



September 3, 2024

Mr. Jake Burks, PE
Becknell Services, LLC
205 Detroit Street
2nd Floor
Denver, Colorado 80206

Re: Nexus North Building 4
Traffic Compliance Letter
Commerce City, Colorado



Dear Mr. Burks,

This traffic study letter has been prepared to provide a trip generation comparison for Building 4 located in the northwest corner of the overall Nexus North development to identify compliance with the *Nexus North – Project “Echo” Traffic Compliance Letter* completed in November 2019. The Project “Echo” compliance letter broke the development area into Nexus North at DIA, Becknell Commercial, DIA Tech Center Annex, and Parcel #11 of DIA Tech Center to defined square footages for each building within Nexus North. Of note, the Project Echo Compliance Letter identified the proposed lots generated fewer trips than what was originally studied (shown in the attachments). The overall Nexus North development is located near the northwest corner of 81st Avenue and Tower Road in Commerce City, Colorado. Specifically, Building 4 is located on the northwest corner of the overall development, north of where Quintero Street terminates as a cul-de-sac and on the southeast corner of 88th Avenue and Buckley Road. The site plan is attached for reference. Additionally, the City is requesting a trip generation comparison of the overall Nexus North development.

The original study identified Building 4 as “New Building #1” for the same development area assuming 81,100 square feet of warehousing and 43,650 square feet of office in a 124,750 square foot building while the current application is proposed with 157,206 square feet of warehousing and 5,000 square feet of office for a total building area of 162,206 square feet. Applicable documents from the original traffic study are attached.

Access to Building 4 remains unchanged as previously studied. Regional access to the site is provided by Peña Boulevard, Tower Road, and E-470. Primary access to the site is provided by 81st Avenue and 84th Avenue. Direct access to the project will be provided at the cul-de-sac located at the northern end of Quintero Street.

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*¹ published by the Institute of Transportation Engineers (ITE). ITE has established trip rates in nationwide studies of similar land uses.

In the previous compliance letter, the ITE Trip Generation Manual 10th Edition (current version at the time) average rates that apply to warehousing and office building for traffic associated with the original development were used. To provide a direct comparison between what was studied and the current proposal, the approved rates from the compliance letter for warehouse and office were used. Therefore, the following rates for each land use are summarized below:

Warehousing (ITE 150)

Daily = 1.74 trips / 1,000 SF
AM In = 0.131 trips / 1,000 SF
AM Out = 0.039 trips / 1,000 SF
PM In = 0.051 trips / 1,000 SF
PM Out = 0.139 trips / 1,000 SF

Office (ITE 710)

Daily = 10.19 trips / 1,000 SF
AM In = 0.868 trips / 1,000 SF
AM Out = 0.141 trips / 1,000 SF
PM In = 0.170 trips / 1,000 SF
PM Out = 0.894 trips / 1,000 SF

The following **Table 1** compares the trip generation of Building 4 compared to the original user.

Table 1: Nexus North Building 4 Trip Generation Comparison

Land Use and Size	Daily	Weekday Vehicles Trips					
		AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Original Traffic Study – Nexus North at DIA TIA (Dec 2018)							
Warehouse – 81,100 SF	141	11	3	24	4	11	15
Office – 43,700 SF	445	38	6	44	7	39	46
Total Trips	586	49	9	68	11	50	61
Current Proposal – Building 4							
Warehouse – 157,206 SF	274	21	6	27	8	22	30
Office – 5,000 SF	50	4	1	5	1	4	5
Total Trips	324	25	7	32	9	26	35
Net Difference in Trips	-262	-24	-2	-36	-2	-24	-26

As shown in the table, the proposed Building 4 is expected to generate approximately 32 trips during the morning peak hour and 35 trips during the afternoon peak hour. The same development area (Building 4) from the original traffic study generated 68 trips during the morning peak hour and 61 trips during the afternoon peak hour. Therefore, Building 4 is anticipated to generate 36 fewer morning peak hour trips and 26 fewer afternoon peak hour trips than previously studied for the same site-specific development area.

As mentioned previously, the City has requested a comparison between what is currently developed/planned and what was included/approved in the development plan. Therefore, a trip generation comparison is provided in **Table 2** below for the entire site.

¹ Institute of Transportation Engineers, *Trip Generation Manual*, Eleventh Edition, Washington DC, 2021.

Table 2: Nexus North Overall Trip Generation Comparison

Building ¹	Land Use and Size	Building Status	Weekday Vehicles Trips					
			AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Original Compliance Letter (Less trips than original TIS) – Nexus North								
Becknell Property #1	Warehouse – 487,300 SF Office – 54,100 SF	N/A	64 47	19 8	83 55	25 9	68 48	93 57
Becknell Property #2	Warehouse – 444,600 SF Office – 49,400 SF		58 43	17 7	75 50	23 8	62 44	85 52
Becknell Property #3	Warehouse – 277,000 SF Office– 30,800 SF		36 27	11 4	47 31	14 5	38 28	52 33
New Building #1	Warehouse – 81,100 SF Office – 43,700 SF		11 38	3 6	14 44	4 7	11 39	15 46
New Building #2	Warehouse – 110,800 SF Office– 59,700 SF		15 52	4 8	19 60	6 10	15 53	21 63
New Building #3	Warehouse – 897,800 SF Office – 99,800 SF		118 87	35 14	153 101	46 17	125 89	171 106
New Building #4	Warehouse – 296,900 SF Office – 33,000 SF		39 29	12 5	51 34	15 6	41 30	56 36
New Building #5	Warehouse – 121,900 SF Office – 13,500 SF		16 12	5 2	21 14	6 2	17 12	23 14
Total Trips			692	160	852	203	720	923
Current Proposal and Already Constructed								
Becknell Property #1	Warehouse – 534,807 SF Office – 6,621 SF	Built	70 6	21 1	91 7	27 1	74 6	101 7
Becknell Property #2	Warehouse – 261,801 SF Office – 17,073 SF	Built	34 15	10 2	44 17	13 3	36 15	49 18
Becknell Property #3	Warehouse – 303,200 SF Office – 4,600 SF	Not Built	40 4	12 1	52 5	15 1	42 4	57 5
New Building #1	Warehouse – 157,206 SF Office – 5,000 SF	Proposed	21 4	6 1	27 5	8 1	22 4	30 5
New Building #2	Warehouse – 162,581 SF Office – 8,500 SF	Built	21 7	6 1	27 8	8 1	23 8	31 9
New Building #3	Warehouse – 989,600 SF Office – 11,002 SF	Built	130 10	39 2	169 12	50 2	138 10	188 12
New Building #4	Warehouse – 314,026 SF Office – 16,500 SF	Built	41 14	12 2	53 16	16 3	44 15	60 18
New Building #5	N/A	Removed	Removed					
Total Trips			417	116	533	149	441	590
Net Difference in Trips			-275	-44	-319	-54	-279	-333

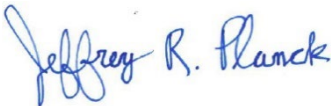
Notes: ¹Building name convention is from master study

As shown in the table above, the overall development is calculated to generate 319 fewer morning peak hour trips and 333 fewer afternoon peak hour trips than studies in the master traffic study/supplement studies. Therefore, the site is believed to be in traffic compliance with the original traffic study/supplemental studies.

CONCLUSIONS AND RECOMMENDATIONS

The Building 4 site is expected to decrease traffic by approximately 36 morning peak hour trips and 26 afternoon peak hour from what was previously studied in the *Nexus North – Project “Echo” Traffic Compliance Letter* for the same development area. Additionally, the current overall site that is either currently constructed, proposed (Building 4 – formerly “New Building #1”), or planned (“New Building #3”) is calculated to generate 319 fewer morning peak hour trips and 333 fewer afternoon peak hour trips compared to the compliance letter. Therefore, it is believed that the proposed Building 4 site and the overall development is in traffic compliance with the original traffic study prepared in December 2018 and the compliance letter prepared in November 2019. The recommendations provided in that study should remain valid for this development area. If you have any questions or require anything further, please feel free to call me.

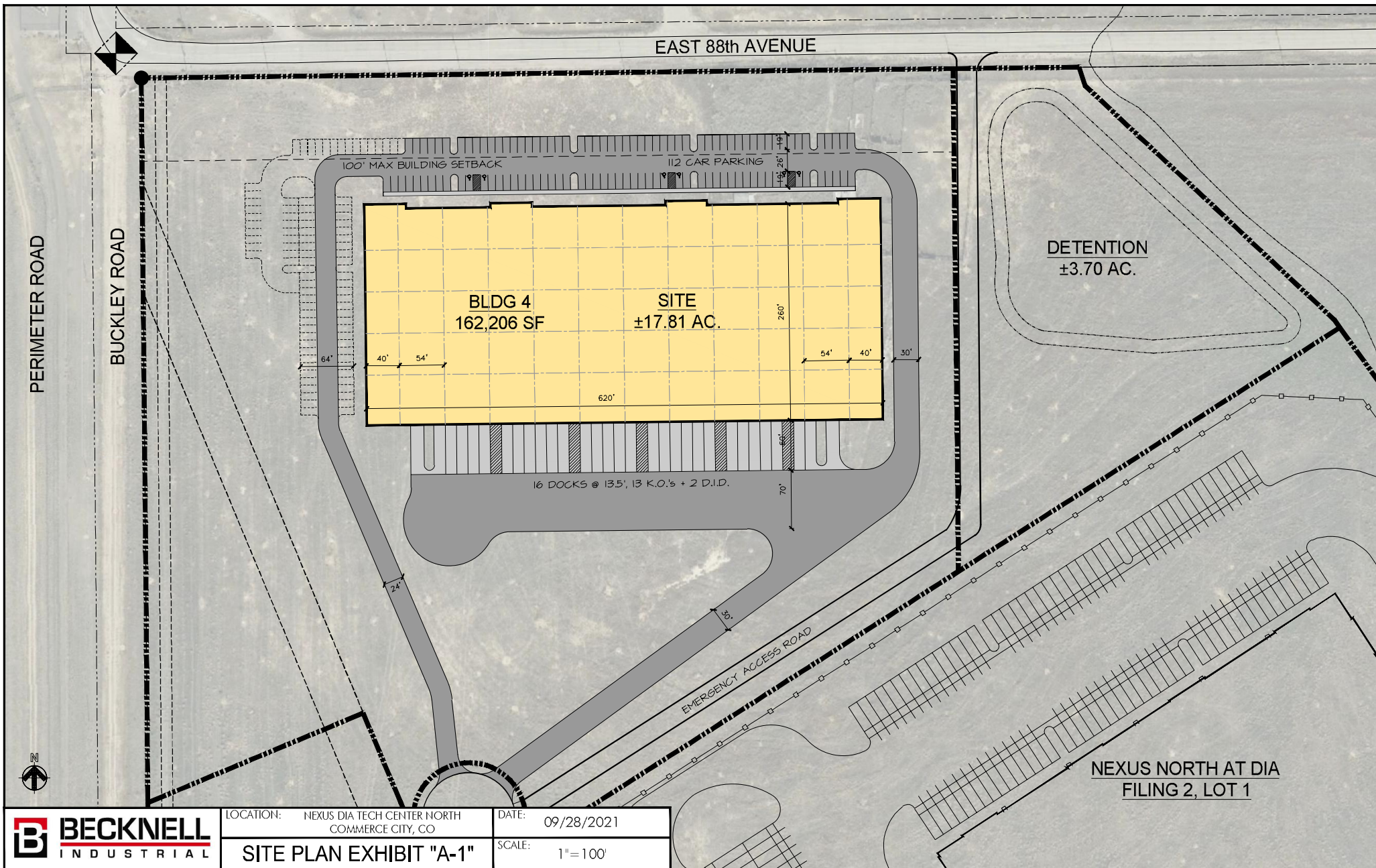
Sincerely,
KIMLEY-HORN AND ASSOCIATES, INC.

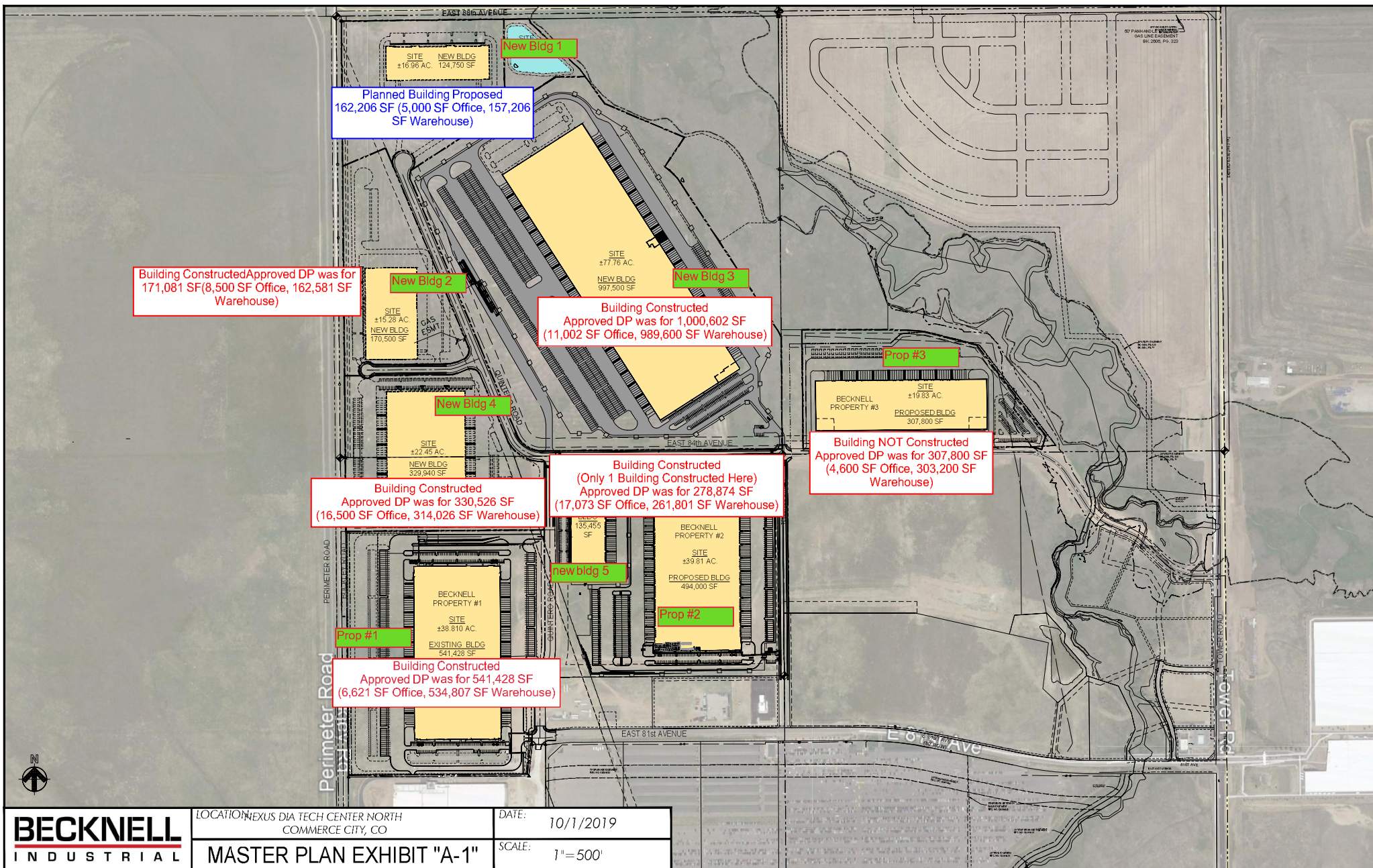


Jeffrey R. Planck, P.E.
Project Traffic Engineer



Conceptual Site Plan





Original Traffic Study Documents

Table 1
ESTIMATED TRAFFIC GENERATION COMPARISON
Nexus North - Project "Echo"
Commerce City, CO
LSC #180372; November, 2019

Trip Generating Category	Quantity ⁽²⁾	Trip Generation Rates ⁽¹⁾				Vehicle - Trips Generated						
		Average Weekday	AM Peak Hour		PM Peak Hour		Average Weekday	AM Peak Hour		PM Peak - Hour		
			In	Out	In	Out		In	Out	In	Out	
Land Use Assumed in the December 18, 2018 Nexus North at DIA TIA by LSC												
Nexus North												
<u>Flex Space</u>	<u>41.03 acres</u>											
Warehouse ⁽³⁾ (65%)	26.67 acres =	383 KSF ⁽⁴⁾	1.74	0.131	0.039	0.051	0.139	667	50	15	20	53
Office ⁽⁵⁾ (35%)	14.36 acres =	206 KSF	10.22	0.873	0.142	0.171	0.898	2,109	180	29	35	185
<u>Distribution Warehouse</u>	<u>74.06 acres</u>											
Warehouse (90%)	66.65 acres =	958 KSF	1.74	0.131	0.039	0.051	0.139	1,667	125	37	48	133
Office (10%)	7.41 acres =	107 KSF	10.22	0.873	0.142	0.171	0.898	1,087	93	15	18	96
Nexus North Subtotal =							5,530	448	96	121	467	
Becknell Commercial ⁽⁶⁾	-	-	-	-	-	-	-	1,924	130	32	43	130
DIA Tech Center Annex												
<u>51.89 acres</u>												
Warehouse (90%)	46.70 acres =	671 KSF	1.74	0.131	0.039	0.051	0.139	1,168	88	26	34	93
Office (10%)	5.19 acres =	75 KSF	10.22	0.873	0.142	0.171	0.898	767	65	11	13	67
Tech Center Annex Subtotal =							1,935	153	37	47	160	
Parcel #11 of DIA Tech Center												
<u>Distribution Warehouse</u>	<u>19.90 acres</u>											
Warehouse (90%)	17.91 acres =	257 KSF	1.74	0.131	0.039	0.051	0.139	448	34	10	12	36
Office (10%)	1.99 acres =	29 KSF	10.22	0.873	0.142	0.171	0.898	292	25	4	5	26
Parcel #11 of DIA Tech Center Subtotal =							740	59	14	17	62	
TOTAL =							10,129	790	179	228	819	

Currently Proposed Land Use

<u>Becknell Property #1</u>											
Warehouse (90%)	487.3 KSF	1.74	0.131	0.039	0.051	0.139	848	64	19	25	68
Office (10%)	54.1 KSF	10.19	0.868	0.141	0.170	0.894	551	47	8	9	48
<u>Becknell Property #2</u>											
Warehouse (90%)	444.6 KSF	1.74	0.131	0.039	0.051	0.139	774	58	17	23	62
Office (10%)	49.4 KSF	10.19	0.868	0.141	0.170	0.894	503	43	7	8	44
<u>Becknell Property #3</u>											
Warehouse (90%)	277.0 KSF	1.74	0.131	0.039	0.051	0.139	482	36	11	14	38
Office (10%)	30.8 KSF	10.19	0.868	0.141	0.170	0.894	314	27	4	5	28
<u>New Building #1</u>											
Warehouse (65%)	81.1 KSF	1.74	0.131	0.039	0.051	0.139	141	11	3	4	11
Office (35%)	43.7 KSF	10.19	0.868	0.141	0.170	0.894	445	38	6	7	39
<u>New Building #2</u>											
Warehouse (65%)	110.8 KSF	1.74	0.131	0.039	0.051	0.139	193	15	4	6	15
Office (35%)	59.7 KSF	10.19	0.868	0.141	0.170	0.894	608	52	8	10	53
<u>New Building #3</u>											
Warehouse (90%)	897.8 KSF	1.74	0.131	0.039	0.051	0.139	1,562	118	35	46	125
Office (10%)	99.8 KSF	10.19	0.868	0.141	0.170	0.894	1,017	87	14	17	89
<u>New Building #4</u>											
Warehouse (90%)	296.9 KSF	1.74	0.131	0.039	0.051	0.139	517	39	12	15	41
Office (10%)	33.0 KSF	10.19	0.868	0.141	0.170	0.894	336	29	5	6	30
<u>New Building #5</u>											
Warehouse (90%)	121.9 KSF	1.74	0.131	0.039	0.051	0.139	212	16	5	6	17
Office (10%)	13.5 KSF	10.19	0.868	0.141	0.170	0.894	138	12	2	2	12
Total Warehouse Space =	2,717.4 KSF	TOTAL =					8,641	692	160	203	720
Total Office Space =	384.0 KSF										
	3,101.4 KSF										
Net Increase in Trip Generation Potential =							-1,488	-98	-19	-25	-99

Notes:
(1) Source: *Trip Generation*, Institute of Transportation Engineers, 10th Edition, 2017
(2) A floor area ratio (FAR) of 0.33 was assumed in the original TIA unless noted otherwise.
(3) ITE Land Use No. 150 - Warehousing
(4) KSF = 1,000 square feet
(5) ITE Land Use No. 710 - General Office Building; formula rates were used based on total office square footage.
(6) Based on April 2018 Becknell Commercial TIA by DB Enterprises