SANDELLA DESIGN

Structural, Civil, & Environmental Engineering

Traffic Letter

for:

New Digs on 13th Place

Located at:

Lot 5 Ex W 82 FT Block 1 B & K Subdivision
Situated at 15991 E. 13th Place
City of Aurora, County of Arapahoe, State of Colorado

Prepared for:

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Under the direct supervision of:
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November 18, 2021

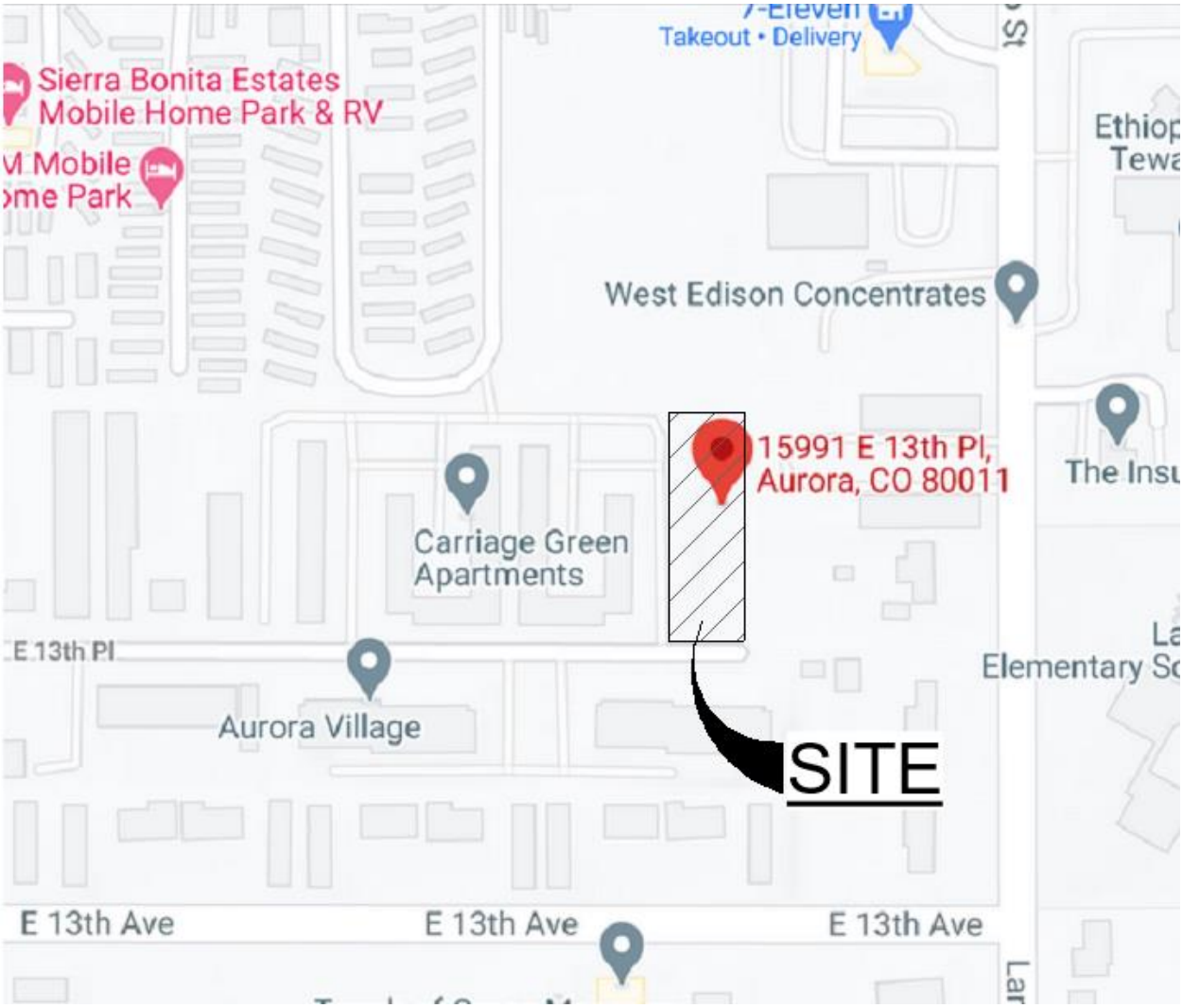
Phil Giesing
Digitally signed by Phil Giesing
Date: 2021.11.22 09:45:57 -07'00'

INTRODUCTION

Location: Lot 5 Ex W 82ft block 1 B & K Subdivision Situated 15991 E. 13th Place, City of Aurora, County of Arapahoe, State of Colorado. Lot 5 is an infill lot having to 13th Place to the south. (East-West). 13th place dead ends at this site, having this site the entry point for vehicles.

Proposed development is a 9 unit 2-story with basement Apartment complex which consists of 11 parking spaces of which 2 are ADA.

Vicinity map: NTS



Trip Generation

Estimated Traffic Generation

Using Institute of Transportation Engineers Trip Generation, 10th Edition 2017:

ITE No.	Land Use Description	unit	Daily Rate	Peak Hour of Adjacent Street Rate					
				AM (7-9)			PM (4-6)		
				Total	In	Out	Total	In	Out
220	Multifamily Housing (Low-Rise)	DU	7.32	0.46	23%	77%	0.56	63%	37%

ITE No.	Land Use Decription	Unit	Daily Rate	Peak Hour Adjacent Street Rate					
				AM (7-9)			PM (4-6)		
				Total	In	Out	Total	In	Out
220	Multifamily Housing (Low-Rise)	9 DU[1]	66	4	1	3	5	3	2

(1) DU = Dwelling Unit

Total Trip Generation Potential for this site is 66 vechiles per day

Conclusions:

This proposed development has the potential to add around 66 vechiles per day to west 13th Place. Having an additional 4 trips in am peak hours and 5 trips in pm peak hours. That being said and given the current enviroment it needs to be stated that these statistics were based on qualitative values prior to COVID-19. *(Reference Chapter 2 below of the Trip Generation Manual 11th Edition Desk Refereence September 2021)* As stated caution to be taken when utilizing historic numbers as the curent climate has shaken vechile trips per day on a massive scale.

Thank you for the opportunity to be of service in this traffic letter.

If further clarification is required please call 719-839-0842

Thank You

Structural Civil Designer — Project Engineer

Daniel J Spiesman

Daniel J Spiesman — Phil Giesing

2 Long-Term Effects of COVID-19 Pandemic on Trip Generation

The COVID-19 pandemic has had immediate and significant impacts on the North American economy and on many elements of personal and business trip-making. Some of these effects, still ongoing as of this writing, are expected to be long lasting. The extent to which these impacts will have long-term impacts on ITE Trip Generation rates remains unknown.

All data plots and statistics presented in *Trip Generation Manual* (TGM) are based on data collected prior to the pandemic. ITE recognizes that some TGM data plots and statistics may need to be updated once post-pandemic conditions stabilize. ITE does not know with certainty which data plots and statistics will need to be updated until future study site data are collected and analyzed. Nevertheless, ITE has identified several land uses for which measurable changes in trip generation characteristics may occur.

Industrial (100s)—The shift to greater reliance on e-commerce and delivery services has resulted in an increase in trip-making at high-cube warehouses and related facilities. Whether this increased demand is satisfied with more trips generated at current sites or an increase in the numbers of warehouses and delivery sites or some combination thereof, remains to be seen.

Residential (200s)—The proportion of the overall labor force that will be permitted to and will choose to work from home is expected to remain higher than it was pre-pandemic. This shift will likely result in an overall reduction in weekday peak period commuting trips. Individuals working from home may also experience shifts in trip patterns resulting in home-based trips being spread more broadly throughout the day. Additional impacts on residential land use trip generation may also result from pandemic-led increases in home-based delivery of e-commerce packages, groceries, and restaurant/food services.

Recreational (400s)—During the pandemic, trip-making to parks and other recreational open spaces increased dramatically. This increased trip-making may stabilize but may remain higher than pre-pandemic levels.

Institutional (500s)—Prior to the pandemic, the use of the school bus for student transportation to and from primary and secondary schools was lessening. Post-pandemic this trend may continue, especially with an increase in the number of work-from-home caregivers who are available for student transportation.

Medical (600s)—The medical services landscape was evolving pre-pandemic, partly in response to an aging general population and partly in response to increasing demand for tele-medicine services. These trends, particularly the dramatic increase in tele-medicine appointments, have been further impacted by COVID. As a result, the overall demand for medical office space may diminish post-COVID.

Office (700s)—The immediate impact of an increased share of office workers transitioning to either full or partial work-from-home results in decreased trip generation rates per building GFA. In the long term, employers/lessors are likely to reduce the necessary space for operations and office space may be consolidated.

Retail (800s)—Increased consumer reliance on e-commerce has reduced the numbers of customer trips made to brick-and-mortar stores and increased the numbers of home delivery trips. In a similar vein, delivery service trips to some brick-and-mortar stores have increased as their proprietors shift to serve more online customers (both for local delivery and long distance delivery).

Services (900s)—Restaurants have expanded dining space outdoors on sidewalks, patios, on-street and off-street parking spaces, and closed streets. Short term post-pandemic conditions have also resulted in an increase in carry out service, staffing shortages, and fewer restaurants open for business with more limited hours of service.

Conclusion

During this period of uncertainty, ITE recommends a cautious approach when using the TGM historical data as they apply to potential post-pandemic conditions. It is not known whether the many potential pandemic-related trip impacts will result in long-term changes to trip rates or whether the impacts will subside with time and remain within the existing data scatter.

Current local data can be used to supplement TGM data and may be helpful as decisions are made on how to best estimate site-generated trips during this continually-evolving period. As trip generation characteristics begin to stabilize, ITE will document these changes for specific land uses based on actual data counts and will replace historical data where necessary. ITE asks that users continue to submit current counts (particularly at sites that were counted pre-pandemic) as feasible. ITE will continually review and analyze data submitted and provide updated guidance on this topic as conditions indicate.

For additional guidance on impacts of COVID-19 on travel demand, ITE has developed a COVID-19 resource web page that presents a wide variety of technical resource material to help provide an understanding of anticipated short- and longer-term impacts of COVID-19 on the transportation system and trip making characteristics. See **https://www.ite.org/about-ite/covid-19-resources/** for more information. Of particular relevance is the ITE report titled “What a Transportation Professional Needs to Know about Counts and Studies during a Pandemic.” The report can be accessed through the ITE website: **https://ecommerce.ite.org/IMIS/ItemDetail?iProductCode=IR-148-E.**