson, LSC Transportation Consultants, Inc.
Irvine/Rice/Ruiz
Ferguson



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SH21A
El Paso County

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Whittlef/Biren

Ausbun

Sword/Regalado/file

