



December 11, 2019

City of Aurora Planning Department
15151 E. Alameda Parkway
Suite 2300
Aurora, Colorado 80012

Attn: Mr. Brandon Cammarata
Senior Planner

Re: Traffic Compliance Letter
FACC Building E
Aurora, Colorado

Dear Mr. Cammarata:

Introduction

This traffic study letter documents a trip generation comparison to identify conformance with the original traffic impact study for a warehouse building proposed as Building E within the First Aurora Commerce Center Industrial Park located in Aurora, Colorado. The First Aurora Commerce Center is proposed to be located on the southeast corner of the 26th Avenue and Picadilly Road Avenue intersection in Aurora, Colorado. Kimley-Horn and Associates previously conducted a Traffic Impact Study for this project area, "Aurora Commerce Center Traffic Impact Study", dated October 2018.

The previously studied project included a total of five buildings consisting of two (2) industrial use buildings and three (3) warehouse use buildings. Building A included 130,000 square feet of industrial building space, Building B included 130,000 square feet of industrial building space, Building D included 555,840 square feet of warehouse building space, Building E included 587,040 square feet of warehouse building space, and Building H included 484,640 square feet of warehouse building space.

The current proposal is an update in building square footage for Building E within the First Aurora Commerce Center Industrial Park which is proposed to include a 588,085 square foot warehouse use. Within the original traffic study, an 587,040 square foot warehouse building was assumed for Building E. Therefore, the purpose of this letter is to summarize a comparison of the trip generation from the proposed First Aurora Commerce Center Building E project with the additional 1,045 square feet to the originally studied use for the same study area.

Site Characteristics and Access

Regional access to the project will be provided by Interstate 70 and E-470. Primary access to the overall First Aurora Commerce Center will be provided by 32nd Parkway, 26th Avenue, Smith Road, and Picadilly Road. Direct access to the overall development will be provide by two accesses along the east side of Picadilly Road and four accesses along the south side of 26th Avenue. Building E will primarily have access at two driveways along 26th Avenue. The entire First Aurora Commerce Center project site encompasses approximately 170 acres, of which approximately 129 acres will be developed.

Trip Generation Comparison

Site-generated traffic estimates are determined through a process known as trip generation. Rates and equations are applied to the proposed land use to estimate traffic generated by the development during a specific time interval. The acknowledged source for trip generation rates is the *Trip Generation Manual* published by the Institute of Transportation Engineers (ITE). ITE has established trip rates in nationwide studies of similar land uses.

Trip generation for the currently proposed First Aurora Commerce Center Building E project is based on the ITE Trip Generation, 10th Edition (most current edition) average rate equations for Warehousing (ITE Code 150). Similarly, trip generation in the original Aurora Commerce Center traffic study was also calculated using the 10th Edition average rate equations for Warehousing (ITE Code 150).

The following table summarizes the anticipated trip generation for the currently proposed 588,085 square foot warehouse land use proposed as Building E within the First Aurora Commerce Center compared to the expected trip generation for the previously studied 587,040 warehouse land use proposed as Building E within the original study. The trip generation calculation sheet from the original traffic study for the overall Aurora Commerce Center development area, including the originally proposed 587,040 square foot of warehousing land use proposed as Building E, and the trip generation sheet for the current proposal are attached for reference.

**Trip Generation Comparison
Aurora Commerce Center (original study) vs.
FACC Building E (proposed)**

Land Use and Quantity	Daily Vehicle Trips	Weekday Vehicle Trips					
		AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Original Study – Aurora Commerce Center							
Building E: Warehousing (ITE 150) – 587,040 SF	1,022	77	23	100	30	82	112
Current Proposal – FACC Building E							
Building E: Warehousing (ITE 150) – 588,085 SF	1,024	77	23	100	30	82	112
Net Difference in Trips	+2	+0	+0	+0	+0	+0	+0

As summarized in the table, the 587,040 square foot warehouse land use originally studied was anticipated to generate 1,022 daily weekday trips with 100 trips occurring during the morning peak hour and with 112 trips occurring during the afternoon peak hour. The currently proposed 588,085 square foot warehouse land use proposed as First Aurora Commerce Center Building E is anticipated to generate very similar traffic with 1,024 daily weekday trips. The peak hour trips are anticipated to be the same as previous, with 100 trips occurring during the morning peak hour and with 112 trips occurring during the afternoon peak hour.

Therefore, the proposed First Aurora Commerce Center Building E is anticipated to generate the same amount of traffic from what was previously studied. The change in size of the building is only anticipated to account for an increase of approximately two (2) daily trips based on ITE equations and data correlated to building area.

Accounting for the overall Aurora Commerce Center development project trip generation of 3,714 daily trips, the increase in the overall building size of Building E is anticipated to increase the daily traffic generated by the overall development area by only 0.05 percent during an average weekday. As mentioned previously, traffic generated during the weekday morning and afternoon peak hours is anticipated to remain the same as previously studied. Based on this, it is believed that the surrounding street network will successfully accommodate the increase in daily project traffic as outlined in the original traffic study.

Conclusion

Based on these results, development of the proposed 588,085 square-foot warehouse proposed as Building E within the First Aurora Commerce Center in Aurora, Colorado is anticipated to generate the same project traffic and therefore, would not change the results or conclusions of the original traffic impact study which included this development area completed by Kimley-Horn and Associates entitled, "Aurora Commerce Center Traffic Impact Study", dated October 2018. It is believed that all potential traffic impacts related to the proposed project have been previously addressed within the original traffic impact study and the conclusions and recommendations remain valid. If you have any questions, please feel free to call me at (303) 228-2304.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.

Curtis D. Rowe, P.E., PTOE
Vice President



T R A F F I C I M P A C T S T U D Y

Aurora Commerce Center

Aurora, Colorado

Prepared for
Aurora Commerce Center Metropolitan District
c/o Special District Management Services, Inc.
141 Union Boulevard
Suite 150
Lakewood, Colorado 80228

Prepared by
Kimley-Horn and Associates, Inc.
4582 South Ulster Street
Suite 1500
Denver, Colorado 80237
(303) 228-2300

October 2018



This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

5.0 PROJECT TRAFFIC CHARACTERISTICS

5.1 Trip Generation

Site-generated traffic estimates are determined through a process known as trip generation. Rates and equations are applied to the proposed land use to estimate traffic generated by the development during a specific time interval. The acknowledged source for trip generation rates is the *Trip Generation*¹ report published by the Institute of Transportation Engineers (ITE). ITE has established trip rates in nationwide studies of similar land uses. For this study, the ITE Trip Generation average rate equations that apply to Industrial Park (ITE Code 130) and Warehousing (ITE Code 150) were used to estimate traffic generated by the proposed development.

The Aurora Commerce Center project is expected to generate approximately 3,714 daily weekday trips, with 380 of these trips occurring during the morning peak hour and 415 trips occurring during the afternoon peak hour. **Table 1** summarizes the estimated traffic generation for proposed development. The trip generation worksheets are included in **Appendix C**. These calculations illustrate the equations used, directional distribution of trips, and number of daily trips based on the ITE report.

Table 1 – Aurora Commerce Center Project Trip Generation

Land Use and Size (ITE Code)	Vehicles Trips						
	Daily	Weekday AM Peak Hour			Weekday PM Peak Hour		
		In	Out	Total	In	Out	Total
Building A: Industrial Park (ITE 130) – 130,000 Square Feet	440	42	10	52	11	41	52
Building B: Industrial Park (ITE 130) – 130,000 Square Feet	440	42	10	52	11	41	52
Building D: Warehousing (ITE 150) – 555,840 Square Feet	968	72	22	94	29	77	106
Building E: Warehousing (ITE 150) – 587,040 Square Feet	1,022	77	23	100	30	82	112
Building H: Warehousing (ITE 150) – 484,640 Square Feet	844	63	19	82	25	68	93
Total Site Generated Trips	3,714	296	84	380	106	309	415

¹ Institute of Transportation Engineers, *Trip Generation Manual*, Tenth Edition, Washington DC, 2017.

Project Aurora Commerce Center - Proposed Building E

Subject Trip Generation for Warehousing

Designed by Jeff Planck

Date September 17, 2018

Job No. 096583000

Checked by _____

Date _____

Sheet No. 1 of 1

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations

Land Use Code - Warehousing (150)

Independant Variable - 1000 Square Feet Gross Floor Feet (X)

Gross Floor Area = 587,040

X = 587.0

T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (100 Series Page 69)

		Directional Distribution:	77%	ent.	23%	exit.
T = 0.17 (X)		T =	100	Average Vehicle Trip Ends		
T = 0.17 *	587.04	77	entering	23	exiting	
		77	+	23	=	100

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (100 Series Page 70)

		Directional Distribution:	27%	ent.	73%	exit.
T = 0.19 (X)		T =	112	Average Vehicle Trip Ends		
T = 0.19 *	587.04	30	entering	82	exiting	
		30	+	82	=	112

Weekday (100 Series Page 68)

		Directional Distribution:	50% entering, 50% exiting			
T = 1.74 (X)		T =	1022	Average Vehicle Trip Ends		
T = 1.74 *	587.04	511	entering	511	exiting	
		511	+	511	=	1022

Project Aurora Commerce Center - Proposed Building E (Updated)

Subject Trip Generation for Warehousing

Designed by ACK

Date December 11, 2019

Job No. _____

Checked by _____

Date _____

Sheet No. 1 of 1

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations

Land Use Code - Warehousing (150)

Independant Variable - 1000 Square Feet Gross Floor Feet (X)

Gross Floor Area = **588,085**

X = 588.1

T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (100 Series Page 69)

T = 0.17 (X)

T = 0.17 * 588.085

Directional Distribution: 77% ent. 23% exit.

T = 100 Average Vehicle Trip Ends

77 entering 23 exiting

77 + 23 = 100

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (100 Series Page 70)

T = 0.19 (X)

T = 0.19 * 588.085

Directional Distribution: 27% ent. 73% exit.

T = 112 Average Vehicle Trip Ends

30 entering 82 exiting

30 + 82 = 112

Weekday (100 Series Page 68)

T = 1.74 (X)

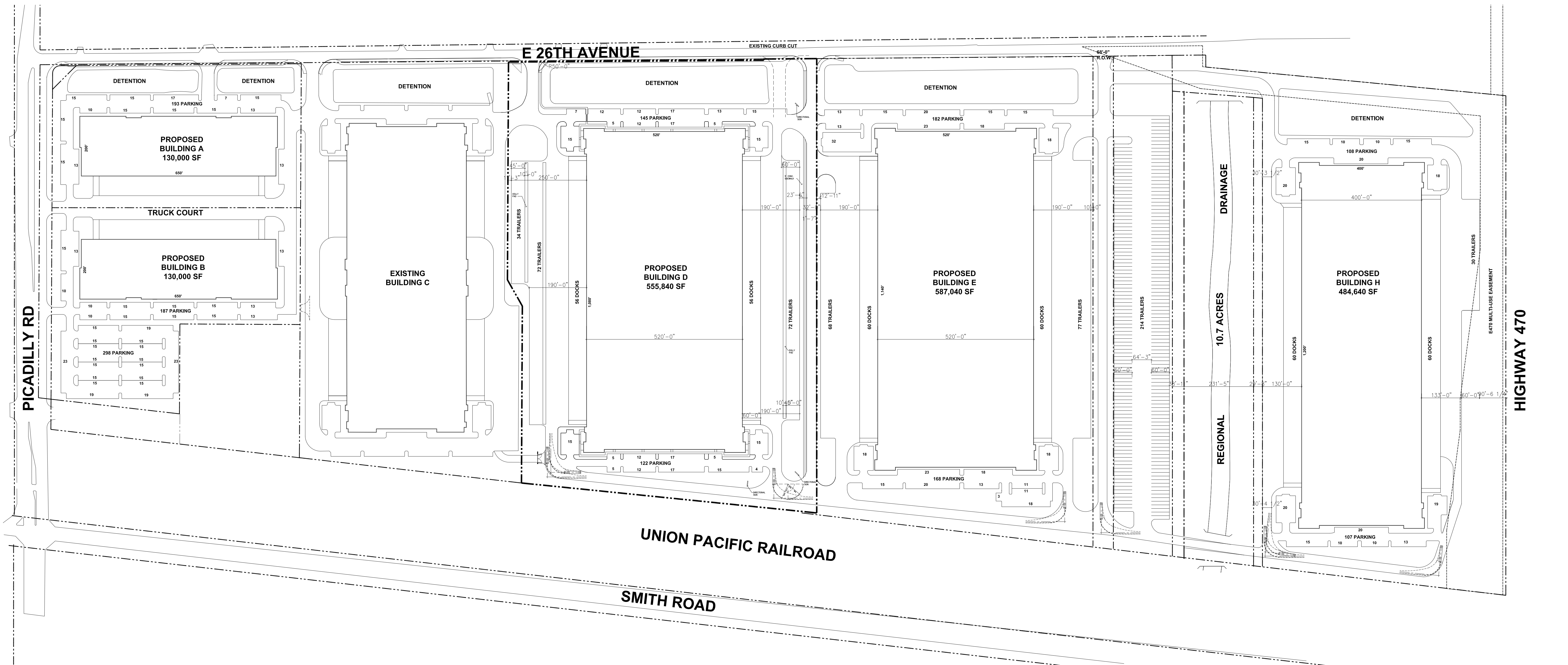
T = 1.74 * 588.085

Directional Distribution: 50% entering, 50% exiting

T = 1024 Average Vehicle Trip Ends

512 entering 512 exiting

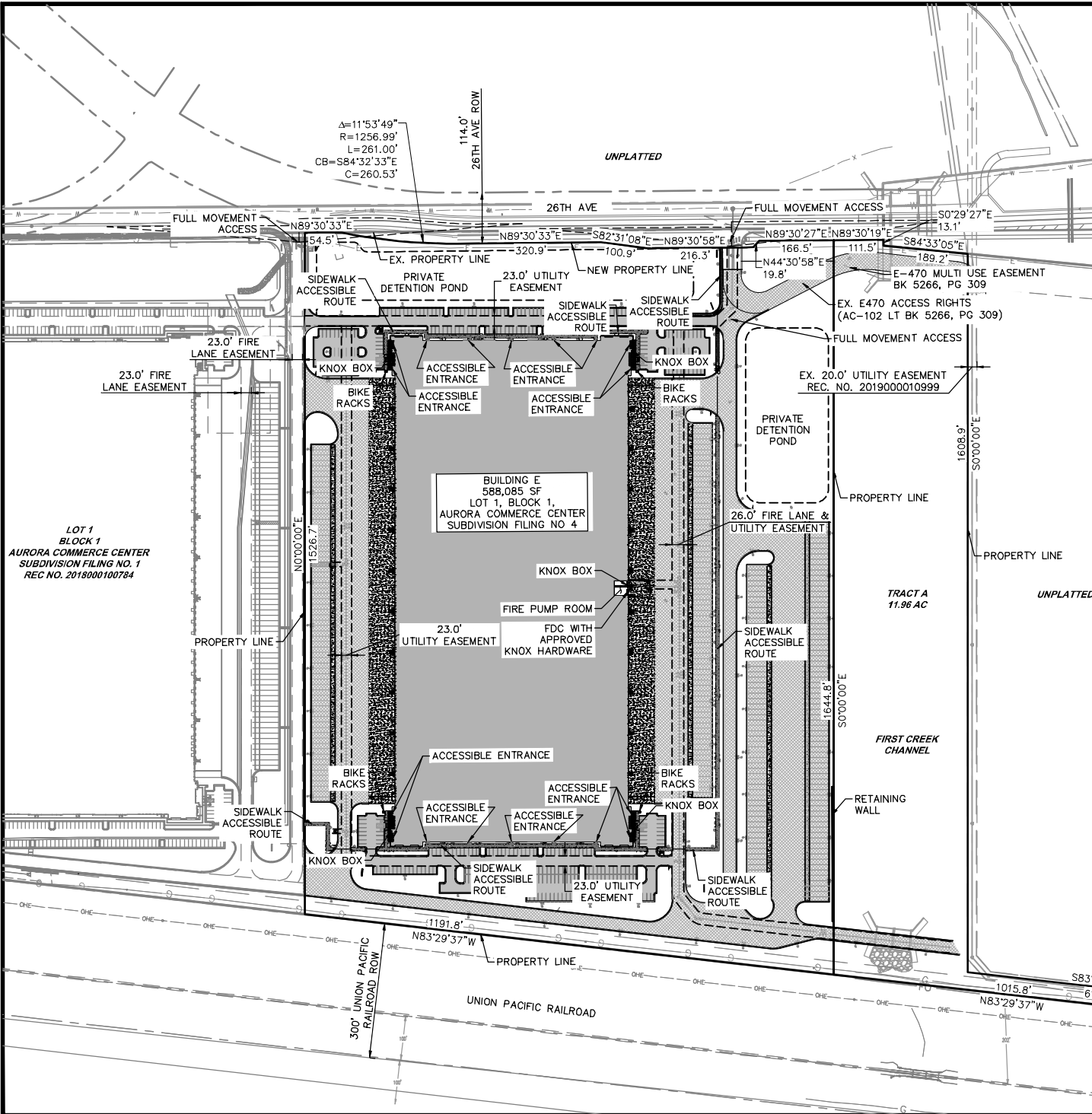
512 + 512 = 1024



BUILDING A		BUILDING B		BUILDING C		BUILDING D		BUILDING E		TRAILER SITE/RIGHT OF WAY:		DRAINAGE SITE:		BUILDING H	
SITE AREA:	9 ACRES	SITE AREA:	10 ACRES	SITE AREA:	EXISTING	SITE AREA:	33.7 ACRES	SITE AREA:	33.2 ACRES	TRAILER SITE AREA:	7.46 ACRES	SITE AREA:	10.70 ACRES	SITE AREA:	31.50 ACRES
BUILDING AREA:	130,000 SF	BUILDING AREA:	130,000 SF	BUILDING AREA:	EXISTING	BUILDING AREA:	555,840 SF	BUILDING AREA:	587,040 SF	BUILDING PARKING:	214			BUILDING AREA:	484,640 SF
CAR PARKING:	193 (1.48/1,000 SF)	CAR PARKING:	485 (3.73/1,000 SF)			CAR PARKING:	278 (.5/1,000 SF)	CAR PARKING:	350 (.6/1,000 SF)	TRAILER PARKING:	145 (1/4,049 SF)			CAR PARKING:	215 (.44/1,000 SF)
TRAILER PARKING:	N/A	TRAILER PARKING:	N/A			TRAILER PARKING:	174 (1/3,194 SF)	TRAILER PARKING:	145 (1/4,049 SF)	RIGHT OF WAY:	2.54 ACRES			TRAILER PARKING:	244 W/ TRAILER LOT (1/1,986 SF)
DOCK HIGH DOORS:	35 (1/3,714 SF)	DOCK HIGH DOORS:	35 (1/3,714 SF)			DOCK HIGH DOORS:	109 (1/5,099 SF)	DOCK HIGH DOORS:	120 (1/4,895 SF)					DOCK HIGH DOORS:	120 (1/4,039 SF)
DRIVE IN DOORS:	2	DRIVE IN DOORS:	2			DRIVE IN DOORS:	4	DRIVE IN DOORS:	4					DRIVE IN DOORS:	4

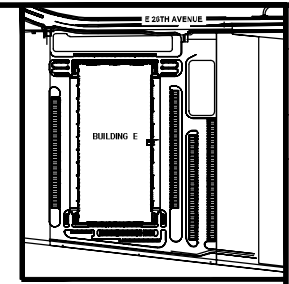
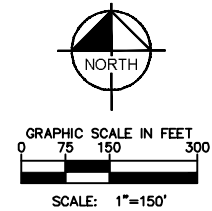
\\kimley-horn.com\ymt_den1\DEN_Civil\096583006_FACC Building E\CADD\PlanSheets\CSP\096583006SP.dwg Handy, Zack 12/10/2019 5:16 PM

LOT 1
BLOCK 1
AURORA COMMERCE CENTER
SUBDIVISION FILING NO. 1
REC NO. 2019000100784



LEGEND

- PROPERTY LINE
- EASEMENT LINE
- PARKING COUNT
- CONCRETE SIDEWALK
- COLORADO CONCRETE
- HEAVY DUTY CONCRETE
- EXISTING ASPHALT
- STANDARD DUTY ASPHALT
- HEAVY DUTY ASPHALT
- ACCESSIBLE ROUTE
- PROPOSED FIRE HYDRANT
- FDC WITH KNOX HARDWARE
- KNOX BOX



FIRST AURORA COMMERCE CENTER BUILDING E CONTEXTUAL SITE PLAN
AURORA COMMERCE CENTER SUBDIVISION FILING NO. 4, LOT 1, BLOCK 1
CITY OF AURORA, STATE OF COLORADO

OVERALL SITE PLAN

DATE: 12/19/2019
DESIGNED BY: BUC
DRAWN BY: CTM
CHECKED BY: BUC

FILE NO.
PROJECT NO. 096583006
SHEET NO.