

Sue Liu

From: Sue Liu
Sent: Wednesday, November 13, 2024 2:39 PM
To: Kathleen Hammer
Subject: FW: ArapCO Referral - GDP23-003 Eastgate - CDOT Comments
Attachments: Eastgate CDOT Comments 7.3.24.pdf

Kat,
This email and the attached letter are the latest no comment letter from CDOT – please include both in your staff report for the public hearings. Thank you.



ARAPAHOE COUNTY

Sue Liu, P.E., CFM

Engineer III
Department of Public Works and Development
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From: Aaron Eyl - CDOT <aaron.eyl@state.co.us>
Sent: Wednesday, July 3, 2024 11:06 AM
To: Sue Liu <SLiu@arapahoegov.com>
Subject: Re: ArapCO Referral - GDP23-003 Eastgate - CDOT Comments

Sue,
If all comments have been addressed we do not need another comment response letter. The "comment response letter required" statement automatically defaults to all of our comment forms.
Thanks,

On Wed, Jul 3, 2024 at 11:01 AM Sue Liu <SLiu@arapahoegov.com> wrote:

Aaron,

It appears that all comments from CDOT have been addressed. Do you still require “a comment response letter with the next submittal”? Thank you.

Project Name: Eastgate

Print Date: 7/3/2024

Highway: 70

Mile Marker: 292.0

A comment response letter is REQUIRED along with the next submittal.

Review POC: Eyl, Aaron

Sue Liu, P.E., CFM

Engineer III
Department of Public Works and Development6924
S. Lima St. | Centennial, CO 80112

----- Forwarded message -----

From: **Aaron Eyl - CDOT** <aaron.eyl@state.co.us>

Date: Wed, Jul 3, 2024 at 9:47 AM

Subject: ArapCO Referral - GDP23-003 Eastgate - CDOT Comments

To: Kathleen Hammer <KHammer@arapahoegov.com>

Cc: Terri Maulik <TMaulik@arapahoegov.com>, Michelle Lengyel <MLengyel@arapahoegov.com>,
Steven Loeffler - CDOT <steven.loeffler@state.co.us>

Kat,

Attached are CDOTs comments for the latest revision of the Eastgate referral. I have included all of CDOTs comments, but the most recent comment from our Traffic Unit is on page 4 and highlighted in yellow. For your convenience their comment is below.

The Traffic & Safety Traffic Unit has no comments regarding Revision 7.

Thank you.

Aaron Eyl

Permit Unit - Region 1



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COLORADO
Department of Transportation
Region 1

Project Name: Eastgate

Print Date: 7/3/2024

Highway: 70

Mile Marker: 292.0

A comment response letter is REQUIRED along with the next submittal.

Review POC: Eyl, Aaron

Environmental Comments:

For ANY ground disturbance/work within CDOT ROW---

Required:

Arch/History/Paleo:

Since this is a permit, a file search for Arch, Paleo and History is required. If the file search identifies anything, a more extensive report will be required. If nothing is identified, then the file search should be sufficient. For the file search contact:

Cultural/History File Search: <https://www.historycolorado.org/file-access> Email: hc_filesearch@state.co.us

Paleo File Search: Colorado University Museum of Natural History - Email: jacob.vanveldhuizen@colorado.edu and <https://www.dmns.org/science/earth-sciences/earth-sciences-collections/> and/or Denver Museum of Nature and Science – Email: kristen.mackenzie@dmns.org <https://www.dmns.org/science/earth-sciences/earth-sciences-collections/>

The ECIS will be used to support HazMat requirements.

Non-historic 4f does not apply.

If any non-historic 6f properties will be impacted or disturbed applicant shall coordinate with Veronica McCall veronica.mccall@state.co.us

Info for Applicant/Contractor:

The Permittee shall complete a stormwater management plan (SWMP) which must be prepared with good engineering, hydrologic, and pollution control practices and include at a minimum the following components: qualified stormwater manager; spill prevention and response plan; materials handling; potential sources of pollution; implementation of control measures; site description; and site map.

In addition, the Permittee shall comply with all local/state/federal regulations and obtain all necessary permits. Permittee shall comply with CDOT's MS4 Permit. When working within a local MS4 jurisdictional boundary, the permittee shall obtain concurrence from the local MS4 that the local MS4 will provide construction stormwater oversight. The local MS4 concurrence documentation shall be retained with the SWMP.

Clear Zone: It is the responsibility of the engineer/architect who stamps the plans to ensure that: any new landscaping/trees are outside of the clear zones for any State Highway/CDOT ROW and that the new landscaping/trees do not interfere with site lines from any State Highway/CDOT ROW.

Landscape: Any new or changes to existing landscaping within CDOT ROW must be reviewed and approved by CDOT. Landscaping plans should be submitted and should include details of all proposed plant species and seed mixes/ratios.

2/29/2024:

Required:

Arch/History/Paleo:

Since this is a permit, a file search for Arch, Paleo and History is required. If the file search identifies anything, a more extensive report will be required. If nothing is identified, then the file search should be sufficient. For the file search contact:

Cultural/History File Search: <https://www.historycolorado.org/file-access> Email: hc_filesearch@state.co.us

Paleo File Search: Colorado University Museum of Natural History - Email: jacob.vanveldhuizen@colorado.edu and <https://www.dmns.org/science/earth-sciences/earth-sciences-collections/> and/or Denver Museum of Nature and Science – Email: kristen.mackenzie@dmns.org <https://www.dmns.org/science/earth-sciences/earth-sciences-collections/>

4/30/2024: Paleo findings and Paleo file search was not included in the recently uploaded items.

Arch and History are under review.

5/13/2024: Same as above

Hydraulics Comments:

SBL - 6/15/2023

At this time I don't have any concerns with the proposed Eastgate development as the historic flow pattern for the site is south and west toward First Creek. CDOT will need to see further submittals for the site, the I-70/Airpark Interchange and the E. Colfax Avenue realignment. Improvements to CDOT right-of-way (I-70/Airpark Interchange & E. Colfax Avenue) will require a separate drainage report with CDOT Drainage Design Criteria discussed and supporting calculations provided.

Samer AlHaj should be the primary reviewer for the Eastgate site, I-70/Airpark Interchange and E. Colfax Avenue realignment moving forward.

I did take a look at the proposed drainage changes and concluded that, there will be no negative drainage impact to the existing drainage patterns. I have no further drainage comments.

Samer 2-29-24

Permits Comments:

6-26-23 CDOT has no objection to the rezoning.

An access permit will be required if any new accesses to the development are within CDOT ROW. Currently the TIS shows access 101 is an access within CDOT ROW. There also appears to be two existing access off of the I-70 frontage Rd / E Colfax Ave that will need to be closed. Each of these closures will require an access permit. The access permit application can be found at:

<https://www.codot.gov/business/permits/accesspermits/forms/cdot0137>

Accesses shall be 550' or more away from the radius point of any ramp touching down curve.

Any work in the CDOT ROW unrelated to access will require a permit from our office. This includes, but is not limited to survey, landscaping, or utility work. Application is made online at the following link:

<https://cdotpermits.force.com/portal/s/login/?ec=302&startURL=%2Fportal%2Fs%2F>

Any signing for this development must be on premise and cannot be either partly or wholly in CDOT ROW. Signing must be compliant with CDOT rules governing outdoor advertising per 2 CCR 601-3.

Please show and clearly label the CDOT ROW. AE 6-26-23

No comments at this time. RLW June 26 2023

No comments at this time. RLW Sep 22 2023

10-4-23 No comment. AE 10-4-23

2-12-24 Please include a comment response letter with your next submittal addressing all of CDOT's comments individually. AE 2-12-24

4.26.24 No comment regarding the domestic sewage treatment system and domestic water treatment system. Please keep in mind that any work unrelated to access that takes place in CDOT ROW will require a Special Use/Utility permit.

If documents are in one large PDF (such as the Narrative which has 693 pages) please use Top Level Bookmarks to separate each document. This makes finding documents much easier and reduces the chance of missing a document -- Aaron Eyl 4.26.24

Residential Engineer Comments:

No Comment for this revision

KMD_10_4_23

KMD_6_22_23

I have no major comment currently.

Please clearly label CDOT Right-of-way Lines in your future submittals

All features proposed within CDOT ROW shall meet CDOT standards and Specifications.

Right Of Way Comments:

JAD Comments 6/22/23 - There is nothing pertinent for survey to review at tis time. Survey does not have input on the re-zoning or PUD requests/documents at this time. As the project progresses we will need to review subdivision plats, right of way plans, access control lines/new accesses, and any dedications/ROW changes adjacent to the CDOT system.

Traffic Comments:

June 27,2024: The Traffic & Safety Traffic Unit has no comments regarding Revision 7.

The following comments are provided by CDOT Region 1 Traffic & Safety for the Eastgate Traffic Impact Studies (TIS) provided in Revision 3 (January 15, 2024) and Revision 5 (March 4, 2024). References to figures and tables are for the 3/4/24 TIS.

The east terminus of the CO-36 road segment that connects with Monaghan to the west is not shown on any of the figures. Exhibit 2 appears to show a 2-way CO-36 functioning as the WB off-ramp to the intersection of future Smith Rd and Monaghan Rd for 2045. Figures 7C and 10A seem to confirm this. How does the 2-way CO-36 work as a WB off-ramp? Where is the NB to EB right turning traffic going? Is the ramp braided? Please update the affected figures as necessary and revise the text at the top of page 18 in the Conclusions for the WB off-ramp in the Year 2045 paragraph.

The bubble for Intersection #6 on Figures 7C and 10A is labeled "4. Monaghan Rd and Smith Road". Are the volumes also mislabeled? Same comment for Figures 5, 7C, and 10A and potentially others.

The NBLT movement for Intersection #1 on Exhibit 1 does not appear to show double left turns like what is assumed in the 2030 Synchro models. It would be helpful if the lane configurations for the 2030 and 2045 interchange assumptions could be clearly shown on graphics. Details are difficult to determine on Exhibits 1 & 2.

Table 2 shows over 180' of queue length for the WB left & thru movement at Intersection #1, Airpark Road & I-70 Westbound Ramps. Please verify that this length can be accommodated on the ramp with the understanding that there could be 15 years of additional growth before the interchange is rebuilt. It may be desirable to consider a 3 lane WB approach with dedicated left and right lanes and a left/thru lane but it's not clear if there 2 SB lanes on the bridge to receive the 2 lanes of WB to SB left turns.

The 1014 vehicles in the AM peak hour on the NB to WB loop ramp of Intersection #1 in 2045 equates to 1 vehicle entering WB I-70 every 3.6 seconds on average without considering effects of large trucks. Does the EB I-70 traffic stream provide sufficient gaps to allow this high number of entering vehicles in the peak hour?

Figure 4 shows 1 SB thru lane at Intersection #2; however, Figures 7A and 9A show 2 lanes. Only one lane is modeled in Synchro. Please update.

Regarding Table 1, Given the LOS of D in the mid to upper range for the eastbound I-70 ramp double right turn lane movement for Intersection #2 in 2030, has consideration been given to the outside right turn lane being provided with a receiving acceleration lane to enable free-flow right turning movements?

Were roundabouts considered for Intersections #1, 2, and/or 6 instead of traffic signal control?

END

The following comments are provided by CDOT Region 1 Traffic & Safety on 11/9/23 for Submittal 2.

Please see the following 2 attachments (in Permit Approval Documents / Eastgate-CDOT-Comments-Submittal2 folder :

2023_11_09_CDOT Comments - TIS - EastgateSubmittal2.pdf – This is the full TIS with markups / comments made in red by our independent development review consultant with additional comments made by CDOT Traffic in blue. The blue comments override the red comments. Comment summaries are attached to the front of this document.

2023_11_09_EastgateTIS-Submittal2 - External Referral Comments - Response to CDOT Comments.pdf – Comments in red were made by our independent development review consultant. This information is consistent with comments in the TIS attachment.

It appears that several of the Traffic comments provided with the first TIS submittal were not addressed in the second TIS submittal. Please provide a comment resolution table that addresses all of the Traffic comments for both submittals. Include explanations for comments that the consultant chooses not to address. Our primary concerns are with the network assumptions and how those affect the conclusions.

END

The following comments on the Eastgate TIS are provided by CDOT's Region 1 Traffic & Safety Engineering Unit on 6/30/23 for Submittal 1.

Roadway Networks

Update Figures 3, 4, and 5 to include the number of thru lanes on non-freeway roadway segments. The labels for each intersection should be clearly visible – avoid small circular text around the intersection bubbles. The intersection numbers should be larger so they are easily identifiable.

Expand the discussion for the 2030 and 2045 networks to include the source of the change (e.g., study, transportation plan) and/or the entity responsible for funding and implementation.

Changes to the north side of the interchange for 2030 and 2045 are curious. What happened to East Colfax Ave that currently terminates at Intersection #1? What is the justification for removing the connection? Without it, westbound traffic on I-70 cannot exit. Also, please describe what appears to be redundant westbound on-ramps to I-70.

The Colfax (US-36) intersection to the north of the interchange should be included in the traffic analysis.

Footnote Figure 4 to indicate that Intersection #2 was renamed and relocated to the east in the 2030 and 2045 networks. What entity is assumed to be funding/implementing the new traffic signal at Intersection #2?

The I-70/Monaghan/Airpark interchange has not gone through the 1601 process yet and that will take a significant amount of time. The interchange improvements might not be done by 2030. Please include an analysis for 2030 with the existing interchange configuration. This is in addition to the analysis with the modified network that is already included in the TIS.

The EB right turn movement at Intersection #2 appears to be a free movement in 2030 and 2045. With the amount of vehicles making that right turn and the lack of two acceleration lanes going south along Monaghan, the EB right turns should be signalized. This movement doesn't show any delay which implies it was not coded this way in Synchro.

The realignment of the Colfax frontage road on the south side of I-70 will need further discussion. This routes the road off of CDOT property and through a neighborhood. This will require coordination with Arapahoe County.

Trip Generation - Minor comment: Internal capture trip reductions should not be applied to Industrial Park land uses – see page 10 and Table 3.

Trip Distribution / Traffic Assignment - No comments.

Traffic Assumptions & Operations Analysis

Section 5.1 on page 6 requires attention. Explain the significance of statement 2. Please rewrite/expand statements 3 – 6 as it is not clear how the future forecasts were estimated. Clarify “differing short-term forecasts” and “differing long-term forecasts”. Should “2040” be “2045” in the last sentence of the first paragraph on this page?

Show ramp daily traffic volumes on Figures 4 and 5.

Include the Monaghan / 12th Avenue intersection in the future traffic operations analysis if it will be signalized and assume coordinated signals along Monaghan by at least ensuring all of the cycle lengths are the same. Add an east leg to the 12th Avenue intersection and estimate future traffic for it if applicable.

Conclusions - Page 14 needs a responsibility matrix. Not sure who is doing all these improvements and would like that clearly laid out.

ITS-Signals Comments:

No comments at this time

~ CSV 6/20/23