



March 27, 2023

McDonald's USA, LLC.  
4643 South Ulster Street  
Suite 1300  
Denver, Colorado 80237

Attn: Mr. Trevor Prophet

Re: McDonald's Sandstone Marketplace  
SEC of Ken Pratt Boulevard (SH-119) and County Line Road  
Traffic Compliance Letter  
Longmont, Colorado

Dear Mr. Prophet:

The purpose of this letter is to provide a trip generation comparison to identify conformance with the original Sandstone Marketplace traffic study for the portion of McDonald's Sandstone Marketplace development located on the southeast corner of the Ken Pratt Boulevard (SH-119) and County Line Road intersection in Longmont, Colorado. The *Sandstone Marketplace Traffic Impact Study* was completed Kimley-Horn and Associates in February 2023. The location of current project was previously evaluated as Pad 4 in the original traffic study which was studied to include a 6,000 square foot fast food restaurant with drive through. The current proposal is anticipated to include a 4,365 square foot fast food restaurant. This letter will compare the trips generated by the currently proposed McDonald's Sandstone Marketplace project to the land use in the same development area evaluated previously in the *Sandstone Marketplace Traffic Impact Study*.

#### **SITE INFORMATION AND TRIP GENERATION COMPARISON**

A 4,365 square foot McDonald's fast-food restaurant is proposed within the Sandstone Marketplace development. The project site was previously evaluated as a fast-food restaurant with drive through. The overall Sandstone Marketplace area was evaluated with 130 dwelling units of attached senior adult housing, a 60,000 square foot medical-dental office building, a 10,000 square foot daycare, 30,900 square feet of strip retail plaza space, 11,500 square feet of fast casual restaurant, 6,000 square feet of high turnover restaurant, and 11,500 square feet of fast-food restaurant space. Within this specific development area, 6,000 square feet of fast-food restaurant with drive through space was evaluated in the original traffic study. As such, the originally studied fast food restaurant use for the overall development was prorated to 52.2 percent and was compared with development of the proposed McDonald's. Therefore, the purpose of this section is to summarize a comparison of the trip generation from the proposed McDonald's Sandstone Marketplace site to the originally studied fast food restaurant use identified for this specific site.

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

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

Trip generation for the currently proposed land use and the use evaluated in the original traffic study was calculated using the 11<sup>th</sup> Edition average rates for fast food restaurant with drive through (ITE Code 934). The following **Table 1** compares the trip generation from the original study compared to the expected trip generation for the proposed McDonald’s Sandstone Marketplace project. The trip generation calculation sheets from the original traffic study, as well as from the current proposal are attached for reference.

**Table 1: Trip Generation Comparison: Original Study vs. Current Proposal**

Use	Weekday Vehicles Trips						
	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
<b>Original Traffic Study – Sandstone Marketplace</b>							
Pro-Rated Fast Food Restaurant w/ DT (ITE 934) - 6,000 Square Feet	2,808	137	131	268	103	95	198
<b>Current Proposal – McDonald’s Sandstone Marketplace</b>							
Fast Food Restaurant w/ DT (ITE 934) - 4,365 Square Feet	2,042	99	96	195	75	69	144
<b>Net Difference in Trips</b>	<b>-766</b>	<b>-38</b>	<b>-35</b>	<b>-73</b>	<b>-28</b>	<b>-26</b>	<b>-54</b>

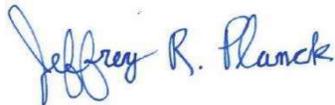
As summarized in **Table 1**, the currently proposed McDonald’s Sandstone Marketplace project is anticipated to generate 2,042 daily weekday trips with 195 trips occurring during morning peak hour and 144 trips occurring during the afternoon peak hour per current ITE equations and data. Based on the original Sandstone Marketplace traffic study assuming development of a 6,000 square foot fast food restaurant, McDonald’s Sandstone Marketplace project is anticipated to generate traffic within the volume limits previously studied. The proposed development is anticipated to account for a decrease in traffic of approximately 766 daily trips, a decrease of approximately 73 trips in the morning peak hour, and a decrease of approximately 54 trips in the afternoon peak hour.

### CONCLUSIONS

In summary, this traffic study letter provides a trip generation comparison to the original traffic study for McDonald’s Sandstone Marketplace development. Based on the results of this trip generation comparison, development of the 4,365 square foot fast food restaurant is in traffic compliance with the original traffic study as this proposed use generates less traffic than the 6,000 square foot fast food restaurant originally studied for the same development area. Therefore, the proposed McDonald’s Sandstone Marketplace project is in traffic compliance with the original *Sandstone Marketplace Traffic Impact Study*, prepared by Kimley-Horn in February 2023, which included this development area. It is believed that all potential traffic impacts with the proposed project have been previously addressed within the original traffic impact study. Please let us know if you have any questions or require anything further.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.



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



## Original Traffic Study Documents

Traffic Impact Study

# Sandstone Marketplace

Longmont, Colorado

Prepared for:

**Actis, LLC**

**Kimley»Horn**

**Table 1 – Sandstone Marketplace Traffic Generation**

Land Use and Size	Weekday Vehicle Trips						
	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Senior Adult Housing Attached (ITE 252) 130 Dwelling Units	422	9	17	26	18	15	33
Medical-Dental Office Building (ITE 720) 60,000 Square Feet	2,160	147	39	186	71	165	236
Day Care Center (ITE 565) 10,000 Square Feet	478	58	52	110	52	59	111
Strip Retail Plaza (ITE 822) 30,900 Square Feet	1,682	44	29	73	102	102	204
Fast Casual Restaurant (ITE 930) 11,500 Square Feet	1,118	8	8	16	79	65	144
High Turnover Restaurant (ITE 932) 6,000 Square Feet	644	31	26	57	33	21	54
Fast-Food w/ DT (ITE 934) 11,500 Square Feet	5,378	262	251	513	198	182	380
<b>Total Project Trips</b>	<b>11,882</b>	<b>559</b>	<b>422</b>	<b>981</b>	<b>553</b>	<b>609</b>	<b>1,162</b>
<b>Total Project Trips after Internal Capture</b>	<b>9,546</b>	<b>485</b>	<b>348</b>	<b>833</b>	<b>426</b>	<b>482</b>	<b>908</b>
<b>Non Pass-By Trips</b>	<b>6,156</b>	<b>318</b>	<b>192</b>	<b>512</b>	<b>280</b>	<b>347</b>	<b>627</b>
<b>Pass-By Trips</b>	<b>3,390</b>	<b>167</b>	<b>156</b>	<b>321</b>	<b>146</b>	<b>135</b>	<b>281</b>

#### 4.2 Trip Distribution

Distribution of site traffic on the street system was based on the area street system characteristics, existing traffic patterns, existing and anticipated surrounding demographic information, and the proposed access system for the project. The directional distribution of traffic is a means to quantify the percentage of site-generated traffic that approaches the site from a given direction and departs the site back to the original source. The project non-pass-by trip distribution for the proposed development is illustrated in **Figure 6**.

Since this project contains commercial uses, traffic passing by the site is anticipated to be attracted, whether on a random trip or captured from a typical commute trip. Pass-by distribution of traffic is a means to quantify the percentage of project generated traffic that approaches the site from a given direction that then departs the site continuing in that same original direction. The expected weekday morning and afternoon peak hour pass-by trip distributions were calculated based on actual traffic volumes. Directional differences in the morning and afternoon peak hour traffic were accounted for as shown in **Figures 7** and **8**, respectively, to illustrate the anticipated pass-by trip distribution.

Project Sandstone Marketplace  
 Subject Trip Generation for Fast-Food Restaurant with Drive-Through Window  
 Designed by TES Date August 16, 2022 Job No. 196569000  
 Checked by \_\_\_\_\_ Date \_\_\_\_\_ Sheet No. \_\_\_\_\_ of \_\_\_\_\_

## **TRIP GENERATION MANUAL TECHNIQUES**

ITE Trip Generation Manual 11th Edition, Average Rates

Land Use Code - Fast-Food Restaurant with Drive-Through Window (934)

Independent Variable - 1000 Square Feet (X)

SF = 11,500

X = 11.500

T = Average Vehicle Trip Ends

### **Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (900 Series Page 726)**

(T) = 44.61 (X)		Directional Distribution:	51% ent.	49% exit.
(T) = 44.61 *	(11.5)	T = 513	Average Vehicle Trip Ends	
		262 entering	251	exiting
		262 + 251 = 513		

### **Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (900 Series Page 727)**

(T) = 33.03 (X)		Directional Distribution:	52% ent.	48% exit.
(T) = 33.03 *	(11.5)	T = 380	Average Vehicle Trip Ends	
		198 entering	182	exiting
		198 + 182 = 380		

### **Weekday (900 Series Page 725)**

(T) = 467.48 (X)		Directional Distribution:	50% ent.	50% exit.
(T) = 467.48 *	(11.5)	T = 5378	Average Vehicle Trip Ends	
		2689 entering	2689	exiting
		2689 + 2689 = 5378		

### **Non Pass-By Trip Volumes (Per ITE Trip Generation Manual, 11th Edition)**

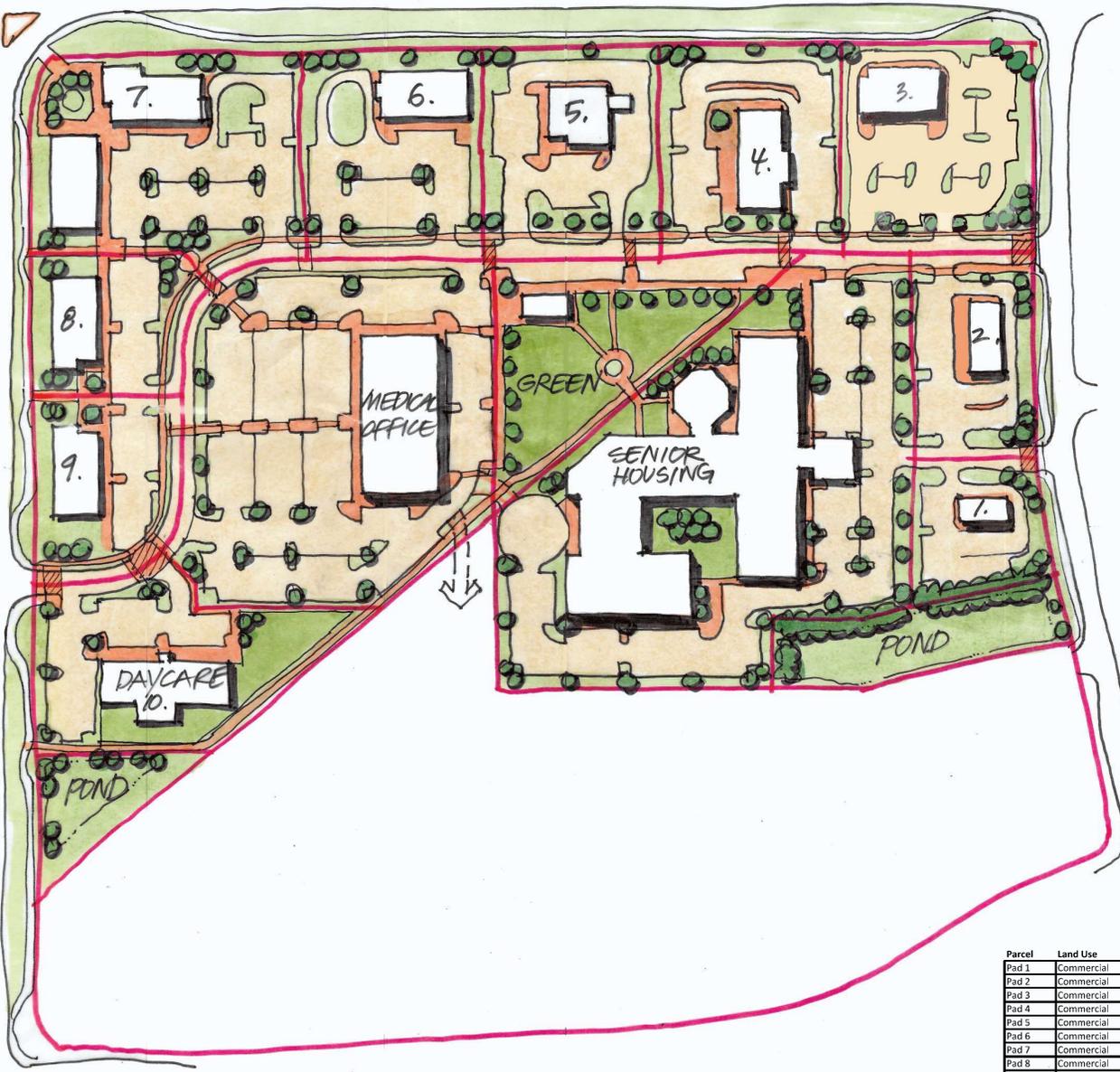
AM Peak Hour = 50% Non-Pass By	PM Peak Hour = 45% Non-Pass By
IN Out Total	
AM Peak 131 126 257	
PM Peak 89 82 171	
Daily 1210 1210 2420	PM Peak Hour Rate Applied to Daily

### **Pass-By Trip Volumes (Per Trip Generation Manual, 11th Edition)**

AM Peak Hour = 50% Pass By	PM Peak Hour = 55% Pass By
IN Out Total	
AM Peak 131 126 257	
PM Peak 109 100 209	
Daily 1479 1479 2958	PM Peak Hour Rate Applied to Daily

HWY 119

COUNTY LINE



Parcel	Land Use	Area		Proposed Gross Areas (SF)					Ratio	Notes
		SF	AC.	Commercial	Med Office	Sr. Housing	FAR	Parking		
Pad 1	Commercial	26,840	0.62	4,500			0.17	45	10 / 1,000 SF	10 Drive-thru possible
Pad 2	Commercial	43,640	1.00	5,500			0.13	55	10 / 1,000 SF	10 Drive-thru possible
Pad 3	Commercial	63,830	1.47	5,500			0.09	66	12 / 1,000 SF	12 Drive-thru possible
Pad 4	Commercial	60,185	1.38	6,000			0.10	72	12 / 1,000 SF	12 Drive-thru possible
Pad 5	Commercial	60,185	1.38	6,000			0.10	72	12 / 1,000 SF	12 Drive-thru possible
Pad 6	Commercial	60,185	1.38	6,000			0.10	60	10 / 1,000 SF	10 Drive-thru possible
Pad 7	Commercial	84,942	1.95	14,400			0.17	98	6.8 / 1,000 SF	7 Multi-tenant w/ Drive-thru
Pad 8	Commercial	37,180	0.85	6,000			0.16	36	6 / 1,000 SF	6 Multi-tenant possible
Pad 9	Commercial	42,107	0.97	6,000			0.14	36	6 / 1,000 SF	6 Multi-tenant possible
Pad 10	Daycare	70,620	1.62	10,000			0.14	50	5 / 1,000 SF	5
MOB	Medical Office	165,675	3.80		60,000		0.36	300	5 / 1,000 SF	5 3-Story Building, 80K SF max. possible
SRH	Senior Housing	212,105	4.87			130,000	0.61	130	1 per Bedroom	2-Story Building (could be larger)
PARK	Green Space	64,160	1.47					30	Shared On-Street	30 Kiosk use or food trucks possible
PONDS (2)	Storm Drainage	57,691	1.32							Pond sizes TBD by others
<b>TOTALS</b>		<b>1,049,345</b>	<b>24.09</b>	<b>69,900</b>	<b>60,000</b>	<b>130,000</b>	<b>0.25</b>	<b>1,050</b>		<b>259,900</b>

## Trip Generation Calculations

Project McDonald's Longmont Sandstone Marketplace  
 Subject Trip Generation for Fast-Food Restaurant with Drive-Through Window  
 Designed by TES Date March 24, 2023 Job No. 096806021  
 Checked by \_\_\_\_\_ Date \_\_\_\_\_ Sheet No. \_\_\_\_\_ of \_\_\_\_\_

## **TRIP GENERATION MANUAL TECHNIQUES**

ITE Trip Generation Manual 11th Edition, Average Rates

Land Use Code - Fast-Food Restaurant with Drive-Through Window (934)

Independent Variable - 1000 Square Feet (X)

SF = 4,365

X = 4.365

T = Average Vehicle Trip Ends

### **Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (900 Series Page 726)**

Directional Distribution: 51% ent. 49% exit.  
 (T) = 44.61 (X) T = 195 Average Vehicle Trip Ends  
 (T) = 44.61 \* (4.4) 99 entering 96 exiting  
 99 + 96 = 195

### **Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (900 Series Page 727)**

Directional Distribution: 52% ent. 48% exit.  
 (T) = 33.03 (X) T = 144 Average Vehicle Trip Ends  
 (T) = 33.03 \* (4.4) 75 entering 69 exiting  
 75 + 69 = 144

### **Weekday (900 Series Page 725)**

Directional Distribution: 50% ent. 50% exit.  
 (T) = 467.48 (X) T = 2042 Average Vehicle Trip Ends  
 (T) = 467.48 \* (4.4) 1021 entering 1021 exiting  
 1021 + 1021 = 2042

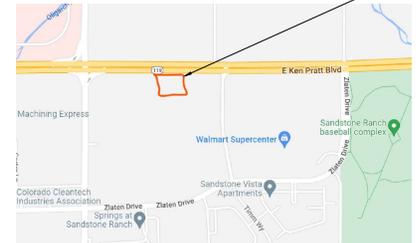
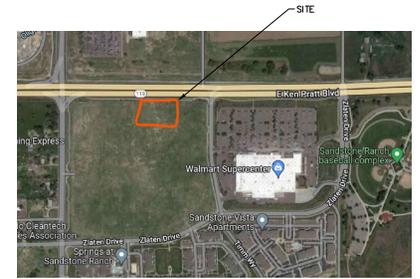
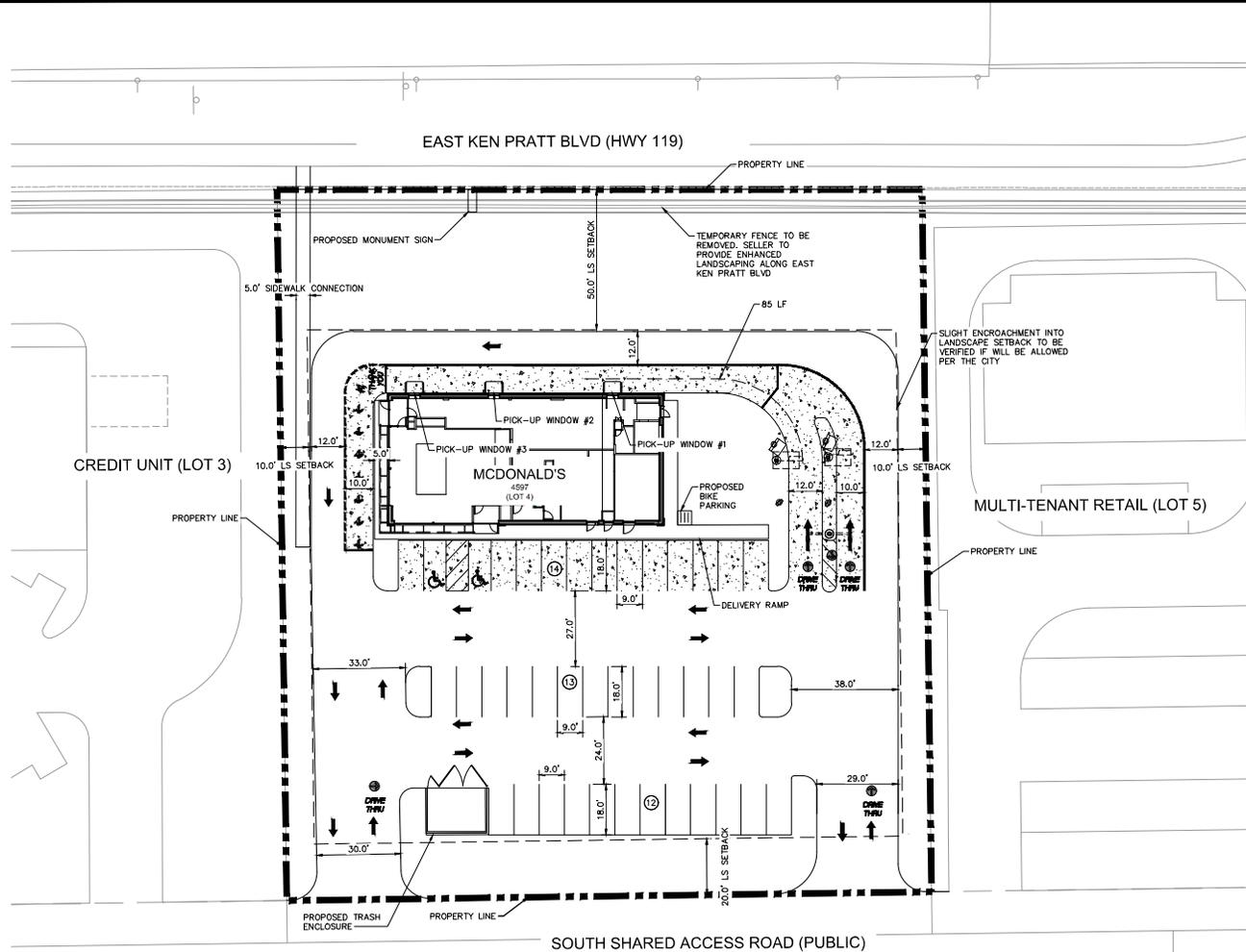
### **Non Pass-By Trip Volumes (Per ITE Trip Generation Manual, 11th Edition)**

AM Peak Hour =	50%	Non-Pass By	PM Peak Hour =	45%	Non-Pass By
	IN	Out	Total		
AM Peak	50	48	97		
PM Peak	34	31	65		
Daily	459	459	918		PM Peak Hour Rate Applied to Daily

### **Pass-By Trip Volumes (Per Trip Generation Manual, 11th Edition)**

AM Peak Hour =	50%	Pass By	PM Peak Hour =	55%	Pass By
	IN	Out	Total		
AM Peak	50	48	97		
PM Peak	41	38	79		
Daily	562	562	1124		PM Peak Hour Rate Applied to Daily

# Conceptual Site Plan



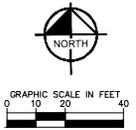
SITE LOCATION	2285 EAST KEN PRATT BOULEVARD, LONGMONT, CO
PARCEL NUMBERS	131307204002
TOTAL SITE AREA	1.33 ACRES (57,926 SQUARE FEET)
EXISTING ZONING	MIXED-USE REGIONAL CENTER
EXISTING USE	VACANT
PROPOSED USE	FAST FOOD RESTAURANT (DRIVE-THROUGH/CARRY-OUT ONLY)
PROPOSED BUILDING AREA	MCDONALD'S 4597 (4,365 SQUARE FEET)
BUILDING SETBACKS	
FRONT (MINIMUM)	30'
SIDE	20'
SIDE (INTERIOR)	20'
REAR	20'
LANDSCAPE REQUIREMENT	
LANDSCAPE BUFFERS	10' SIDE SETBACK AND 20' REAR SETBACK 50' GATEWAY BUFFER REQUIRED ALONG HIGHWAY 119
LANDSCAPE SCREENING	REQUIRED ALONG HIGHWAY 119
PARKING REQUIREMENTS	
FAST FOOD RESTAURANT	10 PER 1,000 SQUARE FEET OF BUILDING AREA
PARKING STALLS REQUIRED	44 STALLS (MAXIMUM)
PARKING STALLS PROVIDED	39 STALLS
SITE RISKS	1. APPLICANT SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE INSTALLATION OF THE IRRIGATION SYSTEM, INCLUDING APPLICABLE TAP FEES. A SEPARATE IRRIGATION TAP AND SYSTEM SHALL BE PROVIDED FOR EACH LEGAL LOT, OUTLOT, OR PARCEL. 2. TO BE DETERMINED IF REGIONAL WATER QUALITY AND DETENTION ARE PROVIDED. 3. WB-67 WILL HAVE DIFFICULTY ENTERING AND EXITING THE MASTER DEVELOPMENT DUE TO NARROW SHARED ACCESS DRIVE AISLES.

**LEGEND**



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NOTE:  
PROPERTY LINES BASED ON CAD FILE PROVIDED BY  
BASELINE ENGINEERING FOR THE MASTER DEVELOPMENT.



EAST KEN PRATT BLVD (HWY 119)

PROPERTY LINE

CREDIT UNIT (LOT 3)

PROPERTY LINE

MCDONALD'S

4097

(LOT 4)

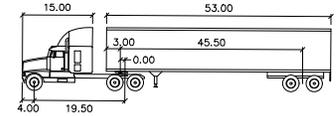
DELIVERY RAMP

MULTI-TENANT RETAIL (LOT 5)

PROPERTY LINE

PROPERTY LINE

SOUTH SHARED ACCESS ROAD (PUBLIC)



WB-67

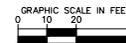
	feet		
Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.4
Tractor Track	: 8.00	Articulating Angle	: 75.0
Trailer Track	: 8.50		

### SITE RISK

TRUCK WILL HAVE DIFFICULTY ENTERING THE MCDONALD'S LOT AND EXITING THE LOT DUE TO THE TIGHT LAYOUT.  
 TRUCK OVERLAPS CURBS IN VARIOUS LOCATIONS.

### LEGEND

- PROPERTY LINE
- SETBACK



**Kimley»Horn**

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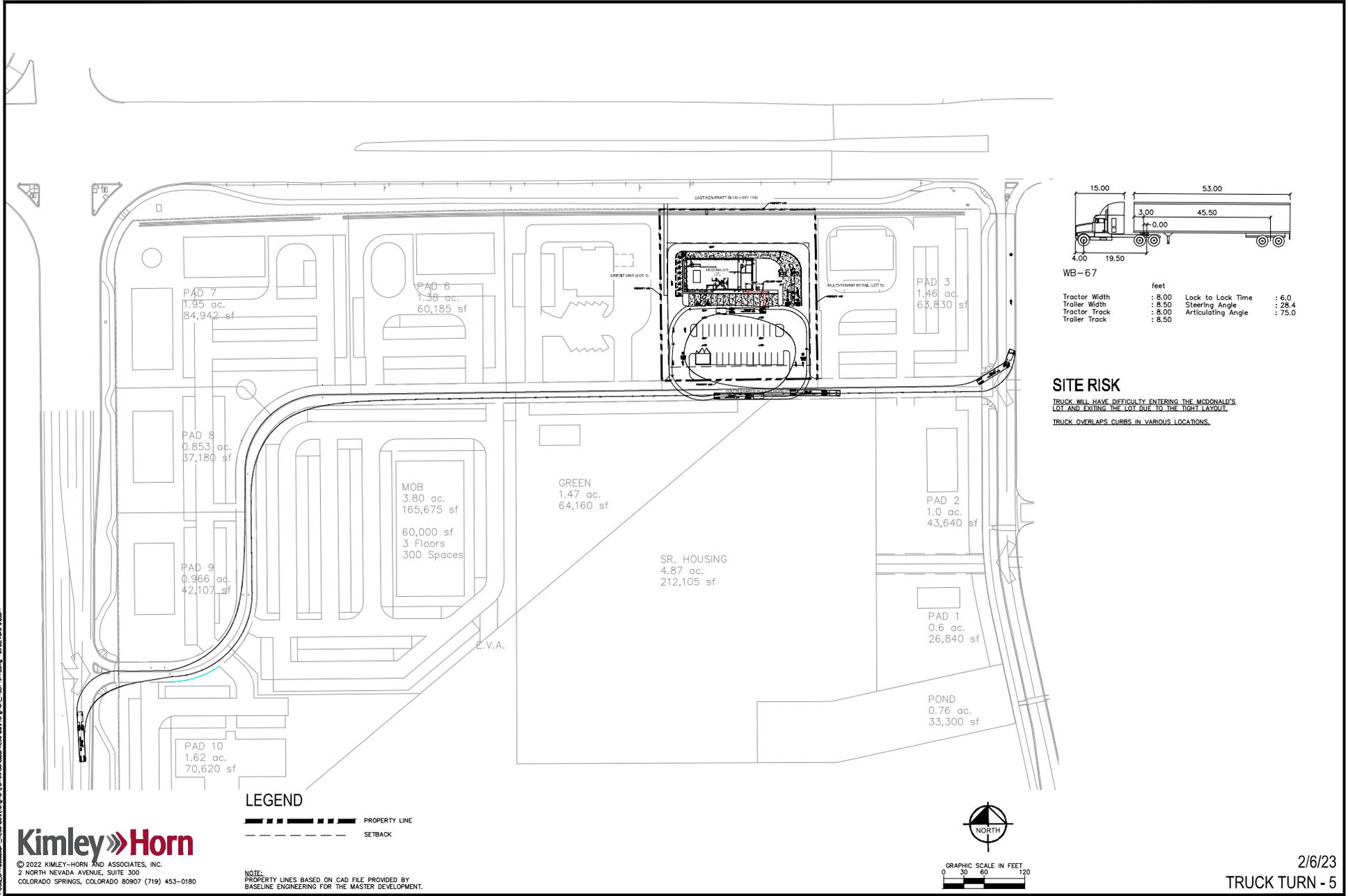
NOTE:  
 PROPERTY LINES BASED ON CAD FILE PROVIDED BY  
 BASELINE ENGINEERING FOR THE MASTER DEVELOPMENT.

2/6/23

TRUCK TURN - 5

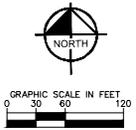
MCDONALD'S LONGMONT CONCEPT PLAN

X:\CDL\124882\124882-1\Concepts\124882-1\CDL\Concepts\124882-1.dwg, 1:48, 10/23/2023, 3:00pm



**Kimley»Horn**

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2/6/23  
TRUCK TURN - 5