



## COLORADO

### Department of Transportation

Region 2 Permits  
5615 Wills Blvd.  
Pueblo, CO 81008-2349

November 19, 2021

SH24G/Stapleton Rd.  
El Paso County

**Kari Parsons**, Project Manager/Planner II  
E. P. C. Planning & Community Development  
2880 International Circle  
Colorado Springs, CO. 80910

### LSC Responses to CDOT Comments

RE: Waterbury Filings Nos.1 and 2 PUD PP - PUDSP215

Dear Kari,

I am in receipt of a referral request for comments for Waterbury Filings number 1 and 2. The preliminary plan for Filing Nos. 1 and 2 consists of 61.9 Acres of 159.9 acres in Parcel 4200000417. The preliminary plan proposes 201 detached, single-family dwelling units for a density of 3.25 DU/ Acre. This is within the approved density range for Waterbury at 3-5 DU/Acre. In addition to the 201 residential lots, Filings 1 and 2 include 11.24 acres of public rights-of-way, and 14.04 Acres of open space/ landscaped areas. The parcel is approximately 2,000 feet west of the intersection of highway 24 and Stapleton Rd. It is bordered on the west by single family residential sites and Eastonville Road adjacent to the existing 4- Way Ranch filing 1 development. Filings 1 and 2 of this Preliminary Plan are located in the southwest corner of the Waterbury project with primary access from Stapleton Drive and SH24. The project site is located in El Paso County in Peyton, CO, approximately 12 miles east of downtown Colorado Springs, northeast of Falcon, Colorado in eastern El Paso County.

#### Traffic

The Traffic Impact Study dated September 28, 2021 has been reviewed by a CDOT Traffic Engineer. Their comments follow:

- Previous comments have stated the estimated signal escrow costs are based on the construction price of \$650k and not \$350k. Table 5 of the most recent TIS is required to be updated to reflect the escrow amount of \$40,430 to the intersection of SH24G and Stapleton Dr. **The signal escrow amount in the TIS is still incorrect and needs to be updated.**

**LSC Response: Table 5 was updated to reflect the \$40,430 escrow amount.**

#### Access

- Section 2.6 of the State Highway Access Code states in part a new or updated access permit will be required for the intersection of SH24 and Stapleton Rd. Make Application to CDOT Access Department.
- The Development shall coordination with El Paso County Engineering to determine Permittee/Applicant requirements for the Access Application to CDOT.
- As part of the CDOT Access Permit the escrow will be collected and recorded.

**LSC Response: Access comments noted.**

#### Hydraulics



The Master Development Drainage Report and Final Drainage Report for subject development dated September 2021 has been reviewed by a CDOT Hydraulics Engineer. Their comments follow:


- The title of the drainage report says it's the MDDP and Final Drainage Report for Waterbury Filings 1 and 2. If this is in fact the final drainage report for these two filings, there needs to be more detail provided. CDOT cannot verify that the discharge from the pond as indicated in the report match what is actually be constructed. Please provided detailed pond construction plans for each pond to conform with the calculations shown in the appendix of the report.
- FEMA FIRM map is not included in the appendix. Please provide FIRM map in the appendix, showing the project footprint to give the reviewer a better understanding of the project's impact on the regulatory floodplain.
- The Pond 1 Routed Hydrograph Results (page 129 of 302) should show a Ratio Peak Outflow to Predevelopment of 1.0 for all storm events. Please revise the outlet structure design to lower the discharge for the events that are above 1.0.
- The Pond 2 Routed Hydrograph Results (page 138 of 302) should show a Ratio Peak Outflow to Predevelopment of 1.0 for the 10-year and 25-year storm events. Please revise the outlet structure design to lower the discharge for these two events.
- The Pond 3 Routed Hydrograph Results (page 147 of 302) should show a Ratio Peak Outflow to Predevelopment of 1.0 for the 10-year storm event. Please revise the outlet structure design to lower the discharge for this event.

Additionally,

- 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.
- 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 [Arthur.gonzales@state.co.us](mailto:Arthur.gonzales@state.co.us) or (719) 546-5732 or (719) 248-0905 with any questions (email is best).

Sincerely,

  
Arthur Gonzales  
CDOT R2 - Access Manager

Xc: Victoria Chavez, Elizabeth Nijkamp, Jeff Rice - El Paso County  
Ferguson  
Stecklein  
Bauer  
Whittlef/Biren  
Ausbun  
Vigil/Regalado/file





Planning and Community  
Development Department  
2880 International Circle  
Colorado Springs, Colorado 80910  
Phone: 719.520.6300  
Fax: 719.520.6695  
Website [www.elpasoco.com](http://www.elpasoco.com)

## DEVIATION REQUEST AND DECISION FORM

Updated: 6/26/2019

### PROJECT INFORMATION

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# LSC Responses to Deviation 1 Redline Comments

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Page: 1

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 Number: 1      Author: jchodsdon    Subject: Typewritten Text      Date: 7/20/2022 18:09:12

LSC Responses to Deviation 1 Redline Comments

## 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)

A deviation from the standards of or in Section **2.2.5.B.1** of the Engineering Criteria Manual (ECM) is requested. The request is to allow a proposed full-movement intersection along Stapleton Road about 2,200 feet from US Highway 24 and 1,345 feet from the future Dumont Drive intersection. The proposed intersection location is shown in Exhibit 1.

The following paragraph from the PUD Development Plan TIS report dated January 10, 2013, referenced the approved deviation.

Figure 2 also shows the proposed site access points and intersection spacing along Stapleton Drive and Eastonville Road. The access plan includes a new full-movement intersection on Stapleton between Bandanero and Dumont as approved through the deviation request process. The access plan for Eastonville is shown in Figure 3.

A copy of the prior approved deviation is **attached** for reference. **Also attached** is a copy of the April 7, 2011, **4 Way Ranch – New Stapleton Intersection Technical Memorandum** that was prepared in support of the deviation request.


Identify the specific ECM standard which a deviation is requested:

Rural and Urban Principal Arterial Spacing

The spacing on Stapleton Road would be about 2,200 feet from US Highway 24 and 1,345 feet from Dumont Drive. The standard is 2,640 feet.


1

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 Number: 1      Author: dsdrice      Subject: Text Box      Date: 4/22/2022 13:24:46

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The spacing on Stapleton Road would be about 2,200 feet from US Highway 24 and 1,345 feet from Dumont Drive. The standard is 2,640 feet.

 Author: jchodsdon      Subject: Sticky Note      Date: 7/20/2022 18:10:04

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LSC Response: Added as requested.

The deviation will not adversely affect maintenance and its associated cost.

The maintenance cost would likely be comparable regardless of location.

The deviation will not adversely affect aesthetic appearance.

The aesthetic appearance would likely be comparable regardless of location.

The deviation meets the design intent and purpose of the ECM standards.


The implementation of the full-movement intersection would provide good access to development areas both north and south of Stapleton. It would allow a shift of some of the left-turn demand from Dumont/Stapleton to this intersection. This would result in better operations at the Dumont intersection. This would not only reduce delay but would also reduce queue length potential for left-turning movements at Dumont. A signal at this location would provide a future controlled pedestrian crossing location across Stapleton. With this additional full-movement intersection, Bandanero could potentially be converted to a right-in/right-out. This intersection would direct higher-density traffic demand from the planned higher density next phases of Waterbury to the street connecting to the new intersection and away from Bandenero (and the lower-density lots along this street). The addition of this intersection would provide a good secondary access to the 4 Way Ranch commercial and mixed-use development areas south of Stapleton.

The deviation meets the control measure requirements of Part I.E.3 and Part I.E.4 of the County's MS4 permit, as applicable.

Response needs to be provided.

1

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 Number: 1      Author: CDurham    Subject: Text Box    Date: 4/14/2022 11:09:19

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Response needs to be provided.

 Author: jchodsdon    Subject: Sticky Note      Date: 7/20/2022 18:10:32

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LSC Response: Added as requested.



# LSC Responses to Deviation 2 Redline Comments



Planning and Community  
Development Department  
2880 International Circle  
Colorado Springs, Colorado 80910  
Phone: 719.520.6300  
Fax: 719.520.6695  
Website [www.elpasoco.com](http://www.elpasoco.com)

## DEVIATION REQUEST AND DECISION FORM

Updated: 6/26/2019

### PROJECT INFORMATION


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# LSC Responses to Deviation 2 Redline Comments

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Page: 1

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 Number: 1      Author: dsdrice      Subject: Text Box      Date: 4/22/2022 2:42:00 PM

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[PUDSP-21-005](#)

 Author: lscja      Subject: Sticky Note      Date: 7/20/2022 11:56:59 AM  
LSC Response: Added as requested.

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<sup>1</sup> Provide signature

#### APPLICANT, AND ENGINEER DECLARATION

I, the undersigned, being of my knowledge, the information on this application and all additional or supplemental documentation is true, factual and correct to the best of my knowledge. I am fully aware that any misrepresentation of any information on this application may be grounds for denial. I have read and understood 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 violation of any applicable ordinance. I understand 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 violation of any applicable ordinance.

Signature of owner (or authorized representative)

Date

Seal, Signature  
of Signature



**REQUEST** (Attach diagrams, figures, and other documentation to clarify request)

Request for deviation from the standards of or in **2.2.4.B.5 Roadway Functional Classifications and Urban/Rural Designations Urban Collector and 2.3.2 Design Standards by Functional Class** of the Engineering Criteria Manual (ECM) is requested.

Request for specific ECM standard which a deviation is requested:


Request for an Urban Residential Collector Cross Section shown in Figure 2-15 of the ECM and the design standards for an Urban Residential Collector shown in Table 2-7.

Reason for the requested deviation:

Request for deviation will allow for partial turn movement direct access for lots adjacent to Saybrook Drive (a planned Urban Collector) as no local or collector streets or alleys would provide access.


Request for deviation street classification for this segment of Saybrook was established with the PUD Development Plan. The revised projections of ADT for this segment show a future ADT of about 2,500, which is under the design ADT of an Urban Local Street (which allows lot access).

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 Number: 1      Author: dsdrice      Subject: Callout      Date: 4/22/2022 2:40:40 PM

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[Provide signature](#)

 Author: lscja      Subject: Sticky Note      Date: 7/20/2022 11:57:58 AM  
LSC Response: The final version should include this as LSC has forwarded it to the owner for signature.

---

The deviation will not adversely affect maintenance and its associated cost.

There may be some additional cost to maintain the additional pavement width and raised median. The district will maintain the landscaping.

The deviation will not adversely affect aesthetic appearance.

The raised median will allow for landscaping, likely enhancing the aesthetic appearance

The deviation meets the design intent and purpose of the ECM standards.

The proposed modified cross section will allow for needed lot access while maintaining efficiency of through movements.


The deviation meets the control measure requirements of Part I.E.3 and Part I.E.4 of the County's MS4 permit, as applicable.

It is our understanding that the proposed cross section has no effect on MS4 permit requirements.

State that Water  
quality will be  
provided (verify)


1

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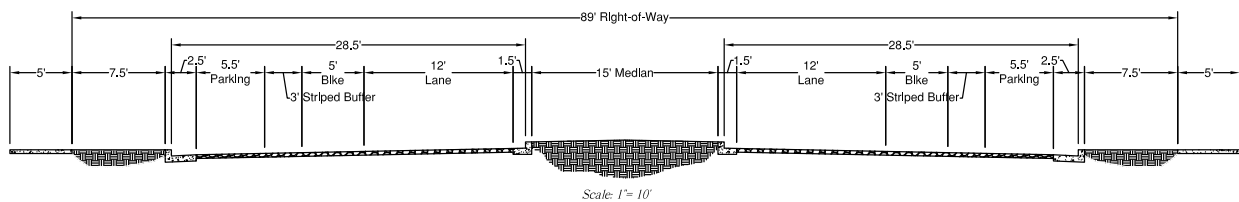
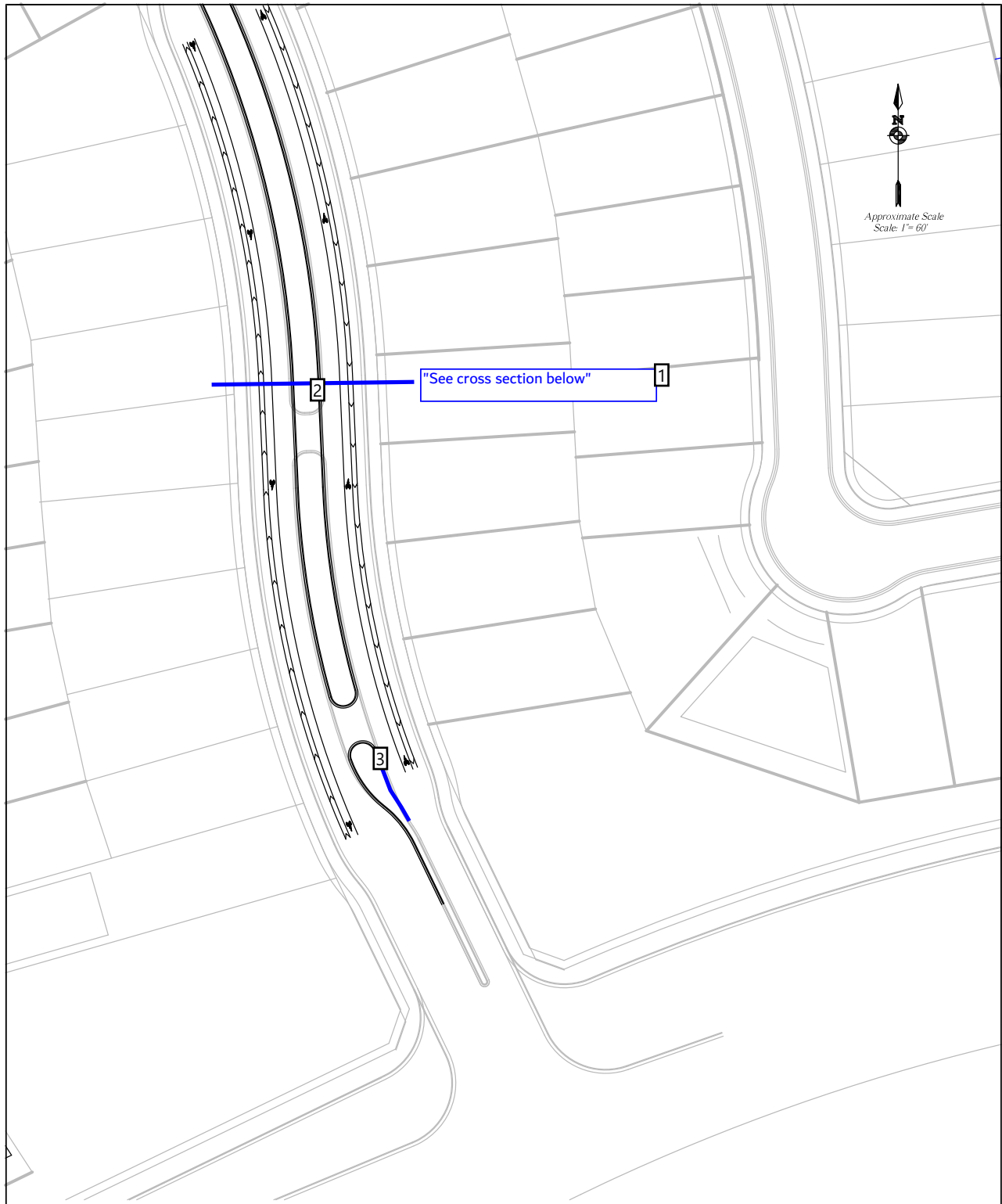
 Number: 1      Author: dsdrice      Subject: Callout      Date: 4/22/2022 2:41:32 PM

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State that Water quality will be provided (verify)





 Author: lscja      Subject: Sticky Note      Date: 7/20/2022 11:58:18 AM  
LSC Response: Added as requested.

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Deviation Exhibit 2 **4**

**Saybrook Drive**  
**Cross Section**  
Waterbury (LSC #204220)

	Number: 1	Author: jchodsdon	Subject: Text Box	Date: 2/13/2021 12:53:30 PM -06'00'
	<a href="#">"See cross section below"</a>			
	Number: 2	Author: jchodsdon	Subject: Line	Date: 2/13/2021 12:53:39 PM -06'00'
	Number: 3	Author: jchodsdon	Subject: Polygonal Line	Date: 2/13/2021 12:53:52 PM -06'00'
	Number: 4	Author: jchodsdon	Subject: Text Box	Date: 2/13/2021 12:55:23 PM -06'00'
	Deviation Exhibit 2			





Planning and Community  
Development Department  
2880 International Circle  
Colorado Springs, Colorado 80910  
Phone: 719.520.6300  
Fax: 719.520.6695  
Website [www.elpasoco.com](http://www.elpasoco.com)

## DEVIATION REQUEST AND DECISION FORM

Updated: 6/26/2019

### PROJECT INFORMATION


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# LSC Responses to Deviation 3 Redline Comments

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Page: 1

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 Number: 1      Author: jchodsdon   Subject: Sticky Note      Date: 7/20/2022 18:18:27  
LSC Responses to Deviation 3 Redline Comments

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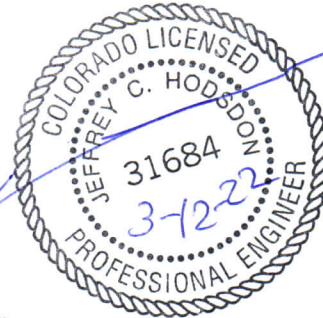
### OWNER, APPLICANT, AND ENGINEER DECLARATION

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)

A deviation from the standards of or in Section **2.3.7.E.1 & 2** of the Engineering Criteria Manual (ECM) is requested. The requested deviation is to allow left and right turn bays on the southbound Saybrook approach to Stapleton to be designed for required stacking/storage distance plus a compact bay taper design in order to minimize the impact to on-street parking and lots fronting Saybrook.

This deviation was previously approved. A copy of the prior approved deviation is attached to the end of this deviation for reference. The projected southbound approach volumes at Saybrook/Stapleton used in the analysis to support the prior approved deviation are essentially the same as the corresponding projected volumes in the current TIS report.

The first attached exhibit is a copy of the laneage exhibit depicting the deviation request. The second exhibit is a copy of the Saybrook proposed cross section with on-street parking and lot frontage that would be impacted without this deviation.

Identify the specific ECM standard which a deviation is requested:

The design elements for a left turn lane are the bay taper, lane length, storage length, which in combination makes up the left turn lane. The design elements for right turn and deceleration lanes are the approach taper, lane length, storage length, which in combination makes up the right turn lane.


Need to state what part of the ECM  
the deviation is being requested for.

1

State the reason for the requested deviation:

The deviation is needed to minimize the impact full-length, standard turn lanes would have to on-street parking and lots fronting Saybrook (please refer to the attached deviation exhibits).

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 Number: 1      Author: CDurham    Subject: Text Box    Date: 4/14/2022 12:22:25

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Need to state what part of the ECM the deviation is being requested for.

 Author: jchodsdon    Subject: Sticky Note      Date: 7/20/2022 18:18:52

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LSC Response: Added as requested.

Explain the proposed alternative and compare to the ECM standards (May provide applicable regional or national standards used as basis):

The ECM requires turn lanes to include deceleration distance plus stacking distance plus taper length. Based on a design speed of 30 mph (posted speed would also be 30 mph) and the turning volumes, the ECM criteria for turn lanes requires a southbound right-turn lane length of 165 to 190 feet (115 feet of deceleration distance plus 50 to 75 feet of storage) plus a 120-foot taper and a southbound left-turn lane length of 165 to 190 feet plus a 120-foot taper.


for a total left turn  
length of 285 to 310  
feet.

2

For a total right turn  
length of 285 to 310  
feet

1

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 Number: 1      Author: CDurham    Subject: Callout    Date: 4/14/2022 12:24:58

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[For a total right turn length of 285 to 310 feet](#)

 Author: jchodsdon    Subject: Sticky Note    Date: 7/20/2022 18:22:21

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LSC Response: This paragraph has been revised in the updated deviation.

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 Number: 2      Author: CDurham    Subject: Callout    Date: 4/14/2022 16:36:41

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[for a total left turn length of 285 to 310 feet.](#)

 Author: jchodsdon    Subject: Sticky Note    Date: 7/20/2022 18:22:24

---

LSC Response: This paragraph has been revised in the updated deviation.

The deviation will not adversely affect maintenance and its associated cost.

As the proposed lanes are shorter than those required by the ECM the associated maintenance costs would be lower.

The deviation will not adversely affect aesthetic appearance.

Turn bays with only the necessary length for the situation would improve aesthetics of the area by reducing the width and surface area of asphalt.

The deviation meets the design intent and purpose of the ECM standards.


All the above factors make this situation different from an access or intersection along a higher speed collector or arterial where a deceleration length component is important. The deviation exhibits show both southbound and left- and right-turn bays on Saybrook on the approach to Stapleton. The southbound left-turn lane would have sufficient stacking length to accommodate over 95 percent of the southbound left vehicle queues during the peak hour. The southbound right-turn lane would have sufficient stacking length to accommodate the southbound right-turn vehicle queues. Both lanes would be of sufficient length such that the entry to the lanes would not be blocked by the southbound through lane queue except perhaps in an unusual situation.

The deviation meets the control measure requirements of Part I.E.3 and Part I.E.4 of the County's MS4 permit, as applicable.

Response needs to be provided.


1

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 Number: 1      Author: CDurham    Subject: Text Box    Date: 4/14/2022 11:36:17

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Response needs to be provided.

 Author: jchodsdon    Subject: Sticky Note      Date: 7/20/2022 18:22:39

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LSC Response: Added as requested.



# LSC Responses to TIS Redline Comments



LSC TRANSPORTATION CONSULTANTS, INC.  
2504 East Pikes Peak Avenue, Suite 304  
Colorado Springs, CO 80909  
(719) 633-2868  
FAX (719) 633-5430  
E-mail: [lsc@lsctrans.com](mailto:lsc@lsctrans.com)  
Website: <http://www.lsctrans.com>

## Waterbury Filing Nos. 1 and 2 Traffic Impact Analysis (LSC #204220) March 11, 2022

### Traffic Engineer's Statement

This traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.



### Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report.

  
1


\_\_\_\_\_  
Date

# LSC Responses to TIS Redline Comments

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Page: 1

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 Number: 1      Author: dsdrice      Date: 4/21/2022 3:37:37 PM

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- *Waterbury Filing No. 1 Updated Traffic Impact Study*, January 6, 2014
- *Waterbury Phase 1 Filing Nos. 2 and 3 Updated Traffic Impact Analysis*, October 16, 2017
- *Waterbury Phase 2 Preliminary Plan Traffic Impact Analysis*, August 3, 2017

This report is an update to the Preliminary Plan Phase 1 reports.

A list of other traffic studies in the area of study completed within the past five years (that LSC is aware of) is presented in Appendix Table 1. This study accounts for the land use, trip generation and the roadway network included in these studies.

## LAND USE AND ACCESS

### Site Plan

198 <sup>1</sup>

Figure 2 shows the location of the entire Waterbury PUD development as well as the location of the currently proposed Filing Nos. 1 and 2. The currently proposed filings are planned to include 201 lots for single-family homes. This is <sup>2</sup>live more lots than was assumed in the 2013 traffic study for the same area (the Phase 1 Preliminary Plan area). Access for these filings will be to a new full-movement intersection (Saybrook Road) on Stapleton Road 1,150 east of Bandanero Drive. A deviation for a full-movement intersection at Stapleton/Saybrook was previously approved. A deviation for the southbound approach laneage on Saybrook was also approved. Per the request by Staff, both of these prior-approved deviations are being resubmitted on the current deviation request form. In the future, Filing Nos. 1 and 2 will have additional access through the remaining Waterbury PUD development area to Eastonville Road and the future Dumont Drive.

### Sight Distance Analysis


Figure 3 shows sight-distance analysis at the proposed public street intersection to Stapleton Drive (Saybrook Road). Per the *El Paso County Engineering Criteria Manual ECM* Table 2-21, the required intersection sight distance at Saybrook Road is 555 feet, based on a design speed of 50 mph for Stapleton Drive. As shown in Figure 3, this requirement is met in both directions.

The required stopping sight distance from *ECM* Table 2-17 is 445 feet. As shown in Figure 3 this requirement is met in both directions.

### Pedestrian and Bicycle Accommodations


There are two existing schools located within two miles of the site, Falcon High School and Meridian Ranch Elementary. A future K-8 school site is located just north of Falcon High School. These schools are located north of Londonderry Drive and west of Eastonville Road. There is also a regional park located northwest of the site.

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 Number: 1      Author: dsdrice      Subject: Callout      Date: 4/21/2022 4:16:28 PM

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198

 Author: kdferrin      Subject: Sticky Note      Date: 7/20/2022 10:57:53 AM  
LSC Response: The TIS has been updated to show 198 single-family homes

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 Number: 2      Author: dsdrice      Date: 4/21/2022 4:16:43 PM  
five

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 Author: kdferrin      Subject: Sticky Note      Date: 7/20/2022 10:58:15 AM  
LSC Response: Revised based on the updated number of single-family homes

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1


Dec-20

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 Number: 1      Author: dsdrice      Subject: Callout      Date: 4/21/2022 4:31:51 PM

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198

 Author: kdferrin      Subject: Sticky Note      Date: 7/20/2022 10:57:32 AM  
LSC Response: Revised to 198 single-family homes.

---


# Roundabout Exhibits

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Provide the draft attribute table


1

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 Number: 1      Author: dsdrice      Subject: Text Box      Date: 4/21/2022 5:05:08 PM

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[Provide the draft attribute table](#)

 Author: jchodsdon      Subject: Sticky Note      Date: 7/20/2022 10:58:39 AM  
LSC Response: Draft attribute table has been prepared and included with this submittal.

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1 Provide exhibits on updated lot and street layout

2 Include street names, widths and classifications on each approach

3 In RAB report, be sure to include stopping sight distance, intersection sight distance & lengths of conflicting leg of sight triangle.

4 If need to accomodate deisgn vehicle WB-67, as shown on approaches 1 & 3, entry width should be 19'-22'.

5 Truck apron width is usually 15'-20'.

7 Desirable circulatory width is 20'

6 If need to accomodate deisgn vehicle WB-67, as shown on approaches 1 & 3, min inscribed diameter used should be 130'.

Note: The departure widths are shown as 18 feet wide to lessen the impacts to the adjacent lots - the typical El Paso standard is a width of 20 feet.

## Conceptual 120' ICD Roundabout Parameters

Waterbury Roundabout (LSC #204220)

Figure 1

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Number: 1 Author: dsdrice Subject: Text Box Date: 4/21/2022 5:07:47 PM

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Provide exhibits on updated lot and street layout

Author: jchodsdon Subject: Sticky Note Date: 7/20/2022 11:09:17 AM

LSC Response: The base has been revised. The prior roundabout design linework has been removed.

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Number: 2 Author: CDurham Subject: Text Box Date: 4/18/2022 2:07:44 PM

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Include street names, widths and classifications on each approach

Author: jchodsdon Subject: Sticky Note Date: 7/20/2022 11:09:33 AM

LSC Response: Added as requested.

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Number: 3 Author: CDurham Subject: Text Box Date: 4/21/2022 6:14:31 PM

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In RAB report, be sure to include stopping sight distance, intersection sight distance & lengths of conflicting leg of sight triangle.

Author: jchodsdon Subject: Sticky Note Date: 7/20/2022 11:10:36 AM

LSC Response: These will all be included in the design report. The complete design report will be included with the CD set. The intent of this exhibit at this Preliminary/PUD stage of the process is to show that the roundabout and approach legs will work with the lot and street layout.

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Number: 4 Author: CDurham Subject: Callout Date: 4/18/2022 2:05:25 PM

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If need to accomodate deisgn vehicle WB-67, as shown on approaches 1 & 3, entry width should be 19-22'.

Author: jchodsdon Subject: Sticky Note Date: 7/20/2022 11:23:04 AM

LSC Response: Per the 6/23 meeting with staff, LSC has added the flowline dimensions in addition to the 16.0' dimensions to reflect use of the hatched area by trucks. As shown, these added dimensions are consistent with the 19-22' shown in the comment.

The hatched area is needed to accommodate the larger trucks, without increasing the speed of passenger vehicles, and striping/pavement markings are typically used. However, as with other roundabouts in EPC, concrete or different colored pavement should be used for this hatched area in lieu of pavement markings and should be designed flush with the asphalt. The purpose is to eliminate the need to maintain hatch pavement markings.

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Number: 5 Author: CDurham Subject: Callout Date: 4/18/2022 2:06:49 PM

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Truck apron width is usually 15'-20'.

Author: jchodsdon Subject: Sticky Note Date: 7/20/2022 11:08:01 AM

LSC Response: As discussed, the 15'-20' is acceptable provided the remaining center island can be landscaped sufficiently to limit lines of sight across/through the roundabout. The large apron is primarily needed to accommodate a WB-67 U-turn. A U-turn by a WB-67 is very unlikely; however, as shown in the truck-turning figures, a 270-degree turn is shown for a WB-67 instead of a direct right-turning movement. The larger truck apron is needed for a 270-degree "right-turn" movement.

Two concepts for design were discussed.

- 1) Use concrete for the outer portion of the truck apron most likely to be used, but use landscape blocks or colored concrete for the inner portion that may see very infrequent use by a turning WB-67.
- 2) If necessary to limit line of sight across the center circle, potentially bushes or easily-replaced vegetation could be used that may (very infrequently) be driven over by the rear wheels of a WB-67.

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Number: 6 Author: CDurham Subject: Callout Date: 4/18/2022 2:04:48 PM

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If need to accomodate deisgn vehicle WB-67, as shown on approaches 1 & 3, min inscribed diameter used should be 130'.

Author: jchodsdon Subject: Sticky Note Date: 7/20/2022 11:12:03 AM

LSC Response: At the 6/23 meeting with staff, we discussed that the more compact 120' diameter has been used to allow for a roundabout without major impacts to the street/lot layout. The WB-67 truck-turning exhibits show the accommodation of the occasional WB-67 truck, including the larger truck apron as discussed in the above comment response.

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Number: 7 Author: CDurham Subject: Callout Date: 4/18/2022 2:05:56 PM

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Desirable circulatory width is 20'

Provide exhibits on updated lot and street layout

Include street names, widths and classifications on each approach

In RAB report, be sure to include stopping sight distance, intersection sight distance & lengths of conflicting leg of sight triangle.

If need to accomodate deisgn vehicle WB-67, as shown on approaches 1 & 3, entry width should be 19'-22'.

Truck apron width is usually 15'-20'.

Desirable circulatory width is 20'

If need to accomodate deisgn vehicle WB-67, as shown on approaches 1 & 3, min inscribed diameter used should be 130'.

Note: The departure widths are shown as 18 feet wide to lessen the impacts to the adjacent lots - the typical El Paso standard is a width of 20 feet.

Figure 1  
**Conceptual 120' ICD Roundabout Parameters**  
Waterbury Roundabout (LSC #204220)



Author: jchodsdon Subject: Sticky Note

Date: 7/20/2022 11:08:48 AM

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LSC Response: Discussed the need for a more compact design. LSC will add the flowline dimension to the splitter island in addition to the 18' dimension.