

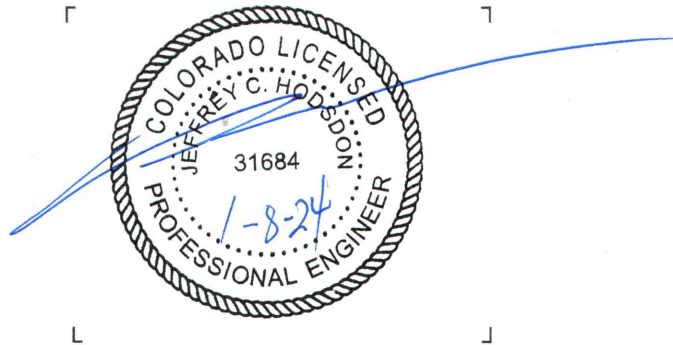
OWNER, APPLICANT, AND ENGINEER DECLARATION

To the best of my knowledge, the information on this application and all additional or supplemental documentation is true, factual and complete. I am fully aware that any misrepresentation of any information on this application may be grounds for denial. I have familiarized myself with the rules, regulations and procedures with respect to preparing and filing this application. I also understand that an incorrect submittal will be cause to have the project removed from the agenda of the Planning Commission, Board of County Commissioners and/or Board of Adjustment or delay review until corrections are made, and that any approval of this application is based on the representations made in the application and may be revoked on any breach of representation or condition(s) of approval.

Signature of owner (or authorized representative)

Date

Engineer's Seal, Signature
And Date of Signature



DEVIATION REQUEST (Attach diagrams, figures, and other documentation to clarify request) (Date: 12/18/2023 Initial Submittal) This deviation request is for intersection spacing and a few other geometric/roadway design elements on **Windermere Court**. As such, this deviation includes several itemized parts/elements. Please refer to deviation exhibits 1 – 6b. Deviation Exhibit 1 shows the location of this street on the site plan map.

Note: for reference, Deviation Exhibit No. 1 also shows the location of the **Land Development Code Waiver** for private roads (please refer to the separate waiver request document). Deviation Exhibit No. 2 shows the detailed locations of the parts/elements of this deviation.

Parts 5a and 5b are for the proposed mid-block gate location on Windermere Court. These parts cover intersection grade and stopping sight distance on the westbound approach to the gate. While not for a bona-fide "street intersection," this part has been included based on LSC's engineering judgement. The proposed gate will likely create a "stop-condition" for motorists, similar to an intersection.

A deviation from the standards of or in Sections **2.3.2** of the Engineering Criteria Manual (ECM) is requested.

Identify the specific ECM standard which a deviation is requested:

This deviation request is for intersection spacing and a few other geometric/roadway design elements on **Windermere Court**:

Part 1:

Section 2.3.2, Table 2-5: Roadway Design Standards for Rural Collectors and Locals
Local roadway intersection spacing shall be 330 feet (centerline spacing). Please refer to Deviation Exhibit No. 3.

Part 2:

Section 2.3.2, Table 2-5: Roadway Design Standards for Rural Collectors and Locals
The minimum centerline curve radius on local roads shall be 100 feet. Please refer to Deviation Exhibit No. 4.

Part 3:

Section 2.3.3: Horizontal Alignment
Horizontal curves shall not begin near the bottom of a sag vertical curve. Please refer to Deviation Exhibit No. 4.


Part 4:

Section 2.3.4.A, Table 2-12: Design Controls for Vertical Curves
K-values less than 19 shall not be permitted for vertical curves of 30 mph. Please refer to Deviation Exhibit No. 5.


Note that the intersection grade and tangent per Tables 2.22 and Table 2.33 are not met and deviation is not recommended for the first 100ft from Winslow. Update the Deviation and road profile for Windmere Ct (name change TBD)

LSC Responses to Deviation Redline Comments

Page: 2

 Number: 1 Author: eschoenheit Subject: Text Box Date: 2/28/2024 17:57:14 -07'00'

Note that the intersection grade and tangent per Tables 2.22 and Table 2.33 are not met and deviation is not recommended for the first 100ft from Winslow. Update the Deviation and road profile for Windmere Ct (name change TBD)

 Author: Jeff Date: 3/29/2024 14:38:56
LSC Response: updated as requested.

CRITERIA FOR APPROVAL

Per ECM section 5.8.7 the request for a deviation may be considered if the request is **not based exclusively on financial considerations**. The deviation must not be detrimental to public safety or surrounding property. The applicant must include supporting information demonstrating compliance with **all of the following criteria**:

The deviation will achieve the intended result with a comparable or superior design and quality of improvement.

Additional justification details specific to each part:

Part 1:

The proposed spacing is only 50 feet short of the ECM standard, there would be no east leg of the intersection of Winslow Drive/Windermere Court and no west leg of the Windermere Court/Cathedral Spires Heights. This site-specific road configuration is significantly different from the more generic configuration which the ECM standard is intended to cover. As shown in Deviation Exhibit 3, the ECM standard covers the generic/hypothetical local street spacing scenario with series of local cross streets, with through traffic at the design speed through a series of local street intersections. The spacing criteria of 330' was established largely due to stopping sight distance for the design speed along the through roadway. Vehicle speeds along this street will be limited and the 330' for stopping sight distance for eastbound/westbound motorists would not be necessary. This will be a small subdivision with low traffic volumes.

Parts 2, 3, and 4:

Vehicles speeds would be relatively low as this location is just west of the T intersection with Winslow and there will be a stop condition for eastbound traffic just to the east. Although the "design-speed-by-classification" of Windermere Court would be 30 mph, it is unlikely that eastbound vehicles would be traveling at the design speed through the horizontal or vertical curve due to 1) the overall short length of Windermere Court, 2) the 8% uphill grade, and 3) the stop condition just east of the vertical curve with the stop sign approaching Winslow Drive. As such, using a K-value for a design speed of 25 mph ($K = 12$) is more appropriate than using that for a design speed of 30 mph ($K = 19$). Westbound traffic will travel through this vertical curve at a slower speed after just having completed a turning movement from northbound or southbound Winslow Drive.

If necessary, due to the combination of factors and the criteria in ECM 2.3.3 (I), consideration for installing centerline striping from the stop line at the Winslow intersection west through the length of the vertical curve to the proposed gate location. Roadside reflector post markers could also be considered through the shallow curve for winter driving conditions.

Part 2:

The proposed centerline curve radius of 200 feet is needed to meet the requirement for the entry street, Windermere Court, to intersect Winslow Drive at a right angle. The length of this horizontal curve is only 30 feet with a shallow deflection angle. Eastbound and westbound vehicle speeds through this curve would be limited as described above. Exiting vehicles (traveling uphill) would be approaching a stop sign.

Part 3:

The vertical curve location is a function of the need to meet grade/grade break requirements for the west leg of the Windermere Court/Winslow Drive intersection,

Part 4:

The proposed K-value on Windermere Court would meet the minimum rate of vertical curvature (12) for a roadway with a design speed of 25 mph.

Part 5:


The gate location has been shown mid-block on Windermere. The gate analysis is presented in Deviation Exhibits 6a and 6b. The options for placement of the gate are limited due to the short roadway length, vertical profile and the need for some vehicle stacking distance at the gate, and separation from the intersection of Winslow/Windermere. This deviation presents analysis of the gate. Given the analysis results, an alternative location closer to the internal intersection of Windermere Court/Cathedral Spires Heights could be considered. The following mitigation measures could be considered with the gate placement and design.

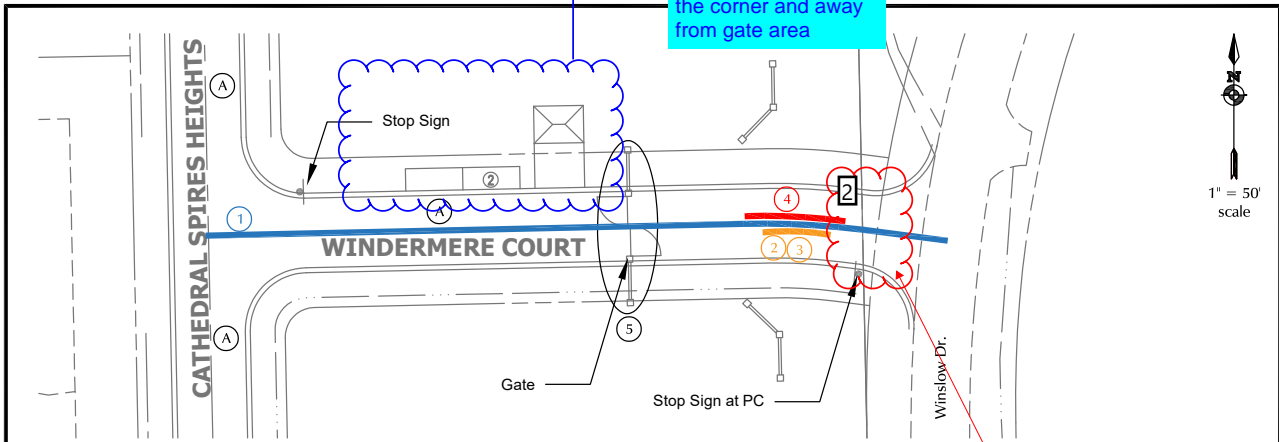
- Ensure that the height of the gate or roadside portion of the gate assembly (and/or roadside sign/object marker) is sufficiently high enough for vehicles turning from Winslow Drive onto Windermere Court to see the gate location ahead.
- Install a "gate ahead" warning sign approximately 50-75 feet upstream of the gate (to the east).
- Install a pavement heating system beneath the roadway surface on Windermere Court to keep the roadway surface free of snow and ice.
- Install a mechanism that automatically opens the gate so that vehicles do not need to stop on the 8 percent grade. This may be challenging when accommodating visitor arrivals.

Consider low intensity lighting for gate area

Number: 1 Author: eschoenheit Subject: Text Box Date: 2/28/2024 18:01:27 -07'00'

Consider low intensity lighting for gate area

 Author: Jeff Date: 3/28/2024 09:26:27
LSC Response: The applicant will consider.



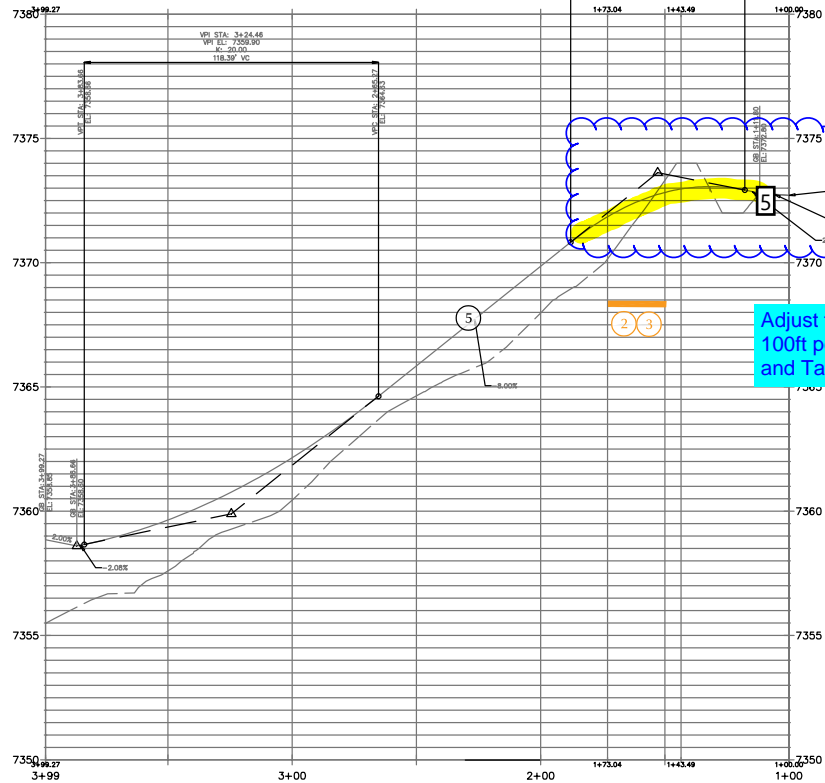
Deviation Requests

- ① ECM Table 2-5 -- Intersection spacing along a Rural Local Road
 - Segment of Windermere Court for which deviation is requested
 - 330' = ECM requirement
 - 300' = proposed conditions
- ② ECM Table 2-5 -- Minimum centerline curve radius for a Rural Local Road
 - Location of centerline curve radius on Windermere Ct. for which deviation is requested
- ③ Section 2.3.3 (I) -- Horizontal Curves on Vertical Curves
- ④ Table 2-12 -- K value less than ECM minimum of 19 for a design speed (by road classification) of 30 mph
 - Location of vertical curve radius on Windermere Ct. for which deviation is requested
- ⑤ Table 2-5 -- Intersection grade of >4% (exceeding the ECM minimum intersection approach grade)- Potential "stop condition" with the proposed gate (similar to an intersection) on a grade >4%

Land Development Code (LDC) Waiver Request
 (A) LDC Waiver for private roads


Note that the intersection grade and tangent per Tables 2.22 and Table 2.33 are not met and deviation is not recommended for the first 100ft from Winslow. Update the Deviation and road profile for Windmere Ct (name change TBD) Max 4% for first 100ft

**ACCESS CL PROFILE
 STA 1+00.00 TO 3+99.27**




Adjust to 4% for first 100ft per Table 2.22 and Table 2.33





 Number: 1 Author: eschoenheit Subject: Cloud+ Date: 2/28/2024 17:59:47 -07'00'


It is recommended to move the mail kiosk and pull off around the corner and away from gate area

 Author: Jeff Date: 3/28/2024 09:25:49

LSC Response: This change has been made.

 Number: 2 Author: eschoenheit Subject: Cloud Date: 2/28/2024 17:58:35 -07'00'

 Number: 3 Author: eschoenheit Subject: Arrow Date: 2/28/2024 17:58:40 -07'00'

 Number: 4 Author: eschoenheit Subject: Text Box Date: 2/28/2024 17:59:11 -07'00'

Note that the intersection grade and tangent per Tables 2.22 and Table 2.33 are not met and deviation is not recommended for the first 100ft from Winslow. Update the Deviation and road profile for Windmere Ct (name change TBD) Max 4% for first 100ft


 Author: Jeff Date: 3/29/2024 14:39:53

LSC Response: Updated as requested.

 Number: 5 Author: eschoenheit Subject: Highlight Date: 2/28/2024 17:57:59 -07'00'

 Number: 6 Author: eschoenheit Subject: Cloud+ Date: 2/28/2024 17:57:53 -07'00'

Adjust to 4% for first 100ft per Table 2.22 and Table 2.33

 Author: Jeff Date: 3/29/2024 14:40:40

LSC Response: Updated as requested.