

Peerless Farms Traffic Assessment Letter

PCD File No. SF-21-7

El Paso County, Colorado

SP-21-7

Traffic Engineer's Statement

The attached traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.



Jeffrey R. Planck, P.E., PE #53006

January 25, 2022
Date

Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report.

Robert S. William
16975 Falcon Highway
Peyton, Colorado 80831-7906

Date

The extension of Sagecreek Road is considered a proposed roadway intersection to a major collector, Falcon Highway. The traffic impact study shall be revised to meet Traffic Memo criteria from ECM Appendix B.



Traffic Assessment Letter
196114000
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January 25, 2022

Robert S. William
16975 Falcon Highway
Peyton, Colorado 80831-7906

Re: Trip Generation Traffic Assessment Letter
Peerless Farms
El Paso County, Colorado

Dear Mr. William:

Introduction

This Traffic Assessment Letter presents trip generation for the proposed Peerless Farms project to be located on the southwest corner of the Falcon Highway and Sagecreek Road intersection in El Paso County, Colorado. The site is located at 16975 Falcon Highway and is proposed to include seven (7) single-family residential homes (site plan attached). Of note, one single family home currently exists on the property; therefore, a net of six (6) homes are proposed to be added with this development.

Site Access and Intersection Sight Distance Evaluation

A full movement project access is proposed along the south side of Falcon Highway that will align with Sagecreek Road. The project access will be located approximately 750 feet west of Peerless Farms Road (measured centerline to centerline).

It is recommended that sight triangles be provided at the site access point of Sagecreek Road and Falcon Highway to give drivers entering and exiting the site a clear view of oncoming traffic. Landscaping and objects within sight triangles must not obstruct drivers' views of the adjacent travel lanes. El Paso County Engineering Criteria Manual (ECM) design intersection sight distances for exiting left and right turn from stop, as well as entering left turn were evaluated at the south leg access at Sagecreek Road and Falcon Highway. The following identifies sight distance requirements for the access intersection associated with the project.

According to Table 2-21 from ECM and a roadway design speed of 55 miles per hour (mph) along Falcon Highway, the intersection sight distance for a vehicle turning left and right from stop is 610 feet. It should be noted that this distance was extrapolated as the highest speed recorded in ECM Table 2-21 is 50 mph (sight distance of 555 feet) and every five (5) mph increases the sight distance by 55 feet. Therefore, all obstructions for left turning vehicles from stop should be clear to the right within the triangle created with a vertex point located 13 feet from the edge of the major road traveled way (typical position of the minor road driver's eye when stopped) and a line-of-sight distance of 610 feet located in the middle of the westbound through lane along Falcon Highway. Likewise, all obstructions for right turning vehicles from stop should be clear to the left within the triangle created with a vertex point located 13 feet from the edge of the major road traveled way and a line-of-sight distance of 610 feet located in the middle of the eastbound through lane along Falcon Highway.

According to Table 2-35 from ECM and a posted speed of 55 miles per hour along the Falcon Highway, the intersection sight distance for a left turning vehicle entering the south leg of the Falcon Highway and Sagecreek Road is 550 feet for a passenger car. Therefore, all obstructions for left turning vehicles should be clear from the opposing lanes with this distance.

It is believed that appropriate sight distances are currently provided at the existing intersection of Falcon Highway and Sagecreek Road. It should be taken under consideration to field verify that these distances are currently be achieved at this intersection.

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 Manual*¹ published by the Institute of Transportation Engineers (ITE). ITE has established trip rates in nationwide studies of similar land uses. For this study, Kimley-Horn used the ITE Trip Generation Report average rates that apply to Single-Family Detached Housing (ITE Code 210) for traffic associated with this development. The following **Table 1** summarizes the estimated trip generation for Peerless Farms (calculations attached).

Table 1 – Peerless Farms Project Traffic Generation

Use	Size (Units/SF)	Weekday Vehicles Trips						
		Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Single Family Detached Housing - (ITE 210)	7 Units	68	1	4	5	4	3	7

As shown in the table and based on ITE Trip Generation calculations, Peerless Farms is anticipated to generate approximately 68 weekday daily trips, in which 5 of these trips would occur during the morning peak hour and 7 trips would occur during the afternoon peak hour.

It is important to note that “El Paso County Engineering Criteria Manual: Transportation Impact Study Guidelines Appendix B.1.2.D” states that a traffic impact study is not required for a development if daily vehicle trip-end generation is less than 100 trips or the peak hour trip generation is less than 10 trips (1). Therefore, it is anticipated that a traffic impact study will not be required for this development due to peak hour project traffic trips being less than 10 trips and the daily trips being under 100 trips.

Criteria for Waiver of Traffic Impact Study

Additionally, a traffic impact study is not required based if all of the El Paso County ECM criteria below are satisfied: 2) there are no additional proposed minor or major roadway intersections on major collectors, arterials, or State Highways; (3) the increase in the number of vehicular trips does not exceed the existing trip generation by more than 10 peak hour trips or 100 daily trip ends; (4) the change in the type of traffic to be generated (i.e., the addition of truck traffic) does not adversely affect the traffic currently planned for and accommodated within, and adjacent to, the property; (5) acceptable LOS on the adjacent public roadways, accesses, and intersections will be maintained; (6) no roadway or intersection in the immediate vicinity has a history of safety or accident problems; and (7) there is no change of land use with access to a State Highway.

Based on the traffic impact study waiver criteria listed above, the intersection of Falcon Highway and Sagecreek Road exists today, and the project is removing two existing driveway locations from the south side of Falcon Highway to be relocated to gain access from a south leg at the Falcon Highway and Sagecreek Road intersection. The consolidation of these two driveways will improve operations and safety compared to the existing condition. Therefore, no new major street intersections are proposed, and the project is not anticipated to adversely impact the roadway network adjacent to the property. The project is anticipated to generate fewer than 100 daily trips and 10 trips during the peak hour. The proposed site is not anticipated to change type of traffic currently being generated in the project area. There is expected to be less than 10 trips during the peak hour from the south leg of

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

Sagecreek Road at Falcon Highway while Falcon Highway is not approaching vehicular capacity; therefore, it is believed that this intersection will operate well within County intersection level of service standards. Further, there is not believed to be a pattern of accidents at the Falcon Highway and Sagecreek Road intersection. Finally, Falcon Highway is not a state highway and the use within the site is remaining the same as existing. Based on all of these criteria being met, it is anticipated that a traffic impact study will not be required for the proposed residential development.

Conclusions

it is believed that the Peerless Farms development will be accommodated successfully on the surrounding street network. Please let us know if El Paso County would like any additional traffic information or analysis. If you have any questions, please feel free to call me at (720) 943-9962.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.



Jeffrey R. Planck, P.E.
Project Manager



Please include the following in the report:

- All requirements from ECM Appendix B.8
- Appropriateness of the existing roadway signing and striping
- Location and requirements for turn lanes or acceleration/deceleration lanes at the access, including recommendations for taper lengths, storage length, acceleration/deceleration lengths, and other geometric design requirements
- The classification of internal roads and MTCP road improvements nearby.

Trip Generation Calculations

Project Peerless Farms
 Subject Trip Generation for Single-Family Detached Housing
 Designed by _____ Date April 26, 2021 Job No. 196114000
 Checked by _____ Date _____ Sheet No. _____ of _____

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations

Land Use Code - Single-Family Detached Housing (210)

Independant Variable - Dwelling Units (X)

$X = 7$
 $T = \text{Average Vehicle Trip Ends}$

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (200 Series Page 3)

Average Weekday Directional Distribution: 25% entering, 75% exiting
 $(T) = 0.74(X)$ $T = 5$ Average Vehicle Trip Ends
 $(T) = 0.74 * (7.0)$ 1 entering 4 exiting
 $1 + 4 = 5$

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (200 Series Page 4)

Average Weekday Directional Distribution: 63% entering, 37% exiting
 $(T) = 0.99(X)$ $T = 7$ Average Vehicle Trip Ends
 $(T) = 0.99 * (7.0)$ 4 entering 3 exiting
 $4 + 3 = 7$

Peak Hour of Generator, Saturday (200 Series Page 8)

Average Saturday Directional Distribution: 54% entering, 46% exiting
 $(T) = 0.93(X)$ $T = 7$ Average Vehicle Trip Ends
 $(T) = 0.93 * (7.0)$ 4 entering 3 exiting
 $4 + 3 = 7$

Weekday (200 Series Page 2)

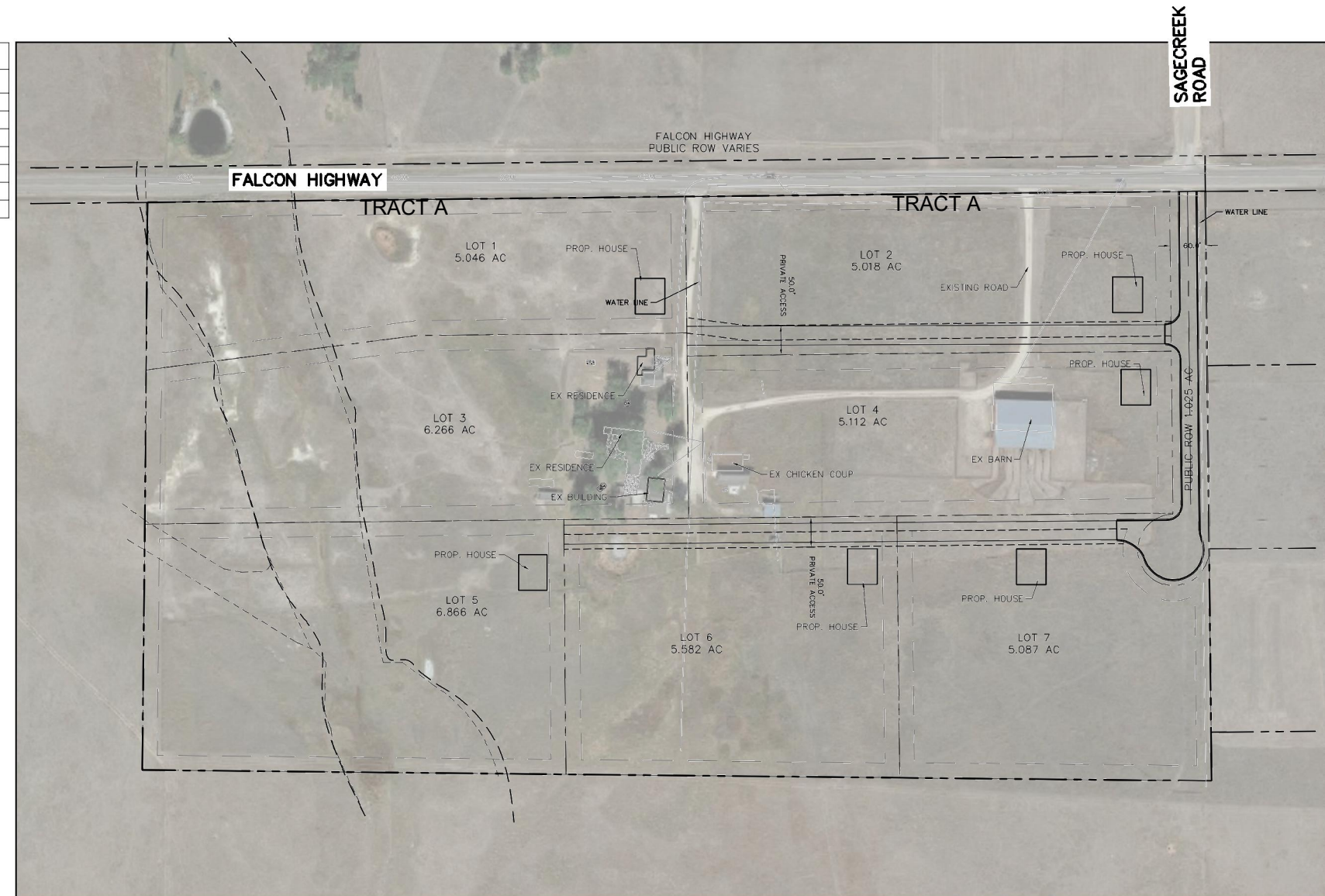
Average Weekday Directional Distribution: 50% entering, 50% exiting
 $(T) = 9.44(X)$ $T = 68$ Average Vehicle Trip Ends
 $(T) = 9.44 * (7.0)$ 34 entering 34 exiting
 $34 + 34 = 68$

Conceptual Site Plan

PEERLESS FARMS
PRELIMINARY PLAN
16975 FALCON HIGHWAY, PEYTON, CO
 SITUATED IN THE NORTHWEST QUARTER OF SECTION 13, TOWNSHIP 13 SOUTH, RANGE 64 WEST OF THE
 6TH P.M., CITY OF COLORADO SPRINGS, COUNTY OF EL PASO, STATE OF COLORADO

LOT TABLE		
LOT NO.	SF/AC±	USE
1	219,785SF± / 5.046AC±	RESIDENTIAL
2	218,572SF± / 5.018AC±	RESIDENTIAL
3	272,926SF± / 6.266AC±	RESIDENTIAL
4	222,638SF± / 5.112AC±	RESIDENTIAL
5	299,089SF± / 6.866AC±	RESIDENTIAL
6	243,136SF± / 5.582AC±	RESIDENTIAL
7	221,582SF± / 5.087AC±	RESIDENTIAL

TRACT TABLE		
TRACT	SIZE SF/ACRES±	USE
A	44,666 SF / 1.025 AC±	PUBLIC RIGHT OF WAY(DRAINAGE/PUBLIC IMPROVEMENT/PUBLIC UTILITY/LANDSCAPING/SIDEWALKS & PEDESTRIAN EASEMENT)



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Kimley»Horn
 © 2020 KIMLEY-HORN AND ASSOCIATES, INC.
 2 NORTH NEVADA AVENUE, SUITE 300
 COLORADO SPRINGS, COLORADO 80903 (719) 453-0180

V2_Traffic Impact Study.pdf Markup Summary

Carlos (2)



Subject: Text Box
Page Label: 2
Author: Carlos
Date: 8/9/2023 8:35:24 AM
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The extension of Sagecreek Road is considered a proposed roadway intersection to a major collector, Falcon Highway. The traffic impact study shall be revised to meet Traffic Memo criteria from ECM Appendix B.



Subject: Text Box
Page Label: 4
Author: Carlos
Date: 8/9/2023 8:38:18 AM
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Please include the following in the report:

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- The classification of internal roads and MTCP road improvements nearby.

CDurham (1)



Subject: Callout
Page Label: 1
Author: CDurham
Date: 8/8/2023 5:16:01 PM
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SP-21-7