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January 30, 2023

Ms. Jennifer Grant
Quintessence Design Group
1605 Quebec Street
Denver, CO 80220

Re: Inspiration Metro District - Community
Services Center Project
Aurora, CO (DBE #220280)

Dear Ms. Grant:

I have completed the preparation of a revised traffic conformance letter for the proposed Inspiration Metro District - Community Services Center project. This revision has been prepared to respond to comments from the City of Aurora requesting daily traffic estimates for existing, buildout, and Year 2040.

The proposed Inspiration Metro District - Community Services Center Project is located in the City of Aurora. Figure 1 depicts the location of the proposed community services project. The site is located within a parcel of land that currently includes a swimming pool/recreation center. The proposed community center project is located in the northwest corner of the parcel. The parcel of land is bounded by open space on the northwest, South Zante Street on the southeast, and residential development on the northeast and southwest.

Introduction

The proposed Inspiration Metro District - Community Services Center project is located near the intersection of East Minnow Place and South Zante Street/East Glidden Drive. When completed the site will contain a 5,000 square foot community center building. The Inspiration Metro District will also have an office located in the building. Access to the site will be from an existing private road that currently serves the swimming pool. Figure 2 depicts the proposed site plan for the proposed Inspiration Metro District - Community Services Center site. The site plan may change as the project moves through the approval process.

Vehicle Trip Generation Estimates

The amount of traffic that will be generated by the proposed community center project has been estimated based upon trip generation rates published by the Institute of Transportation Engineers (ITE) in the 11th Edition, 2021, of *Trip Generation*. ITE does not provide a land

use category for community centers. There are two land use categories that could apply to the proposed community center project, ITE#435 – Multipurpose Recreational Facility and ITE#495 – Recreational Community Center. ITE land use category 435 includes a full range of recreational activities, such as batting cages, video arcade, and driving range. ITE land use category 495 includes classes and clubs for adults and children, a day care or nursery school, meeting rooms, swimming pools, tennis/racquetball, handball, and basketball courts. Of these two land use categories, ITE#495 is the best fit for the proposed community center project. The proposed Inspiration Metro District - Community Services Center project is expected to have a 5,000 square foot building when completed. As can be seen in Table 1, the site at full build out is expected to generate 144 daily vehicle-trips with nine vehicle-trips occurring in the AM peak-hour (six vehicles entering and three vehicles leaving the site) and 11 vehicle-trips occurring in the PM peak-hour (six vehicles entering and five vehicles leaving the site).

Table 1
Estimated Vehicle Trip Generation
Weekday Daily

ITE Category		Quantity		Average Weekday (1)	
				Trip Rate	Vehicle Trips
495	Regional Community Center	5.00	KSF (2)	28.82	144

AM Peak-Hour

ITE Category		Quantity		AM Peak-Hour			
				Trip Rate		Vehicle Trips	
				In	Out	In	Out
495	Regional Community Center	5.00	KSF (2)	1.16	0.60	6	3

PM Peak-Hour

ITE Category		Quantity		PM Peak-Hour			
				Trip Rate		Vehicle Trips	
				In	Out	In	Out
495	Regional Community Center	5.00	KSF (2)	1.09	1.22	5	6

- (1) Source: "Trip Generation", Institute of Transportation Engineers, 10th Edition, 2017
- (2) KSF = 1,000 Square Feet

Vehicular Access

The proposed community center project will use the existing access along South Zante Street. This access is unsignalized with stop control on the site access and South Minnow Place. The small number of peak-hour trips is not expected to adversely affect the performance of this intersection. South Zante Street and East Glidden Drive will be used by those residents that live on the northeast and southwest side of the proposed community center project. A majority of the residents will use East Rockinghorse Parkway and East Minnow Place to access the proposed community center project. East Rockinghorse Parkway is a two-lane collector roadway.

Pedestrian and Bicycle Access

The existing site has a six-foot detached sidewalk that is located along both sides of South Zante Street. On the southwest side of the site access and southwest corner of the parcel, a detached sidewalk is provided to provide a safe way for pedestrians and bicyclists to access the existing swimming pool and proposed community center project.

Daily Traffic Impacts

The City of Aurora has requested daily traffic estimates be provided the existing, buildout and the Year 2040 conditions. Two methods were considered to estimating daily traffic volumes. The first method was to collect daily traffic volumes for South Zante Street, East Glidden Drive and East Minnow Drive. The approach was rejected due to the weather conditions which suppress the daily traffic counts, and these counts would have to be adjusted to account for the time of year the counts are being collected for. The other method was to identify the homes located east and west of the proposed community center that may use East Glidden Drive and South Zante Street. This method is being used because the trip generation rate for a single-family detached home is based on a typical day.

There are 62 homes that are located east of the proposed community service center that may use East Glidden Drive. Of these 62 homes, there are some homes (17 homes) that would not use East Glidden Drive due to the fact that these homes would use South Zante Court to access East Rockinghorse Parkway. There are some homes (23 homes) that would either use East Glidden Drive or South Zante Court to access East Rockinghorse Parkway. For these home, it was decided that 50 percent would use East Glidden Drive and the other 50 percent would use South Zante Court. The remaining 22 homes would only use East Glidden Drive to access East Rockinghorse Parkway. The daily trip generation rate for a single-family detached home is 9.43 trips. This approach results in East Glidden Drive having an average daily traffic estimate of 315 vehicles.

There are 105 homes that are located west of the proposed community service center that may use South Zante Street. Of these 105 homes, there are some homes (57 homes) that would not use South Zante Street to the fact that these homes would use East Piccolo Drive to access East Rockinghorse Parkway. There are some homes (41 homes) that would either use South Zante Street or East Piccolo Drive to access East Rockinghorse Parkway. For these home, it was decided that 50 percent would use South Zante Street and the other 50 percent would use

East Piccolo Drive. The remaining seven homes would only use South Zante Street to access East Rockinghorse Parkway. The daily trip generation rate for a single-family detached home is 9.43 trips. This approach results in South Zante Street having an average daily traffic estimate of 259 vehicles.

These daily traffic estimates do not include the traffic from the community pool. For the purposes of this analysis, the ITE category 495 (Recreational Community Center) is used to estimate the number of weekday vehicle trips the pool would generate. The total size of the community pool is estimated to be approximately 11,000 square feet. The daily trip generate rate for a recreational community center is 28.82 trips per 1,000 square feet. This means that the community pool would generate 317 daily vehicle trips. The community pool serves all the homes located near the community pool. A portion of homes in this service area would walk to the community pool. It was assumed that those homes that are located within 990 feet of the community pool would walk. This represents 27 percent of the total service area. There is a portion of the remaining 73 percent that are located east and west of the community pool. For South Zante Street, the estimate is 5.5 percent which translate into 17 daily vehicle-trips. For East Glidden Drive, the estimate is 5.0 percent which translate into 16 daily vehicle-trips. These same percentages were used for the proposed community service center which means that seven daily vehicle-trips would use East Glidden Drive and eight daily vehicle-trips would use South Zante Street. Table 2 depicts the daily traffic estimates for East Glidden Drive and South Zante Street.

Table 2
Daily Traffic Estimates

	East Glidden Drive	South Zante Street
Existing (Non-Summer)		
Background	315	259
Existing (Summer)		
Background	315	259
Community Pool	16	17
Total	333	276
Buildout (Non-Summer)		
Background	315	259
Community Service Center	7	8
Total	322	267
Buildout (Summer)		
Background	315	259
Community Service Center	7	8
Community Pool	16	17
Total	338	284

For the background (non-summer condition), East Glidden Drive will have 315 daily vehicle-trips and South Zante Street will have 259 daily vehicle-trips. For the background (summer condition), East Glidden Drive will have 333 daily vehicle-trips and South Zante Street will have 276 daily vehicle-trips. For the buildout (non-summer condition), East Glidden Drive will have 315 daily vehicle-trips and South Zante Street will have 259 daily vehicle-trips. For the background (summer condition), East Glidden Drive will have 322 daily vehicle-trips and South Zante Street will have 267 daily vehicle-trips. For the buildout (summer condition), East Glidden Drive will have 338 daily vehicle-trips and South Zante Street will have 284 daily vehicle-trips.

For the background East Minnow Place (non-summer condition), the daily estimate is 574 daily vehicle-trips. For the background East Minnow Place (summer condition), the daily estimate is 609 daily vehicle-trips. For the buildout East Minnow Place (non-summer condition), the daily estimate is 589 daily vehicle-trips. For buildout East Minnow Place (summer condition), the daily estimate is 622 daily vehicle-trips.

Based on these traffic volumes, East Glidden Drive, South Zante Street, and East Minnow Place are not expected to exceed their daily vehicle capacity.

Since the area is fully buildout, the Year 2040 daily traffic estimates are to be the same as those depicted in Table 2.

Conclusion

The traffic impacts from the proposed Inspiration Metro District - Community Services Center Project are minor and can be accommodated by the existing roadway network.

* * *

This completes my traffic conformance letter for the proposed Inspiration Metro District - Community Services Center Project. Please feel free to call if you need any additional information regarding this project.

Respectfully submitted,

DB Enterprise, LLC

By:


Dave L. Ruble Jr., P.E.



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Enclosures:

Figures 1-2

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Figure 1
Vicinity Map

