



Responses by Chris McGranahan
LSC Transportation Consultants, Inc.
February 18, 2022

Comments: 1/19/2022

By: Kyle Morris (BHI)

1. Revise trip distribution to match PA-14 trip distribution from the MTIS.
2. Provide a growth rate consistent with NEATS projections.
3. Provide trip generation sheets from referenced TISs in the appendix.
4. Provide queuing summary table for intersections 2 and 5.
5. See comments throughout the report.

December 9, 2021

Ms. Alaina Kneebone-Marler
Dewberry J3
8100 E. Maplewood Street, Suite 150
Greenwood Village, CO 80111

NOTE: This project
is now referred to as
Phase 6 Filing 6

Re: Horizon Uptown Phase 5
Aurora, CO
LSC #210520

Dear Ms. Kneebone-Marler:

In response to your request, LSC Transportation Consultants, Inc. has prepared this site-specific traffic impact analysis for the proposed Horizon Uptown Phase 5 development. As shown on Figure 1, the site is located south of the I-70 Frontage Road, east of Picadilly Road, and north of Stephen D. Hogan Parkway in the City of Aurora, Colorado.

REPORT CONTENTS

The report contains the following: the existing roadway and traffic conditions in the vicinity of the site including the lane geometries, traffic controls, posted speed limits, etc.; the existing weekday peak-hour traffic volumes; the existing daily traffic volumes in the area; the typical weekday site-generated traffic volume projections for the site; the assignment of the projected traffic volumes to the area roadways; the projected short-term and long-term background and resulting total traffic volumes on the area roadways; the site's projected traffic impacts; and any recommended roadway improvements needed to mitigate the growth in background traffic or from the site's traffic impacts.

COMPARISON TO ASSUMPTIONS IN THE MASTER TRAFFIC STUDY


Matrix Design Group completed a Master Traffic Study for Horizon Uptown dated November 2, 2018 (Master TIA). In that study the master plan area was divided into 20 planning areas as shown in Figure 2. The Phase 5 site is within a portion of Planning Area 14 as shown in Figure 2.

LAND USE AND ACCESS

The Phase 5 site is proposed to include 89 single-family homes and 74 duplex dwelling units. Access is proposed from several locations as shown in the conceptual site plan in Figure 3.

Summary of Comments on HUF6 TIS Comments With LSC Response.pdf


Page: 1

 Number: 1 Author: kdmorris Subject: Text Box Date: 1/20/2022 4:19:23 PM


Comments: 1/19/2022

By: Kyle Morris (BHI)


1. Revise trip distribution to match PA-14 trip distribution from the MTIS.
2. Provide a growth rate consistent with NEATS projections.
3. Provide trip generation sheets from referenced TISs in the appendix.
4. Provide queuing summary table for intersections 2 and 5.
5. See comments throughout the report.

 Author: kdferrin Subject: Sticky Note Date: 2/16/2022 1:13:33 PM

LSC Response: See responses throughout the report

 Number: 2 Author: Waltraud Subject: Text Box Date: 2/14/2022 1:17:44 PM

Responses by Chris McGranahan
LSC Transportation Consultants, Inc.
February 18, 2022

 Number: 3 Author: kdferrin Subject: Callout Date: 2/10/2022 5:51:18 PM

NOTE: This project is now referred to as Phase 6 Filing 6

ROADWAY AND TRAFFIC CONDITIONS

Area Roadways

The major roadways in the site's vicinity are shown on Figure 1 and are described below.

- **I-70 Frontage Road** is an east-west, two-lane frontage road north of the site. The intersections with Colfax Avenue and Picadilly Road are stop-sign controlled. The posted speed limit is 30 mph west of Picadilly Road and 45 mph east of Picadilly Road.
- **Picadilly Road** is a north-south, two-lane arterial roadway west of the site. The intersections with the I-70 Frontage Road and Stephen D. Hogan Parkway are stop-sign controlled. The posted speed limit is 45 mph in the vicinity of the site. It is planned to be a six-lane major arterial by 2040 per the *Aurora NEATS* study. The City of Aurora and CDOT plan to begin design of the proposed I-70/Picadilly interchange in the near future.
- **Stephen D. Hogan Parkway** is an east-west, two-lane major arterial roadway south of the site. The intersection with Picadilly Road is stop-sign controlled. No speed limit is posted in the vicinity of the site. It is planned to be a six-lane major arterial by 2040 per the *Aurora NEATS* study.
- **Colfax Avenue** is an east-west, four-lane state highway north of the site. The intersection with the Frontage Road is stop-sign controlled. The posted speed limit in the vicinity of the site is 55 mph.

Existing Traffic Conditions

Figure 4 shows the existing traffic volumes, lane geometry, and traffic control at the intersection of Picadilly Road/E. 11th Avenue. The weekday peak-hour traffic volumes and daily traffic counts are based on the attached traffic counts conducted by Counter Measures in August, 2021.

2026 and 2040 Background Traffic

1
Provide a growth rate consistent with NEATS projections.


Figure 5a shows the estimated 2026 background traffic. The 2026 background volumes are based on the existing volumes shown in Figure 4 assuming a growth rate of through traffic on Picadilly Road of two percent per year plus estimates of traffic projected to be generated with buildout of Horizon Uptown Filing Nos. 1 through 3, traffic projected to be generated with buildout of Horizon Uptown Phase 6, traffic projected to be generated by the initial phase of the Stafford Logistics Center (Buildings 1 through 3) taken from the recently approved *Stafford Logistics Center TIS* by FHU, and about 60 percent of the traffic projected to be generated by Aurora One at buildout taken from the recently approved *Aurora One TIS* by Fox and Tuttle Transportation Group, LLC. Figure 5b shows the estimated 2026 background lane geometry and traffic control.

Figure 6a shows the estimated 2040 background traffic based on the buildout of the Horizon Uptown Master Plan, the Stafford Logistics Center, Aurora, and the Aurora One development. Figure 6b shows the estimated 2040 background lane geometry and traffic control.

2
3
Provide trip generation sheets from referenced TISs in the appendix.


 Number: 1 Author: kdmorris Subject: Callout Date: 1/19/2022 10:15:26 AM

Provide a growth rate consistent with NEATS projections.


 Author: kdferrin Subject: Sticky Note Date: 2/16/2022 1:14:06 PM

LSC Response: The change in the NEATS projections for the section of Picadilly adjacent to the site between 2030 and 2040 calculates to an annual growth rate of about 9.58%. The projected future traffic includes estimates of traffic from the parcels that are currently planned as part of the Stafford Logistics Center and Aurora One. The short-term background traffic volumes assumed in this report which include traffic projected to be generated by the initial phases of these developments plus a 2% growth in through traffic unrelated to these two developments calculated to an annual growth rate of 18% over five years. It was assumed that this area will see rapid growth in the next few years and then growth will slow down as these large developments are finished. As the background volumes are more conservative than the NEATS projections the volumes were not adjusted in the updated TIS.

 Number: 2 Author: kdmorris Subject: Rectangle Date: 1/19/2022 10:47:11 AM

 Number: 3 Author: kdmorris Subject: Callout Date: 1/19/2022 1:33:34 PM

Provide trip generation sheets from referenced TISs in the appendix.

 Author: kdferrin Subject: Sticky Note Date: 2/16/2022 1:14:17 PM

LSC Response: The requested information has been included with the updated TIS


Table 3
95th Percentile Queue Lengths and Auxiliary Turn Lanes ^{(1) (2) (3)}
Horizon Uptown Phase 5
Aurora, CO
LSC #210520; December, 2021

Intersection No. & Location	95th Percentile Queue Length		Recommended Turn Lane Length (feet)	Recommended Transition Taper Length (feet)
	2040 Total			
	AM Peak (feet)	PM Peak (feet)		
1) <u>Picadilly Road/E. 11th Avenue</u>				
EB Left/Through/Right	4	0	--	--
WB Left/Through	142	289	--	--
WB Right	13	2	150	100
NB Left	m7	m2	225	145
NB Through	448	466	--	--
NB Right	116	109	225	145
SB Left	9	33	225	145
SB Through/Right	206	373	--	--
3) <u>Picadilly Road/E. 8th Avenue</u>				
WB Left	112	130	--	--
WB Right	59	171	170	100
NB Through	173	78	--	--
NB Right	32	1	225	145
SB Left	332	107	350	145
SB Through	252	440	--	--
4) <u>Picadilly Road/E. 7th Avenue</u>				
WB Left	73	223	--	--
WB Right	38	45	225	100
NB Through	149	229	--	--
NB Right	m4	m16	225	145
SB Left	8	71	225	145
SB Through	29	61	--	--


Notes:


- (1) Queue lengths for signalized intersections are from the queuing reports included in the appendix.
- (2) m = metered by adjacent signals
- (3) Auxiliary turn lane lengths on arterial roadways are based on 40 mph and the NR-B classification in the *CDOT State Highway Access Code*. A redirect taper of 30:1 is appropriate for 40 mph.

Provide queuing summary table for intersections 2 and 5 as well. ¹


 Number: 1 Author: kdmorris Subject: Text Box Date: 1/19/2022 11:04:59 AM

Provide queuing summary table for intersections 2 and 5 as well.

 Author: kdferrin Subject: Sticky Note Date: 2/4/2022 10:16:10 AM
LSC Response: The table has been revised as requested

 Number: 1 Author: kdmorris Subject: Text Box Date: 1/19/2022 10:54:09 AM

Revise trip distribution to match PA-14 trip distribution from the MTIS.

 Author: kdferrin Subject: Sticky Note Date: 2/4/2022 10:16:32 AM

LSC Response: LSC recently completed a site-specific traffic study for Horizon Uptown Filing No. 3. In the response to review comments regarding that report dated 2020-02-28 LSC noted that it was necessary to change the directional distribution based on the expanded study area of the traffic impact study. The directional distribution estimate used in this Phase 6 report is consistent with the expanded distribution estimate assumed in the Filing No. 3 report.